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PTERYGIUM

SURGERY

Photic maculopathy after pterygium excision. Karp KO, et al. **Am J Ophthalmol** 1999 Aug;128(2):248–50

Randomized trial of intraoperative mitomycin C in surgery for pterygium [letter; comment] Tseng SH. **Am J Ophthalmol** 1999 Feb;127(2):245. Comment on: Am J Ophthalmol 1998 Jan;125(1):59–63.

Pterygium surgery in Victoria: a survey of ophthalmologists [see comments] Snibson GR, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):271–6. Comment in: Aust N Z J Ophthalmol 1998 Nov;26(4):269–70.

Split thickness buccal mucous membrane grafts and beta irradiation in the treatment of recurrent pterygium. Forbes J, et al. **Br J Ophthalmol** 1998 Dec;82(12):1420–3

Meta-analysis on the recurrence rates after bare sclera resection with and without mitomycin C use and conjunctival autograft placement in surgery for primary pterygium. Sánchez-Thorin JC, et al. **Br J Ophthalmol** 1998 Jun;82(6):661–5

The treatment of Pseudomonas keratoscleritis after pterygium excision. Huang SC, et al. **Cornea** 1999 Sep;18(5):608–11

Intraoperative application of mitomycin C in the surgical treatment of pterygium. Demirok A, et al. **Eur J Ophthalmol** 1998 Jul–Sep;8(3):153–6

Different therapeutic approaches and outcome in the treatment of pterygium. Karabatsas CH, et al. **Eur J Ophthalmol** 1998 Jul–Sep;8(3):148–52

Conjunctival-limbal autografts for primary and recurrent pterygia: technique and results. Rao SK, et al. **Indian J Ophthalmol** 1998 Dec;46(4):203–9

Pterygium excision with free conjunctival autograft (FCG) versus postoperative strontium 90 (90Sr) beta-irradiation. A prospective study. de Keizer RJ. **Int Ophthalmol** 1997–98;21(6):335–41

Current options in pterygium management. Hoffman RS, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):15–26 (45 ref.)

Excimer laser phototherapeutic keratectomy for recurrent pterygium. Talu H, et al. **J Cataract Refract Surg** 1998 Oct;24(10):1326–32

Corneal topographic changes induced by excision of perilimbal lesions. Budak K, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):458–64

Intraoperative mitomycin C for pterygium surgery [letter; comment] Caliskan S, et al. **Ophthalmology** 1999 Feb; 106(2):208–9. Comment on: Ophthalmology 1998 May;105(5):901–4; discussion 904–5.

Conjunctival rotation autograft for pterygium. An alternative to conjunctival autografting. Jap A, et al. **Ophthalmology** 1999 Jan;106(1):67–71

A comparative study of recurrent pterygium surgery: limbal conjunctival autograft transplantation versus mitomycin C with conjunctival flap. Mutlu FM, et al. **Ophthalmology** 1999 Apr;106(4):817–21

Use of mitomycin C with conjunctival autograft in pterygium surgery in Asian-Canadians. Wong VA, et al. **Ophthalmology** 1999 Aug;106(8):1512–5

[Use of the cryopreserved human amniotic membrane for reconstruction of the ocular surface] Duchesne B, et al. **Bull Soc Belge Ophtalmol** 1998;268:73–7 (Eng. Abstr.) **(Fre)**

[Corneal perforation after excision of pterygium and use of 0.02% mitomycin eyedrops] Kassir MS. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):776–9 (Eng. Abstr.) **(Fre)**

[Long-term results of autologous conjunctiva-limbus transplantation in pterygium] Pulte P, et al. **Klin Monatsbl Augenheilkd** 1998 Jul;213(1):9–14 (Eng. Abstr.) **(Ger)**

THERAPY

Treatment of pterygium [editorial; comment] Hirst LW. **Aust N Z J Ophthalmol** 1998 Nov;26(4):269–70 (7 ref.). Comment on: Aust N Z J Ophthalmol 1998 Nov;26(4):291–6.

ULTRASONOGRAPHY

Prenatal diagnosis of lethal multiple pterygium syndrome in mid-pregnancy [letter] Sciarrone A, et al. **Ultrasound Obstet Gynecol** 1998 Sep;12(3):218–9

PTERYGOID MUSCLES

ABNORMALITIES

The pterygoideus propius muscle revisited. Penhall B, et al. **Clin Anat** 1998;11(5):332–7

ANATOMY & HISTOLOGY

Mechanical advantage of area of origin for the external pterygoid muscle in two murid rodents, Apodemus speciosus and Clethrionomys rufocanus. Satoh K. **J Morphol** 1999 Apr;240(1):1–14 (48 ref.)

DRUG EFFECTS

Histamine-induced internalization of substance P receptors in myoepithelial cells of the guinea pig nasal glands. Shibano A, et al. **Peptides** 1998;19(8):1365–71

INJURIES

Myositis ossificans traumatica of the medial pterygoid muscle. Takahashi K, et al. **J Oral Maxillofac Surg** 1999 Apr; 57(4):451–6 (24 ref.)

PHYSIOLOGY

Simultaneous recording of mandibular condylar movement and single motor-unit activity at verified sites in the human lateral pterygoid muscle. Murray GM, et al. **Arch Oral Biol** 1999 Aug;44(8):671–82

Electromyographic activity of the human lateral pterygoid muscle during contralateral and protrusive jaw movements. Murray GM, et al. **Arch Oral Biol** 1999 Mar;44(3):269–85

PHYSIOPATHOLOGY

Electromyographic evidence for functional heterogeneity in the inferior head of the human lateral pterygoid muscle: a preliminary multi-unit study. Murray GM, et al. **Clin Neurophysiol** 1999 May;110(5):944–50

A polysomnographic study on masticatory and tongue muscle activity during obstructive and central sleep apnea. Yoshida K. **J Oral Rehabil** 1998 Aug;25(8):603–9

Condylar restoration after early TMJ fractures and functional appliance therapy. Part II: Muscle evaluation. Kahl-Nieke B, et al. **J Orofac Orthop** 1999;60(1):24–38 **(Eng, Ger)**

PTILOCERCUS see **TUPAIIDAE**

PTINS 4,5-P2 see **PHOSPHATIDYLINOSITOL 4,5-DIPHOSPHATE**

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PTSD see **STRESS DISORDERS, POST-TRAUMATIC**

PUBERTY

Pelvic ultrasonography in normal girls and in girls with pubertal precocity [see comments] Buzi F, et al. **Acta Paediatr** 1998 Nov;87(11):1138–45. Comment in: Acta Paediatr 1999 Mar;88(3):246–7.

Disorders of puberty. Blondell RD, et al. **Am Fam Physician** 1999 Jul;60(1):209–18, 223–4 (25 ref.)

An analysis of variance of the pubertal and midgrowth spurts for length and width. Sheehy A, et al. **Ann Hum Biol** 1999 Jul–Aug;26(4):309–31

Valproate-induced hyperandrogenism during pubertal maturation in girls with epilepsy. Vainionpää LK, et al. **Ann Neurol** 1999 Apr;45(4):444–50

Randomised controlled trial of recombinant human growth hormone in prepubertal and pubertal renal transplant recipients. British Association for Pediatric Nephrology. Maxwell H, et al. **Arch Dis Child** 1998 Dec;79(6):481–7

Prolactin-secreting macroadenoma in a prepubertal girl. Kashiwagi S, et al. **Childs Nerv Syst** 1998 Oct;14(10):602–5

Puberty, IDDM, and death in Japan. Diabetes Epidemiology Research International Study Group. Nishimura R, et al. **Diabetes Care** 1998 Oct;21(10):1674–9

Obstetric and gynecologic care of women with epilepsy. El-Sayed YY. **Epilepsia** 1998;39 Suppl 8:S17–25 (87 ref.)

Pubertal delay as an aid in diagnosis and treatment of a transsexual adolescent. Cohen-Kettenis PT, et al. **Eur Child Adolesc Psychiatry** 1998 Dec;7(4):246–8

Intra-individual variation of plasma lipids and lipoproteins in prepubescent children. Tolfrey K, et al. **Eur J Appl Physiol** 1999 Apr;79(5):449–56

Sexual dimorphism in the maturation of the pituitary-gonadal axis, assessed by GnRH agonist challenge. Potau N, et al. **Eur J Endocrinol** 1999 Jul;141(1):27–34

The prepubertal testis: a quiescent or a silently active organ? Rey R. **Histol Histopathol** 1999 Jul;14(3):991–1000 (66 ref.)

Critical years and stages of puberty for radial bone mass apposition during adolescence. Bonofiglio D, et al. **Horm Metab Res** 1999 Aug;31(8):478–82

Ethnic differences in the association between pubertal status and symptoms of depression in adolescent girls. Hayward C, et al. **J Adolesc Health** 1999 Aug;25(2):143–9

Validity of self-assessment of pubertal maturation in African American and European American adolescents [see comments] Hergenroeder AC, et al. **J Adolesc Health** 1999 Mar;24(3):201–5. Comment in: J Adolesc Health 1999 Mar;24(3):157.

Self-assessment of puberty: problems and potential [editorial; comment] Litt IF. **J Adolesc Health** 1999 Mar;24(3):157. Comment on: J Adolesc Health 1999 Mar;24(3):201–5. Comment on: J Adolesc Health 1999 Mar;24(3):206–11.

Body image, perceived pubertal timing, and adolescent mental health. Siegel JM, et al. **J Adolesc Health** 1999 Aug; 25(2):155–65

Diurnal rhythms of luteinizing hormone, follicle-stimulating hormone, and testosterone secretion before the onset of male puberty. Mitamura R, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):29–37

Hexarelin, a synthetic GH-releasing peptide, is a powerful stimulus of GH secretion in pubertal children and in adults but not in prepubertal children and in elderly subjects. Bellone J, et al. **J Endocrinol Invest** 1998 Sep;21(8):494–500

Longitudinal evaluation of growth, puberty, and bone maturation in children with Williams syndrome. Partsch CJ, et al. **J Pediatr** 1999 Jan;134(1):82–9

Long-term treatment with GHRH [1–44] amide in prepubertal children with classical growth hormone deficiency. Duck SC, et al. **J Pediatr Endocrinol Metab** 1999 Jul–Aug;12(4):531–6

Puberty and urinary iodine excretion [letter] Rapa A, et al. **J Pediatr Endocrinol Metab** 1999 Jul–Aug;12(4):583–4

Feminizing genitoplasty for congenital adrenal hyperplasia: what happens at puberty? [see comments] Alizai NK, et al. **J Urol** 1999 May;161(5):1588–91. Comment in: J Urol 1999 May;161(5):1592–3.

Influence of peritoneal loss of GHBP, IGF-I and IGFBP-3 on serum levels in children with ESRD [letter] van der Kamp HJ, et al. **Nephrol Dial Transplant** 1999 Jan; 14(1):257–8

Juvenile myasthenia gravis with prepubertal onset. Evoli A, et al. **Neuromuscul Disord** 1998 Dec;8(8):561–7

Role of atrial natriuretic peptide in the development of arterial hypertension in patients with pubertal hypothalamic syndrome. Krivchenko TP, et al. **Neurosci Behav Physiol** 1998 Jul–Aug;28(4):435–7

Relationships between dietary fat, body fat, and serum lipid profile in prepubertal children. Ku CY, et al. **Obes Res** 1998 Nov;6(6):400–7

Longitudinal gonadal function after bone marrow transplantation for acute lymphoblastic leukemia during childhood [see comments] Mayer EI, et al. **Pediatr Transplant** 1999 Feb;3(1):38–44. Comment in: Pediatr Transplant 1999 Feb;3(1):1–4.

Misuse of Tanner puberty stages to estimate chronologic age [letter] Rosenbloom AL, et al. **Pediatrics** 1998 Dec; 102(6):1494

[An increased risk of spinal injury in high performance gymnasts during pubertal growth?] Lohrer H. **Wien Med Wochenschr** 1998;148(10):235–8 (Eng. Abstr.) **(Ger)**

[Anorexia nervosa and "anorexia athletica"] Neumärker KJ, et al. **Wien Med Wochenschr** 1998;148(10):245–50 (Eng. Abstr.) **(Ger)**

[Process of high performance training--exemplified by gymnastics] Theiss P. **Wien Med Wochenschr** 1998; 148(10):228–30 (Eng. Abstr.) **(Ger)**

[A case of Hopkins syndrome with onset at puberty] Okayama A, et al. **Rinsho Shinkeigaku** 1999 Apr; 39(4):452–5 (Eng. Abstr.) **(Jpn)**

[Somatotype as an indicator of individual growth rates and maturation of a child] Sukhanova NN. **Gig Sanit** 1998 Sep-Oct;(5):36–7 (Eng. Abstr.) **(Rus)**

BLOOD

Characterization of serum SHBG isoforms in prepubertal and pubertal girls. Bedecarrás P, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):603–8

Circadian variation of plasma cortisol in prepubertal children with normal stature, short stature and growth hormone deficiency. Hermida RC, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):473–9

Serum prostate specific antigen, sex hormone binding globulin and free androgen index as markers of pubertal development in boys. Kim MR, et al. **Clin Endocrinol (Oxf)** 1999 Feb;50(2):203–10

Gonadotrophin and prolactin secretory dynamics in girls with normal puberty, idiopathic precocious puberty and precocious puberty due to hypothalamic hamartoma. Uriarte MM, et al. **Clin Endocrinol (Oxf)** 1998 Sep; 49(3):363–8

Chronic intermittent immobilization of male rats throughout sexual development: a stress protocol. Almeida SA, et al. **Exp Physiol** 1998 Sep;83(5):701–4

Serum leptin concentration, body composition, and gonadal hormones during puberty. Demerath EW, et al. **Int J Obes Relat Metab Disord** 1999 Jul;23(7):678–85

Longitudinal study of leptin concentrations during puberty: sex differences and relationship to changes in body composition. Ahmed ML, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):899–905

IGF-I levels in prepubertal and pubertal children with Down syndrome. Ragusa L, et al. **Minerva Endocrinol** 1998 Jun; 23(2):31–6

Circadian variation in serum free ultrafiltrable insulin-like growth factor I concentrations in healthy children. Heuck C, et al. **Pediatr Res** 1999 May;45(5 Pt 1):733–6

Biphasic increase in serum inhibin B during puberty: a longitudinal study of healthy Finnish boys. Raivio T, et al. **Pediatr Res** 1998 Oct;44(4):552–6

CEREBROSPINAL FLUID

GH, IGF-I, IGFBP-3 and IGFBP-2 in cerebrospinal fluid of infants, during puberty and in adults. Heinze E, et al. **Exp Clin Endocrinol Diabetes** 1998;106(3):197–202

DRUG EFFECTS

Sex steroids and the initiation of puberty in male African catfish (Clarias gariepinus). Cavaco JE, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1793–802

Induction of puberty with human chorionic gonadotropin and follicle-stimulating hormone in adolescent males with hypogonadotropic hypogonadism. Barrio R, et al. **Fertil Steril** 1999 Feb;71(2):244–8

Management of recombinant human growth hormone therapy at puberty. Albers N. **Horm Res** 1998;49 Suppl 2:58–61 (13 ref.)

Nitro(w)-arginine methyl ester treatment delayed the onset of puberty in female rats. Pinilla L, et al.

J Physiol Biochem 1998 Sep;54(3):135–9

Zinc supplementation and bone growth in pubertal girls [letter] Clark PJ, et al. **Lancet** 1999 Aug 7;354(9177):485

Peripubertal exposure to the antiandrogenic fungicide, vinclozolin, delays puberty, inhibits the development of androgen-dependent tissues, and alters androgen receptor function in the male rat. Monosson E, et al. **Toxicol Ind Health** 1999 Jan–Mar;15(1–2):65–79

[Development of puberty in girls treated for acute lymphocytic leukemia] Monteiro IM, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):214–7 (Eng. Abstr.) **(Por)**

ETHNOLOGY

Using qualitative methods to elicit recall of a critical time period. Hatch M, et al. **J Womens Health** 1999 Mar; 8(2):269–77

Determination of skeletal age in children aged 8–18 years. Shaikh AH, et al. **JPMA J Pak Med Assoc** 1998 Apr; 48(4):104–6

GENETICS

Genetic "clocks" and "soft" events: a twin model for pubertal development and other recalled sequences of developmental milestones, transitions, or ages at onset. Pickles A, et al. **Behav Genet** 1998 Jul;28(4):243–53

Mutations in human gonadotropin genes and their physiologic significance in puberty and reproduction. Layman LC. **Fertil Steril** 1999 Feb;71(2):201–18 (77 ref.)

Decrease in the expression of the 3beta-hydroxysteroid dehydrogenase gene in human adrenal tissue during prepuberty and early puberty: implications for the mechanism of adrenarche. Darois A, et al. **Pediatr Res** 1999 Mar;45(3):384–8

IMMUNOLOGY

Antisperm antibodies in prepubertal boys and their reactivity with antigenic determinants on differentiated spermatozoa. Domagala A, et al. **Am J Reprod Immunol** 1998 Sep; 40(3):223–9

METABOLISM

Changes in skeletal metabolism in pubertal girls can be revealed by biochemical parameters of calcium metabolism and bone turnover. Kušec V, et al. **Acta Med Croatica** 1998; 52(4–5):215–8

Variations and determinants of energy expenditure as measured by whole-body indirect calorimetry during puberty and adolescence. Bitar A, et al. **Am J Clin Nutr** 1999 Jun;69(6):1209–16

Influence of perinatal factors on the onset of puberty in boys and girls: implications for interpretation of link with risk of long term diseases. Persson I, et al. **Am J Epidemiol** 1999 Oct 1;150(7):747–55

Leptin and the onset of puberty [editorial] Edmonds DK. **Curr Opin Obstet Gynecol** 1998 Oct;10(5):361–3 (27 ref.)

Increase in free insulin-like growth factor-I levels in precocious and normal puberty. Yamada M, et al. **Endocr J** 1998 Jun;45(3):407–12

Early prepubertal ontogeny of pulsatile gonadotropin-releasing hormone (GnRH) secretion: I. Inhibitory autofeedback control through prolyl endopeptidase degradation of GnRH. Yamanaka C, et al. **Endocrinology** 1999 Oct;140(10):4609–15

In vitro responses to 17beta-estradiol throughout pubertal maturation in female human bone cells. Delaveyne-Bitbol R, et al. **J Bone Miner Res** 1999 Mar;14(3):376–85

Diurnal rhythm of testosterone secretion before and throughout puberty in healthy girls: correlation with 17beta-estradiol and dehydroepiandrosterone sulfate. Ankarberg C, et al. **J Clin Endocrinol Metab** 1999 Mar; 84(3):975–84

Serum insulin-like growth factor-1 (IGF-1) and insulin-like growth factor binding protein-3 (IGFBP-3) in healthy Thai children and adolescents: relation to age, sex, and stage of puberty. Jaruratanasirikul S, et al. **J Med Assoc Thai** 1999 Mar;82(3):275–83

Nitric oxide regulation of gonadotrophin secretion in prepubertal heifers1. Honaramooz A, et al. **J Neuroendocrinol** 1999 Sep;11(9):667–76

Differential expression pattern of inhibin alpha and betaA subunits in the ovaries of postnatal and prepubertal lambs. Braw-Tal R, et al. **Reprod Fertil Dev** 1997;9(8):825–32

PHYSIOLOGY

Residual beta-cell function and spontaneous clinical remission in type 1 diabetes mellitus: the role of puberty. Bonfanti R, et al. **Acta Diabetol** 1998 Jul;35(2):91–5

Leptin correlates with the skinfold thickness in prepubertal and pubertal girls [letter] Kulik-Rechberger B, et al. **Acta Paediatr** 1999 Jan;88(1):103–4

Bone growth from 11 to 17 years: relationship to growth, gender and changes with pubertal status including timing of menarche. Magarey AM, et al. **Acta Paediatr** 1999 Feb; 88(2):139–46

Growth of prepubertal children with juvenile chronic arthritis. Saha MT, et al. **Acta Paediatr** 1999 Jul;88(7):724–8

The Adolescence Scale (AS-ICSM): a tool for the retrospective assessment of puberty milestones. Kaiser J, et al. **Acta Paediatr Suppl** 1999 May;88(429):64–8

Pubertal maturation and the development of behavioural and emotional problems in early adolescence. Laitinen-Krispijn S, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):16–25

Association between self-concept and body weight, gender, and pubertal development among male and female adolescents. O'Dea JA, et al. **Adolescence** 1999 Spring; 34(133):69–79

Effects of Nitric oxide synthase blockade on the acute response of the reproductive axis to ethanol in pubertal male rats. Emanuele MA, et al. **Alcohol Clin Exp Res** 1999 May;23(5):870–7

Pubertal dependent effects of cadmium on episodic prolactin secretion in male rats. Lafuente A, et al. **Arch Toxicol** 1999 Feb;73(1):60–3

Tamoxifen and peripubertal women [letter] Costello SA, et al. **Australas Radiol** 1998 Nov;42(4):397

Adipose tissue as an endocrine organ regulating growth, puberty, and other physiological functions. Pankov YA. **Biochemistry (Mosc)** 1999 Jun;64(6):601–9 (41 ref.)

Physiological perspectives on leptin as a regulator of reproduction: role in timing puberty. Foster DL, et al. **Biol Reprod** 1999 Feb;60(2):205–15 (69 ref.)

Effects of a lesion in the dorsal raphe nuclei performed during the juvenile period of the female rat, on puberty. Ayala ME, et al. **Brain Res Bull** 1998 Oct;47(3):211–8

Western diet, early puberty, and breast cancer risk. Stoll BA. **Breast Cancer Res Treat** 1998 Jun;49(3):187–93

Urinary markers of bone turnover in healthy children and adolescents: age-related changes and effect of puberty. Mora S, et al. **Calcif Tissue Int** 1998 Nov;63(5):369–74

Visceral fat, insulin sensitivity, and lipids in prepubertal children. Gower BA, et al. **Diabetes** 1999 Aug; 48(8):1515–21

Insulin resistance during puberty: results from clamp studies in 357 children. Moran A, et al. **Diabetes** 1999 Oct; 48(10):2039–44

Influence of puberty on endothelial dysfunction and oxidative stress in young patients with type 1 diabetes. Elhadd TA, et al. **Diabetes Care** 1998 Nov;21(11):1990–6

Microalbuminuria prevalence varies with age, sex, and puberty in children with type 1 diabetes followed from diagnosis in a longitudinal study. Oxford Regional Prospective Study Group. Schultz CJ, et al. **Diabetes Care** 1999 Mar;22(3):495–502

Hormonal and behavioral homeostasis in boys at risk for substance abuse. Dawes MA, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1–2):165–76

Hepatocyte growth factor and c-MET are expressed in rat prepuberal testis. Catizone A, et al. **Endocrinology** 1999 Jul;140(7):3106–13

A role of gamma-amino butyric acid (GABA) and glutamate in control of puberty in female rhesus monkeys: effect of an antisense oligodeoxynucleotide for GAD67 messenger ribonucleic acid and MK801 on luteinizing hormone-releasing hormone release. Kasuya E, et al. **Endocrinology** 1999 Feb;140(2):705–12

Co-activation of vastus lateralis and biceps femoris muscles in pubertal children and adults. Kellis E, et al. **Eur J Appl Physiol** 1999 May;79(6):504–11

New equations to estimate basal metabolic rate in children aged 10–15 years. Henry CJ, et al. **Eur J Clin Nutr** 1999 Feb;53(2):134–42

Is there a role for leptin in human reproduction? Macut D, et al. **Gynecol Endocrinol** 1998 Oct;12(5):321–6 (58 ref.)

Differential effects of prepubertal chronic oestrogen treatment on the synthesis of noradrenaline in uterine myometrial and perivascular sympathetic nerves. Brauer MM, et al. **Int J Dev Neurosci** 1999 Jul;17(4):295–303

Moderate exercise during growth in prepubertal boys: changes in bone mass, size, volumetric density, and bone strength: a controlled prospective study [see comments] Bradney M, et al. **J Bone Miner Res** 1998 Dec; 13(12):1814–21. Comment in: J Bone Miner Res 1998 Dec;13(12):1792–6.

A longitudinal study of bone gain in pubertal girls: anthropometric and biochemical correlates. Cadogan J, et al. **J Bone Miner Res** 1998 Oct;13(10):1602–12

Different roles of prepubertal and postpubertal germ cells and Sertoli cells in the regulation of serum inhibin B levels. Andersson AM, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4451–8

In pubertal girls, naloxone fails to reverse the suppression of luteinizing hormone secretion by estradiol. Cemeroglu AP, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3501–6

Bone mass in prepubertal children: gender differences and the role of physical activity and sunlight exposure. Jones G, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4274–9

Studies on the potential mediators of skeletal changes occurring during puberty in girls. Libanati C, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2807–14

Leptin binding activity changes with age: the link between leptin and puberty. Quinton ND, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2336–41

Pubertal African-American girls expend less energy at rest and during physical activity than Caucasian girls. Wong WW, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):906–11

The differing tempo of growth in bone size, mass, and density in girls is region-specific [see comments] Bass S, et al. **J Clin Invest** 1999 Sep;104(6):795–804. Comment in: J Clin Invest 1999 Sep;104(6):671–2.

The assembly of the adult skeleton during growth and maturation: implications for senile osteoporosis [comment] Riggs BL, et al. **J Clin Invest** 1999 Sep;104(6):671–2. Comment on: J Clin Invest 1999 Sep;104(6):795–804.

Puberty: when it comes too soon guidelines for the evaluation of sexual precocity. Clark PA. **J Ky Med Assoc** 1998 Nov; 96(11):440–7 (13 ref.)

Glial-neuronal interactions in the neuroendocrine control of mammalian puberty: facilitatory effects of gonadal steroids. Ojeda SR, et al. **J Neurobiol** 1999 Sep 15;40(4):528–40 (95 ref.)

Excessive infantile growth and early pubertal growth spurt: typical features in patients with aspartylglycosaminuria [see comments] Arvio P, et al. **J Pediatr** 1999 Jun;134(6):761–3 . Comment in: J Pediatr 1999 Jun;134(6):666–7.

Pelvic ultrasound measurements in normal girls: relation to puberty and sex hormone concentration. Orbak Z, et al. **J Pediatr Endocrinol Metab** 1998 Jul–Aug;11(4):525–30

Treatment of peripubertal children after renal transplantation (RTX) with recombinant human growth hormone: auxological data and effects on insulin-like growth factor-I (IGF-I) and IGF-binding protein-3 (IGFBP-3) during 24 months. Riedl S, et al. **J Pediatr Endocrinol Metab** 1998 Nov-Dec;11(6):713–8

Quality of early family relationships and individual differences in the timing of pubertal maturation in girls: a longitudinal test of an evolutionary model. Ellis BJ, et al. **J Pers Soc Psychol** 1999 Aug;77(2):387–401

Circumferential hymen elasticity. A marker of physiologic maturity. Pokorny SF, et al. **J Reprod Med** 1998 Nov; 43(11):943–8

Early male initiation (time frame shift): a possible contributor to their shortened lifespan. Spencer RP. **Mech Ageing Dev** 1998 Sep 15;105(1–2):189–95

Longitudinal analysis of scaling VO2 for differences in body size during puberty: the Muscatine Study. Janz KF, et al. **Med Sci Sports Exerc** 1998 Sep;30(9):1436–44

Monilethrix--improvement by hormonal influences? Gebhardt M, et al. **Pediatr Dermatol** 1999 Jul–Aug; 16(4):297–300

Tanner staging and pornography [letter] Giardino AP. **Pediatrics** 1999 Oct;104(4 Pt 1):996–7

Reexamination of the age limit for defining when puberty is precocious in girls in the United States: implications for evaluation and treatment. Drug and Therapeutics and Executive Committees of the Lawson Wilkins Pediatric Endocrine Society. Kaplowitz PB, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):936–41 (27 ref.)

Tanner staging and pornography [letter] Kutz T. **Pediatrics** 1999 Oct;104(4 Pt 1):995–6; discussion 996–7

Tanner staging and pornography [letter] Sirotnak A. **Pediatrics** 1999 Oct;104(4 Pt 1):996; discussion 996–7

Puberty and the family formation process in Sudan: age-at-menarche differential fecundity hypothesis revisited. Otor SC, et al. **Soc Biol** 1998 Fall-Winter; 45(3–4):246–59

[Studies on bone density in healthy girls during their period of growth spurt] Wu J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jan;31(1):24–6 (Eng. Abstr.) **(Chi)**

[Leptin and puberty in humans: hypothesis of the critical adipose mass revisited] Issad T, et al. **Diabetes Metab** 1998 Sep;24(4):376–8 (13 ref.) **(Fre)**

[Leptin implications in reproduction endocrinology] Pralong FP. **Rev Med Suisse Romande** 1999 Jun;119(6):463–7 (12 ref.) **(Fre)**

[Effect of high performance sports on puberty development of female and male gymnasts] Weimann E, et al. **Wien Med Wochenschr** 1998;148(10):231–4 (Eng. Abstr.) **(Ger)**

[Follow-up study on effects of height velocity and puberty onset on biochemical markers of bone turnover] Nishino H, et al. **Nippon Koshu Eisei Zasshi** 1999 Jan;46(1):47–60 (Eng. Abstr.) **(Jpn)**

[The influence of IGF-1 on the biosynthesis of type I and III colagen during puberty] Kulik-Rechberger B, et al. **Ginekol Pol** 1999 May;70(5):323–7 (Eng. Abstr.) **(Pol)**

[Does exposure to cigarette smoke influence girls maturation?] Kolasa E, et al. **Przegl Epidemiol** 1998; 52(3):339–50 (Eng. Abstr.) **(Pol)**

[The evaluation of gonadal function in postpubertal patients treated for cryptorchism in childhood] Crespo Chozas D, et al. **An Esp Pediatr** 1999 Jan;50(1):33–8 (Eng. Abstr.) **(Spa)**

[Leptin and puberty] Puigdevall Gallego V, et al. **An Esp Pediatr** 1998 Dec;49(6):561–7 (95 ref.) **(Spa)**

PSYCHOLOGY

Pubertal maturation and the development of behavioural and emotional problems in early adolescence. Laitinen-Krispijn S, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):16–25

Pubertal timing and self-reported delinquency among male adolescents. Williams JM, et al. **J Adolesc** 1999 Feb; 22(1):157–71

Recurrent brief episodes with psychotic features in adolescence: periodic psychosis of puberty revisited. Abe K, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S313–6

The vulnerable transition: puberty and the development of eating pathology and negative mood. Graber JA, et al. **Womens Health Issues** 1999 Mar–Apr;9(2):107–14 (47 ref.)

[Eating disorders. Prepubertal anorexia nervosa] Olivry E, et al. **Presse Med** 1999 Jan 16;28(2):100–2 (Eng. Abstr.) **(Fre)**

PUBERTY

[Problematic puberty?] Pape H, et al.
Tidsskr Nor Laegeforen 1999 Jan 20;119(2):216-20 (Eng. Abstr.) **(Nor)**

RADIATION EFFECTS

[Development of puberty in girls treated for acute lymphocytic leukemia] Monteiro IM, et al.
Rev Assoc Med Bras 1998 Jul-Sep;44(3):214-7 (Eng. Abstr.) **(Por)**

URINE

The impact of gender, puberty and body mass on reference values for urinary growth hormone (GH) excretion in normally growing non-obese and obese children. Bona G, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):775-81

PUBERTY, DELAYED

Amenorrhea in the athlete. Gidwani GP. **Adolesc Med** 1999 Jun;10(2):275-90, vii (24 ref.)

BLOOD

Constitutional delay in growth and puberty (CDGP) is associated with hypoleptinaemia. Gill MS, et al.
Clin Endocrinol (Oxf) 1999 Jun;50(6):721-6

Serum leptin levels in males with delayed puberty during short-term pulsatile GnRH administration. Giusti M, et al.
J Endocrinol Invest 1999 Jan;22(1):6-11

CHEMICALLY INDUCED

[Iatrogenic Cushing syndrome and mutatio tarda caused by dexamethasone containing nose drops] Fuchs M, et al.
HNO 1999 Jul;47(7):647-50 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

The effect of sex hormone replacement therapy on behavior problems and moods in adolescents with delayed puberty. Susman EJ, et al. **J Pediatr** 1998 Oct;133(4):521-5

DIAGNOSIS

Disorders of puberty. Blondell RD, et al.
Am Fam Physician 1999 Jul;60(1):209-18, 223-4 (25 ref.)

Nutrition and pulmonary function predictors of delayed puberty in adolescent males with cystic fibrosis. Boas SR, et al. **Clin Pediatr (Phila)** 1998 Sep;37(9):573-6

Delayed puberty: when to wake the bugler [editorial; comment] Saenger P, et al. **J Pediatr** 1998 Dec;133(6):724-6 . Comment on: J Pediatr 1998 Dec;133(6):745-9.

[Delayed puberty (in a boy)] Conte-Devolx B, et al.
Ann Endocrinol (Paris) 1998 Dec;59(5):417-23 (14 ref.) **(Fre)**

DRUG THERAPY

Androgen replacement in children with constitutional delay of puberty: the case for aggressive therapy. Houchin LD, et al. **Baillieres Clin Endocrinol Metab** 1998 Oct; 12(3):427-40 (65 ref.)

Effect of low-dose testosterone treatment on craniofacial growth in boys with delayed puberty. Verdonck A, et al.
Eur J Orthod 1999 Apr;21(2):137-43

Delayed puberty in obese boys: comparison with constitutional delayed puberty and response to testosterone therapy [see comments] Kaplowitz P. **J Pediatr** 1998 Dec; 133(6):745-9. Comment in: J Pediatr 1998 Dec;133(6):724-6.

The effect of sex hormone replacement therapy on behavior problems and moods in adolescents with delayed puberty. Susman EJ, et al. **J Pediatr** 1998 Oct;133(4):521-5

Bone age progression during five years of substitutive therapy for the induction of puberty in thalassemic girls--effects on height and sitting height. Filosa A, et al.
J Pediatr Endocrinol Metab 1999 Jul-Aug;12(4):525-30

ETIOLOGY

Ultrasound B-mode changes in the uterus and ovaries and Doppler changes in the uterus after total body irradiation and allogeneic bone marrow transplantation in childhood. Holm K, et al. **Bone Marrow Transplant** 1999 Feb; 23(3):259-63

HIV-associated immune dysfunction and delayed pubertal development in a cohort of young hemophiliacs. Hemophilia Growth and Development Study. Mahoney EM, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1; 21(4):333-7

Growth and pubertal development in transfusion-dependent children and adolescents with thalassaemia major and sickle cell disease: a comparative study. Soliman AT, et al.
J Trop Pediatr 1999 Feb;45(1):23-30

Endocrine complications of bone marrow transplantation in children [see comments] Legault L, et al.
Pediatr Transplant 1999 Feb;3(1):60-6. Comment in: Pediatr Transplant 1999 Feb;3(1):1-4.

PHYSIOPATHOLOGY

Predictive value of serum follicle-stimulating hormone levels in the differentiation between hypogonadotropic hypogonadism and constitutional delay of puberty. Odink RJ, et al. **Horm Res** 1998;49(6):279-87

Normal volumetric bone mineral density and bone turnover in young men with histories of constitutional delay of puberty. Bertelloni S, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4280-3

Evaluation of lumber spine bone mineral density (BMD) using dual energy x-ray absorptiometry (DXA) in 21 young men with histories of constitutionally-delayed puberty [letter] Finkelstein JS, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3400-1; discussion 3403-4

THERAPY

[Delayed puberty (in a boy)] Conte-Devolx B, et al.
Ann Endocrinol (Paris) 1998 Dec;59(5):417-23 (14 ref.) **(Fre)**

[Algorithms for the initial management of precocious or delayed female puberty] Bourguignon JP, et al.
Rev Med Liege 1999 May;54(5):362-6 (Eng. Abstr.) **(Fre)**

PUBERTY, PRECOCIOUS

BLOOD

Gonadotrophin and prolactin secretory dynamics in girls with normal puberty, idiopathic precocious puberty and precocious puberty due to hypothalamic hamartoma. Uriarte MM, et al. **Clin Endocrinol (Oxf)** 1998 Sep; 49(3):363-8

Central precocious puberty: a single blood sample after gonadotropin-releasing hormone agonist administration in monitoring treatment. Salerno M, et al. **Horm Res** 1998; 50(4):205-11

The roles of insulin sensitivity, insulin-like growth factor I (IGF-I), and IGF-binding protein-1 and -3 in the hyperandrogenism of African-American and Caribbean Hispanic girls with premature adrenarche. Vuguin P, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2037-42

Estrogen levels in girls with premature thelarche compared with normal prepubertal girls as determined by an ultrasensitive recombinant cell bioassay. Klein KO, et al.
J Pediatr 1999 Feb;134(2):190-2

Serum leptin levels in patients with progressive central precocious puberty. Heger S, et al. **Pediatr Res** 1999 Jul; 46(1):71-5

CHEMICALLY INDUCED

Sexual development in a two-year-old boy induced by topical exposure to testosterone. Yu YM, et al.
Pediatrics 1999 Aug;104(2):e23

COMPLICATIONS

Proteus syndrome: a possible case associated to precocious puberty [letter] Oliveira M da C, et al.
Clin Dysmorphol 1999 Jul;8(3):229-31

Hyperinsulinaemia, dyslipaemia and cardiovascular risk in girls with a history of premature pubarche. Ibáñez L, et al. **Diabetologia** 1998 Sep;41(9):1057-63

Premature pubarche, ovarian hyperandrogenism, hyperinsulinism and the polycystic ovary syndrome: from a complex constellation to a simple sequence of prenatal onset. Ibáñez L, et al. **J Endocrinol Invest** 1998 Oct; 21(9):558-66 (88 ref.)

Precocious puberty in a patient with indicanuria. Büyükgebiz B, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug; 12(4):561-3

[Early maturation: a risk factor of overweight and obesity during puberty?] López de Blanco M, et al.
Arch Latinoam Nutr 1999 Mar;49(1):13-9 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Beneficial effects of dietary supplementation in a disorder with defective synthesis of cholesterol. A case report of a girl with Smith-Lemli-Opitz syndrome, polyneuropathy and precocious puberty. Starck L, et al. **Acta Paediatr** 1999 Jul;88(7):729-33

Disorders of puberty. Blondell RD, et al.
Am Fam Physician 1999 Jul;60(1):209-18, 223-4 (25 ref.)

Precocious puberty: who has it? Who should be treated? [editorial; comment] Klein KO.
J Clin Endocrinol Metab 1999 Feb;84(2):411-4 (12 ref.). Comment on: J Clin Endocrinol Metab 1999 Feb;84(2):415-23.

Unsustained or slowly progressive puberty in young girls: initial presentation and long-term follow-up of 20 untreated patients [see comments] Palmert MR, et al.
J Clin Endocrinol Metab 1999 Feb;84(2):415-23. Comment in: J Clin Endocrinol Metab 1999 Feb;84(2):411-4.

Puberty: when it comes too soon guidelines for the evaluation of sexual precocity. Clark PA. **J Ky Med Assoc** 1998 Nov; 96(11):440-7 (13 ref.)

Growth, puberty, and endocrine functions in patients with sporadic or familial neurofibromatosis type 1: a longitudinal study. Carmi D, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1257-62

Reexamination of the age limit for defining when puberty is precocious in girls in the United States: implications for evaluation and treatment. Drug and Therapeutics and Executive Committees of the Lawson Wilkins Pediatric Endocrine Society. Kaplowitz PB, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):936-41 (27 ref.)

[Precocious puberty in adopted children, a risk not to be forgotten (letter)] de Monléon JV, et al. **Arch Pediatr** 1999 May;6(5):589-90 **(Fre)**

DRUG THERAPY

Efficacy of Zoladex LA (goserelin) in the treatment of girls with central precocious or early puberty. Paterson WF, et al. **Arch Dis Child** 1998 Oct;79(4):323-7

Timing for discontinuation of treatment with a long-acting gonadotropin-releasing hormone analog in girls with central precocious puberty. TAP-144SR CPP Study Group. Ohyama K, et al. **Endocr J** 1998 Jun;45(3):351-6

Analysis of the factors affecting auxological response to GnRH agonist treatment and final height outcome in girls with idiopathic central precocious puberty. Arrigo T, et al. **Eur J Endocrinol** 1999 Aug;141(2):140-4

Cirrhosis in a child with hypothalamic syndrome and central precocious puberty treated with cyproterone acetate. Garty BZ, et al. **Eur J Pediatr** 1999 May;158(5):367-70

Prevention of bone demineralization by calcium supplementation in precocious puberty during gonadotropin-releasing hormone agonist treatment. Antoniazzi F, et al. **J Clin Endocrinol Metab** 1999 Jun; 84(6):1992-6

Final height after long-term treatment with triptorelin slow release for central precocious puberty: importance of statural growth after interruption of treatment. French study group of Decapeptyl in Precocious Puberty. Carel JC, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1973-8

Reproductive axis after discontinuation of gonadotropin-releasing hormone analog treatment of girls with precocious puberty: long term follow-up comparing girls with hypothalamic hamartoma to those with idiopathic precocious puberty. Feuillan PP, et al.
J Clin Endocrinol Metab 1999 Jan;84(1):44-9

Six-year results of spironolactone and testolactone treatment of familial male-limited precocious puberty with addition of deslorelin after central puberty onset. Leschek EW, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):175-8

Adult height in girls with central precocious puberty treated with gonadotropin-releasing hormone analogues and growth hormone [published erratum appears in J Clin Endocrinol Metab 1999 Jun;84(6):1978] Pasquino AM, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):449-52

Ketoconazole treatment of gonadotropin independent precocious puberty in girls with McCune-Albright syndrome: a preliminary report. Syed FA, et al.
J Pediatr Endocrinol Metab 1999 Jan-Feb;12(1):81-3

Serum leptin levels in patients with progressive central precocious puberty. Heger S, et al. **Pediatr Res** 1999 Jul; 46(1):71-5

Combined use of growth hormone and gonadotropin-releasing hormone analogues: the national cooperative growth study experience. Kohn B, et al.
Pediatrics 1999 Oct;104(4 Pt 2):1014-8

Combined use of growth hormone and gonadotropin-releasing hormone analogues in precocious puberty: theoretic and practical considerations. Walvoord EC, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1010-4 (38 ref.)

ETIOLOGY

Treatment of gonadotropin dependent precocious puberty due to hypothalamic hamartoma with gonadotropin releasing hormone agonist depot. de Brito VN, et al.
Arch Dis Child 1999 Mar;80(3):231-4

Follow up of precocious pseudopuberty associated with isolated ovarian follicular cysts. Rodriguez-Macias KA, et al. **Arch Dis Child** 1999 Jul;81(1):53-6

Sertoli cell tumor causing precocious puberty in a girl with Peutz-Jeghers syndrome. Zung A, et al. **Gynecol Oncol** 1998 Sep;70(3):421-4

Precocious pubarche, hyperinsulinism, and ovarian hyperandrogenism in girls: relation to reduced fetal growth. Ibáñez L, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3558-62

Effects of puberty on bone age maturation in a girl after medulloblastoma therapy. Marx M, et al.
J Pediatr Adolesc Gynecol 1999 May;12(2):62-6

[Precocious puberty secondary to an intramedullary germinoma] de Monléon JV, et al. **Arch Pediatr** 1999 Jan; 6(1):46-9 (Eng. Abstr.) **(Fre)**

[Constitutively activating mutations in the luteinizing hormone receptor gene in cases of male-limited precocious puberty] Yano K, et al. **Nippon Rinsho** 1998 Jul; 56(7):1843-7 (24 ref.) (Eng. Abstr.) **(Jpn)**

[Precocious puberty secondary to tuberculous meningitis] Buño Soto M, et al. **An Esp Pediatr** 1998 Dec;49(6):635-7 (9 ref.) **(Spa)**

GENETICS

Analysis of bone mineral density and polymorphism of estrogen receptor gene in patients with precocious puberty. Nakayama Y, et al. **Endocr J** 1998 Apr;45 Suppl:S183-4

High incidence of molecular defects of the CYP21 gene in patients with premature adrenarche. Dacou-Voutetakis C, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1570-4

A limited repertoire of mutations of the luteinizing hormone (LH) receptor gene in familial and sporadic patients with male LH-independent precocious puberty. Kremer H, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1136-40

Maternal uniparental disomy 14 as a cause of intrauterine growth retardation and early onset of puberty. Fokstuen S, et al. **J Pediatr** 1999 Jun;134(6):689–95

Glucocorticoid resistance in premature pubarche and adolescent hyperandrogenism. Witchel SF, et al. **Mol Genet Metab** 1999 Feb;66(2):137–41

A novel luteinizing hormone receptor mutation in a patient with familial male-limited precocious puberty: effect of the size of a critical amino acid on receptor activity. Wu SM, et al. **Mol Genet Metab** 1999 Jan;66(1):68–73

[Activating mutations of the gonadotrophin receptors] Beck-Peccoz P, et al. **Arch Pediatr** 1998;5 Suppl 4:380S–384S (17 ref.) (Eng. Abstr.) **(Fre)**

METABOLISM

Increase in free insulin-like growth factor-I levels in precocious and normal puberty. Yamada M, et al. **Endocr J** 1998 Jun;45(3):407–12

PATHOLOGY

Cytologic findings from a nipple discharge in an infant with premature telarche. Mangano WE, et al. **Diagn Cytopathol** 1998 Nov;19(5):367–9

Analysis of the factors affecting auxological response to GnRH agonist treatment and final height outcome in girls with idiopathic central precocious puberty. Arrigo T, et al. **Eur J Endocrinol** 1999 Aug;141(2):140–4

PHYSIOPATHOLOGY

Outcome of premature thelarche: relation to puberty and final height. Salardi S, et al. **Arch Dis Child** 1998 Aug; 79(2):173–4

Early puberty in Williams syndrome. Cherniske EM, et al. **Clin Dysmorphol** 1999 Apr;8(2):117–21

Premature sexual development in individuals with neurodevelopmental disabilities. Siddiqi SU, et al. **Dev Med Child Neurol** 1999 Jun;41(6):392–5

Analysis of bone mineral density and polymorphism of estrogen receptor gene in patients with precocious puberty. Nakayama Y, et al. **Endocr J** 1998 Apr;45 Suppl:S183–4

An association of hypothalamic hamartoma, central precocious puberty and juvenile granulosa cell tumour in early childhood. Feilberg Jørgensen N, et al. **Horm Res** 1998;49(6):292–4

Anovulation after precocious pubarche: early markers and time course in adolescence. Ibáñez L, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2691–5

Gonadotropin independent precocious puberty. Low LC, et al. **J Pediatr Endocrinol Metab** 1998 Jul-Aug;11(4):497–507 (75 ref.)

Suprasellar arachnoid cyst presenting with precocious puberty : report of two cases. Gupta SK, et al. **Neurol India** 1999 Jun;47(2):148–51

PSYCHOLOGY

Biopsychological and cognitive differences in children with premature vs. on-time adrenarche. Dorn LD, et al. **Arch Pediatr Adolesc Med** 1999 Feb;153(2):137–46

THERAPY

Precocious puberty: who has it? Who should be treated? [editorial; comment] Klein KO. **J Clin Endocrinol Metab** 1999 Feb;84(2):411–4 (12 ref.). Comment on: J Clin Endocrinol Metab 1999 Feb;84(2):415–23.

Puberty: when it comes too soon guidelines for the evaluation of sexual precocity. Clark PA. **J Ky Med Assoc** 1998 Nov; 96(11):440–7 (13 ref.)

[Algorithms for the initial management of precocious or delayed female puberty] Bourguignon JP, et al. **Rev Med Liege** 1999 May;54(5):362–6 (Eng. Abstr.) **(Fre)**

ULTRASONOGRAPHY

Pelvic ultrasonography cannot alone be used to diagnose pubertal anomalies [comment] Andolf E. **Acta Paediatr** 1999 Mar;88(3):246–7. Comment on: Acta Paediatr 1998 Nov;87(11):1138–45.

Pelvic ultrasonography in normal girls and in girls with pubertal precocity [see comments] Buzi F, et al. **Acta Paediatr** 1998 Nov;87(11):1138–45. Comment in: Acta Paediatr 1999 Mar;88(3):246–7.

PUBIC BONE

[Pectineal ligament of Cooper. Micromorphometric study] Rousseau MA, et al. **Morphologie** 1999 Mar;83(260):67–9 (Eng. Abstr.) **(Fre)**

[Pubic osteoarthritis after laparoscopic treatment for an inguinal hernia (letter)] Coutant G, et al. **Rev Med Interne** 1998 Dec;19(12):937–8 **(Fre)**

[Condensing osteitis of the pubic bone] Jajić Z, et al. **Reumatizam** 1998;46(1):51–3 (Eng. Abstr.) **(Scr)**

INJURIES

Vacuum phenomenon in posttraumatic nonunion of pubic bone fracture. Zibis AH, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):251

A case of traumatic fat embolism syndrome without long bone fracture. Digby J, et al. **Tenn Med** 1999 Aug; 92(8):308–9

INNERVATION

[Traction on the orthopedic table and pudendal nerve injury. Importance of electrophysiologic examination] Goldet R, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct; 84(6):523–30 (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

Vacuum phenomenon in posttraumatic nonunion of pubic bone fracture. Zibis AH, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):251

Use of pelvic CT scanning to evaluate pubic arch interference of transperineal prostate brachytherapy. Bellon J, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):579–81

SURGERY

Minimally invasive pervaginam procedures fo: the treatment of female stress incontinence using a new pubic bone anchoring system. Madjar S, et al. **Artif Organs** 1998 Oct; 22(10):879–85

Bladder neck suspension using percutaneous bladder neck stabilization to the pubic bone with a bone-anchor suture fixation system: A new extraperitoneal laparoscopic approach. Takeda M, et al. **Urol Int** 1999;62(1):57–60

[Percutaneous bladder neck suspension with osseous fixation. Surgical technique and initial results in 26 patients] Schultheiss D, et al. **Urologe A** 1998 Jul;37(4):417–20 (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Pubic arch detection in transrectal ultrasound guided prostate cancer therapy. Pathak SD, et al. **IEEE Trans Med Imaging** 1998 Oct;17(5):762–71

Use of TRUS to predict pubic arch interference of prostate brachytherapy. Wallner K, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):583–5

PUBIC SYMPHYSIS

see related
SYMPHYSIOTOMY

Osteitis pubis: a diagnosis for the family physician. Andrews SK, et al. **J Am Board Fam Pract** 1998 Jul-Aug;11(4):291–5 (16 ref.)

ABNORMALITIES

Covered exstrophy with incomplete duplication of the bladder. Chadha R, et al. **Pediatr Surg Int** 1999 Jul; 15(5–6):422–4

INJURIES

[Image of the month. Symphysis pubis diastasis syndrome] Foidart JM, et al. **Rev Med Liege** 1998 Jul;53(7):385 **(Fre)**

METABOLISM

Effects of relaxin, pregnancy and parturition on collagen metabolism in the rat pubic symphysis. Samuel CS, et al. **J Endocrinol** 1998 Oct;159(1):117–25

MICROBIOLOGY

Pseudomonas osteomyelitis of the symphysis pubis after inguinal hernia repair. Mader R, et al. **Clin Rheumatol** 1999; 18(2):167–9

Bacterial osteitis pubis in a weight lifter without invasive trauma. Combs JA. **Med Sci Sports Exerc** 1998 Nov; 30(11):1561–3

PATHOLOGY

The pubourethral ligaments--an anatomical and histological study in the live patient. Petros PE. **Int Urogynecol J Pelvic Floor Dysfunct** 1998;9(3):154–7

SURGERY

Anterior stabilization in the pubic symphysis separation: a mechanical testing. Waikakul S, et al. **J Med Assoc Thai** 1999 Jan;82(1):72–9

ULTRASONOGRAPHY

Sonographic assessment of symphyseal joint distention during pregnancy and post partum with special reference to pelvic pain. Björklund K, et al. **Acta Obstet Gynecol Scand** 1999 Feb;78(2):125–30

PUBLIC ADVOCACY see **CONSUMER ADVOCACY**

PUBLIC ASSISTANCE

see related
SOCIAL WELFARE

Welfare dynamics, support services, mothers' earnings, and child cognitive development: implications for contemporary welfare reform. Yoshikawa H. **Child Dev** 1999 May-Jun;70(3):779–801

Risk for alcohol and drug abuse among ethnically diverse female recipients of public assistance. Delva J, et al. **Ethn Dis** 1999 Spring-Summer;9(2):237–45

Does reminder-recall augment the impact of voucher incentives on immunization rates among inner-city infants enrolled in WIC? Special Supplemental Program for Women, Infants, and Children. Hoekstra EJ, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):261–3

State policy and funding of services to families of adults with serious and persistent mental illness [published erratum appears in Psychiatr Serv 1999 Jun;50(6):824] Dixon L, et al. **Psychiatr Serv** 1999 Apr;50(4):551–3

ECONOMICS

Public assistance receipt among immigrants and natives: how the unit of analysis affects research findings. Van Hook J, et al. **Demography** 1999 Feb;36(1):111–20

LEGISLATION & JURISPRUDENCE

Welfare reform as a human rights issue [editorial; comment] Albisa C. **Am J Public Health** 1999 Oct;89(10):1476–8. Comment on: Am J Public Health 1999 Oct;89(10):1514–27.

Assessing the effects of welfare reform policies on reproductive and infant health [see comments] Wise P, et al. **Am J Public Health** 1999 Oct;89(10):1514–21 (79 ref.) . Comment in: Am J Public Health 1999 Oct;89(10):1476–8. Comment in: Am J Public Health 1999 Oct;89(10):1479–82.

[The quality of integration and care in workshops for the handicapped--The path to TQM in the workshops of the Gemeinschaftswerks fu"r Be- hinderte GmbH, Landstuhl] Ruprecht B, et al. **Rehabilitation (Stuttg)** 1999 Feb; 38(1):7–15 (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

Welfare at ground zero: having to fly without a safety net. Keigher S, et al. **Health Soc Work** 1998 Aug;23(3):223–30

[Reciprocity and care of the elderly. An anthropologic comparison between Ghana and the Netherlands] van der Geest S. **Tijdschr Gerontol Geriatr** 1998 Oct;29(5):237–43 (Eng. Abstr.) **(Dut)**

STANDARDS

Federal task force says lack of health care coverage is major barrier to employment of persons with disabilities [news] **Psychiatr Serv** 1999 Feb;50(2):279–30

UTILIZATION

Predictors of homelessness among families in New York City: from shelter request to housing stability. Shinn M, et al. **Am J Public Health** 1998 Nov;88(11):1651–7

PUBLIC DOMAIN see **PUBLIC SECTOR**

PUBLIC ENTERPRISE see **PUBLIC SECTOR**

PUBLIC FACILITIES

A critical evaluation of the potential benefits of public access defibrillation [letter] Cooper JS, et al. **Prehosp Emerg Care** 1998 Jan-Mar;2(1):87–8

PUBLIC HEALTH

see related
SOCIAL MEDICINE
ZOONOSES

Carrying out the Medicine/Public Health Initiative: the roles of preventive medicine and community-responsive care. Cashman SB, et al. **Acad Med** 1999 May;74(5):473–83 (54 ref.)

Caring for the community: the role of partnerships. Omenn GS. **Acad Med** 1999 Jul;74(7):782–9

Ten principles for building a 21st-century public health system. Shalala D. **Acad Med** 1999 Aug;74(8):908–9

Academic health centers can bridge the gulf between medicine and public health. Williams JF, et al. **Acad Med** 1999 May;74(5):484–7 (4 ref.)

The difficult search for an equilibrium between data protection and (public) health protection [editorial; comment] Nys H. **Acta Clin Belg** 1999 Jun;54(3):137–40. Comment on: Acta Clin Belg 1999 Jun;54(3):147–9.

New directions in public health approach to obesity management [see comments] Vansant G, et al. **Acta Clin Belg** 1999 Jun;54(3):151–3. Comment in: Acta Clin Belg 1999 Jun;54(3):141–6.

Epidemiology of type 1 (insulin-dependent) diabetes mellitus: public health implications in the Middle East. Green A. **Acta Paediatr Suppl** 1999 Jan;88(427):8–10 (5 ref.)

Some gastro-intestinal parasites of zoonotic (public health) importance commonly observed in old world non-human primates in Kenya. Muriuki SM, et al. **Acta Trop** 1998 Aug 15;71(1):73–82

Measurement of public health importance of schistosomiasis: problems and prospects [letter] Ofoezie IE. **Acta Trop** 1998 Aug 15;71(1):91–2

Re: "The failure of academic epidemiology: witness for the prosecution" [letter; comment] Bhopal RS. **Am J Epidemiol** 1999 Mar 1;149(5):485–6. Comment on: Am J Epidemiol 1997 Mar 15;145(6):479–84; discussion 485–7.

Call for an international ban on asbestos. Collegium

Ramazzini. **Am J Ind Med** 1999 Aug;36(2):227–9
Host genes and infectious diseases. HIV, other pathogens, and a public health perspective. McNicholl JM, et al. **Am J Prev Med** 1999 Feb;16(2):141–54 (131 ref.)
Policy statements adopted by the Governing Council of the American Public Health Association, November 18, 1998. **Am J Public Health** 1999 Mar;89(3):428–50
Abandoning race as a variable in public health research [letter; comment] Buehler JW. **Am J Public Health** 1999 May;89(5):783; discussion 784. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.
Sanctions and the struggle for health in South Africa. Coovadia HM. **Am J Public Health** 1999 Oct;89(10):1505–8
Pathologies of power: rethinking health and human rights. Farmer P. **Am J Public Health** 1999 Oct;89(10):1486–96
The impact of economic sanctions on health and human rights in Haiti, 1991–1994 [see comments] Gibbons E, et al. **Am J Public Health** 1999 Oct;89(10):1499–504. Comment in: Am J Public Health 1999 Oct;89(10):1509–13.
Frequency of policy recommendations in epidemiologic publications. Jackson LW, et al. **Am J Public Health** 1999 Aug;89(8):1206–11 (53 ref.)
Questioning epidemiology: objectivity, advocacy, and socially responsible science [editorial; comment] Krieger N. **Am J Public Health** 1999 Aug;89(8):1151–3. Comment on: Am J Public Health 1999 Aug;89(8):1175–80.
"Whiting out" white privilege will not advance the study of how racism harms health [letter; comment] Krieger N, et al. **Am J Public Health** 1999 May;89(5):782–3; discussion 784–5. Comment on: Am J Public Health 1998 Sep;88(9):1297–8. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.
A tale of 3 tails [editorial] McKinlay JB, et al. **Am J Public Health** 1999 Mar;89(3):295–8 (26 ref.)
A world behaving badly: the global challenge for behavioral surveillance [editorial] McQueen DV. **Am J Public Health** 1999 Sep;89(9):1312–4 (26 ref.)
Economic sanctions as human rights violations: reconciling political and public health imperatives [comment] Marks SP. **Am J Public Health** 1999 Oct;89(10):1509–13 (60 ref.) . Comment on: Am J Public Health 1999 Oct;89(10):1499–504.
APHA's involvement in international health [letter] Pearson CE. **Am J Public Health** 1999 Jul;89(7):1125–6
The use of race as a variable in public health research [letter; comment] Rabin R. **Am J Public Health** 1999 May; 89(5):783; discussion 784. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.
Reassessing the role of epidemiology in public health. Savitz DA, et al. **Am J Public Health** 1999 Aug;89(8):1158–61
Can sanctions be sanctioned? Sidel VW. **Am J Public Health** 1999 Oct;89(10):1497–8
Is epidemiology an applied science or a technology? [letter; comment] Tapia Granados JA. **Am J Public Health** 1999 Apr;89(4):599–600. Comment on: Am J Public Health 1996 May;86(5):668–73. Comment on: Am J Public Health 1996 May;86(5):674–7.
The global burden of mental disorders [see comments] Ustün TB. **Am J Public Health** 1999 Sep;89(9):1315–8 (24 ref.). Comment in: Am J Public Health 1999 Sep;89(9):1309–11.
Public health interventions to encourage TB class A/B1/B2 immigrants to present for TB screening. Catlos EK, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1037–41
A call for caution in the interpretation of the observed smaller relative importance of risk factors in the elderly [editorial; comment] Howard G, et al. **Ann Epidemiol** 1998 Oct; 8(7):411–4 (13 ref.). Comment on: Ann Epidemiol 1998 Oct;8(7):415–21.
Introduction to supplement on Iron Overload, Public Health, and Genetics. Franks AL, et al. **Ann Intern Med** 1998 Dec 1;129(11):923–4
Immigration and health: the Italian situation. Italian National Focal Point (NFP) of the AIDS & Mobility Project. Colucci A, et al. **Ann Ist Super Sanita** 1998;34(4):473–87
Obesity: a major global public health problem. Khan LK, et al. **Annu Rev Nutr** 1999;19:xiii–xvii (29 ref.)
Medicine and public health. Whose agenda? Magill MK. **Arch Fam Med** 1999 Jan–Feb;8(1):81–2
Why literacy matters. Links between reading ability and health. Lee PP. **Arch Ophthalmol** 1999 Jan;117(1):100–3 (28 ref.)
Reconciliation and policy reform: is there a link? [editorial] Anderson I. **Aust N Z J Public Health** 1999 Jun;23(3):231–2
Postmodernism and the democratisation of public health [letter; comment] Gaughwin M. **Aust N Z J Public Health** 1998 Oct;22(6):733. Comment on: Aust N Z J Public Health 1998;22(3 Suppl):403–6.
Rural public health matters [editorial] Keleher H. **Aust N Z J Public Health** 1999 Aug;23(4):342
Commitment to improving indigenous health [editorial] Leeder SR. **Aust N Z J Public Health** 1998 Oct;22(6):635–6
Potential meets reality: GIS and public health research in Australia. O'Dwyer LA, et al. **Aust N Z J Public Health** 1998 Dec;22(7):819–23
A 'whole of government' approach needed on indigenous health [editorial] Ring I. **Aust N Z J Public Health** 1998 Oct;22(6):639–40
Health, history and reconciliation [editorial] Ring I, et al. **Aust N Z J Public Health** 1999 Jun;23(3):228–31
Cross-cultural research: trying to do it better. 1. Issues in study design. Small R, et al. **Aust N Z J Public Health** 1999 Aug;23(4):385–9
Do media help or harm public health? [letter; comment] Stacey BG, et al. **Aust N Z J Public Health** 1998 Oct; 22(6):733–4. Comment on: Aust N Z J Public Health 1998 Feb;22(1):155–8.
Iraqi doctors regret bombing by United States and Britain [letter] Alshafi K. **BMJ** 1999 Jan 16;318(7177):196
Public health, civil liberties, and tuberculosis [editorial] Coker R. **BMJ** 1999 May 29;318(7196):1434–5
Article on Colombia should have been more objective [letter; comment] De la Calle-Lombana H. **BMJ** 1999 Jun 5; 318(7197):1557. Comment on: BMJ 1998 Dec 12;317(7173):1649–50.
Is it time for an Illich Collaboration to make available information on the harms of medical care? [letter] Edwards RH. **BMJ** 1999 Jan 2;318(7175):58
Effect of discussion and deliberation on public's views of priority setting. More data are needed for readers to make judgment about study [letter] Hanratty B, et al. **BMJ** 1999 Jul 17;319(7203):189
Climate change and human health in Europe. Kovats RS, et al. **BMJ** 1999 Jun 19;318(7199):1682–5 (32 ref.)
European Commission's new president puts public health on the agenda [news] Watson R. **BMJ** 1999 Jul 24; 319(7204):214
Can we deworm this wormy world? Bundy DA, et al. **Br Med Bull** 1998;54(2):421–32 (43 ref.)
Impacts of global environmental change on future health and health care in tropical countries. McMichael AJ, et al. **Br Med Bull** 1998;54(2):475–88 (51 ref.)
Margaret E. Mahoney Symposium on the State of the Nation's Health: questions from the audience. **Bull N Y Acad Med** 1995 Winter;72(2 Suppl):614–23
Proceedings of the Margaret E. Mahoney Symposium. The State of the Nation's Health. **Bull N Y Acad Med** 1995 Winter;72(2 Suppl):549–662
A summary of the symposium. Bondurant S. **Bull N Y Acad Med** 1995 Winter;72(2 Suppl):657–60
The health impact of economic sanctions. Garfield R, et al. **Bull N Y Acad Med** 1995 Winter;72(2):454–69
Keynote address. The Margaret E. Mahoney Lecture and Symposium on the State of the Nation's Health. Lee PR. **Bull N Y Acad Med** 1995 Winter;72(2 Suppl):552–69
Overview of challenges. Thier SO. **Bull N Y Acad Med** 1995 Winter;72(2 Suppl):570–4
Public health in a new era [news] **Bull World Health Organ** 1999;77(2):202–3
A new role for the Bulletin [editorial] Feachem RG. **Bull World Health Organ** 1999;77(1):2
What's in a name? [editorial] Frenk J. **Bull World Health Organ** 1999;77(2):101
Active ageing makes the difference [editorial] Kalache A. **Bull World Health Organ** 1999;77(4):299
AIDS as a lever for reducing inequality and increasing solidarity [letter] Martin J. **Bull World Health Organ** 1999; 77(4):364
Science and collective health: on the need for critical reason [editorial] Camargo KR Jr. **Cad Saude Publica** 1999 Jan–Mar;15(1):4–5 **(Eng, Por)**
The principles of medical ethics and medical research. Harris J. **Cad Saude Publica** 1999;15 Suppl 1:7–13
Bioethics and public health [editorial] Schramm FR, et al. **Cad Saude Publica** 1999;15 Suppl 1:4–5 **(Eng, Por)**
Canada's International Immunization Initiative. Dafoe GH. **Can J Public Health** 1998 Nov–Dec;89(6):364 **(Eng, Fre)**
Assessing the effect of and support for youth involvement in public decision-making: a report on nine case studies. McCall D, et al. **Can J Public Health** 1999 May–Jun; 90(3):4p
Mycotoxins of Aspergillus fumigatus in pure culture and in native bioaerosols from compost facilities. Fischer G, et al. **Chemosphere** 1999 Apr;38(8):1745–55
An assessment of the environmental fate and exposure of benzene and the chlorobenzenes in Canada. MacLeod M, et al. **Chemosphere** 1999 Apr;38(8):1777–96
Cutaneous leishmaniasis: strategies for prevention. Ashford RW. **Clin Dermatol** 1999 May–Jun;17(3):327–32 (9 ref.)
Cutaneous leishmaniasis (CL) is an important public health problem in many countries. Oumeish OY, et al. **Clin Dermatol** 1999 May–Jun;17(3):247–8
Respiratory tract infections as a public health challenge. Douglas RM. **Clin Infect Dis** 1999 Feb;28(2):192–4
Chronic pain: a public health problem? [editorial; comment] Gallagher RM. **Clin J Pain** 1998 Dec;14(4):277–9. Comment on: Clin J Pain 1998 Dec;14(4):295–300. Comment on: Clin J Pain 1998 Dec;14(4):290–4. Comment on: Clin J Pain 1998 Dec;14(4):303–10. Comment on: Clin J Pain 1998 Dec;14(4):350–3.
Blood lead in U.K. children--time for a lower action level? [see comments] O'Donohoe J, et al. **Clin Sci (Colch)** 1998 Aug;95(2):219–23. Comment in: Clin Sci (Colch) 1998 Aug;95(2):113.
Radiofrequency radiation: what's safe? [letter] Cridland RG. **CMAJ** 1999 Sep 7;161(5):486, 488
Are MDs more intent on maintaining their élite status than in promoting public good? Gray C. **CMAJ** 1999 Apr 20; 160(8):1204–5
The CMA's Health Information Privacy Code: does it go too far? [editorial; comment] Hoey J. **CMAJ** 1998 Oct 20;159(8):953–4. Comment on: CMAJ 1998 Oct 20;159(8):997–1016.
European ban on bovine growth hormones should continue: expert [news] Sibbald B. **CMAJ** 1999 Sep 21;161(6):677
Health Canada leery as US "nutraceutical" movement prepares to move north. Sibbald B. **CMAJ** 1999 Sep 21; 161(6):742
The medical threat of biological weapons. Atlas RM. **Crit Rev Microbiol** 1998;24(3):157–68 (17 ref.)
Nobody knows how dry I am [editorial] Rocca PV. **Del Med J** 1999 Aug;71(8):321–2
The public health burden of diabetes and the reality of limits. Vinicor F. **Diabetes Care** 1998 Dec;21 Suppl 3:C15–8
New rules for feedlots [news] **Environ Health Perspect** 1998 Dec;106(12):A586–7
Herbal health [news] **Environ Health Perspect** 1998 Dec; 106(12):A590–2
The coast is cleaner [news] **Environ Health Perspect** 1999 Aug;107(8):A398, A400
Human health and chemical mixtures: an overview. Carpenter DO, et al. **Environ Health Perspect** 1998 Dec; 106 Suppl 6:1263–70 (69 ref.)
A public health context for residual risk assessment and risk management under the clean air act. Charnley G, et al. **Environ Health Perspect** 1998 Sep;106(9):519–21
Public health challenges posed by chemical mixtures. Hansen H, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1271–80 (71 ref.)
Public health policy and the National Toxicology Program [editorial] Lucier GW, et al. **Environ Health Perspect** 1998 Oct;106(10):A470–1
Environmental health 2000 [news] Schmidt CW. **Environ Health Perspect** 1998 Dec;106(12):A600–3
Acute health effects associated with nonoccupational pesticide exposure in rural El Salvador. Azaroff LS, et al. **Environ Res** 1999 Feb;80(2 Pt 1):158–64
Consumption of freshwater fish in Kahnawake: risks and benefits. Chan HM, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S213–S222
Inhalation health risk assessment of MMT. Davis JM, et al. **Environ Res** 1999 Feb;80(2 Pt 1):103–4
Key environmental human health issues in the Great Lakes and St. Lawrence River basins. Johnson BL, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S2–S12
Public health implications. Johnson BL, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S246–S248
Outbreaks of salmonellosis associated with eating uncooked tomatoes: implications for public health. The Investigation Team. Hedberg CW, et al. **Epidemiol Infect** 1999 Jun; 122(3):385–93
Diet and disease, and Durkheim and Dasgupta, and Deuteronomy. Marmot MG. **Epidemiology** 1998 Nov; 9(6):676–80
How to improve the impact of nutrition guidance by general physicians: public health versus individual patient? Worsley A. **Eur J Clin Nutr** 1999 May;53 Suppl 2:S101–7 (56 ref.)
Legal abortion in Denmark during the past 25 years: aspects of public health and ethics. Goldstein H. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):155–9 (11 ref.)
What are the health risks? The medical consequences of obesity and its health risks. James WP. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 2:1–6 (17 ref.)
Societal and personal costs of obesity. Seidell JC. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 2:7–9 (15 ref.)
Public health and international health-care development for persons with haemophilia: operation improvement and operation access. Evatt BL. **Haemophilia** 1998;4 Suppl 2:54–8
Relation between indoor and outdoor exposure to fine particles near a busy arterial road. Jamriska M, et al. **Indoor Air** 1999 Jun;9(2):75–84
Bugs are not funny syndrome [letter] Schweon SJ, et al. **Infect Control Hosp Epidemiol** 1999 Aug;20(8):527
Leadership in injury prevention and control [see comments] Peck S. **Inj Prev** 1998 Dec;4(4):250–1. Comment in: Inj Prev 1998 Dec;4(4):251–2.
Using the Haddon matrix: introducing the third dimension [see comments] Runyan CW. **Inj Prev** 1998 Dec;4(4):302–7 . Comment in: Inj Prev 1999 Jun;5(2):158.
Socio-economic impact of chronic venous insufficiency. An underestimated public health problem. Van den Oever R, et al. **Int Angiol** 1998 Sep;17(3):161–7
Biometeorological classification of daily weather types for the humid tropics. Lecha Estela LB. **Int J Biometeorol** 1998 Dec;42(2):77–83
The effect of intermittent heating on some chemical parameters of refined oils used in Egypt. A public health nutrition concern. Tewfik IH, et al. **Int J Food Sci Nutr** 1998 Sep;49(5):339–42
Achievements and prospects on leprosy prevention and control in China. Dakui Y. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):546–53
Taking home lessons from the 15th International Leprosy Congress. Lechat MF. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):562–6
Public health interests override others. Venables KM, et al. **Int J Occup Environ Health** 1998 Jan–Mar;4(1):34–5
Improving the health of youth: a community health perspective. Blum RW. **J Adolesc Health** 1998 Nov; 23(5):254–8
Methods for assessing the public health impact of outflows from combined sewer systems. Colford JM Jr, et al. **J Air Waste Manag Assoc** 1999 Apr;49(4):454–62
College health needs to participate in the national STD

debate. Rothenberger JH, et al. **J Am Coll Health** 1998 Nov;47(3):140–2

'Get the government out of my life' [letter; comment] Dimmich GW. **J Am Dent Assoc** 1998 Nov;129(11):1522, 1524. Comment on: J Am Dent Assoc 1998 Sep;129(9):1191–2, 1194.

Student Movement of the Medicine/Public Health Initiative promotes nationwide preventive healthcare approach [letter] Cardarelli R, et al. **J Am Osteopath Assoc** 1998 Dec;98(12):675–6

Veterinary students lead the way to a healthier nation in 2010. Hendrix CM, et al. **J Am Vet Med Assoc** 1999 Aug 1;215(3):325–7

Compendium of chlamydiosis (psittacosis) control, 1999. Psittacosis Compendium Committee, National Association of State Public Health Veterinarians. Johnston WB, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):640–6 (10 ref.)

AABP conferees attentive to antimicrobial use issue [news] Kahler SC. **J Am Vet Med Assoc** 1998 Dec 1; 213(11):1545–8

Human contact with bait containing vaccine for control of rabies in wildlife. McGuill MW, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1413–7

Healthy pets, healthy people. Wong SK, et al. **J Am Vet Med Assoc** 1999 Aug 1;215(3):335–8

What's new in the public health laboratories? **J Ark Med Soc** 1999 Apr;95(11):504–6

Centers for Disease Control and Prevention announces new online source for chronic disease prevalence and risk factor information [news] Koon KA. **J Community Health Nurs** 1998;15(4):265–6

Being prepared to protect the public health. Information for thinking the unthinkable and doing the essential [editorial] Ashton J, et al. **J Epidemiol Community Health** 1998 Nov; 52(11):702–3

Who will grasp the public health nettle in London? [editorial] Bardsley M, et al. **J Epidemiol Community Health** 1999 Jul;53(7):386–7

Social capital: is it good for your health? Issues for a public health agenda [editorial] Baum F. **J Epidemiol Community Health** 1999 Apr;53(4):195–6

The study of social inequalities in health in Spain: where are we? [editorial] Borrell C, et al. **J Epidemiol Community Health** 1999 Jul;53(7):388–9

The fate of non-medics working in public health [letter; comment] Britton A. **J Epidemiol Community Health** 1999 Feb;53(2):128. Comment on: J Epidemiol Community Health 1998 May;52(5):278–9.

Public health management [editorial] Hunter DJ. **J Epidemiol Community Health** 1998 Jun;52(6):342–3

Public health issues in Hong Kong and China [editorial] Lee SH. **J Epidemiol Community Health** 1999 Mar;53(3):130–1

Multilevel ecoepidemiology and parsimony. Mackenbach JP. **J Epidemiol Community Health** 1998 Oct;52(10):614–5

Working conditions and social inequalities in health [editorial] Moncada S. **J Epidemiol Community Health** 1999 Jul; 53(7):390–1

A new chapter in public health: Britain's changing relationship with the European Union [editorial] Mossialos E, et al. **J Epidemiol Community Health** 1998 Oct; 52(10):606–7

Partnership in health: beyond the rhetoric [editorial] Popay J, et al. **J Epidemiol Community Health** 1998 Jul;52(7):410–1

Review of the "City Health Profiles" produced by WHO–Healthy Cities—do they present information on health and its determinants and what are their perceived benefits? Webster P. **J Epidemiol Community Health** 1999 Feb;53(2):125–7

Towards a philosophy of public health. Weed DL. **J Epidemiol Community Health** 1999 Feb;53(2):99–104

Looking at environmental justice from an environmental health perspective. Sexton K, et al. **J Expo Anal Environ Epidemiol** 1999 Jan–Feb;9(1):3–8

Risk assessment: a means for linking HACCP plans and public health. Buchanan RL, et al. **J Food Prot** 1998 Nov; 61(11):1531–4

Beliefs concerning contraceptive acquisition and use among low-income women. Sable MR, et al. **J Health Care Poor Underserved** 1998 Aug;9(3):262–75

Protecting the public's health: action or cliches? Klein SA. **J La State Med Soc** 1998 Dec;150(12):585–6

The evolution of an epidemiologist: a Unitarian–Universalist in public health. Tauxe RV. **J Med Assoc Ga** 1998 Nov; 87(4):305–8

Public health and bioethics. Lachmann PJ. **J Med Philos** 1998 Jun;23(3):297–302

Immunizations in pregnancy. A public health perspective. Hackley BK. **J Nurse Midwifery** 1999 Mar–Apr; 44(2):106–17 (37 ref.)

Athens Declaration for Healthy Cities. Avramopoulos D, et al. **J Public Health Med** 1998 Dec;20(4):372–4

Public health and primary care collaboration—a case study. Cornell SJ. **J Public Health Med** 1999 Jun;21(2):199–204

Know your limitations: not just for clinicians [editorial]] Jessop EG. **J Public Health Med** 1999 Mar;21(1):1–2

Translating research into practice: a personal case study. Madhok R. **J Public Health Med** 1999 Mar;21(1):3–7

Letter from South Africa: reflections of a public health physician–community clinics doctor in Sekekhuneland, South Africa [letter; comment] Patrick H. **J Public Health Med** 1998 Sep;20(3):365–6. Comment on: J Public Health Med 1997 Sep;19(3):360–1.

The submission from The Royal Society for the Promotion of Health on the communication from the Commission on the Development of Public Health Policy in the EC. **J R Soc Health** 1998 Oct;118(5):309–10

Emporiatric medicine—growing into the 21st century: from patient care to population care [editorial] Hargarten S. **J Travel Med** 1999 Jun;6(2):59

Proceedings of the 4th annual Margaret E Mahoney Symposium on the State of the Nation's Health. **J Urban Health** 1998 Dec;75(4):615–776

Accessing Useful Information: Challenges in Health Policy and Public Health. Proceedings of a national forum. March 23, 1998. **J Urban Health** 1998 Dec;75(4):777–895

Quality of public health information: lessons from the field. Bialek R. **J Urban Health** 1998 Dec;75(4):853–63 (9 ref.)

Meeting information needs in health policy and public health: priorities for the National Library of Medicine and The National Network of Libraries of Medicine. Humphreys BL. **J Urban Health** 1998 Dec;75(4):878–83 (4 ref.)

Strategies for addressing priority information problems in health policy and public health. Lasker RD. **J Urban Health** 1998 Dec;75(4):888–95 (0 ref.)

Challenges to accessing useful information in health policy and public health: an introduction to a national forum held at the New York Academy of Medicine, March 23, 1998. Lasker RD. **J Urban Health** 1998 Dec;75(4):779–84 (0 ref.)

The retrieval problem for health policy and public health: knowledge bases and search engines. Lynch C. **J Urban Health** 1998 Dec;75(4):794–806 (0 ref.)

Information needs in public health and health policy: results of recent studies. O'Carroll PW, et al. **J Urban Health** 1998 Dec;75(4):785–93 (3 ref.)

Information resources for public health practice. Rambo N. **J Urban Health** 1998 Dec;75(4):807–25 (8 ref.)

Meeting information needs in health policy and public health: roles for the Centers for Disease Control and Prevention. Ross D. **J Urban Health** 1998 Dec;75(4):884–7 (2 ref.)

From the Centers for Disease Control and Prevention. Impact of vaccines universally recommended for children—United States, 1900–1998. **JAMA** 1999 Apr 28; 281(16):1482–3

Health literacy: report of the Council on Scientific Affairs. Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, American Medical Association. **JAMA** 1999 Feb 10;281(6):552–7

Access to health information and support: a public highway or a private road? Eng TR, et al. **JAMA** 1998 Oct 21; 280(15):1371–5

FluNet as a tool for global monitoring of influenza on the Web. Flahault A, et al. **JAMA** 1998 Oct 21;280(15):1330–2

Violence, a neglected epidemic: call for papers [editorial] Flanagin A, et al. **JAMA** 1998 Dec 23–30;280(24):2121

Reporting of public health hazards or major advances—revision of uniform requirements [editorial] Glass RM. **JAMA** 1998 Dec 16;280(23):2035

Tobacco and alcohol use in G-rated children's animated films. Goldstein AO, et al. **JAMA** 1999 Mar 24–31; 281(12):1131–6

Anthrax as a biological weapon: medical and public health management. Working Group on Civilian Biodefense. Inglesby TV, et al. **JAMA** 1999 May 12;281(18):1735–45 (73 ref.)

Health literacy and the JAMA Patient Page [letter] Kellerman R, et al. **JAMA** 1999 Aug 11;282(6):525–6; discussion 526–7

Advisory board aims to develop pragmatic public health policies [news] Marwick C. **JAMA** 1999 Jan 27; 281(4):312–3

Public health targets teens' private acts [news] Mitka M. **JAMA** 1999 Jan 6;281(1):21–2

From the Food and Drug Administration. Nightingale SL. **JAMA** 1999 Feb 3;281(5):408

Health literacy and the JAMA Patient Page [letter] Roter D, et al. **JAMA** 1999 Aug 11;282(6):526–7

WebReview green monkeys—Pakistan Public Health Forum http://(/)www.greenmonkeys.net. Shah SM. **JPMA J Pak Med Assoc** 1998 Aug;48(8):258

Emerging health problems in the 21st century in the Asia-Pacific area. Symposium proceedings. Taipei, Taiwan, Republic of China. October 19–20, 1997. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999;15 Suppl:S3–99

The status and goal of the national public health program on accident prevention and control in Thailand. Santikarn C. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999;15 Suppl:S29–31

Risking the eclipse [editorial] **Lancet** 1999 Aug 7; 354(9177):439

An African solution [editorial] [see comments] **Lancet** 1999 Feb 20;353(9153):603. Comment in: Lancet 1999 May 1;353(9163):1530.

Slow drip of progress [letter] Green CW. **Lancet** 1999 Aug 14;354(9178):601–2

Rapid assessment, injecting drug use, and public health. Rhodes T, et al. **Lancet** 1999 Jul 3;354(9172):65–8 (32 ref.)

Privation and injustice in North Korea [letter] Swaan CM, et al. **Lancet** 1999 Feb 6;353(9151):503–4

Eliminating disparities, promoting partnerships. Satcher D. **Mayo Clin Proc** 1999 Aug;74(8):838–40

Effect of contamination of Sydney drinking water on hospital primary care presentations [letter] Bolton PG, et al. **Med J Aust** 1999 Mar 1;170(5):236

Melanoma in the elderly—a neglected public health challenge [letter; comment] Heenan PJ, et al. **Med J Aust** 1999 Apr 19;170(8):394–5. Comment on: Med J Aust 1998 Oct 19;169(8):403–4. Comment on: Med J Aust 1998 Oct 19;169(8):410–4.

Risky business: health risk assessment and public health policy on environmental carcinogens. Sim MR, et al. **Med J Aust** 1999 Apr 19;170(8):372–4 (15 ref.)

Healing the century of violence: towards sustainable peace [editorial] Wareham SJ, et al. **Med J Aust** 1999 Apr 19; 170(8):352–3

Helping victims of landmines. A public health approach. Kushner A, et al. **Minn Med** 1999 Jul;82(7):30–1

Impact of vaccines universally recommended for children—United States, 1990–1998. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2;48(12):243–8

Genes and environment: informing future public health decisions [news] Brooksbank C. **Mol Med Today** 1999 Jun; 5(6):236

Conjoint report to the North Carolina Medical Society and the North Carolina Commission for Health Services. McBride AD. **N C Med J** 1999 Mar–Apr;60(2):100–3

Human rights and health—the Universal Declaration of Human Rights at 50. Annas GJ. **N Engl J Med** 1998 Dec 10;339(24):1778–81

Meningococcal disease [letter] [published erratum appears in N Z Med J 1998 Oct 9;111(1075):395] Charlton R. **N Z Med J** 1998 Aug 28;111(1072):326–7

Italian changes are not surprising [letter] Benagiano G. **Nat Med** 1999 Sep;5(9):967

Health, development and economics. Drèze J. **Natl Med J India** 1999 Jan–Feb;12(1):2–5

Endocrine disrupter verdict left open [news] Macilwain C. **Nature** 1999 Aug 12;400(6745):607

The global burden of disease and the challenge of invisibility [editorial; comment] Tognoni G. **Nephrol Dial Transplant** 1998 Dec;13(12):3016–8. Comment on: Nephrol Dial Transplant 1998 Dec;13(12):3034–6.

Public health impact of carotid endarterectomy. Chaturvedi S. **Neuroepidemiology** 1999;18(1):15–21 (28 ref.)

Varicella: the vaccine and the public health debate. Niederhauser VP. **Nurse Pract** 1999 Mar;24(3):74–6, 79, 83–4 passim (54 ref.)

Communicating health risk. Nicholson PJ. **Occup Med (Lond)** 1999 May;49(4):253–6

Public health information via the World Wide Web [editorial] Newcomb RD. **Optom Vis Sci** 1999 Apr;76(4):183–4

Change the scope of practice of paramedics? An EMS/public health policy perspective. Bissell RA, et al. **Prehosp Emerg Care** 1999 Apr–Jun;3(2):140–9

Differences in self-reported health behaviors between public health professionals and support staff. Oleckno WA, et al. **Psychol Rep** 1999 Feb;84(1):127–34

Statement by the Royal Institute of Public Health and Hygiene and Society of Public Health for the inquiry on bovine spongiform encephalopathy (BSE). **Public Health** 1998 Nov;112(6):363–4

Response of the Royal Institute of Public Health and Hygiene and the Society of Public Health to the Green Paper: our healthier nation. Beaver MW. **Public Health** 1998 Sep; 112(5):283–5

European politicians need epidemiologists. O'Brien SJ, et al. **Public Health** 1998 Sep;112(5):287–8 (17 ref.)

Public health officials to get new communication tools [news] **Public Health Rep** 1999 Jan–Feb;114(1):12

Software, hardware, and data for new GIS users. **Public Health Rep** 1999 Jul–Aug;114(4):362–73

CDC targets arthritis, a leading cause of disability [news] **Public Health Rep** 1999 Mar–Apr;114(2):102

Center to review evidence of chemical threats to human reproduction [news] **Public Health Rep** 1999 Mar–Apr; 114(2):103

Cities need new drugs, diagnostic tests, and software to prepare for chemical, biological attacks [news] **Public Health Rep** 1999 Mar–Apr;114(2):106

Can a community inject public health values into transportation questions? Brugge D, et al. **Public Health Rep** 1999 Jan–Feb;114(1):40–7

The case for a partnership with self-help groups. Humphreys K, et al. **Public Health Rep** 1999 Jul–Aug;114(4):322–5, 328–9

Response on drug policy [letter; comment] McDonough JR. **Public Health Rep** 1999 Mar–Apr;114(2):99–100. Comment on: Public Health Rep 1999 Jan–Feb;114(1):14–29.

The indoor air we breathe. Oliver LC, et al. **Public Health Rep** 1998 Sep–Oct;113(5):398–409 (23 ref.)

Hoarding of animals: an under-recognized public health problem in a difficult-to-study population. Patronek GJ. **Public Health Rep** 1999 Jan–Feb;114(1):81–7

Geographic information systems and public health: mapping the future. Richards TB, et al. **Public Health Rep** 1999 Jul–Aug;114(4):359–60

Havana revisited. Robbins A. **Public Health Rep** 1999 Mar–Apr;114(2):183–5

Constructing violence as a public health problem. Winett LB. **Public Health Rep** 1998 Nov–Dec;113(6):498–507 (25 ref.)

Trial marriage: Florida's experience in consolidating HIV/AIDS, STD, and TB programs. Wroten JE, et al. **Public Health Rep** 1999 Jan–Feb;114(1):74–80

The nutrient-toxin dosage continuum in human evolution and modern health. Gerber LM, et al. **Q Rev Biol** 1999 Sep;74(3):273–89 (82 ref.)

Traffic-related air pollutants: exposure of road users and populations living near busy roads. van Wijnen JH, et al. **Rev Environ Health** 1998 Jan-Jun;13(1-2):1-25 (51 ref.)

Epidemiology and the European Commission [editorial] Chamouillet H. **Rev Epidemiol Sante Publique** 1998 Dec; 46(6):442-5 **(Eng, Fre)**

Public reliance on risk communication channels in the wake of a cryptosporidium outbreak. Griffin RJ, et al. **Risk Anal** 1998 Aug;18(4):367-75

Health risks of energy systems. Krewitt W, et al. **Risk Anal** 1998 Aug;18(4):377-83

Paradigmatic obstacles to improving the health of populations--implications for health policy. McKinlay JB. **Salud Publica Mex** 1998 Jul-Aug;40(4):369-79

Airborne lead and particulate levels in Semarang, Indonesia and potential health impacts. Browne DR, et al. **Sci Total Environ** 1999 Mar 9;227(2-3):145-54

Genetically modified food. Britain struggles to turn anti-GM tide [news] Gavaghan H. **Science** 1999 May 28; 284(5419):1442-4

The looming threat of bioterrorism. Henderson DA. **Science** 1999 Feb 26;283(5406):1279-82 (24 ref.)

Bioterror defense initiative injects shot of cash [news] Marshall E. **Science** 1999 Feb 26;283(5406):1234-5

Social capital and health: implications for public health and epidemiology. Lomas J. **Soc Sci Med** 1998 Nov; 47(9):1181-8 (40 ref.)

Critical reflections on the politics of need: implications for public health. Robertson A. **Soc Sci Med** 1998 Nov; 47(10):1419-30

A comparison of the private sector in Asia and Africa. Barnish G. **Southeast Asian J Trop Med Public Health** 1998 Jun;29(2):319-23

Role of the SEAMEO TROPMED Network in health human resources development. Southeast Asian Ministers of Education Organization. Tropical Medicine and Public Health. Chongsuphajaisiddhi T, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):299-310

Epidemiology of opisthorchiasis and national control program in Thailand. Jongsuksuntigul P, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):327-32

On the application of integer-valued time series models for the analysis of disease incidence. Cardinal M, et al. **Stat Med** 1999 Aug 15;18(15):2025-39

Histories of harm reduction: illicit drugs, tobacco, and nicotine. Berridge V. **Subst Use Misuse** 1999 Jan; 34(1):35-47

Differentiating drugs by harm potential: the rational versus the feasible. Kalant H. **Subst Use Misuse** 1999 Jan; 34(1):25-34

Reducing the harms of drug policy: an economic perspective. Rasmussen DW, et al. **Subst Use Misuse** 1999 Jan; 34(1):49-67

Bringing the public health approach to the problem of suicide. Satcher D. **Suicide Life Threat Behav** 1998 Winter; 28(4):325-7

Carrots, sticks and tuberculosis [editorial; comment] Coker RJ. **Thorax** 1999 Feb;54(2):95-6. Comment on: Thorax 1999 Feb;54(2):96-7.

Health care in refugee camps [editorial] Luxemburger C, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):129-30

Public health, public trust, and public decision making: making hepatitis C virus lookback work [editorial; comment] AuBuchon JP. **Transfusion** 1999 Feb;39(2):123-7 . Comment on: Transfusion 1999 Feb;39(2):188-93. Comment on: Transfusion 1999 Feb;39(2):194-200.

How unhealthy is migrating? [editorial; comment] Junghanss T. **Trop Med Int Health** 1998 Dec;3(12):933-4 (10 ref.). Comment on: Trop Med Int Health 1998 Dec;3(12):936-44.

Applying medical anthropology in the control of infectious disease [see comments] Manderson L. **Trop Med Int Health** 1998 Dec;3(12):1020-7 (60 ref.). Comment in: Trop Med Int Health 1998 Dec;3(12):993-5.

Urban health and household decision-making [editorial] Obrist van Eeuwijk B. **Trop Med Int Health** 1999 Feb; 4(2):77-8

Methodological triangulation in public health research - advancement or mirage? [editorial] Razum O, et al. **Trop Med Int Health** 1999 Apr;4(4):243-4

Food Standards Agency: call for further powers [news] **Vet Rec** 1999 Apr 10;144(15):394-5

BSE inquiry: phase 2 begins [news] **Vet Rec** 1999 Jun 26; 144(26):710

Caribbean Health Research Council 44th annual council and scientific meetings. Barbados, April 21-24, 1999. Abstracts. **West Indian Med J** 1999 Apr;48 Suppl 2:14-68

The New Public Health Challenges for the 21st Century. Proceedings of a seminar. Mona, Jamaica, July 1997. **West Indian Med J** 1998 Dec;47 Suppl 4:3-52

Society and public health: crisis and rebirth. Mann JM. **West J Med** 1998 Aug;169(2):118-21 (4 ref.)

Health in Europe 1997. Report on the third evaluation of progress towards health for all in the European Region of WHO (1996-1997). **WHO Reg Publ Eur Ser** 1998; 83:i-vii, 1-90

Alternative nicotine delivery systems (ANDS)--public health-aspects [see comments] Kunze U, et al. **Wien Klin Wochenschr** 1998 Dec 11;110(23):811-6. Comment in: Wien Klin Wochenschr 1998 Dec 11;110(23):809-10.

Elimination of leprosy as a public health problem (update). **Wkly Epidemiol Rec** 1998 Oct 2;73(40):308-12 **(Eng, Fre)**

Future trends in veterinary public health. **Wkly Epidemiol Rec** 1999 May 14;74(19):154-6 **(Eng, Fre)**

Public health and trade. Comparing the roles of 3 international organizations. **Wkly Epidemiol Rec** 1999 Jun 25;74(25):193-201 **(Eng, Fre)**

World trade: bringing health into the picture. Kinnon CM. **World Health Forum** 1998;19(4):397-406 (13 ref.)

Public health aspects of nutritional science in Estonia: status, research activities, and perspectives. Vokk R, et al. **Z Ernahrungswiss** 1998 Sep;37(3):221-6

[Quality of life assessment: from public health to dermatology (editorial)] Guillet G. **Ann Dermatol Venereol** 1999 Feb; 126(2):120-3 **(Fre)**

[Quality of life evaluation: public health aspects] Schwarzinger M, et al. **Ann Dermatol Venereol** 1999 Feb; 126(2):168-75 **(Fre)**

[Epidemiology and economic impact of heart failure in France] Delahaye F, et al. **Arch Mal Coeur Vaiss** 1998 Nov;91(11):1307-14 (Eng. Abstr.) **(Fre)**

[French National Institute for observation of prescriptions and consumption of medicines. Prescription and consumption of antibiotics in ambulatory care] Bouvenot G. **Bull Acad Natl Med** 1999;183(3):601-9; discussion 609-13 (14 ref.) (Eng. Abstr.) **(Fre)**

[The requisite internationalization of the campaign against smoking] Dubois G. **Bull Acad Natl Med** 1998; 182(5):939-50; discussion 951-3 (61 ref.) (Eng. Abstr.) **(Fre)**

[Chronic renal insufficiency. A permanent public health problem] Legrain M, et al. **Bull Acad Natl Med** 1999; 183(1):11-21; discussion 21-2 (Eng. Abstr.) **(Fre)**

[Folic acid supplementation by 200 microgram per day during the periconceptional period: a necessary public health approach to reducing incidence of spina bifida] Bradai R, et al. **Contracept Fertil Sex** 1999 Mar;27(3):238-42 (Eng. Abstr.) **(Fre)**

[Health safety from the point of view of a physician (editorial)] Houssin D. **J Chir (Paris)** 1998 Nov;135(5):202 **(Fre)**

[Medical responsibility of midwives in public and private maternity units. Results of a survey of 11 French regions] Blondel B. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Nov; 27(7):692-701 (Eng. Abstr.) **(Fre)**

[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of public health physicians] Lombrail P. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:191-6 (29 ref.) **(Fre)**

[Safe motherhood: is the initiative an orphan?] Weil O, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jun; 28(3):205-10 (21 ref.) (Eng. Abstr.) **(Fre)**

[Electromagnetic fields and public health] **J Pharm Belg** 1998 Sep-Oct;53(5):331-6 **(Fre)**

[Burkina Faso--a multitude of public health emergencies] Niakara A, et al. **Med Trop (Mars)** 1998;58(3):235-9 (11 ref.) **(Fre)**

[Bacterial antibiotic resistance: a public health challenge? (editorial)] Régnier B, et al. **Pathol Biol (Paris)** 1998 Apr; 46(4):209-12 **(Fre)**

[Catastrophe and public health: reasons for an impasse (editorial)] Dab W. **Presse Med** 1998 Sep 19;27(27):1385-6 (Eng. Abstr.) **(Fre)**

[Ontology and good practices in epidemiology. Guidelines. ADELF, ADEREST, AEEMA, EPITER] **Rev Epidemiol Sante Publique** 1999 Apr;47 Suppl 1:1S9-1S30 **(Fre)**

[In search for the threshold: variations on the decision-making role of epidemiologic surveillance (editorial)] Dab W, et al. **Rev Epidemiol Sante Publique** 1998 Sep;46(4):249-52 **(Fre)**

[Child health ... in the year 2001 (editorial)] Deschamps JP. **Rev Epidemiol Sante Publique** 1999 Mar;47(1):3-5 **(Fre)**

[Epidemiology and public health. Pursuing the clarification effort (editorial)] Ducimetière P. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):105-8 (15 ref.) **(Fre)**

[Information and disinformation. Repercussions on serious public health problems] Marchetti D. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S193-4 **(Fre)**

[Food allergy caused by peanuts: a public health problem (editorial)] Moneret-Vautrin DA, et al. **Rev Med Interne** 1999 Apr;20(4):319-21 **(Fre)**

[Smoking among women] Bartsch P. **Rev Med Liege** 1999 Apr;54(4):229-35 (Eng. Abstr.) **(Fre)**

[The epidemic of metabolic diseases, a major problem of public health] Scheen AJ. **Rev Med Liege** 1999 Feb; 54(2):87-94 (Eng. Abstr.) **(Fre)**

[When the capital defends its power] Nyffeler R. **Rev Med Suisse Romande** 1999 May;119(5):437-8 **(Fre)**

[Public health priorities] Chabot JM. **Rev Prat** 1998 Feb 15; 48(4):425-6 **(Fre)**

[Space, health and territory in the intertropical zone] Salem G. **Sante** 1998 Nov-Dec;8(6):419-20 **(Fre)**

[Diagnosis of health in a population and humanitarian actions: a practical guide] Baumann M, et al. **Sante Publique** 1999 Mar;11(1):63-75 (Eng. Abstr.) **(Fre)**

[An editorial challenge: the publication of public health activities] Deschamps JP, et al. **Sante Publique** 1998 Jun; 10(2):119-23 **(Fre)**

[From school health to national health education (editorial)] Halley des Fontaines V. **Sante Publique** 1998 Sep; 10(3):237-8 **(Fre)**

[A feasibility study of an Internet site on health conferences and regional health programs] Laplace L, et al. **Sante Publique** 1999 Mar;11(1):57-62 (Eng. Abstr.) **(Fre)**

[Citizen forums: a contribution to the "health democracy"? (editorial)] Laurent-Beq A. **Sante Publique** 1999 Mar; 11(1):3-4 **(Fre)**

[Good health according to the residents of the community] Laurent-Beq A. **Sante Publique** 1998 Jun;10(2):145-59 **(Fre)**

[Apropos of: Public health: ethics and human rights (comment)] Lazarus A. **Sante Publique** 1998 Sep; 10(3):251-5. Comment on: Sante Publique 1998 Sep;10(3):239-50. **(Fre)**

[Public health: ethics and human rights (see comments)] Mann J. **Sante Publique** 1998 Sep;10(3):239-50. Comment in: Sante Publique 1998 Sep;10(3):251-5. **(Fre)**

[Good health for the residents of the community] Stirling J. **Sante Publique** 1998 Jun;10(2):126-44 **(Fre)**

[A prerequisite to the development of community health: the mobilization of professionals and residents in Saint-Herblain] Stirling J. **Sante Publique** 1998 Jun; 10(2):161-9 (Eng. Abstr.) **(Fre)**

[Why has menopause become a public health problem?] Rozenbaum H. **Therapie** 1998 Jan-Feb;53(1):49-59 (47 ref.) (Eng. Abstr.) **(Fre)**

[Surveillance of the common food toxin infections (CFTI) in the Sousse area. A nine-year retrospective study] Saadi M, et al. **Tunis Med** 1998 Dec;76(12):448-54 **(Fre)**

[Blood and plasma product safety from the viewpoint of public health officials] Willkommen H. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Aug; 34(8):497-500 (15 ref.) **(Ger)**

[1997 Continuing education for physicians and social workers in the public health service. Augsburg, 27-29 October 1997. Proceedings] **Gesundheitswesen** 1998 Aug;60 Suppl 1:S1-58 **(Ger)**

[Assessment of risk and risk communication in environmental medicine] Fülgraff G. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S4-10 (Eng. Abstr.) **(Ger)**

[Neonatal hearing screening--consequences for public health policy] Henke KD, et al. **Gesundheitswesen** 1999 Feb; 61(2):86-92 (51 ref.) (Eng. Abstr.) **(Ger)**

[Public health research requirement in Germany--opinion of the German Society for Public Health (DGPH), June 1998] Siegrist J. **Gesundheitswesen** 1998 Nov;60(11):706-8 **(Ger)**

[Feeding of milk from cows with diseased udders to calves from the viewpoint of public health] Hässig M. **Schweiz Arch Tierheilkd** 1999;141(3):125-9 (0 ref.) (Eng. Abstr.) **(Ger)**

[Academic medicine--alternative medicine from the viewpoint of public health public health directors] Scherrer A. **Schweiz Rundsch Med Prax** 1998 Jul 22;87(29-30):934-8 **(Ger)**

[Health promotion--as a change of social systems] Hösli R. **Soz Praventivmed** 1998;43(5):229-38 (Eng. Abstr.) **(Ger)**

[The Annali di Igiene has obtained accreditation from the Società Italiana di Igiene, Medicina Preventiva e Sanità Pubblica (news)] **Ann Ig** 1999 Jan-Feb;11(1):1 **(Ita)**

[The use of biological markers for the study and prevention of chronic degenerative diseases. 3. Biomarkers in public health and preventive medicine] Donato F, et al. **Ann Ig** 1998 Sep-Dec;10(5-6):361-71 (41 ref.) (Eng. Abstr.) **(Ita)**

[Decision on the advice of the European Union relative to the adoption of community programs in the area of public health (1996-2000)] Neri M. **Boll Chim Farm** 1999 Mar; 138(3):41-3 **(Ita)**

[The 69th annual meeting of the Japanese Society for Hygiene. Chiba, Japan. March 24-27, 1999. Abstracts] **Nippon Eiseigaku Zasshi** 1999 Apr;54(1):1-445 **(Jpn)**

[Construction and its characteristic on the concept of a 'health culture'] Takizawa T. **Nippon Eiseigaku Zasshi** 1998 Jul;53(2):398-406 (42 ref.) (Eng. Abstr.) **(Jpn)**

[Japanese Society of Public Health membership list] **Nippon Koshu Eisei Zasshi** 1998 Oct;:1-430 **(Jpn)**

[The basic concepts of public health] Abe K. **Nippon Koshu Eisei Zasshi** 1998 Jun;45(6):475-86 **(Jpn)**

[Do public health practitioners have satisfactory access to important information sources?] Forsetlund L, et al. **Tidsskr Nor Laegeforen** 1999 Jun 30;119(17):2456-62 (Eng. Abstr.) **(Nor)**

[An enemy of the people--Ibsen as a teacher of public health] Frich JC. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4718-21 (Eng. Abstr.) **(Nor)**

[Climatic changes in Scandinavia--consequences for public health] Kanestrøm I. **Tidsskr Nor Laegeforen** 1999 Jan 30; 119(3):388-90 (Eng. Abstr.) **(Nor)**

[Public health work in connection with a new international airport] Smith A, et al. **Tidsskr Nor Laegeforen** 1998 Sep 30;118(23):3656-8 (7 ref.) (Eng. Abstr.) **(Nor)**

[Food, ecology and public health--over all boundaries?] Westin S. **Tidsskr Nor Laegeforen** 1998 Sep 20; 118(22):3483-7 (21 ref.) **(Nor)**

[State Institute of Occupational Medicine and public health] Jeljaszewicz J. **Rocz Panstw Zakl Hig** 1998;49 Suppl:113-22 **(Pol)**

[Policy and collective health: a reflection on scientific

production (1976–1992)] Burlandy L, et al. **Cad Saude Publica** 1998 Jul–Sep;14(3):543–54 (Eng. Abstr.) **(Por)**

[Work experience at the Yakutsk Urban Sanitary and Epidemiological Surveillance Center] Alekseev DA. **Gig Sanit** 1998 Sep–Oct;(5):69–70 **(Rus)**

[Experience at the State Sanitary and Epidemiological Surveillance Center in the Republic of Dagestan] Omarieva Ela, et al. **Gig Sanit** 1999 Jul–Aug;(4):53–5 **(Rus)**

[The hygienic tasks in support of the epidemiological–health wellbeing of the population at the current stage (editorial)] Onishchenko GG. **Gig Sanit** 1999 Jan–Feb;(1):3–8 **(Rus)**

[A model of sanitary–epidemiological service management based on the example of the Sverdlovsk region] Rudakov IuE, et al. **Gig Sanit** 1998 Sep–Oct;(5):65–7 **(Rus)**

[Metrological aspects of the study of physical characteristics of the air on the objects in the vicinity of the habitat] Meshcheriakov AIu. **Med Tekh** 1999 Jan–Feb;(1):43–6 (8 ref.) (Eng. Abstr.) **(Rus)**

[Information technologies in public health to simulate the processes of decision making based on medical monitoring data] Popova OB, et al. **Med Tekh** 1999 Mar–Apr;(2):26–8 (Eng. Abstr.) **(Rus)**

[Information system of the diagnostic x-ray service of the Moscow Public Health Committee] Zelikman MI. **Med Tekh** 1999 May–Jun;(3):38–9 (Eng. Abstr.) **(Rus)**

[Public and occupational health and industrial ecology] Agadzhanian NA, et al. **Med Tr Prom Ekol** 1999;(1):1–9 (Eng. Abstr.) **(Rus)**

[Status of staff policy and priority tasks of the Ministry of Health of the Russian Federation on its improvement in accordance with the Concept of Development of Public Health and Medical Science in the Russian Federation] Dmitrieva TB, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):11–3 **(Rus)**

[Problems of public health in the State Report on Health Status of the Population of the Russian Federation] Goncharenko VL, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):20–1 **(Rus)**

[Social–economic significance of the work potential in the development of public health] Koretskii VL, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):36–7 (Eng. Abstr.) **(Rus)**

[Approaches to determining the staff policy in public health: international experience] Shchepin OP, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):13–9 **(Rus)**

[Sociological study of the state and prospects of public health reform on a regional level] Tishuk EA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):3–7 **(Rus)**

[Biologically active additive from milk thistle in the solution of public health problems] Gil'miiarov EM, et al. **Vopr Pitan** 1998;(3):33–5 (Eng. Abstr.) **(Rus)**

[A decrease in harm: a new concept for Russian public health] Burrows D, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb;(1):107–8 (Eng. Abstr.) **(Rus)**

[Iodine deficiency and children's rights] Morreale de Escobar G, et al. **An R Acad Nac Med (Madr)** 1998;115(3):683–701; discussion 701–2 **(Spa)**

[Is all that glitters gold? (letter)] de Mateo S, et al. **Gac Sanit** 1998 Jul–Aug;12(4):191–2 **(Spa)**

[Internet and public health] Fernández E. **Gac Sanit** 1998 Jul–Aug;12(4):176–81 (Eng. Abstr.) **(Spa)**

[Gaceta Sanitaria: a messenger in the house of public health (editorial)] Plasència A. **Gac Sanit** 1999 Jan–Feb;13(1):4–5 **(Spa)**

[Tobacco advertising and public health (editorial)] Villalbí JR, et al. **Gac Sanit** 1998 Jul–Aug;12(4):151–2 **(Spa)**

[National Workshop on Health Surveillance, 25 October 1994. The opening words of Dr. Abelardo Ramírez Márquez (editorial)] Ramírez Márquez A. **Rev Cubana Med Trop** 1995;47(1):7–10 **(Spa)**

[Antibiotic treatment in animals has repercussions in humans.] Torres C, et al. **Rev Esp Quimioter** 1998 Mar;11(1):29–35 (75 ref.) **(Spa)**

[Risk of chemical disaster as a public health problem] Castro Delgado R, et al. **Rev Esp Salud Publica** 1998 Nov–Dec; 72(6):481–500 (33 ref.) (Eng. Abstr.) **(Spa)**

[Practice of medicine in the medico-social context in the year 2000] Cervera Soto S, et al. **Rev Esp Salud Publica** 1999 Jan–Feb;73(1):13–24 (Eng. Abstr.) **(Spa)**

[Immigration of foreigners into Spain. Public health considerations (editorial)] Jansà JM. **Rev Esp Salud Publica** 1998 May–Jun;72(3):165–8 **(Spa)**

[Compliance with human rights: primary indicator of public health (editorial)] Jiménez García-Pascual R. **Rev Esp Salud Publica** 1998 Nov–Dec;72(6):477–80 **(Spa)**

[Common mental disorders, depression and public health] Araya R, et al. **Rev Med Chil** 1998 May;126(5):582–9 (Eng. Abstr.) **(Spa)**

[WHO contribution to maternal and child health] Molina H. **Rev Med Chil** 1998 Jul;126(7 Suppl):54–60 (Eng. Abstr.) **(Spa)**

[Violence and public health] Pellegrini Filho A. **Rev Panam Salud Publica** 1999 Apr–May;5(4–5):219–21 **(Spa)**

[Essential functions of public health (editorial)] López Cervantes M, et al. **Salud Publica Mex** 1998 Nov–Dec; 40(6):467–8 **(Spa)**

[Public health research is a medical issue! (letter)] Kelly KB. **Lakartidningen** 1999 Mar 17;96(11):1288–9 **(Swe)**

[Sex in Sweden--population based survey. Changed sexual pattern mirrors trends in the society] Lundberg PO. **Lakartidningen** 1999 Apr 21;96(16):1991–2, 1995–6 (Eng. Abstr.) **(Swe)**

[Health care within the research program of the EU for 1999–2002: age-related diseases and public health are prioritized] Olsson S. **Lakartidningen** 1999 Apr 28; 96(17):2108–10 **(Swe)**

[The main trends in the reform of the surgical services in the regional administration, improvement of the quality and efficacy of surgical services to the population] Petrenko VIu. **Klin Khir** 1999;(4):46 **(Ukr)**

[The cause-and-effect validation of the definitions for a "state system of public health" and of a "public health for the population"] Deĭkun MP. **Lik Sprava** 1998 Jun;(4):157–61 **(Ukr)**

[The results of the scientific activities of the institutions under the jurisdiction of the Ministry of Public Health] Kartysh AP, et al. **Lik Sprava** 1998 Oct–Nov;(7):6–10 (Eng. Abstr.) **(Ukr)**

ECONOMICS

Where there's smoke [letter] Bryant B. **CMAJ** 1999 May 4; 160(9):1287

'Our healthier nation'? [editorial] Contoyannis P, et al. **Health Econ** 1999 Jun;8(4):289–96

Maintaining public health into the 21st century: the impact of poverty, privatization, and politics. Sidel VW. **Int J Circumpolar Health** 1998;57 Suppl 1:19–22

1999 MSMS Foundation annual report. Doctors, you made a difference! Paxton RE. **Mich Med** 1999 Mar;98(3):19–23

Researching harm reduction--care and contradictions. Hamilton M. **Subst Use Misuse** 1999 Jan;34(1):119–41

[Economics and ethics in public health?] Blum R. **Gesundheitswesen** 1999 Jan;61(1):1–7 (Eng. Abstr.) **(Ger)**

[Current concepts of economic interrelationships in the public health system] Livshits AA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):34–7 **(Rus)**

EDUCATION

Creating training opportunities for public health practitioners. Greene D, et al. **Am J Prev Med** 1999 Apr; 16(3 Suppl):80–5 (18 ref.)

Reinventing the field training experience: building a practical and effective graduate program at the UCLA School of Public Health. Chickering KL, et al. **Am J Public Health** 1999 Apr;89(4):596–7

Ethics instruction at schools of public health in the United States. Association of Schools of Public Health Education Committee. Coughlin SS, et al. **Am J Public Health** 1999 May;89(5):768–70

The need for mentoring in public health [letter] Mahayosnand PP, et al. **Am J Public Health** 1999 Aug;89(8):1262–3

Minimum competencies for public health personnel. Loos GP. **Asia Pac J Public Health** 1995;8(3):195–200

Linking public health education and practice: the Australian experience. Rotem A, et al. **Asia Pac J Public Health** 1998; 10(1):17–20 (10 ref.)

Straussenhaltung in Deutschland / Straussenfleisch aus Namibia--ein Fallbeispiel. [Ostrich husbandry in Germany / ostrich meat from Namibia - a case study] Hildebrandt G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Apr; 112(4):146–52

Tracing the evolution of critical evaluation skills in students' use of the Internet. Blumberg P, et al. **Bull Med Libr Assoc** 1999 Apr;87(2):200–5

Report of workshop on organization of leprosy services under low-endemic conditions. Saunderson P. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):574–5

Self-assessment of competence in public health management as a measure of effectiveness of postgraduate training. Indulski JA, et al. **Int J Occup Med Environ Health** 1999; 12(1):15–27

Teaching public health to medical students in the United Kingdom--are the General Medical Council's recommendations being implemented? Edwards R, et al. **J Public Health Med** 1999 Jun;21(2):150–7

The clinical epidemiology ward round: can we teach public health medicine at the bedside? Stone DH. **J Public Health Med** 1998 Dec;20(4):377–81

Public health informatics: a CDC course for public health program managers. O'Carroll PW, et al. **Proc AMIA Symp** 1998;:472–6

The schools of public health and practice: where we stand. **Public Health Rep** 1999 Mar–Apr;114(2):194–7

"Controversies in epidemiology", teaching causality in context at the University at Albany, School of Public Health. Armstrong D. **Scand J Public Health** 1999 Jun; 27(2):81–4

Teaching social inequalities in health: barriers and opportunities. Muntaner C. **Scand J Public Health** 1999 Sep;27(3):161–5 (58 ref.)

Global health leadership officer programme. Call for applications. **Wkly Epidemiol Rec** 1999 Apr 2;74(13):97 **(Eng, Fre)**

[What do interns in Public Health of Ile-de-France (IDF) do during their internship?] Perrillat F, et al. **Rev Epidemiol Sante Publique** 1999 Mar;47(1):90–2 **(Fre)**

[Address of Robert Debré. II–The faculty] Chabot JM. **Rev Prat** 1998 Oct 1;48(15):1679–80 **(Fre)**

[Information strategy for physicians and public health regarding introduction of general hepatitis B vaccination in Switzerland] Bourquin C, et al. **Soz Praventivmed** 1998; 43 Suppl 1:S72–4, S146–8 (Eng. Abstr.) **(Ger, Fre)**

[Towards the institution of an "epidemiological statistical" discipline in the public health area. The Associazione Italiana di Epidemiologia (news)] **Epidemiol Prev** 1998 Oct–Dec;22(4):250 **(Ita)**

[Establishment of "epidemiological statistics" as a discipline in the national health sector. Opinions: Italian Epidemiological Association] **Epidemiol Prev** 1999 Jan–Mar;23(1):54–6 **(Ita)**

[Teaching hygiene and public health with student facilitators an attempt to enhance student participation] Yano E, et al. **Nippon Koshu Eisei Zasshi** 1999 Aug;46(8):644–9 (Eng. Abstr.) **(Jpn)**

[The role of public health schools in the training of occupational medicine specialists in the United States of America] Mikulski M. **Med Pr** 1998;49(5):493–9 (Eng. Abstr.) **(Pol)**

HISTORY

The relation of the milk supply to infant mortality. 1906 [classical article] Knox JH Jr. **Am J Public Health** 1999 Mar;89(3):408–11

A vision of social justice as the foundation of public health: commemorating 150 years of the spirit of 1848. Krieger N, et al. **Am J Public Health** 1998 Nov;88(11):1603–6

Public health developments in colonial Malaya: colonialism and the politics of prevention. Manderson L. **Am J Public Health** 1999 Jan;89(1):102–7

Public health versus private practice: the contested development of compulsory infectious disease notification in late-nineteenth-century Britain. Mooney G. **Bull Hist Med** 1999 Summer;73(2):238–67

Supporting our friends, the American Public Health Association, Vision Care Section [editorial] Silverman MW. **J Am Optom Assoc** 1998 Dec;69(12):755–7

1997 Chadwick Lecture--is a healthy north west region achievable in the 21st century. Ashton J. **J Epidemiol Community Health** 1999 Jun;53(6):370–82

High rates and a healthy city [editorial] Sheard S. **J Epidemiol Community Health** 1999 Jun;53(6):324

Mississippi's medical giant: Felix Joel Underwood (1882–1959), the man who saved a million lives. Lampton LM. **J Miss State Med Assoc** 1999 Sep;40(9):320–6

The development of public health medicine [editorial] Donaldson LJ. **J R Coll Physicians Lond** 1998 Jul–Aug; 32(4):296–301

Historical perspectives on health. Aspects of public health up to Chadwick. Dickerson JW. **J R Soc Health** 1998 Jun; 118(3):182–5

Dr. David E. Rogers and his legacy: the Robert Wood Johnson Health Policy Fellowship. Greenberg RM, et al. **J Urban Health** 1999 Mar;76(1):10–7

Public health in Celtic Britain [letter] Hunter D. **Lancet** 1999 Mar 20;353(9157):1020

Origins of APHA's Medical Care Section. American Public Health Association. Roemer MI. **Med Care** 1999 Aug; 37(8):831–2

Twenty-five years of public health. Ziskin LZ. **N J Med** 1999 Sep;96(9):45–7

A review of the Society of Public Health between January 1989 and September 1997. Gardner PA. **Public Health** 1998 Nov;112(6):365–70; discussion 371

The Kansas City Field Station, 1950–1973. Chin TD. **Public Health Rep** 1999 Jul–Aug;114(4):377–80

All quiet on the third coast: medical inspections of immigrants in Michigan. Stern AM, et al. **Public Health Rep** 1999 Mar–Apr;114(2):178–82

Epidemics and public health in early colonial Somaliland. Mohamed J. **Soc Sci Med** 1999 Feb;48(4):507–21

Rapid economic growth and 'the four Ds' of disruption, deprivation, disease and death: public health lessons from nineteenth-century Britain for twenty-first-century China? Szreter S. **Trop Med Int Health** 1999 Feb;4(2):146–52

Forty years. An introduction to the development of a Caribbean public health. McCaw-Binns AM, et al. **West Indian Med J** 1998 Dec;47 Suppl 4:8–12

[The risk in epidemiology and in public health: risk management. 1988 (classical article)] Schwartz D. **Rev Epidemiol Sante Publique** 1998 Dec;46(6):541–4 **(Fre)**

[The beginning of public health] Mino JC. **Rev Prat** 1998 Sep 1;48(13):1402–4 **(Fre)**

[Public health in Debrecen under the Kossuth regime] Szállási A. **Orv Hetil** 1999 Jan 24;140(4):200–2 **(Hun)**

[Hygiene and public health in Italy. From an imposed solution to informed consent] Cosmacini G. **Ann Ig** 1998 Sep–Dec;10(5–6):293–6 (Eng. Abstr.) **(Ita)**

[Health Commission's activity and public health work in Skien and Langesund 1861–1900] Storesund A. **Tidsskr Nor Laegeforen** 1999 Mar 20;119(8):1106–11 (Eng. Abstr.) **(Nor)**

[Alice Hamilton (1869–1970): a pioneer of occupational medicine and public health] Kowalska M, et al. **Med Pr** 1999;50(1):67–73 (Eng. Abstr.) **(Pol)**

[The 80th anniversary of the National Institute of Hygiene in Warsaw (editorial)] Jeljaszewicz J. **Przegl Epidemiol** 1998;52(3):219–26 **(Pol)**

[Public health matters in the early-Capitalistic period (XVII-XIX century)] Sadowska J. **Przegl Lek** 1998; 55(6):354-6 (Eng. Abstr.) **(Pol)**

[Noteworthy and anniversary dates of the history of hygiene and sanitation in 1998] Mirskiĭ MB. **Gig Sanit** 1998 Sep-Oct; (5):71-3 **(Rus)**

[Significant and anniversary dates of the history of hygiene and sanitation in 1999] Mirskiĭ MB. **Gig Sanit** 1999 Jul-Aug; (4):74-6 **(Rus)**

[History of the development of public hygiene in Russia] Nushtaev IA. **Gig Sanit** 1999 Jul-Aug;(4):76-8 **(Rus)**

[Z. P. Solov'ev--a prominent figure in zemstvo medicine] Belov SI. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug; (4):56-8 **(Rus)**

[The work of the zemstvo doctor according to the recollections of S. S. Iudin] Ponurova VN. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):58-61 **(Rus)**

[Financing of public health institutions in Byelarus in the 1920's] Tishchenko EM. **Probl Sotsialnoi Gig Istor Med** 1998 May-Jun;(3):60-3 **(Rus)**

[Medical care and environmental hygiene in Mexico City from the 16th through the 18th century (see comments)] Rodriguez ME, et al. **Gac Med Mex** 1999 Mar-Apr; 135(2):189-98 (Eng. Abstr.). Comment in: Gac Med Mex 1999 May-Jun;135(3):361. **(Spa)**

LEGISLATION & JURISPRUDENCE

The role of government in controlling the HIV epidemic [letter] Gordon N. **Am Fam Physician** 1999 Jun;59(11):2983

Comment: the past and future of national comprehensive tobacco control legislation [see comments] Akhter MN, et al. **Am J Public Health** 1998 Nov;88(11):1606-7. Comment in: Am J Public Health 1999 Aug;89(8):1273. Comment in: Am J Public Health 1999 Aug;89(8):1273-4.

Burden of proof: judging science and protecting public health in (and out of) the courtroom [see comments] Annas GJ. **Am J Public Health** 1999 Apr;89(4):490-3 (32 ref.). Comment in: Am J Public Health 1999 Apr;89(4):487-9.

The "sausage factory" tour of the legislative process: an interactive orientation. Novotny TE, et al. **Am J Public Health** 1999 May;89(5):771-3

Lobbying and advocacy for the public's health: what are the limits for nonprofit organizations? Vernick JS. **Am J Public Health** 1999 Sep;89(9):1425-9 (31 ref.)

Saving lives or sustaining the public's health? [editorial] Fulop N, et al. **BMJ** 1999 Jul 17;319(7203):139-40

UK public health plan aims to save 300 000 lives in next decade [news] Mayor S. **BMJ** 1999 Jul 10;319(7202):73

Xenotransplantation and public health: identifying the legal issues. Florencio PS, et al. **Can J Public Health** 1999 Jul-Aug;90(4):282-4 (32 ref.)

Key tobacco tax references and resources. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2773-4

Evaluation: methods and strategy for evaluation--Massachusetts. Celebucki C, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2760-5

The onward march of European public health [editorial] Birt CA. **J Epidemiol Community Health** 1998 Dec;52(12):770-1

Freedom of information, strongly held views and waiting lists [editorial] Milner PC. **J Public Health Med** 1998 Sep; 20(3):247-8

The Scottish Green Paper: beyond a healthy mind in a healthy body. Tannahill A. **J Public Health Med** 1998 Sep; 20(3):249-52

Reform of legislation covering deliberate transmission of infectious disease [news] Shaw A. **J R Soc Health** 1998 Apr;118(2):73

Detention of potentially dangerous people [editorial] [see comments] **Lancet** 1998 Nov 21;352(9141):1641. Comment in: Lancet 1999 Jan 23;353(9149):329-30.

The tobacco settlement: briefing for physicians. Nolan PA. **Med Health R I** 1999 Feb;82(2):66-7

State laws on tobacco control--United States, 1998. Fishman JA, et al. **Mor Mortal Wkly Rep CDC Surveill Summ** 1999 Jun 25;48(3):21-40

A year of living dangerously: the tobacco control community meets the global settlement. Bloch M, et al. **Public Health** 1998 Nov-Dec;113(6):488-97

Limit children's work hours, report says [news; comment] **Public Health Rep** 1999 Mar-Apr;114(2):105. Comment on: Public Health Rep 1999 Mar-Apr;114(2):126-9.

A year of living dangerously: the tobacco control community meets the global settlement. Bloch M, et al. **Public Health Rep** 1998 Nov-Dec;113(6):488-97

The role of the police power in 21st century public health [editorial] Richards EP 3rd, et al. **Sex Transm Dis** 1999 Jul;26(6):350-7

Reform of the Public Health Act [letter] Van den Bosch C, et al. **Thorax** 1999 Aug;54(8):750

State laws on youth access to tobacco in the United States: measuring their extensiveness with a new rating system [see comments] Alciati MH, et al. **Tob Control** 1998 Winter; 7(4):345-52. Comment in: Tob Control 1998 Winter;7(4):333-5.

[Public health in a new coalition agreement (letter; comment)] Burgersdijk C. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2062-3. Comment on: Ned Tijdschr Geneeskd 1998 Jun 20;142(25):1429-31. **(Dut)**

[Communicable diseases law: new legislation for infectious disease control] Dute JC, et al. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1049-53 (Eng. Abstr.) **(Dut)**

[Public health in a new coalition agreement] Vosmer AM, et al. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2063 **(Dut)**

[Revision of public health safety measures] Hors J, et al. **Presse Med** 1998 Nov 7;27(34):1737-8 (Eng. Abstr.) **(Fre)**

[The National Health Conference and the financial laws of Social Security] Chabot JM. **Rev Prat** 1999 Feb 1; 49(3):291-2 **(Fre)**

[Social jurisdiction] Schweinlin HJ. **Dtsch Med Wochenschr** 1999 Jan 22;124(3):62-3 **(Ger)**

[Medical management of homeless persons] Leidel I, et al. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S41-6 (Eng. Abstr.) **(Ger)**

[Common goal determination in occupational health--experiences in North-Rhine Westphalia with a system of health conferences] Sendler H. **Gesundheitswesen** 1998 Jul;60(7):456-61 **(Ger)**

[The new law concerning public health services in North Rhine- Westphalia--essentials and perspectives in dentistry] Wolf M, et al. **Gesundheitswesen** 1999 May; 61(5):260-2 (6 ref.) (Eng. Abstr.) **(Ger)**

[Health promotion and prevention in the Lucerne canton--1995 analysis and prospects] Mütsch M, et al. **Soz Praventivmed** 1998;43(5):247-53 (Eng. Abstr.) **(Ger)**

[A project of the Ministry of Health for iodine prophylaxis in Italy: Salt in food for the prophylaxis of iodine deficiency and the prevention of hypertension] Marabelli R, et al. **Ann Ist Super Sanita** 1998;34(3):367-70 (Eng. Abstr.) **(Ita)**

[Survey of public health services] Pavlica P. **Radiol Med (Torino)** 1999 Apr;97(4):296-302 **(Ita)**

[A review of the European community directives relating to materials and articles intended to come into contact with food products in the light of Polish legislation] Cwiek-Ludwicka K, et al. **Rocz Panstw Zakl Hig** 1998; 49(2):121-36 (Eng. Abstr.) **(Pol)**

[A determination of iodides in salts: a validation of methods] Drobnik M, et al. **Rocz Panstw Zakl Hig** 1998;49(2):169-76 (Eng. Abstr.) **(Pol)**

[The review of the European Union documents relating to contamination of aflatoxins in food] Postupolski J, et al. **Rocz Panstw Zakl Hig** 1999;50(1):57-67 (Eng. Abstr.) **(Pol)**

MANPOWER

Public health professionals in the Midwest: a profile of connectivity and information technology skills. Hollander SM, et al. **Bull Med Libr Assoc** 1999 Jul;87(3):329-36

[The quality of professional life and the pride in working in public health. The results of a survey] Clúa Espuny JL, et al. **Aten Primaria** 1998 Sep 30;22(5):308-13 (Eng. Abstr.) **(Spa)**

METHODS

Latency analysis in epidemiologic studies of occupational exposures: application to the Colorado Plateau uranium miners cohort. Langholz B, et al. **Am J Ind Med** 1999 Mar; 35(3):246-56

Philippine plan to cut diarrhoea deaths [news] Easton A. **BMJ** 1999 Jul 10;319(7202):75

The state of health and provision of health care in Hong Kong. Morley AP, et al. **Hosp Med** 1998 Jun;59(6):457-60 (19 ref.)

Psychological health and well-being: why and how should public health specialists measure it? Part 1: Rationale and methods of the investigation, and review of psychiatric epidemiology. Bartlett CJ, et al. **J Public Health Med** 1998 Sep;20(3):281-7

Psychological health and well-being: why and how should public health specialists measure it? Part 2: Stress, subjective well-being and overall conclusions. Bartlett CJ, et al. **J Public Health Med** 1998 Sep;20(3):288-94

Improving health outcomes--a review of case studies from English health authorities. McColl A, et al. **J Public Health Med** 1998 Sep;20(3):302-11 (24 ref.)

Applications of the case/multicase SAR method to environmental and public health situations. Rosenkranz HS, et al. **SAR QSAR Environ Res** 1999;10(2-3):263-76 (34 ref.)

Introduction: the three phases of harm reduction. An examination of emerging concepts, methodologies, and critiques. Erickson PG. **Subst Use Misuse** 1999 Jan; 34(1):1-7

A framework for the evaluation of activities and programs with harm-reduction objectives. Ogborne AC, et al. **Subst Use Misuse** 1999 Jan;34(1):69-82

Harm reduction: concepts and practice. A policy discussion paper. Riley D, et al. **Subst Use Misuse** 1999 Jan;34(1):9-24

[Roaming through methodology. V. The prevention paradox: few with a high risk versus many with a moderate risk (see comments)] Gunning-Schepers LJ. **Ned Tijdschr Geneeskd** 1998 Aug 15;142(33):1870-3 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 7;142(45):2488. **(Dut)**

[More information on infectious diseases provided by a national information system] Sprenger MJ, et al. **Ned Tijdschr Geneeskd** 1998 Aug 22;142(34):1923-6 (Eng. Abstr.) **(Dut)**

ORGANIZATION & ADMINISTRATION see PUBLIC HEALTH ADMINISTRATION

STANDARDS

The quality of medical information on the Internet. A new public health concern [editorial] McLeod SD. **Arch Ophthalmol** 1998 Dec;116(12):1663-5 (19 ref.)

Measuring the performance of public health agencies. Government, like doctors and hospitals, should meet quality standards [editorial] Davis RM. **BMJ** 1999 Apr 3; 318(7188):889-90

Daily mortality and air pollution in Santa Clara County, California: 1989-1996. Fairley D. **Environ Health Perspect** 1999 Aug;107(8):637-41

Circumpolar health: science and health--what is missing? Foege W. **Int J Circumpolar Health** 1998;57 Suppl 1:15-8

Tuberculosis control and directly observed therapy from the public health/human rights perspective. Hurtig AK, et al. **Int J Tuberc Lung Dis** 1999 Jul;3(7):553-60 (62 ref.)

The Bouchier report--a recommendation too far? Cunningham R. **J Hosp Infect** 1999 Apr;41(4):261-2

Racial bias in federal nutrition policy, Part I: The public health implications of variations in lactase persistence. Bertron P, et al. **J Natl Med Assoc** 1999 Mar;91(3):151-7 (52 ref.)

The healthy city. Taggart SC. **J R Coll Physicians Lond** 1998 Nov-Dec;32(6):568-71 (6 ref.)

Belgian food crisis deepens [news] **Vet Rec** 1999 Jun 12; 144(24):654

[Guidelines and standards for Public Health Service: challenge and orientation for the future?] Brand A, et al. **Gesundheitswesen** 1998 Nov;60(11):701-5 (Eng. Abstr.) **(Ger)**

[Quality of life and well-being in a housing project in Berlin--experiences gained in cooperation between a community health promotion office and a university-based public health project] Gottwald S, et al. **Gesundheitswesen** 1999 May;61(5):234-40 (Eng. Abstr.) **(Ger)**

[The "Duisgurg model" of intensified control of nursing homes and homes for the aged by the Duisberg public health services in cooperation with the Duisburg social welfare offices] Martin U, et al. **Gesundheitswesen** 1999 Jul; 61(7):337-9 (Eng. Abstr.) **(Ger)**

[Public health advocate. Interview of Hanna Lewandowska with Prof. Janusz Jeljaszewicz] Jeljaszewicz J. **Rocz Panstw Zakl Hig** 1998;49 Suppl:129-34 **(Pol)**

[The test exam as a stage in final state certification and the tasks in its improvement] Kirillov VF, et al. **Gig Sanit** 1999 Jan-Feb;(1):69-71 **(Rus)**

[Paradigm as a methodological approach to analyzing Russia's public health system] Shchepin OP, et al. **Vestn Ross Akad Med Nauk** 1998;(10):38-41 (5 ref.) (Eng. Abstr.) **(Rus)**

[Promotion of public health research: attempting to balance relevance and excellence] de los Ríos R. **Rev Panam Salud Publica** 1999 Apr-May;5(4-5):309-15 (Eng. Abstr.) **(Spa)**

STATISTICS & NUMERICAL DATA

Mental health expectancy: an indicator to bridge the gap between clinical and public health perspectives of population mental health. Gispert R, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):182-6

The public health impact of anxiety disorders: a WHO perspective. Costa e Silva JA. **Acta Psychiatr Scand Suppl** 1998;393:2-5

Place effects for areas defined by administrative boundaries. Boyle MH, et al. **Am J Epidemiol** 1999 Mar 15; 149(6):577-85

Lessons from 12 years of comparative risk projects. Jones K, et al. **Annu Rev Public Health** 1999;20:159-72 (34 ref.)

The social environment and health: a discussion of the epidemiologic literature. Yen IH, et al. **Annu Rev Public Health** 1999;20:287-308 (127 ref.)

The American Cancer Society challenge goals. How far can cancer rates decline in the U.S. by the year 2015? Byers T, et al. **Cancer** 1999 Aug 15;86(4):715-27

Violence as a public health emergency. Scott JL. **Emerg Med Clin North Am** 1999 Aug;17(3):567-73, v (17 ref.)

Veterinarians at WHO work to improve public health [news] **J Am Vet Med Assoc** 1998 Nov 1;213(9):1243

A call to arms: the emergency physician, international perspectives on firearm injury prevention and the Canadian gun control debate. Fisher H, et al. **J Emerg Med** 1999 May-Jun;17(3):529-37

Violence in America: a public health crisis--domestic violence. Sisley A, et al. **J Trauma** 1999 Jun;46(6):1105-12; discussion 1112-3 (70 ref.)

Public health burden of coronary heart disease risk factors among middle-aged and elderly men. Haapanen-Niemi N, et al. **Prev Med** 1999 Apr;28(4):343-8

Medicaid managed care and public health data. Rutherford GW, et al. **Public Health Rep** 1999 May-Jun;114(3):225-30 (25 ref.)

The health status of the Singaporean population as measured by a multi-attribute health status system. Wang Q, et al. **Singapore Med J** 1999 Jun;40(6):389-96

[Public health status and perspectives' 1997. IV. Health status and life expectancy weighted] Kramers PG, et al. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1277-80 (Eng. Abstr.) **(Dut)**

[Community health reporting exemplified by the city of

Nürnberg] Gürtler C, et al. **Gesundheitswesen** 1998 Jul; 60(7):431–8 (Eng. Abstr.) **(Ger)**

[TEIS—a system for public health offices for assessing, presenting, evaluating and communicating data on the quality of drinking water] Henke A, et al. **Gesundheitswesen** 1999 May;61(5):248–51 (Eng. Abstr.) **(Ger)**

[Development of an epidemiologically based health reporting system] Wildner M, et al. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S11–4 (Eng. Abstr.) **(Ger)**

[Bibliometric indicators, subjects analysis and methodology of research published in Spain on epidemiology and public health care (1988–1992)] Alvarez Solar M, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):529–35 (Eng. Abstr.) **(Spa)**

[The balance for 1998] Oropeza-Abúndez C, et al. **Salud Publica Mex** 1999 Jan–Feb;41(1):62–3 **(Spa)**

TRENDS

Improving the health of the American public requires a broad research agenda. Schroeder SA. **Acad Med** 1999 May; 74(5):530–1

Reflections on the role of the World Health Organization in the twenty-first century [editorial] Kesteloot H. **Acta Cardiol** 1999 Feb;54(1):1–2

The shape of our river. Healton CG. **Am J Prev Med** 1999 Apr;16(3 Suppl):1–4 (6 ref.)

Mind matters: the importance of mental disorders in public health's 21st century mission [editorial; comment] Neugebauer R. **Am J Public Health** 1999 Sep;89(9):1309–11 (30 ref.). Comment on: Am J Public Health 1999 Sep;89(9):1315–8.

Scales of geography, time, and population: the study of violence as a public health problem. Wallace D, et al. **Am J Public Health** 1998 Dec;88(12):1853–8

Public health in the twentieth century: advances and challenges. Fielding JE. **Annu Rev Public Health** 1999; 20:xiii–xxx (42 ref.)

Health education's contributions to public health in the twentieth century: a glimpse through health promotion's rear-view mirror. Green LW. **Annu Rev Public Health** 1999;20:67–88 (125 ref.)

A future for epidemiology? Schwartz S, et al. **Annu Rev Public Health** 1999;20:15–33 (85 ref.)

The Asian currency crisis and public health: poverty and health revisited [editorial] Binns C, et al. **Asia Pac J Public Health** 1998;10(1):1–4 (17 ref.)

Public health issues for the 21st century [editorial] Baum F. **Aust N Z J Public Health** 1999 Apr;23(2):115–6 (13 ref.)

Divisions of population health: quantum leap forward or rearranging the deckchairs? Sainsbury P. **Aust N Z J Public Health** 1999 Apr;23(2):119–25 (30 ref.)

A modern public health crisis: a physician speaks about healthcare in post-Glasnost Russia [interview by Steve Heilig] **Camb Q Healthc Ethics** 1999 Spring;8(2):257–8

Health surveillance: changing needs, constant function [editorial] Wigle D, et al. **Can J Public Health** 1999 May–Jun;90(3):149–51, 155, 180 passim **(Eng, Fre)**

Safe drinking water: a public health challenge. Wigle DT. **Chronic Dis Can** 1998;19(3):103–7 (36 ref.)

Gun control as a public health issue [editorial] DeCherney GS. **Del Med J** 1999 May;71(5):229–33

Research management in the Great Lakes and St. Lawrence River basins: challenges and opportunities. De Rosa CT, et al. **Environ Res** 1999 Apr;80(3):274–9

Environment, health, and gender in Latin America: trends and research issues. Wasserman E. **Environ Res** 1999 Apr; 80(3):253–73 (103 ref.)

Presidential address. IPHA. Indian Public Health Association. Srivastava VK. **Indian J Public Health** 1998 Jul–Sep;42(3):62–5

The use of public health approaches in mental health programmes. Sartorius N. **Int Clin Psychopharmacol** 1999 Jun;14 Suppl 3:S1–5 (3 ref.)

A public health perspective on the evaluation of subsistence food safety. Egeland GM, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:572–5 (23 ref.)

Maintaining public health into the 21st century: the impact of poverty, privatization, and politics. Sidel VW. **Int J Circumpolar Health** 1998;57 Suppl 1:19–22

ICN on healthy ageing: a public health and nursing challenge. **Int Nurs Rev** 1999 Mar–Apr;46(2):60–1

The expiry date of man: a synthesis of evolutionary biology and public health. Bonneux L, et al. **J Epidemiol Community Health** 1998 Oct;52(10):619–23

Public health: where should we be in 10 years? [editorial] [see comments] Holland WW, et al. **J Epidemiol Community Health** 1998 May;52(5):278–9. Comment in: J Epidemiol Community Health 1999 Feb;53(2):128.

For debate: public health leadership—do we have it? Do we need it? Grainger C, et al. **J Public Health Med** 1998 Dec;20(4):375–6

The roles and responsibilities of local public health systems in urban health. Baxter RJ. **J Urban Health** 1998 Jun; 75(2):322–9

Toward implementation of an agenda. Rosenfield A. **J Urban Health** 1998 Jun;75(2):408–11

From the Centers for Disease Control and Prevention. Ten great public health achievements—United States, 1900–1999. **JAMA** 1999 Apr 28;281(16):1481

Averting a malaria disaster [letter; comment] Konotey-Ahulu FI. **Lancet** 1999 Jul 17;354(9174):258. Comment on: Lancet 1999 Jun 5;353(9168):1965–7.

The Medical Care Section 1994–2005: reflections of our past and future. Fein O. **Med Care** 1999 Aug;37(8):837–41

The Medical Care Section: contending with the forces of progress and retrogression, 1965–1994. Milio N. **Med Care** 1999 Aug;37(8):833–6

Ten great public health achievements—United States, 1900–1999. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2; 48(12):241–3

Allergy—a public health issue: when should governments act? [editorial] Warner JO. **Pediatr Allergy Immunol** 1999 Feb;10(1):1–2

Constructing violence as a public health problem. Winett LB. **Public Health** 1998 Nov–Dec;113(6):498–507

The future of public health [editorial] **Public Health Rep** 1999 May–Jun;114(3):203

Building the next generation of healthy people. Richmond JB. **Public Health Rep** 1999 May–Jun;114(3):212–7

IOM on core functions [letter] Shine KI, et al. **Public Health Rep** 1999 Jan–Feb;114(1):6

On the State of the Public Health: the Annual Report of the Chief Medical Officer of the Department of Health of England, 1995: an example of increased visibility of mental health at a national level. Jenkins R. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):579–80

Migration and health in the European Union [see comments] Carballo M, et al. **Trop Med Int Health** 1998 Dec; 3(12):936–44 (79 ref.). Comment in: Trop Med Int Health 1998 Dec;3(12):933–4.

The new public health: vision for the future. Figueroa JP. **West Indian Med J** 1998 Dec;47 Suppl 4:13–5

[Public health in a new coalition agreement (see comments)] Gunning-Schepers LJ. **Ned Tijdschr Geneeskd** 1998 Jun 20;142(25):1429–31 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Sep 12;142(37):2062–3. **(Dut)**

['Public health status and perspectives' 1997. VI. Effects of health care] Schouten JS, et al. **Ned Tijdschr Geneeskd** 1998 Jun 6;142(23):1335–8 (Eng. Abstr.) **(Dut)**

['Public health status and perspectives' 1997. VII. Health care needs and health care consumption] Stokx LJ, et al. **Ned Tijdschr Geneeskd** 1998 Jun 6;142(23):1338–42 (Eng. Abstr.) **(Dut)**

[Envisioning the future in public health 1997. II. Developments in the state of health (letter; comment)] van Weel C. **Ned Tijdschr Geneeskd** 1998 Jul 11;142(28):1628–9 . Comment on: Ned Tijdschr Geneeskd 1998 May 23;142(21):1215–9. **(Dut)**

[Health financing in Lebanon. I. Organization of health care services, coverage system and contribution of the Ministry of Public Health] Ammar W, et al. **J Med Liban** 1998 May–Jun;46(3):149–55 (Eng. Abstr.) **(Fre)**

[Prevention of prematurity in the French community at the approach of the year 2000] Nondonfaz N, et al. **Rev Med Liege** 1999 May;54(5):440–3 (Eng. Abstr.) **(Fre)**

[Public health system in the United States] Hau T. **Chirurg** 1999 Apr;70(4):suppl 95–9 **(Ger)**

[Public health in Bavaria. Social political principles, revision of responsibilities, prospects] Baumann R. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S2–3 **(Ger)**

[Public health service in a transitional phase (editorial)] Baumann R, et al. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S1 **(Ger)**

[Guidelines and standards for Public Health Service: challenge and orientation for the future?] Brand A, et al. **Gesundheitswesen** 1998 Nov;60(11):701–5 (Eng. Abstr.) **(Ger)**

[Acceptance speech for the Salomon-Neumann medal award from the German Society for Social Medicine and Prevention] Fülgraff G. **Gesundheitswesen** 1999 Feb; 61(2):65–9 **(Ger)**

[Social medicine as a paradigm for innovative developments in public health] Gostomzyk JG. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S36–40 (Eng. Abstr.) **(Ger)**

[Perspectives in public health care for refugees in Germany] Herrmann M. **Gesundheitswesen** 1999 Jun;61(6):312–8 (39 ref.) (Eng. Abstr.) **(Ger)**

[Strengthening the patients' position—a new challenge to public health] Jäger H. **Gesundheitswesen** 1999 Jun; 61(6):269–73 (43 ref.) (Eng. Abstr.) **(Ger)**

[Contribution to the discussion: development and prospects of public health service in Bavaria—example: environmental medicine] Kerscher G. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S30–5 (Eng. Abstr.) **(Ger)**

[Social work in public health service as reflected by selected studies—a description of current status] Reinicke P. **Gesundheitswesen** 1999 Apr;61(4):197–202 (19 ref.) (Eng. Abstr.) **(Ger)**

[Health promotion and public health (editorial)] Ackermann-Liebrich U. **Soz Praventivmed** 1998; 43(5):205–6 **(Ger, Fre)**

[A quality culture for health promotion!] Ruckstuhl B, et al. **Soz Praventivmed** 1998;43(5):221–8 (Eng. Abstr.) **(Ger)**

[Collective health: a "new public health" or field open to new paradigms?] Paim JS, et al. **Rev Saude Publica** 1998 Aug;32(4):299–316 (Eng. Abstr.) **(Por)**

[Concept of development of public health and medical science in the Russian Federation] **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):4–10 **(Rus)**

[Trends in population health status according to data of sociological research] Khoziainov IuA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):22–3 (Eng. Abstr.) **(Rus)**

[A promising program for public health and medical science in the Russian Federation] Shchepin OP. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):3–4 **(Rus)**

[Present-day global public health] Vartanian FE. **Vestn Ross Akad Med Nauk** 1999;(2):61–4 (9 ref.) **(Rus)**

[Support of epidemiological health wellbeing in the Armed Forces in light of the realization of the concept of public health and medical science development in the Russian Federation] Mel'nichenko PI. **Voen Med Zh** 1998 Aug; 319(8):5–12 **(Rus)**

[Public health structures in Spain: a changing panorama] Segura A, et al. **Gac Sanit** 1999 May–Jun;13(3):218–25 (Eng. Abstr.) **(Spa)**

[Health in Spain: the difficulty of everything for everyone and for free (editorial)] del Llano Señaris JE. **Med Clin (Barc)** 1999 Apr 17;112(13):496–8 **(Spa)**

PUBLIC HEALTH ADMINISTRATION

see related

COMMUNITY HEALTH SERVICES

Privatization and the rise and fall of the public mental health safety net. Schnapp WB, et al. **Adm Policy Ment Health** 1999 Jan;26(3):221–5 (9 ref.)

Recommendations for chemoprophylaxis after occupational exposure to human immunodeficiency virus: a public health agency perspective. Danila RN. **Am J Med** 1997 May 19; 102(5B):98–101 (10 ref.)

Public/private partners. Key factors in creating a strategic alliance for community health. Nelson JC, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):94–102

Positioning for partnerships. Assessing public health agency readiness. Nelson JC, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):103–17

Assurance opportunities for local health departments. Reid WM, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):128–33 (18 ref.)

Disease mapping and public health decision-making: report of a WHO meeting [letter] Bertollini R, et al. **Am J Public Health** 1999 May;89(5):780

Immunization registries in the United States: implications for the practice of public health in a changing health care system. Wood D, et al. **Annu Rev Public Health** 1999; 20:231–55 (81 ref.)

Development of an Asia-Pacific regional network for public health. Loos GP. **Asia Pac J Public Health** 1995;8(3):201–4

Linking public health education and practice: the Australian experience. Rotem A, et al. **Asia Pac J Public Health** 1998; 10(1):17–20 (10 ref.)

European commission proposes public health department [news] Watson R. **BMJ** 1999 Apr 3;318(7188):893

Case management of tuberculosis in New York City. Dorsinville MS. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S46–52

State-coordinated services for traumatic brain injury survivors: toward a model delivery system. Murrey GJ, et al. **J Head Trauma Rehabil** 1998 Dec;13(6):72–81

Health care reform and public health: a paper on population-based core functions. The Core Functions Project, U.S. Public Health Service, 1993. **J Public Health Policy** 1998;19(4):394–419

Health-promoting behaviours in public health: testing the health promotion model. Blacconiere MJ, et al. **J R Soc Health** 1999 Mar;119(1):11–6

From the Centers for Disease Control and Prevention. Assessment of public health computer readiness for 2000—United States, 1999. **JAMA** 1999 May 26; 281(20):1884–5

Medical care at the Olympics [letter; comment] Ault MJ. **JAMA** 1998 Oct 14;280(14):1229–30. Comment on: JAMA 1998 May 13;279(18):1463–8. Comment on: JAMA 1998 May 13;279(18):1469–73. Comment on: JAMA 1998 May 13;279(18):1485–6.

Effect of HIV reporting by name on use of HIV testing in publicly funded counseling and testing programs [see comments] Nakashima AK, et al. **JAMA** 1998 Oct 28; 280(16):1421–6. Comment in: JAMA 1999 Apr 21;281(15):1377–8; discussion 1379–80. Comment in: JAMA 1999 Apr 21;281(15):1378; discussion 1379–80. Comment in: JAMA 1999 Apr 21;281(15):1378–9; discussion 1379–80.

The changing managed care-public health interface. Roper WL, et al. **JAMA** 1998 Nov 25;280(20):1739–40

Assessment of public health computer readiness for 2000—United States, 1999. **MMWR Morb Mortal Wkly Rep** 1999 May 7;48(17):359–60, 367

Publication of survey results of assessment of state health agencies' readiness for 2000. **MMWR Morb Mortal Wkly Rep** 1999 Sep 24;48(37):830

Health department warns about latex allergies [news] **N Y State Dent J** 1998 Aug–Sep;64(7):46

Coordinating European public health [letter; comment] Tibayrenc M. **Nature** 1998 Nov 12;396(6707):108. Comment on: Nature 1998 Sep 10;395(6698):106.

Medicine, managed care, and public health: merging goals. Walburn L. **Pa Med** 1999 Apr;102(4):18

Addressing emerging infections. The partnership between

public health and primary care physicians. Danila RN, et al. **Postgrad Med** 1999 Aug;106(2):90–2, 97–8, 103–5 (15 ref.)
Lessons from the first two years of Project Heartland, Oklahoma's mental health response to the 1995 bombing. Call JA, et al. **Psychiatr Serv** 1999 Jul;50(7):953–5
Use of public mental health services by Russian refugees. Chow JC, et al. **Psychiatr Serv** 1999 Jul;50(7):936–40
Public-sector managed behavioral health care: III. Meaningful consumer and family participation. Sabin JE, et al. **Psychiatr Serv** 1999 Jul;50(7):883–5
Improving the contribution of public health to NHS decision making: development of an instrument. Leach J, et al. **Public Health** 1998 Nov;112(6):393–8
How organized medical care can advance public health. Robbins A, et al. **Public Health Rep** 1999 Mar–Apr; 114(2):120–5
Tobacco control advocates must demand high-quality media campaigns: the California experience. Balbach ED, et al. **Tob Control** 1998 Winter;7(4):397–408
Partnership in public health. Adams T, et al. **World Health Forum** 1998;19(3):246–52
[The organization of the epidemiological function in the health service] Costa G, et al. **Epidemiol Prev** 1998 Oct–Dec;22(4):196–205 **(Ita)**
[Development of NIHS Information and Computing Infrastructure (NICI)] Nakata K, et al. **Kokuritsu Iyakuhin Shokuhin Eisei Kenkyusho Hokoku** 1998;(116):92–100 (7 ref.) (Eng. Abstr.) **(Jpn)**
[Modern information support for the state epidemiological health service] Rumiantsev GI, et al. **Gig Sanit** 1999 Mar–Apr;(2):63–5 **(Rus)**
[The use of modern information technologies for enhancing efficiency in the management of scientific research in the Ministry of Public Health system] Kartysh AP, et al. **Lik Sprava** 1998 Aug;(6):168–73 **(Ukr)**
[The formalized functional features of an automated system for managing the public health of an individual region] Savchenko VM, et al. **Lik Sprava** 1998 Jun;(4):154–7 **(Ukr)**

ECONOMICS

Returns on investment in public health: effect of public health expenditures on infant health, 1983–1990. Becker ER, et al. **J Health Care Finance** 1998 Fall;25(1):5–18
Public and private health initiatives in Kansas. Fonner E Jr. **J Health Care Finance** 1998 Fall;25(1):35–45
Public health: a powerful guide. Young QD. **J Health Care Finance** 1998 Fall;25(1):1–4

EDUCATION

The public health workforce: key to public health infrastructure [editorial] Gebbie KM. **Am J Public Health** 1999 May;89(5):660–1 (8 ref.)
The skills of public health and their development in the UK. Dalziel M. **Hosp Med** 1998 Sep;59(9):723–5 (5 ref.)
Genuine professional doctor of public health the world needs. Roemer M. **Image J Nurs Sch** 1999;31(1):43–4
[Managerial training as an instrument of change in health. The educational objectives and their verification in managerial training courses for the health administrators in the G. Sanelli Institute of Hygiene, 1988–1998] D'Alessandro D, et al. **Ann Ig** 1999 Mar–Apr;11(2):161–71 (Eng. Abstr.) **(Ita)**

HISTORY

From socialist principles to motorcycle maintenance: the origin and development of the salaried physician model in the Israeli Public Health Services, 1918 to 1998. Shvarts S, et al. **Am J Public Health** 1999 Feb;89(2):248–53
1997 Chadwick Lecture—is a healthy north west region achievable in the 21st century. Ashton J. **J Epidemiol Community Health** 1999 Jun;53(6):370–82
Charles V. Chapin (1856–1941), "Dean of City Health Officers". Terris M. **J Public Health Policy** 1999; 20(2):214–20

INSTRUMENTATION

[Computerized technologies in public health administration] Khal'fin RA, et al. **Med Tekh** 1999 Jul–Aug;(4):39–44 (Eng. Abstr.) **(Rus)**

LEGISLATION & JURISPRUDENCE

Decentralised health care in Canada [see comments] Armstrong P, et al. **BMJ** 1999 May 1;318(7192):1201–4. Comment in: BMJ 1999 May 1;318(7192):1155–6.
Scottish white paper aims to tackle health divide [news] Christie B. **BMJ** 1999 Feb 27;318(7183):557
Devolution and health: challenges for Scotland and Wales. Pollock AM. **BMJ** 1999 May 1;318(7192):1195–8
Former French ministers on trial for infected blood-products scandal [news] de Bousingen DD. **Lancet** 1999 Feb 20; 353(9153):653
[Public figures on trial: an assessment of the use of the "jury court" technique for city officials in Santa Catarina, Brazil] Conill EM, et al. **Cad Saude Publica** 1998 Oct–Dec; 14(4):857–61 (Eng. Abstr.) **(Por)**

METHODS

Using YPLL in health planning. McDonnell S, et al. **Public Health Rep** 1998 Jan–Feb;113(1):55–61
[An anti-Taylor approach: the invention of a method for the cogovernance of health care institutions in order to produce freedom and compromise] Campos GW. **Cad Saude Publica** 1998 Oct–Dec;14(4):863–70 (Eng. Abstr.) **(Por)**

STANDARDS

Community-based heart health promotion: perceptions of facilitators and barriers. Taylor SM, et al. **Can J Public Health** 1998 Nov–Dec;89(6):406–9
Heart health promotion: predisposition, capacity and implementation in Ontario Public Health Units, 1994–96. Taylor SM, et al. **Can J Public Health** 1998 Nov–Dec; 89(6):410–4
Risk-adjusted outcome models for public mental health outpatient programs. Hendryx MS, et al. **Health Serv Res** 1999 Apr;34(1 Pt 1):171–95
Evaluation designs for adequacy, plausibility and probability of public health programme performance and impact. Habicht JP, et al. **Int J Epidemiol** 1999 Feb;28(1):10–8 (20 ref.)
State health agencies and quality improvement in perinatal care. Johnson KA, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):233–47
The Texas Medication Algorithm Project: development and implementation of the schizophrenia algorithm [see comments] Chiles JA, et al. **Psychiatr Serv** 1999 Jan; 50(1):69–74. Comment in: Psychiatr Serv 1999 May;50(5):703; discussion 703–4.
HIV and people with serious mental illness: the public sector's role in reducing HIV risk and improving care. Sullivan G, et al. **Psychiatr Serv** 1999 May;50(5):648–52 (44 ref.)
Sharing responsibility for the public's health. Stoto MA. **Public Health Rep** 1999 May–Jun;114(3):231–5 (8 ref.)
[Paradigm as a methodological approach to analyzing Russia's public health system] Shchepin OP, et al. **Vestn Ross Akad Med Nauk** 1998;(10):38–41 (5 ref.) (Eng. Abstr.) **(Rus)**

TRENDS

Competing interests: public-sector managed behavioral health care. Bailit MH, et al. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):112–5
Managed behavioral health care in 1999: an industry at a crossroads. Findlay S. **Health Aff (Millwood)** 1999 Sep–Oct; 18(5):116–24
Public-sector mental health care: new challenges. Hogan MF. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):106–11
Public health: a powerful guide. Young QD. **J Health Care Finance** 1998 Fall;25(1):1–4
Preventing emerging infectious diseases as we enter the 21st century: CDC's strategy. Binder S, et al. **Public Health Rep** 1999 Mar–Apr;114(2):130–4
['Public health status and perspectives' 1997. V. Effects of prevention] Jansen J, et al. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1281–5 (Eng. Abstr.) **(Dut)**
[Public health structures in Spain: a changing panorama] Segura A, et al. **Gac Sanit** 1999 May–Jun;13(3):218–25 (Eng. Abstr.) **(Spa)**

PUBLIC HEALTH DENTISTRY

see related
HEALTH EDUCATION, DENTAL

Uses of oral health related quality of life measures in Public Health. Weintraub JA. **Community Dent Health** 1998 Mar; 15(1):8–12 (24 ref.)
The John W. Knutson Distinguished Service Award in Dental Public Health—1997 Recipient John C. Greene. **J Public Health Dent** 1998 Spring;58(2):187–92
[Tinguely's public health service (editorial)] Jäger P. **Schweiz Monatsschr Zahnmed** 1999;109(3):225, 227 **(Ger, Fre)**
[The national health system and health policies in the Brazilian dentistry literature, 1986–1993] Narvai PC, et al. **Cad Saude Publica** 1998 Jul–Sep;14(3):513–21 (Eng. Abstr.) **(Por)**
[Participation of dental auxiliary personnel in local health systems (published erratum appears in Rev Panam Salud Publica 1999 Jun;5(6):422)] Frazão P, et al. **Rev Panam Salud Publica** 1999 Feb;5(2):106–15 (Eng. Abstr.) **(Spa)**

ECONOMICS

Potential application of the dental aesthetic index to prioritize the orthodontic service needs in a publicly funded dental program. Danyluk K, et al. **Am J Orthod Dentofacial Orthop** 1999 Sep;116(3):279–86
Cost and productivity analysis of orthodontic care in Finland. Pietilä T, et al. **Community Dent Oral Epidemiol** 1998 Aug; 26(4):283–8
Treatment of malocclusions in children and adolescents at a public dental service clinic in Sweden: extent and cost. Permert L, et al. **Swed Dent J** 1998;22(5–6):187–93

MANPOWER

The great dental give-away [editorial] Meskin LH. **J Am Dent Assoc** 1999 Feb;130(2):154, 156

ORGANIZATION & ADMINISTRATION

Perceived control systems, work conditions, and efficiency among Swedish dentists: interaction between two sides of human resource management. Bejerot E, et al. **Acta Odontol Scand** 1999 Feb;57(1):46–54
Evaluation of service provision patterns during a public-funded dental program. Brennan DS, et al. **Aust N Z J Public Health** 1999 Apr;23(2):140–6
Service reviews in the Community Dental Service. Regional guidance produced by dental services managers and consultants in dental public health in the north west of England. Harding M, et al. **Community Dent Health** 1998 Dec;15(4):231–2
Caries preventive services for children and adolescents in Denmark, Iceland, Norway and Sweden: strategies and resource allocation. Wang NJ, et al. **Community Dent Oral Epidemiol** 1998 Aug;26(4):263–71

STANDARDS

Quality evaluation of oral health record-keeping for Finnish young adults. Helminen SE, et al. **Acta Odontol Scand** 1998 Oct;56(5):288–92

STATISTICS & NUMERICAL DATA

Missed and cancelled appointments among 12–18-year-olds in the Norwegian Public Dental Service. Skaret E, et al. **Eur J Oral Sci** 1998 Dec;106(6):1006–12

TRENDS

Public health dentistry: 2000 to 2020. Burry A. **J Can Dent Assoc** 1999 Mar;65(3):163–6
Practice not limited to dental public health [editorial] Corbin SB, et al. **J Public Health Dent** 1998 Fall;58(4):263–5
Leadership in dental public health? Wanted: a catcher in the rye. Roddick A. **N Z Dent J** 1998 Dec;94(418):152–5

PUBLIC HEALTH NURSING

Lean on me. Contillo C. **Am J Nurs** 1998 Oct;98(10):52
Case management: a nursing point of view. Berroa J. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S53–6
Latex sensitivity: a public health care challenge. Bartlett J. **J Community Health Nurs** 1998;15(4):193–204 (37 ref.)
The development of a measure of public health nurses' practice responses to women who are abused. Dickson F, et al. **J Nurs Meas** 1998 Summer;6(1):87–103
An early intervention program for adolescent mothers: a nursing demonstration project. Koniak-Griffin D, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Jan–Feb;28(1):51–9
A cholesterol intervention program for public health nurses in the rural southeast: description of the intervention, study design, and baseline results. Keyserling TC, et al. **Public Health Nurs** 1999 Jun;16(3):156–67
[Public health nurses' disaster responses for intractable neurological patients at home] Iwasaki Y, et al. **Nippon Koshu Eisei Zasshi** 1999 Jan;46(1):71–80 (Eng. Abstr.) **(Jpn)**
[AHP analysis of activities expected of public health nurses at a public health center] Matsuda S. **Sangyo Ika Daigaku Zasshi** 1998 Sep 1;20(3):189–99 (Eng. Abstr.) **(Jpn)**

EDUCATION

A pilot study to compare the effectiveness of preceptored and nonpreceptored models of clinical education in promoting baccalaureate students' competence in public health nursing. Brehaut CJ, et al. **J Nurs Educ** 1998 Nov; 37(8):376–80

HISTORY

Case study of institution-building by nurse Bertha Wright and colleagues. Nichols DJ, et al. **Image J Nurs Sch** 1998; 30(4):385–9
Sowing the seeds of public health nursing—1920–39. Kalnins I. **Int Nurs Rev** 1999 Mar–Apr;46(2):47–51
Maude Evelyn Callen, RN (1898–1990). Brown JM. **J S C Med Assoc** 1999 Mar;95(3):120–1
Rethinking the Tuskegee Syphilis Study. Nurse Rivers, silence and the meaning of treatment. Reverby SM. **Nurs Hist Rev** 1999;7:3–28
Virginia M. Ohlson: international icon in public health nursing [interview by Shirley H. Fondiller] Fondiller SH. **Nurs Outlook** 1999 May–Jun;47(3):108–13
The public health nurse in tornado relief. MacMaster J. **Public Health Nurs** 1999 Feb;16(1):72–5
County drought relief: a public health nurse's problem. 1931 [classical article] Wharton AL. **Public Health Nurs** 1999 Aug;16(4):307–8

METHODS

Nurses who run with the wolves: the power and caring dialectic revisited. Rafael AR. **ANS Adv Nurs Sci** 1998 Sep;21(1):29–42
Social support provided by public health nurses and the coping of first-time mothers with child care. Tarkka MT,

et al. **Public Health Nurs** 1999 Apr;16(2):114–9

ORGANIZATION & ADMINISTRATION

Evidenced–based guidelines for public health nursing practice. Strohschein S, et al. **Nurs Outlook** 1999 Mar–Apr; 47(2):84–9

Health and quality of life within Colonias settlements along the United States and Mexico border. Davidhizar R, et al. **Public Health Nurs** 1999 Aug;16(4):301–6 (18 ref.)

Intergenerational concepts of adolescent sexuality: implications for community–based reproductive health care with Haitian immigrants. DeSantis L, et al. **Public Health Nurs** 1999 Apr;16(2):102–13

Implementing nurse home visitation programs. Hanks CA, et al. **Public Health Nurs** 1999 Aug;16(4):235–45

Parenting competence, social support, and self–esteem in teen mothers case managed by public health nurses. Herrmann MM, et al. **Public Health Nurs** 1998 Dec;15(6):432–9

Women's health and the practice of public health nurses in northern British Columbia. Leipert B. **Public Health Nurs** 1999 Aug;16(4):280–9

Public health nursing in Japan: new opportunities for health promotion. Murashima S, et al. **Public Health Nurs** 1999 Apr;16(2):133–9 (16 ref.)

From rhetoric to reality: the changing face of public health nursing in southern Ontario. Rafael AR. **Public Health Nurs** 1999 Feb;16(1):50–9

Integrative health care: the revolution is upon us [editorial] Schroeder CA, et al. **Public Health Nurs** 1999 Aug; 16(4):233–4

STATISTICS & NUMERICAL DATA

Help–seeking patterns among parents with a newborn child. Jansson A, et al. **Public Health Nurs** 1998 Oct;15(5):319–28

PUBLIC HEALTH PRACTICE

Principles of practice for academic/practice/community research partnerships. Baker EA, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):86–93 (23 ref.)

Measuring the impact of prevention research on public health practice. Brownson RC, et al. **Am J Prev Med** 1999 Apr; 16(3 Suppl):72–9 (69 ref.)

Community/practice/academic partnerships in public health. Clark NM. **Am J Prev Med** 1999 Apr;16(3 Suppl):18–9 (8 ref.)

What should be the role of public health in newborn screening and prenatal diagnosis? Clayton EW. **Am J Prev Med** 1999 Feb;16(2):111–5 (20 ref.)

Screening for hemochromatosis. A public health perspective. Cogswell ME, et al. **Am J Prev Med** 1999 Feb;16(2):134–40 (73 ref.)

The intersection of genetics, public health, and preventive medicine. Coughlin SS. **Am J Prev Med** 1999 Feb; 16(2):89–90 (14 ref.)

BRCA1 and BRCA2 gene mutations and risk of breast cancer. Public health perspectives. Coughlin SS, et al. **Am J Prev Med** 1999 Feb;16(2):91–8 (64 ref.)

Public health perspectives on testing for colorectal cancer susceptibility genes. Coughlin SS, et al. **Am J Prev Med** 1999 Feb;16(2):99–104 (42 ref.)

Bridging the gap between academia and practice in public health. Cross AW. **Am J Prev Med** 1999 Apr;16(3 Suppl):14–5

Prevention of sexually transmitted diseases. A model for overcoming barriers between managed care and public health. The IOM Workshop on the Role of Health Plans in STD Prevention. Eng TR. **Am J Prev Med** 1999 Jan; 16(1):60–9

Research linkages between academia and public health practice. Building a prevention research agenda. Lane DS. **Am J Prev Med** 1999 Apr;16(3 Suppl):7–9 (7 ref.)

Using case research to enhance linkages between academia and public health practice. Liang AP, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):12–3 (11 ref.)

It's about time. The medicine/public health initiative. Nickens H. **Am J Prev Med** 1999 Apr;16(3 Suppl):20–1 (3 ref.)

Preventing morbidity and mortality from sickle cell disease. A public health perspective. Olney RS. **Am J Prev Med** 1999 Feb;16(2):116–21 (64 ref.)

Prevention, public health, and interactive health communication [comment] Patrick K. **Am J Prev Med** 1999 Jan;16(1):46–7. Comment on: Am J Prev Med 1999 Jan;16(1):1–9.

Prevention research centers. The academic and community partnership. Riley PL, et al. **Am J Prev Med** 1999 Apr; 16(3 Suppl):5–6 (4 ref.)

Research linkages between academia and public health practice. Scrimshaw S, et al. **Am J Prev Med** 1999 Apr; 16(3 Suppl):10–1

Childhood lead poisoning prevention [letter; comment] **Am J Public Health** 1999 Jul;89(7):1126–31. Comment on: Am J Public Health 1998 Dec;88(12):1871–7.

Disease mapping and public health decision–making: report of a WHO meeting [letter] Bertollini R, et al. **Am J Public Health** 1999 May;89(5):780

Reinventing the field training experience: building a practical and effective graduate program at the UCLA School of Public Health. Chickering KL, et al. **Am J Public Health** 1999 Apr;89(4):596–7

Implementation of condom social marketing in Louisiana, 1993 to 1996. Cohen DA, et al. **Am J Public Health** 1999 Feb;89(2):204–8

Teaching kids about rabies. Dandoy S, et al. **Am J Public Health** 1999 Mar;89(3):413–4

Public health and brownfields: reviving the past to protect the future [editorial; comment] Greenberg M, et al. **Am J Public Health** 1998 Dec;88(12):1759–60 (12 ref.). Comment on: Am J Public Health 1998 Dec;88(12):1762–6. Comment on: Am J Public Health 1998 Dec;88(12):1834–6. Comment on: Am J Public Health 1998 Dec;88(12):1837–9. Comment on: Am J Public Health 1998 Dec;88(12):1840–5. Comment on: Am J Public Health 1998 Dec;88(12):1871–7.

Community–level interventions are needed to prevent new HIV infections [editorial; comment] Kelly JA. **Am J Public Health** 1999 Mar;89(3):299–301 (20 ref.). Comment on: Am J Public Health 1999 Mar;89(3):336–45.

Childhood lead poisoning: the promise and abandonment of primary prevention [see comments] Needleman HL. **Am J Public Health** 1998 Dec;88(12):1871–7 (38 ref.). Comment in: Am J Public Health 1998 Dec;88(12):1759–60. Comment in: Am J Public Health 1999 Jul;89(7):1126–31.

Vaccinating high school students against hepatitis B: a school/STD clinic collaboration. Peavey L, et al. **Am J Public Health** 1999 Mar;89(3):412–3

Protecting children from lead poisoning and building healthy communities [editorial] Ryan D, et al. **Am J Public Health** 1999 Jun;89(6):822–4 (25 ref.)

Promoting the health and well–being of future generations [editorial] Schneider D, et al. **Am J Public Health** 1999 Feb;89(2):155–7 (34 ref.)

Larimer County Tobacco and Youth Project. Watson A, et al. **Am J Public Health** 1999 Apr;89(4):597–8

Evaluation of a national surveillance unit. Gazarian M, et al. **Arch Dis Child** 1999 Jan;80(1):21–7

Linking public health education and practice: the Australian experience. Rotem A, et al. **Asia Pac J Public Health** 1998; 10(1):17–20 (10 ref.)

Drinking and diving: public health concerns. Commons L, et al. **Aust N Z J Public Health** 1999 Aug;23(4):434–5

TARPARE: a method for selecting target audiences for public health interventions. Donovan RJ, et al. **Aust N Z J Public Health** 1999 Jun;23(3):280–4

Prediction of community integration and vocational outcome 2–5 years after traumatic brain injury rehabilitation in Australia. Fleming J, et al. **Brain Inj** 1999 Jun;13(6):417–31

Global Disease Elimination and Eradication as Public Health Strategies. Proceedings of a conference. Atlanta, Georgia, USA, 23–25 February 1998. **Bull World Health Organ** 1998; 76 Suppl 2:5–162

Integrated management of childhood illness: a summary of first experiences. Lambrechts T, et al. **Bull World Health Organ** 1999;77(7):582–94

Population health: determinants and interventions [editorial] Edwards N. **Can J Public Health** 1999 Jan–Feb;90(1):10–1 **(Eng, Fre)**

Public health responses to health inequalities. Raphael D. **Can J Public Health** 1998 Nov–Dec;89(6):380–1

Cultural sensitivity in public health: defined and demystified. Resnicow K, et al. **Ethn Dis** 1999 Winter;9(1):10–21 (98 ref.)

Audit in health care—the process of reviewing quality. Research Committee of the Faculty of Public Health Medicine [editorial] Clarke A, et al. **Ir Med J** 1999 Jan–Feb; 92(1):230–1

The role of a medical illustration department during the Lanarkshire E. coli O157 outbreak. Milligan RG, et al. **J Audiov Media Med** 1998 Dec;21(4):133–9

Delivering prevention: the role of public programs in delivering care to high–risk populations. Roos LL, et al. **Med Care** 1999 Jun;37(6 Suppl):JS264–78

What role can public health institutions play in drug development for the poor? A case study of artesunate. Gomes M, et al. **Med Trop (Mars)** 1998;58(3 Suppl):97–100 (10 ref.)

Framework for program evaluation in public health. **MMWR Morb Mortal Wkly Rep** 1999 Sep 17; 48(RR–11):1–40

Evaluation of a motivational smoking cessation intervention for women in public health clinics. Manfredi C, et al. **Prev Med** 1999 Jan;28(1):51–60

Emerging infectious diseases: public health issues for the 21st century. Binder S, et al. **Science** 1999 May 21; 284(5418):1311–3

[Public health professionals' perceptions regarding two dimensions of health promotion: the ecological approach and community participation] Richard L, et al. **Can J Public Health** 1999 Mar–Apr;90(2):99–103 (Eng. Abstr.) **(Fre)**

[Progress of the stroke registry system by public health centers, and factors associated with its advancement] Murakami S, et al. **Nippon Koshu Eisei Zasshi** 1999 May; 46(5):402–11 (Eng. Abstr.) **(Jpn)**

[Do public health practitioners have satisfactory access to important information sources?] Forsetlund L, et al. **Tidsskr Nor Laegeforen** 1999 Jun 30;119(17):2456–62 (Eng. Abstr.) **(Nor)**

ECONOMICS

Antiretroviral drugs as a public health intervention for pregnant HIV–infected women in rural South Africa: an issue of cost–effectiveness and capacity [see comments] Wilkinson D, et al. **AIDS** 1998 Sep 10;12(13):1675–82. Comment in: AIDS 1998 Sep 10;12(13):1571–80.

An expensive policy: the impact of inadequate funding for substance abuse treatment [editorial] Amaro H. **Am J Public Health** 1999 May;89(5):657–9 (32 ref.)

LEGISLATION & JURISPRUDENCE

Mandatory reporting of diseases and conditions by health care professionals and laboratories. Roush S, et al. **JAMA** 1999 Jul 14;282(2):164–70

STANDARDS

The public health workforce: key to public health infrastructure [editorial] Gebbie KM. **Am J Public Health** 1999 May;89(5):660–1 (8 ref.)

Evaluating the public health impact of health promotion interventions: the RE–AIM framework. Glasgow RE, et al. **Am J Public Health** 1999 Sep;89(9):1322–7 (88 ref.)

Prevention of sexually transmitted diseases: the need for social and behavioral science expertise in public health departments [editorial; comment] Van Devanter N. **Am J Public Health** 1999 Jun;89(6):815–8 (38 ref.). Comment on: Am J Public Health 1999 Jun;89(6):899–902.

Evidence–based public health practice. Glasziou P, et al. **Aust N Z J Public Health** 1999 Aug;23(4):436–40 (13 ref.)

Self–perceived competence of advanced public health nutritionists in the United States. Dodds JM, et al. **J Am Diet Assoc** 1999 Jul;99(7):808–12

[Case study on the measures of the public health center and the supporting system against to an outbreak enterohemorrhagic Escherichia coli infections in Hyogo Prefecture] Yamamoto A, et al. **Nippon Koshu Eisei Zasshi** 1999 Apr;46(4):311–9 **(Jpn)**

PUBLIC HEALTH SCHOOLS see **SCHOOLS, PUBLIC HEALTH**

PUBLIC HEALTH SERVICE (U.S.) see **UNITED STATES PUBLIC HEALTH SERVICE**

PUBLIC HEALTH SURVEILLANCE see **POPULATION SURVEILLANCE**

PUBLIC HOUSING

Mortality among homeless shelter residents in New York City. Barrow SM, et al. **Am J Public Health** 1999 Apr; 89(4):529–34

'Can I have a letter for the housing, doctor?' [letter; comment] Hall DM, et al. **Arch Dis Child** 1999 Feb; 80(2):207. Comment on: Arch Dis Child 1998 Jun;78(6):505–6; discussion 506–7.

Development of housing programs to aid in the treatment of tuberculosis in homeless individuals: a pilot study. LoBue PA, et al. **Chest** 1999 Jan;115(1):218–23

Predictors of management problems in supported housing: a pilot study. Grunebaum M, et al. **Community Ment Health J** 1999 Apr;35(2):127–33

Perceptions and knowledge of breast cancer among African–American women residing in public housing. McDonald PA, et al. **Ethn Dis** 1999 Winter;9(1):81–93

Alcohol use disorder is a risk factor for mortality among older public housing residents. Black BS, et al. **Int Psychogeriatr** 1998 Sep;10(3):309–27

Utilization of health care services among subgroups of urban homeless and housed poor. O'Toole TP, et al. **J Health Polit Policy Law** 1999 Feb;24(1):91–114

Marijuana use among minority youths living in public housing developments. Williams C, et al. **J Urban Health** 1999 Mar;76(1):85–101

A randomized community trial to increase mammography utilization among low–income women living in public housing. Slater JS, et al. **Prev Med** 1998 Nov–Dec; 27(6):862–70

Living in a housing co–operative for low income women: issues of identity, environment and control. Wasylishyn C, et al. **Soc Sci Med** 1998 Oct;47(7):973–81

STANDARDS

Service system integration, access to services, and housing outcomes in a program for homeless persons with severe mental illness. Rosenheck R, et al. **Am J Public Health** 1998 Nov;88(11):1610–5

STATISTICS & NUMERICAL DATA

Predictors of homelessness among families in New York City: from shelter request to housing stability. Shinn M, et al. **Am J Public Health** 1998 Nov;88(11):1651–7

PUBLIC LAW 93–406 see **EMPLOYEE RETIREMENT INCOME SECURITY ACT**

PUBLIC LAW 93–579 see **PRIVACY**

PUBLIC LAW 101–508 see **PATIENT SELF–DETERMINATION ACT**

PUBLIC LAW 104–191 see **HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT**

PUBLIC OPINION

see related
ATTITUDE TO HEALTH

Medicine in the dock. Caelleigh AS. **Acad Med** 1999 Sep; 74(9):1036

Airbags: an exploratory survey of public knowledge and attitudes. Nelson TF, et al. **Accid Anal Prev** 1999 Jul; 31(4):371–9

Changes in public attitudes towards mental illness in the Athens area (1979/1980–1994). Madianos MG, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):73–8

Public attitudes towards needle exchange programs [letter] Quinn SC. **AIDS** 1999 Jul 30;13(11):1428–9

Coverage of beverage alcohol issues in the print media in the United States, 1985–1991. Lemmens PH, et al. **Am J Public Health** 1999 Oct;89(10):1555–60

The public's view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. Pescosolido BA, et al. **Am J Public Health** 1999 Sep;89(9):1339–45

Analysis of factors for the prediction of the response to xenotransplantation. Daar AS. **Ann N Y Acad Sci** 1998 Dec 30;862:222–33 (45 ref.)

Public versus private approaches to organ procurement and transplantation. Houssin D. **Ann N Y Acad Sci** 1998 Dec 30;862:144–6

Factors limiting renal transplantation program in Poland. Rowiński W, et al. **Ann Transplant** 1996;1(1):18–22

Screening for prostate cancer: the roles of science, policy, and opinion in determining what is best for patients. Woolf SH, et al. **Annu Rev Med** 1999;50:207–21 (61 ref.)

Public response to elevated nitrate in drinking water wells in Wisconsin. Schubert C, et al. **Arch Environ Health** 1999 Jul–Aug;54(4):242–7

Informing the electorate [letter] Straehly CJ. **Arch Surg** 1998 Oct;133(10):1136–7

Attitudes towards people with a mental disorder: a survey of the Australian public and health professionals. Jorm AF, et al. **Aust N Z J Psychiatry** 1999 Feb;33(1):77–83

Community perceptions about the tobacco industry and tobacco control funding. Wakefield M, et al. **Aust N Z J Public Health** 1999 Jun;23(3):240–4

Effect of discussion and deliberation on the public's views of priority setting in health care: focus group study. Dolan P, et al. **BMJ** 1999 Apr 3;318(7188):916–9

Public policy and mental health legislation should be reconsidered [letter] Holloway F, et al. **BMJ** 1999 May 15;318(7194):1354

Public concern about complaints against doctors is widespread [letter] Savage A. **BMJ** 1998 Sep 12; 317(7160):751

Regulation of doctors and the Bristol inquiry. Both need to be credible to both the public and doctors [editorial; comment] Smith R. **BMJ** 1998 Dec 5;317(7172):1539–40. Comment on: BMJ 1998 Dec 5;317(7172):1577–9. Comment on: **BMJ** 1998 Dec 5;317(7172):1579–80. Comment on: **BMJ** 1998 Dec 5;317(7172):1581–2.

Explanations shift attitudes to animal experiments [news] Woodman R. **BMJ** 1999 May 29;318(7196):1438

Rationing. Use of representative health panel shows changes in public attitudes to rationing [letter; comment] Worth C. **BMJ** 1999 Apr 3;318(7188):941. Comment on: **BMJ** 1998 Oct 10;317(7164):1002–4.

Professional and public attitudes towards unsolicited medical intervention [see comments] Zwitter M, et al. **BMJ** 1999 Jan 23;318(7178):251–3. Comment in: BMJ 1999 Jun 5;318(7197):1557.

Sensationalism or tolerance? [letter; comment] Wilde CE. **Br Dent J** 1998 Aug 22;185(4):159. Comment on: Br Dent J 1998 Jun 27;184(12):581–6.

Changes in public attitudes to depression during the Defeat Depression Campaign. Paykel ES, et al. **Br J Psychiatry** 1998 Dec;173:519–22

Public perceptions of the relationship between poverty and health. Reutter L, et al. **Can J Public Health** 1999 Jan–Feb; 90(1):13–8

How interested is the public in genetic testing for colon cancer susceptibility? Report of a cross-sectional population survey. Graham ID, et al. **Cancer Prev Control** 1998 Aug;2(4):167–72

Public opinion and knowledge about childhood sexual abuse in a rural community. Calvert JF Jr, et al. **Child Abuse Negl** 1999 Jul;23(7):671–82

Practice guidelines for clinical prevention: do patients, physicians and experts share common ground? [see comments] Beaulieu MD, et al. **CMAJ** 1999 Sep 7; 161(5):519–23. Comment in: CMAJ 1999 Sep 7;161(5):528–9.

Medicare's reputation in free fall before budget [news] Buske L. **CMAJ** 1999 Apr 20;160(8):1121

Cost no object as new agency tries to restore blood system's credibility [see comments] Hass J. **CMAJ** 1999 Mar 9; 160(5):699–700. Comment in: CMAJ 1999 Jul 27;161(2):129.

When journals are branded, editors get burnt: the ousting of Jerome Kassirer from the New England Journal of Medicine [editorial] Hoey J. **CMAJ** 1999 Sep 7; 161(5):529–30

Physicians may have to "sell" benefits of immunization to sceptical parents. Pinker S. **CMAJ** 1999 Sep 21; 161(6):737–8

Public reactions and scientific responses to transgenic crops. Dale PJ. **Curr Opin Biotechnol** 1999 Apr;10(2):203–8 (45 ref.)

Last call for freedom (yours) [editorial] McCarthy JT. **Cutis** 1998 Nov;62(5):213

Gun control as a public health issue [editorial] DeCherney GS. **Del Med J** 1999 May;71(5):229–33

The International Antismoking Youth Festival [editorial] Panagopoulos AS. **Eur J Cancer Prev** 1998 Apr;7(2):85–7

Strength and weakness of a nutrition communication strategy to health opinion formers: examples from a case study. Hølund U. **Eur J Clin Nutr** 1999 May;53 Suppl 2:S54–7

Entitlements, generational equity, and public-opinion manipulation in Kansas City. Ekerdt DJ. **Gerontologist** 1998 Oct;38(5):525–36

Public opinion, knowledge, and Medicare reform. Bernstein J, et al. **Health Aff (Millwood)** 1999 Jan–Feb;18(1):180–93

The cost of health system change: public discontent in five nations. Donelan K, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):206–16

Regaining public trust [see comments] Goldberg RK. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):138–41. Comment in: Health Aff (Millwood) 1999 May–Jun;18(3):269.

The role of anecdotes in regulating managed care. Rochefort DA. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):142–9

How to improve trust in health plans [letter; comment] Wolfson DB. **Health Aff (Millwood)** 1999 May–Jun; 18(3):269. Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):138–41.

Examining the "liberal media" claim: journalists' views on politics, economic and social policy (including health care), and media coverage. Croteau D. **Int J Health Serv** 1999; 29(3):627–55

Cancer prevention or drug promotion? Journalists mishandle the tamoxifen story. Poe A. **Int J Health Serv** 1999; 29(3):657–61

Lay definitions of ideal weight and overweight. Crawford D, et al. **Int J Obes Relat Metab Disord** 1999 Jul; 23(7):738–45

Pamidronate for the prevention of skeletal-related events in multiple myeloma. What does the public think it is worth? Dranitsaris G. **Int J Technol Assess Health Care** 1999 Winter;15(1):108–22

Coalition building and public opinion. New reproductive technologies and Canadian civil society. Roberts JH. **Int J Technol Assess Health Care** 1999 Winter;15(1):15–21

Has the media influenced public attitudes to schizophrenia? Bowers F. **Ir Med J** 1999 Mar;92(2):263–4

Heroin addiction and methadone maintenance: when will we ever learn [editorial; comment] Stimmel B. **J Addict Dis** 1999;18(2):1–4. Comment on: J Addict Dis 1999 ;18(2):5–21.

How ordinary people in Great Britain perceive the health risks of smoking. Sutton S. **J Epidemiol Community Health** 1998 May;52(5):338–9

Public trust and accountability for clinical performance: lessons from the national press reportage of the Bristol hearing [see comments] Davies HT, et al. **J Eval Clin Pract** 1999 Aug;5(3):335–42 (28 ref.). Comment in: J Eval Clin Pract 1999 Aug;5(3):343–6.

The pen is mightier than the scalpel. Commentary on the paper—public trust, and accountability for clinical performance: lessons from the national press reporting of the Bristol hearing [comment] Willis JA. **J Eval Clin Pract** 1999 Aug;5(3):343–6. Comment on: J Eval Clin Pract 1999 Aug;5(3):335–42.

The American Medical Political Action Committee: which senators get the money and why? Gutermuth K. **J Health Polit Policy Law** 1999 Apr;24(2):357–82

Money, politics, and medicine: the American Medical PAC's strategy of giving in U.S. house races. Wilkerson JD, et al. **J Health Polit Policy Law** 1999 Apr;24(2):335–55

Resistance to a residential AIDS home: an empirical test of NIMBY. Colón I, et al. **J Homosex** 1999;37(3):135–45

Ethical aspects of clinical trials: the attitudes of the public and out-patients. Madsen S, et al. **J Intern Med** 1999 Jun; 245(6):571–9

Population attitudes toward oncology clinical trials. Valentino J, et al. **J Ky Med Assoc** 1999 Mar;97(3):111–7

Perceptions of cancer and its causes among "Industrial Corridor" residents: the LMRICS Planning Project. Lower Mississippi River Interagency Cancer Study. Fick A, et al. **J La State Med Soc** 1999 Apr;151(4):182–8

The diagnostic meaning of "nervous breakdown" among lay populations. Rapport LJ, et al. **J Pers Assess** 1998 Oct; 71(2):242–52

Legal decisions and public opinion informing the debate on assisted suicide. Zimbelman J. **J Prof Nurs** 1999 May–Jun; 15(3):146–50 (30 ref.)

'Changing minds': banishing the stigma of mental illness [editorial] [see comments] White PD. **J R Soc Med** 1998 Oct;91(10):509–10. Comment in: J R Soc Med 1999 Mar;92(3):154.

Alcohol and aggression: general population views about causation and responsibility. Paglia A, et al. **J Subst Abuse** 1998;10(2):199–216

Americans' views on children's health. Blendon RJ, et al. **JAMA** 1998 Dec 23–30;280(24):2122–7

Voters and health care in the 1998 election. Blendon RJ, et al. **JAMA** 1999 Jul 14;282(2):189–94

The public and the comprehensive tobacco bill. Blendon RJ, et al. **JAMA** 1998 Oct 14;280(14):1279–84

Would you say you "had sex" if...? Sanders SA, et al. **JAMA** 1999 Jan 20;281(3):275–7

Irish abortion-debate protagonists sit and talk [news] Birchard K. **Lancet** 1998 Oct 3;352(9134):1130

Disability in cross-cultural perspective: rethinking disability. Groce NE. **Lancet** 1999 Aug 28;354(9180):756–7

The myth of disability in developing nations. Ingstad B. **Lancet** 1999 Aug 28;354(9180):757–8

Survey in France of response to xenotransplantation [letter] Julvez J, et al. **Lancet** 1999 Feb 27;353(9154):726

Scientific journals and public disputes. Nelkin D. **Lancet** 1998;:SII25–8

Media coverage of first transplantations fuels public distrust in Japan [news] Watts J. **Lancet** 1999 Jul 17;354(9174):229

Fat cats, thin kittens: a portrait of life at the junior bar. Carr A. **Med Sci Law** 1999 Jan;39(1):2–4

Mortality research, placement, and risk of death: basic research, the media, and public policy. Borthwick-Duffy S, et al. **Ment Retard** 1998 Oct;36(5):416–22

Cost as a barrier to medical care in relation to unemployment rates [letter] [see comments] Nelson DE, et al. **N Engl J Med** 1998 Nov 26;339(22):1644–5. Comment in: N Engl J Med 1999 Apr 22;340(16):1293.

GM crops in Europe [letter; comment] Barnes MH. **Nat Biotechnol** 1999 Jun;17(6):517. Comment on: Nat Biotechnol 1999 Apr;17(4):311.

Public pressure alters French vaccination policy [news] Birmingham K. **Nat Med** 1998 Nov;4(11):1217

Public input benefits NIH [news] Novak K. **Nat Med** 1999 Oct;5(10):1097

Biotech industry seeks 'honest brokers' [news] Butler D. **Nature** 1999 Apr 1;398(6726):360

How to restore public trust in science. Haerlin B, et al. **Nature** 1999 Aug 5;400(6744):499

"You guys are on the fringe—aren't you?" [editorial] Manning JJ. **Plast Reconstr Surg** 1999 Mar;103(3):1055–6

The incredibly functional egg. Stadelman WJ. **Poult Sci** 1999 Jun;78(6):807–11

The needs and popularization of psychotherapy in Taiwan. Soong WT. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S229–32

Abortion affiliation, urban size, and geographic bias of responses to lost letters. Bridges FS, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):1107–12

Credibility of information from official sources on HIV/AIDS transmission. Guttman N, et al. **Public Health Rep** 1998 Sep–Oct;113(5):465–71

Gallup poll rates honesty and ethical standards. Carr JC. **Regul Toxicol Pharmacol** 1999 Feb;29(1):96

Judgments of chemical risks: comparisons among senior managers, toxicologists, and the public. Mertz CK, et al. **Risk Anal** 1998 Aug;18(4):391–404

Tell all on Virodene [news] Jones JS. **S Afr Med J** 1999 Feb;89(2):113

Consuming fears [news] Firth P. **Sci Am** 1999 Jan;280(1):41–3

Animal rights: reaching the public [editorial] [see comments] Conn PM, et al. **Science** 1998 Nov 20;282(5393):1417. Comment in: Science 1999 Jan 15;283(5400):327. Comment in: Science 1999 Jan 15;283(5400):327–8. Comment in: Science 1999 Jan 15;283(5400):328. Comment in: Science 1999 Jan 15;283(5400):328–9. Comment in: Science 1999 Jan 15;283(5400):329. Comment in: Science 1999 Jan 29;283(5402):639. Comment in: Science 1999 Apr 2;284(5411):49–50.

Worlds apart? The reception of genetically modified foods in Europe and the U.S. Gaskell G, et al. **Science** 1999 Jul 16;285(5426):384–7

Public openness [letter] Sarewitz D. **Science** 1999 Apr 9; 284(5412):261

Animal rights [letter; comment] Shannon TA. **Science** 1999 Jan 15;283(5400):329. Comment on: Science 1998 Nov 20;282(5393):1417.

'What makes a good doctor?'—views of the medical profession and the public in setting priorities for medical education [see comments] Fones CS, et al. **Singapore Med J** 1998 Dec;39(12):537–42. Comment in: Singapore Med J 1998 Dec;39(12):524–6.

Lay beliefs about mental disorders: a comparison between the western and the eastern parts of Germany. Angermeyer MC, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 May; 34(5):275–81

Whom to ask for help in case of a mental disorder? Preferences of the lay public. Angermeyer MC, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Apr;34(4):202–10

The growing belief that people with mental illnesses are violent: the role of the dangerousness criterion for civil commitment. Phelan JC, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33 Suppl 1:S7–12

Can prostitutes marry? Thai attitudes toward female sex workers. Peracca S, et al. **Soc Sci Med** 1998 Jul; 47(2):255–67

Public perception of radiation: using the press to your advantage. Watanabe ME. **Teratology** 1999 Apr;59(4):316–7

The tobacco scandal: where is the outrage? Koop CE. **Tob Control** 1998 Winter;7(4):393–6

Public health, public trust, and public decision making: making hepatitis C virus lookback work [editorial; comment] AuBuchon JP. **Transfusion** 1999 Feb;39(2):123–7 . Comment on: Transfusion 1999 Feb;39(2):188–93. Comment on: Transfusion 1999 Feb;39(2):194–200.

The public's attitudes toward incentives for organ donation.

Jasper JD, et al. **Transplant Proc** 1999 Aug;31(5):2181–4
Commentary: public perception and the safety of immunization. Kane MA. **Vaccine** 1998 Nov;16 Suppl:S73–5
[Factors affecting the attitude of the Czech population towards induced abortion] Weiss P, et al. **Ceska Gynekol** 1998 Oct;63(5):411–3 (Eng. Abstr.) **(Cze)**
[Inquiry about Acta Orthopaedica Belgica among the members of the SOBCOT] Lemaire R. **Acta Orthop Belg** 1999 Mar;65(1):8–9 **(Fre)**
[Catastrophe and public health: reasons for an impasse (editorial)] Dab W. **Presse Med** 1998 Sep 19;27(27):1385–6 (Eng. Abstr.) **(Fre)**
[Information and disinformation. Repercussions on serious public health problems] Marchetti D. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S193–4 **(Fre)**
[Health and environment in Villeurbanne. Opinions of the population] Beyragued L, et al. **Sante Publique** 1998 Dec; 10(4):385–99 (Eng. Abstr.) **(Fre)**
[The image of surgery in public opinion] Bauer H. **Chirurg** 1998 Dec;69(12):1292–9 (Eng. Abstr.) **(Ger)**
[Free choice in public opinion. Excerpt from a study sponsored by the North Rhine Physicians Group] Cosler D, et al. **Chirurg** 1999 Jun;70(6):suppl 155–6 **(Ger)**
[The public image of surgery] Bauer H. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:944–9 **(Ger)**
[Tranquilizers in the newspaper. An media analysis] Finzen A, et al. **Psychiatr Prax** 1999 Jul;26(4):194–8 (Eng. Abstr.) **(Ger)**
[Neuroleptics in the newspaper. A mass media analysis] Hoffmann-Richter U, et al. **Psychiatr Prax** 1999 Jul; 26(4):175–80 (Eng. Abstr.) **(Ger)**
[Societal perception of and experience with psychopharmaceutical drugs (editorial)] Rose HK. **Psychiatr Prax** 1999 Jul;26(4):155–6 **(Ger)**
[Radiation risk in mammography as presented by the media (editorial; comment)] Jung H. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Oct;169(4):335. Comment on: Rofo Fortschr Geb Rontgenstr Neuen Bildge 1998 Oct;169(4):336–43. **(Ger)**
[What is the attitude of Mrs. and Mr. Austria regarding their health system?] Barolin GS. **Wien Med Wochenschr** 1999; 149(1):4–12 (Eng. Abstr.) **(Ger)**
[Schizophrenia—an illness and its treatment reflected in public attitude] Schöny W. **Wien Med Wochenschr** 1998; 148(11–12):284–8 (18 ref.) (Eng. Abstr.) **(Ger)**
[Attitudes towards terminal care among the general population and medical practitioners in Japan] Miyashita M, et al. **Nippon Koshu Eisei Zasshi** 1999 May; 46(5):391–401 (Eng. Abstr.) **(Jpn)**
[Medical research on patients' experiences—structured questionnaires result in worthless answers] Kirkengen AL. **Tidsskr Nor Laegeforen** 1998 Sep 20;118(22):3449–52 (20 ref.) (Eng. Abstr.) **(Nor)**
[Unsolicited medical interventions cause ethical conflicts. This is the opinion of physicians, medical students and the public in Europe] Bremberg S, et al. **Lakartidningen** 1999 Feb 17;96(7):770–2 **(Swe)**
[Quality indicators in health care 2: Is a "mature" public debate possible?] Taube A. **Lakartidningen** 1999 Jun 30; 96(26–27):3182 **(Swe)**

PUBLIC POLICY

Sustaining and renewing the federal research partnership with universities. Lane N. **Acad Med** 1999 Apr;74(4):428–9
Prevention of alcohol abuse-related birth effects—II. Targeting and pricing. Abel EL. **Alcohol Alcohol** 1998 Jul–Aug;33(4):417–20 (30 ref.)
Genetic testing for Alzheimer disease: a view from Washington. Vladeck BC. **Alzheimer Dis Assoc Disord** 1998;12 Suppl 3:S29–32
1998 William P. Yant Award Lecture. What is the correlation between scientific and social challenges in occupational hygiene? Guillemin MP. **Am Ind Hyg Assoc J** 1999 Jul–Aug;60(4):432–7
Medication misadventures: a policy of openness and learning [editorial; comment] Myers CE. **Am J Health Syst Pharm** 1999 May 1;56(9):863. Comment on: Am J Health Syst Pharm 1999 May 1;56(9):904–7. Comment on: Am J Health Syst Pharm 1999 May 1;56(9):907–9.
The pharmacist and assisted suicide. Veatch RM. **Am J Health Syst Pharm** 1999 Feb 1;56(3):260–6 (29 ref.)
American College of Preventive Medicine public policy statement. Folic acid fortification of grain products in the U.S. to prevent neural tube defects. Bentley JR, et al. **Am J Prev Med** 1999 Apr;16(3):264–7 (40 ref.)
Environmental and policy interventions to promote physical activity. Sallis JF, et al. **Am J Prev Med** 1998 Nov; 15(4):379–97 (73 ref.)
Sanctions and the struggle for health in South Africa. Coovadia HM. **Am J Public Health** 1999 Oct;89(10):1505–8
The impact of economic sanctions on health and human rights in Haiti, 1991–1994 [see comments] Gibbons E, et al. **Am J Public Health** 1999 Oct;89(10):1499–504. Comment in: Am J Public Health 1999 Oct;89(10):1509–13.
Human rights is a US problem, too: the case of women and HIV [comment] Gollub EL. **Am J Public Health** 1999 Oct; 89(10):1479–82. Comment on: Am J Public Health 1999 Oct;89(10):1514–21.
Economic sanctions as human rights violations: reconciling political and public health imperatives [comment] Marks SP. **Am J Public Health** 1999 Oct;89(10):1509–13 (60 ref.) . Comment on: Am J Public Health 1999 Oct;89(10):1499–504.
Can sanctions be sanctioned? Sidel VW. **Am J Public Health** 1999 Oct;89(10):1497–8
Xenotransplantation: Scientific Frontiers and Public Policy. Proceedings of a conference. New York, New York, USA. May 18–20, 1998. **Ann N Y Acad Sci** 1998 Dec 30;862:1–251
Screening for prostate cancer: the roles of science, policy, and opinion in determining what is best for patients. Woolf SH, et al. **Annu Rev Med** 1999;50:207–21 (61 ref.)
AVA needs to decide the best location to service members—and influence government policy [news] Niethe G. **Aust Vet J** 1999 Feb;77(2):81
A different route to health: implications of transport policies. Dora C. **BMJ** 1999 Jun 19;318(7199):1686–9 (37 ref.)
"Unprecedented" row delays second phase of BSE inquiry [news] Dyer C. **BMJ** 1999 Feb 27;318(7183):558
UK public health plan aims to save 300 000 lives in next decade [news] Mayor S. **BMJ** 1999 Jul 10;319(7202):73
Focus on adolescent pregnancy and childbearing: a bit of history and implications for the 21st century. Finkel ML. **Bull N Y Acad Med** 1995 Winter;72(2):500–11
The health impact of economic sanctions. Garfield R, et al. **Bull N Y Acad Med** 1995 Winter;72(2):454–69
Developing communality: family-centered programs to improve children's health and well-being. Schor EL. **Bull N Y Acad Med** 1995 Winter;72(2):413–42
Population, ethics, and equity. Berlinguer G. **Cad Saude Publica** 1999;15 Suppl 1:111–22
Physician-assisted death: can philosophical bioethics aid social policy? Kuczewski MG. **Camb Q Healthc Ethics** 1998 Fall;7(4):339–47 (19 ref.)
Phaseout of chlorofluorocarbons (CFCs) in metered-dose inhalers. Highlights of the Canadian initial transition strategy. D'Urzo AD, et al. **Can Fam Physician** 1999 Jun; 45:1544–6, 1556–7 **(Eng, Fre)**
Breaking the grip of the tobacco industry [letter] Esdaile DS. **Can Fam Physician** 1999 Jul;45:1654
Designing an effective statewide tobacco control program—Arizona. Meister JS. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2728–32
The street life of drugs [letter; comment] Anderson JF. **CMAJ** 1999 Jan 12;160(1):26; discussion 27. Comment on: CMAJ 1998 Jul 28;159(2):139–42. Comment on: CMAJ 1998 Jul 28;159(2):149–50.
Medical thunder is required to stir the Chrétien government [editorial] Bass F. **CMAJ** 1999 Jan 12;160(1):61–2
Give it and they will spend [letter; comment] Rapp MS. **CMAJ** 1999 Feb 9;160(3):313. Comment on: CMAJ 1998 Sep 8;159(5):493–6. Comment on: CMAJ 1998 Sep 8;159(5):497–9; discussion 500–1.
New federal office will spend millions to regulate herbal remedies, vitamins. Sibbald B. **CMAJ** 1999 May 4; 160(9):1355–7
European ban on bovine growth hormones should continue: expert [news] Sibbald B. **CMAJ** 1999 Sep 21;161(6):677
Doctors! A call to arms! [editorial] Carpenter EN 2nd. **Del Med J** 1999 Aug;71(8):323–5
Gun control as a public health issue [editorial] DeCherney GS. **Del Med J** 1999 May;71(5):229–33
The environment and biomedical research [editorial] Grupenhoff JT. **Environ Health Perspect** 1998 Dec; 106(12):A580–1
Environmental health 2000 [news] Schmidt CW. **Environ Health Perspect** 1998 Dec;106(12):A600–3
MMT: science and policy. Silbergeld EK. **Environ Res** 1999 Feb;80(2 Pt 1):93–5
Diet and disease, and Durkheim and Dasgupta, and Deuteronomy. Marmot MG. **Epidemiology** 1998 Nov; 9(6):676–80
Drugs on prescription—the Swedish experiment of 1965–67 in retrospect. Lenke L, et al. **Eur Addict Res** 1998 Dec; 4(4):183–9
Drug policies and harms: a conceptual framework. Longshore D, et al. **Eur Addict Res** 1998 Dec;4(4):172–82 (41 ref.)
State abortion policy, geographic access to abortion providers and changing family formation [published erratum appears in Fam Plann Perspect 1999 Mar–Apr;31(2):80] Lichter DT, et al. **Fam Plann Perspect** 1998 Nov–Dec;30(6):281–7
Research technologies: fulfilling the promise. Hogue Angeletti R, et al. **FASEB J** 1999 Apr;13(6):595–601
Federal science policy. Changing battle lines, new fronts. Silberner J. **Hastings Cent Rep** 1999 Jul–Aug;29(4):6
A new proposal for cooperation in HIT development [letter; comment] Cantlon G. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):257–9. Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):9–22. Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):41–3.
Health information: a broader view [letter; comment] Detmer DE, et al. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):256–9 . Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):9–22.
Protecting privacy to improve health care. Goldman J. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):47–60
'After the chaos': expected benefits of health information management [comment] Kelly JT. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):39–40. Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):9–22. Comment on: Health Aff (Millwood) 1998 Nov–Dec;17(6):23–38.
Health information policy: on preparing for the next war [see comments] Moran DW. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):9–22. Comment in: Health Aff (Millwood) 1998 Nov–Dec;17(6):39–40. Comment in: Health Aff (Millwood) 1998 Nov–Dec;17(6):44–6. Comment in: Health Aff (Millwood) 1999 Mar–Apr;18(2):255–6; discussion 258–9. Comment in: Health Aff (Millwood) 1999 Mar–Apr;18(2):256; discussion 258–9. Comment in: Health Aff (Millwood) 1999 Mar–Apr;18(2):256–7; discussion 258–9. Comment in: Health Aff (Millwood) 1999 Mar–Apr;18(2):257–9.
City health dilemma on pavement dwellers [editorial] Biswas R, et al. **Indian J Public Health** 1998 Oct–Dec;42(4):98–9
Disability theory and public policy: implications for critical gerontology. Kennedy J, et al. **Int J Health Serv** 1998; 28(4):757–76 (73 ref.)
Multiple chemical sensitivities: the social construction of an illness. Lax MB. **Int J Health Serv** 1998;28(4):725–45 (55 ref.)
Neoliberalism, "globalization," unemployment, inequalities, and the welfare state. Navarro V. **Int J Health Serv** 1998; 28(4):607–82 (91 ref.)
The political economy of the welfare state in developed capitalist countries. Navarro V. **Int J Health Serv** 1999; 29(1):1–50 (36 ref.)
Security-related policy and law in Japan. Kiyotani T. **Int J Med Inf** 1998 Mar;49(1):123–4
The export of pesticides: shipments from U.S. ports, 1995–1996. Smith C, et al. **Int J Occup Environ Health** 1999 Apr–Jun;5(2):141–50 (45 ref.)
Executive summary of cloning human beings: report and recommendations of the National Bioethics Advisory Commission. **Issues Law Med** 1998 Fall;14(2):217–22
Do Restrictive Covenants Violate Public Policy? Sfikas PM. **J Am Dent Assoc** 1999 Sep;130(9):1383–4
Commission report signals the future look of Medicare [news] **J Am Diet Assoc** 1999 Mar;99(3):281
Asleep at the wheel of auto safety? Recent air bag regulations by the National Highway Traffic Safety Administration. **J Contemp Health Law Policy** 1999 Spring;15(2):739–56
The tuberculosis crisis: the deadly consequence of immigration policies and welfare reform. Johns KA, et al. **J Contemp Health Law Policy** 1998 Fall;15(1):101–30 (0 ref.)
Public policy consideration in adopting a mandatory PGY-1 year. Post-graduate year. Edelstein BL. **J Dent Educ** 1999 Aug;63(8):644–7
A call to arms: the emergency physician, international perspectives on firearm injury prevention and the Canadian gun control debate. Fisher H, et al. **J Emerg Med** 1999 May–Jun;17(3):529–37
Violence: developing a policy agenda [editorial] Stanistreet D. **J Epidemiol Community Health** 1999 Jan;53(1):2–3
Science and policy implications of defining environmental justice. Phillips CV, et al. **J Expo Anal Environ Epidemiol** 1999 Jan–Feb;9(1):9–17
Looking at environmental justice from an environmental health perspective. Sexton K, et al. **J Expo Anal Environ Epidemiol** 1999 Jan–Feb;9(1):3–8
Environmental justice and statistical summaries of differences in exposure distributions. Waller LA, et al. **J Expo Anal Environ Epidemiol** 1999 Jan–Feb;9(1):56–65
Philosophy as news: bioethics, journalism and public policy. Goodman KW. **J Med Philos** 1999 Apr;24(2):181–200
How adolescents get their cigarettes: implications for policies on access and price. Emery S, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):184–6
Public policy: Canaries in the mine. Wakefield M. **J Prof Nurs** 1999 Jul–Aug;15(4):205
Changes in public health policy related to fluoride concentrations in public water supplies [letter; comment] Canto MT. **J Public Health Dent** 1998 Summer;58(3):199 . Comment on: J Public Health Dent 1997 Summer;57(3):136–43.
The sham of saving social security first [editorial] Reich RB. **J Public Health Policy** 1998;19(4):389–93
Enhancement technology, ethics, and public policy. Sade RM. **J S C Med Assoc** 1998 Sep;94(9):411–5
A cognitive analysis of server intervention policies: perceptions of bar owners and servers. Turrisi R, et al. **J Stud Alcohol** 1999 Jan;60(1):37–46
Two routes to privacy protection: a comparison of health information legislation in Canada and the United States. Plater S, et al. **J Womens Health** 1998 Aug;7(6):665–72
International aspects of US government tobacco bills [comment] Mackay J. **JAMA** 1999 May 19;281(19):1849–50 . Comment on: JAMA 1998 Feb 18;279(7):550–2.
From the Surgeon General. The framework convention on tobacco control. A report from the 52nd World Health Assembly. Satcher D. **JAMA** 1999 Aug 4;282(5):424
Public disclosure of performance information in Pennsylvania: impact on hospital charges and the views of hospital executives. Maxwell CI. **Jt Comm J Qual Improv** 1998 Sep;24(9):491–502
The scientific basis of regulatory measures. Ho M. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999;15 Suppl:S70–4
Public disclosure of performance data: does the public get what the public wants? Davies HT, et al. **Lancet** 1999 May

PUBLIC POLICY

15;353(9165):1639–40
UN calls for positive approach to ageing [news] Larkin M. **Lancet** 1998 Oct 10;352(9135):1199
Empirical research on the insanity defense and attempted reforms: evidence toward informed policy. Borum R, et al. **Law Hum Behav** 1999 Jun;23(3):375–93 (71 ref.)
International policy-making in genetic sciences. Pompidou A. **Law Hum Genome Rev** 1998 Jul-Dec;(9):201–10
Rethinking the early childcare agenda [see comments] Cook PS. **Med J Aust** 1999 Jan 4;170(1):29–31 (36 ref.). Comment in: Med J Aust 1999 Aug 2;171(3):166–7.
Bio-ethical and legal issues in relation to HIV/AIDS: the Uganda experience. Yusuf NK. **Med Law** 1998;17(4):619–24
State institutions: thirty years of depopulation and closure. Anderson LL, et al. **Ment Retard** 1998 Dec;36(6):431–43
Mortality research, placement, and risk of death: basic research, the media, and public policy. Borthwick-Duffy S, et al. **Ment Retard** 1998 Oct;36(5):416–22
Ideology, politics, and science in understanding developmental disabilities. Smith P. **Ment Retard** 1999 Feb; 37(1):71–2
Innovation and public accountability in clinical research. Melhado EM. **Milbank Q** 1999;77(1):111–72, v
Genes and environment: informing future public health decisions [news] Brooksbank C. **Mol Med Today** 1999 Jun; 5(6):236
Securing public access to genomic information: the race is on [news] Brooksbank C. **Mol Med Today** 1999 Jun; 5(6):235–6
Adjusting FDA policies to address bioterrorist threat [news] Fox JL. **Nat Biotechnol** 1999 Apr;17(4):323–4
FDA, activists seek judgments in food policy lawsuit [news] Fox JL. **Nat Biotechnol** 1999 Aug;17(8):746–7
Nasty taste from G-8 GM food policy. Miller HI. **Nat Biotechnol** 1999 Aug;17(8):730
European Parliament considers release of GMOs [news] Nasto B. **Nat Biotechnol** 1999 Apr;17(4):321
The Human Genome Project after a decade: policy issues. Burris J, et al. **Nat Genet** 1998 Dec;20(4):333–5
Scientists appeal to revoke funding ban on embryo research [news] Cimons M, et al. **Nat Med** 1999 Jan;5(1):6
US public may gain access to research data [news] Dove A. **Nat Med** 1999 Jan;5(1):8
Xenotransplant caution continues [editorial] **Nature** 1999 Apr 15;398(6728):543
Yes, minister, but... [editorial] **Nature** 1999 Aug 5; 400(6744):487
UK debates public's role in science advice [news] Dickson D. **Nature** 1999 May 20;399(6733):188
BSE advisers admit giving up a purely scientific role [news] Loder N. **Nature** 1999 Aug 5;400(6744):490
Britain opens biotech regulation to greater public involvement [news] Masood E. **Nature** 1999 May 27; 399(6734):287–8
Trade concerns dominate GM debate in US [news] Reichhardt T. **Nature** 1999 May 27;399(6734):287
Biotech panel set up in US may help allay public fears [news] Reichhardt T. **Nature** 1999 Jun 10;399(6736):508
Missing the mark on misconduct [letter; comment] Roy R. **Nature** 1998 Oct 29;395(6705):835–6. Comment on: Nature 1998 Aug 27;394(6696):815.
NIH ponders role of 'public' advisers [news] Wadman M. **Nature** 1998 Oct 1;395(6701):423
Implications for policy and practice: getting adolescents, families, and communities in sync. Larson R. **New Dir Child Dev** 1998 Winter;(82):83–8
Cloning of animals and humans: what should the policy response be? Baird PA. **Perspect Biol Med** 1999 Winter; 42(2):179–94
The coming clash: patient advocates vs. the public interest [see comments] Lamm RD. **Pharos** 1998 Fall;61(4):18–20; discussion 21–5. Comment in: Pharos 1998 Fall;61(4):26. Comment in: Pharos 1999 Spring;62(2):39; discussion 41. Comment in: Pharos 1999 Spring;62(2):39–40; discussion 41. Comment in: Pharos 1999 Spring;62(2):40; discussion 41. Comment in: Pharos 1999 Spring;62(2):41.
Neuroscience and public policy [letter] Chugani HT. **Public Health** 1998 Nov-Dec;113(6):480–1
Neuroscience and public policy [letter; comment] Chugani HT. **Public Health Rep** 1998 Nov-Dec;113(6):480–1. Comment on: Public Health Rep 1998 Sep-Oct;113(5):388–97.
Scientific leaders balk at broad data release [news] Agnew B. **Science** 1999 Jan 15;283(5400):307,309
A solution to concerns over public access to scientific data. Cohen LR, et al. **Science** 1999 Jul 23;285(5427):535–6
Public access to data [editorial] Frankel MS. **Science** 1999 Feb 19;283(5405):1114
RAC nixes plan to treat retinoblastoma [news; comment] Garber K. **Science** 1999 Jun 25;284(5423):2066. Comment on: Science 1999 Jul 30;285(5428):663–4.
Freedom of information requests [letter; comment] Goldwater WH. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
Freedom of information requests [letter; comment] Gough M. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
Plan for divulging raw data eases fears [news] Kaiser J. **Science** 1999 Feb 12;283(5404):914–5
Ethicists back stem cell research, White House treads cautiously [news] Marshall E. **Science** 1999 Jul 23; 285(5427):502
Revisiting the commons: local lessons, global challenges. Ostrom E, et al. **Science** 1999 Apr 9;284(5412):278–82
Public openness [letter] Sarewitz D. **Science** 1999 Apr 9; 284(5412):261
Ethical dilemmas and stem cell research [editorial] Shapiro HT. **Science** 1999 Sep 24;285(5436):2065
Commercial sex work and STD: the need for policy interventions to change societal patterns [editorial; comment] Aral SO, et al. **Sex Transm Dis** 1998 Oct; 25(9):455–6. Comment on: Sex Transm Dis 1998 Oct;25(9):451–4.
Economic and health efficiency of education funding policy. Curtin TR, et al. **Soc Sci Med** 1999 Jun;48(11):1599–611
Policy and politics of smoking control in Japan. Sato H. **Soc Sci Med** 1999 Sep;49(5):581–600
Impact of the 1970 legal BAC 0.05 mg% limit legislation on drunk-driver-involved traffic fatalities, accidents, and DWI in Japan. Deshapriya EB, et al. **Subst Use Misuse** 1998 Dec;33(14):2757–88
Generalizing ethnicity in youth drug misuse research. Lopez JR. **Subst Use Misuse** 1999 Jan;34(2):297–306
Perceived parental/peer attitudes and alcohol-related behaviors: an analysis of the impact of the drinking age law. Yu J. **Subst Use Misuse** 1998 Dec;33(14):2687–702
Is there a limit to freedom? [editorial] Ausman JI. **Surg Neurol** 1999 Aug;52(2):213–4
Consensus for tobacco policy among former state legislators using the policy Delphi method. Hahn EJ, et al. **Tob Control** 1999 Summer;8(2):137–40
Measuring support for tobacco control policy in selected areas of six countries. Laforge RG, et al. **Tob Control** 1998 Autumn;7(3):241–6
"Zero tolerance" for student smokers [letter] Pericak MT. **Tob Control** 1998 Winter;7(4):441–2
Low-level chemical sensitivity: implications for research and social policy. Ashford NA. **Toxicol Ind Health** 1999 Apr-Jun;15(3-4):421–7 (27 ref.)
Pesticide use in the U.S. and policy implications: a focus on herbicides. Short P, et al. **Toxicol Ind Health** 1999 Jan-Mar;15(1-2):240–75
Public health, public trust, and public decision making: making hepatitis C virus lookback work [editorial; comment] AuBuchon JP. **Transfusion** 1999 Feb;39(2):123–7 . Comment on: Transfusion 1999 Feb;39(2):188–93. Comment on: Transfusion 1999 Feb;39(2):194–200.
Bangladesh national drug policy: an example for the Third World? Islam N. **Trop Doct** 1999 Apr;29(2):78–80
Bovine tuberculosis: the government reaffirms its strategy [news] **Vet Rec** 1999 Jul 10;145(2):30–1
Carriage of pathological samples [letter] McKelvey WA. **Vet Rec** 1998 Dec 19–26;143(25):698
The need for a veterinary antibiotic policy [editorial] Pedersen KB, et al. **Vet Rec** 1999 Jul 10;145(2):50–3
Good breakfast for good learning. Janowski J. **WMJ** 1998 Sep;97(8):33–6
Quality measurement in women's health. Panel discussion. Gonen JS. **Womens Health Issues** 1999 Mar-Apr; 9(2):93–106
[Role of science in the formulation of social policy on drugs] Kalant H. **C R Seances Soc Biol Fil** 1998;192(5):905–15 (29 ref.) (Eng. Abstr.) **(Fre)**
[Social work with the elderly—current orientation and strategies] Zeman P. **Z Gerontol Geriatr** 1998 Oct; 31(5):313–8 (34 ref.) (Eng. Abstr.) **(Ger)**
[Evaluation of factors associated with well-being of elderly in an aged society by analytic hierarchy process analysis] Matsuda S, et al. **Nippon Koshu Eisei Zasshi** 1998 Aug; 45(8):704–12 (Eng. Abstr.) **(Jpn)**

PUBLIC RELATIONS

Showing pharmacy's best side to the world [editorial] Brehio RM. **Am J Health Syst Pharm** 1998 Aug 1;55(15):1570
Missing in action: nurses in the media. Sieber JR, et al. **Am J Nurs** 1998 Dec;98(12):55–6
Regaining public trust [see comments] Goldberg RK. **Health Aff (Millwood)** 1998 Nov-Dec;17(6):138–41. Comment in: Health Aff (Millwood) 1999 May-Jun;18(3):269.
Fun runs & faux pas. Lumsdon K. **Hosp Health Netw** 1999 Feb;73(2):94
New disasters, new plans. Solovy A. **Hosp Health Netw** 1999 Sep;73(9):34
Journalism as inquiry, public relations, and advertising [editorial] Chambers DW. **J Am Coll Dent** 1999 Spring; 66(1):2–3
The power of public relations [editorial; comment] Murray S. **J Cutan Med Surg** 1999 Apr;3(4):176–7. Comment on: J Cutan Med Surg 1999 Apr;3(4):178–81.
Attendance at cancer screening in the wake of widespread adverse publicity surrounding test results. Steadman L, et al. **J Med Screen** 1999;6(1):40–1
Public relations: a shared responsibility [editorial] Branden PS. **J Nurse Midwifery** 1999 Jan-Feb;44(1):1–2
Public education: promoting the midwifery model of care in partnership with the Maternity Center Association. Corry MP, et al. **J Nurse Midwifery** 1999 Jan-Feb; 44(1):47–56
Strategic positioning and personal leadership. Hoffman S. **J Prof Nurs** 1998 Nov-Dec;14(6):320
The impact of emotional dissonance on organizational commitment and intention to turnover. Abraham R. **J Psychol** 1999 Jul;133(4):441–55
Developing health in Africa [see comments] Decosas J. **Lancet** 1999 Jan 9;353(9147):143–4. Comment in: Lancet 1999 May 29;353(9167):1887–8.
High-dose chemotherapy for breast cancer in USA [letter; comment] Durant JR. **Lancet** 1999 Jul 17;354(9174):252–3 . Comment on: Lancet 1999 May 15;353(9165):1633.
Animal rights brochure [letter; comment] Navar LG. **Science** 1999 Jan 29;283(5402):639. Comment on: Science 1998 Nov 20;282(5393):1417.
Public health, public trust, and public decision making: making hepatitis C virus lookback work [editorial; comment] AuBuchon JP. **Transfusion** 1999 Feb;39(2):123–7 . Comment on: Transfusion 1999 Feb;39(2):188–93. Comment on: Transfusion 1999 Feb;39(2):194–200.
[European Association for the Study of Diabetes (EASD): not interested in publicity work? (editorial)] Heinzl S. **Med Monatsschr Pharm** 1998 Nov;21(11):329 **(Ger)**
[Patient information: "Physicians in pathology: dedicated to life"] Stolte M. **Pathologe** 1999 Jan;20(1):84 **(Ger)**

PUBLIC SECTOR

Evaluating occupational health and safety programs in the public sector. Mitchell CS. **Am J Ind Med** 1998 Dec; 34(6):600–6
Defining the role of the consultant psychiatrist in a public mental health service [see comments] Boyce P, et al. **Aust N Z J Psychiatry** 1998 Oct;32(5):603–11; discussion 616. Comment in: Aust N Z J Psychiatry 1998 Oct;32(5):612–5.
Comment: 'devining' the role of the consultant psychiatrist in a public mental health service [see comments] Rosen A. **Aust N Z J Psychiatry** 1998 Oct;32(5):612–5. Comment in: Aust N Z J Psychiatry 1998 Oct;32(5):603–11; discussion 616.
The World Bank and world health. Healthcare strategy. Abbasi K. **BMJ** 1999 Apr 3;318(7188):933–6 (4 ref.)
Public and private practice: a balancing act for health staff [editorial] Ferrinho P, et al. **Bull World Health Organ** 1999; 77(3):209
Hypertensive drug demand and reimbursement in public and private systems: a French-US comparison. Huttin C. **Cah Sociol Demogr Med** 1999 Jan-Mar;39(1):25–40
The free market and scientific research benefit from private and public support. Stossel TP. **Curr Opin Hematol** 1998 Nov;5(6):367–8
Private ethics boards and public debate. Tauer CA. **Hastings Cent Rep** 1999 Mar-Apr;29(2):43–5
Veterinary human capital—knowledge, skills, and abilities that enhance employment opportunities outside private practice. Gehrke BC, et al. **J Am Vet Med Assoc** 1999 Jun 15;214(12):1781–4
Public land and natural resource issues confronting animal scientists and livestock producers. Vavra M. **J Anim Sci** 1998 Sep;76(9):2340–5 (25 ref.)
The role of the public sector in the development and implementation of animal health policies. Ekboir JM. **Prev Vet Med** 1999 May 31;40(2):101–15 (25 ref.)
Highlights of the 1998 Institute on Psychiatric Services. Issues in public-sector managed care. Wagner J, et al. **Psychiatr Serv** 1999 Jan;50(1):15–20
South Africa's health reviewed [news] Jones JS. **S Afr Med J** 1999 Feb;89(2):112–4
Public-private partnerships in academic medicine—an 'ideal nation' model. Mokoena T. **S Afr Med J** 1999 Feb; 89(2):134–5
Openness in private-public collaboration [letter; comment] McClellan RO. **Science** 1999 May 14;284(5417):1124. Comment on: Science 1999 Apr 16;284(5413):406–7.
Fruit fly researchers sign pact with Celera [news] Pennisi E. **Science** 1999 Feb 5;283(5403):767
[Reflections on continuing medical education in the public sector] Ben Salah F, et al. **Tunis Med** 1999 Jun-Jul; 77(6-7):314–23 **(Fre)**
[The role of public organizations in the prevention of HIV infection in Russia] Dement'eva LA. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan-Feb; (1):114–6 (Eng. Abstr.) **(Rus)**

ECONOMICS

Financing the delivery of public-sector animal health services in Jamaica: pre- and post-privatization. Turkson PK, et al. **Trop Anim Health Prod** 1998 Dec;30(6):331–9

LEGISLATION & JURISPRUDENCE

Guide helps public-sector agencies draft stronger managed care contracts [news] **Psychiatr Serv** 1998 Dec; 49(12):1635–6

ORGANIZATION & ADMINISTRATION

Supplemental social services improve outcomes in public addiction treatment. McLellan AT, et al. **Addiction** 1998 Oct;93(10):1489–99
Ten dimensions of public-sector managed care [see comments] Hoge MA, et al. **Psychiatr Serv** 1999 Jan; 50(1):51–5 (27 ref.). Comment in: Psychiatr Serv 1999 Jan;50(1):7.
Organ exchange organization: public or private? The French example. Houssin D. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1040–2

[Fractures and frontiers] Chabot JM. **Rev Prat** 1999 Feb 15; 49(4):407–8 **(Fre)**

STATISTICS & NUMERICAL DATA

The prevalence of low income among childbearing women in California: implications for the private and public sectors. Braveman P, et al. **Am J Public Health** 1999 Jun; 89(6):868–74

Health impact of occupational risks in the informal sector in Zimbabwe. Loewenson RH. **Int J Occup Environ Health** 1998 Oct–Dec;4(4):264–74 (31 ref.)

Study finds widespread implementation of managed behavioral health care programs in the public sector [news] **Psychiatr Serv** 1999 Feb;50(2):278

TRENDS

Managed behavioral health in the public sector [editorial; comment] Bullen BM. **Psychiatr Serv** 1999 Jan;50(1):7. Comment on: Psychiatr Serv 1999 Jan;50(1):39–41. Comment on: Psychiatr Serv 1999 Jan;50(1):51–5.

PUBLIC SPEAKING see **SPEECH**

PUBLICATION BIAS

Is selective reporting of clinical research unethical as well as unscientific? Cleophas RC, et al. **Int J Clin Pharmacol Ther** 1999 Jan;37(1):1–7

Manufacturer support and outcome [letter] Mandelkern M. **J Clin Psychiatry** 1999 Feb;60(2):122–3

Medical Editors' Trial Amnesty (META) [editorial] **J Neurol** 1998 Aug;245(8):563

Mental health of refugees from Kosovo [letter; comment] Black ME, et al. **Lancet** 1999 Jul 10;354(9173):165–6. Comment on: Lancet 1999 May 8;353(9164):1616–7.

Quality of reports of randomised trials and estimates of treatment efficacy [letter; comment] Sauerland S, et al. **Lancet** 1998 Nov 7;352(9139):1555–6. Comment on: Lancet 1998 Aug 22;352(9128):609–13.

Misunderstandings about the effects of race and sex on physicians' referrals for cardiac catheterization [comment] Schwartz LM, et al. **N Engl J Med** 1999 Jul 22; 341(4):279–83; discussion 286–7. Comment on: N Engl J Med 1999 Feb 25;340(8):618–26.

[Apropos of, Subtrochanteric fractures. Comparative study of gamma nail and angular osteosynthesis with lateral cortical support (letter) (see comments)] Lahoud JC, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):293–4. Comment in: Rev Chir Orthop Reparatrice Appar Mot 1998 May;84(3):293–4. **(Fre)**

HISTORY

Diagoras of Melos (500 BC): an early analyst of publication bias [letter] Petticrew M. **Lancet** 1998 Nov 7;352(9139):1558

STATISTICS & NUMERICAL DATA

Bias in reporting clinical trials. Bardy AH. **Br J Clin Pharmacol** 1998 Aug;46(2):147–50

Lost information? The fate of papers presented at the 40th society for Social Medicine Conference. Petticrew M, et al. **J Epidemiol Community Health** 1999 Jul;53(7):442–3

TRENDS

Bias against European journals in medical publication Databases [letter] Nieminen P, et al. **Lancet** 1999 May 8; 353(9164):1592

PUBLICATIONS

"Patient was hit in the face by a fist..." a discourse analysis of male violence against women. Phillips D, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):116–21

Is there a responsibility to disclose data used as the basis for a publication? [letter; comment] Eger EI 2nd. **Anesth Analg** 1999 Mar;88(3):693–4. Comment on: Anesth Analg 1998 Mar;86(3):662–7.

Publication of abstracts presented at diabetes meetings [letter] Payne C. **Diabetes Care** 1999 Feb;22(2):362

What nutrition knowledge and skills do primary care physicians need to have, and how should this be communicated? Truswell AS. **Eur J Clin Nutr** 1999 May; 53 Suppl 2:S67–71 (26 ref.)

Published research in primary care: original papers in the US and UK, 1996. Jones R. **Fam Pract** 1998 Aug; 15(4):291–5

Announcement: Eliminating redundant publication: déjà vu from the East [editorial] Farrell GC. **J Gastroenterol Hepatol** 1998 Sep;13(9):861–2

Scientific progress and dissemination of research results: abstracts versus peer-reviewed publications [editorial; comment] Buckwalter JA, et al. **J Orthop Res** 1998 Nov; 16(6):643–4. Comment on: J Orthop Res 1998 Nov;16(6):645–9.

Publication rate of abstracts presented at the annual meeting of the Orthopaedic Research Society [see comments] Daluiski A, et al. **J Orthop Res** 1998 Nov;16(6):645–9. Comment in: J Orthop Res 1998 Nov;16(6):643–4.

Looking back, looking ahead [editorial] **Nat Neurosci** 1999 May;2(5):389

[Use of the publications and documents of the World Health Organization] Drbálek J, et al. **Cas Lek Cesk** 1999 Jan 25; 138(3):85–6 (Eng. Abstr.) **(Cze)**

[Patients' rights to privacy in publications (letter)] Martín Escudero JC. **An Med Interna** 1999 Apr;16(4):207–8 **(Spa)**

[Impact of biomedical publications on the incorporation of new therapeutic attitudes in cardiovascular pathology] Soriano Palacios N, et al. **Rev Clin Esp** 1998 Dec; 198(12):810–4 (Eng. Abstr.) **(Spa)**

[The publication of cardiology books in Spain. A bibliometric approach] Haba Ejarque J, et al. **Rev Esp Cardiol** 1999 Apr;52(4):261–8 (Eng. Abstr.) **(Spa)**

LEGISLATION & JURISPRUDENCE

[Legal aspects of the publication of patients' photographs] Schlund GH. **Hautarzt** 1999 Apr;50(4):307 **(Ger)**

STANDARDS

Duplicate publication [editorial] Block AJ. **Chest** 1998 Oct; 114(4):951

Guidelines concerning authorship. Danish Committee on Scientific Dishonesty. **Dan Med Bull** 1999 Feb;46(1):65–7

Evaluating psychoanalytic papers. Towards the development of common editorial standards. Tuckett D. **Int J Psychoanal** 1998 Jun;79 (Pt 3):431–48

Alternative medicine, education and standards of publication and research [editorial; comment] Jobst KA, et al. **J Altern Complement Med** 1999 Jun;5(3):221–2. Comment on: J Altern Complement Med 1999 Feb;5(1):75–9. Comment on: J Altern Complement Med 1999 Apr;5(2):153–64.

The haunted forest: a ghost story [letter; comment] Hall T. **Lancet** 1998 Oct 10;352(9135):1230. Comment on: Lancet 1998 Sep 12;352(9131):892. Comment on: Lancet 1998 Sep 12;352(9131):898–9.

[The Impact Factor--a reliable scientific parameter?] Meenen NM. **Rontgenpraxis** 1998;51(7):266–71 **(Ger)**

[Significance of bibliographic state standards for scientific publications] Klyk TV. **Vestn Ross Akad Med Nauk** 1999; (1):57–60 (2 ref.) (Eng. Abstr.) **(Rus)**

STATISTICS & NUMERICAL DATA

Time to publication as full reports of abstracts of randomized controlled trials in cystic fibrosis. Cheng K, et al. **Pediatr Pulmonol** 1998 Aug;26(2):101–5

Profiles of published social work practitioners: who wrote and why. Rehr H, et al. **Soc Work Health Care** 1998; 28(2):83–94

The publication rates of presentations at major Spine Specialty Society meetings (NASS, SRS, ISSLS). Wang JC, et al. **Spine** 1999 Mar 1;24(5):425–7

A profile of health research in Jamaica 1991–1995. Essential National Health Research Task Force. Figueroa JP, et al. **West Indian Med J** 1998 Sep;47(3):89–93

TRENDS

General hospital psychiatry in the 21st century: will old acquaintance be forgot? [editorial] Lipsitt DR. **Gen Hosp Psychiatry** 1999 Jan–Feb;21(1):1–2

PUBLISHING

see related
BOOK INDUSTRY
DUPLICATE PUBLICATION
PERIODICALS

The power of words [editorial] Biros MH. **Acad Emerg Med** 1998 Dec;5(12):1137–8

Academic publishing: content, distribution, and access [editorial] Caelleigh AS. **Acad Med** 1999 Jan;74(1):10–2

Publish or perish--and bankrupt the medical library while we're at it. Halperin EC. **Acad Med** 1999 May;74(5):470–2 (19 ref.)

Non-systematic serial publishing is not appropriate and ethically questionable [letter; comment] Apfel CC, et al. **Acta Anaesthesiol Scand** 1999 Apr;43(4):486–7. Comment on: Acta Anaesthesiol Scand 1998 Oct;42(9):1038–42.

Shame on the American Medical Association [editorial] Gisvold SE. **Acta Anaesthesiol Scand** 1999 Sep;43(8):793

To what extent should papers submitted from drug companies be published in medical journals? [editorial] Friis S. **Acta Psychiatr Scand** 1999 Mar;99(3):157–9

Launching the African Journal of Reproductive Health [editorial] Snow R, et al. **Afr J Reprod Health** 1997 Mar; 1(1):3–4

The fate of neuroradiologic abstracts presented at national meetings in 1993: rate of subsequent publication in peer-reviewed, indexed journals. Marx WF, et al. **AJNR Am J Neuroradiol** 1999 Jun–Jul;20(6):1173–7

The importance of neuroradiologist authorship in nonspecialty journals [letter] Wolpert SM. **AJNR Am J Neuroradiol** 1999 May;20(5):947

The case report: Little Jack Horner and his Christmas pie [editorial; comment] Rogers LF. **AJR Am J Roentgenol** 1998 Dec;171(6):1451. Comment on: AJR Am J Roentgenol 1998 Dec;171(6):1684–6.

Dear author--advice from a retiring editor. Samet JM. **Am J Epidemiol** 1999 Sep 1;150(5):433–6

Tips for aspiring article writers [editorial] Graber DA. **Am J Orthod Dentofacial Orthop** 1999 Feb;115(2):19A

Going digital: image preparation for biomedical publishing. Schenk MP, et al. **Anat Rec** 1999 Aug 15;257(4):128–36

Evidence-based medicine and electronic publication: is there a common thread? [editorial] Lee ST. **Ann Acad Med Singapore** 1998 Jul;27(4):459

The making and unmaking of a journal [editorial] Davidoff F. **Ann Intern Med** 1999 May 4;130(9):774–5

Sacking of JAMA's editor-in-chief [news] **Ann Oncol** 1999 Mar;10(3):248–9

Once is enough [editorial] Morain WD. **Ann Plast Surg** 1999 Jul;43(1):96

How much is enough? Downs FS. **Appl Nurs Res** 1999 Aug; 12(3):164–5

JAMA and editorial independence [editorial] **Arch Dermatol** 1999 Mar;135(3):323–4

Consilience in medicine [editorial] Benítez-Bribiesca L. **Arch Med Res** 1999 Jan–Feb;30(1):1–2

Interactive resources at the Archives Web site. Rothschild MA. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1303–5

'ArzneiForsch/DrugRes'--Active presence in the Internet [editorial] **Arzneimittelforschung** 1999 Jan;49(1):1–3 **(Eng, Ger)**

The old order changeth... [editorial] Harcourt JK. **Aust Dent J** 1998 Dec;43(6):435

Targeting the right journal. Piterman L, et al. **Aust Fam Physician** 1999 Jul;28(7):730–1

E-publishing on the Web: promises, pitfalls, and payoffs for bioinformatics [editorial] Gerstein M. **Bioinformatics** 1999 Jun;15(6):429–31

Get your book published. Banks M. **BMJ** 1998 Dec 19–26; 317(7174):1715–8 (3 ref.)

JAMA's editor sacked. Dark cloud of sanctimonious clinché settles on BMJ's website [letter; comment] Carnall D. **BMJ** 1999 Feb 6;318(7180):394. Comment on: BMJ 1999 Jan 23;318(7178):213.

JAMA's editor sacked. World medical journal editors should draw up email protest petition [letter; comment] Chapman S. **BMJ** 1999 Feb 6;318(7180):394. Comment on: BMJ 1999 Jan 23;318(7178):213.

Electronic preprints can be categorised [letter; comment] Choolani M. **BMJ** 1999 Jan 2;318(7175):55–6. Comment on: BMJ 1997 Sep 27;315(7111):759–60. Comment on: BMJ 1998 Jun 20;316(7148):1907.

Beyond conflict of interest. What is truth as it relates to albumin? [letter; comment] Dearlove O. **BMJ** 1999 Feb 13;318(7181):464. Comment on: BMJ 1998 Jul 25;317(7153):223–4. Comment on: BMJ 1998 Aug 1;317(7154):291–2. Comment on: BMJ 1998 Aug 1;317(7154):343.

Pleasing both authors and readers. Summary of electronic responses [letter] Delamothe T, et al. **BMJ** 1999 Aug 28; 319(7209):580

The joy of being electronic. The BMJ's website is mushrooming [editorial] Delamothe T, et al. **BMJ** 1999 Aug 21;319(7208):465–6

Pleasing both authors and readers. A combination of short print articles and longer electronic ones may help us do this [editorial] Delamothe T, et al. **BMJ** 1999 Apr 3; 318(7188):888–9

What is publication? Cross references to updates of systematic reviews should be published [letter] Erny S, et al. **BMJ** 1999 Jul 31;319(7205):317–8

Pleasing both authors and readers. From ELPS to hypER papers. [letter] Eysenbach G. **BMJ** 1999 Aug 28; 319(7209):579–80

AMA's scheme to protect JAMA's independence has drawbacks [news] Ferriman A. **BMJ** 1999 Jun 19; 318(7199):1645

Structuring the discussion of scientific papers. Results of single studies must be assessed in context of relevant systematic reviews [letter] Jefferson T. **BMJ** 1999 Aug 28; 319(7209):580

"Black boxing:" response by editor of hospital doctor [letter] Johnson P. **BMJ** 1999 Aug 21;319(7208):520

JAMA's editor sacked. World medical journal editors should establish an award for editorial integrity in Lundberg's name [letter; comment] Nylenna M. **BMJ** 1999 Feb 6; 318(7180):394. Comment on: BMJ 1999 Jan 23;318(7178):213.

Treating type 2 diabetes. Important findings should not be published in two journals [letter; comment] Richards J. **BMJ** 1999 Mar 6;318(7184):667–8. Comment on: BMJ 1998 Sep 12;317(7160):703–13. Comment on: BMJ 1998 Sep 12;317(7160):713–20. Comment on: BMJ 1998 Sep 12;317(7160):720–6.

Another editor bites the dust. Trust is needed to balance editorial independence and accountability [editorial] Smith R. **BMJ** 1999 Jul 31;319(7205):272

What is publication? [editorial] Smith R. **BMJ** 1999 Jan 16; 318(7177):142

Former JAMA editor starts electronic journal [news] Tanne JH. **BMJ** 1999 Apr 24;318(7191):1094

US medical association reaches agreement with sacked editor [news] Tanne JH. **BMJ** 1999 Feb 13;318(7181):416

Trusting the Internet [editorial] Grace M. **Br Dent J** 1998 Sep 12;185(5):207

The BJO goes full text on the web; www.bjophthalmol.com [editorial] Forrester JV. **Br J Ophthalmol** 1999 Apr; 83(4):383

Virtual or actual: the term library is enough [comment]

Braude RM. **Bull Med Libr Assoc** 1999 Jan;87(1):85–7. Comment on: Bull Med Libr Assoc 1999 Jan;87(1):9–19.

Medical faculty use of the journal literature, publishing productivity and the size of health sciences library journal collections. Byrd GD. **Bull Med Libr Assoc** 1999 Jul; 87(3):312–21

Biomedical research publishing: radical changes ahead [news] **Bull World Health Organ** 1999;77(7):610–1

Editorial independence—publisher's view [editorial; comment] Kalina RB. **Can J Cardiol** 1999 Aug;15(8):908–9 . Comment on: Can J Cardiol 1999 Aug;15(8):904–7. **(Eng, Fre)**

Editorial independence [editorial; comment] Smith ER. **Can J Cardiol** 1999 Aug;15(8):904–7. Comment on: Can J Cardiol 1999 Aug;15(8):908–9. **(Eng, Fre)**

MEDLINE-induced blindness [editorial; comment] Baum GL. **Chest** 1999 May;115(5):1224. Comment on: Chest 1998 Aug;114(2):436–43.

Critical appraisal of the health research literature: prevalence or incidence of a health problem. Loney PL, et al. **Chronic Dis Can** 1998;19(4):170–6 (27 ref.)

Rapport? [letter; comment] Arjomand H. **Circulation** 1999 Jun 29;99(25):3323–4. Comment on: Circulation 1998 Aug 25;98(8):734–41.

Chiropractic and orthodoxy [letter] Gauthier CA. **CMAJ** 1999 Jun 1;160(11):1554, 1556

US editorial writers put Canadian health care under microscope [see comments] Gray C. **CMAJ** 1998 Dec 1; 159(11):1395–7. Comment in: CMAJ 1999 Mar 9;160(5):633.

E-biomed: scientific publishing's brave new world [editorial] Hoey J. **CMAJ** 1999 Jul 13;161(1):41–2

Signed consent for publication [letter; comment] Wong HC. **CMAJ** 1999 Feb 9;160(3):315. Comment on: CMAJ 1998 Sep 8;159(5):503–4.

Experiments carried out over the Web [editorial; comment] Mehler J. **Cognition** 1999 Jul 30;71(3):187–9. Comment on: Cognition 1999 Jul 30;71(3):191–229.

How would you like your infectious disease statistics? **Commun Dis Rep CDR Wkly** 1999 Jul 2;9(27):237, 240

Early man, late journalists. Harris RF. **Curr Biol** 1999 Jun 3;9(11):R388

Immediacy is both a liability and an asset of the Internet [editorial; comment] Huntley A. **Dermatol Online J** 1997 Dec;3(2):11b. Comment on: Dermatol Online J 1997 Mar;3(1):3.

Reply to Krabshuis [letter; comment] Kiley R. **Endoscopy** 1998 Sep;30(7):666–7. Comment on: Endoscopy 1997 Nov;29(9):871–82.

E-biomed: improving access or a threat to peer review? [news] Walsh JH. **Gastroenterology** 1999 Aug;117(2):293–4

More on-line publishing [news] Busby B. **Health Phys** 1999 Jun;76(6):604

Copyright problems in journal publishing [news] Naik SR, et al. **Indian J Gastroenterol** 1999 Jul–Sep;18(3):97–8

Vancouver to Prague and author to contributor: old wine in new bottle? [news] Naik SR. **Indian J Gastroenterol** 1999 Apr–Jun;18(2):54–6

Aid to good medical writing. Krishna A. **Indian Pediatr** 1998 May;35(5):447–51

New technologies: how can journals best serve their readers? [editorial; comment] Springthorpe S. **Infect Control Hosp Epidemiol** 1999 Jul;20(7):463–4. Comment on: Infect Control Hosp Epidemiol 1999 Jul;20(7):465–72. Comment on: Infect Control Hosp Epidemiol 1999 Jul;20(7):514–6. Comment on: Infect Control Hosp Epidemiol 1999 Jul;20(7):458.

Peer-reviewed journals and quality [editorial] Swartz K. **Inquiry** 1999 Summer;36(2):119–21

Publication of adverse events in exercise studies involving nutritional agents. Engels HJ. **Int J Sport Nutr** 1999 Mar; 9(1):89–91

The case for case reports [comment] Lee WM. **Ital J Gastroenterol Hepatol** 1998 Jun;30(3):318–9. Comment on: Ital J Gastroenterol Hepatol 1998 Jun;30(3):310–4. Comment on: Ital J Gastroenterol Hepatol 1998 Jun;30(3):315–7.

Publishing the results of factor analysis: interpretation and presentation. Watson R. **J Adv Nurs** 1998 Dec;28(6):1361–3 (21 ref.)

Dermatologic(al) sesquipedalianism. Bernhard JD. **J Am Acad Dermatol** 1999 Apr;40(4):626–30

Editorial independence—what did we learn from the Journal of the American Medical Association? [editorial] Parmley WW. **J Am Coll Cardiol** 1999 Jun;33(7):2083–4

To publish or not to publish: that is the question [editorial; comment] [see comments] Parmley WW. **J Am Coll Cardiol** 1998 Nov;32(5):1468. Comment on: J Am Coll Cardiol 1998 Nov;32(5):1194–200. Comment on: J Am Coll Cardiol 1998 Nov;32(5):1201–6. Comment in: J Am Coll Cardiol 1999 Jun;33(7):2089–90.

Science and editorial independence, American style [editorial] Chavkin W. **J Am Med Womens Assoc** 1999 Spring;54(2):59

The writing of clinical papers: the analyst as illusionist. Plaut F. **J Anal Psychol** 1999 Jul;44(3):375–93; discussion 395–8

The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. Pelios L, et al. **J Appl Behav Anal** 1999 Summer;32(2):185–95

Conversations with a cab driver [editorial] Rangaswamy L. **J Bone Joint Surg Am** 1998 Oct;80(10):1407–9

A "virtual" electronic journal: interactive, innovative, interdisciplinary, and international [editorial] Curry SE, et al. **J Clin Anesth** 1999 Mar;11(2):148–9

Abstruse comparisons: the problems of numerical contrasts of two groups. Yueh B, et al. **J Clin Epidemiol** 1999 Jan; 52(1):13–8

Digital photography of digital imaging and communications in medicine-3 images from computers in the radiologist's office. Chin H, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):192–4

Papers by family physicians that have influenced the way I practice [editorial] Rodnick JE. **J Fam Pract** 1999 Apr; 48(4):257–8

Medical editors, journal owners, and the sacking of George Lundberg [editorial] Fletcher SW, et al. **J Gen Intern Med** 1999 Mar;14(3):200–2

The Internet, infection control, and world domination: http://www.his.org.uk/. Kelsey MC, et al. **J Hosp Infect** 1998 Oct;40(2):91–5

Medical advice editorials: transferring medical science into clinical practice [editorial] Gross A, et al. **J Lab Clin Med** 1999 Sep;134(3):185–9 (19 ref.)

Communicating science to the public: whose job is it anyway? [news] **J Natl Cancer Inst** 1998 Oct 21;90(20):1509–10

SV40 bugaboo: spinning the news [news] Kuska B. **J Natl Cancer Inst** 1999 Apr 21;91(8):662–4

A reasonable approach to patient consent for publication [letter] Leonard MS. **J Oral Maxillofac Surg** 1998 Nov; 56(11):1364

Publication rates for the scientific sessions of the OTA. Orthopaedic Trauma Association. Nguyen V, et al. **J Orthop Trauma** 1998 Sep–Oct;12(7):457–9; discussion 456

Should the Journal of Pediatric Gastroenterology and Nutrition participate in politically sensitive debates? [news] Walker WA. **J Pediatr Gastroenterol Nutr** 1999 May; 28(5):459

Journal of Pharmacy and Pharmacology and the electronic publishing revolution [editorial] Chamberlain J. **J Pharm Pharmacol** 1999 Jul;51(7):753–4

Yes, Virginia, there is a right way to write [editorial] Sullivan EJ. **J Prof Nurs** 1999 Jan–Feb;15(1):1–2

Where do UK health services researchers publish their findings? Black N, et al. **J R Soc Med** 1999 Mar; 92(3):129–31

JAMA and editorial independence [editorial] [see comments] **JAMA** 1999 Feb 3;281(5):460. Comment in: JAMA 1999 May 19;281(19):1793–4.

The firing of Dr Lundberg [letter; comment] Balon R. **JAMA** 1999 May 19;281(19):1792–3. Comment on: JAMA 1999 Feb 3;281(5):403.

The firing of Dr Lundberg [letter; comment] Basnyat B, et al. **JAMA** 1999 May 19;281(19):1791. Comment on: JAMA 1999 Feb 3;281(5):403.

Clinical epidemiological quality in molecular genetic research: the need for methodological standards. Bogardus ST Jr, et al. **JAMA** 1999 May 26;281(20):1919–26

The firing of Dr Lundberg [letter; comment] Bologna M, et al. **JAMA** 1999 May 19;281(19):1789. Comment on: JAMA 1999 Feb 3;281(5):403.

Independence, governance, and trust: redefining the relationship between JAMA and the AMA [editorial] Davies HT, et al. **JAMA** 1999 Jun 23–30;281(24):2344–6

The firing of Dr Lundberg [letter; comment] Fihn SD, et al. **JAMA** 1999 May 19;281(19):1790–1. Comment on: JAMA 1999 Feb 3;281(5):403.

The firing of Dr Lundberg [letter; comment] Foege WH. **JAMA** 1999 May 19;281(19):1789–90. Comment on: JAMA 1999 Feb 3;281(5):403.

The firing of Dr Lundberg [letter; comment] Fulginiti VA. **JAMA** 1999 May 19;281(19):1790. Comment on: JAMA 1999 Feb 3;281(5):403.

Educating patients: one-year anniversary of the JAMA Patient Page [editorial] Glass RM, et al. **JAMA** 1999 Apr 28;281(16):1544

George D. Lundberg ousted as JAMA editor [news] [see comments] Goldsmith MF. **JAMA** 1999 Feb 3;281(5):403 . Comment in: JAMA 1999 May 19;281(19):1789. Comment in: JAMA 1999 May 19;281(19):1789–90. Comment in: JAMA 1999 May 19;281(19):1790. Comment in: JAMA 1999 May 19;281(19):1790–1. Comment in: JAMA 1999 May 19;281(19):1791. Comment in: JAMA 1999 May 19;281(19):1791–2. Comment in: JAMA 1999 May 19;281(19):1792. Comment in: JAMA 1999 May 19;281(19):1792–3. Comment in: JAMA 1999 May 19;281(19):1793.

Editorial independence and THE JOURNAL [letter; comment] Hoffman JR, et al. **JAMA** 1999 May 19; 281(19):1793–4. Comment on: JAMA 1999 Feb 3;281(5):460.

The firing of Dr Lundberg [letter; comment] Legere JB. **JAMA** 1999 May 19;281(19):1791. Comment on: JAMA 1999 Feb 3;281(5):403.

The firing of Dr Lundberg [letter; comment] Lincoln TL. **JAMA** 1999 May 19;281(19):1791. Comment on: JAMA 1999 Feb 3;281(5):403.

The firing of Dr Lundberg [letter; comment] Manganiello P. **JAMA** 1999 May 19;281(19):1793. Comment on: JAMA 1999 Feb 3;281(5):403.

Governance plan paves way for search for JAMA editor [news] Mitka M. **JAMA** 1999 Jun 23–30;281(24):2275–6

NEJM editor Jerome P. Kassirer, MD, loses post over "administrative issues" [news] Mitka M. **JAMA** 1999 Aug 18;282(7):622–3

From the Food and Drug Administration. Nightingale SL. **JAMA** 1999 Feb 3;281(5):408

Accuracy of data in abstracts of published research articles [see comments] Pitkin RM, et al. **JAMA** 1999 Mar 24–31; 281(12):1110–1. Comment in: JAMA 1999 Mar 24–31;281(12):1129–30.

Editors and owners—stretching reputation too far [editorial] Rennie D. **JAMA** 1999 Aug 25;282(8):783–4

Editorial governance of the Journal of the American Medical Association: a report. Rosenberg RN, et al. **JAMA** 1999 Jun 16;281(23):2239–42

The firing of Dr Lundberg [letter; comment] Scalettar R. **JAMA** 1999 May 19;281(19):1792. Comment on: JAMA 1999 Feb 3;281(5):403.

The JAMA patient page [letter] Tsourounis C. **JAMA** 1998 Oct 14;280(14):1232

The firing of Dr Lundberg [letter; comment] Van Gerpen JA. **JAMA** 1999 May 19;281(19):1791–2. Comment on: JAMA 1999 Feb 3;281(5):403.

Higher standards for epidemiologic studies—replication prior to publication? [letter] Weed DL. **JAMA** 1999 Sep 8; 282(10):937–8

Letters: a forum for scientific discourse [editorial] Winker MA, et al. **JAMA** 1999 Apr 28;281(16):1543

The firing of Dr Lundberg [letter; comment] Zinner E. **JAMA** 1999 May 19;281(19):1792. Comment on: JAMA 1999 Feb 3;281(5):403.

NIH E-biomed proposal: a welcome jolt [editorial] **Lancet** 1999 Jun 12;353(9169):1985

How can medical journals help prevent poor medical research? Some opportunities presented by electronic publishing [see comments] Chalmers I, et al. **Lancet** 1999 Feb 6;353(9151):490–3. Comment in: Lancet 1999 Feb 6;353(9151):428. Comment in: Lancet 1999 Apr 10;353(9160):1277.

NEJM's editor. New England Journal of Medicine [letter] Evjy JT, et al. **Lancet** 1999 Sep 4;354(9181):869

Timely publication of critical letters [letter; comment] Grant JM. **Lancet** 1999 Apr 3;353(9159):1190–1. Comment on: Lancet 1999 Feb 6;353(9151):509.

Biases in reporting of trials [letter; comment] Greenwood AN. **Lancet** 1999 Apr 10;353(9160):1277. Comment on: Lancet 1999 Feb 6;353(9151):490–3.

An unwilling exit from the NEJM. New England Journal of Medicine [comment] Horton R. **Lancet** 1999 Jul 31; 354(9176):358. Comment on: Lancet 1999 Jul 31;354(9176):399.

Confusion as New England Journal editor is forced out [news] [see comments] Horton R. **Lancet** 1999 Jul 31; 354(9176):399. Comment in: Lancet 1999 Jul 31;354(9176):358.

NEJM's editor. New England Journal of Medicine [letter] Kassirer JP. **Lancet** 1999 Sep 4;354(9181):869

Lancet electronic research archive in international health and eprint server. McConnell J, et al. **Lancet** 1999 Jul 3; 354(9172):2–3

Authorship criteria and academic reward [letter; comment] Marusić A, et al. **Lancet** 1999 May 15;353(9165):1713–4. Comment on: Lancet 1998 Sep 12;352(9131):892.

UNAIDS to publish HIV-vaccine-trial ethics guidance [news] Ramsay S. **Lancet** 1999 Sep 11;354(9182):923

Review of research protocols [comment] Roy LP. **Lancet** 1999 Feb 6;353(9151):428. Comment on: Lancet 1999 Feb 6;353(9151):490–3.

Ombudsman's third report. Sherwood T. **Lancet** 1999 Jul 10;354(9173):91–2

NEJM's editor. New England Journal of Medicine [letter] Tormey WP. **Lancet** 1999 Sep 4;354(9181):869

Peer review: studying the major otolaryngology journals. Bhattacharyya N. **Laryngoscope** 1999 Apr;109(4):640–4

Uniform requirements for manuscripts submitted to biomedical journals. International Committee of Medical Journal Editors. **Med Educ** 1999 Jan;33(1):66–78 (00 ref.)

What happens to manuscripts submitted to the Journal? [editorial] Bligh J. **Med Educ** 1998 Nov;32(6):567–70

Nursing e-journals: are current models using the web's potential? Murray PJ, et al. **Medinfo** 1998;9 Pt 1:135–9 (9 ref.)

"E-biomed" and clinical research [letter] Ammann AJ. **N Engl J Med** 1999 Sep 30;341(14):1080; discussion 1081

"E-biomed" and clinical research [letter] Bell C, et al. **N Engl J Med** 1999 Sep 30;341(14):1080–1; discussion 1081

"E-biomed" and clinical research [letter] Brodkin ES, et al. **N Engl J Med** 1999 Sep 30;341(14):1080; discussion 1081

Expediting publication to inform political debates [letter; comment] Granat P. **N Engl J Med** 1999 May 27; 340(21):1682–3. Comment on: N Engl J Med 1999 Feb 11;340(6):466–7.

Expediting publication to inform political debates [letter; comment] Hickman JR Jr. **N Engl J Med** 1999 May 27; 340(21):1682. Comment on: N Engl J Med 1999 Feb 11;340(6):466–7.

Should medical journals try to influence political debates? [editorial] [see comments] Kassirer JP. **N Engl J Med** 1999 Feb 11;340(6):466–7. Comment in: N Engl J Med 1999 May 27;340(21):1681. Comment in: N Engl J Med 1999 May 27;340(21):1681–2. Comment in: N Engl J Med 1999 May 27;340(21):1682. Comment in: N Engl J Med 1999 May 27;340(21):1682–3.

Expediting publication to inform political debates [letter; comment] Phillips RL Jr, et al. **N Engl J Med** 1999 May 27;340(21):1681. Comment on: N Engl J Med 1999 Feb 11;340(6):466–7.

Expediting publication to inform clinical debates [letter; comment] Sade RM. **N Engl J Med** 1999 May 27; 340(21):1681–2. Comment on: N Engl J Med 1999 Feb 11;340(6):466–7.

Expediting publication to inform political debates [letter; comment] Scalettar R. **N Engl J Med** 1999 May 27; 340(21):1682. Comment on: N Engl J Med 1999 Feb 11;340(6):466–7.

Alternative medicine—the case of herbal remedies [letter] Siegel BS. **N Engl J Med** 1999 Feb 18;340(7):565; discussion 566

"E-biomed" and clinical research [letter] Tramont EC. **N Engl J Med** 1999 Sep 30;341(14):1081

A duty to publish [editorial; comment] [see comments] **Nat Med** 1998 Oct;4(10):1089. Comment on: Nat Med 1998 Oct;4(10):1095. Comment in: Nat Med 1999 Jan;5(1):2–3.

Overuse of impact factors suppresses controversial ideas [letter; comment] Gillis JM. **Nat Neurosci** 1999 Feb;2(2):101 . Comment on: Nat Neurosci 1998 Dec;1(8):641–2.

Would you use an e-print server? [editorial] **Nat Struct Biol** 1999 May;6(5):399–400

JAMA editor sacked [editorial] Kale R. **Natl Med J India** 1999 Jan–Feb;12(1):1–2

Hybrid journals [letter] Annapoorani B, et al. **Nature** 1998 Oct 22;395(6704):739–40

Cell sale to Elsevier will boost web ventures [news] Butler D. **Nature** 1999 Apr 15;398(6728):551

The writing is on the web for science journals in print [news] [see comments] Butler D. **Nature** 1999 Jan 21; 397(6716):195–200. Comment in: Nature 1999 Mar 4;398(6722):20. Comment in: Nature 1999 Mar 18;398(6724):186.

Europe's molecular biologists could join global e-journal plan [news] Butler D. **Nature** 1999 May 27;399(6734):292

Mixed response to NIH's web journal plan [news] Butler D, et al. **Nature** 1999 May 6;399(6731):8–9

NIH plan brings global electronic journal a step nearer reality [news] Butler D. **Nature** 1999 Apr 29;398(6730):735

One-stop shop for 200 life science journals [news] Butler D. **Nature** 1999 Jun 24;399(6738):720

EMBO backs single electronic repository. European Molecular Biology Organization [news] Butler D. **Nature** 1999 Jul 8;400(6740):97

US biologists propose launch of electronic preprint archive [news] Butler D. **Nature** 1999 Jan 14;397(6715):91

Close the South-North knowledge gap [letter] [see comments] Canhos V, et al. **Nature** 1999 Jan 21; 397(6716):201. Comment in: Nature 1999 Mar 18;398(6724):186.

Personal computers spur drive to keep control over copyright [news] [see comments] Dalton R. **Nature** 1998 Nov 26; 396(6709):293. Comment in: Nature 1999 Jan 21;397(6716):201–2.

Bumpy ride for 'core e-journals' project [news] Dalton R. **Nature** 1999 Jul 15;400(6741):200

Forging links in an electronic paper chain [letter; comment] Gerstein M. **Nature** 1999 Mar 4;398(6722):20. Comment on: Nature 1999 Jan 21;397(6716):195–200.

Words go missing in cyberspace [letter; comment] Golowasch J, et al. **Nature** 1999 Mar 18;398(6724):186. Comment on: Nature 1999 Jan 21;397(6716):195–200. Comment on: Nature 1999 Jan 21;397(6716):201.

Sprucing up one's impact factor [letter] Gowrishankar J, et al. **Nature** 1999 Sep 23;401(6751):321–2

Journals are best left on the shelf [letter] Grafton AK. **Nature** 1998 Oct 22;395(6704):739

Computers and the copyright conundrum [letter; comment] Karjala DS. **Nature** 1999 Jan 21;397(6716):201–2. Comment on: Nature 1998 Nov 26;396(6709):293.

E-Biomed to be launched as a repository for research [news] Macilwain C. **Nature** 1999 Sep 2;401(6748):6

Editors' responsibility in defeating fraud [letter] Meguid MM. **Nature** 1999 May 6;399(6731):13

California's libraries get wired up to e-journals [letter] Reader EA. **Nature** 1999 Sep 16;401(6750):207

Words go missing in cyberspace [letter; comment] Redfield R. **Nature** 1999 Mar 18;398(6724):186. Comment on: Nature 1999 Jan 21;397(6716):195–200.

Asia backs E-Biomed 'with peer review' [news] Saegusa A. **Nature** 1999 Aug 5;400(6744):491

National project to boost Japan's net presence [news] Saegusa A. **Nature** 1999 Apr 29;398(6730):735

Global e-journal must take radical approach [letter] Sultzbaugh L. **Nature** 1999 Jul 15;400(6741):207

Critics query financing of proposed 'E-Biomed' [news] Wadman M. **Nature** 1999 Jul 15;400(6741):200

Varmus defends plan for global biomedical e-journal [news] Wadman M. **Nature** 1999 Jun 24;399(6738):720

Electronic research dissemination [editorial] Dougherty MC. **Nurs Res** 1999 Sep–Oct;48(5):239

Does it take a village to write a case report? Har-el G. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):787–8

Electronic publishing—a challenge in medical information exchange. Kayser K, et al. **Pathologica** 1998 Jun;90(3):321–4 (25 ref.)

Third editor-in chief [editorial] Reigel DH. **Pediatr Neurosurg** 1998 Jan;28(1):1

Progress of ICD-10 (F) family in Japan: research, field trials and publications. Takada K, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S341–3 (15 ref.)

Research productivity in the areas of child abuse and domestic violence. Gordon RA, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):887–98

Publishing complexity [editorial] Becker PT. **Res Nurs Health** 1999 Aug;22(4):269–70

From thesis to publication of a paper: some ideas and suggestions. Katchburian E. **Rev Paul Med** 1998 Mar–Apr; 116(2):1686–8

Der Impact Faktor: Eine kritische Analyse. The impact factor: a critical analysis [letter; comment] Hoeffel C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):615. Comment on: Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Sep;169(3):220–6.

Paradigms lost [letter; comment] Ashford J. **Science** 1999 Apr 23;284(5414):591. Comment on: Science 1999 Mar 26;283(5410):1998–9.

Plant science. Data in key papers cannot be reproduced [news] [see comments] Balter M. **Science** 1999 Mar 26; 283(5410):1987, 1989. Comment in: Science 1999 May 21;284(5418):1275.

E-publication proposal [letter] Baum H. **Science** 1999 Aug 13;285(5430):1014

Embracing the embargo [editorial] Bloom FE. **Science** 1998 Oct 30;282(5390):877

Just a minute, please [editorial] Bloom FE. **Science** 1999 Jul 9;285(5425):197

Scientific publications. The march of paradigms [news] [see comments] Cohen J. **Science** 1999 Mar 26;283(5410):1998–9 . Comment in: Science 1999 Apr 23;284(5414):591.

Publishers' honeymoon? [letter; comment] Guenin LM. **Science** 1998 Nov 13;282(5392):1267–8. Comment on: Science 1998 Sep 4;281(5382):1451. Comment on: Science 1998 Sep 4;281(5382):1459–60.

UC-Genentech trial [letter; comment] Henner D, et al. **Science** 1999 May 28;284(5419):1465. Comment on: Science 1999 May 7;284(5416):883, 885–6.

Journal prices [letter] Hites RA. **Science** 1999 Mar 12; 283(5408):1643–4

Dispute over a legendary fish [news] Holden C. **Science** 1999 Apr 2;284(5411):22–3

Nature Medicine's reply policy [news; comment] Ivinson AJ. **Science** 1998 Oct 9;282(5387):239. Comment on: Science 1998 Sep 18;281(5384):1805.

Plan for divulging raw data eases fears [news] Kaiser J. **Science** 1999 Feb 12;283(5404):914–5

E-publication proposal [letter] Kirschner MW. **Science** 1999 Aug 13;285(5430):1013

New journals launched to fight rising prices [news] Malakoff D. **Science** 1998 Oct 30;282(5390):853–4

Library-society alliance puts bio journals online [news] Malakoff D. **Science** 1999 Jun 25;284(5423):2063, 2065

E-publication proposal [letter] Marchesi V. **Science** 1999 Aug 13;285(5430):1013–4

Varmus defends E-biomed proposal, prepares to push ahead [news] Marshall E. **Science** 1999 Jun 25;284(5423):2062–3

Embargoes: good, bad, or 'necessary evil'? [news] Marshall E. **Science** 1998 Oct 30;282(5390):861–3,865–7

Scientific meetings produce clash of agendas [news] Marshall E. **Science** 1998 Oct 30;282(5390):867–8

NIH weighs bold plan for online preprint publishing [news] Marshall E. **Science** 1999 Mar 12;283(5408):1610–1

U.S., European backers differ on E-biomed plan [news] Marshall E. **Science** 1999 Jul 16;285(5426):315

Varmus circulates proposal for NIH-backed online venture [news] Marshall E. **Science** 1999 Apr 30;284(5415):718

NIH's online publishing venture ready for launch [news] Marshall E. **Science** 1999 Sep 3;285(5433):1466

E-biomed morphs to E-biosci, focus shifts to reviewed papers [news] Marshall E. **Science** 1999 Aug 6; 285(5429):810–1

DOE builds a web site for the physical sciences [news] Marshall E. **Science** 1999 Aug 6;285(5429):811

Publishing controversial research [editorial; comment] Miller FJ, et al. **Science** 1998 Nov 6;282(5391):1045. Comment on: Science 1998 Nov 6;282(5391):1145–7.

How about trying even harder...? [editorial] Senn HJ. **Support Care Cancer** 1999 Mar;7(2):59

Careers-perspective interview [interview] King S. **Trends Cell Biol** 1999 Jul;9(7):288

Underwater and Hyperbaric Medicine: from current literature. **Undersea Hyperb Med** 1999 Spring;26(1):51–8

The JAMA firing [editorial] Shuchman M. **West J Med** 1999 Apr;170(4):233

Graduate student-faculty collaboration in research and publication. Whitley GG, et al. **West J Nurs Res** 1998 Oct; 20(5):572–83

[Good scientific practice] Andersen D. **Ugeskr Laeger** 1999 Feb 1;161(5):610–8 **(Dan)**

[George Lundberg, editor of JAMA, sacked by the American Medical Society] Højgaard L. **Ugeskr Laeger** 1999 Feb 1; 161(5):609 **(Dan)**

[Future of scientific journals. News from the meeting of the Council of Biology Editors in Montreal 22–26 May 1999 and the Vancouver group meeting in Ottawa 27–28 May 1999] Højgaard L. **Ugeskr Laeger** 1999 Jun 28; 161(26):4014–7 **(Dan)**

[From manuscript to article] Lindegaard SW. **Ugeskr Laeger** 1998 Dec 21;160(52):7622–6 **(Dan)**

[Publications] Skjaerbaek CB. **Ugeskr Laeger** 1999 Aug 16; 161(33):4644–6 (0 ref.) **(Dan)**

[Pharmacotherapeutic compass 1998] Houwink PE. **Ned Tijdschr Geneeskd** 1998 Jun 6;142(23):1348 **(Dut)**

[Why a "New Technologies" rubric in the Annals of Surgery? (editorial)] Gossot D. **Ann Chir** 1998;52(1):10 **(Fre)**

["History of Medicine" rubrics in our scientific journal (editorial)] Pocard M. **Ann Chir** 1998;52(2):123 **(Fre)**

[The impact factor of medical journals: the judgment of Solomon or the dance of the 7 veils? (editorial)] Pocard M. **Ann Chir** 1998;52(7):595–7 **(Fre)**

[Eulogy of the present (editorial)] Delaunay M. **Ann Dermatol Venereol** 1998 Sep;125(9):567–8 **(Fre)**

[Mister Fline, always (editorial)] Lorette G. **Ann Dermatol Venereol** 1998 Sep;125(9):571–2 **(Fre)**

[Medical continuing education in oncology. The Editorial Committee. (editorial)] **Bull Cancer** 1998 Nov;85(11):915 **(Fre)**

[Plebiscite? (editorial)] Lacaine F. **J Chir (Paris)** 1999 Mar; 136(1):3–4 **(Fre)**

[Value of high-frequency ultrasonography (20MHz) in the diagnosis of cutaneous tumors (editorial; comment)] Peetrons P. **J Radiol** 1998 Apr;79(4):305. Comment on: J Radiol 1998 Apr;79(4):313–7. **(Fre)**

[The IMRED (introduction, methods, results, discussion) plan is also suitable for reviews in education and health promotion] Arwidson P, et al. **Sante Publique** 1998 Jun; 10(2):171–4 **(Fre)**

[Re-writing or how to move from writing to publication (editorial)] Laurent-Beq A. **Sante Publique** 1998 Jun; 10(2):117–8 **(Fre)**

[Methodological quality of studies and publications (editorial)] Köbberling J. **Med Klin** 1999 Jan 15;94(1):IV **(Ger)**

[Methodological quality of controlled studies in the "Medizinische Klinik" journal. Analysis of contributions appearing between 1979 and 1996] Mihan L, et al. **Med Klin** 1999 Jan 15;94(1):1–8 (Eng. Abstr.) **(Ger)**

[Address of the president of the Society. Society of Oromaxillofacial Surgery] Reuther JF. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S3–5 **(Ger)**

[Ophthalmologic periodicals and publications on the internet] Kuchenbecker J, et al. **Ophthalmologe** 1999 Jul;96(7):470–2 **(Ger)**

[Time-tested methods—improved by innovations... The journal "Der Orthopäde" introduces new original concepts (editorial)] Rössling W, et al. **Orthopade** 1999 Jan;28(1):1–2 **(Ger)**

[Addendum to the work. Experience with the reference manager EndNote-EndLink (letter)] Reiss M, et al. **Radiologe** 1999 Mar;39(3):244 **(Ger)**

[Experience with the reference manager EndNote-EndLink] Reiss M, et al. **Radiologe** 1998 Sep;38(9):779–82 (Eng. Abstr.) **(Ger)**

[Preparing a manuscript for publication in a scientific journal] Claes L, et al. **Unfallchirurg** 1999 May;102(5):377–83 (6 ref.) (Eng. Abstr.) **(Ger)**

[To be or not to be (letter)] Baroldi G. **G Ital Cardiol** 1999 Feb;29(2):222–3 **(Ita)**

[Is the GIC really necessary in English (letter)] Tavazzi L. **G Ital Cardiol** 1998 Oct;28(10):1172–4 **(Ita)**

[The importance of an "indexed" journal (editorial)] Martinelli G. **Minerva Anestesiol** 1999 Jan–Feb;65(1–2):1–3 **(Ita)**

[Research publication, the faculties, the Tidsskrift] Jensen P, et al. **Tidsskr Nor Laegeforen** 1999 Feb 10;119(4):489 **(Nor)**

[E-biomed—future dissemination of research?] Nylenna M. **Tidsskr Nor Laegeforen** 1999 Jun 20;119(16):2313 **(Nor)**

[The University publishing house and the role of the universities] Nylenna M. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2797 **(Nor)**

[The firing of JAMA's editor is a shame for the American Medical Society] Nylenna M. **Tidsskr Nor Laegeforen** 1999 Jan 30;119(3):351 **(Nor)**

[Ethics of research and publication] Alcalá-Zamora J, et al. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:22–6 **(Spa)**

[Original article (II): materials and methods] Argimón Pallás JM, et al. **Aten Primaria** 1998 Oct 15;22(6):387–90 **(Spa)**

[Gaceta Sanitaria: a messenger in the house of public health (editorial)] Plasència A. **Gac Sanit** 1999 Jan–Feb;13(1):4–5 **(Spa)**

[Toward the 40th anniversary of "Investigación Clínca" in the year 2000 (editorial)] Almarza D. **Invest Clin** 1999 Jun; 40(2):79–80 **(Spa)**

[The publication in biomedical journals of clinical trial protocols: a new way to improve research quality (editorial)] Bosch X. **Rev Esp Cardiol** 1999 May; 52(5):359–61 (29 ref.) **(Spa)**

[The Internet application to neurology: electronic forums of Revista de Neurología. How The Internet, Medicine and Neurology Forum has been developed (editorial)] Botia E. **Rev Neurol** 1998 Apr;26(152):578–80 (Eng. Abstr.) **(Spa)**

[Electronic forum of Revista de neurología: 'Internet, Medicine and Neuroglia' Mola S, et al. **Rev Neurol** 1998 Apr;26(152):625–32 (Eng. Abstr.) **(Spa)**

[The editor of JAMA fired after 17 years because of publishing a study on sex] Karlsson Y. **Lakartidningen** 1999 Jan 27;96(4):299 **(Swe)**

ECONOMICS

Show me the money: funding informatics research. Corn M. **MD Comput** 1999 Jul–Aug;16(4):17–20

University libraries put pen to paper in journal pricing protest [news] Abbott A. **Nature** 1999 Apr 29;398(6730):740

What price 'prestige' in publishing? [letter] Berezin AA.

Nature 1999 Aug 19;400(6746):707
Libraries offer incentive for web-based rivals to 'costly' journals [news] Wadman M. **Nature** 1999 Mar 25; 398(6725):272

HISTORY

Expanding the global horizon of the Archives: the 10th anniversary of publication of the Chinese-language edition [editorial] Tso MO. **Arch Ophthalmol** 1998 Oct; 116(10):1362-3
175 years at The Lancet. The editors. Kandela P. **Lancet** 1998 Oct 3;352(9134):1141-3
An historical and critical review of the articles on blood pressure published in Psychosomatic Medicine between 1939 and 1997. Engel BT. **Psychosom Med** 1998 Nov-Dec; 60(6):682-96 (208 ref.)
Praise be to psychosomatic medicine [editorial] Weiner H. **Psychosom Med** 1999 May-Jun;61(3):259-62 (15 ref.)
Credit for discoveries: citation data as a basis for history of science analysis. Lindahl BI, et al. **Theor Med Bioeth** 1998 Dec;19(6):609-20
[Fifty years of the column Question and Answer' (published erratum appears in Ned Tijdschr Geneeskd 1998 Oct 3;142(40):2232)] Bloemenkamp DG, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1735-7 (Eng. Abstr.) **(Dut)**
[Nordisk Medicine 1929-1998. Thanks and farewell! (editorial)] Nylenna M, et al. **Nord Med** 1998 Dec; 113(10):326-7 **(Nor, Swe)**
[Medicine and surgery books printed in New Spain and their authors in the first two centuries of colonial culture (1570-1692). Part II (see comments)] Rodríguez-Sala ML. **Gac Med Mex** 1998 Nov-Dec;134(6):719-40. Comment in: Gac Med Mex 1999 Jan-Feb;135(1):99. **(Spa)**
[Medical and surgical books printed in the New Spain and their authors during the 1st two centuries of colonial culture (1570-1692)] Rodríguez-Sala ML. **Gac Med Mex** 1998 Sep-Oct;134(5):587-608 **(Spa)**
[Exit Nordisk Medicin] Karlsson Y. **Lakartidningen** 1998 Dec 16;95(51-52):5861 **(Swe)**

INSTRUMENTATION

Desktop document delivery using portable document format (PDF) files and the Web. Shipman JP, et al. **Bull Med Libr Assoc** 1998 Jul;86(3):307-15

LEGISLATION & JURISPRUDENCE

Scientific misconduct and correcting the scientific literature [published erratum appears in Acad Med 1999 Jun;74(6):621] Parrish DM. **Acad Med** 1999 Mar; 74(3):221-30
Permission and confidentiality in publishing pedigrees [letter; comment] Schrock CR. **JAMA** 1998 Dec 2;280(21):1826-7 . Comment on: JAMA 1998 Jun 10;279(22):1808-12.
Academic and legal aspects of authorship disputes [letter; comment] Silverstein S. **JAMA** 1999 Jan 13;281(2):135-6 . Comment on: JAMA 1998 Jul 15;280(3):216-7.
Public access to data [editorial] Frankel MS. **Science** 1999 Feb 19;283(5405):1114
[More openness about the registration of drugs in the Netherlands. College for the Review of Medicinal Products] Konijnendijk A, et al. **Ned Tijdschr Geneeskd** 1998 Jul 11;142(28):1621-3 (Eng. Abstr.) **(Dut)**

MANPOWER

Peer review--the "who" and the "how" [editorial] Davis RM. **Tob Control** 1998 Summer;7(2):109-11

ORGANIZATION & ADMINISTRATION

Authorship: "Law" and order. Gaeta TJ. **Acad Emerg Med** 1999 Apr;6(4):297-301 (19 ref.)
Writing for AJOT [editorial] Hasselkus BR. **Am J Occup Ther** 1999 Mar-Apr;53(2):127-8
Surgical Internet at a glance: volume IX. Allen J. **Am J Surg** 1999 Mar;177(3):183 (0 ref.)
Distributed journal creation: another paradigm falls to the immediacy of the Internet [editorial] Huntley AC. **Dermatol Online J** 1997 Dec;3(2):10
Time to publication: status [editorial] Coatrieux JL. **IEEE Trans Biomed Eng** 1998 Oct;45(10):1193
The Lancet 175. Keeping up. Horton R. **Lancet** 1998;:SII1
The sacking of JAMA [letter] Shiwach RS. **Lancet** 1999 Mar 27;353(9158):1104
The Journal and its owner--resolving the crisis [editorial] Angell M. **N Engl J Med** 1999 Sep 2;341(10):752
Goodbye, for now [editorial] Kassirer JP. **N Engl J Med** 1999 Aug 26;341(9):686-7
Editorial independence [editorial] Kassirer JP. **N Engl J Med** 1999 May 27;340(21):1671-2
The NIH "E-biomed" proposal--a potential threat to the evaluation and orderly dissemination of new clinical studies [editorial] Relman AS. **N Engl J Med** 1999 Jun 10; 340(23):1828-9
Disseminating our breakthroughs: enacting a strategic framework. Brooten D, et al. **Nurs Outlook** 1999 May-Jun; 47(3):133-7
The Internet and nursing research [editorial] Dougherty MC. **Nurs Res** 1999 Jan-Feb;48(1):1
Electronic publishing and nursing research. Sparks SM. **Nurs Res** 1999 Jan-Feb;48(1):50-4 (3 ref.)
Turnover at the top at Cell and NEJM. Cell editor step down [news] Barinaga M. **Science** 1999 Sep 24;285(5436):2039
Scruples or squabbles? [editorial] Bloom FE. **Science** 1999 Aug 20;285(5431):1207
Turnover at the top at Cell and NEJM. NEJM publisher resigns [news] Holden C. **Science** 1999 Sep 24; 285(5436):2039
Kassirer forced out at New England Journal [news] Marshall E. **Science** 1999 Jul 30;285(5428):648-9
Peer review--the "who" and the "how" [editorial] Davis RM. **Tob Control** 1998 Summer;7(2):109-11
[Duration of the editorial process of the Atención Primaria journal] Jiménez Villa J. **Aten Primaria** 1999 May;23 Suppl 1:29-32 (Eng. Abstr.) **(Spa)**

STANDARDS

Publishing the research report. Cupples SA. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun;13 Suppl 1:S123-30
Re: "Invited commentary: What can we infer from author order in epidemiology?" [letter; comment] Baughman AL. **Am J Epidemiol** 1999 Sep 15;150(6):663. Comment on: Am J Epidemiol 1999 Mar 1;149(5):401-3.
What can we infer from author order in epidemiology? [comment] [see comments] Savitz DA. **Am J Epidemiol** 1999 Mar 1;149(5):401-3. Comment on: Am J Epidemiol 1997 Dec 1;146(11):912-8. Comment in: Am J Epidemiol 1999 Mar 1;149(5):401-3.
Guide to writing for publication in AJIC: American Journal of Infection Control. Goldrick BA, et al. **Am J Infect Control** 1999 Feb;27(1):35-46
Journalistic rights, and wrongs [editorial] Mason DJ. **Am J Nurs** 1999 Sep;99(9):7
Misleading authors' inferences in obstetric diagnostic test literature. Khan KS, et al. **Am J Obstet Gynecol** 1999 Jul; 181(1):112-5
How can we cope with the Internet? [editorial; comment] Tramèr MR. **Anesth Analg** 1999 Aug;89(2):271-2. Comment on: Anesth Analg 1999 Aug;89(2):520-5.
Addressing ethical issues in the psychiatric research literature [letter; comment] Miller FG, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):763-4. Comment on: Arch Gen Psychiatry 1997 May;54(5):401-7.
Whose freedom? [letter] Block AL. **Arch Intern Med** 1999 Sep 27;159(17):2092
Reviewers, authors, and editors: balance of power. Bressler NM. **Arch Ophthalmol** 1999 Apr;117(4):524-6 (13 ref.)
Does somebody else out there hate acronyms? [letter] Brubaker RF, et al. **Arch Ophthalmol** 1999 May; 117(5):701-2
US National Institutes of Health clarifies E-biomed database [news] Delamothe T. **BMJ** 1999 Jul 10;319(7202):73
CONSORT. Consolidated Standards of Reporting Trials [editorial] [see comments] Needleman I. **Br Dent J** 1999 Mar 13;186(5):207. Comment in: Br Dent J 1999 Jun 26;186(12):601.
The results are not perfect [editorial] Block AJ. **Chest** 1999 May;115(5):1223
A new editor looks to the past and future of Drug and Alcohol Dependence [editorial] Balster RL. **Drug Alcohol Depend** 1999 Jan 7;53(2):93-4
Re: Brekelmans et al: Comparison of combined versus subdural or intracerebral electrodes alone in presurgical focus localization. Epilepsia 1998; 39:1290-301 [letter; comment] Lehman RA. **Epilepsia** 1999 Aug;40(8):1169-71 . Comment on: Epilepsia 1998 Dec;39(12):1290-301.
A survey of reference accuracy in two Asian dermatologic journals (the Journal of Dermatology and the Korean Journal of Dermatology). Lee SY, et al. **Int J Dermatol** 1999 May;38(5):357-60
The Israel Journal of Psychiatry: a self-evaluation [editorial] Greenberg D. **Isr J Psychiatry Relat Sci** 1999;36(1):8-10
Lapsus calami. Teufelsdröckh PE. **J Am Acad Dermatol** 1999 Oct;41(4):659-60
Scientific misconduct in cancer clinical trials. Emanuel EJ, et al. **J Clin Oncol** 1998 Oct;16(10):3433-8
Inaccurate information on quetiapine [letter; comment] Goldstein JM. **J Clin Psychiatry** 1998 Dec;59(12):687. Comment on: J Clin Psychiatry 1998 Jun;59(6):322-8.
Image is everything [editorial] Saper CB. **J Comp Neurol** 1999 Sep 27;412(3):381-2
Scientific conduct and publication: the Journal takes a stand [editorial] Saper CB. **J Comp Neurol** 1999 Aug 23; 411(2):179-80
On editorial freedom: implications of the JAMA affair [editorial] Mckee M, et al. **J Epidemiol Community Health** 1999 Apr;53(4):194
Statistical reviewing policies of medical journals: caveat lector? Goodman SN, et al. **J Gen Intern Med** 1998 Nov; 13(11):753-6
Editorial freedom [letter] Justice AC. **J Gen Intern Med** 1999 Apr;14(4):265
It's as simple as black and white! Race and ethnicity as categorical variables [editorial] Hammerschmidt DE. **J Lab Clin Med** 1999 Jan;133(1):10-2 (8 ref.)
Recommended reporting standards for vena caval filter placement and patient follow-up. Vena Caval Filter Consensus Conference. **J Vasc Surg** 1999 Sep;30(3):573-9 (97 ref.)
Disclosure of competition of interest [editorial] Johnston KW, et al. **J Vasc Surg** 1999 Jul;30(1):200-2
Manuscript processing 101: problems and solutions [editorial] DiBartola S, et al. **J Vet Intern Med** 1999 Jan-Feb;13(1):1-2
Reporting of public health hazards or major advances--revision of uniform requirements [editorial] Glass RM. **JAMA** 1998 Dec 16;280(23):2035
Improving the accuracy of abstracts in scientific articles [letter; comment] Lodge H. **JAMA** 1998 Dec 23-30; 280(24):2071. Comment on: JAMA 1998 Jul 15;280(3):267-9.
Evaluating reporting and abstracts of clinical trials [letter; comment] Mago R, et al. **JAMA** 1999 Jan 6;281(1):34-5. Comment on: JAMA 1998 Jul 15;280(3):269-72.
The need for concrete improvement in abstract quality [editorial; comment] Winker MA. **JAMA** 1999 Mar 24-31; 281(12):1129-30. Comment on: JAMA 1999 Mar 24-31;281(12):1110-1.
Online journals: features, usage, access [letter] Conway MH. **Lab Anim Sci** 1998 Oct;48(5):430-1
The sacking of JAMA. Journal of the American Medical Association [see comments] Horton R. **Lancet** 1999 Jan 23;353(9149):252-3. Comment in: Lancet 1999 Mar 27;353(9158):1104.
Whose article is it anyway? [news] Larkin M. **Lancet** 1999 Jul 10;354(9173):136
Human cloning [letter; comment] Obermann K. **Lancet** 1999 Mar 27;353(9158):1103. Comment on: Lancet 1999 Jan 9;353(9147):81.
Problems due to language changes [editorial] Zieman Y. **MD Comput** 1998 Nov-Dec;15(6):348-50
Smoking among doctors [letter; comment] Craddock MC. **Med J Aust** 1998 Sep 21;169(6):341. Comment on: Med J Aust 1998 Jun 15;168(12):587-8. Comment on: Med J Aust 1998 Jun 15;168(12):614-6. Comment on: Med J Aust 1998 Jun 15;168(12):616-8.
The Lundberg affair [editorial] van der Weyden MB. **Med J Aust** 1999 Feb 15;170(4):151
The politics of medical publishing [news] Silva YJ. **Natl Med J India** 1999 Mar-Apr;12(2):78
Courage could win back confidence in science [letter] Daenke S. **Nature** 1999 Sep 23;401(6751):321
More haste, less science? [letter] Hawkins BA. **Nature** 1999 Aug 5;400(6744):498
The Gordian knot of multiple authorship [editorial] Constantian MB. **Plast Reconstr Surg** 1999 Jun; 103(7):2064-6
Perceptions of quality of journals related to health education. Price JH, et al. **Psychol Rep** 1999 Feb;84(1):259-66
Swimming against the tide [editorial] **Psychother Psychosom** 1999 Mar-Apr;68(2):57-8
Editorial quality, diffusion and bibliometric indicators of the Revista Espaänola de Enfermedades Digestivas. López-Cózar ED, et al. **Rev Esp Enferm Dig** 1999 Jan; 91(1):1-32 **(Eng, Spa)**
Quality of full and final publications reporting acute stroke trials: a systematic review. Bath FJ, et al. **Stroke** 1998 Oct; 29(10):2203-10
[Practical remarks on publishing in international scientific journals] Spaček J. **Acta Medica (Hradec Kralove) Suppl** 1998;41(1):73-80 (Eng. Abstr.) **(Cze)**
[Who is the author and why? Will the scientific authorship be revised? (editorial; comment)] **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2778-9 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2779-84. **(Dut)**
[Emphasizing of ethical criteria for medical scientific reporting and the Declaration of Helsinki (editorial; comment)] **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):33-6 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 Feb 27;143(9):494-5. **(Dut)**
[Authors are accountable, even for radiologic illustrations in their articles] **Ned Tijdschr Geneeskd** 1999 Mar 6; 143(10):500-1 (Eng. Abstr.) **(Dut)**
[Misunderstanding of disciplinary decisions (letter; comment)] Crul BV. **Ned Tijdschr Geneeskd** 1998 Oct 3; 142(40):2215. Comment on: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1851-3. **(Dut)**
[Misunderstanding of disciplinary decisions (letter; comment)] Gebhardt DO. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2215-6. Comment on: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1851-3. **(Dut)**
[Emphasizing of ethical criteria for medical scientific reporting and the Declaration of Helsinki (letter; comment)] Gebhardt DO. **Ned Tijdschr Geneeskd** 1999 Feb 27;143(9):494-5. Comment on: Ned Tijdschr Geneeskd 1999 Jan 2;143(1):33-6. **(Dut)**
[What are the factors determining authorship? An inquiry anong authors from the Nederlands Tijdschrift voor Geneeskunde (see comments)] Phoen WP, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2779-84. Comment in: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2778-9. **(Dut)**
[Impact factor: what for? (editorial)] Rouleau P. **J Radiol** 1998 Aug;79(8):717 **(Fre)**
[Separate hospital department for patients with gastrointestinal hemorrhage (comment)] Rakonczai E. **Orv Hetil** 1998 Nov 15;139(46):2811. Comment on: Orv Hetil 1998 Sep 6;139(36):2121-6. **(Hun)**
[Good manners code in scientific publications] **Wiad Lek** 1999;52(1-2):105-11 **(Pol)**
[Biomedical publications: general standards, types of articles, choice of the journal, editing process] Ruiz Manzano J. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:34-7 **(Spa)**
[Critical writing of scientific bibliography (letter; comment)]

Hurtado de Saracho I, et al. **Med Clin (Barc)** 1998 Oct 24;111(13):516. Comment on: Med Clin (Barc) 1997 Nov 15;109(17):673–6. **(Spa)**

[How to improve the statistical quality of articles presented to biomedical journals: a checklist for authors] Mora i Ripoll R. **Med Clin (Barc)** 1999 Jul 3;113(4):138–49 (144 ref.) **(Spa)**

[Internet guide on instructions to authors of more than 2000 biomedical journals: Raymon H. Mulford Library (letter)] Pulido M. **Med Clin (Barc)** 1999 Jun 26;113(3):119 **(Spa)**

[Uniform requirements for manuscripts submitted to biomedical journals. International Committee of Editors of Medical Journals] **Rev Gastroenterol Mex** 1998 Apr–Jun; 63(2):110–9 **(Spa)**

[Improvement in articles published in Revista Médica de Chile (letter)] Vargas Fernándes L. **Rev Med Chil** 1999 Apr;127(4):493–4 **(Spa)**

[The Buenos Aires agreement (editorial)] del Brutto OH, et al. **Rev Neurol** 1998 Apr;26(152):576–7 **(Spa)**

STATISTICS & NUMERICAL DATA

The impact of Alcohol and Alcoholism among substance abuse journals. Jones AW. **Alcohol Alcohol** 1999 Jan–Feb; 34(1):25–34

National publication output in medical research. Kolbitsch C, et al.
Anasthesiol Intensivmed Notfallmed Schmerzther 1999 Apr; 34(4):214–7

An overview of rheumatological research in the European Union. Mela GS, et al. **Ann Rheum Dis** 1998 Nov; 57(11):643–7

Classic and near-classic articles in the dermatologic literature. Stern RS, et al. **Arch Dermatol** 1999 Aug; 135(8):948–50

Top cited authors in dermatology: a citation study from 24 journals: 1982–1996. Stern RS, et al. **Arch Dermatol** 1999 Mar;135(3):299–302

Growth of international contributors to dermatologic literature. Stern RS, et al. **Arch Dermatol** 1999 Sep; 135(9):1074–6

Articles on complementary medicine in the mainstream medical literature: an investigation of MEDLINE, 1966 through 1996. Barnes J, et al. **Arch Intern Med** 1999 Aug 9–23;159(15):1721–5

Improved command of English may explain why non-English speaking countries get more published [letter; comment] Kinra S. **BMJ** 1999 Jan 2;318(7175):57–8. Comment on: BMJ 1998 May 16;316(7143):1519–20.

Publication rates of abstracts presented at the 1993 annual Academy meeting. Murrey DB, et al. **Clin Orthop** 1999 Feb;(359):247–53

Sociodemographic factors in Health Psychology research: 12 years in review. Park TL, et al. **Health Psychol** 1998 Jul;17(4):381–3 (10 ref.)

Nursing research in Finland from 1958 to 1995. Leino-Kilpi H, et al. **Image J Nurs Sch** 1998;30(4):363–7 (27 ref.)

Research contributions of counseling psychologists to neuropsychology. Lopez SJ, et al. **J Clin Psychol** 1998 Oct; 54(6):781–3

What's in a citation impact factor? A journal by any other measure [editorial] Saper CB. **J Comp Neurol** 1999 Aug 16;411(1):1–2

Productivity of SCI Korean medical papers: 1996–1997. Lee CS. **J Korean Med Sci** 1999 Aug;14(4):351–8 (20 ref.)

Personality psychology: research trends for 1993–1995. Endler NS, et al. **J Pers** 1998 Oct;66(5):621–69

Geography of biomedical publications in the European Union, 1990–98 [letter] Hefler L, et al. **Lancet** 1999 May 29;353(9167):1856

Geography of biomedical publications [letter] Rosselli D. **Lancet** 1999 Aug 7;354(9177):517

Geography of biomedical publications [letter] Takei N. **Lancet** 1999 Aug 7;354(9177):516–7

Geography of U.S. biomedical publications, 1990 to 1997 [letter] Thompson DF. **N Engl J Med** 1999 Mar 11; 340(10):817–8

Logistic regression models in obstetrics and gynecology literature. Khan KS, et al. **Obstet Gynecol** 1999 Jun; 93(6):1014–20 (21 ref.)

[The AWMF model for the evaluation of published research papers in medicine. Arbeitsgemeinschaft der wissenschaftlichen medizinischen Fachgesellschaften (Working Group of the Scientific Medical Specialty Societies)] Frömter E, et al. **Dtsch Med Wochenschr** 1999 Jul 30;124(30):910–5 **(Ger)**

The so-called 'Science Citation Index' — miscellaneous, rankings for 1995 (E. Saling and A. Uphoff) and the Zeitschrift f'ur Geburtshilfe und Neonatologie (ZGN) (editorial) Holzgreve W. **Z Geburtshilfe Neonatol** 1999 Mar-Apr;203(2):51–4 **(Ger)**

[Evaluation of research—reality and illusions] Sawicki W. **Postepy Hig Med Dosw** 1998;52(3):297–305 (11 ref.) (Eng. Abstr.) **(Pol)**

[Citations as an international reflection of scientific work and measure of individual effect on the development of science in Croatia (letter)] Boranić M. **Lijec Vjesn** 1999 Jan–Feb; 121(1–2):44 **(Scr)**

[Citations as a reflection of international scientific work and measure of individual effect on the development of science in Croatia (letter)] Klaić B. **Lijec Vjesn** 1999 Jan–Feb; 121(1–2):44–7 **(Scr)**

[Citations as a reflection of international impact of scientific work and a measure of individual influence on the development of science in Croatia (letter)] Silobrčić V. **Lijec Vjesn** 1999 Jan–Feb;121(1–2):43 **(Scr)**

[Estimate of bibliometric indicators of the impact of +Archivos de Bronconeumologia] García Río F, et al. **Arch Bronconeumol** 1998 Dec;34(11):531–5 (Eng. Abstr.) **(Spa)**

[Bibliometric indicators, subjects analysis and methodology of research published in Spain on epidemiology and public health care (1988–1992)] Alvarez Solar M, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):529–35 (Eng. Abstr.) **(Spa)**

[Scientific activity of the most productive Spanish research teams in pharmacology and pharmacy during the period 1986–1993 as covered by the Science Citation Index (SCI)] Bordons M, et al. **Med Clin (Barc)** 1998 Oct 24; 111(13):489–95 (Eng. Abstr.) **(Spa)**

[Nutrition surveys of Spanish school-age children: analysis of the period 1984–1994] Gorgojo L, et al. **Med Clin (Barc)** 1999 Mar 20;112(10):368–74 (55 ref.) (Eng. Abstr.) **(Spa)**

[Psychiatric investigation in Spain: shine and shade (editorial)] Vieta E. **Med Clin (Barc)** 1999 May 29; 112(19):737–8 **(Spa)**

[Rheumatology research. Analysis of Spanish papers published in 1990–1996 in 9 foreign journals in the field] Batlle-Gualda E, et al. **Rev Clin Esp** 1998 Sep; 198(9):587–95 (Eng. Abstr.) **(Spa)**

[Biomedical articles by Chilean authors published in international journals in 1997. A review from MEDLINE (letter)] Bunout D, et al. **Rev Med Chil** 1998 Sep; 126(9):1132 **(Spa)**

[Biomedical papers written by Chilean authors published in international journals in 1997. A review of MEDLINE] Bunout D, et al. **Rev Med Chil** 1998 Jun;126(6):677–88 (Eng. Abstr.) **(Spa)**

TRENDS

Baby steps [editorial; comment] Schwab RA.
Ann Emerg Med 1999 Sep;34(3):368–9. Comment on: Ann Emerg Med 1999 Sep;34(3):321–5. Comment on: Ann Emerg Med 1999 Sep;34(3):326–35.

Is information knowledge? Does it matter? [editorial] Clearihan L. **Aust Fam Physician** 1999 May;28(5):417

Publish or perish. The debate from a global perspective [news] Jones R. **Aust Fam Physician** 1999 May;28(5):425–6

Moving beyond journals: the future arrives with a crash [editorial] Delamothe T, et al. **BMJ** 1999 Jun 19; 318(7199):1637–9

The digital library: an oxymoron? [see comments] Guédon JC. **Bull Med Libr Assoc** 1999 Jan;87(1):9–19. Comment in: Bull Med Libr Assoc 1999 Jan;87(1):85–7. Comment in: Bull Med Libr Assoc 1999 Jan;87(1):87–8. Comment in: Bull Med Libr Assoc 1999 Jan;87(1):88–91.

From the past: historical resources and the virtual library [comment] McClure LW. **Bull Med Libr Assoc** 1999 Jan; 87(1):87–8. Comment on: Bull Med Libr Assoc 1999 Jan;87(1):9–19.

Nursing research in Finland from 1958 to 1995. Leino-Kilpi H, et al. **Image J Nurs Sch** 1998;30(4):363–7 (27 ref.)

Current and future models for nursing e-journals: making the most of the Web's potential. Murray PJ, et al. **Int J Med Inf** 1999 Feb–Mar;53(2–3):151–61

Publish and perish? [editorial] Fanestil DD.
J Am Soc Nephrol 1999 Jan;10(1):184–6

Printed medical journals - will they survive? [editorial] Böttiger LE. **J Intern Med** 1999 Aug;246(2):127–31

E-biomed may launch by end of year [news] D'Auria J. **J Investig Med** 1999 Jul;47(6):267–8

Publishing paradigms [editorial] **Nat Genet** 1999 Apr; 21(4):341–2

The electronic journal: sophisters, economists, and calculators [editorial] Brooke MH. **Neurology** 1999 Jan 1; 52(1):4–6

Computerized search of scientific literature on sport for disabled persons. Hutzler Y, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1189–92

[Habilitation—a meaningless anachronism? (letter)] Golling M. **Chirurg** 1998 Sep;69(9):989–90; discussion 990–1 **(Ger)**

[Does the "impact factor" kill the German language?] Haller U, et al. **Chirurg** 1999 Feb;70(2):suppl 39–41 **(Ger)**

[Psychiatric Practice after a quarter of a century (editorial)] Finzen A. **Psychiatr Prax** 1999 Jan;26(1):1–2 **(Ger)**

[First the egg or the chicken?(letter)] Baroldi G. **G Ital Cardiol** 1998 Sep;28(9):1043–4 **(Ita)**

[Gaceta Sanitaria: a renovation for the future (editorial)] Cabasés J, et al. **Gac Sanit** 1999 Jan–Feb;13(1):1–2 **(Spa)**

UTILIZATION

Balancing divergent expectations [comment] Klein MS. **Bull Med Libr Assoc** 1999 Jan;87(1):88–91. Comment on: Bull Med Libr Assoc 1999 Jan;87(1):9–19.

PUBLISHING, DENTAL PERIODICALS see **JOURNALISM, DENTAL**

PUBLISHING, ELECTRONIC see **PUBLISHING**

PUERICULTURE see **CHILD CARE**

PUERPERAL DISORDERS

The "joys" of pregnancy? Koch TR. **Am J Gastroenterol** 1999 Jan;94(1):287

Urinary incontinence in pregnancy and the puerperium: a prospective study. Thorp JM Jr, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):266–73

Postpartum magnetic resonance imaging in a case of placenta accreta with intrauterine abscess formation. Entel RJ, et al. **Arch Gynecol Obstet** 1998;262(1–2):91–4

Prediction of patients with higher order multifetal pregnancy at risk for postpartum pulmonary edema. Masue T, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;81(1):33–6

A prospective study of persistent back pain after pregnancy. Turgut F, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Sep;80(1):45–8

Maternal and infant health problems after normal childbirth: a randomised controlled study in Zambia. Ransjö-Arvidson AB, et al. **J Epidemiol Community Health** 1998 Jun; 52(6):385–91

Peripartum cardiomyopathy: a review of the literature. Heider AL, et al. **Obstet Gynecol Surv** 1999 Aug; 54(8):526–31 (34 ref.)

Postpartum thyroiditis. Terry AJ, et al. **Semin Perinatol** 1998 Dec;22(6):497–502 (40 ref.)

[Mastitis puerperalis] Kano T.
Ryoikibetsu Shokogun Shirizu 1999;(25 Pt 3):185–7 (7 ref.) **(Jpn)**

BLOOD

APC resistance and other haemostatic variables during pregnancy and puerperium. Kjellberg U, et al. **Thromb Haemost** 1999 Apr;81(4):527–31

[Usefulness of prothrombin fragment 1 + 2 and fibrin dimer in the detection of hypercoagulation in obstetrical patients with thrombosis risk factors] Romero-García F, et al. **Ginecol Obstet Mex** 1998 Nov;66:456–61 (Eng. Abstr.) **(Spa)**

CHEMICALLY INDUCED

Acquired hemophilia secondary to factor VIII inhibitors after pregnancy. Dhôte R, et al. **Ann Med Interne (Paris)** 1998 Sep;149(5):300–2

Postpartum cerebral angiopathy associated with the administration of sumatriptan and dihydroergotamine—a case report. Granier I, et al. **Intensive Care Med** 1999 May; 25(5):532–4

COMPLICATIONS

Treatment for postdural puncture headache associated with late postpartum eclampsia. Van de Velde M, et al. **Acta Anaesthesiol Belg** 1999;50(2):99–102

Splenic rupture in a patient with acute myeloid leukemia undergoing peripheral blood stem cell transplantation. Kasper C, et al. **Ann Hematol** 1999 Feb;78(2):91–2

Stroke complicating pregnancy and the puerperium. Wang KC, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Jan; 62(1):13–9

Maternal peripartum complications associated with vaginal group B streptococci colonization. Krohn MA, et al. **J Infect Dis** 1999 Jun;179(6):1410–5

Long-chain polyunsaturated fatty acids, infant formula, and breastfeeding [letter; comment] Agostoni C, et al. **Lancet** 1998 Nov 21;352(9141):1703–4. Comment on: Lancet 1998 Aug 29;352(9129):688–91.

Graves' hyperthyroidism after postpartum thyroiditis. Shorey S, et al. **Thyroid** 1998 Dec;8(12):1117–22

[Blindness and eclampsia (letter)] Di Roio C.
Ann Fr Anesth Reanim 1997;16(7):924–5 **(Fre)**

DIAGNOSIS

A case of peripartum eosinophilic myocarditis. Pearce CB, et al. **Can J Cardiol** 1999 Apr;15(4):465–8 (26 ref.)

Peripartum cardiomyopathy presenting after caesarean section. Nishikawa K, et al. **Eur J Anaesthesiol** 1999 Feb; 16(2):130–2

Breast cancer during pregnancy and lactation. Stefanidis K, et al. **Eur J Gynaecol Oncol** 1998;19(5):487–8

Post-partum cerebral angiopathy. A rare cerebrovascular complication. al-Sous W, et al. **Eur J Neurol** 1998 Jul; 5(4):411–6

Myocardial infarction during pregnancy and postpartum: a review. Patti G, et al. **G Ital Cardiol** 1999 Mar;29(3):333–8 (54 ref.)

Ligneous cellulitis following spontaneous vaginal delivery. Wyatt JF, et al. **Infect Dis Obstet Gynecol** 1999;7(3):165–8

Peripartum cardiomyopathy. Das D, et al.
J Ark Med Soc 1998 Oct;95(5):205–6

Renal vein thrombosis, diagnosis and treatment [letter] Hussein M, et al. **Nephrol Dial Transplant** 1999 Jan; 14(1):245–7

Lessons from an unusual case: malignancy associated hypercalcemia, pancreatitis and respiratory failure due to ARDS. Wymenga AN, et al. **Neth J Med** 1999 Jan; 54(1):27–30

Spontaneous coronary artery dissection. Case report and literature review. Elming H, et al. **Scand Cardiovasc J** 1999; 33(3):175–9 (39 ref.)

[The course of pregnancy, labor and the postpartum period in a woman with a myomatous node of the uterus who

gave birth to twins] Istatkov M, et al.
Akush Ginekol (Sofiia) 1998;37(4):56–8 (6 ref.) **(Bul)**

[Marfan syndrome and pregnancy] Rasmussen LA, et al.
Ugeskr Laeger 1998 Oct 19;160(43):6219–20 (Eng. Abstr.) **(Dan)**

[Puerperal psychoses. Clinical diagnoses and relative risk of admission after parturition] Terp IM, et al.
Ugeskr Laeger 1999 Mar 8;161(10):1414–9 (Eng. Abstr.) **(Dan)**

[Apropos of a case of acute pancreatitis revealing cystic dilatation of the common bile duct] Kabbaj N, et al.
J Radiol 1998 Nov;79(11):1393–7 (Eng. Abstr.) **(Fre)**

[Puerperal thrombophlebitis and the ovarian vein with extension to the inferior vena cava] Ranchoup Y, et al.
J Radiol 1998 Feb;79(2):127–31 (Eng. Abstr.) **(Fre)**

[Puerperal thrombophlebitis of the ovarian vein revealed by renal colic] Sappey O, et al. **Prog Urol** 1999 Apr;9(2):313–8 (20 ref.) (Eng. Abstr.) **(Fre)**

[Image of the month. Uterine embolization of a persistent trophoblastic tumor] Foidart JM, et al. **Rev Med Liege** 1998 Oct;53(10):585 **(Fre)**

[Postpartal septic osteoarthritis] Chenoufi MB, et al.
Tunis Med 1999 Mar;77(3):159–62 **(Fre)**

[Anuria after delivery] Mohaupt MG. **Ther Umsch** 1998 Sep; 55(9):579–82 (Eng. Abstr.) **(Ger)**

[Puerperal uterine inversion with covered uterine rupture] Grischke EM, et al. **Z Geburtshilfe Neonatol** 1999 May–Jun; 203(3):123–5 (Eng. Abstr.) **(Ger)**

[A 30-year-old woman suffering from orthopnea immediately after caesarian section] Yabushita H, et al.
J Cardiol 1999 May;33(5):279–81 **(Jpn)**

[From a diagnostic test to discovery of a new syndrome] Amino N. **Rinsho Byori** 1999 Feb;Suppl 109:103–10 (16 ref.) **(Jpn)**

[The management of cervical cancer cases in pregnancy and puerperium] Różewicki S, et al. **Przegl Lek** 1999;56(1):23–5 (Eng. Abstr.) **(Pol)**

[The HELLP syndrome: a potentially severe complication of pre-eclampsia in the immedia' : puerperium (letter)] Martinez Diaz de Argandoña C, et al. **Rev Clin Esp** 1999 Apr;199(4):255–6 (10 ref.) **(Spa)**

[Spontaneous postpartum coronary dissection] Alcalá López J, et al. **Rev Esp Cardiol** 1998 Oct;51(10):844–6 (8 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Use of psychotropic medications in breast-feeding women: acute and prophylactic treatment. Austin MP, et al.
Aust N Z J Psychiatry 1998 Dec;32(6):778–84 (40 ref.)

Recombinant human erythropoietin treatment of postpartum anemia. Preliminary results. Makrydimas G, et al.
Eur J Obstet Gynecol Reprod Biol 1998 Oct;81(1):27–31

Single daily dosing of gentamicin: pharmacokinetic comparison of two dosing methodologies for postpartum endometritis. Liu C, et al. **Infect Dis Obstet Gynecol** 1999; 7(3):133–7

The pharmacokinetics of once-daily dosing with gentamicin in women with postpartum endometritis. Sunyecz JA, et al. **Infect Dis Obstet Gynecol** 1998;6(4):160–2

Incidence of mastitis in breastfeeding women during the six months after delivery: a prospective cohort study [see comments] Kinlay JR, et al. **Med J Aust** 1998 Sep 21; 169(6):310–2. Comment in: Med J Aust 1999 Feb 15;170(4):192.

Puerperal cerebral venous thrombosis: therapeutic benefit of low dose heparin. Nagaraja D, et al. **Neurol India** 1999 Mar;47(1):43–6

Effect of oestradiol on postpartum depression. Ahokas A, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):108–10

Effective administration of recombinant tissue plasminogen activator (rt-PA) during resuscitation of a post partum patient with massive pulmonary embolism. Cyrkowicz A, et al. **Zentralbl Gynakol** 1999;121(8):396–8

[Postpartal septic osteoarthritis] Chenoufi MB, et al.
Tunis Med 1999 Mar;77(3):159–62 **(Fre)**

EPIDEMIOLOGY

Severe obstetric morbidity of the third trimester, delivery and early puerperium in Niamey (Niger). Prual A, et al. **Afr J Reprod Health** 1998 Apr;2(1):10–9

Risk factors for urinary tract infection in the postpartum period. Schwartz MA, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):547–53

Prevalent urinary incontinence as a correlate of pregnancy, vaginal childbirth, and obstetric techniques. Foldspang A, et al. **Am J Public Health** 1999 Feb;89(2):209–12

Hospital readmission for postpartum endometritis. Atterbury JL, et al. **J Matern Fetal Med** 1998 Sep–Oct;7(5):250–4

Postnatal care and women's health [letter; comment] Lazarus JH, et al. **Lancet** 1999 May 1;353(9163):1532. Comment on: Lancet 1999 Jan 30;353(9150):343–4.

Maternal and infant complications in high and normal weight infants by method of delivery. Gregory KD, et al.
Obstet Gynecol 1998 Oct;92(4 Pt 1):507–13

Obstetric admissions to the intensive care unit. Mahutte NG, et al. **Obstet Gynecol** 1999 Aug;94(2):263–6

Deep vein thrombosis during pregnancy and the puerperium: a meta-analysis of the period of risk and the leg of presentation. Ray JG, et al. **Obstet Gynecol Surv** 1999 Apr; 54(4):265–71

Puerperal morbidity: a neglected area of maternal health in Sri Lanka. De Silva WI. **Soc Biol** 1998 Fall–Winter; 45(3–4):223–45

Postpartum health in a Dhaka slum. Uzma A, et al.
Soc Sci Med 1999 Feb;48(3):313–20

ETHNOLOGY

Postpartum illness in Fiji: a sociosomatic perspective [see comments] Becker AE. **Psychosom Med** 1998 Jul–Aug; 60(4):431–8. Comment in: Psychosom Med 1998 Jul–Aug;60(4):389–93.

ETIOLOGY

Acne conglobata after pregnancy [letter] van Pelt HP, et al. **Acta Derm Venereol** 1999 Mar;79(2):169

Prevalent urinary incontinence as a correlate of pregnancy, vaginal childbirth, and obstetric techniques. Foldspang A, et al. **Am J Public Health** 1999 Feb;89(2):209–12

Postpartum subdural hygroma after epidural analgesia. Verdú MT, et al. **Anesthesiology** 1999 Sep;91(3):867–9

Postpartum urethral prolapse. Goh JT, et al.
Aust N Z J Obstet Gynaecol 1998 Nov;38(4):477–8

Partial perforation of bladder by multiload. Kriplani A, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):133–5

A randomised controlled trial of care of the perineum during second stage of normal labour. McCandlish R, et al.
Br J Obstet Gynaecol 1998 Dec;105(12):1262–72

Pyruvate kinase deficiency: an unusual cause of puerperal jaundice. Esen UI, et al. **Int J Clin Pract** 1998 Jul–Aug; 52(5):349–50

Urogenital infection in preeclampsia. Hsu CD, et al.
Int J Gynaecol Obstet 1995 Jun;49(3):271–5

Postpartum brain death as a late fatal sequel of a previous skull base fracture [letter] Behrens S, et al.
Intensive Care Med 1998 Aug;24(8):890–1

A case of Cushing's disease revealed six years after postpartum hypopituitarism. Kamoi K, et al.
J Clin Endocrinol Metab 1999 Aug;84(8):2718–23

Memory in pregnancy. II: Implicit, incidental, explicit, semantic, short-term, working and prospective memory in primigravid, multigravid and postpartum women. Casey P, et al. **J Psychosom Obstet Gynaecol** 1999 Sep; 20(3):158–64

Blindness in postpartum period: spinal analgesia or pre-eclampsia caused it? [letter; comment] Ahsan SN.
JPMA J Pak Med Assoc 1998 Jul;48(7):225–6. Comment on: JPMA J Pak Med Assoc 1998 Feb;48(2):55–7.

Incidence of mastitis in breastfeeding women during the six months after delivery: a prospective cohort study [see comments] Kinlay JR, et al. **Med J Aust** 1998 Sep 21; 169(6):310–2. Comment in: Med J Aust 1999 Feb 15;170(4):192.

An unusual complication of pregnancy. Ong AC, et al.
Nephrol Dial Transplant 1999 May;14(5):1324–6

Postpartum renal failure: a complex case with probable coexistence of hemolysis, elevated liver enzymes, low platelet count, and hemolytic uremic syndrome. Kahra K, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 2):698–700

[Secondary amenorrhea due to intrauterine adhesions: Asherman's syndrome] Sadrzadeh S, et al.
Ned Tijdschr Geneeskd 1998 Oct 24;142(43):2329–32 (Eng. Abstr.) **(Dut)**

[Sheehan's syndrome: a recurrent obstetrical complication] Conreux F, et al. **Ann Fr Anesth Reanim** 1999 Apr; 18(4):430–5 (Eng. Abstr.) **(Fre)**

[Pelvic and perineal sequelae of delivery] Fatton B, et al.
Rev Prat 1999 Jan 15;49(2):160–6 (29 ref.) (Eng. Abstr.) **(Fre)**

[Postpartum autoimmune thyroid syndrome] Hidaka Y, et al. **Nippon Rinsho** 1999 Aug;57(8):1775–8 (10 ref.) (Eng. Abstr.) **(Jpn)**

[A case of delayed cerebral infarction occurring in puerperium preceded by herpes zoster ophthalmicus in late pregnancy] Hoshino S, et al. **No To Shinkei** 1999 Jun; 51(6):529–33 (Eng. Abstr.) **(Jpn)**

GENETICS

A study of the association between a polymorphism in the CTLA-4 gene and postpartum thyroiditis. Waterman EA, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):251–5

HISTORY

Postpartum thyroid diseases through the ages: a historical view. Smallridge RC. **Thyroid** 1999 Jul;9(7):671–3

IMMUNOLOGY

Prediction of postpartum onset of rheumatoid arthritis. Iijima T, et al. **Ann Rheum Dis** 1998 Aug;57(8):460–3

Postpartum onset of acute heart failure possibly due to postpartum autoimmune myocarditis. A report of three cases. Yagoro A, et al. **J Intern Med** 1999 Feb; 245(2):199–203

The thyroid immunology of the postpartum period. Davies TF. **Thyroid** 1999 Jul;9(7):675–84 (66 ref.)

MORTALITY

[The characteristics of the perinatal period in women whose death is related to pregnancy, labor and puerperal pathologies] Ivanov S. **Akush Ginekol (Sofiia)** 1998; 37(4):10–2 (Eng. Abstr.) **(Bul)**

[Statistics of mortality related to reproductive health. Mexico, 1997] **Salud Publica Mex** 1999 Mar–Apr; 41(2):138–46 **(Spa)**

PATHOLOGY

Puerperal ovarian vein thrombosis with extension into the inferior vena cava. Clarke CS, et al. **Am Surg** 1999 Feb; 65(2):147–50

Impetigo herpetiformis during the puerperium. Katsambas A, et al. **Dermatology** 1999;198(4):400–2

Severe nonendemic pemphigus foliaceus presenting in the postpartum period. Nousari HC, et al.
J Am Acad Dermatol 1999 May;40(5 Pt 2):845–6

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 4–1999. A 38-year-old woman with increasing pulmonary hypertension after delivery [clinical conference] **N Engl J Med** 1999 Feb 11; 340(6):455–64

PHYSIOPATHOLOGY

Does rheumatoid arthritis remit during pregnancy and relapse postpartum? Results from a nationwide study in the United Kingdom performed prospectively from late pregnancy. Barrett JH, et al. **Arthritis Rheum** 1999 Jun;42(6):1219–27

A randomized controlled trial of pelvic floor muscle exercises to treat postnatal urinary incontinence. Wilson PD, et al.
Int Urogynecol J Pelvic Floor Dysfunct 1998;9(5):257–64

Exacerbation of systemic lupus erythematosus by breast feeding [letter] Mok CC, et al. **Lupus** 1998;7(8):569–70

Postpartum autoimmune thyroid syndrome: a model of aggravation of autoimmune disease. Amino N, et al.
Thyroid 1999 Jul;9(7):705–13 (50 ref.)

Postpartum depression and thyroid antibody status. Harris B. **Thyroid** 1999 Jul;9(7):699–703 (42 ref.)

Clinical manifestations of postpartum thyroid disease. Lazarus JH. **Thyroid** 1999 Jul;9(7):685–9 (34 ref.)

Postpartum mood and anxiety disorders: a guide for the nonpsychiatric clinician with an aside on thyroid associations with postpartum mood. Pedersen CA.
Thyroid 1999 Jul;9(7):691–7 (51 ref.)

PREVENTION & CONTROL

Nursing intervention to increase the duration of breastfeeding. Pugh LC, et al. **Appl Nurs Res** 1998 Nov; 11(4):190–4

Use of psychotropic medications in breast-feeding women: acute and prophylactic treatment. Austin MP, et al.
Aust N Z J Psychiatry 1998 Dec;32(6):778–84 (40 ref.)

PSYCHOLOGY

Nutrition and exercise in overweight and obese postpartum women. Morin K, et al. **Appl Nurs Res** 1999 Feb; 12(1):13–21

Maternal psychological distress and parenting stress after the birth of a very low-birth-weight infant. Saigal S.
J Pediatr 1999 Sep;135(3):397

The impact of pregnancy and puerperium on panic disorder: a review. Hertzberg T, et al.
J Psychosom Obstet Gynaecol 1999 Jun;20(2):59–64 (23 ref.)

Psychosocial aspects of Taiwanese postpartum depression phenomenological approach: a preliminary report. Chen CH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Jan;15(1):44–51

Postpartum depression and thyroid antibody status. Harris B. **Thyroid** 1999 Jul;9(7):699–703 (42 ref.)

Postpartum mood and anxiety disorders: a guide for the nonpsychiatric clinician with an aside on thyroid associations with postpartum mood. Pedersen CA.
Thyroid 1999 Jul;9(7):691–7 (51 ref.)

[Postnatal depression is also of interest in pediatrics] Guédeney N. **Arch Pediatr** 1999;6 Suppl 2:367s–369s **(Fre)**

[Perinatal maternal depression: effects on the baby and young child] Marcelli D. **Arch Pediatr** 1999;6 Suppl 2:370s–373s **(Fre)**

[Treating mother and baby in conjoint hospitalization in a psychiatric hospital] Maizel S, et al. **Harefuah** 1998 Sep; 135(5–6):188–91, 255 (Eng. Abstr.) **(Heb)**

RADIOGRAPHY

Postpartum complications in the abdomen and pelvis: CT evaluation. Urban BA, et al. **Crit Rev Diagn Imaging** 1999 Apr;40(1):1–21 (8 ref.)

[Image of the month. Symphysis pubis diastasis syndrome] Foidart JM, et al. **Rev Med Liege** 1998 Jul;53(7):385 **(Fre)**

RADIONUCLIDE IMAGING

Determining the breast-feeding interruption schedule after administration of 123I-iodide. Morita S, et al.
Ann Nucl Med 1998 Oct;12(5):303–6

Anterior chest wall pain in postpartum costochondritis. Wadhwa SS, et al. **Clin Nucl Med** 1999 Jun;24(6):404–6

REHABILITATION

[Psychotic women and their children] Bauer M, et al.
Psychiatr Prax 1998 Jul;25(4):191–5 (Eng. Abstr.) **(Ger)**

SURGERY

Heart transplantation for peripartum cardiomyopathy: a report of three cases and a literature review. Aziz TM, et al. **Cardiovasc Surg** 1999 Aug;7(5):565–7

Postpartum coronary artery dissection: emergency coronary artery bypass with ventricular assist device support. Samuels LE, et al. **Coron Artery Dis** 1998;9(7):457–60

THERAPY

A randomized controlled trial of pelvic floor muscle exercises to treat postnatal urinary incontinence. Wilson PD, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1998;9(5):257–64

Intravenous immune globulin in the therapy of peripartum cardiomyopathy. Bozkurt B, et al. **J Am Coll Cardiol** 1999 Jul;34(1):177–80

Clinical outcome in three patients with postpartum hemolytic uremic syndrome treated with frequent plasma exchange. Shemin D, et al. **Ther Apher** 1998 Feb;2(1):43–8

[Acute urine retention in women (letter; comment)] de Haan J. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2117. Comment on: Ned Tijdschr Geneeskd 1998 Jul 11;142(28):1603–5. **(Dut)**

[Peripartum cardiomyopathy. Clinical case series (see comments)] Ben Letaifa D, et al. **Ann Fr Anesth Reanim** 1999 Jun;18(6):677–82 (Eng. Abstr.) . Comment in: Ann Fr Anesth Reanim 1999 Jun;18(6):621–2. **(Fre)**

–The madness of childbearing (letter)– Faverge B, et al. **Arch Pediatr** 1998 Mar;5(3):345–6 **(Fre)**

[Different organizational modalities in perinatal care of intra-uterine growth retardation, malformations, maternal-fetal pathology, high-risk delivery, postpartum complications] Sagot P. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:94–103 (40 ref.) **(Fre)**

[Image of the month. Uterine embolization of a persistent trophoblastic tumor] Foidart JM, et al. **Rev Med Liege** 1998 Oct;53(10):585 **(Fre)**

[Severe postpartum depression and psychosis—when is electroconvulsive therapy the treatment of choice?] Berle JO. **Tidsskr Nor Laegeforen** 1999 Aug 30;119(20):3000–3 (Eng. Abstr.) **(Nor)**

[The management of cervical cancer cases in pregnancy and puerperium] Różewicki S, et al. **Przegl Lek** 1999;56(1):23–5 (Eng. Abstr.) **(Pol)**

ULTRASONOGRAPHY

Significance of intrauterine gas at postpartum ultrasonography [letter] Botsis D, et al. **Int J Gynaecol Obstet** 1995 Jun;49(3):335–6

A modified definition for peripartum cardiomyopathy and prognosis based on echocardiography. Hibbard JU, et al. **Obstet Gynecol** 1999 Aug;94(2):311–6

VETERINARY

Quarter-milk somatic cell count at calving and at the first six milkings after calving. Barkema HW, et al. **Prev Vet Med** 1999 Jan 1;38(1):1–9

Prevalence of ketonemia and associations with herd size, lactation stage, parity, and postparturient diseases in Jordanian dairy cattle. Al-Rawashdeh OF. **Prev Vet Med** 1999 May 31;40(2):117–25

[Clinical examinations of gilts with puerperal septicemia and toxemia] Bostedt H, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Nov; 26(6):332–8 (Eng. Abstr.) **(Ger)**

[Effectiveness and disposition of the newly developed cephalosporin cefquinome in puerperal septicemia and toxemia in gilts] Heinritzi K, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):114–21 (Eng. Abstr.) **(Ger)**

[Postpartum anestrus in dairy cattle--a review] Opsomer G, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Feb; 27(1):30–5 (34 ref.) (Eng. Abstr.) **(Ger)**

PUERPERAL INFECTION

[Puerperal endometritis and parametritis] Sugimura M, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):188–91 (8 ref.) **(Jpn)**

COMPLICATIONS

Post-parturition infectious endocarditis in a patient with a normal mitral valve. Murai N, et al. **Jpn J Thorac Cardiovasc Surg** 1999 Apr;47(4):171–3

DIAGNOSIS

Role of duplex color Doppler ultrasound, computed tomography, and MR angiography in the diagnosis of septic puerperal ovarian vein thrombosis. Kubik-Huch RA, et al. **Abdom Imaging** 1999 Jan–Feb;24(1):85–91

MRI appearance of the pelvis in the post cesarean-section patient. Maldjian C, et al. **Magn Reson Imaging** 1999 Feb; 17(2):223–7

DRUG THERAPY

[Study on the therapeutic effect of panipenem/betamipron on perinatal infection in pregnant women] Mikamo H, et al. **Jpn J Antibiot** 1999 Jan;52(1):24–33 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

[A cluster of patients with puerperal fever in Gouda; a reiteration of the lesson by Semmelweis] Thewessen EA, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1700–5 (Eng. Abstr.) **(Dut)**

ETIOLOGY

[Rare cause of puerperal fever] Schenk JP, et al. **Radiologe** 1998 Oct;38(10):883–5 **(Ger)**

HISTORY

Ignaz Semmelweis and the conquest of puerperal sepsis. Jay V. **Arch Pathol Lab Med** 1999 Jul;123(7):561–2

Historical perspectives on health. Semmelweis: a lesson to relearn? Daniels IR. **J R Soc Health** 1998 Dec; 118(6):367–70

[Puerperal fever in the 19th century] Bouchet H. **Rev Prat** 1999 May 15;49(10):1036–8 **(Fre)**

[Epistemiologic reflexions on the discovery of I. P. Semmelweis] Antiseri D. **Clin Ter** 1998 Jul–Aug; 149(4):313–8 **(Ita)**

MICROBIOLOGY

Fatal maternal beta-hemolytic group B streptococcal meningitis: a case report. Wolfe RR Jr, et al. **Am J Perinatol** 1998;15(11):597–600

Infective endocarditis complicated by mycotic cerebral aneurysm: two case reports of women in the peripartum period. Oohara K, et al. **Eur J Cardiothorac Surg** 1998 Nov; 14(5):533–5

NURSING

When your patient is postpartum. Burton J. **Am J Nurs** 1999 Feb;99(2):64–70

PREVENTION & CONTROL

Single or triple dose piperacillin prophylaxis in elective cesarean section. Shah S, et al. **Int J Gynaecol Obstet** 1998 Jul;62(1):23–9

PSYCHOLOGY

A comparison of clinical response to electroconvulsive therapy in puerperal and non-puerperal psychoses. Reed P, et al. **J Affect Disord** 1999 Aug;54(3):255–60

PUERPERIUM

Plasma leptin influences gestational weight gain and postpartum weight retention. Stein TP, et al. **Am J Clin Nutr** 1998 Dec;68(6):1236–40

Cervical human papillomavirus deoxyribonucleic acid persists throughout pregnancy and decreases in the postpartum period. Fife KH, et al. **Am J Obstet Gynecol** 1999 May;180(5):1110–4

Cardiac tamponade in a postpartum woman with Lemierre's syndrome. McLean AS, et al. **Anaesth Intensive Care** 1998 Oct;26(5):582–3

Psychiatric illness in women: a review of the function of a specialist mother-baby unit. Milgrom J, et al. **Aust N Z J Psychiatry** 1998 Oct;32(5):680–6

Purulent pericarditis with tamponade in a postpartum patient due to group F streptococcus. Snyder RW, et al. **Chest** 1999 Jun;115(6):1746–7

Spontaneous postpartum coronary dissection. Lee FH, et al. **Circulation** 1999 Feb 9;99(5):721

Early postpartum discharge. Brumfield CG. **Clin Obstet Gynecol** 1998 Sep;41(3):611–25 (57 ref.)

Use of a single implant of elcometrine (ST-1435), a nonorally active progestin, as a long acting contraceptive for postpartum nursing women. Coutinho EM, et al. **Contraception** 1999 Feb;59(2):115–22

Thyroid volume, urinary and milk iodine in mothers after delivery and their newborns in iodine-replete country. Tajtakova M, et al. **Endocr Regul** 1999 Mar;33(1):9–15

Guillain-Barré syndrome, pregnancy, and the puerperium [editorial; comment] Mack T, et al. **Epidemiology** 1998 Nov; 9(6):588–90. Comment on: Epidemiology 1998 Nov;9(6):601–4.

Postpartum oral glucose tolerance tests in mothers of macarosomic infants: inadequacy of current antenatal test criteria in detecting prediabetic state. Bukulmez O, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Sep;86(1):29–34

Pregnancy and multiple sclerosis: a 2-year experience. Orvieto R, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Feb;82(2):191–4

The World Health Organization multinational study of breast-feeding and lactational amenorrhea. IV. Postpartum bleeding and lochia in breast-feeding women. World Health Organization Task Force on Methods for the Natural Regulation of Fertility. **Fertil Steril** 1999 Sep; 72(3):441–7

Haptoglobin genotype and natural fertility in humans. Bottini N, et al. **Fertil Steril** 1999 Aug;72(2):293–6

Significance of intrauterine gas at postpartum ultrasonography [letter] Botsis D, et al. **Int J Gynaecol Obstet** 1995 Jun;49(3):335–6

Acute myocardial infarction associated with postpartum ergot alkaloid administration. Yaegashi N, et al. **Int J Gynaecol Obstet** 1999 Jan;64(1):67–8

Reducing postpartum weight retention through a correspondence intervention. Leermakers EA, et al. **Int J Obes Relat Metab Disord** 1998 Nov;22(11):1103–9

Attendance at breast-feeding support meetings: relationship to demographic characteristics and duration of lactation in women planning postpartum employment. Chezem J, et al. **J Am Diet Assoc** 1999 Jan;99(1):83–5

Effects of time of suckling during the solar day on duration of the postpartum anovulatory interval in Brahman x Hereford (F1) cows. Gazal OS, et al. **J Anim Sci** 1999 May;77(5):1044–7

Twice daily suckling but not milking with calf presence prolongs postpartum anovulation. Lamb GC, et al. **J Anim Sci** 1999 Aug;77(8):2207–18

Effect of yeast culture (Saccharomyces cerevisiae) on adaptation of cows to postpartum diets and on lactational performance. Robinson PH, et al. **J Anim Sci** 1999 Apr; 77(4):988–99

Therapeutic controversy: Screening for postpartum thyroiditis. Amino N, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1813–21 (92 ref.)

Improving energy supply to late gestation and early postpartum dairy cows. Dann HM, et al. **J Dairy Sci** 1999 Aug;82(8):1765–78

Postpartum body condition score and results from the first test day milk as predictors of disease, fertility, yield, and culling in commercial dairy herds. Heuer C, et al. **J Dairy Sci** 1999 Feb;82(2):295–304

Shifts in bovine CD4+ subpopulations increase T-helper-2 compared with T-helper-1 effector cells during the postpartum period. Shafer-Weaver KA, et al. **J Dairy Sci** 1999 Aug;82(8):1696–706

Liver rupture postpartum associated with preeclampsia and HELLP syndrome. Risseeuw JJ, et al. **J Matern Fetal Med** 1999 Jan–Feb;8(1):32–5

Dissections after childbirth. Gasecki AP, et al. **J Neurol** 1999 Aug;246(8):712–5 (22 ref.)

Postpartum cerebral venous thrombosis, congenital protein C deficiency, and activated protein C resistance due to heterozygous factor V Leiden mutation [letter] Derex L, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):801–2

Self-administered medication packet for patients experiencing a vaginal birth. Beger D, et al. **J Nurs Care Qual** 1999 Apr;13(4):47–59

A postpartum home follow-up project by student nurses using marker model standards. Brodsky PL. **J Nurs Educ** 1998 Nov;37(8):373–5

Maternal nutritional status is inversely associated with lactational amenorrhea in Sub-Saharan Africa: results from demographic and health surveys II and III. Peng YK, et al. **J Nutr** 1998 Oct;128(10):1672–80

Lactation duration: influences of human milk replacements and formula samples on women planning postpartum employment. Chezem J, et al. **J Obstet Gynecol Neonatal Nurs** 1998 Nov-Dec; 27(6):646–51

Working with childhood sexual abuse survivors during pregnancy, labor, and birth. Heritage C. **J Obstet Gynecol Neonatal Nurs** 1998 Nov-Dec; 27(6):671–7 (17 ref.)

What happens when fatigue lingers for 18 months after delivery? Parks PL, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Jan-Feb;28(1):87–93

Clinical approaches in the assessment of childbearing fatigue. Pugh LC, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Jan-Feb;28(1):74–80

Physical activity and postpartum well-being. Sampselle CM, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Jan-Feb; 28(1):41–9

Variability of breast sucking, associated milk transfer and the duration of lactational amenorrhoea. Prieto CR, et al. **J Reprod Fertil** 1999 Mar;115(2):193–200

Incidence of postpartum onset of disease among patients with rheumatoid arthritis [letter] Iijima T, et al. **J Rheumatol** 1999 Mar;26(3):755–6

Ultrasonographic diagnosis of postpartum aborting large intracavitary leiomyoma. Abulafia O, et al. **J Ultrasound Med** 1999 Mar;18(3):243–5

Postpartum body composition changes in lactating and non-lactating primiparas. Chou TW, et al. **Nutrition** 1999 Jun;15(6):481–4

Health consequences of pregnancy and childbirth as perceived by women and clinicians. Kline CR, et al. **Obstet Gynecol** 1998 Nov;92(5):842–8

Peripherally administered sufentanil inhibits pain perception after postpartum tubal ligation. Rorarius M, et al. **Pain** 1999 Jan;79(1):83–8

An imbalance of dietary essential fatty acids retards behavioral development in mice. Wainwright PE, et al. **Physiol Behav** 1999 Jul;66(5):833–9

Uptake of contraception during postpartum amenorrhoea: understandings and preferences of poor, urban women in Bangladesh. Salway S, et al. **Soc Sci Med** 1998 Oct; 47(7):899–909

Postpartum health in a Dhaka slum. Uzma A, et al. **Soc Sci Med** 1999 Feb;48(3):313–20

Papers from the Symposium on Thyroid Disease in Pregnancy and the Postpartum Period. Amelia Island, Florida, USA. November 6–8, 1998. **Thyroid** 1999 Jul; 9(7):629–748

The effects of a post partum injection of prostaglandin F2 alpha on return to oestrus and pregnancy rates in dairy

cows. Schofield SA, et al. **Vet J** 1999 Mar;157(2):172–7

[Post-partum stay at the maternity ward vs. ambulatory delivery—seen from the women's point of view (see comments)] de la Fuente Fonnest I, et al. **Ugeskr Laeger** 1998 Oct 5;160(41):5939–42 (Eng. Abstr.). Comment in: Ugeskr Laeger 1999 Feb 22;161(8):1134–5. **(Dan)**

[Post-partum suppurating thrombophlebitis of the ovarian vein presenting with pleuropulmonary manifestations] Leroy B, et al. **Ann Fr Anesth Reanim** 1999 Aug;18(7):783–6 (Eng. Abstr.) **(Fre)**

[Postpartum myocardial infarction induced by Parlodel] Pop C, et al. **Arch Mal Coeur Vaiss** 1998 Sep;91(9):1171–4 (Eng. Abstr.) **(Fre)**

[Septic shock during the immediate post-partum period revealing a liver abscess in a woman with Crohn's disease] Dominguez S, et al. **Gastroenterol Clin Biol** 1999 Jun–Jul; 23(6–7):775–8 (Eng. Abstr.) **(Fre)**

[How to avoid transfusion in the post-partum period: importance of an intravenous iron supplement] Gravier A, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Feb; 28(1):77–8 **(Fre)**

[Importance of early management of puerperial psychosis. Report of a case] Thessier N, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Nov;27(7):725–7 (Eng. Abstr.) **(Fre)**

[An MRI study of the normal pelvis in the immediate postpartum period] Pellerin M, et al. **J Radiol** 1999 Jun; 80(6):579–84 (Eng. Abstr.) **(Fre)**

[A case of post-partum remission of acquired dyserythropoiesis, a rare cause of anemia in disseminated lupus erythematosus] Kettaneh A, et al. **Rev Med Interne** 1998 Aug;19(8):571–4 (Eng. Abstr.) **(Fre)**

[Common obstetric practices in Niger] Vangeenderhuysen C, et al. **Sante** 1998 Jul–Aug;8(4):265–8 (Eng. Abstr.) **(Fre)**

[Clinical examinations of gilts with puerperal septicemia and toxemia] Bostedt H, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Nov; 26(6):332–8 (Eng. Abstr.) **(Ger)**

[The role of antenatal courses in preventing the onset of altered pelvic statics and urinary incontinence] Franchi M, et al. **Minerva Ginecol** 1999 Apr;51(4):135–8 (Eng. Abstr.) **(Ita)**

[Anthropometric skin-fold and impedance measurement assessment of the maternal nutritional status at the end of pregnancy. Comments deduced from a study of 54 cases] Licitra L, et al. **Minerva Ginecol** 1998 Sep;50(9):379–82 (Eng. Abstr.) **(Ita)**

[Obstetric hysterectomy] Powolny M, et al. **Ginekol Pol** 1998 Sep;69(9):693–7 (Eng. Abstr.) **(Pol)**

[High rate of early hospitalization in healthy newborns] Romero Sánchez J, et al. **An Esp Pediatr** 1999 May; 50(5):479–84 (Eng. Abstr.) **(Spa)**

[Pheochromocytoma and von Recklinghausen neurofibromatosis: postpartum crisis and renal artery thrombosis] Lam J, et al. **Rev Med Chil** 1998 Nov; 126(11):1367–71 (Eng. Abstr.) **(Spa)**

BLOOD

Differential levels of T helper cytokines in preeclampsia: pregnancy, labor and puerperium. Omu AE, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):675–80

Coagulation and fibrinolysis parameters in normal pregnancy and in gestational diabetes. Bellart J, et al. **Am J Perinatol** 1998 Aug;15(8):479–86

Suxamethonium and mivacurium sensitivity from pregnancy-induced plasma cholinesterase deficiency [see comments] Davies P, et al. **Anaesthesia** 1998 Nov; 53(11):1109–11. Comment in: Anaesthesia 1999 Apr;54(4):398.

Plasma progesterone in alpaca (Lama pacos) during pregnancy, parturition and early postpartum. Raggi LA, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):245–9

Serum leptin levels in women throughout pregnancy and the postpartum period and in women suffering spontaneous abortion. Lage M, et al. **Clin Endocrinol (Oxf)** 1999 Feb; 50(2):211–6

C-reactive protein levels at the onset of labour and at day 3 post-partum in normal pregnancy. De Meeus JB, et al. **Clin Exp Obstet Gynecol** 1998;25(1–2):9–11

Relative hypoleptinaemia in women with mild gestational diabetes mellitus. Festa A, et al. **Diabet Med** 1999 Aug; 16(8):656–62

Circulating iodide concentrations during and after pregnancy. Liberman CS, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3545–9

C-type natriuretic peptide in maternal plasma in spontaneous labour, at elective cesarean section and during puerperium. Stepan H, et al. **J Perinat Med** 1998;26(5):396–9

Relations between plasma acetate, 3-hydroxybutyrate, FFA, glucose levels and energy nutrition in lactating dairy cows. Sato H, et al. **J Vet Med Sci** 1999 May;61(5):447–51

Effects of third trimester consumption of eggs high in docosahexaenoic acid on docosahexaenoic acid status and pregnancy. Borod E, et al. **Lipids** 1999;34 Suppl:S231

The postpartum docosahexaenoic acid status of lactating and nonlactating mothers. Otto SJ, et al. **Lipids** 1999;34 Suppl:S227

Plasma homocyst(e)ine concentrations in eclamptic and preeclamptic African women postpartum. Rajkovic A, et al. **Obstet Gynecol** 1999 Sep;94(3):355–60

Effect of blood metabolites, body condition and pasture management on milk yield and postpartum intervals in dual-purpose cattle farms in the tropics of the state of Veracruz, Mexico. Corro M, et al. **Prev Vet Med** 1999 Jan 27;38(2–3):101–17

IMMUNOLOGY

Differential levels of T helper cytokines in preeclampsia: pregnancy, labor and puerperium. Omu AE, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):675–80

Changes in immune activation markers during pregnancy and postpartum. Burns DN, et al. **J Reprod Immunol** 1999 Mar; 42(2):147–65

The thyroid immunology of the postpartum period. Davies TF. **Thyroid** 1999 Jul;9(7):675–84 (66 ref.)

Pregnancy-associated glycoprotein and decreased polymorphonuclear leukocyte function in early post-partum dairy cows. Dosogne H, et al. **Vet Immunol Immunopathol** 1999 Jan 4;67(1):47–54

METABOLISM

Changes in expression of contractile FP and relaxatory EP2 receptors in pregnant rat myometrium during late gestation, at labor, and postpartum. Brodt-Eppley J, et al. **Biol Reprod** 1998 Oct;59(4):878–83

Effect of insulin on fat metabolism during and after normal pregnancy. Sivan E, et al. **Diabetes** 1999 Apr;48(4):834–8

Reduced growth hormone receptor (GHR) messenger ribonucleic acid in liver of periparturient cattle is caused by a specific down-regulation of GHR 1A that is associated with decreased insulin-like growth factor I. Kobayashi Y, et al. **Endocrinology** 1999 Sep;140(9):3947–54

Physiological modulation of GABA(A) receptor plasticity by progesterone metabolites. Concas A, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):225–35

Expression of the Huntington's disease gene is regulated in astrocytes in the arcuate nucleus of the hypothalamus of postpartum rats. Hebb MO, et al. **FASEB J** 1999 Jun; 13(9):1099–106

Correlation between alpha1/beta-adrenoceptor ratio and spontaneous uterine motor activity in the post-partum rat. Zupkó I, et al. **Mol Hum Reprod** 1998 Sep;4(9):921–4

Effect of blood metabolites, body condition and pasture management on milk yield and postpartum intervals in dual-purpose cattle farms in the tropics of the state of Veracruz, Mexico. Corro M, et al. **Prev Vet Med** 1999 Jan 27;38(2–3):101–17

Role of brain allopregnanolone in the plasticity of gamma-aminobutyric acid type A receptor in rat brain during pregnancy and after delivery. Concas A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13284–9

[Glucocorticoid (prednisolone) effects on various blood, urine and liver parameters in cows in the second post partum week] Fürll M, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Sep; 26(5):262–8 (Eng. Abstr.) **(Ger)**

[Iodine concentration in the breast milk of mothers of premature infants] Seibold-Weiger K, et al. **Z Geburtshilfe Neonatol** 1999 Mar–Apr;203(2):81–5 (Eng. Abstr.) **(Ger)**

[Intra- and extracellular resorption of collagen by macrophages and fibroblasts during postpartum uterine involution] Ryvniak VV, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):344–6 **(Rus)**

[Extracellular and intracellular collagen resorption by smooth muscle cells during uterine involution in postpartum period] Ryvniak VV, et al. **Biull Eksp Biol Med** 1999 Jan; 127(1):106–8 **(Rus)**

PHYSIOLOGY

Fatty acid composition in colostrum and mature milk from non-atopic and atopic mothers during the first 6 months of lactation [see comments] Yu G, et al. **Acta Paediatr** 1998 Jul;87(7):729–36. Comment in: Acta Paediatr 1998 Jul;87(7):719–20.

Post-partum prolongation of the atrial repolarization in rabbit. Pacher P, et al. **Acta Physiol Scand** 1999 May; 166(1):1–5

Central oxytocin neurotransmission. Receptor characterisation and role in modulating limbic circuits in the peripartum period. Ingram CD, et al. **Adv Exp Med Biol** 1998;449:225–30

Prevalence of bone mineral changes during postpartum amenorrhea and after resumption of menstruation. Holmberg-Marttila D, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):537–8

Ovarian follicular dynamics in suckled zebu (Bos indicus) cows monitored by real time ultrasonography. Ruiz-Cortés ZT, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):211–20

Effects of bull exposure on postpartum ovarian activity of dairy cows. Shipka MP, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):237–44

Lead effects on offspring depend on when mouse mothers were exposed to lead. Epstein HT, et al. **Biol Neonate** 1999; 75(4):272–8

Site and behavioral specificity of periaqueductal gray lesions on postpartum sexual, maternal, and aggressive behaviors in rats. Lonstein JS, et al. **Brain Res** 1998 Aug 31; 804(1):21–35

Early postpartum metabolic assessment in women with prior gestational diabetes. Pallardo F, et al. **Diabetes Care** 1999 Jul;22(7):1053–8

Mitogen-activated protein kinase cascade is involved in endothelin-1-induced rat puerperal uterine contraction. Kimura A, et al. **Endocrinology** 1999 Feb;140(2):722–31

Enzymic evaluation of thiamin, riboflavin and pyridoxine status of parturient mothers and their newborn infants in a Mediterranean area of Spain. Sánchez DJ, et al. **Eur J Clin Nutr** 1999 Jan;53(1):27–38

Molecular and functional adaptation of the GABA(A) receptor complex during pregnancy and after delivery in the rat brain. Follesa P, et al. **Eur J Neurosci** 1998 Sep; 10(9):2905–12

Evaluation of hepatic venous pulsatility and portal venous velocity with Doppler ultrasonography during the puerperium. Pekindil G, et al. **Eur J Radiol** 1999 Mar; 29(3):266–9

The dynamics of glomerular filtration after Caesarean section. Lafayette RA, et al. **J Am Soc Nephrol** 1999 Jul; 10(7):1561–5

In oculo transplants of myometrium from postpartum guinea pigs fail to support sympathetic reinnervation. Brauer MM, et al. **J Anat** 1998 Nov;193 (Pt 4):509–17

Effects of twinning on postpartum reproductive performance in cattle selected for twin births. Echternkamp SE, et al. **J Anim Sci** 1999 Jan;77(1):48–60

The effect of ram exposure on uterine involution and luteal function during the postpartum period of hair sheep ewes in the tropics. Godfrey RW, et al. **J Anim Sci** 1998 Dec; 76(12):3090–4

Effects of induced parturition and estradiol on feed intake, liver triglyceride concentration, and plasma metabolites of transition dairy cows. Bremmer DR, et al. **J Dairy Sci** 1999 Jul;82(7):1440–8

Suckling reinitiated milk secretion in beef cows after an early postpartum hiatus of milking or suckling. Lamb GC, et al. **J Dairy Sci** 1999 Jul;82(7):1489–96

Longitudinal changes in fatigue and energy during pregnancy and the postpartum period. Lee KA, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Mar–Apr; 28(2):183–91

Serum cholesterol decline and depression in the postpartum period. van Dam RM, et al. **J Psychosom Res** 1999 Apr; 46(4):385–90

Correlation between alpha1/beta-adrenoceptor ratio and spontaneous uterine motor activity in the post-partum rat. Zupkó I, et al. **Mol Hum Reprod** 1998 Sep;4(9):921–4

Interactions between perinatal and neonatal associative learning defined by contiguous olfactory and tactile stimulation. Dominguez HD, et al. **Neurobiol Learn Mem** 1999 May;71(3):272–88

Changes in cerebral perfusion pressure in puerperal women with preeclampsia. Williams KP, et al. **Obstet Gynecol** 1998 Dec;92(6):1016–9

Transforming growth factor-beta levels in maternal milk and expression in postnatal rat duodenum and ileum. Penttila IA, et al. **Pediatr Res** 1998 Oct;44(4):524–31

Changes in sleep patterns of young women from late pregnancy to postpartum: relationships to their infants' movements. Nishihara K, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1043–56

Quarter-milk somatic cell count at calving and at the first six milkings after calving. Barkema HW, et al. **Prev Vet Med** 1999 Jan 1;38(1):1–9

Changes in sleep-wake cycle during the period from late pregnancy to puerperium identified through the wrist actigraph and sleep logs. Shinkoda H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):133–5

Gallbladder contents and fasting gallbladder volumes during and after pregnancy. Van Bodegraven AA, et al. **Scand J Gastroenterol** 1998 Sep;33(9):993–7

Relationship between overfeeding and overconditioning in the dry period and the problems of high producing dairy cows during the postparturient period. Rukkwamsuk T, et al. **Vet Q** 1999 Jun;21(3):71–7 (125 ref.)

[Physiological and sensorial determinism of maternal behavior in mammals] Lévy F. **Contracept Fertil Sex** 1998 Oct;26(10):718–27 (78 ref.) (Eng. Abstr.) **(Fre)**

[Reaction of the pituitary gland to a single GnRH administration in the dependence of energy balance in cattle in the puerperium] Bergmann J, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 May; 27(3):154–60 (Eng. Abstr.) **(Ger)**

[Effect of a 10 day postpartum administration of a PGF2 alpha analog at different concentrations on the course of the puerperium and fertility in dairy cows] Michiel G, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Feb; 27(1):16–24 (Eng. Abstr.) **(Ger)**

[Postpartum body weight change] Kanadys WM. **Ginekol Pol** 1998 Jul;69(7):570–4 (Eng. Abstr.) **(Pol)**

[Pregnancy, labor and puerperium in patients after surgery for ovarian tumors of borderline malignancy] Makarewicz H, et al. **Ginekol Pol** 1998 Dec;69(12):1089–92 (Eng. Abstr.) **(Pol)**

[Acute renal failure during pregnancy, labor and puerperium in women] Starzewski J, et al. **Wiad Lek** 1998; 51(7–8):337–40 (Eng. Abstr.) **(Pol)**

PSYCHOLOGY

Sequelae of postpartum sterilization. Rosenfeld BL, et al. **Arch Gynecol Obstet** 1998;261(4):183–7

Using the ALPHA form in practice to assess antenatal

psychosocial health. Antenatal Psychosocial Health Assessment. Reid AJ, et al. **CMAJ** 1998 Sep 22; 159(6):677–84

Pharmacologic treatment of depression in women: PMS, pregnancy, and the postpartum period. Cohen LS. **Depress Anxiety** 1998;8 Suppl 1:18–26 (102 ref.)

Correlates of marital behavior at 6 months postpartum. Frosch CA, et al. **Dev Psychol** 1998 Nov;34(6):1438–49

Postpartum onset of panic disorder. Beck CT. **Image J Nurs Sch** 1998;30(2):131–5

Cycloid psychoses predominate in severe postpartum psychiatric disorders. Pfuhlmann B, et al. **J Affect Disord** 1998 Sep;50(2–3):125–34

Sexuality during pregnancy and the year postpartum. Byrd JE, et al. **J Fam Pract** 1998 Oct;47(4):305–8

Brain N-acetyl aspartate concentrations measured by H MRS are reduced in adult male rats subjected to perinatal stress: preliminary observations and hypothetical implications for neurodevelopmental disorders. Poland RE, et al. **J Psychiatr Res** 1999 Jan–Feb;33(1):41–51 (126 ref.)

A review of research instruments for use during the postpartum period. Beck CT. **MCN Am J Matern Child Nurs** 1998 Sep–Oct;23(5):254–61 (56 ref.)

Analyses of mothers' sleep logs in postpartum periods. Horiuchi S, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):137–9

Postpartum psychosis and postpartum thyroiditis. Bokhari R, et al. **Psychoneuroendocrinology** 1998 Aug;23(6):643–50

1998 Curt P. Richter Award. Pregnancy, the postpartum, and steroid hormones: effects on cognition and mood. Buckwalter JG, et al. **Psychoneuroendocrinology** 1999 Jan; 24(1):69–84

Perinatal mood disorders: position paper. Steiner M. **Psychopharmacol Bull** 1998;34(3):301–6 (72 ref.)

[Holistic support of mother and child in the puerprium or: mother is more than "not a patient"] Barz S, et al. **Zentralbl Gynakol** 1999;121 Suppl 1:41–2 **(Ger)**

[The analysis of the course of pregnancy, delivery and postpartum among women touched by flood disaster in Kotlin Klodzki in July 1997] Neuberg M, et al. **Ginekol Pol** 1998 Dec;69(12):866–70 (Eng. Abstr.) **(Pol)**

PUERTO RICANS see **HISPANIC AMERICANS**

PULMONARY ADENOMATOSIS, OVINE

VIROLOGY

Jaagsiekte retrovirus is widely distributed both in T and B lymphocytes and in mononuclear phagocytes of sheep with naturally and experimentally acquired pulmonary adenomatosis. Holland MJ, et al. **J Virol** 1999 May; 73(5):4004–8

Jaagsiekte sheep retrovirus is necessary and sufficient to induce a contagious lung cancer in sheep. Palmarini M, et al. **J Virol** 1999 Aug;73(8):6964–72

Sequence comparison of JSRV with endogenous proviruses: envelope genotypes and a novel ORF with similarity to a G-protein–coupled receptor. Bai J, et al. **Virology** 1999 Jun 5;258(2):333–43

PULMONARY ALVEOLAR PROTEINOSIS

View box—case I. Pulmonary alveolar proteinosis. Hashmi R, et al. **JPMA J Pak Med Assoc** 1999 Jan;49(1):18–9

Infantile pulmonary alveolar proteinosis with interstitial pneumonia: bilateral simultaneous lung lavage utilizing extracorporeal membrane oxygenation and steroid therapy. Ito T, et al. **Tohoku J Exp Med** 1999 Mar;187(3):279–83

COMPLICATIONS

Pulmonary alveolar proteinosis with lung squamous cell carcinoma. Kadota J, et al. **Respir Med** 1999 Feb; 93(2):138–40

[Hypoxemic acute diffuse pneumopathy in therapeutic aplasia for acute myeloid leukemia] Ladeb S, et al. **Rev Pneumol Clin** 1998 Jul;54(3):157–60 **(Fre)**

[A rare cause of diffuse interstitial pneumopathy: alveolar proteinosis (apropos of a case)] Fenniche S, et al. **Tunis Med** 1998 Feb;76(2):1085–8 (Eng. Abstr.) **(Fre)**

CONGENITAL

Surfactant protein B deficiency: clinical, histological and molecular evaluation. Williams GD, et al. **J Paediatr Child Health** 1999 Apr;35(2):214–20

DIAGNOSIS

Pulmonary alveolar proteinosis: clinical features and outcomes. Goldstein LS, et al. **Chest** 1998 Nov; 114(5):1357–62

Serum KL-6 level as a monitoring marker in a patient with pulmonary alveolar proteinosis. Nakajima M, et al. **Thorax** 1998 Sep;53(9):809–11

[Clinical thinking and decision making in practice: a full-term neonate with misunderstood respiratory insufficiency] van Heijst AF, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12; 143(24):1256–60 (Eng. Abstr.) **(Dut)**

ETIOLOGY

A case of myelodysplastic syndrome complicated by pulmonary alveolar proteinosis with a high serum KL-6 level. Kajiume T, et al. **Pediatr Hematol Oncol** 1999 Jul–Aug;16(4):367–71

Pulmonary alveolar proteinosis in a patient with chronic myelogenous leukemia. Tsushima K, et al. **Respiration** 1999; 66(2):173–5

[Radiological evidence of involvement of dust exposure in pathogenesis of pulmonary alveolar proteinosis] Mori M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct; 36(10):896–901 (Eng. Abstr.) **(Jpn)**

[Case of alveolar proteinosis associated with pulmonary aspergillosis] Kobayashi T, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):135–7 **(Jpn)**

GENETICS

Aerosolized GM-CSF ameliorates pulmonary alveolar proteinosis in GM-CSF–deficient mice. Reed JA, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L556–63

Normal lung function in subjects heterozygous for surfactant protein-B deficiency. Yusen RD, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):411–4

Adenovirus-mediated granulocyte-macrophage colony-stimulating factor improves lung pathology of pulmonary alveolar proteinosis in granulocyte-macrophage colony-stimulating factor-deficient mice. Zsengellér ZK, et al. **Hum Gene Ther** 1998 Sep 20;9(14):2101–9

[Clinical thinking and decision making in practice: a full-term neonate with misunderstood respiratory insufficiency] van Heijst AF, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12; 143(24):1256–60 (Eng. Abstr.) **(Dut)**

IMMUNOLOGY

Idiopathic pulmonary alveolar proteinosis as an autoimmune disease with neutralizing antibody against granulocyte/macrophage colony-stimulating factor. Kitamura T, et al. **J Exp Med** 1999 Sep 20;190(6):875–80

METABOLISM

Serum and bronchoalveolar fluid KL-6 levels in patients with pulmonary alveolar proteinosis. Takahashi T, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1294–8

Pulmonary alveolar proteinosis in infants. Sakai Y, et al. **Eur J Pediatr** 1999 May;158(5):424–6

Lungs of patients with idiopathic pulmonary alveolar proteinosis express a factor which neutralizes granulocyte-macrophage colony stimulating factor. Tanaka N, et al. **FEBS Lett** 1999 Jan 15;442(2–3):246–50

A novel method of purifying lung surfactant proteins A and D from the lung lavage of alveolar proteinosis patients and from pooled amniotic fluid. Strong P, et al. **J Immunol Methods** 1998 Nov 1;220(1–2):139–49

Granulocyte-macrophage colony-stimulating factor and pulmonary surfactant homeostasis. Reed JA, et al. **Proc Assoc Am Physicians** 1998 Jul–Aug;110(4):321–32 (56 ref.)

PATHOLOGY

Attenuated hematopoietic response to granulocyte-macrophage colony-stimulating factor in patients with acquired pulmonary alveolar proteinosis. Seymour JF, et al. **Blood** 1998 Oct 15;92(8):2657–67

Pulmonary alveolar proteinosis in infants. Sakai Y, et al. **Eur J Pediatr** 1999 May;158(5):424–6

Surfactant protein B deficiency: clinical, histological and molecular evaluation. Williams GD, et al. **J Paediatr Child Health** 1999 Apr;35(2):214–20

[A case of pulmonary alveolar proteinosis presenting with peripheral infiltrates] Inui N, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Apr;37(4):333–6 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

The clinical characteristics of pulmonary alveolar proteinosis: experience at Seoul National University Hospital, and review of the literature. Kim G, et al. **J Korean Med Sci** 1999 Apr;14(2):159–64 (21 ref.)

RADIOGRAPHY

Pulmonary alveolar proteinosis in a child: HRCT findings before and after bronchoalveolar lavage. Zontsich T, et al. **Eur Radiol** 1998;8(9):1680–2

CT scan patterns of pulmonary alveolar proteinosis in children. Albafouille V, et al. **Pediatr Radiol** 1999 Mar; 29(3):147–52

THERAPY

Aerosolized GM-CSF ameliorates pulmonary alveolar proteinosis in GM-CSF–deficient mice. Reed JA, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L556–63

Combination of extracorporeal membrane oxygenation (ECMO) and pulmonary lavage in a patient with pulmonary alveolar proteinosis. Sivitanidis E, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):370–2

Liquid ventilation in an infant with pulmonary alveolar proteinosis. Tsai WC, et al. **Pediatr Pulmonol** 1998 Oct; 26(4):283–6

[Application of continuous intra-arterial blood gas monitoring system "Paratrend 7" for pulmonary lavage of a patient with alveolar proteinosis] Harigae M, et al. **Masui** 1999 Mar;48(3):289–91 (Eng. Abstr.) **(Jpn)**

PULMONARY ALVEOLI

Mycobacterium tuberculosis infection masquerading as diffuse alveolar hemorrhage after autologous stem cell transplant. Keung YK, et al. **Bone Marrow Transplant** 1999 Apr;23(7):737–8

Platypnea–orthodeoxia syndrome: etiology, differential diagnosis, and management [editorial; comment] Cheng TO. **Catheter Cardiovasc Interv** 1999 May;47(1):64–6. Comment on: Catheter Cardiovasc Interv 1999 May;47(1):61–3.

Acute alveolar hemorrhage and orthodeoxia induced by intravenous amiodarone [see comments] Iskander S, et al. **Catheter Cardiovasc Interv** 1999 May;47(1):61–3. Comment in: Catheter Cardiovasc Interv 1999 May;47(1):64–6.

Congenital alveolar proteinosis caused by a novel mutation of the surfactant protein B gene and misalignment of lung vessels in consanguineous kindred infants. Wallot M, et al. **Eur J Pediatr** 1999 Jun;158(6):513–8

Alveolar lining fluid regulates mononuclear phagocyte 5-lipoxygenase metabolism. Phare SM, et al. **Eur Respir J** 1998 Nov;12(5):1141–6

Diffuse recidivant alveolar hemorrhage in a patient with hepatitis C virus-related mixed cryoglobulinemia. Gómez-Tello V, et al. **Intensive Care Med** 1999 Mar; 25(3):319–22

High-resolution computed tomography of pulmonary alveolar microlithiasis. Chang YC, et al. **J Formos Med Assoc** 1999 Jun;98(6):440–3

Diffuse alveolar hemorrhage in the antiphospholipid syndrome: spectrum of disease and treatment. Gertner E. **J Rheumatol** 1999 Apr;26(4):805–7

Pulmonary sarcoidosis: calcified micronodular pattern simulating pulmonary alveolar microlithiasis. Weinstein DS. **J Thorac Imaging** 1999 Jul;14(3):218–20

A case study and national database report of progressive systemic sclerosis and associated conditions. Phillips D, et al. **J Womens Health** 1998 Nov;7(9):1099–104 (13 ref.)

Abciximab and alveolar hemorrhage [letter; comment] Khanlou H, et al. **N Engl J Med** 1998 Dec 17; 339(25):1861–3. Comment on: N Engl J Med 1994 Apr 7;330(14):956–61. Comment on: N Engl J Med 1997 Jun 12;336(24):1689–96.

Treatment of adult respiratory distress syndrome: plea for rescue therapy of the alveolar epithelium. Berthiaume Y, et al. **Thorax** 1999 Feb;54(2):150–60 (154 ref.)

[Idiopathic interstitial pneumonia exacerbated by alveolar hemorrhage] Ashitani J, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May;36(5):459–63 (Eng. Abstr.) **(Jpn)**

[MPO-ANCA related diffuse alveolar hemorrhage] Ohnishi H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec; 36(12):1017–22 (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Severe primary pulmonary hypoplasia ("acinar dysplasia") in sibs: a genetically determined mesodermal defect? [letter] Moerman P, et al. **J Med Genet** 1998 Nov;35(11):964–5

Perilobular pulmonary opacities: high-resolution CT findings and pathologic correlation. Johkoh T, et al. **J Thorac Imaging** 1999 Jul;14(3):172–7 (10 ref.)

ANATOMY & HISTOLOGY

Changes in alveolar septal border lengths with postnatal lung growth. Wood JP, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1157–63

The alveolar surface network: a new anatomy and its physiological significance. Scarpelli EM. **Anat Rec** 1998 Aug;251(4):491–527 (125 ref.)

Aerosol measurement of airspace diameter correlates with morphometry in normal and papain-exposed air dried lungs. Rosenthal FS. **Exp Lung Res** 1999 Jul–Aug; 25(5):425–41

[Features of the structure and parameters of the intra-alveolar septa in residents of Western Siberia] Shishkin GS, et al. **Morfologiia** 1998;114(5):85–90 (Eng. Abstr.) **(Rus)**

BLOOD SUPPLY

Prospective diagnosis of alveolar capillary dysplasia in infants with congenital heart disease. Lane JR, et al. **Am J Cardiol** 1999 Sep 1;84(5):618–20, A9–10

alpha-smooth-muscle actin and microvascular precursor smooth-muscle cells in pulmonary hypertension. Jones R, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):582–94

Ultrastructural alterations in intraalveolar surfactant subtypes after experimental ischemia and reperfusion. Ochs M, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):718–24

Acute saline infusion reduces alveolar-capillary membrane conductance and increases airflow obstruction in patients with left ventricular dysfunction. Puri S, et al. **Circulation** 1999 Mar 9;99(9):1190–6

Anti-endothelial cell antibodies in systemic sclerosis: significant association with vascular involvement and alveolo-capillary impairment. Pignone A, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):527–32

Angiotensin-converting enzyme inhibition restores the diffusing capacity for carbon monoxide in patients with chronic heart failure by improving the molecular diffusion across the alveolar capillary membrane. Guazzi M, et al. **Clin Sci (Colch)** 1999 Jan;96(1):17–22

PEEP in the prone position: reversing the perfusion imbalance [editorial; comment] Marini JJ, et al. **Crit Care Med** 1999 Jan;27(1):1–2. Comment on: Crit Care Med 1999 Jan;27(1):37–45.

Intravital laser confocal microscopy of pulmonary edema resulting from intestinal ischemia-reperfusion injury in the rat [see comments] Mitsuoka H, et al. **Crit Care Med** 1999 Sep;27(9):1862–8. Comment in: Crit Care Med 1999 Sep;27(9):2046–7.

Positive end-expiratory pressure redistributes perfusion to dependent lung regions in supine but not in prone lambs [see comments] Walther SM, et al. **Crit Care Med** 1999 Jan;27(1):37–45. Comment in: Crit Care Med 1999 Jan;27(1):1–2.

Pulmonary capillary perfusion: intra-alveolar fractal patterns and interalveolar independence. Wagner WW Jr, et al. **J Appl Physiol** 1999 Mar;86(3):825–31

Alveolar capillary dysplasia: an emerging syndrome [letter; comment] Thibeault DW, et al. **J Pediatr** 1999 May; 134(5):661–2. Comment on: J Pediatr 1998 Jul;133(1):157–61.

Leukocyte margination in alveolar capillaries: interrelationship with functional capillary geometry and microhemodynamics. Kuebler WM, et al. **J Vasc Res** 1999 Jul–Aug;36(4):282–8

Observation of microcirculatory kinetics by real-time confocal laser scanning microscopy. Yamaguchi K. **Methods Enzymol** 1999;307:394–422

Potentiation of pulmonary arteriolar vasoconstriction to endothelin-1 by inhibition of nitric oxide synthesis in the intact lung. Roberts AM, et al. **Microcirculation** 1998; 5(4):289–98

[Neonatal hypoxemia due to misaligned pulmonary vessels with alveolar capillary dysplasia] Liet JM, et al. **Arch Pediatr** 1998 Jan;5(1):27–30 (13 ref.) (Eng. Abstr.) **(Fre)**

CHEMISTRY

Minimum alveolar anesthetic concentration of fluorinated alkanols in rats: relevance to theories of narcosis. Eger EI 2nd, et al. **Anesth Analg** 1999 Apr;88(4):867–76

Immunohistochemical localization and characterization of a rat Clara cell 26-kDa protein (CC26) with similarities to glutathione peroxidase and phospholipase A2. Power JH, et al. **Exp Lung Res** 1999 Jul–Aug;25(5):379–92

HTI56, an integral membrane protein specific to human alveolar type I cells. Dobbs LG, et al. **J Histochem Cytochem** 1999 Feb;47(2):129–37

CYTOLOGY

Osmotic stress induces both secretion and apoptosis in rat alveolar type II cells. Edwards YS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L670–8

Sulfation of extracellular matrices modifies growth factor effects on type II cells on laminin substrata. Sannes PL, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L701–8

Angiotensin II induces apoptosis in human and rat alveolar epithelial cells. Wang R, et al. **Am J Physiol** 1999 May; 276(5 Pt 1):L885–9

Lung fibroblasts undergo apoptosis following alveolarization. Bruce MC, et al. **Am J Respir Cell Mol Biol** 1999 Feb; 20(2):228–36

Characterization of the gene and promoter for RTI40, a differentiation marker of type I alveolar epithelial cells. Vanderbilt JN, et al. **Am J Respir Cell Mol Biol** 1998 Oct; 19(4):662–71

Caveolin-1 expression and caveolae biogenesis during cell transdifferentiation in lung alveolar epithelial primary cultures. Campbell L, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):744–51

MUC1 is a novel marker for the type II pneumocyte lineage during lung carcinogenesis. Jarrard JA, et al. **Cancer Res** 1998 Dec 1;58(23):5582–9

Hepatocyte growth factor stimulates migration of type II alveolar epithelial cells on the provisional matrix proteins fibronectin and fibrinogen. Kim HJ, et al. **Chest** 1999 Jul; 116(1 Suppl):94S–95S

Monocyte chemotactic factors released from type II pneumocyte-like cells in response to TNF-alpha and IL-1alpha. Koyama S, et al. **Eur Respir J** 1999 Apr; 13(4):820–8

Cyclic stretch induces both apoptosis and secretion in rat alveolar type II cells. Edwards YS, et al. **FEBS Lett** 1999 Apr 1;448(1):127–30

Conductive choline transport by alveolar epithelial plasma membrane vesicles. Oelberg DG, et al. **Mol Genet Metab** 1998 Nov;65(3):220–8

Calcium-PS-dependent protein kinase C and surfactant protein A in isolated fetal rabbit type II alveolar cells and surfactant-related material. Samuels ER, et al. **Pediatr Pulmonol** 1999 Feb;27(2):95–103

Monolayers of human alveolar epithelial cells in primary culture for pulmonary absorption and transport studies. Elbert KJ, et al. **Pharm Res** 1999 May;16(5):601–8

Effects of interleukin-1 beta on DNA synthesis in rat alveolar type II cells in primary culture. Yang GH, et al. **Respirology** 1999 Jun;4(2):139–45

[Suberosis: involvement of bronchoalveolar +mastocytes in the genesis of interstitial involvement] Delgado L, et al. **Arch Bronconeumol** 1999 Feb;35(2):71–8 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Keratinocyte growth factor protects alveolar epithelium and endothelium from oxygen-induced injury in mice. Barazzone C, et al. **Am J Pathol** 1999 May;154(5):1479–87

Silica-induced chemokine expression in alveolar type II cells is mediated by TNF-alpha. Barrett EG, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1110–9

Reactive oxygen and nitrogen intermediates increase transforming growth factor-beta1 release from human epithelial alveolar cells through two different mechanisms. Bellocq A, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):128–36

Keratinocyte growth factor enhances maturation of fetal rat lung type II cells. Chelly N, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):423–32

Diffuse alveolar hemorrhage with underlying pulmonary capillaritis in the retinoic acid syndrome. Nicolls MR, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1302–5

Prostacyclin enhances stretch-induced surfactant secretion in alveolar epithelial type II cells. Rose F, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):846–51

Cholera toxin stimulates type II pneumocyte proliferation by a cyclic AMP-independent mechanism. Uhal BD, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1-3):99–109

Differential expression of CCAAT enhancer binding protein family in rat alveolar epithelial cell proliferation and in acute lung injury. Sugahara K, et al. **Cell Tissue Res** 1999 Aug;297(2):261–70

Angiotensin-converting enzyme inhibition facilitates alveolar-capillary gas transfer and improves ventilation-perfusion coupling in patients with left ventricular dysfunction. Guazzi M, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):319–27

Sulfuric acid aerosol induces changes in alveolar surface tension in the guinea pig but not in the rat. Lee MM, et al. **Exp Lung Res** 1999 Apr–May;25(3):229–44

Difference in the effect of phloridzin on alveolar fluid absorption in anesthetized rats and in ex vivo rat lungs. Suzuki S, et al. **Exp Lung Res** 1999 Jul–Aug;25(5):393–406

Manipulation of injury and repair of the alveolar epithelium using two pneumotoxicants: 3-methylindole and monocrotaline. Woods LW, et al. **Exp Lung Res** 1999 Mar; 25(2):165–81

Apocynin increases glutathione synthesis and activates AP-1 in alveolar epithelial cells. Lapperre TS, et al. **FEBS Lett** 1999 Jan 25;443(2):235–9

Cigarette smoke augments asbestos-induced alveolar epithelial cell injury: role of free radicals. Kamp DW, et al. **Free Radic Biol Med** 1998 Oct;25(6):728–39

Keratinocyte growth factor stimulates transduction of the respiratory epithelium by retroviral vectors. Zsengellér ZK, et al. **Hum Gene Ther** 1999 Feb 10;10(3):341–53

Effect of epinephrine on alveolar liquid clearance in the rat. Charron PD, et al. **J Appl Physiol** 1999 Aug;87(2):611–8

Molecular mechanism of the regulation of glutathione synthesis by tumor necrosis factor-alpha and dexamethasone in human alveolar epithelial cells. Rahman I, et al. **J Biol Chem** 1999 Feb 19;274(8):5088–96

Roles of Ca2+ and protein tyrosine kinase in insulin action on cell volume via Na+ and K+ channels and Na+/K+/2Cl- cotransporter in fetal rat alveolar type II pneumocyte. Marunaka Y, et al. **J Membr Biol** 1999 Mar 1;168(1):91–101

Re: An unusual case of alveolar deposition from swallowing metallic mercury in an attempt at self-poisoning (J Roy Soc Health; 118 (5), 305) [letter; comment] Fryer FA. **J R Soc Health** 1999 Mar;119(1):60–1. Comment on: J R Soc Health 1998 Oct;118(5):305–8.

Lessons to be learned: a case study approach. An unusual case of alveolar deposition from swallowing metallic mercury in an attempt at self-poisoning [see comments] Southgate HJ, et al. **J R Soc Health** 1998 Oct;118(5):305–8 . Comment in: J R Soc Health 1999 Mar;119(1):60–1.

Effects of PKA inhibitors, H-compounds, on epithelial Na+ channels via PKA-independent mechanisms. Niisato N, et al. **Life Sci** 1999;65(10):PL109–14

Type II alveolar epithelial cells and cyclophosphamide-induced lung fibrosis. Sulkowski S. **Rocz Akad Med Bialymst** 1998;43:160–8

Development of fumonisin-induced hepatotoxicity and pulmonary edema in orally dosed swine: morphological and biochemical alterations. Gumprecht LA, et al. **Toxicol Pathol** 1998 Nov–Dec;26(6):777–88

[Acute alveolitis after using a waterproofing aerosol: apropos of 2 cases] Testud F, et al. **Rev Med Interne** 1998 Apr; 19(4):262–4 (Eng. Abstr.) **(Fre)**

EMBRYOLOGY

Alveolar fluid clearance in developing lungs and its role in neonatal transition. Jain L. **Clin Perinatol** 1999 Sep; 26(3):585–99 (88 ref.)

Role of platelet-derived growth factors in angiogenesis and alveogenesis. Lindahl P, et al. **Curr Top Pathol** 1999; 93:27–33 (34 ref.)

FGFR-3 and FGFR-4 function cooperatively to direct alveogenesis in the murine lung. Weinstein M, et al. **Development** 1998 Sep;125(18):3615–23

ENZYMOLOGY

Isoproterenol increases Na+-K+-ATPase activity by membrane insertion of alpha-subunits in lung alveolar cells. Bertorello AM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L20–7

Dopamine regulates NA,K-adenosine triphosphatase in alveolar epithelial cells via the mitogen-activated protein kinase/extracellular-signal-regulated kinase pathway. Guerrero C, et al. **Chest** 1999 Jul;116(1 Suppl):88S–89S

Gene transfer of endothelial nitric oxide synthase to the lung of the mouse in vivo. Effect on agonist-induced and flow-mediated vascular responses. Champion HC, et al. **Circ Res** 1999 Jun 25;84(12):1422–32

Human neutrophil elastase regulates the expression and secretion of elafin (elastase-specific inhibitor) in type II alveolar epithelial cells. Reid PT, et al. **FEBS Lett** 1999 Aug 20;457(1):33–7

Temporal dependence of ectopeptidase expression in alveolar epithelial cell culture: implications for study of peptide absorption. Forbes B, et al. **Int J Pharm** 1999 Apr 15; 180(2):225–34

Impairment of transalveolar fluid transport and lung Na(+)-K(+)-ATPase function by hypoxia in rats. Suzuki S, et al. **J Appl Physiol** 1999 Sep;87(3):962–8

Role of collagenase in mediating in vitro alveolar epithelial wound repair. Planus E, et al. **J Cell Sci** 1999 Jan;112 (Pt 2):243–52

Extracellular superoxide dismutase in the airways of transgenic mice reduces inflammation and attenuates lung toxicity following hyperoxia. Folz RJ, et al. **J Clin Invest** 1999 Apr;103(7):1055–66

Activation of extracellular signal-regulated kinase in lung tissues of mice treated with carcinogen. Yano T, et al. **Life Sci** 1999;64(4):229–36

GROWTH & DEVELOPMENT

Changes in alveolar septal border lengths with postnatal lung growth. Wood JP, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1157–63

IMMUNOLOGY

Bradykinin stimulates type II alveolar cells to release neutrophil and monocyte chemotactic activity and inflammatory cytokines. Koyama S, et al. **Am J Pathol** 1998 Dec;153(6):1885–93

Expression of the human integrin beta6 subunit in alveolar type II cells and bronchiolar epithelial cells reverses lung inflammation in beta6 knockout mice. Huang X, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):636–42

Perforin-independent CD8(+) T-cell-mediated cytotoxicity of alveolar epithelial cells is preferentially mediated by tumor necrosis factor-alpha: relative insensitivity to Fas ligand. Liu AN, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):849–58

Functional activity of alveolar and peripheral cells in patients with human acquired immunodeficiency syndrome and pulmonary tuberculosis. Bonecini-Almeida M da G, et al. **Cell Immunol** 1998 Dec 15;190(2):112–20

Proliferation of type II pneumocytes and alteration in their apical surface membrane antigenicity in pulmonary sarcoidosis. Hayasaka M, et al. **Chest** 1999 Aug; 116(2):477–83

Intrapulmonary cytokine accumulation following BAL and the role of endotoxin contamination. Nelson ME, et al. **Chest** 1999 Jan;115(1):151–7

Pulmonary epithelial cells are a source of IL-8 in the response to Mycobacterium tuberculosis: essential role of IL-1 from infected monocytes in a NF-kappa B-dependent network. Wickremasinghe MI, et al. **J Immunol** 1999 Oct 1;163(7):3936–47

Enhanced responses to Mycobacterium tuberculosis antigens by human alveolar lymphocytes during active pulmonary tuberculosis. Schwander SK, et al. **J Infect Dis** 1998 Nov; 178(5):1434–45

Immunoreactive interleukin 4 and interferon-gamma expression by type II alveolar epithelial cells in interstitial lung disease. Wallace WA, et al. **J Pathol** 1999 Mar; 187(4):475–80

Physiological or pathological chemokines [letter; comment] Becroft DM. **Lancet** 1998 Oct 10;352(9135):1221–2. Comment on: Lancet 1998 Jul 11;352(9122):102–5.

Pneumocystis carinii: the art and science of survival in the hostile environment of the alveolar spaces. Martin WJ 2nd. **Semin Respir Infect** 1998 Dec;13(4):348–52 (17 ref.)

Primary and anamnestic responses of bovine bronchoalveolar and peripheral blood lymphocyte subsets to aerosolized Pasteurella haemolytica A1. McBride JW, et al. **Vet Immunol Immunopathol** 1999 Feb 1;67(2):161–70

[Immunohistologic study of the localization of ICAM-1 (intercellular cell adhesion molecule 1) in alveolar epithelium in the human lung] Feuerhake F, et al. **Pneumologie** 1998 Dec;52(12):707–13 (Eng. Abstr.) **(Ger)**

INJURIES

Role of collagenase in mediating in vitro alveolar epithelial wound repair. Planus E, et al. **J Cell Sci** 1999 Jan;112 (Pt 2):243–52

METABOLISM

NitroG-L-arginine methyl ester decreases minimum alveolar concentration of isoflurane and reduces brain nitric oxide synthase activity in rats. Chen TY, et al. **Acta Anaesthesiol Sin** 1998 Sep;36(3):127-31

Differing patterns of P-selectin expression in lung injury. Bless NM, et al. **Am J Pathol** 1998 Oct;153(4):1113-22

Brief 95% O2 exposure effects on surfactant protein and mRNA in rat alveolar and bronchiolar epithelium. Allred TF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L999-L1009

Silica-induced chemokine expression in alveolar type II cells is mediated by TNF-alpha-induced oxidant stress. Barrett EG, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L979-88

Silica-induced chemokine expression in alveolar type II cells is mediated by TNF-alpha. Barrett EG, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1110-9

KGF prevents hyperoxia-induced reduction of active ion transport in alveolar epithelial cells. Borok Z, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1352-60

Lung type II cell and macrophage annexin I release: differential effects of two glucocorticoids. Hall SE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L114-21

Adrenergic stimulation of Na+ transport across alveolar epithelial cells involves activation of apical Cl- channels. Jiang X, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1610-20

cAMP activation of chloride and fluid secretion across the rabbit alveolar epithelium. Nielsen VG, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1127-33

Role of alveolar epithelial cell intercellular adhesion molecule-1 in host defense against Klebsiella pneumoniae. O'Brien AD, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L961-70

Effects of TNF-alpha and IL-1beta on iron metabolism by A549 cells and influence on cytotoxicity. Smirnov IM, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L257-63

Stretch induces cytokine release by alveolar epithelial cells in vitro. Vlahakis NE, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L167-73

Brief exposure to 95% oxygen alters surfactant protein D and mRNA in adult rat alveolar and bronchiolar epithelium. Aderibigbe AO, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):219-27

Trafficking of newly synthesized surfactant protein A in isolated rat alveolar type II cells. Osanai K, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):929-35

Expression of serotonin receptor 2c in rat type II pneumocytes. Wang D, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1175-80

Alveolar hypoxia increases gene expression of extracellular matrix proteins and platelet-derived growth factor-B in lung parenchyma. Berg JT, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1920-8

Increased glucocorticoid receptor beta in airway cells of glucocorticoid-insensitive asthma. Hamid QA, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1600-4

Understanding and defining minimum alveolar anesthetic concentration [letter] Arya VK. **Anesth Analg** 1998 Dec; 87(6):1453-4

The alveolar-arterial difference in oxygen tension increases with temperature-corrected determination during moderate hypothermia. Hansen D, et al. **Anesth Analg** 1999 Mar;88(3):538-41

Halothane stimulates a Na+H+ antiporter involved in the regulation of intracellular pH in alveolar epithelial cells. Juvin P, et al. **Anesth Analg** 1999 Aug;89(2):480-3

Minimum alveolar anesthetic concentration of volatile anesthetics in normal and cardiomyopathic hamsters. Vivien B, et al. **Anesth Analg** 1999 Mar;88(3):489-93

Increasing isoflurane from 0.9 to 1.1 minimum alveolar concentration minimally affects dorsal horn cell responses to noxious stimulation. Antognini JF, et al. **Anesthesiology** 1999 Jan;90(1):208-14

Aspirin synergistically potentiates isoflurane minimum alveolar concentration reduction produced by morphine in the rat. Gomez de Segura IA, et al. **Anesthesiology** 1998 Dec;89(6):1489-94

Temperature correction of the calculated alveolar oxygen tension [letter] Habibzadeh F, et al. **Anesthesiology** 1998 Oct;89(4):1042

Sevoflurane MAC and cerebellar cyclic GMP [letter; comment] Haddad E, et al. **Anesthesiology** 1999 May; 90(5):1487-8. Comment on: Anesthesiology 1998 Jul;89(1):143-8.

Sodium channels in alveolar epithelial cells: molecular characterization, biophysical properties, and physiological significance. Matalon S, et al. **Annu Rev Physiol** 1999; 61:627-61 (188 ref.)

'Dewatering' the lungs [letter; comment] Hills BA, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F78. Comment on: Arch Dis Child Fetal Neonatal Ed 1998 Nov;79(3):F221-2.

Presence of bleomycin-detectable free iron in the alveolar system of preterm infants. Gerber CE, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):218-22

The longer isoform and Cys-1 disulfide bridge of rat surfactant protein A are not essential for phospholipid and type II cell interactions. Zhang M, et al. **Biochemistry** 1998 Nov 24;37(47):16481-8

Role for NF-kappa B in mediating the effects of hyperoxia on IGF-binding protein 2 promoter activity in lung alveolar epithelial cells. Cazals V, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):349-62

Purification and analysis of RTI40, a type I alveolar epithelial cell apical membrane protein. Gonzalez RF, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):208-16

Surfactant protein metabolism in vivo. Ikegami M, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):218-25 (41 ref.)

Interactions of surfactant protein A with epithelial cells and phagocytes. Tino MJ, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):241-63 (112 ref.)

Site-directed mutagenesis of surfactant protein A reveals dissociation of lipid aggregation and lipid uptake by alveolar type II cells. Tsunezawa W, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):433-46

Cholera toxin stimulates type II pneumocyte proliferation by a cyclic AMP-independent mechanism. Uhal BD, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1-3):99-109

MUC1 is a novel marker for the type II pneumocyte lineage during lung carcinogenesis. Jarrard JA, et al. **Cancer Res** 1998 Dec 1;58(23):5582-9

Regulation of gap junction proteins by alveolar epithelial cells in response to injury. Abraham V, et al. **Chest** 1999 Jul;116(1 Suppl):35S

Ethanol ingestion impairs alveolar epithelial glutathione homeostasis and function, and predisposes to endotoxin-mediated acute lung injury. Guidot D, et al. **Chest** 1999 Jul;116(1 Suppl):82S

HTI56, an integral apical membrane protein of the human alveolar type I cell, is a biochemical marker of acute lung injury. Newman V, et al. **Chest** 1999 Jul;116(1 Suppl):35S-36S

Stretch-induced mitogen-activated protein kinase activation and interleukin-8 production in type II alveolar cells. Quinn D, et al. **Chest** 1999 Jul;116(1 Suppl):89S-90S

Tobramycin penetration into epithelial lining fluid of patients with pneumonia. Carcas AJ, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):245-50

Idiopathic pneumonia after bone marrow transplantation: cytokine activation and lipopolysaccharide amplification in the bronchoalveolar compartment [see comments] Clark JG, et al. **Crit Care Med** 1999 Sep;27(9):1800-6. Comment in: Crit Care Med 1999 Sep;27(9):2040-1.

Minimum alveolar concentration of sevoflurane that blocks the adrenergic response to surgical incision in women: MACBAR. Ura T, et al. **Eur J Anaesthesiol** 1999 Mar; 16(3):176-81

Loss of immunoreactivity for RTI40, a type I cell-specific protein in the alveolar epithelium of rat lungs with bleomycin-induced fibrosis. Koslowski R, et al. **Eur Respir J** 1998 Dec;12(6):1397-403

Intrapulmonary gas mixing and the sloping alveolar plateau in COPD patients with macroscopic emphysema. Wilschut FA, et al. **Eur Respir J** 1999 Jul;14(1):166-71

Characterization of the A549 cell line as a type II pulmonary epithelial cell model for drug metabolism. Foster KA, et al. **Exp Cell Res** 1998 Sep 15;243(2):359-66

Induction of ICAM-1 expression on alveolar epithelial cells during lung development in rats and humans. Attar MA, et al. **Exp Lung Res** 1999 Apr-May;25(3):245-59

Respiratory epithelial cells release interleukin-8 in response to a thermophilic bacteria that causes hypersensitivity pneumonitis. Gudmundsson G, et al. **Exp Lung Res** 1999 Apr-May;25(3):217-28

Difference in the effect of phloridzin on alveolar fluid absorption in anesthetized rats and in ex vivo rat lungs. Suzuki S, et al. **Exp Lung Res** 1999 Jul-Aug;25(5):393-406

Mechanisms related to reduction of radical in mouse lung using an L-band ESR spectrometer. Takeshita K, et al. **Free Radic Biol Med** 1999 Apr;26(7-8):951-60

Proliferation, C-myc, and cyclin D1 expression in diffuse alveolar damage: potential roles in pathogenesis and implications for prognosis. Adamson A, et al. **Hum Pathol** 1999 Sep;30(9):1050-7

Secretion of stem cell factor by alveolar fibroblasts in interstitial lung diseases. Fireman E, et al. **Immunol Lett** 1999 Apr 15;67(3):229-36

Rate of nitric oxide production by lower alveolar airways of human lungs. Geigel EJ, et al. **J Appl Physiol** 1999 Jan; 86(1):211-21

Alveolar oxygen uptake and femoral artery blood flow dynamics in upright and supine leg exercise in humans. MacDonald MJ, et al. **J Appl Physiol** 1998 Nov; 85(5):1622-8

Acinar flow irreversibility caused by perturbations in reversible alveolar wall motion. Tsuda A, et al. **J Appl Physiol** 1999 Mar;86(3):977-84

Mechanical stretching of alveolar epithelial cells increases Na(+)-K(+)-ATPase activity. Waters CM, et al. **J Appl Physiol** 1999 Aug;87(2):715-21

Surfactant protein-D regulates surfactant phospholipid homeostasis in vivo. Korfhagen TR, et al. **J Biol Chem** 1998 Oct 23;273(43):28438-43

Surfactant protein B (SP-B) -/- mice are rescued by restoration of SP-B expression in alveolar type II cells but not Clara cells. Lin S, et al. **J Biol Chem** 1999 Jul 2; 274(27):19168-74

SP-A as a cytokine: surfactant protein-A-regulated transcription of surfactant proteins and other genes. Korutla L, et al. **J Cell Physiol** 1999 Mar;178(3):379-86

Transport of a series of D-phenylalanine-glycine hexapeptides across rat alveolar epithelia in vitro. Evans JP, et al. **J Drug Target** 1998;6(4):251-9

Smaller sized particles are preferentially taken up by alveolar type II pneumocytes. Griese M, et al. **J Drug Target** 1998; 5(6):471-9

Transferability of cephalothin to the alveolar cavity in thoroughbreds. Matsuda Y, et al. **J Vet Med Sci** 1999 Mar; 61(3):209-12

Early granulocyte-macrophage colony-stimulating factor expression by alveolar inflammatory cells during bleomycin-induced rat lung fibrosis. Andreutti D, et al. **Lab Invest** 1998 Dec;78(12):1493-502

Calcium-PS-dependent protein kinase C and surfactant protein A in isolated fetal rabbit type II alveolar cells and surfactant-related material. Samuels ER, et al. **Pediatr Pulmonol** 1999 Feb;27(2):95-103

Inhaled nitric oxide decreases hyperoxia-induced surfactant abnormality in preterm rabbits. Issa A, et al. **Pediatr Res** 1999 Feb;45(2):247-54

Monolayers of human alveolar epithelial cells in primary culture for pulmonary absorption and transport studies. Elbert KJ, et al. **Pharm Res** 1999 May;16(5):601-8

Effects of ATP-sensitive potassium channel opener on potassium transport and alveolar fluid clearance in the resected human lung. Sakuma T, et al. **Pharmacol Toxicol** 1998 Jul;83(1):16-22

Effects of intraalveolar oxygen concentration on alveolar fluid absorption and metabolism in isolated rat lungs. Suzuki S, et al. **Respir Physiol** 1999 May 3;115(3):325-32

Iron metabolism in the lower respiratory tract. Mateos F, et al. **Thorax** 1998 Jul;53(7):594-600 (67 ref.)

MICROBIOLOGY

Antimicrobial activities of benzoxazinorifamycin (KRM-1648) and clarithromycin against Mycobacterium avium-intracellulare complex within murine peritoneal macrophages, human macrophage-like cells and human alveolar epithelial cells. Sato K, et al. **J Antimicrob Chemother** 1999 Mar;43(3):351-7

Different fates of Legionella pneumophila pmi and mil mutants within macrophages and alveolar epithelial cells. Gao LY, et al. **Microb Pathog** 1998 Dec;25(6):291-306

The role of persisting infections in the pathogenesis of pulmonary emphysema. Electron microscopy reveals a probable bacterial colonization of the alveolar space and the bronchioles. Theegarten D, et al. **Pathol Res Pract** 1999; 195(2):89-92

Pneumocystis carinii: the art and science of survival in the hostile environment of the alveolar spaces. Martin WJ 2nd. **Semin Respir Infect** 1998 Dec;13(4):348-52 (17 ref.)

[MICs and MBCs of levofloxacin, clarithromycin, and KRM-1648 for Mycobacterium tuberculosis and M. avium complex residing in MONO-MAC-6 human macrophage-like cell and A-549 human type II alveolar epithelial cell lines] Sato K, et al. **Kekkaku** 1999 Jul; 74(7):571-7 (Eng. Abstr.) **(Jpn)**

PARASITOLOGY

HLA and alveolar echinococcosis. Eiermann TH, et al. **Tissue Antigens** 1998 Aug;52(2):124-9

PATHOLOGY

Effects of preservation of rat lungs in a hypothermic medium on alveolar morphology. Arbak S, et al. **Acta Histochem** 1999 Jul;101(3):341-9

Equibiaxial deformation-induced injury of alveolar epithelial cells in vitro. Tschumperlin DJ, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1173-83

Alveolar epithelial cell death adjacent to underlying myofibroblasts in advanced fibrotic human lung. Uhal BD, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1192-9

Oxygen toxicity in mouse lung: pathways to cell death. Barazzone C, et al. **Am J Respir Cell Mol Biol** 1998 Oct; 19(4):573-81

Chemotactic gradients predict neutrophilic alveolitis in endotoxin-treated rats. Blackwell TS, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1644-52

Bronchoalveolar lavage fluid granulomas in a case of severe sarcoidosis. Hendricks MV, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):730-1

Immunopathology of the small-airway submucosa in smokers with and without chronic obstructive pulmonary disease. Lams BE, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1518-23

Airspace configuration at different transpulmonary pressures in normal and paraquat-induced lung injury in rats. Silva MF, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1230-4

Lymphocytic alveolitis, bronchoalveolar lavage viral load, and outcome in human immunodeficiency virus infection. Twigg HL, et al. **Am J Respir Crit Care Med** 1999 May; 159(5 Pt 1):1439-44

Growth factor control of type II cell apoptosis. Hastings RH, et al. **Chest** 1999 Jul;116(1 Suppl):68S

Quantitative and qualitative differences in bronchoalveolar inflammatory cells in Pseudomonas aeruginosa-resistant and -susceptible mice. Sapru K, et al. **Clin Exp Immunol** 1999 Jan;115(1):103-9

Giant cell arteritis can be associated with T4-lymphocytic alveolitis. Blockmans D, et al. **Clin Rheumatol** 1999; 18(4):330-3

The alveolar space is the site of intense inflammatory and profibrotic reactions in the early phase of acute respiratory distress syndrome [see comments] Pugin J, et al.

Crit Care Med 1999 Feb;27(2):304–12. Comment in: Crit Care Med 1999 Feb;27(2):237–8.

Subclinical alveolar bleeding in pulmonary vasculitides: correlation with indices of disease activity. Schnabel A, et al. **Eur Respir J** 1999 Jul;14(1):118–24

Reduced expression of the alphabeta T-cell antigen receptor by alveolar T-cells. Yamaguchi E, et al. **Eur Respir J** 1999 Apr;13(4):814–9

Aerosol measurement of airspace diameter correlates with morphometry in normal and papain-exposed air dried lungs. Rosenthal FS. **Exp Lung Res** 1999 Jul–Aug; 25(5):425–41

Manipulation of injury and repair of the alveolar epithelium using two pneumotoxicants: 3-methylindole and monocrotaline. Woods LW, et al. **Exp Lung Res** 1999 Mar; 25(2):165–81

Alpha-toxin damages the air-blood barrier of the lung in a rat model of Staphylococcus aureus-induced pneumonia. McElroy MC, et al. **Infect Immun** 1999 Oct;67(10):5541–4

Apoptosis is a pathway responsible for the resolution of endotoxin-induced alveolar type II cell hyperplasia in the rat. Tesfaigzi J, et al. **Int J Exp Pathol** 1998 Oct; 79(5):303–11

A Fas pathway to pulmonary fibrosis [comment] Chapman HA. **J Clin Invest** 1999 Jul;104(1):1–2. Comment on: J Clin Invest 1999 Jul;104(1):13–9.

The lymphocytic alveolitis in sarcoidosis is associated with increased amounts of soluble and cell-bound adhesion molecules in bronchoalveolar lavage fluid and serum. Berlin M, et al. **J Intern Med** 1998 Oct;244(4):333–40

Proliferation of alveolar type II epithelial cells in residual lungs following thoracotomy. Sakuma T. **Jpn J Thorac Cardiovasc Surg** 1999 Jan;47(1):43–6

Myofibroblasts in diffuse alveolar damage of the lung. Pache JC, et al. **Mod Pathol** 1998 Nov;11(11):1064–70

The spatial distribution of pulmonary lesions in severe ARDS. An autopsy study of 35 cases. Barth PJ, et al. **Pathol Res Pract** 1998;194(7):465–71

Diffuse alveolar damage in BCGosis: a rare complication of intravesical bacillus Calmette-Guérin therapy for transitional cell carcinoma. Tan L, et al. **Pathology** 1999 Feb;31(1):55–6

Demonstration of communication between alveolus and interstitium in persistent interstitial pulmonary emphysema: case report. Yao JL, et al. **Pediatr Dev Pathol** 1999 Sep–Oct;2(5):484–7

Small airways: a time to revisit? [editorial] Evans DJ, et al. **Thorax** 1998 Aug;53(8):629–30

Basaloid carcinoma of the lung with bronchiolo-alveolar cell differentiation. A case report. Mai KT, et al. **Tumori** 1999 May-Jun;85(3):207–10

[A rare cause of intra-alveolar hemorrhage: a transfusion-related incident with leukoagglutination due to antigranulocyte antibodies (Trali syndrome)] Cailleux N, et al. **Rev Med Interne** 1998 Jun;19(6):434–7 (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

ERK activation protects against DNA damage and apoptosis in hyperoxic rat AEC2. Buckley S, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L159–66

Osmotic stress induces both secretion and apoptosis in rat alveolar type II cells. Edwards YS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L670–8

Inhibition of gap junction communication in alveolar epithelial cells by 18alpha-glycyrrhetinic acid. Guo Y, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L1018–26

Alveolar type II-like cells release G-CSF as neutrophil chemotactic activity. Koyama S, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L687–93

Exocytosis in alveolar type II cells revealed by cell capacitance and fluorescence measurements. Mair N, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L376–82

TNF-alpha increases ceramide without inducing apoptosis in alveolar type II epithelial cells. Mallampalli RK, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L481–90

Keratinocyte growth factor promotes alveolar epithelial cell DNA repair after H2O2 exposure. Wu KI, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L780–7

Alveolar ventilation during hyperventilation by panic disorder patients [letter; comment] Janszky I, et al. **Am J Psychiatry** 1999 Apr;156(4):667–8. Comment on: Am J Psychiatry 1997 Nov;154(11):1557–65.

Reactive oxygen and nitrogen intermediates increase transforming growth factor-beta1 release from human epithelial alveolar cells through two different mechanisms. Bellocq A, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):128–36

Aspiration of airway dead space. A new method to enhance CO2 elimination. De Robertis E, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):728–32

The alveolar surface network: a new anatomy and its physiological significance. Scarpelli EM. **Anat Rec** 1998 Aug;251(4):491–527 (125 ref.)

"Dewatering" of the lungs at birth [see comments] Hills BA, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Nov; 79(3):F221–2. Comment in: Arch Dis Child Fetal Neonatal Ed 1999 Jan;80(1):F78.

Pulmonary surfactant: functions and molecular composition. Goerke J. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):79–89 (80 ref.)

Formation and structure of surface films: captive bubble surfactometry. Schürch S, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):180–202 (56 ref.)

Alveolar epithelial fluid transport can be upregulated simultaneously in rats by two different mechanisms. Wang Y, et al. **Chest** 1999 Jul;116(1 Suppl):98S–100S

Perfusion techniques for determining alveolar fluid resorption rate [letter] Barnard ML. **J Appl Physiol** 1999 May; 86(5):1749–50

Alveolar epithelial fluid clearance persists in the presence of moderate left atrial hypertension in sheep. Campbell AR, et al. **J Appl Physiol** 1999 Jan;86(1):139–51

Physiological effects of alveolar, tracheal, and "standard" pressure supports. Diehl JL, et al. **J Appl Physiol** 1999 Jul;87(1):428–37

Effect of chronic sodium cyanate administration on O2 transport and uptake in hypoxic and normoxic exercise. McCanse W, et al. **J Appl Physiol** 1999 Apr;86(4):1257–63

Effect of I/E ratio on mean alveolar pressure during high-frequency oscillatory ventilation. Pillow JJ, et al. **J Appl Physiol** 1999 Jul;87(1):407–14

Time course of active and passive liquid and solute movement in the isolated perfused rat lung model. Saldías FJ, et al. **J Appl Physiol** 1998 Oct;85(4):1572–7

Compensatory alveolar growth normalizes gas-exchange function in immature dogs after pneumonectomy. Takeda S, et al. **J Appl Physiol** 1999 Apr;86(4):1301–10

Postpneumonectomy alveolar growth does not normalize hemodynamic and mechanical function. Takeda SI, et al. **J Appl Physiol** 1999 Aug;87(2):491–7

Alveolar epithelial surface area-volume relationship in isolated rat lungs. Tschumperlin DJ, et al. **J Appl Physiol** 1999 Jun;86(6):2026–33

Pulmonary capillary perfusion: intra-alveolar fractal patterns and interalveolar independence. Wagner WW Jr, et al. **J Appl Physiol** 1999 Mar;86(3):825–31

Pulmonary vagal innervation is required to establish adequate alveolar ventilation in the newborn lamb. Wong KA, et al. **J Appl Physiol** 1998 Sep;85(3):849–59

Analysis of stress distribution in the alveolar septa of normal and simulated emphysematic lungs. Gefen A, et al. **J Biomech** 1999 Sep;32(9):891–7

Augmentation of lung liquid clearance via adenovirus-mediated transfer of a Na,K-ATPase beta1 subunit gene. Factor P, et al. **J Clin Invest** 1998 Oct 1; 102(7):1421–30

Down-regulation of nitric oxide production by ibuprofen in human volunteers. Vandivier RW, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1398–403

Regulation of an amiloride-sensitive Na+-permeable channel by a beta2-adrenergic agonist, cytosolic Ca2+ and Cl- in fetal rat alveolar epithelium. Marunaka Y, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):669–83

Role of endogenous cortisol in basal liquid clearance from distal air spaces in adult guinea-pigs. Norlin A, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:261–72

Ventilation-perfusion MR imaging of the lung. Hatabu H, et al. **Magn Reson Imaging Clin N Am** 1999 May; 7(2):379–92, x (47 ref.)

Inwardly rectifying K+ currents in fetal alveolar type II cells: regulation by protein kinase A and protein phosphatases. Monaghan AS, et al. **Pflugers Arch** 1999 Aug; 438(3):371–7

Effects of intraalveolar oxygen concentration on alveolar fluid absorption and metabolism in isolated rat lungs. Suzuki S, et al. **Respir Physiol** 1999 May 3;115(3):325–32

Transalveolar fluid absorption ability in rat lungs preserved with Euro-Collins solution and EP4 solution [published erratum appears in Transplantation 1999 Aug 15;68(3):454] Sugita M, et al. **Transplantation** 1999 Feb 15;67(3):349–54

PHYSIOPATHOLOGY

Inhibition of beta-adrenergic-dependent alveolar epithelial clearance by oxidant mechanisms after hemorrhagic shock. Modelska K, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L844–57

Influence of deflated and anaerobic conditions during cold storage on rat lungs. Fukuse T, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):621–7

Lymphocyte and eosinophil influx into alveolar tissue in nocturnal asthma. Kraft M, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):228–34

Alveolar clearance in horses with chronic obstructive pulmonary disease. Votion DM, et al. **Am J Vet Res** 1999 Apr;60(4):495–500

Dose-response relationship between plasma epinephrine concentration and alveolar liquid clearance in dogs. Maron MB. **J Appl Physiol** 1998 Nov;85(5):1702–7

Alveolar neutrophil oxidative burst and beta2 integrin expression in experimental acute pulmonary inflammation are not modified by inhaled nitric oxide. Kermarrec N, et al. **Shock** 1998 Aug;10(2):129–34

RADIATION EFFECTS

Effects of right hemithoracic irradiation on ceftazidime penetration into the alveolar space in rats. Murata T, et al. **Radiat Med** 1998 Nov–Dec;16(6):457–60

RADIOGRAPHY

Bronchoalveolar lavage and transbronchial lung biopsy in alveolar and/or ground-glass opacification. Cazzato S, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):115–9

[Images in medicine. Alveolar microlithiasis] Ulukavak T, et al. **Presse Med** 1998 Apr 18;27(15):739 **(Fre)**

RADIONUCLIDE IMAGING

Evaluation of the alveolar-capillary membrane permeability using 99mTc-HMPAO aerosols in severe diffuse interstitial fibrosis. Botelho Mf, et al. **Rev Esp Med Nucl** 1999; 18(1):21–31

SECRETION

Role of actin depolymerization in the surfactant secretory response of alveolar epithelial type II cells. Rose F, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):206–12

Prostacyclin enhances stretch-induced surfactant secretion in alveolar epithelial type II cells. Rose F, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):846–51

Regulation of lung surfactant secretion by phospholipase A2. Liu L. **J Cell Biochem** 1999 Jan 1;72(1):103–10

ULTRASTRUCTURE

Scanning and transmission electron microscopical evidence of the capacity of diatoms to penetrate the alveolo-capillary barrier in drowning. Lunetta P, et al. **Int J Legal Med** 1998;111(5):229–37

Type II alveolar epithelial cells and cyclophosphamide-induced lung fibrosis. Sulkowski S. **Rocz Akad Med Bialymst** 1998;43:160–8

PULMONARY ARTERY

Pulmonary artery aneurysms due to Behçet's disease: MR imaging and digital subtraction angiography findings. Celenk C, et al. **AJR Am J Roentgenol** 1999 Mar; 172(3):844–5

Estimation of shunt flow in coronary-pulmonary fistula by lung perfusion scintigraphy with technetium-99m macroaggregated albumin. Komatsu S, et al. **Am J Cardiol** 1998 Nov 1;82(9):1158–61, A11

Does ductal occlusion with the gianturco coil cause left pulmonary artery and/or descending aorta obstruction? Stromberg D, et al. **Am J Cardiol** 1999 Apr 15; 83(8):1229–35

Pericardial placement of a pulmonary arterial catheter [letter; comment] Browne DA, et al. **Anaesthesia** 1998 Aug; 53(8):825. Comment on: Anaesthesia 1998 Mar;53(3):290–2.

Bilateral fistulas from the internal mammary arteries and the bronchial arteries to the pulmonary arteries--a case report. Misumi I, et al. **Angiology** 1998 Sep;49(9):771–5

Leiomyosarcoma of the pulmonary artery. Dumont P, et al. **Ann Thorac Surg** 1998 Dec;66(6):2089–91

Repair of an aneurysm of the pulmonary trunk in a 65-year-old patient. Roth M, et al. **Ann Thorac Surg** 1999 Jan;67(1):244–6

Improved exposure of the pulmonary arteries for thromboendarterectomy. Zund G, et al. **Ann Thorac Surg** 1998 Nov;66(5):1821–3

The term "lymphangitic pulmonary metastases" resurrected [letter; comment] Sadoff L. **Arch Intern Med** 1999 Jun 14; 159(11):1254. Comment on: Arch Intern Med 1998 Jan 12;158(1):14. Comment on: Arch Intern Med 1998 Jun 14;159(11):1276.

Pulmonary artery catheterization in anaesthesia and intensive care. Gómez CM, et al. **Br J Anaesth** 1998 Dec; 81(6):945–56 (192 ref.)

Mycotic pulmonary arterial aneurysms in an intravenous drug user. McLean L, et al. **Can Respir J** 1998 Jul–Aug; 5(4):307–11 (13 ref.)

Aneurysm of the pulmonary trunk with patent arterial duct. Alva C, et al. **Cardiol Young** 1999 Jan;9(1):70–2

Complex pulmonary atresia in an adult: natural history, unusual pathology and mode of death. Thierrien J, et al. **Cardiol Young** 1999 May;9(3):249–56

Entrapment of J-tip guidewires by Venatech and stainless-steel Greenfield vena cava filters during central venous catheter placement: percutaneous management in four patients. Andrews RT, et al. **Cardiovasc Intervent Radiol** 1998 Sep–Oct;21(5):424–8

Acquired coronary artery-pulmonary artery connection [see comments] Benitez RM. **Cathet Cardiovasc Diagn** 1998 Dec; 45(4):413–5. Comment in: Cathet Cardiovasc Diagn 1998 Dec;45(4):416.

Catheterization of the pulmonary artery using a 3 French catheter in patients with congenital heart disease. Mori Y, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):45–50

Relief of right ventricular to pulmonary artery conduit stenosis using a self-expanding stent. Frias PA, et al. **Catheter Cardiovasc Interv** 1999 May;47(1):52–4

Extreme left atrial enlargement causing upward displacement and compression of the right pulmonary artery [letter] Mandalay A, et al. **Catheter Cardiovasc Interv** 1999 May; 47(1):115–6

Left main coronary artery compression by aneurysmal pulmonary artery in a patient with tetralogy of Fallot with absent pulmonary valve. Sengupta PP, et al. **Catheter Cardiovasc Interv** 1999 Apr;46(4):438–40

Endobronchial stenting for extrinsic compression caused by pulsatile pulmonary artery in a 4-week-old infant. Hon JK, et al. **Chest** 1999 Mar;115(3):897–9

Coronary artery-main pulmonary artery fistula. Ben-Gal T, et al. **Clin Cardiol** 1999 Apr;22(4):310

Thrombosed pulmonary arterial aneurysm in Eisenmenger's

syndrome. Rebolledo MA, et al. **Clin Cardiol** 1999 Feb; 22(2):127

A knot in the heart–surgical removal of a pulmonary artery catheter entangled in the tricuspid valve chordae [letter] Perreas KG, et al. **Eur J Cardiothorac Surg** 1999 Jan; 15(1):112–3

Pulmonary artery stenosis after systemic–to–pulmonary shunt operations. Sachweh J, et al. **Eur J Cardiothorac Surg** 1998 Sep;14(3):229–34

Bilateral hydatid cyst of pulmonary arteries: MR and CT findings. Yagüe D, et al. **Eur Radiol** 1998;8(7):1170–2

Images in cardiology: Mycotic aneurysm of the left pulmonary artery in a child with tetralogy of Fallot and Streptococcus viridans infective endocarditis. Lawrenson J, et al. **Heart** 1999 Jul;82(1):88

Transarterial approach of the pulmonary artery in anatomically corrected malposition of the great arteries by manipulating a catheter inverted with balloon floating maneuver. Lee ML, et al. **Int J Cardiol** 1998 Nov 30; 67(1):1–7

Calcified subaortic left ventricular aneurysm causing right pulmonary artery obstruction in a child. Mohan JC, et al. **Int J Cardiol** 1998 Sep 30;66(2):195–7

Contrast–enhanced magnetic resonance angiography of the pulmonary vasculature. A review. Kauczor HU. **Invest Radiol** 1998 Sep;33(9):606–17 (65 ref.)

Ruptured aneurysm of the ductus diverticulum into the pulmonary artery in a man: a successful repair. Shimazaki Y, et al. **J Card Surg** 1998 Mar;13(2):146–9

A 50–year–old woman complaining of severe dyspnea. Kubota H, et al. **J Cardiol** 1999 Aug;34(2):93–5

Sarcoma of the main pulmonary artery: an unusual etiology for recurrent pulmonary emboli. Pagni S, et al. **J Cardiovasc Surg (Torino)** 1999 Jun;40(3):457–61

Pulmonary artery leiomyosarcoma. Chan SH, et al. **J Formos Med Assoc** 1999 Aug;98(8):578–81

Long–term effect of a new oral prostacyclin analogue, beraprost sodium, in isolated peripheral pulmonary artery stenosis in the adult. Yoshitomi Y, et al. **J Intern Med** 1999 Aug;246(2):227–30

MR imaging of non–visualized pulmonary arteries at angiography in patients with congenital heart disease. Choe YH, et al. **J Korean Med Sci** 1998 Dec;13(6):597–602

Delayed massive hemoptysis after expandable bronchial stent placement. Urschel JD. **J Laparoendosc Adv Surg Tech A** 1999 Apr;9(2):155–8

Total repair of pulmonary atresia with ventricular septal defect and major aortopulmonary collaterals: an integrated approach. Carotti A, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):914–23

Preimplantation retrograde pneumoplegia in clinical lung transplantation. Venuta F, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):107–14

Ex vivo transfection of transforming growth factor–beta1 gene to pulmonary artery segments in lung grafts. Yano M, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):705–13

Embolization of pulmonary pseudoaneurysms secondary to metastatic synovial sarcoma of the right atrium. Bean SH, et al. **J Vasc Interv Radiol** 1999 May;10(5):649–52

Embolization of a pulmonary artery pseudoaneurysm due to squamous cell carcinoma of the lung. Gomez–Jorge J, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1127–30

A 28–year–old woman with a pulmonary embolus [see comments] Savage P, et al. **Lancet** 1998 Jul 4;352(9121):30 . Comment in: Lancet 1998 Sep 5;352(9130):822.

Multiple venous thrombosis and massive pulmonary artery thrombus as the presenting features of steroid–responsive nephrotic syndrome. Peces R, et al. **Nephrol Dial Transplant** 1999 May;14(5):1306–9

PEEP–induced pulmonary vasoconstriction in neonatal piglets: analysis by pressure–flow curves. Venkataraman ST, et al. **Pediatr Pulmonol** 1999 Jul;28(1):12–7

Pulmonary vasculitis associated with anti–Jo–1 antibodies. Brown I, et al. **Respir Med** 1998 Jul;92(7):986–8

Single pulmonary nodule after cardiac catheterization. Jost R, et al. **Respiration** 1998;65(4):309

Ruptured mycotic pulmonary artery aneurysm: an unusual complication of right–sided endocarditis. Benveniste O, et al. **Scand J Infect Dis** 1998;30(6):626–9 (20 ref.)

Pulmonary artery sarcoma diagnosed using intravascular ultrasound images. Okano Y, et al. **Thorax** 1999 Aug; 54(8):748–9

Placement of a pulmonary artery catheter via a previously unrecognized persistent left superior vena cava. Stoiser B, et al. **Vasa** 1999 Feb;28(1):53–4

[Oxyhemoglobin saturation: correlation between venae cavae, right atrium, right ventricle and pulmonary artery] Chen Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(5):463–4 **(Chi)**

[Primary sarcoma of A. pulmonalis: a rare cause of cor pulmonale] Ismaël F, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1705–9 (Eng. Abstr.) **(Dut)**

[Idiopathic aneurysm of the pulmonary artery trunk. Report of a case] Corbi P, et al. **Ann Med Interne (Paris)** 1999 Jan;150(1):67–9 (Eng. Abstr.) **(Fre)**

[Primary sarcoma of the pulmonary artery. Case report] Gerard A, et al. **Rev Med Interne** 1999 Aug;20(8):705–8 (Eng. Abstr.) **(Fre)**

[Association of pulmonary artery aneurysm, right heart thromboses and antiphospholipid antibodies in Behcet's disease] Harmouche H, et al. **Rev Med Interne** 1998 Jul; 19(7):512–5 (Eng. Abstr.) **(Fre)**

[44–year–old patient with dyspnea, chest pain and syncope] Eggers B, et al. **Internist (Berl)** 1999 Feb;40(2):210–3 **(Ger)**

[Sarcoma of the pulmonary artery—pre– and postoperative radiologic findings in initial tumor manifestation and recurrence] Fasse A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):112–8 (Eng. Abstr.) **(Ger)**

[A successful surgical repair of mitral stenosis and regurgitation with pulmonary arteriovenous fistula] Inoue T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Aug; 46(8):757–61 (13 ref.) (Eng. Abstr.) **(Jpn)**

[Vasculo–Behcet's disease with fatal massive hemoptysis] Sekine K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb; 37(2):135–9 (Eng. Abstr.) **(Jpn)**

[Biphasic graft preservation for lung transplantation] Gámez García P, et al. **Arch Bronconeumol** 1998 Oct;34(9):417–20 (Eng. Abstr.) **(Spa)**

[Pulmonary artery aneurysm. A case report] Palma Nieto JC, et al. **Rev Esp Cardiol** 1999 Feb;52(2):148–50 (8 ref.) (Eng. Abstr.) **(Spa)**

[An intimal sarcoma of the pulmonary artery. An immunohistochemical study] Pérez del Río MJ, et al. **Rev Esp Cardiol** 1998 Oct;51(10):850–2 (8 ref.) (Eng. Abstr.) **(Spa)**

ABNORMALITIES

A case of a pulmonary arteriovenous malformation treated by lobectomy. Wechsler J, et al. **Acta Chir Hung** 1999; 38(1):53–5

Embolotherapy for pulmonary arteriovenous malformations in patients with hereditary hemorrhagic telangiectasia (Rendu–Osler–Weber syndrome). Andersen PE, et al. **Acta Radiol** 1998 Nov;39(6):723–6

Recanalization after coil embolization of pulmonary arteriovenous malformations [letter; comment] Clark JA, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1426–7. Comment on: AJR Am J Roentgenol 1998 Mar;170(3):727–30.

Pediatric case of the day. Congenital pulmonary arteriovenous malformation. Guidone P, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):814, 818–9

Recanalization after embolotherapy of pulmonary arteriovenous malformations: significance? Outcome? [letter; comment] White RI Jr. **AJR Am J Roentgenol** 1998 Dec;171(6):1704–5. Comment on: AJR Am J Roentgenol 1998 Mar;170(3):727–30.

An unusual case of bilateral coronary artery fistulas—a case report. Nseir G, et al. **Angiology** 1999 Aug;50(8):677–81

Congenital coronary–to–pulmonary artery fistulas: 22 months after repair [letter] Alavi M, et al. **Ann Thorac Surg** 1999 Feb;67(2):598–9

Origin of the circumflex coronary artery from the pulmonary artery in infants. Alexi–Meskishvili V, et al. **Ann Thorac Surg** 1998 Oct;66(4):1406–9 (9 ref.)

Pulmonary artery sling: results with median sternotomy, cardiopulmonary bypass, and reimplantation. Backer CL, et al. **Ann Thorac Surg** 1999 Jun;67(6):1738–44; discussion 1744–5

Hepatic vein to the azygous vein anastomosis for pulmonary arteriovenous fistulae. Baskett RJ, et al. **Ann Thorac Surg** 1999 Jul;68(1):232–3

Left ventricular assist device improves survival in children with left ventricular dysfunction after repair of anomalous origin of the left coronary artery from the pulmonary artery. del Nido PJ, et al. **Ann Thorac Surg** 1999 Jan; 67(1):169–72

Right aortic arch, right ligamentum, absent left pulmonary artery: a rare vascular ring. Dodge–Khatami A, et al. **Ann Thorac Surg** 1999 May;67(5):1472–4

Anomalous right coronary artery from the pulmonary artery in Taussig–Bing anomaly. Eidem BW, et al. **Ann Thorac Surg** 1998 Nov;66(5):1797–8

Anomalous left coronary artery from the pulmonary artery: a simple method for aortic implantation with autogenous arterial tissue. Katsumata T, et al. **Ann Thorac Surg** 1999 Sep;68(3):1090–1

Anomalous origin of the right coronary artery from the pulmonary artery [letter; comment] Maluf MA, et al. **Ann Thorac Surg** 1999 Jul;68(1):292–3. Comment on: Ann Thorac Surg 1998 Oct;66(4):1444–9.

Anomalous coronary artery with tetralogy of Fallot and aortopulmonary window. Morell VO, et al. **Ann Thorac Surg** 1998 Oct;66(4):1403–5

Evolving surgical management for ventricular septal defect, pulmonary atresia, and major aortopulmonary collateral arteries. Murthy KS, et al. **Ann Thorac Surg** 1999 Mar; 67(3):760–4

Novel techniques of bidirectional Glenn shunt without cardiopulmonary bypass. Murthy KS, et al. **Ann Thorac Surg** 1999 Jun;67(6):1771–4

Rapid onset of pulmonary arteriovenous malformations after cavopulmonary anastomosis. Pandurangi UM, et al. **Ann Thorac Surg** 1999 Jul;68(1):237–9

As originally published in 1992: Aortic allografts: reconstruction of right ventricle–pulmonary artery continuity. Updated in 1999. Turley K. **Ann Thorac Surg** 1999 Jul;68(1):289–90

Pulmonary artery sling: reimplantation versus antetracheal translocation. van Son JA, et al. **Ann Thorac Surg** 1999 Sep;68(3):989–94

Transposition of the great arteries with anomalous origin of the left coronary artery from the pulmonary artery. Yamagishi M, et al. **Ann Thorac Surg** 1998 Oct;66(4):1416–8

Brain abscess and hereditary haemorrhagic telangiectasia [letter] Coley SC, et al. **Br J Neurosurg** 1998 Oct; 12(5):466–7

Cesarean section in a mother with uncorrected congenital coronary to pulmonary artery fistula. Tay SM, et al. **Can J Anaesth** 1999 Apr;46(4):368–71

Lobar emphysema due to anomalous aortic origin of the left pulmonary artery. Absher DR, et al. **Cardiol Young** 1999 May;9(3):327–30

Anomalous origin of one pulmonary artery from the ascending aorta: 36 years' experience from one centre. Abu–Sulaiman RM, et al. **Cardiol Young** 1998 Oct; 8(4):449–54

Pulmonary arteriovenous fistulas in patients with left isomerism and cardiac malformations [editorial; comment] Amodeo A, et al. **Cardiol Young** 1998 Jul;8(3):283–4. Comment on: Cardiol Young 1998 Jul;8(3):290–4.

Anomalous left coronary artery arising from the right pulmonary artery [letter] da Cruz E. **Cardiol Young** 1999 Jan;9(1):109

Tetralogy of Fallot with non–confluent pulmonary arteries and aortopulmonary septal defect. Dipchand AI, et al. **Cardiol Young** 1999 Jan;9(1):75–7

Pulmonary and systemic arteriovenous fistulas in patients with left isomerism [see comments] Kawata H, et al. **Cardiol Young** 1998 Jul;8(3):290–4. Comment in: Cardiol Young 1998 Jul;8(3):283–4.

Coarctation of the left pulmonary artery associated with congenitally corrected transposition. Massin MM, et al. **Cardiol Young** 1999 Mar;9(2):207–9

Hypoplastic left heart syndrome with right aortic arch, bilateral arterial ducts and origin of the left subclavian artery from the left pulmonary artery. Patel CR, et al. **Cardiol Young** 1999 May;9(3):331–4

Venous sac embolization of pulmonary arteriovenous malformation: preliminary experience using interlocking detachable coils. Takahashi K, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):210–3

Hypoxemia, cerebrovascular accident, and a chest mass in a 78–year–old woman. Coffee KA, et al. **Chest** 1999 Feb; 115(2):577–9

Pulmonary arteriovenous malformations: screening procedures and pulmonary angiography in patients with hereditary hemorrhagic telangiectasia. Kjeldsen AD, et al. **Chest** 1999 Aug;116(2):432–9

Unilateral pulmonary artery agenesis with presentation of hemoptysis: a case report. Lin YM, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Sep;62(9):644–7

Pulmonary arteriovenous malformation. Brian CA, et al. **Circulation** 1999 Jul 27;100(4):e29–30

Anomalous origin of the right coronary artery from the main pulmonary artery: diagnosis and management. Hekmat V, et al. **Clin Cardiol** 1998 Oct;21(10):773–6

Malignant ventricular arrhythmias revealing anomalous origin of the left coronary artery from the pulmonary artery in two adults. Frapier JM, et al. **Eur J Cardiothorac Surg** 1999 Apr;15(4):539–41

Median sternotomy single stage complete unifocalization for pulmonary atresia, major aorto–pulmonary collateral arteries and VSD–early experience. Murthy KS, et al. **Eur J Cardiothorac Surg** 1999 Jul;16(1):21–5

Severe hypoxaemia induced by an intrapulmonary arterio–venous fistula: indication for nitric oxide [letter] Feillet F, et al. **Eur J Pediatr** 1998 Dec;157(12):1036

Effect of nitric oxide inhalation on pulmonary hypertensive crisis in a case of aortic origin of the right pulmonary artery [letter] Ikemoto Y, et al. **Eur J Pediatr** 1998 Aug;157(8):697

Pulmonary arteriovenous fistula: detection with magnetic resonance angiography. Berthezène Y, et al. **Eur Radiol** 1998;8(8):1403–4

Transcatheter recanalisation and stenting of a closed ductus arteriosus in duct dependent lung perfusion. Kampmann C, et al. **Heart** 1998 Aug;80(2):206–7

Isolated innominate artery in association with patent ductus arteriosus and left pulmonary arterial ostial stenosis [letter; comment] Tandon R. **Indian Heart J** 1998 Jul–Aug; 50(4):473. Comment on: Indian Heart J 1998 Mar–Apr;50(2):206–8.

Aortic atresia with aortopulmonary window and interrupted aortic arch, simulating common arterial trunk: a case report. Atik E, et al. **Int J Cardiol** 1998 Sep 30;66(2):217–21

Cross–sectional and Doppler echocardiographic diagnosis of anomalous origin of the left coronary artery from the pulmonary artery and right coronary artery from posterior aortic sinus. Goswami KC, et al. **Int J Cardiol** 1998 Sep 1;66(1):81–3

Long term follow–up in a case of anomalous origin of the left coronary artery from the pulmonary artery. Nakano A, et al. **Int J Cardiol** 1998 Aug;65(3):301–3

Double–lumen aortic arch with anomalous left pulmonary artery origin from the main pulmonary artery—bilateral persistent fifth aortic arch—a case report. Wang JN, et al. **Int J Cardiol** 1999 Apr 30;69(1):105–8

Pulmonary arteriovenous malformation as a cause of severe exertional dyspnoea. Bain DJ, et al. **Int J Clin Pract** 1999 Mar;53(2):142–4

Unilateral absence of a pulmonary artery. Vergauwen S, et al. **J Belge Radiol** 1998 Oct;81(5):254

Acquired aortopulmonary fistula. A case report. Ferlan G, et al. **J Cardiovasc Surg (Torino)** 1998 Dec;39(6):821–3

Transpleural subclavian artery to pulmonary artery anastomosis. Ryu DS, et al. **J Comput Assist Tomogr** 1998 Nov-Dec;22(6):922-4

Use of navigator-echo-gated MRI to diagnose a coronary shunt involving an anomalous origin of the right coronary artery from the pulmonary artery. Oshinski JN, et al. **J Magn Reson Imaging** 1999 May;9(5):738-40

Anomalous right pulmonary artery origins in association with the fetal valproate syndrome. Mo CN, et al. **J Med Genet** 1999 Jan;36(1):83-4

Slide tracheoplasty: a case report of successful concomitant reconstruction of extensive congenital tracheal stenosis and pulmonary artery sling. Muraji T, et al. **J Pediatr Surg** 1998 Nov;33(11):1658-9

Anomalous origin of the left coronary artery from the pulmonary artery with intramural aortic route: diagnosis and surgical treatment. Barbero-Marcial M, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):823-5

Long-term clinical and hemodynamic evaluation of porcine valved conduits implanted from the right ventricle to the pulmonary artery. Champsaur G, et al. **J Thorac Cardiovasc Surg** 1998 Nov;116(5):793-804

Excellent long-term functional outcome after an operation for anomalous left coronary artery from the pulmonary artery. Cochrane AD, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):332-42

A detailed histologic analysis of pulmonary arteriovenous malformations in children with cyanotic congenital heart disease. Duncan BW, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):931-8

Anomalous origin of the left anterior descending coronary artery from the pulmonary artery. Kaushal SK, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):1078-80

Embolotherapy of pulmonary arteriovenous malformations with detachable balloons: long-term durability and efficacy. Saluja S, et al. **J Vasc Interv Radiol** 1999 Jul-Aug; 10(7):883-9

Embolization of an anomalous bronchial artery aneurysm in a patient with agenesis of the left pulmonary artery. Sancho C, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1122-6

A case of diffuse pulmonary arteriovenous fistula [published erratum appears in Jpn Circ J 1999 Jul;63(7):576] Hirata K, et al. **Jpn Circ J** 1999 Jun;63(6):499-501

Pulmonary arteriovenous fistulas: Mayo Clinic experience, 1982-1997. Swanson KL, et al. **Mayo Clin Proc** 1999 Jul; 74(7):671-80

Successful treatment of anomalous origin of the left coronary artery from the pulmonary artery in a 5-week-old male infant. Kamisago M, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):312-5

A case of anomalous origin of the pulmonary arteries: right pulmonary artery from the descending aorta and the left pulmonary artery from the ascending aorta. Matsubayashi K, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):298-300

The abnormal contralateral atrioventricular valve in mitral and tricuspid atresia in neonates: An echocardiographic study. Rydberg A, et al. **Pediatr Cardiol** 1999 May-Jun; 20(3):200-2

A 60-year-old man with expressive dysphasia. McAndrew NA, et al. **Postgrad Med J** 1999 Jul;75(885):431-2

Prenatal detection of a tetralogy of Fallot with origin of the left pulmonary artery from the ascending aorta in a familial 22q11 microdeletion. Saliba Z, et al. **Prenat Diagn** 1999 Mar;19(3):260-2

Aortic arch and pulmonary artery anomalies in children. Weinberg PM, et al. **Semin Roentgenol** 1998 Jul; 33(3):262-80 (35 ref.)

Hereditary haemorrhagic telangiectasia and pulmonary arteriovenous malformations: issues in clinical management and review of pathogenic mechanisms. Shovlin CL, et al. **Thorax** 1999 Aug;54(8):714-29 (193 ref.)

Fatal haemorrhage from Dieulafoy's disease of the bronchus. van der Werf TS, et al. **Thorax** 1999 Feb;54(2):184-5

Congenital aneursymal dilatation of the right atrium and co-existent anomalous origin of the right pulmonary artery in a neonatal pig (Sus scrofa). Gerlis LM, et al. **Vet Rec** 1999 Mar 27;144(13):350-1

[A dramatic selective intubation (letter)] Bazin JE, et al. **Ann Fr Anesth Reanim** 1997;16(7):925-6 **(Fre)**

[Congenital aneurysm of the trunk of the pulmonary artery] André V, et al. **J Radiol** 1999 Apr;80(4):391-3 (Eng. Abstr.) **(Fre)**

[Weber-Rendu-Osler disease: pulmonary arterio-venous malformation with shunt disclosed after 5 occurrences of purulent meningococcal encephalitis] Hazouard E, et al. **Rev Mal Respir** 1999 Feb;16(1):95-7 (Eng. Abstr.) **(Fre)**

["Pulmonary artery sling": a rare congenital vascular anomaly with tracheal stenosis. Value of diagnostic imaging] Obenauer S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):555-7 **(Ger)**

[Myocardial contrast echocardiography in a 38-year-old woman complaining of chest pain] Yamada S, et al. **J Cardiol** 1999 Jun;33(6):349-51 **(Jpn)**

[A case of reoperation 24 years after repair of absent pulmonary valve syndrome with anomalous origin of the left pulmonary artery] Chikugo F, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1329-33 (Eng. Abstr.) **(Jpn)**

[A case of racemose hemangioma of the right bronchial artery and intercostal to pulmonary arterial anastomosis] Tanaka K, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Oct; 46(10):1028-31 (Eng. Abstr.) **(Jpn)**

[Successful management of a patient with pulmonary arteriovenous fistula using a continuous intra-arterial blood gas monitoring system] Habuka K, et al. **Masui** 1999 Jun; 48(6):647-9 (Eng. Abstr.) **(Jpn)**

[Familial pulmonary arteriovenous malformation diagnostic of the Osler-Weber-Rendu disease] Akiyama Y, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May;36(5):488-93 (Eng. Abstr.) **(Jpn)**

[Anomalous origin of the left pulmonary artery (Sling): a case report and review of the literature] Loureiro M, et al. **Rev Port Cardiol** 1998 Oct;17(10):811-5 (25 ref.) (Eng. Abstr.) **(Por)**

[The successful surgical treatment of atresia of the right atrioventricular valve combined with hypoplasia of the pulmonary arteries] Zin'kovskii MF, et al. **Klin Khir** 1998; (9-10):96-7 **(Rus)**

[An anomalous origin of the left coronary artery in the right pulmonary artery with interventricular communication] Cabrera A, et al. **Rev Esp Cardiol** 1999 Apr;52(4):279-80 (8 ref.) (Eng. Abstr.) **(Spa)**

[Anomalous origin of the left coronary artery from the pulmonary artery in adults. Long-term follow up] Ortiz de Salazar A, et al. **Rev Esp Cardiol** 1998 Dec; 51(12):997-1001 (Eng. Abstr.) **(Spa)**

ANATOMY & HISTOLOGY

Three-dimensional reconstruction of pulmonary arteries in plexiform pulmonary hypertension using cell-specific markers. Evidence for a dynamic and heterogeneous process of pulmonary endothelial cell growth. Cool CD, et al. **Am J Pathol** 1999 Aug;155(2):411-9

CT measurement of main pulmonary artery diameter. Edwards PD, et al. **Br J Radiol** 1998 Oct;71(850):1018-20

Caval contribution to flow in the branch pulmonary arteries of Fontan patients with a novel application of magnetic resonance presaturation pulse. Fogel MA, et al. **Circulation** 1999 Mar 9;99(9):1215-21

Suggested nomenclature for terminal orders of bronchial ramifications and segmental arteries in the upper lobe of the left human lung. Topol M. **Folia Morphol (Warsz)** 1998; 57(3):241-9

Zero-stress states of human pulmonary arteries and veins. Huang W, et al. **J Appl Physiol** 1998 Sep;85(3):867-73

Optimization of contrast dosage for gadolinium-enhanced 3D MRA of the pulmonary and renal arteries. Hany TF, et al. **Magn Reson Imaging** 1998 Oct;16(8):901-6

[Pulmonary blood vessels in goats] Roos H, et al. **Anat Histol Embryol** 1999 May;28(2):131-7 (Eng. Abstr.) **(Ger)**

[The pulmonary arteries and veins of miniature swine, together with a common view of their supportive and stabilizing functions in the lung] Vollmerhaus B, et al. **Anat Histol Embryol** 1999 Jul;28(3):143-9 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Transcriptional down-regulation of the rabbit pulmonary artery endothelin B receptor during phenotypic modulation. Owe-Young R, et al. **Br J Pharmacol** 1999 Jan;126(1):103-10

CYTOLOGY

Mechanisms regulating cAMP-mediated growth of bovine neonatal pulmonary artery smooth muscle cells. Guldemeester A, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L1010-7

Enhanced ET(A)-receptor-mediated inhibition of K(v) channels in hypoxic hypertensive rat pulmonary artery myocytes. Li KX, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H363-70

Relationship between perlecan and tropoelastin gene expression and cell replication in the developing rat pulmonary vasculature. Belknap JK, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):24-34

Kinetics of plasma membrane electron transport in a pulmonary endothelial cell-column. Olson LE, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):117-27

In vitro angiogenic activity of Aloe vera gel on calf pulmonary artery endothelial (CPAE) cells. Lee MJ, et al. **Arch Pharm Res** 1998 Jun;21(3):260-5

[The effects of hypoxia on angiotensin II secretion by cultured pulmonary artery endothelial cells] Wang P, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb;13(1):25-8 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Vasorelaxant effects of cicletanine and its (+)- and (-)-enantiomers in isolated human pulmonary arteries. Bagrov AY, et al. **Am J Hypertens** 1998 Nov;11(11 Pt 1):1386-9

Effects of fluoxetine, phentermine, and venlafaxine on pulmonary arterial pressure and electrophysiology. Reeve HL, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L213-9

Endothelial defect mediates attenuated vasorelaxant response to isoproterenol after lung transplantation. Yoshida K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H159-66

Pulmonary vasodilation by ketamine is mediated in part by L-type calcium channels. Kaye AD, et al. **Anesth Analg** 1998 Oct;87(4):956-62

Pulmonary arterial and right ventricular responses to prophylactic albumin administration before aortic unclamping during abdominal aortic aneurysmectomy [see comments] Ueda N, et al. **Anesth Analg** 1998 Nov; 87(5):1020-6. Comment in: Anesth Analg 1999 Aug;89(2):531.

Nitric oxide impacts endothelin-1 gene expression in intrapulmonary arteries of chronically hypoxic rats. Junbao D, et al. **Angiology** 1999 Jun;50(6):479-85

Inhaled nitric oxide attenuates increased pulmonary artery pressure following diaspirin crosslinked hemoglobin (DCLHB) administration. Sefton W, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 May; 27(3):203-13

Sodium nitroprusside prevents oxygen-free-radical-induced pulmonary vasoconstriction in newborn piglets. Yu XQ, et al. **Biol Neonate** 1999 May;75(5):319-26

Nitric oxide: an important role in the maintenance of systemic and pulmonary vascular tone in man. Kiely DG, et al. **Br J Clin Pharmacol** 1998 Sep;46(3):263-6

The activation of nitric oxide synthase by copper ion is mediated by intracellular Ca2+ mobilization in human pulmonary arterial endothelial cells. Demura Y, et al. **Br J Pharmacol** 1998 Nov;125(6):1180-7

ET(A) receptors are the primary mediators of myofilament calcium sensitization induced by ET-1 in rat pulmonary artery smooth muscle: a tyrosine kinase independent pathway. Evans AM, et al. **Br J Pharmacol** 1999 May; 127(1):153-60

Superoxide and endothelium-dependent constriction to flow in porcine small pulmonary arteries. Liu Q, et al. **Br J Pharmacol** 1998 May;124(2):331-6

Polyamine regulatory processes and oxidative stress in monocrotaline-treated pulmonary artery endothelial cells. Aziz SM, et al. **Cell Biol Int** 1997 Dec;21(12):801-12

Induction of serotonin transporter by hypoxia in pulmonary vascular smooth muscle cells. Relationship with the mitogenic action of serotonin. Eddahibi S, et al. **Circ Res** 1999 Feb 19;84(3):329-36

Functional evidence for a novel suramin-insensitive pyrimidine receptor in rat small pulmonary arteries. Hartley SA, et al. **Circ Res** 1998 Nov 2;83(9):940-6

Potential role of a membrane-bound NADH oxidoreductase in nitric oxide release and arterial relaxation to nitroprusside. Mohazzab-H KM, et al. **Circ Res** 1999 Feb 5;84(2):220-8

In vitro comparison of two NONOates (novel nitric oxide donors) on rat pulmonary arteries. Homer K, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):49-57

Effects of the endothelin ET(A) receptor antagonist, TA-0201, on pulmonary arteries isolated from hypoxic rats. Itoh H, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):233-8

The effect of the endothelin ET(A) receptor antagonist CI-1020 on hypoxic pulmonary vasoconstriction. Jones RD, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):367-75

Comparison of the vascular relaxant effects of ATP-dependent K+ channel openers on aorta and pulmonary artery isolated from spontaneously hypertensive and Wistar-Kyoto rats. Kwan YW, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):241-51

Chronic hypoxia differentially alters the responses of pulmonary arteries and veins to endothelin-1 and other agents. Lal H, et al. **Eur J Pharmacol** 1999 Apr 23; 371(1):11-21

Exercise training does not alter acetylcholine-induced responses in isolated pulmonary artery from rat. Mitani Y, et al. **Eur Respir J** 1999 Mar;13(3):622-5

Signaling pathways in thrombin-induced actin reorganization in pulmonary artery endothelial cells. Zhao Y, et al. **Exp Lung Res** 1999 Jan-Feb;25(1):23-39

Modulation of adrenergic contraction of dog pulmonary arteries by nitric oxide and prostacyclin. Segarra G, et al. **Gen Pharmacol** 1999 May;32(5):583-9

Combined effects of nitric oxide and oxygen during acute pulmonary vasodilator testing. Atz AM, et al. **J Am Coll Cardiol** 1999 Mar;33(3):813-9

Characterization of the mechanism involved in the relaxant response of dopexamine in the guinea pig pulmonary artery in vitro. Mazzuco TL, et al. **J Cardiovasc Pharmacol** 1999 Jan;33(1):86-92

Endothelin plays a role in contractions of isolated pig pulmonary vessels induced by diaspirin cross-linked hemoglobin. Ledvina MA, et al. **J Lab Clin Med** 1999 May; 133(5):478-87

Inhibition by 1H-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) of responses to nitric oxide-donors in rat pulmonary artery: influence of the mechanism of nitric oxide generation. Homer KL, et al. **J Pharm Pharmacol** 1999 Feb;51(2):135-9

Endothelium-dependent relaxation in response to ethanol in the porcine isolated pulmonary artery. Lawrence RN, et al. **J Pharm Pharmacol** 1998 Aug;50(8):885-90

Relaxation of endothelin-1-induced pulmonary arterial constriction by niflumic acid and NPPB: mechanism(s) independent of chloride channel block. Kato K, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1242-50

Escherichia coli lipopolysaccharide downregulates soluble guanylate cyclase in pulmonary artery smooth muscle. Scott WS, et al. **J Surg Res** 1998 Dec;80(2):309-14

Nitric oxide causes apoptosis in pulmonary vascular smooth muscle cells. Smith JD, et al. **J Surg Res** 1998 Oct; 79(2):121-7

Endotoxin differentially impairs receptor-mediated relaxation in rat isolated pulmonary and thoracic aortic vessels. McIntyre RC Jr, et al. **J Trauma** 1998 Nov; 45(5):862-7

Enhancement of neonatal rat ductal responsiveness to prostaglandin E2 after maternal treatment with enalapril or captopril. Togashi H, et al. **J Vet Med Sci** 1998 Aug; 60(8):989-91

Sensitization by chronic diazepam treatment of A2A adenosine receptor-mediated relaxation in rat pulmonary artery. Ujfalusi A, et al. **Life Sci** 1999;64(2):PL19-25

Substrate inhibition of nitric oxide synthase in pulmonary artery endothelial cells in culture. Su Y, et al. **Nitric Oxide** 1997;1(6):469-75

Eicosanoid profile in cultured human pulmonary artery smooth muscle cells treated with IL-1 beta and TNF alpha. Wen FQ, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jul; 59(1):71-5

Fenfluramine potentiates canine pulmonary vasoreactivity to endothelin-1. Barman SA, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun;11(2-3):183-7

The ETA antagonist CI-1020 inhibits hypoxic pulmonary vasoconstriction in small isolated rat pulmonary arteries. Jones RD, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun; 11(2-3):177-81

Increased reactivity to endothelin of pulmonary arteries in long-term post-obstructive pulmonary vasculopathy in rats. Shi W, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun; 11(2-3):189-96

Inhibition of hypoxic pulmonary vasoconstriction in isolated rat pulmonary arteries by diphenyleneiodonium (DPI). Thompson JS, et al. **Pulm Pharmacol Ther** 1998 Feb; 11(1):71-5

Effect of SB 217242 on hypoxia-induced cardiopulmonary changes in the high altitude-sensitive rat. Underwood DC, et al. **Pulm Pharmacol Ther** 1999;12(1):13-26

Pituitary adenylate cyclase activating peptides relax human pulmonary arteries by opening of KATP and KCa channels. Bruch L, et al. **Thorax** 1998 Jul;53(7):586-7

Monocrotaline pyrrole interacts with actin and increases thrombin-mediated permeability in pulmonary artery endothelial cells. Wilson DW, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):138-44

The effects of maternal indomethacin therapy on human fetal branch pulmonary arterial vascular impedance. Rasanen J, et al. **Ultrasound Obstet Gynecol** 1999 Feb;13(2):112-6

[The effects of deferoxamine on bovine pulmonary endothelial cell injury induced by hydrogen peroxide] Wang Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(3):203-5 (Eng. Abstr.) **(Chi)**

EMBRYOLOGY

Diagnosis of fetal pulmonary hypoplasia by measurement of blood flow velocity waveforms of pulmonary arteries with Doppler ultrasonography. Yoshimura S, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):441-6

Establishment of an immortalized fetal intrapulmonary artery endothelial cell line. Pace MC, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L106-12

Morphology of the tracheobronchial tree and the route of the pulmonary artery in the fetal minke whale (Balaenoptera acutorostrata). Kida MY. **Okajimas Folia Anat Jpn** 1998 Dec;75(5):251-8

ENZYMOLOGY

Endothelial nitric oxide synthase gene transfer enhances dilation of newborn piglet pulmonary arteries. Aschner JL, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H371-9

Regulation of NO-elicited pulmonary artery relaxation and guanylate cyclase activation by NADH oxidase and SOD. Gupte SA, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1535-42

Angiotensin IV receptor-mediated activation of lung endothelial NOS is associated with vasorelaxation. Patel JM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1061-8

Autocrine function of inducible nitric oxide synthase and cyclooxygenase-2 in proliferation of human and rat pulmonary artery smooth-muscle cells: species variation. Jourdan KB, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):105-10

Developmental changes in prostacyclin synthesis are conserved in cultured pulmonary endothelium and vascular smooth muscle. Shaul PW, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):113-21

Effect of cigarette smoke extract on nitric oxide synthase in pulmonary artery endothelial cells. Su Y, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):819-25

Biochemical regulation of the nonmuscle myosin light chain kinase isoform in bovine endothelium. Verin AD, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):767-76

Escherichia coli lipopolysaccharide downregulates soluble guanylate cyclase in pulmonary artery smooth muscle. Scott WS, et al. **J Surg Res** 1998 Dec;80(2):309-14

Phosphodiesterase activity in intrapulmonary arteries and veins of perinatal lambs. Okogbule-Wonodi AC, et al. **Mol Genet Metab** 1998 Nov;65(3):229-37

Heterogeneity in endothelium-derived nitric oxide-mediated relaxation of different sized pulmonary arteries of newborn lambs. Gao Y, et al. **Pediatr Res** 1998 Nov;44(5):723-9

Endothelin-1 activates MAP kinases and c-Jun in pulmonary artery smooth muscle. Yamboliev IA, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun;11(2-3):205-8

GROWTH & DEVELOPMENT

Relationship between perlecan and tropoelastin gene expression and cell replication in the developing rat pulmonary vasculature. Belknap JK, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):24-34

Developmental changes in prostacyclin synthesis are conserved in cultured pulmonary endothelium and vascular smooth muscle. Shaul PW, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):113-21

Does the modified Blalock-Taussig shunt cause growth of the contralateral pulmonary artery? Jahangiri M, et al. **Ann Thorac Surg** 1999 May;67(5):1397-9

Balloon valvoplasty in infants with tetralogy of Fallot: effects on oxygen saturation and growth of the pulmonary arteries. Heusch A, et al. **Cardiol Young** 1999 Jan;9(1):17-23

The real fate of pulmonary arteries after bidirectional superior cavopulmonary anastomosis: is there a need for concern? [see comments] Slavik Z, et al. **Cardiol Young** 1999 Jan;9(1):6-10 (28 ref.). Comment in: Cardiol Young 1999 Jan;9(1):2-3.

Pulmonary artery growth after systemic-to-pulmonary shunt in children with a univentricular heart and a hypoplastic pulmonary artery bed. Implications for Fontan surgery. Borowski A, et al. **Jpn Heart J** 1998 Sep;39(5):671-80

Phosphodiesterase activity in intrapulmonary arteries and veins of perinatal lambs. Okogbule-Wonodi AC, et al. **Mol Genet Metab** 1998 Nov;65(3):229-37

Branch pulmonary artery growth after blalock-taussig shunts in tetralogy of fallot and pulmonary atresia with ventricular septal defect: a retrospective, echocardiographic study. Sabri MR, et al. **Pediatr Cardiol** 1999 Sep-Oct;20(5):358-63

IMMUNOLOGY

Leukemia inhibitory factor (LIF) and LIF receptor in human lung. Distribution and regulation of LIF release. Knight DA, et al. **Am J Respir Cell Mol Biol** 1999 Apr; 20(4):834-41

Up-regulation of intercellular adhesion molecule-1 (ICAM-1), endothelial leucocyte adhesion molecule-1 (ELAM-1) and class II MHC molecules on pulmonary artery endothelial cells by antibodies against U1-ribonucleoprotein. Okawa-Takatsuji M, et al. **Clin Exp Immunol** 1999 Apr;116(1):174-80

Takayasu's arteritis: a cell-mediated large-vessel vasculitis. Rizzi R, et al. **Int J Clin Lab Res** 1999;29(1):8-13 (61 ref.)

INJURIES

Five-year study on the injury of the great thoracic vessels after penetrating chest injury. Kiss SS, et al. **Acta Chir Hung** 1999;38(1):75-8

Successful outcome in Swan-Ganz catheter-induced rupture of pulmonary artery. Stancofski ED, et al. **Am Surg** 1998 Nov;64(11):1062-5

Recognition and management of catheter-induced pulmonary artery rupture. Mullerworth MH, et al. **Ann Thorac Surg** 1998 Oct;66(4):1242-5

Rescue PTCA complicated by pulmonary artery rupture after tPA and abciximab. Chadow HL, et al. **Catheter Cardiovasc Interv** 1999 Jan;46(1):89-91

Pulmonary artery bullet injury following thoracic gunshot wound. Babatasi G, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):87-90

Endothelial damage by bubbles in the pulmonary artery of the pig. Nossum V, et al. **Undersea Hyperb Med** 1999 Spring;26(1):1-8

[Rupture of a branch of the pulmonary artery during Swan-Ganz catheterization. Treatment by coil embolization] Wunschel-Joseph ME, et al. **Arch Mal Coeur Vaiss** 1999 Feb;92(2):259-63 (Eng. Abstr.) **(Fre)**

[Pulmonary artery injury caused by mal-manipulation of a pulmonary artery catheter] Morimoto M, et al. **Masui** 1998 Aug;47(8):995-7 (Eng. Abstr.) **(Jpn)**

METABOLISM

Cell proliferation is associated with enhanced capacitative Ca(2+) entry in human arterial myocytes. Golovina VA. **Am J Physiol** 1999 Aug;277(2 Pt 1):C343-9

Effects of hypoxia on energy state and pH in resting pulmonary and femoral arterial smooth muscles. Leach RM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1051-60

Enhanced ET(A)-receptor-mediated inhibition of K(v) channels in hypoxic hypertensive rat pulmonary artery myocytes. Li KX, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H363-70

A maturational shift in pulmonary K+ channels, from Ca2+ sensitive to voltage dependent. Reeve HL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1019-25

Temporal, spatial, and oxygen-regulated expression of hypoxia-inducible factor-1 in the lung. Yu AY, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L818-26

Localization and distribution of endothelin receptor subtypes in pulmonary vasculature of normal and hypoxia-exposed rats. Soma S, et al. **Am J Respir Cell Mol Biol** 1999 Apr; 20(4):620-30

Kv2.1/Kv9.3, an ATP-dependent delayed-rectifier K+ channel in pulmonary artery myocytes. Patel AJ, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:438-41

Distribution of gap junction protein connexin 37 in smooth muscle cells of the rat trachea and pulmonary artery. Nakamura K, et al. **Arch Histol Cytol** 1999 Mar;62(1):27-37

Remodeling of rat neonatal pulmonary artery: role of matrix metalloproteinases. Tozzi CA, et al. **Biol Neonate** 1999; 75(6):360-6

The activation of nitric oxide synthase by copper ion is mediated by intracellular Ca2+ mobilization in human pulmonary arterial endothelial cells. Demura Y, et al. **Br J Pharmacol** 1998 Nov;125(6):1180-7

Development of endothelin receptors in perinatal rabbit pulmonary resistance arteries. Docherty C, et al. **Br J Pharmacol** 1998 Jul;124(6):1165-74

Different receptors for angiotensin II at pre- and postjunctional level of the canine mesenteric and pulmonary arteries. Guimarães S, et al. **Br J Pharmacol** 1998 Jul;124(6):1207-12

Polyamine regulatory processes and oxidative stress in monocrotaline-treated pulmonary artery endothelial cells. Aziz SM, et al. **Cell Biol Int** 1997 Dec;21(12):801-12

Dysfunctional voltage-gated K+ channels in pulmonary artery smooth muscle cells of patients with primary pulmonary hypertension. Yuan JX, et al. **Circulation** 1998 Oct 6;98(14):1400-6

p38 Mitogen-activated protein kinase regulates IL-8 expression in human pulmonary vascular endothelial cells. Hashimoto S, et al. **Eur Respir J** 1999 Jun;13(6):1357-64

Signaling pathways in thrombin-induced actin reorganization in pulmonary artery endothelial cells. Zhao Y, et al. **Exp Lung Res** 1999 Jan-Feb;25(1):23-39

Isoprostanes and PGE2 production in human isolated pulmonary artery smooth muscle cells: concomitant and differential release. Jourdan KB, et al. **FASEB J** 1999 Jun; 13(9):1025-30

Connexin make-up of endothelial gap junctions in the rat pulmonary artery as revealed by immunoconfocal microscopy and triple-label immunogold electron microscopy. Ko YS, et al. **J Histochem Cytochem** 1999 May;47(5):683-92

Release of Ca2+ from the sarcoplasmic reticulum increases mitochondrial [Ca2+] in rat pulmonary artery smooth muscle cells. Drummond RM, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):139-47

Properties of heterologously expressed hTRP3 channels in bovine pulmonary artery endothelial cells. Kamouchi M, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):345-58

Alpha-1-adrenoceptor stimulation induces nitric oxide release in rat pulmonary arteries. Boer C, et al. **J Vasc Res** 1999 Jan-Feb;36(1):79-81

Ion channels in the pulmonary vasculature. Reeve HL, et al. **Pulm Pharmacol Ther** 1997 Oct-Dec;10(5-6):243-52 (99 ref.)

Ischemia-reperfusion directly increases pulmonary endothelial permeability in vitro. van Griensven M, et al. **Shock** 1999 Apr;11(4):259-63

Enhanced expression of vascular endothelial growth factor in lungs of newborn infants with congenital diaphragmatic hernia and pulmonary hypertension. Shehata SM, et al. **Thorax** 1999 May;54(5):427-31

[Changes of PDGF-alpha and beta receptor gene expression in hypoxic rat pulmonary vessels] Huang Q, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec; 19(6):470-3 (Eng. Abstr.) **(Chi)**

PATHOLOGY

Extrinsic compression of the left main coronary artery by the pulmonary artery in patients with long-standing pulmonary hypertension. Kawut SM, et al. **Am J Cardiol** 1999 Mar 15;83(6):984-6, A10

Role of hemodynamics in pulmonary vascular remodeling: implications for primary pulmonary hypertension. Botney MD. **Am J Respir Crit Care Med** 1999 Feb;159(2):361-4 (35 ref.)

Inflammatory reaction in pulmonary muscular arteries of patients with mild chronic obstructive pulmonary disease. Peinado VI, et al. **Am J Respir Crit Care Med** 1999 May; 159(5 Pt 1):1605-11

Hypoxia enhances cellular proliferation and inositol 1,4, 5-triphosphate generation in fibroblasts from bovine pulmonary artery but not from mesenteric artery. Welsh DJ, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1757-62

Semiprone position relieved airway obstruction resulting from dilated pulmonary artery [letter] Yahagi N, et al. **Ann Thorac Surg** 1999 Mar;67(3):892

Surgical indication for congenital heart disease with extremely thickened media of small pulmonary arteries. Yamaki S, et al. **Ann Thorac Surg** 1998 Nov;66(5):1560-4

Inoperable pulmonary vascular disease in infants with congenital heart disease. Yamaki S, et al. **Ann Thorac Surg** 1998 Nov;66(5):1565-70

Pulmonary artery fibrous bands: report of a case with extensive lung infarction and superinfection with Coccidioides immitis, Pseudomonas, and acid-fast bacilli. Perez MT, et al. **Arch Pathol Lab Med** 1999 Feb; 123(2):170-2

Increased left lung consolidation in turkey cholera related to larger left pulmonary artery. Hopkins BA, et al. **Avian Dis** 1999 Jan-Mar;43(1):122-4

Natural course of supravalvar aortic stenosis and peripheral pulmonary arterial stenosis in Williams' syndrome. Kim

YM, et al. **Cardiol Young** 1999 Jan;9(1):37-41

Morphology of the elastic pulmonary arteries in pulmonary hypertension: a quantitative study. McLeod KA, et al. **Cardiol Young** 1999 Jul;9(4):364-70

Pulmonary hemorrhage: imaging with a new magnetic resonance blood pool agent in conjunction with breathheld three-dimensional magnetic resonance angiography. Weishaupt D, et al. **Cardiovasc Intervent Radiol** 1999 Jul-Aug;22(4):321-5

Endovascular stent implantation to relieve extrinsic right pulmonary artery compression due to an enlarged neoaorta. Hashmi A, et al. **Catheter Cardiovasc Interv** 1999 Apr; 46(4):430-3

Intravascular ultrasound imaging before and after balloon angioplasty for pulmonary artery stenosis. Nakanishi T, et al. **Catheter Cardiovasc Interv** 1999 Jan;46(1):68-78

Anastomotic pulmonary hypertension after lung transplantation for primary pulmonary hypertension: report of surgical correction. Soriano CM, et al. **Chest** 1999 Aug; 116(2):564-6

Regression of hypertrophied rat pulmonary arteries in organ culture is associated with suppression of proteolytic activity, inhibition of tenascin-C, and smooth muscle cell apoptosis. Cowan KN, et al. **Circ Res** 1999 May 28; 84(10):1223-33

Non-invasive assessment of pulmonary artery involvement in Takayasu's arteritis. Vanoli M, et al. **Clin Exp Rheumatol** 1999 Mar-Apr;17(2):215-8

Magnetic resonance pulmonary angiography. Wielopolski PA. **Coron Artery Dis** 1999 May;10(3):157-75 (108 ref.)

Aspergillus endocarditis: rare but serious Aspergillus ball obstructing the pulmonary artery. Navabi MA, et al. **Eur J Cardiothorac Surg** 1998 Nov;14(5):530-2

Explanted cryopreserved allografts: a morphological and immunohistochemical comparison between arterial allografts and allograft heart valves from infants and adults. Vogt PR, et al. **Eur J Cardiothorac Surg** 1999 May; 15(5):639-44; discussion 644-5

Changes in pulmonary artery size before and after total cavopulmonary connection [letter; comment] Slavik Z, et al. **Heart** 1998 Aug;80(2):208-9. Comment on: Heart 1997 Nov;78(5):488-92.

Computational fluid dynamic and magnetic resonance analyses of flow distribution between the lungs after total cavopulmonary connection. Migliavacca F, et al. **IEEE Trans Biomed Eng** 1999 Apr;46(4):393-9

Comparison of normal and diseased pulmonary artery morphology by intravascular ultrasound and histological examination. Stähr P, et al. **Int J Card Imaging** 1999 Jun; 15(3):221-31

The hypoplastic left heart syndrome with intact atrial septum: atrial morphology, pulmonary vascular histopathology and outcome. Rychik J, et al. **J Am Coll Cardiol** 1999 Aug; 34(2):554-60

Atypical pulmonary artery sling with diffuse-type pulmonary arteriovenous fistula. Huh J, et al. **J Korean Med Sci** 1999 Feb;14(1):80-4

Multiple pulmonary aneurysms secondary to Hughes-Stovin syndrome: demonstration by MR angiography. Balci NC, et al. **J Magn Reson Imaging** 1998 Nov-Dec;8(6):1323-5

Takayasu's arteritis involving proximal pulmonary arteries and mimicking thromboembolic disease. Haque U, et al. **J Rheumatol** 1999 Feb;26(2):450-3 (15 ref.)

Endovascular treatment of life-threatening peripheral pulmonary artery stenosis. Fontaine AB, et al. **J Vasc Interv Radiol** 1998 Nov-Dec;9(6):965-7

Diagnosis of pulmonary embolism: comparison of CT angiography and MR angiography in canines. Hurst DR, et al. **J Vasc Interv Radiol** 1999 Mar;10(3):309-18

Endovascular stent graft repair of aortopulmonary fistula. Miyata T, et al. **J Vasc Surg** 1999 Mar;29(3):557-60

Pulmonary vascular morphological changes in cirrhotic patients undergoing liver transplantation. Lamps LW, et al. **Liver Transpl Surg** 1999 Jan;5(1):57-64

Idiopathic dilatation of the pulmonary artery: report of four cases. Ugolini P, et al. **Magn Reson Imaging** 1999 Jul; 17(6):933-7

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 4-1999. A 38-year-old woman with increasing pulmonary hypertension after delivery [clinical conference] **N Engl J Med** 1999 Feb 11; 340(6):455-64

Case report of a patient with an intimal sarcoma of the pulmonary trunk presenting as a pulmonary embolism. Weijmer MC, et al. **Neth J Med** 1999 Aug;55(2):80-3 (7 ref.)

Comparison of the pulmonary vasculature in newborns and stillborns with congenital diaphragmatic hernia. Taira Y, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):30-5

Broiler breeder survivors of chronic unilateral pulmonary artery occlusion produce progeny resistant to pulmonary hypertension syndrome (ascites) induced by cool temperatures. Wideman RF Jr, et al. **Poult Sci** 1999 Mar; 78(3):404-11

Role of NO in recovery from neonatal hypoxic pulmonary hypertension. Tulloh RM, et al. **Thorax** 1999 Sep; 54(9):796-804

Acute transjugular intrahepatic portosystemic shunt migration into pulmonary artery during liver transplantation. Rumi MN, et al. **Transplantation** 1999 Jun 15;67(11):1492-4

[Differences between effects of hypoxia on rabbit aorta and pulmonary artery] Chen LH, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):521-5 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Intracellular acidosis differentially regulates KV channels in coronary and pulmonary vascular muscle. Berger MG, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1351-9

C-type natriuretic peptide expression and pulmonary vasodilation in hypoxia-adapted rats. Klinger JR, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L645-52

ET-1 modulates KCa-channel activity and arterial tension in normoxic and hypoxic human pulmonary vasculature. Peng W, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L729-39

Pulmonary arterial compliance in dogs and pigs: the three-element windkessel model revisited. Segers P, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H725-31

Sodium hydrosulfite contractions of smooth muscle are calcium and myosin phosphorylation independent. Yu MF, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L976-82

Ventilation above closing volume reduces pulmonary vascular resistance hysteresis. Creamer KM, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1114-9

A comparison of pulmonary arterial occlusion algorithms for estimation of pulmonary capillary pressure. Pellett AA, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):162-8

Enhancement of systemic and pulmonary vasoconstriction by beta-amyloid peptides and its suppression by vasoactive intestinal peptide. Said SI, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:582-5

Endothelial cells freshly isolated from resistance-sized pulmonary arteries possess a unique K(+) current profile. Hogg DS, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):405-9

Developmental changes in endothelium-dependent vasodilation and the influence of superoxide anions in perinatal rabbit pulmonary arteries. Morecroft I, et al. **Br J Pharmacol** 1998 Dec;125(7):1585-93

5-hydroxytryptamine receptors mediating vasoconstriction and vasodilation in perinatal and adult rabbit small pulmonary arteries. Morecroft I, et al. **Br J Pharmacol** 1998 Sep;125(1):69-78

Potentiation of cyclic AMP-mediated vasorelaxation by phenylephrine in pulmonary arteries of the rat. Priest RM, et al. **Br J Pharmacol** 1999 May;127(1):291-9

Prostanoid receptors involved in the relaxation of human pulmonary vessels. Walch L, et al. **Br J Pharmacol** 1999 Feb;126(4):859-66

Endothelium-dependent relaxation of canine pulmonary artery endothelium after prolonged preservation. Chu Y, et al. **Chin Med J (Engl)** 1998 Apr;111(4):330-3

Caval contribution to flow in the branch pulmonary arteries of Fontan patients with a novel application of magnetic resonance presaturation pulse. Fogel MA, et al. **Circulation** 1999 Mar 9;99(9):1215-21

Endothelin A receptor blockade causes adverse left ventricular remodeling but improves pulmonary artery pressure after infarction in the rat. Nguyen QT, et al. **Circulation** 1998 Nov 24;98(21):2323-30

Influence of lower limb pneumatic compression on pulmonary artery temperature: effect on cardiac output measurements [see comments] Horiuchi K, et al. **Crit Care Med** 1999 Jun;27(6):1096-9. Comment in: Crit Care Med 1999 Jun;27(6):1039-41.

Pulmonary arterial Doppler velocimetry in fetuses with lung hypoplasia. Chaoui R, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jun;84(2):179-85

Effects of changes in pH and PCO2 on wall tension in isolated rat intrapulmonary arteries. Sweeney M, et al. **Exp Physiol** 1999 May;84(3):529-39

Inhibition of thrombin-induced contractile responses by protein kinase inhibitors in porcine pulmonary arteries. Kutz C, et al. **Exp Toxicol Pathol** 1998 Sep;50(4-6):497-500

Oxygen-sensing potassium currents in pulmonary artery. McCulloch KM, et al. **Gen Pharmacol** 1999 Apr; 32(4):403-11 (54 ref.)

Complex flow patterns in the great vessels: a review. Bogren HG, et al. **Int J Card Imaging** 1999 Apr;15(2):105-13 (48 ref.)

Lactate kinetics at rest and during exercise in lambs with aortopulmonary shunts. Beaufort-Krol GC, et al. **J Appl Physiol** 1999 Mar;86(3):832-9

Structure-function relationships in the pulmonary arterial tree. Dawson CA, et al. **J Appl Physiol** 1999 Feb; 86(2):569-83

Zero-stress states of human pulmonary arteries and veins. Huang W, et al. **J Appl Physiol** 1998 Sep;85(3):867-73

Effect of chronic sodium cyanate administration on O2 transport and uptake in hypoxic and normoxic exercise. McCanse W, et al. **J Appl Physiol** 1999 Apr;86(4):1257-63

Effects of changes in pH and CO2 on pulmonary arterial wall tension are not endothelium dependent. Sweeney M, et al. **J Appl Physiol** 1998 Dec;85(6):2040-6

The role of protein kinase C in thromboxane A2-induced pulmonary artery vasoconstriction. Murtha YM, et al. **J Biomed Sci** 1999 Jul-Aug;6(4):293-5

Systemic to pulmonary collateral arteries [letter; comment] Gillor A, et al. **J Pediatr** 1998 Oct;133(4):585. Comment on: J Pediatr 1997 Nov;131(5):763-5.

Comparison of esophageal, rectal, axillary, bladder, tympanic, and pulmonary artery temperatures in children. Robinson JL, et al. **J Pediatr** 1998 Oct;133(4):553-6

Diltiazem reduces pulmonary arterial pressures in recurrent pulmonary hypertension associated with pulmonary hypoplasia. Islam S, et al. **J Pediatr Surg** 1999 May; 34(5):712-4

The compliance of the porcine pulmonary artery depends on pressure and heart rate. Kornet L, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):917-26

Different contractile properties between intralobar and extralobar pulmonary arteries of the rabbit. Park MK, et al. **J Smooth Muscle Res** 1999 Feb;35(1):1-10

Endothelin receptor blockade prevents the rise in pulmonary vascular resistance after cardiopulmonary bypass in lambs with increased pulmonary blood flow. Petrossian E, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):314-23

Atypical adrenoceptor-mediated relaxation of canine pulmonary artery through a cyclic adenosine monophosphate-dependent pathway. Tagaya E, et al. **Lung** 1999;177(5):321-32

In vivo evidence for a myogenic response in the fetal pulmonary circulation. Storme L, et al. **Pediatr Res** 1999 Mar;45(3):425-31

Mechanisms of adrenomedullin-induced increase of pulmonary blood flow in fetal sheep. Takahashi Y, et al. **Pediatr Res** 1999 Feb;45(2):276-81

Nebulization of sodium nitroprusside in lung-lavaged newborn piglets. Yu XQ, et al. **Pediatr Res** 1999 Feb; 45(2):255-9

O2 sensing is preserved in mice lacking the gp91 phox subunit of NADPH oxidase. Archer SL, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7944-9

Use of intrinsic modes in biology: examples of indicial response of pulmonary blood pressure to +/- step hypoxia. Huang W, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12766-71

cGMP inhibition of endothelin-stimulated inositol phosphate production in the fetal lamb pulmonary artery. Millard SL, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun;11(2-3):201-4

Angiotensin AT1 receptor subtypes in the rabbit pulmonary artery. A ligand binding study. Sim MK, et al. **Receptors Channels** 1998;5(6):323-9

Segmental differences in vasodilatation due to basal NO release in in vivo cat pulmonary vessels. Shirai M, et al. **Respir Physiol** 1999 Aug 3;116(2-3):159-69

L-arginine attenuates endothelial dysfunction in endotoxin-induced lung injury. Sheridan BC, et al. **Surgery** 1999 Jan;125(1):33-40

Species differences in the responses of pulmonary vascular preparations to 5-hydroxytryptamine. Morcillo EJ, et al. **Therapie** 1999 Jan-Feb;54(1):93-7

Cholinergic control of human and animal pulmonary vascular tone. Walch L, et al. **Therapie** 1999 Jan-Feb;54(1):99-102

Bilateral sequential lung transplantation in dogs. Lee DY, et al. **Transplant Proc** 1998 Nov;30(7):3358-60

[An attempt on the normalization of the moduli spectrum of pulmonary pressure and flow waveforms in canine] Wu X, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Mar; 14(1):45-7 (Eng. Abstr.) **(Chi)**

[Retrospective analysis of transpulmonary and pulmonary arterial measurement of cardiac output in ARDS patients] Zöllner C, et al. **Anaesthesist** 1998 Nov;47(11):912-7 (Eng. Abstr.) **(Ger)**

[Pre- and postsynaptic action of the ATP-dependent K+-channel-(K+ATP)-opener pinacidil in rabbit pulmonary artery] Rácz D, et al. **Acta Pharm Hung** 1999 Jun;69(3):159-70 (Eng. Abstr.) **(Hun)**

PHYSIOPATHOLOGY

Mediators of alkalosis-induced relaxation in pulmonary arteries from normoxic and chronically hypoxic piglets. Gordon JB, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L155-63

Pulmonary artery endothelium-dependent vasodilation is impaired in a chicken model of pulmonary hypertension. Martinez-Lemus LA, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R190-7

Role of wall tension in hypoxic responses of isolated rat pulmonary arteries. Ozaki M, et al. **Am J Physiol** 1998 Dec; 275(6 Pt 1):L1069-77

Effects of fluoxetine, phentermine, and venlafaxine on pulmonary arterial pressure and electrophysiology. Reeve HL, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L213-9

Hypoxic contraction of small pulmonary arteries from normal and endotoxemic rats: fundamental role of NO. Terraz S, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1207-14

Endothelial defect mediates attenuated vasorelaxant response to isoproterenol after lung transplantation. Yoshida K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H159-66

Double patch closure of ventricular septal defect with increased pulmonary vascular resistance. Novick WM, et al. **Ann Thorac Surg** 1998 Nov;66(5):1533-8

Increased pulmonary blood flow produces endothelial cell dysfunction in neonatal swine. Vitvitsky EV, et al. **Ann Thorac Surg** 1998 Oct;66(4):1372-7

Influence of chronic hypoxia on the contributions of non-inactivating and delayed rectifier K currents to the resting potential and tone of rat pulmonary artery smooth muscle. Osipenko ON, et al. **Br J Pharmacol** 1998 Aug; 124(7):1335-7

Noninvasive estimation of right-sided pressures from spectral Doppler recordings of tricuspid and pulmonic regurgitant velocities [editorial; comment] Lavine SJ. **Chest** 1999 Jul;

116(1):1-3. Comment on: Chest 1999 Jul;116(1):73-7.
Noninvasive estimation of pulmonary artery diastolic pressure in patients with tricuspid regurgitation by Doppler echocardiography [see comments] Stephen B, et al. **Chest** 1999 Jul;116(1):73-7. Comment in: Chest 1999 Jul;116(1):1-3.
Endothelin-1 and thromboxane A2 increase pulmonary vascular resistance in granulocyte-mediated lung injury. Schmeck J, et al. **Crit Care Med** 1998 Nov;26(11):1868-74
The role of tyrosine kinase in hypoxic constriction of sheep pulmonary artery rings. Uzun O, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):41-7
Pulmonary haemodynamics in obstructive sleep apnoea: time course and associated factors. Schäfer H, et al. **Eur Respir J** 1998 Sep;12(3):679-84
Endothelin, but not angiotensin II, contributes to the hypoxic contractile response of large isolated pulmonary arteries in the rat. Pape D, et al. **Fundam Clin Pharmacol** 1999; 13(4):461-7
Computational fluid dynamic and magnetic resonance analyses of flow distribution between the lungs after total cavopulmonary connection. Migliavacca F, et al. **IEEE Trans Biomed Eng** 1999 Apr;46(4):393-9
Combined inhaled nitric oxide and inhaled prostacyclin during experimental chronic pulmonary hypertension. Hill LL, et al. **J Appl Physiol** 1999 Apr;86(4):1160-4
Influence of group B streptococci on piglet pulmonary artery response to bradykinin. Whitehurst RM, et al. **J Appl Physiol** 1999 Jan;86(1):61-5
Pulmonary artery hemodynamics with varying degrees of valvular stenosis: an in vitro study. Sung HW, et al. **J Biomech** 1998 Dec;31(12):1153-61
Peripheral right pulmonary artery blood flow velocimetry: Doppler sonographic study of normal and abnormal fetuses. Achiron R, et al. **J Ultrasound Med** 1998 Nov; 17(11):687-92
Estimation of the systolic pulmonary arterial pressure using contrast-enhanced continuous-wave Doppler in patients with trivial tricuspid regurgitation. Tokushima T, et al. **Jpn Heart J** 1999 May;40(3):311-20
Hypoxic pulmonary vasoconstriction in pigs: role of endothelin-1, prostanoids and ATP-dependent potassium channels. Albertini M, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Aug; 59(2):137-42
Cellular and molecular biology of vascular smooth muscle cells in pulmonary hypertension. Voelkel NF, et al. **Pulm Pharmacol Ther** 1997 Oct-Dec;10(5-6):231-41 (104 ref.)
Enhanced prostanoid-mediated vasorelaxation in pulmonary arteries isolated during experimental endotoxemia [see comments] Myers TP, et al. **Shock** 1999 Jun;11(6):436-42 . Comment in: Shock 1999 Jun;11(6):443-4.
Pulmonary artery pressure variation in patients with connective tissue disease: 24 hour ambulatory pulmonary artery pressure monitoring. Raeside DA, et al. **Thorax** 1998 Oct;53(10):857-62
[Acute pulmonary heart disease caused by pulmonary artery embolism] Heintzen MP, et al. **Internist (Berl)** 1999 Jul; 40(7):710-21 (42 ref.) **(Ger)**
[Influence of pulmonary hemodynamics on right ventricular ejection fraction in chronic obstructive pulmonary disease] Steiner S, et al. **Pneumologie** 1999 May;53(5):249-54 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Effect of site and rate of contrast material injection on pulmonary vascular distention. Coche E, et al. **Acad Radiol** 1999 Jul;6(7):419-25
Experimentally induced pulmonary arterial occlusion with detachable balloon in pigs: thin-section CT findings. Kim TK, et al. **Acad Radiol** 1998 Dec;5(12):822-31
Electron beam CT features of the pulmonary artery in Takayasu's arteritis. Paul JF, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):89-93
Use of a modified Simmons catheter for pulmonary angiography. Shenoy SS, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1640-2
CT findings of pulmonary artery aneurysms during treatment for Behçet's disease. Tunaci M, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):729-33
Three-dimensional helical CT of pulmonary arteries in infants and children with congenital heart disease. Westra SJ, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):109-15
Myocardial contrast and transesophageal echocardiographic study of the left coronary artery from the main pulmonary artery. Vargas-Barrón J, et al. **Arch Inst Cardiol Mex** 1998 May-Jun;68(3):253-5
Re: Friday afternoon pulmonary arteriography (FAPA): replacement by Friday afternoon urokinase (FAUK) [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1998 Nov-Dec;21(6):514. Comment on: Cardiovasc Intervent Radiol 1997 Sep-Oct;20(5):404.
Re: Transbrachial selective pulmonary angiography with a 4 Fr catheter via the antecubital approach [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1999 Mar-Apr; 22(2):168. Comment on: Cardiovasc Intervent Radiol 1998 Jul-Aug;21(4):347-9.
Letter to the editor: re Hijazi [letter; comment] Abhaichand RK, et al. **Cathet Cardiovasc Diagn** 1998 Aug;44(4):456. Comment on: Cathet Cardiovasc Diagn 1997 Dec;42(4):388-93.
Case of pulmonary embolism. Egashira S, et al. **Circulation** 1999 Apr 20;99(15):E1-2
Optimization of contrast delivery for pulmonary CT angiography. Yankelevitz DF, et al. **Clin Imaging** 1998 Nov-Dec;22(6):398-403 (13 ref.)
Case report: Pulmonary leiomyosarcoma presenting as a pseudoaneurysm. Ablett MJ, et al. **Clin Radiol** 1998 Nov; 53(11):851-2
First results of computerised tomographic angiography using electron beam tomography. Lehmann KJ, et al. **Eur Radiol** 1999;9(4):625-9
Validity of pulmonary cine arteriography for the diagnosis of pulmonary embolism. Nilsson T, et al. **Eur Radiol** 1999; 9(2):276-80
Images in cardiology: Cutting balloon for treatment of severe peripheral pulmonary stenosis in a child. Schneider MB, et al. **Heart** 1999 Jul;82(1):108
Images in cardiology. Congenital right pulmonary artery to left atrial fistula. Veldtman G, et al. **Heart** 1998 Aug; 80(2):162
Hughes-Stovin syndrome: a case report and review of the literature. Riantawan P, et al. **J Med Assoc Thai** 1999 Mar; 82(3):312-6 (7 ref.)
Diagnosis of pulmonary embolism: comparison of CT angiography and MR angiography in canines. Hurst DR, et al. **J Vasc Interv Radiol** 1999 Mar;10(3):309-18
Balloon disruption of pulmonary artery band in a child with congenital heart disease [letter] Berman W Jr, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):308
Three-dimensional computed tomographic angiography of pulmonary vessels. Shimizu T, et al. **Radiat Med** 1999 Mar-Apr;17(2):151-4
Hypoxemia and liver cirrhosis (hepatopulmonary syndrome) in eight patients: comparison of the central and peripheral pulmonary vasculature. Lee KN, et al. **Radiology** 1999 May;211(2):549-53
Flitting radiographic shadows: an unusual presentation of cancer in the lungs. Edmondstone WM. **Thorax** 1998 Oct; 53(10):906-8
Spiral computed tomographic scanning and magnetic resonance angiography for the diagnosis of pulmonary embolism. Grenier PA, et al. **Thorax** 1998 Aug;53 Suppl 2:S25-31 (43 ref.)
[CT x-ray evaluation of abdominal and pelvic veins in patients suspected of acute pulmonary embolism with negative Doppler sonography] Ferretti GR, et al. **J Radiol** 1998 Apr;79(4):327-30 (Eng. Abstr.) **(Fre)**
[CT angiography of the pulmonary arteries] Grenier P, et al. **J Radiol** 1999 Sep;80(9):1026-41 (Eng. Abstr.) **(Fre)**
[Massive pulmonary embolism was pulmonary artery sarcoma] Nyman U, et al. **Lakartidningen** 1999 Apr 7; 96(14):1721-3 **(Swe)**

RADIONUCLIDE IMAGING

Bilateral pulmonary artery aneurysms in a patient with Behcet syndrome: evaluation with radionuclide angiography and V/Q lung scanning. Basoglu T, et al. **Clin Nucl Med** 1998 Nov;23(11):735-8

SURGERY

Functional evaluation of extracardiac ventriculopulmonary conduits and of the right ventricle with magnetic resonance imaging and velocity mapping. Holmqvist C, et al. **Am J Cardiol** 1999 Mar 15;83(6):926-32
Operation for chronic pulmonary thromboembolism accompanied by thrombophilia in 8 patients. Ando M, et al. **Ann Thorac Surg** 1998 Dec;66(6):1919-24
Pulmonary artery sling: results with median sternotomy, cardiopulmonary bypass, and reimplantation. Backer CL, et al. **Ann Thorac Surg** 1999 Jun;67(6):1738-44; discussion 1744-5
Direct neonatal ventriculo-arterial connections (REV): early results and future implications. Black MD, et al. **Ann Thorac Surg** 1999 Apr;67(4):1137-41
Damus-Kaye-Stansel connections in children with previously transected pulmonary arteries. Broekhuis E, et al. **Ann Thorac Surg** 1999 Feb;67(2):519-21
Tetralogy of Fallot with anomalous coronary artery: double outflow technique. Dandolu BR, et al. **Ann Thorac Surg** 1999 Apr;67(4):1178-80
Growth of the subclavian artery to pulmonary artery anastomosis: a caveat [letter; comment] Al-Halees Z, et al. **Ann Thorac Surg** 1998 Dec;66(6):2161-2. Comment on: Ann Thorac Surg 1998 Jun;65(6):1746-50.
The incisional pulmonary artery band. Laks H, et al. **Ann Thorac Surg** 1999 Jun;67(6):1813-4
Extracardiac conduit Fontan procedure without cardiopulmonary bypass. McElhinney DB, et al. **Ann Thorac Surg** 1998 Nov;66(5):1826-8
Bidirectional Glenn shunt in association with congenital heart repairs: the 1(1/2) ventricular repair. Mavroudis C, et al. **Ann Thorac Surg** 1999 Sep;68(3):976-81; discussion 982
Rapid onset of pulmonary arteriovenous malformations after cavopulmonary anastomosis. Pandurangi UM, et al. **Ann Thorac Surg** 1999 Jul;68(1):237-9
Valved homograft conduit repair of the right heart in early infancy. Perron J, et al. **Ann Thorac Surg** 1999 Aug; 68(2):542-8
Sleeve resection and prosthetic reconstruction of the pulmonary artery for lung cancer. Rendina EA, et al. **Ann Thorac Surg** 1999 Sep;68(3):995-1001; discussion 1001-2
Pulmonary artery sling: reimplantation versus antetracheal translocation. van Son JA, et al. **Ann Thorac Surg** 1999 Sep;68(3):989-94
Porcine stentless valve/bovine pericardial conduit for right ventricle to pulmonary artery. Vrandecic MO, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S179-82
Complications of modified Blalock-Taussig shunts mimicking pulmonary disease. Coren ME, et al. **Arch Dis Child** 1998 Oct;79(4):361-2
Experience with the Glenn anastomosis in the adult with cyanotic congenital heart disease. Elizari A, et al. **Cardiol Young** 1999 May;9(3):257-65
Banding of the pulmonary trunk in preparation for a Fontan operation. Sakamoto T, et al. **Cardiol Young** 1999 Jan; 9(1):49-54
Angioscopic video-assisted pulmonary endarterectomy for post-embolic pulmonary hypertension. Dartevelle P, et al. **Eur J Cardiothorac Surg** 1999 Jul;16(1):38-43
Use of self expanding stents in stenotic aortopulmonary shunts in adults with complex cyanotic heart disease. Bader R, et al. **Heart** 1999 Jul;82(1):27-9
Pulmonary thromboendarterectomy: an advance in the treatment of chronic thromboembolic pulmonary hypertension. McKane CL. **Heart Lung** 1998 Sep-Oct; 27(5):293-6 (11 ref.)
A new strategy for the surgical treatment of aortic coarctation associated with ventricular septal defect in infants using an absorbable pulmonary artery band. Bonnet D, et al. **J Am Coll Cardiol** 1999 Sep;34(3):866-70
Comparison of laboratory test results before and after surgical removal of heartworms in dogs with vena caval syndrome. Kitagawa H, et al. **J Am Vet Med Assoc** 1998 Oct 15; 213(8):1134-6
Aortic pulmonary autograft implant: medium-term follow-up with a note on a new right ventricular pulmonary artery conduit. Masetti P, et al. **J Card Surg** 1998 May;13(3):173-6
Anesthesia for an infant with hypoplastic left heart syndrome undergoing reconstruction of a systemic pulmonary shunt under extracorporeal membrane oxygenation [letter] Miyashita T, et al. **J Cardiothorac Vasc Anesth** 1998 Aug; 12(4):497-8
Arterial switch with internal pulmonary artery banding. A new palliation for TGA and VSD in complex cases. Conte S, et al. **J Cardiovasc Surg (Torino)** 1999 Apr;40(2):313-6
Nonmalignant hyperthermia on induction of anesthesia in a pediatric patient undergoing bidirectional Glenn procedure. Leung WK, et al. **J Clin Anesth** 1998 Aug;10(5):427-31
Changing patterns of gene expression in the pulmonary trunk-banded rat heart. LekanneDeprez RH, et al. **J Mol Cell Cardiol** 1998 Sep;30(9):1877-88
Slide tracheoplasty: a case report of successful concomitant reconstruction of extensive congenital tracheal stenosis and pulmonary artery sling. Muraji T, et al. **J Pediatr Surg** 1998 Nov;33(11):1658-9
The modified Norwood procedure for hypoplastic left heart syndrome: early to intermediate results of 120 patients with particular reference to aortic arch repair. Ishino K, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):920-30
Should the bidirectional Glenn procedure be performed through a thoracotomy without cardiopulmonary bypass? Jahangiri M, et al. **J Thorac Cardiovasc Surg** 1999 Aug; 118(2):367-8
Tetralogy of Fallot with absent pulmonary valve: a surgical technique for complete repair. Kreutzer C, et al. **J Thorac Cardiovasc Surg** 1999 Jan;117(1):192-4
Pulmonary artery growth after systemic-to-pulmonary shunt in children with a univentricular heart and a hypoplastic pulmonary artery bed. Implications for Fontan surgery. Borowski A, et al. **Jpn Heart J** 1998 Sep;39(5):671-80
Thromboembolism originated from the pulmonary artery stump after Fontan operation. Koide M, et al. **Jpn J Thorac Cardiovasc Surg** 1999 Jul;47(7):346-9
Right upper and middle sleeve bilobectomy with atypical pulmonary arterioplasty. Okada M, et al. **Jpn J Thorac Cardiovasc Surg** 1999 Mar;47(3):121-3
Pulmonary artery aneurysm. Taniguchi I, et al. **Jpn J Thorac Cardiovasc Surg** 1999 May;47(5):221-5
Progressive pulmonary vascular disease after pulmonary artery banding and total correction in a case of ventricular septal defect and pulmonary hypertension. Yamaki S, et al. **Jpn J Thorac Cardiovasc Surg** 1999 May;47(5):229-33
Extra-anatomical bypass with EPTFE graft for residual pulmonary artery stenosis in Tetralogy of Fallot. Yamashita C, et al. **Kobe J Med Sci** 1998 Dec;44(5-6):265-70
Successful treatment of anomalous origin of the left coronary artery from the pulmonary artery in a 5-week-old male infant. Kamisago M, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):312-8
Post-Mustard procedure pulmonary venous obstruction: An opportunity for anatomic correction with a one-stage arterial switch. Reisman M, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):301-3
Outcome after pulmonary thromboendarterectomy. Archibald CJ, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):164-71 (31 ref.)
Evaluation of patients with suspected chronic thromboembolic pulmonary hypertension. Auger WR, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):179-90 (42 ref.)
Historical perspective: surgery for chronic thromboembolic

disease. Daily PO, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):143–51

The evolution and the current state of the art of pulmonary thromboendarterectomy. Daily PO, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):152–63

Postoperative management of the patient undergoing pulmonary thromboendarterectomy. Fedullo PF, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):172–8

Experience with an adjustable pulmonary artery banding device in two cases: initial success--midterm failure. Däbritz S, et al. **Thorac Cardiovasc Surg** 1999 Feb; 47(1):51–2

[The role of a bidirectional cavopulmonary anastomosis in the correction and palliation of complex congenital cardiopathies] Iacona GM, et al. **G Ital Cardiol** 1998 Dec; 28(12):1372–7 (Eng. Abstr.) **(Ita)**

[Total cavopulmonary connection for grown diminutive pulmonary artery after staged Blalock-Taussig shunt] Uchita S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1194–9 (Eng. Abstr.) **(Jpn)**

[The status of the heart and coronary artery bed in experimental subclavian-pulmonary anastomosis and after its removal] Shormanov SV. **Arkh Patol** 1998 Nov-Dec; 60(6):27–30 (Eng. Abstr.) **(Rus)**

[Complete cava-pulmonary conjunction in surgical treatment of heart abnormalities with a single functionally active ventricle] Dovgan' AM, et al. **Klin Khir** 1999;(1):13–5 (Eng. Abstr.) **(Rus)**

[The successful surgical treatment of atresia of the right atrioventricular valve combined with hypoplasia of the pulmonary arteries] Zin'kovskii MF, et al. **Klin Khir** 1998; (9–10):96–7 **(Rus)**

[The congenital bilateral fistula between coronary and pulmonary arteries] Olearchyk AS. **Klin Khir** 1999;(2):52 **(Ukr)**

TRANSPLANTATION

Pulmonary homograft repair of a mycotic aortic aneurysm in an infant. Daniels CJ, et al. **Ann Thorac Surg** 1999 Jul; 68(1):239–41

Progressive pulmonary autograft root dilatation and failure after Ross procedure. Takkenberg JJ, et al. **Ann Thorac Surg** 1999 Feb;67(2):551–3; discussion 553–4

Explanted cryopreserved allografts: a morphological and immunohistochemical comparison between arterial allografts and allograft heart valves from infants and adults. Vogt PR, et al. **Eur J Cardiothorac Surg** 1999 May; 15(5):639–44; discussion 644–5

Single-stage repair of aortic arch obstruction and associated intracardiac defects with pulmonary homograft patch aortoplasty. Tchervenkov CI, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):897–904

New left main trunk reconstruction technique using a flap of the main pulmonary arterial wall. Hirotani T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul;46(7):599–602

ULTRASONOGRAPHY

Prospective echocardiographic analysis of progressive obstruction of the proximal pulmonary artery in congenital heart disease and obstructed pulmonary flow. Hiraishi S, et al. **Am Heart J** 1998 Nov;136(5):837–43

Phasic flow events at the aortic isthmus-ductus arteriosus junction and branch pulmonary artery evaluated by multimodal ultrasonography in fetal lambs. Schmidt KG, et al. **Am J Obstet Gynecol** 1998 Nov;179(5):1338–47

Diagnosis of fetal pulmonary hypoplasia by measurement of blood flow velocity waveforms of pulmonary arteries with Doppler ultrasonography. Yoshimura S, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):441–6

Myocardial contrast and transesophageal echocardiographic study of the left coronary artery from the main pulmonary artery. Vargas-Barrón J, et al. **Arch Inst Cardiol Mex** 1998 May-Jun;68(3):253–5

In vivo tomographic assessment of the heart and blood vessels with intravascular ultrasound. Görge G, et al. **Basic Res Cardiol** 1998 Aug;93(4):219–40 (186 ref.)

Cross-sectional echocardiographic demonstration of duct-related intimal tissue plaques within the pulmonary artery. Gennery AR, et al. **Cardiol Young** 1999 Jan; 9(1):81–3

Intravascular ultrasound imaging before and after balloon angioplasty for pulmonary artery stenosis. Nakanishi T, et al. **Catheter Cardiovasc Interv** 1999 Jan;46(1):68–78

Comparison of normal and diseased pulmonary artery morphology by intravascular ultrasound and histological examination. Stähr P, et al. **Int J Card Imaging** 1999 Jun; 15(3):221–31

Bubble contrast echocardiography in detecting pulmonary arteriovenous shunting in children with univentricular heart after cavopulmonary anastomosis. Chang RK, et al. **J Am Coll Cardiol** 1999 Jun;33(7):2052–8

Transesophageal imaging of the mid to distal left pulmonary artery in congenital heart disease. Phoon CK, et al. **J Am Soc Echocardiogr** 1999 Aug;12(8):663–8

Coanda effect on ductal flow in the pulmonary artery. Guntheroth W, et al. **J Ultrasound Med** 1999 Mar; 18(3):203–6

Branch pulmonary artery growth after blalock-taussig shunts in tetralogy of fallot and pulmonary atresia with ventricular septal defect: a retrospective, echocardiographic study. Sabri MR, et al. **Pediatr Cardiol** 1999 Sep-Oct;20(5):358–63

Diameter and cross-sectional area relationship of the human main pulmonary artery. Evaluated by epicardial echocardiography. Sloth E, et al. **Scand Cardiovasc J** 1998; 32(5):269–75

Rupture of the left aortic sinus into the pulmonary artery in a Dalmation dog [see comments] Abbott JA, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):544–50. Comment in: Vet Radiol Ultrasound 1999 Jan-Feb;40(1):103.

[3-dimensional reconstruction technic using power Doppler. In vitro use on normal and stenosed pulmonary artery bifurcations] Christiaens L, et al. **Arch Mal Coeur Vaiss** 1998 Jun;91(6):759–64 (Eng. Abstr.) **(Fre)**

[A 43-year-old man with progressive malaise and weight loss] Okinaka T, et al. **J Cardiol** 1999 Jul;34(1):41–3 **(Jpn)**

ULTRASTRUCTURE

[Effect of L-arg and SNP on pulmonary arterial pressure and vascular structural changes of chronically hypoxic rats] Lin H, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Jun; 19(3):179–84 (Eng. Abstr.) **(Chi)**

PULMONARY ARTERY WEDGE PRESSURE see **PULMONARY WEDGE PRESSURE**

PULMONARY ATRESIA

COMPLICATIONS

Complex pulmonary atresia in an adult: natural history, unusual pathology and mode of death. Thierrien J, et al. **Cardiol Young** 1999 May;9(3):249–56

[Infectious endocarditis in a child with pulmonary atresia and ventricular septal defect corrected by a valve conduit] Cabrera Duro A, et al. **An Esp Pediatr** 1998 Aug; 49(2):182–4 **(Spa)**

DIAGNOSIS

Catheterization of the pulmonary artery using a 3 French catheter in patients with congenital heart disease. Mori Y et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):45–50

Evaluation and management of pulmonary atresia with intact ventricular septum. Bichell DP. **Curr Opin Cardiol** 1999 Jan;14(1):60–6 (62 ref.)

MR imaging of non-visualized pulmonary arteries at angiography in patients with congenital heart disease. Choe YH, et al. **J Korean Med Sci** 1998 Dec;13(6):597–602

[Right ventricle-dependent coronary circulation in pulmonary atresia with intact ventricular septum. Absence of origin of the coronary arteries from the aorta] Rivera IR, et al. **Arq Bras Cardiol** 1998 Aug;71(2):143–6 (Eng. Abstr.) **(Por)**

GENETICS

Clinical relevance of monosomy 22q11.2 in children with pulmonary atresia and ventricular septal defect. Hofbeck M, et al. **Eur J Pediatr** 1999 Apr;158(4):302–7

PATHOLOGY

From functional pulmonary atresia to right ventricular restriction. Long term follow up of Uhl's anomaly. Tumbarello R, et al. **Int J Cardiol** 1998 Dec 1;67(2):161–4

PHYSIOPATHOLOGY

Pulmonary atresia with ventricular septal defect: a case for central venous pressure and oxygen saturation monitoring. Weiss BM, et al. **Yale J Biol Med** 1998 Jan-Feb;71(1):15–21

RADIOGRAPHY

Images in cardiovascular medicine. Combined angiography and three-dimensional computed tomography for assessing systemic-to-pulmonary collaterals in pulmonary atresia with ventricular septal defect. Le Bret E, et al. **Circulation** 1998 Dec 22-29;98(25):2930–1

SURGERY

Rapid two-stage repair of S,L,L, ventricular septal defect, pulmonary atresia, Ebstein anomaly of the tricuspid valve, and stenotic pulmonary arteries. Abbruzzese PA, et al. **Ann Thorac Surg** 1999 Aug;68(2):571–3

Right ventricular thrombosis early after bidirectional Glenn shunt. Imanaka K, et al. **Ann Thorac Surg** 1999 Aug; 68(2):563–5

Evolving surgical management for ventricular septal defect, pulmonary atresia, and major aortopulmonary collateral arteries. Murthy KS, et al. **Ann Thorac Surg** 1999 Mar; 67(3):760–4

Another new perforating toy for the pediatric interventionalist treating neonates with pulmonary atresia and intact ventricular septum...as long as you live outside of the United States! [editorial; comment] Cheatham JP. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):43–4. Comment on: Cathet Cardiovasc Diagn 1998 Sep;45(1):37–42.

Radiofrequency pulmonary valvotomy using a new 2-French catheter [see comments] Park IS, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):37–42. Comment in: Cathet Cardiovasc Diagn 1998 Sep;45(1):43–4.

Treatment of pulmonary atresia with intact ventricular septum in early infancy. Hsieh WH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Sep; 62(9):626–32

Evaluation and management of pulmonary atresia with intact ventricular septum. Bichell DP. **Curr Opin Cardiol** 1999 Jan;14(1):60–6 (62 ref.)

Results after Norwood procedure and subsequent cavopulmonary anastomoses for typical hypoplastic left heart syndrome and similar complex cardiovascular malformations. Breymann T, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):117–24

Median sternotomy single stage complete unifocalization for pulmonary atresia, major aorto-pulmonary collateral arteries and VSD-early experience. Murthy KS, et al. **Eur J Cardiothorac Surg** 1999 Jul;16(1):21–5

Stepwise interventional approach in a neonate with pulmonary valve atresia and intact ventricular septum. Bökenkamp R, et al. **Eur J Pediatr** 1998 Nov;157(11):885–9

Split lung ventilation in a patient with differential pulmonary hemodynamics [letter] Haas NA, et al. **Intensive Care Med** 1998 Nov;24(11):1232–3

Total repair of pulmonary atresia with ventricular septal defect and major aortopulmonary collaterals: an integrated approach. Carotti A, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):914–23

Outcome after operations for pulmonary atresia with intact ventricular septum. Rychik J, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):924–31

Branch pulmonary artery growth after blalock-taussig shunts in tetralogy of fallot and pulmonary atresia with ventricular septal defect: a retrospective, echocardiographic study. Sabri MR, et al. **Pediatr Cardiol** 1999 Sep-Oct;20(5):358–63

[Treatment of obstruction of prosthetic conduct by percutaneous implantation of stents] Saliba Z, et al. **Arch Mal Coeur Vaiss** 1999 May;92(5):591–6 (Eng. Abstr.) **(Fre)**

[Two staged Starnes operation for Ebstein's anomaly with pulmonary atresia in early infancy--a report of a successful case] Maeda M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1200–5 (Eng. Abstr.) **(Jpn)**

[Total cavopulmonary connection for grown diminutive pulmonary artery after staged Blalock-Taussig shunt] Uchita S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1194–9 (Eng. Abstr.) **(Jpn)**

[Anesthetic management of an infant with pulmonary atresia and ventricular septal defect accompanied by excess pulmonary blood flow for systemic-pulmonary shunt operation] Ataka T, et al. **Masui** 1999 Apr;48(4):372–6 (Eng. Abstr.) **(Jpn)**

THERAPY

Successful transcatheter perforation of the atretic pulmonary valve membrane in a newborn using the new Coe radiofrequency end hole catheter. Cheatham JP, et al. **Cathet Cardiovasc Diagn** 1998 Oct;45(2):162–6

Transcatheter retrograde radio-frequency perforation of the pulmonic valve in pulmonary atresia with intact ventricular septum, using a 2 French catheter. Hijazi ZM, et al. **Cathet Cardiovasc Diagn** 1998 Oct;45(2):151–4

Transcatheter laser-assisted balloon valvulotomy as primary treatment in newborn with pulmonary atresia and intact ventricular septum. Laohaprasitiporn D, et al. **J Med Assoc Thai** 1998 Dec;81(12):1009–14

ULTRASONOGRAPHY

Recognition of functional pulmonary atresia by color Doppler echocardiography. Lee CL, et al. **Am J Cardiol** 1999 Mar 15;83(6):987–8, A11

Prenatal diagnosis of a coronary fistula in a fetus with pulmonary atresia with intact ventricular septum and trisomy 18. Patel CR, et al. **J Ultrasound Med** 1999 Jun; 18(6):429–31

Branch pulmonary artery growth after blalock-taussig shunts in tetralogy of fallot and pulmonary atresia with ventricular septal defect: a retrospective, echocardiographic study. Sabri MR, et al. **Pediatr Cardiol** 1999 Sep-Oct;20(5):358–63

PULMONARY BLASTOMA

DIAGNOSIS

Pleuropulmonary blastoma in an adult: an initial case report. Hill DA, et al. **Cancer** 1999 Jun 1;85(11):2368–74 (33 ref.)

Pleuropulmonary blastoma: diagnosis by fine-needle aspiration cytology: a case report. Drut R, et al. **Diagn Cytopathol** 1998 Oct;19(4):303–5

Pleuropulmonary blastoma: a rare pathology with an even rarer presentation. Lallier M, et al. **J Pediatr Surg** 1999 Jul;34(7):1057–9

Pulmonary blastoma: diagnostic and therapeutic aspects. Karnak I, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):380–2

Pulmonary blastoma in an adult. A case with rapid progression. Ondo K, et al. **Scand Cardiovasc J** 1998; 32(4):247–9

[Similarities between pleuropulmonary blastoma and Askin tumor] Hazouard E, et al. **Rev Mal Respir** 1998 Dec; 15(6):800–3 (Eng. Abstr.) **(Fre)**

MORTALITY

Pleuropulmonary blastoma: long-term survival and literature

review. Romeo C, et al. **Med Pediatr Oncol** 1999 Oct; 33(4):372–6 (34 ref.)

PATHOLOGY

Pleuropulmonary blastoma. Baraniya J, et al. **Med Pediatr Oncol** 1999 Jan;32(1):52–6

Pleuropulmonary blastoma in a child. Köseoğlu V, et al. **Pediatr Int** 1999 Apr;41(2):195–7

Pulmonary blastoma: report of a case. Kohno H, et al. **Surg Today** 1999;29(8):803–6

[Pleuro–pulmonary blastoma. Report of 4 cases] Benouachane T, et al. **Rev Mal Respir** 1999 Jun;16(3):390–4 (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

[Pleuro–pulmonary blastoma in the child (news)] Mehnert F, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):M17 **(Ger)**

SURGERY

Pulmonary blastoma: diagnostic and therapeutic aspects. Karnak I, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):380–2

Pulmonary blastoma: report of a case. Ohara N, et al. **Surg Today** 1999;29(4):385–8

Radical resection of a pulmonary blastoma involving the mediastinum. Asimakopoulos G, et al. **Thorac Cardiovasc Surg** 1999 Jun;47(3):197–9

PULMONARY CAPILLARY WEDGE PRESSURE see **PULMONARY WEDGE PRESSURE**

PULMONARY CIRCULATION

see related
VENTILATION–PERFUSION RATIO

Echocardiographic evidence of aortopulmonary collaterals in premature infants after closure of ductus arteriosus. Birnbacher R, et al. **Am J Perinatol** 1998;15(10):561–5

Monocyte human leukocyte antigen–DR expression correlates with intrapulmonary shunting after major trauma. Giannoudis PV, et al. **Am J Surg** 1999 Jun; 177(6):454–9

Quantifying rat pulmonary intravascular mononuclear phagocytes. Niehaus GD, et al. **Anat Rec** 1998 Dec; 252(4):626–36

Dual capnography facilitates detection of a critical perfusion defect in an individual lung. Shankar KB, et al. **Anesthesiology** 1999 Jan;90(1):302–4

Effects of ischemia on pulmonary dysfunction after cardiopulmonary bypass. Chai PJ, et al. **Ann Thorac Surg** 1999 Mar;67(3):731–5

Importance of acquired systemic–to–pulmonary collaterals in the Fontan operation. Kanter KR, et al. **Ann Thorac Surg** 1999 Sep;68(3):969–74; discussion 974–5

Comparison between three– and four–element Windkessel models to characterize vascular properties of pulmonary circulation. Lambermont B, et al. **Arch Physiol Biochem** 1997 Dec;105(7):625–32

Volume of extravascular lung fluid determined by blood ultrasound velocity and electrical impedance dilution. Krivitski NM, et al. **ASAIO J** 1998 Sep–Oct;44(5):M535–40

Possible sources of right–to–left shunting in patients following a total cavopulmonary connection. Buheitel G, et al. **Cardiol Young** 1998 Jul;8(3):358–63

New approach in partial cavopulmonary connection. Paulista PP, et al. **Cardiol Young** 1998 Jul;8(3):364–7

The real fate of pulmonary arteries after bidirectional superior cavopulmonary anastomosis: is there a need for concern? [see comments] Slavik Z, et al. **Cardiol Young** 1999 Jan;9(1):6–10 (28 ref.). Comment in: Cardiol Young 1999 Jan;9(1):2–3.

Temporal effects of prolonged hypoxaemia and reoxygenation on systemic, pulmonary and mesenteric perfusions in newborn piglets. Cheung PY, et al. **Cardiovasc Res** 1998 Aug;39(2):451–8

Severe intrapulmonary shunting associated with metastatic carcinoid. Lee DF, et al. **Chest** 1999 Apr;115(4):1203–7

Pulmonary capillary endothelium–bound angiotensin–converting enzyme activity in humans. Orfanos SE, et al. **Circulation** 1999 Mar 30;99(12):1593–9

Assessment of abnormal left atrial relaxation by transesophageal pulsed Doppler echocardiography of pulmonary venous flow velocity. Oki T, et al. **Clin Cardiol** 1998 Oct;21(10):753–8

Vascular recruitment increases evidence of lung injury [see comments] Ehrhart IC, et al. **Crit Care Med** 1999 Jan; 27(1):120–9. Comment in: Crit Care Med 1999 Jan;27(1):21–2.

Pulmonary blood flow and flow–dependent metabolic function during acute lung injury: recruitment for better or worse? [editorial; comment] Matuschak GM, et al. **Crit Care Med** 1999 Jan;27(1):21–2. Comment on: Crit Care Med 1999 Jan;27(1):120–9.

Discordant effects of alkalosis on elevated pulmonary vascular resistance and vascular reactivity in lamb lungs. Moreira GA, et al. **Crit Care Med** 1999 Sep;27(9):1838–42

Bibliography. Current world literature. Disorders of pulmonary circulation. **Curr Opin Pulm Med** 1999 Jul; 5(4):B91–103

Pulmonary venous flow pattern in various grades of mitral regurgitation and the effect of mitral surgery on flows in severe regurgitation. Yonga GO. **East Afr Med J** 1999 Feb; 76(2):108–10

Significant leukocyte and platelet retention during pulmonary passage after declamping of the aorta in CABG patients. Massoudy P, et al. **Eur J Med Res** 1999 May 26;4(5):178–82

Pulmonary and caval flow dynamics after total cavopulmonary connection. Houlind K, et al. **Heart** 1999 Jan;81(1):67–72

Split lung ventilation in a patient with differential pulmonary hemodynamics [letter] Haas NA, et al. **Intensive Care Med** 1998 Nov;24(11):1232–3

Hypoxia elicits an increase in pulmonary vasculature resistance in anaesthetised turtles (Trachemys scripta). Crossley D, et al. **J Exp Biol** 1998 Dec;201 (Pt 24):3367–75

Scintigraphic assessment of pulmonary and whole–body blood flow patterns after surgical intervention in congenital heart disease. Pruckmayer M, et al. **J Nucl Med** 1999 Sep; 40(9):1477–83

Ibn Al–Nafis [letter; comment] Saidi F. **J R Soc Med** 1998 Sep;91(9):508. Comment on: J R Soc Med 1997 Nov;90(11):640–4.

Triolein–induced pulmonary embolization and increased microvascular permeability in isolated perfused rat lungs. Nakata Y, et al. **J Trauma** 1999 Jul;47(1):111–9

Effects of respiratory cycle on pulmonary venous flow and cardiac cycle on pulmonary venous diameter of dogs: a transesophageal echocardiography study. Chiang CH, et al. **J Vet Med Sci** 1999 Feb;61(2):155–8

Effects of protamine on nitric oxide level in the pulmonary circulation. Kalaycioğlu S, et al. **Jpn Heart J** 1999 May; 40(3):335–8

Behavior–state–dependent changes in human fetal pulmonary blood flow velocity waveforms. Macklon NS, et al. **Obstet Gynecol** 1999 Feb;93(2):184–8

Cyanotic congenital heart disease with increased pulmonary blood flow. Grifka RG. **Pediatr Clin North Am** 1999 Apr; 46(2):405–25 (65 ref.)

Cyanotic congenital heart disease with decreased pulmonary blood flow in children. Waldman JD, et al. **Pediatr Clin North Am** 1999 Apr;46(2):385–404 (15 ref.)

Imaging of lung vascularization and perfusion in children. Mani TM, et al. **Pediatr Pulmonol Suppl** 1999;18:198–200 (2 ref.)

Group B streptococcal beta–hemolysin promotes injury of lung microvascular endothelial cells. Gibson RL, et al. **Pediatr Res** 1999 May;45(5 Pt 1):626–34

Endothelin A receptor blockade decreases pulmonary vascular resistance in premature lambs with hyaline membrane disease. Ivy DD, et al. **Pediatr Res** 1998 Aug; 44(2):175–80

Leucocyte filtration during cardiopulmonary reperfusion in coronary artery bypass surgery. Baksaas ST, et al. **Perfusion** 1999 Mar;14(2):107–17

Pulmonary oligemia in aortic valve disease. Bruno MA, et al. **Radiology** 1999 Jan;210(1):37–45

Prevalence of intrapulmonary vascular dilatations in normoxaemic patients with early liver cirrhosis. Mimidis KP, et al. **Scand J Gastroenterol** 1998 Sep;33(9):988–92

Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Eberhard L, et al. **Technol Health Care** 1999;7(4):243–59

High–energy phosphates, mitochondria, and reperfusion injury in isolated rat lungs. Hirata T, et al. **Transplant Proc** 1998 Nov;30(7):3377–9

[Pulmonary blood vessels in goats] Roos H, et al. **Anat Histol Embryol** 1999 May;28(2):131–7 (Eng. Abstr.) **(Ger)**

[A case of successful resection of pulmonary arteriovenous fistula with a high shunt ratio] Kojima K, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Oct;46(10):1037–40 (Eng. Abstr.) **(Jpn)**

[Investigation of pulmonary hemodynamics and chest X–ray findings in patients with pulmonary tuberculosis sequelae and obstructive ventilatory impairment] Yasuda J, et al. **Kekkaku** 1999 Jan;74(1):5–18 (Eng. Abstr.) **(Jpn)**

[Anesthetic management of an infant with pulmonary atresia and ventricular septal defect accompanied by excess pulmonary blood flow for systemic–pulmonary shunt operation] Ataka T, et al. **Masui** 1999 Apr;48(4):372–6 (Eng. Abstr.) **(Jpn)**

[Survival and pulmonary hemodynamics in patients with sequelae of pulmonary tuberculosis who received antituberculosis chemotherapy and home oxygen therapy] Sasaki Y, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov; 36(11):934–8 (Eng. Abstr.) **(Jpn)**

[Vasomotor control of the pulmonary circulation] Shirai M. **Nippon Yakurigaku Zasshi** 1999 Apr;113(4):235–48 (87 ref.) (Eng. Abstr.) **(Jpn)**

[New approaches to the evaluation of pulmonary circulation in surgical patients with tuberculosis] Kaliakin VV, et al. **Probl Tuberk** 1998;(4):33–8 (Eng. Abstr.) **(Rus)**

[Radionuclide diagnosis of capillary pulmonary blood flow in new cases of pulmonary tuberculosis] Savin IB, et al. **Probl Tuberk** 1999;(4):13–6 (Eng. Abstr.) **(Rus)**

[Scintigraphic evaluation of pulmonary microcirculatory bed and intrathoracic lymph nodes in patients with infiltrative tuberculosis] Sigaev AT, et al. **Probl Tuberk** 1998;(6):44–8 (Eng. Abstr.) **(Rus)**

[Relation between mitral orifice surface area and extent of hemodynamic disorder of the pulmonary circulation in patients with mitral stenosis] Dodić S, et al. **Med Pregl** 1998 Sep–Oct;51(9–10):427–30 (Eng. Abstr.) **(Ser)**

DRUG EFFECTS

Responses to propofol in the pulmonary vascular bed of the rat. Kaye A, et al. **Acta Anaesthesiol Scand** 1999 Apr; 43(4):431–7

5–(N–ethylcarboxamido)adenosine desensitizes the A2b–adenosine receptor in lung circulation. Haynes J Jr, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1877–83

NO causes perinatal pulmonary vasodilation through K+–channel activation and intracellular Ca2+ release. Saqueton CB, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L925–32

K+–channel blockade inhibits shear stress–induced pulmonary vasodilation in the ovine fetus. Storme L, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L220–8

Effect of azelastine on platelet–activating factor–induced microvascular leakage in rat airways. Tamaoki J, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L351–7

The cGMP–specific phosphodiesterase inhibitor E4021 dilates the pulmonary circulation. Dukarm RC, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):858–65

The effect of prolonged inhaled nitric oxide on pulmonary vasoconstriction in rats. Frank DU, et al. **Anesth Analg** 1998 Dec;87(6):1285–90

Effects of isoflurane anesthesia on pulmonary vascular response to K+ ATP channel activation and circulatory hypotension in chronically instrumented dogs. Fujiwara Y, et al. **Anesthesiology** 1999 Mar;90(3):799–811

Preservation of hypoxic pulmonary vasoconstriction during sevoflurane and desflurane anesthesia compared to the conscious state in chronically instrumented dogs. Lesitsky MA, et al. **Anesthesiology** 1998 Dec;89(6):1501–8

Ketamine preserves and propofol potentiates hypoxic pulmonary vasoconstriction compared with the conscious state in chronically instrumented dogs. Nakayama M, et al. **Anesthesiology** 1999 Sep;91(3):760–71

The haemodynamic effect of the 5HT1 agonist BMS–180048: a class effect of triptans? Swan L, et al. **Br J Clin Pharmacol** 1999 Feb;47(2):189–94

Role of potassium channels and nitric oxide in the relaxant effects elicited by beta–adrenoceptor agonists on hypoxic vasoconstriction in the isolated perfused lung of the rat. Dumas JP, et al. **Br J Pharmacol** 1999 May;127(2):421–8

Effects of low flow on pulmonary vascular flow–pressure curves and pulmonary vascular impedance. Brimioulle S, et al. **Cardiovasc Res** 1999 Apr;42(1):183–92

Analysis of endotoxin effects on the intact pulmonary circulation. Lambermont B, et al. **Cardiovasc Res** 1999 Jan; 41(1):275–81

L–arginine and substance P reverse the pulmonary endothelial dysfunction caused by congenital heart surgery. Schulze–Neick I, et al. **Circulation** 1999 Aug 17; 100(7):749–55

Pulmonary response of normal human subjects to inhaled vasodilator substances. Brett SJ, et al. **Clin Sci (Colch)** 1998 Nov;95(5):621–7

Inhaled nitric oxide and pulmonary vascular resistance [editorial; comment] Bigatello LM, et al. **Crit Care Med** 1999 Sep;27(9):2060–1. Comment on: Crit Care Med 1999 Sep;27(9):1953–7.

Effects of inhaled nitric oxide on pulmonary hemodynamics in a porcine model of endotoxin shock [see comments] Lambermont B, et al. **Crit Care Med** 1999 Sep;27(9):1953–7 . Comment in: Crit Care Med 1999 Sep;27(9):2060–1.

Effects of partial liquid ventilation with perfluorocarbons on pressure–flow relationships, vascular compliance, and filtration coefficients of isolated blood–perfused rabbit lungs. Loer SA, et al. **Crit Care Med** 1998 Dec; 26(12):2037–41

Low–dose inhaled nitric oxide and oxygenation in pediatric hypoxic respiratory failure. Wrong bullet, wrong target [editorial; comment] Tibby S, et al. **Crit Care Med** 1999 May;27(5):871–2 (21 ref.). Comment on: Crit Care Med 1999 May;27(5):989–96.

Influence of beta–adrenoceptor agonists on the pulmonary circulation. Effects of a beta3–adrenoceptor antagonist, SR 59230A. Dumas M, et al. **Eur J Pharmacol** 1998 May 8; 348(2–3):223–8

Doppler sonographic study of the effect of indomethacin on cardiac and pulmonary hemodynamics of the preterm infant. Benders MJ, et al. **Eur J Ultrasound** 1999 May; 9(2):107–16

Effect of adenosine on pulmonary circulation of rabbits. El–Kashef H, et al. **Gen Pharmacol** 1999 Mar;32(3):307–13

Pulmonary manifestations of inhaled street drugs [letter; comment] Cheng TO. **Heart Lung** 1999 Mar–Apr; 28(2):147–8. Comment on: Heart Lung 1998 Sep–Oct;27(5):297–305; quiz 306–7.

Activation of polymorphonuclear leukocytes in oleic acid–induced lung injury. Moriuchi H, et al. **Intensive Care Med** 1998 Jul;24(7):709–15

Long chain versus medium chain lipids in patients with ARDS: effects on pulmonary haemodynamics and gas exchange. Smirniotis V, et al. **Intensive Care Med** 1998 Oct;24(10):1029–33

Effect of furosemide on pulmonary blood flow distribution in resting and exercising horses. Erickson HH, et al. **J Appl Physiol** 1999 Jun;86(6):2034–43

Platelet–activating factor modulates pulmonary vasomotor tone in the perinatal lamb. Ibe BO, et al. **J Appl Physiol** 1998 Sep;85(3):1079–85

cGMP and cAMP cause pulmonary vasoconstriction in the presence of hemolysate. Voelkel NF, et al. **J Appl Physiol** 1999 May;86(5):1715–20

Effects of subcutaneous naratriptan on systemic and pulmonary haemodynamics and coronary artery diameter in humans. Hood S, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):89–94

Pulmonary arterioles from rats with congenital diaphragmatic hernias are hypoplastic but not hyperresponsive. Au-Fliegner M, et al. **J Pediatr Surg** 1998 Sep;33(9):1366–70

Addition of a water-soluble alpha-tocopherol analogue to University of Wisconsin solution improves endothelial viability and decreases lung reperfusion injury. Baker CJ, et al. **J Surg Res** 1999 Sep;86(1):145–9

L-arginine inhibits ischemia-reperfusion lung injury in rabbits. Yoshida K, et al. **J Surg Res** 1999 Jul;85(1):9–16

Aspiration of activated charcoal elicits an increase in lung microvascular permeability [see comments] Arnold TC, et al. **J Toxicol Clin Toxicol** 1999;37(1):9–16. Comment in: J Toxicol Clin Toxicol 1999 ;37(1):17–8.

Pulmonary microvascular responses to inhaled prostacyclin, nitric oxide, and their combination in anesthetized cats. Ikeda S, et al. **Jpn J Physiol** 1999 Feb;49(1):89–98

Pulmonary vasoconstriction during lidocaine administration are modulated by endothelium-derived relaxing factor. Hayashi M. **Osaka City Med J** 1998 Dec;44(2):181–94

Inhalation of low-dose nitric oxide to evaluate pulmonary vascular reactivity in children with congenital heart disease. Yasuda T, et al. **Pediatr Cardiol** 1999 Jul–Aug; 20(4):278–82

Effects of nebulized nitroprusside on pulmonary and systemic hemodynamics during pulmonary hypertension in piglets. Meadow W, et al. **Pediatr Res** 1998 Aug;44(2):181–6

Gadolinium chloride inhibition of pulmonary nitric oxide production and effects on pulmonary circulation in the rabbit. Adding LC, et al. **Pharmacol Toxicol** 1998 Jul; 83(1):8–15

Analysis of pulmonary microvasculature changes after photodynamic therapy delivered to distant sites. ten Tije AJ, et al. **Photochem Photobiol** 1999 Apr;69(4):494–9

Segmental vasodilatory effectiveness of inhaled NO in lungs from chronically hypoxic rats. Resta TC, et al. **Respir Physiol** 1998 Nov;114(2):161–73

Effects of FR167653 on pulmonary ischemia-reperfusion injury in rats: a preliminary study. Otani Y, et al. **Transplant Proc** 1998 Nov;30(7):3368–9

Effect of lazaroid U-74389G on lung ischemia-reperfusion injury. Takeyoshi I, et al. **Transplant Proc** 1998 Nov; 30(7):3364–5

FR167653 ameliorates pulmonary ischemia-reperfusion injury in dogs. Takeyoshi I, et al. **Transplant Proc** 1998 Nov;30(7):3342–3

A comparison of the new preservation solution Celsior to Euro-Collins and University of Wisconsin solutions in lung reperfusion injury. Roberts RF, et al. **Transplantation** 1999 Jan 15;67(1):152–5

Endothelin receptor antagonist improves pulmonary hemodynamics during lung ischemia/reperfusion injury. Shennib H, et al. **Transplantation** 1998 Oct 15;66(7):917–37

GENETICS

The pulmonary circulation of homozygous or heterozygous eNOS-null mice is hyperresponsive to mild hypoxia. Fagan KA, et al. **J Clin Invest** 1999 Jan;103(2):291–9

IMMUNOLOGY

Bimodal granulocyte transit time through the human lung demonstrated by deconvolution analysis. Ussov WY, et al. **Respir Med** 1998 Sep;92(9):1163–6

PHYSIOLOGY

Luxury lung perfusion in end-stage liver disease during liver transplantation. Stenqvist O, et al. **Acta Anaesthesiol Scand** 1999 Apr;43(4):447–51

Hypoxia and hyperoxia both transiently affect distribution of pulmonary perfusion but not ventilation in awake sheep. Melsom MN, et al. **Acta Physiol Scand** 1999 Jun; 166(2):151–8

Decreased pulmonary vascular resistance during nasal breathing: modulation by endogenous nitric oxide from the paranasal sinuses. Settergren G, et al. **Acta Physiol Scand** 1998 Jul;163(3):235–9

Acute effects of transjugular intrahepatic portosystemic stent-shunt (TIPSS) procedure on renal blood flow and cardiopulmonary hemodynamics in cirrhosis. Stanley AJ, et al. **Am J Gastroenterol** 1998 Dec;93(12):2463–8

Immunotargeting of catalase to ACE or ICAM-1 protects perfused rat lungs against oxidative stress. Atochina EN, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L806–17

Increased endothelial NOS in lambs with increased pulmonary blood flow and pulmonary hypertension. Black SM, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1643–51

Pulmonary intravascular macrophages: their contribution to the mononuclear phagocyte system in 13 species. Brain JD, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L146–54

Segmental regulation of pulmonary vascular permeability by store-operated Ca2+ entry. Chetham PM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L41–50

Chronic pulmonary hypertension increases fetal lung cGMP phosphodiesterase activity. Hanson KA, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L931–41

Involvement of cytochrome P-450 enzyme activity in the control of microvascular permeability in canine lung. Ivey CL, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L756–63

Segmental microvascular permeability in ischemia-reperfusion injury in rat lung. Khimenko PL, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L958–60

C-type natriuretic peptide expression and pulmonary vasodilation in hypoxia-adapted rats. Klinger JR, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L645–52

Endogenous pulmonary nitric oxide in the regulation of airway microvascular leak. Mehta S, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L961–8

Nitric oxide differentially attenuates microvessel response to hypoxia and hypercapnia in injured lungs. Naoki K, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R181–9

Inducible NO synthase inhibition attenuates shear stress-induced pulmonary vasodilation in the ovine fetus. Rairigh RL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L513–21

Ischemia-reperfusion lung injury in rabbits: mechanisms of injury and protection. Sakuma T, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L137–45

Superoxide anion scavengers restore NO-mediated pulmonary vasodilation after lung transplantation. Seki S, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H42–6

Evidence for a role of protein kinase C in hypoxic pulmonary vasoconstriction. Weissmann N, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L90–5

Retrovirus-mediated HO gene transfer into endothelial cells protects against oxidant-induced injury. Yang L, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L127–33

Role of a novel KCa opener in regulating K+ channels of hypoxic human pulmonary vascular cells. Peng W, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):737–45

Neutrophil rheology and transit through capillaries and sinusoids [editorial; comment] Doerschuk CM. **Am J Respir Crit Care Med** 1999 Jun;159(6):1693–5 (16 ref.). Comment on: Am J Respir Crit Care Med 1999 Jun;159(6):1696–702.

L- and P-selectin and CD11/CD18 in intracapillary neutrophil sequestration in rabbit lungs. Kubo H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):267–74

Daytime pulmonary hemodynamics in patients with obstructive sleep apnea without lung disease. Sajkov D, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1518–26

Computerized morphometry of the pulmonary vasculature over a range of intravascular pressures. Ohar JA, et al. **Anat Rec** 1998 Sep;252(1):92–101

Comparison of theory and experiment in pulsatile flow in cat lung. Huang W, et al. **Ann Biomed Eng** 1998 Sep–Oct; 26(5):812–20

Increased pulmonary blood flow produces endothelial cell dysfunction in neonatal swine. Vitvitsky EV, et al. **Ann Thorac Surg** 1998 Oct;66(4):1372–7

Structure, strength, failure, and remodeling of the pulmonary blood–gas barrier. West JB, et al. **Annu Rev Physiol** 1999; 61:543–72 (91 ref.)

Time domain method to identify simultaneously parameters of the windkessel model applied to the pulmonary circulation. Lambermont B, et al. **Arch Physiol Biochem** 1998 Jul;106(3):245–52

Hemodynamic effects of prostaglandins and catecholamines in graded reduction of pulmonary flow during venoarterial bypass in awake goats. Takewa Y, et al. **ASAIO J** 1999 Jan–Feb;45(1):79–82

Cardiovascular effects of the breathhold used in determining pulmonary diffusing capacity. Gotshall RW, et al. **Aviat Space Environ Med** 1999 May;70(5):471–4

Inhibition of PMN- and HOC1-induced vascular injury in isolated rabbit lungs by acetylsalicylic acid: a possible link between neutrophil-derived oxidative stress and eicosanoid metabolism? Wahn H, et al. **Biochim Biophys Acta** 1998 Oct 22;1408(1):55–66

Effects of posture on blood flow diversion by hypoxic pulmonary vasoconstriction in dogs. Walther SM, et al. **Br J Anaesth** 1998 Sep;81(3):425–9

Autonomic control of cardiovascular performance and whole body O2 delivery and utilization in swine during treadmill exercise. Stubenitsky R, et al. **Cardiovasc Res** 1998 Aug; 39(2):459–74

Gene transfer of endothelial nitric oxide synthase to the lung of the mouse in vivo. Effect on agonist-induced and flow-mediated vascular responses. Champion HC, et al. **Circ Res** 1999 Jun 25;84(12):1422–32

Oxygen sensitivity of cloned voltage-gated K(+) channels expressed in the pulmonary vasculature. Hulme JT, et al. **Circ Res** 1999 Sep 17;85(6):489–97

A fractal approach for evaluation of pulmonary circulation in man at rest and during exercise. Kuikka JT, et al. **Clin Physiol** 1999 Mar;19(2):107–10

Theoretical study of inspiratory flow waveforms during mechanical ventilation on pulmonary blood flow and gas exchange. Niranjan SC, et al. **Comput Biomed Res** 1999 Aug;32(4):355–90

In vivo model for reversal of pulmonary blood flow in canines [letter] Abramov D, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):251–2

A comparison of inhaled nitric oxide with intravenous vasodilators in the assessment of pulmonary haemodynamics prior to cardiac transplantation. Pagano D, et al. **Eur J Cardiothorac Surg** 1996;10(12):1120–6

Control of the pulmonary circulation in the fetus and during the transitional period to air breathing. Heymann MA. **Eur J Obstet Gynecol Reprod Biol** 1999 Jun;84(2):127–32 (55 ref.)

An attempt of pulmonary perfusion imaging utilizing ultrashort echo time turbo FLASH sequence with signal targeting and alternating radio-frequency (STAR). Hatabu H, et al. **Eur J Radiol** 1999 Feb;29(2):160–3

The effects of surgically treated pulmonary stenosis on lung growth and cardiopulmonary function in children during rest and exercise. Rosenthal M, et al. **Eur Respir J** 1999 Mar;13(3):590–6

Catecholamine release from isolated guinea pig lungs during sympathetic stimulation with varied ventilation and perfusion. Yamane K, et al. **Exp Anim** 1999 Apr;48(2):65–72

Role of luminal volume changes in the increase in pulmonary blood flow at birth in sheep. Hooper SB. **Exp Physiol** 1998 Nov;83(6):833–42

The role of intercellular adhesion molecule 1 and neutrophils in acute pancreatitis and pancreatitis-associated lung injury. Frossard JL, et al. **Gastroenterology** 1999 Mar; 116(3):694–701

The role of intra-abdominal pressure on splanchnic and pulmonary hemodynamic and metabolic changes during carbon dioxide pneumoperitoneum. Windberger UB, et al. **Gastrointest Endosc** 1999 Jan;49(1):84–91

Competitive pulmonary flow in infancy: the effect of respiration. Henneveld HT, et al. **Int J Cardiol** 1999 Jan; 68(1):9–12

Nitric oxide and endothelin-1 in coronary and pulmonary circulation. Rubino A, et al. **Int Rev Cytol** 1999;189:59–93 (185 ref.)

Gravity is an important but secondary determinant of regional pulmonary blood flow in upright primates. Glenny RW, et al. **J Appl Physiol** 1999 Feb;86(2):623–32

Pulmonary vasoconstriction induced by mitral valve obstruction in sheep. Hermo-Weiler CI, et al. **J Appl Physiol** 1998 Nov;85(5):1655–60

Acute hypoxic pulmonary vasoconstriction in conscious dogs decreases renin and is unaffected by losartan. Krebs MO, et al. **J Appl Physiol** 1999 Jun;86(6):1914–9

Effect of chronic sodium cyanate administration on O2 transport and uptake in hypoxic and normoxic exercise. McCanse W, et al. **J Appl Physiol** 1999 Apr;86(4):1257–63

Pulmonary perfusion is more uniform in the prone than in the supine position: scintigraphy in healthy humans. Nyrén S, et al. **J Appl Physiol** 1999 Apr;86(4):1135–41

Ca2+ dependence of mechanical injury to lung capillaries [letter; comment] Parker JC, et al. **J Appl Physiol** 1999 Feb;86(2):775–6. Comment on: J Appl Physiol 1998 Apr;84(4):1111–2.

Role of L-selectin in physiological manifestations after burn and smoke inhalation injury in sheep. Sakurai H, et al. **J Appl Physiol** 1999 Apr;86(4):1151–9

Differences in acute hypoxic pulmonary vasoresponsiveness between rat strains: role of endothelium. Salameh G, et al. **J Appl Physiol** 1999 Jul;87(1):356–62

Pulmonary capillary perfusion: intra-alveolar fractal patterns and interalveolar independence. Wagner WW Jr, et al. **J Appl Physiol** 1999 Mar;86(3):825–31

Modulatory effect of blood cells on hypoxic vasoconstriction response and nitric oxide release in rat lungs. Kao SJ, et al. **J Formos Med Assoc** 1999 Jan;98(1):39–44

Rapid clearance of transplanted hepatocytes from pulmonary capillaries in rats indicates a wide safety margin of liver repopulation and the potential of using surrogate albumin particles for safety analysis. Rajvanshi P, et al. **J Hepatol** 1999 Feb;30(2):299–310

Prospective comparison of MR lung perfusion and lung scintigraphy. Berthezène Y, et al. **J Magn Reson Imaging** 1999 Jan;9(1):61–8

Hypoxic pulmonary vasoconstriction is impaired in rats with nitrofen-induced congenital diaphragmatic hernia. Newell MA, et al. **J Pediatr Surg** 1998 Sep;33(9):1358–62

Neutrophil priming state predicts capillary leak after gut ischemia in rats. Conner WC, et al. **J Surg Res** 1999 Jun 1;84(1):24–30

Endothelin receptor blockade prevents the rise in pulmonary vascular resistance after cardiopulmonary bypass in lambs with increased pulmonary blood flow. Petrossian E, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):314–23

Pulmonary microvascular responses to inhaled prostacyclin, nitric oxide, and their combination in anesthetized cats. Ikeda S, et al. **Jpn J Physiol** 1999 Feb;49(1):89–98

Optimizing the hemodynamic performance of the DDD pacemaker: impact of the atrioventricular delay on the pulmonary venous flow pattern. Douchet MP, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2261–8

Altered endothelial function in lambs with pulmonary hypertension and acute lung injury. Fineman JR, et al. **Pediatr Pulmonol** 1999 Mar;27(3):147–56

Pulmonary hemodynamics and plasma endothelin-1 during hypoxemia and reoxygenation with room air or 100% oxygen in a piglet model. Medbø S, et al. **Pediatr Res** 1998 Dec;44(6):843–9

In vivo evidence for a myogenic response in the fetal pulmonary circulation. Storme L, et al. **Pediatr Res** 1999 Mar;45(3):425–31

Mechanisms of adrenomedullin-induced increase of pulmonary blood flow in fetal sheep. Takahashi Y, et al. **Pediatr Res** 1999 Feb;45(2):276–81

Nonlinear indicial response of complex nonstationary oscillations as pulmonary hypertension responding to step hypoxia. Huang W, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1834–9

Use of intrinsic modes in biology: examples of indicial response of pulmonary blood pressure to +/– step hypoxia. Huang W, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12766–71

Effects of hypoxia, blood P(CO2) and flow on O2 transport in excised rabbit lungs. Ayappa I, et al. **Respir Physiol** 1998 May;112(2):155–66

Pulmonary blood flow measured by inspiratory inert gas concentration forcing oscillations. Williams EM, et al. **Respir Physiol** 1998 Jul;113(1):47–56

Repetitive hemodilution in chronic obstructive pulmonary disease and pulmonary hypertension: effects on pulmonary hemodynamics, gas exchange, and exercise capacity. Borst MM, et al. **Respiration** 1999;66(3):225–32

Effects of nasal continuous positive airway pressure on pulmonary haemodynamics and tissue oxygenation in patients with obstructive sleep apnoea. Akashiba T, et al. **Respirology** 1999 Mar;4(1):83–7

Role of NO and endothelin in hemoglobin-induced pulmonary vasoconstriction. Heller A, et al. **Shock** 1998 Dec;10(6):401–6

Pulmonary circulatory parameters as indices for the early detection of acute rejection after single lung transplantation. Yamamoto H, et al. **Surg Today** 1998; 28(9):900–6

Cellular responses to hypoxia in the pulmonary circulation. Brij SO, et al. **Thorax** 1998 Dec;53(12):1075–9 (49 ref.)

Cytomegalovirus pneumonitis after kidney transplantation is not caused by plugging of cytomegalic endothelial cells only. de Maar EF, et al. **Transpl Int** 1999;12(1):56–62

Bilateral sequential lung transplantation in dogs. Lee DY, et al. **Transplant Proc** 1998 Nov;30(7):3358–60

Improved lung microvascular permeability by heparin infusion in rabbit lungs from non-heart-beating donors. Matsuda E, et al. **Transplant Proc** 1998 Nov;30(7):3354–7

Functional and morphologic study of isolated perfused lungs in an ex vivo guinea pig–to–rat xenogenic lung perfusion model. Ryu C, et al. **Transplant Proc** 1998 Nov; 30(7):3839–41

Reduction of post-ischemic lung reperfusion injury by fibrinolytic activity suppression. Edagawa M, et al. **Transplantation** 1999 Apr 15;67(7):944–9

Doppler velocimetry of normal human fetal venous intrapulmonary branches. Laudy JA, et al. **Ultrasound Obstet Gynecol** 1999 Apr;13(4):247–54

[New techniques in the study of pulmonary circulation] Capderou A. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S103–4 **(Fre)**

[Physiology and physiopathology of the pulmonary circulation] Olschewski H, et al. **Internist (Berl)** 1999 Jul; 40(7):696–709 (30 ref.) **(Ger)**

[Effect of GLP-1 and amylin on lung circulation, the bronchial system and systemic circulation in isolated ex vivo organ cultures of the rat] Golpon H. **Pneumologie** 1998 Aug;52(8):439 **(Ger)**

[Changes in atrial natriuretic peptide and pulmonary hemodynamics induced by exercise in patients with chronic pulmonary emphysema] Takeda A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jul;36(7):607–12 (Eng. Abstr.) **(Jpn)**

[Circulatory dynamics based on physiopathology of respiratory insufficiency] Nagasaka Y. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):18–23 (7 ref.) **(Jpn)**

[Studies on pulmonary and systemic hemodynamic changes after transjugular intrahepatic portosystemic shunt (TIPS)] Wagatsuma Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Dec;95(12):1350–6 (Eng. Abstr.) **(Jpn)**

[Mechanical extracorporeal circulation. Artificial heart. Percutaneous cardiopulmonary circulation. Part II] Ostrowska G. **Pol Merkuriusz Lek** 1999 Mar;6(33):146–51 (53 ref.) (Eng. Abstr.) **(Pol)**

[External respiratory function and pulmonary capillary blood flow in patients with postoperative recurrent pulmonary tuberculosis] El'kin AV, et al. **Probl Tuberk** 1999;(3):16–9 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

The effect of patient-specific factors on radiation-induced regional lung injury. Garipagaoglu M, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):331–8

PULMONARY COIN LESION see **COIN LESION, PULMONARY**

PULMONARY DIFFUSING CAPACITY

Lung membrane diffusing capacity, heart failure, and heart transplantation. Mettauer B, et al. **Am J Cardiol** 1999 Jan 1;83(1):62–7

Longitudinal decline in measured firefighter single-breath diffusing capacity of carbon monoxide values. A respiratory surveillance dilemma. Burgess JL, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):119–24

Reference values for lung function tests. III. Carbon monoxide diffusing capacity (transfer factor). Neder JA, et al. **Braz J Med Biol Res** 1999 Jun;32(6):729–37

Reduction of diffusion capacity for carbon monoxide in diabetic patients. Ljubić S, et al. **Chest** 1998 Oct; 114(4):1033–5

Body position, membrane diffusing capacity and pulmonary capillary blood volume in chronic bronchitis and pulmonary emphysema. Chou KC, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Apr; 62(4):209–16

Impaired pulmonary diffusion during exercise in patients with chronic heart failure. Smith AA, et al. **Circulation** 1999 Sep 28;100(13):1406–10

Pulmonary diffusing capacity, serum angiotensin-converting enzyme activity and the angiotensin-converting enzyme gene in Japanese non-insulin-dependent diabetes mellitus patients. Isotani H, et al. **Diabetes Res Clin Pract** 1999 Mar; 43(3):173–7

Determination of diffusing capacity by modeling the dynamics of C18O uptake in newborns. Bouferrache B, et al. **IEEE Trans Biomed Eng** 1998 Nov;45(11):1305–12

Diffusing capacity predicts operative mortality but not long-term survival after resection for lung cancer. Wang J, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):581–6; discussion 586–7

Interstitial lung disease in systemic sclerosis: comparison of BALF lymphocyte phenotype and DLCO impairment. Domagała-Kulawik J, et al. **Respir Med** 1998 Nov; 92(11):1295–301

High prevalence of pulmonary diffusion abnormalities without interstitial changes in long-term survivors of liver transplantation. Ewert R, et al. **Transpl Int** 1999;12(3):222–8

PHYSIOLOGY

The pathophysiology of pulmonary diffusion impairment in human immunodeficiency virus infection. Diaz PT, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):272–7

Applicability of the single-breath carbon monoxide diffusing capacity in a Norwegian Community Study. Welle I, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1745–50

Cardiovascular effects of the breathhold used in determining pulmonary diffusing capacity. Gotshall RW, et al. **Aviat Space Environ Med** 1999 May;70(5):471–4

Pulmonary and auditory function among experienced construction divers: a cross-sectional study. Skogstad M, et al. **Aviat Space Environ Med** 1999 Jul;70(7):644–9

Invited editorial on "Red cell distribution and the recruitment of pulmonary diffusing capacity" [editorial; comment] Forster RE. **J Appl Physiol** 1999 May;86(5):1458–9. Comment on: J Appl Physiol 1999 May;86(5):1460–7.

Red cell distribution and the recruitment of pulmonary diffusing capacity [see comments] Hsia CC, et al. **J Appl Physiol** 1999 May;86(5):1460–7. Comment in: J Appl Physiol 1999 May;86(5):1458–9.

Modeling diffusion limitation of gas exchange in lungs containing perfluorocarbon. Mates vanLöbensels E, et al. **J Appl Physiol** 1999 Jan;86(1):273–84

Diffusing capacity limitations of the extent of lung volume reduction surgery in an animal model of emphysema. Chen JC, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):728–35

The effect of repeat exercise on pulmonary diffusing capacity and EIH in trained athletes. McKenzie DC, et al. **Med Sci Sports Exerc** 1999 Jan;31(1):99–104

Gas exchange: large surface and thin barrier determine pulmonary diffusing capacity. Weibel ER. **Minerva Anestesiol** 1999 Jun;65(6):377–82 (19 ref.)

Effects of side lying on lung function in older individuals. Manning F, et al. **Phys Ther** 1999 May;79(5):456–66

Effect of cardiac output on pulmonary gas exchange: role of diffusion limitation with VA/Q mismatch. Vidal Melo MF. **Respir Physiol** 1998 Jul;113(1):23–32

PULMONARY DISEASE (SPECIALTY)

A comparison of generalist and pulmonologist care for patients hospitalized with severe chronic obstructive pulmonary disease: resource intensity, hospital costs, and survival. SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment. Regueiro CR, et al. **Am J Med** 1998 Nov; 105(5):366–72

Outcomes and resource utilization for patients with prolonged critical illness managed by university-based or community-based subspecialists. Bach PB, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1410–5

Outcomes research in critical care: results of the American Thoracic Society Critical Care Assembly Workshop on Outcomes Research. The Members of the Outcomes Research Workshop. Rubenfeld GD, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):358–67

Chest 1998. The Clinical World Congress on Diseases of the Chest. Toronto, Ontario, Canada. November 8–12, 1998. Abstracts. **Chest** 1998 Oct;114(4 Suppl):249S–436S

Conundrums in sleep medicine [editorial] Collop NA. **Chest** 1999 Mar;115(3):607–8

Presidential address--CHEST 1998 [see comments] McCaffree DR. **Chest** 1999 Apr;115(4):1155–7. Comment in: Chest 1999 Apr;115(4):909.

A new paradigm for pulmonary medicine [editorial] Petty TL. **Chest** 1998 Oct;114(4):951–2

Pulmonary rehabilitation: Sisyphus or Odysseus? [editorial] Seifer FD, et al. **Chest** 1999 Feb;115(2):311–3

The influence of personal tobacco smoking on the clinical practice of Italian chest physicians. Nardini S, et al. **Eur Respir J** 1998 Dec;12(6):1450–3

European Respiratory Society annual congress. Geneva, Switzerland, September 19–23, 1998. Abstracts. **Eur Respir J Suppl** 1998 Sep;28:1s–507s

Irish Thoracic Society, Irish Gerontological Society, 16th All Ireland Social Medicine Meetings. 1996, 1997. Abstracts. **Ir J Med Sci** 1998 Jul–Sep;167 Suppl 9:1–32

Appendix: education and information resources in hyperbaric medicine. Clarke D, et al. **Respir Care Clin N Am** 1999 Jun;5(2):297–317

[Proceedings of the 3rd Pneumology Congress of the French Languages. Paris, France, 27–30 January 1999] **Rev Mal Respir** 1999 Jan;16 Suppl 3:3S1–3S207 **(Fre)**

[Pneumology Society of the French Langue membership list 1998] **Rev Mal Respir** 1998;15(3 Suppl):1–18 **(Fre)**

[3rd Pneumology Congress of the French Languages. Paris, France, 27–30 January 1999. Abstracts] **Rev Mal Respir** 1999 Jan;16 Suppl 1:S7–141 **(Fre)**

[Asbestos-related occupational lung diseases. Role of the pneumology unit in screening and compensation] Bignon J, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 2:S42–8 (Eng. Abstr.) **(Fre)**

[Scope of and perspectives on resuscitation and pneumology] Mayaud C, et al. **Rev Mal Respir** 1999 Jun;16(3):313–5 **(Fre)**

[Metropolitan pneumologists and exotic diseases] L'Her P, et al. **Rev Pneumol Clin** 1998 Dec;54(6):399–403 (Eng. Abstr.) **(Fre)**

[Annual meeting of the Swiss Society of Pneumology. Morschach, 24–25 June 1999. Abstracts] **Schweiz Med Wochenschr Suppl** 1999;107:3S–22S **(Fre, Ger)**

[Family physician and pneumonologist have to cooperate closely. Dietrich Rohde, M.D., Mühlheim, on the new therapy suggestions] Rohde D. **Fortschr Med** 1999 Apr 10;117(10):35–6 **(Ger)**

[40th Congress of the German Society for Pneumology and 25th Congress of the Austrian Society for Lung Diseases and Tuberculosis. Bad Reichenhall/Salzburg, 17–20 March 1999. Abstracts] **Pneumologie** 1999 Mar;53 Suppl 1:S1–83 **(Ger)**

[Report on the 1st German Lung Day] Bergmann KC. **Pneumologie** 1999 Feb;53(2):103–4 **(Ger)**

[The COPD patient in the field of tension between family physician, pneumonologist and hospital for lung diseases: who does what?— a discussion paper] Steinkamp G. **Pneumologie** 1999 Jul;53(7):M31–2 **(Ger)**

[XXVI Congress of the Polish Society of Physiopneumonology. Poznań, 4–10 October 1998. Abstracts] **Pneumonol Alergol Pol** 1998;66 Suppl 2:3–231 **(Pol)**

[Pathophysiological and pathomorphological aspects of pulmonology] Uglov FG. **Vestn Ross Akad Med Nauk** 1998;(10):36–8 (2 ref.) (Eng. Abstr.) **(Rus)**

[Bronchial fibroscopy in pediatric pulmonology (editorial)] Liñán Cortés S. **An Esp Pediatr** 1998 Aug;49(2):113–5 **(Spa)**

[XXXII National Congress of the Spanish Society of Pneumology and Thoracic Surgery. Madrid, Spain, 15–18 May 1999. Abstracts] **Arch Bronconeumol** 1999 May;35 Suppl 2:1–134 **(Spa)**

[Proceedings of the VIII Winter Pulmonology Week. Benasque/Cerler, 1–5 March 1999] **Arch Bronconeumol** 1999 May;35 Suppl 3:1–101 **(Spa)**

[Research and publications in pneumology and thoracic surgery] Ancochea Bermúdez J. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:1 **(Spa)**

[The impact of molecular biology on pneumonology] García-Navarro AA. **Arch Bronconeumol** 1999 May;35 Suppl 3:81–3 **(Spa)**

[Do patients lie about smoking during follow-up in the respiratory medicine clinic?] Lores Obradors L, et al. **Arch Bronconeumol** 1999 May;35(5):219–22 (Eng. Abstr.) **(Spa)**

[The Internet for pneumologists and thoracic surgeons: an interactive fantasy (editorial)] Moreno Balsalobre R, et al. **Arch Bronconeumol** 1999 Jan;35(1):1–4 (19 ref.) **(Spa)**

[Techniques of basic research in pneumology] Pérez Arellano JL, et al. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:5–8 **(Spa)**

[The most common errors in the use of statistics in pneumology research] Rodríguez Salvanés FJ. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:18–21 **(Spa)**

EDUCATION

Realizing the promise: delivering pulmonary continuing medical education over the Internet. Peterson MW, et al. **Chest** 1999 May;115(5):1429–36

Pulmonary rehabilitation: Sisyphus or Odysseus? [editorial] Seifer FD, et al. **Chest** 1999 Feb;115(2):311–3

Pulmonary and critical care medicine: a peculiarly American hybrid? [editorial] Tobin MJ, et al. **Thorax** 1999 Apr; 54(4):286–7

[Methodology for assessing continuing medical education at the first united French congress of pneumology] Vergnenègre A, et al. **Rev Mal Respir** 1998 Dec;15(6):773–9 (Eng. Abstr.) **(Fre)**

[The Revue de Pneumologie Clinique and continuing medical education (editorial)] Mayaud C, et al. **Rev Pneumol Clin** 1998 Feb;54(1):5–6 **(Fre)**

[Training of high-skilled researchers at the Saint-Petersburg Research Institute of Phtisiopulmonology in 1994–1998] Vinogradova TI. **Probl Tuberk** 1999;(3):50–2 (0 ref.) (Eng.

Abstr.) **(Rus)**

[Teaching of pulmonology to undergraduate medical students (editorial)] Villamor León J, et al. **Arch Bronconeumol** 1999 Jul-Aug;35(7):305-7 **(Spa)**

HISTORY

NHLBI at 50: reflections on a half-century of research on the heart, lungs, and blood. National Heart, Lung, and Blood Institute [interview by Charles Marwick] Lenfant C. **JAMA** 1998 Dec 23-30;280(24):2062-4

[On the centenary of the birth of Dezső Kassay] Szállási A. **Orv Hetil** 1999 Mar 7;140(10):545-6 **(Hun)**

[On scientific heritage of N.S. Mochanov in the field of pulmonology (on the 100th anniversary of his birth)] Shustov SB, et al. **Klin Med (Mosk)** 1999;77(5):63-4 **(Rus)**

[History of the origin and the first 9 years of life of Archivos de Bronconeumologia] Guallar Segarra J. **Arch Bronconeumol** 1999 Jun;35(6):287-93 **(Spa)**

LEGISLATION & JURISPRUDENCE

[Liability of the pneumonologist. Recent medical civil legislation] Allery JP, et al. **Rev Pneumol Clin** 1998 May; 54(2):73-8 (Eng. Abstr.) **(Fre)**

[Smoking habits in German clinics with pulmonary specialization] Butt U, et al. **Pneumologie** 1999 Jan; 53(1):18-9 **(Ger)**

MANPOWER

[Respiratory resuscitation in Quebec. General aspects and implications of pneumologists in intensive care units in "New France"] Lesur O, et al. **Rev Mal Respir** 1999 Jun; 16(3):329-33 (Eng. Abstr.) **(Fre)**

METHODS

Of shadows and wind. Callahan CW. **Pediatr Pulmonol** 1998 Aug;26(2):145-6 (4 ref.)

[Diagnostic kinesitherapy tools in pneumology] Gouilly E, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S136-7 **(Fre)**

[Asthma remains a major preoccupation for the allergist and the pneumonologist (editorial)] Spertini F. **Rev Med Suisse Romande** 1999 Mar;119(3):209 **(Fre)**

[Diagnostic pneumology using model aerosols] Scheuch G, et al. **Pneumologie** 1999 Jul;53(7):329-36 (Eng. Abstr.) **(Ger)**

[The XXIX International conference on tuberculosis and pulmonary diseases. (IUATLD/UICTMR) Global Congress on lung health. Bangkok, Thailand, November 23-26, 1998] Erokhin VV. **Probl Tuberk** 1999;(4):53 **(Rus)**

[Scientific conference on radiation studies and differential diagnosis in phthisiology and pulmonology] Sigaev AT. **Probl Tuberk** 1998;(6):68 **(Rus)**

STANDARDS

A re-audit of pulmonary function laboratories in the West Midlands. Dowson LJ, et al. **Respir Med** 1998 Sep; 92(9):1155-62

STATISTICS & NUMERICAL DATA

Assessment of asthma severity in adults with asthma treated by family practitioners, allergists, and pulmonologists. Eisner MD, et al. **Med Care** 1998 Nov;36(11):1567-77

TRENDS

Recent changes: pulmonary medicine. Roche N. **BMJ** 1999 Jan 16;318(7177):171-6 (48 ref.)

The "shoulders of giants", again [editorial] Jones NL. **Can Respir J** 1999 May-Jun;6(3):217

[The relationship between intensive care medicine and pneumology in Switzerland. The situation in 1998] Chevrolet JC, et al. **Rev Mal Respir** 1999 Jun;16(3):317-24 (Eng. Abstr.) **(Fre)**

[Series on "respiratory resuscitation" published under the aegis of the Resuscitation Group of the French-Language Society of Pneumology] Similowski T, et al. **Rev Mal Respir** 1999 Jun;16(3):305-6 **(Fre)**

[Pneumology and resuscitation. A typical American marriage?] Tobin MJ. **Rev Mal Respir** 1999 Jun;16(3):335-7 **(Fre)**

[Pneumology] Seeger W. **Internist (Berl)** 1999 Apr; 40(4):391-400 (19 ref.) **(Ger)**

PULMONARY DISEASE, CHRONIC OBSTRUCTIVE see **LUNG DISEASES, OBSTRUCTIVE**

PULMONARY DISEASES see **LUNG DISEASES**

PULMONARY EDEMA

Environmental pulmonary edema: an update. Cordasco EM Sr, et al. **Rev Environ Health** 1998 Jan-Jun;13(1-2):27-57 (215 ref.)

[Acute hemodynamic pulmonary edema (cardiogenic or overload)] Michard F, et al. **Rev Prat** 1999 Feb 15; 49(4):415-8 (4 ref.) **(Fre)**

BLOOD

Dose-response relationship between plasma epinephrine concentration and alveolar liquid clearance in dogs. Maron MB. **J Appl Physiol** 1998 Nov;85(5):1702-7

CHEMICALLY INDUCED

Bronchial injury and pulmonary edema caused by hydrogen sulfide poisoning [letter] Tanaka S, et al. **Am J Emerg Med** 1999 Jul;17(4):427-9

Pertussis toxin-induced lung edema. Role of manganese superoxide dismutase and protein kinase C. Tsan MF, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):465-73

Noncardiogenic pulmonary edema and rhabdomyolsis after protamine administration in a patient with unrecognized McArdle's disease. Lobato EB, et al. **Anesthesiology** 1999 Jul;91(1):303-5

Hydrochlorothiazide-induced pulmonary edema and associated immunologic changes. Bernal C, et al. **Ann Pharmacother** 1999 Feb;33(2):172-4

Noncardiogenic pulmonary edema immediately following rapid protamine administration. Brooks JC. **Ann Pharmacother** 1999 Sep;33(9):927-30

Comment: hydrochlorothiazide-induced pulmonary edema and associated immunologic changes [letter] Chittivelu S. **Ann Pharmacother** 1999 Sep;33(9):1010-1

Pulmonary edema associated with troglitazone therapy [letter] Hirsch IB, et al. **Arch Intern Med** 1999 Aug 9-23; 159(15):1811

Vinorelbine-related acute cardiopulmonary toxicity. Karminsky N, et al. **Cancer Chemother Pharmacol** 1999; 43(2):180-2 (11 ref.)

Pulmonary edema as an acute complication of ritodrine therapy in the presence of maternal intrauterine infection. Takeuchi K, et al. **Clin Exp Obstet Gynecol** 1998; 25(3):99-100

Etiology and prevention of pulmonary complications following beta-mimetic mediated tocolysis [editorial] Bader AM, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct; 80(2):133-7

Acute pulmonary edema following amphetamine ingestion [letter] Maury E, et al. **Intensive Care Med** 1999 Mar; 25(3):332-3

Acute pulmonary edema caused by accidental aspiration of sweetened water in two cases of diabetes mellitus. Kaneki T, et al. **Intern Med** 1998 Nov;37(11):969-72

Pulmonary edema during acute infusion of epoprostenol in a patient with pulmonary hypertension and limited scleroderma. Farber HW, et al. **J Rheumatol** 1999 May; 26(5):1195-6

Contrast medium-induced pulmonary edema is aggravated by silicone contamination in rats. Sendo T, et al. **Radiology** 1999 Jul;212(1):97-102

Effect of Fenoterol on PAF-induced lung edema in isolated and perfused rabbit lungs. Pesce L, et al. **Respir Physiol** 1998 Nov;114(2):153-60

[Pulmonary edema after anesthesia with sevoflurane] Jensen K. **Ugeskr Laeger** 1999 Apr 5;161(14):2105 **(Dan)**

[Severe flecainide acetate poisoning. Apropos of a case] Maury P, et al. **Arch Mal Coeur Vaiss** 1999 Feb;92(2):273-7 (10 ref.) (Eng. Abstr.) **(Fre)**

[Pulmonary edema associated with the Chinese medicine shosaikoto] Miyazaki E, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep;36(9):776-80 (Eng. Abstr.) **(Jpn)**

[Pulmonary edema caused by nitrogen dioxide inhalation (letter)] Fernández Vázquez E, et al. **Arch Bronconeumol** 1999 Feb;35(2):101-2 **(Spa)**

[Acute pulmonary edema after anesthesia with sevoflurane (letter)] González-Moya JE, et al. **Arch Bronconeumol** 1999 Apr;35(4):194 **(Spa)**

COMPLICATIONS

The use of noninvasive pressure support ventilation for severe respiratory insufficiency due to pulmonary oedema [see comments] Hoffmann B, et al. **Intensive Care Med** 1999 Jan;25(1):15-20. Comment in: Intensive Care Med 1999 Jan;25(1):1-2.

Pulmonary edema in cerebral malaria patients in Thailand. Aursudkij B, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):541-5

Endotracheal intubation and mechanical ventilation following respiratory arrest from high altitude pulmonary edema. Litch JA. **West J Med** 1999 Mar;170(3):174-6

[Neurogenic pulmonary edema during subarachnoid hemorrhage] Di Giugno G, et al. **Minerva Anestesiol** 1998 May;64(5):229-30 (Eng. Abstr.) **(Ita)**

[Prolonged isoflurane inhalation in a patient with bronchospasm associated with lung edema] Kato H, et al. **Masui** 1999 Apr;48(4):377-80 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Estimation of non-cardiogenic pulmonary oedema using dual-frequency electrical impedance. Raaijmakers E, et al. **Med Biol Eng Comput** 1998 Jul;36(4):461-6

Simultaneous estimation of pulmonary edema and tissue oxygenation by near-infrared spectroscopy. Shibata S, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):178-9

[Diagnostic imaging in intensive care. Techniques, indications, diagnostic signs--II] Bankier A, et al. **Internist (Berl)** 1999 Mar;40(3):W294-304 (18 ref.) **(Ger)**

[Reversal of therapy of postoperative complications by measuring lung water] Mothes H, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1099-101 (Eng. Abstr.) **(Ger)**

[Acute dyspnea after lumbar spine surgery] Calvo Romero JM, et al. **Rev Clin Esp** 1999 Feb;199(2):103-4 **(Spa)**

DRUG THERAPY

Stimulation of the dopamine 1 receptor increases lung edema clearance. Barnard ML, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):982-6

Dopamine restores lung ability to clear edema in rats exposed to hyperoxia. Saldias FJ, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):626-33

Effects of inhaled nitric oxide and oxygen in high-altitude pulmonary edema. Anand IS, et al. **Circulation** 1998 Dec 1;98(22):2441-5

Isoproterenol improves ability of lung to clear edema in rats exposed to hyperoxia. Saldias FJ, et al. **J Appl Physiol** 1999 Jul;87(1):30-5

Post-exposure treatment with isoproterenol attenuates pulmonary edema in phosgene-exposed rabbits. Sciuto AM, et al. **J Appl Toxicol** 1998 Sep-Oct;18(5):321-9

Nitrate therapy is an alternative to furosemide/morphine therapy in the management of acute cardiogenic pulmonary edema. Beltrame JF, et al. **J Card Fail** 1998 Dec;4(4):271-9

[Sublingual nitroglycerin or intravenous enalaprilat in preclinical treatment of hypertensive patients with pulmonary edema] Hirschl MM, et al. **Z Kardiol** 1999 Mar; 88(3):208-14 (Eng. Abstr.) **(Ger)**

[Effects of human atrial natriuretic polypeptide in a patient with acute pulmonary edema during living-related kidney transplantation] Sasaki J, et al. **Masui** 1999 Feb;48(2):201-2 (Eng. Abstr.) **(Jpn)**

ETIOLOGY

HELLP syndrome with antepartum pulmonary edema--a case report. Chang HC, et al. **Acta Anaesthesiol Sin** 1999 Mar;37(1):41-4

Negative-pressure pulmonary edema: a complication of shoulder arthroscopy. Langan P, et al. **Am J Orthop** 1999 Jan;28(1):56-8

Negative-pressure pulmonary edema associated with saber-sheath trachea. Jacka MJ, et al. **Anesthesiology** 1999 Apr;90(4):1209-11

Prediction rule for renal artery stenosis [letter; comment] Rajput V, et al. **Ann Intern Med** 1999 Aug 3;131(3):228. Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

Influence of inhaled nitric oxide and hyperoxia on Na,K-ATPase expression and lung edema in newborn piglets. Youssef JA, et al. **Biol Neonate** 1999 Mar; 75(3):199-209

Acute systemic reaction and lung alterations induced by an antiplatelet integrin gpIIb/IIIa antibody in mice. Nieswandt B, et al. **Blood** 1999 Jul 15;94(2):684-93

Transfusion-related acute lung injury. Kopko PM, et al. **Br J Haematol** 1999 May;105(2):322-9 (48 ref.)

Negative pressure pulmonary oedema induced by direct suctioning of endotracheal tube adapter. Pang WW, et al. **Can J Anaesth** 1998 Aug;45(8):785-8

Fatal postoperative pulmonary edema: pathogenesis and literature review [see comments] Arieff AI. **Chest** 1999 May;115(5):1371-7 (45 ref.). Comment in: Chest 1999 May;115(5):1224-6.

Acute pulmonary edema after lung transplantation: the pulmonary reimplantation response. Khan SU, et al. **Chest** 1999 Jul;116(1):187-94

Perioperative fluid therapy and postoperative pulmonary edema: cause-effect relationship? [editorial; comment] Kirby RR. **Chest** 1999 May;115(5):1224-6. Comment on: Chest 1999 May;115(5):1371-7.

Postpneumonectomy pulmonary edema. Deslauriers J, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):611-31, ix (46 ref.)

Exaggerated endothelin release in high-altitude pulmonary edema. Sartori C, et al. **Circulation** 1999 May 25; 99(20):2665-8

Noncardiogenic pulmonary edema during vivax malaria. Curlin ME, et al. **Clin Infect Dis** 1999 May;28(5):1166-7

Intravital laser confocal microscopy of pulmonary edema resulting from intestinal ischemia-reperfusion injury in the rat [see comments] Mitsuoka H, et al. **Crit Care Med** 1999 Sep;27(9):1862-8. Comment in: Crit Care Med 1999 Sep;27(9):2046-7.

Altitude-related illness in children. Carpenter TC, et al. **Curr Probl Pediatr** 1998 Jul;28(6):177-98 (70 ref.)

Neurogenic pulmonary oedema after generalized epileptic seizure. Brambrink AM, et al. **Eur J Emerg Med** 1998 Mar; 5(1):59-66

Prediction of patients with higher order multifetal pregnancy at risk for postpartum pulmonary edema. Masue T, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;81(1):33-6

Non-cardiogenic pulmonary oedema in vascular surgery. Pararajasingam R, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):93-105 (154 ref.)

Haemoptysis after breath-hold diving. Boussuges A, et al. **Eur Respir J** 1999 Mar;13(3):697-9

A case of fatal salt water intoxication following an exorcism session. Hédouin V, et al. **Forensic Sci Int** 1999 Jan 4; 99(1):1-4

Dilated cardiomyopathy in thyrotoxicosis. Goland S, et al. **Heart** 1999 Apr;81(4):444-5

A rare cause of non-cardiogenic pulmonary oedema. Meghjee SP, et al. **Hosp Med** 1999 Feb;60(2):142

Reexpansion pulmonary edema with acute hypovolemia [letter] Cinnella G, et al. **Intensive Care Med** 1998 Oct; 24(10):1117

Noninvasive pressure support ventilation (NIPSV) with face mask in patients with acute cardiogenic pulmonary edema (ACPE) [see comments] Rusterholtz T, et al. **Intensive Care Med** 1999 Jan;25(1):21–8. Comment in: Intensive Care Med 1999 Jan;25(1):1–2.

Mitral regurgitation presenting as localised right middle lobe pulmonary oedema. Chen JC, et al. **J Accid Emerg Med** 1999 Jan;16(1):72–3

Isoproterenol improves ability of lung to clear edema in rats exposed to hyperoxia. Saldías FJ, et al. **J Appl Physiol** 1999 Jul;87(1):30–5

Effect of cardiogenic and noncardiogenic pulmonary edema on histamine responsiveness in sheep. Snapper JR, et al. **J Appl Physiol** 1998 Nov;85(5):1635–42

Interstitial pulmonary edema in children and adolescents with diabetic ketoacidosis. Hoffman WH, et al. **J Diabetes Complications** 1998 Nov–Dec;12(6):314–20

Negative-pressure pulmonary edema: a potential hazard in patients undergoing ECT [letter] Cochran M, et al. **J ECT** 1999 Jun;15(2):168–70

Collapse and massive pulmonary edema secondary to thrombosis of a mitral mechanical heart valve prosthesis during low-molecular weight heparin therapy. Idir M, et al. **J Heart Valve Dis** 1999 May;8(3):303–4

Physiologic basis of pulmonary edema during intestinal reperfusion. Iglesias JL, et al. **J Surg Res** 1998 Dec; 80(2):156–63

Stent fracture in a Carpentier-Edwards supra-annular porcine bioprosthesis implanted in the mitral position. Hurlé A, et al. **J Thorac Cardiovasc Surg** 1999 Jul; 118(1):197–9

A case study and national database report of progressive systemic sclerosis and associated conditions. Phillips D, et al. **J Womens Health** 1998 Nov;7(9):1099–104 (13 ref.)

Pulmonary edema after resection of a fourth ventricle tumor: possible evidence for a medulla-mediated mechanism. Keegan MT, et al. **Mayo Clin Proc** 1999 Mar;74(3):264–8

Acute pulmonary edema associated with placement of waist-high, custom-fit compression stockings [see comments] McCardell CS, et al. **Mayo Clin Proc** 1999 May; 74(5):478–80. Comment in: Mayo Clin Proc 1999 Sep;74(9):946.

Acute pulmonary edema and compression garments [letter; comment] Nicholas JJ. **Mayo Clin Proc** 1999 Sep;74(9):946 . Comment on: Mayo Clin Proc 1999 May;74(5):478–80.

High altitude pulmonary edema. Bärtsch P. **Med Sci Sports Exerc** 1999 Jan;31(1 Suppl):S23–7 (59 ref.)

'Flash pulmonary oedema' in a patient 24 years after aorto-renal vein graft. Farmer CK, et al. **Nephrol Dial Transplant** 1999 May;14(5):1310–2

An unusual case of obstructive pulmonary oedema. Dillon PJ, et al. **Paediatr Anaesth** 1998;8(6):520–2

Radiation induced endothelial cell retraction in vitro: correlation with acute pulmonary edema. Onoda JM, et al. **Pathol Oncol Res** 1999;5(1):49–55

Pulmonary edema as a result of chronic upper airway obstruction. Meissner HH, et al. **Respir Med** 1998 Sep; 92(9):1174–6

Sudden death in two patients with epilepsy and the syndrome of inappropriate antidiuretic hormone secretion (SIADH). Kloster R, et al. **Seizure** 1998 Oct;7(5):419–20

Negative pressure pulmonary oedema caused by biting and endotracheal tube occlusion--a case for oropharyngeal airways. Liu EH, et al. **Singapore Med J** 1999 Mar; 40(3):174–5

Postoperative pulmonary edema. Lathan SR, et al. **South Med J** 1999 Mar;92(3):313–5

Transfusion-related acute lung injury. Silliman CC. **Transfus Med Rev** 1999 Jul;13(3):177–86 (50 ref.)

[Lung damage due to mechanical ventilation] Plötz FB, et al. **Ned Tijdschr Geneeskd** 1999 Jan 16;143(3):133–6 (33 ref.) (Eng. Abstr.) **(Dut)**

[Acute multiple sclerosis, left ventricular failure and pulmonary edema] Melin J, et al. **Duodecim** 1995; 111(22):2170–4 **(Fin)**

[Re-expansion pulmonary edema after excision of an intrathoracic tumor] Angel G, et al. **Ann Fr Anesth Reanim** 1997;16(4):370–3 (Eng. Abstr.) **(Fre)**

[Treatment of severe cardiogenic pulmonary edema with continuous positive-pressure ventilation using a cuffed cannula Copa] Avril-Chaize C, et al. **Ann Fr Anesth Reanim** 1999 Apr;18(4):451–3 (Eng. Abstr.) **(Fre)**

[Sever acute pulmonary edema after peri-anesthetic laryngospasm in a newborn infant] Carré P, et al. **Ann Fr Anesth Reanim** 1998;17(9):1140–3 (Eng. Abstr.) **(Fre)**

[Spontaneous ventilation in positive expiratory pressure in cardiogenic pulmonary edema. Prospective study] Bouquin V, et al. **Arch Mal Coeur Vaiss** 1998 Oct;91(10):1243–8 (Eng. Abstr.) **(Fre)**

[Reexpansion pulmonary edema] Ben M'Rad S, et al. **Rev Pneumol Clin** 1999 Apr;55(2):105–8 (Eng. Abstr.) **(Fre)**

[Labile blood products from donors immunized against the HLA system. Apropos of a case of transfusional pulmonary edema] Fruchart MF, et al. **Transfus Clin Biol** 1998 Dec; 5(6):381–4 (Eng. Abstr.) **(Fre)**

[Hyponatremia and lung edema in endometrium ablation with rollerball ablation] Klinzing S, et al. **Zentralbl Gynakol** 1999;121(2):98–100 (Eng. Abstr.) **(Ger)**

[Pulmonary re-expansion edema. Description of two cases and observations about its management] Biffoli F, et al. **Minerva Anestesiol** 1999 Jul–Aug;65(7–8):575–9 (Eng. Abstr.) **(Ita)**

[Acute pulmonary edema from contrast media. A clinical case] di Lauro E, et al. **Minerva Anestesiol** 1999 Jul–Aug; 65(7–8):581–7 (Eng. Abstr.) **(Ita)**

[Pulmonary edema due to acute airway obstruction immediately after tracheal extubation] Kadota Y, et al. **Masui** 1998 Nov;47(11):1333–7 (Eng. Abstr.) **(Jpn)**

[Radiographic diagnosis of cardiogenic pulmonary edema] Matsuyama S, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 May; 59(6):223–30 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Pulmonary edema--from etiology to treatment] Kawakami Y. **Nippon Naika Gakkai Zasshi** 1999 Feb 20;88 Suppl:69–73 (13 ref.) **(Jpn)**

[Cardiopulmonary complications in acute subarachnoid hemorrhage] Rørbakken G, et al. **Tidsskr Nor Laegeforen** 1998 Sep 20;118(22):3430–4 (Eng. Abstr.) **(Nor)**

[Pulmonary edema associated with upper airway obstruction (letter)] Antón Aranda EJ, et al. **An Med Interna** 1999 Jul; 16(7):381–2 **(Spa)**

IMMUNOLOGY

Hydrochlorothiazide-induced pulmonary edema and associated immunologic changes. Bernal C, et al. **Ann Pharmacother** 1999 Feb;33(2):172–4

METABOLISM

Time domain reflectometry: measurement of free water in normal lung and pulmonary edema. Miura N, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L207–12

Ischemia-reperfusion lung injury in rabbits: mechanisms of injury and protection. Sakuma T, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L137–45

Stimulation of the dopamine 1 receptor increases lung edema clearance. Barnard ML, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):982–6

Alveolar epithelial fluid transport capacity in reperfusion lung injury after lung transplantation. Ware LB, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):980–8

Elevated pulmonary edema fluid concentrations of soluble intercellular adhesion molecule-1 in patients with acute lung injury: biological and clinical significance. Conner ER, et al. **Chest** 1999 Jul;116(1 Suppl):83S–84S

Interstitial pressure and proteoglycan degradation in hydraulic- and elastase-induced lung edema. Miserocchi G, et al. **Chest** 1999 Jul;116(1 Suppl):31S

Exaggerated endothelin release in high-altitude pulmonary edema. Sartori C, et al. **Circulation** 1999 May 25; 99(20):2665–8

The sensitivity of versican from rabbit lung to gelatinase A (MMP-2) and B (MMP-9) and its involvement in the development of hydraulic lung edema. Passi A, et al. **FEBS Lett** 1999 Jul 30;456(1):93–6

MICROBIOLOGY

Role of nitric oxide in sepsis-associated pulmonary edema. Hinder F, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):252–7

Ehrlichiosis with severe pulmonary manifestations despite early treatment. Weaver RA, et al. **South Med J** 1999 Mar; 92(3):336–9

MORTALITY

A retrospective study of near-drowning victims admitted to the intensive care unit. Lee KH. **Ann Acad Med Singapore** 1998 May;27(3):344–6

The effect of positive pressure airway support on mortality and the need for intubation in cardiogenic pulmonary edema: a systematic review. [see comments] Pang D, et al. **Chest** 1998 Oct;114(4):1185–92 (23 ref.). Comment in: ACP J Club 1999 May–Jun;130(3):58.

PARASITOLOGY

Pulmonary oedema in vivax malaria. Pukrittayakamee S, et al. **Trans R Soc Trop Med Hyg** 1998 Jul–Aug;92(4):421–2

PATHOLOGY

Inhaled nitric oxide reduces tyrosine nitration after lipopolysaccharide instillation into lungs of rats. Honda K, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):678–88

Intravital laser confocal microscopy of pulmonary edema resulting from intestinal ischemia-reperfusion injury in the rat [see comments] Mitsuoka H, et al. **Crit Care Med** 1999 Sep;27(9):1862–8. Comment in: Crit Care Med 1999 Sep;27(9):2046–7.

Shining some light on the development of pulmonary edema [editorial; comment] Schenkman KA, et al. **Crit Care Med** 1999 Sep;27(9):2046–7. Comment on: Crit Care Med 1999 Sep;27(9):1862–8.

Endothelial cell changes are associated with pulmonary edema and respiratory distress in mice infected with the WA1 human Babesia parasite. Hemmer RM, et al. **J Parasitol** 1999 Jun;85(3):479–89

Radiation induced endothelial cell retraction in vitro: correlation with acute pulmonary edema. Onoda JM, et al. **Pathol Oncol Res** 1999;5(1):49–55

Treatment of adult respiratory distress syndrome: plea for rescue therapy of the alveolar epithelium. Berthiaume Y, et al. **Thorax** 1999 Feb;54(2):150–60 (154 ref.)

[Pathology of diseases responsible for the development of respiratory insufficiency] Nagai A. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):45–50 (5 ref.) **(Jpn)**

PHYSIOPATHOLOGY

Circadian rhythm of acute pulmonary edema. Kitzis I, et al. **Am J Cardiol** 1999 Feb 1;83(3):448–50, A9

Role of nitric oxide in sepsis-associated pulmonary edema. Hinder F, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):252–7

Ventilator-associated lung injury decreases lung ability to clear edema in rats. Lecuona E, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):603–9

Pulmonary ischemia/reperfusion injury: a quantitative study of structure and function in isolated heart-lungs of the rat. Fehrenbach H, et al. **Anat Rec** 1999 May 1;255(1):84–9

Anesthetic management of the parturient with systemic lupus erythematosus, pulmonary hypertension, and pulmonary edema. Cuenco J, et al. **Anesthesiology** 1999 Aug; 91(2):568–70

Increasing airway pressures can promote transvascular edema reabsorption. Effros RM, et al. **Chest** 1999 Jul;116(1 Suppl):30S–31S

Ventilator-associated lung injury decreases lung ability to clear edema and downregulates alveolar epithelial cell Na,K-adenosine triphosphatase function. Lecuona E, et al. **Chest** 1999 Jul;116(1 Suppl):29S–30S

Augmented sympathetic activation during short-term hypoxia and high-altitude exposure in subjects susceptible to high-altitude pulmonary edema. Duplain H, et al. **Circulation** 1999 Apr 6;99(13):1713–8

Cerebral blood flow velocity responses to hypoxia in subjects who are susceptible to high-altitude pulmonary oedema. Berré J, et al. **Eur J Appl Physiol** 1999 Sep;80(4):260–3

High altitude maladies: recent trends in medical management. Selvamurthy W, et al. **Int J Biometeorol** 1998 Dec; 42(2):61–4 (57 ref.)

Radiographic evidence of interstitial pulmonary edema after exercise at altitude. Anholm JD, et al. **J Appl Physiol** 1999 Feb;86(2):503–9

Vagal afferents and active upper airway closure during pulmonary edema in lambs. Diaz V, et al. **J Appl Physiol** 1999 May;86(5):1561–9

Effects of capsaicin pretreatment on expiratory laryngeal closure during pulmonary edema in lambs. Diaz V, et al. **J Appl Physiol** 1999 May;86(5):1570–7

Dose-response relationship between plasma epinephrine concentration and alveolar liquid clearance in dogs. Maron MB. **J Appl Physiol** 1998 Nov;85(5):1702–7

Dynamics of lung collapse and recruitment during prolonged breathing in porcine lung injury. Neumann P, et al. **J Appl Physiol** 1998 Oct;85(4):1533–43

Effect of cardiogenic and noncardiogenic pulmonary edema on histamine responsiveness in sheep. Snapper JR, et al. **J Appl Physiol** 1998 Nov;85(5):1635–42

Volume recruitment and oxygenation in pulmonary edema: a comparison between HFOV and CMV. Sznajder JI, et al. **J Crit Care** 1998 Sep;13(3):126–35

Physiologic basis of pulmonary edema during intestinal reperfusion. Iglesias JL, et al. **J Surg Res** 1998 Dec; 80(2):156–63

Effect of nasal continuous positive airway pressure on pulmonary edema complicating acute myocardial infarction. Takeda S, et al. **Jpn Circ J** 1998 Aug;62(8):553–8

Effect of hyaluronidase on albumin diffusion in lung interstitium. Qiu XL, et al. **Lung** 1999;177(5):273–88

Pulmonary edema after resection of a fourth ventricle tumor: possible evidence for a medulla-mediated mechanism. Keegan MT, et al. **Mayo Clin Proc** 1999 Mar;74(3):264–8

Thoracic-fluid conductivity in peripartum women with pulmonary edema. Newman RB, et al. **Obstet Gynecol** 1999 Jul;94(1):48–51

The influence of extravascular lung water on cardiac output measurements using thoracic impedance cardiography. Raaijmakers E, et al. **Physiol Meas** 1998 Nov;19(4):491–9

Pulmonary haemodynamics in acute experimental lung vascular injury. Herget J. **Physiol Res** 1997;46(5):341–4

Effect of Fenoterol on PAF-induced lung edema in isolated and perfused rabbit lungs. Pesce L, et al. **Respir Physiol** 1998 Nov;114(2):153–60

Simultaneous estimation of pulmonary edema and tissue oxygenation by near-infrared spectroscopy. Shibata S, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):178–9

The pathophysiology of high altitude pulmonary edema. Grissom CK, et al. **Wilderness Environ Med** 1999 Summer; 10(2):88–92 (32 ref.)

PREVENTION & CONTROL

Prevention of recurrent pulmonary edema in patients with bilateral renovascular disease through renal artery stent placement. Bloch MJ, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):1–7

Etiology and prevention of pulmonary complications

following beta-mimetic mediated tocolysis [editorial] Bader AM, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct; 80(2):133-7

A leukocyte elastase inhibitor reduces thrombin-induced pulmonary oedema in the rat: mechanisms of action. Ahn CM, et al. **Pulm Pharmacol Ther** 1998;11(4):291-9

[Effects of long-term preoperative administration of low-dose erythromycin on warm ischemia-reperfusion pulmonary injury] Kaji M, et al.
Nihon Kokyuki Gakkai Zasshi 1998 Nov;36(11):939-47 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

A 16-year-old with left-sided pneumothorax. Mendonca C, et al. **Chest** 1999 Mar;115(3):881-2

Quiz case I. Unilateral lung edema due to the pulmonary re-expansion. Andreu J, et al. **Eur J Radiol** 1998 Jul; 27(3):250-3

Unilateral pulmonary oedema complicating supine bicycle exercise echocardiography. Völler H, et al. **Heart** 1999 Apr;81(4):351

Radiographic evidence of interstitial pulmonary edema after exercise at altitude. Anholm JD, et al. **J Appl Physiol** 1999 Feb;86(2):503-9

Hydrostatic pulmonary edema: evaluation with thin-section CT in dogs. Scillia P, et al. **Radiology** 1999 Apr; 211(1):161-8

[Imaging in intensive medicine. Techniques. Indications, diagnostic signs. II] Bankier A, et al. **Radiologe** 1998 Dec; 38(12):1089-99 **(Ger)**

[Radiographic diagnosis of cardiogenic pulmonary edema] Matsuyama S, et al.
Nippon Igaku Hoshasen Gakkai Zasshi 1999 May; 59(6):223-30 (14 ref.) (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE IMAGING

[Quantitative study of 99mTc-Technegas SPECT for ventilatory impairment in pulmonary emphysema] Mitani M, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 May; 59(6):261-4 (Eng. Abstr.) **(Jpn)**

SURGERY

[Volume reduction surgery for the treatment of pulmonary edema] Yoshida M, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):82-8 (5 ref.) **(Jpn)**

[Volume-reduction surgery for pulmonary edema] Jiménez Castro D, et al. **Rev Clin Esp** 1999 Jul;199(7):449-55 (75 ref.) **(Spa)**

THERAPY

The use of extracorporeal membrane oxygenation in postpneumonectomy pulmonary oedema. Verhelst H, et al. **Acta Chir Belg** 1998 Dec;98(6):269-72

Prognostic factors in acute cardiogenic pulmonary edema. Le Conte P, et al. **Am J Emerg Med** 1999 Jul;17(4):329-32

Pulmonary edema in obstetric patients is rapidly resolved except in the presence of infection or of nitroglycerin tocolysis after open fetal surgery. DiFederico EM, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):925-33

The effect of positive pressure airway support on mortality and the need for intubation in cardiogenic pulmonary edema: a systematic review. [see comments] Pang D, et al. **Chest** 1998 Oct;114(4):1185-92 (23 ref.). Comment in: ACP J Club 1999 May-Jun;130(3):58.

Split lung ventilation in a patient with differential pulmonary hemodynamics [letter] Haas NA, et al.
Intensive Care Med 1998 Nov;24(11):1232-3

Acute pulmonary edema following amphetamine ingestion [letter] Maury E, et al. **Intensive Care Med** 1999 Mar; 25(3):332-3

Tracing best PEEP by applying PEEP as a RAMP. Punt CD, et al. **Intensive Care Med** 1998 Aug;24(8):821-8

Noninvasive ventilation in acute cardiogenic pulmonary edema: better than continuous positive airway pressure? [editorial; comment] Wysocki M. **Intensive Care Med** 1999 Jan;25(1):1-2. Comment on: Intensive Care Med 1999 Jan;25(1):15-20. Comment on: Intensive Care Med 1999 Jan;25(1):21-8.

Augmentation of lung liquid clearance via adenovirus-mediated transfer of a Na,K-ATPase beta1 subunit gene. Factor P, et al. **J Clin Invest** 1998 Oct 1; 102(7):1421-30

Volume recruitment and oxygenation in pulmonary edema: a comparison between HFOV and CMV. Sznajder JI, et al. **J Crit Care** 1998 Sep;13(3):126-35

[Treatment of severe cardiogenic pulmonary edema with continuous positive-pressure ventilation using a cuffed cannula Copa] Avril-Chaize C, et al.
Ann Fr Anesth Reanim 1999 Apr;18(4):451-3 (Eng. Abstr.) **(Fre)**

[Use of non-invasive positive pressure ventilation for cardiogenic pulmonary edema in emergency care units (editorial; comment)] Brochard L. **Presse Med** 1998 Jun 20;27(22):1105-7 (10 ref.) (Eng. Abstr.). Comment on: Presse Med 1998 Jun 20;27(22):1089-94. **(Fre)**

[Spontaneous positive end-expiratory pressure ventilation in elderly patients with cardiogenic pulmonary edema. Assessment in an emergency admissions unit (see comments)] L'Her E, et al. **Presse Med** 1998 Jun 20; 27(22):1089-94 (Eng. Abstr.). Comment in: Presse Med 1998 Jun 20;27(22):1105-7. **(Fre)**

[Non-invasive positive pressure ventilation in cardiogenic pulmonary edema] Hoffmann B, et al. **Med Klin** 1999 Apr; 94(1 Spec No):58-61 (Eng. Abstr.) **(Ger)**

[Noninvasive pressure support ventilation (NIPSV) as therapy for severe respiratory insufficiency due to pulmonary edema] Hoffmann B, et al. **Pneumologie** 1999 Jun;53(6):316-21 (Eng. Abstr.) **(Ger)**

[Pulmonary re-expansion edema. Description of two cases and observations about its management] Biffoli F, et al. **Minerva Anestesiol** 1999 Jul-Aug;65(7-8):575-9 (Eng. Abstr.) **(Ita)**

ULTRASONOGRAPHY

A lung ultrasound sign allowing bedside distinction between pulmonary edema and COPD: the comet-tail artifact. Lichtenstein D, et al. **Intensive Care Med** 1998 Dec; 24(12):1331-4

VETERINARY

Effect of melengestrol acetate on development of 3-methylindole-induced pulmonary edema and emphysema in sheep. Popp JD, et al. **Can J Vet Res** 1998 Oct; 62(4):268-74

Impairment of gas exchange due to alveolar oedema during xylazine sedation in sheep; absence of a free radical mediated inflammatory mechanism. Bacon PJ, et al.
Res Vet Sci 1998 Jul-Aug;65(1):71-5

Development of fumonisin-induced hepatotoxicity and pulmonary edema in orally dosed swine: morphological and biochemical alterations. Gumprecht LA, et al.
Toxicol Pathol 1998 Nov-Dec;26(6):777-88

PULMONARY EMBOLISM

Fatal pulmonary fat embolism in the early postoperative period. Heine TA, et al. **Anesthesiology** 1998 Dec; 89(6):1589-91

Deep venous thrombosis and pulmonary embolism: diagnosis, prophylaxis, and treatment. Alexander P, et al.
Ann Vasc Surg 1999 May;13(3):318-27 (48 ref.)

Paradoxical embolism [letter; comment] Cheng TO.
Circulation 1999 Jun 29;99(25):3323. Comment on: Circulation 1998 May 19;97(19):1946-51.

A chronic, massive thrombus in the right main pulmonary artery: a case report and echocardiographic analysis. Murata I, et al. **Jpn Circ J** 1999 Apr;63(4):312-4

[Pulmonary thromboembolism revisited (editorial; comment)] Ferreira D. **Rev Port Cardiol** 1999 Jun;18(6):573-5. Comment on: Rev Port Cardiol 1999 Jun;18(6):577-85. Comment on: Rev Port Cardiol 1999 Jun;18(6):601-7. **(Por)**

[Postoperative deep venous thrombosis of legs and pulmonary embolism] Baeshko AA, et al.
Khirurgiia (Mosk) 1999;(3):52-8 (Eng. Abstr.) **(Rus)**

[Pulmonary embolism on the eve of the 21th century (editorial)] Monreal Bosch M. **An Med Interna** 1999 Aug; 16(8):387-8 **(Spa)**

BLOOD

D-dimers in the diagnosis of pulmonary embolism. Quinn DA, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1445-9

The O blood group protects against venous thromboembolism in individuals with the factor V Leiden but not the prothrombin (factor II G20210A) mutation. González Ordóñez AJ, et al. **Blood Coagul Fibrinolysis** 1999 Jul;10(5):303-7

Effect of procainamide on pulmonary thromboembolism and platelet malondialdehyde in mice. Pang JX, et al.
Chung Kuo Yao Li Hsueh Pao 1996 Nov;17(6):500-2

Pulmonary embolism [letter; comment] Blatt PM.
N Engl J Med 1998 Nov 19;339(21):1556; discussion 1557 . Comment on: N Engl J Med 1998 Jul 9;339(2):93-104.

Endogenous nitric oxide acts as a natural antithrombotic agent in vivo by inhibiting platelet aggregation in the pulmonary vasculature. Emerson M, et al.
Thromb Haemost 1999 Jun;81(6):961-6

Plasma Lp(a) levels are increased in patients with chronic thromboembolic pulmonary hypertension. Ignatescu M, et al. **Thromb Haemost** 1998 Aug;80(2):231-2

Clinical usefulness of D-dimer tests in excluding pulmonary embolism is highly dependent upon age [letter] Mottier D, et al. **Thromb Haemost** 1998 Sep;80(3):527

[Troponin I in massive acute pulmonary embolism: results of a prospective series (letter)] Pacouret G, et al.
Presse Med 1998 Oct 24;27(32):1627 **(Fre)**

[Does D-dimer determination allow the exclusion of pulmonary embolism?] Bounameaux H.
Rev Pneumol Clin 1998 Jul;54(3):144-8 (20 ref.) (Eng. Abstr.) **(Fre)**

CHEMICALLY INDUCED

Pulmonary embolus possibly associated with clozapine treatment [letter] Lacika S, et al. **Can J Psychiatry** 1999 May;44(4):396-7

Pulmonary, cerebral and coronary emboli during bucrylate injection of bleeding fundic varices. Roesch W, et al.
Endoscopy 1998 Oct;30(8):S89-90

A case of fatal pulmonary thromboembolism associated with the use of intravenous estrogen therapy. Zreik TG, et al. **Fertil Steril** 1999 Feb;71(2):373-5

The role of methylmethacrylate monomer in the formation and haemodynamic outcome of pulmonary fat emboli [letter; comment] Parvizi J, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):369-70. Comment on: J Bone Joint Surg Br 1998 Jan;80(1):156-61.

[Pulmonary embolism in patients using estrogen-progestagen contraceptives] Lauque D, et al. **Presse Med** 1998 Oct 17; 27(31):1566-9 (Eng. Abstr.) **(Fre)**

[Mercury pulmonary embolism. Two case reports] Papadopoulos C, et al. **Rev Pneumol Clin** 1999 Mar; 55(1):43-6 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

Meconium aspiration syndrome complicated by massive intravascular thrombosis. Sergi C, et al. **Am J Perinatol** 1998 Jun;15(6):375-9

Massive bilateral pulmonary embolism in a patient with subsequent occurrence of severe mitral regurgitation due to ruptured chordae tendineae--a case report. Hussain KM, et al. **Angiology** 1998 Oct;49(10):861-4

Pulmonary embolism in patients with isolated soleal vein thrombosis. Ohgi S, et al. **Angiology** 1998 Sep;49(9):759-64

Prevalence of deep vein thrombosis in suspected and proven pulmonary embolism: a meta-analysis. van Rossum AB, et al. **Br J Radiol** 1998 Dec;71(852):1260-5

Inhaled nitric oxide does not alter pulmonary or cardiac effects of fat embolism in dogs after cemented arthroplasty. Byrick RJ, et al. **Can J Anaesth** 1999 Jun;46(6):605-12

Leukocytosis in acute pulmonary embolism. Afzal A, et al. **Chest** 1999 May;115(5):1329-32

Recurrent pulmonary embolism associated with Klippel-Trenaunay-Weber syndrome. Gianlupi A, et al. **Chest** 1999 Apr;115(4):1199-201

Successful treatment of right heart thromboemboli with IV recombinant tissue-type plasminogen activator during continuous echocardiographic monitoring: a case series report. Greco F, et al. **Chest** 1999 Jul;116(1):78-82

Thrombolysis with resolution of pulmonary hypertension in a heart transplant candidate. Lick S, et al. **Chest** 1999 Mar; 115(3):896-7

Reversible unilateral diaphragmatic paralysis in pulmonary embolism [letter] Pils K, et al. **Chest** 1999 Aug;116(2):587-8

Retrospective analysis of 196 patients with suspected pulmonary thromboembolism. Cherng SC, et al.
Chung Hua I Hsueh Tsa Chih (Taipei) 1999 Aug; 62(8):536-43

Free-floating thrombi in the right heart: diagnosis, management, and prognostic indexes in 38 co cutive patients. Chartier L, et al. **Circulation** 1999 ; 99(21):2779-83

Thrombolysis of mobile right atrial thrombi following severe pulmonary embolism. Cracowski JL, et al. **Clin Cardiol** 1999 Feb;22(2):151-4

Utility of thallium-201 scintigraphy in detecting right ventricular dysfunction in pulmonary embolism. Jasani RR, et al. **Clin Cardiol** 1999 Mar;22(3):239-41

Pulmonary embolism and impending paradoxical embolism: a role for transesophageal echocardiography? [letter; comment] Tanus-Santos JE, et al. **Clin Cardiol** 1999 Feb; 22(2):158-9. Comment on: Clin Cardiol 1998 May;21(5):363-4.

When atrial fibrillation occurs with pulmonary embolism, is it the chicken or the egg? [editorial] Flegel KM.
CMAJ 1999 Apr 20;160(8):1181-2 (28 ref.)

Volume loading for acute circulatory failure from pulmonary embolism [editorial; comment] Brower RG.
Crit Care Med 1999 Mar;27(3):461-2. Comment on: Crit Care Med 1999 Mar;27(3):540-4.

Hemodynamic effects of fluid loading in acute massive pulmonary embolism [see comments] Mercat A, et al.
Crit Care Med 1999 Mar;27(3):540-4. Comment in: Crit Care Med 1999 Mar;27(3):461-3.

Late massive haemoptyses from bronchopulmonary collaterals in infarcted segments following pulmonary embolism. Thomas CS, et al. **Eur Respir J** 1999 Feb; 13(2):463-4

Chronic thromboembolic pulmonary hypertension. Lang IM.
Indian Heart J 1999 Jan-Feb;51(1):27-30 (17 ref.)

Pulmonary embolization causes hypoxemia by redistributing regional blood flow without changing ventilation. Altemeier WA, et al. **J Appl Physiol** 1998 Dec; 85(6):2337-43

Pulmonary embolism: a follow-up study of the relation between the degree of right ventricle overload and the extent of perfusion defects. Ribeiro A, et al.
J Intern Med 1999 Jun;245(6):601-10

Pulmonary embolism during labor and the effect on the fetus monitored with oxycardiotocography. Fehervary P, et al. **J Perinat Med** 1998;26(5):404-7

Adnexal torsion and pulmonary embolism: case report and review of the literature. McGovern PG, et al.
Obstet Gynecol Surv 1999 Sep;54(9):601-8 (130 ref.)

Recurrent chest opacities in a patient with thromboembolic pulmonary hypertension. Wakamatsu K, et al.
Respiration 1998;65(6):492-4

Correlation between clinical and pathological features of pulmonary thromboemboli and the development of infarcts. Katsumura Y, et al. **Respirology** 1998 Sep;3(3):203-6

[Old, short of breath and confused; delirium as a manifestation of pulmonary embolism in geriatric patients (letter;

comment)] Bannink M. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1045; discussion 1046. Comment on: Ned Tijdschr Geneeskd 1998 Jan 31;142(5):217–21. **(Dut)**

[Old, short of breath and confused; delirium as a manifestation of pulmonary embolism in geriatric patients (letter; comment)] Bekker FM. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1046. Comment on: Ned Tijdschr Geneeskd 1998 Jan 31;142(5):217–21. **(Dut)**

[Old, short of breath and confused; delirium as a manifestation of pulmonary embolism in geriatric patients (letter; comment)] Delescen EC, et al. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1045; discussion 1046. Comment on: Ned Tijdschr Geneeskd 1998 Jan 31;142(5):217–21. **(Dut)**

[Clinical thinking and decision making in practice. A patient with pain in the upper abdomen] Schippers EF, et al. **Ned Tijdschr Geneeskd** 1998 Dec 12;142(50):2732–6 (Eng. Abstr.) **(Dut)**

[Old, short of breath and confused; delirium as a manifestation of pulmonary embolism in geriatric patients (letter; comment)] ter Braak GI. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1046. Comment on: Ned Tijdschr Geneeskd 1998 Jan 31;142(5):217–21. **(Dut)**

[Pulmonary embolism and anterior septal ischemia on the electrocardiogram: diagnostic trap. Two case reports] Lefebvre P, et al. **Rev Med Brux** 1999 Feb;20(1):31–4 (Eng. Abstr.) **(Fre)**

[Acute pulmonary heart disease caused by pulmonary artery embolism] Heintzen MP, et al. **Internist (Berl)** 1999 Jul; 40(7):710–21 (42 ref.) **(Ger)**

[Severe venous thrombosis in pulmonary embolism: physiopathological aspects] Mercuro G, et al. **Cardiologia** 1998 Jun;43 Suppl 1:53–7 (34 ref.) **(Ita)**

[Prevention of severe venous thrombosis in pulmonary embolism] Palareti G. **Cardiologia** 1998 Jun;43 Suppl 1:65–8 (16 ref.) **(Ita)**

[A case of pulmonary fat embolism and cardiac arrest after prosthetic replacement of the femoral stem] Mori K, et al. **Masui** 1999 Apr;48(4):416–8 (Eng. Abstr.) **(Jpn)**

[Mobile thrombus in the right cardiac cavities in patients with severe pulmonary thromboembolism. Importance of echocardiography] Mesa Rubio D, et al. **Rev Esp Cardiol** 1998 Aug;51(8):680–3 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Cost-effective diagnostic algorithms in pulmonary embolism: an updated analysis. van Erkel AR, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S321–7

Signs of massive intraoperative pulmonary embolism with extensive invasive monitoring. Toivonen HJ, et al. **Acta Anaesthesiol Scand** 1999 Jan;43(1):111–4

Idiopathic pulmonary vein thrombosis: detection by CT and MR imaging. Selvidge SD, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1639–41 (10 ref.)

Meconium aspiration syndrome complicated by massive intravascular thrombosis. Sergi C, et al. **Am J Perinatol** 1998 Jun;15(6):375–9

Accuracy of clinical assessment in the diagnosis of pulmonary embolism. Miniati M, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):864–71

D-dimers in the diagnosis of pulmonary embolism. Quinn DA, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1445–9

Evaluation of suspected pulmonary embolism utilizing end-tidal CO2 and D-dimer. Johanning JM, et al. **Am J Surg** 1999 Aug;178(2):98–102

Diagnosis of pulmonary embolism by use of urinary TNF alpha and its soluble TNF receptor I. Taheri SA, et al. **Angiology** 1999 Sep;50(9):703–6

Clinical model for management of pulmonary embolism [letter] Egermayer P. **Ann Intern Med** 1999 Sep 21; 131(6):475

Sensitivity and specificity of a rapid whole-blood assay for D-dimer in the diagnosis of pulmonary embolism [see comments] Ginsberg JS, et al. **Ann Intern Med** 1998 Dec 15;129(12):1006–11. Comment in: ACP J Club 1999 May-Jun;130(3):75.

Clinical model for management of pulmonary embolism [letter] Jay SJ. **Ann Intern Med** 1999 Sep 21;131(6):474–5; discussion 475

Clinical model for management of pulmonary embolism [letter] Pickard J. **Ann Intern Med** 1999 Sep 21;131(6):474; discussion 475

Use of a clinical model for safe management of patients with suspected pulmonary embolism. Wells PS, et al. **Ann Intern Med** 1998 Dec 15;129(12):997–1005

Clinical model for management of pulmonary embolism [letter] Whitney JF. **Ann Intern Med** 1999 Sep 21; 131(6):474; discussion 475

Pulmonary thromboembolectomy of donor lungs prior to lung transplantation. Nguyen DQ, et al. **Ann Thorac Surg** 1999 Jun;67(6):1787–9

Case of the month: the rest of the story. Hanzlick R, et al. **Arch Intern Med** 1999 Jun 14;159(11):1173–6

Normal D-dimer levels in patients with pulmonary embolism. Kutinsky I, et al. **Arch Intern Med** 1999 Jul 26; 159(14):1569–72

Review of 6-month mortality following low-probability lung scans. Rajendran JG, et al. **Arch Intern Med** 1999 Feb 22; 159(4):349–52

Bedside noninvasive detection of acute pulmonary embolism in critically ill surgical patients. Anderson JT, et al. **Arch Surg** 1999 Aug;134(8):869–74; discussion 874–5

CT pulmonary angiography. Stay tuned. Stella DL. **Aust Fam Physician** 1998 Nov;27(11):1050–1

Pulmonary embolism in a pilot. Borillo DJ. **Aviat Space Environ Med** 1998 Oct;69(10):1011–2

Diagnostic value of two rapid and individual D-dimer assays in patients with clinically suspected pulmonary embolism: comparison with microplate enzyme-linked immunosorbent assay. Meyer G, et al. **Blood Coagul Fibrinolysis** 1998 Oct;9(7):603–8

Modern management of pulmonary embolism. Tai NR, et al. **Br J Surg** 1999 Jul;86(7):853–68 (145 ref.)

Pulmonary embolism: opinions and facts [editorial; comment] Pistolesi M. **Cardiologia** 1999 Aug;44(8):743–5 (19 ref.). Comment on: Cardiologia 1999 Aug;44(8):735–41.

Re: Friday afternoon pulmonary arteriography (FAPA): replacement by Friday afternoon urokinase (FAUK) [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1998 Nov-Dec;21(6):514. Comment on: Cardiovasc Intervent Radiol 1997 Sep-Oct;20(5):404.

A patient with acute exacerbation of COPD who did not respond to conventional treatment. Stebbings AE, et al. **Chest** 1998 Dec;114(6):1759–61

Images in cardiovascular medicine. Spiral CT images of acute massive pulmonary embolism: before and after thrombolysis. Chang KC, et al. **Circulation** 1998 Dec 1; 98(22):2501–2

Venous thromboembolism in the intensive care unit. Legere BM, et al. **Clin Chest Med** 1999 Jun;20(2):367–84, ix (116 ref.)

Spiral CT and ventilation perfusion scintigraphy for the diagnosis of pulmonary embolism [letter; comment] Burkill G, et al. **Clin Radiol** 1998 Oct;53(10):784. Comment on: Clin Radiol 1998 Mar;53(3):177–82.

Diagnosis of pulmonary embolism. Raskob GE, et al. **Curr Opin Hematol** 1999 Sep;6(5):280–4 (23 ref.)

Diagnosis of deep venous thrombosis and pulmonary embolism in pregnancy. Macklon NS. **Curr Opin Pulm Med** 1999 Jul;5(4):233–7 (40 ref.)

The role of newer diagnostic techniques in the diagnosis of pulmonary embolism. Stein PD, et al. **Curr Opin Pulm Med** 1999 Jul;5(4):212–5 (43 ref.)

Spiral CT and pulmonary embolism: is the emperor still unclothed? Lally JF, et al. **Del Med J** 1999 May;71(5):221–3 (5 ref.)

Redundancy of single diagnostic test evaluation. Moons KG, et al. **Epidemiology** 1999 May;10(3):276–81

Just a hip fracture? Calle P. **Eur J Emerg Med** 1998 Dec; 5(4):481–4

A case of extensive pulmonary embolism presenting as an acute myocardial infarction--notes on its possible pathophysiology. Vranckx P, et al. **Eur J Emerg Med** 1998 Jun;5(2):253–8

Update on diagnostic strategies of pulmonary embolism. Kauczor HU, et al. **Eur Radiol** 1999;9(2):262–75 (109 ref.)

Non-invasive imaging of the great vessels of the chest. Marchal G, et al. **Eur Radiol** 1998;8(7):1099–105 (56 ref.)

Contribution of noninvasive evaluation to the diagnosis of pulmonary embolism in hospitalized patients. Miron MJ, et al. **Eur Respir J** 1999 Jun;13(6):1365–70

What are the most reliable detection methods for deep vein thrombosis and pulmonary embolism to be used as endpoints in trials of venous thromboprophylaxis? Davidson BL. **Haemostasis** 1998;28 Suppl 3:113–9

Pulmonary embolism presenting as syncope: case report and review of the literature. Koutkia P, et al. **Heart Lung** 1999 Sep-Oct;28(5):342–7 (19 ref.)

Efficacy of thrombolytic therapy in pulmonary embolism determined by MION-enhanced MRA: an experimental study in rabbits. Frank H, et al. **Invest Radiol** 1998 Dec; 33(12):853–7

Massive pulmonary embolus in a 14 year old boy. Crane SD, et al. **J Accid Emerg Med** 1999 Jul;16(4):289–90

Evaluation of diagnostic imaging tests: diagnostic probability estimation. Miettinen OS, et al. **J Clin Epidemiol** 1998 Dec; 51(12):1293–8

Dyspnea in pregnancy [clinical conference] Horak MJ, et al. **J Emerg Med** 1999 May-Jun;17(3):507–11

Recurrent pleuritic chest pain [clinical conference] Zirkin WM, et al. **J Emerg Med** 1999 Mar-Apr;17(2):329–32

Minimizing mistakes in clinical diagnosis. Ermenc B. **J Forensic Sci** 1999 Jul;44(4):810–3

Prospective comparison of MR lung perfusion and lung scintigraphy. Berthezène Y, et al. **J Magn Reson Imaging** 1999 Jan;9(1):61–8

Persistent tachypnea in children: keep pulmonary embolism in mind. van Ommen CH, et al. **J Pediatr Hematol Oncol** 1998 Nov-Dec;20(6):570–3

Takayasu's arteritis involving proximal pulmonary arteries and mimicking thromboembolic disease. Haque U, et al. **J Rheumatol** 1999 Feb;26(2):450–3 (15 ref.)

Pulmonary gas exchange during intramedullary fixation of femoral shaft fractures. Weresh MJ, et al. **J Trauma** 1999 May;46(5):863–8

Diagnosis of pulmonary embolism: comparison of CT angiography and MR angiography in canines. Hurst DR, et al. **J Vasc Interv Radiol** 1999 Mar;10(3):309–18

Acute pulmonary embolism: clinical outcomes in the International Cooperative Pulmonary Embolism Registry (ICOPER) [see comments] Goldhaber SZ, et al. **Lancet** 1999 Apr 24;353(9162):1386–9. Comment in: Lancet 1999 Apr 24;353(9162):1375–6.

Prognosis in acute pulmonary embolism [comment] Hirsh J, et al. **Lancet** 1999 Apr 24;353(9162):1375–6. Comment on: Lancet 1999 Apr 24;353(9162):1386–9.

Non-invasive diagnosis of venous thromboembolism in outpatients [see comments] Perrier A, et al. **Lancet** 1999 Jan 16;353(9148):190–5. Comment in: Lancet 1999 Apr 24;353(9162):1446.

A 28-year-old woman with a pulmonary embolus [see comments] Savage P, et al. **Lancet** 1998 Jul 4;352(9121):30 . Comment in: Lancet 1998 Sep 5;352(9130):822.

82-year-old man with recurrent syncope. Brilakis ES, et al. **Mayo Clin Proc** 1999 Jun;74(6):609–12

Evaluation of pulmonary emboli: current concepts. Abbott GF. **Med Health R I** 1999 Jun;82(6):194–7 (17 ref.)

MR angiography in acute pulmonary embolism [letter] Goyen M. **Radiology** 1999 Aug;212(2):601

Acute pulmonary embolism: diagnosis with MR angiography [see comments] Gupta A, et al. **Radiology** 1999 Feb; 210(2):353–9. Comment in: Radiology 1999 Feb;210(2):301–3.

Pulmonary MR angiography: is it ready now? [editorial; comment] Yucel EK. **Radiology** 1999 Feb;210(2):301–3. Comment on: Radiology 1999 Feb;210(2):353–9.

The place of D-dimer testing in an integrated approach of patients suspected of pulmonary embolism. de Moerloose P, et al. **Semin Thromb Hemost** 1998;24(4):409–12 (26 ref.)

Rapid D-dimer assays to exclude deep venous thrombosis and pulmonary embolism: current status and new developments. Janssen MC, et al. **Semin Thromb Hemost** 1998;24(4):393–400 (46 ref.)

Rational diagnosis of pulmonary embolism (RADIA PE) in symptomatic outpatients with suspected PE: an improved strategy to exclude or diagnose venous thromboembolism by the sequential use of a clinical model, rapid ELISA D-dimer test, perfusion lung scan, ultrasonography, spiral CT, and pulmonary angiography. Michiels JJ. **Semin Thromb Hemost** 1998;24(4):413–8 (28 ref.)

Study findings questioned [letter] Rashid K. **Tex Med** 1999 Jul;95(7):10

Pulmonary embolism mimicking acute myocardial infarction. Wong CB, et al. **Tex Med** 1999 May;95(5):67–8

Usefulness of D-dimer, blood gas, and respiratory rate measurements for excluding pulmonary embolism [see comments] Egermayer P, et al. **Thorax** 1998 Oct; 53(10):830–4. Comment in: Thorax 1998 Oct;53(10):821–2.

Spiral computed tomographic scanning and magnetic resonance angiography for the diagnosis of pulmonary embolism. Grenier PA, et al. **Thorax** 1998 Aug;53 Suppl 2:S25–31 (43 ref.)

Rapid D-dimer testing as an adjunct to clinical findings in excluding pulmonary embolism. Lennox AF, et al. **Thorax** 1999 Aug;54 Suppl 2:S33–6 (26 ref.)

A fresh look at D-dimer in suspected pulmonary embolism [editorial; comment] Miller A. **Thorax** 1998 Oct; 53(10):821–2. Comment on: Thorax 1998 Oct;53(10):830–4.

Performances of the fibrin monomer test for the exclusion of pulmonary embolism in symptomatic outpatients. Reber G, et al. **Thromb Haemost** 1999 Feb;81(2):221–3

Performances of a new, rapid and automated microlatex D-dimer assay for the exclusion of pulmonary embolism in symptomatic outpatients [letter] Reber G, et al. **Thromb Haemost** 1998 Oct;80(4):719–20

A new quantitative D-dimer assay appropriate in emergency: reliability of the assay for pulmonary embolism exclusion diagnosis. Duet M, et al. **Thromb Res** 1998 Jul 1;91(1):1–5

[Clinical analysis in seventy-two patients with chronic thromboembolic pulmonary hypertension] Cheng X, et al. **Chung Hua Nei Ko Tsa Chih** 1997 May;36(5):321–4 (Eng. Abstr.) **(Chi)**

[Clinical thinking and decision making in practice. A patient with pain in the upper abdomen] Schippers EF, et al. **Ned Tijdschr Geneeskd** 1998 Dec 12;142(50):2732–6 (Eng. Abstr.) **(Dut)**

[Clinical diagnosis and decision in practice. A young woman with back pain] van Weel C, et al. **Ned Tijdschr Geneeskd** 1998 Nov 7;142(45):2455–8 (Eng. Abstr.) **(Dut)**

[The traps of pulmonary embolism] Morpurgo M. **Ann Cardiol Angeiol (Paris)** 1998 Nov;47(9):633–6 (Eng. Abstr.) **(Fre)**

[Diagnostic imaging of acute pulmonary embolism: critical analysis of the 1997 literature] Amiel M, et al. **J Radiol** 1998 Jan;79(1):13–9 (49 ref.) (Eng. Abstr.) **(Fre)**

[Does a universal strategy of acute pulmonary embolism diagnosis exist today?] Coulomb M, et al. **J Radiol** 1998 Jun;79(6):515–28 (121 ref.) (Eng. Abstr.) **(Fre)**

[Venous thromboembolism disease in the elderly patient. Thromboembolism disease in geriatrics] Jeandel C, et al. **Presse Med** 1998 Sep 26;27(28):1451–2 **(Fre)**

[Pulmonary embolism. A development which concerns us all] Jébrak G. **Presse Med** 1998 May 2–9;27(17):811–2 **(Fre)**

[Can the D-dimer assay predict the importance of pulmonary reperfusion in pulmonary embolism? (letter)] Lorut C, et al. **Presse Med** 1999 Jun 26;28(23):1237–8 **(Fre)**

[Diagnosis of pulmonary embolism: value of imaging] Marceau A, et al. **Presse Med** 1998 Jun 6;27(20):974–6 (10 ref.) (Eng. Abstr.) **(Fre)**

[Pulmonary embolism and anterior septal ischemia on the electrocardiogram: diagnostic trap. Two case reports] Lefebvre P, et al. **Rev Med Brux** 1999 Feb;20(1):31–4 (Eng. Abstr.) **(Fre)**

PULMONARY EMBOLISM

[Diagnosis of pulmonary embolism] Noseda A, et al. **Rev Med Brux** 1999 Jun;20(3):147–52 (30 ref.) (Eng. Abstr.) **(Fre)**

[Does D-dimer determination allow the exclusion of pulmonary embolism?] Bounameaux H. **Rev Pneumol Clin** 1998 Jul;54(3):144–8 (20 ref.) (Eng. Abstr.) **(Fre)**

[Current diagnostic strategy in pulmonary embolism] Henrot P, et al. **Rev Prat** 1998 Jan 15;48(2):124–8 (23 ref.) **(Fre)**

[Diagnosis of pulmonary embolism] Burghuber OC. **Acta Med Austriaca** 1999;26(2):47–51 (23 ref.) (Eng. Abstr.) **(Ger)**

[Diagnosis of acute pulmonary embolism (letter; comment)] Flachsbart F. **Dtsch Med Wochenschr** 1998 Oct 9; 123(41):1226; discussion 1227. Comment on: Dtsch Med Wochenschr 1998 Feb 20;123(8):225–8. **(Ger)**

[Comparison of a D-dimer rapid-test with a plasma-immunoassay for diagnosis of venous thrombosis or pulmonary embolism in a medical emergency unit] Stey C, et al. **Schweiz Rundsch Med Prax** 1999 Mar 11; 88(11):463–70 (Eng. Abstr.) **(Ger)**

[Clinical aspects and diagnosis of pulmonary thromboembolism] Kummer F. **Wien Med Wochenschr** 1999;149(2–4):76–7 (Eng. Abstr.) **(Ger)**

[Incidence of pulmonary embolism in venous thrombosis] Mostbeck A. **Wien Med Wochenschr** 1999;149(2–4):72–5 (29 ref.) (Eng. Abstr.) **(Ger)**

[The diagnostic and therapeutic procedures in pulmonary embolism: a survey in the Veneto Region (see comments)] Roncon L, et al. **Cardiologia** 1999 Aug;44(8):735–41 (Eng. Abstr.). Comment in: Cardiologia 1999 Aug;44(8):743–5. **(Ita)**

[Three cases of pulmonary embolism incorrectly diagnosed as lung cancer] Tanimura S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1137–40 (Eng. Abstr.) **(Jpn)**

[A case of thoracoscopic resection of a pulmonary infarction mimicking a metastatic lung tumor] Shimada K, et al. **Kyobu Geka** 1999 Aug;52(9):790–2 (Eng. Abstr.) **(Jpn)**

[Pulmonary thromboembolism that developed during an airplane flight "economy-class syndrome"] Satoh A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jun;36(6):524–30 (Eng. Abstr.) **(Jpn)**

[Diagnosis and treatment of pulmonary thromboembolism] Shirato K, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1892–6 (15 ref.) **(Jpn)**

[Diagnosis of chronic pulmonary embolism in patients with advanced chronic obstructive pulmonary disease] Lewczuk J, et al. **Pneumonol Alergol Pol** 1998;66(9–10):468–72 (Eng. Abstr.) **(Pol)**

[Importance of multiplane transesophageal echocardiography in the diagnosis of pulmonary embolism] Galrinho A, et al. **Rev Port Cardiol** 1999 Jan;18(1):45–51 (Eng. Abstr.) **(Por)**

[Pulmonary embolism associated with a crossed embolism with visualization of the thrombus in transit through the foramen ovale] Pitta ML, et al. **Rev Port Cardiol** 1999 Jul–Aug;18(7–8):769–70 **(Por)**

[Clinical aspects of pulmonary thromboembolism] Ajanović E, et al. **Med Arh** 1998;52(4):199–202 (Eng. Abstr.) **(Scr)**

[Campylobacter fetus sepsis, pulmonary thromboembolism and an occult neoplasm (letter)] Conde Martel A, et al. **An Med Interna** 1999 Feb;16(2):103 (7 ref.) **(Spa)**

[Current and future diagnostic strategies in venous thromboembolic disease] Gabriel Botella F, et al. **An Med Interna** 1999 Aug;16(8):427–33 (58 ref.) (Eng. Abstr.) **(Spa)**

[The inappropriate use of measures of agreement (letter; comment)] Alonso Lorenzo JC, et al. **Med Clin (Barc)** 1999 Mar 13;112(9):357–8. Comment on: Med Clin (Barc) 1998 Jul 4;111(4):121–4. **(Spa)**

[A hydatid cyst in the vena cava inferior and right atrium with venous flow obstruction and pulmonary dissemination] Caballero J, et al. **Rev Esp Cardiol** 1999 Apr; 52(4):281–4 (8 ref.) (Eng. Abstr.) **(Spa)**

[Massive pulmonary embolism was pulmonary artery sarcoma] Nyman U, et al. **Lakartidningen** 1999 Apr 7; 96(14):1721–3 **(Swe)**

DRUG THERAPY

Pulmonary embolism thrombolysis: Do we need another agent? [editorial; comment] Goldhaber SZ. **Am Heart J** 1999 Jul;138(1 Pt 1):1–2. Comment on: Am Heart J 1999 Jul;138(1 Pt 1):39–44.

Hemodynamic effects of double bolus reteplase versus alteplase infusion in massive pulmonary embolism [see comments] Tebbe U, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):39–44. Comment in: Am Heart J 1999 Jul;138(1 Pt 1):1–2.

Comparison of alteplase versus heparin for resolution of major pulmonary embolism. Konstantinides S, et al. **Am J Cardiol** 1998 Oct 15;82(8):966–70

Recovery of regional right ventricular function after thrombolysis for pulmonary embolism. Nass N, et al. **Am J Cardiol** 1999 Mar 1;83(5):804–6, A10

Incidence and predictors of major hemorrhagic complications from thrombolytic therapy in patients with massive pulmonary embolism. Meyer G, et al. **Am J Med** 1998 Dec;105(6):472–7

Nitric oxide inhalation during massive pulmonary embolism [letter; comment] Moreno H Jr, et al. **Anesth Analg** 1999 May;88(5):1188. Comment on: Anesth Analg 1998 Aug;87(2):491–3.

In situ pulmonary thrombolysis using recombinant tissue plasminogen activator after cesarean delivery [letter] Aya AG, et al. **Anesthesiology** 1999 Aug;91(2):578–9

Treatment of pulmonary embolism during cesarean section with recombinant tissue plasminogen activator. Nishimura K, et al. **Anesthesiology** 1998 Oct;89(4):1027–8

Inhaled nitric oxide in a patient with severe pulmonary embolism. Schenk P, et al. **Ann Emerg Med** 1999 Jun; 33(6):710–4

Successful thrombolysis for massive pulmonary embolism after pulmonary resection. Sayeed RA, et al. **Ann Thorac Surg** 1999 Jun;67(6):1785–7

Thrombolytic therapy for venous thrombosis and pulmonary embolism. Gallus AS. **Baillieres Clin Haematol** 1998 Sep; 11(3):663–73 (65 ref.)

Case studies in therapeutics: warfarin resistance and inefficacy in a man with recurrent thromboembolism, and anticoagulant-associated priapism. Routledge PA, et al. **Br J Clin Pharmacol** 1998 Oct;46(4):343–6

Re: Friday afternoon pulmonary arteriography (FAPA): replacement by Friday afternoon urokinase (FAUK) [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):514. Comment on: Cardiovasc Intervent Radiol 1997 Sep–Oct;20(5):404.

Thrombolytic therapy of pulmonary embolism: a comprehensive review of current evidence. Arcasoy SM, et al. **Chest** 1999 Jun;115(6):1695–707 (102 ref.)

Thrombolysis with resolution of pulmonary hypertension in a heart transplant candidate. Lick S, et al. **Chest** 1999 Mar; 115(3):896–7

Thrombolytic therapy for venous thromboembolism. Elliott G. **Curr Opin Hematol** 1999 Sep;6(5):304–8 (35 ref.)

Advances in the prevention and treatment of deep vein thrombosis and pulmonary embolism [editorial] Grendys EC Jr, et al. **Curr Opin Obstet Gynecol** 1999 Feb;11(1):71–9 (75 ref.)

Disorders of pulmonary circulation [editorial; comment] Pineo GF, et al. **Curr Opin Pulm Med** 1999 Jul;5(4):209–11 (24 ref.). Comment on: Curr Opin Pulm Med 1999 Jul;5(4):216–21.

Heparin and low molecular weight heparin for treatment of acute pulmonary embolism [see comments] Raskob GE. **Curr Opin Pulm Med** 1999 Jul;5(4):216–21 (34 ref.). Comment in: Curr Opin Pulm Med 1999 Jul;5(4):209.

Treatment and prevention of venous thromboembolic disease in pregnancy. Valentine KA. **Curr Opin Pulm Med** 1999 Jul;5(4):238–43 (60 ref.)

Cardiorespiratory efficacy of thrombolytic therapy in acute massive pulmonary embolism: identification of predictive factors. Michard F, et al. **Eur Respir J** 1999 Mar; 13(3):610–5

New perspectives for treatment of pulmonary embolism. Simonneau G. **Haemostasis** 1998;28 Suppl 3:95–9 (9 ref.)

Tinzaparin as an antithrombotic: an overview. Fegan CD. **Hosp Med** 1998 Feb;59(2):145–8

Low-molecular-weight heparin: more indications for use. Kujovich JL. **Hosp Pract (Off Ed)** 1999 Apr 15;34(4):67–8, 71–8, 83; discussion 83–4

Thrombolytic therapy for pulmonary embolism during menstruation [letter] Darne RD, et al. **Int J Cardiol** 1998 Dec 31;67(3):271–2

Report from the Catalan Agency for Health Technology Assessment (CAHTA). Efficacy and safety of thrombolytic therapy in pulmonary thromboembolism. **Int J Technol Assess Health Care** 1998 Summer;14(3):589

Inhaled nitric oxide and pulmonary embolism [letter; comment] Tanus-Santos JE. **Intensive Care Med** 1998 Jul; 24(7):747–8. Comment on: Intensive Care Med 1997 Oct;23(10):1089–92.

Efficacy of thrombolytic therapy in pulmonary embolism determined by MION-enhanced MRA: an experimental study in rabbits. Frank H, et al. **Invest Radiol** 1998 Dec; 33(12):853–7

"Empirical" thrombolysis in catastrophic pulmonary embolism [letter] [see comments] Kehoe T, et al. **J Accid Emerg Med** 1999 Jan;16(1):76. Comment in: J Accid Emerg Med 1999 Jul;16(4):314.

Empirical thrombolysis in catastrophic pulmonary embolism [letter; comment] Kelly J. **J Accid Emerg Med** 1999 Jul; 16(4):314. Comment on: J Accid Emerg Med 1999 Jan;16(1):76.

Low molecular weight heparins: current use and indications [see comments] Quader MA, et al. **J Am Coll Surg** 1998 Dec;187(6):641–58 (95 ref.). Comment in: J Am Coll Surg 1999 Jul;189(1):141–2.

The use of heparin in patients in whom a pulmonary embolism is suspected after total hip arthroplasty. Lawton RL, et al. **J Bone Joint Surg Am** 1999 Aug;81(8):1063–72

Dyspnea in pregnancy [clinical conference] Horak MJ, et al. **J Emerg Med** 1999 May–Jun;17(3):507–11

Successful delayed thrombolytic therapy in a patient with massive pulmonary embolism. Chao TH, et al. **J Formos Med Assoc** 1998 Sep;97(9):638–41

Catheter-directed thrombolysis for thromboembolic disease during pregnancy: a viable option. Krishnamurthy P, et al. **J Matern Fetal Med** 1999 Jan–Feb;8(1):24–7

Successful treatment of near fatal thromboembolism--a case report. Siddiqi KM, et al. **Middle East J Anesthesiol** 1999 Feb;15(1):85–90

Pulmonary embolism [letter; comment] Schrijvers D, et al. **N Engl J Med** 1998 Nov 19;339(21):1555; discussion 1557 . Comment on: N Engl J Med 1998 Jul 9;339(2):93–104.

Fatal pulmonary embolism after atrial septal defect closure in a paediatric patient. Busch T, et al. **Scand Cardiovasc J** 1999;33(3):187–8

Guidelines on pulmonary embolism [letter; comment] Davies CW. **Thorax** 1998 Jul;53(7):625. Comment on: Thorax 1997 Oct;52 Suppl 4:S1–24.

Fatal danaparoid-sodium induced thrombocytopenia and arterial thromboses [letter] Tardy B, et al. **Thromb Haemost** 1998 Sep;80(3):530

Successful thrombolysis in massive pulmonary embolism with right ventricular thrombus. Brodmann M, et al. **Vasa** 1998 Nov;27(4):244–6

Effective administration of recombinant tissue plasminogen activator (rt-PA) during resuscitation of a post partum patient with massive pulmonary embolism. Cyrkowicz A, et al. **Zentralbl Gynakol** 1999;121(8):396–8

[Venous thromboembolism disease in the elderly patient. Anticoagulant treatment in the elderly patient] Jeandel C, et al. **Presse Med** 1998 Sep 26;27(28):1453–7 **(Fre)**

[Venous thrombosis of the lower extremities with fulminating pulmonary embolism and right atrium thrombus. Thrombolysis or embolectomy?] Koehler U, et al. **Internist (Berl)** 1999 Jul;40(7):800–5 **(Ger)**

[Thrombolysis in pulmonary embolism - initial experience] Galrinho A, et al. **Rev Port Cardiol** 1999 Jan;18(1):37–42 (Eng. Abstr.) **(Por)**

[A different focus on the current status of thrombolysis in pulmonary thromboembolism] Jerjes Sánchez C, et al. **Arch Inst Cardiol Mex** 1998 Mar–Apr;68(2):166–80 (90 ref.) **(Spa)**

[Efficacy and safety of low molecular weight heparin in the treatment of pulmonary thromboembolism] Cereza G, et al. **Med Clin (Barc)** 1999 Jun 26;113(3):115–6 **(Spa)**

[A case report. Reperfusion in thrombolysis of pulmonary embolism can be measured with capnography] Søndergaard S, et al. **Lakartidningen** 1999 Jun 16;96(24):2975–6 **(Swe)**

ECONOMICS

Cost-effective diagnostic algorithms in pulmonary embolism: an updated analysis. van Erkel AR, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S321–7

ENZYMOLOGY

[Quantitative study of dehydrogenase activity in hepatocytes during massive embolism of pulmonary artery] Mishnev OD, et al. **Biull Eksp Biol Med** 1999 Jun;127(6):635–7 **(Rus)**

EPIDEMIOLOGY

Friday afternoon pulmonary arteriography [letter; comment] Ryu R. **AJR Am J Roentgenol** 1999 Mar;172(3):836. Comment on: AJR Am J Roentgenol 1998 Aug;171(2):293.

Prevalence of preterminal pulmonary thromboembolism among patients on maintenance hemodialysis treatment before and after introduction of recombinant erythropoietin. Wiesholzer M, et al. **Am J Kidney Dis** 1999 Apr;33(4):702–8

The epidemiology of oral contraceptive use: a critical review of the studies on oral contraceptives and the health of young women. Lewis MA. **Am J Obstet Gynecol** 1998 Oct; 179(4):1086–97 (85 ref.)

Venous thromboembolism in the intensive care unit. Legere BM, et al. **Clin Chest Med** 1999 Jun;20(2):367–84, ix (116 ref.)

Three new diseases listed for Japanese research on their treatment [news] **Front Med Biol Eng** 1999;9(1):93

The incidence of venous thromboembolism after total hip arthroplasty: a specific hypotensive epidural anesthesia protocol. Westrich GH, et al. **J Arthroplasty** 1999 Jun; 14(4):456–63

Incidence of pulmonary thromboembolism in Japan. Kumasaka N, et al. **Jpn Circ J** 1999 Jun;63(6):439–41

Rates of initial and recurrent thromboembolic disease among patients with malignancy versus those without malignancy. Risk analysis using Medicare claims data. Levitan N, et al. **Medicine (Baltimore)** 1999 Sep;78(5):285–91

Clinically important pulmonary emboli: does calf vein US alter outcomes? Gottlieb RH, et al. **Radiology** 1999 Apr; 211(1):25–9

Thromboembolic complications after major thoracolumbar spine surgery. Dearborn JT, et al. **Spine** 1999 Jul 15; 24(14):1471–6

Deletion polymorphism in the angiotensin-converting enzyme gene as a thrombophilic risk factor after hip arthroplasty. Philipp CS, et al. **Thromb Haemost** 1998 Dec; 80(6):869–73

[Venous thromboembolism disease in the elderly patient. An increased prevalence] Jeandel C, et al. **Presse Med** 1998 Sep 26;27(28):1145–6 **(Fre)**

ETIOLOGY

Lower limb exsanguination and embolism. Boogaerts JG. **Acta Anaesthesiol Belg** 1999;50(2):95–8

Fatal pulmonary embolism in a child undergoing extra-ventricular drainage surgery--a case report. Sung CS, et al. **Acta Anaesthesiol Sin** 1999 Mar;37(1):35–9

Recurrent pulmonary emboli and thrombus attached to a permanently implanted pacemaker wire in pregnancy. Bilge

M, et al. **Acta Cardiol** 1999 Apr;54(2):97–9

Pulmonary embolism caused by acrylic cement: a rare complication of percutaneous vertebroplasty. Padovani B, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):375–7

Arterial occlusions as a presenting feature of acute promyelocytic leukemia. Rolston DD, et al. **Am J Clin Oncol** 1998 Oct;21(5):436–7

Factor V Leiden and pulmonary embolism in a young woman taking an oral contraceptive. DiSiena MR, et al. **Am J Forensic Med Pathol** 1998 Dec;19(4):362–7

Sudden death due to intravenous infusion of hair conditioner. Knight DM, et al. **Am J Forensic Med Pathol** 1998 Sep; 19(3):252–4

Inverse paradoxical embolism in a patient on chronic hemodialysis with aortic bacterial endocarditis [see comments] Rocha JL, et al. **Am J Kidney Dis** 1999 Aug; 34(2):338–40. Comment in: Am J Kidney Dis 1999 Aug;34(2):362–3.

Massive intraoperative pulmonary embolism: with succinylcholine or not? [letter; comment] Kanbak M. **Anesth Analg** 1999 Jun;88(6):1423. Comment on: Anesth Analg 1998 Aug;87(2):491–3.

Catheter fracture and embolization from totally implanted venous access ports—case reports. Vadlamani P, et al. **Angiology** 1998 Dec;49(12):1013–6

Smoking and abdominal obesity: risk factors for venous thromboembolism among middle-aged men: "the study of men born in 1913". Hansson PO, et al. **Arch Intern Med** 1999 Sep 13;159(16):1886–90

Fatal pulmonary tumor embolism caused by chondroblastic osteosarcoma: report of a case and review of the literature. Ahmed AA, et al. **Arch Pathol Lab Med** 1999 May; 123(5):437–40

Deep venous thrombosis and pulmonary embolism in bilateral lower-extremity amputee patients. Zickler RW, et al. **Arch Phys Med Rehabil** 1999 May;80(5):509–11

Relapsing pulmonary embolism in a patient with a spinal cord-injury. Vacanti LJ, et al. **Arq Bras Cardiol** 1999 Jan; 72(1):71–8 **(Eng, Por)**

A fatal pulmonary embolus after arthroscopy in a morbidly obese woman [letter; comment] Fleiss DJ. **Arthroscopy** 1999 Mar;15(2):231–2. Comment on: Arthroscopy 1998 Apr;14(3):321–4.

Paradoxical pulmonary embolism secondary to aortocaval fistula: diagnosis by helical CT. Lay JP, et al. **Br J Radiol** 1999 May;72(857):507–9

Fatal pulmonary embolism during limb exanguination [letter] Boogaerts JG. **Can J Anaesth** 1998 Oct;45(10):1031–2

Arterial embolism complicating implantable cardioverter defibrillator shocks with normal ventricular function. Wong GC, et al. **Can J Cardiol** 1998 Sep;14(9):1151–3

Fatal outcome in atrial migration of the Tempofilter. Rossi P, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun; 22(3):227–31

Witnessed embolization of a right atrial mass during transesophageal echocardiography: implications regarding the safety of esophageal intubation. Kwak KD, et al. **Chest** 1999 May;115(5):1462–4

Microvascular pulmonary emboli secondary to precipitated crystals in a patient receiving total parenteral nutrition: a case report and description of the high-resolution CT findings. Reedy JS, et al. **Chest** 1999 Mar;115(3):892–5

Thrombosed pulmonary arterial aneurysm in Eisenmenger's syndrome. Rebolledo MA, et al. **Clin Cardiol** 1999 Feb; 22(2):127

Donor cerebral tissue pulmonary emboli in a functioning transplanted lung. Simonetti VA, et al. **Clin Transplant** 1998 Dec;12(6):504–7

Blood is thicker than water. Douté RC, et al. **Curr Opin Pediatr** 1999 Aug;11(4):303–8

Assessment of the risk for venous thromboembolism among users of hormone replacement therapy. Oger E, et al. **Drugs Aging** 1999 Jan;14(1):55–61 (38 ref.)

Fatal massive intra-operative pulmonary embolism while placing a patient in the surgical position [letter] Tortosa JA, et al. **Eur J Anaesthesiol** 1999 May;16(5):350

Popliteal vein aneurysm as a source of recurrent pulmonary embolism. Cairols MA, et al. **Eur J Vasc Endovasc Surg** 1999 Aug;18(2):171–3 (10 ref.)

A soft popliteal mass and pulmonary embolism. Leu AJ, et al. **Eur J Vasc Endovasc Surg** 1999 Sep;18(3):270–2

Fatal pulmonary fat embolism after dorsal spinal fusion. Brandt SE, et al. **Eur Spine J** 1998;7(5):426–8

Spontaneous duodenal-caval fistula with embolization of intestinal contents. Cyr PV, et al. **Hum Pathol** 1998 Oct; 29(10):1165–6

Recognition and significance of pulmonary bone embolism. Jenny-Möbius U, et al. **Int J Legal Med** 1999;112(3):195–7

Reduction of radioactive seed embolization to the lung following prostate brachytherapy. Tapen EM, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1063–7

Analysis of lower extremity embolic material after total knee arthroplasty in a canine model. Markel DC, et al. **J Arthroplasty** 1999 Feb;14(2):227–32

Paradoxical cerebral embolism complicating a major orthopaedic operation. A report of two cases. Della Valle CJ, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):108–10 (20 ref.)

Cardiac arrest after uncomplicated right upper lobectomy. Lobato EB, et al. **J Cardiothorac Vasc Anesth** 1999 Feb; 13(1):105–6

Popliteal venous aneurysm with pulmonary embolism. Debing E, et al. **J Cardiovasc Surg (Torino)** 1998 Oct; 39(5):569–72

Sarcoma of the main pulmonary artery: an unusual etiology for recurrent pulmonary emboli. Pagni S, et al. **J Cardiovasc Surg (Torino)** 1999 Jun;40(3):457–61

Lung metastases manifesting as pulmonary infarction by mucin and tumor embolization: radiographic, high-resolution CT, and pathologic findings. Kang CH, et al. **J Comput Assist Tomogr** 1999 Jul–Aug;23(4):644–6

Complications of treatment: pulmonary embolism following craniotomy for meningioma. Brosnan C, et al. **J Neurosurg Anesthesiol** 1999 Apr;11(2):119–23

Pulmonary embolism and myocardial hypoxia during extracorporeal membrane oxygenation. Kössel H, et al. **J Pediatr Surg** 1999 Mar;34(3):485–7

Venous and arterial thrombosis in airline passengers [editorial] [see comments] Forbes CD, et al. **J R Soc Med** 1998 Nov;91(11):565–6. Comment in: J R Soc Med 1999 Jan;92(1):52.

Pulmonary embolism in Klippel-Trénaunay syndrome of the upper limb. Macleod AJ, et al. **J R Soc Med** 1998 Oct; 91(10):542–3

Complications of sterile abscess formation and pulmonary embolism following periurethral bulking agents. Sweat SD, et al. **J Urol** 1999 Jan;161(1):93–6

Percutaneous mechanical declotting of dialysis grafts using a central approach: a summation of risks not acceptable in 1998 [letter; comment] Turmel-Rodrigues L. **J Vasc Interv Radiol** 1999 Mar;10(3):375–6. Comment on: J Vasc Interv Radiol 1998 Sep–Oct;9(5):833–6.

Thromboembolic events following arthroscopic knee surgery [letter] Obernosterer A, et al. **JAMA** 1999 Aug 4;282(5):431

Pulmonary embolism following laparoscopic antireflux surgery: a case report and review of the literature. Nguyen NT, et al. **JSLS** 1999 Apr–Jun;3(2):149–53

Thrombosis in pregnancy: maternal and fetal issues [see comments] Greer IA. **Lancet** 1999 Apr 10; 353(9160):1258–65 (61 ref.). Comment in: Lancet 1999 Jul 10;354(9173):162–3.

Indwelling devices for vascular access in haemodialysis [letter] Shaldon S. **Nephrol Dial Transplant** 1999 Sep; 14(9):2258–9

Case report of a patient with an intimal sarcoma of the pulmonary trunk presenting as a pulmonary embolism. Weijmer MC, et al. **Neth J Med** 1999 Aug;55(2):80–3 (7 ref.)

Fatal pulmonary embolism after total hip arthroplasty: diurnal variations. Wroblewski BM, et al. **Orthopedics** 1998 Dec;21(12):1269–71

Pulmonary embolization of a pacing electrode fragment complicating lead extraction. Walters MI, et al. **Pacing Clin Electrophysiol** 1999 May;22(5):823–4

Peripherally inserted central venous catheter fracture and embolization to the lung. Kossoff EH, et al. **Pediatr Emerg Care** 1998 Dec;14(6):403–5 (11 ref.)

Pulmonary infarction revealing pulmonary Takayasu's arteritis. Devouassoux G, et al. **Respir Med** 1998 Jul; 92(7):969–7

Unusual course of right atrial myxoma, masked by acute abdominal pain, and complicated by pulmonary embolus. Bitner M, et al. **Scand Cardiovasc J** 1998;32(6):371–3

Ruptured mycotic pulmonary artery aneurysm: an unusual complication of right-sided endocarditis. Benveniste O, et al. **Scand J Infect Dis** 1998;30(6):626–9 (20 ref.)

Management of venous thrombosis and pulmonary embolism after gynecological surgery. Adachi T, et al. **Semin Thromb Hemost** 1998;24(5):437–42

Postoperative acute pulmonary thromboembolism in patients with acute necrotizing pancreatitis with special reference to apheresis therapy [editorial] Asanuma Y, et al. **Ther Apher** 1998 Aug;2(3):199–204

Pulmonary hypertension secondary to neurofibromatosis: intimal fibrosis versus thromboembolism. Samuels N, et al. **Thorax** 1999 Sep;54(9):858–9

Homozygous G20210A transition in the prothrombin gene associated with severe venous thrombotic disease: two cases in a French family [letter] Zawadzki C, et al. **Thromb Haemost** 1998 Dec;80(6):1027–8

Death from pulmonary thromboembolism in severe obesity: lack of association with established genetic and clinical risk factors. Blaszyk H, et al. **Virchows Arch** 1999 Jun; 434(6):529–32

[Post-catheterization thrombosis] Krška Z, et al. **Sb Lek** 1998; 99(3):183–7 (Eng. Abstr.) **(Cze)**

[Clinical diagnosis and decision in practice. A young woman with back pain] van Weel C, et al. **Ned Tijdschr Geneeskd** 1998 Nov 7;142(45):2455–8 (Eng. Abstr.) **(Dut)**

[Popliteal venous aneurysms] Cormier JM, et al. **J Mal Vasc** 1999 Feb;24(1):37–41 (Eng. Abstr.) **(Fre)**

[Venous aneurysm of unusual localization revealed by a pulmonary embolism. Report of two cases] Farah I, et al. **J Mal Vasc** 1999 Feb;24(1):49–52 (Eng. Abstr.) **(Fre)**

[Pulmonary embolism. Risk factors of venous thromboembolic disease] Gagnadoux F, et al. **Presse Med** 1998 May 2–9;27(17):814–8 (29 ref.) (Eng. Abstr.) **(Fre)**

[Venous thrombo-embolism disease in the elderly patient. Thromboembolism risk in the elderly patient] Jeandel C, et al. **Presse Med** 1998 Sep 26;27(28):1448–50 **(Fre)**

[Systematic screening of of pulmonary embolism with spiral CT scanner in patients with proximal deep vein thrombosis (letter)] Paul JF, et al. **Presse Med** 1999 Mar 27;28(12):633 **(Fre)**

[Percutaneous vertebroplasty complicated by pulmonary embolus of acrylic cement] Perrin C, et al. **Rev Mal Respir** 1999 Apr;16(2):215–7 (Eng. Abstr.) **(Fre)**

[Pleuropulmonary manifestations of amebiasis] Mbaye PS, et al. **Rev Pneumol Clin** 1998 Dec;54(6):346–52 (Eng. Abstr.) **(Fre)**

[Acute respiratory distress in a patient with sickle-cell anemia] Wislez M, et al. **Rev Pneumol Clin** 1999 Mar; 55(1):31–3 (Eng. Abstr.) **(Fre)**

[Pulmonary embolism. Etiology, physiopathology, diagnosis, treatment, prognosis] Leroyer C. **Rev Prat** 1999 Mar 1; 49(5):561–7 **(Fre)**

[Isolated thrombosis of the vena profunda femoris as the source of embolisms. A diagnosis easy to supply using duplex sonography] Habscheid W. **Dtsch Med Wochenschr** 1999 Jun 25;124(25–26):793–6 (Eng. Abstr.) **(Ger)**

[Local vascular complications after heart catheterization] Rüegger S, et al. **Ther Umsch** 1998 Sep;55(9):542–5 (Eng. Abstr.) **(Ger)**

[Surgical embolectomy after reanimation in central pulmonary embolism] Matis N, et al. **Unfallchirurg** 1999 Apr;102(4):287–91 (Eng. Abstr.) **(Ger)**

[Large right atrial aneurysm: rare cause of recurrent pulmonary embolism] Staubach P. **Z Kardiol** 1998 Nov; 87(11):894–9 (Eng. Abstr.) **(Ger)**

[A case of sudden death by pulmonary embolism after angio-embolization of renal cell carcinoma extending into the inferior vena cava] Okuda H, et al. **Hinyokika Kiyo** 1999 Jan;45(1):49–51 (Eng. Abstr.) **(Jpn)**

[Potential role of primary hypercoagulability and antiphospholipid antibody as a risk factor of acute pulmonary thromboembolism] Tokuyama K, et al. **J Cardiol** 1998 Oct;32(4):263–8 (Eng. Abstr.) **(Jpn)**

[Operation for left renal cell carcinoma complicated with acute pulmonary tumor embolism and cocurrent removal of tumor] Naganuma H, et al. **Kyobu Geka** 1998 Oct; 51(11):967–9 (Eng. Abstr.) **(Jpn)**

[Pulmonary fat embolism during bipolar hip endoprosthesis] Tsujitou T, et al. **Masui** 1998 Nov;47(11):1338–43 (Eng. Abstr.) **(Jpn)**

[Recurrent pulmonary infarction associated with familial protein S deficiency type III] Ide K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):410–4 (Eng. Abstr.) **(Jpn)**

[Chronic thromboembolic pulmonary hypertension associated with initial pulmonary involvement in Takayasu arteritis] Kashiwabara K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jul;36(7):633–7 (Eng. Abstr.) **(Jpn)**

[Autopsy case of sudden death due to acute diffuse pulmonary thromboembolism that was caused by giant uterine myoma] Yamaga J, et al. **Nippon Naika Gakkai Zasshi** 1999 Aug 10;88(8):1521–3 **(Jpn)**

[Pulmonary thromboembolism in a female with resistance to activated protein C] [see comments] Ribeiro A, et al. **Rev Port Cardiol** 1999 Jun;18(6):601–7 (Eng. Abstr.). Comment in: Rev Port Cardiol 1999 Jun;18(6):573–5. **(Por)**

[Septic pulmonary embolism in patients on chronic hemodialysis with Staphylococcus aureus bacteremia] Bello Martínez E, et al. **Rev Clin Esp** 1999 Feb;199(2):55–8 (Eng. Abstr.) **(Spa)**

GENETICS

Prevalence of the factor VLeiden mutation among autopsy patients with pulmonary thromboembolic disease using an improved method for factor VLeiden detection [see comments] Gorman TE, et al. **Am J Clin Pathol** 1999 Mar; 111(3):413–7. Comment in: Am J Clin Pathol 1999 Mar;111(3):302–3.

The O blood group protects against venous thromboembolism in individuals with the factor V Leiden but not the prothrombin (factor II G20210A) mutation. González Ordóñez AJ, et al. **Blood Coagul Fibrinolysis** 1999 Jul;10(5):303–7

Genetic polymorphism of methylenetetrahydrofolate reductase and venous thromboembolism: a case-control study [letter] González Ordóñez AJ, et al. **Haematologica** 1999 Feb;84(2):190–1

Arg506Gln mutation of the coagulation factor V gene not detected in Japanese pulmonary thromboembolism. Seki T, et al. **Heart Vessels** 1998;13(4):195–8

Venous thrombosis in older people: prevalence of the factor V gene mutation Q506. André E, et al. **J Am Geriatr Soc** 1998 Dec;46(12):1545–9

Genetics and pulmonary medicine. 4. Pulmonary embolism. Laffan M. **Thorax** 1998 Aug;53(8):698–702 (50 ref.)

Is the prevalence of the factor V Leiden mutation in patients with pulmonary embolism and deep vein thrombosis really different? Turkstra F, et al. **Thromb Haemost** 1999 Mar; 81(3):345–8

Evaluation of role of factor V Leiden mutation in fatal pulmonary thromboembolism. Dunn ST, et al. **Thromb Res** 1998 Jul 1;91(1):7–14

[APC resistance and blood coagulation factor V mutation in Finnish thrombotic patients] Hakala L, et al. **Duodecim** 1995;111(22):2143–51 **(Fin)**

PULMONARY EMBOLISM

[Breakthrough in thrombosis research--can the use of contraceptive pills be safer than it used to be? (editorial)] Lähteenmäki P. **Duodecim** 1995;111(22):2097–8 **(Fin)**

HISTORY

Historical perspective: surgery for chronic thromboembolic disease. Daily PO, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):143–51

METABOLISM

Bronchoalveolar lavage alterations in pulmonary embolism. Nakos G, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1504–10

Normal D-dimer levels in patients with pulmonary embolism. Kutinsky I, et al. **Arch Intern Med** 1999 Jul 26; 159(14):1569–72

The contribution of activated factor XIII to fibrinolytic resistance in experimental pulmonary embolism. Reed GL, et al. **Circulation** 1999 Jan 19;99(2):299–304

MORTALITY

Race and sex differences in long-term survival rates for elderly patients with pulmonary embolism. Siddique RM, et al. **Am J Public Health** 1998 Oct;88(10):1476–80

Predictors of survival after deep vein thrombosis and pulmonary embolism: a population-based, cohort study. Heit JA, et al. **Arch Intern Med** 1999 Mar 8;159(5):445–53

Review of 6-month mortality following low-probability lung scans. Rajendran JG, et al. **Arch Intern Med** 1999 Feb 22; 159(4):349–52

The mortality of untreated pulmonary embolism in patients with intermediate probability lung scans [letter] Egermayer P, et al. **Chest** 1998 Nov;114(5):1497

Pulmonary embolism: one-year follow-up with echocardiography doppler and five-year survival analysis [see comments] Ribeiro A, et al. **Circulation** 1999 Mar 16; 99(10):1325–30. Comment in: Circulation 1999 Mar 16;99(10):1280–3.

Prognoses of primary pulmonary hypertension and chronic majorvessel thromboembolic pulmonary hypertension determined from cumulative survival curves. Kunieda T, et al. **Intern Med** 1999 Jul;38(7):543–6

Acute pulmonary embolism: clinical outcomes in the International Cooperative Pulmonary Embolism Registry (ICOPER) [see comments] Goldhaber SZ, et al. **Lancet** 1999 Apr 24;353(9162):1386–9. Comment in: Lancet 1999 Apr 24;353(9162):1375–6.

Fatal pulmonary embolism after total hip arthroplasty: diurnal variations. Wroblewski BM, et al. **Orthopedics** 1998 Dec;21(12):1269–71

Evaluation of role of factor V Leiden mutation in fatal pulmonary thromboembolism. Dunn ST, et al. **Thromb Res** 1998 Jul 1;91(1):7–14

[Fatal pulmonary embolisms in surgery patients] Krška Z, et al. **Sb Lek** 1998;99(3):195–203 (Eng. Abstr.) **(Cze)**

[Are there criteria which make it possible to predict survival after deep venous thrombosis and pulmonary embolism?] Jébrak G. **Presse Med** 1999 May 22–29;28(19):1019–20 **(Fre)**

NURSING

Pulmonary embolism. Christie F. **Am J Nurs** 1998 Nov; 98(11):36–7

Pulmonary embolism presenting as syncope: case report and review of the literature. Koutkia P, et al. **Heart Lung** 1999 Sep–Oct;28(5):342–7 (19 ref.)

PARASITOLOGY

[Pulmonary embolism of hydatic origin] Ben M'Rad S, et al. **Presse Med** 1998 Feb 7;27(5):205–7 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Fibrocartilagenous embolism: an unusual cause of spinal cord infarction. Yousef OM, et al. **Am J Forensic Med Pathol** 1998 Dec;19(4):395–9

Pulmonary artery fibrous bands: report of a case with extensive lung infarction and superinfection with Coccidioides immitis, Pseudomonas, and acid-fast bacilli. Perez MT, et al. **Arch Pathol Lab Med** 1999 Feb; 123(2):170–2

Images in cardiology Acute myocardial infarct from paradoxical embolism in a case of massive pulmonary thromboembolism. Bussani R, et al. **Heart** 1999 Apr; 81(4):430

Pulmonary and systemic fat embolization after medullary canal pressurization: a hemodynamic and histologic investigation in the dog [letter; comment] Pape HC. **J Trauma** 1999 Jul;47(1):190. Comment on: J Trauma 1998 Oct;45(4):738–42.

Pulmonary bone marrow embolism in sickle cell disease. Eckardt P, et al. **South Med J** 1999 Feb;92(2):245–7

PHYSIOPATHOLOGY

Hemodynamic effects of double bolus reteplase versus alteplase infusion in massive pulmonary embolism [see comments] Tebbe U, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):39–44. Comment in: Am Heart J 1999 Jul;138(1 Pt 1):1–2.

Small-dose inhaled nitric oxide attenuates hemodynamic changes after pulmonary air embolism in dogs. Tanus-Santos JE, et al. **Anesth Analg** 1999 May; 88(5):1025–9

A critical commentary and treatise on myocardial repolarization [letter; comment] RuDusky BM. **Chest** 1998 Dec;114(6):1790–1. Comment on: Chest 1997 Mar;111(3):537–43. Comment on: Chest 1998 Mar;113(3):850–1.

Acute pulmonary thromboembolism: has its evolution been redefined? [editorial; comment] Peterson KL. **Circulation** 1999 Mar 16;99(10):1280–3. Comment on: Circulation 1999 Mar 16;99(10):1325–30.

Uncommon electrocardiographic changes corresponding to symptoms during recurrent pulmonary embolism as documented by computed tomography scans. Watanabe T, et al. **Clin Cardiol** 1998 Nov;21(11):858–61

A case of extensive pulmonary embolism presenting as an acute myocardial infarction--notes on its possible pathophysiology. Vranckx P, et al. **Eur J Emerg Med** 1998 Jun;5(2):253–8

Proximal pulmonary emboli modify right ventricular ejection pattern. Torbicki A, et al. **Eur Respir J** 1999 Mar; 13(3):616–21

Pulmonary embolization causes hypoxemia by redistributing regional blood flow without changing ventilation. Altemeier WA, et al. **J Appl Physiol** 1998 Dec; 85(6):2337–43

Pathophysiological effect of fat embolism in a canine model of pulmonary contusion. Elmaraghy AW, et al. **J Bone Joint Surg Am** 1999 Aug;81(8):1155–64

Triolein-induced pulmonary embolization and increased microvascular permeability in isolated perfused rat lungs. Nakata Y, et al. **J Trauma** 1999 Jul;47(1):111–9

Association between pulmonary microthromboembolism and coagulation variables in hypercoagulable states: an autopsy study. Katsumura Y, et al. **Respirology** 1999 Sep; 4(3):239–43

[Effects of argon gas embolism during pneumoperitoneum] Junghans T, et al. **Chirurg** 1999 Feb;70(2):184–8; discussion 189 (Eng. Abstr.) **(Ger)**

[Severe venous thrombosis in pulmonary embolism: physiopathological aspects] Mercuro G, et al. **Cardiologia** 1998 Jun;43 Suppl 1:53–7 (34 ref.) **(Ita)**

PREVENTION & CONTROL

Placement of a spring filter during interventional treatment of deep venous thrombosis to reduce the risk of pulmonary embolism. Hosaka J, et al. **Acta Radiol** 1999 Sep; 40(5):545–51

Prevalence of preterminal pulmonary thromboembolism among patients on maintenance hemodialysis treatment before and after introduction of recombinant erythropoietin. Wiesholzer M, et al. **Am J Kidney Dis** 1999 Apr;33(4):702–8

The role of aspirin for thromboembolic disease in total joint arthroplasty. Lotke PA. **Am J Knee Surg** 1999 Winter; 12(1):61–3 (15 ref.)

Pulmonary embolus after vena cava filter placement. David W, et al. **Am Surg** 1999 Apr;65(4):341–6

Meta-analysis of effectiveness of intermittent pneumatic compression devices with a comparison of thigh-high to knee-high sleeves. Vanek VW. **Am Surg** 1998 Nov; 64(11):1050–8

Combined use of transesophageal echocardiography and basket catheter can prevent tumor embolism in a patient with renal cell carcinoma. Tanaka Y, et al. **Anesthesiology** 1998 Oct;89(4):1015–7

Prevention of venous thrombo-embolism. National Working Party on the Prevention and Management of Venous Thrombo-embolism and Chronic Venous Insufficiency. Fletcher JP, et al. **Aust N Z J Surg** 1999 Jan;69(1):4–5

Indications, management, and complications of temporary inferior vena cava filters. Linsenmaier U, et al. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):464–9

Risks vs benefits in total joint surgery [letter] Lotke PA. **Chest** 1999 Sep;116(3):843–5

The John Charnley Award. Prophylaxis of fat and bone marrow embolism in cemented total hip arthroplasty. Pitto RP, et al. **Clin Orthop** 1998 Oct;(355):23–34

When atrial fibrillation occurs with pulmonary embolism, is it the chicken or the egg? [editorial] Flegel KM. **CMAJ** 1999 Apr 20;160(8):1181–2 (28 ref.)

Prevention of venous thromboembolism. Rosen SF, et al. **Curr Opin Hematol** 1999 Sep;6(5):285–90 (28 ref.)

Advances in the prevention and treatment of deep vein thrombosis and pulmonary embolism [editorial] Grendys EC Jr, et al. **Curr Opin Obstet Gynecol** 1999 Feb;11(1):71–9 (75 ref.)

What are the most reliable detection methods for deep vein thrombosis and pulmonary embolism to be used as endpoints in trials of venous thromboprophylaxis? Davidson BL. **Haemostasis** 1998;28 Suppl 3:113–9

Secondary prevention of venous thromboembolism: A role for low-molecular-weight heparin. Monreal M, et al. **Haemostasis** 1998 Sep–Oct;28(5):236–43

Increased use of prophylactic vena cava filters in trauma patients failed to decrease overall incidence of pulmonary embolism. McMurtry AL, et al. **J Am Coll Surg** 1999 Sep; 189(3):314–20

Efficacy of prophylaxis against thromboembolism with intermittent pneumatic compression after primary and revision total hip arthroplasty. Hooker JA, et al. **J Bone Joint Surg Am** 1999 May;81(5):690–6

Prophylactic inferior vena cava filters in trauma patients at high risk: follow-up examination and risk/benefit assessment. Langan EM 3rd, et al. **J Vasc Surg** 1999 Sep; 30(3):484–88

82-year-old man with recurrent syncope. Brilakis ES, et al. **Mayo Clin Proc** 1999 Jun;74(6):609–12

Pulmonary embolism [letter; comment] Corbanese U, et al. **N Engl J Med** 1998 Nov 19;339(21):1555–6; discussion 1557 . Comment on: N Engl J Med 1998 Jul 9;339(2):93–104.

A comparison of three months of anticoagulation with extended anticoagulation for a first episode of idiopathic venous thromboembolism [see comments] [published erratum appears in N Engl J Med 1999 Jul 22;341(4):298] Kearon C, et al. **N Engl J Med** 1999 Mar 25;340(12):901–7 . Comment in: N Engl J Med 1999 Mar 25;340(12):955–6. Comment in: ACP J Club 1999 Jul–Aug;131(1):10.

A comparison of enoxaparin with placebo for the prevention of venous thromboembolism in acutely ill medical patients. Prophylaxis in Medical Patients with Enoxaparin Study Group. Samama MM, et al. **N Engl J Med** 1999 Sep 9; 341(11):793–800

Venous thrombosis as a chronic disease [editorial; comment] Schafer AI. **N Engl J Med** 1999 Mar 25;340(12):955–6. Comment on: N Engl J Med 1999 Mar 25;340(12):901–7.

Survey of the use of thromboprophylaxis for medical patients at Christchurch Hospital. Egermayer P, et al. **N Z Med J** 1999 Jul 9;112(1091):246–8

Prevention of venous thrombosis after elective hip surgery [see comments] Turpie AG, et al. **Orthopedics** 1998 Dec; 21(12):1275–81 (45 ref.). Comment in: Orthopedics 1999 May;22(5):476–7.

Inferior vena cava filter placement for prevention of pulmonary tumor emboli of renal cancer with renal vein or vena caval tumor thrombus: prophylactic usage prior to transcatheter arterial embolization. Hirota S, et al. **Radiat Med** 1998 Sep–Oct;16(5):335–9

Acute upper extremity deep venous thrombosis: safety and effectiveness of superior vena caval filters. Spence LD, et al. **Radiology** 1999 Jan;210(1):53–8

Deep vein thrombosis and pulmonary embolism prophylaxis in joint replacement surgery. Merli GJ. **Rheum Dis Clin North Am** 1999 Aug;25(3):639–56, ix (91 ref.)

Pulmonary embolism and malpractice claims [published erratum appears in South Med J 1999 Feb;92(2):189] Fink S, et al. **South Med J** 1998 Dec;91(12):1149–52

The effects of recombinant tissue-type plasminogen activator (rt-PA) on canine cadaver lung transplantation. Akasaka S, et al. **Surg Today** 1999;29(8):747–54

Effectiveness of an inferior vena caval filter as a preventive measure against pulmonary thromboembolism after abdominal surgery. Yonezawa K, et al. **Surg Today** 1999; 29(8):821–4

Prevention of pulmonary embolization during excision of an infected venous thrombus. Sakakibara Y, et al. **Thorac Cardiovasc Surg** 1998 Jun;46(3):162–4

[Effect of danshen injection on pulmonary thromboembolism and platelet free radical levels in mice] Wang X, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Sep;21(9):558–60, inside back cover (Eng. Abstr.) **(Chi)**

[Failure of prevention of hemocoagulation disorders in the postoperative period] Krška Z. **Sb Lek** 1998;99(3):189–94 (Eng. Abstr.) **(Cze)**

[Experiences with temporary vena cava filters in 114 at-risk patients with thrombosis or thromboembolism] Scholz KH, et al. **Dtsch Med Wochenschr** 1999 Mar 19;124(11):307–13 (Eng. Abstr.) **(Ger)**

[Prevention of embolisms] Balleisen L. **Internist (Berl)** 1998 Oct;39(10):1078–9 **(Ger)**

[Guidelines for prevention of thrombosis in orthopedics] Pauschert R, et al. **Z Orthop Ihre Grenzgeb** 1998 Sep–Oct; 136(5):471–9 (62 ref.) (Eng. Abstr.) **(Ger)**

[Prevention of fat and bone marrow embolism in cemented total hip endoprosthesis with vacuum cement technique (news)] Pitto RP, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):Oa24 **(Ger)**

[Value of the vena cava filter in treatment of deep venous thrombosis in the pelvis and leg] Bürger T, et al. **Zentralbl Chir** 1999;124(1):32–6 (Eng. Abstr.) **(Ger)**

[Vena cava filter--prevention of pulmonary embolism. Report of clinical experiences] von Bary S, et al. **Zentralbl Chir** 1999;124(1):27–31 (Eng. Abstr.) **(Ger)**

[The caval filter in prevention of pulmonary embolism] Fiorani P, et al. **Cardiologia** 1998 Jun;43 Suppl 1:79–82 (18 ref.) **(Ita)**

[The use of caval filters in primary and secondary prevention of pulmonary embolism. Indications, follow-up and complications] Mansi Montenegro G, et al. **Minerva Cardioangiol** 1998 Oct;46(10):382–3 **(Ita)**

[Clexane in prevention of acute venous thrombosis and pulmonary thromboembolism] Kirienko AI, et al. **Ter Arkh** 1998;70(11):78–80 (25 ref.) **(Rus)**

[Inferior vena cava filters. Indications and results in 111 patients] Mertens R, et al. **Rev Med Chil** 1998 Jun; 126(6):655–60 (Eng. Abstr.) **(Spa)**

RADIOGRAPHY

Effect of site and rate of contrast material injection on pulmonary vascular distention. Coche E, et al. **Acad Radiol** 1999 Jul;6(7):419–25

Experimentally induced pulmonary arterial occlusion with

detachable balloon in pigs: thin-section CT findings. Kim TK, et al. **Acad Radiol** 1998 Dec;5(12):822–31

Spiral CT angiography for suspected pulmonary embolism: a cost-effectiveness analysis. Rosen MP. **Acad Radiol** 1999 Jan;6(1):72–4; discussion 74–5

The position of spiral CT in the complex diagnostics system for pulmonary embolism. Mendly J, et al. **Acta Chir Hung** 1999;38(1):91–3

Contrast-enhanced helical CT for pulmonary embolism detection: inter- and intraobserver agreement among radiologists with variable experience. Chartrand-Lefebvre C, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):107–12

Clinical validity of helical CT being interpreted as negative for pulmonary embolism: implications for patient treatment [see comments] Garg K, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1627–31. Comment in: AJR Am J Roentgenol 1999 Jun;172(6):1473.

Why Friday afternoon? [letter; comment] Hartnell GG. **AJR Am J Roentgenol** 1999 May;172(5):1451–2. Comment on: AJR Am J Roentgenol 1998 Aug;171(2):293.

Accentuate the negative [editorial; comment] Rogers LF. **AJR Am J Roentgenol** 1999 Jun;172(6):1473. Comment on: AJR Am J Roentgenol 1999 Jun;172(6):1475–6. Comment on: AJR Am J Roentgenol 1999 Jun;172(6):1601–4. Comment on: AJR Am J Roentgenol 1999 Jun;172(6):1627–31.

Use of a modified Simmons catheter for pulmonary angiography. Shenoy SS, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1640–2

Role of spiral computed tomography in the diagnosis of pulmonary embolism in the emergency department. Holbert JM, et al. **Ann Emerg Med** 1999 May;33(5):520–8 (47 ref.)

Determinants of plasma fibrin D-dimer sensitivity for acute pulmonary embolism as defined by pulmonary angiography. Heit JA, et al. **Arch Pathol Lab Med** 1999 Mar;123(3):235–40

Re: Transbrachial selective pulmonary angiography with a 4 Fr catheter via the antecubital approach [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1999 Mar-Apr; 22(2):168. Comment on: Cardiovasc Intervent Radiol 1998 Jul-Aug;21(4):347–9.

Case of pulmonary embolism. Egashira S, et al. **Circulation** 1999 Apr 20;99(15):E1–2

Uncommon electrocardiographic changes corresponding to symptoms during recurrent pulmonary embolism as documented by computed tomography scans. Watanabe T, et al. **Clin Cardiol** 1998 Nov;21(11):858–61

Simultaneous chest radiographic findings of Hampton's hump, Westermark's sign, and vascular redistribution in pulmonary embolism. Lu P, et al. **Clin Nucl Med** 1998 Oct; 23(10):701–2

Validity of pulmonary cine arteriography for the diagnosis of pulmonary embolism. Nilsson T, et al. **Eur Radiol** 1999; 9(2):276–80

Spiral CT of pulmonary embolism: diagnostic approach, interpretive pitfalls and current indications. Remy-Jardin M, et al. **Eur Radiol** 1998;8(8):1376–90 (63 ref.)

Accuracy of helical CT for acute pulmonary embolism: ROC analysis of observer performance related to clinical experience. van Rossum AB, et al. **Eur Radiol** 1998; 8(7):1160–4

Sudden unexpected death from pulmonary thromboembolism--examination of antemortem chest X-ray. Takahashi K, et al. **Fukuoka Igaku Zasshi** 1998 Dec; 89(12):339–43

Impending paradoxical embolus: clinical imaging and successful surgical treatment. van Dantzig JM, et al. **Int J Card Imaging** 1998 Jun;14(3):167–70

Spiral CT of acute pulmonary thromboembolism: evaluation of pleuroparenchymal abnormalities. Johnson PT, et al. **J Comput Assist Tomogr** 1999 May-Jun;23(3):369–73

Chest radiograph in pulmonary embolus. Moats T. **J Emerg Med** 1999 Mar-Apr;17(2):333

Hydatid pulmonary embolism from a ruptured mediastinal cyst: high-resolution computed tomography, angiographic, and pathologic findings. Franquet T, et al. **J Thorac Imaging** 1999 Apr;14(2):138–41

Pulmonary tumor embolism presenting as infarcts on computed tomography. Kim AE, et al. **J Thorac Imaging** 1999 Apr;14(2):135–7

Clinical follow-up of patients after a negative digital subtraction pulmonary arteriogram in the evaluation of pulmonary embolism. Forauer AR, et al. **J Vasc Interv Radiol** 1998 Nov-Dec;9(6):903–8

Clinical outcomes of patients after a negative spiral CT pulmonary arteriogram in the evaluation of acute pulmonary embolism. Lomis NN, et al. **J Vasc Interv Radiol** 1999 Jun;10(6):707–12

Acute pulmonary embolism: assessment of helical CT for diagnosis [see comments] Drucker EA, et al. **Radiology** 1998 Oct;209(1):235–41. Comment in: Radiology 1999 Apr;211(1):290.

Pulmonary embolism: diagnosis with spiral CT versus ventilation-perfusion scintigraphy [letter; comment] Gerard SK, et al. **Radiology** 1999 Feb;210(2):576–7. Comment on: Radiology 1998 Jul;208(1):201–8.

Clinically suspected pulmonary embolism: utility of spiral CT. Kim KI, et al. **Radiology** 1999 Mar;210(3):693–7

Parenchymal and pleural findings in patients with and patients without acute pulmonary embolism detected at spiral CT. Shah AA, et al. **Radiology** 1999 Apr; 211(1):147–53

Reassessment of pulmonary angiography for the diagnosis of pulmonary embolism: relation of interpreter agreement to the order of the involved pulmonary arterial branch. Stein PD, et al. **Radiology** 1999 Mar;210(3):689–91

Flitting radiographic shadows: an unusual presentation of cancer in the lungs. Edmondstone WM. **Thorax** 1998 Oct; 53(10):906–8

Interventricular septal shift due to massive pulmonary embolism shown by CT pulmonary angiography: an old sign revisited. Oliver TB, et al. **Thorax** 1998 Dec; 53(12):1092–4; discussion 1088–9

[Spiral CT in pulmonary embolism] Coche E, et al. **J Belge Radiol** 1998 Aug;81(4):199–203 (20 ref.) (Eng. Abstr.) **(Fre)**

[CT x-ray evaluation of abdominal and pelvic veins in patients suspected of acute pulmonary embolism with negative Doppler sonography] Ferretti GR, et al. **J Radiol** 1998 Apr;79(4):327–30 (Eng. Abstr.) **(Fre)**

[CT angiography of the pulmonary arteries] Grenier P, et al. **J Radiol** 1999 Sep;80(9):1026–41 (Eng. Abstr.) **(Fre)**

[Pulmonary embolism: the radiologist on the alert (editorial)] Rémy J. **J Radiol** 1998 Jun;79(6):507–8 **(Fre)**

[Pulmonary embolism. The role of computed tomography angiography] Ghossain M, et al. **Presse Med** 1998 May 2-9;27(17):819–27 (38 ref.) (Eng. Abstr.) **(Fre)**

[Contribution of the pulmonary angio-scanner to the emergency diagnosis of pulmonary embolism (editorial)] Laaban JP. **Presse Med** 1999 Sep 11;28(26):1423–4 **(Fre)**

[Role of spiral CT in the emergency diagnosis of pulmonary embolism (editorial)] Meyer G, et al. **Presse Med** 1998 Oct 3;27(29):1482–3 (Eng. Abstr.) **(Fre)**

[Role of angiographic scanning in the diagnostic strategy for pulmonary embolism] Perrier A. **Rev Mal Respir** 1999 Jan; 16 Suppl 3:S61–2 (11 ref.) **(Fre)**

[Value and limits of spiral computerized tomography angiography in diagnosis of pulmonary embolism] Rémy J, et al. **Rev Pneumol Clin** 1998 Sep;54(4):196–204 (13 ref.) **(Fre)**

[Value of spiral computer tomography for the diagnosis of acute pulmonary embolism] Rademaker J, et al. **Dtsch Med Wochenschr** 1999 Feb 12;124(6):153–7 (40 ref.) **(Ger)**

[Diagnosis of pulmonary embolism with spiral and electron-beam CT] Schoepf UJ, et al. **Radiologe** 1998 Dec; 38(12):1036–44 (Eng. Abstr.) **(Ger)**

[Evaluation of right heart load with spiral CT in patients with acute lung embolism] Wintersperger BJ, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):542–9 (Eng. Abstr.) **(Ger)**

[Postoperative pulmonary torsion and hemorrhagic lung infarct--report of a case] Nömayr A, et al. **Rontgenpraxis** 1998;51(11):430–2 (Eng. Abstr.) **(Ger)**

[Chronic pulmonary thromboembolism diagnosed on the basis of characteristic mosaic patterns on lung computed tomograms] Tanino M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jul;37(7):594–9 (Eng. Abstr.) **(Jpn)**

[Pulmonary thromboembolism angiographically confirmed: clinical and prognostic aspects] [see comments] Dionisio P, et al. **Rev Port Cardiol** 1999 Jun;18(6):577–85 (Eng. Abstr.). Comment in: Rev Port Cardiol 1999 Jun;18(6):573–5. **(Por)**

[Pulmonary thromboembolism: complete obstruction of the right pulmonary artery. Helicoidal computerised tomography] González A, et al. **Medicina (B Aires)** 1999; 59(2):180 **(Spa)**

[Spiral computed tomography--solution to diagnostic problems in pulmonary embolism?] Tylén U, et al. **Lakartidningen** 1999 Jun 2;96(22):2712–7 (40 ref.) (Eng. Abstr.) **(Swe)**

RADIONUCLIDE IMAGING

Using artificial neural network analysis of global ventilation-perfusion scan morphometry as a diagnostic tool. Scott JA. **AJR Am J Roentgenol** 1999 Oct; 173(4):943–8

Ventilation-perfusion scintigraphic evaluation of pulmonary clot burden after percutaneous thrombolysis of clotted hemodialysis access grafts. Petronis JD, et al. **Am J Kidney Dis** 1999 Aug;34(2):207–11

Pulmonary embolism; lung scanning interpretation: about words. Bastuji-Garin S, et al. **Chest** 1998 Dec;114(6):1551–5

Frequency of pulmonary embolism in patients with low-probability lung scan and negative lower extremity venous ultrasound. Meyerovitz MF, et al. **Chest** 1999 Apr; 115(4):980–2

Transient right-to-left shunt in acute pulmonary embolism. Buffaz PD, et al. **Clin Nucl Med** 1999 Jun;24(6):447–8

Sarcoid: an unusual mimicker of classic pulmonary embolus. Morello FA, et al. **Clin Nucl Med** 1998 Oct;23(10):654–6

Unusual appearance of thromboembolism on perfusion lung imaging. Shadan S, et al. **Clin Nucl Med** 1999 Sep; 24(9):684–6

Pulmonary embolism: a follow-up study of the relation between the degree of right ventricle overload and the extent of perfusion defects. Ribeiro A, et al. **J Intern Med** 1999 Jun;245(6):601–10

Things are perhaps not quite so simple...[letter; comment] Buffaz PD, et al. **J Nucl Med** 1998 Dec;39(12):2193. Comment on: J Nucl Med 1997 Nov;38(11):1781–3.

99mTc technegas ventilation and perfusion lung scintigraphy for the diagnosis of pulmonary embolus. Howarth DM, et al. **J Nucl Med** 1999 Apr;40(4):579–84

Images in clinical medicine. Right-to-left shunt on a lung scan. Moses CA, et al. **N Engl J Med** 1999 Mar 18; 340(11):857

Evaluating the Swirler nebulizer: a user's perspective. Carter NJ, et al. **Nucl Med Commun** 1998 Jun;19(6):599–604

Visualization of functional improvement by 123I-IMP lung SPET after thromboendarterectomy for chronic pulmonary embolism. Kume N, et al. **Nucl Med Commun** 1999 Mar; 20(3):247–53

Quantifying the value of diagnostic tests. Lloyd JJ, et al. **Nucl Med Commun** 1998 Oct;19(10):999–1004 (7 ref.)

Automatic extraction of PIOPED interpretations from ventilation/perfusion lung scan reports. Fiszman M, et al. **Proc AMIA Symp** 1998;:860–4

Pulmonary embolism: diagnosis with spiral CT versus ventilation-perfusion scintigraphy [letter; comment] Gerard SK, et al. **Radiology** 1999 Feb;210(2):576–7. Comment on: Radiology 1998 Jul;208(1):201–8.

In vitro platelet binding compared with in vivo thrombus imaging using alpha(IIb)beta3-targeted radioligands. Knight LC, et al. **Thromb Haemost** 1998 Nov;80(5):845–51

Chest ultrasound in diagnosis of pulmonary embolism in comparison to helical CT. Mathis G, et al. **Ultraschall Med** 1999 Apr;20(2):54–9

[Radionuclide techniques in early diagnosis of pulmonary artery thromboembolism] Sychev VK, et al. **Probl Tuberk** 1998;(6):49–51 (Eng. Abstr.) **(Rus)**

[Value of ventilation scintigraphy in the diagnosis of pulmonary thromboembolism] Ruiz Hernández G, et al. **An Med Interna** 1999 Aug;16(8):389–93 (Eng. Abstr.) **(Spa)**

SURGERY

Long-term outcome after pulmonary thromboendarterectomy. Archibald CJ, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):523–8

Operation for chronic pulmonary thromboembolism accompanied by thrombophilia in 8 patients. Ando M, et al. **Ann Thorac Surg** 1998 Dec;66(6):1919–24

Left anterior thoracotomy for pulmonary embolectomy with 29-year follow-up. Senning A. **Ann Thorac Surg** 1998 Oct; 66(4):1420–1

Improved exposure of the pulmonary arteries for thromboendarterectomy. Zund G, et al. **Ann Thorac Surg** 1998 Nov;66(5):1821–3

Successful surgical treatment of thromboembolic pulmonary hypertension [letter] Slade MG, et al. **Aust N Z J Med** 1998 Aug;28(4):469–70

Inhalation of nitric oxide as a life-saving therapy in a patient after pulmonary embolectomy. Schenk P, et al. **Br J Anaesth** 1999 Mar;82(3):444–7

Clinical application of a new rheolytic thrombectomy catheter system for massive pulmonary embolism. Voigtländer T, et al. **Catheter Cardiovasc Interv** 1999 May; 47(1):91–6

Heart transplantation after successful donor postpartum pulmonary embolectomy. Aleksic I, et al. **Chest** 1999 Apr; 115(4):1202–3

Long-term results after thromboendarterectomy for chronic pulmonary embolism. Kramm T, et al. **Eur J Cardiothorac Surg** 1999 May;15(5):579–83; discussion 583–4

Mechanical thrombectomy of massive pulmonary embolism using an Arrow-Trerotola percutaneous thrombolytic device. Roček M, et al. **Eur Radiol** 1998;8(9):1683–5

Pulmonary thromboendarterectomy: an advance in the treatment of chronic thromboembolic pulmonary hypertension. McKane CL. **Heart Lung** 1998 Sep-Oct; 27(5):293–6 (11 ref.)

Impending paradoxical embolus: clinical imaging and successful surgical treatment. van Dantzig JM, et al. **Int J Card Imaging** 1998 Jun;14(3):167–70

Right heart thrombus: the importance of early intervention. Cosgrove H, et al. **J Accid Emerg Med** 1999 Jul;16(4):291–2

Massive pulmonary embolus in a 14 year old boy. Crane SD, et al. **J Accid Emerg Med** 1999 Jul;16(4):289–90

Surgical treatment of massive pulmonary embolism. A case report. Poletti GA, et al. **J Cardiovasc Surg (Torino)** 1999 Feb;40(1):135–7

Pulmonary embolectomy for acute massive pulmonary embolism under percutaneous cardiopulmonary support. Sudo K, et al. **J Cardiovasc Surg (Torino)** 1999 Feb; 40(1):165–7

Pulmonary thromboendarterectomy for chronic thromboembolic obstruction of the pulmonary artery in piglets. Fadel E, et al. **J Thorac Cardiovasc Surg** 1999 Apr; 117(4):787–93

Evaluation of a modified arrow-trerotola percutaneous thrombolytic device for treatment of acute pulmonary embolus in a canine model. Brown DB, et al. **J Vasc Interv Radiol** 1999 Jun;10(6):733–40

Chronic pulmonary thromboendarterectomy complicated by antithrombin III deficiency and antiphospholipid syndrome. Ando M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1082–7

Outcome after pulmonary thromboendarterectomy. Archibald CJ, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):164–71 (31 ref.)

Evaluation of patients with suspected chronic thromboembolic pulmonary hypertension. Auger WR, et

al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):179–90 (42 ref.)

The evolution and the current state of the art of pulmonary thromboendarterectomy. Daily PO, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):152–63

Postoperative management of the patient undergoing pulmonary thromboendarterectomy. Fedullo PF, et al. **Semin Thorac Cardiovasc Surg** 1999 Apr;11(2):172–8

A successful case of pulmonary thromboendarterectomy for chronic thromboembolic pulmonary hypertension with a thrombus in the right ventricle. Masuda M, et al. **Surg Today** 1999;29(5):478–81

Surgical therapy of fulminant pulmonary embolism: early and late results. Doerge H, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):9–13

The urgent pulmonary embolectomy: mechanical resuscitation in the operating theatre determines the outcome. Ullmann M, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):5–8

Pulmonary thromboendarterectomy for chronic thromboembolic pulmonary hypertension [editorial] Dunning J, et al. **Thorax** 1999 Sep;54(9):755–6

[The Bird's Nest vena cava filter: preliminary experiences] Mantoni MY, et al. **Ugeskr Laeger** 1999 Jan 18;161(3):262–5 (Eng. Abstr.) **(Dan)**

[Pulmonary thromboendarterectomy with video-angioscopy and circulatory arrest: an alternative to cardiopulmonary transplantation and post-embolism pulmonary artery hypertension] Dartevelle P, et al. **Chirurgie** 1998 Feb; 123(1):32–40 (Eng. Abstr.) **(Fre)**

[Venous thrombosis of the lower extremities with fulminating pulmonary embolism and right atrium thrombus. Thrombolysis or embolectomy?] Koehler U, et al. **Internist (Berl)** 1999 Jul;40(7):800–5 **(Ger)**

[Surgical embolectomy after reanimation in central pulmonary embolism] Matis N, et al. **Unfallchirurg** 1999 Apr;102(4):287–91 (Eng. Abstr.) **(Ger)**

[A rare case of massive pulmonary embolism and in transit cardiac thrombosis] Cuccia C, et al. **G Ital Cardiol** 1998 Sep;28(9):1028–31 (Eng. Abstr.) **(Ita)**

[Report of three cases of emergency operation for acute pulmonary embolism] Asano H, et al. **Kyobu Geka** 1999 Feb;52(2):102–5 (Eng. Abstr.) **(Jpn)**

[Surgical treatment of acute massive pulmonary embolism: report of two cases] Kaneda K, et al. **Kyobu Geka** 1999 Feb;52(2):106–8 (Eng. Abstr.) **(Jpn)**

[Operation for left renal cell carcinoma complicated with acute pulmonary tumor embolism and cocurrent removal of tumor] Naganuma H, et al. **Kyobu Geka** 1998 Oct; 51(11):967–9 (Eng. Abstr.) **(Jpn)**

[A case of thoracoscopic resection of a pulmonary infarction mimicking a metastatic lung tumor] Shimada K, et al. **Kyobu Geka** 1999 Aug;52(9):790–2 (Eng. Abstr.) **(Jpn)**

[Surgical treatment of multiple thromboembolism of pulmonary artery segmental branches] Bulynin VI, et al. **Khirurgiia (Mosk)** 1999;(5):53–4 (Eng. Abstr.) **(Rus)**

THERAPY

Thrombolytic therapy and prophylactic anticoagulation in pregnant patients [letter] Chan L, et al. **Am J Emerg Med** 1999 Jan;17(1):106–7

Use of inhaled nitric oxide in pulmonary embolism. Crerar-Gilbert A, et al. **Anaesth Intensive Care** 1999 Aug; 27(4):412–4

Inhaled nitric oxide as a coadjuvant therapy after massive pulmonary embolism [letter] Tanus-Santos JE, et al. **Can J Anaesth** 1999 Sep;46(9):906

Massive pulmonary embolism in late pregnancy. Woodward DK, et al. **Can J Anaesth** 1998 Sep;45(9):888–92

Catheter fragmentation of pulmonary emboli [letter; comment] Girard P, et al. **Chest** 1999 Jun;115(6):1759. Comment on: Chest 1998 Nov;114(50:1237–8.

Integration of catheter thrombectomy into our armamentarium to treat acute pulmonary embolism [editorial; comment] [see comments] Goldhaber SZ. **Chest** 1998 Nov;114(5):1237–8. Comment on: Chest 1998 Nov;114(5):1427–36. Comment in: Chest 1999 Jun;115(6):1759.

Pulmonary embolism--treatment vs nontreatment [letter; comment] Rascona DA, et al. **Chest** 1999 Jun;115(6):1755 . Comment on: Chest 1998 Mar;113(3):665–70.

Fragmentation of massive pulmonary embolism using a pigtail rotation catheter [see comments] Schmitz-Rode T, et al. **Chest** 1998 Nov;114(5):1427–36. Comment in: Chest 1998 Nov;114(5):1237–8.

The use of inhaled nitric oxide during gas embolism [letter; comment] Tanus-Santos JE, et al. **Chest** 1999 Apr; 115(4):1220–1. Comment on: Chest 1998 Apr;113(4):1132–4.

Percutaneous catheter and guidewire fragmentation with local administration of recombinant tissue plasminogen activator as a treatment for massive pulmonary embolism. Murphy JM, et al. **Eur Radiol** 1999;9(5):959–64

Treatment of pulmonary thromboembolism. Goldhaber SZ. **Intern Med** 1999 Aug;38(8):620–5 (42 ref.)

Treating thrombotic complications in patients with primary intracerebral haemorrhage. Cohen DL. **J R Coll Physicians Lond** 1998 Sep-Oct;32(5):417–9

Prehospital thrombolytic treatment of massive pulmonary embolism with reteplase during cardiopulmonary resuscitation. Kuisma M, et al. **Resuscitation** 1998 Jul; 38(1):47–50 (10 ref.)

Management of venous thrombosis and pulmonary embolism after gynecological surgery. Adachi T, et al. **Semin Thromb Hemost** 1998;24(5):437–42

[Treatment of venous thromboembolic disease in the elderly] el Kouri D, et al. **J Mal Vasc** 1999 Jun;24(3):183–8 (37 ref.) (Eng. Abstr.) **(Fre)**

[Pulmonary embolism. Current aspects of treatment] Girard P. **Presse Med** 1998 May 2–9;27(17):829–35 (46 ref.) (Eng. Abstr.) **(Fre)**

[Local fibrinolytic treatment in subtotal pulmonary embolism] Battyány I, et al. **Orv Hetil** 1999 Apr 18; 140(16):873–9 (Eng. Abstr.) **(Hun)**

[Treatment of pulmonary embolism] Palla A, et al. **Cardiologia** 1998 Jun;43 Suppl 1:73–7 (23 ref.) **(Ita)**

[Clinical outcome of catheter fragmentation and aspiration therapy in patients with acute pulmonary embolism] Hiramatsu S, et al. **J Cardiol** 1999 Aug;34(2):71–8 (Eng. Abstr.) **(Jpn)**

[Diagnosis and treatment of pulmonary thromboembolism] Shirato K, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1892–6 (15 ref.) **(Jpn)**

[Fibrinolytic treatment of pulmonary embolism] Tomkowski WZ. **Pneumonol Alergol Pol** 1997;65(11–12):849–53 (15 ref.) **(Pol)**

ULTRASONOGRAPHY

Diagnosis of pulmonary embolism by transoesophageal echocardiography. Simarro E, et al. **Acta Cardiol** 1998; 53(2):105–7

Utility of an integrated clinical, echocardiographic, and venous ultrasonographic approach for triage of patients with suspected pulmonary embolism. Grifoni S, et al. **Am J Cardiol** 1998 Nov 15;82(10):1230–5

Diagnostic role of ED ultrasound in deep venous thrombosis and pulmonary embolism. Frazee BW, et al. **Am J Emerg Med** 1999 May;17(3):271–8

The role of venous ultrasonography in the diagnosis of suspected deep venous thrombosis and pulmonary embolism. Kearon C, et al. **Ann Intern Med** 1998 Dec 15; 129(12):1044–9 (56 ref.)

Intraoperative detection of pulmonary thromboemboli with epicardial echocardiography. Zlotnick AY, et al. **Chest** 1999 Jun;115(6):1749–51

Images in cardio-thoracic surgery. Caught in the act. Delabays A, et al. **Eur J Cardiothorac Surg** 1998 Nov; 14(5):516

Proximal pulmonary emboli modify right ventricular ejection pattern. Torbicki A, et al. **Eur Respir J** 1999 Mar; 13(3):616–21

An unexpected intraoperative echocardiographic finding in a patient with Eisenmenger's syndrome. Barzaghi N, et al. **J Cardiothorac Vasc Anesth** 1999 Jun;13(3):363–4

Transesophageal echocardiography in monitoring of intrapulmonary embolism during inferior vena cava tumor resection. O'Hara JF Jr, et al. **J Cardiothorac Vasc Anesth** 1999 Feb;13(1):69–71

Accurate detection of pulmonary embolism using epicardial echocardiography during right nephrectomy in a patient with renal cell carcinoma. Tsubo T, et al. **J Cardiothorac Vasc Anesth** 1998 Dec;12(6):684–5

Chest US in the diagnosis of acute pulmonary embolism [letter; comment] Bitschnau R, et al. **Radiology** 1999 Apr; 211(1):290. Comment on: Radiology 1998 Oct;209(1):235–41.

Clinically suspected pulmonary embolism: use of bilateral lower extremity US as the initial examination--a prospective study. Sheiman RG, et al. **Radiology** 1999 Jul; 212(1):75–8

Chest ultrasound in diagnosis of pulmonary embolism in comparison to helical CT. Mathis G, et al. **Ultraschall Med** 1999 Apr;20(2):54–9

[Diagnostic value of echocardiography and thoracic spiral CT angiography in the diagnosis of acute pulmonary embolism] Otmani A, et al. **Ann Cardiol Angeiol (Paris)** 1998 Dec;47(10):707–15 (Eng. Abstr.) **(Fre)**

[Calf muscle venous thrombosis and pulmonary embolism] Guias B, et al. **J Mal Vasc** 1999 May;24(2):132–4 (Eng. Abstr.) **(Fre)**

[CT x-ray evaluation of abdominal and pelvic veins in patients suspected of acute pulmonary embolism with negative Doppler sonography] Ferretti GR, et al. **J Radiol** 1998 Apr;79(4):327–30 (Eng. Abstr.) **(Fre)**

[Transthoracic sonography in the diagnosis of pulmonary embolism] Mathis G. **Acta Med Austriaca** 1999;26(2):52–6 (36 ref.) (Eng. Abstr.) **(Ger)**

[Transthoracic sonography for the diagnosis of pulmonary embolism (letter; comment)] Bitschnau R, et al. **Dtsch Med Wochenschr** 1998 Oct 9;123(41):1226–7. Comment on: Dtsch Med Wochenschr 1998 Feb 20;123(8):225–8. **(Ger)**

[Pulmonary thromboembolism] Caballero J, et al. **Rev Esp Cardiol** 1999 Aug;52(8):617 **(Spa)**

[A right atrial thrombus in transit: its echocardiographic diagnosis 72 hours before a pulmonary embolism] Valenzuela García LF, et al. **Rev Esp Cardiol** 1999 Jan; 52(1):59–62 (7 ref.) (Eng. Abstr.) **(Spa)**

VETERINARY

Pulmonary embolism and cor pulmonale in a cat. Sottiaux J, et al. **J Small Anim Pract** 1999 Feb;40(2):88–91

Pulmonary thromboembolism in 29 dogs: 1985–1995. Johnson LR, et al. **J Vet Intern Med** 1999 Jul-Aug;13(4):338–45

Pulmonary thromboembolism in a dog with renal amyloidosis. Venco L, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):564–5

VIROLOGY

Pulmonary embolism associated with varicella infection [letter] McColl MD, et al. **Br J Haematol** 1998 Sep; 102(5):1384–5

Acute pulmonary embolism in patients with HIV disease. Howling SJ, et al. **Sex Transm Infect** 1999 Feb;75(1):25–9

PULMONARY EMPHYSEMA

Severe alpha1-antitrypsin deficiency and pregnancy. Dempsey OJ, et al. **Eur Respir J** 1999 Jun;13(6):1492–4

CHEMICALLY INDUCED

[Bullous emphysema in a cocaine smoker (letter)] Fullana Monllor J, et al. **Arch Bronconeumol** 1998 Nov;34(10):514 **(Spa)**

COMPLICATIONS

Wegener's granulomatosis and alpha1-antitrypsin-deficiency emphysema: proteinase-related diseases. Barnett VT, et al. **Chest** 1999 Jul;116(1):253–5

Bullous sarcoidosis: a report of three cases [see comments] Judson MA, et al. **Chest** 1998 Nov;114(5):1474–8. Comment in: Chest 1999 Jun;115(6):1758.

Emergent bronchofiberoptic bronchial occlusion for intractable pneumothorax with severe emphysema. Okada S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1078–81

Massive pulmonary hemorrhage due to cytomegalovirus infection in a Japanese patient with alpha-1-antitrypsin-deficient emphysema. Tsushima K, et al. **Respiration** 1999;66(4):373–6

[Pulmonary infection in the emphysematous bulla due to Mycobacterium szulgai diagnosed by percutaneus needle aspiration] Inoue Y, et al. **Kansenshogaku Zasshi** 1998 Nov; 72(11):1236–41 (8 ref.) (Eng. Abstr.) **(Jpn)**

[Resection of asymptomatic infected bulla associated with pulmonary tuberculosis] Yamazaki A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec;36(12):1062–5 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Noninvasive diagnosis of emphysema. Aerosol morphometry and aerosol bolus dispersion in comparison to HRCT. Kohlhäufl M, et al. **Am J Respir Crit Care Med** 1999 Sep; 160(3):913–8

Role of lung perfusion scintigraphy in relation to chest computed tomography and pulmonary function in the evaluation of candidates for lung volume reduction surgery. Thurnheer R, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):301–10

Images in cardiothoracic surgery. Herniation of emphysematous bulla through a chest tube site. Konecny JA, et al. **Ann Thorac Surg** 1999 Aug;68(2):584

Electrocardiographic screening for emphysema: the frontal plane P axis. Baljepally R, et al. **Clin Cardiol** 1999 Mar; 22(3):226–8

Relations between cardiopulmonary exercise testing and quantitative high-resolution computed tomography associated in patients with alpha-1-antitrypsin deficiency. Schwaiblmair M, et al. **Eur J Med Res** 1998 Nov 17; 3(11):527–32

Micronodules and emphysema in coal mine dust or silica exposure: relation with lung function. Gevenois PA, et al. **Eur Respir J** 1998 Nov;12(5):1020–4

Prospective comparison of MR lung perfusion and lung scintigraphy. Berthezène Y, et al. **J Magn Reson Imaging** 1999 Jan;9(1):61–8

Pulmonary emphysema: imaging assessment of lung volume reduction surgery [editorial; comment] Austin JH. **Radiology** 1999 Jul;212(1):1–3. Comment on: Radiology 1999 Jul;212(1):49–55.

[Magnetic resonance tomography with inhalation of polarized noble gases: new perspectives in functional imaging diagnosis of emphysema] Kauczor HU, et al. **Pneumologie** 1998 Oct;52(10):563–7 (22 ref.) (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Eosinophilic inflammation in the airway is related to glucocorticoid reversibility in patients with pulmonary emphysema. Fujimoto K, et al. **Chest** 1999 Mar; 115(3):697–702

[Value of orally administered retard morphine for therapy of severe pulmonary emphysema of the pink-puffer type. A pilot study] Schönhofer B, et al. **Dtsch Med Wochenschr** 1998 Nov 27;123(48):1433–8 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Quantum proteolysis by neutrophils: implications for pulmonary emphysema in alpha 1-antitrypsin deficiency. Campbell EJ, et al. **J Clin Invest** 1999 Aug;104(3):337–44

[Experimental pulmonary emphysema in rats. Inflammatory phenomena and progression of lung damage] Borzone G, et al. **Rev Med Chil** 1998 Oct;126(10):1153–60 (Eng. Abstr.)

(Spa)

ETIOLOGY

Time course of neutrophil and macrophage elastinolytic activities in cigarette smoke-induced emphysema. Ofulue AF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1134-44

Lobar emphysema due to anomalous aortic origin of the left pulmonary artery. Absher DR, et al. **Cardiol Young** 1999 May;9(3):327-30

Sarcoidosis is a significant cause of bullous emphysema [letter; comment] Teramoto S, et al. **Chest** 1999 Jun; 115(6):1758. Comment on: Chest 1998 Nov;114(5):1474-8.

Sudden unexpected death in a 16-month-old child. Thomsen H, et al. **Eur J Pediatr** 1999 Jul;158(7):605-6

Segmental bronchial atresia--a case report and a literature review. Ouzidane L, et al. **Eur J Pediatr Surg** 1999 Feb; 9(1):49-52 (16 ref.)

Large sub-pleural air cysts: an extreme form of pulmonary interstitial emphysema. deRoux SJ, et al. **Pediatr Radiol** 1998 Dec;28(12):981-3

METABOLISM

Time course of neutrophil and macrophage elastinolytic activities in cigarette smoke-induced emphysema. Ofulue AF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1134-44

Cysteine proteinases and cystatin C in bronchoalveolar lavage fluid from subjects with subclinical emphysema. Takeyabu K, et al. **Eur Respir J** 1998 Nov;12(5):1033-9

Proteoglycan changes in the extracellular matrix of lung tissue from patients with pulmonary emphysema. van Straaten JF, et al. **Mod Pathol** 1999 Jul;12(7):697-705

MICROBIOLOGY

The role of persisting infections in the pathogenesis of pulmonary emphysema. Electron microscopy reveals a probable bacterial colonization of the alveolar space and the bronchioles. Theegarten D, et al. **Pathol Res Pract** 1999; 195(2):89-92

MORTALITY

Survival following bilateral staple lung volume reduction surgery for emphysema [see comments] Brenner M, et al. **Chest** 1999 Feb;115(2):390-6. Comment in: Chest 1999 Feb;115(2):318-20.

PATHOLOGY

Emphysematous lesions, inflammation, and fibrosis in the lungs of transgenic mice overexpressing platelet-derived growth factor. Hoyle GW, et al. **Am J Pathol** 1999 Jun; 154(6):1763-75

Images in pathology. Placental transmogrification of the lung. Kronz JD, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):856

Aerosol-derived airway morphometry and aerosol bolus dispersion in patients with lung fibrosis and lung emphysema. Brand P, et al. **Chest** 1999 Aug;116(2):543-8

Proteinase-antiproteinase imbalance in the pathogenesis of emphysema: the role of metalloproteinases in lung damage. Pardo A, et al. **Histol Histopathol** 1999 Jan;14(1):227-33 (76 ref.)

Which type of diffuse emphysema is adequately contracted by the Nd:YAG laser. An ex-vivo experiment. Sawabata N, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul; 46(7):587-91

Demonstration of communication between alveolus and interstitium in persistent interstitial pulmonary emphysema: case report. Yao JL, et al. **Pediatr Dev Pathol** 1999 Sep-Oct;2(5):484-7

Experimental ablation of emphysematous rat lung with Nd: YAG laser: lung changes studied by histopathology and SEM. Akahane T, et al. **Tohoku J Exp Med** 1998 Jun; 185(2):119-29

[Pathologic-anatomic findings in surgical lung volume reduction of advanced emphysema] Theegarten D, et al. **Pneumologie** 1998 Dec;52(12):702-6 (Eng. Abstr.) **(Ger)**

[Experimental pulmonary emphysema in rats. Inflammatory phenomena and progression of lung damage] Borzone G, et al. **Rev Med Chil** 1998 Oct;126(10):1153-60 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

Volume of graft and native lung after single-lung transplantation for emphysema. Estenne M, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):641-5

Model of functional restriction in chronic obstructive pulmonary disease, transplantation, and lung reduction surgery. Loring SH, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):821-8

Effects of lung volume reduction surgery on exercise pulmonary hemodynamics in severe emphysema. Kubo K, et al. **Chest** 1998 Dec;114(6):1575-82

Body position, membrane diffusing capacity and pulmonary capillary blood volume in chronic bronchitis and pulmonary emphysema. Chou KC, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Apr; 62(4):209-16

Functional and morphological heterogeneity of emphysema and its implication for selection of patients for lung volume reduction surgery. Russi EW, et al. **Eur Respir J** 1999 Jul; 14(1):230-6 (48 ref.)

Effects of anabolic steroids on diaphragm impairment induced by methylprednisolone in emphysematous hamsters. van Balkom RH, et al. **Eur Respir J** 1999 May; 13(5):1062-9

Intrapulmonary gas mixing and the sloping alveolar plateau in COPD patients with macroscopic emphysema. Wilschut FA, et al. **Eur Respir J** 1999 Jul;14(1):166-71

Functional parameters in pulmonary bullous emphysema. Hodgev V, et al. **Folia Med (Plovdiv)** 1999;41(1):157-60

Aerosol probes of lung injury in a 28-wk longitudinal study of mild experimental emphysema in dogs. Rosenthal FS. **J Appl Physiol** 1999 Feb;86(2):725-31

Analysis of stress distribution in the alveolar septa of normal and simulated emphysematic lungs. Gefen A, et al. **J Biomech** 1999 Sep;32(9):891-7

Autobullectomy: spontaneous improvements in pulmonary function and symptoms in a patient with bullous emphysema. Muster AR, et al. **Med Health R I** 1998 Sep; 81(9):297-9

[Mechanisms of bronchial obstruction in COPD and emphysema: from anatomopathology to respiratory function] Saetta M. **Rev Mal Respir** 1998 Sep;15 Suppl 2:S17-9 **(Fre)**

[The surgical physiopathology of essential pulmonary emphysema and volume-reduction intervention] Nazari S. **Minerva Chir** 1998 Nov;53(11):899-918 (36 ref.) (Eng. Abstr.) **(Ita)**

[Changes in atrial natriuretic peptide and pulmonary hemodynamics induced by exercise in patients with chronic pulmonary emphysema] Takeda A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jul;36(7):607-12 (Eng. Abstr.) **(Jpn)**

[Bioelectrical impedance analysis of body composition in patients with pulmonary emphysema] Takenaka H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):653-8 (Eng. Abstr.) **(Jpn)**

[Pulmonary hyperinflation. The functional and clinico-radiological criteria, mechanisms and surgery to reduce lung volume in severe emphysema] Spânu V, et al. **Pneumoftiziologia** 1998 Jan-Mar;47(1):29-35 (5 ref.) **(Rum)**

PREVENTION & CONTROL

Improvement of pulmonary function after lobectomy for non-small cell lung cancer in emphysematous patients. Carretta A, et al. **Eur J Cardiothorac Surg** 1999 May; 15(5):602-7

Inhibition of elastase-induced acute inflammation and pulmonary emphysema in hamsters by a novel neutrophil elastase inhibitor FR901277. Fujie K, et al. **Inflamm Res** 1999 Mar;48(3):160-7

[Screening for alpha 1-antitrypsin deficiency is still justified. Early discovery prevents pulmonary emphysema (see comments)] Sveger T. **Lakartidningen** 1999 Mar 10; 96(10):1140-1. Comment in: Lakartidningen 1999 Apr 14;96(15):1811. **(Swe)**

RADIOGRAPHY

Lung emphysema: a softer filter for a smoother diagnosis [letter] Aoun NJ, et al. **AJR Am J Roentgenol** 1999 Mar; 172(3):836-7

Pulmonary interstitial emphysema: CT findings. Kemper AC, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1642

Pulmonary dysfunction in silica-exposed workers: a relationship to radiographic signs of silicosis and emphysema. Wang X, et al. **Am J Ind Med** 1999 Aug; 36(2):299-306

A quantification of the lung surface area in emphysema using computed tomography. Coxson HO, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):851-6

Imaging of patients with severe emphysema considered for lung volume reduction surgery. Cleverley JR, et al. **Br J Radiol** 1999 Mar;72(855):227-35 (58 ref.)

Relations between cardiopulmonary exercise testing and quantitative high-resolution computed tomography associated in patients with alpha-1-antitrypsin deficiency. Schwaiblmair M, et al. **Eur J Med Res** 1998 Nov 17; 3(11):527-32

Subjective differentiation of normal and pathological bronchi on thin-section CT: impact of observer training. Bankier AA, et al. **Eur Respir J** 1999 Apr;13(4):781-6

Functional and morphological heterogeneity of emphysema and its implication for selection of patients for lung volume reduction surgery. Russi EW, et al. **Eur Respir J** 1999 Jul; 14(1):230-6 (48 ref.)

Functional parameters in pulmonary bullous emphysema. Hodgev V, et al. **Folia Med (Plovdiv)** 1999;41(1):157-60

Sources of error in lung densitometry with CT. Stoel BC, et al. **Invest Radiol** 1999 Apr;34(4):303-9

Optimized scanning conditions of high resolution CT in the follow-up of pulmonary emphysema. Mishima M, et al. **J Comput Assist Tomogr** 1999 May-Jun;23(3):380-4

Spontaneous reduction in size of bullae (autobullectomy). Orton DF, et al. **J Thorac Imaging** 1999 Apr;14(2):118-21

Pulmonary emphysema: subjective visual grading versus objective quantification with macroscopic morphometry and thin-section CT densitometry. Bankier AA, et al. **Radiology** 1999 Jun;211(3):851-8

Advanced emphysema: preoperative chest radiographic findings as predictors of outcome following lung volume reduction surgery [see comments] Maki DD, et al. **Radiology** 1999 Jul;212(1):49-55. Comment in: Radiology 1999 Jul;212(1):1-3.

CFA with preserved lung volumes [letter; comment] Strickland N, et al. **Thorax** 1998 Sep;53(9):813. Comment on: Thorax 1997 Nov;52(11):998-1002.

[Utilization of NIH image for quantification of emphysema by computed tomography] Hitsuda Y, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):380-7 (Eng. Abstr.) **(Jpn)**

[Detection of emphysematous bullae in spontaneous pneumothorax by three-dimensional computed topography] Yusa T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):722-5 (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE IMAGING

Quantitative analysis of pulmonary emphysema: three-dimensional fractal analysis of single-photon emission computed tomography images obtained with a carbon particle radioaerosol. Nagao M, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1657-63

Inhomogeneity in planar ventilation scintigraphy of emphysematous patients. Xu JH, et al. **Clin Physiol** 1998 Sep;18(5):435-40

Semi-quantitative ventilation/perfusion scintigraphy and single-photon emission tomography for evaluation of lung volume reduction surgery candidates: description and prediction of clinical outcome. Jamadar DA, et al. **Eur J Nucl Med** 1999 Jul;26(7):734-42

Imaging in the evaluation of emphysema [editorial; comment] Robertson RJ. **Thorax** 1999 May;54(5):379. Comment on: Thorax 1999 May;54(5):384-9.

RADIOTHERAPY

Experimental ablation of emphysematous rat lung with Nd: YAG laser: lung changes studied by histopathology and SEM. Akahane T, et al. **Tohoku J Exp Med** 1998 Jun; 185(2):119-29

REHABILITATION

Feasibility and efficacy of home exercise training before lung volume reduction. Debigaré R, et al. **J Cardiopulm Rehabil** 1999 Jul-Aug;19(4):235-41

[One year follow-up of pulmonary rehabilitation in patients with pulmonary emphysema--physiological outcome] Inoue M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep; 36(9):756-62 (Eng. Abstr.) **(Jpn)**

[Long-term effects of bicycle-ergometry training on exercise endurance and dyspnea in patients with chronic pulmonary emphysema] Iwanaga T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):659-64 (Eng. Abstr.) **(Jpn)**

[Effects of a short-term pulmonary rehabilitation program on patients with chronic respiratory failure due to pulmonary emphysema] Onodera A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):679-83 (Eng. Abstr.) **(Jpn)**

SURGERY

Does hyperexpansion of the native lung adversely affect outcome after single lung transplantation for emphysema? Preliminary findings. Malchow SC, et al. **Acad Radiol** 1998 Oct;5(10):688-93

Effects of isoflurane on oxygenation during one-lung ventilation in pulmonary emphysema patients. Satoh D, et al. **Acta Anaesthesiol Scand** 1998 Nov;42(10):1145-8

Extrapleural bullectomy or lung volume reduction: air tight surgery for emphysema without strip-patch. Busetto A, et al. **Acta Chir Hung** 1999;38(1):15-7

Volume of graft and native lung after single-lung transplantation for emphysema. Estenne M, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):641-5

Lung volume reduction surgery: is less really more? Fessler HE, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1031-5

Model of functional restriction in chronic obstructive pulmonary disease, transplantation, and lung reduction surgery. Loring SH, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):821-8

Role of lung perfusion scintigraphy in relation to chest computed tomography and pulmonary function in the evaluation of candidates for lung volume reduction surgery. Thurnheer R, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):301-10

A case of thoracoscopic bilateral lung volume reduction surgery in a supine position. Date H, et al. **Ann Thorac Cardiovasc Surg** 1999 Apr;5(2):113-5

Postoperative gastrointestinal complications after lung volume reduction operations. Cetindag IB, et al. **Ann Thorac Surg** 1999 Sep;68(3):1029-33

Comparison of staged thoracoscopy and median sternotomy for lung volume reduction. Hazelrigg SR, et al. **Ann Thorac Surg** 1998 Oct;66(4):1134-9

Application of the fold plication method for unilateral lung volume reduction in pulmonary emphysema. Iwasaki M, et al. **Ann Thorac Surg** 1999 Mar;67(3):815-7

Comparison of open and thoracoscopic bilateral volume reduction surgery: complications analysis. Roberts JR, et al. **Ann Thorac Surg** 1998 Nov;66(5):1759-65

Compliance and functional residual capacity after staple

versus combined staple/holmium laser lung volume reduction surgery in a rabbit emphysema model. Serna DL, et al. **Ann Thorac Surg** 1999 Sep;68(3):1003–7

Ablation of persistent air leaks after thoracic procedures with fibrin sealant. Thistlethwaite PA, et al. **Ann Thorac Surg** 1999 Feb;67(2):575–7

Thoracoscopic pleural tent. Venuta F, et al. **Ann Thorac Surg** 1998 Nov;66(5):1833–4

Combined lung volume reduction and mitral valve reconstruction. Whyte RI, et al. **Ann Thorac Surg** 1998 Oct; 66(4):1414–6

Lung volume reduction for emphysema and the Canadian Lung Volume Reduction Surgery (CLVR) Project. Miller JD, et al. **Can Respir J** 1999 Jan–Feb;6(1):26–32 (45 ref.)

Unilateral lung volume reduction in preparation for contralateral pneumonectomy [see comments] Simone C, et al. **Can Respir J** 1999 Jan–Feb;6(1):102–5. Comment in: Can Respir J 1999 Jan;6(1):20.

Preoperative echocardiographic evaluation of patients referred for lung volume reduction surgery. Bach DS, et al. **Chest** 1998 Oct;114(4):972–80

Survival following bilateral staple lung volume reduction surgery for emphysema [see comments] Brenner M, et al. **Chest** 1999 Feb;115(2):390–6. Comment in: Chest 1999 Feb;115(2):318–20.

Effects of lung volume reduction surgery on exercise pulmonary hemodynamics in severe emphysema. Kubo K, et al. **Chest** 1998 Dec;114(6):1575–82

Effect of lung volume reduction surgery on bony thorax configuration in severe COPD. Lando Y, et al. **Chest** 1999 Jul;116(1):30–9

The impact of nutritional status on the outcome of lung volume reduction surgery: a prospective study. Mazolewski P, et al. **Chest** 1999 Sep;116(3):693–6

Surgical lung volume reduction in emphysema: how much for how long? [editorial; comment] Russi EW. **Chest** 1999 Feb;115(2):318–20. Comment on: Chest 1999 Feb;115(2):390–6.

Bilateral apical vs nonapical stapling resection during lung volume reduction surgery. Travaline JM, et al. **Chest** 1998 Oct;114(4):981–7

Video-assisted thoracic surgery for lung volume reduction surgery. Fischel RJ, et al. **Chest Surg Clin N Am** 1998 Nov; 8(4):789–807, viii (41 ref.)

Late-stage emphysema: when medical therapy fails. Dasgupta A, et al. **Cleve Clin J Med** 1999 Jul–Aug; 66(7):415–7, 421–5 (41 ref.)

Video-assisted thoracoscopic treatment of giant bullae associated with emphysema. De Giacomo T, et al. **Eur J Cardiothorac Surg** 1999 Jun;15(6):753–6; discussion 756–7

Unilateral thoracoscopic reduction pneumoplasty for asymmetric emphysema. Mineo TC, et al. **Eur J Cardiothorac Surg** 1998 Jul;14(1):33–9

Clinical spectrum of congenital cystic disease of the lung in children. Takeda S, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):11–7

Chronic hypercapnia should not exclude patients from lung volume reduction surgery. Wisser W, et al. **Eur J Cardiothorac Surg** 1998 Aug;14(2):107–12

Lung volume reduction or lung transplantation for end-stage pulmonary emphysema? Zenati M, et al. **Eur J Cardiothorac Surg** 1998 Jul;14(1):27–31; discussion 31–2

Two-year results after lung volume reduction surgery in alpha1-antitrypsin deficiency versus smoker's emphysema. Cassina PC, et al. **Eur Respir J** 1998 Nov;12(5):1028–32

Surgical aspects and techniques of lung volume reduction surgery for severe emphysema. Klepetko W. **Eur Respir J** 1999 Apr;13(4):919–25 (42 ref.)

Physiological basis of improvement after lung volume reduction surgery for severe emphysema: where are we? [see comments] Marchand E, et al. **Eur Respir J** 1999 Mar; 13(3):686–96 (99 ref.). Comment in: Eur Respir J 1999 Mar;13(3):480–1.

Surgical lung volume reduction for severe pulmonary emphysema—a new review series [editorial; comment] Russi EW, et al. **Eur Respir J** 1999 Mar;13(3):480–1 (11 ref.). Comment on: Eur Respir J 1999 Mar;13(3):686–96.

Short- and long-term functional results after lung volume reduction surgery for severe emphysema. Teschler H, et al. **Eur Respir J** 1999 May;13(5):1170–6 (44 ref.)

Bullectomy for chronic obstructive pulmonary disease. Oo AY, et al. **Hosp Med** 1998 Oct;59(10):793–6 (14 ref.)

Improvements in thoracic movement following lung volume reduction surgery in patients with severe emphysema [see comments] Fujimoto K, et al. **Intern Med** 1999 Feb; 38(2):119–25. Comment in: Intern Med 1999 Feb;38(2):79.

Lung volume reduction surgery for pulmonary emphysema [editorial; comment] Yoshida M. **Intern Med** 1999 Feb; 38(2):79 (10 ref.). Comment on: Intern Med 1999 Feb;38(2):119–25.

Lung volume reduction surgery for severe emphysema. Demertzis S, et al. **J Cardiovasc Surg (Torino)** 1998 Dec; 39(6):843–7

Combined lung volume reduction surgery and thoracic aortic aneurysm resection. Zannini P, et al. **J Cardiovasc Surg (Torino)** 1998 Aug;39(4):509–10

Loss of pulmonary function gains after lung volume reduction surgery. Kesten S, et al. **J Heart Lung Transplant** 1999 Mar;18(3):266–8

Salvage by volume reduction of chronic allograft rejection in emphysema. Schulman LL, et al. **J Heart Lung Transplant** 1999 Feb;18(2):107–12

An animal model for lung volume reduction therapy of pulmonary emphysema. Chen JC, et al. **J Invest Surg** 1998 Mar–Apr;11(2):129–37

Rationale and design of the National Emphysema Treatment Trial (NETT): A prospective randomized trial of lung volume reduction surgery. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):518–28 (41 ref.)

Diffusing capacity limitations of the extent of lung volume reduction surgery in an animal model of emphysema. Chen JC, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):728–35

Which type of diffuse emphysema is adequately contracted by the Nd:YAG laser. An ex-vivo experiment. Sawabata N, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul; 46(7):587–91

Effects of Nd:YAG laser irradiation on morphometry and lung function in elastase-induced emphysema in rats. Akahane T, et al. **Lasers Surg Med** 1998;23(4):204–12

Lung transplantation for emphysema. Estenne M. **Monaldi Arch Chest Dis** 1998 Aug;53(4):480–2

Breathing in patients with bullous emphysema: why lung volume reduction may work. Pride NB. **Monaldi Arch Chest Dis** 1998 Aug;53(4):483–5 (17 ref.)

Surgical approaches to advanced emphysema. Edelman JD, et al. **Respir Care Clin N Am** 1998 Sep;4(3):513–39, x (98 ref.)

Buttressing staple lines with bovine pericardium in lung resection for bullous emphysema. Santambrogio L, et al. **Scand Cardiovasc J** 1998;32(5):297–9

VATS-stepwise resection of a giant bulla in an oxygen-dependent patient. Shinonaga M, et al. **Surg Laparosc Endosc** 1999 Jan;9(1):70–3

Correlation of unilateral thoracoscopic lung volume reduction with improvement in lung function and exercise performance in patients with severe pulmonary emphysema. Kaiwa Y, et al. **Surg Today** 1999;29(8):718–23

The use of subcutaneous drains to manage subcutaneous emphysema. Sherif HM, et al. **Tex Heart Inst J** 1999; 26(2):129–31

German Thoracic Research Scholarship 1996: lung volume reduction for endstage pulmonary emphysema at the Washington University of St. Louis. Moersig W. **Thorac Cardiovasc Surg** 1998 Jun;46(3):176–80 (28 ref.)

Lung volume reduction surgery. Geddes DM. **Thorax** 1999 Aug;54 Suppl 2:S14–8 (18 ref.)

[Lung volume reduction surgery. A new surgical therapeutic possibility for patients with emphysema] Stentoft P, et al. **Ugeskr Laeger** 1999 Feb 22;161(8):1095–9 (25 ref.) (Eng. Abstr.) **(Dan)**

[Indications and limits of pulmonary volume reduction surgery] Dahan M, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S192 **(Fre)**

[Respiratory function and surgical reduction of lung volume] Sottiaux T, et al. **Rev Med Liege** 1998 Dec;53(12):770–7 (Eng. Abstr.) **(Fre)**

[Anesthesia in lung volume reduction] Grundmann U, et al. **Anaesthesist** 1999 Feb;48(2):121–8 (29 ref.) **(Ger)**

[Functional results after bilateral thoracoscopic lung volume reduction surgery in emphysema] Stammberger U, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1260–3 (Eng. Abstr.) **(Ger)**

[The role of non-invasive positive pressure ventilation in lung volume reduction surgery of pulmonary emphysema—a survey of German hospitals] Wiebel M, et al. **Med Klin** 1999 Apr;94(1 Spec No):81–5 (Eng. Abstr.) **(Ger)**

[Surgical lung volume reduction—an option for treating severe pulmonary emphysema] Russi EW, et al. **Ther Umsch** 1999 Mar;56(3):157–60 (5 ref.) (Eng. Abstr.) **(Ger)**

[Lung transplantation in advanced pulmonary emphysema] Speich R, et al. **Ther Umsch** 1999 Mar;56(3):161–5 (4 ref.) (Eng. Abstr.) **(Ger)**

[The surgical physiopathology of essential pulmonary emphysema and volume-reduction intervention] Nazari S. **Minerva Chir** 1998 Nov;53(11):899–918 (36 ref.) (Eng. Abstr.) **(Ita)**

[A case of both lung giant bullae treated by thoracoscopic bilateral resection] Iwabuchi H, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1156–61 (Eng. Abstr.) **(Jpn)**

[Thoracoscopic lung volume reduction surgery for emphysema] Kobayashi A, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep;36(9):745–9 (Eng. Abstr.) **(Jpn)**

[Congenital bronchopulmonary cystic disease] Mendes J, et al. **Acta Med Port** 1998 Nov;11(11):947–52 (Eng. Abstr.) **(Por)**

[Lung volume reduction—surgical alternative to the treatment of severe diffuse pulmonary emphysema?] Losso LC, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):246–52 (34 ref.) **(Por)**

[Lung volume reducing operations in the surgical treatment of pulmonary emphysema] Benej R, et al. **Bratisl Lek Listy** 1999 Mar;100(3):178–82 **(Slo)**

THERAPY

Conversations with Stella. Gianakos D. **Ann Intern Med** 1999 Apr 20;130(8):698–9

Gelatin-resorcinol-formaldehyde-glutaraldehyde glue for sealing pulmonary air leaks during thoracoscopic operation. Nomori H, et al. **Ann Thorac Surg** 1999 Jan;67(1):212–6

Health-related quality of life improves following pulmonary rehabilitation and lung volume reduction surgery. Moy ML, et al. **Chest** 1999 Feb;115(2):383–9

[Long-term therapy of alpha 1-antitrypsin-deficiency-associated pulmonary emphysema with human alpha 1-antitrypsin (published erratum appears in Pneumologie 1998 Dec;52(12):VI)] Wencker M, et al. **Pneumologie** 1998 Oct;52(10):545–52 (Eng. Abstr.) **(Ger)**

VETERINARY

What is your diagnosis? Pulmonary bullous emphysema with pneumothorax and subcutaneous emphysema. Gilroy B, et al. **J Am Vet Med Assoc** 1999 Aug 15;215(4):475–6

PULMONARY EOSINOPHILIA

Idiopathic chronic eosinophilic pneumonia. A clinical and follow-up study of 62 cases. The Groupe d'Etudes et de Recherche sur les Maladies "Orphelines" Pulmonaires (GERM"O"P). Marchand E, et al. **Medicine (Baltimore)** 1998 Sep;77(5):299–312

[Eosinophilic lung. A case report: diagnostic approach] Persoz C, et al. **Rev Med Suisse Romande** 1999 Jan; 119(1):63–74 (Eng. Abstr.) **(Fre)**

[Parasitic eosinophilic lungs] Vaylet F, et al. **Rev Pneumol Clin** 1998 Dec;54(6):329–39 (73 ref.) (Eng. Abstr.) **(Fre)**

[Pulmonary eosinophilia with asthma] Sebata K, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):104–6 (15 ref.) **(Jpn)**

[Prolonged pulmonary eosinophilia] Yano H, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):101–3 (15 ref.) **(Jpn)**

[Löffler's syndrome] Yano H, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):98–100 (15 ref.) **(Jpn)**

CHEMICALLY INDUCED

Dapsone-induced pulmonary eosinophilia without cutaneous allergic manifestations—an unusual encounter—a case report [see comments] Arunthathi S, et al. **Acta Leprol** 1998; 11(2):3–5. Comment in: Acta Leprol 1998 ;11(2):1.

Pulmonary eosinophilia associated with aminoglutethimide [letter] Bell SC, et al. **Aust N Z J Med** 1998 Oct;28(5):670–1

5-oxo-ETE induces pulmonary eosinophilia in an integrin-dependent manner in Brown Norway rats. Stamatiou P, et al. **J Clin Invest** 1998 Dec 15; 102(12):2165–72

Mesalazine-induced eosinophilic pneumonia. Tanigawa K, et al. **Respiration** 1999;66(1):69–72 (18 ref.)

[Hypoxic eosinophilic pneumonia in two patients treated with ACE inhibitors] Benzaquen-Forner H, et al. **Rev Mal Respir** 1998 Dec;15(6):804–10 (Eng. Abstr.) **(Fre)**

[Acute eosinophilic pneumonia. Possible role of chloroquine] Coëtmeur D, et al. **Rev Mal Respir** 1998 Oct;15(5):657–60 (Eng. Abstr.) **(Fre)**

[Acute eosinophilic pneumonia due to hypersensitivity to carbamazepine] Orliaguet O, et al. **Rev Mal Respir** 1998 Dec;15(6):797–9 (Eng. Abstr.) **(Fre)**

[Extensive eosinophilic pulmonary infiltrates in a depressive patient treated with maprotiline] Gaudenz R, et al. **Schweiz Rundsch Med Prax** 1999 Jun 3;88(23):1047–51 (Eng. Abstr.) **(Ger)**

[Pranoprofen-induced lung injury manifesting as acute eosinophilic pneumonia] Fujimori K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):401–5 (Eng. Abstr.) **(Jpn)**

COMPLICATIONS

Acute eosinophilic pneumonia associated with shock [see comments] Buddharaju VL, et al. **Crit Care Med** 1999 Sep; 27(9):2014–6. Comment in: Crit Care Med 1999 Sep;27(9):2069–70.

Acute eosinophilic pneumonia: a treatable cause of severe acute respiratory failure [editorial; comment] Sarnaik AP, et al. **Crit Care Med** 1999 Sep;27(9):2069–70. Comment on: Crit Care Med 1999 Sep;27(9):2014–6.

Eosinophilic pneumonia with eosinophilic gastroenteritis. Miyazono T, et al. **Intern Med** 1999 May;38(5):450–3

A case of sarcoidosis associated with chronic eosinophilic pneumonia. Tani K, et al. **J Med Invest** 1998 Aug; 45(1–4):131–6

[Carrington's disease associated with naso-sinusal polyposis (letter)] Tomasi M, et al. **Presse Med** 1998 Nov 14; 27(35):1790–1 **(Fre)**

[Allergic granulomatous angiitis associated with cerebral infarction, myo-pericarditis and acute respiratory failure due to eosinophilic pneumonia] Aoshima M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov;36(11):978–83 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

A 57-year-old woman with pulmonary infiltrates and eosinophilia. Lobo A, et al. **Cleve Clin J Med** 1999 Jun; 66(6):335–9 (4 ref.)

Chronic eosinophilic pneumonia with pleural effusion. Rutgers SR, et al. **Neth J Med** 1999 May;54(5):191–6

Eosinophilic alveolitis in BAL after lung transplantation. Bewig B, et al. **Transpl Int** 1999;12(4):266–72

[The eosinophilic lung] Miltgen J, et al. **Med Trop (Mars)** 1998;58(4 Suppl):447–53 (62 ref.) (Eng. Abstr.) **(Fre)**

[Idiopathic chronic eosinophilic pneumonia] Thuy GN, et al. **Med Trop (Mars)** 1998;58(4 Suppl):455–8 (Eng. Abstr.) **(Fre)**

[Evaluation of eosinophilic cationic protein levels in patients with eosinophilic pneumonia] Hamada H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct;36(10):864–70 (Eng. Abstr.) **(Jpn)**

[A mild case of acute eosinophilic pneumonia] Kawamoto H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep; 36(9):809–12 (Eng. Abstr.) **(Jpn)**

[On the difference between classification and diagnostic criteria (letter; comment)] Pérez de Llano LA, et al. **Arch Bronconeumol** 1999 May;35(5):248. Comment on: Arch Bronconeumol 1998 Jul–Aug;34(7):364–5. **(Spa)**

DRUG THERAPY

Steroid-refractory neonatal eosinophilic pneumonia responsive to cyclosporin A. Morton RL, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):1019–22

Montelukast reduces airway eosinophilic inflammation in asthma: a randomized, controlled trial. Pizzichini E, et al. **Eur Respir J** 1999 Jul;14(1):12–8

Chronic eosinophilic pneumonia with pleural effusion. Rutgers SR, et al. **Neth J Med** 1999 May;54(5):191–6

[Idiopathic chronic eosinophilic pneumonia] Thuy GN, et al. **Med Trop (Mars)** 1998;58(4 Suppl):455–8 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Antigen-induced eosinophilic lung inflammation develops in mice deficient in chemokine eotaxin. Yang Y, et al. **Blood** 1998 Nov 15;92(10):3912–23

Repetitive hyperpnoea causes peripheral airway obstruction and eosinophilia. Davis MS, et al. **Eur Respir J** 1999 Jul; 14(1):57–62

Eosinophilic airway inflammation induced by repeated exposure to cigarette smoke. Matsumoto K, et al. **Eur Respir J** 1998 Aug;12(2):387–94

Eosinophilic lung disease associated with Candida albicans allergy. Pacheco A, et al. **Eur Respir J** 1998 Aug; 12(2):502–4

Repeated intratracheal inoculation of house dust mite (Dermatophagoides farinae) induces pulmonary eosinophilic inflammation and IgE antibody production in mice. Yu CK, et al. **J Allergy Clin Immunol** 1999 Jul; 104(1):228–36

Short ragweed allergen induces eosinophilic lung disease in HLA-DQ transgenic mice. Chapoval SP, et al. **J Clin Invest** 1999 Jun;103(12):1707–17

[The eosinophilic lung] Miltgen J, et al. **Med Trop (Mars)** 1998;58(4 Suppl):447–53 (62 ref.) (Eng. Abstr.) **(Fre)**

[Onset of acute eosinophilic pneumonia after resumption of smoking] Hadase M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jul;37(7):560–4 (Eng. Abstr.) **(Jpn)**

[Positive response to smoking challenge test in a case of acute eosinophilic pneumonia] Ito S, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):424–8 (Eng. Abstr.) **(Jpn)**

[Ramsay Hunt syndrome associated with eosinophilic pneumonia] Kodama K. **Nihon Kokyuki Gakkai Zasshi** 1998 Jun;36(6):531–4 (Eng. Abstr.) **(Jpn)**

[Chronic eosinophilic pneumonia associated with rheumatoid arthritis] Saito T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Apr;37(4):291–7 (15 ref.) (Eng. Abstr.) **(Jpn)**

GENETICS

Short ragweed allergen induces eosinophilic lung disease in HLA-DQ transgenic mice. Chapoval SP, et al. **J Clin Invest** 1999 Jun;103(12):1707–17

IMMUNOLOGY

Antigen-induced airway hyperresponsiveness, pulmonary eosinophilia, and chemokine expression in B cell–deficient mice. MacLean JA, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):379–87

A rat model presenting eosinophilia in the airways, lung eosinophil activation, and pulmonary hyperreactivity. Carvalho C, et al. **Exp Lung Res** 1999 Jun;25(4):303–16

Natural killer cells determine development of allergen-induced eosinophilic airway inflammation in mice. Korsgren M, et al. **J Exp Med** 1999 Feb 1;189(3):553–62

METABOLISM

Increased synthesis and release of endothelin-1 during the initial phase of airway inflammation. Finsnes F, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1600–6

PARASITOLOGY

Eosinophilia, IgE production, and cytokine production by lung T cells in surface CD4-deficient mutant mice infected with Toxocara canis. Takamoto M, et al. **Immunology** 1998 Sep;95(1):97–104

PATHOLOGY

Eosinophilic inflammation assessed by induced sputum in corticosteroid-dependent asthma. Tarodo de la Fuente P, et al. **Respir Med** 1999 Mar;93(3):183–9

PHYSIOPATHOLOGY

Expression of the human integrin beta6 subunit in alveolar type II cells and bronchiolar epithelial cells reverses lung inflammation in beta6 knockout mice. Huang X, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):636–42

Role of insulin in antigen-induced airway eosinophilia and neuronal M2 muscarinic receptor dysfunction. Belmonte KE, et al. **J Appl Physiol** 1998 Nov;85(5):1708–18

Temporal role of chemokines in a murine model of cockroach allergen-induced airway hyperreactivity and eosinophilia. Campbell EM, et al. **J Immunol** 1998 Dec 15; 161(12):7047–53

PREVENTION & CONTROL

Apoptosis induced by filarial parasitic sheath protein in HEp 2 cell lines blocked by ectopic expression of bcl 2. Krishnamoorthy B, et al. **Cell Biol Int** 1998;22(7–8):483–92

Immunostimulatory DNA sequences inhibit IL-5, eosinophilic inflammation, and airway hyperresponsiveness in mice. Broide D, et al. **J Immunol** 1998 Dec 15; 161(12):7054–62

RADIOGRAPHY

Chronic eosinophilic pneumonia with atypical radiographic presentation. Laufs U, et al. **Respiration** 1998;65(4):323–6

[Acute eosinophilic pneumonia with diffuse fine nodular shadows] Harita S, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct;36(10):913–6 (Eng. Abstr.) **(Jpn)**

THERAPY

Allergen immunotherapy inhibits airway eosinophilia and hyperresponsiveness associated with decreased IL-4 production by lymphocytes in a murine model of allergic asthma. Van Oosterhout AJ, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):622–8

VIROLOGY

Atypical pulmonary eosinophilia is mediated by a specific amino acid sequence of the attachment (G) protein of respiratory syncytial virus. Tebbey PW, et al. **J Exp Med** 1998 Nov 16;188(10):1967–72

PULMONARY FIBROSIS

Tenascin is increased in epithelial lining fluid in fibrotic lung disorders. Kaarteenaho-Wiik R, et al. **Lung** 1998; 176(6):371–80

Idiopathic pulmonary fibrosis: current concepts [see comments] Ryu JH, et al. **Mayo Clin Proc** 1998 Nov; 73(11):1085–101 (127 ref.). Comment in: Mayo Clin Proc 1999 May;74(5):533–4.

BLOOD

Marked elevation of CA19-9 in a patient with idiopathic pulmonary fibrosis: CA19-9 as a bad prognostic factor. Fujita J, et al. **Respirology** 1998 Sep;3(3):211–4

CHEMICALLY INDUCED

Reduced tumor necrosis factor-alpha and transforming growth factor-beta1 expression in the lungs of inbred mice that fail to develop fibroproliferative lesions consequent to asbestos exposure. Brass DM, et al. **Am J Pathol** 1999 Mar;154(3):853–62

Modulation of bleomycin-induced pulmonary toxicity in the hamster by the antioxidant amifostine. Nici L, et al. **Cancer** 1998 Nov 1;83(9):2008–14

Immunoglobulins and cellular constituents of the BAL fluid of patients with sulfur mustard gas-induced pulmonary fibrosis. Emad A, et al. **Chest** 1999 May;115(5):1346–51

Manipulation of injury and repair of the alveolar epithelium using two pneumotoxicants: 3-methylindole and monocrotaline. Woods LW, et al. **Exp Lung Res** 1999 Mar; 25(2):165–81

Cellular and molecular mechanisms of asbestos-induced fibrosis. Robledo R, et al. **J Cell Physiol** 1999 Aug; 180(2):158–66 (99 ref.)

Neutralization of the CXC chemokine, macrophage inflammatory protein-2, attenuates bleomycin-induced pulmonary fibrosis. Keane MP, et al. **J Immunol** 1999 May 1;162(9):5511–8

The role of IL-5 in bleomycin-induced pulmonary fibrosis. Gharaee-Kermani M, et al. **J Leukoc Biol** 1998 Nov; 64(5):657–66

T cell independence of bleomycin-induced pulmonary fibrosis. Helene M, et al. **J Leukoc Biol** 1999 Feb; 65(2):187–95

Amiodarone induced pulmonary fibrosis in infancy. Bowers PN, et al. **Pacing Clin Electrophysiol** 1998 Aug;21(8):1665–7

Effect of endothelin receptor antagonists (BQ-485, Ro 47-0203) on collagen deposition during the development of bleomycin-induced pulmonary fibrosis in rats. Mutsaers SE, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):221–5

Type II alveolar epithelial cells and cyclophosphamide-induced lung fibrosis. Sulkowski S. **Rocz Akad Med Bialymst** 1998;43:160–8

Effects of dietary vitamin E supplementation on pulmonary morphology and collagen deposition in amiodarone- and vehicle-treated hamsters. Card JW, et al. **Toxicology** 1999 Apr 15;133(2–3):75–84

COMPLICATIONS

Fibronectin gene polymorphisms associated with fibrosing alveolitis in systemic sclerosis. Avila JJ, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):106–12

Inhaled prostacyclin and iloprost in severe pulmonary hypertension secondary to lung fibrosis. Olschewski H, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):600–7

Incidence of cancer among Finnish patients with asbestos-related pulmonary or pleural fibrosis. Karjalainen A, et al. **Cancer Causes Control** 1999 Feb;10(1):51–7

Hepatopulmonary syndrome associated with cardiorespiratory disease. Martinez G, et al. **J Hepatol** 1999 May;30(5):882–9

Unilateral metachronous lung cancers in a patient with idiopathic pulmonary fibrosis. Kirishima K, et al. **Oncol Rep** 1999 Jul–Aug;6(4):763–5

Polyuria in a patient with fibrosing alveolitis. Meghjee SP, et al. **Postgrad Med J** 1999 Jan;75(879):55–7

Non-Hodgkin's lymphoma with CFA [letter; comment] Nicholson A, et al. **Thorax** 1998 Dec;53(12):1096. Comment on: Thorax 1998 Mar;53(3):228–9.

[Spontaneous bilateral pneumothorax and idiopathic pulmonary fibrosis (letter)] Mena MJ, et al. **Arch Bronconeumol** 1999 Jul–Aug;35(7):363 **(Spa)**

DIAGNOSIS

Type III and type I procollagen markers in fibrosing alveolitis. Lammi L, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):818–23

A case of syphilitic interstitial pulmonary fibrosis. Janković S, et al. **Croat Med J** 1998 Dec;39(4):453–4

Melanoptysis as a complication of fibreoptic bronchoscopy. Mena MJ, et al. **Eur Respir J** 1998 Oct;12(4):993–5

Idiopathic pulmonary fibrosis: prognostic indicators [editorial] Chhabra SK. **Indian J Chest Dis Allied Sci** 1998 Jul–Sep;40(3):159–61 (16 ref.)

Differentiation of alveolitis and pulmonary fibrosis in rabbits with magnetic resonance imaging after intrabronchial administration of bleomycin. Kersjes W, et al. **Invest Radiol** 1999 Jan;34(1):13–21

Hamman-Rich syndrome. Reyes M, et al. **J La State Med Soc** 1998 Dec;150(12):644–6

[Respiratory manifestation of celiac disease (letter)] Ben M'rad S, et al. **Presse Med** 1998 Sep 19;27(27):1384 **(Fre)**

[64-year-old patient with dyspnea at rest and rapidly progressing renal failure. Systemic sclerosis with interstitial lung disease and renal crisis] Hellmich B, et al. **Internist (Berl)** 1998 Oct;39(10):1062–8 **(Ger)**

[Pleural plaque fibrosis: a clinical case] Iovino F, et al. **Ann Ital Chir** 1999 Mar–Apr;70(2):273–6 (16 ref.) (Eng. Abstr.) **(Ita)**

[Clinical presentation and medical management in patients with idiopathic pulmonary fibrosis before diagnosis] Wesołowski S, et al. **Pneumonol Alergol Pol** 1999; 67(1–2):38–44 (Eng. Abstr.) **(Pol)**

[Ischemic heart disease as a factor for hindering diagnosis of idiopathic pulmonary fibrosis] Wesołowski S, et al. **Pol Arch Med Wewn** 1998 Nov;100(5):442–8 (Eng. Abstr.) **(Pol)**

[Extracellular components of bronchoalveolar lavage fluid (BALF) as a marker of interstitial pulmonary disease activity. I. Protein concentration] Zielonka TM, et al. **Przegl Lek** 1998;55(11):581–5 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Treatment of idiopathic pulmonary fibrosis with a new antifibrotic agent, pirfenidone: results of a prospective, open-label Phase II study. Raghu G, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1061–9

Circulating KL-6 predicts the outcome of rapidly progressive idiopathic pulmonary fibrosis. Yokoyama A, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1680–4

Cyclophosphamide pulse therapy in idiopathic pulmonary fibrosis. Kolb M, et al. **Eur Respir J** 1998 Dec;12(6):1409–14

Response to steroid therapy in patients of idiopathic pulmonary fibrosis: a retrospective analysis. Behera D, et al. **Indian J Chest Dis Allied Sci** 1998 Jul–Sep;40(3):163–9

Comparative study on effects of pentoxifylline, prednisolone and colchicine in experimental alveolitis. Entzian P, et al. **Int J Immunopharmacol** 1998 Dec;20(12):723–35

Pharmacologic therapy of idiopathic pulmonary fibrosis. Egan J. **J Heart Lung Transplant** 1998 Nov;17(11):1039–44 (31 ref.)

Nitric oxide inhalation for paraquat-induced lung injury [see comments] Eisenman A, et al. **J Toxicol Clin Toxicol** 1998; 36(6):575–84. Comment in: J Toxicol Clin Toxicol 1998 ;36(6):585–6.

Pirfenidone in idiopathic pulmonary fibrosis. Nicod LP. **Lancet** 1999 Jul 24;354(9175):268–9

[Antioxidative and clinical effects of high-dose N-acetylcysteine in fibrosing alveolitis. Adjunctive therapy to maintenance immunosuppression] Entzian P.

Pneumologie 1998 Jul;52(7):396–7 **(Ger)**
[Current status of the treatment of idiopathic pulmonary fibrosis (editorial)] Agusti C, et al. **Arch Bronconeumol** 1998 Dec;34(11):517–9 (32 ref.) **(Spa)**
[Treatment of idiopathic pulmonary fibrosis with colchicine] Undurraga A, et al. **Rev Med Chil** 1998 Nov; 126(11):1345–53 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Overexpression of alveolar macrophage gelatinase B (MMP-9) in patients with idiopathic pulmonary fibrosis: effects of steroid and immunosuppressive treatment. Lemjabbar H, et al. **Am J Respir Cell Mol Biol** 1999 May; 20(5):903–13
Immunohistochemical and gelatin zymography studies for matrix metalloproteinases in bleomycin-induced pulmonary fibrosis. Yaguchi T, et al. **Pathol Int** 1998 Dec; 48(12):954–63

ETIOLOGY

Mineral dusts directly induce epithelial and interstitial fibrogenic mediators and matrix components in the airway wall. Dai J, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1907–13
Increased prevalence of gastroesophageal reflux in patients with idiopathic pulmonary fibrosis. Tobin RW, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1804–8
Morphological changes in rat lung parenchyma exposed to low frequency noise. Grande NR, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A70–7
Airway flow limitation in patients with vibroacoustic disease. Reis Ferreira JM, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A63–9
Augmented production of chemokines (monocyte chemotactic protein-1 (MCP-1), macrophage inflammatory protein-1alpha (MIP-1alpha) and MIP-1beta) in patients with systemic sclerosis: MCP-1 and MIP-1alpha may be involved in the development of pulmonary fibrosis. Hasegawa M, et al. **Clin Exp Immunol** 1999 Jul;117(1):159–65
Anti-PL 12 and pulmonary fibrosis in a patient ten years after silica/silicate dust exposure [letter] Osterode W, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):622
Transforming growth factor-beta gene transfer to the lung induces myofibroblast presence and pulmonary fibrosis. Gauldie J, et al. **Curr Top Pathol** 1999;93:35–45 (38 ref.)
HLA-DP molecules bind cobalt: a possible explanation for the genetic association with hard metal disease. Potolicchio I, et al. **Eur J Immunol** 1999 Jul;29(7):2140–7
Oxidant-induced lung injury in anticancer therapy. Beinert T, et al. **Eur J Med Res** 1999 Feb 25;4(2):43–53 (113 ref.)
Pulmonary complications in patients with inflammatory bowel disease. Kuzela L, et al. **Hepatogastroenterology** 1999 May–Jun;46(27):1714–9
The role of eosinophils in pulmonary fibrosis (Review). Gharaee-Kermani M, et al. **Int J Mol Med** 1998 Jan; 1(1):43–53 (133 ref.)
A Fas pathway to pulmonary fibrosis [comment] Chapman HA. **J Clin Invest** 1999 Jul;104(1):1–2. Comment on: J Clin Invest 1999 Jul;104(1):13–9.
A case study and national database report of progressive systemic sclerosis and associated conditions. Phillips D, et al. **J Womens Health** 1998 Nov;7(9):1099–104 (13 ref.)
Ahead to the past [letter; comment] DeRemee RA. **Mayo Clin Proc** 1999 May;74(5):533–4. Comment on: Mayo Clin Proc 1998 Nov;73(11):1085–101.
Radiation-induced pneumonitis outside the radiation field [letter; comment] Satoh H, et al. **Mayo Clin Proc** 1999 Jul; 74(7):743–4. Comment on: Mayo Clin Proc 1999 Jan;74(1):27–36.
Analysis of radiation pneumonitis and radiation-induced lung fibrosis in breast cancer patients after breast conservation treatment. Nishioka A, et al. **Oncol Rep** 1999 May–Jun; 6(3):513–7
Human eosinophils regulate human lung- and skin-derived fibroblast properties in vitro: a role for transforming growth factor beta (TGF-beta). Levi-Schaffer F, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9660–5
Pulmonary toxicity of chemotherapy and G/GM-CSF: a report of five cases. Couderc LJ, et al. **Respir Med** 1999 Jan;93(1):65–8 (16 ref.)
Interstitial lung disease in systemic sclerosis: comparison of BALF lymphocyte phenotype and DLCO impairment. Domagala-Kulawik J, et al. **Respir Med** 1998 Nov; 92(11):1295–301
Pulmonary fibrosis in polymyositis with the Jo-1 syndrome: an unusual mode of presentation. Kiely JL, et al. **Respir Med** 1998 Sep;92(9):1167–9
Migratory pulmonary infiltrates. Rodriguez MC, et al. **Respir Med** 1998 Aug;92(8):1081–4
Hamman-rich syndrome 'primed' by radiation? Wharton SP, et al. **Respir Med** 1999 Feb;93(2):136–7
The molecular basis of asbestos induced lung injury. Kamp DW, et al. **Thorax** 1999 Jul;54(7):638–52 (193 ref.)
In search of a cause of cryptogenic fibrosing alveolitis (CFA): one initiating factor or many? Turner-Warwick M. **Thorax** 1998 Aug;53 Suppl 2:S3–9 (61 ref.)
[A rare cause of diffuse interstitial pneumopathy: alveolar proteinosis (apropos of a case)] Fenniche S, et al. **Tunis Med** 1998 Feb;76(2):1085–8 (Eng. Abstr.) **(Fre)**
[Fibrosing alveolitis: retrospective overview, future prospects?] Entzian P. **Pneumologie** 1999 Jan;53(1):15–7 **(Ger)**
[Growth factors in the process of inflammation and fibrosis in the lung] Matsuse T. **Nihon Kokyuki Gakkai Zasshi** 1998 May;36(5):413–20 (49 ref.) (Eng. Abstr.) **(Jpn)**
[Comparative fibrogenicity and oncogenicity of asbestos-containing dust of heat-insulating materials] Kashanskii SV, et al. **Gig Sanit** 1998 Sep–Oct;(5):59–61 **(Rus)**
[Role of neutrophilic leukocytes in pathogenesis of idiopathic fibrosing pulmonary alveolitis] Kolodkina LA, et al. **Probl Tuberk** 1999;(4):35–7 (Eng. Abstr.) **(Rus)**

GENETICS

Transforming growth factor-alpha deficiency reduces pulmonary fibrosis in transgenic mice. Madtes DK, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):924–34
Heterogeneous point mutations of the p53 gene in pulmonary fibrosis. Hojo S, et al. **Eur Respir J** 1998 Dec;12(6):1404–8
CA repeat allele polymorphism in the first intron of the human interferon-gamma gene is associated with lung allograft fibrosis. Awad M, et al. **Hum Immunol** 1999 Apr; 60(4):343–6
Transforming growth factor-beta (TGF-beta1) genotype and lung allograft fibrosis. El-Gamel A, et al. **J Heart Lung Transplant** 1999 Jun;18(6):517–23
K-ras gene point mutation in neogenetic lesions of subpleural fibrotic lesions: either an early genetic event in lung cancer development or a non-specific genetic change during the inflammatory reparative process. Maeshima AM, et al. **Pathol Int** 1999 May;49(5):411–8
Genotypic variation in the transforming growth factor-beta1 gene: association with transforming growth factor-beta1 production, fibrotic lung disease, and graft fibrosis after lung transplantation. Awad MR, et al. **Transplantation** 1998 Oct 27;66(8):1014–20

HISTORY

Idiopathic interstitial pneumonitis/fibrosis: a historical note [editorial] Sharma OP, et al. **Curr Opin Pulm Med** 1999 Sep;5(5):275–7

IMMUNOLOGY

Lung fibrosis induced by silica particles in NMR1 mice is associated with an upregulation of the p40 subunit of interleukin-12 and Th-2 manifestations. Huaux F, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):561–72
T-cell chemokines interferon-inducible protein-10 and monokine induced by interferon-gamma are upregulated in bleomycin-induced lung injury. Tager A, et al. **Chest** 1999 Jul;116(1 Suppl):90S
Mapping of topoisomerase II alpha epitopes recognized by autoantibodies in idiopathic pulmonary fibrosis. Grigolo B, et al. **Clin Exp Immunol** 1998 Dec;114(3):339–46
Expression of mucosa-related integrin alphaEbeta7 on alveolar T cells in interstitial lung diseases. Lohmeyer J, et al. **Clin Exp Immunol** 1999 May;116(2):340–6
T-cell receptor gene usage in patients with fibrosing alveolitis and control subjects. Lympany PA, et al. **Eur J Clin Invest** 1999 Feb;29(2):173–81
CA repeat allele polymorphism in the first intron of the human interferon-gamma gene is associated with lung allograft fibrosis. Awad M, et al. **Hum Immunol** 1999 Apr; 60(4):343–6
Expression of B7-1, B7-2, and interleukin-12 in anti-Fas antibody-induced pulmonary fibrosis in mice. Kuwano K, et al. **Int Arch Allergy Immunol** 1999 Jun;119(2):112–9
Neutralization of the CXC chemokine, macrophage inflammatory protein-2, attenuates bleomycin-induced pulmonary fibrosis. Keane MP, et al. **J Immunol** 1999 May 1;162(9):5511–8
Elevation of anti-cytokeratin 19 antibody in sera of the patients with idiopathic pulmonary fibrosis and pulmonary fibrosis associated with collagen vascular disorders. Fujita J, et al. **Lung** 1999;177(5):311–9
Detection of anti-cytokeratin 8 antibody in the serum of patients with cryptogenic fibrosing alveolitis and pulmonary fibrosis associated with collagen vascular disorders. Dobashi N, et al. **Thorax** 1998 Nov;53(11):969–74
[Pulmonary fibrosis, a cause of elevated CA 19-9 (letter)] Lemaire V, et al. **Rev Med Interne** 1998 Dec;19(12):942–4 **(Fre)**
[The lung as an immunologic organ] Ziesche R, et al. **Wien Klin Wochenschr Suppl** 1999;1:1–5 (34 ref.) (Eng. Abstr.) **(Ger)**
[Giant cell interstitial pneumonia] Barzó P, et al. **Orv Hetil** 1998 Dec 20;139(51):3079–83 (43 ref.) (Eng. Abstr.) **(Hun)**

METABOLISM

Cell adhesion molecules and pulmonary fibrosis. Paine R 3rd, et al. **Am J Med** 1999 Sep;107(3):268–79 (81 ref.)
Differing patterns of P-selectin expression in lung injury. Bless NM, et al. **Am J Pathol** 1998 Oct;153(4):1113–22
Reduced tumor necrosis factor-alpha and transforming growth factor-beta1 expression in the lungs of inbred mice that fail to develop fibroproliferative lesions consequent to asbestos exposure. Brass DM, et al. **Am J Pathol** 1999 Mar;154(3):853–62
Pirfenidone inhibits PDGF isoforms in bleomycin hamster model of lung fibrosis at the translational level. Gurujeyalakshmi G, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L311–8
The involvement of Fas-Fas ligand pathway in fibrosing lung diseases. Kuwano K, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):53–60
Differential immunolocalization of VEGF in rat and human adult lung, and in experimental rat lung fibrosis: light, fluorescence, and electron microscopy. Fehrenbach H, et al. **Anat Rec** 1999 Jan;254(1):61–73
Production of type 2 cytokines by CD8+ lung cells is associated with greater decline in pulmonary function in patients with systemic sclerosis. Atamas SP, et al. **Arthritis Rheum** 1999 Jun;42(6):1168–78
The integrin alpha v beta 6 binds and activates latent TGF beta 1: a mechanism for regulating pulmonary inflammation and fibrosis. Munger JS, et al. **Cell** 1999 Feb 5;96(3):319–28
Exhaled nitric oxide is increased in active fibrosing alveolitis. Paredi P, et al. **Chest** 1999 May;115(5):1352–6
Loss of immunoreactivity for RT140, a type I cell-specific protein in the alveolar epithelium of rat lungs with bleomycin-induced fibrosis. Koslowski R, et al. **Eur Respir J** 1998 Dec;12(6):1397–403
Expression of TNF and the necessity of TNF receptors in bleomycin-induced lung injury in mice. Ortiz LA, et al. **Exp Lung Res** 1998 Nov–Dec;24(6):721–43
The kinetics of elastolysis: elastin catabolism during experimentally induced fibrosis. Starcher B, et al. **Exp Lung Res** 1999 Jul–Aug;25(5):407–24
Role of transforming growth factor-beta1 and decorin in development of central fibrosis in pulmonary adenocarcinoma. Asakura S, et al. **Hum Pathol** 1999 Feb; 30(2):195–8
Secretion of stem cell factor by alveolar fibroblasts in interstitial lung diseases. Fireman E, et al. **Immunol Lett** 1999 Apr 15;67(3):229–36
Decreased prostaglandin E2 synthesis by lung fibroblasts isolated from rats with bleomycin-induced lung fibrosis. Ogushi F, et al. **Int J Exp Pathol** 1999 Feb;80(1):41–9
Immunohistochemical localisation of advanced glycation end products in pulmonary fibrosis. Matsuse T, et al. **J Clin Pathol** 1998 Jul;51(7):515–9
Effects of pirfenidone on transforming growth factor-beta gene expression at the transcriptional level in bleomycin hamster model of lung fibrosis. Iyer SN, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):367–73
Effects of pirfenidone on procollagen gene expression at the transcriptional level in bleomycin hamster model of lung fibrosis. Iyer SN, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):211–8
Role of urokinase in the activation of macrophage-associated TGF-beta in silica-induced lung fibrosis. Matrat M, et al. **J Toxicol Environ Health** 1998 Nov 13;55(5):359–71
Early granulocyte-macrophage colony-stimulating factor expression by alveolar inflammatory cells during bleomycin-induced rat lung fibrosis. Andreutti D, et al. **Lab Invest** 1998 Dec;78(12):1493–502
Immunolocalization of collagen and collagen-binding heat shock protein 47 in fibrotic lung diseases. Razzaque MS, et al. **Mod Pathol** 1998 Dec;11(12):1183–8
The number of interleukin 1 receptors on lung fibroblasts in patients with idiopathic pulmonary fibrosis. Takeuchi M, et al. **Respiration** 1999;66(3):236–41
An increase in hyaluronan by lung fibroblasts: a biomarker for intensity and activity of interstitial pulmonary fibrosis? Zhao HW, et al. **Respirology** 1999 Jun;4(2):131–8
Overexpression of transforming growth factor-alpha and epidermal growth factor-receptor in idiopathic pulmonary fibrosis. Baughman RP, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):57–61
Role of transcription factors in inflammatory lung diseases. Rahman I, et al. **Thorax** 1998 Jul;53(7):601–12 (119 ref.)
Alterations in the immunohistochemical distribution patterns of vascular endothelial growth factor receptors Flk1 and Flt1 in bleomycin-induced rat lung fibrosis. Fehrenbach H, et al. **Virchows Arch** 1999 Jul;435(1):20–31
[Chronic pulmonary diseases: trend and research methods (editorial)] Mu K. **Chung Hua Nei Ko Tsa Chih** 1997 Jul; 36(7):436–7 **(Chi)**
[Changes of extracellular matrix components in bronchoalveolar lavage fluid in patients with idiopathic pulmonary fibrosis] Zhao H, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jul;36(7):457–60 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

Structural elucidation of a novel exopolysaccharide produced by a mucoid clinical isolate of Burkholderia cepacia. Characterization of a trisubstituted glucuronic acid residue in a heptasaccharide repeating unit. Cérantola S, et al. **Eur J Biochem** 1999 Mar;260(2):373–83

MORTALITY

Does cryptogenic fibrosing alveolitis carry an increased risk of death from lung cancer? Harris JM, et al. **J Epidemiol Community Health** 1998 Sep;52(9):602–3

PATHOLOGY

Airway remodeling: potential contributions of subepithelial fibrosis and airway smooth muscle hypertrophy/hyperplasia to airway narrowing in asthma.

Bento AM, et al. **Allergy Asthma Proc** 1998 Nov-Dec; 19(6):353-8 (46 ref.)

Emphysematous lesions, inflammation, and fibrosis in the lungs of transgenic mice overexpressing platelet-derived growth factor. Hoyle GW, et al. **Am J Pathol** 1999 Jun; 154(6):1763-75

TNF-alpha receptor knockout mice are protected from the fibroproliferative effects of inhaled asbestos fibers. Liu JY, et al. **Am J Pathol** 1998 Dec;153(6):1839-47

Specific inhibitors of platelet-derived growth factor or epidermal growth factor receptor tyrosine kinase reduce pulmonary fibrosis in rats. Rice AB, et al. **Am J Pathol** 1999 Jul;155(1):213-21

Alveolar epithelial cell death adjacent to underlying myofibroblasts in advanced fibrotic human lung. Uhal BD, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1192-9

A histologic pattern of nonspecific interstitial pneumonia is associated with a better prognosis than usual interstitial pneumonia in patients with cryptogenic fibrosing alveolitis. Daniil ZD, et al. **Am J Respir Crit Care Med** 1999 Sep; 160(3):899-905

Morphometric analysis of insulin-like growth factor-I localization in lung tissues of patients with idiopathic pulmonary fibrosis. Uh ST, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1626-35

Erdheim-Chester disease: clinical, radiologic, and histopathologic findings in five patients with interstitial lung disease. Egan AJ, et al. **Am J Surg Pathol** 1999 Jan; 23(1):17-26 (24 ref.)

The Hermansky-Pudlak syndrome. Parker MS, et al. **Ann Diagn Pathol** 1997 Dec;1(2):99-103

Morphological changes in rat lung parenchyma exposed to low frequency noise. Grande NR, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A70-7

Aerosol-derived airway morphometry and aerosol bolus dispersion in patients with lung fibrosis and lung emphysema. Brand P, et al. **Chest** 1999 Aug;116(2):543-8

The myofibroblast as an inflammatory cell in pulmonary fibrosis. Phan SH, et al. **Curr Top Pathol** 1999;93:173-82 (57 ref.)

Expression of p53, p21 (Waf1/Cip1/Sdi1) and Fas antigen in collagen vascular and granulomatous lung diseases. Kunitake R, et al. **Eur Respir J** 1998 Oct;12(4):920-5

Idiopathic nonspecific interstitial pneumonia/fibrosis: comparison with idiopathic pulmonary fibrosis and BOOP [see comments] [published erratum appears in Eur Respir J 1999 Mar;13(3):711] Nagai S, et al. **Eur Respir J** 1998 Nov;12(5):1010-9. Comment in: Eur Respir J 1998 Nov;12(5):1003-4.

Transforming growth factor-beta1 in sarcoidosis. Salez F, et al. **Eur Respir J** 1998 Oct;12(4):913-9

Manipulation of injury and repair of the alveolar epithelium using two pneumotoxicants: 3-methylindole and monocrotaline. Woods LW, et al. **Exp Lung Res** 1999 Mar; 25(2):165-81

Development of cryptogenic fibrosing alveolitis during pregnancy. Densem C, et al. **J R Soc Med** 1998 Nov; 91(11):591-3

Increase of mast cells in the liver and lung may be associated with but not a cause of fibrosis: demonstration using mast cell-deficient Ws/Ws rats. Okazaki T, et al. **Lab Invest** 1998 Nov;78(11):1431-8

Dynamic interactions between lung fibroblasts and leukocytes: implications for fibrotic lung disease. Hogaboam CM, et al. **Proc Assoc Am Physicians** 1998 Jul-Aug;110(4):313-20 (57 ref.)

Application of laser scanning confocal microscopy in the analysis of particle-induced pulmonary fibrosis. Antonini JM, et al. **Toxicol Sci** 1999 Sep;51(1):126-34

[The roles of apoptosis in lung injury and fibrosis] Kuwano K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep; 36(9):739-44 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Seven cases of marked pulmonary fibrosis in the upper lobe] Shiota S, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb; 37(2):87-96 (Eng. Abstr.) **(Jpn)**

[Acute interstitial pneumonia (Hamman Rich syndrome)] Hurtado Ayuso JE, et al. **Arch Bronconeumol** 1998 Dec; 34(11):561-3 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

Airway flow limitation in patients with vibroacoustic disease. Reis Ferreira JM, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A63-9

Role of tumor necrosis factor-alpha in regulating fibrotic lung repair. Dubaybo BA. **Res Commun Mol Pathol Pharmacol** 1998 Jul;101(1):69-83

Fibrosing alveolitis predating microscopic polyangiitis. Becker-Merok A, et al. **Scand J Rheumatol** 1999; 28(4):254-6

Placing crackles on the flow-volume plane: a study of the relationship between the time position, the flow and the volume. Rossi M, et al. **Technol Health Care** 1998 Jun; 6(1):91-7

Lung and chest wall mechanics in ventilated patients with end stage idiopathic pulmonary fibrosis. Nava S, et al. **Thorax** 1999 May;54(5):390-5

[Pathophysiology and respiratory therapy of chronic respiratory insufficiency in chronic pulmonary fibrosis] Fabel H. **Wien Klin Wochenschr Suppl** 1999;1:6-10 (6 ref.) **(Ger)**

PREVENTION & CONTROL

Blockade of CD40-CD40 ligand interactions protects against radiation-induced pulmonary inflammation and fibrosis. Adawi A, et al. **Clin Immunol Immunopathol** 1998 Dec; 89(3):222-30

Essential roles of the Fas-Fas ligand pathway in the development of pulmonary fibrosis [see comments] Kuwano K, et al. **J Clin Invest** 1999 Jul;104(1):13-9. Comment in: J Clin Invest 1999 Jul;104(1):1-2.

Transient gene transfer and expression of Smad7 prevents bleomycin-induced lung fibrosis in mice. Nakao A, et al. **J Clin Invest** 1999 Jul;104(1):5-11

Double intratracheal instillation of keratinocyte growth factor prevents bleomycin-induced lung fibrosis in rats. Sugahara K, et al. **J Pathol** 1998 Sep;186(1):90-8

Use of tetrandrine to differentiate between mechanisms involved in silica-versus bleomycin-induced fibrosis. Ma JY, et al. **J Toxicol Environ Health** 1999 Jun 25; 57(4):247-66

Reduction of bleomycin induced lung fibrosis by transforming growth factor beta soluble receptor in hamsters. Wang Q, et al. **Thorax** 1999 Sep;54(9):805-12

Effects of dietary vitamin E supplementation on pulmonary morphology and collagen deposition in amiodarone- and vehicle-treated hamsters. Card JW, et al. **Toxicology** 1999 Apr 15;133(2-3):75-84

RADIOGRAPHY

Nonspecific interstitial pneumonia with fibrosis: serial high-resolution CT findings with functional correlation. Kim EY, et al. **AJR Am J Roentgenol** 1999 Oct; 173(4):949-53

An 80-year-old man with idiopathic pulmonary fibrosis and new bilateral lung densities. Jover J, et al. **Chest** 1998 Oct; 114(4):1210-2

A 50-year-old woman with gradual deterioration of oxygenation after lung transplantation. Levine S. **Chest** 1999 Jan;115(1):267-8

Respiratory change in size of honeycombing: inspiratory and expiratory spiral volumetric CT analysis of 97 cases. Johkoh T, et al. **J Comput Assist Tomogr** 1999 Mar-Apr; 23(2):174-80

CFA with preserved lung volumes [letter; comment] Strickland N, et al. **Thorax** 1998 Sep;53(9):813. Comment on: Thorax 1997 Nov;52(11):998-1002.

Clinical usefulness of high resolution computed tomography in cryptogenic fibrosing alveolitis. Wells A. **Thorax** 1998 Dec;53(12):1080-7 (67 ref.)

[High resolution CT of the lung in Jo-1 syndrome: rapidly progressive fibrosis as a sequela of histidyl-tRNA synthetase deficiency syndrome] Gries C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Oct;169(4):450-2 **(Ger)**

RADIONUCLIDE IMAGING

Increased pertechnegas lung clearance in interstitial lung disease. Mouratidis B, et al. **Clin Nucl Med** 1999 Feb; 24(2):105-8

Evaluation of the alveolar-capillary membrane permeability using 99mTc-HMPAO aerosols in severe diffuse interstitial fibrosis. Botelho Mf, et al. **Rev Esp Med Nucl** 1999; 18(1):21-31

SURGERY

Idiopathic pulmonary fibrosis and cyclosporine: a lesson from single-lung transplantation. Lok SS, et al. **Chest** 1998 Nov; 114(5):1478-81

THERAPY

Nitric oxide inhalation for paraquat--surviving both poisoning and therapy? [editorial; comment] Hall AH. **J Toxicol Clin Toxicol** 1998;36(6):585-6. Comment on: J Toxicol Clin Toxicol 1998 ;36(6):575-84.

Acute spontaneous pneumomediastinum in a child with Hodgkin's disease and pulmonary fibrosis. Briassoulis G, et al. **Pediatr Hematol Oncol** 1999 Mar-Apr;16(2):175-80

[The therapeutic effect of TGF-beta monoclonal antibody to bleomycin-induced pulmonary fibrosis in rats] Li J, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Dec; 20(6):347-9 (Eng. Abstr.) **(Chi)**

[Clinical presentation and medical management in patients with idiopathic pulmonary fibrosis before diagnosis] Wesołowski S, et al. **Pneumonol Alergol Pol** 1999; 67(1-2):38-44 (Eng. Abstr.) **(Pol)**

VETERINARY

Idiopathic pulmonary fibrosis in a Staffordshire bull terrier with hypothyroidism. Corcoran BM, et al. **J Small Anim Pract** 1999 Apr;40(4):185-8

VIROLOGY

The detection of Epstein-Barr virus DNA in lung tissue from patients with idiopathic pulmonary fibrosis. Stewart JP, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1336-41

PULMONARY FUNCTION TESTS see **RESPIRATORY FUNCTION TESTS**

PULMONARY GAS EXCHANGE

Impaired ventilatory efficiency in chronic heart failure: possible role of pulmonary vasoconstriction. Reindl I, et al. **Am Heart J** 1998 Nov;136(5):778-85

Effect of body position changes on pulmonary gas exchange in Eisenmenger's syndrome. Sandoval J, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1070-3

Cardiopulmonary resuscitation: effect of CPAP on gas exchange during chest compressions. Hevesi ZG, et al. **Anesthesiology** 1999 Apr;90(4):1078-83

Gas-exchange function of a preprimed pediatric oxygenator stored for one year for emergency cardiopulmonary bypass. Otsu T, et al. **Artif Organs** 1992 Oct;16(5):502-4

High-frequency oscillatory ventilation, partial liquid ventilation, or conventional mechanical ventilation in newborn piglets with saline lavage-induced acute lung injury. A comparison of gas-exchange efficacy and lung histomorphology. Degraeuwe PL, et al. **Biol Neonate** 1999; 75(2):118-29

Airway closure, atelectasis and gas exchange during general anaesthesia. Rothen HU, et al. **Br J Anaesth** 1998 Nov; 81(5):681-6

Determination of critical power by pulmonary gas exchange. Hill DW, et al. **Can J Appl Physiol** 1999 Feb;24(1):74-86

Ventilatory and diffusion abnormalities in long-term survivors after orthotopic heart transplantation. Ewert R, et al. **Chest** 1999 May;115(5):1305-11

Effects of the prone position on gas exchange and hemodynamics in severe acute respiratory distress syndrome [see comments] Jolliet P, et al. **Crit Care Med** 1998 Dec;26(12):1977-85. Comment in: Crit Care Med 1998 Dec;26(12):1934-5.

Gas exchange and hemodynamics in experimental pleural effusion [see comments] Nishida O, et al. **Crit Care Med** 1999 Mar;27(3):583-7. Comment in: Crit Care Med 1999 Mar;27(3):472.

Clinical assessment of gas exchange in mature horses. Davis MS, et al. **Equine Vet J** 1998 Sep;30(5):396-400

Video-assisted thoracoscopic surgery does not deteriorate postoperative pulmonary gas exchange in spontaneous pneumothorax patients. Sekine Y, et al. **Eur J Cardiothorac Surg** 1999 Jul;16(1):48-53

Alveolar-arterial PO2 differences in anaesthesia. 1966 [classical article] Nunn JF. **Int Anesthesiol Clin** 1998 Fall; 36(4):137-53

Pulmonary gas-exchange analysis by using simultaneous deposition of aerosolized and injected microspheres. Altemeier WA, et al. **J Appl Physiol** 1998 Dec; 85(6):2344-51

Volume recruitment and oxygenation in pulmonary edema: a comparison between HFOV and CMV. Sznajder JI, et al. **J Crit Care** 1998 Sep;13(3):126-35

Gas exchange function one month after transplantation of lungs topically cooled for 2 hours in the non-heart-beating cadaver after failed resuscitation. Wierup P, et al. **J Heart Lung Transplant** 1999 Feb;18(2):133-8

Endothelin-1 in the rat bile duct ligation model of hepatopulmonary syndrome: correlation with pulmonary dysfunction. Luo B, et al. **J Hepatol** 1998 Oct;29(4):571-8

Pulmonary gas exchange during intramedullary fixation of femoral shaft fractures. Weresh MJ, et al. **J Trauma** 1999 May;46(5):863-8

Kinetics of pulmonary gas exchange during and while recovering from exercise in patients after anterior myocardial infarction. Shimizu N, et al. **Jpn Circ J** 1999 Jun;63(6):459-66

Gas exchange in acute respiratory failure. Hedenstierna G, et al. **Minerva Anestesiol** 1999 Jun;65(6):383-7 (23 ref.)

Gas exchange response to exercise in patients with chronic heart failure. Bellone A, et al. **Monaldi Arch Chest Dis** 1999 Feb;54(1):3-6

Prone position in mechanically-ventilated patients. Brazzi L, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):410-4

Intravascular gas exchange. Keogh BF, et al. **Monaldi Arch Chest Dis** 1999 Feb;54(1):38-42 (18 ref.)

Synchronized gas and partial liquid ventilation in lung-injured animals: improved gas exchange with decreased effort. Bendel-Stenzel EM, et al. **Pediatr Pulmonol** 1999 Apr;27(4):242-50

Nitric oxide used to test pulmonary gas exchange in rabbits. Heller H, et al. **Pflugers Arch** 1998 Dec;437(1):94-7

Influence of feed deprivation on ventilation and gas exchange in broilers: relationship to pulmonary hypertension syndrome. Fedde MR, et al. **Poult Sci** 1998 Nov; 77(11):1704-10

Pulmonary gas exchange in life-long nonsmoking patients with diabetes mellitus [see comments] Minette P, et al. **Respiration** 1999;66(1):20-4. Comment in: Respiration 1999 ;66(1):12-3.

A computer model of gas exchange during cardiopulmonary resuscitation. Engoren M, et al. **Resuscitation** 1998 Jul; 38(1):33-8

Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Eberhard L, et al. **Technol Health Care** 1999;7(4):243-59

[Value of pulmonary gas exchange study during exercise in the diagnosis of a muscular glycogenosis] Laure P, et al. **Arch Pediatr** 1999 Jan;6(1):50-3 (Eng. Abstr.) **(Fre)**

[Diagnostic use of oxygen consumption and gas exchange in exercise testing] Aguilaniu B, et al. **Rev Mal Respir** 1998 Oct;15(5):575-87 (Eng. Abstr.) **(Fre)**

PULMONARY GAS EXCHANGE

[Long-term effects of nasal continuous positive airway pressure on pulmonary function and blood gas data in patients with obstructive sleep apnea syndrome] Kosaka N, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec; 36(12):1011-6 (Eng. Abstr.) **(Jpn)**

[Pulmonary ventilation and gas exchange in breathing air of different temperatures] Grishin OV, et al. **Fiziol Cheloveka** 1998 Sep-Oct;24(5):44-7 **(Rus)**

DRUG EFFECTS

Effects of nitric oxide inhalation on pulmonary gas exchange during exercise in highly trained athletes. Durand F, et al. **Acta Physiol Scand** 1999 Feb;165(2):169-76

Aspirin worsens exercise performance and pulmonary gas exchange in patients with heart failure who are taking angiotensin-converting enzyme inhibitors [see comments] Guazzi M, et al. **Am Heart J** 1999 Aug;138(2 Pt 1):254-60 . Comment in: Am Heart J 1999 Aug;138(2 Pt 1):193-7.

Heparin improves gas exchange during experimental acute lung injury in newborn piglets. Abubakar K, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1620-5

Addition of alpha1-antitrypsin to surfactant improves oxygenation in surfactant-deficient rats. Belai Y, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):917-23

Vaporized perfluorocarbon improves oxygenation and pulmonary function in an ovine model of acute respiratory distress syndrome [see comments] Bleyl JU, et al. **Anesthesiology** 1999 Aug;91(2):461-9. Comment in: Anesthesiology 1999 Aug;91(2):340-2.

Continuous arterial P(O2) and P(CO2) measurements in swine during nitrous oxide and xenon elimination: prevention of diffusion hypoxia. Calzia E, et al. **Anesthesiology** 1999 Mar;90(3):829-34

Effect of inhaled nitric oxide on gas exchange in patients with congestive heart failure. A randomized, controlled trial. Matsumoto A, et al. **Ann Intern Med** 1999 Jan 5; 130(1):40-4

Effect of betaxolol on the hemodynamic, gas exchange, and cardiac output response to exercise in chronic atrial fibrillation. Atwood JE, et al. **Chest** 1999 Apr; 115(4):1175-80

Captopril reduces the VE/VCO2 ratio in myocardial infarction patients with low ejection fraction. McConnell TR, et al. **Chest** 1998 Nov;114(5):1289-94

Respiratory insufficiency in postmenopausal women: sustained improvement of gas exchange with short-term medroxyprogesterone acetate. Saaresranta T, et al. **Chest** 1999 Jun;115(6):1581-7

Acute saline infusion reduces alveolar-capillary membrane conductance and increases airflow obstruction in patients with left ventricular dysfunction. Puri S, et al. **Circulation** 1999 Mar 9;99(9):1190-6

Partial liquid breathing: more questions than answers [editorial; comment] Arnold JH. **Crit Care Med** 1999 Sep; 27(9):2058-60. Comment on: Crit Care Med 1999 Sep;27(9):1934-9.

The effects of recombinant human growth hormone on cardiopulmonary function in elective abdominal aortic aneurysm repair. Barry MC, et al. **Eur J Vasc Endovasc Surg** 1998 Oct;16(4):311-9

Gas exchange and pulmonary haemodynamic responses to fat emulsions in acute respiratory distress syndrome. Masclans JR, et al. **Intensive Care Med** 1998 Sep; 24(9):918-23

Long chain versus medium chain lipids in patients with ARDS: effects on pulmonary haemodynamics and gas exchange. Smirniotis V, et al. **Intensive Care Med** 1998 Oct;24(10):1029-33

Use of methylene blue in patients with refractory septic shock: impact on hemodynamics and gas exchange. Andresen M, et al. **J Crit Care** 1998 Dec;13(4):164-8

Liquid ventilation attenuates pulmonary oxidative damage. Steinhorn DM, et al. **J Crit Care** 1999 Mar;14(1):20-8

Multicenter randomized controlled trial of the effects of inhaled nitric oxide therapy on gas exchange in children with acute hypoxemic respiratory failure [see comments] Dobyns EL, et al. **J Pediatr** 1999 Apr;134(4):406-12. Comment in: J Pediatr 1999 Apr;134(4):387-9.

Impairment of gas exchange due to alveolar oedema during xylazine sedation in sheep; absence of a free radical mediated inflammatory mechanism. Bacon PJ, et al. **Res Vet Sci** 1998 Jul-Aug;65(1):71-5

The effects of recombinant tissue-type plasminogen activator (rt-PA) on canine cadaver lung transplantation. Akasaka S, et al. **Surg Today** 1999;29(8):747-54

PHYSIOLOGY

Positive end-expiratory pressure improves gas exchange and pulmonary mechanics during partial liquid ventilation. Kirmse M, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1550-6

Effect of lung volume reduction surgery on gas exchange and pulmonary hemodynamics at rest and during exercise [see comments] Oswald-Mammosser M, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1020-5. Comment in: Am J Respir Crit Care Med 1998 Oct;158(4):1017-9.

Ventilatory mechanics and gas exchange during exercise before and after lung volume reduction surgery. Tschernko EM, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1424-31

Lung aeration and pulmonary gas exchange during lumbar epidural anaesthesia and in the lithotomy position in elderly patients. Reber A, et al. **Anaesthesia** 1998 Sep;53(9):854-61

The alveolar-arterial difference in oxygen tension increases with temperature-corrected determination during moderate hypothermia. Hansen D, et al. **Anesth Analg** 1999 Mar;88(3):538-41

Continuous arterial P(O2) and P(CO2) measurements in swine during nitrous oxide and xenon elimination: prevention of diffusion hypoxia. Calzia E, et al. **Anesthesiology** 1999 Mar;90(3):829-34

Theoretical gas phase mass transfer coefficients for endogenous gases in the lungs. Condorelli P, et al. **Ann Biomed Eng** 1999 May-Jun;27(3):326-39

A mathematical model of gas exchange in an intravenous membrane oxygenator. Hewitt TJ, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):166-78

Competition between gas exchange and speech production in ventilated subjects. Shea SA, et al. **Biol Psychol** 1998 Sep;49(1-2):9-27

A closed rebreathing system for dose maintenance during Partial Liquid Ventilation. Schrader B, et al. **Biomed Instrum Technol** 1999 Jul-Aug;33(4):373-82

Effect of graft reperfusion on haemodynamics and gas exchange during liver transplantation. Walsh TS, et al. **Br J Anaesth** 1998 Sep;81(3):311-6

Support of gas exchange in the delivery room and beyond: how do we avoid hurting the baby we seek to save? Clark RH. **Clin Perinatol** 1999 Sep;26(3):669-81, vii-viii (68 ref.)

Theoretical study of inspiratory flow waveforms during mechanical ventilation on pulmonary blood flow and gas exchange. Niranjan SC, et al. **Comput Biomed Res** 1999 Aug;32(4):355-90

Cardiac output and pulmonary gas exchange at maximal exercise after atrial redirection for complete transposition. Gilljam T, et al. **Eur Heart J** 1998 Dec;19(12):1856-64

Influence of the oxygen uptake slow component on the aerobic energy cost of high-intensity submaximal treadmill running in humans. Bernard O, et al. **Eur J Appl Physiol** 1998 Nov;78(6):578-85

Breath-to-breath "noise" in the ventilatory and gas exchange responses of children to exercise. Potter CR, et al. **Eur J Appl Physiol** 1999 Jul;80(2):118-24

A system to simulate gas exchange in humans to control quality of metabolic measurements. Prieur F, et al. **Eur J Appl Physiol** 1998 Nov;78(6):549-54

VO2peak and the gas-exchange anaerobic threshold during incremental arm cranking in able-bodied and paraplegic men. Schneider DA, et al. **Eur J Appl Physiol** 1999 Sep; 80(4):292-7

A simple breathing circuit minimizing changes in alveolar ventilation during hyperpnoea. Sommer LZ, et al. **Eur Respir J** 1998 Sep;12(3):698-701

Exercise performance and gas exchange after bilateral video-assisted thoracoscopic lung volume reduction for severe emphysema. Stammberger U, et al. **Eur Respir J** 1998 Oct;12(4):785-92

Effects of prior arm exercise on pulmonary gas exchange kinetics during high-intensity leg exercise in humans. Bohnert B, et al. **Exp Physiol** 1998 Jul;83(4):557-70

The effects of in vivo pulmonary oxygenation on lung liquid production in near-term fetal sheep. Round JE, et al. **Exp Physiol** 1999 Jul;84(4):725-38

Respiratory gas-exchange ratios during graded exercise in fed and fasted trained and untrained men. Bergman BC, et al. **J Appl Physiol** 1999 Feb;86(2):479-87

Mechanisms of improvement in pulmonary gas exchange during isovolemic hemodilution. Deem S, et al. **J Appl Physiol** 1999 Jul;87(1):132-41

Pulmonary gas exchange during exercise in pigs. Hopkins SR, et al. **J Appl Physiol** 1999 Jan;86(1):93-100

Distribution of lung density after strenuous, prolonged exercise. Manier G, et al. **J Appl Physiol** 1999 Jul;87(1):83-9

Modeling diffusion limitation of gas exchange in lungs containing perfluorocarbon. Mates vanLöbensels E, et al. **J Appl Physiol** 1999 Jan;86(1):273-84

A tidal breathing model for the multiple inert gas elimination technique. Whiteley JP, et al. **J Appl Physiol** 1999 Jul; 87(1):161-9

Bolus contaminant dispersion in oscillating flow in curved tubes. Eckmann DM. **J Biomech Eng** 1998 Apr; 120(2):238-44

Experimental investigation of oscillatory flow through a symmetrically bifurcating tube. Peattie RA, et al. **J Biomech Eng** 1998 Oct;120(5):584-93

Improvement of gas exchange by apneic oxygenation with nasal prong during fiberoptic intubation in fully relaxed patients. Lee SC. **J Korean Med Sci** 1998 Dec;13(6):582-6

Influence of high-intensity exercise training on the ventilatory response to exercise in patients with reduced ventricular function. Myers J, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):929-37

Gas exchange: large surface and thin barrier determine pulmonary diffusing capacity. Weibel ER. **Minerva Anestesiol** 1999 Jun;65(6):377-82 (19 ref.)

Repeatability and methodology of resting energy expenditure in patients with cystic fibrosis. Bell SC, et al. **Respir Physiol** 1999 May 3;115(3):301-7

Effect of cardiac output on pulmonary gas exchange: role of diffusion limitation with VA/Q mismatch. Vidal Melo MF. **Respir Physiol** 1998 Jul;113(1):23-32

Effects of nasal continuous positive airway pressure on pulmonary haemodynamics and tissue oxygenation in patients with obstructive sleep apnoea. Akashiba T, et al. **Respirology** 1999 Mar;4(1):83-7

Biotransport in the human respiratory system. Elad D. **Technol Health Care** 1999;7(4):271-84 (68 ref.)

[Respiration and aging] Guenard H. **Rev Mal Respir** 1998 Dec;15(6):713-21 (86 ref.) (Eng. Abstr.) **(Fre)**

[Pulmonary diagnosis with model aerosols. II: Aerosol bolus dispersion--a marker for convection gas transport. Basic principles and initial clinical results] Kohlhäufl M, et al. **Pneumologie** 1999 Jan;53(1):50-6 (42 ref.) **(Ger)**

[Pulmonary hemodynamic and gas exchange effects of various oxygen concentrations in patients with severe pulmonary hypertension primarily affecting the pulmonary vasculature] Sato K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jun;37(6):449-57 (Eng. Abstr.) **(Jpn)**

[Gas exchange, blood acid-base balance and mechanical muscle efficiency during incremental levels of exertion in young healthy individuals] Zołądź JA, et al. **Pneumonol Alergol Pol** 1998;66(3-4):163-72 (Eng. Abstr.) **(Pol)**

PULMONARY HEART DISEASE

BLOOD

Elevated plasma brain natriuretic peptide levels in chronic respiratory failure with cor pulmonale. Bando M, et al. **Respir Med** 1999 Jul;93(7):507-14

[Changes of plasma endothelium-derived relaxing factor and endothelin-1 in patients with chronic cor pulmonale at exercise test] Guo S, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Feb; 20(1):20-1 (Eng. Abstr.) **(Chi)**

[Determination of template bleeding time in patients with chronic pulmonary heart disease] Huang C, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):469 **(Chi)**

COMPLICATIONS

[Anatomoclinical correlation (case 5/98--Instituto do Coração do Hospital das Clínicas--FMUSP)] **Arq Bras Cardiol** 1998 Oct;71(4):619-23 **(Por)**

DIAGNOSIS

Electrocardiographic signs of chronic cor pulmonale: A negative prognostic finding in chronic obstructive pulmonary disease. Incalzi RA, et al. **Circulation** 1999 Mar 30;99(12):1600-5

Noninvasive cardiac evaluation of young patient with cystic fibrosis. Küçükosmanoğlu O, et al. **Turk J Pediatr** 1998 Oct-Dec;40(4):571-8

[Primary sarcoma of A. pulmonalis: a rare cause of cor pulmonale] Ismaël F, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1705-9 (Eng. Abstr.) **(Dut)**

[Chronic pulmonary heart disease. Epidemiology, physiopathology and clinical aspects] Orth M, et al. **Internist (Berl)** 1999 Jul;40(7):722-8 (49 ref.) **(Ger)**

[Diagnosis of chronic pulmonary heart disease] Perings C, et al. **Internist (Berl)** 1999 Jul;40(7):729-38 (49 ref.) **(Ger)**

[Feasibility of chronic pulmonary heart diagnosis by ECG criteria] Evdokimov VG, et al. **Ter Arkh** 1999;71(1):51-4 (Eng. Abstr.) **(Rus)**

[Electrocardiography and echocardiography in the diagnosis of chronic cor pulmonale] Putnik M, et al. **Med Pregl** 1998 Nov-Dec;51(11-12):528-31 (Eng. Abstr.) **(Scr)**

DRUG THERAPY

Treatment of acute exacerbation of chronic cor pulmonale with fei xin ling syrup. Liu W, et al. **J Tradit Chin Med** 1997 Mar;17(1):21-5

Ma xing er san tang for treatment of cor pulmonale at acute onset stage--a report of 250 cases. Wei H, et al. **J Tradit Chin Med** 1998 Dec;18(4):243-6

[The long-term effect of nifedipine (control release tablets) in patients with chronic obstructive pulmonary disease and cor pulmonale] Cheng X, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):84-7 (Eng. Abstr.) **(Chi)**

[Efficacy of prostaglandin E1 in treatment of cor pulmonale patients with heart failure] Zhou SC, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):88-90 (Eng. Abstr.) **(Chi)**

[Effects of low dose pimobendan in patients with cor-pulmonale] Nakatani M, et al. **J Cardiol** 1999 Aug; 34(2):79-83 (Eng. Abstr.) **(Jpn)**

[Ramipril treatment of heart failure in disseminated forms of pulmonary tuberculosis] Ditiatkov AE, et al. **Probl Tuberk** 1999;(2):31-2 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

[Chronic pulmonary heart disease. Epidemiology, physiopathology and clinical aspects] Orth M, et al. **Internist (Berl)** 1999 Jul;40(7):722-8 (49 ref.) **(Ger)**

ETIOLOGY

Relationship of the ECG with ventilatory function tests in chronic obstructive lung disease (COLD) in Nigerians. Bazuaye EA, et al. **Afr J Med Med Sci** 1997 Sep-Dec;

26(3–4):111–4
Cor pulmonale presenting in a patient with congenital kyphoscoliosis following intercontinental air travel. Noble JS, et al. **Anaesthesia** 1999 Apr;54(4):361–3
Decompensated cor pulmonaleas the first manifestation of adult-onset myopathy. Kurz D, et al. **Respiration** 1998; 65(4):317–9
Severe progressive osteoporotic spine deformity with cardiopulmonary impairment in a young patient. A case report. Noorda RJ, et al. **Spine** 1999 Mar 1;24(5):489–92
Noninvasive cardiac evaluation of young patient with cystic fibrosis. Küçükosmanoğlu O, et al. **Turk J Pediatr** 1998 Oct–Dec;40(4):571–8
[Primary sarcoma of A. pulmonalis: a rare cause of cor pulmonale] Ismaël F, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1705–9 (Eng. Abstr.) **(Dut)**
[Acute pulmonary heart disease caused by pulmonary artery embolism] Heintzen MP, et al. **Internist (Berl)** 1999 Jul; 40(7):710–21 (42 ref.) **(Ger)**
[Pulmonary artery hypertension and obstructive sleep apnea. Pathophysiology and clinical relevance] Steiner S, et al. **Internist (Berl)** 1999 Jul;40(7):739–46 (61 ref.) **(Ger)**

METABOLISM

Endogenous nitric oxide in patients with stable COPD: correlates with severity of disease. Clini E, et al. **Thorax** 1998 Oct;53(10):881–3

PATHOLOGY

[A clinicopathological analysis in 46 elderly cases with cor pulmonale] Wang X, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Aug; 20(4):228–30 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

[Effects of ligustrazine on hemodynamics in chronic pulmonary heart disease patients] Wei DG, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Dec; 16(12):730–2 **(Chi)**

PREVENTION & CONTROL

[The preliminary results of prevention and treatment in the population of patients with COPD and cor pulmonale] Cheng XS, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Oct; 18(5):282–5 (Eng. Abstr.) **(Chi)**

RADIOGRAPHY

[Evaluation of right heart load with spiral CT in patients with acute lung embolism] Wintersperger BJ, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):542–9 (Eng. Abstr.) **(Ger)**

REHABILITATION

Optimization and mechanism of step–leap respiration exercise in treating of cor pulmonale. Bai J, et al. **Comput Biol Med** 1998 May;28(3):289–307

SURGERY

Technical aspects of adult lung transplantation. Meyers BF, et al. **Semin Thorac Cardiovasc Surg** 1998 Jul;10(3):213–20 (14 ref.)

THERAPY

[Long-term oxygen inhalation therapy and home artificial respiration for chronic pulmonary heart disease] Köhler D, et al. **Internist (Berl)** 1999 Jul;40(7):756–63 (62 ref.) **(Ger)**

ULTRASONOGRAPHY

Echocardiographic evaluation of left ventricular diastolic function in chronic cor pulmonale. Tutar E, et al. **Am J Cardiol** 1999 May 1;83(9):1414–7, A9
Preoperative echocardiographic evaluation of patients referred for lung volume reduction surgery. Bach DS, et al. **Chest** 1998 Oct;114(4):972–80

VETERINARY

Pulmonary embolism and cor pulmonale in a cat. Sottiaux J, et al. **J Small Anim Pract** 1999 Feb;40(2):88–91

PULMONARY INCOMPETENCE see **PULMONARY VALVE INSUFFICIENCY**

PULMONARY INFARCTION see **PULMONARY EMBOLISM**

PULMONARY INFUNDIBULAR STENOSIS see **PULMONARY SUBVALVULAR STENOSIS**

PULMONARY MACROPHAGES see **MACROPHAGES, ALVEOLAR**

PULMONARY MEDICINE see **PULMONARY DISEASE (SPECIALTY)**

PULMONARY NEOPLASMS see **LUNG NEOPLASMS**

PULMONARY NODULE, SOLITARY see **COIN LESION, PULMONARY**

PULMONARY REGURGITATION see **PULMONARY VALVE INSUFFICIENCY**

PULMONARY SARCOIDOSIS see **SARCOIDOSIS, PULMONARY**

PULMONARY SEQUESTRATION see **BRONCHOPULMONARY SEQUESTRATION**

PULMONARY STENOSIS see **PULMONARY VALVE STENOSIS**

PULMONARY STRETCH RECEPTORS

DRUG EFFECTS

Effects of potassium channel blockers on CO2-induced slowly adapting pulmonary stretch receptor inhibition. Matsumoto S, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):974–9
Influence of surfactant on the activity of slowly adapting stretch receptors in the lung. Chen Y, et al. **Respir Physiol** 1998 May;112(2):135–43

PHYSIOLOGY

Mechanical stretching of alveolar epithelial cells increases Na(+)-K(+)-ATPase activity. Waters CM, et al. **J Appl Physiol** 1999 Aug;87(2):715–21
Excitatory mechanism of veratridine on slowly adapting pulmonary stretch receptors in anesthetized rabbits. Matsumoto S, et al. **Life Sci** 1998;63(16):1431–7
Inspiratory inhibition of pulmonary rapidly adapting receptor relay neurons in the rat. Ezure K, et al. **Neurosci Lett** 1998 Dec 11;258(1):49–52
Influence of surfactant on the activity of slowly adapting stretch receptors in the lung. Chen Y, et al. **Respir Physiol** 1998 May;112(2):135–43

PULMONARY SUBVALVULAR STENOSIS

ETIOLOGY

[Incidence and treatment of reactive infundibular obstruction after balloon dilatation of critical pulmonary valve stenoses] Buheitel G, et al. **Z Kardiol** 1999 May;88(5):347–52 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Acute effects of DDD pacing in patients with pulmonary infundibular stenosis. Angelkov L, et al. **Am J Cardiol** 1999 Jul 1;84(1):117–8, A9

PULMONARY SURFACTANTS

Pulmonary surfactants. Special issue in honor of Professor John A. Clements. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):77–361
Cytokines, pulmonary surfactant and consequences of intrauterine infection. Hallman M. **Biol Neonate** 1999 Jun; 76 Suppl 1:2–9 (52 ref.)
Stimulation of early embryonic development in cattle by coculture with surfactant. Osada H, et al. **J Assist Reprod Genet** 1999 Jul;16(6):310–4
Tracheal aspirate surface tension in babies with hyaline membrane disease: effects of synthetic surfactant replacement. McMillan DD, et al. **Pediatr Pulmonol** 1998 Sep;26(3):173–82
[The pulmonary surfactant system: physiology, pathologies associated with its alteration and exogenous administration as therapeutic and diagnostic agent] Calmanovici G, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(4):175–90 (72 ref.) (Eng. Abstr.) **(Spa)**

ADMINISTRATION & DOSAGE

Use of surfactant for prophylaxis versus rescue treatment of respiratory distress syndrome: experience from an Italian-Bulgarian trial. Bevilacqua G, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:47–54
Use of surfactant for prevention of respiratory distress syndrome in newborn infants in spontaneous breathing. A randomized multicentre clinical pilot-study. Dambeanu JM, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:39–45
Surfactant replacement therapy: a multicentric trial comparing two dosage approaches. Fiori RM, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:55–63
Evolution of respiratory mechanics in preterm babies after surfactant administration in the neonatal period. Parmigiani S, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:65–73
Dosing and delivery of a recombinant surfactant in lung-injured adult sheep. Lewis J, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):741–7
Surfactant lavage treatment in a model of respiratory distress syndrome. Cochrane CG, et al. **Chest** 1999 Jul;116(1 Suppl):85S–86S
Liquid perfluorochemical priming before surfactant therapy: this time the egg really does precede the chicken [editorial; comment] Baumgart S, et al. **Crit Care Med** 1999 Sep; 27(9):2053–4 (15 ref.). Comment on: Crit Care Med 1999 Sep;27(9):1916–22.
Efficacy of Curosurf in a rat model of acute respiratory distress syndrome. van Helden HP, et al. **Eur Respir J** 1998 Sep;12(3):533–9
The instillated surfactant in the treatment of sepsis-induced ARDS: case report [letter] Imperatore F, et al. **Intensive Care Med** 1999 Mar;25(3):330–1
Surfactant use in the term neonate with hypoxemic respiratory failure [letter; comment] Abman SH, et al. **J Pediatr** 1998 Nov;133(5):716–7. Comment on: J Pediatr 1998 Jan;132(1):40–7.
Less invasive ways to treat CDH prenatally [letter; comment] Laberge JM, et al. **J Pediatr Surg** 1999 Jul;34(7):1183–4. Comment on: J Pediatr Surg 1998 Aug;33(8):1198–205.
Comparison of rapid bolus instillation with simplified slow administration of surfactant in lung lavaged rats. Fernández-Ruanova MB, et al. **Pediatr Pulmonol** 1998 Aug;26(2):129–34
Pulmonary function at school-age in surfactant-treated preterm infants. Gappa M, et al. **Pediatr Pulmonol** 1999 Mar;27(3):191–8
Treatment of meconium aspiration syndrome with surfactant lavage in an experimental rabbit model. Ohama Y, et al. **Pediatr Pulmonol** 1999 Jul;28(1):18–23
Surfactant nebulization versus instillation during high frequency ventilation in surfactant-deficient rabbits. Dijk PH, et al. **Pediatr Res** 1998 Nov;44(5):699–704
Early versus late surfactant treatment in preterm infants of 27 to 32 weeks' gestational age: a multicenter controlled clinical trial. Gortner L, et al. **Pediatrics** 1998 Nov; 102(5):1153–60
Nasal continuous positive airway pressure and early surfactant therapy for respiratory distress syndrome in newborns of less than 30 weeks' gestation [see comments] Verder H, et al. **Pediatrics** 1999 Feb;103(2):E24. Comment in: Pediatrics 1999 Feb;103(2):E25.
[Cortinuous inhalation administration of surfactant-BL for control of adult respiratory distress syndrome after reconstruction of the abdominal aorta] Shevchenko IuL, et al. **Vestn Khir Im I I Grek** 1999;158(3):72–5 (Eng. Abstr.) **(Rus)**
[Lung function in premature infants can be improved. Surfactant therapy and CPAP reduce the need of respiratory support] Blennow M, et al. **Lakartidningen** 1999 Mar 31;96(13):1571–6 (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Pulmonary haemorrhage in infants with gestational age of less than 30 weeks [letter] De Carolis MP, et al. **Eur J Pediatr** 1998 Dec;157(12):1037–8
Seizures after inadvertent umbilical venous infusion of synthetic surfactant (Exosurf): cause or coincidence? [letter] Frey B, et al. **Eur J Pediatr** 1999 Jul;158(7):610

ANALYSIS

Deficient hydrophilic lung surfactant proteins A and D with normal surfactant phospholipid molecular species in cystic fibrosis. Postle AD, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):90–8
Comparison of two methods of diagnostic lung lavage in ventilated infants with lung disease. Dargaville PA, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):771–7
Determination of proteins, phosphatidylethanolamine, and phosphatidylserine in organic solvent extracts of tissue material by analysis of phenylthiocarbamyl derivatives. Stark M, et al. **Anal Biochem** 1998 Dec 1;265(1):97–102
Lamellar body counts in amniotic fluid for prediction of fetal lung maturity. Beinlich A, et al. **Arch Gynecol Obstet** 1999; 262(3–4):173–80
Local effect of lung contusion on lung surfactant composition in multiple trauma patients. Aufmkolk M, et al. **Crit Care Med** 1999 Aug;27(8):1441–6
Thyroid transcription factor-1, hepatocyte nuclear factor-3beta and surfactant protein A and B in the developing chick lung. Zeng X, et al. **J Anat** 1998 Oct; 193 (Pt 3):399–408
Inhibition of lung surfactant protein B expression during Pneumocystis carinii pneumonia in mice [see comments] Beers MF, et al. **J Lab Clin Med** 1999 May;133(5):423–33 . Comment in: J Lab Clin Med 1999 May;133(5):406–7.
Pneumocystis carinii pneumonia and pulmonary surfactant [editorial; comment] Martin WJ 2nd, et al. **J Lab Clin Med** 1999 May;133(5):406–7. Comment on: J Lab Clin Med 1999 May;133(5):423–33.
Immunohistochemical localization of surfactant apoproteins in usual interstitial pneumonia associated with pulmonary carcinoma. Chung JH, et al. **Microsc Res Tech** 1998 Aug 1;42(3):234–8
[Differential diagnosis significance of measuring surfactant phospholipid levels in lung diseases] Skriagina EM, et al. **Probl Tuberk** 1998;(4):51–3 (Eng. Abstr.) **(Rus)**

ANTAGONISTS & INHIBITORS

Amphotericin B and pulmonary surfactant. Griese M, et al. **Eur J Med Res** 1998 Aug 18;3(8):383–6
Lysophosphatidylcholine abrogates the CR1 preserving effect of surfactant on quartz-exposed human granulocytes. Zetterberg G, et al. **Inflammation** 1999 Apr;23(2):179–89

Sensitivity of synthetic surfactants to albumin inhibition in preterm rabbits. Mbagwu N, et al. **Mol Genet Metab** 1999 Jan;66(1):40–8

Morphology and function of pulmonary surfactant inhibited by meconium. Bae CW, et al. **Pediatr Res** 1998 Aug; 44(2):187–91

Multiple mechanisms of lung surfactant inhibition. Holm BA, et al. **Pediatr Res** 1999 Jul;46(1):85–93

BIOSYNTHESIS

Keratinocyte growth factor enhances maturation of fetal rat lung type II cells. Chelly N, et al.
Am J Respir Cell Mol Biol 1999 Mar;20(3):423–32

Production of surfactant protein C in the baculovirus expression system: the information required for correct folding and palmitoylation of SP-C is contained within the mature sequence. Veldhuizen EJ, et al.
Biochim Biophys Acta 1999 Jan 12;1416(1–2):295–308

Regulation of surfactant protein gene transcription. Whitsett JA, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):303–11 (50 ref.)

The effect of primary cytomegalovirus infection on fetal lung maturity indices. Piazze J, et al. **Early Hum Dev** 1999 Mar; 54(2):137–44

Glucose decreases steady state mRNA content of hydrophobic surfactant proteins B and C in fetal rat lung explants. Rayani HH, et al. **Exp Lung Res** 1999 Jan–Feb; 25(1):69–79

Surfactant protein B (SP-B) –/– mice are rescued by restoration of SP-B expression in alveolar type II cells but not Clara cells. Lin S, et al. **J Biol Chem** 1999 Jul 2; 274(27):19168–74

Expression and characterization of saposin-like proteins. Zaltash S, et al. **J Protein Chem** 1998 Aug;17(6):523–4

Effects of Stachybotrys chartarum (atra) conidia and isolated toxin on lung surfactant production and homeostasis. Mason CD, et al. **Nat Toxins** 1998;6(1):27–33

BLOOD

Clearance of Clara cell secretory protein 16 (CC16) and surfactant proteins A and B from blood in acute respiratory failure. Doyle IR, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1528–35

Factors influencing pulmonary surfactant protein A levels in cord blood, maternal blood and amniotic fluid. Cho K, et al. **Biol Neonate** 1999;75(2):104–10

Serum surfactant protein-A levels predict development of ARDS in at-risk patients. Greene KE, et al. **Chest** 1999 Jul;116(1 Suppl):90S–91S

Partitioning lung and plasma proteins: circulating surfactant proteins as biomarkers of alveolocapillary permeability. Doyle IR, et al. **Clin Exp Pharmacol Physiol** 1999 Mar; 26(3):185–97 (110 ref.)

Serum surfactant protein A levels in healthy individuals are increased in smokers. Nomori H, et al. **Lung** 1998; 176(6):355–61

[Significance of serum surfactant protein-D (SP-D) level in patients with pulmonary tuberculosis] Kondo A, et al.
Kekkaku 1998 Oct;73(10):585–90 (Eng. Abstr.) **(Jpn)**

CHEMICAL SYNTHESIS

Synthesis and structural characterization of human-identical lung surfactant SP-C protein. Mayer-Fligge P, et al.
J Pept Sci 1998 Aug;4(5):355–63

CHEMISTRY

Hydrolysis of surfactant-associated phosphatidylcholine by mammalian secretory phospholipases A2. Hite RD, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L740–7

Surfactant protein levels in severe respiratory syncytial virus infection. Kerr MH, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1115–8

Biophysical activity of an artificial surfactant containing an analogue of surfactant protein (SP)-C and native SP-B. Palmblad M, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):381–6

Molecular species of acidic phospholipids in human lung surfactant. Heeley E, et al. **Biochem Soc Trans** 1998 Aug; 26(3):S227

Neutral lipids induce critical behavior in interfacial monolayers of pulmonary surfactant. Discher BM, et al. **Biochemistry** 1999 Jan 5;38(1):374–83

Rotational dynamics of spin-labelled surfactant-associated proteins SP-B and SP-C in dipalmitoylphosphatidylcholine and dipalmitoylphosphatidylglycerol bilayers. Cruz A, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):125–34

Palmitoylation of lung surfactant protein SP-C alters surface thermodynamics, but not protein secondary structure or orientation in 1,2-dipalmitoylphosphatidylcholine langmuir films. Flach CR, et al. **Biochim Biophys Acta** 1999 Jan 12; 1416(1–2):11–20

Structure and properties of surfactant protein B. Hawgood S, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):150–60 (53 ref.)

Dissociation of surfactant protein B from canine surfactant large aggregates during formation of small surfactant aggregates by in vitro surface area cycling. Inchley K, et al. **Biochim Biophys Acta** 1999 Aug 25;1440(1):49–58

Structure and properties of surfactant protein C. Johansson J. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):161–72 (41 ref.)

Structure, processing and properties of surfactant protein A. McCormack FX. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):109–31 (191 ref.)

Hydrophobic lung surfactant proteins B and C remain associated with surface film during dynamic cyclic area changes. Putz G, et al. **Biochim Biophys Acta** 1999 Jan 6;1453(1):126–34

Cation-mediated conformational variants of surfactant protein A. Ridsdale RA, et al. **Biochim Biophys Acta** 1999 Jan 6;1453(1):23–34

Site-directed mutagenesis of surfactant protein A reveals dissociation of lipid aggregation and lipid uptake by alveolar type II cells. Tsunezawa W, et al.
Biochim Biophys Acta 1998 Sep 8;1387(1–2):433–46

Comparative modeling of amoebapores and granulysin based on the NK-lysin structure-structural and functional implications. Bruhn H, et al. **Biol Chem** 1999 Jul–Aug; 380(7–8):1001–7

Functional roles and structural analysis of lung collectins SP-A and SP-D. Kuroki Y, et al. **Biol Neonate** 1999 Jun; 76 Suppl 1:19–21 (4 ref.)

Use of knockout mice to study surfactant protein structure and function. Weaver TE, et al. **Biol Neonate** 1999 Jun;76 Suppl 1:15–8 (10 ref.)

Effect of hydrophobic surfactant peptides SP-B and SP-C on binary phospholipid monolayers. I. Fluorescence and dark-field microscopy. Krüger P, et al. **Biophys J** 1999 Aug;77(2):903–14

A spreading technique for forming film in a captive bubble. Putz G, et al. **Biophys J** 1998 Nov;75(5):2229–39

Interactions of pulmonary surfactant protein A with phospholipid monolayers change with pH. Ruano ML, et al. **Biophys J** 1999 Sep;77(3):1469–76

Effects of pulmonary surfactant proteins SP-B and SP-C and calcium ions on the surface properties of hydrophobic fractions of lung surfactant. Christova Y, et al.
Eur Biophys J 1999;28(1):59–66

Surfactant composition reflects lung overinflation and arterial oxygenation in patients with acute lung injury. Bersten AD, et al. **Eur Respir J** 1998 Aug;12(2):301–8

A 50-kDa variant form of human surfactant protein D. Mason RJ, et al. **Eur Respir J** 1998 Nov;12(5):1147–55

An examination of the different variables affecting surfactant aggregate conversion in vitro. Veldhuizen RA, et al.
Exp Lung Res 1999 Mar;25(2):127–41

Biophysical characterization and modeling of lung surfactant components. Ingenito EP, et al. **J Appl Physiol** 1999 May; 86(5):1702–14

Dextran restores albumin-inhibited surface activity of pulmonary surfactant extract. Kobayashi T, et al.
J Appl Physiol 1999 Jun;86(6):1778–84

Surfactant-spreading and surface-compression disturbance on a thin viscous film. Bull JL, et al. **J Biomech Eng** 1999 Feb;121(1):89–98

Interactions of pulmonary surfactant protein SP-A with monolayers of dipalmitoylphosphatidylcholine and cholesterol: roles of SP-A domains. Yu SH, et al.
J Lipid Res 1999 May;40(5):920–9

Synthesis and structural characterization of human-identical lung surfactant SP-C protein. Mayer-Fligge P, et al.
J Pept Sci 1998 Aug;4(5):355–63

Structural and functional properties of pulmonary surfactant protein C and related analogs. Gustafsson M, et al.
J Protein Chem 1998 Aug;17(6):540–2

Structural changes of surfactant protein A induced by cations reorient the protein on lipid bilayers. Palaniyar N, et al. **J Struct Biol** 1998;122(3):297–310

Multiple mechanisms of lung surfactant inhibition. Holm BA, et al. **Pediatr Res** 1999 Jul;46(1):85–93

Pulmonary surfactant-associated polypeptide C in a mixed organic solvent transforms from a monomeric alpha-helical state into insoluble beta-sheet aggregates. Szyperski T, et al. **Protein Sci** 1998 Dec;7(12):2533–40

Crystal structure of the trimeric alpha-helical coiled-coil and the three lectin domains of human lung surfactant protein D. Håkansson K, et al. **Structure Fold Des** 1999 Mar 15; 7(3):255–64

CLASSIFICATION

Damage to surfactant-specific protein in acute respiratory distress syndrome. Baker CS, et al. **Lancet** 1999 Apr 10; 353(9160):1232–7

DEFICIENCY

Addition of alpha1-antitrypsin to surfactant improves oxygenation in surfactant-deficient rats. Belai Y, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):917–23

Normal lung function in subjects heterozygous for surfactant protein-B deficiency. Yusen RD, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):411–4

Primary surfactant deficiency [letter; comment] McCabe AJ, et al. **Crit Care Med** 1999 Jun;27(6):1219–21 (19 ref.). Comment on: Crit Care Med 1998 Mar;26(3):573–80.

Utility of deadspace and capnometry measurements in determination of surfactant efficacy in surfactant-depleted lungs [see comments] Wenzel U, et al. **Crit Care Med** 1999 May;27(5):946–52. Comment in: Crit Care Med 1999 May;27(5):862–3.

Surfactant protein B deficiency: clinical, histological and molecular evaluation. Williams GD, et al.
J Paediatr Child Health 1999 Apr;35(2):214–20

Functional pulmonary surfactant deficiency and neonatal respiratory disorders. Ogawa Y, et al.
Pediatr Pulmonol Suppl 1999;18:175–7 (8 ref.)

Surfactant nebulization versus instillation during high frequency ventilation in surfactant-deficient rabbits. Dijk PH, et al. **Pediatr Res** 1998 Nov;44(5):699–704

Upregulated tumor necrosis factor-alpha gene expression in the hypoplastic lung in patients with congenital diaphragmatic hernia. Ohshiro K, et al.
Pediatr Surg Int 1998 Nov;14(1–2):21–4

Prenatal diagnosis of congenital alveolar proteinosis (surfactant protein B deficiency). Stuhrmann M, et al.
Prenat Diagn 1998 Sep;18(9):953–5

[Relation between pulmonary surfactants and asthma] Mu Y, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Oct;20(5):318–20 (15 ref.) **(Chi)**

DIAGNOSTIC USE

99mTc-ENS: a new radiopharmaceutical for aerosol lung scintigraphy. Comparison between different freeze-dried formulations. Calmanovici GP, et al. **J Nucl Med** 1999 Jun; 40(6):1080–3

DRUG EFFECTS

Nonionic polymers reverse inactivation of surfactant by meconium and other substances. William Taeusch H, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1391–5

Effect of air pollutants on the pulmonary surfactant system. Müller B, et al. **Eur J Clin Invest** 1998 Sep;28(9):762–77 (179 ref.)

Sulfuric acid aerosol induces changes in alveolar surface tension in the guinea pig but not in the rat. Lee MM, et al. **Exp Lung Res** 1999 Apr–May;25(3):229–44

Perinatal sidestream cigarette smoke exposure and the developing pulmonary surfactant system in rats. Subramaniam S, et al. **Hum Exp Toxicol** 1999 Apr; 18(4):206–11

The effects of prenatal intraamniotic surfactant or dexamethasone administration on lung development are comparable to changes induced by tracheal ligation in an animal model of congenital diaphragmatic hernia: studies of lung glycogen content, elastic fiber density, and collagen content. Tannuri U, et al. **J Pediatr Surg** 1998 Dec; 33(12):1776–83

GENETICS

Analysis of genomic regions involved in regulation of the rabbit surfactant protein A gene in transgenic mice. Alcorn JL, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L349–61

Brief 95% O2 exposure effects on surfactant protein and mRNA in rat alveolar and bronchiolar epithelium. Allred TF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L999–L1009

TGF-beta1 inhibits surfactant component expression and epithelial cell maturation in cultured human fetal lung. Beers MF, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L950–60

Recombinant SP-D carbohydrate recognition domain is a chemoattractant for human neutrophils. Cai GZ, et al.
Am J Physiol 1999 Jan;276(1 Pt 1):L131–6

Changes in surfactant-associated protein mRNA profile in growth-restricted fetal sheep. Gagnon R, et al.
Am J Physiol 1999 Mar;276(3 Pt 1):L459–65

Inhibition of hSP-B promoter in respiratory epithelial cells by a dominant negative retinoic acid receptor. Ghaffari M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L398–404

SP-A 3'-UTR is involved in the glucocorticoid inhibition of human SP-A gene expression. Hoover RR, et al.
Am J Physiol 1999 Jun;276(6 Pt 1):L917–24

Differential regulation of baboon SP-A1 and SP-A2 genes: structural and functional analysis of 5'-flanking DNA. Li J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1078–88

Alterations in lung expansion affect surfactant protein A, B, and C mRNA levels in fetal sheep. Lines A, et al.
Am J Physiol 1999 Feb;276(2 Pt 1):L239–45

Transcriptional activation and protein binding by two regions of the rat surfactant protein A promoter. Rosenberg E, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L134–41

Human surfactant proteins A1 and A2 are differentially regulated during development and by soluble factors. Scavo LM, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L653–69

Regulation of mouse SP-B gene promoter by AP-1 family members. Sever-Chroneos Z, et al. **Am J Physiol** 1999 Jul; 277(1 Pt 1):L79–88

SP-A2 gene expression in human fetal lung airways. Goss KL, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):613–21

Genomic organization of the mouse gene for lung surfactant protein D. Lawson PR, et al.
Am J Respir Cell Mol Biol 1999 May;20(5):953–63

Surfactant protein-A-deficient mice are susceptible to Pseudomonas aeruginosa infection. LeVine AM, et al.
Am J Respir Cell Mol Biol 1998 Oct;19(4):700–8

Normal lung function in subjects heterozygous for surfactant protein-B deficiency. Yusen RD, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):411–4

Glucocorticoid inhibition of human SP-A1 promoter activity in NCI-H441 cells. Hoover RR, et al. **Biochem J** 1999 May 15;340 (Pt 1):69–76

Genetics of the hydrophilic surfactant proteins A and D. Floros J, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):312–22 (53 ref.)

Regulation of expression of surfactant protein-A. Mendelson CR, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):132-49 (59 ref.)
Insulin inhibits surfactant protein A and B gene expression in the H441 cell line. Miakotina OL, et al. **Biochim Biophys Acta** 1998 Oct 23;1442(1):60-70
Genetics of the hydrophobic surfactant proteins. Nogee LM. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):323-33 (43 ref.)
Congenital alveolar proteinosis caused by a novel mutation of the surfactant protein B gene and misalignment of lung vessels in consanguineous kindred infants. Wallot M, et al. **Eur J Pediatr** 1999 Jun;158(6):513-8
Surfactant protein A and D expression in the porcine Eustachian tube. Paananen R, et al. **FEBS Lett** 1999 Jun 11;452(3):141-4
Surfactant protein-A enhances respiratory syncytial virus clearance in vivo. LeVine AM, et al. **J Clin Invest** 1999 Apr;103(7):1015-21
Surfactant protein B deficiency: clinical, histological and molecular evaluation. Williams GD, et al. **J Paediatr Child Health** 1999 Apr;35(2):214-20
Tracheal ligation increases mitogen-activated protein kinase activity and attenuates surfactant protein B mRNA in fetal sheep lungs. Islam S, et al. **J Surg Res** 1999 Jun 1; 84(1):19-23
Prenatal diagnosis of congenital alveolar proteinosis (surfactant protein B deficiency). Stuhrmann M, et al. **Prenat Diagn** 1998 Sep;18(9):953-5
Expression of surfactant protein mRNA in normal and neoplastic lung of B6C3F1 mice as demonstrated by in situ hybridization. Pilling AM, et al. **Vet Pathol** 1999 Jan; 36(1):57-63
[Clinical thinking and decision making in practice: a full-term neonate with misunderstood respiratory insufficiency] van Heijst AF, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12; 143(24):1256-60 (Eng. Abstr.) **(Dut)**

IMMUNOLOGY

Structure, biologic properties, and expression of surfactant protein D (SP-D). Crouch EC. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):278-89 (72 ref.)
Surfactant protein A (SP-A) gene targeted mice. Korfhagen TR, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):296-302 (46 ref.)
Interactions of surfactant protein D with pathogens, allergens and phagocytes. Reid KB. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):290-5 (34 ref.)
Lung surfactant proteins involved in innate immunity. Eggleton P, et al. **Curr Opin Immunol** 1999 Feb;11(1):28-33 (36 ref.)
Membrane receptors for soluble defense collagens. Tenner AJ. **Curr Opin Immunol** 1999 Feb;11(1):34-41 (79 ref.)
Surfactant protein A suppresses reactive nitrogen intermediates by alveolar macrophages in response to Mycobacterium tuberculosis. Pasula R, et al. **J Clin Invest** 1999 Feb;103(4):483-90

ISOLATION & PURIFICATION

Purification and biochemical characterization of equine pulmonary surfactant protein D. Hobo S, et al. **Am J Vet Res** 1999 Mar;60(3):368-72
Purification and biochemical characterization of pulmonary surfactant protein A of horses. Hobo S, et al. **Am J Vet Res** 1999 Feb;60(2):169-73
Surfactant proteins A and D: disease markers. Kuroki Y, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):334-45 (47 ref.)
A novel method of purifying lung surfactant proteins A and D from the lung lavage of alveolar proteinosis patients and from pooled amniotic fluid. Strong P, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):139-49

METABOLISM

Brief 95% O2 exposure effects on surfactant protein and mRNA in rat alveolar and bronchiolar epithelium. Allred TF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L999-L1009
Localization of a candidate surfactant convertase to type II cells, macrophages, and surfactant subfractions. Clark H, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L452-8
Hydrolysis of surfactant-associated phosphatidylcholine by mammalian secretory phospholipases A2. Hite RD, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L740-7
Lung surfactant kinetics in conscious pigs. Martini WZ, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E187-95
Filaments of surfactant protein A specifically interact with corrugated surfaces of phospholipid membranes. Palaniyar N, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L631-41
Formation of membrane lattice structures and their specific interactions with surfactant protein A. Palaniyar N, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L642-9
Transcriptional activation and protein binding by two regions of the rat surfactant protein A promoter. Rosenberg E, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L134-41
Mechanical ventilation of rat lung: effect on surfactant forms. Savov J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L320-6
Effects of endotoxin on surfactant protein A and D stimulation of NO production by alveolar macrophages. Wright JR, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L650-8
Nitrated SP-A does not enhance adherence of Pneumocystis carinii to alveolar macrophages. Zhu S, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1031-9
Brief exposure to 95% oxygen alters surfactant protein D and mRNA in adult rat alveolar and bronchiolar epithelium. Aderibigbe AO, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):219-27
Surfactant protein-A binds group B streptococcus enhancing phagocytosis and clearance from lungs of surfactant protein-A-deficient mice. LeVine AM, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):279-86
Trafficking of newly synthesized surfactant protein A in isolated rat alveolar type II cells. Osanai K, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):929-35
Ultrastructure of phospholipid mixtures reconstituted with surfactant proteins B and D. Poulain FR, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):1049-58
Glycoprotein-340 binds surfactant protein-A (SP-A) and stimulates alveolar macrophage migration in an SP-A-independent manner. Tino MJ, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):759-68
Surfactant proteins A and D in premature baboons with chronic lung injury (Bronchopulmonary dysplasia). Evidence for an inhibition of secretion. Awasthi S, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):942-9
Surfactant subtype conversion is related to loss of surfactant apoprotein B and surface activity in large surfactant aggregates. Experimental and clinical studies. Günther A, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):244-51
Abnormal surfactant metabolism and function in preterm ventilated baboons. Seidner SR, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1982-9
'Dewatering' the lungs [letter; comment] Hills BA, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F78. Comment on: Arch Dis Child Fetal Neonatal Ed 1998 Nov;79(3):F221-2.
Characterization of the Ca2+-dependent binding of annexin IV to surfactant protein A. Sohma H, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):203-9
Introduction of mannose binding protein-type phosphatidylinositol recognition into pulmonary surfactant protein A. Chiba H, et al. **Biochemistry** 1999 Jun 1; 38(22):7321-31
The longer isoform and Cys-1 disulfide bridge of rat surfactant protein A are not essential for phospholipid and type II cell interactions. Zhang M, et al. **Biochemistry** 1998 Nov 24;37(47):16481-8
Interactions of surfactant protein A with pathogens. Haagsman HP. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):264-77 (73 ref.)
Surfactant protein metabolism in vivo. Ikegami M, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):218-25 (41 ref.)
Structure, processing and properties of surfactant protein A. McCormack FX. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):109-31 (191 ref.)
Interfacial properties of surfactant proteins. Pérez-Gil J, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):203-17 (70 ref.)
Interactions of surfactant protein A with epithelial cells and phagocytes. Tino MJ, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):241-63 (112 ref.)
Aerosolized endotoxin is immediately bound by pulmonary surfactant protein D in vivo. van Rozendaal BA, et al. **Biochim Biophys Acta** 1999 Aug 30;1454(3):261-9
Synthesis, processing and secretion of surfactant proteins B and C. Weaver TE. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):173-9 (42 ref.)
Interactions of pulmonary surfactant protein A with phospholipid monolayers change with pH. Ruano ML, et al. **Biophys J** 1999 Sep;77(3):1469-76
Pulmonary surfactant in acute lung injury [editorial; comment] Cane RD, et al. **Crit Care Med** 1999 Jan; 27(1):12-3. Comment on: Crit Care Med 1999 Jan;27(1):82-9.
Compositional, structural, and functional alterations in pulmonary surfactant in surgical patients after the early onset of systemic inflammatory response syndrome or sepsis [see comments] Raymondos K, et al. **Crit Care Med** 1999 Jan;27(1):82-9. Comment in: Crit Care Med 1999 Jan;27(1):12-3.
Effect of air pollutants on the pulmonary surfactant system. Müller B, et al. **Eur J Clin Invest** 1998 Sep;28(9):762-77 (179 ref.)
Pulmonary surfactant protein A binds to Cryptococcus neoformans without promoting phagocytosis. Walenkamp AM, et al. **Eur J Clin Invest** 1999 Jan;29(1):83-92
Pulmonary alveolar proteinosis in infants. Sakai Y, et al. **Eur J Pediatr** 1999 May;158(5):424-6
Characterizing alterations in the pulmonary surfactant system in a rat model of Pseudomonas aeruginosa pneumonia. Vanderzwan J, et al. **Eur Respir J** 1998 Dec;12(6):1388-96
SP-A binding sites on bovine alveolar macrophages. Plaga S, et al. **Exp Cell Res** 1998 Nov 25;245(1):116-22
Differential effects in vivo of thyroid hormone on the expression of surfactant phospholipid, surfactant protein mRNA and antioxidant enzyme mRNA in fetal rat lung. Ramadurai SM, et al. **Exp Lung Res** 1998 Sep-Oct; 24(5):641-57
Binding of rat and human surfactant proteins A and D to Aspergillus fumigatus conidia. Allen MJ, et al. **Infect Immun** 1999 Sep;67(9):4563-9
Interaction of NK lysin, a peptide produced by cytolytic lymphocytes, with endotoxin. Andersson M, et al. **Infect Immun** 1999 Jan;67(1):201-5
Regulation of protein phosphorylation and pathogen phagocytosis by surfactant protein A. Schagat TL, et al. **Infect Immun** 1999 Sep;67(9):4693-9
Alterations in pulmonary surfactant after rapid arousal from torpor in the marsupial Sminthopsis crassicaudata. Lopatko OV, et al. **J Appl Physiol** 1999 Jun;86(6):1959-70
Convertase activity in alveolar surfactant and lamellar bodies in fetal, newborn, and adult rabbits. Oulton M, et al. **J Appl Physiol** 1999 Jan;86(1):71-7
Surfactant protein-D regulates surfactant phospholipid homeostasis in vivo. Korfhagen TR, et al. **J Biol Chem** 1998 Oct 23;273(43):28438-43
Deletion mapping of N-terminal domains of surfactant protein A. The N-terminal segment is required for phospholipid aggregation and specific inhibition of surfactant secretion. McCormack FX, et al. **J Biol Chem** 1999 Jan 29;274(5):3173-81
Surfactant protein D binds to Mycobacterium tuberculosis bacilli and lipoarabinomannan via carbohydrate-lectin interactions resulting in reduced phagocytosis of the bacteria by macrophages. Ferguson JS, et al. **J Immunol** 1999 Jul 1;163(1):312-21
Interactions of pulmonary surfactant protein SP-A with monolayers of dipalmitoylphosphatidylcholine and cholesterol: roles of SP-A domains. Yu SH, et al. **J Lipid Res** 1999 May;40(5):920-9
Cardiopulmonary bypass reduces pulmonary surfactant activity in infants. Griese M, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):237-44
The role of cardiopulmonary bypass and surfactant in pulmonary decompensation after surgery for congenital heart disease. Paul DA, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):1025-6
Dietary supplementation with arachidonic and docosahexaenoic acids has no effect on pulmonary surfactant in artificially reared infant rats. Yeh YY, et al. **Lipids** 1999 May;34(5):483-8
Oxidative inactivation of surfactants. Andersson S, et al. **Lung** 1999;177(3):179-89
A role for phospholipase A2 in ARDS pathogenesis. Touqui L, et al. **Mol Med Today** 1999 Jun;5(6):244-9
Phagocyte-induced lipid peroxidation of lung surfactant. Bouhafs RK, et al. **Pediatr Pulmonol** 1999 May;27(5):322-7
Endogenous surfactant metabolism in critically ill infants measured with stable isotope labeled fatty acids. Cogo PE, et al. **Pediatr Res** 1999 Feb;45(2):242-6
Surfactant protein-C in ventilated premature lamb lung. Ikegami M, et al. **Pediatr Res** 1998 Dec;44(6):860-4
Inhaled nitric oxide decreases hyperoxia-induced surfactant abnormality in preterm rabbits. Issa A, et al. **Pediatr Res** 1999 Feb;45(2):247-54
Complement and contact activation related to surfactant response in respiratory distress syndrome. Wagner MH, et al. **Pediatr Res** 1999 Jan;45(1):14-8
Surfactant and acute lung injury. Jobe AH, et al. **Proc Assoc Am Physicians** 1998 Nov-Dec;110(6):489-95 (53 ref.)
Surfactant protein A mediates mycoplasmacidal activity of alveolar macrophages by production of peroxynitrite. Hickman-Davis J, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4953-8
Cloning of gp-340, a putative opsonin receptor for lung surfactant protein D. Holmskov U, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10794-9
[The effects of cardiopulmonary bypass on pulmonary surfactant activity] Xing Q, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Aug; 20(4):225-7 (Eng. Abstr.) **(Chi)**
[Surfactant-dependent atelectasis in pulmonary tuberculosis] Erokhin VV, et al. **Arkh Patol** 1998 Sep-Oct;60(5):41-6 (Eng. Abstr.) **(Rus)**
[State of the pulmonary surfactant system and myo-inositol content in biological substrates] Kovalenko LV, et al. **Fiziol Cheloveka** 1998 Sep-Oct;24(5):16-20 **(Rus)**

PHARMACOKINETICS

Uptake and degradation of Curosurf after tracheal administration to newborn and adult rabbits. Alberti A, et al. **Eur Respir J** 1998 Aug;12(2):294-300
Bolus dispersal through the lungs in surfactant replacement therapy. Espinosa FF, et al. **J Appl Physiol** 1999 Jan; 86(1):391-410
Phospholipid surfactant adsorption by respirable quartz and in vitro expression of cytotoxicity and DNA damage. Liu X, et al. **Toxicol Lett** 1998 Aug;96-97:77-84

PHARMACOLOGY

Recombinant SP-D carbohydrate recognition domain is a chemoattractant for human neutrophils. Cai GZ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L131-6
Pulmonary surfactant inhibits LPS-induced nitric oxide production by alveolar macrophages. Miles PR, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L186-96
Surfactant protein A enhances the binding and deacylation of E. coli LPS by alveolar macrophages. Stamme C, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L540-7
Surfactant proteins A and D specifically stimulate directed actin-based responses in alveolar macrophages. Tino MJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L164-74
Nitrated SP-A does not enhance adherence of Pneumocystis

carinii to alveolar macrophages. Zhu S, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1031–9

Addition of alpha1-antitrypsin to surfactant improves oxygenation in surfactant-deficient rats. Belai Y, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):917–23

Effect of hydrophobic surfactant peptides SP-B and SP-C on binary phospholipid monolayers. I. Fluorescence and dark-field microscopy. Krüger P, et al. **Biophys J** 1999 Aug;77(2):903–14

Lung clearance of intratracheally instilled 99mTc-tobramycin using pulmonary surfactant as vehicle. Van't Veen A, et al. **Br J Pharmacol** 1999 Mar; 126(5):1091–6

An in vitro comparison of the mucoactive properties of guaifenesin, iodinated glycerol, surfactant, and albuterol [see comments] Rubin BK. **Chest** 1999 Jul;116(1):195–200 . Comment in: Chest 1999 Jul;116(1):6–8.

Effects of pulmonary surfactant proteins SP-B and SP-C and calcium ions on the surface properties of hydrophobic fractions of lung surfactant. Christova Y, et al. **Eur Biophys J** 1999;28(1):59–66

Induction of TNF-alpha release from human buffy coat cells by Pseudomonas aeruginosa is reduced by lung surfactant protein A. Hickling TP, et al. **FEBS Lett** 1998 Oct 16; 437(1–2):65–9

The effect of synthetic surfactant Exosurf on gene transfer in mouse lung in vivo. Raczka E, et al. **Gene Ther** 1998 Oct;5(10):1333–9

Suppressive effects of SP-A on ionomycin-induced IL-8 production and release by eosinophils. Cheng G, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:59–62

Surfactant effects in model airway closure experiments. Cassidy KJ, et al. **J Appl Physiol** 1999 Jul;87(1):415–27

Experimental neonatal respiratory failure induced by lysophosphatidylcholine: effect of surfactant treatment. Grossmann G, et al. **J Appl Physiol** 1999 Feb;86(2):633–40

Recombinant rat surfactant-associated protein D inhibits human T lymphocyte proliferation and IL-2 production. Borron PJ, et al. **J Immunol** 1998 Nov 1;161(9):4599–603

Exogenous bovine surfactant suppresses tumor necrosis factor-alpha release by murine macrophages stimulated by genital mycoplasmas. Talati AJ, et al. **J Infect Dis** 1998 Oct;178(4):1122–5

Modified natural porcine surfactant modulates tobacco smoke-induced stress response in human monocytes. Pinot F, et al. **Life Sci** 1999;64(2):125–34

Influence of phospholipid composition on the properties of reconstituted surfactants. Dhand R, et al. **Lung** 1999; 177(3):127–38

Effects of initial low flow reperfusion and surfactant administration on the viability of perfused cadaveric rat lungs. Nonaka M, et al. **Lung** 1999;177(1):37–43

In vitro effect of lung surfactant on alveolar macrophage defence mechanisms against Cryptococcus neoformans. Gross NT, et al. **Mycopathologia** 1998–99;144(1):21–7

Tracheal aspirate surface tension in babies with hyaline membrane disease: effects of synthetic surfactant replacement. McMillan DD, et al. **Pediatr Pulmonol** 1998 Sep;26(3):173–82

A comparison of the hemodynamic and respiratory effects of surfactant instillation during interrupted ventilation versus noninterrupted ventilation in rabbits with severe respiratory failure. Dijk PH, et al. **Pediatr Res** 1999 Feb; 45(2):235–40

Effects of early treatment with rSP-C surfactant on oxygenation and histology in rats with acute lung injury. Häfner D, et al. **Pulm Pharmacol Ther** 1999;12(3):193–201

Computerized image analysis of lung expansion patterns in surfactant treated immature newborn rabbits. Berggren P, et al. **Respir Physiol** 1999 Jan 1;115(1):45–53

Influence of surfactant on the activity of slowly adapting stretch receptors in the lung. Chen Y, et al. **Respir Physiol** 1998 May;112(2):135–43

[Pharmacological properties and therapeutic efficacy of the domestic preparations of lung surfactants] Rozenberg OA, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):455–8 **(Rus)**

PHYSIOLOGY

Surfactant protein A inhibits T cell proliferation via its collagen-like tail and a 210-kDa receptor. Borron P, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L679–86

Inhibition of factor XIIIa-mediated incorporation of fibronectin into fibrin by pulmonary surfactant. Elssner A, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L625–30

Surfactant function and composition after free radical exposure generated by transition metals. Mark L, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L491–500

Normal surfactant pool sizes and inhibition-resistant surfactant from mice that overexpress surfactant protein A. Elhalwagi BM, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):380–7

Surfactant subtype conversion is related to loss of surfactant apoprotein B and surface activity in large surfactant aggregates. Experimental and clinical studies. Günther A, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):244–51

Dysfunction of pulmonary surfactant in asthmatics after segmental allergen challenge. Hohlfeld JM, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1803–9

Antigen-induced airway inflammation in atopic subjects generates dysfunction of pulmonary surfactant. Jarjour NN, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):336–41

Positive end-expiratory pressure preserves surfactant function in preterm lambs. Michna J, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):634–9

Nonionic polymers reverse inactivation of surfactant by meconium and other substances. William Taeusch H, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1391–5

The alveolar surface network: a new anatomy and its physiological significance. Scarpelli EM. **Anat Rec** 1998 Aug;251(4):491–527 (125 ref.)

"Dewatering" of the lungs at birth [see comments] Hills BA, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Nov; 79(3):F221–2. Comment in: Arch Dis Child Fetal Neonatal Ed 1999 Jan;80(1):F78.

Pulmonary surfactant: functions and molecular composition. Goerke J. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):79–89 (80 ref.)

Structure and properties of surfactant protein B. Hawgood S, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2–3):150–60 (53 ref.)

Formation and structure of surface films: captive bubble surfactometry. Schürch S, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):180–202 (56 ref.)

The role of lipids in pulmonary surfactant. Veldhuizen R, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):90–108 (80 ref.)

Functional roles and structural analysis of lung collectins SP-A and SP-D. Kuroki Y, et al. **Biol Neonate** 1999 Jun; 76 Suppl 1:19–21 (4 ref.)

Use of knockout mice to study surfactant protein structure and function. Weaver TE, et al. **Biol Neonate** 1999 Jun;76 Suppl 1:15–8 (10 ref.)

Respiratory mechanics and surfactant in the acute respiratory distress syndrome. Bersten AD, et al. **Clin Exp Pharmacol Physiol** 1998 Nov;25(11):955–63 (76 ref.)

Evolution of surface activity related functions of vertebrate pulmonary surfactant. Daniels CB, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):716–21 (40 ref.)

Breathing and pulmonary surfactant function in mice 24 h after ozone exposure. Currie WD, et al. **Eur Respir J** 1998 Aug;12(2):288–93

Pulmonary surfactant in health and human lung diseases: state of the art. Griese M. **Eur Respir J** 1999 Jun;13(6):1455–76 (216 ref.)

An endogenous peptide isolated from the gut, NK-lysin, stimulates insulin secretion without changes in cytosolic free Ca2+ concentration. Zaitsev SV, et al. **FEBS Lett** 1998 Nov 20;439(3):267–70

Perinatal sidestream cigarette smoke exposure and the developing pulmonary surfactant system in rats. Subramaniam S, et al. **Hum Exp Toxicol** 1999 Apr; 18(4):206–11

Functional roles of the lung surfactant proteins SP-A and SP-D in innate immunity. Reid KB. **Immunobiology** 1998 Aug;199(2):200–7 (44 ref.)

Surfactant effects in model airway closure experiments. Cassidy KJ, et al. **J Appl Physiol** 1999 Jul;87(1):415–27

SP-A as a cytokine: surfactant protein-A-regulated transcription of surfactant proteins and other genes. Korutla L, et al. **J Cell Physiol** 1999 Mar;178(3):379–86

Pulmonary surfactant protein A modulates the cellular response to smooth and rough lipopolysaccharides by interaction with CD14. Sano H, et al. **J Immunol** 1999 Jul 1;163(1):387–95

Interobserver reliability of the click test: a rapid bedside test to determine surfactant function. Osborn DA, et al. **J Paediatr Child Health** 1998 Dec;34(6):544–7

Structural and functional properties of pulmonary surfactant protein C and related analogs. Gustafsson M, et al. **J Protein Chem** 1998 Aug;17(6):540–2

Lipid peroxidation of lung surfactant by bacteria. Bouhafs RK, et al. **Lung** 1999;177(2):101–10

Regulation and function of pulmonary surfactant protein B. Pryhuber GS. **Mol Genet Metab** 1998 Aug;64(4):217–28 (86 ref.)

Granulocyte-macrophage colony-stimulating factor and pulmonary surfactant homeostasis. Reed JA, et al. **Proc Assoc Am Physicians** 1998 Jul–Aug;110(4):321–32 (56 ref.)

The lipids of pulmonary surfactant: dynamics and interactions with proteins. Batenburg JJ, et al. **Prog Lipid Res** 1998 Sep;37(4):235–76 (462 ref.)

Influence of surfactant on the activity of slowly adapting stretch receptors in the lung. Chen Y, et al. **Respir Physiol** 1998 May;112(2):135–43

Effect of the compression ratio on properties of lung surfactant (bovine lipid extract surfactant) films. Lu JY, et al. **Respir Physiol** 1999 Jan 1;115(1):55–71

SECRETION

Surfactant secretagogue activation of protein kinase C isoforms in cultured rat type II cells. Gobran LI, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L251–6

Role of actin depolymerization in the surfactant secretory response of alveolar epithelial type II cells. Rose F, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):206–12

Prostacyclin enhances stretch-induced surfactant secretion in alveolar epithelial type II cells. Rose F, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):846–51

Regulatory mechanisms of surfactant secretion. Mason RJ, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):226–40 (99 ref.)

Regulation of lung surfactant secretion by phospholipase A2. Liu L. **J Cell Biochem** 1999 Jan 1;72(1):103–10

Calcium-PS-dependent protein kinase C and surfactant protein A in isolated fetal rabbit type II alveolar cells and surfactant-related material. Samuels ER, et al. **Pediatr Pulmonol** 1999 Feb;27(2):95–103

[The effects of YM26818: 1-(2-dimethylaminoethyl)-1-(3,4,5-trimethoxyphenyl)urea and derivatives on pulmonary surfactant secretion and lung compliance] Kimoto A, et al. **Yakugaku Zasshi** 1998 Jul; 118(7):294–300 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Combined effects of high-frequency ventilation and surfactant treatment in experimental meconium aspiration syndrome. Calkovska A, et al. **Acta Anaesthesiol Scand** 1999 Feb;43(2):135–45

Modified natural and synthetically reconstituted surfactant therapies for acute lung injury caused by endotoxin in rats. Tashiro K, et al. **Acta Anaesthesiol Scand** 1999 Sep; 43(8):821–8

Surfactant treatment may accelerate epithelial cell regeneration in hyaline membrane disease of the newborn. Gonda TA, et al. **Am J Perinatol** 1998;15(9):539–44

Combined treatment with surfactant and specific immunoglobulin reduces bacterial proliferation in experimental neonatal group B streptococcal pneumonia. Herting E, et al. **Am J Respir Crit Care Med** 1999 Jun; 159(6):1862–7

Artificial surfactant (Surfactant TA) modulates adherence and superoxide production of neutrophils. Suwabe A, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1890–9

Surfactant treatment for acute respiratory distress syndrome. López-Herce J, et al. **Arch Dis Child** 1999 Mar; 80(3):248–52

Principles of surfactant replacement. Robertson B, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):346–61 (72 ref.)

Severe pulmonary hemorrhage in the premature newborn infant: analysis of presurfactant and surfactant eras. Braun KR, et al. **Biol Neonate** 1999;75(1):18–30

Surfactant lavage for the management of severe meconium aspiration syndrome. Lam BC. **Biol Neonate** 1999 Jun;76 Suppl 1:10–4 (37 ref.)

Comparison of exogenous surfactant therapy, mechanical ventilation with high end-expiratory pressure and partial liquid ventilation in a model of acute lung injury. Hartog A, et al. **Br J Anaesth** 1999 Jan;82(1):81–6

Comparison of rSP-C surfactant with natural and synthetic surfactants after late treatment in a rat model of the acute respiratory distress syndrome. Häfner D, et al. **Br J Pharmacol** 1998 Jul;124(6):1083–90

Artificial reconstituted pulmonary surfactant in prevention and treatment of respiratory distress syndrome in neonates. Jiang ZQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar; 18(2):182–4

Surfactant replacement in acute lung injury--the saga continues [editorial; comment] Arnold JH. **Crit Care Med** 1999 Jan;27(1):31–2. Comment on: Crit Care Med 1999 Jan;27(1):188–95.

Perfluorocarbon priming and surfactant: physiologic and pathologic effects [see comments] Mrozek JD, et al. **Crit Care Med** 1999 Sep;27(9):1916–22. Comment in: Crit Care Med 1999 Sep;27(9):2053–4.

Effect of surfactant on respiratory failure associated with thoracic aneurysm surgery [see comments] Satoh D, et al. **Crit Care Med** 1998 Oct;26(10):1660–2. Comment in: Crit Care Med 1998 Oct;26(10):1626–7.

Is there a role for surfactant replacement therapy in adult pulmonary dysfunction? [editorial; comment] Warren WH. **Crit Care Med** 1998 Oct;26(10):1626–7 (18 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1660–2.

Utility of deadspace and capnometry measurements in determination of surfactant efficacy in surfactant-depleted lungs [see comments] Wenzel U, et al. **Crit Care Med** 1999 May;27(5):946–52. Comment in: Crit Care Med 1999 May;27(5):862–3.

Instillation of calf lung surfactant extract (calfactant) is beneficial in pediatric acute hypoxemic respiratory failure. Members of the Mid-Atlantic Pediatric Critical Care Network [see comments] Willson DF, et al. **Crit Care Med** 1999 Jan;27(1):188–95. Comment in: Crit Care Med 1999 Jan;27(1):31–2.

Serial phospholipid analysis in preterm infants: comparison of Exosurf and Survanta. Lloyd J, et al. **Early Hum Dev** 1999 Mar;54(2):157–68

New-born infants with severe hyaline membrane disease: radiological evaluation during high frequency oscillatory versus conventional ventilation. Helbich TH, et al. **Eur J Radiol** 1998 Oct;28(3):243–9

Exogenous surfactant improves survival and surfactant function in ischaemia-reperfusion injury in minipigs. Hohlfeld JM, et al. **Eur Respir J** 1999 May;13(5):1037–43

Surfactant therapy restores gas exchange in lung injury due to paraquat intoxication in rats. So KL, et al. **Eur Respir J** 1998 Aug;12(2):284–7

Single dose surfactant rescue therapy in neonatal respiratory distress syndrome. Sanghvi KP, et al. **Indian Pediatr** 1998 Jun;35(6):533–6

Surfactant replacement therapy. Yu V. **Indian Pediatr** 1998 Nov;35(11):1081–96 (126 ref.)

Changes of neonatal mortality rate between 'pre' and 'post' surfactant period. Choi YY, et al. **J Korean Med Sci** 1999

Feb;14(1):45–51

The reduction in the need for ECMO by using surfactant in meconium aspiration syndrome [letter] Marks SD, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):267–8

Comparison of respiratory function and fluid balance in very low birthweight infants given artificial or natural surfactant or no surfactant treatment. Kavvadia V, et al. **J Perinat Med** 1998;26(6):469–74

Increased survival in low birth weight neonates given prophylactic surfactant. Brown DR, et al. **J Perinatol** 1998 Nov–Dec;18(6 Pt 1):431–5

Meta-analyses of surfactant replacement therapy of infants with birth weights less than 2000 grams. Kresch MJ, et al. **J Perinatol** 1998 Jul–Aug;18(4):276–83

Endotracheal continuous positive airway pressure after rescue surfactant therapy. Mandy GT, et al. **J Perinatol** 1998 Nov–Dec;18(6 Pt 1):444–8

Improved outcome of extremely premature infants in the 1990s. Paranka MS, et al. **Mil Med** 1999 Aug;164(8):568–71

Natural surfactant supplementation in ARDS in paediatric age. Marraro GA, et al. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):92–7

Comparative trial of artificial and natural surfactants in the treatment of respiratory distress syndrome of prematurity: experiences in a developing country [see comments] da Costa DE, et al. **Pediatr Pulmonol** 1999 May;27(5):312–7 . Comment in: Pediatr Pulmonol 1999 May;27(5):303–4.

Radiological analysis of hyaline membrane disease after exogenous surfactant treatment. Slama M, et al. **Pediatr Radiol** 1999 Jan;29(1):56–60

Bronchoalveolar lavage with KL4-surfactant in models of meconium aspiration syndrome. Cochrane CG, et al. **Pediatr Res** 1998 Nov;44(5):705–15

Surfactant replacement therapy for respiratory distress syndrome. American Academy of Pediatrics. Committee on Fetus and Newborn. **Pediatrics** 1999 Mar;103(3):684–5

Indications for surfactant therapy—the aAPO2 coming of age [comment] Hall RT. **Pediatrics** 1999 Feb;103(2):E25. Comment on: Pediatrics 1999 Feb;103(2):E24.

Surfactant lavage for meconium aspiration syndrome: a pilot study. Lam BC, et al. **Pediatrics** 1999 May;103(5 Pt 1):1014–8

Surfactant replacement therapy in RSV-induced acute respiratory distress syndrome (ARDS). Goh AY, et al. **Singapore Med J** 1999 Feb;40(2):113–6

[The effect of antenatal corticosteroid prophylaxis in premature newborns with the use of surfactant therapy] Iarükova N, et al. **Akush Ginekol (Sofiia)** 1998;37(2):20–3 (Eng. Abstr.) **(Bul)**

[The use of Curosurf with premature infants—the prevention or treatment of the neonatal RDS] Iarükova N, et al. **Akush Ginekol (Sofiia)** 1998;37(3):12–4 (Eng. Abstr.) **(Bul)**

[For or against the early use of nasal continuous positive pressure and exogenous surfactant in hyaline membrane disease. Physiopathologic arguments] Storme L, et al. **Arch Pediatr** 1999 May;6(5):549–55 (60 ref.) (Eng. Abstr.) **(Fre)**

[Combination therapy of high frequency oscillatory ventilation, NO inhalation and surfactant replacement in a child with acute respiratory distress syndrome] Merz U, et al. **Klin Padiatr** 1999 Mar–Apr;211(2):83–5 (Eng. Abstr.) **(Ger)**

[A trial of the use of the Russian surfactant Surfactant HL for treating the respiratory distress syndrome in newborn infants] Grebennikov VA, et al. **Anesteziol Reanimatol** 1998 Jul–Aug;(4):36–9 (Eng. Abstr.) **(Rus)**

[Our experience in the use of a Russian preparation of pulmonary surfactant in the treatment of acute respiratory distress syndrome and severe pneumonia in children] Tsybul'kin EK, et al. **Anesteziol Reanimatol** 1999 Mar–Apr;(2):61–5 (Eng. Abstr.) **(Rus)**

TOXICITY

Phospholipid surfactant adsorption by respirable quartz and in vitro expression of cytotoxicity and DNA damage. Liu X, et al. **Toxicol Lett** 1998 Aug;96–97:77–84

ULTRASTRUCTURE

Filaments of surfactant protein A specifically interact with corrugated surfaces of phospholipid membranes. Palaniyar N, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L631–41

Formation of membrane lattice structures and their specific interactions with surfactant protein A. Palaniyar N, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L642–9

Ultrastructural alterations in intraalveolar surfactant subtypes after experimental ischemia and reperfusion. Ochs M, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):718–24

Correlated atomic force and transmission electron microscopy of nanotubular structures in pulmonary surfactant. Nag K, et al. **J Struct Biol** 1999 Jun 1; 126(1):1–15

PULMONARY SURGICAL PROCEDURES

Staging and surgery for non-small cell lung cancer (NSCLC). Alpard SK, et al. **Surg Oncol** 1998 Jul–Aug;7(1–2):25–43 (103 ref.)

[Video-thoracoscopic surgery] Plandovskiĭ VA, et al. **Khirurgiia (Mosk)** 1998;(11):25–6 (Eng. Abstr.) **(Rus)**

[Indications for surgical treatment of chronic and encysted pleurisy] Strel'tsov VP, et al. **Probl Tuberk** 1999;(4):22–4 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Evaluation of the POSSUM scoring system in lung surgery. Physiological and Operative Severity Score for the enUmeration of Mortality and Morbidity. Brunelli A, et al. **Thorac Cardiovasc Surg** 1998 Jun;46(3):141–6

INSTRUMENTATION

Lung nodules: improved wire for CT-guided localization. Mullan BF, et al. **Radiology** 1999 May;211(2):561–5

METHODS

Videothoracoscopic lung biopsy in diffuse infiltrative lung diseases: a 5-year surgical experience. Zegdi R, et al. **Ann Thorac Surg** 1998 Oct;66(4):1170–3

Median sternotomy for the resection of bilateral pulmonary metastases in children. de Oliveira-Filho AG, et al. **Pediatr Surg Int** 1998 Oct;13(8):560–3

Intrathoracic light-assisted anterior limited thoracotomy in lung cancer surgery. Nomori H, et al. **Surg Today** 1999; 29(7):606–9

[Pulmonary balloon dilatation and simultaneous ductus closure] Rueda Núñez F, et al. **An Esp Pediatr** 1998 Aug; 49(2):168–70 **(Spa)**

PULMONARY THROMBOEMBOLISM see **PULMONARY EMBOLISM**

PULMONARY VALVE

Ebstein's anomaly associated with severe valvar pulmonary stenosis: successful palliation with balloon pulmonary valvuloplasty in an adult [see comments] Geggel RL. **Catheter Cardiovasc Interv** 1999 Apr;46(4):441–4. Comment in: Catheter Cardiovasc Interv 1999 Apr;46(4):445.

Coagulase-negative staphylococcus endocarditis restricted to the normal pulmonic valve in a patient with end-stage renal disease: case report and review. Hussain KM, et al. **Clin Infect Dis** 1998 Dec;27(6):1550–2 (10 ref.)

Pulmonic valve endocarditis after orthotopic liver transplantation. Hearn CJ, et al. **Liver Transpl Surg** 1999 Sep;5(5):456–7

[Percutaneous balloon pulmonary valvuloplasty: the medium-term results in a series of 100 consecutive pediatric patients] Hernáez Cobeño MA, et al. **An Esp Pediatr** 1998 Sep;49(3):264–72 (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Outcome after repair of tetralogy of Fallot with absent pulmonary valve. McDonnell BE, et al. **Ann Thorac Surg** 1999 May;67(5):1391–5; discussion 1395–6

Palliative balloon valvoplasty of the pulmonary valve in tetralogy of Fallot [see comments] Massoud I, et al. **Cardiol Young** 1999 Jan;9(1):24–36. Comment in: Cardiol Young 1999 Jan;9(1):4–5.

Left main coronary artery compression by aneurysmal pulmonary artery in a patient with tetralogy of Fallot with absent pulmonary valve. Sengupta PP, et al. **Catheter Cardiovasc Interv** 1999 Apr;46(4):438–40

Images in cardiovascular medicine. Isolated congenital absence of the pulmonary valve. Attie F, et al. **Circulation** 1999 Jan 26;99(3):455–6

Tetralogy of Fallot with absent pulmonary valve and total anomalous pulmonary venous connection. Vargas-Barrón J, et al. **J Am Soc Echocardiogr** 1999 Feb;12(2):160–3

Special imaging casebook. Tetralogy of Fallot with absent pulmonary valve syndrome and partial DiGeorge syndrome. Herman TE, et al. **J Perinatol** 1998 Nov–Dec; 18(6 Pt 1):492–5

Tetralogy of Fallot with absent pulmonary valve: a surgical technique for complete repair. Kreutzer C, et al. **J Thorac Cardiovasc Surg** 1999 Jan;117(1):192–4

Percutaneous coil occlusion of ductus arteriosus in absent pulmonary valve and intact ventricular septum [letter] Horigome H, et al. **Pediatr Cardiol** 1998 Nov–Dec; 19(6):502–3

Tetralogy of Fallot with absent pulmonary valve. A continuing challenge. Jekel L, et al. **Scand Cardiovasc J** 1998;32(4):213–7

[A case of reoperation 24 years after repair of absent pulmonary valve syndrome with anomalous origin of the left pulmonary artery] Chikugo F, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1329–33 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Noninvasive evaluation of pulmonary capillary wedge pressure in patients with acute myocardial infarction by deceleration time of pulmonary venous flow velocity in diastole. Yamamuro A, et al. **J Am Coll Cardiol** 1999 Jul; 34(1):90–4

[Comparison of mechanical properties between human aortic valve and pulmonary arterial valve] Li Z, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Jun; 14(2):115–7 (Eng. Abstr.) **(Chi)**

SURGERY

Intermediate follow-up of right ventricular outflow tract reconstruction with allograft conduits. LeBlanc JG, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S174–8

Semilunar valve switch procedure: autotransplantation of the native aortic valve to the pulmonary position in the Ross procedure. Roughneen PT, et al. **Ann Thorac Surg** 1999 Mar;67(3):745–50

New approach for reconstruction of the pulmonary outflow tract during the Ross procedure. Couetil JP, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II368–71

Pulmonary valvotomy—50 years ago. Hollman A, et al. **Lancet** 1998 Dec 19–26;352(9145):1956

[Infectious endocarditis in a child with pulmonary atresia and ventricular septal defect corrected by a valve conduit] Cabrera Duro A, et al. **An Esp Pediatr** 1998 Aug; 49(2):182–4 **(Spa)**

TRANSPLANTATION

Rapid enlargement of neoaortic root after the Ross procedure in children. Puntel RA, et al. **Am J Cardiol** 1999 Sep 15; 84(6):747–9, A9

Aortic root dilation after the Ross procedure. Tantengco MV, et al. **Am J Cardiol** 1999 Mar 15;83(6):915–20

The Ross operation: a 12-year experience. Elkins RC. **Ann Thorac Surg** 1999 Sep;68(3 Suppl):S14–8

Immunogenic human leukocyte antigen class II antigens on human cardiac valves induce specific alloantibodies. Hoekstra FM, et al. **Ann Thorac Surg** 1998 Dec; 66(6):2022–6

Comparison of Ross procedures and aortic valve allografts in children. Jones TK, et al. **Ann Thorac Surg** 1998 Dec; 66(6 Suppl):S170–3

Tissue chimerism in human cryopreserved homograft valve explants demonstrated by in situ hybridization. Koolbergen DR, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S225–32

Aortic allografts and pulmonary autografts for replacement of the aortic valve and aortic root. Kouchoukos NT. **Ann Thorac Surg** 1999 Jun;67(6):1846–8; discussion 1853–6 (13 ref.)

Normalization of left ventricular dimensions after Ross operation with aortic annular reduction. Niwaya K, et al. **Ann Thorac Surg** 1999 Sep;68(3):812–8; discussion 818–9

The Ross Procedure: current registry results. Oury JH, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S162–5

Cardiopulmonary response to maximal exercise in young athletes following the Ross procedure. Oury JH, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S153–4

Aortic root replacement with a pulmonary autograft in young adults: medium-term results in 70 patients. Prat A, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S148–52

The Ross operation: mid-term results. Rubay JE, et al. **Ann Thorac Surg** 1999 May;67(5):1355–8

Truncus arteriosus: ten-year experience with homograft repair in neonates and infants. Urban AE, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S183–8

The influence of size mismatch on the hemodynamic performance of the pulmonary autograft in vitro. Nagy ZL, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):294–301

Rest and exercise hemodynamics after the Ross procedure: an echocardiographic study. da Costa F, et al. **J Card Surg** 1998 May;13(3):177–85

Aortic pulmonary autograft implant: medium-term follow-up with a note on a new right ventricular pulmonary artery conduit. Masetti P, et al. **J Card Surg** 1998 May;13(3):173–6

Invited commentary on the Ross procedure. Oury JH. **J Card Surg** 1998 May;13(3):171–2 (3 ref.)

Options for right ventricular outflow tract reconstruction. Ross DN. **J Card Surg** 1998 May;13(3):186–9 (24 ref.)

Mitral valve replacement with a pulmonary autograft: initial experience. Kabbani SS, et al. **J Heart Valve Dis** 1999 Jul; 8(4):359–66; discussion 366–7

Clinical performance of the native pulmonary valve in the systemic circulation. Schmid FX, et al. **J Heart Valve Dis** 1998 Nov;7(6):620–5

Gradient echo MRI for measurement of the pulmonary autograft diameter after transplantation to the aortic root: validation and comparison with ultrasound. Hokken RB, et al. **J Magn Reson Imaging** 1998 Sep–Oct;8(5):1015–21

Pulmonary autograft: should it be used in young patients with rheumatic disease? Choudhary SK, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):483–90; discussion 490–1

Six-year follow-up of a pulmonary autograft in the mitral position: the Ross II procedure. Al Halees Z, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):614–6

Extended aortic root replacement with aortic allografts or pulmonary autografts in children. Najm HK, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):503–9

Cryopreserved homograft valves in the pulmonary position: risk analysis for intermediate-term failure. Niwaya K, et al. **J Thorac Cardiovasc Surg** 1999 Jan;117(1):141–6; discussion 46–7

Pulmonary reconstruction in the ross procedure: combined autologous aortic and polytetrafluoroethylene valve. Yamagishi M, et al. **J Thorac Cardiovasc Surg** 1998 Dec; 116(6):1076–7

The Ross operation: do native aortic, native pulmonary, and homograft pulmonary valve size and form differences influence results? Botha CA, et al.

PULMONARY VALVE

Thorac Cardiovasc Surg 1998 Aug;46(4):192–7
[Long-term results of aortic root replacements with pulmonary autografts (Ross procedure) in five cases] Ohto T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec; 46(12):1279–84 (Eng. Abstr.) **(Jpn)**
[Aortic valve replacement with a pulmonary autograft (the Ross operation) in adult and pediatric patients. A preliminary study] Concha M, et al. **Rev Esp Cardiol** 1999 Feb;52(2):113–20 (Eng. Abstr.) **(Spa)**
[The Ross operation (editorial; comment) (see comments)] Serrano-Fiz S. **Rev Esp Cardiol** 1999 Feb;52(2):121–2. Comment on: Rev Esp Cardiol 1999 Feb;52(2):113–20. Comment in: Rev Esp Cardiol 1999 Jun;52(6):457. **(Spa)**

PULMONARY VALVE ATRESIA see **PULMONARY ATRESIA**

PULMONARY VALVE INCOMPETENCE see **PULMONARY VALVE INSUFFICIENCY**

PULMONARY VALVE INSUFFICIENCY

CONGENITAL

Images in cardiovascular medicine. Isolated congenital absence of the pulmonary valve. Attie F, et al. **Circulation** 1999 Jan 26;99(3):455–6

ETIOLOGY

Bacterial infection and extent of necrosis are determinants of organ failure in patients with acute necrotizing pancreatitis. Isenmann R, et al. **Br J Surg** 1999 Aug; 86(8):1020–4
Significant pulmonary valve incompetence following oversize balloon pulmonary valveplasty in small infants: A long-term follow-up study. Berman W Jr, et al. **Catheter Cardiovasc Interv** 1999 Sep;48(1):61–5; discussion 66
[Bartonella endocarditis on native valves. Apropos of 2 cases] Berdagué P, et al. **Arch Mal Coeur Vaiss** 1998 Oct; 91(10):1277–81 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Optimal imaging in assessment of right ventricular function in tetralogy of Fallot with pulmonary regurgitation [letter; comment] Helbing WA, et al. **Am J Cardiol** 1998 Dec 15; 82(12):1561–2. Comment on: Am J Cardiol 1998 Jun 1;81(11):1378–82.

SURGERY

Homograft valve insertion for pulmonary regurgitation late after valveless repair of right ventricular outflow tract obstruction. Conte S, et al. **Eur J Cardiothorac Surg** 1999 Feb;15(2):143–9

ULTRASONOGRAPHY

Color Doppler velocity accuracy proximal to regurgitant orifices: influence of orifice aspect ratio. Myers JG Jr, et al. **Ultrasound Med Biol** 1999 Jun;25(5):771–92
Functional pulmonary valve regurgitation in the fetus. Smrcek JM, et al. **Ultrasound Obstet Gynecol** 1998 Oct; 12(4):254–9

PULMONARY VALVE STENOSIS

COMPLICATIONS

Chylothorax in a polysplenia infant with cor triatriatum, pulmonary stenosis and sick sinus syndrome. Noguchi A, et al. **Heart Vessels** 1997;12(5):247–9
Pulmonary stenosis and severe biventricular dysfunction: improvement following percutaneous valvuloplasty [see comments] Patel AA, et al. **J Heart Valve Dis** 1999 May; 8(3):307–11. Comment in: J Heart Valve Dis 1999 May;8(3):305–6.
[Pulmonary balloon dilatation and simultaneous ductus closure] Rueda Núñez F, et al. **An Esp Pediatr** 1998 Aug; 49(2):168–70 **(Spa)**

CONGENITAL

Catheterization of the pulmonary artery using a 3 French catheter in patients with congenital heart disease. Mori Y, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):45–50
[Percutaneous transluminal valvuloplasty in congenital pulmonary stenosis in adults. Apropos of 34 cases] Ghannam R, et al. **Arch Mal Coeur Vaiss** 1998 Oct; 91(10):1249–54 (Eng. Abstr.) **(Fre)**
[Incidence and treatment of reactive infundibular obstruction after balloon dilatation of critical pulmonary valve stenoses] Buheitel G, et al. **Z Kardiol** 1999 May;88(5):347–52 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

History, diagnosis, surgery and epidemiology of pulmonary stenosis in Malta. Grech V. **Cardiol Young** 1998 Jul; 8(3):337–43
Pulmonary stenosis: defect-specific diagnostic accuracy of heart murmurs in children. Danford DA, et al. **J Pediatr** 1999 Jan;134(1):76–81

EPIDEMIOLOGY

History, diagnosis, surgery and epidemiology of pulmonary stenosis in Malta. Grech V. **Cardiol Young** 1998 Jul; 8(3):337–43

ETIOLOGY

Unruptured congenital aneurysm of the sinus of Valsalva presenting with pulmonary stenosis. Liau CS, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):210–3
[Reoperation of tetralogy of Fallot for the transannular patch neo-intimal stenosis: a case report] Ozawa T, et al. **Kyobu Geka** 1999 Sep;52(10):856–9 (Eng. Abstr.) **(Jpn)**

GENETICS

[Plexiform neurofibroma and basal ganglia anomaly in Watson syndrome] Weber P, et al. **Klin Padiatr** 1999 May-Jun;211(3):172–4 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Pulmonary artery hemodynamics with varying degrees of valvular stenosis: an in vitro study. Sung HW, et al. **J Biomech** 1998 Dec;31(12):1153–61
The left ventricle and the low stroke volume: the biter bit? [editorial; comment] Carr-White GS, et al. **J Heart Valve Dis** 1999 May;8(3):305–6. Comment on: J Heart Valve Dis 1999 May;8(3):307–11.
Exercise testing in children with pulmonary valvar stenosis. Steinberger J, et al. **Pediatr Cardiol** 1999 Jan-Feb; 20(1):27–31; discussion 32 (17 ref.)

SURGERY

The effects of surgically treated pulmonary stenosis on lung growth and cardiopulmonary function in children during rest and exercise. Rosenthal M, et al. **Eur Respir J** 1999 Mar;13(3):590–6
Images in cardiology: Cutting balloon for treatment of severe peripheral pulmonary stenosis in a child. Schneider MB, et al. **Heart** 1999 Jul;82(1):108
[A successful case report of one and one half ventricle repair for pure pulmonary stenosis in a 4-year-old girl] Kawasaki M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep; 46(9):933–8 (Eng. Abstr.) **(Jpn)**
[Reoperation of tetralogy of Fallot for the transannular patch neo-intimal stenosis: a case report] Ozawa T, et al. **Kyobu Geka** 1999 Sep;52(10):856–9 (Eng. Abstr.) **(Jpn)**
[Noonan syndrome associated with atrial septal defect, pulmonary stenosis, and completely unroofed coronary sinus without LSVC: a case report] Yoshihara K, et al. **Kyobu Geka** 1999 Feb;52(2):134–7 (Eng. Abstr.) **(Jpn)**
[Pulmonary balloon dilatation and simultaneous ductus closure] Rueda Núñez F, et al. **An Esp Pediatr** 1998 Aug; 49(2):168–70 **(Spa)**

THERAPY

Simultaneous transcatheter valvuloplasty and Amplatzer septal occlusion for pulmonary valvar stenosis and secundum atrial septal defect. Yip WC, et al. **Ann Acad Med Singapore** 1998 Jul;27(4):578–81 (11 ref.)
Phentolamine improves clinical outcome after balloon valvoplasty in neonates with severe pulmonary stenosis. Galal O, et al. **Cardiol Young** 1999 Mar;9(2):127–8
Significant pulmonary valve incompetence following oversize balloon pulmonary valveplasty in small infants: A long-term follow-up study. Berman W Jr, et al. **Catheter Cardiovasc Interv** 1999 Sep;48(1):61–5; discussion 66
Have balloon, will dilate [editorial; comment] Cheng TO. **Catheter Cardiovasc Interv** 1999 Apr;46(4):445. Comment on: Catheter Cardiovasc Interv 1999 Apr;46(4):441–4.
Ebstein's anomaly associated with severe valvar pulmonary stenosis: successful palliation with balloon pulmonary valvuloplasty in an adult [see comments] Geggel RL. **Catheter Cardiovasc Interv** 1999 Apr;46(4):441–4. Comment in: Catheter Cardiovasc Interv 1999 Apr;46(4):445.
Right internal jugular vein approach as an alternative in balloon pulmonary valvuloplasty. Joseph G, et al. **Catheter Cardiovasc Interv** 1999 Apr;46(4):425–9
Results of three to 10 year follow up of balloon dilatation of the pulmonary valve. Rao PS, et al. **Heart** 1998 Dec; 80(6):591–5
Balloon dilatation for critical pulmonary stenosis. Wang JK, et al. **Int J Cardiol** 1999 Apr 30;69(1):27–32
Balloon valvuloplasty of critical pulmonary valve stenosis in a premature neonate. Hofbeck M, et al. **Pediatr Cardiol** 1999 Mar-Apr;20(2):147–9
Long-term follow-up results after balloon dilatation of pulmonic stenosis, aortic stenosis, and coarctation of the aorta: a review. Rao PS. **Prog Cardiovasc Dis** 1999 Jul-Aug;42(1):59–74 (58 ref.)
[Treatment of valve diseases] Stauffer JC. **Rev Med Suisse Romande** 1999 May;119(5):361–6 (12 ref.) **(Fre)**
[Percutaneous balloon pulmonary valvuloplasty: the medium-term results in a series of 100 consecutive pediatric patients] Hernáez Cobeño MA, et al. **An Esp Pediatr** 1998 Sep;49(3):264–72 (Eng. Abstr.) **(Spa)**
[Critical pulmonary valve stenosis in neonates; treatment with balloon valvuloplasty using an arteriovenous loop and gradual dilatations] Quibrera Matienzo JA, et al. **Arch Inst Cardiol Mex** 1998 Nov-Dec;68(6):521–5 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Natural history of congenital pulmonary valvar stenosis: an echo and Doppler cardiographic study. Gielen H, et al. **Cardiol Young** 1999 Mar;9(2):129–35

PULMONARY VEINS

Pulmonary venous aneurysm presenting as a mediastinal mass in ischemic cardiomyopathy. Sirivella S, et al. **Ann Thorac Surg** 1999 Jul;68(1):241–3
Transcatheter occlusion of a post-Fontan residual hepatic vein to pulmonary venous atrium communication using the Amplatzer septal occluder. Tofeig M, et al. **Heart** 1998 Jun;79(6):624–6
Contrast-enhanced magnetic resonance angiography of the pulmonary vasculature. A review. Kauczor HU. **Invest Radiol** 1998 Sep;33(9):606–17 (65 ref.)
Duration of pulmonary venous atrial reversal flow velocity and mitral inflow a wave: new measure of severity of cardiac amyloidosis. Abdalla I, et al. **J Am Soc Echocardiogr** 1998 Dec;11(12):1125–33
Preimplantation retrograde pneumoplegia in clinical lung transplantation. Venuta F, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):107–14
[44-year-old patient with dyspnea, chest pain and syncope] Eggers B, et al. **Internist (Berl)** 1999 Feb;40(2):210–3 **(Ger)**
[A successful surgical repair of mitral stenosis and regurgitation with pulmonary arteriovenous fistula] Inoue T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Aug; 46(8):757–61 (13 ref.) (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

A case of a pulmonary arteriovenous malformation treated by lobectomy. Wechsler J, et al. **Acta Chir Hung** 1999; 38(1):53–5
Embolotherapy for pulmonary arteriovenous malformations in patients with hereditary hemorrhagic telangiectasia (Rendu-Osler-Weber syndrome). Andersen PE, et al. **Acta Radiol** 1998 Nov;39(6):723–6
Recanalization after coil embolization of pulmonary arteriovenous malformations [letter; comment] Clark JA, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1426–7. Comment on: AJR Am J Roentgenol 1998 Mar;170(3):727–30.
Pediatric case of the day. Congenital pulmonary arteriovenous malformation. Guidone P, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):814, 818–9
Pulmonary vein anomalies [letter; comment] Hartnell GG. **AJR Am J Roentgenol** 1998 Dec;171(6):1703–4. Comment on: AJR Am J Roentgenol 1998 May;170(5):1365–8.
Isolated pulmonary vein stenosis associated with full intrapulmonary compensation. Saida Y, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):961–2
Recanalization after embolotherapy of pulmonary arteriovenous malformations: significance? Outcome? [letter; comment] White RI Jr. **AJR Am J Roentgenol** 1998 Dec;171(6):1704–5. Comment on: AJR Am J Roentgenol 1998 Mar;170(3):727–30.
Truncus arteriosus with anomalous pulmonary venous connection. Litovsky SH, et al. **Am J Cardiol** 1999 Mar 1;83(5):801–4, A10
Hepatic vein to the azygous vein anastomosis for pulmonary arteriovenous fistulae. Baskett RJ, et al. **Ann Thorac Surg** 1999 Jul;68(1):232–3
Pulmonary vein stenosis with normal connection: associated cardiac abnormalities and variable outcome. Breinholt JP, et al. **Ann Thorac Surg** 1999 Jul;68(1):164–8
Surgical management of total anomalous pulmonary venous drainage: impact of coexisting cardiac anomalies. Caldarone CA, et al. **Ann Thorac Surg** 1998 Nov;66(5):1521–6
Relentless pulmonary vein stenosis after repair of total anomalous pulmonary venous drainage. Caldarone CA, et al. **Ann Thorac Surg** 1998 Nov;66(5):1514–20
Repair of total anomalous pulmonary venous connection in infancy: experience from a developing country. Choudhary SK, et al. **Ann Thorac Surg** 1999 Jul;68(1):155–9
Mixed type of total anomalous pulmonary venous connection. Imoto Y, et al. **Ann Thorac Surg** 1998 Oct;66(4):1394–7
Rapid onset of pulmonary arteriovenous malformations after cavopulmonary anastomosis. Pandurangi UM, et al. **Ann Thorac Surg** 1999 Jul;68(1):237–9
Pulmonary arteriovenous fistulas in patients with left isomerism and cardiac malformations [editorial; comment] Amodeo A, et al. **Cardiol Young** 1998 Jul;8(3):283–4. Comment on: Cardiol Young 1998 Jul;8(3):290–4.
Pulmonary and systemic arteriovenous fistulas in patients with left isomerism [see comments] Kawata H, et al. **Cardiol Young** 1998 Jul;8(3):290–4. Comment in: Cardiol Young 1998 Jul;8(3):283–4.
Echocardiographic diagnosis of totally anomalous pulmonary venous connection to the azygos vein. Musolino AM, et al. **Cardiol Young** 1999 May;9(3):305–9
Partial anomalous venous return associated with intact atrial septum and persistent left superior vena cava: a case report and literature review. Rostagno C, et al. **Cardiologia** 1999

Feb;44(2):203–6

Venous sac embolization of pulmonary arteriovenous malformation: preliminary experience using interlocking detachable coils. Takahashi K, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):210–3

Preoperative extracorporeal membrane oxygenation in newborns with total anomalous pulmonary venous connection. Ishino K, et al. **Cardiovasc Surg** 1999 Jun; 7(4):473–5

Hypoxemia, cerebrovascular accident, and a chest mass in a 78–year–old woman. Coffee KA, et al. **Chest** 1999 Feb; 115(2):577–9

Pulmonary arteriovenous malformations: screening procedures and pulmonary angiography in patients with hereditary hemorrhagic telangiectasia. Kjeldsen AD, et al. **Chest** 1999 Aug;116(2):432–9

Pulmonary arteriovenous malformation. Brian CA, et al. **Circulation** 1999 Jul 27;100(4):e29–30

Successful total correction of complete atrioventricular canal, total anomalous pulmonary venous drainage and unroofed coronary sinus in an infant. Alexi–Meskishvili V, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):95–6

Total anomalous pulmonary venous connection to the portal and splenic vein associated with unilateral hypoplasia of pulmonary veins. Carrel T, et al. **Eur J Cardiothorac Surg** 1996;10(12):1141–3

Total anomalous pulmonary venous connection: outcome of surgical correction and management of recurrent venous obstruction. Hyde JA, et al. **Eur J Cardiothorac Surg** 1999 Jun;15(6):735–40; discussion 740–1

Severe hypoxaemia induced by an intrapulmonary arterio–venous fistula: indication for nitric oxide [letter] Feillet F, et al. **Eur J Pediatr** 1998 Dec;157(12):1036

Pulmonary arteriovenous fistula: detection with magnetic resonance angiography. Berthezène Y, et al. **Eur Radiol** 1998;8(8):1403–4

Mixed variety of total anomalous pulmonary venous connection: diagnosis by 2D echocardiography and Doppler colour flow imaging. Saxena A, et al. **Indian Heart J** 1999 Jan–Feb;51(1):65–8

Sinus venosus atrial septal defect with myasthenia gravis—a rare association. Shrivastava S, et al. **Indian Heart J** 1998 May–Jun;50(3):341

Persistent left superior vena cava and partial anomalous pulmonary venous connection: incidental diagnosis by transesophageal echocardiography during coronary artery bypass surgery. Garduno C, et al. **J Am Soc Echocardiogr** 1999 Aug;12(8):682–5

Tetralogy of Fallot with absent pulmonary valve and total anomalous pulmonary venous connection. Vargas–Barrón J, et al. **J Am Soc Echocardiogr** 1999 Feb;12(2):160–3

The placement of central venous catheters in infants with cardiac shunts: safety measures and false alarms. Afifi S, et al. **J Cardiothorac Vasc Anesth** 1998 Aug;12(4):445–7

Unilateral total and contralateral partial pulmonary agenesis associated with total anomalous pulmonary venous drainage. Finci V, et al. **J Pediatr** 1999 Apr;134(4):510–2

A detailed histologic analysis of pulmonary arteriovenous malformations in children with cyanotic congenital heart disease. Duncan BW, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):931–8

Long–term outcome of infants with single ventricle and total anomalous pulmonary venous connection. Gaynor JW, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):506–13; discussion 513–4

Surgical management of progressive pulmonary venous obstruction after repair of total anomalous pulmonary venous connection. Lacour–Gayet F, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):679–87

Embolotherapy of pulmonary arteriovenous malformations with detachable balloons: long–term durability and efficacy. Saluja S, et al. **J Vasc Interv Radiol** 1999 Jul–Aug; 10(7):883–9

A case of diffuse pulmonary arteriovenous fistula [published erratum appears in Jpn Circ J 1999 Jul;63(7):576] Hirata K, et al. **Jpn Circ J** 1999 Jun;63(6):499–501

Pulmonary arteriovenous fistulas: Mayo Clinic experience, 1982–1997. Swanson KL, et al. **Mayo Clin Proc** 1999 Jul; 74(7):671–80

Tetralogy of Fallot with levoatrial cardinal vein. Fujiwara K, et al. **Pediatr Cardiol** 1999 Mar–Apr;20(2):136–8

Obstructed infracardiac total anomalous pulmonary venous connection in an adult. Juneja R, et al. **Pediatr Cardiol** 1999 Mar–Apr;20(2):152–4

Adverse hemodynamic effects observed with inhaled nitric oxide after surgical repair of total anomalous pulmonary venous return. Rosales AM, et al. **Pediatr Cardiol** 1999 May–Jun;20(3):224–6

Cyanotic congenital heart disease with increased pulmonary blood flow. Grifka RG. **Pediatr Clin North Am** 1999 Apr; 46(2):405–25 (65 ref.)

Cyanotic congenital heart disease with decreased pulmonary blood flow in children. Waldman JD, et al. **Pediatr Clin North Am** 1999 Apr;46(2):385–404 (15 ref.)

Mitral and aortic atresia associated with hypoplastic right lung, crossover segment of right lower lobe, and anomalous scimitar–like right pulmonary venous connection with inferior vena cava: clinical, angiocardiographic, and autopsy findings in a rare case. Bartram U, et al. **Pediatr Dev Pathol** 1998 Sep–Oct;1(5):413–9

The vascular vise causing TAPVR type I to radiographically mimic TAPVR type III. Patton WL, et al. **Pediatr Radiol** 1999 May;29(5):323–6

Meandering right pulmonary vein: a case of scimitar variant. Salazar–Mena J, et al. **Pediatr Radiol** 1999 Aug; 29(8):578–80 (9 ref.)

Alveolar capillary dysplasia with misalignment of the pulmonary veins: a rare but fatal cause of neonatal respiratory failure. Kane TD, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):89–91

A 60–year–old man with expressive dysphasia. McAndrew NA, et al. **Postgrad Med J** 1999 Jul;75(885):431–2

Complete unilateral anomalous connection of the left pulmonary veins to the coronary sinus with unroofed coronary sinus syndrome: a case report. Watanabe H, et al. **Thorac Cardiovasc Surg** 1999 Jun;47(3):193–5

Hereditary haemorrhagic telangiectasia and pulmonary arteriovenous malformations: issues in clinical management and review of pathogenic mechanisms. Shovlin CL, et al. **Thorax** 1999 Aug;54(8):714–29 (193 ref.)

[Neonatal hypoxemia due to misaligned pulmonary vessels with alveolar capillary dysplasia] Liet JM, et al. **Arch Pediatr** 1998 Jan;5(1):27–30 (13 ref.) (Eng. Abstr.) **(Fre)**

[Weber–Rendu–Osler disease: pulmonary arterio–venous malformation with shunt disclosed after 5 occurrences of purulent meningococcal encephalitis] Hazouard E, et al. **Rev Mal Respir** 1999 Feb;16(1):95–7 (Eng. Abstr.) **(Fre)**

[Surgical repair of coronary sinus type partial anomalous pulmonary venous drainage with intact atrial septum] Aoki A, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1211–4 (Eng. Abstr.) **(Jpn)**

[Surgical treatment of total anomalous pulmonary venous connection—clinical aspects of pulmonary venous obstruction] Yoshihara K, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1126–32 (Eng. Abstr.) **(Jpn)**

[A case of successful palliative operation of asplenia syndrome with total anomalous pulmonary venous return in young infant] Endoh M, et al. **Kyobu Geka** 1999 Sep; 52(10):860–3 (Eng. Abstr.) **(Jpn)**

[Total anomalous of pulmonary venous connection in infants less than 3 months old] Hamawaki M, et al. **Kyobu Geka** 1999 Jul;52(7):559–62 (Eng. Abstr.) **(Jpn)**

[Successful management of a patient with pulmonary arteriovenous fistula using a continuous intra–arterial blood gas monitoring system] Habuka K, et al. **Masui** 1999 Jun; 48(6):647–9 (Eng. Abstr.) **(Jpn)**

[Familial pulmonary arteriovenous malformation diagnostic of the Osler–Weber–Rendu disease] Akiyama Y, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May;36(5):488–93 (Eng. Abstr.) **(Jpn)**

[Pryce type I interlobar pulmonary sequestration with anomalous return to the left inferior pulmonary vein] Hirata M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct; 36(10):875–80 (Eng. Abstr.) **(Jpn)**

[Surgical methods for correcting partial anomalous drainage of the pulmonary veins during artificial circulation] Makhmudov MM, et al. **Vestn Khir Im I I Grek** 1998; 157(3):50–2 (Eng. Abstr.) **(Rus)**

ANATOMY & HISTOLOGY

Anatomy of inferior pulmonary vein should be clarified in lower lobectomy. Sugimoto S, et al. **Ann Thorac Surg** 1998 Nov;66(5):1799–800

Zero–stress states of human pulmonary arteries and veins. Huang W, et al. **J Appl Physiol** 1998 Sep;85(3):867–73

Effects of respiratory cycle on pulmonary venous flow and cardiac cycle on pulmonary venous diameter of dogs: a transesophageal echocardiography study. Chiang CH, et al. **J Vet Med Sci** 1999 Feb;61(2):155–8

Pulmonary veins: magnetic resonance angiography anatomy. Carriero A, et al. **MAGMA** 1998 Aug;6(1):2–6

[Pulmonary blood vessels in goats] Roos H, et al. **Anat Histol Embryol** 1999 May;28(2):131–7 (Eng. Abstr.) **(Ger)**

[The pulmonary arteries and veins of miniature swine, together with a common view of their supportive and stabilizing functions in the lung] Vollmerhaus B, et al. **Anat Histol Embryol** 1999 Jul;28(3):143–9 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Partial pressure of oxygen is lower in the left upper pulmonary vein than in the right in adults with atrial septal defect: difference in P(O2) between the right and left pulmonary veins. Iga K, et al. **Chest** 1999 Mar; 115(3):679–83

DRUG EFFECTS

Chronic hypoxia differentially alters the responses of pulmonary arteries and veins to endothelin–1 and other agents. Lal H, et al. **Eur J Pharmacol** 1999 Apr 23; 371(1):11–21

Role of protein kinase G in nitric oxide– and cGMP–induced relaxation of newborn ovine pulmonary veins. Gao Y, et al. **J Appl Physiol** 1999 Sep;87(3):993–8

Endothelin plays a role in contractions of isolated pig pulmonary vessels induced by diaspirin cross–linked hemoglobin. Ledvina MA, et al. **J Lab Clin Med** 1999 May; 133(5):478–87

Increased reactivity to endothelin of pulmonary arteries in long–term post–obstructive pulmonary vasculopathy in rats. Shi W, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):189–96

[The vasoconstrictor effect of cyclosporine on the pulmonary vein is mediated by its vehicle: the cremophor] Mathieu P, et al. **Ann Chir** 1998;52(8):821–6 (Eng. Abstr.) **(Fre)**

[Pharmacological testing of the reversibility of increased pulmonary vascular resistance before heart transplantation with prostaglandin I2 (prostacyclin)] Trautnitz M, et al. **Z Kardiol** 1999 Feb;88(2):133–40 (Eng. Abstr.) **(Ger)**

EMBRYOLOGY

Doppler study on pulmonary venous flow in the human fetus. Hong Y, et al. **Fetal Diagn Ther** 1999 Mar–Apr;14(2):86–91

Phosphodiesterase activity in intrapulmonary arteries and veins of perinatal lambs. Okogbule–Wonodi AC, et al. **Mol Genet Metab** 1998 Nov;65(3):229–37

Fetal pulmonary venous flow into the left atrium relative to diastolic and systolic cardiac time intervals. Brezinka C, et al. **Ultrasound Obstet Gynecol** 1999 Mar;13(3):191–5

Doppler velocimetry of normal human fetal venous intrapulmonary branches. Laudy JA, et al. **Ultrasound Obstet Gynecol** 1999 Apr;13(4):247–54

ENZYMOLOGY

Phosphodiesterase activity in intrapulmonary arteries and veins of perinatal lambs. Okogbule–Wonodi AC, et al. **Mol Genet Metab** 1998 Nov;65(3):229–37

INNERVATION

Double multielectrode mapping catheters facilitate radiofrequency catheter ablation of focal atrial fibrillation originating from pulmonary veins. Hsieh MH, et al. **J Cardiovasc Electrophysiol** 1999 Feb;10(2):136–44

METABOLISM

Factors contributing to differences in the regulation of cGMP in isolated porcine pulmonary vessels. Bina S, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):253–60

Ion channels in the pulmonary vasculature. Reeve HL, et al. **Pulm Pharmacol Ther** 1997 Oct–Dec;10(5–6):243–52 (99 ref.)

PATHOLOGY

Fine needle aspiration biopsy of primary leiomyosarcoma arising from a pulmonary vein [letter] Cordes BG, et al. **Acta Cytol** 1999 May–Jun;43(3):523–6

Idiopathic pulmonary vein thrombosis: detection by CT and MR imaging. Selvidge SD, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1639–41 (10 ref.)

Leiomyosarcoma of the pulmonary veins. Oliai BR, et al. **Am J Surg Pathol** 1999 Sep;23(9):1082–8

Relentless pulmonary vein stenosis after repair of total anomalous pulmonary venous drainage. Caldarone CA, et al. **Ann Thorac Surg** 1998 Nov;66(5):1514–20

Magnetic resonance pulmonary angiography. Wielopolski PA. **Coron Artery Dis** 1999 May;10(3):157–75 (108 ref.)

The hypoplastic left heart syndrome with intact atrial septum: atrial morphology, pulmonary vascular histopathology and outcome. Rychik J, et al. **J Am Coll Cardiol** 1999 Aug; 34(2):554–60

Pulmonary vascular morphological changes in cirrhotic patients undergoing liver transplantation. Lamps LW, et al. **Liver Transpl Surg** 1999 Jan;5(1):57–64

Comparison of the pulmonary vasculature in newborns and stillborns with congenital diaphragmatic hernia. Taira Y, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):30–5

[Spontaneous porto–pulmonary shunt with pulmonary infiltrates in liver cirrhosis: their CT and MRI imaging] Hast J, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):172–4 (0 ref.) **(Ger)**

[Persistent pulmonary opacification as a sequela of portopulmonary shunt in portal vein thrombosis] Meyer RG, et al. **Z Gastroenterol** 1998 Nov;36(11):971–5 (18 ref.) (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Influence of gravity on pulmonary venous flow velocity patterns: analysis of left and right pulmonary venous flow velocities in left and right decubitus positions. Izumi C, et al. **Am Heart J** 1999 Mar;137(3):419–26

Prostanoid receptors involved in the relaxation of human pulmonary vessels. Walch L, et al. **Br J Pharmacol** 1999 Feb;126(4):859–66

Noninvasive assessment of left atrial maximum dP/dt by a combination of transmitral and pulmonary venous flow. Nakatani S, et al. **J Am Coll Cardiol** 1999 Sep;34(3):795–801

The pulmonary venous systolic flow pulse—its origin and relationship to left atrial pressure. Smiseth OA, et al. **J Am Coll Cardiol** 1999 Sep;34(3):802–9

Determinants of Doppler pulmonary flow components [letter; comment] Teien DE. **J Am Coll Cardiol** 1998 Dec; 32(7):2103. Comment on: J Am Coll Cardiol 1997 Nov 15;30(6):1562–74.

Ratio of pulmonary venous to mitral A velocity is a useful marker for predicting mean pulmonary capillary wedge pressure in patients with left ventricular systolic dysfunction. Ito T, et al. **J Am Soc Echocardiogr** 1998 Oct; 11(10):961–5

Zero-stress states of human pulmonary arteries and veins. Huang W, et al. **J Appl Physiol** 1998 Sep;85(3):867-73
Effect of chronic mitral valve damage on activity of pulmonary rapidly adapting receptors in the rabbit. Gunawardena S, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):79-88
Species differences in the responses of pulmonary vascular preparations to 5-hydroxytryptamine. Morcillo EJ, et al. **Therapie** 1999 Jan-Feb;54(1):93-7
Cholinergic control of human and animal pulmonary vascular tone. Walch L, et al. **Therapie** 1999 Jan-Feb;54(1):99-102

PHYSIOPATHOLOGY

Determinants of pulmonary venous flow reversal in mitral regurgitation and its usefulness in determining the severity of regurgitation [see comments] Enriquez-Sarano M, et al. **Am J Cardiol** 1999 Feb 15;83(4):535-41. Comment in: Am J Cardiol 1999 Jul 15;84(2):242.
Value of systolic pulmonary venous flow reversal obtained by transthoracic pulsed Doppler echocardiography as a means of determining severity of mitral regurgitation [letter; comment] Eren M, et al. **Am J Cardiol** 1999 Jul 15;84(2):242. Comment on: Am J Cardiol 1999 Feb 15;83(4):535-41.
Noninvasive assessment of hemodynamic subsets in patients with acute myocardial infarction using digital color Doppler velocity profile integration and pulmonary venous flow analysis. Hozumi T, et al. **Am J Cardiol** 1999 Apr 1;83(7):1027-32
Effect of percutaneous balloon mitral valvotomy on pulmonary venous flow in severe mitral stenosis. Yonga GO, et al. **East Afr Med J** 1999 Jan;76(1):28-30
Pulmonary venous flow analysis after cardioversion [editorial; comment] Brecker SJ. **Eur Heart J** 1999 Mar; 20(5):323-4 (7 ref.). Comment on: Eur Heart J 1999 Mar;20(5):375-85.
Pulmonary vein flow analysis by transoesophageal echocardiogr phy in patients with chronic atrial fibrillation; 1 year follow-up after cardioversion [see comments] Paraskevaidis IA, et al. **Eur Heart J** 1999 Mar;20(5):375-85 . Comment in: Eur Heart J 1999 Mar;20(5):323-4.
Pulmonary venous flow in hypertrophic cardiomyopathy as assessed by the transoesophageal approach. The additive value of pulmonary venous flow and left atrial size variables in estimating the mitral inflow pattern in hypertrophic cardiomyopathy. Torrecilla EG, et al. **Eur Heart J** 1999 Feb;20(4):293-302
The value of assessing pulmonary venous flow velocity for predicting severity of mitral regurgitation: A quantitative assessment integrating left ventricular function. Pu M, et al. **J Am Soc Echocardiogr** 1999 Sep;12(9):736-43
Estimation of left ventricular end-diastolic pressure with the difference in pulmonary venous and mitral A durations is limited when mitral E and A waves are overlapped. Sohn DW, et al. **J Am Soc Echocardiogr** 1999 Feb;12(2):106-12
Idiopathic paroxysmal atrial fibrillation induced by a focal discharge mechanism in the left superior pulmonary vein: possible roles of the ligament of Marshall. Hwang C, et al. **J Cardiovasc Electrophysiol** 1999 May;10(5):636-48

RADIOGRAPHY

Idiopathic pulmonary vein thrombosis: detection by CT and MR imaging. Selvidge SD, et al.
AJR Am J Roentgenol 1999 Jun;172(6):1639-41 (10 ref.)
Anomalous pulmonary veins [letter; comment] Hoeffel JC, et al. **Can Assoc Radiol J** 1998 Dec;49(6):422. Comment on: Can Assoc Radiol J 1998 Aug;49(4):262-5.
Haemoptysis associated with pulmonary varices: demonstration using computed tomographic angiography. Ferretti GR, et al. **Eur Respir J** 1998 Oct;12(4):989-92
Meandering right pulmonary vein: a case of scimitar variant. Salazar-Mena J, et al. **Pediatr Radiol** 1999 Aug; 29(8):578-80 (9 ref.)
Three-dimensional computed tomographic angiography of pulmonary vessels. Shimizu T, et al. **Radiat Med** 1999 Mar-Apr;17(2):151-4
[Spontaneous porto-pulmonary shunt with pulmonary infiltrates in liver cirrhosis: their CT and MRI imaging] Hast J, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Aug;171(2):172-4 (0 ref.) **(Ger)**
[Digital angiography of pulmonary vein anomalies] Bešlić S, et al. **Med Arh** 1998;52(4):203-6 (Eng. Abstr.) **(Scr)**

SURGERY

Repair of total anomalous pulmonary venous connection in infancy: experience from a developing country. Choudhary SK, et al. **Ann Thorac Surg** 1999 Jul;68(1):155-9
Preoperative extracorporeal membrane oxygenation in newborns with total anomalous pulmonary venous connection. Ishino K, et al. **Cardiovasc Surg** 1999 Jun; 7(4):473-5
Total anomalous pulmonary venous connection: outcome of surgical correction and management of recurrent venous obstruction. Hyde JA, et al. **Eur J Cardiothorac Surg** 1999 Jun;15(6):735-40; discussion 740-1
Bezold-Jarisch-like reflex during radiofrequency ablation of the pulmonary vein tissues in patients with paroxysmal focal atrial fibrillation. Tsai CF, et al.
J Cardiovasc Electrophysiol 1999 Jan;10(1):27-35
Long-term outcome of infants with single ventricle and total anomalous pulmonary venous connection. Gaynor JW, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):506-13; discussion 513-4
Adverse hemodynamic effects observed with inhaled nitric oxide after surgical repair of total anomalous pulmonary venous return. Rosales AM, et al. **Pediatr Cardiol** 1999 May-Jun;20(3):224-6
[Surgical treatment of total anomalous pulmonary venous connection--clinical aspects of pulmonary venous obstruction] Yoshihara K, et al.
Jpn J Thorac Cardiovasc Surg 1998 Nov;46(11):1126-32 (Eng. Abstr.) **(Jpn)**
[A case of successful palliative operation of asplenia syndrome with total anomalous pulmonary venous return in young infant] Endoh M, et al. **Kyobu Geka** 1999 Sep; 52(10):860-3 (Eng. Abstr.) **(Jpn)**
[Pulmonary vein reconstruction for lung carcinoma] Narita K, et al. **Kyobu Geka** 1999 Jan;52(1):30-4 (Eng. Abstr.) **(Jpn)**
[Surgical methods for correcting partial anomalous drainage of the pulmonary veins during artificial circulation] Makhmudov MM, et al. **Vestn Khir Im I I Grek** 1998; 157(3):50-2 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Predictive value of pulmonary venous flow patterns in detecting mitral regurgitation and left ventricular abnormalities. Hynes MS, et al. **Can J Cardiol** 1999 Jun; 15(6):665-70 (24 ref.)
Echocardiographic diagnosis of totally anomalous pulmonary venous connection to the azygos vein. Musolino AM, et al. **Cardiol Young** 1999 May;9(3):305-9
Assessment of abnormal left atrial relaxation by transesophageal pulsed Doppler echocardiography of pulmonary venous flow velocity. Oki T, et al.
Clin Cardiol 1998 Oct;21(10):753-8
Doppler study on pulmonary venous flow in the human fetus. Hong Y, et al. **Fetal Diagn Ther** 1999 Mar-Apr;14(2):86-91
Assessment of diastolic function by tissue Doppler echocardiography: comparison with standard transmitral and pulmonary venous flow. Farias CA, et al.
J Am Soc Echocardiogr 1999 Aug;12(8):609-17
The value of assessing pulmonary venous flow velocity for predicting severity of mitral regurgitation: A quantitative assessment integrating left ventricular function. Pu M, et al. **J Am Soc Echocardiogr** 1999 Sep;12(9):736-43
Transesophageal echocardiographic area and Doppler flow velocity measurements: comparison with hemodynamic changes in coronary artery bypass surgery. Schmidlin D, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):143-9
Doppler velocimetry of normal human fetal venous intrapulmonary branches. Laudy JA, et al.
Ultrasound Obstet Gynecol 1999 Apr;13(4):247-54

ULTRASTRUCTURE

Three-dimensional cytoarchitecture of rat pulmonary venous walls: a light and scanning electron microscopic study. Hashizume H, et al. **Anat Embryol (Berl)** 1998 Dec; 198(6):473-80

PULMONARY VENO-OCCLUSIVE DISEASE

[Surgical treatment of total anomalous pulmonary venous connection--clinical aspects of pulmonary venous obstruction] Yoshihara K, et al.
Jpn J Thorac Cardiovasc Surg 1998 Nov;46(11):1126-32 (Eng. Abstr.) **(Jpn)**

CHEMICALLY INDUCED

Occlusion of pulmonary vessels by megakaryocytes after treatment with tumour necrosis factor-alpha (TNF-alpha). Sulkowski S, et al. **J Comp Pathol** 1999 Apr;120(3):235-45
[Pulmonary veno-occlusive disease developed in a man given long-term treatment with anticancerous agents] Maemondo M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep; 36(9):823-8 (Eng. Abstr.) **(Jpn)**

COMPLICATIONS

Pulmonary vein stenosis after catheter ablation of atrial fibrillation. Robbins IM, et al. **Circulation** 1998 Oct 27; 98(17):1769-75
Pulmonary veno-occlusive disease complicating Felty's syndrome. Devereux G, et al. **Respir Med** 1998 Aug; 92(8):1089-91

CONGENITAL

Total anomalous pulmonary venous connection to the portal and splenic vein associated with unilateral hypoplasia of pulmonary veins. Carrel T, et al.
Eur J Cardiothorac Surg 1996;10(12):1141-3
Obstructed infracardiac total anomalous pulmonary venous connection in an adult. Juneja R, et al. **Pediatr Cardiol** 1999 Mar-Apr;20(2):152-4

DRUG THERAPY

Effects of inhaled nitric oxide and aerosolized iloprost in pulmonary veno-occlusive disease. Hoeper MM, et al.
Respir Med 1999 Jan;93(1):62-4

ETIOLOGY

Post-Mustard procedure pulmonary venous obstruction: An opportunity for anatomic correction with a one-stage arterial switch. Reisman M, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):301-3

PATHOLOGY

Diagnosis of pulmonary veno-occlusive disease: new criteria for biopsy. Valdés L, et al. **Respir Med** 1998 Jul; 92(7):979-83

PHYSIOPATHOLOGY

Pulmonary veno-occlusive disease. Veeraraghavan S, et al. **Curr Opin Pulm Med** 1999 Sep;5(5):310-3 (33 ref.)

RADIOGRAPHY

High-resolution CT of the chest in four patients with pulmonary capillary hemangiomatosis or pulmonary venoocclusive disease. Dufour B, et al.
AJR Am J Roentgenol 1998 Nov;171(5):1321-4
The vascular vise causing TAPVR type I to radiographically mimic TAPVR type III. Patton WL, et al.
Pediatr Radiol 1999 May;29(5):323-6

SURGERY

Surgical management of progressive pulmonary venous obstruction after repair of total anomalous pulmonary venous connection. Lacour-Gayet F, et al.
J Thorac Cardiovasc Surg 1999 Apr;117(4):679-87
Post-Mustard procedure pulmonary venous obstruction: An opportunity for anatomic correction with a one-stage arterial switch. Reisman M, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):301-3
[Surgical repair of coronary sinus type partial anomalous pulmonary venous drainage with intact atrial septum] Aoki A, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1211-4 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Transesophageal echocardiographic identification of left upper pulmonary venous obstruction caused by compression by spontaneous pseudoaneurysm of the descending thoracic aorta. Ha JW, et al.
J Am Soc Echocardiogr 1998 Oct;11(10):992-6

PULMONARY VENOUS WEDGE PRESSURE see **PULMONARY WEDGE PRESSURE**

PULMONARY VENTILATION

Expiratory flow-volume curves in mechanically ventilated patients with chronic obstructive pulmonary disease. Aerts JG, et al. **Acta Anaesthesiol Scand** 1999 Mar;43(3):322-7
Comparison of airway pressure-triggered and airflow-triggered ventilation in very immature infants. Dimitriou G, et al. **Acta Paediatr** 1998 Dec;87(12):1256-60
Developmental components of resting ventilation among high- and low-altitude Andean children and adults. Frisancho AR, et al. **Am J Phys Anthropol** 1999 Jul; 109(3):295-301
Reversible and irreversible airflow obstruction as predictor of overall mortality in asthma and chronic obstructive pulmonary disease. Hansen EF, et al.
Am J Respir Crit Care Med 1999 Apr;159(4 Pt 1):1267-71
Effects of different expiratory maneuvers on inspiratory muscle force output. Zakynthinos S, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):892-5
Effect of thyroplasty on laryngeal airflow. Janas JD, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):286-92
Lung function during moderate hypobaric hypoxia in normal subjects and patients with chronic obstructive pulmonary disease. Dillard TA, et al. **Aviat Space Environ Med** 1998 Oct;69(10):979-85
Inspiratory flow-volume curve in snoring patients with and without obstructive sleep apnea. Amado VM, et al.
Braz J Med Biol Res 1999 Apr;32(4):407-11
Reference values for lung function tests. II. Maximal respiratory pressures and voluntary ventilation. Neder JA, et al. **Braz J Med Biol Res** 1999 Jun;32(6):719-27
Respiratory, cardiovascular, and metabolic adjustments to hypoxemia during sleep in piglets. Côté A, et al.
Can J Physiol Pharmacol 1998 Jul-Aug;76(7-8):747-55
Taking the low (stretch) road [editorial; comment] Arnold JH. **Chest** 1998 Oct;114(4):955-7. Comment on: Chest 1998 Oct;114(4):1147-57.
Cardiogenic oscillations on the airflow signal during continuous positive airway pressure as a marker of central apnea. Ayappa I, et al. **Chest** 1999 Sep;116(3):660-6
Elevated O2 cost of ventilation contributes to tissue wasting in COPD. Mannix ET, et al. **Chest** 1999 Mar;115(3):708-13
Inspiratory flow rate: more may not be better [editorial; comment] Jubran A. **Crit Care Med** 1999 Apr;27(4):670-1 (13 ref.). Comment on: Crit Care Med 1999 Apr;27(4):715-22.
Prone position in acute respiratory distress syndrome: turning over an old idea [editorial; comment] Trottier SJ.
Crit Care Med 1998 Dec;26(12):1934-5 (20 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1977-85.
Detecting airways obstruction from the tidal flow profile [editorial; comment] Bates JH. **Eur Respir J** 1998 Nov;

12(5):1008–9. Comment on: Eur Respir J 1998 Nov;12(5):1113–7. Comment on: Eur Respir J 1998 Nov;12(5):1118–23.

Analysis of expiratory tidal flow patterns as a diagnostic tool in airflow obstruction [see comments] Morris MJ, et al. **Eur Respir J** 1998 Nov;12(5):1113–7. Comment in: Eur Respir J 1998 Nov;12(5):1008–9.

Assessing the effect of deep inhalation on airway calibre: a novel approach to lung function in bronchial asthma and COPD. Pellegrino R, et al. **Eur Respir J** 1998 Nov; 12(5):1219–27 (87 ref.)

Tidal expired airflow patterns in adults with airway obstruction [see comments] Williams EM, et al. **Eur Respir J** 1998 Nov;12(5):1118–23. Comment in: Eur Respir J 1998 Nov;12(5):1008–9.

Effect of exercise on acid–base status and ventilatory kinetics. Phatak MS, et al. **Indian J Physiol Pharmacol** 1998 Jul; 42(3):417–20

Critical power is related to cycling time trial performance. Smith JC, et al. **Int J Sports Med** 1999 Aug;20(6):374–8

The use of noninvasive pressure support ventilation for severe respiratory insufficiency due to pulmonary oedema [see comments] Hoffmann B, et al. **Intensive Care Med** 1999 Jan;25(1):15–20. Comment in: Intensive Care Med 1999 Jan;25(1):1–2.

Improvement in oxygenation by prone position and nitric oxide in patients with acute respiratory distress syndrome. Martinez M, et al. **Intensive Care Med** 1999 Jan;25(1):29–36

Noninvasive pressure support ventilation (NIPSV) with face mask in patients with acute cardiogenic pulmonary edema (ACPE) [see comments] Rusterholtz T, et al. **Intensive Care Med** 1999 Jan;25(1):21–8. Comment in: Intensive Care Med 1999 Jan;25(1):1–2.

Noninvasive ventilation in acute cardiogenic pulmonary edema: better than continuous positive airway pressure? [editorial; comment] Wysocki M. **Intensive Care Med** 1999 Jan;25(1):1–2. Comment on: Intensive Care Med 1999 Jan;25(1):15–20. Comment on: Intensive Care Med 1999 Jan;25(1):21–8.

Cost of walking and locomotor impairment [published erratum appears in J Electromyogr Kinesiol 1999 Jun;9(3):235] Bernardi M, et al. **J Electromyogr Kinesiol** 1999 Apr;9(2):149–57

Determinants of abnormal maximum oxygen uptake after lung transplantation for chronic obstructive pulmonary disease. Systrom DM, et al. **J Heart Lung Transplant** 1998 Dec;17(12):1220–30

Massive pulmonary hemorrhage in newborn infants successfully treated with high frequency oscillatory ventilation. Ko SY, et al. **J Korean Med Sci** 1998 Oct; 13(5):495–9

Simultaneous increases in respiration and sympathetic function during opiate detoxification. Hoffman WE, et al. **J Neurosurg Anesthesiol** 1998 Oct;10(4):205–10

Effects of age, body mass index, and gender on nasal airflow rate and pressures. Crouse U, et al. **Laryngoscope** 1999 Sep; 109(9):1503–8

Determination of ventilatory minute volumes for normocapnic ventilation under anaesthesia in healthy adults. Puri GD, et al. **Natl Med J India** 1999 Jan–Feb; 12(1):6–11

Evaluating the Swirler nebulizer: a user's perspective. Carter NJ, et al. **Nucl Med Commun** 1998 Jun;19(6):599–604

Evaluation of abnormal regional ventilation in patients with lung cancer using three-dimensional display of dynamic 133Xe SPET. Suga K, et al. **Nucl Med Commun** 1998 Jun; 19(6):593–8

Ventilatory function and personal breathing zone dust concentrations in Lancashire textile weavers. Raza SN, et al. **Occup Environ Med** 1999 Aug;56(8):520–6

Measuring human ventilation for apnoea detection using an optical encoder. Weinberg GM, et al. **Physiol Meas** 1998 Aug;19(3):441–6

Regulation of ventilation before and after sleep in patients with obstructive sleep apnoea. Fuse K, et al. **Respirology** 1999 Jun;4(2):125–30

Contribution of gular pumping to lung ventilation in monitor lizards. Owerkowicz T, et al. **Science** 1999 Jun 4; 284(5420):1661–3

Placing crackles on the flow–volume plane: a study of the relationship between the time position, the flow and the volume. Rossi M, et al. **Technol Health Care** 1998 Jun; 6(1):91–7

Distribution of crackles on the flow–volume plane in different pulmonary diseases. Vanderschoot J, et al. **Technol Health Care** 1998 Jun;6(1):81–9

[Forced expiratory test, maximum ventilation, resistance and flow–volume curve--possibilities of a comprehensive characterization of airway obstruction and respiratory reserve] Seidel A. **Pneumologie** 1998 Aug;52(8):437–8 **(Ger)**

[Effects of cardiac output on blood and tissue pH during general anesthesia with constant ventilation] Hayashida M, et al. **Masui** 1998 Nov;47(11):1290–5 (Eng. Abstr.) **(Jpn)**

[Arterial oxygenation during one lung ventilation in obese patients] Okamoto K, et al. **Masui** 1999 Feb;48(2):168–71 (Eng. Abstr.) **(Jpn)**

[Pulmonary ventilation and gas exchange in breathing air of different temperatures] Grishin OV, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):44–7 **(Rus)**

DRUG EFFECTS

Effect of 8 hours of isocapnic/poikilocapnic hypoxia on the ventilatory response to CO2. Fatemian M, et al. **Adv Exp Med Biol** 1998;450:17–9

The effects on resting ventilation of intravenous infusions of morphine or sameridine, a novel molecule with both local anesthetic and opioid properties. Osterlund A, et al. **Anesth Analg** 1999 Jan;88(1):160–5

Effect of L-aspartate on the ventilatory response to hypoxia in sedated newborn piglets. Navarro H, et al. **Biol Neonate** 1998;73(6):387–94

Respiratory and cardiovascular effects of the mu-opioid receptor agonist [Lys7]dermorphin in awake rats. Negri L, et al. **Br J Pharmacol** 1998 May;124(2):345–55

Captopril reduces the VE/VCO2 ratio in myocardial infarction patients with low ejection fraction. McConnell TR, et al. **Chest** 1998 Nov;114(5):1289–94

Low-dose inhaled nitric oxide improves the oxygenation and ventilation of infants and children with acute, hypoxemic respiratory failure [see comments] Ream RS, et al. **Crit Care Med** 1999 May;27(5):989–96. Comment in: Crit Care Med 1999 May;27(5):871–2.

Respiratory effects of glutamate receptor antagonists in neonate and adult mammals. Borday V, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):235–46

Effect of low-dose acetazolamide on the ventilatory CO2 response during hypoxia in the anaesthetized cat [see comments] Wagenaar M, et al. **Eur Respir J** 1998 Dec; 12(6):1271–7. Comment in: Eur Respir J 1998 Dec;12(6):1242–7.

The effects of caffeine on the kinetics of O2 uptake, CO2 production and expiratory ventilation in humans during the on-transient of moderate and heavy intensity exercise. Bell C, et al. **Exp Physiol** 1999 Jul;84(4):761–74

TRH microdialysis into the RTN of the conscious rat increases breathing, metabolism, and temperature. Cream C, et al. **J Appl Physiol** 1999 Aug;87(2):673–82

Pharmacological modulators of respiratory control. Casaburi R. **Monaldi Arch Chest Dis** 1998 Jun;53(3):287–93 (99 ref.)

Maternal nicotine depresses eupneic ventilation of neonatal rats. St.-John WM, et al. **Neurosci Lett** 1999 Jun 4; 267(3):206–8

Effects of standard and high doses of salmeterol on lung function of hospitalized patients with cystic fibrosis. Hordvik NL, et al. **Pediatr Pulmonol** 1999 Jan;27(1):43–53

Modulation of hypoxic ventilatory response by systemic platelet-activating factor receptor antagonist in the rat. Simakajornboon N, et al. **Respir Physiol** 1998 Dec; 114(3):213–25

[Inhalation administration of nitric oxide during selective pulmonary ventilation decreases the intrapulmonary shunt] del Barrio E, et al. **Rev Esp Anestesiol Reanim** 1999 Jun–Jul; 46(6):247–51 (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

Aerodynamic influences on nasal nitric oxide output measurements. Djupesland PG, et al. **Acta Otolaryngol** 1999;119(4):479–85

Evaluation of nasal patency: comparison of patient and clinician assessments with rhinomanometry. Panagou P, et al. **Acta Otolaryngol (Stockh)** 1998 Nov;118(6):847–51

Effect of body position on tidal volume and minute ventilation in very low birthweight infants. Itakura Y, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):555–7

Hypoxia and hyperoxia both transiently affect distribution of pulmonary perfusion but not ventilation in awake sheep. Melsom MN, et al. **Acta Physiol Scand** 1999 Jun; 166(2):151–8

Ventilatory effects of 8 hours of isocapnic hypoxia with and without beta-blockade. Clar C, et al. **Adv Exp Med Biol** 1998;450:25–7

Effect of prior O2 breathing on hypoxic hypercapnic ventilatory responses in humans. Masuda A, et al. **Adv Exp Med Biol** 1998;450:1–6

Inhibitory dopaminergic mechanisms are functional in peripherally chemodenervated goats. O'Halloran KD, et al. **Adv Exp Med Biol** 1998;450:7–15

Modulation of ventilatory sensitivity to hypoxia by dopamine and domperidone before and after prolonged exposure to hypoxia in humans. Pedersen ME, et al. **Adv Exp Med Biol** 1998;450:29–31

Ventilatory responses to hypoxia after 6 hours passive hyperventilation in humans. Ren X, et al. **Adv Exp Med Biol** 1998;450:21–3

Pulmonary training may alter exertional dyspnea and fatigue via an exercise-like training effect of a lowered heart rate. Swanson GD. **Adv Exp Med Biol** 1998;450:231–6

End-expiratory lung volume during arm and leg exercise in normal subjects and patients with cystic fibrosis. Alison JA, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1450–8

Protein kinase C modulates ventilatory patterning in the developing rat. Bandla HP, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):968–73

Isocapnic hyperpnea accelerates carbon monoxide elimination. Fisher JA, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1289–92

Coordination of swallowing and phases of respiration during added respiratory loads in awake subjects. Kijima M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1898–902

Effect of different pressure levels on the dynamics of lung collapse and recruitment in oleic-acid-induced lung injury. Neumann P, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1636–43

The relationship between dynamic compliance and inspiratory flow [letter; comment] Khorasani A, et al. **Anesth Analg** 1999 Feb;88(2):465. Comment on: Anesth Analg 1998 Jul;87(1):27–33.

Hypoxic ventilatory response: the effects of CO2 and of sustained hypoxia [letter; comment] Pandit JJ. **Anesth Analg** 1999 Mar;88(3):695–6. Comment on: Anesth Analg 1998 Feb;86(2):403–9.

Oscillatory flow in a symmetric bifurcation airway model. Lieber BB, et al. **Ann Biomed Eng** 1998 Sep–Oct; 26(5):821–30

A dynamic and direct visualization model for the study of nasal airflow. Simmen D, et al. **Arch Otolaryngol Head Neck Surg** 1999 Sep;125(9):1015–21

The effects of emotional behaviour on components of the respiratory cycle. Boiten FA. **Biol Psychol** 1998 Sep; 49(1–2):29–51

Competition between gas exchange and speech production in ventilated subjects. Shea SA, et al. **Biol Psychol** 1998 Sep;49(1–2):9–27

Negative affect, respiratory reactivity, and somatic complaints in a CO2 enriched air inhalation paradigm. Stegen K, et al. **Biol Psychol** 1998 Sep;49(1–2):109–22

Cardiorespiratory effects of breathing and relaxation instruction in myocardial infarction patients. van Dixhoorn J. **Biol Psychol** 1998 Sep;49(1–2):123–35

Influence of drive and timing mechanisms on breathing pattern and ventilation during mental task performance. Wientjes CJ, et al. **Biol Psychol** 1998 Sep;49(1–2):53–70

Changes in heart rate and respiration rate in patients with vestibular dysfunction following head movements which provoke dizziness. Yardley L, et al. **Biol Psychol** 1998 Sep; 49(1–2):95–108

On the barometric method for measurements of ventilation, and its use in small animals [comment] Mortola JP, et al. **Can J Physiol Pharmacol** 1998 Oct–Nov;76(10–11):937–44 (30 ref.). Comment on: Can J Physiol Pharmacol 1998 Oct–Nov;76(10–11):945–51.

Exercise-induced rise in arterial potassium in patients with chronic heart failure. Tanabe Y, et al. **Chest** 1999 Jul; 116(1):88–96

Inspiratory muscle adaptations following pressure or flow training in humans. Tzelepis GE, et al. **Eur J Appl Physiol** 1999 May;79(6):467–71

Influence of immersion on respiratory requirements during 30-min cycling exercise. Brechat PH, et al. **Eur Respir J** 1999 Apr;13(4):860–6

High-frequency respiratory input impedance measurements in infants assessed by the high speed interrupter technique. Frey U, et al. **Eur Respir J** 1998 Jul;12(1):148–58

Influence of cervical sympathetic nerves on ventilation and upper airway resistance in the rat. O'Halloran KD, et al. **Eur Respir J** 1998 Jul;12(1):177–84

Patient–ventilator interaction: a general model for nonpassive mechanical ventilation. Crooke PS, et al. **IMA J Math Appl Med Biol** 1998 Dec;15(4):321–37

Exercise induced changes in plasma potassium and ventilation in healthy adults [letter] Kurhade GA, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):300–2

Ventilatory instability during sleep onset in individuals with high peripheral chemosensitivity. Dunai J, et al. **J Appl Physiol** 1999 Aug;87(2):661–72

Effects of continuous negative airway pressure on lung volume and respiratory resistance. Lorino AM, et al. **J Appl Physiol** 1999 Aug;87(2):605–10

Relationship of flow and cross-sectional area to frictional stress in airway models of asthma. Chowdhary R, et al. **J Asthma** 1999 Aug;36(5):419–26

Bolus contaminant dispersion in oscillating flow in curved tubes. Eckmann DM. **J Biomech Eng** 1998 Apr; 120(2):238–44

Experimental investigation of oscillatory flow through a symmetrically bifurcating tube. Peattie RA, et al. **J Biomech Eng** 1998 Oct;120(5):584–93

Modeling of airflow in the pharynx with application to sleep apnea. Shome B, et al. **J Biomech Eng** 1998 Jun; 120(3):416–22

Augmentation of axial dispersion by intermittent oscillatory flow. Tanaka G, et al. **J Biomech Eng** 1998 Jun; 120(3):405–15

Adaptive lung ventilation (ALV) during anesthesia for pulmonary surgery: automatic response to transitions to and from one-lung ventilation. Weiler N, et al. **J Clin Monit Comput** 1998 May;14(4):245–52

Energetic cost of hovering flight in a nectar-feeding bat measured with fast-response respirometry. Winter Y. **J Comp Physiol [B]** 1998 Aug;168(6):434–44

The relationship between low-level air pollution exposure and short-term changes in lung function in Dutch children. Brunekreef B, et al. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:117–28

Airway closure during mixed apneas in preterm infants: is respiratory effort necessary? [see comments] Idiong N, et al. **J Pediatr** 1998 Oct;133(4):509–12. Comment in: J Pediatr 1999 Jun;134(6):796–8.

Intentional changes in sound pressure level and rate: their impact on measures of respiration, phonation, and articulation. Dromey C, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1003–18

PULMONARY VENTILATION

Nasal splinting effects on breathing patterns and cardiorespiratory responses. Chinevere TD, et al. **J Sports Sci** 1999 Jun;17(6):443–7

Load assessment of the static posture and weight holding in terms of pulmonary ventilation and heart rate. Yang L, et al. **J Tongji Med Univ** 1997;17(3):156–9

Phonation threshold pressure measurements during phonation by airflow interruption. Jiang J, et al. **Laryngoscope** 1999 Mar;109(3):425–32

Oxygen enhanced MR ventilation imaging of the lung. Chen Q, et al. **MAGMA** 1998 Dec;7(3):153–61

A combined 1H perfusion/3He ventilation NMR study in rat lungs. Crémillieux Y, et al. **Magn Reson Med** 1999 Apr; 41(4):645–8

Cardiopulmonary and CD4 cell changes in response to exercise training in early symptomatic HIV infection. Perna FM, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):973–9

Respiratory airflow pattern at the rat's snout and an hypothesis regarding its role in olfaction. Wilson DA, et al. **Physiol Behav** 1999 Mar;66(1):41–4

Frequent breathing-related electroencephalogram arousals in four patients with mild obstructive sleep apneas. Mikami A, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):307–9

Quantitative evaluation of pulmonary ventilation dynamics using MR imaging: comparison of smokers and non-smokers. Seo H, et al. **Radiat Med** 1999 Mar–Apr; 17(2):131–5

Extent of expiratory flow limitation influences the increase in maximal exercise ventilation in hypoxia. Chapman RF, et al. **Respir Physiol** 1998 Jul;113(1):65–74

The effects of restraint on ventilatory responses to hypercapnia and hypoxia in adult mice. Dauger S, et al. **Respir Physiol** 1998 May;112(2):215–25

Methods and clinical significance of studying chemical drives. De Backer WA. **Respir Physiol** 1998 Oct; 114(1):75–81 (41 ref.)

The effect of exercise modality on exercise-induced hypoxemia. Gavin TP, et al. **Respir Physiol** 1999 May 3; 115(3):317–23

Characteristics of nasal airflow and the effect of a nasal dilator in normal human subjects. Meissner HH, et al. **Respir Physiol** 1999 Jan 1;115(1):95–101

Reduced inspiratory drive following laryngeal chemoreflex apnea during hypoxia. Milerad J, et al. **Respir Physiol** 1999 Jun 1;116(1):35–45

Time domains of the hypoxic ventilatory response. Powell FL, et al. **Respir Physiol** 1998 May;112(2):123–34 (45 ref.)

Variability of vigilance and ventilation: studies on the control of respiration during sleep. Schäfer T. **Respir Physiol** 1998 Oct;114(1):37–48

Aspiration flow optimized for nasal nitric oxide measurement. Qian W, et al. **Rhinology** 1999 Jun;37(2):61–5

Relationship between physical characteristics and physiological responses during maximal arm cranking in paraplegics. Yamasaki M, et al. **Spinal Cord** 1998 Aug; 36(8):579–83

Contribution of airway resistance to airway pressure during mechanical ventilation: an experimental study. Kondo T, et al. **Tokai J Exp Clin Med** 1998 Mar;23(1):25–30

Doppler assessment of tracheal fluid flow during fetal breathing movements in cases of congenital diaphragmatic hernia. Kalache KD, et al. **Ultrasound Obstet Gynecol** 1998 Jul;12(1):27–32

Maximal ventilation assessment in healthy calves. Bureau F, et al. **Vet J** 1999 May;157(3):309–14

[Value of spirometry-gated high resolution computerized tomography of the lung during inspiration and expiration] Kauczor HU, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):658–61 (Eng. Abstr.) **(Ger)**

[Changes in SpO2 during total intravenous anesthesia combined with propofol and SpO2 during one-lung anesthesia ventilation] Koishi K, et al. **Masui** 1999 Jan; 48(1):53–6 (Eng. Abstr.) **(Jpn)**

[Peak expiratory flow (PEF) rates evaluation in 3-year-old children] Mazur B. **Pol Merkuriusz Lek** 1998 Dec; 5(30):330–2 (Eng. Abstr.) **(Pol)**

[External respiratory function and pulmonary capillary blood flow in patients with postoperative recurrent pulmonary tuberculosis] El'kin AV, et al. **Probl Tuberk** 1999;(3):16–9 (Eng. Abstr.) **(Rus)**

[Airway remodelling in asthma (editorial)] Perpiñá Tordera M. **Arch Bronconeumol** 1999 May;35(5):199–201 **(Spa)**

PULMONARY WEDGE PRESSURE

Analysis of observer variability in measurement of pulmonary artery occlusion pressures. Al-Kharrat T, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):415–20

Relation between plasma nitrate and mean pulmonary arterial pressure in ventricular septal defect. Takaya J, et al. **Arch Dis Child** 1998 Dec;79(6):498–501

Interpretation of the pulmonary artery occlusion (wedge) pressure: physician's knowledge versus the experts' knowledge [letter; comment] Marik P, et al. **Crit Care Med** 1998 Oct;26(10):1761–4. Comment on: Crit Care Med 1997 Feb;25(2):213–20.

Changes in central venous pressure and pulmonary capillary wedge pressure do not indicate changes in right and left heart volume in patients undergoing coronary artery bypass surgery. Buhre W, et al. **Eur J Anaesthesiol** 1999 Jan; 16(1):11–7

Combined use of pulsed and color M-mode Doppler echocardiography for the estimation of pulmonary capillary wedge pressure: an empirical approach based on an analytical relation. Gonzalez-Vilchez F, et al. **J Am Coll Cardiol** 1999 Aug;34(2):515–23

Noninvasive evaluation of pulmonary capillary wedge pressure in patients with acute myocardial infarction by deceleration time of pulmonary venous flow velocity in diastole. Yamamuro A, et al. **J Am Coll Cardiol** 1999 Jul; 34(1):90–4

Ratio of pulmonary venous to mitral A velocity is a useful marker for predicting mean pulmonary capillary wedge pressure in patients with left ventricular systolic dysfunction. Ito T, et al. **J Am Soc Echocardiogr** 1998 Oct; 11(10):961–5

Comparison between intrathoracic blood volume and cardiac filling pressures in the early phase of hemodynamic instability of patients with sepsis or septic shock. Sakka SG, et al. **J Crit Care** 1999 Jun;14(2):78–83

Preload assessment in patients with an open abdomen. Cheatham ML, et al. **J Trauma** 1999 Jan;46(1):16–22

Augmented vasoreactivity in adult life associated with perinatal vascular insult. Sartori C, et al. **Lancet** 1999 Jun 26;353(9171):2205–7

[Transthoracic recording of pulmonary venous flow for diagnosis of high pulmonary capillary wedge pressure] Kronik G, et al. **Acta Med Austriaca** 1999;26(1):1–7 (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Dobutamine-induced changes in pulmonary artery pressure in patients with congestive heart failure and their relation to abnormalities of lung diffusing capacity. Faggiano P, et al. **Am J Cardiol** 1998 Nov 15;82(10):1296–8, A10

Effect of timing and route of administration of furosemide on pulmonary hemorrhage and pulmonary arterial pressure in exercising thoroughbred racehorses. Lester G, et al. **Am J Vet Res** 1999 Jan;60(1):22–8

Effects of partial liquid ventilation with perfluorocarbons on pressure-flow relationships, vascular compliance, and filtration coefficients of isolated blood-perfused rabbit lungs. Loer SA, et al. **Crit Care Med** 1998 Dec; 26(12):2037–41

Inhaled nitric oxide reduces pulmonary artery pressures in portopulmonary hypertension. Findlay JY, et al. **Liver Transpl Surg** 1999 Sep;5(5):381–7

PHYSIOLOGY

Estimation of pulmonary wedge pressure by transmitral Doppler in patients with chronic heart failure and atrial fibrillation. Temporelli PL, et al. **Am J Cardiol** 1999 Mar 1;83(5):724–7

A comparison of pulmonary arterial occlusion algorithms for estimation of pulmonary capillary pressure. Pellett AA, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):162–8

Catheterization of the pulmonary artery using a 3 French catheter in patients with congenital heart disease. Mori Y, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):45–50

Influence of pulmonary capillary wedge pressure on central apnea in heart failure. Solin P, et al. **Circulation** 1999 Mar 30;99(12):1574–9

More respect for the CVP [editorial] [see comments] Magder S. **Intensive Care Med** 1998 Jul;24(7):651–3. Comment in: Intensive Care Med 1999 Jan;25(1):126–7.

Pulmonary capillary perfusion: intra-alveolar fractal patterns and interalveolar independence. Wagner WW Jr, et al. **J Appl Physiol** 1999 Mar;86(3):825–31

PULMONIC PLAGUE see **PLAGUE**

PULMONOLOGY see **PULMONARY DISEASE (SPECIALTY)**

PULP CANAL see **DENTAL PULP CAVITY**

PULP CAPPING see **DENTAL PULP CAPPING**

PULP CHAMBER see **DENTAL PULP CAVITY**

PULP GANGRENE see **DENTAL PULP NECROSIS**

PULP NECROSIS see **DENTAL PULP NECROSIS**

PULPECTOMY

Periodontal cell migration into the apical pulp during the repair process after pulpectomy in immature teeth: an autoradiographic study. Vojinović O, et al. **J Oral Rehabil** 1993 Nov;20(6):637–52

PULPITIS

COMPLICATIONS

Dentinogenesis imperfecta: endodontic implications. Case report. Pettiette MT, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Dec;86(6):733–7

METABOLISM

Up-regulation of class A Ca2+ channels in trigeminal ganglion after pulp exposure. Westenbroek RE, et al. **Neuroreport** 1999 Feb 5;10(2):381–5

Increased interleukin-8 expression in inflamed human dental pulps. Huang GT, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):214–20

ULTRASONOGRAPHY

[Dental pulp diseases. Ultramicroscopic studies] Conversini A, et al. **Minerva Stomatol** 1998 Dec;47(12):631–48 (445 ref.) (Eng. Abstr.) **(Ita)**

PULPOTOMY

Laser pulpotomy of primary teeth. Liu JF, et al. **Pediatr Dent** 1999 Mar–Apr;21(2):128–9

ADVERSE EFFECTS

Odontogenic cysts related to pulpotomized deciduous molars: clinical features and treatment outcome. Lustig JP, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):499–503 (15 ref.)

PULSATILE FLOW

Assessment of the total artificial heart (TAH) pulsatility: the coalition between pulsatility and ejection time in TAH in vitro study. Nakata Ki, et al. **Ann Thorac Cardiovasc Surg** 1998 Oct;4(5):275–9

Pulsate regimes of the centrifugal pump operation for assisted circulation. Khaoustov AI, et al. **Artif Organs** 1999 Feb; 23(2):214–6

Techniques for optimization of pulsatile ventricular assist device support. Mills TC, et al. **Artif Organs** 1992 Apr; 16(2):218–21

Augmentative effect of pulsatility on the wall shear stress in tube flow. Nakata M, et al. **Artif Organs** 1999 Aug; 23(8):727–31

Major organ function under mechanical support: comparative studies of pulsatile and nonpulsatile circulation. Sezai A, et al. **Artif Organs** 1999 Mar;23(3):280–5

Defining pulsatile perfusion: quantification in terms of energy equivalent pressure. Undar A, et al. **Artif Organs** 1999 Aug; 23(8):712–6

The effects of pulsatile versus nonpulsatile perfusion on blood viscoelasticity before and after deep hypothermic circulatory arrest in a neonatal piglet model. Undar A, et al. **Artif Organs** 1999 Aug;23(8):717–21

Continuous cardiac output measurement: pulse contour analysis vs thermodilution technique in cardiac surgical patients. Rödig G, et al. **Br J Anaesth** 1999 Apr; 82(4):525–30

Pulsatile ocular blood flow investigation in asymmetric normal tension glaucoma and normal subjects [see comments] Fontana L, et al. **Br J Ophthalmol** 1998 Jul; 82(7):731–6. Comment in: Br J Ophthalmol 1998 Jul;82(7):720–1.

Pulsatile ocular blood flow [editorial; comment] James CB. **Br J Ophthalmol** 1998 Jul;82(7):720–1. Comment on: Br J Ophthalmol 1998 Jul;82(7):731–6.

Comparison of resistive index versus pulsatility index in assessing the benign etiology of adnexal masses. Angeid-Backman E, et al. **Clin Imaging** 1998 Jul–Aug; 22(4):284–91

Pulsatile secretion of atrial natriuretic peptide and brain natriuretic peptide in healthy humans. Pedersen EB, et al. **Clin Sci (Colch)** 1999 Aug;97(2):201–6

Molecular and cellular changes in vein grafts: influence of pulsatile stretch. Powell JT, et al. **Curr Opin Cardiol** 1998 Nov;13(6):453–8 (27 ref.)

Doppler ultrasound evaluation of advanced portal vein pulsatility in patients with normal echocardiograms. Gorka W, et al. **Eur J Ultrasound** 1998 Nov;8(2):119–23

Phenotype dictates the growth response of vascular smooth muscle cells to pulse pressure in vitro. Cappadona C, et al. **Exp Cell Res** 1999 Jul 10;250(1):174–86

The influence of the maternal heart rate on the uterine artery pulsatility index in the pregnant ewe. Ochi H, et al. **Gynecol Obstet Invest** 1999;47(2):73–5

Influence of membrane oxygenators on the pulsatile flow in extracorporeal circuits: an experimental analysis [letter; comment] Undar A, et al. **Int J Artif Organs** 1998 Nov; 21(11):714–5. Comment on: Int J Artif Organs 1997 Aug;20(8):455–62.

A fluid—structure interaction finite element analysis of pulsatile blood flow through a compliant stenotic artery. Bathe M, et al. **J Biomech Eng** 1999 Aug;121(4):361–9

In vitro evaluation of the long-body On-X bileaflet heart valve. Hwang NH, et al. **J Heart Valve Dis** 1998 Sep; 7(5):561–8

Transaortic gradient is pressure-dependent in a pulsatile model of the circulation [see comments] Razzolini R, et al. **J Heart Valve Dis** 1999 May;8(3):279–83. Comment in: J Heart Valve Dis 1999 May;8(3):277–8.

Combined MRI and CFD analysis of fully developed steady and pulsatile laminar flow through a bend. Weston SJ, et al. **J Magn Reson Imaging** 1998 Sep–Oct;8(5):1158–71

Pulsation of blood flow in the umbilical vein during the second trimester of pregnancy correlated to fetal malformation and chromosomal abberation. Heyl W, et al. **J Perinat Med** 1998;26(4):278–83

Pulsating arm veins [letter; comment] Hobbs JT. **Lancet** 1998 Nov 14;352(9140):1629. Comment on: Lancet 1998 Sep 26;352(9133):1030.

Abdominal pulsatile tumor after endovascular abdominal aortic aneurysm repair. Lachat M, et al. **Vasa** 1999 Feb; 28(1):55–7

[Hemodynamic-kinetic controlled extracorporeal circulation in heart surgery] Waldhans S, et al. **Biomed Tech (Berl)** 1998 Dec;43(12):367–70 (Eng. Abstr.) **(Ger)**

[Pulsations of the umbilical vein: pathophysiologic aspects and fetal outcome] Yaman C, et al. **Z Geburtshilfe Neonatol** 1998 Nov–Dec;202(6):235–9 (Eng. Abstr.) **(Ger)**

[Comparative study of artificial circulation for the liver after cardiogenic shock: pulsatile or nonpulsatile?] Kohjima T. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1117–25 (Eng. Abstr.) **(Jpn)**

[Microcirculation of kidney and skin during left ventricular assisted circulation—comparative studies of pulsatile and nonpulsatile assists] Sezai A, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1239–46 (Eng. Abstr.) **(Jpn)**

[Preservation by pulsatile perfusion machine: the initial experience] Suárez Novo JF, et al. **Actas Urol Esp** 1999 Jul–Aug;23(7):596–601 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Influence of captopril, propranolol, and verapamil on arterial pulse wave velocity and other cardiovascular parameters in healthy volunteers. Kähönen M, et al. **Int J Clin Pharmacol Ther** 1998 Sep;36(9):483–9

PHYSIOLOGY

The relationship of pulsatile cerebrospinal fluid flow to cerebral blood flow and intracranial pressure: a new theoretical model. Bergsneider M, et al. **Acta Neurochir Suppl (Wien)** 1998;71:266–8

Increase in transcranial Doppler pulsatility index does not indicate the lower limit of cerebral autoregulation. Richards HK, et al. **Acta Neurochir Suppl (Wien)** 1998; 71:229–32

Noninvasive measurement of pulsatile intracranial pressure using ultrasound. Ueno T, et al. **Acta Neurochir Suppl (Wien)** 1998;71:66–9

Sustained vessel dilation induced by increased pulsatile perfusion of porcine carotid arteries in vitro. Recchia FA, et al. **Acta Physiol Scand** 1999 May;166(1):15–21

The influence of ocular pulsatility on scanning laser Doppler flowmetry. Sullivan P, et al. **Am J Ophthalmol** 1999 Jul; 128(1):81–7

Eliminating arterial pulsatile strain by external banding induces medial but not neointimal atrophy and apoptosis in the rabbit. Courtman DW, et al. **Am J Pathol** 1998 Dec; 153(6):1723–9

Pulsatile flow in tubes of elliptic cross sections. Haslam M, et al. **Ann Biomed Eng** 1998 Sep–Oct;26(5):780–7

Comparison of theory and experiment in pulsatile flow in cat lung. Huang W, et al. **Ann Biomed Eng** 1998 Sep–Oct; 26(5):812–20

Quantitative assessment of steady and pulsatile flow fields in a parallel plate flow chamber. Nauman EA, et al. **Ann Biomed Eng** 1999 Mar–Apr;27(2):194–9

Temporary pulsatile ventricular assist devices and biventricular assist devices. Körfer R, et al. **Ann Thorac Surg** 1999 Aug;68(2):678–83

Cytokine and endothelial damage in pulsatile and nonpulsatile cardiopulmonary bypass. Orime Y, et al. **Artif Organs** 1999 Jun;23(6):508–12

Electric analog model of the aortic valve for calculation of continuous beat-to-beat aortic flow using a pressure gradient. Graen MD, et al. **ASAIO J** 1999 May–Jun; 45(3):204–10

Physiology of nonpulsatile circulation: acute versus chronic support. Jett GK. **ASAIO J** 1999 May–Jun;45(3):119–22 (41 ref.)

Pulsations of the ductus venosus blood velocity and diameter are more pronounced at the outlet than at the inlet. Acharya G, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jun;84(2):149–54

Arterial pressure, vascular input impedance, and resistance as determinants of pulsatile blood flow in the umbilical artery. Adamson SL. **Eur J Obstet Gynecol Reprod Biol** 1999 Jun;84(2):119–25 (24 ref.)

The pulmonary venous systolic flow pulse--its origin and relationship to left atrial pressure. Smiseth OA, et al. **J Am Coll Cardiol** 1999 Sep;34(3):802–9

Comparison of physiological and simple pulsatile flows through stenosed arteries. Zendehbudi GR, et al. **J Biomech** 1999 Sep;32(9):959–65

Catheter obstruction effect on pulsatile flow rate--pressure drop during coronary angiopiasty. Banerjee RK, et al. **J Biomech Eng** 1999 Jun;121(3):281–9

Pulsatile flow computational simulations of mitral regurgitation. Hopmeyer J, et al. **J Biomech Eng** 1998 Apr; 120(2):245–54

Improved solution for solitary waves in arteries. Epstein M, et al. **J Math Biol** 1999 Jul;39(1):1–18

Sustained pulsatile flow regulates endothelial nitric oxide synthase and cyclooxygenase expression in co-cultured vascular endothelial and smooth muscle cells. Hendrickson RJ, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):619–29

Pulsating arm veins [letter; comment] Cheng TO. **Lancet** 1998 Nov 14;352(9140):1629. Comment on: Lancet 1998 Sep 26;352(9133):1030.

Clinical value of aortic pulse-wave velocity measurement. Lehmann ED. **Lancet** 1999 Aug 14;354(9178):528–9

Assessment of the biomechanical state of intracranial tissues by dynamic MRI of cerebrospinal fluid pulsations: a phantom study. Chu D, et al. **Magn Reson Imaging** 1998 Nov;16(9):1043–8

Visualizing blood flow patterns using streamlines, arrows, and particle paths. Buonocore MH. **Magn Reson Med** 1998 Aug;40(2):210–26

Principal stress analysis in LDA measurement of the flow field downstream of 19-mm Sorin Bicarbon heart valve. Barbaro V, et al. **Technol Health Care** 1998 Nov; 6(4):259–70

[Pulsatile flow model of the heart for validating new echocardiography methods for determining regurgitation volume] Mehmel H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:504–5 **(Ger)**

[Modeling of the baroreceptor reflex in a pulsatile model] Schulz S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:310–1 **(Ger)**

[Mechanical model of ocular pulsatile flow for evaluating the ocular blood flow device with known pressure pulsations] Hendrickson P. **Klin Monatsbl Augenheilkd** 1999 May;214(5):272–4 (Eng. Abstr.) **(Ger)**

[Doppler ultrasound of the umbilical vein in fetal 3rd degree atrioventricular block] Yaman C, et al. **Ultraschall Med** 1998 Jun;19(3):142–5 (Eng. Abstr.) **(Ger)**

[Artificial graft replacement increases the speed of the pulse wave velocity along the aorta] Saegusa H, et al. **Masui** 1999 Jan;48(1):32–6 (Eng. Abstr.) **(Jpn)**

[Changes in resistance and capacitance functions of skeletal muscle vessels during the amplitude-frequency modulation of the perfusion blood flow] Poiasov IZ. **Ross Fiziol Zh Im I M Sechenova** 1998 Sep;84(9):884–91 (Eng. Abstr.) **(Rus)**

[Interobserver variation of spontaneous venous pulse in the retina (letter)] Ortin Castaño A, et al. **Neurologia** 1999 Mar; 14(3):140 **(Spa)**

PULSE

Changes of pulse rate and skin temperature evoked by electroacupuncture stimulation with different frequency on both Zusanli acupoints in humans. Hsieh CL, et al. **Am J Chin Med** 1999;27(1):11–8

Aortic and radial pulse contour: different effects of nitroglycerin and prostacyclin. Söderström S, et al. **Anesth Analg** 1999 Sep;89(3):566–72

Positive association between resting pulse and cancer incidence in current and former smokers. Cerhan JR, et al. **Ann Epidemiol** 1999 Jan;9(1):34–44 (31 ref.)

Field triage of the pulseless trauma patient. Battistella FD, et al. **Arch Surg** 1999 Jul;134(7):742–5; discussion 745–6

Detection of total assist and sucking points based on pulsatility of a continuous flow artificial heart: in vitro evaluation. Araki K, et al. **ASAIO J** 1998 Sep–Oct; 44(5):M708–11

Detection of total assist and sucking points based on the pulsatility of a continuous flow artificial heart: in vivo evaluation. Oshikawa M, et al. **ASAIO J** 1998 Sep–Oct; 44(5):M704–7

The significance of right-sided pulsus alternans [editorial; comment] Cheng TO. **Catheter Cardiovasc Interv** 1999 Jul; 47(3):340. Comment on: Catheter Cardiovasc Interv 1999 Jul;47(3):336–9.

Right-sided pulsus alternans in diastolic left ventricular dysfunction [see comments] Ilia R, et al. **Catheter Cardiovasc Interv** 1999 Jul;47(3):336–9 (10 ref.). Comment in: Catheter Cardiovasc Interv 1999 Jul;47(3):340.

Association between local pulse pressure, mean blood pressure, and large-artery remodeling. Boutouyrie P, et al. **Circulation** 1999 Sep 28;100(13):1387–93

Is pulse pressure useful in predicting risk for coronary heart Disease? The Framingham heart study. Franklin SS, et al. **Circulation** 1999 Jul 27;100(4):354–60

Central pulse pressure is a major determinant of ascending aorta dilation in Marfan syndrome. Jondeau G, et al. **Circulation** 1999 May 25;99(20):2677–81

Relative bradycardia is not a feature of enteric fever in children. Davis TM, et al. **Clin Infect Dis** 1999 Mar; 28(3):582–6

The revival of heart rate [editorial] Ferrari R, et al. **Eur Heart J** 1999 Jun;20(12):853–4

Preoperative prediction of graft patency for infrapopliteal arterial bypass using pulse-generated runoff. Harris RA, et al. **Eur J Vasc Endovasc Surg** 1999 May;17(5):429–33

Value of beat-to-beat blood pressure changes, detected by pulse transit time, in the management of the obstructive sleep apnoea/hypopnoea syndrome. Pitson DJ, et al. **Eur Respir J** 1998 Sep;12(3):685–92

Dicrotic pulse observed in a patient with prolapse of the aortic valve without aortic regurgitation. Moriya S, et al. **Heart Vessels** 1997;12(5):250–2

Muscular strength training is associated with low arterial compliance and high pulse pressure. Bertovic DA, et al. **Hypertension** 1999 Jun;33(6):1385–91

Aortic pulse wave velocity as a marker of cardiovascular risk in hypertensive patients. Blacher J, et al. **Hypertension** 1999 May;33(5):1111–7

Isolated systolic hypertension : prognostic information provided by pulse pressure. Domanski MJ, et al. **Hypertension** 1999 Sep;34(3):375–80

Age-related abnormalities in arterial compliance identified by pressure pulse contour analysis: aging and arterial compliance. McVeigh GE, et al. **Hypertension** 1999 Jun; 33(6):1392–8

Pulse pressure: Is this a clinically useful risk factor? [editorial] O'Rourke M, et al. **Hypertension** 1999 Sep;34(3):372–4

Diminished wave reflection in the aorta. A novel physiological action of insulin on large blood vessels. Westerbacka J, et al. **Hypertension** 1999 May;33(5):1118–22

Pulse analysis of patients with severe liver problems. Studying pulse spectrums to determine the effects on other organs. Lu WA, et al. **IEEE Eng Med Biol Mag** 1999 Jan–Feb;18(1):73–5

Dicrotic notch in females [letter] Hussain S, et al. **Indian J Physiol Pharmacol** 1998 Jul;42(3):421–2

Improved systolic function after PTCA can be estimated by femoral arterial Doppler. Cieslinski G, et al. **Int J Cardiol** 1998 Sep 1;66(1):23–9

Influence of captopril, propranolol, and verapamil on arterial pulse wave velocity and other cardiovascular parameters in healthy volunteers. Kähönen M, et al. **Int J Clin Pharmacol Ther** 1998 Sep;36(9):483–9

The effects of repeated occlusion measurement on blood pressure and pulse rate. Tomaka J, et al. **Int J Psychophysiol** 1998 Nov;30(3):353–8

Takayasu arteritis--beyond pulselessness. Numano F, et al. **Intern Med** 1999 Mar;38(3):226–32 (41 ref.)

Physical finding: pulsus alternans. Talley JD. **J Ark Med Soc** 1999 May;95(12):541–2

Differences between ECG and pulse when measuring heart rate and reactivity under two physical and two psychological stressors. Sharpley CF, et al. **J Behav Med** 1999 Jun;22(3):285–301

Comparison of cardiac output assessed by pulse-contour analysis and thermodilution in patients undergoing minimally invasive direct coronary artery bypass grafting. Buhre W, et al. **J Cardiothorac Vasc Anesth** 1999 Aug; 13(4):437–40

Pulse wave analysis and arterial stiffness. Wilkinson IB, et al. **J Cardiovasc Pharmacol** 1998;32 Suppl 3:S33–7 (35 ref.)

Preoperative pulse wave velocity fails to predict hemodynamic responses to anesthesia and to surgical stimulation. Nakata Y, et al. **J Clin Anesth** 1999 Jun; 11(4):285–9

Hepatic arterial pulsatility index in cirrhosis: correlation with portal pressure. Schneider AW, et al. **J Hepatol** 1999 May; 30(5):876–81

Pulse pressure as a risk factor for cardiovascular events in the MRC Mild Hypertension Trial. Millar JA, et al. **J Hypertens** 1999 Aug;17(8):1065–72

Influence of arterial pulse and reflective waves on systolic blood pressure and cardiac function. London GM, et al. **J Hypertens Suppl** 1999 Jun;17(2):S3–6 (13 ref.)

Hypertension corner. Wide pulse pressure: diagnostic, prognostic and therapeutic implications [editorial] Birbari AE. **J Med Liban** 1998 Nov–Dec;46(6):303–5 (22 ref.)

Atrial fibrillation [letter] Baxter J, et al. **Lancet** 1998 Dec 5;352(9143):1858

Changes in pulse rate among the civilian population during air-raid alerts in the city of Zagreb. Gregurek R, et al. **Mil Med** 1998 Dec;163(12):850–2

Images in clinical medicine. Pulsus alternans. McLaughlin DP. **N Engl J Med** 1999 Sep 23;341(13):955

Modelling the relationship between peripheral blood pressure and blood volume pulses using linear and neural network system identification techniques. Allen J, et al. **Physiol Meas** 1999 Aug;20(3):287–301

Competence of health professionals to check the carotid pulse. Ochoa FJ, et al. **Resuscitation** 1998 Jun;37(3):173–5

Pulse transit time: an appraisal of potential clinical applications. Smith RP, et al. **Thorax** 1999 May;54(5):452–7 (27 ref.)

[Clinical importance of fetal pulse oximetry. I. Methodological evaluation. Multicenter study. French Study Group on Oximetry of Fetal Pulse] Goffinet F, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Feb; 28(1):31–40 (Eng. Abstr.) **(Fre)**

[Separating elastic, flow and velocity work and work of smooth musculature of the peripheral arterial pulse of the human] Bendel U, et al. **Biomed Tech (Berl)** 1998;43 Suppl:316–7 **(Ger)**

[Exposed superior bulb of the internal jugular vein. Differential hearing loss diagnosis with pulse synchronous tinnitus] Tisch M, et al. **HNO** 1998 Nov;46(11):944–6 (Eng. Abstr.) **(Ger)**

[Peak pulse blood volume and topical antiglaucoma drugs in rhesus monkeys with experimental open angle glaucoma] Schmidt KG, et al. **Klin Monatsbl Augenheilkd** 1998 Dec; 213(6):341–6 (Eng. Abstr.) **(Ger)**

[Peak pulse blood volume in controlled modification of local perfusion parameters] Schmidt KG, et al. **Klin Monatsbl Augenheilkd** 1998 Dec;213(6):347–50 (Eng. Abstr.) **(Ger)**

[Assessment of diabetic cardiovascular autonomic neuropathy by heart rate variability and pulse wave velocity] Matsuto T, et al. **Rinsho Byori** 1998 Oct; 46(10):1037–42 (Eng. Abstr.) **(Jpn)**

PULSE

[Reduced pulsatility index and elevated ankle systolic pressure as a risk factor for foot ulceration in diabetic patients with autonomic neuropathy] Dzieciuchowicz L, et al. **Wiad Lek** 1999;52(1-2):11-8 (Eng. Abstr.) **(Pol)**

[Parameters of variation pulsometry, Q-T interval dispersion and frequency of occurrence of late potentials in acute myocardial infarction] Popov vV, et al. **Klin Med (Mosk)** 1998;76(12):35-9 (Eng. Abstr.) **(Rus)**

[Computer-assisted diagnostic system based on the analysis of the rhythmic pattern of a radial artery pulse signal] Desova AA, et al. **Med Tekh** 1999 Mar-Apr;(2):3-5 (Eng. Abstr.) **(Rus)**

[Provocation and measurement of retrograde pulsatile wave velocity in normal subjects and patients with systemic hypertension] Sánchez Torres G, et al. **Arch Inst Cardiol Mex** 1999 Jan-Feb;69(1):47-54 (Eng. Abstr.) **(Spa)**

METHODS

Distal pulse palpation: is it reliable? Lundin M, et al. **World J Surg** 1999 Mar;23(3):252-5

PULSE OXIMETRY see **OXIMETRY**

PULSED DYE LASER LITHOTRIPSY see **LITHOTRIPSY, LASER**

PULSELESS DISEASE see **TAKAYASU'S ARTERITIS**

PUMPING, INTRA-AORTIC BALLOON see **INTRA-AORTIC BALLOON PUMPING**

PUMPKINS see **CUCURBITACEAE**

PUMPS, HEART-ASSIST see **HEART-ASSIST DEVICES**

PUMPS, INFUSION see **INFUSION PUMPS**

PUNCTURE BIOPSY see **BIOPSY, NEEDLE**

PUNCTURES

see related
PARACENTESIS

Is skin puncture beneficial prior to arterial catheter insertion? Bhardwaj D, et al. **Can J Anaesth** 1999 Feb;46(2):129-32

Bedside transseptal balloon dilation atrial septostomy for decompression of the left heart during extracorporeal membrane oxygenation. Johnston TA, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):197-9

Blade and balloon atrial septostomy for left heart decompression in patients with severe ventricular dysfunction on extracorporeal membrane oxygenation. Seib PM, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):179-86

Evaluation of patient-related and procedure-related factors contributing to pneumothorax following thoracentesis. Colt HG, et al. **Chest** 1999 Jul;116(1):134-8

The pneumoperitoneum and its role in tumor seeding. Reymond MA, et al. **Dig Surg** 1998;15(2):105-9 (48 ref.)

Pneumatosis cystoides intestinalis: confirmation of diagnosis by endoscopic puncture a review of pathogenesis, associated disease and therapy and a new theory of cyst formation. Höer J, et al. **Endoscopy** 1998 Nov;30(9):793-9 (83 ref.)

Percutaneous fenestration of the aortic dissection membrane in malperfusion syndrome. Reber D, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):91-4

First clinical evaluation of a new concept for puncture-site occlusion in interventional cardiology and angioplasty. Illi OE, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):220-3

Epiphora: a quick fix? Sadiq SA, et al. **Eye** 1998;12 (Pt 3a):417-8

A few piercing thoughts [editorial] [see comments] Meskin LH. **J Am Dent Assoc** 1998 Nov;129(11):1519-20. Comment in: J Am Dent Assoc 1999 Jan;130(1):16.

A piercing issue [letter; comment] Tanchyk A. **J Am Dent Assoc** 1999 Jan;130(1):16. Comment on: J Am Dent Assoc 1998 Nov;129(11):1519-20.

Circular spirit level guidance system for CT- and MR-guided punctures. Buecker A, et al. **J Comput Assist Tomogr** 1999 Jul-Aug;23(4):552-4

Long-term outcome of transurethral puncture of ectopic ureteroceles: initial success and late problems. Jayanthi VR, et al. **J Urol** 1999 Sep;162(3 Pt 2):1077-80

US-guided puncture of the internal jugular vein: an unexpected anatomic relationship [letter; comment] Ferral H. **J Vasc Interv Radiol** 1998 Sep-Oct;9(5):854-5. Comment on: J Vasc Interv Radiol 1998 Mar-Apr;9(2):333-8.

Puncture-induced deformity of a metallic stent within a dialysis access graft causing thrombotic failure: case report and description of salvage. Lane JD, et al. **J Vasc Interv Radiol** 1998 Sep-Oct;9(5):837-9

Extravasation from power injection near previous arteriotomy site: a case for caution [letter] Marx M, et al. **J Vasc Interv Radiol** 1998 Sep-Oct;9(5):857-8

The cephalic vein cutdown versus subclavian puncture for pacemaker/ICD lead implantation [editorial] Parsonnet V, et al. **Pacing Clin Electrophysiol** 1999 May;22(5):695-7 (17 ref.)

Single-puncture laparoscopic gastrostomy in children. Mikaelsson C, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):43-4

[Simple puncture versus trocar puncture biopsy for the bacterial diagnostic evaluation of osteoarticular infections. A prospective study of 54 cases] Piriou P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Nov; 84(8):685-8 (Eng. Abstr.) **(Fre)**

[Puncture, catheterization and drainage. 1] Straubel U, et al. **Zentralbl Chir** 1998;123(8):955-65 (0 ref.) **(Ger)**

[Experience of coronary and great vessel angiography by transradial puncture] Makino K, et al. **J Cardiol** 1998 Jul; 32(1):9-14 (Eng. Abstr.) **(Jpn)**

[Puncture of liver cystic masses and abscesses] Nishanov KT, et al. **Khirurgiia (Mosk)** 1999;(3):12-4 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Treatment for postdural puncture headache associated with late postpartum eclampsia. Van de Velde M, et al. **Acta Anaesthesiol Belg** 1999;50(2):99-102

Abdominal wall metastatic tumor seeding along a percutaneous abscess drainage tract. Soyer P, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1643-4

Tongue piercing: case report and review of current practice. Farah CS, et al. **Aust Dent J** 1998 Dec;43(6):387-9

Body piercing: an unusual cause of priapism. Slawik S, et al. **BJU Int** 1999 Aug;84(3):377

Tetanus associated with body piercing [letter; comment] O'Malley CD, et al. **Clin Infect Dis** 1998 Nov;27(5):1343-4 . Comment on: Clin Infect Dis 1998 Mar;26(3):735-40.

Influence of anaesthetic agent on limb abnormalities observed following amniotic sac puncture. Kaufman MH, et al. **Eur J Morphol** 1998 Dec;36(4-5):217-26

Nickel allergy and its relationship with local nickel pollution, ear piercing, and atopic dermatitis: a population-based study from Norway. Smith-Sivertsen T, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):726-35

Tongue piercing and associated tooth fracture. Botchway C, et al. **J Can Dent Assoc** 1998 Dec;64(11):803-5 (9 ref.)

Intrahepatic artery pseudoaneurysm: a possible complication of blind thoracentesis. Zironi G, et al. **J Clin Ultrasound** 1999 Mar-Apr;27(3):151-5

Management of pain from heel lance with lidocaine-prilocaine (EMLA) cream: is it safe and efficacious in preterm infants? Stevens B, et al. **J Dev Behav Pediatr** 1999 Aug;20(4):216-21

Body piercing medical concerns with cutting-edge fashion. Koenig LM, et al. **J Gen Intern Med** 1999 Jun;14(6):379-85 (77 ref.)

Femoral vein pseudoaneurysm: uncommon complication of femoral vein puncture. Salour M, et al. **J Ultrasound Med** 1998 Sep;17(9):577-9

Transeptal approach to ablation of left-sided arrhythmias does not lead to persisting interatrial shunt: a transesophageal echocardiographic study. Fitchet A, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 1):2070-2

Relative efficacy of amethocaine gel and lidocaine-prilocaine cream for Port-a-Cath puncture in children. Bishai R, et al. **Pediatrics** 1999 Sep;104(3):e31

[Peridural abscess complicating spinal anesthesia in a diabetic patient] Popesco D, et al. **Ann Fr Anesth Reanim** 1997; 16(8):964-6 (Eng. Abstr.) **(Fre)**

[The bleeding risk of arterial puncture during anticoagulation] Schieber M, et al. **Dtsch Med Wochenschr** 1999 Apr 9;124(14):441 **(Ger)**

[Accidental catheterization of the subdural space. Confirmation by radiological study] Tornero Tornero JC, et al. **Rev Esp Anestesiol Reanim** 1999 Mar;46(3):126-9 (Eng. Abstr.) **(Spa)**

HISTORY

[The first pericardial punctures in America] Quijano-Pitman F. **Gac Med Mex** 1999 Mar-Apr;135(2):199 **(Spa)**

INSTRUMENTATION

Endovascular treatment of basilar tip aneurysms after direct puncture of the vertebral artery. Weill A, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1554-6

Thoracic Surgery Directors Association Award. Angiogenesis in transmyocardial revascularization: comparison of laser versus mechanical punctures. Chu VF, et al. **Ann Thorac Surg** 1999 Aug;68(2):301-7; discussion 307-8

Use of a puncture needle for recanalization of an occluded right subclavian vein. Gupta H, et al. **Cardiovasc Intervent Radiol** 1998 Nov-Dec;21(6):508-11

Use of endoscopic trocar-cannula for chest drain insertion in trauma patients and others. Waksman I, et al. **J Trauma** 1999 May;46(5):941-3

Sharp recanalization of central venous occlusions. Farrell T, et al. **J Vasc Interv Radiol** 1999 Feb;10(2 Pt 1):149-54

Sharp recanalization of central venous occlusions [letter] Murphy TP. **J Vasc Interv Radiol** 1999 Sep;10(8):1131

Piercing of the glans penis. Hansen RB, et al. **Scand J Urol Nephrol** 1998 May;32(3):219-20

[Percutaneous CT-controlled puncture and drainage of spondylodiscitis--a minimally invasive method] Weber M, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug;136(4):375-9 (Eng. Abstr.) **(Ger)**

[Puncture, catheterization and drainage. 2] Straubel U, et al. **Zentralbl Chir** 1998;123(9):1043-53 (22 ref.) **(Ger)**

[An instrument for intraosseous punctures] Strelkov NS, et al. **Med Tekh** 1999 Jul-Aug;(4):35-7 (Eng. Abstr.) **(Rus)**

METHODS

A new method of thoracocentesis using CT guidance in patients with a small amount of pleural fluid. Yoshitomo S, et al. **Cardiovasc Intervent Radiol** 1999 May-Jun; 22(3):260-1

Real-time MR-guided joint puncture and arthrography: preliminary results. Hilfiker PR, et al. **Eur Radiol** 1999; 9(2):201-4

A simple technique for ear piercing. Landeck A, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):795-6

Hepatic hydatid cysts: sonographic follow-up after percutaneous sonographically guided aspiration. Salama HM, et al. **J Clin Ultrasound** 1998 Nov-Dec;26(9):455-60

Direct percutaneous approach to the upper pole of the kidney: MR1 anatomy with assessment of the visceral risk. Robert M, et al. **J Endourol** 1999 Feb;13(1):17-20

The apex-puncture technique for mechanical thrombolysis of loop hemodialysis grafts. Hathaway PB, et al. **J Vasc Interv Radiol** 1999 Jun;10(6):775-9

Influence of different trocar tips on abdominal wall penetration during laparoscopy. Böhm B, et al. **Surg Endosc** 1998 Dec;12(12):1434-8

Transrectal puncture and drainage of seminal vesicle abscess. Kerbl K, et al. **Tech Urol** 1998 Sep;4(3):169-71

[Study on Servo-null method for direct measurement of microvascular pressure by micropuncture technique] Jin Z, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):83-5 (Eng. Abstr.) **(Chi)**

[Endosonography-guided puncture: useful or dangerous?] Napoléon B. **Gastroenterol Clin Biol** 1999 May;23(5):459-62 (20 ref.) **(Fre)**

[Ultrasonography guided versus anatomically oriented puncture of the internal jugular vein for central venous catheterization] Böck U, et al. **Ultraschall Med** 1999 Jun; 20(3):98-103 (Eng. Abstr.) **(Ger)**

[The puncture and catheterization of the peripheral vessels using ultrasonic scanning] Demidov IN, et al. **Vestn Rentgenol Radiol** 1998 Jul-Aug;(4):19-22 (Eng. Abstr.) **(Rus)**

VETERINARY

A new technique: serial puncture of the cisterna magna for obtaining cerebrospinal fluid in the mouse--application in a model of herpes simplex virus encephalitis. Meyding-Lamadé U, et al. **J Exp Anim Sci** 1996-97; 38(2):77-81

PUNISHMENT

Punishment for unethical behavior in the conduct of research. Wenger NS, et al. **Acad Med** 1998 Nov;73(11):1187-94

Maternal disciplinary practices in an at-risk population. Socolar RR, et al. **Arch Pediatr Adolesc Med** 1999 Sep; 153(9):927-34

Evaluating the success of Sweden's corporal punishment ban. Durrant JE. **Child Abuse Negl** 1999 May;23(5):435-48

Attitudes of Kuwaiti parents toward physical punishment of children. Qasem FS, et al. **Child Abuse Negl** 1998 Dec; 22(12):1189-202

Predictors of parents' physical disciplinary practices. Rodriguez CM, et al. **Child Abuse Negl** 1999 Jul;23(7):651-7

Children experiencing violence. I: Parental use of corporal punishment. Youssef RM, et al. **Child Abuse Negl** 1998 Oct; 22(10):959-73

Children experiencing violence. II: Prevalence and determinants of corporal punishment in schools. Youssef RM, et al. **Child Abuse Negl** 1998 Oct;22(10):975-85

Further analysis of the separate and interactive effects of methylphenidate and common classroom contingencies. Northup J, et al. **J Appl Behav Anal** 1999 Spring;32(1):35-50

Parity of mental illness, disparity for the mental patient [letter; comment] Hemmings G. **Lancet** 1999 Jan 2; 353(9146):73; discussion 74. Comment on: Lancet 1998 Oct 10;352(9135):1213-5.

Parity of mental illness, disparity for the mental patient [letter; comment] Joy M. **Lancet** 1999 Jan 2;353(9146):73; discussion 74. Comment on: Lancet 1998 Oct 10;352(9135):1213-5.

US military face punishment for refusing anthrax vaccine [news] Morris K. **Lancet** 1999 Jan 9;353(9147):130

To spank or not to spank [letter; comment] Larzelere RE. **Pediatrics** 1999 Mar;103(3):696-7; discussion 697-8. Comment on: Pediatrics 1998 Apr;101(4 Pt 1):723-8.

To spank or not to spank [letter; comment] Trumbull DA. **Pediatrics** 1999 Mar;103(3):696; discussion 697-8. Comment on: Pediatrics 1998 Apr;101(4 Pt 1):723-8.

Level of punishment determines anticonflict activity of ondansetron in pigeons: comparison with buspirone and diazepam. Castejón AM, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):451-7

Effects of benzodiazepine agonists on punished responding in pigeons and their relationship with clinical doses in humans. Kleven MS, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):206-12

[Drug-addicted students: instead of jail, delay of driver's licence (letter)] Szabó G. **Orv Hetil** 1999 Mar 14; 140(11):625 **(Hun)**

PSYCHOLOGY

On the culture of student abuse in medical school. Kassebaum

DG, et al. **Acad Med** 1998 Nov;73(11):1149–58
Impulsive corporal punishment by mothers and antisocial behavior and impulsiveness of children. Straus MA, et al. **Behav Sci Law** 1998 Summer;16(3):353–74
Effects of parental verbal aggression on children's self-esteem and school marks. Solomon CR, et al. **Child Abuse Negl** 1999 Apr;23(4):339–51
Antipunishment activity of diazepam in rats trained to discriminate diazepam from vehicle. Wiley JL, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):13–9
Self-reported impulsivity is correlated with laboratory-measured escape behavior. Bjork JM, et al. **J Gen Psychol** 1998 Apr;125(2):165–74

PUPA

Authentication of two cell lines developed from the larval and pupal ovaries of Spodoptera litura by rRNA based methods [letter] Shouche YS, et al. **In Vitro Cell Dev Biol Anim** 1999 May;35(5):244–5

ENZYMOLOGY

The Drosophila melanogaster-related angiotensin-I-converting enzymes Acer and Ance--distinct enzymic characteristics and alternative expression during pupal development. Houard X, et al. **Eur J Biochem** 1998 Nov 1;257(3):599–606

PHYSIOLOGY

Respecified larval proleg and body wall muscles circulate hemolymph in developing wings of Manduca sexta pupae. Lubischer JL, et al. **J Exp Biol** 1999 Apr;202 (Pt 7):787–96

PUPIL

see related
MIOTICS
MYDRIATICS
REFLEX, PUPILLARY

Hyphema associated with pupillary dilation in a patient with exfoliation glaucoma and warfarin therapy. Greenfield DS, et al. **Am J Ophthalmol** 1999 Jul;128(1):98–100
Robust pupil center detection using a curvature algorithm. Zhu D, et al. **Comput Methods Programs Biomed** 1999 Jun; 59(3):145–57
Efficiency of pupillary stretching in cataract surgery. Bacskulin A, et al. **Eur J Ophthalmol** 1998 Oct-Dec; 8(4):230–3
An anisocoria produces a small relative afferent pupillary defect in the eye with the smaller pupil. Lam BL, et al. **J Neuroophthalmol** 1999 Sep;19(3):153–9
Monomanual pupil stretcher. Barboni P, et al. **Ophthalmic Surg Lasers** 1998 Sep;29(9):772–3
New iris retractor for pupil dilatation during anterior vitrectomy: double-hook iris retractor. Kadonosono K, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):241–3
Endothelial corneal damage after neodymium:YAG laser treatment: pupillary membranectomies, iridotomies, capsulotomies. Kozobolis VP, et al. **Ophthalmic Surg Lasers** 1998 Oct;29(10):793–802
Routine dilated fundus examination diagnostic yield [letter; comment] Henning K, et al. **Ophthalmology** 1998 Nov; 105(11):1983–5. Comment on: Ophthalmology 1998 Feb;105(2):382–6.
Agreement and repeatability of infrared pupillometry and the comparison method. Wachler BS, et al. **Ophthalmology** 1999 Feb;106(2):319–23
Optic disc topographic measurements after pupil dilation. Zangwill LM, et al. **Ophthalmology** 1999 Sep;106(9):1751–5
Commentary. Pupillary dilation by pediatricians. Metz TH Jr, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):958–60
Analysis of the factors affecting decentration in photorefractive keratectomy and laser in situ keratomileusis for myopia. Lee JB, et al. **Yonsei Med J** 1999 Jun; 40(3):221–5
[Penetrating keratoplasty combined with pupilloplasty] Gong X, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):201–3 (Eng. Abstr.) **(Chi)**
[Hyperplastic persistent pupillary membrane--surgical procedure] Meier P, et al. **Klin Monatsbl Augenheilkd** 1999 Apr;214(4):255–7 (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Pupillographic, tonographic and refractive parameter changes after topical instillation of Brimonidine tartrate 0.2% in healthy subjects. Brogliatti B, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):34–5
Psychophysiological diagnostics in alcohol dependency: Fourier analysis of pupillary oscillations and the receptor test for determination of cholinergic deficiency. Grünberger J, et al. **Alcohol Alcohol** 1998 Sep-Oct; 33(5):541–8
Normal variation in, and effect of 2% pilocarpine on, intraocular pressure and pupil size in female horses. van der Woerdt A, et al. **Am J Vet Res** 1998 Nov; 59(11):1459–62
Fully dilated, nonreactive pupils during cardiac anesthesia [letter] Hegi TR, et al. **Anesth Analg** 1999 Jul;89(1):265
Vecuronium dose requirement and pupillary response in a patient with olivopontocerebellar atrophy (OPCA). Kuroda M, et al. **Can J Anaesth** 1998 Oct;45(10):979–84
Mechanisms underlying the neurogenic relaxation of isolated porcine sphincter pupillae. Toda M, et al. **Exp Eye Res** 1999 Apr;68(4):505–12
Can I drive after those drops, doctor? Watts P, et al. **Eye** 1998;12 (Pt 6):963–6
The relationship between pupil diameter and pain by the administration of morphine and antidepressant drugs in mice. Onal A, et al. **Gen Pharmacol** 1999 Jul;33(1):83–9
Effects of dipivefrin and pilocarpine on pupil diameter, automated perimetry and LogMAR acuity. Edgar DF, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):117–24
Effects of tobacco smoking on the human pupil. Lie TC, et al. **Int J Clin Pharmacol Ther** 1999 Apr;37(4):184–8
Measurement of aqueous humor flow by fluorophotometry in the presence of a dilated pupil. Maus TL, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):542–6
Latrunculin-A causes mydriasis and cycloplegia in the cynomolgus monkey. Peterson JA, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):631–8
Visual acuity after cycloplegia in children: implications for atropine penalization. Wallace DK. **J Aapos** 1999 Aug; 3(4):241–4
Reversal of intraocular pressure increases with 0.5% apraclonidine after dilated fundus examination in patients with chronic open-angle glaucoma. Nishimoto JH, et al. **J Am Optom Assoc** 1999 Apr;70(4):233–9
Effect of lidocaine on photophobia [letter] Brierley L. **J Cataract Refract Surg** 1999 Sep;25(9):1177
Comparison of the effectiveness of 4 anti-inflammatory drops in relieving photophobia after pupil dilation. McDonald MB, et al. **J Cataract Refract Surg** 1999 Mar;25(3):405–10
Effect of pupillary dilation on retinal nerve fiber layer thickness as measured by scanning laser polarimetry in eyes with and without cataract. Hoh ST, et al. **J Glaucoma** 1999 Jun;8(3):159–63
Pupil assay and Alzheimer's disease: a critical analysis [letter; comment] Scinto LF, et al. **Neurology** 1999 Feb;52(3):673–4 . Comment on: Neurology 1998 Mar;50(3):588–91.
Is videopupillography useful in diagnosing Alzheimer's disease? [letter; comment] Verghese J. **Neurology** 1999 Feb; 52(3):674–5. Comment on: Neurology 1998 Mar;50(3):588–91. Comment on: Neurology 1998 Mar;50(3):642–4.
Receptor test (pupillary dilatation after application of 0.01% tropicamide solution) and determination of central nervous activation (Fourier analysis of pupillary oscillations) in patients with Alzheimer's disease. Grünberger J, et al. **Neuropsychobiology** 1999;40(1):40–6
Pupil dilation using phenylephrine alone or in combination with tropicamide [letter; comment] Fraunfelder FT. **Ophthalmology** 1999 Jan;106(1):4. Comment on: Ophthalmology 1998 Apr;105(4):726–32.
The clinical efficacy of paremyd with and without dapiprazole in subjects with light and dark brown irides. Anicho UM, et al. **Optom Vis Sci** 1999 Feb;76(2):94–101
Index of suspicion. Case 3. Atropine sulfate poisoning. Spitzer JJ. **Pediatr Rev** 1999 Feb;20(2):53, 55
[Bioactivity and effect of a mixture of pilocarpine and lysine on the pupil and intraocular pressure in rabbits] Veselovský J, et al. **Cesk Slov Oftalmol** 1998 Nov;54(6):353–61 (Eng. Abstr.) **(Slo)**

PHYSIOLOGY

Ultrasound biomicroscopic quantitative analysis of light-dark changes associated with pupillary block [letter; comment] Tiedeman JS. **Am J Ophthalmol** 1999 Jul;128(1):123–4. Comment on: Am J Ophthalmol 1999 Jan;127(1):43–7.
Ultrasound biomicroscopic quantitative analysis of light-dark changes associated with pupillary block [see comments] Woo EK, et al. **Am J Ophthalmol** 1999 Jan;127(1):43–7. Comment in: Am J Ophthalmol 1999 Jul;128(1):123–4.
Interpupillary distance in a normal black population. Pivnick EK, et al. **Clin Genet** 1999 Mar;55(3):182–91
Pupillometric changes during gradual opiate detoxification correlate with changes in symptoms of opiate withdrawal as measured by the Weak Opiate Withdrawal Scale. Rosse RB, et al. **Clin Neuropharmacol** 1998 Sep-Oct;21(5):312–5
The influence of iris color on the pupillary light reflex. Bergamin O, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):567–70
Pupillographic sleepiness testing in hypersomniacs and normals. Wilhelm H, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):725–9
Comparing pupil function with visual function in patients with Leber's hereditary optic neuropathy. Bremner FD, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2528–34
Preoperative measurement of scotopic pupil dilation using an office pupillometer. Colvard M. **J Cataract Refract Surg** 1998 Dec;24(12):1594–7
Role of clearance and treatment zones in contrast sensitivity: significance in refractive surgery. Wachler BS, et al. **J Cataract Refract Surg** 1999 Jan;25(1):16–23
Pupillographic findings in neglect. Kim M, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):82–5
Pupillary functions after cataract surgery using flexible iris retractor in patients with small pupil. Yuguchi T, et al. **Jpn J Ophthalmol** 1999 Jan-Feb;43(1):20–4
Brain stem blood flow, pupillary response, and outcome in patients with severe head injuries. Ritter AM, et al. **Neurosurgery** 1999 May;44(5):941–8
Evaluation of the pinhole pupillometer. German EJ, et al. **Ophthalmic Physiol Opt** 1998 Nov;18(6):484–94
A study of the accuracy of corneal reflection pupillometers. Obstfeld H, et al. **Ophthalmic Physiol Opt** 1998 Nov; 18(6):527–31
Effect of yellow filters on pupil size. Chung ST, et al. **Optom Vis Sci** 1999 Jan;76(1):59–62
Accommodation and pupillary response in early-onset myopia among schoolchildren. Woung LC, et al. **Optom Vis Sci** 1998 Aug;75(8):611–6
The unseen color aftereffect of an unseen stimulus: insight from blindsight into mechanisms of color afterimages. Barbur JL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28; 96(20):11637–41
Phasic pupil dilation response to noxious stimulation in normal volunteers: relationship to brain evoked potentials and pain report. Chapman CR, et al. **Psychophysiology** 1999 Jan;36(1):44–52
The pupil response of a teleost fish, Porichthys notatus: description and comparison to other species. Douglas RH, et al. **Vision Res** 1998 Sep;38(18):2697–710
Pupil responses to stimulus color, structure and light flux increments in the rhesus monkey. Gamlin PD, et al. **Vision Res** 1998 Nov;38(21):3353–8
S-cone contribution to pupillary responses evoked by chromatic flash offset. Kimura E, et al. **Vision Res** 1999 Mar;39(6):1189–97
Mathematical procedures in data recording and processing of pupillary fatigue waves. Lüdtke H, et al. **Vision Res** 1998 Oct;38(19):2889–96

PUPIL NURSES see **STUDENTS, NURSING**

PUPIL, TONIC see **TONIC PUPIL**

PUPILLARY FUNCTIONS, ABNORMAL

DIAGNOSIS

Combined evaluation of pupillary and cardiovascular responses to cold pressor test in cluster headache patients. Tassorelli C, et al. **Cephalalgia** 1998 Dec;18(10):668–74
Neuro-ophthalmology of pupillary function--practical guidelines. Wilhelm H. **J Neurol** 1998 Sep;245(9):573–83 (70 ref.)

ETIOLOGY

A relative afferent pupillary defect without any visual sensory deficit. Girkin CA, et al. **Arch Ophthalmol** 1998 Nov;116(11):1544–5
Interpretation of the dilated pupil during endoscopic sinus surgery. Mason JD, et al. **J Laryngol Otol** 1998 Jul; 112(7):622–7
[Internal ophthalmoplegia: a rare complication of varicella (letter; comment)] Moros Peña M, et al. **Rev Neurol** 1999 Jan 16-31;28(2):218. Comment on: Rev Neurol 1997 Jul;25(143):1066–7. **(Spa)**

PHYSIOPATHOLOGY

Pituitary apoplexy after cardiac surgery presenting as deep coma with dilated pupils. Wiesmann M, et al. **Acta Anaesthesiol Scand** 1999 Feb;43(2):236–8
Ultrasound biomicroscopic quantitative analysis of light-dark changes associated with pupillary block [letter; comment] Tiedeman JS. **Am J Ophthalmol** 1999 Jul;128(1):123–4. Comment on: Am J Ophthalmol 1999 Jan;127(1):43–7.
Comparing pupil function with visual function in patients with Leber's hereditary optic neuropathy. Bremner FD, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2528–34

SURGERY

[Holzwig iris retractor and use in narrow pupils] Holzwig DH. **Klin Monatsbl Augenheilkd** 1998 Jul;213(1):45–7 (Eng. Abstr.) **(Ger)**
[Partial sphincterectomy in cataract surgery. Clinical and patho-histologic results] Pham DT, et al. **Ophthalmologe** 1998 Sep;95(9):635–8 (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Ultrasound biomicroscopic quantitative analysis of light-dark changes associated with pupillary block [see comments] Woo EK, et al. **Am J Ophthalmol** 1999 Jan;127(1):43–7. Comment in: Am J Ophthalmol 1999 Jul;128(1):123–4.

PUPPET CHILDREN see **ANGELMAN SYNDROME**

PUPPETS see **PLAY AND PLAYTHINGS**

PURCHASE, DENTAL PRACTICE see **PRACTICE VALUATION AND PURCHASE**

PURCHASE, MEDICAL PRACTICE see **PRACTICE VALUATION AND PURCHASE**

PURCHASING, HOSPITAL

see related
EQUIPMENT AND SUPPLIES, HOSPITAL

Let's talk about purchasing power. Seifert PC. **AORN J** 1999 Jun;69(6):1092–5

PURCHASING, HOSPITAL

ECONOMICS

The costs of healthcare worker respiratory protection and fit-testing programs [see comments] Kellerman SE, et al. **Infect Control Hosp Epidemiol** 1998 Sep;19(9):629-34. Comment in: Infect Control Hosp Epidemiol 1998 Sep;19(9):626-8.

STANDARDS

Shopping in the healthcare information systems market--a search for well-camouflaged land mines. Grams RR. **J Med Syst** 1998 Oct;22(5):315-23

PURE RED-CELL APLASIA see **RED-CELL APLASIA, PURE**

PURGATIVES see **CATHARTICS**

PURINE-NUCLEOSIDE PHOSPHORYLASE

ANTAGONISTS & INHIBITORS

7-Deazapurine 2'-deoxyribofuranosides are noncleavable competitive inhibitors of Escherichia coli purine nucleoside phosphorylase (PNP). Bzowska A, et al. **Acta Biochim Pol** 1998;45(3):755-68

1-Azaribofuranoside analogues as designed inhibitors of purine nucleoside phosphorylase. Synthesis and biological evaluation. Hansen SU, et al. **Acta Chem Scand** 1998 Oct; 52(10):1214-22

High IL-18 (interferon-gamma inducing factor) concentration in a purine nucleoside phosphorylase deficient patient. Yamamoto T, et al. **Arch Dis Child** 1999 Aug;81(2):179-80

Synthesis of 1,1-difluoro-5-(1H-9-purinyl)-2-pentenylphosphonic acids and the related methano analogues. Remarkable effect of the nucleobases and the cyclopropane rings on inhibitory activity toward purine nucleoside phosphorylase. Yokomatsu T, et al. **Bioorg Med Chem** 1998 Dec; 6(12):2495-505

Effects of a novel purine nucleoside phosphorylase inhibitor, BCX-34, on activation and proliferation of normal human lymphoid cells. Conry RM, et al. **Immunopharmacology** 1998 Jul;40(1):1-9

Structure-activity relationships for a class of inhibitors of purine nucleoside phosphorylase. Farutin V, et al. **J Med Chem** 1999 Jul 1;42(13):2422-31

BLOOD

Evaluation of purine nucleoside phosphorylase in rinsing effluent of porcine liver grafts before reperfusion. Mehrabi A, et al. **Transplant Proc** 1998 Nov;30(7):3711-3

CHEMISTRY

Crystallization and preliminary X-ray studies of purine nucleoside phosphorylase from Cellulomonas sp. Bzowska A, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1; 54 (Pt 5):1061-3

Purine nucleoside phosphorylase: its use in a spectroscopic assay for inorganic phosphate and for removing inorganic phosphate with the aid of phosphodeoxyribomutase. Nixon AE, et al. **Anal Biochem** 1998 Dec 15;265(2):299-307

Heterologous expression of 5'-methylthioadenosine phosphorylase from the archaeon Sulfolobus solfataricus: characterization of the recombinant protein and involvement of disulfide bonds in thermophilicity and thermostability. Cacciapuoti G, et al. **Protein Expr Purif** 1999 Jun;16(1):125-35

The structure of human 5'-deoxy-5'-methylthioadenosine phosphorylase at 1.7 A resolution provides insights into substrate binding and catalysis. Appleby TC, et al. **Structure Fold Des** 1999 Jun 15;7(6):629-41

DEFICIENCY

[PNP deficiency] Sato T, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):228-31 (16 ref.) **(Jpn)**

GENETICS

Relative efficiency of tumor cell killing in vitro by two enzyme-prodrug systems delivered by identical adenovirus vectors. Lockett LJ, et al. **Clin Cancer Res** 1997 Nov; 3(11):2075-80

In vivo gene therapy for prostate cancer: preclinical evaluation of two different enzyme-directed prodrug therapy systems delivered by identical adenovirus vectors. Martiniello-Wilks R, et al. **Hum Gene Ther** 1998 Jul 20; 9(11):1617-26

Augmentation of melanoma-specific gene expression using a tandem melanocyte-specific enhancer results in increased cytotoxicity of the purine nucleoside phosphorylase gene in melanoma. Park BJ, et al. **Hum Gene Ther** 1999 Apr 10;10(6):889-98

Thymidine kinase-deleted vaccinia virus expressing purine nucleoside phosphorylase as a vector for tumor-directed gene therapy. Puhlmann M, et al. **Hum Gene Ther** 1999 Mar 1;10(4):649-57

Homozygous deletions of methylthioadenosine phosphorylase (MTAP) are more frequent than p16INK4A (CDKN2) homozygous deletions in primary non-small cell lung cancers (NSCLC). Schmid M, et al. **Oncogene** 1998 Nov 19;17(20):2669-75

Heterologous expression of 5'-methylthioadenosine phosphorylase from the archaeon Sulfolobus solfataricus: characterization of the recombinant protein and involvement of disulfide bonds in thermophilicity and thermostability. Cacciapuoti G, et al. **Protein Expr Purif** 1999 Jun;16(1):125-35

METABOLISM

Metabolic effects of a methylthioadenosine phosphorylase substrate analog on African trypanosomes. Bacchi CJ, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):89-96

Effect of interferon-gamma on purine catabolic and salvage enzyme activities in rats. Moriwaki Y, et al. **Biochim Biophys Acta** 1999 May 24;1427(3):385-91

Use of alanosine as a methylthioadenosine phosphorylase-selective therapy for T-cell acute lymphoblastic leukemia in vitro. Batova A, et al. **Cancer Res** 1999 Apr 1;59(7):1492-7

Presence of methylthioadenosine phosphorylase (MTAP) in hematopoietic stem/progenitor cells: its therapeutic implication for MTAP (-) malignancies. Yu J, et al. **Clin Cancer Res** 1997 Mar;3(3):433-8

Isolation and characterization of mutations in the Escherichia coli regulatory protein XapR. Jørgensen C, et al. **J Bacteriol** 1999 Jul;181(14):4397-403

Studies on purine enzymes in experimental colitis. Al-Awadi FM, et al. **Mol Cell Biochem** 1999 Apr;194(1-2):17-22

Gene therapy of cancer: activation of nucleoside prodrugs with E. coli purine nucleoside phosphorylase. Secrist JA 3rd, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):745-57

Interactions of calf spleen purine nucleoside phosphorylase with antiviral acyclic nucleoside phosphonate inhibitors: kinetics and emission studies. Wierzchowski J, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):875-6

PURINE NUCLEOSIDES

BIOSYNTHESIS

Metabolic capacity of Bacillus subtilis for the production of purine nucleosides, riboflavin, and folic acid. Sauer U, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):227-38

CHEMICAL SYNTHESIS

Synthesis of [(2'S, 3'S)-bis(hydroxylmethyl)pyrrolidin-1-yl] purine and pyrimidine nucleosides as potential antiviral agents. Oohashi T, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1187-8

Synthesis and biological evaluation of 1,2-disubstituted carbonucleosides of 2-amino-6-substituted purine and 8-azapurine. Santana L, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1349-52

Synthesis and anti-HIV and anti-HBV activities of 2'-fluoro-2', 3'-unsaturated L-nucleosides. Lee K, et al. **J Med Chem** 1999 Apr 8;42(7):1320-8

An efficient, short synthesis and potent anti-hepatitis B viral activity of a novel ring-expanded purine nucleoside analogue containing a 5:7-fused, planar, aromatic, imidazo[4,5-e][1,3]diazepine ring system. Chen HM, et al. **Nucleosides Nucleotides** 1999 Mar;18(3):331-5

Synthesis of modified thiopurine nucleosides for structural characterization of human thiopurine S-methyltransferase. Korshunova GA, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1747-8

Synthesis and biological activity of 4'-thio-2'-deoxy purine nucleosides. Messini L, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):683-5

Studies on disaccharide nucleoside synthesis. Mechanism of the formation of trisaccharide purine nucleosides. Mikhailov SN, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):691-2

Synthesis of novel carbocyclic nucleosides with a modified cyclopentane ring and evaluation of their antiviral activity. Nieto I, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):641-2

Synthesis and biological evaluation of 1,2-disubstituted carbonucleosides of 6-substituted purine and 8-azapurine. Santana L, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):733-4

CHEMISTRY

Bystander effect of purine nucleoside analogues in HSV-1 tk suicide gene therapy is superior to that of pyrimidine nucleoside analogues. Degrève B, et al. **Gene Ther** 1999 Feb;6(2):162-70

Trans-pyridine tetraammine complexes of RuII and RuIII with N7-coordinated purine nucleosides. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):318-24

Effects of trans-pyridine ligands on the interactions of RuII and RuIII ammine complexes N7-coordinated to purine nucleosides and DNA. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):325-40

METABOLISM

Sodium purine nucleoside transporter [letter; comment] Arias IM. **Hepatology** 1999 Apr;29(4):1337. Comment on: Hepatology 1998 Dec;28(6):1504-11.

Axon outgrowth is regulated by an intracellular purine-sensitive mechanism in retinal ganglion cells. Benowitz LI, et al. **J Biol Chem** 1998 Nov 6; 273(45):29626-34

Molecular cloning, functional expression and chromosomal localization of a cDNA encoding a human Na+/nucleoside cotransporter (hCNT2) selective for purine nucleosides and uridine. Ritzel MW, et al. **Mol Membr Biol** 1998 Oct-Dec; 15(4):203-11

Cloning of the Candida albicans nucleoside transporter by complementation of nucleoside transport-deficient Saccharomyces. Detke S. **Yeast** 1998 Oct;14(14):1257-65

PHARMACOLOGY

Anti-herpesvirus activity profile of 4'-thioarabinofuranosyl purine and uracil nucleosides and activity of 1-beta-D-2'-fluoro-4'-thioarabinofuranosyl guanine and 2,6-diaminopurine against clinical isolates of human cytomegalovirus. Machida H, et al. **Antiviral Res** 1998 Aug; 39(2):129-37

Biological activity of 1-deazapurine nucleosides: role of deoxycytidine kinase? Bergman AM, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):897-8

L-purine nucleosides as selective antimalarials. Gero AM, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):885-9

Anti-HIV-1 activities of 1,3-dioxolane guanine and 2,6-diaminopurine dioxolane. Gu Z, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):891-2

Synthesis and biological activity of 4'-thio-2'-deoxy purine nucleosides. Messini L, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):683-5

Synthesis of novel carbocyclic nucleosides with a modified cyclopentane ring and evaluation of their antiviral activity. Nieto I, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):641-2

Synthesis and biological evaluation of 1,2-disubstituted carbonucleosides of 6-substituted purine and 8-azapurine. Santana L, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):733-4

ATP depletion, purine riboside triphosphate accumulation and rat thymocyte death induced by purine riboside. Kozlowska M, et al. **Toxicol Lett** 1999 Feb 22;104(3):171-81

PURINE NUCLEOTIDES

ANALYSIS

DNA duplex dynamics: NMR relaxation studies of a decamer with uniformly 13C-labeled purine nucleotides. Kojima C, et al. **J Magn Reson** 1998 Dec;135(2):310-33

Changes by short-term hypoxia in the membrane properties of pyramidal cells and the levels of purine and pyrimidine nucleotides in slices of rat neocortex; effects of agonists and antagonists of ATP-dependent potassium channels. Pissarek M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):430-9

CHEMICAL SYNTHESIS

Structure-antiviral activity relationship in the series of pyrimidine and purine N-[2-(2-phosphonomethoxy)ethyl] nucleotide analogues. 1. Derivatives substituted at the carbon atoms of the base. Holý A, et al. **J Med Chem** 1999 Jun 17;42(12):2064-86

CHEMISTRY

Probing the nucleotide-binding site of Escherichia coli succinyl-CoA synthetase. Joyce MA, et al. **Biochemistry** 1999 Jun 1;38(22):7273-83

GENETICS

Isolation and characterization of a purC(orf)QLF operon from Lactococcus [correction of Lactobacillus] lactis MG1614 [published erratum appears in 1999 Jun;261(4-5):883] Peltonen T, et al. **Mol Gen Genet** 1999 Feb;261(1):31-41

METABOLISM

Calmodulin functions as an activator of Pur alpha binding to single-stranded purine-rich DNA elements (PUR elements). Kuo CH, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):406-11

Role of antimetabolites of purine and pyrimidine nucleotide metabolism in tumor cell differentiation. Hatse S, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):539-55 (177 ref.)

Probing the nucleotide-binding site of Escherichia coli succinyl-CoA synthetase. Joyce MA, et al. **Biochemistry** 1999 Jun 1;38(22):7273-83

Three residues predicted by molecular modeling to interact with the purine moiety alter ligand binding and channel gating in cyclic nucleotide-gated channels. Scott SP, et al. **Biochemistry** 1998 Dec 8;37(49):17239-52

Carbamoyl phosphate synthetase: closure of the B-domain as a result of nucleotide binding. Thoden JB, et al. **Biochemistry** 1999 Feb 23;38(8):2347-57

Tolbutamide attenuates diazoxide-induced aggravation of hypoxic cell injury. Pissarek M, et al. **Brain Res** 1998 Nov 23;812(1-2):164-71

Activities of the enzymes participating in purine and free-radical metabolism in cancerous human colorectal tissues. Oztürk HS, et al. **Cancer Biochem Biophys** 1998 Jun;16(1-2):157-68

Significance of the 5-phosphoribosyl-1-pyrophosphate pool for cardiac purine and pyrimidine nucleotide synthesis: studies with ribose, adenine, inosine, and orotic acid in rats. Zimmer HG. **Cardiovasc Drugs Ther** 1998 Sep;12 Suppl 2:179-87 (41 ref.)

Axon outgrowth is regulated by an intracellular purine-sensitive mechanism in retinal ganglion cells. Benowitz LI, et al. **J Biol Chem** 1998 Nov 6; 273(45):29626-34

Abnormal purine and pyrimidine nucleotide content in primary astroglia cultures from hypoxanthine-guanine phosphoribosyltransferase-deficient transgenic mice. Pelled D, et al. **J Neurochem** 1999 Mar;72(3):1139-45

ATP depletion, purine riboside triphosphate accumulation and rat thymocyte death induced by purine riboside. Kozlowska M, et al. **Toxicol Lett** 1999 Feb 22;104(3):171-81

PHARMACOLOGY

Purine nucleotide- and sugar phosphate-induced inhibition of the carboxyl methylation and catalysis of protein phosphatase-2A in insulin-secreting cells: protection by divalent cations. Kowluru A, et al. **Biosci Rep** 1998 Aug; 18(4):171-86

Purine metabolites suppress proliferation of human NK cells through a lineage-specific purine receptor. Miller JS, et al. **J Immunol** 1999 Jun 15;162(12):7376-82

Effects of guanine, inosine, and xanthine nucleotides on beta(2)-adrenergic receptor/G(s) interactions: evidence for multiple receptor conformations. Seifert R, et al. **Mol Pharmacol** 1999 Aug;56(2):348-58

Purine and pyrimidine nucleotides inhibit a noninactivating K+ current and depolarize adrenal cortical cells through a G protein-coupled receptor. Xu L, et al. **Mol Pharmacol** 1999 Feb;55(2):364-76

PURINE-PYRIMIDINE METABOLISM, INBORN ERRORS

BLOOD

[Unmeasurable uric acid in blood and urine; xanthine dehydrogenase deficiency (or hereditary xanthinuria) (letter)] Mayaudon H, et al. **Rev Med Interne** 1999 May; 20(5):445 **(Fre)**

DIAGNOSIS

[New neurometabolic disorders: indicative clinical signs] Garcia-Silva MT. **Rev Neurol** 1999 Jan 1-15;28(1):4-11 (33 ref.) (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Nucleotide pool imbalance and adenosine deaminase deficiency induce alterations of N-region insertions during V(D)J recombination. Gangi-Peterson L, et al. **J Clin Invest** 1999 Mar;103(6):833-41

GENETICS

Adenosine deaminase deficiency: genotype-phenotype correlations based on expressed activity of 29 mutant alleles. Arredondo-Vega FX, et al. **Am J Hum Genet** 1998 Oct;63(4):1049-59

METABOLISM

Uracil phosphoribosyltransferase activity in hereditary orotic aciduria [letter] Sumi S, et al. **Clin Chim Acta** 1999 May; 283(1-2):201-3

PURINE RECEPTORS see **RECEPTORS, PURINERGIC**

PURINERGIC P1 RECEPTORS see **RECEPTORS, PURINERGIC P1**

PURINERGIC P2 RECEPTORS see **RECEPTORS, PURINERGIC P2**

PURINERGIC RECEPTORS see **RECEPTORS, PURINERGIC**

PURINES

Endogenous apurinic/apyrimidinic sites in genomic DNA of mammalian tissues. Nakamura J, et al. **Cancer Res** 1999 Jun 1;59(11):2522-6

Stabilization of the purine.purine.pyrimidine DNA base triplets by divalent metal cations (commentary) [comment] Potaman VN, et al. **J Biomol Struct Dyn** 1998 Aug; 16(1):145-6. Comment on: J Biomol Struct Dyn 1998 Aug;16(1):139-43.

Stabilization of the purine.purine.pyrimidine DNA base triplets by divalent metal cations [see comments] Sponer J, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):139-43. Comment in: J Biomol Struct Dyn 1998 Aug;16(1):145-6.

Cross-strand purine-pyrimidine stack and sheared purine.pyrimidine pairing in the human HIV-1 reverse transcriptase inhibitors. Chou SH, et al. **J Mol Biol** 1999 Jan 8;285(1):41-8

CA- and purine-rich elements form a novel bipartite exon enhancer which governs inclusion of the minute virus of mice NS2-specific exon in both singly and doubly spliced mRNAs. Gersappe A, et al. **Mol Cell Biol** 1999 Jan; 19(1):364-75

[Lethal and mutagenic effects of tritium incorporated into position 8 of the purines in phage lambda DNA and the role of the Fpg protein] Konevega LV, et al. **Genetika** 1998 Jul;34(7):897-902 (Eng. Abstr.) **(Rus)**

ADMINISTRATION & DOSAGE

Clinical implications of thiopurine methyltransferase--optimization of drug dosage and potential drug interactions. Lennard L. **Ther Drug Monit** 1998 Oct;20(5):527-31 (33 ref.)

ANALYSIS

Purine quantification in digesta from ruminants by spectrophotometric and HPLC methods. Makkar HP, et al. **Br J Nutr** 1999 Feb;81(2):107-12

DNA adducts of 2,3-epoxy-4-hydroxynonanal: detection of 7-(1', 2'-dihydroxyheptyl)-3H-imidazo[2,1-i]purine and 1,N6-ethenoadenine by gas chromatography/negative ion chemical ionization/mass spectrometry. Chen HJ, et al. **Chem Res Toxicol** 1998 Dec;11(12):1474-80

The answer is (gently) blowing in the wind? [editorial; comment] Marelich GP, et al. **Crit Care Med** 1999 Apr; 27(4):687-8 (9 ref.). Comment on: Crit Care Med 1999 Apr;27(4):779-83.

Purine in bronchoalveolar lavage fluid as a marker of ventilation-induced lung injury [see comments] Verbrugge SJ, et al. **Crit Care Med** 1999 Apr;27(4):779-83. Comment in: Crit Care Med 1999 Apr;27(4):687-6.

BIOSYNTHESIS

Methotrexate inhibits the first committed step of purine biosynthesis in mitogen-stimulated human T-lymphocytes: a metabolic basis for efficacy in rheumatoid arthritis? Fairbanks LD, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):143-52

Purine biosynthesis de novo in bovine retina: purification and characterization of amidophosphoribosyl transferase and phosphoribosyl pyrophosphate synthetase. Kian IA, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):648-51

Effect of D-ribose on purine synthesis and neurological symptoms in a patient with adenylosuccinase deficiency. Salerno C, et al. **Biochim Biophys Acta** 1999 Jan 6; 1453(1):135-40

Identification of new members of the GS ADP-forming family from the de novo purine biosynthesis pathway. Kanai S, et al. **J Mol Evol** 1999 Apr;48(4):482-92

Expanded (CAG)n, (CGG)n and (GAA)n trinucleotide repeat microsatellites, and mutant purine synthesis and pigmentation genes cause schizophrenia and autism. Fischer KM. **Med Hypotheses** 1998 Sep;51(3):223-33 (89 ref.)

ade9 is an allele of SER1 and plays an indirect role in purine biosynthesis. Buc PS, et al. **Yeast** 1999 Sep 30; 15(13):1347-55

[Cyclical changes in the rate of de novo purine biosynthesis in rat retina] Kiian IuA, et al. **Dokl Akad Nauk** 1999 Jul; 367(2):262-4 **(Rus)**

[A new pathway for regulating purine biosynthesis in Escherichia coli by a protein-component of the ribose transporter] Kiian IuA. **Dokl Akad Nauk** 1999 Jan; 364(3):414-6 **(Rus)**

BLOOD

Effect of glucose on the plasma concentration and urinary excretion of uridine and purine bases. Yamamoto T, et al. **Metabolism** 1999 Mar;48(3):338-41

[Monitoring oxypurines levels in women with pregnancy induced hypertension and in women with physiological pregnancy] Szczęśniak A, et al. **Ginekol Pol** 1997 Sep; 68(9):407-12 (Eng. Abstr.) **(Pol)**

CHEMICAL SYNTHESIS

(Z)- and (E)-2-(hydroxymethylcyclopropylidene)-methylpurines and pyrimidines as antiviral agents. Qiu YL, et al. **Antivir Chem Chemother** 1998 Jul;9(4):341-52

Synthesis and quarternization of 6-(substitutedamino)-purines with antitumor activity screening. el-Bayouki KA, et al. **Arch Pharm Res** 1994 Apr;17(2):60-5

Potential antitumor alpha-methylene-gamma-butyrolactone-bearing nucleic acid base. 3. Synthesis of 5'-methyl-5'-[(6-substituted-9H-purin-9-yl)methyl]-2'-oxo-3'- methylenetetrahydrofurans. Kim JC, et al. **Arch Pharm Res** 1998 Aug;21(4):458-64

Synthesis of the 7,8-dihydro-7-deazapurine derivatives and their antibiotic activity. Sung SY, et al. **Arch Pharm Res** 1998 Apr;21(2):187-92

Synthesis and biological activities of C-2, N-9 substituted 6-benzylaminopurine derivatives as cyclin-dependent kinase inhibitor. Oh CH, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):187-90

Synthesis and in vitro evaluation of novel 2,6,9-trisubstituted purines acting as cyclin-dependent kinase inhibitors. Legraverend M, et al. **Bioorg Med Chem** 1999 Jul; 7(7):1281-93

Synthesis of 1,1-difluoro-5-(1H-9-purinyl)-2-pentenylphosphonic acids and the related methano analogues. Remarkable effect of the nucleobases and the cyclopropane rings on inhibitory activity toward purine nucleoside phosphorylase. Yokomatsu T, et al. **Bioorg Med Chem** 1998 Dec; 6(12):2495-505

Synthesis of an imidazo[1,2-e]purine-acridine heterodimer for targeting abasic sites in DNA. Belmont P, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):233-6

Reactions of 7- and 9-aminoadenines with 2,4-pentanedione. Formation of new ring systems, pyridazino[6,1-f]purine and pyridazino[1,6-e]purine. Kaiya T, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2197-202

Synthesis of C2 alkynylated purines, a new family of potent inhibitors of cyclin-dependent kinases. Legraverend M, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):793-8

Synthesis and application of functionally diverse 2,6,9-trisubstituted purine libraries as CDK inhibitors. Chang YT, et al. **Chem Biol** 1999 Jun;6(6):361-75

Synthesis and evaluation of 2-amino-9-(1, 3-dihydroxy-2-propoxymethyl)- 6-fluoropurine mono- and diesters as potential prodrugs of ganciclovir. Kim DK, et al. **J Med Chem** 1999 Jan 28;42(2):324-8

Novel pyrimidine and purine derivatives of L-ascorbic acid: synthesis and biological evaluation. Raić-Malić S, et al. **J Med Chem** 1999 Jul 15;42(14):2673-8

Synthesis and utilization of 13C(8)-enriched purines. LaFrancois CJ, et al. **Nucleosides Nucleotides** 1999 Jan; 18(1):23-37

CHEMISTRY

Formation of stable DNA triple helices within the human bcr promoter at a critical oligopurine target interrupted in the middle by two adjacent pyrimidines. Xodo LE, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):477-88

The interactions of substituted pyrido[1,2-e]purines with oligonucleotides depend on the amphiphilic properties of their side chain. Debouzy JC, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):202-15

Synthesis and evaluation of potent and selective c-GMP phosphodiesterase inhibitors. Ho GD, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):7-12

2,6,9-trisubstituted purines: optimization towards highly potent and selective CDK1 inhibitors. Imbach P, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):91-6

DNA-glycation leads to depurination by the loss of N2-carboxyethylguanine in vitro. Seidel W, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;44(7):1165-70

Site-selective electron transfer from purines to electrocatalysts: voltammetric detection of a biologically relevant deletion in hybridized DNA duplexes. Ropp PA, et al. **Chem Biol** 1999 Sep;6(9):599-605

Precursors of the purine backbone augment the inhibitory action of hypoxanthine and dibutyryl cAMP on mouse oocyte maturation. Downs SM. **J Exp Zool** 1998 Oct 15; 282(3):376-84

The promoter of the C1 inhibitor gene contains a polypurine.polypyrimidine segment that enhances transcriptional activity. Zahedi K, et al. **J Immunol** 1999 Jun 15;162(12):7249-55

Antiviral oligo- and polyribonucleotides containing selected triazolo[2,3-a]purines. Tutonda MG, et al. **J Med Chem** 1998 Dec 3;41(25):4958-64

Generation of hydroxyl radical by photolysis of mercaptopyridine N-oxides: application to redox chemistry of purines. Vieira AJ, et al. **Methods Enzymol** 1999; 300:194-201

Purine based combinatorial chemistry: solution phase simultaneous addition of functionalities. Iterative deconvolution by orthogonal protection to a single compound with potent antibacterial activity. Fraser AS, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):1087-9

A cyclin-dependent kinase inhibitor inducing cancer cell differentiation: biochemical identification using Xenopus egg extracts. Rosania GR, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4797-802

Crystal structure and conformation of a DNA-RNA hybrid duplex with a polypurine RNA strand: d(TTCTTBr5CTTC)-r(GAAGAAGAA). Xiong Y, et al. **Structure** 1998 Dec 15;6(12):1493-501

[Modulation of interactions of pyridopyrines with membrane systems: an NMR study of the role of side chains] Debouzy JC, et al. **Ann Pharm Fr** 1998;56(5):197-204 (Eng. Abstr.) **(Fre)**

[Possible B-conformations of DNA fragments with alternating purine-pyrimidine sequences] Nesterova EN, et al. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):668-77 **(Rus)**

METABOLISM

The trophic effects of purines and purinergic signaling in pathologic reactions of astrocytes. Rathbone MP, et al. **Alzheimer Dis Assoc Disord** 1998;12 Suppl 2:S36-45

CsA-sensitive purine-box transcriptional regulator in bronchial epithelial cells contains NF45, NF90, and Ku. Aoki Y, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1164-72

Hypotension induced by exercise is associated with enhanced release of adenyl purines from aged rat artery. Hashimoto M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H970-5

PURINES

The interactions of substituted pyrido[1,2-e]purines with oligonucleotides depend on the amphiphilic properties of their side chain. Debouzy JC, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):202–15

Pokeweed antiviral protein isoforms PAP-I, PAP-II, and PAP-III depurinate RNA of human immunodeficiency virus (HIV)-1. Rajamohan F, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):453–8

Altering the purine specificity of hypoxanthine-guanine-xanthine phosphoribosyltransferase from Tritrichomonas foetus by structure-based point mutations in the enzyme protein. Munagala NR, et al. **Biochemistry** 1998 Nov 24;37(47):16612–9

Involvement of P2 purinoceptors and the nitric oxide pathway in [3H]purine outflow evoked by short-term hypoxia and hypoglycemia in rat hippocampal slices. Jurányi Z, et al. **Brain Res** 1999 Mar 27;823(1–2):183–90

Developmental changes in purinergic calcium signalling in rat neocortical neurones. Lalo U, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):43–50

In vitro reactions of butadiene monoxide with single- and double-stranded DNA: characterization and quantitation of several purine and pyrimidine adducts. Selzer RR, et al. **Carcinogenesis** 1999 Feb;20(2):285–92

New junction models for alternate-strand triple-helix formation. de Bizemont T, et al. **Chem Biol** 1998 Dec; 5(12):755–62

1H-NMR spectroscopy of body fluids: inborn errors of purine and pyrimidine metabolism. Wevers RA, et al. **Clin Chem** 1999 Apr;45(4):539–48

Purine metabolism in Echinococcus multilocularis. Suchail S, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug;120(4):633–7

Investigation of possible participation of nucleoside transport systems in the postischemic release of purines and pyrimidines from cold stored liver. Toshchakov VY, et al. **Cryobiology** 1999 Jun;38(4):261–72

Purine metabolism in female heterozygotes for hypoxanthine-guanine phosphoribosyltransferase deficiency. Puig JG, et al. **Eur J Clin Invest** 1998 Nov; 28(11):950–7

Rat cultured astrocytes release guanine-based purines in basal conditions and after hypoxia/hypoglycemia. Ciccarelli R, et al. **Glia** 1999 Jan;25(1):93–8

Effects of imipenem and meropenem on purine content of endothelial cells. Armbruster C, et al. **Int J Clin Pharmacol Ther** 1999 Feb;37(2):86–9

Inhibition of calcitriol-induced monocyte CD14 expression by uremic toxins: role of purines. Glorieux G, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1826–31

Base excision repair of N-methylpurines in a yeast minichromosome. Effects of transcription, dna sequence, and nucleosome positioning. Li S, et al. **J Biol Chem** 1999 Apr 30;274(18):12201–4

Analysis of polypurine tract-associated DNA plus-strand priming in vivo utilizing a plant pararetroviral vector carrying redundant ectopic priming elements. Noad RJ, et al. **J Biol Chem** 1998 Dec 4;273(49):32568–75

Comparative determination of purine compounds in carotid plaque by capillary zone electrophoresis and high-performance liquid chromatography. Terzuoli L, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 28; 728(2):185–92

Expression of purine metabolism-related enzymes by microglial cells in the developing rat brain. Dalmau I, et al. **J Comp Neurol** 1998 Aug 31;398(3):333–46

Effects of rumen-undegradable protein and feed intake on purine derivative and urea nitrogen: comparison with predictions from the Cornell Net Carbohydrate and Protein System. Moscardini S, et al. **J Dairy Sci** 1998 Sep; 81(9):2421–9

Role of the midgut gland in purine excretion in the robber crab, Birgus latro (Anomura: Coenobitidae). Dillaman RM, et al. **J Morphol** 1999 Sep;241(3):227–35

Glutathione-dependent metabolism of cis-3-(9H-purin-6-ylthio)acrylic acid to yield the chemotherapeutic drug 6-mercaptopurine: evidence for two distinct mechanisms in rats. Gunnarsdottir S, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):950–7

Effects of alpha- and beta-adrenoceptor blockade on purine secretion induced by sympathetic nerve stimulation in the rat kidney. Mi Z, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):295–301

Altered purine and glycogen metabolism in skeletal muscle during exercise in patients with heart failure. Kinugawa T, et al. **Metabolism** 1999 Apr;48(4):484–8

The hxB gene, necessary for the post-translational activation of purine hydroxylases in Aspergillus nidulans, is independently controlled by the purine utilization and the nicotinate utilization transcriptional activating systems. Amrani L, et al. **Mol Microbiol** 1999 Feb;31(4):1065–73

The identification of nuclear proteins that bind the homopyrimidine strand of d(GA.TC)n DNA sequences, but not the homopurine strand. Garcia-Bassets I, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3267–75

Triple helix formation: binding avidity of acridine-conjugated AG motif third strands containing natural, modified and surrogate bases opposed to pyrimidine interruptions in a polypurine target. Orson FM, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):810–6

Pokeweed antiviral protein cleaves double-stranded supercoiled DNA using the same active site required to depurinate rRNA. Wang P, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1900–5

Thiopurine methyltransferase pharmacogenetics: alternative molecular diagnosis and preliminary data from Northern Portugal. Alves S, et al. **Pharmacogenetics** 1999 Apr; 9(2):257–61

Receptors for purines and pyrimidines. Ralevic V, et al. **Pharmacol Rev** 1998 Sep;50(3):413–92 (1009 ref.)

Indirect mutagenesis by oxidative DNA damage: formation of the pyrimidopurinone adduct of deoxyguanosine by base propenal. Dedon PC, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11113–6

Ethanol's effect on rat pituitary adrenal axis is prevented by purine metabolic pathway inhibitors. Szabó J, et al. **Proc Soc Exp Biol Med** 1999 Feb;220(2):112–8

Purine-rich enhancers function in the AT-AC pre-mRNA splicing pathway and do so independently of intact U1 snRNP. Wu Q, et al. **RNA** 1998 Dec;4(12):1664–73

Azathioprine and 6-mercaptopurine alter the nucleotide balance in endothelial cells. Weigel G, et al. **Thromb Res** 1999 Apr 15;94(2):87–94

PHARMACOLOGY

Bacterial complementation as a means to test enzyme-ligand interactions. Canyuk B, et al. **Appl Microbiol Biotechnol** 1998 Aug;50(2):181–6

Purines, a new class of agonists in salivary glands? Dehaye JP, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S39–43 (23 ref.)

Experimental studies on the antitussive properties of the new xanthine derivative 1H-purine-2,6-dione, 3,7-dihydro-3-methyl-7[(5-methyl-1,2,4-oxadiazol-3-yl) methyl]. 3rd communication: examinations on opioid mechanisms and physical drug dependence. Kapui Z, et al. **Arzneimittelforschung** 1998 Dec;48(12):1147–55

Synthesis and in vitro evaluation of novel 2,6,9-trisubstituted purines acting as cyclin-dependent kinase inhibitors. Legraverend M, et al. **Bioorg Med Chem** 1999 Jul; 7(7):1281–93

Synthesis and evaluation of potent and selective c-GMP phosphodiesterase inhibitors. Ho GD, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):7–12

2,6,9-trisubstituted purines: optimization towards highly potent and selective CDK1 inhibitors. Imbach P, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):91–6

CDK-inhibitor olomoucine inhibits cell death after exposure of cell lines to cytosine-arabinoside. Papazisis KT, et al. **Cancer Lett** 1999 Apr 26;138(1–2):221–6

Roscovitine induces cell death and morphological changes indicative of apoptosis in MDA-MB-231 breast cancer cells. Mgbonyebi OP, et al. **Cancer Res** 1999 Apr 15; 59(8):1903–10

Synthesis and application of functionally diverse 2,6,9-trisubstituted purine libraries as CDK inhibitors. Chang YT, et al. **Chem Biol** 1999 Jun;6(6):361–75

The cyclin-dependent kinase inhibitors olomoucine and roscovitine arrest human fibroblasts in G1 phase by specific inhibition of CDK2 kinase activity. Alessi F, et al. **Exp Cell Res** 1998 Nov 25;245(1):8–18

Modulation of cochlear blood flow by extracellular purines. Muñoz DJ, et al. **Hear Res** 1999 Jan;127(1–2):55–61

A synthetic, nitrogenated antimetastatic and anti-angiogenic compound with low toxicity in vivo. Cerutti ML, et al. **Int J Oncol** 1999 Mar;14(3):585–91

Antiparkinsonian effect of a new selective adenosine A2A receptor antagonist in MPTP-treated monkeys. Grondin R, et al. **Neurology** 1999 May 12;52(8):1673–7

Treatment of Vicia faba root tip cells with specific inhibitors to cyclin-dependent kinases leads to abnormal spindle formation. Binarová P, et al. **Plant J** 1998 Dec; 16(6):697–707

A cyclin-dependent kinase inhibitor inducing cancer cell differentiation: biochemical identification using Xenopus egg extracts. Rosania GR, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4797–802

Clinical implications of thiopurine methyltransferase--optimization of drug dosage and potential drug interactions. Lennard L. **Ther Drug Monit** 1998 Oct;20(5):527–31 (33 ref.)

THERAPEUTIC USE

A novel strategy for inhibiting growth of human pancreatic cancer cells by blocking cyclin-dependent kinase activity. Iseki H, et al. **J Gastrointest Surg** 1998 Jan-Feb;2(1):36–43

TOXICITY

Genotypic and phenotypic analysis of the polymorphic thiopurine S-methyltransferase gene (TPMT) in a European population. Spire-Vayron de la Moureyre C, et al. **Br J Pharmacol** 1998 Oct;125(4):879–87

Relative efficiency of tumor cell killing in vitro by two enzyme-prodrug systems delivered by identical adenovirus vectors. Lockett LJ, et al. **Clin Cancer Res** 1997 Nov; 3(11):2075–80

URINE

Simultaneous determination of purine metabolites, creatinine and pseudouridine in ruminant urine by reversed-phase high-performance liquid chromatography. Shingfield KJ, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):81–94

Effects of fructose and xylitol on the urinary excretion of adenosine, uridine, and purine bases. Yamamoto T, et al. **Metabolism** 1999 Apr;48(4):520–4

Effect of glucose on the plasma concentration and urinary excretion of uridine and purine bases. Yamamoto T, et al. **Metabolism** 1999 Mar;48(3):338–41

PURINOCEPTORS see **RECEPTORS, PURINERGIC**

PURINONES

CHEMISTRY

Tautomeric equilibria in 8-oxopurines: implications for mutagenicity. Venkateswarlu D, et al. **J Comput Aided Mol Des** 1998 Jul;12(4):373–82

PHARMACOLOGY

Chronic pulmonary hypertension increases fetal lung cGMP phosphodiesterase activity. Hanson KA, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L931–41

Purin-8-ones as corticotropin-releasing hormone (CRH-R1) receptor antagonists. Beck JP, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):967–72

Effects of zaprinast on renal nerve stimulation-induced anti-natriuresis in anaesthetized dogs. Sekizawa T, et al. **Clin Exp Pharmacol Physiol** 1998 Dec;25(12):1008–12

Zaprinast, a type V phosphodiesterase inhibitor, dilates capacitance vessels in anaesthetised rats. Ng SS, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):323–8

Altered relationship between cyclic GMP and myocardial O2 consumption in renal hypertension-induced cardiac hypertrophy. Rabindranauth P, et al. **Res Exp Med (Berl)** 1998 Jul;198(1):11–21

TOXICITY

Tautomeric equilibria in 8-oxopurines: implications for mutagenicity. Venkateswarlu D, et al. **J Comput Aided Mol Des** 1998 Jul;12(4):373–82

PURKINJE CELLS

CHEMISTRY

Development of Purkinje cells in humans: an immunohistochemical study using a monoclonal antibody against the inositol 1,4,5-triphosphate type 1 receptor (IP3R1). Miyata M, et al. **Acta Neuropathol (Berl)** 1999 Sep;98(3):226–32

Molecular cloning and expression of the rat EAAT4 glutamate transporter subtype. Lin CL, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):174–9

Electron-immunocytochemical localization of P2X1 receptors in the rat cerebellum. Loesch A, et al. **Cell Tissue Res** 1998 Nov;294(2):253–60

Purkinje-cell-derived Sonic hedgehog regulates granule neuron precursor cell proliferation in the developing mouse cerebellum. Wallace VA. **Curr Biol** 1999 Apr 22;9(8):445–8

GABAB-receptor splice variants GB1a and GB1b in rat brain: developmental regulation, cellular distribution and extrasynaptic localization. Fritschy JM, et al. **Eur J Neurosci** 1999 Mar;11(3):761–8

Ca2+ regulation of a large conductance K+ channel in cultured rat cerebellar Purkinje neurons. Jacquin TD, et al. **Eur J Neurosci** 1999 Feb;11(2):735–9

Cerebellar granule-cell-specific GABAA receptors attenuate benzodiazepine-induced ataxia: evidence from alpha 6-subunit-deficient mice. Korpi ER, et al. **Eur J Neurosci** 1999 Jan;11(1):233–40

beta-Actin is confined to structures having high capacity of remodelling in developing and adult rat cerebellum. Micheva KD, et al. **Eur J Neurosci** 1998 Dec; 10(12):3785–98

Course and targets of the calbindin D-28k subpopulation of primary vestibular afferents. Bäurle J, et al. **J Comp Neurol** 1998 Dec 7;402(1):111–28

Kinetic and stochastic properties of a persistent sodium current in mature guinea pig cerebellar Purkinje cells. Kay AR, et al. **J Neurophysiol** 1998 Sep;80(3):1167–79

Monoclonal antibodies reveal expression of the CGRP receptor in Purkinje cells, interneurons and astrocytes of rat cerebellar cortex. Morara S, et al. **Neuroreport** 1998 Nov 16;9(16):3755–9

Serotonin2A receptor-like immunoreactivity in rat cerebellar Purkinje cells. Maeshima T, et al. **Neurosci Lett** 1998 Aug 7;252(1):72–4

Spatial correspondence between tactile projection patterns and the distribution of the antigenic Purkinje cell markers anti-zebrin I and anti-zebrin II in the cerebellar folium crus IIA of the rat. Hallem JS, et al. **Neuroscience** 1999; 93(3):1083–94

The cells and molecules that make a cerebellum. Goldowitz D, et al. **Trends Neurosci** 1998 Sep;21(9):375–82 (88 ref.)

CYTOLOGY

Development of Purkinje cells in humans: an immunohistochemical study using a monoclonal antibody against the inositol 1,4,5-triphosphate type 1 receptor (IP3R1). Miyata M, et al. **Acta Neuropathol (Berl)** 1999 Sep;98(3):226–32

Cholestanol induces apoptosis of cerebellar neuronal cells. Inoue K, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):198–203

Evaluation of superior vermal Purkinje cell placement in mental illness. Helmkamp CE, et al. **Biol Psychiatry** 1999 May 15;45(10):1370–5

Software implementation of statistical methods for the analysis of structure and patterns in neuroanatomical objects. Baader SL, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):173–82

An improved method for culturing cerebellar Purkinje cells with differentiated dendrites under a mixed monolayer setting. Furuya S, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):192–8

Biphasic dispersion of clones containing Purkinje cells and glia in the developing chick cerebellum. Lin JC, et al. **Dev Biol** 1999 Jul 15;211(2):177–97

Cerebellar Purkinje cell loss during life span of the heterozygous staggerer mouse (Rora(+)/Rora(sg)) is gender-related. Doulazmi M, et al. **J Comp Neurol** 1999 Aug 23;411(2):267–73

Compartmental organization of Purkinje cells in the mature and developing mouse cerebellum as revealed by an olfactory marker protein-lacZ transgene. Nunzi MG, et al. **J Comp Neurol** 1999 Feb 1;404(1):97–113

Projections of purkinje cells in the translation and rotation zones of the vestibulocerebellum in pigeon (Columba livia). Wylie DR, et al. **J Comp Neurol** 1999 Oct 25;413(3):480–93

Developmental neurotoxicity of phenytoin on granule cells and Purkinje cells in mouse cerebellum. Ohmori H, et al. **J Neurochem** 1999 Apr;72(4):1497–506

Granule cell raphes and parasagittal domains of Purkinje cells: complementary patterns in the developing chick cerebellum. Lin JC, et al. **J Neurosci** 1998 Nov 15; 18(22):9342–53

Spatiotemporal expression patterns of metalloproteinases and their inhibitors in the postnatal developing rat cerebellum. Vaillant C, et al. **J Neurosci** 1999 Jun 15;19(12):4994–5004

The cells and molecules that make a cerebellum. Goldowitz D, et al. **Trends Neurosci** 1998 Sep;21(9):375–82 (88 ref.)

[Morphometric study of the development of the cerebellar Purkinje cells during postnatal rat ontogenesis] Oleinik TL, et al. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):480–4 **(Rus)**

DRUG EFFECTS

The number of granule cells and spine density on Purkinje cells in aged, ethanol-fed rats. Tabbaa S, et al. **Alcohol** 1999 Apr;17(3):253–60

Neonatal ethanol exposure alters bcl-2 family mRNA levels in the rat cerebellar vermis. Moore DB, et al. **Alcohol Clin Exp Res** 1999 Jul;23(7):1251–61

Action of ethanol and zolpidem on gamma-aminobutyric acid responses from cerebellar Purkinje neurons: relationship to beta-adrenergic receptor input. Yang X, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1655–61

Modulation of inhibitory post-synaptic currents (IPSCs) in mouse cerebellar Purkinje and basket cells by snake and scorpion toxin K+ channel blockers. Southan AP, et al. **Br J Pharmacol** 1998 Nov;125(6):1375–81

Postnatal ethanol exposure blunts upregulation of GABAA receptor currents in Purkinje neurons. Hsiao SH, et al. **Brain Res** 1999 Jun 19;832(1-2):124–35

Chronic ethanol treatment alters AMPA-induced calcium signals in developing Purkinje neurons. Netzeband JG, et al. **Brain Res** 1999 May 1;826(2):270–80

Weak effect of neuromodulators on climbing fiber-activated [Ca(2+)](i) increases in rat cerebellar Purkinje neurons. Pisani A, et al. **Brain Res** 1999 Jun 12;831(1-2):113–8

The effect of the timing of ethanol exposure during early postnatal life on total number of Purkinje cells in rat cerebellum. Miki T, et al. **J Anat** 1999 Apr;194 (Pt 3):423–31

CXC chemokines interleukin-8 (IL-8) and growth-related gene product alpha (GROalpha) modulate Purkinje neuron activity in mouse cerebellum. Giovannelli A, et al. **J Neuroimmunol** 1998 Dec 1;92(1-2):122–32

Specific alteration of spontaneous GABAergic inhibition in cerebellar purkinje cells in mice lacking the potassium channel Kv1. 1. Zhang CL, et al. **J Neurosci** 1999 Apr 15;19(8):2852–64

Effect of riluzole on the neurological and neuropathological changes in an animal model of cardiac arrest-induced movement disorder. Kanthasamy AG, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1340–8

Mibefradil inhibition of T-type calcium channels in cerebellar purkinje neurons. McDonough SI, et al. **Mol Pharmacol** 1998 Dec;54(6):1080–7

Deficit in selective and divided attention associated with cholinergic basal forebrain immunotoxic lesion produced by 192-saporin; motoric/sensory deficit associated with Purkinje cell immunotoxic lesion produced by OX7-saporin. Waite JJ, et al. **Neurobiol Learn Mem** 1999 May;71(3):325–52

Chronic ethanol exposure enhances AMPA-elicited Ca2+ signals in the somatic and dendritic regions of cerebellar Purkinje neurons. Netzeband JG, et al. **Neurochem Int** 1999 Aug;35(2):163–74

Action of ethanol on responses to nicotine from cerebellar Purkinje neurons: relationship to methyllycaconitine (MLA) inhibition of nicotine responses. Yang X, et al. **Neurochem Int** 1999 Aug;35(2):185–94

4-Aminopyridine (4-AP) augments Ca(2+)-dependent action potential and changes oscillatory firing patterns in rat cerebellar Purkinje cells. Seo WS, et al. **Yonsei Med J** 1999 Apr;40(2):112–7

ENZYMOLOGY

Expression and activity of 3beta-hydroxysteroid dehydrogenase/delta5-delta4-isomerase in the rat Purkinje neuron during neonatal life. Ukena K, et al. **Endocrinology** 1999 Feb;140(2):805–13

A late phase of cerebellar long-term depression requires activation of CaMKIV and CREB [see comments] Ahn S, et al. **Neuron** 1999 Jul;23(3):559–68. Comment in: Neuron 1999 Jul;23(3):414–5.

Modulation of the neurotransmitter release in rat cerebellar neurons by GRO beta. Ragozzino D, et al. **Neuroreport** 1998 Nov 16;9(16):3601–6

METABOLISM

An immunohistochemical study of Purkinje cells in a case of hereditary cerebellar cortical atrophy. Nakamura R, et al. **Acta Neuropathol (Berl)** 1999 Feb;97(2):196–200

GluR delta 2 and the development and death of cerebellar Purkinje neurons in lurcher mice. Heintz N, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:502–14

Properties of sodium currents and action potential firing in isolated cerebellar Purkinje neurons. Raman IM, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:93–6

Overexpression of a Hu-bcl-2 transgene in Lurcher mutant mice delays Purkinje cell death. Zanjani H, et al. **C R Acad Sci III** 1998 Aug;321(8):633–40

Axonal and dendritic transport in Purkinje cells of cerebellar slice cultures studied by microinjection of horseradish peroxidase. Krah K, et al. **Cell Tissue Res** 1999 Jan; 295(1):55–64

Ca2+ regulation of a large conductance K+ channel in cultured rat cerebellar Purkinje neurons. Jacquin TD, et al. **Eur J Neurosci** 1999 Feb;11(2):735–9

The cytoplasmic Purkinje onconeural antigen cdr2 down-regulates c-Myc function: implications for neuronal and tumor cell survival. Okano HJ, et al. **Genes Dev** 1999 Aug 15;13(16):2087–97

Neurosteroids in the cerebellar Purkinje neuron and their actions (review). Tsutsui K, et al. **Int J Mol Med** 1999 Jul;4(1):49–56 (60 ref.)

Phosphorylation-dependent inhibition of protein phosphatase-1 by G-substrate. A Purkinje cell substrate of the cyclic GMP-dependent protein kinase. Hall KU, et al. **J Biol Chem** 1999 Feb 5;274(6):3485–95

Interaction of heterotrimeric G protein Galphao with Purkinje cell protein-2. Evidence for a novel nucleotide exchange factor. Luo Y, et al. **J Biol Chem** 1999 Apr 16; 274(16):10685–8

Regional distribution of 5-HT transporters in the brain of wild type and 'Purkinje cell degeneration' mutant mice: a quantitative autoradiographic study with [3H]citalopram. Le Marec N, et al. **J Chem Neuroanat** 1998 Sep; 15(3):155–71

GLT1, glial glutamate transporter, is transiently expressed in neurons and develops astrocyte specificity only after midgestation in the ovine fetal brain. Northington FJ, et al. **J Neurobiol** 1999 Jun 15;39(4):515–26

Delayed release of neurotransmitter from cerebellar granule cells. Atluri PP, et al. **J Neurosci** 1998 Oct 15; 18(20):8214–27

Selective disruption of "late onset" sagittal banding patterns by ectopic expression of engrailed-2 in cerebellar Purkinje cells. Baader SL, et al. **J Neurosci** 1999 Jul 1;19(13):5370–9

Localization of postsynaptic density-93 to dendritic microtubules and interaction with microtubule-associated protein 1A. Brenman JE, et al. **J Neurosci** 1998 Nov 1; 18(21):8805–13

The concentration of synaptically released glutamate outside of the climbing fiber-Purkinje cell synaptic cleft. Dzubay JA, et al. **J Neurosci** 1999 Jul 1;19(13):5265–74

Expression pattern and neurotrophic role of the c-fms proto-oncogene M-CSF receptor in rodent Purkinje cells. Murase S, et al. **J Neurosci** 1998 Dec 15;18(24):10481–92

Glutamate transport in cultures from developing avian cerebellum: presence of GLT-1 immunoreactivity in Purkinje neurons. Meaney JA, et al. **J Neurosci Res** 1998 Dec 1;54(5):595–603

Intracellular calcium clearance in Purkinje cell somata from rat cerebellar slices. Fierro L, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):499–512

Persistent phosphorylation parallels long-term desensitization of cerebellar purkinje cell AMPA-type glutamate receptors. Nakazawa K, et al. **Learn Mem** 1997 Mar-Apr; 3(6):578–91

Local calcium signalling by inositol-1,4,5-trisphosphate in Purkinje cell dendrites. Finch EA, et al. **Nature** 1998 Dec 24-31;396(6713):753–6

A new class of synaptic response involving calcium release in dendritic spines. Takechi H, et al. **Nature** 1998 Dec 24-31;396(6713):757–60

AMPA receptor-mediated alterations of intracellular calcium homeostasis in rat cerebellar Purkinje cells in vitro: correlates to dark cell degeneration. Strahlendorf JC, et al. **Neurochem Res** 1998 Nov;23(11):1355–62

Variations in the tangential distribution of postsynaptic glutamate receptors in Purkinje cell parallel and climbing fiber synapses during development. Petralia RS, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1321–34

Abnormal expression of SNS/PN3 sodium channel in cerebellar Purkinje cells following loss of myelin in the taiep rat. Black JA, et al. **Neuroreport** 1999 Apr 6; 10(5):913–8

Vitronectin expression in Purkinje cells in the human cerebellum. Walker DG, et al. **Neurosci Lett** 1998 Jul 24; 251(2):109–12

gas7: A gene expressed preferentially in growth-arrested fibroblasts and terminally differentiated Purkinje neurons affects neurite formation. Ju YT, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11423–8

Flip and flop variants of AMPA receptor subunits in the human cerebellum: implication for the selective vulnerability of Purkinje cells. Tomiyama M, et al. **Synapse** 1999 Feb;31(2):163–7

PATHOLOGY

Disconnection of cerebellar Purkinje cells in Kearns-Sayre syndrome. Tanji K, et al. **J Neurol Sci** 1999 Jun 15; 166(1):64–70

Neonatal Borna disease virus infection in the rat causes a loss of Purkinje cells in the cerebellum. Eisenman LM, et al. **J Neurovirol** 1999 Apr;5(2):181–9

A mouse prion protein transgene rescues mice deficient for the prion protein gene from purkinje cell degeneration and demyelination. Nishida N, et al. **Lab Invest** 1999 Jun; 79(6):689–97

Morphologic investigation of rolling mouse Nagoya (tg(rol)/tg(rol)) cerebellar Purkinje cells: an ataxic mutant, revisited. Rhyu IJ, et al. **Neurosci Lett** 1999 Apr 30; 266(1):49–52

A new neurological mutant rat with symmetrical calcification of Purkinje cells in cerebellum. Ando Y, et al. **Proc Soc Exp Biol Med** 1999 Sep;221(4):361–8

PHYSIOLOGY

Cerebellar atrophy in chronic rhizomelic chondrodysplasia punctata: a potential role for phytanic acid and calcium in the death of its Purkinje cells. Powers JM, et al. **Acta Neuropathol (Berl)** 1999 Aug;98(2):129–34

Bilateral lesions of the interpositus nucleus completely prevent eyeblink conditioning in Purkinje cell-degeneration mutant mice. Chen L, et al. **Behav Neurosci** 1999 Feb;113(1):204–10

Phospholipase C-independent group I metabotropic glutamate receptor-mediated inward current in mouse purkinje cells. Hirono M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):753–8

Modulation of inhibitory post-synaptic currents (IPSCs) in mouse cerebellar Purkinje and basket cells by snake and scorpion toxin K+ channel blockers. Southan AP, et al. **Br J Pharmacol** 1998 Nov;125(6):1375–81

The role of the sodium pump in the developmental regulation of membrane electrical properties of cerebellar Purkinje neurons of the rat. Molnar LR, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):287–91

Developmental expression of gamma-aminobutyric acid transporters (GAT-1 and GAT-3) in the rat cerebellum: evidence for a transient presence of GAT-1 in Purkinje cells. Yan XX, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):253–69

Molecular cloning and expression of the rat EAAT4 glutamate transporter subtype. Lin CL, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):174–9

Reeler/Disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and ApoE receptor 2. Trommsdorff M, et al. **Cell** 1999 Jun 11; 97(6):689–701

Cerebellar granule-cell-specific GABAA receptors attenuate benzodiazepine-induced ataxia: evidence from alpha 6-subunit-deficient mice. Korpi ER, et al. **Eur J Neurosci** 1999 Jan;11(1):233–40

Spatial organization of proprioception in the cat spinocerebellum. Purkinje cell responses to passive foot rotation. Perciavalle V, et al. **Eur J Neurosci** 1998 Jun; 10(6):1975–85

Potassium currents modulation of calcium spike firing in dendrites of cerebellar Purkinje cells. Etzion Y, et al. **Exp Brain Res** 1998 Oct;122(3):283–94

Single tottering mutations responsible for the neuropathic phenotype of the P-type calcium channel. Wakamori M, et al. **J Biol Chem** 1998 Dec 25;273(52):34857–67

Late axonal sprouting of injured Purkinje cells and its temporal correlation with permissive changes in the glial scar. Dusart I, et al. **J Comp Neurol** 1999 Jun 7; 408(3):399–418

Compartmental organization of Purkinje cells in the mature and developing mouse cerebellum as revealed by an olfactory marker protein-lacZ transgene. Nunzi MG, et al. **J Comp Neurol** 1999 Feb 1;404(1):97–113

Projections of purkinje cells in the translation and rotation zones of the vestibulocerebellum in pigeon (Columba livia). Wylie DR, et al. **J Comp Neurol** 1999 Oct 25;413(3):480–93

Regulation of a Purkinje cell-specific promoter by homeodomain proteins: repression by engrailed-2 vs. synergistic activation by Hoxa5 and Hoxb7. Sanlioglu S, et al. **J Neurobiol** 1998 Sep 15;36(4):559–71

Vertical Purkinje cells of the monkey floccular lobe: simple-spike activity during pursuit and passive whole

PURKINJE CELLS

body rotation. Fukushima K, et al. **J Neurophysiol** 1999 Aug;82(2):787–803

Kinetic and stochastic properties of a persistent sodium current in mature guinea pig cerebellar Purkinje cells. Kay AR, et al. **J Neurophysiol** 1998 Sep;80(3):1167–79

Complex spike activity of Purkinje cells in the ventral uvula and nodulus of pigeons in response to translational optic flow. Wylie DR, et al. **J Neurophysiol** 1999 Jan; 81(1):256–66

Massive loss of mid- and hindbrain neurons during embryonic development of homozygous lurcher mice. Cheng SS, et al. **J Neurosci** 1997 Apr 1;17(7):2400–7

Cerebellar Purkinje cell simple spike discharge encodes movement velocity in primates during visuomotor arm tracking. Coltz JD, et al. **J Neurosci** 1999 Mar 1; 19(5):1782–803

Afferent-target cell interactions in the cerebellum: negative effect of granule cells on Purkinje cell development in lurcher mice. Doughty ML, et al. **J Neurosci** 1999 May 1;19(9):3448–56

Presynaptic effects of NMDA in cerebellar Purkinje cells and interneurons. Glitsch M, et al. **J Neurosci** 1999 Jan 15;19(2):511–9

Synaptic control of spiking in cerebellar Purkinje cells: dynamic current clamp based on model conductances. Jaeger D, et al. **J Neurosci** 1999 Jul 15;19(14):6090–101

Patterns of spontaneous purkinje cell complex spike activity in the awake rat. Lang EJ, et al. **J Neurosci** 1999 Apr 1;19(7):2728–39

Entire course and distinct phases of day-lasting depression of miniature EPSC amplitudes in cultured Purkinje neurons. Murashima M, et al. **J Neurosci** 1999 Sep 1; 19(17):7326–33

Migration defects of cdk5(-/-) neurons in the developing cerebellum is cell autonomous. Ohshima T, et al. **J Neurosci** 1999 Jul 15;19(14):6017–26

Ionic currents underlying spontaneous action potentials in isolated cerebellar Purkinje neurons. Raman IM, et al. **J Neurosci** 1999 Mar 1;19(5):1663–74

Neural learning rules for the vestibulo-ocular reflex. Raymond JL, et al. **J Neurosci** 1998 Nov 1;18(21):9112–29

Cutaneous receptive fields and topography of mossy fibres and climbing fibres projecting to cat cerebellar C3 zone. Garwicz M, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1): 277–93

Topographical organization of projections to cat motor cortex from nucleus interpositus anterior and forelimb skin. Jörntell H, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):551–66

Effects of paired and unpaired eye-blink conditioning on Purkinje cell morphology. Anderson BJ, et al. **Learn Mem** 1999 Mar-Apr;6(2):128–37

Local dendritic Ca2+ signaling induces cerebellar long-term depression. Eilers J, et al. **Learn Mem** 1997 May-Jun; 4(1):159–68

Absence of cerebellar long-term depression in mice lacking neuronal nitric oxide synthase. Lev-Ram V, et al. **Learn Mem** 1997 May-Jun;4(1):169–77

Multiple subclasses of purkinje cells in the primate floccular complex provide similar signals to guide learning in the vestibulo-ocular reflex. Raymond JL, et al. **Learn Mem** 1997 Mar-Apr;3(6):503–18

Patch-clamp, ion-sensing, and glutamate-sensing techniques to study glutamate transport in isolated retinal glial cells. Billups B, et al. **Methods Enzymol** 1998;296:617–32

Glutamate uptake in Purkinje cells in rat cerebellar slices. Takahashi M, et al. **Methods Enzymol** 1998;296:608–17

The transcription factor E2F-1 in SV40 T antigen-induced cerebellar Purkinje cell degeneration. Athanasiou MC, et al. **Mol Cell Neurosci** 1998 Sep;12(1–2):16–28

Simple spike activity predicts occurrence of complex spikes in cerebellar Purkinje cells. Miall RC, et al. **Nat Neurosci** 1998 May;1(1):13–5

P2X2 characteristics of the ATP receptor coupled to [Ca2+]i increases in cultured Purkinje neurons from neonatal rat cerebellum. Garcia-Lecea M, et al. **Neuropharmacology** 1999 May;38(5):699–706

Spinocerebellar Purkinje cells and rat forelimb postures: a direction-dependent activity. Giaquinta G, et al. **Neurosci Lett** 1998 Apr 3;245(2):81–4

Pituitary adenylate cyclase activating polypepetide is expressed by developing rat Purkinje cells and decreases the number of cerebellar gamma-amino butyric acid positive neurons in culture. Skoglösa Y, et al. **Neurosci Lett** 1999 Apr 23;265(3):207–10

Enduring changes in Purkinje cell electrophysiology following transient exposure to AMPA: correlates to dark cell degeneration. Strahlendorf JC, et al. **Neurosci Res** 1999 Feb;33(2):155–62

Influence of functional glia on the electrophysiology of Purkinje cells in organotypic cerebellar cultures. Drake-Baumann R, et al. **Neuroscience** 1999 Jan; 88(2):507–19

Monoaminergic long-term facilitation of GABA-mediated inhibitory transmission at cerebellar synapses. Mitoma H, et al. **Neuroscience** 1999;88(3):871–83

Altered physiology of Purkinje neurons in cerebellar slices from transgenic mice with chronic central nervous system expression of interleukin-6. Nelson TE, et al. **Neuroscience** 1999 Mar;89(1):127–36

Spontaneous Na+ and Ca2+ spike firing of cerebellar Purkinje neurons at high pressure. Etzion Y, et al. **Pflugers Arch** 1999 Jan;437(2):276–84

Purkinje cell responses to pontine stimulation CS during rabbit eyeblink conditioning. Tracy JA, et al. **Physiol Behav** 1998 Nov 15;65(2):381–6

Control of spine formation by electrical activity in the adult rat cerebellum. Bravin M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1704–9

Molecular identification of human G-substrate, a possible downstream component of the cGMP-dependent protein kinase cascade in cerebellar Purkinje cells. Endo S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2467–72

Phospholipase cbeta4 is specifically involved in climbing fiber synapse elimination in the developing cerebellum. Kano M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15724–9

Impaired motor coordination and Purkinje cell excitability in mice lacking calretinin. Schiffmann SN, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5257–62

Cellular mechanisms of cerebellar LTD. Daniel H, et al. **Trends Neurosci** 1998 Sep;21(9):401–7 (63 ref.)

4-Aminopyridine (4-AP) augments Ca(2+)-dependent action potential and changes oscillatory firing patterns in rat cerebellar Purkinje cells. Seo WS, et al. **Yonsei Med J** 1999 Apr;40(2):112–7

[Mechanisms of tacrine modulation of the GABA-activated currents in the isolated cerebellar neurons] Kolbaev SN, et al. **Biull Eksp Biol Med** 1999 May;127(5):539–42 **(Rus)**

[Activity of Purkinje cells from the cerebellum of young and adult rats during hypercalcemia] Chaban TV, et al. **Zh Evol Biokhim Fiziol** 1998 Nov-Dec;34(6):670–4 **(Rus)**

TRANSPLANTATION

Transplanted neurons alter the course of neurodegenerative disease in Lurcher mutant mice. Heckroth JA, et al. **Exp Neurol** 1998 Dec;154(2):336–52

Purkinje cell transplants in Shaker mutant rats with hereditary Purkinje cell degeneration and ataxia. Tolbert DL, et al. **Exp Neurol** 1998 Oct;153(2):255–67

ULTRASTRUCTURE

3-D confocal laser scanning microscopy used in morphometric analysis of rat Purkinje cell dendritic spines after chronic ethanol consumption. Wenisch S, et al. **Anat Histol Embryol** 1998 Dec;27(6):393–7

Rough surfaced smooth endoplasmic reticulum in rat and mouse cerebellar Purkinje cells visualized by quick-freezing techniques. Kanaseki T, et al. **Cell Struct Funct** 1998 Dec;23(6):373–87

Conformational changes of the smooth endoplasmic reticulum are facilitated by L-glutamate and its receptors in rat Purkinje cells. Banno T, et al. **J Comp Neurol** 1998 Dec 14;402(2):252–63

TrkB signaling modulates spine density and morphology independent of dendrite structure in cultured neonatal Purkinje cells. Shimada A, et al. **J Neurosci** 1998 Nov 1; 18(21):8559–70

Effects of paired and unpaired eye-blink conditioning on Purkinje cell morphology. Anderson BJ, et al. **Learn Mem** 1999 Mar-Apr;6(2):128–37

An ultrastructural study of granule cell/Purkinje cell synapses in tottering (tg/tg), leaner (tg(la)/tg(la)) and compound heterozygous tottering/leaner (tg/tg(la)) mice. Rhyu IJ, et al. **Neuroscience** 1999 Mar;90(3):717–28

[Cell to cell transfer of dense bodies induced by intracisternal infusion of leupeptin in rat cerebellum--quantitative and ultrastructural studies] Taniuchi H, et al. **No To Shinkei** 1998 Nov;50(11):1009–17 (Eng. Abstr.) **(Jpn)**

PURKINJE FIBERS

ANATOMY & HISTOLOGY

Distribution of the Purkinje fibres in the sheep heart. Ansari A, et al. **Anat Rec** 1999 Jan;254(1):92–7

DRUG EFFECTS

Proarrhythmic effects of antidepressants and neuroleptic drugs on isolated, spontaneously beating guinea-pig Purkinje fibers. Studenik C, et al. **Eur J Pharm Sci** 1999 Jan;7(2):113–8

Muscarinic activation causes biphasic inotropic response and decreases cellular Na+ activity in canine cardiac Purkinje fibers. Yang JM, et al. **J Biomed Sci** 1999 May-Jun; 6(3):176–82

Electrophysiologic effects of civamide (zucapsaicin) on canine cardiac tissue in vivo and in vitro. Arnar DO, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):875–83

Pharmacological stress testing of the His-Purkinje system in patients with bifascicular block. Englund A, et al. **Pacing Clin Electrophysiol** 1998 Oct;21(10):1979–87 (73 ref.)

[Electrophysiologic effects and arrhythmogenic potential of diphemanil methylsulfate on rabbit purkinje fibers. Correlations with clinical observations of QT prolongation in pediatrics] Adamantidis M, et al. **Arch Mal Coeur Vaiss** 1998 Dec;91(12):1487–94 (Eng. Abstr.) **(Fre)**

METABOLISM

Dystrophin and utrophin complexed with different associated proteins in cardiac Purkinje fibres. Rivier F, et al. **Histochem J** 1999 Jul;31(7):425–32

PHYSIOLOGY

Comparison of the cellular electrophysiological characteristics of canine left ventricular epicardium, M cells, endocardium and Purkinje fibres. Balàti B, et al. **Acta Physiol Scand** 1998 Oct;164(2):181–90

Modulation of repolarization in rabbit Purkinje and ventricular myocytes coupled by a variable resistance. Huelsing DJ, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H572–81

Dynamic restitution of action potential duration during electrical alternans and ventricular fibrillation. Koller ML, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1635–42

Conduction block in Purkinje fibers by homogeneous versus localized decrease of the gap junction conductance. Daleau P, et al. **Can J Physiol Pharmacol** 1998 Jun;76(6):630–41

Effect of acetylstrophanthidin on action potential duration and relation with extracellular potassium in sheep isolated Purkinje fibers. Xie JT, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):309–12

Muscarinic activation causes biphasic inotropic response and decreases cellular Na+ activity in canine cardiac Purkinje fibers. Yang JM, et al. **J Biomed Sci** 1999 May-Jun; 6(3):176–82

Retrograde Purkinje potential activation during sinus rhythm following catheter ablation of idiopathic left ventricular tachycardia. Tada H, et al. **J Cardiovasc Electrophysiol** 1998 Nov;9(11):1218–24

Temporal specificity of long-term depression in parallel fiber--Purkinje synapses in rat cerebellar slice. Chen C, et al. **Learn Mem** 1995 May-Aug;2(3–4):185–98

[Effects of oxygen free radical on the pacemaker current if in sheep ventricular Purkinje fibers] Du Y, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):234, 252 **(Chi)**

[Effect of lysophosphatidylcholine on the pacemaker current I(f) of sheep cardial Purkinje fibers in ischemia-like condition] Hu YM, et al. **Sheng Li Hsueh Pao** 1997 Oct; 49(5):513–20 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Significance of late diastolic potential preceding Purkinje potential in verapamil-sensitive idiopathic left ventricular tachycardia. Tsuchiya T, et al. **Circulation** 1999 May 11; 99(18):2408–13

QRS duration widening: reduced synchronization of endocardial activation or transseptal conduction time? Mehdirad AA, et al. **Pacing Clin Electrophysiol** 1998 Aug; 21(8):1589–94

Idiopathic left ventricular tachycardia with block between purkinje potential and ventricular myocardium. Tomokuni A, et al. **Pacing Clin Electrophysiol** 1998 Sep;21(9):1824–7

PUROMYCIN

BIOSYNTHESIS

The Pur10 protein encoded in the gene cluster for puromycin biosynthesis of Streptomyces alboniger is an NAD-dependent ATP dehydrogenase. Rubio MA, et al. **FEBS Lett** 1998 Oct 23;437(3):197–200

The pur7 gene from the puromycin biosynthetic pur cluster of Streptomyces alboniger encodes a nudix hydrolase. Espinosa JC, et al. **J Bacteriol** 1999 Aug;181(16):4914–8

PHARMACOLOGY

Colocalization of single ribosomes with intermediate filaments in puromycin-treated and serum-starved mouse embryo fibroblasts. Traub P, et al. **Biol Cell** 1998 Jul; 90(4):319–37

PUROMYCIN AMINONUCLEOSIDE

Puromycin aminonucleoside nephrosis results in a marked increase in fractional clearance of albumin. Osicka TM, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):F139–45

Suppressed activities of cathepsins and metalloproteinases in the chronic model of puromycin aminonucleoside nephrosis. Huang S, et al. **Kidney Blood Press Res** 1999; 22(3):121–7

In vivo microvascular clearance of albumin in renal and extrarenal tissues in puromycin aminonucleoside (PAN) induced nephrotic syndrome. Oqvist BW, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):1898–903

PHARMACOLOGY

Synthesis of creatol, a hydroxyl radical adduct of creatinine and its increase by puromycin aminonucleoside in isolated rat hepatocytes. Aoyagi K, et al. **Free Radic Res** 1998 Sep; 29(3):221–6

Imaging of hydroperoxides in a rat glomerulus stimulated by puromycin aminonucleoside. Aoyagi K, et al. **Kidney Int Suppl** 1999 Jul;71:S153–5

PURPLE MEMBRANE

see related
BACTERIORHODOPSIN

CHEMISTRY

Role of helix-helix interactions in assembly of the bacteriorhodopsin lattice. Isenbarger TA, et al. **Biochemistry** 1999 Jul 13;38(28):9023-30

Conformation of bacteriochlorophyll molecules in photosynthetic proteins from purple bacteria. Lapouge K, et al. **Biochemistry** 1999 Aug 24;38(34):11115-21

Molecular motions and hydration of purple membranes and disk membranes studied by neutron scattering. Fitter J, et al. **Eur Biophys J** 1998;27(6):638-45

Surface structures of native bacteriorhodopsin depend on the molecular packing arrangement in the membrane. Müller DJ, et al. **J Mol Biol** 1999 Feb 5;285(5):1903-9

A novel three-dimensional crystal of bacteriorhodopsin obtained by successive fusion of the vesicular assemblies. Takeda K, et al. **J Mol Biol** 1998 Oct 23;283(2):463-74

X-ray diffraction from a single layer of purple membrane at the air/water interface. Verclas SA, et al. **J Mol Biol** 1999 Apr 16;287(5):837-43

Binding of volatile anesthetics to purple membranes studied by X-ray diffraction. Hamanaka T, et al. **Toxicol Lett** 1998 Nov 23;100-101:397-403

ENZYMOLOGY

Steps toward constructing a cytochrome b6 f complex in the purple bacterium Rhodobacter sphaeroides: an example of the structural plasticity of a membrane cytochrome. Kuras R, et al. **Biochemistry** 1998 Nov 17;37(46):16280-8

PURPURA

Improvement of amyloid-related symptoms after autologous stem cell transplantation in a patient with hepatomegaly, macroglossia and purpura. Patriarca F, et al. **Bone Marrow Transplant** 1999 Aug;24(4):433-5

[Purpura simplex] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):416-7 (2 ref.) **(Jpn)**

[Autoerythrocyte sensitization (Gardner-Diamond syndrome)] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):400-2 (5 ref.) **(Jpn)**

[Scurvy, Möller-Barlow disease] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):405-7 (8 ref.) **(Jpn)**

CHEMICALLY INDUCED

Purpuric clothing dermatitis due to Disperse Yellow 27. Foti C, et al. **Contact Dermatitis** 1998 Nov;39(5):273

Gas-body-based contrast agent enhances vascular bioeffects of 1.09 MHz ultrasound on mouse intestine. Miller DL, et al. **Ultrasound Med Biol** 1998 Oct;24(8):1201-8

[Drug-induced papular-purpuric gloves and socks syndrome] van Rooijen MM, et al. **Hautarzt** 1999 Apr;50(4):280-3 (Eng. Abstr.) **(Ger)**

[Drug-induced purpura] Kikuta A, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):412-5 (12 ref.) **(Jpn)**

[Corticosteroid purpura] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):403-4 (7 ref.) **(Jpn)**

CLASSIFICATION

Haemoperitoneum in a patient with cryoglobulinaemia: a form of peritoneal purpura? [letter] Morey A, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2167-8

COMPLICATIONS

Infectious purpura fulminans: caution needed in the use of protein C [letter] Finn A, et al. **Br J Haematol** 1999 Jul; 106(1):253-4

Suspected Brazilian purpuric fever in a toddler with overwhelming Epstein-Barr virus infection. Virata M, et al. **Clin Infect Dis** 1998 Nov;27(5):1238-40

Are there specific haemostatic abnormalities in children surviving septic shock with purpura and having skin necrosis or limb ischaemia that need skin grafts or limb amputations? Cremer R, et al. **Eur J Pediatr** 1999 Feb; 158(2):127-32

[Hyperinfection by S. stercoralis: membranous glomerulonephritis, double bacteremia and petechiae exanthema (letter)] Tornero C, et al. **Enferm Infecc Microbiol Clin** 1998 Dec;16(10):495-6 **(Spa)**

DIAGNOSIS

[Cutaneous vasculitis disclosing cat-scratch disease] Schmoor P, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):894-6 (Eng. Abstr.) **(Fre)**

[Aseptic osteonecrosis of the femur head in the course of rheumatoid purpura (letter)] Paris JF, et al. **Presse Med** 1998 Apr 4;27(13):616-7 **(Fre)**

[Papular-purpuric gloves and socks syndrome] Feldmann R, et al. **Hautarzt** 1999 Jul;50(7):495-8 (Eng. Abstr.) **(Ger)**

[Fever and purpuric lesions in a previously health adolescent. Infectious endocarditis] González Ojeda VM, et al. **An Esp Pediatr** 1999 Jun;50(6):623-4 **(Spa)**

DRUG THERAPY

Treatment of progressive pigmented purpura with oral bioflavonoids and ascorbic acid: an open pilot study in 3 patients. Reinhold U, et al. **J Am Acad Dermatol** 1999 Aug; 41(2 Pt 1):207-8

EPIDEMIOLOGY

Epidemiology of intrathoracic petechial hemorrhages in sudden infant death syndrome. Becroft DM, et al. **Pediatr Dev Pathol** 1998 May-Jun;1(3):200-9

ETIOLOGY

Purpura as a cutaneous association of sickle cell disease. Jones Wu S, et al. **Am J Dermatopathol** 1999 Aug;21(4):384-6

Picture of the month. Petechial eruption with parvovirus B19 infection. Abuhammour W, et al. **Arch Pediatr Adolesc Med** 1999 Jan;153(1):87-8

The early management of meningococcal disease [letter; comment] Campbell-Hewson GL, et al. **J Accid Emerg Med** 1998 Nov;15(6):436. Comment on: J Accid Emerg Med 1998 Mar;15(2):72-6.

Purpura in infants and children [letter; comment] Burrows NP. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):661-2. Comment on: J Am Acad Dermatol 1997 Nov;37(5 Pt 1):673-705; quiz 706-7.

A reaction to tape after tracheal extubation in a patient with systemic amyloidosis. Campos JH. **J Clin Anesth** 1999 Mar; 11(2):126-8

The lady with a history of blood transfusion who developed palpable purpura and microhaematuria. Höhler T, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):2035-7

Autoerythrocyte sensitization (psychogenic purpura): a case report and review of the literature. Anderson JE, et al. **Pediatr Emerg Care** 1999 Feb;15(1):47-8 (4 ref.)

Evaluation of febrile children with petechial rashes: is there consensus among pediatricians? Nelson DG, et al. **Pediatr Infect Dis J** 1998 Dec;17(12):1135-40

Postictal hemifacial purpura. Reis JJ, et al. **Seizure** 1998 Aug; 7(4):337-9

[Cutaneous Scedosporium infection revealed by bullous-necrotic purpura] Lemerle E, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):711-4 (Eng. Abstr.) **(Fre)**

[Cutaneous lymphoma manifesting as pigmented, purpuric capillaries] Lipsker D, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):321-6 (Eng. Abstr.) **(Fre)**

[Infection and vascular purpura] Lévesque H, et al. **J Mal Vasc** 1999 Jun;24(3):177-82 (30 ref.) (Eng. Abstr.) **(Fre)**

[Cutaneous vasculitis and tuberculosis (letter)] Arlet P, et al. **Presse Med** 1998 Dec 5;27(38):1956 **(Fre)**

[Purpura--an unusual presentation of Takayasu arteritis] Reichman N, et al. **Harefuah** 1998 Sep;135(5-6):197-8, 254 (Eng. Abstr.) **(Heb)**

[DNA autosensitivity] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):397-9 (6 ref.) **(Jpn)**

[Senile purpura] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998; (21 Pt 2):418-9 (1 ref.) **(Jpn)**

[Fever and petechiae developing over several days] von Wichmann MA, et al. **Enferm Infecc Microbiol Clin** 1998 Oct;16(8):379-80 **(Spa)**

IMMUNOLOGY

Complement activation in relation to capillary leakage in children with septic shock and purpura. Hazelzet JA, et al. **Infect Immun** 1998 Nov;66(11):5350-6

Pan-reactive platelet antibodies in post-transfusion purpura. Taaning E, et al. **Vox Sang** 1999;76(2):120-3

MICROBIOLOGY

Guess what! Acute infectious endocarditis with Janeway lesions in a patient with atopic dermatitis. Kobayashi H, et al. **Eur J Dermatol** 1999 Apr-May;9(3):239-40

Fur and iron transport proteins in the Brazilian purpuric fever clone of Haemophilus influenzae biogroup aegyptius. Smoot LM, et al. **J Med Microbiol** 1999 Jul;48(7):629-36

PATHOLOGY

Pigmented purpura over the lower extremities. Purpura annularis telangiectodes of Majocchi. Kim HJ, et al. **Arch Dermatol** 1998 Nov;134(11):1477, 1480

Pigmented purpuric dermatosis in a young male. Harris BD, et al. **Cutis** 1999 Feb;63(2):112-3

Splenic peliosis: a rare complication following liver transplantation. Raghavan R, et al. **Dig Dis Sci** 1999 Jun; 44(6):1128-31 (24 ref.)

Purpuric lichen nitidus. Endo M, et al. **Eur J Dermatol** 1998 Jan-Feb;8(1):54-5

Atypical pigmentary purpura: a clinical, histopathologic, and genotypic study. Crowson AN, et al. **Hum Pathol** 1999 Sep;30(9):1004-12

Unusual presentation of mycosis fungoides as pigmented purpura with malignant thymoma. Cather JC, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):858-63 (54 ref.)

Familial primary cryofibrinogenemia. van Geest AJ, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):47-50

PURPURA FULMINANS see **PURPURA,**

SCHOENLEIN-HENOCH

PURPURA HEMORRHAGICA see **PURPURA, SCHOENLEIN-HENOCH**

PURPURA, HYPERGLOBULINEMIC

[Hypergammaglobulinemic purpura] Ito M. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):531-3 (13 ref.) **(Jpn)**

COMPLICATIONS

Benign hypergammaglobulinaemic purpura of Waldenström associated with lymphoid interstitial pneumonitis. Miller RM, et al. **Australas J Dermatol** 1998 Nov;39(4):238-40

DIAGNOSIS

Benign hypergammaglobulinaemic purpura of Waldenström associated with lymphoid interstitial pneumonitis. Miller RM, et al. **Australas J Dermatol** 1998 Nov;39(4):238-40

ETIOLOGY

[Purpura with cystic fibrosis] Rutishauser M. **Schweiz Med Wochenschr** 1999 Mar 13;129(10):420 **(Ger)**

PATHOLOGY

[Purpura pigmentosa progressiva in type III cryoglobulinemia and tartrazine intolerance. A follow-up over 20 years] Kalinke DU, et al. **Hautarzt** 1999 Jan; 50(1):47-51 (Eng. Abstr.) **(Ger)**

PURPURA, NONTHROMBOCYTOPENIC see **PURPURA, SCHOENLEIN-HENOCH**

PURPURA, SCHOENLEIN-HENOCH

Infectious purpura fulminans: diagnosis and treatment. Smith OP, et al. **Br J Haematol** 1999 Feb;104(2):202-7 (50 ref.)

Purpura fulminans in children: report of two cases. Hwang CC, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Mar-Apr;40(2):119-20

Clinicopathologic correlations of Henoch-Schönlein nephritis in Turkish children. Sönmez F, et al. **Pediatr Int** 1999 Aug;41(4):353-6

[Henoch-Schönlein purpura] Kikuta A, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):408-11 (16 ref.) **(Jpn)**

BLOOD

Erythrocyte superoxide dismutase activity and plasma malondialdehyde levels in children with Henoch Schönlein purpura. Demircin G, et al. **Acta Paediatr** 1998 Aug; 87(8):848-52

Imbalances in serum proinflammatory cytokines and their soluble receptors: a putative role in the progression of idiopathic IgA nephropathy (IgAN) and Henoch-Schönlein purpura nephritis, and a potential target of immunoglobulin therapy? Rostoker G, et al. **Clin Exp Immunol** 1998 Dec;114(3):468-76

CHEMICALLY INDUCED

Reversible nonthrombocytopenic palpable purpura associated with metoclopramide. Goad JA. **Ann Pharmacother** 1999 Jan;33(1):35-7

Adult Schönlein-Henoch purpura after enalapril [letter] Gonçalves R, et al. **J Intern Med** 1998 Oct;244(4):356-7

A 4-year-old girl with a rash and joint pain. Usatine RP. **West J Med** 1999 Aug;171(2):116-7

COMPLICATIONS

Plasmapheresis as the sole therapy for rapidly progressive Henoch-Schönlein purpura nephritis in children. Hattori M, et al. **Am J Kidney Dis** 1999 Mar;33(3):427-33

Clinical features of Henoch-Schönlein purpura. Italian Group of Renal Immunopathology. Coppo R, et al. **Ann Med Interne (Paris)** 1999 Feb;150(2):143-50

Henoch-Schönlein nephritis in children and adults. Morphological features and clinicopathological correlations. Rieu P, et al. **Ann Med Interne (Paris)** 1999 Feb;150(2):151-9 (48 ref.)

Ileitis terminalis in a patient with Henoch-Schönlein purpura. Ortego-Centeno N, et al. **Dig Dis Sci** 1999 Aug; 44(8):1590-3

Henoch-Schönlein syndrome associated with human Parvovirus B19 primary infection. Veraldi S, et al. **Eur J Dermatol** 1999 Apr-May;9(3):232-3

Pulmonary function abnormalities in children with Henoch-Schönlein purpura. Cazzato S, et al. **Eur Respir J** 1999 Mar;13(3):597-601

Ischemic necrosis of bile ducts complicating Schönlein-Henoch purpura. Viola S, et al. **Gastroenterology** 1999 Jul;117(1):211-4

Successful treatment of adult-onset Henoch-Schönlein purpura nephritis with high-dose immunoglobulins. Kusuda A, et al. **Intern Med** 1999 Apr;38(4):376-9

Lower-extremity gangrene secondary to disseminated intravascular coagulation [letter] Cafengiu AM, et al. **J Am Podiatr Med Assoc** 1999 Jun;89(6):323-5

Intra-abdominal manifestations of Henoch-Schönlein purpura. Choong CK, et al. **J Paediatr Child Health** 1998 Oct;34(5):405-9 (75 ref.)
Topical nitroglycerin and pain in purpura fulminans. Meyer MT, et al. **J Pediatr** 1999 May;134(5):639-41
Hemorrhagic ascites in a child with Henoch-Schönlein purpura. Venuta A, et al. **J Pediatr Gastroenterol Nutr** 1999 Sep;29(3):358-9
Henoch-Schönlein purpura associated with Toxocara canis infection. Hamidou MA, et al. **J Rheumatol** 1999 Feb; 26(2):443-5
Adult purpura fulminans and digital necrosis associated with sepsis and the factor V mutation [letter] Jackson RT, et al. **JAMA** 1998 Dec 2;280(21):1829-30
Polymorphisms in angiotensin-converting enzyme gene and severity of renal disease in Henoch-Schoenlein patients. Italian Group of Renal Immunopathology. Amoroso A, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3184-8
Acute renal failure in Henoch-Schönlein purpura due to interstitial haemorrhage of the kidney. Costa de Beauregard MA, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2355-7
Henoch-Schönlein purpura, cryofibrinogenaemia, and peripheral gangrene. Gerke P, et al.
Nephrol Dial Transplant 1999 Jul;14(7):1746-9
Hemorrhagic bullous lesions in Henoch-Schönlein purpura. Saulsbury FT. **Pediatr Dermatol** 1998 Sep-Oct;15(5):357-9
Glomerulonephritis without IgA deposits in a case of Henoch-Schönlein purpura. Tanaka H, et al.
Pediatr Nephrol 1999 Sep;13(7):597-9
Arterial hypertension with normal urinalysis in Henoch-Schönlein disease: a further case [letter] Truttmann AC, et al. **Pediatr Nephrol** 1998 Aug;12(6):523
Henoch-Schönlein purpura and pulmonary hemorrhage: a report and literature review. Vats KR, et al.
Pediatr Nephrol 1999 Aug;13(6):530-4 (23 ref.)
Colo-colic intussusception in Henoch-Schönlein purpura. Choong CK, et al. **Pediatr Surg Int** 1998 Dec;14(3):173-4 (25 ref.)
Acute renal failure in an adult patient with Henoch-Schoenlein purpura after episode of macroscopic hematuria. Michail S, et al. **Ren Fail** 1999 Jan;21(1):107-11
[Multiple amputations due to sepsis: however, functional rehabilitation is possible] Hacking HG, et al.
Ned Tijdschr Geneeskd 1999 May 22;143(21):1073-7 (11 ref.) (Eng. Abstr.) **(Dut)**
[Henoch-Schoenlein purpura and toxocarosis] Pawłowska-Kamieniak A, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):217-8 (Eng. Abstr.) **(Pol)**
[Post-chickenpox purpura fulminans with transient reduction of C and S proteins] Angeles Fernández G, et al.
An Esp Pediatr 1998 Oct;49(4):412-4 **(Spa)**

DIAGNOSIS

Gastrointestinal and renal involvement in vasculitis: management strategies in Henoch-Schönlein purpura. Szer IS. **Cleve Clin J Med** 1999 May;66(5):312-7 (16 ref.)
Recurrent gastrointestinal Henoch-Schönlein purpura. Nathan K, et al. **J Clin Gastroenterol** 1999 Jul;29(1):86-9
The swollen, scarlet scrotum: an uncommon manifestation of a common disorder. Gunasekaran TS, et al.
J Pediatr 1999 Jan;134(1):97-8
Hemorrhagic ascites in a child with Henoch-Schönlein purpura. Venuta A, et al. **J Pediatr Gastroenterol Nutr** 1999 Sep;29(3):358-9
Acute hemorrhagic edema of childhood present at birth [letter; comment] Cunningham BB, et al.
Pediatr Dermatol 1999 Jan-Feb;16(1):68. Comment on: Pediatr Dermatol 1998 Mar-Apr;15(2):91-6.
Necrotizing vasculitis secondary to propylthiouracil presenting as purpura fulminans [letter] Park KE, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):790-2
[Acute hemorrhage from the lower digestive tract: a search for the source] Consten EC, et al.
Ned Tijdschr Geneeskd 1998 Nov 14;142(46):2497-501 (Eng. Abstr.) **(Dut)**
["Nothing in the lungs, all in the kidneys!"] Andrès E, et al. **Rev Med Interne** 1999;20 Suppl 2:315s-316s **(Fre)**
[Rheumatoid purpura in children and adults. Diagnosis, prognosis] Cochat P. **Rev Prat** 1998 Mar 1;48(5):545-8 **(Fre)**

DRUG THERAPY

Schönlein-Henoch purpura with severe duodenal involvement treated with corticosteroids. van Laar JA, et al. **Endoscopy** 1998 Jun;30(5):S68
Successful treatment of adult-onset Henoch-Schönlein purpura nephritis with high-dose immunoglobulins. Kusuda A, et al. **Intern Med** 1999 Apr;38(4):376-9

EPIDEMIOLOGY

Comparative clinical and epidemiological study of hypersensitivity vasculitis versus Henoch-Schönlein purpura in adults. García-Porrúa C, et al.
Semin Arthritis Rheum 1999 Jun;28(6):404-12
[Schönlein-Henoch syndrome: clinical-epidemiological analysis of 98 cases] Sticca M, et al. **Pediatr Med Chir** 1999 Jan-Feb;21(1):9-12 (Eng. Abstr.) **(Ita)**

ETIOLOGY

Purpura fulminans localising to a recent burn injury. Wharton SM, et al. **Burns** 1998 Nov;24(7):680-2
Purpura fulminans complicating pneumococcal sepsis [letter] Galanakis E, et al. **Eur J Pediatr** 1999 Feb;158(2):171
Henoch-Schönlein purpura in a chronic hemodialysis patient. Esposito C, et al. **J Nephrol** 1999 May-Jun;12(3):197-200
Henoch-Schönlein purpura associated with segmental and focal proliferative glomerulonephritis in a patient with Hodgkin's disease. Blanco P, et al.
Nephrol Dial Transplant 1999 Jan;14(1):179-80
Familial Mediterranean fever--renal involvement by diseases other than amyloid. Tekin M, et al.
Nephrol Dial Transplant 1999 Feb;14(2):475-9
Purpura fulminans associated with Streptococcus pneumoniae infection in a child. Cnota JF, et al.
Pediatr Emerg Care 1999 Jun;15(3):187-8 (17 ref.)
Varicella purpura fulminans associated with heterozygosity for factor V leiden and transient protein S deficiency. Woods CR, et al. **Pediatrics** 1998 Nov;102(5):1208-10
Role of free oxygen radicals and prostanoids in the pathogenesis of Henoch-Schönlein Purpura. Buyan N, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Sep; 59(3):181-4
Vascular purpura and cryoglobulinemia after influenza vaccination. Case-report and literature review [letter] Lohse A, et al. **Rev Rhum Engl Ed** 1999 Jun;66(6):359-60
[Purpura with cystic fibrosis] Rutishauser M.
Schweiz Med Wochenschr 1999 Mar 13;129(10):420 **(Ger)**

GENETICS

Deletion polymorphism of the angiotensin converting enzyme gene predicts persistent proteinuria in Henoch-Schönlein purpura nephritis. Yoshioka T, et al. **Arch Dis Child** 1998 Nov;79(5):394-9
Brother and sister with different vasculitides [letter] Gattorno M, et al. **Lancet** 1999 Feb 27;353(9154):728
Polymorphisms in angiotensin-converting enzyme gene and severity of renal disease in Henoch-Schoenlein patients. Italian Group of Renal Immunopathology. Amoroso A, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3184-8

IMMUNOLOGY

Immunological studies of children with anaphylactoid purpura. Lin SC, et al.
Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih 1998 Jul-Aug;39(4):247-52
Elevated levels of circulating immunostimulatory 90K in Henoch-Schoenlein purpura. Pelliccia P, et al.
J Clin Immunol 1999 Mar;19(2):143-7
[Anti-myeloperoxidase and anti-lactoferrin antibodies in patients with IgA nephropathy and Henoch-Schönlein purpura] Nishiya K, et al. **Rinsho Byori** 1999 Feb; 47(2):185-7 (Eng. Abstr.) **(Jpn)**

METABOLISM

Expression of interferon-inducible Mx-proteins in patients with IgA nephropathy or Henoch-Schönlein purpura. Floege J, et al. **Am J Kidney Dis** 1999 Mar;33(3):434-40
VCAM-1, ICAM-1, and E-selectin in IgA nephropathy and Schönlein-Henoch syndrome: differences between tissue expression and serum concentration. Mrowka C, et al.
Nephron 1999;81(3):256-63

MICROBIOLOGY

Henoch-Schönlein purpura nephritis associated with methicillin-resistant Staphylococcus aureus infection [letter] Hirayama K, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2703-4
[Purpura fulminans as complication of Mycoplasma pneumoniae infection (letter)] Bermúdez Recio FJ, et al.
Med Clin (Barc) 1999 Mar 6;112(8):318-9 **(Spa)**

PARASITOLOGY

Henoch Schönlein purpura and amebiasis. Demircin G, et al. **Acta Paediatr Jpn** 1998 Oct;40(5):489-91
Paediatric patients with Henoch-Schönlein purpura followed up at Cumhuriyet University, Sivas, Turkey during 1993-1996: role of parasitosis in the aetiology of Henoch-Schönlein purpura [letter] Ergür AT, et al.
J Trop Pediatr 1999 Jun;45(3):177-8

PATHOLOGY

A clinical and histologic study of 37 cases of immunoglobulin A-associated vasculitis. Magro CM, et al.
Am J Dermatopathol 1999 Jun;21(3):234-40
Clinical features of Henoch-Schönlein purpura. Italian Group of Renal Immunopathology. Coppo R, et al.
Ann Med Interne (Paris) 1999 Feb;150(2):143-50
Cutaneous manifestations of Henoch-Schönlein purpura in young children. Nussinovitch M, et al.
Pediatr Dermatol 1998 Nov-Dec;15(6):426-8
Glomerular membranopathy in children with IgA nephropathy and Henoch Schönlein purpura. Vogler C, et al. **Pediatr Dev Pathol** 1999 May-Jun;2(3):227-35
Morphometric analysis of glomerular and interstitial lesions in idiopathic IgA nephropathy and Schoenlein-Henoch nephritis. Danilewicz M, et al. **Pol J Pathol** 1998; 49(4):303-7

PHYSIOPATHOLOGY

[Where are we with purpura fulminans? (editorial)] Huault G. **Arch Pediatr** 1998 Oct;5(10):1061-4 (24 ref.) **(Fre)**

RADIOGRAPHY

[Radiologic case of the month] Bouabid Z, et al.
Arch Pediatr 1999 Jul;6(7):775-6 **(Fre)**

SURGERY

Reconstructive surgery in children after meningococcal purpura fulminans. Huang DB, et al. **J Pediatr Surg** 1999 Apr;34(4):595-601

THERAPY

Henoch-Schönlein purpura. Tizard EJ. **Arch Dis Child** 1999 Apr;80(4):380-3 (34 ref.)
Gastrointestinal and renal involvement in vasculitis: management strategies in Henoch-Schönlein purpura. Szer IS. **Cleve Clin J Med** 1999 May;66(5):312-7 (16 ref.)
Henoch-Schönlein nephritis. Adverse effect of treatment with intravenous immunoglobulin [letter] Villarreal IR, et al. **Nephrol Dial Transplant** 1999 Mar;14(3):795-7
[Post-chickenpox purpura fulminans with transient reduction of C and S proteins] Angeles Fernández G, et al.
An Esp Pediatr 1998 Oct;49(4):412-4 **(Spa)**

VIROLOGY

[Rheumatoid purpura discovered during dengue fever (letter)] Strobel M, et al. **Rev Med Interne** 1998 Dec; 19(12):940-2 **(Fre)**

PURPURA, THROMBOCYTOPENIC

Perinatal management of women with immune thrombocytopenic purpura: survey of United States perinatologists. Peleg D, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):645-9
[Neonatal alloimmune thrombocytopenic purpura (NAITP)] Matsuzaki T, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):303-6 (15 ref.) **(Jpn)**

BLOOD

Reticulated platelet counts in the assessment of thrombocytopenic disorders. Saxon BR, et al.
Acta Paediatr Suppl 1998 Jun;424:65-70 (39 ref.)
Platelet aggregating activity of plasma in patients with thrombotic thrombocytopenic purpura evaluated by a particle counting method using light scattering. Suehiro A, et al. **Int J Hematol** 1999 Jul;70(1):40-6
Increased von Willebrand factor (vWf) binding to platelets associated with impaired vWf breakdown in thrombotic thrombocytopenic purpura. Moake JL, et al.
J Clin Apheresis 1998;13(3):126-32 (28 ref.)
Differences in platelet alpha-granule release between normals and immune thrombocytopenic patients and between young and old platelets. Rinder HM, et al. **Thromb Haemost** 1998 Sep;80(3):457-62

CHEMICALLY INDUCED

Quinine for cramps. Pinn G. **Aust Fam Physician** 1998 Oct; 27(10):922-3
Immune thrombocytopenia due to Tranilast (Rizaben): detection of drug-dependent platelet-associated IgG. Nagae S, et al. **J Dermatol** 1998 Nov;25(11):706-9
[Thrombopenic purpura caused by tetracyclines? (letter)] Navarro Seisdedos LA, et al. **Rev Clin Esp** 1998 Aug; 198(8):556-7 **(Spa)**

COMPLICATIONS

Emergency splenectomy in the management of intracranial hemorrhage in childhood immune thrombocytopenic purpura [letter] Pastore Y, et al.
J Pediatr Hematol Oncol 1999 Jul-Aug;21(4):306-7
Nephrotic syndrome due to membranous glomerulonephritis in a patient with idiopathic thrombocytopenic purpura [letter] Tamura K, et al. **Nephron** 1999;82(1):87-9

CONGENITAL

The fetal and neonatal consequences of maternal alloimmune thrombocytopenia. Bussel J, et al.
Baillieres Clin Haematol 1998 Jun;11(2):391-408 (36 ref.)

DIAGNOSIS

Primary splenic hairy cell leukaemia variant presenting as immune thrombocytopenic purpura [letter] Virchis AE, et al. **Eur J Haematol** 1998 Oct;61(4):288-91
[Idiopathic thrombocytopenic purpura in adults: diagnostic and therapeutic problems] Urasiński I.
Pol Arch Med Wewn 1998 Jul;100(1):82-8 (36 ref.) **(Pol)**

DRUG THERAPY

Recurrent lymphocytic pleural effusion after intravenous immunoglobulin [letter] Bolanos-Meade J, et al.
Am J Hematol 1999 Mar;60(3):248-9
Danazol therapy in cyclic acquired amegakaryocytic thrombocytopenic purpura: a case report. Kashyap R, et al. **Am J Hematol** 1999 Mar;60(3):225-8

Low-dose cyclosporin A therapy in children with refractory immune thrombocytopenic purpura. Moskowitz IP, et al. **J Pediatr Hematol Oncol** 1999 Jan-Feb;21(1):77-9

ETIOLOGY

Thrombocytopenic purpura secondary to brucellosis [letter] Benecos P, et al. **Eur J Pediatr** 1998 Aug;157(8):698

Transfusion medicine [letter; comment] Vandenberghe P, et al. **N Engl J Med** 1999 Jul 8;341(2):125; discussion 126-7 . Comment on: N Engl J Med 1999 Feb 11;340(6):438-47. Comment on: N Engl J Med 1999 Feb 18;340(7):525-33.

Systemic lupus erythematosus and thrombocytopenic purpura in two members of the same family following hepatitis B vaccine [letter] Finielz P, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2420-1

IMMUNOLOGY

Is it necessary to test patients with immune thrombocytopenic purpura (ITP) for seropositivity to HTLV-1? Calleja E, et al. **Am J Hematol** 1999 Jun;61(2):94-7

The fetal and neonatal consequences of maternal alloimmune thrombocytopenia. Bussel J, et al. **Baillieres Clin Haematol** 1998 Jun;11(2):391-408 (36 ref.)

The influence of Epstein-Barr virus seropositivity on the efficacy of intravenous immune globulin in children with immune thrombocytopenic purpura. Sturgill MG, et al. **Clin Pediatr (Phila)** 1999 Mar;38(3):171-3

Plasma autoantibodies against platelet glycoprotein IIb/IIIa from patients with autoimmune thrombocytopenic purpura may recognize different antigenic determinants. Berchtold P, et al. **Eur J Haematol** 1998 Oct;61(4):223-8

Genetic origin of IgG antibodies cloned by phage display and anti-idiotypic panning from three patients with autoimmune thrombocytopenia. Jendreyko N, et al. **Eur J Immunol** 1998 Dec;28(12):4236-47

Immune thrombocytopenia due to Tranilast (Rizaben): detection of drug-dependent platelet-associated IgG. Nagae S, et al. **J Dermatol** 1998 Nov;25(11):706-9

Low-dose cyclosporin A therapy in children with refractory immune thrombocytopenic purpura. Moskowitz IP, et al. **J Pediatr Hematol Oncol** 1999 Jan-Feb;21(1):77-9

METABOLISM

Transforming growth factor-beta1 (TGF-beta1) induces thrombopoietin from bone marrow stromal cells, which stimulates the expression of TGF-beta receptor on megakaryocytes and, in turn, renders them susceptible to suppression by TGF-beta itself with high specificity. Sakamaki S, et al. **Blood** 1999 Sep 15;94(6):1961-70

MICROBIOLOGY

Isolated thrombocytopenic purpura associated with infection due to verocytotoxin (Shiga toxin)-producing Escherichia coli serotype O26:H11. Ludwig K, et al. **Clin Infect Dis** 1998 Sep;27(3):660-1

PATHOLOGY

TTP-Like syndrome in a 44-year-old woman with SLE and nephritis. Le T, et al. **Am J Kidney Dis** 1999 Jun; 33(6):1198-201

Relationship between megakaryocyte mass and serum thrombopoietin levels as revealed by a case of cyclic amegakaryocytic thrombocytopenic purpura. Zent CS, et al. **Br J Haematol** 1999 May;105(2):452-8

PHYSIOPATHOLOGY

[Idiopathic thrombocytopenic purpura: long-term outcome] Choulot JJ, et al. **Arch Pediatr** 1998 Jan;5(1):19-23 (Eng. Abstr.) **(Fre)**

SURGERY

Laparoscopic versus open splenectomy for immune thrombocytopenic purpura. Lozano-Salazar RR, et al. **Am J Surg** 1998 Oct;176(4):366-9

Results of laparoscopic splenectomy for immune thrombocytopenic purpura. Tanoue K, et al. **Am J Surg** 1999 Mar;177(3):222-6

Long-term results of laparoscopic splenectomy for immune thrombocytopenic purpura. Harold KL, et al. **Mayo Clin Proc** 1999 Jan;74(1):37-9

Conversion factors for laparoscopic splenectomy for immune thrombocytopenic purpura. Brody FJ, et al. **Surg Endosc** 1999 Aug;13(8):789-91

[Thyroid membrane puncture in a case of impossible tracheal intubation (letter)] Salmones MG, et al. **Rev Esp Anestesiol Reanim** 1998 Oct;45(8):356-7 **(Spa)**

THERAPY

Immune ablation and stem cell transplantation for severe Evans syndrome and refractory thrombocytopenic purpura. Marmont AM. **Bone Marrow Transplant** 1999 Jun; 23(12):1215-6 (26 ref.)

Failure of autologous stem cell transplantation in refractory thrombocytopenic purpura. Marmont AM, et al. **Bone Marrow Transplant** 1998 Oct;22(8):827-8

Complete splenic embolization in the treatment of immune thrombocytopenic purpura [letter] Martinez Lagares F, et al. **Br J Haematol** 1998 Dec;103(3):894-5

United States Thrombotic Thrombocytopenic Purpura Apheresis Study Group (US TTP ASG): multicenter survey and retrospective analysis of current efficacy of therapeutic plasma exchange. Bandarenko N, et al. **J Clin Apheresis** 1998;13(3):133-41

[Marked thrombocytopenia after high-dose intravenous gamma globulin in a pregnant woman with idiopathic thrombocytopenic purpura] Shimano S, et al. **Rinsho Ketsueki** 1999 Apr;40(4):318-23 (Eng. Abstr.) **(Jpn)**

[Idiopathic thrombocytopenic purpura in adults: diagnostic and therapeutic problems] Urasinski I. **Pol Arch Med Wewn** 1998 Jul;100(1):82-8 (36 ref.) **(Pol)**

VIROLOGY

Human parvovirus B19-associated thrombocytopenic purpura. Kido S, et al. **Acta Paediatr Jpn** 1998 Oct; 40(5):486-8

Autoimmune thrombocytopenic purpura and dermatomyositis associated with chronic hepatitis C. A therapeutic dilemma. Moccia F. **Ann Ital Med Int** 1998 Oct-Dec;13(4):240-3

PURPURA, THROMBOCYTOPENIC, AUTOIMMUNE
see **PURPURA, THROMBOCYTOPENIC, IDIOPATHIC**

PURPURA, THROMBOCYTOPENIC, IDIOPATHIC

Idiopathic Thrombocytopenic Purpura in Childhood. Proceedings of a Swedish-Canadian symposium. Stockholm, June 13-16, 1997. **Acta Paediatr Suppl** 1998 Jun;424:1-84

Directions for research in autoimmune thrombocytopenic purpura (ITP). Freedman J, et al. **Acta Paediatr Suppl** 1998 Jun;424:82-4

A study of idiopathic thrombocytopenic purpura (ITP) patients over a ten-year period. Wong GC, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):789-93

Outcome of pregnancy in women with idiopathic thrombocytopenic purpura. Al-Jama FE, et al. **Aust N Z J Obstet Gynaecol** 1998 Nov;38(4):410-3

Immune thrombocytopenic purpura in pregnancy. Christiaens GC. **Baillieres Clin Haematol** 1998 Jun; 11(2):373-80 (34 ref.)

Immune thrombocytopenic purpura in adults: clinical aspects. Gillis S, et al. **Baillieres Clin Haematol** 1998 Jun; 11(2):361-72 (77 ref.)

Immune-mediated thrombocytopenias: basic and immunological aspects. Porcelijn L, et al. **Baillieres Clin Haematol** 1998 Jun;11(2):331-41 (36 ref.)

Acute autoimmune thrombocytopenia. Sutor AH, et al. **Baillieres Clin Haematol** 1998 Jun;11(2):381-9 (40 ref.)

Immune thrombocytopenic purpura ITP. Imbach P, et al. **Vox Sang** 1998;74 Suppl 2:309-14 (64 ref.)

[Idiopathic thrombopenic purpura in the infant (apropos of 52 cases)] Chaabouni M, et al. **Tunis Med** 1998 Nov; 76(11):389-96 **(Fre)**

[Acute idiopathic thrombocytopenic purpura] Ando Y. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):284-6 (5 ref.) **(Jpn)**

[Idiopathic thrombocytopenic purpura in childhood] Miyata H. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):293-8 (16 ref.) **(Jpn)**

[Corticosteroid resistant idiopathic thrombocytopenic purpura] Murai K, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):299-302 (11 ref.) **(Jpn)**

[Chronic idiopathic thrombocytopenic purpura] Nomura S, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):289-92 (19 ref.) **(Jpn)**

BLOOD

Selectins and IL-6 during the clinical course of idiopathic thrombocytopenic purpura. Haznedaroglu IC, et al. **Acta Haematol** 1999 Mar;101(1):16-20

Platelet kinetic studies in patients with idiopathic thrombocytopenic purpura. Louwes H, et al. **Am J Med** 1999 Apr;106(4):430-4

Gender-related analysis of thrombopoietic cytokine pattern in patients with immune thrombocytopenic purpura. Balleari E, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:387-90

Circulating thrombopoietin and interleukin-6 in newly diagnosed autoimmune versus aplastic thrombocytopenia [letter] Koşar A, et al. **Haematologica** 1998 Nov; 83(11):1055-6

Serum-induced platelet procoagulant activity: an assay for the characterization of prothrombotic disorders. Warner MN, et al. **J Lab Clin Med** 1999 Feb;133(2):129-33

Chronic immune thrombocytopenic purpura in childhood. Kühne T, et al. **Semin Thromb Hemost** 1998;24(6):549-53 (50 ref.)

Acute immune thrombocytopenia in childhood. Are we treating the platelet count? Sutor AH. **Semin Thromb Hemost** 1998;24(6):545-8 (42 ref.)

CHEMICALLY INDUCED

Carbamazepine-induced immune thrombocytopenia in a 12-year-old female. Ueda D, et al. **Acta Haematol** 1998; 100(2):104-5

Quinine-induced immune thrombocytopenic purpura followed by hemolytic uremic syndrome. Glynne P, et al. **Am J Kidney Dis** 1999 Jan;33(1):133-7 (22 ref.)

Drug-induced immune thrombocytopenia: an overview of pathogenesis. Aster RH. **Semin Hematol** 1999 Jan;36(1 Suppl 1):2-6 (38 ref.)

COMPLICATIONS

Mononeuropathy multiplex in the course of idiopathic thrombocytopenic purpura. A case report. Yalçin A, et al. **Acta Haematol** 1998;100(4):211-2

Idiopathic thrombocytopenic purpura associated with breast cancer: a case report and review of the current literature. Porrata LF, et al. **Am J Clin Oncol** 1999 Aug;22(4):411-3 (5 ref.)

Pernicious anemia (PA) subsequent to insulin-dependent diabetes mellitus and idiopathic thrombocytopenic purpura, and effects of oral cobalamin on PA [letter] Kondo H, et al. **Am J Hematol** 1999 Sep;62(1):61-2

Relationships between severe neonatal thrombocytopenia and maternal characteristics in pregnancies associated with autoimmune thrombocytopenia [see comments] Valat AS, et al. **Br J Haematol** 1998 Nov;103(2):397-401. Comment in: Br J Haematol 1999 Apr;105(1):317.

Olanzapine-induced thrombocytopenia in association with idiopathic thrombocytopenic purpura [letter] Bachmann S, et al. **Br J Psychiatry** 1998 Oct;173:352

Idiopathic thrombocytopenic purpura preceding malignant lymphoma: report of one case. Lin WC, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan-Feb;40(1):39-42 (17 ref.)

Low neonatal risk of thrombocytopenia in pregnancy associated with immune thrombocytopenic purpura. Song TS, et al. **Fetal Diagn Ther** 1999 Jul-Aug;14(4):216-9

Intramural hematoma of stomach after splenectomy for idiopathic thrombocytopenic purpura [letter] Kami M, et al. **Haematologica** 1999 Jul;84(7):669-71

Massive intracranial bleeding requiring emergency splenectomy in a patient with CMV-associated thrombocytopenia. Gural A, et al. **Haemostasis** 1998 Sep-Oct;28(5):250-5 (16 ref.)

Perioperative management of a patient with Werlhof disease undergoing myocardial revascularization. Gaudino M, et al. **J Cardiovasc Surg (Torino)** 1999 Apr;40(2):227-8

Primary percutaneous transluminal coronary angioplasty performed for acute myocardial infarction in a patient with idiopathic thrombocytopenic purpura. Fuchi T, et al. **Jpn Circ J** 1999 Feb;63(2):133-6

Aortic valve replacement in a patient with idiopathic thrombocytopenic purpura. Kumamoto T, et al. **Jpn J Thorac Cardiovasc Surg** 1999 Apr;47(4):182-4

Simultaneous onset of alopecia areata and idiopathic thrombocytopenic purpura: A potential association? Levin RM, et al. **Pediatr Dermatol** 1999 Jan-Feb;16(1):31-4

[Idiopathic thrombocytopenic purpura and food allergy: a study on possible correlations] Massolo F, et al. **Pediatr Med Chir** 1998 Nov-Dec;20(6):407-9 (Eng. Abstr.) **(Ita)**

[A case of mitral valve replacement combined with idiopathic thrombocytopenic purpura (ITP)] Goshima M, et al. **Kyobu Geka** 1999 Jul;52(7):573-7 (23 ref.) (Eng. Abstr.) **(Jpn)**

[Coronary artery bypass grafting and the repair of ventricular septal defect in idiopathic thrombocytopenic purpura] Onoe M, et al. **Kyobu Geka** 1999 Feb;52(2):112-4 (Eng. Abstr.) **(Jpn)**

[Cholangitis associated with idiopathic thrombocytopenic purpura and acute interstitial pneumonia] Takuma T, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Dec; 95(12):1382-6 **(Jpn)**

[Idiopathic thrombocytopenic purpura and Graves disease: pathogenic questioning of a rare association (letter)] Salgado Nevado V, et al. **An Med Interna** 1998 Sep; 15(9):509-10 **(Spa)**

[Common variable immunodeficiency associated with autoimmune thrombocytopenia: anesthetic management] Fernández-Liesa JI, et al. **Rev Esp Anestesiol Reanim** 1998 Dec;45(10):433-5 (Eng. Abstr.) **(Spa)**

[Neonatal consequences of maternal autoimmune thrombocytopenic purpura] Baptista González HA, et al. **Sangre (Barc)** 1999 Feb;44(1):24-9 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Platelet kinetic studies in patients with idiopathic thrombocytopenic purpura. Louwes H, et al. **Am J Med** 1999 Apr;106(4):430-4

Thrombopoietin, interleukin-6, and P-selectin at diagnosis and during post-steroid recovery period of patients with autoimmune thrombocytopenic purpura. Haznedaroglu IC, et al. **Ann Hematol** 1998 Oct;77(4):165-70

Two cases of autoimmune thrombocytopenic purpura associated with antiphospholipid antibodies. Moccia F. **Ann Ital Med Int** 1999 Apr-Jun;14(2):114-7 (29 ref.)

Laboratory abnormalities in thrombotic thrombocytopenic purpura. Canadian Apheresis Group. Rock G, et al. **Br J Haematol** 1998 Dec;103(4):1031-6

A prospective study of protein-specific assays used to investigate idiopathic thrombocytopenic purpura. Warner MN, et al. **Br J Haematol** 1999 Mar;104(3):442-7

Idiopathic thrombocytopenic purpura: guidance amid uncertainty. Lichtin A. **Cleve Clin J Med** 1998 Nov-Dec; 65(10):510-4 (7 ref.)

Idiopathic thrombocytopenic purpura and pregnancy.

Paternoster DM, et al. **Int J Gynaecol Obstet** 1999 May; 65(2):207–8

Pigmented purpura–like eruption as cutaneous sign of mycosis fungoides with autoimmune purpura. Puddu P, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):298–9

Giant platelet disorders in African–American children misdiagnosed as idiopathic thrombocytopenic purpura. Young G, et al. **J Pediatr Hematol Oncol** 1999 May–Jun; 21(3):231–6

Idiopathic thrombocytopenic purpura in adults [editorial; comment] Wiley JS. **Med J Aust** 1999 Mar 1;170(5):196–7 . Comment on: Med J Aust 1999 Mar 1;170(5):216–7.

Screening for platelet auto–antibodies by flow cytometry and their evaluation by the MAIPA technique. Janisiw M, et al. **Wien Klin Wochenschr** 1998 Aug 21;110(15):531–4

[Idiopathic thrombopenic purpura in a child in black Africa: a case report in Togo] Gbadoé AD, et al. **Sante** 1998 Sep–Oct;8(5):337–41 (Eng. Abstr.) **(Fre)**

[The course of pregnancy and delivery among women with thrombocytopenia] Szymański W, et al. **Ginekol Pol** 1998 Dec;69(12):1003–6 (Eng. Abstr.) **(Pol)**

[A 73 year–old patient with thrombocytopenia and a giant cerebral vascular malformation] Salgado Ordóñez F, et al. **An Med Interna** 1998 Sep;15(9):481–2 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Short–course oral prednisone therapy in children presenting with acute immune thrombocytopenic purpura (ITP). Carcao MD, et al. **Acta Paediatr Suppl** 1998 Jun;424:71–4

Successful steroid treatment of idiopathic thrombocytopenic purpura after orthotopic liver transplantation for primary biliary cirrhosis. Fickert P, et al. **Am J Gastroenterol** 1998 Oct;93(10):1985–6

Immune thrombocytopenia after umbilical cord progenitor cell transplant: response to vincristine. Dovat S, et al. **Bone Marrow Transplant** 1999 Aug;24(3):321–3

Efficacy of high–dose methylprednisolone as a first–line therapy in adult patients with idiopathic thrombocytopenic purpura. Alpdogan O, et al. **Br J Haematol** 1998 Dec; 103(4):1061–3

Adult refractory chronic idiopathic thrombocytopenic purpura: can dapsone be proposed as second–line therapy? [letter] Radaelli F, et al. **Br J Haematol** 1999 Mar; 104(3):641–2

Combination chemotherapy in a patient with severe multiple systemic autoimmune disease. Tamai Y, et al. **Clin Lab Haematol** 1998 Oct;20(5):315–6

Transient response to multiple courses of pulse high–dose dexamethasone therapy in children with idiopathic thrombocytopenic purpura. Eskenazi AE, et al. **Haematologia (Budap)** 1998;29(2):81–7

Immune thrombocytopenic purpura: why treat? [editorial; comment] Nugent DJ. **J Pediatr** 1999 Jan;134(1):3–4 (15 ref.). Comment on: J Pediatr 1999 Jan;134(1):21–6.

Treatment of childhood acute immune thrombocytopenic purpura with anti–D immune globulin or pooled immune globulin [see comments] Tarantino MD, et al. **J Pediatr** 1999 Jan;134(1):21–6. Comment in: J Pediatr 1999 Jan;134(1):3–4.

Evans syndrome: successful management with multi–agent treatment including intermediate–dose intravenous cyclophosphamide [letter; comment] Gombakis N, et al. **J Pediatr Hematol Oncol** 1999 May–Jun;21(3):248–9. Comment on: J Pediatr Hematol Oncol 1997 Sep–Oct;19(5):433–7.

Effects of a novel pyridylsulphonyl thiazole derivative, FR115092, on autoimmune and mitomycin C–induced thrombocytopenia in mice. Nishigaki F, et al. **J Pharm Pharmacol** 1999 Jul;51(7):857–65

Critical pharmacologic management in the emergency department. Rosenberg NM, et al. **Pediatr Emerg Care** 1998 Oct;14(5):376–9

[Rapidly progressive irradiated cervical cancer that metastasized to the liver during therapy for idiopathic thrombocytopenic purpura] Yoshimura T, et al. **Rinsho Ketsueki** 1999 Feb;40(2):150–2 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

The incidence of idiopathic thrombocytopenic purpura in adults increases with age. Frederiksen H, et al. **Blood** 1999 Aug 1;94(3):909–13

ETIOLOGY

Does cytomegalovirus infection cause immune thrombocytopenia? [letter; comment] Ozsoylu S. **Acta Haematol** 1998;100(2):114. Comment on: Acta Haematol 1997;98(4):228–30.

Further evidence that exacerbation of ulcerative colitis causes the onset of immune thrombocytopenia: a clinical case. Kodaira M, et al. **Am J Gastroenterol** 1999 May; 94(5):1408–10

Idiopathic thrombocytopenia after cytomegalovirus infection in a renal transplant recipient. McLaughlin K, et al. **Am J Kidney Dis** 1999 Jun;33(6):e6

Mediastinal nodal tuberculosis presenting as immune thrombocytopenia [letter] Talbot S, et al. **Aust N Z J Med** 1998 Aug;28(4):465–6

Autoimmune thrombocytopenia in a patient with small cell lung cancer developing after chemotherapy and resolving following autologous peripheral blood stem cell transplantation. Demirer T, et al. **Bone Marrow Transplant** 1999 Aug;24(3):335–7

Autoimmune thrombocytopenic purpura after treatment with Campath 1H in a patient with chronic lymphocytic leukaemia [letter] Otton SH, et al. **Br J Haematol** 1999 Jul;106(1):261–2

Resolution of thrombocytopenia after treatment for Helicobacter pylori: a case report [letter] Grimaz S, et al. **Haematologica** 1999 Mar;84(3):283–4

Immune thrombocytopenic purpura after recombinant hepatitis B vaccine: retrospective study of seven cases. Neau D, et al. **Scand J Infect Dis** 1998;30(2):115–8

Autoimmune thrombocytopenia in primary antiphospholipid syndrome and systemic lupus erythematosus: the response to splenectomy. Hakim AJ, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):20–5

Drug–induced immune thrombocytopenia: an overview of pathogenesis. Aster RH. **Semin Hematol** 1999 Jan;36(1 Suppl 1):2–6 (38 ref.)

Idiopathic thrombocytopenic purpura after a living–related liver transplantation. Takatsuki M, et al. **Transplantation** 1999 Feb 15;67(3):479–81

[Recurrent auto–immune thrombopenic purpura during a severe attack of ulcerative colitis (letter)] Vaucher C, et al. **Gastroenterol Clin Biol** 1998 Dec;22(12):1114–6 **(Fre)**

[Primary biliary cirrhosis revealed by autoimmune thrombopenic purpura (letter)] Leleu X, et al. **Presse Med** 1998 Nov 28;27(37):1897–8 **(Fre)**

[Autoimmune thrombocytopenia following syngeneic peripheral blood stem cell transplantation] Nishio M, et al. **Rinsho Ketsueki** 1998 Aug;39(8):580–5 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Immune thrombocytopenic purpura as presenting form of miliary tuberculosis (letter)] Pérez de Llano LA, et al. **Arch Bronconeumol** 1998 Sep;34(8):411–2 **(Spa)**

GENETICS

Genetic analysis of HLA– and HPA–typing in idiopathic (autoimmune) thrombocytopenic purpura patients treated with cepharanthin. Nomura S, et al. **Autoimmunity** 1999; 30(2):99–105

Percutaneous umbilical blood sampling in the management of immune thrombocytopenic purpura during pregnancy [letter] Vianelli N, et al. **Haematologica** 1998 Dec; 83(12):1127–8

Portal and mesenteric venous thrombosis in a patient heterozygous for the 20210 A allele of the prothrombin gene [letter] Zuazu–Jausoro I, et al. **Haematologica** 1998 Dec;83(12):1129–30

Increased utilization of the VH6 gene family in patients with autoimmune idiopathic thrombocytopenic purpura. van Dijk–Härd I, et al. **J Autoimmun** 1999 Feb;12(1):57–63

HISTORY

Idiopathic thrombocytopenic purpura (ITP): a historical odyssey. Freedman J, et al. **Acta Paediatr Suppl** 1998 Jun; 424:3–6

IMMUNOLOGY

Cytokines in idiopathic thrombocytopenic purpura (ITP). Andersson J. **Acta Paediatr Suppl** 1998 Jun;424:61–4 (23 ref.)

Role of complement in immune or idiopathic thrombocytopenic purpura. Hed J. **Acta Paediatr Suppl** 1998 Jun;424:37–40 (20 ref.)

Role of the T cell receptor in idiopathic thrombocytopenic purpura (ITP). Hedlund–Treutiger I, et al. **Acta Paediatr Suppl** 1998 Jun;424:46–50 (35 ref.)

Analysis of transmembrane signalling and T cell defects associated with idiopathic thrombocytopenic purpura (ITP). Lazarus AH, et al. **Acta Paediatr Suppl** 1998 Jun; 424:21–5 (29 ref.)

Platelet function in autoimmune (idiopathic) thrombocytopenic purpura. Rand ML, et al. **Acta Paediatr Suppl** 1998 Jun;424:57–60 (40 ref.)

Immunobiology of T helper cells and antigen–presenting cells in autoimmune thrombocytopenic purpura (ITP). Semple JW. **Acta Paediatr Suppl** 1998 Jun;424:41–5 (48 ref.)

Platelet proteins as autoantibody targets in idiopathic thrombocytopenic purpura. Wadenvik H, et al. **Acta Paediatr Suppl** 1998 Jun;424:26–36 (113 ref.)

Measurement of platelet antibodies: where do we stand? Winiarski J. **Acta Paediatr Suppl** 1998 Jun;424:51–3 (11 ref.)

Mechanisms in childhood idiopathic thrombocytopenic purpura (ITP). Winiarski J. **Acta Paediatr Suppl** 1998 Jun; 424:54–6 (22 ref.)

HLA and HPA typing in idiopathic thrombocytopenic purpura patients treated with Kami–kihi–to. Matsuzaki T, et al. **Am J Chin Med** 1998;26(2):191–8

Possible presence of enhancing antibodies in idiopathic thrombocytopenic purpura. Yang YY, et al. **Br J Haematol** 1999 Jan;104(1):69–80

Anti–cardiolipin–beta2–GPI complex antibodies in idiopathic thrombocytopenic purpura [letter; comment] Kaburaki J, et al. **Intern Med** 1998 Sep;37(9):796; discussion 797–8. Comment on: Intern Med 1997 Dec;36(12):882–5.

Autoreactive T cells to platelet GPIIb–IIIa in immune thrombocytopenic purpura. Role in production of anti–platelet autoantibody. Kuwana M, et al. **J Clin Invest** 1998 Oct 1;102(7):1393–402

[Kaleidoscopic autoimmunity] Shoenfeld Y. **Harefuah** 1998 Oct;135(7–8):262–4, 336 (Eng. Abstr.) **(Heb)**

METABOLISM

Role of caspases 1 and 3 and Bcl–2–related molecules in endothelial cell apoptosis associated with thrombotic microangiopathies. Mitra D, et al. **Am J Hematol** 1998 Dec; 59(4):279–87

PATHOLOGY

The diagnosis of idiopathic thrombocytopenic purpura in adults: does bone marrow biopsy have a place? [see comments] Westerman DA, et al. **Med J Aust** 1999 Mar 1;170(5):216–7. Comment in: Med J Aust 1999 Mar 1;170(5):196–7.

[Late relapse of idiopathic thrombocytopenic purpura in a splenectomized patient recipient of spleen autotransplantation (letter)] González Silva M, et al. **Sangre (Barc)** 1999 Feb;44(1):80–1 **(Spa)**

PHYSIOPATHOLOGY

Remission of idiopathic thrombocytopenic purpura after femoral lengthening. Clinical case followed for 5 years. Murashima R, et al. **Arch Orthop Trauma Surg** 1999; 119(1–2):100–2

RADIOTHERAPY

Splenic irradiation as management of ITP. Callis M, et al. **Br J Haematol** 1999 Jun;105(3):843–4

SURGERY

Accessory splenectomy in the management of recurrent immune thrombocytopenic purpura. Walters DN, et al. **Am Surg** 1998 Nov;64(11):1077–8

Splenectomy during pregnancy: an option in the treatment of autoimmune thrombocytopenic purpura. Gottlieb P, et al. **Br J Obstet Gynaecol** 1999 Apr;106(4):373–5

Long–term follow–up of autoimmune thrombocytopenic purpura (ATP) patients submitted to splenectomy. Mazzucconi MG, et al. **Eur J Haematol** 1999 Apr; 62(4):219–22

Intramural hematoma of stomach after splenectomy for idiopathic thrombocytopenic purpura [letter] Kami M, et al. **Haematologica** 1999 Jul;84(7):669–71

Laparoscopic splenectomy: reduction of hospital charges. Schlinkert RT, et al. **J Gastrointest Surg** 1998 May–Jun; 2(3):278–82

Autoimmune thrombocytopenia in primary antiphospholipid syndrome and systemic lupus erythematosus: the response to splenectomy. Hakim AJ, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):20–5

Laparoscopic splenectomy—a report of two cases. Kok KY, et al. **Singapore Med J** 1998 Oct;39(10):473–4

Splenectomy for idiopathic thrombocytopenic purpura: comparison of laparoscopic and conventional surgery. Marassi A, et al. **Surg Endosc** 1999 Jan;13(1):17–20

Laparoscopic splenectomy for idiopathic thrombocytopenic purpura. A 1–year follow–up study. Meyer G, et al. **Surg Endosc** 1998 Nov;12(11):1348–52

Laparoscopic management of accessory spleens in immune thrombocytopenic purpura. Morris KT, et al. **Surg Endosc** 1999 May;13(5):520–2

Laparoscopic splenectomy for treatment of patients with idiopathic thrombocytopenic purpura. Comparison with open splenectomy. Shimomatsuya T, et al. **Surg Endosc** 1999 Jun;13(6):563–6

[Laparoscopic splenectomy for hematological diseases; results in 28 patients] den Hoed PT, et al. **Ned Tijdschr Geneeskd** 1999 Jun 5;143(23):1222–5 (Eng. Abstr.) **(Dut)**

[Pseudo–Glanzmann thrombasthenia in the course of autoimmune thrombocytopenic purpura] Granel B, et al. **Rev Med Interne** 1998 Nov;19(11):823–5 (Eng. Abstr.) **(Fre)**

[Kaleidoscopic autoimmunity] Shoenfeld Y. **Harefuah** 1998 Oct;135(7–8):262–4, 336 (Eng. Abstr.) **(Heb)**

[Partial splenic embolization as a preoperative treatment for refractory idiopathic thrombocytopenic purpura] Sadamoto Y, et al. **Rinsho Ketsueki** 1998 Dec;39(12):1194–6 (Eng. Abstr.) **(Jpn)**

[Laparoscopic splenectomy as an alternative to open surgery in the treatment of autoimmune thrombocytopenia] Espert JJ, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):525–8 (Eng. Abstr.) **(Spa)**

THERAPY

Current management issues of childhood and adult immune thrombocytopenic purpura (ITP). Kühne T, et al. **Acta Paediatr Suppl** 1998 Jun;424:75–81 (74 ref.)

Treatment of acute idiopathic thrombocytopenic purpura in children. A retrospective evaluation of 120 cases. Baronci C, et al. **Ann Ist Super Sanita** 1998;34(4):457–61

Plasma exchange therapy [letter] Gibson J, et al. **Aust N Z J Med** 1998 Dec;28(6):839

Anti–D treatment for chronic immune thrombocytopenic purpura: clinical and laboratory aspects. Sagripanti A, et al. **Biomed Pharmacother** 1998;52(7–8):293–7

Idiopathic thrombocytopenic purpura: guidance amid uncertainty. Lichtin A. **Cleve Clin J Med** 1998 Nov–Dec;

65(10):510–4 (7 ref.)
Clinical uses of intravenous immunoglobulin in pregnancy. Clark AL. **Clin Obstet Gynecol** 1999 Jun;42(2):368–80 (97 ref.)
Interferon-alpha 2b is not effective in the treatment of refractory immune thrombocytopenic purpura [letter] Vianelli N, et al. **Haematologica** 1998 Aug;83(8):761–3
High-dose dexamethasone for splenectomy in patients with idiopathic thrombocytopenic purpura. Bulvik S, et al. **Haemostasis** 1998 Sep–Oct;28(5):256–9
Neutropenia as a complication of intravenous immunoglobulin (IVIG) therapy in children with immune thrombocytopenic purpura: common and non-alarming. Berkovitch M, et al. **Int J Immunopharmacol** 1999 Jun; 21(6):411–5
Hemiplegia as a complication of treatment of childhood immune thrombocytopenic purpura with intravenously administered immunoglobulin [letter] Tsiouris J, et al. **J Pediatr** 1998 Nov;133(5):717
Autologous peripheral blood stem and progenitor (CD34+) cell transplantation for systemic lupus erythematosus complicated by Evans syndrome. Musso M, et al. **Lupus** 1998;7(7):492–4
Management of refractory immune thrombocytopenia [letter] Wood L, et al. **S Afr Med J** 1999 Jun;89(6):572–4
Acute immune thrombocytopenia in childhood. Are we treating the platelet count? Sutor AH. **Semin Thromb Hemost** 1998;24(6):545–8 (42 ref.)
The treatment of patients with autoimmune thrombocytopenia with intravenous IgG–anti–D. Engelfriet CP, et al. **Vox Sang** 1999;76(4):250–5
[Chronic idiopathic thrombocytopenic purpura. Current therapy concept and introduction to pathophysiologic, clinical and diagnostic aspects] Böcher A, et al. **Med Klin** 1998 Dec 15;93(12):707–18 (144 ref.) (Eng. Abstr.) **(Ger)**
[Partial splenic embolization for idiopathic thrombocytopenic purpura] Hayashi T, et al. **Nihon Rinsho Meneki Gakkai Kaishi** 1998 Feb;21(1):29–32 (Eng. Abstr.) **(Jpn)**
[Treatment of idiopathic thrombopenic purpura in adolescents by intravenous immunoglobulin (letter)] Rodriguez Cuartero A, et al. **An Med Interna** 1998 Dec; 15(12):675–6 **(Spa)**

VIROLOGY

Role of parvovirus B19 infection in childhood idiopathic thrombocytopenic purpura. Heegaard ED, et al. **Acta Paediatr** 1999 Jun;88(6):614–7

PURPURA, THROMBOPENIC see **PURPURA, THROMBOCYTOPENIC**

PURPURA, THROMBOTIC THROMBOCYTOPENIC

Thrombotic thrombocytopenic purpura: diagnosis, pathogenesis and modern therapy. Eldor A. **Baillieres Clin Haematol** 1998 Jun;11(2):475–95 (115 ref.)
Thrombotic thrombocytopenic purpura today. Moake JL. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):53–9
[Thrombotic thrombocytopenic purpura] Ieko M, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):40–2 (15 ref.) **(Jpn)**
[Thrombocytopenic thrombotic purpura. Retrospective study of 22 consecutive occurrences in 16 patients] Blanco A, et al. **Med Clin (Barc)** 1998 Oct 3;111(10):385–8 (Eng. Abstr.) **(Spa)**

BLOOD

Plasma sFas and sFas ligand levels in patients with thrombotic thrombocytopenic purpura and in those with disseminated intravascular coagulation. Hori Y, et al. **Am J Hematol** 1999 May;61(1):21–5
Undetectable plasma L-arginine level before visible hemolysis in thrombotic thrombocytopenic purpura [letter] Waugh WH, et al. **Am J Hematol** 1999 Jul;61(3):216
Deficiency of von Willebrand factor-cleaving protease in familial and acquired thrombotic thrombocytopenic purpura. Furlan M, et al. **Baillieres Clin Haematol** 1998 Jun;11(2):509–14
Tissue uptake of circulating thrombopoietin is increased in immune-mediated compared with irradiated thrombocytopenic mice. Chang M, et al. **Blood** 1999 Apr 15;93(8):2515–24
von Willebrand factor proteolysis is deficient in classic, but not in bone marrow transplantation-associated, thrombotic thrombocytopenic purpura. van der Plas RM, et al. **Blood** 1999 Jun 1;93(11):3798–802
von Willebrand factor propeptide in vascular disorders: A tool to distinguish between acute and chronic endothelial cell perturbation. van Mourik JA, et al. **Blood** 1999 Jul 1;94(1):179–85
Recovery and half-life of von Willebrand factor-cleaving protease after plasma therapy in patients with thrombotic thrombocytopenic purpura. Furlan M, et al. **Thromb Haemost** 1999 Jan;81(1):8–13
Plasma from a patient with thrombotic thrombocytopenic purpura induces endothelial cell apoptosis and platelet aggregation. Wu XW, et al. **Thromb Res** 1999 Jan 15; 93(2):79–87

CHEMICALLY INDUCED

Thrombotic thrombocytopenic purpura: a rare but potential life-threatening complication following ticlopidine administration. Jamar S, et al. **Acta Cardiol** 1998;53(5):285–6
Thrombotic thrombocytopenic purpura-hemolytic uremic syndrome (TTP-HUS) following treatment with deoxycoformycin in a patient with cutaneous T-cell lymphoma (Sezary syndrome): A case report. Leach JW, et al. **Am J Hematol** 1999 Aug;61(4):268–70
Ticlopidine-associated thrombotic thrombocytopenic purpura [letter; comment] Mukamal KJ, et al. **Ann Intern Med** 1998 Nov 15;129(10):837. Comment on: Ann Intern Med 1998 Apr 1;128(7):541–4.
Thrombotic thrombocytopenic purpura after Ecstasy-induced acute liver failure [letter] Schirren CA, et al. **Ann Intern Med** 1999 Jan 19;130(2):163
Thrombotic thrombocytopenic purpura associated with ticlopidine use: a report of 3 cases and review of the literature [see comments] Chen DK, et al. **Arch Intern Med** 1999 Feb 8;159(3):311–4 (26 ref.). Comment in: Arch Intern Med 1999 Jul 26;159(14):1624.
Thrombotic thrombocytopenic purpura associated with ticlopidine use [letter; comment] Elangovan L. **Arch Intern Med** 1999 Jul 26;159(14):1624. Comment on: Arch Intern Med 1999 Feb 8;159(3):311–4.
Cyclosporin neurotoxicity after chemotherapy. Case had features of thrombotic thrombocytopenic purpura and haemolytic uraemic syndrome [letter] Pratt G, et al. **BMJ** 1999 Jul 3;319(7201):54; discussion 54–5
A paradoxical side-effect of antiaggregating treatment with ticlopidine: the Moschowitz syndrome [letter] Fabris F, et al. **Haematologica** 1999 Aug;84(8):760–2
Thrombotic thrombocytopenic purpura associated with ticlopidine therapy. Leavey SF, et al. **J Am Soc Nephrol** 1997 Apr;8(4):689–93 (26 ref.)
Incidence and clinical course of thrombotic thrombocytopenic purpura due to ticlopidine following coronary stenting. EPISTENT Investigators. Evaluation of Platelet IIb/IIIa Inhibitor for Stenting. Steinhubl SR, et al. **JAMA** 1999 Mar 3;281(9):806–10
Simvastatin and thrombotic thrombocytopenic purpura [letter; comment] Koduri PR. **Lancet** 1998 Dec 19–26; 352(9145):2020. Comment on: Lancet 1998 Oct 17;352(9136):1284–5.
Thrombotic thrombocytopenic purpura and simvastatin [letter; comment] [see comments] McCarthy LJ, et al. **Lancet** 1998 Oct 17;352(9136):1284–5. Comment on: Lancet 1997 Nov 29;350(9091):1602. Comment in: Lancet 1998 Dec 19–26;352(9145):2020.
Cancer chemotherapy-related thrombotic thrombocytopenic purpura: biological evidence of increased nitric oxide production. Porta C, et al. **Mayo Clin Proc** 1999 Jun; 74(6):570–4
Ticlopidine-induced thrombotic thrombocytopenic purpura. Muszkat M, et al. **Pharmacotherapy** 1998 Nov–Dec; 18(6):1352–5 (22 ref.)

COMPLICATIONS

Mixed connective tissue disease with hemolytic anemia and severe thrombocytopenia due to thrombotic thrombocytopenic purpura [letter] Poullin P, et al. **Am J Hematol** 1999 Aug;61(4):275
Thrombotic thrombocytopenic purpura [letter; comment] Yeter M, et al. **Am J Hematol** 1999 Feb;60(2):171–2. Comment on: Am J Hematol 1998 Jan;57(1):57–61.
Bilateral knee osteonecrosis in a patient with thrombotic thrombocytopenic purpura [letter] Moore J, et al. **Aust N Z J Med** 1999 Feb;29(1):88–9
Relapsing thrombotic thrombocytopenic purpura in association with recurrent pancreatitis. Daryanani S, et al. **Clin Lab Haematol** 1998 Oct;20(5):317–8
Thrombotic microangiopathies and HIV infection: report of two typical cases, features of HUS and TTP, and review of the literature. Sutor GC, et al. **Infection** 1999 Jan–Feb; 27(1):12–5 (45 ref.)
Hepatic veno-occlusive disease in a case of polymyositis associated with thrombotic thrombocytopenic purpura/hemolytic uremic syndrome. Ishida Y, et al. **Intern Med** 1998 Aug;37(8):694–9
Scleromyxoedema and thrombotic thrombocytopaenic purpura: two rare conditions both responding to plasma exchange. Harman KE, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):59–65
Coma in thrombotic thrombocytopenic purpura [letter] Kelly FE, et al. **J Neurol Neurosurg Psychiatry** 1999 May; 66(5):689–90
Reply to the letter: about systemic lupus erythematosus and thrombotic thrombocytopenic purpura [letter] Caramaschi P, et al. **Lupus** 1998;7(8):571
Surgical treatment for massive gastrointestinal bleeding caused by thrombotic thrombocytopenic purpura: a case report. Yamamura H, et al. **Surgery** 1998 Nov;124(5):929–31
[Thrombotic thrombocytopenic purpura associated with advanced gastric cancer] Yoneda S, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Aug;96(8):947–52 **(Jpn)**
[Thrombotic thrombocytopenic purpura associated with HIV infection (letter)] Bayo Poleo R, et al. **An Med Interna** 1999 Apr;16(4):210–1 **(Spa)**

DIAGNOSIS

Diagnosis and management of thrombotic microangiopathies during pregnancy. Esplin MS, et al. **Clin Obstet Gynecol** 1999 Jun;42(2):360–7 (32 ref.)
Thrombocytopenic thrombotic purpura: severe clinic with no CT, minor MRI, but a SPECT correlate. Baron Y, et al. **Eur J Radiol** 1999 Jul;31(1):56–62
Thrombotic thrombocytopenic purpura-hemolytic uremic syndrome: diagnosis and management. George JN, et al. **J Clin Apheresis** 1998;13(3):120–5 (33 ref.)
von Willebrand factor-cleaving protease in thrombotic thrombocytopenic purpura and the hemolytic-uremic syndrome [letter; comment] Sarkodee-Adoo C, et al. **N Engl J Med** 1999 Apr 29;340(17):1368; discussion 1369 . Comment on: N Engl J Med 1998 Nov 26;339(22):1578–84.
Review of thrombotic thrombocytopenic purpura in the setting of systemic lupus erythematosus. Musio F, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):1–19 (71 ref.)

DRUG THERAPY

Use of cyclophosphamide in the treatment of thrombotic thrombocytopenic purpura complicating systemic lupus erythematosus: report of two cases. Pérez-Sánchez I, et al. **Ann Hematol** 1999 Jun;78(6):285–7
A case of thrombotic thrombocytopenic purpura in an adult treated with vincristine. Schulz A, et al. **Ann Hematol** 1999 Jan;78(1):39–42

ENZYMOLOGY

Calpain activity in bone marrow transplant-associated thrombotic thrombocytopenic purpura. Zeigler Z, et al. **Bone Marrow Transplant** 1999 Sep;24(6):641–5
von Willebrand factor-cleaving protease in thrombotic thrombocytopenic purpura and the hemolytic-uremic syndrome [see comments] Furlan M, et al. **N Engl J Med** 1998 Nov 26;339(22):1578–84. Comment in: N Engl J Med 1998 Nov 26;339(22):1629–31. Comment in: N Engl J Med 1999 Apr 29;340(17):1368; discussion 1369. Comment in: N Engl J Med 1999 Apr 29;340(17):1368–9.
Moschcowitz, multimers, and metalloprotease [editorial; comment] Moake JL. **N Engl J Med** 1998 Nov 26; 339(22):1629–31. Comment on: N Engl J Med 1998 Nov 26;339(22):1578–84. Comment on: N Engl J Med 1998 Nov 26;339(22):1585–94.
Antibodies to von Willebrand factor-cleaving protease in acute thrombotic thrombocytopenic purpura [see comments] Tsai HM, et al. **N Engl J Med** 1998 Nov 26; 339(22):1585–94. Comment in: N Engl J Med 1998 Nov 26;339(22):1629–31. Comment in: N Engl J Med 1999 Apr 29;340(17):1368–9.

EPIDEMIOLOGY

Thrombotic thrombocytopenia purpura: a single institution experience. Ramanan AS, et al. **J Clin Apheresis** 1999; 14(1):9–13 (11 ref.)

ETIOLOGY

Thrombotic thrombocytopenic purpura complicating chronic myelogenous leukemia treated with interferon-alpha. A report of two successfully treated patients. Rachmani R, et al. **Acta Haematol** 1998;100(4):204–6
Acute pancreatitis as a triggering factor for thrombotic thrombocytopenic purpura. Vergara M, et al. **Am J Gastroenterol** 1998 Nov;93(11):2215–8
Thrombotic thrombocytopenic purpura and hypothyroidism [letter] Durand JM, et al. **Am J Hematol** 1999 May; 61(1):83–4
Use of cyclophosphamide in the treatment of thrombotic thrombocytopenic purpura complicating systemic lupus erythematosus: report of two cases. Pérez-Sánchez I, et al. **Ann Hematol** 1999 Jun;78(6):285–7
An uncommon case of late thrombotic thrombocytopenic purpura (42 months) after autologous peripheral blood stem cell (PBSC) transplantation in a child. González-Vicent M, et al. **Bone Marrow Transplant** 1999 Apr;23(7):735–6
Thrombotic microangiopathy following allogeneic bone marrow transplantation is associated with intensive graft-versus-host disease prophylaxis. Paquette RL, et al. **Bone Marrow Transplant** 1998 Aug;22(4):351–7
Thrombotic thrombocytopenic purpura following influenza vaccination--a brief case report. Ramakrishnan N, et al. **Conn Med** 1998 Oct;62(10):587–8
Thrombotic microangiopathy manifesting as thrombotic thrombocytopenic purpura/hemolytic uremic syndrome in the cancer patient. Gordon LI, et al. **Semin Thromb Hemost** 1999;25(2):217–21 (82 ref.)
[Thrombotic microangiopathy in hematopoietic stem cell transplantation] Miwa A. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):611–8 (19 ref.) **(Jpn)**

GENETICS

Hypocomplementemia discloses genetic predisposition to hemolytic uremic syndrome and thrombotic thrombocytopenic purpura: role of factor H abnormalities. Italian Registry of Familial and Recurrent Hemolytic Uremic Syndrome/Thrombotic Thrombocytopenic Purpura. Noris M, et al. **J Am Soc Nephrol** 1999 Feb;

10(2):281–93

IMMUNOLOGY

Anti-CD36 autoantibodies in thrombotic thrombocytopenic purpura and other thrombotic disorders: identification of an 85 kD form of CD36 as a target antigen. Schultz DR, et al. **Br J Haematol** 1998 Dec;103(3):849–57

Thrombotic thrombocytopenic purpura and autoimmunity: a tale of shadows and suspects. Porta C, et al. **Haematologica** 1999 Mar;84(3):260–9 (107 ref.)

Unrecognized pattern of von Willebrand factor abnormalities in hemolytic uremic syndrome and thrombotic thrombocytopenic purpura. Galbusera M, et al. **J Am Soc Nephrol** 1999 Jun;10(6):1234–41

[Gastrointestinal cancer-associated antigen (GICA) and intravascular hemolysis. Report of 2 cases and review of the literature] Bianconcini G, et al. **Minerva Med** 1999 Mar; 90(3):73–9 (98 ref.) (Eng. Abstr.) **(Ita)**

METABOLISM

Increased fragmentation of von Willebrand factor, due to abnormal cleavage of the subunit, parallels disease activity in recurrent hemolytic uremic syndrome and thrombotic thrombocytopenic purpura and discloses predisposition in families. The Italian Registry of Familial and Recurrent HUS/TTP. Galbusera M, et al. **Blood** 1999 Jul 15; 94(2):610–20

Cancer chemotherapy-related thrombotic thrombocytopenic purpura: biological evidence of increased nitric oxide production. Porta C, et al. **Mayo Clin Proc** 1999 Jun; 74(6):570–4

MICROBIOLOGY

[Beware of the dog! A syndrome resembling thrombotic thrombocytopenic purpura associated with Capnocytophaga canimorsus septicemia (letter)] Quilichini R, et al. **Rev Med Interne** 1998 Jun;19(6):451–2 **(Fre)**

PATHOLOGY

Death due to thrombotic thrombocytopenic purpura in pregnancy: case report with review of thrombotic microangiopathies of pregnancy. Kemp WL, et al. **Am J Forensic Med Pathol** 1999 Jun;20(2):189–98 (30 ref.)

Enhanced endothelial cell apoptosis in splenic tissues of patients with thrombotic thrombocytopenic purpura. Dang CT, et al. **Blood** 1999 Feb 15;93(4):1264–70

Pathologic distinctions among the thrombotic microangiopathies [letter; comment] Laurence J, et al. **Clin Nephrol** 1998 Dec;50(6):393. Comment on: Clin Nephrol 1998 Mar;49(3):193–7.

Thrombotic microangiopathy: a challenge with uncertain outcome. Kulzer P, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2154–60 (29 ref.)

Thrombotic thrombocytopenic purpura: brain CT and MRI findings in 12 patients. Bakshi R, et al. **Neurology** 1999 Apr 12;52(6):1285–8

Renal involvement of thrombotic thrombocytopenic purpura: special reference to the glomeruloid structures. Katoh M, et al. **Pathol Int** 1999 Jul;49(7):638–42

PHYSIOPATHOLOGY

Central nervous system involvement in thrombotic thrombocytopenic purpura. Druschky A, et al. **Ear Neurol** 1998 Nov;40(4):220–4

Pathophysiology and management of thrombotic microangiopathies. Ruggenenti P, et al. **J Nephrol** 1998 Nov–Dec;11(6):300–10 (58 ref.)

Thrombotic microangiopathy: a challenge with uncertain outcome. Kulzer P, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2154–60 (29 ref.)

PREVENTION & CONTROL

Absence of thrombotic thrombocytopenic purpura following coronary stenting in the ticlopidine era [letter] Brown DL. **Am J Cardiol** 1999 Feb 15;83(4):640–1

RADIOGRAPHY

Thrombotic thrombocytopenic purpura: brain CT and MRI findings in 12 patients. Bakshi R, et al. **Neurology** 1999 Apr 12;52(6):1285–8

SURGERY

Elective splenectomy in relapsing thrombotic thrombocytopenic purpura [letter] Real E, et al. **Haematologica** 1998 Oct;83(10):959–60

[Multi-organ involvement in recurrent Moschcowitz disease. Splenectomy as ultima ratio in a therapeutic dilemma?] Jakob AR, et al. **Med Klin** 1998 Oct 15;93(10):624–6 (Eng. Abstr.) **(Ger)**

THERAPY

Splenectomy during partial remission in thrombotic thrombocytopenic purpura with prolonged plasma exchange dependency. Mant MJ, et al. **Am J Hematol** 1999 Sep;62(1):56–7

Treatment of thrombotic thrombocytopenic purpura with the cryosupernatant fraction of plasma: a case report and review of the literature. Ellis J, et al. **Am J Med Sci** 1999 Sep;318(3):190–3 (31 ref.)

Successful treatment of resistant thrombotic thrombocytopenic purpura/hemolytic uremic syndrome with autologous peripheral blood stem and progenitor (CD34+) cell transplantation. Musso M, et al. **Bone Marrow Transplant** 1999 Jul;24(2):207–9

Solvent/detergent fresh frozen plasma as primary treatment of acute thrombotic thrombocytopenic purpura. Evans G, et al. **Clin Lab Haematol** 1999 Apr;21(2):119–23

Diagnosis and management of thrombotic microangiopathies during pregnancy. Esplin MS, et al. **Clin Obstet Gynecol** 1999 Jun;42(2):360–7 (32 ref.)

Acute respiratory distress syndrome and non-occlusive mesenteric ischemia as major clinical manifestations of thrombotic thrombocytopenic purpura: complete remission following exchange plasmapheresis. Chang JC, et al. **J Clin Apheresis** 1998;13(4):190–2

Thrombotic thrombocytopenic purpura-hemolytic uremic syndrome: diagnosis and management. George JN, et al. **J Clin Apheresis** 1998;13(3):120–5 (33 ref.)

Reply to the letter: about systemic lupus erythematosus and thrombotic thrombocytopenic purpura [letter] Caramaschi P, et al. **Lupus** 1998;7(8):571

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 40–1998. A 49-year-old woman with thrombotic thrombocytopenic purpura and severe dyspnea during plasmapheresis and transfusion [clinical conference] **N Engl J Med** 1998 Dec 31; 339(27):2005–12

Apheresis and the thrombotic thrombocytopenic purpura syndrome: current advances in diagnosis, pathophysiology, and management. Brailey LL, et al. **Ther Apher** 1999 Feb; 3(1):20–4 (37 ref.)

SD Plasma in TTP and coagulation factor deficiencies for which no concentrates are available. Horowitz MS, et al. **Vox Sang** 1998;74 Suppl 1:231–5

PURPURA, THROMBOTIC THROMBOPENIC see **PURPURA, THROMBOTIC THROMBOCYTOPENIC**

PURSUIT, SACCADIC see **SACCADES**

PURSUIT, SMOOTH

Quantitative analysis of correlation between smooth pursuit and vertebrobasilar hemodynamics. Nakagawa T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:58–62

What gives rise to impaired smooth pursuit in the relatives of patients with schizophrenia? Abel LA. **Arch Ophthalmol** 1999 Apr;117(4):522–3

DRUG EFFECTS

Ethanol impairs saccadic and smooth pursuit eye movements without producing self-reports of sedation. Holdstock L, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):664–72

The effect of oral ethanol consumption on eye movements in healthy volunteers. Moser A, et al. **J Neurol** 1998 Aug; 245(8):542–50

PHYSIOLOGY

Vestibular-pursuit interactions: gaze-velocity and target-velocity signals in the monkey frontal eye fields. Fukushima K, et al. **Ann N Y Acad Sci** 1999 May 28; 871:248–59

Degradation of visual pursuit during sustained +3 Gz acceleration. Cheung B, et al. **Aviat Space Environ Med** 1999 May;70(5):451–8

The role of cortical area MST in a model of combined smooth eye-head pursuit. Dicke PW, et al. **Biol Cybern** 1999 Jan; 80(1):71–84

Smooth pursuit performance in families with multiple occurrence of schizophrenia and nonpsychotic families. Lencer R, et al. **Biol Psychiatry** 1999 Mar 15;45(6):694–703

Differences in cerebral activation during smooth pursuit and saccadic eye movements using positron-emission tomography. O'Driscoll GA, et al. **Biol Psychiatry** 1998 Oct 15;44(8):685–9

Anticipatory saccades during smooth pursuit eye movements and familial transmission of schizophrenia. Ross RG, et al. **Biol Psychiatry** 1998 Oct 15;44(8):690–7

Impaired analysis of moving objects due to deficient smooth pursuit eye movements. Haarmeier T, et al. **Brain** 1999 Aug;122 (Pt 8):1495–505

Infant attention and the development of smooth pursuit tracking. Richards JE, et al. **Dev Psychol** 1999 May; 35(3):856–67

Horizontal vestibulo-ocular reflex and head stability in response to torso perturbations during visual search. Crane BT, et al. **Exp Brain Res** 1999 Apr;125(3):335–43

Dependence of short-latency ocular following and associated activity in the medial superior temporal area (MST) on ocular vergence. Inoue Y, et al. **Exp Brain Res** 1998 Jul; 121(2):135–44

Prediction and a stationary, structured visual background influence the dynamics of the smooth-pursuit offset in humans. Scheuerer W, et al. **Exp Brain Res** 1998 Dec; 123(4):361–7

Eye movements during combined pursuit, optokinetic and vestibular stimulation in macaque monkey. Schweigart G, et al. **Exp Brain Res** 1999 Jul;127(1):54–66

Anteroposterior dynamic balance reactions to circular movement of the visual field without ocular pursuit. Séverac Cauquil A, et al. **Exp Brain Res** 1998 Dec; 123(4):382–6

Latency of saccades during smooth-pursuit eye movement in man. Directional asymmetries. Tanaka M, et al. **Exp Brain Res** 1998 Jul;121(1):92–8

Eye-tracking dysfunction and birth-month weather in schizophrenia. Kinney DK, et al. **J Abnorm Psychol** 1999 May;108(2):359–62

Progressive bradykinesia and hypokinesia of ocular pursuit in Parkinson's disease. Lekwuwa GU, et al. **J Neurol Neurosurg Psychiatry** 1999 Jun;66(6):746–53

Oculomotor tracking in two dimensions. Engel KC, et al. **J Neurophysiol** 1999 Apr;81(4):1597–602

Vertical Purkinje cells of the monkey floccular lobe: simple-spike activity during pursuit and passive whole body rotation. Fukushima K, et al. **J Neurophysiol** 1999 Aug;82(2):787–803

Role of the oculomotor vermis in generating pursuit and saccades: effects of microstimulation. Krauzlis RJ, et al. **J Neurophysiol** 1998 Oct;80(4):2046–62

MST neuronal responses to heading direction during pursuit eye movements. Page WK, et al. **J Neurophysiol** 1999 Feb; 81(2):596–610

Functional anatomy of pursuit eye movements in humans as revealed by fMRI. Petit L, et al. **J Neurophysiol** 1999 Jul;82(1):463–71

Visual motion analysis for pursuit eye movements in area MT of macaque monkeys. Lisberger SG, et al. **J Neurosci** 1999 Mar 15;19(6):2224–46

Role of phase information and eye pursuit in the detection of moving objects in noise. Wilson DL, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):669–78

Grating and plaid chrominance motion influences the suppressed ocular following response. Guo K, et al. **Neuroreport** 1999 Feb 5;10(2):387–92

Adaptive modifications of post-saccadic smooth pursuit eye movements and their interaction with saccades and the vestibulo-ocular reflex in the primate. Nagao S, et al. **Neurosci Res** 1998 Oct;32(2):157–69

Velocity profile of smooth pursuit eye movements in humans: pursuit velocity increase linked with the initial saccade occurrence. Ogawa T, et al. **Neurosci Res** 1998 Jul; 31(3):201–9

Latency of cross-axis vestibulo-ocular reflex induced by pursuit training in monkeys. Sato T, et al. **Neurosci Res** 1999 Jan;33(1):65–70

Smooth pursuit and saccadic eye movements as possible indicators of nighttime sleepiness. Porcu S, et al. **Physiol Behav** 1998 Dec 1;65(3):437–43

Psychophysical isolation of a motion-processing deficit in schizophrenics and their relatives and its association with impaired smooth pursuit. Chen Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4724–9

Effects of dual task demands on the accuracy of smooth pursuit eye movements. Kathmann N, et al. **Psychophysiology** 1999 Mar;36(2):158–63

Amplitude criteria and anticipatory saccades during smooth pursuit eye movements in schizophrenia. Ross RG, et al. **Psychophysiology** 1999 Jul;36(4):464–8

The relationship between smooth pursuit eye movements and tardive dyskinesia in schizophrenia. Ross DE, et al. **Schizophr Res** 1998 May 25;31(2–3):141–50

Neuropsychological and oculomotor correlates of spatial working memory performance in schizophrenia patients and controls. Snitz BE, et al. **Schizophr Res** 1999 Jul 27; 38(1):37–50

Human heading judgments and object-based motion information. Cutting JE, et al. **Vision Res** 1999 Mar; 39(6):1079–105

Path perception and Filehne illusion compared: model and data. Freeman TC. **Vision Res** 1999 Aug;39(16):2659–67

Spatial integration in human smooth pursuit. Heinen SJ, et al. **Vision Res** 1998 Dec;38(23):3785–94

Eye movements, prematurity and developmental co-ordination disorder. Langaas T, et al. **Vision Res** 1998 Jun;38(12):1817–26

Eye movements affect the perceived speed of visual motion. Turano KA, et al. **Vision Res** 1999 Mar;39(6):1177–87

Human smooth pursuit direction discrimination. Watamaniuk SN, et al. **Vision Res** 1999 Jan;39(1):59–70

Predictive smooth pursuit eye movements during identification of moving acuity targets. Wells SG, et al. **Vision Res** 1999 Aug;39(16):2767–75

PUS see **SUPPURATION**

PUSTULANTS see **IRRITANTS**

PUSTULAR DERMATOSIS, SUBCORNEAL see **SKIN DISEASES, VESICULOBULLOUS**

PUSTULAR PSORIASIS OF PALMS AND SOLES see **PSORIASIS**

PUSTULOSIS OF PALMS AND SOLES see **PSORIASIS**

PUSTULOSIS PALMARIS ET PLANTARIS see **PSORIASIS**

PUTAMEN

Magnetic resonance imaging signal hypointensity and iron content of putamen nuclei in elderly depressed patients. Steffens DC, et al. **Psychiatry Res** 1998 Aug 26; 83(2):95–103

[Management of putaminal hemorrhage in patients with chronic renal failure] Tsurushima H, et al. **No Shinkei Geka** 1998 Oct;26(10):897–901 (Eng. Abstr.) **(Jpn)**

ANATOMY & HISTOLOGY

Activation of neurotransplants in humans. Blüml S, et al. **Exp Neurol** 1999 Jul;158(1):121–5

CYTOLOGY

Activation of reward–relevant neurons in the caudate–putamen influences the development of medial prefrontal cortex self–stimulation: a moveable electrode mapping study. Bielajew C, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(3):189–98

Quantitative immunocytochemistry of DARPP–32–expressing neurons in the rat caudatoputamen. Ouimet CC, et al. **Brain Res** 1998 Oct 12;808(1):8–12

DRUG EFFECTS

The 5–HT3 receptor antagonist, MDL 72222, dose–dependently potentiates morphine–induced immediate–early gene expression in the rat caudate putamen. Frankel PS, et al. **Brain Res** 1998 Dec 14; 814(1–2):186–93

GDNF improves dopamine function in the substantia nigra but not the putamen of unilateral MPTP–lesioned rhesus monkeys. Gerhardt GA, et al. **Brain Res** 1999 Jan 30; 817(1–2):163–71

Involvement of the posteroventral caudate–putamen in memory consolidation in the Morris water maze. Setlow B, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):240–7

Dizocilpine maleate, MK–801, but not 2,3–dihydroxy–6–nitro–7–sulfamoyl–benzo(f)quinoxaline, NBQX, prevents transneuronal degeneration of nigral neurons after neurotoxic striatal–pallidal lesion. DeGiorgio LA, et al. **Neuroscience** 1999 Apr;90(1):79–85

Brain regions and drug addiction [letter] Harlan RE, et al. **Science** 1999 May 14;284(5417):1124–5

[Motor neuropathy, putamen necrosis and optic nerve atrophy after acute methanol poisoning] Gille M, et al. **Rev Neurol (Paris)** 1998 Dec;154(12):862–5 (12 ref.) (Eng. Abstr.) **(Fre)**

EMBRYOLOGY

Intracerebral transplantation of fetal ventral mesencephalon for patients with advanced Parkinson's disease. Methodology and 6–month to 1–year follow–up in 3 patients. Levivier M, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):99–111

METABOLISM

D2 receptor binding in dopa–responsive dystonia. Künig G, et al. **Ann Neurol** 1998 Nov;44(5):758–62

Mu–opioid and NMDA–type glutamate receptors are often colocalized in spiny neurons within patches of the caudate–putamen nucleus. Wang H, et al. **J Comp Neurol** 1999 Sep 13;412(1):132–46

Differential release of dopamine by nitric oxide in subregions of rat caudate putamen slices. Iravani MM, et al. **J Neurochem** 1998 Nov;71(5):1969–77

The binding of [3H]AF–DX 384 is reduced in the caudate–putamen of subjects with schizophrenia. Crook JM, et al. **Life Sci** 1999;64(19):1761–71

Postnatal development of dopamine and serotonin transporters in rat caudate–putamen and nucleus accumbens septi. Tarazi FI, et al. **Neurosci Lett** 1998 Sep 18;254(1):21–4

Changes with aging and ischemia in nicotinic acetylcholine receptor subunit alpha7 mRNA expression in postmortem human frontal cortex and putamen. Utsugisawa K, et al. **Neurosci Lett** 1999 Aug 6;270(3):145–8

Reciprocal changes in dopamine responsiveness in the nucleus accumbens shell and core and in the dorsal caudate–putamen in rats sensitized to morphine. Cadoni C, et al. **Neuroscience** 1999 May;90(2):447–55

N–methyl–D–aspartate receptor 1 in the caudate–putamen nucleus: ultrastructural localization and co–expression with sorcin, a 22,000 mol. wt calcium binding protein. Gracy KN, et al. **Neuroscience** 1999 Apr;90(1):107–17

Alterations in the ryanodine receptor calcium release channel correlate with Alzheimer's disease neurofibrillary and beta–amyloid pathologies. Kelliher M, et al. **Neuroscience** 1999;92(2):499–513

Central nervous system toxicity of manganese. II: Cocaine or reserpine inhibit manganese concentration in the rat brain. Ingersoll RT, et al. **Neurotoxicology** 1999 Apr–Jun; 20(2–3):467–76

Idiopathic parkinsonism with superimposed manganese exposure: utility of positron emission tomography. Kim Y, et al. **Neurotoxicology** 1999 Apr–Jun;20(2–3):249–52

Caudate–putamen dopamine and stereotypy response profiles after intravenous and subcutaneous amphetamine. Cho AK, et al. **Synapse** 1999 Feb;31(2):125–33

Increased responsiveness of mesolimbic and mesostriatal dopamine neurons to cocaine following repeated administration of a selective kappa–opioid receptor agonist. Heidbreder CA, et al. **Synapse** 1998 Nov;30(3):255–62

Enhancement of N–methyl–D–aspartate (NMDA) immunoreactivity in residual dendritic spines in the caudate–putamen nucleus after chronic haloperidol administration. Rodriguez JJ, et al. **Synapse** 1999 Sep 15; 33(4):289–303

PATHOLOGY

Acute blindness and putaminal necrosis in methanol intoxication. Onder F, et al. **Int Ophthalmol** 1998–99; 22(2):81–4

Pathological correlate of the slitlike changes on MRI at the putaminal margin in multiple system atrophy [letter] Konagaya M, et al. **J Neurol** 1999 Feb;246(2):142–3

Memory guided saccade deficit after caudate nucleus lesion. Vermersch AI, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):524–7

Hypocaeruloplasminaemia with heteroallelic caeruloplasmin gene mutation: MRI of the brain. Daimon M, et al. **Neuroradiology** 1999 Mar;41(3):185–7

Intracerebral Whipple's disease diagnosed by stereotactic biopsy: a case report and review of the literature. Mendel E, et al. **Neurosurgery** 1999 Jan;44(1):203–9 (32 ref.)

An MRI study of the basal ganglia in autism. Sears LL, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):613–24

Unrestricted free–choice ethanol self–administration in rats causes long–term neuroadaptations in the nucleus accumbens and caudate putamen. Nestby P, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):307–14

PHYSIOLOGY

Activation of reward–relevant neurons in the caudate–putamen influences the development of medial prefrontal cortex self–stimulation: a moveable electrode mapping study. Bielajew C, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(3):189–98

Effects of medial and lateral caudate–putamen lesions on place– and cue–guided behaviors in the water maze: relation to thigmotaxis. Devan BD, et al. **Behav Brain Res** 1999 Apr;100(1–2):5–14

Functional connections between medial prefrontal cortex and caudate–putamen in brain–stimulation reward of rats. Trzcińska M, et al. **Behav Neurosci** 1998 Oct;112(5):1177–86

Response properties of neurons in the caudate–putamen and globus pallidus to noxious and non–noxious thermal stimulation in anesthetized rats. Chudler EH. **Brain Res** 1998 Nov 23;812(1–2):283–8

Repeated treatment with the selective kappa opioid agonist U–69593 produces a marked depletion of dopamine D2 receptors. Izenwasser S, et al. **Synapse** 1998 Nov; 30(3):275–83

Localization of ionotropic glutamate receptors in caudate–putamen and nucleus accumbens septi of rat brain: comparison of NMDA, AMPA, and kainate receptors. Tarazi FI, et al. **Synapse** 1998 Oct;30(2):227–35

[Electrical activity of caudate–putamen brain structures during experimental depressive syndrome] Krupina NA, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):266–9 **(Rus)**

PHYSIOPATHOLOGY

Decreased [18F]spiperone binding in putamen in dystonia. Perlmutter JS, et al. **Adv Neurol** 1998;78:161–8

RADIOGRAPHY

Ptosis, blepharospasm, and apraxia of eyelid opening secondary to putaminal hemorrhage. Verghese J, et al. **Neurology** 1999 Aug 11;53(3):652

[Motor neuropathy, putamen necrosis and optic nerve atrophy after acute methanol poisoning] Gille M, et al. **Rev Neurol (Paris)** 1998 Dec;154(12):862–5 (12 ref.) (Eng. Abstr.) **(Fre)**

RADIONUCLIDE IMAGING

Decreased [18F]spiperone binding in putamen in dystonia. Perlmutter JS, et al. **Adv Neurol** 1998;78:161–8

Striatal uptake of a novel PET ligand, [18F]beta–CFT, is reduced in early Parkinson's disease. Rinne JO, et al. **Synapse** 1999 Feb;31(2):119–24

SURGERY

Activation of neurotransplants in humans. Blüml S, et al. **Exp Neurol** 1999 Jul;158(1):121–5

Recovery of chronic parkinsonian monkeys by autotransplants of carotid body cell aggregates into putamen. Luquin MR, et al. **Neuron** 1999 Apr;22(4):743–50

Expression and changes of Fos protein in the rat forebrain after gamma knife irradiation targeted to the caudate putamen. Duan XQ, et al. **Neurosurgery** 1999 Jul; 45(1):139–45; discussion 145–6

Transplantation of autologous sympathetic ganglion into the brain with Parkinson's disease. Long–term follow–up of 35 cases. Itakura T, et al. **Stereotact Funct Neurosurg** 1997; 69(1–4 Pt 2):112–5

PUTRESCINE

ANALOGS & DERIVATIVES

Inhibition of polyamine synthesis arrests trichomonad growth and induces destruction of hydrogenosomes. Reis IA, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1919–23

Intrastrand cross–linked actin between Gln–41 and Cys–374. I. Mapping of sites cross–linked in F–actin by N–(4–azido–2–nitrophenyl) putrescine. Hegyi G, et al. **Biochemistry** 1998 Dec 22;37(51):17784–92

Solid phase organic synthesis of polyamine derivatives and initial biological evaluation of their antitumoral activity. Tomasi S, et al. **Bioorg Med Chem Lett** 1998 Mar 17; 8(6):635–40

Ability of bisbenzylputrescine and propanediamine analogs to modulate the intracellular polyamine pool of P388D1 cells. Badolo L, et al. **Cell Biol Toxicol** 1998 Dec; 14(6):419–28

In vitro synthesis of peptidoglycan precursors modified with N–acetylputrescine by Cyanophora paradoxa cyanelle envelope membranes. Pfanzagl B, et al. **J Bacteriol** 1999 Apr;181(8):2643–7

Effects of MDL 72527, a specific inhibitor of polyamine oxidase, on brain edema, ischemic injury volume, and tissue polyamine levels in rats after temporary middle cerebral artery occlusion. Doğan A, et al. **J Neurochem** 1999 Feb; 72(2):765–70

Enhanced uptake of [3H] spermidine by 9L rat brain tumors after direct intratumoral infusion of inhibitors of enzymes of the polyamine biosynthetic pathway. Redgate ES, et al. **J Neurooncol** 1999 Apr;42(2):123–30

ANALYSIS

Polyamines in human breast cancer and its relations to classical prognostic features: clinical implications. Leveque J, et al. **Anticancer Res** 1999 May–Jun;19(3B):2275–9

The course of putrescine immunocytochemical appearance in neurons, astroglia and microglia in rat brain cultures. Gilad GM, et al. **Neurosci Lett** 1999 Jun 11;268(1):33–6

BLOOD

Capillary gas chromatographic determination of putrescine and cadaverine in serum of cancer patients using trifluoroacetylacetone as derivatizing reagent. Khuhawar MY, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):17–24

METABOLISM

Is the lack of concurrence of bacterial vaginosis and vaginal candidosis explained by the presence of bacterial amines? Rodrigues AG, et al. **Am J Obstet Gynecol** 1999 Aug; 181(2):367–70

Neomycin inhibition of intestinal putrescine uptake. Hardy A, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4163–9

Binding of spermidine and putrescine to energized liver mitochondria. Dalla Via L, et al. **Arch Biochem Biophys** 1999 May 15;365(2):231–8

Uptake of putrescine by Trypanosoma granulosum. Mastri C, et al. **Biochem Soc Trans** 1998 Nov;26(4):S376

Human vascular endothelial cells incorporate spermine, but not spermidine or putrescine, into a 20 kDa protein. Morgan DM, et al. **Biochem Soc Trans** 1998 Nov;26(4):S367

Interaction of putrescine with nuclear oligopeptides in the enterocyte–like Caco–2 cells. Pignata S, et al. **Digestion** 1999;60(3):255–61

Inhibition of serum diamine oxidase discloses a constitutive putrescine release from cultured vascular smooth muscle cells. Nilsson BO, et al. **Inflamm Res** 1999 Apr;48(4):176–80

Enhanced uptake of [3H] spermidine by 9L rat brain tumors after direct intratumoral infusion of inhibitors of enzymes of the polyamine biosynthetic pathway. Redgate ES, et al. **J Neurooncol** 1999 Apr;42(2):123–30

Changes in ornithine decarboxylase activity and putrescine concentrations after spinal cord compression injury in the rat. Mautes AE, et al. **Neurosci Lett** 1999 Apr 2; 264(1–3):153–6

S–adenosylmethionine decarboxylase activity and utilization of exogenous putrescine are enhanced in colon cancer cells stimulated to grow by EGF. Milovic V, et al. **Z Gastroenterol** 1998 Nov;36(11):947–54

[Role of putrescine and potassium transport in regulating the topological state of DNA during adaptation of Escherichia coli to temperature stress] Tkachenko AG, et al. **Mikrobiologiia** 1998 Sep–Oct;67(5):601–6 (Eng. Abstr.) **(Rus)**

PHARMACOKINETICS

Crystallization and preliminary X–ray analysis of the periplasmic receptor (PotF) of the putrescine transport system in Escherichia coli. Vassylyev DG, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):132–4

Plasma pharmacokinetics, nervous system biodistribution and biostability, and spinal cord permeability at the blood–brain barrier of putrescine–modified catalase in the adult rat. Reinholz MM, et al. **Exp Neurol** 1999 Sep;159(1):191–203

PHARMACOLOGY

Influence of epidermal growth factor/transforming growth

factor alpha and polyamines on Caco-2 cell proliferation. Bauske R, et al. **Ann N Y Acad Sci** 1998 Nov 17; 859:198-200

Putrescine and chlorpheniramine inhibit Ehrlich ascites tumor cell plasma membrane ferricyanide reductase activity. Rodriguez-Caso L, et al. **Cancer Lett** 1998 Oct 23;132(1-2):165-8

Therapeutic benefits of putrescine-modified catalase in a transgenic mouse model of familial amyotrophic lateral sclerosis. Reinholz MM, et al. **Exp Neurol** 1999 Sep; 159(1):204-16

Polyamines and epidermal growth factor in the recovery of gastric mucosa from stress-induced gastric lesions. Konturek PC, et al. **J Clin Gastroenterol** 1998;27 Suppl 1:S97-104

Inhibition of vacuolar ion channels by polyamines. Dobrovinskaya OR, et al. **J Membr Biol** 1999 Jan 15; 167(2):127-40

Polyamines found in the inflamed periodontium inhibit priming and apoptosis in human polymorphonuclear leukocytes. Ratasirayakorn W, et al. **J Periodontol** 1999 Feb;70(2):179-84

Involvement of ornithine decarboxylase and polyamines in epidermal growth factor-induced recovery of gastric mucosa from gastric lesions provoked by stress. Brzozowski T, et al. **Regul Pept** 1998 Jun 30;74(2-3):73-84

PHYSIOLOGY

[The role of putrescine and the energy state of Escherichia coli in regulation of DNA topology during adaptation to oxidative stress] Tkachenko AG, et al. **Mikrobiologiia** 1999 Jan-Feb;68(1):27-32 (Eng. Abstr.) **(Rus)**

PUUMALA VIRUS see **HANTAVIRUS**

PUVA THERAPY

Expression of p53 protein before and after PUVA treatment in psoriasis. Hannuksela-Svahn A, et al. **Acta Derm Venereol** 1999 May;79(3):195-9

Successful treatment of generalized granuloma annulare with polyethylene sheet bath PUVA [letter] Szegedi A, et al. **Acta Derm Venereol** 1999 Jan;79(1):84-5

PUVA-treated psoriatic skin as a model for cutaneous wrinkling assessed by skin replicas. Brazzelli V, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:162-3

Trimethylpsoralen bath PUVA is a remittive treatment for psoriasis vulgaris. Evidence that epidermal immunocytes are direct therapeutic targets [see comments] Coven TR, et al. **Arch Dermatol** 1998 Oct;134(10):1263-8. Comment in: Arch Dermatol 1998 Oct;134(10):1286-8.

Low and irreproducible methoxsalen levels in patients receiving photochemotherapy [letter] Donath P, et al. **Arch Dermatol** 1999 May;135(5):604-6

Treatment of psoriasis with calcipotriene plus psoralen-UV-A-bath therapy [letter] Grundmann-Kollmann M, et al. **Arch Dermatol** 1999 Jul; 135(7):861-2

Oral psoralen-UV-A for systemic scleroderma [letter] Hofer A, et al. **Arch Dermatol** 1999 May;135(5):603-4

Bath psoralen-UV-A therapy for persistent Grover disease [letter] Lüftl M, et al. **Arch Dermatol** 1999 May; 135(5):606-7

Variations of PUVA: practical and effective? [editorial; comment] Morison WL. **Arch Dermatol** 1998 Oct; 134(10):1286-8. Comment on: Arch Dermatol 1998 Oct;134(10):1263-8.

Evaluation of psoralen-UV-B (311-nm) bath phototoxicity [letter] Neumann NJ, et al. **Arch Dermatol** 1998 Oct; 134(10):1299-300

Mycophenolate in psoralen-UV-A desensitization therapy for chronic actinic dermatitis [letter] Nousari HC, et al. **Arch Dermatol** 1999 Sep;135(9):1128-9

Turbo-PUVA: dihydroxyacetone-enhanced photochemotherapy for psoriasis: a pilot study. Taylor CR, et al. **Arch Dermatol** 1999 May;135(5):540-4

Extracorporeal photochemotherapy for treatment of drug-resistant graft-vs.-host disease. Smith EP, et al. **Biol Blood Marrow Transplant** 1998;4(1):27-37

Prospective randomized multicenter clinical trial on the use of interferon -2a plus acitretin versus interferon -2a plus PUVA in patients with cutaneous T-cell lymphoma stages I and II. Stadler R, et al. **Blood** 1998 Nov 15;92(10):3578-81

Treatment of acute graft-versus-host disease with PUVA (psoralen and ultraviolet irradiation): results of a pilot study. Wiesmann A, et al. **Bone Marrow Transplant** 1999 Jan;23(2):151-5

Disseminated pagetoid reticulosis: response to bath PUVA [letter] Behrens S, et al. **Br J Dermatol** 1998 Aug; 139(2):343-4

Subcorneal pustular dermatosis treated with PUVA therapy. A case report and review of the literature. Bauwens M, et al. **Dermatology** 1999;198(2):203-5 (18 ref.)

Combination of PUVAsol and topical calcipotriol in vitiligo. Parsad D, et al. **Dermatology** 1998;197(2):167-70

PUVA treatment for alopecia areata. Experience in a Turkish population. Sahin S, et al. **Dermatology** 1998;197(3):245-7

Immunomodulation induced by psoralen plus ultraviolet A radiation. Aubin F, et al. **Eur J Dermatol** 1998 Apr-May; 8(3):212-3 (29 ref.)

Plasma and buffy coat concentration of 8-methoxypsoralen in patients treated with extracorporeal photopheresis. Balogh A, et al. **Exp Toxicol Pathol** 1998 Sep; 50(4-6):397-401

Autologous epidermal grafting with PUVA-irradiated donor skin for the treatment of vitiligo. Lee AY, et al. **Int J Dermatol** 1998 Jul;37(7):551-4

PUVA treatment of vitiligo: a retrospective study of Turkish patients. Sahin S, et al. **Int J Dermatol** 1999 Jul;38(7):542-5

Livedo reticularis and livedoid vasculitis responding to PUVA therapy. Choi HJ, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):204-7

Vitiligo: phototherapeutic options [letter] Gambichler T. **J Am Acad Dermatol** 1999 Apr;40(4):645

Cancer incidence among Finnish psoriasis patients treated with 8-methoxypsoralen bath PUVA. Hannuksela-Svahn A, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):694-6

Acitretin in combination with UVB or PUVA. Lebwohl M. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 2):S22-4 (10 ref.)

Long-term application of extracorporeal photochemotherapy in severe atopic dermatitis. Prinz B, et al. **J Am Acad Dermatol** 1999 Apr;40(4):577-82

An unusual cause of burn injury: unsupervised use of drugs that contain psoralens. Türegün M, et al. **J Burn Care Rehabil** 1999 Jan-Feb;20(1 Pt 1):50-2

Strategy for treatment of psoriasis: systemic treatments. Dubertret L. **J Dermatol** 1998 Dec;25(12):788-92 (0 ref.)

The discrepancy in hardness between clinical and histopathological findings in localized scleroderma treated with PUVA. Yamaguchi K, et al. **J Dermatol** 1998 Aug; 25(8):544-6

Modulation of cytokine production by 8-methoxypsoralen and UVA. Tokura Y. **J Dermatol Sci** 1999 Feb;19(2):114-22 (56 ref.)

Effectiveness of psoralen photochemotherapy for vitiligo. Chuan MT, et al. **J Formos Med Assoc** 1999 May; 98(5):335-40

PUVA therapy and human papillomavirus type 5 detection in psoriasis [letter; comment] Mahe E, et al. **J Invest Dermatol** 1998 Nov;111(5):912-3. Comment on: J Invest Dermatol 1998 Apr;110(4):311-7.

High prevalence of a variety of epidermodysplasia verruciformis-associated human papillomaviruses in psoriatic skin of patients treated or not treated with PUVA. Weissenborn SJ, et al. **J Invest Dermatol** 1999 Jul; 113(1):122-6

Treatment of oral chronic graft-versus-host disease with PUVA therapy: case report and literature review. Redding SW, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):183-7 (28 ref.)

HIV, UV and immunosuppression. Akaraphanth R, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):28-31 (26 ref.)

PUVA-bath photochemotherapy (PUVA-soak therapy) of recalcitrant dermatoses of the palms and soles. Behrens S, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):47-51

PUVA-induced lymphocyte apoptosis: mechanism of action in psoriasis. Coven TR, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):22-7

Treatment of severe recalcitrant dermatoses of the palms and soles with PUVA-bath versus PUVA-cream therapy. Grundmann-Kollmann M, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):87-9

Effects of water temperature on photosensitization in bath-PUVA therapy with 8-methoxypsoralen. Gruss C, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec;14(5-6):145-7

Effects of PUVA and UVB treatments on restoration of epidermal barrier function and vascular response after suction blister injury in human skin in vivo. Koivukangas V, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug;14(3-4):119-24

Discussion of a case of vitiligo. Lerner MR, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):41-4

Artificial hardening for polymorphic light eruption: practical points from ten years' experience. Man I, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3-4):96-9

Plasma levels of 8-methoxypsoralen following PUVA-bath photochemotherapy. von Kobyletzki G, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug; 14(3-4):136-8

Long-term stability of 8-methoxypsoralen in ointments for topical PUVA therapy ('Cream-PUVA'). Martens-Lobenhoffer J, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct; 12(5):266-70

[Balneologic photochemotherapy of prurigo simplex subacuta] Freitag M, et al. **Hautarzt** 1999 May;50(5):344-9 (Eng. Abstr.) **(Ger)**

[Ofuji papuloerythroderma: PUVA bath treatment] Michel S, et al. **Hautarzt** 1999 May;50(5):360-2 (Eng. Abstr.) **(Ger)**

[Bath-PUVA therapy of granuloma annulare] Salomon N, et al. **Hautarzt** 1999 Apr;50(4):275-9 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Photofibrosis: a further histopathological change induced by PUVA therapy via the mast cell in guttate psoriasis. Preliminary report. Borroni G, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:159-61

Ocular side effects of PUVA-treated patients refusing eye sun protection. Calzavara-Pinton PG, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:164-5

Pemphigus foliaceus induced by psoralen-UV-A [letter] Aghassi D, et al. **Arch Dermatol** 1998 Oct;134(10):1300-1

Risk of squamous cell carcinoma and methoxsalen (psoralen) and UV-A radiation (PUVA). A meta-analysis. Stern RS, et al. **Arch Dermatol** 1998 Dec;134(12):1582-5

Multiple squamous cell carcinomas following photochemotherapy for atopic eczema [letter] Kirby B, et al. **Clin Exp Dermatol** 1999 Jul;24(4):337

Risk of melanoma with psoralen/ultraviolet A therapy for psoriasis. Do the known risks now outweigh the benefits? Lindelöf B. **Drug Saf** 1999 Apr;20(4):289-97 (115 ref.)

Effects of antipsoriatic therapies on hepatic microsomal enzyme activity in patients with psoriasis. Brockmeyer NH, et al. **Eur J Med Res** 1998 Aug 18;3(8):361-6

Improving the safety profile of long-term PUVA therapy [editorial; comment] Hobbs J, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):496-7 (20 ref.) . Comment on: J Am Acad Dermatol 1999 Sep;41(3 Pt 1):408-13.

The time-course of psoralen ultraviolet A (PUVA) erythema. Ibbotson SH, et al. **J Invest Dermatol** 1999 Sep; 113(3):346-50

Examination of psoralens-induced photodermatitis in Wistar rats under scanning electron microscopy. Chandler R, et al. **J Nat Toxins** 1999 Jun;8(2):167-77

Malignant melanoma in patients treated for psoriasis with PUVA. Stern RS. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):37-8 (6 ref.)

Photocarcinogenicity of drugs. Stern RS. **Toxicol Lett** 1998 Dec 28;102-103:389-92

METHODS

Efficacy and safety of treatment modalities for psoriasis. Tristani-Firouzi P, et al. **Cutis** 1998 Feb;61(2 Suppl):11-21 (69 ref.)

Psoralen and long wavelength ultraviolet radiation as an adjuvant therapy for prevention of intimal hyperplasia and constrictive remodeling after balloon dilation: a study in the rabbit iliac artery. Perrée J, et al. **Lasers Surg Med** 1998;23(5):281-90

STATISTICS & NUMERICAL DATA

Photo(chemo)therapy in private practice in Belgium, France and The Netherlands. Faguer K, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):59-63

TRENDS

PUVA therapy: current concerns in Japan. Danno K. **J Dermatol Sci** 1999 Feb;19(2):89-105 (138 ref.)

PVP-IODINE see **POVIDONE-IODINE**

PX GENES see **GENES, PX**

PYELITIS

THERAPY

The conservative management of corynebacterium group D2 encrusted pyelitis. Meria P, et al. **BJU Int** 1999 Aug; 84(3):270-5

Successful treatment of encrusted pyelitis in a renal transplant with local acidification and surgical ileocaliceal anastomosis. Benoit G, et al. **J Urol** 1999 Oct; 162(4):1369-70

PYELOCYSTITIS see **PYELITIS**

PYELOGRAPHY see **UROGRAPHY**

PYELONEPHRITIS

see related
KIDNEY FAILURE, CHRONIC

[Emphysematous pyelonephritis] Hansmann Y, et al. **Ann Med Interne (Paris)** 1998 Oct;149(6):326-30 (Eng. Abstr.) **(Fre)**

[Acute-chronic pyelonephritis] Kaneko S, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):514-8 (16 ref.) **(Jpn)**

[Emphysematous pyelonephritis] Yuri T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):519-22 (14 ref.) **(Jpn)**

BLOOD

Influence of acetate and bicarbonate dialysate on blood short- and long-chain acyl carnitine in adult pyelonephritis patients. Alhomida AS. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):48-55

COMPLICATIONS

The role of vitamin A in preventing renal scarring secondary to pyelonephritis. Kavukçu S, et al. **BJU Int** 1999 Jun;

83(9):1055–9
Sweet's syndrome associated with systemic inflammatory response syndrome [see comments] Matthews PC, et al. **Intensive Care Med** 1998 Oct;24(10):1106–9. Comment in: Intensive Care Med 1998 Oct;24(10):997–8.
Increased urine interleukin–6 concentrations correlate with pyelonephritic changes on 99mTc–dimercaptosuccinic acid scans in neonates with urinary tract infections. Roilides E, et al. **J Infect Dis** 1999 Sep;180(3):904–7
Ibuprofen combined with antibiotics suppresses renal scarring due to ascending pyelonephritis in rats. Huang A, et al. **J Urol** 1999 Oct;162(4):1396–8
Adjunctive oral corticosteroids reduce renal scarring: the piglet model of reflux and acute experimental pyelonephritis. Pohl HG, et al. **J Urol** 1999 Sep;162(3 Pt 1):815–20
Emphysematous pyelonephritis in two diabetic patients with complete uterine prolapse and cystocele. Jong IC, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3214–7
Progressive renal shrinkage after simple pyelonephritis. Hansen MH, et al. **Urology** 1998 Nov;52(5):893–6
[Peritonitis caused by spontaneous rupture of pyonephrosis in pregnancy. Report of a case] Rabii R, et al. **Ann Urol (Paris)** 1999;33(1):31–5 (Eng. Abstr.) **(Fre)**
[Predictive factors of the presence of bacteremia in males with urinary infection] Horcajada JP, et al. **Med Clin (Barc)** 1999 May 29;112(19):734–5 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Emphysematous pyelonephritis: case report and review of the literature. McDermid KP, et al. **Diabetes Res Clin Pract** 1999 Apr;44(1):71–5
Relevance in the emergency department of a decisional algorithm for outpatient care of women with acute pyelonephritis. Elkharrat D, et al. **Eur J Emerg Med** 1999 Mar;6(1):15–20
Multiple renal aspergillus abscesses in an AIDS patient: contrast–enhanced helical CT and MRI findings. Heussel CP, et al. **Eur Radiol** 1999;9(4):616–9
Pseudotuberculous pyelonephritis: a rare entity and a diagnostic pitfall [letter] Muldoon C, et al. **Histopathology** 1999 Aug;35(2):181–3
Rational diagnostic steps in acute pyelonephritis with special reference to ultrasonography and computed tomography scan. Weidner W, et al. **Int J Antimicrob Agents** 1999 May; 11(3–4):257–9; discussion 261–4
Emphysematous pyelonephritis: imaging diagnosis and follow–up. Kuo YT, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Mar; 15(3):159–70
Procalcitonin is a marker of severity of renal lesions in pyelonephritis. Benador N, et al. **Pediatrics** 1998 Dec; 102(6):1422–5
Pyelonephritis at home–why not? [comment] Fisher MC. **Pediatrics** 1999 Jul;104(1 Pt 1):109–11. Comment on: Pediatrics 1999 Jul;104(1 Pt 1):79–86.
MR imaging of urinary tract infections in children [letter; comment] Leonidas JC, et al. **Radiology** 1999 Feb; 210(2):582–4. Comment on: Radiology 1998 May;207(2):377–84.
[Emphysematous pyelonephritis: apropos of 4 cases] Rocher L, et al. **J Radiol** 1999 Mar;80(3):297–302 (15 ref.) (Eng. Abstr.) **(Fre)**
[Emphysematous pyelonephritis—a rare cause of sepsis] Schaal M. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1998 Oct; 33(10):681–4 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Effectiveness and toxicity of gentamicin in an experimental model of pyelonephritis: effect of the time of administration. LeBrun M, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1020–6
Oral vs intravenous ciprofloxacin in the initial empirical management of severe pyelonephritis or complicated urinary tract infections: a prospective randomized clinical trial. Mombelli G, et al. **Arch Intern Med** 1999 Jan 11; 159(1):53–8
Influence of fever on the pharmacokinetics of ciprofloxacin. Beovic B, et al. **Int J Antimicrob Agents** 1999 Jan;11(1):81–5
Impact of cefuroxime administration on endotoxin (LPS) and tumour necrosis factor–alpha (TNFalpha) blood levels in patients suffering from acute pyelonephritis: a preliminary report. Giamarellou–Bourboulis EJ, et al. **Int J Antimicrob Agents** 1999 Feb;11(2):115–9
Suppression of renal inflammation with vitamins A and E in ascending pyelonephritis in rats. Bennett RT, et al. **J Urol** 1999 May;161(5):1681–4
Angiotensin converting enzyme inhibitors and reflux nephropathy: 2–year follow–up [letter; comment] Smith G. **Pediatr Nephrol** 1999 Jun;13(5):465. Comment on: Pediatr Nephrol 1997 Dec;11(6):714–8.
[Antibiotic treatment of acute pyelonephritis in the child] Bégué P. **Arch Pediatr** 1998;5 Suppl 3:296S–301S (29 ref.) (Eng. Abstr.) **(Fre)**
[Antibiotic therapy of acute pyelonephritis: which treatment to offer?] Gaudelus J. **Arch Pediatr** 1999;6 Suppl 2:403s–405s (10 ref.) **(Fre)**
[Current role of aminoglycosides in the treatment of acute pyelonephritis] Caron F. **Prog Urol** 1998 Dec;8(6):1077–9 (6 ref.) (Eng. Abstr.) **(Fre)**
[Clinical, bactericidal and pharmacological evaluation of the effects of netromycin] Sokolova VI, et al. **Ter Arkh** 1999; 71(3):35–8 (Eng. Abstr.) **(Rus)**
[Cefixime versus amoxicillin plus netilmicin in the treatment of community–acquired non–complicated acute pyelonephritis] Moreno–Martínez A, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):521–4 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

[The epidemiology of kidney infection and chronic pyelonephritis in Ukraine] Borzykh OA. **Lik Sprava** 1998 Aug;(6):181–5 (Eng. Abstr.) **(Ukr)**

ETIOLOGY

Inverse relationship between severity of experimental pyelonephritis and nitric oxide production in C3H/HeJ mice. Nowicki B, et al. **Infect Immun** 1999 May; 67(5):2421–7
Vesicoureteral reflux in a boy presenting with difficulty in walking. Matsumoto S, et al. **Int J Urol** 1999 Jun;6(6):324–6
Infectious complications of combination anticancer chemotherapy for urogenital cancers. Matsumoto T, et al. **Int Urol Nephrol** 1999;31(1):7–14
[Renal cell carcinoma discovered in a patient with typical acute pyelonephritis: a case report] Makiyama K, et al. **Hinyokika Kiyo** 1998 Sep;44(9):645–7 (Eng. Abstr.) **(Jpn)**
[A case of valve–like structure in ureter associated with pyonephrosis due to Salmonella infection] Ogura Y, et al. **Hinyokika Kiyo** 1999 Apr;45(4):261–4 (Eng. Abstr.) **(Jpn)**
[Etiology and therapy of chronic pyelonephritis] Nihei H, et al. **Nippon Naika Gakkai Zasshi** 1998 Jul 10; 87(7):1305–10 (5 ref.) **(Jpn)**
[Acute pyelonephritis as presentation form of renal angiomyolipoma with large granulomatous component] Monge Mirallas JM, et al. **Actas Urol Esp** 1998 Oct; 22(9):785–8 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Local production of inflammatory mediators in an experimental model of acute obstructive pyelonephritis. Kaboré AF, et al. **J Infect Dis** 1999 May;179(5):1162–72
[The level of interleukins (IL–1 and IL–2) and of IL–2R + cells in patients with acute and chronic pyelonephritis] Drannik GN, et al. **Lik Sprava** 1998 Jul–Aug;(5):83–6 (Eng. Abstr.) **(Rus)**
[The immunological indices of treatment efficacy in chronic pyelonephritis using low–mineralization carbonate and magnesium–calcium bicarbonate water at Kuka health resort] Mungalov NP. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan–Feb; (1):38–40 **(Rus)**
[Antibodies to bacterial antigens and autoantigens in pregnant women with kidney diseases] Ivanova OV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep–Oct;(5):54–7 (Eng. Abstr.) **(Rus)**

METABOLISM

Soluble interleukin–6 receptor, interleukin–10 and granulocyte colony–stimulating factor in acute pyelonephritis: relationship to markers of bacterial virulence and renal function. Jacobson SH, et al. **Nephron** 1998 Dec;80(4):401–7
[Disorders of the processes of protein biosynthesis and a decrease in the content of cytochromes P–450 and b5 in the microsomal fraction of rat kidney in the dynamics of development of acute pyelonephritis] Karimov KhIa, et al. **Ukr Biokhim Zh** 1998 Jul–Aug;70(4):139–42 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Bilateral emphysematous pyelonephritis caused by Candida infection. Hildebrand TS, et al. **Am J Kidney Dis** 1999 Feb; 33(2):E10
Haemophilus influenzae pyelonephritis in adults [letter] [published erratum appears in Arch Intern Med 1999 Jun 28;159(12):1363] Reichman JM, et al. **Arch Intern Med** 1999 Feb 8;159(3):316
Emphysematous pyelonephritis related to specific gas–forming Escherichia coli without diabetes mellitus. Hazouard E, et al. **Intensive Care Med** 1999 Jun; 25(6):628–30
Local production of inflammatory mediators in an experimental model of acute obstructive pyelonephritis. Kaboré AF, et al. **J Infect Dis** 1999 May;179(5):1162–72
Adjunctive oral corticosteroids reduce renal scarring: the piglet model of reflux and acute experimental pyelonephritis. Pohl HG, et al. **J Urol** 1999 Sep;162(3 Pt 1):815–20
[Rapid bioluminescence method for pathogen detection of nephropyelitis patient] Tang Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(6):533–4 (Eng. Abstr.) **(Chi)**
[The effect of ecological and microbiological factors on the health status of pregnant women with pyelonephritis and on their newborn infants] Iashchukevych MIe. **Lik Sprava** 1999 Apr–May;(3):42–4 (Eng. Abstr.) **(Ukr)**

PATHOLOGY

Images in clinical medicine. Emphysematous pyelonephritis. Eloubeidi MA, et al. **N Engl J Med** 1999 Sep 2;341(10):737
Magnetic resonance imaging in acute pyelonephritis. Poustchi–Amin M, et al. **Pediatr Nephrol** 1998 Sep; 12(7):579–80
[Parenchymatous cicatrix and urinary tract infection: physiopathology and clinical implications] Cochat P, et al. **Arch Pediatr** 1998;5 Suppl 3:290S–295S (48 ref.) (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

Different clinical presentations of pyelonephritis in children with and without vesicoureteral reflux: an Italian Multicenter Study [letter] Pennesi M, et al. **Pediatrics** 1998 Dec;102(6):1493–4
[Retrograde cystography after a first episode of acute pyelonephritis in the child and adolescent] David C, et al. **J Radiol** 1998 Feb;79(2):133–7 (Eng. Abstr.) **(Fre)**
[Intra– and peri–renal gas formation. Bilateral emphysematous pyelonephritis] Pühse G, et al. **Urologe A** 1999 May;38(3):276–8 (Eng. Abstr.) **(Ger)**

RADIONUCLIDE IMAGING

Tc–99m DTPA renal scintigraphy using deconvolution analysis with six functional images of the mean time to evaluate acute pyelonephritis. Poropat M, et al. **Clin Nucl Med** 1999 Feb;24(2):120–4
The value of Ga–67 renal SPECT in diagnosing and monitoring complete and incomplete treatment in children with acute pyelonephritis. Yen TC, et al. **Clin Nucl Med** 1999 Sep;24(9):669–73
Identification of new renal scarring in repeated episodes of acute pyelonephritis using Tc–99m DMSA renal SPECT. Yen TC, et al. **Clin Nucl Med** 1998 Dec;23(12):828–31
Combined use of urinary alpha1–microglobulin and 99mTc DMSA scintigraphy in the diagnosis and follow–up of acute pyelonephritis and cystitis in children. Everaert K, et al. **Eur Urol** 1998 Dec;34(6):486–91
Quantitative 99mTc–DMSA uptake in experimental pyelonephritis. Godley ML, et al. **J Nucl Med** 1999 Apr; 40(4):643–9
The importance of 99Tcm–DMSA renal scintigraphy in the follow–up of acute pyelonephritis in children: comparison with urographic data. Lavocat MP, et al. **Nucl Med Commun** 1998 Jul;19(7):703–10
Comparison of ultrasound and dimercaptosuccinic acid scintigraphy changes in acute pyelonephritis. Morin D, et al. **Pediatr Nephrol** 1999 Apr;13(3):219–22
[Role of DMSA scintigraphy in managing pediatric pyelonephritis] Girardin E, et al. **Arch Pediatr** 1998;5 Suppl 3:285S–289S (15 ref.) (Eng. Abstr.) **(Fre)**

REHABILITATION

[The immunological indices of treatment efficacy in chronic pyelonephritis using low–mineralization carbonate and magnesium–calcium bicarbonate water at Kuka health resort] Mungalov NP. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan–Feb; (1):38–40 **(Rus)**
[The use of laser radiation and sinusoidal modulated currents in the therapy of patients with chronic calculous pyelonephritis] Nesterov NI, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug;(4):24–5 (Eng. Abstr.) **(Rus)**
[The staged medical rehabilitation of patients with secondary chronic pyelonephritis in infravesical obstructions] Nesterov NI, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Mar–Apr; (2):23–5 (Eng. Abstr.) **(Rus)**
[The use of magnesium–calcium carbonate mineral water in kidney diseases] Sizykh TP, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov–Dec; (6):52–4 **(Rus)**

SURGERY

Percutaneous nephrostomy as adjunct management in advanced upper urinary tract infection. Watson RA, et al. **Urology** 1999 Aug;54(2):234–9
[Rhabdomyolysis following nephrectomy for pyonephrosis: a case report] Gakiya M, et al. **Hinyokika Kiyo** 1999 Mar; 45(3):219–21 (Eng. Abstr.) **(Jpn)**
[Characteristics of kidney function before and after surgical treatment of obstructive pyelonephritis in children] Bondar BM, et al. **Klin Khir** 1999;(7):32–3 (Eng. Abstr.) **(Ukr)**

THERAPY

Emphysematous pyelonephritis in a transplanted kidney: successful percutaneous treatment. Stepherson C, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):840–1
Pyelonephritis. Wing DA. **Clin Obstet Gynecol** 1998 Sep; 41(3):515–26 (38 ref.)
Relevance in the emergency department of a decisional algorithm for outpatient care of women with acute pyelonephritis. Elkharrat D, et al. **Eur J Emerg Med** 1999 Mar;6(1):15–20
Subcapsular hematoma as a complication of acute pyelonephritis: a case report. Kim HJ, et al. **J Korean Med Sci** 1998 Oct;13(5):551–3

PYELONEPHRITIS

[Therapeutic strategies in urinary tract infections in women] Lobel B. **Ann Urol (Paris)** 1998;32(6–7):353–8 (Eng. Abstr.) **(Fre)**

[The efficacy of complex treatment of an acute calculous pyelonephritis] Iantsalovs'kyi OI, et al. **Klin Khir** 1998; (6):52–3 **(Ukr)**

[The efficacy of the combined treatment of acute calculous pyelonephritis] Zhyla VV, et al. **Klin Khir** 1998;(9–10):100 **(Ukr)**

ULTRASONOGRAPHY

Comparison of ultrasound and dimercaptosuccinic acid scintigraphy changes in acute pyelonephritis. Morin D, et al. **Pediatr Nephrol** 1999 Apr;13(3):219–22

Renal sinus hyperechogenicity in acute pyelonephritis: description and pathological correlation. Dacher JN, et al. **Pediatr Radiol** 1999 Mar;29(3):179–82

[Ultrasonic methods in the diagnosis and treatment of pyelonephritis] Petrov DA, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):48–51 (98 ref.) **(Rus)**

[Clinical indications for echography in acute pyelonephritis in adult women] Ortega Enciso L, et al. **Rev Clin Esp** 1998 Oct;198(10):647–50 (Eng. Abstr.) **(Spa)**

PYELONEPHRITIS, ACUTE NECROTIZING see **KIDNEY PAPILLARY NECROSIS**

PYELONEPHRITIS, XANTHOGRANULOMATOUS

Xanthogranulomatous pyelonephritis. Gregg CR, et al. **Curr Clin Top Infect Dis** 1999;19:287–304 (63 ref.)

[Pseudotumorous focal xanthogranulomatous pyelonephritis in children. Apropos of a case] Benouachane T, et al. **Ann Urol (Paris)** 1998;32(6–7):359–62 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

Systemic amyloidosis secondary to xantogranulomatous pyelonephritis [letter; comment] Rivera F, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2416–7. Comment on: Nephrol Dial Transplant 1996 May;11(5):875–8.

DIAGNOSIS

Xanthogranulomatous pyelonephritis—a pseudo-neoplastic disease. Peters FP, et al. **Acta Oncol** 1999;38(2):269–70

MRI and CT features in two unusual cases of xanthogranulomatous pyelonephritis. Anezinis P, et al. **Eur J Radiol** 1998 Aug;28(1):98–101

PATHOLOGY

Xanthogranulomatous pyelonephritis in a child with cystinuria [letter] Kaneko K, et al. **Nephron** 1998 Sep; 80(1):102–3

RADIOGRAPHY

Focal xanthogranulomatous pyelonephritis in a teenager [letter; comment] Hoeffel JC. **Eur J Radiol** 1998 Jul; 27(3):278–9. Comment on: Eur J Radiol 1997 Jan;24(1):77–9.

[A case of xanthogranulomatous pyelonephritis with venous thrombosis] Catalano O, et al. **Radiol Med (Torino)** 1998 Nov;96(5):530–1 **(Ita)**

[A case of xanthogranulomatous pyelonephritis followed by computed tomographic scan] Aizawa T, et al. **Hinyokika Kiyo** 1998 Oct;44(10):729–32 (Eng. Abstr.) **(Jpn)**

SURGERY

Is diffuse xanthogranulomatous pyelonephritis a contraindication to retroperitoneoscopic nephroureterectomy? A case report. Merrot T, et al. **Surg Laparosc Endosc** 1998 Oct;8(5):366–9

Is the laparoscopic approach justified in patients with xanthogranulomatous pyelonephritis? Bercowsky E, et al. **Urology** 1999 Sep;54(3):437–42; discussion 442–3

PYGATHRIX see **CERCOPITHECIDAE**

PYGMY CHIMPANZEE see **PAN PANISCUS**

PYGMY RIGHT WHALE see **WHALES**

PYGMY SPERM WHALE see **WHALES**

PYKNOLEPSY see **EPILEPSY, ABSENCE**

PYLORIC ANTRUM

[Ectopic pancreas associated with antropyloric membrane] Fernández Gil MA, et al. **An Esp Pediatr** 1999 Apr; 50(4):402–4 **(Spa)**

ABNORMALITIES

Antral mucosal diaphragm. Naga M, et al. **Endoscopy** 1999 Aug;31(6):S48–9

Resolution of symptomatic GERD and delayed gastric emptying after endoscopic ablation of antral diaphragm (web). Maldonado ME, et al. **Gastrointest Endosc** 1998 Oct; 48(4):428–9

CHEMISTRY

Amyloidoma and marginal zone malignant lymphoma (MALT type) in the gastric antrum. A case report. Wilk W, et al. **Pol J Pathol** 1998;49(3):183–6

CYTOLOGY

Region-specific antiproliferative effect of VIP and PACAP-(1–38) on rabbit enteric smooth muscle. van Assche G, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G303–10

DRUG EFFECTS

Bombesin-evoked gastrin release and calcium signaling in human antral G cells in culture. Squires PE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G227–37

Involvement of two different pathways in the motor effects of erythromycin on the gastric antrum in humans. Coulie B, et al. **Gut** 1998 Sep;43(3):395–400

Antiulcer effect of lafutidine on indomethacin-induced gastric antral ulcers in refed rats. Onodera S, et al. **Jpn J Pharmacol** 1999 Jul;80(3):229–35

Fat delays emptying but increases forward and backward antral flow as assessed by flow-sensitive magnetic resonance imaging. Boulby P, et al. **Neurogastroenterol Motil** 1999 Feb;11(1):27–36

ENZYMOLOGY

Novel form of L-aromatic amino acid decarboxylase mRNA in rat antral mucosa. Djali PK, et al. **Exp Physiol** 1998 Sep;83(5):617–27

Subcellular distribution of protein kinase C isoforms in gastric antrum smooth muscle of STZ-induced diabetic rats. Maruyama Y, et al. **Life Sci** 1999;64(21):1933–40

IMMUNOLOGY

Local cytokine response in Helicobacter pylori-infected subjects. Lindholm C, et al. **Infect Immun** 1998 Dec; 66(12):5964–71

INNERVATION

Neurochemical coding of myenteric neurons in the guinea-pig antrum. Vanden Berghe P, et al. **Cell Tissue Res** 1999 Jul;297(1):81–90

METABOLISM

Bombesin-evoked gastrin release and calcium signaling in human antral G cells in culture. Squires PE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G227–37

The role of protein kinase C isozymes in bombesin-stimulated gastrin release from human antral gastrin cells. Moore ED, et al. **J Biol Chem** 1999 Aug 6;274(32):22493–501

Localization of motilin binding sites in subcellular fractions from rabbit antral and colonic smooth muscle tissue. Van Assche G, et al. **Regul Pept** 1998 Oct 16;77(1–3):89–94

MICROBIOLOGY

The bactericidal activity of clarithromycin versus ampicillin alone and in combination with omeprazole and/or bismuth against clarithromycin-susceptible and clarithromycin-resistant strains of Helicobacter pylori. Coudron PE, et al. **Diagn Microbiol Infect Dis** 1998 Sep; 32(1):39–44

Evaluation of antral biopsies used in the rapid urease test for Helicobacter pylori culture. Hyde DK, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan;18(1):73–5

Helicobacter pylori clearance and serum gastrin and pepsinogen I concentrations in omeprazole treatment of duodenal ulcer patients. Lee CT, et al. **Eur J Clin Pharmacol** 1999 Jan;54(11):817–20

Helicobacter pylori detection in human biopsies: a competitive PCR assay with internal control reveals false results. Thoreson AC, et al. **FEMS Immunol Med Microbiol** 1999 Jun;24(2):201–8

Co-detection of Helicobacter pylori and of its resistance to clarithromycin by PCR [published erratum appears in FEMS Microbiol Lett 1999 Apr 1;173(1):275] Sevin E, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):369–72

Differences among Helicobacter pylori strains isolated from three different populations and demonstrated by restriction enzyme analysis of an internal fragment of the conserved gene hpaA. Evans DG, et al. **Helicobacter** 1999 Jun; 4(2):82–8

Invasiveness of Helicobacter pylori into human gastric mucosa. Ko GH, et al. **Helicobacter** 1999 Jun;4(2):77–81

Helicobacter pylori and intestinal metaplasia with its subtypes in the gastric antrum in a Saudi population. Al-Knawy B, et al. **Scand J Gastroenterol** 1999 Jun;34(6):562–5

Realities of diagnosing Helicobacter pylori infection in clinical practice: a case for non-invasive indirect methodologies. Metz DC, et al. **Yale J Biol Med** 1998 Mar–Apr;71(2):81–90

[Antral biopsy is sufficient to confirm Helicobacter pylori eradication with the "new" one-week long triple treatments] Gisbert JP, et al. **Med Clin (Barc)** 1999 Mar 20;112(10):365–7 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Relationship between Helicobacter pylori infection and gastric metaplasia in the duodenal bulb in the pathogenesis of duodenal ulcer. Futami H, et al. **J Gastroenterol Hepatol** 1999 Feb;14(2):114–9

Helicobacter pylori and intestinal metaplasia with its subtypes in the gastric antrum in a Saudi population. Al-Knawy B, et al. **Scand J Gastroenterol** 1999 Jun;34(6):562–5

Hyperplasia of gastric antral beta-microseminoprotein endocrine-like cells and increased serum levels of beta-microseminoprotein in atrophic corpus gastritis. Weiber H, et al. **Scand J Gastroenterol** 1998 Sep;33(9):911–5

Relationship of CagA to serum gastrin concentrations and antral G, D cell densities in Helicobacter pylori infection. Kim JH, et al. **Yonsei Med J** 1999 Aug;40(4):301–6

[Benign tumor of the small intestine causing recurrent hemorrhage] Györi I, et al. **Orv Hetil** 1999 Mar 14; 140(11):603–4 (Eng. Abstr.) **(Hun)**

PHYSIOLOGY

Interdigestive antroduodenal motility and gastric acid secretion. Gielkens HA, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):27–33

Antro-pyloric contractile patterns and transpyloric flow after meal ingestion in humans. Pallotta N, et al. **Am J Gastroenterol** 1998 Dec;93(12):2513–22

Voltage sensitivity of slow wave frequency in isolated circular muscle strips from guinea pig gastric antrum. Huang S, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G518–28

Choleresis induced by stimulation of the gastric antrum. Nahrwold DL, et al. **J Laparoendosc Adv Surg Tech A** 1998 Dec;8(6):335–40

Regenerative potentials evoked in circular smooth muscle of the antral region of guinea-pig stomach. Suzuki H, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):563–73

Validation of antroduodenal motility measurements made by echo-planar magnetic resonance imaging. Wright J, et al. **Neurogastroenterol Motil** 1999 Feb;11(1):19–25

Improved intraepithelial two-dimensional cable analysis with application to necturus gastric antral mucosa. Mustonen H. **Pflugers Arch** 1998 Oct;436(5):646–52

Glucagon-like peptide-2 inhibits centrally induced antral motility in pigs. Wøjdemann M, et al. **Scand J Gastroenterol** 1998 Aug;33(8):828–32

PHYSIOPATHOLOGY

Effects of duodenal distension on antropyloroduodenal pressures and perception are modified by hyperglycemia. Lingenfelser T, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G711–8

SURGERY

Early effects of standard and pylorus-preserving pancreatectomy on myoelectric activity and gastric emptying. Thor PJ, et al. **Hepatogastroenterology** 1999 May–Jun;46(27):1963–7

[Gastrectomy for cancer of the antrum: the so-called 4/5 inferior pole gastrectomy] Msika S. **J Chir (Paris)** 1998 Oct;135(4):169–72 **(Fre)**

TRANSPLANTATION

New concepts of histological changes in experimental augmentation cystoplasty: insights into the development of neoplastic transformation at the enterovesical and gastrovesical anastomosis. Gitlin JS, et al. **J Urol** 1999 Sep; 162(3 Pt 2):1096–100

ULTRASONOGRAPHY

The effect of cisapride on dysmotility-like functional dyspepsia: reduction of the fasting and postprandial area, but not of the postprandial antral expansion. Eberl T, et al. **Eur J Gastroenterol Hepatol** 1998 Dec;10(12):991–5

A case of bleeding gastric lipoma: US, CT and MR findings. Regge D, et al. **Eur Radiol** 1999;9(2):256–8

ULTRASTRUCTURE

Effect of Tityus serrulatus scorpion toxin on serum gastrin levels in anaesthetized rat. Toppa NH, et al. **Toxicon** 1998 Dec;36(12):1833–42

PYLORIC GLANDS see **GASTRIC MUCOSA**

PYLORIC STENOSIS

BLOOD

Diagnostic aids in the differentiation of pyloric stenosis from severe gastroesophageal reflux during early infancy: the utility of serum bicarbonate and serum chloride. Smith GA, et al. **Am J Emerg Med** 1999 Jan;17(1):28–31

CHEMICALLY INDUCED

Pyloric channel stricture secondary to high-dose ibuprofen therapy in a patient with cystic fibrosis. Bell EA, et al. **Ann Pharmacother** 1999 Jun;33(6):693–6

Intralesional steroid injections for corrosive induced pyloric stenosis. Kochhar R, et al. **Endoscopy** 1998 Oct;30(8):734–6

COMPLICATIONS

A case of Menkes syndrome with pyloric stenosis: an effect of copper deficiency on NOS1? Cunningham S, et al. **J Inherit Metab Dis** 1999 Apr;22(2):197–8

Pyloric stenosis in a boy with non-ketotic hyperglycinaemia. al-Essa M, et al. **J Inherit Metab Dis** 1999 Feb;22(1):81-2

DIAGNOSIS

The changing presentation of pyloric stenosis. Papadakis K, et al. **Am J Emerg Med** 1999 Jan;17(1):67-9

Diagnostic aids in the differentiation of pyloric stenosis from severe gastroesophageal reflux during early infancy: the utility of serum bicarbonate and serum chloride. Smith GA, et al. **Am J Emerg Med** 1999 Jan;17(1):28-31

Infantile hypertrophic pyloric stenosis: delays in diagnosis and overutilization of imaging modalities. Abbas AE, et al. **Am Surg** 1999 Jan;65(1):73-6

Pyloric stenosis in the premature infant [letter; comment] Karim A. **Aust Fam Physician** 1998 Nov;27(11):989. Comment on: Aust Fam Physician 1998 Jul;27(7):619.

Pyloric stenosis caused by noncystic duodenal duplication and ectopic pancreas in a neonate. Kawashima H, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):228-9

The role of ultrasonography in the diagnosis of pyloric stenosis: a decision analysis [letter; comment] Mandell GA, et al. **J Pediatr Surg** 1999 Feb;34(2):376. Comment on: J Pediatr Surg 1998 May;33(5):676-81.

[Electrogastrography in diagnosis of ulcerative pyloroduodenal stenosis] Nugaeva NR, et al. **Klin Med (Mosk)** 1998;76(8):30-2 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Antimicrobial treatment for peptic stenosis: a prospective study. Brandimarte G, et al. **Eur J Gastroenterol Hepatol** 1999 Jul;11(7):731-4

Lack of response to botulinum toxin A in patients with hypertrophic pyloric stenosis [letter] Heinen F, et al. **Eur J Pediatr** 1999 May;158(5):436

Successful medical treatment of peptic pyloric stenosis: Dr Sippy revisited. Khandekar S, et al. **J R Coll Physicians Lond** 1998 Jul-Aug;32(4):354-7

ENZYMOLOGY

[The function of the digestive processes in the stomach and small intestine in complicated peptic ulcer] Grushka VA. **Lik Sprava** 1998 Aug;(6):47-9 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Increased prevalence of urinary tract infections and anomalies in infants with pyloric stenosis. Nussinovitch M, et al. **Scand J Urol Nephrol** 1998 Dec;32(6):393-4

ETIOLOGY

Simultaneous pyloric and colonic obstruction associated with hiatus hernia in a weightlifter: a case report. Casey P, et al. **Can J Surg** 1999 Jun;42(3):220-2

Pyloric stenosis due to eosinophilic gastroenteritis: presentation of two cases in mono-ovular twins [letter] Aquino A, et al. **Eur J Pediatr** 1999 Feb;158(2):172-3

Pyloric stenosis due to Crohn's disease. Nakamura H, et al. **J Gastroenterol** 1998 Oct;33(5):739-42

Pyloric stenosis caused by noncystic duodenal duplication and ectopic pancreas in a neonate. Kawashima H, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):228-9

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 26-1999. A three-week-old girl with pyloric stenosis and an unexpected operative finding [clinical conference] **N Engl J Med** 1999 Aug 26;341(9):679-84

A possible role of the plasmalemmal cytoskeleton, nitric oxide synthase, and innervation in infantile hypertrophic pyloric stenosis. A confocal laser scanning microscopic study. Gentile C, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):45-50

[Fetal alcohol syndrome and pyloric stenosis (letter; comment)] Dehaene P. **Arch Pediatr** 1999 Jan;6(1):106. Comment on: Arch Pediatr 1998 Jun;596):695-6. **(Fre)**

[Complicated gastroduodenal ulcers in rheumatology patients] Barashkov VG, et al. **Vestn Khir Im I I Grek** 1998;157(4):28-31 (Eng. Abstr.) **(Rus)**

GENETICS

Involvement of 9q22.1-31.3 region in pyloric stenosis [letter] Maraschio P, et al. **Clin Genet** 1998 Aug;54(2):159-60

HISTORY

[Communication from the Szent István Municipal Hospital. Data on the surgical management of scarified pyloric stenosis (historical article)] Herczel M. **Orv Hetil** 1999 Jul 25;140(30):1699-702 **(Hun)**

METABOLISM

Correlation of prostaglandin E2 production and gastric acid secretion in infants with hypertrophic pyloric stenosis. Shinohara K, et al. **J Pediatr Surg** 1998 Oct;33(10):1483-5

MICROBIOLOGY

Antimicrobial treatment for peptic stenosis: a prospective study. Brandimarte G, et al. **Eur J Gastroenterol Hepatol** 1999 Jul;11(7):731-4

PATHOLOGY

Smooth muscle cell hypertrophy versus hyperplasia in infantile hypertrophic pyloric stenosis. Oue T, et al. **Pediatr Res** 1999 Jun;45(6):853-7

Increased expression of transforming growth factor-alpha in infantile hypertrophic pyloric stenosis. Shima H, et al. **Pediatr Surg Int** 1999;15(3-4):198-200

PHYSIOPATHOLOGY

Pyloric motor abnormality in patients with infantile hypertrophic pyloric stenosis. Imura K, et al. **Pediatr Surg Int** 1998 Dec;14(3):178-81

SURGERY

The changing presentation of pyloric stenosis. Papadakis K, et al. **Am J Emerg Med** 1999 Jan;17(1):67-9

Tracheal intubation in infants [letter; comment] Armstrong TS, et al. **Anesth Analg** 1998 Dec;87(6):1455-7. Comment on: Anesth Analg 1998 May;86(5):945-51.

Tracheal intubation for awake versus paralyzed infants with pyloric stenosis [letter; comment] Theroux MC. **Anesth Analg** 1998 Dec;87(6):1455; discussion 1456-7. Comment on: Anesth Analg 1998 May;86(5):945-51.

Post-pyloromyotomy emesis caused by concomitant urinary tract infection in pyloric stenosis patients [letter] Nussinovitch M, et al. **Arch Dis Child** 1998 Aug;79(2):201

Resolution of symptomatic GERD and delayed gastric emptying after endoscopic ablation of antral diaphragm (web). Maldonado ME, et al. **Gastrointest Endosc** 1998 Oct; 48(4):428-9

The current role of laparoscopic surgery in the treatment of benign gastroduodenal diseases. Azagra JS, et al. **Hepatogastroenterology** 1999 May-Jun;46(27):1522-6

The umbilical fold approach to pyloromyotomy: is it a safe alternative to the right upper-quadrant approach? Leinwand MJ, et al. **J Am Coll Surg** 1999 Oct;189(4):362-7

Postoperative ad lib feeding for hypertrophic pyloric stenosis. Carpenter RO, et al. **J Pediatr Surg** 1999 Jun;34(6):959-61

Laparoscopic extramucosal pyloromyotomy versus open pyloromyotomy for infantile hypertrophic pyloric stenosis: which is better? Fujimoto T, et al. **J Pediatr Surg** 1999 Feb;34(2):370-2

Hypertrophic pyloric stenosis in infancy. An analysis of treatment outcome. Nakayama DK, et al. **N C Med J** 1998 Sep-Oct;59(5):310-3

An audit of postoperative analgesia after pyloromyotomy. Habre W, et al. **Paediatr Anaesth** 1999;9(3):253-6

Infants undergoing pyloromyotomy are not at risk for postoperative apnea. Staff of Sutter Community Hospitals Sleep Disorders Center. Chipps BE, et al. **Pediatr Pulmonol** 1999 Apr;27(4):278-81

Recurrent vomiting after successful pyloromyotomy. van Heurn LW, et al. **Pediatr Surg Int** 1999 Jul;15(5-6):385-6

Laparoscopic pyloromyotomy. Downey EC Jr. **Semin Pediatr Surg** 1998 Nov;7(4):220-4 (18 ref.)

[Selective proximal vagotomy in duodenal ulcer complicated by decompensated pyloroduodenal stenosis] Saenko VF, et al. **Klin Khir** 1999;(5):5-8 (Eng. Abstr.) **(Rus)**

THERAPY

Dr. Bethge et al.'s case on stent use [letter; comment] Zagnoon A. **Am J Gastroenterol** 1998 Nov;93(11):2311-2. Comment on: Am J Gastroenterol 1998 Apr;93(4):643-5.

Intralesional steroid injections for corrosive induced pyloric stenosis. Kochhar R, et al. **Endoscopy** 1998 Oct;30(8):734-6

Self-expanding metallic stents in the management of pyloric dysfunction after gastric pull-up operations. Cowling MG, et al. **Eur Radiol** 1999;9(6):1123-5

ULTRASONOGRAPHY

Ultrasonography of pylorospasm: findings may simulate hypertrophic pyloric stenosis. Cohen HL, et al. **J Ultrasound Med** 1998 Nov;17(11):705-11

Emergency abdominal ultrasound in children: current concepts. Mendelson KL. **Med Health R I** 1999 Jun; 82(6):198-201 (22 ref.)

Hypertrophied pyloric mucosa in patients with hypertrophic pyloric stenosis [letter; comment] Hernanz-Schulman M, et al. **Pediatr Radiol** 1998 Nov;28(11):901. Comment on: Pediatr Radiol 1997 Dec;27(12):912-4.

Eosinophilic gastroenteritis mimicking idiopathic hypertrophic pyloric stenosis. Hümmer-Ehret BH, et al. **Pediatr Radiol** 1998 Sep;28(9):711-3

Cost-effective imaging approach to the nonbilious vomiting infant. Mandell GA, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1198-202

PYLORUS

see related
GASTRIC EMPTYING

ABNORMALITIES

Novel ITGB4 mutations in lethal and nonlethal variants of epidermolysis bullosa with pyloric atresia: missense versus nonsense. Pulkkinen L, et al. **Am J Hum Genet** 1998 Nov; 63(5):1376-87

Pyloric atresia-junctional epidermolysis bullosa syndrome: mutations in the integrin beta4 gene (ITGB4) in two unrelated patients with mild disease. Mellerio JE, et al. **Br J Dermatol** 1998 Nov;139(5):862-71

Double pylorus. Saha AK, et al. **Indian J Gastroenterol** 1999 Jan-Mar;18(1):38

Pyloric atresia with junctional epidermolysis bullosa (PA-JEB) syndrome: absence of detectable beta4 integrin and reduced expression of epidermal linear IgA dermatosis antigen. Kim JN, et al. **Int J Dermatol** 1999 Jun; 38(6):467-70

Junctional epidermolysis bullosa with pyloric atresia: A case with favourable outcome. Ha D, et al. **J Cutan Med Surg** 1998 Oct;3(2):102-4

A novel homozygous mutation affecting integrin alpha6 in a case of junctional epidermolysis bullosa with pyloric atresia detected in utero by ultrasound examination [letter] Gache Y, et al. **J Invest Dermatol** 1998 Nov;111(5):914-6

Double pylorus as a cause of gastrointestinal bleeding. Ehrhardt D, et al. **J R Soc Med** 1999 May;92(5):253-4

Pyloric atresia associated with epidermolysis bullosa, malrotation, and high anorectal malformation with recto-urethral fistula: a report of successful management. Agarwala S, et al. **Pediatr Surg Int** 1999;15(3-4):264-5

[Double pylorus. Description of two new cases and survey of the literature] Tola M, et al. **Minerva Chir** 1998 Oct; 53(10):801-5 (44 ref.) (Eng. Abstr.) **(Ita)**

INJURIES

The epidemic of cocaine-related juxtapyloric perforations: with a comment on the importance of testing for Helicobacter pylori. Feliciano DV, et al. **Ann Surg** 1999 Jun;229(6):801-4; discussion 804-6

INNERVATION

Organization of nitric oxide-producing nerves in the rat pyloric sphincter. Kudo T, et al. **Arch Histol Cytol** 1998 Oct;61(4):361-72

Monoamine control of the pacemaker kernel and cycle frequency in the lobster pyloric network. Ayali A, et al. **J Neurosci** 1999 Aug 1;19(15):6712-22

METABOLISM

Disturbed pyloric motility in Ws/Ws mutant rats due to deficiency of c-kit-expressing interstitial cells of Cajal. Nakama A, et al. **Pathol Int** 1998 Nov;48(11):843-9

MICROBIOLOGY

The epidemic of cocaine-related juxtapyloric perforations: with a comment on the importance of testing for Helicobacter pylori. Feliciano DV, et al. **Ann Surg** 1999 Jun;229(6):801-4; discussion 804-6

PATHOLOGY

Asymptomatic double-channel pylorus. Minocha A. **Gastrointest Endosc** 1999 Mar;49(3 Pt 1):365

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 26-1999. A three-week-old girl with pyloric stenosis and an unexpected operative finding [clinical conference] **N Engl J Med** 1999 Aug 26;341(9):679-84

PHYSIOLOGY

Antro-pyloric contractile patterns and transpyloric flow after meal ingestion in humans. Pallotta N, et al. **Am J Gastroenterol** 1998 Dec;93(12):2513-22

Pyloric opening and closure evaluated by means of strain gauge force transducers. Toyota K. **J Smooth Muscle Res** 1998 Feb;34(1):13-22

Disturbed pyloric motility in Ws/Ws mutant rats due to deficiency of c-kit-expressing interstitial cells of Cajal. Nakama A, et al. **Pathol Int** 1998 Nov;48(11):843-9

Ileal short-chain fatty acids inhibit transpyloric flow in pigs. Cuche G, et al. **Scand J Gastroenterol** 1999 Feb; 34(2):149-55

PHYSIOPATHOLOGY

Effects of duodenal distension on antropyloroduodenal pressures and perception are modified by hyperglycemia. Lingenfelser T, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G711-8

Motility of the canine pyloric ring following a pylorus-preserving pancreatoduodenectomy. Toyota K, et al. **J Smooth Muscle Res** 1998 Apr;34(2):35-43

Pyloric motor abnormality in patients with infantile hypertrophic pyloric stenosis. Imura K, et al. **Pediatr Surg Int** 1998 Dec;14(3):178-81

[Pharmacotherapeutic correction of gastric motility and emptying after gastric resection and vagotomy] Holovatyĭ VM, et al. **Klin Khir** 1998;(8):9-10 (Eng. Abstr.) **(Ukr)**

SURGERY

Pathophysiology after pylorus-preserving pancreatoduodenectomy: a comparative study of pancreatogastrostomy and pancreatojejunostomy. Konishi M, et al. **Hepatogastroenterology** 1999 Mar-Apr; 46(26):1181-6

The umbilical fold approach to pyloromyotomy: is it a safe alternative to the right upper-quadrant approach? Leinwand MJ, et al. **J Am Coll Surg** 1999 Oct;189(4):362-7

Postoperative ad lib feeding for hypertrophic pyloric stenosis. Carpenter RO, et al. **J Pediatr Surg** 1999 Jun;34(6):959-61

Intraabdominal pyloromyotomy through the umbilical route: a technical improvement. De Caluwe D, et al.

PYLORUS

J Pediatr Surg 1998 Dec;33(12):1806–7

Pylorus and pyloric vagus preserving gastrectomy treating 125 cases of peptic ulcer. Yunfu L, et al. **Minerva Chir** 1998 Nov;53(11):889–93

Laparoscopic pyloromyotomy. Downey EC Jr. **Semin Pediatr Surg** 1998 Nov;7(4):220–4 (18 ref.)

Finger bougie method compared with pyloroplasty in the gastric replacement of the esophagus. Yamashita Y, et al. **Surg Today** 1999;29(2):107–10

[Suprapyloric resection of stomach in patients with ulcer disease] Pomelov VS, et al. **Khirurgiia (Mosk)** 1999;(1):21–4 (Eng. Abstr.) **(Rus)**

[Follow-up study results of organ-salvaging surgeries for perforative pyloric-duodenal ulcers] Chyslenko IV. **Klin Khir** 1999;(4):54 **(Rus)**

[The single-row suture in the pyloroplasty of patients with perforated pyloroduodenal ulcers] Peregudov SI, et al. **Vestn Khir Im I I Grek** 1998;157(3):23–5 (Eng. Abstr.) **(Rus)**

[Pharmacotherapeutic correction of gastric motility and emptying after gastric resection and vagotomy] Holovatyi VM, et al. **Klin Khir** 1998;(8):9–10 (Eng. Abstr.) **(Ukr)**

[The influence of Helicobacter pylori on the surgical outcome of duodenal ulcer] Sukhodolia AI. **Klin Khir** 1999;(3):9–10 (Eng. Abstr.) **(Ukr)**

ULTRASONOGRAPHY

Ultrasonography of pylorospasm: findings may simulate hypertrophic pyloric stenosis. Cohen HL, et al. **J Ultrasound Med** 1998 Nov;17(11):705–11

Antro-pyloric canal values from early prematurity to full-term gestational age: an ultrasound study. Argyropoulou MI, et al. **Pediatr Radiol** 1998 Dec; 28(12):933–6

PYOCINS

The R-type pyocin of Pseudomonas aeruginosa C is a bacteriophage tail-like particle that contains single-stranded DNA. Lee FK, et al. **Infect Immun** 1999 Feb;67(2):717–25

BIOSYNTHESIS

Antibiotic stress induces a large amount of outer membrane protein in Pseudomonas aeruginosa. Nakajima A, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):261–5

ISOLATION & PURIFICATION

The use of SDS polyacrylamide gel electrophoresis of periplasmic proteins to subtype Pseudomonas aeruginosa pyocin type 10/b clinical isolates. Adwan K. **Infection** 1999 Jan–Feb;27(1):39–41

METABOLISM

Effect of the IncP-2 plasmids pMG1 and pMG2 on the pyocins of Pseudomonas aeruginosa. Hummel A, et al. **Zentralbl Bakteriol** 1995 Nov;283(1):115–21

PYOCYANINE

PHARMACOLOGY

Pseudomonas pyocyanin increases interleukin-8 expression by human airway epithelial cells. Denning GM, et al. **Infect Immun** 1998 Dec;66(12):5777–84

TOXICITY

The Pseudomonas aeruginosa secretory product pyocyanin inactivates alpha1 protease inhibitor: implications for the pathogenesis of cystic fibrosis lung disease. Britigan BE, et al. **Infect Immun** 1999 Mar;67(3):1207–12

Mechanism of pyocyanin- and 1-hydroxyphenazine-induced lung neutrophilia in sheep airways. Lauredo IT, et al. **J Appl Physiol** 1998 Dec;85(6):2298–304

PYODERMA

[Ecthyma vulgare, ecthyma gangrenosum, chancriform pyoderma] Yamamoto Y. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):579–81 (6 ref.) **(Jpn)**

DIAGNOSIS

Pyodermatitis-pyostomatitis vegetans: report of a case and review of the literature. Soriano ML, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):322–6 (35 ref.)

[Pyostomatitis-pyodermatitis vegetans uncovering a case of Crohn disease] Delaporte E, et al. **Ann Dermatol Venereol** 1998 May;125(5):331–4 (Eng. Abstr.) **(Fre)**

[Comment on the contribution by D. Abeck, H.C. Korting, M. Mempel: "Pyoderma." (letter; comment)] Jemec GB. **Hautarzt** 1998 Nov;49(11):863–4. Comment on: Hautarzt 1998 Mar;49(3):243–52. **(Ger)**

DRUG THERAPY

Treatment of pyoderma faciale with isotretinoin in a patient with ulcerative colitis. Rosen T, et al. **Cutis** 1999 Aug; 64(2):107–9

Therapy of difficult cases of canine pyoderma with marbofloxacin: a report of 39 dogs. Carlotti DN, et al. **J Small Anim Pract** 1999 Jun;40(6):265–70

[The use of Piolizin ointment in suppurative skin diseases] Glad'ko VV. **Voen Med Zh** 1998 Dec;319(12):30–1 **(Rus)**

ETIOLOGY

[The etiological spectrum and immunosuppressive properties of the causative agents of pyoderma] Gaidash IS, et al. **Mikrobiol Z** 1999 May-Jun;61(3):23–9 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Clinico-bacteriological study of pyodermas in children. Kakar N, et al. **J Dermatol** 1999 May;26(5):288–93

PATHOLOGY

Pyodermatitis-pyostomatitis vegetans: evidence for an entirely mucocutaneous variant [letter] O'Hagan AH, et al. **Br J Dermatol** 1998 Sep;139(3):552–3

Pyodermia chancriformis: an unusual presentation of lymphomatoid papulosis [letter] Caresana G, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):88–9

VETERINARY

Determination of skin concentrations of enrofloxacin in dogs with pyoderma. DeManuelle TC, et al. **Am J Vet Res** 1998 Dec;59(12):1599–604

Efficacy of clindamycin hydrochloride capsules for the treatment of deep pyoderma due to Staphylococcus intermedius infection in dogs. Scott DW, et al. **Can Vet J** 1998 Dec;39(12):753–6

Therapy of difficult cases of canine pyoderma with marbofloxacin: a report of 39 dogs. Carlotti DN, et al. **J Small Anim Pract** 1999 Jun;40(6):265–70

Canine idiopathic recurrent superficial pyoderma [letter] Curtis C. **Vet Rec** 1998 Sep 19;143(12):344

Clindamycin hydrochloride and clavulanate-amoxycillin in the treatment of canine superficial pyoderma. Littlewood JD, et al. **Vet Rec** 1999 Jun 12;144(24):662–5

PYODERMA GANGRENOSUM

Pyoderma gangrenosum complicating Cogan's syndrome. Boulinguez S, et al. **Clin Exp Dermatol** 1998 Nov; 23(6):286–9

Pyoderma gangrenosum affecting the foot. A case report. Archer JV, et al. **J Am Podiatr Med Assoc** 1999 Mar; 89(3):141–2 (8 ref.)

Pyoderma gangrenosum involving the foot. A case report. Kashefsky H, et al. **J Am Podiatr Med Assoc** 1999 Mar; 89(3):137–40 (9 ref.)

[Ecthyma vulgare, ecthyma gangrenosum, chancriform pyoderma] Yamamoto Y. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):579–81 (6 ref.) **(Jpn)**

COMPLICATIONS

Pyoderma gangrenosum with secondary pyarthrosis following propylthiouracil. Darben T, et al. **Australas J Dermatol** 1999 Aug;40(3):144–6

Ulceration associated with stable myelodysplastic syndrome: atypical pyoderma gangrenosum? [letter] Harris A, et al. **Clin Exp Dermatol** 1998 Nov;23(6):293–5

A 24-year-old woman with a 4-year history of skin lesions and recent onset of hypertension. Eguchi K, et al. **J Cardiol** 1999 Jul;34(1):45–7

Pyoderma gangrenosum producing saddle nose deformity. Worley GA, et al. **J Laryngol Otol** 1998 Sep;112(9):870–1

Chronic recurrent multifocal osteomyelitis preceding pyoderma gangrenosum and occult ulcerative colitis in a pediatric patient. Omidi CJ, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):435–8

The simultaneous treatment of inflammatory bowel diseases and associated pyoderma gangrenosum with oral cyclosporin A [letter] Capella GL, et al. **Scand J Gastroenterol** 1999 Feb;34(2):220–1

DIAGNOSIS

Ulcers on the fingers. Manthey DE, et al. **Acad Emerg Med** 1999 Jun;6(6):637, 655–7

Pyoderma gangrenosum mimicking postoperative infection in the extremities. A report of two cases. Bennett CR, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):1013–8

Recurrent skin lesions in a middle-age woman. Loss C, et al. **Tenn Med** 1999 Apr;92(4):140, 142

[Neutrophilic disease] Wallach D. **Rev Prat** 1999 Feb 15; 49(4):356–8 **(Fre)**

[Therapy-resistant pyoderma gangrenosum--treatment with mycophenolate mofetil and cyclosporine A] Michel S, et al. **Hautarzt** 1999 Jun;50(6):428–31 (Eng. Abstr.) **(Ger)**

[Pyoderma gangrenosum with an atypical location and a rapid response to cyclosporin A] Ferrer Rios T, et al. **Gastroenterol Hepatol** 1999 May;22(5):227–9 (16 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

The effectiveness of mycophenolate mofetil in refractory pyoderma gangrenosum. Nousari HC, et al. **Arch Dermatol** 1998 Dec;134(12):1509–11

Nicotine for pyoderma gangrenosum. Wolf R. **Arch Dermatol** 1998 Sep;134(9):1071–2

Pyoderma gangrenosum with rheumatoid arthritis and pulmonary aseptic abscess responding to treatment with dapsone [letter] Fukuhara K, et al. **Br J Dermatol** 1998 Sep;139(3):556–8

Topical tacrolimus for pyoderma gangrenosum [letter] Reich K, et al. **Br J Dermatol** 1998 Oct;139(4):755–7

Efficacy of tacrolimus (FK 506) in idiopathic treatment-resistant pyoderma gangrenosum. Weichert G, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):648–50

Peripheral ulcerative keratitis--an extracutaneous neutrophilic disorder: report of a patient with rheumatoid arthritis, pustular vasculitis, pyoderma gangrenosum, and Sweet's syndrome with an excellent response to cyclosporine therapy. Wilson DM, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):331–4

The simultaneous treatment of inflammatory bowel diseases and associated pyoderma gangrenosum with oral cyclosporin A [letter] Capella GL, et al. **Scand J Gastroenterol** 1999 Feb;34(2):220–1

[Therapy-resistant pyoderma gangrenosum--treatment with mycophenolate mofetil and cyclosporine A] Michel S, et al. **Hautarzt** 1999 Jun;50(6):428–31 (Eng. Abstr.) **(Ger)**

[Pyoderma gangrenosum with an atypical location and a rapid response to cyclosporin A] Ferrer Rios T, et al. **Gastroenterol Hepatol** 1999 May;22(5):227–9 (16 ref.) (Eng. Abstr.) **(Spa)**

ETIOLOGY

Pyoderma gangrenosum twice complicating percutaneous intervention in a single patient. Cooding JM, et al. **AJR Am J Roentgenol** 1999 May;172(5):1352–4

Pyoderma gangrenosum with secondary pyarthrosis following propylthiouracil. Darben T, et al. **Australas J Dermatol** 1999 Aug;40(3):144–6

Pyoderma gangrenosum in a child with congenital partial deficiency of leucocyte adherence glycoproteins. Bedlow AJ, et al. **Br J Dermatol** 1998 Dec;139(6):1064–7

The pustular eruption of ulcerative colitis [letter; comment] Warin AP. **Br J Dermatol** 1998 Oct;139(4):758–9. Comment on: Br J Dermatol 1998 Feb;138(2):365–6.

Pyoderma gangrenosum associated with the secondary antiphospholipid syndrome. Schmid MH, et al. **Eur J Dermatol** 1998 Jan–Feb;8(1):45–7

[Pyoderma gangrenosum and portal vein thrombosis in a 33-year-old female patient] Schiefke I, et al. **Dtsch Med Wochenschr** 1999 Feb 12;124(6):142–5 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Pyoderma gangrenosum, polyarthritis and lung cysts with novel antineutrophil cytoplasmic antibodies to azurocidin [letter] Grattan CE, et al. **Br J Dermatol** 1998 Aug; 139(2):352–3

PATHOLOGY

Skin ulcers associated with a tender and swollen arm. Pyoderma gangrenosum (PG) in association with chronic recurrent multifocal osteomyelitis (CRMO). Schaen L, et al. **Arch Dermatol** 1998 Sep;134(9):1146–7, 1149–50

Pyoderma gangrenosum: unusual complication following mammoplasty reduction [letter] Grau Salvat C, et al. **Int J Dermatol** 1998 Oct;37(10):794–6

Penile pyoderma gangrenosum. Güngör E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):59–62

Malignant pyoderma [letter] Spenatto N, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):275–6

[Multilocular vegetating pyoderma gangrenosum] Wildfeuer T, et al. **Hautarzt** 1999 Mar;50(3):217–20 (Eng. Abstr.) **(Ger)**

SURGERY

Pyoderma gangrenosum: an idiopathic case and recurrence after surgery. Pekmezci S, et al. **Surgery** 1999 Jul; 126(1):85–7

THERAPY

Plasmapheresis and cyclophosphamide as successful treatments for pyoderma gangrenosum. Kaminska R, et al. **Clin Exp Dermatol** 1999 Mar;24(2):81–5

Successful treatment of pyoderma gangrenosum with intravenous human immunoglobulin. Dirschka T, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):789–90

VIROLOGY

Pyoderma gangrenosum and hepatitis C virus infection [letter] Keane FM, et al. **Br J Dermatol** 1998 Nov; 139(5):924–5

PYONEPHROSIS see **PYELONEPHRITIS**

PYORRHEA ALVEOLARIS see **PERIODONTAL DISEASES**

PYOTHORAX see **EMPYEMA, PLEURAL**

PYRAMIDAL CELLS

CHEMISTRY

Transient expression of GABAA receptor subunit mRNAs in the cellular processes of cultured cortical neurons and glia. Poulter MO, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):44–52

Dendritic localization of Ca(2+)-permeable AMPA/kainate channels in hippocampal pyramidal neurons. Yin HZ, et al. **J Comp Neurol** 1999 Jun 28;409(2):250–60

Functional GABAA receptor heterogeneity of acutely dissociated hippocampal CA1 pyramidal cells. Tietz EI, et al. **J Neurophysiol** 1999 Apr;81(4):1575–86

Functional and molecular differences between voltage-gated K+ channels of fast-spiking interneurons and pyramidal neurons of rat hippocampus. Martina M, et al. **J Neurosci** 1998 Oct 15;18(20):8111–25

Neurotransmitter activation of inwardly rectifying potassium current in dissociated hippocampal CA3 neurons: interactions among multiple receptors. Sodickson DL, et al. **J Neurosci** 1998 Oct 15;18(20):8153–62

Small (SKCa) Ca2+-activated K+ channels in cultured rat hippocampal pyramidal neurones. Selyanko AA, et al. **Pflugers Arch** 1998 Dec;437(1):161–3

CYTOLOGY

Morphology of pyramidal neurones in cytochrome oxidase modules of the S-I bill representation of the platypus. Elston GN, et al. **Brain Behav Evol** 1999;53(2):87–101

Functional topography of single cortical cells: an intracellular approach combined with optical imaging. Buzás P, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):199–208

Different patterns of abnormal neuronal migration in the cerebral cortex of mice prenatally exposed to irradiation. Sun XZ, et al. **Brain Res Dev Brain Res** 1999 Apr 12; 114(1):99–108

Stratum radiatum giant cells: a type of principal cell in the rat hippocampus. Gulyás AI, et al. **Eur J Neurosci** 1998 Dec;10(12):3813–22

Cortical interneurons upregulate neurotrophins in vivo in response to targeted apoptotic degeneration of neighboring pyramidal neurons. Wang Y, et al. **Exp Neurol** 1998 Dec; 154(2):389–402

Suppression of radixin and moesin alters growth cone morphology, motility, and process formation in primary cultured neurons. Paglini G, et al. **J Cell Biol** 1998 Oct 19;143(2):443–55

Cerebellar microfolia and other abnormalities of neuronal growth, migration, and lamination in the Pit1dw-J homozygote mutant mouse. Sekiguchi M, et al. **J Comp Neurol** 1998 Oct 26;400(3):363–74

Ferret pyramidal cell dendritogenesis: changes in morphology and ganglioside expression during cortical development. Zervas M, et al. **J Comp Neurol** 1999 Oct 25;413(3):429–48

Rapid and slow swelling during hypoxia in the CA1 region of rat hippocampal slices. Kreisman NR, et al. **J Neurophysiol** 1999 Jul;82(1):320–9

Spine loss and other persistent alterations of hippocampal pyramidal cell dendrites in a model of early-onset epilepsy. Jiang M, et al. **J Neurosci** 1998 Oct 15;18(20):8356–68

Three-dimensional structure and composition of CA3-->CA1 axons in rat hippocampal slices: implications for presynaptic connectivity and compartmentalization. Shepherd GM, et al. **J Neurosci** 1998 Oct 15;18(20):8300–10

NK-1 receptor immunoreactivity in distinct morphological types of lamina I neurons of the primate spinal cord. Yu XH, et al. **J Neurosci** 1999 May 1;19(9):3545–55

An on-line archive of reconstructed hippocampal neurons. Cannon RC, et al. **J Neurosci Methods** 1998 Oct 1; 84(1-2):49–54

Use of ascorbate in the preparation and maintenance of brain slices. Rice ME. **Methods** 1999 Jun;18(2):144–9

Inverted pyramidal neurons in chimpanzee sensorimotor cortex are revealed by immunostaining with monoclonal antibody SMI-32. Qi HX, et al. **Somatosens Mot Res** 1999; 16(1):49–56

DRUG EFFECTS

Early events in the development of neuronal polarity in vitro are altered by ethanol. Clamp PA, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1277–84

A quantitative pharmacological study of the cholinergic depolarization of hippocampal pyramidal cells in rat brain slices. Scuvée-Moreau J, et al. **Arch Physiol Biochem** 1998 Aug;105(4):365–72

Effects of the Aconitum alkaloid songorine on synaptic transmission and paired-pulse facilitation of CA1 pyramidal cells in rat hippocampal slices. Ameri A. **Br J Pharmacol** 1998 Oct;125(3):461–8

Blockade of bepridil on IA and IK in acutely isolated hippocampal CA1 neurons. Hu H, et al. **Brain Res** 1998 Nov 2;809(2):149–54

Effect of nilvadipine on the voltage-dependent Ca2+ channels in rat hippocampal CA1 pyramidal neurons. Ishibashi H, et al. **Brain Res** 1998 Nov 30;813(1):121–7

Enhancement of activity-dependent calcium increase by neurotrophin-4 in visual cortex pyramidal neurons. Kato N, et al. **Brain Res** 1999 Jun 19;832(1-2):179–83

Chronic (-) deprenyl administration increases dendritic arborization in CA3 neurons of hippocampus and AChE activity in specific regions of the primate brain. Lakshmana MK, et al. **Brain Res** 1998 Jun 15;796(1-2):38–44

Protein tyrosine kinase inhibitors reduce high-voltage activating calcium currents in CA1 pyramidal neurones from rat hippocampal slices. Potier B, et al. **Brain Res** 1999 Jan 23;816(2):587–97

Chronic (-) deprenyl administration alters dendritic morphology of layer III pyramidal neurons in the prefrontal cortex of adult Bonnett monkeys. Shankaranarayana Rao BS, et al. **Brain Res** 1999 Mar 6; 821(1):218–23

Cocaine and lidocaine have additive inhibitory effects on the GABAA current of acutely dissociated hippocampal pyramidal neurons. Ye JH, et al. **Brain Res** 1999 Mar 6; 821(1):26–32

Inhibition of dendritic spine induction on hippocampal CA1 pyramidal neurons by a nonsteroidal estrogen antagonist in female rats. McEwen BS, et al. **Endocrinology** 1999 Mar; 140(3):1044–7

Neuroactive steroids induce GABA(A) receptor-mediated depolarizing postsynaptic potentials in hippocampal CA1 pyramidal cells of the rat. Burg M, et al. **Eur J Neurosci** 1998 Sep;10(9):2880–6

Li+ and muscarine cooperatively enhance the cationic tail current in rat cortical pyramidal cells. Okada T, et al. **Eur J Neurosci** 1999 Jul;11(7):2397–402

5-HT2A receptor or alpha1-adrenoceptor activation induces excitatory postsynaptic currents in layer V pyramidal cells of the medial prefrontal cortex. Marek GJ, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):197–206

Residual granule cells can maintain susceptibility of CA3 pyramidal cells to kainate-induced epileptiform discharges. Czéh B, et al. **Hippocampus** 1998;8(5):548–61

Prenatal gonadal steroids affect adult spatial behavior, CA1 and CA3 pyramidal cell morphology in rats. Isgor C, et al. **Horm Behav** 1998 Oct;34(2):183–98

Interaction of GABAB-mediated inhibition with voltage-gated currents of pyramidal cells: computational mechanism of a sensory searchlight. Berman NJ, et al. **J Neurophysiol** 1998 Dec;80(6):3197–213

Estradiol increases spine density and NMDA-dependent Ca2+ transients in spines of CA1 pyramidal neurons from hippocampal slices. Pozzo-Miller LD, et al. **J Neurophysiol** 1999 Mar;81(3):1404–11

Metrifonate increases neuronal excitability in CA1 pyramidal neurons from both young and aging rabbit hippocampus. Oh MM, et al. **J Neurosci** 1999 Mar 1;19(5):1814–23

Photolytic manipulation of [Ca2+]i reveals slow kinetics of potassium channels underlying the afterhyperpolarization in hippocampal pyramidal neurons. Sah P, et al. **J Neurosci** 1999 May 15;19(10):3657–64

Calcium-induced calcium release contributes to action potential-evoked calcium transients in hippocampal CA1 pyramidal neurons. Sandler VM, et al. **J Neurosci** 1999 Jun 1;19(11):4325–36

Melatonin protects hippocampal neurons in vivo against kainic acid-induced damage in mice. Tan DX, et al. **J Neurosci Res** 1998 Nov 1;54(3):382–9

Effect of riluzole on the neurological and neuropathological changes in an animal model of cardiac arrest-induced movement disorder. Kanthasamy AG, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1340–8

Anxiolytic 5-hydroxytryptamine1A agonists suppress firing activity of dorsal hippocampus CA1 pyramidal neurons through a postsynaptic mechanism: single-unit study in unanesthetized, unrestrained rats. Tada K, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):843–8

Ethanol inhibition of synaptically evoked kainate responses in rat hippocampal CA3 pyramidal neurons. Weiner JL, et al. **Mol Pharmacol** 1999 Jul;56(1):85–90

G-protein-coupled receptors act via protein kinase C and Src to regulate NMDA receptors. Lu WY, et al. **Nat Neurosci** 1999 Apr;2(4):331–8

Kainic acid-induced neuronal loss and glial changes in the hippocampal CA3 of p53-deficient mouse. Kitamura Y, et al. **Neurosci Lett** 1998 Oct 9;255(1):57–60

Effect of antipsychotic drugs and selective dopaminergic antagonists on dopamine-induced facilitatory activity in prelimbic cortical pyramidal neurons. An in vitro study. Ceci A, et al. **Neuroscience** 1999;93(1):107–15

Cholinergic excitation of dendrites in neocortical neurons. Mednikova YS, et al. **Neuroscience** 1998 Dec;87(4):783–96

Ligand and subfield specificity of corticoid-induced neuronal loss in the rat hippocampal formation. Sousa N, et al. **Neuroscience** 1999;89(4):1079–87

GABA excites immature CA3 pyramidal cells through bicuculline-sensitive and -insensitive chloride-dependent receptors. Cherubini E, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):289–304

Benzodiazepine tolerance at GABAergic synapses on hippocampal CA1 pyramidal cells. Zeng XJ, et al. **Synapse** 1999 Mar 15;31(4):263–77

ENZYMOLOGY

Lithium decreases Cl--ATPase activity and increases intracellular Cl- concentration in cultured rat hippocampal neurons. Yagyu K, et al. **Brain Res** 1999 Mar 13; 821(2):530–4

Fatty acid amide hydrolase is located preferentially in large neurons in the rat central nervous system as revealed by immunohistochemistry. Tsou K, et al. **Neurosci Lett** 1998 Oct 2;254(3):137–40

INJURIES

alpha 1-tubulin expression in proximally axotomized mouse cortical neurons. Elliott EJ, et al. **J Neurotrauma** 1999 Apr; 16(4):333–9

METABOLISM

Slow sodium channel inactivation in CA1 pyramidal cells. Mickus T, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:97–101

Two-component blocking kinetics of open NMDA channels by organic cations. Sobolevsky AI. **Biochim Biophys Acta** 1999 Jan 12;1416(1-2):69–91

Serotonin, via 5-HT2A receptors, increases EPSCs in layer V pyramidal cells of prefrontal cortex by an asynchronous mode of glutamate release. Aghajanian GK, et al. **Brain Res** 1999 Apr 17;825(1-2):161–71

Transport of fragmented DNA in apical dendrites of gerbil CA1 pyramidal neurons following transient forebrain ischemia. Hara A, et al. **Brain Res** 1998 Sep 28;806(2):274–7

NMDA and AMPA receptors on neocortical neurons are differentially distributed. Dodt HU, et al. **Eur J Neurosci** 1998 Nov;10(11):3351–7

Early sodium elevations induced by combined oxygen and glucose deprivation in pyramidal cortical neurons. Pisani A, et al. **Eur J Neurosci** 1998 Nov;10(11):3572–4

Effects of transient oxygen-glucose deprivation on G-proteins and G-protein-coupled receptors in rat CA3 pyramidal cells in vitro. Tanabe M, et al. **Eur J Neurosci** 1998 Jun;10(6):2037–45

Quinolinic acid and sigma receptor ligand: effect on pyramidal neurons of the CA1 sector of dorsal hippocampus following peripheral administration in rats. Beskid M, et al. **Folia Neuropathol** 1998;36(2):94–100

Laminar difference in GABA uptake and GAT-1 expression in rat CA1. Engel D, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):643–9

Transmitter release modulation in nerve terminals of rat neocortical pyramidal cells by intracellular calcium buffers. Ohana O, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):135–48

G protein-activated inwardly rectifying K+ (GIRK) currents in dendrites of rat neocortical pyramidal cells. Takigawa T, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):385–90

Elevation of intracellular Na+ induced by hyperpolarization at the dendrites of pyramidal neurones of mouse hippocampus. Tsubokawa H, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):135–42

Differential control of three after-hyperpolarizations in rat hippocampal neurones by intracellular calcium buffering. Velumian AA, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):201–16

A light and electron microscopic study of the metabotropic glutamate receptor mGluR1a in the normal and kainate-lesioned rat hippocampus. Ong WY, et al. **Mol Chem Neuropathol** 1998 Aug-Dec;35(1-3):173–86

Selective activation of Ca2+-activated K+ channels by co-localized Ca2+ channels in hippocampal neurons. Marrion NV, et al. **Nature** 1998 Oct 29;395(6705):900–5

NMDA receptor-dependent and metabotropic glutamate receptor-dependent forms of long-term depression coexist in CA1 hippocampal pyramidal cells. Nicoll RA, et al. **Neurobiol Learn Mem** 1998 Jul-Sep;70(1-2):62–72

Gene expression in developing rat hippocampal pyramidal neurons appears independent of mossy fiber innervation. Collet J, et al. **Neurochem Int** 1999 Apr;34(4):279–86

Agmatine containing axon terminals in rat hippocampus form synapses on pyramidal cells. Reis DJ, et al. **Neurosci Lett** 1998 Jul 10;250(3):185–8

Neuronal localization of the Adenomatous polyposis coli tumor suppressor protein. Brakeman JS, et al. **Neuroscience** 1999;91(2):661–72

Clozapine and other 5-hydroxytryptamine-2A receptor antagonists alter the subcellular distribution of 5-hydroxytryptamine-2A receptors in vitro and in vivo. Willins DL, et al. **Neuroscience** 1999;91(2):599–606

GABA excites immature CA3 pyramidal cells through bicuculline-sensitive and -insensitive chloride-dependent receptors. Cherubini E, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):289–304

Activation of the genetically defined m1 muscarinic receptor potentiates N-methyl-D-aspartate (NMDA) receptor currents in hippocampal pyramidal cells. Marino MJ, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11465–70

Active summation of excitatory postsynaptic potentials in hippocampal CA3 pyramidal neurons. Urban NN, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11450–5

Disinhibition of the mediodorsal thalamus induces fos-like immunoreactivity in both pyramidal and GABA-containing neurons in the medial prefrontal cortex of rats, but does not affect prefrontal extracellular GABA levels. Bubser M, et al. **Synapse** 1998 Oct;30(2):156–65

[Effect of pregnenolone sulfate on delayed rectifier K+ channel in pyramidial neuron of cerebral cortex] Wu Q, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):407–13 (Eng. Abstr.) **(Chi)**

PATHOLOGY

Polyglutamine aggregates: a possible component of eosinophilic intracular inclusions in the hippocampal

pyramidal neurons of a patient with amyotrophic lateral sclerosis [letter; comment] Altschuler EL. **Acta Neuropathol (Berl)** 1999 Jan;97(1):103–4. Comment on: Acta Neuropathol (Berl) 1997 May;93(5):532–6.

Pyramidal neuron loss is matched by ghost tangle increase in Guam parkinsonism–dementia hippocampus. Schwab C, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):409–16

Hippocampal sclerosis with hypertrophy of end folium pyramidal cells. Thom M, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):107–10

Forebrain ischaemia with CA1 cell loss impairs epileptogenesis in the tetanus toxin limbic seizure model [see comments] Milward AJ, et al. **Brain** 1999 Jun;122 (Pt 6):1009–16. Comment in: Brain 1999 Jun;122 (Pt 6):1007–8.

Morphological changes in the hippocampal CA3 region induced by non-invasive glucocorticoid administration: a paradox. Magariños AM, et al. **Brain Res** 1998 Nov 2; 809(2):314–8

Pyramidal neuron size in the hippocampus of schizophrenics correlates with total cell count and degree of cell disarray. Jönsson SA, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(4):169–73

Postischemic hypothermia and IL-10 treatment provide long-lasting neuroprotection of CA1 hippocampus following transient global ischemia in rats. Dietrich WD, et al. **Exp Neurol** 1999 Aug;158(2):444–50

Distribution of inclusions in neuronal nuclei and dystrophic neurites in Huntington disease brain. Maat-Schieman ML, et al. **J Neuropathol Exp Neurol** 1999 Feb;58(2):129–37

Abnormalities in neuronal process extension, hippocampal development, and the ventricular system of L1 knockout mice. Demyanenko GP, et al. **J Neurosci** 1999 Jun 15; 19(12):4907–20

AP1 transcriptional factor activation and its relation to apoptosis of hippocampal CA1 pyramidal neurons after transient ischemia in gerbils. Domańska-Janik K, et al. **J Neurosci Res** 1999 Sep 15;57(6):840–6

Chandelier cells: shedding light on altered cortical circuitry in schizophrenia [news] Lewis DA. **Mol Psychiatry** 1998 Nov;3(6):468–71, 466–7

Ultrastructural change of synapses of Betz cells in patients with amyotrophic lateral sclerosis. Sasaki S, et al. **Neurosci Lett** 1999 Jun 11;268(1):29–32

Alterations of perisomatic GABA synapses on hippocampal CA1 inhibitory interneurons and pyramidal cells in the kainate model of epilepsy. Morin F, et al. **Neuroscience** 1999;93(2):457–67

Tetracyclines inhibit microglial activation and are neuroprotective in global brain ischemia. Yrjänheikki J, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15769–74

[Histologic examination of some hippocampus fields after experimental ischemia] Majewska T, et al. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:39–43 (Eng. Abstr.) **(Pol)**

PHYSIOLOGY

Regulation of membrane excitability in the central nervous system by serotonin receptor subtypes. Andrade R. **Ann N Y Acad Sci** 1998 Dec 15;861:190–203 (81 ref.)

5-HT1A agonist activity of pindolol: reversal of the inhibitory effects on cell firing in the dorsal raphe nucleus but not in the hippocampus by WAY-100,635. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:274–5

Pyramidal control of heart rate and arterial pressure in cats. Sequeira H, et al. **Arch Ital Biol** 1999 Feb;137(1):47–62

Statistical model of the hippocampal CA3 region. I. The single-cell module: bursting model of the pyramidal cell. Gröbler T, et al. **Biol Cybern** 1998 Oct;79(4):301–8

Properties of slow, cumulative sodium channel inactivation in rat hippocampal CA1 pyramidal neurons. Mickus T, et al. **Biophys J** 1999 Feb;76(2):846–60

Calcium currents in acutely isolated stellate and pyramidal neurons of rat entorhinal cortex. Bruehl C, et al. **Brain Res** 1999 Jan 23;816(2):554–62

Possible modulatory role of voltage-activated Ca(2+) currents determining the membrane properties of isolated pyramidal neurones of the rat dorsal cochlear nucleus. Harasztosi C, et al. **Brain Res** 1999 Aug 21;839(1):109–19

Postnatal development of action potential-induced dendritic calcium entry in neocortical layer II/III pyramidal cells. Isomura Y, et al. **Brain Res** 1999 Jun 19;832(1–2):175–8

Functional topography of single cortical cells: an intracellular approach combined with optical imaging. Buzás P, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):199–208

Delayed neuronal migration of protein kinase Cgamma immunoreactive cells in hippocampal CA1 area after 48 h of moderate hypoxemia in the near term ovine fetus. Braaksma MA, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):253–60

A gene expression approach to mapping the functional maturation of the hippocampus. Vendrell M, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):25–34

Inhibitory function in two models of chronic epileptogenesis. Prince DA, et al. **Epilepsy Res** 1998 Sep;32(1–2):83–92

IPSPs elicited in CA1 pyramidal cells by putative basket cells in slices of adult rat hippocampus. Ali AB, et al. **Eur J Neurosci** 1999 May;11(5):1741–53

Sustained activation of hippocampal pyramidal cells by 'space clamping' in a running wheel. Czurkó A, et al. **Eur J Neurosci** 1999 Jan;11(1):344–52

Excitatory synaptic inputs to pyramidal neurons of the lateral amygdala. Mahanty NK, et al. **Eur J Neurosci** 1999 Apr; 11(4):1217–22

Li+ and muscarine cooperatively enhance the cationic tail current in rat cortical pyramidal cells. Okada T, et al. **Eur J Neurosci** 1999 Jul;11(7):2397–402

Calcium electrogenesis in neocortical pyramidal neurons in vivo. Paré D, et al. **Eur J Neurosci** 1998 Oct;10(10):3164–70

Properties of bipolar VIPergic interneurons and their excitation by pyramidal neurons in the rat neocortex. Porter JT, et al. **Eur J Neurosci** 1998 Dec;10(12):3617–28

Intracellular calcium stores modulate miniature GABA-mediated synaptic currents in neonatal rat hippocampal neurons. Savić N, et al. **Eur J Neurosci** 1998 Nov;10(11):3379–86

High-frequency oscillations in human brain. Bragin A, et al. **Hippocampus** 1999;9(2):137–42

NMDA receptor-independent LTP in basal versus apical dendrites of CA1 pyramidal cells in rat hippocampal slice. Cavus I, et al. **Hippocampus** 1998;8(4):373–9

Intrinsic oscillations in CA3 hippocampal pyramids: physiological relevance to theta rhythm generation. Strata F. **Hippocampus** 1998;8(6):666–79

Postischemic enhancements of N-methyl-D-aspartic acid (NMDA) and non-NMDA receptor-mediated responses in hippocampal CA1 pyramidal neurons. Mitani A, et al. **J Cereb Blood Flow Metab** 1998 Oct;18(10):1088–98

Ferret pyramidal cell dendritogenesis: changes in morphology and ganglioside expression during cortical development. Zervas M, et al. **J Comp Neurol** 1999 Oct 25;413(3):429–48

Role of an A-type K+ conductance in the back-propagation of action potentials in the dendrites of hippocampal pyramidal neurons. Migliore M, et al. **J Comput Neurosci** 1999 Jul-Aug;7(1):5–15

Group I mGluR activation causes voltage-dependent and -independent Ca2+ rises in hippocampal pyramidal cells. Bianchi R, et al. **J Neurophysiol** 1999 Jun;81(6):2903–13

Effects of PKA and PKC on miniature excitatory postsynaptic currents in CA1 pyramidal cells. Carroll RC, et al. **J Neurophysiol** 1998 Nov;80(5):2797–800

Requirements for LTP induction by pairing in hippocampal CA1 pyramidal cells. Chen HX, et al. **J Neurophysiol** 1999 Aug;82(2):526–32

Zinc and zolpidem modulate mIPSCs in rat neocortical pyramidal neurons. Defazio T, et al. **J Neurophysiol** 1998 Oct;80(4):1670–7

Impact of network activity on the integrative properties of neocortical pyramidal neurons in vivo. Destexhe A, et al. **J Neurophysiol** 1999 Apr;81(4):1531–47

Rapid and slow swelling during hypoxia in the CA1 region of rat hippocampal slices. Kreisman NR, et al. **J Neurophysiol** 1999 Jul;82(1):320–9

Synaptic transmission in pair recordings from CA3 pyramidal cells in organotypic culture. Pavlidis P, et al. **J Neurophysiol** 1999 Jun;81(6):2787–97

Cl- accumulation does not account for the depolarizing phase of the synaptic GABA response in hippocampal pyramidal cells. Perkins KL. **J Neurophysiol** 1999 Aug;82(2):768–77

Isodirectional tuning of adjacent interneurons and pyramidal cells during working memory: evidence for microcolumnar organization in PFC. Rao SG, et al. **J Neurophysiol** 1999 Apr;81(4):1903–16

Serotonin modulates spike backpropagation and associated [Ca2+]i changes in the apical dendrites of hippocampal CA1 pyramidal neurons. Sandler VM, et al. **J Neurophysiol** 1999 Jan;81(1):216–24

Mechanisms underlying burst and regular spiking evoked by dendritic depolarization in layer 5 cortical pyramidal neurons. Schwindt P, et al. **J Neurophysiol** 1999 Mar; 81(3):1341–54

Muscarine modulates Ca2+ channel currents in rat sensorimotor pyramidal cells via two distinct pathways. Stewart AE, et al. **J Neurophysiol** 1999 Jan;81(1):72–84

L-Type Ca2+ channels mediate the slow Ca2+-dependent afterhyperpolarization current in rat CA3 pyramidal cells in vitro. Tanabe M, et al. **J Neurophysiol** 1998 Nov; 80(5):2268–73

Membrane dysfunction induced by in vitro ischemia in rat hippocampal CA1 pyramidal neurons. Tanaka E, et al. **J Neurophysiol** 1999 Apr;81(4):1872–80

Functional GABAA receptor heterogeneity of acutely dissociated hippocampal CA1 pyramidal cells. Tietz EI, et al. **J Neurophysiol** 1999 Apr;81(4):1575–86

Amplification of perforant-path EPSPs in CA3 pyramidal cells by LVA calcium and sodium channels. Urban NN, et al. **J Neurophysiol** 1998 Sep;80(3):1558–61

A mitogen-activated protein kinase cascade in the CA1/CA2 subfield of the dorsal hippocampus is essential for long-term spatial memory. Blum S, et al. **J Neurosci** 1999 May 1;19(9):3535–44

On the synchronizing mechanisms of tetanically induced hippocampal oscillations. Bracci E, et al. **J Neurosci** 1999 Sep 15;19(18):8104–13

Distinct functional types of associative long-term potentiation in neocortical and hippocampal pyramidal neurons. Buonomano DV. **J Neurosci** 1999 Aug 15; 19(16):6748–54

Mechanisms of induction and expression of long-term depression at GABAergic synapses in the neonatal rat hippocampus. Caillard O, et al. **J Neurosci** 1999 Sep 1; 19(17):7568–77

Voltage-dependent neuromodulation of Na+ channels by D1-like dopamine receptors in rat hippocampal neurons. Cantrell AR, et al. **J Neurosci** 1999 Jul 1;19(13):5301–10

Cholinergic induction of theta-frequency oscillations in hippocampal inhibitory interneurons and pacing of pyramidal cell firing. Chapman CA, et al. **J Neurosci** 1999 Oct 1;19(19):8637–45

Arachidonic acid reciprocally alters the availability of transient and sustained dendritic K(+) channels in hippocampal CA1 pyramidal neurons. Colbert CM, et al. **J Neurosci** 1999 Oct 1;19(19):8163–71

Oscillatory coupling of hippocampal pyramidal cells and interneurons in the behaving Rat. Csicsvari J, et al. **J Neurosci** 1999 Jan 1;19(1):274–87

Interactions between hippocampus and medial septum during sharp waves and theta oscillation in the behaving rat. Dragoi G, et al. **J Neurosci** 1999 Jul 15;19(14):6191–9

Enhancement of AMPA-mediated current after traumatic injury in cortical neurons. Goforth PB, et al. **J Neurosci** 1999 Sep 1;19(17):7367–74

Dopamine decreases the excitability of layer V pyramidal cells in the rat prefrontal cortex. Gulledge AT, et al. **J Neurosci** 1998 Nov 1;18(21):9139–51

Nitric oxide acts as a postsynaptic signaling molecule in calcium/calmodulin-induced synaptic potentiation in hippocampal CA1 pyramidal neurons. Ko GY, et al. **J Neurosci** 1999 Aug 15;19(16):6784–94

Functional and molecular differences between voltage-gated K+ channels of fast-spiking interneurons and pyramidal neurons of rat hippocampus. Martina M, et al. **J Neurosci** 1998 Oct 15;18(20):8111–25

Properties of Q-type calcium channels in neostriatal and cortical neurons are correlated with beta subunit expression. Mermelstein PG, et al. **J Neurosci** 1999 Sep 1;19(17):7268–77

Calcium-activated potassium conductances contribute to action potential repolarization at the soma but not the dendrites of hippocampal CA1 pyramidal neurons. Poolos NP, et al. **J Neurosci** 1999 Jul 1;19(13):5205–12

Developmental switch in the short-term modification of unitary EPSPs evoked in layer 2/3 and layer 5 pyramidal neurons of rat neocortex. Reyes A, et al. **J Neurosci** 1999 May 15;19(10):3827–35

Reduced synaptic facilitation between pyramidal neurons in the piriform cortex after odor learning. Saar D, et al. **J Neurosci** 1999 Oct 1;19(19):8616–22

Three-dimensional structure and composition of CA3-->CA1 axons in rat hippocampal slices: implications for presynaptic connectivity and compartmentalization. Shepherd GM, et al. **J Neurosci** 1998 Oct 15;18(20):8300–10

Spatial firing properties of hippocampal CA1 populations in an environment containing two visually identical regions. Skaggs WE, et al. **J Neurosci** 1998 Oct 15;18(20):8455–66

Modulation of a slowly inactivating potassium current, I(D), by metabotropic glutamate receptor activation in cultured hippocampal pyramidal neurons. Wu RL, et al. **J Neurosci** 1999 Aug 15;19(16):6825–37

A submersion method to induce hypoxic damage in organotypic hippocampal cultures. Frantseva MV, et al. **J Neurosci Methods** 1999 Jul 1;89(1):25–31

Somatic amplification of distally generated subthreshold EPSPs in rat hippocampal pyramidal neurones. Andreasen M, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:85–100

Cell-attached measurements of the firing threshold of rat hippocampal neurones. Fricker D, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):791–804

Synaptic transmission at nicotinic acetylcholine receptors in rat hippocampal organotypic cultures and slices. Hefft S, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):769–76

Premature bifurcation of the apical dendritic trunk of vibrissa-responding pyramidal neurones of X-irradiated rat neocortex. Ito M, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):543–53

Temporal overlap of excitatory and inhibitory afferent input in guinea-pig CA1 pyramidal cells. Karnup S, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):485–504

N- and L-type calcium channel involvement in depolarization-induced suppression of inhibition in rat hippocampal CA1 cells. Lenz RA, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):61–73

Multiple sites of action of neomycin, Mg2+ and spermine on the NMDA receptors of rat hippocampal CA1 pyramidal neurones. Lu WY, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):29–46

Release-independent depression at pyramidal inputs onto specific cell targets: dual recordings in slices of rat cortex. Thomson AM, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:57–70

Long-term suppression of synaptic transmission by tetanization of a single pyramidal cell in the mouse hippocampus in vitro. Yanovsky Y, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):757–67

Functional implications of dendritic voltage-dependent conductances. Crill WE. **J Physiol Paris** 1999 Jan-Apr; 93(1–2):17–21

The role of dendritic action potentials and Ca2+ influx in the induction of homosynaptic long-term depression in hippocampal CA1 pyramidal neurons. Christie BR, et al. **Learn Mem** 1996 Sep-Oct;3(2–3):160–9

Reduced K+ channel inactivation, spike broadening, and after-hyperpolarization in Kvbeta1.1-deficient mice with impaired learning. Giese KP, et al. **Learn Mem** 1998

Sep-Oct;5(4-5):257-73
Basal and apical synapses of CA1 pyramidal cells employ different LTP induction mechanisms. Haley JE, et al. **Learn Mem** 1996 Nov-Dec;3(4):289-95
Potential sources of intrinsic optical signals imaged in live brain slices. Andrew RD, et al. **Methods** 1999 Jun; 18(2):185-96, 179
Two-photon imaging in living brain slices. Mainen ZF, et al. **Methods** 1999 Jun;18(2):231-9, 181
Chandelier cells: shedding light on altered cortical circuitry in schizophrenia [news] Lewis DA. **Mol Psychiatry** 1998 Nov;3(6):468-71, 466-7
Febrile seizures in the developing brain result in persistent modification of neuronal excitability in limbic circuits [see comments] Chen K, et al. **Nat Med** 1999 Aug;5(8):888-94 . Comment in: Nat Med 1999 Aug;5(8):871-2.
GluR5 kainate receptor activation in interneurons increases tonic inhibition of pyramidal cells [see comments] Cossart R, et al. **Nat Neurosci** 1998 Oct;1(6):470-8. Comment in: Nat Neurosci 1998 Oct;1(6):434-5.
Plasticity in the intrinsic excitability of cortical pyramidal neurons [see comments] Desai NS, et al. **Nat Neurosci** 1999 Jun;2(6):515-20. Comment in: Nat Neurosci 1999 Jun;2(6):489-91.
A tale of two spikes [news] Frégnac Y. **Nat Neurosci** 1999 Apr;2(4):299-301
Voltage-activated sodium channels amplify inhibition in neocortical pyramidal neurons. Stuart G. **Nat Neurosci** 1999 Feb;2(2):144-50
Spread of dendritic excitation in layer 2/3 pyramidal neurons in rat barrel cortex in vivo. Svoboda K, et al. **Nat Neurosci** 1999 Jan;2(1):65-73
Multiple forms of LTP in hippocampal CA3 neurons use a common postsynaptic mechanism. Yeckel MF, et al. **Nat Neurosci** 1999 Jul;2(7):625-33
A new cellular mechanism for coupling inputs arriving at different cortical layers. Larkum ME, et al. **Nature** 1999 Mar 25;398(6725):338-41
The K+/Cl- co-transporter KCC2 renders GABA hyperpolarizing during neuronal maturation [see comments] Rivera C, et al. **Nature** 1999 Jan 21; 397(6716):251-5. Comment in: Nature 1999 Jan 21;397(6716):215-6.
Linear summation of excitatory inputs by CA1 pyramidal neurons. Cash S, et al. **Neuron** 1999 Feb;22(2):383-94
Dendritic sodium spikes are variable triggers of axonal action potentials in hippocampal CA1 pyramidal neurons. Golding NL, et al. **Neuron** 1998 Nov;21(5):1189-200
Activation of AMPA, kainate, and metabotropic receptors at hippocampal mossy fiber synapses: role of glutamate diffusion. Min MY, et al. **Neuron** 1998 Sep;21(3):561-70
Role of the carboxy-terminal region of the GluR epsilon2 subunit in synaptic localization of the NMDA receptor channel. Mori H, et al. **Neuron** 1998 Sep;21(3):571-80
BDNF has opposite effects on the quantal amplitude of pyramidal neuron and interneuron excitatory synapses. Rutherford LC, et al. **Neuron** 1998 Sep;21(3):521-30
Diagonal band stimulation increases piriform cortex neuronal excitability in vivo. Zimmer LA, et al. **Neuroreport** 1999 Jul 13;10(10):2101-5
Raphe pallidus and parapyramidal neurons regulate ear pinna vascular conductance in the rabbit. Blessing WW, et al. **Neurosci Lett** 1999 Jul 23;270(1):33-6
Induction of plasminogen in rat hippocampal pyramidal neurons by kainic acid. Matsuoka Y, et al. **Neurosci Lett** 1998 Aug 14;252(2):119-22
Dysplastic neocortex and subcortical heterotopias in methylazoxymethanol-treated rats: an intracellular study of identified pyramidal neurones. Sancini G, et al. **Neurosci Lett** 1998 May 1;246(3):181-5
Reversal of excitatory postsynaptic potential/spike potentiation in the CA1 area of the rat hippocampus. Bernard C, et al. **Neuroscience** 1998 Sep;86(2):431-6
Long-term synaptic changes induced by intracellular tetanization of CA3 pyramidal neurons in hippocampal slices from juvenile rats. Berretta N, et al. **Neuroscience** 1999;93(2):469-77
Development of multiple calcium channel types in cultured mouse hippocampal neurons. Chameau P, et al. **Neuroscience** 1999 May;90(2):383-8
Distinct expressions for synaptic potentiation induced by calcium through voltage-gated calcium and N-methyl-D-aspartate receptor channels in the hippocampal CA1 region. Chen HX, et al. **Neuroscience** 1998 Sep;86(2):415-22
Reduced Mg2+ blockade of synaptically activated N-methyl-D-aspartate receptor-channels in CA1 pyramidal neurons in kainic acid-lesioned rat hippocampus. Chen Y, et al. **Neuroscience** 1999;88(3):727-39
Prolonged enhancement and depression of synaptic transmission in CA1 pyramidal neurons induced by transient forebrain ischemia in vivo. Gao TM, et al. **Neuroscience** 1998 Nov;87(2):371-83
Changes in membrane properties of CA1 pyramidal neurons after transient forebrain ischemia in vivo. Gao TM, et al. **Neuroscience** 1999 Mar;90(3):771-80
Effect of hypoxia on membrane potential and resting conductance in rat hippocampal neurons. Hyllienmark L, et al. **Neuroscience** 1999;91(2):511-7
Analysis of the tetanic and post-tetanic components of intradendritic Ca2+ signals in hippocampal CA1 neurons. Jäger T, et al. **Neuroscience** 1998 Sep;86(2):423-9
Differential time-course of slow afterhyperpolarizations and associated Ca2+ transients in rat CA1 pyramidal neurons: further dissociation by Ca2+ buffer. Jahromi BS, et al. **Neuroscience** 1999;88(3):719-26
Morphine reversed formalin-induced CA1 pyramidal cell suppression via an effect on septohippocampal neural processing. Khanna S, et al. **Neuroscience** 1999 Mar; 89(1):61-71
A whole-cell clamp study of dendrodendritic synaptic activities in mitral cells of turtle olfactory bulb slices. Kirillova V, et al. **Neuroscience** 1998 Nov;87(1):255-64
5-Hydroxytryptamine-induced excitatory postsynaptic currents in neocortical layer V pyramidal cells: suppression by mu-opiate receptor activation. Marek GJ, et al. **Neuroscience** 1998 Sep;86(2):485-97
Increased intracellular Ca2+ concentration in the hippocampal CA1 area during global ischemia and reperfusion in the rat: a possible cause of delayed neuronal death. Nakamura T, et al. **Neuroscience** 1999 Jan; 88(1):57-67
Differential induction of long-lasting potentiation of inhibitory postsynaptic potentials by theta patterned stimulation versus 100-Hz tetanization in hippocampal pyramidal cells in vitro. Perez Y, et al. **Neuroscience** 1999 Mar;90(3):747-57
Effects of central and peripheral administration of kynurenic acid on hippocampal evoked responses in vivo and in vitro. Scharfman HE, et al. **Neuroscience** 1998 Oct;86(3):751-64
Self-stimulation rewarding experience induced alterations in dendritic spine density in CA3 hippocampal and layer V motor cortical pyramidal neurons. Shankaranarayana Rao BS, et al. **Neuroscience** 1999;89(4):1067-77
Muscarinic activation of a non-selective cationic conductance in pyramidal neurons in rat basolateral amygdala. Yajeya J, et al. **Neuroscience** 1999 Jan; 88(1):159-67
Estimation of single channel conductance underlying synaptic transmission between pyramidal cells in the visual cortex. Yoshimura Y, et al. **Neuroscience** 1999 Jan; 88(2):347-52
Opposite modulation of cortical N-methyl-D-aspartate receptor-mediated responses by low and high concentrations of dopamine. Zheng P, et al. **Neuroscience** 1999;91(2):527-35
Effect of cyclothiazide on spontaneous miniature excitatory postsynaptic currents in rat hippocampal pyramidal cells. Atassi B, et al. **Pflugers Arch** 1999 Feb;437(3):471-8
The activity-dependent potentiation of the slow Ca2+-activated K+ current regulates synaptic efficacy in rat CA1 pyramidal neurons. Borde M, et al. **Pflugers Arch** 1999 Jan;437(2):261-6
Activity-stress induces atrophy of apical dendrites of hippocampal pyramidal neurons in male rats. Lambert KG, et al. **Physiol Behav** 1998 Aug;65(1):43-9
Modulation of N-methyl-D-aspartate receptor function by glycine transport. Bergeron R, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15730-4
Bilirubin, formed by activation of heme oxygenase-2, protects neurons against oxidative stress injury. Doré S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2445-50
Neuroligin 1 is a postsynaptic cell-adhesion molecule of excitatory synapses. Song JY, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1100-5
An apamin-sensitive Ca2+-activated K+ current in hippocampal pyramidal neurons. Stocker M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4662-7
Glutamate and gamma-aminobutyric acid mediate a heterosynaptic depression at mossy fiber synapses in the hippocampus. Vogt KE, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1118-22
Precisely localized LTD in the neocortex revealed by infrared-guided laser stimulation. Dodt H, et al. **Science** 1999 Oct 1;286(5437):110-3
Importance of AMPA receptors for hippocampal synaptic plasticity but not for spatial learning [see comments] Zamanillo D, et al. **Science** 1999 Jun 11;284(5421):1805-11 . Comment in: Science 1999 Jun 11;284(5421):1755-7.
Serotonin and carbachol induced suppression of synaptic responses in rat CA1 hippocampal area: effects of corticosteroid receptor activation in vivo. Karten YJ, et al. **Stress** 1998 Jul;2(3):183-200
Cellular electrophysiological effects of chronic fluoxetine and duloxetine administration on serotonergic responses in the aging hippocampus. Smith JE, et al. **Synapse** 1998 Nov; 30(3):318-28
Spatiotemporal structure of depolarization spread in cortical pyramidal cell populations evoked by diffuse retinal light flashes. Senseman DM. **Vis Neurosci** 1999 Jan-Feb; 16(1):65-79
Cytochrome-oxidase blobs and intrinsic horizontal connections of layer 2/3 pyramidal neurons in primate V1. Yabuta NH, et al. **Vis Neurosci** 1998 Nov-Dec; 15(6):1007-27

RADIATION EFFECTS

Weak ELF magnetic field effects on hippocampal rhythmic slow activity. Jenrow KA, et al. **Exp Neurol** 1998 Oct; 153(2):328-34

ULTRASTRUCTURE

Long-lasting structural changes in CA3 hippocampal and layer V motor cortical pyramidal neurons associated with self-stimulation rewarding experience: a quantitative Golgi study. Shankaranarayana Rao BS, et al. **Brain Res Bull** 1998 Sep 1;47(1):95-101
Fragmentation of the Golgi apparatus of Betz cells in patients with amyotrophic lateral sclerosis. Fujita Y, et al. **J Neurol Sci** 1999 Feb 1;163(1):81-5
Ultrastructural localization of full-length trkB immunoreactivity in rat hippocampus suggests multiple roles in modulating activity-dependent synaptic plasticity. Drake CT, et al. **J Neurosci** 1999 Sep 15;19(18):8009-26
Cell type and pathway dependence of synaptic AMPA receptor number and variability in the hippocampus. Nusser Z, et al. **Neuron** 1998 Sep;21(3):545-59
Calcium-dependent alterations in dendritic architecture of hippocampal pyramidal neurons. Meberg PJ, et al. **Neuroreport** 1999 Feb 25;10(3):639-44
Ultrastructural change of synapses of Betz cells in patients with amyotrophic lateral sclerosis. Sasaki S, et al. **Neurosci Lett** 1999 Jun 11;268(1):29-32
Cortical integration in the visual system of the macaque monkey: large-scale morphological differences in the pyramidal neurons in the occipital, parietal and temporal lobes. Elston GN, et al. **Proc R Soc Lond B Biol Sci** 1999 Jul 7;266(1426):1367-74
Rapid dendritic morphogenesis in CA1 hippocampal dendrites induced by synaptic activity [see comments] Maletic-Savatic M, et al. **Science** 1999 Mar 19; 283(5409):1923-7. Comment in: Science 1999 Mar 19;283(5409):1860-1.
Distribution of inhibitory synapses on the somata of pyramidal neurons in cat motor cortex. Cipolloni PB, et al. **Somatosens Mot Res** 1998;15(4):276-86

PYRAMIDAL TRACTS

[A case of hereditary motor and sensory neuropathy with pyramidal tract sign, optic nerve atrophy and mental retardation] Adachi T, et al. **Rinsho Shinkeigaku** 1998 Dec; 38(12):1037-41 (15 ref.) (Eng. Abstr.) **(Jpn)**
[Monoparesis of the left leg with bilateral pyramidal signs due to posterior spinal artery syndrome] Izumi Y, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):686-8 (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Severe, non X-linked congenital microcephaly with absence of the pyramidal tracts in two siblings. ten Donkelaar HJ, et al. **Acta Neuropathol (Berl)** 1999 Aug;98(2):203-11

CYTOLOGY

Corticospinal function during human walking. Christensen LO, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:546-9
Lack of topographical organisation of the corticospinal tract in the cervical spinal cord of the adult rat. Jeffery ND, et al. **Brain Res** 1999 Jul 3;833(2):315-8
Neurogenesis and commitment of corticospinal neurons in reeler. Polleux F, et al. **J Neurosci** 1998 Dec 1; 18(23):9910-23
CNTF and GDNF, but not NT-4, support corticospinal motor neuron growth via direct mechanisms. Junger H, et al. **Neuroreport** 1998 Nov 16;9(16):3749-54

EMBRYOLOGY

Role of L1 in neural development: what the knockouts tell us. Kamiguchi H, et al. **Mol Cell Neurosci** 1998 Sep; 12(1-2):48-55 (54 ref.)

GROWTH & DEVELOPMENT

Postnatal growth of corticospinal axons in the spinal cord of developing mice. Gianino S, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):189-204
Axon guidance of outgrowing corticospinal fibres in the rat. Joosten EA, et al. **J Anat** 1999 Jan;194 (Pt 1):15-32 (99 ref.)
Fast corticospinal system and motor performance in children: conduction proceeds skill. Heinen F, et al. **Pediatr Neurol** 1998 Sep;19(3):217-21

INJURIES

Regeneration and sprouting of chronically injured corticospinal tract fibers in adult rats promoted by NT-3 and the mAb IN-1, which neutralizes myelin-associated neurite growth inhibitors. von Meyenburg J, et al. **Exp Neurol** 1998 Dec;154(2):583-94

METABOLISM

Gephyrin-like immunoreactivity is a marker for growing axons in the central nervous system of the immature rat. Fallah Z, et al. **Dev Neurosci** 1999;21(1):50-7

PATHOLOGY

Imaging the pyramidal tract in patients with brain tumors. Inoue T, et al. **Clin Neurol Neurosurg** 1999 Mar;101(1):4-10
Three-dimensional anisotropy contrast (3DAC) magnetic resonance imaging of the human brain: application to assess Wallerian degeneration. Igarashi H, et al. **Intern Med** 1998 Aug;37(8):662-8
Wallerian degeneration of the pyramidal tract after a

thrombotic stroke. Rao DG, et al.
J Neurol Neurosurg Psychiatry 1998 Dec;65(6):944
Diffusion weighted MRI demonstrates abnormal pyramidal tract in hemiparesis. Wieshmann UC, et al.
J Neurol Neurosurg Psychiatry 1999 Jun;66(6):797–8
Wallerian degeneration of the pyramidal tract does not affect stroke rehabilitation outcome. Miyai I, et al. **Neurology** 1998 Dec;51(6):1613–6
Computer-assisted three-dimensional reconstruction of the corticospinal system as a reference for CT and MRI. Buhmann C, et al. **Neuroradiology** 1998 Sep;40(9):549–57
[Degeneration of the pyramidal tract in amyotrophic lateral sclerosis (letter)] Abe K. **Rinsho Shinkeigaku** 1998 May; 38(5):478–9 **(Jpn)**

PHYSIOLOGY

Corticospinal function during human walking. Christensen LO, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:546–9
Is digital dexterity really related to corticospinal projections?: a re-analysis of the Heffner and Masterton data set using modern comparative statistics. Iwaniuk AN, et al.
Behav Brain Res 1999 Jun;101(2):173–87
The effects of unilateral pyramidal tract section on hindlimb motor performance in the rat. Metz GA, et al.
Behav Brain Res 1998 Nov;96(1–2):37–46
Complete locomotor recovery following corticospinal tract lesions: measurement of ground reaction forces during overground locomotion in rats. Muir GD, et al.
Behav Brain Res 1999 Aug;103(1):45–53
A clinical study of motor evoked potentials using a triple stimulation technique. Magistris MR, et al. **Brain** 1999 Feb; 122 (Pt 2):265–79
Lack of topographical organisation of the corticospinal tract in the cervical spinal cord of the adult rat. Jeffery ND, et al. **Brain Res** 1999 Jul 3;833(2):315–8
Corticospinal excitability modulation to hand muscles during movement imagery. Rossini PM, et al. **Cereb Cortex** 1999 Mar;9(2):161–7
Comparison of descending volleys evoked by transcranial magnetic and electric stimulation in conscious humans. Di Lazzaro V, et al. **Electroencephalogr Clin Neurophysiol** 1998 Oct;109(5):397–401
Magnetic stimulation of the corticospinal tracts in Pelizaeus-Merzbacher disease. Nezu A, et al.
Electroencephalogr Clin Neurophysiol 1998 Sep; 108(5):446–8
The time-course of preparatory spinal and cortico-spinal inhibition: an H-reflex and transcranial magnetic stimulation study in man. Hasbroucq T, et al.
Exp Brain Res 1999 Jan;124(1):33–41
Dynamic changes in corticospinal excitability during motor imagery. Hashimoto R, et al. **Exp Brain Res** 1999 Mar; 125(1):75–81
Handedness-related asymmetry in transmission in a system of human cervical premotoneurones. Marchand-Pauvert V, et al. **Exp Brain Res** 1999 Apr;125(3):323–34
Distribution of retinogeniculate cells in the tammar wallaby in relation to decussation at the optic chiasm. Wimborne BM, et al. **J Comp Neurol** 1999 Mar 1;405(1):128–40
Corticomotorneuronal hyper-excitability in amyotrophic lateral sclerosis. Eisen A, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S64–8
Regeneration of adult rat corticospinal axons induced by transplanted olfactory ensheathing cells. Li Y, et al.
J Neurosci 1998 Dec 15;18(24):10514–24
Inhibitory action of forearm flexor muscle afferents on corticospinal outputs to antagonist muscles in humans. Bertolasi L, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):947–56
Does a C3–C4 propriospinal system transmit corticospinal excitation in the primate? An investigation in the macaque monkey. Maier MA, et al. **J Physiol (Lond)** 1998 Aug 15; 511 (Pt 1):191–212
Modulation of corticospinal output to human hand muscles following deprivation of sensory feedback. Rossi S, et al. **Neuroimage** 1998 Aug;8(2):163–75
Intrathecal baclofen increases corticospinal output to hand muscles in multiple sclerosis. Auer C, et al. **Neurology** 1999 Apr 12;52(6):1298–9
Activity-dependent competition between developing corticospinal terminations. Martin JH, et al. **Neuroreport** 1999 Aug 2;10(11):2277–82
Food-taking in the cat investigated with transection of the rubro- and corticospinal tracts. Perfiliev S, et al.
Neurosci Res 1998 Oct;32(2):181–4
Two modes of corticospinal reinnervation occur close to spinal targets following unilateral lesion of the motor cortex in neonatal hamsters. Aisaka A, et al. **Neuroscience** 1999 Apr;90(1):53–67
Changes in the axonal conduction velocity of pyramidal tract neurons in the aged cat. Xi MC, et al. **Neuroscience** 1999; 92(1):219–25
Motor areas on the medial wall of the hemisphere. Strick PL, et al. **Novartis Found Symp** 1998;218:64–75; discussion 75–80, 104–8 (42 ref.)

PHYSIOPATHOLOGY

Massive pyramidal tract signs after endotracheal intubation: a case report of spondyloepiphyseal dysplasia congenita. Redl G. **Anesthesiology** 1998 Nov;89(5):1262–4
Surgical monitoring of motor pathways [see comments] Burke D, et al. **J Clin Neurophysiol** 1998 May;15(3):194–205 (75 ref.). Comment in: J Clin Neurophysiol 1998 May;15(3):181–2.
Impairment of callosal and corticospinal system function in adolescents with early-treated phenylketonuria: a transcranial magnetic stimulation study. Röricht S, et al. **J Neurol** 1999 Jan;246(1):21–30
Corticospinal function in severe brain injury assessed using magnetic stimulation of the motor cortex in man. Moosavi SH, et al. **J Neurol Sci** 1999 Apr 1;164(2):179–86
New method to measure central motor conduction time using transcranial magnetic stimulation and T-response. Ofuji A, et al. **J Neurol Sci** 1998 Sep 18;160(1):26–32
L5-S1 disc origin for a pyramidal syndrome? [letter] Fautrel B, et al. **Lancet** 1998 Nov 21;352(9141):1679
Neurite growth inhibitors restrict plasticity and functional recovery following corticospinal tract lesions [see comments] [published erratum appears in Nat Neurosci 1998 Aug;1(4):329] Thallmair M, et al. **Nat Neurosci** 1998 Jun;1(2):124–31. Comment in: Nat Neurosci 1998 Jun;1(2):85. Comment in: Nat Neurosci 1998 Jun;1(2):87–8.
Anisotropy of water diffusion in corona radiata and cerebral peduncle in patients with hemiparesis. Wieshmann UC, et al. **Neuroimage** 1999 Aug;10(2):225–30
Kallmann's syndrome: mirror movements associated with bilateral corticospinal tract hypertrophy. Krams M, et al. **Neurology** 1999 Mar 10;52(4):816–22
[Pyramidal syndrome. Diagnostic guidelines] Masson C. **Rev Prat** 1999 Apr 1;49(7):783–8 **(Fre)**

SURGERY

Sprouting and regeneration after pyramidotomy and blockade of the myelin-associated neurite growth inhibitors NI 35/250 in adult rats. Raineteau O, et al.
Eur J Neurosci 1999 Apr;11(4):1486–90

PYRAN COPOLYMER

ADMINISTRATION & DOSAGE

An effective tumor vaccine against malignant melanoma: irradiated autologous tumor cells admixed with MVE-2. Novakovic S, et al. **Int J Mol Med** 1999 Jan;3(1):95–102

THERAPEUTIC USE

Prevention of hepatic ischemia-reperfusion injury by SOD-DIVEMA conjugate. Kondo T, et al. **J Surg Res** 1999 Jul;85(1):26–36

PYRANISAMINE see **PYRILAMINE**

PYRANS

Biocompatibility study of a biological tissue fixed with a naturally occurring crosslinking reagent. Huang LL, et al.
J Biomed Mater Res 1998 Dec 15;42(4):568–76
Feasibility study of a natural crosslinking reagent for biological tissue fixation. Sung HW, et al.
J Biomed Mater Res 1998 Dec 15;42(4):560–7
Crosslinking characteristics and mechanical properties of a bovine pericardium fixed with a naturally occurring crosslinking agent. Sung HW, et al.
J Biomed Mater Res 1999 Nov;47(2):116–26

ANALYSIS

Efficient isolation of the rare diarrhoeic shellfish toxin, dinophysistoxin-2, from marine phytoplankton. James KJ, et al. **Toxicon** 1999 Feb;37(2):343–57
[On the constituents of the root of fukuchiyama-jio, the hybrid of Rehmannia glutinosa var. purpurea and R. glutinosa forma hueichingensis] Kitagawa I, et al.
Yakugaku Zasshi 1998 Oct;118(10):464–75 (Eng. Abstr.) **(Jpn)**

CHEMICAL SYNTHESIS

Studies on the synthesis of naphthoquinoids. Park OS, et al.
Arch Pharm Res 1998 Jun;21(3):326–9
Design and synthesis of a tetrahydropyran-based inhibitor of mammalian ribonucleotide reductase. Smith AB 3rd, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3133–6
Nonpeptidic HIV protease inhibitors: 6-alkyl-5,6-dihydropyran-2-ones possessing achiral 3-(4-amino/carboxamide-2-t-butyl,5-methylphenyl thio) moiety: antiviral activities and pharmacokinetic properties. Vara Prasad JV, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1481–6
Antitumor agents 187: synthesis and cytotoxicity of substituted 8,8-dimethyl-2H,8H-pyrano[6,5-h]quinoline-2-one and related compounds. Yang ZY, et al.
Bioorg Med Chem Lett 1999 Mar 8;9(5):713–6
Pyran derivatives. XX. 2-Aminochromone benzo-fused derivatives with antiproliferative properties. Roma G, et al. **Farmaco** 1998 Jul 30;53(7):494–503
Synthesis of an N-methyl-D-aspartate receptor antagonist, ES-242-5, and its analogs. Tatsuta K, et al.
J Antibiot (Tokyo) 1999 Apr;52(4):422–5
Synthesis and antitumor activity of novel thioester derivatives of leinamycin. Kanda Y, et al. **J Med Chem** 1999 Apr 22;42(8):1330–2

CHEMISTRY

Iridoids from Teucrium yemense. Abdel-Sattar E.
Arch Pharm Res 1998 Dec;21(6):785–6
Synthesis of dihydroxanthone derivatives and evaluation of their inhibitory activity against acetylcholinesterase: unique structural analogs of tacrine based on the BCD-ring of arisugacin. Degen SJ, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):973–8
Proof that the ACTVI genetic region of Streptomyces coelicolor A3(2) is involved in stereospecific pyran ring formation in the biosynthesis of actinorhodin. Ichinose K, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):395–400
The spiroketals containing a benzyloxymethyl moiety at C8 position showed the most potent apoptosis-inducing activity. Mitsuhashi S, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2007–12
Identification of the absolute configuration of pectenotoxin-6, a polyether macrolide compound, by NMR spectroscopic method using a chiral anisotropic reagent, phenylglycine methyl ester. Sasaki K, et al.
Biosci Biotechnol Biochem 1997 Oct;61(10):1783–5
Reactivity of Cl-P(+)-Cl toward cyclic organic ethers. Ramírez-Arizmendi LE, et al.
J Am Soc Mass Spectrom 1999 May;10(5):379–85
Biologically active anthracenones from roots of Karwinskia parvifolia. Waksman N, et al. **Phytochemistry** 1999 Mar; 50(6):1041–6

ISOLATION & PURIFICATION

Iridoids from Teucrium yemense. Abdel-Sattar E.
Arch Pharm Res 1998 Dec;21(6):785–6
Iridoid compounds from Boschniakia rossica. Yin ZZ, et al.
Arch Pharm Res 1999 Feb;22(1):78–80
Verbaspinoside, a new iridoid glycoside from Verbascum spinosum. Kalpoutzakis E, et al. **J Nat Prod** 1999 Feb; 62(2):342–4
Iridoid and seco-iridoid glucosides from Chioccoca alba (Rubiaceae). Carbonezi CA, et al. **Phytochemistry** 1999 Jul; 51(6):781–5
Distribution of pyranocoumarins in Calophyllum cordato-oblongum. Dharmaratne HR, et al.
Phytochemistry 1998 Oct;49(4):995–8
Esters of okadaic acid and dinophysistoxin-2 in Portuguese bivalves related to human poisonings. Vale P, et al.
Toxicon 1999 Aug;37(8):1109–21

METABOLISM

Bis(5-hydroxy-2-hydroxymethyl-pyran-4-one-6-yl) methane: a novel ligand for the intracellular mobilisation of ferritin-bound iron [published erratum appears in Bioorg Med Chem Lett 1998 Jul 7;8(13):1777] Fox RC, et al.
Bioorg Med Chem Lett 1998 Mar 3;8(5):443–6
Distribution of pyranocoumarins in Calophyllum cordato-oblongum. Dharmaratne HR, et al.
Phytochemistry 1998 Oct;49(4):995–8
Iridoid glycoside biosynthesis in Penstemon secundiflorus. Another H-5, H-9 trans-iridoid glycoside. Krull RE, et al. **Phytochemistry** 1998 Nov;49(6):1605–8
Formation of nitrogen-containing metabolites from the main iridoids of Harpagophytum procumbens and H. zeyheri by human intestinal bacteria. Baghdikian B, et al.
Planta Med 1999 Mar;65(2):164–6
Direct evidence of transformation of dinophysistoxin-1 to 7-O-acyl-dinophysistoxin-1 (dinophysistoxin-3) in the scallop Patinopecten yessoensis. Suzuki T, et al.
Toxicon 1999 Jan;37(1):187–98

PHARMACOKINETICS

Nonpeptidic HIV protease inhibitors: 6-alkyl-5,6-dihydropyran-2-ones possessing achiral 3-(4-amino/carboxamide-2-t-butyl,5-methylphenyl thio) moiety: antiviral activities and pharmacokinetic properties. Vara Prasad JV, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1481–6

PHARMACOLOGY

Potassium-channel opener in cardioplegia may restore coronary endothelial function. He GW.
Ann Thorac Surg 1998 Oct;66(4):1318–22
Influence of betaine and salinomycin on intestinal absorption of methionine and glucose and on the ultrastructure of intestinal cells and parasite developmental stages in chicks infected with Eimeria acervulina. Augustine PC, et al.
Avian Dis 1999 Jan-Mar;43(1):89–97
The promoting effects of geniposidic acid and aucubin in Eucommia ulmoides Oliver leaves on collagen synthesis. Li Y, et al. **Biol Pharm Bull** 1998 Dec;21(12):1306–10
Improvement in the turnover rate of the stratum corneum in false aged model rats by the administration of geniposidic acid in Eucommia ulmoides Oliver Leaf. Li Y, et al.
Biol Pharm Bull 1999 Jun;22(6):582–5
A new cytotoxic 2H-pyran compound produced by acid treatment of the fermentation broth of Streptomyces sp. Nosaka C, et al. **Biol Pharm Bull** 1999 May;22(5):546–8
Thyrsiferyl 23-acetate and its derivatives induce apoptosis in various T- and B-leukemia cells. Matsuzawa S, et al.
Bioorg Med Chem 1999 Feb;7(2):381–7
The spiroketals containing a benzyloxymethyl moiety at C8 position showed the most potent apoptosis-inducing activity. Mitsuhashi S, et al. **Bioorg Med Chem Lett** 1999

Jul 19;9(14):2007-12
Sialidase inhibitors related to zanamivir: synthesis and biological evaluation of 4H-pyran 6-ether and ketone. Smith PW, et al. **Bioorg Med Chem Lett** 1999 Feb 22; 9(4):601-4
Cell cycle perturbations and apoptosis induced by isohomohalichondrin B (IHB), a natural marine compound. Bergamaschi D, et al. **Br J Cancer** 1999 Jan;79(2):267-77
Cytotoxicity and neurocytotoxicity of new marine anticancer agents evaluated using in vitro assays. Geldof AA, et al. **Cancer Chemother Pharmacol** 1999;44(4):312-8
Effects of praeruptorine C on the intracellular free calcium in normal and hypertrophied rat ventricular myocytes. Sun L, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May; 18(3):251-4
Pyran derivatives. XX. 2-Aminochromone benzo-fused derivatives with antiproliferative properties. Roma G, et al. **Farmaco** 1998 Jul 30;53(7):494-503
Growth inhibition by dehydrothyrsiferol - a non-Pgp modulator, derived from a marine red alga - in human breast cancer cell lines. Pec MK, et al. **Int J Oncol** 1999 Apr;14(4):739-43
Biologically active anthracenones from roots of Karwinskia parvifolia. Waksman N, et al. **Phytochemistry** 1999 Mar; 50(6):1041-6
Carvastatin suppresses intimal thickening of rabbit carotid artery after balloon catheter injury probably through the inhibition of vascular smooth muscle cell proliferation and migration. Komukai M, et al. **Scand J Clin Lab Invest** 1999 May;59(3):159-66

POISONING

Salinomycin-induced polyneuropathy in cats: morphologic and epidemiologic data. van der Linde-Sipman JS, et al. **Vet Pathol** 1999 Mar;36(2):152-6

THERAPEUTIC USE

Modulation of acute and chronic inflammatory processes by cacospongionolide B, a novel inhibitor of human synovial phospholipase A2. García Pastor P, et al. **Br J Pharmacol** 1999 Jan;126(1):301-11
A diacetylenic spiroketal enol ether epoxide, AL-1, from Artemisia lactiflora inhibits 12-O-tetradecanoylphorbol-13-acetate-induced tumor promotion possibly by suppression of oxidative stress. Nakamura Y, et al. **Cancer Lett** 1999 Jun 1;140(1-2):37-45
Effectiveness of Harpagophytum extract WS 1531 in the treatment of exacerbation of low back pain: a randomized, placebo-controlled, double-blind study. Chrubasik S, et al. **Eur J Anaesthesiol** 1999 Feb;16(2):118-29
Comparative testing of anticoccidials in broiler chickens: the role of coccidial lesion scores. Conway DP, et al. **Poult Sci** 1999 Apr;78(4):529-35
[Comparative evaluation of triamcinolone in coccidiosis control in fattening chickens] Jaramillo M, et al. **Acta Cient Venez** 1998;49(1):62-7 (Eng. Abstr.) **(Spa)**

TOXICITY

In vitro evaluation of cytotoxicity of a naturally occurring cross-linking reagent for biological tissue fixation. Sung HW, et al. **J Biomater Sci Polym Ed** 1999;10(1):63-78
Territrem: neurotoxicity and biotransformation. Ling KH. **J Toxicol Sci** 1998 Jul;23 Suppl 2:189-90
Evaluation of the use of two human cell lines for okadaic acid and DTX-1 determination by cytotoxicity assays and damage characterizat on. Oteri G, et al. **Nat Toxins** 1998; 6(5):197-209

PYRANTEL

THERAPEUTIC USE

Randomised trial of albendazole and pyrantel in symptomless trichuriasis in children [see comments] Forrester JE, et al. **Lancet** 1998 Oct 3;352(9134):1103-8. Comment in: Lancet 1998 Oct 3;352(9134):1080-1. Comment in: Lancet 1999 Jan 16;353(9148):237-8. Comment in: Lancet 1999 Jan 16;353(9148):237; discussion 238. Comment in: Lancet 1998 Dec 12;352(9144):1935.
Comparison of the efficacy of mebendazole, albendazole and pyrantel in treatment of human hookworm infections in the southern region of Mali, West Africa. Sacko M, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr;93(2):195-203

PYRANTEL EMBONATE see **PYRANTEL PAMOATE**

PYRANTEL PAMOATE

CHEMISTRY

The adsorption of cellulose ethers in aqueous suspensions of pyrantel pamoate: effects on zeta potential and stability. Duro R, et al. **Eur J Pharm Biopharm** 1998 Mar;45(2):181-8

THERAPEUTIC USE

Efficacy of a drug combination of praziquantel, pyrantel pamoate, and febantel against giardiasis in dogs. Barr SC, et al. **Am J Vet Res** 1998 Sep;59(9):1134-6
Efficacy of fenbendazole granules and pyrantel pamoate suspension against Toxocara canis in greyhounds housed in contaminated runs. Dryden MW, et al. **Vet Parasitol** 1999 May;82(4):311-5

PYRAZINAMIDE

ADMINISTRATION & DOSAGE

Chemotherapy of tuberculosis in mice using single implants of isoniazid and pyrazinamide. Gangadharam PR, et al. **Int J Tuberc Lung Dis** 1999 Jun;3(6):515-20
Assessment of a combined preparation of isoniazid, rifampicin and pyrazinamide (Rifater) in the initial phase of chemotherapy in three 6-month regimens for smear-positive pulmonary tuberculosis: a five-year follow-up report [see comments] Teo SK. **Int J Tuberc Lung Dis** 1999 Feb;3(2):126-32. Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):87.
[Short-course chemotherapy of tuberculosis with pyrazinamide] Asai S, et al. **Nippon Rinsho** 1998 Dec; 56(12):3087-90 (9 ref.) (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Pyrazinamide-induced lichenoid photodermatitis [letter] Choonhakarn C, et al. **J Am Acad Dermatol** 1999 Apr; 40(4):645-6
Hepatic enzyme abnormalities in children on triple therapy for tuberculosis. Corrigan D, et al. **Pediatr Pulmonol** 1999 Jan;27(1):37-42
-Skin eruption after the first dose of antitubercular quadri-therapy: consideration of pyrazinamide- Olivier C, et al. **Arch Pediatr** 1998 Mar;5(3):289-90 (Eng. Abstr.) **(Fre)**
[Hyperuricemia and arthralgia during pyrazinamide treatment] Inoue T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb;37(2):115-8 (Eng. Abstr.) **(Jpn)**

ANALOGS & DERIVATIVES

Role of acid pH and deficient efflux of pyrazinoic acid in unique susceptibility of Mycobacterium tuberculosis to pyrazinamide. Zhang Y, et al. **J Bacteriol** 1999 Apr; 181(7):2044-9

BLOOD

Bioavailability of rifampicin, isoniazid and pyrazinamide from fixed-dose combination capsules. Zwolska Z, et al. **Int J Tuberc Lung Dis** 1998 Oct;2(10):824-30

CHEMISTRY

Stability of bethanechol chloride, pyrazinamide, quinidine sulfate, rifampin, and tetracycline hydrochloride in extemporaneously compounded oral liquids. Allen LV Jr, et al. **Am J Health Syst Pharm** 1998 Sep 1;55(17):1804-9
Determination of rifampicin and its main metabolite in plasma and urine in presence of pyrazinamide and isoniazid by HPLC method. Panchagnula R, et al. **J Pharm Biomed Anal** 1999 Jan;18(6):1013-20

PHARMACOKINETICS

The effect of hemodialysis on isoniazid, rifampin, pyrazinamide, and ethambutol. Malone RS, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1580-4
Intrapulmonary concentrations of pyrazinamide. Conte JE Jr, et al. **Antimicrob Agents Chemother** 1999 Jun; 43(6):1329-33
Bioavailability of rifampicin, isoniazid and pyrazinamide in a triple drug formulation: comparison of plasma and urine kinetics [see comments] Gurumurthy P, et al. **Int J Tuberc Lung Dis** 1999 Feb;3(2):119-25. Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):87.
Pharmacokinetics of pyrazinamide in children suffering from pulmonary tuberculosis. Roy V, et al. **Int J Tuberc Lung Dis** 1999 Feb;3(2):133-7
Pharmacokinetics of pyrazinamide under fasting conditions, with food, and with antacids. Peloquin CA, et al. **Pharmacotherapy** 1998 Nov-Dec;18(6):1205-11

PHARMACOLOGY

Characterization of new mutations in pyrazinamide-resistant strains of Mycobacterium tuberculosis and identification of conserved regions important for the catalytic activity of the pyrazinamidase PncA. Lemaitre N, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1761-3
pncA mutations in pyrazinamide-resistant Mycobacterium tuberculosis isolates from northwestern Russia. Marttila HJ, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1764-6
Reduced pyrazinamidase activity and the natural resistance of Mycobacterium kansasii to the antituberculosis drug pyrazinamide. Sun Z, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):537-42
Effects of dietary pyrazinamide on the metabolism of tryptophan to niacin in streptozotocin-diabetic rats. Shibata K, et al. **Biosci Biotechnol Biochem** 1997 Oct; 61(10):1679-83
Role of acid pH and deficient efflux of pyrazinoic acid in unique susceptibility of Mycobacterium tuberculosis to pyrazinamide. Zhang Y, et al. **J Bacteriol** 1999 Apr; 181(7):2044-9
Mechanisms of pyrazinamide resistance in mycobacteria: importance of lack of uptake in addition to lack of pyrazinamidase activity. Raynaud C, et al. **Microbiology** 1999 Jun;145 (Pt 6):1359-67

THERAPEUTIC USE

Twice weekly tuberculosis preventive therapy in HIV infection in Zambia. Mwinga A, et al. **AIDS** 1998 Dec 24; 12(18):2447-57
Good news and not such good news [editorial; comment] Iseman MD. **Int J Tuberc Lung Dis** 1999 Feb;3(2):87. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):119-25. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):126-32.
From the Centers for Disease Control and Prevention. Use of short-course tuberculosis preventive therapy regimens in HIV-seronegative persons. **JAMA** 1998 Nov 25; 280(20):1736

TOXICITY

Subchronic toxicity of human immunodeficiency virus and tuberculosis combination therapies in B6C3F1 mice. Rao GN, et al. **Toxicol Sci** 1998 Sep;45(1):113-27

PYRAZINES

ADMINISTRATION & DOSAGE

Plasma phospholipid transfer protein activity is lowered by 24-h insulin and acipimox administration: blunted response to insulin in type 2 diabetic patients. Riemens SC, et al. **Diabetes** 1999 Aug;48(8):1631-7
Tolerability and effects of high doses acipimox as additional lipid-lowering therapy in familial hypercholesterolemia. Stuyt PM, et al. **Neth J Med** 1998 Nov;53(5):228-33
[Observation of therapeutic effect by combined administration of Salvia miltiorrhiza, ligustrazine and Panax notoginseng on late hemorrhagic shock of rabbits] Wang ZW, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 May;17(5):292-4 (Eng. Abstr.) **(Chi)**

ADVERSE EFFECTS

Phase I and pharmacological study of CI-980, a novel synthetic antimicrotubule agent. Rowinsky EK, et al. **Clin Cancer Res** 1997 Mar;3(3):401-7

ANALYSIS

Quantitative determination of 2-methoxy-3-isobutylpyrazine in red wines and grapes of Bordeaux using a stable isotope dilution assay. Kotseridis Y, et al. **J Chromatogr A** 1999 May 14;841(2):229-37

BLOOD

Direct plasma injection for high-performance liquid chromatographic-mass spectrometric quantitation of the anxiolytic agent CP-93 393. Needham SR, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):87-94

CHEMICAL SYNTHESIS

Studies on pyrazine derivatives. XXXII. Synthesis and tuberculostatic activity of acetylpyrazine thiosemicarbazone derivatives. Milczarska B, et al. **Acta Pol Pharm** 1998 Jul-Aug;55(4):289-95
Synthesis of 13C-dehydrocoelenterazine and model studies on Symplectoteuthis squid bioluminescence. Isobe M, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2919-24
Synthesis, SAR and pharmacology of CP-293,019: a potent, selective dopamine D4 receptor antagonist. Sanner MA, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):725-30
Amino acids and peptides. LII. Design and synthesis of opioid mimetics containing a pyrazinone ring and examination of their opioid receptor binding activity. Okada Y, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1374-82
Novel, highly potent aldose reductase inhibitors: (R)-(-)-2-(4-bromo-2-fluorobenzyl)-1,2,3,4-tetrahydropyrrolo[1,2-a]pyrazine -4-spiro-3'-pyrrolidine-1,2',3,5'-tetrone (AS-3201) and its congeners. Negoro T, et al. **J Med Chem** 1998 Oct 8; 41(21):4118-29
Efficacious, orally bioavailable thrombin inhibitors based on 3-aminopyridinone or 3-aminopyrazinone acetamide peptidomimetic templates. Sanderson PE, et al. **J Med Chem** 1998 Nov 5;41(23):4466-74
[SCA 40 and derivatives: new bronchodilators in an imidazo(1,2-a)pyrazine series] Bonnet PA, et al. **Ann Pharm Fr** 1998;56(4):155-9 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Structure-based design of a non-peptidic antagonist of the SH2 domain of GRB2. Caravatti G, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1973-8
Discovery of a highly potent, functionally-selective muscarinic M1 agonist, WAY-132983 using rational drug design and receptor modelling. Sabb AL, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1895-900
Chemical properties which control selectivity and efficacy of aromatic N-oxide bioreductive drugs. Wardman P, et al. **Br J Cancer Suppl** 1996 Jul;27:S70-4

DIAGNOSTIC USE

Lowering fatty acids potentiates acute insulin response in first degree relatives of people with type II diabetes. Paolisso G, et al. **Diabetologia** 1998 Oct;41(10):1127-32

PYRAZINES

METABOLISM

Measurement and pharmacokinetic study of tetramethylpyrazine in rat blood and its regional brain tissue by high-performance liquid chromatography. Liang CC, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):303-9

Stability, blood partition, and protein binding of a chemoprotective agent, 2-(allylthio)pyrazine. Han KS, et al. **Res Commun Mol Pathol Pharmacol** 1998 Aug; 101(2):171-8

[Studies on the metabolites of tetramethylpyrazine in rabbits] Chen X, et al. **Yao Hsueh Hsueh Pao** 1996;31(8):617-21 (Eng. Abstr.) **(Chi)**

PHARMACOKINETICS

Pharmacokinetics and pharmacodynamics of oltipraz as a chemopreventive agent. Gupta E, et al. **Clin Cancer Res** 1995 Oct;1(10):1133-8

Phase I and pharmacological study of CI-980, a novel synthetic antimicrotubule agent. Rowinsky EK, et al. **Clin Cancer Res** 1997 Mar;3(3):401-7

Pharmacokinetics of a chemoprotective agent, 2-(allylthio)pyrazine, after intravenous and oral administration to rats: hepatic and gastric first-pass effects. Han KS, et al. **Drug Metab Dispos** 1999 Feb;27(2):221-6

[Effect of sijunzi decoction on motilin and pharmacokinetic characteristics of tetramethylpyrazine in rat model of spleen deficiency syndrome] Ren P, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jan; 17(1):45-7 (Eng. Abstr.) **(Chi)**

PHARMACOLOGY

Chemopreventive effects of 2-(allylthio)pyrazine. Kim ND, et al. **Arch Pharm Res** 1999 Apr;22(2):99-107 (65 ref.)

Discovery of a highly potent, functionally-selective muscarinic M1 agonist, WAY-132983 using rational drug design and receptor modelling. Sabb AL, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1895-900

Effects of acipimox on haemorheology and plasma lipoproteins in patients with mixed hyperlipoproteinaemia. Otto C, et al. **Br J Clin Pharmacol** 1998 Nov;46(5):473-8

Induction of granulocytic differentiation in acute promyelocytic leukemia cells (HL-60) by 2-(allylthio) pyrazine. Kong G, et al. **Cancer Lett** 1999 Sep 20;144(1):1-8

Oltipraz, a novel inhibitor of hepatitis B virus transcription through elevation of p53 protein. Chi WJ, et al. **Carcinogenesis** 1998 Dec;19(12):2133-8

Differential induction of rat hepatic microsomal epoxide hydrolase and rGSTA2 by diazines: the role of cytochrome P450 2E1-mediated metabolic activation. Cho MK, et al. **Chem Biol Interact** 1998 Nov 27;116(3):229-45

2-(Allylthio)pyrazine inhibition of aflatoxin B1-induced hepatocarcinogenesis in rats. Ha TG, et al. **Chem Biol Interact** 1999 Jul 1;121(2):209-22

Amino acids and peptides. LII. Design and synthesis of opioid mimetics containing a pyrazinone ring and examination of their opioid receptor binding activity. Okada Y, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1374-82

Development of cancer chemopreventive agents: oltipraz as a paradigm. Kensler TW, et al. **Chem Res Toxicol** 1999 Feb;12(2):113-26 (113 ref.)

Effects of dexamethasone, ibuprofen, and ligustrazini on lipopolysaccharides-induced tumor necrosis factor alpha production. Qiu HB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jan;18(1):67-70

Chemiluminescent detection of oxidants in vascular tissue. Lucigenin but not coelenterazine enhances superoxide formation. Tarpey MM, et al. **Circ Res** 1999 May 28; 84(10):1203-11

OPC-15161 suppresses the proliferation of Tenon's capsule fibroblasts and the production of type I collagen and fibronectin stimulated by TGF-beta1 in vitro. Saika S, et al. **Curr Eye Res** 1998 Sep;17(9):933-40

Molecular basis for hepatic detoxifying enzyme induction by 2-(allylthio)pyrazine in rats in comparison with oltipraz: effects on prooxidant production and DNA degradation. Kim SG, et al. **Drug Metab Dispos** 1999 Jun;27(6):667-73

Antiproliferative, differentiating and apoptotic effects elicited by imidazo[1,2-a]pyrazine derivatives. Zurbonsen K, et al. **Gen Pharmacol** 1999 Jan;32(1):135-41 (31 ref.)

Endotoxin suppresses the oltipraz-mediated induction of major hepatic glutathione transferases and cytochromes P450 in the rat. Mahéo K, et al. **Hepatology** 1998 Dec; 28(6):1655-62

Effects of ligustrazine on hepatic oxygenation in isolated perfused rat liver. Kakihana Y, et al. **In Vivo** 1999 Jan-Feb; 13(1):29-34

Effect of a new chemoprotective agent, 2-(allylthio)pyrazine, on the pharmacokinetics of intravenous theophylline in rats. Han KS, et al. **Int J Pharm** 1999 Jul 20;184(2):237-42

Induction of drug metabolizing enzymes by 1,7-phenanthroline and oltipraz in mice is unrelated to Ah-responsiveness. Carr BA, et al. **J Biochem Mol Toxicol** 1999;13(2):77-82

Effects of tetramethylpyrazine on portal hypertensive rats. Chang FC, et al. **J Pharm Pharmacol** 1998 Aug;50(8):881-4

Pharmacological profile of ZD1611, a novel, orally active endothelin ETA receptor antagonist. Wilson C, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1085-91

Studies on pyrazinoylguanidine. 7. Effects of single oral doses in normal human subjects. Vesell ES, et al. **Pharmacology** 1999 Mar;58(3):140-6

The effects of tetramethylpyrazine on the incidence of arrhythmias and the release of PGI2 and TXA2 in the ischemic rat heart [letter] Feng J, et al. **Planta Med** 1999 Apr;65(3):268-70

Acute hemodynamic effects of tetramethylpyrazine and tetrandrine on cirrhotic rats. Huang YT, et al. **Planta Med** 1999 Mar;65(2):130-4

BN 80933, a dual inhibitor of neuronal nitric oxide synthase and lipid peroxidation: a promising neuroprotective strategy [see comments] Chabrier PE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10824-9. Comment in: Proc Natl Acad Sci U S A 1999 Sep 14;96(19):10557-8.

Effects of a selective PDE4 inhibitor, D-22888, on human airways and eosinophils in vitro and late phase allergic pulmonary eosinophilia in guinea pigs. Dent G, et al. **Pulm Pharmacol Ther** 1998 Feb;11(1):13-21

2-(allylthio)pyrazine inhibition of aflatoxin B1-induced hepatotoxicity in rats: inhibition of cytochrome P450 2B- and 3A2-mediated bioactivation. Ha TG, et al. **Res Commun Mol Pathol Pharmacol** 1998 Oct;102(1):69-78

Drug-metabolizing enzyme induction by 2,2'-dipyridyl, 1,7-phenanthroline, 7,8-benzoquinoline and oltipraz in mouse. Carr BA, et al. **Xenobiotica** 1998 Oct;28(10):949-56

[Status quo of experimental and clinical studies in retarding kidney damage of chronic nephropathy by ligustrazine] Cao WF, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 May; 17(5):314-5 (22 ref.) **(Chi)**

[Effects of tetramethylpyrazine on platelet functions of advanced cases of lung carcinoma] Chen SX, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Sep; 17(9):531-3 (Eng. Abstr.) **(Chi)**

[Clinical study on ligustrazine in treating myocardial ischemia and reperfusion injury] Lin LN, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 May; 17(5):261-3 (Eng. Abstr.) **(Chi)**

[Effects of ligustrazine on hemodynamics in chronic pulmonary heart disease patients] Wei DG, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Dec; 16(12):730-2 **(Chi)**

[Prophylactic effects of magnesium sulfate and ligustrazin on the hypoxic-ischemic brain damage in neonatal rats] Wang D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Aug; 19(4):301-4 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Neurotoxicity of CI-980, a novel mitotic inhibitor. Meyers CA, et al. **Clin Cancer Res** 1997 Mar;3(3):419-22

Overnight lowering of free fatty acids with Acipimox improves insulin resistance and glucose tolerance in obese diabetic and nondiabetic subjects. Santomauro AT, et al. **Diabetes** 1999 Sep;48(9):1836-41

Phase II trial of pyrazine diazohydroxide in androgen-independent prostate cancer. Edelman MJ, et al. **Invest New Drugs** 1998;16(2):179-82

Phase II study of CI-980 (NSC 635370) in patients with previously treated advanced soft-tissue sarcomas. Patel SR, et al. **Invest New Drugs** 1998;16(1):87-92

Short-term efficacy and tolerability of combination therapy with lovastatin and acipimox in Chinese patients with type 2 diabetes mellitus and mixed dyslipidemia. Ko GT, et al. **J Clin Pharmacol** 1998 Oct;38(10):912-7

Protective alterations in phase 1 and 2 metabolism of aflatoxin B1 by oltipraz in residents of Qidong, People's Republic of China. Wang JS, et al. **J Natl Cancer Inst** 1999 Feb 17;91(4):347-54

Radioprotective effects of 2-(allylthio)pyrazine an experimental chemopreventive agent: effects on detoxifying enzyme induction. Kim SG, et al. **Res Commun Mol Pathol Pharmacol** 1998 Sep; 101(3):275-88

TOXICITY

Oncogenic potential of bifunctional bioreductive drugs. Hei TK, et al. **Br J Cancer Suppl** 1996 Jul;27:S57-60

Cellular kinetics of induction by oltipraz and its keto derivative of detoxication enzymes in human colon adenocarcinoma cells. O'Dwyer PJ, et al. **Clin Cancer Res** 1997 May;3(5):783-91

PYRAZINOPYRIMIDINES see **PTERIDINES**

PYRAZOLES

ADMINISTRATION & DOSAGE

Phase I clinical trial of pyrazoloacridine NSC366140 (PD115934). LoRusso P, et al. **Clin Cancer Res** 1995 Dec; 1(12):1487-93

Effects of FR167653 on pulmonary ischemia-reperfusion injury: administration timing. Takeyoshi I, et al. **Transplant Proc** 1999 Aug;31(5):1935-6

ADVERSE EFFECTS

Association of pyrazolone drug hypersensitivity with HLA-DQ and DR antigens. Kowalski ML, et al. **Clin Exp Allergy** 1998 Sep;28(9):1153-8

BLOOD

Simultaneous determination of flupyrazofos and its metabolite 1-phenyl-3-trifluoromethyl-5-hydroxypyrazole and flupyrazofos oxon in rat plasma by high-performance liquid chromatography with ultraviolet absorbance detection. Shin HC, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):61-8

CHEMICAL SYNTHESIS

Synthesis and antimicrobial evaluation of new pyridine, thienopyridine and pyridothienopyrazole derivatives. Attaby FA, et al. **Arch Pharm Res** 1999 Apr;22(2):194-201

Oxazole, pyrazole and piperidine derivatives having an o-hydroxyaryl moiety with anticipated molluscicidal activity. Nawwar GA, et al. **Arch Pharm Res** 1994 Apr; 17(2):66-70

Novel benzoyl nitrogen mustard derivatives of pyrazole analogues of distamycin A: synthesis and antileukemic activity. Baraldi PG, et al. **Bioorg Med Chem** 1999 Feb; 7(2):251-62

Synthesis of E- and Z-pyrazolylacrylonitriles and their evaluation as novel antioxidants. Parmar VS, et al. **Bioorg Med Chem** 1999 Jul;7(7):1425-36

Synthesis, X-ray crystal structure, and biological activity of FR186054, a novel, potent, orally active inhibitor of acyl-CoA:cholesterol O-acyltransferase (ACAT) bearing a pyrazole ring. Tanaka A, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):81-6

Synthesis and immunosuppressant activity of pyrazole carboxamides. Wang AX, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2787-92

Pyrazolo[1,5-a]pyrimidine CRF-1 receptor antagonists. Wustrow DJ, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2067-70

Novel structural templates for estrogen-receptor ligands and prospects for combinatorial synthesis of estrogens. Fink BE, et al. **Chem Biol** 1999 Apr;6(4):205-19

New cycloalkylpyrazoles as potential cyclooxygenase inhibitors. Cardia MC, et al. **Farmaco** 1998 Oct-Nov; 53(10-11):698-708

Pyrazole analogues of prazosin. Ermondi G, et al. **Farmaco** 1998 Jul 30;53(7):519-24

Discovery of 6-oxo-3-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-1(6H)-pyridazinebutanoic acid (FK 838): a novel non-xanthine adenosine A1 receptor antagonist with potent diuretic activity. Akahane A, et al. **J Med Chem** 1999 Mar 11; 42(5):779-83

Substituted 4-acylpyrazoles and 4-acylpyrazolones: synthesis and multidrug resistance-modulating activity. Chiba P, et al. **J Med Chem** 1998 Oct 8;41(21):4001-11

Nitrogen-carbon-linked (azolylphenyl)oxazolidinones with potent antibacterial activity against the fastidious gram-negative organisms Haemophilus influenzae and Moraxella catarrhalis. Genin MJ, et al. **J Med Chem** 1998 Dec 17;41(26):5144-7

Structure-activity relationships of pyrazole derivatives as cannabinoid receptor antagonists. Lan R, et al. **J Med Chem** 1999 Feb 25;42(4):769-76

Synthesis and biological screening of new 1,3-diphenylpyrazoles with different heterocyclic moieties at position-4. el-Emary TI, et al. **Pharmazie** 1999 Feb; 54(2):106-11

A novel synthesis of fused pyrazole systems as antimicrobial agents. Erian AW, et al. **Pharmazie** 1998 Nov;53(11):748-51

CHEMISTRY

Substituted pyrazoles as novel selective ligands for the human dopamine D4 receptor. Bourrain S, et al. **Bioorg Med Chem** 1998 Oct;6(10):1731-43

Discovery of FR166124, a novel water-soluble pyrazolo-[1,5-a]pyridine adenosine A1 receptor antagonist. Kuroda S, et al. **Bioorg Med Chem Lett** 1999 Jul 19; 9(14):1979-84

Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97-102

X-ray structural characterization of SR 142948, a novel potent synthetic neurotensin receptor antagonist. Quéré L, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):653-8

Synthesis, X-ray crystal structure, and biological activity of FR186054, a novel, potent, orally active inhibitor of acyl-CoA:cholesterol O-acyltransferase (ACAT) bearing a pyrazole ring. Tanaka A, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):81-6

Pyrazolo[1,5-a]pyrimidine CRF-1 receptor antagonists. Wustrow DJ, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2067-70

Pyrazole analogues of prazosin. Ermondi G, et al. **Farmaco** 1998 Jul 30;53(7):519-24

pKa of 4MP and chemical equivalence in formulations of free base and salts of 4MP. Chilukuri DM, et al. **PDA J Pharm Sci Technol** 1999 Jan-Feb;53(1):44-7

Ternary complex structure of human HGPRTase, PRPP, Mg2+, and the inhibitor HPP reveals the involvement of the flexible loop in substrate binding. Balendiran GK, et al. **Protein Sci** 1999 May;8(5):1023-31

ISOLATION & PURIFICATION

Separation of 1-phenyl-3-methyl-5-pyrazolone derivatives of monosaccharides by capillary electrochromatography. Suzuki S, et al. **Electrophoresis** 1998 Nov;19(15):2682-8

Separation of disaccharides by affinity capillary electrophoresis in lectin-containing electrophoretic solutions. Taga A, et al. **Electrophoresis** 1998 Nov; 19(15):2645-9

Improving the solid-phase extraction of "quat" pesticides from water samples. Removal of interferences. Ibáñez M, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):137-46

METABOLISM

Substituted pyrazoles as novel selective ligands for the human dopamine D4 receptor. Bourrain S, et al. **Bioorg Med Chem** 1998 Oct;6(10):1731-43

Transsynovial kinetics of lonazolac and its hydroxy metabolite in synovitis patients. Deneke J, et al. **Int J Clin Pharmacol Ther** 1998 Aug;36(8):418-24

Identification of famprofazone ingestion. Musshoff F, et al. **Int J Legal Med** 1998;111(6):305-8

Fluorimetric determination of aluminum traces in hemodialysis solutions using Mordant Red 19. Raggi MA, et al. **J Anal Toxicol** 1999 Mar-Apr;23(2):94-8

Relationships between ligand affinities for the cerebellar cannabinoid receptor CB1 and the induction of GDP/GTP exchange. Kearn CS, et al. **J Neurochem** 1999 Jun; 72(6):2379-87

Cannabinoid receptor interactions with the antagonists SR 141716A and SR 144528. Shire D, et al. **Life Sci** 1999; 65(6-7):627-35 (35 ref.)

Iodinated and fluorinated steroid 2'-aryl-[3,2-c] pyrazoles as potential glucocorticoid receptor imaging agents. Hoyte RM, et al. **Steroids** 1998 Nov;63(11):595-602

PHARMACOKINETICS

Pharmacokinetics of 9-methoxy-N,N-dimethyl-5-nitropyrazolo [3,4, 5-kl]acridine-2(6H)-propanamine (PZA, PD 115934, NSC 366140) in mice: guidelines for early clinical trials1. Foster BJ, et al. **Clin Cancer Res** 1995 Aug;1(8):831-7

PHARMACOLOGY

Neurotensin receptor-mediated inhibition of pancreatic cancer cell growth by the neurotensin antagonist SR 48692. Herzig MC, et al. **Anticancer Res** 1999 Jan-Feb; 19(1A):213-9

3-Amino- and 5-aminopyrazoles with anticonvulsant activity. Lankau HJ, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):219-21

SR 141716, a CB1 cannabinoid receptor antagonist, selectively reduces sweet food intake in marmoset. Simiand J, et al. **Behav Pharmacol** 1998 Mar;9(2):179-81

Synthesis and binding mode of heterocyclic analogues of suramin inhibiting the human basic fibroblast growth factor. Manetti F, et al. **Bioorg Med Chem** 1998 Jul;6(7):947-58

Synthesis of E- and Z-pyrazolylacrylonitriles and their evaluation as novel antioxidants. Parmar VS, et al. **Bioorg Med Chem** 1999 Jul;7(7):1425-36

Pyrroles and other heterocycles as inhibitors of p38 kinase. de Laszlo SE, et al. **Bioorg Med Chem Lett** 1998 Oct 6; 8(19):2689-94

Pyrazoles, 1,2,4-triazoles, and tetrazoles as surrogates for cis-amide bonds in boronate ester thrombin inhibitors. Duncia JV, et al. **Bioorg Med Chem Lett** 1998 Apr 7; 8(7):775-80

Discovery of FR166124, a novel water-soluble pyrazolo-[1,5-a]pyridine adenosine A1 receptor antagonist. Kuroda S, et al. **Bioorg Med Chem Lett** 1999 Jul 19; 9(14):1979-84

Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97-102

Synthesis and immunosuppressant activity of pyrazole carboxamides. Wang AX, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2787-92

The cannabinoid CB1 receptor antagonist, SR141716A, selectively facilitates nociceptive responses of dorsal horn neurones in the rat. Chapman V. **Br J Pharmacol** 1999 Aug; 127(8):1765-7

In vitro functional evidence of different neurotensin-receptors modulating the motor response of human colonic muscle strips. Croci T, et al. **Br J Pharmacol** 1999 Aug;127(8):1922-8

The actions of the cannabinoid receptor antagonist, SR 141716A, in the rat isolated mesenteric artery. White R, et al. **Br J Pharmacol** 1998 Oct;125(4):689-96

Pretreatment with SR48692 has different effects on central neurotensin-induced gastric mucosal defense and inhibition of gastric acid secretion in rats. Karinch AM, et al. **Brain Res** 1998 Nov 9;810(1-2):123-9

Cannabinoids decrease acetylcholine release in the medial-prefrontal cortex and hippocampus, reversal by SR 141716A. Gessa GL, et al. **Eur J Pharmacol** 1998 Aug 21; 355(2-3):119-24

Evaluation of the cannabinoid CB2 receptor-selective antagonist, SR144528: further evidence for cannabinoid CB2 receptor absence in the rat central nervous system. Griffin G, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):117-25

Neuronal responses to cannabinoid receptor ligands in the solitary tract nucleus. Himmi T, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):49-54

Pyrazolopyridine derivatives act as competitive antagonists of brain adenosine A1 receptors: [35S]GTPgammaS binding studies. Ito H, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):309-15

Effects of SR 141716A after acute or chronic cannabinoid administration in dogs. Lichtman AH, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):139-48

Anti-inflammatory and analgesic effects of a novel pyrazole derivative, FR140423. Ochi T, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):259-66

Characterization of neurotensin receptors in intestinal smooth muscle using a nonpeptide antagonist. Unno T, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):73-80

Selective inhibition of cyclooxygenase 2 spares renal function and prostaglandin synthesis in cirrhotic rats with ascites. Bosch-Marcè M, et al. **Gastroenterology** 1999 May; 116(5):1167-75

Neurotensin and a non-peptide neurotensin receptor antagonist control human colon cancer cell growth in cell culture and in cells xenografted into nude mice. Maoret JJ, et al. **Int J Cancer** 1999 Jan 29;80(3):448-54

Regulation of peripheral cannabinoid receptor CB2 phosphorylation by the inverse agonist SR 144528. Implications for receptor biological responses. Bouaboula M, et al. **J Biol Chem** 1999 Jul 16;274(29):20397-405

Influence of FR 167653, an inhibitor of TNF-alpha and IL-1, on the cardiovascular responses to chronic infusion of lipopolysaccharide in conscious rats. Gardiner SM, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):64-9

Effects of FR167653 on ischemia-reperfusion injury: evaluation through preservation and transplantation in canine hearts. Koyano T, et al. **J Heart Lung Transplant** 1998 Dec;17(12):1247-54

Comparison of suppressive effects of a new anti-inflammatory compound, FR167653, on production of PGE2 and inflammatory cytokines, human monocytes, and alveolar macrophages in response to endotoxin. Kawano T, et al. **J Leukoc Biol** 1999 Jan;65(1):80-6

Substituted 4-acylpyrazoles and 4-acylpyrazolones: synthesis and multidrug resistance-modulating activity. Chiba P, et al. **J Med Chem** 1998 Oct 8;41(21):4001-11

Enhancement of tumor response to gamma-radiation by an inhibitor of cyclooxygenase-2 enzyme. Milas L, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1501-4

Effects of some N-nitropyrazole derivatives on ocular blood flow and retinal function recovery after ischemic insult. Xuan B, et al. **J Ocul Pharmacol Ther** 1999 Apr; 15(2):135-42

Tepoxalin enhances the activity of an antioxidant, pyrrolidine dithiocarbamate, in attenuating tumor necrosis factor alpha-induced apoptosis in WEHI 164 cells. Lee DH, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1465-71

SR 144528, an antagonist for the peripheral cannabinoid receptor that behaves as an inverse agonist. Portier M, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):582-9

Cytokine suppressive agent improves survival rate in rats with acute pancreatitis of closed duodenal loop. Hirano T. **J Surg Res** 1999 Feb;81(2):224-9

The novel analgesic compound OT-7100 (5-n-butyl-7-(3,4,5-trimethoxybenzoylamino) pyrazolo[1,5-a]pyrimid ine) attenuates mechanical nociceptive responses in animal models of acute and peripheral neuropathic hyperalgesia. Yasuda T, et al. **Jpn J Pharmacol** 1999 Jan;79(1):65-73

Effect of the CB1 receptor antagonist, SR141716A, on cannabinoid-induced ocular hypotension in normotensive rabbits. Pate DW, et al. **Life Sci** 1998;63(24):2181-8

Morphological study of Trichophyton rubrum: ultrastructural findings after treatment with 4-amino-3-methyl-1-phenylpyrazolo-(3,4-c)isothiazole. Mares D, et al. **Med Mycol** 1998 Dec;36(6):379-85

Localization of prostaglandin H synthase isoenzymes in murine epidermal tumors: suppression of skin tumor promotion by inhibition of prostaglandin H synthase-2. Müller-Decker K, et al. **Mol Carcinog** 1998 Sep;23(1):36-44

Gi protein modulation induced by a selective inverse agonist for the peripheral cannabinoid receptor CB2: implication for intracellular signalization cross-regulation. Bouaboula M, et al. **Mol Pharmacol** 1999 Mar;55(3):473-80

SR 141716A acts as an inverse agonist to increase neuronal voltage-dependent Ca2+ currents by reversal of tonic CB1 cannabinoid receptor activity. Pan X, et al. **Mol Pharmacol** 1998 Dec;54(6):1064-72

Blockade of cannabinoid receptors by SR141716 selectively increases Fos expression in rat mesocorticolimbic areas via reduced dopamine D2 function. Alonso R, et al. **Neuroscience** 1999;91(2):607-20

Pharmacological analysis of cyclooxygenase-1 in inflammation. Smith CJ, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13313-8

The motivation for beer in rats: effects of ritanserin, naloxone and SR 141716. Gallate JE, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):302-8

The cannabinoid CB1 receptor antagonist SR141716A attenuates the memory impairment produced by delta9-tetrahydrocannabinol or anandamide. Mallet PE, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):11-9

Blockade of cannabinoid (CB1) receptors by 141716 selectively antagonizes drug-induced reinstatement of exploratory behaviour in gerbils. Poncelet M, et al. **Psychopharmacology (Berl)** 1999 May;144(2):144-50

Effect of novel mixed ETA/ETB antagonists on responses to ET-1 in human small muscular pulmonary arteries. MacLean MR, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun; 11(2-3):147-9

Cytoprotective role of antioxidant stress protein induced by adenosine A1 receptor antagonist in rat heart ischemic injury. Katori M, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1016-7

Effect of FR167653 on ischemia-reperfusion injury of the canine heart: ultrastructural study. Koyano T, et al. **Transplant Proc** 1998 Nov;30(7):3370-1

Effects of FR167653 on pulmonary ischemia-reperfusion injury in rats: a preliminary study. Otani Y, et al. **Transplant Proc** 1998 Nov;30(7):3368-9

FR167653 ameliorates pulmonary ischemia-reperfusion injury. Otani Y, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1010-1

FR167653 ameliorates pulmonary ischemia-reperfusion injury in dogs. Takeyoshi I, et al. **Transplant Proc** 1998 Nov;30(7):3342-3

THERAPEUTIC USE

Cytotoxicity of substituted alkyl-3,4-bis(4-methoxyphenyl)pyrrole-2-carboxylates in L1210 lymphoid leukemia cells. Burnham BS, et al. **Arch Pharm (Weinheim)** 1998 Nov;331(11):337-41

Pyrazoloacridine for the treatment of hormone-refractory prostate cancer. Small EJ, et al. **Cancer Invest** 1998; 16(7):456-61

A phase I and pharmacokinetic study of losoxantrone and paclitaxel in patients with advanced solid tumors. Diab SG, et al. **Clin Cancer Res** 1999 Feb;5(2):299-308

ER-34122, a novel dual 5-lipoxygenase/cyclooxygenase inhibitor with potent anti-inflammatory activity in an arachidonic acid-induced ear inflammation model. Horizoe T, et al. **Inflamm Res** 1998 Oct;47(10):375-83

Two cases of acute methanol poisoning partially treated by oral 4-methylpyrazole. Hantson P, et al. **Intensive Care Med** 1999 May;25(5):528-31

Ethylene glycol poisoning treated by intravenous 4-methylpyrazole. Hantson P, et al. **Intensive Care Med** 1998 Jul;24(7):736-9

A phase II study of pyrazoloacridine in patients with advanced renal cell carcinoma. Berg WJ, et al. **Invest New Drugs** 1998-99;16(4):337-40

Evaluation of pyrazoloacridine in patients with advanced pancreatic carcinoma. Zalupski MM, et al. **Invest New Drugs** 1998;16(1):93-6

Comparison of an amitraz-impregnated collar with topical administration of fipronil for prevention of experimental and natural infestations by the brown dog tick (Rhipicephalus sanguineus). Estrada-Peña A, et al. **J Am Vet Med Assoc** 1999 Jun 15;214(12):1799-803

American Academy of Clinical Toxicology Practice Guidelines on the Treatment of Ethylene Glycol Poisoning. Ad Hoc Committee. Barceloux DG, et al. **J Toxicol Clin Toxicol** 1999;37(5):537-60

Fomepizole in treatment of uncomplicated ethylene glycol poisoning [letter] Borron SW, et al. **Lancet** 1999 Sep 4; 354(9181):831

Fomepizole for the treatment of ethylene glycol poisoning. Methylpyrazole for Toxic Alcohols Study Group [see comments] Brent J, et al. **N Engl J Med** 1999 Mar 18; 340(11):832-8. Comment in: N Engl J Med 1999 Mar 18;340(11):879-81.

New treatment for ethylene glycol poisoning [editorial; comment] Jacobsen D. **N Engl J Med** 1999 Mar 18; 340(11):879-81. Comment on: N Engl J Med 1999 Mar 18;340(11):832-8.

[Early phase II study of FK352 in cisplatin-induced nephropathy. Niigata Prefecture FK352 Study Group] Yoshizawa H, et al. **Gan To Kagaku Ryoho** 1998 Nov; 25(13):2085-94 (Eng. Abstr.) **(Jpn)**

TOXICITY

Product warning: FRONTLINE [letter] Webster M. **Aust Vet J** 1999 Mar;77(3):202

Mechanisms for selective toxicity of fipronil insecticide and its sulfone metabolite and desulfinyl photoproduct. Hainzl D, et al. **Chem Res Toxicol** 1998 Dec;11(12):1529-35

Cytotoxic synergy between pyrazoloacridine (NSC 366140) and cisplatin in vitro: inhibition of platinum-DNA adduct removal. Adjei AA, et al. **Clin Cancer Res** 1997 May; 3(5):761-70

Mutagenicity assay in Salmonella and in vivo sister chromatid exchange in bone marrow cells of mice for four pyrazolone derivatives. Giri AK, et al. **Mutat Res** 1998 Dec 3; 420(1-3):15-25

PYRENES

Optimization of excimer-forming two-probe nucleic acid hybridization method with pyrene as a fluorophore. Masuko M, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5409-16

ADVERSE EFFECTS

Seasonal effect on airborne pyrene, urinary

PYRENES

1-hydroxypyrene, and benzo(a)pyrene diol epoxide-hemoglobin adducts in the general population. Pastorelli R, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):561-5

ANALYSIS

Diesel exhaust exposure among adolescents in Harlem: a community-driven study. Northridge ME, et al. **Am J Public Health** 1999 Jul;89(7):998-1002

Seasonal effect on airborne pyrene, urinary 1-hydroxypyrene, and benzo(a)pyrene diol epoxide-hemoglobin adducts in the general population. Pastorelli R, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):561-5

Detection of polycyclic aromatic hydrocarbon metabolites by high-pressure liquid chromatography after purification on immunoaffinity columns in urine from occupationally exposed workers. Bentsen-Farmen RK, et al. **Int Arch Occup Environ Health** 1999 May;72(3):161-8

High-performance liquid chromatography-fluorescence determination of dinitropyrenes in soil after column chromatographic clean-up and on-line reduction. Watanabe T, et al. **J Chromatogr A** 1999 Apr 16; 839(1-2):41-8

Urinary 1-hydroxypyrene concentrations in coke oven workers. Wu MT, et al. **Occup Environ Med** 1998 Jul; 55(7):461-7

Variations in urinary 1-hydroxypyrene glucuronide in relation to smoking and the modification effects of GSTM1 and GSTT1. Hong YC, et al. **Toxicol Lett** 1999 Sep 5; 108(2-3):217-23

Comparison of three analytical methods for 1-hydroxypyrene glucuronide in urine after non-occupational exposure to polycyclic aromatic hydrocarbons. Lee CK, et al. **Toxicol Lett** 1999 Sep 5;108(2-3):209-15

Urinary 1-hydroxypyrene and other PAH metabolites as biomarkers of exposure to environmental PAH in air particulate matter. Strickland P, et al. **Toxicol Lett** 1999 Sep 5;108(2-3):191-9 (53 ref.)

CHEMICAL SYNTHESIS

Arene dioxides of substituted pyrenes: synthesis and X-ray structural studies. Murray RW, et al. **Carcinogenesis** 1999 Jan;20(1):147-52

CHEMISTRY

Solution structure of the N-(deoxyguanosin-8-yl)-1-aminopyrene ([AP]dG) adduct opposite dA in a DNA duplex. Gu Z, et al. **Biochemistry** 1999 Aug 17;38(33):10843-54

Identification of 1,6- and 1,8-dinitropyrene isomers as major mutagens in organic extracts of soil from Osaka, Japan. Watanabe T, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1501-7

A specific partner for abasic damage in DNA. Matray TJ, et al. **Nature** 1999 Jun 17;399(6737):704-8

Visualization of PEO-PBLA-pyrene polymeric micelles by atomic force microscopy. Liaw J, et al. **Pharm Res** 1998 Nov;15(11):1721-6

[Use of excimerization of pyrene for assessing lipid microviscosity in biological membranes] Samoilenko SG, et al. **Biofizika** 1999 May-Jun;44(3):455-60 (Eng. Abstr.) **(Rus)**

METABOLISM

Optimization of pyrene oxidation by Penicillium janthinellum using response-surface methodology. Launen LA, et al. **Appl Microbiol Biotechnol** 1999 Apr;51(4):510-5

Urinary excretion kinetics of 1-hydroxypyrene following intravenous administration of binary and ternary mixtures of polycyclic aromatic hydrocarbons in rat. Bouchard M, et al. **Arch Toxicol** 1998 Jul-Aug;72(8):475-82

Cross-induction of pyrene and phenanthrene in a Mycobacterium sp. isolated from polycyclic aromatic hydrocarbon contaminated river sediments. Molina M, et al. **Can J Microbiol** 1999 Jun;45(6):520-9

Seasonal effect on airborne pyrene, urinary 1-hydroxypyrene, and benzo(a)pyrene diol epoxide-hemoglobin adducts in the general population. Pastorelli R, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):561-5

Cytochrome P450 1A1 MspI polymorphism and urinary 1-hydroxypyrene concentrations in coke-oven workers. Wu MT, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Sep;7(9):823-9

DNA adduct formation by secondary metabolites of cyclopenta[cd]pyrene in vitro. Hsu CH, et al. **Cancer Lett** 1999 Mar 1;136(2):137-41

Comparative metabolism of 1-, 2-, and 4-nitropyrene by human hepatic and pulmonary microsomes. Chae YH, et al. **Cancer Res** 1999 Apr 1;59(7):1473-80

Benzylic hydroxylation of 1-methylpyrene and 1-ethylpyrene by human and rat cytochromes P450 individually expressed in V79 Chinese hamster cells. Engst W, et al. **Carcinogenesis** 1999 Sep;20(9):1777-85

Nitroreduction of 4-nitropyrene is primarily responsible for DNA adduct formation in the mammary gland of female CD rats. Chae YH, et al. **Chem Res Toxicol** 1999 Feb; 12(2):180-6

Extraction and high-performance liquid chromatographic separation of selected pyrene and benzo[a]pyrene sulfates and glucuronides: preliminary application to the analysis of smokers' urine. Johnson C, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 28; 728(2):209-16

2'-Pyrene modified oligonucleotide provides a highly sensitive fluorescent probe of RNA. Yamana K, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2387-92

Glutathione S-transferase M1 and P1 genotypes and urinary excretion of 1-hydroxypyrene in coke oven workers. Ovrebø S, et al. **Sci Total Environ** 1998 Sep 4;220(1):25-31

The toxicokinetics of pyrene and its metabolites in rats. Viau C, et al. **Toxicol Lett** 1999 Sep 5;108(2-3):201-7

Kinetics of tissue distribution and elimination of pyrene and 1-hydroxypyrene following intravenous administration of [14C]pyrene in rats. Bouchard M, et al. **Toxicol Sci** 1998 Nov;46(1):11-20

PHARMACOKINETICS

Biological fate of [14C]-1-nitropyrene in rats following intragastric administration. van Bekkum YM, et al. **Chem Biol Interact** 1999 Jan 1;117(1):15-33

Sensitive and selective detection of urinary 1-nitropyrene metabolites following administration of a single intragastric dose of diesel exhaust particles (SRM 2975) to rats. van Bekkum YM, et al. **Chem Res Toxicol** 1998 Nov; 11(11):1382-90

Effect of polycyclic aromatic hydrocarbons on the elimination kinetics of pyrene and the urinary excretion profile of 1-hydroxypyrene in the rat. Lipniak-Gawlik M. **J Toxicol Environ Health** 1998 Dec 11;55(7):503-16

The toxicokinetics of pyrene and its metabolites in rats. Viau C, et al. **Toxicol Lett** 1999 Sep 5;108(2-3):201-7

Kinetics of tissue distribution and elimination of pyrene and 1-hydroxypyrene following intravenous administration of [14C]pyrene in rats. Bouchard M, et al. **Toxicol Sci** 1998 Nov;46(1):11-20

Biotransformation and elimination of 1-nitropyrene in the isolated perfused lung: effects of pretreating rats with phenobarbitone, beta-naphthoflavone, benz(A)anthracene or their mixtures. Law FC, et al. **Yao Hsueh Hsueh Pao** 1996;31(8):568-76

TOXICITY

Short-term effects of 1-nitropyrene on chromosomes and on oncogene/tumor suppressor gene expression in vivo. Pusztai Z, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4489-92

Synergistic effect of naphthoquinones on the mutagenicity of nitroarene. Ohmori K, et al. **Biol Pharm Bull** 1999 Jan; 22(1):90-2

Identification of 1,6- and 1,8-dinitropyrene isomers as major mutagens in organic extracts of soil from Osaka, Japan. Watanabe T, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1501-7

Neoplastic potential of rat tracheal epithelial cell lines induced by 1-nitropyrene and dibenzo(a,i)pyrene. Ensell MX, et al. **Mutat Res** 1999 Jul 21;444(1):193-9

PYRETHRINS

Identification of a point mutation in the para-type sodium channel gene from a pyrethroid-resistant cattle tick. He H, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):558-61

Possibilities of long-term protection against blood-sucking insects and ticks. Kočišová A, et al. **Cent Eur J Public Health** 1999 Feb;7(1):27-30

Role of the kdr and super-kdr sodium channel mutations in pyrethroid resistance: correlation of allelic frequency to resistance level in wild and laboratory populations of horn flies (Haematobia irritans). Jamroz RC, et al. **Insect Biochem Mol Biol** 1998 Dec;28(12):1031-7

Pyrethroid cross resistance spectrum among populations of Anopheles gambiae s.s. from Côte d'Ivoire. Chandre F, et al. **J Am Mosq Control Assoc** 1999 Mar;15(1):53-9

Independent selection of multiple mechanisms for pyrethroid resistance in Guatemalan Anopheles albimanus (Diptera: Culicidae). Brogdon WG, et al. **J Econ Entomol** 1999 Apr; 92(2):298-302

Pest status of American plum borer (Lepidoptera: Pyralidae) and fruit tree borer control with synthetic insecticides and entomopathogenic nematodes in New York State. Kain DP, et al. **J Econ Entomol** 1999 Feb;92(1):193-200

Genetic mapping of a major locus controlling pyrethroid resistance in Tribolium castaneum (Coleoptera: Tenebrionidae). Stuart JJ, et al. **J Econ Entomol** 1998 Dec; 91(6):1232-8

Resistance to deltamethrin in Culex pipiens pallens (Diptera: Culicidae) from Zhejiang, China. Jinfu W. **J Med Entomol** 1999 May;36(3):389-93

Comparison of plant products and pyrethroid-treated bed nets for protection against mosquitoes (Diptera: Culicidae) in Guinea Bissau, West Africa. Pålsson K, et al. **J Med Entomol** 1999 Mar;36(2):144-8

Impact of fly control on childhood diarrhoea in Pakistan: community-randomised trial [see comments] Chavasse DC, et al. **Lancet** 1999 Jan 2;353(9146):22-5. Comment in: Lancet 1999 Mar 20;353(9157):1020.

Pyrethroid resistance in Culex quinquefasciatus from west Africa. Chandre F, et al. **Med Vet Entomol** 1998 Oct; 12(4):359-66

Comparative repellency of commercial formulations of deet, permethrin and citronellal against the mosquito Aedes aegypti, using a collagen membrane technique compared with human arm tests. Cockcroft A, et al. **Med Vet Entomol** 1998 Jul;12(3):289-94

Pyrethroid resistance mechanisms in the head louse Pediculus capitis from Israel: implications for control. Hemingway J, et al. **Med Vet Entomol** 1999 Feb;13(1):89-96

Thanaka (Limonia acidissima) and deet (di-methyl benzamide) mixture as a mosquito repellent for use by Karen women. Lindsay SW, et al. **Med Vet Entomol** 1998 Jul;12(3):295-301

Efficiency and cost of strategic use of acaricide for tick control in N'Dama cattle in The Gambia. Mattioli RC, et al. **Med Vet Entomol** 1999 Feb;13(1):33-40

Can anything be done to maintain the effectiveness of pyrethroid-impregnated bednets against malaria vectors? Curtis CF, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Oct 29;353(1376):1769-75 (46 ref.)

The control of anopheline mosquitos by the spraying of Deltamethrin on raffia curtains used in miners' huts in areas endemic for malaria. Figueiredo R, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar-Apr;40(2):107-11

Long-lasting anti-mosquito efficacy of a commercially impregnated bed net. Carnevale PJ, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):379-80

Comparison of bednets impregnated with different pyrethroids for their impact on mosquitoes and on re-infection with malaria after clearance of pre-existing infections with chlorproguanil-dapsone. Maxwell CA, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):4-11

Permethrin-treated bed nets do not have a 'mass-killing effect' on village populations of Anopheles gambiae s.l. in The Gambia. Quiñones ML, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):373-8

DDT versus deltamethrin impregnated bed nets [letter; comment] Roberts DR. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):687. Comment on: Trans R Soc Trop Med Hyg 1998 Mar-Apr;92(2):135-6.

Comparison of the effect of insecticide-treated bed nets and DDT residual spraying on the prevalence of malaria transmitted by Anopheles anthropophagus in China [see comments] Xu B, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):135-6. Comment in: Trans R Soc Trop Med Hyg 1998 Nov-Dec;92(6):687.

Insecticide-treated curtains reduce the prevalence and intensity of malaria infection in Burkina Faso. Habluetzel A, et al. **Trop Med Int Health** 1999 Aug;4(8):557-64

Evaluation of a yearly insecticidal ear tag rotation for control of pyrethroid-resistant horn flies (Diptera: Muscidae). Barros AT, et al. **Vet Parasitol** 1999 May;82(4):317-25

[Resistance of malaria vectors to pyrethrins used for impregnating mosquito nets in Benin, West Africa] Akogbéto M, et al. **Bull Soc Pathol Exot** 1999 May; 92(2):123-30 (Eng. Abstr.) **(Fre)**

[Laboratory evaluation of alpha-cypermethrin insecticide efficacy on Anopheles gambiae populations of Côte d'Ivoire resistant to permethrin and deltamethrin] Koffi AA, et al. **Bull Soc Pathol Exot** 1999 Feb;92(1):62-6 (Eng. Abstr.) **(Fre)**

[Low adherence and high cost as factors in the failure of the use of insecticide-impregnated mosquito bed nets in the control of malaria in the Brazilian Amazon] Santos JB. **Rev Soc Bras Med Trop** 1999 Jul-Aug;32(4):333-41 (Eng. Abstr.) **(Por)**

[The results of a study of the acaricidal activity of the preparation Fewry-med] Dremova VP, et al. **Med Parazitol (Mosk)** 1999 Jan-Mar;(1):40-3 (Eng. Abstr.) **(Rus)**

[The potential for using the preparations Icon and Karate in medical insect control] Putintseva LS, et al. **Med Parazitol (Mosk)** 1999 Jan-Mar;(1):43-6 (Eng. Abstr.) **(Rus)**

[A new generation of acaricide--attractant acaricidal granules] Riazantseva GA, et al. **Med Parazitol (Mosk)** 1998 Oct-Dec;(4):22-4 (Eng. Abstr.) **(Rus)**

ADMINISTRATION & DOSAGE

Knowledge and attitudes to malaria control and acceptability of permethrin impregnated sisal curtains. Karanja DM, et al. **East Afr Med J** 1999 Jan;76(1):42-6

Evaluation of lambdacyhalothrin-impregnated bednets in a malaria endemic area of India. Part 1. Implementation and acceptability of the trial. Sampath TR, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):431-6

Evaluation of lambdacyhalothrin-impregnated bednets in a malaria endemic area of India. Part 2. Impact on malaria vectors. Sampath TR, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):437-43

Evaluation of lambdacyhalothrin-impregnated bednets in a malaria endemic area of India. Part 3. Effects on malaria incidence and clinical measures. Yadav RS, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):444-50

Cyfluthrin (EW 050)-impregnated bednets in a malaria control program in Ghassreghand (Baluchistan, Iran). Zaim M, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):421-30

Bednet impregnation for Chagas disease control: a new perspective. Kroeger A, et al. **Trop Med Int Health** 1999 Mar;4(3):194-8

A new strategy for treating nets. Part 2: users' perceptions of efficacy and washing practices and their implications

for insecticide dosage. Miller JE, et al. **Trop Med Int Health** 1999 Mar;4(3):167–74
[Impact of resistance of Anopheles gambiae s.s. to permethrin and deltamethrin on the efficacy of impregnated mosquito nets] Darriet F, et al. **Med Trop (Mars)** 1998;58(4):349–54 (Eng. Abstr.) **(Fre)**
[Impact of the use of permethrin pre-impregnated mosquito nets on malaria transmission in a hyperendemic village of Senegal] Faye O, et al. **Med Trop (Mars)** 1998;58(4):355–60 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Permethrin and the Gulf War Syndrome [editorial] Plapp FW Jr. **Arch Environ Health** 1999 Sep-Oct;54(5):312
Burns due to anti-lice lotion [letter] Choudhary S. **Burns** 1999 Mar;25(2):184–5
Estrogenic potential of certain pyrethroid compounds in the MCF-7 human breast carcinoma cell line. Go V, et al. **Environ Health Perspect** 1999 Mar;107(3):173–7
Pyrethroids and the synergist piperonyl-butoxide (PBO) affect T-cells and basophils. Diel F, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S15–6
Lipid peroxidative damage on pyrethroid exposure and alterations in antioxidant status in rat erythrocytes: a possible involvement of reactive oxygen species. Kale M, et al. **Toxicol Lett** 1999 Apr 12;105(3):197–205
The influence of individual susceptibility in pyrethroid exposure. Leng G, et al. **Toxicol Lett** 1999 Jun 30; 107(1–3):123–30
Hazard identification and risk assessment of pyrethroids in the indoor environment. Pauluhn J. **Toxicol Lett** 1999 Jun 30;107(1–3):193–9
Urticaria due to airborne permethrin exposure. Fuortes L. **Vet Hum Toxicol** 1999 Apr;41(2):92–3 (16 ref.)

ANALYSIS

Determination of acrinathrin residues in honey and beeswax. Türi MS, et al. **Acta Vet Hung** 1999;47(2):173–9
Rapid preconcentration method for the determination of pyrethroid insecticides in vegetable oils and butter fat and simultaneous determination by gas chromatography-electron capture detection and gas chromatography-mass spectrometry. Ramesh A, et al. **Analyst** 1998 Sep;123(9):1799–802
Pesticide use and residues on Queensland wool [see comments] Ward MP, et al. **Aust Vet J** 1998 Nov; 76(11):739–42. Comment in: Aust Vet J 1999 Mar;77(3):192.
Influence of BHC and fenvalerate on mineralization and availability of some plant nutrients in soil. Das AC, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):371–6
Conditions of solid-phase extraction for the mixture of organophosphates and synthetic pyrethroids in human body fluids [letter] Liu J, et al. **Forensic Sci Int** 1999 Jan 11; 99(2):159–61
Multiresidue gas chromatographic method for determining synthetic pyrethroid pesticides in agricultural products: collaborative study. Pang GF, et al. **J AOAC Int** 1999 Jan-Feb;82(1):186–212
Determination of pyrethroid pesticide residues in fatty materials by solid-matrix dispersion partition, followed by mini-column size-exclusion chromatography. Di Muccio A, et al. **J Chromatogr A** 1999 Feb 12;833(1):19–34
Quantitation of pyrethrum residues in brown tree snakes. Johnston JJ, et al. **J Chromatogr Sci** 1999 Jan;37(1):5–10
A simple field test for detecting pyrethroids on impregnated nets. Verlé P, et al. **Trop Med Int Health** 1998 Oct; 3(10):833–6

ANTAGONISTS & INHIBITORS

[The evolution of resistance in a Culex quinquefasciatus strain starting from selection with the pyrethroid insecticide lambdacyhalothrin] González T, et al. **Rev Cubana Med Trop** 1996;48(3):218–23 (Eng. Abstr.) **(Spa)**
[The association of resistance to organophosphate, carbamate and pyrethroid insecticides with the mechanisms of resistance observed in Culex quinquefasciatus strains from Ciudad de La Habana province] Rodriguez MM, et al. **Rev Cubana Med Trop** 1995;47(3):154–60 (Eng. Abstr.) **(Spa)**
[The selection of a strain of Culex quinquefasciatus resistant to lambdacyhalothrin and its spectrum of cross-resistance to other insecticides] Rodriguez MM, et al. **Rev Cubana Med Trop** 1998;50(2):129–32 (Eng. Abstr.) **(Spa)**
[The effect of insecticide resistance on the demographic parameters of 3 strains of Culex quinquefasciatus (Diptera: Culicidae) under laboratory conditions] Suárez S, et al. **Rev Cubana Med Trop** 1998;50(2):124–8 (Eng. Abstr.) **(Spa)**

CHEMICAL SYNTHESIS

Lipase-catalyzed enantioselective transesterification of cyanohydrins for the synthesis of (S)-alpha-cyano-3-phenoxybenzyl acetate. Zhu Y, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:646–8

CHEMISTRY

Efficacy of mosquito coils containing 0.3% and 0.4% pyrethrins against An.gambiae sensu lato mosquitoes. Lukwa N, et al. **Cent Afr J Med** 1998 Apr;44(4):104–7
[Synthetic pyrethroids: their nomenclature and properties] Gorbacheva NA, et al. **Sud Med Ekspert** 1999 Jul-Aug; 42(4):32–7 contd **(Rus)**

METABOLISM

Selected pyrethroid insecticides stimulate glutamate uptake in brain synaptic vesicles. Vaccari A, et al. **Neuroreport** 1998 Oct 26;9(15):3519–23
A spectrophotometric assay for pyrethroid-cleaving enzymes in human serum. Butte W, et al. **Toxicol Lett** 1999 Jun 30;107(1–3):49–53

PHARMACOKINETICS

Toxicokinetics of pyrethroids in humans: consequences for biological monitoring. Kühn K, et al. **Bull Environ Contam Toxicol** 1999 Feb;62(2):101–8
Effect of natural dissolved humic material on bioavailability and acute toxicity of fenpropathrin to the grass carp, Ctenopharyngodon idellus. Wu WZ, et al. **Ecotoxicol Environ Saf** 1999 Mar;42(3):203–6

PHARMACOLOGY

Differential permethrin susceptibility of head lice sampled in the United States and Borneo. Pollack RJ, et al. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):969–73
Estrogenic and antiprogestagenic activities of pyrethroid insecticides. Garey J, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):855–9
Status of pyrethroid resistance in Anopheles gambiae sensu lato. Chandre F, et al. **Bull World Health Organ** 1999; 77(3):230–4
Neuronal survival activity of s100betabeta is enhanced by calcineurin inhibitors and requires activation of NF-kappaB. Alexanian AR, et al. **FASEB J** 1999 Sep; 13(12):1611–20
Relative efficacy of synthetic pyrethroid-impregnated fabrics against mosquitoes under laboratory conditions. Ansari MA, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):406–9
Effect of bioresmethrin on mitochondrial ultrastructure and oxidative phosphorylation in the flight muscles of Chrysomya albiceps (Wied.) (Diptera: Calliphoridae). Yousef HA, et al. **J Egypt Soc Parasitol** 1998 Dec; 28(3):645–54
Altered properties of neuronal sodium channels associated with genetic resistance to pyrethroids. Lee D, et al. **Mol Pharmacol** 1999 Mar;55(3):584–93
Effects of fenvalerate on the development of olfactory perception in a beetle. Wegerhoff R, et al. **Neuroreport** 1998 Oct 5;9(14):3241–5
Joint actions of deltamethrin and azole fungicides on honey bee thermoregulation [published erratum appears in Neurosci Lett 1998 Oct 9;255(1):61] Vandame R, et al. **Neurosci Lett** 1998 Jul 17;251(1):57–60

POISONING

Toxicosis in cats erroneously treated with 45 to 65% permethrin products. Meyer EK. **J Am Vet Med Assoc** 1999 Jul 15;215(2):198–203
Chronic sequelae and irreversible injuries following acute pyrethroid intoxication. Müller-Mohnssen H. **Toxicol Lett** 1999 Jun 30;107(1–3):161–76

THERAPEUTIC USE

Efficacy of zeta-cypermethrin as pour-on or spray formulations for the control of buffalo fly (Haematobia irritans exigua) in cattle. Rothwell JT, et al. **Aust Vet J** 1998 Sep;76(9):610–2
Therapeutic efficacy of zeta-cypermethrin pour-on for the treatment of biting and sucking lice in cattle under field conditions. Rothwell JT, et al. **Aust Vet J** 1999 Apr; 77(4):255–8
Efficacy of flumethrin pour-on against Damalinia caprae of goats (Capra hircus). Garg SK, et al. **Trop Anim Health Prod** 1998 Oct;30(5):273–8
Activity of a deltamethrin shampoo against Ctenocephalides felis and Rhipicephalus sanguineus in dogs. Franc M, et al. **Vet Parasitol** 1999 Mar 15;81(4):341–6
Cypermethrin pour-on synergized with piperonyl butoxide: effects on Haematobia irritans (Diptera: Muscidae) natural populations resistant to cypermethrin. Guglielmone AA, et al. **Vet Parasitol** 1999 Jun 1;83(1):65–72

TOXICITY

Toxicity of dermally applied alpha-cypermethrin in rats. Luty S, et al. **Ann Agric Environ Med** 1998;5(2):109–16
Altered growth and metabolism of an estuarine shrimp (Palaemonetes pugio) during and after metamorphosis onto fenvalerate-laden sediment. McKenney CL Jr, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):464–71
Deltamethrin induced physiological changes in freshwater cat fish Heteropneustes fossilis. Kumar S, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):254–8
Acute toxicity of permethrin/piperonyl butoxide on hybrid striped bass. Rebach S. **Bull Environ Contam Toxicol** 1999 Apr;62(4):448–54
Short- and long-term effects of the pyrethroid insecticide fenvalerate on an invertebrate pond community. Woin P. **Ecotoxicol Environ Saf** 1998 Oct;41(2):137–56
Effect of natural dissolved humic material on bioavailability and acute toxicity of fenpropathrin to the grass carp, Ctenopharyngodon idellus. Wu WZ, et al. **Ecotoxicol Environ Saf** 1999 Mar;42(3):203–6
Organophosphate and pyrethroid susceptibilities of Culex salinarius adults from Texas and New Jersey. Sukontason K, et al. **J Am Mosq Control Assoc** 1998 Dec;14(4):477–80
In vitro and in vivo evaluations of a strain of Boophilus microplus (Acari: Ixodidae) selected for resistance to permethrin. Davey RB, et al. **J Med Entomol** 1998 Nov; 35(6):1013–9
Screening of Haematobia irritans irritans (Diptera: Muscidae) populations for pyrethroid resistance-associated sodium channel gene mutations by using a polymerase chain reaction assay. Guerrero FD, et al. **J Med Entomol** 1998 Sep;35(5):710–5
The achievement and prospect of toxicology in China. He XW, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:107–9
Genotoxic evaluation of the pyrethroid lambda-cyhalothrin using the micronucleus test in erythrocytes of the fish Cheirodon interruptus interruptus. Campana MA, et al. **Mutat Res** 1999 Jan 13;438(2):155–61
Effects of cypermethrin on the electroencephalographic activity of the rat: a model of chemically induced seizures. Condés-Lara M, et al. **Neurotoxicol Teratol** 1999 May-Jun; 21(3):293–8
Action of the pyrethroid insecticide cypermethrin on rat brain IIa sodium channels expressed in xenopus oocytes. Smith TJ, et al. **Neurotoxicology** 1998 Dec;19(6):823–32
Induction of mitotic cell division distrubances and mitotic arrest by pyrethroids in V79 cell cultures. Hadnagy W, et al. **Toxicol Lett** 1999 Jun 30;107(1–3):81–7
Assessment of pyrethroid-induced paraesthesias: comparison of animal model and human data. Pauluhn J, et al. **Toxicol Lett** 1998 Aug;96–97:361–8
Deltamethrin-induced testicular apoptosis in rats: the protective effect of nitric oxide synthase inhibitor. El-Gohary M, et al. **Toxicology** 1999 Jan 1;132(1):1–8
Comparison of detection sensitivity of immuno- and genotoxicological effects of subacute cypermethrin and permethrin exposure in rats. Institóris L, et al. **Toxicology** 1999 Sep 10;137(1):47–55
In vitro genotoxic effects of the insecticide deltamethrin in human peripheral blood leukocytes: DNA damage ('comet' assay) in relation to the induction of sister-chromatid exchanges and micronuclei. Villarini M, et al. **Toxicology** 1998 Sep 15;130(2–3):129–39
[Effects of deltamethrin on the binding of glutamate receptor to rat cerebral cortical synaptosomal membrane] Zhao X, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 May; 31(3):157–9 (Eng. Abstr.) **(Chi)**
[The carcinogenic activity of the pesticide Kreokhin (Leptocide)] Pylev LN, et al. **Gig Sanit** 1999 Mar-Apr; (2):54–7 **(Rus)**

PYRETHRUM

see related
PYRETHRINS

ADVERSE EFFECTS

Botanical briefs: chrysanthemums--dendranthema spp. McGovern TW, et al. **Cutis** 1999 Jun;63(6):319–20

CHEMISTRY

Structural analogues of cumambrin B from the flower of Chrysanthemum boreale. Jang DS, et al. **Arch Pharm Res** 1998 Oct;21(5):591–4
Medicinal flowers. I. Aldose reductase inhibitors and three new eudesmane-type sesquiterpenes, kikkanols A, B, and C, from the flowers of Chrysanthemum indicum L. Yoshikawa M, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar; 47(3):340–5

PYREXIA see **FEVER**

PYRIDAZINES

ADMINISTRATION & DOSAGE

Effects of long-term treatment with pimobendan on neurohumoral factors in patients with non-ischemic chronic moderate heart failure. Sasaki T, et al. **J Cardiol** 1999 Jun;33(6):317–25
[Effects of low dose pimobendan in patients with cor-pulmonale] Nakatani M, et al. **J Cardiol** 1999 Aug; 34(2):79–83 (Eng. Abstr.) **(Jpn)**

CHEMICAL SYNTHESIS

Synthesis and pharmacological screening of pyrazolo[3,4-c]pyridazine derivatives. Zabska R, et al. **Acta Pol Pharm** 1998 Jul-Aug;55(4):305–10
Imidazo[1,5-b]pyridazine-d4T conjugates: synthesis and anti-human immunodeficiency virus evaluation. Renoud-Grappin M, et al. **Antivir Chem Chemother** 1998 May;9(3):205–23
Heterocyclic synthesis with nitriles: new routes for synthesis of pyridazines, pyridines and their fused derivatives. Negm AM, et al. **Arch Pharm Res** 1994 Dec;17(6):411–4
Isoxazolo-[3,4-d]-pyridazin-7-(6H)-ones and their corresponding 4,5-disubstituted-3-(2H)-pyridazinone

analogues as new substrates for alpha1-adrenoceptor selective antagonists: synthesis, modeling, and binding studies. Montesano F, et al. **Bioorg Med Chem** 1998 Jul; 6(7):925–35

Synthesis and anticonvulsant properties of triazolo- and imidazopyridazinyl carboxamides and carboxylic acids. Moreau S, et al. **Bioorg Med Chem** 1998 Jul;6(7):983–91

Synthesis and evaluation of 1,4,5,6-tetrahydropyridazine derivatives as influenza neuraminidase inhibitors. Zhang L, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1751–6

Investigations on the synthesis and properties of N-phenyl derivatives of 1,4-dioxo(1,4,5-trioxo)-1,2,3,4-tetra(1,2,3,4,5,6-hexa) hydropyrido-[3,4-d]pyridazines and allied compounds. Sladowska H, et al. **Farmaco** 1998 Jul 30;53(7):468–74

Investigations on the synthesis and properties of 4-aminosubstituted 2,6,7-trimethyl-1,5-dioxo-1,2,5,6-tetrahydropyrido[3,4-d]pyridazines. Sladowska H, et al. **Farmaco** 1998 Jul 30; 53(7):475–9

Novel adrenoceptor antagonists with a tricyclic pyrrolodipyridazine skeleton. Barlocco D, et al. **J Med Chem** 1999 Jan 14;42(1):173–7

Aminopyridazines as acetylcholinesterase inhibitors. Contreras JM, et al. **J Med Chem** 1999 Feb 25;42(4):730–41

Isoxazolo-[3,4-d]-pyridazin-7-(6H)-one as a potential substrate for new aldose reductase inhibitors. Costantino L, et al. **J Med Chem** 1999 Jun 3;42(11):1894–900

gamma-Aminobutyrate-A receptor modulation by 3-aryl-1-(arylsulfonyl)- 1,4,5,6-tetrahydropyridazines. Rybczynski PJ, et al. **J Med Chem** 1999 Jul 1;42(13):2403–8

Synthesis and antimicrobial activity of pyrazolo[3',4':4,3]pyrido[6,5-c]pyridazine and thieno[2,3-c]pyridazine derivatives. el-Dean AM, et al. **Pharmazie** 1998 Dec;53(12):839–43

Synthesis and biological activity of some 4-amino-3-cinnolinecarboxylic acid derivatives. Part 5: Pyrimido[5,4-c]cinnolines and triazepino[7,6-c]cinnoline. Stańczak A, et al. **Pharmazie** 1998 Dec;53(12):834–8

CHEMISTRY

Quantitative structure-activity relationship studies on some nonbenzodiazepine series of compounds acting at the benzodiazepine receptor. Gupta SP, et al. **Bioorg Med Chem** 1998 Nov;6(11):2213–8

Reduction of norflurazon leaching in a sandy soil by adjuvants. Chandran RS, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):315–23

Investigations on the synthesis and properties of N-phenyl derivatives of 1,4-dioxo(1,4,5-trioxo)-1,2,3,4-tetra(1,2,3,4,5,6-hexa) hydropyrido-[3,4-d]pyridazines and allied compounds. Sladowska H, et al. **Farmaco** 1998 Jul 30;53(7):468–74

PHARMACOKINETICS

Investigation on SCH00013, a novel cardiotonic agent with Ca++ sensitizing action. 2nd communication: in vivo cardiovascular effects and bioavailability in dogs. Yoshimura A, et al. **Arzneimittelforschung** 1999 May; 49(5):407–11

The CYP3A4 inhibitor intraconazole does not affect the pharmacokinetics of a new calcium-sensitizing drug levosimendan. Antila S, et al. **Int J Clin Pharmacol Ther** 1998 Aug;36(8):446–9

Integrated pharmacokinetics and pharmacodynamics of the novel calcium sensitizer levosimendan as assessed by systolic time intervals. Sundberg S, et al. **Int J Clin Pharmacol Ther** 1998 Dec;36(12):629–35

PHARMACOLOGY

Beneficial effect of myocardial angiogenesis on cardiac remodeling process by amlodipine and MCI-154. Kumamoto H, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1117–23

Investigation on SCH00013, a novel cardiotonic agent with Ca++ sensitizing action. 1st communication: phosphodiesterase III inhibitory effect and class III antiarrhythmic effect in guinea-pig heart. Hino M, et al. **Arzneimittelforschung** 1999 May;49(5):398–406

Investigation on SCH00013, a novel cardiotonic agent with Ca++ sensitizing action. 3rd communication: stereoselectivity of the enantiomers in cardiovascular effects. Sugawara H, et al. **Arzneimittelforschung** 1999 May; 49(5):412–9

Investigation on SCH00013, a novel cardiotonic agent with Ca++ sensitizing action. 2nd communication: in vivo cardiovascular effects and bioavailability in dogs. Yoshimura A, et al. **Arzneimittelforschung** 1999 May; 49(5):407–11

A novel series of non-nucleoside inhibitors of inosine 5'-monophosphate dehydrogenase with immunosuppressive activity. Franklin TJ, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):867–76

Synthesis and evaluation of 1,4,5,6-tetrahydropyridazine derivatives as influenza neuraminidase inhibitors. Zhang L, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1751–6

Pimobendan has a potent venodilating action in patients with congestive heart failure [letter] Matsumoto A, et al. **Cardiovasc Drugs Ther** 1998 Dec;12(6):595–7

Differential induction of rat hepatic microsomal epoxide hydrolase and rGSTA2 by diazines: the role of cytochrome P450 2E1-mediated metabolic activation. Cho MK, et al. **Chem Biol Interact** 1998 Nov 27;116(3):229–45

Inhibition of fibroblast-like cell proliferation by interleukin-1 blockers, CK-119 and CK-122. Bo X, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):304–8

Effects of MCI-154 on calcium sensitivity of contractile system and calcium release from sarcoplasmic reticulum in saponin-skinned rat myocardium. Huang Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):234–7

Influence of the novel inotropic agent levosimendan on isometric tension and calcium cycling in failing human myocardium. Hasenfuss G, et al. **Circulation** 1998 Nov 17; 98(20):2141–7

Cardiovascular effect and simultaneous pharmacokinetic and pharmacodynamic modeling of pimobendan in healthy normal subjects. Chu KM, et al. **Drug Metab Dispos** 1999 Jun;27(6):701–9

Calcium sensitization as new principle of inotropic therapy in end-stage heart failure? Zimmermann N, et al. **Eur J Cardiothorac Surg** 1998 Jul;14(1):70–5

Synthesis and antibacterial activity of 2-aryl-2,5-dihydro-3(3H)-oxo-pyridazino[4,3-b]indole-4-carboxylic acids. Palluotto F, et al. **Farmaco** 1999 Mar 31; 54(3):191–4

EGIS-7229, the new combined class III antiarrhythmic agent: lack of EAD inducing effect. Bányász T, et al. **Gen Pharmacol** 1999 Mar;32(3):329–33

Integrated pharmacokinetics and pharmacodynamics of the novel calcium sensitizer levosimendan as assessed by systolic time intervals. Sundberg S, et al. **Int J Clin Pharmacol Ther** 1998 Dec;36(12):629–35

In vitro effect of amezinium on the rabbit urinary bladder: muscle strip and whole bladder evaluation. Ishigooka M, et al. **Int Urol Nephrol** 1999;31(2):181–8

Levosimendan enhances cardiac performance after cardiopulmonary bypass: a prospective, randomized placebo-controlled trial. Nijhawan N, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):219–28

Calcium sensitivity and the effect of the calcium sensitizing drug pimobendan in the alcoholic isolated rat atrium. Piano MR, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):237–42

Effects of levosimendan on myocardial contractility and Ca2+ transients in aequorin-loaded right-ventricular papillary muscles and indo-1-loaded single ventricular cardiomyocytes of the rabbit. Sato S, et al. **J Mol Cell Cardiol** 1998 Jun;30(6):1115–28

Levosimendan, a calcium sensitizer in cardiac muscle, induces relaxation in coronary smooth muscle through calcium desensitization. Bowman P, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):316–25

Levosimendan: effects of a calcium sensitizer on function and arrhythmias and cyclic nucleotide levels during ischemia/reperfusion in the Langendorff-perfused guinea pig heart. Du Toit EF, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):505–14

A novel cardiotonic agent SCH00013 acts as a Ca++ sensitizer with no chronotropic activity in mammalian cardiac muscle. Sugawara H, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):214–22

Effect of amezinium metilsulfate on the finger skin vasoconstrictor response to cold stimulation and venoconstrictor response to noradrenaline. Harada K, et al. **Jpn Circ J** 1998 Nov;62(11):824–8

Antinociceptive activity of a 3(2H)-pyridazinone derivative in mice. Pieretti S, et al. **Life Sci** 1999;65(13):1381–94

Differences in anxiolytic-like profile of two novel nonbenzodiazepine BZ (omega) receptor agonists on defensive behaviors of mice. Griebel G, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):689–94

THERAPEUTIC USE

Investigation on SCH00013, a novel cardiotonic agent with Ca++ sensitizing action. 4th communication: influence on experimentally induced ventricular arrhythmia in dogs. Yoshimura A, et al. **Arzneimittelforschung** 1999 May; 49(5):420–6

Pimobendan has a potent venodilating action in patients with congestive heart failure [letter] Matsumoto A, et al. **Cardiovasc Drugs Ther** 1998 Dec;12(6):595–7

MCI-154, a Ca2+ sensitizer, increases survival in cardiomyopathic hamsters. Kawasumi H, et al. **Eur J Pharmacol** 1999 May 14;372(2):175–8

Pimobendan inhibits the production of proinflammatory cytokines and gene expression of inducible nitric oxide synthase in a murine model of viral myocarditis. Iwasaki A, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1400–7

TOXICITY

The organochlorine herbicide chloridazon interacts with cell membranes. Suwalsky M, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jul;120(1):29–35

Investigations on the synthesis and properties of 4-aminosubstituted 2,6,7-trimethyl-1,5-dioxo-1,2,5,6-tetrahydropyrido[3,4-d]pyridazines. Sladowska H, et al. **Farmaco** 1998 Jul 30; 53(7):475–9

PYRIDINE ALDOXIME METHYL COMPOUNDS see **PRALIDOXIME COMPOUNDS**

PYRIDINE NUCLEOTIDE TRANSHYDROGENASE see **NADP TRANSHYDROGENASE**

PYRIDINES

Ricin A immunotoxins of IgG and Fab of anti-CALLA monoclonal antibody: effect of water soluble long-chain SPDP on conjugate yield, immunoselectivity and cytotoxicity. Woo BH, et al. **Arch Pharm Res** 1994 Dec; 17(6):452–7

Zolpidem self-injection with concurrent physical dependence under conditions of long-term continuous availability in baboons. Weerts EM, et al. **Behav Pharmacol** 1998 May; 9(3):285–97

A novel enantioselective synthesis of (S)-(-)- and (R)-(+)-nornicotine via alkylation of a chiral 2-hydroxy-3-pinanone ketimine template. Swango JH, et al. **Chirality** 1999;11(4):316–8

2-Fluoro-4-pyridinylmethyl analogues of linopirdine as orally active acetylcholine release-enhancing agents with good efficacy and duration of action. Earl RA, et al. **J Med Chem** 1998 Nov 5;41(23):4615–22

[Unsatisfied craving: zolpidem (Stilnox) dependence syndrome] Hofmann M, et al. **Psychiatr Prax** 1998 Nov; 25(6):313 **(Ger)**

ADMINISTRATION & DOSAGE

Topoisomerase I/II inhibitor intoplicine administered as a 24 h infusion: phase I and pharmacologic study. van Gijn R, et al. **Anticancer Drugs** 1999 Jan;10(1):17–23

Late phase II study of novel oral fluoropyrimidine anticancer drug S-1 (1 M tegafur-0.4 M gimestat-1 M otastat potassium) in advanced gastric cancer patients. Sakata Y, et al. **Eur J Cancer** 1998 Oct;34(11):1715–20

Comparison of electrophysiologic effects of intravenous E-4031 and MS-551, novel class III antiarrhythmic agents, in patients with ventricular tachyarrhythmias. Naitoh N, et al. **Jpn Heart J** 1998 Jul;39(4):457–67

Colon-specific delivery of R68070, a new thromboxane synthase inhibitor, using chitosan capsules: therapeutic effects against 2,4,6-trinitrobenzene sulfonic acid-induced ulcerative colitis in rats. Tozaki H, et al. **Life Sci** 1999; 64(13):1155–62

Onset of the effects of the 5-HT1A antagonist, WAY-100635, alone, and in combination with paroxetine, on olfactory bulbectomy and 8-OH-DPAT-induced changes in the rat. Cryan JF, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):333–8

Effects of FR167653 on pulmonary ischemia-reperfusion injury: administration timing. Takeyoshi I, et al. **Transplant Proc** 1999 Aug;31(5):1935–6

ADVERSE EFFECTS

Rhabdomyolysis and renal failure associated with cerivastatin-gemfibrozil combination therapy [see comments] Pogson GW, et al. **Am J Cardiol** 1999 Apr 1; 83(7):1146. Comment in: Am J Cardiol 1999 Aug 15;84(4):497.

Hepatotoxicity associated with zolpidem treatment. Karsenti D, et al. **BMJ** 1999 May 1;318(7192):1179

Phase I and pharmacological study of CI-980, a novel synthetic antimicrotubule agent. Rowinsky EK, et al. **Clin Cancer Res** 1997 Mar;3(3):401–7

4-Vinylpyridine-induced dermatitis in a laboratory worker. Bergendorff O, et al. **Contact Dermatitis** 1999 May; 40(5):280–1

Pustular psoriasis and hepatotoxicity associated with use of Skin Cap spray [letter] Tan JK. **Dermatol Online J** 1997 Dec;3(2):11d

Influence of age on the safety, tolerability, and pharmacokinetics of the novel HMG-CoA reductase inhibitor cerivastatin in healthy male volunteers. Mazzu A, et al. **J Clin Pharmacol** 1998 Aug;38(8):715–9

The safety and tolerability of zolpidem--an update. Darcourt G, et al. **J Psychopharmacol** 1999;13(1):81–93 (150 ref.)

Zolpidem tartrate and somnambulism. Harazin J, et al. **Mil Med** 1999 Sep;164(9):669–70

Tolerance to acute anxiolysis but no withdrawal anxiogenesis in mice treated chronically with 5-HT1A receptor antagonist, WAY 100635. Cao BJ, et al. **Neurosci Biobehav Rev** 1998;23(2):247–57

Acute behavioral effects and abuse potential of trazodone, zolpidem and triazolam in humans. Rush CR, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):220–33

[Safety profile of zolpidem: two studies of 3805 patients by Swiss practitioners] Ganzoni E, et al. **Schweiz Rundsch Med Prax** 1999 Jun 24;88(25-26):1120–7 (Eng. Abstr.) **(Ger)**

ANALYSIS

Chemometric analysis of high performance liquid chromatography-diode array detection-electrospray mass spectrometry of 2- and 3-hydroxypyridine. Dunkerley S, et al. **Analyst** 1998 Oct;123(10):2021–33

4-Hydroxy-1-(3-pyridyl)-1-butanone-hemoglobin adducts as biomarkers of exposure to tobacco smoke: validation of a method to be used in multicenter studies. Atawodi SE, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Sep; 7(9):817–21

FJ5002: a potent telomerase inhibitor identified by exploiting the disease-oriented screening program with COMPARE

analysis. Naasani I, et al. **Cancer Res** 1999 Aug 15; 59(16):4004–11

Skin Cap analysis in Spain [letter] Sanmartin O. **Dermatol Online J** 1997 Dec;3(2):11g

Confirmation of azaperone and its metabolically reduced form, azaperol, in swine liver by gas chromatography/mass spectrometry. Adam LA. **J AOAC Int** 1999 Jul–Aug; 82(4):815–24

Determination of pseudoephedrine hydrochloride and carbinoxamine maleate in combination drug formulation by liquid chromatography. Mansour AM. **J AOAC Int** 1998 Sep–Oct;81(5):958–62

High-performance capillary electrophoresis determination of pyrithione in antidandruff preparations and shampoos. Peña-Méndez EM, et al. **J Capillary Electrophor** 1997 Nov–Dec;4(6):269–72

Determination of the antifouling agent zinc pyrithione in water samples by copper chelate formation and high-performance liquid chromatography–atmospheric pressure chemical ionisation mass spectrometry. Thomas KV. **J Chromatogr A** 1999 Feb 12;833(1):105–9

Gradient ion-pair high-performance liquid chromatographic method for analysis of 3-hydroxypyridin-4-one iron chelators. Liu DY, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 25;730(1):135–9

High performance liquid chromatographic analysis of a novel aminoalkylpyridine anticonvulsant 2-(4-chlorophenyl)amino-2-(4-pyridyl)ethane. Lin G, et al. **J Pharm Biomed Anal** 1998 Nov;18(3):403–9

Analysis of ceftazidime and related compounds by micellar electrokinetic chromatography. Porrà R, et al. **J Pharm Biomed Anal** 1998 Oct;18(1–2):241–8

ANTAGONISTS & INHIBITORS

Zolpidem 10 mg given at daytime is not antagonized by 300 mg caffeine in man. Mattila MJ, et al. **Eur J Clin Pharmacol** 1998 Jul;54(5):421–5

BLOOD

Plasma pyridoxal phosphate and pyridoxic acid and their relationship to plasma homocysteine in a representative sample of British men and women aged 65 years and over [see comments] Bates CJ, et al. **Br J Nutr** 1999 Mar; 81(3):191–201. Comment in: Br J Nutr 1999 Mar;81(3):175–6.

Determination of an ultrashort-acting antihypertensive dihydropyridine, clevidipine, in blood using capillary gas chromatography–mass spectrometry and of the primary metabolite using liquid chromatography and fluorescence detection. Fakt C, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):211–9

High-performance liquid chromatographic analysis of the anti-tumor agent SCH 66336 in cynomolgus monkey plasma and evaluation of its chiral inversion in animals. Kim H, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 14;728(1):133–41

Hypoxanthine-guanine phosphoribosyltransferase deficiency and erythrocyte synthesis of pyridine coenzymes. Micheli V, et al. **Life Sci** 1999;64(26):2479–87

CHEMICAL SYNTHESIS

Synthetic analogues of netropsin and distamycin—synthesis of a new pyridine and carbocyclic analogues of the pyrrolecarboxamide antitumour antibiotics. Bartulewicz D, et al. **Acta Biochim Pol** 1998;45(1):41–57

Synthesis and antiproliferative activity of some N-sulphonated-2-substituted benzimidazoles and imidazo[4,5-b]pyridines. Garuti L, et al. **Anticancer Drug Des** 1998 Dec;13(8):969–80

Synthesis and antimicrobial evaluation of new pyridine, thienopyridine and pyridothienopyrazole derivatives. Attaby FA, et al. **Arch Pharm Res** 1999 Apr;22(2):194–201

Heterocyclic synthesis with nitriles: new routes for synthesis of pyridazines, pyridines and their fused derivatives. Negm AM, et al. **Arch Pharm Res** 1994 Dec;17(6):411–4

3-Cyano-4,6-disubstituted-2(1H)-imino or oxopyridines: new antineoplastic agents with high selectivity towards leukemia cell lines. Abadi AH, et al. **Arch Pharm (Weinheim)** 1998 Oct;331(10):319–24

Research on heterocyclic compounds, Part 40. 2-Phenylimidazo[1,2-a]pyridine-3-carboxylic acid derivatives: synthesis and antiinflammatory activity. Di Chiacchio A, et al. **Arch Pharm (Weinheim)** 1998 Sep; 331(9):273–8

Synthesis and analgesic activity of some condensed analogs of anpirtoline. Rádl S, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):208–12

Synthesis and pharmacological evaluation of new (indol-3-yl)alkylamides and alkylamines acting as potential serotonin uptake inhibitors. Fouchard F, et al. **Arzneimittelforschung** 1999 Feb;49(2):96–105

Convenient polymer-supported synthetic route to heterobifunctional polyethylene glycols. Bettinger T, et al. **Bioconjug Chem** 1998 Nov–Dec;9(6):842–6

Synthesis and structure-activity data of some new epibatidine analogues. Seerden JP, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2103–10

Analogs of 4-(3-bromo-8-methyl-10-methoxy-6,11-dihydro-5H-benzo[5,6]-cyclo hepta[1,2-b]pyridin-11-yl)-1-(4-pyridinylacetyl)piperidine N-oxide as inhibitors of farnesyl protein transferase. Afonso A, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1875–80

A dipyrido [2,3-b:3',2'-f]azepine analog of the HIV-1 reverse transcriptase inhibitor nevirapine. Dyatkin AB, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2169–72

2-Pyridinyl-3-(4-methylsulfonyl)phenylpyridines: selective and orally active cyclooxygenase-2 inhibitors. Friesen RW, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2777–82

Short synthesis and anti-rhinoviral activity of imidazo[1,2-a]pyridines: the effect of acyl groups at 3-position. Hamdouchi C, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1391–4

Structure-activity studies related to ABT-594, a potent nonopioid analgesic agent: effect of pyridine and azetidine ring substitutions on nicotinic acetylcholine receptor binding affinity and analgesic activity in mice. Holladay MW, et al. **Bioorg Med Chem Lett** 1998 Oct 6; 8(19):2797–802

A straightforward synthetic approach for roxindole. Lange JH, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1055–6

Synthesis and biological evaluation of a water soluble phosphate prodrug of 3-aminopyridine-2-carboxaldehyde thiosemicarbazone (3-AP). Li J, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3159–64

Synthesis and structure-activity relationships of pyridine-modified analogs of 3-[2-((S)-pyrrolidinyl)methoxy]pyridine, A-84543, a potent nicotinic acetylcholine receptor agonist. Lin NH, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):249–54

Rational design of N-[2-(2,5-dimethoxyphenylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea (HI-236) as a potent non-nucleoside inhibitor of drug-resistant human immunodeficiency virus. Mao C, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1593–8

Potential anxiolytic agents. 3. Novel A-ring modified pyrido[1,2-a]benzimidazoles. Maryanoff BE, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1547–52

Synthesis of novel substituted pyridines as inhibitors of endothelin converting enzyme-1 (ECE-1). Massa MA, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2117–22

Facile synthesis of high affinity styrylpyridine systems as inherently fluorescent ligands for the estrogen receptor. Meyers MJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15; 8(24):3589–94

Solid-phase synthesis of N-substituted amidinophenoxy pyridines as factor XA inhibitors. Mohan R, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1877–82

Design and synthesis of a new type of non steroidal human aromatase inhibitors. Sonnet P, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1041–4

Conformationally restricted analogues of nicotine and anabasine. Vernier JM, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2173–8

2-Substituted-3-oxoisothiazolo[5,4-b]pyridines as potential central nervous system and antimycobacterial agents. Malinka W, et al. **Farmaco** 1998 Jul 30;53(7):504–12

Synthesis, physicochemical and anticonvulsant properties of new N-pyridyl derivatives of 3-phenyl- and 3,3-diphenyl-succinimides. Obniska J, et al. **Farmaco** 1999 Jul 30;54(7):423–9

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 2. Overcoming the species difference between guinea pig and man. Abe Y, et al. **J Med Chem** 1998 Oct 8;41(21):4053–61

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 3. Discovering bioisosteres of the imidazo[1,2-a] pyridine moiety. Abe Y, et al. **J Med Chem** 1998 Oct 8;41(21):4062–79

Discovery of 6-oxo-3-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-1(6H)-pyridazinebutanoic acid (FK 838): a novel non-xanthine adenosine A1 receptor antagonist with potent diuretic activity. Akahane A, et al. **J Med Chem** 1999 Mar 11; 42(5):779–83

Potent and selective non-cysteine-containing inhibitors of protein farnesyltransferase. Augeri DJ, et al. **J Med Chem** 1998 Oct 22;41(22):4288–300

Design, synthesis, and evaluation of conformationally constrained tongs, new inhibitors of HIV-1 protease dimerization. Bouras A, et al. **J Med Chem** 1999 Mar 25; 42(6):957–62

Synthesis and nicotinic acetylcholine receptor in vivo binding properties of 2-fluoro-3-[2(S)-2-azetidinylmethoxy]pyridine: a new positron emission tomography ligand for nicotinic receptors. Doll F, et al. **J Med Chem** 1999 Jun 17; 42(12):2251–9

Synthesis of imidazo[1,2-a]pyridines as antiviral agents. Gueiffier A, et al. **J Med Chem** 1998 Dec 3;41(25):5108–12

2-Amino-3-substituted-6-[(E)-1-phenyl-2-(N-methylcarbamoyl)vinyl]imid azo[1,2-a]pyridines as a novel class of inhibitors of human rhinovirus: stereospecific synthesis and antiviral activity. Hamdouchi C, et al. **J Med Chem** 1999 Jan 14;42(1):50–9

Novel cyclic compounds as potent phosphodiesterase 4 inhibitors. He W, et al. **J Med Chem** 1998 Oct 22; 41(22):4216–23

Corticotropin-releasing hormone receptor antagonists: framework design and synthesis guided by ligand conformational studies. Hodge CN, et al. **J Med Chem** 1999 Mar 11;42(5):819–32

Synthesis and evaluation of N-[11C]methylated analogues of epibatidine as tracers for positron emission tomographic studies of nicotinic acetylcholine receptors. Horti AG, et al. **J Med Chem** 1998 Oct 22;41(22):4199–206

Tetrahydrobenzindoles: selective antagonists of the 5-HT7 receptor. Kikuchi C, et al. **J Med Chem** 1999 Feb 25; 42(4):533–5

Development of fluorine-18-labeled 5-HT1A antagonists. Lang L, et al. **J Med Chem** 1999 May 6;42(9):1576–86

Novel and potent 6-chloro-3-pyridinyl ligands for the alpha4beta2 neuronal nicotinic acetylcholine receptor. Latli B, et al. **J Med Chem** 1999 Jun 17;42(12):2227–34

Novel euglycemic and hypolipidemic agents. 4. Pyridyl- and quinolinyl-containing thiazolidinediones. Lohray BB, et al. **J Med Chem** 1999 Jul 15;42(14):2569–81

Cytotoxicity of (2,2':6',2''-terpyridine)platinum(II) complexes to Leishmania donovani, Trypanosoma cruzi, and Trypanosoma brucei. Lowe G, et al. **J Med Chem** 1999 Mar 25;42(6):999–1006

Cytotoxicity of 2,2':6',2'' -terpyridineplatinum(II) complexes against human ovarian carcinoma. Lowe G, et al. **J Med Chem** 1999 Aug 12;42(16):3167–74

New N-(pyridin-4-yl)-(indol-3-yl)acetamides and propanamides as antiallergic agents. Menciu C, et al. **J Med Chem** 1999 Feb 25;42(4):638–48

Bisquaternary ligands of the common allosteric site of M2 acetylcholine receptors: search for the minimum essential distances between the pharmacophoric elements. Nassif-Makki T, et al. **J Med Chem** 1999 Mar 11; 42(5):849–58

(+)-4-[2-[4-(8-Chloro-3,10-dibromo-6,11-dihydro-5H-benzo[5, 6]cyclohepta[1,2-b]-pyridin-11(R)-yl)-1-piperidinyl]-2-oxo-ethyl]-1-piperidinecarboxamid e (SCH-66336): a very potent farnesyl protein transferase inhibitor as a novel antitumor agent. Njoroge FG, et al. **J Med Chem** 1998 Nov 19; 41(24):4890–902

Design, synthesis, and activity of 2,6-diphenoxypyridine-derived factor Xa inhibitors. Phillips G, et al. **J Med Chem** 1999 May 20;42(10):1749–56

Carbonic anhydrase inhibitors. Synthesis of water-soluble, topically effective, intraocular pressure-lowering aromatic/heterocyclic sulfonamides containing cationic or anionic moieties: is the tail more important than the ring? Scozzafava A, et al. **J Med Chem** 1999 Jul 15; 42(14):2641–50

Guanidine derivatives as combined thromboxane A2 receptor antagonists and synthase inhibitors. Soyka R, et al. **J Med Chem** 1999 Apr 8;42(7):1235–49

Bis-cationic heteroaromatics as macrofilaricides: synthesis of bis-amidine and bis-guanylhydrazone derivatives of substituted imidazo[1,2-a]pyridines. Sundberg RJ, et al. **J Med Chem** 1998 Oct 22;41(22):4317–28

Synthesis and histone deacetylase inhibitory activity of new benzamide derivatives. Suzuki T, et al. **J Med Chem** 1999 Jul 29;42(15):3001–3

Inhibitors of acyl-CoA:cholesterol O-acyltransferase. 3. Discovery of a novel series of N-alkyl-N-[(fluorophenoxy)benzyl]-N'-arylureas with weak toxicological effects on adrenal glands. Tanaka A, et al. **J Med Chem** 1998 Oct 22;41(22):4408–20

Identification of pharmacokinetically stable 3, 10-dibromo-8-chlorobenzocycloheptapyridine farnesyl protein transferase inhibitors with potent enzyme and cellular activities. Taveras AG, et al. **J Med Chem** 1999 Jul 15;42(14):2651–61

Novel, potent, and selective phosphodiesterase-4 inhibitors as antiasthmatic agents: synthesis and biological activities of a series of 1-pyridylnaphthalene derivatives. Ukita T, et al. **J Med Chem** 1999 Mar 25;42(6):1088–99

Novel derivatives of 2-pyridinemethylamine as selective, potent, and orally active agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1999 May 6;42(9):1648–60

Design and synthesis of a series of 6-substituted-2-pyridinylmethylamine derivatives as novel, high-affinity, selective agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1998 Dec 3;41(25):5070–83

Synthesis and voltage-clamp studies of methyl 1,4-dihydro-2, 6-dimethyl-5-nitro-4-(benzofurazanyl)pyridine-3-carboxylate racemates and enantiomers and of their benzofuroxanyl analogues. Visentin S, et al. **J Med Chem** 1999 Apr 22;42(8):1422–7

Synthesis and characterization of binding of 5-[76Br]bromo-3-[[2(S)-azetidinyl]methoxy]pyridine, a novel nicotinic acetylcholine receptor ligand, in rat brain. Sihver W, et al. **J Neurochem** 1999 Sep;73(3):1264–72

Stereochemical studies of the isomerization of novel 2-alkyl-9-phenyl-2,3,4,4a- and 2,3,4,9-tetrahydro-1H-indeno[2,1-c]pyridines. Upton C, et al. **J Pharm Pharmacol** 1998 Aug;50(8):829–35

Synthesis and electrophysiological studies of a novel epibatidine analogue. Spang JE, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):521–31

Derivatives of WAY 100635 as potential imaging agents for 5-HT1A receptors: syntheses, radiosyntheses, and in vitro and in vivo evaluation. Wilson AA, et al. **Nucl Med Biol** 1998 Nov;25(8):769–76

Formation of nitrogen-containing metabolites from the main iridoids of Harpagophytum procumbens and H. zeyheri by human intestinal bacteria. Baghdikian B, et al.

Planta Med 1999 Mar;65(2):164–6
[Synthesis and pharmacologic evaluation of 3-(2- and 4-pyridinyl)indane-1,3-diones and structural analogues with potential anti-inflammatory and antineoplastic activity] Robert-Piessard S, et al. **Ann Pharm Fr** 1998; 56(4):160–8 (Eng. Abstr.) **(Fre)**

CHEMISTRY

The imine-pyridine torsion of the pyridoxal 5'-phosphate Schiff base of aspartate aminotransferase lowers its pKa in the unliganded enzyme and is crucial for the successive increase in the pKa during catalysis. Hayashi H, et al. **Biochemistry** 1998 Oct 27;37(43):15076–85
Inhibition of acetylcholinesterase by an alkylpyridinium polymer from the marine sponge, Reniera sarai. Šepčić K, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):217–25
Iodopyridine-for-iodobenzene substitution for use with low molecular weight radiopharmaceuticals: application to m-iodobenzylguanidine. Vaidyanathan G, et al. **Bioconjug Chem** 1998 Nov-Dec;9(6):758–64
Quantitative structure-activity relationship studies on some nonbenzodiazepine series of compounds acting at the benzodiazepine receptor. Gupta SP, et al. **Bioorg Med Chem** 1998 Nov;6(11):2213–8
Conformational considerations in the design of dual antagonists of platelet-activating factor (PAF) and histamine. Kaminski JJ, et al. **Bioorg Med Chem** 1999 Jul; 7(7):1413–23
Synthesis and structure-activity data of some new epibatidine analogues. Seerden JP, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2103–10
Synthetic zinc tetrapyrroles complexing with pyridine as a single axial ligand. Tamiaki H, et al. **Bioorg Med Chem** 1998 Nov;6(11):2171–8
New imidazo(1,2-a)pyrazine derivatives with bronchodilatory and cyclic nucleotide phosphodiesterase inhibitory activities. Vitse O, et al. **Bioorg Med Chem** 1999 Jun;7(6):1059–65
2-heterosubstituted-3-(4-methylsulfonyl)phenyl-5-trifluoromethyl pyridines as selective and orally active cyclooxygenase-2 inhibitors. Dubé D, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1715–20
Quaternary substituted PDE4 inhibitors I: the synthesis and in vitro evaluation of a novel series of oxindoles. Hulme C, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):175–8
Discovery of FR166124, a novel water-soluble pyrazolo-[1,5-a]pyridine adenosine A1 receptor antagonist. Kuroda S, et al. **Bioorg Med Chem Lett** 1999 Jul 19; 9(14):1979–84
Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97–102
Identification of side chains on 1,2,5-thiadiazole-azacycles optimal for muscarinic m1 receptor activation. Sauerberg P, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2897–902
Structure-based discovery of Tipranavir disodium (PNU-140690E): a potent, orally bioavailable, nonpeptidic HIV protease inhibitor. Thaisrivongs S, et al. **Biopolymers** 1999;51(1):51–8 (50 ref.)
Insight into externally bound 5,10,15,20-tetrakis(2-N-methylpyridyl) porphyrinatopalladium(II), PdP(2), with B-form DNA duplexes poly(G-c)2, poly(A-t)2, and CT DNA by using combined MCD, CD, and optical data. Barnes NR, et al. **Biospectroscopy** 1998;4(5):341–52
5,10,15,20-Tetrakis(4-N-methylpyridyl)porphyrinato-palladium(II) as a differentiation probe for sensing binding modes with B-DNA duplexes: electronic MCD and CD spectra. Barnes NR, et al. **Biospectroscopy** 1999;5(3):179–88
Heterocyclic amine formation and the impact of structure on their mutagenicity. Felton JS, et al. **Cancer Lett** 1999 Sep 1;143(2):127–34
Reversible inhibition of acetylcholinesterase and butyrylcholinesterase by 4,4'-bipyridine and by a coumarin derivative. Simeon-Rudolf V, et al. **Chem Biol Interact** 1999 May 14;119-120:119–28
2-(3-Pyridyl)thiazolidine-4-carboxamide derivatives. II. Structure-activity relationships and active configuration of 2-(3-pyridyl)thiazolidine-4-carboxamides as platelet-activating factor receptor antagonists. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1468–73
Synthesis of DNA oligonucleotides containing site-specifically incorporated O6-[4-oxo-4-(3-pyridyl)butyl]guanine and their reaction with O6-alkylguanine-DNA alkyltransferase. Wang L, et al. **Chem Res Toxicol** 1999 Feb;12(2):127–31
Pressure and temperature dependence of enantioselective excited-state quenching of chiral Tb(III) and Eu(III) tris(pyridine-2,6-dicarboxylate) chelates by various C-type ferricytochromes. Meskers SC, et al. **Enantiomer** 1998; 3(2):95–102
2-Substituted-3-oxoisothiazolo[5,4-b]pyridines as potential central nervous system and antimycobacterial agents. Malinka W, et al. **Farmaco** 1998 Jul 30;53(7):504–12
Analgetically active substances derived from structures of anpirtoline and epibatidine. Rádl S, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:26–9
Physicochemical characterization and in vivo properties of Zolpidem in solid dispersions with polyethylene glycol 4000 and 6000. Trapani G, et al. **Int J Pharm** 1999 Jul 5;184(1):121–30
Trans-pyridine tetraammine complexes of RuII and RuIII with N7-coordinated purine nucleosides. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):318–24
Effects of trans-pyridine ligands on the interactions of RuII and RuIII ammine complexes N7-coordinated to purine nucleosides and DNA. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):325–40
Comparison of azacyclic urea A-98881 as HIV-1 protease inhibitor with cage dimeric N-benzyl 4-(4-methoxyphenyl)-1,4-dihydropyridine as representative of a novel class of HIV-1 protease inhibitors: a molecular modeling study. Hilgeroth A, et al. **J Comput Aided Mol Des** 1999 May;13(3):233–42
Discovery of a potent, orally active, nonsteroidal androgen receptor agonist: 4-ethyl-1,2,3,4-tetrahydro-6-(trifluoromethyl)-8-pyridono[5,6-g]- quinoline (LG121071). Hamann LG, et al. **J Med Chem** 1999 Jan 28;42(2):210–2
Studies on the monoamine oxidase-B-catalyzed biotransformation of 4-azaaryl-1-methyl-1,2,3,6-tetrahydropyridine derivatives. Nimkar SK, et al. **J Med Chem** 1999 May 20; 42(10):1828–35
Tricyclic farnesyl protein transferase inhibitors: crystallographic and calorimetric studies of structure-activity relationships. Strickland CL, et al. **J Med Chem** 1999 Jun 17;42(12):2125–35
Novel 2-phenylimidazo[1,2-a]pyridine derivatives as potent and selective ligands for peripheral benzodiazepine receptors: synthesis, binding affinity, and in vivo studies. Trapani G, et al. **J Med Chem** 1999 Sep 23;42(19):3934–41
Stereochemical studies of the isomerization of novel 2-alkyl-9-phenyl-2,3,4,4a- and 2,3,4,9-tetrahydro-1H-indeno[2,1-c]pyridines. Upton C, et al. **J Pharm Pharmacol** 1998 Aug;50(8):829–35
Development of muscarinic analgesics derived from epibatidine: role of the M4 receptor subtype [published erratum appears in J Pharmacol Exp Ther 1999 May;289(2):1184] Ellis JL, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1143–50
Investigation of the polymorphism of the angiotensin II antagonist agent MK-996. Jahansouz H, et al. **Pharm Dev Technol** 1999 May;4(2):181–7
Development of a parenteral formulation of an investigational anticancer drug, 3-aminopyridine-2-carboxaldehyde thiosemicarbazone [published erratum appears in Pharm Dev Technol 1999 Aug;4(3):461] Krishna G, et al. **Pharm Dev Technol** 1999 Jan;4(1):71–80
[The influence of steric crowding on the electrochemical reduction of amide groups in a pyridylcarboxamide seriesapplication to rote ction of amines in peptide synthesis] Auzeil N. **Ann Pharm Fr** 1999 May;57(3):255–65 (Eng. Abstr.) **(Fre)**
[Modulation of interactions of pyridopyrines with membrane systems: an NMR study of the role of side chains] Debouzy JC, et al. **Ann Pharm Fr** 1998;56(5):197–204 (Eng. Abstr.) **(Fre)**

DIAGNOSTIC USE

Platelet labeling with 67Ga chelates. Karanikas G, et al. **Appl Radiat Isot** 1999 Mar;50(3):505–11
Serotonin 5-HT1A receptor imaging in the human brain with PET. Co-ordination of the standardisation and dissemination of methodology. Workshop on [carbonyl-11C]WAY-100635 radiochemistry and metabolite analysis 30-31 March 1999. MRC Cyclotron Unit, London, UK [news] Pike VW. **Eur J Nucl Med** 1999 Aug;26(8):946–8
Workshop on 5-HT1A receptor imaging--modelling of [carbonyl-11C]WAY-100635 in the human brain. 6 May 1999, PET Centre, San Raffaele, Milan, Italy [news] Pike VW. **Eur J Nucl Med** 1999 Aug;26(8):948–50
Muscarinic cholinergic receptor measurements with [18F]FP-TZTP: control and competition studies. Carson RE, et al. **J Cereb Blood Flow Metab** 1998 Oct; 18(10):1130–42
Quantitative analyses of carbonyl-carbon-11-WAY-100635 binding to central 5-hydroxytryptamine-1A receptors in man. Farde L, et al. **J Nucl Med** 1998 Nov;39(11):1965–71
Localization of 5-HT1A receptors in the living human brain using [carbonyl-11C]WAY-100635: PET with anatomic standardization technique. Ito H, et al. **J Nucl Med** 1999 Jan;40(1):102–9

METABOLISM

Identification of an extracellular catalyst of carbon tetrachloride dehalogenation from Pseudomonas stutzeri strain KC as pyridine-2, 6-bis(thiocarboxylate). Lee CH, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):562–6
The activation state of p38 mitogen-activated protein kinase determines the efficiency of ATP competition for pyridinylimidazole inhibitor binding. Frantz B, et al. **Biochemistry** 1998 Sep 29;37(39):13846–53
Biodegradation of 2-methyl, 2-ethyl, and 2-hydroxypyridine by an Arthrobacter sp. isolated from subsurface sediment. O'Loughlin EJ, et al. **Biodegradation** 1999 Apr;10(2):93–104
A novel cell-free system for peptide synthesis driven by pyridine. Nitta I, et al. **Biol Chem** 1998 Jul;379(7):819–29
3-(5-Alkylamino-4-isoxazolyl)-1,2,5,6-tetrahydropyridines: a novel class of central nicotinic receptor ligands. Olesen PH, et al. **Bioorg Med Chem** 1998 Sep;6(9):1623–9
Insight into externally bound 5,10,15,20-tetrakis(2-N-methylpyridyl) porphyrinatopalladium(II), PdP(2), with B-form DNA duplexes poly(G-c)2, poly(A-t)2, and CT DNA by using combined MCD, CD, and optical data. Barnes NR, et al. **Biospectroscopy** 1998;4(5):341–52
Zolpidem metabolism in vitro: responsible cytochromes, chemical inhibitors, and in vivo correlations. Von Moltke LL, et al. **Br J Clin Pharmacol** 1999 Jul;48(1):89–97
Regional distribution of subtypes of nicotinic receptors in human brain and effect of aging studied by (+/-)-[3H]epibatidine. Marutle A, et al. **Brain Res** 1998 Aug 10;801(1-2):143–9
Influence of antiresorptive agent OST-766 on signal transduction pathways involved in parathyroid hormone action. Morris SA, et al. **Calcif Tissue Int** 1999 Feb; 64(2):148–53
Ab initio studies of some amino acid residue complexes with 4-mercaptopyridine as a model for thymitaq (AG337), an inhibitor of thymidylate synthase. Sapse DS, et al. **Cancer Invest** 1999;17(6):396–401
Bioactivation of the cooked food mutagen N-hydroxy-2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine by estrogen sulfotransferase in cultured human mammary epithelial cells. Lewis AJ, et al. **Carcinogenesis** 1998 Nov;19(11):2049–53
N-Acetyltransferase expression and DNA binding of N-hydroxyheterocyclic amines in human prostate epithelium. Wang CY, et al. **Carcinogenesis** 1999 Aug; 20(8):1591–5
Metabolism of anxiolytics and hypnotics: benzodiazepines, buspirone, zoplicone, and zolpidem. Chouinard G, et al. **Cell Mol Neurobiol** 1999 Aug;19(4):533–52 (90 ref.)
2-(3-Pyridyl)thiazolidine-4-carboxamide derivatives. III.) Synthesis of metabolites and metabolism of 2-(3-pyridyl)thiazolidine-4-carboxamides YM461 and YM264 as platelet-activating factor (PAF) receptor antagonists. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1999 Feb;47(2):165–70
Studies on the pyrrolinone metabolites derived from the tobacco alkaloid 1-methyl-2-(3-pyridinyl)pyrrole (beta-nicotyrine). Liu X, et al. **Chem Res Toxicol** 1999 Jun; 12(6):508–12
In vitro metabolism of the M1-muscarinic agonist 5-(2-ethyl-2H-tetrazol-5-yl)-1-methyl-1,2,3,6-tetrahydropyridine by human hepatic cytochromes P-450 determined at pH 7.4 and 8.5. Jensen KG, et al. **Drug Metab Dispos** 1999 Jan;27(1):125–32
Neuronal nAChR stereoselectivity to non-natural epibatidine derivatives. Bertrand S, et al. **FEBS Lett** 1999 May 7; 450(3):273–9
Novel nikkomycins Lx and Lz produced by genetically engineered Streptomyces tendae Tü901. Bormann C, et al. **J Antibiot (Tokyo)** 1999 Jun;52(6):582–5
Interaction of 4,4'-dithiodipyridine with Cys(458) triggers disassembly of GroEL. Bochkareva E, et al. **J Biol Chem** 1999 Jul 23;274(30):20756–8
Acetylcholine and epibatidine binding to muscle acetylcholine receptors distinguish between concerted and uncoupled models. Prince RJ, et al. **J Biol Chem** 1999 Jul 9;274(28):19623–9
Synthesis, corticotropin-releasing factor receptor binding affinity, and pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines. Chorvat RJ, et al. **J Med Chem** 1999 Mar 11;42(5):833–48
A novel class of adenosine A3 receptor ligands. 2. Structure affinity profile of a series of isoquinoline and quinazoline compounds. van Muijlwijk-Koezen JE, et al. **J Med Chem** 1998 Oct 8;41(21):3994–4000
Using single photon emission tomography (SPECT) and positron emission tomography (PET) to trace the distribution of muscarinic acetylcholine receptor (MACHR) binding radioligands. Kiesewetter DO, et al. **Life Sci** 1999;64(6-7):511–8 (17 ref.)
Isolation of cDNAs encoding cellular drug-binding proteins using a novel expression cloning procedure: drug-western. Tanaka H, et al. **Mol Pharmacol** 1999 Feb;55(2):356–63
A novel immunophilin ligand: distinct branching effects on dopaminergic neurons in culture and neurotrophic actions after oral administration in an animal model of Parkinson's disease. Costantini LC, et al. **Neurobiol Dis** 1998 Aug; 5(2):97–106
Non-acetylcholine displaceable 3[H]epibatidine binding in the rat brain. Plenge P, et al. **Neurosci Lett** 1998 May 22; 248(1):65–7
Synthesis and in Vivo studies of [C-11]N-methylepibatidine: comparison of the stereoisomers. Patt JT, et al. **Nucl Med Biol** 1999 Feb;26(2):165–73
Bioactivation of the proximal food mutagen 2-hydroxyamino-1-methyl-6-phenylimidazo[4,5-b]pyridine (N-OH-PhIP) to DNA-binding species by human mammary gland enzymes [see comments] Dubuisson JG, et al. **Nutrition** 1998 Sep;14(9):683–6. Comment in: Nutrition 1998 Sep;14(9):710–2.
In vivo muscarinic binding of 3-(alkylthio)-3-thiadiazolyl tetrahydropyridines. Kiesewetter DO, et al. **Synapse** 1999 Jan;31(1):29–40
Metabolism and disposition of GTS-21, a novel drug for Alzheimer's disease. Azuma R, et al. **Xenobiotica** 1999 Jul; 29(7):747–62

[Kinetic parameters of reduction of pyridine nucleotides as indices of the energy production system status] Khazanov VA, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):287-90 **(Rus)**

PHARMACOKINETICS

Dual hepatic metabolism of cerivastatin--clarifications [letter; comment] Guyton JR, et al. **Am J Cardiol** 1999 Aug 15;84(4):497. Comment on: Am J Cardiol 1999 Apr 1;83(7):1146.

Topoisomerase I/II inhibitor intoplicine administered as a 24 h infusion: phase I and pharmacologic study. van Gijn R, et al. **Anticancer Drugs** 1999 Jan;10(1):17-23

Investigation into the correlation between the structure of hydroxypyridinones and blood-brain barrier permeability. Habgood MD, et al. **Biochem Pharmacol** 1999 Jun 1; 57(11):1305-10

Clinical and pharmacokinetic results with a new ultrashort-acting calcium antagonist, clevidipine, following gradually increasing intravenous doses to healthy volunteers. Ericsson H, et al. **Br J Clin Pharmacol** 1999 May;47(5):531-8

Pharmacokinetic analysis and antitumor efficacy of MKT-077, a novel antitumor agent. Tatsuta N, et al. **Cancer Chemother Pharmacol** 1999;43(4):295-301

Phase I and pharmacological study of CI-980, a novel synthetic antimicrotubule agent. Rowinsky EK, et al. **Clin Cancer Res** 1997 Mar;3(3):401-7

Increase in cerivastatin systemic exposure after single and multiple dosing in cyclosporine-treated kidney transplant recipients. Mück W, et al. **Clin Pharmacol Ther** 1999 Mar; 65(3):251-61

Pharmacokinetics of new calcium channel antagonist clevidipine in the rat, rabbit, and dog and pharmacokinetic/pharmacodynamic relationship in anesthetized dogs. Ericsson H, et al. **Drug Metab Dispos** 1999 May;27(5):558-64

Rational assessment of the interaction profile of cerivastatin supports its low propensity for drug interactions. Mück W. **Drugs** 1998;56 Suppl 1:15-23; discussion 33 (49 ref.)

Pharmacokinetics and pharmacodynamics of clevidipine in healthy volunteers after intravenous infusion. Ericsson H, et al. **Eur J Clin Pharmacol** 1999 Mar;55(1):61-7

Effect of itraconazole on cerivastatin pharmacokinetics. Kantola T, et al. **Eur J Clin Pharmacol** 1999 Jan; 54(11):851-5

Placental transfer of the thromboxane synthetase inhibitor ridogrel in the late-pregnant ewe. Schneider TJ, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Sep;86(1):83-7

In vitro hydrolysis rate and protein binding of clevidipine, a new ultrashort-acting calcium antagonist metabolised by esterases, in different animal species and man. Ericsson H, et al. **Eur J Pharm Sci** 1999 Apr;8(1):29-37

Lack of drug-drug interaction between cerivastatin and nifedipine. Sachse R, et al. **Int J Clin Pharmacol Ther** 1998 Aug;36(8):409-13

The effect of omeprazole pre- and cotreatment on cerivastatin absorption and metabolism in man. Sachse R, et al. **Int J Clin Pharmacol Ther** 1998 Oct;36(10):517-20

Influence of age on the safety, tolerability, and pharmacokinetics of the novel HMG-CoA reductase inhibitor cerivastatin in healthy male volunteers. Mazzu A, et al. **J Clin Pharmacol** 1998 Aug;38(8):715-9

Zolpidem distribution in postmortem cases. Levine B, et al. **J Forensic Sci** 1999 Mar;44(2):369-71

Synthesis, corticotropin-releasing factor receptor binding affinity, and pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines. Chorvat RJ, et al. **J Med Chem** 1999 Mar 11;42(5):833-48

The influence of serotonin depletion on rat behavior in the Vogel test and brain 3H-zolpidem binding. Nazar M, et al. **J Neural Transm** 1999;106(5-6):355-68

Increased nicotinic receptors in brains from smokers: membrane binding and autoradiography studies. Perry DC, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1545-52

Tracer kinetic modeling of the 5-HT1A receptor ligand [carbonyl-11C]WAY-100635 for PET. Gunn RN, et al. **Neuroimage** 1998 Nov;8(4):426-40

Comparative studies of epibatidine derivatives [18F]NFEP and [18F]N-methyl-NFEP: kinetics, nicotine effect, and toxicity. Ding YS, et al. **Nucl Med Biol** 1999 Jan; 26(1):139-48

In vitro and in situ permeability of a 'second generation' hydroxypyridinone oral iron chelator: correlation with physico-chemical properties and oral activity. Lowther N, et al. **Pharm Res** 1999 Mar;16(3):434-40

Metabolism and disposition of GTS-21, a novel drug for Alzheimer's disease. Azuma R, et al. **Xenobiotica** 1999 Jul; 29(7):747-62

PHARMACOLOGY

Progress in the development of oxytocin antagonists for use in preterm labor. Williams PD, et al. **Adv Exp Med Biol** 1998;449:473-9

Sensitivity to ethanol across development in rats: comparison to [3H]zolpidem binding. Moy SS, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7):1485-92

Action of ethanol and zolpidem on gamma-aminobutyric acid responses from cerebellar Purkinje neurons: relationship to beta-adrenergic receptor input. Yang X, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1655-61

Effects of pumaprazole (BY841), a novel reversible proton pump antagonist, and of omeprazole, on intragastric acidity before and after cure of Helicobacter pylori infection. Martinek J, et al. **Aliment Pharmacol Ther** 1999 Jan; 13(1):27-34

Pharmacodynamics, safety, tolerability, and pharmacokinetics of the 0.8-mg dose of cerivastatin in patients with primary hypercholesterolemia. Stein E, et al. **Am J Cardiol** 1999 May 15;83(10):1433-6

Vasorelaxant effects of cicletanine and its (+)- and (-)-enantiomers in isolated human pulmonary arteries. Bagrov AY, et al. **Am J Hypertens** 1998 Nov;11(11 Pt 1):1386-9

Effect of luminal angiotensin II receptor antagonists on proximal tubule transport. Quan A, et al. **Am J Hypertens** 1999 May;12(5):499-503

Regional differences in effects of E-4031 within the sinoatrial node. Kodama I, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H793-802

Relaxation of contracted rabbit tracheal and human bronchial smooth muscle by Y-27632 through inhibition of Ca2+ sensitization. Yoshii A, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1190-200

Inhibitory effect of ibudilast (KC-404) on the expression of the beta2 integrin family on an eosinophilic cell line (EoL-1). Chihara J, et al. **Ann Allergy Asthma Immunol** 1998 Nov;81(5 Pt 1):448-50

Development of a novel class of subtype-selective nicotinic receptor antagonist: pyridine-N-substituted nicotine analogs. Dwoskin LP, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:617-9

5-HT1A agonist activity of pindolol: reversal of the inhibitory effects on cell firing in the dorsal raphe nucleus but not in the hippocampus by WAY-100,635. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:274-5

ABT-431, a D1 receptor agonist prodrug, has efficacy in Parkinson's disease. Rascol O, et al. **Ann Neurol** 1999 Jun; 45(6):736-41

Activity of SCH 66336, a tricyclic farnesyltransferase inhibitor, against human tumor colony-forming units. Petit T, et al. **Ann Oncol** 1999 Apr;10(4):449-53

Anticancer activity and toxicity of S-1, an oral combination of tegafur and two biochemical modulators, compared with continuous i.v. infusion of 5-fluorouracil. Fukushima M, et al. **Anticancer Drugs** 1998 Oct;9(9):817-23

Activity of MKT 077, a rhodacyanine dye, against human tumor colony-forming units. Petit T, et al. **Anticancer Drugs** 1999 Mar;10(3):309-15

Inhibitory effect of 4-(4-fluorophenyl)-2-(4-hydroxyphenyl)-5-(4-pyridyl) 1H - imidazole on HCMV DNA replication and permissive infection. Johnson RA, et al. **Antiviral Res** 1999 Apr; 41(3):101-11

Synthesis and analgesic activity of some deaza derivatives of anpirtoline. Rádl S, et al. **Arch Pharm (Weinheim)** 1999 Jan;332(1):13-8

Interaction of the new histamine H2-receptor antagonist pibutidine hydrochloride with canine cloned H2-receptor expressed cells. Kaku S, et al. **Arzneimittelforschung** 1999 Jan;49(1):67-71

Effect of the platelet-activating factor antagonist RP 59227 (Tulopafant) on myocardial ischemia/reperfusion injury and neutrophil function. Auchampach JA, et al. **Basic Res Cardiol** 1998 Oct;93(5):361-71

Zolpidem is differentiated from triazolam in humans using a three-response drug discrimination procedure. Mintzer MZ, et al. **Behav Pharmacol** 1998 Nov;9(7):545-59

Triazolam and zolpidem: a comparison of their psychomotor, cognitive, and subjective effects in healthy volunteers. Mintzer MZ, et al. **Behav Pharmacol** 1997 Nov; 8(6-7):561-74

Potentiation of the time-dependent, antidepressant-induced changes in the agonistic behaviour of resident rats by the 5-HT1A receptor antagonist, WAY-100635. Mitchell PJ, et al. **Behav Pharmacol** 1997 Nov;8(6-7):585-606

The p38MAPK inhibitor SB203580 alleviates ultraviolet-induced phosphorylation at serine 389 but not serine 15 and activation of p53. Keller D, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):464-71

Pyrithione, a zinc ionophore, inhibits NF-kappaB activation. Kim CH, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):505-9

Activation of the neutrophil NADPH oxidase is inhibited by SB 203580, a specific inhibitor of SAPK2/p38. Lal AS, et al. **Biochem Biophys Res Commun** 1999 Jun 7; 259(2):465-70

Coordinate up-regulation of CYP1A1 and heme oxygenase-1 (HO-1) expression and modulation of delta-aminolevulinic acid synthase and tryptophan pyrrolase activities in pyridine-treated rats [published erratum appears in Biochem Pharmacol 1999 Oct 15;58(8):1379] Iba MM, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):723-34

Ca2+ mobilization in adult rat cardiomyocytes by angiotensin type 1 and 2 receptors. Shao Q, et al. **Biochem Pharmacol** 1998 May 1;55(9):1413-8

Role of tyrosine kinase activity in 2,2':2''-tripyridine-induced nitricoxide generation in macrophages. Wang BS, et al. **Biochem Pharmacol** 1999 Jun 15;57(12):1367-73

Electrophysiological effects of newly synthesized 1,4-pyridothiazepines on various guinea pig heart muscle preparations. Schade B. **Biol Pharm Bull** 1999 Jan; 22(1):31-6

Effect of IS-741 on cell adhesion between human umbilical vein endothelial cells and HL-60 cells. Shikama H, et al. **Biol Pharm Bull** 1999 Feb;22(2):127-31

Effect of cytokinin 4PU30 on organ differentiation and dihydroisocoumarin production in amacha callus cultures. Yamamoto H, et al. **Biol Pharm Bull** 1998 Sep;21(9):1003-4

Novel derivatives of phenethyl-5-bromopyridylthiourea and dihydroalkoxybenzyloxopyrimidine are dual-function spermicides with potent anti-human immunodeficiency virus activity. D'Cruz OJ, et al. **Biol Reprod** 1999 Jun; 60(6):1419-28

Conformational considerations in the design of dual antagonists of platelet-activating factor (PAF) and histamine. Kaminski JJ, et al. **Bioorg Med Chem** 1999 Jul; 7(7):1413-23

Analogs of 4-(3-bromo-8-methyl-10-methoxy-6,11-dihydro-5H-benzo[5,6]-cyclo hepta[1,2-b]pyridin-11-yl)-1-(4-pyridinylacetyl)piperidine N-oxide as inhibitors of farnesyl protein transferase. Afonso A, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1875-80

Photoactivated virucidal properties of tridentate 2,2'-dihydroxyazobenzene and 2-salicylideneaminophenol platinum pyridine complexes. Cuny GD, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):237-40

Potent, orally absorbed glucagon receptor antagonists. de Laszlo SE, et al. **Bioorg Med Chem Lett** 1999 Mar 8; 9(5):641-6

2-Pyridinyl-3-(4-methylsulfonyl)phenylpyridines: selective and orally active cyclooxygenase-2 inhibitors. Friesen RW, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2777-82

Short synthesis and anti-rhinoviral activity of imidazo[1,2-a]pyridines: the effect of acyl groups at 3-position. Hamdouchi C, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1391-4

Substituted 7H-pyrido[4,3-c]carbazoles with potent anti-HIV activity. Hirata K, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):119-22

Structure-activity studies related to ABT-594, a potent nonopioid analgesic agent: effect of pyridine and azetidine ring substitutions on nicotinic acetylcholine receptor binding affinity and analgesic activity in mice. Holladay MW, et al. **Bioorg Med Chem Lett** 1998 Oct 6; 8(19):2797-802

Discovery of FR166124, a novel water-soluble pyrazolo-[1,5-a]pyridine adenosine A1 receptor antagonist. Kuroda S, et al. **Bioorg Med Chem Lett** 1999 Jul 19; 9(14):1979-84

Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97-102

Rational design of N-[2-(2,5-dimethoxyphenylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea (HI-236) as a potent non-nucleoside inhibitor of drug-resistant human immunodeficiency virus. Mao C, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1593-8

Potential anxiolytic agents. 3. Novel A-ring modified pyrido[1,2-a]benzimidazoles. Maryanoff BE, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1547-52

Benzofuro[3,2-b]pyridines as mixed ET(A)/ET(B) and selective ET(B) endothelin receptor antagonists. Mederski WW, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):619-22

Solid-phase synthesis of N-substituted amidinophenoxy pyridines as factor XA inhibitors. Mohan R, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1877-82

Mechanism of the uricosuric action of the anti-inflammatory drug E3040 used to treat inflammatory bowel disease I: study using a rat model of hyperuricemia. Yamada H, et al. **Biopharm Drug Dispos** 1999 Mar;20(2):77-83

Epibatidine activates muscle acetylcholine receptors with unique site selectivity. Prince RJ, et al. **Biophys J** 1998 Oct;75(4):1817-27

BIRICODAR (VX-710; Incel): an effective chemosensitizer in neuroblastoma. Yanagisawa T, et al. **Br J Cancer** 1999 Jun;80(8):1190-6

Vasoconstriction in human isolated middle meningeal arteries: determining the contribution of 5-HT1B- and 5-HT1F-receptor activation. Razzaque Z, et al. **Br J Clin Pharmacol** 1999 Jan;47(1):75-82

Effect of the neuroprotective compound SR57746A on nerve growth factor synthesis in cultured astrocytes from neonatal rat cortex. Labic C, et al. **Br J Pharmacol** 1999 May;127(1):139-44

Antagonism of the mGlu5 agonist 2-chloro-5-hydroxyphenylglycine by the novel selective mGlu5 antagonist 6-methyl-2-(phenylethynyl)-pyridine (MPEP) in the thalamus. Salt TE, et al. **Br J Pharmacol** 1999 Jul;127(5):1057-9

2-Phenyl-imidazo[1,2-a]pyridine derivatives as ligands for peripheral benzodiazepine receptors: stimulation of neurosteroid synthesis and anticonflict action in rats. Serra M, et al. **Br J Pharmacol** 1999 May;127(1):177-87

Effect of cerivastatin sodium, a new inhibitor of HMG-CoA reductase, on plasma lipid levels, progression of atherosclerosis, and the lesional composition in the plaques of WHHL rabbits. Shiomi M, et al. **Br J Pharmacol** 1999 Feb;126(4):961-8

Functional effects of the muscarinic receptor agonist, xanomeline, at 5-HT1 and 5-HT2 receptors. Watson J, et

al. **Br J Pharmacol** 1998 Dec;125(7):1413-20

ABT-594, a novel cholinergic channel modulator, is efficacious in nerve ligation and diabetic neuropathy models of neuropathic pain. Bannon AW, et al. **Brain Res** 1998 Aug 10;801(1-2):158-63

Characterization of the neuroprotective and toxic effects of alpha7 nicotinic receptor activation in PC12 cells. Li Y, et al. **Brain Res** 1999 Jun 5;830(2):218-25

Temperature-dependent effect of zolpidem on the GABAA receptor-mediated response at recombinant human GABAA receptor subtypes. Munakata M, et al. **Brain Res** 1998 Oct 5;807(1-2):199-202

Ibudilast suppresses TNFalpha production by glial cells functioning mainly as type III phosphodiesterase inhibitor in the CNS. Suzumura A, et al. **Brain Res** 1999 Aug 7; 837(1-2):203-12

Effects of a nonpeptide bradykinin B2 receptor antagonist, FR167344, on guinea-pig tracheal smooth muscle bradykinin receptors. Asano M, et al. **Can J Physiol Pharmacol** 1998 Oct-Nov;76(10-11):1051-5

Effect of cicletanine on renal cGMP production. Valdivielso JM, et al. **Can J Physiol Pharmacol** 1998 Dec;76(12):1151-5

Antitumor activity of SCH 66336, an orally bioavailable tricyclic inhibitor of farnesyl protein transferase, in human tumor xenograft models and wap-ras transgenic mice. Liu M, et al. **Cancer Res** 1998 Nov 1;58(21):4947-56

FJ5002: a potent telomerase inhibitor identified by exploiting the disease-oriented screening program with COMPARE analysis. Naasani I, et al. **Cancer Res** 1999 Aug 15; 59(16):4004-11

Neurohumoral response to carmoxirole, a selective dopamine (D2) receptor agonist, in patients with chronic moderate heart failure. van der Ent M, et al. **Cardiovasc Drugs Ther** 1998 Sep;12(4):387-94

Comparison of the mode of action of a dinuclear platinum complex containing a pyridine derivative with its monomeric analog. Zhao G, et al. **Chem Biol Interact** 1998 Nov 6;116(1-2):19-29

2-(3-Pyridyl)thiazolidine-4-carboxamide derivatives. II. Structure-activity relationships and active configuration of 2-(3-pyridyl)thiazolidine-4-carboxamides as platelet-activating factor receptor antagonists. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1468-73

Prevention of cardiac allograft arteriosclerosis by protein tyrosine kinase inhibitor selective for platelet-derived growth factor receptor. Sihvola R, et al. **Circulation** 1999 May 4;99(17):2295-301

Effects of cicletanine on the progression of renal failure in 5/6 nephrectomized hypertensive rats. Nakamoto H, et al. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):236-41

Kinetic and dynamic interaction study of zolpidem with ketoconazole, itraconazole, and fluconazole. Greenblatt DJ, et al. **Clin Pharmacol Ther** 1998 Dec;64(6):661-71

Comparative kinetics and dynamics of zaleplon, zolpidem, and placebo. Greenblatt DJ, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):553-61

Pharmacodynamic effects of dual neutral endopeptidase-angiotensin-converting enzyme inhibition versus angiotensin-converting enzyme inhibition in humans. Massien C, et al. **Clin Pharmacol Ther** 1999 Apr; 65(4):448-59

Transformation mediated by RhoA requires activity of ROCK kinases. Sahai E, et al. **Curr Biol** 1999 Feb 11; 9(3):136-45

Cell cycle effects of CB30865, a lipophilic quinazoline-based analogue of the antifolate thymidylate synthase inhibitor ICI 198583 with an undefined mechanism of action. Skelton LA, et al. **Cytometry** 1998 Sep 1;33(1):56-66

Rational assessment of the interaction profile of cerivastatin supports its low propensity for drug interactions. Mück W. **Drugs** 1998;56 Suppl 1:15-23; discussion 33 (49 ref.)

Pharmacokinetics and pharmacodynamics of clevidipine in healthy volunteers after intravenous infusion. Ericsson H, et al. **Eur J Clin Pharmacol** 1999 Mar;55(1):61-7

In vitro pharmacological profile of nonpeptide CRF1 receptor antagonists, CRA1000 and CRA1001. Chaki S, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):205-11

GABA(C) receptor antagonists differentiate between human rho1 and rho2 receptors expressed in Xenopus oocytes. Chebib M, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2-3):227-34

The effect of E-5842, a sigma receptor ligand and potential atypical antipsychotic, on Fos expression in rat forebrain. Guitart X, et al. **Eur J Pharmacol** 1998 Dec 18; 363(2-3):127-30

Pyrazolopyridine derivatives act as competitive antagonists of brain adenosine A1 receptors: [35S]GTPgammaS binding studies. Ito H, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):309-15

Regulation of Ca2+-independent smooth muscle contraction by alternative staurosporine-sensitive kinase. Kureishi Y, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):315-20

SB-236057, a selective 5-HT1B receptor inverse agonist, blocks the 5-HT human terminal autoreceptor. Middlemiss DN, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):359-65

SB203580 reverses adrenomedullin's effect on proliferation and apoptosis in cultured mesangial cells. Parameswaran N, et al. **Eur J Pharmacol** 1999 Apr 23;371(1):75-82

Electrophysiological effects of E-5842, a sigma1 receptor ligand and potential atypical antipsychotic, on A9 and A10 dopamine neurons. Sánchez-Arroyos R, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):31-7

In vivo intrinsic efficacy of the 5-HT1A receptor antagonists NAD-299, WAY-100,635 and (S)-(-)-UH-301 at rat brain monoamine receptors. Ahlenius S, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):15-9

Different effects of L-type and T-type calcium channel blockers on the hypnotic potency of triazolam and zolpidem in rats. Takahashi H, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):317-21

The effects of benzodiazepine (triazolam), cyclopyrrolone (zopiclone) and imidazopyridine (zolpidem) hypnotics on the frequency of hippocampal theta activity and sleep structure in rats. Yoshimoto M, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):29-35

Use of a drug-resistant mutant of stress-activated protein kinase 2a/p38 to validate the in vivo specificity of SB 203580. Eyers PA, et al. **FEBS Lett** 1999 May 21; 451(2):191-6

The effects of the Rho-kinase inhibitor Y-27632 on arachidonic acid-, GTPgammaS-, and phorbol ester-induced Ca2+-sensitization of smooth muscle. Fu X, et al. **FEBS Lett** 1998 Nov 27;440(1-2):183-7

Raf-1 is activated by the p38 mitogen-activated protein kinase inhibitor, SB203580. Kalmes A, et al. **FEBS Lett** 1999 Feb 5;444(1):71-4

The effects of the selective ROCK inhibitor, Y27632, on ET-1-induced hypertrophic response in neonatal rat cardiac myocytes--possible involvement of Rho/ROCK pathway in cardiac muscle cell hypertrophy. Kuwahara K, et al. **FEBS Lett** 1999 Jun 11;452(3):314-8

A p38 MAP kinase inhibitor regulates stability of interleukin-1-induced cyclooxygenase-2 mRNA. Ridley SH, et al. **FEBS Lett** 1998 Nov 13;439(1-2):75-80

Mercaptopyridine-N-oxide, an NADH-fumarate reductase inhibitor, blocks Trypanosoma cruzi growth in culture and in infected myoblasts. Turrens JF, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):217-21

Cicletanine: new insights into its pharmacological actions. Kalinowski L, et al. **Gen Pharmacol** 1999 Jul;33(1):7-16 (67 ref.)

Effects of losartan and PD123319 on antigensin II-induced proto-oncogene expression and protein synthesis in cultured neonatal rat cardiac myocytes. Ling Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):283-6

Role of AT2 receptors in angiotensin II-stimulated contraction of small mesenteric arteries in young SHR. Touyz RM, et al. **Hypertension** 1999 Jan;33(1 Pt 2):366-72

Regulation of nitric oxide and prostaglandin E2 production by CSAIDS (SB203580) in murine macrophages and bovine chondrocytes stimulated with LPS. Patel R, et al. **Inflamm Res** 1999 Jun;48(6):337-43

Effects of NAD or NADP on the stability of liver and pectoral muscle enzymes in 3-acetylpyridine treated quail by heat and trypsin. Park IK, et al. **Int J Biochem Cell Biol** 1998 Nov;30(11):1223-34

Activated lansoprazole inhibits cancer cell adhesion to extracellular matrix components. Ohta T, et al. **Int J Oncol** 1999 Jul;15(1):33-9

Effects of candesartan and PD123319 on responses to angiotensin II in the anesthetized mouse. Bivalacqua TJ, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S98-100

The influence of candesartan and PD123319 on responses to angiotensin II in the hindquarters vascular bed of the rat. Champion HC, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S95-7

Effects of mimosine and 2,3-dihydroxypyridine on fiber shedding in Angora goats. Reis PJ, et al. **J Anim Sci** 1999 May;77(5):1224-9

Novel antibiotics pyrisulfoxin A and B produced by Streptomyces californicus. Tsuge N, et al. **J Antibiot (Tokyo)** 1999 May;52(5):505-7

Direct inhibition of cyclooxygenase-1 and -2 by the kinase inhibitors SB 203580 and PD 98059. SB 203580 also inhibits thromboxane synthase. Börsch-Haubold AG, et al. **J Biol Chem** 1998 Oct 30;273(44):28766-72

Characterization of a novel, non-peptidyl antagonist of the human glucagon receptor. Cascieri MA, et al. **J Biol Chem** 1999 Mar 26;274(13):8694-7

Specific inhibitors of p38 mitogen-activated protein kinase block 3T3-L1 adipogenesis. Engelman JA, et al. **J Biol Chem** 1998 Nov 27;273(48):32111-20

An inhibitor of p38 mitogen-activated protein kinase protects neonatal cardiac myocytes from ischemia. Mackay K, et al. **J Biol Chem** 1999 Mar 5;274(10):6272-9

An inhibitor of p38 mitogen-activated protein kinase prevents insulin-stimulated glucose transport but not glucose transporter translocation in 3T3-L1 adipocytes and L6 myotubes. Sweeney G, et al. **J Biol Chem** 1999 Apr 9;274(15):10071-8

Influence of FR 167653, an inhibitor of TNF-alpha and IL-1, on the cardiovascular responses to chronic infusion of lipopolysaccharide in conscious rats. Gardiner SM, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):64-9

Antihypertensive properties of KRN4884, a novel long-lasting potassium channel opener. Kawahara J, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):292-4

In vivo pharmacologic profile of SK-1080, an orally active nonpeptide AT1-receptor antagonist. Lee BH, et al. **J Cardiovasc Pharmacol** 1999 Mar;33(3):375-82

Characterization of angiotensin II antagonism displayed by SK-1080, a novel nonpeptide AT1-receptor antagonist. Lee SH, et al. **J Cardiovasc Pharmacol** 1999 Mar; 33(3):367-74

Cardiovascular pharmacology of the adenosine A1/A2-receptor agonist AMP 579: coronary hemodynamic and cardioprotective effects in the canine myocardium. McVey MJ, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):703-10

Dual effect of cicletanine on the Na+-H+ exchanger in chick embryonic cardiomyocytes. Samain E, et al. **J Cardiovasc Pharmacol** 1999 Jan;33(1):169-72

Circulatory effects and pharmacology of clevidipine, a novel ultra short acting and vascular selective calcium antagonist, in hypertensive humans. Schwieler JH, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):268-74

Chronic dual inhibition of angiotensin-converting enzyme and neutral endopeptidase during the development of left ventricular dysfunction in dogs. Thomas CV, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):902-12

The mechanism of inhibition of benzylamine oxidase by 3,5-diethoxy-4-aminomethylpyridine (B24). Buffoni F, et al. **J Enzyme Inhib** 1998 Jul;13(4):253-66

Prolyl 4-hydroxylase inhibitor (HOE 077) prevents TIMP-1 gene expression in rat liver fibrosis. Sakaida I, et al. **J Gastroenterol** 1999 Jun;34(3):376-7

Effects of FR167653 on ischemia-reperfusion injury: evaluation through preservation and transplantation in canine hearts. Koyano T, et al. **J Heart Lung Transplant** 1998 Dec;17(12):1247-54

Effects of a dual inhibitor of angiotensin converting enzyme and neutral endopeptidase, MDL 100,240, on endocrine and renal functions in healthy volunteers. Rousso P, et al. **J Hypertens** 1999 Mar;17(3):427-37

Comparison of suppressive effects of a new anti-inflammatory compound, FR167653, on production of PGE2 and inflammatory cytokines, human monocytes, and alveolar macrophages in response to endotoxin. Kawano T, et al. **J Leukoc Biol** 1999 Jan;65(1):80-6

The 16,17-double bond is needed for irreversible inhibition of human cytochrome p45017alpha by abiraterone (17-(3-pyridyl)androsta-5, 16-dien-3beta-ol) and related steroidal inhibitors. Jarman M, et al. **J Med Chem** 1998 Dec 31;41(27):5375-81

The ras oncogene-mediated sensitization of human cells to topoisomerase II inhibitor-induced apoptosis. Koo HM, et al. **J Natl Cancer Inst** 1999 Feb 3;91(3):236-44

The silent and selective 5-HT1A antagonist, WAY 100635, produces via an indirect mechanism, a 5-HT2A receptor-mediated behaviour in mice during the day but not at night. Short communication. Darmani NA. **J Neural Transm** 1998;105(6-7):635-43

Lu 25-109, a combined m1 agonist and m2 antagonist, modulates regulated processing of the amyloid precursor protein of Alzheimer's disease. Müller D, et al. **J Neural Transm** 1998;105(8-9):1029-43

The role of the hippocampus and 5-HT/GABA interaction in the central effects of benzodiazepine receptor ligands. Nazar M, et al. **J Neural Transm** 1999;106(5-6):369-81

Modulation of spontaneous and stimulation-evoked transmitter release from rat sympathetic neurons by the cognition enhancer linopirdine: insights into its mechanisms of action. Kristufek D, et al. **J Neurochem** 1999 May; 72(5):2083-91

Ibudilast, a phosphodiesterase inhibitor, ameliorates experimental autoimmune encephalomyelitis in Dark August rats. Fujimoto T, et al. **J Neuroimmunol** 1999 Mar 1;95(1-2):35-42

SR57746A: a survival factor for motor neurons in vivo. Iwasaki Y, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S92-6

Reduction of zolpidem sensitivity in a freeze lesion model of neocortical dysgenesis. Defazio RA, et al. **J Neurophysiol** 1999 Jan;81(1):404-7

Zinc and zolpidem modulate mIPSCs in rat neocortical pyramidal neurons. Defazio T, et al. **J Neurophysiol** 1998 Oct;80(4):1670-7

Long-term antidepressant treatments result in a tonic activation of forebrain 5-HT1A receptors. Haddjeri N, et al. **J Neurosci** 1998 Dec 1;18(23):10150-6

GABAA receptor subunit composition and functional properties of Cl- channels with differential sensitivity to zolpidem in embryonic rat hippocampal cells. Maric D, et al. **J Neurosci** 1999 Jun 15;19(12):4921-37

Effect of zolpidem on miniature IPSCs and occupancy of postsynaptic GABAA receptors in central synapses. Perrais D, et al. **J Neurosci** 1999 Jan 15;19(2):578-88

Corticotropin-releasing factor, but not corticosterone, is involved in stress-induced relapse to heroin-seeking in rats. Shaham Y, et al. **J Neurosci** 1997 Apr 1;17(7):2605-14

Effects of a novel pyridylsulphonyl thiazole derivative, FR115092, on autoimmune and mitomycin C-induced thrombocytopenia in mice. Nishigaki F, et al. **J Pharm Pharmacol** 1999 Jul;51(7):857-65

The long-lasting effect of TU-199, a novel H+, K(+)-ATPase inhibitor, on gastric acid secretion in dogs. Uchiyama K, et al. **J Pharm Pharmacol** 1999 Apr; 51(4):457-64

Pharmacological analysis of the novel mode of interaction between xanomeline and the M1 muscarinic acetylcholine receptor. Christopoulos A, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1220-8

Pharmacology of tezosentan, new endothelin receptor antagonist designed for parenteral use. Clozel M, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):840-6

Differences between the antinociceptive effects of the cholinergic channel activators A-85380 and

(+/-)-epibatidine in rats. Curzon P, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):847-53

Pindolol, a putative 5-hydroxytryptamine(1A) antagonist, does not reverse the inhibition of serotonergic neuronal activity induced by fluoxetine in awake cats: comparison to WAY-100635. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):220-8

Effects of verapamil, zatebradine, and E-4031 on the pacemaker location and rate in response to sympathetic stimulation in dog hearts. Furukawa Y, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1334-42

Tetrazepinones are equally cytotoxic to Mer+ and Mer- human tumor cell lines. Jean-Claude BJ, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):484-9

SB 203580, an inhibitor of p38 mitogen-activated protein kinase, enhances constitutive apoptosis of cytokine-deprived human eosinophils. Kankaanranta H, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):621-8

The effects of morphine, nicotine and epibatidine on lymphocyte activity and hypothalamic-pituitary-adrenal axis responses. Mellon RD, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):635-42

S 18126 ([2-[4-(2,3-dihydrobenzo[1,4]dioxin-6-yl)piperazin-1-yl methyl]indan-2-yl]), a potent, selective and competitive antagonist at dopamine D4 receptors: an in vitro and in vivo comparison with L 745,870 (3-(4-[4-chlorophenyl]piperazin-1-yl)methyl-1H-pyrrolo[2, 3b]pyridine) and raclopride. Millan MJ, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):167-86

Pharmacological properties of J-104132 (L-753,037), a potent, orally active, mixed ETA/ETB endothelin receptor antagonist. Nishikibe M, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1262-70

Receptor binding, behavioral, and electrophysiological profiles of nonpeptide corticotropin-releasing factor subtype 1 receptor antagonists CRA1000 and CRA1001. Okuyama S, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):926-35

Effect of several 5-hydroxytryptamine(1A) receptor ligands on the micturition reflex in rats: comparison with WAY 100635. Testa R, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1258-69

SIB-1757 and SIB-1893: selective, noncompetitive antagonists of metabotropic glutamate receptor type 5. Varney MA, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):170-81

Transfer of rapid inactivation and sensitivity to the class III antiarrhythmic drug E-4031 from HERG to M-eag channels. Herzberg IM, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):3-14

An allosteric interaction between the NMDA receptor polyamine and ifenprodil sites in rat cultured cortical neurones. Kew JN, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):17-28

The role of neuronal nicotinic acetylcholine receptors in antinociception: effects of ABT-594. Decker MW, et al. **J Physiol Paris** 1998 Jun-Aug;92(3-4):221-4 (17 ref.)

Selective effects of zolpidem on human memory functions. Mintzer MZ, et al. **J Psychopharmacol** 1999;13(1):18-31

Selective antitumor activity of MKT-077, a delocalized lipophilic cation, on normal cells and cancer cells in vitro. Chiba Y, et al. **J Surg Oncol** 1998 Oct;69(2):105-10

p38 MAPK inhibition decreases TNF-alpha production and enhances postischemic human myocardial function. Cain BS, et al. **J Surg Res** 1999 May 1;83(1):7-12

Cytokine suppressive agent improves survival rate in rats with acute pancreatitis of closed duodenal loop. Hirano T. **J Surg Res** 1999 Feb;81(2):224-9

Discordant prolongation of the refractory period and repolarization time by a class III agent, E4031, in the healing phase of myocardial infarction. Takatsuki S, et al. **Jpn Heart J** 1998 Sep;39(5):687-97

Induction of apoptosis in human pancreatic carcinoma cells by a synthetic bleomycin-like ligand. Suginaka R, et al. **Jpn J Cancer Res** 1998 Sep;89(9):947-53

An inhibitor of p38 and JNK MAP kinases prevents activation of caspase and apoptosis of cultured cerebellar granule neurons. Harada J, et al. **Jpn J Pharmacol** 1999 Mar;79(3):369-78

A comparative study on the effects of nicotine and GTS-21, a new nicotinic agonist, on the locomotor activity and brain monoamine level. Nanri M, et al. **Jpn J Pharmacol** 1998 Nov;78(3):385-9

GTS-21, a nicotinic agonist, attenuates multiple infarctions and cognitive deficit caused by permanent occlusion of bilateral common carotid arteries in rats. Nanri M, et al. **Jpn J Pharmacol** 1998 Dec;78(4):463-9

Antiulcer effect of lafutidine on indomethacin-induced gastric antral ulcers in refed rats. Onodera S, et al. **Jpn J Pharmacol** 1999 Jul;80(3):229-35

Effects of ridogrel, a thromboxane synthase inhibitor and receptor antagonist, on blood pressure in the spontaneously hypertensive rat. Quest DW, et al. **Jpn J Pharmacol** 1998 Dec;78(4):479-86

Muscarinic agonists as analgesics. Antinociceptive activity versus M1 activity: SAR of alkylthio-TZTP's and related 1,2,5-thiadiazole analogs. Sauerberg P, et al. **Life Sci** 1995; 56(11-12):807-14

General pharmacological properties of the new proton pump inhibitor (+/-)-5-methoxy-2-[[(4-methoxy-3,5-dimethylpyrid-2-yl)methyl]sulf inyl]- 1H-imidazo[4,5-b]pyridine. Kakinoki B, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr; 21(3):179-87

Effects of TU-199, a novel H+, K(+)-ATPase inhibitor, on gastric acid secretion and gastroduodenal ulcers in rats. Uchiyama K, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):115-22

Antibacterial activities of new synthetic divalent cation chelators. Ashoori M, et al. **Microbiol Immunol** 1999; 43(4):311-6

A functional role of the erg-like inward-rectifying K+ current in prolactin secretion from rat lactotrophs. Bauer CK, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1-2):37-45

Novel actions of inverse agonists on 5-HT2C receptor systems. Berg KA, et al. **Mol Pharmacol** 1999 May; 55(5):863-72

ATP-Sensitive K+ channel modulator binding to sulfonylurea receptors SUR2A and SUR2B: opposite effects of MgADP. Hambrock A, et al. **Mol Pharmacol** 1999 May;55(5):832-40

Effects of SIB-1508Y, a novel neuronal nicotinic acetylcholine receptor agonist, on motor behavior in parkinsonian monkeys. Schneider JS, et al. **Mov Disord** 1998 Jul;13(4):637-42

Epibatidine: high potency and broad spectrum activity on neuronal and neuromuscular nicotinic acetylcholine receptors. Lembeck F. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):378-85

Actions of roxindole at recombinant human dopamine D2, D3 and D4 and serotonin 5-HT1A, 5-HT1B and 5-HT1D receptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):447-53

A novel immunophilin ligand: distinct branching effects on dopaminergic neurons in culture and neurotrophic actions after oral administration in an animal model of Parkinson's disease. Costantini LC, et al. **Neurobiol Dis** 1998 Aug; 5(2):97-106

Effect of bimoclomol (N-[2-hydroxy-3-(1-piperidinyl) propoxy]-3 pyridine-carboximidoyl-chloride) on iminodipropionitrile-induced central effects. Tóth E, et al. **Neurochem Int** 1998 Dec;33(6):513-8

WAY 100635, a 5-HT1A receptor antagonist, prevents the impairment of spatial learning caused by blockade of hippocampal NMDA receptors. Carli M, et al. **Neuropharmacology** 1999 Aug;38(8):1165-73

Emesis induced by inhibitors of type IV cyclic nucleotide phosphodiesterase (PDE IV) in the ferret. Robichaud A, et al. **Neuropharmacology** 1999 Feb;38(2):289-97

Tolerance to acute anxiolysis but no withdrawal anxiogenesis in mice treated chronically with 5-HT1A receptor antagonist, WAY 100635. Cao BJ, et al. **Neurosci Biobehav Rev** 1998;23(2):247-57

Non-peptidic corticotropin-releasing hormone receptor type 1 antagonist reverses restraint stress-induced shortening of sodium pentobarbital-induced sleeping time of rats: evidence that an increase in arousal induced by stress is mediated through CRH receptor type 1. Arai K, et al. **Neurosci Lett** 1998 Oct 16;255(2):103-6

Differences in the effects of zolpidem and diazepam on recurrent inhibition and long-term potentiation in rat hippocampal slices. Higashima M, et al. **Neurosci Lett** 1998 Apr 3;245(2):77-80

EDPC: a novel high affinity ligand for the benzodiazepine site on rat GABA(A) receptors. Thomet U, et al. **Neurosci Lett** 1999 Jul 9;269(2):63-6

The P38 mitogen-activated protein kinase inhibitor SB203580 antagonizes the inhibitory effects of interleukin-1beta on long-term potentiation in the rat dentate gyrus in vitro. Coogan AN, et al. **Neuroscience** 1999;93(1):57-69

Tonic adrenergic and serotonergic inhibition of a withdrawal reflex in rabbits subjected to different levels of surgical preparation. Ogilvie J, et al. **Neuroscience** 1999; 89(4):1247-58

Antagonism by (1,2,5,6-tetrahydropyridine-4-yl) methylphosphinic acid of synaptic transmission in the neonatal rat spinal cord in vitro: an electrophysiological study. Rozzo A, et al. **Neuroscience** 1999 Mar;90(3):1085-92

Central nervous system effects of the novel antiallergic agent HSR-609 and typical antiallergic agents using behavioral and electroencephalographic analyses in dogs. Kakiuchi M, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Oct; 18(5):189-99

Effect of SB 203580 on the activity of c-Raf in vitro and in vivo. Hall-Jackson CA, et al. **Oncogene** 1999 Mar 25; 18(12):2047-54

Onset of the effects of the 5-HT1A antagonist, WAY-100635, alone, and in combination with paroxetine, on olfactory bulbectomy and 8-OH-DPAT-induced changes in the rat. Cryan JF, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):333-8

Differences in anxiolytic-like profile of two novel nonbenzodiazepine BZ (omega) receptor agonists on defensive behaviors of mice. Griebel G, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):689-94

Antiaggresive and anxiolytic effects of gepirone in mice, and their attenuation by WAY 100635. Mendoza DL, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):499-509

The effects of diazepam and zolpidem on cocaine- and amphetamine-induced place preference. Meririnne E, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):159-64

Behavioral pharmacology of zolpidem relative to benzodiazepines: a review. Rush CR. **Pharmacol Biochem Behav** 1998 Nov;61(3):253-69 (154 ref.)

Limited access to ethanol in genetic drinking rats is suppressed while feeding is enhanced by the mixed 5-HT1A agonist/5-HT2A antagonist FG5938. West MW, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):823-8

WAY-100635 reverses 8-OH-DPAT-induced performance impairment in the radial maze. Helsley S, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1179-84

Combination of open field and elevated plus-maze: a suitable test battery to assess strain as well as treatment differences in rat behavior. Schmitt U, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1197-215

In vitro and in vivo pharmacological characterization of SB 201993, an eicosanoid-like LTB4 receptor antagonist with anti-inflammatory activity. Sarau HM, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul; 61(1):55-64

5-Lipoxygenase inhibitors reduce PC-3 cell proliferation and initiate nonnecrotic cell death. Anderson KM, et al. **Prostate** 1998 Nov 1;37(3):161-73

A single amino acid substitution makes ERK2 susceptible to pyridinyl imidazole inhibitors of p38 MAP kinase. Fox T, et al. **Protein Sci** 1998 Nov;7(11):2249-55

Residual effect of zolpidem 10 mg and zopiclone 7.5 mg versus flunitrazepam 1 mg and placebo on driving performance and ocular saccades. Bocca ML, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):373-9

Two selective 5-HT1A receptor antagonists, WAY-100 635 and NDL-249, stimulate locomotion in rats acclimatised to their environment and alter their behaviour: a behavioural analysis. Jackson DM, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):300-10

The effects of 5-HT1A receptor agonists, 5-HT1A receptor antagonists and their interaction on the fear-potentiated startle response. Joordens RJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):383-90

In vivo muscarinic cholinergic mediated effects of Lu 25-109, a M1 agonist and M2/M3 antagonist in vitro. Sánchez C, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):233-40

Effect of pibutidine hydrochloride on nitric oxide production in rat gastric mucosa. Kiuchi Y, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jun;100(3):273-82

Induction of burst firing in ventral tegmental area dopaminergic neurons by activation of serotonin (5-HT)1A receptors: WAY 100,635-reversible actions of the highly selective ligands, flesinoxan and S 15535. Lejeune F, et al. **Synapse** 1998 Oct;30(2):172-80

Cytoprotective role of antioxidant stress protein induced by adenosine A1 receptor antagonist in rat heart ischemic injury. Katori M, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1016-7

Effect of FR167653 on ischemia-reperfusion injury of the canine heart: ultrastructural study. Koyano T, et al. **Transplant Proc** 1998 Nov;30(7):3370-1

Effects of FR167653 on pulmonary ischemia-reperfusion injury in rats: a preliminary study. Otani Y, et al. **Transplant Proc** 1998 Nov;30(7):3368-9

FR167653 ameliorates pulmonary ischemia-reperfusion injury. Otani Y, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1010-1

FR167653 ameliorates pulmonary ischemia-reperfusion injury in dogs. Takeyoshi I, et al. **Transplant Proc** 1998 Nov;30(7):3342-3

[Epibatidine. An old work principle rediscovered] Hecker T, et al. **Med Monatsschr Pharm** 1999 Aug;22(8):226-32 (41 ref.) **(Ger)**

POISONING

Continuous flumazenil infusion in the treatment of zolpidem (Ambien) and ethanol coingestion [letter] Burton JH, et al. **J Toxicol Clin Toxicol** 1998;36(7):743-6

[Zolpidem intoxication (letter)] Sadeg N, et al. **Therapie** 1999 Mar-Apr;54(2):264-7 **(Fre)**

RADIATION EFFECTS

Generation of hydroxyl radical by photolysis of mercaptopyridine N-oxides: application to redox chemistry of purines. Vieira AJ, et al. **Methods Enzymol** 1999; 300:194-201

THERAPEUTIC USE

Progress in the development of oxytocin antagonists for use in preterm labor. Williams PD, et al. **Adv Exp Med Biol** 1998;449:473-9

Efficacy of xanomeline in Alzheimer disease: cognitive improvement measured using the Computerized Neuropsychological Test Battery (CNTB). Veroff AE, et al. **Alzheimer Dis Assoc Disord** 1998 Dec;12(4):304-12

Preventive effects of an antiallergic drug, pemirolast potassium, on restenosis after percutaneous transluminal coronary angioplasty. Ohsawa H, et al. **Am Heart J** 1998 Dec;136(6):1081-7

Pharmacodynamics, safety, tolerability, and pharmacokinetics of the 0.8-mg dose of cerivastatin in patients with primary hypercholesterolemia. Stein E, et al. **Am J Cardiol** 1999 May 15;83(10):1433-6

Angiotensin II subtype-1 receptor antagonists improve

hemodynamic and renal changes without affecting glucose metabolisms in genetic rat model of non-insulin-dependent diabetes mellitus. Uehara Y, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):21-7

Gastroprotective mechanism of lafutidine, a novel anti-ulcer drug with histamine H2-receptor antagonistic activity. Onodera S, et al. **Arzneimittelforschung** 1999 Jun; 49(6):519-26

Preclinical review of cerivastatin sodium--a step forward in HMG-CoA reductase inhibition. Bischoff H, et al. **Atherosclerosis** 1998 Sep;139 Suppl 1:S7-13 (22 ref.)

Cerivastatin in primary hyperlipidemia--a multicenter analysis of efficacy and safety. Stein E. **Atherosclerosis** 1998 Sep;139 Suppl 1:S15-22 (25 ref.)

Discovery of an imidazopyridine-containing 1,4-benzodiazepine nonpeptide vitronectin receptor (alpha v beta 3) antagonist with efficacy in a restenosis model. Keenan RM, et al. **Bioorg Med Chem Lett** 1998 Nov 17; 8(22):3171-6

Discovery of FR115092: a novel antinephritic agent. Ogino T, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):75-80

Efficacy and safety of cerivastatin in primary hypercholesterolemia: a long term comparative titration study with simvastatin. Leiter LA, et al. **Can J Cardiol** 1999 May;15(5):545-55 (38 ref.)

Pharmacokinetic analysis and antitumor efficacy of MKT-077, a novel antitumor agent. Tatsuta N, et al. **Cancer Chemother Pharmacol** 1999;43(4):295-301

Persistent induction of apoptosis and suppression of mitosis as the basis for curative therapy with S-1, an oral 5-fluorouracil prodrug in a colorectal tumor model. Cao S, et al. **Clin Cancer Res** 1999 Feb;5(2):267-74

Neurotoxicity of CI-980, a novel mitotic inhibitor. Meyers CA, et al. **Clin Cancer Res** 1997 Mar;3(3):419-22

Effect of the antioxidant Nicanartine on the proliferative and inflammatory response after experimental balloon angioplasty. Wohlfrom M, et al. **Coron Artery Dis** 1998; 9(12):831-7

Skin Cap and corticosteroids [letter; comment] Boyce D. **Dermatol Online J** 1997 Dec;3(2):11e-11f. Comment on: Dermatol Online J 1997 Mar;3(1):3.

Editorial comment on Skin Cap [editorial; comment] Fleckman P. **Dermatol Online J** 1997 Dec;3(2):11a; discussion 11b. Comment on: Dermatol Online J 1997 Mar;3(1):3.

Immediacy is both a liability and an asset of the Internet [editorial; comment] Huntley A. **Dermatol Online J** 1997 Dec;3(2):11b. Comment on: Dermatol Online J 1997 Mar;3(1):3.

Skin Cap: what have we learned, and when did we learn it? [editorial] Smith K. **Dermatol Online J** 1997 Dec; 3(2):11c

Novel carboxamide derivative (IS-741) attenuates lung injury in rats with cerulein-induced pancreatitis complicated by endotoxemia. Liang J, et al. **Dig Dis Sci** 1999 Feb; 44(2):341-9

Extending therapy options in treating lipid disorders: a clinical review of cerivastatin, a novel HMG-CoA reductase inhibitor. Stein EA. **Drugs** 1998;56 Suppl 1:25-31; discussion 33

The pharmacological evaluations of some N-[pyridyl-(phenyl)carbonylamino]hydroxypropyl-1,2,3,6-tetrahy dropyridi nes as potential antiinflammatory agents. Wilson T, et al. **Drugs Exp Clin Res** 1998; 24(4):165-72

Prevention of renal damage by angiotensin II blockade, accompanied by increased renal hepatocyte growth factor in experimental hypertensive rats. Matsumoto K, et al. **Hypertension** 1999 Aug;34(2):279-84

Efficacy and local tolerability of povidone iodine and octenidine hydrochloride solution for the antiseptic preparation of the orificium urethrae [published erratum appears in Infection 1999 May-Jun;27(3):220] Rudolph P, et al. **Infection** 1999 Mar-Apr;27(2):108-13

Safety and tolerance of zolpidem in the treatment of disturbed sleep: a post-marketing surveillance of 16944 cases. Hajak G, et al. **Int Clin Psychopharmacol** 1998 Jul;13(4):157-67

Preclinical antitumor efficacy of S-1: a new oral formulation of 5-fluorouracil on human tumor xenografts. Fukushima M, et al. **Int J Oncol** 1998 Oct;13(4):693-8

Phase II study of CI-980 (NSC 635370) in patients with previously treated advanced soft-tissue sarcomas. Patel SR, et al. **Invest New Drugs** 1998;16(1):87-92

Renal-protective effect of non-depressor dose of cicletanine in streptozotocin diabetic rats. Kohzuki M, et al. **J Hypertens** 1999 May;17(5):695-700

Vasopeptidase inhibition: a new concept in blood pressure management. Burnett JC Jr. **J Hypertens Suppl** 1999 Feb; 17(1):S37-43 (49 ref.)

[S]-AR-R 15896AR-A novel anticonvulsant: acute safety, pharmacokinetic and pharmacodynamic properties. Palmer GC, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):121-32

Nicotinic acetylcholine receptor agonist SIB-1508Y improves cognitive functioning in chronic low-dose MPTP-treated monkeys. Schneider JS, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):731-9

Therapeutic effect of 1 M tegafur-0.4 M 5-chloro-2,4-dihydroxypyridine-1 M potassium oxonate (S-1) on liver metastasis of xenotransplanted human colon carcinoma. Konno H, et al. **Jpn J Cancer Res** 1999 Apr; 90(4):448-53

Zolpidem in progressive supranuclear palsy [letter] Daniele A, et al. **N Engl J Med** 1999 Aug 12;341(7):543-4

Effects of the 5-HT2C/2B antagonist SB 206553 on hyperactivity induced by cocaine. McCreary AC, et al. **Neuropsychopharmacology** 1999 Jun;20(6):556-64

Cardioprotective effect of enantiomers of cicletanine (BN50417, BN50418) in ischaemic/reperfused isolated working rat hearts: interaction with glibenclamide. Ferdinandy P, et al. **Pharmacol Res** 1999 Mar;39(3):225-31

Antiallergic action of betotastine besilate (TAU-284) in animal models: A comparison with ketotifen. Ueno M, et al. **Pharmacology** 1998 Oct;57(4):206-14

Zolpidem for insomnia related to PTSD [letter] Dieperink ME, et al. **Psychiatr Serv** 1999 Mar;50(3):421

Effect of a selective dopamine D1 agonist (ABT-431) on smoked cocaine self-administration in humans. Haney M, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):102-10

Inhibition of obliterative bronchiolitis by platelet-derived growth factor receptor protein-tyrosine kinase inhibitor. Kallio E, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):187

Prevention of cardiac allograft arteriosclerosis by protein-tyrosine kinase inhibitor selective for platelet-derived growth factor receptor. Koskinen P, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):102

[Changes in sedative therapy?] Shnädelbach S. **Med Monatsschr Pharm** 1998 Dec;21(12):391-2 (7 ref.) **(Ger)**

[Safety profile of zolpidem: two studies of 3805 patients by Swiss practitioners] Ganzoni E, et al. **Schweiz Rundsch Med Prax** 1999 Jun 24;88(25-26):1120-7 (Eng. Abstr.) **(Ger)**

[Early phase II study of FK352 in cisplatin-induced nephropathy. Niigata Prefecture FK352 Study Group] Yoshizawa H, et al. **Gan To Kagaku Ryoho** 1998 Nov; 25(13):2085-94 (Eng. Abstr.) **(Jpn)**

[Preventive mechanisms and effects of pemirolast potassium on restenosis after percutaneous transluminal coronary angioplasty: serial coronary angiography and intravascular ultrasound studies] Yoshinuma M. **J Cardiol** 1999 Feb; 33(2):81-8 (Eng. Abstr.) **(Jpn)**

[Post-resuscitation neurosomatic deviations and the feasibility of their correction with a drug of metabolic action] Zarzhetskii IuV, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):11-5 (Eng. Abstr.) **(Rus)**

[Design and study of new agents having antitubercular activity: the original compound perchlosone as a potent agent of etiotropic therapy for tuberculosis] Vinogradova TI, et al. **Probl Tuberk** 1999;(3):45-7 (Eng. Abstr.) **(Rus)**

TOXICITY

Embryotoxicity of zinc pyrithione, an antidandruff chemical, in fish. Goka K. **Environ Res** 1999 Jul;81(1):81-3

Calbindin D28K gene transfer via herpes simplex virus amplicon vector decreases hippocampal damage in vivo following neurotoxic insults. Phillips RG, et al. **J Neurochem** 1999 Sep;73(3):1200-5

A synthetic inhibitor of histone deacetylase, MS-27-275, with marked in vivo antitumor activity against human tumors. Saito A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13; 96(8):4592-7

Toxicologic and carcinogenic effects of the type IV phosphodiesterase inhibitor RP 73401 on the nasal olfactory tissue in rats. Pino MV, et al. **Toxicol Pathol** 1999 Jul-Aug; 27(4):383-94

[Morphologic changes in the rat inferior olive after its neurotoxic destruction with different doses of 2-acetylpyridine] Melik-Musian AB, et al. **Morfologiia** 1999;116(4):15-8 (Eng. Abstr.) **(Rus)**

[Compensatory rehabilitation processes and instrumental reflexes in rats after neurotoxic lesions in the inferior olive] Fanardzhian VV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):719-27 (Eng. Abstr.) **(Rus)**

URINE

Quantitation of 4-oxo-4-(3-pyridyl)butanoic acid and enantiomers of 4-hydroxy-4-(3-pyridyl)butanoic acid in human urine: A substantial pathway of nicotine metabolism. Hecht SS, et al. **Chem Res Toxicol** 1999 Feb;12(2):172-9

Stereoselective metabolism of nicotine and tobacco-specific N-nitrosamines to 4-hydroxy-4-(3-pyridyl)butanoic acid in rats. Trushin N, et al. **Chem Res Toxicol** 1999 Feb; 12(2):164-71

Rapid characterization of urinary metabolites of pibutidine hydrochloride in humans by liquid chromatography/electrospray ionization tandem mass spectrometry. Kato K, et al. **Rapid Commun Mass Spectrom** 1999;13(15):1626-32

PYRIDINIUM COMPOUNDS

Monitoring secretory membrane with FM1-43 fluorescence. Cochilla AJ, et al. **Annu Rev Neurosci** 1999;22:1-10 (76 ref.)

Visualization of membrane domains in Escherichia coli. Fishov I, et al. **Mol Microbiol** 1999 Jun;32(6):1166-72

Confocal laser scanning microscopy of hamster cerebellum using FM4-64 as intracellular staining. Castejón O, et al. **Scanning** 1999 Jan-Feb;21(1):15-21

ADMINISTRATION & DOSAGE

Absolute bioavailability, pharmacokinetics, renal and biliary clearance of distigmine after a single oral dose in comparison to i.v. administration of 14C-distigmine-bromide in healthy volunteers. Vree TB, et al. **Int J Clin Pharmacol Ther** 1999 Aug;37(8):393-403

ADVERSE EFFECTS

[Patients confined in bed for an extended period and developing cholinergic crisis following administration of distigmine bromide: report of 3 cases] Tadara R, et al. **Nippon Naika Gakkai Zasshi** 1998 Aug 10;87(8):1566-7 **(Jpn)**

BLOOD

Quantitative determination of E5880 in rat plasma by high-performance liquid chromatography/electrospray ionization tandem mass spectrometry. Kikuchi K, et al. **J Mass Spectrom** 1999 Feb;34(2):93-7

CHEMICAL SYNTHESIS

Synthesis and biological properties of novel pyridinioalkanoyl thiolesters (PATE) as anti-HIV-1 agents that target the viral nucleocapsid protein zinc fingers. Turpin JA, et al. **J Med Chem** 1999 Jan 14;42(1):67-86

CHEMISTRY

Electrocatalytic reduction of S-nitrosoglutathione at electrodes modified with an electropolymerized film of a pyrrole-derived viologen system and their application to cellular S-nitrosoglutathione determinations. Wu Q, et al. **Anal Biochem** 1998 Oct 1;263(1):102-12

Interaction of the neuronal marker dye FM1-43 with lipid membranes. Thermodynamics and lipid ordering. Schote U, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):135-46

Inhibition of acetylcholinesterase by an alkylpyridinium polymer from the marine sponge, Reniera sarai. Sepčić K, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):217-25

Bactericidal action of 4,4'-(alpha,omega-polymethylenedithio)bis-(1-alkylpyridinium iodide)s. Maeda T, et al. **Biol Pharm Bull** 1998 Oct;21(10):1057-61

Water sorption and colour stability of composites containing the antibacterial monomer MDPB. Imazato S, et al. **J Dent** 1999 May;27(4):279-83

Radicals as probes of ferroelectric phase transitions in EPR investigations of pyridinium tetrafluoroborate. Krzyminiewski R, et al. **J Magn Reson** 1998 Nov; 135(1):76-81

METABOLISM

Involvement of hepatic aldehyde oxidase in conversion of 1-methyl-4-phenyl-2,3-dihydropyridinium (MPDP+) to 1-methyl-4-phenyl-5,6-dihydro-2-pyridone. Yoshihara S, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):93-8

Visible evidence for differences in synaptic effectiveness with activity-dependent vesicular uptake and release of FM1-43. Quigley PA, et al. **J Neurophysiol** 1999 Jan; 81(1):356-70

Interaction of 3-alkylpyridinium polymers from the sea sponge Reniera sarai with insect acetylcholinesterase. Sepčić K, et al. **J Protein Chem** 1999 Apr;18(3):251-7

A vital stain for studying membrane dynamics in bacteria: a novel mechanism controlling septation during Bacillus subtilis sporulation. Pogliano J, et al. **Mol Microbiol** 1999 Feb;31(4):1149-59

Enzyme-catalyzed bioactivation of cyclic tertiary amines to form potential neurotoxins. Castagnoli N Jr, et al. **Pol J Pharmacol** 1999 Jan-Feb;51(1):31-8 (40 ref.)

PHARMACOKINETICS

Absolute bioavailability, pharmacokinetics, renal and biliary clearance of distigmine after a single oral dose in comparison to i.v. administration of 14C-distigmine-bromide in healthy volunteers. Vree TB, et al. **Int J Clin Pharmacol Ther** 1999 Aug;37(8):393-403

Optical monitoring of the neural activity evoked by mechanical stimulation in the earthworm nervous system with a fluorescent dye, FM1-43. Shimizu R, et al. **Neurosci Lett** 1999 Jun 25;268(3):159-62

PHARMACOLOGY

Inhibition of acetylcholinesterase by an alkylpyridinium polymer from the marine sponge, Reniera sarai. Sepčić K, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):217-25

Bactericidal action of 4,4'-(alpha,omega-polymethylenedithio)bis-(1-alkylpyridinium iodide)s. Maeda T, et al. **Biol Pharm Bull** 1998 Oct;21(10):1057-61

Bactericidal activity and cytotoxicity of antibacterial monomer MDPB. Imazato S, et al. **Biomaterials** 1999 May; 20(9):899-903

Voltage-sensitive dye RH421 increases contractility of cardiac muscle. Cheng Y, et al. **Can J Physiol Pharmacol** 1998 Dec;76(12):1146-50

Effects of HI-6 on muscle acetylcholine receptor: analysis on minimal reaction model. Chen HC, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):428-31

Platelet-activating factor antagonist (TCV-309) attenuates

the priming effects of bronchoalveolar macrophages in cerulein-induced pancreatitis rats. Yamaguchi Y, et al. **Pancreas** 1999 May;18(4):355-63

A comparison of the efficacy of acetylcholinesterase reactivators against cyclohexyl methylphosphonofluoridate (GF agent) by in vitro and in vivo methods. Kassa J, et al. **Pharmacol Toxicol** 1999 Jan;84(1):41-5

Successful liver transplantation from non-heart-beating donors by blockade of endothelin and PAE. Fukunaga K, et al. **Transplant Proc** 1998 Nov;30(7):3797

Energy metabolism of hepatic allografts subjected to prolonged warm ischemia and pharmacologic modulation with FK506 and platelet activating factor antagonist. Takada Y, et al. **Transplant Proc** 1998 Nov;30(7):3694-5

[Comparison of the effects of BI-6, a new asymmetric bipyridine oxime, with HI-6 oxime and obidoxime in combination with atropine on soman and fosdrine toxicity in mice] Kassa J. **Ceska Slov Farm** 1999 Jan;48(1):44-7 (Eng. Abstr.) **(Cze)**

THERAPEUTIC USE

Strategies of myocardial protection for operation in chronic model of cyanotic heart disease. Zhang J, et al. **Ann Thorac Surg** 1998 Nov;66(5):1507-13

A comparison of the efficacy of a new asymmetric bispyridinium oxime BI-6 with currently available oximes and H oximes against soman by in vitro and in vivo methods. Kassa J, et al. **Toxicology** 1999 Feb 15; 132(2-3):111-8

URINE

Adulteration of urine by "Urine Luck". Wu AH, et al. **Clin Chem** 1999 Jul;45(7):1051-7

PYRIDINONES see **PYRIDONES**

PYRIDONES

Pyrido [1,2a] indole derivatives identified as novel non-nucleoside reverse transcriptase inhibitors of human immunodeficiency virus type 1. Taylor DL, et al. **Antivir Chem Chemother** 1999 Mar;10(2):79-86

Controversial HSC clinical trials report made public. Hospital for Sick Children [news; comment] Birmingham K. **Nat Med** 1999 Jan;5(1):7. Comment on: Nat Med 1999 Jan;5(1):2.

ADMINISTRATION & DOSAGE

Efficacy and side effects of deferiprone (L1) in thalassemia patients not compliant with desferrioxamine. Taher A, et al. **Acta Haematol** 1999;101(4):173-7

Meta-analytic review of the clinical effectiveness of oral deferiprone (L1). Addis A, et al. **Eur J Clin Pharmacol** 1999 Mar;55(1):1-6

[Early hemodynamic effects of olprinone hydrochloride after coronary artery bypass grafting] Marui A, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1112-6 (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Legal issues surrounding privately funded research cause furore in Toronto [see comments] Shuchman M. **CMAJ** 1998 Oct 20;159(8):983-6. Comment in: CMAJ 1998 Oct 20;159(8):955-7.

Independent review adds to controversy at Sick Kids [see comments] Shuchman M. **CMAJ** 1999 Feb 9;160(3):386-8 . Comment in: CMAJ 1999 Jun 1;160(11):1552, 1554. Comment in: CMAJ 1999 Jun 1;160(11):1554.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Nathan DG, et al. **N Engl J Med** 1998 Dec 3;339(23):1711-2; discussion 1713-4. Comment on: N Engl J Med 1998 Aug 13;339(7):417-23. Comment on: N Engl J Med 1998 Aug 13;339(7):468-9.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Stella M, et al. **N Engl J Med** 1998 Dec 3;339(23):1712; discussion 1713-4 . Comment on: N Engl J Med 1998 Aug 13;339(7):417-23.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Tricta F, et al. **N Engl J Med** 1998 Dec 3;339(23):1710; discussion 1713-4 . Comment on: N Engl J Med 1998 Aug 13;339(7):417-23.

CHEMICAL SYNTHESIS

Novel antiinflammatory analgesics: 3-(2-/4-pyridylethyl)-benzoxazolinone and oxazolo[4,5-b]pyridin-2-one derivatives. Gökhan N, et al. **Arch Pharm (Weinheim)** 1999 Feb;332(2):43-9

New 4(1H)-pyridinone derivatives as analgesic agents. Aytemir MD, et al. **Arzneimittelforschung** 1999 Mar; 49(3):250-4

6-aminoalkyloxazolo[4,5-b]pyridin-2(3H)-ones: synthesis and evaluation of antinoceptive activity. Savelon L, et al. **Bioorg Med Chem** 1998 Nov;6(11):1963-73

Synthesis of thiophenecarboxamides, thieno[3,4-c]pyridin-4(5H)-ones and thieno[3,4-d]pyrimidin-4(3H)-ones and preliminary evaluation as inhibitors of poly(ADP-ribose)polymerase (PARP). Shinkwin AE, et al. **Bioorg Med Chem** 1999 Feb; 7(2):297-308

Design and synthesis of a pyridone-based phosphotyrosine mimetic. Fu JM, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2813-6

Synthesis and structure-activity relationships of 2-pyridones: II. 8-(Fluoro-substituted pyrrolidinyl)-2-pyridones as antibacterial agents [published erratum appears in Bioorg Med Chem Lett 1999 Apr 5;9(7):1067] Li Q, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):1953-8

Molecular structure and biological and pharmacological properties of 3-hydroxy-2-methyl-1-(beta-D-ribofuranosyl or pyranosyl)-4-pyridinone: potential iron overload drugs for oral administration. Liu G, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):3077-80

Investigation of the S3 site of thrombin: design, synthesis and biological activity of 4-substituted 3-amino-2-pyridones incorporating P1-argininals. Reiner JE, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):895-900

Peptidomimetic aminomethylene ketone inhibitors of interleukin-1 beta-converting enzyme (ICE). Semple G, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):959-64

The 2-pyridone antibacterial agents: 8-position modifications. Fung AK, et al. **Curr Pharm Des** 1999 Jul; 5(7):515-43 (21 ref.)

Synthesis and tyrosine kinase inhibitory activity of a series of 2-amino-8H-pyrido[2,3-d]pyrimidines: identification of potent, selective platelet-derived growth factor receptor tyrosine kinase inhibitors. Boschelli DH, et al. **J Med Chem** 1998 Oct 22;41(22):4365-77

Discovery of a novel, potent, and orally active nonpeptide antagonist of the human luteinizing hormone-releasing hormone (LHRH) receptor. Cho N, et al. **J Med Chem** 1998 Oct 22;41(22):4190-5

Metabolites of the angiotensin II antagonist tasosartan: the importance of a second acidic group. Ellingboe JW, et al. **J Med Chem** 1998 Oct 22;41(22):4251-60

Efficacious, orally bioavailable thrombin inhibitors based on 3-aminopyridinone or 3-aminopyrazinone acetamide peptidomimetic templates. Sanderson PE, et al. **J Med Chem** 1998 Nov 5;41(23):4466-74

Synthesis, physicochemical properties and biological evaluation of aromatic ester prodrugs of 1-(2'-hydroxyethyl)-2-ethyl-3-hydroxypyridin-4-one (CP102): orally active iron chelators with clinical potential. Liu ZD, et al. **J Pharm Pharmacol** 1999 May;51(5):555-64

Synthesis and reaction of cyanopyridone derivatives and their potential biological activities. Salman AS. **Pharmazie** 1999 Mar;54(3):178-83

CHEMISTRY

Charge density study of 2-pyridone. Yang HW, et al. **Acta Crystallogr B** 1998 Dec 1;54 (Pt 6):912-20

Synthesis, DNA-cleaving properties and cytotoxicity of intercalating chelidamic acid derivatives. Searcey M, et al. **Anticancer Drug Des** 1998 Dec;13(8):837-55

Critical nature of a specific uridine O2-carbonyl for cleavage by the hammerhead ribozyme. Bevers S, et al. **Biochemistry** 1999 Jun 15;38(24):7710-8

C6 modification of the pyridinone core of thrombin inhibitor L-374,087 as a means of enhancing its oral absorption. Isaacs RC, et al. **Bioorg Med Chem Lett** 1998 Jul 7; 8(13):1719-24

B-90063, a novel endothelin converting enzyme inhibitor isolated from a new marine bacterium, Blastobacter sp. SANK 71894. Takaishi S, et al. **J Antibiot (Tokyo)** 1998 Sep;51(9):805-15

ISOLATION & PURIFICATION

8-methyl-pyridoxatin: A novel N-hydroxy pyridone from fungus OS-F61800 that induces erythropoietin in human cells. Cai P, et al. **J Nat Prod** 1999 Feb;62(2):397-9

METABOLISM

Involvement of hepatic aldehyde oxidase in conversion of 1-methyl-4-phenyl-2,3-dihydropyridinium (MPDP+) to 1-methyl-4-phenyl-5,6-dihydro-2-pyridone. Yoshihara S, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):93-8

Iron removal from monoferric human serum transferrins by 1, 2-dimethyl-3-hydroxypyridin-4-one, 1-hydroxypyridin-2-one and acetohydroxamic acid. Li Y, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):89-102

Distinct and overlapping binding sites for IKP104 and vinblastine on tubulin. Chaudhuri AR, et al. **J Protein Chem** 1998 Oct;17(7):685-90

PHARMACOKINETICS

C6 modification of the pyridinone core of thrombin inhibitor L-374,087 as a means of enhancing its oral absorption. Isaacs RC, et al. **Bioorg Med Chem Lett** 1998 Jul 7; 8(13):1719-24

Cellular uptake and release of two contrasting iron chelators. Cable H, et al. **J Pharm Pharmacol** 1999 Feb;51(2):131-4

Gestational exposure to chlorpyrifos: comparative distribution of trichloropyridinol in the fetus and dam. Hunter DL, et al. **Toxicol Appl Pharmacol** 1999 Jul 1; 158(1):16-23

PHARMACOLOGY

Pirfenidone inhibits PDGF isoforms in bleomycin hamster model of lung fibrosis at the translational level. Gurujeyalakshmi G, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L311-8

The effect of olprinone compared with milrinone on diaphragmatic muscle function in dogs. Fujii Y, et al. **Anesth Analg** 1999 Sep;89(3):781-5

Pyrido [1,2a] indole derivatives identified as novel non-nucleoside reverse transcriptase inhibitors of human immunodeficiency virus type 1. Taylor DL, et al. **Antivir Chem Chemother** 1999 Mar;10(2):79-86

Novel antiinflammatory analgesics: 3-(2-/4-pyridylethyl)-benzoxazolinone and oxazolo[4,5-b]pyridin-2-one derivatives. Gökhan N, et al. **Arch Pharm (Weinheim)** 1999 Feb;332(2):43-9

Arterially perfused eye model of uveitis. Shiels IA, et al. **Aust Vet J** 1999 Feb;77(2):100-4

In vivo iron mobilisation evaluation of hydroxypyridinones in 59Fe-ferritin-loaded rat model. Liu ZD, et al. **Biochem Pharmacol** 1999 Mar 1;57(5):559-66

IKP104-induced decay of tubulin: role of the A-ring binding site of colchicine. Chaudhuri AR, et al. **Biochemistry** 1998 Dec 8;37(49):17157-62

L-374,087, an efficacious, orally bioavailable, pyridinone acetamide thrombin inhibitor. Sanderson PE, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):817-22

Vasorelaxant effect of olprinone, an inhibitor of phosphodiesterase 3, on mesenteric small artery and vein of rabbits. Fujimoto S, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):239-46

Inhibition of tumor necrosis factor and subsequent endotoxin shock by pirfenidone. Cain WC, et al. **Int J Immunopharmacol** 1998 Dec;20(12):685-95

B-90063, a novel endothelin converting enzyme inhibitor isolated from a new marine bacterium, Blastobacter sp. SANK 71894. Takaishi S, et al. **J Antibiot (Tokyo)** 1998 Sep;51(9):805-15

Antithrombotic efficacy of thrombin inhibitor L-374,087: intravenous activity in a primate model of venous thrombus extension and oral activity in a canine model of primary venous and coronary artery thrombosis. Cook JJ, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):503-10

Effects of pirfenidone on procollagen gene expression at the transcriptional level in bleomycin hamster model of lung fibrosis. Iyer SN, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):211-8

Effects of pirfenidone on transforming growth factor-beta gene expression at the transcriptional level in bleomycin hamster model of lung fibrosis. Iyer SN, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):367-73

Podophyllotoxin and nocodazole counter the effect of IKP104 on tubulin decay. Prasad V, et al. **J Protein Chem** 1998 Oct;17(7):663-8

Effects of phosphodiesterase inhibitors after coronary artery bypass grafting. Orime Y, et al. **Jpn Circ J** 1999 Feb; 63(2):117-22

Therapeutic targeting of Src-kinase Lyn in myeloid leukemic cell growth. Roginskaya V, et al. **Leukemia** 1999 Jun; 13(6):855-61

Differential inhibitory effect of OK-1035 on DNA repair in L5178Y murine lymphoma sublines with functional or defective repair of double strand breaks. Kruszewski M, et al. **Mutat Res** 1998 Oct 21;409(1):31-6

In vitro activity of rilopirox against fluconazole-susceptible and fluconazole-resistant Candida isolates from patients with HIV infection. Nenoff P, et al. **Mycoses** 1999 Apr; 42(1-2):55-60

Protective effects of a PAF receptor antagonist and a neutrophil elastase inhibitor on multiple organ failure induced by cerulein plus lipopolysaccharide in rats. Yamano M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):253-63

Comparative aluminum mobilizing actions of deferoxamine and four 3-hydroxypyrid-4-ones in aluminum-loaded rats. Gómez M, et al. **Toxicology** 1998 Sep 15;130(2-3):175-81

[The in vitro properties of a new hydroxypyridone antimycotic rilopirox, with special reference to its anti-Candida activity] Harada I, et al. **Jpn J Antibiot** 1999 Feb;52(2):146-52 (Eng. Abstr.) **(Jpn)**

[Effects of amrinone on renal blood flow and cardiac function, in comparison with those of milrinone and olprinone, in anesthetized dog] Fujishima K, et al. **Nippon Yakurigaku Zasshi** 1998 Dec;112(6):371-80 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Bronchodilator effect of inhaled olprinone, a phosphodiesterase 3 inhibitor, in asthmatic patients. Myou S, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):817-20

Treatment of idiopathic pulmonary fibrosis with a new antifibrotic agent, pirfenidone: results of a prospective, open-label Phase II study. Raghu G, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1061-9

Post-operative effects of olprinone after coronary artery bypass grafting. Orime Y, et al. **Ann Thorac Cardiovasc Surg** 1998 Dec;4(6):340-6

In vivo efficacy of ABT-255 against drug-sensitive and -resistant Mycobacterium tuberculosis strains. Oleksijew A, et al. **Antimicrob Agents Chemother** 1998 Oct; 42(10):2674-7

Alternate use of deferiprone and desferrioxamine in primary school children with thalassaemia major [letter] Aydinok Y, et al. **Br J Haematol** 1999 Jul;106(1):252-3

PYRIDONES

Combined therapy with deferiprone and desferrioxamine. Wonke B, et al. **Br J Haematol** 1998 Nov;103(2):361–4

Constraints of interest: lessons at the Hospital for Sick Children [editorial; comment] [published erratum appears in **CMAJ** 1998 Nov 17;159(10):1244] Phillips RA, et al. **CMAJ** 1998 Oct 20;159(8):955–7. Comment on: CMAJ 1998 Oct 20;159(8):983–6.

Saterinone, dobutamine, and sodium nitroprusside: comparison of cardiovascular profiles in patients with congestive heart failure. Kieback AG, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):629–36

Deferiprone therapy in homozygous human beta-thalassemia removes erythrocyte membrane free iron and reduces KCl cotransport activity. de Franceschi L, et al. **J Lab Clin Med** 1999 Jan;133(1):64–9

Involution of keloid implants in athymic mice treated with pirfenidone or with triamcinolone. Shetlar MR, et al. **J Lab Clin Med** 1998 Dec;132(6):491–6

Pirfenidone in idiopathic pulmonary fibrosis. Nicod LP. **Lancet** 1999 Jul 24;354(9175):268–9

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Callea F. **N Engl J Med** 1998 Dec 3;339(23):1710–1; discussion 1713–4. Comment on: N Engl J Med 1998 Aug 13;339(7):417–23. Comment on: N Engl J Med 1998 Aug 13;339(7):468–9.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Cohen AR, et al. **N Engl J Med** 1998 Dec 3;339(23):1713–4. Comment on: N Engl J Med 1998 Aug 13;339(7):417–23.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Grady RW, et al. **N Engl J Med** 1998 Dec 3;339(23):1712–3; discussion 1713–4. Comment on: N Engl J Med 1998 Aug 13;339(7):417–23.

Iron chelation with oral deferiprone in patients with thalassemia [letter; comment] Wonke B, et al. **N Engl J Med** 1998 Dec 3;339(23):1712; discussion 1713–4 . Comment on: N Engl J Med 1998 Aug 13;339(7):417–23.

HSC clinical trials controversy continues. Hospital for Sick Children [letter; comment] [see comments] Buchwald M, et al. **Nat Med** 1999 Jan;5(1):2–3. Comment on: Nat Med 1998 Oct;4(10):1089. Comment on: Nat Med 1998 Oct;4(10):1095. Comment in: Nat Med 1999 Jan;5(1):7.

An investigation into variability in the therapeutic response to deferiprone in patients with thalassemia major. Diav-Citrin O, et al. **Ther Drug Monit** 1999 Feb;21(1):74–81

[Iron chelation in 1998] de Montalembert M. **Transfus Clin Biol** 1998 Oct;5(5):353–6 (7 ref.) (Eng. Abstr.) **(Fre)**

URINE

Semiautomated preparation of 3,5,6-trichloro-2-pyridinol in human urine using a Zymate XP laboratory robot with quantitative determination by gas chromatography-negative-ion chemical ionization mass spectrometry. Ormand JR, et al. **J Anal Toxicol** 1999 Jan-Feb;23(1):35–40

Reference values of urinary 3,5,6-trichloro-2-pyridinol in the Italian population--validation of analytical method and preliminary results (multicentric study). Aprea C, et al. **J AOAC Int** 1999 Mar-Apr;82(2):305–12

PYRIDOSTIGMINE BROMIDE

ADVERSE EFFECTS

Anaphylaxis by pyridostigmine. Castellano A, et al. **Allergy** 1998 Nov;53(11):1108–9

Pyridostigmine bromide and Gulf War syndrome. Shen ZX. **Med Hypotheses** 1998 Sep;51(3):235–7

Pyridostigmine, a carbamate acetylcholinesterase AChE inhibitor and reactivator, is used prophylactically against chemical warfare agents [letter] Telang FW, et al. **Nucl Med Biol** 1999 Feb;26(2):249–50

DIAGNOSTIC USE

The effect of short-term cortisol changes on growth hormone responses to the pyridostigmine-growth-hormone-releasing-hormone test in healthy adults and patients with suspected growth hormone deficiency. Andersen M, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):241–9

Hexarelin-induced growth hormone response in short stature. Comparison with growth hormone-releasing hormone plus pyridostigmine and arginine plus estrogen. Guzzaloni G, et al. **J Endocrinol Invest** 1999 May;22(5):360–8

Growth hormone response to hexarelin, growth hormone-releasing hormone plus pyridostigmine and arginine plus estrogen in prepubertal and early pubertal short children. Guzzaloni G, et al. **Minerva Endocrinol** 1998 Dec;23(4):99–104

PHARMACOKINETICS

Heat stress, even extreme, does not induce penetration of pyridostigmine into the brain of guinea pigs. Lallement G, et al. **Neurotoxicology** 1998 Dec;19(6):759–66

PHARMACOLOGY

Controlled intermittent asystole: pharmacologic potentiation of vagal-induced asystole. Bufkin BL, et al. **Ann Thorac Surg** 1998 Oct;66(4):1185–90

Pyridostigmine blunts the increases in myocardial oxygen demand elicited by the stimulation of the central nervous system in anesthetized rats. Grabe-Guimarães A, et al. **Clin Auton Res** 1999 Apr;9(2):83–9

Cholinergic stimulation with pyridostigmine blunts the cardiac responses to mental stress. Nóbrega AC, et al. **Clin Auton Res** 1999 Feb;9(1):11–6

Clinical effects of low-level exposures to chemical warfare agents in mice and chickens. Wilson BW, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:183–90

Effects of pyridostigmine and naloxone on the abnormal TSH response to TRH during starvation in humans. Coiro V, et al. **J Investig Med** 1999 May;47(5):227–31

Persistently exaggerated startle responses in rats treated with pyridostigmine bromide. Servatius RJ, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1020–8

Effect of growth hormone-releasing peptide 1-6 on GH secretion-stimulated by GHRH and pyridostigmine in lambs. Rico M, et al. **J Physiol Biochem** 1998 Jun; 54(2):67–76

Neuromuscular responses to pyridostigmine bromide in organotypic spinal cord-muscle culture. Drake-Baumann R, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):305–8

The effect of pyridostigmine administration on the expression of pro-opiomelanocortin-derived peptides in motoneurones. Amos ML, et al. **Neurotoxicology** 1998 Dec; 19(6):799–807

Pyridostigmine bromide alters locomotion and thigmotaxis of rats: gender effects. Hoy JB, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):401–6

The effects of acute and repeated pyridostigmine bromide administration on response acquisition with immediate and delayed reinforcement. van Haaren F, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):389–94

THERAPEUTIC USE

Pyridostigmine cotreatment for controlled ovarian hyperstimulation in low responders undergoing in vitro fertilization-embryo transfer. Kim CH, et al. **Fertil Steril** 1999 Apr;71(4):652–7

Recovery from myasthenic crisis after use of IVIG therapy. Jain K, et al. **Indian Pediatr** 1998 Sep;35(9):901–3

Success of pyridostigmine, physostigmine, eptastigmine and phosphotriesterase treatments in acute sarin intoxication. Tuovinen K, et al. **Toxicology** 1999 Jun 15;134(2–3):169–78

TOXICITY

Neuromuscular effects of low level exposures to Sarin, pyridostigmine, DEET, and chlorpyrifos. Olson CT, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:149–69

Effects of exposure to low-dose pyridostigmine on neuromuscular junctions in vitro [see comments] Drake-Baumann R, et al. **Muscle Nerve** 1999 Jun; 22(6):696–703. Comment in: Muscle Nerve 1999 Jun;22(6):663–5.

Anticonvulsant-resistant seizures following pyridostigmine bromide (PB) and N,N-diethyl-m-toluamide (DEET). Chaney LA, et al. **Toxicol Sci** 1999 Jun;49(2):306–11

PYRIDOXAL

ANALOGS & DERIVATIVES

EPR spin trapping and 2-deoxyribose degradation studies of the effect of pyridoxal isonicotinoyl hydrazone (PIH) on $^{\bullet}OH$ formation by the Fenton reaction. Hermes-Lima M, et al. **Biochim Biophys Acta** 1999 Feb 2;1426(3):475–82

Evaluation of transferrin and gallium-pyridoxal isonicotinoyl hydrazone as potential therapeutic agents to overcome lymphoid leukemic cell resistance to gallium nitrate. Chitambar CR, et al. **Clin Cancer Res** 1996 Jun;2(6):1009–15

Extraosseous metastases of hepatocellular carcinoma detection and therapeutic assessment with Tc-99m PMT SPECT. Hayase N, et al. **Clin Nucl Med** 1999 May; 24(5):326–9

The iron chelator pyridoxal isonicotinoyl hydrazone (PIH) protects plasmid pUC-18 DNA against $^{\bullet}OH$-mediated strand breaks. Hermes-Lima M, et al. **Free Radic Biol Med** 1998 Nov 15;25(8):875–80

Orally effective iron chelators for the treatment of iron overload disease: the case for a further look at pyridoxal isonicotinoyl hydrazone and its analogs [letter; comment] Richardson DR, et al. **J Lab Clin Med** 1998 Oct; 132(4):351–2 (8 ref.). Comment on: J Lab Clin Med 1998 Apr;131(4):290–1.

Analogues of pyridoxal isonicotinoyl hydrazone (PIH) as potential iron chelators for the treatment of neoplasia. Richardson DR. **Leuk Lymphoma** 1998 Sep;31(1–2):47–60 (73 ref.)

PYRIDOXAL KINASE

CHEMISTRY

Structure of pyridoxal kinase from sheep brain and role of the tryptophanyl residues. Maras B, et al. **J Protein Chem** 1999 Apr;18(3):259–68

GENETICS

Porcine pyridoxal kinase c-DNA cloning, expression and confirmation of its primary sequence. Gao ZG, et al. **Int J Biochem Cell Biol** 1998 Dec;30(12):1379–88

IMMUNOLOGY

Production and characterization of monoclonal antibodies to porcine brain pyridoxal kinase. Choi SY, et al. **Biofactors** 1999;10(1):35–42

METABOLISM

The influence of dietary restriction on vitamin B-6 vitamer distribution and on vitamin B-6 metabolizing enzymes in rats. Wei IL. **J Am Coll Nutr** 1999 Apr;18(2):144–51

PYRIDOXAL PHOSPHATE

Slow-binding and competitive inhibition of 8-amino-7-oxopelargonate synthase, a pyridoxal-5'-phosphate-dependent enzyme involved in biotin biosynthesis, by substrate and intermediate analogs. Kinetic and binding studies. Ploux O, et al. **Eur J Biochem** 1999 Jan;259(1–2):63–70

ANALOGS & DERIVATIVES

Manganese dipyridoxyl diphosphate: MRI contrast agent with antioxidative and cardioprotective properties? Brurok H, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):768–72

Benign and malignant hepatocellular tumors: evaluation of tumoral enhancement after mangafodipir trisodium injection on MR imaging. Coffin CM, et al. **Eur Radiol** 1999;9(3):444–9

Vitamin B6 biosynthesis: formation of pyridoxine 5'-phosphate from 4-(phosphohydroxy)-L-threonine and 1-deoxy-D-xylulose-5-phosphate by PdxA and PdxJ protein. Laber B, et al. **FEBS Lett** 1999 Apr 16;449(1):45–8

Cardiac metal contents after infusions of manganese. An experimental evaluation in the isolated rat heart. Brurok H, et al. **Invest Radiol** 1999 Jul;34(7):470–6

MR imaging of pancreatic lesions. Comparison of manganese-DPDP and gadolinium chelate. Diehl SJ, et al. **Invest Radiol** 1999 Sep;34(9):589–95

MnDPDP enhancement characteristics and differentiation between cirrhotic and noncirrhotic livers. Marti-Bonmati L, et al. **Invest Radiol** 1998 Oct;33(10):717–22

Unexpected MR-T1 enhancement of endocrine liver metastases with mangafodipir. Mathieu D, et al. **J Magn Reson Imaging** 1999 Aug;10(2):193–5 (15 ref.)

Mangafodipir trisodium: effects on T2- and T1-weighted MR cholangiography. Mitchell DG, et al. **J Magn Reson Imaging** 1999 Feb;9(2):366–8

Sequence optimization in mangafodipir trisodium-enhanced liver and pancreas MRI. Wang C, et al. **J Magn Reson Imaging** 1999 Feb;9(2):280–4

Detection of acute myocardial ischemia using first-pass dynamics of MnDPDP on inversion recovery echoplanar imaging. Wyttenbach R, et al. **J Magn Reson Imaging** 1999 Feb;9(2):209–14

Influence of the hepatobiliary contrast agent mangafodipir trisodium (MN-DPDP) on the imaging properties of abdominal organs. Jung G, et al. **Magn Reson Imaging** 1998 Oct;16(8):925–31

Effects of the P2-purinoceptor antagonists suramin and pyridoxal-phosphate-6-azophenyl-2',4'-disulfonic acid on glutamatergic synaptic transmission in rat dorsal horn neurons of the spinal cord. Gu JG, et al. **Neurosci Lett** 1998 Sep 11;253(3):167–70

BLOOD

A prospective study on folate, B12, and pyridoxal 5'-phosphate (B6) and breast cancer. Wu K, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar;8(3):209–17

A simple, sensitive and reproducible assay for pyridoxal 5'-phosphate and 4-pyridoxic acid in human plasma. Bates CJ, et al. **Clin Chim Acta** 1999 Feb;280(1–2):101–11

High performance liquid chromatography method for the determination of pyridoxal-5-phosphate in human plasma: how appropriate are cut-off values for vitamin B6 deficiency? Bailey AL, et al. **Eur J Clin Nutr** 1999 Jun; 53(6):448–55

Serum concentrations and clearances of folic acid and pyridoxal-5-phosphate during venovenous continuous renal replacement therapy. Fortin MC, et al. **Intensive Care Med** 1999 Jun;25(6):594–8

Relation between plasma homocysteine concentration, the 844ins68 variant of the cystathionine beta-synthase gene, and pyridoxal-5'-phosphate concentration. Tsai MY, et al. **Mol Genet Metab** 1999 Aug;67(4):352–6

CHEMISTRY

Conformational alteration in serum albumin as a carrier for pyridoxal phosphate: a distinction from pyridoxal phosphate-dependent glutamate decarboxylase. Zhang F, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):195–202

The imine-pyridine torsion of the pyridoxal 5'-phosphate Schiff base of aspartate aminotransferase lowers its pKa in the unliganded enzyme and is crucial for the successive increase in the pKa during catalysis. Hayashi H, et al. **Biochemistry** 1998 Oct 27;37(43):15076–85

Tryptophan synthase mutations that alter cofactor chemistry lead to mechanism-based inactivation. Jhee KH, et al.

Biochemistry 1998 Oct 13;37(41):14591–604

Binding of pyridoxal 5'-phosphate to the heme protein human cystathionine beta-synthase. Kery V, et al. **Biochemistry** 1999 Mar 2;38(9):2716–24

Characterization of the heme and pyridoxal phosphate cofactors of human cystathionine beta-synthase reveals nonequivalent active sites [published erratum appears in Biochemistry 1999 Jun 1;38(22):7406] Taoka S, et al. **Biochemistry** 1999 Mar 2;38(9):2738–44

Structural basis of the tight binding of pyridoxal 5'-phosphate to a low molecular weight protein tyrosine phosphatase. Zhou M, et al. **Biochemistry** 1999 Mar 2;38(9):2636–46

pH studies on the mechanism of the pyridoxal phosphate-dependent dialkylglycine decarboxylase. Zhou X, et al. **Biochemistry** 1999 Jan 5;38(1):311–20

The crystal structure of 8-amino-7-oxononanoate synthase: a bacterial PLP-dependent, acyl-CoA-condensing enzyme. Alexeev D, et al. **J Mol Biol** 1998 Nov 27; 284(2):401–19

[Localization of pyridoxal-5-phosphate, covalently bound with human hemoglobin. Spectrofluorimetric studies] Zavodnik IB, et al. **Biofizika** 1999 May-Jun;44(3):412–20 (Eng. Abstr.) **(Rus)**

METABOLISM

Negative cooperativity in tryptophan synthase alpha subunit dissociation is caused by the bound coenzyme: pyridoxal 5'-phosphate. Millar DB. **Anal Biochem** 1998 Nov 15; 264(2):271–8

Effects of the E177K mutation in D-amino acid transaminase. Studies on an essential coenzyme anchoring group that contributes to stereochemical fidelity. van Ophem PW, et al. **Biochemistry** 1999 Jan 26;38(4):1323–31

Role of lysine 39 of alanine racemase from Bacillus stearothermophilus that binds pyridoxal 5'-phosphate. Chemical rescue studies of Lys39 —> Ala mutant. Watababe A, et al. **J Biol Chem** 1999 Feb 12;274(7):4189–94

Pyridoxal 5'-phosphate is an ATP-receptor antagonist in freshly isolated rat cardiomyocytes. Wang X, et al. **J Mol Cell Cardiol** 1999 May;31(5):1063–72

Update on interconversions of vitamin B-6 with its coenzyme. McCormick DB, et al. **J Nutr** 1999 Feb; 129(2):325–7 (33 ref.)

Common structural elements in the architecture of the cofactor-binding domains in unrelated families of pyridoxal phosphate-dependent enzymes. Denessiouk KA, et al. **Proteins** 1999 May 1;35(2):250–61

Structure of mammalian ornithine decarboxylase at 1.6 A resolution: stereochemical implications of PLP-dependent amino acid decarboxylases. Kern AD, et al. **Structure Fold Des** 1999 May;7(5):567–81

PHARMACOLOGY

Restoration of rat liver L-threonine dehydratase activity by pyridoxamine 5'-phosphate: the half-transaminating activity of L-threonine dehydratase and its regulatory role. Leoncini R, et al. **Biochim Biophys Acta** 1998 Oct 23; 1425(2):411–8

Inhibition of camel lens zeta-crystallin/NADPH:quinone oxidoreductase by pyridoxal-5'-phosphate. Rabbani N, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):175–80

Nicotinic acid and pyridoxine modulate arachidonic acid metabolism in vitro and ex vivo in man. Saareks V, et al. **Pharmacol Toxicol** 1999 Jun;84(6):274–80

THERAPEUTIC USE

Long-term follow-up of an individual with vitamin B6-dependent seizures. Ohtsuka Y, et al. **Dev Med Child Neurol** 1999 Mar;41(3):203–6

Cerebrospinal fluid somatostatin in West syndrome: changes in response to combined treatment with high-dose pyridoxal phosphate and low-dose corticotropin. Hirai K, et al. **Neuropeptides** 1998 Dec;32(6):581–6

PYRIDOXAMINE

ANALOGS & DERIVATIVES

Restoration of rat liver L-threonine dehydratase activity by pyridoxamine 5'-phosphate: the half-transaminating activity of L-threonine dehydratase and its regulatory role. Leoncini R, et al. **Biochim Biophys Acta** 1998 Oct 23; 1425(2):411–8

METABOLISM

Amadorins: novel post-Amadori inhibitors of advanced glycation reactions. Khalifah RG, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):251–8 (65 ref.)

PYRIDOXAMINE KINASE see **PYRIDOXAL KINASE**

PYRIDOXAMINEPHOSPHATE OXIDASE

METABOLISM

The influence of dietary restriction on vitamin B-6 vitamer distribution and on vitamin B-6 metabolizing enzymes in rats. Wei IL. **J Am Coll Nutr** 1999 Apr;18(2):144–51

PYRIDOXIC ACID

BLOOD

A simple, sensitive and reproducible assay for pyridoxal 5'-phosphate and 4-pyridoxic acid in human plasma. Bates CJ, et al. **Clin Chim Acta** 1999 Feb;280(1-2):101–11

PYRIDOXINE

Bread fortification with folic acid, vitamin B12, and vitamin B6 in Hungary [letter] Czeizel AE, et al. **Lancet** 1998 Oct 10;352(9135):1225

Current knowledge concerning optimum nutritional status of riboflavin, niacin and pyridoxine. Powers HJ. **Proc Nutr Soc** 1999 May;58(2):435–40 (47 ref.)

ADMINISTRATION & DOSAGE

Reduction of homocysteine levels in coronary artery disease by low-dose folic acid combined with vitamins B6 and B12. Lobo A, et al. **Am J Cardiol** 1999 Mar 15;83(6):821–5

Combination of low-dose folic acid and pyridoxine for treatment of hyperhomocysteinaemia in patients with premature arterial disease and their relatives. van der Griend R, et al. **Atherosclerosis** 1999 Mar;143(1):177–83

Plasma pyridoxal phosphate and pyridoxic acid and their relationship to plasma homocysteine in a representative sample of British men and women aged 65 years and over [see comments] Bates CJ, et al. **Br J Nutr** 1999 Mar; 81(3):191–201. Comment in: Br J Nutr 1999 Mar;81(3):175–6.

Homocyst(e)ine, vitamins and genetic interactions in vascular disease. Malinow MR. **Can J Cardiol** 1999 Apr;15 Suppl B:31B–34B

Methylenetetrahydrofolate reductase, diet, and risk of colon cancer. Slattery ML, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):513–8

Effects of high-dose folic acid and pyridoxine on plasma and erythrocyte sulfur amino acids in hemodialysis patients. Suliman ME, et al. **J Am Soc Nephrol** 1999 Jun; 10(6):1287–96

Critique of "Efficacy of vitamin B6 and magnesium in the treatment of autism" [letter; comment] Rimland B. **J Autism Dev Disord** 1998 Dec;28(6):580–1. Comment on: J Autism Dev Disord 1995 Oct;25(5):481–93.

High dose vitamin B6 and magnesium in treating autism: response to study by Findling et al [letter; comment] Rimland B. **J Autism Dev Disord** 1998 Dec;28(6):581–2. Comment on: J Autism Dev Disord 1997 Aug;27(4):467–78.

High-dose vitamin E plus vitamin B6 treatment of risperidone-related neuroleptic malignant syndrome. Dursun SM, et al. **J Psychopharmacol** 1998;12(2):220–1

Still time for rational debate about vitamin B6 [editorial] **Lancet** 1998 May 23;351(9115):1523

Debate continues on vitamin B6 [letter] Marks J. **Lancet** 1998 Jul 4;352(9121):63

Vitamin B6-deficient diet plus 4-deoxypyridoxine (4-DPD) reduces the inflammatory response induced by T. spiralis in diaphragm, masseter and heart muscle tissue of mice. Frydas S, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):79–85

Vitamin supplementation during weight reduction--favourable effect on homocysteine metabolism. Henning BF, et al. **Res Exp Med (Berl)** 1998 Jul; 198(1):37–42

ADVERSE EFFECTS

Intake of vitamins B6 and C and the risk of kidney stones in women. Curhan GC, et al. **J Am Soc Nephrol** 1999 Apr; 10(4):840–5

Acute life-threatening event with rhabdomyolysis after starting on high-dose pyridoxine therapy in an infant with homocystinuria. Shoji Y, et al. **J Inherit Metab Dis** 1998 Jun;21(4):439–40

Dietary excess of vitamin B-6 affects the concentrations of amino acids in the caudate nucleus and serum and the binding properties of serotonin receptors in the brain cortex of rats. Schaeffer MC, et al. **J Nutr** 1998 Oct; 128(10):1829–35

Neonatal seizures after use of pyridoxine in pregnancy [letter] South M. **Lancet** 1999 Jun 5;353(9168):1940–1

Response to Dr. Stuart Newman's commentary on an article entitled "Bendectin: review of the medical literature of a comprehensively studied human nonteratogen and the most prevalent tortogen-litigen" [comment] [see comments] Brent RL. **Reprod Toxicol** 1999 Jul-Aug;13(4):245–53. Comment on: Reprod Toxicol 1999 Jul-Aug;13(4):241–4. Comment in: Reprod Toxicol 1999 Jul-Aug;13(4):239. Comment in: Reprod Toxicol 1999 Jul-Aug;13(4):255–60.

Dr. Brent and scientific debate [comment] [see comments] Newman SA. **Reprod Toxicol** 1999 Jul-Aug;13(4):241–4. Comment on: Reprod Toxicol 1995 Jul-Aug;9(4):337–49. Comment in: Reprod Toxicol 1999 Jul-Aug;13(4):239. Comment in: Reprod Toxicol 1999 Jul-Aug;13(4):245–53.

Response to Dr. Brent's commentary on "Dr. Brent and scientific debate" [comment] Newman SA. **Reprod Toxicol** 1999 Jul-Aug;13(4):255–60. Comment on: Reprod Toxicol 1999 Jul-Aug;13(4):239. Comment on: Reprod Toxicol 1999 Jul-Aug;13(4):245–53.

Bendectin: review of the medical literature of a comprehensively studied human nonteratogen and the most prevalent tortogen-litigen [editorial; comment] [see comments] Scialli AR. **Reprod Toxicol** 1999 Jul-Aug; 13(4):239. Comment on: JAMA 1990 Aug 1;264(5):569–70. Comment on: Reprod Toxicol 1995 Jul-Aug;9(4):337–49. Comment on: Reprod Toxicol 1999 Jul-Aug;13(4):241–4. Comment on: Reprod Toxicol 1999 Jul-Aug;13(4):245–53. Comment in: Reprod Toxicol 1999 Jul-Aug;13(4):255–60.

ANALOGS & DERIVATIVES

Development of novel 19F NMR pH indicators: synthesis and evaluation of a series of fluorinated vitamin B6 analogues. He S, et al. **Bioorg Med Chem** 1998 Sep; 6(9):1631–9

A new antioxidative vitamin B6 analogue modulates pathophysiological cell proliferation and damage. Kesel AJ, et al. **Bioorg Med Chem** 1999 Feb;7(2):359–67

Vitamin B6-deficient diet plus 4-deoxypyridoxine (4-DPD) reduces the inflammatory response induced by T. spiralis in diaphragm, masseter and heart muscle tissue of mice. Frydas S, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):79–85

IgG, IgG1 and IgM response in Trichinella spiralis-infected mice treated with 4-deoxypirydoxine or fed a Vitamin B6-deficient diet. Frydas S, et al. **Mol Cell Biochem** 1999 Apr;194(1-2):47–52

ANALYSIS

Simultaneous determination of pyridoxine hydrochloride and doxylamine succinate from tablets by ion pair reversed-phase high-performance liquid chromatography (RP-HPLC). Argekar AP, et al. **Drug Dev Ind Pharm** 1999 Aug;25(8):945–50

Simultaneous determination of ascorbic acid, pyridoxine hydrochloride, and tyrosine by derivative UV spectrophotometry. Surmeian M. **Drug Dev Ind Pharm** 1998 Jul;24(7):691–6

BIOSYNTHESIS

Vitamin B6 biosynthesis: formation of pyridoxine 5'-phosphate from 4-(phosphohydroxy)-L-threonine and 1-deoxy-D-xylulose-5-phosphate by PdxA and PdxJ protein. Laber B, et al. **FEBS Lett** 1999 Apr 16;449(1):45–8

The extremely conserved pyroA gene of Aspergillus nidulans is required for pyridoxine synthesis and is required indirectly for resistance to photosensitizers. Osmani AH, et al. **J Biol Chem** 1999 Aug 13;274(33):23565–9

BLOOD

Folic acid, riboflavin, thiamine, and vitamin B-6 status of a group of first-time blood donors. Booth CK, et al. **Am J Clin Nutr** 1998 Nov;68(5):1075–80

Plasma homocysteine, vitamin B6, vitamin B12 and folic acid in end-stage renal disease during low-dose supplementation with folic acid. Hong SY, et al. **Am J Nephrol** 1998; 18(5):367–72

Peritoneal clearance and peritoneal transfer of oxalic acid, vitamin C, and vitamin B6 during continuous ambulatory peritoneal dialysis. Mydlik M, et al. **Artif Organs** 1998 Sep; 22(9):784–8

Clinical implications of the correlation between coenzyme Q10 and vitamin B6 status. Willis R, et al. **Biofactors** 1999; 9(2-4):359–63

A prospective study on folate, B12, and pyridoxal 5'-phosphate (B6) and breast cancer. Wu K, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar;8(3):209–17

The thiamin, riboflavin and pyridoxine status of patients on emergency admission to hospital. Jamieson CP, et al. **Clin Nutr** 1999 Apr;18(2):87–91

Homocysteine, vitamins and sex [editorial; comment] Hockly E, et al. **Eur Heart J** 1999 Sep;20(17):1222–3. Comment on: Eur Heart J 1999 Sep;20(17):1234–44.

Homocysteine, vitamin status and risk of vascular disease; effects of gender and menopausal status. European COMAC Group [see comments] Verhoef P, et al. **Eur Heart J** 1999 Sep;20(17):1234–44. Comment in: Eur Heart J 1999 Sep;20(17):1222–3.

Enzymic evaluation of thiamin, riboflavin and pyridoxine status of parturient mothers and their newborn infants in a Mediterranean area of Spain. Sánchez DJ, et al. **Eur J Clin Nutr** 1999 Jan;53(1):27–38

Konjac mannan improves the vitamin B-6 status of rats fed a vitamin B-6-deficient diet. Hayakawa T, et al. **Int J Vitam Nutr Res** 1999 Mar;69(2):106–12

Vitamins B6, B12, and folate: association with plasma total homocysteine and risk of coronary atherosclerosis. Siri PW, et al. **J Am Coll Nutr** 1998 Oct;17(5):435–41

Debate continues on vitamin B6 [letter] [see comments] Dalton K, et al. **Lancet** 1998 Jul 4;352(9121):62. Comment in: Lancet 1998 Aug 22;352(9128):655–6. Comment in: Lancet 1998 Aug 22;352(9128):656.

CHEMICAL SYNTHESIS

Prebiotic synthesis of vitamin B6-type compounds. Austin SM, et al. **Orig Life Evol Biosph** 1999 May;29(3):287–96

CHEMISTRY

A new antioxidative vitamin B6 analogue modulates pathophysiological cell proliferation and damage. Kesel AJ, et al. **Bioorg Med Chem** 1999 Feb;7(2):359–67

Transmembrane pH gradients in vivo: measurements using fluorinated vitamin B6 derivatives. Mason RP.

PYRIDOXINE

Curr Med Chem 1999 Jun;6(6):481–99 (175 ref.)

DEFICIENCY see **PYRIDOXINE DEFICIENCY**

GENETICS

A highly conserved sequence is a novel gene involved in de novo vitamin B6 biosynthesis. Ehrenshaft M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9374–8

METABOLISM

Vitamin B6 status and requirements in older adults [comment] van den Berg H. **Br J Nutr** 1999 Mar;81(3):175–6. Comment on: Br J Nutr 1999 Mar;81(3):191–201.

Vitamin B6 deficiency may also be important [letter; comment] Reynolds TM. **Clin Chem** 1998 Dec; 44(12):2555–6. Comment on: Clin Chem 1998 Jul;44(7):1583–4.

Structure, evolution and action of vitamin B6–dependent enzymes. Jansonius JN. **Curr Opin Struct Biol** 1998 Dec; 8(6):759–69 (59 ref.)

The influence of dietary restriction on vitamin B–6 vitamer distribution and on vitamin B–6 metabolizing enzymes in rats. Wei IL. **J Am Coll Nutr** 1999 Apr;18(2):144–51

A subtype of pyridoxine–dependent epilepsy with normal CSF glutamate concentration. Kure S, et al. **J Inherit Metab Dis** 1998 Jun;21(4):431–2

Update on interconversions of vitamin B–6 with its coenzyme. McCormick DB, et al. **J Nutr** 1999 Feb; 129(2):325–7 (33 ref.)

Hypertension, calcium channel and pyridoxine (vitamin B6). Dakshinamurti K, et al. **Mol Cell Biochem** 1998 Nov; 188(1–2):137–48 (68 ref.)

PHARMACOLOGY

Effect of pyridoxine on rifampicin toxicity. Yun YP, et al. **Arch Pharm Res** 1991 Mar;14(1):73–7

Homocysteine, B vitamins, and atherosclerosis [letter; comment] Cheng TO. **Circulation** 1999 Jan 26;99(3):459–60 . Comment on: Circulation 1998 Jul 21;98(3):204–10.

Effect of vitamin B6 on lenses of diabetic rats. Yarat A, et al. **Indian J Exp Biol** 1998 Dec;36(12):1269–72

Lowering of homocysteine concentrations in elderly men and women. Brönstrup A, et al. **Int J Vitam Nutr Res** 1999 May;69(3):187–93

Comparative experimental study of Mg lactate, vitamin B6 and their association on the permeability of a human membrane. 2. Effects on cellular and paracellular ionic transfer through isolated amniotic membrane. Bara M, et al. **Magnes Res** 1998 Dec;11(4):259–70

Effect of vitamin B–6 supplementation on fuels, catecholamines, and amino acids during exercise in men. Virk RS, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):400–8

Nicotinic acid and pyridoxine modulate arachidonic acid metabolism in vitro and ex vivo in man. Saareks V, et al. **Pharmacol Toxicol** 1999 Jun;84(6):274–80

Plasma total homocysteine response to oral doses of folic acid and pyridoxine hydrochloride (vitamin B6) in healthy individuals. Oral doses of vitamin B6 reduce concentrations of serum folate. Mansoor MA, et al. **Scand J Clin Lab Invest** 1999 Apr;59(2):139–46

Seizures induced by theophylline and isoniazid in mice. Bonner AB, et al. **Vet Hum Toxicol** 1999 Jun;41(3):175–7

PHYSIOLOGY

B vitamins and homocysteine in cardiovascular disease and aging. Wilcken DE, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:361–70 (29 ref.)

Pyridoxine dependent epilepsy: a suggestive electroclinical pattern. Nabbout R, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Sep;81(2):F125–9

SUPPLY & DISTRIBUTION

Vitamin B–6. Government guidelines are not based on scientific evidence [letter; comment] Beckett A. **BMJ** 1999 Feb 13;318(7181):463–4. Comment on: BMJ 1998 Jul 11;317(7151):92–3.

Vitamin B–6. Many found relief for disorders for which no effective treatment exists [letter] Marks J. **BMJ** 1999 Feb 13;318(7181):463

Acute isoniazid exposures and antidote availability. Santucci KA, et al. **Pediatr Emerg Care** 1999 Apr;15(2):99–101

THERAPEUTIC USE

Benfotiamine in treatment of alcoholic polyneuropathy: an 8–week randomized controlled study (BAP I Study). Woelk H, et al. **Alcohol Alcohol** 1998 Nov–Dec;33(6):631–8

Vitamin B–6. Many have found relief from disorders for which no effective treatment exists [letter; comment] Marks J. **BMJ** 1999 Feb 13;318(7181):463. Comment on: BMJ 1998 Jul 11;317(7151):92–3.

Efficacy of vitamin B–6 in the treatment of premenstrual syndrome: systematic review. Wyatt KM, et al. **BMJ** 1999 May 22;318(7195):1375–81 (52 ref.)

Non–nutritional uses of vitamin B6. Bender DA. **Br J Nutr** 1999 Jan;81(1):7–20 (174 ref.)

Vitamin B6 in treatment of tardive dyskinesia: a preliminary case series study. Lerner V, et al. **Clin Neuropharmacol** 1999 Jul–Aug;22(4):241–3

A double–blind trial of four medications to treat severe premenstrual syndrome. Diegoli MS, et al. **Int J Gynaecol Obstet** 1998 Jul;62(1):63–7

Can dietary supplements with folic acid or vitamin B6 reduce cardiovascular risk? Design of clinical trials to test the homocysteine hypothesis of vascular disease. Clarke R, et al. **J Cardiovasc Risk** 1998 Aug;5(4):249–55

Movement disorders and psychotic symptoms treated with pyridoxine: a case report [letter] Lerner V, et al. **J Clin Psychiatry** 1998 Nov;59(11):623–4

Treatment of alcoholic fatty liver: is the metabolic effect of metadoxine the only reason for improved liver function? [letter; comment] Stefanini GF, et al. **J Hepatol** 1999 Apr; 30(4):739–40. Comment on: J Hepatol 1998 Jan;28(1):54–60.

Assessment of efficacy of pyridoxine in control of radiation induced sickness. Mahajan MK, et al. **J Indian Med Assoc** 1998 Mar;96(3):82–3

Normohomocysteinaemia and vitamin–treated hyperhomocysteinaemia are associated with similar risks of cardiovascular events in patients with premature peripheral arterial occlusive disease. A prospective cohort study. de Jong SC, et al. **J Intern Med** 1999 Jul;246(1):87–96

Demographics and diagnosis of pyridoxine–dependent seizures [letter; comment] Ebinger M, et al. **J Pediatr** 1999 Jun;134(6):795–6. Comment on: J Pediatr 1998 Jun;132(6):919–23.

Debate continues on vitamin B6 [letter] Downing D. **Lancet** 1998 Jul 4;352(9121):63

Effect of pyridoxine or riboflavin supplementation on plasma homocysteine levels in women with oral lesions. Lakshmi AV, et al. **Natl Med J India** 1998 Jul–Aug;11(4):171–2

Transplantation strategies in type 1 primary hyperoxaluria: the issue of pyridoxine responsiveness [editorial] Marangella M. **Nephrol Dial Transplant** 1999 Feb; 14(2):301–3 (13 ref.)

[Diabetic polyneuropathy treatment by milgamma–100 preparation] Sadekov RA, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(9):30–2 (Eng. Abstr.) **(Rus)**

[Results of treatment with oral citrate and pyridoxine in patients with primary hyperoxaluria type 1] Castelló Girona F, et al. **An Esp Pediatr** 1999 Apr;50(4):397–401 **(Spa)**

TOXICITY

Debate continues on vitamin B6 [letter] Beckett A. **Lancet** 1998 Jul 4;352(9121):62

URINE

[The effect of furosemide on urinary excretion of oxalic acid, vitamin C and vitamin B6 in chronic kidney failure] Mydlík M, et al. **Vnitr Lek** 1998 Mar;44(3):127–31 (Eng. Abstr.) **(Slo)**

PYRIDOXINE DEFICIENCY

see related
ANEMIA, SIDEROBLASTIC

BLOOD

High performance liquid chromatography method for the determination of pyridoxal–5–phosphate in human plasma: how appropriate are cut–off values for vitamin B6 deficiency? Bailey AL, et al. **Eur J Clin Nutr** 1999 Jun; 53(6):448–55

Konjac mannan improves the vitamin B–6 status of rats fed a vitamin B–6–deficient diet. Hayakawa T, et al. **Int J Vitam Nutr Res** 1999 Mar;69(2):106–12

COMPLICATIONS

Vitamin K and metabolic bone disease [letter; comment] Reynolds TM. **J Clin Pathol** 1998 Dec;51(12):943. Comment on: J Clin Pathol 1998 Jun;51(6):424–6.

[Macrocytic anemia with anisocytosis due to alcohol abuse and vitamin B6 deficiency] Iwama H, et al. **Rinsho Ketsueki** 1998 Nov;39(11):1127–30 (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Vitamin B–6 deficiency and level of dietary protein affect hepatic tyrosine aminotransferase activity in cats. Bai SC, et al. **J Nutr** 1998 Nov;128(11):1995–2000

EPIDEMIOLOGY

The thiamin, riboflavin and pyridoxine status of patients on emergency admission to hospital. Jamieson CP, et al. **Clin Nutr** 1999 Apr;18(2):87–91

IMMUNOLOGY

IgG, IgG1 and IgM response in Trichinella spiralis–infected mice treated with 4–deoxypirydoxine or fed a Vitamin B6–deficient diet. Frydas S, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):47–52

METABOLISM

Vitamin B6 deficiency affects antioxidant defences in rat liver and heart. Cabrini L, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):689–97

Alterations of KCl– and ATP–induced increase in [Ca2+]i in cardiomyocytes from vitamin B6 deficient rats. Dakshinamurti K, et al. **Can J Physiol Pharmacol** 1998 Sep; 76(9):837–42

Vitamin B6 deficiency may also be important [letter; comment] Reynolds TM. **Clin Chem** 1998 Dec; 44(12):2555–6. Comment on: Clin Chem 1998 Jul;44(7):1583–4.

Hypertension, calcium channel and pyridoxine (vitamin B6). Dakshinamurti K, et al. **Mol Cell Biochem** 1998 Nov; 188(1–2):137–48 (68 ref.)

Dual influence of aging and vitamin B6 deficiency on delta–6–desaturation of essential fatty acids in rat liver microsomes. Bordoni A, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jun; 58(6):417–20

PYRIDOXINE KINASE see **PYRIDOXAL KINASE**

PYRIDOXINECARBOXYLIC ACID see **PYRIDOXIC ACID**

PYRIDOXINEPHOSPHATE OXIDASE see **PYRIDOXAMINEPHOSPHATE OXIDASE**

PYRIDYLCARBINOL see **NICOTINYL ALCOHOL**

PYRILAMINE

METABOLISM

Effect of tracer metabolism on PET measurement of [11C]pyrilamine binding to histamine H1 receptors. Kim SE, et al. **Ann Nucl Med** 1999 Apr;13(2):101–7

Pharmacology of [3H]–pyrilamine binding and of the histamine–induced inositol phosphates generation, intracellular Ca2+ –mobilization and cytokine release from human corneal epithelial cells. Sharif NA, et al. **Br J Pharmacol** 1998 Nov;125(6):1336–44

PHARMACOLOGY

Pharmacology of [3H]–pyrilamine binding and of the histamine–induced inositol phosphates generation, intracellular Ca2+ –mobilization and cytokine release from human corneal epithelial cells. Sharif NA, et al. **Br J Pharmacol** 1998 Nov;125(6):1336–44

Mepyramine inhibits platelet activating factor–induced rabbit platelet aggregation: role of intracellular histamine. Zeng S, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar;18(2):155–8

Histoenzymatic investigations of the thyroid gland of guinea pig after the application of some receptor antagonists and histamine. Danowski J, et al. **Folia Histochem Cytobiol** 1999;37(2):69–70

PYRIMETHAMINE

ADMINISTRATION & DOSAGE

Efficacy of sulfadoxine–pyrimethamine for prevention of placental malaria in an area of Kenya with a high prevalence of malaria and human immunodeficiency virus infection. Parise ME, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):813–22

A comparison of amodiaquine and sulfadoxine–pyrimethamine as first–line treatment of falciparum malaria in Kenya. van Dillen J, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):185–8

Resistance to chloroquine and sulfadoxine–pyrimethamine in Plasmodium falciparum in Muheza district, Tanzania. Warsame M, et al. **Trans R Soc Trop Med Hyg** 1999 May–Jun;93(3):312–3

ADVERSE EFFECTS

Safety of mefloquine and other antimalarial agents in the first trimester of pregnancy. Phillips–Howard PA, et al. **J Travel Med** 1998 Sep;5(3):121–6

[Ocular manifestations and sequelae of Lyell syndrome caused by sulfadoxine–pyrimethamine in Cameroon] Moussala M, et al. **J Fr Ophtalmol** 1998 Jan;21(1):72–7 (Eng. Abstr.) **(Fre)**

ANALOGS & DERIVATIVES

Metoprine–induced thirst and diuresis in Wistar rats. Lecklin A, et al. **Acta Physiol Scand** 1999 Mar;165(3):325–33

BLOOD

Plasma containing artemether–pyrimethamine has ex vivo blood schizonticidal activity against Plasmodium falciparum. Tan–ariya P, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):213–24

PHARMACOKINETICS

Pharmacokinetic interactions of artemether and pyrimethamine in healthy male Thais. Tan–ariya P, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):18–23

PHARMACOLOGY

Plasmodium falciparum resistance to sulfadoxine/pyrimethamine in Uganda: correlation with polymorphisms in the dihydrofolate reductase and

dihydropteroate synthetase genes. Jelinek T, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):463–6

Stable transformation of Toxoplasma gondii based on a pyrimethamine resistant trifunctional dihydrofolate reductase–cytosine deaminase–thymidylate synthase gene that confers sensitivity to 5–fluorocytosine. Fox BA, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):93–103

Utilization of exogenous folate in the human malaria parasite Plasmodium falciparum and its critical role in antifolate drug synergy. Wang P, et al. **Mol Microbiol** 1999 Jun; 32(6):1254–62

Determination of the activity of pyrimethamine, trimethoprim, sulfonamides, and combinations of pyrimethamine and sulfonamides against Sarcocystis neurona in cell cultures. Lindsay DS, et al. **Vet Parasitol** 1999 Apr 12;82(3):205–10

STANDARDS

Pyrimethamine–sulfadoxine efficacy and selection for mutations in Plasmodium falciparum dihydrofolate reductase and dihydropteroate synthase in Mali. Diourté Y, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):475–8

THERAPEUTIC USE

Chemotherapy of malaria and resistance to antimalarial drugs in Guayana area, Venezuela. Caraballo A, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):120–4

Efficacy and tolerability of a low–dose mefloquine–sulfadoxine–pyrimethamine combination compared with chloroquine in the treatment of acute malaria infection in a population with multiple drug–resistant Plasmodium falciparum. Ezedinachi EN, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):114–9

In vivo responses to antimalarials by Plasmodium falciparum and Plasmodium vivax from isolated Gag Island off northwest Irian Jaya, Indonesia. Fryauff DJ, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):542–6

Short report: high prevalence and imbalanced age distribution of the Plasmodium falciparum dihydrofolate reductase gene Asn108 mutation in an area of low pyrimethamine usage in Nigeria. Mockenhaupt FP, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):375–7

Lack of an association between the ASN–108 mutation in the dihydrofolate reductase gene and in vivo resistance to sulfadoxine/pyrimethamine in Plasmodium falciparum. Rallón NI, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):245–8

A controlled trial of dapsone versus pyrimethamine–sulfadoxine for primary prophylaxis of Pneumocystis carinii pneumonia and toxoplasmosis in patients with AIDS. Payen MC, et al. **Biomed Pharmacother** 1997;51(10):439–45

Response of falciparum malaria to different antimalarials in Myanmar. Ejov MN, et al. **Bull World Health Organ** 1999; 77(3):244–9

Atovaquone and proguanil versus pyrimethamine/sulfadoxine for the treatment of acute falciparum malaria in Zambia. Mulenga M, et al. **Clin Ther** 1999 May;21(5):841–52

Sulfalene concentrations in plasma and blood cells of Plasmodium falciparum malaria cases after treatment with metakelfin using high–performance liquid chromatography. Dua VK, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):390–4

Nifurtimox plus pyrimethamine for treatment of murine toxoplasmosis. Aguirre–Cruz L, et al. **J Parasitol** 1998 Oct; 84(5):1032–3

Intermittent sulphadoxine–pyrimethamine to prevent severe anaemia secondary to malaria in pregnancy: a randomised placebo–controlled trial. Shulman CE, et al. **Lancet** 1999 Feb 20;353(9153):632–6

Congenital toxoplasmosis: value of prenatal treatment with pyrimethamine–sulfadoxine combination [letter] Villena I, et al. **Prenat Diagn** 1998 Jul;18(7):754–6

Pyrimethamine–sulfadoxine treatment of congenital toxoplasmosis: follow–up of 78 cases between 1980 and 1997. Reims Toxoplasmosis Group. Villena I, et al. **Scand J Infect Dis** 1998;30(3):295–300

Increased prevalence of malaria in HIV–infected pregnant women and its implications for malaria control. Verhoeff FH, et al. **Trop Med Int Health** 1999 Jan;4(1):5–12

[Preliminary application of PCR to curative effect assessment of chemotherapy against experimental acute infection of Toxoplasma gondii in mice] Xiang X, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(1):5–7 (Eng. Abstr.) **(Chi)**

[Evaluation of malaria chemoprevention among 359 pregnant women attending a health center in Dakar] Faye O, et al. **Dakar Med** 1997;42(2):87–90 (Eng. Abstr.) **(Fre)**

[Value of magnetic resonance in the diagnostic definition of neurotoxoplasmosis and in the assessment of the response to pharmacological treatment] Sparacia G, et al. **Radiol Med (Torino)** 1998 Jul–Aug;96(1–2):23–8 (Eng. Abstr.) **(Ita)**

[Nodular toxoplasmosis as a diagnostic and therapeutic problem] Zaorski P, et al. **Otolaryngol Pol** 1999; 53(2):167–71 (Eng. Abstr.) **(Pol)**

[The evaluation of the efficacy of azithromycin and pyrimethamine used alone or in combination in the treatment of an experimental infection in mice by Toxoplasma gondii] Braz LM, et al. **Rev Soc Bras Med Trop** 1999 Jul–Aug;32(4):401–3 (Eng. Abstr.) **(Por)**

[Empirical anti–toxoplasma therapy in cerebral AIDS and Chagas disease. Presentation of 2 cases, review of the literature and proposal of an algorithm] Montero A, et al. **Medicina (B Aires)** 1998;58(5 Pt 1):504–6 (19 ref.) (Eng. Abstr.) **(Spa)**

TOXICITY

In vivo dominant lethal effect of pyrimethamine in male mouse germ cells. Egeli U, et al. **Mutagenesis** 1999 Jan; 14(1):67–9

Induction of sister chromatid exchanges by pyrimethamine in human lymphocyte cultures. Egeli U. **Teratog Carcinog Mutagen** 1998;18(4):163–9

PYRIMIDINE DIMERS

Analysis of DNA replication forks encountering a pyrimidine dimer in the template to the leading strand. Cordeiro–Stone M, et al. **J Mol Biol** 1999 Jun 25;289(5):1207–18

Base excision repair of cyclobutane pyrimidine dimers. Lloyd RS. **Mutat Res** 1998 Sep 11;408(3):159–70 (118 ref.)

Benzimidazolium triflate–activated synthesis of (6–4) photoproduct–containing oligonucleotides and its application. Iwai S, et al. **Nucleic Acids Res** 1999 Jun 1; 27(11):2299–303

Repair of (6–4) photoproducts in cultured goldfish cells at confluence or treated with H2O2. Uchida N, et al. **Photochem Photobiol** 1998 Nov;68(5):725–8

The initiation of DNA base excision repair of dipyrimidine photoproducts. Lloyd RS. **Prog Nucleic Acid Res Mol Biol** 1999;62:155–75 (109 ref.)

ADMINISTRATION & DOSAGE

[Can the D–dimer assay predict the importance of pulmonary reperfusion in pulmonary embolism? (letter)] Lorut C, et al. **Presse Med** 1999 Jun 26;28(23):1237–8 **(Fre)**

ANALYSIS

Human melanocytes and keratinocytes exposed to UVB or UVA in vivo show comparable levels of thymine dimers. Young AR, et al. **J Invest Dermatol** 1998 Dec;111(6):936–40

The similarity of action spectra for thymine dimers in human epidermis and erythema suggests that DNA is the chromophore for erythema. Young AR, et al. **J Invest Dermatol** 1998 Dec;111(6):982–8

Mapping cyclobutane–pyrimidine dimers in DNA and using DNA–repair by photolyase for chromatin analysis in yeast. Suter B, et al. **Methods Enzymol** 1999;304:447–61

Monitoring removal of cyclobutane pyrimidine dimers in Arabidopsis. Hays JB, et al. **Methods Mol Biol** 1999; 113:175–81

A dot blot immunoassay for UV photoproducts. McCready S. **Methods Mol Biol** 1999;113:147–56

Quantification of photoproducts in mammalian cell DNA using radioimmunoassay. Mitchell DL. **Methods Mol Biol** 1999;113:165–73

Measuring the formation and repair of UV photoproducts by ligation–mediated PCR. Pfeifer GP, et al. **Methods Mol Biol** 1999;113:213–26

Measurement of UV radiation–induced DNA damage using specific antibodies. Stapleton AE. **Methods Mol Biol** 1999; 113:157–63

Prevention of DNA photodamage by vitamin E compounds and sunscreens: roles of ultraviolet absorbance and cellular uptake. McVean M, et al. **Mol Carcinog** 1999 Mar; 24(3):169–76

BIOSYNTHESIS

In vivo induction of pyrimidine dimers in human skin by UVA radiation: initiation of cell damage and/or intercellular communication? Applegate LA, et al. **Int J Mol Med** 1999 May;3(5):467–72

Influence of phage proteins on formation of specific UV DNA photoproducts in phage T7. Fekete A, et al. **Photochem Photobiol** 1999 May;69(5):545–52

BLOOD

Changes of plasma hemostatic markers during percutaneous transluminal coronary angioplasty in patients with chronic coronary artery disease. Saito Y, et al. **Am J Hematol** 1999 Aug;61(4):238–42

CHEMISTRY

An NMR and conformational investigation of the trans–syn cyclobutane photodimers of dUpdT. Tabaczynski WA, et al. **Biopolymers** 1999 Aug;50(2):185–91

Structural characterization of RNA polymerase II complexes arrested by a cyclobutane pyrimidine dimer in the transcribed strand of template DNA. Tornaletti S, et al. **J Biol Chem** 1999 Aug 20;274(34):24124–30

Solution–state structure of a DNA dodecamer duplex containing a Cis–syn thymine cyclobutane dimer, the major UV photoproduct of DNA. McAteer K, et al. **J Mol Biol** 1998 Oct 9;282(5):1013–32

Solution structure of a DNA decamer duplex containing the stable 3' T.G base pair of the pyrimidine(6–4)pyrimidone photoproduct [(6–4) adduct]: implications for the highly specific 3' T —> C transition of the (6–4) adduct. Lee JH, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6632–6

The role of surface lysines in pyrimidine (6–4) pyrimidone photoproduct binding by a high–affinity antibody. Kobayashi H, et al. **Protein Eng** 1998 Nov;11(11):1089–92

GENETICS

Probing the interaction between a high–affinity single–chain Fv and a pyrimidine (6–4) pyrimidone photodimer by site–directed mutagenesis. Kobayashi H, et al. **Biochemistry** 1999 Jan 12;38(2):532–9

Human transcription release factor 2 dissociates RNA polymerases I and II stalled at a cyclobutane thymine dimer. Hara R, et al. **J Biol Chem** 1999 Aug 27; 274(35):24779–86

In situ repair of cyclobutane pyrimidine dimers and 6–4 photoproducts in human skin exposed to solar simulating radiation. Bykov VJ, et al. **J Invest Dermatol** 1999 Mar; 112(3):326–31

RNA polymerase II transcription suppresses nucleosomal modulation of UV–induced (6–4) photoproduct and cyclobutane pyrimidine dimer repair in yeast. Tijsterman M, et al. **Mol Cell Biol** 1999 Jan;19(1):934–40

Enhanced UV–induced mutagenesis in the UV61 cell line, the Chinese hamster homologue of Cockayne's syndrome B, is associated with defective transcription coupled repair of cyclobutane pyrimidine dimers. Vreeswijk MP, et al. **Mutat Res** 1998 Oct 21;409(1):49–56

DNA repair of pyrimidine dimers and 6–4 photoproducts in the ribosomal DNA. Balajee AS, et al. **Nucleic Acids Res** 1999 Jun 15;27(12):2511–20

IMMUNOLOGY

Conformational multiplicity of the antibody combining site of a monoclonal antibody specific for a (6–4) photoproduct. Torizawa T, et al. **J Mol Biol** 1999 Jul 16;290(3):731–40

METABOLISM

The multilayered organization of engineered human skin does not influence the formation of sunlight–induced cyclobutane pyrimidine dimers in cellular DNA. Therrien JP, et al. **Cancer Res** 1999 Jan 15;59(2):285–9

Roles of the DNA mismatch repair and nucleotide excision repair proteins during meiosis. Kirkpatrick DT. **Cell Mol Life Sci** 1999 Mar;55(3):437–49 (112 ref.)

TATA–binding protein promotes the selective formation of UV–induced (6–4)–photoproducts and modulates DNA repair in the TATA box. Aboussekhra A, et al. **EMBO J** 1999 Jan 15;18(2):433–43

Xeroderma pigmentosum variant (XP–V) correcting protein from HeLa cells has a thymine dimer bypass DNA polymerase activity. Masutani C, et al. **EMBO J** 1999 Jun 15;18(12):3491–501

Evasion of UVC–induced apoptosis by photorepair of cyclobutane pyrimidine dimers. Nishigaki R, et al. **Exp Cell Res** 1998 Oct 10;244(1):43–53

The catalytic mechanism of a pyrimidine dimer–specific glycosylase (pdg)/abasic lyase, Chlorella virus–pdg. Garvish JF, et al. **J Biol Chem** 1999 Apr 2;274(14):9786–94

Sequence and time–dependent deamination of cytosine bases in UVB–induced cyclobutane pyrimidine dimers in vivo. Tu Y, et al. **J Mol Biol** 1998 Nov 27;284(2):297–311

Nucleotide excision repair in nuclear extracts from Xenopus oocytes. Ackerman EJ, et al. **Methods Mol Biol** 1999; 113:347–55

Measurement of activities of cyclobutane–pyrimidine–dimer and (6–4)–photoproduct photolyases. Hays JB, et al. **Methods Mol Biol** 1999;113:133–46

Enhanced UV–induced mutagenesis in the UV61 cell line, the Chinese hamster homologue of Cockayne's syndrome B, is associated with defective transcription coupled repair of cyclobutane pyrimidine dimers. Vreeswijk MP, et al. **Mutat Res** 1998 Oct 21;409(1):49–56

Substrate specificity of ultraviolet DNA endonuclease (UVDE/Uve1p) from Schizosaccharomyces pombe. Avery AM, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2256–64

Nucleotide excision repair in a constitutive and inducible gene of a yeast minichromosome in intact cells. Li S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3610–20

Removal of cyclobutane pyrimidine dimers by the UV damage repair and nucleotide excision repair pathways of Schizosaccharomyces pombe at nucleotide resolution. Lombaerts M, et al. **Nucleic Acids Res** 1999 Jul 15; 27(14):2868–74

Effects of a high–affinity antibody fragment on DNA polymerase reactions near a (6–4) photoproduct site. Kobayashi H, et al. **Photochem Photobiol** 1999 Feb; 69(2):226–30

Enzymatic reaction with unnatural substrates: DNA photolyase (Escherichia coli) recognizes and reverses thymine [2+2] dimers in the DNA strand of a DNA/PNA hybrid duplex. Ramaiah D, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12902–5

Efficient bypass of a thymine–thymine dimer by yeast DNA polymerase, Poleta. Johnson RE, et al. **Science** 1999 Feb 12;283(5404):1001–4

PHARMACOLOGY

Salt bridge residues between I–Ak dimer of dimers alpha–chains modulate antigen presentation. Yadati S, et al. **Immunol Lett** 1999 Mar 15;67(1):47–55

PYRIMIDINE DIMERS

RADIATION EFFECTS

In vivo induction of pyrimidine dimers in human skin by UVA radiation: initiation of cell damage and/or intercellular communication? Applegate LA, et al. **Int J Mol Med** 1999 May;3(5):467–72

Repair of cyclobutane pyrimidine dimers in unstimulated human mononuclear cells is deficient at very low fluences of ultraviolet B and is not enhanced by addition of deoxyribonucleosides. Han P, et al. **Mutagenesis** 1998 Jul; 13(4):353–6

Effect of cyclobutane pyrimidine dimers on apoptosis induced by different wavelengths of UV. Nishigaki R, et al. **Photochem Photobiol** 1999 Aug;70(2):228–35

PYRIMIDINE NUCLEOSIDES

CHEMICAL SYNTHESIS

Synthesis of novel 4'-C-methyl-pyrimidine nucleosides and their biological activities. Kitano K, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):827–30

Synthesis of [(2'S, 3'S)-bis(hydroxylmethyl)pyrrolidin-1-yl] purine and pyrimidine nucleosides as potential antiviral agents. Oohashi T, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1187–8

Synthesis of L-enantiomers of 4'-thioarabinofuranosyl pyrimidine nucleosides. Satoh H, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):989–92

Synthesis and anti-HIV activity of C4-modified pyrimidine nucleosides. Wallis MP, et al. **Farmaco** 1999 Jan-Feb; 54(1-2):83–9

Synthesis and anti-HIV and anti-HBV activities of 2'-fluoro-2', 3'-unsaturated L-nucleosides. Lee K, et al. **J Med Chem** 1999 Apr 8;42(7):1320–8

Nucleosides and nucleotides. 185. Synthesis and biological activities of 4'alpha-C-branched-chain sugar pyrimidine nucleosides. Nomura M, et al. **J Med Chem** 1999 Jul 29; 42(15):2901–8

Synthesis of 5'-thioalkyl, sulfoxide and sulfone pyrimidine nucleosides. Agrofoglio LA, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):599–600

Synthesis of novel carbocyclic nucleosides with a modified cyclopentane ring and evaluation of their antiviral activity. Nieto I, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):641–2

Stereospecific synthesis and antiviral activities of beta-L-2',3'-dideoxy-5-chloropyrimidine nucleoside derivatives. Pierra C, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):643–4

CHEMISTRY

Assay for reactive oxygen species-induced DNA damage: measurement of the formamido and thymine glycol lesions. Maccubbin AE, et al. **Biochim Biophys Acta** 1999 May 31; 1454(1):80–8

Synthesis and in vitro antitumor activity of some amino-deoxy 7-hexofuranosylpyrrolo[2,3-d]pyrimidines. Huang BG, et al. **Carbohydr Res** 1998 Jun;308(3-4):319–28

Structure determination of 4-azido-2-pyrimidinone nucleoside analogs using mass spectrometry. Wang PP, et al. **J Mass Spectrom** 1999 Jul;34(7):724–32

QSAR studies of antiviral agents using molecular similarity analysis and structure-activity maps. Parakulam RR, et al. **SAR QSAR Environ Res** 1999;10(2-3):175–206

METABOLISM

Synthesis of novel 4'-C-methyl-pyrimidine nucleosides and their biological activities. Kitano K, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):827–30

Proliferation of human peripheral blood mononuclear cells during calcium entry blockade. Role of protein kinase C. Lijnen P, et al. **Methods Find Exp Clin Pharmacol** 1999 May;21(4):253–9

Radiolabelled pyrimidine nucleosides to monitor the expression of HSV-1 thymidine kinase in gene therapy. Wiebe LI, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):1065–6

PHARMACOLOGY

Anti-herpesvirus activities and cytotoxicities of 2-thiopyrimidine nucleoside analogues in vitro. Shigeta S, et al. **Antivir Chem Chemother** 1999 Jul;10(4):195–209

Synthesis and in vitro antitumor activity of some amino-deoxy 7-hexofuranosylpyrrolo[2,3-d]pyrimidines. Huang BG, et al. **Carbohydr Res** 1998 Jun;308(3-4):319–28

The effect of pyrimidine nucleosides on adenosine-induced apoptosis in HL-60 cells. Kim KT, et al. **J Cancer Res Clin Oncol** 1998;124(9):471–7

Synthesis of novel carbocyclic nucleosides with a modified cyclopentane ring and evaluation of their antiviral activity. Nieto I, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):641–2

Stereospecific synthesis and antiviral activities of beta-L-2',3'-dideoxy-5-chloropyrimidine nucleoside derivatives. Pierra C, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):643–4

QSAR studies of antiviral agents using molecular similarity analysis and structure-activity maps. Parakulam RR, et al. **SAR QSAR Environ Res** 1999;10(2-3):175–206

PYRIMIDINE 5'-NUCLEOTIDASE see **5'-NUCLEOTIDASE**

PYRIMIDINE NUCLEOTIDES

ANALYSIS

Changes by short-term hypoxia in the membrane properties of pyramidal cells and the levels of purine and pyrimidine nucleotides in slices of rat neocortex; effects of agonists and antagonists of ATP-dependent potassium channels. Pissarek M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):430–9

BIOSYNTHESIS

The Enterococcus faecalis pyr operon is regulated by autogenous transcriptional attenuation at a single site in the 5' leader. Ghim SY, et al. **J Bacteriol** 1999 Feb; 181(4):1324–9

CHEMICAL SYNTHESIS

Structure-antiviral activity relationship in the series of pyrimidine and purine N-[2-(2-phosphonomethoxy)ethyl] nucleotide analogues. 1. Derivatives substituted at the carbon atoms of the base. Holý A, et al. **J Med Chem** 1999 Jun 17;42(12):2064–86

CHEMISTRY

Synthesis and characterization of stacked and quenched uridine nucleotide fluorophores. Dhar G, et al. **J Biol Chem** 1999 May 21;274(21):14568–72

Folding of pyrimidine-enriched RNA fragments from the vicinity of the internal ribosomal entry site of hepatitis A virus. Hardin CC, et al. **Nucleic Acids Res** 1999 Jan 15; 27(2):665–73

METABOLISM

Engineering of pyridine nucleotide specificity of nitrate reductase: mutagenesis of recombinant cytochrome b reductase fragment of Neurospora crassa NADPH:Nitrate reductase. Shiraishi N, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):104–15

Role of antimetabolites of purine and pyrimidine nucleotide metabolism in tumor cell differentiation. Hatse S, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):539–55 (177 ref.)

Tolbutamide attenuates diazoxide-induced aggravation of hypoxic cell injury. Pissarek M, et al. **Brain Res** 1998 Nov 23;812(1-2):164–71

Basis of pyrimidine nucleotide metabolism in the myocardium. Rossi A, et al. **Cardiovasc Drugs Ther** 1998 Sep;12 Suppl 2:171–7 (47 ref.)

Significance of the 5-phosphoribosyl-1-pyrophosphate pool for cardiac purine and pyrimidine nucleotide synthesis: studies with ribose, adenine, inosine, and orotic acid in rats. Zimmer HG. **Cardiovasc Drugs Ther** 1998 Sep;12 Suppl 2:179–87 (41 ref.)

Histidine 179 mutants of GTP cyclohydrolase I catalyze the formation of 2-amino-5-formylamino-6-ribofuranosylamino-4(3H)-pyrimidinone triphosphate. Bracher A, et al. **J Biol Chem** 1999 Jun 11;274(24):16727–35

Abnormal purine and pyrimidine nucleotide content in primary astroglia cultures from hypoxanthine-guanine phosphoribosyltransferase-deficient transgenic mice. Pelled D, et al. **J Neurochem** 1999 Mar;72(3):1139–45

Structural determinants of HIV-1 reverse transcriptase stereoselectivity towards (beta)-L-deoxy- and dideoxy-pyrimidine nucleoside triphosphates: molecular basis for the combination of L-dideoxynucleoside analogs with non-nucleoside inhibitors in anti HIV chemotherapy. Maga G, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):795–805

PHARMACOLOGY

Purine and pyrimidine nucleotides inhibit a noninactivating K+ current and depolarize adrenal cortical cells through a G protein-coupled receptor. Xu L, et al. **Mol Pharmacol** 1999 Feb;55(2):364–76

PYRIMIDINE PHOSPHORYLASE see **THYMIDINE PHOSPHORYLASE**

PYRIMIDINES

Endogenous apurinic/apyrimidinic sites in genomic DNA of mammalian tissues. Nakamura J, et al. **Cancer Res** 1999 Jun 1;59(11):2522–6

The expression of poly(A)-binding protein gene is translationally regulated in a growth-dependent fashion through a 5'-terminal oligopyrimidine tract motif. Hornstein E, et al. **J Biol Chem** 1999 Jan 15;274(3):1708–14

Stabilization of the purine.purine.pyrimidine DNA base triplets by divalent metal cations (commentary) [comment] Potaman VN, et al. **J Biomol Struct Dyn** 1998 Aug; 16(1):145–6. Comment on: J Biomol Struct Dyn 1998 Aug;16(1):139–43.

Stabilization of the purine.purine.pyrimidine DNA base triplets by divalent metal cations [see comments] Sponer J, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):139–43. Comment in: J Biomol Struct Dyn 1998 Aug;16(1):145–6.

Cross-strand purine-pyrimidine stack and sheared purine.pyrimidine pairing in the human HIV-1 reverse transcriptase inhibitors. Chou SH, et al. **J Mol Biol** 1999 Jan 8;285(1):41–8

ADMINISTRATION & DOSAGE

Efficacy and tolerability of tasosartan, a novel angiotensin II receptor blocker: results from a 10-week, double-blind, placebo-controlled, dose-titration study. Tasosartan Investigators Group. Neutel JM, et al. **Am Heart J** 1999 Jan;137(1):118–25

Long-lasting prevention against blowfly strike using the insect growth regulator dicyclanil. Bowen FL, et al. **Aust Vet J** 1999 Jul;77(7):454–60

Beneficial effects of long-term selective endothelin type A receptor blockade in canine experimental heart failure. Moe GW, et al. **Cardiovasc Res** 1998 Sep;39(3):571–9

A Canadian multicenter study of three fixed doses of controlled-release ipsapirone in outpatients with moderate to severe major depression. Lapierre YD, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):268–73

Transdermal alniditan delivery by skin electroporation. Jadoul A, et al. **J Controlled Release** 1998 Aug 14; 54(3):265–72

Comparison of danofloxacin with baquiloprim/sulphadimidine for the treatment of experimentally induced Escherichia coli diarrhoea in calves. White DG, et al. **Vet Rec** 1998 Sep 5;143(10):273–6

ADVERSE EFFECTS

Cloning genes responsive to a hepatocarcinogenic peroxisome proliferator chemical reveals novel targets of regulation. Corton JC, et al. **Cancer Lett** 1998 Dec 11; 134(1):61–71

BIOSYNTHESIS

Half of Saccharomyces cerevisiae carbamoyl phosphate synthetase produces and channels carbamoyl phosphate to the fused aspartate transcarbamoylase domain. Serre V, et al. **J Biol Chem** 1999 Aug 20;274(34):23794–801

Novel organization and sequences of five genes encoding all six enzymes for de novo pyrimidine biosynthesis in Trypanosoma cruzi. Gao G, et al. **J Mol Biol** 1999 Jan 8;285(1):149–61

Activation of transcription by metabolic intermediates of the pyrimidine biosynthetic pathway. Flynn PJ, et al. **Mol Cell Biol** 1999 Jan;19(1):882–8

Regulation of the Bacillus subtilis pyrimidine biosynthetic operon by transcriptional attenuation: control of gene expression by an mRNA-binding protein. Switzer RL, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:329–67 (82 ref.)

Carbamate kinase: New structural machinery for making carbamoyl phosphate, the common precursor of pyrimidines and arginine. Marina A, et al. **Protein Sci** 1999 Apr;8(4):934–40

BLOOD

A rapid HPLC assay for voriconazole in human plasma. Gage R, et al. **J Pharm Biomed Anal** 1998 Sep;17(8):1449–53

CHEMICAL SYNTHESIS

(Z)- and (E)-2-(hydroxymethylcyclopropylidene)-methylpurines and pyrimidines as antiviral agents. Qiu YL, et al. **Antivir Chem Chemother** 1998 Jul;9(4):341–52

Thiazolo[4,5-d]pyrimidines. Part II. Synthesis and anti-human cytomegalovirus activity in vitro of certain acyclonucleosides and acyclonucleotides derived from the guanine analogue 5-aminothiazolo[4,5-d]pyrimidine-2,7(3H,6H)-dione. Revankar GR, et al. **Antivir Chem Chemother** 1998 Jan; 9(1):53–63

Immunotropic properties of 2-aminobenzimidazole derivatives in cultures of human peripheral blood cells, Part 5. Nawrocka W, et al. **Arch Pharm (Weinheim)** 1999 Mar; 332(3):85–90

Novel antiallergic agents. Part I: Synthesis and pharmacology of pyrimidine amide derivatives. Ban M, et al. **Bioorg Med Chem** 1998 Jul;6(7):1057–67

Synthesis and antiallergic activity of pyridothienopyrimidines. Quintela JM, et al. **Bioorg Med Chem** 1998 Oct;6(10):1911–25

Pyrimidinylimidazole inhibitors of CSBP/p38 kinase demonstrating decreased inhibition of hepatic cytochrome P450 enzymes. Adams JL, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3111–6

Thiazolo[4,5-d]pyrimidine thiones and -ones as corticotropin-releasing hormone (CRH-R1) receptor antagonists. Beck JP, et al. **Bioorg Med Chem Lett** 1999 Apr 19;9(8):1185–8

Design, synthesis, and biological activity of novel purine and bicyclic pyrimidine factor Xa inhibitors. Buckman BO, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2235–40

Diimidazo[1,2-c:4',5'-e]pyrimidines: adenosine agonist activity demonstrated by microphysiometry. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):691–4

Diimidazo[1,2-c:4',5'-e]pyrimidines: N6-N1 conformationally restricted adenosines. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):695–8

Synthesis, SAR and pharmacology of CP-293,019: a potent, selective dopamine D4 receptor antagonist. Sanner MA, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):725-30

Solid phase synthesis of structurally diverse pyrimido[4,5-d] pyrimidines for the potential use in combinatorial chemistry. Srivastava SK, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):965-6

Pyrazolo[1,5-a]pyrimidine CRF-1 receptor antagonists. Wustrow DJ, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2067-70

Synthesis of 4'-C-ethynyl-beta-D-arabino- and 4'-C-ethynyl-2'-deoxy-beta- D-ribo-pentofuranosyl pyrimidines, and their biological evaluation. Kohgo S, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1146-9

Synthesis of certain new 2,4,5(6) trisubstituted-1,2,4-triazolo[1,5-alpha]pyrimidines as potential antihypertensive agents. Bayomi SM, et al. **Boll Chim Farm** 1999 May;138(5):227-32

Synthesis and biological properties of 4-hydroxy, 4-thio-5-pyrimidine derivatives. Pluta J, et al. **Boll Chim Farm** 1999 Jan;138(1):30-3

Synthesis and biological evaluation of 5-arylfuro[2,3-d]pyrimidines as novel dihydrofolate reductase inhibitors. Wahid F, et al. **Chem Pharm Bull (Tokyo)** 1999 Feb;47(2):156-64

Antiinflammatory agents: new series of N-substituted amino acids with complex pyrimidine structures endowed with antiphlogistic activity. Bruno O, et al. **Farmaco** 1999 Jan-Feb;54(1-2):95-100

Discovery and synthesis of (S)-3-[2-(3,4-dimethoxyphenyl)ethoxy]-2-(4,6-dimethylpyrimidin-2-yloxy)-3,3-diphenylpropionic acid (LU 302872), a novel orally active mixed ET(A)/ET(B) receptor antagonist. Amberg W, et al. **J Med Chem** 1999 Aug 12;42(16):3026-32

Non-peptide corticotropin-releasing hormone antagonists: syntheses and structure-activity relationships of 2-anilinopyrimidines and -triazines. Arvanitis AG, et al. **J Med Chem** 1999 Mar 11;42(5):805-18

Synthesis and tyrosine kinase inhibitory activity of a series of 2-amino-8H-pyrido[2,3-d]pyrimidines: identification of potent, selective platelet-derived growth factor receptor tyrosine kinase inhibitors. Boschelli DH, et al. **J Med Chem** 1998 Oct 22;41(22):4365-77

Design, synthesis, and biological activities of new thieno[3,2-d] pyrimidines as selective type 4 phosphodiesterase inhibitors. Crespo MI, et al. **J Med Chem** 1998 Oct 8;41(21):4021-35

Metabolites of the angiotensin II antagonist tasosartan: the importance of a second acidic group. Ellingboe JW, et al. **J Med Chem** 1998 Oct 22;41(22):4251-60

Pneumocystis carinii and Toxoplasma gondii dihydrofolate reductase inhibitors and antitumor agents: synthesis and biological activities of 2,4-diamino-5-methyl-6-[(monosubstituted anilino)methyl] pyrido[2,3-d]pyrimidines. Gangjee A, et al. **J Med Chem** 1999 Jul 1;42(13):2447-55

Synthesis of classical and a nonclassical 2-amino-4-oxo-6-methyl-5-substituted pyrrolo[2,3-d]pyrimidine antifolate inhibitors of thymidylate synthase. Gangjee A, et al. **J Med Chem** 1999 Jun 17;42(12):2272-9

6-Substituted 2,4-diaminopyrido[3,2-d]pyrimidine analogues of piritrexim as inhibitors of dihydrofolate reductase from rat liver, Pneumocystis carinii, and Toxoplasma gondii and as antitumor agents. Gangjee A, et al. **J Med Chem** 1998 Nov 5;41(23):4533-41

Corticotropin-releasing hormone receptor antagonists: framework design and synthesis guided by ligand conformational studies. Hodge CN, et al. **J Med Chem** 1999 Mar 11;42(5):819-32

5-Alkyl-2-(alkylthio)-6-(2,6-dihalophenylmethyl)-3, 4-dihydropyrimidin-4(3H)-ones: novel potent and selective dihydro-alkoxy-benzyl-oxopyrimidine derivatives. Mai A, et al. **J Med Chem** 1999 Feb 25; 42(4):619-27

Synthesis of 2,8-disubstituted imidazo[1,5-a]pyrimidines with potent antitumor activity. Matsumoto H, et al. **J Med Chem** 1999 May 6;42(9):1661-6

5-Substituted pyrimidines with a 1,5-anhydro-2, 3-dideoxy-D-arabino-hexitol moiety at N-1: synthesis, antiviral activity, conformational analysis, and interaction with viral thymidine kinase. Ostrowski T, et al. **J Med Chem** 1998 Oct 22;41(22):4343-53

Novel pyrimidine and purine derivatives of L-ascorbic acid: synthesis and biological evaluation. Raić-Malić S, et al. **J Med Chem** 1999 Jul 15;42(14):2673-8

Tyrosine kinase inhibitors. 15. 4-(Phenylamino)quinazoline and 4-(phenylamino)pyrido[d]pyrimidine acrylamides as irreversible inhibitors of the ATP binding site of the epidermal growth factor receptor. Smaill JB, et al. **J Med Chem** 1999 May 20;42(10):1803-15

Synthesis of 2'-methylene-substituted 5-azapyrimidine, 6-azapyrimidine, and 3-deazaguanine nucleoside analogues as potential antitumor/antiviral agents. Liu MC, et al. **Nucleosides Nucleotides** 1999 Jan;18(1):55-72

Synthesis and biological activity of some 4-amino-3-cinnolinecarboxylic acid derivatives. Part 5: Pyrimido[5,4-c]cinnolines and triazepino[7,6-c]cinnoline. Stańczak A, et al. **Pharmazie** 1998 Dec;53(12):834-8

[Antimicrobial activity of some derivatives of pyrimidine] Mangalagiu I, et al. **Ann Pharm Fr** 1998;56(4):181-3 (Eng. Abstr.) **(Fre)**

[Basic substituted thieno(3,4-d)pyrimidine carboxylic acids: synthesis via ANRORC-reaction starting from 7-cyanthieno(3,2-d)oxazines] Briel D. **Pharmazie** 1998 Nov;53(11):775-81 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Formation of stable DNA triple helices within the human bcr promoter at a critical oligopurine target interrupted in the middle by two adjacent pyrimidines. Xodo LE, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):477-88

Substitution of the 2'-hydroxyl group at position 2.1 by an amino group interferes with Mg(2+) binding and efficient cleavage by hammerhead ribozyme. Sioud M, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):461-6

Synthesis and cytotoxic activity of N-(2-pyridylsulfenyl)urea derivatives. A new class of potential antineoplastic agents. Gil MJ, et al. **Bioorg Med Chem Lett** 1999 Aug 16; 9(16):2321-4

Cytotoxic effects of NSL-1406, a new thienopyrimidine derivative, on leukocytes and osteoclasts. Katada J, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):797-802

Selective alpha-1a adrenergic receptor antagonists. Effects of pharmacophore regio- and stereochemistry on potency and selectivity. Patane MA, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2495-500

Structure-activity relationships of substituted 5H-thiazolo[3,2-a]pyrimidines as group 2 metabotropic glutamate receptor antagonists. Wichmann J, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1573-6

5-Substituted pyrimidine 1,5-anhydrohexitols: conformational analysis and interaction with viral thymidine kinase. Wouters J, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1563-6

Pyrazolo[1,5-a]pyrimidine CRF-1 receptor antagonists. Wustrow DJ, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2067-70

A solid phase approach to substituted pyrimidines and their conversion into condensed heterocycles for potential use in combinatorial chemistry. Srivastava SK, et al. **Comb Chem High Throughput Screen** 1999 Feb;2(1):33-7

Crystal structure of an angiogenesis inhibitor bound to the FGF receptor tyrosine kinase domain. Mohammadi M, et al. **EMBO J** 1998 Oct 15;17(20):5896-904

Separation of the voriconazole stereoisomers by capillary electrophoresis and liquid chromatography. Owens PK, et al. **Enantiomer** 1999;4(2):79-90

The promoter of the C1 inhibitor gene contains a polypurine.polypyrimidine segment that enhances transcriptional activity. Zahedi K, et al. **J Immunol** 1999 Jun 15;162(12):7249-55

Synthesis and antiparasitic and antitumor activity of 2, 4-diamino-6-(arylmethyl)-5,6,7,8-tetrahydroquinazoline analogues of piritrexim. Rosowsky A, et al. **J Med Chem** 1999 Mar 25;42(6):1007-17

The role of essential pyrimidines in the hairpin ribozyme-catalysed reaction. Young KJ, et al. **J Mol Biol** 1999 May 21;288(5):853-66

Enzymatic hydrolysis and biological activity of oligonucleotides containing 5-substituted pyrimidine bases. Otvös L, et al. **Nucleosides Nucleotides** 1999 Jun-Jul; 18(6-7):1665-6

Ternary complex structure of human HGPRTase, PRPP, Mg2+, and the inhibitor HPP reveals the involvement of the flexible loop in substrate binding. Balendiran GK, et al. **Protein Sci** 1999 May;8(5):1023-31

Theoretical description of the coding potential of diamino-5-formamidopyrimidines. Cysewski P, et al. **Z Naturforsch [C]** 1999 Mar-Apr;54(3-4):239-45

[Possible B-conformations of DNA fragments with alternating purine-pyrimidine sequences] Nesterova EN, et al. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):668-77 **(Rus)**

ISOLATION & PURIFICATION

Isolation and characterization of diazoate intermediate upon nitrous acid and nitric oxide treatment of 2'-deoxycytidine. Suzuki T, et al. **Biochemistry** 1999 Jun 1;38(22):7151-8

Separation of the voriconazole stereoisomers by capillary electrophoresis and liquid chromatography. Owens PK, et al. **Enantiomer** 1999;4(2):79-90

METABOLISM

Influence of age on enzyme activities of pyrimidine metabolism in the chicken heart. Wegelin I, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1181-9

Pyrimidine nucleobase ligands of orotate phosphoribosyltransferase from Toxoplasma gondii. Javaid ZZ, et al. **Biochem Pharmacol** 1999 Nov 1;58(9):1457-65

In vitro assessment of salvage pathways for pyrimidine bases in rat liver and brain. Cappiello M, et al. **Biochim Biophys Acta** 1998 Oct 23;1425(2):273-81

Diimidazo[1,2-c:4',5'-e]pyrimidines: N6-N1 conformationally restricted adenosines. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):695-8

5-Substituted pyrimidine 1,5-anhydrohexitols: conformational analysis and interaction with viral thymidine kinase. Wouters J, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1563-6

In vitro reactions of butadiene monoxide with single- and double-stranded DNA: characterization and quantitation of several purine and pyrimidine adducts. Selzer RR, et al. **Carcinogenesis** 1999 Feb;20(2):285-92

1H-NMR spectroscopy of body fluids: inborn errors of purine and pyrimidine metabolism. Wevers RA, et al. **Clin Chem** 1999 Apr;45(4):539-48

Investigation of possible participation of nucleoside transport systems in the postischemic release of purines and pyrimidines from cold stored liver. Toshchakov VY, et al. **Cryobiology** 1999 Jun;38(4):261-72

Aldehyde oxidase-dependent marked species difference in hepatic metabolism of the sedative-hypnotic, zaleplon, between monkeys and rats. Kawashima K, et al. **Drug Metab Dispos** 1999 Mar;27(3):422-8

Binding of oligopyrimidines to the RNA hairpin responsible for the ribosome gag-pol frameshift in HIV-1. Aupeix K, et al. **FEBS Lett** 1999 Apr 23;449(2-3):169-74

Bioconversion of pyrimidine by resting cells of quinoline-degrading bacteria. Fetzner S. **FEMS Microbiol Lett** 1999 Jul 15;176(2):291-9

Pyrimidinoceptor-mediated potentiation of inducible nitric-oxide synthase induction in J774 macrophages. Role of intracellular calcium. Chen BC, et al. **J Biol Chem** 1998 Nov 6;273(45):29754-63

Regulation of tyrosine hydroxylase mRNA stability by protein-binding, pyrimidine-rich sequence in the 3'-untranslated region. Paulding WR, et al. **J Biol Chem** 1999 Jan 22;274(4):2532-8

Channeling of carbamoyl phosphate to the pyrimidine and arginine biosynthetic pathways in the deep sea hyperthermophilic archaeon Pyrococcus abyssi. Purcarea C, et al. **J Biol Chem** 1999 Mar 5;274(10):6122-9

Serine 318 is essential for the pyrimidine selectivity of the N2 Na+-nucleoside transporter. Wang J, et al. **J Biol Chem** 1999 Jan 22;274(4):2298-302

Synthesis, corticotropin-releasing factor receptor binding affinity, and pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines. Chorvat RJ, et al. **J Med Chem** 1999 Mar 11;42(5):833-48

Metabolites of the angiotensin II antagonist tasosartan: the importance of a second acidic group. Ellingboe JW, et al. **J Med Chem** 1998 Oct 22;41(22):4251-60

mRNA expression in mitochondria of the red alga chondrus crispus requires a unique RNA-processing mechanism, internal cleavage of upstream tRNAs at pyrimidine 48. Richard O, et al. **J Mol Biol** 1999 May 14;288(4):579-84

The mechanism of N-acetylcysteine photoprotection is not related to dipyrimidine photoproducts. Nijmeijer BA, et al. **J Photochem Photobiol B** 1998 Jul 31;44(3):225-30

Assembly of the alpha-globin mRNA stability complex reflects binary interaction between the pyrimidine-rich 3' untranslated region determinant and poly(C) binding protein alphaCP. Chkheidze AN, et al. **Mol Cell Biol** 1999 Jul;19(7):4572-81

SOS-dependent A-->G transitions induced by hydroxyl radical generating system hypoxanthine/xanthine oxidase/Fe3+/EDTA are accompanied by the increase of Fapy-adenine content in M13 mp18 phage DNA. Grązewicz MA, et al. **Mutat Res** 1999 May 14;434(1):41-52

Metabolism of risperidone to 9-hydroxyrisperidone by human cytochromes P450 2D6 and 3A4. Fang J, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):147-51

Acetylcholinesterase potentiates [3H]fluorowillardiine and [3H]AMPA binding to rat cortical membranes. Olivera S, et al. **Neuropharmacology** 1999 Apr;38(4):505-12

The identification of nuclear proteins that bind the homopyrimidine strand of d(GA.TC)n DNA sequences, but not the homopurine strand. García-Bassets I, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3267-75

Triple helix formation: binding avidity of acridine-conjugated AG motif third strands containing natural, modified and surrogate bases opposed to pyrimidine interruptions in a polypurine target. Orson FM, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):810-6

Receptors for purines and pyrimidines. Ralevic V, et al. **Pharmacol Rev** 1998 Sep;50(3):413-92 (1009 ref.)

A p53-dependent S-phase checkpoint helps to protect cells from DNA damage in response to starvation for pyrimidine nucleotides. Agarwal ML, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14775-80

Indirect mutagenesis by oxidative DNA damage: formation of the pyrimidopurinone adduct of deoxyguanosine by base propenal. Dedon PC, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11113-6

[Acute phenytoin poisoning due to its interaction with fluoropyramidine (letter)] Errea-Abad JM, et al. **Rev Neurol** 1998 Dec;27(160):1066-7 **(Spa)**

PHARMACOKINETICS

Stereoselective pharmacokinetics of RS-8359, a selective and reversible inhibitor of A-type monoamine oxidase, in rats, mice, dogs, and monkeys. Takasaki W, et al. **Biol Pharm Bull** 1999 May;22(5):498-503

Thiazolo[4,5-d]pyrimidine thiones and -ones as corticotropin-releasing hormone (CRH-R1) receptor antagonists. Beck JP, et al. **Bioorg Med Chem Lett** 1999 Apr 19;9(8):1185-8

Zaleplon pharmacokinetics and absolute bioavailability. Rosen AS, et al. **Biopharm Drug Dispos** 1999 Apr; 20(3):171-5

Pharmacokinetic profile of alniditan nasal spray during and outside migraine attacks. Roon KI, et al. **Br J Clin Pharmacol** 1999 Mar;47(3):285-90

Rapid disappearance of zaleplon from breast milk after oral administration to lactating women. Darwish M, et al. **J Clin Pharmacol** 1999 Jul;39(7):670–4

Transdermal alniditan delivery by skin electroporation. Jadoul A, et al. **J Controlled Release** 1998 Aug 14; 54(3):265–72

Synthesis, corticotropin-releasing factor receptor binding affinity, and pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines. Chorvat RJ, et al. **J Med Chem** 1999 Mar 11;42(5):833–48

Novel, highly lipophilic antioxidants readily diffuse across the blood–brain barrier and access intracellular sites. Sawada GA, et al. **J Pharmacol Exp Ther** 1999 Mar; 288(3):1327–33

Direct determination of dopamine D4 receptors in normal and schizophrenic postmortem brain tissue: a [3H]NGD–94–1 study. Lahti RA, et al. **Mol Psychiatry** 1998 Nov;3(6):528–33

Distribution after repeated oral administration of different dose levels of risperidone and 9-hydroxy-risperidone in the brain and other tissues of rat. Aravagiri M, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):356–63

Zaleplon and triazolam in humans: acute behavioral effects and abuse potential. Rush CR, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):39–51

Gepirone and 1-(2-pyrimidinyl)-piperazine in vitro: human cytochromes mediating transformation and cytochrome inhibitory effects. von Moltke LL, et al. **Psychopharmacology (Berl)** 1998 Dec;140(3):293–9

PHARMACOLOGY

Potential coanthracyclinic activity of pyridylmethylene-2-indolinones. Andreani A, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3407–9

Growth inhibition of nasopharyngeal carcinoma cells by EGF receptor tyrosine kinase inhibitors. Sun Y, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):919–24

Nonnucleoside pyrrolopyrimidines with a unique mechanism of action against human cytomegalovirus. Jacobson JG, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1888–94

Organism-dependent fungicidal activities of azoles. Manavathu EK, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):3018–21

Heteroresistance to fluconazole and voriconazole in Cryptococcus neoformans. Mondon P, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1856–61

In vitro susceptibilities of Candida bloodstream isolates to the new triazole antifungal agents BMS-207147, Sch 56592, and voriconazole. Pfaller MA, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3242–4

In vitro activities of voriconazole, fluconazole, and itraconazole against 566 clinical isolates of Cryptococcus neoformans from the United States and Africa. Pfaller MA, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):169–71

In vitro activities of several diaminomethylpyridopyrimidines against Mycobacterium avium complex. Shoen CM, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3315–6

Thiazolo[4,5-d]pyrimidines. Part II. Synthesis and anti-human cytomegalovirus activity in vitro of certain acyclonucleosides and acyclonucleotides derived from the guanine analogue 5-aminothiazolo[4,5-d]pyrimidine-2,7(3H,6H)-dione. Revankar GR, et al. **Antivir Chem Chemother** 1998 Jan; 9(1):53–63

Synthesis and anti-influenza virus activity of novel pyrimidine derivatives. Hisaki M, et al. **Antiviral Res** 1999 Jun;42(2):121–37

In vitro and in vivo activity of K-130, a dihydrofolate reductase inhibitor, against Mycobacterium leprae. Dhople AM. **Arzneimittelforschung** 1999 Mar;49(3):267–71

U-101033E (2,4-diaminopyrrolopyrimidine), a potent inhibitor of membrane lipid peroxidation as assessed by the production of 4-hydroxynonenal, malondialdehyde, and 4-hydroxynonenal--protein adducts. Rohn TT, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1371–9

Novel antiallergic agents. Part I: Synthesis and pharmacology of pyrimidine amide derivatives. Ban M, et al. **Bioorg Med Chem** 1998 Jul;6(7):1057–67

Synthesis and antiallergic activity of pyridothienopyrimidines. Quintela JM, et al. **Bioorg Med Chem** 1998 Oct;6(10):1911–25

Diimidazo[1,2-c:4',5'-e]pyrimidines: adenosine agonist activity demonstrated by microphysiometry. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):691–4

Selective A1-adenosine receptor antagonists identified using yeast Saccharomyces cerevisiae functional assays. Campbell RM, et al. **Bioorg Med Chem Lett** 1999 Aug 16; 9(16):2413–8

4-Aryl-2-anilinopyrimidines as corticotropin-releasing hormone (CRH) antagonists. Cocuzza AJ, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1057–62

Cytotoxic effects of NSL-1406, a new thienopyrimidine derivative, on leukocytes and osteoclasts. Katada J, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):797–802

A novel inhibitor of the tyrosine kinase Src suppresses phosphorylation of its major cellular substrates and reduces bone resorption in vitro and in rodent models in vivo. Missbach M, et al. **Bone** 1999 May;24(5):437–49

The susceptibility of Philadelphia chromosome positive cells to FAS-mediated apoptosis is not linked to the tyrosine kinase activity of BCR-ABL. Gora-Tybor J, et al. **Br J Haematol** 1998 Dec;103(3):716–20

Investigation of stretching behaviour induced by the selective 5-HT6 receptor antagonist, Ro 04-6790, in rats. Bentley JC, et al. **Br J Pharmacol** 1999 Apr;126(7):1537–42

RS-127445: a selective, high affinity, orally bioavailable 5-HT2B receptor antagonist. Bonhaus DW, et al. **Br J Pharmacol** 1999 Jul;127(5):1075–82

Involvement of 5-HT6 receptors in nigro-striatal function in rodents. Bourson A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1562–6

On the inhibition of voltage activated calcium currents in rat cortical neurones by the neuroprotective agent 619C89. Stefani A, et al. **Br J Pharmacol** 1998 Nov;125(5):1058–64

Anti-oxidants prevent focal rat brain injury as assessed by induction of heat shock proteins (HSP70, HO-1/HSP32, HSP47) following subarachnoid injections of lysed blood. Turner CP, et al. **Brain Res Mol Brain Res** 1999 Feb 19; 65(1):87–102

Wy-14,643, a peroxisome proliferator, inhibits compensative cell proliferation and hepatocyte growth factor mRNA expression in the rat liver. Motoki Y, et al. **Cancer Lett** 1999 Jan 29;135(2):145–50

Kupffer cell oxidant production is central to the mechanism of peroxisome proliferators. Rose ML, et al. **Carcinogenesis** 1999 Jan;20(1):27–33

Chronic blockade of endothelin ETA receptors improves flow dependent dilation in resistance arteries of hypertensive rats. Iglarz M, et al. **Cardiovasc Res** 1998 Sep; 39(3):657–64

Selective induction of apoptosis in Philadelphia chromosome-positive chronic myelogenous leukemia cells by an inhibitor of BCR - ABL tyrosine kinase, CGP 57148. Dan S, et al. **Cell Death Differ** 1998 Aug;5(8):710–5

Differential induction of rat hepatic microsomal epoxide hydrolase and rGSTA2 by diazines: the role of cytochrome P450 2E1-mediated metabolic activation. Cho MK, et al. **Chem Biol Interact** 1998 Nov 27;116(3):229–45

Endothelin A receptor blockade causes adverse left ventricular remodeling but improves pulmonary artery pressure after infarction in the rat. Nguyen QT, et al. **Circulation** 1998 Nov 24;98(21):2323–30

Prevention of cardiac allograft arteriosclerosis by protein tyrosine kinase inhibitor selective for platelet-derived growth factor receptor. Sihvola R, et al. **Circulation** 1999 May 4;99(17):2295–301

Comparative kinetics and dynamics of zaleplon, zolpidem, and placebo. Greenblatt DJ, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):553–61

In vitro susceptibilities of Aspergillus species to voriconazole, itraconazole, and amphotericin B. Abraham OC, et al. **Diagn Microbiol Infect Dis** 1999 Jan;33(1):7–11

A proteome analysis of livers from obese (ob/ob) mice treated with the peroxisome proliferator WY14,643. Edvardsson U, et al. **Electrophoresis** 1999 Apr-May;20(4–5):935–42

A comparison of liver protein changes in mice and hamsters treated with the peroxisome proliferator Wy-14,643. Giometti CS, et al. **Electrophoresis** 1998 Oct; 19(14):2498–505

The impact of the nonpeptide corticotropin-releasing hormone antagonist antalarmin on behavioral and endocrine responses to stress. Deak T, et al. **Endocrinology** 1999 Jan;140(1):79–86

In vitro efficacy and fungicidal activity of voriconazole against Aspergillus and Fusarium species. Clancy CJ, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):573–5

Comparative in vitro activity of voriconazole and itraconazole against fluconazole-susceptible and fluconazole-resistant clinical isolates of Candida species from Spain. Cuenca-Estrella M, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jun;18(6):432–5

In vitro pharmacological profile of nonpeptide CRF1 receptor antagonists, CRA1000 and CRA1001. Chaki S, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):205–11

The antimigraine agent alniditan selectively constricts porcine carotid arteriovenous anastomoses via 5-HT1B/1D receptors. De Vries P, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):193–201

Effect of a cGMP-specific phosphodiesterase inhibitor on retinal function. Estrade M, et al. **Eur J Pharmacol** 1998 Jul 10;352(2–3):157–63

NGD 94-1 as an agonist at human recombinant dopamine D4.4 receptors expressed in HEK293 cells. Gazi L, et al. **Eur J Pharmacol** 1999 May 21;372(3):R9–10

Parallel dose-response studies of the voltage-dependent Na+ channel antagonist BW619C89, and the voltage-dependent Ca2+ channel antagonist nimodipine, in rat transient focal cerebral ischaemia. Kawaguchi K, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):99–105

Inhibition of peroxynitrite-mediated tyrosine nitration by a novel pyrrolopyrimidine antioxidant. Rohn TT, et al. **Eur J Pharmacol** 1998 Jul 24;353(2–3):329–36

Increase of nerve regeneration capacity by new neurotrophic pyrimidine derivative MS-430. Noda M, et al. **Gen Pharmacol** 1998 Nov;31(5):821–4

Stimulation of the renin-angiotensin system by endothelin subtype A receptor blockade in conscious dogs. Berthold H, et al. **Hypertension** 1999 Jun;33(6):1420–4

Neuroendocrine and hypothermic effects of 5-HT1A receptor stimulation with ipsapirone in healthy men: a placebo-controlled study. Cleare AJ, et al. **Int Clin Psychopharmacol** 1998 Jan;13(1):23–32

Hypothermic, ACTH, and cortisol responses to ipsapirone in patients with mania and healthy controls. Yatham LN, et al. **J Affect Disord** 1999 Aug;54(3):295–301

The ET(A) receptor blocker LU 135252 prevents chronic transplant nephropathy in the "Fisher to Lewis" model. Orth SR, et al. **J Am Soc Nephrol** 1999 Feb;10(2):387–91

Comparison of the in-vitro activity of voriconazole (UK-109,496), itraconazole and amphotericin B against clinical isolates of Aspergillus fumigatus. Cuenca-Estrella M, et al. **J Antimicrob Chemother** 1998 Oct;42(4):531–3

In-vitro activity of voriconazole, itraconazole and amphotericin B against filamentous fungi. Johnson EM, et al. **J Antimicrob Chemother** 1998 Dec;42(6):741–5

Voriconazole against fluconazole-susceptible and resistant candida isolates: in-vitro efficacy compared with that of itraconazole and ketoconazole. Nguyen MH, et al. **J Antimicrob Chemother** 1998 Aug;42(2):253–6

In-vitro activities of amphotericin B, itraconazole and voriconazole against 150 clinical and environmental Aspergillus fumigatus isolates. Verweij PE, et al. **J Antimicrob Chemother** 1998 Sep;42(3):389–92

Effect of tetrahydropyrimidine derivatives on protein-nucleic acids interaction. Type II restriction endonucleases as a model system. Malin G, et al. **J Biol Chem** 1999 Mar 12;274(11):6920–9

Effects of nonpeptide endothelin receptor antagonists in rats with reduced renal mass. Clozel M, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):611–8

Protective effects of endothelin receptor antagonists in dogs with aortic cross-clamping. Roux S, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):199–205

A neurotrophic pyrimidine compound, MS-818, enhances EGF-induced restoration of gastric epithelial wounds in vitro. Watanabe S, et al. **J Clin Gastroenterol** 1998;27 Suppl 1:S105–9

Food intake in free-feeding and energy-deprived lean rats is mediated by the neuropeptide Y5 receptor. Criscione L, et al. **J Clin Invest** 1998 Dec 15;102(12):2136–45

Optimizing voriconazole susceptibility testing of Candida: effects of incubation time, endpoint rule, species of Candida, and level of fluconazole susceptibility. Lozano-Chiu M, et al. **J Clin Microbiol** 1999 Sep; 37(9):2755–9

In vitro amphotericin B resistance in clinical isolates of Aspergillus terreus, with a head-to-head comparison to voriconazole. Sutton DA, et al. **J Clin Microbiol** 1999 Jul; 37(7):2343–5

Effects of angiotensin antagonism with tasosartan on regional and systemic haemodynamics in hypertensive patients. Rhéaume C, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2085–9

In vivo eradication of human BCR/ABL-positive leukemia cells with an ABL kinase inhibitor [see comments] le Coutre P, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):163–8 . Comment in: J Natl Cancer Inst 1999 Jan 20;91(2):102–3.

A Bcr/Abl kinase antagonist for chronic myelogenous leukemia: a promising path for progress emerges [editorial; comment] Sausville EA. **J Natl Cancer Inst** 1999 Jan 20; 91(2):102–3. Comment on: J Natl Cancer Inst 1999 Jan 20;91(2):163–8.

Blockade by NS-7, a neuroprotective compound, of both L-type and P/Q-type Ca2+ channels involving depolarization-stimulated nitric oxide synthase activity in primary neuronal culture. Oka M, et al. **J Neurochem** 1999 Mar;72(3):1315–22

A novel neurotrophic pyrimidine compound MS-818 enhances neurotrophic effects of basic fibroblast growth factor. Sanjo N, et al. **J Neurosci Res** 1998 Dec 1; 54(5):604–12

Mitochondrial dysfunction after experimental traumatic brain injury: combined efficacy of SNX-111 and U-101033E. Xiong Y, et al. **J Neurotrauma** 1998 Jul;15(7):531–44

Selective antiaggressive effects of alnespirone in resident-intruder test are mediated via 5-hydroxytryptamine1A receptors: A comparative pharmacological study with 8-hydroxy-2-dipropylaminotetralin, ipsapirone, buspirone, eltoprazine, and WAY-100635. de Boer SF, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1125–33

F 11440, a potent, selective, high efficacy 5-HT1A receptor agonist with marked anxiolytic and antidepressant potential. Koek W, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):266–83

Receptor binding, behavioral, and electrophysiological profiles of nonpeptide corticotropin-releasing factor subtype 1 receptor antagonists CRA1000 and CRA1001. Okuyama S, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):926–35

Increased lipophilicity and subsequent cell partitioning decrease passive transcellular diffusion of novel, highly lipophilic antioxidants. Sawada GA, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1317–26

The novel analgesic compound OT-7100 (5-n-butyl-7-(3,4,5-trimethoxybenzoylamino) pyrazolo[1,5-a]pyrimid ine) attenuates mechanical nociceptive responses in animal models of acute and peripheral neuropathic hyperalgesia. Yasuda T, et al. **Jpn J Pharmacol** 1999 Jan;79(1):65–73

Therapeutic targeting of Src-kinase Lyn in myeloid leukemic cell growth. Roginskaya V, et al. **Leukemia** 1999 Jun; 13(6):855–61

Chronic administration of the non-peptide CRH type 1 receptor antagonist antalarmin does not blunt hypothalamic-pituitary-adrenal axis responses to acute immobilization stress. Wong ML, et al. **Life Sci** 1999;

65(4):PL53–8
Damage to yeast cells of Cryptococcus neoformans by voriconazole and fluconazole: a culture and microscopic study. Brummer E, et al. **Med Mycol** 1998 Aug; 36(4):227–33
In vitro activity of voriconazole against selected fungi. McGinnis MR, et al. **Med Mycol** 1998 Aug;36(4):239–42
Antifungal activity of a new triazole, voriconazole (UK–109,496), compared with three other antifungal agents tested against clinical isolates of filamentous fungi. Marco F, et al. **Med Mycol** 1998 Dec;36(6):433–6
Anticryptococcal activity of voriconazole against Cryptococcus neoformans var. gatti vs var. neoformans: comparison with fluconazole and effect of human serum. Brummer E, et al. **Mycopathologia** 1998;142(1):3–7
In vitro evaluation of voriconazole against clinical isolates of yeasts, moulds and dermatophytes in comparison with itraconazole, ketoconazole, amphotericin B and griseofulvin. Wildfeuer A, et al. **Mycoses** 1998 Sep–Oct; 41(7–8):309–19
Comparison of CGS 15943, ZM 241385 and SCH 58261 as antagonists at human adenosine receptors. Ongini E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):7–10
A novel Na+/Ca2+ channel blocker, NS–7, suppresses hypoxic injury in rat cerebrocortical slices. Tatsumi S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):191–6
Anxiogenic effect of central CCK administration is attenuated by chronic fluoxetine or ipsapirone treatment. To CT, et al. **Neuropharmacology** 1999 Feb;38(2):279–82
Decreased neuroendocrine responses to meta–chlorophenylpiperazine (m–CPP) but normal responses to ipsapirone in marathon runners. Broocks A, et al. **Neuropsychopharmacology** 1999 Feb;20(2):150–61
5–HT1A receptor function in normal subjects on clinical doses of fluoxetine: blunted temperature and hormone responses to ipsapirone challenge. Lerer B, et al. **Neuropsychopharmacology** 1999 Jun;20(6):628–39
Non–peptidic corticotropin–releasing hormone receptor type 1 antagonist reverses restraint stress–induced shortening of sodium pentobarbital–induced sleeping time of rats: evidence that an increase in arousal induced by stress is mediated through CRH receptor type 1. Arai K, et al. **Neurosci Lett** 1998 Oct 16;255(2):103–6
Homologous regulation of 5–HT1A receptor mRNA in adult rat hippocampal dentate gyrus. Huang J, et al. **Neurosci Lett** 1999 Jul 23;270(1):5–8
A novel Na+/Ca2+ channel blocker NS–7 inhibits evoked but not spontaneous dopamine release from rat striatum, as measured by intracerebral microdialysis. Itoh Y, et al. **Neurosci Lett** 1998 Aug 21;252(3):203–6
Combined effects of Gepirone and (+)WAY 100135 on territorial aggression in mice. Lopez–Mendoza D, et al. **Pharmacol Biochem Behav** 1998 Sep;61(1):1–8
Antiaggresive and anxiolytic effects of gepirone in mice, and their attenuation by WAY 100635. Mendoza DL, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):499–509
Endothelin ETA receptor blockade restores NO–mediated endothelial function and inhibits atherosclerosis in apolipoprotein E–deficient mice. Barton M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14367–72
Stress–induced behaviors require the corticotropin–releasing hormone (CRH) receptor, but not CRH. Weninger SC, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8283–8
Ipsapirone neuroendocrine challenge: relationship to aggression as measured in the human laboratory. Moeller FG, et al. **Psychiatry Res** 1998 Oct 19;81(1):31–8
Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5–HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9–28
Blockade of the anxiolytic–like action of ipsapirone and buspirone, but not that of 8–OH–DPAT, by adrenalectomy in male rats. López–Rubalcava C, et al. **Psychoneuroendocrinology** 1999 May;24(4):409–22
Low doses of ipsapirone increase growth hormone but not oxytocin secretion in normal male and female subjects. Newman ME, et al. **Psychopharmacology (Berl)** 1999 Jul; 145(1):99–104
The effect of tasuldine, a bronchosecretolytic agent, on mucus rheology and clearability and the interaction with acetylcholine in ferrets. App EM, et al. **Pulm Pharmacol Ther** 1997 Oct–Dec;10(5–6):271–6
Identification of a novel peroxisome proliferator responsive cDNA isolated from rat hepatocytes as the zinc–finger protein ZFP–37. Vanden Heuvel JP, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):107–18
Effects of endothelin and endothelin receptor antagonism in arteriolar and venolar microcirculation. Hergenröder S, et al. **Vasa** 1998 Nov;27(4):216–9
[The effect of nuarimol on the mutagenic activity of n–nitrosodimethylamine and 2–acetylaminofluorene in mouse erythrocytes] Tyrkiel E, et al. **Rocz Panstw Zakl Hig** 1998;49(1):55–66 (Eng. Abstr.) **(Pol)**
[Xymedon restores T–cell immune response inhibited by gamma–irradiation in vivo: relation to Ca2+–ATPase and DNA–relaxing activity] Cherepnev GV, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):66–70 **(Rus)**
[The immunomodulator ximedon lowers the level of induced DNA damages in bone marrow and peripheral blood cells: the possibilities for immunogenetic correction] Cherepnev GV, et al. **Eksp Klin Farmakol** 1999 Mar–Apr;62(2):31–5 (Eng. Abstr.) **(Rus)**
[Comparative analysis of electroencephalographic effects of trimetidon and phenazepam on the brain function during emotional stress in cats] Kiroi VN, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Jul;84(7):634–41 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Treatment of fluconazole–resistant candidiasis with voriconazole in patients with AIDS [letter] Hegener P, et al. **AIDS** 1998 Nov 12;12(16):2227–8
Endothelin receptor blockade improves fluid sequestration, pancreatic capillary blood flow, and survival in severe experimental pancreatitis. Foitzik T, et al. **Ann Surg** 1998 Nov;228(5):670–5
Neuroprotective efficacy of combination therapy with two different antioxidants in rats subjected to transient focal ischemia. Schmid–Elsaesser R, et al. **Brain Res** 1999 Jan 23;816(2):471–9
The endothelin A receptor antagonist LU 135252 protects the myocardium from neutrophil injury during ischaemia/reperfusion. Gonon AT, et al. **Cardiovasc Res** 1998 Sep;39(3):674–82
Selective ETA receptor blockade prevents left ventricular remodeling and deterioration of cardiac function in experimental heart failure. Mulder P, et al. **Cardiovasc Res** 1998 Sep;39(3):600–8
Role of endothelin in deterioration of heart failure due to cardiomyopathy in hamsters: increase in endothelin–1 production in the heart and beneficial effect of endothelin–A receptor antagonist on survival and cardiac function. Yamauchi–Kohno R, et al. **Circulation** 1999 Apr 27;99(16):2171–6
Developments in fluoropyrimidine therapy for gastrointestinal cancer. Van Cutsem E, et al. **Curr Opin Oncol** 1999 Jul;11(4):312–7 (44 ref.)
Effects of the endothelin ET(A) receptor antagonist, TA–0201, on pulmonary arteries isolated from hypoxic rats. Itoh H, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):233–8
A cystic biliary tumour responding to regional fluorinated pyrimidine infusion. Hedayati B, et al. **Eur J Surg Oncol** 1998 Oct;24(5):451–2
Antifungal activity of voriconazole (UK–109,496), fluconazole and amphotericin B against hematogenous Candida krusei infection in neutropenic guinea pig model. Ghannoum MA, et al. **J Chemother** 1999 Feb;11(1):34–9
Sleep latency is shortened during 4 weeks of treatment with zaleplon, a novel nonbenzodiazepine hypnotic. Zaleplon Clinical Study Group. Elie R, et al. **J Clin Psychiatry** 1999 Aug;60(8):536–44
Effect of sorbitol dehydrogenase inhibition on experimental diabetic autonomic neuropathy. Schmidt RE, et al. **J Neuropathol Exp Neurol** 1998 Dec;57(12):1175–89
From the Food and Drug Administration. Henney JE. **JAMA** 1999 Oct 6;282(13):1218
Blockade of adenosine A2A receptors by SCH 58261 results in neuroprotective effects in cerebral ischaemia in rats. Monopoli A, et al. **Neuroreport** 1998 Dec 1;9(17):3955–9
Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5–HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9–28
Dopamine D4 receptor antagonist reversal of subchronic phencyclidine–induced object retrieval/detour deficits in monkeys. Jentsch JD, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):78–84
Inhibition of obliterative bronchiolitis by platelet–derived growth factor receptor protein–tyrosine kinase inhibitor. Kallio E, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):187
Prevention of cardiac allograft arteriosclerosis by protein–tyrosine kinase inhibitor selective for platelet–derived growth factor receptor. Koskinen P, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):102
Field efficacy of the insect growth regulator dicyclanil for flystrike prevention on lambs. Schmid HR, et al. **Vet Parasitol** 1999 Sep 30;86(2):147–51
[A preclinical study of ximedone] Izmailov SG, et al. **Antibiot Khimioter** 1999;44(8):12–7 (Eng. Abstr.) **(Rus)**
[The effect of pyrimidine derivatives on experimental stomach ulcers in rats] Ismagilova AF, et al. **Eksp Klin Farmakol** 1998 Jul–Aug;61(4):23–5 (Eng. Abstr.) **(Rus)**
[Adaptation–reposition technological means in combination with a bioactive preparation Ximedon for stimulation of wound healing] Izmailov SG, et al. **Med Tekh** 1999 Mar–Apr;(2):16–21 (Eng. Abstr.) **(Rus)**

TOXICITY

Folic acid–enhanced synergy for the combination of trimetrexate plus the glycinamide ribonucleotide formyltransferase inhibitor 4–[2–(2–amino–4–oxo–4,6,7,8–tetrahydro–3H–pyrimidino[5,4,6][1,4]thiazin–6–yl)–(S)–ethyl]–2,5–thienoylamino–L–glutamic acid (AG2034): comparison across sensitive and resistant human tumor cell lines. Faessel HM, et al. **Biochem Pharmacol** 1999 Mar 1;57(5):567–77
Use of Mfu–galactoside enzymatic activity as ecotoxicological endpoint on rainbow trout red blood cells. Pablos MV, et al. **Bull Environ Contam Toxicol** 1998 Dec; 61(6):786–92
Role of peroxisome proliferator–activated receptor alpha in altered cell cycle regulation in mouse liver. Peters JM, et al. **Carcinogenesis** 1998 Nov;19(11):1989–94
Mepanipyrim induces fatty liver in rats but not in mice and dogs. Terada M, et al. **J Toxicol Sci** 1998 Aug;23(3):223–34
Effects of mepanipyrim on lipid metabolism in rats. Terada M, et al. **J Toxicol Sci** 1998 Aug;23(3):235–41
Mepanipyrim, a new fungicide, inhibits intracellular transport of very low density lipoprotein in rat hepatocytes. Terada M, et al. **Toxicol Appl Pharmacol** 1999 Jan 1;154(1):1–11

URINE

Allopurinol–induced pyrimidinuria in cancer patients. Carducci MA, et al. **In Vivo** 1998 May–Jun;12(3):271–4
Biological monitoring of exposure to pirimicarb: hydroxypyrimidines in human urine. Hardt J, et al. **Toxicol Lett** 1999 Jun 30;107(1–3):89–93

PYRIMIDINONES

Merocyanine 540 as a fluorescence indicator for molecular packing stress at the onset of lamellar–hexagonal transition of phosphatidylethanolamine bilayers. Langner M, et al. **Biochim Biophys Acta** 1999 Jan 8;1415(2):323–30
Use of merocyanine 540 for the isolation of quiescent, primitive human bone marrow hematopoietic progenitor cells. Pyatt RE, et al. **J Hematother** 1999 Apr;8(2):189–98

ADMINISTRATION & DOSAGE

Comparison of electrophysiologic effects of intravenous E–4031 and MS–551, novel class III antiarrhythmic agents, in patients with ventricular tachyarrhythmias. Naitoh N, et al. **Jpn Heart J** 1998 Jul;39(4):457–67

CHEMICAL SYNTHESIS

Structure–based design of novel dihydroalkoxybenzyloxopyrimidine derivatives as potent nonnucleoside inhibitors of the human immunodeficiency virus reverse transcriptase. Sudbeck EA, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3225–33
Synthesis of thiophenecarboxamides, thieno[3,4–c]pyridin–4(5H)–ones and thieno[3,4–d]pyrimidin–4(3H)–ones and preliminary evaluation as inhibitors of poly(ADP–ribose)polymerase (PARP). Shinkwin AE, et al. **Bioorg Med Chem** 1999 Feb; 7(2):297–308
2,3–Dihydro–1H,7H–pyrimido[5,6,1–de]acridine–1,3,7–trione derivatives, a class of cytotoxic agents active on multidrug–resistant cell lines: synthesis, biological evaluation, and structure–activity relationships. Antonini I, et al. **J Med Chem** 1999 Jul 15;42(14):2535–41
Stereospecific synthesis, structure–activity relationship, and oral bioavailability of tetrahydropyrimidin–2–one HIV protease inhibitors. De Lucca GV, et al. **J Med Chem** 1999 Jan 14;42(1):135–52
[Synthesis and reactivity of debenzorutaecarpine derivatives] Kökösi J, et al. **Acta Pharm Hung** 1999 Jun;69(3):135–46 (Eng. Abstr.) **(Hun)**

CHEMISTRY

Thiazolo[4,5–d]pyrimidines. Part II. Synthesis and anti–human cytomegalovirus activity in vitro of certain acyclonucleosides and acyclonucleotides derived from the guanine analogue 5–aminothiazolo[4,5–d]pyrimidine–2,7(3H,6H)–dione. Revankar GR, et al. **Antivir Chem Chemother** 1998 Jan; 9(1):53–63
The 2.0 A structure of malarial purine phosphoribosyltransferase in complex with a transition–state analogue inhibitor. Shi W, et al. **Biochemistry** 1999 Aug 3;38(31):9872–80
Structure determination of 4–azido–2–pyrimidinone nucleoside analogs using mass spectrometry. Wang PP, et al. **J Mass Spectrom** 1999 Jul;34(7):724–32
The 2.0 A structure of human hypoxanthine–guanine phosphoribosyltransferase in complex with a transition–state analog inhibitor [see comments] Shi W, et al. **Nat Struct Biol** 1999 Jun;6(6):588–93. Comment in: Nat Struct Biol 1999 Jun;6(6):502–4.
Merocyanine 540 solubilized as an ion pair with cationic surfactant in nonpolar solvents: spectral and photochemical properties. Bilski P, et al. **Photochem Photobiol** 1999 Jun; 69(6):671–6
[Synthesis and reactivity of debenzorutaecarpine derivatives] Kökösi J, et al. **Acta Pharm Hung** 1999 Jun;69(3):135–46 (Eng. Abstr.) **(Hun)**

DIAGNOSTIC USE

Prefrontal cortex 5–HT2 receptors in depression: an [18F]setoperone PET imaging study. Meyer JH, et al. **Am J Psychiatry** 1999 Jul;156(7):1029–34
The cortical serotonin2 receptors studied with positron–emission tomography and [18F]–setoperone during depressive illness and antidepressant treatment with clomipramine. Attar–Lévy D, et al. **Biol Psychiatry** 1999 Jan 15;45(2):180–6

PYRIMIDINONES

Parametric PET imaging of 5HT2A receptor distribution with 18F-setoperone in the normal human neocortex. Petit-Taboué MC, et al. **J Nucl Med** 1999 Jan;40(1):25-32

METABOLISM

Interleukin-18, interferon-gamma, IP-10, and Mig expression in Epstein-Barr virus-induced infectious mononucleosis and posttransplant lymphoproliferative disease. Setsuda J, et al. **Am J Pathol** 1999 Jul;155(1):257-65

Increased expression of IP-10, IL-8, MCP-1, and MCP-3 in ulcerative colitis. Uguccioni M, et al. **Am J Pathol** 1999 Aug;155(2):331-6

Blood partition and protein binding of a new reversible proton pump inhibitor, YH1885. Han KS, et al. **Biopharm Drug Dispos** 1998 Sep;19(6):413-5

Potent inhibition of the cytochrome P-450 3A-mediated human liver microsomal metabolism of a novel HIV protease inhibitor by ritonavir: A positive drug-drug interaction. Kumar GN, et al. **Drug Metab Dispos** 1999 Aug;27(8):902-8

In vitro metabolism of the HIV-1 protease inhibitor ABT-378: species comparison and metabolite identification. Kumar GN, et al. **Drug Metab Dispos** 1999 Jan;27(1):86-91

Transition-state analogs as inhibitors of human and malarial hypoxanthine-guanine phosphoribosyltransferases [see comments] Li CM, et al. **Nat Struct Biol** 1999 Jun; 6(6):582-7. Comment in: Nat Struct Biol 1999 Jun;6(6):502-4.

Human serum attenuates the activity of protease inhibitors toward wild-type and mutant human immunodeficiency virus. Molla A, et al. **Virology** 1998 Oct 25;250(2):255-62

PHARMACOKINETICS

Pharmacokinetics of a new reversible proton pump inhibitor, YH1885, after intravenous and oral administrations to rats and dogs: hepatic first-pass effect in rats. Han KS, et al. **Biopharm Drug Dispos** 1998 Nov;19(8):493-500

PHARMACOLOGY

ABT-378, a highly potent inhibitor of the human immunodeficiency virus protease. Sham HL, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3218-24

Novel derivatives of phenethyl-5-bromopyridylthiourea and dihydroalkoxybenzyloxopyrimidine are dual-function spermicides with potent anti-human immunodeficiency virus activity. D'Cruz OJ, et al. **Biol Reprod** 1999 Jun; 60(6):1419-28

A potent and selective inhibition of parainfluenza 1 (Sendai) virus by new 6-oxiranyl-, 6-methyloxiranyluracils, and 4(3H)-pyrimidinone derivatives. Saladino R, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1833-8

5-Alkyl-2-[(methylthiomethyl)thio]-6-(benzyl)-pyrimidin-4-(1H)-ones as potent non-nucleoside reverse transcriptase inhibitors of S-DABO series. Vig R, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1461-6

Purified photoproducts of merocyanine 540 trigger cytochrome C release and caspase 8-dependent apoptosis in human leukemia and melanoma cells. Pervaiz S, et al. **Blood** 1999 Jun 15;93(12):4096-108

MS-551 and KCB-328, two class III drugs aggravated adrenaline-induced arrhythmias. Xue Y, et al. **Br J Pharmacol** 1998 Aug;124(8):1712-8

Antimicrobial activity of merocyanine 540: a photosensitizing dye. Dunne WM Jr, et al. **Diagn Microbiol Infect Dis** 1998 Oct;32(2):101-5

Potent inhibition of the cytochrome P-450 3A-mediated human liver microsomal metabolism of a novel HIV protease inhibitor by ritonavir: A positive drug-drug interaction. Kumar GN, et al. **Drug Metab Dispos** 1999 Aug;27(8):902-8

Concentration-dependent block of sodium current in guinea pig ventricular myocytes by a class III antiarrhythmic agent, MS-551. Suzuki K, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):819-25

Electrophysiologic and blood-flow responses in the endocardium and epicardium to disopyramide and MS-551 during myocardial ischemia in the dog. Tanabe T, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):275-86

Effect of a class III antiarrhythmic drug on the configuration of dose response curve for defibrillation. Murakawa Y, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):479-86

RADIATION EFFECTS

Merocyanine 540 solubilized as an ion pair with cationic surfactant in nonpolar solvents: spectral and photochemical properties. Bilski P, et al. **Photochem Photobiol** 1999 Jun; 69(6):671-6

THERAPEUTIC USE

Preventive effects of an antiallergic drug, pemirolast potassium, on restenosis after percutaneous transluminal coronary angioplasty. Ohsawa H, et al. **Am Heart J** 1998 Dec;136(6):1081-7

[Preventive mechanisms and effects of pemirolast potassium on restenosis after percutaneous transluminal coronary angioplasty: serial coronary angiography and intravascular ultrasound studies] Yoshinuma M. **J Cardiol** 1999 Feb; 33(2):81-8 (Eng. Abstr.) **(Jpn)**

PYRIMIDONES see **PYRIMIDINONES**

PYROBACULUM see **THERMOPROTEACEAE**

PYROCARBONIC ACID DIETHYL ESTER see **DIETHYL PYROCARBONATE**

PYROCATECHOLS see **CATECHOLS**

PYROCOCCUS

CHEMISTRY

Isolation of TBP-interacting protein (TIP) from a hyperthermophilic archaeon that inhibits the binding of TBP to TATA-DNA. Matsuda T, et al. **FEBS Lett** 1999 Aug 20;457(1):38-42

ENZYMOLOGY

Preliminary crystallographic studies of triosephosphate isomerase (TIM) from the hyperthermophilic Archaeon Pyrococcus woesei. Bell GS, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1419-21

Crystallization and preliminary X-ray crystallographic analysis of archaeal O6-methylguanine-DNA methyltransferase. Hashimoto H, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1395-6

Characterization of an extremely thermostable restriction enzyme, PspGI, from a Pyrococcus strain and cloning of the PspGI restriction-modification system in Escherichia coli. Morgan R, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3669-73

Crystal structure of aspartyl-tRNA synthetase from Pyrococcus kodakaraensis KOD: archaeon specificity and catalytic mechanism of adenylate formation. Schmitt E, et al. **EMBO J** 1998 Sep 1;17(17):5227-37

Stability, refolding and Ca2+ binding of pullulanase from the hyperthermophilic archaeon Pyrococcus woesei. Schwerdtfeger RM, et al. **Eur J Biochem** 1999 Sep; 264(2):479-87

Pressure enhances thermal stability of DNA polymerase from three thermophilic organisms. Summit M, et al. **Extremophiles** 1998 Aug;2(3):339-45

Thermostable aminopeptidase from Pyrococcus horikoshii. Ando S, et al. **FEBS Lett** 1999 Mar 19;447(1):25-8

A unique DNase activity shares the active site with ATPase activity of the RecA/Rad51 homologue (Pk-REC) from a hyperthermophilic archaeon. Rashid N, et al. **FEBS Lett** 1999 Feb 19;445(1):111-4

Gene cloning and characterization of recombinant RNase HII from a hyperthermophilic archaeon. Haruki M, et al. **J Bacteriol** 1998 Dec;180(23):6207-14

Presence of a structurally novel type ribulose-bisphosphate carboxylase/oxygenase in the hyperthermophilic archaeon, Pyrococcus kodakaraensis KOD1. Ezaki S, et al. **J Biol Chem** 1999 Feb 19;274(8):5078-82

Thermostable flap endonuclease from the archaeon, Pyrococcus horikoshii, cleaves the replication fork-like structure endo/exonucleolytically. Matsui E, et al. **J Biol Chem** 1999 Jun 25;274(26):18297-309

Application of new deblocking aminopeptidase from Pyrococcus furiosis for microsequence analysis of blocked proteins. Kamp RM, et al. **J Protein Chem** 1998 Aug; 17(6):512-3

Cloning and nucleotide sequence of the thermostable beta-galactosidase gene from Pyrococcus woesei in Escherichia coli and some properties of the isolated enzyme. Dabrowski S, et al. **Mol Biotechnol** 1998 Dec; 10(3):217-22

Thermostable glycerol kinase from a hyperthermophilic archaeon: gene cloning and characterization of the recombinant enzyme. Koga Y, et al. **Protein Eng** 1998 Dec; 11(12):1219-27

Cloning and expression in Escherichia coli of the recombinant his-tagged DNA polymerases from Pyrococcus furiosus and Pyrococcus woesei. Dabrowski S, et al. **Protein Expr Purif** 1998 Oct;14(1):131-8

GENETICS

Isolation and characterization of a second subunit of molecular chaperonin from Pyrococcus kodakaraensis KOD1: analysis of an ATPase-deficient mutant enzyme. Izumi M, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1801-5

Characterization of an extremely thermostable restriction enzyme, PspGI, from a Pyrococcus strain and cloning of the PspGI restriction-modification system in Escherichia coli. Morgan R, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3669-73

Analysis of DNA compaction profile and intracellular contents of archaeal histones from Pyrococcus kodakaraensis KOD1. Higashibata H, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):416-24

Archaeon Pyrococcus kodakaraensis KOD1: application and evolution. Fujiwara S, et al. **Biotechnol Annu Rev** 1998; 4:259-84 (85 ref.)

Heterologous expression in the Archaea: transcription from Pyrococcus furiosus gdh and mlrA promoters in Haloferax volcanii. Schreier HJ, et al. **Extremophiles** 1999 Jan; 3(1):11-9

Sequence and transcriptional studies of five clustered flagellin genes from hyperthermophilic archaeon Pyrococcus kodakaraensis KOD1. Nagahisa K, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):183-90

Isolation of a minD-like gene in the hyperthermophilic archaeon Pyrococcus AL585, and phylogenetic characterization of related proteins in the three domains of life. Gérard E, et al. **Gene** 1998 Nov 5;222(1):99-106

Divergence of the hyperthermophilic archaea Pyrococcus furiosus and P. horikoshii inferred from complete genomic sequences. Maeder DL, et al. **Genetics** 1999 Aug; 152(4):1299-305

Gene cloning and characterization of recombinant RNase HII from a hyperthermophilic archaeon. Haruki M, et al. **J Bacteriol** 1998 Dec;180(23):6207-14

Cloning and nucleotide sequence of the thermostable beta-galactosidase gene from Pyrococcus woesei in Escherichia coli and some properties of the isolated enzyme. Dabrowski S, et al. **Mol Biotechnol** 1998 Dec; 10(3):217-22

Characterization of two intein homing endonucleases encoded in the DNA polymerase gene of Pyrococcus kodakaraensis strain KOD1. Nishioka M, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4409-12

Cloning and expression in Escherichia coli of the recombinant his-tagged DNA polymerases from Pyrococcus furiosus and Pyrococcus woesei. Dabrowski S, et al. **Protein Expr Purif** 1998 Oct;14(1):131-8

Isolation of new plasmids from hyperthermophilic Archaea of the order Thermococcales. Benbouzid-Rollet N, et al. **Res Microbiol** 1997 Dec;148(9):767-75

ISOLATION & PURIFICATION

Archaeon Pyrococcus kodakaraensis KOD1: application and evolution. Fujiwara S, et al. **Biotechnol Annu Rev** 1998; 4:259-84 (85 ref.)

METABOLISM

Channeling of carbamoyl phosphate to the pyrimidine and arginine biosynthetic pathways in the deep sea hyperthermophilic archaeon Pyrococcus abyssi. Purcarea C, et al. **J Biol Chem** 1999 Mar 5;274(10):6122-9

PYROCOCCUS FURIOSUS

CHEMISTRY

Voltammetric studies of the reactions of iron-sulphur clusters ([3Fe-4S] or [M3Fe-4S]) formed in Pyrococcus furiosus ferredoxin [published erratum appears in Biochem J 1998 Dec 15;336(Pt 3):743] Fawcett SE, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):357-68

Effect of serinate ligation at each of the iron sites of the [Fe4S4] cluster of Pyrococcus furiosus ferredoxin on the redox, spectroscopic, and biological properties. Brereton PS, et al. **Biochemistry** 1999 Aug 10;38(32):10594-605

Effects of mutations in aspartate 14 on the spectroscopic properties of the [Fe3S4]+,0 clusters in Pyrococcus furiosus ferredoxin. Duderstadt RE, et al. **Biochemistry** 1999 Aug 10;38(32):10585-93

Secondary structure extensions in Pyrococcus furiosus ferredoxin destabilize the disulfide bond relative to that in other hyperthermostable ferredoxins. Global consequences for the disulfide orientational heterogeneity. Wang PL, et al. **Biochemistry** 1999 Jun 22;38(25):8167-78

A pure S = 3/2 [Fe4S4]+ cluster in the A33Y variant of Pyrococcus furiosus ferredoxin. Duderstadt RE, et al. **FEBS Lett** 1999 Jul 2;454(1-2):21-6

Hyperthermophilic redox chemistry: a re-evaluation. Hagedoorn PL, et al. **FEBS Lett** 1998 Dec 4;440(3):311-4

Pressure-induced thermostabilization of glutamate dehydrogenase from the hyperthermophile Pyrococcus furiosus. Sun MM, et al. **Protein Sci** 1999 May;8(5):1056-63

ENZYMOLOGY

Purification, crystallization and preliminary X-ray crystallographic analysis of Pyrococcus furiosus DNA polymerase. Goldman S, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):986-8

Relationship between glycosyl hydrolase inventory and growth physiology of the hyperthermophile Pyrococcus furiosus on carbohydrate-based media. Driskill LE, et al. **Appl Environ Microbiol** 1999 Mar;65(3):893-7

An AMP-dependent (ATP-forming) kinase in the hyperthermophilic archaeon Pyrococcus furiosus: characterization and novel physiological role. Sakuraba H, et al. **Arch Biochem Biophys** 1999 Apr 1;364(1):125-8

The family 1 beta-glucosidases from Pyrococcus furiosus and Agrobacterium faecalis share a common catalytic mechanism. Bauer MW, et al. **Biochemistry** 1998 Dec 8; 37(49):17170-8

The unusually slow unfolding rate causes the high stability of pyrrolidone carboxyl peptidase from a hyperthermophile, Pyrococcus furiosus: equilibrium and kinetic studies of guanidine hydrochloride-induced unfolding and refolding. Ogasahara K, et al. **Biochemistry** 1998 Dec 15;37(50):17537-44

Molecular cloning of extremely thermostable esterase gene from hyperthermophilic archaeon Pyrococcus furiosus in

Escherichia coli. Ikeda M, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):624–9

Stability and sulfur–reduction activity in non–aqueous phase liquids of the hydrogenase from the hyperthermophile Pyrococcus furiosus. Kim C, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):108–13

An endoglucanase, EglA, from the hyperthermophilic archaeon Pyrococcus furiosus hydrolyzes beta–1,4 bonds in mixed–linkage (1–>3),(1–>4)–beta–D–glucans and cellulose. Bauer MW, et al. **J Bacteriol** 1999 Jan; 181(1):284–90

An unusual oxygen–sensitive, iron– and zinc–containing alcohol dehydrogenase from the hyperthermophilic archaeon Pyrococcus furiosus. Ma K, et al. **J Bacteriol** 1999 Feb;181(4):1163–70

A hyperactive NAD(P)H:Rubredoxin oxidoreductase from the hyperthermophilic archaeon Pyrococcus furiosus. Ma K, et al. **J Bacteriol** 1999 Sep;181(17):5530–3

Acetyl coenzyme A synthetase (ADP forming) from the hyperthermophilic Archaeon pyrococcus furiosus: identification, cloning, separate expression of the encoding genes, acdAI and acdBI, in Escherichia coli, and in vitro reconstitution of the active heterotetrameric enzyme from its recombinant subunits. Musfeldt M, et al. **J Bacteriol** 1999 Sep;181(18):5885–8

Pyrrolidone carboxyl peptidase from the hyperthermophilic Archaeon Pyrococcus furiosus: cloning and overexpression in Escherichia coli of the gene, and its application to protein sequence analysis. Tsunasawa S, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):778–83

Molecular and biochemical characterization of the ADP–dependent phosphofructokinase from the hyperthermophilic archaeon Pyrococcus furiosus. Tuininga JE, et al. **J Biol Chem** 1999 Jul 23;274(30):21023–8

The carbamoyl–phosphate synthetase of Pyrococcus furiosus is enzymologically and structurally a carbamate kinase. Uriarte M, et al. **J Biol Chem** 1999 Jun 4;274(23):16295–303

On the prosthetic groups of the NiFe sulfhydrogenase from Pyrococcus furiosus: topology, structure, and temperature–dependent redox chemistry. Silva PJ, et al. **J Biol Inorg Chem** 1999 Jun;4(3):284–91

Characterisation and enzymatic properties of tRNA(guanine 26, N (2), N (2))–dimethyltransferase (Trm1p) from Pyrococcus furiosus. Constantinesco F, et al. **J Mol Biol** 1999 Aug 13;291(2):375–92

Formaldehyde ferredoxin oxidoreductase from Pyrococcus furiosus: the 1.85 A resolution crystal structure and its mechanistic implications. Hu Y, et al. **J Mol Biol** 1999 Feb 26;286(3):899–914

Crystal structure of methionine aminopeptidase from hyperthermophile, Pyrococcus furiosus. Tahirov TH, et al. **J Mol Biol** 1998 Nov 20;284(1):101–24

Purification and application of a novel N–terminal deblocking aminopeptidase (DAP) from Pyrococcus furiosus. Tsunasawa S. **J Protein Chem** 1998 Aug;17(6):521–2

Transfer RNA modification enzymes from Pyrococcus furiosus: detection of the enzymatic activities in vitro. Constantinesco F, et al. **Nucleic Acids Res** 1999 Mar 1; 27(5):1308–15

A read–ahead function in archaeal DNA polymerases detects promutagenic template–strand uracil. Greagg MA, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9045–50

Cloning and expression in Escherichia coli of the recombinant his–tagged DNA polymerases from Pyrococcus furiosus and Pyrococcus woesei. Dabrowski S, et al. **Protein Expr Purif** 1998 Oct;14(1):131–8

GENETICS

Cell–free transcription at 95 degrees: thermostability of transcriptional components and DNA topology requirements of Pyrococcus transcription. Hethke C, et al. **Genetics** 1999 Aug;152(4):1325–33

Divergence of the hyperthermophilic archaea Pyrococcus furiosus and P. horikoshii inferred from complete genomic sequences. Maeder DL, et al. **Genetics** 1999 Aug; 152(4):1299–305

Acetyl coenzyme A synthetase (ADP forming) from the hyperthermophilic Archaeon pyrococcus furiosus: identification, cloning, separate expression of the encoding genes, acdAI and acdBI, in Escherichia coli, and in vitro reconstitution of the active heterotetrameric enzyme from its recombinant subunits. Musfeldt M, et al. **J Bacteriol** 1999 Sep;181(18):5885–8

Purification and molecular characterization of the tungsten–containing formaldehyde ferredoxin oxidoreductase from the hyperthermophilic archaeon Pyrococcus furiosus: the third of a putative five–member tungstoenzyme family. Roy R, et al. **J Bacteriol** 1999 Feb; 181(4):1171–80

Transcriptional regulation in the hyperthermophilic archaeon Pyrococcus furiosus: coordinated expression of divergently oriented genes in response to beta–linked glucose polymers. Voorhorst WG, et al. **J Bacteriol** 1999 Jun;181(12):3777–83

Pyrrolidone carboxyl peptidase from the hyperthermophilic Archaeon Pyrococcus furiosus: cloning and overexpression in Escherichia coli of the gene, and its application to protein sequence analysis. Tsunasawa S, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):778–83

The ferredoxin–dependent conversion of glyceraldehyde–3–phosphate in the hyperthermophilic archaeon Pyrococcus furiosus represents a novel site of glycolytic regulation. van der Oost J, et al. **J Biol Chem** 1998 Oct 23;273(43):28149–54

A Holliday junction resolvase from Pyrococcus furiosus: functional similarity to Escherichia coli RuvC provides evidence for conserved mechanism of homologous recombination in Bacteria, Eukarya, and Archaea. Komori K, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3; 96(16):8873–8

Cloning and expression in Escherichia coli of the recombinant his–tagged DNA polymerases from Pyrococcus furiosus and Pyrococcus woesei. Dabrowski S, et al. **Protein Expr Purif** 1998 Oct;14(1):131–8

Adenylosuccinate synthetase genes: molecular cloning and phylogenetic analysis of a highly conserved archaeal gene. Cann IK, et al. **Syst Appl Microbiol** 1998 Dec;21(4):478–86

GROWTH & DEVELOPMENT

Relationship between glycosyl hydrolase inventory and growth physiology of the hyperthermophile Pyrococcus furiosus on carbohydrate–based media. Driskill LE, et al. **Appl Environ Microbiol** 1999 Mar;65(3):893–7

METABOLISM

Sugar utilization and its control in hyperthermophiles. de Vos WM, et al. **Extremophiles** 1998 Aug;2(3):201–5 (23 ref.)

PYRODICTIUM see **DESULFUROCOCCACEAE**

PYROGALLOL

ANALOGS & DERIVATIVES

[Determination of total proteinuria: a comparative study of automated trichloracetic acid and pyrogallol red techniques for samples with monoclonal light chains] Le Bricon T, et al. **Ann Biol Clin (Paris)** 1998 Nov–Dec;56(6):719–23 **(Fre)**

PYROGENS

Afferent pathways of pyrogen signaling. Blatteis CM, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:95–107 (87 ref.)

Interleukin–1 beta, interleukin–18, and the interleukin–1 beta converting enzyme. Dinarello CA. **Ann N Y Acad Sci** 1998 Sep 29;856:1–11 (84 ref.)

Effect of galactosamine, an inhibitor of hepatic protein synthesis, on endotoxin–induced fever and pyrogenic tolerance. Ferreira ME, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:256–60

ANALYSIS

Differentiation between endotoxin and non–endotoxin pyrogens in human albumin solutions using an ex vivo whole blood culture assay. Pool EJ, et al. **J Immunoassay** 1999 Feb–May;20(1–2):79–89

BLOOD

The detection of pyrogens in sera from patients with symptoms of sepsis using an ex vivo whole blood culture assay. Pool EJ, et al. **J Immunoassay** 1999 Feb–May; 20(1–2):1–11

The detection of pyrogens in blood products using an ex vivo whole blood culture assay. Pool EJ, et al. **J Immunoassay** 1998 May–Aug;19(2–3):95–111

Sudden infant death syndrome: hypothalamic failure to sense elevated blood pyrogens. Reid GM, et al. **Med Hypotheses** 1999 Jun;52(6):569–75 (69 ref.)

CHEMISTRY

Identification of domains involved in superantigenicity of streptococcal pyrogenic exotoxin F (SpeF). Eriksson A, et al. **Microb Pathog** 1998 Nov;25(5):279–90

GENETICS

Use of multiplex PCR to detect classical and newly described pyrogenic toxin genes in staphylococcal isolates. Monday SR, et al. **J Clin Microbiol** 1999 Oct;37(10):3411–4

IMMUNOLOGY

Mutational analysis of superantigen activity responsible for the induction of skin erythema by streptococcal pyrogenic exotoxin C. Yamaoka J, et al. **Infect Immun** 1998 Oct; 66(10):5020–6

ISOLATION & PURIFICATION

Removal of pyrogens by filtration? [letter; comment] Turco SJ. **Am J Health Syst Pharm** 1999 Mar 1;56(5):477. Comment on: Am J Health Syst Pharm 1998 Oct 1;55(19):2026–7.

METABOLISM

Exposure to febrile temperature upregulates expression of pyrogenic cytokines in endotoxin–challenged mice. Jiang Q, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1653–60

Pyrogen transfer across PMMA membranes. Cappelli G, et al. **Contrib Nephrol** 1999;125:233–9 (41 ref.)

PHARMACOLOGY

Elevation of metabolic rate by pyrogen administration does not affect the gain of respiratory peripheral chemoreflexes in unanesthetized kittens. Watanabe T, et al. **Pediatr Res** 1998 Sep;44(3):357–62

PHYSIOLOGY

Streptococcal pyrogenic exotoxin B induces apoptosis and reduces phagocytic activity in U937 cells. Kuo CF, et al. **Infect Immun** 1999 Jan;67(1):126–30

Cytokines as endogenous pyrogens. Dinarello CA. **J Infect Dis** 1999 Mar;179 Suppl 2:S294–304 (116 ref.)

TOXICITY

Tolerance to pyrogens. Zeisberger E, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:116–31 (54 ref.)

PYROGLUTAMATE AMINOPEPTIDASE see **PYROGLUTAMYL–PEPTIDASE I**

PYROGLUTAMATE HYDROLASE

ANALYSIS

Immunohistochemical localization of 5–oxo–L–prolinase, an enzyme of the gamma–glutamyl cycle, in porcine brain microvessels. Jäger M, et al. **FEBS Lett** 1999 Feb 19; 445(1):215–7

DEFICIENCY

5–Oxoprolinuria in patients with and without defects in the gamma–glutamyl cycle. Mayatepek E. **Eur J Pediatr** 1999 Mar;158(3):221–5

PYROGLUTAMIC ACID see **PYRROLIDONECARBOXYLIC ACID**

PYROGLUTAMYL–PEPTIDASE I

ANALYSIS

Use of pyrrolidonyl peptidase to distinguish Citrobacter from Salmonella. Bennett AR, et al. **Lett Appl Microbiol** 1999 Mar;28(3):175–8

CHEMISTRY

Crystallization and preliminary X–ray diffraction studies of pyrrolidone carboxyl peptidase from the hyperthermophilic archaeon Thermococcus litoralis. Singleton MR, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):702–3

The unusually slow unfolding rate causes the high stability of pyrrolidone carboxyl peptidase from a hyperthermophile, Pyrococcus furiosus: equilibrium and kinetic studies of guanidine hydrochloride–induced unfolding and refolding. Ogasahara K, et al. **Biochemistry** 1998 Dec 15;37(50):17537–44

The crystal structure of pyroglutamyl peptidase I from Bacillus amyloliquefaciens reveals a new structure for a cysteine protease. Odagaki Y, et al. **Structure** 1999 Apr 15;7(4):399–411

X–ray structure of pyrrolidone carboxyl peptidase from the hyperthermophilic archaeon Thermococcus litoralis. Singleton M, et al. **Structure Fold Des** 1999 Mar 15; 7(3):237–44

GENETICS

Pyrrolidone carboxyl peptidase from the hyperthermophilic Archaeon Pyrococcus furiosus: cloning and overexpression in Escherichia coli of the gene, and its application to protein sequence analysis. Tsunasawa S, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):778–83

ISOLATION & PURIFICATION

Partial purification and some properties of pyroglutamyl peptidase from Enterococcus faecalis. Mineyama R, et al. **Microbios** 1998;94(377):47–62

METABOLISM

The unusually slow unfolding rate causes the high stability of pyrrolidone carboxyl peptidase from a hyperthermophile, Pyrococcus furiosus: equilibrium and kinetic studies of guanidine hydrochloride–induced unfolding and refolding. Ogasahara K, et al. **Biochemistry** 1998 Dec 15;37(50):17537–44

Pyrrolidone carboxyl peptidase from the hyperthermophilic Archaeon Pyrococcus furiosus: cloning and overexpression in Escherichia coli of the gene, and its application to protein sequence analysis. Tsunasawa S, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):778–83

PHYSIOLOGY

Pyroglutamyl peptidase: an overview of the three known enzymatic forms. Cummins PM, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):1–17 (181 ref.)

PYROMANIA see **FIRESETTING BEHAVIOR**

PYRONES

ADMINISTRATION & DOSAGE

Acute and chronic oral administration of bis(maltolato)oxovanadium(IV) in Zucker diabetic fatty (ZDF) rats. Yuen VG, et al. **Diabetes Res Clin Pract** 1999 Jan;43(1):9–19

ADVERSE EFFECTS

Allergic contact dermatitis from kojic acid. Serra-Baldrich E, et al. **Contact Dermatitis** 1998 Aug;39(2):86–7

CHEMICAL SYNTHESIS

4-hydroxy-5,6-dihydro-2H-pyran-2-ones.3. Bicyclic and hetero-aromatic ring systems as 3-position scaffolds to bind to S1' and S2' of the HIV-1 protease enzyme. Ellsworth EL, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2019–24

Non-peptidic HIV protease inhibitors: C2-symmetry-based design of bis-sulfonamide dihydropyrones. Janakiraman MN, et al. **Bioorg Med Chem Lett** 1998 May 19; 8(10):1237–42

CHEMISTRY

Hydroquinone-based derivatization reagents for the quantitation of amines using electrochemical detection. Rose MJ, et al. **Anal Chem** 1999 Jun 1;71(11):2221–30

Structure-based discovery of Tipranavir disodium (PNU-140690E): a potent, orally bioavailable, nonpeptidic HIV protease inhibitor. Thaisrivongs S, et al. **Biopolymers** 1999;51(1):51–8 (50 ref.)

Quantitative structure-activity relationships of some HIV-protease inhibitors. Gupta SP, et al. **J Enzyme Inhib** 1999;14(2):109–23

Kojic acid--a new leading molecule for a preparation of compounds with an anti-neoplastic potential. Novotný L, et al. **Neoplasma** 1999;46(2):89–92 (30 ref.)

Two 6-substituted 5,6-dihydro-alpha-pyrones from Ravensara anisata. Andrianaivoravelona JO, et al. **Phytochemistry** 1999 Sep;52(2):265–9

ISOLATION & PURIFICATION

Scyphostatin, a neutral sphingomyelinase inhibitor from a discomycete, Trichopeziza mollissima: taxonomy of the producing organism, fermentation, isolation, and physico-chemical properties. Nara F, et al. **J Antibiot (Tokyo)** 1999 Jun;52(6):525–30

METABOLISM

Kojic acid production by Aspergillus flavus using gelatinized and hydrolyzed sago starch as carbon sources. Rosfarizan M, et al. **Folia Microbiol (Praha)** 1998;43(5):459–64

Trichoderma/pathogen interactions: measurement of antagonistic chemicals produced at the antagonist/pathogen interface using a tubular bioassay. Cooney JM, et al. **Lett Appl Microbiol** 1998 Nov; 27(5):283–6

4-Hydroxy-2-pyrone formation by chalcone and stilbene synthase with nonphysiological substrates. Zuurbier KW, et al. **Phytochemistry** 1998 Dec;49(7):1945–51

PHARMACOLOGY

Gelastatins, new inhibitors of matrix metalloproteinases from Westerdykella multispora F50733. Lee HJ, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:635–7

Tricyclic pyrone analogs: a new synthetic class of bifunctional anticancer drugs that inhibit nucleoside transport, microtubule assembly, the viability of leukemic cells in vitro and the growth of solid tumors in vivo. Perchellet EM, et al. **Anticancer Drugs** 1999 Jun; 10(5):489–504

Apoptosis induction via microtubule disassembly by an antitumour compound, pironetin. Kondoh M, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):411–6

Benzothiopyran-4-one based reversible inhibitors of the human cytomegalovirus (HCMV) protease. Dhanak D, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3677–82

4-hydroxy-5,6-dihydro-2H-pyran-2-ones.3. Bicyclic and hetero-aromatic ring systems as 3-position scaffolds to bind to S1' and S2' of the HIV-1 protease enzyme. Ellsworth EL, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2019–24

Functionalized 1,3-teraryls as a new class of hepatoprotectants. Part V. Ram VJ, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):469–72

Changes in thyroid function during development of thyroid hyperplasia induced by kojic acid in F344 rats. Fujimoto N, et al. **Carcinogenesis** 1999 Aug;20(8):1567–71

Antiallergic agent from natural sources. Structures and inhibitory effect of histamine release of naphthopyrone glycosides from seeds of Cassia obtusifolia L. Kitanaka S, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1650–2

The influence of (+/-)-kavain on population spikes and long-term potentiation in guinea pig hippocampal slices. Langosch JM, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jul; 120(3):545–9

Effects of (+/-)-kavain on voltage-activated inward currents of dorsal root ganglion cells from neonatal rats. Schirrmacher K, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):171–6

Inhibition of Ca2+-independent phospholipase A2 by bromoenol lactone attenuates prostaglandin generation induced by interleukin-1 beta and dibutyryl cAMP in rat mesangial cells. Akiba S, et al. **FEBS Lett** 1998 Oct 23; 437(3):225–8

Caspases-3 and -7 are activated in goniothalamin-induced apoptosis in human Jurkat T-cells. Inayat-Hussain SH, et al. **FEBS Lett** 1999 Aug 13;456(3):379–83

Antagonistic effects of styrylpyrone derivative (SPD) on 7,12-dimethylbenzanthracene-induced rat mammary tumors. Hawariah A, et al. **In Vivo** 1998 Jul-Aug; 12(4):403–10

Biological activities of scyphostatin, a neutral sphingomyelinase inhibitor from a discomycete, Trichopeziza mollissima. Nara F, et al. **J Antibiot (Tokyo)** 1999 Jun;52(6):531–5

Nepetalactone: a new opioid analgesic from Nepeta caesarea Boiss [published errata appear in J Pharm Pharmacol 1998 Oct;50(10):1204 and 1998 Dec;50(12):following 1434] Aydin S, et al. **J Pharm Pharmacol** 1998 Jul;50(7):813–7

Differential induction of apoptosis in B16 melanoma and EL-4 lymphoma cells by cytostatin and bactobolin. Kawada M, et al. **Jpn J Cancer Res** 1999 Feb;90(2):219–25

Inhibition of Ca2+-independent phospholipase A2 affects arachidonate-, not docosahexaenoate-, phospholipid remodeling in U(III) cells. Birbes H, et al. **Lipids** 1999;34 Suppl:S69

Kojic acid--a new leading molecule for a preparation of compounds with an anti-neoplastic potential. Novotný L, et al. **Neoplasma** 1999;46(2):89–92 (30 ref.)

Inhibition of platelet MAO-B by kava pyrone-enriched extract from Piper methysticum Forster (kava-kava). Uebelhack R, et al. **Pharmacopsychiatry** 1998 Sep; 31(5):187–92

Influence of bis(maltolato)oxovanadium(IV) on activity of galactosyltransferase (GalT) and morphology of rat liver Golgi apparatus in control and streptozotocin diabetes. Dąbroś W, et al. **Pol J Pathol** 1998;49(2):67–76

Role of calcium-independent phospholipase A2 in the regulation of calcium influx into Jurkat cells. Zabłocki K, et al. **Pol J Pharmacol** 1999 Mar-Apr;51(2):163–6

[Action and molecular targets of anti cancer agents from microbial products] Ishizuka M. **Jpn J Antibiot** 1999 Feb; 52(2):174–5 **(Jpn)**

THERAPEUTIC USE

Ferric trimaltol corrects iron deficiency anaemia in patients intolerant of iron. Harvey RS, et al. **Aliment Pharmacol Ther** 1998 Sep;12(9):845–8

Antitumor activity of tricyclic pyrone analogs, a new synthetic class of microtubule de-stabilizing agents, in the murine EMT-6 mammary tumor cell line in vitro. Perchellet EM, et al. **Anticancer Drugs** 1998 Jul;9(6):565–76

TOXICITY

Regulation of selected biological processes in neoplastic cell lines by halogen derivatives of 5-hydroxy-2-hydroxymethyl-4-pyranone. Bransová J, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4423–8

In vitro response of human breast cancer cell lines to the growth-inhibitory effects of styrylpyrone derivative (SPD) and assessment of its antiestrogenicity. Hawariah A, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4383–6

Promoting effects of kojic acid due to serum TSH elevation resulting from reduced serum thyroid hormone levels on development of thyroid proliferative lesions in rats initiated with N-bis(2-hydroxypropyl)nitrosamine. Mitsumori K, et al. **Carcinogenesis** 1999 Jan;20(1):173–6

Time course observation of thyroid proliferative lesions and serum levels of related hormones in rats treated with kojic acid after DHPN initiation. Tamura T, et al. **J Toxicol Sci** 1999 Aug;24(3):145–55

Pulse exposure of cultured rat neurons to aluminum-maltol affected the axonal transport system. Kashiwagi Y, et al. **Neurosci Lett** 1998 Aug 7;252(1):5–8

Inhibition of thyroid iodine uptake and organification in rats treated with kojic acid. Tamura T, et al. **Toxicol Sci** 1999 Feb;47(2):170–5

PYROPHOSPHATASES

Use of potato tuber nucleotide pyrophosphatase to synthesize adenosine 5'-monophosphate methyl ester: evidence that the solvolytic preferences of the enzyme are regulated by pH and temperature. Agudo A, et al. **Biotechnol Bioeng** 1998 Jul 5;59(1):62–7

Inorganic polyphosphate: a molecule of many functions. Kornberg A. **Prog Mol Subcell Biol** 1999;23:1–18 (60 ref.)

ANALYSIS

Determination of phosphate and pyrophosphate ions by capillary electrophoresis. Hénin O, et al. **Anal Biochem** 1999 May 15;270(1):181–4

Presence of a vacuolar H+-pyrophosphatase in promastigotes of Leishmania donovani and its localization to a different compartment from the vacuolar H+-ATPase. Rodrigues CO, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):759–66

Localization of pyrophosphatase in membranes of cauliflower inflorescence cells. Ratajczak R, et al. **Planta** 1999 Apr; 208(2):205–11

ANTAGONISTS & INHIBITORS

Triphenyltin as an inhibitor of membrane-bound pyrophosphatase of Rhodospirillum rubrum. Celis H, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):157–63

Vicia villosa B4 lectin inhibits nucleotide pyrophosphatase activity toward UDP-GalNAc specifically. Takeya A, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):215–23

BIOSYNTHESIS

Differential regulation of the expression of nucleotide pyrophosphatases/phosphodiesterases in rat liver. Stefan C, et al. **Biochim Biophys Acta** 1999 May 6;1450(1):45–52

BLOOD

Serum nucleotide pyrophosphohydrolase activity; elevated levels in osteoarthritis, calcium pyrophosphate crystal deposition disease, scleroderma, and fibromyalgia. Cardenal A, et al. **J Rheumatol** 1998 Nov;25(11):2175–80

CHEMISTRY

Crystallization and preliminary X-ray diffraction of Trypanosoma cruzi dUTPase. Bernier-Villamor V, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Feb;55 (Pt 2):528–30

The refined structure of dUTPase from Escherichia coli. Dauter Z, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):735–49

The extreme thermostable pyrophosphatase from Sulfolobus acidocaldarius: enzymatic and comparative biophysical characterization. Hansen T, et al. **Arch Biochem Biophys** 1999 Mar 1;363(1):135–47

Stabilization against thermal inactivation promoted by sugars on enzyme structure and function: why is trehalose more effective than other sugars? Sola-Penna M, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):10–4

A chimeric inorganic pyrophosphatase derived from Escherichia coli and Thermus thermophilus has an increased thermostability. Satoh T, et al. **Biochemistry** 1999 Feb 2;38(5):1531–6

Three-dimensional structures of mutant forms of E. coli inorganic pyrophosphatase with Asp-->Asn single substitution in positions 42, 65, 70, and 97. Avaeva SM, et al. **Biochemistry (Mosc)** 1998 Jun;63(6):671–84

Changes in E. coli inorganic pyrophosphatase structure induced by binding of metal activators. Avaeva SM, et al. **Biochemistry (Mosc)** 1998 May;63(5):592–9

Crystal structure of the bifunctional N-acetylglucosamine 1-phosphate uridyltransferase from Escherichia coli: a paradigm for the related pyrophosphorylase superfamily. Brown K, et al. **EMBO J** 1999 Aug 2;18(15):4096–107

H+-proton-pumping inorganic pyrophosphatase: a tightly membrane-bound family. Baltscheffsky M, et al. **FEBS Lett** 1999 Jun 11;452(3):121–7 (64 ref.)

Primary structure, expression, and site-directed mutagenesis of inorganic pyrophosphatase from Bacillus stearothermophilus. Satoh T, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):48–57

Hydrophobic interactions of Val75 are critical for oligomeric thermostability of inorganic pyrophosphatase from Bacillus stearothermophilus. Shinoda H, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):58–63

Crystal structure of dUTPase from equine infectious anaemia virus; active site metal binding in a substrate analogue complex. Dauter Z, et al. **J Mol Biol** 1999 Jan 15; 285(2):655–73

Structure/function analysis of a dUTPase: catalytic mechanism of a potential chemotherapeutic target. Harris JM, et al. **J Mol Biol** 1999 Apr 30;288(2):275–87

The R78K and D117E active-site variants of Saccharomyces cerevisiae soluble inorganic pyrophosphatase: structural studies and mechanistic implications. Tuominen V, et al. **J Mol Biol** 1998 Dec 18;284(5):1565–80

"Hidden" dUTPase sequence in human immunodeficiency virus type 1 gp120. Abergel C, et al. **J Virol** 1999 Jan; 73(1):751–3

Structural studies of the vacuolar H(+)-pyrophosphatase: sequence analysis and identification of the residues modified by fluorescent cyclohexylcarbodiimide and maleimide. Maruyama C, et al. **Plant Cell Physiol** 1998 Oct; 39(10):1045–53

Sulfolobus acidocaldarius inorganic pyrophosphatase: structure, thermostability, and effect of metal ion in an archael pyrophosphatase. Leppänen VM, et al. **Protein Sci** 1999 Jun;8(6):1218–31

GENETICS

Schizosaccharomyces pombe Aps1, a diadenosine 5',5''-P1, P6-hexaphosphate hydrolase that is a member of the nudix (MutT) family of hydrolases: cloning of the gene and characterization of the purified enzyme. Ingram SW, et al. **Biochemistry** 1999 Mar 23;38(12):3649–55

A chimeric inorganic pyrophosphatase derived from Escherichia coli and Thermus thermophilus has an increased thermostability. Satoh T, et al. **Biochemistry** 1999 Feb 2;38(5):1531–6

Stabilization of the enzyme--substrate complex of the mutant Asp-67Asn inorganic pyrophosphatase from Escherichia coli by fluoride ions. Avaeva SM, et al. **Biochemistry (Mosc)** 1999 Feb;64(2):169–74

Molecular cloning and sequencing of the cDNA for vacuolar

H+-pyrophosphatase from Chara corallina1. Nakanishi Y, et al. **Biochim Biophys Acta** 1999 Apr 14;1418(1):245-50
Identification of the gene structure and promoter region of H+-translocating inorganic pyrophosphatase in rice (Oryza sativa L.). Sakakibara Y, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):117-24
No correlation of plasma cell 1 overexpression with insulin resistance in diabetic rats and 3T3-L1 adipocytes. Sakoda H, et al. **Diabetes** 1999 Jul;48(7):1365-71
Synechocystis sp. slr0787 protein is a novel bifunctional enzyme endowed with both nicotinamide mononucleotide adenylyltransferase and 'Nudix' hydrolase activities. Raffaelli N, et al. **FEBS Lett** 1999 Feb 12;444(2-3):222-6
Cloning and expression of a unique inorganic pyrophosphatase from Bacillus subtilis: evidence for a new family of enzymes. Shintani T, et al. **FEBS Lett** 1998 Nov 20;439(3):263-6
Evolutionary aspects of inorganic pyrophosphatase. Sivula T, et al. **FEBS Lett** 1999 Jul 2;454(1-2):75-80
Cloning and characterization of a bifunctional RelA/SpoT homologue from Mycobacterium tuberculosis. Avarbock D, et al. **Gene** 1999 Jun 11;233(1-2):261-9
Association of the human NPPS gene with ossification of the posterior longitudinal ligament of the spine (OPLL). Nakamura I, et al. **Hum Genet** 1999 Jun;104(6):492-7
The pur7 gene from the puromycin biosynthetic pur cluster of Streptomyces alboniger encodes a nudix hydrolase. Espinosa JC, et al. **J Bacteriol** 1999 Aug;181(16):4914-8
Primary structure, expression, and site-directed mutagenesis of inorganic pyrophosphatase from Bacillus stearothermophilus. Satoh T, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):48-57
Hydrophobic interactions of Val75 are critical for oligomeric thermostability of inorganic pyrophosphatase from Bacillus stearothermophilus. Shinoda H, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):58-63
Kaposi's sarcoma-associated herpesvirus (human herpesvirus-8) ORF54 encodes a functional dUTPase expressed in the lytic replication cycle. Kremmer E, et al. **J Gen Virol** 1999 May;80 (Pt 5):1305-10
Genomic organization, mapping, and polymorphisms of the gene encoding human cartilage intermediate layer protein (CILP). Nakamura I, et al. **J Hum Genet** 1999;44(3):203-5
Evolution and horizontal transfer of dUTPase-encoding genes in viruses and their hosts. Baldo AM, et al. **J Virol** 1999 Sep;73(9):7710-21
Bacillus subtilis ORF ybyQ encodes a manganese-dependent inorganic pyrophosphatase with distinctive properties: the first of a new class of soluble pyrophosphatase? Young TW, et al. **Microbiology** 1998 Sep;144 (Pt 9):2563-71
Identification of cytosolic Mg2+-dependent soluble inorganic pyrophosphatases in potato and phylogenetic analysis. Rojas-Beltrán JA, et al. **Plant Mol Biol** 1999 Feb; 39(3):449-61
Isolation and characterization of a histidine biosynthetic gene in Arabidopsis encoding a polypeptide with two separate domains for phosphoribosyl-ATP pyrophosphohydrolase and phosphoribosyl-AMP cyclohydrolase. Fujimori K, et al. **Plant Physiol** 1998 Sep;118(1):275-83
Cloning and sequence analysis of the Pichia pastoris TRP1, IPP1 and HIS3 genes. Cosano I, et al. **Yeast** 1998 Jun 30; 14(9):861-7

HISTORY

Research on inorganic polyphosphates: the beginning. Langen P. **Prog Mol Subcell Biol** 1999;23:19-26

ISOLATION & PURIFICATION

Cloning of the gene for inorganic pyrophosphatase from a thermoacidophilic archaeon, Sulfolobus sp. strain 7, and overproduction of the enzyme by coexpression of tRNA for arginine rare codon. Wakagi T, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2408-14
ADP-ribose pyrophosphatase-I partially purified from livers of rats overdosed with acetaminophen reveals enzyme inhibition in vivo reverted in vitro by dithiothreitol. Ribeiro JM, et al. **J Biochem Mol Toxicol** 1999;13(3-4):171-7
Vacuolar H(+)-pyrophosphatase purified from pear fruit. Suzuki Y, et al. **Phytochemistry** 1999 Feb;50(4):535-9

METABOLISM

Structural aspects of the effectiveness of bisphosphonates as competitive inhibitors of the plant vacuolar proton-pumping pyrophosphatase. Gordon-Weeks R, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):373-7
Glutamic acid 472 and lysine 480 of the sodium pump alpha 1 subunit are essential for activity. Their conservation in pyrophosphatases suggests their involvement in recognition of ATP phosphates. Scheiner-Bobis G, et al. **Biochemistry** 1999 Jul 20;38(29):9198-208
Changes in E. coli inorganic pyrophosphatase structure induced by binding of metal activators. Avaeva SM, et al. **Biochemistry (Mosc)** 1998 May;63(5):592-9
Functional characterization of Escherichia coli inorganic pyrophosphatase in zwitterionic buffers. Baykov AA, et al. **Eur J Biochem** 1999 Mar;260(2):308-17
Membrane-bound proton-translocating pyrophosphatase of Syntrophus gentianae, a syntrophically benzoate-degrading fermenting bacterium. Schöcke L, et al. **Eur J Biochem** 1998 Sep 15;256(3):589-94
H+ -PPases: a tightly membrane-bound family. Baltscheffsky M, et al. **FEBS Lett** 1999 Sep 3;457(3):527-33 (64 ref.)
H+-proton-pumping inorganic pyrophosphatase: a tightly membrane-bound family. Baltscheffsky M, et al. **FEBS Lett** 1999 Jun 11;452(3):121-7 (64 ref.)
Kinetic properties and stereospecificity of the monomeric dUTPase from herpes simplex virus type 1. Bergman AC, et al. **FEBS Lett** 1998 Dec 18;441(2):327-30
Inorganic pyrophosphatase is a component of the Drosophila nucleosome remodeling factor complex. Gdula DA, et al. **Genes Dev** 1998 Oct 15;12(20):3206-16
Primary structure, expression, and site-directed mutagenesis of inorganic pyrophosphatase from Bacillus stearothermophilus. Satoh T, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):48-57
Deletion of Ala144-Lys145 in Thermus thermophilus inorganic pyrophosphatase suppresses thermal aggregation. Satoh T, et al. **J Biochem (Tokyo)** 1999 May;125(5):858-63
Directed mutagenesis studies of the metal binding site at the subunit interface of Escherichia coli inorganic pyrophosphatase. Efimova IS, et al. **J Biol Chem** 1999 Feb 5;274(6):3294-9
The LPP1 and DPP1 gene products account for most of the isoprenoid phosphate phosphatase activities in Saccharomyces cerevisiae. Faulkner A, et al. **J Biol Chem** 1999 May 21;274(21):14831-7
The diadenosine hexaphosphate hydrolases from Schizosaccharomyces pombe and Saccharomyces cerevisiae are homologues of the human diphosphoinositol polyphosphate phosphohydrolase. Overlapping substrate specificities in a MutT-type protein. Safrany ST, et al. **J Biol Chem** 1999 Jul 30;274(31):21735-40
Kaposi's sarcoma-associated herpesvirus (human herpesvirus-8) ORF54 encodes a functional dUTPase expressed in the lytic replication cycle. Kremmer E, et al. **J Gen Virol** 1999 May;80 (Pt 5):1305-10
The R78K and D117E active-site variants of Saccharomyces cerevisiae soluble inorganic pyrophosphatase: structural studies and mechanistic implications. Tuominen V, et al. **J Mol Biol** 1998 Dec 18;284(5):1565-80
An ecto-nucleotide pyrophosphatase is one of the main enzymes involved in the extracellular metabolism of ATP in rat C6 glioma. Grobben B, et al. **J Neurochem** 1999 Feb; 72(2):826-34
The activity of the root vacuolar H(+)-pyrophosphatase in rye plants grown under conditions deficient in mineral nutrients. Kasai M, et al. **Plant Cell Physiol** 1998 Aug; 39(8):890-4
The Arabidopsis thaliana proton transporters, AtNhx1 and Avp1, can function in cation detoxification in yeast. Gaxiola RA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1480-5
Cytoplasmic inorganic pyrophosphatase. Baykov AA, et al. **Prog Mol Subcell Biol** 1999;23:127-50 (97 ref.)
Effects of trehalose and ethanol on yeast cytosolic pyrophosphatase. Lopes DH, et al. **Z Naturforsch [C]** 1999 Mar-Apr;54(3-4):186-90

PHARMACOLOGY

Mechanism and pharmacological specificity of dUTPase-mediated protection from DNA damage and cytotoxicity in human tumor cells. Parsels LA, et al. **Cancer Chemother Pharmacol** 1998;42(5):357-62

PYROPHOSPHATES see **DIPHOSPHATES**

PYROPHOSPHOKINASES see **DIPHOSPHOTRANSFERASES**

PYROPHOSPHORIC ACIDS see **PHOSPHORIC ACIDS**

PYROPHOSPHOTRANSFERASES see **DIPHOSPHOTRANSFERASES**

PYROSIS see **HEARTBURN**

PYRROLES

Polypyrrole-entrapped quinohemoprotein alcohol dehydrogenase. Evidence for direct electron transfer via conducting-polymer chains. Ramanavicius A, et al. **Anal Chem** 1999 Aug 15;71(16):3581-6
Electroconducting polymers for the construction of DNA or peptide arrays on silicon chips. Livache T, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):629-34
New biodegradable networks of poly(N-vinylpyrrolidinone) designed for controlled nonburst degradation in the vitreous body. Bruining MJ, et al. **J Biomed Mater Res** 1999 Nov;47(2):189-97
In vitro cellular response to polypyrrole-coated woven polyester fabrics: potential benefits of electrical conductivity. Jakubiec B, et al. **J Biomed Mater Res** 1998 Sep 15;41(4):519-26
[Atorvastatin . A new generation of hypolipemic agents?] Azanza JR, et al. **Rev Med Univ Navarra** 1998 Jan-Mar; 42(1):51-5 (35 ref.) **(Spa)**

ADMINISTRATION & DOSAGE

Effects of high doses of simvastatin and atorvastatin on high-density lipoprotein cholesterol and apolipoprotein A-I. Crouse JR 3rd, et al. **Am J Cardiol** 1999 May 15; 83(10):1476-7, A7
More on the effect of atorvastatin on plasma fibrinogen levels in primary hypercholesterolemia [letter] Bertolotto A, et al. **Atherosclerosis** 1999 Apr;143(2):455-7
Effects of statins in thrombosis and aortic lesion development in a dyslipemic rabbit model. Alfon J, et al. **Thromb Haemost** 1999 May;81(5):822-7

ADVERSE EFFECTS

Atorvastatin-induced cholestatic hepatitis in a young woman with systemic lupus erythematosus. Grupo Lupus Virgen de las Nieves [letter] Jiménez-Alonso J, et al. **Arch Intern Med** 1999 Aug 9-23;159(15):1811-2
Atorvastatin-induced severe thrombocytopenia [letter] González-Ponte ML, et al. **Lancet** 1998 Oct 17; 352(9136):1284
Atorvastatin-induced acute hepatitis with absence of cross-toxicity with simvastatin [letter] Nakad A, et al. **Lancet** 1999 May 22;353(9166):1763-4
Cholestatic liver dysfunction [letter] Wierzbicki AS, et al. **Lancet** 1999 Sep 11;354(9182):954
Gastric effects of the novel non-steroidal anti-inflammatory drug amtolmetin guacyl [editorial] Coruzzi G, et al. **Nutrition** 1999 Apr;15(4):325-6

ANALYSIS

Quantitative analysis of sulpiride and impurities of 2-aminomethyl-1-ethylpyrrolidine and methyl-5-sulphamoyl-2-methoxybenzoate in pharmaceuticals by high-performance thin-layer chromatography and scanning densitometry. Agbaba D, et al. **J AOAC Int** 1999 Jul-Aug;82(4):825-9
Chlorophyll b and phycobilins in the common ancestor of cyanobacteria and chloroplasts [see comments] Tomitani A, et al. **Nature** 1999 Jul 8;400(6740):159-62. Comment in: Nature 1999 Jul 8;400(6740):119-20.

BLOOD

Grapefruit juice increases serum concentrations of atorvastatin and has no effect on pravastatin. Lilja JJ, et al. **Clin Pharmacol Ther** 1999 Aug;66(2):118-27
Development and validation of a high-performance liquid chromatography tandem mass spectrometry assay for atorvastatin, ortho-hydroxy atorvastatin, and para-hydroxy atorvastatin in human, dog, and rat plasma. Bullen WW, et al. **J Am Soc Mass Spectrom** 1999 Jan; 10(1):55-66
High-performance liquid chromatographic determination of nemonapride and desmethylnemonapride in human plasma using an electrochemical detection. Nagasaki T, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):293-8
Erythromycin coadministration increases plasma atorvastatin concentrations. Siedlik PH, et al. **J Clin Pharmacol** 1999 May;39(5):501-4
Quantitation of the acid and lactone forms of atorvastatin and its biotransformation products in human serum by high-performance liquid chromatography with electrospray tandem mass spectrometry. Jemal M, et al. **Rapid Commun Mass Spectrom** 1999;13(11):1003-15

CHEMICAL SYNTHESIS

Synthesis and binding mode of heterocyclic analogues of suramin inhibiting the human basic fibroblast growth factor. Manetti F, et al. **Bioorg Med Chem** 1998 Jul;6(7):947-58
Synthetic zinc tetrapyrroles complexing with pyridine as a single axial ligand. Tamiaki H, et al. **Bioorg Med Chem** 1998 Nov;6(11):2171-8
The novel cyclopropapyrroloindole(CPI) bisalkylators bearing methoxycarbonyl and trifluoromethyl groups. Fukuda Y, et al. **Bioorg Med Chem Lett** 1998 Jun 2; 8(11):1387-90
The synthesis and P388 cytotoxicity of mycalazol 11 and related 5-acyl-2-hydroxymethylpyrroles. Nabbs BK, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):505-8
Synthesis and biological activities of topoisomerase I inhibitors, 6-N-amino analogues of NB-506. Ohkubo M, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1219-24
Hantzsch pyrrole synthesis on solid support. Trautwein AW, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2381-4
Synthesis and pharmacological evaluation of pyrroloazepine derivatives as potent antihypertensive agents with antiplatelet aggregation activity. Mizuno A, et al. **Chem Pharm Bull (Tokyo)** 1999 Feb;47(2):246-56
Synthesis of biphenylyltetrazole derivatives of 1-aminopyrroles as angiotensin II antagonists. Attanasi OA, et al. **Farmaco** 1999 Jan-Feb;54(1-2):64-76
3-(2-Carbamoylvinyl)-4,5-dimethylpyrrole-2-carboxylic acids as ligands at the NMDA glycine-binding site: a study on the 2-carbamoylvinyl chain modification. Balsamini C, et al. **Farmaco** 1999 Jan-Feb;54(1-2):101-11
Pyrrolo[3,2-c]quinoline derivatives: a new class of kynurenine-3-hydroxylase inhibitors. Heidempergher F, et al. **Farmaco** 1999 Mar 31;54(3):152-60
Substituted tetrahydropyrrolo[2,1-b]oxazol-5(6H)-ones and tetrahydropyrrolo[2,1-b]thiazol-5(6H)-ones as hypoglycemic agents. Aicher TD, et al. **J Med Chem** 1998 Nov 5;41(23):4556-66
New water-soluble duocarmycin derivatives: synthesis and antitumor activity of A-ring pyrrole compounds bearing beta-heteroarylacryloyl groups. Amishiro N, et al.

J Med Chem 1999 Feb 25;42(4):669–76

DNA–Directed alkylating agents. 7. Synthesis, DNA interaction, and antitumor activity of bis(hydroxymethyl)– and bis(carbamate)–substituted pyrrolizines and imidazoles. Atwell GJ, et al. **J Med Chem** 1998 Nov 19;41(24):4744–54

Novel adrenoceptor antagonists with a tricyclic pyrrolodipyridazine skeleton. Barlocco D, et al. **J Med Chem** 1999 Jan 14;42(1):173–7

Thieno[3,2–b]– and thieno[2,3–b]pyrrole bioisosteric analogues of the hallucinogen and serotonin agonist N,N–dimethyltryptamine. Blair JB, et al. **J Med Chem** 1999 Mar 25;42(6):1106–11

Novel cyclopropapyrroloindole derivative (AT–3510) bearing methoxycarbonyl and trifluoromethyl groups. Fukuda Y, et al. **J Med Chem** 1999 Apr 22;42(8):1448–58

Nitrogen–carbon–linked (azolylphenyl)oxazolidinones with potent antibacterial activity against the fastidious gram–negative organisms Haemophilus influenzae and Moraxella catarrhalis. Genin MJ, et al. **J Med Chem** 1998 Dec 17;41(26):5144–7

A new class of pyrrolidin–2–ones: synthesis and pharmacological study. II. Saturnino C, et al. **J Pharm Belg** 1998 Nov–Dec;53(6):354–60

Fused 1,2–dithioles, V: Carbenoid anions as intermediates in reactions of pyrrothines and their heteroanalogues. Schachtner JE, et al. **Pharmazie** 1999 May;54(5):335–40

CHEMISTRY

Electrocatalytic reduction of S–nitrosoglutathione at electrodes modified with an electropolymerized film of a pyrrole–derived viologen system and their application to cellular S–nitrosoglutathione determinations. Wu Q, et al. **Anal Biochem** 1998 Oct 1;263(1):102–12

A biotinylated conducting polypyrrole for the spatially controlled construction of an amperometric biosensor. Cosnier S, et al. **Anal Chem** 1999 Sep 1;71(17):3692–7

Bilin organization in cryptomonad biliproteins. MacColl R, et al. **Biochemistry** 1999 Mar 30;38(13):4097–105

The 2.0 A structure of malarial purine phosphoribosyltransferase in complex with a transition–state analogue inhibitor. Shi W, et al. **Biochemistry** 1999 Aug 3;38(31):9872–80

DNA bound to polypyrrole films: high–resolution imaging, DNA binding kinetics and internal migration. Pande R, et al. **Biomaterials** 1998 Sep;19(18):1657–67

Molecular modeling, synthesis, and structures of N–methylated 3,5–linked pyrrolin–4–ones toward the creation of a privileged nonpeptide scaffold. Smith AB 3rd, et al. **Bioorg Med Chem** 1999 Jan;7(1):9–22

Synthetic zinc tetrapyrroles complexing with pyridine as a single axial ligand. Tamiaki H, et al. **Bioorg Med Chem** 1998 Nov;6(11):2171–8

The novel cyclopropapyrroloindole(CPI) bisalkylators bearing 3,3'–(1,4–phenylene)diacryloyl group as a linker. Fukuda Y, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):2003–4

The synthesis and P388 cytotoxicity of mycalazol 11 and related 5–acyl–2–hydroxymethylpyrroles. Nabbs BK, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):505–8

Crystal structure of allophycocyanin from red algae Porphyra yezoensis at 2.2–A resolution. Liu JY, et al. **J Biol Chem** 1999 Jun 11;274(24):16945–52

Development and analytical characterization of cysteine–grafted polypyrrole films electrosynthesized on Pt– and Ti–substrates as precursors of bioactive interfaces. De Giglio E, et al. **J Biomater Sci Polym Ed** 1999;10(8):845–58

Comparison of the properties of polymeric and C8 based materials for solid phase extraction. Martin P, et al. **J Pharm Biomed Anal** 1998 Sep 1;17(6–7):1093–100

The 2.0 A structure of human hypoxanthine–guanine phosphoribosyltransferase in complex with a transition–state analog inhibitor [see comments] Shi W, et al. **Nat Struct Biol** 1999 Jun;6(6):588–93. Comment in: Nat Struct Biol 1999 Jun;6(6):502–4.

ISOLATION & PURIFICATION

Isolation and characterization of novel human immunodeficiency virus integrase inhibitors from fungal metabolites. Hazuda D, et al. **Antivir Chem Chemother** 1999 Mar;10(2):63–70

Lamellarin alpha 20–sulfate, an inhibitor of HIV–1 integrase active against HIV–1 virus in cell culture. Reddy MV, et al. **J Med Chem** 1999 Jun 3;42(11):1901–7

Debromosceptrin, an alkaloid from the Caribbean sponge Agelas conifera. Shen X, et al. **J Nat Prod** 1998 Oct;61(10):1302–3

METABOLISM

Structure and mechanism of enzymes involved in the assembly of the tetrapyrrole macrocycle. Shoolingin–Jordan PM. **Biochem Soc Trans** 1998 Aug;26(3):326–36 (43 ref.)

Common chelatase design in the branched tetrapyrrole pathways of heme and anaerobic cobalamin synthesis. Schubert HL, et al. **Biochemistry** 1999 Aug 17;38(33):10660–9

Studies on the pyrrolinone metabolites derived from the tobacco alkaloid 1–methyl–2–(3–pyridinyl)pyrrole (beta–nicotyrine). Liu X, et al. **Chem Res Toxicol** 1999 Jun;12(6):508–12

Novel insights in the control of tetrapyrrole metabolism of higher plants. Grimm B. **Curr Opin Plant Biol** 1998 Jun;1(3):245–50 (39 ref.)

Introduction of a new branchpoint in tetrapyrrole biosynthesis in Escherichia coli by co–expression of genes encoding the chlorophyll–specific enzymes magnesium chelatase and magnesium protoporphyrin methyltransferase. Jensen PE, et al. **FEBS Lett** 1999 Jul 23;455(3):349–54

Organization of genes for tetrapyrrole biosynthesis in gram––positive bacteria. Johansson P, et al. **Microbiology** 1999 Mar;145 (Pt 3):529–38

Transition–state analogs as inhibitors of human and malarial hypoxanthine–guanine phosphoribosyltransferases [see comments] Li CM, et al. **Nat Struct Biol** 1999 Jun;6(6):582–7. Comment in: Nat Struct Biol 1999 Jun;6(6):502–4.

[Study on major metabolites of 3H–1,2–dihydro–2–(4–methylphenylamino)–methyl–1–pyrrolizinone in rabbits] Zhong DF, et al. **Yao Hsueh Hsueh Pao** 1996;31(11):855–60 (Eng. Abstr.) **(Chi)**

PHARMACOKINETICS

Metabolism and excretion of atorvastatin in rats and dogs. Black AE, et al. **Drug Metab Dispos** 1999 Aug;27(8):916–23

First time in human for GV196771: interspecies scaling applied on dose selection. Iavarone L, et al. **J Clin Pharmacol** 1999 Jun;39(6):560–6

PHARMACOLOGY

Effect of atorvastatin on low–density lipoprotein subfraction profile. Landray MJ, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):240–1

The role of base excision repair in the repair of DNA adducts formed by a series of nitrogen mustard–containing analogues of distamycin of increasing binding site size. Brooks N, et al. **Anticancer Drug Des** 1999 Feb;14(1):11–8

Makaluvamines vary in ability to induce dose–dependent DNA cleavage via topoisomerase II interaction. Matsumoto SS, et al. **Anticancer Drugs** 1999 Jan;10(1):39–45

Bactericidal activities of the pyrrole derivative BM212 against multidrug–resistant and intramacrophagic Mycobacterium tuberculosis strains. Deidda D, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):3035–7

Platelet deposition on eroded vessel walls at a stenotic shear rate is inhibited by lipid–lowering treatment with atorvastatin. Alfon J, et al. **Arterioscler Thromb Vasc Biol** 1999 Jul;19(7):1812–7

The HMG–CoA reductase inhibitor atorvastatin increases the fractional clearance rate of postprandial triglyceride–rich lipoproteins in miniature pigs. Burnett JR, et al. **Arterioscler Thromb Vasc Biol** 1998 Dec;18(12):1906–14

Mechanism–based inhibition of monoamine oxidase by 3–aryl–Delta3–pyrrolines. Williams CH, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):63–7

Hypocholesterolemic effects of 3–hydroxy–3–methylglutaryl coenzyme A (HMG–CoA) reductase inhibitors in the guinea pig: atorvastatin versus simvastatin. Conde K, et al. **Biochem Pharmacol** 1999 Oct 1;58(7):1209–19

Anti–repression of RNA polymerase II transcription by pyrrole–imidazole polyamides. Dickinson LA, et al. **Biochemistry** 1999 Aug 17;38(33):10801–7

Cycloprodigiosin hydrochloride obtained from Pseudoalteromonas denitrificans is a potent antimalarial agent. Kim HS, et al. **Biol Pharm Bull** 1999 May;22(5):532–4

Synthesis and binding mode of heterocyclic analogues of suramin inhibiting the human basic fibroblast growth factor. Manetti F, et al. **Bioorg Med Chem** 1998 Jul;6(7):947–58

Novel vasopressin V2 receptor–selective antagonists, pyrrolo[2,1–a]quinoxaline and pyrrolo[2,1–c][1,4]benzodiazepine derivatives. Ohtake Y, et al. **Bioorg Med Chem** 1999 Jun;7(6):1247–54

Pyrroles and other heterocycles as inhibitors of p38 kinase. de Laszlo SE, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2689–94

Potent, orally absorbed glucagon receptor antagonists. de Laszlo SE, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):641–6

Pyrrolnitrin and related pyrroles endowed with antibacterial activities against Mycobacterium tuberculosis. Di Santo R, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2931–6

The synthesis and P388 cytotoxicity of mycalazol 11 and related 5–acyl–2–hydroxymethylpyrroles. Nabbs BK, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):505–8

A novel inhibitor of the tyrosine kinase Src suppresses phosphorylation of its major cellular substrates and reduces bone resorption in vitro and in rodent models in vivo. Missbach M, et al. **Bone** 1999 May;24(5):437–49

Molecular analysis of the Na+ channel blocking actions of the novel class I anti–arrhythmic agent RSD 921. Pugsley MK, et al. **Br J Pharmacol** 1999 May;127(1):9–18

Different effect of simvastatin and atorvastatin on key enzymes involved in VLDL synthesis and catabolism in high fat/cholesterol fed rabbits. Verd JC, et al. **Br J Pharmacol** 1999 Jul;127(6):1479–85

SU5416 is a potent and selective inhibitor of the vascular endothelial growth factor receptor (Flk–1/KDR) that inhibits tyrosine kinase catalysis, tumor vascularization, and growth of multiple tumor types. Fong TA, et al. **Cancer Res** 1999 Jan 1;59(1):99–106

Potent antitumor activity of MS–247, a novel DNA minor groove binder, evaluated by an in vitro and in vivo human cancer cell line panel. Yamori T, et al. **Cancer Res** 1999 Aug 15;59(16):4042–9

Rapid adhesion and spread of non–adherent colon cancer Colo201 cells induced by the protein kinase inhibitors, K252a and KT5720 and suppression of the adhesion by the immunosuppressants FK506 and cyclosporin A. Mohri T, et al. **Cell Struct Funct** 1998 Oct;23(5):255–64

Cannabimimetic indoles, pyrroles and indenes. Huffman JW. **Curr Med Chem** 1999 Aug;6(8):705–20 (49 ref.)

Gastrosparing effect of new antiinflammatory drug amtolmetin guacyl in the rat: involvement of nitric oxide. Pisano C, et al. **Dig Dis Sci** 1999 Apr;44(4):713–24

The impact of the nonpeptide corticotropin–releasing hormone antagonist antalarmin on behavioral and endocrine responses to stress. Deak T, et al. **Endocrinology** 1999 Jan;140(1):79–86

A new pyrrolyl–quinoxalinedione series of non–NMDA glutamate receptor antagonists: pharmacological characterization and comparison with NBQX and valproate in the kindling model of epilepsy. Löscher W, et al. **Eur J Neurosci** 1999 Jan;11(1):250–62

Cycloprodigiosin hydrochloride, a new H(+)/Cl(–) symporter, induces apoptosis in human and rat hepatocellular cancer cell lines in vitro and inhibits the growth of hepatocellular carcinoma xenografts in nude mice. Yamamoto C, et al. **Hepatology** 1999 Oct;30(4):894–902

Characterization of a novel, non–peptidyl antagonist of the human glucagon receptor. Cascieri MA, et al. **J Biol Chem** 1999 Mar 26;274(13):8694–7

Atorvastatin does not produce a clinically significant effect on the pharmacokinetics of terfenadine. Stern RH, et al. **J Clin Pharmacol** 1998 Aug;38(8):753–7

Differential regulation of apolipoprotein B secretion from HepG2 cells by two HMG–CoA reductase inhibitors, atorvastatin and simvastatin. Wilcox LJ, et al. **J Lipid Res** 1999 Jun;40(6):1078–89

6–Amino–2–(4–fluorophenyl)–4–methoxy–3–(4–pyridyl)–1H–pyrrolo[2, 3–b]pyridine (RWJ 68354): a potent and selective p38 kinase inhibitor. Henry JR, et al. **J Med Chem** 1998 Oct 22;41(22):4196–8

Inhibition of interleukin–1–induced proteoglycan degradation and nitric oxide production in bovine articular cartilage/chondrocyte cultures by the natural product, hymenialdisine. Badger AM, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):587–93

S 18126 ([2–[4–(2,3–dihydrobenzo[1,4]dioxin–6–yl)piperazin–1–yl methyl]indan–2–yl]), a potent, selective and competitive antagonist at dopamine D4 receptors: an in vitro and in vivo comparison with L 745,870 (3–(4–[4–chlorophenyl]piperazin–1–yl)methyl–1H–pyrrolo[2, 3b]pyridine) and raclopride. Millan MJ, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):167–86

SPD 502: a water–soluble and in vivo long–lasting AMPA antagonist with neuroprotective activity. Nielsen EO, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1492–501

Potent antihyperalgesic activity without tolerance produced by glycine site antagonist of N–methyl–D–aspartate receptor GV196771A. Quartaroli M, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):158–69

Increased lipophilicity and subsequent cell partitioning decrease passive transcellular diffusion of novel, highly lipophilic antioxidants. Sawada GA, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1317–26

Changes in the liver protein pattern of female Wistar rats treated with the hypoglycemic agent SDZ PGU 693. Arce A, et al. **Life Sci** 1998;63(25):2243–50

Chronic administration of the non–peptide CRH type 1 receptor antagonist antalarmin does not blunt hypothalamic–pituitary–adrenal axis responses to acute immobilization stress. Wong ML, et al. **Life Sci** 1999;65(4):PL53–8

Effects of GR–89696 and the novel peripherally selective OP2 agonists, EMD–61569 and EMD–61747, against focal cerebral ischemia in the rat. Barber A, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):105–13

Effects of an antiarrhythmic drug A–2545 on canine ventricular arrhythmia models; comparison with mexiletine and flecainide. Xue YX, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec;358(6):649–56

Modulation by dopamine D1–like receptors of synaptic transmission and NMDA receptors in rat nucleus accumbens is attenuated by the protein kinase C inhibitor Ro 32–0432. Chergui K, et al. **Neuropharmacology** 1999 Feb;38(2):223–31

Requirement of protein kinase (Krs/MST) activation for MT–21–induced apoptosis. Watabe M, et al. **Oncogene** 1999 Sep 16;18(37):5211–20

Termination of Ca2+ release by a local inactivation of ryanodine receptors in cardiac myocytes. Sham JS, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15096–101

Stress–induced behaviors require the corticotropin–releasing hormone (CRH) receptor, but not CRH. Weninger SC, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8283–8

Time– and voltage–dependent block of sodium channels expressed in Xenopus oocytes by RSD 921, a novel class

I antiarrhythmic drug. Pugsley MK, et al. **Proc West Pharmacol Soc** 1998;41:75–6

THERAPEUTIC USE

Atorvastatin for protease inhibitor-related hyperlipidaemia [letter] Murillas J, et al. **AIDS** 1999 Jul 30;13(11):1424–5

Safety of low-density lipoprotein cholestrol reduction with atorvastatin versus simvastatin in a coronary heart disease population (the TARGET TANGIBLE trial). März W, et al. **Am J Cardiol** 1999 Jul 1;84(1):7–13

Atorvastatin: a hydroxymethylglutaryl-coenzyme A reductase inhibitor. Malinowski JM. **Am J Health Syst Pharm** 1998 Nov 1;55(21):2253–67; quiz 2302–3 (90 ref.)

Atorvastatin in the treatment of primary hypercholesterolemia and mixed dyslipidemias. Yee HS, et al. **Ann Pharmacother** 1998 Oct;32(10):1030–43 (99 ref.)

Cytotoxicity of substituted alkyl-3,4-bis(4-methoxyphenyl)pyrrole-2-carboxylates in L1210 lymphoid leukemia cells. Burnham BS, et al. **Arch Pharm (Weinheim)** 1998 Nov;331(11):337–41

Atorvastatin in the management of an index patient with complete hepatic lipase deficiency [letter] Hegele RA, et al. **Atherosclerosis** 1999 Mar;143(1):219–22

Atorvastatin and fibrinogen--a small subgroup shows extreme response [letter] Sinzinger H, et al. **Atherosclerosis** 1999 Aug;145(2):415–7

Therapy and clinical trials [editorial] Bachorik PS. **Curr Opin Lipidol** 1998 Oct;9(5):515–7

Effect of inhibiting HMG-CoA reductase on 7 alpha-hydroxy-4-cholesten-3-one, a marker of bile acid synthesis: contrasting findings in patients with and without prior up-regulation of the latter pathway. Naoumova RP, et al. **Eur J Clin Invest** 1999 May;29(5):404–12

Clinical and gastroscopic evaluation of amtolmetin guacyl versus diclofenac in patients with rheumatoid arthritis [see comments] Bianchi Porro G, et al. **Ital J Gastroenterol Hepatol** 1999 Jun-Jul;31(5):378–85. Comment in: Ital J Gastroenterol Hepatol 1999 Jun-Jul;31(5):386–7.

HMG-CoA reductase inhibition by atorvastatin reduces neointimal inflammation in a rabbit model of atherosclerosis. Bustos C, et al. **J Am Coll Cardiol** 1998 Dec;32(7):2057–64

Comparison of the efficacy of atorvastatin and micronized fenofibrate in the treatment of mixed hyperlipidemia. Bairaktari ET, et al. **J Cardiovasc Risk** 1999 Apr;6(2):113–6

Treating to meet NCEP-recommended LDL cholesterol concentrations with atorvastatin, fluvastatin, lovastatin, or simvastatin in patients with risk factors for coronary heart disease. Hunninghake D, et al. **J Fam Pract** 1998 Nov; 47(5):349–56

Atorvastatin compared with simvastatin in patients with severe LDL hypercholesterolaemia treated by regular LDL apheresis. Geiss HC, et al. **J Intern Med** 1999 Jan; 245(1):47–55

Effects of atorvastatin on serum lipids of patients with familial hypercholesterolaemia. Hoogerbrugge N. **J Intern Med** 1998 Aug;244(2):143–7

Effect of statins on C-reactive protein in patients with coronary artery disease [letter] [see comments] Strandberg TE, et al. **Lancet** 1999 Jan 9;353(9147):118–9. Comment in: Lancet 1999 Apr 10;353(9160):1274. Comment in: Lancet 1999 Apr 10;353(9160):1274–5.

Aggressive lipid-lowering therapy compared with angioplasty in stable coronary artery disease. Atorvastatin versus Revascularization Treatment Investigators. Pitt B, et al. **N Engl J Med** 1999 Jul 8;341(2):70–6

A serine elastase inhibitor reduces inflammation and fibrosis and preserves cardiac function after experimentally-induced murine myocarditis. Lee JK, et al. **Nat Med** 1998 Dec;4(12):1383–91

Gastric effects of the novel non-steroidal anti-inflammatory drug amtolmetin guacyl [editorial] Coruzzi G, et al. **Nutrition** 1999 Apr;15(4):325–6

No difference in plasma fibrinogen levels between CAPD patients taking atorvastatin and simvastatin [letter] Singhal MK, et al. **Perit Dial Int** 1999 Jan-Feb;19(1):89–91

Effect of atorvastatin of the treatment of hypercholesterolemia after renal transplantation. Alvarez ML, et al. **Transplant Proc** 1999 Sep;31(6):2328–9

[Fluvastatin in a comparative study. Are there substance-specific differences between various CSE-inhibitors?] **Internist (Berl)** 1999 Mar;40(3 Suppl Gibt Es):1–4 **(Ger)**

[AVERT study (Atorvastatin Versus Revascularization Treatment). Clinical advantage of aggressive lipid lowering] **Z Kardiol** 1999 Mar;88(3 Suppl):1–4 **(Ger)**

[Evaluation of the efficacy of statin therapy in dyslipidemic diseases such as combined hypercholesterolemia IIA and hyperlipidemia] Liguori E, et al. **Minerva Cardioangiol** 1998 Sep;46(9):317–8 **(Ita)**

TOXICITY

Hepatic effects in beagle dogs administered atorvastatin, a 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor, for 2 years. Walsh KM, et al. **Toxicol Pathol** 1999 Jul-Aug;27(4):395–401

URINE

Urine concentration of biopyrrins: a new marker for oxidative stress in vivo [letter] Shimoharada K, et al. **Clin Chem** 1998 Dec;44(12):2554–5

PYRROLIDINES

ADMINISTRATION & DOSAGE

Assessment of maintenance therapy with reduced doses of PTH(1-34) in combination with a raloxifene analogue (LY117018) following anabolic therapy in the ovariectomized rat. Hodsman AB, et al. **Bone** 1999 May; 24(5):451–5

Early-onset but not late-onset endothelin-A-receptor blockade can modulate hypertension, cerebral edema, and proteinuria in stroke-prone hypertensive rats. Blezer EL, et al. **Hypertension** 1999 Jan;33(1):137–44

Reduction of skin flap necrosis by transdermal application of buflomedil bound to liposomes. Uhl E, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1598–604

ADVERSE EFFECTS

Anaphylactic reactions to buflomedil. Scala E, et al. **Allergy** 1999 Mar;54(3):288–9

Pharmacokinetics and safety of Z-321, a novel specific orally active prolyl endopeptidase inhibitor, in healthy male volunteers. Umemura K, et al. **J Clin Pharmacol** 1999 May; 39(5):462–70

BLOOD

Improved solid-phase extraction of methadone and its two major metabolites from whole blood. Cooper GA, et al. **J Anal Toxicol** 1998 Sep;22(5):389–92

Assay for levormeloxifene, a selective estrogen receptor modulator, in human and monkey plasma employing high-performance liquid chromatography and solid-phase extraction. Kiehr B, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):315–22

CHEMICAL SYNTHESIS

Structure-based design, synthesis and evaluation of conformationally constrained cysteine protease inhibitors. Scheidt KA, et al. **Bioorg Med Chem** 1998 Dec; 6(12):2477–94

Structural determinants of substrates and inhibitors: probing glutamate transporters with 2,4-methanopyrrolidine-2,4-dicarboxylate. Esslinger CS, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):3101–6

Preparation of pyrrolidine and isoxazolidine benzamidines as potent inhibitors of coagulation factor Xa. Fevig JM, et al. **Bioorg Med Chem Lett** 1999 Apr 19;9(8):1195–200

Synthesis and antibacterial activity of novel 7-(3-substituted-3 or 4-trifluoromethyl-1-pyrrolidinyl)-8-methoxyfluoroquinolones. Fukui H, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2833–8

Synthesis and structure-activity relationships of pyridine-modified analogs of 3-[2-((S)-pyrrolidinyl)methoxy]pyridine, A-84543, a potent nicotinic acetylcholine receptor agonist. Lin NH, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):249–54

Synthesis of [(2'S, 3'S)-bis(hydroxylmethyl)pyrrolidin-1-yl] purine and pyrimidine nucleosides as potential antiviral agents. Oohashi T, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1187–8

Nonpeptide arginine vasopressin antagonists for both V1A and V2 receptors: synthesis and pharmacological properties of 2-phenyl-4'-(2,3,4,5-tetrahydro-1H-1,5-benzodiazepine-1-carbonyl) benzanilide derivatives. Matsuhisa A, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1566–79

Synthesis and dopamine receptor modulating activity of substituted bicyclic thiazolidine lactam peptidomimetics of L-prolyl-L-leucyl-glycinamide. Khalil EM, et al. **J Med Chem** 1999 Jul 29;42(15):2977–87

Design, synthesis, and activity of a series of pyrrolidine-3-carboxylic acid-based, highly specific, orally active ET(B) antagonists containing a diphenylmethylamine acetamide side chain. Liu G, et al. **J Med Chem** 1999 Sep 9;42(18):3679–89

Synthesis and structure-activity relationships of a new model of arylpiperazines. 4. 1-[omega-(4-Arylpiperazin-1-yl)alkyl]-3-(diphenylmethylene) - 2, 5-pyrrolidinediones and -3-(9H-fluoren-9-ylidene)-2, 5-pyrrolidinediones: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodriguez ML, et al. **J Med Chem** 1999 Jan 14;42(1):36–49

Synthesis and biological evaluation of 4-chloro-3, 5-dinitrobenzotrifluoride analogues as antileishmanial agents. Pitzer KK, et al. **J Med Chem** 1998 Nov 19; 41(24):4885–9

Novel antidiabetic and hypolipidemic agents. 3. Benzofuran-containing thiazolidinediones. Reddy KA, et al. **J Med Chem** 1999 Jun 3;42(11):1927–40

Synthesis and serotonergic activity of 3-[2-(pyrrolidin-1-yl)ethyl]indoles: potent agonists for the h5-HT1D receptor with high selectivity over the h5-HT1B receptor. Sternfeld F, et al. **J Med Chem** 1999 Feb 25;42(4):677–90

4,4-Disubstituted piperidine high-affinity NK1 antagonists: structure-activity relationships and in vivo activity. Stevenson GI, et al. **J Med Chem** 1998 Nov 5; 41(23):4623–35

4-[[2-(1-Methyl-2-pyrrolidinyl)ethyl]thio]phenol hydrochloride (SIB-1553A): a novel cognitive enhancer with selectivity for neuronal nicotinic acetylcholine receptors. Vernier JM, et al. **J Med Chem** 1999 May 20; 42(10):1684–6

Pyrrolidine-3-carboxylic acids as endothelin antagonists. 4. Side chain conformational restriction leads to ET(B) selectivity. von Geldern TW, et al. **J Med Chem** 1999 Sep 9;42(18):3668–78

Synthesis and analgesic activity of N-aryl/arylalkyl-N-[2-(1-pyrrolidinyl) cyclohexyl]propanamides. Essawi MY. **Pharmazie** 1999 Jul; 54(7):499–502

Ex-chiral pool synthesis and pharmacological aspects of 3-pyrrolidinylisoxazoles. Thomas C, et al. **Pharmazie** 1999 Apr;54(4):248–50

DIAGNOSTIC USE

Comparison of iodine-123 epidepride and iodine-123 IBZM for dopamine D2 receptor imaging in clinically non-functioning pituitary macroadenomas and macroprolactinomas. de Herder WW, et al. **Eur J Nucl Med** 1999 Jan;26(1):46–50

In vivo effects of olanzapine on striatal dopamine D(2)/D(3) receptor binding in schizophrenic patients: an iodine-123 iodobenzamide single-photon emission tomography study. Dresel S, et al. **Eur J Nucl Med** 1999 Aug;26(8):862–8

D2 receptor imaging with iodine-123-iodobenzamide brain SPECT in infants with hypoxic-ischemic brain injury. Kapucu LO, et al. **J Nucl Med** 1998 Oct;39(10):1703–7

Stability of [123I]IBZM SPECT measurement of amphetamine-induced striatal dopamine release in humans. Kegeles LS, et al. **Synapse** 1999 Mar 15;31(4):302–8

[Hepatic clearance of 99mTc-GSA in cases of postoperative biliary atresia--a retrospective comparison with hepatic clearance of 99mTc-PMT] Yamazaki T, et al. **Kaku Igaku** 1998 Nov;35(9):849–56 (Eng. Abstr.) **(Jpn)**

[Phase 1 clinical study of 123I-IBF, a new radioligand for evaluating dopamine D2 receptor with SPECT (I): biodistribution and dosimetry] Yonekura Y, et al. **Kaku Igaku** 1999 Feb;36(2):145–53 (Eng. Abstr.) **(Jpn)**

ISOLATION & PURIFICATION

Isolation and characterization of novel human immunodeficiency virus integrase inhibitors from fungal metabolites. Hazuda D, et al. **Antivir Chem Chemother** 1999 Mar;10(2):63–70

Occurrence of stereoisomers of 1-(2'-pyrrolidinethione-3'-yl)-1,2,3,4-tetrahydro-beta-carboline-3-carboxylic acid in fermented radish roots and their different mutagenic properties. Ozawa Y, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):216–9

METABOLISM

N-substituted-3-arylpyrrolidines: potent and selective ligands at serotonin 1A receptor. Ahn KH, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1379–84

Role of blood-brain barrier P-glycoprotein in limiting brain accumulation and sedative side-effects of asimadoline, a peripherally acting analgaesic drug. Jonker JW, et al. **Br J Pharmacol** 1999 May;127(1):43–50

Degradation of morpholine, piperidine, and pyrrolidine by mycobacteria: evidences for the involvement of a cytochrome P450. Poupin P, et al. **Can J Microbiol** 1999 Mar;45(3):209–16

Dual activity of pyrrolidine dithiocarbamate on kappaB-dependent gene expression in U937 cells: II. Regulation by tumour necrosis factor-alpha. Watanabe K, et al. **Cell Signal** 1999 May;11(5):371–83

Dual activity of pyrrolidine dithiocarbamate on kappa B-dependent gene expression in U937 cells: I. Regulation by the phorbol ester TPA. Watanabe K, et al. **Cell Signal** 1999 Jul;11(7):479–89

Characterisation of the 5-HT receptor binding profile of eletriptan and kinetics of [3H]eletriptan binding at human 5-HT1B and 5-HT1D receptors. Napier C, et al. **Eur J Pharmacol** 1999 Mar 5;368(2-3):259–68

Zinc is required in pyrrolidine dithiocarbamate inhibition of NF-kappaB activation. Kim CH, et al. **FEBS Lett** 1999 Apr 16;449(1):28–32

Cloning and characterization of the genes encoding a cytochrome P450 (PipA) involved in piperidine and pyrrolidine utilization and its regulatory protein (PipR) in Mycobacterium smegmatis mc2155. Poupin P, et al. **J Bacteriol** 1999 Jun;181(11):3419–26

Quantitation of extrastriatal D2 receptors using a very high-affinity ligand (FLB 457) and the multi-injection approach. Delforge J, et al. **J Cereb Blood Flow Metab** 1999 May;19(5):533–46

Rapid determination of methadone and its major metabolite in biological fluids by gas-liquid chromatography with thermionic detection for maintenance treatment of opiate addicts. Chikhi-Chorfi N, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 6;718(2):278–84

Characterization of kappa1-opioid receptor binding in human insular cortex. Izenwasser S, et al. **Life Sci** 1999; 65(9):857–62

The effects of diminishing albumin binding to some

Endothelin receptor antagonists. Szczepankiewicz BG, et al. **Life Sci** 1998;63(21):1905–12

In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats. Chaki S, et al. **Neuropharmacology** 1999 Aug;38(8):1185–94

[Metabolism of 123I-IBF in humans] Matsumoto H, et al. **Kaku Igaku** 1999 Feb;36(2):169–77 (Eng. Abstr.) **(Jpn)**

PHARMACOKINETICS

Safety, tolerability, and pharmacokinetics of SR 49059, a V1a vasopressin receptor antagonist, after repeated oral administration in healthy volunteers. Brouard R, et al. **Adv Exp Med Biol** 1998;449:455–65

Rapid release of antipsychotic drugs from dopamine D2 receptors: an explanation for low receptor occupancy and early clinical relapse upon withdrawal of clozapine or quetiapine. Seeman P, et al. **Am J Psychiatry** 1999 Jun; 156(6):876–84

Preparation of pyrrolidine and isoxazolidine benzamidines as potent inhibitors of coagulation factor Xa. Fevig JM, et al. **Bioorg Med Chem Lett** 1999 Apr 19;9(8):1195–200

Pharmacokinetics and safety of Z-321, a novel specific orally active prolyl endopeptidase inhibitor, in healthy male volunteers. Umemura K, et al. **J Clin Pharmacol** 1999 May; 39(5):462–70

Novel, highly lipophilic antioxidants readily diffuse across the blood-brain barrier and access intracellular sites. Sawada GA, et al. **J Pharmacol Exp Ther** 1999 Mar; 288(3):1327–33

Influence of motor activity on striatal dopamine release: A study using iodobenzamide and SPECT. Larisch R, et al. **Neuroimage** 1999 Sep;10(3 Pt 1):261–8

[Metabolism of 123I-IBF in humans] Matsumoto H, et al. **Kaku Igaku** 1999 Feb;36(2):169–77 (Eng. Abstr.) **(Jpn)**

[Phase 1 clinical study of 123I-IBF, a new radioligand for evaluating Dopamine D2 receptor with SPECT (II); pharmacokinetics study and quantification in the brain] Yonekura Y, et al. **Kaku Igaku** 1999 Feb;36(2):155–68 (Eng. Abstr.) **(Jpn)**

PHARMACOLOGY

The effect of glutamate uptake inhibitors on hippocampal evoked potentials in vitro. el-Sherif Y, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(2):89–97

Safety, tolerability, and pharmacokinetics of SR 49059, a V1a vasopressin receptor antagonist, after repeated oral administration in healthy volunteers. Brouard R, et al. **Adv Exp Med Biol** 1998;449:455–65

Modulation of cocaine-induced sensitization by kappa-opioid receptor agonists. Role of the nucleus accumbens and medial prefrontal cortex. Chefer V, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:803–6

Nonnucleoside pyrrolopyrimidines with a unique mechanism of action against human cytomegalovirus. Jacobson JG, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1888–94

Influence of 1-[(E)-2-(2-methyl-4-nitrophenyl)diaz-1-enyl]pyrrolidine-2-carboxylic acid and diphenyliodonium chloride on ruminal protein metabolism and ruminal microorganisms. Floret F, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3258–60

Studies on the pharmacology of the novel histamine H3 receptor agonist Sch 50971. Hey JA, et al. **Arzneimittelforschung** 1998 Sep;48(9):881–8

Effect of a novel prolyl endopeptidase inhibitor, JTP-4819, on spatial memory and on cholinergic and peptidergic neurons in rats with ibotenate-induced lesions of the nucleus basalis magnocellularis. Shinoda M, et al. **Behav Brain Res** 1999 Feb 15;99(1):17–25

Pyrithione, a zinc ionophore, inhibits NF-kappaB activation. Kim CH, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):505–9

Pyrrolidine dithiocarbamate up-regulates the expression of the genes encoding the catalytic and regulatory subunits of gamma-glutamylcysteine synthetase and increases intracellular glutathione levels. Wild AC, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):659–65

U-101033E (2,4-diaminopyrrolopyrimidine), a potent inhibitor of membrane lipid peroxidation as assessed by the production of 4-hydroxynonenal, malondialdehyde, and 4-hydroxynonenal--protein adducts. Rohn TT, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1371–9

NVP-DPP728 (1-[[[2-[(5-cyanopyridin-2-yl)amino]ethyl]amino]acetyl]-2-cyano-(S)- pyrrolidine), a slow-binding inhibitor of dipeptidyl peptidase IV. Hughes TE, et al. **Biochemistry** 1999 Sep 7;38(36):11597–603

Discovery of a series of pyrrolidine-based endothelin receptor antagonists with enhanced ET(A) receptor selectivity. Boyd SA, et al. **Bioorg Med Chem** 1999 Jun; 7(6):991–1002

New nonsteroidal androgen receptor modulators based on 4-(trifluoromethyl)-2(1H)-pyrrolidino[3,2-g] quinolinone. Edwards JP, et al. **Bioorg Med Chem Lett** 1998 Apr 7; 8(7):745–50

Trans-4-methyl-3-imidazoyl pyrrolidine as a potent, highly selective histamine H3 receptor agonist in vivo. Shih NY, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):243–8

Enantio- and diastereocontrolled dopamine D1, D2, D3 and D4 receptor binding of N-(3-pyrrolidinylmethyl)benzamides synthesized from aspartic acid. Thomas C, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):841–6

Induction of fibrinogen binding and platelet aggregation as a potential intrinsic property of various glycoprotein IIb/IIIa (alphaIIbbeta3) inhibitors [see comments] Peter K, et al. **Blood** 1998 Nov 1;92(9):3240–9. Comment in: Blood 1999 Jun 1;93(11):4019–20.

Preferential killing of multidrug-resistant KB cells by inhibitors of glucosylceramide synthase. Nicholson KM, et al. **Br J Cancer** 1999 Oct;81(3):423–30

Lack of effect of a selective vasopressin V1A receptor antagonist SR 49,059, on potentiation by vasopressin of adrenoceptor-mediated pressor responses in the rat mesenteric arterial bed. Heinemann A, et al. **Br J Pharmacol** 1998 Nov;125(6):1120–7

Effects of enadoline on the development of pentylenetetrazol kindling, learning performance, and hippocampal morphology. Becker A, et al. **Brain Res** 1999 Mar 27; 823(1-2):191–7

Alterations in local cerebral glucose utilization produced by D3 dopamine receptor-selective doses of 7-OH-DPAT and nafadotride. Levant B, et al. **Brain Res** 1998 Nov 23; 812(1-2):193–9

Anti-oxidants prevent focal rat brain injury as assessed by induction of heat shock proteins (HSP70, HO-1/HSP32, HSP47) following subarachnoid injections of lysed blood. Turner CP, et al. **Brain Res Mol Brain Res** 1999 Feb 19; 65(1):87–102

The effect of a thymidine phosphorylase inhibitor on angiogenesis and apoptosis in tumors. Matsushita S, et al. **Cancer Res** 1999 Apr 15;59(8):1911–6

Inhibition of NF-kappaB activation by pyrrolidine dithiocarbamate prevents In vivo expression of proinflammatory genes. Liu SF, et al. **Circulation** 1999 Sep 21;100(12):1330–7

Depressor effect of kappa opioid agonist on hypertension induced by isolation in the rat. Shen S, et al. **Clin Exp Hypertens** 1999 Apr;21(3):275–97

Hemodynamic and coronary effects of intravenous eletriptan, a 5HT1B/1D-receptor agonist. Muir DF, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):85–90

Indirect dopamine agonists augment the locomotor activating effects of the kappa-opioid receptor agonist U-50,488 in preweanling rats. McDougall SA, et al. **Dev Psychobiol** 1999 Apr;34(3):183–93

Pyrrolidine dithiocarbamate protects mice from lethal shock induced by LPS or TNF-alpha. Lauzurica P, et al. **Eur J Immunol** 1999 Jun;29(6):1890–900

Divergent effects of dithiocarbamates on AP-1-containing and AP-1-less NFAT sites. Saccani S, et al. **Eur J Immunol** 1999 Apr;29(4):1194–201

Involvement of substance P in the anti-inflammatory effects of the peripherally selective kappa-opioid asimadoline and the NK1 antagonist GR205171. Binder W, et al. **Eur J Neurosci** 1999 Jun;11(6):2065–72

Effects of U-69,593, a kappa-opioid receptor agonist, on carrageenin-induced peripheral oedema and Fos expression in the rat spinal cord. Catheline G, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):287–96

Peripheral component in the enhanced antinociceptive effect of systemic U-69,593, a kappa-opioid receptor agonist in mononeuropathic rats. Catheline G, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):171–8

Inhibition of nuclear factor-kappaB prevents the loss of vascular tone in lipopolysaccharide-treated rats. D'Acquisto F, et al. **Eur J Pharmacol** 1999 Jan 22; 365(2-3):253–7

Activation of nuclear transcription factor kappaB in rat carrageenin-induced pleurisy. D'Acquisto F, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):233–6

Characterisation of the contractile activity of eletriptan at the canine vascular 5-HT1B receptor. Gupta P, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):283–90

Novel sigma receptor ligands attenuate the locomotor stimulatory effects of cocaine. McCracken KA, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):35–8

Inhibition of peroxynitrite-mediated tyrosine nitration by a novel pyrrolopyrimidine antioxidant. Rohn TT, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):329–36

Pharmacology of A-216546: a highly selective antagonist for endothelin ET(A) receptor. Wu-Wong JR, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):189–201

Transcriptional regulation of the heme oxygenase 1 gene by pyrrolidine dithiocarbamate. Hartsfield CL, et al. **FASEB J** 1998 Dec;12(15):1675–82

Effects of pyrrolidine dithiocarbamate on endothelial cells: protection against oxidative stress. Moellering D, et al. **Free Radic Biol Med** 1999 May;26(9-10):1138–45

Effects of NRA0045, NRA0160, and NRA0215 on regional Fos-like immunoreactivity in the rat brain. Kawashima N, et al. **Gen Pharmacol** 1999 Jun;32(6):637–46

Suppression of retinal neovascularization by the NF-kappaB inhibitor pyrrolidine dithiocarbamate in mice. Yoshida A, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1624–9

The addition of a raloxifene analog (LY117018) allows for reduced PTH(1-34) dosing during reversal of osteopenia in ovariectomized rats. Hodsman AB, et al. **J Bone Miner Res** 1999 May;14(5):675–9

Sodium channel-blocking properties of spiradoline, a kappa receptor agonist, are responsible for its antiarrhythmic action in the rat. Pugsley MK, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):863–74

Cytokine induction of iNOS and sPLA2 in immortalized astrocytes (DITNC): response to genistein and pyrrolidine dithiocarbamate. Li W, et al. **J Interferon Cytokine Res** 1999 Feb;19(2):121–7

The kappa-opioid agonist, U-69593, decreases acute amphetamine-evoked behaviors and calcium-dependent dialysate levels of dopamine and glutamate in the ventral striatum. Gray AM, et al. **J Neurochem** 1999 Sep; 73(3):1066–74

Pyrrolidine dithiocarbamate induces bovine cerebral endothelial cell death by increasing the intracellular zinc level. Kim CH, et al. **J Neurochem** 1999 Apr;72(4):1586–92

kappa-Opioid tolerance and dependence in cultures of dopaminergic midbrain neurons. Dalman FC, et al. **J Neurosci** 1999 Jul 15;19(14):5750–7

Mitochondrial dysfunction after experimental traumatic brain injury: combined efficacy of SNX-111 and U-101033E. Xiong Y, et al. **J Neurotrauma** 1998 Jul;15(7):531–44

Comparison of two aquaretic drugs (niravoline and OPC-31260) in cirrhotic rats with ascites and water retention. Bosch-Marcé M, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):194–201

Preclinical evaluation of anti-inflammatory activities of the novel pyrrolopyrimidine PNU-142731A, a potential treatment for asthma. Chin JE, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):188–95

ONO-1603, a potential antidementia drug, delays age-induced apoptosis and suppresses overexpression of glyceraldehyde-3-phosphate dehydrogenase in cultured central nervous system neurons. Katsube N, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):6–13

Tepoxalin enhances the activity of an antioxidant, pyrrolidine dithiocarbamate, in attenuating tumor necrosis factor alpha-induced apoptosis in WEHI 164 cells. Lee DH, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1465–71

Peripheral effects of the kappa-opioid agonist EMD 61753 on pain and inflammation in rats and humans. Machelska H, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):354–61

Sch 50971, an orally active histamine H3 receptor agonist, inhibits central neurogenic vascular inflammation and produces sedation in the guinea pig. McLeod RL, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):43–50

S-16924 [(R)-2-[1-[2-(2,3-dihydro-benzo[1,4]dioxin-5-yloxy)-ethyl]- pyrrolidin-3yl]-1-(4-fluorophenyl)-ethanone], a novel, potential antipsychotic with marked serotonin1A agonist properties: III. Anxiolytic actions in comparison with clozapine and haloperidol. Millan MJ, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1002–14

S-16924, a novel, potential antipsychotic with marked serotonin1A agonist properties. IV. A drug discrimination comparison with clozapine. Millan MJ, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):427–36

Induction of parturition in bitches with minimal side effects by two injections of a low dose of fenprostalene, a prostaglandin F2alpha analogue, and pretreatment with prifinium bromide. Moriyoshi M, et al. **J Vet Med Sci** 1999 Jul;61(7):781–6

Muscarinic antagonists in development for disorders of smooth muscle function. Wallis RM, et al. **Life Sci** 1999; 64(6-7):395–401 (19 ref.)

Induction of apoptosis in mouse thymocytes by microcolin A and its synthetic analog. Zhang LH, et al. **Life Sci** 1999; 64(12):1013–28

Effects of SIB-1508Y, a novel neuronal nicotinic acetylcholine receptor agonist, on motor behavior in parkinsonian monkeys. Schneider JS, et al. **Mov Disord** 1998 Jul;13(4):637–42

Porcine carotid vascular effects of eletriptan (UK-116,044): a new 5-HT1B/1D receptor agonist with anti-migraine activity. Willems E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):212–9

Effect of TKS159, a novel 5-hydroxytryptamine4 agonist, on gastric contractile activity in conscious dogs. Haga N, et al. **Neurogastroenterol Motil** 1998 Aug;10(4):295–303

Selective depression of dorsal root-evoked high threshold synaptic excitation by the selective kappa opioid receptor agonist enadoline in the neonatal rat hemisected spinal cord in vitro. Faber ES, et al. **Neuropharmacology** 1998 Jun; 37(6):745–50

Increased levels of proneurotensin/neuromedin N mRNA in rat striatum and nucleus accumbens induced by 7-OH-DPAT and nafadotride. Levant B, et al. **Neuropsychopharmacology** 1999 Aug;21(2):304–11

Analysis of the neurotrophic effects of GPI-1046 on neuron survival and regeneration in culture and in vivo. Harper S, et al. **Neuroscience** 1999 Jan;88(1):257–67

Pharmacodynamics of anticholinergic agents measured by ambulatory urodynamic monitoring: a study of methodology. Rosario DJ, et al. **Neurourol Urodyn** 1999; 18(3):223–33; discussion 223–4

Sex differences in discriminative stimulus and diuretic effects of the kappa opioid agonist U69,593 in the rat. Craft RM, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):395–403

Enhancement of sustained attention performance by the nicotinic acetylcholine receptor agonist ABT-418 in intact but not basal forebrain-lesioned rats. McGaughy J, et al. **Psychopharmacology (Berl)** 1999 May;144(2):175–82

Acute effects of the selective cholinergic channel activator (nicotinic agonist) ABT-418 in Alzheimer's disease. Potter A, et al. **Psychopharmacology (Berl)** 1999 Mar; 142(4):334–42

Pharmacological profile of MS-377, a novel antipsychotic agent with selective affinity for sigma receptors. Takahashi S, et al. **Psychopharmacology (Berl)** 1999 Aug; 145(3):295-302

Design of subtype selective melatonin receptor agonists and antagonists. Sugden D, et al. **Reprod Nutr Dev** 1999 May-Jun;39(3):335-44

Buflomedil hydrochloride reduces systemic activation of polymorphonuclear leukocytes during hyperdynamic endotoxemia. Holzer K, et al. **Shock** 1998 Nov;10(5):335-42

Increased responsiveness of mesolimbic and mesostriatal dopamine neurons to cocaine following repeated administration of a selective kappa-opioid receptor agonist. Heidbreder CA, et al. **Synapse** 1998 Nov;30(3):255-62

Repeated treatment with the selective kappa opioid agonist U-69593 produces a marked depletion of dopamine D2 receptors. Izenwasser S, et al. **Synapse** 1998 Nov; 30(3):275-83

Effects of gastrointestinal prokinetic agents, TKS159 and cisapride, on the in situ canine heart assessed by cardiohemodynamic and electrophysiological monitoring. Sugiyama A, et al. **Toxicol Appl Pharmacol** 1998 Sep; 152(1):261-9

THERAPEUTIC USE

Effect of niravoline (RU51599), a kappa-opioid receptor agonist, on tumour-origin brain oedema. Takahashi H, et al. **Acta Neurochir (Wien)** 1999;141(7):771-8

Evidence for an involvement of vasopressin in mechanism of primary dysmenorrhea and effect of the non-peptide vasopressin V1a receptor antagonist, SR 49059, on the uterus of non-pregnant women. Akerlund M, et al. **Adv Exp Med Biol** 1998;449:467-72

Neuroprotective efficacy of combination therapy with two different antioxidants in rats subjected to transient focal ischemia. Schmid-Elsaesser R, et al. **Brain Res** 1999 Jan 23;816(2):471-9

Inhibition of nuclear factor-kappaB activation improves the survival of rats with taurocholate pancreatitis. Satoh A, et al. **Gut** 1999 Feb;44(2):253-8

Nicotinic acetylcholine receptor agonist SIB-1508Y improves cognitive functioning in chronic low-dose MPTP-treated monkeys. Schneider JS, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):731-9

Inhibition of the transcriptional activator protein nuclear factor kappaB prevents hemodynamic instability associated with the whole-body inflammatory response syndrome. Kovacich JC, et al. **J Thorac Cardiovasc Surg** 1999 Jul; 118(1):154-62

Effects of GR-89696 and the novel peripherally selective OP2 agonists, EMD-61569 and EMD-61747, against focal cerebral ischemia in the rat. Barber A, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):105-13

Pyrrolidine dithiocarbamate prevents I-kappaB degradation and reduces microvascular injury induced by lipopolysaccharide in multiple organs. Liu SF, et al. **Mol Pharmacol** 1999 Apr;55(4):658-67

Aggressive and social behavior after alprazolam withdrawal: experimental therapy with Ro 19-8022. Krsiak M, et al. **Neurosci Biobehav Rev** 1998;23(2):155-61

Pyrrolidine dithiocarbamate prevents ethanol-induced elevation of [Ca2+]i in cultured canine cerebral vascular smooth muscle cells. Li W, et al. **Neurosci Lett** 1999 May 14;266(3):205-8

The kappa opioid agonist GR89,696 blocks hyperalgesia and allodynia in rat models of peripheral neuritis and neuropathy. Eliav E, et al. **Pain** 1999 Feb;79(2-3):255-64

Enadoline, a selective kappa-opioid receptor agonist shows potent antihyperalgesic and antiallodynic actions in a rat model of surgical pain. Field MJ, et al. **Pain** 1999 Mar; 80(1-2):383-9

Differential effects of low dose CP122,288 and eletriptan on fos expression due to stimulation of the superior sagittal sinus in cat. Goadsby PJ, et al. **Pain** 1999 Jul;82(1):15-22

U69593, a kappa-opioid agonist, decreases cocaine self-administration and decreases cocaine-produced drug-seeking. Schenk S, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):339-46

TOXICITY

Occurrence of stereoisomers of 1-(2'-pyrrolidinethione-3'-yl)-1,2,3,4-tetrahydro-beta-carboline-3-carboxylic acid in fermented radish roots and their different mutagenic properties. Ozawa Y, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):216-9

Bgugaine, a pyrrolidine alkaloid from Arisarum vulgare, is a strong hepatotoxin in rat and human liver cell cultures. Rakba N, et al. **Toxicol Lett** 1999 Feb 22;104(3):239-48

URINE

A pilot study to determine the usefulness of the urinary excretion of methadone and its primary metabolite (EDDP) as potential markers of compliance in methadone detoxification programs. George S, et al. **J Anal Toxicol** 1999 Mar-Apr;23(2):81-5

PYRROLIDINONES

ANALYSIS

Localized 1H NMR measurements of 2-pyrrolidinone in human brain in vivo. Hyder F, et al. **Magn Reson Med** 1999 May;41(5):889-96

Topiramate increases brain GABA, homocarnosine, and pyrrolidinone in patients with epilepsy [see comments] Petroff OA, et al. **Neurology** 1999 Feb;52(3):473-8. Comment in: Neurology 1999 Feb;52(3):441-3.

CHEMICAL SYNTHESIS

5-Arylidene-3-aryl-pyrrolidine-2,4-diones with affinity to the N-methyl-D-aspartate (glycine site) receptor, Part I. Poschenrieder H, et al. **Arch Pharm (Weinheim)** 1998 Dec; 331(12):389-94

N-arylrolipram derivatives as potent and selective PDE4 inhibitors. Bacher E, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3229-34

Design and synthesis of diaminopyrrolidinone inhibitors of human osteoclast cathepsin K. Duffy KJ, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1907-10

Synthesis and antitumor activity of duocarmycin derivatives: modification of segment-A of A-ring pyrrole compounds. Amishiro N, et al. **J Med Chem** 1999 Jul 29;42(15):2946-60

Potent inhibition of influenza sialidase by a benzoic acid containing a 2-pyrrolidinone substituent. Atigadda VR, et al. **J Med Chem** 1999 Jul 1;42(13):2332-43

Sulfonamidopyrrolidinone factor Xa inhibitors: potency and selectivity enhancements via P-1 and P-4 optimization. Choi-Sledeski YM, et al. **J Med Chem** 1999 Sep 9; 42(18):3572-87

Structure-based design, synthesis, and biological evaluation of irreversible human rhinovirus 3C protease inhibitors. 4. Incorporation of P1 lactam moieties as L-glutamine replacements. Dragovich PS, et al. **J Med Chem** 1999 Apr 8;42(7):1213-24

Design and structure-activity relationships of potent and selective inhibitors of blood coagulation factor Xa. Ewing WR, et al. **J Med Chem** 1999 Sep 9;42(18):3557-71

CHEMISTRY

Molecular modeling, synthesis, and structures of N-methylated 3,5-linked pyrrolin-4-ones toward the creation of a privileged nonpeptide scaffold. Smith AB 3rd, et al. **Bioorg Med Chem** 1999 Jan;7(1):9-22

1-[omega-(4-arylpiperazin-1-yl)alkyl]-3-diphenylmethylene-2,5- pyrrolidinediones as 5-HT1A receptor ligands: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodríguez ML, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):581-6

Cellulose materials modified by antiseptics and their antimicrobial properties. Kotelnikova NE, et al. **Polim Med** 1998;28(3-4):37-53

ISOLATION & PURIFICATION

Aurantosides D, E, and F: new antifungal tetramic acid glycosides from the marine sponge Siliquariaspongia japonica. Sata NU, et al. **J Nat Prod** 1999 Jul;62(7):969-71

Aurantoside C, a new tetramic acid glycoside from the sponge Homophymia conferta. Wolf D, et al. **J Nat Prod** 1999 Jan;62(1):170-2

METABOLISM

1-[omega-(4-arylpiperazin-1-yl)alkyl]-3-diphenylmethylene-2,5- pyrrolidinediones as 5-HT1A receptor ligands: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodríguez ML, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):581-6

Disposition and metabolism of 2-(2'(1",3"-dioxolan-2-yl)-2-methyl-4-(2'-oxopyrrolidin-1-Yl)-6-nitro-2h-1-benzopyran (SKP-450) in rats. Baek M, et al. **Drug Metab Dispos** 1999 Apr;27(4):510-6

Imaging of cAMP-specific phosphodiesterase-IV: comparison of [11C]rolipram and [11C]Ro 20-1724 in rats. Lourenco CM, et al. **Synapse** 1999 Jan;31(1):41-50

PHARMACOKINETICS

Disposition and metabolism of 2-(2'(1",3"-dioxolan-2-yl)-2-methyl-4-(2'-oxopyrrolidin-1-Yl)-6-nitro-2h-1-benzopyran (SKP-450) in rats. Baek M, et al. **Drug Metab Dispos** 1999 Apr;27(4):510-6

PHARMACOLOGY

Reduced ischemia-reperfusion injury with rolipram in rat cadaver lung donors: effect of cyclic adenosine monophosphate. Bleiweis MS, et al. **Ann Thorac Surg** 1999 Jan;67(1):194-9; discussion 199-200

Antihypertensive effects of the novel potassium channel activator SKP-450 and its major metabolites in rats. Shin HS, et al. **Arzneimittelforschung** 1998 Oct;48(10):969-78

Effects of glycine or (+/-)-3-amino-1-hydroxy-2-pyrrolidone microinjections along the rostrocaudal axis of the dorsal periaqueductal gray matter on rats' performance in the elevated plus-maze task. Teixeira KV, et al. **Behav Neurosci** 1999 Feb; 113(1):196-203

Two compounds commonly used for phospholipase C inhibition activate the nuclear estrogen receptors. Cenni B, et al. **Biochem Biophys Res Commun** 1999 Aug 2; 261(2):340-4

Biochemical basis for a cholesterol-lowering activity of 2-[2"-(1",3"-dioxolane)]-2-methyl-4-(2'-oxo-1'-pyrrolidinyl)-6- nitro-2H-1-benzopyran (SKP-450), a novel antihypertensive agent. Lee EY, et al. **Biochem Pharmacol** 1999 Mar 1;57(5):579-82

Evidence for separate effects of U73122 on phospholipase C and calcium channels in human platelets. Pulcinelli FM, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1481-4

Nonselective effects of the putative phospholipase C inhibitor, U73122, on adenosine A1 receptor-mediated signal transduction events in Chinese hamster ovary cells. Walker EM, et al. **Biochem Pharmacol** 1998 Dec 1; 56(11):1455-62

The antinociceptive effect of combined systemic administration of morphine and the glycine/NMDA receptor antagonist, (+)-HA966 in a rat model of peripheral neuropathy [published erratum appears in Br J Pharmacol 1999 Apr;126(8):1881] Christensen D, et al. **Br J Pharmacol** 1998 Dec;125(8):1641-50

L-687,414, a low efficacy NMDA receptor glycine site partial agonist in vitro, does not prevent hippocampal LTP in vivo at plasma levels known to be neuroprotective. Priestley T, et al. **Br J Pharmacol** 1998 Aug;124(8):1767-73

A 'long-term-potentiation-like' facilitation of hippocampal synaptic transmission induced by the nootropic nefiracetam. Nishizaki T, et al. **Brain Res** 1999 May 1; 826(2):281-8

Modulation of the neuronal nicotinic acetylcholine receptor-channel by the nootropic drug nefiracetam. Oyaizu M, et al. **Brain Res** 1999 Mar 20;822(1-2):72-9

Ontogeny of rolipram-sensitive, low-K(m), cyclic AMP-specific phosphodiesterase in rat brain. Zhang K, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):11-9

Effect of U-73122 on calcium channel activity in porcine myometrial cells and pancreatic beta-cell line RINm5F. Li SB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep; 18(5):385-90

Prevention by rolipram of concanavalin A-induced T-cell-dependent hepatitis in mice. Xiang M, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):399-404

Protective effect of the type IV phosphodiesterase inhibitor rolipram in EAU: protection is independent of IL-10-inducing activity. Xu H, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):942-50

Isolation of SMTP-3, 4, 5 and -6, novel analogs of staplabin, and their effects on plasminogen activation and fibrinolysis. Hasumi K, et al. **J Antibiot (Tokyo)** 1998 Dec; 51(12):1059-68

Association with the SRC family tyrosyl kinase LYN triggers a conformational change in the catalytic region of human cAMP-specific phosphodiesterase HSPDE4A4B. Consequences for rolipram inhibition. McPhee I, et al. **J Biol Chem** 1999 Apr 23;274(17):11796-810

Lymphocyte suppression by rolipram with other immunosuppressive drugs. Briggs WA, et al. **J Clin Pharmacol** 1999 Aug;39(8):794-9

Efficacy of Glucoprotamin containing disinfectants against different species of atypical mycobacteria. Meyer B, et al. **J Hosp Infect** 1999 Jun;42(2):151-4

Regulation of IL-15-stimulated TNF-alpha production by rolipram. Kasyapa CS, et al. **J Immunol** 1999 Sep 1; 163(5):2836-43

Rolipram inhibits staphylococcal enterotoxin B-mediated induction of the human skin-homing receptor on T lymphocytes. Santamaria LF, et al. **J Invest Dermatol** 1999 Jul;113(1):82-6

Phospholipase C inhibitors attenuate arrhythmias induced by kappa-receptor stimulation in the isolated rat heart. Bian JS, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2103-10

Treatment with BBB022A or rolipram stabilizes the blood-brain barrier in experimental autoimmune encephalomyelitis: an additional mechanism for the therapeutic effect of type IV phosphodiesterase inhibitors. Folcik VA, et al. **J Neuroimmunol** 1999 Jun 1; 97(1-2):119-28

The effect of aniracetam on cerebral glucose metabolism in rats after lesioning of the basal forebrain measured by PET. Ouchi Y, et al. **J Neurol Sci** 1999 Mar 15;164(1):7-12

Effects of (+)-HA-966, CGS-19755, phencyclidine, and dizocilpine on repeated acquisition of response chains in pigeons: systemic manipulation of central glycine sites. Campbell CM, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):521-7

The phospholipase C inhibitor U73122 inhibits phorbol ester-induced platelet activation. Lockhart LK, et al. **J Pharmacol Exp Ther** 1999 May;289(2):721-8

Effects of rolipram and cilostamide on renal functions and cyclic AMP release in anesthetized dogs. Tanahashi M, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1533-8

The C-terminal domain of p53 catalyzes DNA-renaturation and strand exchange toward annealing between intact ssDNAs and toward eliminating damaged ssDNA from duplex formation through preferential recognition of damaged DNA by a duocarmycin. Yokote H, et al. **Mutat Res** 1998 Dec 14;409(3):147-62

Emesis induced by inhibitors of type IV cyclic nucleotide

phosphodiesterase (PDE IV) in the ferret. Robichaud A, et al. **Neuropharmacology** 1999 Feb;38(2):289–97
Modulation of desensitization at glutamate receptors in isolated crucian carp horizontal cells by concanavalin A, cyclothiazide, aniracetam and PEPA. Shen Y, et al. **Neuroscience** 1999 Mar;89(3):979–90
Use of 1-methyl-pyrrolidone as a solubilizing agent for determining the uptake of poorly soluble drugs. Uch AS, et al. **Pharm Res** 1999 Jun;16(6):968–71
The type IV phosphodiesterase inhibitors, Ro 20–1724 and rolipram, block the initiation of cocaine self-administration. Knapp CM, et al. **Pharmacol Biochem Behav** 1999 Jan; 62(1):151–8
Rolipram, an antidepressant that increases the availability of cAMP, transiently enhances wakefulness in rats. Lelkes Z, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):835–9
Preliminary evidence for an involvement of the cholinergic system in the sedative effects of rolipram in rats. Silvestre JS, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):1–5
Pharmacological profiles of SKP-450 and its family, a K+ channel opener, in comparison with levcromakalim. Hong KW, et al. **Pharmacol Res** 1998 Sep;38(3):191–7
Pharmacological characteristics of MJ-451, a new benzopyran- derived ATP-sensitive potassium channel opener, in guinea pig isolated trachea. Lin C, et al. **Pharmacology** 1998 Dec;57(6):314–22
Rolipram, a type IV-specific phosphodiesterase inhibitor, facilitates the establishment of long-lasting long-term potentiation and improves memory. Barad M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15020–5
Structure-assisted design of mechanism-based irreversible inhibitors of human rhinovirus 3C protease with potent antiviral activity against multiple rhinovirus serotypes. Matthews DA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11000–7
Biochemical and behavioral anxiolytic-like effects of R(+)HA-966 at the level of the ventral tegmental area in rats. Morrow BA, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):227–34
Age-related effects of rolipram on [3H]quinuclidinyl benzilate and [3H]phorbol 12,13-dibutyrate binding in the rat brain. Chen T, et al. **Tohoku J Exp Med** 1998 Jun; 185(2):107–18
[Facilitatory actions of the cognitive enhancer nefiracetam on neuronal Ca2+ channels and nicotinic ACh receptors: their intracellular signal transduction pathways] Yoshii M, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:41P–43P (5 ref.) (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

N2733, 1-[3-(3-pyridyl)-acryloyl]-2-pyrrolidinone hydrochloride inhibits LPS-induced TNF-alpha production and improves survival in endotoxemic mice. Katsuyama K, et al. **Biosci Biotechnol Biochem** 1998 Nov; 62(11):2177–81
Improvement by nefiracetam of beta-amyloid-(1–42)-induced learning and memory impairments in rats. Yamada K, et al. **Br J Pharmacol** 1999 Jan;126(1):235–44
Protection by a cyclic AMP-specific phosphodiesterase inhibitor, rolipram, and dibutyryl cyclic AMP against Propionibacterium acnes and lipopolysaccharide-induced mouse hepatitis. Taguchi I, et al. **Inflamm Res** 1999 Jul; 48(7):380–5
Type IV phosphodiesterase inhibition in experimental allergic encephalomyelitis of Lewis rats: sequential gene expression analysis of cytokines, adhesion molecules and the inducible nitric oxide synthase. Martinez I, et al. **J Neurol Sci** 1999 Mar 15;164(1):13–23

TOXICITY

90-day subchronic toxicity study in rats and mice fed N-methylpyrrolidone (NMP) including neurotoxicity evaluation in rats. Malley LA, et al. **Drug Chem Toxicol** 1999 Aug;22(3):455–80

PYRROLIDONECARBOXYLATE PEPTIDASE see **PYROGLUTAMYL-PEPTIDASE I**

PYRROLIDONECARBOXYLIC ACID

ANALOGS & DERIVATIVES

Prophylaxis with the novel immunomodulator pidotimod reduces the frequency and severity of upper respiratory tract infections in children with Down's syndrome. La Mantia I, et al. **J Chemother** 1999 Apr;11(2):126–30

METABOLISM

Functional comparison of two human monocyte chemotactic protein-2 isoforms, role of the amino-terminal pyroglutamic acid and processing by CD26/dipeptidyl peptidase IV. Van Coillie E, et al. **Biochemistry** 1998 Sep 8;37(36):12672–80
Formation of N-pyroglutamyl peptides from N-Glu and N-Gln precursors in Aplysia neurons. Garden RW, et al. **J Neurochem** 1999 Feb;72(2):676–81

THERAPEUTIC USE

Treatment of alcoholic fatty liver: is the metabolic effect of metadoxine the only reason for improved liver function? [letter; comment] Stefanini GF, et al. **J Hepatol** 1999 Apr; 30(4):739–40. Comment on: J Hepatol 1998 Jan;28(1):54–60.

URINE

Infants in Trinidad excrete more 5-L-oxoproline (L-pyroglutamic acid) in urine than infants in England: an environmental not ethnic difference. Lenton C, et al. **Br J Nutr** 1998 Jul;80(1):51–5
5-Oxoprolinuria in patients with and without defects in the gamma-glutamyl cycle. Mayatepek E. **Eur J Pediatr** 1999 Mar;158(3):221–5
Pyroglutamic aciduria and nephropathic cystinosis. Rizzo C, et al. **J Inherit Metab Dis** 1999 May;22(3):224–6

PYRROLIDONES see **PYRROLIDINONES**

PYRROLIDONYL PEPTIDASE see **PYROGLUTAMYL-PEPTIDASE I**

PYRROLINE CARBOXYLATE REDUCTASES

GENETICS

A 69 bp fragment in the pyrroline-5-carboxylate reductase promoter of Arabidopsis thaliana activates minimal CaMV 35S promoter in a tissue-specific manner. Hua X, et al. **FEBS Lett** 1999 Sep 17;458(2):193–6
Proline biosynthesis from L-ornithine in Clostridium sticklandii: purification of delta1-pyrroline-5-carboxylate reductase, and sequence and expression of the encoding gene, proC. Kenklies J, et al. **Microbiology** 1999 Apr;145 (Pt 4):819–26

ISOLATION & PURIFICATION

Proline biosynthesis from L-ornithine in Clostridium sticklandii: purification of delta1-pyrroline-5-carboxylate reductase, and sequence and expression of the encoding gene, proC. Kenklies J, et al. **Microbiology** 1999 Apr;145 (Pt 4):819–26

PYRROLIZIDINE ALKALOIDS

ADVERSE EFFECTS

[Veno-occlusive disease after prolonged treatment with senecionine (Hemoluol) (letter)] Bensaude RJ, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):363–4 **(Fre)**

ANALYSIS

Determination of hepatotoxic pyrrolizidine alkaloids by on-line high performance liquid chromatography mass spectrometry with an electrospray interface. Lin G, et al. **Rapid Commun Mass Spectrom** 1998;12(20):1445–56

CHEMISTRY

Hydrogen bonding in [(1R*,7aS*)-hexahydro-5-oxo-1H-pyrrolizinyl-1-yl]acetic acid. Gerkin RE. **Acta Crystallogr C** 1999 Jan 15;55 (Pt 1):84–7
Pyrrolizidine alkaloids in human diet. Prakash AS, et al. **Mutat Res** 1999 Jul 15;443(1-2):53–67 (126 ref.)
Pyrrolizidine alkaloids crosslink DNA with actin. Coulombe RAJr, et al. **Toxicol Appl Pharmacol** 1999 Jan 15; 154(2):198–202
Pyrrolizidine alkaloids from Echium rauwolfii and Echium horridum (Boraginaceae). el-Shazly A, et al. **Z Naturforsch [C]** 1999 May-Jun;54(5–6):295–300

METABOLISM

Alkaloid binding and activation of D2 dopamine receptors in cell culture. Larson BT, et al. **J Anim Sci** 1999 Apr; 77(4):942–7
Species differences in the hepatic microsomal enzyme metabolism of the pyrrolizidine alkaloids. Huan JY, et al. **Toxicol Lett** 1998 Oct 15;99(2):127–37

PHARMACOLOGY

Liver regeneration and alpha-fetoprotein messenger RNA expression in the retrorsine model for hepatocyte transplantation. Dabeva MD, et al. **Cancer Res** 1998 Dec 15;58(24):5825–34
Comparative DNA cross-linking by activated pyrrolizidine alkaloids. Kim HY, et al. **Food Chem Toxicol** 1999 Jun; 37(6):619–25
Pyrrolizidine alkaloids from Heliotropium megalanthum. Reina M, et al. **J Nat Prod** 1998 Nov;61(11):1418–20
Interactions in sheep between tall fescue ergot alkaloids and hepatotoxic carbon tetrachloride and Senecio pyrrolizidine alkaloids. Debessai WT, et al. **Vet Hum Toxicol** 1999 Jun; 41(3):129–33

POISONING

Mortality supposedly due to intoxication by pyrrolizidine alkaloids from Heliotropium indicum in a horse population in Costa Rica: a case report. van Weeren PR, et al. **Vet Q** 1999 Apr;21(2):59–62
Pyrrolizidine alkaloid poisoning in yak. Mondal DB, et al. **Vet Rec** 1999 May 1;144(18):508–9

TOXICITY

Pyrrolizidine alkaloid plants, metabolism and toxicity. Stegelmeier BL, et al. **J Nat Toxins** 1999 Feb;8(1):95–116 (155 ref.)
Pyrrolizidine alkaloids in human diet. Prakash AS, et al. **Mutat Res** 1999 Jul 15;443(1-2):53–67 (126 ref.)
The effects of pretreatment with glycyrrhizin and glycyrrhetinic acid on the retrorsine-induced hepatotoxicity in rats. Lin G, et al. **Toxicon** 1999 Sep; 37(9):1259–70
Hepatotoxicity associated with pyrrolizidine alkaloid (Crotalaria spp) ingestion in a horse on Easter Island. Arzt J, et al. **Vet Hum Toxicol** 1999 Apr;41(2):96–9

PYRROLNITRIN

ADMINISTRATION & DOSAGE

[Therapeutic efficacy of a topical antifungal solution preparation formulated with pyrrolnitrin and clotrimazole in combination (Pyroace W) in guinea pig model of tinea pedis] Uchida K, et al. **Jpn J Antibiot** 1999 Jan;52(1):68–74 (Eng. Abstr.) **(Jpn)**

BIOSYNTHESIS

Halogenation of aromatic compounds: thermodynamic, mechanistic and ecological aspects. Dolfing J. **FEMS Microbiol Lett** 1998 Oct 15;167(2):271–4

PHARMACOLOGY

Pyrrolnitrin and related pyrroles endowed with antibacterial activities against Mycobacterium tuberculosis. Di Santo R, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2931–6

PYRUVALDEHYDE

ANALYSIS

Assessment of the deamination of aminoacetone, an endogenous substrate for semicarbazide-sensitive amine oxidase. Deng Y, et al. **Anal Biochem** 1999 May 15; 270(1):97–102

BLOOD

Increase in three alpha,beta-dicarbonyl compound levels in human uremic plasma: specific in vivo determination of intermediates in advanced Maillard reaction. Odani H, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):89–93
Metformin reduces systemic methylglyoxal levels in type 2 diabetes. Beisswenger PJ, et al. **Diabetes** 1999 Jan; 48(1):198–202

CHEMISTRY

Cross-linking of proteins by Maillard processes--model reactions of D-glucose or methylglyoxal with butylamine and guanidine derivatives. Lederer MO, et al. **Bioorg Med Chem** 1998 Jul;6(7):993–1002
N2,7-bis(1-hydroxy-2-oxopropyl)-2'-deoxyguanosine: identical noncyclic adducts with 1,3-dichloropropene epoxides and methylglyoxal. Schneider M, et al. **Chem Res Toxicol** 1998 Dec;11(12):1536–42
Methylglyoxal modification of protein. Chemical and immunochemical characterization of methylglyoxal-arginine adducts. Oya T, et al. **J Biol Chem** 1999 Jun 25;274(26):18492–502

METABOLISM

Methylglyoxal production in bacteria: suicide or survival? Ferguson GP, et al. **Arch Microbiol** 1998 Oct;170(4):209–18 (50 ref.)
Accumulation of alpha-oxoaldehydes during oxidative stress: a role in cytotoxicity. Abordo EA, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):641–8
On the promine/retine theory of cell division: now and then. Kalapos MP. **Biochim Biophys Acta** 1999 Jan 4;1426(1):1–16 (149 ref.)
Chemical modification of proteins by methylglyoxal. Degenhardt TP, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;44(7):1139–45
Detoxification of methylglyoxal by the nucleophilic bidentate, phenylacylthiazolium bromide. Ferguson GP, et al. **Chem Res Toxicol** 1999 Jul;12(7):617–22
Methylglyoxal as substrate and inhibitor of human aldehyde dehydrogenase: comparison of kinetic properties among the three isozymes. Izaguirre G, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):747–54
Methylglyoxal-derived modifications in lens aging and cataract formation. Shamsi FA, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2355–64
Protective mechanisms against toxic electrophiles in Escherischia coli. Ferguson GP. **Trends Microbiol** 1999 Jun;7(6):242–7 (23 ref.)
[Participation of glyoxalases and methylglyoxal in diabetic complication development] Piskorska D, et al. **Pol Merkuriusz Lek** 1998 Jun;4(24):342–4 (20 ref.) (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

Effects of methylglyoxal on rat pancreatic beta-cells. Cook LJ, et al. **Biochem Pharmacol** 1998 May 1;55(9):1361-7

Effect of methylglyoxal on the physico-chemical and biological properties of low-density lipoprotein. Schalkwijk CG, et al. **Biochim Biophys Acta** 1998 Nov 2; 1394(2-3):187-98

Effect of methylglyoxal on Bufo bufo embryo development: morphological and biochemical aspects. Amicarelli F, et al. **Chem Biol Interact** 1998 Jul 24;114(3):177-89

Methylglyoxal causes swelling and activation of a volume-sensitive anion conductance in rat pancreatic beta-cells. Best L, et al. **J Membr Biol** 1999 Jan 1; 167(1):65-71

Deficient nucleotide excision repair increases base-pair substitutions but decreases TGGC frameshifts induced by methylglyoxal in Escherichia coli. Murata-Kamiya N, et al. **Mutat Res** 1999 Jun 7;442(1):19-28

TOXICITY

The cytotoxicity of methylglyoxal and 3-deoxyglucosone is decreased in the aldehyde reductase gene-transfected cells. Suzuki K, et al. **Adv Exp Med Biol** 1999;463:509-15

Neurotoxicity of methylglyoxal and 3-deoxyglucosone on cultured cortical neurons: synergism between glycation and oxidative stress, possibly involved in neurodegenerative diseases. Kikuchi S, et al. **J Neurosci Res** 1999 Jul 15; 57(2):280-9

Toxicity of low levels of methylglyoxal: depletion of blood glutathione and adverse effect on glucose tolerance in mice. Ankrah NA, et al. **Toxicol Lett** 1999 Sep 20;109(1-2):61-7

URINE

Simultaneous determination of formaldehyde and methylglyoxal in urine: involvement of semicarbazide-sensitive amine oxidase-mediated deamination in diabetic complications. Deng Y, et al. **J Chromatogr Sci** 1999 Sep;37(9):317-22

PYRUVATE see **PYRUVIC ACID**

PYRUVATE CARBOXYLASE

DEFICIENCY see PYRUVATE CARBOXYLASE DEFICIENCY

DRUG EFFECTS

Differential effects of biotin deficiency and replenishment on rat liver pyruvate and propionyl-CoA carboxylases and on their mRNAs. Rodriguez-Meléndez R, et al. **Mol Genet Metab** 1999 Jan;66(1):16-23

GENETICS

Physiological characterisation of a pyruvate-carboxylase-negative Saccharomyces cerevisiae mutant in batch and chemostat cultures. de Jong-Gubbels P, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):253-63

Sequence of the Corynebacterium glutamicum pyruvate carboxylase gene. Koffas MA, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):346-52

Regulation of rat pyruvate carboxylase gene expression by alternate promoters during development, in genetically obese rats and in insulin-secreting cells. Multiple transcripts with 5'-end heterogeneity modulate translation. Jitrapakdee S, et al. **J Biol Chem** 1998 Dec 18; 273(51):34422-8

METABOLISM

Prenatal diagnosis of pyruvate carboxylase deficiency by direct measurement of catalytic activity on chorionic villi samples. Van Coster RN, et al. **Prenat Diagn** 1998 Oct; 18(10):1041-4

PYRUVATE CARBOXYLASE DEFICIENCY

DIAGNOSIS

Pyruvate carboxylase deficiency: prenatal onset of ischemia-like brain lesions in two sibs with the acute neonatal form. Brun N, et al. **Am J Med Genet** 1999 May 21;84(2):94-101

Prenatal diagnosis of pyruvate carboxylase deficiency by direct measurement of catalytic activity on chorionic villi samples. Van Coster RN, et al. **Prenat Diagn** 1998 Oct; 18(10):1041-4

PYRUVATE DECARBOXYLASE

CHEMISTRY

Remarkable stabilization of zwitterionic intermediates may account for a billion-fold rate acceleration by thiamin diphosphate-dependent decarboxylases. Jordan F, et al. **Biochemistry** 1999 May 18;38(20):6369-73

Role of glutamate 91 in information transfer during substrate activation of yeast pyruvate decarboxylase. Li H, et al. **Biochemistry** 1999 Aug 3;38(31):9992-10003

Effects of substitution of tryptophan 412 in the substrate activation pathway of yeast pyruvate decarboxylase. Li H, et al. **Biochemistry** 1999 Aug 3;38(31):10004-12

DEFICIENCY

Growth requirements of pyruvate-decarboxylase-negative Saccharomyces cerevisiae. Flikweert MT, et al. **FEMS Microbiol Lett** 1999 May 1;174(1):73-9

GENETICS

Autoregulation of yeast pyruvate decarboxylase gene expression requires the enzyme but not its catalytic activity. Eberhardt I, et al. **Eur J Biochem** 1999 May;262(1):191-201

Active site mutants of pyruvate decarboxylase from Zymomonas mobilis--a site-directed mutagenesis study of L112, I472, I476, E473, and N482. Pohl M, et al. **Eur J Biochem** 1998 Nov 1;257(3):538-46

Regulation of the expression of the Kluyveromyces lactis PDC1 gene: carbon source-responsive elements and autoregulation. Destruelle M, et al. **Yeast** 1999 Mar 30; 15(5):361-70

METABOLISM

Aspartate-27 and glutamate-473 are involved in catalysis by Zymomonas mobilis pyruvate decarboxylase. Chang AK, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):255-60

Remarkable stabilization of zwitterionic intermediates may account for a billion-fold rate acceleration by thiamin diphosphate-dependent decarboxylases. Jordan F, et al. **Biochemistry** 1999 May 18;38(20):6369-73

Thiamine repression and pyruvate decarboxylase autoregulation independently control the expression of the Saccharomyces cerevisiae PDC5 gene. Muller EH, et al. **FEBS Lett** 1999 Apr 23;449(2-3):245-50

Activation of thiamine diphosphate in pyruvate decarboxylase from Zymomonas mobilis. Tittmann K, et al. **FEBS Lett** 1998 Dec 28;441(3):404-6

Pyruvate decarboxylase filaments are associated with the cortical cytoskeleton of asci and spores over the sexual cycle of filamentous ascomycetes. Thompson-Coffe C, et al. **Fungal Genet Biol** 1999 Feb;26(1):71-80

GroEL/GroES-dependent reconstitution of alpha2 beta2 tetramers of humanmitochondrial branched chain alpha-ketoacid decarboxylase. Obligatory interaction of chaperonins with an alpha beta dimeric intermediate. Chuang JL, et al. **J Biol Chem** 1999 Apr 9; 274(15):10395-404

Regulation of the expression of the Kluyveromyces lactis PDC1 gene: carbon source-responsive elements and autoregulation. Destruelle M, et al. **Yeast** 1999 Mar 30; 15(5):361-70

PYRUVATE DEHYDROGENASE COMPLEX

ADMINISTRATION & DOSAGE

Analysis of peripheral blood mononuclear cell stimulated with pyruvate dehydrogenase complex, T-cell receptors from patients with primary biliary cirrhosis [see comments] Ochiai H, et al. **J Gastroenterol** 1998 Oct;33(5):694-701. Comment in: J Gastroenterol 1998 Oct;33(5):779-81.

ANTAGONISTS & INHIBITORS

Heterologously expressed inner lipoyl domain of dihydrolipoyl acetyltransferase inhibits ATP-dependent inactivation of pyruvate dehydrogenase complex. Identification of important amino acid residues. Jackson JC, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):703-11

Selective inactivation of alpha-ketoglutarate dehydrogenase and pyruvate dehydrogenase: reaction of lipoic acid with 4-hydroxy-2-nonenal. Humphries KM, et al. **Biochemistry** 1998 Nov 10;37(45):15835-41

The inhibitory effects of lipoic compounds on mammalian pyruvate dehydrogenase complex and its catalytic components. Hong YS, et al. **Free Radic Biol Med** 1999 Mar;26(5-6):685-94

BLOOD

Derangements of pyruvate dehydrogenase in circulating lymphocytes of NIDDM patients and their healthy offspring. Mostert M, et al. **J Endocrinol Invest** 1999 Jul-Aug;22(7):519-26

CHEMISTRY

Crystallization and preliminary X-ray analysis of pig E3, lipoamide dehydrogenase. Toyoda T, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):982-5

Swinging arms in multifunctional enzymes and the specificity of post-translational modification. Perham RN, et al. **Biochem Soc Trans** 1998 Aug;26(3):299-303 (47 ref.)

Nativelike structure and stability in a truncation mutant of a protein minidomain: the peripheral subunit-binding domain. Spector S, et al. **Biochemistry** 1999 Mar 30; 38(13):4128-36

A model for the spatial location of pyruvate dehydrogenase phosphatase in mammalian pyruvate dehydrogenase complex. Ermakov GL, et al. **Biochemistry (Mosc)** 1999 Mar;64(3):326-34

Conformational analysis of peptide fragments derived from the peripheral subunit-binding domain from the pyruvate dehydrogenase multienzyme complex of Bacillus stearothermophilus: evidence for nonrandom structure in the unfolded state. Spector S, et al. **Biopolymers** 1999 Jan; 49(1):29-40

Pyruvate dehydrogenase E1 alpha isoform in rat testis: cDNA cloning, characterization, and biochemical comparison of the recombinant testis and liver enzymes. Jeng J, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 May; 120(1):205-16

Characterization of the dihydrolipoamide acetyltransferase of the mitochondrial pyruvate dehydrogenase complex from potato and comparisons with similar enzymes in diverse plant species. Millar AH, et al. **Eur J Biochem** 1999 Sep;264(3):973-81

Exceptional characteristics of heterotetrameric (alpha 2 beta 2) E1p of the pyruvate dehydrogenase complex from Zymomonas mobilis: expression from an own promoter and a lipoyl domain in E1 beta. Neveling U, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):117-21

The dihydrolipoamide S-acetyltransferase subunit of the mitochondrial pyruvate dehydrogenase complex from maize contains a single lipoyl domain. Thelen JJ, et al. **J Biol Chem** 1999 Jul 30;274(31):21769-75

Stabilization of the pyruvate dehydrogenase E1alpha subunit by dichloroacetate. Morten KJ, et al. **Neurology** 1998 Nov; 51(5):1331-5

Principles of quasi-equivalence and Euclidean geometry govern the assembly of cubic and dodecahedral cores of pyruvate dehydrogenase complexes. Izard T, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1240-5

DEFICIENCY see PYRUVATE DEHYDROGENASE COMPLEX DEFICIENCY

GENETICS

Hyperlactatemia reduces muscle glucose uptake and GLUT-4 mRNA while increasing (E1alpha)PDH gene expression in rat. Lombardi AM, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E922-9

Regulation of mammalian pyruvate dehydrogenase alpha subunit gene expression by glucose in HepG2 cells. Tan J, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):49-56

Nativelike structure and stability in a truncation mutant of a protein minidomain: the peripheral subunit-binding domain. Spector S, et al. **Biochemistry** 1999 Mar 30; 38(13):4128-36

Cloning and characterization of a 5.9 kb promoter region of the human pyruvate dehydrogenase alpha subunit gene. Tan J, et al. **Biochim Biophys Acta** 1999 May 18; 1431(2):531-7

Expression of genes encoding the E2 and E3 components of the Bacillus stearothermophilus pyruvate dehydrogenase complex and the stoichiometry of subunit interaction in assembly in vitro. Lessard IA, et al. **Eur J Biochem** 1998 Dec 1;258(2):491-501

Exceptional characteristics of heterotetrameric (alpha 2 beta 2) E1p of the pyruvate dehydrogenase complex from Zymomonas mobilis: expression from an own promoter and a lipoyl domain in E1 beta. Neveling U, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):117-21

Impaired growth on glucose of a pyruvate dehydrogenase-negative mutant of Kluyveromyces lactis is due to a limitation in mitochondrial acetyl-coenzyme A uptake. Zeeman AM, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):23-8

In situ nucleic acid detection of PDC-E2, BCOADC-E2, OGDC-E2, PDC-E1alpha, BCOADC-E1alpha, OGDC-E1, and the E3 binding protein (protein X) in primary biliary cirrhosis. Harada K, et al. **Hepatology** 1999 Jul;30(1):36-45

The dihydrolipoamide S-acetyltransferase subunit of the mitochondrial pyruvate dehydrogenase complex from maize contains a single lipoyl domain. Thelen JJ, et al. **J Biol Chem** 1999 Jul 30;274(31):21769-75

Pyruvate dehydrogenase E1 alpha deficiency in a family: different clinical presentation in two siblings. De Meirleir L, et al. **J Inherit Metab Dis** 1998 Jun;21(3):224-6

Longitudinal study of tissue- and subunit-specific obesity-induced regulation of the pyruvate dehydrogenase complex. Amessou M, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):139-47

Complexities of the pyruvate dehydrogenase complex [editorial] De Vivo DC. **Neurology** 1998 Nov;51(5):1247-9

Mechanisms of expression of pyruvate dehydrogenase deficiency caused by an E1alpha subunit mutation. Morten KJ, et al. **Neurology** 1998 Nov;51(5):1324-30

Cloning and characterization of the dihydrolipoamide S-acetyltransferase subunit of the plastid pyruvate dehydrogenase complex (E2) from Arabidopsis. Mooney BP, et al. **Plant Physiol** 1999 Jun;120(2):443-52

Molecular cloning and expression analysis of the mitochondrial pyruvate dehydrogenase from maize. Thelen JJ, et al. **Plant Physiol** 1999 Feb;119(2):635-44

X chromosome evidence for ancient human histories. Harris EE, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):3320-4

PYRUVATE DEHYDROGENASE COMPLEX

IMMUNOLOGY

Antibodies to pyruvate dehydrogenase in primary biliary cirrhosis: correlation with histology. Kisand KE, et al. **APMIS** 1998 Sep;106(9):884–92

Detection of anti-branched chain 2-oxo acid dehydrogenase complex (BCOADC)-E2 antibody in primary biliary cirrhosis by ELISA using recombinant fusion protein. Miyakawa H, et al. **Autoimmunity** 1999;30(1):11–20

T cell responses to the putative dominant autoepitope in primary biliary cirrhosis (PBC). Palmer JM, et al. **Clin Exp Immunol** 1999 Apr;116(1):133–9

Anti-idiotypic antibodies to anti-PDC-E2 in primary biliary cirrhosis and normal subjects. Chen QY, et al. **Hepatology** 1999 Mar;29(3):624–31

Autoepitope mapping and reactivity of autoantibodies to the dihydrolipoamide dehydrogenase-binding protein (E3BP) and the glycine cleavage proteins in primary biliary cirrhosis. Dubel L, et al. **Hepatology** 1999 Apr;29(4):1013–8

Breakdown of tolerance to pyruvate dehydrogenase complex in experimental autoimmune cholangitis: a mouse model of primary biliary cirrhosis. Jones DE, et al. **Hepatology** 1999 Jul;30(1):65–70

Characterization of the autoantibody responses to recombinant E3 binding protein (protein X) of pyruvate dehydrogenase in primary biliary cirrhosis. Palmer JM, et al. **Hepatology** 1999 Jul;30(1):21–6

Antigen peptide analog: induction of T cell anergy in primary biliary cirrhosis. Ishibashi H, et al. **Intern Med** 1999 Feb; 38(2):173–5 (12 ref.)

Identification and precursor frequency analysis of a common T cell epitope motif in mitochondrial autoantigens in primary biliary cirrhosis. Shimoda S, et al. **J Clin Invest** 1998 Nov 15;102(10):1831–40

Immunological features of patients with primary biliary cirrhosis (PBC) overlapping systemic sclerosis: a comparison with patients with PBC alone. Akimoto S, et al. **J Gastroenterol Hepatol** 1998 Sep;13(9):897–901

Monoclonal antibodies to mitochondrial E2 components define autoepitopes in primary biliary cirrhosis. Migliaccio C, et al. **J Immunol** 1998 Nov 15;161(10):5157–63

[New therapeutic strategy for autoimmune diseases. 1) An antigenic peptide analog] Ishibashi H, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1735–40 (9 ref.) **(Jpn)**

ISOLATION & PURIFICATION

Plant mitochondrial pyruvate dehydrogenase complex: purification and identification of catalytic components in potato. Millar AH, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):571–6

METABOLISM

Pyruvate dehydrogenase complex activation status and acetyl group availability as a site of interchange between anaerobic and oxidative metabolism during intense exercise. Greenhaff PL, et al. **Adv Exp Med Biol** 1998;441:287–98 (51 ref.)

The importance of pyruvate availability to PDC activation and anaplerosis in human skeletal muscle. Constantin-Teodosiu D, et al. **Am J Physiol** 1999 Mar; 276(3 Pt 1):E472–8

PDH activation by dichloroacetate reduces TCA cycle intermediates at rest but not during exercise in humans. Gibala MJ, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E33–8

PUFA and aging modulate cardiac mitochondrial membrane lipid composition and Ca2+ activation of PDH. Pepe S, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H149–58

Pyruvate dehydrogenase activation in inactive muscle during and after maximal exercise in men. Putman CT, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E483–8

Cytosolic redox state mediates postischemic response to pyruvate dehydrogenase stimulation. White LT, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H626–34

Characterization of point mutations in patients with pyruvate dehydrogenase deficiency: role of methionine-181, proline-188, and arginine-349 in the alpha subunit. Tripatara A, et al. **Arch Biochem Biophys** 1999 Jul 1; 367(1):39–50

Regulatory effect of thiamin pyrophosphate on pig heart pyruvate dehydrogenase complex. Strumilo S, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):341–5

Nematode pyruvate dehydrogenase kinases: role of the C-terminus in binding to the dihydrolipoyl transacetylase core of the pyruvate dehydrogenase complex. Chen W, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):103–9

Swinging arms in multifunctional enzymes and the specificity of post-translational modification. Perham RN, et al. **Biochem Soc Trans** 1998 Aug;26(3):299–303 (47 ref.)

Regulation of pyruvate dehydrogenase complex activity in Ehrlich ascites carcinoma cells by Ca2+ and pyruvate. Ermakov GL, et al. **Biochemistry (Mosc)** 1999 Mar; 64(3):318–25

Differential effects of safflower oil versus fish oil feeding on insulin-stimulated glycogen synthesis, glycolysis, and pyruvate dehydrogenase flux in skeletal muscle: a 13C nuclear magnetic resonance study. Jucker BM, et al. **Diabetes** 1999 Jan;48(1):134–40

Mechanism responsible for inactivation of skeletal muscle pyruvate dehydrogenase complex in starvation and diabetes. Wu P, et al. **Diabetes** 1999 Aug;48(8):1593–9

Identification of the catalytic glutamate in the E1 component of human pyruvate dehydrogenase. Fang R, et al. **FEBS Lett** 1998 Oct 23;437(3):273–7

The steady-state internal redox state (NADH/NAD) reflects the external redox state and is correlated with catabolic adaptation in Escherichia coli. de Graef MR, et al. **J Bacteriol** 1999 Apr;181(8):2351–7

A mitochondrial pyruvate dehydrogenase bypass in the yeast Saccharomyces cerevisiae. Boubekeur S, et al. **J Biol Chem** 1999 Jul 23;274(30):21044–8

Specific binding of the E2 subunit of pyruvate dehydrogenase to the upstream region of Bacillus thuringiensis protoxin genes. Walter T, et al. **J Biol Chem** 1999 Mar 19; 274(12):7901–6

Pyruvate augments mechanical function via activation of the pyruvate dehydrogenase complex in reperfused ischemic immature rabbit hearts. Saiki Y, et al. **J Surg Res** 1998 Oct;79(2):164–9

Expression of pyruvate-dehydrogenase complex PDC-E2 on biliary epithelial cells induced by lymph nodes from primary biliary cirrhosis [letter] Sadamoto T, et al. **Lancet** 1998 Nov 14;352(9140):1595–6

Metabolic acidosis inhibits pyruvate oxidation in chick liver by decreasing activity of pyruvate dehydrogenase complex. Toyomizu M, et al. **Life Sci** 1999;65(1):37–43

Insulin activation of pyruvate dehydrogenase complex is enhanced by exercise training. Nakai N, et al. **Metabolism** 1999 Jul;48(7):865–9

Substrate interactions in the short- and long-term regulation of renal glucose oxidation. Sugden MC, et al. **Metabolism** 1999 Jun;48(6):707–15

Inactivation of the Kluyveromyces lactis KlPDA1 gene leads to loss of pyruvate dehydrogenase activity, impairs growth on glucose and triggers aerobic alcoholic fermentation. Zeeman AM, et al. **Microbiology** 1998 Dec;144 (Pt 12):3437–46

Longitudinal study of tissue- and subunit-specific obesity-induced regulation of the pyruvate dehydrogenase complex. Amessou M, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):139–47

Complexities of the pyruvate dehydrogenase complex [editorial] De Vivo DC. **Neurology** 1998 Nov;51(5):1247–9

PYRUVATE DEHYDROGENASE COMPLEX DEFICIENCY

DIAGNOSIS

Pyruvate dehydrogenase complex deficiency and altered respiratory chain function in a patient with Kearns-Sayre/MELAS overlap syndrome and A3243G mtDNA mutation. Wilichowski E, et al. **J Neurol Sci** 1998 May 7;157(2):206–13

ENZYMOLOGY

Characterization of point mutations in patients with pyruvate dehydrogenase deficiency: role of methionine-181, proline-188, and arginine-349 in the alpha subunit. Tripatara A, et al. **Arch Biochem Biophys** 1999 Jul 1; 367(1):39–50

Dichloroacetate stabilizes the mutant E1alpha subunit in pyruvate dehydrogenase deficiency. Morten KJ, et al. **Neurology** 1999 Aug 11;53(3):612–6

GENETICS

Thiamine-responsive lactic acidaemia: role of pyruvate dehydrogenase complex. Naito E, et al. **Eur J Pediatr** 1998 Aug;157(8):648–52

Mechanisms of expression of pyruvate dehydrogenase deficiency caused by an E1alpha subunit mutation. Morten KJ, et al. **Neurology** 1998 Nov;51(5):1324–30

METABOLISM

The importance of cerebrospinal fluid lactate in the evaluation of congenital lactic acidosis. Stacpoole PW, et al. **J Pediatr** 1999 Jan;134(1):99–102

Proton MR spectroscopy in a child with pyruvate dehydrogenase complex deficiency. Rubio-Gozalbo ME, et al. **Magn Reson Imaging** 1999 Jul;17(6):939–44

PYRUVATE DEHYDROGENASE (LIPOAMIDE)-PHOSPHATASE

ANTAGONISTS & INHIBITORS

Noncompetitive, Ca(2+)-independent inhibition of pyruvate dehydrogenase phosphatase by fluphenazine. Bak CI, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):1029–37

CHEMISTRY

A model for the spatial location of pyruvate dehydrogenase phosphatase in mammalian pyruvate dehydrogenase complex. Ermakov GL, et al. **Biochemistry (Mosc)** 1999 Mar;64(3):326–34

PYRUVATE DEHYDROGENASE PHOSPHATASE see **PYRUVATE DEHYDROGENASE (LIPOAMIDE)-PHOSPHATASE**

PYRUVATE KINASE

see related

ANEMIA, HEMOLYTIC

Structure, function and regulation of pyruvate carboxylase. Jitrapakdee S, et al. **Biochem J** 1999 May 15;340 (Pt 1):1–16 (231 ref.)

ANALYSIS

Marker for renal cell carcinoma (RCC): the dimeric form of pyruvate kinase type M2 (Tu M2-PK). Wechsel HW, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2583–90

ANTAGONISTS & INHIBITORS

Activation of Fc epsilon RI inhibits the pyruvate kinase through direct interaction with the gamma-chain. Oak MH, et al. **Int Arch Allergy Immunol** 1999 Jun;119(2):95–100

BLOOD

TUM2-PK (pyruvate kinase type tumor M2), CA19-9 and CEA in patients with benign, malignant and metastasizing pancreatic lesions. Cerwenka H, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):849–51

Quantitative detection of tumor M2-PK in serum and plasma. Hugo F, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2753–7

The pyruvate kinase isoenzyme tumor M2 (Tu M2-PK) as a tumor marker for renal carcinoma. Oremek GM, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2599–601

CHEMISTRY

Amino-acid composition of pyruvate kinase M2 isoenzyme variants from rat liver and Morris hepatoma 7777. Ignacak J, et al. **Acta Biochim Pol** 1998;45(3):775–80

Role of lysine 240 in the mechanism of yeast pyruvate kinase catalysis. Bollenbach TJ, et al. **Biochemistry** 1999 Jul 13; 38(28):9137–45

Allostery in rabbit pyruvate kinase: development of a strategy to elucidate the mechanism. Friesen RH, et al. **Biochemistry** 1998 Nov 3;37(44):15266–76

Purification and characterizaton of plastidic pyruvate kinase from developing seeds of Brassica campestris L. Singh DK, et al. **Indian J Biochem Biophys** 1998 Dec;35(6):346–52

The structure of pyruvate kinase from Leishmania mexicana reveals details of the allosteric transition and unusual effector specificity. Rigden DJ, et al. **J Mol Biol** 1999 Aug 20;291(3):615–35

Purification and characterization of pyruvate kinase from Schizosaccharomyces pombe: evidence for an unusual quaternary structure. Nairn J, et al. **Protein Expr Purif** 1998 Nov;14(2):247–53

DEFICIENCY

A new sickle cell disease phenotype associating Hb S trait, severe pyruvate kinase deficiency (PK Conakry), and an alpha2 globin gene variant (Hb Conakry). Cohen-Solal M, et al. **Br J Haematol** 1998 Dec;103(4):950–6

PK-LR gene mutations in pyruvate kinase deficient Portuguese patients. Manco L, et al. **Br J Haematol** 1999 Jun;105(3):591–5

Pyruvate kinase deficiency: an unusual cause of puerperal jaundice. Esen UI, et al. **Int J Clin Pract** 1998 Jul-Aug; 52(5):349–50

The molecular basis of disorders of red cell enzymes. McMullin MF. **J Clin Pathol** 1999 Apr;52(4):241–4 (19 ref.)

Severe pyruvate kinase deficiency anemia. A case report. Ghidini A, et al. **J Reprod Med** 1998 Aug;43(8):713–5

DRUG EFFECTS

Regulation of cation transport pathways and glycolytic enzyme activity by alterations in red cell volume. Kaloyianni M, et al. **Cell Biochem Funct** 1999 Jun; 17(2):75–88

GENETICS

Characterization and purification of carbohydrate response element-binding protein of the rat L-type pyruvate kinase gene promoter. Yamada K, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):44–9

Regulation of pyruvate kinase M gene expression. Yamada K, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):257–62 (63 ref.)

Functional studies by site-directed mutagenesis on the role of Sp1 in the expression of the pyruvate kinase M and aldolase A genes. Netzker R, et al. **Biochim Biophys Acta** 1999 Feb 16;1444(2):231–40

Hematologically important mutations: red cell pyruvate kinase (2nd update). Baronciani L, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):273–9 (41 ref.)

Identification of a novel promoter mutation in the human pyruvate kinase (PK) LR gene of a patient with severe haemolytic anaemia. Kugler W, et al. **Br J Haematol** 1999 Jun;105(3):596–8

Molecular characterization of the PK-LR gene in pyruvate kinase deficient Spanish patients. Red Cell Pathology Group of the Spanish Society of Haematology (AEHH). Zarza R, et al. **Br J Haematol** 1998 Nov;103(2):377–82

Defects in pyruvate kinase cause a conditional increase of thiamine synthesis in Salmonella typhimurium. Christian T, et al. **Can J Microbiol** 1999 Jul;45(7):565–72

Cloning and expression of the Zymomonas mobilis pyruvate kinase gene in Escherichia coli. Steiner P, et al. **Gene** 1998 Oct 5;220(1-2):31-8

Hypoxia regulates beta-enolase and pyruvate kinase-M promoters by modulating Sp1/Sp3 binding to a conserved GC element. Discher DJ, et al. **J Biol Chem** 1998 Oct 2; 273(40):26087-93

A novel factor binding to the glucose response elements of liver pyruvate kinase and fatty acid synthase genes. Hasegawa J, et al. **J Biol Chem** 1999 Jan 8;274(2):1100-7

The molecular basis of disorders of red cell enzymes. McMullin MF. **J Clin Pathol** 1999 Apr;52(4):241-4 (19 ref.)

ISOLATION & PURIFICATION

Purification and characterizaton of plastidic pyruvate kinase from developing seeds of Brassica campestris L. Singh DK, et al. **Indian J Biochem Biophys** 1998 Dec;35(6):346-52

Purification of muscle enzymes by pseudoaffinity chromatography. Tulsani NB, et al. **Prep Biochem Biotechnol** 1999 May;29(2):151-61

METABOLISM

Assay of nucleoside 2-deoxyribosyltransferase activity with pyruvate kinase/lactate dehydrogenase coupling system. Pistotnik E, et al. **Anal Biochem** 1999 Jul 1;271(2):192-3

Pyruvate kinase as a microtubule destabilizing factor in vitro. Vértessy BG, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):430-5

A comparative study by a single chromatographic procedure of glycolytic regulatory kinase isozymes in rat erythroid cells as a function of differentiation-maturation process. Jimeno P, et al. **Biochem Mol Biol Int** 1998 Sep; 45(6):1211-25

Allostery in rabbit pyruvate kinase: development of a strategy to elucidate the mechanism. Friesen RH, et al. **Biochemistry** 1998 Nov 3;37(44):15266-76

Metabolic fluxes, pools, and enzyme measurements suggest a tighter coupling of energetics and biosynthetic reactions associated with reduced pyruvate kinase flux. Goel A, et al. **Biotechnol Bioeng** 1999 Jul 20;64(2):129-34

Stimulation of glucose catabolism through the pentose pathway by the absence of the two pyruvate kinase isoenzymes in Escherichia coli. Ponce E, et al. **Biotechnol Bioeng** 1998 Apr 20-May 5;58(2-3):292-5

Defects in pyruvate kinase cause a conditional increase of thiamine synthesis in Salmonella typhimurium. Christian T, et al. **Can J Microbiol** 1999 Jul;45(7):565-72

Effect of artemether on glyceraldehyde-3-phosphate dehydrogenase, phosphoglycerate kinase, and pyruvate kinase of Schistosoma japonicum harbored in mice. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May; 19(3):279-81

Apoptotic changes precede mitochondrial dysfunction in red cell-type pyruvate kinase mutant mouse erythroleukemia cell lines. Aisaki K, et al. **Jpn J Cancer Res** 1999 Feb; 90(2):171-9

A proposal for the locus of metformin's clinical action: potentiation of the activation of pyruvate kinase by fructose-1,6-diphosphate. McCarty MF. **Med Hypotheses** 1999 Feb;52(2):89-93 (41 ref.)

Modulation of type M2 pyruvate kinase activity by the human papillomavirus type 16 E7 oncoprotein. Zwerschke W, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1291-6

Expression of pyruvate kinase M2 in preneoplastic hepatic foci of N-nitrosomorpholine-treated rats. Steinberg P, et al. **Virchows Arch** 1999 Mar;434(3):213-20

PYRUVATE, ORTHOPHOSPHATE DIKINASE

CHEMISTRY

Intermediates and energetics in pyruvate phosphate dikinase. Dunaway-Mariano D. **Methods Enzymol** 1999;308:149-76

ISOLATION & PURIFICATION

Pyruvate phosphate dikinase from a thermophilic actinomyces Microbispora rosea subsp. aerata: purification, characterization and molecular cloning of the gene. Eisaki N, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):363-73

METABOLISM

An enzymatic cycling method using pyruvate orthophosphate dikinase and firefly luciferase for the simultaneous determination of ATP and AMP (RNA). Sakakibara T, et al. **Anal Biochem** 1999 Mar 1;268(1):94-101

Location of the phosphate binding site within Clostridium symbiosum pyruvate phosphate dikinase. McGuire M, et al. **Biochemistry** 1998 Sep 29;37(39):13463-74

PYRUVATE, PHOSPHATE DIKINASE see **PYRUVATE, ORTHOPHOSPHATE DIKINASE**

PYRUVATES

ANALYSIS

Xanthan lyase of Bacillus sp. strain GL1 liberates pyruvylated mannose from xanthan side chains. Hashimoto W, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3765-8

BLOOD

alpha-Lipoic acid treatment decreases serum lactate and pyruvate concentrations and improves glucose effectiveness in lean and obese patients with type 2 diabetes. Konrad T, et al. **Diabetes Care** 1999 Feb;22(2):280-7

Evaluation of glycolytic parameters and cytoplasmic redox status as markers of hepatic function in liver transplantation. Igea J, et al. **Transplant Proc** 1999 Sep; 31(6):2443-4

METABOLISM

Simple model analysis of 13C NMR spectra to measure oxygen consumption using frozen tissue samples. van Beek JH, et al. **Adv Exp Med Biol** 1998;454:475-85

A pyruvated mannose-specific xanthan lyase involved in xanthan degradation by Paenibacillus alginolyticus XL-1. Ruijssenaars HJ, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2446-52

Adrenocorticotropic hormone therapy for infantile spasms alters pyruvate metabolism in the central nervous system. Miyazaki M, et al. **Brain Dev** 1998 Aug;20(5):312-8

On the absence of the glyceraldehyde 3-phosphate/pyruvate pathway for isoprenoid biosynthesis in fungi and yeasts. Disch A, et al. **FEMS Microbiol Lett** 1998 Nov 15; 168(2):201-8

Functional characteristics of pyruvate transport in Phycomyces blakesleeanus. Marcos JA, et al. **Fungal Genet Biol** 1998 Dec;25(3):204-15

Proton-nuclear magnetic resonance analyses of the substrate specificity of a beta-ketolase from Pseudomonas putida, acetopyruvate hydrolase. Pokorny D, et al. **J Bacteriol** 1999 Aug;181(16):5051-9

Pyruvate prevents peroxide-induced injury of in vitro preimplantation bovine embryos. Morales H, et al. **Mol Reprod Dev** 1999 Feb;52(2):149-57

PHARMACOLOGY

Pyruvate-based peritoneal dialysate preserves neutrophilic oxygen consumption. Zhou FQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):207-10

Pyruvate and hydroxycitrate/carnitine may synergize to promote reverse electron transport in hepatocyte mitochondria, effectively 'uncoupling' the oxidation of fatty acids. McCarty MF, et al. **Med Hypotheses** 1999 May; 52(5):407-16 (97 ref.)

PYRUVIC ACID

ADMINISTRATION & DOSAGE

Treatment of warts with topical pyruvic acid: with and without added 5-fluorouracil. Halasz CL. **Cutis** 1998 Dec; 62(6):283-5

Effects of in-season (5 weeks) creatine and pyruvate supplementation on anaerobic performance and body composition in American football players. Stone MH, et al. **Int J Sport Nutr** 1999 Jun;9(2):146-65

Haemodynamic effects of intracoronary pyruvate in patients with congestive heart failure: an open study. Hermann HP, et al. **Lancet** 1999 Apr 17;353(9161):1321-3

The effects of pyruvate supplementation on body composition in overweight individuals. Kalman D, et al. **Nutrition** 1999 May;15(5):337-40

ANALYSIS

Clinical application of the measurement of cord plasma lactate and pyruvate in the assessment of high-risk neonates. Chou YH, et al. **Acta Paediatr** 1998 Jul; 87(7):764-8

BLOOD

Lactate, lactate/pyruvate ratio and catecholamine interrelations in cord blood at delivery in complicated pregnancies. Nordström L, et al. **Early Hum Dev** 1998 Aug 28;52(1):87-94

CEREBROSPINAL FLUID

[The effect of polarizing mixture KIG (potassium + insulin + glucose) on some metabolites of glucose transformation in patients with ischemic stroke during the earliest period of illness] Adach B. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:15-22 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Crystal structures of the key anaerobic enzyme pyruvate:ferredoxin oxidoreductase, free and in complex with pyruvate. Chabrière E, et al. **Nat Struct Biol** 1999 Feb;6(2):182-90

METABOLISM

Evidence that the transport-related proteins BAT and 4F2hc are not specific for amino acids: induction of Na+-dependent uridine and pyruvate transport activity by recombinant BAT and 4F2hc expressed in Xenopus oocytes. Yao SY, et al. **Biochem Cell Biol** 1998;76(5):859-65

Kinetics of lactate and pyruvate transport in cultured rat myotubes. von Grumbckow L, et al. **Biochim Biophys Acta** 1999 Mar 4;1417(2):267-75

Kinetic, dynamic, and pathway studies of glycerol metabolism by Klebsiella pneumoniae in anaerobic continuous culture: IV. Enzymes and fluxes of pyruvate metabolism. Menzel K, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):617-26

Pyruvate metabolism by Anaplasma marginale in cell-free culture. McHolland LE, et al. **Can J Microbiol** 1999 Feb; 45(2):185-9

Mitochondrial metabolism of pyruvate is required for its enhancement of cardiac function and energetics. Mallet RT, et al. **Cardiovasc Res** 1999 Apr;42(1):149-61

In vitro and ex vivo 13C-NMR spectroscopy studies of pyruvate recycling in brain. Håberg A, et al. **Dev Neurosci** 1998;20(4-5):389-98

The effect of aging and acetyl-L-carnitine on the pyruvate transport and oxidation in rat heart mitochondria. Paradies G, et al. **FEBS Lett** 1999 Jul 9;454(3):207-9

The RAG3 gene of Kluyveromyces lactis is involved in the transcriptional regulation of genes coding for enzymes implicated in pyruvate utilization and genes of the biosynthesis of thiamine pyrophosphate. Tizzani L, et al. **FEMS Microbiol Lett** 1998 Nov 1;168(1):25-30

Human monocarboxylate transporter 2 (MCT2) is a high affinity pyruvate transporter. Lin RY, et al. **J Biol Chem** 1998 Oct 30;273(44):28959-65

Rapid on-line microdialysis hyphenated technique for the dynamic monitoring of extracellular pyruvate, lactic acid and ascorbic acid during cerebral ischemia. Cheng FC, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1-2):31-8

In vitro correlation between two colorimetric assays and the pyruvic acid consumption by fibroblasts cultured to determine the sodium laurylsulfate cytotoxicity. Verhulst C, et al. **J Pharmacol Toxicol Methods** 1998 Apr; 39(3):143-6

Metabolic acidosis inhibits pyruvate oxidation in chick liver by decreasing activity of pyruvate dehydrogenase complex. Toyomizu M, et al. **Life Sci** 1999;65(1):37-43

A hydrogenosome with pyruvate formate-lyase: anaerobic chytrid fungi use an alternative route for pyruvate catabolism. Akhmanova A, et al. **Mol Microbiol** 1999 Jun; 32(5):1103-14

Metabolism of glucose, pyruvate, and glutamine during the maturation of oocytes derived from pre-pubertal and adult cows. Steeves TE, et al. **Mol Reprod Dev** 1999 Sep; 54(1):92-101

Lactate and pyruvate changes in the cerebral gray and white matter during posthypoxic seizures in newborn pigs. Thoresen M, et al. **Pediatr Res** 1998 Nov;44(5):746-54

Neurochemical monitoring of fatal middle cerebral artery infarction. Berger C, et al. **Stroke** 1999 Feb;30(2):460-3

[Effects of hypertonic lactated Ringer's solution on hepatic ATP and L/P ratio in rats subjected to acute hemorrhage] Ikeya K, et al. **Masui** 1998 Dec;47(12):1422-6 (Eng. Abstr.) **(Jpn)**

PHARMACOKINETICS

The importance of pyruvate availability to PDC activation and anaplerosis in human skeletal muscle. Constantin-Teodosiu D, et al. **Am J Physiol** 1999 Mar; 276(3 Pt 1):E472-8

PHARMACOLOGY

Reversal of permeability transition during recovery of hearts from ischemia and its enhancement by pyruvate. Kerr PM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H496-502

Rotenone and pyruvate prevent the tert-butylhydroperoxide-induced necrosis of U937 cells and allow them to proliferate. Sestili P, et al. **FEBS Lett** 1999 Aug 20;457(1):139-43

Pyruvate prevents hydrogen peroxide-induced apoptosis. Ramakrishnan N, et al. **Free Radic Res** 1998 Oct; 29(4):283-95

Fructose induced deactivation of glucose-6-phosphate dehydrogenase activity and its prevention by pyruvate: implications in cataract prevention. Zhao W, et al. **Free Radic Res** 1998 Oct;29(4):315-20

Pyruvate potentiates beta-adrenergic inotropism of stunned guinea-pig myocardium. Tejero-Taldo MI, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2327-39

2-Oxoacids regulate kynurenic acid production in the rat brain: studies in vitro and in vivo. Hodgkins PS, et al. **J Neurochem** 1999 Feb;72(2):643-51

Pyruvate augments mechanical function via activation of the pyruvate dehydrogenase complex in reperfused ischemic immature rabbit hearts. Saiki Y, et al. **J Surg Res** 1998 Oct;79(2):164-9

Pyruvate inhibits the chronic damage which ensues after ischemia/reperfusion injury of kidneys. Cicalese L, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1033

THERAPEUTIC USE

Attenuation of galactose-induced cataract by pyruvate. Varma SD, et al. **Free Radic Res** 1999 Apr;30(4):253-63

Delayed manifestation of ultra violet radiation induced erythema in guinea pigs by sodium pyruvate--a free radical scavenger. Gupta SK, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):315-8

Pyruvate: beyond the marketing hype. Sukala WR.

PYRUVIC ACID

Int J Sport Nutr 1998 Sep;8(3):241–9 (36 ref.)

Corneal damage by half mustard (2–chloroethyl ethyl sulfide, CEES) in vitro preventive studies: a histologic and electron microscopic evaluation. Varma SD, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):413–21

Half mustard (CEES) induced damage to rabbit cornea: attenuating effect of taurine–pyruvate–alpha–ketoglutarate–pantothenate mixture. Varma SD, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):423–8

PYRUVIC DECARBOXYLASE see **PYRUVATE DECARBOXYLASE**

PYTHIUM

Successful medical therapy for deeply invasive facial infection due to Pythium insidiosum in a child. Shenep JL, et al. **Clin Infect Dis** 1998 Dec;27(6):1388–93

Use of an immunotherapeutic vaccine to treat a life–threatening human arteritic infection caused by Pythium insidiosum. Thitithanyanont A, et al. **Clin Infect Dis** 1998 Dec;27(6):1394–400

Penicilliosis marneffei and pythiosis: emerging tropical diseases. Kaufman L. **Mycopathologia** 1998;143(1):3–7 (28 ref.)

DRUG EFFECTS

Viscosinamide, a new cyclic depsipeptide with surfactant and antifungal properties produced by Pseudomonas fluorescens DR54. Nielsen TH, et al. **J Appl Microbiol** 1999 Jul;87(1):80–90

GENETICS

Pythium prolatum isolated from soil in the Burgundy region: a new record for Europe. Paul B, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):69–75

ISOLATION & PURIFICATION

Pythiosis of the digestive tract in dogs from Oklahoma. Helman RG, et al. **J Am Anim Hosp Assoc** 1999 Mar–Apr; 35(2):111–4

Cutaneous Pythiosis insidiosi in calves from the Pantanal region of Brazil. Santurio JM, et al. **Mycopathologia** 1998; 141(3):123–5

MICROBIOLOGY

Genetic basis in plants for interactions with disease–suppressive bacteria. Smith KP, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4786–90

PATHOGENICITY

Jasmonate signaling mutants of Arabidopsis are susceptible to the soil fungus Pythium irregulare. Staswick PE, et al. **Plant J** 1998 Sep;15(6):747–54

PHYSIOLOGY

Behavior of pythium Torulosum zoospores during their interaction with tobacco roots and Bacillus cereus. Shang H, et al. **Curr Microbiol** 1999 Apr;38(4):199–204

Pythium prolatum isolated from soil in the Burgundy region: a new record for Europe. Paul B, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):69–75

PYTHON see **BOIDAE**

PYURIA

CHEMICALLY INDUCED

Indinavir nephropathy in an AIDS patient with renal insufficiency and pyuria. Perazella MA, et al. **Clin Nephrol** 1998 Sep;50(3):194–6 (8 ref.)

COMPLICATIONS

Brachytherapy in the presence of pyuria after pelvic irradiation for cervical cancer. Ampil FL, et al. **Eur J Gynaecol Oncol** 1998;19(4):350–1

DIAGNOSIS

[Evaluation of pyuria by means of urinary sediment method—a comparison to the counting chamber method] Kiyota H, et al. **Kansenshogaku Zasshi** 1998 Dec; 72(12):1295–9 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Asymptomatic bacteriuria and inflammatory response to urinary tract infection of elderly ambulatory women in nursing homes. Aguirre–Avalos G, et al. **Arch Med Res** 1999 Jan–Feb;30(1):29–32

ETIOLOGY

[Pathological horseshoe kidney. 30 case reports] Benchekroun A, et al. **Ann Urol (Paris)** 1998;32(5):279–82 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Comparison of the Gram–stained urethral smear and first–voided urine sediment in the diagnosis of nongonococcal urethritis. Desai K, et al. **Sex Transm Dis** 1982 Jan–Mar;9(1):21–5

PYY PEPTIDE see **PEPTIDE YY**

Q BETA PHAGE see **ALLOLEVIVIRUS**

Q BETA REPLICASE

METABOLISM

A branched stem–loop structure in the M–site of bacteriophage Qbeta RNA is important for template recognition by Qbeta replicase holoenzyme. Schuppli D, et al. **J Mol Biol** 1998 Oct 30;283(3):585–93

Q–ENZYME see **1,4–ALPHA–GLUCAN BRANCHING ENZYME**

Q FEVER

Clinical and serological analysis of a Q fever outbreak in western Slovakia with four–year follow–up. Kovácová E, et al. **Eur J Clin Microbiol Infect Dis** 1998 Dec;17(12):867–9

A case of atypical pneumonia presenting with severe headache and disorientation. Diagnosis: Q fever (Coxiella burnetti). Julius P, et al. **Respiration** 1999;66(3):283–6

–Recurrent osteitis and Coxiella burnetii: the relation to chronic recurrent multifocal osteomyelitis– Poujol A, et al. **Arch Pediatr** 1998 Mar;5(3):291–4 (Eng. Abstr.) **(Fre)**

[Chronic Q fever] Oda H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):252–4 (11 ref.) **(Jpn)**

[Acute Q fever] Ohnishi K. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):249–51 (16 ref.) **(Jpn)**

BLOOD

Serum levels of vascular cell adhesion molecule–1 (VCAM–1) in acute Q fever. Ohnishi K, et al. **Ann Trop Med Parasitol** 1999 Mar;93(2):203–5

Circulating cytokine balance and activation markers of leucocytes in Q fever. Capo C, et al. **Clin Exp Immunol** 1999 Jan;115(1):120–3

COMPLICATIONS

Treatment of Q fever endocarditis: comparison of 2 regimens containing doxycycline and ofloxacin or hydroxychloroquine. Raoult D, et al. **Arch Intern Med** 1999 Jan 25;159(2):167–73

Long term vascular complications of Coxiella burnetii infection in Switzerland: cohort study. Lovey PY, et al. **BMJ** 1999 Jul 31;319(7205):284–6

[Silent Q fever endocarditis. Report of a case] Jourdain P, et al. **Arch Mal Coeur Vaiss** 1999 Jul;92(7):915–7 (Eng. Abstr.) **(Fre)**

[Splenic abscess caused by Coxiella burnetti in the absence of endocarditis] Cathébras P, et al. **Rev Med Interne** 1998 Oct;19(10):740–2 (Eng. Abstr.) **(Fre)**

[Q fever pneumonia with an unusual form of presentation (letter)] Briones Gómez A, et al. **Arch Bronconeumol** 1999 Jun;35(6):299–300 **(Spa)**

[Acute rhabdomyolysis by Q fever (letter)] Salcedo J, et al. **Enferm Infecc Microbiol Clin** 1999 May;17(5):250–1 **(Spa)**

DIAGNOSIS

Suitability of various Coxiella burnetii antigen preparations for detection of serum antibodies by various tests. Kováčová E, et al. **Acta Virol** 1998 Dec;42(6):365–8

Acute cerebellitis caused by Coxiella burnetii. Sawaishi Y, et al. **Ann Neurol** 1999 Jan;45(1):124–7

Predominant immunoglobulin A response to phase II antigen of Coxiella burnetii in acute Q fever. Fournier PE, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):173–7

Q fever during pregnancy: a public health problem in southern France. Stein A, et al. **Clin Infect Dis** 1998 Sep; 27(3):592–6 (24 ref.)

Acute abdominal pain and Q fever. Mòdol JM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Feb;18(2):158–60

Most common clinical presentation of Q fever in a province in the north of Spain. Merino FJ, et al. **Eur J Epidemiol** 1998 Oct;14(7):729–30

Diagnosis of Q fever [letter] Devine P. **J Clin Microbiol** 1998 Nov;36(11):3446

[A case of fever, indeed, not very exotic] Vignes S, et al. **Rev Med Interne** 1999;20 Suppl 2:275s–276s **(Fre)**

[Fever, negative blood culture findings and absence of response to antibiotic therapy in a patient after a second aortic valve prosthesis] Miljak T, et al. **Dtsch Med Wochenschr** 1998 Oct 16;123(42):1235–8 (Eng. Abstr.) **(Ger)**

[Coxiella burnetii endocarditis. A report of the first case diagnosed in Mexico] Sahagún Sánchez G, et al. **Arch Inst Cardiol Mex** 1998 Jul–Aug;68(4):322–7 (26 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Steroids treatment of granulomatous hepatitis complicating Coxiella burnetii acute infection. Crespo M, et al. **Infection** 1999 Mar–Apr;27(2):132–3

Jarisch–Herxheimer reaction complicating the treatment of chronic Q fever endocarditis: elevated TNFalpha and IL–6 serum levels. Kaplanski G, et al. **J Infect** 1998 Jul; 37(1):83–4

EPIDEMIOLOGY

Hyperendemic focus of Q fever related to sheep and wind. Tissot–Dupont H, et al. **Am J Epidemiol** 1999 Jul 1; 150(1):67–74

Short report: prevalence of antibodies against spotted fever, murine typhus, and Q fever rickettsiae in humans living in Zambia. Okabayashi T, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):70–2

Q fever outbreak in an abattoir in Cooma, NSW. **Commun Dis Intell** 1998 Oct 1;22(10):222

Q fever in Bulgaria and Slovakia. Serbezov VS, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):388–94 (40 ref.)

Most common clinical presentation of Q fever in a province in the north of Spain. Merino FJ, et al. **Eur J Epidemiol** 1998 Oct;14(7):729–30

Q fever endocarditis revisited. Boyle B, et al. **Ir J Med Sci** 1999 Jan–Mar;168(1):53–4

Q fever in New South Wales Department of Agriculture workers. Casolin A. **J Occup Environ Med** 1999 Apr; 41(4):273–8

Prevalence of Coxiella burnetii infections among North Dakota sheep producers. Guo HR, et al. **J Occup Environ Med** 1998 Nov;40(11):999–1006

Advances in the understanding of Coxiella burnetii infection in Japan. Hirai K, et al. **J Vet Med Sci** 1998 Jul;60(7):781–90 (81 ref.)

[The epidemiology of Q fever in the northern area of Huelva, Spain] Lepe JA, et al. **Enferm Infecc Microbiol Clin** 1999 Feb;17(2):65–8 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Chronic sternal wound infection and endocarditis with Coxiella burnetii. Ghassemi M, et al. **Clin Infect Dis** 1999 Jun;28(6):1249–51

IMMUNOLOGY

Increases in the levels of Coxiella burnetii–specific immunoglobulin G1 and G3 antibodies in acute Q fever and chronic Q fever. Capo C, et al. **Clin Diagn Lab Immunol** 1998 Nov;5(6):814–6

Predominant immunoglobulin A response to phase II antigen of Coxiella burnetii in acute Q fever. Fournier PE, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):173–7

Cytokine dysregulation in the post–Q–fever fatigue syndrome. Penttila IA, et al. **QJM** 1998 Aug;91(8):549–60

METABOLISM

Coxiella burnetii infection increases transferrin receptors on J774A. 1 cells. Howe D, et al. **Infect Immun** 1999 Jul; 67(7):3236–41

MICROBIOLOGY

Immunological consequences of Coxiella burnetii phase variation. Quevedo Diaz MA, et al. **Acta Virol** 1998 Jun; 42(3):181–5

Q fever in pregnancy: case report after a 2–year follow–up. Téllez A, et al. **J Infect** 1998 Jul;37(1):79–81

Serological findings of Coxiella burnetii infection among patients with fevers in a health centre in Sarawak, Malaysia. Tay ST, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):94–5

Developmental biology of Coxiella burnettii. Heinzen RA, et al. **Trends Microbiol** 1999 Apr;7(4):149–54 (32 ref.)

RADIOGRAPHY

Q fever pneumonia: appearance on chest radiographs. Gikas A, et al. **Radiology** 1999 Feb;210(2):339–43

TRANSMISSION

Hyperendemic focus of Q fever related to sheep and wind. Tissot–Dupont H, et al. **Am J Epidemiol** 1999 Jul 1; 150(1):67–74

A large outbreak of Q fever in the West Midlands: windborne spread into a metropolitan area? Hawker JI, et al. **Commun Dis Public Health** 1998 Sep;1(3):180–7

VETERINARY

PCR detection of Coxiella burnetii from different clinical specimens, especially bovine milk, on the basis of DNA preparation with a silica matrix. Lorenz H, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4234–7

Advances in the understanding of Coxiella burnetii infection in Japan. Hirai K, et al. **J Vet Med Sci** 1998 Jul;60(7):781–90 (81 ref.)

Prevalence of Coxiella burnetii infection in dairy cattle with reproductive disorders. To H, et al. **J Vet Med Sci** 1998 Jul;60(7):859–61

Survey of seroprevalence of Q fever in dogs in the southeast of France, French Guyana, Martinique, Senegal and the Ivory Coast. Boni M, et al. **Vet Microbiol** 1998 Nov; 64(1):1–5

Prevalence of antibodies to Coxiella burnetii (Q fever) in bulk tank milk in England and Wales. Paiba GA, et al.

Vet Rec 1999 May 8;144(19):519–22

Q-SORT

Card sort: an assessment tool for the educational needs of patients with heart failure. Luniewski M, et al. **Am J Crit Care** 1999 Sep;8(5):297–302

Passivity vs. militancy: a Q methodological study of nurses' industrial relations on Merseyside (England). McKeown M, et al. **J Adv Nurs** 1999 Jul;30(1):140–9

Interaction of cognitive balance and mood induction on self-descriptions: a Q methodological approach. Schell KL. **Psychol Rep** 1998 Oct;83(2):443–52

STANDARDS

Refining the measurement of axis II: a Q-sort procedure for assessing personality pathology. Shedler J, et al. **Assessment** 1998 Dec;5(4):333–53

The validity of the California Q-set Alexithymia Prototype. Haviland MG. **Psychosomatics** 1998 Nov–Dec;39(6):536–9

QALY see **QUALITY-ADJUSTED LIFE YEARS**

QI see **CH'I**

QIGONG see **BREATHING EXERCISES**

QNB see **QUINUCLIDINYL BENZILATE**

QUACKERY

see related
NOSTRUMS

Battling quackery: attitudes about micronutrient supplements in American academic medicine. Goodwin JS, et al. **Arch Intern Med** 1998 Nov 9;158(20):2187–91

Functional foods: health boon or quackery? [editorial] Jacobson MF, et al. **BMJ** 1999 Jul 24;319(7204):205–6

Quackery. Muddled miracles. Greene J. **Hosp Health Netw** 1998 Dec 5–20;72(23–24):68

Internet accelerates spread of bogus cancer cure. Larkin M. **Lancet** 1999 Jan 23;353(9149):331

A call to arms [editorial] Albert SB. **N Y State Dent J** 1999 Aug–Sep;65(7):4–5

Alternative medicine [letter] Manukulasuriya U. **N Z Med J** 1999 Mar 26;112(1084):103–4

[An autopsy analysis on 14 cases of poisoning death caused by illegal quackery] Chen L, et al. **Fa I Hsueh Tsa Chih** 1997;13(4):215–7, 254 (Eng. Abstr.) **(Chi)**

[The national cancer fund (Koningin Wilhelmina Fonds) and the Houtsmuller-therapy for cancer (letter)] Renckens CN, et al. **Ned Tijdschr Geneeskd** 1999 Jul 3;143(27):1431–3 (Eng. Abstr.) **(Dut)**

[The national cancer fund (Koningin Wilhelmina Fonds) and the Houtsmiller-therapy for cancer (letter)] Van de Poll KW. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1542–3 **(Dut)**

[Herbs for atopic dermatitis: phytotherapy of the sorcerer's apprentice or a fake and culpable mascarade] Piérard GE, et al. **Rev Med Liege** 1999 Jun;54(6):539–40 (22 ref.) (Eng. Abstr.) **(Fre)**

[Deceptive publicity] Bonard EC. **Rev Med Suisse Romande** 1999 Apr;119(4):345–7 **(Fre)**

[Emily and alternative healers: 9-year-old exposes therapeutic touch healer (news)] Rautenstrauch J. **Dtsch Med Wochenschr** 1998 Sep 25;123(39):A7–8 **(Ger)**

[Megamin, faith, hope and placebos—-a critical review] Momčilović B. **Arh Hig Rada Toksikol** 1999 Mar; 50(1):67–78 (Eng. Abstr.) **(Scr)**

LEGISLATION & JURISPRUDENCE

[Unconventional diagnostic and therapeutic methods in environmental medicine] Oepen I. **Gesundheitswesen** 1998 Jul;60(7):420–30 (64 ref.) (Eng. Abstr.) **(Ger)**

TRENDS

Snake oil for the 21st century. Bigby M. **Arch Dermatol** 1998 Dec;134(12):1512–4

QUADRIGEMINAL PLATE see **CORPORA QUADRIGEMINA**

QUADRIPLEGIA

Moral dilemmas of tetraplegia; the 'locked-in' syndrome, the persistent vegetative state and brain death. Firsching R. **Spinal Cord** 1998 Nov;36(11):741–3 (17 ref.)

CHEMICALLY INDUCED

Transient tetraparesis after intrathecal and high-dose systemic methotrexate. Massenkeil G, et al. **Ann Hematol** 1998 Nov;77(5):239–42

Two identical episodes of acute quadriparesia in an intensive care unit patient [letter] Kohler A, et al. **Intensive Care Med** 1998 Aug;24(8):891–2

Barium carbonate intoxication: an electrophysiological study [letter] Kakar A, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):606–7

Rehabilitation in an individual with chronic arsenic poisoning: medical, psychological, and social implications. McFall TL, et al. **J Spinal Cord Med** 1998 Apr;21(2):142–7

[Renal tubular acidosis with severe hypokalemic tetraparesis after ibuprofen intake] Gaul C, et al. **Dtsch Med Wochenschr** 1999 Apr 23;124(16):483–6 (15 ref.) (Eng. Abstr.) **(Ger)**

[Acute vincristine neurotoxicity in a non-Hodgkin's lymphoma patient with Charcot-Marie-Tooth disease] Uno S, et al. **Rinsho Ketsueki** 1999 May;40(5):414–9 (15 ref.) (Eng. Abstr.) **(Jpn)**

COMPLICATIONS

Interscalene regional anesthesia in the prevention of autonomic hyperreflexia in a quadriplegic patient undergoing shoulder surgery. Habibi A, et al. **Anesth Analg** 1999 Jan;88(1):98–9

Treatment of autonomic hyperreflexia in a quadriplegic patient by epidural anesthesia in the postoperative period. Murphy DB, et al. **Anesth Analg** 1999 Jul;89(1):148–9

Profound hyponatraemia in quadriplegia. Watson ID, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):673–6

Postural changes with aging in tetraplegia: effects on life satisfaction and pain. Boninger ML, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1577–81

Muscle strength changes as measured by dynamometry following functional rehabilitation in individuals with spinal cord injury. Drolet M, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):791–800

Liver injury related to extracorporeal shock wave lithotripsy in a quadriplegic patient. Bogdanovic J, et al. **BJU Int** 1999 Apr;83(6):718–9

Spinal cord injury and psychological response. de Carvalho SA, et al. **Gen Hosp Psychiatry** 1998 Nov;20(6):353–9

Unilateral lower extremity compartment syndrome in the quadriplegic patient: a possible association with the use of elastic bandages. Jacobs DG, et al. **J Trauma** 1999 Feb; 46(2):343–5

Treatment with an anabolic agent is associated with improvement in respiratory function in persons with tetraplegia: a pilot study. Spungen AM, et al. **Mt Sinai J Med** 1999 May;66(3):201–5

Antibiotic needed in quadriplegic patient? Yu DT. **Postgrad Med** 1999 Aug;106(2):37–8

Pressure ulcer in a man with tetraplegia and a poorly fitting wheelchair: a case report with clinical and policy implications. Batavia M, et al. **Spinal Cord** 1999 Feb; 37(2):140–1

Management of respiratory problems unique to high tetraplegia. Fromm B, et al. **Spinal Cord** 1999 Apr; 37(4):239–44

Cognitive disturbances and nocturnal hypoxemia in tetraplegic patients [letter; comment] Gothe B, et al. **Spinal Cord** 1999 Jan;37(1):71–2. Comment on: Spinal Cord 1998 Apr;36(4):231–9.

Parenchymatous cerebral neurocysticercosis in a quadriplegic patient. Al-Khodairy AT, et al. **Spinal Cord** 1999 Feb; 37(2):142–6

Has botulinum toxin type A a place in the treatment of spasticity in spinal cord injury patients? Al-Khodairy AT, et al. **Spinal Cord** 1998 Dec;36(12):854–8

A review of the readmissions of patients with tetraplegia to the Regional Spinal Injuries Centre, Southport, United Kingdom, between January 1994 and December 1995. Vaidyanathan S, et al. **Spinal Cord** 1998 Dec;36(12):838–46

A quadriplegic man with hypothermia and thrombocytopenia. Jeanpierre CA, et al. **WMJ** 1999 Jan–Feb;98(1):52–3

[Severe agranulocytosis induced by carbamazepine (Tegretol)] Cambon S, et al. **Ann Fr Anesth Reanim** 1999 May;18(5):542–6 (Eng. Abstr.) **(Fre)**

[Bioelectric impedance in the nutritional evaluation of mentally deficient quadriplegic adults] Zubillaga P, et al. **Nutr Hosp** 1999 Mar–Apr;14(2):91–5 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

The Capabilities of Upper Extremity instrument: reliability and validity of a measure of functional limitation in tetraplegia. Marino RJ, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1512–21

Assessing the knowledge of future internists and gynecologists in caring for a woman with tetraplegia. Oshima S, et al. **Arch Phys Med Rehabil** 1998 Oct; 79(10):1270–6

Primary polyarteritis nodosa presenting as acute symmetric quadriplegia. Bosch X, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):232–4

Necrosis of pheochromocytoma presenting initially as isolated quadriparesis [letter] Tayoro J, et al. **Intensive Care Med** 1999 Jan;25(1):123

Barium carbonate intoxication: an electrophysiological study [letter] Kakar A, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):606–7

Development of a short-form Quadriplegia Index of Function scale. Marino RJ, et al. **Spinal Cord** 1999 Apr; 37(4):289–96

DRUG THERAPY

[A case developing tetraplegia due to systemic lupus erythematosus which was remitted by a steroid] Katagiri T. **Ryumachi** 1998 Oct;38(5):725–30 (Eng. Abstr.) **(Jpn)**

ECONOMICS

A multicenter investigation of age-related differences in lengths of stay, hospitalization charges, and outcomes for a matched tetraplegia sample. Cifu DX, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):733–40

EPIDEMIOLOGY

Disabling injuries of the cervical spine in Argentine rugby over the last 20 years. Secin FP, et al. **Br J Sports Med** 1999 Feb;33(1):33–6

ETIOLOGY

Hypokalemic periodic paralysis associated with hypophosphatemia in a patient with hyperinsulinemia. Ogawa T, et al. **Am J Med Sci** 1999 Jul;318(1):69–72

Preserved motor evoked potentials fail to predict functional outcome in quadriplegia because of bilateral lesions of the supplementary motor areas: a brief report. Kofler M, et al. **Am J Phys Med Rehabil** 1999 Jan–Feb;78(1):66–71

Acute spinal cord and head injury: case report and discussion of cardiac, respiratory and endocrine abnormalities. Johnson CD, et al. **Bol Asoc Med P R** 1998 Apr–Jun; 90(4–6):95–101

Acute quadriplegic myopathy following autologous peripheral blood stem cell transplantation for breast cancer. Samuelsson J, et al. **Bone Marrow Transplant** 1999 Apr; 23(8):835–7

Quadriplegia caused by cervical hyperextension injury and intramedullary spinal cord tumour: a case report of autopsy. Fujimura Y, et al. **Injury** 1998 Jun;29(5):377–9

Pregnancy and its outcome in quadriplegia due to Pott's spine. Vaidya MK, et al. **Int J Gynaecol Obstet** 1995 Jun; 49(3):319–21

Efforts at intubation: cervical injury in an emergency circumstance? Liang BA, et al. **J Clin Anesth** 1999 Jun; 11(4):349–52

Delayed cortical blindness and recurrent quadriplegia after cervical trauma. Vaccaro AR, et al. **J Spinal Disord** 1998 Dec;11(6):535–9

Acute atraumatic quadriparesis in a college football player. Ross DS, et al. **Med Sci Sports Exerc** 1998 Dec; 30(12):1663–5

MR appearance of an intracranial dural arteriovenous fistula leading to cervical myelopathy. Hähnel S, et al. **Neurology** 1998 Oct;51(4):1131–5 (10 ref.)

Transient locked-in syndrome after uncal herniation. Wijdicks EF, et al. **Neurology** 1999 Apr 12;52(6):1296–7

Cervical spondylitis and epidural abscess caused by Salmonella enteritidis with tetraplegia. Akagi S, et al. **Orthopedics** 1998 Dec;21(12):1289–91

Urological management of tetraplegic patients. Iwatsubo E, et al. **Spinal Cord** 1999 Jan;37(1):1–5

Pathology of the spinal cord damaged by ossification of the posterior longitudinal ligament associated with spinal cord injury. Mizuno J, et al. **Spinal Cord** 1999 Mar;37(3):224–7

Acute quadriplegic myopathy with myosin-deficient muscle fibres after liver transplantation: defining the clinical picture and delimiting the risk factors. Miró O, et al. **Transplantation** 1999 Apr 27;67(8):1144–51

Preponderance of hypokalaemia as a cause of acute onset quadriparesis in northern India/southern Nepal. Thomas SM, et al. **Trop Doct** 1999 Jul;29(3):148–51

Dramatic development of quadriplegia in a young man while engaged in heavy manual labour: a post-traumatic spinal cord injury? Schlüter E, et al. **Virchows Arch** 1998 Nov; 433(5):487–91

[Conn adenoma manifesting as reversible tetraparesis and rhabdomyolysis] Mourad JJ, et al. **Rev Med Interne** 1998 Mar;19(3):203–5 (Eng. Abstr.) **(Fre)**

[Rare neurological disorders and hypoglycemia. 3 cases] Rothmann C, et al. **Rev Neurol (Paris)** 1998 Jan;154(1):58–9 (Eng. Abstr.) **(Fre)**

GENETICS

Regulation of UCP2 and UCP3 by muscle disuse and physical activity in tetraplegic subjects. Hjeltnes N, et al. **Diabetologia** 1999 Jul;42(7):826–30

METABOLISM

Exercise-induced overexpression of key regulatory proteins involved in glucose uptake and metabolism in tetraplegic persons: molecular mechanism for improved glucose homeostasis. Hjeltnes N, et al. **FASEB J** 1998 Dec; 12(15):1701–12

Caffeine ingestion and metabolic responses of tetraplegic humans during electrical cycling. Mohr T, et al. **J Appl Physiol** 1998 Sep;85(3):979–85

Energy cost of propulsion in standard and ultralight wheelchairs in people with spinal cord injuries. Beekman CE, et al. **Phys Ther** 1999 Feb;79(2):146–58

MICROBIOLOGY

Correlation of canal encroachment with neurological deficit in tuberculosis of the spine. Jain AK, et al. **Int Orthop** 1999;23(2):85–6

PATHOLOGY

[Tetraparesis and paresthesias in the lower extremities in a 58-year-old man (clinical conference)] Vidaller A, et al.

QUADRIPLEGIA

Med Clin (Barc) 1999 Apr 10;112(12):470–6 **(Spa)**

PHYSIOPATHOLOGY

Expiratory function in complete tetraplegics: study of spirometry, maximal expiratory pressure, and muscle activity of pectoralis major and latissimus dorsi muscles. Fujiwara T, et al. **Am J Phys Med Rehabil** 1999 Sep–Oct; 78(5):464–9

Seating pressures with conventional and dynamic wheelchair cushions in tetraplegia. Burns SP, et al. **Arch Phys Med Rehabil** 1999 May;80(5):566–71

Abdominal weight and inspiratory resistance: their immediate effects on inspiratory muscle functions during maximal voluntary breathing in chronic tetraplegic patients. Lin KH, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):741–5

The Capabilities of Upper Extremity instrument: reliability and validity of a measure of functional limitation in tetraplegia. Marino RJ, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1512–21

Non-invasive assessment of autonomic nervous system integrity in able-bodied and spinal cord-injured individuals. Houtman S, et al. **Clin Auton Res** 1999 Jun; 9(3):115–22

Gaining independence in tetraplegia. Cleveland technique. Freehafer AA. **Clin Orthop** 1998 Oct;(355):282–9

Cognitive functions in chronic locked-in syndrome: a report of two cases. Allain P, et al. **Cortex** 1998 Sep;34(4):629–34

EMG analysis of voluntary elbow movements in subjects with spasticity. Feng CJ, et al. **Electromyogr Clin Neurophysiol** 1998 Oct–Nov; 38(7):393–404

The function of the finger intrinsic muscles in response to electrical stimulation. Lauer RT, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):19–26

Airway hyperresponsiveness to ultrasonically nebulized distilled water in subjects with tetraplegia. Grimm DR, et al. **J Appl Physiol** 1999 Apr;86(4):1165–9

Tidal volume perception in a C1–C2 tetraplegic subject is blocked by airway anesthesia. Lansing RW, et al. **J Spinal Cord Med** 1998 Apr;21(2):137–41

Relationship between shoulder muscle strength and functional independence measure (FIM) score among C6 tetraplegics. Fujiwara T, et al. **Spinal Cord** 1999 Jan; 37(1):58–61

The effect of tidal volumes on the time to wean persons with high tetraplegia from ventilators. Peterson WP, et al. **Spinal Cord** 1999 Apr;37(4):284–8

Bone mineral density differences between paraplegic and quadriplegic patients: a cross-sectional study. Tsuzuku S, et al. **Spinal Cord** 1999 May;37(5):358–61

Training of the respiratory muscles in individuals with tetraplegia. Uijl SG, et al. **Spinal Cord** 1999 Aug; 37(8):575–9

Maintenance of locomotor abilities following Laufband (treadmill) therapy in para- and tetraplegic persons: follow-up studies. Wernig A, et al. **Spinal Cord** 1998 Nov; 36(11):744–9

A comparison of two functional tests in quadriplegia: the quadriplegia index of function and the functional independence measure. Yavuz N, et al. **Spinal Cord** 1998 Dec;36(12):832–7

[The electron-neurogram manifestation of acute traumatic cervical spinal cord injury without fracture or dislocation] Zhang L. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):150–2 (Eng. Abstr.) **(Chi)**

PSYCHOLOGY

Postural changes with aging in tetraplegia: effects on life satisfaction and pain. Boninger ML, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1577–81

Antidepressant exacerbation of spasticity. Stolp-Smith KA, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):339–42

Spinal cord injury and psychological response. de Carvalho SA, et al. **Gen Hosp Psychiatry** 1998 Nov;20(6):353–9

Family situation and psychosocial issues including problems that impact on partnership or resettlement in the home and into society [clinical conference] Kreuter M, et al. **Spinal Cord** 1999 May;37(5):325–31

REHABILITATION

Management of a tetraplegic patient in a small rural hospital in Uganda. Lederer W. **Acad Emerg Med** 1999 Jun; 6(6):660–1

A comparison of two computer access systems for functional text entry. DeVries RC, et al. **Am J Occup Ther** 1998 Sep; 52(8):656–65

A multicenter investigation of age-related differences in lengths of stay, hospitalization charges, and outcomes for a matched tetraplegia sample. Cifu DX, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):733–40

Shoulder pain in wheelchair users with tetraplegia and paraplegia. Curtis KA, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):453–7

Clinical evaluation of the bionic glove. Popović D, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):299–304

Functional control of the hand in tetraplegics based on residual synergistic EMG activity. Thorsen R, et al. **Artif Organs** 1999 May;23(5):470–3

A comparison of interface pressure readings to wheelchair cushions and positioning: a pilot study. Pellow TR. **Can J Occup Ther** 1999 Jun;66(3):140–9

Control of FES thumb force using slip information obtained from the cutaneous electroneurogram in quadriplegic man. Haugland M, et al. **IEEE Trans Rehabil Eng** 1999 Jun; 7(2):215–27

The function of the finger intrinsic muscles in response to electrical stimulation. Lauer RT, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):19–26

Self-reported use of an implanted FES hand system by adolescents with tetraplegia. Davis SE, et al. **J Spinal Cord Med** 1998 Jul;21(3):220–6

Physical performance in persons with spinal cord injuries after discharge from rehabilitation. Dallmeijer AJ, et al. **Med Sci Sports Exerc** 1999 Aug;31(8):1111–7

Movement and muscle activity pattern in wheelchair ambulation by persons with para-and tetraplegia. Schantz P, et al. **Scand J Rehabil Med** 1999 Jun;31(2):67–76

Functional hand development in tetraplegia. Doll U, et al. **Spinal Cord** 1998 Dec;36(12):818–21

Reconstructive hand surgery [clinical conference] Ejeskär A, et al. **Spinal Cord** 1999 Jul;37(7):475–9

Improved work capacity but unchanged peak oxygen uptake during primary rehabilitation in tetraplegic patients. Hjeltnes N, et al. **Spinal Cord** 1998 Oct;36(10):691–8

Maintenance of locomotor abilities following Laufband (treadmill) therapy in para- and tetraplegic persons: follow-up studies. Wernig A, et al. **Spinal Cord** 1998 Nov; 36(11):744–9

SURGERY

Gaining independence in tetraplegia. Cleveland technique. Freehafer AA. **Clin Orthop** 1998 Oct;(355):282–9

A method of restoration of the abduction of the thumb in traumatic tetraplegic patients. Goloborod'ko SA. **J Hand Surg [Am]** 1999 Mar;24(2):320–2

Biceps-to-triceps transfer in tetraplegic patients: report of the medial routing technique and follow-up of three cases. Kuz JE, et al. **J Hand Surg [Am]** 1999 Jan;24(1):161–72

Biceps-to-triceps transfer in tetraplegia. The medial route. Revol M, et al. **J Hand Surg [Br]** 1999 Apr;24(2):235–7

[Surgical management of tetraplegia (editorial; comment)] Bühren V. **Unfallchirurg** 1999 Jan;102(1):1. Comment on: Unfallchirurg 1999 Jan;102(1):2–12. **(Ger)**

[Surgical management of tetraplegia [see comments] Bühren V, et al. **Unfallchirurg** 1999 Jan;102(1):2–12 (37 ref.) (Eng. Abstr.). Comment in: Unfallchirurg 1999 Jan;102(1):1. **(Ger)**

THERAPY

Assessing the knowledge of future internists and gynecologists in caring for a woman with tetraplegia. Oshima S, et al. **Arch Phys Med Rehabil** 1998 Oct; 79(10):1270–6

Pregnancy and its outcome in quadriplegia due to Pott's spine. Vaidya MK, et al. **Int J Gynaecol Obstet** 1995 Jun; 49(3):319–21

Application of functional electrical stimulation to the paralyzed extremities. Handa Y, et al. **Neurol Med Chir (Tokyo)** 1998 Nov;38(11):784–8

[Reconstruction of an extensive anterior tracheal defect in a tetraplegic patient during long-term ventilation by autologous cartilage clasps within a pectoralis major flap] Lohmann U, et al. **Zentralbl Chir** 1999;124(6):557–61 (Eng. Abstr.) **(Ger)**

VETERINARY

Progressive tetraparesis and laryngeal paralysis in a young rottweiler with neuronal vacuolation and axonal degeneration: an Australian case. Eger CE, et al. **Aust Vet J** 1998 Nov;76(11):733–7

QUADRUPLETS

Umbilical artery waveforms in triplet and quadruplet pregnancies. Ezra Y, et al. **Gynecol Obstet Invest** 1999; 47(4):239–43

QUAIL

BLOOD

Characteristics of blood chemical parameters in male and female quails. Itoh N, et al. **J Vet Med Sci** 1998 Sep; 60(9):1035–7

EMBRYOLOGY

Proliferation of actively migrating ameboid microglia in the developing quail retina. Marin-Teva JL, et al. **Anat Embryol (Berl)** 1999 Sep;200(3):289–300

In vivo and in vitro assessment of mitogen activated protein kinase involvement during quail secondary palate formation. Hehn BM, et al. **Anat Rec** 1998 Oct; 252(2):194–204

Development of the avian iris and ciliary body: mechanisms of cellular differentiation during the smooth-to-striated muscle transition. Link BA, et al. **Dev Biol** 1998 Nov 1; 203(1):163–76

Antibodies directed against the chicken type II TGFbeta receptor identify endothelial cells in the developing chicken and quail. Brown CB, et al. **Dev Dyn** 1999 May; 215(1):79–85

High conservation of cis-regulatory elements between quail and human for the Pax-6 gene. Plaza S, et al. **Dev Genes Evol** 1999 Mar;209(3):165–73

Improved hatching for in vitro quail embryo culture using surrogate eggshell and artificial vessel. Kamihira M, et al. **Dev Growth Differ** 1998 Aug;40(4):449–55

Correlation between tectum formation and expression of two PAX family genes, PAX7 and PAX6, in avian brains. Nomura T, et al. **Dev Growth Differ** 1998 Oct;40(5):485–95

Manipulation of the angiopoietic/hemangiopoietic commitment in the avian embryo. Pardanaud L, et al. **Development** 1999 Feb;126(4):617–27

Only the endophyll-Rauber's sickle complex and not cells derived from the caudal marginal zone induce a primitive streak in the upper layer of avian blastoderms. Callebaut M, et al. **Reprod Nutr Dev** 1998 Jul–Aug;38(4):449–63

GENETICS

High conservation of cis-regulatory elements between quail and human for the Pax-6 gene. Plaza S, et al. **Dev Genes Evol** 1999 Mar;209(3):165–73

QUALITY-ADJUSTED LIFE YEARS

Mental health expectancy—the European perspective: a synopsis of results presented at the Conference of the European Network for the Calculation of Health Expectancies (Euro-REVES). Medical Research Council Cognitive Function and Ageing Study Group. Jagger C, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):85–91

Chondral lesions of the knee: comparisons of treatments and treatment costs [letter; comment] Frost JD. **Am J Orthop** 1999 Jun;28(6):374. Comment on: Am J Orthop 1998 Nov;27(11):739–44.

Chondrocyte implantation in the repair of chondral lesions of the knee: economics and quality of life [see comments] Minas T. **Am J Orthop** 1998 Nov;27(11):739–44. Comment in: Am J Orthop 1999 Jun;28(6):374.

Cost-utility model comparing docetaxel and paclitaxel in advanced breast cancer patients. Brown RE, et al. **Anticancer Drugs** 1998 Nov;9(10):899–907

How should different life expectancies be valued? Existential model may be better than scale that uses quality adjusted life years [letter; comment] Benson T. **BMJ** 1998 Oct 24; 317(7166):1155. Comment on: BMJ 1998 Apr 25;316(7140):1316.

Economics notes: handling uncertainty in economic evaluation. Briggs A. **BMJ** 1999 Jul 10;319(7202):120

How should different life expectancies be valued? Diminishing marginal utility and discounting future effects have similar consequences [letter; comment] Brouwer W, et al. **BMJ** 1998 Oct 24;317(7166):1155. Comment on: BMJ 1998 Apr 25;316(7140):1316.

Rationing. Better variables than QALYs in decision making may become apparent [letter; comment] Heasell S. **BMJ** 1999 Apr 3;318(7188):941. Comment on: BMJ 1995 Sep 23;311(7008):811. Comment on: BMJ 1998 Oct 10;317(7164):1000–2.

Economic Notes: opportunity cost. Palmer S, et al. **BMJ** 1999 Jun 5;318(7197):1551–2 (9 ref.)

Therapeutic options and cost considerations in the treatment of ischemic heart disease. Cleland JG, et al. **Cardiovasc Drugs Ther** 1998 Oct;12 Suppl 3:225–32

Economic evaluation of cancer treatments: a review of the methods. Brown J. **Clin Oncol (R Coll Radiol)** 1999; 11(2):78–83 (42 ref.)

Survival versus years of healthy life: which is more powerful as a study outcome? Diehr P, et al. **Control Clin Trials** 1999 Jun;20(3):267–79

Toward a broader view of values in cost-effectiveness analysis of health. Menzel P, et al. **Hastings Cent Rep** 1999 May–Jun;29(3):7–15

Health states following head and neck cancer treatment: patient, health-care professional, and public perspectives. Jalukar V, et al. **Head Neck** 1998 Oct;20(7):600–8

A checklist for judging preference-based measures of health related quality of life: learning from psychometrics. Brazier J, et al. **Health Econ** 1999 Feb;8(1):41–51 (51 ref.)

Economic evaluation in schistosomiasis: valuation of health states preferences. A research note. Kirigia JM. **Health Econ** 1998 Sep;7(6):551–6

On the measurement of the nation's equity adjusted health. Lindholm L, et al. **Health Econ** 1998 Nov;7(7):621–8

Incorporating societal concerns for fairness in numerical valuations of health programmes. Nord E, et al. **Health Econ** 1999 Feb;8(1):25–39

Discounting costs and effects: a reconsideration. van Hout BA. **Health Econ** 1998 Nov;7(7):581–94

Calculating the global burden of disease: time for a strategic reappraisal? [editorial] Williams A. **Health Econ** 1999 Feb; 8(1):1–8

A review of the use of health status measures in economic evaluation. Brazier J, et al. **Health Technol Assess** 1999; 3(9):i–iv, 1–164 (1135 ref.)

The measurement of health related quality of life [editorial; comment] Treasure T. **Heart** 1999 Apr;81(4):331–2. Comment on: Heart 1999 Apr;81(4):342–6. Comment on: Heart 1999 Apr;81(4):347–51.

Mechanical ventilation of patients on long-term oxygen therapy with acute exacerbations of chronic obstructive pulmonary disease: prognosis and cost-utility analysis. Añón JM, et al. **Intensive Care Med** 1999 May;25(5):452–7

Deriving a preference-based single index from the UK SF-36 Health Survey. Brazier J, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1115-28

Is axillary lymph node dissection indicated for early-stage breast cancer? A decision analysis. Parmigiani G, et al. **J Clin Oncol** 1999 May;17(5):1465-73

The value of utility: assumptions underlying preferences and quality adjusted life years [editorial] [see comments] Guillemin F. **J Rheumatol** 1999 Sep;26(9):1861-3 (20 ref.) . Comment in: J Rheumatol 1999 Sep;26(9):1859-60.

The value of quality-adjusted life years: commentary on Séguin et al [comment] Esposito TJ. **J Trauma** 1999 Sep; 47(3 Suppl):S104-5. Comment on: J Trauma 1999 Sep;47(3 Suppl):S99-103.

An economic evaluation of trauma care in a Canadian lead trauma hospital [see comments] Séguin J, et al. **J Trauma** 1999 Sep;47(3 Suppl):S99-103. Comment in: J Trauma 1999 Sep;47(3 Suppl):S104-5.

Cost-effectiveness analyses of statistically ineffective treatments [letter; comment] Trippoli S, et al. **JAMA** 1998 Dec 16;280(23):1992-3. Comment on: JAMA 1996 Oct;276(15):1253-8.

Weighing up disability [comment] James KC, et al. **Lancet** 1999 Jul 10;354(9173):87-8. Comment on: Lancet 1999 Jul 10;354(9173):111-5.

Measuring the burden of disease [letter; comment] Morrow RH, et al. **Lancet** 1998 Dec 5;352(9143):1859-61. Comment on: Lancet 1998 Sep 5;352(9130):757-8.

Multiple-informant ranking of the disabling effects of different health conditions in 14 countries. WHO/NIH Joint Project CAR Study Group [see comments] Ustün TB, et al. **Lancet** 1999 Jul 10;354(9173):111-5. Comment in: Lancet 1999 Jul 10;354(9173):87-8.

The danger of applying group-level utilities in decision analyses of the treatment of localized prostate cancer in individual patients. Cowen ME, et al. **Med Decis Making** 1998 Oct-Dec;18(4):376-80

Health-related quality of life in economic evaluations for osteoporosis: whose values should we use? Gabriel SE, et al. **Med Decis Making** 1999 Apr-Jun;19(2):141-8

Conventional and chained standard gambles in the assessment of coronary heart disease prevention and treatment. Canadian Collaborative Cardiac Assessment Group. Lalonde L, et al. **Med Decis Making** 1999 Apr-Jun; 19(2):149-56

The relationship between health-state utilities and the SF-12 in a general population. Lundberg L, et al. **Med Decis Making** 1999 Apr-Jun;19(2):128-40

Holistic versus composite preferences for lifetime treatment sequences for type 2 diabetes. MacKeigan LD, et al. **Med Decis Making** 1999 Apr-Jun;19(2):113-21

Tests of preferential independence in the QALY model. Treadwell JR. **Med Decis Making** 1998 Oct-Dec; 18(4):418-28

Valuing quality of life: results for New Zealand health professionals [see comments] Devlin N, et al. **N Z Med J** 1999 Mar 12;112(1083):68-71. Comment in: N Z Med J 1999 Jun 25;112(1090):239-40.

Quality-adjusted survival (Q-TWiST) analysis of EORTC trial 30853: comparing goserelin acetate and flutamide with bilateral orchiectomy in patients with metastatic prostate cancer. European Organization for Research and Treatment of Cancer. Rosendahl I, et al. **Prostate** 1999 Feb 1;38(2):100-9

Reliability, validity and responsiveness of two multiattribute utility measures in patients with chronic obstructive pulmonary disease. Stavem K. **Qual Life Res** 1999; 8(1-2):45-54

Age-related preferences and age weighting health benefits. Tsuchiya A. **Soc Sci Med** 1999 Jan;48(2):267-76

Monte Carlo estimation of extrapolation of quality-adjusted survival for follow-up studies. Hwang JS, et al. **Stat Med** 1999 Jul 15;18(13):1627-40

[QALY or willingness to pay?] Steurer J. **Schweiz Rundsch Med Prax** 1999 Feb 18;88(8):333-8 **(Ger)**

[Modified cost-benefit analysis takes equity into consideration. Treatment of brain tumors is more cost-effective than hip replacement] Lindholm L, et al. **Lakartidningen** 1999 Jun 2;96(22):2749-54 (Eng. Abstr.) **(Swe)**

QUALITY ASSESSMENT, HEALTH CARE see **QUALITY ASSURANCE, HEALTH CARE**

QUALITY ASSURANCE, HEALTH CARE

The effect of a quality improvement program on paramedic on-scene times for patients with penetrating trauma [see comments] Eckstein M, et al. **Acad Emerg Med** 1999 Mar; 6(3):191-5. Comment in: Acad Emerg Med 1999 Mar;6(3):165-6.

A match made in heaven? Quality-related activities and quality research [editorial; comment] Fernandes CM. **Acad Emerg Med** 1999 Mar;6(3):165-6. Comment on: Acad Emerg Med 1999 Mar;6(3):191-5.

Quality of care in the USA in the 1990s: emphasis areas and stakeholders. McNeil BJ. **Acad Radiol** 1998 Sep;5 Suppl 2:S355-6

An ISO-quality system in the radiology department: a benefit analysis. van den Heuvel J, et al. **Acad Radiol** 1998 Sep; 5 Suppl 2:S441-5

Multimodal hemodynamic neuromonitoring--quality and consequences for therapy of severely head injured patients. Meixensberger J, et al. **Acta Neurochir Suppl (Wien)** 1998; 71:260-2

Clinical impact of quality assurance in an organized cervical screening program. Andrae B, et al. **Acta Obstet Gynecol Scand** 1999 May;78(5):429-35

The quality of VA mental health services. Hoff RA, et al. **Adm Policy Ment Health** 1998 Sep;26(1):45-56

Optimizing vascular access: a team perspective using the National Kidney Foundation-Dialysis Outcomes Quality Initiative Guidelines. Brouwer DJ. **Adv Ren Replace Ther** 1999 Jan;6(1):93-6

The role of the health care team in the implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative Clinical Practice Guidelines. Diamond LH, et al. **Adv Ren Replace Ther** 1999 Jan; 6(1):28-35

An overview of the National Kidney Foundation-Dialysis Outcomes Quality Initiative Implementation. Eknoyan G, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):3-6 (14 ref.)

The impact of the Dialysis Outcomes Quality Initiative Guidelines on the care of the pediatric end-stage renal disease patient. Jabs K, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):97-106

Implementation of the Dialysis Outcomes Quality Initiative Vascular Access Guidelines. Kovalik EC, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):14-7

The role of providers in implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative: Fresenius Medical Care North America perspective. Lazarus JM, et al. **Adv Ren Replace Ther** 1999 Jan; 6(1):59-66

The importance of performance evaluation in implementation of the Dialysis Outcomes Quality Initiative Guidelines. Steinberg EP. **Adv Ren Replace Ther** 1999 Jan;6(1):36-41

The role of patients in the implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative. Swartz MD, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):52-8

Matching alcoholism treatments to client heterogeneity: Project MATCH three-year drinking outcomes. **Alcohol Clin Exp Res** 1998 Sep;22(6):1300-11

Compliance with treatment and follow-up protocols in project MATCH: predictors and relationship to outcome. Mattson ME, et al. **Alcohol Clin Exp Res** 1998 Sep; 22(6):1328-39

Practice still makes perfect [editorial; comment] Jollis JG. **Am Heart J** 1999 Sep;138(3 Pt 1):394-5. Comment on: Am Heart J 1999 Sep;138(3 Pt 1):437-40.

The autopsy as a research tool [letter; comment] Bryant J. **Am J Clin Pathol** 1999 Feb;111(2):281; discussion 282. Comment on: Am J Clin Pathol 1998 Aug;110(2):210-8.

Evaluation of the quality of an injury surveillance system. Macarthur C, et al. **Am J Epidemiol** 1999 Mar 15; 149(6):586-92

A continuous quality improvement initiative reduces inappropriate prescribing of prophylactic antibiotics for endoscopic procedures. O'Connor JB, et al. **Am J Gastroenterol** 1999 Aug;94(8):2115-21

Clinical practice guidelines and performance measures in ESRD. Kliger AS. **Am J Kidney Dis** 1998 Dec;32(6 Suppl 4):S173-6

Introduction to quality improvement. Wish JB. **Am J Kidney Dis** 1998 Dec;32(6 Suppl 4):S161-4

Role of external oversight in quality activities: accreditation, credentialing, licensure, and deemed status. Wish JB. **Am J Kidney Dis** 1998 Dec;32(6 Suppl 4):S177-81

Director, Veterans Integrated Service Network 4: commentary and perspective. Biro LA. **Am J Med Qual** 1999 Jan-Feb;14(1):70

The use of relational databases in the transition from quality assurance to continuous quality improvement: a clinical practice model. Swamidoss CP, et al. **Am J Med Qual** 1998 Winter;13(4):228-39

What is necessary for high-quality discharge summaries? van Walraven C, et al. **Am J Med Qual** 1999 Jul-Aug; 14(4):160-9

Child outcomes when child care center classes meet recommended standards for quality. NICHD Early Child Care Research Network. **Am J Public Health** 1999 Jul; 89(7):1072-7

Surgical teaching quality makes a difference. Blue AV, et al. **Am J Surg** 1999 Jan;177(1):86-9

A solution to the problem of undictated operative reports by residents. Cohen MM, et al. **Am J Surg** 1998 Nov; 176(5):475-80

Thomas G. Orr Memorial Lectureship. The general, general surgeon. Harken AH. **Am J Surg** 1998 Dec;176(6):494-6

External quality assurance--a personal view [letter; comment] Middle J. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):112-4. Comment on: Ann Clin Biochem 1998 Jul;35 (Pt 4):549-50; discussion 552-3.

The hospitalist movement [letter] Hofmann CE. **Ann Intern Med** 1999 Oct 5;131(7):544; discussion 545

The hospitalist movement [letter] Rastegar DA. **Ann Intern Med** 1999 Oct 5;131(7):544; discussion 545

The hospitalist movement [letter] Starr LA. **Ann Intern Med** 1999 Oct 5;131(7):543-4; discussion 545

The hospitalist movement [letter] Wald H. **Ann Intern Med** 1999 Oct 5;131(7):544; discussion 545

Factors associated with preventability, predictability, and severity of adverse drug reactions. Gholami K, et al. **Ann Pharmacother** 1999 Feb;33(2):236-40

Access to quality cancer care: consensus statement of the American Federation of Clinical Oncologic Societies. Edwards MJ. **Ann Surg Oncol** 1998 Oct-Nov;5(7):657-9 (0 ref.)

Using database information in your clinical practice. Dziuban SW Jr. **Ann Thorac Surg** 1999 Aug;68(2):350-2; discussion 374-6

Optimizing the cost-effectiveness of quality assurance in transfusion medicine. AuBuchon JP. **Arch Pathol Lab Med** 1999 Jul;123(7):603-6 (12 ref.)

Assessment of laboratory performance with Streptococcus pneumoniae antimicrobial susceptibility testing in the United States: a report from the College of American Pathologists Microbiology Proficiency Survey Program. Doern GV, et al. **Arch Pathol Lab Med** 1999 Apr; 123(4):285-9

Continuous quality improvement for point-of-care testing using background monitoring of duplicate specimens [see comments] Kilgore ML, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):824-8. Comment in: Arch Pathol Lab Med 1999 Sep;123(9):761.

Performance improvement in transfusion medicine. What do nurses need and want? Mancini ME. **Arch Pathol Lab Med** 1999 Jun;123(6):496-502 (14 ref.)

Frequency of unacceptable results in point-of-care testing [editorial; comment] Witte DL, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):761. Comment on: Arch Pathol Lab Med 1999 Sep;123(9):824-8.

Elderly stroke prevention program(ESP2)--Results of a quality assurance program for the management of hypertension in the elderly in Australian general practices. Beckinsale P, et al. **Aust Fam Physician** 1998 Aug; 27(8):703-7

Improving quality in general practice: qualitative case study of barriers faced by health authorities. Marshall MN. **BMJ** 1999 Jul 17;319(7203):164-7

Clinical quality assurance indicators for oral status and treatment of a group of older adults. Ireland RS. **Br Dent J** 1998 Aug 22;185(4):192-5

Quantitation of carboxyhaemoglobin in blood: external quality assessment of techniques. Barnett K, et al. **Br J Biomed Sci** 1998 Jun;55(2):123-6

Two-dimensional kinetic models for radiotherapy planning quality assurance. Seaby AW, et al. **Br J Radiol** 1999 Feb; 72(854):193-5

Quality assurance in screening programmes. Gray JA, et al. **Br Med Bull** 1998;54(4):983-92 (5 ref.)

External quality assessment of enterovirus detection and typing. European Union Concerted Action on Virus Meningitis and Encephalitis. van Loon AM, et al. **Bull World Health Organ** 1999;77(3):217-23

Damage pattern as a function of radiation quality and other factors. Burkart W, et al. **C R Acad Sci III** 1999 Feb-Mar; 322(2-3):89-101 (18 ref.)

Screening for cervical cancer. Canadian programmatic guidelines. Parboosingh J. **Can Fam Physician** 1999 Feb; 45:383-93 **(Eng, Fre)**

Cervical cancer prevention for all Canadians [editorial] Sellors JW. **Can Fam Physician** 1999 Feb;45:245-7, 252-4 **(Eng, Fre)**

Quality assessment through patient self-report of symptoms prefiberoptic and postfiberoptic bronchoscopy. Diette GB, et al. **Chest** 1998 Nov;114(5):1446-53

Medicolegal implications of the consensus conference, with special attention to the Fifth Antithrombotic Therapy Consensus Conference. McIntyre KM. **Chest** 1998 Nov; 114(5 Suppl):742S-747S

External Quality Assessment of stat test intralaboratory turnaround times. Pilot study from the Members of the Working Group for the Standardization and Promotion of Turnaround Time Control under the Auspices of the Comitato Italiano per la Standardizzazione dei Metodi Ematologici e di Laboratorio. Negri M, et al. **Clin Chem Lab Med** 1998 Nov;36(11):867-70

Clinical Oncology Information Network: from drawing board to reality [editorial; comment] Karp SJ. **Clin Oncol (R Coll Radiol)** 1999;11(1):2-3. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):15-27. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):28-32. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):33-9.

Towards quality assurance of postgraduate training in radiology. Needham G. **Clin Radiol** 1999 Mar;54(3):140-3 (9 ref.)

Effectiveness of the Quick Medical Reference as a diagnostic tool. Lemaire JB, et al. **CMAJ** 1999 Sep 21;161(6):725-8

Consistency across panels of ratings of appropriateness of dental care treatment procedures. Coulter ID, et al. **Community Dent Health** 1998 Jun;15(2):97-104

Qualitative analysis of three case management programs. Schmidt-Posner J, et al. **Community Ment Health J** 1998 Aug;34(4):381-92

Guidelines for quality assurance in multicenter trials: a position paper. Knatterud GL, et al. **Control Clin Trials** 1998 Oct;19(5):477-93

Internal quality assurance of sensitivity of primary screening [letter; comment] Boxer ME. **Cytopathology** 1998 Oct;

9(5):349–50. Comment on: Cytopathology 1998 Jun;9(3):162–70.

A desktop guide to Type 1 (insulin-dependent) diabetes mellitus. European Diabetes Policy Group 1998. **Diabet Med** 1999 Mar;16(3):253–66

Quality of diabetes care, diabetes knowledge and risk of severe hypoglycaemia one and four years after participation in a 5-day structured treatment and teaching programme for intensified insulin therapy. Schiel R, et al. **Diabetes Metab** 1998 Dec;24(6):509–14

Quality assurance in clinical perfusion. Svenmarker S, et al. **Eur J Cardiothorac Surg** 1998 Oct;14(4):409–14

Outpatient care in emergency departments: feasibility and comparison of three strategies for follow-up. Houzard S, et al. **Eur J Emerg Med** 1998 Sep;5(3):335–9

Better by half: hypertension in the elderly and the 'rule of halves': a primary care audit of the clinical computer record as a springboard to improving care. Hooker RC, et al. **Fam Pract** 1999 Apr;16(2):123–8

Toxic and essential elements in fish from Nordic waters, with the results seen from the perspective of analytical quality assurance. Engman J, et al. **Food Addit Contam** 1998 Nov-Dec;15(8):884–92

Beyond the diagnosis of depression [editorial] Lin EH, et al. **Gen Hosp Psychiatry** 1998 Jul;20(4):207–8

Laboratory performance of haemophilia centres in developing countries: 3 years' experience of the World Federation of Hemophilia External Quality Assessment Scheme. Jennings I, et al. **Haemophilia** 1998 Sep; 4(5):739–46

Laboratory diagnosis of hereditary bleeding disorders: external quality assessment. Preston FE. **Haemophilia** 1998; 4 Suppl 2:12–8

Assessing the quality of psychiatric care: research methods and application in clinical practice. Dickey B, et al. **Harv Rev Psychiatry** 1998 Jul-Aug;6(2):88–96 (67 ref.)

Bringing collaboration into the market paradigm. Berenson RA. **Health Aff (Millwood)** 1998 Nov-Dec;17(6):128–37

Performance measures and batting averages [letter; comment] Lied TR. **Health Aff (Millwood)** 1999 Mar-Apr;18(2):260–1 . Comment on: Health Aff (Millwood) 1998 Jul-Aug;17(4):7–25.

Assessing the performance of community systems for children. DuPlessis HM, et al. **Health Serv Res** 1998 Oct; 33(4 Pt 2):1111–42 (84 ref.)

Barriers between guidelines and improved patient care: an analysis of AHCPR's Unstable Angina Clinical Practice Guideline. Agency for Health Care Policy and Research. Katz DA. **Health Serv Res** 1999 Apr;34(1 Pt 2):377–89

Report cards. Cleveland's Phoenix [news] Greene J. **Hosp Health Netw** 1999 Jul;73(7):14, 16

Count on quality. Larkin H. **Hosp Health Netw** 1998 Oct 5;72(19):32–4, 3

Do you hear what I hear? Lumsdon K. **Hosp Health Netw** 1999 Apr;73(4):84

Current issues in mammographic breast cancer screening. Rickard MT. **Hosp Med** 1999 May;60(5):325–8 (25 ref.)

Internal quality control and external quality assurance in the IVF laboratory. Matson PL. **Hum Reprod** 1998 Dec;13 Suppl 4:156–65 (50 ref.)

Good medical practice in antipsychotic pharmacotherapy. Peuskens J. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S35–41 (32 ref.)

Dialysis outcome quality initiative (DOQI) guideline for hemodialysis adequacy. Di Giulio S, et al. **Int J Artif Organs** 1998 Nov;21(11):757–61

Quality improvement measures adopted by the Italian National Health Service. Langiano T, et al. **Int J Artif Organs** 1998 Nov;21(11):726–9

Accreditation manual for nephrology. Oliva D. **Int J Artif Organs** 1998 Nov;21(11):736–40

Quality and accreditation in nephrology. The Italian perspective. Management and quality control. Quintaliani G, et al. **Int J Artif Organs** 1998 Nov;21(11):762–6

Accreditation and certification. Setti Bassanini MC. **Int J Artif Organs** 1998 Nov;21(11):730–5

Reasons for producing guidelines on anemia of chronic renal failure: dialysis outcome quality initiative of the National Kidney Foundation. Triolo G, et al. **Int J Artif Organs** 1998 Nov;21(11):751–6

Medical knowledge, quality of life and accreditation of quality in health care. The perspective of the clinical nephrologist. Zoccali C. **Int J Artif Organs** 1998 Nov; 21(11):717–20

Regional drug information service. Schwarz UI, et al. **Int J Clin Pharmacol Ther** 1999 Jun;37(6):263–8

ACOG criteria set. Quality evaluation and improvement in practice. Tocolysis. Number 34, June 1998 (replaces No. 31, February 1998). Committee on Quality Assessment. American College of Obstetricians and Gynecologists. **Int J Gynaecol Obstet** 1998 Oct;63(1):85–6

Using information systems to measure and improve quality. Bates DW, et al. **Int J Med Inf** 1999 Feb-Mar; 53(2-3):115–24

Variation in health care--the roles of the electronic medical record. Hannan TJ. **Int J Med Inf** 1999 May;54(2):127–36

Quality assurance and iron deficiency in Egypt. Abubaker WA, et al. **Int J Qual Health Care** 1999 Apr;11(2):163–8

A comparative analysis of six audit systems for mental health nursing. Balogh R, et al. **Int J Qual Health Care** 1998 Feb; 10(1):43–52

Bahrain: quality improvement in primary health care. Benjamin S, et al. **Int J Qual Health Care** 1998 Oct; 10(5):448–50

Crossing the boundary: changing mental models in the service of improvement. Berwick DM. **Int J Qual Health Care** 1998 Oct;10(5):435–41

Lot sampling plans in the measure of quality of care indicators. Corbella Jané A, et al. **Int J Qual Health Care** 1999 Apr;11(2):139–45

Competition and quality among managed care plans in the USA. Boston University Health Care Management Program Group. Davidson SM, et al. **Int J Qual Health Care** 1998 Oct;10(5):411–9

Competition in context: the politics of health care reform in Europe. Freeman R. **Int J Qual Health Care** 1998 Oct; 10(5):395–401

Competition and quality in health care: the UK experience. Glennerster H. **Int J Qual Health Care** 1998 Oct; 10(5):403–10

Motivated for improvement. 15th ISQua International Conference on Quality in Health Care, Budapest, Hungary, 7–10 October 1998. Gulácsi L. **Int J Qual Health Care** 1999 Apr;11(2):174–6

Communication and coordination of care among providers. Keyes C. **Int J Qual Health Care** 1999 Apr;11(2):169–70

Assessing the availability of casemix information in hospital database systems in Rio de Janeiro, Brazil. Martins M, et al. **Int J Qual Health Care** 1998 Apr;10(2):125–33

Competition and quality: rhetoric and reality. Maynard A. **Int J Qual Health Care** 1998 Oct;10(5):379–84

International transfer of ideas in 'qualitics': lessons learned from Central Europe [editorial] Nizankowski R. **Int J Qual Health Care** 1998 Aug;10(4):291–3

Quality assurance in dentistry: the Dutch approach. Poorterman JH, et al. **Int J Qual Health Care** 1998 Aug; 10(4):345–50

Quality in consumer-driven health systems. Reinhardt UE. **Int J Qual Health Care** 1998 Oct;10(5):385–94

Reporting comparative results from hospital patient surveys. Rogers G, et al. **Int J Qual Health Care** 1999 Jun; 11(3):251–9

Competition on quality in managed care. Schoenbaum SC, et al. **Int J Qual Health Care** 1998 Oct;10(5):421–6

Understanding physicians' imaging test use in low back pain care: the role of focus groups [see comments] Shye D, et al. **Int J Qual Health Care** 1998 Apr;10(2):83–91. Comment in: Int J Qual Health Care 1998 Apr;10(2):81–2.

Competition and quality: looking for evidence for health care reforms [editorial] Thompson AG. **Int J Qual Health Care** 1998 Oct;10(5):371–3

Competition through physician-managed care: the case for capitated multispecialty group practices. Tillinghast SJ. **Int J Qual Health Care** 1998 Oct;10(5):427–34

Feasibility of a national cholesterol guideline in daily practice. A randomized controlled trial in 20 general practices. van der Weijden T, et al. **Int J Qual Health Care** 1999 Apr;11(2):131–7

A measuring instrument for evaluation of quality systems. Wagner C, et al. **Int J Qual Health Care** 1999 Apr; 11(2):119–30

Quality of care on a stroke rehabilitation ward: the use of urinary incontinence as tracer. Ring H, et al. **Int J Rehabil Res** 1998 Jun;21(2):241–5

A clinician's guide to the use of quality terminology. Working Group on Quality Improvement of the European Society of Intensive Care Medicine. Frutiger A, et al. **Intensive Care Med** 1998 Aug;24(8):860–3

Autopsy: quality assurance in the ICU [see comments] Gut AL, et al. **Intensive Care Med** 1999 Apr;25(4):360–3. Comment in: Intensive Care Med 1999 Apr;25(4):343–4.

Medication errors at the administration stage in an intensive care unit [see comments] Tissot E, et al. **Intensive Care Med** 1999 Apr;25(4):353–9. Comment in: Intensive Care Med 1999 Apr;25(4):341–2.

Should UK emergency physicians undertake diagnostic ultrasound examinations? Robinson NA, et al. **J Accid Emerg Med** 1999 Jul;16(4):248–9 (21 ref.)

The concepts of expectation and satisfaction: do they capture the way patients evaluate their care? Staniszewska S, et al. **J Adv Nurs** 1999 Feb;29(2):364–72

A critical appraisal of the quality of the management of infective endocarditis [see comments] Delahaye F, et al. **J Am Coll Cardiol** 1999 Mar;33(3):788–93. Comment in: J Am Coll Cardiol 1999 Mar;33(3):794–5.

Infective endocarditis: how well are we managing our patients? [editorial; comment] Muhlestein JB. **J Am Coll Cardiol** 1999 Mar;33(3):794–5 (7 ref.). Comment on: J Am Coll Cardiol 1999 Mar;33(3):788–93.

Current status of intraoperative lymphatic mapping and sentinel lymphadenectomy for melanoma: is it standard of care? Morton DL, et al. **J Am Coll Surg** 1999 Aug; 189(2):214–23 (93 ref.)

Quality assurance in the dental profession [see comments] Brothwell DJ. **J Can Dent Assoc** 1998 Nov;64(10):726–31 (37 ref.). Comment in: J Can Dent Assoc 1999 Feb;65(2):80–1.

The Delphi list: a criteria list for quality assessment of randomized clinical trials for conducting systematic reviews developed by Delphi consensus. Verhagen AP, et al. **J Clin Epidemiol** 1998 Dec;51(12):1235–41

Availability of records in an outpatient preanesthetic evaluation clinic. Gibby GL, et al. **J Clin Monit Comput** 1998 Aug;14(6):385–91

A method for assessment of standards of care of anesthesia services in departments with different levels of resources. Montasser AM. **J Clin Monit Comput** 1998 Dec; 14(7-8):465–70

Use of alcohol fixed cytospins protected by 10% polyethylene glycol in immunocytology external quality assurance. Maxwell P, et al. **J Clin Pathol** 1999 Feb; 52(2):141–4

Pharmacist-operated drug information centres in Singapore. Lim LY, et al. **J Clin Pharm Ther** 1999 Feb;24(1):33–42

Image quality assurance for CRT display systems--Part II [editorial] Roehrig H. **J Digit Imaging** 1999 May;12(2):49

Image quality assurance for CRT display systems [editorial] Roehrig H. **J Digit Imaging** 1999 Feb;12(1):1–2

The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. Downs SH, et al. **J Epidemiol Community Health** 1998 Jun; 52(6):377–84

Strategies to improve diabetes care delivery. Peterson KA, et al. **J Fam Pract** 1998 Nov;47(5 Suppl):S55–62 (43 ref.)

Early management of acute stroke in emergency departments: preliminary findings. Florida Medical Quality Assurance, Inc. **J Fla Med Assoc** 1998 Apr;85(1):16–8

On the horizon: newly-developed quality improvement projects. Florida Medical Quality Assurance, Inc. **J Fla Med Assoc** 1998 Apr;85(1):25–6

Physician office-based quality improvement projects. Florida Medical Quality Assurance, Inc. **J Fla Med Assoc** 1998 Apr;85(1):29–30

Health care quality improvement in Florida [editorial] Ashkar F, et al. **J Fla Med Assoc** 1998 Apr;85(1):6–7

HCFA's health care quality improvement program and physicians [editorial] Lapin PJ, et al. **J Fla Med Assoc** 1998 Apr;85(1):8–9

Quality of center day care and attunement between parents and caregivers: center day care in cross-national perspective. van IJzendoorn MH, et al. **J Genet Psychol** 1998 Dec;159(4):437–54

Clinical governance and orthopaedic infection rate [letter] Bignardi GE. **J Hosp Infect** 1999 Aug;42(4):343–4

Improving productivity: a payer/provider debate. Van Slyck A. **J Nurs Adm** 1999 Jan;29(1):51–6

Improving pain management in your health care organization. Collins PM. **J Nurs Care Qual** 1999 Apr; 13(4):73–82; quiz 93–4

Relationships among educational material readability, client literacy, perceived beneficence, and perceived quality. French KS, et al. **J Nurs Care Qual** 1999 Aug;13(6):68–82

The performance measurement matrix: a framework to optimize decision making. Malloch K. **J Nurs Care Qual** 1999 Feb;13(3):1–12

Cultural competence: a priority for performance improvement action. Salimbene S. **J Nurs Care Qual** 1999 Feb;13(3):23–35

Strong performance improvement processes in health care organizations are at a monumental level [editorial] Wilson CK. **J Nurs Care Qual** 1999 Feb;13(3):vii–viii

When there is no benchmark: designing a primary care-based chronic pain management program from the scientific basis up. Donovan MI, et al. **J Pain Symptom Manage** 1999 Jul; 18(1):38–48

How long do prepared epidural solutions remain sterile? McIntosh D, et al. **J Pain Symptom Manage** 1999 Aug; 18(2):137–9

Quality of paediatric IDDM care in Germany: a multicentre analysis. German Paediatric Diabetology Group. Hecker W, et al. **J Pediatr Endocrinol Metab** 1999 Jan-Feb; 12(1):31–8

Uncovering the causes of poor quality pathology laboratory services in acute myocardial infarction. Isouard G. **J Qual Clin Pract** 1998 Dec;18(4):233–9

Initiation of quality improvement activities in mental health services. Tobin M, et al. **J Qual Clin Pract** 1999 Jun; 19(2):111–6

Accuracy of the recording of operative events by the Scottish Morbidity Record 1 (SMR1) for a teaching hospital vascular unit. Raza Z, et al. **J R Coll Surg Edinb** 1999 Apr;44(2):96–8

Impact of a dedicated trauma service on the quality and cost of care provided to injured patients at an urban teaching hospital. Cohen MM, et al. **J Trauma** 1999 Jun;46(6):1114–9

Quality improvement guidelines for percutaneous management of the thrombosed or dysfunctional dialysis access. Standards of Practice Committee of the Society of Cardiovascular & Interventional Radiology. Aruny JE, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):491–8

Primary care physicians should be coordinators, not gatekeepers. Bodenheimer T, et al. **JAMA** 1999 Jun 2; 281(21):2045–9

Applicability and quality of information for answering clinical questions on the Web [letter] Hersh WR, et al. **JAMA** 1998 Oct 21;280(15):1307–8

Low-tech autopsies in the era of high-tech medicine: continued value for quality assurance and patient safety [editorial; comment] [see comments] Lundberg GD. **JAMA** 1998 Oct 14;280(14):1273–4. Comment on: JAMA 1998 Oct 14;280(14):1245–8. Comment in: JAMA 1999 Jun 16;281(23):2181; discussion 2184–5. Comment in: JAMA 1999 Jun 16;281(23):2182; discussion 2184–5. Comment in: JAMA 1999 Jun 16;281(23):2182–3; discussion 2184–5. Comment in: JAMA 1999 Jun 16;281(23):2183; discussion

2184–5. Comment in: JAMA 1999 Jun 16;281(23):2183–4; discussion 2184–5. Comment in: JAMA 1999 Jun 16;281(23):2184–5.
Quality measures and electronic medical systems [editorial; comment] McDonald CJ. **JAMA** 1999 Sep 22–29; 282(12):1181–2. Comment on: JAMA 1999 Sep 22–29;282(12):1184–90.
Service excellence in health care. Mayer T, et al. **JAMA** 1999 Oct 6;282(13):1281–3
Do-it-yourself report on patient privacy [news] Mitka M. **JAMA** 1998 Dec 9;280(22):1897
Renewed efforts to improve the quality of health care [news] Mitka M. **JAMA** 1999 Feb 3;281(5):404
Conference report. Measuring and improving the quality of care in health plans. Berman S.
Jt Comm J Qual Improv 1999 Aug;25(8):434–9
The built environment as a component of quality care: understanding and including the patient's perspective. Fowler E, et al. **Jt Comm J Qual Improv** 1999 Jul; 25(7):352–62
Conference overview: through the patient's eyes—improvement strategies that work. Gerteis M.
Jt Comm J Qual Improv 1999 Jul;25(7):335–42
Patient-centered measurement at an academic medical center. Gooding TD, et al. **Jt Comm J Qual Improv** 1999 Jul;25(7):343–51
Measuring the quality of performance in the management of waiting lists: using cataract surgery as an example [see comments] Hadjistavropoulos HD, et al.
Jt Comm J Qual Improv 1998 Aug;24(8):407–22. Comment in: Jt Comm J Qual Improv 1998 Aug;24(8):423–5.
Clinical performance improvement series. Classic CQI integrated with comprehensive disease management as a model for performance improvement. Joshi MS, et al.
Jt Comm J Qual Improv 1999 Aug;25(8):383–95
AMA Clinical Quality Improvement Forum ties it all together: from guidelines to measurement to analysis and back to guidelines. Kaegi L. **Jt Comm J Qual Improv** 1999 Feb;25(2):95–106
The year 2000 problem: how will it affect health care quality improvement? An interview with David Kibbe [interview by Stephen Berman] Kibbe D. **Jt Comm J Qual Improv** 1998 Nov;24(11):653–7
Moving out of the red zone: addressing staff allocation to improve patient satisfaction. Luther KM, et al.
Jt Comm J Qual Improv 1999 Jul;25(7):363–8
Reducing inappropriate restraint use in Colorado's long-term care facilities. Palmer L, et al. **Jt Comm J Qual Improv** 1999 Feb;25(2):78–94
Improving health care, Part 5: Applying the Dartmouth clinical improvement model to community health. Speroff T, et al. **Jt Comm J Qual Improv** 1998 Dec;24(12):679–703
High-quality clinical databases: breaking down barriers [see comments] Black N. **Lancet** 1999 Apr 10;353(9160):1205–6 . Comment in: Lancet 1999 Jul 3;354(9172):75.
Reproducibility of magnetic resonance imaging measurements of spinal cord atrophy: the role of quality assurance. Leary SM, et al. **Magn Reson Imaging** 1999 Jun; 17(5):773–6
FOCUS on preparation for RSV season. Kempker-Russell MK. **MCN Am J Matern Child Nurs** 1999 Sep–Oct; 24(5):226–9
Diode verification of routine electron-beam treatments. Frye DM, et al. **Med Dosim** 1999 Spring;24(1):43–8
Commissioning, clinical implementation and quality assurance of Siemen's Virtual Wedge. Rathee S, et al.
Med Dosim 1999 Summer;24(2):145–53
Can medical students contribute to quality assurance programmes in day surgery? Rudkin GE, et al.
Med Educ 1999 Jul;33(7):509–14
The effects of bonus payments on emergency service performance in Victoria [see comments] Cameron PA, et al. **Med J Aust** 1999 Sep 6;171(5):243–6. Comment in: Med J Aust 1999 Sep 6;171(5):231–2.
Putting patient care first when group practices break down [letter] [see comments] Thomson A. **Med J Aust** 1998 Nov 2;169(9):504. Comment in: Med J Aust 1999 Apr 5;170(7):343. Comment in: Med J Aust 1999 Apr 5;170(7):343–4.
American Association of Physicists in Medicine Radiation Therapy Committee Task Group 53: quality assurance for clinical radiotherapy treatment planning. Fraass B, et al.
Med Phys 1998 Oct;25(10):1773–829 (81 ref.)
The American health care system—the movement for improved quality in health care. Bodenheimer T.
N Engl J Med 1999 Feb 11;340(6):488–92
The unintended consequences of measuring quality on the quality of medical care. Casalino LP. **N Engl J Med** 1999 Oct 7;341(15):1147–50
The relation between volume and outcome in health care [letter] Sheikh K. **N Engl J Med** 1999 Sep 30;341(14):1085–6
Clinical utility of anticardiolipin antibody assays: high inter-laboratory variation and limited consensus by participants of external quality assurance programs signals a cautious approach. Favaloro EJ, et al. **Pathology** 1999 May;31(2):142–7
Quality assurance criteria. American Academy of Pediatric Dentistry. **Pediatr Dent** 1999–00;21(5 Spec No):97–114
Quality assurance criteria. American Academy of Pediatric Dentistry. **Pediatr Dent** 1998 Nov;20(6):89–123
The Vermont Oxford Network: evidence-based quality improvement for neonatology. Horbar JD. **Pediatrics** 1999 Jan;103(1 Suppl E):350–9 (49 ref.)
Reducing cesarean birth rates with data-driven quality improvement activities. Main EK. **Pediatrics** 1999 Jan;103(1 Suppl E):374–83
Administrative data for quality improvement. Schwartz RM, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):291–301 (30 ref.)
Family planning programs: improving quality. Kols AJ, et al. **Popul Rep J** 1998 Nov;(47):1–39
Actual vs perceived EMS response time. Harvey AL, et al.
Prehosp Emerg Care 1999 Jan-Mar;3(1):11–4
NMHA, NAMI launch separate initiatives to improve community care for adults with severe mental illness. National Mental Health Association. National Alliance for the Mentally Ill [news] **Psychiatr Serv** 1998 Dec;49(12):1636
Quality assurance in mammography: artifact analysis. Hogge JP, et al. **Radiographics** 1999 Mar-Apr;19(2):503–22 (15 ref.)
Technique charts: an indispensable tool. Eastman TR.
Radiol Technol 1999 Jan-Feb;70(3):301–2
Quality control and artifacts in mammography. Newman J. **Radiol Technol** 1998 Sep–Oct;70(1):61–76; quiz 77–80 (27 ref.)
Improve quality in nursing homes or institute community placement? Implementation of OBRA for individuals with mental retardation. Spreat S, et al. **Res Dev Disabil** 1998 Nov-Dec;19(6):507–18
Der Impact Faktor: Eine kritische Analyse. The impact factor: a critical analysis [letter; comment] Hoeffel C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):615. Comment on: Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Sep;169(3):220–6.
Quality assurance of secondary prevention—a solution to better implementation of guidelines [editorial] Erhardt L, et al. **Scand Cardiovasc J** 1999;33(1):3–4
Quality assurance of semen analysis in multicenter studies. Asclepios. Giwercman A, et al.
Scand J Work Environ Health 1999;25 Suppl 1:23–5; discussion 76–8
The construct validity of empowerment among consumers of mental health services. Corrigan PW, et al.
Schizophr Res 1999 Jul 27;38(1):77–84
A 2 year follow-up of NHS Executive Letter 95/120: where is the commitment to quality? Brown SW, et al.
Seizure 1999 Apr;8(2):128–31
Confidential regional enquiry into mature stillbirths and neonatal deaths—a multi-disciplinary peer panel perspective of the perinatal care of 238 deaths. Tan KH, et al. **Singapore Med J** 1999 Apr;40(4):251–5
HIT '91 (prospective, co-operative study for the treatment of malignant brain tumors in childhood): accuracy and acute toxicity of the irradiation of the craniospinal axis. Results of the quality assurance program. Kortmann RD, et al. **Strahlenther Onkol** 1999 Apr;175(4):162–9
Medical aspects of quality assurance in brachytherapy. Kovács G. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:47–9
Initial experience with quality assurance of multi-institutional 3D radiotherapy clinical trials. A brief report. Purdy JA, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:40–2
A quality assurance program in stereotactic radiosurgery using the Gamma Knife unit. Stuecklschweiger GF, et al.
Strahlenther Onkol 1998 Oct;174 Suppl 2:43–6
Improving the use of therapeutic drug monitoring. Bates DW. **Ther Drug Monit** 1998 Oct;20(5):550–5 (26 ref.)
Precision and accuracy of the measurement of antiepileptic drugs in South Africa. Chetty M, et al.
Ther Drug Monit 1999 Apr;21(2):215–8
Assays for therapeutic monitoring and pharmacokinetic investigations of aminoglycosides: quality aspects. White LO. **Ther Drug Monit** 1998 Oct;20(5):464–8
Validation of a quality assurance program for autologous cultured chondrocyte implantation. Mayhew TA, et al.
Tissue Eng 1998 Fall;4(3):325–34
Quality assessment of platelet concentrates supplemented with second-messenger effectors. Rivera J, et al.
Transfusion 1999 Feb;39(2):135–43
Flaws in the out-patient flow at a semi-rural hospital in northern Namibia. Meguid T, et al. **Trop Doct** 1999 Apr; 29(2):80–5
Quality control by portal film analysis in radiotherapy for prostate cancer: a comparison between two different institutions and treatment techniques. Italia C, et al.
Tumori 1998 Nov-Dec;84(6):640–8
Professional conduct: is self-regulation the answer? [news] **Vet Rec** 1998 Oct 24;143(17):459–60
Quality measurement in women's health. Panel discussion. Gonen JS. **Womens Health Issues** 1999 Mar-Apr; 9(2):93–106
WHO Expert Committee on Specifications for Pharmaceutical Preparations.
World Health Organ Tech Rep Ser 1999;885:i–vi, 1–156
[Quality assurance of antibiotic therapy at the Hvidovre Hospital. Results of an audit project] Christensen LB, et al. **Ugeskr Laeger** 1998 Oct 26;160(44):6345–8 **(Dan)**
[Ten years with—and without—quality databases and evidence (editorial)] de Neergaard L. **Ugeskr Laeger** 1999 Jun 21;161(25):3813 **(Dan)**
[Quality assurance of antibiotic utilization (editorial)] Gahrn-Hansen B, et al. **Ugeskr Laeger** 1998 Oct 26; 160(44):6330 **(Dan)**
[Departments of internal medicine—there is a need to develop clinical working routines and organization (editorial)] Gjørup T. **Ugeskr Laeger** 1998 Oct 5; 160(41):5917 **(Dan)**
[Quality assurance and quality development of the patho-anatomical specimens of resected colorectal carcinoma] Holck S, et al. **Ugeskr Laeger** 1999 Aug 2; 161(31):4406–9 **(Dan)**
[From quality circles to evidence-based clinical practice—a status article on quality development. I. Concepts, methods and strategies] Kjaergaard J, et al. **Ugeskr Laeger** 1998 Nov 9;160(46):6638–43 (31 ref.) (Eng. Abstr.) **(Dan)**
[From quality circles to evidence-based clinical practice—a status article on quality development. III. Responsibility and tasks] Knudsen JL, et al. **Ugeskr Laeger** 1998 Nov 23;160(48):6945–50 (34 ref.) **(Dan)**
[From quality cycles to evidence-based clinical practice—status articles on quality development. II. Clinical guidelines] Mainz J, et al. **Ugeskr Laeger** 1998 Nov 16;160(47):6806–10 **(Dan)**
[More power to the patients will improve treatment quality (letter)] Pettersson G. **Ugeskr Laeger** 1998 Oct 26; 160(44):6366 **(Dan)**
[Visits by consultants and its effect on the clinical work and patient exchange. A Cochrane review of "outreach visits"] Vedsted P, et al. **Ugeskr Laeger** 1998 Dec 7;160(50):7243–5 **(Dan)**
[Reproducibility of histoprognostic grades of invasive breast cancer] Jacquemier J, et al. **Ann Pathol** 1998 Nov; 18(5):385–90 (Eng. Abstr.) **(Fre)**
[A quality control program for radiotherapy in Hodgkin's disease] Hennequin C, et al. **Cancer Radiother** 1999 Mar-Apr;3(2):187–90 (Eng. Abstr.) **(Fre)**
[Five years of DiabCare—France: assessment and outlook] Kleinebreil L, et al. **Diabetes Metab** 1998 Nov;24 Suppl 3:8–12 (Eng. Abstr.) **(Fre)**
[Quality. Can the quality management of industry be used in university hospital center departments? (editorial)] Duvauferrier R. **J Radiol** 1999 Apr;80(4):347–8 **(Fre)**
[Medical audit: influenza. Group of Physicians for Quality Assurance, Fribourg] Carrel J.
Rev Med Suisse Romande 1999 Mar;119(3):249–50 **(Fre)**
[Quality assurance in dentistry (news)] Salvi G, et al.
Schweiz Monatsschr Zahnmed 1999;109(4):416–7, 444–5 **(Fre, Ger)**
[Clinical research, evaluation of care and quality assurance] Girard F, et al. **Therapie** 1998 Nov–Dec;53(6):559–63 (Eng. Abstr.) **(Fre)**
[Quality in training] Hergon E, et al. **Transfus Clin Biol** 1999 Apr;6(2):131–5 (Eng. Abstr.) **(Fre)**
[Continuous improvement of quality and implementation of a system for notification of noncompliance] Roussel P.
Transfus Clin Biol 1999 Apr;6(2):136–41 (Eng. Abstr.) **(Fre)**
[Recommendations for medical specialist continuing education towards the DGAI and OGARI. Documentation and quality assurance in anesthesia] Benson M, et al.
Anasthesiol Intensivmed Notfallmed Schmerzther 1999 Jul; 34(7):415–37 **(Ger)**
[Physical parameters of extracorporeal shock waves] Maier M, et al. **Biomed Tech (Berl)** 1998 Oct;43(10):269–74 (Eng. Abstr.) **(Ger)**
[Quality assurance of Doppler color ultrasound equipment] Thiele C, et al. **Biomed Tech (Berl)** 1998;43 Suppl:216–7 **(Ger)**
[Mirror, mirror on the wall.... (editorial)] Schumpelick V.
Chirurg 1998 Dec;69(12):1291 **(Ger)**
[Introduction of intracytoplasmic sperm injection not rushed. Comment on M. Heisenberg: "Intracytoplasmic sperm injection and quality of the embryos"] Würfel W, et al.
Fortschr Med 1998 Jul 20;116(20–21):18–20, 22 **(Ger)**
[The "Qualified Detoxification Treatment of Drug Dependent Patients" Federal Model Project in a general hospital: concept, investments and clinical results] Backmund M, et al. **Gesundheitswesen** 1998 Oct;60(10):552–7 (Eng. Abstr.) **(Ger)**
[Quality and identity of terminal care in the hospital exemplified by the SPES VIVA Palliative Project] Hardinghaus W, et al. **Gesundheitswesen** 1999 Apr; 61(4):203–6 (Eng. Abstr.) **(Ger)**
[Quality management of health examinations of schoolchildren—factors influencing the quality of documentation of preliminary examinations before school admittance] Knispel C, et al. **Gesundheitswesen** 1999 Jun; 61(6):303–11 (Eng. Abstr.) **(Ger)**
[Patient satisfaction-subjective quality assessment by patients and success factor for clinics] Olandt H, et al.
Gesundheitswesen 1998 Dec;60(12):721–8 (Eng. Abstr.) **(Ger)**
[Criteria for evaluating guidelines in medical care]
Hautarzt 1998 Oct;48 Suppl 1:AVI–AVII **(Ger)**
["Quality assurance in surgical and oncological dermatology" (letter; comment)] Weber K. **Hautarzt** 1998 Jul;49(7):598. Comment on: Hautarzt 1997 Oct;48(10):705–6. **(Ger)**
[Digital image archiving—concept of digital image and video documentation in ENT. A contribution to quality assurance] Schmidt H, et al. **HNO** 1999 Jun;47(6):541–5 (Eng. Abstr.) **(Ger)**
[Standardized computer-based documentation system for diagnoses and medical performance in orthopedics and traumatology. Development and initial application] Deimel D, et al. **Orthopade** 1999 Mar;28(3):285–91 (Eng. Abstr.) **(Ger)**
[Nomenclature and classification of complications. Standard procedure at the Heidelberg University Orthopedic Clinic]

Krämer KL, et al. **Orthopade** 1999 Mar;28(3):299–311 (Eng. Abstr.) **(Ger)**

[Documentation. A prerequisite for quality management] Krämer KL. **Orthopade** 1999 Mar;28(3):191–200 (59 ref.) (Eng. Abstr.) **(Ger)**

[Documentation and quality management--a current standard (editorial)] Krämer KL, et al. **Orthopade** 1999 Mar;28(3):189–90 **(Ger)**

[Quality management. Concepts and application in orthopedics] Schleberger R, et al. **Orthopade** 1999 Mar; 28(3):250–60 (Eng. Abstr.) **(Ger)**

[Operationalized psychodynamic diagnosis in childhood and adolescence--a contribution to quality assurance] Resch F, et al. **Prax Kinderpsychol Kinderpsychiatr** 1998 Jul–Aug; 47(6):373–86 (Eng. Abstr.) **(Ger)**

[Quality indicators of patient treatment of schizophrenic patients. Results of a pilot study for external quality assurance using tracer diagnosis] Janssen B, et al. **Psychiatr Prax** 1998 Nov;25(6):303–9 (Eng. Abstr.) **(Ger)**

[Quality assurance in a psychiatric day clinic. A catamnestic study with goal attainment scaling] Jost U, et al. **Psychiatr Prax** 1998 Nov;25(6):296–302 (Eng. Abstr.) **(Ger)**

[Quality assurance in the psychiatric clinic. How can therapy outcome be assessed in a preferably easy manner?] Wetterling T, et al. **Psychiatr Prax** 1998 Nov;25(6):291–5 (Eng. Abstr.) **(Ger)**

[Theories on psychotherapy in Germany (editorial)] Senf W, et al. **Psychother Psychosom Med Psychol** 1999 Jan; 49(1):2–4 **(Ger)**

[Indications for evaluation scales in quality assurance in rehabilitation--16] Greve J. **Rehabilitation (Stuttg)** 1998 Nov;37(4):XLI–LI (Eng. Abstr.) **(Ger)**

[Mortality and morbidity conference in radiology] Berthold LD, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):585–9 (Eng. Abstr.) **(Ger)**

[MRI follow-up in multiple sclerosis. A guideline for quality assurance] Gass A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):581–6 (51 ref.) (Eng. Abstr.) **(Ger)**

[Quality measures in interventional radiology] Heuser L. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):131–6 (18 ref.) (Eng. Abstr.) **(Ger)**

[Quality standards for hospital hygiene in intermediate and large hospitals in Switzerland: a recommended concept] Sax H, et al. **Schweiz Med Wochenschr** 1999 Feb 20; 129(7):276–84 (Eng. Abstr.) **(Ger)**

[Quality assurance in dentistry (news)] Brägger U. **Schweiz Monatsschr Zahnmed** 1999;109(3):300–2, 338–9 **(Ger, Fre)**

[Quality assurance in dentistry (news)] Brägger U. **Schweiz Monatsschr Zahnmed** 1999;109(5):546–7, 587–8 **(Ger, Fre)**

[Quality aspects in internal medicine--from anamnesis to meta-analysis] Battegay M, et al. **Schweiz Rundsch Med Prax** 1998 Dec 24;87(51–52):1785–92 (22 ref.) (Eng. Abstr.) **(Ger)**

[Quality assurance in inpatient psychosomatic treatment and rehabilitation] Rüddel H. **Schweiz Rundsch Med Prax** 1998 Sep 23;87(39):1248–51 (Eng. Abstr.) **(Ger)**

[Dealing with errors in medicine] Schoenenberger RA, et al. **Schweiz Rundsch Med Prax** 1998 Dec 24; 87(51–52):1793–7 (23 ref.) (Eng. Abstr.) **(Ger)**

[Quality assurance in radio-oncology/radiotherapy: basic considerations] Seegenschmiedt MH, et al. **Schweiz Rundsch Med Prax** 1999 Mar 18;88(12):526–32 (Eng. Abstr.) **(Ger)**

[A method of quality assurance of dynamic wedges] Schmidt EL, et al. **Strahlenther Onkol** 1999 Jan;175(1):39–41 (Eng. Abstr.) **(Ger)**

[Systematic scientific quality improvement in surgical specialties. The AQS mode] Rageth JC, et al. **Swiss Surg** 1999;5(2):62–72 (23 ref.) (Eng. Abstr.) **(Ger)**

[Quality of emergency ventilation. A prospective study of trauma patients] Helm M, et al. **Unfallchirurg** 1999 May; 102(5):347–53 (Eng. Abstr.) **(Ger)**

[Management of polytrauma patients in an international comparison] Oestern HJ. **Unfallchirurg** 1999 Feb; 102(2):80–91 (60 ref.) (Eng. Abstr.) **(Ger)**

[Quality improvement in management of polytrauma patients (editorial)] Oestern HJ. **Unfallchirurg** 1999 Feb;102(2):79 **(Ger)**

[Dynamic gait analysis. Means for quality assurance after surgically treated ankle joint fractures] Schmidt R, et al. **Unfallchirurg** 1999 Feb;102(2):110–4 (Eng. Abstr.) **(Ger)**

[Replacement of the anterior cruciate ligament. Biomechanical studies for patellar and semitendinosus tendon fixation with a poly(D,L-lactide) interference screw] Weiler A, et al. **Unfallchirurg** 1999 Feb; 102(2):115–23 (Eng. Abstr.) **(Ger)**

[An online information system "LEITLINIEN-IN-FO"--a contribution to quality management in health care] Lampert U, et al. **Z Arztl Fortbild Qualitatssich** 1999 Jan; 93(1):39–44 (Eng. Abstr.) **(Ger)**

[Final and causal foundations of medical practice--two achievements of evidence-based medicine] Raspe H, et al. **Z Arztl Fortbild Qualitatssich** 1999 Jun;93(4):272 **(Ger)**

[Quality assurance regarding cooperation between general practitioners and psychiatric services] Spiessl H, et al. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):129–33 (Eng. Abstr.) **(Ger)**

[Mucoviscidosis quality assurance. Problems, success and prospects 1995–1998] Stern M, et al. **Z Arztl Fortbild Qualitatssich** 1998 Sep;92(7):513–9 (Eng. Abstr.) **(Ger)**

[Recommendations for clinicopathologic quality standards in gastroenterology and hepatology. Consensus report of the Austrian Society of Gastroenterology ahd Hepatology and the Austrian Society of Pathology] Wrba F, et al. **Z Gastroenterol** 1998 Oct;36(10):917–23 (5 ref.) **(Ger)**

[Quality assurance in endoprosthetics (letter; comment)] Willert HG. **Z Orthop Ihre Grenzgeb** 1998 Nov–Dec; 136(6):574. Comment on: Z Orthop Ihre Grenzgeb 1998 Mar–Apr;136(2):95–6. **(Ger)**

[Workshop on quality management in rheumatology. Eisenach, 22–24 May 1998. Abstracts] **Z Rheumatol** 1998 Dec;57(6):409–55 **(Ger)**

[Quality recommendations of the German Society of Rheumatology. Basis for further responsibilities] Keitel W. **Z Rheumatol** 1998 Oct;57(5):355–7 (17 ref.) (Eng. Abstr.) **(Ger)**

[Value of ultrasound in diagnosis of appendicitis. Results of the East German Multicenter Study. East German Working Group "Outcome Assessment and Quality Assurance in Surgery" of the CAQ of the German Society of Surgery] Marusch F, et al. **Zentralbl Chir** 1998;123 Suppl 4:29–31 (Eng. Abstr.) **(Ger)**

[Quality assurance under professional law and law relating to health services physicians and doctors] Ratzel R. **Zentralbl Gynakol** 1998;120(12):581–3 (8 ref.) (Eng. Abstr.) **(Ger)**

[Quality assurance and risk management in gynecology and obstetrics] Ulsenheimer K. **Zentralbl Gynakol** 1998; 120(12):593–7 (4 ref.) (Eng. Abstr.) **(Ger)**

[Analysis of the activity of neurologic intensive care units] Szirmai I, et al. **Orv Hetil** 1999 May 2;140(18):979–86 (Eng. Abstr.) **(Hun)**

[Effective use of a laboratory database: quality assurance and laboratory workflow applications] Kondoh T, et al. **Rinsho Byori** 1998 Nov;46(11):1121–7 (Eng. Abstr.) **(Jpn)**

[Undiagnosed microinvasive carcinomas of the prostate] Berner A, et al. **Tidsskr Nor Laegeforen** 1998 Sep 20; 118(22):3408–12 (Eng. Abstr.) **(Nor)**

[Quality assurance of psychiatric consultations in somatic hospitals] Bille H, et al. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4213–5 (Eng. Abstr.) **(Nor)**

[Use of neonatal database at a central hospital] Danielsen KE. **Tidsskr Nor Laegeforen** 1999 Aug 30;119(20):2998–9 (Eng. Abstr.) **(Nor)**

[Perinatal deaths in the county of Ostfold 1989–97] Fossen D, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1272–5 (Eng. Abstr.) **(Nor)**

[Variation in hospital mortality should be seriously considered] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1418 **(Nor)**

[Leadership of hospital departments and professional conflicts. Quality strategy is the solution!] Helsingen N. **Tidsskr Nor Laegeforen** 1998 Sep 10;118(21):3319 **(Nor)**

["The great idea" of Tony Blair] Helsingen N. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4253 **(Nor)**

[Management of minor head injuries in Norwegian hospitals--can the quality be improved?] Ingebrigtsen T, et al. **Tidsskr Nor Laegeforen** 1999 May 20;119(13):1874–6 (Eng. Abstr.) **(Nor)**

[Quality assurance of department administration] Lichtenberg SM, et al. **Tidsskr Nor Laegeforen** 1999 Mar 10;119(7):983–6 (10 ref.) **(Nor)**

[Hospital without patients? (letter; comment)] Opsahl R. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1507–8. Comment on: Tidsskr Nor Laegeforen 1999 Mar 10;119(7):918. **(Nor)**

[Quality assurance, control attitude and legal rights (letter)] Stensland P, et al. **Tidsskr Nor Laegeforen** 1999 Feb 20; 119(5):704–5 **(Nor)**

[Quality assessment of radiological diagnostic examinations from the perspective of radiological protection] Staniszewska MA. **Med Pr** 1999;50(1):15–23 (Eng. Abstr.) **(Pol)**

[Patient satisfaction as an index of the quality of medical care (according to data of a sociologic survey)] Abashin NN. **Probl Sotsialnoi Gig Istor Med** 1998 Sep–Oct;(5):31–3 (Eng. Abstr.) **(Rus)**

[Conceptual substantiation of the application of the systems approach to assessment of the quality of medical care] Togunov IA. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):45–8 (Eng. Abstr.) **(Rus)**

[Analysis of tuberculosis quality diagnosis by autopsy data] Ubaidullaev AM, et al. **Probl Tuberk** 1998;(6):7–10 (Eng. Abstr.) **(Rus)**

[Medicine and industry learning from each other] Mašić I, et al. **Med Arh** 1998;52(4):239–40 (Eng. Abstr.) **(Scr)**

[Quality assessment in primary health care] Nikšić D, et al. **Med Arh** 1998;52(3):147–51 (Eng. Abstr.) **(Scr)**

[Health data and quality registries can learn from each other] Allebeck P. **Lakartidningen** 1999 Sep 1;96(35):3632–4 **(Swe)**

[New documentation routines in psychiatry in Västerbotten: unified structure for better quality of care] Andersen T, et al. **Lakartidningen** 1999 Apr 28;96(17):2102–6 (Eng. Abstr.) **(Swe)**

[Quality projects of the Swedish registry on heart surgery. To study other clinics is to learn, not to judge] Arén C. **Lakartidningen** 1999 May 19;96(20):2498–502 **(Swe)**

[Criticism of a coronary disease study is concerning the methods used (letter)] Berglund U, et al. **Lakartidningen** 1999 Mar 24;96(12):1427 **(Swe)**

[Functioning quality assurance system requires and active interest of all involved!] Björgell A, et al. **Lakartidningen** 1999 Feb 24;96(8):915–6 **(Swe)**

[Sensitive quality indicators stimulate improvement of care] Britton M, et al. **Lakartidningen** 1999 Jan 20;96(3):217–20 (Eng. Abstr.) **(Swe)**

[Quality development in health care--time for strategic choices! Open account challenging but inevitable] Calltorp J. **Lakartidningen** 1999 May 26;96(21):2566–8 (17 ref.) **(Swe)**

[A study in eight counties: can closure of infrequently used emergency service improve quality of care?] Dahlgren S, et al. **Lakartidningen** 1999 Jun 2;96(22):2732–4, 2736, 2738–9 **(Swe)**

[Many years of registration have improved the quality of hip arthroplasty] Herberts P, et al. **Lakartidningen** 1999 May 19;96(20):2469–73, 2475–6 (Eng. Abstr.) **(Swe)**

[High-quality health care requires continuous competence development] Johnson K. **Lakartidningen** 1998 Oct 7; 95(41):4448–9 **(Swe)**

[Quality assurance of blood gas analysis--a medical risk zone] Larsson L, et al. **Lakartidningen** 1999 May 12; 96(19):2368–70, 2373 (Eng. Abstr.) **(Swe)**

[A pilot project to learn quality development: care of patients with recently diagnosed rheumatic arthritis] Lindblad S, et al. **Lakartidningen** 1999 May 19;96(20):2493–6 **(Swe)**

[Quality audit of health care centers stimulates quality assurance work. It has initiated improvements which have been partly accomplished] Lindström K, et al. **Lakartidningen** 1999 Feb 24;96(8):918–9, 922 **(Swe)**

[Better assessment of the patients results in better nursing home care. A new system for development of geriatric care is being introduced] Ljunggren G. **Lakartidningen** 1998 Nov 4;95(45):4997–5000 (27 ref.) **(Swe)**

[Are quality registries such as Riks-Stroke beneficial? (letter; comment)] Marklund SE, et al. **Lakartidningen** 1999 Sep 8;96(36):3756–9. Comment on: Lakartidningen 1999 Jun 2;96(22):2696. **(Swe)**

[Quality assurance of the quality work! Poor basic data can totally twist the results] Nilsson G, et al. **Lakartidningen** 1999 Feb 3;96(5):494–7 (16 ref.) **(Swe)**

[Health care safety should be focused on prevention. Lessons to be learned from aviation, nuclear power plants and offshore industries] Odegård S. **Lakartidningen** 1999 Jun 23;96(25):3068–73 (19 ref.) (Eng. Abstr.) **(Swe)**

[National registries for shoulder and elbow arthroplasties are established] Rahme H, et al. **Lakartidningen** 1999 Jul 28; 96(30–31):3338 **(Swe)**

[Quality registries are a gold-mine of information that should be better used. Knowledge of improvement is acquired by means of special projects] Sachs MA, et al. **Lakartidningen** 1999 May 19;96(20):2438–40 (16 ref.) **(Swe)**

[Follow up of pediatric care is a good resource of knowledge that can be even better] Sjögren LH, et al. **Lakartidningen** 1999 Mar 10;96(10):1201–5 (10 ref.) **(Swe)**

[Stroke unit care saves lives. The Swedish national quality assessment registry of stroke care is the first of its kind in the world] Stegmayr B, et al. **Lakartidningen** 1999 Jun 2;96(22):2719–24, 2726 (Eng. Abstr.) **(Swe)**

[Physicians are needed in palliative home care. Quality of home care should be equivalent to hospital care] Strang P. **Lakartidningen** 1999 Feb 3;96(5):438–9 **(Swe)**

[How to improve the treatment of stroke? (letter)] Swedberg K. **Lakartidningen** 1998 Nov 4;95(45):4962–3 **(Swe)**

[Survey of complications following treatment with anticoagulants. A computerized search for hemorrhagic complications completes manual reporting] Taghavi A, et al. **Lakartidningen** 1999 Aug 11;96(32–33):3421–4 **(Swe)**

[Riks-Stroke with data on stroke shows the benefit of quality registries. Regional initiatives can make it even better (see comments)] Wahlgren NG. **Lakartidningen** 1999 Jun 2; 96(22):2696. Comment in: Lakartidningen 1999 Sep 8;96(36):3756–9. **(Swe)**

[Incidents at a department of anesthesiology: communication problems and deviations from the routines are the most common errors (see comments)] Westling S, et al. **Lakartidningen** 1998 Dec 2;95(49):5644–6. Comment in: Lakartidningen 1999 Feb 10;96(6):580. **(Swe)**

[Attitude of personnel toward incidents at a department of anesthesiology: reporting is important for both patient safety and occupational environment (see comments)] Westling S, et al. **Lakartidningen** 1998 Dec 2;95(49):5648–50 . Comment in: Lakartidningen 1999 Feb 10;96(6):580. **(Swe)**

CLASSIFICATION

Scoring systems in the measurement of performance of ICUs. Miranda DR. **Intensive Care Med** 1999 Apr;25(4):418–9 (4 ref.)

ECONOMICS

The cost of implementing the Dialysis Outcomes Quality Initiative Clinical Practice Guidelines. Wish J, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):67–74 (34 ref.)

Measuring the measurers [letter] Kleinke JD. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):266

Mission unfulfilled: potholes on the road to mental health parity. Mechanic D, et al. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):7–21

Getting the incentives right for children. Glied S. **Health Serv Res** 1998 Oct;33(4 Pt 2):1143–60 (35 ref.)

Controlling workers' compensation medical care use and costs through utilization management. Wickizer TM, et al. **J Occup Environ Med** 1999 Aug;41(8):625–31

More on profit and quality in managed care [letter; comment] Stone AA. **Psychiatr Serv** 1998 Dec;49(12):1620–1. Comment on: Psychiatr Serv 1998 Apr;49(4):415. Comment on: Psychiatr Serv 1998 Sep;49(9):1121.

Guidelines as a strategy for preserving professional autonomy. Lee TH. **Schweiz Med Wochenschr** 1998 Nov 28;128(48):1889–92

Cost controls must not damage quality. Batchlor E, et al. **West J Med** 1999 Jun;170(6):379–80

[Correction offered (letter)] Hasse GF. **Chirurg** 1998 Aug; 69(8):suppl 256 **(Ger)**

[Quality assurance for rational diagnosis and therapy in dermatology] Korting HC, et al. **Hautarzt** 1998 Oct; 49(10):755–61 (19 ref.) (Eng. Abstr.) **(Ger)**

[Economic evaluation within the scope of clinical studies] Walshe R, et al. **Internist (Berl)** 1998 Sep;39(9):943–54 (72 ref.) **(Ger)**

[Janus head manifestation of medical–technical progress] Arnold M. **Med Klin** 1998 Oct 15;93(10):630–4 **(Ger)**

[The duality of medical progress. On the contribution by Arnold M. The Janus head of medical technical progress (letter)] Eigler FW. **Med Klin** 1999 Jun 15;94(6):359 **(Ger)**

[Cost–effectiveness––limits between optimization and rationing] Ruof J, et al. **Z Rheumatol** 1998 Oct;57(5):340–4 (Eng. Abstr.) **(Ger)**

HISTORY

[Constant improvement in Sodertalje Lazarett––the oldest hospital in the county of Stockholm] Fränne M. **Lakartidningen** 1999 Sep 8;96(36):3811 **(Swe)**

LEGISLATION & JURISPRUDENCE

Methods of compliance with Mammography Quality Standards Act regulations for tracking positive mammograms: survey results. Birdwell RL, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):691–6

Performance of the '100 top hospitals': what does the report card report? Chen J, et al. **Health Aff (Millwood)** 1999 Jul–Aug;18(4):53–68

The Children's Health Council: a community foundation/state government partnership. Hall CH, et al. **Health Aff (Millwood)** 1999 Jul–Aug;18(4):167–71

Coroners and lack of emergency department resources. Thompson J. **J Emerg Med** 1999 May–Jun;17(3):541–2

Double standards in Brazilian public hospitals [letter] Scheinberg MA. **Lancet** 1999 Sep 11;354(9182):956

The 1997 amendments to the IDEA: improving the quality of special education for children with disabilities. Annino P. **Ment Phys Disabil Law Rep** 1999 Jan–Feb;23(1):125–8 (53 ref.)

Pitfalls in the pursuit of life, liberty, and happiness. Sundram CJ. **Ment Retard** 1999 Feb;37(1):62–7

Improving the quality of health care. Regulatory realities and hopes [comment] Miller VG. **Milbank Q** 1998; 76(4):745–7. Comment on: Milbank Q 1998 ;76(4):709–31.

The impact of the Mammography Quality Standards Act on the availability of mammography facilities. Fischer R, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):697–701

MQSA: the final rule. Linver M, et al. **Radiol Technol** 1999 Mar–Apr;70(4):338–53; quiz 354–6

Mammography in the 1990s: the United States and Canada. Suleiman OH, et al. **Radiology** 1999 Feb;210(2):345–51

Conducting clinical trials in Singapore. Woo KT. **Singapore Med J** 1999 Apr;40(4):310–3

[Recent disciplinary committee rulings foster defensive medicine (letter; comment)] de Melker RA. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2698. Comment on: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1854–5. **(Dut)**

[Plea for a graft (editorial)] Boitte JP, et al. **J Fr Ophtalmol** 1998 Jan;21(1):5–11 (Eng. Abstr.) **(Fre)**

[Compliance with regulations for medical records in 15 Aquitaine public health facilities. Aquitaine DIM Physician's Group] Michel P, et al. **Presse Med** 1998 Nov 28;27(37):1884–9 (Eng. Abstr.) **(Fre)**

[Current legal status of bone banks] Heberer J. **Chirurg** 1999 May;70(5):suppl 115–9 **(Ger)**

[Quality assurance (editorial; comment)] Schmelzer A. **HNO** 1998 Oct;46(10):840–1. Comment on: HNO 1998 Oct;46(10):864–9. **(Ger)**

[Indicators for quality evaluation of inpatient patient care in an ENT clinic (see comments)] Streppel M, et al. **HNO** 1998 Oct;46(10):864–9 (15 ref.) (Eng. Abstr.). Comment in: HNO 1998 Oct;46(10):840–1. **(Ger)**

[Commentary. DGPPN recommendation for basic psychiatric documentation] Cording C, et al. **Nervenarzt** 1997 Nov;68(11):930–1 **(Ger)**

[Report on development of standards in treatment and assessment of transsexual patients] Kockott G. **Nervenarzt** 1997 Nov;68(11):920–1 **(Ger)**

[Expert assessment of rehabilitation for social medicine legal experts––a discussion contribution to quality assurance. From the Quality Management Study Group of the German Society of Social Medicine and Prevention] Berg A, et al. **Rehabilitation (Stuttg)** 1999 May;38(2):107–26 **(Ger)**

[Current prenatal care with reference to state of the art knowledge] Vogt HP. **Schweiz Med Wochenschr** 1998 Oct 24;128(43):1654–66 (42 ref.) (Eng. Abstr.) **(Ger)**

[The Geriatric Minimum Data Set (Gemidas) of the Federal Association of Clinical Geriatric Facilities e. V. as an instrument for quality assurance in inpatient geriatrics] Borchelt M, et al. **Z Gerontol Geriatr** 1999 Feb;32(1):11–23 (Eng. Abstr.) **(Ger)**

[Legal aspects of quality assurance in medicine according to SGB V] Igl G. **Z Gerontol Geriatr** 1999 Feb;32(1):3–10 (Eng. Abstr.) **(Ger)**

[Documentation/quality assurance (editorial)] Meier–Baumgartner HP. **Z Gerontol Geriatr** 1999 Feb; 32(1):1–2 **(Ger)**

[Need and possibility for quality management in the rheumatologic specialty practice] Karger T. **Z Rheumatol** 1998 Dec;57(6):410–2 (Eng. Abstr.) **(Ger)**

[Legal and occupational law principles of quality assurance] Mohr W. **Z Rheumatol** 1998 Oct;57(5):332–4 **(Ger)**

METHODS

Quality evaluation of oral health record–keeping for Finnish young adults. Helminen SE, et al. **Acta Odontol Scand** 1998 Oct;56(5):288–92

Practical guide to measuring adequacy of dialysis. Blake PG. **Adv Ren Replace Ther** 1999 Jan;6(1):80–4 (12 ref.)

Combining state administrative databases and provider records to assess the quality of care for children enrolled in Medicaid. Cotter JJ, et al. **Am J Med Qual** 1999 Mar–Apr;14(2):98–104

Patients' desires and expectations for medical care: a challenge to improving patient satisfaction. Zemencuk JK, et al. **Am J Med Qual** 1999 Jan–Feb;14(1):21–7

Patient participation in quality management [editorial] Ziegenfuss JT Jr. **Am J Med Qual** 1999 May–Jun;14(3):109

QA and health education: two methodologies compared. Marinelli G. **Ann Ig** 1999 Jan–Feb;11(1):57–62

Technological developments and approaches to improving service quality. Blumberg MR. **Biomed Instrum Technol** 1999 Jan–Feb;33(1):35–44

Laboratory–based quality assurance programme for near–patient urine dipstick testing, 1990–1997: development, management and results. Tighe P. **Br J Biomed Sci** 1999;56(1):6–15

Improved quality–control detection of false–negative Pap smears using the Autopap 300 QC system. Marshall CJ, et al. **Diagn Cytopathol** 1999 Mar;20(3):170–4

Practical tools for qualitative community–oriented primary care community assessment. Williams RL, et al. **Fam Med** 1999 Jul–Aug;31(7):488–94

Beyond screening: improving the quality of treatment for depression. Wang P. **Harv Rev Psychiatry** 1999 Sep–Oct; 7(3):177–82 (31 ref.)

How are health care organizations using clinical guidelines? Sisk JE. **Health Aff (Millwood)** 1998 Sep–Oct;17(5):91–109

Improving the quality of healthcare for children: implementing the results of the AHSR research agenda conference. Halfon N, et al. **Health Serv Res** 1998 Oct;33(4 Pt 2):955–76

Overview of issues in improving quality of care for children. McGlynn EA, et al. **Health Serv Res** 1998 Oct;33(4 Pt 2):977–1000 (69 ref.)

Assessing the quality of healthcare provided to children. Mangione–Smith R, et al. **Health Serv Res** 1998 Oct;33(4 Pt 2):1059–90 (80 ref.)

Tailored outreach visits as a method for implementing guidelines and improving preventive care. Hulscher ME, et al. **Int J Qual Health Care** 1998 Apr;10(2):105–12

The quality of abstracting medical information from the medical record: the impact of training programmes. Lorenzoni L, et al. **Int J Qual Health Care** 1999 Jun; 11(3):209–13

Performance improvement: a multidimensional model. Wolfersteig J, et al. **Int J Qual Health Care** 1998 Aug; 10(4):351–4

Quality control in health care: an experiment in radiotherapy planning for breast cancer patients after mastectomy. Holli K, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1; 44(4):827–33

Assessing the predictive validity of the RAND/UCLA appropriateness method criteria for performing carotid endarterectomy. Shekelle PG, et al. **Int J Technol Assess Health Care** 1998 Fall;14(4):707–27

Measuring patient satisfaction with nursing care: experience of using the Newcastle Satisfaction with Nursing Scale. Walsh M, et al. **J Adv Nurs** 1999 Feb;29(2):307–15

Evaluation of new products and concepts in dentistry. Christensen GJ. **J Am Dent Assoc** 1999 Sep;130(9):1371–3

Predicting patient satisfaction: a study of two emergency departments. Yarnold PR, et al. **J Behav Med** 1998 Dec; 21(6):545–63

Quality assurance in the dental profession [letter; comment] Fendrich P. **J Can Dent Assoc** 1999 Feb;65(2):80–1. Comment on: J Can Dent Assoc 1998 Nov;64(10):726–31.

The development of ISO 9002 quality management standards for Canadian dental practices. Kenny DJ, et al. **J Can Dent Assoc** 1999 Feb;65(2):105–8

An intranet–based system for quality assurance in surgery. Dugas M, et al. **J Med Syst** 1999 Feb;23(1):13–9

Data–driven quality improvement for HMO patients: one agency's experience with OASIS and OBQI. Adams CE, et al. **J Nurs Adm** 1998 Oct;28(10):20–5

Shaping systems to promote desired outcomes. The magnet hospital model [published erratum appears in J Nurs Adm 1999 Apr;29(4):5] Havens DS, et al. **J Nurs Adm** 1999 Feb; 29(2):14–20

Telling the story of quality: the use of storyboards in nursing units. Hetherington LT. **J Nurs Adm** 1999 Jan;29(1):3, 25

Informatics and process improvement. The clinical design unit. Merryman T, et al. **J Nurs Adm** 1999 Jun;29(6):55–61

Methodological issues in performance improvement in integrated systems. Hatler C, et al. **J Nurs Care Qual** 1999 Feb;13(3):47–58

Using baseline data to improve care of the patient with type 2 diabetes mellitus. Ludwig–Beymer P, et al. **J Nurs Care Qual** 1999 Aug;13(6):1–10

Methodological challenges for measuring quality of care at the end of life. Fowler FJ Jr, et al. **J Pain Symptom Manage** 1999 Feb;17(2):114–9 (7 ref.)

For every numerator, you need a denominator: a simple statement but key to measuring the quality of care of the "dying". Teno JM, et al. **J Pain Symptom Manage** 1999 Feb;17(2):109–13 (9 ref.)

Towards safer drug prescribing, dispensing and administration in hospitals. Thornton PD, et al. **J Qual Clin Pract** 1999 Mar;19(1):41–5

Outcomes in abdominal hysterectomy patients with benign disease. Use of physician–developed clinical protocols. D'Amato LO Jr, et al. **J Reprod Med** 1998 Nov; 43(11):975–85

Measuring and improving quality using information systems. Bates DW, et al. **Medinfo** 1998;9 Pt 2:814–8

Evaluation of medical internet sites. Adelhard K, et al. **Methods Inf Med** 1999 Jun;38(2):75–9

Labeling and filtering of medical information on the Internet. Eysenbach G, et al. **Methods Inf Med** 1999 Jun;38(2):80–8

Is health care ready for Six Sigma quality? Chassin MR. **Milbank Q** 1998;76(4):565–91, 510 (62 ref.)

Improving pharmacotherapy in a psychiatric hospital. Moebius RE, et al. **Psychiatr Serv** 1999 Mar;50(3):335–8

From technical quality assurance of radiotherapy to a comprehensive quality of service management system. Kehoe T, et al. **Radiother Oncol** 1999 Jun;51(3):281–90

Case mix––for better or for worse? Cheah J, et al. **Singapore Med J** 1999 Jan;40(1):9–12

Quality improvement: a practical approach for physicians using the PDSA cycle and physician profiling. Naidoo A, et al. **Tenn Med** 1999 Aug;92(8):293–6

GMP in blood collection and processing. Wagstaff W. **Vox Sang** 1998;74 Suppl 2:513–21 (4 ref.)

Evidence–based medicine and cooperative quality improvement projects. Blustein J, et al. **WMJ** 1999 Mar–Apr;98(2):57–9, 65

Quality of care for women: where are we now and where are we headed? McGlynn EA. **Womens Health Issues** 1999 Mar–Apr;9(2):65–80; discussion 93–106 (22 ref.)

[A method for quality assurance of surgical urologic training. Decentralized registration with centralized statistical processing] Jakobsen H, et al. **Ugeskr Laeger** 1999 Apr 5; 161(14):2086–9 **(Dan)**

[A quality reference manual for radiology (see comments)] de Chambine S, et al. **J Radiol** 1999 Aug;80(8):825–34 (Eng. Abstr.). Comment in: J Radiol 1999 Aug;80(8):823–4. **(Fre)**

[Comparison of accreditation procedures, ISO 9000 certification procedures and total quality management. Personal experiences and application of quality assurance in a department of radiology and medical imaging] Duvauferrier R, et al. **J Radiol** 1999 Apr;80(4):363–7 (Eng. Abstr.) **(Fre)**

[Publication of a tool to aid in the implementation of quality measures in radiology (editorial)] Leclet H. **J Radiol** 1999 Apr;80(4):349 **(Fre)**

[Are there methods for measuring the quality of medical performance? (editorial)] Schoenenberger RA. **Schweiz Rundsch Med Prax** 1998 Sep 23;87(39):1239–40 **(Ger)**

[Food quality assurance in the hospital environment: the calibration of a HACCP system by biennial microbiological monitoring. Hazard analysis critical control point] Jatta E, et al. **Ann Ig** 1998 Sep–Dec;10(5–6):343–50 (Eng. Abstr.) **(Ita)**

[Delphi study of Palmer's quality method in primary care: strong and weak points and areas of utilization] Villatoro Jiménez V, et al. **Aten Primaria** 1998 Sep 15;22(4):199–204 (Eng. Abstr.) **(Spa)**

[New possibilities to measure the quality of rehabilitation. Quality criteria and standards are established] Bjerre I, et al. **Lakartidningen** 1999 Apr 14;96(15):1833–6 **(Swe)**

[Scrutiny and comparison of different quality control models] Lindström K. **Lakartidningen** 1999 Feb 24;96(8):922–3 **(Swe)**

[Quality indicators in health care 1: several unanswered questions on methods] Taube A. **Lakartidningen** 1999 Jun 30;96(26–27):3180–1 **(Swe)**

ORGANIZATION & ADMINISTRATION

Urinary tract infections in children below two years of age:

a quality assurance project in Sweden. The Swedish Pediatric Nephrology Association. Hansson S, et al. **Acta Paediatr** 1999 Mar;88(3):270–4

Franklin County individualized care case rate project. Kamis-Gould E, et al. **Adm Policy Ment Health** 1998 Sep; 26(1):57–64

The "new VA": a national laboratory for health care quality management. Kizer KW. **Am J Med Qual** 1999 Jan–Feb; 14(1):3–20 (108 ref.)

Implementing quality improvement in hospitals: the role of leadership and culture. Parker VA, et al. **Am J Med Qual** 1999 Jan–Feb;14(1):64–9

Assurance opportunities for local health departments. Reid WM, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):128–33 (18 ref.)

The Safe Motherhood Initiative: why has it stalled? Maine D, et al. **Am J Public Health** 1999 Apr;89(4):480–2 (18 ref.)

The Department of Veterans Affairs' NSQIP: the first national, validated, outcome-based, risk-adjusted, and peer-controlled program for the measurement and enhancement of the quality of surgical care. National VA Surgical Quality Improvement Program. Khuri SF, et al. **Ann Surg** 1998 Oct;228(4):491–507

The rise of doctor-patient working groups. Williamson C. **BMJ** 1998 Nov 14;317(7169):1374–7 (31 ref.)

Quality assurance in a diagnostic microbiology laboratory. Gray J. **Commun Dis Public Health** 1999 Sep;2(3):225–6

Improving the care of patients with community-acquired pneumonia: a multihospital collaborative QI project. Metersky ML, et al. **Conn Med** 1999 Jul;63(7):425–31

Embracing quality in critical care. The presidential address from the 27th Educational and Scientific Symposium of the Society of Critical Care Medicine. Taylor RW. **Crit Care Med** 1999 Apr;27(4):832–5

Impact of unified procedures as implemented in the Canadian Quality Assurance Program for T lymphocyte subset enumeration. Participating Flow Cytometry Laboratories of the Canadian Clinical Trials Network for HIV/AIDS Therapies. Bergeron M, et al. **Cytometry** 1998 Oct 1; 33(2):146–55

Intensified treatment and education of type 1 diabetes as clinical routine. A nationwide quality-circle experience in Germany. ASD (the Working Group on Structured Diabetes Therapy of the German Diabetes Association). Müller UA, et al. **Diabetes Care** 1999 Mar;22 Suppl 2:B29–34

Improved trauma care after reorganisation: a retrospective analysis. Alberts KA, et al. **Eur J Surg** 1999 May; 165(5):426–30

National quality of care activities in Germany. Birkner BR. **Int J Qual Health Care** 1998 Oct;10(5):451–4

European Societies for Quality in Healthcare. deBurca S, et al. **Int J Qual Health Care** 1999 Jun;11(3):263–5

Using outcomes to improve quality of research and quality of care. Deyo RA. **J Am Board Fam Pract** 1998 Nov–Dec; 11(6):465–73 (53 ref.)

Implementation and evaluation of stroke clinical pathways and the impact on cost of stroke care. Summers D, et al. **J Cardiovasc Nurs** 1998 Oct;13(1):69–87

Internal quality assurance activities of a surgical pathology department in an Australian teaching hospital. Zardawi IM, et al. **J Clin Pathol** 1998 Sep;51(9):695–9

Community acquired pneumonia--a success story. **J Miss State Med Assoc** 1999 Feb;40(2):73–4

Information and Quality Healthcare update. McIlwain JS. **J Miss State Med Assoc** 1999 Apr;40(4):139–40

Impact of clinical pathways for total hip replacement: a community-based analysis. Card SJ, et al. **J Nurs Care Qual** 1998 Dec;13(2):67–76

Managing the clinic wait: an important quality of care challenge. Rondeau KV. **J Nurs Care Qual** 1998 Dec; 13(2):11–20 (24 ref.)

The development and testing of the patient record pain management assessment tool. Wallace KG, et al. **J Nurs Care Qual** 1999 Apr;13(4):34–46

The uses of comparative information in perinatal care. Gagnon DE. **J Perinatol** 1998 Nov–Dec;18(6 Pt 2 Su):S6–9 (5 ref.)

Increasing government interest in the quality aspects of health care delivery [editorial] **J Qual Clin Pract** 1999 Jun; 19(2):77–8

Improving care for acute myocardial infarction: experience from the Cooperative Cardiovascular Project. The Cooperative Cardiovascular Project Best Practices Working Group. **Jt Comm J Qual Improv** 1998 Sep; 24(9):480–90

A model for collaboration in quality improvement projects: implementing a weight-based heparin dosing nomogram across an integrated health care delivery system. Berry BB, et al. **Jt Comm J Qual Improv** 1998 Sep;24(9):459–69

Quality assurance in linac-based stereotactic radiosurgery and radiotherapy. Rosenzweig DP, et al. **Med Dosim** 1998 Fall;23(3):147–51

The false-negative fraction: a statistical method to measure the efficacy of cervical smear screening laboratories. Dolinar J, et al. **Mil Med** 1999 Jun;164(6):410–1

Total quality management in behavioral health care. Sluyter GV. **New Dir Ment Health Serv** 1998 Fall;(79):35–43 (29 ref.)

Ethics perspectives on end-of-life care. Tilden VP. **Nurs Outlook** 1999 Jul–Aug;47(4):162–7 (88 ref.)

Monitoring data and safety in the WHO Antenatal Care Trial. Bergsjø P, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:156–64

Pediatric research in office settings (PROS): a national practice-based research network to improve children's health care. Wasserman RC, et al. **Pediatrics** 1998 Dec; 102(6):1350–7

Ensuring equipment readiness: the role of checkout procedures, quality assurance programs, and preventive maintenance [letter] Cleland MJ, et al. **Prehosp Emerg Care** 1998 Oct–Dec;2(4):336–7

Post procedural interventional cardiology patients on the progressive care unit. Miller DL. **Prog Cardiovasc Nurs** 1999 Winter;14(1):14–7, 36

The use of audit to improve clinical effectiveness in an infrequent obstetric therapy: magnesium sulphate in severe pre-eclampsia. Taylor GM, et al. **Scott Med J** 1998 Oct; 43(5):151–3

Towards quality of care in child health programmes: a challenge for the partnership in health and social sciences. Kanani S. **Soc Sci Med** 1998 Nov;47(9):1223–30 (16 ref.)

Perioperative antibiotics in nonemergency bowel surgery: a quality improvement project. Schell JA, et al. **South Med J** 1998 Oct;91(10):900–8

Haemovigilance: concept, Europe and UK initiatives. McClelland B, et al. **Vox Sang** 1998;74 Suppl 2:431–9 (5 ref.)

Blood collection and the labile blood components: what should the regulators ask for? Maniatis A, et al. **Vox Sang** 1998;74 Suppl 2:523–5 (6 ref.)

Hemovigilance in the United States of America. Menitove JE. **Vox Sang** 1998;74 Suppl 2:447–55 (68 ref.)

The French haemovigilance system. Noel L, et al. **Vox Sang** 1998;74 Suppl 2:441–5 (0 ref.)

Quality assurance and standards for red cells and platelets. Sweeney J. **Vox Sang** 1998;74 Suppl 2:201–5 (5 ref.)

[Towards an accreditation system for the Dutch hospitals (see comments)] van Gennip EM, et al. **Ned Tijdschr Geneeskd** 1999 Jan 9;143(2):89–93 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Apr 3;143(14):764–5. **(Dut)**

[Audit and standardization of allergologic practices for urticaria] Beeker A, et al. **Allerg Immunol (Paris)** 1999 Mar; 31(3):84–8 (Eng. Abstr.) **(Fre)**

[Assessment of the quality of care and its development in France] Amouretti M. **Gastroenterol Clin Biol** 1998 Jun; 22(5 Suppl):B39–42 **(Fre)**

[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of Quality Assurance General Regime] Marty M. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:224–8 **(Fre)**

[Arguments in favor of a relation between the organization of perinatal care and the optimal management of prematurity and multiple pregnancies] Truffert P. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:85–93 (37 ref.) **(Fre)**

[Quality group of medical practitioners: thoughts on the course of one of the groups in Fribourg] Tesarik AL. **Rev Med Suisse Romande** 1999 Mar;119(3):251–2 **(Fre)**

[Maternal mortality and referral maternities in Morocco: how to (re)motivate professionals?] Péchevis M, et al. **Sante Publique** 1999 Jun;11(2):211–23 (Eng. Abstr.) **(Fre)**

[The new International Standardization Organization 9000 norms: 2000] Arnold J. **Transfus Clin Biol** 1999 Jul; 6(4):247–53 (Eng. Abstr.) **(Fre)**

[The quality audit in a blood transfusion center] Hergon E. **Transfus Clin Biol** 1998 Dec;5(6):422–30 (12 ref.) (Eng. Abstr.) **(Fre)**

[Identification of alloantibodies associated with an autoantibody: profile of 2 quality control programs in French blood transfusion facilities] Mannessier L, et al. **Transfus Clin Biol** 1998 Dec;5(6):385–91 (Eng. Abstr.) **(Fre)**

[Surveillance of biocontamination of the environment of labile blood products: its role in a quality assurance program] Morel P, et al. **Transfus Clin Biol** 1998 Aug; 5(4):251–9 (Eng. Abstr.) **(Fre)**

[What is the use of hemovigilance?] Quaranta JF, et al. **Transfus Clin Biol** 1998 Dec;5(6):415–21 (Eng. Abstr.) **(Fre)**

[Continuing medical education. Quality assurance stage!] Ben Ammar MS, et al. **Tunis Med** 1999 Jun–Jul;77(6–7):327–48 **(Fre)**

STANDARDS

The quality agenda. Williams JL. **Ann R Coll Surg Engl** 1998 Sep;80(5 Suppl):201–5

Joint Commission on Accreditation of Healthcare Organizations' expectations for transfusion medicine in health care organizations. Belanger AC. **Arch Pathol Lab Med** 1999 Jun;123(6):472–4 (3 ref.)

An overview of state efforts to improve transfusion medicine. The New York state model. Linden JV, et al. **Arch Pathol Lab Med** 1999 Jun;123(6):482–5 (10 ref.)

The autopsy as a performance measurement tool--diagnostic discrepancies and unresolved clinical questions: a College of American Pathologists Q-Probes study of 2479 autopsies from 248 institutions. Zarbo RJ, et al. **Arch Pathol Lab Med** 1999 Mar;123(3):191–8

The Royal College of Radiologists Clinical Oncology Information Network. Guidelines on the non-surgical management of lung cancer. **Clin Oncol (R Coll Radiol)** 1999;11(1):S1–S53

Guidelines, standards and protocols in head and neck cancer: tools not restraints [editorial] Birchall MA. **Clin Otolaryngol** 1999 Feb;24(1):1–2

External quality assessment (EQA) in gynaecological cytology: radical rethinking required? Slater DN. **Cytopathology** 1999 Jun;10(3):153–60

About rapid rescreening [letter] Williams DR. **Diagn Cytopathol** 1998 Nov;19(5):398–9

Polish approach to the quality assurance system in occupational health services. Indulski JA, et al. **Int J Occup Med Environ Health** 1998;11(3):209–15 (7 ref.)

Delayed diagnosis of breast cancer. **Int J Qual Health Care** 1998 Dec;10(6):561

Scoring systems in the measurement of performance of ICUs. Miranda DR. **Intensive Care Med** 1999 Apr;25(4):418–9 (4 ref.)

Accreditation by the National Committee on Quality Assurance (NCQA): a description. Bell D, et al. **J Okla State Med Assoc** 1999 May;92(5):234–7 (13 ref.)

Health-care performance measurement systems and the ACHS Care Evaluation Program. Australian Council on Healthcare Standards. Collopy BT. **J Qual Clin Pract** 1998 Sep;18(3):171–6 (6 ref.)

Quality and its measurement. Wilson LL. **J Qual Clin Pract** 1998 Sep;18(3):163–70 (6 ref.)

National average for the process of radiation therapy in Japan by Patterns of Care Study. Tanisada K, et al. **Jpn J Clin Oncol** 1999 Apr;29(4):209–13

Another paediatric cardiac inquiry for the UK [news] Ramsay S. **Lancet** 1999 Aug 7;354(9177):489

The role of peer review in internal quality assurance in cytopathology. Zardawi IM, et al. **Pathology** 1998 Aug; 30(3):309–13 (11 ref.)

Quality assurance in radiation oncology. Proceedings of an international symposium. Berlin, May 1998. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:1–49 **(Eng, Ger)**

On the quality of treatment planning systems in radiation therapy. Panten T, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:31–5

Quality assurance for 3D conformal radiation therapy. Purdy JA, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:2–7

Intensity-modulated radiation therapy: dynamic MLC (DMLC) therapy, multisegment therapy and tomotherapy. An example of QA in DMLC therapy. Webb S. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:8–12

ISO 9002: impact on a blood and tissue center's operation. Myers LK, et al. **Transfus Med Rev** 1999 Jul;13(3):187–93

Cost controls must not damage quality. Batchlor E, et al. **West J Med** 1999 Jun;170(6):379–80

Quality in women's health: taking the measure of managed care. Gonen JS. **Womens Health Issues** 1999 Mar–Apr;9(2 Suppl):79S–88S (16 ref.)

New approach to assessing clinical quality of care for women: the QA Tool system. McGlynn EA, et al. **Womens Health Issues** 1999 Jul–Aug;9(4):184–92 (9 ref.)

[Quality assessment indicators of cardiac surgeons' work; the validity of mortality rates] Dekker E, et al. **Ned Tijdschr Geneeskd** 1998 Jun 13;142(24):1374–9 (Eng. Abstr.) **(Dut)**

[Recent disciplinary committee rulings foster defensive medicine (see comments)] van Weel C. **Ned Tijdschr Geneeskd** 1998 Aug 15;142(33):1854–5 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1851–3. Comment in: Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2698. **(Dut)**

[TEIS—a system for public health offices for assessing, presenting, evaluating and communicating data on the quality of drinking water] Henke A, et al. **Gesundheitswesen** 1999 May;61(5):248–51 (Eng. Abstr.) **(Ger)**

[The guideline clearing programme of the self-governmental bodies in the German health care system—a project to promote quality assurance in medicine] Ollenschläger G, et al. **Gesundheitswesen** 1999 Mar;61(3):105–11 (Eng. Abstr.) **(Ger)**

[Quality assurance in rheumatology] Keitel W. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):141–4 (Eng. Abstr.) **(Ger)**

[Quality assurance in geriatric medicine] Thiesemann R, et al. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):145–50 (Eng. Abstr.) **(Ger)**

[Quality assessment of medical care—a standardized scheme for the development of quality indicators] Zorn U, et al. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):123–8 (Eng. Abstr.) **(Ger)**

[Patients also desire standard therapies] Tanabe I. **Gan To Kagaku Ryoho** 1999 Apr;26(5):614–8 (9 ref.) (Eng. Abstr.) **(Jpn)**

STATISTICS & NUMERICAL DATA

The quest for quality measurement [editorial] O'Malley CH. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1669

Measuring for improvement: from Toyota to thoracic surgery. Levett JM, et al. **Ann Thorac Surg** 1999 Aug; 68(2):353–8; discussion 374–6

Innovative uses of a cardiothoracic database. Nugent WC. **Ann Thorac Surg** 1999 Aug;68(2):359–61; discussion 374–6

Closing the loop: optimizing physicians' operational and

strategic behavior. Sergeant PT, et al. **Ann Thorac Surg** 1999 Aug;68(2):362–6; discussion 374–6

Using scientific evidence to improve hospital library services: Southern Chapter/Medical Library Association journal usage study. Dee CR, et al. **Bull Med Libr Assoc** 1998 Jul;86(3):301–6

Quality procedures in non-gynaecological cytology laboratories in England and Wales. Egan M, et al. **Cytopathology** 1999 Aug;10(4):240–9

HEDIS data integrity [letter] O'Kane ME. **Health Aff (Millwood)** 1999 Jul–Aug;18(4):209

Costs & quality. Reconcilable differences? [news] **Hosp Health Netw** 1998 Nov 5;72(21):13

Quantity and quality relationships in cardiovascular medicine [see comments] Gjesdal K. **Scand Cardiovasc J** 1998; 32(3):183–6. Comment in: Scand Cardiovasc J 1998;32(3):131–2. Comment in: Scand Cardiovasc J 1998;32(4):195.

Advantages and pitfalls of macrostatistics for health planning at the local as well as top national level [editorial; comment] Nielsen TT. **Scand Cardiovasc J** 1998;32(3):131–2. Comment on: Scand Cardiovasc J 1997;31(6):365–7. Comment on: Scand Cardiovasc J 1998;32(3):183–6.

Quality of care of patients with diabetic foot problems in Barbados. Walrond ER, et al. **West Indian Med J** 1998 Sep;47(3):98–101

[Distribution curve and network of care] Chabot JM. **Rev Prat** 1999 Jun 15;49(12):1319–20 **(Fre)**

[Quality assurance in therapy of mucoviscidosis: value of the Bonn patient information system] Keller KM, et al. **Klin Padiatr** 1998 Sep–Oct;210(5):349–53 (Eng. Abstr.) **(Ger)**

[Statistical models with reference to their value for medical process quality assurance] Rageth JC. **Schweiz Med Wochenschr** 1998 Oct 24;128(43):1703–12 (Eng. Abstr.) **(Ger)**

TRENDS

Hemodialysis vascular access: entering a new ara. Schwab SJ. **Am J Kidney Dis** 1999 Sep;34(3):xxxviii–xi

Making the quality connection [editorial] Jones DJ. **Am J Med Qual** 1999 Jul–Aug;14(4):151–2

Accountability: the future application of cardiothoracic surgical data in a changing health care environment. Kaiser GC. **Ann Thorac Surg** 1999 Aug;68(2):349; discussion 374–6

Public-sector mental health care: new challenges. Hogan MF. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):106–11

Quality of care in mental health: the case of schizophrenia. Lehman AF. **Health Aff (Millwood)** 1999 Sep–Oct; 18(5):52–65

Me and the system: the personal essay and health policy. Mullan F. **Health Aff (Millwood)** 1999 Jul–Aug; 18(4):118–24

Improving the art and science of medical practice [editorial; comment] Schoenbaum SC. **Int J Qual Health Care** 1998 Apr;10(2):81–2. Comment on: Int J Qual Health Care 1998 Apr;10(2):83–91.

Tools, methods, and strategies. Do innovative models of health care delivery improve quality of care for selected vulnerable populations? A systematic review. Wadhwa S, et al. **Jt Comm J Qual Improv** 1999 Aug;25(8):408–33

Quality of health care for people with developmental disabilities: the challenge of managed care. Walsh KK, et al. **Ment Retard** 1999 Feb;37(1):1–15 (60 ref.)

Improving the quality of health care. Quality at a crossroads. Coye MJ, et al. **Milbank Q** 1998;76(4):759–68

Medicine beyond 2000—trust me I am (still) a doctor. Irvine D. **Ulster Med J** 1998 Jun;67 Suppl 1:103–6

Hospital management in the 21st century. Maxwell RJ. **Ulster Med J** 1998 Jun;67 Suppl 1:95–6

["Evidence-based medicine". Standardized medicine or promotion of critical spirit?] Durieux P. **Presse Med** 1998 Nov 28;27(37):1900–4 **(Fre)**

[Standards, guidelines, are their value proven?] Hubert W, et al. **Chirurg** 1999 Feb;70(2):suppl 41–3 **(Ger)**

[Role of guidelines in the context of future management of the social state] Sendler H. **Gesundheitswesen** 1998 Dec; 60(12):768–71 (Eng. Abstr.) **(Ger)**

[Evidence-based medicine] Antes G. **Internist (Berl)** 1998 Sep;39(9):899–908 (61 ref.) **(Ger)**

[Hospital comparison—status quo and prospects] Betzler M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:938–43 **(Ger)**

[Internal structure of inpatient psychiatric hospital care 22 years after the psychiatry inquest] Gebhardt RP, et al. **Nervenarzt** 1998 Sep;69(9):791–8 (Eng. Abstr.) **(Ger)**

[Possible future of the project for quality assurance of indications and outcome in interventional cardiology and gynecology] Schilling J, et al. **Schweiz Med Wochenschr** 1999 Jun 5;129(22):841–6 (Eng. Abstr.) **(Ger)**

[A quality culture for health promotion!] Ruckstuhl B, et al. **Soz Praventivmed** 1998;43(5):221–8 (Eng. Abstr.) **(Ger)**

[Systematic internal quality control in surgery 1993 to 1997] Junginger T, et al. **Z Arztl Fortbild Qualitatssich** 1998 Dec; 92(10):705–14 (Eng. Abstr.) **(Ger)**

[Radioiodine therapy of Graves' disease—quality assurance and radiation protection] Reiners C. **Z Arztl Fortbild Qualitatssich** 1999 Apr;93 Suppl 1:61–6 (40 ref.) (Eng. Abstr.) **(Ger)**

[Quality assurance of scientific information and databanks] Schweim HG, et al. **Z Arztl Fortbild Qualitatssich** 1998 Dec;92(10):723–8 (34 ref.) (Eng. Abstr.) **(Ger)**

[Quality management in medical rehabilitation] Jäckel WH, et al. **Z Rheumatol** 1998 Oct;57(5):345–50 (Eng. Abstr.) **(Ger)**

[Health policy aspects of quality assurance] Luithlen E, et al. **Z Rheumatol** 1998 Oct;57(5):330–1 (Eng. Abstr.) **(Ger)**

[BAK/KBV/AWMF curriculum "Quality assurance—medical quality management": concept of goal-oriented conversion to general practice applications] Sens B. **Z Rheumatol** 1998 Oct;57(5):351–4 (Eng. Abstr.) **(Ger)**

[Important epidemiologic aspects of appendicitis] Horntrich J. **Zentralbl Chir** 1998;123 Suppl 4:6–7 (Eng. Abstr.) **(Ger)**

QUALITY CIRCLES see **MANAGEMENT QUALITY CIRCLES**

QUALITY CONTROL

see related
REFERENCE STANDARDS
TOTAL QUALITY MANAGEMENT

Rating educational quality: factors in the erosion of professional standards. Albanese M. **Acad Med** 1999 Jun; 74(6):652–8

Is automatic disinfection between each endoscopy mandatory? Société Royale Belge de Gastro-entérologie. Glupczynski Y, et al. **Acta Gastroenterol Belg** 1998 Oct–Dec;61(4):422–30 (61 ref.)

Association for Molecular Pathology statement. Recommendations for in-house development and operation of molecular diagnostic tests. **Am J Clin Pathol** 1999 Apr; 111(4):449–63 (14 ref.)

Performance characteristics of rapid (30-second) prescreening. Implications for calculating the false-negative rate and comparison with other quality assurance techniques. Renshaw AA, et al. **Am J Clin Pathol** 1999 Apr;111(4):517–22

One fourth of PBM pharmacists' phone calls lead to therapy changes [news] **Am J Health Syst Pharm** 1998 Dec 1; 55(23):2464, 2468

Microbial contamination of benzalkonium chloride products [letter] Oie S, et al. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2534, 2537

Micronutrients Measurement Quality Assurance Program: helping participants use interlaboratory comparison exercise results to improve their long-term measurement performance. Duewer DL, et al. **Anal Chem** 1999 May 1; 71(9):1870–8

Results of the second inventory on quality assurance/quality control (QA/QC) and good laboratory practice (GLP) for European Union National Reference Laboratories for residue analyses. Schothorst RC, et al. **Analyst** 1998 Dec; 123(12):2555–7

Results of two European interlaboratory studies for the determination of beta-agonists in various matrices. Wolf C, et al. **Analyst** 1998 Dec;123(12):2719–23

Problematic performance of thyroid stimulating hormone kit in external quality assessment does not affect its popularity. Ross HA. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):99–100

Evaluation of detection techniques and laboratory proficiency in testing for drugs of abuse in urine: an external quality assessment scheme using clinically realistic urine samples. Steering Committee for the United Kingdom National External Quality Assessment Scheme for Drugs of Abuse in Urine. Wilson JF, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):592–600

The impact factor of medical journals: its use and misuse [editorial] Benítez-Bribiesca L. **Arch Med Res** 1999 May-Jun;30(3):161–2

Early morning blood collections: A College of American Pathologists Q-Probes study of 657 institutions. Dale JC, et al. **Arch Pathol Lab Med** 1998 Oct;122(10):865–70

Recommended policies for uses of human tissue in research, education, and quality control. Ad Hoc Committee on Stored Tissue, College of American Pathologists. Grizzle W, et al. **Arch Pathol Lab Med** 1999 Apr;123(4):296–300

Validation of analytical methods and laboratory procedures for chemical measurements. van Zoonen P, et al. **Arh Hig Rada Toksikol** 1998 Dec;49(4):355–70

Evidence on peer review-scientific quality control or smokescreen? [see comments] Goldbeck-Wood S. **BMJ** 1999 Jan 2;318(7175):44–5 (21 ref.). Comment in: BMJ 1999 Jan 2;318(7175):4–5.

An evaluation of quality control activity for near patient testing in primary care. Murray ET, et al. **Br J Gen Pract** 1998 Dec;48(437):1853–4

Continuing medical education: a quality control system. Matos-Ferreira A. **Br J Urol** 1998 Oct;82(4):467–75

Interpretation of heavy metal data from mussel by use of multivariate classification techniques. Machado Mesa L, et al. **Chemosphere** 1999 Feb;38(5):1103–11

Judgement of analytical quality requirements from published clinical vignette studies is flawed [letter] Fraser CG. **Clin Chem Lab Med** 1999 Feb;37(2):167–8

"Conventional" dictated versus database-generated discharge summaries: timeliness, quality and completeness [editorial; comment] Dougherty GE. **CMAJ** 1999 Feb 9;160(3):345–6 . Comment on: CMAJ 1999 Feb 9;160(3):319–26.

Standardisation of DNA quantitation by image analysis: quality control of instrumentation. Puech M, et al. **Cytometry** 1999 May 1;36(1):11–7

Quality control of bovine serum used for vaccine production. Mareschal JC. **Dev Biol Stand** 1999;99:61–8 (6 ref.)

Temperature loggers are to be used to guarantee quality of insulin preparations [letter] Arya SC. **Diabetologia** 1999 Feb;42(2):257

Standardization of T-cell assays in Type I diabetes. Immunology of Diabetes Society T-cell Committee [letter] Roep BO. **Diabetologia** 1999 May;42(5):636–7

Quality control of immunohistochemical evaluation of tumour-associated plasminogen activators and related components. European BIOMED-1 Concerted Action on Clinical Relevance of Proteases in Tumour Invasion and Metastasis. Ruiter DJ, et al. **Eur J Cancer** 1998 Aug; 34(9):1334–40

Recommendations for implementing SPECT instrumentation quality control. Nuclear Medicine Section—National Electrical Manufacturers Association (NEMA). Hines H, et al. **Eur J Nucl Med** 1999 May;26(5):527–32

Quality control of three methods for lung tumorigenesis studies. Tillmann T, et al. **Exp Toxicol Pathol** 1999 Jan; 51(1):99–104

Experience with external quality control in spermatology. Cooper TG, et al. **Hum Reprod** 1999 Mar;14(3):765–9

Internal quality control and external quality assurance in the IVF laboratory. Matson PL. **Hum Reprod** 1998 Dec;13 Suppl 4:156–65 (50 ref.)

Quality control tests for vaccines in leprosy vaccine trial, Avadi. Sreevatsa, et al. **Indian J Lepr** 1998 Oct–Dec; 70(4):389–95

The EAA International Quality Control Programme for Y-Chromosomal microdeletions. European Academy of Andrology [news] Simoni M. **Int J Androl** 1998 Dec; 21(6):315–6

Lot quality assurance sampling (LQAS) for monitoring a leprosy elimination program. Gupte MD, et al. **Int J Lepr Other Mycobact Dis** 1999 Jun;67(2):143–9

Use and interpretation of statistical quality control charts. Benneyan JC. **Int J Qual Health Care** 1998 Feb;10(1):69–73

Quality control of smear microscopy for acid-fast bacilli: the case for blinded re-reading. Nguyen TN, et al. **Int J Tuberc Lung Dis** 1999 Jan;3(1):55–61

Limitations and requirements for quality control of sputum smear microscopy for acid-fast bacilli. Van Deun A, et al. **Int J Tuberc Lung Dis** 1998 Sep;2(9):756–65

Analytical monitoring of citrus juices by using capillary electrophoresis. Cancalon PF. **J AOAC Int** 1999 Jan–Feb; 82(1):95–106

Analysis of all-rac-alpha-tocopheryl acetate and retinyl palmitate in medical foods using a zero control reference material (ZRM) as a method development tool. Chase GW Jr, et al. **J AOAC Int** 1999 Mar–Apr;82(2):271–5

Identification and semiquantitative estimation of antibiotics added to complete feeds, premixes, and concentrates. Gafner JL. **J AOAC Int** 1999 Jan–Feb;82(1):1–8

Laboratory proficiency testing of aflatoxins in corn and peanuts—a cooperative project between Thailand and the United States. Vongbuddhapitak A, et al. **J AOAC Int** 1999 Mar–Apr;82(2):259–63

Performance of sampling plans to determine aflatoxin in farmers' stock peanut lots by measuring aflatoxin in high-risk-grade components. Whitaker TB, et al. **J AOAC Int** 1999 Mar–Apr;82(2):264–70

Analyses of compound libraries obtained by high-throughput parallel synthesis: strategy of quality control by high-performance liquid chromatography, mass spectrometry and nuclear magnetic resonance techniques. Duléry BD, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2;725(1):39–47

Graphical tools for RFLP measurement quality assurance: laboratory performance charts. Gary KT, et al. **J Forensic Sci** 1999 Sep;44(5):978–82

Tonsillectomy: assessment of quality by consultation rate after discharge. Rungby JA, et al. **J Laryngol Otol** 1999 Feb;113(2):135–9

Disintegration performance of renal multivitamin supplements. Stamatakis MK, et al. **J Ren Nutr** 1999 Apr; 9(2):78–83

Silent but widespread use of dietary supplements [letter] Naylor S, et al. **Mayo Clin Proc** 1999 Aug;74(8):845–6

Rethinking the early childcare agenda [see comments] Cook PS. **Med J Aust** 1999 Jan 4;170(1):29–31 (36 ref.). Comment in: Med J Aust 1999 Aug 2;171(3):166–7.

Analytical methods for quality control of combinatorial libraries. Fitch WL. **Mol Divers** 1998–99;4(1):39–45 (57 ref.)

Safe practices in parenteral nutrition compounding—an international consensus? Allwood MC. **Nutrition** 1999 May; 15(5):409–10 (5 ref.)

Manipulating meat quality and composition. Wood JD, et al. **Proc Nutr Soc** 1999 May;58(2):363–70 (42 ref.)

Quality assurance reviews: how they differ from peer reviews. Adams NH. **Qual Assur** 1998 Apr–Jun;6(2):75–85

Improving the process quality using statistical design of experiments: a case study. Antony J, et al. **Qual Assur** 1998 Apr–Jun;6(2):87–95

The International Conference on Harmonization Good Clinical Practice guideline. Dixon JR Jr. **Qual Assur** 1998 Apr–Jun;6(2):65–74

A general guide for conducting in-process inspections. Massari C. **Qual Assur** 1998 Apr–Jun;6(2):97–105 (2 ref.)

Quality assurance in analysis of cryogenically stored liver

tissue specimens from the NIST National Biomonitoring Specimen Bank (NBSB). Mackey EA, et al. **Sci Total Environ** 1999 Feb 9;226(2–3):165–76

Internal quality control of the malaria microscopy diagnosis for 10 laboratories on the Thai–Myanmar border. Hemme F, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep;29(3):529–36

Quality of full and final publications reporting acute stroke trials: a systematic review. Bath FJ, et al. **Stroke** 1998 Oct; 29(10):2203–10

Quality control and assurance from the development to the production of biopharmaceuticals. Doblhoff-Dier O, et al. **Trends Biotechnol** 1999 Jul;17(7):266–70

Farm quality assurance schemes [letter; comment] Osborne M. **Vet Rec** 1998 Oct 24;143(17):483. Comment on: Vet Rec 1998 Oct 3;143(14):399–400.

The official requirements for platelet concentrates. Engelfriet CP, et al. **Vox Sang** 1998;75(4):308–17

[A survey of readers of Ugeskrift for Laeger 1998] **Ugeskr Laeger** 1998 Dec 21;160(52):7619 **(Dan)**

[Quality assessment of diabetes care in a large general practice. Identification and biomedical status] Kristensen JK, et al. **Ugeskr Laeger** 1999 Feb 15;161(7):940–4 (Eng. Abstr.) **(Dan)**

[A quality assessment of notified occupational diseases submitted to the National Occupational Environment Service] Lander F, et al. **Ugeskr Laeger** 1999 Aug 9; 161(32):4510–3 (Eng. Abstr.) **(Dan)**

[Responsibility of the pharmaceutical industry in health safety] Santini C. **Ann Pharm Fr** 1999 Jan;57(1):10–5; discussion 27–8 (Eng. Abstr.) **(Fre)**

[Guidelines for quality control of cerebral magnetic resonance spectrometry (I). Sequences, spectral quality, control populations. French Network of Clinical Cerebral Spectrometry] Vion Dury J. **J Neuroradiol** 1999 Mar;26(1 Suppl):59–60 **(Fre)**

[Quality control of reactant lots at the Nation Blood Group Reference Center (CNRGS). Data for the year 1998] Noizat-Pirenne F, et al. **Transfus Clin Biol** 1999 Jun; 6(3):195–200 (Eng. Abstr.) **(Fre)**

[Quality assurance based on civil and penal law] Bock RW. **Zentralbl Gynakol** 1998;120(12):584–7 (13 ref.) (Eng. Abstr.) **(Ger)**

[Quality assurance by experts] Ulsenheimer K. **Zentralbl Gynakol** 1998;120(12):588–92 (13 ref.) (Eng. Abstr.) **(Ger)**

[Evaluation of the effectiveness of radiotherapy in an Austrian–Hungarian collaboration] Esik O, et al. **Orv Hetil** 1999 Mar 7;140(10):529–38 (Eng. Abstr.) **(Hun)**

[Quality control in anesthesia. A new frontier] Varrassi G, et al. **Minerva Anestesiol** 1999 Mar;65(3):95–100 (15 ref.) (Eng. Abstr.) **(Ita)**

[Reliability of various tools for the quality control of mammography] Di Maggio C, et al. **Radiol Med (Torino)** 1998 Nov;96(5):507–12 **(Ita)**

[Automated procedures for radiation protection and quality controls in conventional diagnostic radiology] Tofani A, et al. **Radiol Med (Torino)** 1998 Oct;96(4):394–8 (Eng. Abstr.) **(Ita)**

[Concept of quality assurance and its practice] Hosogaya S, et al. **Rinsho Byori** 1999 Feb;Suppl 109:72–80 (21 ref.) **(Jpn)**

[Hospital admission in ambulatory surgery: quality control system (editorial; comment)] Bassons Herbera J. **Med Clin (Barc)** 1999 Mar 20;112(10):377–8. Comment on: Med Clin (Barc) 1999 Mar 20;112(10):361–4. **(Spa)**

[The DU90% is a new quality measure for drug prescription. Non-steroidal anti-inflammatory agents as an example for analysis] Bergman U, et al. **Lakartidningen** 1998 Sep 23; 95(39):4237–8, 4241–2 **(Swe)**

[Risk of disinformation on the Internet. Quality labeling of medical websites is tested] Levi R. **Lakartidningen** 1999 Apr 7;96(14):1737–40 **(Swe)**

[Quality assurance of the quality work! Poor basic data can totally twist the results] Nilsson G, et al. **Lakartidningen** 1999 Feb 3;96(5):494–7 (16 ref.) **(Swe)**

QUALITY INDICATORS see **QUALITY INDICATORS, HEALTH CARE**

QUALITY INDICATORS, HEALTH CARE

Stakeholders' opinions regarding important measures of nursing home quality for consumers. Harrington C, et al. **Am J Med Qual** 1999 May-Jun;14(3):124–32

Provider group characteristics & quality report card performance: a cross-sectional study in a managed care setting. Simon LP, et al. **Am J Med Qual** 1999 May-Jun; 14(3):138–45

Measuring quality of care with routine data: avoiding confusion between performance indicators and health outcomes [see comments] Giuffrida A, et al. **BMJ** 1999 Jul 10;319(7202):94–8. Comment in: BMJ 1999 Jul 10;319(7202):67–8.

What do hospital admission rates say about primary care? [editorial; comment] Jankowski R. **BMJ** 1999 Jul 10; 319(7202):67–8. Comment on: BMJ 1999 Jul 10;319(7202):94–8. Comment on: BMJ 1999 Jul 10;319(7202):98–103.

Explaining differences in English hospital death rates using routinely collected data. Jarman B, et al. **BMJ** 1999 Jun 5;318(7197):1515–20

Indicators of quality of antenatal care: a pilot study. Vause S, et al. **Br J Obstet Gynaecol** 1999 Mar;106(3):197–205

Referral for 'prostatism': developing a 'performance indicator' for the threshold between primary and secondary care? Elwyn GJ, et al. **Fam Pract** 1999 Apr;16(2):140–2

Mission statement content and hospital performance in the Canadian not-for-profit health care sector. Bart CK, et al. **Health Care Manage Rev** 1999 Summer;24(3):18–29

Patient assessments of hospital maternity care: a useful tool for consumers? Finkelstein BS, et al. **Health Serv Res** 1999 Jun;34(2):623–40

Conditional Length of Stay. Silber JH, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):349–63

Long-term care research: demand, payment, and outcomes [editorial; comment] Siu AL. **Health Serv Res** 1998 Oct; 33(4 Pt 1):783–5. Comment on: Health Serv Res 1998 Oct;33(4 Pt 1):835–65.

The hospital multistay rate as an indicator of quality of care. Wray NP, et al. **Health Serv Res** 1999 Aug;34(3):777–90

Quality of health care: the responsibility of health care professionals in delivering high quality services. Giangrande A. **Int J Artif Organs** 1998 Nov;21(11):721–5

Quality development in perinatal care — the OBSQID project. OBStetrical Quality Indicators and Data. Johansen KS, et al. **Int J Gynaecol Obstet** 1999 Feb;64(2):167–72

Public disclosure of health care performance reports: a response from the UK [comment] Coles J. **Int J Qual Health Care** 1999 Apr;11(2):104–5. Comment on: Int J Qual Health Care 1999 Apr;11(2):93–8.

Public disclosure of health care performance reports: what do we lose in giving information? [comment] Collopy BT. **Int J Qual Health Care** 1999 Apr;11(2):99–101. Comment on: Int J Qual Health Care 1999 Apr;11(2):93–8.

Does the Complications Screening Program flag cases with process of care problems? Using explicit criteria to judge processes. Iezzoni LI, et al. **Int J Qual Health Care** 1999 Apr;11(2):107–18

Identifying achievable benchmarks of care: concepts and methodology. Kiefe CI, et al. **Int J Qual Health Care** 1998 Oct;10(5):443–7

Public disclosure of health care performance reports: experience, evidence and issues for policy [see comments] Leatherman S, et al. **Int J Qual Health Care** 1999 Apr; 11(2):93–8. Comment in: Int J Qual Health Care 1999 Apr;11(2):99–101. Comment in: Int J Qual Health Care 1999 Apr;11(2):102–3. Comment in: Int J Qual Health Care 1999 Apr;11(2):104–5.

Public disclosure of health care performance reports: comments and reflections from Sweden [comment] Mebius C. **Int J Qual Health Care** 1999 Apr;11(2):102–3. Comment on: Int J Qual Health Care 1999 Apr;11(2):93–8.

Some impacts of nursing on acute care hospital outcomes. Lichtig LK, et al. **J Nurs Adm** 1999 Feb;29(2):25–33

Implementation of the ANA report card. Moore K, et al. **J Nurs Adm** 1999 Jun;29(6):48–54

Quality indicators for general practice: which ones can general practitioners and health authority managers agree are important and how useful are they? Campbell SM, et al. **J Public Health Med** 1998 Dec;20(4):414–21

The UK Annual Patient Satisfaction Survey: can it really reflect the quality of the NHS? [letter] Fakhoury WK. **J Public Health Med** 1998 Dec;20(4):484–5

Performance assessment [letter] Paris J. **J Public Health Med** 1998 Dec;20(4):485–6

The time of presentation of wound infection after cardiac surgery [see comments] Hall JC, et al. **J Qual Clin Pract** 1998 Dec;18(4):227–31. Comment in: J Qual Clin Pract 1998 Dec;18(4):225–6.

Addressing adverse events through clinical indicators. Portelli R, et al. **J Qual Clin Pract** 1999 Jun;19(2):79–83

Outpatient waiting times: indicators of hospital performance? Croft AM, et al. **J R Army Med Corps** 1998 Oct; 144(3):131–7

The unreliability of individual physician "report cards" for assessing the costs and quality of care of a chronic disease [see comments] Hofer TP, et al. **JAMA** 1999 Jun 9; 281(22):2098–105. Comment in: JAMA 1999 Jun 9;281(22):2142–3.

Geographic variation in the treatment of acute myocardial infarction: the Cooperative Cardiovascular Project. O'Connor GT, et al. **JAMA** 1999 Feb 17;281(7):627–33

Using a quality scorecard to measure and improve medical groups' performance. Belman MJ, et al. **Jt Comm J Qual Improv** 1999 May;25(5):239–51

Identifying and addressing sentinel events: an interview with Richard Croteau [interview by Steven Berman] Croteau RJ. **Jt Comm J Qual Improv** 1998 Aug;24(8):426–34

Choosing and evaluating clinical performance measures. McGlynn EA. **Jt Comm J Qual Improv** 1998 Sep; 24(9):470–9

Public disclosure of performance information in Pennsylvania: impact on hospital charges and the views of hospital executives. Maxwell CI. **Jt Comm J Qual Improv** 1998 Sep;24(9):491–502

Improving the care of patients with community-acquired pneumonia: a multihospital collaborative QI project. Metersky ML, et al. **Jt Comm J Qual Improv** 1999 Apr; 25(4):182–90

A longitudinal study of performance of physicians' office practices: data from the Peer Assessment Program in Ontario, Canada. Norton PG, et al. **Jt Comm J Qual Improv** 1999 May;25(5):252–8

Public disclosure of performance data: does the public get what the public wants? Davies HT, et al. **Lancet** 1999 May 15;353(9165):1639–40

An empirical assessment of the validity of explicit and implicit process-of-care criteria for quality assessment. Ashton CM, et al. **Med Care** 1999 Aug;37(8):798–808

Are readmissions to the intensive care unit a useful measure of hospital performance? Cooper GS, et al. **Med Care** 1999 Apr;37(4):399–408

Predicting rehospitalization after bypass surgery: can we do it? Should we care? [editorial; comment] Kiefe C. **Med Care** 1999 Jul;37(7):621–4 (16 ref.). Comment on: Med Care 1999 Jul;37(7):625–36.

Assessing quality of care: administrative indicators and clinical outcomes in posttraumatic stress disorder. Rosenheck R, et al. **Med Care** 1999 Feb;37(2):180–8

Accuracy of risk-adjusted mortality rate as a measure of hospital quality of care. Thomas JW, et al. **Med Care** 1999 Jan;37(1):83–92

Hospital readmissions and quality of care. Weissman JS, et al. **Med Care** 1999 May;37(5):490–501

Research evidence on the validity of risk-adjusted mortality rate as a measure of hospital quality of care [published erratum appears in Med Care Res Rev 1999 Mar;56(1):118] Thomas JW, et al. **Med Care Res Rev** 1998 Dec; 55(4):371–404 (67 ref.)

The extraction of quality-of-care clinical indicators from State health department administrative databases. Majoor JW, et al. **Med J Aust** 1999 May 3;170(9):420–4

Improving the quality of health care. Health care through a Six Sigma lens [comment] Buck CR Jr. **Milbank Q** 1998; 76(4):749–53. Comment on: Milbank Q 1998 ;76(4):625–48, 511.

The unintended consequences of measuring quality on the quality of medical care. Casalino LP. **N Engl J Med** 1999 Oct 7;341(15):1147–50

HEDIS for the primary care provider: getting an "A" on the managed care report card. Buppert C. **Nurse Pract** 1999 Jan;24(1):84–6, 88–9, 92–4 passim

Relation between indicators for quality of occupational rehabilitation of employees with low back pain. van der Weide WE, et al. **Occup Environ Med** 1999 Jul;56(7):488–93

Performance measurement in workers' compensation managed care organizations. Greenberg EL, et al. **Occup Med** 1998 Oct-Dec;13(4):755–72, iv (28 ref.)

Performance measures in occupational medicine: a tool to manage quality. Rudolph L. **Occup Med** 1998 Oct-Dec; 13(4):747–53, iv (28 ref.)

Vital records for quality improvement. Gould JB. **Pediatrics** 1999 Jan;103(1 Suppl E):278–90 (39 ref.)

A performance indicator spreadsheet for physicians in community mental health centers. Baker JG. **Psychiatr Serv** 1998 Oct;49(10):1293–4, 1298

Patient satisfaction and administrative measures as indicators of the quality of mental health care. Druss BG, et al. **Psychiatr Serv** 1999 Aug;50(8):1053–8

Using recidivism rates as a quality indicator for substance abuse treatment programs. Thakur NM, et al. **Psychiatr Serv** 1998 Oct;49(10):1347–50

Quality indicators in spinal cord injury care: a Swedish collaborative project. The Swedish Spinal Cord Injury Council 1998. Levi R, et al. **Scand J Rehabil Med Suppl** 1998;38:1–80 (26 ref.)

The ethics of attribution: the case of health care outcome indicators. Russell E. **Soc Sci Med** 1998 Nov;47(9):1161–9 (75 ref.)

Relationship between provider volume and mortality for carotid endarterectomies in New York state. Hannan EL, et al. **Stroke** 1998 Nov;29(11):2292–7

Defining essential information needs and indicators. Bodart C, et al. **World Health Forum** 1998;19(3):303–9

[Which criteria of quality in oncologic thoracic surgery?] Le Pimpec-Barthes F, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S173–4 **(Fre)**

[Patient satisfaction–subjective quality assessment by patients and success factor for clinics] Olandt H, et al. **Gesundheitswesen** 1998 Dec;60(12):721–8 (Eng. Abstr.) **(Ger)**

[Quality indicators of patient treatment of schizophrenic patients. Results of a pilot study for external quality assurance using tracer diagnosis] Janssen B, et al. **Psychiatr Prax** 1998 Nov;25(6):303–9 (Eng. Abstr.) **(Ger)**

[Indicators of quality in pathology] Collazzo R. **Pathologica** 1998 Aug;90(4):371–8 (Eng. Abstr.) **(Ita)**

[Sensitive quality indicators stimulate improvement of care] Britton M, et al. **Lakartidningen** 1999 Jan 20;96(3):217–20 (Eng. Abstr.) **(Swe)**

[A reply on quality indicators. There are shortages but we should not allow the best become an enemy of the good] Karlander S, et al. **Lakartidningen** 1999 Jun 30; 96(26–27):3183 **(Swe)**

[Quality indicators in health care 1: several unanswered questions on methods] Taube A. **Lakartidningen** 1999 Jun 30;96(26–27):3180–1 **(Swe)**

[Quality indicators in health care 2: Is a "mature" public debate possible?] Taube A. **Lakartidningen** 1999 Jun 30; 96(26–27):3182 **(Swe)**

[Statistical quality indicators in health care--there is a lot to do (letter)] Taube A. **Lakartidningen** 1999 Jul 28;

96(30-31):3322 **(Swe)**

LEGISLATION & JURISPRUDENCE

[Indicators for quality evaluation of inpatient patient care in an ENT clinic (see comments)] Streppel M, et al. **HNO** 1998 Oct;46(10):864-9 (15 ref.) (Eng. Abstr.). Comment in: HNO 1998 Oct;46(10):840-1. **(Ger)**

ORGANIZATION & ADMINISTRATION

Performance indicators for primary care groups: an evidence based approach [see comments] McColl A, et al. **BMJ** 1998 Nov 14;317(7169):1354-60 (43 ref.). Comment in: BMJ 1999 Mar 20;318(7186):803; discussion 804-5. Comment in: BMJ 1999 Mar 20;318(7186):803-4; discussion 804-5. Comment in: BMJ 1999 Mar 20;318(7186):804-5.

[The monitoring, evaluation and programming of mental health departments. A regional system of indicators. The Evaluation Center, the QUALI DSM Project, the Lazio region] **Epidemiol Psichiatr Soc** 1998 Sep-Dec;7(3 Suppl):1-39 (0 ref.) **(Ita)**

STANDARDS

Group begins work on indicators of quality medication use [news] **Am J Health Syst Pharm** 1998 Sep 15;55(18):1854, 1856

Developing quality measures for adolescent care: validity of adolescents' self-reported receipt of preventive services. Klein JD, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):391-404

A measuring instrument for evaluation of quality systems. Wagner C, et al. **Int J Qual Health Care** 1999 Apr; 11(2):119-30

The relevancy of patient-based assessments [letter; comment] Mainous AG 3rd, et al. **J Fam Pract** 1999 Feb;48(2):150 . Comment on: J Fam Pract 1998 Sep;47(3):213-20.

The effect of panel membership and feedback on ratings in a two-round Delphi survey: results of a randomized controlled trial. Campbell SM, et al. **Med Care** 1999 Sep; 37(9):964-8

The emics and etics of quality of life assessment. Warner R. **Soc Psychiatry Psychiatr Epidemiol** 1999 Mar; 34(3):117-21

[Quality management of health examinations of schoolchildren--factors influencing the quality of documentation of preliminary examinations before school admittance] Knispel C, et al. **Gesundheitswesen** 1999 Jun; 61(6):303-11 (Eng. Abstr.) **(Ger)**

[Quality assessment of medical care--a standardized scheme for the development of quality indicators] Zorn U, et al. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):123-8 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Perceptions of quality of care and the decision to leave a practice. vom Eigen KA, et al. **Am J Med Qual** 1998 Winter;13(4):181-7

Lot sampling plans in the measure of quality of care indicators. Corbella Jané A, et al. **Int J Qual Health Care** 1999 Apr;11(2):139-45

Community acquired pneumonia--a success story. **J Miss State Med Assoc** 1999 Feb;40(2):73-4

Women's perceptions of quality and benefits of postpartum care. Hunter MA, et al. **J Nurs Care Qual** 1998 Dec; 13(2):21-30

Is health care ready for Six Sigma quality? Chassin MR. **Milbank Q** 1998;76(4):565-91, 510 (62 ref.)

TRENDS

Stability of nursing home quality indicators over time. Karon SL, et al. **Med Care** 1999 Jun;37(6):570-9

QUALITY OF HEALTH CARE

see related
NATIONAL PRACTITIONER DATA BANK
PROFESSIONAL STAFF COMMITTEES

Preserving quality as the site of medical education shifts. Kassirer JP. **Acad Med** 1998 Oct;73(10 Suppl):S120-2

Quality of care in the USA in the 1990s: emphasis areas and stakeholders. McNeil BJ. **Acad Radiol** 1998 Sep;5 Suppl 2:S355-6

Quality of care in anaesthetic practice: how should it be measured? Klinck JR. **Acta Anaesthesiol Belg** 1999; 50(1):13-8

Defining quality of care for children and adolescents with type 1 diabetes. Daneman D, et al. **Acta Paediatr Suppl** 1998 Oct;425:11-9 (45 ref.)

Quality and costs of family planning as elicited by an adolescent mystery client trial in Nigeria. Olowu F. **Afr J Reprod Health** 1998 Apr;2(1):49-60

Age differences in ratings of medical care among older adults living in the community. Lee Y, et al. **Aging (Milano)** 1999 Feb;11(1):12-20

Quality, around the clock [letter; comment] Feld RS. **AJR Am J Roentgenol** 1999 Jul;173(1):242-3. Comment on: AJR Am J Roentgenol 1999 Jan;172(1):7.

Intensive care units: achieving utopia [editorial] Dracup K, et al. **Am J Crit Care** 1999 Mar;8(2):68-9

U.S. health system short on quality, consensus panel says [news] **Am J Health Syst Pharm** 1998 Dec 1;55(23):2458, 2463-4

Diluting nurses' scope of practice. Bruser S, et al. **Am J Nurs** 1998 Oct;98(10):59-60

Magnetic nursing. Eckardt G. **Am J Nurs** 1998 Dec;98(12):72

Nursing care and patient satisfaction. Evans ML, et al. **Am J Nurs** 1998 Dec;98(12):57-9

They just don't get it. Kovner CT, et al. **Am J Nurs** 1999 Jul;99(7):9

Magnet program designates exceptional nursing services. Lewis CK, et al. **Am J Nurs** 1998 Dec;98(12):51-2

When you're the health care consumer. Patton RM. **Am J Nurs** 1999 Jan;99(1 Pt 1):80

Evaluating the quality of COPD care. Trudeau ME, et al. **Am J Nurs** 1999 Mar;99(3):47-50

Ethics case analysis: another doctor's mistreatment. Litigation, legislation, and ethics [comment] Chiodo G, et al. **Am J Orthod Dentofacial Orthop** 1999 Feb;115(2):220-2 . Comment on: Am J Orthod Dentofacial Orthop 1998 Jan;113(1):85-90.

Comparison of patient satisfaction results during a period of rapid growth for a specialty group practice. Gawande SR, et al. **Am J Orthop** 1999 Apr;28(4):236-8

Managed care plan performance since 1980: another look at 2 literature reviews. Sullivan K. **Am J Public Health** 1999 Jul;89(7):1003-8

A mortality-free decade of pancreatoduodenectomy: is quality independent of quantity? Schwarz RE, et al. **Am Surg** 1999 Oct;65(10):949-54

Clinical Governance--what is it all about? [editorial] Morris GN, et al. **Anaesthesia** 1999 Apr;54(4):311-2

Trends in quality of anesthesia care associated with changing staffing patterns, productivity, and concurrency of case supervision in a teaching hospital. Posner KL, et al. **Anesthesiology** 1999 Sep;91(3):839-47

Impact on quality of patient care and procedure use in the medical intensive care unit (MICU) following reorganisation. Tai DY, et al. **Ann Acad Med Singapore** 1998 May;27(3):309-13

American College of Emergency Physicians: Implementation of EMS interventions. **Ann Emerg Med** 1999 May;33(5):611

Hospitalists: cost and quality of care [letter; comment] Bellin E. **Ann Intern Med** 1999 Mar 2;130(5):450-1. Comment on: Ann Intern Med 1998 Aug 1;129(3):197-203.

Hospitalists: cost and quality of care [letter; comment] Warren J. **Ann Intern Med** 1999 Mar 2;130(5):450-1. Comment on: Ann Intern Med 1998 Aug 1;129(3):197-203.

A comprehensive assessment of satisfaction with care: preliminary psychometric analysis in an oncology institute in Italy. Brédart A, et al. **Ann Oncol** 1999 Jul;10(7):839-46

A search for the evidence supporting community paediatric practice. Rudolf MC, et al. **Arch Dis Child** 1999 Mar; 80(3):257-61

Outcome following acute myocardial infarction: are differences among physician specialties the result of quality of care or case mix? Frances CD, et al. **Arch Intern Med** 1999 Jul 12;159(13):1429-36

The transition to managed care has to be seen as at least bittersweet [letter; comment] Quinn C. **Arch Intern Med** 1998 Oct 12;158(18):2068. Comment on: Arch Intern Med 1998 Apr 13;158(7):693.

Patient-physician racial concordance and the perceived quality and use of health care. Saha S, et al. **Arch Intern Med** 1999 May 10;159(9):997-1004

The quality systems approach. Nevalainen DE. **Arch Pathol Lab Med** 1999 Jul;123(7):566-8

College of American Pathologists Conference XXXIII on transfusion medicine performance improvement. Sazama K. **Arch Pathol Lab Med** 1999 Aug;123(8):680-1

The American Medical Association, the Federation, and the road ahead. Wootton P. **Arthroscopy** 1998 Sep;14(6):653-5

Quality trauma care: the future? [editorial; comment] Sugrue M. **Aust N Z J Surg** 1998 Dec;68(12):819. Comment on: Aust N Z J Surg 1998 Dec;68(12):820-5.

Coverage of bone marrow transplant patients: a survey of American and Canadian institutions. Ballen KK, et al. **Biol Blood Marrow Transplant** 1998;4(1):49-55

Quality street [news] **BMJ** 1999 Mar 20;318(7186):758

A model for clinical governance in primary care groups. Baker R, et al. **BMJ** 1999 Mar 20;318(7186):779-83

Measuring the performance of public health agencies. Government, like doctors and hospitals, should meet quality standards [editorial] Davis RM. **BMJ** 1999 Apr 3; 318(7188):889-90

Quality of care before admission to intensive care. Deaths on the wards might be prevented [letter] Goldhill DR, et al. **BMJ** 1999 Jan 16;318(7177):195

Clinical governance. Goodman NW. **BMJ** 1998 Dec 19-26; 317(7174):1725-7

Suboptimal ward care of critically ill patients. Suboptimal care should have been defined [letter; comment] Gorard D. **BMJ** 1999 Jan 2;318(7175):51. Comment on: BMJ 1998 Jun 20;316(7148):1853-8.

Improvement in clinical work through feedback: intervention study. Jorde R, et al. **BMJ** 1999 Jun 26;318(7200):1738-9

Time for organisational development in healthcare organisations. Improving quality for patients means changing the organisation [editorial] Koeck C. **BMJ** 1998 Nov 7;317(7168):1267-8

Quality of care before admission to intensive care. Strategies for suboptimal care need evaluation [letter] Lee A, et al. **BMJ** 1999 Jan 16;318(7177):195-6

The "professional cleansing" of nurses. The systematic downgrading of nurses damages patient care [editorial] McKenna H. **BMJ** 1998 Nov 21;317(7170):1403-4

Prisoners: an end to second class health care? [editorial] Smith R. **BMJ** 1999 Apr 10;318(7189):954-5

General practitioners' perceptions of effective health care. Tomlin Z, et al. **BMJ** 1999 Jun 5;318(7197):1532-5

Suboptimal ward care of critically ill patients. Assessment of quality of care was flawed [letter; comment] Walshe K. **BMJ** 1999 Jan 2;318(7175):51. Comment on: BMJ 1998 Jun 20;316(7148):1853-8.

Suboptimal ward care of critically ill patients. Active management should prevent cardiopulmonary arrests [letter; comment] Wood J, et al. **BMJ** 1999 Jan 2; 318(7175):51-2. Comment on: BMJ 1998 Jun 20;316(7148):1841-2. Comment on: BMJ 1998 Jun 20;316(7148):1853-8.

What are family planning clinics for? [letter] Canter AK. **Br J Fam Plann** 1999 Jan;24(4):172

Implementing evidence-based medicine [letter; comment] Mitchell D. **Br J Gen Pract** 1999 Feb;49(439):147. Comment on: Br J Gen Pract 1998 Dec;48(437):1849-52.

Deliberate departures from good general practice: a study of motives among Dutch general practitioners. Veldhuis M, et al. **Br J Gen Pract** 1998 Dec;48(437):1833-6

National Confidential Enquiry into counselling for genetic disorders by non-geneticists: general recommendations and specific standards for improving care. Harris R, et al. **Br J Obstet Gynaecol** 1999 Jul;106(7):658-63

Severe acute maternal morbidity: a pilot study of a definition for a near-miss [see comments] Mantel GD, et al. **Br J Obstet Gynaecol** 1998 Sep;105(9):985-90. Comment in: Br J Obstet Gynaecol 1999 Apr;106(4):397.

Use and quality of antimalarial drugs in the private sector in Viet Nam. Cong LD, et al. **Bull World Health Organ** 1998;76 Suppl 1:51-8

Vaccine storage in the community: a study in central Italy. Grasso M, et al. **Bull World Health Organ** 1999;77(4):352-5

Supportive nursing care around breast cancer surgery: an evaluation of the 1997 status in The Netherlands. Thijs-Boer FM, et al. **Cancer Nurs** 1999 Apr;22(2):172-5

Developments in caries diagnosis and their relationship to treatment decisions and quality of care. ORCA Saturday Afternoon Symposium 1997. Verdonschot EH, et al. **Caries Res** 1999;33(1):32-40

Assessing quality of care using in-hospital mortality: does it yield informed choices? [editorial; comment] Sivak ED, et al. **Chest** 1999 Mar;115(3):613-4. Comment on: Chest 1999 Mar;115(3):793-801.

An audit of waiting times in a haematology clinic before and after the introduction of point-of-care testing. Galloway MJ, et al. **Clin Lab Haematol** 1999 Jun; 21(3):201-5

A question of quality: radiotherapy resources and waiting time outcomes for cancer patients [editorial] Bullimore JA. **Clin Oncol (R Coll Radiol)** 1998;10(4):210-1

The 4 Rs of clinical excellence [editorial] Macbeth F, et al. **Clin Oncol (R Coll Radiol)** 1998;10(4):207-9

Physician strategies for the 21st century [editorial] Thompson JW, et al. **Clin Pediatr (Phila)** 1999 May;38(5):265-8

Quality of care in unlicensed homes for the aged in the eastern townships of Quebec [see comments] Bravo G, et al. **CMAJ** 1999 May 18;160(10):1441-5. Comment in: CMAJ 1999 May 18;160(10):1463-4.

Practice variations, chance and quality of care [editorial; comment] Brophy JM, et al. **CMAJ** 1998 Oct 20; 159(8):949-52. Comment on: CMAJ 1998 Oct 20;159(8):926-30.

Medicare's reputation in free fall before budget [news] Buske L. **CMAJ** 1999 Apr 20;160(8):1121

"Mine own countree": quality of care in nursing homes [editorial; comment] [see comments] Chouinard J. **CMAJ** 1999 May 18;160(10):1463-4. Comment on: CMAJ 1999 May 18;160(10):1441-5. Comment in: CMAJ 1999 Jul 27;161(2):127.

Frozen in time: life in the face of chronic care cutbacks. Cook K. **CMAJ** 1999 Apr 6;160(7):1045-7

Psychobiology of stroke: a neglected area [letter; comment] Ramasubbu R. **CMAJ** 1999 Mar 23;160(6):779-80. Comment on: CMAJ 1998 Sep 22;159(6):671-3.

Psychobiology of stroke: a neglected area [letter; comment] Simpson S, et al. **CMAJ** 1999 Mar 23;160(6):780-1. Comment on: CMAJ 1998 Sep 22;159(6):671-3.

More procedures, better quality of care? Is there a case for regionalization of pancreatic resection for neoplasm? [editorial; comment] [see comments] Wexler MJ. **CMAJ** 1999 Mar 9;160(5):671-3. Comment on: CMAJ 1999 Mar 9;160(5):643-8. Comment in: CMAJ 1999 Jun 29;160(13):1820.

Juvenile suicide prompts closing of facility. Hayes LM. **Crisis** 1998;19(2):54-5

Factors impeding enteral tube feedings [editorial; comment] Kirkland LL. **Crit Care Med** 1999 Jul;27(7):1383-4. Comment on: Crit Care Med 1999 Jul;27(7):1252-6.

Quality, cost, and outcome of intensive care in a public hospital in Bombay, India [see comments] Parikh CR, et al. **Crit Care Med** 1999 Sep;27(9):1754-9. Comment in: Crit Care Med 1999 Sep;27(9):2032-3.

Hypernatremia in the intensive care unit: an indicator of quality of care? [see comments] Polderman KH, et al. **Crit Care Med** 1999 Jun;27(6):1105-8. Comment in: Crit Care Med 1999 Jun;27(6):1041-2.

ACE inhibitor/CHF interim report. West Virginia Medical

Institute. Sobel ER. **Del Med J** 1999 Jan;71(1):19–20
Quality, accessibility, and contraceptive use in rural Tanzania. Mroz TA, et al. **Demography** 1999 Feb; 36(1):23–40
The implementation of prompted retinal screening for diabetic eye disease by accredited optometrists in an inner–city district of North London: a quality of care study. Burnett S, et al. **Diabet Med** 1998 Nov;15 Suppl 3:S38–43
Poor level of care among diabetic patients. Is that a unique picture? [letter; comment] Tabák AG, et al. **Diabetes Care** 1999 Mar;22(3):533–5. Comment on: Diabetes Care 1998 Sep;21(9):1432–9.
Social status and the quality of care for adult people with type I (insulin–dependent) diabetes mellitus––a population–based study. Mühlhauser I, et al. **Diabetologia** 1998 Oct;41(10):1139–50
High–dependency units: reducing the cost of intensive care without loss of quality. Prien T. **Eur J Anaesthesiol** 1998 Nov;15(6):753–5
Medication errors in paediatric practice: insights from a continuous quality improvement approach. Wilson DG, et al. **Eur J Pediatr** 1998 Sep;157(9):769–74
Vascular registries as a method for research and quality development. **Eur J Surg Suppl** 1998;(581):9–16
Action research: a useful method of promoting change in primary care? Hampshire A, et al. **Fam Pract** 1999 Jun; 16(3):305–11
The influence of risk adjustment methods on conclusions about quality of care in nursing homes based on outcome measures. Mukamel DB, et al. **Gerontologist** 1998 Dec; 38(6):695–703
Saving John Worthy [letter] Light D. **Hastings Cent Rep** 1999 May–Jun;29(3):5
Evaluating hospital mergers [letter; comment] Colton RD, et al. **Health Aff (Millwood)** 1998 Sep–Oct;17(5):260–1. Comment on: Health Aff (Millwood) 1997 Nov–Dec;16(6):62–74.
Raising the bar: the use of performance guarantees by the Pacific Business Group on Health. Schauffler HH, et al. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):134–42
Accounting for variation in hospital outcomes: a cross–national study. Sochalski J, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):256–9
Making report cards work. Wicks EK, et al. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):152–5
Cost functions for dialysis facilities and the quality of dialysis [editorial; comment] Escarce JJ, et al. **Health Serv Res** 1999 Feb;33(6):1563–6. Comment on: Health Serv Res 1999 Feb;33(6):1567–92.
Quality of primary care practice in a large HMO according to physician specialty [see comments] Grumbach K, et al. **Health Serv Res** 1999 Jun;34(2):485–502. Comment in: Health Serv Res 1999 Jun;34(2):519–24.
Commentary: practice environment, specialty, and primary care [comment] O'Connor PJ. **Health Serv Res** 1999 Jun; 34(2):519–24. Comment on: Health Serv Res 1999 Jun;34(2):485–502. Comment on: Health Serv Res 1999 Jun;34(2):503–18.
The health of children. Szilagyi PG, et al. **Health Serv Res** 1998 Oct;33(4 Pt 2):1001–39 (97 ref.)
Board specialty and treatment of HIV infection [letter; comment] Dodge WT. **Hosp Pract (Off Ed)** 1999 Apr 15; 34(4):62. Comment on: Hosp Pract (Off Ed) 1998 Dec 15;33(12):53–6, 61–4, 67–9; discussion 69–71.
Questioning the quality of maternal caregiving during home visiting. Byrd ME. **Image J Nurs Sch** 1999;31(1):27–32
A review of the quality of trauma protocols on the Internet. Branfoot T, et al. **Injury** 1999 Jan;30(1):1–7 (11 ref.)
Health insurance, the quantity and quality of prenatal care, and infant health. Kaestner R. **Inquiry** 1999 Summer; 36(2):162–75
Quality of health care: the responsibility of health care professionals in delivering high quality services. Giangrande A. **Int J Artif Organs** 1998 Nov;21(11):721–5
Maintaining clinical standards––no excuses [editorial] Jackson G. **Int J Clin Pract** 1998 Jul–Aug;52(5):283
Perinatal outcome in hospital and birth center obstetric care. David M, et al. **Int J Gynaecol Obstet** 1999 May; 65(2):149–56
Addressing the needs of a clinical service in the operational constraints of commissioning. Kot A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:66–71
Satisfaction with palliative care: what should we be aware of? Fakhoury WK. **Int J Nurs Stud** 1998 Jun;35(3):171–6 (68 ref.)
Increasing effectiveness [editorial] Buchan H. **Int J Qual Health Care** 1999 Jun;11(3):185–6
Elderly patients with heart failure: a study of satisfaction with care and quality of life. Candlish P, et al. **Int J Qual Health Care** 1998 Apr;10(2):141–6
Continuing education and quality improvement in primary health care. Corbella A, et al. **Int J Qual Health Care** 1998 Feb;10(1):65–8
Measuring lay people's perceptions of the quality of primary health care services in developing countries. Validation of a 20–item scale. Haddad S, et al. **Int J Qual Health Care** 1998 Apr;10(2):93–104
An assessment of care provided by a public sector STD clinic in Cape Town. Mathews C, et al. **Int J STD AIDS** 1998 Nov;9(11):689–94
Casualization of nurses and unregulated workers impair ethical practice. Storch JL. **Int Nurs Rev** 1998 Sep–Oct; 45(5):140–1
Intensive care use in a developing country: a comparison between a Tunisian and a French unit [see comments] Nouira S, et al. **Intensive Care Med** 1998 Nov; 24(11):1144–51. Comment in: Intensive Care Med 1998 Nov;24(11):1126–8.
Audit in health care––the process of reviewing quality. Research Committee of the Faculty of Public Health Medicine [editorial] Clarke A, et al. **Ir Med J** 1999 Jan–Feb; 92(1):230–1
Adolescent health care experience of gay, lesbian, and bisexual young adults. Allen LB, et al. **J Adolesc Health** 1998 Oct;23(4):212–20
Evaluating the impact of primary nursing practice on the quality of nursing care: a Nigerian study. Archibong UE. **J Adv Nurs** 1999 Mar;29(3):680–9
The educational preparation of staff in nursing homes: relationship with resident autonomy. Davies S, et al. **J Adv Nurs** 1999 Jan;29(1):208–17
Nursing acute psychiatric patients: a quantitative and qualitative study. Higgins R, et al. **J Adv Nurs** 1999 Jan; 29(1):52–63
Terminally ill patients' and lay–carers' perceptions and experiences of community–based services. Jarrett NJ, et al. **J Adv Nurs** 1999 Feb;29(2):476–83
An exploration of psychiatric nurses' and patients' opinions regarding in–patient care for suicidal patients. McLaughlin C. **J Adv Nurs** 1999 May;29(5):1042–51
Medical Renaissance: A resurgence of recognition for quality in women's health care. Griffin LP. **J Am Assoc Gynecol Laparosc** 1999 May;6(2):127–33
Changing treatment regimens for HIV infection· impact on referral patterns and training needs of family physicians [see comments] Brandon W. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):115–9. Comment in: J Am Board Fam Pract 1999 Mar–Apr;12(2):178–80.
Using outcomes to improve quality of research and quality of care. Deyo RA. **J Am Board Fam Pract** 1998 Nov–Dec; 11(6):465–73 (53 ref.)
Detection and treatment of depressive syndromes in a rural island clinic. Thompson MA, et al. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):120–7
President's page: The Great Circle: a target for better patient care [news] Garson A. **J Am Coll Cardiol** 1999 Jul; 34(1):294–5
How the Japanese work. Chambers DW. **J Am Coll Dent** 1998 Winter;65(4):49–54
Scope of practice: turf battle or quality of care? [news] **J Am Diet Assoc** 1999 Aug;99(8):915
The Gerontological Nutritionists Standards of Professional Practice for dietetics professionals working with older adults. American Dietetic Association. Shoaf LR, et al. **J Am Diet Assoc** 1999 Jul;99(7):863–7
The treatment and prevention of coronary heart disease in Canada: do older patients receive efficacious therapies? The Clinical Quality Improvement Network (CQIN) Investigators. McAlister FA, et al. **J Am Geriatr Soc** 1999 Jul;47(7):811–8 (74 ref.)
Management of pneumonia in the nursing home [letter; comment] Twersky J, et al. **J Am Geriatr Soc** 1999 Jul; 47(7):913–4. Comment on: J Am Geriatr Soc 1998 Dec;46(12):1538–44.
Health informatics: linking investment to value. Stead WW, et al. **J Am Med Inform Assoc** 1999 Sep–Oct;6(5):341–8
Prevalence of and factors associated with suboptimal care before initiation of dialysis in the United States. Obrador GT, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1793–800
Pediatric asthma care in the emergency department: measuring the quality of history–taking and discharge planning. Crain EF, et al. **J Asthma** 1999;36(1):129–38
Evaluating diabetes health services interventions: true effects, changing tides, or moving targets? [letter; comment] Gregg EW, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):820–1. Comment on: J Clin Endocrinol Metab 1998 Aug;83(8):2635–42.
Health behind bars: utilization and evaluation of medical care among jail inmates. Lindquist CH, et al. **J Community Health** 1999 Aug;24(4):285–303
The University HealthSystems Consortium: a bureaucracy designed to smother academic excellence [editorial] Edlich RF, et al. **J Emerg Med** 1998 Nov–Dec;16(6):893–4 (5 ref.)
Issues of cost and quality: barriers to an informed debate. Carpenter CE, et al. **J Eval Clin Pract** 1998 May;4(2):131–9
Challenges in evaluating primary health care for teenagers. Research Sub–Committee of the Adolescent Working Party of the Royal College of General Practitioners, London, UK. Jacobson LD, et al. **J Eval Clin Pract** 1998 Aug; 4(3):183–9 (36 ref.)
A critical evaluation of clinical practice guidelines in neonatal medicine: does their use improve quality and lower costs? Merritt TA, et al. **J Eval Clin Pract** 1999 May;5(2):169–77
Second order versus second rate [letter; comment] Baum JJ, et al. **J Fam Pract** 1999 Mar;48(3):228. Comment on: J Fam Pract 1998 Jul;47(1):62–7.
What is so good about being the best? [editorial; comment] [see comments] Victoroff MS. **J Fam Pract** 1999 Jan; 48(1):21–2. Comment on: J Fam Pract 1999 Jan;48(1):23–30. Comment in: J Fam Pract 1999 May;48(5):387–8. Comment in: J Fam Pract 1999 May;48(5):388–9.
Managed care and quality of care [editorial; comment] Krumholz HM. **J Gen Intern Med** 1999 Feb;14(2):136–7 (5 ref.). Comment on: J Gen Intern Med 1999 Feb;14(2):73–81.
Patient literacy. A barrier to quality of care [editorial; comment] Roter DL, et al. **J Gen Intern Med** 1998 Dec; 13(12):850–1. Comment on: J Gen Intern Med 1998 Dec;13(12):791–8.
Correlates of care quality in long–term care facilities: a multilevel analysis. Bravo G, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):P180–8
Protecting patient welfare in managed care: six safeguards [see comments] Emanuel EJ, et al. **J Health Polit Policy Law** 1998 Aug;23(4):635–59 (71 ref.) . Comment in: J Health Polit Policy Law 1998 Aug;23(4):687–95.
The functions and limitations of trust in the provision of medical care [see comments] Mechanic D. **J Health Polit Policy Law** 1998 Aug;23(4):661–86 (53 ref.) . Comment in: J Health Polit Policy Law 1998 Aug;23(4):687–95.
IOM report on quality of cancer care highlights need for research, data expansion. Institute of Medicine [news] Moulton G. **J Natl Cancer Inst** 1999 May 5;91(9):761–2
The spider diagram nursing quality report card: bringing all the pieces together. Lancaster DR, et al. **J Nurs Adm** 1999 Jul–Aug;29(7–8):43–8
Review of magnet hospital research: findings and implications for professional nursing practice. Scott JG, et al. **J Nurs Adm** 1999 Jan;29(1):9–19
Do nurses know what patients think is important in nursing care? Lynn MR, et al. **J Nurs Care Qual** 1999 Jun; 13(5):65–74
High quality, cost–effective care for adolescents with pelvic inflammatory disease. Rich M. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):193–4
What women say about antenatal care in St Petersburg, Russian Federation. Chalmers B, et al. **J Psychosom Obstet Gynaecol** 1999 Mar;20(1):1–10
Satisfaction with health services among the Pakistani population in Middlesbrough, England. Madhok R, et al. **J Public Health Med** 1998 Sep;20(3):295–301
Towards system–wide strategies for reducing adverse drug events. Clark RB, et al. **J Qual Clin Pract** 1999 Mar; 19(1):37–40
The management of diabetes at primary level in South Africa: the results of a facility–based assessment. Beattie A, et al. **J R Soc Health** 1998 Dec;118(6):338–45
General practice and patient Y. Singh S. **J R Soc Med** 1999 Feb;92(2):94
Impact on process of trauma care delivery 1 year after the introduction of a trauma program in a provincial trauma center. Simons R, et al. **J Trauma** 1999 May;46(5):811–5; discussion 815–6
Decompressive surgery in acute head injuries: where should it be performed? Wester T, et al. **J Trauma** 1999 May; 46(5):914–9
U.S. women physicians' assessment of the quality of healthcare they receive. Frank E, et al. **J Womens Health** 1999 Jan–Feb;8(1):95–102
The origin, content, and workload of e–mail consultations [see comments] Borowitz SM, et al. **JAMA** 1998 Oct 21; 280(15):1321–4. Comment in: JAMA 1998 Oct 21;280(15):1361–2.
Clinical decision support systems to improve clinical practice and quality of care [editorial; comment] Classen DC. **JAMA** 1998 Oct 21;280(15):1360–1. Comment on: JAMA 1998 Oct 21;280(15):1311–6. Comment on: JAMA 1998 Oct 21;280(15):1317–20. Comment on: JAMA 1998 Oct 21;280(15):1339–46.
Defining and improving health care quality [letter; comment] Early GL, et al. **JAMA** 1999 Mar 17;281(11):984; discussion 985. Comment on: JAMA 1998 Sep 16;280(11):1000–5.
Defining and improving health care quality [letter; comment] Golden WE. **JAMA** 1999 Mar 17;281(11):984–5. Comment on: JAMA 1998 Sep 16;280(11):1000–5.
Quality of care in investor–owned vs not–for–profit HMOs. Himmelstein DU, et al. **JAMA** 1999 Jul 14;282(2):159–63
Health care fraud and abuse [see comments] Kalb PE. **JAMA** 1999 Sep 22–29;282(12):1163–8. Comment in: JAMA 1999 Sep 22–29;282(12):1179–81.
Service quality in health care. Kenagy JW, et al. **JAMA** 1999 Feb 17;281(7):661–5
Promoting patient safety by preventing medical error [editorial] [see comments] Leape LL, et al. **JAMA** 1998 Oct 28;280(16):1444–7. Comment in: JAMA 1999 Apr 7;281(13):1174.
Autopsy rates and diagnosis [letter; comment] Lynn J, et al. **JAMA** 1999 Jun 16;281(23):2181; discussion 2184–5. Comment on: JAMA 1998 Oct 14;280(14):1245–8. Comment on: JAMA 1998 Oct 14;280(14):1273–4.
Investment and accountability mean better care [news] Marwick C. **JAMA** 1998 Nov 25;280(20):1733–4
Autopsy rates and diagnosis [letter; comment] Sangani B, et al. **JAMA** 1999 Jun 16;281(23):2182–3; discussion 2184–5 . Comment on: JAMA 1998 Oct 14;280(14):1245–8. Comment on: JAMA 1998 Oct 14;280(14):1273–4.
Accountability for quality in managed care. Donaldson MS. **Jt Comm J Qual Improv** 1998 Dec;24(12):711–25
Health services researchers zero in on quality, policy, and practice in a changing health care system: report of the 15th annual meeting of the Association for Health Services Research. Kaegi L. **Jt Comm J Qual Improv** 1998 Nov; 24(11):658–71
Must patients wait? [editorial; comment] Murray M, et al.

Jt Comm J Qual Improv 1998 Aug;24(8):423–5. Comment on: Jt Comm J Qual Improv 1998 Aug;24(8):407–22.
Identifying medical center units with disproportionate shares of patient complaints. Pichert JW, et al. **Jt Comm J Qual Improv** 1999 Jun;25(6):288–99
Time-frame for investigations into quality of clinical care [editorial] **Lancet** 1999 Sep 18;354(9183):963
Health care in Iraq [letter] Baker QF. **Lancet** 1999 Jun 5; 353(9168):1977
NICE: a step forward in the quality of NHS care. National Institute for Clinical Excellence. National Health Service [comment] Horton R. **Lancet** 1999 Mar 27;353(9158):1028–9 . Comment on: Lancet 1999 Mar 27;353(9158):1079–82.
NHS attitudes to good medical practice [letter] Hutchinson A, et al. **Lancet** 1999 Jul 17;354(9174):223–4
In pursuit of quality: the National Institute for Clinical Excellence [see comments] Rawlins M. **Lancet** 1999 Mar 27;353(9158):1079–82. Comment in: Lancet 1999 Mar 27;353(9158):1028–9. Comment in: Lancet 1999 May 29;353(9167):1887.
Special issues in assessing care of Medicaid recipients. Brown JA, et al. **Med Care** 1999 Mar;37(3 Suppl):MS79–88
The impact of geographic accessibility on the intensity and quality of depression treatment. Fortney J, et al. **Med Care** 1999 Sep;37(9):884–93
The association of quality of care and occurrence of in-hospital, treatment-related complications. Geraci JM, et al. **Med Care** 1999 Feb;37(2):140–8
Psychometric properties of the CAHPS 1.0 survey measures. Consumer Assessment of Health Plans Study. Hays RD, et al. **Med Care** 1999 Mar;37(3 Suppl):MS22–31
Making survey results easy to report to consumers: how reporting needs guided survey design in CAHPS. Consumer Assessment of Health Plans Study. McGee J, et al. **Med Care** 1999 Mar;37(3 Suppl):MS32–40
Review of studies that compare the quality of cardiovascular care in HMO versus non-HMO settings. Seidman JJ, et al. **Med Care** 1998 Dec;36(12):1607–25 (51 ref.)
The impact of having parents report about both their own and their children's experiences with health insurance plans. Shaul JA, et al. **Med Care** 1999 Mar;37(3 Suppl):MS59–68
Carepartner experiences with hospital care. vom Eigen KA, et al. **Med Care** 1999 Jan;37(1):33–8
Physician experiences with, and ratings of, managed care organizations in Massachusetts. Williams TV, et al. **Med Care** 1999 Jun;37(6):589–600
Community health centers: promise and performance. Dievler A, et al. **Med Care Res Rev** 1998 Dec;55(4):405–31 (54 ref.)
Health care quality improvement in Rhode Island: community acquired pneumonia. Jagminas L, et al. **Med Health R I** 1998 Dec;81(12):412–4 (19 ref.)
Health care quality improvement in Rhode Island: congestive heart failure. Westrick W. **Med Health R I** 1998 Sep; 81(9):300–1 (10 ref.)
Quality in healthcare in the United Kingdom: lessons for Australia [see comments] Duggan JM. **Med J Aust** 1999 Feb 1;170(3):121–4 (16 ref.). Comment in: Med J Aust 1999 May 17;170(10):507. Comment in: Med J Aust 1999 May 17;170(10):507–8. Comment in: Med J Aust 1999 May 17;170(10):508. Comment in: Med J Aust 1999 May 17;170(10):508–9.
Qualitative research: a path to better healthcare. Peat JK, et al. **Med J Aust** 1998 Sep 21;169(6):327–9 (20 ref.)
The human element of adverse events [editorial] Vincent CA. **Med J Aust** 1999 May 3;170(9):404–5
Australia's anaesthetists are world leaders [letter; comment] Walsh RG, et al. **Med J Aust** 1999 May 17;170(10):507–8 . Comment on: Med J Aust 1999 Feb 1;170(3):121–4.
Commonwealth initiatives [letter; comment] Whitworth JA. **Med J Aust** 1999 May 17;170(10):508–9. Comment on: Med J Aust 1999 Feb 1;170(3):121–4.
An analysis of the causes of adverse events from the Quality in Australian Health Care Study. Wilson RM, et al. **Med J Aust** 1999 May 3;170(9):411–5
'A scandalous and corrupt hospital'--reflections on the Fallon report. Prins H. **Med Sci Law** 1999 Jul;39(3):209–13
Effectiveness and quality of individual planning in residential settings: an analysis of outcomes. Stancliffe RJ, et al. **Ment Retard** 1999 Apr;37(2):104–16
Reported medication errors in community residences for individuals with mental retardation: a quality review. Stupalski KA, et al. **Ment Retard** 1999 Apr;37(2):139–46
Health care utilization and satisfaction concerning gender-specific health problems among military women. Pierce PF, et al. **Mil Med** 1999 Feb;164(2):98–102
The predictors of quality care. Tucker JL 3rd, et al. **Mil Med** 1998 Nov;163(11):754–7
Telemedicine beyond the technology. Zanol KE, et al. **Mo Med** 1999 Mar;96(3):88–91
Patient perception of quality of care provided by specialists and generalists. Schwartz CE, et al. **Mult Scler** 1998 Oct; 4(5):426–32
The unintended consequences of measuring quality on the quality of medical care. Casalino LP. **N Engl J Med** 1999 Oct 7;341(15):1147–50
Do "America's Best Hospitals" perform better for acute myocardial infarction? [see comments] Chen J, et al. **N Engl J Med** 1999 Jan 28;340(4):286–92. Comment in: N Engl J Med 1999 Jan 28;340(4):309–10. Comment in: N Engl J Med 1999 Jun 24;340(25):2006–7; discussion 2007.
Comparing hospitals [letter; comment] Hartz A, et al. **N Engl J Med** 1999 Jun 24;340(25):2006–7; discussion 2007 . Comment on: N Engl J Med 1999 Jan 28;340(4):286–92.
Hospitals, heal yourselves [editorial; comment] [see comments] Kassirer JP. **N Engl J Med** 1999 Jan 28; 340(4):309–10. Comment on: N Engl J Med 1999 Jan 28;340(4):286–92. Comment on: N Engl J Med 1999 Jan 28;340(4):293–9. Comment in: N Engl J Med 1999 Jun 24;340(25):2007.
Comparing hospitals [letter; comment] Lane WL, et al. **N Engl J Med** 1999 Jun 24;340(25):2007. Comment on: N Engl J Med 1999 Jan 28;340(4):309–10.
Effects of admission to a teaching hospital on the cost and quality of care for Medicare beneficiaries [see comments] Taylor DH Jr, et al. **N Engl J Med** 1999 Jan 28;340(4):293–9 . Comment in: N Engl J Med 1999 Jan 28;340(4):309–10.
Where does the buck stop? [letter; comment] Yanes-Hoffman N. **N Engl J Med** 1999 Jan 21;340(3):240–1. Comment on: N Engl J Med 1998 Apr 9;338(15):1067–9.
The Stent report, one year on. Christchurch Hospital's Medical Specialists Association. Foate J, et al. **N Z Med J** 1999 Jul 23;112(1092):278–9
Occupational health practice in New Zealand [see comments] Gorman D, et al. **N Z Med J** 1999 Mar 12;112(1083):79–82 (18 ref.). Comment in: N Z Med J 1999 Apr 23;112(1086):147.
Managed care: the American revolution in method of payment and quality of care. Hannah RG. **Nephrol Dial Transplant** 1998;13 Suppl 6:164–7
Rethinking geriatric nursing. Fulmer T, et al. **Nurs Clin North Am** 1998 Sep;33(3):387–94 (3 ref.)
Does evidence-based practice equal quality nursing care? [editorial; comment] Anderson CA. **Nurs Outlook** 1998 Nov-Dec;46(6):257–8. Comment on: Nurs Outlook 1998 Nov-Dec;46(6):262–7.
Nurse staffing and patient outcomes. McCloskey JM. **Nurs Outlook** 1998 Sep-Oct;46(5):199–200
Quality care for the frail elderly [editorial] Mezey M, et al. **Nurs Outlook** 1998 Nov-Dec;46(6):291–2
Living longer, dying longer: nursing's opportunity to make a difference [news] Moody LE. **Nurs Outlook** 1999 Jan-Feb;47(1):41–2
Nurse leaders' perceptions of quality nursing: an analysis from academe [see comments] Williams RP. **Nurs Outlook** 1998 Nov-Dec;46(6):262–7. Comment in: Nurs Outlook 1998 Nov-Dec;46(6):257–8.
Research: the way to quality care. Hall JC. **Nutrition** 1998 Nov-Dec;14(11-12):874–5
How I address quality and teamwork issues in the occupational health department. Addley K. **Occup Med (Lond)** 1998 May;48(4):273–8 (6 ref.)
The impact of primary and modular nursing delivery systems on perceptions of caring behavior. Carruth AK, et al. **Oncol Nurs Forum** 1999 Jan-Feb;26(1):95–100
Evaluating the quality of clinical guidelines. Linking decisions to medical evidence. Djulbegovic B, et al. **Oncology (Huntingt)** 1998 Nov;12(11A):310–4
Optimization of a university cataract-patient care service in Campinas, Brazil. Leite Arieta CE, et al. **Ophthalmic Epidemiol** 1999 Jun;6(2):113–23
Report shows Medicare projects save lives. **Pa Med** 1999 Apr;102(4):10–1
Conceptual bases and methodology for the evaluation of women's and providers' perception of the quality of antenatal care in the WHO Antenatal Care Randomised Controlled Trial. Langer A, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:98–115
Using employer purchasing power to improve the quality of perinatal care. Castles AG, et al. **Pediatrics** 1999 Jan; 103(1 Suppl E):248–54
My visit to the gynecologist [editorial] Rothstein JM. **Phys Ther** 1999 Feb;79(2):134–5
Science nonfiction for the year 2000 [editorial] Beed G. **Postgrad Med** 1998 Oct;104(4):15–6, 19
Courage: in EMS, it's everywhere we look. Richardson LE 2nd. **Prehosp Emerg Care** 1999 Jul-Sep;3(3):263–4
The effects of an Electronic Medical Record on patient care: clinician attitudes in a large HMO. Marshall PD, et al. **Proc AMIA Symp** 1998;:150–4
Issues in the psychiatric treatment of African Americans. Baker FM, et al. **Psychiatr Serv** 1999 Mar;50(3):362–8 (66 ref.)
Mental illness as a predictor of satisfaction with inpatient care at Veterans Affairs hospitals. Hoff RA, et al. **Psychiatr Serv** 1999 May;50(5):680–5
Utah's capitation plan and the process of care [letter; comment] Stevens MC. **Psychiatr Serv** 1998 Sep; 49(9):1235–6. Comment on: Psychiatr Serv 1998 Apr;49(4):518–23.
The depersonalization of health care. Zealberg JJ. **Psychiatr Serv** 1999 Mar;50(3):327–8
Development and validation of an inventory to measure satisfaction of users of family medicine clinics in Mexico. García-Peña MC, et al. **Psychol Rep** 1999 Apr;84(2):677–85
Population-based audit of non-insulin-dependent diabetic patients aged under 65 years in primary health care. Hänninen J, et al. **Scand J Prim Health Care** 1998 Dec; 16(4):227–32
Anticoagulant treatment of patients with atrial fibrillation in primary health care. Viitaniemi M, et al. **Scand J Prim Health Care** 1999 Mar;17(1):59–63
Effect of a primary-care-based epilepsy specialist nurse service on quality of care from the patients' perspective: quasi-experimental evaluation. Mills N, et al. **Seizure** 1999 Feb;8(1):1–7
Quality of epilepsy treatment and services: the views of women with epilepsy. Wallace HK, et al. **Seizure** 1999 Apr; 8(2):81–7
Complaints against nurses: a reflection of 'the new managerialism' and consumerism in health care? Beardwood B, et al. **Soc Sci Med** 1999 Feb;48(3):363–74 (57 ref.)
Resource dependency, doctors and the state: quality control in Sweden. Garpenby P. **Soc Sci Med** 1999 Aug; 49(3):405–24
National health care 'by-passing' in Bangladesh: a comparative study. Paul BK. **Soc Sci Med** 1999 Sep; 49(5):679–89
Quality of care for Medicare patients hospitalized with heart failure in rural Georgia. Baker DW, et al. **South Med J** 1999 Aug;92(8):782–9
Tuberculosis management practices in Kentucky: comparison with national guidelines [see comments] Evans ME, et al. **South Med J** 1999 Apr;92(4):375–9. Comment in: South Med J 1999 Apr;92(4):438–9.
Understanding the quality and outcome of treatment. Moos RH. **Subst Use Misuse** 1998 Dec;33(14):2789–94
Quality in surgery: from outcomes to process--and back again [editorial] Rhodes RS. **Surgery** 1999 Jul;126(1):76–7
Loss prevention case of the month. Teamwork missing. Avery JK. **Tenn Med** 1999 Jul;92(7):261–2, 268
Provider profiles on-line--making health care choices easier for consumers. Williams B. **Tenn Med** 1999 Jul;92(7):253–4
Managed care: why, what, and where is it? Handel PB. **Tex Med** 1998 Nov;94(11):9–10
Do better outcomes mean better quality care? Eisenberg JM. **Trans Am Clin Climatol Assoc** 1999;110:15–20; discussion 20–2
A comprehensive assessment of the quality of immunization services in one major area of Dhaka City, Bangladesh. Perry H, et al. **Trop Med Int Health** 1998 Dec;3(12):981–92
Use of hospital data for Safe Motherhood programmes in south Kalimantan, Indonesia. Ronsmans C, et al. **Trop Med Int Health** 1999 Jul;4(7):514–21
Children, youth, and families: building on the cultural strengths of Hispanic and Latino communities [editorial; comment] Aceves J. **West J Med** 1999 Feb;170(2):73–4. Comment on: West J Med 1999 Feb;170(2):75–84.
[Quality assessment of diabetes care in a large general practice. Identification and biomedical status] Kristensen JK, et al. **Ugeskr Laeger** 1999 Feb 15;161(7):940–4 (Eng. Abstr.) **(Dan)**
[A single physician or a group of specialists in the surgical ward. I: Impact on quality of the care provided by specialists] Sørensen LT, et al. **Ugeskr Laeger** 1998 Nov 9;160(46):6644–8 (Eng. Abstr.) **(Dan)**
[Nosocomial infections as indicators of quality of health care in intensive care units] Gouin F, et al. **Presse Med** 1998 Apr 11;27(14):669–73 **(Fre)**
[Underestimation of medical activity measured by daily activity scores] Pautas E, et al. **Presse Med** 1999 Jun 5; 28(20):1059–65 (Eng. Abstr.) **(Fre)**
[Do we have to use an inefficient method for the evaluation of our health care system? (editorial)] Rodrigues JM. **Presse Med** 1998 Dec 5;27(38):1957–8 **(Fre)**
[Patients' needs and quality of care (editorial)] Béraud C. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):345–9 **(Fre)**
[Evaluation of patient satisfaction in health facilities. Review of the literature] Labarère J, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):175–84 (82 ref.) (Eng. Abstr.) **(Fre)**
[Taking into account patients' expectations in the improvement of quality of health care: results of a survey of 500 hospitalized patients (letter)] Salomon L, et al. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):427–9 **(Fre)**
[Medical-legal aspects in anesthesiology (editorial)] Ravussin P. **Rev Med Suisse Romande** 1999 Mar;119(3):159–60 **(Fre)**
[Clinical practice] Lécuru F. **Rev Prat** 1999 Jan 15; 49(2):178–80 **(Fre)**
[Cesarean sections in Senegal: coverage of needs and quality of services] Cisse CT, et al. **Sante** 1998 Sep-Oct;8(5):369–77 (Eng. Abstr.) **(Fre)**
[Patient or client? (editorial)] Vauthier T. **Schweiz Monatsschr Zahnmed** 1999;109(1):9 **(Fre)**
[The physician's image 1999--inspite of scolding by the media. The spotless white coat] Füessl HS. **MMW Fortschr Med** 1999 Jun 10;141(23):6–8 **(Ger)**
[Quality control of medical documentation of in-patients at the St. Stephen Municipal Hospital in Budapest] Keller L, et al. **Orv Hetil** 1999 Mar 14;140(11):593–6 (Eng. Abstr.) **(Hun)**
[Hungarian adaptation of the WHO method for measuring quality of life] Kullmann L, et al. **Orv Hetil** 1999 Aug 29; 140(35):1947–52 (Eng. Abstr.) **(Hun)**
[Standards and guidelines for ergometry laboratories.Italian Group of Functional Evaluation and Cardiac Rehabilitation] Ceci V, et al. **Cardiologia** 1999 Jun; 44(6):585–9 **(Ita)**
[Quality evaluation in psychiatric services: a regional system of indicators] Gallo E, et al. **Epidemiol Psichiatr Soc** 1998 May-Aug;7(2):110–9 (Eng. Abstr.) **(Ita)**

[AI-CARE: a multicentric study on unstable angina. Methodology and preliminary data of a project on the improvement of health care quality in Emilia-Romagna] Marzaloni M, et al. **G Ital Cardiol** 1998 Oct;28(10):1072-82 (Eng. Abstr.) **(Ita)**

[Strategies for the development of the quality of integrated home care] Becchi MA, et al. **Minerva Med** 1998 Oct; 89(10):385-93 (Eng. Abstr.) **(Ita)**

[Towards a pain-free hospital. A project and a campaign for the improvement of health care] Visentin M. **Recenti Prog Med** 1999 Jun;90(6):321-4 (Eng. Abstr.) **(Ita)**

[Analysis of prenatal care in the Tarnobrzeg region between 1976-1997] Dziamba A. **Ginekol Pol** 1998 Dec; 69(12):1235-9 (Eng. Abstr.) **(Pol)**

[Trends of mortality from avoidable causes and expansion of municipal health resources in a southern Brazilian city] Scochi MJ. **Rev Saude Publica** 1999 Apr;33(2):129-36 (Eng. Abstr.) **(Por)**

[Evaluation of medical services provided to patients with heart ischemia at medical institutions of various professional levels] Karachevtseva MA, et al. **Klin Med (Mosk)** 1998; 76(11):28-31 (Eng. Abstr.) **(Rus)**

[Raising the level of physicians' professional skills by using expert examinations on health care quality] Karachevtseva MA, et al. **Klin Med (Mosk)** 1998;76(12):64-7 **(Rus)**

[Reduction in the number of hospitalizations for asthma. Quality assurance program for the management of asthma crises in a district hospital] Díaz Vázquez C, et al. **An Esp Pediatr** 1998 Nov;49(5):456-60 (Eng. Abstr.) **(Spa)**

[Evaluating the influence of hospital size on respiratory health care efficiency in Andalusia] Galán González-Serna JM, et al. **Arch Bronconeumol** 1999 May;35(5):202-7 (Eng. Abstr.) **(Spa)**

[Assessment of patients' expectations before admission to a tertiary-care center] Lledó R, et al. **Med Clin (Barc)** 1998 Sep 5;111(6):211-5 (Eng. Abstr.) **(Spa)**

[Promotion of public health research: attempting to balance relevance and excellence] de los Ríos R. **Rev Panam Salud Publica** 1999 Apr-May;5(4-5):309-15 (Eng. Abstr.) **(Spa)**

[Mortality for diarrheic disease in Mexico: problem of accessibility or quality of care?] Reyes H, et al. **Salud Publica Mex** 1998 Jul-Aug;40(4):316-23 (Eng. Abstr.) **(Spa)**

[Management of errors by the National Board of Health and Welfare seem to be directed against the law on quality of health care (letter; comment)] Ahlberg J. **Lakartidningen** 1999 Feb 10;96(6):580. Comment on: Lakartidningen 1998 Dec 2;95(49):5644-6. Comment on: Lakartidningen 1998 Dec 2;95(49):5648-50. Comment on: Lakartidningen 1999 Feb 3;96(5):486-8. **(Swe)**

[Quality of life--a useful measure of quality of health care (letter)] Sullivan M, et al. **Lakartidningen** 1999 May 26; 96(21):2582 **(Swe)**

[Labor-market for Scandinavian physicians in the year 2000--dearth or surplus?] Schöldström U. **Nord Med** 1998 Dec;113(10):370-1 **(Swe)**

[The main trends in the reform of the surgical services in the regional administration, improvement of the quality and efficacy of surgical services to the population] Petrenko VIu. **Klin Khir** 1999;(4):46 **(Ukr)**

CLASSIFICATION

Grading the graders: how hospitals in California and New York perceive and interpret their report cards. Romano PS, et al. **Med Care** 1999 Mar;37(3):295-305

ECONOMICS

The cost of treating hypertension: can we keep it under control without compromising the level of care? Moser M. **Am J Hypertens** 1998 Aug;11(8 Pt 2):120S-127S; discussion 135S-137S (29 ref.)

An employer's perspective on hospitalists as a source of improved health care value. Milstein A. **Ann Intern Med** 1999 Feb 16;130(4 Pt 2):360-3

James MacKenzie lecture 1998. Quality and efficiency: enemies or partners? Roland M. **Br J Gen Pract** 1999 Feb; 49(439):140-3

Some early lessons from the rise of managed behavioral health care in the United States. Schowalter JE. **Isr J Psychiatry Relat Sci** 1998;35(3):165-73; discussion 174-83

The use of balance sheets in developing clinical guidelines [published erratum appears in J Am Board Fam Pract 1999 Mar-Apr;12(2):187] Braddick M, et al. **J Am Board Fam Pract** 1999 Jan-Feb;12(1):48-54

The goals of medicine [letter; comment] Trotter G. **J Emerg Med** 1999 Mar-Apr;17(2):345-6. Comment on: J Emerg Med 1998 Mar-Apr;16(2):221. Comment on: J Emerg Med 1998 Mar-Apr;16(2):227-34.

Willingness to pay for diagnostic certainty: comparing patients, physicians, and managed care executives. Hirth RA, et al. **J Gen Intern Med** 1999 Mar;14(3):193-5

Variation in inpatient resource use in the treatment of HIV: do the privately insured receive more care? [see comments] Joyce GF, et al. **Med Care** 1999 Mar;37(3):220-7. Comment in: Med Care 1999 Apr;37(4):325-8.

The Medicaid question: will dwindling reimbursement destroy the quality of medical care? Farrell K. **Mich Med** 1999 May;98(5):24-32

The impact of financial incentives on quality of health care. Dudley RA, et al. **Milbank Q** 1998;76(4):649-86, 511 (71 ref.)

Competition, quality of care, and the role of consumers. McLaughlin CG, et al. **Milbank Q** 1998;76(4):737-43

Improving the quality of health care. Observations from the field. Mattingly PH. **Milbank Q** 1998;76(4):733-5

Increased competition and the quality of health care. Sisk JE. **Milbank Q** 1998;76(4):687-707, 512 (44 ref.)

Doctor discontent [letter; comment] Cohen KR. **N Engl J Med** 1999 Feb 25;340(8):649; discussion 652-3. Comment on: N Engl J Med 1998 Nov 19;339(21):1516-21. Comment on: N Engl J Med 1998 Nov 19;339(21):1543-5.

Profit and quality in managed care [editorial; comment] [see comments] Blackwell B. **Psychiatr Serv** 1998 Sep;49(9):1121 . Comment on: Psychiatr Serv 1998 Apr;49(4):415. Comment in: Psychiatr Serv 1998 Dec;49(12):1620-1.

LEGISLATION & JURISPRUDENCE

Why congress must regulate managed care. Norbeck TB. **Conn Med** 1998 Aug;62(8):492-3

Congressman Fred Upton: an advocate for physicians and patients. Pilon NS. **Mich Med** 1999 May;98(5):18-9

Licensing of medical practitioners [letter; comment] Chalcroft S. **N Z Med J** 1998 Aug 28;111(1072):328-9. Comment on: N Z Med J 1998 Jun 26;111(1068):235-6.

Quality counts: new initiatives at HCFA [news] Sharp N. **Nurse Pract** 1999 Apr;24(4):110-3

The practical side of politics ... ignore the facts. Cutler C. **Pa Med** 1999 Jun;102(6):8

Can healthcare quality be legislated? [editorial] Larsen RR. **Postgrad Med** 1999 Feb;105(2):11-2, 15-6

Not all health plan consumers protected equally, study finds [news] **Public Health Rep** 1999 Jan-Feb;114(1):8

[The standards of care in laparoscopic surgery. The specific case of cholecystectomy] Rougé C, et al. **J Chir (Paris)** 1997 Nov;134(5-6):258-63 (Eng. Abstr.) **(Fre)**

ORGANIZATION & ADMINISTRATION

Understanding medical systems [letter; comment] Peirce JC. **Ann Intern Med** 1998 Nov 1;129(9):753-4. Comment on: Ann Intern Med 1998 Feb 15;128(4):293-8.

Cleft palate and craniofacial teams in the United States and Canada: a national survey of team organization and standards of care. The American Cleft Palate-Craniofacial Association (ACPA) Team Standards Committee. Strauss RP. **Cleft Palate Craniofac J** 1998 Nov;35(6):473-80

Increasing the acceptance of clinical information systems. Anderson JD. **MD Comput** 1999 Jan-Feb;16(1):62-5

The importance of health care. Holt R. **N J Med** 1999 Sep; 96(9):58

How good could it get? Improving clinical practice and patient outcomes [editorial] Endsley S, et al. **Postgrad Med** 1999 Mar;105(3):15-8

Partnering among HCFA, PROs and Medicare + choice organizations. Frisch J, et al. **WMJ** 1999 May-Jun;98(3):65

[Results of questionnaire to 56 medical institutions about clinical trials of cancer chemotherapy] Kurihara M, et al. **Gan To Kagaku Ryoho** 1999 Jun;26(7):916-25 (6 ref.) (Eng. Abstr.) **(Jpn)**

[Paradigm as a methodological approach to analyzing Russia's public health system] Shchepin OP, et al. **Vestn Ross Akad Med Nauk** 1998;(10):38-41 (5 ref.) (Eng. Abstr.) **(Rus)**

[The management of medical care quality--the basis for reforming the treatment and diagnosis process] Savvin IuN, et al. **Voen Med Zh** 1999 Feb;320(2):30-9 **(Rus)**

STANDARDS

Emergency center categorization standards [see comments] Goldfrank L, et al. **Acad Emerg Med** 1999 Jun;6(6):638-55 . Comment in: Acad Emerg Med 1999 Jun;6(6):577. Comment in: Acad Emerg Med 1999 Jun;6(6)::578-9.

Mining gold standards from ivory towers: quality of care in academic medical centers [editorial; comment] Konstam MA. **Am Heart J** 1999 Jun;137(6):987-8. Comment on: Am Heart J 1999 Jun;137(6):1028-34.

Quality of care for patients hospitalized with heart failure at academic medical centers [see comments] Nohria A, et al. **Am Heart J** 1999 Jun;137(6):1028-34. Comment in: Am Heart J 1999 Jun;137(6):987-8.

Outcomes management: trendy phrase or mandate for survival? [editorial; comment] Baker OG. **Am J Infect Control** 1999 Apr;27(2):77-8. Comment on: Am J Infect Control 1999 Apr;27(2):135-40.

Inadequate treatment for major depression both before and after attempted suicide. Suominen KH, et al. **Am J Psychiatry** 1998 Dec;155(12):1778-80

Breast cancer outcomes at the Strathfield Breast Centre: comment [letter; comment] Tulloh B, et al. **Aust N Z J Surg** 1999 May;69(5):396. Comment on: Aust N Z J Surg 1998 Jun;68(6):411-4.

Optimizing disease management at a health care system level: the rationale and methods of the improving cardiovascular outcomes in Nova Scotia (ICONS) study. Cox JL. **Can J Cardiol** 1999 Jul;15(7):787-96 (64 ref.)

Trends in childhood cancer mortality as indicators of the quality of medical care in the developed world. La Vecchia C, et al. **Cancer** 1998 Nov 15;83(10):2223-7

Cleft palate and craniofacial teams in the United States and Canada: a national survey of team organization and standards of care. The American Cleft Palate-Craniofacial Association (ACPA) Team Standards Committee. Strauss RP. **Cleft Palate Craniofac J** 1998 Nov;35(6):473-80

Grappling with intensive care unit quality--does the readmission rate tell us anything? [editorial; comment] Angus DC. **Crit Care Med** 1998 Nov;26(11):1779-80 (12 ref.). Comment on: Crit Care Med 1998 Nov;26(11):1834-41.

Quality improvement of gastrointestinal endoscopy: guidelines for clinical application. From the ASGE. American Society for Gastrointestinal Endoscopy. **Gastrointest Endosc** 1999 Jun;49(6):842-4 (6 ref.)

Quality development in health care in Greenland: facing unlikely odds. Steele RE. **Int J Circumpolar Health** 1998; 57 Suppl 1:668-70

Hospital accreditation as a means of achieving international quality standards in health [editorial] Arce HE. **Int J Qual Health Care** 1998 Dec;10(6):469-72

Accreditation and globalization [editorial] Schyve PM. **Int J Qual Health Care** 1998 Dec;10(6):467-8

Are dentists overtreating their patients? Clark DC. **J Can Dent Assoc** 1998 Dec;64(11):773-4

Measuring quality of care at life's end [editorial] Byock IR, et al. **J Pain Symptom Manage** 1999 Feb;17(2):73-4

The concept of quality of life of dying persons in the context of health care. Stewart AL, et al. **J Pain Symptom Manage** 1999 Feb;17(2):93-108 (75 ref.)

Research agenda for developing measures to examine quality of care and quality of life of patients diagnosed with life-limiting illness. Teno JM, et al. **J Pain Symptom Manage** 1999 Feb;17(2):75-82 (29 ref.)

Enhancing performance measurement: NCQA's road map for a health information framework. National Committee for Quality Assurance [see comments] Schneider EC, et al. **JAMA** 1999 Sep 22-29;282(12):1184-90. Comment in: JAMA 1999 Sep 22-29;282(12):1181-2.

Readmission as an outcome variable [letter] Ibrahim JE, et al. **Med J Aust** 1999 Aug 16;171(4):218-9

The Medicaid question: will dwindling reimbursement destroy the quality of medical care? Farrell K. **Mich Med** 1999 May;98(5):24-32

Applying Bayesian ideas to the development of medical guidelines. Landrum MB, et al. **Stat Med** 1999 Jan 30; 18(2):117-37

The role of euthanasia in the terminally ill [see comments] Tulloch-Reid D. **West Indian Med J** 1998 Sep;47(3):85-8 . Comment in: West Indian Med J 1998 Dec;47(4):174.

Are critically ill older patients treated differently than similarly ill younger patients? Stillman AE, et al. **West J Med** 1998 Sep;169(3):162-5

Quality of care for women: where are we now and where are we headed? McGlynn EA. **Womens Health Issues** 1999 Mar-Apr;9(2):65-80; discussion 93-106 (22 ref.)

[Safeguarding the quality of health care in relation to cost effectiveness analysis] Schnabel P. **Ned Tijdschr Geneeskd** 1998 Jun 27;142(26):1512-6 (Eng. Abstr.) **(Dut)**

[The quality of the care of children and adolescents within the realm of conventional x-ray diagnosis--a pilot study] Tasch C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):121-5 (Eng. Abstr.) **(Ger)**

[An analysis of the efficacy of orthodontic care for the population of Moscow based on data from an expert commission on quality] Doinikov AI, et al. **Stomatologiia (Mosk)** 1998;77(4):63 **(Rus)**

[The developmental aspects of the standardization of medical services in a military medical service] Kartashov VT. **Voen Med Zh** 1999 May;320(5):23-8 **(Rus)**

[The expert evaluation of the quality of the treatment and diagnostic process in home hospitals] RLuden' VV. **Lik Sprava** 1999 Mar;(2):142-50 (Eng. Abstr.) **(Ukr)**

STATISTICS & NUMERICAL DATA

Hemodialysis adequacy in Network 5: disparity between states and the role of center effects. Fink JC, et al. **Am J Kidney Dis** 1999 Jan;33(1):97-104

Timeliness and quality of care for elderly patients with acute myocardial infarction under health maintenance organization vs fee-for-service insurance. Soumerai SB, et al. **Arch Intern Med** 1999 Sep 27;159(17):2013-20

Decreased health care quality associated with emergency department overcrowding. Miró O, et al. **Eur J Emerg Med** 1999 Jun;6(2):105-7

An assessment of Hawaii QUEST medical plans performance using Medicaid HEDIS measures, 1996-1997. Honbo L, et al. **Hawaii Med J** 1998 Oct;57(10):662, 664-70, 672-3

Quality of care for two common illnesses in teaching and nonteaching hospitals. Ayanian JZ, et al. **Health Aff (Millwood)** 1998 Nov-Dec;17(6):194-205

How does Catholic hospital sponsorship affect services provided? White KR, et al. **Inquiry** 1998-99 Winter; 35(4):398-407

Analysis of preventable pediatric trauma deaths and inappropriate trauma care in Montana. Esposito TJ, et al. **J Trauma** 1999 Aug;47(2):243-51; discussion 251-3

Establishing the feasibility of cross-mapping independent child health data sets as a means of comparing health status and service quality. Mechtler R, et al. **Medinfo** 1998;9 Pt 2:1237-41

How good is the quality of health care in the United States?

Schuster MA, et al. **Milbank Q** 1998;76(4):517–63, 509 (75 ref.)

Language barriers and resource utilization in a pediatric emergency department. Hampers LC, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1253–6

State health agencies and quality improvement in perinatal care. Johnson KA, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):233–47

Immunization performance measurement in a changing immunization environment. Rodewald L, et al. **Pediatrics** 1999 Apr;103(4 Pt 2):889–97 (79 ref.)

TRENDS

Improving quality of sexually transmitted disease case management in rural South Africa. Harrison A, et al. **AIDS** 1998 Dec 3;12(17):2329–35

Delirium: a symptom of how hospital care is failing older persons and a window to improve quality of hospital care. Inouye SK, et al. **Am J Med** 1999 May;106(5):565–73 (103 ref.)

Quality of health care--is there unfinished business? [editorial] Jones DJ. **Am J Med Qual** 1999 Mar–Apr; 14(2):71–2

Physician leadership in the new millennium [editorial] Berger WE. **Ann Allergy Asthma Immunol** 1999 Jun;82(6):507–10

The impact of mental health service integration on systemic function: a staff perspective. Le Bas J, et al. **Aust N Z J Psychiatry** 1998 Oct;32(5):666–72

Managed care and the quality of children's health services. Bergman DA, et al. **Future Child** 1998 Summer–Fall; 8(2):60–75 (62 ref.)

Impact of a DRG-based hospital financing system on quality and outcomes of care in Italy. Louis DZ, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):405–15

Providing quality care in childhood cancer survivorship: learning from the past, looking to the future [see comments] Harvey J, et al. **J Pediatr Oncol Nurs** 1999 Jul;16(3):117–25 . Comment in: J Pediatr Oncol Nurs 1999 Jul;16(3):115–6.

Monitoring the impact of hospital downsizing on access to care and quality of care. Brownell MD, et al. **Med Care** 1999 Jun;37(6 Suppl):JS135–50

The PRO program in the new millennium. Perry BM. **Med Health R I** 1999 Apr;82(4):131–2

A report card on continuous quality improvement [see comments] Blumenthal D, et al. **Milbank Q** 1998; 76(4):625–48, 511 (29 ref.). Comment in: Milbank Q 1998 ;76(4):749–53. Comment in: Milbank Q 1998 ;76(4):755–7.

The role of regulation in quality improvement [see comments] Brennan TA. **Milbank Q** 1998;76(4):709–31, 512 (49 ref.) . Comment in: Milbank Q 1998 ;76(4):745–7.

Improving the quality of health care. Quality at a crossroads. Coye MJ, et al. **Milbank Q** 1998;76(4):759–68

Continuous quality improvement: does it make a difference? [comment] Darling H. **Milbank Q** 1998;76(4):755–7. Comment on: Milbank Q 1998 ;76(4):593–624. Comment on: Milbank Q 1998 ;76(4):625–48.

Assessing the impact of continuous quality improvement on clinical practice: what it will take to accelerate progress [see comments] Shortell SM, et al. **Milbank Q** 1998; 76(4):593–624, 510 (106 ref.). Comment in: Milbank Q 1998 ;76(4):755–7.

Mammography in the 1990s: the United States and Canada. Suleiman OH, et al. **Radiology** 1999 Feb;210(2):345–51

Quality of care for women: where are we now and where are we headed? McGlynn EA. **Womens Health Issues** 1999 Mar–Apr;9(2):65–80; discussion 93–106 (22 ref.)

[Quality of care of patients with diabetes mellitus living in a rural area of Germany] Schiel R, et al. **Med Klin** 1999 Mar 15;94(3):127–32 (Eng. Abstr.) **(Ger)**

QUALITY OF LIFE

see related
KARNOFSKY PERFORMANCE STATUS
LIFE STYLE
SICKNESS IMPACT PROFILE

The researcher's toolbox [editorial; comment] Cone DC. **Acad Emerg Med** 1999 Feb;6(2):91–3. Comment on: Acad Emerg Med 1999 Feb;6(2):95–102.

What is the quality of life for survivors of cardiac arrest? A prospective study [see comments] Nichol G, et al. **Acad Emerg Med** 1999 Feb;6(2):95–102. Comment in: Acad Emerg Med 1999 Feb;6(2):91.

Health profiles and quality of life. Greenfield S. **Acad Radiol** 1999 Jan;6 Suppl 1:S89–92; discussion 99

Rationale for and measurement of patient preferences and health-related quality of life. Hillman BJ. **Acad Radiol** 1998 Sep;5 Suppl 2:S277–9

Health profiles in quality of life: evaluation of diagnostic technologies. Jarvik JG. **Acad Radiol** 1999 Jan;6 Suppl 1:S93–7

Health profiles and quality of life: the radiologist's perspective. Kallmes DF. **Acad Radiol** 1999 Jan;6 Suppl 1:S98

The development of an Acne Quality of Life scale: reliability, validity, and relation to subjective acne severity in mild to moderate acne vulgaris. Gupta MA, et al. **Acta Derm Venereol** 1998 Nov;78(6):451–6

Quality of life after a first ischemic stroke. Long-term developments and correlations with changes in neurological deficit, mood and cognitive impairment. Jonkman EJ, et al. **Acta Neurol Scand** 1998 Sep; 98(3):169–75

A health-related quality of life questionnaire for multiple sclerosis patients. Pfennings LE, et al. **Acta Neurol Scand** 1999 Sep;100(3):148–55

The prevalence of urinary incontinence and its influence on the quality of life in women from an urban Swedish population. Simeonova Z, et al. **Acta Obstet Gynecol Scand** 1999 Jul;78(6):546–51

Assessment of quality of life in palliative care--psychometric properties of a short questionnaire. Axelsson B, et al. **Acta Oncol** 1999;38(2):229–37

Health-related quality of life in patients with endocrine tumours of the gastrointestinal tract. Larsson G, et al. **Acta Oncol** 1999;38(4):481–90

Cross-comparison of two quality of life instruments used in a randomized study of combination chemotherapy in advanced breast cancer. Westman G, et al. **Acta Oncol** 1999;38(5):567–72

Glaucoma and quality of the life. Perfetti S, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):52

Evaluation of the quality of life of male snorers using the Nottingham Health Profile. Löth S, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):723–7

Quality of life of young adults with idiopathic short stature: effect of growth hormone treatment. Dutch Growth Hormone Working Group. Rekers-Mombarg LT, et al. **Acta Paediatr** 1998 Aug;87(8):865–70

Peer relationships and quality of life. Bukowski WM, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):108–9 (10 ref.)

Modern insulin therapy in children and adolescents. Dahl-Jørgensen K. **Acta Paediatr Suppl** 1999 Jan; 88(427):25–30 (42 ref.)

Methodological considerations in the assessment of health-related quality of life in children. Erling A. **Acta Paediatr Suppl** 1999 Feb;88(428):106–7 (3 ref.)

Present and future perspectives on children with type 1 diabetes. Kordonouri O, et al. **Acta Paediatr Suppl** 1999 Jan;88(427):43–6 (32 ref.)

Health-related quality of life in intersexuality. Meyer-Bahlburg HF. **Acta Paediatr Suppl** 1999 Feb; 88(428):114–5 (14 ref.)

Quality of life in Turner syndrome is related to chromosomal constitution: implications for genetic counselling and management. Skuse D, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):110–3

Subjective quality of life in out-patients with schizophrenia: clinical and utilization correlates. Dickerson FB, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):124–7

Subjective and external assessments of quality of life in schizophrenia: relationship to insight. Doyle M, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):466–72

Neuroleptics, subjective perception and quality of life [letter; comment] Eranti S, et al. **Acta Psychiatr Scand** 1998 Aug; 98(2):165–6. Comment on: Acta Psychiatr Scand 1997 Jun;95(6):464–8.

Internal and external validity of the WHO Well-Being Scale in the elderly general population. Heun R, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):171–8

Self-reported life satisfaction and treatment factors in patients with schizophrenia, major depression and anxiety disorder. Koivumaa-Honkanen HT, et al. **Acta Psychiatr Scand** 1999 May;99(5):377–84

Subjective quality of life and standard of living: a 10-year follow-up of out-patients with schizophrenia. Skantze K. **Acta Psychiatr Scand** 1998 Nov;98(5):390–9

Quality of life and overweight: the obesity related well-being (Orwell 97) questionnaire. Mannucci E, et al. **Addict Behav** 1999 May–Jun;24(3):345–57

Sexuality and quality of life among young people. McCabe MP, et al. **Adolescence** 1998 Winter;33(132):761–73

Self-reported functional status: an important predictor of health outcomes among end-stage renal disease patients. Curtin RB, et al. **Adv Ren Replace Ther** 1999 Apr; 6(2):133–40 (46 ref.)

Physical functioning: definitions, measurement, and expectations. Painter P, et al. **Adv Ren Replace Ther** 1999 Apr;6(2):110–23 (56 ref.)

The role of physical therapy in improving physical functioning of renal patients. Pianta TF. **Adv Ren Replace Ther** 1999 Apr;6(2):149–58 (17 ref.)

Exercise and a cycle of life: help us help ourselves. Stewart P. **Adv Ren Replace Ther** 1999 Apr;6(2):184–6 (0 ref.)

A view of the future of end-stage renal disease care: the patient's perspective. White JD. **Adv Ren Replace Ther** 1998 Oct;5(4):309–14

Life satisfaction, self-esteem, and body image: a psychosocial evaluation of aesthetic and reconstructive surgery candidates. Ozgür F, et al. **Aesthetic Plast Surg** 1998 Nov–Dec;22(6):412–9

Validity and reliability of the Medical Outcomes Study Short Form-20 questionnaire as a measure of quality of life in elderly people living at home. Carver DJ, et al. **Age Ageing** 1999 Mar;28(2):169–74

Measuring the impact of Parkinson's disease with the Parkinson's Disease Quality of Life questionnaire [see comments] Hobson P, et al. **Age Ageing** 1999 Jul; 28(4):341–6. Comment in: Age Ageing 1999 Jul;28(4):333–4. Comment in: Age Ageing 1999 Jul;28(4):335–6.

'Ikigai' in older Japanese people. Nakanishi N. **Age Ageing** 1999 May;28(3):323–4

Sense of coherence, quality of life, and function among elderly hip fracture patients. Johansson I, et al. **Aging (Milano)** 1998 Oct;10(5):377–84

A randomized trial of the effect of ritonavir in maintaining quality of life in advanced HIV disease. Advanced HIV Disease Ritonavir Study Group. Cohen C, et al. **AIDS** 1998 Aug 20;12(12):1495–502

Quality of life outcomes of combination zalcitabine-zidovudine, saquinavir-zidovudine, and saquinavir-zalcitabine-zidovudine therapy for HIV-infected adults with CD4 cell counts between 50 and 350 per cubic millimeter. PISCES (SV14604) Study Group. Revicki DA, et al. **AIDS** 1999 May 7;13(7):851–8

Associations of clinical parameters with health-related quality of life in hospitalized persons with HIV disease. Globe DR, et al. **AIDS Care** 1999 Feb;11(1):71–86

Development of a new dyspepsia impact scale: the Nepean Dyspepsia Index. Talley NJ, et al. **Aliment Pharmacol Ther** 1999 Feb;13(2):225–35

An attempted prospective testing of an asthma severity index and a quality of life survey for 1 year in ambulatory patients with asthma. Kucera CM, et al. **Allergy Asthma Proc** 1999 Jan–Feb;20(1):29–38

Making a positive difference in the lives of nursing home residents with Alzheimer disease: the lifestyle approach. Simard J. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13 Suppl 1:S67–72

Effect of transradial access on quality of life and cost of cardiac catheterization: A randomized comparison [see comments] Cooper CJ, et al. **Am Heart J** 1999 Sep;138(3 Pt 1):430–6. Comment in: Am Heart J 1999 Sep;138(3 Pt 1):392–3.

Effect of gender, treatment site and psychiatric comorbidity on quality of life outcome in substance dependence. Garg N, et al. **Am J Addict** 1999 Winter;8(1):44–54

Neurocognitive functioning and improvement in quality of life following participation in cardiac rehabilitation. Cohen RA, et al. **Am J Cardiol** 1999 May 1;83(9):1374–8

Comparison of quality of life after coronary and/or valvular cardiac surgery in patients > or =75 years of age with younger patients. Heijmeriks JA, et al. **Am J Cardiol** 1999 Apr 1;83(7):1129–32, A9

Quality of life before and after radiofrequency catheter ablation in patients with drug refractory atrioventricular nodal reentrant tachycardia. Larson MS, et al. **Am J Cardiol** 1999 Aug 15;84(4):471–3, A9

Effects of radiofrequency catheter ablation on quality of life in patients with atrial flutter. Lee SH, et al. **Am J Cardiol** 1999 Aug 1;84(3):278–83

Economics, health-related quality of life, and cost-effectiveness methods for the TACTICS (Treat Angina With Aggrastat [tirofiban]] and Determine Cost of Therapy with Invasive or Conservative Strategy)–TIMI 18 trial. Weintraub WS, et al. **Am J Cardiol** 1999 Feb 1; 83(3):317–22

Life with a left ventricular assist device: the patient's perspective. Savage LS, et al. **Am J Crit Care** 1999 Sep; 8(5):340–3

MOS-SF-36 in evaluating health-related quality of life in alcohol-dependent patients. Daeppen JB, et al. **Am J Drug Alcohol Abuse** 1998 Nov;24(4):685–94

Measuring quality of life in dyspeptic patients: development and validation of a new specific health status questionnaire: final report from the Italian QPD project involving 4000 patients. Bamfi F, et al. **Am J Gastroenterol** 1999 Mar; 94(3):730–8

Health-related quality of life: a primer for gastroenterologists. Eisen GM, et al. **Am J Gastroenterol** 1999 Aug;94(8):2017–21 (17 ref.)

Quality of life in patients with heartburn but without esophagitis: effects of treatment with omeprazole [see comments] Havelund T, et al. **Am J Gastroenterol** 1999 Jul;94(7):1782–9. Comment in: Am J Gastroenterol 1999 Jul;94(7):1723–4.

Health-related quality of life in Swedish patients with ulcerative colitis. Hjortswang H, et al. **Am J Gastroenterol** 1998 Nov;93(11):2203–11

Gastroesophageal reflux disease and a HAPPI quality of life [editorial; comment] Johnston BT. **Am J Gastroenterol** 1999 Jul;94(7):1723–4. Comment on: Am J Gastroenterol 1999 Jul;94(7):1782–9.

Long term consequences of gastrectomy for patient's quality of life: the impact of reconstructive techniques. Svedlund J, et al. **Am J Gastroenterol** 1999 Feb;94(2):438–45

Validity of a new quality of life scale for functional dyspepsia: a United States multicenter trial of the Nepean Dyspepsia Index. Talley NJ, et al. **Am J Gastroenterol** 1999 Sep; 94(9):2390–7

The Kaiser Permanente/USC Patient Consultation Study: change in quality of life. University of Southern California. Cody M, et al. **Am J Health Syst Pharm** 1998 Dec 15; 55(24):2615–20

Assessing patient wellness: new perspectives on quality of life and compliance. Williams GH. **Am J Hypertens** 1998 Nov;11(11 Pt 2):186S–191S (27 ref.)

Are all successful renal transplants really successful? Aultman DF, et al. **Am J Kidney Dis** 1999 Jul;34(1):61–4

Health status versus quality of life in older patients: does the distinction matter? Covinsky KE, et al. **Am J Med** 1999 Apr;106(4):435–40

Determinants of health-related quality of life following elective total hip replacement. Hopman WM, et al. **Am J Med Qual** 1999 May–Jun;14(3):110–6

Long-lasting response to vinorelbine in unresectable

non-small cell lung carcinoma: a case with concomitant good quality of life. Seminara P, et al. **Am J Med Sci** 1998 Dec;316(6):398–400

Predicting quality of life of students who have left special education high school programs. Heal LW, et al. **Am J Ment Retard** 1999 Jul;104(4):305–19

Utility values and diabetic retinopathy. Brown MM, et al. **Am J Ophthalmol** 1999 Sep;128(3):324–30

Influence of age-related maculopathy on visual functioning and health-related quality of life. Mangione CM, et al. **Am J Ophthalmol** 1999 Jul;128(1):45–53

Quality of life of low-vision patients and the impact of low-vision services. Scott IU, et al. **Am J Ophthalmol** 1999 Jul;128(1):54–62

Visual acuity and quality of life outcomes in patients with cataract in Shunyi County, China [see comments] Zhao J, et al. **Am J Ophthalmol** 1998 Oct;126(4):515–23. Comment in: Am J Ophthalmol 1998 Oct;126(4):582–5.

Subjective experience in schizophrenia: factors influencing self-esteem, satisfaction with life, and subjective distress. Bradshaw W, et al. **Am J Orthopsychiatry** 1999 Apr; 69(2):254–60

Changes in the quality of life of hemiplegic stroke patients with time: a preliminary report. Béthoux F, et al. **Am J Phys Med Rehabil** 1999 Jan-Feb;78(1):19–23

Measuring quality of life: methodological issues. Dijkers M. **Am J Phys Med Rehabil** 1999 May-Jun;78(3):286–300 (98 ref.)

Quality of life and exercise tolerance in chronic obstructive pulmonary disease: effects of a short and intensive inpatient rehabilitation program. Fuchs-Climent D, et al. **Am J Phys Med Rehabil** 1999 Jul-Aug;78(4):330–5

Posttraumatic stress disorder and outcomes for functioning and quality of life [letter; comment] Tyndel M. **Am J Psychiatry** 1999 May;156(5):804–5. Comment on: Am J Psychiatry 1997 Dec;154(12):1690–5.

Quality of life assessment after patient education in a randomized controlled study on asthma and chronic obstructive pulmonary disease. Gallefoss F, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):812–7

A novel, short, and simple questionnaire to measure health-related quality of life in patients with chronic obstructive pulmonary disease. Hajiro T, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1874–8

Is the asthma quality of life questionnaire a useful measure for low-income asthmatics? Leidy KN, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1082–90

The development and evaluation of a disease-specific quality of life measurement tool for shoulder instability. The Western Ontario Shoulder Instability Index (WOSI). Kirkley A, et al. **Am J Sports Med** 1998 Nov-Dec; 26(6):764–72

The burden of diabetic foot ulcers. Reiber GE, et al. **Am J Surg** 1998 Aug;176(2A Suppl):5S–10S (40 ref.)

Quality of life of breast cancer patients with lymphedema. Velanovich V, et al. **Am J Surg** 1999 Mar;177(3):184–7; discussion 188

Ileoanal pouch procedures: clinical outcomes and quality-of-life assessment. Seidel SA, et al. **Am Surg** 1999 Jan;65(1):40–6

Impact on quality of life during an allergen challenge research trial. Ellis AK, et al. **Ann Allergy Asthma Immunol** 1999 Jul;83(1):33–9

Pain in the obese: impact on health-related quality-of-life. Barofsky I, et al. **Ann Behav Med** 1998 Fall;19(4):408–10

The will to live among HIV-infected patients. Tsevat J, et al. **Ann Intern Med** 1999 Aug 3;131(3):194–8

Quality of life as subjective experience: reframing of perception in patients with colon cancer undergoing radical resection with or without adjuvant chemotherapy. Swiss Group for Clinical Cancer Research (SAKK) [see comments] Bernhard J, et al. **Ann Oncol** 1999 Jul; 10(7):775–82. Comment in: Ann Oncol 1999 Jul;10(7):747–9.

Quality of life assessment in a cross-cultural context: use of the Rotterdam Symptom Checklist in a multinational randomised trial comparing CMF and Zoladex (Goserlin) treatment in early breast cancer. de Haes JC, et al. **Ann Oncol** 1998 Jul;9(7):745–50

Quality of life assessment in Hodgkin's disease: a new comprehensive approach. First experiences from the EORTC/GELA and GHSG trials. EORTC Lymphoma Cooperative Group. Groupe D'Etude des Lymphomes de L'Adulte and German Hodgkin Study Group. Flechtner H, et al. **Ann Oncol** 1998;9 Suppl 5:S147–54 (52 ref.)

Psychosocial impact of genetic testing in familial medullary-thyroid carcinoma: a multicentric pilot-evaluation. Freyer G, et al. **Ann Oncol** 1999 Jan; 10(1):87–95

Health-related quality of life and sequelae in patients treated with brachytherapy and external beam irradiation for localized prostate cancer. Joly F, et al. **Ann Oncol** 1998 Jul;9(7):751–7

Hodgkin's disease: quality of life in future trials. Kaasa S, et al. **Ann Oncol** 1998;9 Suppl 5:137–45 (63 ref.)

Reduced health-related quality of life among Hodgkin's disease survivors: a comparative study with general population norms. Loge JH, et al. **Ann Oncol** 1999 Jan; 10(1):71–7

Quality of life, nutritional status and gastrointestinal hormone profile following the Whipple procedure. McLeod RS. **Ann Oncol** 1999;10 Suppl 4:281–4 (21 ref.)

The challenge of response shift for quality-of-life-based clinical oncology research [editorial; comment] Sprangers MA, et al. **Ann Oncol** 1999 Jul;10(7):747–9. Comment on: Ann Oncol 1999 Jul;10(7):775–82.

The cognitive-spiritual dimension--an important addition to the assessment of quality of life: validation of a questionnaire (SELT-M) in patients with advanced cancer. van Wegberg B, et al. **Ann Oncol** 1998 Oct;9(10):1091–6

Measuring the effects of Meniere's disease: results of the Patient-Oriented Severity Index (MD POSI) version 1. Murphy MP, et al. **Ann Otol Rhinol Laryngol** 1999 Apr; 108(4):331–7

Factors associated with fatigue in patients with systemic lupus erythematosus. Bruce IN, et al. **Ann Rheum Dis** 1999 Jun;58(6):379–81

Rasch analysis of the Western Ontario MacMaster questionnaire (WOMAC) in 2205 patients with osteoarthritis, rheumatoid arthritis, and fibromyalgia. Wolfe F, et al. **Ann Rheum Dis** 1999 Sep;58(9):563–8

Quality of life after laparoscopy-assisted Billroth I gastrectomy. Adachi Y, et al. **Ann Surg** 1999 Jan; 229(1):49–54

Repeat ileal pouch-anal anastomosis to salvage septic complications of pelvic pouches: clinical outcome and quality of life assessment. Fazio VW, et al. **Ann Surg** 1998 Oct;228(4):588–97

Quality of life of tumor patients after surgical procedures [letter] Thybusch A, et al. **Ann Surg** 1998 Oct;228(4):625–6

Improvement in quality of life measures after laparoscopic antireflux surgery. Trus TL, et al. **Ann Surg** 1999 Mar; 229(3):331–6

Current advances and changes in treatment strategy may improve survival and quality of life in patients with potentially curable gastric cancer. Roukos DH. **Ann Surg Oncol** 1999 Jan-Feb;6(1):46–56 (86 ref.)

Subtle differences in quality of life after breast cancer surgery. Wapnir IL, et al. **Ann Surg Oncol** 1999 Jun; 6(4):359–66

Health-related quality of life outcomes in clinical research: NHLBI policy and perspectives. Czajkowski SM. **Ann Thorac Surg** 1998 Oct;66(4):1486–7

Quality of life in survivors of thoracic aortic surgery. Olsson C, et al. **Ann Thorac Surg** 1999 May;67(5):1262–7

Pain and quality of life after minimally invasive versus conventional cardiac surgery. Walther T, et al. **Ann Thorac Surg** 1999 Jun;67(6):1643–7

Does angioplasty improve the quality of life for claudicants?: A prospective study. Chetter IC, et al. **Ann Vasc Surg** 1999 Jan;13(1):93–103

Cost, quality of life and outcome measures in ovarian cancer. Abbas FM, et al. **Anticancer Drugs** 1998 Nov;9(10):859–67 (86 ref.)

Palliative therapy in advanced ovarian cancer: balancing patient expectations, quality of life and cost. Patnaik A, et al. **Anticancer Drugs** 1998 Nov;9(10):869–78 (47 ref.)

Life quality of patients with metastatic renal cell carcinoma and chemo-immunotherapy--a pilot study. Kröger MJ, et al. **Anticancer Res** 1999 Mar-Apr;19(2C):1553–5

Transition from school to adult life for physically disabled young people. Fiorentino L, et al. **Arch Dis Child** 1998 Oct;79(4):306–11

Health-related quality of life and symptom profiles of female survivors of sexual abuse. Dickinson LM, et al. **Arch Fam Med** 1999 Jan-Feb;8(1):35–43

Physical Symptoms Distress Index: a sensitive tool to evaluate the impact of pharmacological agents on quality of life. Anderson RB, et al. **Arch Intern Med** 1999 Apr 12;159(7):693–700

Quality of survival after cardiopulmonary resuscitation. de Vos R, et al. **Arch Intern Med** 1999 Feb 8;159(3):249–54

Impairment of health and quality of life using new US federal guidelines for the identification of obesity. Lean ME, et al. **Arch Intern Med** 1999 Apr 26;159(8):837–43

Treatment choice and quality of life in patients with choroidal melanoma. Cruickshanks KJ, et al. **Arch Ophthalmol** 1999 Apr;117(4):461–7

Measurement of clinical change caused by knee replacement. Conventional score or special change indexes? Barck AL. **Arch Orthop Trauma Surg** 1999;119(1–2):76–8

Better quality of life when nasal breathing of snoring men is improved at night. Löth S, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):64–7

Performance of health-related quality-of-life instruments in a spinal cord injured population. Andresen EM, et al. **Arch Phys Med Rehabil** 1999 Aug;80(8):877–84

Postural changes with aging in tetraplegia: effects on life satisfaction and pain. Boninger ML, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1577–81

Health related quality of life in patients with total hip or knee replacement. Shields RK, et al. **Arch Phys Med Rehabil** 1999 May;80(5):572–9

Long-term outcomes and life satisfaction of adults who had pediatric spinal cord injuries. Vogel LC, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1496–503

Quality of life and traumatic spinal cord injury. Westgren N, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1433–9

Care provision and community adjustment of rural consumers with serious mental illness. Kane C, et al. **Arch Psychiatr Nurs** 1999 Feb;13(1):19–29

Prospective randomized clinical trial comparing the effectiveness of immediate arthroscopic stabilization versus immobilization and rehabilitation in first traumatic anterior dislocations of the shoulder. Kirkley A, et al. **Arthroscopy** 1999 Jul-Aug;15(5):507–14

Quality of life outcomes in left ventricular assist system inpatients and outpatients. Dew MA, et al. **ASAIO J** 1999 May-Jun;45(3):218–25

Gastroesophageal reflux and quality of life. Patient's knowledge, attitudes and perceptions. Jasani K, et al. **Aust Fam Physician** 1999 Jan;28 Suppl 1:S15–8

Quality of life after emergency abdominal aortic aneurysm repair. Bohmer RD, et al. **Aust N Z J Surg** 1999 Jun; 69(6):447–9

Quality-of-life assessment during palliative radiotherapy. Kearsley JH, et al. **Australas Radiol** 1998 Nov;42(4):354–9

A behavioral approach to identifying sources of happiness and unhappiness among individuals with profound multiple disabilities. Green CW, et al. **Behav Modif** 1999 Feb; 23(2):280–93

Implantable defibrillator recipients' responses to device implantation and design. Pelletier D, et al. **Biomed Instrum Technol** 1999 May-Jun;33(3):224–9

Review. Quality-of-life aspects of the overactive bladder and the effect of treatment with tolterodine. Kobelt G, et al. **BJU Int** 1999 Apr;83(6):583–90 (30 ref.)

Prevalence of lower urinary tract symptoms and self-reported diagnosed 'benign prostatic hyperplasia', and their effect on quality of life in a community-based survey of men in the UK. Trueman P, et al. **BJU Int** 1999 Mar; 83(4):410–5

Reporting on quality of life in RCTs. Authors are creating database of quality of life questionnaires [letter; comment] Chassany O, et al. **BMJ** 1999 Apr 24;318(7191):1142. Comment on: BMJ 1998 Oct 31;317(7167):1191–4.

Clustered randomised trial of an intervention to improve the management of asthma: Greenwich asthma study. Premaratne UN, et al. **BMJ** 1999 May 8;318(7193):1251–5

Reporting on quality of life in randomised controlled trials: bibliographic study [published erratum appears in BMJ 1998 Nov 14;317(7169):1353] [see comments] Sanders C, et al. **BMJ** 1998 Oct 31;317(7167):1191–4 (22 ref.). Comment in: BMJ 1999 Apr 24;318(7191):1142.

Effectiveness of rivastigmine in Alzheimer's disease. Patients' view on quality of life should be assessed [letter] Selai CE, et al. **BMJ** 1999 Sep 4;319(7210):641–2

Reporting on quality of life in RCTs. CONSORT guidelines should be expanded [letter; comment] Wright SP. **BMJ** 1999 Apr 24;318(7191):1142. Comment on: BMJ 1998 Oct 31;317(7167):1191–4.

A quality of life study in 20 adult long-term survivors of unrelated donor bone marrow transplantation. Marks DI, et al. **Bone Marrow Transplant** 1999 Jul;24(2):191–5

Quality of life following third molar removal: a patient versus professional perspective. Ogden GR, et al. **Br Dent J** 1998 Oct 24;185(8):407–10

Assessment of long-term quality of life in patients with anal carcinomas treated by radiotherapy with or without chemotherapy. Allal AS, et al. **Br J Cancer** 1999 Jul; 80(10):1588–94

Do patients with advanced breast cancer benefit from chemotherapy? Ramirez AJ, et al. **Br J Cancer** 1998 Dec; 78(11):1488–94

Evaluating the quality of life of cancer patients: assessments by patients, significant others, physicians and nurses. Sneeuw KC, et al. **Br J Cancer** 1999 Sep;81(1):87–94

Defining and analysing symptom palliation in cancer clinical trials: a deceptively difficult exercise. Stephens RJ, et al. **Br J Cancer** 1999 Feb;79(3–4):538–44

Evaluation of clinical efficacy and safety of adapalene 0.1% gel versus tretinoin 0.025% gel in the treatment of acne vulgaris, with particular reference to the onset of action and impact on quality of life. Grosshans E, et al. **Br J Dermatol** 1998 Oct;139 Suppl 52:26–33

A comparison of treatment with dithranol and calcipotriol on the clinical severity and quality of life in patients with psoriasis. Wall AR, et al. **Br J Dermatol** 1998 Dec; 139(6):1005–11

How disabling is depression? Evidence from a primary care sample. The Counselling Versus Antidepressants In Primary Care Study Group [see comments] **Br J Gen Pract** 1999 Feb;49(439):95–8. Comment in: Br J Gen Pract 1999 Feb;49(439):91–2.

Development of an EORTC questionnaire module to be used in health-related quality-of-life assessment for patients with multiple myeloma. European Organization for Research and Treatment of Cancer Study Group on Quality of Life. Stead ML, et al. **Br J Haematol** 1999 Mar; 104(3):605–11

Strategies for well-being in later life: a qualitative analysis. Sherrard C. **Br J Med Psychol** 1998 Sep;71 (Pt 3):253–63

Designing response scales for cross-cultural use in health care: data from the development of the UK WHOQOL. Skevington SM, et al. **Br J Med Psychol** 1999 Mar;72 (Pt 1):51–61

Two-year follow up of women randomised to medical management or transcervical resection of the endometrium for heavy menstrual loss: clinical and quality of life outcomes. Cooper KG, et al. **Br J Obstet Gynaecol** 1999 Mar;106(3):258–65

A new questionnaire to assess the quality of life of urinary incontinent women [letter; comment] Duckett JR, et al. **Br J Obstet Gynaecol** 1998 Aug;105(8):931. Comment on: Br J Obstet Gynaecol 1997 Dec;104(12):1374–9.

The impact of hormone replacement therapy on quality of

life and willingness to pay [letter; comment] Morris EP. **Br J Obstet Gynaecol** 1999 Jun;106(6):614. Comment on: Br J Obstet Gynaecol 1997 Oct;104(10):1191–5.

Sexual activity questionnaires in clinical trials: acceptability to patients with gynaecological disorders. Stead ML, et al. **Br J Obstet Gynaecol** 1999 Jan;106(1):50–4

Visual functioning and quality of life outcomes among cataract operated and unoperated blind populations in Nepal [see comments] Pokharel GP, et al. **Br J Ophthalmol** 1998 Jun;82(6):606–10. Comment in: Br J Ophthalmol 1998 Jun;82(6):593–4.

Development of a disease specific quality of life questionnaire for patients with Graves' ophthalmopathy: the GO-QOL. Terwee CB, et al. **Br J Ophthalmol** 1998 Jul;82(7):773–9

Measuring quality of life in cosmetic surgery patients with a condition-specific instrument: the Derriford Scale--reply [letter; comment] Harris D, et al. **Br J Plast Surg** 1999 Mar;52(2):158. Comment on: Br J Plast Surg 1998 Jul;51(5):380–4.

Quality of life outcomes for intensive versus standard community mental health services. PRiSM Psychosis Study. 9. Taylor RE, et al. **Br J Psychiatry** 1998 Nov; 173:416–22

Sjögren's syndrome: a community-based study of prevalence and impact. Thomas E, et al. **Br J Rheumatol** 1998 Oct; 37(10):1069–76

Quality of life in patients with benign anorectal disorders [letter; comment] Guest M, et al. **Br J Surg** 1999 Jun; 86(6):843. Comment on: Br J Surg 1998 Dec;85(12):1716–9.

Quality of life in patients undergoing treatment for chronic radiation-induced rectal bleeding [letter; comment] Guest M, et al. **Br J Surg** 1999 Jan;86(1):135–6. Comment on: Br J Surg 1998 Sep;85(9):1251–4.

Quality of life in patients with benign anorectal disorders [see comments] Sailer M, et al. **Br J Surg** 1998 Dec; 85(12):1716–9. Comment in: Br J Surg 1999 Jun;86(6):843.

The effect of transurethral alprostadil on the quality of life of men with erectile dysfunction, and their partners. MUSE Study Group. Williams G, et al. **Br J Urol** 1998 Dec; 82(6):847–54

Competence in discourse as a measure of social integration and quality of life in persons with traumatic brain injury. Galski T, et al. **Brain Inj** 1998 Sep;12(9):769–82

Quality of life in patients with ductal carcinoma in situ of the breast treated with conservative surgery and postoperative irradiation. Amichetti M, et al. **Breast Cancer Res Treat** 1999 Mar;54(2):109–15

Assessment of quality of life in women undergoing hormonal therapy for breast cancer: validation of an endocrine symptom subscale for the FACT-B. Fallowfield LJ, et al. **Breast Cancer Res Treat** 1999 May;55(2):189–99

Third line chemotherapy in patients with metastatic breast cancer: an evaluation of quality of life and cost. McLachlan SA, et al. **Breast Cancer Res Treat** 1999 Apr;54(3):213–23

The How Are You? scale: a quality-of-life outcomes measure for routine practice. Katsavdakis KA, et al. **Bull Menninger Clin** 1999 Summer;63(3):366–87

Impact of leprosy on the quality of life. Joseph GA, et al. **Bull World Health Organ** 1999;77(6):515–7

Measurements of quality of life: then and now. Munster AM. **Burns** 1999 Feb;25(1):25–8

Posttraumatic stress and maladjustment among adult burn survivors 1 to 2 years postburn. Part II: the interview data. Taal L, et al. **Burns** 1998 Aug;24(5):399–405

The Laing Essay 1998: Ethical issues in burn care. Young AE. **Burns** 1999 May;25(3):193–206 (55 ref.)

Key to prolonging health and independence. Physical activity for older Canadians. Dampier D, et al. **Can Fam Physician** 1999 Apr;45:996–8, 1003–4 **(Eng, Fre)**

Outcomes of coronary artery bypass surgery in elderly people. MacDonald P, et al. **Can J Cardiol** 1998 Oct; 14(10):1215–22

Effect of asthma on quality of life. Juniper EF. **Can Respir J** 1998 Jul-Aug;5 Suppl A:77A–84A (48 ref.)

Quality of life of African-American and white long term breast carcinoma survivors [published erratum appears in Cancer 1999 Aug 15;86(4):732–3] Ashing-Giwa K, et al. **Cancer** 1999 Jan 15;85(2):418–26

Effects of physical activity on the fatigue and psychologic status of cancer patients during chemotherapy. Dimeo FC, et al. **Cancer** 1999 May 15;85(10):2273–7

Type of mastectomy and quality of life for long term breast carcinoma survivors. Dorval M, et al. **Cancer** 1998 Nov 15;83(10):2130–8

Is quality of life predictive of the survival of patients with advanced nonsmall cell lung carcinoma? Herndon JE 2nd, et al. **Cancer** 1999 Jan 15;85(2):333–40

Psychologic distress in women with abnormal findings in mass mammography screening. Lowe JB, et al. **Cancer** 1999 Mar 1;85(5):1114–8

Concomitant chemoradiotherapy for patients with nonmetastatic breast carcinoma: side effects, quality of life, and organization. Macquart-Moulin G, et al. **Cancer** 1999 May 15;85(10):2190–9

The rapid assessment of fatigue severity in cancer patients: use of the Brief Fatigue Inventory. Mendoza TR, et al. **Cancer** 1999 Mar 1;85(5):1186–96

Determinants of caregiving experiences and mental health of partners of cancer patients. Nijboer C, et al. **Cancer** 1999 Aug 15;86(4):577–88

Psychosocial aspects of upper extremity lymphedema in women treated for breast carcinoma. Passik SD, et al. **Cancer** 1998 Dec 15;83(12 Suppl American):2817–20 (12 ref.)

Outcome of palliative urinary diversion in the treatment of advanced malignancies. Shekarriz B, et al. **Cancer** 1999 Feb 15;85(4):998–1003

Research issues in cancer survivorship: report of a workshop sponsored by the Office of Cancer Survivorship, National Cancer Institute. Meadows AT, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1145–51

Quality of life, cancer investigation, and clinical practice. Fairclough DL. **Cancer Invest** 1998;16(7):478–84

Psychological aspects of ovarian cancer. Hamilton AB. **Cancer Invest** 1999;17(5):335–41 (39 ref.)

Psychosocial concerns and quality of life in breast cancer survivors. Leedham B, et al. **Cancer Invest** 1999;17(5):342–8 (79 ref.)

Measuring quality of life after prostate cancer treatment [comment] Litwin MS. **Cancer J Sci Am** 1999 Jul-Aug; 5(4):211–3. Comment on: Cancer J Sci Am 1999 Jul-Aug;5(4):230–6.

Measuring impact of nursing intervention on cancer patients' ability to control symptoms. Benor DE, et al. **Cancer Nurs** 1998 Oct;21(5):320–34

Pretreatment symptom distress in women newly diagnosed with breast cancer. Cimprich B. **Cancer Nurs** 1999 Jun; 22(3):185–94; quiz 195

Psychosocial determinants of well-being in gynecologic cancer patients. Eisemann M, et al. **Cancer Nurs** 1999 Aug; 22(4):303–6

Learning to live with cancer in European countries. Grahn G, et al. **Cancer Nurs** 1999 Feb;22(1):79–84

Long-term quality of life in patients after total gastrectomy. Ishihara K. **Cancer Nurs** 1999 Jun;22(3):220–7

Quality of life in patients with endocrine tumors of the gastrointestinal tract: patient and staff perceptions. Larsson G, et al. **Cancer Nurs** 1998 Dec;21(6):411–20

Major concerns and needs of breast cancer patients. Wang X, et al. **Cancer Nurs** 1999 Apr;22(2):157–63

Quality-of-life information and clinical practice: the oncologist's perspective. Bezjak A, et al. **Cancer Prev Control** 1998 Oct;2(5):230–5

Quality of life research: clinical applications. Reifel JL, et al. **Cancer Treat Res** 1998;97:1–12 (36 ref.)

Improving outcomes in congestive heart failure: Val-HeFT. Valsartan in Heart Failure Trial. Cohn JN. **Cardiology** 1999; 91 Suppl 1:19–22

Health-related quality of life and functional outcome following arterial reconstruction for limb salvage. Seabrook GR, et al. **Cardiovasc Surg** 1999 Apr;7(3):279–86

Zimbabwean people with head noises are offered help [news] **Cent Afr J Med** 1998 Nov;44(11):296

Quality of life in migraine and chronic daily headache patients. Monzón MJ, et al. **Cephalalgia** 1998 Nov; 18(9):638–43

Perception of fatigue and quality of life in patients with COPD. Breslin E, et al. **Chest** 1998 Oct;114(4):958–64

Quality of life in patients with obstructive sleep apnea: effect of nasal continuous positive airway pressure--a prospective study. D'Ambrosio C, et al. **Chest** 1999 Jan;115(1):123–9

Validation of a standardized version of the Asthma Quality of Life Questionnaire. Juniper EF, et al. **Chest** 1999 May; 115(5):1265–70

Nocturnal asthma: effect of salmeterol on quality of life and clinical outcomes. Lockey RF, et al. **Chest** 1999 Mar; 115(3):666–73

Health-related quality of life improves following pulmonary rehabilitation and lung volume reduction surgery. Moy ML, et al. **Chest** 1999 Feb;115(2):383–9

Improvements in lung function, exercise, and quality of life in hypercapnic COPD patients after lung volume reduction surgery. O'Brien GM, et al. **Chest** 1999 Jan;115(1):75–84

Associations of smoking with hospital-based care and quality of life in patients with obstructive airway disease. Sippel JM, et al. **Chest** 1999 Mar;115(3):691–6

A prospective study on quality of life and traumatic events in early life--a 30-year follow-up. Ventegodt S. **Child Care Health Dev** 1999 May;25(3):213–21

Radiofrequency catheter ablation of common atrial flutter: significance of palpitations and quality-of-life evaluation in patients with proven isthmus block. Anselme F, et al. **Circulation** 1999 Feb 2;99(4):534–40

Randomized, controlled trial of long-term moderate exercise training in chronic heart failure: effects on functional capacity, quality of life, and clinical outcome. Belardinelli R, et al. **Circulation** 1999 Mar 9;99(9):1173–82

Health-related quality of life after angioplasty and stent placement in patients with iliac artery occlusive disease: results of a randomized controlled clinical trial. The Dutch Iliac Stent Trial Study Group. Bosch JL, et al. **Circulation** 1999 Jun 22;99(24):3155–60

Quality of life in patients with bioprostheses and mechanical prostheses. Evaluation of cohorts of patients aged 51 to 65 years at implantation. Perchinsky M, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II81–6; discussion II86–7

Impact of managed waiting for coronary artery bypass graft surgery on patients' perceived quality of life. Teo KK, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II29–33; discussion II33–4

Assessment of quality of life in patients with chest pain and normal coronary arteriogram (syndrome X) using a specific questionnaire. Atienza F, et al. **Clin Cardiol** 1999 Apr; 22(4):283–90

One-year follow-up of quality of life in adults with untreated growth hormone deficiency. Badia X, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):765–71

The influence of hydrocortisone substitution on the quality of life and parameters of bone metabolism in patients with secondary hypocortisolism. Wichers M, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):759–65

Rhinitis management: the patient's perspective. Juniper EF. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:34–8

Quality of life in tube-fed patients with diabetes mellitus. Gallagher-Allred C, et al. **Clin Nutr** 1998 Sep;17 Suppl 2:60–2 (15 ref.)

Structured assessment of the consequences of composite resection. Ackerstaff AH, et al. **Clin Otolaryngol** 1998 Aug; 23(4):339–44

Dizziness symptom severity and impact on daily living as perceived by patients suffering from peripheral vestibular disorder. Mendel B, et al. **Clin Otolaryngol** 1999 Aug; 24(4):286–93

A new short practical quality of life questionnaire for use in head and neck oncology outpatient clinics. Young PE, et al. **Clin Otolaryngol** 1998 Dec;23(6):528–32

Quality of life and the ICIDH: towards an integrated conceptual model for rehabilitation outcomes research [see comments] Post MW, et al. **Clin Rehabil** 1999 Feb; 13(1):5–15. Comment in: Clin Rehabil 1999 Feb;13(1):2–4.

Efficacy, tolerability, and effects on quality of life of inhaled salmeterol and oral theophylline in patients with mild-to-moderate chronic obstructive pulmonary disease. SLMT02 Italian Study Group. Di Lorenzo G, et al. **Clin Ther** 1998 Nov-Dec;20(6):1130–48

Effects of comorbidity on health-related quality-of-life scores: an analysis of clinical trial data. Xuan J, et al. **Clin Ther** 1999 Feb;21(2):383–403

Living kidney donation: donor risks and quality of life. Johnson EM, et al. **Clin Transpl** 1997;:231–40

Frozen in time: life in the face of chronic care cutbacks. Cook K. **CMAJ** 1999 Apr 6;160(7):1045–7

The fatigue of cancer [letter; comment] Potter PJ. **CMAJ** 1998 Oct 20;159(8):921. Comment on: CMAJ 1998 Jun 30;158(13):1748–50.

Protease inhibitors raising quality-of-life issues for HIV patients. Silversides A. **CMAJ** 1999 Mar 23;160(6):894

Autogenous training--an anxiolytic and a factor contributing to the improvement of the quality of life. Gruden V. **Coll Antropol** 1999 Jun;23(1):315–9

The use of patient based outcome measures in clinical decision making. Hayes C. **Community Dent Health** 1998 Mar;15(1):19–21

Using oral quality of life measures in geriatric dentistry. Jones JA. **Community Dent Health** 1998 Mar;15(1):13–8 (27 ref.)

Assessing oral health outcomes for orthodontics--measuring health status and quality of life. O'Brien K, et al. **Community Dent Health** 1998 Mar;15(1):22–6

Conference summary: assessing oral health outcomes--measuring health status and quality of life. Slade GD, et al. **Community Dent Health** 1998 Mar; 15(1):3–7

Uses of oral health related quality of life measures in Public Health. Weintraub JA. **Community Dent Health** 1998 Mar; 15(1):8–12 (24 ref.)

Use of oral health related quality of life measures in managed dental care organisations. White BA. **Community Dent Health** 1998 Mar;15(1):27–31

Components of social support and quality of life in severely mentally ill, low income individuals and a general population group. Caron J, et al. **Community Ment Health J** 1998 Oct;34(5):459–75

Quality of life assessment in psychiatry: the Subjective Quality of Life Profile (SQLP)--first results of a new instrument. Dazord A, et al. **Community Ment Health J** 1998 Oct;34(5):525–35

Age, gender and quality of life. Mercier C, et al. **Community Ment Health J** 1998 Oct;34(5):487–500

Quality of life of severely mentally ill individuals: a comparative study. Tempier R, et al. **Community Ment Health J** 1998 Oct;34(5):477–85

Quality of life, gender and schizophrenia: a cross-national survey in Canada, Cuba, and U.S.A. Vandiver VL. **Community Ment Health J** 1998 Oct;34(5):501–11

The Lancashire Quality of Life Profile: first experiences in The Netherlands. van Nieuwenhuizen C, et al. **Community Ment Health J** 1998 Oct;34(5):513–24

Oral contraceptives: therapeutic uses and quality-of-life benefits--case presentations. Sulak PJ. **Contraception** 1999 Jan;59(1 Suppl):35S–38S

Improvement in quality of life during 5 years after coronary artery bypass grafting. Herlitz J, et al. **Coron Artery Dis** 1998;9(8):519–26

Aortic valve replacement in patients older than 85 years: outcomes and the effect on their quality of life. Levin IL, et al. **Coron Artery Dis** 1998;9(6):373–80

Arranging the death of a dog. Kelleher MJ. **Crisis** 1998; 19(2):58–9

Quality of life after prolonged intensive care. Niskanen M, et al. **Crit Care Med** 1999 Jun;27(6):1132–9

Long-term results and quality of life after parasuicidal multiple blunt trauma [see comments] Ruchholtz S, et al. **Crit Care Med** 1999 Mar;27(3):522–30. Comment in: Crit Care Med 1999 Mar;27(3):458–9.

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The treatment of recurrent ovarian carcinoma: balancing patient desires, therapeutic benefit, cost containment and quality of life. Bomalaski JJ. **Curr Opin Obstet Gynecol** 1999 Feb;11(1):11–5 (37 ref.)

Quality of life issues in male pattern hair loss [editorial; comment] Passchier J. **Dermatology** 1998;197(3):217–8. Comment on: Dermatology 1998 ;197(3):223–9.

Health-related quality of life in childhood epilepsy: the results of children's participation in identifying the components. Ronen GM, et al. **Dev Med Child Neurol** 1999 Aug;41(8):554–9

Longitudinal study on glycaemic control and quality of life in patients with Type 2 diabetes mellitus referred for intensified control. Goddijn PP, et al. **Diabet Med** 1999 Jan;16(1):23–30

Quality of life in type 2 diabetic patients is affected by complications but not by intensive policies to improve blood glucose or blood pressure control (UKPDS 37). U.K. Prospective Diabetes Study Group. **Diabetes Care** 1999 Jul; 22(7):1125–36

Cultural adaptation of the diabetes quality-of-life measure for Chinese patients [letter] Cheng AY, et al. **Diabetes Care** 1999 Jul;22(7):1216–7

Effect of domperidone on the health-related quality of life of patients with symptoms of diabetic gastroparesis. Farup CE, et al. **Diabetes Care** 1998 Oct;21(10):1699–706

Depression in subjects with type 2 diabetes. Predictive factors and relation to quality of life [letter] Hänninen JA, et al. **Diabetes Care** 1999 Jun;22(6):997–8

Determinants of the quality of life of patients with diabetes under intensified insulin therapy. Rose M, et al. **Diabetes Care** 1998 Nov;21(11):1876–85

Valuing quality of life and improvements in glycemic control in people with type 2 diabetes. Testa MA, et al. **Diabetes Care** 1998 Dec;21 Suppl 3:C44–52

Quality of life in NIDDM patients assessed with the SF-20 questionnaire. Hänninen J, et al. **Diabetes Res Clin Pract** 1998 Oct;42(1):17–27

Measuring health-related quality of life in patients with upper gastrointestinal disease. Moyer CA, et al. **Dig Dis** 1998 Sep-Oct;16(5):315–24 (47 ref.)

Health-related quality of life outcomes of omeprazole versus ranitidine in poorly responsive symptomatic gastroesophageal reflux disease. Revicki DA, et al. **Dig Dis** 1998 Sep-Oct;16(5):284–91

Development of a health-related quality-of-life questionnaire for individuals with gastroesophageal reflux disease: a validation study. Colwell HH, et al. **Dig Dis Sci** 1999 Jul; 44(7):1376–83

Health-related quality of life in patients with Crohn's disease: influence of surgical operation--a prospective trial. Tillinger W, et al. **Dig Dis Sci** 1999 May;44(5):932–8

Distal pancreatectomy in chronic pancreatitis. Schoenberg MH, et al. **Dig Surg** 1999;16(2):130–6

Impact of irritable bowel syndrome on quality of life and resource use in the United States and United Kingdom. Hahn BA, et al. **Digestion** 1999 Jan-Feb;60(1):77–81

Quality of life after surgery for rectal cancer: do we still need a permanent colostomy? Renner K, et al. **Dis Colon Rectum** 1999 Sep;42(9):1160–7

How does a cerebral stroke affect quality of life? Towards an adequate theoretical account. Wyller TB, et al. **Disabil Rehabil** 1999 Apr;21(4):152–61

Heart failure treatments: issues of safety versus issues of quality of life. Feenstra J, et al. **Drug Saf** 1999 Jan;20(1):1–7 (32 ref.)

Review of available instruments and methods for assessing quality of life in anti-anginal trials. Bliven BD, et al. **Drugs Aging** 1998 Oct;13(4):311–20 (49 ref.)

Drugs, heart failure and quality of life: what are we achieving? What should we be trying to achieve? Doba N, et al. **Drugs Aging** 1999 Mar;14(3):153–63 (46 ref.)

Self-efficacy and social support as mediators in the relation between disease severity and quality of life in patients with epilepsy. Amir M, et al. **Epilepsia** 1999 Feb;40(2):216–24

Development of the Quality of Life in Epilepsy Inventory for Adolescents: the QOLIE-AD-48. Cramer JA, et al. **Epilepsia** 1999 Aug;40(8):1114–21

Telephone validation of the Quality of Life in Epilepsy Inventory-89 (QOLIE-89). Leidy NK, et al. **Epilepsia** 1999 Jan;40(1):97–106

The Spanish Version of the Quality-of-Life in Epilepsy Inventory (QOLIE-31): translation, validity, and reliability. Torres X, et al. **Epilepsia** 1999 Sep;40(9):1299–304

Quality of life and personality in adults with epilepsy. Zhu DT, et al. **Epilepsia** 1998 Nov;39(11):1208–12

Health-related quality of life for rural American Indians in New Mexico. Gilliland FD, et al. **Ethn Health** 1998 Aug; 3(3):223–9

Objective and subjective quality of life of first-admitted women and men with schizophrenia. Röder-Wanner UU, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(5):250–8

Quality of life after coronary angioplasty or bypass surgery [editorial; comment] Bertrand ME, et al. **Eur Heart J** 1999 May;20(9):635–6. Comment on: Eur Heart J 1999 May;20(9):653–8.

Significant improvement of quality of life following atrioventricular synchronous pacing in patients with hypertrophic obstructive cardiomyopathy. Data from 1 year of follow-up. PIC study group. Pacing In Cardiomyopathy. Gadler F, et al. **Eur Heart J** 1999 Jul; 20(14):1044–50

Measuring quality of life in patients with coronary heart disease. Thompson DR, et al. **Eur Heart J** 1998 May; 19(5):693–5

Quality of life after coronary angioplasty or bypass surgery. 1-year follow-up in the Coronary Angioplasty versus Bypass Revascularization investigation (CABRI) trial [see comments] Währborg P. **Eur Heart J** 1999 May;20(9):653–8 . Comment in: Eur Heart J 1999 May;20(9):635–6.

Exercise training in heart failure improves quality of life and exercise capacity. Willenheimer R, et al. **Eur Heart J** 1998 May;19(5):774–81

Assessing the quality of life of patients with cancer: east meets west [editorial; comment] Aaronson NK. **Eur J Cancer** 1998 May;34(6):767–9. Comment on: Eur J Cancer 1998 May;34(6):810–5.

Health-related quality of life in survivors of tumours of the central nervous system in childhood--a preference-based approach to measurement in a cross-sectional study. Barr RD, et al. **Eur J Cancer** 1999 Feb;35(2):248–55

Quality of life assessment in daily clinical oncology practice: a feasibility study. Detmar SB, et al. **Eur J Cancer** 1998 Jul;34(8):1181–6

Applicability of the Health Utilities Index to a population of childhood survivors of central nervous system tumours in the U.K. Glaser AW, et al. **Eur J Cancer** 1999 Feb; 35(2):256–61

Retrospective assessment of quality of life and treatment outcome in patients with Hodgkin's disease from 1969 to 1994. Greil R, et al. **Eur J Cancer** 1999 May;35(5):698–706

Quality of life and survival in patients with advanced non-small cell lung cancer receiving supportive care plus chemotherapy with carboplatin and etoposide or supportive care only. A multicentre randomised phase III trial. Joint Lung Cancer Study Group. Helsing M, et al. **Eur J Cancer** 1998 Jun;34(7):1036–44

Using reference data on quality of life--the importance of adjusting for age and gender, exemplified by the EORTC QLQ-C30 (+3). Hjermstad MJ, et al. **Eur J Cancer** 1998 Aug;34(9):1381–9

Quality of life after radiation therapy of cerebral low-grade gliomas of the adult: results of a randomised phase III trial on dose response (EORTC trial 22844). EORTC Radiotherapy Co-operative Group. Kiebert GM, et al. **Eur J Cancer** 1998 Nov;34(12):1902–9

Methodological and statistical issues of quality of life (QoL) and economic evaluation in cancer clinical trials: report of a workshop. Neymark N, et al. **Eur J Cancer** 1998 Aug; 34(9):1317–33

The construction and testing of the EORTC colorectal cancer-specific quality of life questionnaire module (QLQ-CR38). European Organization for Research and Treatment of Cancer Study Group on Quality of Life. Sprangers MA, et al. **Eur J Cancer** 1999 Feb;35(2):238–47

Megestrol acetate in advanced, progressive, hormone-insensitive cancer. Effects on the quality of life: a placebo-controlled, randomised, multicentre trial. Westman G, et al. **Eur J Cancer** 1999 Apr;35(4):586–95

The effect of treating reflux oesophagitis with omeprazole on quality of life [see comments] McDougall NI, et al. **Eur J Gastroenterol Hepatol** 1998 Jun;10(6):459–64. Comment in: Eur J Gastroenterol Hepatol 1998 Jun;10(6):451–4.

Quality of life assessment in reflux disease [see comments] Tebaldi M, et al. **Eur J Gastroenterol Hepatol** 1998 Jun; 10(6):451–4. Comment in: Eur J Gastroenterol Hepatol 1998 Jun;10(6):459–64.

Quality of life following repair of ruptured and elective abdominal aortic aneurysms. Hennessy A, et al. **Eur J Surg** 1998 Sep;164(9):673–7

The role of quality of life in functional gastrointestinal disorders: regulatory issues. Bergmann JF, et al. **Eur J Surg Suppl** 1998;(583):87–91 (14 ref.)

Quality of life in irritable bowel syndrome, effect of therapy. Chassany O, et al. **Eur J Surg Suppl** 1998;(583):81–6

Psychosocial moderators of quality of life in irritable bowel syndrome. Naliboff BD, et al. **Eur J Surg Suppl** 1998; (583):57–9

Problems in measurement of quality of life in dyspepsia trials. Veldhuyzen van Zanten S. **Eur J Surg Suppl** 1998; (583):77–80 (20 ref.)

Quality of Life in Reflux and Dyspepsia patients. Psychometric documentation of a new disease-specific questionnaire (QOLRAD). Wiklund IK, et al. **Eur J Surg Suppl** 1998;(583):41–9

Quality of life in different gastrointestinal conditions. Wiklund IK, et al. **Eur J Surg Suppl** 1998;(582):56–61 (52 ref.)

Development of a questionnaire to measure quality of life in patients with irritable bowel syndrome. Wong E, et al. **Eur J Surg Suppl** 1998;(583):50–6

Quality of life associated with varying degrees of chronic lower limb ischaemia: comparison with a healthy sample. Klevsgård R, et al. **Eur J Vasc Endovasc Surg** 1999 Apr; 17(4):319–25

Prospective evaluation of quality of life after conventional abdominal aortic aneurysm surgery. Perkins JM, et al. **Eur J Vasc Endovasc Surg** 1998 Sep;16(3):203–7

Changes in health-related quality of life after carotid endarterectomy. Vriens EM, et al. **Eur J Vasc Endovasc Surg** 1998 Nov;16(5):395–400

Analysis of factors that characterize health impairment in patients with chronic respiratory failure. Quality of Life in Chronic Respiratory Failure Group. Carone M, et al. **Eur Respir J** 1999 Jun;13(6):1293–300

Quality of life in elderly subjects with a diagnostic label of asthma from general practice registers. Dyer CA, et al. **Eur Respir J** 1999 Jul;14(1):39–45

Development and validation of the Mini Asthma Quality of Life Questionnaire. Juniper EF, et al. **Eur Respir J** 1999 Jul;14(1):32–8

A French survey of 3,225 patients treated with CPAP for obstructive sleep apnoea: benefits, tolerance, compliance and quality of life. Meslier N, et al. **Eur Respir J** 1998 Jul;12(1):185–92

Quality-of-life assessment in children and adolescents with asthma. Rutishauser C, et al. **Eur Respir J** 1998 Aug; 12(2):486–94 (72 ref.)

Quality of life during formoterol treatment: comparison between asthma-specific and generic questionnaires. Canadian and the Dutch Formoterol Investigators. van der Molen T, et al. **Eur Respir J** 1998 Jul;12(1):30–4

Quality of life changes following KTP/Nd:YAG laser treatment of the prostate and TURP. Carter A, et al. **Eur Urol** 1999 Aug;36(2):92–8

Medical therapy and quality of life. Chapple CR. **Eur Urol** 1998;34 Suppl 2:10–7; discussion 46 (63 ref.)

Association of health-related quality of life and benign prostatic enlargement. Girman CJ, et al. **Eur Urol** 1999 Apr;35(4):277–84

Symptomatic BPH and hypertension: does comorbidity affect quality of life? Man in't Veld AJ. **Eur Urol** 1998;34 Suppl 2:29–36; discussion 47

Relief of BPO or improvement in quality of life? Teillac P. **Eur Urol** 1998;34 Suppl 2:3–9

The impact of type 2 diabetes mellitus on daily functioning. de Grauw WJ, et al. **Fam Pract** 1999 Apr;16(2):133–9

2nd European Congress of Pharmacology. Drugs against disease to improve quality of life: gateway to the 21st century through EPHAR symposia. Budapest, Hungary, 3–7 July 1999. Abstracts. **Fundam Clin Pharmacol** 1999;13 Suppl 1:7s–395s

A comparison of the quality of life reported by elderly whites and elderly blacks on dialysis. Kutner NG, et al. **Geriatr Nephrol Urol** 1998;8(2):77–83

Health-related quality of life (HRQOL) in end stage renal disease (ESRD) patients over 65 years. Rebollo P, et al. **Geriatr Nephrol Urol** 1998;8(2):85–94

Conceptualization and measurement of quality of life in dementia: the dementia quality of life instrument (DQoL). Brod M, et al. **Gerontologist** 1999 Feb;39(1):25–35

Health, valuation of life, and the wish to live. Lawton MP, et al. **Gerontologist** 1999 Aug;39(4):406–16

Organizational determinants of resident satisfaction with assisted living. Sikorska E. **Gerontologist** 1999 Aug; 39(4):450–6

Opinions of elderly people on treatment for end-stage renal disease. Ahmed S, et al. **Gerontology** 1999 May-Jun; 45(3):156–9

Quality of life in chronic illness. Lawton MP. **Gerontology** 1999 Jul-Aug;45(4):181–3 (2 ref.)

Validation of a specific quality of life questionnaire for functional digestive disorders [see comments] Chassany O, et al. **Gut** 1999 Apr;44(4):527–33. Comment in: Gut 1999 Apr;44(4):450–1.

The quality of quality of life [comment] Irvine EJ. **Gut** 1999 Apr;44(4):450–1. Comment on: Gut 1999 Apr;44(4):527–33.

Quality of life in patients receiving home parenteral nutrition. Jeppesen PB, et al. **Gut** 1999 Jun;44(6):844–52

Development of a disease specific questionnaire to measure health related quality of life in patients with chronic liver disease. Younossi ZM, et al. **Gut** 1999 Aug;45(2):295–300

Out-of-hospital treatment of venous thrombosis: socioeconomic aspects and patients' quality of life. Bossuyt PM, et al. **Haemostasis** 1998;28 Suppl 3:100–7 (14 ref.)

Influence of HIV-infection on the Karnofsky score and general social functioning in patients with hemophilia. Wenzel T, et al. **Haemostasis** 1998 Mar-Apr;28(2):106–10

Wearing your organ transplant on your sleeve [news] Caplan AL. **Hastings Cent Rep** 1999 Mar-Apr;29(2):52

A prospective study on quality of life of laryngeal cancer patients treated with radiotherapy. de Graeff A, et al. **Head Neck** 1999 Jul;21(4):291–6

Quality of life after laryngectomy: are functional disabilities important? Deleyiannis FW, et al. **Head Neck** 1999 Jul; 21(4):319–24

Quality of life and oral function following radiotherapy for head and neck cancer. Epstein JB, et al. **Head Neck** 1999 Jan;21(1):1–11

Malnutrition and food intake in relation to quality of life in head and neck cancer patients. Hammerlid E, et al. **Head Neck** 1998 Sep;20(6):540–8

Quality of life measurements of speech in the head and neck cancer patient population. Karnell LH, et al. **Head Neck** 1999 May;21(3):229–38

The University of Washington head and neck cancer measure as a predictor of outcome following primary surgery for oral cancer. Rogers SN, et al. **Head Neck** 1999 Aug; 21(5):394–401

The weighting exercise for the Swedish version of the EuroQol. Björk S, et al. **Health Econ** 1999 Mar;8(2):117–26

Modelling the EuroQol data: a comparison of discrete choice conjoint and conditional preference modelling. Hakim Z, et al. **Health Econ** 1999 Mar;8(2):103–16

Health behavior, quality of work life, and organizational

effectiveness in the lumber industry. Donaldson SI, et al. **Health Educ Behav** 1999 Aug;26(4):579–91

Teaching coping skills enhances quality of life more than peer support: results of a randomized trial with multiple sclerosis patients. Schwartz CE. **Health Psychol** 1999 May; 18(3):211–20

Empirically defined health states for depression from the SF–12. Sugar CA, et al. **Health Serv Res** 1998 Oct;33(4 Pt 1):911–28

Quality of life four years after acute myocardial infarction: short form 36 scores compared with a normal population. Brown N, et al. **Heart** 1999 Apr;81(4):352–8

Quality of life in chronic heart failure: cilazapril and captopril versus placebo. Cilazapril–Captopril Multicentre Group. Bulpitt CJ, et al. **Heart** 1998 Jun;79(6):593–8

Prospective study of health related quality of life before and after coronary artery bypass grafting: outcome at five years [see comments] Caine N, et al. **Heart** 1999 Apr;81(4):347–51 . Comment in: Heart 1999 Apr;81(4):331–2.

Changes in cardiorespiratory fitness, psychological wellbeing, quality of life, and vocational status following a 12 month cardiac exercise rehabilitation programme. Dugmore LD, et al. **Heart** 1999 Apr;81(4):359–66

Determinants of an impaired quality of life five years after coronary artery bypass surgery [see comments] Herlitz J, et al. **Heart** 1999 Apr;81(4):342–6. Comment in: Heart 1999 Apr;81(4):331–2.

Reproducibility and responsiveness of quality of life assessment and six minute walk test in elderly heart failure patients. O'Keeffe ST, et al. **Heart** 1998 Oct;80(4):377–82

Changes in health status and quality of life and the impact of uncertainty in patients who survive life-threatening arrhythmias. Carroll DL, et al. **Heart Lung** 1999 Jul–Aug; 28(4):251–60

Adaptation after treatment for heart disease: preliminary examination within a stress appraisal context. Delunas LR, et al. **Heart Lung** 1999 May–Jun;28(3):186–94

Health-related quality of life evaluations of gastric and pancreatic cancer. Schmier J, et al. **Hepatogastroenterology** 1999 May–Jun;46(27):1998–2004 (42 ref.)

Quality of life following liver transplantation. Tarter RE. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1398–403

Reduction of health-related quality of life in chronic hepatitis C and improvement with interferon therapy. The Consensus Interferon Study Group [see comments] Bonkovsky HL, et al. **Hepatology** 1999 Jan;29(1):264–70. Comment in: Hepatology 1999 Jan;29(1):277–9.

Strategies and pitfalls in quality of life research. Brown RS Jr. **Hepatology** 1999 Jun;29(6 Suppl):9S–12S

Quality of life before and after liver transplantation for cholestatic liver disease. Gross CR, et al. **Hepatology** 1999 Feb;29(2):356–64

Impaired health-related quality of life in chronic hepatitis C: the how, but not the why [editorial; comment] Koff RS. **Hepatology** 1999 Jan;29(1):277–9. Comment on: Hepatology 1999 Jan;29(1):264–70.

Health-related quality of life in chronic hepatitis C: impact of disease and treatment response. The Interventional Therapy Group. Ware JEJr, et al. **Hepatology** 1999 Aug; 30(2):550–5

Al wants more hair, less fat, and a better sex life ... and he wants his health plan to pay for it. Greene J. **Hosp Health Netw** 1999 Mar;73(3):36–40, 42, 2

Measuring the quality of life following cancer treatment [editorial] [see comments] Hopwood P. **Hosp Med** 1998 Sep;59(9):676–7. Comment in: Hosp Med 1998 Sep;59(9):737.

Quality of life in cancer patients [letter; comment] Stephens R. **Hosp Med** 1998 Sep;59(9):737. Comment on: Hosp Med 1998 Sep;59(9):676–7.

Racial and gender differences in quality of life following kidney transplantation. Johnson CD, et al. **Image J Nurs Sch** 1998;30(2):125–30

Ethnomethodologic analysis of accounts of feeding demented residents in long-term care. Pierson CA. **Image J Nurs Sch** 1999;31(2):127–31

Sociomedical problems of aged population in a rural area of Wardha district. Kishore S, et al. **Indian J Public Health** 1997 Apr–Jun;41(2):43–8

A comparison of the quality of life in patients with severe ulcerative colitis after total colectomy versus medical treatment with intravenous cyclosporin. Cohen RD, et al. **Inflamm Bowel Dis** 1999 Feb;5(1):1–10

Perianal disease, growth failure, and quality of life. Colletti RB. **Inflamm Bowel Dis** 1998 Aug;4(3):214–6 (35 ref.)

Quality of life and social issues in older depressed patients. Warner JP. **Int Clin Psychopharmacol** 1998 Sep;13 Suppl 5:S19–24 (36 ref.)

Quality of life and end stage renal disease therapeutic programs. DIA–QOL Group. Dialysis quality of life. Mingardi G. **Int J Artif Organs** 1998 Nov;21(11):741–7

Medical knowledge, quality of life and accreditation of quality in health care. The perspective of the clinical nephrologist. Zoccali C. **Int J Artif Organs** 1998 Nov; 21(11):717–20

Life control and health. Pietilä AM. **Int J Circumpolar Health** 1998 Jul;57(2–3):211–7 (51 ref.)

A survey of hospital morbidity, mortality and quality of life following coronary artery bypass surgery in a UK Indo–Asian population. Goldsmith IR, et al. **Int J Clin Pract** 1999 Jan–Feb;53(1):9–14

Quality of life in Korean patients with inflammatory bowel diseases: ulcerative colitis, Crohn's disease and intestinal Behçet's disease. Kim WH, et al. **Int J Colorectal Dis** 1999 Feb;14(1):52–7

Impact of chronic systemic and neurological disorders on disability, depression and life satisfaction. Broe GA, et al. **Int J Geriatr Psychiatry** 1998 Oct;13(10):667–73

Geriatric Depression Screening Scale (GDS) in patients hospitalized for physical rehabilitation. Lieberman D, et al. **Int J Geriatr Psychiatry** 1999 Jul;14(7):549–55

Comparison of the Global Assessment of Functioning scale and the Montgomery–Asberg Depression Rating Scale in elderly depressed patients [letter] Mittmann N, et al. **Int J Geriatr Psychiatry** 1998 Aug;13(8):573–4

The social consequences for families with Alzheimer's disease patients: potential impact of new drug treatment. Wimo A, et al. **Int J Geriatr Psychiatry** 1999 May;14(5):338–47 (92 ref.)

A historical review (1965–1997) of studies on class, health, and quality of life: a personal account. Navarro V. **Int J Health Serv** 1998;28(3):389–406

Quality of life effects of alprostadil therapy for erectile dysfunction: results of a trial in Europe and South Africa. Willke RJ, et al. **Int J Impot Res** 1998 Dec;10(4):239–46

Effects of cognitive-behavioral interventions on quality of life in persons with HIV. Eller LS. **Int J Nurs Stud** 1999 Jun;36(3):223–33

Measuring quality of life in cardiac rehabilitation clients. Rukholm E, et al. **Int J Nurs Stud** 1998 Aug;35(4):210–6

The Obesity Adjustment Survey: development of a scale to assess psychological adjustment to morbid obesity. Butler GS, et al. **Int J Obes Relat Metab Disord** 1999 May; 23(5):505–11

Predictors of major weight gain in adult Finns: stress, life satisfaction and personality traits. Korkeila M, et al. **Int J Obes Relat Metab Disord** 1998 Oct;22(10):949–57

Anthropometric and psychosocial determinants of visceral obesity in healthy postmenopausal women. Räikkönen K, et al. **Int J Obes Relat Metab Disord** 1999 Aug;23(8):775–82

The economic and social consequences of work-related musculoskeletal disorders: the Connecticut Upper-Extremity Surveillance Project (CUSP). Morse TF, et al. **Int J Occup Environ Health** 1998 Oct–Dec; 4(4):209–16

Quality of life measurements do not support palliative pancreatic cancer treatments. Kokoska ER, et al. **Int J Oncol** 1998 Dec;13(6):1323–9

A review of quality of life assessment in oral cancer. Rogers SN, et al. **Int J Oral Maxillofac Surg** 1999 Apr;28(2):99–117 (118 ref.)

EORTC QLQ–30. A breach of copyright [letter; comment] Cull A. **Int J Pancreatol** 1998 Aug;24(1):64–5. Comment on: Int J Pancreatol 1997 Dec;22(3):163–70.

Quality of life assessment in chronic pancreatitis [letter; comment] Johnson CD, et al. **Int J Pancreatol** 1998 Aug; 24(1):63–4, discussion 65. Comment on: Int J Pancreatol 1997 Dec;22(3):163–70.

Elderly patients with heart failure: a study of satisfaction with care and quality of life. Candlish P, et al. **Int J Qual Health Care** 1998 Apr;10(2):141–6

Can patient satisfaction improve health among patients with angina pectoris? Guldvog B. **Int J Qual Health Care** 1999 Jun;11(3):233–40

The Quality of Well-Being Scale: critical similarities and differences with SF–36 [see comments] Kaplan RM, et al. **Int J Qual Health Care** 1998 Dec;10(6):509–20. Comment in: Int J Qual Health Care 1998 Dec;10(6):463–5.

Quality of life in patients cured from a carcinoma of the head and neck by radiotherapy: the importance of the target volume. Huguenin PU, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):47–52

Long-term morbidity and quality of life in patients with localized prostate cancer undergoing definitive radiotherapy or radical prostatectomy. Lilleby W, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):735–43

Development of a head and neck companion module for the quality of life-radiation therapy instrument (QOL–RTI) [published erratum appears in Int J Radiat Oncol Biol Phys 1998 Dec 1;42(5):1181–2] Trotti A, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):257–61

A programme for the enhancement of autonomy in young adults with physical disabilities: the development of a realistic self concept, individual perception of quality of life and the development of independent living skills. Reiter S, et al. **Int J Rehabil Res** 1999 Mar;22(1):71–4

Assessing quality of life among adults with mental retardation living in various settings. Schwartz C, et al. **Int J Rehabil Res** 1999 Jun;22(2):123–30

Long-term functional and psychological problems in whiplash associated disorders. Söderlund A, et al. **Int J Rehabil Res** 1999 Jun;22(2):77–84 (47 ref.)

Quality of life: theory and methodology in rehabilitation. Tam SF. **Int J Rehabil Res** 1998 Dec;21(4):365–74

Assessment of rehabilitation needs in cancer patients. van Harten WH, et al. **Int J Rehabil Res** 1998 Sep;21(3):247–57

A quality of life assessment package: disease specific measure for pacemaker and cardiac rehabilitation patients. Woodend AK, et al. **Int J Rehabil Res** 1998 Mar;21(1):71–8

Influence of women's work status on the well-being of Indian couples. Andrade C, et al. **Int J Soc Psychiatry** 1999 Spring; 45(1):65–75

Application and results of the Manchester Short Assessment of Quality of Life (MANSA). Priebe S, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):7–12

Quality of life in patients with human immunodeficiency virus infection: impact of social support, coping style and hopelessness. Swindells S, et al. **Int J STD AIDS** 1999 Jun; 10(6):383–91

Empirical criteria for the selection of quality-of-life instruments for the evaluation of peripheral blood progenitor cell transplantation. Glick HA, et al. **Int J Technol Assess Health Care** 1998 Summer; 14(3):419–30

Patient-reported quality of life after radical prostatectomy for prostate cancer. Arai Y, et al. **Int J Urol** 1999 Feb; 6(2):78–86

Quality of life in patients having an ileal conduit, continent reservoir or orthotopic neobladder after cystectomy for bladder carcinoma. Kitamura H, et al. **Int J Urol** 1999 Aug; 6(8):393–9

Survey of patient satisfaction after total arthroplasty of the hip. Pacault–Legendre V, et al. **Int Orthop** 1999;23(1):23–30

Living better longer through technology [editorial] Small GW. **Int Psychogeriatr** 1999 Mar;11(1):3–6

The ethnic cultural and social aspects of incontinence—a pilot study. Chaliha C, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(3):166–70

Effect of a urinary control insert on quality of life in incontinent women. Sand PK, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(2):100–5

We can make a difference. Rosebrook J. **Iowa Med** 1999 Jul–Aug;89(4):16–7

Audit of reflux oesophagitis at 4 years. Pace F, et al. **Ital J Gastroenterol Hepatol** 1998 Aug;30(4):355–60

Adolescent suicide risk today: a paradox. Lester D. **J Adolesc** 1998 Aug;21(4):499–503

Conceptualization and measurement of quality of life as an outcome variable for health care intervention and research. Anderson KL, et al. **J Adv Nurs** 1999 Feb;29(2):298–306 (58 ref.)

The quality of life of cancer patients participating in phase I clinical trials using SEIQoL–DW. Campbell S, et al. **J Adv Nurs** 1999 Aug;30(2):335–43

Sleep and quality of life assessment in patients undergoing coronary artery bypass grafting. Edéll–Gustafsson UM, et al. **J Adv Nurs** 1999 May;29(5):1213–20

Quality of life following liver transplantation: physical and functional recovery. Gelling L. **J Adv Nurs** 1998 Oct; 28(4):779–85

Validation of the quality of life scale: living with HIV. Holzemer WL, et al. **J Adv Nurs** 1998 Sep;28(3):622–30

The early post-operative concerns of men after radical prostatectomy. Moore KN, et al. **J Adv Nurs** 1999 May; 29(5):1121–9

Individuals' perception of their quality of life following a liver transplant: an exploratory study. Robertson G. **J Adv Nurs** 1999 Aug;30(2):497–505

Quality of life in newly diagnosed cancer patients. Rustoen T, et al. **J Adv Nurs** 1999 Feb;29(2):490–8

Dimensions of health-related quality of life in persons living with HIV disease. Sousa KH, et al. **J Adv Nurs** 1999 Jan; 29(1):178–87

The influence of demographic and socioeconomic factors on health-related quality of life in asthma. Apter AJ, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):72–8

Validation of the standardized version of the Rhinoconjunctivitis Quality of Life Questionnaire. Juniper EF, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):364–9

The impact of onychomycosis on quality of life: development of an international onychomycosis-specific questionnaire to measure patient quality of life. Drake LA, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):189–96

Quality of life improvement in a patient with severe atopic dermatitis treated with photopheresis. Mohla G, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):780–2

Functional status and quality of life in patients with heart failure undergoing coronary bypass surgery after assessment of myocardial viability. Marwick TH, et al. **J Am Coll Cardiol** 1999 Mar;33(3):750–8

Does hoarseness of voice from recurrent nerve paralysis after esophagectomy for carcinoma influence patient quality of life? Baba M, et al. **J Am Coll Surg** 1999 Mar;188(3):231–6

A new approach to the palliation of advanced proximal gastric cancer. Saidi F, et al. **J Am Coll Surg** 1999 Sep; 189(3):259–68

Longterm outcomes and quality of life after Z-shaped anastomosis for Hirschsprung's disease. Suita S, et al. **J Am Coll Surg** 1998 Dec;187(6):577–83

Productive aging: a quality of life agenda. Kerschner H, et al. **J Am Diet Assoc** 1998 Dec;98(12):1445–8

The effects of dietary patterns on quality of life: a substudy of the Dietary Approaches to Stop Hypertension trial. Plaisted CS, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S84–9

Case problem: balancing risk of foodborne illness with patient rights and quality of life. Theis M. **J Am Diet Assoc** 1999 Sep;99(9):1132–3

Ethical problems in the use of antidementia drugs [letter; comment] Bianchetti A, et al. **J Am Geriatr Soc** 1999 Jul; 47(7):913. Comment on: J Am Geriatr Soc 1998 Jun;46(6):784–7.

Urge incontinence: new health-related quality of life measures [see comments] Brown JS, et al.

J Am Geriatr Soc 1999 Aug;47(8):980–8. Comment in: J Am Geriatr Soc 1999 Aug;47(8):1032–3.

Effects of urge urinary incontinence on quality of life in older people [editorial; comment] Burgio K, et al. **J Am Geriatr Soc** 1999 Aug;47(8):1032–3. Comment on: J Am Geriatr Soc 1999 Aug;47(8):980–8. Comment on: J Am Geriatr Soc 1999 Aug;47(8):989–94.

Evaluation of Simulated Presence: a personalized approach to enhance well-being in persons with Alzheimer's disease [see comments] Camberg L, et al. **J Am Geriatr Soc** 1999 Apr;47(4):446–52. Comment in: J Am Geriatr Soc 1999 Apr;47(4):492–3.

Quality of life impact of urge incontinence in older persons: a new measure and conceptual structure [see comments] DuBeau CE, et al. **J Am Geriatr Soc** 1999 Aug;47(8):989–94. Comment in: J Am Geriatr Soc 1999 Aug;47(8):1032–3.

Asthma: an underappreciated disease with a huge impact on society [editorial] D'Alonzo GE. **J Am Osteopath Assoc** 1999 May;99(5):242, 251

Factors contributing to the decision for euthanasia of dogs with congestive heart failure. Mallery KF, et al. **J Am Vet Med Assoc** 1999 Apr 15;214(8):1201–4

Reducing indices of unhappiness among individuals with profound multiple disabilities during therapeutic exercise routines. Green CW, et al. **J Appl Behav Anal** 1999 Summer;32(2):137–46; quiz 146–7

Baby Doe revisited. Tanner JA. **J Ark Med Soc** 1998 Nov; 95(6):235–8

Adherence to combination therapy in persons living with HIV: balancing the hardships and the blessings. Erlen JA, et al. **J Assoc Nurses AIDS Care** 1999 Jul–Aug;10(4):75–84

Quality of life and self-care management strategies of PLWAs with chronic diarrhea. Henry SB, et al. **J Assoc Nurses AIDS Care** 1999 Mar–Apr;10(2):46–54

Depressive symptoms and HIV disease. Moneyham L. **J Assoc Nurses AIDS Care** 1999 Jul–Aug;10(4):93–4

Health-related quality of life in HIV disease: achieving a balance. Murdaugh C. **J Assoc Nurses AIDS Care** 1998 Nov–Dec;9(6):59–71

Development of an instrument to assess stress levels and quality of life in children with asthma. Mishoe SC, et al. **J Asthma** 1998;35(7):553–63

The impact of asthma on health-related quality of life. Schmier JK, et al. **J Asthma** 1998;35(7):585–97 (81 ref.)

Prolonged adjustment difficulties among those with acute posttrauma distress following burn injury. Fauerbach JA, et al. **J Behav Med** 1999 Aug;22(4):359–78

The Pediatric Cancer Quality of Life Inventory-32 (PCQL-32). II. Feasibility and range of measurement. Varni JW, et al. **J Behav Med** 1999 Aug;22(4):397–406

Malignant tumor of the distal part of the femur or the proximal part of the tibia: endoprosthetic replacement or rotationplasty. Functional outcome and quality-of-life measurements. Hillmann A, et al. **J Bone Joint Surg Am** 1999 Apr;81(4):462–8

Is revision as good as primary hip replacement? A comparison of quality of life. Robinson AH, et al. **J Bone Joint Surg Br** 1999 Jan;81(1):42–5

New assistive technology for passive standing. Gear AJ, et al. **J Burn Care Rehabil** 1999 Mar–Apr;20(2):164–9 (14 ref.)

The physical, functional, and developmental outcome of pediatric burn survivors from 1 to 12 months postinjury. Gorga D, et al. **J Burn Care Rehabil** 1999 Mar–Apr; 20(2):171–8; discussion 170

The 1998 Clinical Research Award. Sleep disturbance after burn injury: a frequent yet understudied complication. Lawrence JW, et al. **J Burn Care Rehabil** 1998 Nov–Dec; 19(6):480–6

Rationale and design of the Valsartan Heart Failure Trial: a large multinational trial to assess the effects of valsartan, an angiotensin-receptor blocker, on morbidity and mortality in chronic congestive heart failure [see comments] Cohn JN, et al. **J Card Fail** 1999 Jun;5(2):155–60. Comment in: J Card Fail 1999 Jun;5(2):77.

Patient preferences for heart failure treatment: utilities are valid measures of health-related quality of life in heart failure. Havranek EP, et al. **J Card Fail** 1999 Jun;5(2):85–91

Effect of high- versus low-frequency exercise training in multidisciplinary cardiac rehabilitation on health-related quality of life. Berkhuysen MA, et al. **J Cardiopulm Rehabil** 1998 Jan–Feb;19(1):22–8

Functional status in pulmonary rehabilitation participants. Haggerty MC, et al. **J Cardiopulm Rehabil** 1998 Jan–Feb; 19(1):35–42

Quality of life in patients with atrial fibrillation. Jung W, et al. **J Cardiovasc Electrophysiol** 1998 Aug;9(8 Suppl):S177–86 (49 ref.)

Correlation between early, measurable improvement in quality of life and speed of visual rehabilitation after phacoemulsification. Jayamanne DG, et al. **J Cataract Refract Surg** 1999 Aug;25(8):1135–9

Evaluating cataract surgery gains by assessing patients' quality of life using the VF-7. Uusitalo RJ, et al. **J Cataract Refract Surg** 1999 Jul;25(7):989–94

Special issue. Translating functional health and well-being: International Quality of Life Assessment (IQOLA) Project Studies of the SF-36 Health Survey. Issue dedicated to Denis Bucquet. **J Clin Epidemiol** 1998 Nov;51(11):891–1214

Translation, validation, and norming of the Dutch language version of the SF-36 Health Survey in community and chronic disease populations. Aaronson NK, et al. **J Clin Epidemiol** 1998 Nov;51(11):1055–68

Testing the measurement properties of the Spanish version of the SF-36 Health Survey among male patients with chronic obstructive pulmonary disease. Quality of Life in COPD Study Group. Alonso J, et al. **J Clin Epidemiol** 1998 Nov;51(11):1087–94

The Italian SF-36 Health Survey: translation, validation and norming. Apolone G, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1025–36

Tests of data quality, scaling assumptions, and reliability of the Danish SF-36. Bjorner JB, et al. **J Clin Epidemiol** 1998 Nov;51(11):1001–11

Differential item functioning in the Danish translation of the SF-36. Bjorner JB, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1189–202

The Danish SF-36 Health Survey: translation and preliminary validity studies. Bjorner JB, et al. **J Clin Epidemiol** 1998 Nov;51(11):991–9

Translating health status questionnaires and evaluating their quality: the IQOLA Project approach. International Quality of Life Assessment. Bullinger M, et al. **J Clin Epidemiol** 1998 Nov;51(11):913–23

Postmastectomy/postlumpectomy pain in breast cancer survivors. Carpenter JS, et al. **J Clin Epidemiol** 1998 Dec; 51(12):1285–92

Translation, adaptation, and validation of the SF-36 Health Survey for use in Japan. Fukuhara S, et al. **J Clin Epidemiol** 1998 Nov;51(11):1037–44

Psychometric and clinical tests of validity of the Japanese SF-36 Health Survey. Fukuhara S, et al. **J Clin Epidemiol** 1998 Nov;51(11):1045–53

Tests of data quality, scaling assumptions, and reliability of the SF-36 in eleven countries: results from the IQOLA Project. International Quality of Life Assessment. Gandek B, et al. **J Clin Epidemiol** 1998 Nov;51(11):1149–58

Cross-validation of item selection and scoring for the SF-12 Health Survey in nine countries: results from the IQOLA Project. International Quality of Life Assessment. Gandek B, et al. **J Clin Epidemiol** 1998 Nov;51(11):1171–8

Methods for validating and norming translations of health status questionnaires: the IQOLA Project approach. International Quality of Life Assessment. Gandek B, et al. **J Clin Epidemiol** 1998 Nov;51(11):953–9

Relationship of health-related quality of life to symptom severity in diabetes mellitus: a study in Trinidad and Tobago. Gulliford MC, et al. **J Clin Epidemiol** 1999 Aug; 52(8):773–80

Generic and specific measurement of health-related quality of life in a clinical trial of respiratory rehabilitation. Guyatt GH, et al. **J Clin Epidemiol** 1999 Mar;52(3):187–92

The Marks Asthma Quality of Life Questionnaire: further validation and examination of responsiveness to change. Katz PP, et al. **J Clin Epidemiol** 1999 Jul;52(7):667–75

Testing the equivalence of translations of widely used response choice labels: results from the IQOLA Project. International Quality of Life Assessment. Keller SD, et al. **J Clin Epidemiol** 1998 Nov;51(11):933–44

Use of structural equation modeling to test the construct validity of the SF-36 Health Survey in ten countries: results from the IQOLA Project. International Quality of Life Assessment. Keller SD, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1179–88

Tests of scaling assumptions and construct validity of the Chinese (HK) version of the SF-36 Health Survey. Lam CL, et al. **J Clin Epidemiol** 1998 Nov;51(11):1139–47

The French SF-36 Health Survey: translation, cultural adaptation and preliminary psychometric evaluation. Leplège A, et al. **J Clin Epidemiol** 1998 Nov;51(11):1013–23

Translation and performance of the Norwegian SF-36 Health Survey in patients with rheumatoid arthritis. I. Data quality, scaling assumptions, reliability, and construct validity. Loge JH, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1069–76

An examination of self- and telephone-administered modes of administration for the Australian SF-36. Perkins JJ, et al. **J Clin Epidemiol** 1998 Nov;51(11):969–73

Perceived health over 3 years after percutaneous coronary balloon angioplasty. Permanyer-Miralda G, et al. **J Clin Epidemiol** 1999 Jul;52(7):615–23

The Swedish SF-36 Health Survey II. Evaluation of clinical validity: results from population studies of elderly and women in Gothenborg. Persson LO, et al. **J Clin Epidemiol** 1998 Nov;51(11):1095–103

Proxy use of the Canadian SF-36 in rating health status of the disabled elderly. Pierre U, et al. **J Clin Epidemiol** 1998 Nov;51(11):983–90

Comparison of Rasch and summated rating scales constructed from SF-36 physical functioning items in seven countries: results from the IQOLA Project. International Quality of Life Assessment. Raczek AE, et al. **J Clin Epidemiol** 1998 Nov;51(11):1203–14

Testing Dutch and French translations of the SF-36 Health Survey among Belgian angina patients. Razavi D, et al. **J Clin Epidemiol** 1998 Nov;51(11):975–81

Translation and psychometric evaluation of a Chinese version of the SF-36 Health Survey in the United States. Ren XS, et al. **J Clin Epidemiol** 1998 Nov;51(11):1129–38

Statistical issues encountered in the comparison of health-related quality of life in diseased patients to published general population norms: problems and solutions. Rose MS, et al. **J Clin Epidemiol** 1999 May; 52(5):405–12

Adaptation and validation of the SF-36 Health Survey for use in Australia. Sanson-Fisher RW, et al. **J Clin Epidemiol** 1998 Nov;51(11):961–7

Testing the measurement properties of the Short Form-36 Health Survey in a frail elderly population. Stadnyk K, et al. **J Clin Epidemiol** 1998 Oct;51(10):827–35

Convergent discriminitive, and predictive validity of the Prostate Cancer Specific Quality of Life Instrument (PROSQOLI) assessment and comparison with analogous scales from the EORTC QLQ-C30 and a trial-specific module. European Organisation for Research and Treatment of Cancer. Core Quality of Life Questionnaire. Stockler MR, et al. **J Clin Epidemiol** 1999 Jul;52(7):653–66

The Swedish SF-36 Health Survey III. Evaluation of criterion-based validity: results from normative population. Sullivan M, et al. **J Clin Epidemiol** 1998 Nov; 51(11):1105–13

Cross-cultural comparisons of the content of SF-36 translations across 10 countries: results from the IQOLA Project. International Quality of Life Assessment. Wagner AK, et al. **J Clin Epidemiol** 1998 Nov;51(11):925–32

Overview of the SF-36 Health Survey and the International Quality of Life Assessment (IQOLA) Project. Ware JE Jr, et al. **J Clin Epidemiol** 1998 Nov;51(11):903–12

Methods for testing data quality, scaling assumptions, and reliability: the IQOLA Project approach. International Quality of Life Assessment. Ware JE Jr, et al. **J Clin Epidemiol** 1998 Nov;51(11):945–52

The factor structure of the SF-36 Health Survey in 10 countries: results from the IQOLA Project. International Quality of Life Assessment. Ware JE Jr, et al. **J Clin Epidemiol** 1998 Nov;51(11):1159–65

The equivalence of SF-36 summary health scores estimated using standard and country-specific algorithms in 10 countries: results from the IQOLA Project. International Quality of Life Assessment. Ware JE Jr, et al. **J Clin Epidemiol** 1998 Nov;51(11):1167–70

Assessing quality of life in clinical research: from where have we come and where are we going? Wood-Dauphinee S. **J Clin Epidemiol** 1999 Apr;52(4):355–63 (108 ref.)

For the sake of the children: destigmatizing intersexuality. Preves SE. **J Clin Ethics** 1998 Winter;9(4):411–20 (24 ref.)

Quality of life in head and neck cancer patients: validation of the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-H&N35. Bjordal K, et al. **J Clin Oncol** 1999 Mar;17(3):1008–19

Quality of life in advanced colorectal cancer [letter; comment] Conroy T, et al. **J Clin Oncol** 1999 May; 17(5):1644. Comment on: J Clin Oncol 1998 Feb;16(2):418–26.

Quality-of-life benefit in chemotherapy patients treated with epoetin alfa is independent of disease response or tumor type: results from a prospective community oncology study. Procrit Study Group. Demetri GD, et al. **J Clin Oncol** 1998 Oct;16(10):3412–25

First year after head and neck cancer: quality of life. Gritz ER, et al. **J Clin Oncol** 1999 Jan;17(1):352–60

Physical and psychological morbidity after axillary lymph node dissection for breast cancer. Hack TF, et al. **J Clin Oncol** 1999 Jan;17(1):143–9

Health-related quality of life 1 year after allogeneic or autologous stem-cell transplantation: a prospective study. Hjermstad MJ, et al. **J Clin Oncol** 1999 Feb;17(2):706–18

Randomized comparison of four tools measuring overall quality of life in patients with advanced cancer [see comments] Sloan JA, et al. **J Clin Oncol** 1998 Nov; 16(11):3662–73. Comment in: J Clin Oncol 1999 Feb;17(2):738–40.

Wherefore global quality-of-life assessment? [letter; comment] Somerfield MR. **J Clin Oncol** 1999 Feb; 17(2):738–40. Comment on: J Clin Oncol 1998 Nov;16(11):3662–73.

Automated collection of quality-of-life data: a comparison of paper and computer touch-screen questionnaires. Velikova G, et al. **J Clin Oncol** 1999 Mar;17(3):998–1007

The Wisconsin Quality of Life Index: a multidimensional model for measuring quality of life. Diamond R, et al. **J Clin Psychiatry** 1999;60 Suppl 3:29–31

Should we consider mood disturbance in schizophrenia as an important determinant of quality of life? Tollefson GD, et al. **J Clin Psychiatry** 1999;60 Suppl 5:23–9; discussion 30 (45 ref.)

Quality of life and atypical antipsychotics [letter; comment] Rudnick A. **J Clin Psychopharmacol** 1998 Oct;18(5):424–5. Comment on: J Clin Psychopharmacol 1997 Oct;17(5):407–18.

Quality of life: expanding the scope of clinical significance. Gladis MM, et al. **J Consult Clin Psychol** 1999 Jun; 67(3):320–31

Quality of life after surgical excision followed by radiotherapy for cancer of the tongue and floor of the mouth: evaluation of 78 patients. Konstantinović VS. **J Craniomaxillofac Surg** 1999 Jun;27(3):192–7

Quality of life 5–10 years after primary surgery for oral and oro-pharyngeal cancer. Rogers SN, et al. **J Craniomaxillofac Surg** 1999 Jun;27(3):187–91

The influence of growth hormone (GH) deficiency and GH replacement on quality of life in GH-deficient patients. Deijen JB, et al. **J Endocrinol Invest** 1999;22(5 Suppl):127–36 (54 ref.)

Two hot topics in the field of GH therapy: quality of life in hypopituitary adults, and clinical implications of the somatopause. Report from an interactive discussion.

Jørgensen JO. **J Endocrinol Invest** 1999;22(5 Suppl):150–6 (26 ref.)

The use of self-rating questionnaires as a quantitative measure of quality of life in adult growth hormone deficiency. Murray RD, et al. **J Endocrinol Invest** 1999;22(5 Suppl):118–26 (37 ref.)

Relationships of disability, health management and psychosocial conditions to cause-specific mortality among a community-residing elderly people. Nakanishi N, et al. **J Epidemiol** 1998 Oct;8(4):195–202

Sentinel practices in evaluating longer periods of care: quality of life and drug therapy of terminally ill persons in Lower Saxony (Germany). Busse R, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:56S–60S

Contrasting evidence of the effectiveness of cosmetic surgery from two health related quality of life measures. Klassen A, et al. **J Epidemiol Community Health** 1999 Jul; 53(7):440–1

"Specific" scale compared with "generic" scale: a double measurement of the quality of life in a French community sample of obese subjects. Le Pen C, et al. **J Epidemiol Community Health** 1998 Jul;52(7):445–50

Association between educational level and health related quality of life in Spanish adults. Regidor E, et al. **J Epidemiol Community Health** 1999 Feb;53(2):75–82

What are quality of life improvements measuring and do they last? An explanatory model [letter] Long MJ. **J Eval Clin Pract** 1999 Aug;5(3):355–9

Depression, health-related quality of life, and medical cost outcomes of receiving recommended levels of antidepressant treatment. Revicki DA, et al. **J Fam Pract** 1998 Dec;47(6):446–52

Measurement of the quality of life during different clinical phases of breast cancer. Chie WC, et al. **J Formos Med Assoc** 1999 Apr;98(4):254–60

Comparison of generic (SF-36) vs. disease-specific (GERD-HRQL) quality-of-life scales for gastroesophageal reflux disease. Velanovich V. **J Gastrointest Surg** 1998 Mar-Apr;2(2):141–5

Racial differences in patients' perceptions of debilitated health states [see comments] Cykert S, et al. **J Gen Intern Med** 1999 Apr;14(4):217–22. Comment in: J Gen Intern Med 1999 Apr;14(4):260–1.

Quality of life and Parkinson's disease. Koplas PA, et al. **J Gerontol A Biol Sci Med Sci** 1999 Apr;54(4):M197–202

Symptoms, disability, and quality of life in patients with carpal tunnel syndrome. Atroshi I, et al. **J Hand Surg [Am]** 1999 Mar;24(2):398–404

The effect of transdermal nicotine on digital perfusion in reformed habitual smokers. Fulcher SM, et al. **J Hand Surg [Am]** 1998 Sep;23(5):792–9

Arterial reconstruction in the ischemic hand and wrist: effects on microvascular physiology and health-related quality of life. Koman LA, et al. **J Hand Surg [Am]** 1998 Sep; 23(5):773–82

A view from the inside: the diving bell and the butterfly. Phipps E. **J Head Trauma Rehabil** 1999 Feb;14(1):89–90

Predictors of quality of life in patients at one year after heart transplantation. Grady KL, et al. **J Heart Lung Transplant** 1999 Mar;18(3):202–10

The quality of life after aortic valve replacement with homografts or prosthetic valves. Podolec P, et al. **J Heart Valve Dis** 1999 May;8(3):270–6

Impact of antihypertensive treatment on quality of life: comparison between bisoprolol and bendrofluazide. Vanmolkot FH, et al. **J Hum Hypertens** 1999 Aug; 13(8):559–63

Quality of life of elderly patients with isolated systolic hypertension: baseline data from the Syst-Eur trial. Syst-Eur Trial Investigators. Fletcher AE, et al. **J Hypertens** 1998 Aug;16(8):1117–24

Quality of life and calcium channel blockade with nifedipine GITS versus amlodipine in hypertensive patients in Spain. Gastrointestinal Therapeutic System. Testa MA, et al. **J Hypertens** 1998 Dec;16(12 Pt 1):1839–47

Proxy respondents and the reliability of the Quality of Life Questionnaire Empowerment factor. Stancliffe RJ. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):185–93

Does admission to a department of internal medicine improve patients' quality of life? Eriksen BO, et al. **J Intern Med** 1998 Nov;244(5):397–404

Quality of life after cerebrovascular stroke: a systematic study of patients' preferences for different functional outcomes. Hallan S, et al. **J Intern Med** 1999 Sep;246(3):309–16

Comparison of effects of quinapril and metoprolol on glycaemic control, serum lipids, blood pressure, albuminuria and quality of life in non-insulin-dependent diabetes mellitus patients with hypertension. Swedish Quinapril Group. Ostman J, et al. **J Intern Med** 1998 Aug; 244(2):95–107

The survival and well-being of patients treated for Cushing's syndrome. Pikkarainen L, et al. **J Intern Med** 1999 May; 245(5):463–8

Improvement in quality of life differs between women and men after coronary artery bypass surgery. Sjöland H, et al. **J Intern Med** 1999 May;245(5):445–54

Ventricular performance and quality of life in patients who underwent radiofrequency AV junction ablation and permanent pacemaker implantation due to medically refractory atrial tachyarrhythmias. Manolis AG, et al. **J Interv Card Electrophysiol** 1998 Mar;2(1):71–6

How should quality of life be measured? Lara-Muñoz C, et al. **J Investig Med** 1999 Jan;47(1):17–24 (99 ref.)

Psychological morbidity following laryngectomy: a pilot study. Gibson AR, et al. **J Laryngol Otol** 1999 Apr; 113(4):349–52

Marital quality among couples living under the threat of forced relocation: the case of families in the Golan Heights. Shamai M, et al. **J Marital Fam Ther** 1999 Apr;25(2):237–52

Description and valuation of health-related quality of life among the general public in Japan by the EuroQol. Hisashige A, et al. **J Med Invest** 1998 Aug;45(1-4):123–9

Effects of vinorelbine on quality of life and survival of elderly patients with advanced non-small-cell lung cancer. The Elderly Lung Cancer Vinorelbine Italian Study Group. **J Natl Cancer Inst** 1999 Jan 6;91(1):66–72

Re: Quality of life in advanced prostate cancer: results of a randomized therapeutic trial [letter; comment] Albertsen PC. **J Natl Cancer Inst** 1999 Apr 7;91(7):646. Comment on: J Natl Cancer Inst 1998 Oct 21;90(20):1537–44.

Re: Quality of life in advanced prostate cancer: results of a randomized therapeutic trial [letter; comment] Caubet JF. **J Natl Cancer Inst** 1999 Feb 17;91(4):381–2. Comment on: J Natl Cancer Inst 1998 Oct 21;90(20):1537–44.

Opportunities and challenges: assessing quality of life in clinical trials [editorial; comment] Giesler RB, et al. **J Natl Cancer Inst** 1998 Oct 21;90(20):1498–9. Comment on: J Natl Cancer Inst 1998 Oct 21;90(20):1537–44.

Quality of life in advanced prostate cancer: results of a randomized therapeutic trial [see comments] Moinpour CM, et al. **J Natl Cancer Inst** 1998 Oct 21;90(20):1537–44 . Comment in: J Natl Cancer Inst 1998 Oct 21;90(20):1498–9. Comment in: J Natl Cancer Inst 1999 Feb 17;91(4):381–2. Comment in: J Natl Cancer Inst 1999 Apr 7;91(7):646.

Quality of life in patients with panic disorder. Candilis PJ, et al. **J Nerv Ment Dis** 1999 Jul;187(7):429–34

Daytime somnolence in myotonic dystrophy. Phillips MF, et al. **J Neurol** 1999 Apr;246(4):275–82

Health outcome measures [editorial; comment] Ben-Shlomo Y. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):416. Comment on: J Neurol Neurosurg Psychiatry 1999 Apr;66(4):431–5.

Influence of clinical and demographic variables on quality of life in patients with Parkinson's disease [see comments] Karlsen KH, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):431–5. Comment in: J Neurol Neurosurg Psychiatry 1999 Apr;66(4):416.

Quality of life in multiple sclerosis in France, Germany, and the United Kingdom. Cost of Multiple Sclerosis Study Group [see comments] Murphy N, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):460–6. Comment in: J Neurol Neurosurg Psychiatry 1998 Oct;65(4):433.

Quality of life in multiple sclerosis [editorial; comment] Rothwell PM. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):433. Comment on: J Neurol Neurosurg Psychiatry 1998 Oct;65(4):460–6.

Validation of Italian multiple sclerosis quality of life 54 questionnaire. Solari A, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):158–62

Quality of life for ventilator-dependent ALS patients and their caregivers. Gelinas DF, et al. **J Neurol Sci** 1998 Oct; 160 Suppl 1:S134–6

The European Amyotrophic Lateral Sclerosis Health Profile Study. ALS-HPS Steering Group. Jenkinson C, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S122–6

The brain tumor experience and quality of life: a qualitative study. Fox S, et al. **J Neurosci Nurs** 1998 Aug;30(4):245–52

Use of a quality of life instrument to improve assessment of brain tumor patients in an outpatient setting. Fox S. **J Neurosci Nurs** 1998 Oct;30(5):322–5

Outcome after complex neurosurgery: the caregiver's burden is forgotten. Lang DA, et al. **J Neurosurg** 1999 Sep; 91(3):359–63

The impact of AIDS-associated wasting on quality of life: qualitative issues of measurement and evaluation. Testa MA, et al. **J Nutr** 1999 Jan;129(1S Suppl):282S–289S

The effect of an oral prosthesis on the quality of life for head and neck cancer patients. Moroi HH, et al. **J Oral Rehabil** 1999 Apr;26(4):265–73

Functional outcome and quality of life in patients with Type B ankle fractures: a two-year follow-up study. Ponzer S, et al. **J Orthop Trauma** 1999 Jun-Jul;13(5):363–8

Quality of life in patients with rhinosinusitis. Durr DG, et al. **J Otolaryngol** 1999 Apr;28(2):108–11 (33 ref.)

The impact of socio-cultural and clinical factors on health-related quality of life reports among Hispanic and African-American cancer patients. Wan GJ, et al. **J Outcome Meas** 1999;3(3):200–15

Fatigue and quality of life in breast cancer patients undergoing autologous stem cell transplantation: a longitudinal comparative study. Hann DM, et al. **J Pain Symptom Manage** 1999 May;17(5):311–9

The use of the Rotterdam Symptom Checklist in palliative care. Hardy JR, et al. **J Pain Symptom Manage** 1999 Aug; 18(2):79–84

Family caregiver quality of life: differences between curative and palliative cancer treatment settings. Weitzner MA, et al. **J Pain Symptom Manage** 1999 Jun;17(6):418–28

Nursing interventions for newly diagnosed older cancer patients facing terminal illness. McCorkle R, et al. **J Palliat Care** 1998 Autumn;14(3):39–45

The Caregiver Quality of Life Index-Cancer (CQOLC) Scale: revalidation in a home hospice setting. Weitzner MA, et al. **J Palliat Care** 1999 Summer;15(2):13–20

Quality of life in children with Crohn's disease: a pilot study. Akobeng AK, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr; 28(4):S37–9

Quality of life of parents and siblings of children with inflammatory bowel disease. Akobeng AK, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S40–2

Assessment of quality of life in the younger child: the use of an animated computer program. Büller H. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S53–5 (11 ref.)

Quality of life in inflammatory bowel disease: background and definitions. Ferry GD. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S15–8 (28 ref.)

Development of a quality-of-life index for pediatric inflammatory bowel disease: dealing with differences related to age and IBD type. Griffiths AM, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S46–52

Development and subsequent refinement of the inflammatory bowel disease questionnaire: a quality-of-life instrument for adult patients with inflammatory bowel disease. Irvine EJ. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S23–7 (14 ref.)

Potential uses for quality-of-life measures in childhood inflammatory bowel disease. Koot HM, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S56–61 (20 ref.)

Social implications of childhood Crohn's disease. Moody G, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S43–5

Effects of anal invasive treatment and incontinence on mental health and psychosocial functioning of adolescents with Hirshsprung's disease and low anorectal anomalies [letter; comment] Peña A, et al. **J Pediatr Surg** 1998 Nov; 33(11):1732. Comment on: J Pediatr Surg 1998 Mar;33(3):468–75.

Quality-of-life assessment after ileoanal pull-through for ulcerative colitis and familial adenomatous polyposis. Shamberger RC, et al. **J Pediatr Surg** 1999 Jan;34(1):163–6

Outcome of patients operated on for esophageal atresia: 30 years' experience. Somppi E, et al. **J Pediatr Surg** 1998 Sep;33(9):1341–6

Long-term outcome after Hirschsprung's disease: patients' perspectives. Yanchar NL, et al. **J Pediatr Surg** 1999 Jul; 34(7):1152–60

What makes a life good? King LA, et al. **J Pers Soc Psychol** 1998 Jul;75(1):156–65

Quality of life assessment of bone-anchored fixed partial denture patients with unilateral mandibular distal-extension edentulism. Kuboki T, et al. **J Prosthet Dent** 1999 Aug; 82(2):182–7

Giving up the car: older women's losses and experiences. Bonnel WB. **J Psychosoc Nurs Ment Health Serv** 1999 May; 37(5):10–5

Do pre-, early, and mid-pregnancy life events influence gestational length? Sjöström K, et al. **J Psychosom Obstet Gynaecol** 1999 Sep;20(3):170–6

Psychological adjustment after cardiac transplantation. Salmon P, et al. **J Psychosom Res** 1998 Nov;45(5):449–58

Changes in quality of life following unilateral pallidal stimulation in Parkinson's disease. Vingerhoets G, et al. **J Psychosom Res** 1999 Mar;46(3):247–55

Effect of exercise training on quality of life in patients with chronic heart failure. Wielenga RP, et al. **J Psychosom Res** 1998 Nov;45(5):459–64

Psychological distress in patients awaiting heart transplantation. Zipfel S, et al. **J Psychosom Res** 1998 Nov; 45(5):465–70

Has SF-36's role physical measure fallen short? [letter] Johnson EM. **J Public Health Med** 1999 Jun;21(2):234

Measurement of quality of life in surgery. Camilleri-Brennan J, et al. **J R Coll Surg Edinb** 1999 Aug;44(4):252–9 (59 ref.)

Quality of life implications of inadequate protein nutrition among hemodialysis patients. Ohri-Vachaspati P, et al. **J Ren Nutr** 1999 Jan;9(1):9–13

Quality of life in systemic lupus erythematosus: a controlled study. Abu-Shakra M, et al. **J Rheumatol** 1999 Feb; 26(2):306–9

Musculoskeletal manifestations, pain, and quality of life in Persian Gulf War veterans referred for rheumatologic evaluation [see comments] Escalante A, et al. **J Rheumatol** 1998 Nov;25(11):2228–35. Comment in: J Rheumatol 1998 Nov;25(11):2059–61.

Health related quality of life in a population sample with arthritis. Hill CL, et al. **J Rheumatol** 1999 Sep; 26(9):2029–35

The responsiveness of generic quality of life instruments in rheumatic diseases. A systematic review of randomized controlled trials. Ortiz Z, et al. **J Rheumatol** 1999 Jan; 26(1):210–6 (26 ref.)

Validation of the MOS SF-36 for quality of life assessment of patients with systemic lupus erythematosus in Singapore. Thumboo J, et al. **J Rheumatol** 1999 Jan;26(1):97–102

Generic health instruments do not comprehensively capture patient perceived improvement in patients with carpal tunnel syndrome [see comments] Vaile JH, et al. **J Rheumatol** 1999 May;26(5):1163–6. Comment in: J Rheumatol 1999 May;26(5):1022–3.

Sensitivity to change of generic quality of life instruments in patients with rheumatoid arthritis: preliminary findings in the generic health OMERACT study.

OMERACT/ILAR Task Force on Generic Quality of Life. Life Outcome Measures in Rheumatology. International League of Associations for Rheumatology. Wells G, et al. **J Rheumatol** 1999 Jan;26(1):217–21

Emerging concepts of health and health promotion. Raphael D. **J Sch Health** 1998 Sep;68(7):297–300

Effect of prior lumbar discectomy on outcome of lumbar fusion: a prospective analysis using the SF-36 measure. Glassman SD, et al. **J Spinal Disord** 1998 Oct;11(5):383–8

The effect of exercise and diet on mental health and quality of life in middle-aged individuals with elevated risk factors for cardiovascular disease. Sørensen M, et al. **J Sports Sci** 1999 May;17(5):369–77

The functioning and well being of persons who seek treatment for drug and alcohol use. Stein MD, et al. **J Subst Abuse** 1998;10(1):75–84

Quality of life following surgery for vertebral metastases from breast cancer. Okuyama T, et al. **J Surg Oncol** 1999 Jan; 70(1):60–3

Quality of life in patients undergoing salvage procedures for locally recurrent prostate cancer. Tefilli MV, et al. **J Surg Oncol** 1998 Nov;69(3):156–61

Quality of life and posttraumatic stress disorder: a pilot study assessing changes in SF-36 scores before and after treatment in a placebo-controlled trial of fluoxetine. Malik ML, et al. **J Trauma Stress** 1999 Apr;12(2):387–93

Quality of life and prostate cancer treatment [editorial; comment] Barry MJ. **J Urol** 1999 Aug;162(2):407. Comment on: J Urol 1999 Aug;162(2):398–406.

Correlates of dissatisfaction with treatment in patients with prostate cancer diagnosed through screening. Carvalhal GF, et al. **J Urol** 1999 Jul;162(1):113–8

Quality of life after radical cystectomy for bladder cancer in patients with an ileal conduit, cutaneous or urethral kock pouch. Hart S, et al. **J Urol** 1999 Jul;162(1):77–81

Pain and quality of life following radical retropubic prostatectomy. Haythornthwaite JA, et al. **J Urol** 1998 Nov;160(5):1761–4

Quality of life in metastatic prostate cancer among men of lower socioeconomic status: feasibility and criterion related validity of 3 measures. Knight SJ, et al. **J Urol** 1998 Nov; 160(5):1765–9

Early quality of life assessment in men treated with permanent source interstitial brachytherapy for clinically localized prostate cancer. Lee WR, et al. **J Urol** 1999 Aug; 162(2):403–6

Recovery of health related quality of life in the year after radical prostatectomy: early experience. Litwin MS, et al. **J Urol** 1999 Feb;161(2):515–9

Health related quality of life in older men without prostate cancer. Litwin MS. **J Urol** 1999 Apr;161(4):1180–4

Cloacal exstrophy--improving the quality of life: the Johns Hopkins experience. Mathews R, et al. **J Urol** 1998 Dec; 160(6 Pt 2):2452–6

Quality of life after salvage cryotherapy: the impact of treatment parameters [see comments] Perrotte P, et al. **J Urol** 1999 Aug;162(2):398–402. Comment in: J Urol 1999 Aug;162(2):407.

Bladder preservation in patients with bladder cancer--quality versus quantity of life? [editorial; comment] Raghavan D. **J Urol** 1998 Nov;160(5):1678–9. Comment on: J Urol 1998 Nov;160(5):1673–7.

Radical retropubic prostatectomy reduces symptom scores and improves quality of life in men with moderate and severe lower urinary tract symptoms. Schwartz EJ, et al. **J Urol** 1999 Apr;161(4):1185–8

Long-term functional status and quality of life after lower extremity revascularization. Holtzman J, et al. **J Vasc Surg** 1999 Mar;29(3):395–402

Quality of life after infrainguinal bypass grafting surgery. Dutch Bypass Oral Anticoagulants or Aspirin (BOA) Study Group. Tangelder MJ, et al. **J Vasc Surg** 1999 May; 29(5):913–9

Sex comparisons in life satisfaction and psychosocial adjustment scores with an older adult sample: examining the effect of sex role differences in older cohorts. Hollis LA. **J Women Aging** 1998;10(3):59–77

Family relationships of older, rural women: stability and change [see comments] Scott JP. **J Women Aging** 1998; 10(4):67–80. Comment in: J Women Aging 1998 ;10(4):81–90.

Subjective realities of rural older women's lives: a case study [see comments] Shenk D. **J Women Aging** 1998;10(4):7–24 . Comment in: J Women Aging 1998 ;10(4):81–90.

Urge incontinence: the patient's perspective. Brown JS, et al. **J Womens Health** 1998 Dec;7(10):1263–9

Glycemic control and quality of life in patients with type 2 diabetes [letter; comment] Adelman MD. **JAMA** 1999 Jun 2;281(21):1985; discussion 1986. Comment on: JAMA 1998 Nov 4;280(17):1490–6.

Euthanasia and end-of-life care [letter; comment] Colebunders R, et al. **JAMA** 1999 Apr 28;281(16):1488. Comment on: JAMA 1999 Jan 13;281(2):163–8.

Reduced quality of life in survivors of acute respiratory distress syndrome compared with critically ill control patients. Davidson TA, et al. **JAMA** 1999 Jan 27; 281(4):354–60

Glycemic control and quality of life in patients with type 2 diabetes [letter; comment] Harari A, et al. **JAMA** 1999 Jun 2;281(21):1985–6. Comment on: JAMA 1998 Nov 4;280(17):1490–6.

Anabolic effects of nandrolone decanoate in patients receiving dialysis: a randomized controlled trial [see comments] Johansen KL, et al. **JAMA** 1999 Apr 14; 281(14):1275–81. Comment in: JAMA 1999 Apr 14;281(14):1326–7.

Health-related quality of life as a predictor of mortality following coronary artery bypass graft surgery. Participants of the Department of Veterans Affairs Cooperative Study Group on Processes, Structures, and Outcomes of Care in Cardiac Surgery. Rumsfeld JS, et al. **JAMA** 1999 Apr 14;281(14):1298–303

A piece of my mind. Call of the loon. Shwayder TA. **JAMA** 1998 Oct 14;280(14):1221–2

Quality end-of-life care: patients' perspectives [see comments] Singer PA, et al. **JAMA** 1999 Jan 13; 281(2):163–8. Comment in: JAMA 1999 Apr 28;281(16):1488.

Health economic benefits and quality of life during improved glycemic control in patients with type 2 diabetes mellitus: a randomized, controlled, double-blind trial [see comments] Testa MA, et al. **JAMA** 1998 Nov 4;280(17):1490–6. Comment in: JAMA 1999 Jun 2;281(21):1985; discussion 1986. Comment in: JAMA 1999 Jun 2;281(21):1985–6. Comment in: JAMA 1999 Jun 2;281(21):1987–8.

Quality of life after small intestinal transplantation and among home parenteral nutrition patients. DiMartini A, et al. **JPEN J Parenter Enteral Nutr** 1998 Nov-Dec;22(6):357–62

Research is long, life is short [editorial] Eguchi K. **Jpn J Clin Oncol** 1998 Dec;28(12):721–2

Quality of life (QOL) assessment of MIP (mitomycin, ifosfamide and cisplatin) chemotherapy in advanced non-small cell lung cancers (NSCLC). Han JY, et al. **Jpn J Clin Oncol** 1998 Dec;28(12):749–53

Early and mid-term outcomes of cardiac and thoracic aortic surgery in over-75-year-olds with postoperative quality of life assessment. Ogino H, et al. **Jpn J Thorac Cardiovasc Surg** 1999 Feb;47(2):57–62

Quality of life over time in dialysis: the Netherlands Cooperative Study on the Adequacy of Dialysis. NECOSAD Study Group. Merkus MP, et al. **Kidney Int** 1999 Aug;56(2):720–8

Factors affecting QOL of the home-bound elderly disabled. Takemasa S. **Kobe J Med Sci** 1998 Jun;44(3):99–114

So, professor, how will we die? [editorial] **Lancet** 1999 Feb 6;353(9151):421

Health service costs and quality of life for early elective surgery or ultrasonographic surveillance for small abdominal aortic aneurysms. UK Small Aneurysm Trial Participants [see comments] **Lancet** 1998 Nov 21; 352(9141):1656–60. Comment in: Lancet 1998 Nov 21;352(9141):1642–3. Comment in: ACP J Club 1999 May-Jun;130(3):72–3.

Methadone and quality of life [letter; comment] Torrens M, et al. **Lancet** 1999 Mar 27;353(9158):1101. Comment on: Lancet 1999 Jan 16;353(9148):221–6.

Quality of life research in patients with rectal cancer: traditional approaches versus a problem-solving oriented perspective. Koller M, et al. **Langenbecks Arch Surg** 1998 Dec;383(6):427–36 (59 ref.)

Quality of life assessment in patients undergoing head and neck surgery as evaluated by lay caregivers. Deschler DG, et al. **Laryngoscope** 1999 Jan;109(1):42–6

Quality of life and voice in patients with laryngeal carcinoma: a posttreatment comparison of laryngectomy (salvage surgery) versus radiotherapy. Finizia C, et al. **Laryngoscope** 1998 Oct;108(10):1566–73

Impact of neck dissection on quality of life. Kuntz AL, et al. **Laryngoscope** 1999 Aug;109(8):1334–8

Effects of hemimandibulectomy on quality of life. Wilson KM, et al. **Laryngoscope** 1998 Oct;108(10):1574–7

Social aspects and rehabilitation. International Leprosy Congress, Beijing, 7–12 September 1998. Workshop report. Walter CS. **Lepr Rev** 1999 Mar;70(1):85–94

Health-related quality of life after liver transplantation: a meta-analysis. Bravata DM, et al. **Liver Transpl Surg** 1999 Jul;5(4):318–31

Relationship between quality of life and clinical outcomes in advanced non-small cell lung cancer: best supportive care (BSC) versus BSC plus chemotherapy. Thongprasert S, et al. **Lung Cancer** 1999 Apr;24(1):17–24

Validation of the medical outcomes study family and marital functioning measures in SLE patients in Singapore. Thumboo J, et al. **Lupus** 1999;8(7):514–20

Quality of life in long-term survivors of cervical cancer. Li C, et al. **Maturitas** 1999 Jun 21;32(2):95–102

Quality of life in endometrial cancer survivors. Li C, et al. **Maturitas** 1999 Mar 15;31(3):227–36

Determining correspondence between scores on the EQ-5D "thermometer" and a 5-point categorical rating scale. Badia Llach X, et al. **Med Care** 1999 Jul;37(7):671–7

Quality of life at baseline: is assessment after randomization valid? The AVID Investigators. The Antiarrhythmics Versus Implantable Defibrillators. Brooks MM, et al. **Med Care** 1998 Oct;36(10):1515–9

Measurement of health-related quality of life in patients with amyotrophic lateral sclerosis in clinical trials of new therapies. Damiano AM, et al. **Med Care** 1999 Jan; 37(1):15–26

Health utilities in Alzheimer's disease: a cross-sectional study of patients and caregivers. Neumann PJ, et al. **Med Care** 1999 Jan;37(1):27–32

An international comparison of the reliability and responsiveness of the Duke Health Profile for measuring health-related quality of life of patients treated with alprostadil for erectile dysfunction. Parkerson GR Jr, et al. **Med Care** 1999 Jan;37(1):56–67

Reliability and validity of French, German, Italian, Dutch, and UK English translations of the Medical Outcomes Study HIV Health Survey. Scott-Lennox JA, et al. **Med Care** 1999 Sep;37(9):908–25

Development and validation of the Diabetes Quality of Life Clinical Trial Questionnaire. Shen W, et al. **Med Care** 1999 Apr;37(4 Suppl Lilly):AS45–66

The PedsQL: measurement model for the pediatric quality of life inventory. Varni JW, et al. **Med Care** 1999 Feb; 37(2):126–39

Application of random effects models and other methods to the analysis of multidimensional quality of life data in an AIDS clinical trial. Wu AW, et al. **Med Care** 1999 Mar; 37(3):249–58

Linking clinical relevance and statistical significance in evaluating intra-individual changes in health-related quality of life. Wyrwich KW, et al. **Med Care** 1999 May; 37(5):469–78

Use of focus groups to identify concerns about dialysis. Choice Study. Bass EB, et al. **Med Decis Making** 1999 Jul-Sep;19(3):287–95

Subjective health status and health values in the general population. Shmueli A. **Med Decis Making** 1999 Apr-Jun; 19(2):122–7

Time-tradeoff values and standard-gamble utilities assessed during telephone interviews versus face-to-face interviews. van Wijck EE, et al. **Med Decis Making** 1998 Oct-Dec; 18(4):400–5

The lived experience of chemotherapy for women with premenopausal breast cancer. Jacques C. **Med Health R I** 1999 Apr;82(4):124–5

Psychosocial aspects of gynecologic Crohn's disease. Ribaudo S, et al. **Med Health R I** 1999 Apr;82(4):126–7

Enhancing alcohol treatment outcomes through aftercare and self-help groups. Zywiak WH, et al. **Med Health R I** 1999 Mar;82(3):87–90

Psychological morbidity and quality of life in Australian women with early-stage breast cancer: a cross-sectional survey [letter; comment] Kollias J, et al. **Med J Aust** 1999 Mar 1;170(5):239–40. Comment on: Med J Aust 1998 Aug 17;169(4):192–6.

Outcomes after hip or knee replacement surgery for osteoarthritis. A prospective cohort study comparing patients' quality of life before and after surgery with age-related population norms [see comments] March LM, et al. **Med J Aust** 1999 Sep 6;171(5):235–8. Comment in: Med J Aust 1999 Sep 6;171(5):229–30.

Quality of life decisions at the beginning of life: ethical considerations. Snyder RD. **Med Law** 1998;17(4):563–9

Quality of life in clinical trials: assessment and utility with special reference to rHuEPO. Brandberg Y. **Med Oncol** 1998 Aug;15 Suppl 1:S8–12 (30 ref.)

Recombinant human erythropoietin (rHuEPO) therapy in patients with cancer-related anaemia: what have we learned? Osterborg A. **Med Oncol** 1998 Aug;15 Suppl 1:S47–9 (21 ref.)

Impact of anemia and fatigue on quality of life in cancer patients: a brief review. Thomas ML. **Med Oncol** 1998 Aug; 15 Suppl 1:S3–7 (31 ref.)

Anemia and quality of life in cancer patients: impact of transfusion and erythropoietin. Thomas ML. **Med Oncol** 1998 Aug;15 Suppl 1:S13–8 (34 ref.)

Subsequent quality of life for children irradiated for a brain tumor before age four years. Jenkin D, et al. **Med Pediatr Oncol** 1998 Dec;31(6):506–11

Quality of life and anxiety in a phase II cardiac rehabilitation program. Engebretson TO, et al. **Med Sci Sports Exerc** 1999 Feb;31(2):216–23

Anticipating menopause: observations from the Seattle Midlife Women's Health Study. Woods NF, et al. **Menopause** 1999 Summer;6(2):167–73

The hospice alternative. Promoting dignity at the end of life. Sasso HS. **Mich Med** 1998 Nov;97(11):20–1

The focus on women veterans who use Veterans Administration health care: the Veterans Administration Women's Health Project. Skinner KM, et al. **Mil Med** 1998 Nov;163(11):761–6

Effects of long-term oxygen therapy on quality of life and survival in chronic airflow limitation. Crockett AJ, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):193–6

Measures of functional status and quality of life in chronic obstructive pulmonary disease. Cullen DL. **Monaldi Arch Chest Dis** 1999 Apr;54(2):183–5 (16 ref.)

Elements in the design of rehabilitation efficacy in chronic obstructive pulmonary disease. Goldstein RS, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):460–5

Quality-of-life measures and clinical parameters in asthmatics during three year follow-up. Kauppinen R, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):400–4

Assessment and relief of dyspnoea. Mahler DA. **Monaldi Arch Chest Dis** 1998 Aug;53(4):466–70 (45 ref.)

Effect of dystonia and botulinum toxin treatment on health-related quality of life. Gudex CM, et al. **Mov Disord** 1998 Nov;13(6):941–6

Quality of life as a construct in health and disability research. Brown M, et al. **Mt Sinai J Med** 1999 May;66(3):160–9

Recent developments in the assessment of quality of life in multiple sclerosis (MS). Fischer JS, et al. **Mult Scler** 1999 Aug;5(4):251–9 (52 ref.)

Chronic heart failure and the quality of life [letter; comment] Alhaddad IA. **N Engl J Med** 1999 May 13;340(19):1511–2 . Comment on: N Engl J Med 1998 Dec 17;339(25):1810–6.

Chronic heart failure and the quality of life [letter; comment] Pritzker MR. **N Engl J Med** 1999 May 13;340(19):1511; discussion 1512. Comment on: N Engl J Med 1998 Dec 17;339(25):1810–6. Comment on: N Engl J Med 1998 Dec 17;339(25):1848–50.

Measuring health-related quality of life [letter; comment] Taylor WJ, et al. **N Z Med J** 1999 Jun 25;112(1090):239–40 . Comment on: N Z Med J 1999 Mar 12;112(1083):68–71.

WHOQOL-Hindi: a questionnaire for assessing quality of life in health care settings in India. World Health Organization Quality of Life [see comments] Saxena S, et al. **Natl Med J India** 1998 Jul-Aug;11(4):160–5. Comment in: Natl Med J India 1998 Jul-Aug;11(4):155–7.

Measuring health-related quality of life: an idea whose time has come [editorial; comment] Tan-Torres T. **Natl Med J India** 1998 Jul-Aug;11(4):155–7. Comment on: Natl Med J India 1998 Jul-Aug;11(4):160–5.

CAPD to improve quality of life in patients with refractory heart failure. Elhalel-Dranitzki M, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3041–2 (16 ref.)

Health-related quality of life in dialysis patients. A report from an Italian study using the SF-36 Health Survey. DIA-QOL Group. Mingardi G, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1503–10

Generic measures to compare burden of disease [editorial; comment] Boers M. **Neth J Med** 1999 Mar;54(3):83–5. Comment on: Neth J Med 1999 Mar;54(3):86–95.

Impairment of quality of life: rheumatoid arthritis versus sarcoidosis [see comments] Wirnsberger RM, et al. **Neth J Med** 1999 Mar;54(3):86–95. Comment in: Neth J Med 1999 Mar;54(3):83–5.

Changes of the quality of life after anterior callosotomy. Szymańska O, et al. **Neurol Neurochir Pol** 1998;32 Suppl 2:191–207 **(Eng, Pol)**

Quality of life assessment in clinical practice. Cramer JA. **Neurology** 1999;53(5 Suppl 2):S49–52 (18 ref.)

Correlates of suffering in amyotrophic lateral sclerosis. Ganzini L, et al. **Neurology** 1999 Apr 22;52(7):1434–40

Seizure frequency and the health-related quality of life of adults with epilepsy. Leidy NK, et al. **Neurology** 1999 Jul 13;53(1):162–6

The Autonomic Symptom Profile: a new instrument to assess autonomic symptoms. Suarez GA, et al. **Neurology** 1999 Feb;52(3):523–8

Urinary incontinence among elderly persons who live at home: a literature review. Steeman E, et al. **Nurs Clin North Am** 1998 Sep;33(3):441–55 (63 ref.)

Theory construction based on standards of care: a proposed theory of the peaceful end of life. Ruland CM, et al. **Nurs Outlook** 1998 Jul-Aug;46(4):169–75 (19 ref.)

Long-term nonprogressors with HIV disease. Barroso J. **Nurs Res** 1999 Sep-Oct;48(5):242–9

Psychometric properties of the functional performance inventory in patients with chronic obstructive pulmonary disease. Leidy NK. **Nurs Res** 1999 Jan-Feb;48(1):20–8

Quality of life in coronary artery disease. Lukkarinen H. **Nurs Res** 1998 Nov-Dec;47(6):337–43

Impact of weight loss, appetite, and the inflammatory response on quality of life in gastrointestinal cancer patients. O'Gorman P, et al. **Nutr Cancer** 1998;32(2):76–80

Quality of life issues: parenteral nutrition to small bowel transplantation--a review. Brook G. **Nutrition** 1998 Oct; 14(10):813–6 (24 ref.)

Success habits of long-term gastric bypass patients. Cook CM, et al. **Obes Surg** 1999 Feb;9(1):80–2

A preliminary comparison of the psychological impact of laparoscopic gastric banding and gastric bypass surgery for morbid obesity. Delin CR, et al. **Obes Surg** 1999 Apr; 9(2):155–60

Quality of life among women undergoing hysterectomies. Rowe MK, et al. **Obstet Gynecol** 1999 Jun;93(6):915–21

Effect of a vaginal device on quality of life with urinary stress incontinence. Sander P, et al. **Obstet Gynecol** 1999 Mar;93(3):407–11

The meaning of quality of life in cancer survivorship. Dow KH, et al. **Oncol Nurs Forum** 1999 Apr;26(3):519–28

Quality-of-life evaluation in patients receiving treatment for advanced prostate cancer. Esper P, et al. **Oncol Nurs Forum** 1999 Jan-Feb;26(1):107–12

Developing a team for multicultural, multi-institutional research on fatigue and quality of life. Grant M, et al. **Oncol Nurs Forum** 1998 Sep;25(8):1404–12

Side-effects burden, psychological adjustment, and life quality in women with breast cancer: pattern of association over time. Longman AJ, et al. **Oncol Nurs Forum** 1999 Jun;26(5):909–15

Relationship between fatigue and quality of life in patients with glioblastoma multiformae. Lovely MP, et al. **Oncol Nurs Forum** 1999 Jun;26(5):921–5

QOL and outcomes research in prostate cancer patients with low socioeconomic status. Kim SP, et al. **Oncology (Huntingt)** 1999 Jun;13(6):823–32; discussion 835–8

Quality of life assessment in the collaborative ocular melanoma study: design and methods. COMS-QOLS Report No. 1. COMS Quality of Life Study Group. **Ophthalmic Epidemiol** 1999 Mar;6(1):5–17

Development of a questionnaire for measurement of vision-related quality of life. Frost NA, et al. **Ophthalmic Epidemiol** 1998 Dec;5(4):185–210

Quality of life in patients with choroidal melanoma: a pilot study. Melia BM, et al. **Ophthalmic Epidemiol** 1999 Mar; 6(1):19–28

Glaucoma and quality-of-life [letter; comment] Bunce C, et al. **Ophthalmology** 1999 Mar;106(3):440. Comment on: Ophthalmology 1998 Mar;105(3):561–6.

Correlation of the vision-related functional impairment associated with blepharoptosis and the impact of blepharoptosis surgery [see comments] Federici TJ, et al. **Ophthalmology** 1999 Sep;106(9):1705–12. Comment in: Ophthalmology 1999 Sep;106(9):1649–50.

Visual acuity and quality of life in patients with cataract in Doumen County, China. He M, et al. **Ophthalmology** 1999 Aug;106(8):1609–15

The associations between self-rated vision and hearing and functional status in middle age. Lee PP, et al. **Ophthalmology** 1999 Feb;106(2):401–5

Functional status and well-being in patients with glaucoma as measured by the Medical Outcomes Study Short Form-36 questionnaire. Wilson MR, et al. **Ophthalmology** 1998 Nov;105(11):2112–6

The relationship between dental status and health-related quality of life in upper aerodigestive tract cancer patients. Allison PJ, et al. **Oral Oncol** 1999 Mar;35(2):138–43

A prospective study on quality of life of patients with cancer of the oral cavity or oropharynx treated with surgery with or without radiotherapy. de Graeff A, et al. **Oral Oncol** 1999 Jan;35(1):27–32

A comparison between the University of Washington Head and Neck Disease-Specific measure and the Medical Short Form 36, EORTC QOQ-C33 and EORTC Head and Neck 35. Rogers SN, et al. **Oral Oncol** 1998 Sep;34(5):361–72

Health-related quality of life of Colles' fracture patients. Dolan P, et al. **Osteoporos Int** 1999;9(3):196–9

Physical and psychosocial correlates of head and neck cancer: a review of the literature. De Boer MF, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):427–36 (81 ref.)

Quality-of-life effects of psychosocial intervention in patients with head and neck cancer. Hammerlid E, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):507–16

Health impact of head and neck cancer. Terrell JE, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):852–9

Quality of life and clinical outcomes in elderly patients treated with ventricular pacing as compared with dual-chamber pacing [letter] Alt E. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 1):141–2

Health-related quality-of-life assessment of patients with life-threatening ventricular arrhythmias. Herbst JH, et al. **Pacing Clin Electrophysiol** 1999 Jun;22(6 Pt 1):915–26

Quality of life in patients with complete heart block and paroxysmal atrial tachyarrhythmias: a comparison of permanent DDIR versus DDDR pacing with mode switch to DDIR. Provenier F, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):462–8

The impact of different models of specialist palliative care on patients' quality of life: a systematic literature review. Salisbury C, et al. **Palliat Med** 1999 Jan;13(1):3–17 (97 ref.)

Relationships between symptom relief, quality of life, and satisfaction with hospice care. Tierney RM, et al. **Palliat Med** 1998 Sep;12(5):333–44

Managing the lifestyle of the child with epilepsy. Parker C. **Pediatr Ann** 1999 Apr;28(4):254–9 (10 ref.)

Outpatient exercise training in children with cystic fibrosis: physiological effects, perceived competence, and acceptability. Gulmans VA, et al. **Pediatr Pulmonol** 1999 Jul;28(1):39–46

Health-related quality of life after organ transplantation in childhood [see comments] Apajasalo M, et al. **Pediatr Transplant** 1997 Nov;1(2):130–7. Comment in: Pediatr Transplant 1997 Nov;1(2):99–100.

Growth and quality of life after living-related liver transplantation in children [see comments] Asonuma K, et al. **Pediatr Transplant** 1998 Feb;2(1):64–9. Comment in: Pediatr Transplant 1998 Feb;2(1):3–5.

Health-related quality of life after organ transplantation in childhood [editorial; comment] Korsch BM. **Pediatr Transplant** 1997 Nov;1(2):99–100. Comment on: Pediatr Transplant 1997 Nov;1(2):130–7. Comment on: Pediatr Transplant 1997 Nov;1(2):138–45.

Consideration of the use of health status, functional outcome, and quality-of-life to monitor neonatal intensive care practice. Hack M. **Pediatrics** 1999 Jan;103(1 Suppl E):319–28 (110 ref.)

Life satisfaction, suicide, and homicide. Lester D. **Percept Mot Skills** 1998 Aug;87(1):126

Reliability of two measures of health-related quality of life in patients with multiple sclerosis. Pfennings L, et al. **Percept Mot Skills** 1998 Aug;87(1):111–4

African-American perceptions of leisure, racial discrimination, and life satisfaction. Philipp SF. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1418

Neuropathy and quality of life in diabetic continuous ambulatory peritoneal dialysis patients. Apostolou T, et al. **Perit Dial Int** 1999;19 Suppl 2:S242–7 (42 ref.)

Quality of life as a treatment outcome in patients with cystic fibrosis. Munzenberger PJ, et al. **Pharmacotherapy** 1999 Apr;19(4):393–8

Effects of ACE inhibitor therapy on quality of life in patients with heart failure. Wolfel EE. **Pharmacotherapy** 1998 Nov-Dec;18(6):1323–34 (43 ref.)

Quality of life. Issues for persons with neuromuscular diseases. Abresch RT, et al. **Phys Med Rehabil Clin N Am** 1998 Feb;9(1):233–48 (29 ref.)

Maintaining quality of life [letter; comment] Smith PS. **Phys Ther** 1999 Apr;79(4):423–4. Comment on: Phys Ther 1998 Dec;78(12):1312–24.

Sleep apnea surgery versus tracheostomy in children: an exploratory study of the comparative effects on quality of life. Cohen SR, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):1855–64

Surgical options for the early-stage breast cancer: factors associated with patient choice and postoperative quality of life. Pusic A, et al. **Plast Reconstr Surg** 1999 Oct; 104(5):1325–33

Quality-of-life outcomes after cosmetic surgery. Rankin M, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2139–45; discussion 2146–7

Factors predictive of quality of life after silicone-implant explanation. Rohrich RJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1334–7

Stage of regular exercise and health-related quality of life. Laforge RG, et al. **Prev Med** 1999 Apr;28(4):349–60

Predictors of long-term change in functional status after coronary artery bypass graft surgery in women. Allen JK, et al. **Prog Cardiovasc Nurs** 1998 Spring;13(2):4–10, 27

Defining an international research agenda for quality of life in men with prostate cancer. Litwin MS, et al. **Prostate** 1999 Sep 15;41(1):58–67

A self-administered instrument to measure psychiatric discomfort of persons with serious mental illness. Betemps EJ. **Psychiatr Serv** 1999 Jan;50(1):107–8

Quality of life, loneliness, and social contact among long-term psychiatric patients. Borge L, et al. **Psychiatr Serv** 1999 Jan;50(1):81–4

Quality-of-life changes among patients with obsessive-compulsive disorder in a partial hospitalization program. Bystritsky A, et al. **Psychiatr Serv** 1999 Mar; 50(3):412–4

Predicting quality of life from symptomatology in schizophrenia at exacerbation and stabilization. Bow-Thomas CC, et al. **Psychiatry Res** 1999 May 31; 86(2):131–42

Randomized trial of physical exercise alone or combined with bright light on mood and health-related quality of life. Partonen T, et al. **Psychol Med** 1998 Nov;28(6):1359–64

A mediational model of quality of life for individuals with severe mental health problems. Zissi A, et al. **Psychol Med** 1998 Sep;28(5):1221–30

A careful investigation of an important phenomenon [letter] Cunningham AJ, et al. **Psychooncology** 1999 Jul-Aug; 8(4):364–6

Psychological response to long-term group therapy: a randomized trial with metastatic breast cancer patients. Edmonds CV, et al. **Psychooncology** 1999 Jan-Feb; 8(1):74–91

Differences in perception of quality of life issues between health professionals and patients with pancreatic cancer. Fitzsimmons D, et al. **Psychooncology** 1999 Mar-Apr; 8(2):135–43

Clarification regarding comments about a hypothesis [letter] Fox BH. **Psychooncology** 1999 Jul-Aug;8(4):366–7

A brief spiritual beliefs inventory for use in quality of life research in life-threatening illness. Holland JC, et al. **Psychooncology** 1998 Nov-Dec;7(6):460–9

Development of quality of life questionnaire in Japan: quality of life assessment of cancer patients receiving chemotherapy. Kurihara M, et al. **Psychooncology** 1999 Jul-Aug;8(4):355–63

Telephone counseling of breast cancer patients after treatment: a description of a randomized clinical trial. Marcus AC, et al. **Psychooncology** 1998 Nov-Dec; 7(6):470–82

An evaluation of a psychosocial intervention for survivors of childhood cancer: paradoxical effects of response shift over time. Schwartz CE, et al. **Psychooncology** 1999 Jul-Aug;8(4):344–54

Quality of life in patients surviving at least 12 months following high dose chemotherapy with autologous bone marrow support. Winer EP, et al. **Psychooncology** 1999 Mar-Apr;8(2):167–76

Collecting quality of life data in EORTC clinical trials--what happens in practice? Young T, et al. **Psychooncology** 1999 May-Jun;8(3):260–3

Assessment of quality of life during intensive chemotherapy or bone marrow transplantation. Zittoun R, et al. **Psychooncology** 1999 Jan-Feb;8(1):64–73

Quality of life in psychiatry as an ethical duty: from the clinical to the societal perspective. Kilian R, et al. **Psychopathology** 1999 May-Jun;32(3):127–34 (28 ref.)

An introduction to ethics and quality of life in comprehensive psychiatric diagnosis. Mezzich JE, et al. **Psychopathology** 1999 May-Jun;32(3):119–20

Quality of life in hospice patients. A pilot study. Bretscher M, et al. **Psychosomatics** 1999 Jul-Aug;40(4):309–13

Pain and depression in HIV illness. Evans S, et al. **Psychosomatics** 1998 Nov-Dec;39(6):528–35

Quality of life and pain in patients with recurrent breast and gynecologic cancer. Rummans TA, et al. **Psychosomatics** 1998 Sep-Oct;39(5):437–45

Psychiatric aspects of excellent end-of-life care. Ad Hoc Committee on End-of-Life Care. The Academy of

Psychosomatic Medicine [editorial] Shuster JL Jr, et al. **Psychosomatics** 1999 Jan–Feb;40(1):1–4

Quality of life in individuals with physical disabilities. Viemerö V, et al. **Psychother Psychosom** 1998;67(6):317–22

Health and quality of life within Colonias settlements along the United States and Mexico border. Davidhizar R, et al. **Public Health Nurs** 1999 Aug;16(4):301–6 (18 ref.)

Diabetic peripheral neuropathy and quality of life. Benbow SJ, et al. **QJM** 1998 Nov;91(11):733–7

5th Annual Conference of the International Society for Quality of Life Research. Baltimore, Maryland, USA. 15–17 November 1998. Abstracts. **Qual Life Res** 1998 Nov; 7(7):561–682

Social networks, stress and health-related quality of life. Achat H, et al. **Qual Life Res** 1998 Dec;7(8):735–50

Correlates of health-related quality of life in upper aerodigestive tract cancer patients. Allison PJ, et al. **Qual Life Res** 1998 Dec;7(8):713–22

Responsiveness of the Dermatology-specific Quality of Life (DSQL) instrument to treatment for acne vulgaris in a placebo-controlled clinical trial. Anderson R, et al. **Qual Life Res** 1998 Dec;7(8):723–34

Quality of life of women with systemic lupus erythematosus or rheumatoid arthritis: domains of importance and dissatisfaction. Archenholtz B, et al. **Qual Life Res** 1999 Aug;8(5):411–6

Feasibility, validity and test-retest reliability of scaling methods for health states: the visual analogue scale and the time trade-off. Badia X, et al. **Qual Life Res** 1999 Jun; 8(4):303–10

Refining quality of life: validating a multidimensional factor measure in the severe mentally ill. Bishop SL, et al. **Qual Life Res** 1999;8(1–2):151–60

The development of an individualized questionnaire measure of perceived impact of diabetes on quality of life: the ADDQoL. Bradley C, et al. **Qual Life Res** 1999; 8(1–2):79–91

The adaptations of a quality of life questionnaire for routine use in clinical practice: the Chronic Respiratory Disease Questionnaire in cystic fibrosis. Bradley J, et al. **Qual Life Res** 1999;8(1–2):65–71

Quality of life and Parkinson's disease: translation and validation of the US Parkinson's Disease Questionnaire (PDQ-39). Bushnell DM, et al. **Qual Life Res** 1999 Jun; 8(4):345–50

Psychometric assessment of the Life Satisfaction Questionnaire (LSQ) and a comparison of a randomised sample of Swedish women and those suffering from breast cancer. Carlsson M, et al. **Qual Life Res** 1999 May; 8(3):245–53

A multi-attribute model of prostate cancer patient's preferences for health states. Chapman GB, et al. **Qual Life Res** 1999 May;8(3):171–80

Temporal assessment of quality of life of head and neck cancer patients receiving radical radiotherapy. Chawla S, et al. **Qual Life Res** 1999;8(1–2):73–8

Factor structure of the Disability and Impact Profile in patients with multiple sclerosis. Cohen L, et al. **Qual Life Res** 1999;8(1–2):141–50

A review of health-related quality-of-life concepts and measures for Parkinson's disease. Damiano AM, et al. **Qual Life Res** 1999 May;8(3):235–43 (30 ref.)

Quality of life and depression: symmetry concepts. de Leval N. **Qual Life Res** 1999 Jun;8(4):283–91

Impact of weight loss on health-related quality of life. Fontaine KR, et al. **Qual Life Res** 1999 May;8(3):275–7

Quality of life in alcohol-dependent subjects—a review. Foster JH, et al. **Qual Life Res** 1999 May;8(3):255–61 (68 ref.)

The Assessment of Quality of Life (AQoL) instrument: a psychometric measure of health-related quality of life. Hawthorne G, et al. **Qual Life Res** 1999 May;8(3):209–24

Quality of life of stroke survivors. Kim P, et al. **Qual Life Res** 1999 Jun;8(4):293–301

Health related quality of life and disease severity in patients with alpha-1 antitrypsin deficiency. Knebel AR, et al. **Qual Life Res** 1999 Jun;8(4):385–91

Comparing the psychometric properties of preference-based and nonpreference-based health-related quality of life in coronary heart disease. Canadian Collaborative Cardiac Assessment Group. Lalonde L, et al. **Qual Life Res** 1999 Aug;8(5):399–409

A health related quality of life measure for use in patients with urge urinary incontinence: a validation study. Lubeck DP, et al. **Qual Life Res** 1999 Jun;8(4):337–44

A health-related quality of life measure for use in patients with onychomycosis: a validation study. Lubeck DP, et al. **Qual Life Res** 1999;8(1–2):121–9

The problem of measuring change in individual health-related quality of life by postal questionnaire: use of the patient-generated index in a disabled population. Macduff C, et al. **Qual Life Res** 1998 Dec;7(8):761–9

The QoL-AGHDA: an instrument for the assessment of quality of life in adults with growth hormone deficiency. McKenna SP, et al. **Qual Life Res** 1999 Jun;8(4):373–83

The development of a quality of life instrument for use with post-menopausal women with urogenital atrophy in the UK and Sweden. McKenna SP, et al. **Qual Life Res** 1999 Aug;8(5):393–8

Factor analysis of the psychosocial items of the EORTC QLQ-C30 in metastatic breast cancer patients participating in a psychosocial intervention study. McLachlan SA, et al. **Qual Life Res** 1999 Jun;8(4):311–7

Predicting patients' utilities from quality of life items: an improved scoring system for the UBQ-H. Martin AJ, et al. **Qual Life Res** 1998 Dec;7(8):703–11

Quality of life assessment in adults with type 1 Gaucher disease. Masek BJ, et al. **Qual Life Res** 1999 May;8(3):263–8

Do we know what global ratings of health-related quality of life measure? Mozes B, et al. **Qual Life Res** 1999 May; 8(3):269–73

The competing effects of disease states on quality of life of the elderly: the case of urinary symptoms in men. Mozes B, et al. **Qual Life Res** 1999;8(1–2):93–9

Comparison of Euroqol EQ-5D and SF-36 in patients with chronic fatigue syndrome. Myers C, et al. **Qual Life Res** 1999;8(1–2):9–16

COOP Charts in French: translation and preliminary data on instrument properties. Perneger TV, et al. **Qual Life Res** 1998 Dec;7(8):683–92

A new measure for assessing the health-related quality of life of patients with vertigo, dizziness or imbalance: the VDI questionnaire. Prieto L, et al. **Qual Life Res** 1999; 8(1–2):131–9

Development and preliminary validation of the multiattribute Rhinitis Symptom Utility Index. Revicki DA, et al. **Qual Life Res** 1998 Dec;7(8):693–702

Olanzapine versus haloperidol in the treatment of schizophrenia and other psychotic disorders: quality of life and clinical outcomes of a randomized clinical trial. Revicki DA, et al. **Qual Life Res** 1999 Aug;8(5):417–26

Assessing the consistency of psychometric properties of the HRQoL scales within the EORTC QLQ-C30 across populations by means of the Mokken Scaling Model. Ringdal K, et al. **Qual Life Res** 1999;8(1–2):25–43

A comparison of two approaches for assessing patient importance weights to conduct an Extended Q-TWiST analysis. Schwartz CE, et al. **Qual Life Res** 1999 May; 8(3):197–207

Quality of life in low-income patients with metastatic prostate cancer: divergent and convergent validity of three instruments. Sharp LK, et al. **Qual Life Res** 1999 Aug; 8(5):461–70

Distinguishing between quality of life and health status in quality of life research: a meta-analysis. Smith KW, et al. **Qual Life Res** 1999 Aug;8(5):447–59

Recurrent genital herpes and quality of life in France. Spencer B, et al. **Qual Life Res** 1999 Jun;8(4):365–71

The relationship between demographic and clinical variables, and quality of life aspects in patients with psoriasis. Wahl A, et al. **Qual Life Res** 1999 Jun;8(4):319–26

Coping and quality of life in patients with psoriasis. Wahl A, et al. **Qual Life Res** 1999 Aug;8(5):427–33

Adapting the Jalowiec Coping Scale in Norwegian adult psoriasis patients. Wahl A, et al. **Qual Life Res** 1999 Aug; 8(5):435–45

Measuring health-related quality of life in patients with venous leg ulcers. Walters SJ, et al. **Qual Life Res** 1999 Jun;8(4):327–36

Quality of life among diabetic patients in Swedish primary health care and in the general population: comparison between 1992 and 1995. Wändell PE, et al. **Qual Life Res** 1998 Dec;7(8):751–60

Reliability and validity of the Functional Assessment of Cancer Therapy-Colorectal (FACT-C) quality of life instrument. Ward WL, et al. **Qual Life Res** 1999 May; 8(3):181–95

Towards a composite scoring solution for the Neurobehavioral Functioning Inventory. Weinfurt KP, et al. **Qual Life Res** 1999;8(1–2):17–24

The Caregiver Quality of Life Index-Cancer (CQOLC) scale: development and validation of an instrument to measure quality of life of the family caregiver of patients with cancer. Weitzner MA, et al. **Qual Life Res** 1999; 8(1–2):55–63

Prospective study of fatigue in localized prostate cancer patients undergoing radiotherapy. Monga U, et al. **Radiat Oncol Investig** 1999;7(3):178–85

Impact of different adjuvant therapy strategies on quality of life in breast cancer survivors. Ganz PA, et al. **Recent Results Cancer Res** 1998;152:396–411

Quality of life assessment in the adjuvant setting: is it relevant? International Breast Cancer Study Group. Gelber RD, et al. **Recent Results Cancer Res** 1998;152:373–89 (23 ref.)

Quality of life assessment in the International Breast Cancer Study Group: past, present, and future. Hürny C, et al. **Recent Results Cancer Res** 1998;152:390–5 (27 ref.)

The Environmental Rating Scale (ERS): a measure of the quality of the residential environment for adults with autism. Van Bourgondien ME, et al. **Res Dev Disabil** 1998 Sep–Oct;19(5):381–94

Testing a theory for health-related quality of life in cancer patients: a structural equation approach. Nuamah IF, et al. **Res Nurs Health** 1999 Jun;22(3):231–42

Non-invasive home ventilation in patients over 75 years of age: tolerance, compliance, and impact on quality of life. Janssens JP, et al. **Respir Med** 1998 Dec;92(12):1311–20

Quality of life in elderly patients with COPD: measurement and predictive factors. Yohannes AM, et al. **Respir Med** 1998 Oct;92(10):1231–6

A diary form quality of life questionnaire for Japanese patients with lung cancer and summarization techniques for longitudinal assessment. Ishihara Y, et al. **Respirology** 1999 Mar;4(1):53–61

Effects of anti-emetic drug (tropisetron) on quality of life during chemotherapy: use of a diary-type questionnaire and application of summary measures for assessment in a randomized, multicentre study. Joint Research Group for Tropisetron Double-Blind Comparative Study. Kobayashi K, et al. **Respirology** 1999 Sep;4(3):229–38

Impact of survival probability, life expectancy, quality of life and patient preferences on do-not-attempt-resuscitation orders in a hospital. Resuscitation Committee. de Vos R, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):15–21

Quality of life after cardiopulmonary resuscitation. de Vos R. **Resuscitation** 1997 Nov;35(3):231–6 (60 ref.)

Long-term cardiac arrest survivors of the Vienna emergency medical service. Eisenburger P, et al. **Resuscitation** 1998 Sep;38(3):137–43

Analysis of the quality of life in patients after pelvic pouch operation. Codina Cazador A, et al. **Rev Esp Enferm Dig** 1998 Sep;90(9):646–54 **(Eng, Spa)**

Quantifying quality of life: overcoming an apparent paradox to meet an urgent need [editorial] Pouchot J. **Rev Rhum Engl Ed** 1998 Dec;65(12):741–4 (18 ref.)

Quality of life in patients with ankylosing spondylitis. Ward MM. **Rheum Dis Clin North Am** 1998 Nov;24(4):815–27, x (60 ref.)

Recombinant human erythropoietin improves health-related quality of life in patients with rheumatoid arthritis and anaemia of chronic disease; utility measures correlate strongly with disease activity measures. Peeters HR, et al. **Rheumatol Int** 1999;18(5–6):201–6

A 12-month randomized controlled trial of patient education on radiographic changes and quality of life in early rheumatoid arthritis. Helliwell PS, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):303–8

Development and validation of a self-administered systemic sclerosis questionnaire (SySQ). Ruof J, et al. **Rheumatology (Oxford)** 1999 Jun;38(6):535–42

Quality of life in sarcoidosis: a comparison between members of a patient organisation and a random sample. De Vries J, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep; 15(2):183–8

Differences in quality of life in men and women with ischemic heart disease. A prospective controlled study. Westin L, et al. **Scand Cardiovasc J** 1999;33(3):160–5

Serum cholesterol, lifestyle, working capacity and quality of life in patients with coronary artery disease. Experiences from a hospital-based secondary prevention programme. Carlsson R. **Scand Cardiovasc J Suppl** 1998;50:1–20

Quality of life of adult coeliac patients treated for 10 years. Hallert C, et al. **Scand J Gastroenterol** 1998 Sep;33(9):933–8

Impact of functional dyspepsia on quality of life and health care consumption after cessation of antisecretory treatment. A multicentre 3-month follow-up study. Meineche-Schmidt V, et al. **Scand J Gastroenterol** 1999 Jun;34(6):566–74

A systematic overview of the use of diary cards, quality-of-life questionnaires, and psychometric tests in treatment trials of Helicobacter pylori-positive and -negative non-ulcer dyspepsia. Sandha GS, et al. **Scand J Gastroenterol** 1999 Mar;34(3):244–9

Health-related quality of life after ileal J-pouch-anal anastomosis for ulcerative colitis: long-term results. Tiainen J, et al. **Scand J Gastroenterol** 1999 Jun;34(6):601–5

Chronic bronchitis in Icelandic males: prevalence, sleep disturbances and quality of life. Magnússon S, et al. **Scand J Prim Health Care** 1999 Jun;17(2):100–4

Socio-economic characteristics and quality of life in diabetes mellitus—relation to metabolic control. Larsson D, et al. **Scand J Public Health** 1999 Jun;27(2):101–5

Muscle relaxation training and quality of life in rheumatoid arthritis. A randomized controlled clinical trial. Lundgren S, et al. **Scand J Rheumatol** 1999;28(1):47–53

Short form 36 (SF-36) health survey: normative data from the general Norwegian population. Loge JH, et al. **Scand J Soc Med** 1998 Dec;26(4):250–8

Employment, attitudes toward work, and quality of life among people with schizophrenia in three countries. Priebe S, et al. **Schizophr Bull** 1998;24(3):469–77

The quality of life of people with schizophrenia in Boulder, Colorado, and Bologna, Italy. Warner R, et al. **Schizophr Bull** 1998;24(4):559–68

Quality of life after intensive care. Niskanen M. **Schweiz Med Wochenschr** 1998 Sep 26;128(39):1474–7 (23 ref.)

Combating prostate cancer. Garnick MB, et al. **Sci Am** 1998 Dec;279(6):74–83

Domiciliary nebuliser therapy—a valuable option in chronic asthma and chronic obstructive pulmonary disease? Godden DJ, et al. **Scott Med J** 1998 Apr;43(2):48–51

Health-related quality of life (HRQOL), activity of daily living (ADL) and depressive mood disorder in temporal lobe epilepsy patients. Lehrner J, et al. **Seizure** 1999 Apr; 8(2):88–92

Effects of gabapentin on cognition and quality of life in patients with epilepsy. Mortimore C, et al. **Seizure** 1998 Oct;7(5):359–64

Self-assessment of well-being in a group of children with epilepsy. Norrby U, et al. **Seizure** 1999 Jun;8(4):228–34

Non-epileptic attack disorder and clinical outcome: a pilot study. Riaz H, et al. **Seizure** 1998 Oct;7(5):365–8

Quality of life assessments in dermatology. Finlay AY. **Semin Cutan Med Surg** 1998 Dec;17(4):291–6 (54 ref.)

Sustained virologic response is associated with improved health-related quality of life in relapsed chronic hepatitis C patients. Neary MP, et al. **Semin Liver Dis** 1999;19 Suppl 1:77–85

Quality of life issues in the management of ovarian cancer. Fish LS, et al. **Semin Oncol** 1999 Feb;26(1 Suppl 1):32–9 (13 ref.)

Lymphomas: long-term sequelae and survivorship issues. Fernsler J, et al. **Semin Oncol Nurs** 1998 Nov;14(4):321–8 (82 ref.)

Issues in quality of life assessment during cancer therapy. Scott CB. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):5–9 (21 ref.)

Quality of life with aphasia. LaPointe LL. **Semin Speech Lang** 1999;20(1):5–16; quiz 16–7

The impact of work-related rehabilitation on the quality of life of patients with schizophrenia. Holzner B, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):624–31

The disability paradox: high quality of life against all odds. Albrecht GL, et al. **Soc Sci Med** 1999 Apr;48(8):977–88

Discrepancies between self-reported and observed physical function in the elderly: the influence of response shift and other factors. Daltroy LH, et al. **Soc Sci Med** 1999 Jun; 48(11):1549–61

Social comparison as a mediator of response shift. Gibbons FX. **Soc Sci Med** 1999 Jun;48(11):1517–30

Valuing temporary and chronic health states associated with breast screening. Johnston K, et al. **Soc Sci Med** 1998 Jul; 47(2):213–22

Morbidity and quality of life and the moderating effects of level of education in the elderly. Kempen GI, et al. **Soc Sci Med** 1999 Jul;49(1):143–9

Psychosocial outcome assessments for use in cardiac rehabilitation service evaluation: a 10-year systematic review. McGee HM, et al. **Soc Sci Med** 1999 May; 48(10):1373–93 (88 ref.)

Personal values of male and female doctors: gender aspects. Neittaanmäki L, et al. **Soc Sci Med** 1999 Feb;48(4):559–68

Health appraisal models in multiple sclerosis. Roberts G, et al. **Soc Sci Med** 1998 Jul;47(2):243–53

Methodological approaches for assessing response shift in longitudinal health-related quality-of-life research. Schwartz CE, et al. **Soc Sci Med** 1999 Jun;48(11):1531–48

Helping others helps oneself: response shift effects in peer support. Schwartz CE, et al. **Soc Sci Med** 1999 Jun; 48(11):1563–75

Survival vs. quality of life: a study of the Israeli public priorities in medical care. Shmueli A. **Soc Sci Med** 1999 Aug;49(3):297–302

Selecting national items for the WHOQOL: conceptual and psychometric considerations. Skevington SM, et al. **Soc Sci Med** 1999 Feb;48(4):473–87

Integrating response shift into health-related quality of life research: a theoretical model. Sprangers MA, et al. **Soc Sci Med** 1999 Jun;48(11):1507–15

The persisting effect of unemployment on health and social well-being in men early in working life. Wadsworth ME, et al. **Soc Sci Med** 1999 May;48(10):1491–9

Clinical understanding and clinical implications of response shift. Wilson IB. **Soc Sci Med** 1999 Jun;48(11):1577–88

Measuring quality of life in back patients: comparison of Health Status Questionnaire 2.0 and Quality of Life Inventory. Claiborne N, et al. **Soc Work Health Care** 1999; 28(3):77–94

Improving the long-term adjustment of spinal cord injured persons. Craig A, et al. **Spinal Cord** 1999 May;37(5):345–50

Correlates of stress in long-term spinal cord injury. Gerhart KA, et al. **Spinal Cord** 1999 Mar;37(3):183–90

The role of intestinal stoma in patients with spinal cord injury. Kelly SR, et al. **Spinal Cord** 1999 Mar;37(3):211–4

The Norwegian Polio Study 1994 part II: early experiences of polio and later psychosocial well-being. Schanke AK, et al. **Spinal Cord** 1999 Jul;37(7):515–21

Quality of marital life in Korean spinal cord injured patients. Yim SY, et al. **Spinal Cord** 1998 Dec;36(12):826–31

Results of the Scoliosis Research Society instrument for evaluation of surgical outcome in adolescent idiopathic scoliosis. A multicenter study of 244 patients. Haher TR, et al. **Spine** 1999 Jul 15;24(14):1435–40

Spinal deformity, pulmonary compromise, and quality of life in osteogenesis imperfecta. Widmann RF, et al. **Spine** 1999 Aug 15;24(16):1673–8

Estimation of mean quality adjusted survival time. Shen LZ, et al. **Stat Med** 1999 Jun 30;18(12):1541–54

Curative radiotherapy in elderly patients with endometrial cancer. Patterns of relapse, toxicity and quality of life. Huguenin P, et al. **Strahlenther Onkol** 1999 Jul; 175(7):309–14

Stroke was predicted by dimensions of quality of life in treated hypertensive men. Agewall S, et al. **Stroke** 1998 Nov;29(11):2329–33

Effects of acupuncture treatment on daily life activities and quality of life: a controlled, prospective, and randomized study of acute stroke patients. Gosman-Hedström G, et al. **Stroke** 1998 Oct;29(10):2100–8

Replicability of SF-36 summary scores by the SF-12 in stroke patients. Pickard AS, et al. **Stroke** 1999 Jun; 30(6):1213–7

Development of a stroke-specific quality of life scale. Williams LS, et al. **Stroke** 1999 Jul;30(7):1362–9

Normative data and trends in quality of life from the Lung Cancer Symptom Scale (LCSS). Hollen PJ, et al. **Support Care Cancer** 1999 May;7(3):140–8

Assessment of dyspnea in advanced cancer patients [see comments] Mancini I, et al. **Support Care Cancer** 1999 Jul; 7(4):229–32 (15 ref.). Comment in: Support Care Cancer 1999 Jul;7(4):215–6.

Assessment of the quality of life of patients with advanced and end-stage cancer or serious infections with a symptom-based or an impact-based instrument. Witteveen PO, et al. **Support Care Cancer** 1999 Mar;7(2):64–70

Surgical treatment of chronic pancreatitis and quality of life after operation. Izbicki JR, et al. **Surg Clin North Am** 1999 Aug;79(4):913–44 (92 ref.)

Multidrug-resistant recurrent breast cancer which responded to medroxyprogesterone acetate showing a remarkable improvement in the quality of life: report of a case and the role of team medical care. Kurihara T, et al. **Surg Today** 1998;28(9):979–84

Surgical correction of primary hyperparathyroidism improves quality of life. Burney RE, et al. **Surgery** 1998 Dec;124(6):987–91; discussion 991–2

Using quality-of-life instruments to assess surgical outcomes. Velanovich V. **Surgery** 1999 Jul;126(1):1–4 (13 ref.)

Preoperative left-ventricular ejection fraction does not influence the improvement in quality of life after coronary artery bypass surgery. Sjöland H, et al. **Thorac Cardiovasc Surg** 1998 Aug;46(4):198–206

Quality of life in cystic fibrosis [editorial; comment] French DJ. **Thorax** 1998 Sep;53(9):721–2. Comment on: Thorax 1998 Sep;53(9):727–31.

Quality of life in patients with cystic fibrosis and their parents: what is important besides disease severity? [see comments] Staab D, et al. **Thorax** 1998 Sep;53(9):727–31. Comment in: Thorax 1998 Sep;53(9):721–2.

Quality of life aspects and costs in treatment of Graves' hyperthyroidism with antithyroid drugs, surgery, or radioiodine: results from a prospective, randomized study. Ljunggren JG, et al. **Thyroid** 1998 Aug;8(8):653–9

Correlation of quality of life with clinical symptoms and signs at the time of glaucoma diagnosis. Mills RP. **Trans Am Ophthalmol Soc** 1998;96:753–812

The effect of recurrence of HCV infection of life after liver transplantation. Bona MD, et al. **Transpl Int** 1998;11 Suppl 1:S475–9

The quality of life in end stage renal disease care. Waiser J, et al. **Transpl Int** 1998;11 Suppl 1:S42–5

Analysis of quality of life before and after heart transplantation. Bortman G, et al. **Transplant Proc** 1999 Sep;31(6):2555

Posttransplant quality of life issues: depression-related noncompliance in cardiac transplant patients. Campbell B, et al. **Transplant Proc** 1999 Jun;31(4A):59S–60S

Quality of life and functional status of liver transplant recipients with recurrent viral hepatitis C. Gayowski T, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1386–7

Heart rate variability and quality of life following kidney and pancreas-kidney transplantation. Hathaway DK, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):643–4

Quality of life in renal, hepatic, and heart transplant patients. Insensé B, et al. **Transplant Proc** 1999 Sep;31(6):2647–8

Current status of the Japanese Organ Transplant Network and quality of life in transplant recipients. Kita Y, et al. **Transplant Proc** 1998 Nov;30(7):3621–2

Liver transplantation: quality of life related to prognosis. Küchler T. **Transplant Proc** 1999 Feb-Mar;31(1–2):1404–5

Recurrence of alcoholism and quality of life in patients with alcoholic cirrhosis following liver transplantation. Mejías D, et al. **Transplant Proc** 1999 Sep;31(6):2472–4

Quality of life after liver transplantation. Seiler CA, et al. **Transplant Proc** 1998 Dec;30(8):4330–3

Changes in quality of life and working capacity before and after kidney transplantation. Shih FJ, et al. **Transplant Proc** 1999 Aug;31(5):1981–4

Long-term follow-up of living kidney donors: quality of life after donation. Johnson EM, et al. **Transplantation** 1999 Mar 15;67(5):717–21

Quality of life of patients after intestinal transplantation. Rovera GM, et al. **Transplantation** 1998 Nov 15; 66(9):1141–5

Quality of life, functional status, and depression in male liver transplant recipients with recurrent viral hepatitis C. Singh N, et al. **Transplantation** 1999 Jan 15;67(1):69–72

Patient compliance with quality of life questionnaires. Italian Group for Evaluation of Outcomes in Oncology (I.G.E.O.). **Tumori** 1999 Mar-Apr;85(2):92–5

Does the information level of cancer patients correlate with quality of life? A prospective study. Annunziata MA, et al. **Tumori** 1998 Nov-Dec;84(6):619–23

Supportive care, pain management, and quality of life in advanced prostate cancer. Esper P, et al. **Urol Clin North Am** 1999 May;26(2):375–89 (74 ref.)

Changes in quality of life following treatment for early prostate cancer. Clark JA, et al. **Urology** 1999 Jan; 53(1):161–8

Self-assessed health-related quality of life in men being treated for prostate cancer with radiotherapy: instrument validation and its relation to patient-assessed bother of symptoms. Dale W, et al. **Urology** 1999 Feb;53(2):359–66

Correlation of persistent stress urinary incontinence with quality of life after suspension procedures: is continence the only decisive postoperative criterion of success? Filbeck T, et al. **Urology** 1999 Aug;54(2):247–51

Long-term outcome and quality of life after modified pubovaginal sling for intrinsic sphincteric deficiency. Hassouna ME, et al. **Urology** 1999 Feb;53(2):287–91

Urinary symptoms, potency, and quality of life in patients with localized prostate cancer followed up with deferred treatment. Jønler M, et al. **Urology** 1998 Dec;52(6):1055–62; discussion 1063

Sexual function and bother after radical prostatectomy or radiation for prostate cancer: multivariate quality-of-life analysis from CaPSURE. Cancer of the Prostate Strategic Urologic Research Endeavor. Litwin MS, et al. **Urology** 1999 Sep;54(3):503–8

Changes in health-related quality of life in the first year after treatment for prostate cancer: results from CaPSURE. Lubeck DP, et al. **Urology** 1999 Jan;53(1):180–6

Comparative quality-of-life analysis after radical prostatectomy or external beam radiation for localized prostate cancer. McCammon KA, et al. **Urology** 1999 Sep; 54(3):509–16

Quality of life of women with urinary incontinence: further development of the incontinence quality of life instrument (I-QOL) [published erratum appears in Urology 1999 May;53(5):1072] Patrick DL, et al. **Urology** 1999 Jan; 53(1):71–6

Impact of drug therapy on benign prostatic hyperplasia-specific quality of life. Rhodes PR, et al. **Urology** 1999 Jun;53(6):1090–8 (30 ref.)

Quantifying comorbidity in a disease-specific cohort: adaptation of the total illness burden index to prostate cancer. Stier DM, et al. **Urology** 1999 Sep;54(3):424–9

A statistical consideration of CLAU-S: a disease specific questionnaire for the assessment of quality of life in patients with intermittent claudication. Spengel FA, et al. **Vasa** 1998 Nov;27(4):253

Quality-of-life in technology-dependent children receiving home care, and their families--a qualitative study. Baumgardner DJ, et al. **WMJ** 1998 Sep;97(8):51–5

Baby Boomers likely to go out with a bang. Kennedy M. **WMJ** 1998 Dec;97(11):24–7 (0 ref.)

Predictors of quality of life in women: hormone therapy self-efficacy and health-promoting behaviors. Ali NS. **Women Health** 1999;29(2):69–79

Quality of life following radical surgical treatment of gastric carcinoma. Thybusch-Bernhardt A, et al. **World J Surg** 1999 May;23(5):503–8

Health-related quality-of-life studies in urology: conceptual and methodological considerations. Browne JP. **World J Urol** 1999 Aug;17(4):193–8 (31 ref.)

Mental health, psychosocial functioning, and quality of life in patients with bladder exstrophy and epispadias - an overview. Diseth TH, et al. **World J Urol** 1999 Aug; 17(4):239–48 (66 ref.)

Quality of life research in urology [editorial] Gerharz EW, et al. **World J Urol** 1999 Aug;17(4):191–2

Quality-of-life issues in the treatment of testicular cancer. Heidenreich A, et al. **World J Urol** 1999 Aug;17(4):230–8 (40 ref.)

Examining health-related quality of life in men treated for prostate cancer. Litwin MS. **World J Urol** 1999 Aug; 17(4):205–10 (58 ref.)

Quality-of-life aspects in urology - benign prostatic hyperplasia. MacDonagh R, et al. **World J Urol** 1999 Aug; 17(4):199–204 (41 ref.)

When the bladder is gone: quality of life following different types of urinary diversion. Månsson A, et al. **World J Urol** 1999 Aug;17(4):211–8 (34 ref.)

Quality-of-life studies in patients with ambiguous genitalia. Schober JM. **World J Urol** 1999 Aug;17(4):249–52

The impact of urinary incontinence on the quality of life of women. Swithinbank LV, et al. **World J Urol** 1999 Aug; 17(4):225–9 (51 ref.)

Quality-of-life assessment in bladder cancer. van der Veen JH, et al. **World J Urol** 1999 Aug;17(4):219–24 (25 ref.)

Sustainable development and quality of life: expected effects of prospective changes in economic and environmental conditions. Vlek C, et al. **Z Exp Psychol** 1998;45(4):319–33

The psychological cost of aircraft noise for children. Bullinger M, et al. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2–4):127–38

[Study on the quality of life in patients with prostate cancer] Du SF, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Apr; 18(2):95–7 (Eng. Abstr.) **(Chi)**

[Study on health status of 3,333 old people in Chengdu City, Sichuan Province] Shi Z, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Feb; 19(1):15–7 (Eng. Abstr.) **(Chi)**

[The survey of quality of life among aging population in the rural areas of Guangdong] Xu T, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Feb; 19(1):9–11 (Eng. Abstr.) **(Chi)**

[Evaluation on the quality of life among 130 esophageal carcinoma cases--ten years after surgical treatment] Yuan HP, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Oct;18(5):296–9 (Eng. Abstr.) **(Chi)**

[A study on the relationship of primary hypertension in elderly and their quality of life in Changsha City] Zhou Y, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Feb;19(1):24–6 (Eng. Abstr.) **(Chi)**

[Preliminary analysis of healthy life expectancy in some urban residents] Zhong J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jul; 31(4):209–11 (Eng. Abstr.) **(Chi)**

QUALITY OF LIFE

[Quality of life in incontinent men after implantation of an artificial urinary sphincter] Pacík D, et al. **Rozhl Chir** 1998 Nov;77(11):508–10 (Eng. Abstr.) **(Cze)**

[Pain epidemiology and health-related quality of life in patients with chronic non-malignant pain] Becker N, et al. **Ugeskr Laeger** 1998 Nov 16;160(47):6816–9 (Eng. Abstr.) **(Dan)**

[Reciprocity and care of the elderly. An anthropologic comparison between Ghana and the Netherlands] van der Geest S. **Tijdschr Gerontol Geriatr** 1998 Oct;29(5):237–43 (Eng. Abstr.) **(Dut)**

[The impact of cardiac arrhythmias on the quality on life (editorial)] Huikuri H. **Duodecim** 1995;111(24):2381–2 **(Fin)**

[Assessment of the quality of life during adjuvant chemotherapy of colorectal cancer] Bellemare S, et al. **Ann Chir** 1998;52(8):711–5 (Eng. Abstr.) **(Fre)**

[Quality of life in dermatology: limitations and uncertainties] Cribier B. **Ann Dermatol Venereol** 1999 Feb;126(2):181–3 **(Fre)**

[Quality of life assessment: from public health to dermatology (editorial)] Guillet G. **Ann Dermatol Venereol** 1999 Feb; 126(2):120–3 **(Fre)**

[Quality of life assessment in patients with chronic disease: fundamental principles] Pouchot J. **Ann Dermatol Venereol** 1999 Feb;126(2):162–7 **(Fre)**

[Quality of life evaluation: public health aspects] Schwarzinger M, et al. **Ann Dermatol Venereol** 1999 Feb; 126(2):168–75 **(Fre)**

[Quality of life evaluation tools in dermatology] Wolkenstein P, et al. **Ann Dermatol Venereol** 1999 Feb;126(2):176–80 **(Fre)**

[Management of patients with symptoms on effort] Juillière Y, et al. **Arch Mal Coeur Vaiss** 1998 Nov;91(11):1343–7 (Eng. Abstr.) **(Fre)**

[Infant quality of life: criteria of parents and professionals. Development of an evaluation instrument] Manificat S, et al. **Arch Pediatr** 1999 Jan;6(1):79–86 (Eng. Abstr.) **(Fre)**

[The cochlear implant. Study in the profoundly deaf adult from the standpoint of quality of life and therapeutic cost (QALY Index of Quality)] Chouard CH. **Bull Acad Natl Med** 1998;182(5):911–25; discussion 925–6 (Eng. Abstr.) **(Fre)**

[Elaboration and validation of a tool to measure psychological well-being: WBMMS (published erratum appears in Can J Public Health 1998 Nov–Dec;89(6):418)] Massé R, et al. **Can J Public Health** 1998 Sep–Oct; 89(5):352–7 (Eng. Abstr.) **(Fre)**

[The quality of life: should it be taken into account as a therapeutic objective?] Chwalow AJ. **Diabetes Metab** 1998 Nov;24 Suppl 3:42–4 (Eng. Abstr.) **(Fre)**

[Evaluation of the impact of peripheral obliterative arteriopathy on quality of life] Marquis P. **Drugs** 1998;56 Suppl 3:25–35 (39 ref.) (Eng. Abstr.) **(Fre)**

[Quality of life of patient with peripheral arterial obliterative disease treated with ifenprodil tartrate. Results of an ARTEMIS study] Marquis P, et al. **Drugs** 1998;56 Suppl 3:37–48 (Eng. Abstr.) **(Fre)**

[Socioeconomic and quality of life repercussions of arterial hypertension] Selke B, et al. **Drugs** 1998;56 Suppl 2:45–53 (38 ref.) (Eng. Abstr.) **(Fre)**

[Evaluation of symptoms of gastroesophageal reflux and their impact on quality of life] Amouretti M. **Gastroenterol Clin Biol** 1999 Jan;23(1 Pt 2):S45–9 (33 ref.) **(Fre)**

[Quality of life in patients with colorectal cancer] Conroy T, et al. **Gastroenterol Clin Biol** 1999 Apr;23(4):489–501 (77 ref.) **(Fre)**

[Evaluation of gastroesophageal reflux symptoms and their impact on the quality of life] Evrard S. **Gastroenterol Clin Biol** 1999 Jan;23(1 Pt 2):S214–20 (58 ref.) **(Fre)**

[Assessment of quality of life of patients with gastroesophageal reflux. Elaboration and validation of a specific questionnaire] Raymond JM, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1):32–9 (Eng. Abstr.) **(Fre)**

[First validation of the French version of the Gastrointestinal Quality of Life Index (GIQLI)] Slim K, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1):25–31 (Eng. Abstr.) **(Fre)**

[Quality of life of patients treated for terminal chronic renal failure] Patte D. **Presse Med** 1998 Oct 3;27(29):1499–505 (58 ref.) **(Fre)**

[Evaluation of the quality of life in children and adolescents] Siméoni MC, et al. **Presse Med** 1999 May 22–29; 28(19):1033–9 (49 ref.) (Eng. Abstr.) **(Fre)**

[Prospective follow-up of 3,228 patients suffering from clinical benign prostatic hyperplasia (BPH) treated for 3 years wi alfuzosin in general practice. BPH Group in General Practice] Lukacs B, et al. **Prog Urol** 1999 Apr; 9(2):271–80 (Eng. Abstr.) **(Fre)**

[Evaluation of bronchial obstruction. Dyspnea, the quality of life] Jones PW. **Rev Mal Respir** 1998 Sep;15 Suppl 2:S25–8 **(Fre)**

[Quality of life measurement tools in respiratory pathology (excluding cancer)] Neukirch F. **Rev Mal Respir** 1999 Jan; 16 Suppl 3:S60–1 **(Fre)**

[Urinary incontinence in elderly women] Fillet M, et al. **Rev Med Liege** 1999 Apr;54(4):341–8 (Eng. Abstr.) **(Fre)**

[Surgery of esophageal cancer in Liège: III. Clinical and radiographic evaluation of long-term quality of life after esophagectomy] Kolh P, et al. **Rev Med Liege** 1998 Sep; 53(9):564–70 (Eng. Abstr.) **(Fre)**

[For a new management of the life ages: example of the age of retirement] Hagmann HM. **Rev Med Suisse Romande** 1999 Apr;119(4):315–7 **(Fre)**

[Health and pain] Vannotti M, et al. **Rev Med Suisse Romande** 1999 Apr;119(4):255–7 **(Fre)**

[A general measure of well-being: outline of a quantitative approach] Bréda J, et al. **Sante Publique** 1999 Jun; 11(2):103–26 (Eng. Abstr.) **(Fre)**

[Quality of life after proctocolectomy for ulcerative colitis] Heuschen UA, et al. **Chirurg** 1998 Oct;69(10):1045–51 (54 ref.) (Eng. Abstr.) **(Ger)**

[Long-term quality of life after continence-preserving proctocolectomy for ulcerative colitis and familial adenomatous polyposis] Heuschen UA, et al. **Chirurg** 1998 Oct;69(10):1052–8 (Eng. Abstr.) **(Ger)**

[Pre- and postoperative quality of life of patients with ulcerative colitis and familial adenomatous polyposis with ileoanal pouch operation] Heuschen UA, et al. **Chirurg** 1998 Dec;69(12):1329–33 (Eng. Abstr.) **(Ger)**

[Quality of life after laparoscopic antireflux surgery—Nissen fundoplication] Kamolz T, et al. **Chirurg** 1998 Sep; 69(9):947–50 (Eng. Abstr.) **(Ger)**

[Quality of life of patients with metastatic breast or intestinal cancer, treated with anthroposophic medicine or with mainstream medicine, the latter with or without psycho-oncologic or supplementary anthroposophic therapy] Cerny T, et al. **Forsch Komplementarmed** 1999 Feb;6 Suppl 1:35–7 (Eng. Abstr.) **(Ger)**

[Quality of life of pregnant women in homeopathic or mainstream medical type of care and the course of the pregnancy] Hochstrasser B. **Forsch Komplementarmed** 1999 Feb;6 Suppl 1:23–5 (Eng. Abstr.) **(Ger)**

[Quality of life and well-being in a housing project in Berlin—experiences gained in cooperation between a community health promotion office and a university-based public health project] Gottwald S, et al. **Gesundheitswesen** 1999 May;61(5):234–40 (Eng. Abstr.) **(Ger)**

[Psychic effects of an adjuvant hormone replacement therapy in premenopausal patients: influence on the quality of life] Springer-Kremser M. **Gynakol Geburtshilfliche Rundsch** 1998;38(2):109–11 (8 ref.) (Eng. Abstr.) **(Ger)**

[Quality of life after breast reduction-plasty] Horch RE, et al. **Handchir Mikrochir Plast Chir** 1999 Mar;31(2):137–42 (Eng. Abstr.) **(Ger)**

[Coping with illness and quality of life of patients with port-wine stains treated with laser therapy] Augustin M, et al. **Hautarzt** 1998 Sep;49(9):714–8 (Eng. Abstr.) **(Ger)**

[Conference on pharmacoeconomics and quality of life in dermatology—outcomes research in the clinic and in research. March 20–21,1998 in Freiburg, Bavaria] Klyscz T. **Hautarzt** 1999 Jun;50(6):446–7 **(Ger)**

[Pulmonological rehabilitation. An integral therapeutic concept for the improvement of management capability and quality of life] Petro W, et al. **Internist (Berl)** 1999 Jul;40(7):772–8 (7 ref.) **(Ger)**

[Quality of life of patients with fecal incontinence] Sailer M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:973–5 (Eng. Abstr.) **(Ger)**

[Quality of life after inguinal hernia operation—results of a prospective study (Shouldice, Lichtenstein, TAPP)] Stengel D, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1020–3 (Eng. Abstr.) **(Ger)**

[Quality of life of various patient groups during home mechanical ventilation] Hein H, et al. **Med Klin** 1999 Apr; 94(1 Spec No):99–101 (Eng. Abstr.) **(Ger)**

[Effect of acupuncture on quality of life, mouth occlusion pressures and lung function in COPD] Neumeister W, et al. **Med Klin** 1999 Apr;94(1 Spec No):106–9 (Eng. Abstr.) **(Ger)**

[Results of long-term follow-up of transsexual patients] Rauchfleisch U, et al. **Nervenarzt** 1998 Sep;69(9):799–805 (Eng. Abstr.) **(Ger)**

[Functional outcome and quality of life at least 6 months after pneumonectomy—effect of operation, adjuvant therapy, tumor stage, sex, type of pneumonia and recurrence] Fiedler R, et al. **Pneumologie** 1999 Jan; 53(1):45–9 (Eng. Abstr.) **(Ger)**

[Quality of life of adult asthma patients] Greiner W, et al. **Pneumologie** 1999 Jun;53(6):283–8 (Eng. Abstr.) **(Ger)**

[Functional capacity (dyspnea) and quality of life in patients with chronic obstructive lung disease (COPD): instruments of assessment and methodological aspects] Hütter BO, et al. **Pneumologie** 1999 Mar;53(3):133–42 (81 ref.) (Eng. Abstr.) **(Ger)**

[Quality of life—what it means to me...Results of a survey among schizophrenic patients] Angermeyer MC, et al. **Psychiatr Prax** 1999 Mar;26(2):56–60 (Eng. Abstr.) **(Ger)**

[Subjective quality of life of schizophrenic patients. Effect of treatment setting, psychopathology and extrapyramidal motor drug effects] Kemmler G, et al. **Psychiatr Prax** 1999 Jan;26(1):9–15 (Eng. Abstr.) **(Ger)**

[Similarities and differences in subjective quality of life of alcoholic women] Rudolf H, et al. **Psychiatr Prax** 1999 May;26(3):116–21 (Eng. Abstr.) **(Ger)**

[Illness specific data collection on quality of life of patients with asthma and chronic obstructive bronchitis] Mühlig S, et al. **Rehabilitation (Stuttg)** 1998 Aug; 37(3):XXV–XXXVIII (140 ref.) (Eng. Abstr.) **(Ger)**

[Introduction of the project "Westdeutsche Allgemeine Zeitung (WAZ) for visually impaired" (a talking electronic daily newspaper)] Schliepe V, et al. **Rehabilitation (Stuttg)** 1999 Feb;38(1):20–6 (Eng. Abstr.) **(Ger)**

[Hormone replacement therapy after treatment of breast carcinoma] Birkhäuser M. **Schweiz Med Wochenschr** 1998 Oct 24;128(43):1675–89 (88 ref.) (Eng. Abstr.) **(Ger)**

[Quality of life after complex tibial reconstruction] Graf PF, et al. **Unfallchirurg** 1998 Nov;101(11):838–44 (Eng. Abstr.) **(Ger)**

[Quality of life in urologic oncology] Biermann CW, et al. **Urologe A** 1999 Mar;38(2):W189–200 (64 ref.) **(Ger)**

[DGU/BDU Pain Therapy/Supportive Therapy/Quality of Life Working Group] Harzmann R. **Urologe A** 1998 Nov; 37(6):W653 **(Ger)**

[Quality of life and cytokines in oncological therapy] Leitgeb C. **Wien Med Wochenschr** 1998;148(18):424–6 (19 ref.) (Eng. Abstr.) **(Ger)**

[To what extent is it possible to integrated quality of life as a normative, subjective evaluation into scientific medicine?] Meran JG, et al. **Wien Med Wochenschr** 1998; 148(18):414–6 (19 ref.) (Eng. Abstr.) **(Ger)**

[Comparative study for assessing quality of life of patients with exogenous sleep disorders (temporary sleep onset and sleep interruption disorders) treated with a hops-valarian preparation and a benzodiazepine drug] Schmitz M, et al. **Wien Med Wochenschr** 1998;148(13):291–8 (Eng. Abstr.) **(Ger)**

[Strategies for coping with complex problems. Importance of an integrated practice to the quality of life in patient care] Müller-Mundt G, et al. **Z Arztl Fortbild Qualitatssich** 1998 Aug;92(6):393–9 (Eng. Abstr.) **(Ger)**

[Perspectives of patients with terminal renal failure: quality of life and psychological adjustment before and in the first year after heart transplantation] Riedmayr MI, et al. **Z Kardiol** 1998 Oct;87(10):808–16 (Eng. Abstr.) **(Ger)**

[An inventory for assessing the quality of life of children and adolescents—a pilot study] Mattejat F, et al. **Z Kinder Jugendpsychiatr Psychother** 1998 Aug; 26(3):174–82 (Eng. Abstr.) **(Ger)**

[Assessing the quality of life of children and adolescents with psychiatric disorders—a review] Mattejat F, et al. **Z Kinder Jugendpsychiatr Psychother** 1998 Aug; 26(3):183–96 (45 ref.) **(Ger)**

[Evaluating the quality of life before and after implantation of a total hip endoprosthesis] Knahr K, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):321–9 (Eng. Abstr.) **(Ger)**

[Organ transplantation and quality of life] Erhard J. **Zentralbl Chir** 1999;124(2):73 **(Ger)**

[Quality of life following transplantation. The impact ofa new immunosuppressive substance] Lütkes P, et al. **Zentralbl Chir** 1999;124(2):90–4 (Eng. Abstr.) **(Ger)**

[Quality of life following liver transplantation in childhood] Roll C, et al. **Zentralbl Chir** 1999;124(2):79–83 (14 ref.) (Eng. Abstr.) **(Ger)**

[Quality of life following renal transplantation in childhood] Wingen AM, et al. **Zentralbl Chir** 1999;124(2):74–8 (Eng. Abstr.) **(Ger)**

[[Assessment of quality of life of patients with brain tumors] Tucha O, et al. **Zentralbl Neurochir** 1998;59(4):263–8 (32 ref.) (Eng. Abstr.) **(Ger)**

[Hungarian adaptation of the WHO method for measuring quality of life] Kullmann L, et al. **Orv Hetil** 1999 Aug 29; 140(35):1947–52 (Eng. Abstr.) **(Hun)**

[The care and health needs and quality of life in a sample of 260 cancer patients in the terminal phase] Bestagini P, et al. **Ann Ig** 1998 Sep–Dec;10(5–6):373–85 **(Ita)**

[Drugs for "well-being". Drugs and biotechnology as instruments of self-programming?] Mariani L. **Clin Ter** 1998 Sep–Oct;149(5):361–3 (Eng. Abstr.) **(Ita)**

[Quality of life of psychiatric patients] Ruggeri M, et al. **Epidemiol Psichiatr Soc** 1999 Jan–Mar;8(1 Suppl):1–48 **(Ita)**

[Traverso-Longmire technique and quality of life in patients operated on for periampullary neoplasms. Clinical contribution] Basilico V, et al. **Minerva Chir** 1998 Dec; 53(12):973–8 (Eng. Abstr.) **(Ita)**

[Climacteric and quality of life] Menditto A, et al. **Minerva Ginecol** 1999 Mar;51(3):83–9 (Eng. Abstr.) **(Ita)**

[Supportive care in oncology] Olmi P, et al. **Tumori** 1998 Nov–Dec;84(6 Suppl 2):S7–9 (Eng. Abstr.) **(Ita)**

[Development and evaluation of parent-related quality of life questionnaires for asthmatic children and their parents or caregivers—evaluation of treatment process with sustained-release theophylline dry syrup] Kondo N, et al. **Arerugi** 1999 May;48(5):533–45 (Eng. Abstr.) **(Jpn)**

[Development of parent-rated quality of life questionnaire for asthmatic children and their parents or caregivers—reliability and factorial validity] Torii S, et al. **Arerugi** 1999 Jun;48(6):605–20 (Eng. Abstr.) **(Jpn)**

[Recent advances of supportive therapy for cancer patients] Ariyoshi Y. **Gan To Kagaku Ryoho** 1999 Jun;26 Suppl 1:60–9 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Development of Japanese version of QOL questionnaire for bladder and prostate cancer patients using FACT-Bl and P: pilot study] Hinotsu A, et al. **Gan To Kagaku Ryoho** 1999 Apr;26(5):657–66 (Eng. Abstr.) **(Jpn)**

[Progress in palliative medicine] Ishitani K.

Gan To Kagaku Ryoho 1999 Jun;26 Suppl 1:70–6 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Three patients with terminal gastric cancer who achieved good QOL through home hospice care] Muto Y, et al. **Gan To Kagaku Ryoho** 1998 Dec;25 Suppl 4:665–8 (Eng. Abstr.) **(Jpn)**

[The critical appraisal of QOL questionnaire for prostate cancer patients] Niimi M, et al. **Gan To Kagaku Ryoho** 1999 Feb;26(3):333–43 (Eng. Abstr.) **(Jpn)**

[Home-oxygen therapy and QOL support for the in the home setting patient] Saito N. **Gan To Kagaku Ryoho** 1998 Dec; 25 Suppl 4:511–4 (Eng. Abstr.) **(Jpn)**

[Improvement of quality of life (QOL) and life prolongation by CPT-11 + adriamycin (ADM) therapy: report of 4 cases of non-Hodgkin's lymphoma refractory to conventional chemotherapies] Sakai C, et al. **Gan To Kagaku Ryoho** 1999 Apr;26(5):709–14 (Eng. Abstr.) **(Jpn)**

[Significance and problems of quality-of-life assessment in clinical trials] Shimozuma K, et al. **Gan To Kagaku Ryoho** 1999 Jan;26(2 Suppl):183–8 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Surgical treatment of pancreatic cancer--balancing the radicality with the quality of life] Kogire M. **Nippon Geka Hokan** 1997 Jul 1;66(3):79–80 **(Jpn)**

[Assessment of QOL and survival for patients undergoing radical cystectomy or bladder preservation for invasive bladder cancer] Miyanaga N, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Mar;90(3):445–53 (Eng. Abstr.) **(Jpn)**

[Voiding condition in elderly males examined prostate cancer screening in total health check and the effect of subjective urinary symptoms on quality of life] Shinotoh K, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Jan;90(1):32–40 (Eng. Abstr.) **(Jpn)**

[A follow-up study on effects of ADL deterioration on QOL in patients with neurological intractable diseases] Iizuka T, et al. **Nippon Koshu Eisei Zasshi** 1999 Aug;46(8):595–603 (Eng. Abstr.) **(Jpn)**

[The effect of quality of life in Behçet disease patients on subjective life satisfaction] Izuno T, et al. **Nippon Koshu Eisei Zasshi** 1998 Oct;45(10):979–87 (Eng. Abstr.) **(Jpn)**

[Factors related to subjective QOL of patients with chronic neurological intractable diseases] Ogata Y, et al. **Nippon Koshu Eisei Zasshi** 1999 Aug;46(8):650–7 **(Jpn)**

[Mobility in the community-dwelling elderly and its correlates] Shinkai S, et al. **Nippon Koshu Eisei Zasshi** 1999 Jan;46(1):35–46 (Eng. Abstr.) **(Jpn)**

[Quality of life of patients with cardiovascular diseases] Fujii J. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2530–5 (16 ref.) **(Jpn)**

[Quality of life after radical prostatectomy] Arai Y, et al. **Nippon Rinsho** 1998 Aug;56(8):2098–102 (Eng. Abstr.) **(Jpn)**

[Assessment of the quality of life (QOL) of prostatic cancer patients under LH-RH analogue treatment] Ueda S, et al. **Nippon Rinsho** 1998 Aug;56(8):2119–23 (Eng. Abstr.) **(Jpn)**

[Quality of life in the pharmacologically treated elderly patients] Mikami H, et al. **Nippon Ronen Igakkai Zasshi** 1999 Mar;36(3):186–90 (Eng. Abstr.) **(Jpn)**

[Changes in QOL in patients with brain tumors measured by mood changes during and after treatment] Suzuki R, et al. **No Shinkei Geka** 1998 Sep;26(9):795–801 (Eng. Abstr.) **(Jpn)**

[The effects of low intensity aerobic training on the physiological indexes and the quality of life in middle-aged white collar workers] Chikuji K, et al. **Sangyo Eiseigaku Zasshi** 1999 May;41(3):63–71 (Eng. Abstr.) **(Jpn)**

[The pain takes hold of life. A qualitative study of how patients with chronic back pain experience and cope with their life situation] Abyholm AS, et al. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1624–9 (Eng. Abstr.) **(Nor)**

[Rehabilitation with proper physical activities--what happens with patients' quality of life?] Blaasvaer S, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1281–6 (Eng. Abstr.) **(Nor)**

[Your food should be your medicine] Fønnebø V. **Tidsskr Nor Laegeforen** 1998 Sep 20;118(22):3398 **(Nor)**

[Adults treated as children for acute lymphocytic leukemia--methotrexate, late effects and quality of life] Moe PJ, et al. **Tidsskr Nor Laegeforen** 1999 Feb 10; 119(4):499–503 (Eng. Abstr.) **(Nor)**

[Use of the quality of life concept in medical research--useful or useless?] Wyller TB. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4247–51 (41 ref.) **(Nor)**

[Environment and health--studies using biomarkers] Wicherek S, et al. **Folia Med Cracov** 1997;38(3–4):133–44 (20 ref.) (Eng. Abstr.) **(Pol)**

[Treatment with salmeterol and quality of life in patients with asthma] Wrońska J, et al. **Pneumonol Alergol Pol** 1998; 66(3–4):193–7 (Eng. Abstr.) **(Pol)**

[Examining the quality of life in patients with proliferative diseases of the hemopoietic system] Wichary R, et al. **Pol Arch Med Wewn** 1998 Jun;99(6):513–8 (32 ref.) **(Pol)**

[Evaluation of quality of life in patients after stroke] Brola W, et al. **Pol Merkuriusz Lek** 1999 Jun;6(36):332–5 (22 ref.) (Eng. Abstr.) **(Pol)**

[Possibilities of objective evaluation of treatment and rehabilitation effects after the stroke] Opara J. **Pol Merkuriusz Lek** 1999 Jun;6(36):336–9 (Eng. Abstr.) **(Pol)**

[The quality of life after chemotherapy in advanced non-small cell lung cancer patients] Słowik-Gabryelska A, et al. **Pol Merkuriusz Lek** 1999 Jan;6(31):18–22 (Eng. Abstr.) **(Pol)**

[Operative treatment of early cancerous stages and a woman's quality of life] Basta A, et al. **Przegl Lek** 1999;56(1):76–80 (Eng. Abstr.) **(Pol)**

[Examination of the quality of life in post stroke patients] Brola W, et al. **Przegl Lek** 1999;56(2):152–6 (26 ref.) (Eng. Abstr.) **(Pol)**

[Subjective quality of life in patients with chronic schizophrenia and in healthy persons] Spiridonow K, et al. **Psychiatr Pol** 1998 May-Jun;32(3):297–306 (Eng. Abstr.) **(Pol)**

[The value of studies of quality of life in chronic respiratory tract diseases in the framework of holistic medicine (editorial)] Farnik-Brodzińska M, et al. **Wiad Lek** 1998; 51(7–8):316–20 (Eng. Abstr.) **(Pol)**

[Quality of life in childhood epilepsy] De Souza EA. **Arq Neuropsiquiatr** 1999 Mar;57(1):34–9 (Eng. Abstr.) **(Por)**

[Simplified inventory of quality of life in childhood epilepsy: initial results] Fernandes PT, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):40–3 (Eng. Abstr.) **(Por)**

[Quality of life of patients after epilepsy surgery] Frayman L, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):30–3 (Eng. Abstr.) **(Por)**

[Intrathecal opioids in chronic non-malignant pain: relief and life quality] Pimenta CA, et al. **Arq Neuropsiquiatr** 1998 Sep;56(3A):398–405 (Eng. Abstr.) **(Por)**

[Application of the Portuguese version of the instrument for the assessment of quality of life of the World Health Organization (WHOQOL-100)] Fleck MP, et al. **Rev Saude Publica** 1999 Apr;33(2):198–205 (Eng. Abstr.) **(Por)**

[Quality of life of patients in post-myocardial infarct period] Provotorov VM, et al. **Klin Med (Mosk)** 1998;76(11):25–7 (Eng. Abstr.) **(Rus)**

[Potentialities of life quality evaluation for gastroenterological patients] Rutgaizer IaM, et al. **Klin Med (Mosk)** 1999;77(3):35–8 (Eng. Abstr.) **(Rus)**

[Sandimmun-Neoral--a new quality of life for patients with severe systemic juvenile rheumatoid arthritis] Alekseeva EI, et al. **Ter Arkh** 1999;71(5):26–9 (Eng. Abstr.) **(Rus)**

[Quality of patient's life: effects of bronchial asthma and allergic rhinitis] Chuchalin AG, et al. **Ter Arkh** 1998; 70(9):53–7 (31 ref.) **(Rus)**

[Changes in blood pressure 24 hour monitoring data and quality of life in patients with systolic hypertension treated with arifon] Kobalova ZhD, et al. **Ter Arkh** 1998;70(9):67–9 (Eng. Abstr.) **(Rus)**

[Quality of life of oncologic patients] Ionova TI, et al. **Vopr Onkol** 1998;44(6):749–52 (38 ref.) **(Rus)**

[Effect of various methods of treatment in chronic renal insufficiency on the quality of life in patients] Trbojević J, et al. **Srp Arh Celok Lek** 1998 Sep-Oct;126(9–10):374–8 (Eng. Abstr.) **(Scc)**

[Effect of Kliogest on bone metabolism, bone mineral density and quality of life in postmenopausal patients] Wendlová J. **Vnitr Lek** 1998 Aug;44(8):464–8 (Eng. Abstr.) **(Slo)**

[Quality of life and cancer of the larynx] Herranz González-Botas J, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):276–82 (Eng. Abstr.) **(Spa)**

[Role of dyspnea in quality of life of the patient with chronic obstructive pulmonary disease] Elías Hernández MT, et al. **Arch Bronconeumol** 1999 Jun;35(6):261–6 (Eng. Abstr.) **(Spa)**

[The quality of professional life and the pride in working in public health. The results of a survey] Clúa Espuny JL, et al. **Aten Primaria** 1998 Sep 30;22(5):308–13 (Eng. Abstr.) **(Spa)**

[Evaluation of the quality of life in patients with HIV and AIDS infection] Badia X, et al. **Med Clin (Barc)** 1999 May 29;112(19):739–44 (65 ref.) **(Spa)**

[AIDS: more and better life? (editorial; comment)] Castilla J. **Med Clin (Barc)** 1999 Jul 10;113(5):171–2 (18 ref.). Comment on: Med Clin (Barc) 1999 Jul 10;113(5):169–70. **(Spa)**

[The quality of life and clinical benefit in oncology (letter)] Espinosa E, et al. **Med Clin (Barc)** 1999 Apr 17;112(13):519 **(Spa)**

[The impact of bronchial colonization in the quality of life of patients with chronic, stable bronchitis] Monsó E, et al. **Med Clin (Barc)** 1998 Nov 7;111(15):561–4 (Eng. Abstr.) **(Spa)**

[Migraine and quality of life] Lainez Andrés JM. **Neurologia** 1998 Oct;13 Suppl 2:1–8 (44 ref.) (Eng. Abstr.) **(Spa)**

[Evaluation of the quality of life of asthmatic children] Rodríguez Medina R, et al. **Rev Alerg Mex** 1999 Jul-Aug; 46(4):104–7 (Eng. Abstr.) **(Spa)**

[Quality of life and social support in patients with non-complicated acute myocardial infarct] Jiménez Muro M, et al. **Rev Esp Cardiol** 1999 Jul;52(7):467–74 (Eng. Abstr.) **(Spa)**

[The unequal clinical profile, quality of life and hospital mortality in patients undergoing aortocoronary bypass in the public and private centers of Catalonia. The CIRCORCA Study] Permanyer Miralda G, et al. **Rev Esp Cardiol** 1998 Oct;51(10):806–15 (Eng. Abstr.) **(Spa)**

[Evaluation of psychometric properties of the Spanish version of the Rotterdam Symptom Checklist to assess quality of life of cancer patients] Agra Y, et al. **Rev Esp Salud Publica** 1999 Jan-Feb;73(1):35–44 (Eng. Abstr.) **(Spa)**

[Quality of life in relation to health and obesity in a primary care center] Barajas Gutiérrez MA, et al. **Rev Esp Salud Publica** 1998 May-Jun;72(3):221–31 (Eng. Abstr.) **(Spa)**

[Quality of life and dementia] Pascual-Millán LF. **Rev Neurol** 1998 Apr;26(152):582–4 (25 ref.) (Eng. Abstr.) **(Spa)**

[Effects of an educational intervention on the quality of life of the hypertensive patient] Barrón-Rivera AJ, et al. **Salud Publica Mex** 1998 Nov-Dec;40(6):503–9 (Eng. Abstr.) **(Spa)**

[Unchanged life situation of the mentally ill in southern Bohus county] Carlsson I, et al. **Lakartidningen** 1999 Jun 2;96(22):2741–2, 2744 **(Swe)**

[Quality of life--a useful measure of quality of health care (letter)] Sullivan M, et al. **Lakartidningen** 1999 May 26; 96(21):2582 **(Swe)**

[Menopausal estrogen therapy has a beneficial effect on quality of life] Wiklund I. **Lakartidningen** 1999 Mar 31; 96(13):1582–5 (Eng. Abstr.) **(Swe)**

PSYCHOLOGY

Quality of life in relation to overweight and body fat distribution. Han TS, et al. **Am J Public Health** 1998 Dec; 88(12):1814–20

Correlates of life satisfaction among persons with spinal cord injury. Dijkers MP. **Arch Phys Med Rehabil** 1999 Aug; 80(8):867–76

How much, and by what mechanisms, does growth hormone replacement improve the quality of life in GH-deficient adults? Chrisoulidou A, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):261–79 (52 ref.)

Perceptions of women on the impact of menorrhagia on their health using multi-attribute utility assessment. Shaw RW, et al. **Br J Obstet Gynaecol** 1998 Nov;105(11):1155–9

Quality of life 10 years after a very severe traumatic brain injury (TBI): the perspective of the injured and the closest relative. Koskinen S. **Brain Inj** 1998 Aug;12(8):631–48

Quality of life in women with recurrent breast cancer. Bull AA, et al. **Breast Cancer Res Treat** 1999 Mar;54(1):47–57

Integrating patient preferences into health outcomes assessment: the multiattribute Asthma Symptom Utility Index. Revicki DA, et al. **Chest** 1998 Oct;114(4):998–1007

Quality of life and diabetes. Rubin RR, et al. **Diabetes Metab Res Rev** 1999 May-Jun;15(3):205–18 (115 ref.)

The relationship between stress and migraine. Fanciullacci C, et al. **Funct Neurol** 1998 Jul-Sep;13(3):215–23 (51 ref.)

Quality of life, coping and concerns in Chinese patients after renal transplantation. Kong IL, et al. **Int J Nurs Stud** 1999 Aug;36(4):313–22

The clinical pharmacologic profile of reboxetine: does it involve the putative neurobiological substrates of wellbeing? Healy D, et al. **J Affect Disord** 1998 Dec; 51(3):313–22 (57 ref.)

Quality of life in nasal polyposis. Radenne F, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):79–84

Impact of urinary incontinence on quality of life [letter; comment] Rai GS. **J Am Geriatr Soc** 1998 Nov; 46(11):1480–1. Comment on: J Am Geriatr Soc 1998 Jun;46(6):683–92.

Quality of life measures in psoriasis: a critical appraisal of their quality. Ashcroft DM, et al. **J Clin Pharm Ther** 1998 Oct;23(5):391–8 (48 ref.)

Methodological challenges for measuring quality of care at the end of life. Fowler FJ Jr, et al. **J Pain Symptom Manage** 1999 Feb;17(2):114–9 (7 ref.)

The concept of quality of life of dying persons in the context of health care. Stewart AL, et al. **J Pain Symptom Manage** 1999 Feb;17(2):93–108 (75 ref.)

For every numerator, you need a denominator: a simple statement but key to measuring the quality of care of the "dying". Teno JM, et al. **J Pain Symptom Manage** 1999 Feb;17(2):109–13 (9 ref.)

Investigating the relationship between pain and discomfort and quality of life, using the WHOQOL. Skevington SM. **Pain** 1998 Jun;76(3):395–406

The emics and etics of quality of life assessment. Warner R. **Soc Psychiatry Psychiatr Epidemiol** 1999 Mar; 34(3):117–21

A controlled comparison of symptoms and chemical intolerances reported by Gulf War veterans, implant recipients and persons with multiple chemical sensitivity. Miller CS, et al. **Toxicol Ind Health** 1999 Apr-Jun; 15(3–4):386–97

Exacerbation of chemical sensitivity: a case study. Miller CS, et al. **Toxicol Ind Health** 1999 Apr-Jun;15(3–4):398–402

[Quality of life research in patients with cleft lip and palate: preliminary results] Bressmann T, et al. **Mund Kiefer Gesichtschir** 1999 May;3(3):134–9 (Eng. Abstr.) **(Ger)**

[Psychosocial handicap due to chronic headaches. Evaluation of the inventory of Disabilities caused by Headache] Bauer

QUALITY OF LIFE

B, et al. **Nervenarzt** 1999 Jun;70(6):522–9 (Eng. Abstr.) **(Ger)**

[Quality of life. Construct validation and the development of a modular system] Pukrop R, et al. **Nervenarzt** 1999 Jan;70(1):41–53 (Eng. Abstr.) **(Ger)**

[Development of QOL questionnaires in Japan] Kobayashi K. **Gan To Kagaku Ryoho** 1999 Jan;26(2 Suppl):189–95 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Survival and the quality of life in extrahospital cardiorespiratory arrest (see comments)] Martín-Castro C, et al. **Med Clin (Barc)** 1999 Jul 3;113(4):121–3 (Eng. Abstr.) . Comment in: Med Clin (Barc) 1999 Jul 3;113(4):132–3. **(Spa)**

QUANTITATIVE TRAIT

see related
POLYGENIC INHERITANCE

Confirmation of quantitative trait loci for alcohol preference in mice. Tarantino LM, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):1099–105

Identification and confirmation of quantitative trait loci regulating alcohol consumption in congenic strains of mice. Whatley VJ, et al. **Alcohol Clin Exp Res** 1999 Jul; 23(7):1262–71

Multiple phenotype modeling in gene-mapping studies of quantitative traits: power advantages. Allison DB, et al. **Am J Hum Genet** 1998 Oct;63(4):1190–201

Testing the robustness of the likelihood-ratio test in a variance-component quantitative-trait loci-mapping procedure. Allison DB, et al. **Am J Hum Genet** 1999 Aug; 65(2):531–44

Sibling-based tests of linkage and association for quantitative traits. Allison DB, et al. **Am J Hum Genet** 1999 Jun; 64(6):1754–63

Human pedigree-based quantitative-trait-locus mapping: localization of two genes influencing HDL-cholesterol metabolism. Almasy L, et al. **Am J Hum Genet** 1999 Jun; 64(6):1686–93

A simulation study of the effects of assignment of prior identity-by-descent probabilities to unselected sib pairs, in covariance-structure modeling of a quantitative-trait locus. Dolan CV, et al. **Am J Hum Genet** 1999 Jan;64(1):268–80

Assessing the feasibility of linkage disequilibrium methods for mapping complex traits: an initial screen for bipolar disorder loci on chromosome 18. Escamilla MA, et al. **Am J Hum Genet** 1999 Jun;64(6):1670–8

A quantitative-trait locus on chromosome 6p influences different aspects of developmental dyslexia. Fisher SE, et al. **Am J Hum Genet** 1999 Jan;64(1):146–56

Combined linkage and association sib-pair analysis for quantitative traits. Fulker DW, et al. **Am J Hum Genet** 1999 Jan;64(1):259–67

Quantitative-trait locus for specific language and reading deficits on chromosome 6p. Gayán J, et al. **Am J Hum Genet** 1999 Jan;64(1):157–64

Heritability of cellular radiosensitivity: a marker of low-penetrance predisposition genes in breast cancer? Roberts SA, et al. **Am J Hum Genet** 1999 Sep;65(3):784–94

Disequilibrium mapping of a quantitative-trait locus in an expanding population. Slatkin M. **Am J Hum Genet** 1999 Jun;64(6):1764–72

A major quantitative-trait locus for mole density is linked to the familial melanoma gene CDKN2A: a maximum-likelihood combined linkage and association analysis in twins and their sibs. Zhu G, et al. **Am J Hum Genet** 1999 Aug;65(2):483–92

A search for quantitative trait loci for milk production traits on chromosome 6 in Finnish Ayrshire cattle. Velmala RJ, et al. **Anim Genet** 1999 Apr;30(2):136–43

Mapping of quantitative trait loci on porcine chromosome 4. Walling GA, et al. **Anim Genet** 1998 Dec;29(6):415–24

High resolution mapping and identification of new quantitative trait loci (QTL) affecting susceptibility to Marek's disease. Yonash N, et al. **Anim Genet** 1999 Apr; 30(2):126–35

Linkage analysis of 5 novel van der Woude syndrome kindreds to 1q32-q41 markers further supports locus homogeneity of the disease trait. Houdayer C, et al. **Ann Genet** 1999;42(2):69–74

Phenotypic expression of hemoglobin A2 in beta-thalassemia trait with iron deficiency. Madan N, et al. **Ann Hematol** 1998 Sep;77(3):93–6

TDT statistics for mapping quantitative trait loci. Xiong MM, et al. **Ann Hum Genet** 1998 Sep;62 (Pt 5):431–52

Quantitative trait locus analysis of plasma lipoprotein levels in an autoimmune mouse model : interactions between lipoprotein metabolism, autoimmune disease, and atherogenesis. Gu L, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb;19(2):442–53

A comparison of power to detect a QTL in sib-pair data using multivariate phenotypes, mean phenotypes, and factor scores. Boomsma DI, et al. **Behav Genet** 1998 Sep; 28(5):329–40

Iteratively reweighted least squares mapping of quantitative trait loci. Xu S. **Behav Genet** 1998 Sep;28(5):341–55

Quantitative trait loci that regulate plasma lipid concentration in hereditary obese KK and KK-Ay mice. Suto J, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):385–95

Minimum distance estimation of mutational parameters for quantitative traits. García-Dorado A, et al. **Biometrics** 1998 Sep;54(3):1097–114

Quantitative trait loci implicated in corpus callosum midsagittal area in mice. Roy IL, et al. **Brain Res** 1998 Nov 16;811(1-2):173–6

Quantitative trait loci associated with short-term intake of sucrose, saccharin and quinine solutions in laboratory mice. Blizard DA, et al. **Chem Senses** 1999 Aug;24(4):373–85

Provisional QTL for circadian period of wheel running in laboratory mice: quantitative genetics of period in RI mice. Hofstetter JR, et al. **Chronobiol Int** 1999 May;16(3):269–79

Effects of quantitative trait loci for lipid phenotypes in the rat are influenced by age. Kovács P, et al. **Clin Exp Pharmacol Physiol** 1998 Dec;25(12):1004–7

Screening secondary school students in the Gaza strip for beta-thalassaemia trait. Sirdah M, et al. **Clin Lab Haematol** 1998 Oct;20(5):279–83

Preweanling sensorial and motor development in laboratory mice: quantitative trait loci mapping. Le Roy I, et al. **Dev Psychobiol** 1999 Mar;34(2):139–58

A quantitative trait locus influencing BMI maps to the region of the beta-3 adrenergic receptor. Mitchell BD, et al. **Diabetes** 1999 Sep;48(9):1863–7

The quantitative trait locus on chromosome 2 for serum leptin levels is confirmed in African-Americans. Rotimi CN, et al. **Diabetes** 1999 Mar;48(3):643–4

Tumor necrosis factor-alpha-238 and -308 polymorphisms do not associated with traits related to obesity and insulin resistance. Walston J, et al. **Diabetes** 1999 Oct;48(10):2096–8

Interacting quantitative trait loci control phenotypic variation in murine estradiol-regulated responses. Roper RJ, et al. **Endocrinology** 1999 Feb;140(2):556–61

Linkage of a major quantitative trait locus to Yaa gene-induced lupus-like nephritis in (NZW x C57BL/6)F1 mice. Santiago ML, et al. **Eur J Immunol** 1998 Dec; 28(12):4257–67

Relationships between trait and state anxiety and the central benzodiazepine receptor: a PET study. Abadie P, et al. **Eur J Neurosci** 1999 Apr;11(4):1470–8

Comparison of variance components and sibpair-based approaches to quantitative trait linkage analysis in unselected samples. Williams JT, et al. **Genet Epidemiol** 1999;16(2):113–34

Likelihood-based approach to estimating twin concordance for dichotomous traits. Witte JS, et al. **Genet Epidemiol** 1999;16(3):290–304

An experimental method for evaluating the contribution of deleterious mutations to quantitative trait variation. Kelly JK. **Genet Res** 1999 Jun;73(3):263–73

Detection of quantitative trait loci in outbred populations with incomplete marker data. Bink MC, et al. **Genetics** 1999 Jan;151(1):409–20

The association of flowering time quantitative trait loci with duplicated regions and candidate loci in Brassica oleracea. Bohuon EJ, et al. **Genetics** 1998 Sep;150(1):393–401

Quantitative trait loci affecting body weight and fatness from a mouse line selected for extreme high growth. Brockmann GA, et al. **Genetics** 1998 Sep;150(1):369–81

Genetic variation maintained in multilocus models of additive quantitative traits under stabilizing selection. Bürger R, et al. **Genetics** 1999 Jun;152(2):807–20

Detection of quantitative trait loci for backfat thickness and intramuscular fat content in pigs (Sus scrofa). de Koning DJ, et al. **Genetics** 1999 Aug;152(4):1679–90

Statistical methods for mapping quantitative trait loci from a dense set of markers. Dupuis J, et al. **Genetics** 1999 Jan; 151(1):373–86

Multiple-trait mapping of quantitative trait loci after selective genotyping using logistic regression. Henshall JM, et al. **Genetics** 1999 Feb;151(2):885–94

Multiple interval mapping for quantitative trait loci. Kao CH, et al. **Genetics** 1999 Jul;152(3):1203–16

A nonparametric bootstrap method for testing close linkage vs. pleiotropy of coincident quantitative trait loci. Lebreton CM, et al. **Genetics** 1998 Oct;150(2):931–43

Estimating linkage disequilibrium between a polymorphic marker locus and a trait locus in natural populations. Luo ZW, et al. **Genetics** 1999 Jan;151(1):359–71

Temporal and multiple quantitative trait loci analyses of resistance to bacterial wilt in tomato permit the resolution of linked loci. Mangin B, et al. **Genetics** 1999 Mar; 151(3):1165–72

Identification of quantitative trait loci influencing traits related to energy balance in selection and inbred lines of mice. Moody DE, et al. **Genetics** 1999 Jun;152(2):699–711

Quantitative genetic analysis of copia retrotransposon activity in inbred Drosophila melanogaster lines. Nuzhdin SV, et al. **Genetics** 1998 Oct;150(2):755–66

Single- and multiple-trait mapping analysis of linked quantitative trait loci. Some asymptotic analytical approximations. Ronin YI, et al. **Genetics** 1999 Jan; 151(1):387–96

Bayesian mapping of multiple quantitative trait loci from incomplete outbred offspring data. Sillanpää MJ, et al. **Genetics** 1999 Apr;151(4):1605–19

A new approach to the problem of multiple comparisons in the genetic dissection of complex traits. Weller JI, et al. **Genetics** 1998 Dec;150(4):1699–706

Mapping quantitative trait loci by genotyping haploid tissues. Wu RL. **Genetics** 1999 Aug;152(4):1741–52

Time-related mapping of quantitative trait loci underlying tiller number in rice. Wu WR, et al. **Genetics** 1999 Jan; 151(1):297–303

Identification of trait-improving quantitative trait loci alleles from a wild rice relative, Oryza rufipogon. Xiao J, et al. **Genetics** 1998 Oct;150(2):899–909

Genome scan and congenic strains for blood pressure QTL using Dahl salt-sensitive rats. Garrett MR, et al. **Genome Res** 1998 Jul;8(7):711–23

Linkage analysis and construction of a congenic strain for a blood pressure QTL on rat chromosome 9. Rapp JP, et al. **Genomics** 1998 Jul 15;51(2):191–6

Genetic dissection of "OLETF," a rat model for non-insulin-dependent diabetes mellitus: quantitative trait locus analysis of (OLETF x BN) x OLETF. Watanabe TK, et al. **Genomics** 1999 Jun 15;58(3):233–9

Test of candidate gene--quantitative trait locus association applied to fatness in mice. Keightley PD, et al. **Heredity** 1998 Dec;81 (Pt 6):630–7

Confirmed quantitative trait loci for fatness and growth on pig chromosome 4. Marklund L, et al. **Heredity** 1999 Feb; 82 (Pt 2):134–41

Mapping quantitative trait loci for ordered categorical traits in four-way crosses. Rao S, et al. **Heredity** 1998 Aug;81 (Pt 2):214–24

Mapping quantitative trait loci for complex binary traits in outbred populations. Yi N, et al. **Heredity** 1999 Jun;82 (Pt 6):668–76

Affected sib-pair methods for detecting linkage to dichotomous traits: review of the methodology. Holmans P. **Hum Biol** 1998 Dec;70(6):1025–40 (75 ref.)

Effect of alpha-gene numbers on the expression of beta-thalassemia intermedia, beta-thalassemia and (delta beta)0-thalassemia traits. Altay C, et al. **Hum Hered** 1998 May-Jun;48(3):121–5

The behaviors of some heritability estimators in the complete absence of genetic factors. Guo S. **Hum Hered** 1999 Jul; 49(4):215–28

Familiarity of quantitative metabolic traits in Finnish families with non-insulin-dependent diabetes mellitus. Finland-United States Investigation of NIDDM Genetics (FUSION) Study investigators. Watanabe RM, et al. **Hum Hered** 1999 Jun;49(3):159–68

A genome-wide screen for asthma-associated quantitative trait loci in a mouse model of allergic asthma. Zhang Y, et al. **Hum Mol Genet** 1999 Apr;8(4):601–5

Identifying candidate genes for blood pressure quantitative trait loci using differential gene expression and a panel of congenic strains. Cicila GT, et al. **Hypertens Res** 1998 Dec; 21(4):289–96 (39 ref.)

Successful isolation of a rat chromosome 1 blood pressure quantitative trait locus in reciprocal congenic strains [see comments] Frantz SA, et al. **Hypertension** 1998 Oct; 32(4):639–46. Comment in: Hypertension 1998 Oct;32(4):647–8.

Eye1 and Eye2: gene loci that modulate eye size, lens weight, and retinal area in the mouse. Zhou G, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):817–25

Quantitative trait loci for blood pressure exist near the IGF-1, the Liddle syndrome, the angiotensin II-receptor gene and the renin loci in man. Nagy Z, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1709–16

Evaluation of the ovine callipyge locus: III. genotypic effects on meat quality traits. Freking BA, et al. **J Anim Sci** 1999 Sep;77(9):2336–44

Two-stage selection strategies utilizing marker-quantitative trait locus information and individual performance. Gomez-Raya L, et al. **J Anim Sci** 1999 Aug;77(8):2008–18

Genetic parameters for growth traits for a composite terminal sire breed of sheep. Mousa E, et al. **J Anim Sci** 1999 Jul; 77(7):1659–65

Identification of quantitative trait loci affecting female reproductive traits in a multigeneration Meishan-White composite swine population. Rohrer GA, et al. **J Anim Sci** 1999 Jun;77(6):1385–91

A primary screen of the bovine genome for quantitative trait loci affecting carcass and growth traits. Stone RT, et al. **J Anim Sci** 1999 Jun;77(6):1379–84

Genetic models for non insulin dependent diabetes mellitus in rodents. Kim JH, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2-4):325–45 (62 ref.)

Linkage of a QTL contributing to normal variation in bone mineral density to chromosome 11q12–13. Koller DL, et al. **J Bone Miner Res** 1998 Dec;13(12):1903–8

Detection and utilization of single genes without DNA assays. Fernando RL, et al. **J Dairy Sci** 1998 Sep;81 Suppl 2:64–75

Strategies to utilize marker-quantitative trait loci associations. Haley CS, et al. **J Dairy Sci** 1998 Sep;81 Suppl 2:85–97 (48 ref.)

Restricted maximum likelihood analysis of linkage between genetic markers and quantitative trait loci for a granddaughter design. Van Arendonk JA, et al. **J Dairy Sci** 1998 Sep;81 Suppl 2:76–84

Teaching a new dog old tricks: identifying quantitative trait loci using lessons from plants. Chase K, et al. **J Hered** 1999 Jan-Feb;90(1):43–51

Methods of analysis and resources available for genetic trait mapping. Ott J. **J Hered** 1999 Jan-Feb;90(1):68–70 (15 ref.)

Identification of quantitative trait loci governing arthritis severity and humoral responses in the murine model of Lyme disease. Weis JJ, et al. **J Immunol** 1999 Jan 15; 162(2):948–56

Quantitative trait loci analysis for the differences in susceptibility to atherosclerosis and diabetes between inbred mouse strains C57BL/6J and C57BLKS/J. Mu JL,

et al. **J Lipid Res** 1999 Jul;40(7):1328–35

Identification of an acute ethanol response quantitative trait locus on mouse chromosome 2. Demarest K, et al. **J Neurosci** 1999 Jan 15;19(2):549–61

Mapping quantitative trait loci for seizure response to a GABAA receptor inverse agonist in mice. Gershenfeld HK, et al. **J Neurosci** 1999 May 15;19(10):3731–8

Identification of quantitative trait loci for haloperidol–induced catalepsy on mouse chromosome 14. Rasmussen E, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1337–46

Quantitative trait loci approach to the genetics of sleep in recombinant inbred mice. Tafti M, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:37–43

Unifying genetic and game theoretic models of kin selection for continuous traits. Day T, et al. **J Theor Biol** 1998 Oct 7;194(3):391–407

Evolutionary branching under asymmetric competition. Kisdi E. **J Theor Biol** 1999 Mar 21;197(2):149–62

Identification of a quantitative trait locus influencing plasma insulin levels after 70% pancreatectomy using the OLETF rat. Moralejo DH, et al. **J Vet Med Sci** 1998 Oct; 60(10):1157–60

Automated measurement of mouse freezing behavior and its use for quantitative trait locus analysis of contextual fear conditioning in (BALB/cJ x C57BL/6J)F2 mice. Valentinuzzi VS, et al. **Learn Mem** 1998 Sep–Oct; 5(4–5):391–403

Development of congenics for hypnotic sensitivity to ethanol by QTL–marker–assisted counter selection. Bennett B, et al. **Mamm Genome** 1998 Dec;9(12):969–74

Genomic screen for QTLs underlying alcohol consumption in the P and NP rat lines. Bice P, et al. **Mamm Genome** 1998 Dec;9(12):949–55

Quantitative trait loci affecting risk for pentobarbital withdrawal map near alcohol withdrawal loci on mouse chromosomes 1, 4, and 11. Buck K, et al. **Mamm Genome** 1999 May;10(5):431–7

Recent progress toward the identification of genes related to risk for alcoholism. Buck KJ. **Mamm Genome** 1998 Dec; 9(12):927–8 (7 ref.)

Two blood pressure/cardiac mass quantitative trait loci on chromosome 3 in Dahl rats. Cicila GT, et al. **Mamm Genome** 1999 Feb;10(2):112–6

A quantitative trait locus for live weight maps to bovine chromosome 23. Elo KT, et al. **Mamm Genome** 1999 Aug; 10(8):831–5

Complete genome searches for quantitative trait loci controlling blood pressure and related traits in four segregating populations derived from Dahl hypertensive rats. Kato N, et al. **Mamm Genome** 1999 Mar;10(3):259–65

Developmental loss of effect of a Chromosome 15 QTL on alcohol acceptance. McClearn GE, et al. **Mamm Genome** 1998 Dec;9(12):991–4

A major quantitative trait locus co–localizing with cholecystokinin type A receptor gene influences poor pancreatic proliferation in a spontaneously diabetogenic rat. Moralejo DH, et al. **Mamm Genome** 1998 Oct;9(10):794–8

Quantitative trait loci for growth traits in C57BL/6J x DBA/2J mice. Morris KH, et al. **Mamm Genome** 1999 Mar; 10(3):225–8

A major influence of sex–specific loci on alcohol preference in C57Bl/6 and DBA/2 inbred mice. Peirce JL, et al. **Mamm Genome** 1998 Dec;9(12):942–8

Genes on mouse chromosomes 2 and 9 determine variation in ethanol consumption. Phillips TJ, et al. **Mamm Genome** 1998 Dec;9(12):936–41

Towards the cloning of genes underlying murine QTLs. Rikke BA, et al. **Mamm Genome** 1998 Dec;9(12):963–8 (98 ref.)

Identification of peak bone mass QTL in a spontaneously osteoporotic mouse strain. Shimizu M, et al. **Mamm Genome** 1999 Feb;10(2):81–7

Mapping and characterization of quantitative trait loci for non–insulin–dependent diabetes mellitus with an improved genetic map in the Otsuka Long–Evans Tokushima fatty rat. Wei S, et al. **Mamm Genome** 1999 Mar;10(3):249–58

A "defeated" rice resistance gene acts as a QTL against a virulent strain of Xanthomonas oryzae pv. oryzae. Li ZK, et al. **Mol Gen Genet** 1999 Feb;261(1):58–63

QTL influencing autoimmune diabetes and encephalomyelitis map to a 0.15–cM region containing Il2 [letter] Encinas JA, et al. **Nat Genet** 1999 Feb;21(2):158–60

A paternally expressed QTL affecting skeletal and cardiac muscle mass in pigs maps to the IGF2 locus [letter] Jeon JT, et al. **Nat Genet** 1999 Feb;21(2):157–8

An imprinted QTL with major effect on muscle mass and fat deposition maps to the IGF2 locus in pigs [letter] Nezer C, et al. **Nat Genet** 1999 Feb;21(2):155–6

Functional screening of an asthma QTL in YAC transgenic mice. Symula DJ, et al. **Nat Genet** 1999 Oct;23(2):241–4

Interactions among quantitative traits in the course of sympatric speciation [see comments] Kondrashov AS, et al. **Nature** 1999 Jul 22;400(6742):351–4. Comment in: Nature 1999 Jul 22;400(6742):311–2.

The inheritance of glomerulosclerosis in mice is controlled by multiple quantitative trait loci. Lenz O, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3074–8

Analysis of the mesotelencephalic dopamine system by quantitative–trait locus introgression. Vadasz C, et al. **Neurochem Res** 1998 Nov;23(11):1337–54

Quantitative genetics of energy balance--lessons from animal models. Pomp D, et al. **Obes Res** 1999 Jan;7(1):106–10 (36 ref.)

Ivr2, a candidate gene for a QTL of vacuolar invertase activity in maize leaves. Gene–specific expression under water stress. Pelleschi S, et al. **Plant Mol Biol** 1999 Jan; 39(2):373–80

Whole genome scan in chickens for quantitative trait loci affecting carcass traits. Van Kaam JB, et al. **Poult Sci** 1999 Aug;78(8):1091–9

Identification of quantitative trait loci for non–insulin–dependent diabetes mellitus that interact with body weight in the Otsuka Long–Evans Tokushima Fatty rat. Moralejo DH, et al. **Proc Assoc Am Physicians** 1998 Nov–Dec;110(6):545–58

Fine–mapping of quantitative trait loci by identity by descent in outbred populations: application to milk production in dairy cattle. Riquet J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9252–7

On the origin of species by means of assortative mating. Kondrashov AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 7;265(1412):2273–8 (25 ref.)

Genotyping microsatellite polymorphisms by agarose gel electrophoresis with ethidium bromide staining: application to quantitative trait loci analysis of seizure susceptibility in mice. Ferraro TN, et al. **Psychiatr Genet** 1998 Winter; 8(4):227–33

Rat congenic and recombinant inbred strains: a genetic model for the study of quantitative trait loci. Kfen V, et al. **Transplant Proc** 1999 May;31(3):1592–3

From complex traits to complex alleles. Phillips PC. **Trends Genet** 1999 Jan;15(1):6–8 (19 ref.)

[Inheritance of quantitative traits in hybrid pedigrees: mixed models] Aksenovich TI. **Genetika** 1999 Apr;35(4):530–9 (Eng. Abstr.) **(Rus)**

[Phenotypic and genotypic structure of a natural Drosophila population for meristic morphologic characters and its seasonal changes] Grechanyi GV, et al. **Genetika** 1998 Dec; 34(12):1619–29 (Eng. Abstr.) **(Rus)**

[Population dynamics of the response of the genomic pattern of the mobile genetic element Dm412 in Drosophila on selection for a quantitative trait] Vasil'eva LA, et al. **Genetika** 1998 Jul;34(7):929–40 (Eng. Abstr.) **(Rus)**

QUANTUM THEORY

Quantum–mechanical coherence in cell microtubules: a realistic possibility? Mavromatos NE. **Bioelectrochem Bioenerg** 1999 May;48(2):273–84

Quantum dissipation and neural net dynamics. Pessa E, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):339–42

Damping and modification of the multiquanta Davydov–like solitons in molecular chains. Zeković S, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):297–300

Quantum mechanics in the present progressive mode and its significance in biological information processing. Matsuno K, et al. **Biosystems** 1999 Mar;49(3):229–37

Quantal analysis and long–term potentiation. Korn H, et al. **C R Acad Sci III** 1998 Feb–Mar;321(2–3):125–30 (48 ref.)

Quantal analysis of synaptic processes in the neocortex. Thomson AM. **C R Acad Sci III** 1998 Feb–Mar; 321(2–3):131–3 (16 ref.)

Asynchrony of quantal events in evoked multiquantal responses indicates presynaptic quantal interaction. Bykhovskaia M, et al. **J Neurophysiol** 1999 May; 81(5):2234–42

Environmental management: principles from quantum theory. Valadez AM, et al. **J Prof Nurs** 1999 Jul–Aug; 15(4):209–13

Biological homing: hypothesis for a quantum effect that leads to the existence of life. Meggs WJ. **Med Hypotheses** 1998 Dec;51(6):503–6

Quantum computing. Brassard G, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11032–3

Unification of the quantum and classical theories of methyl NMR. Clough S. **Solid State Nucl Magn Reson** 1999 Jul; 14(2):73–9 (16 ref.)

[The concepts of quantum theory can be introduced into psychophysiology] Shul'kin NN. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov–Dec; 48(6):1129–33 (Eng. Abstr.) **(Rus)**

QUARANTINE

see related

PATIENT ISOLATION

Catching patients: tuberculosis and detention in the 1990s. Lerner BH. **Chest** 1999 Jan;115(1):236–41 (47 ref.)

Welfare of animals in quarantine [letter] [see comments] Bessant C. **Vet Rec** 1999 May 1;144(18):512. Comment in: Vet Rec 1999 May 15;144(20):568.

Welfare of animals in quarantine [letter; comment] [see comments] Goody S. **Vet Rec** 1999 Apr 17;144(16):456. Comment on: Vet Rec 1999 Apr 3;144(14):358–9. Comment in: Vet Rec 1999 May 15;144(20):568.

Considerations on the road to involuntary confinement. Tulsky JP, et al. **West J Med** 1999 Jul;171(1):48–9

[Quarantine diseases, tropical medicine. Proceedings of the 5th Pharo and Laveran Hospital meeting. 4–5 September 1998 (published erratum appears in Med Trop (Mars) 1998;58(3):248)] **Med Trop (Mars)** 1998;58(2 Suppl):7–104 **(Fre)**

[Bacteriological studies of traveller's diarrhoea (6). Analysis of enteropathogenic bacteria at Kansai Airport Quarantine Station from September 4th, 1994 through December 1996] Ueda Y, et al. **Kansenshogaku Zasshi** 1999 Feb;73(2):110–21 (Eng. Abstr.) **(Jpn)**

[A place for quarantine?] Aavitsland P. **Tidsskr Nor Laegeforen** 1998 Sep 30;118(23):3582 **(Nor)**

[Quarantine and plasmapheresis in a community hospital (letter; comment)] Domingo JM, et al. **Sangre (Barc)** 1998 Oct;43(5):461–2. Comment on: Sangre (Barc) 1998 Jun;43(3):261–2. **(Spa)**

HISTORY

The journal 100 years ago. July 1849 and 1899. Colon GA. **J La State Med Soc** 1999 Jul;151(7):355–7

Tuberculosis in Seattle, 1949–1973: balancing public health and civil liberties. Lerner BH. **West J Med** 1999 Jul; 171(1):44–8

[History of the concept of quarantine] Mafart B, et al. **Med Trop (Mars)** 1998;58(2 Suppl):14–20 (Eng. Abstr.) **(Fre)**

LEGISLATION & JURISPRUDENCE

'Pet Travel Scheme': the Government starts to publicise the requirements [news] **Vet Rec** 1999 Jul 17;145(3):58–9

Replacement of quarantine: the profession airs its concerns [news] **Vet Rec** 1999 Apr 17;144(16):426–9

Rabies, quarantine and the veterinary profession: the BVA's position [news] **Vet Rec** 1999 Apr 10;144(15):396–7

Pet Travel Scheme: further details from MAFF [news] **Vet Rec** 1999 Aug 7;145(6):150–2

Kennedy review recommends partial replacement of quarantine [news] **Vet Rec** 1998 Oct 3;143(14):374–5

Rabies and quarantine: the government opts for change [news; comment] **Vet Rec** 1999 Apr 3;144(14):358–9. Comment on: Vet Rec 1999 Apr 17;144(16):456.

Welfare of animals in quarantine [letter; comment] Rochlitz I. **Vet Rec** 1999 May 15;144(20):568. Comment on: Vet Rec 1999 Apr 17;144(16):456. Comment on: Vet Rec 1999 May 1;144(18):512.

STANDARDS

Dealing with 'exotic' diseases [letter] Charlwood H, et al. **Vet Rec** 1998 Dec 19–26;143(25):699

TRENDS

[The main trends in the improvement of the activity of plague control institutions in the prevention of quarantine infections] Onishchenko GG, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov–Dec; (6):37–41 **(Rus)**

VETERINARY

Equine piroplasmosis: the temporary importation of seropositive horses into Australia. Martin R. **Aust Vet J** 1999 May;77(5):308–9

New hope in UK for penned up pooches [news] Monti DJ. **J Am Vet Med Assoc** 1998 Dec 1;213(11):1551

Rodent quarantine programs: purpose, principles, and practice. Rehg JE, et al. **Lab Anim Sci** 1998 Oct; 48(5):438–47 (54 ref.)

Replacement of quarantine [letter] Jefferies CC. **Vet Rec** 1999 May 29;144(22):623

Effects of quarantine on cats and their owners. Rochlitz I, et al. **Vet Rec** 1998 Aug 15;143(7):181–5

QUARTZ

The TD6 level lithic industry from Gran Dolina, Atapuerca (Burgos, Spain): production and use. Carbonell E, et al. **J Hum Evol** 1999 Sep–Oct;37(3–4):653–93

Association of years of occupational quartz exposure with spirometric airflow limitation in Norwegian men aged 30–46 years. Humerfelt S, et al. **Thorax** 1998 Aug; 53(8):649–55

ADVERSE EFFECTS

Crystalline silica and risk of lung cancer in the potteries. Cherry NM, et al. **Occup Environ Med** 1998 Nov; 55(11):779–85

Risks of respiratory disease in the heavy clay industry. Love RG, et al. **Occup Environ Med** 1999 Feb;56(2):124–33

ANALYSIS

Quartz exposure in the slate industry in northern Norway. Bang BE, et al. **Ann Occup Hyg** 1998 Nov;42(8):557–63

Occupational exposure to dust in quartz manufacturing industry. Fulekar MH. **Ann Occup Hyg** 1999 May; 43(4):269–73

NMR imaging application to the study of adsorption/precipitation of chemicals inside porous media. Maddinelli G. **Magn Reson Imaging** 1998 Jun–Jul; 16(5–6):665–8

CHEMISTRY

Surface chemistry and quartz hazard. Fubini B. **Ann Occup Hyg** 1998 Nov;42(8):521–30

QUARTZ

PHARMACOKINETICS

Phospholipid surfactant adsorption by respirable quartz and in vitro expression of cytotoxicity and DNA damage. Liu X, et al. **Toxicol Lett** 1998 Aug;96–97:77–84

PHARMACOLOGY

Lysophosphatidylcholine abrogates the CR1 preserving effect of surfactant on quartz–exposed human granulocytes. Zetterberg G, et al. **Inflammation** 1999 Apr;23(2):179–89

TOXICITY

Interleukin–10 regulates quartz–induced pulmonary inflammation in rats. Driscoll KE, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L887–94

Surface chemistry and quartz hazard. Fubini B. **Ann Occup Hyg** 1998 Nov;42(8):521–30

Phospholipid surfactant adsorption by respirable quartz and in vitro expression of cytotoxicity and DNA damage. Liu X, et al. **Toxicol Lett** 1998 Aug;96–97:77–84

Supernatants from quartz dust treated human macrophages stimulate cell proliferation of different human lung cells as well as collagen–synthesis of human diploid lung fibroblasts in vitro. Olbrück H, et al. **Toxicol Lett** 1998 Aug;96–97:85–95

[Early changes in rat lungs caused by lower–dose quartz dust] Mei Y, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 May;32(3):139–41 (Eng. Abstr.) **(Chi)**

QUERCETIN

ADMINISTRATION & DOSAGE

Effect of fruit juice intake on urinary quercetin excretion and biomarkers of antioxidative status. Young JF, et al. **Am J Clin Nutr** 1999 Jan;69(1):87–94

Modulating effect of resveratrol and quercetin on oral cancer cell growth and proliferation. ElAttar TM, et al. **Anticancer Drugs** 1999 Feb;10(2):187–93

Antioxidant activity of quercetin and myricetin in liposomes. Gordon MH, et al. **Chem Phys Lipids** 1998 Dec;97(1):79–85

ADVERSE EFFECTS

Phase I clinical trial of the flavonoid quercetin: pharmacokinetics and evidence for in vivo tyrosine kinase inhibition. Ferry DR, et al. **Clin Cancer Res** 1996 Apr; 2(4):659–68

ANALOGS & DERIVATIVES

Anaerobic transformation of quercetin–3–glucoside by bacteria from the human intestinal tract. Schneider H, et al. **Arch Microbiol** 1999 Jan;171(2):81–91

A furan derivative from Cornus officinalis. Kim DK, et al. **Arch Pharm Res** 1998 Dec;21(6):787–9

Dietary flavonols quercetin and kaempferol are ligands of the aryl hydrocarbon receptor that affect CYP1A1 transcription differentially. Ciolino HP, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):715–22

Metabolism of quercitrin by human intestinal bacteria and its relation to some biological activities. Kim DH, et al. **Biol Pharm Bull** 1999 Jul;22(7):749–51

Hypericum LI 160 inhibits uptake of serotonin and norepinephrine in astrocytes. Neary JT, et al. **Brain Res** 1999 Jan 23;816(2):358–63

Protective effect of hyperin against myocardial ischemia and reperfusion injury. Wang WQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):341–4

Dietary flavonoids protect human colonocyte DNA from oxidative attack in vitro. Duthie SJ, et al. **Eur J Nutr** 1999 Feb;38(1):28–34

Two–electron electrochemical oxidation of quercetin and kaempferol changes only the flavonoid C–ring. Jørgensen LV, et al. **Free Radic Res** 1998 Oct;29(4):339–50

Solid–phase extraction and gas chromatography–mass spectrometry determination of kaempferol and quercetin in human urine after consumption of Ginkgo biloba tablets. Watson DG, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19;723(1–2):203–10

Phytoestrogen kaempferol (3,4',5,7–tetrahydroxyflavone) protects PC12 and T47D cells from beta–amyloid–induced toxicity. Roth A, et al. **J Neurosci Res** 1999 Aug 1; 57(3):399–404

5–Methylflavasperone and rhamnetin from Guiera senegalensis and their antioxidative and 5–lipoxygenase inhibitory activity. Bucar F, et al. **Pharmazie** 1998 Dec; 53(12):875–8

Phototoxic effects of Hypericum extract in cultures of human keratinocytes compared with those of psoralen. Bernd A, et al. **Photochem Photobiol** 1999 Feb;69(2):218–21

Kaempferol tetraglucosides from cabbage leaves. Nielsen JK, et al. **Phytochemistry** 1998 Dec;49(7):2171–6

Cymbidium hybrida dihydroflavonol 4–reductase does not efficiently reduce dihydrokaempferol to produce orange pelargonidin–type anthocyanins. Johnson ET, et al. **Plant J** 1999 Jul;19(1):81–5

Relaxant effects of quercetin methyl ether derivatives in isolated guinea pig trachea and their structure–activity relationships [letter] Ko WC, et al. **Planta Med** 1999 Apr; 65(3):273–5

[Flavonoids in the rhizome of Sparganum stoloniferum Buch.–Ham.] Zhang W, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Sep;21(9):550–1, 576 (Eng. Abstr.) **(Chi)**

BLOOD

Validated method for the quantitation of quercetin from human plasma using high–performance liquid chromatography with electrochemical detection. Erlund I, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1–2):179–89

METABOLISM

Quercetin may act as a cytotoxic prooxidant after its metabolic activation to semiquinone and quinoidal product. Metodiewa D, et al. **Free Radic Biol Med** 1999 Jan; 26(1–2):107–16

Two–electron electrochemical oxidation of quercetin and kaempferol changes only the flavonoid C–ring. Jørgensen LV, et al. **Free Radic Res** 1998 Oct;29(4):339–50

Fate of the flavonoid quercetin in human cell lines: chemical instability and metabolism. Boulton DW, et al. **J Pharm Pharmacol** 1999 Mar;51(3):353–9

PHARMACOKINETICS

Part of quercetin absorbed in the small intestine is conjugated and further secreted in the intestinal lumen. Crespy V, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):G120–6

Pharmacokinetics and bioavailability of the flavonol quercetin in humans. Graefe EU, et al. **Int J Clin Pharmacol Ther** 1999 May;37(5):219–33 (72 ref.)

PHARMACOLOGY

Dietary flavonol quercetin induces chloride secretion in rat colon. Cermak R, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1166–72

Reduction of cisplatin toxicity in cultured renal tubular cells by the bioflavonoid quercetin. Kuhlmann MK, et al. **Arch Toxicol** 1998 Jul–Aug;72(8):536–40

Inhibition of Vpr–induced cell cycle abnormality by quercetin: a novel strategy for searching compounds targeting Vpr. Shimura M, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):308–16

Dietary flavonols quercetin and kaempferol are ligands of the aryl hydrocarbon receptor that affect CYP1A1 transcription differentially. Ciolino HP, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):715–22

Modulation of the heat–induced activation of mitogen–activated protein (MAP) kinase by quercetin. Nagasaka Y, et al. **Biochem Pharmacol** 1998 Nov 1; 56(9):1151–5

Influence of the antioxidant quercetin in vivo on the level of nitric oxide determined by electron paramagnetic resonance in rat brain during global ischemia and reperfusion. Shutenko Z, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):199–208

Effects of the wine polyphenolics quercetin and resveratrol on pro–inflammatory cytokine expression in RAW 264.7 macrophages. Wadsworth TL, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):941–9

Quercetin inhibited DNA synthesis and induced apoptosis associated with increase in c–fos mRNA level and the upregulation of p21WAF1CIP1 mRNA and protein expression during liver regeneration after partial hepatectomy. Iwao K, et al. **Biochim Biophys Acta** 1999 Mar 14;1427(1):112–20

The two phyto–oestrogens genistein and quercetin exert different effects on oestrogen receptor function. Miodini P, et al. **Br J Cancer** 1999 Jun;80(8):1150–5

Effect of quercetin on activities of protein kinase C and tyrosine protein kinase from HL–60 cells. Kang TB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):374–6

Quercetin induced apoptosis in human leukemia HL–60 cells. Xiao D, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May; 18(3):280–3

Effect of quercetin on platelet aggregation induced by oxyradicals. Xie ML, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):334–6

Inhibitory effect of quercetin on tumor necrosis factor and interleukin–1 beta pro–osteoclastic activities. Zhang JP, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):261–3

Effects of quercetin on production and release of endothelin and cGMP from cultured endothelial cells. Zhao XY, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):442–4

Stimulation of endogenous adenosine release by oral administration of quercetin and resveratrol in man. Blardi P, et al. **Drugs Exp Clin Res** 1999;25(2–3):105–10

Absorption and antioxidant effects of quercetin from onions, in man. McAnlis GT, et al. **Eur J Clin Nutr** 1999 Feb; 53(2):92–6

Dietary flavonoids protect human colonocyte DNA from oxidative attack in vitro. Duthie SJ, et al. **Eur J Nutr** 1999 Feb;38(1):28–34

Suppression of multidrug resistance via inhibition of heat shock factor by quercetin in MDR cells. Kim SH, et al. **Exp Mol Med** 1998 Jun 30;30(2):87–92

The effect of quercetin on induction of apoptosis. Rzymowska J, et al. **Folia Histochem Cytobiol** 1999; 37(2):125–6

Quercetin glucosides interact with the intestinal glucose transport pathway. Gee JM, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):19–25

Quercetin inhibits hydrogen peroxide–induced oxidation of the rat lens. Sanderson J, et al. **Free Radic Biol Med** 1999 Mar;26(5–6):639–45

Quercetin prevents DNA single strand breakage and cytotoxicity caused by tert–butylhydroperoxide: free radical scavenging versus iron chelating mechanism. Sestili P, et al. **Free Radic Biol Med** 1998 Jul 15;25(2):196–200

Structure–activity relationships of quercetin in antagonizing hydrogen peroxide–induced calcium dysregulation in PC12 cells. Wang H, et al. **Free Radic Biol Med** 1999 Sep; 27(5–6):683–94

Inhibition of oxidant–induced lipid peroxidation in cultured renal tubular epithelial cells (LLC–PK1) by quercetin. Kuhlmann MK, et al. **Free Radic Res** 1998 Nov; 29(5):451–60

Quercetin inhibits LPS–induced nitric oxide and tumor necrosis factor–alpha production in murine macrophages. Manjeet K R, et al. **Int J Immunopharmacol** 1999 Jul; 21(7):435–43

Synergistic down–regulation of signal transduction and cytotoxicity by tiazofurin and quercetin in human ovarian carcinoma cells. Shen F, et al. **Life Sci** 1999;64(21):1869–76

Sensitivity of human melanoma cells to oestrogens, tamoxifen and quercetin: is there any relationship with type I and II oestrogen binding site expression? Lama G, et al. **Melanoma Res** 1998 Aug;8(4):313–22

Effects of some natural extracts on the acetylcholine release at the mouse neuromuscular junction. Re L, et al. **Pharmacol Res** 1999 Mar;39(3):239–45

Differential toxicities of TCDD in vivo among normal, c–src knockout, geldanamycin– and quercetin–treated mice. Dunlap DY, et al. **Toxicology** 1999 Jul 15;135(2–3):95–107

THERAPEUTIC USE

Prevention of N–nitrosodiethylamine–induced lung tumorigenesis by ellagic acid and quercetin in mice. Khanduja KL, et al. **Food Chem Toxicol** 1999 Apr; 37(4):313–8

[The characteristics of peripheral nervous system regeneration in skin wounds by the use of an antioxidant–bound charcoal sorbent] Slobodianyk HI. **Klin Khir** 1998;(9–10):58–60 (Eng. Abstr.) **(Ukr)**

TOXICITY

Effects of quercetin and sunphenon on responses of cancer cells to heat shock damage. Kudo M, et al. **Exp Mol Pathol** 1999 Apr;66(1):66–75

Quercetin may act as a cytotoxic prooxidant after its metabolic activation to semiquinone and quinoidal product. Metodiewa D, et al. **Free Radic Biol Med** 1999 Jan; 26(1–2):107–16

Mechanism of oxidative DNA damage induced by quercetin in the presence of Cu(II). Yamashita N, et al. **Mutat Res** 1999 Mar 10;425(1):107–15

URINE

Effect of fruit juice intake on urinary quercetin excretion and biomarkers of antioxidative status. Young JF, et al. **Am J Clin Nutr** 1999 Jan;69(1):87–94

Solid–phase extraction and gas chromatography–mass spectrometry determination of kaempferol and quercetin in human urine after consumption of Ginkgo biloba tablets. Watson DG, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19;723(1–2):203–10

QUESTIONNAIRES

Effect of the framing of questionnaire items regarding satisfaction with training on residents' responses. Guyatt GH, et al. **Acad Med** 1999 Feb;74(2):192–4

Women's knowledge of and attitude towards organized cervical smear screening. Larsen LP, et al. **Acta Obstet Gynecol Scand** 1998 Nov;77(10):988–96

Congruence between self–reported and actually provided prosthodontic services among Swedish dentists. Kronström M, et al. **Acta Odontol Scand** 1999 Feb;57(1):9–15

A Danish adaptation of the Pain Coping Questionnaire for children: preliminary data concerning reliability and validity [see comments] Thastum M, et al. **Acta Paediatr** 1999 Feb;88(2):132–8. Comment in: Acta Paediatr 1999 Feb;88(2):115–7.

Gender differences in respiratory, nasal and skin symptoms: 6–7 versus 13–14–year–old children. Wieringa MH, et al. **Acta Paediatr** 1999 Feb;88(2):147–9

Psychopathy and psychopathological profiles in prisoners on remand. Andersen HS, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):33–9

Subjective and external assessments of quality of life in schizophrenia: relationship to insight. Doyle M, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):466–72

Quality of life and overweight: the obesity related well–being (Orwell 97) questionnaire. Mannucci E, et al. **Addict Behav** 1999 May–Jun;24(3):345–57

Psychometric properties of a quitting time for alcohol questionnaire: factor structure, reliability, and validity. Oei TP, et al. **Addict Behav** 1999 May–Jun;24(3):383–98

A short questionnaire (IRQ) to assess injecting risk behaviour. Stimson GV, et al. **Addiction** 1998 Mar;93(3):337–47

Assessing attitudes and behaviors of high–risk adolescents: an evaluation of the self–report method. Brown RA. **Adolescence** 1999 Spring;34(133):25–32

Validity and reliability of the Medical Outcomes Study Short Form-20 questionnaire as a measure of quality of life in elderly people living at home. Carver DJ, et al. **Age Ageing** 1999 Mar;28(2):169-74

The use of the Short Form (SF)-36 questionnaire for older adults [letter] Dyer C, et al. **Age Ageing** 1998 Nov;27(6):756

The use of the Short Form (SF)-36 questionnaire for older adults [letter] Ferrer M, et al. **Age Ageing** 1998 Nov; 27(6):755-6

A survey of attitudes and knowledge of geriatricians to driving in elderly patients. Gillespie ND, et al. **Age Ageing** 1999 Jan;28(1):53-7

The use of the Short Form (SF)-36 questionnaire for older adults [letter] Hobson P, et al. **Age Ageing** 1998 Nov; 27(6):756-8

The Leeds Dyspepsia Questionnaire: a valid tool for measuring the presence and severity of dyspepsia. Moayyedi P, et al. **Aliment Pharmacol Ther** 1998 Dec; 12(12):1257-62

Development of a digestive health status instrument: tests of scaling assumptions, structure and reliability in a primary care population. Shaw M, et al. **Aliment Pharmacol Ther** 1998 Nov;12(11):1067-78

Reproducibility and validity of dietary patterns assessed with a food-frequency questionnaire. Hu FB, et al. **Am J Clin Nutr** 1999 Feb;69(2):243-9

The Program Environment Scale: assessing client perceptions of community-based programs for the severely mentally ill. Burt MR, et al. **Am J Community Psychol** 1998 Dec; 26(6):853-79

Completeness of ascertainment of prenatal smoking using birth certificates and confidential questionnaires: variations by maternal attributes and infant birth weight. PRAMS Working Group. Pregnancy Risk Assessment Monitoring System. Dietz PM, et al. **Am J Epidemiol** 1998 Dec 1; 148(11):1048-54

Controlled trial of the effect of length, incentives, and follow-up techniques on response to a mailed questionnaire. Hoffman SC, et al. **Am J Epidemiol** 1998 Nov 15; 148(10):1007-11

Measuring quality of life in dyspeptic patients: development and validation of a new specific health status questionnaire: final report from the Italian QPD project involving 4000 patients. Bamfi F, et al. **Am J Gastroenterol** 1999 Mar; 94(3):730-8

Characteristics of best gastroenterology practices. Johanson JF, et al. **Am J Gastroenterol** 1999 Sep;94(9):2519-30

Validity of a new quality of life scale for functional dyspepsia: a United States multicenter trial of the Nepean Dyspepsia Index. Talley NJ, et al. **Am J Gastroenterol** 1999 Sep; 94(9):2390-7

Medical clearance for respirator use: sensitivity and specificity of a questionnaire. Pappas GP, et al. **Am J Ind Med** 1999 Apr;35(4):395-400

Interview versus questionnaire for assessing physical loads in the population-based MUSIC-Norrtälje Study. Wiktorin C, et al. **Am J Ind Med** 1999 May;35(5):441-55

APIC and CDC survey of Mycobacterium tuberculosis isolation and control practices in hospitals caring for children. Part 1: Patient and family isolation policies and procedures. Association for Professionals in Infection and Epidemiology, Inc. Kellerman SE, et al. **Am J Infect Control** 1998 Oct;26(5):478-82

APIC and CDC survey of Mycobacterium tuberculosis isolation and control practices in hospitals caring for children. Part 2: Environmental and administrative controls. Association for Professionals in Infection control and Epidemiology, Inc. Kellerman SE, et al. **Am J Infect Control** 1998 Oct;26(5):483-7

Alcohol abusers in primary care: readiness to change behavior. Samet JH, et al. **Am J Med** 1998 Oct;105(4):302-6

Utilization of psychotherapy by lesbians, gay men, and bisexuals: findings from a nationwide survey. Jones MA, et al. **Am J Orthopsychiatry** 1999 Apr;69(2):209-19

Estimating the proportion of homes with functioning smoke alarms: a comparison of telephone survey and household survey results. Douglas MR, et al. **Am J Public Health** 1999 Jul;89(7):1112-4

A novel, short, and simple questionnaire to measure health-related quality of life in patients with chronic obstructive pulmonary disease. Hajiro T, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1874-8

Comparison of the Single Assessment Numeric Evaluation method and two shoulder rating scales. Outcomes measures after shoulder surgery. Williams GN, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):214-21

Faculty and resident opinions regarding the role of morbidity and mortality conference. Harbison SP, et al. **Am J Surg** 1999 Feb;177(2):136-9

Reports of smoking in a national survey: data from screening and detailed interviews, and from self- and interviewer-administered questions. Brittingham A, et al. **Ann Epidemiol** 1998 Aug;8(6):393-401

Measurement characteristics of the Women's Health Initiative food frequency questionnaire. Patterson RE, et al. **Ann Epidemiol** 1999 Apr;9(3):178-87

Using the Berlin Questionnaire to identify patients at risk for the sleep apnea syndrome [see comments] Netzer NC, et al. **Ann Intern Med** 1999 Oct 5;131(7):485-91. Comment in: Ann Intern Med 1999 Oct 5;131(7):535-6.

The Michigan Hand Outcomes Questionnaire (MHQ): assessment of responsiveness to clinical change. Chung KC, et al. **Ann Plast Surg** 1999 Jun;42(6):619-22

VRUSE--a computerised diagnostic tool: for usability evaluation of virtual/synthetic environment systems. Kalawsky RS. **Appl Ergon** 1999 Feb;30(1):11-25

The development of practice guidelines for the treatment of severe plaque form psoriasis. Spuls PI, et al. **Arch Dermatol** 1998 Dec;134(12):1591-6

Mental health questions for licensure. Who benefits? [editorial; comment] O'Brien C. **Arch Fam Med** 1999 Sep-Oct;8(5):452. Comment on: Arch Fam Med 1999 Sep-Oct;8(5):448-51.

Validity of a performance-based test of function in essential tremor. Louis ED, et al. **Arch Neurol** 1999 Jul;56(7):841-6

A new brief screen for adolescent substance abuse. Knight JR, et al. **Arch Pediatr Adolesc Med** 1999 Jun;153(6):591-6

Performance of health-related quality-of-life instruments in a spinal cord injured population. Andresen EM, et al. **Arch Phys Med Rehabil** 1999 Aug;80(8):877-84

Instrument that purports to assess "codependency" [letter; comment] Mohr WK. **Arch Psychiatr Nurs** 1999 Apr; 13(2):105-6. Comment on: Arch Psychiatr Nurs 1998 Oct;12(5):264-72.

Patients with inflammatory bowel disease: their response to information leaflets about medical therapy in particular azathioprine. Ward B, et al. **Arq Gastroenterol** 1998 Oct-Dec;35(4):264-6

Patient education. Nutrition knowledge questionnaire. Hawkes A, et al. **Aust Fam Physician** 1998 Nov; 27(11):1057-8

Measuring the quality of supervision and the training experience in psychiatry. Clarke DM. **Aust N Z J Psychiatry** 1999 Apr;33(2):248-52

A survey of suicide prevention curricula taught in Australian universities. Hazell P, et al. **Aust N Z J Psychiatry** 1999 Apr;33(2):253-9

Amphetamine withdrawal: I. Reliability, validity and factor structure of a measure. Srisurapanont M, et al. **Aust N Z J Psychiatry** 1999 Feb;33(1):89-93

Assessment of a short scale to measure social support among older people. Goodger B, et al. **Aust N Z J Public Health** 1999 Jun;23(3):260-5

Quality-of-life assessment during palliative radiotherapy. Kearsley JH, et al. **Australas Radiol** 1998 Nov;42(4):354-9

Urinary incontinence in Northern Ireland: a prevalence study. Dolan LM, et al. **BJU Int** 1999 May;83(7):760-6

An analysis of the communication tactics used by hearing-impaired adults. Stephens SD, et al. **Br J Audiol** 1999 Feb;33(1):17-27

Health visitor screening versus vigilance: outcomes of programmes for detecting permanent childhood hearing loss in west Berkshire. Sutton GJ, et al. **Br J Audiol** 1999 Jun;33(3):145-56

The role of the general health questionnaire in general practice consultations. Smith P. **Br J Gen Pract** 1998 Sep; 48(434):1565-9

Development of an EORTC questionnaire module to be used in health-related quality-of-life assessment for patients with multiple myeloma. European Organization for Research and Treatment of Cancer Study Group on Quality of Life. Stead ML, et al. **Br J Haematol** 1999 Mar; 104(3):605-11

Representation of goodness or badness in contacts of 5-year-old children with mother and nursery school teacher. Ben-Aaron M, et al. **Br J Med Psychol** 1999 Mar; 72 (Pt 1):93-104

Designing response scales for cross-cultural use in health care: data from the development of the UK WHOQOL. Skevington SM, et al. **Br J Med Psychol** 1999 Mar;72 (Pt 1):51-61

A new questionnaire to assess the quality of life of urinary incontinent women [letter; comment] Duckett JR, et al. **Br J Obstet Gynaecol** 1998 Aug;105(8):931. Comment on: Br J Obstet Gynaecol 1997 Dec;104(12):1374-9.

A validity study of the WAIT in closed head injury. McDonald TW, et al. **Brain Inj** 1999 May;13(5):331-46

The Crohn's Disease Activity Index, its derivatives and the Inflammatory Bowel Disease Questionnaire: a review of instruments to assess Crohn's disease. Yoshida EM. **Can J Gastroenterol** 1999 Jan-Feb;13(1):65-73 (47 ref.)

Late side effects unchanged 4-8 years after radiotherapy for prostate carcinoma: a comparison with age-matched controls. Fransson P, et al. **Cancer** 1999 Feb 1;85(3):678-88

Questionnaire items that predict asthma and other respiratory conditions in adults. Bai J, et al. **Chest** 1998 Nov; 114(5):1343-8

Measuring persistent cough in children in epidemiological studies: development of a questionnaire and assessment of prevalence in two countries. Faniran AO, et al. **Chest** 1999 Feb;115(2):434-9

Validation of a standardized version of the Asthma Quality of Life Questionnaire. Juniper EF, et al. **Chest** 1999 May; 115(5):1265-70

Rhinitis management: the patient's perspective. Juniper EF. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:34-8

Knowledge about the assessment and management of undernutrition: a pilot questionnaire in a UK teaching hospital. Nightingale JM, et al. **Clin Nutr** 1999 Feb; 18(1):23-7

Nutritional status at submission for dietetic services and screening for malnutrition at admission to hospital [see comments] Thorsdóttir I, et al. **Clin Nutr** 1999 Feb; 18(1):15-21. Comment in: Clin Nutr 1999 Feb;18(1):3-4.

A new short practical quality of life questionnaire for use in head and neck oncology outpatient clinics. Young PE, et al. **Clin Otolaryngol** 1998 Dec;23(6):528-32

Software for population pharmacokinetics and pharmacodynamics. Aarons L. **Clin Pharmacokinet** 1999 Apr;36(4):255-64

Survey of intussusception reduction in England, Scotland and Wales: how and why we could do better. Rosenfeld K, et al. **Clin Radiol** 1999 Jul;54(7):452-8

The use of two different Health Assessment Questionnaires in Turkish rheumatoid arthritis population and assessment of the associations with disability. Senerdem N, et al. **Clin Rheumatol** 1999;18(1):33-7

Assessment of physician performance in Alberta: the physician achievement review [see comments] Hall W, et al. **CMAJ** 1999 Jul 13;161(1):52-7. Comment in: CMAJ 1999 Jul 13;161(1):44-5.

"Recovered-memory" therapy: profession at a turning point. Feigon EA, et al. **Compr Psychiatry** 1998 Nov-Dec; 39(6):338-44

Validation of automated forms processing. A comparison of Teleform with manual data entry. Jørgensen CK, et al. **Comput Biol Med** 1998 Nov;28(6):659-67

Results of a population-based questionnaire on the symptoms and lifestyles associated with dry eye. Shimmura S, et al. **Cornea** 1999 Jul;18(4):408-11

Quality of life in type 2 diabetic patients is affected by complications but not by intensive policies to improve blood glucose or blood pressure control (UKPDS 37). U.K. Prospective Diabetes Study Group. **Diabetes Care** 1999 Jul; 22(7):1125-36

Diabetes treatment satisfaction questionnaire. Change version for use alongside status version provides appropriate solution where ceiling effects occur [letter; comment] Bradley C. **Diabetes Care** 1999 Mar;22(3):530-2. Comment on: Diabetes Care 1998 Jun;21(6):930-5. Comment on: Diabetes Care 1998 Nov;21(11):2039.

Ceiling effect reduces the validity of the Diabetes Treatment Satisfaction Questionnaire [letter; comment] [see comments] Pouwer F, et al. **Diabetes Care** 1998 Nov; 21(11):2039. Comment on: Diabetes Care 1998 Jun;21(6):930-5. Comment in: Diabetes Care 1999 Mar;22(3):530-2.

Quality of life in NIDDM patients assessed with the SF-20 questionnaire. Hänninen J, et al. **Diabetes Res Clin Pract** 1998 Oct;42(1):17-27

Validation of the spanish version of the inflammatory bowel disease questionnaire on ulcerative colitis and Crohn's disease. López-Vivancos J, et al. **Digestion** 1999; 60(3):274-80

Handicap questionnaires: what do they assess? [see comments] Cardol M, et al. **Disabil Rehabil** 1999 Mar; 21(3):97-105 (46 ref.). Comment in: Disabil Rehabil 1999 Mar;21(3):106-7; discussion 108-9.

The categorization and control of people with disabilities [comment] Pfeiffer D. **Disabil Rehabil** 1999 Mar; 21(3):106-7; discussion 108-9. Comment on: Disabil Rehabil 1999 Mar;21(3):97-105.

Response patterns of the Spanish version of the 49-item short form of the Addiction Research Center Inventory after the use of sedatives, stimulants, and opioids. Arasteh K, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1-2):117-25

Substance use among a regional sample of female nurses. Collins RL, et al. **Drug Alcohol Depend** 1999 Jun 1; 55(1-2):145-55

Methadone treatment in Spain, 1994. Domingo-Salvany A, et al. **Drug Alcohol Depend** 1999 Aug 2;56(1):61-6

Prevalence of unilateral hearing loss in chiidren: the National Health and Nutrition Examination Survey II and the Hispanic Health and Nutrition Examination Survey. Lee DJ, et al. **Ear Hear** 1998 Aug;19(4):329-32

Patterns of childhood mortality in three districts of north Gondar Administrative Zone. A community based study using the verbal autopsy method. Fantahun M. **Ethiop Med J** 1998 Apr;36(2):71-81

Health-related quality of life in survivors of tumours of the central nervous system in childhood--a preference-based approach to measurement in a cross-sectional study. Barr RD, et al. **Eur J Cancer** 1999 Feb;35(2):248-55

The construction and testing of the EORTC colorectal cancer-specific quality of life questionnaire module (QLQ-CR38). European Organization for Research and Treatment of Cancer Study Group on Quality of Life. Sprangers MA, et al. **Eur J Cancer** 1999 Feb;35(2):238-47

Modification of the nutrition questionnaire for elderly to increase its ability to detect elderly people with inadequate intake of energy, calcium, vitamin C and vitamin D. Beck AM, et al. **Eur J Clin Nutr** 1999 Jul;53(7):560-9

Effects of additional questions about fat on the validity of fat estimates [letter; comment] Decarli A, et al. **Eur J Clin Nutr** 1999 Mar;53(3):245-6. Comment on: Eur J Clin Nutr 1998 Mar;52(3):186-92.

Reliability and validity of the Family Eating and Activity Habits Questionnaire. Golan M, et al. **Eur J Clin Nutr** 1998 Oct;52(10):771-7

Dietary assessment in the elderly: validation of a semiquantitative food frequency questionnaire. Klipstein-Grobusch K, et al. **Eur J Clin Nutr** 1998 Aug; 52(8):588-96

Does degree of obesity influence the validity of reported energy and protein intake? Results from the SOS Dietary Questionnaire. Swedish Obese Subjects. Lindroos AK, et

al. **Eur J Clin Nutr** 1999 May;53(5):375–8

Validation of a short food frequency questionnaire to assess consumption of cereal foods, fruit and vegetables in Chinese Singaporeans. Ling AM, et al. **Eur J Clin Nutr** 1998 Aug;52(8):557–64

Development of a general nutrition knowledge questionnaire for adults. Parmenter K, et al. **Eur J Clin Nutr** 1999 Apr; 53(4):298–308

Comparison of the traditional paper visual analogue scale questionnaire with an Apple Newton electronic appetite rating system (EARS) in free living subjects feeding ad libitum. Stratton RJ, et al. **Eur J Clin Nutr** 1998 Oct; 52(10):737–41

Quality of Life in Reflux and Dyspepsia patients. Psychometric documentation of a new disease-specific questionnaire (QOLRAD). Wiklund IK, et al. **Eur J Surg Suppl** 1998;(583):41–9

Development of a questionnaire to measure quality of life in patients with irritable bowel syndrome. Wong E, et al. **Eur J Surg Suppl** 1998;(583):50–6

Prevalence of asthma and mean levels of air pollution: results from the French PAARC survey. Pollution Atomosphérique et Affections Respiratoires Chroniques. Baldi I, et al. **Eur Respir J** 1999 Jul;14(1):132–8

Development and validation of the Mini Asthma Quality of Life Questionnaire. Juniper EF, et al. **Eur Respir J** 1999 Jul;14(1):32–8

Do postal questionnaires change GPs' workload and referral patterns? Watkins CJ. **Fam Pract** 1999 Feb;16(1):84–9

The Fertility Problem Inventory: measuring perceived infertility-related stress. Newton CR, et al. **Fertil Steril** 1999 Jul;72(1):54–62

An automated telephone system for monitoring the functional status of community-residing elders. Mahoney D, et al. **Gerontologist** 1999 Apr;39(2):229–34

Development of a disease specific questionnaire to measure health related quality of life in patients with chronic liver disease. Younossi ZM, et al. **Gut** 1999 Aug;45(2):295–300

The American brachytherapy society survey of brachytherapy practice for carcinoma of the cervix in the United States. Nag S, et al. **Gynecol Oncol** 1999 Apr; 73(1):111–8

The weighting exercise for the Swedish version of the EuroQol. Björk S, et al. **Health Econ** 1999 Mar;8(2):117–26

Response-ordering effects: a methodological issue in conjoint analysis. Farrar S, et al. **Health Econ** 1999 Feb;8(1):75–9

Shift work-related problems in 16-h night shift nurses (1): Development of an automated data processing system for questionnaires, heart rate, physical activity and posture. Fukuda H, et al. **Ind Health** 1999 Apr;37(2):219–27

Reproducibility of indoor environment characteristics obtained in a walk through questionnaire. A pilot study. Aamodt AH, et al. **Indoor Air** 1999 Mar;9(1):26–32

A multifactorial health risk questionnaire. Valty J, et al. **Int Arch Occup Environ Health** 1999 Jan;72 Suppl:S6–7

Success and failure in the measurement of restraint: notes and data. van Strien T. **Int J Eat Disord** 1999 May; 25(4):441–9

Validation of the flexible and rigid control dimensions of dietary restraint. Westenhoefer J, et al. **Int J Eat Disord** 1999 Jul;26(1):53–64

Physical activity assessment in population surveys: can it really be simplified? Dominguez-Berjón F, et al. **Int J Epidemiol** 1999 Feb;28(1):53–7

Clinical assessment of competency to consent to psychiatric hospitalization. Melamed Y, et al. **Int J Law Psychiatry** 1999 Jan–Feb;22(1):55–64

Evaluation of the use of a questionnaire to detect hearing loss in babies in China. Newton VE, et al. **Int J Pediatr Otorhinolaryngol** 1999 May 5;48(2):125–9

A survey of contact tracing practice for sexually transmitted diseases in GUM clinics in England and Wales. Stokes T, et al. **Int J STD AIDS** 1999 Jan;10(1):17–21

Translation of questionnaires and issues of equivalence. Chang AM, et al. **J Adv Nurs** 1999 Feb;29(2):316–22

Reliability of biographical data, their relations to personality variables and their influence on life-events. Bühler KE, et al. **J Affect Disord** 1999 Apr;53(1):67–76

Asthma from the perspective of the patient. White MV, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 2):S47–52

The impact of onychomycosis on quality of life: development of an international onychomycosis-specific questionnaire to measure patient quality of life. Drake LA, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):189–96

Development of an instrument to assess stress levels and quality of life in children with asthma. Mishoe SC, et al. **J Asthma** 1998;35(7):553–63

Short musculoskeletal function assessment questionnaire: validity, reliability, and responsiveness. Swiontkowski MF, et al. **J Bone Joint Surg Am** 1999 Sep;81(9):1245–60

The role of maternal cognitions in infant sleep problems as assessed by a new instrument, the maternal cognitions about infant sleep questionnaire. Morrell JM. **J Child Psychol Psychiatry** 1999 Feb;40(2):247–58

Differentiating anxious and depressive self-statements in youth: factor structure of the Negative Affect Self-Statement Questionnaire among youth referred to an anxiety disorders clinic. Lerner J, et al. **J Clin Child Psychol** 1999 Mar;28(1):82–93

Comparison of open and closed questionnaire formats in obtaining demographic information from Canadian general internists. Griffith LE, et al. **J Clin Epidemiol** 1999 Oct; 52(10):997–1005

The Marks Asthma Quality of Life Questionnaire: further validation and examination of responsiveness to change. Katz PP, et al. **J Clin Epidemiol** 1999 Jul;52(7):667–75

The effect of adding a cognitive dimension to the EuroQol multiattribute health-status classification system. Krabbe PF, et al. **J Clin Epidemiol** 1999 Apr;52(4):293–301

Rose questionnaire angina in younger men and women: gender differences in the relationship to cardiovascular risk factors and other reported symptoms. Nicholson A, et al. **J Clin Epidemiol** 1999 Apr;52(4):337–46

Cross-country digital EEG survey 1998. Brenner RP, et al. **J Clin Neurophysiol** 1998 Nov;15(6):485–8

An experiential-descriptive method for the diagnosis of personality disorders. Hunter EE. **J Clin Psychol** 1998 Aug; 54(5):673–8

Psychosocial aspects of acne vulgaris. Layton AM. **J Cutan Med Surg** 1998 May;2 Suppl 3:19–23 (17 ref.)

Reliability and validity of a questionnaire for assessment of energy expenditure and physical activity in epidemiological studies. Suzuki I, et al. **J Epidemiol** 1998 Aug;8(3):152–9

A randomised controlled trial of postal versus interviewer administration of a questionnaire measuring satisfaction with, and use of, services received in the year before death. Addington-Hall J, et al. **J Epidemiol Community Health** 1998 Dec;52(12):802–7

The Short-Form 36 and older people: some problems encountered when using postal administration. Mallinson S. **J Epidemiol Community Health** 1998 May;52(5):324–8

Reliability of a patient-rated forearm evaluation questionnaire for patients with lateral epicondylitis. Overend TJ, et al. **J Hand Ther** 1999 Jan–Mar;12(1):31–7

Hepatitis C virus infection and lung transplantation: a survey of practices. Cotler SJ, et al. **J Heart Lung Transplant** 1999 May;18(5):456–9

Direct service staff and their perceptions of psychotropic medication in non-institutional settings for people with intellectual disability. Christian L, et al. **J Intellect Disabil Res** 1999 Apr;43 (Pt 2):88–93

Proxy respondents and the reliability of the Quality of Life Questionnaire Empowerment factor. Stancliffe RJ. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):185–93

Content validity exercises for nursing students. Beck CT. **J Nurs Educ** 1999 Mar;38(3):133–5

Measurement of staff empowerment within health service organizations. Irvine D, et al. **J Nurs Meas** 1999 Spring; 7(1):79–96

Measuring patient satisfaction outcomes across provider disciplines. Marsh GW. **J Nurs Meas** 1999 Spring; 7(1):47–62

Development and validation of the avoidance of environmental tobacco smoke scale. Martinelli AM. **J Nurs Meas** 1998 Summer;6(1):75–86

Additional construct validity of the Schwartz Cancer Fatigue Scale. Schwartz A, et al. **J Nurs Meas** 1999 Spring; 7(1):35–45

When is internal consistency reliability assessment inappropriate? [editorial] Strickland OL. **J Nurs Meas** 1999 Spring;7(1):3–4

A three-day weighed food record and a semiquantitative food-frequency questionnaire are valid measures for assessing the folate and vitamin B-12 intakes of women aged 16 to 19 years. Green TJ, et al. **J Nutr** 1998 Oct; 128(10):1665–71

The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. Karasek R, et al. **J Occup Health Psychol** 1998 Oct;3(4):322–55

Practice differences between male and female oral and maxillofacial surgeons: survey results and analysis. Bogardus AJ, et al. **J Oral Maxillofac Surg** 1999 Oct; 57(10):1239–47; discussion 1248

Patients' and partners' perceptions of uvulopalatopharyngoplasty for snoring. Tytherleigh MG, et al. **J Otolaryngol** 1999 Apr;28(2):73–5

Developing a unidimensional instrument to measure the effectiveness of school-based partnerships. Bainer DL, et al. **J Outcome Meas** 1999;3(3):248–65

Parameter recovery for the rating scale model using PARSCALE. French GA, et al. **J Outcome Meas** 1999; 3(2):176–99

Investigating rating scale category utility. Linacre JM. **J Outcome Meas** 1999;3(2):103–22

Measuring pretest-posttest change with a Rasch Rating Scale Model. Wolfe EW, et al. **J Outcome Meas** 1999;3(2):134–61

The Symptom Checklist-90 Revised questionnaire: no psychological profiles in complex regional pain syndrome-dystonia. van der Laan L, et al. **J Pain Symptom Manage** 1999 May;17(5):357–62

Development of a quality-of-life index for pediatric inflammatory bowel disease: dealing with differences related to age and IBD type. Griffiths AM, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S46–52

Development and subsequent refinement of the inflammatory bowel disease questionnaire: a quality-of-life instrument for adult patients with inflammatory bowel disease. Irvine EJ. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S23–7 (14 ref.)

Migraine in a pediatric ophthalmology practice [see comments] O'Hara MA, et al. **J Pediatr Ophthalmol Strabismus** 1998 Jul–Aug; 35(4):203–8; quiz 227–8. Comment in: J Pediatr Ophthalmol Strabismus 1998 Jul–Aug;35(4):192.

The POSNA pediatric musculoskeletal functional health questionnaire: report on reliability, validity, and sensitivity to change. Pediatric Outcomes Instrument Development Group. Pediatric Orthopaedic Society of North America. Daltroy LH, et al. **J Pediatr Orthop** 1998 Sep–Oct; 18(5):561–71

Does trait coping exist? A momentary assessment approach to the evaluation of traits. Schwartz JE, et al. **J Pers Soc Psychol** 1999 Aug;77(2):360–9

Has SF-36's role physical measure fallen short? [letter] Johnson EM. **J Public Health Med** 1999 Jun;21(2):234

Patient perceived quality-of-care in hospital in the context of clinical pathways: development of an approach. Chou SC, et al. **J Qual Clin Pract** 1999 Jun;19(2):89–93

Measuring disability in early juvenile rheumatoid arthritis: evaluation of a Norwegian version of the childhood Health Assessment Questionnaire. Flatø B, et al. **J Rheumatol** 1998 Sep;25(9):1851–8

Cross cultural adaptation and validation of the Chinese Health Assessment Questionnaire for use in rheumatoid arthritis. Koh ET, et al. **J Rheumatol** 1998 Sep;25(9):1705–8

Patient education in psoriatic arthritis: a cross sectional study on knowledge by a validated self-administered questionnaire. Lubrano E, et al. **J Rheumatol** 1998 Aug; 25(8):1560–5

Testing an instrument to screen for fibromyalgia syndrome in general population studies: the London Fibromyalgia Epidemiology Study Screening Questionnaire. White KP, et al. **J Rheumatol** 1999 Apr;26(4):880–4

Self-assessment questionnaires document substantial variability in the clinical expression of rotator cuff tears. Duckworth DG, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):330–3

Mokken scaling of the Epworth Sleepiness Scale items in patients with the sleep apnoea/hypopnoea syndrome [letter] Kingshott R, et al. **J Sleep Res** 1998 Dec;7(4):293–4

Muscular development motives for exercise participation: the missing variable in current questionnaire analysis? Loze GM, et al. **J Sports Sci** 1998 Nov;16(8):761–7

Evaluation of the readiness to change questionnaire with problem drinkers in treatment. Gavin DR, et al. **J Subst Abuse** 1998;10(1):53–8

Validation of a questionnaire method for estimating extent of menstrual blood loss in young adult women. Heath AL, et al. **J Trace Elem Med Biol** 1999 Apr;12(4):231–5

Convergent and discriminant validity of the perinatal PTSD questionnaire (PPQ): a preliminary study. Quinnell FA, et al. **J Trauma Stress** 1999 Jan;12(1):193–9

Do urinary symptoms correlate with urodynamic findings? Amundsen C, et al. **J Urol** 1999 Jun;161(6):1871–4

The National Institutes of Health chronic prostatitis symptom index: development and validation of a new outcome measure. Chronic Prostatitis Collaborative Research Network. Litwin MS, et al. **J Urol** 1999 Aug;162(2):369–75

Health related quality of life in older men without prostate cancer. Litwin MS. **J Urol** 1999 Apr;161(4):1180–4

Measurement of walking endurance and walking velocity with questionnaire: validation of the walking impairment questionnaire in men and women with peripheral arterial disease. McDermott MM, et al. **J Vasc Surg** 1998 Dec; 28(6):1072–81

Vocal fold nodules in adult singers: regional opinions about etiologic factors, career impact, and treatment. A survey of otolaryngologists, speech pathologists, and teachers of singing. Hogikyan ND, et al. **J Voice** 1999 Mar; 13(1):128–42

Screening for alcoholism using CAGE. Cut down, Annoyed, Guilty, Eye opener [letter; comment] [published erratum appears in JAMA 1999 Feb 17;281(7):611] Ewing JA. **JAMA** 1998 Dec 9;280(22):1904–5. Comment on: JAMA 1998 Jul 8;280(2):166–71.

Cultural invariance of likelihood ratios for the General Health Questionnaire [letter] Furukawa T, et al. **Lancet** 1999 Feb 13;353(9152):561–2

Respondent selection by mail: obtaining probability samples of health plan enrollees. Gallagher PM, et al. **Med Care** 1999 Mar;37(3 Suppl):MS50–8

Monitoring health outcomes among patients with arthritis using the SF-36 Health Survey: overview. Keller SD, et al. **Med Care** 1999 May;37(5 Suppl):MS1–9 (77 ref.)

The SF-36 Arthritis-Specific Health Index (ASHI): II. Tests of validity in four clinical trials. Keller SD, et al. **Med Care** 1999 May;37(5 Suppl):MS51–60

Development and validation of the Diabetes Quality of Life Clinical Trial Questionnaire. Shen W, et al. **Med Care** 1999 Apr;37(4 Suppl Lilly):AS45–66

Accuracy of self-reported health services use and patterns of care among urban older adults. Wallihan DB, et al. **Med Care** 1999 Jul;37(7):662–70

The SF-36 Arthritis-Specific Health Index (ASHI): I. Development and cross-validation of scoring algorithms. Ware JE Jr, et al. **Med Care** 1999 May;37(5 Suppl):MS40–50

Improving survey response rates: a meta-analysis of the effectiveness of an advance telephone prompt from a medical peer [letter; comment] Young JM, et al. **Med J Aust** 1999 Apr 5;170(7):339. Comment on: Med J Aust 1998 May 18;168(10):480–1.

Comparison of four habitual physical activity questionnaires in girls aged 7–15 yr. Koo MM, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):421–7

The Autonomic Symptom Profile: a new instrument to assess autonomic symptoms. Suarez GA, et al. **Neurology** 1999 Feb;52(3):523–8

Item–response theory approach in scale development. Yen M, et al. **Nurs Res** 1999 Jul–Aug;48(4):234–8

Design and trial of a new questionnaire for occupational health surveys in companies. Weel AN, et al. **Occup Med (Lond)** 1998 Nov;48(8):511–8

Development of a questionnaire for measurement of vision–related quality of life. Frost NA, et al. **Ophthalmic Epidemiol** 1998 Dec;5(4):185–210

Assessment of postoperative vigor in patients undergoing elective total joint arthroplasty: a concise patient– and caregiver–based instrument. Keating EM, et al. **Orthopedics** 1999 Jan;22(1 Suppl):s119–28

Questionnaire about calcium intake: can we trust the answers? Angbratt M, et al. **Osteoporos Int** 1999;9(3):220–5

Evaluation of risk assessment questions used to target blood lead screening in Illinois. Binns HJ, et al. **Pediatrics** 1999 Jan;103(1):100–6

Neonatal intensive care: satisfaction measured from a parent's perspective. Conner JM, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):336–49 (67 ref.)

A control question test oriented towards students. Bradley MT, et al. **Percept Mot Skills** 1998 Oct;87(2):691–700

An alternative way to display SF–36 results for individual patients [letter] Steiner WA, et al. **Phys Ther** 1998 Oct; 78(10):1118–9

Development and validation of a measure of patients' knowledge about schizophrenia. Ascher–Svanum H. **Psychiatr Serv** 1999 Apr;50(4):561–3

Development of a consumer survey for behavioral health services. Eisen SV, et al. **Psychiatr Serv** 1999 Jun; 50(6):793–8

Measuring client satisfaction with assertive community treatment. Gerber GJ, et al. **Psychiatr Serv** 1999 Apr; 50(4):546–50

A survey of hospital practices related to pelvic and rectal examinations of psychiatric inpatients. Varner RV, et al. **Psychiatr Serv** 1999 Jun;50(6):825–7

Development and validation of an inventory to measure satisfaction of users of family medicine clinics in Mexico. García–Peña MC, et al. **Psychol Rep** 1999 Apr;84(2):677–85

Replication and extension analyzing the factor structure of Locus of Control scales for substance–abusing behaviors. Hartmann DJ. **Psychol Rep** 1999 Feb;84(1):277–87

Psychometric evaluation of the Menstrual Joy Questionnaire. Heard KV, et al. **Psychol Rep** 1999 Feb;84(1):135–6

Factor structure and subtest differences on the Preschool Behavior Questionnaire in a Latino, African–American, Euro–American, and Asian preschool population. Johnson R, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):936–42

Assessing the multidimensionality of the 12–item General Health Questionnaire. Martin AJ. **Psychol Rep** 1999 Jun; 84(3 Pt 1):927–35

Measuring medical students' reluctance to prescribe opioids for cancer pain. Merrill JM, et al. **Psychol Rep** 1999 Feb; 84(1):28–30

Description and validation of a measure of received support specific to HIV. Renwick R, et al. **Psychol Rep** 1999 Apr; 84(2):663–73

AIDS knowledge among black drug users: an issue of reliability. Wang MQ, et al. **Psychol Rep** 1999 Feb; 84(1):121–4

Assessing multiple facets of gender identity: the gender identity questionnaire. Willemsen TM, et al. **Psychol Rep** 1999 Apr;84(2):561–2

Assessment of characteristics of intrusive thoughts and their impact on distress among victims of traumatic events. Dougall AL, et al. **Psychosom Med** 1999 Jan–Feb; 61(1):38–48

Use of the SF–36 to identify community dwelling rural elderly at risk for hospitalization. Benjamin–Coleman R, et al. **Public Health Nurs** 1999 Jun;16(3):223–7

Responsiveness of the Dermatology–specific Quality of Life (DSQL) instrument to treatment for acne vulgaris in a placebo–controlled clinical trial. Anderson R, et al. **Qual Life Res** 1998 Dec;7(8):723–34

Quality of life and Parkinson's disease: translation and validation of the US Parkinson's Disease Questionnaire (PDQ–39). Bushnell DM, et al. **Qual Life Res** 1999 Jun; 8(4):345–50

Psychometric assessment of the Life Satisfaction Questionnaire (LSQ) and a comparison of a randomised sample of Swedish women and those suffering from breast cancer. Carlsson M, et al. **Qual Life Res** 1999 May; 8(3):245–53

Comparing the psychometric properties of preference–based and nonpreference–based health–related quality of life in coronary heart disease. Canadian Collaborative Cardiac Assessment Group. Lalonde L, et al. **Qual Life Res** 1999 Aug;8(5):399–409

A health related quality of life measure for use in patients with urge urinary incontinence: a validation study. Lubeck DP, et al. **Qual Life Res** 1999 Jun;8(4):337–44

The problem of measuring change in individual health–related quality of life by postal questionnaire: use of the patient–generated index in a disabled population. Macduff C, et al. **Qual Life Res** 1998 Dec;7(8):761–9

The QoL–AGHDA: an instrument for the assessment of quality of life in adults with growth hormone deficiency. McKenna SP, et al. **Qual Life Res** 1999 Jun;8(4):373–83

The development of a quality of life instrument for use with post–menopausal women with urogenital atrophy in the UK and Sweden. McKenna SP, et al. **Qual Life Res** 1999 Aug;8(5):393–8

Factor analysis of the psychosocial items of the EORTC QLQ–C30 in metastatic breast cancer patients participating in a psychosocial intervention study. McLachlan SA, et al. **Qual Life Res** 1999 Jun;8(4):311–7

Predicting patients' utilities from quality of life items: an improved scoring system for the UBQ–H. Martin AJ, et al. **Qual Life Res** 1998 Dec;7(8):703–11

Recurrent genital herpes and quality of life in France. Spencer B, et al. **Qual Life Res** 1999 Jun;8(4):365–71

Adapting the Jalowiec Coping Scale in Norwegian adult psoriasis patients. Wahl A, et al. **Qual Life Res** 1999 Aug; 8(5):435–45

Measuring health–related quality of life in patients with venous leg ulcers. Walters SJ, et al. **Qual Life Res** 1999 Jun;8(4):327–36

Reliability and validity of the Functional Assessment of Cancer Therapy–Colorectal (FACT–C) quality of life instrument. Ward WL, et al. **Qual Life Res** 1999 May; 8(3):181–95

An evaluation of functional variables affecting severe problem behaviors in adults with mental retardation by using the Questions about Behavioral Function Scale (QABF). Applegate H, et al. **Res Dev Disabil** 1999 May–Jun;20(3):229–37

Performance of a short lung–specific health status measure in outpatients with chronic obstructive pulmonary disease. Stavem K, et al. **Respir Med** 1999 Jul;93(7):467–75

A diary form quality of life questionnaire for Japanese patients with lung cancer and summarization techniques for longitudinal assessment. Ishihara Y, et al. **Respirology** 1999 Mar;4(1):53–61

Questionnaires in the screening for Schistosoma mansoni infection: a study of socio demographic and water contact variables in four communities in Brazil. Lima e Costa MF, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar–Apr; 40(2):93–9

Comparison of the Health Assessment Questionnaire and Arthritis Impact Measurement Scale in patients with psoriatic arthritis. Taccari E, et al. **Rev Rhum Engl Ed** 1998 Dec;65(12):751–8

Generic and condition–specific outcome measures for people with osteoarthritis of the knee. Brazier JE, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):870–7

Self–reported need of information, counselling and education: needs and interests of re–applicants. Dahl B, et al. **Scand Audiol** 1998;27(3):143–51

Aural rehabilitation in the elderly: supply of hearing aids related to measured need and self–assessed hearing problems. Karlsson AK, et al. **Scand Audiol** 1998; 27(3):153–60

Use of patient–specific estimates in patient evaluation and rehabilitation. Stephens D, et al. **Scand Audiol Suppl** 1998; 49:61–8

The inflammatory bowel disease questionnaire: a valid and reliable measure in ulcerative colitis patients in the North East of England. Han SW, et al. **Scand J Gastroenterol** 1998 Sep;33(9):961–6

A systematic overview of the use of diary cards, quality–of–life questionnaires, and psychometric tests in treatment trials of Helicobacter pylori–positive and –negative non–ulcer dyspepsia. Sandha GS, et al. **Scand J Gastroenterol** 1999 Mar;34(3):244–9

Indication–based use of antimicrobials in Finnish primary health care. Description of a method for data collection and results of its application. Rautakorpi UM, et al. **Scand J Prim Health Care** 1999 Jun;17(2):93–9

Measuring post–traumatic stress: a psychometric evaluation of symptom—and coping questionnaires based on a Norwegian sample. Eid J, et al. **Scand J Psychol** 1999 Jun; 40(2):101–8

Confirmatory factor analysis of the AEQ–A questionnaire in Finland. Rönnback SA, et al. **Scand J Psychol** 1999 Mar; 40(1):11–9

Functional status and need of help among people aged 90 or over: a mailed survey with a total home–dwelling population. Jylhä M, et al. **Scand J Public Health** 1999 Jun;27(2):106–11

Subacute and chronic low back pain. Reliability and validity of a Swedish version of the Roland and Morris Disability Questionnaire. Johansson E, et al. **Scand J Rehabil Med** 1998 Sep;30(3):139–43

Validity of a self–completed questionnaire measuring the physical demands of work. Pope DP, et al. **Scand J Work Environ Health** 1998 Oct;24(5):376–85

Evaluation of questionnaire–based information on previous physical work loads. Stockholm MUSIC 1 Study Group. Musculoskeletal Intervention Center. Torgén M, et al. **Scand J Work Environ Health** 1999 Jun;25(3):246–54

Measurement of functional outcome in preschool children with neurogenic communication disorders. Campbell TF. **Semin Speech Lang** 1998;19(3):223–32; quiz 233

Perceptions of psychosocial adjustment to aphasia: applications of the Code—Müller Protocols. Code C, et al. **Semin Speech Lang** 1999;20(1):51–62; quiz 63 (30 ref.)

Recording sexual behavior: comparison of recall questionnaires with a coital diary. Ramjee G, et al. **Sex Transm Dis** 1999 Aug;26(7):374–80

Validation of a cataplexy questionnaire in 983 sleep–disorders patients. Anic–Labat S, et al. **Sleep** 1999 Feb 1;22(1):77–87

Limits of self–report in assessing sleep terrors in a population survey. Hublin C, et al. **Sleep** 1999 Feb 1;22(1):89–93

The Psychiatric Care Satisfaction Questionnaire: a reliability and validity study. Barker DA, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb;34(2):111–6

Psychopathology in the Dogon Plateau: an assessment using the QDSM and principal components analysis. Carta MG, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 May; 34(5):282–5

Emotional response of participants to a mental health survey. Jacomb PA, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb;34(2):80–4

Diagnosing mental disorders in primary care: the General Health Questionnaire (GHQ) and the Symptom Check List (SCL–90–R) as screening instruments. Schmitz N, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jul;34(7):360–6

Selecting national items for the WHOQOL: conceptual and psychometric considerations. Skevington SM, et al. **Soc Sci Med** 1999 Feb;48(4):473–87

Management of nonspecific low back pain by physiotherapists in Britain and Ireland. A descriptive questionnaire of current clinical practice. Foster NE, et al. **Spine** 1999 Jul 1;24(13):1332–42

Results of the Scoliosis Research Society instrument for evaluation of surgical outcome in adolescent idiopathic scoliosis. A multicenter study of 244 patients. Haher TR, et al. **Spine** 1999 Jul 15;24(14):1435–40

Responsiveness of common outcome measures for patients with low back pain. Taylor SJ, et al. **Spine** 1999 Sep 1; 24(17):1805–12

Effects of interview mode on bias in survey measurements of drug use: do respondent characteristics make a difference? Rogers SM, et al. **Subst Use Misuse** 1998 Aug; 33(10):2179–200

Characteristics of inconsistent respondents who have "ever used" drugs in a school–based sample. Siddiqui O, et al. **Subst Use Misuse** 1999 Jan;34(2):269–95

Measurement of pain. Katz J, et al. **Surg Clin North Am** 1999 Apr;79(2):231–52 (111 ref.)

Diagnosis of schistosomiasis japonica in Chinese schoolchildren by administration of a questionnaire. Zhou H, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun; 92(3):245–50

Attention deficit hyperactivity disorder (ADHD): a practical scale for pediatricians. Oktem F, et al. **Turk J Pediatr** 1998 Oct–Dec;40(4):539–42

EDITS: development of questionnaires for evaluating satisfaction with treatments for erectile dysfunction. Althof SE, et al. **Urology** 1999 Apr;53(4):793–9

Patient–reported complications after cryoablation therapy for prostate cancer. Badalament RA, et al. **Urology** 1999 Aug; 54(2):295–300 (18 ref.)

Validation of a harmonized Spanish version of the IPSS: evidence of equivalence with the original American scale. International Prostate Symptom Score. Badía X, et al. **Urology** 1998 Oct;52(4):614–20

Effect of scrambling on the short–term reliability of the American Urological Association Symptom Index. Barnboym E, et al. **Urology** 1999 Mar;53(3):568–73

Self–assessed health–related quality of life in men being treated for prostate cancer with radiotherapy: instrument validation and its relation to patient–assessed bother of symptoms. Dale W, et al. **Urology** 1999 Feb;53(2):359–66

Patient perspective of long–term outcome of augmentation cystoplasty for neurogenic bladder. Herschorn S, et al. **Urology** 1998 Oct;52(4):672–8

Predictability of urodynamic findings based on the Urogenital Distress Inventory–6 questionnaire. Lemack GE, et al. **Urology** 1999 Sep;54(3):461–6

Urethral dilation in women: a questionnaire–based analysis of practice patterns. Lemack GE, et al. **Urology** 1999 Jul; 54(1):37–43

Evaluation and management of men whose radical prostatectomies failed: results of an international survey. Ornstein DK, et al. **Urology** 1998 Dec;52(6):1047–54

Contact with ticks and awareness of tick–borne diseases among the Czech population—a pilot study. Bařta J, et al. **Zentralbl Bakteriol** 1998 Dec;288(4):553–7

The sick building syndrome as a subjective perception–theoretical approach and assessment methods. von Mackensen S, et al. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):243–8

[Some experiences with questionnaire–based studies (letter)] Bruun JV. **Ugeskr Laeger** 1999 May 10;161(19):2826 **(Dan)**

[Patient information and follow–up of transfusions: "a checked report"?] Jullian H, et al. **Ann Fr Anesth Reanim** 1999 Apr;18(4):fi60–3 **(Fre)**

[Evaluation of symptoms of gastroesophageal reflux and their impact on quality of life] Amouretti M. **Gastroenterol Clin Biol** 1999 Jan;23(1 Pt 2):S45–9 (33 ref.) **(Fre)**

[Assessment of quality of life of patients with gastroesophageal reflux. Elaboration and validation of a specific questionnaire] Raymond JM, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1):32–9 (Eng. Abstr.) **(Fre)**

[First validation of the French version of the Gastrointestinal Quality of Life Index (GIQLI)] Slim K, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1):25–31 (Eng. Abstr.) **(Fre)**

QUESTIONNAIRES

[Value of the use of a questionnaire in the evaluation of incontinence surgery] Blanc E, et al. **Prog Urol** 1999 Feb; 9(1):88–94 (Eng. Abstr.) **(Fre)**

[Evaluation of patient satisfaction in health facilities. Review of the literature] Labarère J, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):175–84 (82 ref.) (Eng. Abstr.) **(Fre)**

[Internal consistency, factorial validity and discriminant validity of the French version of the psychological demands and decision latitude scales of the Karasek "Job Content Questionnaire"] Larocque B, et al. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):371–81 (Eng. Abstr.) **(Fre)**

[Quality of life measurement tools in respiratory pathology (excluding cancer)] Neukirch F. **Rev Mal Respir** 1999 Jan; 16 Suppl 3:S60–1 **(Fre)**

[Detection and diagnosis of alcoholism] Gache P. **Rev Prat** 1999 Feb 15;49(4):375–8 (21 ref.) (Eng. Abstr.) **(Fre)**

[Risk behavior among blood donors: efficacy of a new questionnaire] Courtois F, et al. **Transfus Clin Biol** 1999 Jul;6(4):227–35 (Eng. Abstr.) **(Fre)**

[The situation of oncological surgery in Germany in 1998: results of a current survey] Bumm R, et al. **Chirurg** 1999 Apr;70(4):400–6 (Eng. Abstr.) **(Ger)**

Surgery for portal hypertension and transjugular intrahepatic portosystemic shunts in Germany: results of a national survey] Wolff M, et al. **Chirurg** 1999 Apr;70(4):447–52 (Eng. Abstr.) **(Ger)**

[Linking survey data with routine health and accident insurance data] Bödeker W, et al. **Gesundheitswesen** 1999 Mar;61(3):117–21 (Eng. Abstr.) **(Ger)**

[Vascular risk factors associated with glaucoma—a survey of ophthalmologists] Erb C, et al. **Klin Monatsbl Augenheilkd** 1999 Mar;214(3):A8–12 **(Ger)**

[Assessment of independence in daily life in pediatric oncology by FMH-questionnaire] Kosch A, et al. **Klin Padiatr** 1998 Nov–Dec;210(6):390–4 (Eng. Abstr.) **(Ger)**

[Patient's advance directives and appointment of a health-care proxy in elderly psychiatric patients] Haupt M, et al. **Nervenarzt** 1999 Mar;70(3):256–61 (Eng. Abstr.) **(Ger)**

[Quality of life—what it means to me...Results of a survey among schizophrenic patients] Angermeyer MC, et al. **Psychiatr Prax** 1999 Mar;26(2):56–60 (Eng. Abstr.) **(Ger)**

[Should severely disturbed patients be concentrated or distributed overseveral psychiatric wards? Effects of internal sectorisation, partial ward opening and sex integration policy on ward atmosphere] Gebhardt RP, et al. **Psychiatr Prax** 1999 Mar;26(2):61–6 **(Ger)**

[Rehabilitation-related expectations and motivations in patients with nonspecific backache. The development of a standardized questionnaire] Deck R, et al. **Rehabilitation (Stuttg)** 1998 Aug;37(3):140–6 (Eng. Abstr.) **(Ger)**

[Changing the order of questions on drug use in the Swiss Health Survey—does it effect prevalence assessment?] Gmel G. **Soz Praventivmed** 1999;44(3):126–36 (Eng. Abstr.) **(Ger)**

[EPIC-SOFT a European computer program for 24-hour dietary protocols] Voss S, et al. **Z Ernahrungswiss** 1998 Sep;37(3):227–33 (Eng. Abstr.) **(Ger)**

[Age at disease onset and delayed diagnosis of spondyloarthropathies] Feldtkeller E. **Z Rheumatol** 1999 Feb;58(1):21–30 (Eng. Abstr.) **(Ger)**

[The devising of a multidimensional questionnaire for assessing the needs of cancer patients in the terminal phase] Palombi L, et al. **Ann Ig** 1999 Mar–Apr;11(2):139–52 (Eng. Abstr.) **(Ita)**

[A survey on epidemiologic ethics and research] Rosmini F. **Ann Ist Super Sanita** 1998;34(2):255–9 (Eng. Abstr.) **(Ita)**

[The diagnostic and therapeutic procedures in pulmonary embolism: a survey in the Veneto Region (see comments)] Roncon L, et al. **Cardiologia** 1999 Aug;44(8):735–41 (Eng. Abstr.). Comment in: Cardiologia 1999 Aug;44(8):743–5. **(Ita)**

[A survey regarding the problem of cigarette smoke pollution in a hospital environment] Castello D, et al. **Minerva Pediatr** 1999 Apr;51(4):93–9 (Eng. Abstr.) **(Ita)**

[Development of parent-rated quality of life questionnaire for asthmatic children and their parents or caregivers—reliability and factorial validity] Torii S, et al. **Arerugi** 1999 Jun;48(6):605–20 (Eng. Abstr.) **(Jpn)**

[Development of QOL questionnaires in Japan] Kobayashi K. **Gan To Kagaku Ryoho** 1999 Jan;26(2 Suppl):189–95 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Current appraisal of endoscopic thoracic sympathectomy: results of the national questionnaire surgery] Uchino T, et al. **Kyobu Geka** 1999 Mar;52(3):204–9 (Eng. Abstr.) **(Jpn)**

[The evaluation of the pre-operative interviews using information sheets] Yoneyama E, et al. **Masui** 1998 Aug; 47(8):1002–6 (Eng. Abstr.) **(Jpn)**

[Role of school lunch in primary school education: a trial analysis of school teachers' views using an open-ended questionnaire] Inayama T, et al. **Nippon Koshu Eisei Zasshi** 1998 Dec;45(12):1115–26 (Eng. Abstr.) **(Jpn)**

[Reproducibility and validity of a semi-quantitative food frequency questionnaire] Katagiri A, et al. **Nippon Koshu Eisei Zasshi** 1998 Dec;45(12):1127–36 (Eng. Abstr.) **(Jpn)**

[Interpretation of questionnaires. An translation method problem] Kvamme OJ, et al. **Nord Med** 1998 Dec; 113(10):363–6 (Eng. Abstr.) **(Nor)**

[Estimation of the value of a self-designed questionnaire in diagnosing patients with suspected obstructive sleep apnea] Zgierska A, et al. **Pneumonol Alergol Pol** 1997; 65(11–12):802–10 (Eng. Abstr.) **(Pol)**

[Possibilities of objective evaluation of treatment and rehabilitation effects after the stroke] Opara J. **Pol Merkuriusz Lek** 1999 Jun;6(36):336–9 (Eng. Abstr.) **(Pol)**

[The assessment of the functional state of elderly people by family physician with the help of EASY-Care questionnaire] Wojszel ZB, et al. **Pol Merkuriusz Lek** 1999 Mar;6(33):167–70 (Eng. Abstr.) **(Pol)**

[The results of using a simplified questionnaire for determining the prevalence of bronchial asthma] Stoicescu IP, et al. **Pneumoftiziologia** 1998 Apr–Jun;47(2):89–94 (Eng. Abstr.) **(Rum)**

[Attitude of urban population to health and knowledge about risk factors of cardiovascular diseases according to postal questionnaire] Akimova EV, et al. **Ter Arkh** 1999; 71(1):16–8 (Eng. Abstr.) **(Rus)**

[Paratonsillitis: aspects of therapeutic policy] Pal'chun VT, et al. **Vestn Otorinolaringol** 1999;(3):19–21 (Eng. Abstr.) **(Rus)**

[A questionnaire survey of intravenous drug addicts (Moscow, May 1997–January 1998)] Riley B, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb;(1):91–3 (Eng. Abstr.) **(Rus)**

[Risk factors of multiple sclerosis in Moscow population. I. Exogenous risk factors] Gusev EI, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(5):32–40 (Eng. Abstr.) **(Rus)**

[Evaluation of psychiatric training in Spain: results of a questionnaire] Pérez Prieto JF, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Jul–Aug;26(4):233–40 (Eng. Abstr.) **(Spa)**

[The development and preliminary validation of the IU-4 questionnaire for the clinical classification of urinary incontinence] Badia Llach X, et al. **Actas Urol Esp** 1999 Jul–Aug;23(7):565–72 (Eng. Abstr.) **(Spa)**

[Questionnaire for disability assessment in vestibular pathology] Pardal Refoyo JL, et al. **An Otorrinolaringol Ibero Am** 1998;25(6):547–64 (Eng. Abstr.) **(Spa)**

[Prevalence of psychiatric disorders in primary care using the PRIME-MD questionnaire] Baca Baldomero E, et al. **Aten Primaria** 1999 Mar 31;23(5):275–9 (Eng. Abstr.) **(Spa)**

[Can we detect mental disorders in primary care? Usefulness and agreement of 2 diagnostic instruments] Martínez Bernardos R, et al. **Aten Primaria** 1999 Mar 31;23(5):285–8 (Eng. Abstr.) **(Spa)**

[The validation of a questionnaire for measuring the organizational climate in health centers] Menárguez Puche JF, et al. **Aten Primaria** 1999 Mar 15;23(4):192–7 (Eng. Abstr.) **(Spa)**

[A reliability analysis of FACES III (the version in Spanish). Family Adaptability and Cohesion Evaluation Scales] Ponce Rosas ER, et al. **Aten Primaria** 1999 May 15; 23(8):479–84 (Eng. Abstr.) **(Spa)**

[Population reference values of the Spanish version of the Health Questionnaire SF-36] Alonso J, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):410–6 (Eng. Abstr.) **(Spa)**

[Evaluation of psychometric properties of the Spanish version of the Rotterdam Symptom Checklist to assess quality of life of cancer patients] Agra Y, et al. **Rev Esp Salud Publica** 1999 Jan–Feb;73(1):35–44 (Eng. Abstr.) **(Spa)**

[Use of a questionnaire for screening people with undiagnosed diabetes] Domínguez-Reyes CA, et al. **Rev Invest Clin** 1999 May–Jun;51(3):175–82 (Eng. Abstr.) **(Spa)**

[A system of multidimensional behavior assessment. A scale for parents of children from 6 to 11 years of age. Colombian version] Pineda DA, et al. **Rev Neurol** 1999 Apr 1–15; 28(7):672–81 (Eng. Abstr.) **(Spa)**

[Clinical features of migraine according to the questionnaire 'Alcoi-92' in the Comtat area] Sánchez-Pérez R, et al. **Rev Neurol** 1999 Mar 1–15;28(5):459–63 (Eng. Abstr.) **(Spa)**

[Subjective sleep quality and spectral analysis of electroencephalography during nocturnal sleep] Vergara JM, et al. **Rev Neurol** 1999 Apr 16–30;28(8):765–7 (Eng. Abstr.) **(Spa)**

STANDARDS

A health-related quality of life questionnaire for multiple sclerosis patients. Pfennings LE, et al. **Acta Neurol Scand** 1999 Sep;100(3):148–55

Assessment of quality of life in palliative care—psychometric properties of a short questionnaire. Axelsson B, et al. **Acta Oncol** 1999;38(2):229–37

Cross-comparison of two quality of life instruments used in a randomized study of combination chemotherapy in advanced breast cancer. Westman G, et al. **Acta Oncol** 1999;38(5):567–72

Development of a screening questionnaire for tobacco/nicotine dependence according to ICD-10, DSM-III-R, and DSM-IV. Kawakami N, et al. **Addict Behav** 1999 Mar–Apr;24(2):155–66

Parallel accounts? Discrepancies between self-report (diary) and recall (questionnaire) measures of the same sexual behaviour. Coxon AP. **AIDS Care** 1999 Apr;11(2):221–34

HIV risk behaviors, intentions, and perceptions among Namibian youth as assessed by a theory-based questionnaire. Stanton BF, et al. **AIDS Educ Prev** 1999 Apr;11(2):132–49

Measuring condom use: asking "do you or don't you" isn't enough. Weir SS, et al. **AIDS Educ Prev** 1998 Aug; 10(4):293–302

Validation of a self-administered food-frequency questionnaire administered in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study: comparison of energy, protein, and macronutrient intakes estimated with the doubly labeled water, urinary nitrogen, and repeated 24-h dietary recall methods. Kroke A, et al. **Am J Clin Nutr** 1999 Oct;70(4):439–47

Development of a questionnaire to assess knowledge, attitudes, and behaviors in American Indian children. Stevens J, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):773S–781S

Evaluation of a food frequency questionnaire with weighed records, fatty acids, and alpha-tocopherol in adipose tissue and serum. Andersen LF, et al. **Am J Epidemiol** 1999 Jul 1;150(1):75–87

Alcohol intake assessment: the sober facts. Feunekes GI, et al. **Am J Epidemiol** 1999 Jul 1;150(1):105–12 (41 ref.)

Recent alcohol intake as estimated by the Health Habits and History Questionnaire, the Harvard Semiquantitative Food Frequency Questionnaire, and a more detailed alcohol intake questionnaire. McCann SE, et al. **Am J Epidemiol** 1999 Aug 15;150(4):334–40

Re: "Associations of race/ethnicity, education, and dietary intervention with the validity and reliability of a food frequency questionnaire. The Women's Health Trial Feasibility Study in Minority Populations" [letter; comment] Stram DO, et al. **Am J Epidemiol** 1998 Oct 15; 148(8):819–20. Comment on: Am J Epidemiol 1997 Nov 15;146(10):856–69.

Use of the CAGE questionnaire in older adults with schizophrenia or schizoaffective disorder [letter] Lehman MS, et al. **Am J Geriatr Psychiatry** 1999 Summer;7(3):269

A screening version of the Dizziness Handicap Inventory (DHI-S). Jacobson GP, et al. **Am J Otol** 1998 Nov; 19(6):804–8

Measuring quality of life: methodological issues. Dijkers M. **Am J Phys Med Rehabil** 1999 May–Jun;78(3):286–300 (98 ref.)

Short form of the Dizziness Handicap Inventory: construction and validation through Rasch analysis. Tesio L, et al. **Am J Phys Med Rehabil** 1999 May–Jun; 78(3):233–41

Validation of a self-administered questionnaire to screen for prenatal alcohol use in Northern Plains Indian women. Bull LB, et al. **Am J Prev Med** 1999 Apr;16(3):240–3

Development and testing of an HIV-risk screening instrument for use in health care settings. Gerbert B, et al. **Am J Prev Med** 1998 Aug;15(2):103–13

A study of the relationship between the T&T olfactometer and the University of Pennsylvania Smell Identification Test in a Japanese population. Kondo H, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):353–8

The development and evaluation of a disease-specific quality of life measurement tool for shoulder instability. The Western Ontario Shoulder Instability Index (WOSI). Kirkley A, et al. **Am J Sports Med** 1998 Nov–Dec; 26(6):764–72

Screening tests for alcohol use disorders [letter; comment] Saitz R. **Ann Intern Med** 1999 May 4;130(9):779; discussion 779–80. Comment on: Ann Intern Med 1998 Sep 1;129(5):353–62.

Screening tests for alcohol use disorders [letter; comment] Thompson WG. **Ann Intern Med** 1999 May 4;130(9):779; discussion 779–80. Comment on: Ann Intern Med 1998 Sep 1;129(5):353–62.

Quality of life assessment in Hodgkin's disease: a new comprehensive approach. First experiences from the EORTC/GELA and GHSG trials. EORTC Lymphoma Cooperative Group. Groupe D'Etude des Lymphomes de L'Adulte and German Hodgkin Study Group. Flechtner H, et al. **Ann Oncol** 1998;9 Suppl 5:S147–54 (52 ref.)

Hodgkin's disease: quality of life in future trials. Kaasa S, et al. **Ann Oncol** 1998;9 Suppl 5:137–45 (63 ref.)

Interrater reliability of the Functional Assessment Measure in a brain injury rehabilitation program. Donaghy S, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1231–6

The Capabilities of Upper Extremity instrument: reliability and validity of a measure of functional limitation in tetraplegia. Marino RJ, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1512–21

Measuring progress and outcome in community rehabilitation after brain injury with a new assessment instrument—the BICRO-39 scales. Brain Injury Community Rehabilitation Outcome. Powell JH, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1213–25

Toddlers with limb deficiency: conceptual basis and initial application of a functional status outcome measure. Pruitt SD, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):819–24

Comparing consumer and clinician values for alternative

functional states: application of a new feature trade-off consensus building tool. Stineman MG, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1522–9

Development and validation of a multifactorial treatment outcome measure for eating disorders. Anderson DA, et al. **Assessment** 1999 Mar;6(1):7–20

SF-36 health survey reliability, validity and norms for New Zealand. Scott KM, et al. **Aust N Z J Public Health** 1999 Aug;23(4):401–6

Assessment of acute mountain sickness by different score protocols in the Swiss Alps. Maggiorini M, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1186–92

The responsiveness of the ICSmale questionnaire to outcome: evidence from the ICS-'BPH' study. Donovan JL, et al. **BJU Int** 1999 Feb;83(3):243–8

Defining and analysing symptom palliation in cancer clinical trials: a deceptively difficult exercise. Stephens RJ, et al. **Br J Cancer** 1999 Feb;79(3–4):538–44

Contraceptive knowledge: development of a valid measure and survey of pill users and general practioners. Little P, et al. **Br J Fam Plann** 1998 Oct;24(3):98–100

Measuring the effectiveness of cataract surgery: the reliability and validity of a visual function outcomes instrument. Lawrence DJ, et al. **Br J Ophthalmol** 1999 Jan;83(1):66–70

Development of a disease specific quality of life questionnaire for patients with Graves' ophthalmopathy: the GO-QOL. Terwee CB, et al. **Br J Ophthalmol** 1998 Jul;82(7):773–9

Culturally sensitive validation of screening questionnaires for depression in older African-Caribbean people living in south London. Abas MA, et al. **Br J Psychiatry** 1998 Sep; 173:249–54

Screening for anxiety disorders. Sensitivity and specificity of the Anxiety Screening Questionnaire (ASQ-15). Wittchen HU, et al. **Br J Psychiatry Suppl** 1998;(34):10–7

Development of a knowledge scale about breast cancer and heredity (BCHK). Ondrusek N, et al. **Breast Cancer Res Treat** 1999 Jan;53(1):69–75

Revised Physical Activity Readiness Questionnaire. Adams R. **Can Fam Physician** 1999 Apr;45:992, 995, 1004–5 **(Eng, Fre)**

Feasibility of client reports to measure treatment outcome in schizophrenia [letter] Baigent L, et al. **Can J Psychiatry** 1999 Feb;44(1):94–5

How reliable are selected scales from population-based health surveys? An analysis among seniors. Raina P, et al. **Can J Public Health** 1999 Jan-Feb;90(1):60–4

Validation of self-reported transfusion histories in renal dialysis patients. Sandhu JS, et al. **Can J Public Health** 1999 May-Jun;90(3):201–4

Reproducibility of reported measurements of sun exposure in a case-control study. English DR, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):857–63

A cost effective two step rapid diagnosis of urinary schistosomiasis in Zimbabwe. Ndamba J, et al. **Cent Afr J Med** 1998 Jul;44(7):167–71

The Swedish version of the patient-generated subjective global assessment of nutritional status: gastrointestinal vs urological cancers. Persson C, et al. **Clin Nutr** 1999 Apr; 18(2):71–7

The projection questionnaire: design, use and utility. Bilić V, et al. **Coll Antropol** 1998 Jun;22(1):277–89

Evaluation of patient-perceived health status using the Medical Outcomes Survey Short-Form 36 in an intensive care unit population. Welsh CH, et al. **Crit Care Med** 1999 Aug;27(8):1466–71

How much do we count? Interpretation and error-making in the decennial census. Iversen RR, et al. **Demography** 1999 Feb;36(1):121–34

Confirmatory factor analysis of the Fear Questionnaire in injured workers with chronic pain. Frombach I, et al. **Depress Anxiety** 1999;9(3):117–21

Occupational role performance in persons with back pain. Kopec JA, et al. **Disabil Rehabil** 1998 Oct;20(10):373–9

The factor-structure of the Self Reporting Questionnaire (SRQ-20) in South Africa. Cherian VI, et al. **East Afr Med J** 1998 Nov;75(11):654–6

Agreement of self-reported use of menopausal hormone replacement therapy with physician reports. Jain MG, et al. **Epidemiology** 1999 May;10(3):260–3

Examination of factor structure of the cognitive representations of hypertension scale for ethnic equivalence. Scisney-Matlock M, et al. **Ethn Dis** 1999 Winter;9(1):33–47

The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. Goodman R, et al. **Eur Child Adolesc Psychiatry** 1998 Sep;7(3):125–30

A cross-validation of the European Organization for Research and Treatment of Cancer QLQ-C30 (EORTC QLQ-C30) for Japanese with lung cancer [see comments] Kobayashi K, et al. **Eur J Cancer** 1998 May;34(6):810–5. Comment in: Eur J Cancer 1998 May;34(6):767–9.

Screening for domestic violence in the emergency department. Lo Vecchio F, et al. **Eur J Emerg Med** 1998 Dec;5(4):441–4

The role of quality of life in functional gastrointestinal disorders: regulatory issues. Bergmann JF, et al. **Eur J Surg Suppl** 1998;(583):87–91 (14 ref.)

Questionnaires in asthma epidemiology [letter; comment] Rosario NA, et al. **Eur Respir J** 1998 Oct;12(4):1000. Comment on: Eur Respir J 1998 Aug;12(2):315–35.

Questions you didn't ask? COOP/WONCA Charts in clinical work and research. World Organization of Colleges, Academies and Academic Associations of General Practitioners/Family Physicists. Bentsen BG, et al. **Fam Pract** 1999 Apr;16(2):190–5

A multinational study of the factorial structure and other characteristics of the Dartmouth COOP Functional Health Assessment Charts/WONCA. Westbury RC, et al. **Fam Pract** 1997 Dec;14(6):478–85

Staging of dietary patterns among African American women. Haire-Joshu D, et al. **Health Educ Behav** 1999 Feb; 26(1):90–102

Empirically defined health states for depression from the SF-12. Sugar CA, et al. **Health Serv Res** 1998 Oct;33(4 Pt 1):911–28

Research instrumentation and elderly subjects. Burnside I, et al. **Image J Nurs Sch** 1998;30(2):185–90

Hospital nurses' perceptions of the ethical climate of their work setting. Olson LL. **Image J Nurs Sch** 1998;30(4):345–9

Job stressor-mental health associations in a sample of Japanese working adults: artifacts of positive and negative questions? Iwata N, et al. **Ind Health** 1999 Apr;37(2):263–70

The reliability of the Eating Disorder Examination-Self-Report Questionnaire Version (EDE-Q). Luce KH, et al. **Int J Eat Disord** 1999 Apr; 25(3):349–51

Epidemiology deserves better questionnaires [letter] Gallacher J. **Int J Epidemiol** 1999 Aug;28(4):804

Epidemiology deserves better questionnaires. IEA European Questionnaire Group. International Epidemiological Association. Olsen J. **Int J Epidemiol** 1998 Dec;27(6):935

Exploring the factorial composition of the transcultural self-efficacy tool. Jeffreys MR, et al. **Int J Nurs Stud** 1998 Aug;35(4):217–25

The Obesity Adjustment Survey: development of a scale to assess psychological adjustment to morbid obesity. Butler GS, et al. **Int J Obes Relat Metab Disord** 1999 May; 23(5):505–11

EORTC QLQ-30. A breach of copyright [letter; comment] Cull A. **Int J Pancreatol** 1998 Aug;24(1):64–5. Comment on: Int J Pancreatol 1997 Dec;22(3):163–70.

Quality of life assessment in chronic pancreatitis [letter; comment] Johnson CD, et al. **Int J Pancreatol** 1998 Aug; 24(1):63–4, discussion 65. Comment on: Int J Pancreatol 1997 Dec;22(3):163–70.

Implementing the SF-12 in an inner-city clinic: the importance of providing help. Jacobson JW, et al. **Int J Qual Health Care** 1998 Aug;10(4):355–6

Not listening to patients--the use and misuse of patient satisfaction studies. Crawford MJ, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):1–6

Application and results of the Manchester Short Assessment of Quality of Life (MANSA). Priebe S, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):7–12

Doubly labelled water validation of three physical activity questionnaires. Philippaerts RM, et al. **Int J Sports Med** 1999 Jul;20(5):284–9

Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: is small beautiful? Goodman R, et al. **J Abnorm Child Psychol** 1999 Feb;27(1):17–24

Assessment of HIV risk. Chawarski MC, et al. **J Addict Dis** 1998;17(4):49–59

The hormone replacement therapy self-efficacy scale. Ali NS. **J Adv Nurs** 1998 Nov;28(5):1115–9

Collecting patients' views and perceptions of continence services: the development of research instruments. Clayton J, et al. **J Adv Nurs** 1998 Aug;28(2):353–61

Reliability and validity of a self-efficacy instrument for protective sexual behaviors. Cecil H, et al. **J Am Coll Health** 1998 Nov;47(3):113–21

The Hassles Assessment Scale for Students in College: measuring the frequency and unpleasantness of and dwelling on stressful events. Sarafino EP, et al. **J Am Coll Health** 1999 Sep;48(2):75–83

Application of a bogus testing procedure to determine college students' utilization of genetic screening for alcoholism. Thombs DL, et al. **J Am Coll Health** 1998 Nov; 47(3):103–12

Impact of urinary incontinence on quality of life [letter; comment] Rai GS. **J Am Geriatr Soc** 1998 Nov; 46(11):1480–1. Comment on: J Am Geriatr Soc 1998 Jun;46(6):683–92.

Development and validation of a geriatrics attitudes scale for primary care residents. Reuben DB, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1425–30

Development and validation of a questionnaire designed to measure foot-health status. Bennett PJ, et al. **J Am Podiatr Med Assoc** 1998 Sep;88(9):419–28

The validity and reliability of an asthma knowledge questionnaire used in the evaluation of a group asthma education self-management program for adults with asthma. Allen RM, et al. **J Asthma** 1998;35(7):537–45

Assessing metered-dose inhaler technique: comparison of observation vs. patient self-report. Erickson SR, et al. **J Asthma** 1998;35(7):575–83

The consistency of recalled age at first sexual intercourse. Dunne MP, et al. **J Biosoc Sci** 1997 Jan;29(1):1–7

Validity and utility of patient-reported health measures on hospital admission. Clark DO, et al. **J Clin Epidemiol** 1999 Jan;52(1):65–71

Effect of the method of administration, mail or telephone, on the validity and reliability of a respiratory health questionnaire. The Spanish Centers of the European Asthma Study. Galobardes B, et al. **J Clin Epidemiol** 1998 Oct;51(10):875–81

Health status measurement in Toxic Oil Syndrome. Gómez de la Cámara A, et al. **J Clin Epidemiol** 1998 Oct; 51(10):867–73

Capturing health care utilization after occupational low-back pain: development of an interviewer-administered questionnaire. Guzmán J, et al. **J Clin Epidemiol** 1999 May; 52(5):419–27

Validity of a self-reported history of doctor-diagnosed angina. Lampe FC, et al. **J Clin Epidemiol** 1999 Jan; 52(1):73–81

Assessing the feasibility of using computerized pharmacy refill data to monitor antidepressant treatment on a population basis: a comparison of automated and self-report data. Saunders K, et al. **J Clin Epidemiol** 1998 Oct; 51(10):883–90

Testing the measurement properties of the Short Form-36 Health Survey in a frail elderly population. Stadnyk K, et al. **J Clin Epidemiol** 1998 Oct;51(10):827–35

Self-administered diet history questionnaire developed for health education: a relative validation of the test-version by comparison with 3-day diet record in women. Sasaki S, et al. **J Epidemiol** 1998 Oct;8(4):203–15

Assessment of the SF-36 version 2 in the United Kingdom. Jenkinson C, et al. **J Epidemiol Community Health** 1999 Jan;53(1):46–50

Reporting bias related to an environmental hazard. Goren AI. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:211–27

Common fears: a comparison of adolescents' self-generated and fear survey schedule generated fears. Lane B, et al. **J Genet Psychol** 1999 Jun;160(2):194–204

Sensitivity of three recent questionnaires to mild traumatic brain injury-related effects. Paniak C, et al. **J Head Trauma Rehabil** 1999 Jun;14(3):211–9

International Study of Asthma and Allergies in Childhood (ISAAC) written questionnaire: validation of the asthma component among Brazilian children. Solé D, et al. **J Investig Allergol Clin Immunol** 1998 Nov-Dec; 8(6):376–82

Validation of a mail questionnaire for parkinsonism in two languages (German and Italian). Pramstaller PP, et al. **J Neurol** 1999 Feb;246(2):79–86

Validation of Italian multiple sclerosis quality of life 54 questionnaire. Solari A, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):158–62

Analysis of performance measures. A veterans home case study. Park C, et al. **J Nurs Adm** 1998 Dec;28(12):28–35

The development and testing of the patient record pain management assessment tool. Wallace KG, et al. **J Nurs Care Qual** 1999 Apr;13(4):34–46

Method for retrospective collection of work-related psychosocial risk factors for musculoskeletal disorders: reliability and aggregation. Thorbjörnsson CB, et al. **J Occup Health Psychol** 1999 Jul;4(3):193–206

The Job Stress Survey: assessing perceived severity and frequency of occurrence of generic sources of stress in the workplace [comment] Vagg PR, et al. **J Occup Health Psychol** 1999 Jul;4(3):288–92. Comment on: J Occup Health Psychol 1998 Oct;3(4):291–3. Comment on: J Occup Health Psychol 1998 Oct;3(4):294–305. Comment on: J Occup Health Psychol 1998 Oct;3(4):368–89. Comment on: J Occup Health Psychol 1998 Oct;3(4):390–401.

Musculoskeletal function assessment: reference values for patient and non-patient samples. Engelberg R, et al. **J Orthop Res** 1999 Jan;17(1):101–9

Applying the results of self-report measures to individual patients: an example using the Roland-Morris Questionnaire. Stratford PW, et al. **J Orthop Sports Phys Ther** 1999 Apr;29(4):232–9 (34 ref.)

Rasch measurement for reducing the items of the Nottingham Health Profile. Prieto L, et al. **J Outcome Meas** 1998; 2(4):285–301

The Caregiver Quality of Life Index-Cancer (CQOLC) Scale: revalidation in a home hospice setting. Weitzner MA, et al. **J Palliat Care** 1999 Summer;15(2):13–20

The Child Development Inventory: A developmental outcome measure for follow-up of the high-risk infant. Doig KB, et al. **J Pediatr** 1999 Sep;135(3):358–62

Looking back at anger: reference periods change the interpretation of emotion frequency questions. Winkielman P, et al. **J Pers Soc Psychol** 1998 Sep;75(3):719–28

Temperament, character, and personality disorders. de la Rie SM, et al. **J Personal Disord** 1998 Winter;12(4):362–72

Menopausal status: subjectively and objectively defined. Garamszegi C, et al. **J Psychosom Obstet Gynaecol** 1998 Sep;19(3):165–73

Temporal variation of validity of self-rating questionnaires: improved validity of repeated use of Zung's Self-Rating Depression Scale among women during the perinatal period. Kitamura T, et al. **J Psychosom Obstet Gynaecol** 1999 Jun;20(2):112–7

Psychometric evaluation of the Pittsburgh Sleep Quality Index. Carpenter JS, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):5–13

Assessing adherence to dietary recommendations for hemodialysis patients: the Renal Adherence Attitudes Questionnaire (RAAQ) and the Renal Adherence Behaviour Questionnaire (RABQ). Rushe H, et al. **J Psychosom Res** 1998 Aug;45(2):149–57

The validity of the Dutch Sleep Disorders Questionnaire (SDQ). Sweere Y, et al. **J Psychosom Res** 1998 Dec;

45(6):549–55
Psychometric evaluation of a Korean Health Assessment Questionnaire for clinical research. Bae SC, et al. **J Rheumatol** 1998 Oct;25(10):1975–9
Screening questionnaires in the detection of hazardous alcohol consumption in the general hospital: direct or disguised assessment? Rumpf HJ, et al. **J Stud Alcohol** 1998 Nov;59(6):698–703
Assessing alcohol consumption: beverage-specific versus grouped-beverage questions. Serdula MK, et al. **J Stud Alcohol** 1999 Jan;60(1):99–102
Validating the Alcohol Use Disorder Identification Test with college first-offenders. O'Hare T, et al. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):113–9
Validation of the PTSD Checklist–Civilian Version in survivors of bone marrow transplantation. Smith MY, et al. **J Trauma Stress** 1999 Jul;12(3):485–99
Questionnaire approach to diagnosis in developing countries. Barreto ML. **Lancet** 1998 Oct 10;352(9135):1164–5
Determining correspondence between scores on the EQ-5D "thermometer" and a 5-point categorical rating scale. Badia Llach X, et al. **Med Care** 1999 Jul;37(7):671–7
Assessing the performance of utility techniques in the absence of a gold standard. Giesler RB, et al. **Med Care** 1999 Jun; 37(6):580–8
The SF-36 Health Survey as a generic outcome measure in clinical trials of patients with osteoarthritis and rheumatoid arthritis: tests of data quality, scaling assumptions and score reliability. Kosinski M, et al. **Med Care** 1999 May;37(5 Suppl):MS10–22
The SF-36 Health Survey as a generic outcome measure in clinical trials of patients with osteoarthritis and rheumatoid arthritis: relative validity of scales in relation to clinical measures of arthritis severity. Kosinski M, et al. **Med Care** 1999 May;37(5 Suppl):MS23–39
An international comparison of the reliability and responsiveness of the Duke Health Profile for measuring health-related quality of life of patients treated with alprostadil for erectile dysfunction. Parkerson GR Jr, et al. **Med Care** 1999 Jan;37(1):56–67
Reliability and validity of French, German, Italian, Dutch, and UK English translations of the Medical Outcomes Study HIV Health Survey. Scott-Lennox JA, et al. **Med Care** 1999 Sep;37(9):908–25
Reliability, validity, and application of the medical outcomes study 36-item short-form health survey (SF-36) in schizophrenic patients treated with olanzapine versus haloperidol. Tunis SL, et al. **Med Care** 1999 Jul; 37(7):678–91
Conventional and chained standard gambles in the assessment of coronary heart disease prevention and treatment. Canadian Collaborative Cardiac Assessment Group. Lalonde L, et al. **Med Decis Making** 1999 Apr–Jun; 19(2):149–56
The relationship between health-state utilities and the SF-12 in a general population. Lundberg L, et al. **Med Decis Making** 1999 Apr–Jun;19(2):128–40
Subjective health status and health values in the general population. Shmueli A. **Med Decis Making** 1999 Apr–Jun; 19(2):122–7
ACSM/AHA joint position statement. American College of Sports Medicine. American Heart Association [letter; comment] Cardinal BJ. **Med Sci Sports Exerc** 1999 Feb; 31(2):353–4. Comment on: Med Sci Sports Exerc 1998 Jun;30(6):1009–18.
HAPR questioned [letter; comment] Keck JW, et al. **Mil Med** 1998 Oct;163(10):659. Comment on: Mil Med 1998 Jun;163(6):398–407.
Psychometric properties of the functional performance inventory in patients with chronic obstructive pulmonary disease. Leidy NK. **Nurs Res** 1999 Jan–Feb;48(1):20–8
Repeatability and validity of an upper limb and neck discomfort questionnaire: the utility of the standardized Nordic questionnaire. Palmer K, et al. **Occup Med (Lond)** 1999 Apr;49(3):171–5
Measuring the information needs of husbands of women with breast cancer: validity and reliability of the Family Inventory of Needs—husbands. Kilpatrick MG, et al. **Oncol Nurs Forum** 1998 Sep;25(8):1347–51
A comparison between the University of Washington Head and Neck Disease-Specific measure and the Medical Short Form 36, EORTC QOQ-C33 and EORTC Head and Neck 35. Rogers SN, et al. **Oral Oncol** 1998 Sep;34(5):361–72
Is parental perception an accurate predictor of childhood hearing loss? A prospective study. Stewart MG, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):340–4
Validation of the Chronic Pain Coping Inventory. Hadjistavropoulos HD, et al. **Pain** 1999 Apr;80(3):471–81
Development of the physical therapy outpatient satisfaction survey (PTOPS). Roush SE, et al. **Phys Ther** 1999 Feb; 79(2):159–70
A preliminary study of the reliability of immediate vs. delayed interviews of cardiac arrest witnesses. Swor RA, et al. **Prehosp Emerg Care** 1999 Apr–Jun;3(2):110–4
The validity of male patients' self-reports regarding prostate cancer screening. Jordan TR, et al. **Prev Med** 1999 Mar; 28(3):297–303
An instrument for assessing the quality of tobacco-control policies: the ACT-L scale. Klonoff EA, et al. **Prev Med** 1998 Nov–Dec;27(6):808–14
Problems translating a questionnaire in a cross-cultural setting. Lee JA, et al. **Prev Vet Med** 1999 Jul 20; 41(2–3):187–94
A brief spiritual beliefs inventory for use in quality of life research in life-threatening illness. Holland JC, et al. **Psychooncology** 1998 Nov–Dec;7(6):460–9
Development of quality of life questionnaire in Japan: quality of life assessment of cancer patients receiving chemotherapy. Kurihara M, et al. **Psychooncology** 1999 Jul–Aug;8(4):355–63
Improving the contribution of public health to NHS decision making: development of an instrument. Leach J, et al. **Public Health** 1998 Nov;112(6):393–8
Refining quality of life: validating a multidimensional factor measure in the severe mentally ill. Bishop SL, et al. **Qual Life Res** 1999;8(1–2):151–60
The development of an individualized questionnaire measure of perceived impact of diabetes on quality of life: the ADDQoL. Bradley C, et al. **Qual Life Res** 1999; 8(1–2):79–91
The adaptations of a quality of life questionnaire for routine use in clinical practice: the Chronic Respiratory Disease Questionnaire in cystic fibrosis. Bradley J, et al. **Qual Life Res** 1999;8(1–2):65–71
Factor structure of the Disability and Impact Profile in patients with multiple sclerosis. Cohen L, et al. **Qual Life Res** 1999;8(1–2):141–50
Use of the 12-item short-form (SF-12) Health Survey in an Australian heart and stroke population. Lim LL, et al. **Qual Life Res** 1999;8(1–2):1–8
A health-related quality of life measure for use in patients with onychomycosis: a validation study. Lubeck DP, et al. **Qual Life Res** 1999;8(1–2):121–9
Comparison of Euroqol EQ-5D and SF-36 in patients with chronic fatigue syndrome. Myers C, et al. **Qual Life Res** 1999;8(1–2):9–16
COOP Charts in French: translation and preliminary data on instrument properties. Perneger TV, et al. **Qual Life Res** 1998 Dec;7(8):683–92
A new measure for assessing the health-related quality of life of patients with vertigo, dizziness or imbalance: the VDI questionnaire. Prieto L, et al. **Qual Life Res** 1999; 8(1–2):131–9
Assessing the consistency of psychometric properties of the HRQoL scales within the EORTC QLQ-C30 across populations by means of the Mokken Scaling Model. Ringdal K, et al. **Qual Life Res** 1999;8(1–2):25–43
Reliability, validity and responsiveness of two multiattribute utility measures in patients with chronic obstructive pulmonary disease. Stavem K. **Qual Life Res** 1999; 8(1–2):45–54
A Kiswahili version of the SF-36 Health Survey for use in Tanzania: translation and tests of scaling assumptions. Wagner AK, et al. **Qual Life Res** 1999;8(1–2):101–10
Towards a composite scoring solution for the Neurobehavioral Functioning Inventory. Weinfurt KP, et al. **Qual Life Res** 1999;8(1–2):17–24
The Caregiver Quality of Life Index-Cancer (CQOLC) scale: development and validation of an instrument to measure quality of life of the family caregiver of patients with cancer. Weitzner MA, et al. **Qual Life Res** 1999; 8(1–2):55–63
Validation of the Kiswahili version of the SF-36 Health Survey in a representative sample of an urban population in Tanzania. Wyss K, et al. **Qual Life Res** 1999; 8(1–2):111–20
Revised susceptibility, benefits, and barriers scale for mammography screening. Champion VL. **Res Nurs Health** 1999 Aug;22(4):341–8
Development and validation of a self-administered systemic sclerosis questionnaire (SySQ). Ruof J, et al. **Rheumatology (Oxford)** 1999 Jun;38(6):535–42
Knee injury and Osteoarthritis Outcome Score (KOOS)—validation of a Swedish version. Roos EM, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):439–48
Short form 36 (SF-36) health survey: normative data from the general Norwegian population. Loge JH, et al. **Scand J Soc Med** 1998 Dec;26(4):250–8
In musculoskeletal epidemiology are we asking the unanswerable in questionnaires on physical load? [editorial; comment] Burdorf A, et al. **Scand J Work Environ Health** 1999 Apr;25(2):81–3. Comment on: Scand J Work Environ Health 1999 Apr;25(2):105–14.
Validation of a questionnaire for assessing physical work load [see comments] Hollmann S, et al. **Scand J Work Environ Health** 1999 Apr;25(2):105–14. Comment in: Scand J Work Environ Health 1999 Apr;25(2):81–3.
Agreement between symptom surveys, physical examination procedures and electrodiagnostic findings for the carpal tunnel syndrome. Homan MM, et al. **Scand J Work Environ Health** 1999 Apr;25(2):115–24
The child molester empathy measure: description and examination of its reliability and validity. Fernandez YM, et al. **Sex Abuse** 1999 Jan;11(1):17–31
Statistical adequacy of the Abel Assessment for Interest in Paraphilias. Fischer L, et al. **Sex Abuse** 1999 Jul; 11(3):195–205 (23 ref.)
Assessment of juvenile sexual offenders: reliability and validity of the Abel Assessment for Interest in Paraphilias. Smith G, et al. **Sex Abuse** 1999 Jul;11(3):207–16 (20 ref.)
Development of a multi-item scale to quantitatively assess sexual behaviors and the transmission of high- and low-risk human papillomaviruses. Morrison EA, et al. **Sex Transm Dis** 1998 Nov;25(10):509–15
The War Events Questionnaire. Karam EG, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 May;34(5):265–74
The meaning of patient satisfaction: an explanation of high reported levels. Williams B, et al. **Soc Sci Med** 1998 Nov; 47(9):1351–9
Measuring quality of life in back patients: comparison of Health Status Questionnaire 2.0 and Quality of Life Inventory. Claiborne N, et al. **Soc Work Health Care** 1999; 28(3):77–94
Development of a stroke-specific quality of life scale. Williams LS, et al. **Stroke** 1999 Jul;30(7):1362–9
A comprehensive assessment of satisfaction with care for cancer patients. Brédart A, et al. **Support Care Cancer** 1998 Nov;6(6):518–23
Concurrent validity of the modified Edmonton Symptom Assessment System with the Rotterdam Symptom Checklist and the Brief Pain Inventory. Philip J, et al. **Support Care Cancer** 1998 Nov;6(6):539–41
Measuring emotional abuse in dating relationships as a multifactorial construct. Murphy CM, et al. **Violence Vict** 1999 Spring;14(1):39–53
[The Dutch 'Rand General Health Rating Index for Children': a questionnaire measuring the general health status of children] Post MW, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2680–3 (Eng. Abstr.) **(Dut)**
[The Dutch version of 'Functional Status II(R)': a questionnaire measuring the functional health status of children] Post MW, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2675–9 (Eng. Abstr.) **(Dut)**
[Straying in the methodology. II. Bias introduced by questionnaires (see comments)] Pouwer F, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1556–8 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1554–5. **(Dut)**
[Infant quality of life: criteria of parents and professionals. Development of an evaluation instrument] Manificat S, et al. **Arch Pediatr** 1999 Jan;6(1):79–86 (Eng. Abstr.) **(Fre)**
[Questionnaire on the satisfaction of persons with lower-limb amputations towards their prosthesis: development and validation] Bilodeau S, et al. **Can J Occup Ther** 1999 Feb; 66(1):23–32 (Eng. Abstr.) **(Fre)**
[Global health indicators as predictors of mortality in elderly persons: a six-year prospective study] Lefrançois R, et al. **Can J Public Health** 1999 Jan–Feb;90(1):66–71 (Eng. Abstr.) **(Fre)**
[Retrospective estimation methods of pesticide occupational exposure] Baldi I, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):165–74 (75 ref.) (Eng. Abstr.) **(Fre)**
[Infant temperament at 6–9 months old: validation of the French version of the Infant Characteristics Questionnaire and factors associated with measurement] Bertrais S, et al. **Rev Epidemiol Sante Publique** 1999 Jun;47(3):263–77 (Eng. Abstr.) **(Fre)**
[Comparison of two types of behavior and attitude surveys on alcohol, tobacco and illegal drug use] Guilbert P, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):129–38 (Eng. Abstr.) **(Fre)**
[Self-administered health questionnaire in the 8th school year] Woringer V. **Rev Med Suisse Romande** 1998 Nov; 118(11):969–73 **(Fre)**
[A general measure of well-being: outline of a quantitative approach] Bréda J, et al. **Sante Publique** 1999 Jun; 11(2):103–26 (Eng. Abstr.) **(Fre)**
[Development of Japanese version of QOL questionnaire for bladder and prostate cancer patients using FACT-BI and P: pilot study] Hinotsu A, et al. **Gan To Kagaku Ryoho** 1999 Apr;26(5):657–66 (Eng. Abstr.) **(Jpn)**
[The critical appraisal of QOL questionnaire for prostate cancer patients] Niimi M, et al. **Gan To Kagaku Ryoho** 1999 Feb;26(3):333–43 (Eng. Abstr.) **(Jpn)**
[Japanese version of the Short-Memory Questionnaire and Mini-Mental State Examination in relation to demographic variables: community survey of elderly healthy residents in Nakayama, Japan] Maki N, et al. **No To Shinkei** 1999 Mar;51(3):209–13 (Eng. Abstr.) **(Jpn)**
[Assessment of answer repeatability in a questionnaire evaluation of respiratory tract symptoms in children] Jaźwiec-Kanyion B, et al. **Pneumonol Alergol Pol** 1998; 66(9–10):456–63 (Eng. Abstr.) **(Pol)**
[Ten questions about alcohol as identifier of addiction problems. Psychometric tests at an emergency psychiatric department] Bergman H, et al. **Lakartidningen** 1998 Oct 21;95(43):4731–5 (Eng. Abstr.) **(Swe)**

UTILIZATION

Maximizing the sensitivity of a screening questionnaire for determining Fragile X at-risk status. Teisl JT, et al. **Am J Med Genet** 1999 Apr 2;83(4):281–5
On diagnosing rare disorders rarely: appropriate use of screening instruments. Clark A, et al. **J Child Psychol Psychiatry** 1999 Feb;40(2):287–90

QUETELET'S INDEX see **BODY MASS INDEX**

QUEUING THEORY see **SYSTEMS THEORY**

QUICK TEST see **PROTHROMBIN TIME**

QUINACRINE

ADVERSE EFFECTS

Quinacrine sterilization: an assessment of risks for ectopic pregnancy, birth defects and cancer. Kessel E. **Adv Contracept** 1998 Jun;14(2):81–90 (37 ref.)

PHARMACOKINETICS

Organic cation transport in rat choroid plexus cells studied by fluorescence microscopy. Miller DS, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C955–68

PHARMACOLOGY

Inhibition of phospholipase A2 attenuates functional hyperemia in the hamster cremaster muscle. Nuttle LC, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1289–94

THERAPEUTIC USE

Quinacrine for treatment of giardiasis [letter] Wolfe MS, et al. **J Travel Med** 1998 Dec;5(4):228

QUINALBARBITONE see **SECOBARBITAL**

QUINAZOLINES

A simplified procedure for the isolation of immunoglobulins from human serum using a novel type of thiophilic gel at low salt concentration. Scholz GH, et al. **J Immunol Methods** 1998 Oct 1;219(1–2):109–18

ADMINISTRATION & DOSAGE

Phase I studies with the nonclassical antifolate nolatrexed dihydrochloride (AG337, THYMITAQ) administered orally for 5 days. Hughes AN, et al. **Clin Cancer Res** 1999 Jan;5(1):111–8

Sustained-release alfuzosin, finasteride and the combination of both in the treatment of benign prostatic hyperplasia. European ALFIN Study Group. Debruyne FM, et al. **Eur Urol** 1998 Sep;34(3):169–75

Treatment of children with anagrelide for thrombocythemia. Lackner H, et al. **J Pediatr Hematol Oncol** 1998 Sep–Oct; 20(5):469–73

ADVERSE EFFECTS

A phase I study of the lipophilic thymidylate synthase inhibitor Thymitaq (nolatrexed dihydrochloride) given by 10-day oral administration. Jodrell DI, et al. **Br J Cancer** 1999 Feb;79(5–6):915–20

Alfuzosin-associated dermatomyositis [letter] Vela-Casasempere P, et al. **Br J Rheumatol** 1998 Oct; 37(10):1135–6

Anagrelide-induced relapse of a hydroxyurea-induced leg ulcer in a patient with primary thrombocythemia [letter] Ruiz-Argüelles GJ, et al. **Mayo Clin Proc** 1998 Nov; 73(11):1125

Alfuzosin is not associated with dermatomyositis [letter] Navarro-Blasco FJ. **Rheumatology (Oxford)** 1999 Jun; 38(6):579

CHEMICAL SYNTHESIS

Synthesis and pharmacological activities of novel 3-(isoxazol-3-yl)-quinazolin-4(3H)-one derivatives. Daidone G, et al. **Arch Pharm (Weinheim)** 1999 Feb; 332(2):50–4

Structure-activity relationships of pyrroloquinazolines as thrombin receptor antagonists. Ahn HS, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2073–8

Synthesis of 5-substituted quinazolinone derivatives and their inhibitory activity in vitro. Baek DJ, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3287–90

Synthesis and biological activity of oxo-7H-benzo[e]perimidine-4-carboxylic acid derivatives as potent, nonpeptide corticotropin releasing factor (CRF) receptor antagonists. Luthin DR, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):765–70

Search for alpha 1-adrenoceptor subtypes selective antagonists: design, synthesis and biological activity of cystazosin, an alpha 1D-adrenoceptor antagonist. Minarini A, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1353–8

Synthesis and in vitro antifungal activity of some N,N-disubstituted dithiocarbamic acid esters derived from 2-methylquinazolinones. Farghaly AO, et al. **Boll Chim Farm** 1999 Jun;138(6):280–9

Synthesis and HIV-1 inhibitory properties of new tetrahydrobenzoquinazolinedione and tetrahydrobenzocycloheptenuracil derivatives and of their thioxo analogues. Macchia M, et al. **Farmaco** 1999 Apr 30;54(4):242–7

Novel triazolo[4,3-a]quinazolinone and bis-triazolo[4,3-a:4,3'-c]quinazolines: synthesis and antitoxoplasmosis effect. el-Tombary AA, et al. **Farmaco** 1999 Jul 30;54(7):486–95

Synthesis and anti-HIV activity of some non-nucleoside 2,3-disubstituted quinazoline derivatives (Part-V). Desai NC, et al. **Indian J Exp Biol** 1998 Dec;36(12):1280–3

Substituted isoquinolines and quinazolines as potential antiinflammatory agents. Synthesis and biological evaluation of inhibitors of tumor necrosis factor alpha. Chao Q, et al. **J Med Chem** 1999 Sep 23;42(19):3860–73

Resistance-modifying agents. 5. Synthesis and biological properties of quinazolinone inhibitors of the DNA repair enzyme poly(ADP-ribose) polymerase (PARP). Griffin RJ, et al. **J Med Chem** 1998 Dec 17;41(26):5247–56

Design and synthesis of potent non-polyglutamatable quinazoline antifolate thymidylate synthase inhibitors. Marsham PR, et al. **J Med Chem** 1999 Sep 23; 42(19):3809–20

Synthesis and antiparasitic and antitumor activity of 2, 4-diamino-6-(arylmethyl)-5,6,7,8-tetrahydroquinazoline analogues of piritrexim. Rosowsky A, et al. **J Med Chem** 1999 Mar 25;42(6):1007–17

Tyrosine kinase inhibitors. 15. 4-(Phenylamino)quinazoline and 4-(phenylamino)pyrido[d]pyrimidine acrylamides as irreversible inhibitors of the ATP binding site of the epidermal growth factor receptor. Smaill JB, et al. **J Med Chem** 1999 May 20;42(10):1803–15

8,11-dihydroxy-6-[(aminoalkyl)amino]-7H-benzo[e]perimidin-7-ones with activity in multidrug-resistant cell lines: synthesis and antitumor evaluation. Stefańska B, et al. **J Med Chem** 1999 Sep 9; 42(18):3494–501

New type of febrifugine analogues, bearing a quinolizidine moiety, show potent antimalarial activity against Plasmodium malaria parasite. Takaya Y, et al. **J Med Chem** 1999 Aug 12;42(16):3163–6

Synthesis of new 3-(3-phenyl-isoxazol-5-yl) or 3-[(3-phenyl-isoxazol-5-yl)-amino] substituted 4(3H)-quinazolinone derivatives with antineoplastic activity. Raffa D, et al. **Pharmazie** 1999 Apr;54(4):251–4

CHEMISTRY

Synthesis and antiproliferative properties of 4-aminoquinazoline derivatives as inhibitors of EGF receptor-associated tyrosine kinase activity. Bouey-Bencteux E, et al. **Anticancer Drug Des** 1998 Dec; 13(8):893–922

A fluorescent base analog for probing triple helix formation. Godde F, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec; 8(6):469–76

Benzoquinazoline derivatives as substitutes for thymine in nucleic acid complexes. Use of fluorescence emission of benzo[g]quinazoline-2,4-(1H,3H)-dione in probing duplex and triplex formation. Godde F, et al. **Biochemistry** 1998 Sep 29;37(39):13765–75

Crystal structures of rat thymidylate synthase inhibited by Tomudex, a potent anticancer drug. Sotelo-Mundo RR, et al. **Biochemistry** 1999 Jan 19;38(3):1087–94

Quinazolines: combined type 3 and 4 phosphodiesterase inhibitors. Charpiot B, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2891–6

Ab initio studies of some amino acid residue complexes with 4-mercaptopyridine as a model for thymitaq (AG337), an inhibitor of thymidylate synthase. Sapse DS, et al. **Cancer Invest** 1999;17(6):396–401

Characterization of potential NMDA and cholecystokinin antagonists. II. Lipophilicity studies on 2-methyl-4-oxo-3H-quinazoline-3-alkyl-carboxylic acid derivatives. Almási J, et al. **Int J Pharm** 1999 Mar 25; 180(1):13–22

Characterization of potential NMDA and cholecystokinin antagonists I. acid-base properties of 2-methyl-4-oxo-3H-quinazoline-3-alkyl-carboxylic acids at the molecular and submolecular levels. Almási J, et al. **Int J Pharm** 1999 Mar 25;180(1):1–11

Synthesis, pharmacological evaluation, and structure-activity relationship and quantitative structure-activity relationship studies on novel derivatives of 2,4-diamino-6,7-dimethoxyquinazoline alpha1-adrenoceptor antagonists. Leonardi A, et al. **J Med Chem** 1999 Feb 11;42(3):427–37

ECONOMICS

An economic evaluation of Tomudex (raltitrexed) and 5-fluorouracil plus leucovorin in advanced colorectal cancer. Groener MG, et al. **Anticancer Drugs** 1999 Mar; 10(3):283–8

METABOLISM

N-acetylation of the heterocyclic amine batracylin by human liver. Stevens GJ, et al. **Drug Metab Dispos** 1999 Sep; 27(9):966–71

Computation of affinity and selectivity: binding of 2,4-diaminopteridine and 2,4-diaminoquinazoline inhibitors to dihydrofolate reductases. Marelius J, et al. **J Comput Aided Mol Des** 1998 Mar;12(2):119–31

A novel class of adenosine A3 receptor ligands. 2. Structure affinity profile of a series of isoquinoline and quinazoline compounds. van Muijlwijk-Koezen JE, et al. **J Med Chem** 1998 Oct 8;41(21):3994–4000

PHARMACOKINETICS

Antibody-directed enzyme prodrug therapy with the T268G mutant of human carboxypeptidase A1: in vitro and in vivo studies with prodrugs of methotrexate and the thymidylate synthase inhibitors GW1031 and GW1843. Wolfe LA, et al. **Bioconjug Chem** 1999 Jan-Feb;10(1):38–48

Effects of impaired renal function on the pharmacokinetics of raltitrexed (Tomudex ZD1694). Judson I, et al. **Br J Cancer** 1998 Nov;78(9):1188–93

Cellular pharmacology and in vivo activity of a new anticancer agent, ZD9331: a water-soluble, nonpolyglutamatable, quinazoline-based inhibitor of thymidylate synthase. Jackman AL, et al. **Clin Cancer Res** 1997 Jun;3(6):911–21

Clinical pharmacokinetic and pharmacodynamic studies with the nonclassical antifolate thymidylate synthase inhibitor 3, 4-dihydro-2-amino-6-methyl-4-oxo-5-(4-pyridylthio)-quinazolone dihydrochloride (AG337) given by 24-hour continuous intravenous infusion. Rafi I, et al. **Clin Cancer Res** 1995 Nov;1(11):1275–84

Quantitative high-performance liquid chromatographic method for pharmacokinetic studies of the potent mast cell inhibitor 4-(4'-hydroxyphenyl)amino-6,7-dimethoxyquinazoline (WHI-P131). Chen CL, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1–2):205–12

In vivo evaluation of the biodistribution of 11C-labeled PD153035 in rats without and with neuroblastoma implants. Fredriksson A, et al. **Life Sci** 1999;65(2):165–74

Pharmacokinetic-pharmacodynamic analysis of changrolin in dogs with arrhythmia. Liu CX, et al. **Yao Hsueh Hsueh Pao** 1996;31(9):666–70

PHARMACOLOGY

Halofuginone, an inhibitor of collagen type I synthesis, prevents postoperative adhesion formation in the rat uterine horn model. Nagler A, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):558–63

The cGMP-specific phosphodiesterase inhibitor E4021 dilates the pulmonary circulation. Dukarm RC, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):858–65

Variable intrinsic sensitivity of human tumor cell lines to raltitrexed (Tomudex) and folylpolyglutamate synthetase activity. Chéradame S, et al. **Anticancer Drugs** 1999 Jun; 10(5):505–10

Synthesis and pharmacological activities of novel 3-(isoxazol-3-yl)-quinazolin-4(3H)-one derivatives. Daidone G, et al. **Arch Pharm (Weinheim)** 1999 Feb; 332(2):50–4

Irreversible inhibition of epidermal growth factor receptor tyrosine kinase with in vivo activity by N-[4-[(3-bromophenyl)amino]-6-quinazolinyl]-2-butynamide (CL-387,785). Discafani CM, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):917–25

Structure-activity relationships of pyrroloquinazolines as thrombin receptor antagonists. Ahn HS, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2073–8

Nonpeptide glycoprotein IIb/IIIa inhibitors: substituted quinazolinediones and quinazolinones as potent fibrinogen receptor antagonists. Liverton NJ, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):483–6

Potentiation of anti-cancer agent cytotoxicity by the potent poly(ADP-ribose) polymerase inhibitors NU1025 and NU1064. Bowman KJ, et al. **Br J Cancer** 1998 Nov; 78(10):1269–77

Involvement of bcl-2 and p21waf1 proteins in response of human breast cancer cell clones to Tomudex. Orlandi L, et al. **Br J Cancer** 1999 Sep;81(2):252–60

Inhibition of transforming growth factor alpha (TGF-alpha)-mediated growth effects in ovarian cancer cell lines by a tyrosine kinase inhibitor ZM 252868. Simpson BJ, et al. **Br J Cancer** 1999 Mar;79(7-8):1098–103

The renal effects of the water-soluble, non-folylpolyglutamate synthetase-dependent thymidylate synthase inhibitor ZD9331 in mice. Walton MI, et al. **Br J Cancer** 1998 Dec;78(11):1457–63

Antisense down-regulation of thymidylate synthase to suppress growth and enhance cytotoxicity of 5-FUdR, 5-FU and Tomudex in HeLa cells. Ferguson PJ, et al. **Br J Pharmacol** 1999 Aug;127(8):1777–86

Inhibition of bladder carcinoma angiogenesis, stromal support, and tumor growth by halofuginone. Elkin M, et al. **Cancer Res** 1999 Aug 15;59(16):4111–8

Interactive effects of inhibitors of poly(ADP-ribose) polymerase and DNA-dependent protein kinase on cellular responses to DNA damage. Boulton S, et al. **Carcinogenesis** 1999 Feb;20(2):199–203

Effects of nitroquine on ultrastructures and cytochrome oxidase of exoerythrocytic Plasmodium yoelii in rat liver. Chen XH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul; 19(4):390–3

Inhibition of human glioblastoma cell adhesion and invasion by 4-(4'-hydroxylphenyl)-amino-6,7-dimethoxyquinazoline (WHI-P131) and 4-(3'-bromo-4'-hydroxylphenyl)-amino-6,7-dimethoxyquinazoline (WHI-P154). Narla RK, et al. **Clin Cancer Res** 1998 Oct;4(10):2463–71

Structure-based design of specific inhibitors of Janus kinase 3 as apoptosis-inducing antileukemic agents. Sudbeck EA, et al. **Clin Cancer Res** 1999 Jun;5(6):1569–82

Discriminative effects of CGS 15943, a competitive adenosine receptor antagonist, have a dopamine component in monkeys. Holtzman SG. **Eur J Pharmacol** 1999 Jul 2; 376(1–2):7–15

Functional characterisation of the pharmacological profile of the putative alpha1B-adrenoceptor antagonist, (+)-cyclazosin. Stam WB, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):79–83

QUINAZOLINES

Cyclin E-cdk2 activation is associated with cell cycle arrest and inhibition of DNA replication induced by the thymidylate synthase inhibitor Tomudex. Yin MB, et al. **Exp Cell Res** 1999 Feb 25;247(1):189–99

Antibacterial effect of some 2,6-disubstituted 4-anilinoquinazolines. Gottasová R, et al. **Folia Microbiol (Praha)** 1998;43(6):679–82

Halofuginone inhibits neointimal formation of cultured rat aorta in a concentration-dependent fashion in vitro. Liu K, et al. **Heart Vessels** 1998;13(1):18–23

Synthesis and anti-HIV activity of some non-nucleoside 2,3-disubstituted quinazoline derivatives (Part-V). Desai NC, et al. **Indian J Exp Biol** 1998 Dec;36(12):1280–3

Targeting Janus kinase 3 in mast cells prevents immediate hypersensitivity reactions and anaphylaxis. Malaviya R, et al. **J Biol Chem** 1999 Sep 17;274(38):27028–38

Probing the folate-binding site of human thymidylate synthase by site-directed mutagenesis. Generation of mutants that confer resistance to raltitrexed, Thymitaq, and BW1843U89. Tong Y, et al. **J Biol Chem** 1998 Nov 20; 273(47):31209–14

Bunazosin hydrochloride inhibits exaggerated growth of vascular smooth muscle cells from spontaneously hypertensive rats by suppressing the response to growth factors. Hu WY, et al. **J Cardiovasc Pharmacol** 1998 Dec; 32(6):975–82

E4021, a selective phosphodiesterase 5 inhibitor, potentiates the vasodilator effect of inhaled nitric oxide in isolated perfused rat lungs. Ohnishi M, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):619–24

Design and synthesis of potent non-polyglutamatable quinazoline antifolate thymidylate synthase inhibitors. Marsham PR, et al. **J Med Chem** 1999 Sep 23; 42(19):3809–20

New type of febrifugine analogues, bearing a quinolizidine moiety, show potent antimalarial activity against Plasmodium malaria parasite. Takaya Y, et al. **J Med Chem** 1999 Aug 12;42(16):3163–6

Effects of LU-111995 in three models of disrupted prepulse inhibition in rats. Geyer MA, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):716–24

Electrophysiological effects of LU111995 on canine hearts: in vivo and in vitro studies. Sosunov EA, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):146–52

In vitro modulation of cyst formation by a novel tyrosine kinase inhibitor. Sweeney WE, et al. **Kidney Int** 1999 Aug; 56(2):406–13

Potency and mechanism of action of E4021, a type 5 phosphodiesterase isozyme-selective inhibitor, on the photoreceptor phosphodiesterase depend on the state of activation of the enzyme. D'Amours MR, et al. **Mol Pharmacol** 1999 Mar;55(3):508–14

Comparison of CGS 15943, ZM 241385 and SCH 58261 as antagonists at human adenosine receptors. Ongini E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):7–10

Pharmacokinetics and biologic activity of the novel mast cell inhibitor, 4-(3-hydroxyphenyl)-amino-6,7-dimethoxyquinazoline in mice. Chen CL, et al. **Pharm Res** 1999 Jan;16(1):117–22

Hemodynamic effects of 8-day DL-028 and octreotide administration in rats with portal hypertension. Huang YT, et al. **Scand J Gastroenterol** 1998 Dec;33(12):1303–9

Pharmacokinetic-pharmacodynamic analysis of changrolin in dogs with arrhythmia. Liu CX, et al. **Yao Hsueh Hsueh Pao** 1996;31(9):666–70

THERAPEUTIC USE

Anagrelide, a selective thrombocytopenic agent. Oertel MD. **Am J Health Syst Pharm** 1998 Oct 1;55(19):1979–86 (24 ref.)

Efficacy, safety and tolerability of anagrelide in the treatment of essential thrombocythaemia. Mills AK, et al. **Aust N Z J Med** 1999 Feb;29(1):29–35

A novel class of lipophilic quinazoline-based folic acid analogues: cytotoxic agents with a folate-independent locus. Skelton LA, et al. **Br J Cancer** 1999 Apr; 79(11-12):1692–701

Studies of platelet volume, chemistry and function in patients with essential thrombocythaemia treated with Anagrelide. Bellucci S, et al. **Br J Haematol** 1999 Mar;104(4):886–92

Long-term treatment of benign prostatic hyperplasia with alfuzosin: a 12-18 month assessment. BPHALF Group. Jardin A, et al. **Br J Urol** 1993 Nov;72(5 Pt 1):615–20

Are the new selective alpha-blockers better than non-selective alpha-blockers for benign prostatic hyperplasia? Béique L, et al. **Can Fam Physician** 1998 Dec; 44:2659–62

A Phase II trial of nolatrexed dihydrochloride in patients with advanced hepatocellular carcinoma. Stuart K, et al. **Cancer** 1999 Aug 1;86(3):410–4

A multi-centre randomized phase II study of nolatrexed versus doxorubicin in treatment of Chinese patients with advanced hepatocellular carcinoma. Mok TS, et al. **Cancer Chemother Pharmacol** 1999;44(4):307–11

Antitumor activity of ZD1694 (tomudex) against human head and neck cancer in nude mouse models: role of dosing schedule and plasma thymidine. Cao S, et al. **Clin Cancer Res** 1999 Jul;5(7):1925–34

The use of raltitrexed (tomudex) in a patient with 5-fluorouracil induced myocardial ischaemia [letter] Nutting C, et al. **Clin Oncol (R Coll Radiol)** 1999;11(1):66

Single agent infusional 5-fluorouracil is not effective second-line therapy after raltitrexed (Tomudex) in advanced colorectal cancer [see comments] Farrugia DC, et al. **Eur J Cancer** 1998 Jun;34(7):987–91. Comment in: Eur J Cancer 1998 Jun;34(7):953–5.

Reduction of tumour blood flow with KB-R8498 potentiates the response of tumours to hyperthermia. Shakil A, et al. **Int J Hyperthermia** 1999 Jan-Feb;15(1):1–6

Evaluation of Tomudex in patients with recurrent or metastatic squamous cell carcinoma of the head and neck: a Southwest Oncology Group study. Samlowski WE, et al. **Invest New Drugs** 1998-99;16(3):271–4

Portal hypotensive effects of combined terlipressin and DL-028, a synthetic alpha 1 adrenoceptor antagonist administration on anesthetized portal hypertensive rats. Huang YT, et al. **Liver** 1999 Apr;19(2):129–34

Effect of aldose reductase inhibition on nerve conduction and morphometry in diabetic neuropathy. Zenarestat Study Group. Greene DA, et al. **Neurology** 1999 Aug 11; 53(3):580–91

Cost-effectiveness model of a phase II clinical trial of a new pharmaceutical for essential thrombocythemia: is it helpful to policy makers? Bennett CL, et al. **Semin Hematol** 1999 Jan;36(1 Suppl 2):26–9

Treatment of essential thrombocythemia with anagrelide. Silverstein MN, et al. **Semin Hematol** 1999 Jan;36(1 Suppl 2):23–5 (28 ref.)

[Prospective follow-up of 3,228 patients suffering from clinical benign prostatic hyperplasia (BPH) treated for 3 years wi alfuzosin in general practice. BPH Group in General Practice] Lukacs B, et al. **Prog Urol** 1999 Apr; 9(2):271–80 (Eng. Abstr.) **(Fre)**

[Anagrelide in control of myeloproliferative thrombocythemia: long-term experiences in 6 patients] Burkhard R, et al. **Schweiz Med Wochenschr** 1998 Nov 14;128(46):1808–12 (Eng. Abstr.) **(Ger)**

[The treatment of advanced colorectal carcinoma. New data emerging from the 23rd Congress of the European Society for Medical Oncology. Athens, November 1998] **Recenti Prog Med** 1999 May;90(5 Suppl):1S–9S **(Ita)**

[Phase I study of raltitrexed (ZD-1694)] Horikoshi N, et al. **Gan To Kagaku Ryoho** 1998 Nov;25(13):2075–84 (Eng. Abstr.) **(Jpn)**

TOXICITY

Potentiation of the cytotoxicity of thymidylate synthase (TS) inhibitors by dipyridamole analogues with reduced alpha1-acid glycoprotein binding. Curtin NJ, et al. **Br J Cancer** 1999 Aug;80(11):1738–46

PD153035, a tyrosine kinase inhibitor, prevents epidermal growth factor receptor activation and inhibits growth of cancer cells in a receptor number-dependent manner. Bos M, et al. **Clin Cancer Res** 1997 Nov;3(11):2099–106

Cellular pharmacology and in vivo activity of a new anticancer agent, ZD9331: a water-soluble, nonpolyglutamatable, quinazoline-based inhibitor of thymidylate synthase. Jackman AL, et al. **Clin Cancer Res** 1997 Jun;3(6):911–21

Antitumor activity of antifolate inhibitors of thymidylate and purine synthesis in human soft tissue sarcoma cell lines with intrinsic resistance to methotrexate. Li WW, et al. **Clin Cancer Res** 1995 Jun;1(6):631–6

QUINCKE'S EDEMA see **ANGIONEUROTIC EDEMA**

QUINESTROL

ANALOGS & DERIVATIVES

[Variation of female migraine after menopause and its prophylaxis and treatment] Guo S, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jul;36(7):454–6 (Eng. Abstr.) **(Chi)**

[Effects of fructus cnidii coumarins compared with nilestriol on osteoporosis in ovariectomized rats] Li CY, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):286–8 (Eng. Abstr.) **(Chi)**

QUINIC ACID

ANALOGS & DERIVATIVES

Immunomodulatory principles of Dichrocephala bicolor. Lin LC, et al. **J Nat Prod** 1999 Mar;62(3):405–8

METABOLISM

Utilization of quinate and p-hydroxybenzoate by actinomycetes: key enzymes and taxonomic relevance. Grund E, et al. **J Basic Microbiol** 1998;38(4):241–55

PHARMACOLOGY

immunomodulatory principles of Dichrocephala bicolor. Lin LC, et al. **J Nat Prod** 1999 Mar;62(3):405–8

QUINIDINE

ADVERSE EFFECTS

Life-threatening vasculitis related to quinidine occurring in a healthy volunteer during a clinical trial [letter] Lipsker D, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):815

ANALOGS & DERIVATIVES

Pharmacologic cardioversion of chronic atrial fibrillation in the goat by class IA, IC, and III drugs: a comparison between hydroquinidine, cibenzoline, flecainide, and d-sotalol. Wijffels MC, et al. **J Cardiovasc Electrophysiol** 1999 Feb;10(2):178–93

Activation of human cytochrome P-450 3A4-catalyzed meloxicam 5'-methylhydroxylation by quinidine and hydroquinidine in vitro. Ludwig E, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):1–8

Pharmacokinetics of quinine and 3-hydroxyquinine in severe falciparum malaria with acute renal failure. Newton P, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):69–72

CHEMISTRY

Stability of bethanechol chloride, pyrazinamide, quinidine sulfate, rifampin, and tetracycline hydrochloride in extemporaneously compounded oral liquids. Allen LV Jr, et al. **Am J Health Syst Pharm** 1998 Sep 1;55(17):1804–9

METABOLISM

Lidocaine, quinidine, and theophylline binding to human milk. Bailey DN. **Ann Clin Lab Sci** 1998 Sep-Oct; 28(5):289–92

Inhibition of P-glycoprotein-mediated drug transport: A unifying mechanism to explain the interaction between digoxin and quinidine [seecomments] Fromm MF, et al. **Circulation** 1999 Feb 2;99(4):552–7

In vitro metabolism of quinidine: the (3S)-3-hydroxylation of quinidine is a specific marker reaction for cytochrome P-4503A4 activity in human liver microsomes. Nielsen TL, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):31–7

Differential effects of S6 mutations on binding of quinidine and 4-aminopyridine to rat isoform of Kv1.4: common site but different factors in determining blockers' binding affinity. Zhang H, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):332–43

PHARMACOKINETICS

Effect of fluvoxamine on the pharmacokinetics of quinidine. Damkier P, et al. **Eur J Clin Pharmacol** 1999 Aug; 55(6):451–6

PHARMACOLOGY

Binding of antiarrhythmic drugs to human placenta in vitro. Bailey DN. **Ann Clin Lab Sci** 1999 Jul-Sep;29(3):209–12

Effects of dauricine, quinidine, and sotalol on action potential duration of papillary muscles in vitro. Guo DL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):348–50

Inhibitory effects of quinidine and quinine on liver microsome oxidation enzymes in man and rat. Tu ZG, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):541–4

Quinidine interactions with human atrial potassium channels: developmental aspects. Nenov NI, et al. **Circ Res** 1998 Dec 14-28;83(12):1224–31

Effects of blocking CYP2D6 on the pharmacokinetics and pharmacodynamics of oxycodone. Heiskanen T, et al. **Clin Pharmacol Ther** 1998 Dec;64(6):603–11

Effects of quinidine, verapamil, nifedipine and ouabain on hysteresis in atrial refractoriness in the conscious dog: an approach to ionic mechanisms. Boucher M, et al. **Gen Pharmacol** 1999 Jan;32(1):47–50

Rapid delayed K+ current and quinidine sensitivity are reduced in healed myocardial infarction [editorial; comment] Carmeliet E. **J Cardiovasc Electrophysiol** 1999 Jun;10(6):855–9. Comment on: J Cardiovasc Electrophysiol 1999 Jun;10(6):844–54.

Combination of sotalol and quinidine in a canine model of torsades de pointes: no increase in the QT-related proarrhythmic action of sotalol. Chézalviel-Guilbert F, et al. **J Cardiovasc Electrophysiol** 1998 May;9(5):498–507

Characteristics of I(K) and its response to quinidine in experimental healed myocardial infarction [see comments] Yuan F, et al. **J Cardiovasc Electrophysiol** 1999 Jun; 10(6):844–54. Comment in: J Cardiovasc Electrophysiol 1999 Jun;10(6):855–9.

Modulation of HERG potassium channels by extracellular magnesium and quinidine. Po SS, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):181–5

Inhibition of desipramine hydroxylation (Cytochrome P450-2D6) in vitro by quinidine and by viral protease inhibitors: relation to drug interactions in vivo. von Moltke LL, et al. **J Pharm Sci** 1998 Oct;87(10):1184–9

Impact of ethnic origin and quinidine coadministration on codeine's disposition and pharmacodynamic effects. Caraco Y, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):413–22

Investigation of the presynaptic effects of quinine and quinidine on the release and uptake of monoamines in rat brain tissue. Clement EM, et al. **Neuropharmacology** 1998 Jul;37(7):945–51

Quinidine inhibition of cocaethylene degradation in human serum in vitro: a preliminary study. Bailey DN. **Ther Drug Monit** 1999 Jun;21(3):301–3

THERAPEUTIC USE

Comparison of sotalol versus quinidine for maintenance of normal sinus rhythm in patients with chronic atrial fibrillation. Southworth MR, et al. **Am J Cardiol** 1999 Jun 15;83(12):1629–32

Unexpected instant death following successful coronary artery bypass graft surgery (and other clinical settings): atrial fibrillation, quinidine, procainamide, et cetera, and instant death. Humphries JO. **Clin Cardiol** 1998 Oct; 21(10):711–8 (95 ref.)

Quinidine prevents paraoxon-induced necrotizing myopathy in rats. De Bleecker JL, et al. **Neurotoxicology** 1998 Dec; 19(6):833–8

[Medicamentous prevention after electric cardioversion of chronic atrial fibrillation. Goals and design of the PAFAC Study] Fetsch T, et al. **Z Kardiol** 1999 Mar;88(3):195–207 (Eng. Abstr.) **(Ger)**

[Medicamentous prevention of symptomatic paroxysmal atrial fibrillation/flutter onset. Goals and design of the SOPAT Study. Executive committee of the investigators representing trial physicians] Patten M, et al. **Z Kardiol** 1999 Mar;88(3):185–94 (Eng. Abstr.) **(Ger)**

[Quinine/quinidine treatment of cramps of the calf is not supported by the Pharmaceutical Product Agency] Alván G. **Lakartidningen** 1999 May 19;96(20):2508–9 **(Swe)**

QUININE

ADMINISTRATION & DOSAGE

Exposure to sucrose-quinine solutions does not increase ethanol consumption. Slawecki CJ, et al. **Alcohol** 1998 Nov; 16(4):329–35

Ability of azithromycin in combination with quinine for the elimination of babesial infection in humans. Shih CM, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):509–12

Improving compliance with quinine + tetracycline for treatment of malaria: evaluation of health education interventions in Cambodian villages. Denis MB. **Bull World Health Organ** 1998;76 Suppl 1:43–9

Quantitative trait loci associated with short-term intake of sucrose, saccharin and quinine solutions in laboratory mice. Blizard DA, et al. **Chem Senses** 1999 Aug;24(4):373–85

Regional differences in quinine absorption from the undisturbed human colon assessed using a timed release delivery system. Hebden JM, et al. **Pharm Res** 1999 Jul; 16(7):1087–92

Loading dose of quinine in African children with cerebral malaria. van der Torn M, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):325–31

[Intramuscular injections in Sub-saharan African children, apropos of a frequently misunderstood pathology: the complications related to intramuscular quinine injections] Barennes H. **Bull Soc Pathol Exot** 1999 Feb;92(1):33–7 (43 ref.) (Eng. Abstr.) **(Fre)**

[Muscle cramps: reevaluation of the effectiveness of quinine salts] Villani P, et al. **Presse Med** 1999 Jul 3–10; 28(24):1309–12 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Ototoxicity. Tange RA. **Adverse Drug React Toxicol Rev** 1998 Jun-Sep;17(2-3):75–89 (79 ref.)

Quinine-induced immune thrombocytopenic purpura followed by hemolytic uremic syndrome. Glynne P, et al. **Am J Kidney Dis** 1999 Jan;33(1):133–7 (22 ref.)

Quinine-induced hepatotoxicity. Farver DK, et al. **Ann Pharmacother** 1999 Jan;33(1):32–4

Quinine for cramps. Pinn G. **Aust Fam Physician** 1998 Oct; 27(10):922–3

Quinine-induced blindness during attempted heroin withdrawal. Feeney GF, et al. **Med J Aust** 1999 May 3; 170(9):449

Quinine-mediated disseminated intravascular coagulation. Kedia RK, et al. **Postgrad Med J** 1999 Jul;75(885):429–30

Quinine as unofficial contraceptive--concerns about safety and efficacy [letter; comment] Barnes K, et al. **S Afr Med J** 1998 Oct;88(10):1280, 1282. Comment on: S Afr Med J 1998 Jul;88(7):865–6.

[Gas gangrene after injection of quinine salts: apropos of 2 severe pediatric cases (letter)] Doumbouya N, et al. **Med Trop (Mars)** 1999;59(1):101–2 **(Fre)**

[Adverse effects of quinine in the treatment of leg cramps] Beyens MN, et al. **Therapie** 1999 Jan-Feb;54(1):59–62 (Eng. Abstr.) **(Fre)**

ANALYSIS

[A trip to the past: quinine and quinine alkaloids. 1. The isolation of quinine alkaloids and clarification of its chemistry] Eiden F. **Pharm Unserer Zeit** 1998 Nov; 27(6):257–71 (53 ref.) **(Ger)**

CHEMISTRY

Influence of nutrition factors forming stable mixed micelles on permeation of quinine in vitro studied by the everted sac technique. Fritzsch B, et al. **Pharmazie** 1999 Jun; 54(6):473

ECONOMICS

Cost-effectiveness analysis of artesunate and quinine + tetracycline for the treatment of uncomplicated falciparum malaria in Chanthaburi, Thailand. Honrado ER, et al. **Bull World Health Organ** 1999;77(3):235–43

HISTORY

Quinine: the conquest of malaria and the beginning of the modern drug industrial complex. Brick JE. **W V Med J** 1999 Mar-Apr;95(2):64–5

[An excursion in the past. Quinine and other quina alkaloids. 2. The discovery of the basic structure of quinoline and quina alkaloids] Eiden F. **Pharm Unserer Zeit** 1999 Jan; 28(1):11–20 **(Ger)**

[A trip to the past: quinine and quinine alkaloids. 1. The isolation of quinine alkaloids and clarification of its chemistry] Eiden F. **Pharm Unserer Zeit** 1998 Nov; 27(6):257–71 (53 ref.) **(Ger)**

[An excursion into the past: quinine and other quina alkaloids. 3. The path to total synthesis of quinoline-quina alkaloids in the development of more effective malaria drugs before research on the indole-quina alkaloids] Eiden F. **Pharm Unserer Zeit** 1999 Mar;28(2):74–86 **(Ger)**

IMMUNOLOGY

Monoclonal antibodies to quinine. Kitjaroentham A, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):337–40

METABOLISM

Amlodipine promotes kinin-mediated nitric oxide production in coronary microvessels of failing human hearts. Zhang X, et al. **Am J Cardiol** 1999 Aug 19;84(4A):27L–33L

PHARMACOKINETICS

Quinine disposition in globally malnourished children with cerebral malaria. Pussard E, et al. **Clin Pharmacol Ther** 1999 May;65(5):500–10

Grapefruit juice has no effect on quinine pharmacokinetics. Ho PC, et al. **Eur J Clin Pharmacol** 1999 Jul;55(5):393–8

Regional differences in quinine absorption from the undisturbed human colon assessed using a timed release delivery system. Hebden JM, et al. **Pharm Res** 1999 Jul; 16(7):1087–92

Pharmacokinetics of quinine and 3-hydroxyquinine in severe falciparum malaria with acute renal failure. Newton P, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):69–72

PHARMACOLOGY

Role of taste in the microstructure of quinine ingestion by rats. Spector AC, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1687–703

Fos-like immunoreactivity in the brain stem following oral quinine stimulation in decerebrate rats. Travers JB, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R384–94

Noise analysis of the quinine-induced current in frog taste receptor cells. Tsunenari T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:148–9

Synergistic in vitro antimalarial activity of omeprazole and quinine. Skinner-Adams T, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1304–6

Inhibitory effects of quinidine and quinine on liver microsome oxidation enzymes in man and rat. Tu ZG, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):541–4

Quinine-induced inhibition of gastrointestinal transit in mice: possible involvement of endogenous opioids. Santos FA, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):193–7

The effect of quinine on outer hair cell shape, compliance and force. Jarboe JK, et al. **Hear Res** 1999 Jun; 132(1-2):43–50

The effects of quinine on cochlear nerve fibre activity in the guinea pig. Mulheran M. **Hear Res** 1999 Aug; 134(1-2):145–52

Permeability transition pore closure promoted by quinine. Catisti R, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):153–7

Glossopharyngeal nerve transection eliminates quinine-stimulated fos-like immunoreactivity in the nucleus of the solitary tract: implications for a functional topography of gustatory nerve input in rats. King CT, et al. **J Neurosci** 1999 Apr 15;19(8):3107–21

Investigation of the presynaptic effects of quinine and quinidine on the release and uptake of monoamines in rat brain tissue. Clement EM, et al. **Neuropharmacology** 1998 Jul;37(7):945–51

The effects of quinine and 4-aminopyridine on conditioned place preference and changes in motor activity induced by morphine in rats. Meririnne E, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):713–30

Training and characterization of a quinine taste discrimination in rhesus monkeys. Aspen J, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):251–7

Sensitivity in vitro of Plasmodium falciparum to three currently used antimalarial drugs on the western border of Thailand. Fèvre EM, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr;93(2):180–4

THERAPEUTIC USE

Quinine and mefloquine in the treatment of multidrug-resistant Plasmodium falciparum malaria in pregnancy. McGready R, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):643–53

Compliance with artesunate and quinine + tetracycline treatment of uncomplicated falciparum malaria in Thailand. Fungladda W, et al. **Bull World Health Organ** 1998;76 Suppl 1:59–66

Artemether for severe malaria: a meta-analysis of randomized clinical trials. Pittler MH, et al. **Clin Infect Dis** 1999 Mar; 28(3):597–601

Comparison of rectal artemisinin with intravenous quinine in the treatment of severe malaria in Ethiopia. Birku Y, et al. **East Afr Med J** 1999 Mar;76(3):154–9

Quinine hydrochloride treatment delays xenoma formation and dissolution in rainbow trout challenged with Loma salmonae. Speare DJ, et al. **J Comp Pathol** 1998 Nov; 119(4):459–65

Quinine for nocturnal leg cramps: a meta-analysis including unpublished data. Man-Son-Hing M, et al. **J Gen Intern Med** 1998 Sep;13(9):600–6

Quinine sensitivity of isolates of Plasmodium falciparum from the coast of Kenya. Haruki K, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):195–6

Effect of iron chelation therapy on mortality in Zambian children with cerebral malaria. Thuma PE, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):214–8

[Plasmodium falciparum malaria: type R1 resistance to quinine in west Africa (letter)] Longuet C, et al. **Presse Med** 1998 Mar 21;27(11):522 **(Fre)**

[Plasmodium falciparum malaria. Quadrennial analysis, during 12 years, of the efficacy of quinine treatment] Pineli LL, et al. **Rev Soc Bras Med Trop** 1999 May-Jun; 32(3):241–5 (Eng. Abstr.) **(Por)**

[Quinine/quinidine treatment of cramps of the calf is not supported by the Pharmaceutical Product Agency] Alván G. **Lakartidningen** 1999 May 19;96(20):2508–9 **(Swe)**

URINE

Identification of quinine metabolites in urine after oral dosing in humans. Bannon P, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 18;715(2):387–93

QUINOLINATE see **QUINOLINIC ACID**

QUINOLINES

ADMINISTRATION & DOSAGE

Oral montelukast, inhaled beclomethasone, and placebo for chronic asthma. A randomized, controlled trial. Montelukast/Beclomethasone Study Group [see comments] Malmstrom K, et al. **Ann Intern Med** 1999 Mar 16; 130(6):487–95. Comment in: Ann Intern Med 1999 Mar 16;130(6):531–2.

Effect of vesnarinone in combination with anti-cancer drugs on lung cancer cell lines. Fujita M, et al. **Anticancer Drugs** 1999 Jan;10(1):119–27

A dose-dependent increase in mortality with vesnarinone among patients with severe heart failure. Vesnarinone Trial Investigators [see comments] Cohn JN, et al. **N Engl J Med** 1998 Dec 17;339(25):1810–6. Comment in: N Engl J Med 1998 Dec 17;339(25):1848–50. Comment in: N Engl J Med 1999 May 13;340(19):1511; discussion 1512. Comment in: N Engl J Med 1999 May 13;340(19):1511–2.

Inotropic therapy for heart failure [editorial; comment] [see comments] Stevenson LW. **N Engl J Med** 1998 Dec 17; 339(25):1848–50. Comment on: N Engl J Med 1998 Dec 17;339(25):1810–6. Comment in: N Engl J Med 1999 May 13;340(19):1511; discussion 1512.

[Targeted immunotherapy for malignant tumors] Turuo T. **Rinsho Ketsueki** 1999 Jun;40(6):476–9 (7 ref.) **(Jpn)**

ADVERSE EFFECTS

Leukotriene modifiers: new drugs, old and new reactions [editorial; comment] Rosenwasser LJ. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):374–5. Comment on: J Allergy Clin Immunol 1999 Mar;103(3 Pt 1):534–5.

A dose-dependent increase in mortality with vesnarinone among patients with severe heart failure. Vesnarinone Trial Investigators [see comments] Cohn JN, et al. **N Engl J Med** 1998 Dec 17;339(25):1810–6. Comment in: N Engl J Med 1998 Dec 17;339(25):1848–50. Comment in: N Engl J Med 1999 May 13;340(19):1511; discussion 1512. Comment in: N Engl J Med 1999 May 13;340(19):1511–2.

ANALYSIS

Characterization of pyrroloquinoline quinone amino acid derivatives by electrospray ionization mass spectrometry and detection in human milk. Mitchell AE, et al. **Anal Biochem** 1999 May 1;269(2):317–25

LC/MS/MS analysis of vesnarinone and its principal metabolites in plasma and urine. Tata PN, et al. **J Pharm Biomed Anal** 1999 Jan;18(6):1037–45

A new modification of the 32P-post-labeling method to recover IQ-DNA adducts as mononucleotides. Ochiai M, et al. **Mutagenesis** 1999 Mar;14(2):239–42

BLOOD

Simultaneous determination of NK-104 and its lactone in biological samples by column-switching high-performance liquid chromatography with ultraviolet detection. Kojima J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 5; 724(1):173–80

Determination of montelukast sodium in human plasma by column-switching high-performance liquid chromatography with fluorescence detection. Ochiai H, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25; 713(2):409–14

QUINOLINES

CHEMICAL SYNTHESIS

Synthesis and biological activity of 5-hydroxy-4-quinolones and 5-methoxy-4-quinolones as truncated acridones. Chun MW, et al. **Arch Pharm Res** 1998 Aug;21(4):445-51

Development of 2,2-dimethylchromanol cysteinyl LT1 receptor antagonists. Chambers RJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3577-82

Quinolines as potent 5-lipoxygenase inhibitors: synthesis and biological profile of L-746,530. Dubé D, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1255-60

Effect of side chain location in (2-aminoethyl)-aminomethyl-2-phenylquinolines as antitumor agents. Mikata Y, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1243-8

Diastereoselective synthesis of octahydro-14H-benzo[g]quinolino-[2,3-a]quinolidines. Improved cytotoxic activity against human brain tumor cell lines as a result of the increased rigidity of the molecular backbone. Monsees A, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2881-4

Synthesis of bisquinolines and their in vitro ability to produce methemoglobin in canine hemolysate. Srivastava S, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):653-8

Synthesis and SAR of a novel, potent and structurally simple LTD4 antagonist of the quinoline class. von Sprecher A, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):965-70

Antitumor agents 187: synthesis and cytotoxicity of substituted 8,8-dimethyl-2H,8H-pyrano[6,5-h]quinoline-2-one and related compounds. Yang ZY, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):713-6

5-Alkyl 1,2-dihydrochromeno[3,4-f]quinolines: a novel class of nonsteroidal progesterone receptor modulators. Zhi L, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3365-70

Rational drug design and synthesis of a highly selective nonpeptide delta-opioid agonist, (4aS*,12aR*)-4a-(3-hydroxyphenyl)-2-methyl-1,2,3,4,4a,5,12,12a-octahydropyrido[3,4-b]acridine (TAN-67). Nagase H, et al. **Chem Pharm Bull (Tokyo)** 1998 Nov;46(11):1695-702

Studies on 5-lipoxygenase inhibitors. II. Discovery, optical resolution and enantioselective synthesis of FR110302, a highly potent non-redox type 5-lipoxygenase inhibitor. Yatabe T, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct; 46(10):1556-65

Pyrrolo[3,2-c]quinoline derivatives: a new class of kynurenine-3-hydroxylase inhibitors. Heidempergher F, et al. **Farmaco** 1999 Mar 31;54(3):152-60

3-Acetyl-5-acylpyridin-2(1H)-ones and 3-acetyl-7,8-dihydro-2,5(1H,6H)-quinolinediones: synthesis, cardiotonic activity and computational studies. Lo Presti E, et al. **Farmaco** 1999 Jul 30;54(7):465-74

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 3. Discovering bioisosteres of the imidazo[1,2-a] pyridine moiety. Abe Y, et al. **J Med Chem** 1998 Oct 8;41(21):4062-79

Synthesis, in vitro pharmacology, and molecular modeling of very potent tacrine-huperzine A hybrids as acetylcholinesterase inhibitors of potential interest for the treatment of Alzheimer's disease. Camps P, et al. **J Med Chem** 1999 Aug 26;42(17):3227-42

Synthesis, structure-activity relationships, and RARgamma-ligand interactions of nitrogen heteroarotinoids. Dhar A, et al. **J Med Chem** 1999 Sep 9;42(18):3602-14

Hydroxylated decahydroquinolines as ligands for the vesicular acetylcholine transporter: synthesis and biological evaluation. Efange SM, et al. **J Med Chem** 1999 Jul 29; 42(15):2862-9

Discovery of a novel class of selective non-peptide antagonists for the human neurokinin-3 receptor. 2. Identification of (S)-N-(1-phenylpropyl)-3-hydroxy-2-phenylquinoline-4-carboxamide (SB 223412). Giardina GA, et al. **J Med Chem** 1999 Mar 25;42(6):1053-65

Synthesis and in vitro multidrug resistance modulating activity of a series of dihydrobenzopyrans and tetrahydroquinolines. Hiessböck R, et al. **J Med Chem** 1999 Jun 3;42(11):1921-6

Novel euglycemic and hypolipidemic agents. 4. Pyridyl- and quinolinyl-containing thiazolidinediones. Lohray BB, et al. **J Med Chem** 1999 Jul 15;42(14):2569-81

New 4-aminoquinoline Mannich base antimalarials. 1. Effect of an alkyl substituent in the 5'-position of the 4'-hydroxyanilino side chain. Raynes KJ, et al. **J Med Chem** 1999 Jul 29;42(15):2747-51

N-(Iodopropenyl)-octahydrobenzo[f]- and -[g]quinolines: synthesis and adrenergic and dopaminergic activity studies. Tagmatarchis N, et al. **J Med Chem** 1998 Oct 8; 41(21):4165-70

5-Benzylidene 1,2-dihydrochromeno[3,4-f]quinolines, a novel class of nonsteroidal human progesterone receptor agonists. Tegley CM, et al. **J Med Chem** 1998 Oct 22; 41(22):4354-9

Bisquinolines. 2. Antimalarial N,N-bis(7-chloroquinolin-4-yl)heteroalkanediamines. Vennerstrom JL, et al. **J Med Chem** 1998 Oct 22; 41(22):4360-4

Synthesis, structural studies and pharmacological activity of novel bicyclic compounds derived from 3,4-dihydropyridones: 4-aryl-7,7-dimethyl-2,5-dioxo-1,2,3,4,5,6,7,8-octahydroquinolines. Novoa de Armas H, et al. **J Pharm Belg** 1999 Mar-Apr;54(2):48-50

Synthesis and antimicrobial activities of some new pyrrolylthieno[2,3-b]-quinoline derivatives. Geies AA, et al. **Pharmazie** 1998 Oct;53(10):686-90

Synthesis and biochemical screening of some new quinolino[3,2-c]oxazines. Ghorab MM, et al. **Pharmazie** 1999 Mar;54(3):226-7

CHEMISTRY

Quinoline-4-carboxylic acid. Dobson AJ, et al. **Acta Crystallogr C** 1998 Dec 15;54 (Pt 12):1883-5

Hydrogen bonding in quinolinium-4-carboxylate dihydrate. Dobson AJ, et al. **Acta Crystallogr C** 1999 Jun 15;55 (Pt 6):935-7

Hydrogen bonding in quinolinium-4-carboxylate trihydrate. Dobson AJ, et al. **Acta Crystallogr C** 1999 Jul 15;55 (Pt 7):1192-5

Synthesis of the quinoline-linked triazolopyrimidine analogues and their interactions with the recombinant tobacco acetolactate synthase. Namgoong SK, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):797-801

Nonenzymatic reduction of nitro derivative of a heterocyclic amine IQ by NADH and Cu(II) leads to oxidative DNA damage. Murata M, et al. **Biochemistry** 1999 Jun 15; 38(24):7624-9

Quantitative structure-activity relationship studies on some nonbenzodiazepine series of compounds acting at the benzodiazepine receptor. Gupta SP, et al. **Bioorg Med Chem** 1998 Nov;6(11):2213-8

Identification of a series of 1,2,3,4-tetrahydroisoquinolinyl-benzamides with potential anticonvulsant activity. Chan WN, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2903-6

Substituted indoles as potent and orally active 5-lipoxygenase activating protein (FLAP) inhibitors. Frenette R, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2391-6

A series of non-quinoline cysLT1 receptor antagonists: SAR study on pyridyl analogs of Singulair. Guay D, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):453-8

Nonsteroidal progesterone receptor antagonists based on a conformationally-restricted subseries of 6-aryl-1,2-dihydro-2,2,4-trimethylquinolines. Hamann LG, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2731-6

X-ray structural characterization of SR 142948, a novel potent synthetic neurotensin receptor antagonist. Quéré L, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):653-8

Synthesis and SAR of a novel, potent and structurally simple LTD4 antagonist of the quinoline class. von Sprecher A, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):965-70

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 4. Discovery of novel frameworks mimicking the active conformation. Abe Y, et al. **J Med Chem** 1998 Nov 5;41(23):4587-98

Synthesis and dopaminergic properties of benzo-fused analogues of quinpirole and quinelorane. Doll MK, et al. **J Med Chem** 1999 Mar 11;42(5):935-40

Nonpeptide antagonists for kinin receptors. Altamura M, et al. **Regul Pept** 1999 Mar 17;80(1-2):13-26 (94 ref.)

ISOLATION & PURIFICATION

Korundamine A, a novel HIV-inhibitory and antimalarial "hybrid" naphthylisoquinoline alkaloid heterodimer from Ancistrocladus korupensis. Hallock YF, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1729-34

Cyclodextrin solubilization of ETH-615, a zwitterionic drug. Loftsson T, et al. **Drug Dev Ind Pharm** 1998 Apr; 24(4):365-70

METABOLISM

The formation of 1-hydroxymethylnaphthalene and 6-hydroxymethylquinoline by both oxidative and reductive routes in Cunninghamella elegans. Mountfield RJ, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):379-83

Direct interaction between a quinoline derivative, MS-209, and multidrug resistance protein (MRP) in human gastric cancer cells. Nakamura T, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):618-24

WIN 17317-3, a new high-affinity probe for voltage-gated sodium channels. Wanner SG, et al. **Biochemistry** 1999 Aug 24;38(34):11137-46

Identification of metabolites of NK-104, an HMG-CoA reductase inhibitor, in rat, rabbit and dog bile. Kojima J, et al. **Biol Pharm Bull** 1999 Feb;22(2):142-50

Synthesis of glucuronides of multidrug resistance reversing drug MS-209. Suzuki T, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):659-62

Sphingomonas sp. strain Lep1: an aerobic degrader of 4-methylquinoline. Pfaller SL, et al. **Can J Microbiol** 1999 Jul;45(7):623-6

Detoxification of carcinogenic aromatic and heterocyclic amines by enzymatic reduction of the N-hydroxy derivative. King RS, et al. **Cancer Lett** 1999 Sep 1; 143(2):167-71

Free radical generation from heterocyclic amines by cytochrome b5 reductase in the presence of NADH. Maeda H, et al. **Cancer Lett** 1999 Sep 1;143(2):117-21

Interspecies differences in metabolism of heterocyclic aromatic amines by rat and human P450 1A2. Turesky RJ, et al. **Cancer Lett** 1999 Sep 1;143(2):109-12

Effect of its demethylated metabolite on the pharmacokinetics of unchanged TAK-603, a new antirheumatic agent, in rats. Tagawa Y, et al. **Drug Metab Dispos** 1999 Apr;27(4):495-501

Bioconversion of pyrimidine by resting cells of quinoline-degrading bacteria. Fetzner S. **FEMS Microbiol Lett** 1999 Jul 15;176(2):291-9

A common mechanism for blockade of heme polymerization by antimalarial quinolines. Sullivan DJ Jr, et al. **J Biol Chem** 1998 Nov 20;273(47):31103-7

Effects of dietary conjugated linoleic acid on DNA adduct formation of PhIP and IQ after bolus administration to female F344 rats. Josyula S, et al. **Nutr Cancer** 1998; 32(3):139-45

9-[3-(2-Nitro-1-imidazolyl)propylamino]-cyclopenteno[b]quinoline hydrochloride (NLCPQ-1). A novel DNA-affinic bioreductive agent as chemosensitizer: mechanistic studies. II. Papadopoulou MV, et al. **Oncol Res** 1998;10(3):163-73

PHARMACOKINETICS

Possible factor for nonlinear pharmacokinetics of TAK-603, a new antirheumatic agent, in rats. Tagawa Y, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):11-8

Activation of heterocyclic amines by combinations of prostaglandin H synthase-1 and -2 with N-acetyltransferase 1 and 2. Liu Y, et al. **Cancer Lett** 1998 Nov 13;133(1):115-23

Effect of its demethylated metabolite on the pharmacokinetics of unchanged TAK-603, a new antirheumatic agent, in rats. Tagawa Y, et al. **Drug Metab Dispos** 1999 Apr;27(4):495-501

Modeling the covariance structure in pharmacokinetic crossover trials. Lindsey JK, et al. **J Biopharm Stat** 1999 Aug;9(3):439-50

Determination of 2-n-propylquinoline in mouse plasma and liver by high-performance liquid chromatography. Iglarz M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4; 714(2):335-40

Montelukast dose selection in 6- to 14-year-olds: comparison of single-dose pharmacokinetics in children and adults. Knorr B, et al. **J Clin Pharmacol** 1999 Aug;39(8):786-93

[3H]CGP 61594, the first photoaffinity ligand for the glycine site of NMDA receptors. Benke D, et al. **Neuropharmacology** 1999 Feb;38(2):233-42

Determination of the enzymes responsible for activation of the heterocyclic amine 2-amino-3-methylimidazo[4,5-f]quinoline in the human breast [published erratum appears in Pharmacogenetics 1999 Apr;9(2):267] Williams JA, et al. **Pharmacogenetics** 1998 Dec;8(6):519-28

PHARMACOLOGY

Neurotensin receptor-mediated inhibition of pancreatic cancer cell growth by the neurotensin antagonist SR 48692. Herzig MC, et al. **Anticancer Res** 1999 Jan-Feb; 19(1A):213-9

8-Aminoquinolines active against blood stage Plasmodium falciparum in vitro inhibit hematin polymerization. Vennerstrom JL, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):598-602

Anti-ulcer activity of newly synthesized acylquinoline derivatives. Cheon HG, et al. **Arch Pharm Res** 1999 Apr; 22(2):137-42

Synthesis and biological activity of 5-hydroxy-4-quinolones and 5-methoxy-4-quinolones as truncated acridones. Chun MW, et al. **Arch Pharm Res** 1998 Aug;21(4):445-51

Differential effects of nongenotoxic and genotoxic carcinogens on the preneoplastic lesions in the rat liver. Kim DJ, et al. **Arch Pharm Res** 1998 Aug;21(4):363-9

Pharmacological studies on the new quinoline derivative 1-(2-methylphenyl)-4-[(3-hydroxypropyl) amino]-6-trifluoromethoxy-2,3-dihydropyrrolo[3,2-c] quinoline with potent anti-ulcer effect. Cheon HG, et al. **Arzneimittelforschung** 1998 Dec;48(12):1168-71

NK-104, a potent 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor, decreases apolipoprotein B-100 secretion from Hep G2 cells. Ooyen C, et al. **Atherosclerosis** 1999 Jul;145(1):87-95

Inhibition of the peroxidative degradation of haem as the basis of action of chloroquine and other quinoline antimalarials. Loria P, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):363-70

Species-related inhibition of human and rat dihydroorotate dehydrogenase by immunosuppressive isoxazol and cinchoninic acid derivatives. Knecht W, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1259-64

Fluorescence property of oxazole yellow-linked oligonucleotide. Triple helix formation and photocleavage of double-stranded DNA in the presence of spermine. Inoue T, et al. **Bioorg Med Chem** 1999 Jun;7(6):1207-11

Quinolines as potent 5-lipoxygenase inhibitors: synthesis and biological profile of L-746,530. Dubé D, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1255-60

New nonsteroidal androgen receptor modulators based on 4-(trifluoromethyl)-2(1H)-pyrrolidino[3,2-g] quinolinone. Edwards JP, et al. **Bioorg Med Chem Lett** 1998 Apr 7; 8(7):745-50

A series of non-quinoline cysLT1 receptor antagonists: SAR study on pyridyl analogs of Singulair. Guay D, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):453-8

Nonsteroidal progesterone receptor antagonists based on a

conformationally-restricted subseries of 6-aryl-1,2-dihydro-2,2,4-trimethylquinolines. Hamann LG, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2731-6

Novel series of O-substituted 8-quinolines and 4-benzothiazoles as potent antagonists of the bradykinin B2 receptors. Heitsch H, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):327-32

2(1H)-quinolinone derivatives as novel anti-arteriostenotic agents showing anti-thrombotic and anti-hyperplastic activities. Koga Y, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1471-6

Vesnarinone and glucocorticoids cooperatively induce G1 arrest and have an anti-tumour effect on human non-small cell lung carcinoma cells grown in nude mice. Honma Y, et al. **Br J Cancer** 1999 Apr;80(1-2):96-103

Suppressive effect of distinct bradykinin B2 receptor antagonist on allergen-evoked exudation and leukocyte infiltration in sensitized rats. Bandeira-Melo C, et al. **Br J Pharmacol** 1999 May;127(2):315-20

In vitro functional evidence of different neurotensin-receptors modulating the motor response of human colonic muscle strips. Croci T, et al. **Br J Pharmacol** 1999 Aug;127(8):1922-8

The nonpeptide B2 receptor antagonist FR173657: inhibition of effects of bradykinin related to its role in nociception. Griesbacher T, et al. **Br J Pharmacol** 1998 Jul; 124(6):1328-34

Reduction of sodium deoxycholic acid-induced scratching behaviour by bradykinin B2 receptor antagonists. Hayashi I, et al. **Br J Pharmacol** 1999 Jan;126(1):197-204

Interleukin-6 production by activated human monocytic cells is enhanced by MK-571, a specific inhibitor of the multi-drug resistance protein-1. Vellenga E, et al. **Br J Pharmacol** 1999 May;127(2):441-8

Pretreatment with SR48692 has different effects on central neurotensin-induced gastric mucosal defense and inhibition of gastric acid secretion in rats. Karinch AM, et al. **Brain Res** 1998 Nov 9;810(1-2):123-9

Effect of 3,4-dihydro-6-[4-(3,4-dimethoxybenzoyl)-1-piperazinyl]-2(1H)- quinolinone (vesnarinone) on the growth of gastric cancer cell lines. Yokozaki H, et al. **Cancer Lett** 1999 Jun 1;140(1-2):121-8

Induction of cyclin-dependent kinase inhibitor p21 in vesnarinone-induced differentiation of squamous cell carcinoma cells. Yoneda K, et al. **Cancer Lett** 1998 Nov 13;133(1):35-45

Mutagenicity of 2-amino-3-methylimidazo[4,5-f]quinoline in human lymphoblastoid cells. Leong-Morgenthaler PM, et al. **Carcinogenesis** 1998 Oct;19(10):1749-54

Studies on disease-modifying antirheumatic drugs. III. Bone resorption inhibitory effects of ethyl 4-(3,4-dimethoxyphenyl)-6,7-dimethoxy-2-(1,2,4-triazol-1-ylmethyl) quinoline-3-carboxylate (TAK-603) and related compounds. Baba A, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):369-74

Action of quinolinic and indolinonic aminoxyls as radical-scavenging antioxidants. Noguchi N, et al. **Chem Phys Lipids** 1999 May;99(1):11-9

The effect of montelukast (MK-0476), a cysteinyl leukotriene receptor antagonist, on allergen-induced airway responses and sputum cell counts in asthma [see comments] Diamant Z, et al. **Clin Exp Allergy** 1999 Jan;29(1):42-51. Comment in: Clin Exp Allergy 1999 Jan;29(1):1-3.

Effects of the alkylating agent EEDQ on regulatory G proteins and recovery of agonist and antagonist alpha2-adrenoceptor binding sites in rat brain. Ribas C, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):145-54

Characterization of neurotensin receptors in intestinal smooth muscle using a nonpeptide antagonist. Unno T, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):73-80

External carotid effects of 2-(2-aminoethyl)-quinoline (D-1997) in vagosympathectomized dogs. Villalón CM, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):15-23

Effects of the orally active non-peptide bradykinin B2 receptor antagonist, FR173657, on plasma extravasation in guinea pig airways. Watanabe M, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):373-8

Neuroprotective role of S12024 against neurodegeneration in the rat dentate gyrus. Miguel-Hidalgo JJ, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):203-8

N-ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline studies on the role of 5-HT1A and 5-HT2 receptors in mediating foot-shock-induced ultrasonic vocalisation in adult rats. Sánchez C, et al. **Eur Neuropsychopharmacol** 1999 Jun; 9(4):287-94

DNA triple helix stabilisation by a naphthylquinoline dimer. Keppler M, et al. **FEBS Lett** 1999 Mar 26;447(2-3):223-6

The effect of indolinic and quinolinic nitroxide radicals on trout erythrocytes exposed to oxidative stress. Falcioni G, et al. **Free Radic Res** 1998 May;28(5):507-16

Beneficial effects of a novel inhibitor of platelet-derived growth factor receptor autophosphorylation in the rat with mesangial proliferative glomerulonephritis. Yagi M, et al. **Gen Pharmacol** 1998 Nov;31(5):765-73

Enhanced susceptibility of pentylenetetrazole kindled mice to quinolone effects. De Sarro A, et al. **Int J Antimicrob Agents** 1999 Aug;12(3):239-44

Neurotensin and a non-peptide neurotensin receptor antagonist control human colon cancer cell growth in cell culture and in cells xenografted into nude mice. Maoret JJ, et al. **Int J Cancer** 1999 Jan 29;80(3):448-54

Antitumor effect of vesnarinone on human hepatocellular carcinoma cell lines. Kubo K, et al. **Int J Oncol** 1999 Jan; 14(1):41-6

Bisquinoline antimalarials: their role in malaria chemotherapy. Raynes K. **Int J Parasitol** 1999 Mar; 29(3):367-79 (90 ref.)

Indolylquinoline derivatives are cytotoxic to Leishmania donovani promastigotes and amastigotes in vitro and are effective in treating murine visceral leishmaniasis. Chakrabarti G, et al. **J Antimicrob Chemother** 1999 Mar; 43(3):359-66

Effects of balanced vasodilator, flosequinan, on aortic impedance in failing heart. Yano M, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):466-70

Effect of montelukast on the pharmacokinetics and pharmacodynamics of warfarin in healthy volunteers. Van Hecken A, et al. **J Clin Pharmacol** 1999 May;39(5):495-500

The effect of vesnarinone on TNF alpha production in human peripheral blood mononuclear cells and microglia: a preclinical study for the treatment of multiple sclerosis. Jiang H, et al. **J Neuroimmunol** 1999 Jun 1;97(1-2):134-45

Selectivity of the multidrug resistance modulator, LY335979, for P-glycoprotein and effect on cytochrome P-450 activities. Dantzig AH, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):854-62

(-)-Enantiomer EMD 57439 antagonizes the Ca2+ sensitizing effect of (+)-enantiomer EMD 57033 on diastolic function but not on systolic function in rabbit ventricular cardiomyocytes. Sugawara H, et al. **Jpn J Pharmacol** 1999 May;80(1):55-65

Central nervous system-mediated hyperglycemic effects of NIK-247, a cholinesterase inhibitor, and MKC-231, a choline uptake enhancer, in rats. Uemura K, et al. **Jpn J Pharmacol** 1999 Jan;79(1):113-5

Mouse paw edema induced by a novel bradykinin agonist and its inhibition by B2-antagonists. Ueno A, et al. **Jpn J Pharmacol** 1998 Sep;78(1):109-11

Growth inhibition, cytokinesis failure and apoptosis of multidrug-resistant leukemia cells after treatment with P-glycoprotein inhibitory agents. Lehne G, et al. **Leukemia** 1999 May;13(5):768-78

Effects of vesnarinone on cytokine production and activation of murine microglia. Suzumura A, et al. **Life Sci** 1999; 64(14):1197-203

Eukaliuric natriuresis and diuresis in response to disprocynium24: studies on the tubular site of action. Vallon V, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug;358(2):238-44

Comparisons of the NACP self-oligomerizations induced by Abeta25-35 in the presence of dicyclohexylcarbodiimide and N-(ethoxycarbonyl)-2-ethoxy-1,2-dihydroquinoline. Lee JH, et al. **Neurochem Res** 1998 Nov;23(11):1427-34

Inactivation of 5-HT1A and [3H]5-HT binding sites by N-ethoxycarbonyl-2-ethoxy-1, 2-dihydroquinoline (EEDQ) in rat brain. Subhash MN, et al. **Neurochem Res** 1998 Oct;23(10):1321-6

Apoptosis-inducing activity and growth suppression by vesnarinone on human glioma transplanted in nude mice. Tanaka S, et al. **Neurol Res** 1999 Jun;21(4):409-14

Substituted quinolines as inhibitors of L-glutamate transport into synaptic vesicles. Bartlett RD, et al. **Neuropharmacology** 1998 Jul;37(7):839-46

[3H]CGP 61594, the first photoaffinity ligand for the glycine site of NMDA receptors. Benke D, et al. **Neuropharmacology** 1999 Feb;38(2):233-42

The effects of an irreversible dopamine receptor antagonist, N-ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline (EEDQ), on the regulation of muscle tone in the rat: the role of the substantia nigra. Hemsley KM, et al. **Neurosci Lett** 1998 Jul 24;251(2):77-80

The alkylating agent EEDQ facilitates protease-mediated degradation of the human brain alpha2A-adrenoceptor as revealed by a sequence-specific antibody. Ozaita A, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):105-8

Favorable combination effects of the leukotriene synthesis inhibitor BAY X 1005 and dexamethasone on edema formation in the arachidonic acid-induced mouse ear inflammation test. Burchardt ER, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jan; 60(1):5-11

WY-50295 tromethamine: a 5-lipoxygenase inhibitor without activity in human whole blood. Carlson R, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jan; 60(1):31-41

Drug-metabolizing enzyme induction by 2,2'-dipyridyl, 1,7-phenanthroline, 7,8-benzoquinoline and oltipraz in mouse. Carr BA, et al. **Xenobiotica** 1998 Oct;28(10):949-56

THERAPEUTIC USE

Failure of montelukast to prevent anaphylaxis to diclofenac. Enrique E, et al. **Allergy** 1999 May;54(5):529-30

Effect of vesnarinone on cardiac function in patients with severe congestive heart failure [see comments] Scherrer-Crosbie M, et al. **Am Heart J** 1998 Nov; 136(5):769-77. Comment in: Am Heart J 1998 Nov;136(5):753-8.

Effects of MS-31-038, a novel Na(+)-H+ exchange inhibitor, on the myocardial infarct size in rats after postischemic administration. Banno H, et al. **Arzneimittelforschung** 1999 Apr;49(4):304-10

Randomised, placebo controlled trial of effect of a leukotriene receptor antagonist, montelukast, on tapering inhaled corticosteroids in asthmatic patients. Löfdahl CG, et al. **BMJ** 1999 Jul 10;319(7202):87-90

Circumvention of multidrug resistance by a quinoline derivative, MS-209, in multidrug-resistant human small-cell lung cancer cells and its synergistic interaction with cyclosporin A or verapamil. Shrivastava P, et al. **Cancer Chemother Pharmacol** 1998;42(6):483-90

Antileukotrienes and asthma: alternative or adjunct to inhaled steroids? Kavuru MS, et al. **Cleve Clin J Med** 1998 Nov-Dec;65(10):519-26 (25 ref.)

Montelukast and zafirlukast in asthma. **Drug Ther Bull** 1998 Sep;36(9):65-8 (13 ref.)

Montelukast. Markham A, et al. **Drugs** 1998 Aug;56(2):251-6; discussion 257 (26 ref.)

Montelukast reduces airway eosinophilic inflammation in asthma: a randomized, controlled trial. Pizzichini E, et al. **Eur Respir J** 1999 Jul;14(1):12-8

What are minimal important changes for asthma measures in a clinical trial? Santanello NC, et al. **Eur Respir J** 1999 Jul;14(1):23-7

Treatment of eosinophilic gastroenteritis with montelukast [letter] Neustrom MR, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):506

Montelukast for mild and exercise-induced asthma. Adelman A. **J Fam Pract** 1998 Nov;47(5):335

Leukotriene receptor antagonists versus inhaled steroids in asthma. Richardson CR. **J Fam Pract** 1999 Jul;48(7):495-6

Vesnarinone and amrinone reduce the systemic inflammatory response syndrome. Takeuchi K, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):375-82

MK-591 acutely restores glomerular size selectivity and reduces proteinuria in human glomerulonephritis. Guasch A, et al. **Kidney Int** 1999 Jul;56(1):261-7

Leukotriene-receptor antagonists. Lipworth BJ. **Lancet** 1999 Jan 2;353(9146):57-62 (49 ref.)

Chronic heart failure and the quality of life [letter; comment] Alhaddad IA. **N Engl J Med** 1999 May 13;340(19):1511-2 . Comment on: N Engl J Med 1998 Dec 17;339(25):1810-6.

Exercise-induced asthma [letter; comment] Honig PK, et al. **N Engl J Med** 1998 Dec 10;339(24):1784; discussion 1785-6 . Comment on: N Engl J Med 1998 Jul 16;339(3):141-6. Comment on: N Engl J Med 1998 Jul 16;339(3):147-52. Comment on: N Engl J Med 1998 Jul 16;339(3):192-3.

Chronic heart failure and the quality of life [letter; comment] Pritzker MR. **N Engl J Med** 1999 May 13;340(19):1511; discussion 1512. Comment on: N Engl J Med 1998 Dec 17;339(25):1810-6. Comment on: N Engl J Med 1998 Dec 17;339(25):1848-50.

Exercise-induced asthma [letter; comment] Stempel DA. **N Engl J Med** 1998 Dec 10;339(24):1784; discussion 1785 . Comment on: N Engl J Med 1998 Jul 16;339(3):141-6. Comment on: N Engl J Med 1998 Jul 16;339(3):147-52.

Role of leukotrienes and leukotriene receptor antagonists in asthma. Jones TR, et al. **Pulm Pharmacol Ther** 1999; 12(2):107-10 (30 ref.)

[Leukotriene receptor antagonist effective in chronic asthma] Jébrak G. **Presse Med** 1998 Nov 14;27(35):1795 **(Fre)**

["Bronchial asthma--therapeutic advances due to leukotriene antagonists." Symposium: "Leukotriene antagonists: a therapeutic advance in the control of asthma." 30-31 October 1998, Copenhagen] **Pneumologie** 1998 Dec;52(12 Suppl):1-4 **(Ger)**

[The value of leukotriene receptor antagonists in the therapy of bronchial asthma one year following the introduction of Montelukast. Symposium at Munich, 6 March 1999] **Pneumologie** 1999 Apr;53(4 Suppl):1-4 **(Ger)**

TOXICITY

Chemoprevention of heterocyclic amine-induced carcinogenesis by phenolic compounds in rats. Hirose M, et al. **Cancer Lett** 1999 Sep 1;143(2):173-8

Dose-dependent induction of aberrant crypt foci in the colons but no neoplastic lesions in the livers of heterozygous p53-deficient mice treated with low dose 2-amino-3-methylimidazo [4,5-f]quinoline. Morimura K, et al. **Cancer Lett** 1999 Apr 26;138(1-2):81-5

Heterozygous p53-deficient mice are not susceptible to 2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline (MeIQx) carcinogenicity. Park CB, et al. **Cancer Lett** 1999 May 24; 139(2):177-82

Carcinogenicity and mutagenicity of heterocyclic amines in transgenic mouse models. Thorgeirsson SS, et al. **Cancer Lett** 1999 Sep 1;143(2):245-7

Heterocyclic amine mixture carcinogenesis and its enhancement by caffeine in F344 rats. Tsuda H, et al. **Cancer Lett** 1999 Sep 1;143(2):229-34

Chemoprevention studies of heterocyclic amine-induced colon carcinogenesis. Xu M, et al. **Cancer Lett** 1999 Sep 1;143(2):179-83

DNA adducts of heterocyclic amine food mutagens: implications for mutagenesis and carcinogenesis. Schut HA, et al. **Carcinogenesis** 1999 Mar;20(3):353-68 (300 ref.)

Suberized plant cell walls suppress formation of heterocyclic amine-induced aberrant crypts in a rat model. Ferguson LR, et al. **Chem Biol Interact** 1998 Jul 24;114(3):191-209

Antimutagens in food plants eaten by Polynesians: micronutrients, phytochemicals and protection against bacterial mutagenicity of the heterocyclic amine 2-amino-3-methylimidazo[4,5-f]quinoline. Botting KJ, et al. **Food Chem Toxicol** 1999 Feb-Mar;37(2-3):95-103

Carcinogenicity of dermally administered 1,2-dihydro-2,2,4-trimethylquinoline monomer in F344

QUINOLINES

rats and B6C3F1 mice. Irwin RD, et al. **J Appl Toxicol** 1999 Mar-Apr;19(2):125-32

Inhibition of DNA adduct formation of 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine and 2-amino-3-methylimidazo[4,5-f]quinoline by dietary indole-3-carbinol in female rats. He YH, et al. **J Biochem Mol Toxicol** 1999;13(5):239-47

Six-month repeated oral toxicity study of NK-104 in rats [published erratum appears in J Toxicol Sci 1999 Feb;24(1):77] Akiba T, et al. **J Toxicol Sci** 1998 Nov;23 Suppl 5:713-20

28-day repeated oral toxicity study of a hypolipidemic agent, NK-104 in rats [published erratum appears in J Toxicol Sci 1999 Feb;24(1):77] Akiba T, et al. **J Toxicol Sci** 1998 Nov;23 Suppl 5:701-11

DNA adduct level induced by 2-amino-3,4-dimethylimidazo[4,5-f]-quinoline in Big Blue mice does not correlate with mutagenicity. Ochiai M, et al. **Mutagenesis** 1998 Jul;13(4):381-4

Effects of oligofluorine substitution on the mutagenicity of quinoline: a study with twelve fluoroquinoline derivatives. Kato T, et al. **Mutat Res** 1999 Feb 19;439(2):149-57

Mutant yields and mutational spectra of the heterocyclic amines MeIQ and PhIP at the S1 locus of human-hamster AL cells with activation by chick embryo liver (CELC) co-cultures. Waldren CA, et al. **Mutat Res** 1999 Mar 10; 425(1):29-46

Effects of quinolinone derivative, vesnarinone, in combination with irradiation on human lung cancer cell lines. Fujita M, et al. **Oncol Rep** 1999 Mar-Apr;6(2):353-7

Down-regulation of protein kinase C: a potential mechanism for 2-amino-3-methylimidazo[4,5-f]quinoline-mediated immunosuppression. Lee YW, et al. **Toxicol Lett** 1998 Dec 28;102-103:79-83

QUINOLINIC ACID

ADMINISTRATION & DOSAGE

Convection-enhanced selective excitotoxic ablation of the neurons of the globus pallidus internus for treatment of parkinsonism in nonhuman primates. Lonser RR, et al. **J Neurosurg** 1999 Aug;91(2):294-302

Intracerebroventricular administration of quinolinic acid induces a selective decrease of inositol(1,4,5)-trisphosphate receptor in rat brain. Haug LS, et al. **Neurochem Int** 1998 Aug;33(2):109-19

ADVERSE EFFECTS

Time-course analysis and comparison of acute and chronic intrastriatal quinolinic acid administration on forelimb reaching deficits in the rat. Bazzett T, et al. **Exp Neurol** 1999 Jul;158(1):126-34

ANALOGS & DERIVATIVES see QUINOLINIC ACIDS

ANALYSIS

HPLC analysis of quinolinic acid, a NAD biosynthesis intermediate, after fluorescence derivatization in an aqueous matrix. Xia C, et al. **Microbios** 1998;94(379):167-81

ANTAGONISTS & INHIBITORS

Role of zinc in blockade of excitotoxic action of quinolinic acid by picolinic acid. Jhamandas KH, et al. **Amino Acids** 1998;14(1-3):257-61

CEREBROSPINAL FLUID

Quinolinic acid in the cerebrospinal fluid of children after traumatic brain injury [see comments] Bell MJ, et al. **Crit Care Med** 1999 Mar;27(3):493-7. Comment in: Crit Care Med 1999 Mar;27(3):451-2.

Depletion of systemic macrophages by liposome-encapsulated clodronate attenuates increases in brain quinolinic acid during CNS-localized and systemic immune activation. Koennecke LA, et al. **J Neurochem** 1999 Aug;73(2):770-9

Effects of electromagnetic fields on the levels of biogenic amine metabolites, quinolinic acid, and beta-endorphin in the cerebrospinal fluid of dairy cows. Burchard JF, et al. **Neurochem Res** 1998 Dec;23(12):1527-31

CHEMISTRY

Quinolinic acid, alpha-picolinic acid, fusaric acid, and 2,6-pyridinedicarboxylic acid enhance the Fenton reaction in phosphate buffer. Iwahashi H, et al. **Chem Biol Interact** 1999 Apr 15;118(3):201-15

Molecular modelling of Me(2+)-(8-hydroxy-quinolinate)2 complexes using ZINDO and ESSF methods. Nicolau DV, et al. **J Mol Graph Model** 1998 Apr;16(2):83-96, 99-100

METABOLISM

Differential effects of kynurenine and tryptophan treatment on quinolinate immunoreactivity in rat lymphoid and non-lymphoid organs. Moffett JR, et al. **Cell Tissue Res** 1998 Sep;293(3):525-34

Multiple mechanisms of excitotoxicity [editorial; comment] Hanley DF. **Crit Care Med** 1999 Mar;27(3):451-2. Comment on: Crit Care Med 1999 Mar;27(3):493-7.

Role of quinolinate phosphoribosyl transferase in degradation of phthalate by Burkholderia cepacia DBO1. Chang HK, et al. **J Bacteriol** 1999 May;181(10):3069-75

Effects of mitochondria and o-methoxybenzoylalanine on 3-hydroxyanthranilic acid dioxygenase activity and quinolinic acid synthesis. Chiarugi A, et al. **J Neurochem** 1999 Mar;72(3):1125-32

Quinolinic acid is extruded from the brain by a probenecid-sensitive carrier system: a quantitative analysis. Morrison PF, et al. **J Neurochem** 1999 May;72(5):2135-44

Development and validation of a differential pulse polarographic method for quinolinic acid determination in human plasma and urine after solid-phase extraction: a chemometric approach. Furlanetto S, et al. **J Pharm Biomed Anal** 1998 Sep 1;17(6-7):1015-28

Quinolinic acid formation in immune-activated mice: studies with (m-nitrobenzoyl)-alanine (mNBA) and 3,4-dimethoxy-[-N-4-(-3-nitrophenyl)thiazol-2yl]-benzenesul fonamide (Ro 61-8048), two potent and selective inhibitors of kynurenine hydroxylase. Chiarugi A, et al. **Neuropharmacology** 1999 Aug;38(8):1225-33

PHARMACOKINETICS

Quinolinic acid and sigma receptor ligand: effect on pyramidal neurons of the CA1 sector of dorsal hippocampus following peripheral administration in rats. Beskid M, et al. **Folia Neuropathol** 1998;36(2):94-100

PHARMACOLOGY

Modulation of quinolinic acid-induced depletion of striatal NADPH diaphorase and enkephalinergic neurons by inhibition of nitric oxide synthase. Kalisch BE, et al. **Brain Res** 1999 Jan 30;817(1-2):151-62

Free radical scavenger OPC-14117 attenuates quinolinic acid-induced NF-kappaB activation and apoptosis in rat striatum. Nakai M, et al. **Brain Res Mol Brain Res** 1999 Jan 22;64(1):59-68

Human FGF-1 gene delivery protects against quinolinate-induced striatal and hippocampal injury in neonatal rats. Hossain MA, et al. **Eur J Neurosci** 1998 Aug; 10(8):2490-9

Morphology and compartmental location of cells exhibiting DNA damage after quinolinic acid injections into rat striatum. Bordelon YM, et al. **J Comp Neurol** 1999 Sep 13;412(1):38-50

Acute and chronic changes in kynurenate formation following an intrastriatal quinolinate injection in rats. Ceresoli-Borroni G, et al. **J Neural Transm** 1999; 106(3-4):229-42

The anti-inflammatory effects of quinolinic acid in the rat. Heyliger SO, et al. **Life Sci** 1999;64(14):1177-87

Nomega-nitro-L-arginine, a nitric oxide synthase inhibitor, antagonizes quinolinic acid-induced neurotoxicity and oxidative stress in rat striatal slices. Santamaria D, et al. **Neurochem Res** 1999 Jul;24(7):843-8

Quinolinic acid lesion of the nigrostriatal pathway: effect on turning behaviour and protection by elevation of endogenous kynurenic acid in Rattus norvegicus. Miranda AF, et al. **Neurosci Lett** 1999 Mar 5;262(2):81-4

Ferrous iron modulates quinolinate-mediated [3H]MK-801 binding to rat brain synaptic membranes in the presence of glycine and spermidine. St'astny F, et al. **Neurosci Lett** 1999 Mar 5;262(2):105-8

Early effects of intrastriatal injections of quinolinic acid on microtubule-associated protein-2 and neuropeptides in rat basal ganglia. Bordelon YM, et al. **Neuroscience** 1999; 93(3):843-53

Transgenic mice expressing a Huntington's disease mutation are resistant to quinolinic acid-induced striatal excitotoxicity. Hansson O, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8727-32

TOXICITY

Discrete quinolinic acid lesions of the rat prelimbic medial prefrontal cortex affect cocaine- and MK-801-, but not morphine- and amphetamine-induced reward and psychomotor activation as measured with the place preference conditioning paradigm. Tzschentke TM, et al. **Behav Brain Res** 1998 Dec;97(1-2):115-27

Modulation of striatal quinolinate neurotoxicity by elevation of endogenous brain kynurenic acid. Harris CA, et al. **Br J Pharmacol** 1998 May;124(2):391-9

Differentially expressed genes in hippocampal cell cultures in response to an excitotoxic insult by quinolinic acid. Seidel B, et al. **Brain Res Mol Brain Res** 1998 Oct 1; 60(2):296-300

Nitric oxide synthase inhibition prevents acute quinolinate-induced striatal neurotoxicity. Pérez-Severiano F, et al. **Neurochem Res** 1998 Oct;23(10):1297-302

Comparison of intrastriatal injections of quinolinic acid and 3-nitropropionic acid for use in animal models of Huntington's disease. Shear DA, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1217-40

QUINOLINIUM COMPOUNDS

Single-molecule manipulation of double-stranded DNA using optical tweezers: interaction studies of DNA with RecA and YOYO-1. Bennink ML, et al. **Cytometry** 1999 Jul 1;36(3):200-8

CHEMISTRY

Dynamics of a bis-intercalator DNA complex by 1H-detected natural abundance 13C NMR spectroscopy. Spielmann HP. **Biochemistry** 1998 Dec 1;37(48):16863-76

Bis-intercalation of homodimeric thiazole orange dye derivatives in DNA. Petersen M, et al. **Bioconjug Chem** 1999 Jan-Feb;10(1):66-74

The use of two fluorescent dyes to identify sperm in a competitive binding assay to oocytes. Miller DJ, et al. **J Androl** 1998 Nov-Dec;19(6):650-6

1H NMR studies of the bis-intercalation of a homodimeric oxazole yellow dye in DNA oligonucleotides. Johansen F, et al. **J Biomol Struct Dyn** 1998 Oct;16(2):205-22

ISOLATION & PURIFICATION

N-methylquinolinium 2-carboxylate, a defensive betaine from Photuris versicolor fireflies. González A, et al. **J Nat Prod** 1999 Feb;62(2):378-80

METABOLISM

Using confocal microscopy and the fluorescent indicator, 6-methoxy-N-ethylquinolinium iodide, to measure changes in intracellular chloride. Inglefield JR, et al. **Methods Enzymol** 1999;307:469-81

PHARMACOLOGY

Inhibition of Drosophila acetylcholinesterase by 7-(methylethoxyphosphinyloxy)1-methyl-quinolinium iodide. Stojan J, et al. **Chem Biol Interact** 1999 May 14; 119-120:147-57

UCL 1684: a potent blocker of Ca2+ -activated K+ channels in rat adrenal chromaffin cells in culture. Dunn PM. **Eur J Pharmacol** 1999 Feb 26;368(1):119-23

8-QUINOLINOL see **OXYQUINOLINE**

QUINOLINOLS see **HYDROXYQUINOLINES**

QUINOLINONES see **QUINOLONES**

QUINOLIZINES

ADMINISTRATION & DOSAGE

Open-label comparison of the antiemetic efficacy of single intravenous doses of dolasetron mesylate in pediatric cancer patients receiving moderately to highly emetogenic chemotherapy. Coppes MJ, et al. **Med Pediatr Oncol** 1999 Aug;33(2):99-105

Rationale for the use of a single fixed intravenous dolasetron dose for the prevention of cisplatin-induced nausea and vomiting. Pooled analysis of 14 clinical trials. Whitmore JB, et al. **Support Care Cancer** 1998 Sep;6(5):473-8

ADVERSE EFFECTS

[Case of anaphylaxis caused by tiquizium bromide (Thiaton)] Osawa K, et al. **Nippon Naika Gakkai Zasshi** 1999 Aug 10;88(8):1524-6 **(Jpn)**

ANALYSIS

Determination of flumequine in channel catfish by liquid chromatography with fluorescence detection. Plakas SM, et al. **J AOAC Int** 1999 May-Jun;82(3):614-9

BLOOD

Single- and multiple-dose pharmacokinetics of oral dolasetron and its active metabolites in healthy volunteers: part 2. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):41-8

Quantification of flumequine enantiomers in plasma by high-performance liquid chromatography. Besse S, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):330-2

CHEMICAL SYNTHESIS

Synthesis of benzo[c]quinolizin-3-ones: selective non-steroidal inhibitors of steroid 5 alpha-reductase 1. Guarna A, et al. **Bioorg Med Chem Lett** 1998 Oct 20; 8(20):2871-6

Synthesis and pharmacological investigation of 9-methyl-1,2,3,4,6,7,12,12b-octahydro-7-oxo-indolo[2,3-a]quinolizine. Grandi T, et al. **Farmaco** 1999 Jul 30; 54(7):479-85

Quinolizidinyl derivatives of 2,3-dihydro-2-oxo-1H-benzimidazole-1-carboxylic acid and 1-homolupinanoyl benzimidazolones as ligands for 5-HT3 and 5-HT4 receptors. Sparatore A, et al. **Farmaco** 1999 Apr 30;54(4):248-54

New type of febrifugine analogues, bearing a quinolizidine moiety, show potent antimalarial activity against Plasmodium malaria parasite. Takaya Y, et al. **J Med Chem** 1999 Aug 12;42(16):3163-6

ISOLATION & PURIFICATION

Guiaflavine, a new bisindole quaternary alkaloid from the stem bark of Strychnos guianensis. Penelle J, et al. **J Nat Prod** 1999 Jun;62(6):898-900

METABOLISM

Single- and multiple-dose pharmacokinetics of oral dolasetron and its active metabolites in healthy volunteers: part 2. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):41-8

PHARMACOKINETICS

Single- and multiple-dose pharmacokinetics of oral dolasetron and its active metabolites in healthy volunteers: part 2. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):41-8

Intravenous pharmacokinetics and absolute oral bioavailability of dolasetron in healthy volunteers: part 1. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan; 20(1):29-39

Pharmacokinetics of dolasetron with coadministration of cimetidine or rifampin in healthy subjects. Dimmitt DC, et al. **Cancer Chemother Pharmacol** 1999;43(2):126-32

Pharmacokinetics of oral and intravenous dolasetron mesylate in patients with renal impairment. Dimmitt DC, et al. **J Clin Pharmacol** 1998 Sep;38(9):798-806

Single-dose pharmacokinetics of flumequine in halibut (Hippoglossus hippoglossus) and turbot (Scophthalmus maximus). Hansen MK, et al. **J Vet Pharmacol Ther** 1999 Apr;22(2):122-6

Excretion of flumequine in free-swimming Atlantic salmon (Salmo salar), determined by cannulation of the dorsal aorta, gall bladder and urethra. Sohlberg S, et al. **J Vet Pharmacol Ther** 1999 Feb;22(1):72-5

PHARMACOLOGY

beta-Carboline-benzoquinolizidine alkaloid deoxytubulosine inhibits thymidylate synthase activity in leukemic leukocytes from patients with chronic myeloblastic leukemia and acute lymphoblastic leukemia. Rao KN, et al. **Anticancer Drugs** 1998 Sep;9(8):727-32

Dihydrofolate reductase and cell growth activity inhibition by the beta-carboline-benzoquinolizidine plant alkaloid deoxytubulosine from Alangium lamarckii: its potential as an antimicrobial and anticancer agent. Rao KN, et al. **Bioorg Med Chem** 1999 Jun;7(6):1105-10

A novel alpha 2-adrenoceptor antagonist attenuates the early, but preserves the late cardiovascular effects of intravenous dexmedetomidine in conscious dogs. Pagel PS, et al. **J Cardiothorac Vasc Anesth** 1998 Aug;12(4):429-34

Effect of YNS-15P, a new alpha-2 adrenoceptor antagonist, on stress-stimulated colonic propulsion in rats. Yamamoto O, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):691-6

THERAPEUTIC USE

Cost-effectiveness of prophylactic dolasetron or droperidol vs rescue therapy in the prevention of PONV in ambulatory gynecologic surgery. Frighetto L, et al. **Can J Anaesth** 1999 Jun;46(6):536-43

Tufted hair folliculitis: response to topical therapy with nadifloxacin. Iwahara K, et al. **Eur J Dermatol** 1999 Jun; 9(4):276-7

Reduced resource utilization in patients treated for postoperative nausea and vomiting with dolasetron mesylate. MCPR44 Study Group. Kovac A, et al. **J Clin Anesth** 1999 May;11(3):235-41

Safety, tolerability, antiemetic efficacy, and pharmacokinetics of oral dolasetron mesylate in pediatric cancer patients receiving moderately to highly emetogenic chemotherapy. Coppes MJ, et al. **J Pediatr Hematol Oncol** 1999 Jul-Aug; 21(4):274-83

Aggressive and social behavior after alprazolam withdrawal: experimental therapy with Ro 19-8022. Krsiak M, et al. **Neurosci Biobehav Rev** 1998;23(2):155-61

[Dolasetron, droperidol and a combination of both in prevention of postoperative nausea and vomiting after extracapsular cataract extraction under general anesthesia] Eberhart LH, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Jun; 34(6):345-9 (Eng. Abstr.) **(Ger)**

[Prevention of postoperative nausea and vomiting after hysterectomy with oral dolasetron, intravenous dehydrobenzperidol or a combination of both substances] Triem JG, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Jun; 34(6):340-4 (Eng. Abstr.) **(Ger)**

TOXICITY

Hepatotoxicity and consequently increased cell proliferation are associated with flumequine hepatocarcinogenesis in mice. Yoshida M, et al. **Cancer Lett** 1999 Jul 1; 141(1-2):99-107

QUINOLONE ANTI-INFECTIVE AGENTS see **ANTI-INFECTIVE AGENTS, QUINOLONE**

QUINOLONES

see related

ANTI-INFECTIVE AGENTS, QUINOLONE

Grepafloxacin: a review of its safety profile based on clinical trials and postmarketing surveillance. Lode H, et al. **Clin Ther** 1999 Jan;21(1):61-74; discussion 1-2 (36 ref.)

Integrins mediate the effects of quinolones and magnesium deficiency on cultured rat chondrocytes. Egerbacher M, et al. **Eur J Cell Biol** 1999 Jun;78(6):391-7

Quinolone photoallergy: photosensitivity dermatitis induced by systemic administration of photohaptenic drugs. Tokura Y. **J Dermatol Sci** 1998 Sep;18(1):1-10 (43 ref.)

A mutation in QRDR in the ParC subunit of topoisomerase IV was responsible for fluoroquinolone resistance in clinical isolates of Streptococcus pneumoniae. Choi H, et al. **Yonsei Med J** 1998 Dec;39(6):541-5

ADMINISTRATION & DOSAGE

In vitro and in vivo antimicrobial activities of T-3811ME, a novel des-F(6)-quinolone. Takahata M, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1077-84

In vivo and in vitro effects of AVP and V1a receptor antagonist on Cushing's syndrome due to ACTH-independent bilateral macronodular adrenocortical hyperplasia. Daidoh H, et al. **Clin Endocrinol (Oxf)** 1998 Sep;49(3):403-9

Effectiveness of short-course therapy (5 days) with grepafloxacin in the treatment of acute bacterial exacerbations of chronic bronchitis. DeAbate CA, et al. **Clin Ther** 1999 Jan;21(1):172-88

Meta-analysis of six clinical phase III studies comparing lomefloxacin 0.3% eye drops twice daily to five standard antibiotics in patients with acute bacterial conjunctivitis. Jauch A, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Sep;237(9):705-13

Daily oral grepafloxacin vs. twice daily oral doxycycline in the treatment of Chlamydia trachomatis endocervical infection. McCormack WM, et al. **Infect Dis Obstet Gynecol** 1998;6(3):109-15

Safety, tolerability and pharmacokinetics of the new long-acting quinolone DW-116 after single and multiple dosing in healthy subjects. Meyerhoff C, et al. **J Antimicrob Chemother** 1998 Sep;42(3):349-61

Rebamipide prevents occurrence of gastric lesions following transcatheter arterial embolization in the hepatic artery. Nomura H, et al. **J Gastroenterol Hepatol** 1999 May; 14(5):495-9

Therapy of difficult cases of canine pyoderma with marbofloxacin: a report of 39 dogs. Carlotti DN, et al. **J Small Anim Pract** 1999 Jun;40(6):265-70

[New quinolone versus vancomycin/tobramycin for intestinal sterilization in patients who undergo allogeneic bone marrow transplantation] Hosen N, et al. **Rinsho Ketsueki** 1999 Jan;40(1):9-15 (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Photosensitivity reactions caused by lomefloxacin hydrochloride: a multicenter survey. Arata J, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3141-5

Fluoroquinolone phototoxicity: a comparison of moxifloxacin and lomefloxacin in normal volunteers. Man I, et al. **J Antimicrob Chemother** 1999 May;43 Suppl B:77-82

[Intracranial hypertension in a newborn treated with quinolone] Bedu A, et al. **Presse Med** 1998 Jun 27; 27(23):1140-2 (Eng. Abstr.) **(Fre)**

ANALYSIS

Simultaneous determination of six quinolones in pig muscle by liquid chromatography-atmospheric pressure chemical ionisation mass spectrometry. Delepine B, et al. **Analyst** 1998 Dec;123(12):2743-7

Extension of multi-residue methodology to include the determination of quinolones in food. Rose MD, et al. **Analyst** 1998 Dec;123(12):2789-96

A study of the concentration of orally administered sparfloxacin found in exudates from suture wounds beneath occlusive dressings. Yotsuyanagi T, et al. **Burns** 1998 Dec; 24(8):751-3

Retention behaviour of quinolone derivatives in high-performance liquid chromatography. Effect of pH and evaluation of ionization constants. Barbosa J, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):411-22

Simultaneous determination of enrofloxacin and ciprofloxacin in animal biological fluids by high-performance liquid chromatography. Application in pharmacokinetic studies in pig and rabbit. Manceau J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1-2):175-84

Analysis of clonazepam in a tablet dosage form using smallbore HPLC. Spell JC, et al. **J Pharm Biomed Anal** 1998 Nov;18(3):453-60

BLOOD

Simultaneous determination of enrofloxacin and its primary metabolite, ciprofloxacin, in plasma by HPLC with fluorescence detection. Garcia MA, et al. **Biomed Chromatogr** 1999 Aug;13(5):350-3

Determination of marbofloxacin in plasma samples by high-performance liquid chromatography using fluorescence detection. Garcia MA, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):157-61

High performance thin-layer chromatographic method for the determination of sparfloxacin in human plasma and its use in pharmacokinetic studies. Mody VD, et al. **J Pharm Biomed Anal** 1998 Apr;16(8):1289-94

CHEMICAL SYNTHESIS

The antifungal activities of some 6-[N-(halophenyl)amino]-7-chloro-5,8-quinolinediones against Candida species. Ryu CK, et al. **Arch Pharm Res** 1994 Dec;17(6):483-6

Synthesis and antitumor activity of some new substituted quinolin-4-one and 1,7-naphthyridin-4-one analogs. el-Subbagh HI, et al. **Arch Pharm (Weinheim)** 1999 Jan; 332(1):19-24

Synthesis and antiplatelet activity of phenyl quinolones. Huang LJ, et al. **Bioorg Med Chem** 1998 Oct;6(10):1657-62

Nitroquinolones with broad-spectrum antimycobacterial activity in vitro. Artico M, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1651-6

4-Alkyl- and 3,4-dialkyl-1,2,3,4-tetrahydro-8-pyridono[5,6-g]quinolines: potent, nonsteroidal androgen receptor agonists. Higuchi RI, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1335-40

New technique for high-throughput synthesis. Lebl M. **Bioorg Med Chem Lett** 1999 May 3;9(9):1305-10

Synthesis and structure-activity relationships of 7-(2-aminoalkyl)morpholinoquinolones as anti-Helicobacter pylori agents [published erratum appears in Bioorg Med Chem Lett 1998 Oct 20;8(20):2937] Sakurai N, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2185-90

Synthesis and 5 alpha-reductase inhibitory activity of 8-substituted benzo[f]quinolinones derived from palladium mediated coupling reactions. Smith EC, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):395-8

Synthesis and methemoglobin toxicity of the amides of 6/7 mono or disubstituted quinolone. Srivastava S, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):25-30

Solid phase synthesis of quinolones. Srivastava SK, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1885-8

Synthesis and binding studies of a 1-alkyl-3,6-diamino-4-quinolone based receptor for N-acylated dipeptides. Weiner WS, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):681-6

Synthesis of 5,8-dimethoxy-3-hydroxy-4-quinolone, a reported inhibitor of HIV RT, and evidence the original proposed structure was incorrect. Zembower DE, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):543-6

Design and synthesis of modified quinolones as antitumoral acridones. Tabarrini O, et al. **J Med Chem** 1999 Jun 17; 42(12):2136-44

Use of a pharmacophore model for the design of EGFR tyrosine kinase inhibitors: isoflavones and 3-phenyl-4(1H)-quinolones. Traxler P, et al. **J Med Chem** 1999 Mar 25;42(6):1018-26

5-Aryl-1,2,3,4-tetrahydrochromeno[3,4-f]quinolin-3-ones as a novel class of nonsteroidal progesterone receptor agonists: effect of A-ring modification. Zhi L, et al. **J Med Chem** 1999 Apr 22;42(8):1466-72

An improved synthesis of [11C]L-703,717 as a radioligand for the glycine site of the NMDA receptor. Haradahira T, et al. **Nucl Med Biol** 1999 Feb;26(2):245-7

In vitro cytotoxic activity of naphtho[1,2-b]furan, furo[2,3-f], furo[2,3-g] and furo[3,2-g]quinoline derivatives. Nebois P, et al. **Pharmazie** 1999 Mar;54(3):215-8

CHEMISTRY

Broad-spectrum antiviral activity and mechanism of antiviral action of the fluoroquinolone derivative K-12. Witvrouw M, et al. **Antivir Chem Chemother** 1998 Sep;9(5):403-11

Role of calcium in the reaction between pyrroloquinoline quinone and pyridine nucleotides monomers and dimers. Casini A, et al. **Arch Biochem Biophys** 1999 Aug 15; 368(2):385-93

Site-directed mutagenesis of the quinoprotein glucose dehydrogenase of Escherichia coli; the role of His262 in PQQ binding and determination of substrate specificity. Cozier GE, et al. **Biochem Soc Trans** 1998 Aug;26(3):S270

Nonsteroidal androgen receptor agonists based on 4-(trifluoromethyl)-2H-pyrano[3,2-g]quinolin-2-one. Edwards JP, et al. **Bioorg Med Chem Lett** 1999 Apr 5; 9(7):1003-8

2-nitroimidazol-5-ylmethyl as a potential bioreductively activated prodrug system: reductively triggered release of the PARP inhibitor 5-bromoisoquinolinone. Parveen I, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2031-6

Synthesis and structure-activity relationships of 7-(2-aminoalkyl)morpholinoquinolones as anti-Helicobacter pylori agents [published erratum appears in Bioorg Med Chem Lett 1998 Oct 20;8(20):2937] Sakurai N, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2185-90

Switching androgen receptor antagonists to agonists by modifying C-ring substituents on piperidino[3,2-g]quinolinone. Zhi L, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1009-12

Structure-activity relationship investigations of the modulating effect of core substituents on the affinity of pyrazoloquinolinone congeners for the benzodiazepine receptor. Karolak-Wojciechowska J, et al. **Farmaco** 1998 Aug-Sep;53(8-9):579-85

Preparation and antimicrobial assessment of 2-thioether-linked quinolonyl-carbapenems. Hershberger PM, et al. **J Antibiot (Tokyo)** 1998 Sep;51(9):857-71

Electrophoretic behaviour of quinolones in capillary electrophoresis. Effect of pH and evaluation of ionization constants. Barbosa J, et al. **J Chromatogr A** 1999 Apr 16;

839(1-2):183-92

Discovery of a potent, orally active, nonsteroidal androgen receptor agonist: 4-ethyl-1,2,3,4-tetrahydro-6-(trifluoromethyl)-8-pyridono[5,6-g]- quinoline (LG121071). Hamann LG, et al. **J Med Chem** 1999 Jan 28;42(2):210-2

Molecular mechanisms of photosensitization induced by drugs. XII. Photochemistry and photosensitization of rufloxacin: an unusual photodegradation path for the antibacterials containing a fluoroquinolone-like chromophore. Condorelli G, et al. **Photochem Photobiol** 1999 Sep;70(3):280-6

Post-column metal complexation of quinolone antibiotics in a quadrupole ion trap. Shen J, et al. **Rapid Commun Mass Spectrom** 1999;13(14):1381-9

CLASSIFICATION

Re: C. Schellhorn: Classification of quinolones by V. Andriole. Infection 26 [1998] 63 [letter] Shah PM. **Infection** 1998 Jul-Aug;26(4):255

ISOLATION & PURIFICATION

Isolation and characterization of the fungal metabolite 3-O-methylviridicatin as an inhibitor of tumour necrosis factor alpha-induced human immunodeficiency virus replication. Heguy A, et al. **Antivir Chem Chemother** 1998 Mar;9(2):149-55

Quinolone signaling in the cell-to-cell communication system of Pseudomonas aeruginosa. Pesci EC, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11229-34

METABOLISM

The biochemistry, physiology and genetics of PQQ and PQQ-containing enzymes. Goodwin PM, et al. **Adv Microb Physiol** 1998;40:1-80 (221 ref.)

Secretion of sparfloxacin from the human intestinal Caco-2 cell line is altered by P-glycoprotein inhibitors. Cormet-Boyaka E, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2607-11

The pyrroloquinoline quinone (PQQ)-containing quinoprotein dehydrogenases. Anthony C. **Biochem Soc Trans** 1998 Aug;26(3):413-7 (30 ref.)

Site-directed mutagenesis of the quinoprotein glucose dehydrogenase of Escherichia coli; the role of His262 in PQQ binding and determination of substrate specificity. Cozier GE, et al. **Biochem Soc Trans** 1998 Aug;26(3):S270

PQQ as redox shuttle for quinoprotein glucose dehydrogenase. Jin W, et al. **Biol Chem** 1998 Aug-Sep; 379(8-9):1207-11

Mg(2+)-mediated binding of 6-substituted quinolones to DNA: relevance to biological activity. Sissi C, et al. **Bioorg Med Chem** 1998 Sep;6(9):1555-61

2-nitroimidazol-5-ylmethyl as a potential bioreductively activated prodrug system: reductively triggered release of the PARP inhibitor 5-bromoisoquinolinone. Parveen I, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2031-6

Synthesis and binding studies of a 1-alkyl-3,6-diamino-4-quinolone based receptor for N-acylated dipeptides. Weiner WS, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):681-6

Structural insight into a quinolone-topoisomerase II-DNA complex. Further evidence for a 2:2 quinobenzoxazine-mg2+ self-assembly model formed in the presence of topoisomerase ii. Kwok Y, et al. **J Biol Chem** 1999 Jun 11;274(24):17226-35

Uptake of fluoroquinolones in human monocytes isolated from peripheral blood. Dorian M, et al. **J Pharm Pharmacol** 1998 Jul;50(7):783-8

Transport of quinolone antibacterial drugs in a kidney epithelial cell line, LLC-PK1. Matsuo Y, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):672-8

PHARMACOKINETICS

Determination of skin concentrations of enrofloxacin in dogs with pyoderma. DeManuelle TC, et al. **Am J Vet Res** 1998 Dec;59(12):1599-604

Pharmacodynamic effects of subinhibitory concentrations of rufloxacin on bacterial virulence factors. Braga PC, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1013-9

Pharmacokinetics of enrofloxacin and danofloxacin in plasma, inflammatory exudate, and bronchial secretions of calves following subcutaneous administration. McKellar Q, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1988-92

Differences in the hepatobiliary transport of two quinolone antibiotics, grepafloxacin and lomefloxacin, in the rat. Sasabe H, et al. **Biopharm Drug Dispos** 1999 Apr; 20(3):151-8

Pharmacokinetics of enrofloxacin given by the oral, intravenous and intramuscular routes in broiler chickens. Bugyei K, et al. **Can J Vet Res** 1999 Jul;63(3):193-200

Effect of Maalox on the oral absorption of sparfloxacin. Johnson RD, et al. **Clin Ther** 1998 Nov-Dec;20(6):1149-58

Hepatobiliary transport kinetics of HSR-903, a new quinolone antibacterial agent. Murata M, et al. **Drug Metab Dispos** 1998 Nov;26(11):1113-9

Sparfloxacin pharmacokinetics in healthy volunteers: the influence of acidification and alkalinization. Kamberi M, et al. **Eur J Clin Pharmacol** 1998 Oct;54(8):633-7

Safety, tolerability and pharmacokinetics of the new long-acting quinolone DW-116 after single and multiple dosing in healthy subjects. Meyerhoff C, et al. **J Antimicrob Chemother** 1998 Sep;42(3):349-61

Efflux transport of a new quinolone antibacterial agent, HSR-903, across the blood-brain barrier. Murata M, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):51-7

Carrier-mediated lung distribution of HSR-903, a new quinolone antibacterial agent. Murata M, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):79-84

Pharmacokinetics of enrofloxacin after intravenous, intramuscular and oral administration in houbara bustard (Chlamydotis undulata macqueenii). Bailey TA, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):288-97

Comparative pharmacokinetics of enrofloxacin and ciprofloxacin in chickens. Garcia Ovando H, et al. **J Vet Pharmacol Ther** 1999 Jun;22(3):209-12

Comparative study of the plasma pharmacokinetics and tissue concentrations of danofloxacin and enrofloxacin in broiler chickens. Knoll U, et al. **J Vet Pharmacol Ther** 1999 Aug; 22(4):239-46

Effect of experimental renal impairment on disposition of marbofloxacin and its metabolites in the dog. Lefebvre HP, et al. **J Vet Pharmacol Ther** 1998 Dec;21(6):453-61

Enrofloxacin serum bioactivity in bottlenose dolphins, Tursiops truncatus, following oral administration of 5 mg/kg in whole fish. Linnehan RM, et al. **J Vet Pharmacol Ther** 1999 Jun;22(3):170-3

Pharmacokinetics and penetration of danofloxacin from the blood into the milk of cows. Shem-Tov M, et al. **J Vet Pharmacol Ther** 1998 Jun;21(3):209-13

[Pharmacodynamic and pharmacokinetic approaches to optimization of lomefloxacin] Iakovlev SV. **Antibiot Khimioter** 1998;43(10):42-5 **(Rus)**

[Comparative pharmacokinetics of lomefloxacin and other fluoroquinolones] Iakovlev VP. **Antibiot Khimioter** 1998; 43(10):46-52 (85 ref.) **(Rus)**

PHARMACOLOGY

Blockade of the acquisition of ethanol-induced conditioned place preference by N-methyl-D-aspartate receptor antagonists. Biała G, et al. **Alcohol Alcohol** 1999 Mar-Apr; 34(2):175-82

In vitro dose-dependent effects of enrofloxacin on equine articular cartilage. Beluche LA, et al. **Am J Vet Res** 1999 May;60(5):577-82

Mitochondrial activity after cold preservation of pancreatic islet cells treated with pefloxacin (PFX). Puc J, et al. **Ann Transplant** 1998;3(1):38-41

Makaluvamines vary in ability to induce dose-dependent DNA cleavage via topoisomerase II interaction. Matsumoto SS, et al. **Anticancer Drugs** 1999 Jan;10(1):39-45

In vitro activities of antibiotics alone and in combination against Brucella melitensis at neutral and acidic pHs. Akova M, et al. **Antimicrob Agents Chemother** 1999 May; 43(5):1298-300

In vitro development of resistance to five quinolones and amoxicillin-clavulanate in Streptococcus pneumoniae. Davies TA, et al. **Antimicrob Agents Chemother** 1999 May; 43(5):1177-82

In vivo and in vitro toxicodynamic analyses of new quinolone-and nonsteroidal anti-inflammatory drug-induced effects on the central nervous system. Kita H, et al. **Antimicrob Agents Chemother** 1999 May; 43(5):1091-7

Effect of HSR-903, a new fluoroquinolone, on the concentration of theophylline in serum. Niki Y, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1767-8

In vitro activity of HSR-903, a new oral quinolone, against bacteria causing respiratory infections. Watanabe A, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1767-8

Resistance mechanism of Acinetobacter spp. strains resistant to DW-116, a new quinolone. Choi KH, et al. **Arch Pharm Res** 1998 Jun;21(3):310-4

Immunomodulating activity of DW-116, a new quinolone antibiotic. Moon EY, et al. **Arch Pharm Res** 1998 Oct; 21(5):610-4

Influence of rebamipide on indometacin-induced gastric hemorrhage in rats under restraint stress. Yamasaki K, et al. **Arzneimittelforschung** 1999 Apr;49(4):359-65

In vitro and in vivo comparisons of valnemulin, tiamulin, tylosin, enrofloxacin, and lincomycin/spectinomycin against Mycoplasma gallisepticum. Jordan FT, et al. **Avian Dis** 1998 Oct-Dec;42(4):738-45

Involvement of cyclic AMP generation in the inhibition of respiratory burst by 2-phenyl-4-quinolone (YT-1) in rat neutrophils. Wang JP, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1505-14

Synthesis and antiplatelet activity of phenyl quinolones. Huang LJ, et al. **Bioorg Med Chem** 1998 Oct;6(10):1657-62

New nonsteroidal androgen receptor modulators based on 4-(trifluoromethyl)-2(1H)-pyrrolidino[3,2-g] quinolinone. Edwards JP, et al. **Bioorg Med Chem Lett** 1998 Apr 7; 8(7):745-50

Nonsteroidal androgen receptor agonists based on 4-(trifluoromethyl)-2H-pyrano[3,2-g]quinolin-2-one. Edwards JP, et al. **Bioorg Med Chem Lett** 1999 Apr 5; 9(7):1003-8

4-Alkyl- and 3,4-dialkyl-1,2,3,4-tetrahydro-8-pyridono[5,6-g]quinolines: potent, nonsteroidal androgen receptor agonists. Higuchi RI, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1335-40

Novel quinolone derivatives as potent antibacterials. Lohray BB, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):525-8

Synthesis and 5 alpha-reductase inhibitory activity of 8-substituted benzo[f]quinolinones derived from palladium mediated coupling reactions. Smith EC, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):395-8

Solid phase synthesis of quinolones. Srivastava SK, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1885-8

Switching androgen receptor antagonists to agonists by modifying C-ring substituents on piperidino[3,2-g]quinolinone. Zhi L, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1009-12

LU 73068, a new non-NMDA and glycine/NMDA receptor antagonist: pharmacological characterization and comparison with NBQX and L-701,324 in the kindling model of epilepsy. Potschka H, et al. **Br J Pharmacol** 1998 Nov;125(6):1258-66

Anti-convulsant and adverse effects of the glycineB receptor ligands, D-cycloserine and L-701,324: comparison with competitive and non-competitive N-methyl-D-aspartate receptor antagonists. Wlaź P. **Brain Res Bull** 1998 Aug; 46(6):535-40

Differential effects on D2 dopamine receptor and prolactin gene expression by haloperidol and aripiprazole in the rat pituitary. Inoue A, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):285-92

Inhibition by singlet oxygen quenchers of oxidative damage to DNA produced in cultured cells by exposure to a quinolone antibiotic and ultraviolet A irradiation. Verna LK, et al. **Cell Biol Toxicol** 1998 Jun;14(3):237-42

In vitro activity of grepafloxacin and 25 other antimicrobial agents against Streptococcus pneumoniae: correlation with penicillin resistance. Thornsberry C, et al. **Clin Ther** 1998 Nov-Dec;20(6):1179-90

Recent advances in the discovery and development of quinolones and analogs as antitumor agents. Xia Y, et al. **Curr Med Chem** 1999 Mar;6(3):179-94 (63 ref.)

The inhibitory effects of the fluoroquinolone antimicrobials norfloxacin and enrofloxacin on hepatic microsomal cytochrome P-450 monooxygenases in broiler chickens. Shlosberg A, et al. **Drug Metabol Drug Interact** 1997; 14(2):109-22

2-Phenyl-4-quinolone prevents serotonin-induced increases in endothelial permeability to albumin. Lee HZ, et al. **Eur J Pharmacol** 1998 Aug 7;354(2-3):205-13

Onset and progression of motor deficits in motor neuron degeneration (mnd) mice are unaltered by the glycine/NMDA receptor antagonist L-701,324 or the MAO-B inhibitor R(-)-deprenyl. Boyce S, et al. **Exp Neurol** 1999 Jan;155(1):49-58

Structure-activity relationship investigations of the modulating effect of core substituents on the affinity of pyrazoloquinolinone congeners for the benzodiazepine receptor. Karolak-Wojciechowska J, et al. **Farmaco** 1998 Aug-Sep;53(8-9):579-85

Effect of rebamipide on the glycosaminoglycan content of the ulcerated rat stomach. Song DU, et al. **Fundam Clin Pharmacol** 1998;12(5):546-52

Possible interaction between new quinolones and immune functions in macrophages. Azuma Y, et al. **Gen Pharmacol** 1999 May;32(5):609-14

Effect of vasopressin antagonism on structure and mechanics of small arteries and vascular expression of endothelin-1 in deoxycorticosterone acetate salt hypertensive rats. Intengan HD, et al. **Hypertension** 1998 Oct;32(4):770-7

4-Amino-1,8-naphthalimide: a novel inhibitor of poly(ADP-ribose) polymerase and radiation sensitizer. Schlicker A, et al. **Int J Radiat Biol** 1999 Jan;75(1):91-100

In-vitro activities of gatifloxacin, sparfloxacin and trovafloxacin against 103 strains of Legionella spp. [letter] Croco MA, et al. **J Antimicrob Chemother** 1998 Nov; 42(5):672-3

Mechanisms of resistance to ampicillin, chloramphenicol and quinolones in multiresistant Salmonella typhimurium strains isolated from fish. Ruiz J, et al. **J Antimicrob Chemother** 1999 May;43(5):699-702

Mutation of a conserved serine residue in a quinolone-resistant type II topoisomerase alters the enzyme-DNA and drug interactions. Strumberg D, et al. **J Biol Chem** 1999 Mar 12;274(11):7292-301

Pharmacological properties of pteleprenine, a quinoline alkaloid extracted from Orixa japonica, on guinea-pig ileum and canine left atrium. Seya K, et al. **J Pharm Pharmacol** 1998 Jul;50(7):803-7

Inhibitory effect of rebamipide on the neutrophil adherence stimulated by conditioned media from Helicobacter pylori-infected gastric epithelial cells. Kim CD, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):133-8

Effects of rolipram and cilostamide on renal functions and cyclic AMP release in anesthetized dogs. Tanahashi M, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1533-8

Antibiotic effects on cytochromes P450 content and mixed-function oxygenase (MFO) activities in the American alligator, Alligator mississippiensis. Mayeaux MH, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):274-81

Inhibition of spontaneous rat osteosarcoma lung metastasis by 3S-[4-(N-hydroxyamino)-2R-isobutylsuccinyl]amino-1-methoxy-3,4-dihydroc arbostyril, a novel matrix metalloproteinase inhibitor. Kido A, et al. **Jpn J Cancer Res** 1999 Mar;90(3):333-41

The effect of vasopressin V1- and V2-receptor antagonists on hemodynamics in early and late phase after myocardial

infarction in rats. Fujita H, et al. **Jpn J Pharmacol** 1998 Oct;78(2):229–32

Induction of type 2 Shiga toxin synthesis in Escherichia coli O157 by 4–quinolones [letter] Kimmitt PT, et al. **Lancet** 1999 May 8;353(9164):1588–9

Emesis induced by inhibitors of type IV cyclic nucleotide phosphodiesterase (PDE IV) in the ferret. Robichaud A, et al. **Neuropharmacology** 1999 Feb;38(2):289–97

Anticonvulsant effects of eliprodil alone or combined with the glycineB receptor antagonist L–701,324 or the competitive NMDA antagonist CGP 40116 in the amygdala kindling model in rats. Wlaź P, et al. **Neuropharmacology** 1999 Feb;38(2):243–51

Interactions of the novel antipsychotic aripiprazole (OPC–14597) with dopamine and serotonin receptor subtypes. Lawler CP, et al. **Neuropsychopharmacology** 1999 Jun;20(6):612–27

Treatment of brain edema with a nonpeptide arginine vasopressin V1 receptor antagonist OPC–21268 in rats. Bemana I, et al. **Neurosurgery** 1999 Jan;44(1):148–54; discussion 154–5

Pyrroloquinoline quinone: a novel vitamin? Bishop A, et al. **Nutr Rev** 1998 Oct;56(10):287–93 (52 ref.)

Anxiolytic- and antidepressant-like effects of an antagonist at glycineB receptors. Przegaliński E, et al. **Pol J Pharmacol** 1998 Jul–Oct;50(4–5):349–54

L–701,324, a selective antagonist at the glycine site of the NMDA receptor, counteracts haloperidol–induced muscle rigidity in rats. Konieczny J, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):235–43

Actions of the D1 agonists A–77636 and A–86929 on locomotion and dyskinesia in MPTP–treated L–dopa–primed common marmosets. Pearce RK, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):51–60

Phagocytosis and killing of slime–producing Staphylococcus epidermidis bypolymorphonuclear leukocytes. Effects of sparfloxacin. Morán FJ, et al. **Rev Esp Quimioter** 1998 Mar; 11(1):52–7

Analysis of quinolone resistance mechanisms in a sparfloxacin–resistant clinical isolate of Neisseria gonorrhoeae. Tanaka M, et al. **Sex Transm Dis** 1998 Oct; 25(9):489–93

In–vitro activity of three fluoroquinolones, cefotaxime and clindamycin against staphylococci. Schumacher–Perdreau F, et al. **Zentralbl Bakteriol** 1995 Oct;282(4):389–93

[Trends and changes in antimicrobial resistance of clinical isolates from 11 hospitals in Beijing area] Zhang F, et al. **Chung Hua I Hsueh Tsa Chih** 1997 May;77(5):327–31 (Eng. Abstr.) **(Chi)**

[Growing incidence of nalidixic acid resistance and sensitivity to quinolones in Salmonella typhimurium strains isolated from man or animal] Heurtin–Le Corre C, et al. **Pathol Biol (Paris)** 1998 Oct;46(8):587–90 (Eng. Abstr.) **(Fre)**

[New developments in pharmacology of antibiotics] Bergogne–Bérézin E. **Presse Med** 1998 Dec;27 Suppl 5:51–4 (Eng. Abstr.) **(Fre)**

[Pharmacodynamic and pharmacokinetic approaches to optimization of lomefloxacin] Iakovlev SV. **Antibiot Khimioter** 1998;43(10):42–5 **(Rus)**

[Mechanism of action of lomefloxacin on Mycobacterium tuberculosis] Mozhokina GN, et al. **Antibiot Khimioter** 1998;43(10):13–6 (Eng. Abstr.) **(Rus)**

STANDARDS

Efficacy of orally administered oxolinic acid and Vetoquinol, an oxolinic acid ester, for the treatment of furunculosis in Atlantic salmon Salmo salar held in seawater. Samuelsen OB, et al. **Dis Aquat Organ** 1999 Jun 23;37(1):53–9

THERAPEUTIC USE

Therapeutic effect of rebamipide on ammonia–induced gastric mucosal hemorrhagic lesion in rats. Huh K, et al. **Arch Pharm Res** 1998 Feb;21(1):1–5

Study on the effectiveness of toborinone (OPC–18790) in the treatment of heart failure in patients following cardiac surgery. Hirata T, et al. **Arzneimittelforschung** 1999 Jun; 49(6):499–503

Clinical applications of quinolones. Hooper DC. **Biochim Biophys Acta** 1998 Oct 1;1400(1–3):45–61 (188 ref.)

Drug not considered a first–line agent [letter] Lexchin J. **Can Fam Physician** 1998 Nov;44:2376

Safety profile of sparfloxacin, a new fluoroquinolone antibiotic. Lipsky BA, et al. **Clin Ther** 1999 Jan; 21(1):148–59

Sparfloxacin versus clarithromycin in the treatment of community–acquired pneumonia. Ramirez J, et al. **Clin Ther** 1999 Jan;21(1):103–17

Protective effect of a vasopressin–1 selective antagonist, OPC–21268, against ethanol–induced damage of the rat gastric wall. Sugimoto I, et al. **Dig Dis Sci** 1999 Mar; 44(3):503–9

Use of newer quinolones for the treatment of intraabdominal infections: focus on clinafloxacin. Nord CE. **Infection** 1999 May–Jun;27(3):166–72 (77 ref.)

Prospective randomized comparative study of antibiotic prophylaxis in urethrocystoscopy and urethrocystography. Tsugawa M, et al. **Int J Urol** 1998 Sep;5(5):441–3

Arginine vasopressin V1–receptor antagonism in an ovine model of acute myocardial infarction. Charles CJ, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):777–82

Typhoid fevers: treatment with lomefloxacin. Hafiz S, et al. **JPMA J Pak Med Assoc** 1998 Jun;48(6):168–70

The clinical efficacy of enrofloxacin in the treatment of experimental bovine pneumonic pasteurellosis. Thompson PN, et al. **Onderstepoort J Vet Res** 1998 Jun;65(2):105–12

Topical lomefloxacin 0.3% twice daily versus tobramycin 0.3% in acute bacterial conjunctivitis: A multicenter double–blind phase III study. Gallenga PE, et al. **Ophthalmologica** 1999;213(4):250–7

Genotypic evolution in a quinolone–resistant Neisseria gonorrhoeae isolate from a patient with clinical failure of levofloxacin treatment. Tanaka M, et al. **Urol Int** 1999; 62(1):64–8

[New fluoroquinolones and treatment of acute sinusitis] Gehanno P, et al. **Presse Med** 1999 Sep 4;28(25):1365 **(Fre)**

[Respiratory tract infections--laboratory tests usually unnecessary. New quinolones recommended by professional groups considered] Steiert P. **Fortschr Med** 1999 Feb 28;117(6):41 **(Ger)**

[Efficacy of lomefloxacin in treatment of nonspecific inflammatory diseases and in prophylaxis of postoperative complications in urology] Derevianko II, et al. **Antibiot Khimioter** 1998;43(10):36–41 (Eng. Abstr.) **(Rus)**

[Efficacy of lomefloxacin in treatment of patients with chronic bronchitis] Fedoseev GB, et al. **Antibiot Khimioter** 1998;43(10):24–6 (Eng. Abstr.) **(Rus)**

[Lomefloxacin in phthisiatric practice] Grishin VK, et al. **Antibiot Khimioter** 1998;43(10):17–8 (Eng. Abstr.) **(Rus)**

[Efficacy of lomefloxacin and ofloxacin in complex therapy of infections in patients with burns] Krutikov MG, et al. **Antibiot Khimioter** 1998;43(10):27–31 (Eng. Abstr.) **(Rus)**

[Lomefloxacin in treatment of infectious eye diseases] Maichuk IuF, et al. **Antibiot Khimioter** 1998;43(10):32–5 (Eng. Abstr.) **(Rus)**

[Difluoroquinolone lomefloxacin (Maxaquin): its role among fluoroquinolones, possibilities and prospectives] Padeiskaia EN. **Antibiot Khimioter** 1998;43(10):4–9 (23 ref.) **(Rus)**

[Lomefloxacin in complex treatment of acute progressive form of pulmonary tuberculosis] Sokolova GB, et al. **Antibiot Khimioter** 1998;43(10):10–2 (Eng. Abstr.) **(Rus)**

[The use of Maxaquin (lomefloxacin hydrochloride) in the treatment of nonspecific inflammatory diseases and in the prevention of surgical interventions in urology] Derevianko II, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):14–8 **(Rus)**

[Has the moment arrived for quinolones in the treatment of respiratory infections?] Gomis M, et al. **Enferm Infecc Microbiol Clin** 1998 Dec;16 Suppl 2:1–7; discussion 47–52 (20 ref.) **(Spa)**

TOXICITY

Synthesis and methemoglobin toxicity of the amides of 6/7 mono or disubstituted quinolone. Srivastava S, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):25–30

A comparative study of the repeat dose toxicity of grepafloxacin and a number of other fluoroquinolones in rats. Takizawa T, et al. **Hum Exp Toxicol** 1999 Jan; 18(1):38–45

Comparative grepafloxacin phototoxicity in mouse skin. Owen K. **J Antimicrob Chemother** 1998 Aug;42(2):261–4

Chromosomal aberrations in human lymphocytes exposed in vitro to enrofloxacin and ciprofloxacin. Gorla N, et al. **Toxicol Lett** 1999 Jan 11;104(1–2):43–8

QUINOMYCIN A see **ECHINOMYCIN**

QUINONE REDUCTASE see **NAD(P)H DEHYDROGENASE (QUINONE)**

QUINONE REDUCTASES

ANTAGONISTS & INHIBITORS

Mechanism of inhibition of mitochondrial respiratory complex I by 6–hydroxydopamine and its prevention by desferrioxamine. Glinka Y, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):121–9

Korormicin, an antibiotic specific for gram–negative marine bacteria, strongly inhibits the respiratory chain–linked Na+–translocating NADH: quinone reductase from the marine Vibrio alginolyticus. Yoshikawa K, et al. **J Antibiot (Tokyo)** 1999 Feb;52(2):182–5

GENETICS

GAS–1: a mitochondrial protein controls sensitivity to volatile anesthetics in the nematode Caenorhabditis elegans. Kayser EB, et al. **Anesthesiology** 1999 Feb;90(2):545–54

1,4–benzoquinone reductase from Phanerochaete chrysosporium: cDNA cloning and regulation of expression. Akileswaran L, et al. **Appl Environ Microbiol** 1999 Feb;65(2):415–21

Coordinated induction of the c–jun gene with genes encoding quinone oxidoreductases in response to xenobiotics and antioxidants. Radjendirane V, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):597–603

Modulation of oxidative phosphorylation of human kidney 293 cells by transfection with the internal rotenone–insensitive NADH–quinone oxidoreductase (NDI1) gene of Saccharomyces cerevisiae. Seo BB, et al. **Biochim Biophys Acta** 1999 May 26;1412(1):56–65

QUINONES

CuI–semiquinone radical species in plant copper–amine oxidases. Medda R, et al. **FEBS Lett** 1999 Jun 18; 453(1–2):1–5 (32 ref.)

ANALYSIS

Simultaneous determination of RRR– and SRR–alpha–tocopherols and their quinones in rat plasma and tissues by using chiral high–performance liquid chromatography. Kiyose C, et al. **Lipids** 1999 Apr; 34(4):415–22

CHEMICAL SYNTHESIS

2–(1–Oxyalkyl)–1,4–dioxy–9,10–anthraquinones: synthesis and evaluation of antitumor activity. Jin GZ, et al. **Arch Pharm Res** 1998 Apr;21(2):198–206

Synthesis and evaluation of geldanamycin–estradiol hybrids. Kuduk SD, et al. **Bioorg Med Chem Lett** 1999 May 3; 9(9):1233–8

Synthesis of anti–rheumatic agent epoxyquinomicin B. Matsumoto N, et al. **Bioorg Med Chem Lett** 1998 Nov 3; 8(21):2945–8

Indolequinone antitumor agents: correlation between quinone structure, rate of metabolism by recombinant human NAD(P)H:quinone oxidoreductase, and in vitro cytotoxicity. Beall HD, et al. **J Med Chem** 1998 Nov 19; 41(24):4755–66

Cross–linking and sequence–specific alkylation of DNA by aziridinylquinones. 3. Effects of alkyl substituents. Hargreaves RH, et al. **J Med Chem** 1999 Jun 17; 42(12):2245–50

CHEMISTRY

Role of calcium in the reaction between pyrroloquinoline quinone and pyridine nucleotides monomers and dimers. Casini A, et al. **Arch Biochem Biophys** 1999 Aug 15; 368(2):385–93

Site–directed mutagenesis of the quinoprotein glucose dehydrogenase of Escherichia coli; the role of His262 in PQQ binding and determination of substrate specificity. Cozier GE, et al. **Biochem Soc Trans** 1998 Aug;26(3):S270

Comparative FTIR analysis of the microenvironment of in cyanide–treated, high pH–treated and iron–depleted photosystem II membrane fragments. Noguchi T, et al. **Biochemistry** 1999 Apr 13;38(15):4846–52

Indolequinone antitumor agents: relationship between quinone structure and rate of metabolism by recombinant human NQO1. Beall HD, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):545–8

Prodrugs for targeting hypoxic tissues: regiospecific elimination of aspirin from reduced indolequinones. Jaffar M, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):113–8

Investigation on the detergent role in the function of secondary quinone in bacterial reaction centers. Agostiano A, et al. **Eur J Biochem** 1999 Jun;262(2):358–64

The cytochrome bc1 complex from Rhodovulum sulfidophilum is a dimer with six quinones per monomer and an additional 6–kDa component. Montoya G, et al. **Eur J Biochem** 1999 Feb;259(3):709–18

Peroxynitrite oxidises catechols to o–quinones. Kerry N, et al. **FEBS Lett** 1998 Oct 23;437(3):167–71

Transient quinonimines and 1,4–benzothiazines of pheomelanogenesis: new pulse radiolytic and spectrophotometric evidence. Napolitano A, et al. **Free Radic Biol Med** 1999 Sep;27(5–6):521–8

Effect of structural modifications on photosensitizing activities of hypocrellin dyes: EPR and spectrophotometric studies. Yuying H, et al. **Free Radic Biol Med** 1999 May; 26(9–10):1146–57

Crystallographic and spectroscopic studies of native, aminoquinol, and monovalent cation–bound forms of methylamine dehydrogenase from Methylobacterium extorquens AM1. Labesse G, et al. **J Biol Chem** 1998 Oct 2;273(40):25703–12

New phenolic and quinone–methide triterpenes from Maytenus amazonica. Chávez H, et al. **J Nat Prod** 1999 Mar;62(3):434–6

[Study on the inclusion compound of phyllostachysin A and DMF] Lu D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr; 19(2):89–92 (Eng. Abstr.) **(Chi)**

ISOLATION & PURIFICATION

A new discorhabdin from two sponge genera. Dijoux MG, et al. **J Nat Prod** 1999 Apr;62(4):636–7

Discorhabdin P, a new enzyme inhibitor from a deep–water Caribbean sponge of the genus Batzella. Gunasekera SP, et al. **J Nat Prod** 1999 Jan;62(1):173–5

A new tyrosine kinase inhibitor from the marine brown alga Stypopodium zonale. Wessels M, et al. **J Nat Prod** 1999 Jun;62(6):927–30

METABOLISM

The biochemistry, physiology and genetics of PQQ and PQQ–containing enzymes. Goodwin PM, et al. **Adv Microb Physiol** 1998;40:1–80 (221 ref.)

The pyrroloquinoline quinone (PQQ)–containing quinoprotein dehydrogenases. Anthony C. **Biochem Soc Trans** 1998 Aug;26(3):413–7 (30 ref.)

QUINONES

Site-directed mutagenesis of the quinoprotein glucose dehydrogenase of Escherichia coli; the role of His262 in PQQ binding and determination of substrate specificity. Cozier GE, et al. **Biochem Soc Trans** 1998 Aug;26(3):S270

Proton uptake by carboxylic acid groups upon photoreduction of the secondary quinone (QB) in bacterial reaction centers from Rhodobacter sphaeroides: FTIR studies on the effects of replacing Glu H173. Nabedryk E, et al. **Biochemistry** 1998 Oct 13;37(41):14457-62

PQQ as redox shuttle for quinoprotein glucose dehydrogenase. Jin W, et al. **Biol Chem** 1998 Aug-Sep; 379(8-9):1207-11

Indolequinone antitumor agents: relationship between quinone structure and rate of metabolism by recombinant human NQO1. Beall HD, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):545-8

Transcriptional activity of quinone methides derived from the tumor promoter butylated hydroxytoluene in HepG2 cells. Desjardins JP, et al. **Cancer Lett** 1998 Sep 25; 131(2):201-7

Redox cycling of polycyclic aromatic hydrocarbon o-quinones: metal ion-catalyzed oxidation of catechols bypasses inhibition by superoxide dismutase. Jarabak R, et al. **Chem Biol Interact** 1998 Oct 2;115(3):201-13

Kinetics of redox interaction between substituted quinones and ascorbate under aerobic conditions. Roginsky VA, et al. **Chem Biol Interact** 1999 Jul 1;121(2):177-97

Dihydrodiol dehydrogenases and polycyclic aromatic hydrocarbon activation: generation of reactive and redox active o-quinones. Penning TM, et al. **Chem Res Toxicol** 1999 Jan;12(1):1-18 (140 ref.)

The major metabolite of equilin, 4-hydroxyequilin, autoxidizes to an o-quinone which isomerizes to the potent cytotoxin 4-hydroxyequilenin-o-quinone. Zhang F, et al. **Chem Res Toxicol** 1999 Feb;12(2):204-13

An Escherichia coli mutant quinol:fumarate reductase contains an EPR-detectable semiquinone stabilized at the proximal quinone-binding site. Hägerhäll C, et al. **J Biol Chem** 1999 Sep 10;274(37):26157-64

Dopamine quinone formation and protein modification associated with the striatal neurotoxicity of methamphetamine: evidence against a role for extracellular dopamine. LaVoie MJ, et al. **J Neurosci** 1999 Feb 15; 19(4):1484-91

Detection of 2-hydroxyiminostilbene in the urine of patients taking carbamazepine and its oxidation to a reactive iminoquinone intermediate. Ju C, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):51-6

Reducing compounds initiate the TRP2-catalyzed conversion of L-dopachrome to DHICA [letter] Rosengren E, et al. **Melanoma Res** 1998 Oct;8(5):469-70

Light-induced absorbance changes in Phycomyces: evidence for cryptochrome-associated flavosemiquinones. Schmidt W, et al. **Planta** 1999 Apr;208(2):274-82

Dose-specific production of chlorinated quinone and semiquinone adducts in rodent livers following administration of pentachlorophenol. Lin PH, et al. **Toxicol Sci** 1999 Jan;47(1):126-33

PHARMACOLOGY

Isolation of a variant which has reduced Src activity from SH-SY5Y neuroblastoma cells. Hiwasa T, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3311-4

Quenching of chlorophyll fluorescence by quinones. Samuilov VD, et al. **Biochem Mol Biol Int** 1998 Oct; 46(2):333-41

Different early effets of tyrphostin AG957 and geldanamycins on mitogen-activated protein kinase and p120cbl phosphorylation in anti CD-3-stimulated T-lymphoblasts. Losiewicz MD, et al. **Biochem Pharmacol** 1999 Feb 1;57(3):281-9

The effect of hypericin and hypocrellin-A on lipid membranes and membrane potential of 3T3 fibroblasts. Chaloupka R, et al. **Biochim Biophys Acta** 1999 Apr 14; 1418(1):39-47

Quinone analogs prevent enzymes targeted in Friedreich ataxia from iron-induced injury in vitro. Rustin P, et al. **Biofactors** 1999;9(2-4):247-51

Effect of herbimycin A on tyrosine kinase receptors and platelet derived growth factor (PDGF)-induced signal transduction. Murakami Y, et al. **Biol Pharm Bull** 1998 Oct; 21(10):1030-5

Photoaffinity study of the cellular interactions of ilimaquinone. Radeke HS, et al. **Bioorg Med Chem** 1998 Aug;6(8):1227-32

Cytotoxic mechanisms of anti-tumour quinones in parental and resistant lymphoblasts. Halinska A, et al. **Br J Cancer Suppl** 1996 Jul;27:S23-7

Astrocyte stellation induced by tyrosine kinase inhibitors in culture. Abe K, et al. **Brain Res** 1999 Aug 7;837(1-2):306-8

Wild-type p53 protein potentiates phototoxicity of 2-BA-2-DMHA in HT29 cells expressing endogenous mutant p53. Zhang WG, et al. **Cancer Lett** 1999 Apr 26; 138(1-2):189-95

Effects of geldanamycin on signaling through activator-protein 1 in hypoxic HT29 human colon adenocarcinoma cells. Vasilevskaya IA, et al. **Cancer Res** 1999 Aug 15;59(16):3935-40

Benzoquinoid ansamycins (herbimycin A and geldanamycin) interfere with the maturation of growth factor receptor tyrosine kinases. Sakagami M, et al. **Cell Stress Chaperones** 1999 Mar;4(1):19-28

Interactions of (-)-ilimaquinone with methylation enzymes: implications for vesicular-mediated secretion. Radeke HS, et al. **Chem Biol** 1999 Sep;6(9):639-47

The major metabolite of equilin, 4-hydroxyequilin, autoxidizes to an o-quinone which isomerizes to the potent cytotoxin 4-hydroxyequilenin-o-quinone. Zhang F, et al. **Chem Res Toxicol** 1999 Feb;12(2):204-13

Disruption of zebrafish somite development by pharmacologic inhibition of Hsp90. Lele Z, et al. **Dev Biol** 1999 Jun 1;210(1):56-70

Decreases in cAMP phosphodiesterase activity in hepatocytes cultured with herbimycin A due to cellular microtubule polymerization related to inhibition of tyrosine phosphorylation of alpha-tubulin. Ishibashi K, et al. **Eur J Biochem** 1999 Mar;260(2):398-408

Herbimycin-A attenuates ischaemia-reperfusion induced pulmonary neutrophil infiltration. Javadpour M, et al. **Eur J Vasc Endovasc Surg** 1998 Nov;16(5):377-82

Cytotoxicity and superoxide anion generation by some naturally occurring quinones. Johnson Inbaraj J, et al. **Free Radic Biol Med** 1999 May;26(9-10):1072-8

Effect of structural modifications on photosensitizing activities of hypocrellin dyes: EPR and spectrophotometric studies. Yuying H, et al. **Free Radic Biol Med** 1999 May; 26(9-10):1146-57

Modulation of normal human eosinophil chemotaxis in vitro by herbimycin A, erbstatin and pervanadate. El-Shazly A, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:10-3

Phosphatoquinones A and B, novel tyrosine phosphatase inhibitors produced by Streptomyces sp [published erratum appears in J Antibiot (Tokyo) 1999 May;52(5):C-1] Kagamizono T, et al. **J Antibiot (Tokyo)** 1999 Feb; 52(2):75-80

Heat-induced oligomerization of the molecular chaperone Hsp90. Inhibition by ATP and geldanamycin and activation by transition metal oxyanions. Chadli A, et al. **J Biol Chem** 1999 Feb 12;274(7):4133-9

Herbimycin A inhibits both dephosphorylation and translocation of cofilin induced by opsonized zymosan in macrophagelike U937 cells. Nagaishi K, et al. **J Cell Physiol** 1999 Sep;180(3):345-54

Structural basis for inhibition of the Hsp90 molecular chaperone by the antitumor antibiotics radicicol and geldanamycin. Roe SM, et al. **J Med Chem** 1999 Jan 28; 42(2):260-6

Geldanamycin provides posttreatment protection against glutamate-induced oxidative toxicity in a mouse hippocampal cell line. Xiao N, et al. **J Neurochem** 1999 Jan;72(1):95-101

The compound 14-keto-stypodiol diacetate from the algae Stypopodium flabelliforme inhibits microtubules and cell proliferation in DU-145 human prostatic cells. Depix MS, et al. **Mol Cell Biochem** 1998 Oct;187(1-2):191-9

Heat shock protein 90-dependent (geldanamycin-inhibited) movement of the glucocorticoid receptor through the cytoplasm to the nucleus requires intact cytoskeleton. Galigniana MD, et al. **Mol Endocrinol** 1998 Dec; 12(12):1903-13

The benzoquinone ansamycin geldanamycin stimulates proteolytic degradation of focal adhesion kinase. Ochel HJ, et al. **Mol Genet Metab** 1998 Jan;66(1):24-30

Site-selective modification of hyperreactive cysteines of ryanodine receptor complex by quinones. Feng W, et al. **Mol Pharmacol** 1999 May;55(5):821-31

Pyrroloquinoline quinone: a novel vitamin? Bishop A, et al. **Nutr Rev** 1998 Oct;56(10):287-93 (52 ref.)

The role of oxygen in the antiviral activity of hypericin and hypocrellin. Park J, et al. **Photochem Photobiol** 1998 Oct; 68(4):593-7

Differential toxicities of TCDD in vivo among normal, c-src knockout, geldanamycin- and quercetin-treated mice. Dunlap DY, et al. **Toxicology** 1999 Jul 15;135(2-3):95-107

RADIATION EFFECTS

EPR and spectrophotometric studies on free radicals (O2.-, Cys-HB.-) and singlet oxygen (1O2) generated by irradiation of cysteamine substituted hypocrellin B. He YY, et al. **Int J Radiat Biol** 1998 Nov;74(5):647-54

Photophysics of hypericin and hypocrellin A in complex with subcellular components: interactions with human serum albumin. Das K, et al. **Photochem Photobiol** 1999 Jun; 69(6):633-45

THERAPEUTIC USE

Immunosuppressive effects of the heat shock protein 90-binding antibiotic geldanamycin. Sugita T, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):587-95

TOXICITY

Role of quinoids in estrogen carcinogenesis. Bolton JL, et al. **Chem Res Toxicol** 1998 Oct;11(10):1113-27 (150 ref.)

QUINOXALINES

ADMINISTRATION & DOSAGE

Pupillographic, tonographic and refractive parameter changes after topical instillation of Brimonidine tartrate 0.2% in healthy subjects. Broglíatti B, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):34-5

Update in glaucoma: the new pharmacotherapies. Brimonidine versus apraclonidine. Crichton AC. **Can J Ophthalmol** 1998 Aug;33(5):254-5; discussion 257-8

Infusional high-dose application of the calcium-channel-blocking and antiglutamatergic agent caroverine in the treatment of alcohol withdrawal (DSM-III-R 291.80). Geretsegger C, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):191-4

Dose escalation study of the NMDA glycine-site antagonist licostinel in acute ischemic stroke. Albers GW, et al. **Stroke** 1999 Mar;30(3):508-13

Continuing postischemic neuronal death in CA1: influence of ischemia duration and cytoprotective doses of NBQX and SNX-111 in rats. Colbourne F, et al. **Stroke** 1999 Mar; 30(3):662-8

ADVERSE EFFECTS

Apparent central nervous system depression in infants after the use of topical brimonidine. Carlsen JO, et al. **Am J Ophthalmol** 1999 Aug;128(2):255-6

Systemic adverse effects of topical treatment with brimonidine in an infant with secondary glaucoma [letter] Korsch E, et al. **Eur J Pediatr** 1999 Aug;158(8):685

Lack of cross-reactive allergic response to brimonidine in patients with known apraclonidine allergy. Gordon RN, et al. **Eye** 1998;12 (Pt 4):697-700

BLOOD

Development of an HPLC method for determining the alpha 2-adrenergic receptor agonist brimonidine in blood serum and aqueous humor of the eye. Karamanos NK, et al. **Biomed Chromatogr** 1999 Feb;13(1):86-8

CHEMICAL SYNTHESIS

5-substituted 2-bromoindolo[3,2-b]quinoxalines. A class of potential antitumor agents with cdc25 phosphatase inhibitory properties. Abadi AH. **Arch Pharm (Weinheim)** 1998 Nov;331(11):352-8

4-Amino-6-benzylamino-1,2-dihydro-2-phenyl-1,2,4-triazolo [4,3-alpha]-quinoxalin-1-one: a new A2A adenosine receptor antagonist with high selectivity versus A1 receptors. Colotta V, et al. **Arch Pharm (Weinheim)** 1999 Feb;332(2):39-41

Synthesis, glycine/NMDA and AMPA binding activity of some new 2,5,6-trioxopyrazino[1,2,3-de]quinoxalines and of their restricted analogs 2,5-dioxo- and 4,5-dioxoimidazo[1,5,4-de]quinoxalines. Varano F, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):201-7

Cytotoxic effects of quinoxaline derivatives on human cancer cell lines. Yoo HW, et al. **Arch Pharm (Weinheim)** 1998 Oct;331(10):331-3

New quinoxaline 1,4-di-N-oxides for treatment of tuberculosis. Sainz Y, et al. **Arzneimittelforschung** 1999 Jan; 49(1):55-9

N-phosphonoalkyl-5-aminomethylquinoxaline-2,3-diones: in vivo active AMPA and NMDA(glycine) antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1999 Jan 18; 9(2):249-54

The synthesis and evaluation of benzannelated-azatoxins: the benzazatoxins. Miller TA, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1065-70

Search for alpha 1-adrenoceptor subtypes selective antagonists: design, synthesis and biological activity of cystazosin, an alpha 1D-adrenoceptor antagonist. Minarini A, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1353-8

Synthesis and antituberculosis activity of some new 2-quinoxalinecarbonitriles. Montoya ME, et al. **Farmaco** 1998 Aug-Sep;53(8-9):570-3

Synthesis of substituted 2-ethoxycarbonyl- and 2-carboxyquinoxalin-3-ones for evaluation of antimicrobial and anticancer activity. Sanna P, et al. **Farmaco** 1998 Jul 30;53(7):455-61

Quinoxaline chemistry. Part 12. 3-Carboxy-2[phenoxy]-6(7)substituted quinoxalines and N-[4-(6(7) substituted-3-carboxyquinoxalin-2-yl)hydroxy] benzoylglutamates. Synthesis and evaluation of in vitro anticancer activity. Vitale G, et al. **Farmaco** 1998 Aug-Sep; 53(8-9):594-601

4,5-Dihydro-1,2,4-triazolo[1,5-a]quinoxalin-4-ones: excitatory amino acid antagonists with combined glycine/NMDA and AMPA receptor affinity. Catarzi D, et al. **J Med Chem** 1999 Jul 1;42(13):2478-84

Piperazine imidazo[1,5-a]quinoxaline ureas as high-affinity GABAA ligands of dual functionality. Jacobsen EJ, et al. **J Med Chem** 1999 Apr 8;42(7):1123-44

Design and synthesis of novel quinoxaline-2,3-dione AMPA/GlyN receptor antagonists: amino acid derivatives. Nikam SS, et al. **J Med Chem** 1999 Jun 17;42(12):2266-71

Synthesis and cytotoxicity of 2-methyl-4, 9-dihydro-1-substituted-1H-imidazo[4,5-g]quinoxaline-4,9-diones and 2,3-disubstituted-5,10-pyrazino[2,3-g]quinoxalinediones. Yoo HW, et al. **J Med Chem** 1998 Nov 19;41(24):4716-22

Synthesis and antituberculosis activity of new 2-quinoxalinecarbonitrile 1,4-di-N-oxides. Ortega MA, et al. **Pharmazie** 1999 Jan;54(1):24-5

CHEMISTRY

Quinoxaline chemistry. Part 11. 3-Phenyl-2[phenoxy- and phenoxymethyl]-6(7) or 6,8-substituted quinoxalines and N-[4-(6(7)-substituted or

6,8-disubstituted-3-phenylquinoxalin-2-yl)hydroxy or hydroxymethyl] benzoylglutamates. Synthesis and evaluation of in vitro anticancer activity and enzymatic inhibitory activity against dihydrofolate reductase and thymidylate synthase. Corona P, et al. **Farmaco** 1998 Jul 30;53(7):480-93

Structures of Tyr188Leu mutant and wild-type HIV-1 reverse transcriptase complexed with the non-nucleoside inhibitor HBY 097: inhibitor flexibility is a useful design feature for reducing drug resistance. Hsiou Y, et al. **J Mol Biol** 1998 Nov 27;284(2):313-23

METABOLISM

Comparative biotransformation studies of MeIQx and PhIP in animal models and humans. Garner RC, et al. **Cancer Lett** 1999 Sep 1;143(2):161-5

Involvement of free radicals in the formation of heterocyclic amines and prevention by antioxidants. Kikugawa K. **Cancer Lett** 1999 Sep 1;143(2):123-6

Free radical generation from heterocyclic amines by cytochrome b5 reductase in the presence of NADH. Maeda H, et al. **Cancer Lett** 1999 Sep 1;143(2):117-21

Macromolecular adduct formation and metabolism of heterocyclic amines in humans and rodents at low doses. Turteltaub KW, et al. **Cancer Lett** 1999 Sep 1;143(2):149-55

In vivo mutagenicity and hepatocarcinogenicity of 2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline (MeIQx) in bitransgenic c-myc/lambda lacZ mice. Ryu DY, et al. **Cancer Res** 1999 Jun 1;59(11):2587-92

N-Acetyltransferase expression and DNA binding of N-hydroxyheterocyclic amines in human prostate epithelium. Wang CY, et al. **Carcinogenesis** 1999 Aug; 20(8):1591-5

Comparison of DNA-adduct and tissue-available dose levels of MeIQx in human and rodent colon following administration of a very low dose. Mauthe RJ, et al. **Int J Cancer** 1999 Feb 9;80(4):539-45

L-764406 is a partial agonist of human peroxisome proliferator-activated receptor gamma. The role of Cys313 in ligand binding. Elbrecht A, et al. **J Biol Chem** 1999 Mar 19;274(12):7913-22

PHARMACOKINETICS

Platelet alpha2-adrenoceptor alterations in patients with essential hypertension. Varani K, et al. **Br J Clin Pharmacol** 1999 Feb;47(2):167-72

PHARMACOLOGY

New approaches for inner ear therapy with glutamate antagonists. Oestreicher E, et al. **Acta Otolaryngol (Stockh)** 1999 Mar;119(2):174-8

Non-NMDA and NMDA receptors in the synaptic pathway between area postrema and nucleus tractus solitarius. Aylwin ML, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1236-46

The spinal antinociceptive effects of a novel competitive AMPA receptor antagonist, YM872, on thermal or formalin-induced pain in rats. Nishiyama T, et al. **Anesth Analg** 1999 Jul;89(1):143-7

Assessment of ocular hypotensive mechanisms and additivity of antiglaucoma drugs in humans [editorial; comment] Kaufman PF. **Arch Ophthalmol** 1999 May;117(5):673-4 (25 ref.). Comment on: Arch Ophthalmol 1999 May;117(5):586-91.

Comparison of the early effects of brimonidine and apraclonidine as topical ocular hypotensive agents [see comments] Maus TL, et al. **Arch Ophthalmol** 1999 May; 117(5):586-91. Comment in: Arch Ophthalmol 1999 May;117(5):673-4.

Comparison of the efficacy of apraclonidine and brimonidine as aqueous suppressants in humans. Schadlu R, et al. **Arch Ophthalmol** 1998 Nov;116(11):1441-4

AMPA receptors and motivation for drug: effect of the selective antagonist NBQX on behavioural sensitization and on self-administration in mice. Jackson A, et al. **Behav Pharmacol** 1998 Sep;9(5-6):457-67

Effects of 1H-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) and Nomega(6)-nitro-L-arginine methyl ester (NAME) on cyclic GMP levels during muscarinic activation of tracheal smooth muscle. Guerra de González L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):563-9

Novel vasopressin V2 receptor-selective antagonists, pyrrolo[2,1-a]quinoxaline and pyrrolo[2,1-c][1,4]benzodiazepine derivatives. Ohtake Y, et al. **Bioorg Med Chem** 1999 Jun;7(6):1247-54

5-Aminomethylquinoxaline-2,3-diones, Part III: Arylamide derivatives as highly potent and selective glycine-site NMDA receptor antagonists. Acklin P, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):493-8

5-Aminomethylquinoxaline-2,3-diones. Part I: A novel class of AMPA receptor antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):65-70

5-Aminomethylquinoxaline-2,3-diones. Part II: N-aryl derivatives as novel NMDA/glycine and AMPA antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):71-4

N-phosphonoalkyl-5-aminomethylquinoxaline-2,3-diones: in vivo active AMPA and NMDA(glycine) antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1999 Jan 18; 9(2):249-54

Comparison of two soluble guanylyl cyclase inhibitors, methylene blue and ODQ, on sodium nitroprusside-induced relaxation in guinea-pig trachea. Hwang TL, et al. **Br J Pharmacol** 1998 Nov;125(6):1158-63

Influence of a selective guanylate cyclase inhibitor, and of the contraction level, on nitrergic relaxations in the gastric fundus. Lefebvre RA. **Br J Pharmacol** 1998 Aug; 124(7):1439-48

LU 73068, a new non-NMDA and glycine/NMDA receptor antagonist: pharmacological characterization and comparison with NBQX and L-701,324 in the kindling model of epilepsy. Potschka H, et al. **Br J Pharmacol** 1998 Nov;125(6):1258-66

Failure of 1H-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) to inhibit soluble guanylyl cyclase in rat ventricular cardiomyocytes. Wegener JW, et al. **Br J Pharmacol** 1999 Jun;127(3):693-700

The network-selective actions of quinoxalines on the neurocircuitry operations of the rabbit retina. Cohen ED, et al. **Brain Res** 1999 Jun 12;831(1-2):206-28

Neuroprotective effect of the novel glutamate AMPA receptor antagonist YM872 assessed with in vivo MR imaging of rat MCA occlusion. Håberg A, et al. **Brain Res** 1998 Nov 16;811(1-2):63-70

A novel AMPA receptor antagonist, YM872, reduces infarct size after middle cerebral artery occlusion in rats. Kawasaki-Yatsugi S, et al. **Brain Res** 1998 May 18; 793(1-2):39-46

Non-NMDA receptor antagonist-induced drinking in rat. Xu Z, et al. **Brain Res** 1998 Oct 12;808(1):124-7

Restenosis following angioplasty in the swine coronary artery is inhibited by an orally active PDGF-receptor tyrosine kinase inhibitor, RPR101511A. Bilder G, et al. **Circulation** 1999 Jun 29;99(25):3292-9

Effects of a novel guanylyl cyclase inhibitor on the vascular actions of nitric oxide and peroxynitrite in immunostimulated smooth muscle cells and in endotoxic shock [see comments] Zingarelli B, et al. **Crit Care Med** 1999 Sep;27(9):1701-7. Comment in: Crit Care Med 1999 Sep;27(9):2019-22.

A new pyrrolyl-quinoxalinedione series of non-NMDA glutamate receptor antagonists: pharmacological characterization and comparison with NBQX and valproate in the kindling model of epilepsy. Löscher W, et al. **Eur J Neurosci** 1999 Jan;11(1):250-62

From the lab to the clinic: activation of an alpha-2 agonist pathway is neuroprotective in models of retinal and optic nerve injury. Wheeler LA, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9 Suppl 1:S17-21

Effects of guanylyl cyclase and protein kinase G inhibitors on vasodilatation in non-tolerant and tolerant bovine coronary arteries. De la Lande IS, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):39-46

Effects of YM90K, a selective AMPA receptor antagonist, on amygdala-kindling and long-term hippocampal potentiation in the rat. Kodama M, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):11-9

Functional characterisation of the pharmacological profile of the putative alpha1B-adrenoceptor antagonist, (+)-cyclazosin. Stam WB, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):79-83

Quinoxaline chemistry. Part 11. 3-Phenyl-2[phenoxy- and phenoxymethyl]-6(7) or 6,8-substituted quinoxalines and N-[4-(6(7)-substituted or 6,8-disubstituted-3-phenylquinoxalin-2-yl)hydroxy or hydroxymethyl] benzoylglutamates. Synthesis and evaluation of in vitro anticancer activity and enzymatic inhibitory activity against dihydrofolate reductase and thymidylate synthase. Corona P, et al. **Farmaco** 1998 Jul 30;53(7):480-93

Synthesis and antituberculosis activity of some new 2-quinoxalinecarbonitriles. Montoya ME, et al. **Farmaco** 1998 Aug-Sep;53(8-9):570-3

Synthesis of 3,6,7-substituted-quinoxalin-2-ones for evaluation of antimicrobial and anticancer activity. Part 2. Sanna P, et al. **Farmaco** 1999 Mar 31;54(3):161-8

Preparation and biological evaluation of 6/7-trifluoromethyl(nitro)-, 6,7-difluoro-3-alkyl (aryl)-substituted-quinoxalin-2-ones. Part 3. Sanna P, et al. **Farmaco** 1999 Mar 31;54(3):169-77

Quinoxaline chemistry. Part 12. 3-Carboxy-2[phenoxy]-6(7)substituted quinoxalines and N-[4-(6(7) substituted-3-carboxyquinoxalin-2-yl)hydroxy] benzoylglutamates. Synthesis and evaluation of in vitro anticancer activity. Vitale G, et al. **Farmaco** 1998 Aug-Sep; 53(8-9):594-601

Preclinical antitumor efficacy of analogs of XK469: sodium-(2-[4-(7-chloro-2-quinoxalinyloxy) phenoxy]propionate. Corbett TH, et al. **Invest New Drugs** 1998;16(2):129-39

Preclinical antitumor activity of XK469 (NSC 656889). LoRusso PM, et al. **Invest New Drugs** 1998-99;16(4):287-96

Effects of the AMPA receptor antagonist NBQX on outcome of newborn pigs after asphyxic cardiac arrest. Brambrink AM, et al. **J Cereb Blood Flow Metab** 1999 Aug; 19(8):927-38

The effect of latanoprost and brimonidine on rabbit subconjunctival fibroblasts. Lark KK, et al. **J Glaucoma** 1999 Feb;8(1):72-6

The synthetic non-toxic drug 2,3-dimethyl-6(2-dimethylaminoethyl)-6H-indolo-(2,3-b) quinoxaline inhibits neutrophil production of reactive oxygen species. Harbecke O, et al. **J Leukoc Biol** 1999 Jun; 65(6):771-7

The non-NMDA glutamate receptor antagonists 6-cyano-7-nitroquinoxaline-2,3-dione and 2,3-dihydroxy-6-nitro-7-sulfamoylbenzo(f)quinoxaline, but not NMDA antagonists, block the intrastriatal neurotoxic effect of MPP+. Merino M, et al. **J Neurochem** 1999 Aug;73(2):750-7

Noradrenaline release from cultured mouse postganglionic sympathetic neurons: autoreceptor-mediated modulation. Trendelenburg AU, et al. **J Neurochem** 1999 Oct; 73(4):1439-45

2,3-Dihydroxy-6-nitro-7-sulfamoyl-benzo(f)quinoxaline reduces glial loss and acute white matter pathology after experimental spinal cord contusion. Rosenberg LJ, et al. **J Neurosci** 1999 Jan 1;19(1):464-75

Effects of 0.2% brimonidine on ocular anterior structures. Marchini G, et al. **J Ocul Pharmacol Ther** 1999 Aug; 15(4):337-44

Inhibition by 1H-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) of responses to nitric oxide-donors in rat pulmonary artery: influence of the mechanism of nitric oxide generation. Homer KL, et al. **J Pharm Pharmacol** 1999 Feb;51(2):135-9

Delayed treatment with YM90K, an AMPA receptor antagonist, protects against ischaemic damage after middle cerebral artery occlusion in rats. Kawasaki-Yatsugi S, et al. **J Pharm Pharmacol** 1998 Aug;50(8):891-8

In-vitro characterization of YM872, a selective, potent and highly water-soluble alpha-amino-3-hydroxy-5-methylisoxazole-4-propionate receptor antagonist. Kohara A, et al. **J Pharm Pharmacol** 1998 Jul;50(7):795-801

Drug discrimination analysis of partial agonists at the benzodiazepine site. I. Differential effects of U-78875 across training conditions in baboons and rats. Ator NA, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1434-46

CNQX but not NBQX prevents expression of amphetamine-induced place preference conditioning: a role for the glycine site of the NMDA receptor, but not AMPA receptors. Mead AN, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):9-15

Neuroprotective efficacy of YM872, an alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptor antagonist, after permanent middle cerebral artery occlusion in rats. Takahashi M, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):559-66

Mechanism of oxidative DNA damage induced by a heterocyclic amine, 2-amino-3,8-dimethylimidazo[4,5f]quinoxaline. Murata M, et al. **Jpn J Cancer Res** 1999 Mar;90(3):268-75

Photoprotective effects of some quinoxaline 1,4-dioxides in hairless mice. Gali-Muhtasib HU, et al. **Med Oncol** 1998 Dec;15(4):262-9

The soluble guanylyl cyclase inhibitor 1H-[1,2,4]oxadiazolo[4,3,-a] quinoxalin-1-one is a nonselective heme protein inhibitor of nitric oxide synthase and other cytochrome P-450 enzymes involved in nitric oxide donor bioactivation. Feelisch M, et al. **Mol Pharmacol** 1999 Aug;56(2):243-53

YM90K, an AMPA receptor antagonist, protects against ischemic damage caused by permanent and transient middle cerebral artery occlusion in rats. Kawasaki-Yatsugi S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):586-91

Reevaluation of ACEA 1021 as an antagonist at the strychnine-insensitive glycine site of the N-methyl-D-aspartate receptor. Lingenhöhl K, et al. **Neuropharmacology** 1998 Jun;37(6):729-37

Interactions of GYKI 52466 and NBQX with cyclothiazide at AMPA receptors: experiments with outside-out patches and EPSCs in hippocampal neurones. Rammes G, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1299-320

Effects of YM872 on atrophy of substantia nigra reticulata after focal ischemia in rats. Ni JW, et al. **Neuroreport** 1998 Nov 16;9(16):3719-24

Dizocilpine maleate, MK-801, but not 2,3-dihydroxy-6-nitro-7-sulfamoyl-benzo(f)quinoxaline, NBQX, prevents transneuronal degeneration of nigral neurons after neurotoxic striatal-pallidal lesion. DeGiorgio LA, et al. **Neuroscience** 1999 Apr;90(1):79-85

Alpha2-adrenoceptor modulation of cortical acetylcholine release in vivo. Tellez S, et al. **Neuroscience** 1999; 89(4):1041-50

Effect of 2,3-dihydroxy-6-nitro-7-sulfamoyl-benzo(f)quinoxaline on methamphetamine- and cocaine-induced behavioral sensitization. Akiyama K, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):419-26

ACEA-1328, an NMDA receptor antagonist, increases the potency of morphine and U50,488H in the tail flick test in mice. Lutfy K, et al. **Pharmacol Res** 1998 Dec; 38(6):453-60

A yohimbine-dependent, UK14,304 induced ion transient in HT29 cells studied by X-ray microanalysis. Zhang W, et al. **Scanning Microsc** 1996;10(1):293-8; discussion 298-9

[Hippocampal non-NMDA and GABA-A receptors in benzylpenicillin-induced epilepsy and electro-acupuncture antiepilepsy] Liu J, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar;18(2):189-91 (Eng. Abstr.) **(Chi)**

[Glutamate neurotoxicity during spinal cord ischemia--neuroprotective effects of glutamate receptor

QUINOXALINES

antagonists] Nakamichi T.
Jpn J Thorac Cardiovasc Surg 1998 Sep;46(9):854–9 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Effects of brimonidine 0.2% on blue–yellow perimetry of glaucomatous patients. Mastropasqua L, et al.
Acta Ophthalmol Scand Suppl 1998;(227):36

Caroverine in tinnitus treatment [letter; comment] Domeisen H, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):606–8 . Comment on: Acta Otolaryngol (Stockh) 1997 Nov;117(6):825–30.

Brimonidine tartrate 0.2% twice daily vs timolol 0.5% twice daily: 1-year results in glaucoma patients. Brimonidine Study Group. Katz LJ. **Am J Ophthalmol** 1999 Jan; 127(1):20–6

Long–term brimonidine therapy in glaucoma patients with apraclonidine allergy. Shin DH, et al.
Am J Ophthalmol 1999 May;127(5):511–5

Acute versus chronic effects of brimonidine on aqueous humor dynamics in ocular hypertensive patients. Toris CB, et al. **Am J Ophthalmol** 1999 Jul;128(1):8–14

Resistance mutations selected in vivo under therapy with anti–HIV drug HBY 097 differ from resistance pattern selected in vitro. Rübsamen–Waigmann H, et al.
Antiviral Res 1999 May;42(1):15–24

Pressure or progression? [letter; comment] Burnstein Y, et al. **Arch Ophthalmol** 1999 Mar;117(3):417–9. Comment on: Arch Ophthalmol 1997 Jul;115(7):847–52.

Effect of brimonidine tartrate on ocular hemodynamic measurements. Lachkar Y, et al. **Arch Ophthalmol** 1998 Dec;116(12):1591–4

5–substituted 2–bromoindolo[3,2–b]quinoxalines. A class of potential antitumor agents with cdc25 phosphatase inhibitory properties. Abadi AH.
Arch Pharm (Weinheim) 1998 Nov;331(11):352–8

Apraclonidine 0.5% versus brimonidine 0.2% for the control of intraocular pressure elevation following anterior segment laser procedures. Chevrier RL, et al.
Ophthalmic Surg Lasers 1999 Mar;30(3):199–204

The short–term effect of adding brimonidine 0.2% to timolol treatment in patients with open–angle glaucoma. Yüksel N, et al. **Ophthalmologica** 1999;213(4):228–33

Control of intraocular pressure elevations after argon laser trabeculoplasty: comparison of brimonidine 0.2% to apraclonidine 1.0%. Barnes SD, et al. **Ophthalmology** 1999 Oct;106(10):2033–7

Twelve–month results of an ongoing randomized trial comparing brimonidine tartrate 0.2% and timolol 0.5% given twice daily in patients with glaucoma or ocular hypertension. Brimonidine Study Group 2. LeBlanc RP. **Ophthalmology** 1998 Oct;105(10):1960–7

Efficacy of brimonidine 0.2% as adjunctive therapy for patients with glaucoma inadequately controlled with otherwise maximal medical therapy. thoe Schwartzenberg GW, et al. **Ophthalmology** 1999 Aug;106(8):1616–20

The neuroprotective effect of the novel AMPA receptor antagonist PD152247 (PNQX) in temporary focal ischemia in the rat. Schielke GP, et al. **Stroke** 1999 Jul;30(7):1472–7

YM872, a highly water–soluble AMPA receptor antagonist, preserves the hemodynamic penumbra and reduces brain injury after permanent focal ischemia in rats. Shimizu–Sasamata M, et al. **Stroke** 1998 Oct;29(10):2141–8

TOXICITY

Low–dose carcinogenicity of a heterocyclic amine, 2–amino–3,8–dimethylimidazo[4,5–f]quinoxaline: relevance to risk assessment. Fukushima S. **Cancer Lett** 1999 Sep 1; 143(2):157–9

Establishment of a Salmonella tester strain highly sensitive to mutagenic heterocylic amines. Kamataki T, et al.
Cancer Lett 1999 Sep 1;143(2):113–6

Carcinogenic risk assessment of MeIQx and PhIP in a newborn mouse two–stage tumorigenesis assay. Miyauchi M, et al. **Cancer Lett** 1999 Jul 19;142(1):75–81

Role of well–done, grilled red meat, heterocyclic amines (HCAs) in the etiology of human cancer. Sinha R, et al.
Cancer Lett 1999 Sep 1;143(2):189–94

Carcinogenicity and mutagenicity of heterocyclic amines in transgenic mouse models. Thorgeirsson SS, et al.
Cancer Lett 1999 Sep 1;143(2):245–7

Heterocyclic amine mixture carcinogenesis and its enhancement by caffeine in F344 rats. Tsuda H, et al.
Cancer Lett 1999 Sep 1;143(2):229–34

Carcinogenicity of heterocyclic amines for the pancreatic duct epithelium in hamsters. Yoshimoto M, et al.
Cancer Lett 1999 Sep 1;143(2):235–9

Heterocyclic aromatic amines induce DNA strand breaks and cell transformation. Pfau W, et al. **Carcinogenesis** 1999 Apr; 20(4):545–51

Respiratory effects of glutamate receptor antagonists in neonate and adult mammals. Borday V, et al.
Eur J Pharmacol 1998 May 8;348(2–3):235–46

Lack of carcinogenicity of 2–amino–3,8–dimethylimidazo[4,5–f]quinoxaline (MeIQx) in cynomolgus monkeys. Ogawa K, et al.
Jpn J Cancer Res 1999 Jun;90(6):622–8

Verapamil contributes to the clastogenic effects of acrylamide, cyclophosphamide, and dioxidine on somatic cells of BALB/C and C57BL/6 mice. Nesterova EV, et al. **Mutat Res** 1999 Apr 6;440(2):171–9

Disruption of mitochondrial activities in rabbit and human hepatocytes by a quinoxalinone anxiolytic and its carboxylic acid metabolite. Ulrich RG, et al. **Toxicology** 1998 Nov 2;131(1):33–47

URINE

Biomonitoring of heterocyclic aromatic amine metabolites in human urine. Stillwell WG, et al. **Cancer Lett** 1999 Sep 1;143(2):145–8

QUINPIROLE

PHARMACOKINETICS

Inhibition of [3H]quinpirole binding by a monoamine oxidase inhibitor in subcellular fractions of rat striatum. Levant B, et al. **Life Sci** 1998;63(18):1643–51

PHARMACOLOGY

The dopaminergic modulation of fear: quinpirole impairs the recall of emotional memories in rats. Nader K, et al.
Behav Neurosci 1999 Feb;113(1):152–65

Quinpirole induces compulsive checking behavior in rats: a potential animal model of obsessive–compulsive disorder (OCD). Szechtman H, et al. **Behav Neurosci** 1998 Dec; 112(6):1475–85

Relationship between electroacupuncture analgesia and dopamine receptors in nucleus accumbens. Wang YQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):494–6

Behavioural topography in the striatum: differential effects of quinpirole and D–amphetamine microinjections. Canales JJ, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):111–9

The effects of continuous cocaine dose on the induction of behavioral tolerance and dopamine autoreceptor function. King GR, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):207–15

Involvement of spinal dopamine receptors in mediation of the hypotensive and bradycardic effects of systemic quinpirole in anaesthetised rats. Lahlou S.
Eur J Pharmacol 1998 Jul 24;353(2–3):227–37

Interaction of the dopamine D2 receptor agonist quinpirole with sympathetic vasomotor tone and the central action of rilmenidine in conscious rabbits. van den Buuse M, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2–3):187–94

Diazepam–induced hyperphagia in mice is sensitive to quinpirole. Rahminiwati M, et al. **J Vet Med Sci** 1999 Jul; 61(7):777–80

Effects of intraaccumbens microinjections of quinopirole on head turning and circling movement in the rat. Crescimanno G, et al. **Pharmacol Biochem Behav** 1998 Aug; 60(4):829–34

Role of dopamine systems in obsessive–compulsive disorder (OCD): implications from a novel psychostimulant–induced animal model. Szechtman H, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):55–61 (35 ref.)

Nicotine blocks quinpirole–induced behavior in rats: psychiatric implications. Tizabi Y, et al.
Psychopharmacology (Berl) 1999 Aug;145(4):433–41

QUINUCLIDINES

CHEMICAL SYNTHESIS

3–Hydroxyquinuclidinium derivatives: synthesis of compounds and inhibition of acetylcholinesterase. Reiner E, et al. **Chem Biol Interact** 1999 May 14;119–120:173–81

Quinuclidine inhibitors of 2,3–oxidosqualene cyclase–lanosterol synthase: optimization from lipid profiles. Brown GR, et al. **J Med Chem** 1999 Apr 8; 42(7):1306–11

CHEMISTRY

Stereoisomers of 3–(2,3–dihydrobenzofuran–2–yl)quinuclidine: preparation and muscarinic receptor affinities. Johansson G, et al.
Chirality 1998;10(9):813–20

METABOLISM

In vivo competition studies of Z–(–,–)–[125I]IQNP against 3–quinuclidinyl 2–(5–bromothienyl)–2–thienylglycolate (BrQNT) demonstrating in vivo m2 muscarinic subtype selectivity for BrQNT. Cohen VI, et al.
J Mol Neurosci 1998 Aug;11(1):1–9

Characterization of ethyl (3–quinuclidinyl) acetate (EQA) as a ligand for acetylcholine receptors. Canney DJ, et al.
Life Sci 1998;63(24):PL329–36

Using single photon emission tomography (SPECT) and positron emission tomography (PET) to trace the distribution of muscarinic acetylcholine receptor (MACHR) binding radioligands. Kiesewetter DO, et al.
Life Sci 1999;64(6–7):511–8 (17 ref.)

PHARMACOLOGY

Counteractive effects of a partial (sabcomeline) and a full (RS86) muscarinic receptor agonist on deficits in radial maze performance induced by S–AMPA lesions of the basal forebrain and medial septal area. Hodges H, et al.
Behav Brain Res 1999 Feb 15;99(1):81–92

The profile of sabcomeline (SB–202026), a functionally selective M1 receptor partial agonist, in the marmoset. Harries MH, et al. **Br J Pharmacol** 1998 May;124(2):409–15

3–Hydroxyquinuclidinium derivatives: synthesis of compounds and inhibition of acetylcholinesterase. Reiner E, et al. **Chem Biol Interact** 1999 May 14;119–120:173–81

Effect of SR–140333, a neurokinin–1 receptor antagonist, on airway reactivity to methacholine in sedated rats. Tian J, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):485–8

Effects of SR 140333 and SR 48968 on antigen and substance P–induced activation of guinea–pig alveolar macrophages. Boichot E, et al. **Clin Exp Allergy** 1998 Oct;28(10):1299–305

SR140333, a substance P receptor antagonist, influences morphological and motor changes in rat experimental colitis. Di Sebastiano P, et al. **Dig Dis Sci** 1999 Feb; 44(2):439–44

In vitro characterisation of the muscarinic receptor partial agonist, sabcomeline, in rat cortical and heart membranes. Watson JM, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):69–77

(+/–)–cis–2–methylspiro[1,3–oxathiolane–5,3'–quinuclidine] hydrochloride, hemihydrate (SNI–2011, cevimeline hydrochloride) induces saliva and tear secretions in rats and mice: the role of muscarinic acetylcholine receptors. Iga Y, et al. **Jpn J Pharmacol** 1998 Nov;78(3):373–80

Phase I clinical trials with WAL 2014, a new muscarinic agonist for the treatment of Alzheimer's disease. Adamus WS, et al. **Life Sci** 1995;56(11–12):883–90

Quinuclidin–2–ene–based muscarinic antagonists. Hacksell U, et al. **Life Sci** 1995;56(11–12):831–6

Involvement of neurokinins in antidromic vasodilatation in hairy and hairless skin of the rat hindlimb. Häbler HJ, et al. **Neuroscience** 1999;89(4):1259–68

Sabcomeline (SB–202026), a functionally selective M1 receptor partial agonist, reverses delay–induced deficits in the T–maze. Hatcher JP, et al.
Psychopharmacology (Berl) 1998 Aug;138(3–4):275–82

Divided attention–enhancing effects of AF102B and THA in aging monkeys. O'Neill J, et al.
Psychopharmacology (Berl) 1999 Apr;143(2):123–30

THERAPEUTIC USE

Reduction of motoric agitation and restlessness by AF102B and tacrine in the macaque. Fitten LJ, et al.
J Neuropsychiatry Clin Neurosci 1999 Winter;11(1):79–85

QUINUCLIDINYL BENZILATE

ANALOGS & DERIVATIVES

Iodo–QNB cortical binding and brain perfusion: effects of a cholinergic basal forebrain lesion in the rat. Sorger D, et al. **Nucl Med Biol** 1999 Jan;26(1):9–16

METABOLISM

Modulation by nicotine on binding of cerebral muscarinic receptors with muscarinic agonist and antagonist. Wang H, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):497–9

Inhibition of antagonist and agonist binding to the human brain muscarinic receptor by arachidonic acid. Kjome JR, et al. **J Mol Neurosci** 1998 Jun;10(3):209–17

An increase in [3H]QNB binding by proton–beam irradiation in intact rat brain: an apparent positive cooperativity of binding. Inoue O, et al. **Neurosci Lett** 1998 Jun 26; 250(1):33–6

Age–related effects of rolipram on [3H]quinuclidinyl benzilate and [3H]phorbol 12,13–dibutyrate binding in the rat brain. Chen T, et al. **Tohoku J Exp Med** 1998 Jun; 185(2):107–18

[Effect of lysophasphatidylcholine on sensitivity of the heart to acetylcholine and binding of quinuclidinyl benzilate to myocardial membranes] Prokazova NV, et al.
Ross Fiziol Zh Im I M Sechenova 1998 Oct;84(10):969–78 (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Effects of an agonist, allosteric modulator, and antagonist on guanosine–gamma–[35S]thiotriphosphate binding to liposomes with varying muscarinic receptor/Go protein stoichiometry. Jakubik J, et al. **Mol Pharmacol** 1998 Nov; 54(5):899–906

QUIPAZINE

METABOLISM

Characteristics of agonist displacement of [3H]ketanserin binding to platelet 5–HT2A receptors: implications for psychiatric research. Gurguis GN, et al. **Psychiatry Res** 1998 Sep 21;80(3):227–38

PHARMACOLOGY

Attenuation of the lordosis–inhibiting effects of 8–OH–DPAT by TFMPP and quipazine. Wolf A, et al.
Brain Res 1998 Sep 7;804(2):206–11

Serotonin agonist quipazine induces photic–like phase shifts of the circadian activity rhythm and c–Fos expression in the rat suprachiasmatic nucleus. Kohler M, et al.
J Biol Rhythms 1999 Apr;14(2):131–40

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213–24

QUISQUALATE RECEPTORS see **RECEPTORS, AMPA**

QUISQUALIC ACID

ANALOGS & DERIVATIVES

alpha-substituted quisqualic acid analogs: new metabotropic glutamate receptor group II selective antagonists. Kozikowski AP, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):447-52

Cyclobutane quisqualic acid analogues as selective mGluR5a metabotropic glutamic acid receptor ligands. Littman L, et al. **J Med Chem** 1999 May 6;42(9):1639-47

CHEMICAL SYNTHESIS

Cyclobutane quisqualic acid analogues as selective mGluR5a metabotropic glutamic acid receptor ligands. Littman L, et al. **J Med Chem** 1999 May 6;42(9):1639-47

PHARMACOLOGY

Psychosine blocks quisqualate-induced glutamate excitotoxicity in hippocampal CA sector neurons. Hodgson DM, et al. **Brain Res** 1998 Aug 17;802(1-2):1-8

C-fos expression in the rat nucleus basalis upon excitotoxic lesion with quisqualic acid: a study in adult and aged animals. Giovannelli L, et al. **J Neural Transm** 1998; 105(8-9):935-48 (29 ref.)

QUOKKAS see **KANGAROOS**

R FACTORS

Molecular characterization of plasmid-mediated oxytetracycline resistance in Aeromonas salmonicida. Adams CA, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4194-201

Molecular epidemiological study on tetracycline resistance R plasmids in enterohaemorrhagic Escherichia coli O157:H7. Makino S, et al. **Epidemiol Infect** 1999 Aug; 123(1):25-30

Monitoring of chromosomal insertions of the IncJ elements R391 and R997 in Escherichia coli K-12. Murphy DB, et al. **FEMS Microbiol Lett** 1999 May 15;174(2):355-61

Comparison of proteins involved in pilus synthesis and mating pair stabilization from the related plasmids F and R100-1: insights into the mechanism of conjugation. Anthony KG, et al. **J Bacteriol** 1999 Sep;181(17):5149-59

Role of the parCBA operon of the broad-host-range plasmid RK2 in stable plasmid maintenance. Easter CL, et al. **J Bacteriol** 1998 Nov;180(22):6023-30

A study on transferable R-plasmids among Shigella species at Lucknow. Agarwal SK, et al. **J Commun Dis** 1997 Dec; 29(4):351-4

The partitioning activity of the RK2 central control region requires only incC, korB and KorB-binding site O(B)3 but other KorB-binding sites form destabilizing complexes in the absence of O(B)3. Williams DR, et al. **Microbiology** 1998 Dec;144 (Pt 12):3369-78

The putative Orf4 of broad-host-range conjugative plasmid R446 could Be related to the H-NS family of bacterial nucleoid-associated proteins. Nieto JM, et al. **Plasmid** 1999 Mar;41(2):125-7

[The inductive immunosuppressive activity of the lipopolysaccharide from Shigella sonnei R forms] Borisova EV. **Mikrobiol Z** 1998 May-Jun;60(3):63-9 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Effects of halides on plasmid-mediated silver resistance in Escherichia coli. Gupta A, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5042-5

GENETICS

Immunochemical studies on R mutants of Yersinia enterocolitica O:3. Radziejewska-Lebrecht J, et al. **Acta Biochim Pol** 1998;45(4):1011-9

Plasmid profiles of multiple drug resistant local strains of Staphylococcus aureus. Adeleke OE, et al. **Afr J Med Med Sci** 1997 Sep-Dec;26(3-4):119-21

Mobile drug resistance genes among fish bacteria. Sørum H. **APMIS Suppl** 1998;84:74-6 (10 ref.)

Characterization of tTA and its functional domain in tetracycline repressor-mediated gene repression system. Kim HJ, et al. **Arch Pharm Res** 1998 Jun;21(3):320-5

Phage type conversion in Salmonella enterica serotype Enteritidis caused by the introduction of a resistance plasmid of incompatibility group X (IncX). Brown DJ, et al. **Epidemiol Infect** 1999 Feb;122(1):19-22

Sequence, identification and effect on conjugation of the rmoA gene of plasmid R100-1. Nieto JM, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):59-66

Functional interactions between chpB and parD, two homologous conditional killer systems found in the Escherichia coli chromosome and in plasmid R1. Santos Sierra S, et al. **FEMS Microbiol Lett** 1998 Nov 1; 168(1):51-8

Molecular characterization of the erythromycin resistance plasmid pPV142 from Staphylococcus simulans. Somkuti GA, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):281-8

The tetAB genes of the Corynebacterium striatum R-plasmid pTP10 encode an ABC transporter and confer tetracycline, oxytetracycline and oxacillin resistance in Corynebacterium glutamicum. Tauch A, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):203-9

Characterization of plasmids that encode streptomycin-resistance in bacterial epiphytes of apple. Huang TC, et al. **J Appl Microbiol** 1999 May;86(5):741-51

Functional importance and local environments of the cysteines in the tetracycline resistance protein encoded by plasmid pBR322. Jewell JE, et al. **J Bacteriol** 1999 Mar; 181(5):1689-93

A PCR assay for discriminating Neisseria gonorrhoeaebeta-lactamase-producing plasmids. Dillon JR, et al. **Mol Cell Probes** 1999 Apr;13(2):89-92

A tobacco homologue of the Ri-plasmid orf13 gene causes cell proliferation in carrot root discs. Fründt C, et al. **Mol Gen Genet** 1998 Oct;259(6):559-68

[Experimental evaluation of prospects for the use of beta-lactams in plague infection caused by pathogens with plasmid resistance to penicillins] Ryzhko IV, et al. **Antibiot Khimioter** 1998;43(11):11-5 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

IHF protein inhibits cleavage but not assembly of plasmid R388 relaxosomes. Moncalián G, et al. **Mol Microbiol** 1999 Mar;31(6):1643-52

R GENE PRODUCTS see **GENE PRODUCTS, VPR**

R PLASMIDS see **R FACTORS**

R REPETITIVE SEQUENCE see **TERMINAL REPEAT SEQUENCES**

R-2323 see **GESTRINONE**

R-5020 see **PROMEGESTONE**

RABBIT AORTA CONTRACTING SUBSTANCE see **THROMBOXANE A2**

RABBIT FIBROMA VIRUS see **FIBROMA VIRUS, RABBIT**

RABBIT HEMORRHAGIC DISEASE VIRUS see **HEMORRHAGIC DISEASE VIRUS, RABBIT**

RABBIT PAPILLOMA VIRUS see **PAPILLOMAVIRUS, COTTONTAIL RABBIT**

RABBITPOX VIRUS see **VACCINIA VIRUS**

RABBITS

A cross-sectional study of risk factors affecting the outcome of rabbit haemorrhagic disease virus releases in New South Wales. Lugton IW. **Aust Vet J** 1999 May;77(5):322-8

Product warning: FRONTLINE [letter] Webster M. **Aust Vet J** 1999 Mar;77(3):202

Infertility in female rabbits (Oryctolagus cuniculus) alloimmunized with the rabbit zona pellucida protein ZPB either as a purified recombinant protein or expressed by recombinant myxoma virus. Kerr PJ, et al. **Biol Reprod** 1999 Sep;61(3):606-13

Comments regarding the treatment of lead toxicosis in rabbits [letter; comment] Korber K, et al. **Can Vet J** 1998 Feb; 39(2):69. Comment on: Can Vet J 1997 Nov;38(11):721-2.

Establishment of specific pathogen-free rabbit colonies with limited-flora rabbits associated with conventional rabbit flora, and monitoring of their cecal flora. Yanabe M, et al. **Exp Anim** 1999 Apr;48(2):101-6

Production of ex-germfree rabbits for establishment of specific pathogen-free (SPF) colonies. Yanabe M, et al. **Exp Anim** 1999 Apr;48(2):79-86

Removal of a thymoma via median sternotomy in a rabbit with recurrent appendicular neurofibrosarcoma. Clippinger TL, et al. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1140-3, 1131

Vaccination against ergot alkaloids and the effect of endophyte-infected fescue seed-based diets on rabbits. Filipov NM, et al. **J Anim Sci** 1998 Sep;76(9):2456-63

Simultaneous seminoma and interstitial cell tumour in a rabbit with a previous cutaneous basal cell tumour. Roccabianca P, et al. **J Comp Pathol** 1999 Jul;121(1):95-9

Leporacarus gibbus and Spilopsyllus cuniculi infestation in a pet rabbit. Pinter L. **J Small Anim Pract** 1999 May; 40(5):220-1

Spontaneous pre-Descemet's membrane corneal opacities in rabbits. Durand-Cavagna G, et al. **Lab Anim Sci** 1998 Jun; 48(3):310-3

Bilateral prolapse of the deep gland of the third eyelid in a rabbit: diagnosis and treatment. Janssens G, et al. **Lab Anim Sci** 1999 Feb;49(1):105-9

Cardiovascular pathology possibly associated with ketamine/xylazine anesthesia in Dutch belted rabbits. Marini RP, et al. **Lab Anim Sci** 1999 Apr;49(2):153-60

Surgical induction of cryptorchidism in rabbit pups. VandeWoude S, et al. **Lab Anim Sci** 1999 Feb;49(1):110-3

Rabbit model of cardiopulmonary bypass. Kim WG, et al. **Perfusion** 1999 Mar;14(2):101-5

Colonization of rabbits with Staphylococcus aureus in flocks with and without chronic staphylococcosis. Hermans K, et al. **Vet Microbiol** 1999 Jun 1;67(1):37-46

Ectopic pregnancy in a rabbit [letter] Beddow BA. **Vet Rec** 1999 May 29;144(22):624

Abscesses in rabbits [letter] Blackwell NJ. **Vet Rec** 1999 May 8;144(19):540

What is your diagnosis? [letter] Cormie J, et al. **Vet Rec** 1998 Sep 12;143(11):316

Neutering pet rabbits [letter; comment] [see comments] Davies RR, et al. **Vet Rec** 1999 Mar 6;144(10):271. Comment on: Vet Rec 1999 Feb 20;144(8):216. Comment in: Vet Rec 1999 Mar 20;144(12):328.

Neutering pet rabbits [letter; comment] [see comments] Lester-Cockx L. **Vet Rec** 1999 Mar 6;144(10):271. Comment on: Vet Rec 1999 Feb 20;144(8):216. Comment in: Vet Rec 1999 Mar 20;144(12):328.

Neutering pet rabbits [letter; comment] Meredith A, et al. **Vet Rec** 1999 Mar 20;144(12):328. Comment on: Vet Rec 1999 Feb 20;144(8):216. Comment on: Vet Rec 1999 Mar 6;144(10):271.

Neutering pet rabbits [letter] [see comments] More DW. **Vet Rec** 1999 Feb 20;144(8):216. Comment in: Vet Rec 1999 Mar 6;144(10):271. Comment in: Vet Rec 1999 Mar 20;144(12):328.

Evaluation in rabbits of the fetal effects of maternal ingestion of Solanum malacoxylon. Górniak SL, et al. **Vet Res Commun** 1999 Aug;23(5):307-16

Field evidence for mechanical transmission of rabbit haemorrhagic disease virus (RHDV) by flies (Diptera:Calliphoridae) among wild rabbits in Australia. Asgari S, et al. **Virus Res** 1998 Apr;54(2):123-32

[Dental problems in rabbits and rodents. I. Anatomy, physiology, symptomatology, diagnosis] van Foreest AW. **Tijdschr Diergeneeskd** 1998 Dec 1;123(23):698-706 (30 ref.) (Eng. Abstr.) **(Dut)**

[Dental problems in rabbits and rodents. II. Dental treatment] van Foreest AW. **Tijdschr Diergeneeskd** 1998 Dec 1; 123(23):707-13 (30 ref.) (Eng. Abstr.) **(Dut)**

[Eye diseases in dwarf rabbits. 2. Diseases of the cornea, intraocular and retrobulbar disorders, and neoplasms] Wagner F, et al. **Tierarztl Prax Ausg K Klientiere Heimtiere** 1998 Sep; 26(5):345-50 (33 ref.) (Eng. Abstr.) **(Ger)**

ANATOMY & HISTOLOGY

Venous drainage of the stomach in the domestic rabbit (Oryctolagus cuniculus f. domestica, breed large Chinchilla) and the domestic cat (Felis catus L. f. domestica). Artico M, et al. **Anat Anz** 1998 Dec; 180(6):565-8

Angioarchitectural structure and functional distributive pattern of the filiform papillae on the meso-dorsal surface of the rabbit tongue. Ojima K. **Anat Anz** 1998 Dec; 180(6):547-53

Cervical anatomy of phrenic nerve roots in the rabbit. European Group for Research on the Larynx. Marie JP, et al. **Ann Otol Rhinol Laryngol** 1999 May;108(5):516-21

NADPH-diaphorase positive myenteric neurons in the ileum of guinea-pig, rat, rabbit and cat: a comparative study. Wilhelm M, et al. **Eur J Morphol** 1998 Jul;36(3):143-52

The acinar and ductal organisation of the tarsal accessory lacrimal gland of Wolfring in rabbit eyelid. Bergmanson JP, et al. **Exp Eye Res** 1999 Apr;68(4):411-21

Organization of the rabbit vitreous body: lamellae, Cloquet's channel and a novel structure, the 'alae canalis Cloqueti'. Los LI, et al. **Exp Eye Res** 1999 Sep;69(3):343-50

The amygdaloid body of the rabbit--a morphometric study using image analyser. Dziewiątkowski J, et al. **Folia Morphol (Warsz)** 1998;57(2):93-103

Dark- and light-induced changes in coupling between horizontal cells in mammalian retina. Xin D, et al. **J Comp Neurol** 1999 Mar 1;405(1):75-87

Morphology and histochemistry of the rabbit pancreatic innervation. Love JA, et al. **Pancreas** 1999 Jan;18(1):53-64

Regenerating synovial lining of the normal rabbit knee: a scanning electron microscopy study. Stein H, et al. **Scanning Microsc** 1996;10(2):371-83; discussion 383-4

BLOOD

Effect of feeding olive by-products on certain blood parameters and serum enzyme activities of fattening rabbits. Rupić V, et al. **Acta Vet Hung** 1999;47(1):65-75

An animal model to study erythrocyte senescence with a narrow time window of erythrocyte production: alterations in osmotic fragility and deformability of erythrocytes during their life span. Wen ZY, et al. **Clin Hemorheol Microcirc** 1998 Dec;19(4):299-306

EMBRYOLOGY

Development of nuclear transfer and parthenogenetic rabbit embryos activated with inositol 1,4,5-trisphosphate. Mitalipov SM, et al. **Biol Reprod** 1999 Apr;60(4):821-7

GENETICS

Genetic polymorphism of rabbit (Oryctolagus cuniculus) tissue acid phosphatases (ACP2 and ACP3). Branco M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun;120(2):405-9

The allotypic patchwork pattern of the rabbit IGKC1 allele b5wf: genic exchange or common ancestry? van der Loo W, et al. **Immunogenetics** 1999 Jan;49(1):7-14

Cytonuclear disequilibria in wild populations of rabbit

(Oryctolagus cuniculus L.) suggest unequal allele turnover rates at the b locus (IGKC1). van der Loo W, et al. **Immunogenetics** 1999 Jul;49(7–8):629–43

Rabbit lung indolethylamine N–methyltransferase. cDNA and gene cloning and characterization. Thompson MA, et al. **J Biol Chem** 1998 Dec 18;273(51):34502–10

Polymorphic microsatellite DNA markers in the rabbit (Oryctolagus cuniculus). van Haeringen WA, et al. **J Exp Anim Sci** 1996–97;38(2):49–57

Fine–scale genetic structuring in a natural population of European wild rabbits (Oryctolagus cuniculus). Surridge AK, et al. **Mol Ecol** 1999 Feb;8(2):299–307

Transgenic rabbit models for biomedical research: current status, basic methods and future perspectives. Fan J, et al. **Pathol Int** 1999 Jul;49(7):583–94 (93 ref.)

GROWTH & DEVELOPMENT

Immunocytochemistry of fibronectin and endothelin–1 in the cavernous body of postnatal rabbit penises. Nomiyama T, et al. **Acta Anat (Basel)** 1998;162(1):23–32

Effect of feeding olive by–products on certain blood parameters and serum enzyme activities of fattening rabbits. Rupić V, et al. **Acta Vet Hung** 1999;47(1):65–75

IMMUNOLOGY

Evaluation of commercially available Escherichia coli J5 bacterin as protection against experimental challenge with Pasteurella multocida in rabbits. Ruble RP, et al. **Am J Vet Res** 1999 Jul;60(7):853–9

Immunization of rabbits with Amblyomma hebraeum nymphal homogenates and implications for the host amplification system. Tembo SD. **Onderstepoort J Vet Res** 1998 Jun;65(2):97–103

[Cough variant asthma improving with avoidance of pet rabbit] Ohgou T, et al. **Arerugi** 1999 Jan;48(1):23–6 (Eng. Abstr.) **(Jpn)**

METABOLISM

Study of the soil–plant (carrot)–animal cycle of nutritive and hazardous minerals in a rabbit model. Bersényi A, et al. **Acta Vet Hung** 1999;47(2):181–90

Beneficial effects of fibrates on apolipoprotein A–I metabolism occur independently of any peroxisome proliferative response. Hennuyer N, et al. **Circulation** 1999 May 11;99(18):2445–51

Genetic polymorphism of rabbit (Oryctolagus cuniculus) tissue acid phosphatases (ACP2 and ACP3). Branco M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun;120(2):405–9

Phorbol ester modulation of active ion transport across the rabbit conjunctival epithelium. Alvarez LJ, et al. **Exp Eye Res** 1999 Jul;69(1):33–44

Gap junction protein connexin43 is heterogeneously expressed among glial cells in the adult rabbit retina. Johansson K, et al. **J Comp Neurol** 1999 May 10; 407(3):395–403

Localization of NADPHd–exhibiting neurons in the spinal cord of the rabbit. Marsala J, et al. **J Comp Neurol** 1999 Apr 5;406(2):263–84

Morphine perfused rabbits: a tool for experiments in forensic entomotoxicology. Hédouin V, et al. **J Forensic Sci** 1999 Mar;44(2):347–50

An N–acyl glycyltaurine conjugate of deoxycholic acid in the biliary bile acids of the rabbit. Hagey LR, et al. **J Lipid Res** 1998 Nov;39(11):2119–24

59Fe labelling of rabbit erythrocytes as a continuous source for iron metabolism studies. Moura E, et al. **Lab Anim** 1998 Jul;32(3):284–9

MICROBIOLOGY

Bartonella alsatica sp. nov., a new Bartonella species isolated from the blood of wild rabbits. Heller R, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:283–8

The first isolation of Arthroderma benhamiae in Japan. Kano R, et al. **Microbiol Immunol** 1998;42(8):575–8

Aeromonas hydrophila associated with a severe outbreak of infection in farmed rabbits. Paniagua C, et al. **Zentralbl Hyg Umweltmed** 1998 Dec;201(4–5):423–30

PARASITOLOGY

Lethal encephalitozoonosis in cyclophosphamide–treated rabbits. Horváth M, et al. **Acta Vet Hung** 1999;47(1):85–93

An unusual manifestation of encephalitozoonosis in chinchilla rabbits. Levkut M, et al. **Can Vet J** 1998 Sep;39(9):576–7

Wild rabbit host and some parasites show trophic–level relationships for delta 13C and delta 15N: a first report. Boag B, et al. **Isotopes Environ Health Stud** 1998; 34(1–2):81–5

Studies on coccidia species of genus Eimeria from domestic rabbit (Oryctolagus cuniculus domesticus L.) in Jeddah, Saudi Arabia. Toula FH, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):691–8

Life cycle of Eimeria vejdovskyi Pakandl, 1988: electron microscopy study. Pakandl M, et al. **Parasitol Res** 1999 Oct;85(10):850–4

Identification of carbohydrates on Eimeria stiedai sporozoites and their role in the invasion of cultured cells in vitro. John NM, et al. **Vet Parasitol** 1999 Feb 25;81(2):99–105

Alterations of serum lipid, lipoprotein and inflammatory cytokine profiles of rabbits infected with Trypanosoma brucei brucei. Nakamura Y. **Vet Parasitol** 1998 Dec 31; 80(2):117–25

PHYSIOLOGY

Effect of various short–term storage methods on viability of cancellous bone fragments. McAnulty JF. **Am J Vet Res** 1999 Jan;60(1):63–7

Effects of lactation, energetic deficit and remating interval on reproductive performance of primiparous rabbit does. Fortun–Lamothe L, et al. **Anim Reprod Sci** 1999 Apr 31; 55(3–4):289–98

Subcellular [Ca2+]i gradients during excitation–contraction coupling in newborn rabbit ventricular myocytes. Haddock PS, et al. **Circ Res** 1999 Sep 3;85(5):415–27

Sedation and anesthesia of pet rabbits. Borkowski R, et al. **Clin Tech Small Anim Pract** 1999 Feb;14(1):44–9 (21 ref.)

Somatic electrical nerve stimulation regulates the motility of sphincter of Oddi in rabbits and cats: evidence for a somatovisceral reflex mediated by cholecystokinin. Chiu JH, et al. **Dig Dis Sci** 1999 Sep;44(9):1759–67

Effect of fiber source on cell wall digestibility and rate of passage in rabbits. Garcia J, et al. **J Anim Sci** 1999 Apr; 77(4):898–905

Effect of postweaning feeding on the performance and energy balance of female rabbits at different physiological states. Xiccato G, et al. **J Anim Sci** 1999 Feb;77(2):416–26

Parvalbumin is expressed in a reciprocal circuit linking the medial geniculate body and auditory neocortex in the rabbit. de Venecia RK, et al. **J Comp Neurol** 1998 Oct 26;400(3):349–62

Serotonergic neurons in the brainstem of the wallaby, Macropus eugenii. Ferguson IA, et al. **J Comp Neurol** 1999 Sep 6;411(4):535–49

General anesthesia for ureteral measurements in the rabbit. Becker AJ, et al. **J Exp Anim Sci** 1996–97;38(2):93–100

Modelling of the dynamic relationship between arterial pressure, renal sympathetic nerve activity and renal blood flow in conscious rabbits. Berger CS, et al. **J Exp Biol** 1998 Dec;201 (Pt 24):3425–30

Running, breathing and visceral motion in the domestic rabbit (Oryctolagus cuniculus): testing visceral displacement hypotheses. Simons RS. **J Exp Biol** 1999 Mar;202 (Pt 5):563–77

The effect of different fibre components on growth rate, nutrient digestibility, rate of digesta passage and hindgut fermentation in domesticated rabbits. Chiou PW, et al. **Lab Anim** 1998 Jul;32(3):276–83

Arterial blood gas changes in New Zealand white rabbits during carbon dioxide–induced pneumoperitoneum. Portilla E, et al. **Lab Anim Sci** 1998 Aug;48(4):398–400

Social rank, stress, fitness, and life expectancy in wild rabbits. von Holst D, et al. **Naturwissenschaften** 1999 Aug; 86(8):388–93

Digestive capacity of the rabbit during the post–weaning period, according to the milk/solid feed intake pattern before weaning. Scapinello C, et al. **Reprod Nutr Dev** 1999 Jul–Aug;39(4):423–32

Changes in clinical pathology parameters during gestation in the New Zealand white rabbit. Wells MY, et al. **Toxicol Pathol** 1999 May–Jun;27(3):370–9

PSYCHOLOGY

Social rank, stress, fitness, and life expectancy in wild rabbits. von Holst D, et al. **Naturwissenschaften** 1999 Aug; 86(8):388–93

SURGERY

Two–stage surgical hepatectomy and its effects on formation and metabolism of Cx–reactive protein in the rabbit. Snow HD, et al. **Am J Vet Res** 1969 Oct;30(10):1857–64

VIROLOGY

Development of an ELISA for detection of myxoma virus–specific rabbit antibodies: test evaluation for diagnostic applications on vaccinated and wild rabbit sera. Gelfi J, et al. **J Vet Diagn Invest** 1999 May;11(3):240–5

Rabbit haemorrhagic disease in Saudi Arabia. Abu Elzein EM, et al. **Vet Rec** 1999 Apr 24;144(17):480–1

Control of rabbit viral haemorrhagic disease in Benin by vaccination. Kpodekon M, et al. **Vet Rec** 1998 Dec 19–26; 143(25):693–4

RABIES

Hydrophobic horse sense [editorial] Quinonez JM, et al. **Clin Pediatr (Phila)** 1998 Aug;37(8):483–4

Human rabies postexposure prophylaxis during a raccoon rabies epizootic in New York, 1993 and 1994. Wyatt JD, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):415–23

Human rabies despite postexposure vaccination. Gacouin A, et al. **Eur J Clin Microbiol Infect Dis** 1999 Mar;18(3):233–5

Royal Society of Tropical Medicine and Hygiene meeting at Manson House, London, 20 March 1997. Epidemiology and control of rabies. The growing problem of rabies in Africa. Cleaveland S. **Trans R Soc Trop Med Hyg** 1998 Mar–Apr;92(2):131–4

[Rabies] Rikitomi N. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):142–4 (31 ref.) **(Jpn)**

[Epidemiological analysis of the effectiveness of vaccination against rabies in Poland, 1986–1997] Seroka D. **Przegl Epidemiol** 1998;52(4):379–88 (Eng. Abstr.) **(Pol)**

[Knowledge of rabies in schoolchildren] Martinov–Cvejin M, et al. **Med Pregl** 1998;51 Suppl 1:47–50 (Eng. Abstr.) **(Scr)**

COMPLICATIONS

Extraneural organ involvement in human rabies. Jackson AC, et al. **Lab Invest** 1999 Aug;79(8):945–51

DIAGNOSIS

Laboratory investigation of human deaths from vampire bat rabies in Peru. Warner CK, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):502–7

Viral excretion in domestic ferrets (Mustela putorius furo) inoculated with a raccoon rabies isolate. Niezgoda M, et al. **Am J Vet Res** 1998 Dec;59(12):1629–32

Human rabies in Israel [letter] David D, et al. **Emerg Infect Dis** 1999 Mar–Apr;5(2):306–8

Comparison of visual microscopic and computer–automated fluorescence detection of rabies virus neutralizing antibodies. Péharpré D, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):330–3

Case 21–1998: rabies [letter; comment] Jackson AC. **N Engl J Med** 1999 Jan 7;340(1):65. Comment on: N Engl J Med 1998 Jul 9;339(2):105–12.

Preparation of fluorescein–labeled antirabies gamma–globulin at the Thai Red Cross. Kasempimolporn S, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):277–9

An evaluation of immunofluorescence and PCR methods for detection of rabies in archival Carnoy–fixed, paraffin–embedded brain tissue. Kulonen K, et al. **Zentralbl Veterinarmed [B]** 1999 Apr;46(3):151–5

DRUG THERAPY

Equine antirabies serum treatment during an epizootic outbreak in the city of Ribeirão Preto, Brazil. Cupo P, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):349

EPIDEMIOLOGY

Discrimination between epidemiological cycles of rabies in Mexico. Loza–Rubio E, et al. **Arch Med Res** 1999 Mar–Apr;30(2):144–9

Rabies cases increase in the Philippines [news] Wallerstein C. **BMJ** 1999 May 15;318(7194):1306

Clinical experiences with rabies in cattle in Hungary. Vörös K, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jan; 106(1):46–8

Rabies surveillance in the United States during 1997 [published erratum appears in J Am Vet Med Assoc 1999 Apr 1;214(7):1025] Krebs JW, et al. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1713–28

From the Centers for Disease Control and Prevention. Human rabies—Virginia, 1998. **JAMA** 1999 Mar 10; 281(10):891–2

The epidemiology of rabies. Foreward. Lalošević D. **Med Pregl** 1998;51 Suppl 1:7 **(Eng, Scr)**

Review of rabies in Europe [editorial] Müller WW. **Med Pregl** 1998;51 Suppl 1:9–15

Human rabies—Virginia, 1998. **MMWR Morb Mortal Wkly Rep** 1999 Feb 12;48(5):95–7

Epidemiology and control of fox rabies in Europe. Pastoret PP, et al. **Vaccine** 1999 Mar 26;17(13–14):1750–4 (35 ref.)

RABNET–strengthening international surveillance of human and animal rabies. **Wkly Epidemiol Rec** 1998 Aug 14; 73(33):254–6 **(Eng, Fre)**

[Rabies in France in 1999] Toma B. **Rev Prat** 1999 Jun 15; 49(12):1262–5 **(Fre)**

[Rabies in Poland in 1997] Seroka D, et al. **Przegl Epidemiol** 1999;53(1–2):137–49 (Eng. Abstr.) **(Pol)**

[Rabies epizootic in the urban area of Ribeirão Preto, São Paulo, Brazil] Passos AD, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):735–40 (Eng. Abstr.) **(Por)**

HISTORY

[Development of medical virology (letter)] Fenje P. **Med Pregl** 1998;51 Suppl 1:69–70 **(Scr)**

[Dr. Adolph Hempt's visit to Paris in 1925] Lalosević D. **Med Pregl** 1998;51 Suppl 1:61–3 **(Scr)**

IMMUNOLOGY

Vaccination of wildlife against rabies: successful use of a vectored vaccine obtained by recombinant technology. Mackowiak M, et al. **Adv Vet Med** 1999;41:571–83 (18 ref.)

Antibody response after a four–site intradermal booster vaccination with cell–culture rabies vaccine. Tantawichien T, et al. **Clin Infect Dis** 1999 May;28(5):1100–3

Antibodies to human myelin proteins and gangliosides in patients with acute neuroparalytic accidents induced by brain–derived rabies vaccine. Laouini D, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):63–72

Comparison of visual microscopic and computer–automated fluorescence detection of rabies virus neutralizing antibodies. Péharpré D, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):330–3

A study of human rabies immune globulin manufactured by the Thai Red Cross. Chantanakajornfung A, et al. **Vaccine** 1999 Feb 26;17(7–8):979–81

Effect of the bacillus of Calmette–Guérin, Propionibacter

acnes and avridine as immunomodulators in antirabies vaccination of mice using the Fuenzalida–Palacios mouse brain vaccine. Megid J, et al. **Vaccine** 1999 May 14; 17(19):2446–52

[Cell–mediated and humoral immunity in human rabies] Fang Z, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(3):279–80 **(Chi)**

NURSING

Preventing human rabies before and after exposure. Garcia R. **Nurse Pract** 1999 Apr;24(4):91–2, 95–7, 101–2 passim (32 ref.)

PATHOLOGY

Apoptosis in experimental rabies in bax–deficient mice. Jackson AC. **Acta Neuropathol (Berl)** 1999 Sep;98(3):288–94

Apoptosis induction in brain during the fixed strain of rabies virus infection correlates with onset and severity of illness. Theerasurakarn S, et al. **J Neurovirol** 1998 Aug;4(4):407–14

PHYSIOPATHOLOGY

Modification of membrane currents in mouse neuroblastoma cells following infection with rabies virus. Iwata M, et al. **Br J Pharmacol** 1999 Apr;126(8):1691–8

PREVENTION & CONTROL

Evaluation of the safety, immunogenicity, and pharmacokinetic profile of a new, highly purified, heat–treated equine rabies immunoglobulin, administered either alone or in association with a purified, Vero–cell rabies vaccine. Lang J, et al. **Acta Trop** 1998 Jul 30; 70(3):317–33

CDC issues revised guidelines for the prevention of human rabies. Rose VL. **Am Fam Physician** 1999 Apr 1; 59(7):2007–8, 2013–4 (00 ref.)

Teaching kids about rabies. Dandoy S, et al. **Am J Public Health** 1999 Mar;89(3):413–4

Update on emerging infections from the Centers for Disease Control and Prevention. Update rabies postexposure prophylaxis guidelines. **Ann Emerg Med** 1999 May; 33(5):590–7

Failure of protection induced by a Brazilian vaccine against Brazilian wild rabies viruses. Zanetti CR, et al. **Arch Virol** 1998;143(9):1745–56

Feral animals and rabies. Gherardin T. **Aust Fam Physician** 1998 Oct;27(10):943

A comparison of two serological methods for detecting the immune response after rabies vaccination in dogs and cats being exported to rabies–free areas. Briggs DJ, et al. **Biologicals** 1998 Dec;26(4):347–55

Suppressant effect of human or equine rabies immunoglobulins on the immunogenicity of post–exposure rabies vaccination under the 2–1–1 regimen: a field trial in Indonesia. MAS054 Clinical Investigator Group. Lang J, et al. **Bull World Health Organ** 1998;76(5):491–5

Additional reports of failure to respond to treatment after rabies exposure in Thailand. Hemachudha T, et al. **Clin Infect Dis** 1999 Jan;28(1):143–4

Postexposure treatment of rabies in Pakistan. Parviz S, et al. **Clin Infect Dis** 1998 Oct;27(4):751–6

Effect of vaccination and the immunomodulators "bacillus of Calmette–Guérin, avridine and Propionibacterium acnes" on rabies in mice. Megid J, et al. **Comp Immunol Microbiol Infect Dis** 1998 Oct;21(4):305–18

Current recommendations for the prophylaxis and treatment of rabies. Dreesen DW, et al. **Drugs** 1998 Nov;56(5):801–9 (15 ref.)

Vaccine watch [news] **Indian Pediatr** 1998 Sep;35(9):939

Compendium of animal rabies control, 1999. The NASPHV Committee. **J Am Vet Med Assoc** 1999 Jan 15; 214(2):198–202

Bats and rabies. Austin CC. **J Am Vet Med Assoc** 1998 Nov 1;213(9):1323–5

New hope in UK for penned up pooches [news] Monti DJ. **J Am Vet Med Assoc** 1998 Dec 1;213(11):1551

An experimental study on the endurance of immunologic memory of intradermal micro–injection with rabies vaccine and boosting immune effect. Yang Y, et al. **J Epidemiol** 1999 Aug;9(4):209–15

What is your diagnosis? Post–rabies–vaccination alopecia. Bensignor E. **J Small Anim Pract** 1999 Apr;40(4):151, 189

Problems with rabies postexposure management: a survey of 499 public hospitals in Thailand. Kositprapa C, et al. **J Travel Med** 1998 Mar;5(1):30–2

Immune response to rabies booster vaccination in subjects who had postexposure treatment more than 5 years previously. Naraporn N, et al. **J Travel Med** 1999 Jun; 6(2):134–6

Booster vaccination at 1 year with a rabies vaccine associated with DTP–IPV in infants living in a rabies endemic country [letter] Lang J, et al. **J Trop Pediatr** 1999 Jun;45(3):181–3

Human rabies prevention--United States, 1999. Recommendations of the Advisory Committee on Immunization Practices (ACIP) [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Jan 15;48(1):16] **MMWR Morb Mortal Wkly Rep** 1999 Jan 8;48(RR–1):1–21

Compendium of Animal Rabies Control, 1999. National Association of State Public Health Veterinarians, Inc. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2;48(RR–3):1–9

Rabies vaccine. Developments employing molecular biology methods. Paolazzi CC, et al. **Mol Biotechnol** 1999 Apr; 11(2):137–47 (47 ref.)

Could we keep the rabies epidemic away from the Outer Banks? Oral rabies vaccination of raccoons. Correa–Prisant M, et al. **N C Med J** 1999 May–Jun;60(3):169–71

Case 21–1998: rabies [letter; comment] Sfedu EP. **N Engl J Med** 1999 Jan 7;340(1):64; discussion 65. Comment on: N Engl J Med 1998 Jul 9;339(2):105–12.

Case 21–1998: rabies [letter; comment] Shlim DR, et al. **N Engl J Med** 1999 Jan 7;340(1):64; discussion 65. Comment on: N Engl J Med 1998 Jul 9;339(2):105–12.

Case 21–1998: rabies [letter; comment] Wilde H. **N Engl J Med** 1999 Jan 7;340(1):64–5; discussion 65. Comment on: N Engl J Med 1998 Jul 9;339(2):105–12.

Preventing human rabies before and after exposure. Garcia R. **Nurse Pract** 1999 Apr;24(4):91–2, 95–7, 101–2 passim (32 ref.)

Persistence of antibodies in children after intradermal or intramuscular administration of preexposure primary and booster immunizations with purified Vero cell rabies vaccine. Sabchareon A, et al. **Pediatr Infect Dis J** 1998 Nov;17(11):1001–7

Successful postexposure rabies prophylaxis after erroneous starting treatment. Haviv J, et al. **Prev Med** 1999 Jul; 29(1):28–31

New vaccines. Heins JR. **S D J Med** 1999 Jan;52(1):21–2

Immunogenicity and safety of low–dose intradermal rabies vaccination given during an Expanded Programme on immunization session in Viet Nam: results of a comparative randomized trial. Lang J, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):208–13

A study of human rabies immune globulin manufactured by the Thai Red Cross. Chantanakajornfung A, et al. **Vaccine** 1999 Feb 26;17(7–8):979–81

Rabies--risk of exposure and current trends in prevention of human cases. Haupt W. **Vaccine** 1999 Mar 26; 17(13–14):1742–9 (18 ref.)

Rabipur: a reliable vaccine for rabies protection. Vodopija I, et al. **Vaccine** 1999 Mar 26;17(13–14):1739–41

Rabies and quarantine: the government opts for change [news; comment] **Vet Rec** 1999 Apr 3;144(14):358–9. Comment on: Vet Rec 1999 Apr 17;144(16):456.

Kennedy review recommends partial replacement of quarantine [news] **Vet Rec** 1998 Oct 3;143(14):374–5

Welfare of animals in quarantine [letter; comment] [see comments] Goody S. **Vet Rec** 1999 Apr 17;144(16):456. Comment on: Vet Rec 1999 Apr 3;144(14):358–9. Comment in: Vet Rec 1999 May 15;144(20):568.

Replacement of quarantine [letter] Jefferies CC. **Vet Rec** 1999 May 29;144(22):623

Pet travel scheme [letter] Wood K. **Vet Rec** 1999 Jul 31; 145(5):147

Comparison of the effectiveness of two protocols of antirabies bait distribution for foxes (Vulpes vulpes). Vuillaume P, et al. **Vet Res** 1998 Nov–Dec;29(6):537–46

[A study on efficacy of rabies vaccine prepared by primary hamster kidney cells in Guangxi] Wu T, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jul;32(4):211–3 (Eng. Abstr.) **(Chi)**

[Comparative immunogenicity of 2 antirabies vaccines in a 2–1–1 post–exposure vaccination schedule] Landry P, et al. **Schweiz Rundsch Med Prax** 1998 Sep 9;87(37):1177–9 (Eng. Abstr.) **(Fre)**

[Rabies during travel. Indications for travel medical consultation and prevention] **Med Monatsschr Pharm** 1999 Jul;22(7):211–3 **(Ger)**

[A case received pre–exposure immunization against rabies by intradermal injection of rabies vaccine because of allergic reaction to the component of the vaccine] Takayama N, et al. **Kansenshogaku Zasshi** 1999 Jun; 73(6):600–1 (Eng. Abstr.) **(Jpn)**

[The current epizootic situation of prospects for eradicating rabies] Selimov MA. **Vopr Virusol** 1998 Sep–Oct; 43(5):196–8 (20 ref.) **(Rus)**

[Prevention of human rabies in Yugoslavia] Lalošević D, et al. **Med Pregl** 1998;51 Suppl 1:25–30 (Eng. Abstr.) **(Scr)**

THERAPY

Current recommendations for the prophylaxis and treatment of rabies. Dreesen DW, et al. **Drugs** 1998 Nov;56(5):801–9 (15 ref.)

Characterization and observation of animals responsible for rabies post–exposure treatment in Phnom Penh, Cambodia. Reynes JM, et al. **Onderstepoort J Vet Res** 1999 Jun; 66(2):129–33

TRANSMISSION

Rabies prophylaxis following the feeding of a rabid pony. Feder HM, et al. **Clin Pediatr (Phila)** 1998 Aug; 37(8):477–81 (38 ref.)

Risk for rabies transmission from encounters with bats, Colorado, 1977–1996. Pape WJ, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):433–7

Rabies transmission by oral and other non–bite routes [editorial] Dutta JK. **J Indian Med Assoc** 1998 Dec; 96(12):359

From the Centers for Disease Control and Prevention. Multiple human exposures to a rabid bear cub at a petting zoo and barnwarming--Iowa, August 1999. **JAMA** 1999 Oct 6;282(13):1222

From the Centers for Disease Control and Prevention. Mass treatment of humans who drank unpasteurized milk from rabid cows--Massachusetts, 1996–1998 [published erratum appears in JAMA 1999 May 5;281(17):1582] **JAMA** 1999 Apr 21;281(15):1371–2

Mass treatment of humans who drank unpasteurized milk from rabid cows--Massachusetts, 1996–1998 [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Apr 9;48(13):274] **MMWR Morb Mortal Wkly Rep** 1999 Mar 26;48(11):228–9

Multiple human exposures to a rabid bear cub at a petting zoo and barnwarming--Iowa, August 1999. **MMWR Morb Mortal Wkly Rep** 1999 Sep 3;48(34):761

Characterization and observation of animals responsible for rabies post–exposure treatment in Phnom Penh, Cambodia. Reynes JM, et al. **Onderstepoort J Vet Res** 1999 Jun; 66(2):129–33

VETERINARY

Rabies revaccination for companion animals: Canadian data. Gumley N. **Can Vet J** 1999 Jun;40(6):404–7

Risk for rabies transmission from encounters with bats, Colorado, 1977–1996. Pape WJ, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):433–7

A rabies serosurvey of domestic dogs in rural Tanzania: results of a rapid fluorescent focus inhibition test (RFFIT) and a liquid–phase blocking ELISA used in parallel. Cleaveland S, et al. **Epidemiol Infect** 1999 Aug; 123(1):157–64

An update on safety studies of SAD B19 rabies virus vaccine in target and non–target species. Vos A, et al. **Epidemiol Infect** 1999 Aug;123(1):165–75

Compendium of animal rabies control, 1999. The NASPHV Committee. **J Am Vet Med Assoc** 1999 Jan 15; 214(2):198–202

Human contact with bait containing vaccine for control of rabies in wildlife. McGuill MW, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1413–7

Prevention of the spread of rabies to wildlife by oral vaccination of raccoons in Massachusetts. Robbins AH, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1407–12

Efficacy of an oral vaccinia–rabies glycoprotein recombinant vaccine in controlling epidemic raccoon rabies in New Jersey. Roscoe DE, et al. **J Wildl Dis** 1998 Oct;34(4):752–63

Gray fox response to baits and attractants for oral rabies vaccination. Steelman HG, et al. **J Wildl Dis** 1998 Oct; 34(4):764–70

From the Centers for Disease Control and Prevention. Mass treatment of humans who drank unpasteurized milk from rabid cows--Massachusetts, 1996–1998 [published erratum appears in JAMA 1999 May 5;281(17):1582] **JAMA** 1999 Apr 21;281(15):1371–2

From the Centers for Disease Control and Prevention. Multiple human exposures to a rabid bear cub at a petting zoo and barnwarming--Iowa, August 1999. **JAMA** 1999 Oct 6;282(13):1222

Mass treatment of humans who drank unpasteurized milk from rabid cows--Massachusetts, 1996–1998 [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Apr 9;48(13):274] **MMWR Morb Mortal Wkly Rep** 1999 Mar 26;48(11):228–9

Compendium of Animal Rabies Control, 1999. National Association of State Public Health Veterinarians, Inc. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2;48(RR–3):1–9

Multiple human exposures to a rabid bear cub at a petting zoo and barnwarming--Iowa, August 1999. **MMWR Morb Mortal Wkly Rep** 1999 Sep 3;48(34):761

The epidemiology of rabies in Zimbabwe. 1. Rabies in dogs (Canis familiaris). Bingham J, et al. **Onderstepoort J Vet Res** 1999 Mar;66(1):1–10

The epidemiology of rabies in Zimbabwe. 2. Rabies in jackals (Canis adustus and Canis mesomelas). Bingham J, et al. **Onderstepoort J Vet Res** 1999 Mar;66(1):11–23

Spatial diffusion of raccoon rabies in Pennsylvania, USA. Moore DA. **Prev Vet Med** 1999 May 14;40(1):19–32

Rabies in the insectivorous bat Tadarida brasiliensis in southeastern Brazil. Ueda W. **Rev Saude Publica** 1998 Oct; 32(5):484–5

Epidemiological surveillance of rabies in Lithuania from 1986 to 1996. Gylys L, et al. **Rev Sci Tech** 1998 Dec;17(3):691–8

Influence of canine brain decomposition on laboratory diagnosis of rabies. Albas A, et al. **Rev Soc Bras Med Trop** 1999 Jan–Feb;32(1):19–22

Immunization of dogs and cats with a DNA vaccine against rabies virus. Osorio JE, et al. **Vaccine** 1999 Mar 5; 17(9–10):1109–16

Epidemiology and elimination of rabies in western Europe. Pastoret PP, et al. **Vet J** 1998 Sep;156(2):83–90

Replacement of quarantine: the profession airs its concerns [news] **Vet Rec** 1999 Apr 17;144(16):426–9

Rabies, quarantine and the veterinary profession: the BVA's position [news] **Vet Rec** 1999 Apr 10;144(15):396–7

Rabies in a Zambian bat [letter] Ahmadu B, et al. **Vet Rec** 1998 Aug 1;143(5):148

First reported case of elephant rabies in Sri Lanka. Wimalaratne O, et al. **Vet Rec** 1999 Jan 23;144(4):98

[Rabies epizootic in the urban area of Ribeirão Preto, São Paulo, Brazil] Passos AD, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):735–40 (Eng. Abstr.) **(Por)**

[Epizootiologic situation of rabies in 1997. Urbanization of sylvatic rabies in Yugoslavia] Lalošević D, et al. **Med Pregl** 1998;51 Suppl 1:31–3 (Eng. Abstr.) **(Scr)**

[Rabies in dogs and efficacy of active immunoprophylaxis

RABIES

in Yugoslavia] Stankov S, et al. **Med Pregl** 1998;51 Suppl 1:43–6 (Eng. Abstr.) **(Ser)**

VIROLOGY

An arctic fox rabies virus strain as the cause of human rabies in Russian Siberia. Kuzmin IV. **Arch Virol** 1999; 144(3):627–9

Soluble ectodomain of rabies virus glycoprotein expressed in eukaryotic cells folds in a monomeric conformation that is antigenically distinct from the native state of the complete, membrane-anchored glycoprotein. Gaudin Y, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1647–56

Mechanisms of symptom in Bartoszyński's virus model. Kim Y. **Math Biosci** 1998 Oct;153(1):63–78

Rabies vaccine. Developments employing molecular biology methods. Paolazzi CC, et al. **Mol Biotechnol** 1999 Apr; 11(2):137–47 (47 ref.)

RABIES VACCINE

Evaluation of the safety, immunogenicity, and pharmacokinetic profile of a new, highly purified, heat-treated equine rabies immunoglobulin, administered either alone or in association with a purified, Vero-cell rabies vaccine. Lang J, et al. **Acta Trop** 1998 Jul 30; 70(3):317–33

Vaccination of wildlife against rabies: successful use of a vectored vaccine obtained by recombinant technology. Mackowiak M, et al. **Adv Vet Med** 1999;41:571–83 (18 ref.)

Update on emerging infections from the Centers for Disease Control and Prevention. Update: rabies postexposure prophylaxis guidelines. **Ann Emerg Med** 1999 May; 33(5):590–7

Compendium of animal rabies control, 1999. The NASPHV Committee. **J Am Vet Med Assoc** 1999 Jan 15; 214(2):198–202

Human contact with bait containing vaccine for control of rabies in wildlife. McGuill MW, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1413–7

Prevention of the spread of rabies to wildlife by oral vaccination of raccoons in Massachusetts. Robbins AH, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1407–12

Problems with rabies postexposure management: a survey of 499 public hospitals in Thailand. Kositprapa C, et al. **J Travel Med** 1998 Mar;5(1):30–2

Efficacy of an oral vaccinia-rabies glycoprotein recombinant vaccine in controlling epidemic raccoon rabies in New Jersey. Roscoe DE, et al. **J Wildl Dis** 1998 Oct;34(4):752–63

Compendium of Animal Rabies Control, 1999. National Association of State Public Health Veterinarians, Inc. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2;48(RR-3):1–9

Human rabies prevention—United States, 1999. Recommendations of the Advisory Committee on Immunization Practices (ACIP) [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Jan 15;48(1):16] **MMWR Morb Mortal Wkly Rep** 1999 Jan 8;48(RR-1):1–21

Could we keep the rabies epidemic away from the Outer Banks? Oral rabies vaccination of raccoons. Correa-Prisant M, et al. **N C Med J** 1999 May-Jun;60(3):169–71

Preventing human rabies before and after exposure. Garcia R. **Nurse Pract** 1999 Apr;24(4):91–2, 95–7, 101–2 passim (32 ref.)

New vaccines. Heins JR. **S D J Med** 1999 Jan;52(1):21–2

Immunization of dogs and cats with a DNA vaccine against rabies virus. Osorio JE, et al. **Vaccine** 1999 Mar 5; 17(9–10):1109–16

Epidemiology and elimination of rabies in western Europe. Pastoret PP, et al. **Vet J** 1998 Sep;156(2):83–90

Comparison of the effectiveness of two protocols of antirabies bait distribution for foxes (Vulpes vulpes). Vuillaume P, et al. **Vet Res** 1998 Nov-Dec;29(6):537–46

ADMINISTRATION & DOSAGE

CDC issues revised guidelines for the prevention of human rabies. Rose VL. **Am Fam Physician** 1999 Apr 1; 59(7):2007–8, 2013–4 (00 ref.)

Feral animals and rabies. Gherardin T. **Aust Fam Physician** 1998 Oct;27(10):943

Rabies revaccination for companion animals: Canadian data. Gumley N. **Can Vet J** 1999 Jun;40(6):404–7

Additional reports of failure to respond to treatment after rabies exposure in Thailand. Hemachudha T, et al. **Clin Infect Dis** 1999 Jan;28(1):143–4

Human rabies postexposure prophylaxis during a raccoon rabies epizootic in New York, 1993 and 1994. Wyatt JD, et al. **Emerg Infect Dis** 1999 May-Jun;5(3):415–23

Human rabies despite postexposure vaccination. Gacouin A, et al. **Eur J Clin Microbiol Infect Dis** 1999 Mar;18(3):233–5

Vaccine injection-site sarcoma in a ferret [letter] Murray J. **J Am Vet Med Assoc** 1998 Oct 1;213(7):955

An experimental study on the endurance of immunologic memory of intradermal micro-injection with rabies vaccine and boosting immune effect. Yang Y, et al. **J Epidemiol** 1999 Aug;9(4):209–15

Intradermal rabies vaccination and concurrent use of mefloquine. Lau SC. **J Travel Med** 1999 Jun;6(2):140–1

Booster vaccination at 1 year with a rabies vaccine associated with DTP-IPV in infants living in a rabies endemic country [letter] Lang J, et al. **J Trop Pediatr** 1999 Jun;45(3):181–3

Gray fox response to baits and attractants for oral rabies vaccination. Steelman HG, et al. **J Wildl Dis** 1998 Oct; 34(4):764–70

Case 21–1998: rabies [letter; comment] Sfedu EP. **N Engl J Med** 1999 Jan 7;340(1):64; discussion 65. Comment on: N Engl J Med 1998 Jul 9;339(2):105–12.

Successful postexposure rabies prophylaxis after erroneous starting treatment. Haviv J, et al. **Prev Med** 1999 Jul; 29(1):28–31

Immunogenicity and safety of low-dose intradermal rabies vaccination given during an Expanded Programme on immunization session in Viet Nam: results of a comparative randomized trial. Lang J, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr;93(2):208–13

[A case received pre-exposure immunization against rabies by intradermal injection of rabies vaccine because of allergic reaction to the component of the vaccine] Takayama N, et al. **Kansenshogaku Zasshi** 1999 Jun; 73(6):600–1 (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Vaccine-induced autoimmunity in the dog. Hogenesch H, et al. **Adv Vet Med** 1999;41:733–47

Association of HLA and T-cell receptor gene polymorphisms with Semple rabies vaccine-induced autoimmune encephalomyelitis. Piyasirisilp S, et al. **Ann Neurol** 1999 May;45(5):595–600

Immunogenicity and safety in adults of a new chromatographically purified Vero-cell rabies vaccine (CPRV): a randomized, double-blind trial with purified Vero-cell rabies vaccine (PVRV). Lang J, et al. **Biologicals** 1998 Dec;26(4):299–308

An update on safety studies of SAD B19 rabies virus vaccine in target and non-target species. Vos A, et al. **Epidemiol Infect** 1999 Aug;123(1):165–75

Rabies vaccination. John TJ. **Indian Pediatr** 1998 Jun; 35(6):573–4

MRI in acute disseminated encephalomyelitis following Semple antirabies vaccine. Murthy JM. **Neuroradiology** 1998 Jul;40(7):420–3

Adverse effect versus quality control of the Fuenzalida-Palacios antirabies vaccine. Nogueira YL. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct;40(5):295–9

Equine antirabies serum treatment during an epizootic outbreak in the city of Ribeirão Preto, Brazil [letter] Warrell MJ, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):106; discussion 106–7

Equine antirabies serum treatment during an epizootic outbreak in the city of Ribeirão Preto, Brazil [letter] Wilde H. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):106; discussion 106–7

Safety evaluation of the SAG2 rabies virus mutant in Tunisian dogs and several non-target species. Hammami S, et al. **Vet Res** 1999 Jul-Aug;30(4):353–62

GENETICS

Rabies vaccine. Developments employing molecular biology methods. Paolazzi CC, et al. **Mol Biotechnol** 1999 Apr; 11(2):137–47 (47 ref.)

HISTORY

Hydrophobic horse sense [editorial] Quinonez JM, et al. **Clin Pediatr (Phila)** 1998 Aug;37(8):483–4

IMMUNOLOGY

A comparison of two serological methods for detecting the immune response after rabies vaccination in dogs and cats being exported to rabies-free areas. Briggs DJ, et al. **Biologicals** 1998 Dec;26(4):347–55

Immunogenicity and safety in adults of a new chromatographically purified Vero-cell rabies vaccine (CPRV): a randomized, double-blind trial with purified Vero-cell rabies vaccine (PVRV). Lang J, et al. **Biologicals** 1998 Dec;26(4):299–308

Short duration of neutralizing antibody titers after pre-exposure rabies vaccination with suckling mouse brain vaccine. Zanetti CR, et al. **Braz J Med Biol Res** 1998 Oct; 31(10):1275–80

Suppressant effect of human or equine rabies immunoglobulins on the immunogenicity of post-exposure rabies vaccination under the 2-1-1 regimen: a field trial in Indonesia. MAS054 Clinical Investigator Group. Lang J, et al. **Bull World Health Organ** 1998;76(5):491–5

A new Vero cell rabies vaccine: results of a comparative trial with human diploid cell rabies vaccine in children. Sabchareon A, et al. **Clin Infect Dis** 1999 Jul;29(1):141–9

Antibody response after a four-site intradermal booster vaccination with cell-culture rabies vaccine. Tantawichien T, et al. **Clin Infect Dis** 1999 May;28(5):1100–3

Vaccine watch [news] **Indian Pediatr** 1998 Sep;35(9):939

Rabies vaccination. John TJ. **Indian Pediatr** 1998 Jun; 35(6):573–4

Immune response to rabies booster vaccination in subjects who had postexposure treatment more than 5 years previously. Naraporn N, et al. **J Travel Med** 1999 Jun; 6(2):134–6

Immunogenicity of BHK-rabies vaccine in human volunteers. Lalošević D, et al. **Med Pregl** 1998;51 Suppl 1:17–9

Persistence of antibodies in children after intradermal or intramuscular administration of preexposure primary and booster immunizations with purified Vero cell rabies vaccine. Sabchareon A, et al. **Pediatr Infect Dis J** 1998 Nov;17(11):1001–7

Efficacy of SAG-2 oral rabies vaccine in two species of jackal (Canis adustus and Canis mesomelas). Bingham J, et al. **Vaccine** 1999 Feb 12;17(6):551–8

Is there an advantage to including the nucleoprotein in a rabies glycoprotein subunit vaccine? Drings A, et al. **Vaccine** 1999 Mar 17;17(11–12):1549–57

Effect of the bacillus of Calmette-Guérin, Propionibacter acnes and avridine as immunomodulators in antirabies vaccination of mice using the Fuenzalida-Palacios mouse brain vaccine. Megid J, et al. **Vaccine** 1999 May 14; 17(19):2446–52

Rabipur: a reliable vaccine for rabies protection. Vodopija I, et al. **Vaccine** 1999 Mar 26;17(13–14):1739–41

Induction of mucosal immunity with a replication-defective adenoviral recombinant. Xiang Z, et al. **Vaccine** 1999 Apr 9;17(15–16):2003–8

[A study on efficacy of rabies vaccine prepared by primary hamster kidney cells in Guangxi] Wu T, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jul;32(4):211–3 (Eng. Abstr.) **(Chi)**

[Comparative immunogenicity of 2 antirabies vaccines in a 2-1-1 post-exposure vaccination schedule] Landry P, et al. **Schweiz Rundsch Med Prax** 1998 Sep 9;87(37):1177–9 (Eng. Abstr.) **(Fre)**

[Anti-rabies antibody levels observed in subjects who were bitten by supposed rabid animals abroad and received post-exposure immunization] Takayama N. **Kansenshogaku Zasshi** 1998 Oct;72(10):1046–9 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Equine antirabies serum treatment during an epizootic outbreak in the city of Ribeirão Preto, Brazil. Cupo P, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):349

A study of human rabies immune globulin manufactured by the Thai Red Cross. Chantanakajornfung A, et al. **Vaccine** 1999 Feb 26;17(7–8):979–81

[Epidemiological analysis of the effectiveness of vaccination against rabies in Poland, 1986–1997] Seroka D. **Przegl Epidemiol** 1998;52(4):379–88 (Eng. Abstr.) **(Pol)**

RABIES VIRUS

Modification of membrane currents in mouse neuroblastoma cells following infection with rabies virus. Iwata M, et al. **Br J Pharmacol** 1999 Apr;126(8):1691–8

Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for rabies virus. Tuffereau C, et al. **EMBO J** 1998 Dec 15;17(24):7250–9

Apoptosis induction in brain during the fixed strain of rabies virus infection correlates with onset and severity of illness. Theerasurakarn S, et al. **J Neurovirol** 1998 Aug;4(4):407–14

CLASSIFICATION

A nucleotide-specific polymerase chain reaction assay to differentiate rabies virus biotypes in South Africa. Nel LH, et al. **Onderstepoort J Vet Res** 1998 Dec;65(4):297–303

ENZYMOLOGY

Studies on rabies virus RNA polymerase: 1. cDNA cloning of the catalytic subunit (L protein) of avirulent HEP-flury strain and its expression in animal cells. Morimoto K, et al. **Microbiol Immunol** 1998;42(7):485–96

Studies on the rabies virus RNA polymerase: 2. Possible relationships between the two forms of the non-catalytic subunit (P protein). Takamatsu F, et al. **Microbiol Immunol** 1998;42(11):761–71

GENETICS

Typing of rabies virus isolates by DNA enzyme immunoassay. Sabouraud A, et al. **J Clin Virol** 1999 Jan; 12(1):9–19

Dynamics of rabies virus quasispecies during serial passages in heterologous hosts. Kissi B, et al. **J Gen Virol** 1999 Aug; 80 (Pt 8):2041–50

Development and use of a 293 cell line expressing lac repressor for the rescue of recombinant adenoviruses expressing high levels of rabies virus glycoprotein. Matthews DA, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):345–53

Virus promoters determine interference by defective RNAs: selective amplification of mini-RNA vectors and rescue from cDNA by a 3' copy-back ambisense rabies virus. Finke S, et al. **J Virol** 1999 May;73(5):3818–25

Polymerase chain reaction protocols for rabies virus discrimination. Nadin-Davis SA. **J Virol Methods** 1998 Nov;75(1):1–8

A nucleotide-specific polymerase chain reaction assay to differentiate rabies virus biotypes in South Africa. Nel LH, et al. **Onderstepoort J Vet Res** 1998 Dec;65(4):297–303

GROWTH & DEVELOPMENT

Mechanisms of symptom in Bartoszyński's virus model. Kim Y. **Math Biosci** 1998 Oct;153(1):63–78

Rabies virus replication induces Bax-related, caspase dependent apoptosis in mouse neuroblastoma cells. Ubol S, et al. **Virus Res** 1998 Aug;56(2):207–15

IMMUNOLOGY

Evaluation of the safety, immunogenicity, and pharmacokinetic profile of a new, highly purified, heat-treated equine rabies immunoglobulin, administered either alone or in association with a purified, Vero-cell rabies vaccine. Lang J, et al. **Acta Trop** 1998 Jul 30; 70(3):317-33

Update on emerging infections from the Centers for Disease Control and Prevention. Update rabies postexposure prophylaxis guidelines. **Ann Emerg Med** 1999 May; 33(5):590-7

Failure of protection induced by a Brazilian vaccine against Brazilian wild rabies viruses. Zanetti CR, et al. **Arch Virol** 1998;143(9):1745-56

Additional reports of failure to respond to treatment after rabies exposure in Thailand. Hemachudha T, et al. **Clin Infect Dis** 1999 Jan;28(1):143-4

Antibody response after a four-site intradermal booster vaccination with cell-culture rabies vaccine. Tantawichien T, et al. **Clin Infect Dis** 1999 May;28(5):1100-3

Human rabies postexposure prophylaxis during a raccoon rabies epizootic in New York, 1993 and 1994. Wyatt JD, et al. **Emerg Infect Dis** 1999 May-Jun;5(3):415-23

A rabies serosurvey of domestic dogs in rural Tanzania: results of a rapid fluorescent focus inhibition test (RFFIT) and a liquid-phase blocking ELISA used in parallel. Cleaveland S, et al. **Epidemiol Infect** 1999 Aug; 123(1):157-64

An update on safety studies of SAD B19 rabies virus vaccine in target and non-target species. Vos A, et al. **Epidemiol Infect** 1999 Aug;123(1):165-75

Antigen detection in vivo after immunization with different presentation forms of rabies virus antigen, II. Cellular, but not humoral, systemic immune responses against rabies virus immune-stimulating complexes are macrophage dependent. Claassen IJ, et al. **Immunology** 1998 Aug; 94(4):455-60

Intradermal rabies vaccination and concurrent use of mefloquine. Lau SC. **J Travel Med** 1999 Jun;6(2):140-1

Immune response to rabies booster vaccination in subjects who had postexposure treatment more than 5 years previously. Naraporn N, et al. **J Travel Med** 1999 Jun; 6(2):134-6

Comparison of visual microscopic and computer-automated fluorescence detection of rabies virus neutralizing antibodies. Péharpré D, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):330-3

Chimeric lyssavirus glycoproteins with increased immunological potential. Jallet C, et al. **J Virol** 1999 Jan; 73(1):225-33

Use of anti-glycoprotein monoclonal antibodies to characterize rabies virus in formalin-fixed tissues. Warner C, et al. **J Virol Methods** 1999 Jan;77(1):69-74

Obtention of rabies antigen through BHK21 cells adhered to microcarriers. Gallina NM, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct;40(5):291-4

Is there an advantage to including the nucleoprotein in a rabies glycoprotein subunit vaccine? Drings A, et al. **Vaccine** 1999 Mar 17;17(11-12):1549-57

Studies on the structures and antigenic properties of rabies virus glycoprotein analogues produced in yeast cells. Sakamoto S, et al. **Vaccine** 1999 Jan 21;17(3):205-18

Induction of mucosal immunity with a replication-defective adenoviral recombinant. Xiang Z, et al. **Vaccine** 1999 Apr 9;17(15-16):2003-8

[A study on efficacy of rabies vaccine prepared by primary hamster kidney cells in Guangxi] Wu T, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jul;32(4):211-3 (Eng. Abstr.) **(Chi)**

[Anti-rabies antibody levels observed in subjects who were bitten by supposed rabid animals abroad and received post-exposure immunization] Takayama N. **Kansenshogaku Zasshi** 1998 Oct;72(10):1046-9 (Eng. Abstr.) **(Jpn)**

ISOLATION & PURIFICATION

Laboratory investigation of human deaths from vampire bat rabies in Peru. Warner CK, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):502-7

Viral excretion in domestic ferrets (Mustela putorius furo) inoculated with a raccoon rabies isolate. Niezgoda M, et al. **Am J Vet Res** 1998 Dec;59(12):1629-32

Hydrophobic horse sense [editorial] Quinonez JM, et al. **Clin Pediatr (Phila)** 1998 Aug;37(8):483-4

A new quantitative method for rabies virus by detection of nucleoprotein in virion using ELISA. Katayama S, et al. **J Vet Med Sci** 1999 Apr;61(4):411-6

Preparation of fluorescein-labeled antirabies gamma-globulin at the Thai Red Cross. Kasempimolporn S, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):277-9

Safety evaluation of the SAG2 rabies virus mutant in Tunisian dogs and several non-target species. Hammami S, et al. **Vet Res** 1999 Jul-Aug;30(4):353-62

An evaluation of immunofluorescence and PCR methods for detection of rabies in archival Carnoy-fixed, paraffin-embedded brain tissue. Kulonen K, et al. **Zentralbl Veterinarmed [B]** 1999 Apr;46(3):151-5

[Isolation of rabies virus from an insectivorous bat, Nyctinomops macrotis, in southeast Brazil] Passos EC, et al. **Rev Saude Publica** 1998 Feb;32(1):74-6 (Eng. Abstr.) **(Por)**

METABOLISM

Phosphorylation of rabies virus nucleoprotein regulates viral RNA transcription and replication by modulating leader RNA encapsidation. Yang J, et al. **J Virol** 1999 Feb; 73(2):1661-4

PATHOGENICITY

Apoptosis in experimental rabies in bax-deficient mice. Jackson AC. **Acta Neuropathol (Berl)** 1999 Sep;98(3):288-94

Pathogenicity of different rabies virus variants inversely correlates with apoptosis and rabies virus glycoprotein expression in infected primary neuron cultures. Morimoto K, et al. **J Virol** 1999 Jan;73(1):510-8

PHYSIOLOGY

Soluble ectodomain of rabies virus glycoprotein expressed in eukaryotic cells folds in a monomeric conformation that is antigenically distinct from the native state of the complete, membrane-anchored glycoprotein. Gaudin Y, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1647-56

Rabies virus entry into cultured rat hippocampal neurons. Lewis P, et al. **J Neurocytol** 1998 Aug;27(8):559-73

A proline-rich motif within the matrix protein of vesicular stomatitis virus and rabies virus interacts with WW domains of cellular proteins: implications for viral budding. Harty RN, et al. **J Virol** 1999 Apr;73(4):2921-9

Matrix protein of rabies virus is responsible for the assembly and budding of bullet-shaped particles and interacts with the transmembrane spike glycoprotein G. Mebatsion T, et al. **J Virol** 1999 Jan;73(1):242-50

Intracellular behavior of rabies virus matrix protein (M) is determined by the viral glycoprotein (G). Nakahara K, et al. **Microbiol Immunol** 1999;43(3):259-70

Rabies virus-induced membrane fusion. Gaudin Y, et al. **Mol Membr Biol** 1999 Jan-Mar;16(1):21-31 (88 ref.)

Case 21-1998: rabies [letter; comment] Jackson AC. **N Engl J Med** 1999 Jan 7;340(1):65. Comment on: N Engl J Med 1998 Jul 9;339(2):105-12.

ULTRASTRUCTURE

Characterization of rabies virus nucleocapsids and recombinant nucleocapsid-like structures. Iseni F, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2909-19

RACCOON DOGS see CARNIVORA

RACCOONS

Tumors in wild adult raccoons from a suburban area. Mikaelian I, et al. **Can Vet J** 1999 Jun;40(6):429-30

Prevention of the spread of rabies to wildlife by oral vaccination of raccoons in Massachusetts. Robbins AH, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1407-12

Pancreatic endocrine carcinoma with multiple hormone production in a raccoon (Procyon lotor). Yoshikawa K, et al. **J Comp Pathol** 1999 Apr;120(3):301-6

Capillaries of the anal sacs of raccoons (Procyon lotor) and a possible association with anal-sac impaction. Hamir AN. **J Vet Diagn Invest** 1998 Oct;10(4):371-3

Serologic survey for selected infectious disease agents in raccoons from Illinois. Mitchell MA, et al. **J Wildl Dis** 1999 Apr;35(2):347-55

Efficacy of an oral vaccinia-rabies glycoprotein recombinant vaccine in controlling epidemic raccoon rabies in New Jersey. Roscoe DE, et al. **J Wildl Dis** 1998 Oct;34(4):752-63

Could we keep the rabies epidemic away from the Outer Banks? Oral rabies vaccination of raccoons. Correa-Prisant M, et al. **N C Med J** 1999 May-Jun;60(3):169-71

Spatial diffusion of raccoon rabies in Pennsylvania, USA. Moore DA. **Prev Vet Med** 1999 May 14;40(1):19-32

ANATOMY & HISTOLOGY

Neuronal vacuolation in raccoons from Oregon. Hamir AN, et al. **J Vet Diagn Invest** 1999 Jul;11(4):303-7

BLOOD

Experimental lead toxicosis of raccoons (Procyon lotor). Hamir AN, et al. **J Comp Pathol** 1999 Feb;120(2):147-54

METABOLISM

Calcitonin gene-related peptide and neuropeptide Y in the raccoon cuneate nucleus. Dick SH, et al. **Brain Res Bull** 1998 Nov 1;47(4):387-91

PARASITOLOGY

Patterns of infestation by adult Dermacentor variabilis (Acari: Ixodidae) in a mark-recapture study of raccoons (Mammalia: Carnivora) and Virginia opossums (Mammalia: Didelphimorphia) in Tennessee. Kollars TM Jr, et al. **J Med Entomol** 1999 May;36(3):263-7

Prevalence of Sarcocystis kirkpatricki Sarcocysts in the central nervous system and striated muscles of raccoons from the Eastern United States. Hamir AN, et al. **J Parasitol** 1999 Aug;85(4):748-50

Seroprevalence of antibodies against Toxoplasma gondii in free-ranging mammals in Iowa. Hill RE Jr, et al. **J Wildl Dis** 1998 Oct;34(4):811-5

PHYSIOLOGY

How skilled are the skilled limb movements of the raccoon (Procyon lotor)? Iwaniuk AN, et al. **Behav Brain Res** 1999 Feb 15;99(1):35-44

Two distinct populations of cholinergic neurons in the septum of raccoon (Procyon lotor): evidence for a separate subset in the lateral septum. Brauer K, et al. **J Comp Neurol** 1999 Sep 13;412(1):112-22

VIROLOGY

Viral excretion in domestic ferrets (Mustela putorius furo) inoculated with a raccoon rabies isolate. Niezgoda M, et al. **Am J Vet Res** 1998 Dec;59(12):1629-32

Human rabies postexposure prophylaxis during a raccoon rabies epizootic in New York, 1993 and 1994. Wyatt JD, et al. **Emerg Infect Dis** 1999 May-Jun;5(3):415-23

RACE see RACIAL STOCKS

RACE RELATIONS

see related

CIVIL RIGHTS

Kinship networks that cross racial lines: the exception or the rule? Goldstein JR. **Demography** 1999 Aug; 36(3):399-407

Black psychiatric patients' reactions to the cultural mistrust inventory. Whaley AL. **J Natl Med Assoc** 1998 Dec; 90(12):776-8

Unraveling the concept of race in Brazil: issues for the Rio de Janeiro Cooperative Agreement site. Surratt HL, et al. **J Psychoactive Drugs** 1998 Jul-Sep;30(3):255-60

Does race or socioeconomic status predict adverse outcome after out of hospital cardiac arrest: a multi-center study. Sayegh AJ, et al. **Resuscitation** 1999 Apr-May;40(3):141-6

HISTORY

[The Jena years of 'Rasse-G"unther' from 1930 to 1935. On the establishment of the chair for social anthropology at the Jena University] Hossfeld U. **Medizinhist J** 1999; 34(1):47-103 **(Ger)**

LEGISLATION & JURISPRUDENCE

The politics of apology. Summerfield D. **Lancet** 1999 Jul 31;354(9176):421

PSYCHOLOGY

How low can it go? Declining black-white segregation in a multiethnic context. Krivo LJ, et al. **Demography** 1999 Feb;36(1):93-109

Workplace discrimination and alcohol consumption: findings from the San Francisco Muni Health and Safety Study. Yen IH, et al. **Ethn Dis** 1999 Winter;9(1):70-80

TRENDS

How low can it go? Declining black-white segregation in a multiethnic context. Krivo LJ, et al. **Demography** 1999 Feb;36(1):93-109

RACEMASES see RACEMASES AND EPIMERASES

RACEMASES AND EPIMERASES

ANALYSIS

An assay for mandelate racemase using high-performance liquid chromatography. Bearne SL, et al. **Anal Biochem** 1999 May 1;269(2):332-6

CHEMISTRY

Crystal structure of 7,8-dihydroneopterin triphosphate epimerase. Ploom T, et al. **Structure Fold Des** 1999 May; 7(5):509-16

RACHITIS see RICKETS

RACIAL STOCKS

Racial differences in skin function. Berardesca E. **Acta Derm Venereol Suppl (Stockh)** 1994;185:44-6 (10 ref.)

Racial/ethnic disparities in admissions to public and private psychiatric inpatient settings: the effect of managed care. Crawford K, et al. **Adm Policy Ment Health** 1998 Nov; 26(2):101-9

Racelessness a difficult characterization [letter; comment] Heard-Dunn P. **Am Ann Deaf** 1998 Oct;143(4):293-5. Comment on: Am Ann Deaf 1998 Mar;143(1):55-64.

Race, ethnicity, and minority status [editorial] Moores DF. **Am Ann Deaf** 1998 Oct;143(4):291-2

Understanding ethnic differences in energy balance: can we get there from here? [editorial; comment] Kumanyika SK. **Am J Clin Nutr** 1999 Jul;70(1):1-2 (10 ref.). Comment on: Am J Clin Nutr 1999 Jul;70(1):13-20.

Racial differences in bone mineral density and bone loss among end-stage renal disease patients. Stehman-Breen CO, et al. **Am J Kidney Dis** 1999 May;33(5):941-6

Abandoning race as a variable in public health research [letter; comment] Buehler JW. **Am J Public Health** 1999 May;89(5):783; discussion 784. Comment on: Am J Public

Health 1998 Sep;88(9):1303-7.
"Whiting out" white privilege will not advance the study of how racism harms health [letter; comment] Krieger N, et al. **Am J Public Health** 1999 May;89(5):782-3; discussion 784-5. Comment on: Am J Public Health 1998 Sep;88(9):1297-8. Comment on: Am J Public Health 1998 Sep;88(9):1303-7.
The use of race as a variable in public health research [letter; comment] Rabin R. **Am J Public Health** 1999 May; 89(5):783; discussion 784. Comment on: Am J Public Health 1998 Sep;88(9):1303-7.
Prevalence of binge eating disorder, obesity, and depression in a biracial cohort of young adults. Smith DE, et al. **Ann Behav Med** 1998 Summer;20(3):227-32
Theories of race, ethnicity and culture [see comments] Pfeffer N. **BMJ** 1998 Nov 14;317(7169):1381-4 (18 ref.). Comment in: BMJ 1999 Jun 19;318(7199):1696.
Global energy requirements, ethnicity, representative samples and basal metabolism: what can we really tell the world? [letter; comment] Cruickshank K. **Br J Nutr** 1999 Jan; 81(1):81-2. Comment on: Br J Nutr 1998 Apr;79(4):333-41.
Unusual features of thyroid carcinomas in Japanese patients with Werner syndrome and possible genotype-phenotype relations to cell type and race [see comments] Ishikawa Y, et al. **Cancer** 1999 Mar 15;85(6):1345-52. Comment in: Cancer 1999 Aug 15;86(4):728-9.
Racial variation in cancer care: a case study of prostate cancer. Horner RD. **Cancer Treat Res** 1998;97:99-114 (56 ref.)
Current diversity in orthopaedics. Issues of race, ethnicity, and gender. England SP, et al. **Clin Orthop** 1999 May; (362):40-3
Racial and ethnic differences in glycemic control of adults with type 2 diabetes. Harris MI, et al. **Diabetes Care** 1999 Mar;22(3):403-8
Race, ethnicity and disasters in the United States: a review of the literature. Fothergill A, et al. **Disasters** 1999 Jun; 23(2):156-73 (69 ref.)
Breast cancer histology in Caucasians, African Americans, Hispanics, Asians, and Pacific Islanders. Klonoff-Cohen HS, et al. **Ethn Health** 1998 Aug;3(3):189-98
Racial/ethnic labels are not necessary [letter; comment] Armstrong EC. **Fam Med** 1998 Sep;30(8):542. Comment on: Fam Med 1998 Mar;30(3):224-7.
Sexism and racism in preconceptive trait selection [editorial; comment] Berkowitz JM. **Fertil Steril** 1999 Mar;71(3):415-7 . Comment on: Fertil Steril 1999 Mar;71(3):418-9.
Political correctness and the abridgment of reproductive choice [editorial; comment] Paulson RJ. **Fertil Steril** 1999 Mar;71(3):418-9. Comment on: Fertil Steril 1999 Mar;71(3):415-7.
Race and hypertension: science and nescience [see comments] Cooper RS, et al. **Hypertension** 1998 Nov;32(5):813-6. Comment in: Hypertension 1998 Nov;32(5):817-9.
Normotensive salt sensitivity: effects of race and dietary potassium. Morris RC Jr, et al. **Hypertension** 1999 Jan; 33(1):18-23
Is there a racial predisposition to hypertension? [editorial; comment] O'Donnell CJ, et al. **Hypertension** 1998 Nov; 32(5):817-9. Comment on: Hypertension 1998 Nov;32(5):813-6.
Race and diurnal blood pressure patterns. A review and meta-analysis. Profant J, et al. **Hypertension** 1999 May; 33(5):1099-104
Body mass index and percent body fat: a meta analysis among different ethnic groups. Deurenberg P, et al. **Int J Obes Relat Metab Disord** 1998 Dec;22(12):1164-71
It's as simple as black and white! Race and ethnicity as categorical variables [editorial] Hammerschmidt DE. **J Lab Clin Med** 1999 Jan;133(1):10-2 (8 ref.)
Strengthening domestic violence theories: intersections of race, class, sexual orientation, and gender. Bograd M. **J Marital Fam Ther** 1999 Jun;25(3):275-89 (92 ref.)
Relative rates of AIDS among racial/ethnic groups by exposure categories [published erratum appears in J Natl Med Assoc 1999 Apr,91(4):192] Haverkos HW, et al. **J Natl Med Assoc** 1999 Jan;91(1):17-24
Race, ethnicity, and genetics [letter; comment] Wack R. **J Pediatr** 1999 Jan;134(1):122-3. Comment on: J Pediatr 1998 Feb;132(2):202-3. Comment on: J Pediatr 1998 Feb;132(2):255-9. Comment on: J Pediatr 1998 Feb;132(2):260-4.
Race as an independent predictor of outcome after treatment for localized prostate cancer. Sohayda CJ, et al. **J Urol** 1999 Oct;162(4):1331-6
Ethnic and socioeconomic factors as determinants of health status [letter; comment] Davis SK. **JAMA** 1998 Dec 16; 280(23):1989-90. Comment on: JAMA 1998 Jul 22-29;280(4):356-62.
Is there a Hispanic race? [letter] Zubizarreta P. **Lancet** 1999 Aug 28;354(9180):780
The declining impact of race and insurance status on hormone replacement therapy. Stafford RS, et al. **Menopause** 1998 Fall;5(3):140-4
Reporting race and ethnicity data--National Electronic Telecommunications System for Surveillance, 1994-1997. **MMWR Morb Mortal Wkly Rep** 1999 Apr 23; 48(15):305-12
The risk of cystic fibrosis with prenatally detected echogenic bowel in an ethnically and racially diverse North American population. Monaghan KG, et al. **Prenat Diagn** 1999 Jul; 19(7):604-9
Race, culture, and psychotherapy: transference to minority therapists. Tang NM, et al. **Psychoanal Q** 1999 Jan; 68(1):1-20
Race in the "decade of the brain". Lewine RR, et al. **Schizophr Bull** 1999;25(1):1-5
Ethnic and racial factors in cobalamin metabolism and its disorders. Carmel R. **Semin Hematol** 1999 Jan;36(1):88-100 (103 ref.)
The epidemiology of prostate cancer part I: descriptive epidemiology. Brawley OW, et al. **Semin Urol Oncol** 1998 Nov;16(4):187-92 (46 ref.)
The epidemiology of prostate cancer part II: the risk factors. Brawley OW, et al. **Semin Urol Oncol** 1998 Nov; 16(4):193-201 (123 ref.)
Implications of social class and race for urban public health policy making: a case study of HIV/AIDS and TB policy in Washington, DC. Dievler A, et al. **Soc Sci Med** 1999 Apr;48(8):1095-102
Race/ethnicity and location of stroke mortality: implications for population-based studies. Wein TH, et al. **Stroke** 1999 Aug;30(8):1501-5
Health care in black and white--racial differences in health resource use and outcomes. Mirvis DM. **Tenn Med** 1998 Dec;91(12):455-7
Prevalence of prothrombin G20210A, factor V G1691A (Leiden), and methylenetetrahydrofolate reductase (MTHFR) C677T in seven different populations determined by multiplex allele-specific PCR. Hessner MJ, et al. **Thromb Haemost** 1999 May;81(5):733-8
Effect of race on kidney transplant survival in non-European recipients. Roodnat JI, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):312-3
Race/ethnic-based opinions on organ donation and transplantation among teens: preliminary results. Spigner C, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1347-8
Recognition of own-race and other-race caricatures: implications for models of face recognition. Byatt G, et al. **Vision Res** 1998 Aug;38(15-16):2455-68
[The characteristics of the macro- and trace element composition of the hair in the peoples of Asia, Africa and Latin America] Pavlov IuV, et al. **Sud Med Ekspert** 1999 Mar-Apr;42(2):16-8 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Concepts and terminology in ethnicity, race and health: be aware of the ongoing debate. Bhopal R, et al. **Br Dent J** 1999 May 22;186(10):483-4
Does it matter who answers the race question? Racial classification and income inequality in Brazil. Telles EE, et al. **Demography** 1998 Nov;35(4):465-74
Why race is differentially classified on U.S. birth and infant death certificates: an examination of two hypotheses [see comments] Hahn RA. **Epidemiology** 1999 Mar;10(2):108-11 . Comment in: Epidemiology 1999 Mar;10(2):101-3.
On mental and visual geometry. Gould SJ. **Isis** 1998 Sep; 89(3):502-4
Definition of race and ethnicity in older people in Medicare and Medicaid. Pan CX, et al. **J Am Geriatr Soc** 1999 Jun; 47(6):730-3
The Lancer Ethnicity Scale [letter] Wolbarsht ML, et al. **Lasers Surg Med** 1999;25(2):105-6

GENETICS

European Y-chromosomal lineages in Polynesians: a contrast to the population structure revealed by mtDNA. Hurles ME, et al. **Am J Hum Genet** 1998 Dec;63(6):1793-806
Culturally competent drug administration. Kudzma EC. **Am J Nurs** 1999 Aug;99(8):46-51; quiz 52 (18 ref.)
Proceedings of the International Symposium on Recent Advances in Molecular Genetics of the Maghreb and Middle East Populations. Tunisia, 16-20 December 1997. **Arch Inst Pasteur Tunis** 1997 Jul-Oct;74(3-4):23-135
Global variation in the frequencies of functionally different catechol-O-methyltransferase alleles. Palmatier MA, et al. **Biol Psychiatry** 1999 Aug 15;46(4):557-67
Frequencies of the CC chemokine receptor 5 delta 32 allele in various populations of defined racial background. Lucotte G. **Biomed Pharmacother** 1997;51(10):469-73
Neutrophil antigen (FcgammaRIIIB) SH gene frequencies in six racial groups [letter] Hessner MJ, et al. **Blood** 1999 Feb 1;93(3):1115-6
What is the significance of race to prostate carcinoma? [editorial; comment] Bostwick DG. **Cancer** 1999 Sep 1; 86(5):735-7. Comment on: Cancer 1999 Sep 1;86(5):836-41.
How to correctly calculate the proportions of the heterozygotes and homozygotes in the extensive metabolizers of a certain drug-metabolizing enzyme in an ethnic or racial population? [letter; comment] Xie HG. **Clin Pharmacol Ther** 1998 Nov;64(5):575. Comment on: Clin Pharmacol Ther 1998 Mar;63(4):422-7.
Kinship networks that cross racial lines: the exception or the rule? Goldstein JR. **Demography** 1999 Aug; 36(3):399-407
Phylogenetic analysis of mitochondrial DNA in type 2 diabetes: maternal history and ancient population expansion. Sherratt EJ, et al. **Diabetes** 1999 Mar; 48(3):628-34
Analysis of mtDNA HVRII in several human populations using an immobilised SSO probe hybridisation assay. Comas D, et al. **Eur J Hum Genet** 1999 May-Jun; 7(4):459-68
Mitochondrial DNA regions HVI and HVII population data. Budowle B, et al. **Forensic Sci Int** 1999 Jul 12;103(1):23-35
Different patterns of variation at the X- and Y-chromosome-linked microsatellite loci DXYS156X and DXYS156Y in human populations. Karafet T, et al. **Hum Biol** 1998 Dec;70(6):979-92
Racial differences in the frequencies of cardiac beta(1)-adrenergic receptor polymorphisms: analysis of c145A>G and c1165G>C. Moore JD, et al. **Hum Mutat (Online)** 1999 Sep 19;14(3):271
Distribution of corticotropin-releasing hormone promoter polymorphism in different ethnic groups: evidence for natural selection in human populations. Baerwald CG, et al. **Immunogenetics** 1999 Sep;49(10):894-9
Fc gamma receptor IIIB-NA gene frequencies in patients with systemic lupus erythematosus and healthy individuals of Malay and Chinese ethnicity. Yap SN, et al. **Immunol Lett** 1999 Jun 1;68(2-3):295-300
Cross-clade cytotoxic T cell response to human immunodeficiency virus type 1 proteins among HLA disparate North Americans and Thais. Lynch JA, et al. **J Infect Dis** 1998 Oct;178(4):1040-6
Disparities in mortality among racial and ethnic groups. Buechner JS. **Med Health R I** 1998 Dec;81(12):408-9
Distribution of haplotypes from a chromosome 21 region distinguishes multiple prehistoric human migrations. Jin L, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3796-800
DNA studies challenge the meaning of race [news] Marshall E. **Science** 1998 Oct 23;282(5389):654-5
Ethnic differences in drug disposition and response. Wood AJ. **Ther Drug Monit** 1998 Oct;20(5):525-6 (11 ref.)
The prevalence of factor V Arg306-->Thr (factor V Cambridge) and factor V Arg306-->Gly mutations in different human populations [letter] Franco RF, et al. **Thromb Haemost** 1999 Feb;81(2):312-3

HISTORY

On mental and visual geometry. Gould SJ. **Isis** 1998 Sep; 89(3):502-4

RACISM see **PREJUDICE**

RACQUET SPORTS

INJURIES

Late repair of rupture of the hamstring tendons from the ischial tuberosity--a case report. Thomsen NO, et al. **Acta Orthop Scand** 1999 Feb;70(1):89-91
Posterior labral injury in contact athletes. Mair SD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):753-8
Radiology for the surgeon. Musculoskeletal. Case 2: inferior dislocation of the glenohumeral joint (luxatio erecta). Munk PL. **Can J Surg** 1999 Feb;42(1):10, 64-5
Back injuries in competitive squash players. Macfarlane DJ, et al. **J Sports Med Phys Fitness** 1998 Dec;38(4):337-43
Splenic injury after athletic trauma: a case report of splenic rupture induced by a lacrosse ball. Gangemi JJ, et al. **J Trauma** 1999 Apr;46(4):736-7
Head and face injuries in scholastic women's lacrosse with and without eyewear. Webster DA, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):938-41
Baseball/lacrosse injuries. Casazza BA, et al. **Phys Med Rehabil Clin N Am** 1999 Feb;10(1):141-57, vii (31 ref.)
"Little league elbow"--acute traction apophysitis in an adolescent badminton player. Blohm D, et al. **Scand J Med Sci Sports** 1999 Aug;9(4):245-7

PHYSIOLOGY

Physical activity and growing bone. Development of peak bone mass with special reference to the effects of unilateral physical activity. Haapasalo H. **Ann Chir Gynaecol** 1998; 87(3):250-2
On the presence and absence of behavioural traits in sport: an example from championship squash match-play. McGarry T, et al. **J Sports Sci** 1999 Apr;17(4):297-311
Measurement of maximal oxygen uptake from two different laboratory protocols in runners and squash players. Gibson AS, et al. **Med Sci Sports Exerc** 1999 Aug;31(8):1226-9

PSYCHOLOGY

On the presence and absence of behavioural traits in sport: an example from championship squash match-play. McGarry T, et al. **J Sports Sci** 1999 Apr;17(4):297-311

RACQUETBALL see **RACQUET SPORTS**

RADAR

A case of occasional exposure to radar frequencies [letter] Monfrecola G, et al. **Dermatology** 1999;198(4):403-4

RADIAL ARTERY

Time dependency of the ratio of umbilical vein/maternal artery concentrations of vecuronium in caesarean section. Iwama H, et al. **Acta Anaesthesiol Scand** 1999 Jan; 43(1):9-12
Efficacy of transradial primary stenting in patients with acute myocardial infarction. Ochiai M, et al. **Am J Cardiol** 1999

Mar 15;83(6):966–8, A10
Pseudomonas aeruginosa arterial line infection [letter] Lermi A, et al. **Am J Infect Control** 1998 Oct;26(5):538
Inadvertent cannulation of an aberrant radial artery and intra-arterial injection of midazolam [letter] Sivalingam P. **Anaesth Intensive Care** 1999 Aug;27(4):424–5
"Damping" of an arterial line: an unlikely cause [letter] Truelsen KS, et al. **Anesth Analg** 1998 Oct;87(4):979–80
Radial artery aneurysm in a case of neurofibromatosis. Singh S, et al. **Br J Plast Surg** 1998 Oct;51(7):564–5
Influence of the ratio between radial artery inner diameter and sheath outer diameter on radial artery flow after transradial coronary intervention. Saito S, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):173–8
Transradial coronary intervention in Japanese patients. Saito S, et al. **Catheter Cardiovasc Interv** 1999 Jan;46(1):37–41; discussion 42
Spontaneous false aneurysm of the radial artery in neurofibromatosis. Grey AC, et al. **Clin Radiol** 1999 Mar; 54(3):185–6
Vascular biology of the radial artery. Chester AH, et al. **Curr Opin Cardiol** 1998 Nov;13(6):447–52 (37 ref.)
Acute presentation of bilateral radial artery pseudoaneurysms following arterial cannulation. Edwards DP, et al. **Eur J Vasc Endovasc Surg** 1999 May;17(5):456–7 (5 ref.)
Angiolymphoid hyperplasia presenting as a radial artery aneurysm. Khaira HS, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):178–9
Nicardipine infusion for the prevention of radial artery spasm during myocardial revascularization. Grigore AM, et al. **J Cardiothorac Vasc Anesth** 1998 Oct;12(5):556–7
A fast responding intra-arterial pH electrode for use in the peripheral artery of adult humans and large mammals: a technical development for use in research. Cordingley JJ, et al. **J Med Eng Technol** 1998 Sep-Oct;22(5):233–40
Distal radial artery lesion as a source of digital emboli. Longo GM, et al. **J Vasc Surg** 1998 Oct;28(4):710–4
Sites of stenosis in AV fistulae for haemodialysis access. Sivanesan S, et al. **Nephrol Dial Transplant** 1999 Jan; 14(1):118–20

ABNORMALITIES

Bilateral superficial radial artery at the wrist [letter] Diz JC, et al. **Acta Anaesthesiol Scand** 1998 Sep;42(8):1020
Variations of the superficial palmar arch. Ozkus K, et al. **Folia Morphol (Warsz)** 1998;57(3):251–5
A symptomatic radial artery anomaly and its surgical treatment. Brown MJ, et al. **J Hand Surg [Am]** 1999 Jan; 24(1):178–81

ANATOMY & HISTOLOGY

Arteries of the thumb originating from the superficial palmar arch: five cases. Erbil M, et al. **Surg Radiol Anat** 1999; 21(3):217–20

CYTOLOGY

Comparison of the morphologic and vascular reactivity of the proximal and distal radial artery. Chester AH, et al. **Ann Thorac Surg** 1998 Dec;66(6):1972–6; discussion 1976–7

DRUG EFFECTS

Effects of norepinephrine on the mechanical properties of the human radial artery in vitro. Girerd X, et al. **Am Heart J** 1998 Oct;136(4 Pt 1):624–31
Aortic and radial pulse contour: different effects of nitroglycerin and prostacyclin. Söderström S, et al. **Anesth Analg** 1999 Sep;89(3):566–72
Short term effects of omega-3 fatty acids on the radial artery of patients with coronary artery disease. Kothny W, et al. **Atherosclerosis** 1998 Sep;140(1):181–6
Inhibition of vasoconstriction by the thromboxane A2 antagonist GR32191B in the human radial artery. He GW, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):207–15
Comparison of the vasorelaxant effect of nitroprusside and nitroglycerin in the human radial artery in vitro. He GW, et al. **Br J Clin Pharmacol** 1999 Jul;48(1):99–104
Pharmacological characterisation of endothelium-dependent relaxation in human radial artery: comparison with internal thoracic artery. Hamilton CA, et al. **Cardiovasc Res** 1999 Apr;42(1):214–23
Nicardipine infusion for radial artery spasm--a cautionary note [letter] Mychaskiw G 2nd, et al. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):509–11

PATHOLOGY

Apoptosis and overexpression of bax protein and bax mRNA in smooth muscle cells within intimal hyperplasia of human radial arteries : analysis with arteriovenous fistulas used for hemodialysis. Hayakawa Y, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2066–77
Pre-existing vascular disease in the radial artery and other coronary artery bypass conduits. Kane-ToddHall SM, et al. **Eur J Med Res** 1999 Jan 26;4(1):11–4
Distortion of the radial artery by a mucinous cyst. Case reports. Urayama H, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):437–40

PHYSIOLOGY

Effects of norepinephrine on the mechanical properties of the human radial artery in vitro. Girerd X, et al. **Am Heart J** 1998 Oct;136(4 Pt 1):624–31
Endothelial regulation of vascular contraction in radial and internal mammary arteries. Cable DG, et al. **Ann Thorac Surg** 1999 Apr;67(4):1083–90
Comparison of the morphologic and vascular reactivity of the proximal and distal radial artery. Chester AH, et al. **Ann Thorac Surg** 1998 Dec;66(6):1972–6; discussion 1976–7
Fluctuations of radial artery distensibility throughout the menstrual cycle. Giannattasio C, et al. **Arterioscler Thromb Vasc Biol** 1999 Aug;19(8):1925–9
Accuracy of radial artery blood pressure determination with the Vasotrac. Belani KG, et al. **Can J Anaesth** 1999 May; 46(5 Pt 1):488–96
Comparison of oscillometric blood pressure measurements at the wrist with an upper-arm auscultatory mercury sphygmomanometer. Rogers P, et al. **Clin Exp Pharmacol Physiol** 1999 May-Jun;26(5-6):477–81
Radial artery pressure monitoring underestimates central arterial pressure during vasopressor therapy in critically ill surgical patients [see comments] Dorman T, et al. **Crit Care Med** 1998 Oct;26(10):1646–9. Comment in: Crit Care Med 1998 Oct;26(10):1623–4.
Follow-up of radial arterial catheterization for positron emission tomography studies. Jons PH, et al. **Hum Brain Mapp** 1997;5(2):119–23
Parametric model derivation of transfer function for noninvasive estimation of aortic pressure by radial tonometry. Fetics B, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):698–706
Use of radial artery applanation tonometry and a generalized transfer function to determine aortic pressure augmentation in subjects with treated hypertension. Cameron JD, et al. **J Am Coll Cardiol** 1998 Nov;32(5):1214–20
Use of radial artery applanation tonometry [letter] O'Rourke M, et al. **J Am Coll Cardiol** 1999 Sep;34(3):951–2
Comparison of the sympathetic skin response and continuous wave Doppler sonography of the radial artery. Eicke BM, et al. **J Auton Nerv Syst** 1999 Feb 15;75(2-3):202–6
Pulse wave analysis and arterial stiffness. Wilkinson IB, et al. **J Cardiovasc Pharmacol** 1998;32 Suppl 3:S33–7 (35 ref.)
Effect of peripheral perfusion on accuracy of pulse oximetry in children. Villanueva R, et al. **J Clin Anesth** 1999 Jun; 11(4):317–22
Nitroglycerin is superior to diltiazem as a coronary bypass conduit vasodilator. Shapira OM, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):906–11
Noninvasive evaluation of hand circulation before radial artery harvest for coronary artery bypass grafting. Starnes SL, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):261–6
Analysis of digital pulse-volume recordings with radial and ulnar artery compression. Dumanian GA, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1993–8
[Effect of vasodilators on femoral-to-radial arterial pressure gradient after cardiopulmonary bypass] Narimatsu N, et al. **Masui** 1999 Jun;48(6):599–604 (Eng. Abstr.) **(Jpn)**
[Computer-assisted diagnostic system based on the analysis of the rhythmic pattern of a radial artery pulse signal] Desova AA, et al. **Med Tekh** 1999 Mar-Apr;(2):3–5 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

The exercise pressor reflex and changes in radial arterial pressure and heart rate during walking in patients with arteriosclerosis obliterans. Baccelli G, et al. **Angiology** 1999 May;50(5):361–74
Apoptosis and overexpression of bax protein and bax mRNA in smooth muscle cells within intimal hyperplasia of human radial arteries : analysis with arteriovenous fistulas used for hemodialysis. Hayakawa Y, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2066–77
Association between local pulse pressure, mean blood pressure, and large-artery remodeling. Boutouyrie P, et al. **Circulation** 1999 Sep 28;100(13):1387–93
A vascular basis for repetitive strain injury. Pritchard MH, et al. **Rheumatology (Oxford)** 1999 Jul;38(7):636–9

SURGERY

The return of the radial artery in CABG. Reger TB, et al. **Am J Nurs** 1999 Sep;99(9):26–30; quiz 31 (6 ref.)
Radial artery harvest using the harmonic scalpel [letter; comment] Royse AG. **Ann Thorac Surg** 1999 Mar; 67(3):894–6. Comment on: Ann Thorac Surg 1998 Apr;65(4):984–5.
Simplified method for candidate selection for radial artery harvesting [letter; comment] Weil RJ. **Ann Thorac Surg** 1999 Jan;67(1):290. Comment on: Ann Thorac Surg 1998 Apr;65(4):1167.
Pre-existing vascular disease in the radial artery and other coronary artery bypass conduits. Kane-ToddHall SM, et al. **Eur J Med Res** 1999 Jan 26;4(1):11–4
A symptomatic radial artery anomaly and its surgical treatment. Brown MJ, et al. **J Hand Surg [Am]** 1999 Jan; 24(1):178–81
Vascular disorders of the hand: surgeons' perspective. Levin LS, et al. **J Hand Ther** 1999 Apr-Jun;12(2):152–9 (14 ref.)
[Blood supply of wrist and forearm after exclusion of radial vascular fascicle of all length from blood stream] Milanov NO, et al. **Vestn Ross Akad Med Nauk** 1998;(6):45–9 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Comparison of response to serotonin of radial artery grafts and internal mammary grafts to native coronary arteries and the effect of diltiazem. Sperti G, et al. **Am J Cardiol** 1999 Feb 15;83(4):592–6, A8
A standard of care for radial artery grafting. Hayes EC, et al. **Am J Crit Care** 1998 Nov;7(6):429–35 (23 ref.)
Permanent nerve injury in the forearm following radial artery harvest: a report of two cases. Arons JA, et al. **Ann Plast Surg** 1999 Sep;43(3):299–301
Endoscopic harvesting of radial artery graft for coronary artery bypass. Uchida A, et al. **Ann Plast Surg** 1998 Nov; 41(5):459–63
A new method of myocardial revascularization with the radial artery. Aguero OR, et al. **Ann Thorac Surg** 1999 Jun;67(6):1817–8
Radial artery in CABG: could the early results be comparable to internal mammary artery graft? Bhan A, et al. **Ann Thorac Surg** 1999 Jun;67(6):1631–6
An unexpected benefit of the radial artery [letter] Brown KM. **Ann Thorac Surg** 1999 Jun;67(6):1827–8
A new strategy of total arterial revascularization. Pitsis AA, et al. **Ann Thorac Surg** 1999 Apr;67(4):1186–7
Off-pump coronary bypass using interposed radial artery graft. Takahashi T, et al. **Ann Thorac Surg** 1998 Dec; 66(6):2096–8
Inverted T graft: novel technique using composite radial and internal thoracic arteries. Tashiro T, et al. **Ann Thorac Surg** 1999 Mar;67(3):629–31
Endoscopic harvesting of the radial artery as a coronary artery bypass graft. Terada Y, et al. **Ann Thorac Surg** 1998 Dec;66(6):2123–4
Use of radial artery as coronary bypass graft in myocardial revascularization [letter] van Son JA. **Ann Thorac Surg** 1999 Jun;67(6):1825–6
Percutaneous transluminal angioplasty of radial artery grafts. Blanchard D, et al. **Cathet Cardiovasc Diagn** 1998 Dec; 45(4):400–4
Severe spasm of a radial artery coronary bypass graft during coronary intervention. Kulkarni NM, et al. **Catheter Cardiovasc Interv** 1999 Jul;47(3):331–5 (18 ref.)
Multiple arterial grafts. Radial versus right internal thoracic arteries. Borger MA, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II7–13; discussion II13–4
New approaches to prevention and treatment of radial artery graft vasospasm. Cable DG, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II15–21; discussion II21–2
No change in O2 saturation but measurable difference in thenar flexor power after radial artery harvest. Grossebner M, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):160–2
Radial artery harvest technique, use and functional outcome. Royse AG, et al. **Eur J Cardiothorac Surg** 1999 Feb; 15(2):186–93
Stenting of a stenotic radial artery coronary graft: a new therapeutic scenario in coronary artery disease. Patti G, et al. **G Ital Cardiol** 1999 Feb;29(2):149–51
The first ever radial artery as a conduit in femoro-popliteal bypass: a case report [see comments] Bedi HS, et al. **Indian Heart J** 1998 May-Jun;50(3):327–8. Comment in: Indian Heart J 1998 Jul-Aug;50(4):474–5.
The first ever radial artery as a femoro-popliteal bypass: a case report [letter; comment] Kapadia NK, et al. **Indian Heart J** 1998 Jul-Aug;50(4):474–5. Comment on: Indian Heart J 1998 May-Jun;50(3):327–8.
Routine myocardial revascularization with the radial artery: a multicenter experience. Chen AM, et al. **J Card Surg** 1998 Sep-Oct;13(5):318–27
Nicardipine protocol for coronary artery bypass grafting using the radial artery: clinical and angiographic data [letter] Radermecker MA, et al. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):511–2
Long-term patency of radial artery graft bypass for reconstruction of the internal carotid artery. Technical note. Houkin K, et al. **J Neurosurg** 1999 Apr;90(4):786–90
The radial artery for coronary artery bypass grafting: clinical and angiographic results at five years [see comments] Acar C, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):981–9 . Comment in: J Thorac Cardiovasc Surg 1999 Jun;117(6):1227–8.
Externally supported radial artery graft for myocardial revascularization: A new technique to avoid vasospasm. Dallan LA, et al. **J Thorac Cardiovasc Surg** 1999 Sep; 118(3):563–5
Midterm clinical and angiographic results of radial artery grafts used for myocardial revascularization [see comments] Possati G, et al. **J Thorac Cardiovasc Surg** 1998 Dec; 116(6):1015–21. Comment in: J Thorac Cardiovasc Surg 1999 Jun;117(6):1227–8.
The use of the calcium antagonist nicardipine in arterial coronary bypass surgery [letter; comment] Radermecker MA, et al. **J Thorac Cardiovasc Surg** 1999 Jun;117(6):1227–8 . Comment on: J Thorac Cardiovasc Surg 1998 Dec;116(6):981–9. Comment on: J Thorac Cardiovasc Surg 1998 Dec;116(6):1015–21.
Noninvasive evaluation of hand circulation before radial artery harvest for coronary artery bypass grafting. Starnes SL, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):261–6
Angiologic observations following radial artery flap elevation: a case report. Ciria-Lloréns G, et al. **Surg Radiol Anat** 1998;20(5):377–81

RADIAL ARTERY

[Using the radial artery in myocardial revascularization] Lukács L, et al. **Orv Hetil** 1999 May 23;140(21):1169–72 (Eng. Abstr.) **(Hun)**

[Remodelling of the radial artery graft 5 years after aortocoronary bypass intervention] Lupi A, et al. **Cardiologia** 1999 Apr;44(4):381–4 (Eng. Abstr.) **(Ita)**

[The radial artery in coronary surgery: the midterm clinical and angiographic results and the variation in vasoreactivity over time] Possati G, et al. **G Ital Cardiol** 1999 Feb; 29(2):135–42 (Eng. Abstr.) **(Ita)**

[Early postoperative results of coronary revascularization with the radial artery: an analytical study of vascular diameter ratio of the graft and the coronary artery] Ohashi H, et al. **Kyobu Geka** 1999 Apr;52(4):321–5 (Eng. Abstr.) **(Jpn)**

[Use of the radial artery graft in coronary artery bypass grafting: harvesting technique and spasm prevention] Yaginuma G, et al. **Kyobu Geka** 1998 Sep;51(10):823–8 (Eng. Abstr.) **(Jpn)**

[The use of radial artery for the revascularization of the amputated thumb] Prowans P, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(3):217–20 (Eng. Abstr.) **(Pol)**

ULTRASONOGRAPHY

Ultrasonic assessment of vascular complications in coronary angiography and angioplasty after transradial approach. Nagai S, et al. **Am J Cardiol** 1999 Jan 15;83(2):180–6

Coronary and peripheral artery remodeling in patients undergoing PTCA: An intracoronary and transcutaneous ultrasound study. Delacrétaz E, et al. **Catheter Cardiovasc Interv** 1999 Sep;48(1):12–7

Flow changes in forearm arteries after elevating the radial forearm flap: prospective study using color duplex imaging. Talegón-Meléndez A, et al. **J Ultrasound Med** 1999 Aug; 18(8):553–8

RADIAL KERATOTOMY see **KERATOTOMY, RADIAL**

RADIAL NERVE

Quadrangular space syndrome associated with superficial radial sensory neuropathy. Brown DL, et al. **Ann Plast Surg** 1999 Aug;43(2):207–10

Uncommon nerve compression syndromes of the upper extremity. Lubahn JD, et al. **J Am Acad Orthop Surg** 1998 Nov–Dec;6(6):378–86 (38 ref.)

Differential latency testing: a more sensitive test for radial tunnel syndrome [published erratum appears in J Hand Surg [Am] 1999 Mar;24(2):421] Kupfer DM, et al. **J Hand Surg [Am]** 1998 Sep;23(5):859–64

Results of surgical treatment for radial tunnel syndrome. Sotereanos DG, et al. **J Hand Surg [Am]** 1999 May; 24(3):566–70

Radial tunnel syndrome [letter; comment] Kay NR. **J Hand Surg [Br]** 1999 Feb;24(1):139–40. Comment on: J Hand Surg [Br] 1998 Oct;23(5):617–9.

Multiple schwannomas in the radial nerve. Tanabe K, et al. **J Hand Surg [Br]** 1997 Oct;22(5):664–6

Radial neuropathy. Carlson N, et al. **Neurol Clin** 1999 Aug; 17(3):499–523, vi (100 ref.)

Posterior interosseous nerve palsy caused by parosteal lipoma of proximal radius. Nishida J, et al. **Skeletal Radiol** 1998 Jul;27(7):375–9

ANATOMY & HISTOLOGY

Communication between the axillary and radial nerves in the human upper arm. Koizumi M, et al. **Anat Anz** 1999 Mar;181(2):213–21

MR imaging of the major nerves about the elbow: cadaveric study examining the effect of flexion and extension of the elbow and pronation and supination of the forearm. Kim YS, et al. **Skeletal Radiol** 1998 Aug;27(8):419–26

[An anatomic study of the superficial radial nerve and its clinical implications] Leroux M, et al. **Ann Chir** 1998; 52(8):736–43 (Eng. Abstr.) **(Fre)**

INJURIES

Superficial radial neuropathy caused by intravenous injection. Sheu JJ, et al. **Acta Neurol Belg** 1999 Jun;99(2):138–9

Severance of the radial nerve complicating transverse fracture of the mid-shaft of the humerus. Takami H, et al. **Arch Orthop Trauma Surg** 1999;119(1–2):109–11

Interruption of the radial nerve at proximal level: reconstruction following anterior transposition. Acciarri N, et al. **Chir Organi Mov** 1998 Oct–Dec;83(4):435–40 **(Eng, Ita)**

Axillary block complicated by hematoma and radial nerve injury. Ben-David B, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):264–6

[Peripheral nerve injury as a complication from orthopedic operation] Huang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):343–6 (Eng. Abstr.) **(Chi)**

[Traumatic lesions of the deep branch of the radial nerve] Bellemère P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Feb; 84(1):26–32 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Malignant granular cell tumor: report of a case and review of the literature. Sonobe H, et al. **Pathol Res Pract** 1998; 194(7):507–13; discussion 515–6 (50 ref.)

Radius hypoplasia, radial palsy, and aplasia cutis due to amniotic band syndrome. Nagore E, et al. **Pediatr Dermatol** 1999 May–Jun;16(3):217–9

PHYSIOLOGY

Trigeminal integration of vestibular and forelimb nerve inputs. Deriu F, et al. **Arch Ital Biol** 1999 Feb;137(1):63–73

Bilateral neurogenic lesion of the triceps brachii long heads [letter] Simonetti S. **J Neurol** 1999 Jun;246(6):502–3

Meningeal cells stimulate neuronal migration and the formation of radial glial fascicles from the cerebellar external granular layer. Hartmann D, et al. **Neurosci Lett** 1998 Mar 20;244(3):129–32

PHYSIOPATHOLOGY

Twitch-obtaining intramuscular stimulation (TOIMS) in acute partial radial nerve palsy. Chu J. **Electromyogr Clin Neurophysiol** 1999 Jun;39(4):221–6

Radial tunnel syndrome: diagnosis and management [see comments] Sarhadi NS, et al. **J Hand Surg [Br]** 1998 Oct; 23(5):617–9. Comment in: J Hand Surg [Br] 1999 Feb;24(1):139–40.

Focal myositis presenting with radial nerve palsy. Alzagatiti BI, et al. **Muscle Nerve** 1999 Jul;22(7):956–9

Disputed radial tunnel syndrome. Rosenbaum R. **Muscle Nerve** 1999 Jul;22(7):960–7 (46 ref.)

SURGERY

Extensile approach to the anterolateral surface of the humerus and the radial nerve. Mekhail AO, et al. **J Shoulder Elbow Surg** 1999 Mar–Apr;8(2):112–8

Neuronal survival using a resorbable synthetic conduit as an alternative to primary nerve repair. Ljungberg C, et al. **Microsurgery** 1999;19(6):259–64

[Clinical application of implantation of vascular bundle into silicone tube to bridge the peripheral nerve defect] Luo Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):340–2 (Eng. Abstr.) **(Chi)**

[Repair of peripheral nerve effect by direct suture after elongation of nerve by traction] Wang S, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):135–7 (Eng. Abstr.) **(Chi)**

[Complex tissue reconstruction of the arm with free vascularized fibular graft with skin island] Molski M, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(6):591–5 (Eng. Abstr.) **(Pol)**

[Posterior interosseous nerve syndrome] Saadia D, et al. **Medicina (B Aires)** 1999;59(1):94 **(Spa)**

ULTRASONOGRAPHY

Ultrasound of radial, ulnar, median, and sciatic nerves in healthy subjects and patients with hereditary motor and sensory neuropathies. Heinemeyer O, et al. **Ultrasound Med Biol** 1999 Mar;25(3):481–5

RADIANT WARMERS, INFANT see **INCUBATORS, INFANT**

RADIATION

see related
NUCLEAR WARFARE

WEBMAP: radiation hybrid mapping on the WWW. Newell W, et al. **Bioinformatics** 1998;14(9):825–6

Enolase activity in chicken embryo primary retina cells is not affected by exposure to a 60-Hz electric field. Dutta SK, et al. **Cancer Biochem Biophys** 1998 Jun;16(1–2):45–52

Radiofrequency radiation exposure and other environmental concerns [editorial] House R. **CMAJ** 1999 May 4; 160(9):1318–9

Radiofrequency radiation in five Vancouver schools: exposure standards not exceeded [letter] Thansandote A, et al. **CMAJ** 1999 May 4;160(9):1311–2

Do mobile cellular phones interfere with portable insulin pumps? [letter] Darmon P, et al. **Diabetes Care** 1998 Oct; 21(10):1775

Energy loss due to radiation in postmortem cooling. Part A: quantitative estimation of radiation using the Stefan-Boltzmann law. Mall G, et al. **Int J Legal Med** 1998; 111(6):299–304

Electrocortical responses of headache patients to the simulation of 10 kHz sferics. Schienle A, et al. **Int J Neurosci** 1999 Apr;97(3–4):211–24

In-flight radiation: counseling patients about risk. Barish RJ. **J Am Board Fam Pract** 1999 May–Jun;12(3):195–9

Comprehensive regulations concerning exposure of employees to electromagnetic fields [letter] Norris DG, et al. **J Magn Reson Imaging** 1999 May;9(5):630

Head and neck resonance in a rhesus monkey—a comparison with results from a human model. Tinniswood A, et al. **Phys Med Biol** 1999 Mar;44(3):695–704

Consideration on a limit for lifetime occupational radiation exposure. Kellerer AM, et al. **Radiat Environ Biophys** 1998 Jul;37(2):81–5

Contribution of radiation chemistry to the study of metal clusters. Belloni J. **Radiat Res** 1998 Nov;150(5 Suppl):S9–20

Calcium and EMFs: graphing the data [letter; comment] Liburdy RP. **Science** 1999 Jul 16;285(5426):337. Comment on: Science 1999 Jul 2;285(5424):23, 25.

[The physical mechanism of the effect of low-intensity electromagnetic radiation on biological cells] Emets BG. **Biofizika** 1999 May–Jun;44(3):555–8 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE see **RADIOTHERAPY**

RADIATION ACCIDENTS see **ACCIDENTS, RADIATION**

RADIATION BIOLOGY see **RADIOBIOLOGY**

RADIATION CHIMERA

Construction of a whole-genome radiation hybrid panel for high-resolution gene mapping in pigs. Yerle M, et al. **Cytogenet Cell Genet** 1998;82(3–4):182–8

Mixed chimerism induced without lethal conditioning prevents T cell- and anti-Gal alpha 1,3Gal-mediated graft rejection [see comments] Ohdan H, et al. **J Clin Invest** 1999 Aug;104(3):281–90. Comment in: J Clin Invest 1999 Aug;104(3):227–8.

Simple determination of donor/host origin and donor leukocyte subsets in rat-mouse chimeras. Balázs M, et al. **J Immunol Methods** 1998 Sep 1;218(1–2):117–21

IMMUNOLOGY

Antigen-specific B and T cells in human/mouse radiation chimera following immunization in vivo. Böcher WO, et al. **Immunology** 1999 Apr;96(4):634–41

Intranasal administration of peptide vaccine protects human/mouse radiation chimera from influenza infection. Ben-Yedidia T, et al. **Int Immunol** 1999 Jul;11(7):1043–51

CD4+ T cell division in irradiated mice requires peptides distinct from those responsible for thymic selection. Bender J, et al. **J Exp Med** 1999 Aug 2;190(3):367–74

Protection from radiation-induced colitis requires MHC class II antigen expression by cells of hemopoietic origin. Marguerat S, et al. **J Immunol** 1999 Oct 1;163(7):4033–40

RADIATION DOSAGE

see related
DOSE-RESPONSE RELATIONSHIP, RADIATION
RADIOTHERAPY DOSAGE

Tumour dose estimation using automated TLD techniques. Ferguson HM, et al. **Acta Oncol** 1998;37(5):479–84

Estimating occupational radiation doses when individual dosimetry information is not available: a job exposure matrix. Eheman CR, et al. **Am J Ind Med** 1999 Sep; 36(3):348–59

Possible discrepancies between dicentric chromosome frequencies and recorded ionizing radiation doses: in vivo study. Kubelka D, et al. **Am J Ind Med** 1999 Oct; 36(4):469–74

Reduction in retake rates and radiation dosage through computed radiography. Polunin N, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):805–7

Use of the concept of energy imparted in diagnostic radiology. Carlsson GA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):39–62 (100 ref.)

Patient dosimetry measurement methods. Faulkner K, et al. **Appl Radiat Isot** 1999 Jan;50(1):113–23 (38 ref.)

Radiation dose in interventional fluoroscopic procedures. Geise RA, et al. **Appl Radiat Isot** 1999 Jan;50(1):173–84 (61 ref.)

EPR dose reconstruction for bone-seeking 90Sr. Ignatiev EA, et al. **Appl Radiat Isot** 1999 Aug;51(2):151–9

Balancing patient dose and image quality. Martin CJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):1–19

Impact of new digital X- and gamma ray imaging systems upon patient doses. Speller R, et al. **Appl Radiat Isot** 1999 Jan;50(1):153–63 (52 ref.)

Radiation dosimetry in nuclear medicine. Stabin MG, et al. **Appl Radiat Isot** 1999 Jan;50(1):73–87 (84 ref.)

Paediatric doses from diagnostic radiology in Victoria. Boal TJ, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):57–67

A survey of radiation doses to adults from diagnostic radiology in Victoria. Cardillo I, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):64–72

DNA-protein cross-links in cells of internal organs of rats after fractional irradiation at various doses. Grigoryev MV, et al. **Biochemistry (Mosc)** 1999 Feb;64(2):204–6

Test facility for human exposure to AC and DC magnetic fields. Doynov P, et al. **Bioelectromagnetics** 1999; 20(2):101–11

The radial transmission line as a broad-band shielded exposure system for microwave irradiation of large numbers of culture flasks. Moros EG, et al. **Bioelectromagnetics** 1999;20(2):65–80

Dosimetry in mice exposed to 1.6 GHz microwaves in a carrousel irradiator. Swicord M, et al. **Bioelectromagnetics** 1999;20(1):42–7

Estimating the effective dose to children undergoing heart investigations—a phantom study. Axelsson B, et al. **Br J Radiol** 1999 Apr;72(856):378–83

Patient radiation doses during cardiac catheterization procedures. Betsou S, et al. **Br J Radiol** 1998 Jun; 71(846):634–9

Enhanced normal tissue doses caused by tumour shrinkage

during brachytherapy. Dale RG, et al. **Br J Radiol** 1999 May;72(857):499–501
Reference doses and quality in medical imaging. Faulkner K, et al. **Br J Radiol** 1998 Oct;71(850):1001–2
Radiation dose and diagnosticity of barium enema examinations by radiographers and radiologists: a comparative study [letter; comment] Hetherington J, et al. **Br J Radiol** 1998 Nov;71(851):1219–21. Comment on: Br J Radiol 1998 Apr;71(844):399–405.
Radiation dose and diagnosticity of barium enema examinations by radiographers and radiologists: a comparative study [letter; comment] McKenzie GA, et al. **Br J Radiol** 1998 Nov;71(851):1218–9. Comment on: Br J Radiol 1998 Apr;71(844):399–405.
Patient radiation dose during lithotripsy. Macnamara A, et al. **Br J Radiol** 1999 May;72(857):495–8
Dose reduction in a paediatric X-ray department following optimization of radiographic technique. Mooney R, et al. **Br J Radiol** 1998 Aug;71(848):852–60
Doses to patients in routine X-ray examinations in Malaysia [published erratum appears in Br J Radiol 1999 Jan;71(853):102] Ng KH, et al. **Br J Radiol** 1998 Jun; 71(846):654–60
Fetal position and size data for dose estimation. Osei EK, et al. **Br J Radiol** 1999 Apr;72(856):363–70
Dose reduction during CT scanning in an anthropomorphic phantom by the use of a male gonad shield. Price R, et al. **Br J Radiol** 1999 May;72(857):489–94
Radiation dose and diagnosticity of barium enema examinations by radiographers and radiologists: a comparative study [letter; comment] Robinson P, et al. **Br J Radiol** 1998 Nov;71(851):1217–8. Comment on: Br J Radiol 1998 Apr;71(844):399–405.
Variation of patient dose in head CT. Smith A, et al. **Br J Radiol** 1998 Dec;71(852):1296–301
Estimation of effective dose in diagnostic radiology from entrance surface dose and dose-area product measurements [letter] Wade JP. **Br J Radiol** 1998 Sep;71(849):994–5
Dose-area product readings for fluoroscopic and plain film examinations, including an analysis of the source of variation for barium enema examinations. Warren-Forward HM, et al. **Br J Radiol** 1998 Sep;71(849):961–7
An investigation of X-ray equipment factors influencing patient dose in radiography. Williams JR, et al. **Br J Radiol** 1998 Nov;71(851):1192–8
Patient doses in spiral CT. Zoetelief J, et al. **Br J Radiol** 1998 Jun;71(846):584–6
Patient and staff radiation dose in fluoroscopy-guided TIPS procedures and dose reduction, using dedicated fluoroscopy exposure settings [see comments] Zweers D, et al. **Br J Radiol** 1998 Jun;71(846):672–6. Comment in: Br J Radiol 1998 Dec;71(852):1333–4.
Unenhanced helical CT for renal colic--is the radiation dose justifiable? Denton ER, et al. **Clin Radiol** 1999 Jul; 54(7):444–7
Are restrictions to behaviour of patients required following fluorine-18 fluorodeoxyglucose positron emission tomographic studies? Cronin B, et al. **Eur J Nucl Med** 1999 Feb;26(2):121–8
Patient doses in abdominal aortogram and aorta femoral runoff examinations. Chu RY, et al. **Health Phys** 1998 Nov; 75(5):487–91
Statistical issues in biological radiation dosimetry for risk assessment using stable chromosome aberrations. Cologne JB, et al. **Health Phys** 1998 Nov;75(5):518–29
Effectiveness of chemical etching for background electron paramagnetic resonance signal reduction in tooth enamel. Fattibene P, et al. **Health Phys** 1998 Nov;75(5):500–5
Chernobyl accident: reconstruction of thyroid dose for inhabitants of the Republic of Belarus. Gavrilin YI, et al. **Health Phys** 1999 Feb;76(2):105–19
Hanford radiation dose estimates available to individuals [news] Green C. **Health Phys** 1999 Feb;76(2):203
Radiation dosimetry for extremity radiographs. Huda W, et al. **Health Phys** 1998 Nov;75(5):492–9
Radon exhalation rates and gamma doses from ceramic tiles. O'Brien RS, et al. **Health Phys** 1998 Dec;75(6):630–9
Siting criteria based on the prevention of deterministic effects from plutonium inhalation exposures. Sorensen SA, et al. **Health Phys** 1998 Dec;75(6):614–8
Basic applications of the chi-square statistic using counting data. Tries MA, et al. **Health Phys** 1999 Oct;77(4):441–54
Personal dose equivalent for photons and its variation with dosimeter position. Zankl M. **Health Phys** 1999 Feb; 76(2):162–70
S values are not a signature for a significant contribution of neutrons to the radiation dose received by atomic-bomb survivors. Nakano M, et al. **Int J Radiat Biol** 1999 Jan; 75(1):47–9
Late pathologic changes in guinea pig kidneys irradiated with conventional fractionation and hyperfractionation. Inomata T, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1; 44(1):171–7
Real-time measurement of radiation exposure to patients during diagnostic coronary angiography and percutaneous interventional procedures. Cusma JT, et al. **J Am Coll Cardiol** 1999 Feb;33(2):427–35
Dose classification [letter; comment] Diggle PJ, et al. **J Epidemiol Community Health** 1998 May;52(5):340. Comment on: J Epidemiol Community Health 1996 Dec;50(6):645–52.
MIRD pamphlet No. 17: the dosimetry of nonuniform activity distributions--radionuclide S values at the voxel level. Medical Internal Radiation Dose Committee. Bolch WE, et al. **J Nucl Med** 1999 Jan;40(1):11S–36S
MIRD Pamphlet No. 14 revised: A dynamic urinary bladder model for radiation dose calculations. Task Group of the MIRD Committee, Society of Nuclear Medicine. Thomas SR, et al. **J Nucl Med** 1999 Apr;40(4):102S–123S
Radiation exposure from gallium-67-citrate patients. Castronovo FP Jr, et al. **J Nucl Med Technol** 1999 Mar; 27(1):57–61
Neutron RBE values and their relationship to judgements in radiological protection. Edwards AA. **J Radiol Prot** 1999 Jun;19(2):93–105 (56 ref.)
On controllable dose [editorial; comment] Meinhold CB. **J Radiol Prot** 1999 Jun;19(2):89. Comment on: J Radiol Prot 1999 Jun;19(2):107–15.
Dose estimate of exposure to radioisotopes in molecular and cellular biology. Onado C, et al. **J Radiol Prot** 1999 Jun; 19(2):129–41
Stochastic dose/risk assessment uncertainty and the concept of potential exposures. Pollner L, et al. **J Radiol Prot** 1998 Dec;18(4):277–85
SRP meeting: External radiation dosimetry in practice, London, 25 March 1999 [news] Scarlett C. **J Radiol Prot** 1999 Jun;19(2):190–1
The report of the French Academy of Science: 'Problems associated with the effects of low doses of ionising radiation'. Tubiana M. **J Radiol Prot** 1998 Dec;18(4):243–8
Doses to organs from exposure to gamma rays during immersion in a radioactive cloud. Xiangdong X, et al. **J Radiol Prot** 1999 Mar;19(1):27–36
X-ray survival as Gompertz growth in number killed. Easton DM. **J Theor Biol** 1999 Jan 7;196(1):1–8
Doses in family members after 131I treatment [letter] Mathieu I, et al. **Lancet** 1997 Oct 11;350(9084):1074–5
Estimation of the noisy component of anatomical backgrounds. Bochud FO, et al. **Med Phys** 1999 Jul; 26(7):1365–70
Ionization chamber, electrometer, linear accelerator, field size, and energy dependence of the polarity effect in electron dosimetry. Ramsey CR, et al. **Med Phys** 1999 Feb; 26(2):214–9
Measured overall perturbation factors at depths greater than dmax for ionization chambers in electron beams. Reft CS, et al. **Med Phys** 1999 Feb;26(2):208–13
Self-normalizing method to measure the detective quantum efficiency of a wide range of x-ray detectors. Stierstorfer K, et al. **Med Phys** 1999 Jul;26(7):1312–9
Effective dose to children and adolescents from radiopharmaceuticals. Gadd R, et al. **Nucl Med Commun** 1999 Jun;20(6):569–73
Dose rate measurements from radiopharmaceuticals: implications for nuclear medicine staff and for children with radioactive parents. Greaves CD, et al. **Nucl Med Commun** 1999 Feb;20(2):179–87
Reductions in finger doses for radiopharmaceutical dispensing afforded by a syringe shield and an automatic dose dispenser. Montgomery A, et al. **Nucl Med Commun** 1999 Feb;20(2):189–94
An update of radiopharmaceutical schedules in children. Smith T, et al. **Nucl Med Commun** 1998 Nov;19(11):1023–36
Effects of dose reduction on the detectability of standardized radiolucent lesions in digital panoramic radiography. Dula K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):227–33
Fricke dosimetry: the difference between G(Fe3+) for 60Co gamma-rays and high-energy x-rays. Klassen NV, et al. **Phys Med Biol** 1999 Jul;44(7):1609–24
Sensitivity of coefficients for converting entrance surface dose and kerma-area product to effective dose and energy imparted to the patient. Wise KN, et al. **Phys Med Biol** 1999 Aug;44(8):1937–54
Evaluations of gonad and fetal doses for diagnostic radiology. Tung CJ, et al. **Proc Natl Sci Counc Repub China B** 1999 Jul;23(3):107–13
The AAPM/RSNA physics tutorial for residents. Typical patient radiation doses in diagnostic radiology. Parry RA, et al. **Radiographics** 1999 Sep-Oct;19(5):1289–302
Radiation effective doses to patients undergoing abdominal CT examinations. Ware DE, et al. **Radiology** 1999 Mar; 210(3):645–50
Dose distribution throughout the body from radiotherapy for Hodgkin's disease in childhood. Shamsaldin A, et al. **Radiother Oncol** 1998 Oct;49(1):85–90
NRC pulled into radiation risk brawl [news] Kaiser J. **Science** 1999 Jul 9;285(5425):177–8
Administered radionuclides in pregnancy. Adelstein SJ. **Teratology** 1999 Apr;59(4):236–9 (10 ref.)
Radionuclide exposure during pregnancy: "60 Minutes" film [comment] Adelstein SJ. **Teratology** 1999 Apr;59(4):301. Comment on: Teratology 1999 Apr;59(4):299–300.
Changing perspectives on the genetic doubling dose of ionizing radiation for humans, mice, and Drosophila. Neel JV. **Teratology** 1999 Apr;59(4):216–21 (35 ref.)
[Carcinogenic effects of low radiation doses] Tubiana M. **Cancer Radiother** 1999 May-Jun;3(3):203–14 (Eng. Abstr.) **(Fre)**
[Effect of collimation and pitch on radiation exposure and image quality in spiral CT of the thorax] Barkhausen J, et al. **Aktuelle Radiol** 1998 Sep;8(5):220–4 (Eng. Abstr.) **(Ger)**
[Dosage monitoring as a quality control instrument in digital radiography] Kurtz C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):465–70 (Eng. Abstr.) **(Ger)**
[Reduction of radiation exposure for patient and investigator in interventional radiography] Pecher G, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):505–9 (Eng. Abstr.) **(Ger)**
[External exposure of hot cell operators in nuclear medicine] Sichirollo AE, et al. **Radiol Med (Torino)** 1998 Dec; 96(6):612–7 (Eng. Abstr.) **(Ita)**
[Dosimetric characterization of a multileaf collimator] Stasi M, et al. **Radiol Med (Torino)** 1999 May;97(5):382–8 (Eng. Abstr.) **(Ita)**
[X-ray examinations in Norway--optimized use of radiation and radiation protection] Olerud HM. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1322–5 (21 ref.) **(Nor)**
[Level of exchanged chromosome aberrations from long-term low-dose irradiation] Bochkov NP, et al. **Dokl Akad Nauk** 1998 Oct;362(4):564–6 **(Rus)**
[Control of effective doses in x-ray studies] Stavitskiĭ RV, et al. **Med Tekh** 1999 Mar-Apr;(2):39–44 (41 ref.) (Eng. Abstr.) **(Rus)**
[Device-aided determination of an effective dose in x-ray studies] Stavitskiĭ RV, et al. **Med Tekh** 1999 Jul-Aug; (4):34–5 (Eng. Abstr.) **(Rus)**
[Characteristics of dosimetric tests of x-ray diagnostic equipment] Vladimirov LV. **Med Tekh** 1998 Nov-Dec; (6):26–30 (Eng. Abstr.) **(Rus)**
[Small doses and synergistic interaction of environmental factors] Petin VG, et al. **Radiats Biol Radioecol** 1999 Jan-Feb;39(1):113–26 (36 ref.) (Eng. Abstr.) **(Rus)**
[Biological effects of low level ionizing radiation (the threshold of effects and radiosensitivity/radioreactivity of biological structures with different level of organization)] Rozhdestvenskiĭ LM. **Radiats Biol Radioecol** 1999 Jan-Feb; 39(1):127–44 (46 ref.) (Eng. Abstr.) **(Rus)**
[Indicators of lipid peroxidation in rat liver mitochondria after exposing them to some xenobiotics and the action of low dose radiation] Kanapatskaia IA, et al. **Ukr Biokhim Zh** 1998 Nov-Dec;70(6):113–9 (Eng. Abstr.) **(Rus)**

RADIATION DOSIMETRY see **RADIOMETRY**

RADIATION EFFECTS

Behavioral evaluation of microwave irradiation. D'Andrea JA. **Bioelectromagnetics** 1999;Suppl 4:64–74 (50 ref.)
Food and Drug Administration low-level extremely-low-frequency magnetic field exposure facility. Davis CC, et al. **Bioelectromagnetics** 1999;20(4):203–15
Test facility for human exposure to AC and DC magnetic fields. Doynov P, et al. **Bioelectromagnetics** 1999; 20(2):101–11
A quarter century of in vitro research: a new look at exposure methods. Guy AW, et al. **Bioelectromagnetics** 1999;Suppl 4:21–39
Genetic susceptibility to radiation effects: possible implication for medical ionising radiation exposures. Sharp C, et al. **Eur J Nucl Med** 1999 Apr;26(4):425–8 (11 ref.)
Basic applications of the chi-square statistic using counting data. Tries MA, et al. **Health Phys** 1999 Oct;77(4):441–54
An examination of underlying physical principles. The interaction of power-line electromagnetic fields with the human body. King RW. **IEEE Eng Med Biol Mag** 1998 Nov-Dec;17(6):67–73; discussion 73–8
Bremsstrahlung radiation exposure from pure beta-ray emitters. Zanzonico PB, et al. **J Nucl Med** 1999 Jun; 40(6):1024–8
Proposition: radiation hormesis should be elevated to a position of scientific respectability [see comments] Cameron JR, et al. **Med Phys** 1998 Aug;25(8):1407–10. Comment in: Med Phys 1998 Dec;25(12):2476.
Comment on "Proposition: radiation hormesis should be elevated to a position of scientific respectability" [Med. Phys. 25, 1407–1410 (1998)] [letter; comment] Rossi HH. **Med Phys** 1998 Dec;25(12):2476. Comment on: Med Phys 1998 Aug;25(8):1407–10.
Multiple ionization in the earlier stages of water radiolysis. Olivera GH, et al. **Phys Med Biol** 1998 Aug;43(8):2347–60
Comparison and assessment of electron cross sections for Monte Carlo track structure codes. Uehara S, et al. **Radiat Res** 1999 Aug;152(2):202–13
Optimized radiation therapy based on radiobiological objectives. Brahme A. **Semin Radiat Oncol** 1999 Jan; 9(1):35–47 (41 ref.)
Public perception of radiation: using the press to your advantage. Watanabe ME. **Teratology** 1999 Apr;59(4):316–7
The physiologic response of domestic animals to ionizing radiation: a review. von Zallinger C, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):495–503 (49 ref.)
[Frequency of chromosome aberrations in residents of the Semipalatinsk Oblast] Gubitskaia EG, et al. **Genetika** 1999 Jun;35(6):842–6 (Eng. Abstr.) **(Rus)**
[Biological effects of low level ionizing radiation (the threshold of effects and radiosensitivity/radioreactivity of biological structures with different level of organization)] Rozhdestvenskiĭ LM. **Radiats Biol Radioecol** 1999 Jan-Feb; 39(1):127–44 (46 ref.) (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

[The view of radon therapy in the light of new data on the natural radioactive background] Kuzin AM. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May–Jun; (3):9–11 **(Rus)**

RADIATION-INDUCED DERMATITIS see **RADIODERMATITIS**

RADIATION INJURIES

see related
ACCIDENTS, RADIATION

Severe esophageal toxicity after thoracic radiation therapy for lung cancer associated with the human immunodeficiency virus: a case report and review of the literature. Leigh BR, et al. **Am J Clin Oncol** 1998 Oct; 21(5):479–81

Radiation-induced localized scleroderma in breast cancer patients. Bleasel NR, et al. **Australas J Dermatol** 1999 May; 40(2):99–102

Damage pattern as a function of radiation quality and other factors. Burkart W, et al. **C R Acad Sci III** 1999 Feb–Mar; 322(2–3):89–101 (18 ref.)

Repair of ionizing radiation damage in mammalian cells. Alternative pathways and their fidelity. Thacker J. **C R Acad Sci III** 1999 Feb–Mar;322(2–3):103–8

Breast radiation injury litigation and RAGE. Radiotherapy Action Group Exposure [letter] Ash DV. **Clin Oncol (R Coll Radiol)** 1999;11(2):138–9

Breast cancer radiotherapy litigation and the clinical oncologist [letter; comment] Millington J. **Clin Oncol (R Coll Radiol)** 1999;11(2):137–8. Comment on: Clin Oncol (R Coll Radiol) 1998;10(6):367–71.

Radiation injuries. Reeves GI. **Crit Care Clin** 1999 Apr; 15(2):457–73 (38 ref.)

Complete AV block following mediastinal radiation therapy: electrocardiographic and pathologic correlation and review of the world literature. Kaplan BM, et al. **J Interv Card Electrophysiol** 1997 Nov;1(3):175–88 (88 ref.)

Generalized concept of the LET-RBE relationship of radiation-induced chromosome aberration and cell death. Takatsuji T, et al. **J Radiat Res (Tokyo)** 1999 Mar; 40(1):59–69

Conflicting scientific views on the health risks of low-level ionising radiation [editorial] Clarke RH. **J Radiol Prot** 1998 Sep;18(3):159–60

Effects of small doses of ionising radiation [see comments] Doll R. **J Radiol Prot** 1998 Sep;18(3):163–74 (70 ref.). Comment in: J Radiol Prot 1999 Mar;19(1):63–5.

Risks from ionising radiation: deterministic effects. Edwards AA, et al. **J Radiol Prot** 1998 Sep;18(3):175–83 (5 ref.)

Joint EC/USNRC expert judgement driven radiological protection uncertainty analysis [see comments] Goossens LH, et al. **J Radiol Prot** 1998 Dec;18(4):249–64. Comment in: J Radiol Prot 1998 Dec;18(4):239–42.

Uncertainties in probabilistic nuclear accident consequence analysis [editorial; comment] Little MP. **J Radiol Prot** 1998 Dec;18(4):239–42. Comment on: J Radiol Prot 1998 Dec;18(4):249–64.

Postradiation morphea. Gollob MH, et al. **J Rheumatol** 1998 Nov;25(11):2267–9

A possible link between neural tube defects and ultraviolet light exposure. Jablonski NG. **Med Hypotheses** 1999 Jun; 52(6):581–2 (11 ref.)

Imaging changes after radiosurgery for vascular malformations, functional targets, and tumors. Kihlström L, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):167–80 (45 ref.)

On the relevant spectral parts for glassblowers' cataract [letter; comment] Vos JJ, et al. **Ophthalmic Physiol Opt** 1998 May;18(3):311–3. Comment on: Ophthalmic Physiol Opt 1997 May;17(3):216–24.

NIDCR combats oral complications of cancer treatment [news] **Public Health Rep** 1999 May–Jun;114(3):204

Evaluation of two dose-volume histogram reduction models for the prediction of radiation pneumonitis. Kwa SL, et al. **Radiother Oncol** 1998 Jul;48(1):61–9

Regional dose response to pulmonary irradiation using a manual method. Levinson B, et al. **Radiother Oncol** 1998 Jul;48(1):53–60

Physiology-based studies of radiation-induced normal tissue injury [editorial] Marks LB. **Radiother Oncol** 1999 May; 51(2):101–3

Dose-effect relations for early local pulmonary injury after irradiation for malignant lymphoma and breast cancer. Theuws JC, et al. **Radiother Oncol** 1998 Jul;48(1):33–43

Changes in the auditory system related to cerebral circulation in the Ukraine population after the Chernobyl disaster. Rimar VV. **Rev Laryngol Otol Rhinol (Bord)** 1999; 120(2):89–92

Acute radiation morbidity and therapeutic consequences. Proceedings of a workshop of the German Society for Radiooncology. Frankfurt, Germany,May 16–17, 1998. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:1–100

Utilization of developmental basic science principles in the evaluation of reproductive risks from pre- and postconception environmental radiation exposures. Brent RL. **Teratology** 1999 Apr;59(4):182–204 (125 ref.)

[Radiation nephritis] Harada T, et al. **Nippon Naika Gakkai Zasshi** 1999 Aug 10;88(8):1463–6 (5 ref.) **(Jpn)**

[Environment and health: quantitative analysis and management of radiation injuries] Nagataki S. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1706–15 **(Jpn)**

[Characteristics of secondary immunodeficiency in patients with neurocirculatory dystonia] Malysheva OA, et al. **Ter Arkh** 1999;71(3):67–9 (Eng. Abstr.) **(Rus)**

[The 2nd International Conference on the Late Medical Sequelae of the Chernobyl Catastrophe] Kozlova IA. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(6):65–6 **(Rus)**

[Stomatologic aspects of radiotherapy of head and neck tumors] Tahmiščija H, et al. **Med Arh** 1998;52(2):97–100 (Eng. Abstr.) **(Scr)**

[Impact of secondary irradiation on operators during coronary arteriography] Ramirez A, et al. **Rev Med Chil** 1998 Jun;126(6):615–21 (Eng. Abstr.) **(Spa)**

BLOOD

Radiation-induced lipoperoxidative stress in children coupled with deficit of essential antioxidants. Neyfakh EA, et al. **Biochemistry (Mosc)** 1998 Aug;63(8):977–87

[The antioxidant system of patients with chronic inflammatory liver diseases after exposure to ionizing radiation] Tribrat TA, et al. **Lik Sprava** 1999 Jan–Feb; (1):23–5 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Validation of a new scoring system for the assessment of clinical trial research of oral mucositis induced by radiation or chemotherapy. Mucositis Study Group. Sonis ST, et al. **Cancer** 1999 May 15;85(10):2103–13

Electronical recording and evaluation of acute radiation morbidity. Niehoff P, et al. **Strahlenther Onkol** 1998 Nov; 174 Suppl 3:37–9

Photographic documentation of acute radiation-induced side effects of the oral mucosa. Riesenbeck D, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:40–3

Documentation of radiation-induced oral mucositis. Scoring systems. Riesenbeck D, et al. **Strahlenther Onkol** 1998 Nov; 174 Suppl 3:44–6

Topographic documentation of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:30–6

COMPLICATIONS

Postradiation colospinal fistula: a rare cause of spinal epidural abscess. Wang WY, et al. **AJNR Am J Neuroradiol** 1998 Nov–Dec;19(10):1959–60

Hormonal therapy in chronic radiation colitis. Wurzer H, et al. **Am J Gastroenterol** 1998 Dec;93(12):2536–8

Severe tumor lysis syndrome following splenic irradiation. Schifter T, et al. **Am J Hematol** 1999 Jan;60(1):75–6

Acute myocardial infarction after irradiation for Hodgkin's disease: a not so unusual case [letter] [published erratum appears in Ann Emerg Med 1999 Mar;33(3):358] Spektor M, et al. **Ann Emerg Med** 1999 Jan;33(1):124–5

Chylothorax from radiation-induced mediastinal fibrosis [letter] Lee YC, et al. **Aust N Z J Med** 1998 Oct;28(5):667–8 (7 ref.)

Quality of life in patients undergoing treatment for chronic radiation-induced rectal bleeding [letter; comment] Guest M, et al. **Br J Surg** 1999 Jan;86(1):135–6. Comment on: Br J Surg 1998 Sep;85(9):1251–4.

Saddle embolus of the carotid bifurcation. A late complication of mediastinal radiotherapy. Fox AD, et al. **Eur J Vasc Endovasc Surg** 1999 Apr;17(4):360–2

Collagen vascular diseases and radiation therapy: a critical review. De Naeyer B, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):975–80 (17 ref.)

A multi-institutional analysis of complication outcomes after arteriovenous malformation radiosurgery. Flickinger JC, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):67–74

An unusual cause of ureter rupture and acute abdomen. Fink KS. **J Am Board Fam Pract** 1998 Jul–Aug;11(4):318–20

Dementia following treatment of brain tumors with radiotherapy administered alone or in combination with nitrosourea-based chemotherapy: a clinical and pathological study. Vigliani MC, et al. **J Neurooncol** 1999 Jan;41(2):137–49

Pain, fatigue, and sleep disturbances in oncology outpatients receiving radiation therapy for bone metastasis: a pilot study. Miaskowski C, et al. **J Pain Symptom Manage** 1999 May;17(5):320–32

SCVIR Annual Meeting Film Panel Session: case 2. Arterial occlusion secondary to radiation vasculitis. Society of Cardiovascular & Interventional Radiology. LaBerge JM, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):505–8

Radiation-induced pneumonitis outside the radiation field [letter; comment] Satoh H, et al. **Mayo Clin Proc** 1999 Jul; 74(7):743–4. Comment on: Mayo Clin Proc 1999 Jan;74(1):27–36.

A-bomb survivors: reassessment of the radiation hazard. Stewart AM, et al. **Med Confl Surviv** 1999 Jan–Mar; 15(1):47–56 (14 ref.)

Gastroesophageal reflux and adenocarcinoma of the esophagus [letter] Gofman JW. **N Engl J Med** 1999 Aug 12;341(7):537–8

'The vanished occiput'. Freyschmidt J. **Nephrol Dial Transplant** 1999 Feb;14(2):499–500

Bilateral cavernous malformations resulting from cranial irradiation of a choroid plexus papilloma. Chang SD, et al. **Neurol Res** 1998 Sep;20(6):529–32

Implementation of a compensatory memory system in a school age child with severe memory impairment. Kerns KA, et al. **Pediatr Rehabil** 1998 Apr–Jun;2(2):77–87

Sarcoidosis-lymphoma syndrome in a woman with acromegaly [letter; comment] Siekierska-Hellmann M, et al. **Postgrad Med J** 1998 Jun;74(872):382. Comment on: Postgrad Med J 1997 Sep;73(863):580–2.

Treatment of severe actinic rectitis. Rossi BM, et al. **Rev Paul Med** 1998 Jan–Feb;116(1):1629–33

Neuromyotonia of the abducens nerve after hypophysectomy and radiation. Bacskulin A, et al. **Strabismus** 1999 Mar; 7(1):37–40

Gracilis repair for a case of radiation induced rectovaginal fistulae. Kaman L, et al. **Trop Gastroenterol** 1999 Apr–Jun; 20(2):92–3

[An ill tongue...] Disdier P, et al. **Rev Med Interne** 1998;19 Suppl 2:318s–319s **(Fre)**

[Nuclear risk and thyroid neoplasms in infancy] Calbo L, et al. **Chir Ital** 1997;49(4–5):27–9 (20 ref.) (Eng. Abstr.) **(Ita)**

[Fatal coronary heart disease in a young woman 20 years after radiotherapy for Hodgkin disease] Skulstad H, et al. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1431–2 (Eng. Abstr.) **(Nor)**

[The involvement of the upper digestive tract and psychosomatic disorders in those who worked in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station] Svintsitskii AS, et al. **Lik Sprava** 1998 Oct–Nov;(7):39–42 (44 ref.) **(Rus)**

[The characteristics of the clinical picture and of the psychotherapy of somatogenically induced neurosis-like disorders in people subjected to ionizing radiation exposure as a result of the accident at the Chernobyl Atomic Electric Power Station] Svintsitskii AS, et al. **Lik Sprava** 1998 Dec; (8):36–8 (Eng. Abstr.) **(Rus)**

[Role of emotional stress in development of somatic injuries in liquidators of the Chernobyl power plant accident irradiated with small doses] Moroz BB, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):97–105 (41 ref.) (Eng. Abstr.) **(Rus)**

[Efficacy of antioxidant preparations used for correction of impairment of oxidative homeostasis in Chernobyl liquidators] Ovsiannikova LM, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):318–21 (Eng. Abstr.) **(Rus)**

[The characteristics of the clinical course in individual types of radiation-induced cataracts] Polunin GS, et al. **Vestn Oftalmol** 1998 Sep–Oct;114(5):32–5 (Eng. Abstr.) **(Rus)**

[The treatment of rectorrhagia secondary to postradiation proctitis with 4% formalin] Coyoli-García O, et al. **Ginecol Obstet Mex** 1999 Jul;67:341–5 (Eng. Abstr.) **(Spa)**

[An epidemiological analysis of the health status of the participants in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station] Ponomarenko VM, et al. **Lik Sprava** 1998 Dec;(8):39–41 (Eng. Abstr.) **(Ukr)**

[The blood circulation and microcirculation in the diagnosis of the DIC syndrome in cerebral circulatory disorders in subjects exposed to the effect of ionizing radiation] Vesel'kyĭ OI. **Lik Sprava** 1998 Jul–Aug;(5):49–54 (Eng. Abstr.) **(Ukr)**

DIAGNOSIS

Radiation use in the orthopaedic theatre: a prospective audit. Jones DG, et al. **Aust N Z J Surg** 1998 Nov;68(11):782–4

MR features of the denervated tongue in radiation induced neuropathy. King AD, et al. **Br J Radiol** 1999 Apr; 72(856):349–53

Radiation induced liver injury detected by particulate reticuloendothelial contrast agent. Padhani AR, et al. **Br J Radiol** 1998 Oct;71(850):1089–92

Late radiation injury following hyperfractionated craniospinal radiotherapy for primitive neuroectodermal tumor. Russo C, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):85–90

Use of the alkaline comet assay to monitor DNA damage in technicians exposed to low-dose radiation. Undeğer Ü, et al. **J Occup Environ Med** 1999 Aug;41(8):693–8

Skeletal complications in pediatric oncology patients. Roebuck DJ. **Radiographics** 1999 Jul–Aug;19(4):873–85 (50 ref.)

[Tumor and individual radiosensitivity. An introduction] Cosset JM, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):523–9 (50 ref.) (Eng. Abstr.) **(Fre)**

[Radiation-induced rectitis, easy endoscopic diagnosis, an occasionally difficult treatment] Vitaux J, et al. **Presse Med** 1998 Jul 4–11;27(24):1255 **(Fre)**

[Radiogenic amyotrophy. Cauda equina lesion as a late radiation sequela] Wohlgemuth WA, et al. **Nervenarzt** 1998 Dec;69(12):1061–5 (Eng. Abstr.) **(Ger)**

[Microperimetry and reading saccades in retinopathia solaris. Follow-up with the scanning laser ophthalmoscope] Ehrt O, et al. **Ophthalmologe** 1999 May;96(5):325–31 (Eng. Abstr.) **(Ger)**

[A clinical study of chronic actinic enteropathy] Napolitano L, et al. **G Chir** 1999 Apr;20(4):165–8 (20 ref.) (Eng. Abstr.) **(Ita)**

[Quantitative analysis of pulmonary functional damage due to heavy ion particle irradiation therapy for lung cancer] Homma T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb; 37(2):97–101 (Eng. Abstr.) **(Jpn)**

[Laser correlation spectroscopy of blood plasma for diagnosis of postradiation sequels] Kiselev MF, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):64–78 (Eng. Abstr.) **(Rus)**

[Radiation myelitis] Téllez-Zenteno JF, et al. **Gac Med Mex** 1999 Mar–Apr;135(2):201–2 **(Spa)**

[The neurological and radiometric indices of those who worked in the cleanup who live on the territory of Chernigov Province] Martsynkevych OO. **Lik Sprava** 1998 Jun;(4):16–8 (Eng. Abstr.) **(Ukr)**

[The characteristics of the lesions of the esophagogastroduodenal area in patients with chronic glomerulonephritis who have experienced the effect of ionizing radiation] Moiseienko VO. **Lik Sprava** 1998 Jun; (4):12–5 (Eng. Abstr.) **(Ukr)**

[The neuro-otological aspects of diseases in persons who took part in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station] Nikolenko VIu. **Lik Sprava** 1998 Oct–Nov;(7):45–7 (Eng. Abstr.) **(Ukr)**

DRUG THERAPY

Striking regression of radiation-induced fibrosis by a combination of pentoxifylline and tocopherol. Delanian S. **Br J Radiol** 1998 Aug;71(848):892–4

Natural history of late radiation proctosigmoiditis treated with topical sucralfate suspension. Kochhar R, et al. **Dig Dis Sci** 1999 May;44(5):973–8

Short chain fatty acids are effective in short-term treatment of chronic radiation proctitis: randomized, double-blind, controlled trial. Pinto A, et al. **Dis Colon Rectum** 1999 Jun; 42(6):788–95; discussion 795–6

Stockpiling safety? [news] **Environ Health Perspect** 1998 Mar; 106(3):A128–9

Central serous chorioretinopathy complicating solar retinopathy treated with glucocorticoids. Bouzas EA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):166–8

Striking regression of subcutaneous fibrosis induced by high doses of gamma rays using a combination of pentoxifylline and alpha-tocopherol: an experimental study. Lefaix JL, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):839–47

Effects of all-trans retinoic acid on UVB-irradiated human skin substitute. Chouinard N, et al. **J Cell Physiol** 1999 Oct;181(1):14–23

[Pilocarpine—new use for an old drug] Tishler M. **Harefuah** 1998 Aug;135(3–4):150–2 (25 ref.) **(Heb)**

ENZYMOLOGY

[Metabolic disorders in digestive and hepatobiliary pathology in those who worked in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station] Shkala LV. **Lik Sprava** 1998 Oct–Nov;(7):42–5 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Outcome of obstructive uropathy after pelvic irradiation in patients with carcinoma of the uterine cervix. Lau KO, et al. **Ann Acad Med Singapore** 1998 Sep;27(5):631–5

Late side effects unchanged 4–8 years after radiotherapy for prostate carcinoma: a comparison with age-matched controls. Fransson P, et al. **Cancer** 1999 Feb 1;85(3):678–88

Radiation and mortality of workers at Oak Ridge National Laboratory: positive associations for doses received at older ages. Richardson DB, et al. **Environ Health Perspect** 1999 Aug;107(8):649–56

Reproductive outcomes after radiation exposure [letter; comment] Grossman CM, et al. **Epidemiology** 1999 Mar; 10(2):202–3. Comment on: Epidemiology 1998 May;9(3):231–2. Comment on: Epidemiology 1998 May;9(3):271–8.

The incidence and clinical consequences of treatment-related bowel injury. Miller AR, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):817–25

Late effects of treatment for germ cell tumors during childhood and adolescence. Hale GA, et al. **J Pediatr Hematol Oncol** 1999 Mar–Apr;21(2):115–22

The limits of epidemiology [editorial; comment] Doll R. **J Radiol Prot** 1999 Mar;19(1):1–2. Comment on: J Radiol Prot 1999 Mar;19(1):3–26.

Risk: a media perspective. Edwards R. **J Radiol Prot** 1999 Mar;19(1):57–61

Biological effects of electromagnetic fields and radiation [see comments] Sienkiewicz Z. **J Radiol Prot** 1998 Sep; 18(3):185–93 (34 ref.). Comment in: J Radiol Prot 1998 Sep;18(3):161–2.

Have complication rates decreased after treatment for localized prostate cancer? Thompson IM, et al. **J Urol** 1999 Jul;162(1):107–12 (12 ref.)

Mortality and morbidity of members of the British Nuclear Tests Veterans Association and the New Zealand Nuclear Tests Veterans Association and their families. Roff SR. **Med Confl Surviv** 1999 Jul–Sep;15 Suppl 1:i–ix, 1–51

Clinical impact of predictive assays for acute and late radiation morbidity. Budach W, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:20–4 (30 ref.)

Variability of individual normal tissue radiation sensitivity. An international empirical evaluation of endogenous and exogenous response modifiers. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:16–9

The impact of acute radiation morbidity on therapeutic outcome [editorial] Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:1–3 (24 ref.)

Topographic documentation of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:30–6

Pharmacological management of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:62–5 (43 ref.)

[Is there an increased risk of leukemia, brain tumors or breast cancer after exposure to high-frequency radiation? Review of methods and results of epidemiologic studies] Blettner M, et al. **Med Klin** 1999 Mar 15;94(3):150–8 (41 ref.) (Eng. Abstr.) **(Ger)**

ETHNOLOGY

Prevalence and risks of dementia in the Japanese population: RERF's adult health study Hiroshima subjects. Radiation Effects Research Foundation. Yamada M, et al. **J Am Geriatr Soc** 1999 Feb;47(2):189–95

ETIOLOGY

Stevens-Johnson syndrome in patients on phenytoin and cranial radiotherapy. Khafaga YM, et al. **Acta Oncol** 1999; 38(1):111–6

Safety of radiographic imaging during pregnancy. Toppenberg KS, et al. **Am Fam Physician** 1999 Apr 1; 59(7):1813–8, 1820 (18 ref.)

Re: Practice guidelines for esophageal cancer [letter; comment] Swaroop VS. **Am J Gastroenterol** 1999 Aug; 94(8):2319–20. Comment on: Am J Gastroenterol 1999 Jan;94(1):20–9.

Radiation complications and tumor control after plaque radiotherapy of choroidal melanoma with macular involvement. Gündüz K, et al. **Am J Ophthalmol** 1999 May; 127(5):579–89

Photic maculopathy after pterygium excision. Karp KO, et al. **Am J Ophthalmol** 1999 Aug;128(2):248–50

Radiation-associated cerebral blindness. Pomeranz HD, et al. **Am J Ophthalmol** 1998 Oct;126(4):609–11

Sun exposure and pterygium of the eye: a dose-response curve. Threlfall TJ, et al. **Am J Ophthalmol** 1999 Sep; 128(3):280–7

Radiofrequency (RF) sickness in the Lilienfeld Study: an effect of modulated microwaves? Johnson Liakouris AG. **Arch Environ Health** 1998 May–Jun;53(3):236–8 (27 ref.)

Early-onset scleral necrosis after iodine I 125 plaque radiotherapy for ciliochoroidal melanoma. Corrêa ZM, et al. **Arch Ophthalmol** 1999 Feb;117(2):259–61

Sunlight exposure and risk of lens opacities in a population-based study. Cruickshanks KJ. **Arch Ophthalmol** 1998 Dec;116(12):1666

Radiation retinopathy following plaque radiotherapy for posterior uveal melanoma. Gündüz K, et al. **Arch Ophthalmol** 1999 May;117(5):609–14

Light exposure is not associated with retinopathy of prematurity. Mills MD. **Arch Ophthalmol** 1998 Nov; 116(11):1517–8 (18 ref.)

Long-term post-irradiation middle ear effusion in nasopharyngeal carcinoma. Low WK, et al. **Auris Nasus Larynx** 1998 Sep;25(3):319–21

Vitamin E and A deficiencies in children correlate with Chernobyl radiation loads of their mothers. Neyfakh EA, et al. **Biochemistry (Mosc)** 1998 Oct;63(10):1138–43

Increased risk of chronic graft-versus-host disease, obstructive bronchiolitis, and alopecia with busulfan versus total body irradiation: long-term results of a randomized trial in allogeneic marrow recipients with leukemia. Nordic Bone Marrow Transplantation Group. Ringdén O, et al. **Blood** 1999 Apr 1;93(7):2196–201

Thyroid nodular disease after radiotherapy to the neck for childhood Hodgkin's disease. Shafford EA, et al. **Br J Cancer** 1999 May;80(5–6):808–14

Carotid artery stenosis in patients who have undergone radiation therapy for head and neck malignancy. Dubec JJ, et al. **Br J Radiol** 1998 Aug;71(848):872–5

Mediastinal irradiation: A risk factor for atherosclerosis of the internal thoracic arteries. Renner SM, et al. **Can J Cardiol** 1999 May;15(5):597–600

Subcutaneous calcification as a late effect of orthovoltage chest wall irradiation. Cowie F, et al. **Clin Oncol (R Coll Radiol)** 1999;11(3):196–7

The breast radiation injury litigation and the clinical oncologist [see comments] Dische S, et al. **Clin Oncol (R Coll Radiol)** 1998;10(6):367–71. Comment in: Clin Oncol (R Coll Radiol) 1998;10(6):353. Comment in: Clin Oncol (R Coll Radiol) 1999;11(2):137–8.

Pulmonary complications of cancer therapy. Wesselius LJ. **Compr Ther** 1999 May;25(5):272–7 (20 ref.)

Radiation myelopathy. Rampling R, et al. **Curr Opin Neurol** 1998 Dec;11(6):627–32 (69 ref.)

Solar retinopathy. A study from Nepal and from Germany. Rai N, et al. **Doc Ophthalmol** 1998;95(2):99–108

Oxidant-induced lung injury in anticancer therapy. Beinert T, et al. **Eur J Med Res** 1999 Feb 25;4(2):43–53 (113 ref.)

X-ray diagnostic without medical indication and bodily harm: decision of the Supreme Court of Germany 3/12/97—2StR 397/97. Vogel M, et al. **Eur Radiol** 1999; 9(4):749–50

The optical properties of the anterior segment of the eye: implications for cortical cataract. Dillon J, et al. **Exp Eye Res** 1999 Jun;68(6):785–95

Long-term sensorineural hearing deficit following radiotherapy in patients suffering from nasopharyngeal carcinoma: A prospective study. Ho WK, et al. **Head Neck** 1999 Sep;21(6):547–53

Y2K compliance report. Y2K hazard: radiotherapy systems could cause patients to be exposed to inappropriate radiation levels. **Health Devices** 1999 Aug;28(8):318–20

The importance of specifying the underlying biologic model in estimating the probability of causation. Beyea J, et al. **Health Phys** 1999 Mar;76(3):269–74

Cerebral radionecrosis following the treatment of parotid tumours: a case report and review of the literature. Coghlan KM, et al. **Int J Oral Maxillofac Surg** 1999 Feb;28(1):50–2 (22 ref.)

Normal tissue complication probabilities correlated with late effects in the rectum after prostate conformal radiotherapy. Dale E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):385–91

Regarding Maor et al. IJROBP 41:647–650; 1998 [letter; comment] Dewit L, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):939–40. Comment on: Int J Radiat Oncol Biol Phys 1998 Jun 1;41(3):647–50.

Diabetes mellitus: a predictor for late radiation morbidity [see comments] Herold DM, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):475–9. Comment in: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):473–4.

Clinical and dosimetric predictors of radiation-induced esophageal toxicity. Maguire PD, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):97–103

Late retinal complications of radiation therapy for nasal and paranasal malignancies: relationship between irradiated-dose area and severity. Takeda A, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):599–605

Effects of intraoperative irradiation (IORT) and intraoperative hyperthermia (IOHT) on canine sciatic nerve: histopathological and morphometric studies. Vujaskovic Z, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1103–9

Retinal phototoxicity. Solley WA, et al. **Int Ophthalmol Clin** 1999 Spring;39(2):1–12 (55 ref.)

Laser injuries of the eye. Thach AB. **Int Ophthalmol Clin** 1999 Spring;39(2):13–27 (93 ref.)

Vasospastic angina likely related to cisplatin-containing chemotherapy and thoracic irradiation for lung cancer. Fukuda M, et al. **Intern Med** 1999 May;38(5):436–8

Sunshine daydream [editorial] Cavallerano AA. **J Am Optom Assoc** 1998 Oct;69(10):617–8

Solar retinopathy in a hospital-based primary care clinic. Stokkermans TJ, et al. **J Am Optom Assoc** 1998 Oct; 69(10):625–36 (75 ref.)

Elective internal mammary node irradiation: it is not an all or nothing question [letter; comment] Marks LB, et al. **J Clin Oncol** 1998 Dec;16(12):3918. Comment on: J Clin Oncol 1998 Aug;16(8):2579–82. Comment on: J Clin Oncol 1998 Aug;16(8):2625–31. Comment on: J Clin Oncol 1998 Aug;16(8):2886–9.

Slipped capital femoral epiphysis associated with radiation therapy. Loder RT, et al. **J Pediatr Orthop** 1998 Sep–Oct; 18(5):630–6 (25 ref.)

A lost pigtail. Cosset JM, et al. **J R Soc Med** 1999 Apr; 92(4):189–90

Comparison of radiation side-effects of conformal and conventional radiotherapy in prostate cancer: a randomised trial [see comments] Dearnaley DP, et al. **Lancet** 1999 Jan 23;353(9149):267–72. Comment in: Lancet 1999 Apr 24;353(9162):1443.

Radiation-induced pneumonitis in the "nonirradiated" lung [see comments] Arbetter KR, et al. **Mayo Clin Proc** 1999 Jan;74(1):27–36. Comment in: Mayo Clin Proc 1999 Jul;74(7):743–4.

Radiosensitivity of human lymphocytes in vitro correlates more with proliferative ability of cells than with the incidence of radiation-induced damages of the genome. Joksić G, et al. **Neoplasma** 1999;46(1):40–9

Analysis of radiation pneumonitis and radiation-induced lung fibrosis in breast cancer patients after breast conservation treatment. Nishioka A, et al. **Oncol Rep** 1999 May–Jun; 6(3):513–7

Risk factors for radiation maculopathy and papillopathy after intraocular irradiation. Gragoudas ES, et al. **Ophthalmology** 1999 Aug;106(8):1571–7; discussion 1577–8

An analysis of the incidence and risk factors of developing severe keratopathy in eyes after megavoltage external beam irradiation. Kwok SK, et al. **Ophthalmology** 1998 Nov; 105(11):2051–5

Increased risk of erythema multiforme major with combination anticonvulsant and radiation therapies. Micali G, et al. **Pharmacotherapy** 1999 Feb;19(2):223–7 (39 ref.)

Preemptive pharmacologic intervention in radiation-induced salivary dysfunction. Taylor SE, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):14–26 (154 ref.)

Histopathological and cellular studies of a case of cutaneous radiation syndrome after accidental chronic exposure to a cesium source. Vozenin-Brotons MC, et al. **Radiat Res** 1999 Sep;152(3):332–7

Long-term cardiac morbidity and mortality in a randomized trial of pre- and postoperative radiation therapy versus

surgery alone in primary breast cancer. Gyenes G, et al. **Radiother Oncol** 1998 Aug;48(2):185–90

Altered fractionation: limited by mucosal reactions? Kaanders JH, et al. **Radiother Oncol** 1999 Mar;50(3):247–60 (89 ref.)

Massive haemoptysis after radiotherapy in inoperable non-small cell lung carcinoma: is endobronchial brachytherapy really a risk factor? Langendijk JA, et al. **Radiother Oncol** 1998 Nov;49(2):175–83

Optical radiation hazards of welding arcs. Tenkate TD. **Rev Environ Health** 1998 Jul-Sep;13(3):131–46 (99 ref.)

Vesicouterine fistula twenty years following brachytherapy for cervical cancer. Memon MA, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):293–5

Solving mysteries of the bioeffects of nonionizing radiation [editorial; comment] Hietanen M. **Scand J Work Environ Health** 1998 Aug;24(4):241–3. Comment on: Scand J Work Environ Health 1998 Aug;24(4):245–54.

Biological effects of amplitude-modulated radiofrequency radiation [see comments] Juutilainen J, et al. **Scand J Work Environ Health** 1998 Aug;24(4):245–54 (64 ref.). Comment in: Scand J Work Environ Health 1998 Aug;24(4):241–3.

NRC pulled into radiation risk brawl [news] Kaiser J. **Science** 1999 Jul 9;285(5425):177–8

Radiobiological models of normal tissue reactions. Dörr W. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:4–7 (16 ref.)

Curative radiotherapy in elderly patients with endometrial cancer. Patterns of relapse, toxicity and quality of life. Huguenin P, et al. **Strahlenther Onkol** 1999 Jul; 175(7):309–14

[Tumor and individual radiosensitivity. An introduction] Cosset JM, et al. **Cancer Radiother** 1998 Sep-Oct;2(5):523–9 (50 ref.) (Eng. Abstr.) **(Fre)**

[Late-onset pleurisy: a rare complication of thoracic radiotherapy (letter)] Durupt S, et al. **Presse Med** 1998 Apr 25;27(16):762 **(Fre)**

[The role of hyperbaric oxygen therapy in radiation-induced digestive disorders. 36 cases] Gouëllo JP, et al. **Presse Med** 1999 Jun 5;28(20):1053–7 (Eng. Abstr.) **(Fre)**

[New knowledge about late sequelae of radiochemotherapy (comment)] Budach W. **HNO** 1998 Aug;46(8):708–11. Comment on: HNO 1998 Aug;46(8):731–8. **(Ger)**

[Chronic laryngeal edema as a late reaction to radiochemotherapy (see comments)] Dietz A, et al. **HNO** 1998 Aug;46(8):731–8 (Eng. Abstr.). Comment in: HNO 1998 Aug;46(8):708–11. **(Ger)**

[Radiation dosage of the surgery from intraoperative roentgen procedures: risks and dose management in the operating room] Fuchs M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1111–3 (Eng. Abstr.) **(Ger)**

[Incidence of immunogenic hyperthyroidism after radioiodine therapy of focal thyroid gland autonomy. Results of a multicenter study] Weiss M, et al. **Med Klin** 1999 May 15;94(5):239–44 (Eng. Abstr.) **(Ger)**

[Contribution of nuclear medicine to the diagnosis of recurrent brain tumors and cerebral radionecrosis] Bader JB, et al. **Radiologe** 1998 Nov;38(11):924–9 (Eng. Abstr.) **(Ger)**

[Safety considerations to avoid current-induced skin burns in MRI procedures] Knopp MV, et al. **Radiologe** 1998 Sep; 38(9):759–63 (Eng. Abstr.) **(Ger)**

[Comparison of late side-effects of conformal and conventional radiotherapy in locally limited prostatic carcinoma. A prospective randomized study] Feldmann HJ. **Strahlenther Onkol** 1999 Jul;175(7):350–1 **(Ger)**

[Disorders of endocrine function after brain tumor therapy in childhood] Marx M, et al. **Strahlenther Onkol** 1999 Jul; 175(7):305–8 (30 ref.) (Eng. Abstr.) **(Ger)**

[Long-term tumor control and fertility after para-aortic limited radiotherapy of stage I seminoma] Sedlmayer F, et al. **Strahlenther Onkol** 1999 Jul;175(7):320–4 (Eng. Abstr.) **(Ger)**

[Measuring intraoperative radiation exposure of the trauma surgeon. Measuring eye, thyroid gland and hand with highly sensitive thermoluminescent detectors] Fuchs M, et al. **Unfallchirurg** 1999 May;102(5):371–6 (Eng. Abstr.) **(Ger)**

[Normal tissue radiation toxicity in radiotherapy of localized prostatic cancer] Bakken AM, et al. **Tidsskr Nor Laegeforen** 1999 May 30;119(14):2017–21 (Eng. Abstr.) **(Nor)**

[Reproductive status of aviation specialists who participated in the clean-up of the Chernobyl AES accident] Ushakov IB, et al. **Med Tr Prom Ekol** 1999;(3):32–6 **(Rus)**

[Principles and methods of evaluation of radiation risk and pilots' health in accidents of nuclear power objects] Ushakov IB, et al. **Med Tr Prom Ekol** 1999;(1):23–8 (Eng. Abstr.) **(Rus)**

[Molecular mechanisms of major radiobiological sequels of the effect of ionizing radiation on mammals] Mazurik VK, et al. **Radiats Biol Radioecol** 1999 Jan-Feb;39(1):89–96 (53 ref.) (Eng. Abstr.) **(Rus)**

[Effectiveness of nondrug treatment of chronic bronchitis in persons exposed to radiation due to Chernobyl AES accident] Tkachishin VS. **Ter Arkh** 1999;71(3):24–8 (Eng. Abstr.) **(Rus)**

[Clinico-radiobiological evaluation of radiation dosage and complications of radiotherapy for endometrial neoplasm metastasis to the vagina] Kanaev SV, et al. **Vopr Onkol** 1999;45(3):272–8 (Eng. Abstr.) **(Rus)**

[Nutritional management of radiation-induced enteritis: apropos of a case] Criado MT, et al. **Nutr Hosp** 1999 May-Jun;14(3):138–41 (Eng. Abstr.) **(Spa)**

GENETICS

Radiosensitivity of normal tissues in ataxia-telangiectasia heterozygotes. Weissberg JB, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1133–6

How radiation-specific is the dicentric assay? Hoffmann W, et al. **J Expo Anal Environ Epidemiol** 1999 Mar-Apr; 9(2):113–33

Chromosomal instability in acute myelocytic leukemia and myelodysplastic syndrome patients among atomic bomb survivors. Nakanishi M, et al. **J Radiat Res (Tokyo)** 1999 Jun;40(2):159–67

Mechanisms and implications of genomic instability and other delayed effects of ionizing radiation exposure. Mothersill C, et al. **Mutagenesis** 1998 Sep;13(5):421–6 (59 ref.)

[Long-term effects of chronic radiation exposure on the level of somatic mutations in peripheral blood cells] Akleev AV, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):573–85 (Eng. Abstr.) **(Rus)**

[Delayed cytogenetics effects of chronic irradiation of South Ural population] Vozilova AV, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):586–90 (Eng. Abstr.) **(Rus)**

[Genotype analysis of biochemical status in people irradiated with significant doses of radiation] Tel'nov VI, et al. **Vopr Med Khim** 1998 Sep-Oct;44(5):479–84 (Eng. Abstr.) **(Rus)**

HISTORY

The early years of radiation protection: a tribute to Madame Curie. Coppes-Zantinga AR, et al. **CMAJ** 1998 Dec 1; 159(11):1389–91

Unwanted radioactive sources in the public domain: a historical perspective. Lubenau JO. **Health Phys** 1999 Feb; 76(2 Suppl):S16–22

IMMUNOLOGY

[Humoral link of autoimmune reactions to neuron-specific enolase in post-radiation encephalopathy patients] Lisianyi NI, et al. **Ukr Biokhim Zh** 1998 Nov-Dec;70(6):76–82 (Eng. Abstr.) **(Ukr)**

METABOLISM

Expression of nerve growth factor receptors in cutaneous inflammation. Bull HA, et al. **Br J Dermatol** 1998 Nov; 139(5):776–83

Irradiation induces increase of adhesion molecules and accumulation of beta2-integrin-expressing cells in humans. Handschel J, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):475–81

Growth factors: biological and clinical aspects. Ruifrok AC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):877–81

Proton magnetic resonance spectroscopy of late delayed radiation-induced injury of the brain. Chan YL, et al. **J Magn Reson Imaging** 1999 Aug;10(2):130–7

'The vanished occiput'. Freyschmidt J. **Nephrol Dial Transplant** 1999 Feb;14(2):499–500

MORTALITY

Occupational radiation exposure and mortality: second analysis of the National Registry for Radiation Workers [see comments] Muirhead CR, et al. **J Radiol Prot** 1999 Mar;19(1):3–26. Comment in: J Radiol Prot 1999 Mar;19(1):1–2.

A-bomb survivors: reassessment of the radiation hazard. Stewart AM, et al. **Med Confl Surviv** 1999 Jan-Mar; 15(1):47–56 (14 ref.)

PATHOLOGY

Proteinuria and renal insufficiency three years after treatment of gastric lymphoma. Markowitz GS, et al. **Am J Kidney Dis** 1999 Sep;34(3):588–93

Delayed irradiation effects on nasal epithelium in patients with nasopharyngeal carcinoma. An ultrastructural study. Lou PJ, et al. **Ann Otol Rhinol Laryngol** 1999 May; 108(5):474–80

Quantitative evaluation of chronological ageing and photoageing in vivo: studies on skin echogenicity and thickness. Gniadecka M, et al. **Br J Dermatol** 1998 Nov; 139(5):815–21

Stromal damage as consequence of high-dose chemo/radiotherapy in bone marrow transplant recipients. Galotto M, et al. **Exp Hematol** 1999 Sep;27(9):1460–6

Thyroid volume is progressively reduced as a sequela of neck irradiation for childhood Hodgkin's disease [letter] Bossi G, et al. **Haematologica** 1998 Aug;83(8):754–6

Lack of correlation between residual radiation-induced DNA damage, in keratinocytes assayed directly from skin, and late radiotherapy reactions in breast cancer patients [see comments] Kiltie AE, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):481–7. Comment in: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):473–4.

In response to Brock, IJROBP 43:473–474, 1999 [letter; comment] Rubin P, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):246–7. Comment on: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):473–4.

Necrosis of the urethra and tissue sloughing: a delayed complication after transurethral microwave thermotherapy. Stravodimos KG, et al. **J Endourol** 1998 Aug;12(4):379–80

Radiation-induced optic neuropathy 4 years after radiation: report of a case followed up with MRI. Piquemal R, et al. **Neuroradiology** 1998 Jul;40(7):439–41

Enhanced regeneration response of laryngeal and hypopharyngeal mucosa with accelerated hyperfractionated radiation therapy for glottic cancers. Mariya Y, et al. **Radiat Med** 1998 Nov-Dec;16(6):469–72

Histopathological and cellular studies of a case of cutaneous radiation syndrome after accidental chronic exposure to a cesium source. Vozenin-Brotons MC, et al. **Radiat Res** 1999 Sep;152(3):332–7

A correlation between residual radiation-induced DNA double-strand breaks in cultured fibroblasts and late radiotherapy reactions in breast cancer patients. Kiltie AE, et al. **Radiother Oncol** 1999 Apr;51(1):55–65

[A case of nasopharyngeal carcinoma presenting with various neurological deficits in the course of treatment (clinical conference)] Hasegawa O, et al. **No To Shinkei** 1999 Apr; 51(4):369–83 **(Jpn)**

[Cytological characteristics, elemental composition of alveolar macrophages from bronchoalveolar lavage, lung pathology in liquidators of the consequences of the accident at the Chernobyl power plant] Cherniaev AL, et al. **Arkh Patol** 1998 Sep-Oct;60(5):36–41 (Eng. Abstr.) **(Rus)**

[Bone marrow hematopoiesis in those who worked in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station with a history of acute radiation sickness (based on myelogram data)] Klimenko SV. **Lik Sprava** 1999 Jan-Feb;(1):25–7 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Preferential impairment of nitric oxide-mediated endothelium-dependent relaxation in human cervical arteries after irradiation. Sugihara T, et al. **Circulation** 1999 Aug 10;100(6):635–41

Psychophysiologic aftereffects of prenatal irradiation. Nyagu AI, et al. **Int J Psychophysiol** 1998 Nov;30(3):303–11

Predicting normal tissue response to radiotherapy [editorial; comment] [see comments] Brock WA. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):473–4. Comment on: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):475–9. Comment on: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):481–7. Comment on: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):489–96. Comment in: Int J Radiat Oncol Biol Phys 1999 Aug 1;45(1):246–7.

Factors of importance for implantation and problems after treatment for childhood cancer. Critchley HO. **Med Pediatr Oncol** 1999 Jul;33(1):9–14 (41 ref.)

Pharmacological protection of the gonads. Howell SJ, et al. **Med Pediatr Oncol** 1999 Jul;33(1):41–5 (48 ref.)

Reproductive physiology and treatment-related loss of sex hormone production. Sklar C. **Med Pediatr Oncol** 1999 Jul; 33(1):2–8 (63 ref.)

Pulmonary function following adjuvant chemotherapy and radiotherapy for breast cancer and the issue of three-dimensional treatment planning. Lind PA, et al. **Radiother Oncol** 1998 Dec;49(3):245–54

Prediction of overall pulmonary function loss in relation to the 3-D dose distribution for patients with breast cancer and malignant lymphoma. Theuws JC, et al. **Radiother Oncol** 1998 Dec;49(3):233–43

Radiation-induced gastrointestinal toxicity. Pathophysiology, approaches to treatment and prophylaxis. Classen J, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:82–4 (29 ref.)

Radiation-induced impairment of urinary bladder function. Assessment of micturition volumes. Hanfmann B, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:96–8

The role of cytokines in the development of normal-tissue reactions after radiotherapy. Herskind C, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:12–5 (37 ref.)

Radiation proctitis. Clinical and pathological manifestations, therapy and prophylaxis of acute and late injurious effects of radiation on the rectal mucosa. Zimmermann FB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:85–9 (32 ref.)

[The dynamics of the autonomic indices in participants in the cleanup of the aftermath of the accident at the Chernobyl Atomic Electric Power Station at the stages of therapeutic hyperoxia] Vorob'ev KP, et al. **Lik Sprava** 1998 Dec;(8):33–6 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

Laparoscopic lateral ovarian transposition before pelvic irradiation for a Non Hodgkin lymphoma. Schulz-Lobmeyr I, et al. **Acta Obstet Gynecol Scand** 1999 Apr;78(4):350–2

Aspects on reducing gastrointestinal adverse effects associated with radiotherapy. Henriksson R, et al. **Acta Oncol** 1999;38(2):159–64 (37 ref.)

Ascorbate as UV-prophylaxis in excimer laser surgery [letter] Ringvold A. **Acta Ophthalmol Scand** 1998 Dec;76(6):755

Individual monitoring for internal exposure of workers replacement of ICRP publication 54. **Ann ICRP** 1997; 27(3-4):i-x, 1–161

Ultraviolet radiation screening compounds. Cockell CS, et al. **Biol Rev Camb Philos Soc** 1999 Aug;74(3):311–45 (232 ref.)

Staying safe during the eclipse. Turn your back on the sun [editorial] Dowler J. **BMJ** 1999 Aug 7;319(7206):329–30

Stereotactic radiosurgery. VI. Posterior displacement of the brainstem facilitates safer high dose radiosurgery for clival chordoma. Crockard A, et al. **Br J Neurosurg** 1999 Feb; 13(1):65–70

An overview of radiation safety regulatory recommendations and requirements. Balter S. **Catheter Cardiovasc Interv** 1999 Aug;47(4):469–74 (15 ref.)

Phase I study of 90Y-labeled B72.3 intraperitoneal administration in patients with ovarian cancer: effect of dose and EDTA coadministration on pharmacokinetics and toxicity. Rosenblum MG, et al. **Clin Cancer Res** 1999 May; 5(5):953–61

Radiation exposure to the hands and the thyroid of the surgeon during intramedullary nailing. Müller LP, et al. **Injury** 1998 Jul;29(6):461–8

Acute morbidity reduction using 3DCRT for prostate carcinoma: a randomized study. Koper PC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):727–34

A mobile shield to reduce scatter radiation to the contralateral breast during radiotherapy for breast cancer: preclinical results. Sohn JW, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1037–41

Radiation exposure to personnel during examination of limbs of horses with a portable hand-held fluoroscopic unit. Thomas HL, et al. **J Am Vet Med Assoc** 1999 Aug 1; 215(3):372–9

Sucralfate in the prevention of radiation-induced oral mucositis. Cengiz M, et al. **J Clin Gastroenterol** 1999 Jan; 28(1):40–3

Practical aspects of radiation safety for using fluorine-18. Bixler A, et al. **J Nucl Med Technol** 1999 Mar;27(1):14–6; quiz 18–9

Report of the International Workshop on the Health Effects of Ultraviolet Radiation [news] Yamaguchi N. **Jpn J Clin Oncol** 1999 Apr;29(4):237

Towards the millennium: 13th Low-Level Radiation and Health Conference. Holdstock D. **Med Confl Surviv** 1999 Jan-Mar;15(1):77–81

Detecting the health risks of radiation. Stewart A. **Med Confl Surviv** 1999 Apr-Jun;15(2):138–48 (7 ref.)

Clinical status and optimal use of amifostine. Capizzi RL. **Oncology (Huntingt)** 1999 Jan;13(1):47–59; discussion 63, 67 (90 ref.)

A neural network to predict symptomatic lung injury. Munley MT, et al. **Phys Med Biol** 1999 Sep;44(9):2241–9

Preemptive pharmacologic intervention in radiation-induced salivary dysfunction. Taylor SE, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):14–26 (154 ref.)

Radiation safety considerations for diagnostic radiology personnel. Brateman L. **Radiographics** 1999 Jul-Aug; 19(4):1037–55 (33 ref.)

Minimizing occupational exposure. Shymko MJ. **Radiol Technol** 1998 Sep-Oct;70(1):89–90 (3 ref.)

Individual skin care during radiation therapy. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:74–7 (19 ref.)

Low-energy He/Ne laser in the prevention of radiation-induced mucositis. A multicenter phase III randomized study in patients with head and neck cancer [see comments] Bensadoun RJ, et al. **Support Care Cancer** 1999 Jul;7(4):244–52. Comment in: Support Care Cancer 1999 Jul;7(4):217–8.

[Radiation exposure during CT examination of thorax and abdomen. Comparison of sequential, spiral and electron beam computed tomography] Becker CR, et al. **Radiologe** 1998 Sep;38(9):726–9 (Eng. Abstr.) **(Ger)**

[Radiation exposure during thoracic radiography at the intensive care unit. Dose accumulation and risk of radiation-induced cancer in long-term therapy] Leppek R, et al. **Radiologe** 1998 Sep;38(9):730–6 (42 ref.) (Eng. Abstr.) **(Ger)**

[Health risks of ionizing radiation] Schneider G, et al. **Radiologe** 1998 Sep;38(9):719–25 (Eng. Abstr.) **(Ger)**

[Prospective double-blind study of prophylaxis of radioxerostomia with Coumarin/Troxerutine in patients with head and neck cancer] Grötz KA, et al. **Strahlenther Onkol** 1999 Aug;175(8):397–403; discussion 404 (Eng. Abstr.) **(Ger)**

[Radiation hazards in interventional radiology] Widmark A, et al. **Tidsskr Nor Laegeforen** 1998 Nov 30;118(29):4543–5 (14 ref.) **(Nor)**

[Occupational problems from exposure to roentgen rays] Kluszczyński D, et al. **Med Pr** 1998;49(2):157–65 (Eng. Abstr.) **(Pol)**

[Refinement of technique for cosmonaut's body radiation loading estimation using of orbital station dosimetric monitoring system] Bengin VV, et al. **Aviakosm Ekolog Med** 1998;32(5):63–9 (Eng. Abstr.) **(Rus)**

[Assessing the degree of radiation hazards in the use of open radiation sources in scientific research institutions] Aleksandrova AI. **Gig Sanit** 1998 Sep-Oct;(5):38–41 (Eng. Abstr.) **(Rus)**

[Methodological principles for using agents for the mass prevention of the sequelae of human irradiation] Shandala NK. **Gig Sanit** 1999 Mar-Apr;(2):33–7 (Eng. Abstr.) **(Rus)**

PSYCHOLOGY

Psychoeducational group increases vaginal dilation for younger women and reduces sexual fears for women of all ages with gynecological carcinoma treated with radiotherapy. Robinson JW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):497–506

RADIOGRAPHY

Abnormalities by pulmonary regions studied with computer tomography following local or local-regional radiotherapy for breast cancer [see comments] Lind PA, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):489–96. Comment in: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):473–4.

RADIONUCLIDE IMAGING

Assessment of salivary gland dysfunction following chemoradiotherapy using quantitative salivary gland scintigraphy. Kosuda S, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):379–84

Delayed cerebral radionecrosis with a high uptake of 11C-methionine on positron emission tomography and 201Tl-chloride on single-photon emission computed tomography. Tashima T, et al. **Neuroradiology** 1998 Jul; 40(7):435–8

Differentiation between recurrent brain tumour and post-radiation necrosis: the value of 201Tl SPET versus 18F-FDG PET using a dual-headed coincidence camera—a pilot study. Stokkel M, et al. **Nucl Med Commun** 1999 May;20(5):411–7

[Importance of cerebral tomoscintigraphy using technetium-labeled sestamibi in the differential diagnosis of current tumor vs. radiation necrosis in subtentorial glial tumors in the adult] Lamy-Lhullier C, et al. **Neurochirurgie** 1999 May;45(2):110–7 (Eng. Abstr.) **(Fre)**

RADIOTHERAPY

Pulsed dye laser treatment of telangiectasia after radiotherapy for breast carcinoma. Ahmad M, et al. **Br J Plast Surg** 1999 Apr;52(3):236–7

REHABILITATION

[Adaptogen MIGI-K in rehabilitation of Chernobyl liquidators] Goncharenko EN, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):304–9 (Eng. Abstr.) **(Rus)**

[Current problems of chemical radiation protection of organisms] Kudriashov IuB, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):197–211 (98 ref.) (Eng. Abstr.) **(Rus)**

SURGERY

The surgical management of colorectal complications from irradiation for carcinoma of the cervix. Yegappan M, et al. **Ann Acad Med Singapore** 1998 Sep;27(5):627–30

Good visual outcome following laser therapy for proliferative radiation retinopathy. Thorne JE, et al. **Arch Ophthalmol** 1999 Jan;117(1):125–6

Argon beam coagulation for treatment of symptomatic radiation-induced proctitis. Fantin AC, et al. **Gastrointest Endosc** 1999 Apr;49(4 Pt 1):515–8

Argon plasma coagulation therapy for hemorrhagic radiation proctosigmoiditis. Silva RA, et al. **Gastrointest Endosc** 1999 Aug;50(2):221–4

A simple reconstructive procedure for radiation-induced necrosis of the external auditory canal. Hill DS, et al. **J Laryngol Otol** 1998 Dec;112(12):1142–6

Transverse colon pouch with total replacement of the ureter by reconfigured colon segment. Kato H, et al. **J Urol** 1999 Jun;161(6):1902–3

1-Stage repair of radiation induced colovesical fistula by resection and colocystoplasty. Kulkarni JN, et al. **J Urol** 1998 Dec;160(6 Pt 1):2149–50

Carotid artery repair for radiation-associated atherosclerosis is a safe and durable procedure. Kashyap VS, et al. **J Vasc Surg** 1999 Jan;29(1):90–6; discussion 97–9

Reconstruction of the neck with two rotation-advancement platysma myocutaneous flaps. Zimman OA. **Plast Reconstr Surg** 1999 May;103(6):1712–4

Treatment of severe actinic rectitis. Rossi BM, et al. **Rev Paul Med** 1998 Jan-Feb;116(1):1629–33

Gastrocystoplasty in a woman with radiation-induced ureteral obstruction and low-compliance bladder. Yashi M, et al. **Urol Int** 1998 Oct;61(1):55–7

[Endoscopic treatment of refractory hemorrhagic and ulcerated radiation proctitis by a new electrocoagulation technique] Maroy B. **Gastroenterol Clin Biol** 1998 May; 22(5):556–7 **(Fre)**

[Angulation deformity of a finger after local radiotherapy] Bocquet G, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):373–6 (Eng. Abstr.) **(Fre)**

[Duodeno-caval fistula: a rare cause of upper gastrointestinal hemorrhage] Runkel N, et al. **Chirurg** 1998 Aug;69(8):883–6 (22 ref.) (Eng. Abstr.) **(Ger)**

[Actinic brachial plexus lesion] Tairych G, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):254–7 (Eng. Abstr.) **(Ger)**

[Plastic reconstruction of the irradiated thoracic wall] Vogt PM, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:507–11 (Eng. Abstr.) **(Ger)**

[Gastrocystoplasty for severely contracted bladder following high dose pelvic irradiation: a case report] Yashi M, et al. **Hinyokika Kiyo** 1998 Aug;44(8):603–6 (Eng. Abstr.) **(Jpn)**

THERAPY

Treatment of a radiation-induced sigmoid stricture with an expandable metal stent. Yates MR 3rd, et al. **Gastrointest Endosc** 1999 Sep;50(3):422–6

A pilot study of the effect of granulocyte-macrophage colony-stimulating factor on oral mucositis in head and neck cancer patients during X-radiation therapy: a preliminary report. Nicolatou O, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):551–6

Management of chronic radiation enteritis: our experience [letter] Darsini CP, et al. **Natl Med J India** 1999 May-Jun; 12(3):140–1

The effect of granulocyte colony-stimulating factor on oral mucositis in head and neck cancer patients treated with hyperfractionated radiotherapy. Mascarin M, et al. **Oral Oncol** 1999 Mar;35(2):203–8

Treatment of cerebral radionecrosis by hyperbaric oxygen therapy. Leber KA, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:229–36

Modern therapy of chronic wounds with respect to radiation. Frank J, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:69–73 (26 ref.)

Management of radiation injuries of vulva and vagina. Fraunholz IB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:90–2 (29 ref.)

Management of postoperative radiation injury of the urinary bladder by hyperbaric oxygen (HBO). Peusch-Dreyer D, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:99–100

The treatment of late radiation effects with hyperbaric oxygenation (HBO). Plafki C, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:66–8 (30 ref.)

Therapy and prophylaxis of acute and late radiation-induced sequelae of the esophagus. Zimmermann FB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:78–81 (30 ref.)

Pharmacological management of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:62–5 (43 ref.)

Hyperbaric oxygen treatment for symptomatic breast edema after radiation therapy. Carl UM, et al. **Undersea Hyperb Med** 1998 Winter;25(4):233–4

[Non-surgical treatment of chronic radiation proctitis] de Parades V, et al. **Gastroenterol Clin Biol** 1998 Aug-Sep; 22(8-9):688–96 (88 ref.) **(Fre)**

[Patient treatment in radiation accidents] Tanum G, et al. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1446–50 (21 ref.) (Eng. Abstr.) **(Nor)**

[Homeopathic therapy of chronic prostatitis in participants of the Chernobyl AES accident clean-up] Klimenko PM. **Klin Khir** 1998;(12):43–5 (Eng. Abstr.) **(Rus)**

[Experience in the use of a method of intracutaneous oxygen and zonal reflexotherapy in the practical treatment and rehabilitation of persons who suffered as a consequence of the accident at the Chernobyl Atomic Electric Power Station] Babitskiĭ EL, et al. **Lik Sprava** 1999 Apr-May; (3):155–7 **(Rus)**

[The use of bee and plant products in the treatment and rehabilitation of subjects exposed to the effect of ionizing radiation] Moroz HZ, et al. **Lik Sprava** 1998 Jul-Aug; (5):60–2 (Eng. Abstr.) **(Ukr)**

[The use of reflexotherapy in the initial forms of cerebrovascular insufficiency in persons who suffered as a consequence of the accident at the Chernobyl Atomic Electric Power Station] Shcherbatyĭ AA, et al. **Lik Sprava** 1999 Apr-May;(3):151–5 (Eng. Abstr.) **(Ukr)**

ULTRASONOGRAPHY

Sonographic detection of uterine and ovarian abnormalities in female survivors of Wilms' tumor treated with radiotherapy. Nussbaum Blask AR, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):759–63

Ultrasound B-mode changes in the uterus and ovaries and Doppler changes in the uterus after total body irradiation and allogeneic bone marrow transplantation in childhood. Holm K, et al. **Bone Marrow Transplant** 1999 Feb; 23(3):259–63

[The assessment of the status of the cardiovascular system in people who were victims as a result of the accident at the Chernobyl Atomic Electric Power Station (based on ultrasonic diagnostic data)] Zaburʹianova VIu, et al. **Lik Sprava** 1998 Dec;(8):30–3 (Eng. Abstr.) **(Ukr)**

VETERINARY

An accelerated technique for irradiation of malignant canine nasal and paranasal sinus tumors. Adams WM, et al. **Vet Radiol Ultrasound** 1998 Sep-Oct;39(5):475–81 (23 ref.)

The physiologic response of domestic animals to ionizing radiation: a review. von Zallinger C, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):495–503 (49 ref.)

[Chronic damage in domestic animals after ionizing radiation (review)] von Zallinger C, et al. **Berl Munch Tierarztl Wochenschr** 1998 Nov-Dec; 111(11-12):457–63 (45 ref.) (Eng. Abstr.) **(Ger)**

RADIATION INJURIES, EXPERIMENTAL

Developing laser-induced glaucoma in rabbits. Johnson B, et al. **Aust N Z J Ophthalmol** 1999 Jun-Aug;27(3-4):180-3

Induction of genetic instability by ionizing radiation. Little JB. **C R Acad Sci III** 1999 Feb-Mar;322(2-3):127-34

Repair of ionizing radiation damage in mammalian cells. Alternative pathways and their fidelity. Thacker J. **C R Acad Sci III** 1999 Feb-Mar;322(2-3):103-8

Photoreceptor cell damage by light in young Royal College of Surgeons rats. Organisciak DT, et al. **Curr Eye Res** 1999 Aug;19(2):188-96

Biochemical indicators of whole-body gamma-radiation effects in the pig. Donnadieu-Claraz M, et al. **Int J Radiat Biol** 1999 Feb;75(2):165-74

Upregulation of vascular endothelial growth factor is associated with radiation-induced blood-spinal cord barrier breakdown. Tsao MN, et al. **J Neuropathol Exp Neurol** 1999 Oct;58(10):1051-60

Rodent carcinogenicity studies on magnetic fields [comment] Schwetz B. **Toxicol Pathol** 1999 May-Jun;27(3):286. Comment on: Toxicol Pathol 1999 May-Jun;27(3):267-78. Comment on: Toxicol Pathol 1999 May-Jun;27(3):279-85.

[Post-radiation communicative induction of blood and immunity disorders] Surinov BP, et al. **Patol Fiziol Eksp Ter** 1998 Jul-Sep;(3):7-10 (Eng. Abstr.) **(Rus)**

[Experimental assessment of adaptive possibilities after chronic prenatal exposure to gamma irradiation at various absorbed doses] Izmest'eva OS, et al. **Radiats Biol Radioecol** 1998 Nov-Dec;38(6):826-32 (Eng. Abstr.) **(Rus)**

[Effects of low doses of ionizing radiation and induced hypothyroidism on the course of pregnancy and the development of the offspring in rats] Izmest'eva OS, et al. **Radiats Biol Radioecol** 1998 Nov-Dec;38(6):833-40 (Eng. Abstr.) **(Rus)**

[Mechanism of the etiology of dyspeptic disorders during the period of primary reaction after exposure to high-dose ionizing radiation] Martirosov KS, et al. **Radiats Biol Radioecol** 1998 Nov-Dec;38(6):819-25 (Eng. Abstr.) **(Rus)**

BLOOD

[Evaluation of individual radiation resistance of rats based on reactions to non-radiation testing] Shtemberg AS, et al. **Aviakosm Ekolog Med** 1998;32(5):40-5 (Eng. Abstr.) **(Rus)**

[Comparative characteristics of lipids, lipoproteins and free radical processes in blood of rabbits after ionizing irradiation and dietary cholesterol administration] Chobotko GM. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):535-41 (Eng. Abstr.) **(Rus)**

[Fluorescent spectral study of synthetic activity of animal blood lymphocytes under continuous gamma-irradiation] Karnaukhova NA, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):552-9 (Eng. Abstr.) **(Rus)**

[Quantitative characteristics of radiation sickness clinical manifestations in large-sized laboratory animals exposed to extra-lethal radiation doses. The endocrine system reactions in dogs and monkeys] Korotkevich AO. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):522-34 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Early detection of radiation-induced liver injury in rat by superparamagnetic iron oxide-enhanced MR imaging. Morimoto N, et al. **J Magn Reson Imaging** 1999 Apr; 9(4):573-8

DIET THERAPY

[Food fibers--blockers and decontaminants of the radionuclides cesium and strontium] Shchelkunov LF, et al. **Gig Sanit** 1999 Mar-Apr;(2):40-4 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Protective effects of 5,6,7,8-tetrahydroneopterin against X-ray radiation injury in mice. Yasumura M, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):378-84

Radiation-induced enterocolitis: basic and applied science. Szabo S, et al. **Eur J Surg Suppl** 1998;(582):85-9

Granulocyte colony-stimulating factor administered as a single intraperitoneal injection modifies the lethal dose95/30 in irradiated B6D2F1 mice [letter] Sureda A, et al. **Haematologica** 1998 Sep;83(9):863-4

Brief pharmacological intervention in experimental radiation nephropathy. Moulder JE, et al. **Radiat Res** 1998 Nov; 150(5):535-41

[Antitoxic features of magnesium oxide under combined radiation and thermal injury] Nesterenko VS, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):591-4 (Eng. Abstr.) **(Rus)**

[Experimental substantiation of the use of cytokines in acute radiation disease] Rogacheva SA. **Radiats Biol Radioecol** 1998 Nov-Dec;38(6):854-73 (203 ref.) (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

[Post-irradiation changes in blood 5'-nucleotidase activity of rats after chronic exposure to gamma irradiation] Iakubovskii SM, et al. **Radiats Biol Radioecol** 1998 Nov-Dec;38(6):806-12 (Eng. Abstr.) **(Rus)**

ETIOLOGY

Dose-response function for lens forward light scattering after in vivo exposure to ultraviolet radiation. Michael R, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):625-9

Observation of ultrastructural changes in cultured retinal pigment epithelium following exposure to blue light. Pang J, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep; 236(9):696-701

Late ophthalmological complications after total body irradiation in non-human primates. Niemer-Tucker MM, et al. **Int J Radiat Biol** 1999 Apr;75(4):465-72

Late effects of intraoperative radiation therapy in anastomotic rat colon. Seifert WF, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):623-9

Increased susceptibility to constant light in nr and pcd mice with inherited retinal degenerations. LaVail MM, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):1020-4

Thermal effect on corneal incisions with different phacoemulsification ultrasonic tips. Bissen-Miyajima H, et al. **J Cataract Refract Surg** 1999 Jan;25(1):60-4

Angiotensin II infusion exacerbates radiation nephropathy. Cohen EP, et al. **J Lab Clin Med** 1999 Sep;134(3):283-91

Retinal cell death by light damage. Aonuma H, et al. **Jpn J Ophthalmol** 1999 May-Jun;43(3):171-9

Testicular changes in newborn rats exposed to phototherapy. Koç H, et al. **Pediatr Dev Pathol** 1999 Jul-Aug;2(4):333-6

Changes in transforming growth factor beta1 gene expression and immunoreactivity levels during development of chronic radiation enteropathy. Hauer-Jensen M, et al. **Radiat Res** 1998 Dec;150(6):673-80

Chronic toxicity/oncogenicity evaluation of 60 Hz (power frequency) magnetic fields in F344/N rats [see comments] Boorman GA, et al. **Toxicol Pathol** 1999 May-Jun; 27(3):267-78. Comment in: Toxicol Pathol 1999 May-Jun;27(3):286.

Chronic toxicity/oncogenicity evaluation of 60 Hz (power frequency) magnetic fields in B6C3F1 mice [comment] McCormick DL, et al. **Toxicol Pathol** 1999 May-Jun; 27(3):279-85. Comment on: Toxicol Pathol 1999 May-Jun;27(3):286.

[The modelling of local radiation injuries to the skin] Zviahintseva TV. **Fiziol Zh** 1998;44(5-6):106-12 (Eng. Abstr.) **(Ukr)**

GENETICS

Chromosomes in the assessment of the effects of low levels of genotoxic agents. Leonard Sagan BELLE Award. Biological Effects of Low Level Exposure. Wolff S. **Hum Exp Toxicol** 1998 Nov;17(11):625-32 (39 ref.)

Modelling radiation-induced biological lesions: from initial energy depositions to chromosome aberrations. Ottolenghi A, et al. **Radiat Environ Biophys** 1999 May;38(1):1-13 (76 ref.)

IMMUNOLOGY

Expression and function of Fas on cells damaged by gamma-irradiation in B6 and B6/lpr mice. Booker JK, et al. **J Immunol** 1998 Nov 1;161(9):4536-41

TNF alpha and IL-1beta mediate intercellular adhesion molecule-1 induction via microglia-astrocyte interaction in CNS radiation injury. Kyrkanides S, et al. **J Neuroimmunol** 1999 Mar 1;95(1-2):95-106

[Natural antihistone antibodies: their possible role in genesis of radiation injuries] Abakushin DN, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):560-4 (Eng. Abstr.) **(Rus)**

METABOLISM

Cellular sources of transforming growth factor-beta isoforms in early and chronic radiation enteropathy. Wang J, et al. **Am J Pathol** 1998 Nov;153(5):1531-40

FGF-2 enhances intestinal stem cell survival and its expression is induced after radiation injury. Houchen CW, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G249-58

Cellular response and reactive hyaluronan production in UV-exposed rabbit corneas. Podskochy A, et al. **Cornea** 1998 Nov;17(6):640-5

Influence of UVA light stress on photoreceptor cell metabolism: decreased rates of rhodopsin regeneration and opsin synthesis. Rapp LM, et al. **Exp Eye Res** 1999 Jun; 68(6):757-64

TGF-beta 1 production in radiation nephropathy: role of angiotensin II. Datta PK, et al. **Int J Radiat Biol** 1999 Apr; 75(4):473-9

Upregulation and spatial shift in the localization of the mannose 6-phosphate/insulin-like growth factor II receptor during radiation enteropathy development in the rat. Wang J, et al. **Radiother Oncol** 1999 Feb;50(2):205-13

[Effects of different components of serum from radiation, burn and combined radiation-burn injury on L-type calcium channel of cultured myocardial cells] Ye B, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):231-4 (Eng. Abstr.) **(Chi)**

[Inhibiting effect of phenytoin on nitric oxide production in tissues of gamma-irradiated mice] Konopliannikov AG, et al. **Biull Eksp Biol Med** 1999 Jun;127(6):648-50 **(Rus)**

[Fatty acids metabolism of rat liver after extra-lethal gamma-irradiation] Markevich LN. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):542-6 (Eng. Abstr.) **(Rus)**

[Change in urea-forming function of rat liver in the acute and recovery period after radiation exposure] Mardashko AA, et al. **Ukr Biokhim Zh** 1998 Mar-Apr;70(2):65-71 (Eng. Abstr.) **(Rus)**

[The effect of food products with an elevated radionuclide level on the blood and urine indices in rats] Nazarchuk LV, et al. **Fiziol Zh** 1999;45(1-2):114-8 (Eng. Abstr.) **(Ukr)**

MORTALITY

Correlation of increased mortality with the suppression of radiation-inducible microsomal epoxide hydrolase and glutathione S-transferase gene expression by dexamethasone: effects on vitamin C and E-induced radioprotection. Nam SY, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1295-304

Survival and projection analyses of the effect of radiation on beagle dogs. Lao CS. **J Biopharm Stat** 1998 Nov; 8(4):619-33

PATHOLOGY

Stromal thermal effects induced by nonmechanical (2.94-mum) erbium:YAG laser corneal trephination. Behrens A, et al. **Arch Ophthalmol** 1998 Oct;116(10):1342-8

The influence of dose per fraction on the pathogenesis of radiation nephropathy. Yildiz F, et al. **Australas Radiol** 1998 Nov;42(4):347-53

Observation of ultrastructural changes in cultured retinal pigment epithelium following exposure to blue light. Pang J, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep; 236(9):696-701

Morphological brain asymmetries in male mice with callosal defects due to prenatal gamma irradiation. Caparelli-Daquer EM, et al. **Int J Dev Neurosci** 1999 Feb; 17(1):67-77

Late pathologic changes in guinea pig kidneys irradiated with conventional fractionation and hyperfractionation. Inomata T, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1; 44(1):171-7

Apoptosis in the rat lens after in vivo threshold dose ultraviolet irradiation. Michael R, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2681-7

Monitoring radiation-induced changes in bone marrow histopathology with ultra-small superparamagnetic iron oxide (USPIO)-enhanced MRI. Daldrup HE, et al. **J Magn Reson Imaging** 1999 May;9(5):643-52

Contrast-enhanced MR imaging of two superparamagnetic RES-contrast agents: functional assessment of experimental radiation-induced liver injury. Stiskal M, et al. **J Magn Reson Imaging** 1999 Jul;10(1):52-6

Study on the protective effects of compound blood-activating soup on bone marrow hematopoietic cells in acute radiation injured mice. Liu W, et al. **J Tongji Med Univ** 1997;17(4):225-8

Reversible irritative effect of acute 2.45GHz microwave exposure on rabbit eyes--a preliminary evaluation. Saito K, et al. **J Toxicol Sci** 1998 Aug;23(3):197-203

Histologic and physiologic effects of electrocautery, CO2 laser, and radiofrequency injury in the porcine soft palate. Courey MS, et al. **Laryngoscope** 1999 Aug;109(8):1316-9

Radiation induced endothelial cell retraction in vitro: correlation with acute pulmonary edema. Onoda JM, et al. **Pathol Oncol Res** 1999;5(1):49-55

Reduced mucosal perianastomotic capillary density in rat small intestine with chronic radiation damage. Jahnson S, et al. **Radiat Res** 1998 Nov;150(5):542-8

In vivo electrical impedance spectroscopic monitoring of the progression of radiation-induced tissue injury. Paulsen KD, et al. **Radiat Res** 1999 Jul;152(1):41-50

[Effects of composite blood-activating decoction on adhesive function of bone marrow stroma cells in radiation injured mice] Liu WL, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jun; 17(6):354-5 (Eng. Abstr.) **(Chi)**

[Quantifying the damage to conjunctival and corneal cell cultures caused by uv light using CASY (Cell Analysis System). A method for reducing animal experiments] Schmut O, et al. **Ophthalmologe** 1999 Jun;96(6):375-81 (Eng. Abstr.) **(Ger)**

[Kinetics of hematopoietic clones in sublethally irradiated mice] Ol'shanskaia IuV, et al. **Biull Eksp Biol Med** 1999 Jun;127(6):693-6 **(Rus)**

[Mitochondrial megaconia and pleioconia in the rat brain as possible and adaptive reactions in lethal radiation and radio-modified injuries] Zabolotskii NN, et al. **Morfologiia** 1999;115(3):27-31 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Radiation-induced blood-brain barrier changes: pathophysiological mechanisms and clinical implications. d'Avella D, et al. **Acta Neurochir Suppl (Wien)** 1998; 71:282-4

Nitric oxide and radiation enteritis. Erbil Y, et al. **Eur J Surg** 1998 Nov;164(11):863-8

Radiation-induced normal tissue injury: role of adhesion molecules in leukocyte-endothelial cell interactions. Quarmby S, et al. **Int J Cancer** 1999 Jul 30;82(3):385-95

(101 ref.)
Lack of causal relationship between clusterin expression and photoreceptor apoptosis in light-induced retinal degeneration. Jomary C, et al. **J Neurochem** 1999 May; 72(5):1923–9
Recombinant growth hormone's effects on the strength and thickness of radiation-injured ileal anastomoses: a rat model. Silver DF, et al. **J Surg Res** 1999 Jul;85(1):66–70
Study on oxygen supply and protection of bone marrow in acute radiation injured mice. Sun H, et al. **J Tongji Med Univ** 1997;17(4):229–31, 243
Small intestinal dysmotility following abdominal irradiation in the rat small intestine. Fraser R, et al. **Neurogastroenterol Motil** 1998 Oct;10(5):413–9
Pathogenesis of acute radiation effects in the urinary bladder. Experimental results. Dörr W, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:93–5

PREVENTION & CONTROL

Restorative effect of Coriolus versicolor polysaccharides against gamma-irradiation-induced spleen injury in mice. Lin IH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar; 17(2):102–4
Blockade of CD40-CD40 ligand interactions protects against radiation-induced pulmonary inflammation and fibrosis. Adawi A, et al. **Clin Immunol Immunopathol** 1998 Dec; 89(3):222–30
The effect of verapamil in the prevention of radiation-induced cataract. Cengiz M, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):623–6
Beneficial effects of the radioprotectant 21-aminosteroid U-74389G in a radiosurgery rat malignant glioma model. Kondziolka D, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):179–84
Preservation of the rat parotid gland function after radiation by prophylactic pilocarpine treatment: radiation dose dependency and compensatory mechanisms. Roesink JM, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):483–9
The melatonin antagonist luzindole protects retinal photoreceptors from light damage in the rat. Sugawara T, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2458–65
Sparing radiation-induced damage to the physis by radioprotectant drugs: laboratory analysis in a rat model. Tamurian RM, et al. **J Orthop Res** 1999 Mar;17(2):286–92
Caffeine protects mice against whole-body lethal dose of gamma-irradiation. George KC, et al. **J Radiol Prot** 1999 Jun;19(2):171–6
Protection against UVB inactivation (in vitro) of rat lens enzymes by natural antioxidants. Reddy GB, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):41–5
Radioprotection of the intestinal mucosa of rats by probucol. Bonsack ME, et al. **Radiat Res** 1999 Jan;151(1):69–73
In vivo radioprotection by ocimum flavonoids: survival of mice. Uma Devi P, et al. **Radiat Res** 1999 Jan;151(1):74–8
Hormone pretreatment enhances recovery of spermatogenesis in rats after neutron irradiation. Wilson G, et al. **Radiat Res** 1999 Jul;152(1):51–6
Radioprotective effects of 2-(allylthio)pyrazine an experimental chemopreventive agent: effects on detoxifying enzyme induction. Kim SG, et al. **Res Commun Mol Pathol Pharmacol** 1998 Sep; 101(3):275–88
Effects of Venoruton on early postradiation damage in the lungs of rats. Staroslawska E, et al. **Rocz Akad Med Bialymst** 1998;43:95–109
[Pearl and mother-of-pearl powder in health-care] Cao G, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Oct; 21(10):635–8 inside back cover (Eng. Abstr.) **(Chi)**
[Effect of the dietary vitamin concentrate Ammivit on survival of irradiated BALB/c mice] Zolotareva NN, et al. **Dokl Akad Nauk** 1998 Jul;361(2):272–4 **(Rus)**
[Radiation protective agents effective in a wide range of radiation dosages] Rasina LN, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):223–6 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

Delayed vascular injury after single high-dose irradiation in the rat brain: histologic immunohistochemical, and angiographic studies. Münter MW, et al. **Radiology** 1999 Aug;212(2):475–82

RADIOTHERAPY

[The state of thymus and bone marrow cells after long-term exposure to pulsed infrared laser irradiation of locally irradiated and injured skeletal muscle of rats] Zubkova SM, et al. **Dokl Akad Nauk** 1999 Mar;365(1):132–4 **(Rus)**

THERAPY

Histologic and physiologic effects of electrocautery, CO2 laser, and radiofrequency injury in the porcine soft palate. Courey MS, et al. **Laryngoscope** 1999 Aug;109(8):1316–9
[Therapeutic effect of ultraviolet irradiation of autologous blood in early period of acute radiation sickness] Apollonova LA, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):287–92 (Eng. Abstr.) **(Rus)**

RADIATION, IONIZING

Characteristics of the healthy survivor effect among male and female Hanford workers. Baillargeon J, et al. **Am J Ind Med** 1999 Apr;35(4):343–7
Possible discrepancies between dicentric chromosome frequencies and recorded ionizing radiation doses: in vivo study. Kubelka D, et al. **Am J Ind Med** 1999 Oct; 36(4):469–74
Defining functional domains of Ku80: DNA end binding and survival after radiation. Osipovich O, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):802–7
Life science applications of focused ion beams (FIB). Ballerini M, et al. **Eur J Histochem** 1997;41 Suppl 2:89–90
Research of the adaptive response induced by low-dose radiation: where have we been and where should we go? Cai L. **Hum Exp Toxicol** 1999 Jul;18(7):419–25 (52 ref.)
The role of adaptive responses following exposure to ionizing radiation. Feinendegen LE. **Hum Exp Toxicol** 1999 Jul; 18(7):426–32 (37 ref.)
Radioadaptive response: responses to the five questions. Ikushima T. **Hum Exp Toxicol** 1999 Jul;18(7):433–5 (15 ref.)
Radiation exposure and adaptive processes. Mossman KL, et al. **Hum Exp Toxicol** 1999 Jul;18(7):436–9
Adaptive response and its relationship to hormesis and low dose cancer risk estimation. Olivieri G. **Hum Exp Toxicol** 1999 Jul;18(7):440–2 (21 ref.)
The adaptive response to ionizing radiation: low dose effects unpredictable from high dose experiments. Rigaud O. **Hum Exp Toxicol** 1999 Jul;18(7):443–6 (20 ref.)
Perspectives on the adaptive response from studies on the response to low radiation doses (or to cisplatin) in mammalian cells. Skov KA. **Hum Exp Toxicol** 1999 Jul; 18(7):447–51 (36 ref.)
Adaptive response induced by low levels of radiation. Summary and comments. Waldren CA. **Hum Exp Toxicol** 1999 Jul;18(7):452–3
Greater sensitivity to ionizing radiation at older age: follow-up of workers at Oak Ridge National Laboratory through 1990. Richardson DB, et al. **Int J Epidemiol** 1999 Jun;28(3):428–36
Radiation-induced genomic instability. Little JB. **Int J Radiat Biol** 1998 Dec;74(6):663–71 (26 ref.)
Variations in the frequency of T-cell receptor beta/gamma-interlocus recombination in long-term cultures of non-irradiated and X- and gamma-irradiated human lymphocytes. Meydan D, et al. **Int J Radiat Biol** 1998 Dec;74(6):697–703
Expression of delayed toxicity and lethal mutations in the progeny of human cells surviving exposure to radiation and other environmental mutagens. Mothersill C, et al. **Int J Radiat Biol** 1998 Dec;74(6):673–80
The incidence of cytogenetically abnormal rogue cells in peripheral blood. Mustonen R, et al. **Int J Radiat Biol** 1998 Dec;74(6):781–5
Studies of bystander effects in human fibroblasts using a charged particle microbeam. Prise KM, et al. **Int J Radiat Biol** 1998 Dec;74(6):793–8
Manifestations and mechanisms of radiation-induced genomic instability in V-79 Chinese hamster cells. Trott KR, et al. **Int J Radiat Biol** 1998 Dec;74(6):787–91
Exposure of the surgeon to radiation during surgery. Fuchs M, et al. **Int Orthop** 1998;22(3):153–6
Development of a sterile cold-smoked fish model. Joffraud JJ, et al. **J Appl Microbiol** 1998 Dec;85(6):991–8
How radiation-specific is the dicentric assay? Hoffmann W, et al. **J Expo Anal Environ Epidemiol** 1999 Mar–Apr; 9(2):113–33
Transgenerational carcinogenesis in mice [news] Tawn EJ. **J Radiol Prot** 1998 Dec;18(4):302
The report of the French Academy of Science: 'Problems associated with the effects of low doses of ionising radiation'. Tubiana M. **J Radiol Prot** 1998 Dec;18(4):243–8
Proposition: radiation hormesis should be elevated to a position of scientific respectability [see comments] Cameron JR, et al. **Med Phys** 1998 Aug;25(8):1407–10. Comment in: Med Phys 1998 Dec;25(12):2476.
Induction of p53 protein as a marker for ionizing radiation exposure in vivo. MacCallum DE, et al. **Methods Mol Biol** 1999;113:583–9
Ionizing radiation and genetic risks IX. Estimates of the frequencies of mendelian diseases and spontaneous mutation rates in human populations: a 1998 perspective. Sankaranarayanan K. **Mutat Res** 1998 Sep;411(2):129–78 (285 ref.)
Ionizing radiation and genetic risks. X. The potential "disease phenotypes" of radiation-induced genetic damage in humans: perspectives from human molecular biology and radiation genetics. Sankaranarayanan K. **Mutat Res** 1999 Aug 11;429(1):45–83 (266 ref.)
Time resolving ionization monitor for microsecond radiation impulses [see comments] Balk OA, et al. **Phys Med Biol** 1998 Oct;43(10):3129–37. Comment in: Phys Med Biol 1999 Feb;44(2):L1–2.
Perturbation corrections for flat and thimble-type cylindrical standard ionization chambers for 60Co gamma rays: Monte Carlo calculations. Ferreira IH, et al. **Phys Med Biol** 1998 Oct;43(10):2721–7
An experimental investigation of the tongue and groove effect for the Philips multileaf collimator. Sykes JR, et al. **Phys Med Biol** 1998 Oct;43(10):3157–65
Quantitative modelling of DNA damage using Monte Carlo track structure method. Nikjoo H, et al. **Radiat Environ Biophys** 1999 May;38(1):31–8
Atomic force microscopy investigation of radiation-induced DNA double strand breaks. Pang D, et al. **Scanning Microsc** 1996;10(4):1105–9; discussion 1109–10
NRC pulled into radiation risk brawl [news] Kaiser J. **Science** 1999 Jul 9;285(5425):177–8
Plant genotoxicity. Peters R, et al. **Science** 1998 Dec 18; 282(5397):2214
Childhood and adult cancer after intrauterine exposure to ionizing radiation. Boice JD Jr, et al. **Teratology** 1999 Apr; 59(4):227–33 (60 ref.)
Utilization of developmental basic science principles in the evaluation of reproductive risks from pre- and postconception environmental radiation exposures. Brent RL. **Teratology** 1999 Apr;59(4):182–204 (125 ref.)
Long-term genetic and reproductive effects of ionizing radiation and chemotherapeutic agents on cancer patients and their offspring. Byrne J. **Teratology** 1999 Apr; 59(4):210–5 (30 ref.)
A personal story about pregnancy radiation risk counseling. Joerg NE. **Teratology** 1999 Apr;59(4):314–5
Changing perspectives on the genetic doubling dose of ionizing radiation for humans, mice, and Drosophila. Neel JV. **Teratology** 1999 Apr;59(4):216–21 (35 ref.)
Cognitive function and prenatal exposure to ionizing radiation. Schull WJ, et al. **Teratology** 1999 Apr;59(4):222–6 (35 ref.)
The physiologic response of domestic animals to ionizing radiation: a review. von Zallinger C, et al. **Vet Radiol Ultrasound** 1998 Nov–Dec;39(6):495–503 (49 ref.)
[Interactions of carboplatin, cisplatin, and ionizing radiation on a human cell line of ovarian cancer] Scalliet P, et al. **Cancer Radiother** 1999 Jan–Feb;3(1):30–8 (Eng. Abstr.) **(Fre)**
[Health risks of ionizing radiation] Schneider G, et al. **Radiologe** 1998 Sep;38(9):719–25 (Eng. Abstr.) **(Ger)**
[A new possibility for enhancing natural immunity: a radiation-detoxified endotoxin] Bertók L. **Orv Hetil** 1999 Apr 11;140(15):819–27 (50 ref.) (Eng. Abstr.) **(Hun)**
[Impact of secondary irradiation on operators during coronary arteriography] Ramirez A, et al. **Rev Med Chil** 1998 Jun;126(6):615–21 (Eng. Abstr.) **(Spa)**

RADIATION MONITORING

Individual monitoring for internal exposure of workers replacement of ICRP publication 54. **Ann ICRP** 1997; 27(3–4):i–x, 1–161
Cancer mortality in relation to monitoring for radionuclide exposure in three UK nuclear industry workforces. Carpenter LM, et al. **Br J Cancer** 1998 Nov;78(9):1224–32
Fixation monitoring during radiation therapy for subfoveal neovascularization. Eter N, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov; 236(11):806–10
Intakes of thorium while using thoriated tungsten electrodes for TIG welding. Ludwig T, et al. **Health Phys** 1999 Oct; 77(4):462–9
Neyman-Pearson confidence intervals for extreme low-level, paired counting. Potter WE. **Health Phys** 1999 Feb; 76(2):186–90
The monitoring of contaminated impervious planar surfaces. Green S, et al. **J Radiol Prot** 1999 Mar;19(1):45–9
Calculated public doses from 39 years of emission from Studsvik. Hedvall R. **J Radiol Prot** 1999 Sep;19(3):271–3
Cytogenetic analysis of peripheral blood lymphocytes of occupational workers exposed to low levels of ionising radiation. Balakrishnan S, et al. **Mutat Res** 1999 Jun 7; 442(1):37–42
[Reduction of radiation exposure in PET examinations by data acquisition in the 3D mode] Brix G, et al. **Nuklearmedizin** 1999 Apr;38(3):75–9 (Eng. Abstr.) **(Ger)**

INSTRUMENTATION

Variability of radiation output dynamic range in modern cardiac catheterization imaging systems. Holmes DR, et al. **Cathet Cardiovasc Diagn** 1998 Aug;44(4):443–8
Measurement of surface alpha contamination using electret ion chambers. Dua SK, et al. **Health Phys** 1999 Jun; 76(6):664–74
In-situ Object Counting System. Kasper K. **Health Phys** 1999 Jul;77(1):5–8
Long-range alpha detection. Kasper K. **Health Phys** 1998 Dec;75(6):572–3
Analysis of electret ion chamber radon detector response to 222Rn and interference from background gamma radiation. Usman S, et al. **Health Phys** 1999 Jan;76(1):44–9
Assessment of need for transport tubes when continuously monitoring for radioactive aerosols. Whicker JJ, et al. **Health Phys** 1999 Sep;77(3):322–7
Intracoronary brachytherapy in the Cath Lab. Physics dosimetry, technology and safety considerations. Waksman R. **Herz** 1998 Sep;23(6):401–6 (18 ref.)
A selective Pt-CdS photodiode to monitor erythemal flux. Richards DL, et al. **J Photochem Photobiol B** 1998 Nov; 47(1):22–30
An IPSM sponsored intercomparison of surface contamination monitoring test results. Burgess PH, et al. **J Radiol Prot** 1998 Dec;18(4):287–92
Intercomparison of effective erythemal irradiance measurements from two types of broad-band instruments during June 1995. Wengraitis S, et al.

Photochem Photobiol 1998 Aug;68(2):179–82

Low monitor units: significance in special therapy [letter; comment] Das IJ, et al. **Phys Med Biol** 1999 Feb;44(2):L1–2 . Comment on: Phys Med Biol 1998 Sep;43(9):2665–75. Comment on: Phys Med Biol 1998 Oct;43(10):3129–37. Comment on: Phys Med Biol 1998 Oct;43(10):3139–43.

Personal monitoring of 218Po and 214Po radionuclide deposition onto individuals under normal environmental exposure conditions. Eatough JP, et al. **Phys Med Biol** 1999 Sep;44(9):2227–39

Radiation detectors in nuclear medicine. Ranger NT. **Radiographics** 1999 Mar–Apr;19(2):481–502 (6 ref.)

[Device for three-dimensional measuring and frequency analysis of electric and magnetic fields] Eichmeier J, et al. **Biomed Tech (Berl)** 1998;43 Suppl:274–5 **(Ger)**

[Refinement of technique for cosmonaut's body radiation loading estimation using of orbital station dosimetric monitoring system] Bengin VV, et al. **Aviakosm Ekolog Med** 1998;32(5):63–9 (Eng. Abstr.) **(Rus)**

[Dynamics of radiation environment of space station "Mir" by the "DOZA-A1" readings] Chernykh IV, et al. **Aviakosm Ekolog Med** 1998;32(5):51–7 (Eng. Abstr.) **(Rus)**

LEGISLATION & JURISPRUDENCE

Causes of excessive bitewing exposure: results of a survey regarding radiographic equipment in New York. Button TM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):513–7

METHODS

Radon and lung cancer: a cost-effectiveness analysis. Ford ES, et al. **Am J Public Health** 1999 Mar;89(3):351–7

A sub-boiling distillation method for the preparation of low carbon content water from urine samples for tritium measurement by liquid scintillation counting. Nogawa N, et al. **Appl Radiat Isot** 1999 Jun;50(6):985–8

Estimating minimum detectable concentrations achievable while scanning building surfaces and land areas. Abelquist EW, et al. **Health Phys** 1999 Jan;76(1):3–10

Implementation of ICP-MS protocols for uranium urinary measurements in worker monitoring. Baglan N, et al. **Health Phys** 1999 Oct;77(4):455–61

Radon emanation of building material--impact of back diffusion and difference between one-dimensional and three-dimensional tests. Chao CY, et al. **Health Phys** 1999 Jun;76(6):675–81

Contribution of 137Cs to the total absorbed gamma dose rate in air in a Greek forest ecosystem: measurements and Monte Carlo computations. Clouvas A, et al. **Health Phys** 1999 Jan;76(1):36–43

Comment on article by Haskell, Hayes, and Kenner [letter] Desrosiers MF, et al. **Health Phys** 1999 Oct;77(4):470–5

An EPR dosimetry method for rapid scanning of children following a radiation accident using deciduous teeth. Haskell EH, et al. **Health Phys** 1999 Feb;76(2):137–44

Survey of 222Rn concentrations in the air of a tunnel located in Nagano City using the solid-state nuclear track detector method. Muramatsu H, et al. **Health Phys** 1999 Jul; 77(1):43–51

A non-destructive method to determine the depth of radionuclides in materials in-situ. Naessens EP, et al. **Health Phys** 1999 Jul;77(1):76–88

Radon exhalation rates and gamma doses from ceramic tiles. O'Brien RS, et al. **Health Phys** 1998 Dec;75(6):630–9

The usability of wood as a volume trap for the purpose of retrospective radon exposure assessment. Paridaens J, et al. **Health Phys** 1999 Jun;76(6):657–63

Tritium dose overestimates by CAP88-PC. Parks BS. **Health Phys** 1999 Feb;76(2 Suppl):S37–8

Prediction of in vivo background in phoswich lung count spectra. Richards NW. **Health Phys** 1999 May;76(5):524–31

Comparison of four 90Sr groundwater analytical methods. Scarpitta S, et al. **Health Phys** 1999 Jun;76(6):644–56

Adding water to liquid scintillation cocktail for laboratory wipe tests. Sturchio GM, et al. **Health Phys** 1999 Feb;76(2 Suppl):S32–6

Optimization of radon measurements with active charcoal. Urošević V, et al. **Health Phys** 1999 Jun;76(6):687–91

Real-time measurement of radiation exposure to patients during diagnostic coronary angiography and percutaneous interventional procedures. Cusma JT, et al. **J Am Coll Cardiol** 1999 Feb;33(2):427–35

Dose estimate of exposure to radioisotopes in molecular and cellular biology. Onado C, et al. **J Radiol Prot** 1999 Jun; 19(2):129–41

Alkaline single cell gel electrophoresis and human biomonitoring for genotoxicity: a study on subjects with residential exposure to radon. Hellman B, et al. **Mutat Res** 1999 Jun 25;442(2):121–32

Transgenic plants are sensitive bioindicators of nuclear pollution caused by the Chernobyl accident [see comments] Kovalchuk I, et al. **Nat Biotechnol** 1998 Nov;16(11):1054–9 . Comment in: Nat Biotechnol 1998 Nov;16(11):985.

Iodouracil as a personal dosimeter for solar UVB. Rahn R, et al. **Photochem Photobiol** 1998 Aug;68(2):173–8

Personal monitoring of 218Po and 214Po radionuclide deposition onto individuals under normal environmental exposure conditions. Eatough JP, et al. **Phys Med Biol** 1999 Sep;44(9):2227–39

Verification of a pencil beam based treatment planning system: output factors for open photon beams shaped with MLC or blocks. Hansson H, et al. **Phys Med Biol** 1999 Sep;44(9):N201–7

Sensitivity of coefficients for converting entrance surface dose and kerma-area product to effective dose and energy imparted to the patient. Wise KN, et al. **Phys Med Biol** 1999 Aug;44(8):1937–54

[Chromosome aberrations as a bio-dosimetric test of space radiation (experimental data from the seeds of higher plants)] Nevzgodina LV, et al. **Aviakosm Ekolog Med** 1999; 33(2):42–4 (Eng. Abstr.) **(Rus)**

[The methodology of establishing the radiation hazard to cosmonauts on long-term mission based on the generalized dosimetric functional] Shafirkin AV, et al. **Aviakosm Ekolog Med** 1999;33(2):55–9 (Eng. Abstr.) **(Rus)**

STANDARDS

A generic mixing system for achieving conditions suitable for single point representative effluent air sampling. McFarland AR, et al. **Health Phys** 1999 Jan;76(1):17–26

RADIATION, NONIONIZING

Effects of millimeter waves on ionic currents of Lymnaea neurons. Alekseev SI, et al. **Bioelectromagnetics** 1999; 20(1):24–33

[Health Council Report 'Radiofrequency electromagnetic fields (300 Hz–300 GHz). The Health Council of the Netherlands] Kal HB. **Ned Tijdschr Geneeskd** 1998 Jul 4; 142(27):1546–50 (Eng. Abstr.) **(Dut)**

[Mechanism of radiobiological effects of low intensity nonionizing electromagnetic radiation] Kudriashov IuB, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):79–83 (22 ref.) (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Solving mysteries of the bioeffects of nonionizing radiation [editorial; comment] Hietanen M. **Scand J Work Environ Health** 1998 Aug;24(4):241–3. Comment on: Scand J Work Environ Health 1998 Aug;24(4):245–54.

Utilization of developmental basic science principles in the evaluation of reproductive risks from pre- and postconception environmental radiation exposures. Brent RL. **Teratology** 1999 Apr;59(4):182–204 (125 ref.)

[No increase in cancer incidence due to high-voltage cables in Odijk (see comments)] Hady M, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1559–62 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1542–5. **(Dut)**

RADIATION ONCOLOGY

The Royal College of Radiologists' Clinical Oncology Information Network. British Association of Urological Surgeons. Guidelines on the management of prostate cancer. **Clin Oncol (R Coll Radiol)** 1999;11(2):S53–88

Cancer in the elderly [editorial] Brewin T. **Clin Oncol (R Coll Radiol)** 1998;10(5):281–2

Image storing system for radiation therapy (radiation oncology information system: ROIS) as a branch of diagnostic PACS; implementation and evaluation. Yamada T, et al. **Comput Med Imaging Graph** 1999 Mar–Apr; 23(2):111–7

Current applications and perspectives of diagnostic nuclear medicine in oncology. Task Group of Oncology. Bombardieri E, et al. **Int J Oncol** 1999 May;14(5):877–90

Comparison of computer workstation with light box for detecting setup errors from portal images. Boxwala AA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):711–6

Endowed professorships in radiation oncology [letter; comment] Brady LW, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1177. Comment on: Int J Radiat Oncol Biol Phys 1998 Feb 1;40(3):751–2.

Use of the alkaline comet assay to monitor DNA damage in technicians exposed to low-dose radiation. Undeğer U, et al. **J Occup Environ Med** 1999 Aug;41(8):693–8

A code of ethics for the medical dosimetrist--the American Association of Medical Dosimetrists experience. Martin L, et al. **Med Dosim** 1998 Fall;23(3):257–8

Essentials of radiation oncology chart design. Martin LA. **Med Dosim** 1999 Spring;24(1):39–41

17th Annual ESTRO meeting. European Society for Therapeutic Radiology and Oncology. Edinburgh, Scotland, United Kingdom, 21–24 September 1998. Abstracts. **Radiother Oncol** 1998 Sep;48 Suppl 1:S1–240

4th Biennial ERTED meeting. Edinburgh, Scotland, United Kingdom, 20–24 September 1998. Abstracts. **Radiother Oncol** 1998 Sep;48 Suppl 1:S241–54

Workshop on Quality Assurance of Treatment Planning Systems and 5th Biennial European Society for Therapeutic Radiology and Oncology (ESTRO) meeting on Physics for Clinical Radiotherapy. Göttingen, Germany, 6–11 April 1999. Abstracts. **Radiother Oncol** 1999 Apr;51 Suppl 1:21–7, S1–74

A dosimetric intercomparison of kilovoltage X-rays, megavoltage photons and electrons in the Republic of Ireland. Nisbet A, et al. **Radiother Oncol** 1998 Jul; 48(1):95–101

Proceedings of the 1st Med-AUSTRON Conference. Innsbruck, Austria. October 1997. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:1–128

[40th meeting of the American Society for Therapeutic Radiology and Oncology, Phoenix (Arizona), 25–29 October 1998] Allavena C, et al. **Cancer Radiother** 1999 Jan–Feb;3(1):65–83 **(Fre)**

[4th German Congress on Radiation Oncology, Radiobiology and Physical Medicine. Nurenberg, 7–10, November 1998. Abstracts] **Strahlenther Onkol** 1998 Nov;174 Spec No 1:1–134 **(Ger)**

[1st German Congress on Radiation Oncology, Radiobiology, and Physical Medicine. Baden-Baden, 18–21 November 1995. Abstracts] **Strahlenther Onkol** 1995 Nov;171 Suppl 1:1–98 **(Ger)**

[Do we know how well science imparts knowledge? (editorial)] Seegenschmiedt MH, et al. **Strahlenther Onkol** 1999 Apr;175 Suppl 1:1–2 **(Ger)**

EDUCATION

A blueprint for linking academic oncology and the community. Linggood R, et al. **J Health Polit Policy Law** 1998 Dec;23(6):973–94

LEGISLATION & JURISPRUDENCE

Liability when covering for another radiation oncologist. Berlin L. **AJR Am J Roentgenol** 1999 May;172(5):1189–92

Breast radiation injury litigation and RAGE. Radiotherapy Action Group Exposure [letter] Ash DV. **Clin Oncol (R Coll Radiol)** 1999;11(2):138–9

The breast radiation injury litigation and the clinical oncologist [see comments] Dische S, et al. **Clin Oncol (R Coll Radiol)** 1998;10(6):367–71. Comment in: Clin Oncol (R Coll Radiol) 1998;10(6):353. Comment in: Clin Oncol (R Coll Radiol) 1999;11(2):137–8.

An acceptable risk or negligence? The dilemma of the modern clinical oncologists in the UK in the era of clinical governance [editorial; comment] Maher EJ. **Clin Oncol (R Coll Radiol)** 1998;10(6):353. Comment on: Clin Oncol (R Coll Radiol) 1998 ;10(6):367–71.

Breast cancer radiotherapy litigation and the clinical oncologist [letter; comment] Millington J. **Clin Oncol (R Coll Radiol)** 1999;11(2):137–8. Comment on: Clin Oncol (R Coll Radiol) 1998;10(6):367–71.

MANPOWER

Breast cancer in Scotland: changes in treatment and work-load. Scottish Breast Cancer Focus Group and the Scottish Cancer Therapy Network. Dewar JA, et al. **Clin Oncol (R Coll Radiol)** 1999;11(1):52–4

Non-physician practitioners in radiation oncology: advanced practice nurses and physician assistants. Kelvin JF, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):255–63 (14 ref.)

Description of the role of nonphysician practitioners in radiation oncology. Kelvin JF, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):163–9 (17 ref.)

METHODS

Discrimination of human tumor radioresponsiveness using low-dose rate irradiation. Björk-Eriksson T, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1147–53

A change in treatment process with a modern record and verify system. Klein EE, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1163–8

ORGANIZATION & ADMINISTRATION

Computerizing the cancer centre [see comments] Benghiat A, et al. **Clin Oncol (R Coll Radiol)** 1999;11(1):33–9. Comment in: Clin Oncol (R Coll Radiol) 1999 ;11(1):2–3.

A blueprint for linking academic oncology and the community. Linggood R, et al. **J Health Polit Policy Law** 1998 Dec;23(6):973–94

STANDARDS

Experience enhances mammographic interpretation, doesn't it? [editorial; comment] [see comments] Moskowitz M. **Cancer** 1998 Dec 15;83(12):2430–1. Comment on: Cancer 1998 Dec 15;83(12):2516–20. Comment in: Cancer 1998 Dec 15;83(12):2432–3.

Experience enhances mammographic interpretation, doesn't it? Yes, it does! [editorial; comment] Schmidt F, et al. **Cancer** 1998 Dec 15;83(12):2432–3. Comment on: Cancer 1998 Dec 15;83(12):2430–1.

Medical audit after 26,711 breast imaging studies: improved rate of detection of small breast carcinomas (classified as Tis or T1a,b) [see comments] Schmidt F, et al. **Cancer** 1998 Dec 15;83(12):2516–20. Comment in: Cancer 1998 Dec 15;83(12):2430–1.

Breast radiation injury litigation and RAGE. Radiotherapy Action Group Exposure [letter] Ash DV. **Clin Oncol (R Coll Radiol)** 1999;11(2):138–9

A question of quality: radiotherapy resources and waiting time outcomes for cancer patients [editorial] Bullimore JA. **Clin Oncol (R Coll Radiol)** 1998;10(4):210–1

Clinical Oncology Information Network: from drawing

board to reality [editorial; comment] Karp SJ. **Clin Oncol (R Coll Radiol)** 1999;11(1):2–3. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):15–27. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):28–32. Comment on: Clin Oncol (R Coll Radiol) 1999 ;11(1):33–9.

Guidance on the creation of evidence-linked guidelines for COIN [see comments] Rosalki JR, et al. **Clin Oncol (R Coll Radiol)** 1999;11(1):28–32. Comment in: Clin Oncol (R Coll Radiol) 1999 ;11(1):2–3.

The COIN workstation: state of the future art [see comments] Rosalki JR, et al. **Clin Oncol (R Coll Radiol)** 1999; 11(1):15–27. Comment in: Clin Oncol (R Coll Radiol) 1999 ;11(1):2–3.

A real-time audit of radiation therapy in a regional cancer center. Brundage MD, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):115–24

The science and art of radiation oncology after a century [editorial; comment] Cox JD. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):1–2. Comment on: Int J Radiat Oncol Biol Phys 1999 Jan 1;43(1):125–68.

Patterns of radiotherapy practice for patients with squamous carcinoma of the uterine cervix: patterns of care study. Eifel PJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):351–8

Computer-assisted decision making in portal verification—optimization of the neural network approach. Leszczynski K, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):215–25

Results of the 1988–1989 Patterns of Care Study process survey for Hodgkin's disease. Smitt MC, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):335–9

External audit on the clinical practice and medical decision-making at the departments of radiotherapy in Budapest and Vienna. Esik O, et al. **Radiother Oncol** 1999 Apr;51(1):87–94

Consistency in quality control programmes for electron accelerators in radiotherapy centres. Meijer GJ, et al. **Radiother Oncol** 1998 Jul;48(1):103–10

Quality assurance of physical parameters in radiation oncology at the University Hospital of Basel—a retrospect. Roth J, et al. **Radiother Oncol** 1998 Jul;48(1):83–8

Patterns of radiotherapy for early breast cancer in Northern Italy compared with European and national standards. Valdagni R, et al. **Radiother Oncol** 1999 Apr;51(1):79–85

Quality assurance in radiation oncology. Proceedings of an international symposium. Berlin, May 1998. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:1–49 **(Eng, Ger)**

STATISTICS & NUMERICAL DATA

Radiation oncology training in the United States: report from the Radiation Oncology Resident Training Working Group organized by the Society of Chairman of Academic Radiation Oncology Programs (SCAROP). **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):153–61

The employment experience of the graduates of 1996 [editorial] Busheé GR, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):241–3

The situation of radiation oncology training programs and their graduates in 1997. Crewson PE, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):833–7

Hiring of radiation oncologists by physician groups in 1997. Elliott SD, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):627–32

The employment status of 1995 graduates from radiation oncology training programs in the United States. Flynn DF, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):1075–81

TRENDS

An uncharted country [editorial] Macbeth F. **Clin Oncol (R Coll Radiol)** 1999;11(2):71–2

The COIN workstation: state of the future art [see comments] Rosalki JR, et al. **Clin Oncol (R Coll Radiol)** 1999; 11(1):15–27. Comment in: Clin Oncol (R Coll Radiol) 1999 ;11(1):2–3.

The American Radium Society. Radiation oncology in the 3rd millennium [see comments] Brady LW Jr, et al. **Radiology** 1998 Dec;209(3):593–6. Comment in: Radiology 1998 Dec;209(3):597–9.

Radiation oncology: yesterday, today, and tomorrow [comment] Hussey DH. **Radiology** 1998 Dec;209(3):597–9 . Comment on: Radiology 1998 Dec;209(3):593–6.

RADIATION PNEUMONITIS

DIAGNOSIS

Soluble intercellular adhesion molecule-1 as an early detection marker for radiation pneumonitis. Ishii Y, et al. **Eur Respir J** 1999 Apr;13(4):733–8

Bilateral lymphocytic alveolitis: a common reaction after unilateral thoracic irradiation [see comments] Martin C, et al. **Eur Respir J** 1999 Apr;13(4):727–32. Comment in: Eur Respir J 1999 Apr;13(4):715–7.

[Pulmonary damage after radiotherapy for breast cancer] de Fijter WM, et al. **Ned Tijdschr Geneeskd** 1999 Apr 17; 143(16):833–6 (13 ref.) (Eng. Abstr.) **(Dut)**

ETIOLOGY

Idiopathic pneumonia syndrome after allogeneic bone marrow transplantation in mice. Role of pretransplant radiation conditioning. Shankar G, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1116–24

Oxidant-induced lung injury in anticancer therapy. Beinert T, et al. **Eur J Med Res** 1999 Feb 25;4(2):43–53 (113 ref.)

Clinical dose-volume histogram analysis for pneumonitis after 3D treatment for non-small cell lung cancer (NSCLC). Graham MV, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):323–9

Risk factors for severe radiation pneumonitis in lung cancer. Makimoto T, et al. **Jpn J Clin Oncol** 1999 Apr;29(4):192–7

Tumour response and radiation-induced lung injury in patients with recurrent small cell lung cancer treated with radiotherapy and concomitant interferon-alpha. Halme M, et al. **Lung Cancer** 1999 Jan;23(1):39–52

Analysis of radiation pneumonitis and radiation-induced lung fibrosis in breast cancer patients after breast conservation treatment. Nishioka A, et al. **Oncol Rep** 1999 May-Jun; 6(3):513–7

Possible role of plasma GSH in modulating smoking related radiation pneumonitis [letter] Bhattathiri VN. **Radiother Oncol** 1999 Jun;51(3):291–2

Effects of ongoing smoking on the development of radiation-induced pneumonitis in breast cancer and oesophagus cancer patients. Johansson S, et al. **Radiother Oncol** 1998 Oct;49(1):41–7

Migratory pulmonary infiltrates. Rodriguez MC, et al. **Respir Med** 1998 Aug;92(8):1081–4

[Pulmonary damage after radiotherapy for breast cancer] de Fijter WM, et al. **Ned Tijdschr Geneeskd** 1999 Apr 17; 143(16):833–6 (13 ref.) (Eng. Abstr.) **(Dut)**

METABOLISM

Effects of right hemithoracic irradiation on ceftazidime penetration into the alveolar space in rats. Murata T, et al. **Radiat Med** 1998 Nov-Dec;16(6):457–60

PATHOLOGY

Radiation-induced injury in the "nonirradiated" lung [editorial; comment] Prakash UB. **Eur Respir J** 1999 Apr; 13(4):715–7. Comment on: Eur Respir J 1999 Apr;13(4):727–32.

[Morphological changes in lungs during chest irradiation] Afrikanova LA, et al. **Radiats Biol Radioecol** 1999 Jan-Feb; 39(1):21–5 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

Intratracheal injection of adenovirus containing the human MnSOD transgene protects athymic nude mice from irradiation-induced organizing alveolitis. Epperly MW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):169–81

Vitamin A inhibits radiation-induced pneumonitis in rats. Redlich CA, et al. **J Nutr** 1998 Oct;128(10):1661–4

RADIOGRAPHY

Pulmonary injury from proton and conventional radiotherapy as revealed by CT. Bush DA, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):735–9

Left lower lobe radiation pneumonitis in patients with early stage Hodgkin's disease: a reminder [letter] Zissin R, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1127

RADIONUCLIDE IMAGING

Nonsegmental ventilation-perfusion scintigraphy mismatch after radiation therapy. Chin BB, et al. **Clin Nucl Med** 1999 Jan;24(1):54–6

RADIATION PROTECTION

Prenatal exposure to ionizing radiation: sources, effects and regulatory aspects. Fattibene P, et al. **Acta Paediatr** 1999 Jul;88(7):693–702 (58 ref.)

Lymphoscintigraphy [letter; comment] Jillson E. **AORN J** 1999 Jan;69(1):21. Comment on: AORN J 1998 Oct;68(4):572–6, 579–82, 585–8; quiz 589–94.

Dosimetry for optimisation of patient protection in computed tomography. Jessen KA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):165–72 (27 ref.)

Radiation protection and quality assurance in diagnostic radiology—an IAEA coordinated research project in Asia and eastern Europe. Oresegun M, et al. **Appl Radiat Isot** 1999 Jan;50(1):271–6

Justification in radiation protection. Corbett RH, et al. **Br J Radiol** 1998 Sep;71(849):905–7

Brain radiotherapy during pregnancy: an analysis of conceptus dose using anthropomorphic phantoms. Mazonakis M, et al. **Br J Radiol** 1999 Mar;72(855):274–8

The diagnostic X-ray protection characteristics of Ytong, an aerated concrete based building material. Tsalafoutas IA, et al. **Br J Radiol** 1998 Sep;71(849):944–9

Radiation safety in the cardiac catheterization laboratory: operational radiation safety. Balter S. **Catheter Cardiovasc Interv** 1999 Jul;47(3):347–53

Radiation safety in the cardiac catheterization laboratory: basic principles. Balter S. **Catheter Cardiovasc Interv** 1999 Jun;47(2):229–36

Radiation exposure of the families of outpatients treated with radioiodine (iodine-131) for hyperthyroidism [see comments] Barrington SF, et al. **Eur J Nucl Med** 1999 Jul;26(7):686–92. Comment in: Eur J Nucl Med 1999 Jul;26(7):683–5.

Are restrictions to behaviour of patients required following fluorine-18 fluorodeoxyglucose positron emission tomographic studies? Cronin B, et al. **Eur J Nucl Med** 1999 Feb;26(2):121–8

Preliminary safety evaluation of a cyclotron facility for positron emission tomography imaging. González L, et al. **Eur J Nucl Med** 1999 Aug;26(8):894–9

Radioiodine (131I) treatment of hyperthyroidism: radiation protection and quality assurance [editorial; comment] Reiners C, et al. **Eur J Nucl Med** 1999 Jul;26(7):683–5. Comment on: Eur J Nucl Med 1999 Jul;26(7):686–92.

Radiation protection of the ovaries in young scoliosis patients. Palmer SH, et al. **Eur Spine J** 1998;7(4):278–81

Decommissioning of radiological facilities [news] Busby B. **Health Phys** 1999 May;76(5):473–4

A revised model of molybdenum biokinetics in humans for application in radiation protection. Giussani A, et al. **Health Phys** 1998 Nov;75(5):479–86

Calculation of effective doses for broad parallel photon beams. Kim CH, et al. **Health Phys** 1999 Feb;76(2):156–61

Scattered fractions of dose from 6,10,18, and 25 MV linear accelerator x rays in radiotherapy facilities. Shobe J, et al. **Health Phys** 1999 Jan;76(1):27–35

Safety significant class determination of continuous air monitors at facilities handling alpha-emitting radionuclides. Sorensen SA, et al. **Health Phys** 1998 Nov;75(5):530–4

Use of 222Rn-resistant techniques in new home construction. Watson JE Jr, et al. **Health Phys** 1999 Jan;76(1):62–5

Personal dose equivalent for photons and its variation with dosimeter position. Zankl M. **Health Phys** 1999 Feb; 76(2):162–70

Radiation protection information: can you trust the government's risks or risk the government's trust?: 1997 G. William Morgan lecture. Ziemer PL. **Health Phys** 1999 Jul;77(1):9–15

Endovascular brachytherapy—treatment planning and radiation protection. Quast U, et al. **Herz** 1998 Sep; 23(6):337–46 (57 ref.)

Training in the radiation sciences: opportunities in the United States and internationally. Seligman P. **Int J Occup Environ Health** 1998 Jul-Sep;4(3):196–8

Changes in the size and location of kidneys from the supine to standing positions and the implications for block placement during total body irradiation. Reiff JE, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):447–9

UV protective clothing in Europe: recommendation of a European working party. Hoffmann K. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):198–9

Radiation absorbed doses to the walls of hollow organs. Stubbs JB, et al. **J Nucl Med** 1998 Nov;39(11):1989–95

Bremsstrahlung radiation exposure from pure beta-ray emitters. Zanzonico PB, et al. **J Nucl Med** 1999 Jun; 40(6):1024–8

Practical aspects of radiation safety for using fluorine-18. Bixler A, et al. **J Nucl Med Technol** 1999 Mar;27(1):14–6; quiz 18–9

Radiation exposure from gallium-67-citrate patients. Castronovo FP Jr, et al. **J Nucl Med Technol** 1999 Mar; 27(1):57–61

Strategy for population protection and area rehabilitation in Russia in the remote period after the Chernobyl accident. Balonov MI, et al. **J Radiol Prot** 1999 Sep;19(3):261–9

First EC/ISOE Workshop on Occupational Exposure Management at Nuclear Power Plants, Malmø, 16–18 September 1998 [news] Bone M. **J Radiol Prot** 1999 Jun; 19(2):185–8

Conflicting scientific views on the health risks of low-level ionising radiation [editorial] Clarke RH. **J Radiol Prot** 1998 Sep;18(3):159–60

Risks from ionising radiation: deterministic effects. Edwards AA, et al. **J Radiol Prot** 1998 Sep;18(3):175–83 (5 ref.)

Risk: a media perspective. Edwards R. **J Radiol Prot** 1999 Mar;19(1):57–61

A system for radiological protection of the environment: some initial thoughts and ideas. Pentreath RJ. **J Radiol Prot** 1999 Jun;19(2):117–28

SRP meeting: External radiation dosimetry in practice, London, 25 March 1999 [news] Scarlett C. **J Radiol Prot** 1999 Jun;19(2):190–1

Transformation of C3H 10T(1/2) cells by low doses of ionising radiation [letter; comment] Scott BR. **J Radiol Prot** 1999 Jun;19(2):177–9. Comment on: J Radiol Prot 1998 Jun;18(2):79–100.

Biological effects of electromagnetic fields and radiation [see comments] Sienkiewicz Z. **J Radiol Prot** 1998 Sep; 18(3):185–93 (34 ref.). Comment in: J Radiol Prot 1998 Sep;18(3):161–2.

Management of radiological safety—lessons learnt and issues arising from the decommissioning of Berkeley power station. Spooner K. **J Radiol Prot** 1999 Jun;19(2):155–69

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: development and technical content. Webb GA. **J Radiol Prot** 1998 Dec;18(4):265–75

Ability of human plasma to protect against ionising radiation is inversely correlated with age. Lenton KJ, et al. **Mech Ageing Dev** 1999 Feb 1;107(1):15–20

Towards the millennium: 13th Low-Level Radiation and Health Conference. Holdstock D. **Med Confl Surviv** 1999

Jan-Mar;15(1):77-81

Room scattered neutrons. McCall RC, et al. **Med Phys** 1999 Feb;26(2):206-7

Protection against solar ultraviolet radiation. Gies PH, et al. **Mutat Res** 1998 Nov 9;422(1):15-22 (37 ref.)

Decreased p53 expression in chronically sun-exposed human skin after topical photoprotection. Berne B, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5-6):148-53

Protection against photodynamic therapy (PDT)-induced photosensitivity by fabric materials. Menter JM, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5-6):154-9

Radiation safety considerations for diagnostic radiology personnel. Brateman L. **Radiographics** 1999 Jul-Aug; 19(4):1037-55 (33 ref.)

Minimizing occupational exposure. Shymko MJ. **Radiol Technol** 1998 Sep-Oct;70(1):89-90 (3 ref.)

Patient doses in interventional radiology: accuracy in measurement and proper use of nomenclature [letter; comment] McParland BJ. **Radiology** 1998 Nov; 209(2):589-90. Comment on: Radiology 1997 Nov;205(2):385-93.

Radiation dose reduction in CT: application to tissue area and volume determination. Starck G, et al. **Radiology** 1998 Nov;209(2):397-403

Seminoma of the testis: is scrotal shielding necessary when radiotherapy is limited to the para-aortic nodes? Bieri S, et al. **Radiother Oncol** 1999 Mar;50(3):349-53

Radiation safety and nuclear medicine policies and procedures. Berman CG. **Surg Oncol Clin N Am** 1999 Jul; 8(3):577-81, xi

Metallothionein in radiation exposure: its induction and protective role. Cai L, et al. **Toxicology** 1999 Feb 15; 132(2-3):85-98 (102 ref.)

[Irradiation in the diagnostic design in pediatrics] Sirinelli D, et al. **Arch Pediatr** 1999;6 Suppl 2:486s-487s **(Fre)**

[Management of human resources, materials, and organization processes in radioprotection] Coppola V. **Radiol Med (Torino)** 1999 Jun;97(6):518-24 (Eng. Abstr.) **(Ita)**

[Radiation protection in the use of tracers in radioguided breast surgery] Ferrari M, et al. **Radiol Med (Torino)** 1998 Dec;96(6):607-11 (Eng. Abstr.) **(Ita)**

[Radioprotection (letter)] Fierro D. **Radiol Med (Torino)** 1998 Sep;96(3):277 **(Ita)**

[Air bubble effect during alloy cooling in shielding blocks radiotherapy] Ostinelli A, et al. **Radiol Med (Torino)** 1998 Oct;96(4):390-3 (Eng. Abstr.) **(Ita)**

[Automated procedures for radiation protection and quality controls in conventional diagnostic radiology] Tofani A, et al. **Radiol Med (Torino)** 1998 Oct;96(4):394-8 (Eng. Abstr.) **(Ita)**

[X-ray examinations in Norway--optimized use of radiation and radiation protection] Olerud HM. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1322-5 (21 ref.) **(Nor)**

[Quality assessment of radiological diagnostic examinations from the perspective of radiological protection] Staniszewska MA. **Med Pr** 1999;50(1):15-23 (Eng. Abstr.) **(Pol)**

[Assessing the degree of radiation hazards in the use of open radiation sources in scientific research institutions] Aleksandrova AI. **Gig Sanit** 1998 Sep-Oct;(5):38-41 (Eng. Abstr.) **(Rus)**

[Radiation-hygienic control of building materials] Chernik LA, et al. **Gig Sanit** 1998 Sep-Oct;(5):41-4 (Eng. Abstr.) **(Rus)**

[The organization of sanitary dosimetric control over the use of laser radiation in treatment and prevention institutions] Tulupov VP, et al. **Gig Sanit** 1999 Jan-Feb;(1):54-5 **(Rus)**

[Possible modification of radiation injury using radio frequency electromagnetic radiation] Aminova EM, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):345-8 (32 ref.) (Eng. Abstr.) **(Rus)**

[Analysis of the strategy for the use of protective measures in agriculture after the accident at the Chernobyl power plant] Fesenko SV, et al. **Radiats Biol Radioecol** 1998 Sep-Oct;38(5):721-36 (Eng. Abstr.) **(Rus)**

[Strategy and tactics of radiation protection of the personnel in light of future work on stabilization and reorganization of the "Shelter" compound into radiologically safe system] Seniuk OF, et al. **Radiats Biol Radioecol** 1999 Mar-Jun; 39(2-3):227-37 (Eng. Abstr.) **(Rus)**

[Use of photoprotective measures in relation to actual exposure to solar rays] Kozarev J. **Med Pregl** 1998 Nov-Dec;51(11-12):555-8 (Eng. Abstr.) **(Ser)**

[Really stupid to abolish "radiologists' vacation" (letter)] Jacobsson H. **Lakartidningen** 1999 Apr 14;96(15):1811-2 **(Swe)**

HISTORY

The early years of radiation protection: a tribute to Madame Curie. Coppes-Zantinga AR, et al. **CMAJ** 1998 Dec 1; 159(11):1389-91

Unwanted radioactive sources in the public domain: a historical perspective. Lubenau JO. **Health Phys** 1999 Feb; 76(2 Suppl):S16-22

INSTRUMENTATION

Empirical shielding design data for facilities administering I131 for thyroid carcinoma. Groth MJ. **Australas Phys Eng Sci Med** 1998 Dec;21(4):170-8

Shielding properties of fibre cement wallboard. Thiele DL, et al. **Australas Phys Eng Sci Med** 1998 Sep;21(3):152-4

A compact shielded exposure system for the simultaneous long-term UHF irradiation of forty small mammals: I. Electromagnetic and environmental design. Moros EG, et al. **Bioelectromagnetics** 1998;19(8):459-68

Dose reduction during CT scanning in an anthropomorphic phantom by the use of a male gonad shield. Price R, et al. **Br J Radiol** 1999 May;72(857):489-94

Magnetic resonance imaging of soft tissue expanders used in the management of musculoskeletal sarcomas. Saunders A, et al. **Br J Radiol** 1998 Sep;71(849):926-9

Modular glovebox connector and associated good practices for control of radioactive and chemically toxic materials. Hoover MD, et al. **Health Phys** 1999 Jan;76(1):66-72

A mobile shield to reduce scatter radiation to the contralateral breast during radiotherapy for breast cancer: preclinical results. Sohn JW, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1037-41

Partial lung shield for TBI. Ho A, et al. **Med Dosim** 1998 Winter;23(4):299-301

Comment on "Attenuation characteristics of a new compensator material: Thermo-Shield for high energy electron and photon beams" [Med. Phys. 25, 485-487 (1998)] [letter; comment] Murray B, et al. **Med Phys** 1998 Sep;25(9):1760-1. Comment on: Med Phys 1998 Apr;25(4):484-7.

Monte Carlo dose calculations for a new ovoid shield system for carcinoma of the uterine cervix. Weeks KJ. **Med Phys** 1998 Dec;25(12):2288-92

Comparison of three cold kit reconstitution techniques for the reduction of hand radiation dose. Bogsrud TV, et al. **Nucl Med Commun** 1999 Aug;20(8):761-7

Reductions in finger doses for radiopharmaceutical dispensing afforded by a syringe shield and an automatic dose dispenser. Montgomery A, et al. **Nucl Med Commun** 1999 Feb;20(2):189-94

Disposable shielding for neonates [letter; comment] Layer PJ. **Radiol Technol** 1998 Nov-Dec;70(2):125. Comment on: Radiol Technol 1997 Nov-Dec;69(2):157-61.

[Effect of geomagnetic field screening during orbital flight on expression of recombinant differentiation factor in escherichia coli cells] Kostanian IA, et al. **Aviakosm Ekolog Med** 1998;32(4):52-3 **(Rus)**

[Magnetic shielding of vertebrate brain] Lebedev SV, et al. **Biull Eksp Biol Med** 1998 Dec;126(12):684-6 **(Rus)**

LEGISLATION & JURISPRUDENCE

Comprehensive regulations concerning exposure of employees to electromagnetic fields [letter] Norris DG, et al. **J Magn Reson Imaging** 1999 May;9(5):630

National waste management infrastructure in Ghana. Darko EO, et al. **J Radiol Prot** 1998 Dec;18(4):293-9

Seminar on revision of arrangements under the Radioactive Substances Act, London, 26 March 1999 [news] Martin A. **J Radiol Prot** 1999 Jun;19(2):191-2

[The aftercare of radiotherapy patients. The Radiation Protection Commission, the Federal Ministry for the Environment, Nature Protection and Reactor Safety (editorial)] Herrmann T. **Strahlenther Onkol** 1999 Mar; 175(3):89-92 **(Ger)**

METHODS

A review of radiation protection facilities at the University College Hospital, Ibadan, Nigeria. Adeniran SA. **Afr J Med Med Sci** 1996 Sep;25(3):269-71

Radiation safety. Shymko M, et al. **AORN J** 1998 Oct; 68(4):596-602; quiz 603-4, 606, 609-10 (35 ref.)

The radial transmission line as a broad-band shielded exposure system for microwave irradiation of large numbers of culture flasks. Moros EG, et al. **Bioelectromagnetics** 1999;20(2):65-80

Compact shielded exposure system for the simultaneous long-term UHF irradiation of forty small mammals. II. Dosimetry. Moros EG, et al. **Bioelectromagnetics** 1999; 20(2):81-93

Patients leaving hospital after administration of radioactive substances. Working Party of the Radiation Protection Committee of the British Institute of Radiology. **Br J Radiol** 1999 Feb;72(854):121-5 (12 ref.)

Calculating shielding requirements in diagnostic X-ray departments. Petrantonaki M, et al. **Br J Radiol** 1999 Feb; 72(854):179-85

Analysis of the status of X-ray diagnosis in Ghana. Schandorf C, et al. **Br J Radiol** 1998 Oct;71(850):1040-8

Radiation safety for health care workers in the bronchoscopy suite. Jain P, et al. **Clin Chest Med** 1999 Mar;20(1):33-8, ix-x (25 ref.)

Reorganization and consolidation of a safety program. Classic KL, et al. **Health Phys** 1999 Feb;76(2 Suppl):S27-31

In-vivo measurement of low energy photon emitters: room-temperature semiconductor diodes vs. large scintillators and germanium crystals. Genicot JL, et al. **Health Phys** 1999 Mar;76(3):288-99

Effective presentation of radiation safety training--risk communication: an important function of radiation safety training. Johnson RH Jr. **Health Phys** 1999 Feb;76(2 Suppl):S10-5 (7 ref.)

Radiation safety instruction for non-radiation workers. Michel R, et al. **Health Phys** 1999 Feb;76(2 Suppl):S7-9

Robotic recovery of highly radioactive resin. Miller DC. **Health Phys** 1999 Feb;76(2 Suppl):S3-6

Technical management of a pregnant patient undergoing radiation therapy to the head and neck. Podgorsak MB, et al. **Med Dosim** 1999 Summer;24(2):121-8

Correcting for electron contamination at dose maximum in photon beams. Rogers DW. **Med Phys** 1999 Apr; 26(4):533-7

Reduction of radiocaesium transfer to broiler chicken meat by a clinoptilolite modified with hexacyanoferrate. Pöschl M, et al. **Radiat Environ Biophys** 1999 Jul;38(2):117-24

CD34+ selected bone marrow grafts are radioprotective and establish mixed chimerism in dogs given high dose total body irradiation. Bruno B, et al. **Transplantation** 1999 Aug 15;68(3):338-44

[Preservation of ovarian function in 2 young women with Hodgkin disease by laparoscopic transposition of the ovaries prior to abdominal irradiation] Tinga DJ, et al. **Ned Tijdschr Geneeskd** 1999 Feb 6;143(6):308-12 (Eng. Abstr.) **(Dut)**

[Can we optimize radioprotection for medical workers?] Aubert B, et al. **J Radiol** 1998 Apr;79(4):307-12 (17 ref.) (Eng. Abstr.) **(Fre)**

[Physical parameters in the use of MRI tomography. Limitation due to physiologic reactions and guidelines. Radiation Protection Commission] Frese G, et al. **Radiologe** 1998 Sep;38(9):750-8 (Eng. Abstr.) **(Ger)**

[Methodological principles for using agents for the mass prevention of the sequelae of human irradiation] Shandala NK. **Gig Sanit** 1999 Mar-Apr;(2):33-7 (Eng. Abstr.) **(Rus)**

[The status and current problems of the radiation protection support for Naval personnel] Sharaevskiĭ GIu, et al. **Voen Med Zh** 1999 Jul;320(7):62-5, 96 (Eng. Abstr.) **(Rus)**

STANDARDS

Evaluation of delivered dose changes during radiation therapy. Miszczyk L, et al. **Acta Oncol** 1999;38(2):197-201

Radiation safety considerations for sentinel node techniques [editorial; comment] Glass EC, et al. **Ann Surg Oncol** 1999 Jan-Feb;6(1):10-1. Comment on: Ann Surg Oncol 1999 Jan-Feb;6(1):75-62.

Medical exposures, health surveillance and the Medical Exposures Directive. Faulkner K, et al. **Br J Radiol** 1999 Jan;72(853):1-2

Report of an image quality and dose audit according to directive 97/43/Euratom at Spanish private radiodiagnostics facilities. González L, et al. **Br J Radiol** 1999 Feb;72(854):186-92

An overview of radiation safety regulatory recommendations and requirements. Balter S. **Catheter Cardiovasc Interv** 1999 Aug;47(4):469-74 (15 ref.)

RCR 1997 scientific meeting: audit poster prize winners. **Clin Radiol** 1998 Dec;53(12):911-2

Radon action level for high-rise buildings. Leung JK, et al. **Health Phys** 1999 May;76(5):537-43

Excessive safety factor in 1998 ICNIRP guidelines reflects lack of participation of all stakeholders in the ICNIRP process [letter; comment] Osepchuk JM. **Health Phys** 1999 May;76(5):567. Comment on: Health Phys 1998 Oct;75(4):438-9.

Benchmarking radiation protection programs. Shapiro J, et al. **Health Phys** 1999 Feb;76(2 Suppl):S23-6

Siting criteria based on the prevention of deterministic effects from plutonium inhalation exposures. Sorensen SA, et al. **Health Phys** 1998 Dec;75(6):614-8

Effective dose equivalent due to gamma-ray emissions from hot particles. Walters MD, et al. **Health Phys** 1999 May; 76(5):564-6

Prudent management of minors with occupational exposures to hazardous agents: the radiation protection "standard of care". Emery RJ, et al. **Inj Prev** 1998 Sep;4(3):232-5 (28 ref.)

Control of low-level radiation exposure: time for a change? [see comments] Clarke R. **J Radiol Prot** 1999 Jun; 19(2):107-15. Comment in: J Radiol Prot 1999 Jun;19(2):89.

Neutron RBE values and their relationship to judgements in radiological protection. Edwards AA. **J Radiol Prot** 1999 Jun;19(2):93-105 (56 ref.)

On controllable dose [editorial; comment] Meinhold CB. **J Radiol Prot** 1999 Jun;19(2):89. Comment on: J Radiol Prot 1999 Jun;19(2):107-15.

Operating characteristics of outpatient fluoroscopic systems. Cabral AJ. **Med Health R I** 1999 Jun;82(6):221-2

Transmittance of tinted and UV-blocking disposable contact lenses. Harris MG, et al. **Optom Vis Sci** 1999 Mar; 76(3):177-80

[Safety of laser use] Mierczyk Z, et al. **Pol Merkuriusz Lek** 1999 Apr;6(34):211-7 (14 ref.) (Eng. Abstr.) **(Pol)**

RADIATION-PROTECTIVE AGENTS

Ultraviolet radiation screening compounds. Cockell CS, et al. **Biol Rev Camb Philos Soc** 1999 Aug;74(3):311-45 (232 ref.)

Amifostine: cytoprotector. Brooks CM, et al. **Radiol Technol** 1999 Jul-Aug;70(6):587-91

ADMINISTRATION & DOSAGE

Randomized study of a short course of weekly cisplatin with or without amifostine in advanced head and neck cancer. EORTC Head and Neck Cooperative Group. Planting AS, et al. **Ann Oncol** 1999 Jun;10(6):693–700

Short term pretreatment with medroxyprogesterone and testosterone may potentiate irradiation damage to spermatogenesis in rats. Es-slami S, et al. **Cancer** 1999 Mar 15;85(6):1313–22

Amifostine (WR2721) for dose escalation in marrow-ablative treatment of leukaemia. Martens AC, et al. **Eur J Cancer** 1999 Apr;35(4):634–40

High-dose therapy with combined 5-fluorouracil and folinic acid with and without amifostine in the treatment of patients with metastatic colorectal carcinoma. Fahlke J, et al. **Int J Colorectal Dis** 1999 Apr;14(2):128–30

Intermittent therapy for melasma in Asian patients with combined topical agents (retinoic acid, hydroquinone and hydrocortisone): clinical and histological studies. Kang WH, et al. **J Dermatol** 1998 Sep;25(9):587–96

[A decrease in the level of erythrocytes with micronuclei under the influence of pyrimidine and thiazolidine derivatives in the blood of persons who came under radiation exposure as a result of the accident at the Siberian Chemical Combine] Il'inskikh NN, et al. **Tsitol Genet** 1998 Apr–May;32(3):26–9 (Eng. Abstr.) **(Rus)**

[The effect of the parenteral administration of alpha-ketoglutarate on the resistance of rats to ionizing radiation and on their cholinergic systems] Shostakovs'ka IV, et al. **Fiziol Zh** 1999;45(1-2):119–26 (Eng. Abstr.) **(Ukr)**

ANALYSIS

Determination of the cytoprotective agent WR-2721 (Amifostine, Ethyol) and its metabolites in human blood using monobromobimane fluorescent labeling and high-performance liquid chromatography. Souid AK, et al. **Cancer Chemother Pharmacol** 1998;42(5):400–6

CHEMISTRY

Photoprotective actions of natural and synthetic melanins. Krol ES, et al. **Chem Res Toxicol** 1998 Dec;11(12):1434–40

CLASSIFICATION

Chemical sensitizers and protectors. Coleman CN. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):781–3

[Classification of radiation protective agents as a basis of modern radiation pharmacology] Vasin MV. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):212–22 (149 ref.) (Eng. Abstr.) **(Rus)**

ECONOMICS

Choices of methodology in pharmacoeconomics studies. Longo CJ. **Med Care** 1999 Apr;37(4 Suppl Lilly):AS32–5

PHARMACOKINETICS

Chemoprotectants: a review of their clinical pharmacology and therapeutic efficacy. Links M, et al. **Drugs** 1999 Mar; 57(3):293–308 (94 ref.)

PHARMACOLOGY

Reduction of radiation-induced chromosome aberration and apoptosis by dithiothreitol. Kim JH, et al. **Arch Pharm Res** 1998 Dec;21(6):683–7

Chemopreventive effects of 2-(allylthio)pyrazine. Kim ND, et al. **Arch Pharm Res** 1999 Apr;22(2):99–107 (65 ref.)

Mammalian cell polyamine homeostasis is altered by the radioprotector WR1065. Mitchell JL, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):329–34

Correlation of increased mortality with the suppression of radiation-inducible microsomal epoxide hydrolase and glutathione S-transferase gene expression by dexamethasone: effects on vitamin C and E-induced radioprotection. Nam SY, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1295–304

The activation of ribonucleotide reductase in animal organs as the cellular response against the treatment with DNA-damaging factors and the influence of radioprotectors on this effect. Pulatova MK, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):321–9

Magnesium superoxide dismutase (MnSOD) plasmid/liposome pulmonary radioprotective gene therapy: modulation of irradiation-induced mRNA for IL-I, TNF-alpha, and TGF-beta correlates with delay of organizing alveolitis/fibrosis. Epperly MW, et al. **Biol Blood Marrow Transplant** 1999;5(4):204–14

Evaluation of uroprotective efficacy of amifostine against cyclophosphamide induced hemorrhagic cystitis. Srivastava A, et al. **Bone Marrow Transplant** 1999 Mar; 23(5):463–7

Tempol prevents impairment of the endothelial cell wound healing response caused by ionising radiation. Braunhut SJ, et al. **Br J Cancer Suppl** 1996 Jul;27:S157–60

Radioprotection by DNA ligands. Martin RF, et al. **Br J Cancer Suppl** 1996 Jul;27:S99–101

Differential radioprotection of three mouse strains by basic or acidic fibroblast growth factor. Okunieff P, et al. **Br J Cancer Suppl** 1996 Jul;27:S105–8

Chemical modification of normal tissue damage induced by photodynamic therapy. Sigdestad CP, et al. **Br J Cancer Suppl** 1996 Jul;27:S89–92

Radioprotection of mice following garlic pretreatment. Singh SP, et al. **Br J Cancer Suppl** 1996 Jul;27:S102–4

The radioprotective effect of a new aminothiol (20-PRA). Dolabela MF, et al. **Braz J Med Biol Res** 1998 Aug; 31(8):1095–8

The use of Zn-desferrioxamine for radioprotection in mice, tissue culture, and isolated DNA. Samuni Y, et al. **Cancer Res** 1999 Jan 15;59(2):405–9

Effects of Coriolus versicolor polysaccharides on superoxide dismutase activities in mice. Wei WS, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):174–8

A study of the influence of different types of radioprotectors on the survival of mice treated with ionizing radiation over a wide dose range. Boyko VN, et al. **Drugs Exp Clin Res** 1998;24(5–6):343–7

The influence of the novel drug Ukrain on hemo- and immunopoiesis at the time of its maximum radioprotective effect. Boyko VN, et al. **Drugs Exp Clin Res** 1998; 24(5–6):335–7

A study of the influence of a novel drug Ukrain on in vivo effects of low-dose ionizing radiation. Boyko VN, et al. **Drugs Exp Clin Res** 1998;24(5–6):339–41

A comparative evaluation of the influence of the complex drug Ukrain and its components on the effects of radiation. Boyko VN, et al. **Drugs Exp Clin Res** 1998;24(5–6):331–3

Radioprotective effect of misoprostol on mouse spermatogonial stem cells. de Rooij DG, et al. **Genet Res** 1998 Dec;72(3):185–9

Short-term, serum-free, static culture of cord blood-derived CD34+ cells: effects of FLT3-L and MIP-1alpha on in vitro expansion of hematopoietic progenitor cells. Capmany G, et al. **Haematologica** 1999 Aug;84(8):675–82

Effect of biphosphonates on abnormal mandibular growth of rats intoxicated with uranium. Ubios AM, et al. **Health Phys** 1998 Dec;75(6):610–3

Radioprotection of DNA by spermine: a molecular modelling approach. Sy D, et al. **Int J Radiat Biol** 1999 Aug; 75(8):953–61

In vivo radioprotection and effects on blood pressure of the stable free radical nitroxides. Hahn SM, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):839–42

Modulation of radioresponse of glyoxalase system by curcumin. Choudhary D, et al. **J Ethnopharmacol** 1999 Jan; 64(1):1–7

Difference in the effects of radioprotection between aerial and root parts of Lycium chinense. Hsu HY, et al. **J Ethnopharmacol** 1999 Feb;64(2):101–8

Protective effect of curcumin, ellagic acid and bixin on radiation induced genotoxicity. Thresiamma KC, et al. **J Exp Clin Cancer Res** 1998 Dec;17(4):431–4

Radioprotective effects of sodium tungstate on hematopoietic injury by exposure to 60Co gamma-rays in Wistar rats. Sato K, et al. **J Radiat Res (Tokyo)** 1999 Jun;40(2):101–13

Caffeine protects mice against whole-body lethal dose of gamma-irradiation. George KC, et al. **J Radiol Prot** 1999 Jun;19(2):171–6

Study on the protective effects of compound blood-activating soup on bone marrow hematopoietic cells in acute radiation injured mice. Liu W, et al. **J Tongji Med Univ** 1997;17(4):225–8

Study on oxygen supply and protection of bone marrow in acute radiation injured mice. Sun H, et al. **J Tongji Med Univ** 1997;17(4):229–31, 243

Prevention of DNA photodamage by vitamin E compounds and sunscreens: roles of ultraviolet absorbance and cellular uptake. McVean M, et al. **Mol Carcinog** 1999 Mar; 24(3):169–76

Radioprotective effect of sodium diethyldithiocarbamate (DDC) and S-2-aminoethyl-isothioronicadenosin-5-triphosphate (adeturon) in gamma-irradiated Escherichia coli cells. Fuentes JL, et al. **Mutat Res** 1998 Dec 3;422(2):339–45

Inhibition of radiation-induced DNA damage in plasmid pBR322 by chlorophyllin and possible mechanism(s) of action. Kumar SS, et al. **Mutat Res** 1999 Mar 10;425(1):71–9

Melatonin and protection from whole-body irradiation: survival studies in mice. Vijayalaxmi, et al. **Mutat Res** 1999 Mar 10;425(1):21–7

Photoprotection of mammalian acid-soluble collagen by cuttlefish sepia melanin in vitro. Menter JM, et al. **Photochem Photobiol** 1998 Oct;68(4):532–7

Inhibitory effects of prior low dose X-ray irradiation on Fe(3+)-NTA-induced hepatopathy in rats. Yamaoka K, et al. **Physiol Chem Phys Med NMR** 1998;30(1):15–23

Radioprotective effects of flurbiprofen and its nitroderivative. Juchelková L, et al. **Physiol Res** 1998;47(1):73–80

The presence of wild-type TP53 is necessary for the radioprotective effect of the Bowman-Birk proteinase inhibitor in normal fibroblasts. Dittmann KH, et al. **Radiat Res** 1998 Dec;150(6):648–55

Protection or sensitization by thiols or ascorbate in irradiated solutions of DNA or deoxyguanosine. Svoboda P, et al. **Radiat Res** 1999 May;151(5):605–16

In vivo and in vitro radioprotective effects of the prostaglandin E1 analogue misoprostol in DNA repair-proficient and -deficient rodent cell systems. van Buul PP, et al. **Radiat Res** 1999 Oct;152(4):398–403

Hormone pretreatment enhances recovery of spermatogenesis in rats after neutron irradiation. Wilson G, et al. **Radiat Res** 1999 Jul;152(1):51–6

Effects of Venoruton on early postradiation damage in the lungs of rats. Starosławska E, et al. **Rocz Akad Med Bialymst** 1998;43:95–109

Radioprotective effects of amifostine. Wasserman T. **Semin Oncol** 1999 Apr;26(2 Suppl 7):89–94 (29 ref.)

Radioprotectants: pharmacology and clinical applications of amifostine. Dorr RT. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):10–3 (20 ref.)

Effect of amifostine (Ethyol) on the development of extraembryonic blood vessels in chick embryos. Höper J, et al. **Strahlenther Onkol** 1999 Jan;175(1):28–31

Effect of WF10 (TCDO) on antigen presentation. McGrath MS, et al. **Transplant Proc** 1998 Dec;30(8):4200–4

Protection of normal tissues from radiation and cytotoxic therapy: the development of amifostine. Castiglione F, et al. **Tumori** 1999 Mar–Apr;85(2):85–91 (72 ref.)

[Xymedon restores T-cell immune response inhibited by gamma-irradiation in vivo: relation to Ca2+-ATPase and DNA-relaxing activity] Cherepnev GV, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):66–70 **(Rus)**

[Effect of colostrum factor on the structure and functional activity of rat liver nuclei late after gamma-irradiation] Khamidov DKh, et al. **Biull Eksp Biol Med** 1999 Feb; 127(2):198–201 **(Rus)**

[Effect of chorionic gonadotropin on the radiation exposed animals] Solopaeva IM. **Biull Eksp Biol Med** 1999 May; 127(5):536–8 **(Rus)**

[Effect of the dietary vitamin concentrate Ammivit on survival of irradiated BALB/c mice] Zolotareva NN, et al. **Dokl Akad Nauk** 1998 Jul;361(2):272–4 **(Rus)**

[Effect of beta-carotene oil and bee pollen on ion transport in rat brain slices following radiation-chemical exposure] Anan'eva TV, et al. **Radiats Biol Radioecol** 1999 Mar–Jun; 39(2–3):341–4 (Eng. Abstr.) **(Rus)**

[Increased efficacy of radiation protection against fission neutrons using unithiol] Grachev SA, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):258–60 (Eng. Abstr.) **(Rus)**

[Effects of cystamine on the state of peripheral blood neutrophilic granulocytes in vivo in rats] Grebeniuk AN, et al. **Radiats Biol Radioecol** 1998 Nov–Dec;38(6):848–53 (Eng. Abstr.) **(Rus)**

[Use of metal salts for radioprotection of plants during radioactive pollution of the territory] Gudkov IN, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):349–53 (Eng. Abstr.) **(Rus)**

[Study of 137Cs transfer across the placenta to the rat fetuses and effect of ferrocin on these processes] Il'in LA, et al. **Radiats Biol Radioecol** 1998 Jul–Aug;38(4):616–23 (Eng. Abstr.) **(Rus)**

[Increase in radiation resistance of an organism after administration of metabolic drug MR-33] Kalinina EV, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):272–6 (Eng. Abstr.) **(Rus)**

[Evaluation of radioprotective properties of a lipocarotenoid extract from mycelium of basidiomycetes during external irradiation] Konoplia EF, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):277–81 (Eng. Abstr.) **(Rus)**

[Radioprotective properties of carnosine] Kudriashov IuB, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):268–71 (Eng. Abstr.) **(Rus)**

[Efficacy of radioprotectors and gene mutations following 2-deoxyribosyl damage. Computer modeling] Kuzurman PA, et al. **Radiats Biol Radioecol** 1999 Mar–Jun; 39(2–3).293–5 (Eng. Abstr.) **(Rus)**

[Radioprotective effect of lymphokinine] Legeza VI, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):264–7 (Eng. Abstr.) **(Rus)**

[Toxicity and radiation protective properties of 2(3)-guanidinoalkanethiols: structure-activity] Mandrugin AA, et al. **Radiats Biol Radioecol** 1999 Mar–Jun; 39(2–3):254–7 (Eng. Abstr.) **(Rus)**

[Effect of melanin on mutagenic activity of chronic irradiation and adaptive response in mice] Mossé IB, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):329–33 (Eng. Abstr.) **(Rus)**

[Effect of mussels hydrolysate MIGI-K on the adaptive response od bone marrow hematopoietic stem cells in mice] Parkhomenko IM, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):310–2 (Eng. Abstr.) **(Rus)**

[Radioprotective properties of phenoxane during low intensity low dose gamma irradiation] Shishkina LN, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(?-3):322–8 (Eng. Abstr.) **(Rus)**

[Proteins induction by cysteamine in Escherichia coli cells] Suslov AV, et al. **Radiats Biol Radioecol** 1998 Jul–Aug; 38(4):488–94 (Eng. Abstr.) **(Rus)**

[The role of cell hypoxia in the effect of radiation protectors] Vasin MV, et al. **Radiats Biol Radioecol** 1999 Mar–Jun; 39(2–3):238–48 (Eng. Abstr.) **(Rus)**

[Classification of radiation protective agents as a basis of modern radiation pharmacology] Vasin MV. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):212–22 (149 ref.) (Eng. Abstr.) **(Rus)**

[Mechanism of the antistressor and antiradiation action of plant phenol compounds] Baraboi VA, et al. **Ukr Biokhim Zh** 1998 Nov–Dec;70(6):13–23 (82 ref.) (Eng. Abstr.) **(Rus)**

[The effect of a peptide erythrocyte extract on the hemostatic reactions of animals under measured gamma irradiation] Zviahol's'ka IM. **Fiziol Zh** 1999;45(3):87–91 (Eng. Abstr.) **(Ukr)**

RADIATION-PROTECTIVE AGENTS

THERAPEUTIC USE

Aspects on reducing gastrointestinal adverse effects associated with radiotherapy. Henriksson R, et al. **Acta Oncol** 1999;38(2):159–64 (37 ref.)

Indications for use of amifostine [letter; comment] Santolaya-Perrin R, et al. **Am J Health Syst Pharm** 1998 Sep 1;55(17):1827–8. Comment on: Am J Health Syst Pharm 1997 Apr 1;54(7):787–800.

A new administration schedule for amifostine as a radioprotector in cancer therapy. Wagner W, et al. **Anticancer Res** 1999 May-Jun;19(3B):2281–3

Protective effects of 5,6,7,8-tetrahydroneopterin against X-ray radiation injury in mice. Yasumura M, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):378–84

The sulfhydryl containing compounds WR-2721 and glutathione as radio- and chemoprotective agents. A review, indications for use and prospects. Hospers GA, et al. **Br J Cancer** 1999 May;80(5–6):629–38 (81 ref.)

Effects of radiotherapy and estramustine on the microvasculature in malignant glioma. Johansson M, et al. **Br J Cancer** 1999 Apr;80(1-2):142–8

Topical melatonin in combination with vitamins E and C protects skin from ultraviolet-induced erythema: a human study in vivo. Dreher F, et al. **Br J Dermatol** 1998 Aug; 139(2):332–9

Poor response rate to a continuous schedule of Amifostine therapy for 'low/intermediate risk' myelodysplastic patients. Bowen DT, et al. **Br J Haematol** 1998 Dec; 103(3):785–7

'TUNEL' evidence of reduced bone marrow cells apoptosis in a refractory anaemia patient treated with amifostine [letter] Moroni M, et al. **Br J Haematol** 1999 Feb; 104(2):424–5

Restorative effect of Coriolus versicolor polysaccharides against gamma-irradiation-induced spleen injury in mice. Lin IH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar; 17(2):102–4

Effect of pretreatment on the incidence of hyperpigmentation following cutaneous CO2 laser resurfacing. West TB, et al. **Dermatol Surg** 1999 Jan;25(1):15–7

Chemoprotectants: a review of their clinical pharmacology and therapeutic efficacy. Links M, et al. **Drugs** 1999 Mar; 57(3):293–308 (94 ref.)

A phase II evaluation of pentoxifylline combined with radiation in the treatment of brain metastases. Johnson FE, et al. **Int J Oncol** 1998 Oct;13(4):801–5

Radioprotection of salivary glands by S-2-(3-aminopropylamino)-ethylphosphorothioic (amifostine) obtained in a rabbit animal model. Bohuslavizki KH, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1; 45(1):181–6

Beneficial effects of the radioprotectant 21-aminosteroid U-74389G in a radiosurgery rat malignant glioma model. Kondziolka D, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):179–84

Striking regression of subcutaneous fibrosis induced by high doses of gamma rays using a combination of pentoxifylline and alpha-tocopherol: an experimental study. Lefaix JL, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):839–47

Pentoxifylline treatment of radiation mastitis [letter] Steeves RA, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1; 42(5):1177

Salivary gland protection by amifostine in high-dose radioiodine treatment: results of a double-blind placebo-controlled study. Bohuslavizki KH, et al. **J Clin Oncol** 1998 Nov;16(11):3542–9

Sparing radiation-induced damage to the physis by radioprotectant drugs: laboratory analysis in a rat model. Tamurian RM, et al. **J Orthop Res** 1999 Mar;17(2):286–92

The effect of vitamin E acetate on ultraviolet-induced mouse skin carcinogenesis. Berton TR, et al. **Mol Carcinog** 1998 Nov;23(3):175–84

Clinical status and optimal use of amifostine. Capizzi RL. **Oncology (Huntingt)** 1999 Jan;13(1):47–59; discussion 63, 67 (90 ref.)

Meloxicam in acute UV dermatitis--a pilot study. Bayerl C, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec;14(5–6):167–9

Modulation of ultraviolet light-induced epidermal damage: beneficial effects of tocopherol [letter; comment] Molenaar A. **Plast Reconstr Surg** 1998 Oct;102(5):1785–6. Comment on: Plast Reconstr Surg 1997 Sep;100(4):973–80.

Effect of natural beta-carotene supplementation in children exposed to radiation from the Chernobyl accident. Ben-Amotz A, et al. **Radiat Environ Biophys** 1998 Oct; 37(3):187–93

In vivo radioprotection by ocimum flavonoids: survival of mice. Uma Devi P, et al. **Radiat Res** 1999 Jan;151(1):74–8

Future development of amifostine as a radioprotectant. Werner-Wasik M. **Semin Oncol** 1999 Apr;26(2 Suppl 7):129–34 (28 ref.)

Future directions in toxicity prevention. Brizel DM. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):17–20 (14 ref.)

Radiation-induced toxicities: the role of radioprotectants. Curran WJ. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):2–4 (14 ref.)

Protection of normal tissues from the cytotoxic effects of radiation therapy: focus on amifostine. Mehta MP. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):14–6 (11 ref.)

Toxicity antagonists in head and neck cancer. Trotti A. **Semin Radiat Oncol** 1998 Oct;8(4):282–91 (83 ref.)

Salivary gland protection by amifostine in high-dose radioiodine therapy of differentiated thyroid cancer. Bohuslavizki KH, et al. **Strahlenther Onkol** 1999 Feb; 175(2):57–61

Pharmacological management of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:62–5 (43 ref.)

[Prospective double-blind study of prophylaxis of radioxerostomia with Coumarin/Troxerutine in patients with head and neck cancer] Grötz KA, et al. **Strahlenther Onkol** 1999 Aug;175(8):397–403; discussion 404 (Eng. Abstr.) **(Ger)**

[Food fibers--blockers and decontaminants of the radionuclides cesium and strontium] Shchelkunov LF, et al. **Gig Sanit** 1999 Mar-Apr;(2):40–4 (Eng. Abstr.) **(Rus)**

[Experimental validation of the use of the radioprotector indometofen for inflammation arrest in the periodontium in an immunodeficiency state] Grigor'ian AS, et al. **Patol Fiziol Eksp Ter** 1998 Jul-Sep;(3):15–8 (Eng. Abstr.) **(Rus)**

[Adaptogen MIGI-K in rehabilitation of Chernobyl liquidators] Goncharenko EN, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):304–9 (Eng. Abstr.) **(Rus)**

[Current problems of chemical radiation protection of organisms] Kudriashov IuB, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):197–211 (98 ref.) (Eng. Abstr.) **(Rus)**

[Protective effects of MIGI-K during UV irradiation of animals] Platonov AG, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):313–7 (Eng. Abstr.) **(Rus)**

[Radiation protective agents effective in a wide range of radiation dosages] Rasina LN, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):223–6 (Eng. Abstr.) **(Rus)**

[Protective action of leukinferin during radiotherapy of oncologic patients] Rasskazchikova ES, et al. **Radiats Biol Radioecol** 1998 Sep-Oct;38(5):684–9 (Eng. Abstr.) **(Rus)**

[Radiation protective efficacy of alpha-adrenomimetics during local gamma irradiation of the skin] Vasin MV, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):249–53 (Eng. Abstr.) **(Rus)**

TOXICITY

[Effect of unithiol on cystamine toxicity in dogs] Grachev SA, et al. **Radiats Biol Radioecol** 1999 Mar-Jun; 39(2-3):261–3 (Eng. Abstr.) **(Rus)**

RADIATION SENSITIVITY see **RADIATION TOLERANCE**

RADIATION-SENSITIZING AGENTS

Modelling the enhancement of fractionated radiotherapy by gene transfer to sensitize tumour cells to radiation. Wheldon TE, et al. **Radiother Oncol** 1998 Jul;48(1):5–13

[Navelbine (vinorelbine): a review of its antitumor activity and toxicity in clinical studies] Niitani H. **Gan To Kagaku Ryoho** 1999 Sep;26(10):1495–507 (66 ref.) (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Phase I/II study of weekly irinotecan and concurrent radiation therapy for locally advanced non-small cell lung cancer. Takeda K, et al. **Br J Cancer** 1999 Mar; 79(9–10):1462–7

Local and sustained delivery of 5-fluorouracil from biodegradable microspheres for the radiosensitization of glioblastoma: a pilot study [see comments] Menei P, et al. **Cancer** 1999 Jul 15;86(2):325–30. Comment in: Cancer 1999 Jul 15;86(2):197–9.

Tumor radiosensitization by sustained intratumoral release of bromodeoxyuridine. Doiron A, et al. **Cancer Res** 1999 Aug 1;59(15):3677–81

Leucovorin modulation of 5-iododeoxyuridine radiosensitization: a phase I study. McGinn CJ, et al. **Clin Cancer Res** 1996 Aug;2(8):1299–305

Weekly docetaxel and concomitant boost radiotherapy for non-small cell lung cancer. A phase I/II dose escalation trial. Koukourakis MI, et al. **Eur J Cancer** 1998 May; 34(6):838–44

Carbogen inhalation in cervical cancer: assessment of oxygenation change. Aquino-Parsons C, et al. **Gynecol Oncol** 1999 Aug;74(2):259–64

The optimal combination of hyperthermia and carbogen breathing to increase tumor oxygenation and radiation response. Griffin RJ, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):865–9

A phase II trial of high-dose bromodeoxyuridine with accelerated fractionation radiotherapy followed by procarbazine, lomustine, and vincristine for glioblastoma multiforme. Groves MD, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):127–35

Radiation enhancement by 9-aminocamptothecin: the effect of fractionation and timing of administration. Kirichenko AV, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1; 44(3):659–64

Radiosensitization with carboplatin for patients with unresectable stage III non-small-cell lung cancer: a phase III trial of the Cancer and Leukemia Group B and the Eastern Cooperative Oncology Group [see comments] Clamon G, et al. **J Clin Oncol** 1999 Jan;17(1):4–11. Comment in: J Clin Oncol 1999 Jan;17(1):1–3.

Bromodeoxyuridine alternating with radiation for advanced uterine cervix cancer: a phase I and drug incorporation study [see comments] Eisbruch A, et al. **J Clin Oncol** 1999 Jan;17(1):31–40. Comment in: J Clin Oncol 1999 Jan;17(1):1–3.

Recent advances in preoperative hyperthermochemoradiotherapy for patients with esophageal cancer. Saeki H, et al. **J Surg Oncol** 1998 Dec; 69(4):224–9

Pre-operative chemoradiation therapy with 5-fluorouracil and low-dose daily cisplatin for esophageal cancer: a preliminary report. Shimoyama S, et al. **Jpn J Clin Oncol** 1999 Mar;29(3):132–6

Photodynamic therapy using Photofrin in combination with buthionine sulfoximine (BSO) to treat 9L gliosarcoma in rat brain. Jiang F, et al. **Lasers Surg Med** 1998;23(3):161–6

Enhanced delivery of boronophenylalanine for neutron capture therapy of brain tumors using the bradykinin analog Cereport (Receptor-Mediated Permeabilizer-7). Barth RF, et al. **Neurosurgery** 1999 Feb;44(2):351–9; discussion 359–60

Tumour response to hypercapnia and hyperoxia monitored by FLOOD magnetic resonance imaging. Robinson SP, et al. **NMR Biomed** 1999 Apr;12(2):98–106

Comparison of the effectiveness of tirapazamine and carbogen with nicotinamide in enhancing the response of a human tumor xenograft to fractionated irradiation. el-Said A, et al. **Radiat Oncol Investig** 1999;7(3):163–9

Phases IB and II multidose trial of gadolinium texaphyrin, a radiation sensitizer detectable at MR imaging: preliminary results in brain metastases. Viala J, et al. **Radiology** 1999 Sep;212(3):755–9

Comment on: A randomized double-blind phase III study of nimorazole as a hypoxic radiosensitizer of primary radiotherapy in supraglottic larynx and pharynx carcinoma. Results of the the Danish Head and Neck Cancer Study (DAHNCA) Protocol 5–85 [letter; comment] Ben-Josef E. **Radiother Oncol** 1998 Sep;48(3):344–6. Comment on: Radiother Oncol 1998 Feb;46(2):135–46.

Inspired and expired gas concentrations in man during carbogen breathing. Hoskin PJ, et al. **Radiother Oncol** 1999 May;51(2):175–7

Radiosensitization by intratumoral administration of cisplatin in a sustained-release drug delivery system. Ning S, et al. **Radiother Oncol** 1999 Feb;50(2):215–23

Improvement in human tumour oxygenation with carbogen of varying carbon dioxide concentrations. Powell ME, et al. **Radiother Oncol** 1999 Feb;50(2):167–71

Seven-week continuous-infusion paclitaxel concurrent with radiation therapy for locally advanced non-small cell lung and head and neck cancers. Dowell JE, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):97–101

Paclitaxel and concurrent radiotherapy in locally advanced non-small cell lung cancer: the Canadian experience. Kirkbride P, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):102–7

Concurrent twice-weekly paclitaxel and thoracic irradiation for stage III non-small cell lung cancer. Lau D, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):117–20

A pilot clinical laboratory trial of paclitaxel and endobronchial brachytherapy in patients with non-small cell lung cancer. Lee JS, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):121–9

Interaction of paclitaxel (Taxol) and irradiation. In-vitro differences between tumor and fibroblastic cells. Cordes N, et al. **Strahlenther Onkol** 1999 Apr;175(4):175–81

[Continuous radiosensitizing chemotherapy] Hennequin C, et al. **Pathol Biol (Paris)** 1999 Mar;47(3):279–81 (12 ref.) (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Concurrent twice-a-week docetaxel and radiotherapy: a dose escalation trial with immunological toxicity evaluation. Koukourakis MI, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):107–14

[Chronic radiodermatitis after heart catheterization: the contributing role of ciprofibrate (Lipanor)?] Gironet N, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):598–600 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Halogen anion formation in 5-halouracil films: X rays compared to subionization electrons. Klyachko DV, et al. **Radiat Res** 1999 Feb;151(2):177–87

CLASSIFICATION

Chemical sensitizers and protectors. Coleman CN. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):791–3

DIAGNOSTIC USE

Transient absorption changes in vivo during photodynamic therapy with pulsed-laser light. Pogue BW, et al. **Br J Cancer** 1999 May;80(3–4):344–51

Identifying hypoxic tissue after acute ischemic stroke using PET and 18F-fluoromisonidazole. Read SJ, et al. **Neurology** 1998 Dec;51(6):1617–21

Noninvasive assessment of tumor hypoxia with 99mTc labeled metronidazole. Yang DJ, et al. **Pharm Res** 1999 May;16(5):743–50

ISOLATION & PURIFICATION

High-throughput assay for G2 checkpoint inhibitors and identification of the structurally novel compound isogranulatimide. Roberge M, et al. **Cancer Res** 1998 Dec 15;58(24):5701-6

METABOLISM

Marking hypoxic cells for complement and cytotoxic T lymphocyte-mediated lysis: using pimonidazole. Chou SC, et al. **Br J Cancer Suppl** 1996 Jul;27:S213-6

Immunocytochemical labelling of aerobic and hypoxic mammalian cells using a platinated derivative of EF5. Matthews J, et al. **Br J Cancer Suppl** 1996 Jul;27:S200-3

Comparisons among pimonidazole binding, oxygen electrode measurements, and radiation response in C3H mouse tumors. Raleigh JA, et al. **Radiat Res** 1999 May; 151(5):580-9

PHARMACOKINETICS

Gamma camera imaging of platinum in tumours and tissues of patients after administration of 191Pt-cisplatin. Areberg J, et al. **Acta Oncol** 1999;38(2):221-8

Extravascular diffusion of tirapazamine: effect of metabolic consumption assessed using the multicellular layer model. Hicks KO, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):641-9

Effect of dose and infusion time on the delivery of p-boronophenylalanine for neutron capture therapy. Joel DD, et al. **J Neurooncol** 1999 Feb;41(3):213-21

Proton nuclear magnetic resonance measurement of p-boronophenylalanine (BPA): a therapeutic agent for boron neutron capture therapy. Zuo CS, et al. **Med Phys** 1999 Jul;26(7):1230-6

Pharmacokinetics of nicotinamide in cancer patients treated with accelerated radiotherapy: the experience of the Co-operative Group of Radiotherapy of the European Organization for Research and Treatment of Cancer. Bernier J, et al. **Radiother Oncol** 1998 Aug;48(2):123-33

PHARMACOLOGY

Cytotoxic and genotoxic effects of paclitaxel (Taxol) and radiation in a squamous cell carcinoma cell line of the larynx. Preisler VK, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):600-5

Does AK-2123 (Senazole) have sensitizing effects on radiation, cisplatin and hyperthermia under aerobic conditions in vitro? Mitsuhashi N, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3463-7

The effects of hyperoxic and hypercarbic gases on tumour blood flow. Dunn TJ, et al. **Br J Cancer** 1999 Apr; 80(1-2):117-26

Radiosensitization of hypoxic tumour cells by S-nitroso-N-acetylpenicillamine implicates a bioreductive mechanism of nitric oxide generation. Janssens MY, et al. **Br J Cancer** 1999 Mar;79(7-8):1085-9

A photodynamic pathway to apoptosis and necrosis induced by dimethyl tetrahydroxyhelianthrone and hypericin in leukaemic cells: possible relevance to photodynamic therapy. Lavie G, et al. **Br J Cancer** 1999 Feb; 79(3-4):423-32

The effects of host carbogen (95% oxygen/5% carbon dioxide) breathing on metabolic characteristics of Morris hepatoma 9618a. Stubbs M, et al. **Br J Cancer** 1998 Dec; 78(11):1449-56

The limiting radiosensitisation of tumours by S-phase sensitisers. Fowler JF, et al. **Br J Cancer Suppl** 1996 Jul; 27:S294-6

Radiation sensitisation by nitric oxide releasing agents. Mitchell JB, et al. **Br J Cancer Suppl** 1996 Jul;27:S181-4

Effect of BSO and etanidazole on neurofilament degradation in neonatal rat spinal cord cultures. Palayoor ST, et al. **Br J Cancer Suppl** 1996 Jul;27:S117-21

THNLA-1 as radio/chemosensitiser of EMT-6 tumours in mice. Papadopoulou MV, et al. **Br J Cancer Suppl** 1996 Jul;27:S267-70

Tirapazamine: hypoxic cytotoxicity and interaction with radiation as assessed by the micronucleus assay. Shibata T, et al. **Br J Cancer Suppl** 1996 Jul;27:S61-4

The in situ tumour response to combinations of cyclophosphamide and tirapazamine. Siemann DW. **Br J Cancer Suppl** 1996 Jul;27:S65-9

The cell death response to gamma-radiation in MCF-7 cells is enhanced by a neuroleptic drug, pimozide. Strobl JS, et al. **Breast Cancer Res Treat** 1998 Sep;51(1):83-95

Multiple mechanisms of action of the benzamides and nicotinamides as sensitizers of radiotherapy: opportunities for drug design. Pero RW, et al. **Cancer Detect Prev** 1998; 22(3):225-36

Selective radiosensitization of 9L glioma in the brain transduced with double suicide fusion gene [see comments] Kim JH, et al. **Cancer J Sci Am** 1998 Nov-Dec;4(6):364-9 . Comment in: Cancer J Sci Am 1998 Nov-Dec;4(6):349-50.

The phosphatidylinositol 3-kinase inhibitor wortmannin sensitizes quiescent but not proliferating MG-63 human osteosarcoma cells to radiation. Kubota N, et al. **Cancer Lett** 1998 Nov 27;133(2):161-7

Radiopotentiation of human brain tumor cells by sodium phenylacetate. Ozawa T, et al. **Cancer Lett** 1999 Aug 3; 142(2):139-46

Tumor-targeted apoptosis by a novel spermine analogue, 1,12-diaziridinyl-4,9-diazadodecane, results in therapeutic efficacy and enhanced radiosensitivity of human prostate cancer. Eiseman JL, et al. **Cancer Res** 1998 Nov 1; 58(21):4864-70

Blockage of the vascular endothelial growth factor stress response increases the antitumor effects of ionizing radiation. Gorski DH, et al. **Cancer Res** 1999 Jul 15; 59(14):3374-8

Competitive and noncompetitive inhibition of the DNA-dependent protein kinase. Izzard RA, et al. **Cancer Res** 1999 Jun 1;59(11):2581-6

Light-induced photoactivation of hypericin affects the energy metabolism of human glioma cells by inhibiting hexokinase bound to mitochondria. Miccoli L, et al. **Cancer Res** 1998 Dec 15;58(24):5777-86

Inhibition of ATM and ATR kinase activities by the radiosensitizing agent, caffeine. Sarkaria JN, et al. **Cancer Res** 1999 Sep 1;59(17):4375-82

Inhibition of phosphoinositide 3-kinase related kinases by the radiosensitizing agent wortmannin. Sarkaria JN, et al. **Cancer Res** 1998 Oct 1;58(19):4375-82

(E)-2'-deoxy-2'-(fluoromethylene) cytidine potentiates radioresponse of two human solid tumor xenografts. Sun LQ, et al. **Cancer Res** 1998 Dec 1;58(23):5411-7

Radiosensitization by 5-fluorocytosine of human colorectal carcinoma cells in culture transduced with cytosine deaminase gene. Khil MS, et al. **Clin Cancer Res** 1996 Jan; 2(1):53-7

Combination interferon-alpha2a and 13-cis-retinoic acid enhances radiosensitization of human malignant glioma cells in vitro. Malone C, et al. **Clin Cancer Res** 1999 Feb; 5(2):417-23

Radiosensitization of human tumor cells by the phosphatidylinositol3-kinase inhibitors wortmannin and LY294002 correlates with inhibition of DNA-dependent protein kinase and prolonged G2-M delay. Rosenzweig KE, et al. **Clin Cancer Res** 1997 Jul;3(7):1149-56

Flavonoids as enhancers of x-ray-induced cell damage in hepatoma cells. van Rijn J, et al. **Clin Cancer Res** 1997 Oct;3(10):1775-9

Enhancement of radiosensitivity in human malignant glioma cells by hypericin in vitro. Zhang W, et al. **Clin Cancer Res** 1996 May;2(5):843-6

The mechanism of retinoic acid radiosensitization is independent of AP-1 repression in a cervical carcinoma cell line. Salsman S, et al. **Gynecol Oncol** 1999 May; 73(2):253-6

Effect of plumbagin on the radiation induced cytogenetic and cell cycle changes in mouse Ehrlich ascites carcinoma in vivo. Devi PU, et al. **Indian J Exp Biol** 1998 Sep; 36(9):891-5

A phosphatidylinositol 3-kinase inhibitor wortmannin induces radioresistant DNA synthesis and sensitizes cells to bleomycin and ionizing radiation. Hosoi Y, et al. **Int J Cancer** 1998 Nov 23;78(5):642-7

Effect of docetaxel (Taxotere) on expression of radiation-induced lethal mutations in human cell lines. Creane M, et al. **Int J Radiat Biol** 1999 Jun;75(6):725-30

Radiobiological effects of docetaxel (Taxotere): a potential radiation sensitizer. Creane M, et al. **Int J Radiat Biol** 1999 Jun;75(6):731-7

Correlation between cell reproductive death and chromosome aberrations assessed by FISH for low and high doses of radiation and sensitization by iodo-deoxyuridine in human SW-1573 cells. Franken NA, et al. **Int J Radiat Biol** 1999 Mar;75(3):293-9

Caffeine-increased radiosensitivity is not dependent on a loss of G2/M arrest or apoptosis in bladder cancer cell lines. Ribeiro JC, et al. **Int J Radiat Biol** 1999 Apr;75(4):481-92

The effect of 2'-2' difluorodeoxycytidine (dFdC, gemcitabine) on radiation-induced cell lethality in two human head and neck squamous carcinoma cell lines differing in intrinsic radiosensitivity. Rosier JF, et al. **Int J Radiat Biol** 1999 Feb;75(2):245-51

4-Amino-1,8-naphthalimide: a novel inhibitor of poly(ADP-ribose) polymerase and radiation sensitizer. Schlicker A, et al. **Int J Radiat Biol** 1999 Jan;75(1):91-100

Hematoporphyrin derivatives potentiate the radiosensitizing effects of 2-deoxy-D-glucose in cancer cells. Dwarakanath BS, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):1125-33

Enhancement of fractionated-dose irradiation by retinoic acid plus interferon. Gerweck LE, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):611-5

TX-1877: design, synthesis, and biological activities as a BRM-functional hypoxic cell radiosensitizer. Kasai S, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):799-802

Variability in blood flow and pO2 in tumors in response to carbogen breathing. Lanzen JL, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):855-9

Pulse radiolysis studies indicate that electron transfer is involved in radioprotection by Hoechst 33342 and methylproamine. Martin RF, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):827-31

Redox generation of nitric oxide to radiosensitize hypoxic cells. Mitchell JB, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):795-8

Bioreductive therapies: an overview of drugs and their mechanisms of action. Rauth AM, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):755-62

Radiation rendered more cytotoxic by fludarabine monophosphate in a human oropharynx carcinoma cell-line than in fetal lung fibroblasts. Laurent D, et al. **J Cancer Res Clin Oncol** 1998;124(9):485-92

Effects of paclitaxel in combination with radiation on human head and neck cancer cells (ZMK-1), cervical squamous cell carcinoma (CaSki), and breast adenocarcinoma cells (MCF-7). Pradier O, et al. **J Cancer Res Clin Oncol** 1999; 125(1):20-7

Enhancement of tumor response to gamma-radiation by an inhibitor of cyclooxygenase-2 enzyme. Milas L, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1501-4

Effect of radiation and tirapazamine (SR-4233) on three melanoma cell lines. Zhang M, et al. **Melanoma Res** 1998 Dec;8(6):510-5

Cisplatin-modification of DNA repair and ionizing radiation lethality in yeast, Saccharomyces cerevisiae. Dolling JA, et al. **Mutat Res** 1999 Mar 10;433(2):127-36

Teniposide (VM-26) treatment enhances the radiation-induced micronuclei in the bone marrow of mouse. Jagetia GC, et al. **Mutat Res** 1999 Mar 10; 425(1):87-98

Radiosensitization and apoptosis. Muschel RJ, et al. **Oncogene** 1998 Dec 24;17(25):3359-63 (100 ref.)

Increased chromosome exchange frequencies in iodo-deoxyuridine-sensitized human SW-1573 cells after gamma-irradiation. Franken NA, et al. **Oncol Rep** 1999 Jan-Feb;6(1):59-63

The effects of nicotinamide plus carbogen or pions for microscopic SCCVII tumors. Nishioka A, et al. **Oncol Rep** 1999 May-Jun;6(3):583-6

Camptothecin radiation sensitization: mechanisms, schedules, and timing. Rich TA, et al. **Oncology (Huntingt)** 1998 Aug; 12(8 Suppl 6):114-20 (55 ref.)

Photophysical properties of tin ethyl etiopurpurin I (SnET2) and tin octaethylbenzochlorin (SnOEBC) in solution and bound to albumin. Pogue BW, et al. **Photochem Photobiol** 1998 Dec;68(6):809-15

In vitro and in vivo activation of hypericin with the incoherent light source PDT 1200 SOA (520-750 nm) and with solar simulated radiation (290-2500 nm). Schempp CM, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb;15(1):13-7

Sensitization of cells to ionizing radiation by chlorin e6Na. Hosoi Y, et al. **Radiat Oncol Investig** 1998;6(4):151-6

RSR13, a synthetic allosteric modifier of hemoglobin, as an adjunct to radiotherapy: preliminary studies with EMT6 cells and tumors and normal tissues in mice. Rockwell S, et al. **Radiat Oncol Investig** 1998;6(5):199-208

Wortmannin sensitizes mammalian cells to radiation by inhibiting the DNA-dependent protein kinase-mediated rejoining of double-strand breaks. Chernikova SB, et al. **Radiat Res** 1999 Feb;151(2):159-66

Protection or sensitization by thiols or ascorbate in irradiated solutions of DNA or deoxyguanosine. Svoboda P, et al. **Radiat Res** 1999 May;151(5):605-16

Vascular architecture and microenvironmental parameters in human squamous cell carcinoma xenografts: effects of carbogen and nicotinamide. Bussink J, et al. **Radiother Oncol** 1999 Feb;50(2):173-84

Combination of taxanes with radiation: preclinical studies. Milas L, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):12-26 (83 ref.)

Elimination of cytokine production in stored platelet concentrate aliquots by photochemical treatment with psoralen plus ultraviolet A light. Hei DJ, et al. **Transfusion** 1999 Mar;39(3):239-48

[In vitro study of a paclitaxel-radiotherapy combination on a human epidermoid tumor cell line] Pradier O, et al. **Cancer Radiother** 1999 Jan-Feb;3(1):51-6 (Eng. Abstr.) **(Fre)**

[Interactions of carboplatin, cisplatin, and ionizing radiation on a human cell line of ovarian cancer] Scalliet P, et al. **Cancer Radiother** 1999 Jan-Feb;3(1):30-8 (Eng. Abstr.) **(Fre)**

[The intensification of the radiotherapeutic effect on HeLa cells by gemcitabine] Mose S, et al. **Strahlenther Onkol** 1999 Feb;175(2):78-83 (Eng. Abstr.) **(Ger)**

[Gas exchange as a factor of the body radiation resistance] Ivnitskiĭ IuIu, et al. **Aviakosm Ekolog Med** 1998;32(3):50-3 (Eng. Abstr.) **(Rus)**

[Effect of substances, absorbing ultraviolet irradiation on Bacillus subtilis resistance to inactivation and mutagenic action of natural sunlight] Lotareva OV, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):595-600 (Eng. Abstr.) **(Rus)**

[The effect of ionizing radiation and radiosensitizing agent AK-2123 on luminol-dependent chemiluminescence of human neutrophils] Shchepetkin IA. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):601-8 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Docetaxel in head and neck cancer: a review. Colevas AD, et al. **Am J Clin Oncol** 1998 Oct;21(5):482-6 (28 ref.)

Fractionated carboplatin radiosensitization: a phase I dose-escalation study. Koukourakis MI, et al. **Am J Clin Oncol** 1998 Dec;21(6):595-601

A phase I-II trial of lovastatin for anaplastic astrocytoma and glioblastoma multiforme. Larner J, et al. **Am J Clin Oncol** 1998 Dec;21(6):579-83

Photodynamic treatment of basal cell carcinoma and squamous cell carcinoma with hypericin. Alecu M, et al.

Anticancer Res 1998 Nov-Dec;18(6B):4651-4
Antisense raf oligodeoxyribonucleotide is a radiosensitizer in vivo. Gokhale PC, et al.
Antisense Nucleic Acid Drug Dev 1999 Apr;9(2):191-201
Carbogen-induced changes in rat mammary tumour oxygenation reported by near infrared spectroscopy. Hull EL, et al. **Br J Cancer** 1999 Apr;79(11-12):1709-16
RSR13, an allosteric effector of haemoglobin, and carbogen radiosensitize FSAII and SCCVII tumours in C3H mice. Khandelwal SR, et al. **Br J Cancer** 1999 Feb;79(5-6):814-20
Photodynamic therapy with mTHPC and polyethylene glycol-derived mTHPC: a comparative study on human tumour xenografts. Ris HB, et al. **Br J Cancer** 1999 Mar; 79(7-8):1061-6
Evidence for a therapeutic gain when AQ4N or tirapazamine is combined with radiation. McKeown SR, et al.
Br J Cancer Suppl 1996 Jul;27:S39-42
A randomised study of ornidazole as a radiosensitiser in carcinoma of the cervix: long term results. Okkan S, et al. **Br J Cancer Suppl** 1996 Jul;27:S282-6
Clinical results of hypoxic cell radiosensitisation from hyperbaric oxygen to accelerated radiotherapy, carbogen and nicotinamide. Saunders M, et al. **Br J Cancer Suppl** 1996 Jul;27:S271-8 (48 ref.)
Human pancreatic carcinoma cells are sensitive to photodynamic therapy in vitro and in vivo. Hajri A, et al. **Br J Surg** 1999 Jul;86(7):899-906
Hypoxic radiosensitizers in radical radiotherapy for patients with bladder carcinoma: hyperbaric oxygen, misonidazole, and accelerated radiotherapy, carbogen, and nicotinamide. Hoskin PJ, et al. **Cancer** 1999 Oct 1;86(7):1322-8
A phase II/III clinical study of tin ethyl etiopurpurin (Purlytin)-induced photodynamic therapy for the treatment of recurrent cutaneous metastatic breast cancer. Mang TS, et al. **Cancer J Sci Am** 1998 Nov-Dec;4(6):378-84
Enhancement of tumor radioresponse in vivo by gemcitabine. Milas L, et al. **Cancer Res** 1999 Jan 1;59(1):107-14
A phase I single-dose trial of gadolinium texaphyrin (Gd-Tex), a tumor selective radiation sensitizer detectable by magnetic resonance imaging. Rosenthal DI, et al.
Clin Cancer Res 1999 Apr;5(4):739-45
Taxanes as radiosensitizers for head and neck cancer. Herscher LL, et al. **Curr Opin Oncol** 1999 May;11(3):183-6 (22 ref.)
Photodynamic ablation of early cancers of the stomach by means of mTHPC and laser irradiation: preliminary clinical experience [see comments] Ell C, et al. **Gut** 1998 Sep; 43(3):345-9. Comment in: Gut 1998 Sep;43(3):309-10.
A clinical study to assess chlorpromazine as hypoxic cell sensitizer in head & neck cancer treated with conventional radiation. Huilgol NG, et al. **Indian J Cancer** 1998 Sep; 35(3):97-100
Lung metastasis suppression of the bifunctional new radiosensitizer KIN-806. Inomata T, et al.
Int J Mol Med 1999 Sep;4(3):257-60
Pilot study of nimorazole as a hypoxic-cell sensitizer with the "chart" regimen in head and neck cancer. Cottrill CP, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):807-10
Irradiation with or without misonidazole for patients with stages IIIB and IVA carcinoma of the cervix: final results of RTOG 80-05. Radiation Therapy Oncology Group. Grigsby PW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):513-7
Concurrent tirapazamine and radiotherapy for advanced head and neck carcinomas: a Phase II study. Lee DJ, et al.
Int J Radiat Oncol Biol Phys 1998 Nov 1;42(4):811-5
Anemia is associated with decreased survival and increased locoregional failure in patients with locally advanced head and neck carcinoma: a secondary analysis of RTOG 85-27. Lee WR, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1069-75
Maximizing therapeutic gain with gencitabine and franctionated radiation. Mason KA, et al.
Int J Radiat Oncol Biol Phys 1999 Jul 15;44(5):1125-35
The combined effect of interferon beta and radiation on five human tumor cell lines and embryonal lung fibroblasts. Schmidberger H, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):405-12
The tumor microenvironment: a double-edged sword [editorial] Siemann DW. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):697-9
An initial experience using concurrent paclitaxel and radiation in the treatment of head and neck malignancies. Tishler RB, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1001-8
The potentiation of the effect of radiation treatment by intratumoral delivery of cisplatin. Yapp DT, et al.
Int J Radiat Oncol Biol Phys 1998 Sep 1;42(2):413-20
Radiosensitizing effect of natural and recombinant beta-interferons in a human lung carcinoma in vitro. Schmidberger H, et al. **J Cancer Res Clin Oncol** 1999; 125(6):350-6
Selective targeting and photodynamic destruction of intimal hyperplasia by scavenger-receptor mediated protein-chlorin e6 conjugates. Nagae T, et al.
J Cardiovasc Surg (Torino) 1998 Dec;39(6):709-15
Multiinstitutional phase II trial of paclitaxel, carboplatin, and concurrent radiation therapy for locally advanced non-small-cell lung cancer. Choy H, et al.
J Clin Oncol 1998 Oct;16(10):3316-22
Clinical radiosensitization: why it does and does not work [editorial; comment] Coleman CN, et al. **J Clin Oncol** 1999 Jan;17(1):1-3. Comment on: J Clin Oncol 1996 Dec;14(12):3156-74. Comment on: J Clin Oncol 1999 Jan;17(1):4-11. Comment on: J Clin Oncol 1999 Jan;17(1):31-40.
Histologic evidence of a radiosensitizing effect of Taxol in patients with astrocytomas. Wehbe T, et al.
J Neurooncol 1998 Sep;39(3):245-51
Tamoxifen radiosensitization in human glioblastoma cell lines. Donson AM, et al. **J Neurosurg** 1999 Mar;90(3):533-6
Combination 186Re-HEDP and cisplatin supra-additive treatment effects in prostate cancer cells. Geldof AA, et al. **J Nucl Med** 1999 Apr;40(4):667-71
A phase II trial, feasibility of combination of daily cisplatinum and accelerated radiotherapy via concomitant boost in stage III non-small cell lung cancer. Sarihan S, et al.
Lung Cancer 1998 Apr;20(1):37-46
Boron neutron capture therapy (BNCT): implications of neutron beam and boron compound characteristics. Wheeler FJ, et al. **Med Phys** 1999 Jul;26(7):1237-44
Chemo-radiotherapy: radiosensitizing nucleoside analogues (review). Gregoire V, et al. **Oncol Rep** 1999 Sep-Oct; 6(5):949-57 (61 ref.)
Lack of perfusion enhancement after administration of nicotinamide and carbogen in patients with glioblastoma: a 99mTc-HMPAO SPECT study. Hulshof MC, et al.
Radiother Oncol 1998 Aug;48(2):135-42
Accelerated radiotherapy with carbogen and nicotinamide (ARCON) for laryngeal cancer. Kaanders JH, et al.
Radiother Oncol 1998 Aug;48(2):115-22
The effect of combined nicotinamide and carbogen treatments in human tumour xenografts: oxygenation and tumour control studies. Stüben G, et al.
Radiother Oncol 1998 Aug;48(2):143-8
Single-agent paclitaxel and radiation for non-small cell lung cancer. Akerley W, et al. **Semin Radiat Oncol** 1999 Apr; 9(2 Suppl 1):85-9
Concurrent paclitaxel and thoracic irradiation for locally advanced esophageal cancer. Blanke CD, et al.
Semin Radiat Oncol 1999 Apr;9(2 Suppl 1):43-52
Concurrent paclitaxel and radiation therapy in the treatment of solid tumors [editorial] Choy H. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):1-3
Concurrent paclitaxel and radiation therapy for breast cancer. Formenti SC, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):34-42
The role of paclitaxel in the treatment of primary and metastatic brain tumors. Glantz MJ, et al.
Semin Radiat Oncol 1999 Apr;9(2 Suppl 1):27-33
Role of p53 and p16 gene alterations in determining response to concurrent paclitaxel and radiation in solid tumor. King TC, et al. **Semin Radiat Oncol** 1999 Apr;9(2 Suppl 1):4-11 (58 ref.)
Paclitaxel and concurrent radiation therapy for locally advanced adenocarcinomas of the pancreas, stomach, and gastroesophageal junction. Safran H, et al.
Semin Radiat Oncol 1999 Apr;9(2 Suppl 1):53-7
Recurrent glioblastoma multiforme: potential benefits using fractionated stereotactic radiotherapy and concurrent taxol. Lederman G, et al. **Stereotact Funct Neurosurg** 1997;69(1-4 Pt 2):162-74
[Current studies of combined radiotherapy-hormone therapy in localized and locally advanced prostatic cancers] Bolla M, et al. **Cancer Radiother** 1998 Dec;2(6):783-6 (16 ref.) (Eng. Abstr.) **(Fre)**
[Adjuvant chemoradiotherapy of cancers of the rectum] Bosset JF, et al. **Cancer Radiother** 1998 Dec;2(6):703-7 (40 ref.) (Eng. Abstr.) **(Fre)**
[Clinical evaluation of concomitant chemoradiotherapy and practical recommendations] Bosset JF, et al.
Cancer Radiother 1998 Dec;2(6):665-7 (13 ref.) (Eng. Abstr.) **(Fre)**
[Biological principles of chemoradiotherapy] Bourhis J, et al. **Cancer Radiother** 1998 Dec;2(6):657-62 (41 ref.) (Eng. Abstr.) **(Fre)**
[Chemoradiotherapy of carcinomas of the upper aerodigestive tract] Bourhis J, et al. **Cancer Radiother** 1998 Dec;2(6):679-88 (70 ref.) (Eng. Abstr.) **(Fre)**
[Concomitant chemoradiotherapy of cancer of the esophagus] Calais G. **Cancer Radiother** 1998 Dec;2(6):689-95 (42 ref.) (Eng. Abstr.) **(Fre)**
[Chemoradiotherapy: history and state of the art] Cosset JM. **Cancer Radiother** 1998 Dec;2(6):653-6 (19 ref.) (Eng. Abstr.) **(Fre)**
[Respective roles of radiotherapy and chemotherapy in adjuvant treatment of cancer of the breast: theoretical importance and feasibility of chemoradiotherapy] Freyer G, et al. **Cancer Radiother** 1998 Dec;2(6):723-31 (49 ref.) (Eng. Abstr.) **(Fre)**
[Chemoradiotherapy in treatment of cancer of the anal canal] Gérard JP. **Cancer Radiother** 1998 Dec;2(6):708-12 (35 ref.) (Eng. Abstr.) **(Fre)**
[Local control of the primary tumor. Necessary step in control of cancer (published erratum appears in Cancer Radiother 1999 Jan-Feb;3(1):85)] Gérard JP, et al.
Cancer Radiother 1998 Dec;2(6):668-71 (13 ref.) (Eng. Abstr.) **(Fre)**
[Combined chemoradiotherapy of tumors in the child (published erratum appears in Cancer Radiother 1999 Jan-Feb;3(1):85)] Habrand JL, et al. **Cancer Radiother** 1998 Dec;2(6):752-9 (70 ref.) (Eng. Abstr.) **(Fre)**
[Concomitant chemoradiotherapy and malignant glial tumors in the adult] Honnorat J. **Cancer Radiother** 1998 Dec; 2(6):672-8 (46 ref.) (Eng. Abstr.) **(Fre)**
[Concomitant chemoradiotherapy of infiltrating cancers of the bladder] Housset M. **Cancer Radiother** 1998 Dec; 2(6):713-7 (36 ref.) (Eng. Abstr.) **(Fre)**
[Radiation sensitizing agents for hypoxic cells: past, present and future] Lartigau E. **Cancer Radiother** 1998 Dec; 2(6):775-80 (57 ref.) (Eng. Abstr.) **(Fre)**
[Chemoradiotherapy in cancers of the uterine cervix] Maingon P, et al. **Cancer Radiother** 1998 Dec;2(6):718-22 (40 ref.) (Eng. Abstr.) **(Fre)**
[Combined curietherapy and chemotherapy] Mazeron JJ.
Cancer Radiother 1998 Dec;2(6):781-2 **(Fre)**
[Concomitant chemoradiotherapy in the therapeutic strategy of adenocarcinoma of the exocrine pancreas and stomach] Mornex F, et al. **Cancer Radiother** 1998 Dec;2(6):696-702 (48 ref.) (Eng. Abstr.) **(Fre)**
[Randomizations!] Piedbois P, et al. **Cancer Radiother** 1998 Dec;2(6):663-4 **(Fre)**
[Radiochemotherapy and radiosensitization for locally advanced non-small-cell bronchial cancer] Quoix E, et al. **Cancer Radiother** 1998 Sep-Oct;2(5):590-9 (58 ref.) (Eng. Abstr.) **(Fre)**
[Radio-chemotherapy. Is it of value in tumors of the otorhinolaryngology region?] Lütolf UM. **HNO** 1998 Dec; 46(12):955-7 **(Ger)**
[Radiosensitization by paclitaxel. The in-vivo results in paclitaxel-sensitive and -resistant tumors] Vogt HG, et al. **Strahlenther Onkol** 1998 Oct;174(10):539-40 **(Ger)**
[Contribution of radiation biology to the development of radiation therapy] Shibamoto Y. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1242-7 (13 ref.) (Eng. Abstr.) **(Jpn)**

TOXICITY

Etoposide enhances the lethal effect of radiation on breast cancer cells with less damage to mammary gland cells. Iwata T, et al. **Cancer Chemother Pharmacol** 1999; 43(4):284-6
Differential retinoic acid radiosensitization of cervical carcinoma cell lines. Benbrook DM, et al.
Clin Cancer Res 1997 Jun;3(6):939-45
Delayed radiosensitization of human colon carcinoma cells after a brief exposure to 2',2'-difluoro-2'-deoxycytidine (Gemcitabine). Lawrence TS, et al. **Clin Cancer Res** 1997 May;3(5):777-82
Potentiation of cytotoxicity and radiosensitization of (E)-2-deoxy-2'-(fluoromethylene) cytidine by pentoxifylline in vitro. Li YX, et al. **Int J Cancer** 1999 Jan 5;80(1):155-60
Growth inhibition and radiosensitization of cultured glioma cells by nitric oxide generating agents. Kurimoto M, et al. **J Neurooncol** 1999 Mar;42(1):35-44
Paclitaxel is preferentially cytotoxic to human cervical tumor cells with low Raf-1 kinase activity: implications for paclitaxel-based chemoradiation regimens. Britten RA, et al. **Radiother Oncol** 1998 Sep;48(3):329-34
Nitro-imidazole radiosensitizer-induced toxicity in cynomolgus monkeys. Breider MA, et al.
Toxicol Pathol 1998 Sep-Oct;26(5):651-6

RADIATION SICKNESS see **RADIATION INJURIES**

RADIATION SYNDROME see **RADIATION INJURIES**

RADIATION THERAPY, COMPUTER-ASSISTED see **RADIOTHERAPY, COMPUTER-ASSISTED**

RADIATION TOLERANCE

see related
RADIATION-PROTECTIVE AGENTS
RADIATION-SENSITIZING AGENTS

Induction of DNA breakage in X-irradiated nucleoids selectively stripped of nuclear proteins in two mouse lymphoma cell lines differing in radiosensitivity. Kruszewski M, et al. **Acta Biochim Pol** 1998;45(3):701-4
Characterization and radiosensitivity of fibroblasts derived from squamous cell carcinomas of the head and neck, and the surrounding oral mucosa. Stausbøl-Grøn B, et al.
Acta Oncol 1998;37(7-8):697-700
Radiation sensitivity of an Escherichia coli mutant lacking NADP+-dependent isocitrate dehydrogenase. Lee SM, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):647-50
The lack of correlation between proliferation (Ki-67, PCNA, LI, Tpot), p53 expression and radiosensitivity for head and neck cancers. Björk-Eriksson T, et al. **Br J Cancer** 1999 Jul;80(9):1400-4
Tumour vascularity is a significant prognostic factor for cervix carcinoma treated with radiotherapy: independence from tumour radiosensitivity. Cooper RA, et al.
Br J Cancer 1999 Sep;81(2):354-8
Radiation-induced micronuclei in human fibroblasts in relation to clonogenic radiosensitivity. O'Driscoll MC, et al. **Br J Cancer** 1998 Dec;78(12):1559-63
The contribution of DNA ploidy to radiation sensitivity in human tumour cell lines. Schwartz JL, et al.
Br J Cancer 1999 Feb;79(5-6):744-7
Apoptosis after gamma irradiation. Is it an important cell death modality? Siles E, et al. **Br J Cancer** 1998 Dec; 78(12):1594-9
Prediction of tumour hypoxia and radioresistance with nuclear medicine markers. Chapman JD, et al.

Br J Cancer Suppl 1996 Jul;27:S204–8

Adaptive response and induced resistance. Joiner MC, et al. **C R Acad Sci III** 1999 Feb–Mar;322(2–3):167–75 (57 ref.)

Evaluation of radiation–induced DNA damage and DNA repair in human lung cancer cell lines with different radiosensitivity using alkaline and neutral single cell gel electrophoresis. Bergqvist M, et al. **Cancer Lett** 1998 Nov 13;133(1):9–18

Is radiosensitive cell line cross–sensitive to heat?: Effect of heat on two rat yolk sac tumor cell lines with different radiosensitivity. Mitsuhashi N, et al. **Cancer Lett** 1999 Aug 3;142(2):195–200

Defective control of apoptosis, radiosensitivity, and spindle checkpoint in ataxia telangiectasia. Takagi M, et al. **Cancer Res** 1998 Nov 1;58(21):4923–9

Loss of atm radiosensitizes multiple p53 null tissues. Westphal CH, et al. **Cancer Res** 1998 Dec 15;58(24):5637–9

Fas (APO–1/CD95) signaling pathway is intact in radioresistant human glioma cells. Yount GL, et al. **Cancer Res** 1999 Mar 15;59(6):1362–5

The inducible expression of dominant–negative epidermal growth factor receptor–CD533 results in radiosensitization of human mammary carcinoma cells. Contessa JN, et al. **Clin Cancer Res** 1999 Feb;5(2):405–11

Induction of apoptosis in multidrug–resistant and radiation–resistant acute myeloid leukemia cells by a recombinant fusion toxin directed against the human granulocyte macrophage colony–stimulating factor receptor. Perentesis JP, et al. **Clin Cancer Res** 1997 Mar; 3(3):347–55

Gamma–ray mutagen sensitivity and survival in patients with glioma. Sigurdson AJ, et al. **Clin Cancer Res** 1998 Dec; 4(12):3031–5

Enhancement of G2 checkpoint function by gelsolin transfection in human cancer cells. Sakai N, et al. **Exp Cell Res** 1999 Aug 25;251(1):224–33

p53 mutations and presence of HPV DNA do not correlate with radiosensitivity of gynecological cancer cell lines. Rantanen V, et al. **Gynecol Oncol** 1998 Dec;71(3):352–8

Thermal radiosensitization of human tumour cell lines with different sensitivities to 41.1 degrees C. Xu M, et al. **Int J Hyperthermia** 1999 Jul–Aug;15(4):279–90

Expression of wild–type p53 gene confers increased sensitivity to radiation and chemotherapeutic agents in human esophageal carcinoma cells. Matsubara H, et al. **Int J Oncol** 1999 Jun;14(6):1081–5

Hypersensitivity to low single doses and split–dose recovery: two manifestations of induced resistance that might be related. Alsbeih G, et al. **Int J Radiat Biol** 1999 Jul; 75(7):837–46

Variability in the radiosensitivity of normal cells and tissues. Report from a workshop organised by the European Society for Therapeutic Radiology and Oncology in Edinburgh, UK, 19 September 1998. Bentzen SM, et al. **Int J Radiat Biol** 1999 Apr;75(4):513–7

A significant correlation between clonogenic radiosensitivity and the simultaneous assessment of micronucleus and apoptotic cell frequencies. Guo GZ, et al. **Int J Radiat Biol** 1999 Jul;75(7):857–64

Epstein–Barr virus–transformed lymphoblastoid cell lines of ataxia telangiectasia patients are defective in X–ray–induced apoptosis. Meijer AE, et al. **Int J Radiat Biol** 1999 Jun;75(6):709–16

Chromosome radiosensitivity in human G2 lymphocytes and cell–cycle progression. Palitti F, et al. **Int J Radiat Biol** 1999 May;75(5):621–7

Importance of DNA damage in the induction of apoptosis by ionizing radiation: effect of the scid mutation and DNA ploidy on the radiosensitivity of murine lymphoid cell lines. Radford IR, et al. **Int J Radiat Biol** 1999 Feb;75(2):143–53

Low dose hypersensitivity in the T98G human glioblastoma cell line. Short S, et al. **Int J Radiat Biol** 1999 Jul; 75(7):847–55

Radiation–induced changes in nucleotide metabolism of two colon cancer cell lines with different radiosensitivities. Wei S, et al. **Int J Radiat Biol** 1999 Aug;75(8):1005–13

Discrimination of human tumor radioresponsiveness using low–dose rate irradiation. Björk–Eriksson T, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1147–53

Predicting and overcoming the radioresistance of individual tumors [editorial; comment] Chapman JD, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):477–9. Comment on: Int J Radiat Oncol Biol Phys 1999 Jun 1;44(3):507–12.

Hyperfractionation as an effective way of overcoming radioresistance. Denekamp J, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):705–9

Radiosensitivity of human normal and tumoral thyroid cells using fluorescence in situ hybridization and clonogenic survival assay. Gaussen A, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):683–91

The molecular chaperone alphaA–crystallin enhances lens epithelial cell growth and resistance to UVA stress. Andley UP, et al. **J Biol Chem** 1998 Nov 20;273(47):31252–61

Down–regulation of tumor necrosis factor alpha expression by activating transcription factor 2 increases UVC–induced apoptosis of late–stage melanoma cells. Ivanov VN, et al. **J Biol Chem** 1999 May 14;274(20):14079–89

Impact of tumor stage, operative down–staging, tumor grade and radioresponsivity of the tumor on survival in supratentorial astrocytomas. Erkurt E, et al. **J Exp Clin Cancer Res** 1998 Dec;17(4):471–8

Re: impact of stromal sensitivity on radiation response of tumors [letter; comment] Budach W. **J Natl Cancer Inst** 1998 Dec 2;90(23):1842. Comment on: J Natl Cancer Inst 1993 Jun 16;85(12):988–93.

Relationship between expression of p21WAF1/CIP1 and radioresistance in human gliomas. Kokunai T, et al. **Jpn J Cancer Res** 1999 Jun;90(6):638–46

Contribution of phosphatidylinositol 3–kinase to radiation resistance in human melanoma cells. Krasilnikov M, et al. **Mol Carcinog** 1999 Jan;24(1):64–9

Differences between a human bladder carcinoma cell line and its radiosensitive clone in the formation of radiation–induced DNA double–strand breaks in different chromatin substrates. Mateos S, et al. **Mutat Res** 1998 Nov 12;409(2):73–80

Chk1 complements the G2/M checkpoint defect and radiosensitivity of ataxia–telangiectasia cells. Chen P, et al. **Oncogene** 1999 Jan 7;18(1):249–56

Induced p21waf expression in H1299 cell line promotes cell senescence and protects against cytotoxic effect of radiation and doxorubicin. Wang Y, et al. **Oncogene** 1999 Apr 22; 18(16):2643–9

m–THPC–mediated photodynamic therapy (PDT) does not induce resistance to chemotherapy, radiotherapy or PDT on human breast cancer cells in vitro. Hornung R, et al. **Photochem Photobiol** 1998 Oct;68(4):569–74

Catalytic subunit of DNA–dependent protein kinase: impact on lymphocyte development and tumorigenesis. Kurimasa A, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1403–8

The intrinsic radioresistance of glioblastoma–derived cell lines is associated with a failure of p53 to induce p21(BAX) expression. Shu HK, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14453–8

Comparison between the clonogenic, MTT, and SRB assays for determining radiosensitivity in a panel of human bladder cancer cell lines and a ureteral cell line. Banasiak D, et al. **Radiat Oncol Investig** 1999;7(2):77–85

Heterogeneity of in vitro radiosensitivity in human bladder cancer cells. Barnetson AR, et al. **Radiat Oncol Investig** 1999;7(2):66–76

Molecular markers as prognostic factors for local recurrence and radioresistance in head and neck squamous cell carcinoma. Smith BD, et al. **Radiat Oncol Investig** 1999; 7(3):125–44 (134 ref.)

Protracted exposure radiosensitization of experimental human malignant glioma. Williams JA, et al. **Radiat Oncol Investig** 1998;6(6):255–63

Condensed chromatin and cell inactivation by single–hit kinetics. Chapman JD, et al. **Radiat Res** 1999 Apr; 151(4):433–41

Overexpression of human Ku70/Ku80 in rat cells resulting in reduced DSB repair capacity with appropriate increase in cell radiosensitivity but with no effect on cell recovery. Kasten U, et al. **Radiat Res** 1999 May;151(5):532–9

Correlation between unirradiated cell TP53 protein levels and radiosensitivity in MOLT–4 cells. Nakano H, et al. **Radiat Res** 1999 Jun;151(6):686–93

Pulsed–dose–rate and low–dose–rate brachytherapy: comparison of sparing effects in cells of a radiosensitive and a radioresistant cell line. Pomp J, et al. **Radiat Res** 1999 Apr;151(4):449–53

Inhibition of the MAPK pathway abrogates BCL2–mediated survival of leukemia cells after exposure to low–dose ionizing radiation. Vrana JA, et al. **Radiat Res** 1999 May; 151(5):559–69

Role of DNA–PK subunits in radiosensitization by hyperthermia. Woudstra EC, et al. **Radiat Res** 1999 Aug; 152(2):214–8

Prediction of radiosensitivity of oral cancers by serial cytological assay of nuclear changes. Bhattathiri NV, et al. **Radiother Oncol** 1998 Oct;49(1):61–5

The modelled benefits of individualizing radiotherapy patients' dose using cellular radiosensitivity assays with inherent variability. Mackay RI, et al. **Radiother Oncol** 1999 Jan;50(1):67–75

Relationship between tumour cell in vitro radiosensitivity and clinical outcome after curative radiotherapy for squamous cell carcinoma of the head and neck. Stausbøl–Grøn B, et al. **Radiother Oncol** 1999 Jan; 50(1):47–55

Differential proliferation dependence of alpha and beta damage in X–irradiated Chinese hamster cells. Bartkowiak D, et al. **Strahlenther Onkol** 1999 May;175(5):239–44

Clinical impact of predictive assays for acute and late radiation morbidity. Budach W, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:20–4 (30 ref.)

Variability of individual normal tissue radiation sensitivity. An international empirical evaluation of endogenous and exogenous response modifiers. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:16–9

Role of p53 mutations in the radiosensitivity status of tumor cells. Chiarugi V, et al. **Tumori** 1998 Sep–Oct;84(5):517–20

[Determination of the minimal erythema dosage and natural photoprotection of the skin in the population] Ettler K. **Acta Medica (Hradec Kralove) Suppl** 1998;41(1):81–104 (Eng. Abstr.) **(Cze)**

[Individual radiosensitivity and DNA repair proficiency: the value of the comet assay] Alapetite C. **Cancer Radiother** 1998 Sep–Oct;2(5):534–40 (Eng. Abstr.) **(Fre)**

[Tumor and individual radiosensitivity. An introduction] Cosset JM, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):523–9 (50 ref.) (Eng. Abstr.) **(Fre)**

[Tumor radiosensitivity tests: state of assays in 1998] Girinsky T, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):530–3 (24 ref.) (Eng. Abstr.) **(Fre)**

[Radiotherapy of the elderly patient. Radiotherapy tolerance and results in older patients] Geinitz H, et al. **Strahlenther Onkol** 1999 Mar;175(3):119–27 (46 ref.) (Eng. Abstr.) **(Ger)**

[Usefulness of micronucleus assay in radiosensitivity tests using human cancer cell lines] Kimura H. **Nippon Hinyokika Gakkai Zasshi** 1998 Aug;89(8):712–20 (Eng. Abstr.) **(Jpn)**

[Use of radioresistance as a method for evaluating species independence of closely–related forms using the example of hamsters of the genus Phodopus (Rodentia, Cricetinae)] Grigorkina EB. **Dokl Akad Nauk** 1998 Sep;362(2):286–8 **(Rus)**

[Constitutive inhibition of DNA degradation due to the enzyme RecBCD in the radiation–resistant Escherichia coli K–12 mutant Gam(r)444] Verbenko VN, et al. **Genetika** 1999 Apr;35(4):438–43 (Eng. Abstr.) **(Rus)**

[Radiation–induced adaptive response in children and effect of external and internal factors] Pelevina II, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):106–12 (Eng. Abstr.) **(Rus)**

[Biological effects of low level ionizing radiation (the threshold of effects and radiosensitivity/radioreactivity of biological structures with different level of organization)] Rozhdestvenskil LM. **Radiats Biol Radioecol** 1999 Jan–Feb; 39(1):127–44 (46 ref.) (Eng. Abstr.) **(Rus)**

[Features of the radiosensitivity of cells from ataxia–telangiectasia patients] Khomasuridze MM, et al. **Tsitologiia** 1999;41(5):412–9 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Changes in energy metabolism and X–ray sensitivity in murine tumours by the nitric oxide donor SIN–1. Wood PJ, et al. **Br J Cancer Suppl** 1996 Jul;27:S177–80

Tumor radiosensitization by sustained intratumoral release of bromodeoxyuridine. Doiron A, et al. **Cancer Res** 1999 Aug 1;59(15):3677–81

Epidermal growth factor receptor blockade with C225 modulates proliferation, apoptosis, and radiosensitivity in squamous cell carcinomas of the head and neck. Huang SM, et al. **Cancer Res** 1999 Apr 15;59(8):1935–40

Activation of inducible nitric oxide synthase results in nitric oxide–mediated radiosensitization of hypoxic EMT–6 tumor cells. Janssens MY, et al. **Cancer Res** 1998 Dec 15; 58(24):5646–8

Monoclonal antibody to HER–2/neureceptor modulates repair of radiation–induced DNA damage and enhances radiosensitivity of human breast cancer cells overexpressing this oncogene. Pietras RJ, et al. **Cancer Res** 1999 Mar 15; 59(6):1347–55

Caffeine–increased radiosensitivity is not dependent on a loss of G2/M arrest or apoptosis in bladder cancer cell lines. Ribeiro JC, et al. **Int J Radiat Biol** 1999 Apr;75(4):481–92

Differential effects of caffeine on DNA damage and replication cell cycle checkpoints in the fission yeast Schizosaccharomyces pombe. Osman F, et al. **Mol Gen Genet** 1998 Nov;260(4):319–34

The farnesyltransferase inhibitor FTI–277 suppresses the 24–kDa FGF2–induced radioresistance in HeLa cells expressing wild–type RAS. Cohen–Jonathan E, et al. **Radiat Res** 1999 Oct;152(4):404–11

Effect of gemcitabine on the tolerance of the lung to single–dose irradiation in C3H mice. Grégoire V, et al. **Radiat Res** 1999 Jun;151(6):747–9

Cancer research. A new way to combat therapy side effects [news; comment] Ferber D. **Science** 1999 Sep 10; 285(5434):1651; 1653. Comment on: Science 1999 Sep 10;285(5434):1733–7.

A chemical inhibitor of p53 that protects mice from the side effects of cancer therapy [see comments] Komarov PG, et al. **Science** 1999 Sep 10;285(5434):1733–7. Comment in: Science 1999 Sep 10;285(5434):1651, 1653.

[Radiosensitization by paclitaxel. The in–vivo results in paclitaxel–sensitive and –resistant tumors] Vogt HG, et al. **Strahlenther Onkol** 1998 Oct;174(10):539–40 **(Ger)**

[Photosensitivity induced by piroxicam] Varela P, et al. **Acta Med Port** 1998 Nov;11(11):997–1001 (19 ref.) (Eng. Abstr.) **(Por)**

[Effect of the dietary vitamin concentrate Ammivit on survival of irradiated BALB/c mice] Zolotareva NN, et al. **Dokl Akad Nauk** 1998 Jul;361(2):272–4 **(Rus)**

[Effect of substances, absorbing ultraviolet irradiation on Bacillus subtilis resistance to inactivation and mutagenic action of natural sunlight] Lotareva OV, et al. **Radiats Biol Radioecol** 1998 Jul–Aug;38(4):595–600 (Eng. Abstr.) **(Rus)**

[The effect of the parenteral administration of alpha–ketoglutarate on the resistance of rats to ionizing radiation and on their cholinergic systems] Shostakovs'ka IV, et al. **Fiziol Zh** 1999;45(1–2):119–26 (Eng. Abstr.) **(Ukr)**

GENETICS

Heritability of cellular radiosensitivity: a marker of low–penetrance predisposition genes in breast cancer? Roberts SA, et al. **Am J Hum Genet** 1999 Sep;65(3):784–94

Fibroblast radiosensitivity measured using the comet

DNA-damage assay correlates with clonogenic survival parameters. Eastham AM, et al. **Br J Cancer** 1999 Mar; 79(9-10):1366-71

Genetic alterations on chromosome 17p associated with response to radiotherapy in bulky cervical cancer. Harima Y, et al. **Br J Cancer** 1999 Sep;81(1):108-13

Radiosensitive human tumour cell lines show misrepair of DNA termini. Powell SN, et al. **Br J Radiol** 1998 Nov; 71(851):1178-84

Loss of the ARF tumor suppressor reverses premature replicative arrest but not radiation hypersensitivity arising from disabled atm function. Kamijo T, et al. **Cancer Res** 1999 May 15;59(10):2464-9

Identification of a defect in DNA ligase IV in a radiosensitive leukaemia patient. Riballo E, et al. **Curr Biol** 1999 Jul 1; 9(13):699-702

Targeted disruption of the catalytic subunit of the DNA-PK gene in mice confers severe combined immunodeficiency and radiosensitivity. Taccioli GE, et al. **Immunity** 1998 Sep; 9(3):355-66

Adenoviral transduction of a cytosine deaminase/thymidine kinase fusion gene into prostate carcinoma cells enhances prodrug and radiation sensitivity. Blackburn RV, et al. **Int J Cancer** 1999 Jul 19;82(2):293-7

p53 mutation decreased radiosensitivity in rat yolk sac tumor cell lines. Maebayashi K, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):677-82

Sequence analysis of the ATM gene in 20 patients with RTOG grade 3 or 4 acute and/or late tissue radiation side effects. Oppitz U, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):981-8

Radiosensitization mediated by a transfected anti-erbB-2 single-chain antibody in vitro and in vivo. Stackhouse MA, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):817-22

Radiosensitivity of normal tissues in ataxia-telangiectasia heterozygotes. Weissberg JB, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1133-6

An operon that confers UV resistance by evoking the SOS mutagenic response in streptococcal conjugative transposon Tn5252. Munoz-Najar U, et al. **J Bacteriol** 1999 May;181(9):2782-8

BRCA1 expression restores radiation resistance in BRCA1-defective cancer cells through enhancement of transcription-coupled DNA repair. Abbott DW, et al. **J Biol Chem** 1999 Jun 25;274(26):18808-12

Prediction of human oral cancer radiation responsiveness by histone (H3) mRNA in situ hybridization: a preliminary report. Donoff RB, et al. **J Oral Maxillofac Surg** 1998 Dec; 56(12):1410-6

Radiation, DNA damage and cancer. Hall J, et al. **Mol Med Today** 1999 Apr;5(4):157-64 (61 ref.)

Agrobacterium tumefaciens transformation of the radiation hypersensitive Arabidopsis thaliana mutants uvh1 and rad5. Nam J, et al. **Mol Plant Microbe Interact** 1998 Nov; 11(11):1136-41

Chromosomal sensitivity to X-ray irradiation during the G2 phase in lymphocytes of patients with hereditary cutaneous malignant melanoma as compared to healthy controls. Andersson HC, et al. **Mutat Res** 1999 Mar 10;425(1):9-20

A murine AP-endonuclease gene-targeted deficiency with post-implantation embryonic progression and ionizing radiation sensitivity. Ludwig DL, et al. **Mutat Res** 1998 Oct 21;409(1):17-29

PCR assay of DNA damage and repair at the gene level in brain and spleen of gamma-irradiated young and old rats. Ploskonosova II, et al. **Mutat Res** 1999 Jun 23; 434(2):109-17

Oxidative stress pretreatment increases the X-radiation resistance of the nematode Caenorhabditis elegans. Yanase S, et al. **Mutat Res** 1999 May 3;426(1):31-9

Atm haploinsufficiency results in increased sensitivity to sublethal doses of ionizing radiation in mice [letter] Barlow C, et al. **Nat Genet** 1999 Apr;21(4):359-60

Molecular and biochemical characterization of new X-ray-sensitive hamster cell mutants defective in Ku80. Errami A, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4332-8

Escherichia coli RuvBL268S: a mutant RuvB protein that exhibits wild-type activities in vitro but confers a UV-sensitive ruv phenotype in vivo. Mézard C, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1275-82

p53 protects against skin cancer induction by UV-B radiation. Jiang W, et al. **Oncogene** 1999 Jul 22; 18(29):4247-53

Modulations of glucocorticoid-induced apoptosis linked to the p53 deletion and to the apoptosis susceptibility gene Rapop1 (Radiation-induced apoptosis 1). Mori N, et al. **Oncogene** 1999 Jul 22;18(29):4282-5

A targeted disruption of the murine Brca1 gene causes gamma-irradiation hypersensitivity and genetic instability. Shen SX, et al. **Oncogene** 1998 Dec 17;17(24):3115-24

An anti-sense construct of full-length ATM cDNA imposes a radiosensitive phenotype on normal cells. Zhang N, et al. **Oncogene** 1998 Aug 20;17(7):811-8

Four amino acid changes are associated with the Aldh3a1 locus polymorphism in mice which may be responsible for corneal sensitivity to ultraviolet light. Shiao T, et al. **Pharmacogenetics** 1999 Apr;9(2):145-53

Radioresistant cell strain of human fibrosarcoma cells obtained after long-term exposure to x-rays. Wei K, et al. **Radiat Environ Biophys** 1998 Jul;37(2):133-7

Increased resistance of the radiosensitive M10 mutant cells of the L5178Y mouse lymphoma cell line to heat-induced apoptosis. Ostapenko VV, et al. **Radiat Res** 1999 Sep; 152(3):321-7

Chromosomal in-vitro radiosensitivity of lymphocytes in radiotherapy patients and AT-homozygotes. Dunst J, et al. **Strahlenther Onkol** 1998 Oct;174(10):510-6

Metallothioncin-I transgenic mice are not protected from gamma-radiation. Liu J, et al. **Toxicol Lett** 1999 Feb 22; 104(3):183-7

[Natural plasmid pSD89 (Cmr) from Salmonella derby K89, which increases the radiation tolerance of Escherichia coli strain K-12] Verbenko VN, et al. **Genetika** 1999 Mar; 35(2):303-8 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

The radiation-sensitive costimulatory factors involved in B-cell-dependent T-cell activation by minor lymphocyte stimulating antigen. Chow K, et al. **J Biomed Sci** 1998 Sep-Oct;5(5):332-42

PHYSIOLOGY

Levels of the DNA repair enzyme human apurinic/apyrimidinic endonuclease (APE1, APEX, Ref-1) are associated with the intrinsic radiosensitivity of cervical cancers. Herring CJ, et al. **Br J Cancer** 1998 Nov; 78(9):1128-33

Radiosensitivity and the cell cycle. Bernhard EJ, et al. **Cancer J Sci Am** 1999 Jul-Aug;5(4):194-204 (145 ref.)

Coordinated regulation of radioadaptive response by protein kinase C and p38 mitogen-activated protein kinase. Shimizu T, et al. **Exp Cell Res** 1999 Sep 15;251(2):424-32

Differential effects of the insulin-like growth factor 1 receptor on radiosensitivity and spontaneous necrosis formation of human glioblastoma cells grown in multicellular spheroids. Watanabe H, et al. **Exp Cell Res** 1999 Jul 10;250(1):99-111

The role of adaptive responses following exposure to ionizing radiation. Feinendegen LE. **Hum Exp Toxicol** 1999 Jul; 18(7):426-32 (37 ref.)

Adaptive response and its variation in human normal and tumour cells. Raaphorst GP, et al. **Int J Radiat Biol** 1999 Jul;75(7):865-73

Adaptive response and dose-response plateaus for initiation in a state-vector model of carcinogenesis. Schöllnberger H, et al. **Int J Radiat Biol** 1999 Mar;75(3):351-64

The short and long term effects of intraoperative electron beam radiotherapy (IORT) on thoracic organs after pneumonectomy an experimental study in the canine model. de Boer WJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):501-6

A murine AP-endonuclease gene-targeted deficiency with post-implantation embryonic progression and ionizing radiation sensitivity. Ludwig DL, et al. **Mutat Res** 1998 Oct 21;409(1):17-29

Differences in sensitivity to UVC, UVB and UVA radiation of a multidrug-resistant cell line overexpressing P-glycoprotein. Trindade GS, et al. **Photochem Photobiol** 1999 Jun;69(6):694-9

Cell resensitization during protracted dosing of heterogeneous cell populations. Hahnfeldt P, et al. **Radiat Res** 1998 Dec;150(6):681-7

Suppressive effect of low-dose preirradiation on genetic instability induced by X rays in normal human embryonic cells. Suzuki K, et al. **Radiat Res** 1998 Dec;150(6):656-62

[Characteristic of organism reactivity during repeated hypoxic exposures of rats varying in resistance to ionizing radiation] Farber IuV. **Aviakosm Ekolog Med** 1999; 33(1):35-8 (Eng. Abstr.) **(Rus)**

[Evaluation of individual radiation resistance of rats based on reactions to non-radiation testing] Shtemberg AS, et al. **Aviakosm Ekolog Med** 1998;32(5):40-5 (Eng. Abstr.) **(Rus)**

[Determination of the effect of long-term maintenance of the radiation adaptive response in murine bone marrow] Balakin VE, et al. **Dokl Akad Nauk** 1998 Dec;363(6):843-5 **(Rus)**

[The factors of individual sensitivity to ultraviolet radiation] Strzhizhovskiĭ AD. **Usp Fiziol Nauk** 1998 Jul-Sep; 29(3):130-43 (96 ref.) (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Does glutamine supplementation increase radioresistance in squamous cell carcinoma of the cervix? Santoso JT, et al. **Gynecol Oncol** 1998 Dec;71(3):359-63

Research of the adaptive response induced by low-dose radiation: where have we been and where should we go? Cai L. **Hum Exp Toxicol** 1999 Jul;18(7):419-25 (52 ref.)

Radioadaptive response: responses to the five questions. Ikushima T. **Hum Exp Toxicol** 1999 Jul;18(7):433-5 (15 ref.)

Radiation exposure and adaptive processes. Mossman KL, et al. **Hum Exp Toxicol** 1999 Jul;18(7):436-9

Adaptive response and its relationship to hormesis and low dose cancer risk estimation. Olivieri G. **Hum Exp Toxicol** 1999 Jul;18(7):440-2 (21 ref.)

The adaptive response to ionizing radiation: low dose effects unpredictable from high dose experiments. Rigaud O. **Hum Exp Toxicol** 1999 Jul;18(7):443-6 (20 ref.)

Perspectives on the adaptive response from studies on the response to low radiation doses (or to cisplatin) in mammalian cells. Skov KA. **Hum Exp Toxicol** 1999 Jul; 18(7):447-51 (36 ref.)

Adaptive response induced by low levels of radiation. Summary and comments. Waldren CA. **Hum Exp Toxicol** 1999 Jul;18(7):452-3

Calculation of boron neutron capture cell inactivation in vitro based on particle track structure and x-ray sensitivity. Pöller F, et al. **Radiat Environ Biophys** 1998 Jul; 37(2):117-23

Radioresistant cell strain of human fibrosarcoma cells obtained after long-term exposure to x-rays. Wei K, et al. **Radiat Environ Biophys** 1998 Jul;37(2):133-7

RADIATION, VISIBLE see **LIGHT**

RADIATION, WHOLE-BODY see **WHOLE-BODY IRRADIATION**

RADICAL NECK DISSECTION

Management of the neck in parotid cancer [letter; comment] Jackson GL. **Am J Surg** 1999 Mar;177(3):278. Comment on: Am J Surg 1996 Dec;172(6):695-7.

Clinicopathological analysis of elective neck dissection for N0 neck of early oral tongue carcinoma. Yuen AP, et al. **Am J Surg** 1999 Jan;177(1):90-2

Radiotherapy followed by neck dissection for small head and neck cancers with advanced cervical metastases. Wang SJ, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):128-31

Considerations in the surgical treatment of malignant melanoma [see comments] Fisher SR. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):116-7 . Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):110-5.

Experience and clinical judgment required in the treatment of malignant melanoma [comment] Hamaker RC. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):115-6 . Comment on: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):110-5.

Value of neck dissection in the treatment of patients with intermediate-thickness cutaneous malignant melanoma of the head and neck [see comments] Myers JN. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):110-5 . Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):115-6. Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):116-7.

Efficacy of targeted chemoradiation and planned selective neck dissection to control bulky nodal disease in advanced head and neck cancer. Robbins KT, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jun;125(6):670-5

The pattern of nodal recurrence following definitive radiotherapy for nasopharyngeal carcinoma. Khoo ML, et al. **Aust N Z J Surg** 1999 May;69(5):354-6

Para-incisional tattooing with electrocautery. Hussain A, et al. **J Laryngol Otol** 1999 Mar;113(3):244-5

Quantification of lymph nodes in selective neck dissection. Friedman M, et al. **Laryngoscope** 1999 Mar;109(3):368-70

Upper neck (level II) dissection for N0 neck supraglottic carcinoma. Tu GY. **Laryngoscope** 1999 Mar;109(3):467-70

Recurrent cutaneous melanoma of the head and neck. Zitsch RP 3rd, et al. **Otolaryngol Head Neck Surg** 1999 Mar; 120(3):391-3

[Comparison between radiotherapy and radiotherapy after laser operation and neck block dissection in the treatment of nasopharyngeal cancer] Lin J, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Dec; 11(12):550-2 (Eng. Abstr.) **(Chi)**

[Effect of primary surgical therapy on the course of C-cell carcinoma of the thyroid gland] Colombo-Benkmann M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1041-3 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Characteristics of postradical neck pain syndrome: a report of 25 cases. Sist T, et al. **J Pain Symptom Manage** 1999 Aug;18(2):95-102

[Lymphorrhea after neck dissection] Nowaczyk MT. **Otolaryngol Pol** 1999;53(3):271-3 (Eng. Abstr.) **(Pol)**

METHODS

Results of a prospective trial on elective modified radical classical versus supraomohyoid neck dissection in the management of oral squamous carcinoma. Brazilian Head and Neck Cancer Study Group. **Am J Surg** 1998 Nov; 176(5):422-7

Supraomohyoid neck dissection in cancer of the oral cavity. Majoufre C, et al. **Am J Surg** 1999 Jul;178(1):73-7

A safe and rapid technique for modified neck dissection. Woods JE, et al. **Ann Plast Surg** 1999 Jul;43(1):90-5

As originally published in 1992: Anterior mediastinal tracheostomy with and without cervical exenteration. Updated in 1998. Orringer MB. **Ann Thorac Surg** 1999 Feb; 67(2):591

Surgical management of the neck in squamous cell carcinoma of the tongue. Califano L, et al. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):320-3

Technical innovation. A modified neck incision for cervical lymphadenectomy and intraoral access. Moncrieff MD, et al. **Br J Plast Surg** 1999 Jan;52(1):72-3

Comparison between hockey stick and reversed hockey stick incision: gently curved single linear neck incisions for oral cancer. Omura S, et al. **Int J Oral Maxillofac Surg** 1999 Jun;28(3):197-202

Selective lateral neck dissection for laryngeal cancer with

limited metastatic disease: is it indicated? Ferlito A, et al. **J Laryngol Otol** 1998 Nov;112(11):1031–3 (19 ref.)
Minimizing complications in neck dissection. Talmi YP. **J Laryngol Otol** 1999 Feb;113(2):101–13 (92 ref.)
Bilateral radical neck dissection with unilateral internal jugular vein reconstruction. Dulguerov P, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1692–6
Impact of neck dissection on quality of life. Kuntz AL, et al. **Laryngoscope** 1999 Aug;109(8):1334–8
Surgical management of the neck in squamous cell carcinoma of the floor of the mouth. Zupi A, et al. **Oral Oncol** 1998 Nov;34(6):472–5 (12 ref.)
Use of apron flap incision for neck dissection. Yii NW, et al. **Plast Reconstr Surg** 1999 May;103(6):1655–60 (24 ref.)
[The surgical treatment of cervical lymph node metastases in differentiated carcinoma of the thyroid (DCTG)] Petkov R, et al. **Khirurgiia (Sofiia)** 1998;51(1):8–9 **(Bul)**
[Surgery of the cervical lymph system, II] Snow GB. **Laryngorhinootologie** 1999 Jan;78(1):OP1–14 **(Ger)**
[Surgery of the cervical lymphatic system. I] Snow GB. **Laryngorhinootologie** 1998 Dec;77(12):A93–9 **(Ger)**
[Neck Dissection for salivary gland carcinoma] Ishinaga H, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul;101(7):895–9 (Eng. Abstr.) **(Jpn)**
[Surgical treatment for tumors of the upper thoracic aperture] Davidov MI, et al. **Vopr Onkol** 1999;45(3):301–5 (Eng. Abstr.) **(Rus)**

RADICULAR CYST

IMMUNOLOGY

Localization of mRNA for inflammatory cytokines in radicular cyst tissue by in situ hybridization, and induction of inflammatory cytokines by human gingival fibroblasts in response to radicular cyst contents. Honma M, et al. **J Oral Pathol Med** 1998 Sep;27(8):399–404

PATHOLOGY

Histologic difference in epithelial linings between follicular and radicular cysts. Pavelić B, et al. **Coll Antropol** 1998 Dec;22 Suppl:167–71
Odontogenic cysts related to pulpotomized deciduous molars: clinical features and treatment outcome. Lustig JP, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):499–503 (15 ref.)

SURGERY

[Experience in using hydroxyapatite in operative dentistry practice] Lapshin SD. **Stomatologiia (Mosk)** 1999;78(2):59–61 (Eng. Abstr.) **(Rus)**
[Current methods of treating radicular cysts using a bioplant in a provincial dental polyclinic] Loshkarev VP, et al. **Stomatologiia (Mosk)** 1998;77(5):38–40 (Eng. Abstr.) **(Rus)**

RADICULITIS

[Radiculomyelopathy due to genital herpes simplex virus infection (Elsberg syndrome)] Kido M, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):52–4 (15 ref.) **(Jpn)**

CHEMICALLY INDUCED

Repeated transient neurological symptoms after spinal anaesthesia with hyperbaric 5% lidocaine. Panadero A, et al. **Br J Anaesth** 1998 Sep;81(3):471–2

COMPLICATIONS

[Myeloradiculitis] Shoji H. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):49–51 (10 ref.) **(Jpn)**
[Influence of coexisting pseudo-radicular syndrome on the results of traction treatment in cases of lumbar intervertebral disk hernia] Pyskło B, et al. **Neurol Neurochir Pol** 1998 Nov-Dec;32(6):1449–60 (Eng. Abstr.) **(Pol)**

DIAGNOSIS

Understanding the "H" reflex in lumbosacral radiculopathy [editorial] Johnson EW. **Am J Phys Med Rehabil** 1999 Sep–Oct;78(5):407
Intracranial tumor masquerading as cervical radiculopathy: a case study. Clar SA, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1301–2
Chronic neck syndromes: an update. Pawl RP. **Compr Ther** 1999 May;25(5):278–82 (32 ref.)
Jitter measurement by axonal microstimulation in cervical radiculopathy [letter] Bir LS, et al. **Muscle Nerve** 1998 Nov;21(11):1563–4
Bifocals and cervical radiculopathy: a clinical reminder [letter] Kozakiewicz RT, et al. **Muscle Nerve** 1999 Feb;22(2):291
Electromyography and magnetic resonance imaging in the evaluation of radiculopathy [see comments] Nardin RA, et al. **Muscle Nerve** 1999 Feb;22(2):151–5. Comment in: Muscle Nerve 1999 Feb;22(2):149–50.
Electromyography, magnetic resonance imaging, and radiculopathy: it's time to focus on specificity [editorial; comment] Robinson LR. **Muscle Nerve** 1999 Feb;22(2):149–50. Comment on: Muscle Nerve 1999 Feb;22(2):151–5.
Comparison of computed tomography myelography and magnetic resonance imaging in the evaluation of cervical spondylotic myelopathy and radiculopathy. Shafaie FF, et al. **Spine** 1999 Sep 1;24(17):1781–5
Controversy. The use of selective nerve root blocks: diagnostic, therapeutic, or placebo? Slosar PJ Jr, et al. **Spine** 1998 Oct 15;23(20):2253–6
[Physical diagnosis--signs of lumbosacral irritation (letter; comment)] Mens JM. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1394. Comment on: Ned Tijdschr Geneeskd 1999 Mar 20;143(12):617–20. **(Dut)**
[Physical diagnosis--signs of lumbosacral irritation (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1400)] Oosterhuis HJ. **Ned Tijdschr Geneeskd** 1999 Mar 20;143(12):617–20 (26 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1393–4. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1394. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1394–5. **(Dut)**
[Influence of coexisting pseudo-radicular syndrome on the results of traction treatment in cases of lumbar intervertebral disk hernia] Pyskło B, et al. **Neurol Neurochir Pol** 1998 Nov-Dec;32(6):1449–60 (Eng. Abstr.) **(Pol)**
[The clinical variants of peptic ulcer exacerbations] Dulin PA, et al. **Voen Med Zh** 1999 Apr;320(4):46–51 **(Rus)**

DRUG THERAPY

Percutaneous epidural neuroplasty: prospective evaluation of 0.9% NaCl versus 10% NaCl with or without hyaluronidase [see comments] Heavner JE, et al. **Reg Anesth Pain Med** 1999 May-Jun;24(3):202–7. Comment in: Reg Anesth Pain Med 1999 May-Jun;24(3):198–201.

ETIOLOGY

Ballroom dancing and cervical radiculopathy: a case report. Tsung PA, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1306–8
Spontaneous chronic spinal epidural hematoma of the lumbar spine. Riffaud L, et al. **J Neuroradiol** 1999 Mar;26(1 Suppl):64–7
Bifocals and cervical radiculopathy: a clinical reminder [letter] Kozakiewicz RT, et al. **Muscle Nerve** 1999 Feb;22(2):291
[Cytomegalovirus myeloradiculitis in pregnancy] Alla P, et al. **Rev Med Interne** 1999 Jun;20(6):514–6 (Eng. Abstr.) **(Fre)**
[Radicular and pseudo-radicular pain syndrome] Knutti O, et al. **Ther Umsch** 1998 Oct;55(10):601–12 (29 ref.) (Eng. Abstr.) **(Ger)**
[A case of cervical radiation radiculopathy resembling motor neuron disease] Mitsunaga Y, et al. **Rinsho Shinkeigaku** 1998 May;38(5):450–2 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

The pattern of antiganglioside antibody reactivities producing myelinated nerve conduction block in vitro. Arasaki K, et al. **J Neurol Sci** 1998 Dec 11;161(2):163–8

MICROBIOLOGY

[A case of Lyme disease with the triad of neurologic manifestations (meningitis, radiculoneuritis, facial nerve palsy) and dermatitis of the nail roots] Murakami I, et al. **Rinsho Shinkeigaku** 1999 May;39(5):570–2 (Eng. Abstr.) **(Jpn)**

PATHOLOGY

MRI follow-up of herpes simplex virus (type 1) radiculomyelitis. Küker W, et al. **Neurology** 1999 Mar 23;52(5):1102–3

PHYSIOPATHOLOGY

Peripheral late wave study in patients with discogenic radiculopathies. Kostadinova SA. **Electromyogr Clin Neurophysiol** 1999 Apr-May;39(3):145–8
Median nerve F-wave study derived by flexor carpi radialis. Marchini C, et al. **Electromyogr Clin Neurophysiol** 1998 Dec;38(8):451–3
Jitter measurement by axonal microstimulation in cervical radiculopathy [letter] Bir LS, et al. **Muscle Nerve** 1998 Nov;21(11):1563–4
Distribution of fibrillation potentials in radiculopathies [letter; comment] Levin KH. **Muscle Nerve** 1999 Feb;22(2):287–8. Comment on: Muscle Nerve 1998 May;21(5):640–2.
Radicular pain can be a symptom of elevated intracranial pressure. Groves MD, et al. **Neurology** 1999 Mar 23;52(5):1093–5

REHABILITATION

Use of cervical spine manipulation under anesthesia for management of cervical disk herniation, cervical radiculopathy, and associated cervicogenic headache syndrome. Herzog J. **J Manipulative Physiol Ther** 1999 Mar-Apr;22(3):166–70
Chiropractic rehabilitation of a patient with S1 radiculopathy associated with a large lumbar disk herniation. Morris CE. **J Manipulative Physiol Ther** 1999 Jan;22(1):38–44

SURGERY

Controversy. The use of selective nerve root blocks: diagnostic, therapeutic, or placebo? Slosar PJ Jr, et al. **Spine** 1998 Oct 15;23(20):2253–6
[The puncture laser dissectomy application for the discogenic lumbosacral radiculitis] Pedachenko EG, et al. **Klin Khir** 1998;(6):14–6 (Eng. Abstr.) **(Rus)**

THERAPY

Symptom provocation of fluoroscopically guided cervical nerve root stimulation. Are dynatomal maps identical to dermatomal maps? Slipman CW, et al. **Spine** 1998 Oct 15;23(20):2235–42

RADIO

Pretesting Spanish-language educational radio messages to promote timely and complete infant immunization in California. de Nuncio ML, et al. **J Community Health** 1999 Aug;24(4):269–84
A pharmacological validation of radiotelemetry in conscious, freely moving rats. Deveney AM, et al. **J Pharmacol Toxicol Methods** 1998 Aug;40(2):71–9
Personal stereos and hearing loss [letter; comment] Cates C. **Lancet** 1999 Feb 27;353(9154):756. Comment on: Lancet 1999 Jan 2;353(9146):35.
Saturdays are radio days for psychiatric patients in Argentina. Chelala C. **Lancet** 1998 Dec 5;352(9143):1867
Electromagnetic interference of external pacemakers by walkie-talkies and digital cellular phones: experimental study. Trigano AJ, et al. **Pacing Clin Electrophysiol** 1999 Apr;22(4 Pt 1):588–93
Loudness in listening to music with portable headphone stereos. Kageyama T. **Percept Mot Skills** 1999 Apr;88(2):423
Radio and the commodification of natural medicine in Ecuador. Miles A. **Soc Sci Med** 1998 Dec;47(12):2127–37
Teaching cardiology auscultation. A wireless FM broadcast system [see comments] Martin CC, et al. **Tex Heart Inst J** 1998;25(3):218–9. Comment in: Tex Heart Inst J 1999;26(2):160.

HISTORY

Airing the issues: BBC radio and medicine over fifty years of the NHS. MacGregor S. **J R Coll Physicians Lond** 1998 Sep–Oct;32(5):446–51

INSTRUMENTATION

[Morbidity in female workers who fabricate radio parts] Frolova NM, et al. **Med Tr Prom Ekol** 1998;(11):39–41 **(Rus)**

STANDARDS

Female voice communications in high level aircraft cockpit noises--part II: vocoder and automatic speech recognition systems. Nixon C, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1087–94

RADIO WAVES

see related
RADAR

The thermal effect of monopolar radiofrequency energy on the properties of joint capsule. An in vivo histologic study using a sheep model. Hecht P, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):808–14
Radiofrequency (RF) sickness in the Lilienfeld Study: an effect of modulated microwaves? Johnson Liakouris AG. **Arch Environ Health** 1998 May-Jun;53(3):236–8 (27 ref.)
Reasons of poor replicability of nonthermal bioeffects by millimeter waves. Chukova YuP. **Bioelectrochem Bioenerg** 1999 May;48(2):349–53
Human exposure at two radio frequencies (450 and 2450 MHz): similarities and differences in physiological response. Adair ER, et al. **Bioelectromagnetics** 1999;Suppl 4:12–20
The Radiofrequency Radiation Dosimetry Handbook: reminiscences. Allen SJ. **Bioelectromagnetics** 1999;Suppl 4:9–11
Development of a rat head exposure system for simulating human exposure to RF fields from handheld wireless telephones. Chou CK, et al. **Bioelectromagnetics** 1999;Suppl 4:75–92
Comparison of numerical and experimental methods for determination of SAR and radiation patterns of handheld wireless telephones. Gandhi OP, et al. **Bioelectromagnetics** 1999;Suppl 4:93–101
A quarter century of in vitro research: a new look at exposure methods. Guy AW, et al. **Bioelectromagnetics** 1999;Suppl 4:21–39
Luminescent radio frequency radiation dosimetry. Kiel JL, et al. **Bioelectromagnetics** 1999;Suppl 4:46–51
A compact shielded exposure system for the simultaneous long-term UHF irradiation of forty small mammals: I. Electromagnetic and environmental design. Moros EG, et al. **Bioelectromagnetics** 1998;19(8):459–68
Thalamo-cortical interactions modeled by weakly connected oscillators: could the brain use FM radio principles? Hoppensteadt FC, et al. **Biosystems** 1998 Sep-Dec;48(1-3):85–94
Alteration of diurnal rhythms of blood pressure and heart

rate to workers exposed to radiofrequency electromagnetic fields. Szmigielski S, et al. **Blood Press Monit** 1998; 3(6):323–30

Radiofrequency radiation exposure and other environmental concerns [editorial] House R. **CMAJ** 1999 May 4; 160(9):1318–9

Radiofrequency radiation in five Vancouver schools: exposure standards not exceeded [letter] Thansandote A, et al. **CMAJ** 1999 May 4;160(9):1311–2

The penetration characteristic of radio wave frequencies from oral cavities. Watanabe T, et al. **Front Med Biol Eng** 1999;9(1):1–7

Human exposure to electric and magnetic fields from RF sealers and dielectric heaters--a COMAR technical information statement. **IEEE Eng Med Biol Mag** 1999 Jan–Feb;18(1):88–90

Electromagnetic and thermal analysis for lipid bilayer membranes exposed to RF fields. Eibert TF, et al. **IEEE Trans Biomed Eng** 1999 Aug;46(8):1013–21

Effects of blood perfusion rate on the optimization of RF-capacitive hyperthermia. Fujita S, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1182–6

The measurement of fringing fields in a radio-frequency hyperthermia array with emphasis on bolus size. Wiersma J, et al. **Int J Hyperthermia** 1998 Nov–Dec;14(6):535–51

Effect of a 915-MHz simulated mobile phone signal on cognitive function in man. Preece AW, et al. **Int J Radiat Biol** 1999 Apr;75(4):447–56

Relaxation effects in a system of a spin–1/2 nucleus coupled to a quadrupolar spin subjected to RF irradiation: evaluation of broadband decoupling schemes. Smith SA, et al. **J Magn Reson** 1999 Jan;136(1):27–36

Bandwidth extension in noise spectroscopy. Yang D, et al. **J Magn Reson** 1998 Nov;135(1):267–70

Effect of functional magnetic particles on radiofrequency capacitive heating. Shinkai M, et al. **Jpn J Cancer Res** 1999 Jun;90(6):699–704

On the design and assessment of a 2.45 GHz radio telecommand system for remote patient monitoring. Crumley GC, et al. **Med Eng Phys** 1998 Dec;20(10):750–5

Towards multi-patient leadless and wireless cardiotocography via RF telemetry. Taylor J, et al. **Med Eng Phys** 1998 Dec;20(10):764–72

Visualization and registration of three-dimensional E-field distributions in annual-phased-array applicators. Wust P, et al. **Med Phys** 1999 Apr;26(4):653–9

Does RF brain heating decrease at 8 T? [letter; comment] Leroy-Willig A. **NMR Biomed** 1999 Apr;12(2):115. Comment on: NMR Biomed 1998 Oct;11(6):263–5.

Electromagnetic interference of external pacemakers by walkie-talkies and digital cellular phones: experimental study. Trigano AJ, et al. **Pacing Clin Electrophysiol** 1999 Apr;22(4 Pt 1):588–93

A prospective, longitudinal study on patients with trigeminal neuralgia who underwent radiofrequency thermocoagulation of the Gasserian ganglion. Zakrzewska JM, et al. **Pain** 1999 Jan;79(1):51–8

FDTD analysis of close-coupled 418 MHz radiating devices for human biotelemetry. Scanlon WG, et al. **Phys Med Biol** 1999 Feb;44(2):335–45

[Combined effect of noise and electromagnetic fields of industrial frequency (experimental study)] Khudnitskiĭ SS, et al. **Med Tr Prom Ekol** 1999;(6):38–40 **(Rus)**

[Present status and tasks of occupational regulations for radiofrequency of electromagnetic fields] Pal'tsev IuP. **Med Tr Prom Ekol** 1999;(6):2–6 (Eng. Abstr.) **(Rus)**

[Possible modification of radiation injury using radio frequency electromagnetic radiation] Aminova EM, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):345–8 (32 ref.) (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Childhood leukaemia and TV towers revisited [letter; comment] Hocking B, et al. **Aust N Z J Public Health** 1999 Feb;23(1):104–5. Comment on: Aust N Z J Public Health 1998;22(3 Suppl):360–7.

Radiofrequency radiation: what's safe? [letter] Cridland RG. **CMAJ** 1999 Sep 7;161(5):486, 488

Biomedical concerns in wireless communications. Stuchly MA. **Crit Rev Biomed Eng** 1998;26(1–2):117–51 (115 ref.)

A case of occasional exposure to radar frequencies [letter] Monfrecola G, et al. **Dermatology** 1999;198(4):403–4

Use of cellular telephones and the risk for brain tumours: A case-control study. Hardell L, et al. **Int J Oncol** 1999 Jul;15(1):113–6

Measurement of thermal effects on the optical properties of prostate tissue at wavelengths of 1,064 and 633 nm. Nau WH, et al. **Lasers Surg Med** 1999;24(1):38–47

Safety aspects of radiofrequency power deposition in magnetic resonance. Schaefer DJ. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):775–89 (47 ref.)

Preliminary report: symptoms associated with mobile phone use [see comments] Hocking B. **Occup Med (Lond)** 1998 Sep;48(6):357–60. Comment in: Occup Med (Lond) 1998 Oct;48(7):472.

Study of pacemaker and implantable cardioverter defibrillator triggering by electronic article surveillance devices [letter; comment] Giles OS. **Pacing Clin Electrophysiol** 1999 Feb;22(2):401–2. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1847–61.

Four types of interaction between pacemakers and EAS systems [letter; comment] Kunisada K. **Pacing Clin Electrophysiol** 1999 Feb;22(2):402–3. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1847–61.

Proto-oncogene mRNA levels and activities of multiple transcription factors in C3H 10T 1/2 murine embryonic fibroblasts exposed to 835.62 and 847.74 MHz cellular phone communication frequency radiation. Goswami PC, et al. **Radiat Res** 1999 Mar;151(3):300–9

Cell phones and cancer: what is the evidence for a connection? Moulder JE, et al. **Radiat Res** 1999 May; 151(5):513–31 (75 ref.)

Developmental toxicity interactions of salicylic acid and radiofrequency radiation or 2-methoxyethanol in rats. Nelson BK, et al. **Reprod Toxicol** 1999 Mar–Apr; 13(2):137–45

Biological effects of amplitude-modulated radiofrequency radiation [see comments] Juutilainen J, et al. **Scand J Work Environ Health** 1998 Aug;24(4):245–54 (64 ref.). Comment in: Scand J Work Environ Health 1998 Aug;24(4):241–3.

Intrauterine effects in animals exposed to radiofrequency and microwave fields. O'Connor ME. **Teratology** 1999 Apr; 59(4):287–91 (60 ref.)

[Effects of millimeter wave irradiation with different frequency and power density on their offsprings in mice] Zhao Z, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Sep;32(5):289–91 (Eng. Abstr.) **(Chi)**

[Analysis of electromagnetic absorption in biologic objects with industrial high-frequency heating of dielectric materials] Rudakov ML. **Med Tr Prom Ekol** 1999;(6):6–10 (Eng. Abstr.) **(Rus)**

DIAGNOSTIC USE

Optimization of axial RF field distribution in low-frequency EPR loop-gap resonators. Diodato R, et al. **Phys Med Biol** 1999 May;44(5):N69–75

Thermoacoustic CT with radio waves: a medical imaging paradigm. Kruger RA, et al. **Radiology** 1999 Apr; 211(1):275–8

THERAPEUTIC USE

Radio frequency ablation of renal cell carcinoma via image guided needle electrodes. McGovern FJ, et al. **J Urol** 1999 Feb;161(2):599–600

Surgeons use new technique to "melt" liver tumors [news] **Oncology (Huntingt)** 1999 Apr;13(4):540

Evaluation of segmentation algorithms for generation of patient models in radiofrequency hyperthermia. Wust P, et al. **Phys Med Biol** 1998 Nov;43(11):3295–307

Transurethral radiofrequency hot balloon thermal therapy in chronic nonbacterial prostatitis. Nickel JC, et al. **Tech Urol** 1998 Sep;4(3):128–30

Percutaneous radiofrequency thermal ablation combined with transcatheter arterial embolization in the treatment of large hepatocellular carcinoma. Buscarini L, et al. **Ultraschall Med** 1999 Apr;20(2):47–53

[Treatment results in chronic bacterial prostatitis using radio waves] Agadzhanian VV, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):20–2 (Eng. Abstr.) **(Rus)**

RADIOACTIVE AIR POLLUTANTS see **AIR POLLUTANTS, RADIOACTIVE**

RADIOACTIVE FALLOUT

Fallout beryllium-7 as a tracer in soil erosion investigations. Blake WH, et al. **Appl Radiat Isot** 1999 Nov;51(5):599–605

The relative effectiveness of exposure to 131I at low doses. Brenner DJ. **Health Phys** 1999 Feb;76(2):180–5

Resolving Nevada test site and global fallout plutonium in attic dust and soils using 137Cs/239+240Pu activity ratios. Cizdziel J, et al. **Health Phys** 1999 Jul;77(1):67–75

Chernobyl post-accident management: the ETHOS project. Dubreuil GH, et al. **Health Phys** 1999 Oct;77(4):361–72

Chernobyl-derived radiocesium in heather honey and its dependence on deposition patterns. Fisk S, et al. **Health Phys** 1999 Oct;77(4):431–5

Radioactive contamination of cistern waters along the Croatian coast of the Adriatic sea by 90Sr. Franić Z, et al. **Health Phys** 1999 Jul;77(1):62–6

Chernobyl accident: reconstruction of thyroid dose for inhabitants of the Republic of Belarus. Gavrilin YI, et al. **Health Phys** 1999 Feb;76(2):105–19

Soil concentration, vertical distribution and inventory of plutonium, 241Am, 90Sr and 137Cs in the Marche Region of Central Italy. Jia G, et al. **Health Phys** 1999 Jul; 77(1):52–61

Long-term follow-up of the 137Cs body burden of individuals after the Chernobyl accident--a means for the determination of biological half-lives. Rühm W, et al. **Health Phys** 1999 Oct;77(4):373–82

Strategy for population protection and area rehabilitation in Russia in the remote period after the Chernobyl accident. Balonov MI, et al. **J Radiol Prot** 1999 Sep;19(3):261–9

A survey of present levels of radiocesium in Swedish pulp mill liquors and the implications for wood radiocesium transfer factors. Ravila A, et al. **Sci Total Environ** 1998 Oct 27;222(3):185–92

[Influence of radioactive pollution on the character of the distribution of wild mouselike rodents according to the measure of lipid antioxidant activity in their organs] Shishkina LN, et al. **Radiats Biol Radioecol** 1998 Nov–Dec; 38(6):924–35 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Incidence of thyroid cancer in Scandinavia following fallout from atomic bomb testing: an analysis of birth cohorts. Lund E, et al. **Cancer Causes Control** 1999 Jun;10(3):181–7

Genome reduction in a hemiclonal frog Rana esculenta from radioactively contaminated areas. Vinogradov AE, et al. **Genetics** 1999 Mar;151(3):1123–5

Interferon gamma in survivors of the Chernobyl power plant accident: new therapeutic option for radiation-induced fibrosis. Peter RU, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):147–52

Re: Thyroid cancer rates and (131)I doses from Nevada atmospheric nuclear bomb tests [letter] Archer VE. **J Natl Cancer Inst** 1999 Aug 18;91(16):1423–1425

Thyroid cancer rates and 131I doses from Nevada atmospheric nuclear bomb tests. Gilbert ES, et al. **J Natl Cancer Inst** 1998 Nov 4;90(21):1654–60

Risk modeling can be key to determining radiation exposures [news] [published erratum appears in J Natl Cancer Inst 1998 Nov 18;90(22):1695] Miller M. **J Natl Cancer Inst** 1998 Nov 4;90(21):1596–8

Plant transgenics track Chernobyl's fallout [news; comment] [see comments] Dubrova YE. **Nat Biotechnol** 1998 Nov; 16(11):1010–1. Comment on: Nat Biotechnol 1998 Nov;16(11):1054–9. Comment in: Nat Biotechnol 1998 Nov;16(11):1010–1.

Transgenic plants are sensitive bioindicators of nuclear pollution caused by the Chernobyl accident [see comments] Kovalchuk I, et al. **Nat Biotechnol** 1998 Nov;16(11):1054–9 . Comment in: Nat Biotechnol 1998 Nov;16(11):985.

ANALYSIS

Prediction of the relative activity levels of the actinides in a fallout from a nuclear reactor accident. Friberg I. **Appl Radiat Isot** 1999 Feb;50(2):365–73

The spatial variability of Chernobyl-derived 137Cs inventories in a small agricultural drainage basin in central Russia. Golosov VN, et al. **Appl Radiat Isot** 1999 Sep; 51(3):341–52

Recent evolution of the multi-isotopic radioactive content in ice of Livingston Island, Antarctica. Baeza A, et al. **Bull Environ Contam Toxicol** 1999 Aug;63(2):139–49

Contribution of 137Cs to the total absorbed gamma dose rate in air in a Greek forest ecosystem: measurements and Monte Carlo computations. Clouvas A, et al. **Health Phys** 1999 Jan;76(1):36–43

Chernobyl radioactivity persists in fish [letter] Jonsson B, et al. **Nature** 1999 Jul 29;400(6743):417

The dosimetry system DS86 and the neutron discrepancy in Hiroshima--historical review, present status, and future options. Rühm W, et al. **Radiat Environ Biophys** 1998 Dec; 37(4):293–310

STATISTICS & NUMERICAL DATA

Hidden data and abuse in research come to light in the USA [news] Greenberg DS. **Lancet** 1997 Oct 11;350(9084):1083

RADIOACTIVE ISOTOPES see **RADIOISOTOPES**

RADIOACTIVE POLLUTANTS

Dose assessment and behavior of tritium in environmental samples around Wolsong nuclear power plant. Kim CK, et al. **Appl Radiat Isot** 1999 Apr;50(4):783–91

SRP meeting: Radiological effects on the environment--measurable? Important? London, 20 January 1999 [news] Stone D, et al. **J Radiol Prot** 1999 Jun; 19(2):188–90

[Free radical oxidation of lipids and antioxidant system of blood in infertile women in a radioactive environment] Ivaniota L, et al. **Ukr Biokhim Zh** 1998 Mar–Apr; 70(2).132–5 (Eng. Abstr.) **(Ukr)**

[Detoxicating function of the placenta of childbearing women from ecologically unfavorable regions of the Ukraine] Obolens'ka MIu, et al. **Ukr Biokhim Zh** 1998 Mar–Apr; 70(2):89–97 (Eng. Abstr.) **(Ukr)**

ADVERSE EFFECTS

Juvenile hypothyroidism among two populations exposed to radioiodine. Goldsmith JR, et al. **Environ Health Perspect** 1999 Apr;107(4):303–8

DOE funds low-dose research [news] **J Nucl Med Technol** 1998 Dec;26(4):287

Uranium-235 and childhood leukaemia around Greenham Common airfield. Bithell JF, et al. **J Radiol Prot** 1999 Sep; 19(3):253–9

Tritium releases and leukaemia clusters [editorial; comment] Blettner M. **J Radiol Prot** 1999 Sep;19(3):201–2. Comment on: J Radiol Prot 1999 Sep;19(3):243–52.

Leukaemia in the vicinity of two tritium-releasing nuclear facilities: a comparison of the Kruemmel Site, Germany, and the Savannah River Site, South Carolina, USA [see comments] Grosche B, et al. **J Radiol Prot** 1999 Sep; 19(3):243–52. Comment in: J Radiol Prot 1999 Sep;19(3):201–2.

Change in centromeric and acentromeric micronucleus frequencies in human populations after chronic radiation

exposure. Chang WP, et al. **Mutagenesis** 1999 Jul; 14(4):427–32

Stillbirths in relation to the coastline of Cumbria, 1950–89. Dummer TJ, et al. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):131–7

[Effect of iodine isotope on the hypophyseal–thyroid and immune systems of children residing in radionuclide polluted areas] Chernyshov VP, et al. **Biull Eksp Biol Med** 1998 Aug;126(8):216–20 **(Rus)**

[An estimation of the effect of low doses of irradiation on the population in the area of the eastern Urals radioactive trace on the health status of offspring] Nasybullina GM, et al. **Gig Sanit** 1999 May–Jun;(3):18–20 (Eng. Abstr.) **(Rus)**

[The organizational status and tasks of sanatorium–health resort treatment and health promotion for children suffering as a result of the Chernobyl catastrophe] Drinevskii NP, et al. **Lik Sprava** 1998 Jul–Aug;(5):57–60 (Eng. Abstr.) **(Rus)**

[The interactions of functional systems at the homeostatic level in normal children and adolescents and in a radioecologically unfavorable environment] Glazachev OS, et al. **Usp Fiziol Nauk** 1999 Jul–Sep;30(3):73–92 (81 ref.) (Eng. Abstr.) **(Rus)**

[Psychophysiological health aspects of population living in radiation–contaminated territories] Malygin VL, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):48–52 (Eng. Abstr.) **(Rus)**

[The immunological reactivity of children living under conditions of the action of low doses of ionizing radiation and of industrial waste] Markevych VE, et al. **Lik Sprava** 1999 Apr–May;(3):49–53 (Eng. Abstr.) **(Ukr)**

[The neurological and radiometric indices of those who worked in the cleanup who live on the territory of Chernigov Province] Martsynkevych OO. **Lik Sprava** 1998 Jun;(4):16–8 (Eng. Abstr.) **(Ukr)**

[Immunological reactivity and thyroid pathology in children who live permanently in an area under intense radioecological control] Sorokman TV. **Lik Sprava** 1998 Jul–Aug;(5):54–7 (Eng. Abstr.) **(Ukr)**

ANALYSIS

Estimation of organ dose equivalents from residents of radiation–contaminated buildings with Rando phantom measurements. Lee JS, et al. **Appl Radiat Isot** 1999 May; 50(5):867–73

A non–destructive method to determine the depth of radionuclides in materials in–situ. Naessens EP, et al. **Health Phys** 1999 Jul;77(1):76–88

Dynamic modeling of the cesium, strontium and ruthenium transfer to grass and vegetables. Renaud P, et al. **Health Phys** 1999 May;76(5):495–501

Comparative study of the PARK and ASTRAL post–accidental decision support software. Renaud P, et al. **Health Phys** 1999 May;76(5):502–9

An environmental radionuclide baseline study near three Canadian naval ports. Waller EJ, et al. **Health Phys** 1999 Jul;77(1):37–42

Calculated public doses from 39 years of emission from Studsvik. Hedvall R. **J Radiol Prot** 1999 Sep;19(3):271–3

Operating characteristics of outpatient fluoroscopic systems. Cabral AJ. **Med Health R I** 1999 Jun;82(6):221–2

METABOLISM

Teaching an old bug new tricks [news; comment] Hendrickson W. **Nat Biotechnol** 1998 Oct;16(10):910–1. Comment on: Nat Biotechnol 1998 Oct;16(10):929–33.

Engineering a recombinant Deinococcus radiodurans for organcpollutant degradation in radioactive mixed waste environments [see comments] Lange CC, et al. **Nat Biotechnol** 1998 Oct;16(10):929–33. Comment in: Nat Biotechnol 1998 Oct;16(10):910–1.

PHARMACOKINETICS

Caesium–137 migration in Hungarian soils. Szerbin P, et al. **Sci Total Environ** 1999 Mar 9;227(2–3):215–27

TOXICITY

[Nucleotide level evaluation of the genetic variability of the human population in ecologically unfavorable regions of the Techa river] Soifer VN, et al. **Dokl Akad Nauk** 1998 Dec;363(6):831–4 **(Rus)**

[Characteristics of infection in children during prolonged oxidative stress after radiation exposure] Buchneva NN, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):299–303 (Eng. Abstr.) **(Rus)**

URINE

Urinary excretion measurements for the assessment of body burden of radiocaesium in man: differences between potassium and creatinine normalisation. Rääf CL, et al. **Appl Radiat Isot** 1999 Nov;51(5):505–14

Uranium and thorium in urine of United States residents: reference range concentrations. Ting BG, et al. **Environ Res** 1999 Jul;81(1):45–51

RADIOACTIVE TRACERS

Designing a radioisotope experiment using a dynamic, mechanistic model of protein turnover. Johnson HA, et al. **Adv Exp Med Biol** 1998;445:345–59

Accelerator mass spectrometry as a bioanalytical tool for nutritional research. Vogel JS, et al. **Adv Exp Med Biol** 1998;445:397–410 (41 ref.)

Power–law kinetics of tracer washout from physiological systems. Beard DA, et al. **Ann Biomed Eng** 1998 Sep–Oct; 26(5):775–9

Study on the distribution of radioactive trace elements in vitamin D–overloaded rats using the multitracer technique. Hirunuma R, et al. **Appl Radiat Isot** 1999 May;50(5):843–9

Fundamentals of tracer kinetics for radiologists. Peters AM. **Br J Radiol** 1998 Nov;71(851):1116–29 (26 ref.)

Binding properties of various metals to blood components and serum proteins: a multitracer study. Sotogaku N, et al. **J Trace Elem Med Biol** 1999 Jul;13(1–2):1–6

[Differential diagnosis in adrenal gland tumors using PET and 11C–metomidate] Juhlin C, et al. **Nord Med** 1998 Nov; 113(9):306–7 (Eng. Abstr.) **(Swe)**

RADIOACTIVE WASTE

Microbiology of spent nuclear fuel storage basins. Santo Domingo JW, et al. **Curr Microbiol** 1998 Dec;37(6):387–94

Complex cleanup. Black HK. **Environ Health Perspect** 1999 Feb;107(2):A68–73

DOE's technology garden. Kasper K. **Health Phys** 1999 Oct; 77(4):359–60

Robotic recovery of highly radioactive resin. Miller DC. **Health Phys** 1999 Feb;76(2 Suppl):S3–6

Stirring system for radioactive waste water storage tank. Ogata Y, et al. **Health Phys** 1999 Jul;77(1):89–96

A biosphere modeling methodology for dose assessments of the potential Yucca Mountain deep geological high level radioactive waste repository. Watkins BM, et al. **Health Phys** 1999 Apr;76(4):355–67

Sites in the United States contaminated with radioactivity. Wolbarst AB, et al. **Health Phys** 1999 Sep;77(3):247–60 (47 ref.)

The OSPAR Commission and Ministerial Meeting, 20–24 July 1998, Sintra Lisbon [news] Gray J. **J Radiol Prot** 1998 Dec;18(4):306–10

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: development and technical content. Webb GA. **J Radiol Prot** 1998 Dec;18(4):265–75

The plutonium problem: the Royal Society sits on the fence. Barnaby F. **Med Confl Surviv** 1998 Jul–Sep;14(3):197–207

The glass bead game: nuclear tourism at the Australian weapon test sites. Roff SR. **Med Confl Surviv** 1998 Oct–Dec;14(4):290–302

Teaching an old bug new tricks [news; comment] Hendrickson W. **Nat Biotechnol** 1998 Oct;16(10):910–1. Comment on: Nat Biotechnol 1998 Oct;16(10):929–33.

Engineering a recombinant Deinococcus radiodurans for organopollutant degradation in radioactive mixed waste environments [see comments] Lange CC, et al. **Nat Biotechnol** 1998 Oct;16(10):929–33. Comment in: Nat Biotechnol 1998 Oct;16(10):910–1.

The use of delay tanks in the management of radioactive waste from thyroid therapy. Goddard C. **Nucl Med Commun** 1999 Jan;20(1):85–94

Effect of gamma radiation on native endolithic microorganisms from a radioactive waste deposit site. Pitonzo BJ, et al. **Radiat Res** 1999 Jul;152(1):64–70

[Nuclear waste transport! Danger for us all from the transport of used fuel waste from German nuclear energy plants?] Krauss O. **Radiologe** 1998 Sep;38(9):764–5 **(Ger)**

ADVERSE EFFECTS

Uncertainty of the tritium dose conversion factor. Hamby DM. **Health Phys** 1999 Sep;77(3):291–7

Stochastic dose/risk assessment uncertainty and the concept of potential exposures. Pollner L, et al. **J Radiol Prot** 1998 Dec;18(4):277–85

Perceptions of on–site hunters: environmental concerns, future land use, and cleanup options at the Savannah river site. Burger J, et al. **J Toxicol Environ Health** 1999 Jun 25;57(4):267–81

ANALYSIS

Uncertainty of the tritium dose conversion factor. Hamby DM. **Health Phys** 1999 Sep;77(3):291–7

LEGISLATION & JURISPRUDENCE

National waste management infrastructure in Ghana. Darko EO, et al. **J Radiol Prot** 1998 Dec;18(4):293–9

RADIOALLERGOSORBENT TEST

A comparison of skin prick tests, intradermal skin tests, and RASTs in the diagnosis of cat allergy. Wood RA, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):773–9

Mold testing by RAST and skin test methods in patients with allergic fungal sinusitis. Mabry RL, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):252–4

[Relation between the total plasma IgE concentration and the prevalence of the various RAST (radioallergosorbent) classes of allergy (see comments)] San Martin Ciges E, et al. **Allergol Immunopathol (Madr)** 1998 Sep–Oct; 26(5):228–33 (Eng. Abstr.). Comment in: Allergol Immunopathol (Madr) 1998 Sep–Oct;26(5):203–8. **(Spa)**

INSTRUMENTATION

[The comparative study of LUMIWARD immunoassay system and CAP RAST system for determination of specific IgE antibody against mite in infantile atopic dermatitis] Miyoshi M, et al. **Arerugi** 1998 Aug;47(8):744–8 (Eng. Abstr.) **(Jpn)**

METHODS

[Efficiency of mixed RASTs in serological screening of possibly allergic patients] van Toorenenbergen AW, et al. **Ned Tijdschr Geneeskd** 1998 Apr 11;142(15):855–9 (Eng. Abstr.) **(Dut)**

RADIOAUTOGRAPHY see **AUTORADIOGRAPHY**

RADIOBIOLOGY

see related
NUCLEAR MEDICINE

Radiation biology and treatment options in radiation oncology. Withers HR. **Cancer Res** 1999 Apr 1;59(7 Suppl):1676s–1684s (70 ref.)

The radiobiology and physics of brachytherapy. Crownover RL, et al. **Hematol Oncol Clin North Am** 1999 Jun; 13(3):477–87 (5 ref.)

A theoretical model for simultaneous mixed irradiation with multiple types of radiation. Suzuki S. **J Radiat Res (Tokyo)** 1998 Sep;39(3):215–21

Review of photon interaction cross section data in the medical and biological context. Hubbell JH. **Phys Med Biol** 1999 Jan;44(1):R1–22 (157 ref.)

International radiobiology archives of long–term animal studies: structure, possible uses and potential extension. Gerber GB, et al. **Radiat Environ Biophys** 1999 Jul; 38(2):75–9 (6 ref.)

Proceedings of the American Statistical Association Conference on Radiation and Health. San Diego, California, USA. June 14–17, 1998 [published erratum appears in Radiat Res 1999 Jun;151(6):754] **Radiat Res** 1999 Jan;151(1):92–117

Heavy–ion radiobiology: new approaches to delineate mechanisms underlying enhanced biological effectiveness. Blakely EA, et al. **Radiat Res** 1998 Nov;150(5 Suppl):S126–45 (264 ref.)

The Impact of Biology on Risk Assessment––workshop of the National Research Council's Board on Radiation Effects Research. July 21–22, 1997, National Academy of Sciences, Washington, DC. Fry RJ, et al. **Radiat Res** 1998 Dec;150(6):695–705

Development of primary tissue culture techniques for use in radiobiology. Mothersill C. **Radiat Res** 1998 Nov;150(5 Suppl):S121–5 (58 ref.)

[The anthropic principle in biology and radiobiology] Akif'ev AP, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):5–9 (21 ref.) (Eng. Abstr.) **(Rus)**

[Small doses and synergistic interaction of environmental factors] Petin VG, et al. **Radiats Biol Radioecol** 1999 Jan–Feb;39(1):113–26 (36 ref.) (Eng. Abstr.) **(Rus)**

EDUCATION

Postgraduate studies in radiation biology in Europe. Trott KR, et al. **Radiat Environ Biophys** 1998 Oct;37(3):139–42

HISTORY

Aspects on the development of radiation therapy and radiation biology since the early work of Rolf Wideröe. Brahme A. **Acta Oncol** 1998;37(6):593–602

INSTRUMENTATION

A compact shielded exposure system for the simultaneous long–term UHF irradiation of forty small mammals: I. Electromagnetic and environmental design. Moros EG, et al. **Bioelectromagnetics** 1998;19(8):459–68

METHODS

Modelling DNA damage induced by different energy photons and tritium beta–particles. Moiseenko VV, et al. **Int J Radiat Biol** 1998 Nov;74(5):533–50

DNA damage and repair in individual cells: applications of the comet assay in radiobiology. Olive PL. **Int J Radiat Biol** 1999 Apr;75(4):395–405 (85 ref.)

A non–parametric method of reconstructing single–dose survival curves from multi–fraction experiments. Taylor JM, et al. **Int J Radiat Biol** 1998 Nov;74(5):583–93

Definitions of physical and biological low dose. Zaider M, et al. **Int J Radiat Biol** 1998 Nov;74(5):633–7

Quantitative assessment of protein content in irradiated human skin. Lahtinen T, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):635–8

Applications of amorphous track models in radiation biology. Cucinotta FA, et al. **Radiat Environ Biophys** 1999 Jul; 38(2):81–92 (78 ref.)

Modelling radiation–induced biological lesions: from initial energy depositions to chromosome aberrations. Ottolenghi A, et al. **Radiat Environ Biophys** 1999 May;38(1):1–13 (76 ref.)

RADIOCHEMISTRY

METHODS

Determination of plasmalogen-selective phospholipase A2 activity by radiochemical and fluorometric assay procedures. Farooqui AA, et al. **Methods Mol Biol** 1999; 109:39-47 (15 ref.)

RADIOCINEMATOGRAPHY see **CINERADIOGRAPHY**

RADIODERMATITIS

A multimedia database for dermatology. Kindler H, et al. **Medinfo** 1998;9 Pt 1:70-4

DIAGNOSIS

Angiosarcoma of the breast mimicking radiation dermatitis arising after lumpectomy and breast irradiation: a case report. Deutsch M, et al. **Am J Clin Oncol** 1998 Dec; 21(6):608-9

Eosinophilic, polymorphic, and pruritic eruption associated with radiotherapy. Rueda RA, et al. **Arch Dermatol** 1999 Jul;135(7):804-10

DRUG THERAPY

The effect of tetrandrine and extracts of Centella asiatica on acute radiation dermatitis in rats. Chen YJ, et al. **Biol Pharm Bull** 1999 Jul;22(7):703-6

Interferon gamma in survivors of the Chernobyl power plant accident: new therapeutic option for radiation-induced fibrosis. Peter RU, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):147-52

Pentoxifylline treatment of radiation mastitis [letter] Steeves RA, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1; 42(5):1177

The inhibitory effect of glabridin from licorice extracts on melanogenesis and inflammation. Yokota T, et al. **Pigment Cell Res** 1998 Dec;11(6):355-61

[Radiation protective efficacy of alpha-adrenomimetics during local gamma irradiation of the skin] Vasin MV, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):249-53 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Telomerase activity in radiation-induced chronic human skin ulcers. Zhao P, et al. **J Environ Pathol Toxicol Oncol** 1999; 18(1):17-9

EPIDEMIOLOGY

The CHART regimen and morbidity. Dische S, et al. **Acta Oncol** 1999;38(2):147-52 (12 ref.)

Eosinophilic, polymorphic, and pruritic eruption associated with radiotherapy. Rueda RA, et al. **Arch Dermatol** 1999 Jul;135(7):804-10

ETIOLOGY

Fluoroscopic-induced radiation dermatitis. Sajben FP, et al. **Cutis** 1999 Jul;64(1):57-9

Chronic radiodermatitis following cardiac catheterisation: a report of two cases and a brief review of the literature. Dehen L, et al. **Heart** 1999 Mar;81(3):308-12 (22 ref.)

Atypical acute reaction associated with radiotherapy: a case report. Akmansu M, et al. **Radiat Med** 1998 Sep-Oct; 16(5):379-82 (11 ref.)

[Secondary radiodermatitis caused by endovascular explorations: 5 cases] Dandurand M, et al. **Ann Dermatol Venereol** 1999 May;126(5):413-7 (Eng. Abstr.) **(Fre)**

[Chronic radiodermatitis after heart catheterization: the contributing role of ciprofibrate (Lipanor)?] Gironet N, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):598-600 (Eng. Abstr.) **(Fre)**

[Photo-aging] Paredes BE, et al. **Ther Umsch** 1999 Apr; 56(4):188-93 (23 ref.) (Eng. Abstr.) **(Ger)**

[Radiotherapy-induced pemphigus] Correia MP, et al. **Acta Med Port** 1998 Jun;11(6):581-3 (15 ref.) (Eng. Abstr.) **(Por)**

[The modelling of local radiation injuries to the skin] Zviahintseva TV. **Fiziol Zh** 1998;44(5-6):106-12 (Eng. Abstr.) **(Ukr)**

PATHOLOGY

Radiation-induced comet-formation in human skin fibroblasts from radiotherapy patients with different normal tissue reactions. Oppitz U, et al. **Strahlenther Onkol** 1999 Jul;175(7):341-6

PREVENTION & CONTROL

Individual skin care during radiation therapy. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:74-7 (19 ref.)

[Prevention of ultraviolet ray damage: external and internal sunscreens] Grundmann JU, et al. **Ther Umsch** 1999 Apr; 56(4):225-32 (48 ref.) (Eng. Abstr.) **(Ger)**

SURGERY

A new extended external oblique musculocutaneous flap for reconstruction of large chest-wall defects. Moschella F, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1378-85

THERAPY

Effect of low intensity monochromatic light therapy (890 nm) on a radiation-impaired, wound-healing model in murine skin. Lowe AS, et al. **Lasers Surg Med** 1998; 23(5):291-8

RADIOGRAPHIC FILM see **X-RAY FILM**

RADIOGRAPHIC IMAGE ENHANCEMENT

see related
X-RAY INTENSIFYING SCREENS

Digital mammography: a model for assessing cost-effectiveness. Nields MW, et al. **Acad Radiol** 1998 Sep; 5 Suppl 2:S310-3

Limited diagnostic value of macroradiography in suspected scaphoid fractures. Gaebler C, et al. **Acta Orthop Scand** 1998 Aug;69(4):401-3

Agreement between radiographic and photographic trabecular patterns. Korstjens CM, et al. **Acta Radiol** 1998 Nov;39(6):625-31

Comparison of iodixanol 270 with iohexol 300 in infrapopliteal arteriography. Digital densitometric analysis of angiographic opacification. Manninen HI, et al. **Acta Radiol** 1999 May;40(3):291-5

Assessment of image post-processing and of measuring assistance tools in computed radiography. Evaluation of the weight-bearing knee. Sanfridsson J, et al. **Acta Radiol** 1998 Nov;39(6):642-8

Gastrointestinal imaging: a systems analysis comparing digital and conventional techniques. Chawla S, et al. **AJR Am J Roentgenol** 1999 May;172(5):1279-84

Comparison of interpretation of digitized images and screen-film radiographs [letter] Keesling CA, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):848-9

Skeletal surveys for child abuse: comparison of interpretation using digitized images and screen-film radiographs. Youmans DC, et al. **AJR Am J Roentgenol** 1998 Nov; 171(5):1415-9

Reduction in retake rates and radiation dosage through computed radiography. Polunin N, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):805-7

Impact of new digital X- and gamma ray imaging systems upon patient doses. Speller R, et al. **Appl Radiat Isot** 1999 Jan;50(1):153-63 (52 ref.)

Imaging factors and image optimization. Balter S. **Cathet Cardiovasc Diagn** 1998 Dec;45(4):450-3

X-ray image intensifier. Balter S. **Catheter Cardiovasc Interv** 1999 Feb;46(2):238-44

Digital images. Balter S. **Catheter Cardiovasc Interv** 1999 Apr; 46(4):487-96

Distribution of radiolabeled monoclonal antibody MX35 F(ab')2 in tissue samples by storage phosphor screen image analysis: evaluation of antibody localization to micrometastatic disease in epithelial ovarian cancer. Finstad CL, et al. **Clin Cancer Res** 1997 Aug;3(8):1433-42

A wavelet-based method for removal of out-of-plane structures in digital tomosynthesis. Badea C, et al. **Comput Med Imaging Graph** 1998 Jul-Aug;22(4):309-15

Controlled diagnosis-oriented enhancement of automatically segmented radiographs in dentistry. Koch S, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1-2):125-31

Development of rotational digital angiography and new cone-beam 3D image: clinical value in vascular lesions. Kumazaki T. **Comput Methods Programs Biomed** 1998 Aug-Sep;57(1-2):139-42

Value of digital fluoroscopy for the diagnosis of pneumatosis coli. Kaiser JS, et al. **Eur J Radiol** 1998 Nov;29(1):21-4

The promise of computer aided detection in digital mammography. Roehrig J, et al. **Eur J Radiol** 1999 Jul; 31(1):35-9

Pixelwise fusion for optimizing SNR in multiple-plate computed radiography imaging. Wang T, et al. **IEEE Trans Med Imaging** 1999 Mar;18(3):239-51

Detection of microcalcifications in digital mammograms using wavelets. Wang TC, et al. **IEEE Trans Med Imaging** 1998 Aug;17(4):498-509

Perception of temporally filtered X-ray fluoroscopy images. Wilson DL, et al. **IEEE Trans Med Imaging** 1999 Jan; 18(1):22-31

Filmless cardiac imaging: motion or commotion? Vastenaeken GD. **Int J Card Imaging** 1998;14 Suppl 1:19-22 (0 ref.)

Post-mortem cast angiography in the diagnostics of graft complications in patients with fatal outcome following coronary artery bypass grafting (CABG). Weman SM, et al. **Int J Legal Med** 1999;112(2):107-14

Algorithms for radiological image registration and their clinical application. Hawkes DJ. **J Anat** 1998 Oct;193 (Pt 3):347-61 (49 ref.)

Fast and accurate automated measurements in digitized stereophotogrammetric radiographs. Vrooman HA, et al. **J Biomech** 1998 May;31(5):491-8

Radiolucent lines and component stability in knee arthroplasty. Standard versus fluoroscopically-assisted radiographs. Vyskocil P, et al. **J Bone Joint Surg Br** 1999 Jan;81(1):24-6

Soft tissue thin-plate spline analysis of pre-pubertal Korean and European-Americans with untreated Angle's Class III malocclusions. Singh GD, et al. **J Craniofac Genet Dev Biol** 1999 Apr-Jun;19(2):94-101

Contrast limited adaptive histogram equalization image processing to improve the detection of simulated spiculations in dense mammograms. Pisano ED, et al. **J Digit Imaging** 1998 Nov;11(4):193-200

Benchmark testing the Digital Imaging Network-Picture Archiving and Communications System proposal of the Department of Defense. Shelton PD, et al. **J Digit Imaging** 1999 May;12(2):94-8

Challenges associated with the incorporation of digital radiography into a picture archival and communication system. Siegel EL, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):6-8

Prognosis of epilepsy associated with single CT enhancing lesion: a long term follow up study. Murthy JM, et al. **J Neurol Sci** 1998 Aug 14;159(2):151-5

Effect of projective aspects variations on estimates of changes in bone mass using digital subtraction radiography. Loftin R, et al. **J Periodontal Res** 1998 Aug;33(6):352-8

Computer-assisted densitometric image analysis of digital subtraction images: in vivo error of the method and effect of thresholding. Brägger U, et al. **J Periodontol** 1998 Sep; 69(9):967-74

Estimation of 3D location and orientation of human vertebral facet joints from standing digital radiographs. Petit Y, et al. **Med Biol Eng Comput** 1998 Jul;36(4):389-94

A representation for mammographic image processing. Highnam R, et al. **Med Image Anal** 1996 Mar;1(1):1-18

An image visualization tool in mammography. Sakellaropoulos P, et al. **Med Inform Internet Med** 1999 Jan-Mar;24(1):53-73

Performance characteristics of a Kodak computed radiography system. Bradford CD, et al. **Med Phys** 1999 Jan;26(1):27-37

Evaluating the performance of detection algorithms in digital mammography. Kallergi M, et al. **Med Phys** 1999 Feb; 26(2):267-75

Implementation of a low-cost PACS/CR for clinical use in Yonsei Cardiovascular Center. Huh JM, et al. **Medinfo** 1998;9 Pt 2:1091-4

Comparative study of positron emission tomography and quantitative digital radiography (QDR) in detecting effects of aging and diet on bone metabolism of guinea pig. Ahmed K, et al. **Radiat Med** 1998 Jul-Aug;16(4):239-44

A perceptually tempered display for digital mammograms. Kundel HL, et al. **Radiographics** 1999 Sep-Oct;19(5):1313-8

Digital medical image management. Furlow B. **Radiol Technol** 1999 May-Jun;70(5):434-45; quiz 446-8 (31 ref.)

Pancreas: does hyoscyamine butylbromide increase the diagnostic value of helical CT? Aschoff AJ, et al. **Radiology** 1999 Mar;210(3):861-4

Pancreatic CT imaging: effects of different injection rates and doses of contrast material. Kim T, et al. **Radiology** 1999 Jul;212(1):219-25

Lung cancer staging and management: comparison of contrast-enhanced and nonenhanced helical CT of the thorax. Patz EF Jr, et al. **Radiology** 1999 Jul;212(1):56-60

Renal insufficiency: usefulness of gadodiamide-enhanced renal angiography to supplement CO2-enhanced renal angiography for diagnosis and percutaneous treatment. Spinosa DJ, et al. **Radiology** 1999 Mar;210(3):663-72

Detection of CT-proved pulmonary nodules: comparison of selenium-based digital and conventional screen-film chest radiographs. Woodard PK, et al. **Radiology** 1998 Dec; 209(3):705-9

[Employing deconvolution method for correcting scatter in radiography] Deng Z, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Jun; 14(2):137-43 (Eng. Abstr.) **(Chi)**

[Digitalized conventional radiology and image network] **Presse Med** 1998 Apr 25;27(16):766-8 **(Fre)**

[Digital projection radiography. Technical bases. Imaging quality and usefulness] Busch HP. **Radiologe** 1999 Aug; 39(8):710-24 **(Ger)**

[Dosage monitoring as a quality control instrument in digital radiography] Kurtz C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):465-70 (Eng. Abstr.) **(Ger)**

[Occult fractures of the wrist joint: high resolution image magnification roentgen versus MRI] Schick S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):16-21 (Eng. Abstr.) **(Ger)**

[Digital flat image detector technique based on cesium iodide and amorphous silicon: experimental studies and initial clinical results (published erratum appears in Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Mar;170(3):326)] Strotzer M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):66-72 (Eng. Abstr.) **(Ger)**

[Monitor assessment of digitalized and post-processed portal films compared to conventional films presented on a light box] Wachter S, et al. **Strahlenther Onkol** 1998 Nov; 174(11):589-96 (Eng. Abstr.) **(Ger)**

[Detection of emphysematous bullae in spontaneous pneumothorax by three-dimensional computed topography] Yusa T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):722-5 (Eng. Abstr.) **(Jpn)**

[Diagnostic abilities of high-resolution CT, dynamic CT, and 201T1 SPECT in evaluating of pulmonary masses] Kashimada A. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Jul;58(8):407-19 (Eng. Abstr.) **(Jpn)**

[Benign pulmonary nodule: morphological features and contrast enhancement evaluated with contiguous thin-section CT] Matsuo H, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Oct;58(12):685-91 (Eng. Abstr.) **(Jpn)**

[Current role of x-ray technology in medical introscopy] Blinov NN, et al. **Med Tekh** 1998 Nov-Dec;(6):3-5 (Eng. Abstr.) **(Rus)**

[Renex-fluoro device for digital fluorography] Mishkinis AB, et al. **Med Tekh** 1998 Nov-Dec;(6):14-6 (Eng. Abstr.) **(Rus)**

[The University of X-ray Laboratory Assistants. Lesson 5. Image contrast] Chikridin EG. **Vestn Rentgenol Radiol** 1998 Jul-Aug;(4):40-9 **(Rus)**

ECONOMICS

Digital mammography: a model for assessing cost-effectiveness. Nields MW, et al. **Acad Radiol** 1998 Sep; 5 Suppl 2:S310-3

Cost-effectiveness of digital radiography. Reiser M, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S411-5

INSTRUMENTATION

Selenium-based digital radiography versus conventional film-screen radiography of the hands and feet: a subjective comparison. Piraino DW, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):177-84

Three-dimensional analysis of the skeleton of the lower extremities with 3D-precision radiography. Brunner R, et al. **Arch Orthop Trauma Surg** 1998;117(6-7):351-6

Technical report: Initial experiences with an experimental solid-state universal digital X-ray image detector. Bury RF, et al. **Clin Radiol** 1998 Dec;53(12):923-8

Digital mammography performed with computed radiography technology. Jouan B. **Eur J Radiol** 1999 Jul; 31(1):18-24

Full-field digital mammography designed as a complete system. Muller S. **Eur J Radiol** 1999 Jul;31(1):25-34

Full field digital mammography scanner. Tesic MM, et al. **Eur J Radiol** 1999 Jul;31(1):2-17

Dynamic helical biphasic CT emerges as a potential tool for the diagnosis of proximal arterioportal shunting. Chen JH, et al. **Hepatogastroenterology** 1999 May-Jun;46(27):1791-7

Seamless tiling of amorphous silicon photodiode-TFT arrays for very large area X-ray image sensors [letter] Powell MJ, et al. **IEEE Trans Med Imaging** 1998 Dec;17(6):1080-3

Evaluation of compensation filters in pedal radiographs. Jennings MB, et al. **J Am Podiatr Med Assoc** 1999 Apr; 89(4):169-73

Digital radiography of interproximal bone loss; validity of different filters. Eickholz P, et al. **J Clin Periodontol** 1999 May;26(5):294-300

The effect of the antiscatter grid on full-field digital mammography phantom images. Chakraborty DP. **J Digit Imaging** 1999 Feb;12(1):12-22

Temporomandibular joint pantomography using charge-coupled device, photostimulable phosphor, and film receptors: a comparison. Farman TT, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):9-13

An evaluation of the signal and noise characteristics of four CCD-based film digitizers. Hangiandreou NJ, et al. **Med Phys** 1998 Oct;25(10):2020-6

The effect of phosphor persistence on image quality in digital x-ray scanning systems. Mainprize JG, et al. **Med Phys** 1998 Dec;25(12):2440-54

Digital radiology using active matrix readout of amorphous selenium: geometrical and effective fill factors. Pang G, et al. **Med Phys** 1998 Sep;25(9):1636-46

Electrocardiographically gated thin-section CT of the lung. Schoepf UJ, et al. **Radiology** 1999 Sep;212(3):649-54

Development of an automated 12-8 bit conversion algorithm for displaying and archiving scanned radiographs. Hornof WJ, et al. **Vet Radiol Ultrasound** 1999 Mar-Apr; 40(2):179-82

[Digital radiography] Barre D. **J Radiol** 1999 Jul;80(7 Suppl):809-12 **(Fre)**

[Digital radiology] Largillière S, et al. **J Radiol** 1999 Jul;80(7 Suppl):781-90 **(Fre)**

[Direct digital magnification mammography with a large-surface detector made of amorphous silicon] Hermann KP, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 May;170(5):503-6 (Eng. Abstr.) **(Ger)**

[The reduction of the radiation dosage by means of storage phosphor-film radiography compared to a conventional film-screen system with a grid cassette on a skull phantom] Heyne JP, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):54-9 (Eng. Abstr.) **(Ger)**

[Acceptance of digital image distribution in a "filmless hospital"] Hubauer H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Oct;169(4):412-9 (Eng. Abstr.) **(Ger)**

[Color-coded volume reconstruction for 3-dimensional presentation of CT data] Rieker O, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):109-11 (Eng. Abstr.) **(Ger)**

[Cone beam CT utilizing a rotational digital radiographic system: early clinical experience on pulmonary and skeletal lesions] Nishitani H, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Jul;58(8):451-3 (Eng. Abstr.) **(Jpn)**

[Intensifiers of radiographic image with digital output] Veĭp IuA, et al. **Med Tekh** 1998 Nov-Dec;(6):10-3 (Eng. Abstr.) **(Rus)**

[Experience in using at a polyclinic the Siberia low-dose digital X-ray unit] Babichev EA, et al. **Vestn Rentgenol Radiol** 1998 Jul-Aug;(4):28-32 **(Rus)**

METHODS

Second-generation three-dimensional reconstruction for rotational three-dimensional angiography. Bidaut LM, et al. **Acad Radiol** 1998 Dec;5(12):836-49

Effects of processing conditions on mammographic image quality. Braeuning MP, et al. **Acad Radiol** 1999 Aug; 6(8):464-70

Application of pharmacokinetics to electron-beam tomography of the abdomen. Krause W, et al. **Acad Radiol** 1999 Aug;6(8):487-95

Digital mammography: comparison of adaptive and nonadaptive CAD methods for mass detection. Qian W, et al. **Acad Radiol** 1999 Aug;6(8):471-80

Optimising contrast-enhanced cranial CT for detection of brain metastases. Sighvatsson V, et al. **Acta Radiol** 1998 Nov;39(6):718-22

Detection of small peripheral lung cancer by digital chest radiography. Performance of unprocessed versus unsharp mask-processed images. Yang ZG, et al. **Acta Radiol** 1999 Sep;40(5):505-9

Reduction of aneurysm clip artifacts on CT angiograms: a technical note. Brown JH, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):694-6

Quantification of fracture healing with three-dimensional computed tomography. den Boer FC, et al. **Arch Orthop Trauma Surg** 1998;117(6-7):345-50

Tailored low dose three-dimensional CT of paranasal sinuses. Damilakis J, et al. **Clin Imaging** 1998 Jul-Aug;22(4):235-9

Bouveret's syndrome: diagnosis by helical CT scan. Farman J, et al. **Clin Imaging** 1998 Jul-Aug;22(4):240-2

Tracing of thin tubular structures in computer tomographic data. Stein W, et al. **Comput Aided Surg** 1998;3(2):83-8

A knowledge-based approach to 3-D reconstruction of human cerebral vasculature. Zrimec T. **Comput Biol Med** 1998 Jul;28(4):405-13

Spatio-temporal filtering of digital angiography image data. Knutsson H, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep;57(1-2):115-23

A study of the application sharing capabilities in telemedicine. Mattioli P, et al. **Comput Methods Programs Biomed** 1999 Feb;58(2):89-97

Semi-automatic segmentation of computed tomographic images in volumetric estimation of nasal airway. Dastidar P, et al. **Eur Arch Otorhinolaryngol** 1999;256(4):192-8

Intraperitoneal contrast material combined with CT for detection of peritoneal metastases of ovarian cancer. Gryspeerdt S, et al. **Eur J Gynaecol Oncol** 1998;19(5):434-7

Storage phosphor and film-screen mammography: performance with different mammographic techniques. Kheddache S, et al. **Eur Radiol** 1999;9(4):591-7

Improving cephalogram analysis through feature subimage extraction. Chen YT, et al. **IEEE Eng Med Biol Mag** 1999 Jan-Feb;18(1):25-31

Image contrast enhancement based on a histogram transformation of local standard deviation. Chang DC, et al. **IEEE Trans Med Imaging** 1998 Aug;17(4):518-31

A novel approach to microcalcification detection using fuzzy logic technique. Cheng HD, et al. **IEEE Trans Med Imaging** 1998 Jun;17(3):442-50

Model-guided labeling of coronary structure. Ezquerra N, et al. **IEEE Trans Med Imaging** 1998 Jun;17(3):429-41

Statistical textural features for detection of microcalcifications in digitized mammograms. Kim JK, et al. **IEEE Trans Med Imaging** 1999 Mar;18(3):231-8

Computerized detection of malignant tumors on digital mammograms. Kobatake H, et al. **IEEE Trans Med Imaging** 1999 May;18(5):369-78

Automated seeded lesion segmentation on digital mammograms. Kupinski MA, et al. **IEEE Trans Med Imaging** 1998 Aug;17(4):510-7

Computer-aided diagnosis: a neural-network-based approach to lung nodule detection. Penedo MG, et al. **IEEE Trans Med Imaging** 1998 Dec;17(6):872-80

Anatomic region-based dynamic range compression for chest radiographs using warping transformation of correlated distribution. Tsujii O, et al. **IEEE Trans Med Imaging** 1998 Jun;17(3):407-18

A simple laser guide to reduce the screening time during the insertion of dynamic hip screws. Conn KS, et al. **Injury** 1998 Sep;29(7):539-41

Replacement of cinefilm with a digital archive and review network. Cusma JT, et al. **Int J Card Imaging** 1998 Oct; 14(5):293-300 (10 ref.)

The status of the GE approach to the digital catheterization laboratory. Herro PJ. **Int J Card Imaging** 1998 Oct; 14(5):329-33 (0 ref.)

The Camtronics experience with the filmless digital catheterization laboratory. Kapp MA, et al. **Int J Card Imaging** 1998 Oct;14(5):343-8 (3 ref.)

The effect of DICOM on QCA and clinical trials. Reiber JH, et al. **Int J Card Imaging** 1998;14 Suppl 1:7-12 (17 ref.)

Digital networking and archiving with ACOM T.O.P. Saalfrank W. **Int J Card Imaging** 1998 Oct;14(5):323-7 (0 ref.)

Integration of haemodynamic and electrocardiographic waveform data with DICOM images. Solomon HP. **Int J Card Imaging** 1998 Oct;14(5):301-6 (11 ref.)

Philips CD-medical digital cardiac review, exchange and archiving: today and tomorrow. Vreeswijk K. **Int J Card Imaging** 1998;14 Suppl 1:17-8

Integrated image storage solution for the Cath department. Weterings RA. **Int J Card Imaging** 1998 Oct;14(5):349-56 (8 ref.)

Enhancement and associative restoration of electronic portal images in radiotherapy. Krell G, et al. **Int J Med Inf** 1998 Apr;49(2):157-71

Load sharing between solid and fluid phases in articular cartilage: I--Experimental determination of in situ mechanical conditions in a porcine knee. Mukherjee N, et al. **J Biomech Eng** 1998 Oct;120(5):614-9

3D-CT stereoscopic imaging in maxillofacial surgery. Seno H, et al. **J Comput Assist Tomogr** 1999 Mar-Apr; 23(2):276-9

Computerized analysis of abnormal asymmetry in digital chest radiographs: evaluation of potential utility. Armato SG 3rd, et al. **J Digit Imaging** 1999 Feb;12(1):34-42

Comparison of three tissue composition measurement techniques using digital mammograms--a signal-to-noise study. Breitenstein DS, et al. **J Digit Imaging** 1998 Aug; 11(3):137-50

Application of temporal subtraction for detection of interval changes on chest radiographs: improvement of subtraction images using automated initial image matching. Ishida T, et al. **J Digit Imaging** 1999 May;12(2):77-86

Establishing the level of digitization for wrist and hand radiographs for the third National Health and Nutrition Examination Survey. Ostchega Y, et al. **J Digit Imaging** 1998 Aug;11(3):116-20

Application of the advanced communications technology satellite to teleradiology and real-time compressed ultrasound video telemedicine. Stewart BK, et al. **J Digit Imaging** 1999 May;12(2):68-76 (12 ref.)

Correlation and quantification of projected 2-dimensional radiographic images with actual 3-dimensional Y-axis vertebral rotations. Coleman RR, et al. **J Manipulative Physiol Ther** 1999 Jan;22(1):21-5

Contrast-enhanced MR angiography (CE MRA) in the study of the carotid stenosis: comparison with digital subtraction angiography (DSA). Scarabino T, et al. **J Neuroradiol** 1999 Jun;26(2):87-91

Use of a compression paddle to displace bowel gas for carbon dioxide digital subtraction angiography. Stram ES, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):405-8

Application of dynamic computed tomography for measurements of local aortic elastic modulus. Lee MK, et al. **Med Biol Eng Comput** 1999 Jan;37(1):13-24

Three-dimensional localisation based on projectional and tomographic image correlation: an application for digital tomosynthesis. Messaris G, et al. **Med Eng Phys** 1999 Mar; 21(2):101-9

A Monte Carlo study of x-ray fluorescence in x-ray detectors. Boone JM, et al. **Med Phys** 1999 Jun; 26(6):905-16

Computer-aided diagnoses: automatic detection of lung nodules. Carreira MJ, et al. **Med Phys** 1998 Oct; 25(10):1998-2006

Computerized analysis of mammographic microcalcifications in morphological and texture feature spaces. Chan HP, et al. **Med Phys** 1998 Oct;25(10):2007-19

Morphometric texture analysis of spinal trabecular bone structure assessed using orthogonal radiographic projections. Ouyang X, et al. **Med Phys** 1998 Oct; 25(10):2037-45

Magnetic resonance imaging based digitally reconstructed radiographs, virtual simulation, and three-dimensional treatment planning for brain neoplasms. Ramsey CR, et al. **Med Phys** 1998 Oct;25(10):1928-34

Do acute lesions of Wernicke's encephalopathy show contrast enhancement? Report of three cases and review of the literature. Mascalchi M, et al. **Neuroradiology** 1999 Apr;41(4):249-54 (20 ref.)

Performance of various X-ray film/screen systems in demonstrating small simulated low-density lung nodules. Maruyama Y. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug;58(9):509-15

Detection of caries with conventional digital imaging and tuned aperture computed tomography using CRT monitor and laptop displays. Abreu M Jr, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):234-8

An in vivo comparison of diagnostic information obtained from tuned-aperture computed tomography and conventional dental radiographic imaging modalities. Webber RL, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):239-47

Effect of number of projections on accuracy of depth discrimination using tuned-aperture computed tomography for 3-dimensional dentoalveolar imaging of low-contrast details. Yamamoto K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999

Jul;88(1):100–5

Automated detection of BB pixel clusters in digital fluoroscopic images. Cho PS, et al. **Phys Med Biol** 1998 Sep;43(9):2677–83

Principles of digital radiography with large-area, electronically readable detectors: a review of the basics. Chotas HG, et al. **Radiology** 1999 Mar;210(3):595–9 (21 ref.)

Evaluating phosphors for use in X-ray image detectors by the effective performance index (EPI) method: application to Eu3+ activated yttrium based materials. Cavouras D, et al. **Technol Health Care** 1999;7(1):53–61

Development of an automated 12–8 bit conversion algorithm for displaying and archiving scanned radiographs. Hornof WJ, et al. **Vet Radiol Ultrasound** 1999 Mar–Apr; 40(2):179–82

[3D automatic expansion: clinical application] Gaboriaud G, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):619–22 (Eng. Abstr.) **(Fre)**

[Digital radiography] Barre D. **J Radiol** 1999 Jul;80(7 Suppl):809–12 **(Fre)**

[Quantitative angiography: update for peripheral vascular applications] Beregi JP, et al. **J Radiol** 1999 Aug; 80(8):835–41 (26 ref.) (Eng. Abstr.) **(Fre)**

[Digital radiology] Largillière S, et al. **J Radiol** 1999 Jul;80(7 Suppl):781–90 **(Fre)**

[Image quality and optical density in mammography: study on phantoms] Stinés J, et al. **J Radiol** 1998 Apr;79(4):331–5 (Eng. Abstr.) **(Fre)**

[Digital image processing of screening mammographies: application to masses] Viton JL, et al. **J Radiol** 1998 Apr; 79(4):319–22 (Eng. Abstr.) **(Fre)**

[Application and possibilities of digital radiography demonstrated on a skull radiograph] Ebermaier C, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jan;112(1):24–9 (Eng. Abstr.) **(Ger)**

[Digital projection radiography. Technical bases. Imaging quality and usefulness] Busch HP. **Radiologe** 1999 Aug; 39(8):710–24 **(Ger)**

[Image quality and radiation exposure in digital mammography with storage phosphor screens in a magnification technic] Fiedler E, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):60–4 (Eng. Abstr.) **(Ger)**

[Digital radiography of the thorax with selenium detector. Clinical results and optimization potential of the technique] Procacci C, et al. **Radiol Med (Torino)** 1998 Nov; 96(5):446–53 (Eng. Abstr.) **(Ita)**

[Improvement of detectability of microcalcifications by magnification digital mammography] Higashida Y, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):473–8 (Eng. Abstr.) **(Jpn)**

[3D–CT cystography of submucosal elevated lesion of the bladder: report of two cases] Ichikawa T, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 Jan;59(1):34–6 (Eng. Abstr.) **(Jpn)**

[A trial to reduce cardiac motion artifacts on HR–CT images of lung with combined use of subsecond scan and a high temporal resolution reconstruction algorithm] Sakai F, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):521–3 (Eng. Abstr.) **(Jpn)**

[Reduction of helical artifact using SmartHelical algorithm] Sakai O, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug;58(9):527–30 (Eng. Abstr.) **(Jpn)**

[The automation of the processing and interpreting of teleroentgenograms] Zhulev EN, et al. **Stomatologiia (Mosk)** 1998;77(6):46–8 (Eng. Abstr.) **(Rus)**

STANDARDS

Clinical importance of the DICOM structured reporting standard. Bidgood WD Jr. **Int J Card Imaging** 1998 Oct; 14(5):307–15 (22 ref.)

The DICOM review stations: are they truly different? Goedhart B, et al. **Int J Card Imaging** 1998 Oct; 14(5):317–22 (7 ref.)

The Kodak approach to digital cardiovascular imaging laboratories. Pelanek GA. **Int J Card Imaging** 1998 Oct; 14(5):335–42 (2 ref.)

Establishing minimum performance standards, calibration intervals, and optimal exposure values for a whole breast digital mammography unit. Kimme-Smith C, et al. **Med Phys** 1998 Dec;25(12):2410–6

[Conventional digital radiology and development of the level of images] **J Radiol** 1998 Apr;79(4):360–1 **(Fre)**

[Image quality and optical density in mammography: study on phantoms] Stinés J, et al. **J Radiol** 1998 Apr;79(4):331–5 (Eng. Abstr.) **(Fre)**

[Standards in digital imaging communication and archiving (editorial)] Mildenberger P. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):1–2 **(Ger)**

TRENDS

The digital cardiac network: today and the future. Katz S. **Int J Card Imaging** 1998;14 Suppl 1:23–5 (2 ref.)

Digital image in cardiology now and for the future. Okano A. **Int J Card Imaging** 1998;14 Suppl 1:13–5 (0 ref.)

Advances in three-dimensional diagnostic radiology. ter Haar Romeny BM, et al. **J Anat** 1998 Oct;193 (Pt 3):363–71 (20 ref.)

RADIOGRAPHIC IMAGE INTERPRETATION, COMPUTER-ASSISTED

Analysis of clustered microcalcifications by using a single numeric classifier extracted from mammographic digital images. Buchbinder SS, et al. **Acad Radiol** 1998 Nov; 5(11):779–84

Computer-aided diagnosis for detection of interstitial opacities on chest radiographs. Monnier-Cholley L, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1651–6

The "3-D occlusogram" software. Fiorelli G, et al. **Am J Orthod Dentofacial Orthop** 1999 Sep;116(3):363–8

Computerized assessment of the mastoid air cell system. Isono M, et al. **Auris Nasus Larynx** 1999 Apr;26(2):139–45

Comparison of two methods for measuring orientation. Geraets WG. **Bone** 1998 Oct;23(4):383–8

Computer-aided diagnosis for pulmonary nodules based on helical CT images. Kanazawa K, et al. **Comput Med Imaging Graph** 1998 Mar–Apr;22(2):157–67

Linear and neural models for classifying breast masses [letter] Fogel DB, et al. **IEEE Trans Med Imaging** 1998 Jun; 17(3):485–8

Dual-phase spiral CT angiography with volumetric 3D rendering for preoperative liver transplant evaluation: preliminary observations. Smith PA, et al. **J Comput Assist Tomogr** 1998 Nov–Dec;22(6):868–74

Further analysis of the reliability of the posterior tangent lateral lumbar radiographic mensuration procedure: concurrent validity of computer-aided X-ray digitization. Troyanovich SJ, et al. **J Manipulative Physiol Ther** 1998 Sep;21(7):460–7

Field test of the reproducibility of automated measurements of medial tibiofemoral joint space width derived from standardized knee radiographs. Mazzuca SA, et al. **J Rheumatol** 1999 Jun;26(6):1359–65

Automated lung segmentation in digital lateral chest radiographs. Armato SG 3rd, et al. **Med Phys** 1998 Aug; 25(8):1507–20

Comparison of low contrast detectability between a digital amorphous silicon and a screen-film based imaging system for thoracic radiography. Aufrichtig R. **Med Phys** 1999 Jul;26(7):1349–58

Performance characteristics of a Kodak computed radiography system. Bradford CD, et al. **Med Phys** 1999 Jan;26(1):27–37

Analysis of methods for reducing false positives in the automated detection of clustered microcalcifications in mammograms. Nagel RH, et al. **Med Phys** 1998 Aug; 25(8):1502–6

Real-time equalization of region-of-interest fluoroscopic images using binary masks. Rudin S, et al. **Med Phys** 1999 Jul;26(7):1359–64

Extending a teleradiology system by tools for 3D-visualization and volumetric analysis through a plug-in mechanism. Evers H, et al. **Medinfo** 1998;9 Pt 2:1033–5

Application of a video-optical beam imaging system for quality assurance of medical accelerators. Ma L, et al. **Phys Med Biol** 1998 Dec;43(12):3649–59

Calculation of backscatter factors for diagnostic radiology using Monte Carlo methods. Petoussi-Henss N, et al. **Phys Med Biol** 1998 Aug;43(8):2237–50

Automatic extraction of PIOPED interpretations from ventilation/perfusion lung scan reports. Fiszman M, et al. **Proc AMIA Symp** 1998;:860–4

Measurement of brain structures with artificial neural networks: two- and three-dimensional applications. Magnotta VA, et al. **Radiology** 1999 Jun;211(3):781–90

Comparison of low attenuation areas on computed tomographic scans between inner and outer segments of the lung in patients with chronic obstructive pulmonary disease: incidence and contribution to lung function [see comments] Nakano Y, et al. **Thorax** 1999 May;54(5):384–9 . Comment in: Thorax 1999 May;54(5):379.

[3D localization of electrodes on and in the human body based on biplanar roentgen images] Maurer W, et al. **Biomed Tech (Berl)** 1998;43 Suppl:474–5 **(Ger)**

[Effect of digital imaging, internet and teleradiology on radiologic structures] Kuhn FP. **Radiologe** 1999 Jul; 39(7):M126–8 **(Ger)**

[Fractal analysis of a breast carcinoma--presentation of a modern morphometric method] Sedivy R, et al. **Wien Med Wochenschr** 1998;148(14):335–7 (Eng. Abstr.) **(Ger)**

[Current role of x-ray technology in medical introscopy] Blinov NN, et al. **Med Tekh** 1998 Nov-Dec;(6):3–5 (Eng. Abstr.) **(Rus)**

[X-ray diagnostic complexes Medix-R and Telemedix-R with digital image recording] Blinov NN Jr, et al. **Med Tekh** 1998 Nov-Dec;(6):24–6 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

Accuracy of cephalometric and video imaging program Dentofacial Planner Plus in orthognathic surgical planning. Schultes G, et al. **Comput Aided Surg** 1998;3(3):108–14

[Determining cerebral circulation with electron beam computerized tomography] Baumgartner C, et al. **Biomed Tech (Berl)** 1998;43 Suppl:48–9 **(Ger)**

[Quantifying stenosis and evaluating projection--an online realization in the catheter laboratory] Fischer F, et al. **Biomed Tech (Berl)** 1998;43 Suppl:364–5 **(Ger)**

[Development and validation of a method for wear measurement of polyethylene hip acetabulum with metal backing using roentgen images] Gölzhäuser G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:66–7 **(Ger)**

[Evaluating trigger timing in detection and quantification of coronary artery calcinosis with electron beam tomography] Nossen J, et al. **Biomed Tech (Berl)** 1998;43 Suppl:50–1 **(Ger)**

[ImaView--imaging station for pre-processing tomography image data] Wehmöller M, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:42–3 **(Ger)**

[Foreshortened imaging: a new method for spatial interpretation and evaluating the view of the coronary region of interest] Wunderlich W, et al. **Biomed Tech (Berl)** 1998;43 Suppl:366–7 **(Ger)**

[Computer-assisted diagnosis in mammography: the R2 ImageChecker System in detection of spiculated lesions] Funovics M, et al. **Wien Med Wochenschr** 1998; 148(14):321–4 (Eng. Abstr.) **(Ger)**

METHODS

Semi-automatic segmentation of computed tomographic images in volumetric estimation of nasal airway. Dastidar P, et al. **Eur Arch Otorhinolaryngol** 1999;256(4):192–8

The value of stereolithographic models for preoperative diagnosis of craniofacial deformities and planning of surgical corrections. Sailer HF, et al. **Int J Oral Maxillofac Surg** 1998 Oct;27(5):327–33

Electrocardiogram-correlated image reconstruction from subsecond spiral computed tomography scans of the heart. Kachelriess M, et al. **Med Phys** 1998 Dec;25(12):2417–31

Optical CT reconstruction of 3D dose distributions using the ferrous-benzoic-xylenol (FBX) gel dosimeter. Kelly BG, et al. **Med Phys** 1998 Sep;25(9):1741–50

A rule based method for context sensitive threshold segmentation in SPECT using simulation. Fleming JS, et al. **Phys Med Biol** 1998 Aug;43(8):2309–23

Evaluation of attenuation corrections using Monte Carlo simulated lung SPECT. Gustafsson A, et al. **Phys Med Biol** 1998 Aug;43(8):2325–36

[The automation of the processing and interpreting of teleroentgenograms] Zhulev EN, et al. **Stomatologiia (Mosk)** 1998;77(6):46–8 (Eng. Abstr.) **(Rus)**

STANDARDS

Toward a measured approach to medical informatics [editorial; comment] Friedman CP. **J Am Med Inform Assoc** 1999 Mar–Apr;6(2):176–7. Comment on: J Am Med Inform Assoc 1999 Mar–Apr;6(2):143–50.

A reliability study for evaluating information extraction from radiology reports [see comments] Hripcsak G, et al. **J Am Med Inform Assoc** 1999 Mar–Apr;6(2):143–50. Comment in: J Am Med Inform Assoc 1999 Mar–Apr;6(2):176–7.

RADIOGRAPHIC INTENSIFYING SCREENS see **X-RAY INTENSIFYING SCREENS**

RADIOGRAPHIC MAGNIFICATION

Area-dependent enlargement ratios of panoramic tomography on orthograde patient positioning and its significance for implant dentistry. Gomez-Roman G, et al. **Int J Oral Maxillofac Implants** 1999 Mar–Apr;14(2):248–57

[The demonstration of microcalcification in breast core biopsies: DIMA specimen radiography (7x) compared to the histopathological findings] Grunert JH, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Apr;170(4):347–50 (Eng. Abstr.) **(Ger)**

[Occult fractures of the wrist joint: high resolution image magnification roentgen versus MRI] Schick S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):16–21 (Eng. Abstr.) **(Ger)**

INSTRUMENTATION

[Direct digital magnification mammography with a large-surface detector made of amorphous silicon] Hermann KP, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 May;170(5):503–6 (Eng. Abstr.) **(Ger)**

Clinical experiences with direct magnification mammography with the DIMA Plus M11] von Fournier D, et al. **Zentralbl Gynakol** 1999;121(1):1–6 (Eng. Abstr.) **(Ger)**

METHODS

[3D automatic expansion: clinical application] Gaboriaud G, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):619–22 (Eng. Abstr.) **(Fre)**

[Image quality and radiation exposure in digital mammography with storage phosphor screens in a magnification technic] Fiedler E, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):60–4 (Eng. Abstr.) **(Ger)**

RADIOGRAPHIC PHANTOMS see **PHANTOMS, IMAGING**

RADIOGRAPHY

see related
CONTRAST MEDIA
EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS
TECHNOLOGY, RADIOLOGIC

Methodological Issues in Diagnostic Clinical Trials: Health Services and Outcomes Research in Radiology. Symposium proceedings. Washington DC, USA, March 15–16, 1998. **Acad Radiol** 1999 Jan;6 Suppl 1:S1–136

Radiology of uncooperative patients [letter; comment] Funaki B. **AJR Am J Roentgenol** 1998 Nov;171(5):1425. Comment on: AJR Am J Roentgenol 1998 Feb;170(2):275–8.

Addendum report when prior films sought [letter; comment] Gerson ES. **AJR Am J Roentgenol** 1999 Jul;173(1):239–40 . Comment on: AJR Am J Roentgenol 1999 Jan;172(1):3–6.

Reinterpreting imaging examinations performed at other institutions [letter; comment] Hall FM. **AJR Am J Roentgenol** 1999 Jul;173(1):241–2. Comment on: AJR Am J Roentgenol 1998 Dec;171(6):1571–6.

The radiograph [letter; comment] Pear BL. **AJR Am J Roentgenol** 1998 Nov;171(5):1427–8. Comment on: AJR Am J Roentgenol 1998 Jun;170(6):1415. Comment on: AJR Am J Roentgenol 1998 Jun;170(6):1426. Comment on: AJR Am J Roentgenol 1998 Jun;170(6):1519–22.

A practical technique of colour image analysis: applications in experimental research. Chow PK, et al. **Ann Acad Med Singapore** 1999 Jan;28(1):155–8

Use of the concept of energy imparted in diagnostic radiology. Carlsson GA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):39–62 (100 ref.)

Characteristics of radiation detectors for diagnostic radiology. DeWerd LA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):125–36 (52 ref.)

Balancing patient dose and image quality. Martin CJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):1–19

Measurement of image quality in diagnostic radiology. Martin CJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):21–38 (72 ref.)

Diagnostic medical exposures in the U.K. Shrimpton PC, et al. **Appl Radiat Isot** 1999 Jan;50(1):261–9 (55 ref.)

Paediatric doses from diagnostic radiology in Victoria. Boal TJ, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):57–67

Radiology in forensic identification: the Mt Erebus disaster. Alexander CJ, et al. **Australas Radiol** 1998 Nov;42(4):321–6

Electronic monitoring of clinical experience during undergraduate training in diagnostic radiography. Akehurst JC. **Br J Radiol** 1999 Jan;72(853):76–9

Doses to patients in routine X-ray examinations in Malaysia [published erratum appears in Br J Radiol 1999 Jan;71(853):102] Ng KH, et al. **Br J Radiol** 1998 Jun; 71(846):654–60

Calculating shielding requirements in diagnostic X-ray departments. Petrantonaki M, et al. **Br J Radiol** 1999 Feb; 72(854):179–85

Multiple regression analysis of octanol/water partition coefficients of non-ionic monomeric radiographic contrast media with the combination of three molecular descriptors. Violon D. **Br J Radiol** 1999 Jan;72(853):44–7

Dose-area product readings for fluoroscopic and plain film examinations, including an analysis of the source of variation for barium enema examinations. Warren-Forward HM, et al. **Br J Radiol** 1998 Sep;71(849):961–7

Comparison of computer workstation with light box for detecting setup errors from portal images. Boxwala AA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):711–6

Subjectivity in interpretation of portal films. Perera T, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):529–34

Manometric and radiographic verification of esophageal body decompensation for patients with achalasia. Shiino Y, et al. **J Am Coll Surg** 1999 Aug;189(2):158–63

Avoidance of variability and error in radiology. Lev MH, et al. **Lancet** 1999 Jul 24;354(9175):272

Resolution degradation due to K-characteristic photon absorption in dual phosphor image receptors. McLean D. **Med Phys** 1999 Apr;26(4):643–7

Self-normalizing method to measure the detective quantum efficiency of a wide range of x-ray detectors. Stierstorfer K, et al. **Med Phys** 1999 Jul;26(7):1312–9

X-ray spectra estimation using attenuation measurements from 25 kVp to 18 MV. Waggener RG, et al. **Med Phys** 1999 Jul;26(7):1269–78

Creating and curating a pediatric radiology digital library to make the internet a useful reference tool for the radiologist. D'Alessandro MP. **Pediatr Radiol** 1998 Nov; 28(11):890–5

Calculation of backscatter factors for diagnostic radiology using Monte Carlo methods. Petoussi-Henss N, et al. **Phys Med Biol** 1998 Aug;43(8):2237–50

1998 plenary session: Imaging symposium. An overview of acute radiology. Mann FA, et al. **Radiographics** 1999 Sep–Oct;19(5):1319–22

Paper radiologic images [letter; comment] Oestreich AE. **Radiographics** 1998 Sep–Oct;18(5):1336. Comment on: Radiographics 1998 May–Jun;18(3):755–60.

The AAPM/RSNA physics tutorial for residents. Typical patient radiation doses in diagnostic radiology. Parry RA, et al. **Radiographics** 1999 Sep–Oct;19(5):1289–302

More common sense in radiology [letter; comment] Wallace KK Jr. **Radiographics** 1998 Nov–Dec;18(6):1340. Comment on: Radiographics 1998 Jul–Aug;18(4):849–50.

[Must patients fast before a radiologic examination with injection of an iodinated contrast media?] Roy C, et al. **J Radiol** 1998 Sep;79(9):892–6 **(Fre)**

[86th Annual meeting of the Swiss Society of Medical Radiology. Geneva, Switzerland, 3–5 June 1999. Abstracts] **Schweiz Med Wochenschr Suppl** 1999;106:3S–36S **(Fre, Ger)**

[Roentgen contrasting of resorbable biomaterials PHB and PLA] Michalik I, et al. **Biomed Tech (Berl)** 1998;43 Suppl:426–7 **(Ger)**

[Comments on the work of A. Wackenheim and G. Zöllner. Time and Picture. Radiologe (1998) 38:321–325 (letter; comment)] Golder W. **Radiologe** 1998 Dec;38(12):1086–8. Comment on: Radiologe 1998 Apr;38(4):321–5. **(Ger)**

[The status of diagnostic radiology in Germany (with special reference to MRI)] Kauffmann G. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 May;170(5):M74–81 **(Ger)**

[Prostaglandin E1 for prevention of contrast medium-induced kidney dysfunction] Koch JA, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):557–63 (Eng. Abstr.) **(Ger)**

[X-ray examinations in Norway] Nordby A. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1266 **(Nor)**

[Information system of the diagnostic x-ray service of the Moscow Public Health Committee] Zelikman MI. **Med Tekh** 1999 May–Jun;(3):38–9 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Somatic effects in nuclear medicine and radiology. Overbeek FJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):63–72 (48 ref.)

Risk and benefit in paediatric radiology. Roebuck DJ. **Pediatr Radiol** 1999 Aug;29(8):637–40

[Radiodiagnosis and irradiated pregnancies] Foulquier JN, et al. **Ann Radiol (Paris)** 1997;40(4):225–36 (Eng. Abstr.) **(Fre)**

[Occupational problems from exposure to roentgen rays] Kluszczyński D, et al. **Med Pr** 1998;49(2):157–65 (Eng. Abstr.) **(Pol)**

[Chosen function of peripheral blood neutrophils in workers operating X-ray equipment] Hrycek A, et al. **Wiad Lek** 1999;52(1–2):19–24 (Eng. Abstr.) **(Pol)**

[Control of effective doses in x-ray studies] Stavitskii RV, et al. **Med Tekh** 1999 Mar–Apr;(2):39–44 (41 ref.) (Eng. Abstr.) **(Rus)**

ECONOMICS

Single view radiographic screening of midfacial trauma. Sidebottom AJ, et al. **Int J Oral Maxillofac Surg** 1998 Oct; 27(5):356–7

[Benefits, costs and analysis in diagnostic radiology: definitions and glossary] Golder W. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):73–9 (Eng. Abstr.) **(Ger)**

HISTORY

Radiographic exposure slide rules. Burns JE. **Br J Radiol** 1999 Jan;72(853):48–54

Sketches from The Lancet. Radiography. Kandela P. **Lancet** 1998 Nov 28;352(9142):1793

Silhouette. Marie Curie's contributions to radiology during World War I. Coppes-Zantinga AR, et al. **Med Pediatr Oncol** 1998 Dec;31(6):541–3

Rembrandt revealed. Davidson JK. **Radiographics** 1998 Sep–Oct;18(5):1210–11

[The history of the development of roentgenology in the Republic of Tatarstan] Mikhaĭlov MK. **Vestn Rentgenol Radiol** 1998 Mar–Apr;(2):61–3 **(Rus)**

INSTRUMENTATION

A compliance testing program for diagnostic X-ray equipment. Hutchinson DE, et al. **Appl Radiat Isot** 1999 Jan;50(1):237–45

Design of a PC controlled test device for the study of patient motion in X-ray radiology: first applications and results. Guibelalde E, et al. **Br J Radiol** 1998 Nov;71(851):1185–91

Testing automatic exposure control devices used in diagnostic radiology [letter] Ison JE, et al. **Br J Radiol** 1999 Mar; 72(855):319

An investigation of X-ray equipment factors influencing patient dose in radiography. Williams JR, et al. **Br J Radiol** 1998 Nov;71(851):1192–8

X-ray generation and control. Balter S. **Catheter Cardiovasc Interv** 1999 Jan;46(1):92–7

Evaluating scintillators used in radiation detectors of medical imaging systems by the effective fidelity index method. Kandarakis I, et al. **Eur J Radiol** 1999 Apr;30(1):61–6

Unexpected exposures possible with GE AMX-4 mobile x-ray units. **Health Devices** 1999 Aug;28(8):321–2, 324

Falling x-ray collimators highlight general weakness in coupling design. **Health Devices** 1999 Sep;28(9):371

Standardisation of radiographic views of the fractured tibia. Tandon SC, et al. **J R Coll Surg Edinb** 1999 Aug; 44(4):241–3

Use of CEA TVS film for measuring high energy photon beam dose distributions. Cadman P. **Med Phys** 1998 Aug; 25(8):1435–7

Digital x-ray imaging using amorphous selenium: reduction of aliasing. Ji WG, et al. **Med Phys** 1998 Nov; 25(11):2148–62

A comparison of the physical imaging properties of Fuji ST-V, ST-VA, and ST-VN computed radiography image plates. Kengyelics SM, et al. **Med Phys** 1998 Nov; 25(11):2163–9

For diagnostic imaging film will eventually be of historical interest only. Stewart BK, et al. **Med Phys** 1999 May; 26(5):669–71

Photon-counting radiography with the gas microstrip detector. Gobbi DG, et al. **Phys Med Biol** 1999 May; 44(5):1317–35

Clarification of X-ray generator circuit diagrams [letter; comment] Raber MB. **Radiographics** 1998 Nov–Dec; 18(6):1340–1. Comment on: Radiographics 1997 Nov–Dec;17(6):1533–57.

[Sensitivity differences of different emulsion numbers for different UV/blue-sensitive films] Blendl C, et al. **Aktuelle Radiol** 1998 Nov;8(6):288–92 (Eng. Abstr.) **(Ger)**

[Chosen function of peripheral blood neutrophils in workers operating X-ray equipment] Hrycek A, et al. **Wiad Lek** 1999;52(1–2):19–24 (Eng. Abstr.) **(Pol)**

[Photo laboratory equipment for outfitting x-ray photo laboratory] Blinov AB. **Med Tekh** 1998 Nov–Dec;(6):39–41 (Eng. Abstr.) **(Rus)**

[Current role of x-ray technology in medical introscopy] Blinov NN, et al. **Med Tekh** 1998 Nov–Dec;(6):3–5 (Eng. Abstr.) **(Rus)**

[Problems of technologic re-equipment of X-ray diagnostic services in the Russian Federation] Blinov NN. **Med Tekh** 1998 Nov–Dec;(6):41–4 (Eng. Abstr.) **(Rus)**

[X-ray diagnostic complexes Medix-R and Telemedix-R with digital image recording] Blinov NN Jr, et al. **Med Tekh** 1998 Nov–Dec;(6):24–6 (Eng. Abstr.) **(Rus)**

[Evaluation of the stability of parameters of direct radiographic devices] Chikirdin EG, et al. **Med Tekh** 1998 Nov–Dec;(6):44–7 **(Rus)**

[Portable microfocal radiographic devices for medical diagnosis] Ivanov SA, et al. **Med Tekh** 1998 Nov–Dec; (6):6–8 (Eng. Abstr.) **(Rus)**

[Device-aided determination of an effective dose in x-ray studies] Stavitskiĭ RV, et al. **Med Tekh** 1999 Jul–Aug; (4):34–5 (Eng. Abstr.) **(Rus)**

[Surgical radiographic devices RTS-812 series] Veĭp IuA, et al. **Med Tekh** 1998 Nov–Dec;(6):8–10 (Eng. Abstr.) **(Rus)**

[Characteristics of dosimetric tests of x-ray diagnostic equipment] Vladimirov LV. **Med Tekh** 1998 Nov–Dec; (6):26–30 (Eng. Abstr.) **(Rus)**

METHODS

A survey of radiation doses to adults from diagnostic radiology in Victoria. Cardillo I, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):64–72

Dose reduction in a paediatric X-ray department following optimization of radiographic technique. Mooney R, et al. **Br J Radiol** 1998 Aug;71(848):852–60

Initial performance evaluation of an indirect-detection, active matrix flat-panel imager (AMFPI) prototype for megavoltage imaging. Antonuk LE, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):437–54

Digital x-ray imaging using amorphous selenium: reduction of aliasing. Ji WG, et al. **Med Phys** 1998 Nov; 25(11):2148–62

Fractal analysis of radiographs: assessment of trabecular bone structure and prediction of elastic modulus and strength. Majumdar S, et al. **Med Phys** 1999 Jul;26(7):1330–40

For diagnostic imaging film will eventually be of historical interest only. Stewart BK, et al. **Med Phys** 1999 May; 26(5):669–71

Measurement of x-ray attenuation coefficients of aqueous solutions of indocyanine green and glycated chitosan. Xu F, et al. **Med Phys** 1999 Jul;26(7):1371–4

Humanity and radiation: the good, the bad, and the unusual. Holcomb WF. **Mil Med** 1999 Jul;164(7):520–5 (37 ref.)

Long-term reproducibility optimization of an x-ray process for bone architectural evaluation during osteoporosis. Fidouh F, et al. **Phys Med Biol** 1999 Jan;44(1):N1–8

A rapid colour stabilization technique for radiochromic film dosimetry. Reinstein LE, et al. **Phys Med Biol** 1998 Oct; 43(10):2703–8

A thin target approach for portal imaging in medical accelerators. Tsechanski A, et al. **Phys Med Biol** 1998 Aug; 43(8):2221–36

Inverse planning with constraints to generate smoothed intensity-modulated beams. Webb S, et al. **Phys Med Biol** 1998 Oct;43(10):2785–94

Phase-contrast radiography. Gao D, et al. **Radiographics** 1998 Sep–Oct;18(5):1257–67

[Quality assessment of radiological diagnostic examinations from the perspective of radiological protection] Staniszewska MA. **Med Pr** 1999;50(1):15–23 (Eng. Abstr.) **(Pol)**

[Test objects for studying diagnostic potentialities of a new method of phase roentgenography] Iushkevich TV, et al. **Morfologiia** 1999;115(3):80–9 **(Rus)**

[The internal structure of soft and bony tissues studied by X-ray refraction introscopy] Manushkin AA, et al. **Vestn Rentgenol Radiol** 1998 Mar–Apr;(2):32–7 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

STANDARDS

Performance assessment of patient dosimetry services and X-ray quality assurance instruments used in diagnostic radiology. Green S, et al. **Appl Radiat Isot** 1999 Jan; 50(1):137–52 (23 ref.)

A compliance testing program for diagnostic X-ray equipment. Hutchinson DE, et al. **Appl Radiat Isot** 1999 Jan;50(1):237–45

Radiation protection and quality assurance in diagnostic radiology--an IAEA coordinated research project in Asia and eastern Europe. Oresegun M, et al. **Appl Radiat Isot** 1999 Jan;50(1):271–6

A survey of radiation doses to adults from diagnostic radiology in Victoria. Cardillo I, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):64–72

Chiropractors' use of X-rays [letter; comment] Dixon PC. **Br J Radiol** 1998 Aug;71(848):897–8. Comment on: Br J Radiol 1998 Mar;71(843):249–51.

Reference doses and quality in medical imaging. Faulkner K, et al. **Br J Radiol** 1998 Oct;71(850):1001–2

Report of an image quality and dose audit according to directive 97/43/Euratom at Spanish private radiodiagnostics facilities. González L, et al. **Br J Radiol** 1999 Feb;72(854):186–92

Variation between experienced observers in the interpretation of accident and emergency radiographs. Robinson PJ, et al. **Br J Radiol** 1999 Apr;72(856):323–30

Is there an improvement in performance when radiographs are re-reported at 24 hours? Tudor GR, et al. **Br J Radiol** 1999 May;72(857):465–8

RCR 1997 scientific meeting: audit poster prize winners. **Clin Radiol** 1998 Dec;53(12):911–2

Techniques for measuring radiographic repeat rates. Kofler JM, et al. **Health Phys** 1999 Feb;76(2):191–4

Positioning competencies for radiography graduates. Ballinger PW, et al. **Radiol Technol** 1998 Nov–Dec; 70(2):181–96

Efficacy of the conventional diagnostic approach to pulmonary tuberculosis. Chin NK, et al. **Singapore Med J** 1998 Jun;39(6):241–6

[Radiological expertise and diagnosis. II. Empirical study] Raufaste E, et al. **J Radiol** 1998 Mar;79(3):235–40 (Eng. Abstr.) **(Fre)**

[Radiological expertise and diagnosis. I. Theoretical advances] Raufaste E, et al. **J Radiol** 1998 Mar;79(3):227–34 (41 ref.) (Eng. Abstr.) **(Fre)**

[The Emperor's New Clothes syndrome. Description of a new epidemic] Born JD. **Rev Med Liege** 1998 Jul; 53(7):393–8 (9 ref.) (Eng. Abstr.) **(Fre)**

[The quality of the care of children and adolescents within the realm of conventional x-ray diagnosis--a pilot study] Tasch C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):121–5 (Eng. Abstr.) **(Ger)**

[Evaluation of effective doses received by patients, during selected types of diagnostic radiation, in Wrocław] Demczuk P, et al. **Med Pr** 1998;49(2):167–75 (Eng. Abstr.) **(Pol)**

[On radiation safety of medical personnel and patients during X-ray studies in stomatology] Tulupov VP, et al. **Med Tr Prom Ekol** 1999;(6):41–3 **(Rus)**

STATISTICS & NUMERICAL DATA

Medical radiation exposures for diagnostic radiology in Malaysia. Ng KH, et al. **Health Phys** 1999 Jul;77(1):33–6

An update of the frequency and type of diagnostic x-ray examinations in Poland. Staniszewska MA, et al. **Int J Occup Med Environ Health** 1999;12(2):127–34

Evaluations of gonad and fetal doses for diagnostic radiology. Tung CJ, et al. **Proc Natl Sci Counc Repub China B** 1999 Jul;23(3):107–13

[X-ray examinations in Norway--optimized use of radiation and radiation protection] Olerud HM. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1322–5 (21 ref.) **(Nor)**

TRENDS

Bye-bye, barium [editorial; comment] Rogers LF. **AJR Am J Roentgenol** 1999 May;172(5):1179. Comment on: AJR Am J Roentgenol 1999 May;172(5):1263–70. Comment on: AJR Am J Roentgenol 1999 May;172(5):1271–8.

Commentary: progress in optimization of patient dose and image quality in x-ray diagnostics [comment] Carlsson GA, et al. **Phys Med Biol** 1999 Feb;44(2):preceding 323. Comment on: Phys Med Biol 1999 Feb;44(2):537–59.

The American Society of Head and Neck Radiology. Head and neck imaging: the next 10 years [see comments] Mukherji SK. **Radiology** 1998 Oct;209(1):8–14. Comment in: Radiology 1998 Oct;209(1):15–6.

Scoliosis circa 2000: radiologic imaging perspective. I. Diagnosis and pretreatment evaluation. Oestreich AE, et al. **Skeletal Radiol** 1998 Nov;27(11):591–605 (75 ref.)

UTILIZATION

Single view radiographic screening of midfacial trauma. Sidebottom AJ, et al. **Int J Oral Maxillofac Surg** 1998 Oct; 27(5):356–7

VETERINARY

Gastric emptying and intestinal transit times of radiopaque markers in cats fed a high-fiber diet with and without low-dose intravenous diazepam. Chandler ML, et al. **Vet Radiol Ultrasound** 1999 Jan–Feb;40(1):3–8

Comparison of gastric emptying times in healthy cats simultaneously evaluated with radiopaque markers and nuclear scintigraphy. Goggin JM, et al. **Vet Radiol Ultrasound** 1999 Jan–Feb;40(1):89–95

Comparison of ventrodorsal and dorsoventral radiographic projections for hip dysplasia diagnosis. Saunders JH, et al. **Vet Rec** 1999 Jul 24;145(4):109–10

RADIOGRAPHY, ABDOMINAL

CT assessment of abdominal hemorrhage in coagulopathic patients: impact on clinical management. Nazarian LN, et al. **Abdom Imaging** 1999 May–Jun;24(3):246–9

Comparative evaluation of plain films, ultrasound and CT in the diagnosis of intestinal obstruction. Suri S, et al. **Acta Radiol** 1999 Jul;40(4):422–8

Thoracic aortic tear disclosed on abdominal CT scan [letter; comment] Zissin R, et al. **AJR Am J Roentgenol** 1999 Jan; 172(1):245–6. Comment on: AJR Am J Roentgenol 1998 Jun;170(6):1523–5.

Plain abdominal radiography in clinically suspected appendicitis: diagnostic yield, resource use, and comparison with CT. Rao PM, et al. **Am J Emerg Med** 1999 Jul; 17(4):325–8

Radiographic assessment of newly placed, one step button gastrostomy devices [letter] Yarze JC, et al. **Am J Gastroenterol** 1999 May;94(5):1417–8

Abdominal computed tomography scan in pediatric blunt abdominal trauma. Sievers EM, et al. **Am Surg** 1999 Oct; 65(10):968–71

Frequency of abdominal CT findings in AIDS patients with M. avium complex bacteraemia. Pantongrag-Brown L, et al. **Clin Radiol** 1998 Nov;53(11):816–9

Abdominopelvic CT scan findings after surgery for ovarian cancer. Razzaq R, et al. **Clin Radiol** 1998 Nov;53(11):820–4

Screening applications for MRI in the detection of upper abdominal disease: comparative study of non-contrast-enhanced single-shot MRI and contrast-enhanced helical CT. Jaegere TD, et al. **Eur Radiol** 1999;9(5):853–61

Radiology versus endoscopy of the small bowel. Lewis BS. **Gastrointest Endosc Clin N Am** 1999 Jan;9(1):13–27 (56 ref.)

Familial clustering of insulin and abdominal visceral fat: the HERITAGE Family Study. Hong Y, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4239–45

Senior surgeons and radiologists should assess emergency patients on presentation: a prospective randomized controlled trial. Cochrane RA, et al. **J R Coll Surg Edinb** 1998 Oct;43(5):324–7

Evaluation of a method of assessing faecal loading on plain abdominal radiographs in children. Leech SC, et al. **Pediatr Radiol** 1999 Apr;29(4):255–8

An EGS4-ready tomographic computational model of a 14-year-old female torso for calculating organ doses from CT examinations. Caon M, et al. **Phys Med Biol** 1999 Sep; 44(9):2213–25

Abdominal helical CT: milk as a low-attenuation oral contrast agent. Thompson SE, et al. **Radiology** 1999 Jun; 211(3):870–5

Radiation effective doses to patients undergoing abdominal CT examinations. Ware DE, et al. **Radiology** 1999 Mar; 210(3):645–50

Plain films and cross-sectional imaging for acute abdominal pain: unresolved issues. Baker SR. **Semin Ultrasound CT MR** 1999 Apr;20(2):142–7 (24 ref.)

Unenhanced CT of abdominal and pelvic hemorrhage. Katz DS, et al. **Semin Ultrasound CT MR** 1999 Apr;20(2):94–107 (56 ref.)

[Study with thoracic and abdominal spiral CT in intensive care unit patients] Rollandi GA, et al. **Radiol Med (Torino)** 1998 Nov;96(5):485–91 (Eng. Abstr.) **(Ita)**

[Hemoperitoneum as the form of presentation of hepatocellular carcinoma. The contribution of computed tomography to the diagnosis] da Fonseca CR, et al. **Acta Med Port** 1999 Apr–Jun;12(4–6):223–6 (15 ref.) (Eng. Abstr.) **(Por)**

ADVERSE EFFECTS

[Radiation exposure during CT examination of thorax and abdomen. Comparison of sequential, spiral and electron beam computed tomography] Becker CR, et al. **Radiologe** 1998 Sep;38(9):726–9 (Eng. Abstr.) **(Ger)**

INSTRUMENTATION

Use of a compression paddle to displace bowel gas for carbon dioxide digital subtraction angiography. Stram ES, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):405–8

METHODS

Application of pharmacokinetics to electron-beam tomography of the abdomen. Krause W, et al. **Acad Radiol** 1999 Aug;6(8):487–95

Prospective randomized study for an injection protocol for intravenous contrast media in abdominal and pelvic helical CT. Gocke P, et al. **Acta Radiol** 1999 Sep;40(5):515–20

The use of non-ionic water-soluble contrast agents for small bowel follow-through examination. Jobling C, et al. **Eur Radiol** 1999;9(4):706–10

Percutaneous radiologic placement of peritoneal dialysis catheters. Savader SJ. **J Vasc Interv Radiol** 1999 Mar; 10(3):249–56 (28 ref.)

Advances in abdominal interventional radiology. Dondelinger RF. **Lancet** 1999 Apr;353 Suppl 1:SI15–8 (11 ref.)

Helical CT applications in the thorax and abdomen. Rappaport DC. **Postgrad Med** 1998 Nov;104(5):105–8, 113–4 (19 ref.)

[Computed tomography of the abdomen with multidetector-array CT] Schoepf UJ, et al. **Radiologe** 1999 Aug;39(8):652–61 (Eng. Abstr.) **(Ger)**

STANDARDS

American College of Radiology standards for abdominal and pelvic CT examinations [letter] Kirshenbaum MD. **AJR Am J Roentgenol** 1998 Nov;171(5):1427

Image mottle in abdominal CT. Ende JF, et al. **Invest Radiol** 1999 Apr;34(4):288–6

STATISTICS & NUMERICAL DATA

Simple data from history and physical examination help to exclude bowel obstruction and to avoid radiographic studies in patients with acute abdominal pain. Böhner H, et al. **Eur J Surg** 1998 Oct;164(10):777–84

VETERINARY

Normal cross-sectional anatomy of the feline thorax and abdomen: comparison of computed tomography and cadaver anatomy. Samii VF, et al. **Vet Radiol Ultrasound** 1998 Nov–Dec;39(6):504–11

RADIOGRAPHY, BITEWING

Reliability of linear alveolar bone loss measurements of mandibular posterior teeth from digitized bitewing radiographs. Hildebolt CF, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):850–6

The effect of multiple examinations on the diagnosis of approximal caries and the restoration of approximal surfaces. Heaven TJ, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):386–91

Observer differentiation of mechanical defects versus natural dental caries cavitations on monitor-displayed images with imaging plate readout. Kang BC, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):595–600

INSTRUMENTATION

Patient discomfort and cross-infection control in bitewing examination with a storage phosphor plate and a CCD-based sensor. Wenzel A, et al. **J Dent** 1999 Mar; 27(3):243–6

Causes of excessive bitewing exposure: results of a survey regarding radiographic equipment in New York. Button TM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):513–7

Geometric and densitometric standardization of intraoral radiography through use of a modified XCP system. Southard TE, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):253–7

METHODS

A two-film versus a four-film bite-wing examination for caries diagnosis in adults. Hintze H, et al. **Caries Res** 1999 Sep–Oct;33(5):380–6

The effect of alterations in horizontal X-ray beam angulation and bucco-lingual cavity width on the radiographic depth of approximal cavities. Chadwick BL, et al. **J Oral Rehabil** 1999 Apr;26(4):292–301

UTILIZATION

A two-film versus a four-film bite-wing examination for caries diagnosis in adults. Hintze H, et al. **Caries Res** 1999 Sep–Oct;33(5):380–6

A comparison of clinical and radiographic caries diagnoses in posterior teeth of 12-year-old Lithuanian children. Machiulskiene V, et al. **Caries Res** 1999 Sep–Oct; 33(5):340–8

Causes of excessive bitewing exposure: results of a survey regarding radiographic equipment in New York. Button TM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):513–7

Number and frequency of bitewing radiographs and assessment of approximal caries in 14-to-19-year-old Swedish adolescents. Edblad E, et al. **Swed Dent J** 1998; 22(4):157–64

RADIOGRAPHY, DENTAL

Are anterior occlusal radiographs still indicated for orthodontic assessment? Giles SA, et al. **Br Dent J** 1997

Nov 8;183(9):325–8
An update on dental imaging [see comments] Whaites E, et al. **Br Dent J** 1998 Aug 22;185(4):166–72 (17 ref.). Comment in: Br Dent J 1998 Dec 12–26;185(11–12):558–9.
Comparison of cephalometric analysis using a non-radiographic sonic digitizer (DigiGraph Workstation) with conventional radiography. Tsang KH, et al. **Eur J Orthod** 1999 Feb;21(1):1–13
The influence of storage conditions on film characteristics of Ektaspeed plus and Ultra-speed films. Platin E, et al. **J Am Dent Assoc** 1999 Feb;130(2):211–8
Radiology—a dental specialty awaiting its just recognition [editorial] Ruprecht A, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):525
Joint Photographic Experts Group compression of intraoral radiographs for image transmission on the World Wide Web. Yuasa H, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jul;88(1):93–9
[Forensic identification value of roentgen images in determining tooth-colored dental filling materials] Chesne AD, et al. **Arch Kriminol** 1999 Mar–Apr;203(3–4):86–90 (Eng. Abstr.) **(Ger)**
[Diagnosis in dental radiology. The annual meeting of the Swiss Society for Dentomaxillofacial Radiology (SGDMFR) of 6 March 1998 in Bern] Hitz I, et al. **Schweiz Monatsschr Zahnmed** 1998;108(10):1042–4 **(Ger)**

ADVERSE EFFECTS

Dental radiography after age 25 years, amalgam fillings and tumours of the central nervous system. Rodvall Y, et al. **Oral Oncol** 1998 Jul;34(4):265–9

INSTRUMENTATION

A new volumetric CT machine for dental imaging based on the cone-beam technique: preliminary results. Mozzo P, et al. **Eur Radiol** 1998;8(9):1558–64
Modified intraoral film holders for postmortem identification. Oeschger MP, et al. **J Forensic Sci** 1999 Jul;44(4):846–8
Reuse of lead from dental X-rays. Swanson RL, et al. **N Y State Dent J** 1999 Mar;65(3):34–6
X-rays and the green factor: balancing efficacy and risk [news] Monteith B. **N Z Dent J** 1999 Mar;95(419):21–2
[Dental CT: image quality and radiation exposure in relation to scan parameters] Schorn C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):137–44 (24 ref.) (Eng. Abstr.) **(Ger)**
[X-ray image detectors in stomatology] Gorelik FG. **Med Tekh** 1998 Nov–Dec;(6):17–9 (Eng. Abstr.) **(Rus)**

METHODS

Debate on imaging [letter; comment] Strachan EB. **Br Dent J** 1998 Dec 12–26;185(11–12):558–9. Comment on: Br Dent J 1998 Aug 22;185(4):166–72.
Digital imaging in the assessment of facial deformity. Fanibunda KB, et al. **Br J Oral Maxillofac Surg** 1999 Apr; 37(2):94–8
Computer assisted densitometric image analysis (CADIA) of bone density in periradicular bone defects healing. Katanec D, et al. **Coll Antropol** 1998 Dec;22 Suppl:7–13
Tube angulation effect on radiographic analysis of the implant-abutment interface. Begoña Ormaechea M, et al. **Int J Oral Maxillofac Implants** 1999 Jan–Feb;14(1):77–85
Optimum dental radiography in bone marrow transplant patients. Bishay N, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):375–9
Sensitivity of various radiographic methods for detection of oral cancellous bone lesions. Parsell DE, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Oct;86(4):498–502
An in vivo comparison of diagnostic information obtained from tuned-aperture computed tomography and conventional dental radiographic imaging modalities. Webber RL, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):239–47
Effect of number of projections on accuracy of depth discrimination using tuned-aperture computed tomography for 3-dimensional dentoalveolar imaging of low-contrast details. Yamamoto K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jul;88(1):100–5
Assessment of image quality in dental radiography, part 1: phantom validity. Yoshiura K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):115–22
Assessment of image quality in dental radiography, part 2: optimum exposure conditions for detection of small mass changes in 6 intraoral radiography systems. Yoshiura K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):123–9
[The automation of the processing and interpreting of teleroentgenograms] Zhulev EN, et al. **Stomatologiia (Mosk)** 1998;77(6):46–8 (Eng. Abstr.) **(Rus)**

STANDARDS

Improving intra-oral radiography. Horner K, et al. **Br Dent J** 1997 Nov 8;183(9):338–9
Reference doses for dental radiography. Napier ID. **Br Dent J** 1999 Apr 24;186(8):392–6
Aluminium radiopacity standards for dentistry: an international survey. Watts DC, et al. **J Dent** 1999 Jan; 27(1):73–8
Assessment of image quality in dental radiography, part 2: optimum exposure conditions for detection of small mass changes in 6 intraoral radiography systems. Yoshiura K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):123–9
Assessment of image quality in dental radiography, part 1: phantom validity. Yoshiura K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):115–22

TRENDS

Radiographic trends of dental offices and dental schools. Suleiman OH, et al. **J Am Dent Assoc** 1999 Jul; 130(7):1104–10

UTILIZATION

The reliability of dental x-ray film in assessment of MP3 stages of the pubertal growth spurt. Abdel-Kader HM. **Am J Orthod Dentofacial Orthop** 1998 Oct;114(4):427–9
Justification in dental radiology [letter; comment] Hirschmann PN. **Br Dent J** 1999 Jan 9;186(1):9–10. Comment on: Br Dent J 1998 Aug 8;185(3):122–3. Comment on: Br Dent J 1998 Aug 8;185(3):137–40.
A study of the impact of screening or selective radiography on the treatment and postdelivery outcome for edentulous patients. Bohay RN, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Sep;86(3):353–9

VETERINARY

Oral-dental radiographic examination technique. Eisner ER. **Vet Clin North Am Small Anim Pract** 1998 Sep; 28(5):1063–87, v (20 ref.)

RADIOGRAPHY, DENTAL, DIGITAL

New means of visualisation of dental caries. Różyło TK. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:121–7
Controlled diagnosis-oriented enhancement of automatically segmented radiographs in dentistry. Koch S, et al. **Comput Methods Programs Biomed** 1998 Aug–Sep; 57(1–2):125–31
Potential for fraudulent use of digital radiography. Tsang A, et al. **J Am Dent Assoc** 1999 Sep;130(9):1325–9
Reliability of linear alveolar bone loss measurements of mandibular posterior teeth from digitized bitewing radiographs. Hildebolt CF, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):850–6
An in-vitro evaluation of a dental subtraction radiography system using bone chips on dried human mandibles. Rawlinson A, et al. **J Clin Periodontol** 1999 Mar; 26(3):138–42
Digital subtraction radiography: then (1983) and now (1998). Hausmann E. **J Dent Res** 1999 Jan;78(1):7–10
Intraoral radiographic storage phosphor image mean pixel values and signal-to-noise ratio: effects of calibration. Hayakawa Y, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):601–5
Observer differentiation of mechanical defects versus natural dental caries cavitations on monitor-displayed images with imaging plate readout. Kang BC, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):595–600

INSTRUMENTATION

Digital imaging and orthodontics. Coimbra O, et al. **Am J Orthod Dentofacial Orthop** 1999 Jan;115(1):103–5
Digital radiography of interproximal caries: effect of different filters. Eickholz P, et al. **Caries Res** 1999 May–Jun; 33(3):234–41
Patient discomfort and cross-infection control in bitewing examination with a storage phosphor plate and a CCD-based sensor. Wenzel A, et al. **J Dent** 1999 Mar; 27(3):243–6

METHODS

Orthodontic application of color image addition to visualize differences between sequential radiographs. Papika S, et al. **Am J Orthod Dentofacial Orthop** 1999 May; 115(5):488–93
Computed dental radiography used to reproduce antemortem film position. Hubar JS, et al. **J Forensic Sci** 1999 Mar; 44(2):401–4
Digital dental radiographic identification in the pediatric, mixed and permanent dentitions. Wood RE, et al. **J Forensic Sci** 1999 Sep;44(5):910–6
Effects of dose reduction on the detectability of standardized radiolucent lesions in digital panoramic radiography. Dula K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):227–33

RADIOGRAPHY, DUAL-ENERGY SCANNED PROJECTION

METHODS

Application of temporal subtraction for detection of interval changes on chest radiographs: improvement of subtraction images using automated initial image matching. Ishida T, et al. **J Digit Imaging** 1999 May;12(2):77–86

STANDARDS

[Dosage monitoring as a quality control instrument in digital radiography] Kurtz C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):465–70 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY, INSUFFLATION see **PNEUMORADIOGRAPHY**

RADIOGRAPHY, INTERVENTIONAL

Pudendal neuralgia: CT-guided pudendal nerve block technique. Thoumas D, et al. **Abdom Imaging** 1999 May–Jun;24(3):309–12
Outcomes and benefits of CT-guided biopsy. Golder WA, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S317–20
The new interventional center: experiences after 12 months of operation. Loerum F, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S446–9
Difficulties with CT-guided needle biopsy and VATS, as combined approach for the diagnosis and treatment of peripheral pulmonary nodules: a case report. Grazia M, et al. **Acta Chir Hung** 1999;38(1):39–41
Noninvasive surgery for epilepsy: the era of image guidance [editorial; comment] Dillon WP, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):185. Comment on: AJNR Am J Neuroradiol 1999 Feb;20(2):213–6.
In vitro models of intracranial arteriovenous fistulas for the evaluation of new endovascular treatment materials. Gailloud P, et al. **AJNR Am J Neuroradiol** 1999 Feb; 20(2):291–5
Percutaneous laser photocoagulation of spinal osteoid osteomas under CT guidance. Gangi A, et al. **AJNR Am J Neuroradiol** 1998 Nov–Dec;19(10):1955–8
Percutaneous biopsy of the thoracic and lumbar spine: transpedicular approach under fluoroscopic guidance. Pierot L, et al. **AJNR Am J Neuroradiol** 1999 Jan; 20(1):23–5
Transbuccal space deep parotid biopsy [letter; comment] Quint DJ, et al. **AJNR Am J Neuroradiol** 1999 May; 20(5):949–50. Comment on: AJNR Am J Neuroradiol 1998 Apr;19(4):728–31.
Endovascular treatment of a superior mesenteric arteriovenous fistula by a transhepatic portal venous approach. Cekirge S, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1283–4
Recanalization after coil embolization of pulmonary arteriovenous malformations [letter; comment] Clark JA, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1426–7. Comment on: AJR Am J Roentgenol 1998 Mar;170(3):727–30.
Percutaneous abdominal and pelvic interventional procedures using CT fluoroscopy guidance. Daly B, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):637–44
Transhepatic placement of combined biliary and duodenal stents. Davies NH, et al. **AJR Am J Roentgenol** 1999 Jan; 172(1):57–8
Carbon dioxide as a contrast agent to guide vascular interventional procedures. Eschelman DJ, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1265–70
Radiologic evaluation and management of malfunctioning long-term central vein catheters. Kidney DD, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1251–7 (40 ref.)
Special techniques in CT-guided transthoracic needle biopsy. Nashed Z, et al. **AJR Am J Roentgenol** 1998 Dec; 171(6):1665–8
Percutaneous imaging-guided biopsy of the spleen [clinical conference] O'Malley ME, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):661–5
Dealing with catheters of excessive length [letter; comment] Pearl JM, et al. **AJR Am J Roentgenol** 1998 Nov; 171(5):1425–6. Comment on: AJR Am J Roentgenol 1997 Dec;169(6):1732–4.
Subacute and chronic benign superior vena cava obstructions: endovascular treatment with self-expanding metallic stents. Qanadli SD, et al. **AJR Am J Roentgenol** 1999 Jul; 173(1):159–64
Initial experience with the advanced breast biopsy instrumentation device. Rebner M, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):221–6
CT-guided preoperative needle localization of MR imaging-detected mammographically occult lesions. Slanetz PJ, et al. **AJR Am J Roentgenol** 1999 Jan; 172(1):160–2
Imaging technique and clinical utility for electrophysiologic procedures of lower frequency (9 MHz) intracardiac echocardiography. Ren JF, et al. **Am J Cardiol** 1998 Dec 15;82(12):1557–60, A8
Stereotactic excisional breast biopsy performed by interventional radiologists using the advanced breast biopsy instrumentation system. Damascelli B, et al.

Br J Radiol 1998 Oct;71(850):1003–11

Entrance skin dose estimates derived from dose–area product measurements in interventional radiological procedures. McParland BJ. **Br J Radiol** 1998 Dec;71(852):1288–95

Effective dose to the patient undergoing superior vena cava stent. O'Driscoll D, et al. **Br J Radiol** 1998 Dec; 71(852):1302–5

Radiation exposure to medical staff in interventional and cardiac radiology [see comments] Vañó E, et al. **Br J Radiol** 1998 Sep;71(849):954–60. Comment in: Br J Radiol 1998 Dec;71(852):1333–4.

Radiation exposure to medical staff in interventional radiology [letter; comment] Williams JR. **Br J Radiol** 1998 Dec;71(852):1333–4. Comment on: Br J Radiol 1997 May;70(833):498–503. Comment on: Br J Radiol 1998 Jun;71(846):672–6. Comment on: Br J Radiol 1998 Sep;71(849):954–60.

CIRSE 98. Annual meeting and postgraduate course. Cardiovascular and Interventional Radiological Society of Europe. Venice, Italy, September 27–October 1, 1998. Abstracts. **Cardiovasc Intervent Radiol** 1998;21 Suppl 1:S53–201

ISIR and JSAIR'99. 7th International Symposium on Interventional Radiology and New Vascular Imaging. 28th Annual meeting of the Japanese Society of Angiography and Interventional Radiology. Osaka, Japan, May 16–19, 1999. Abstracts. **Cardiovasc Intervent Radiol** 1999;22 Suppl 1:S34–86

The interventional radiographer [editorial] McConnell J, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):185–6

Radiation safety in the cardiac catheterization laboratory: operational radiation safety. Balter S. **Catheter Cardiovasc Interv** 1999 Jul;47(3):347–53

Radiation risks to the patients and interventionalists: risk reduction [editorial; comment] Behrman RB, et al. **Catheter Cardiovasc Interv** 1999 Aug;47(4):455–6. Comment on: Catheter Cardiovasc Interv 1999 Aug;47(4):449–54.

Radiation exposure to children during coil occlusion of the patent ductus arteriosus [see comments] Moore JD, et al. **Catheter Cardiovasc Interv** 1999 Aug;47(4):449–54. Comment in: Catheter Cardiovasc Interv 1999 Aug;47(4):455–6.

Real-time bronchoscope tip localization enables three-dimensional CT image guidance for transbronchial needle aspiration in swine. Solomon SB, et al. **Chest** 1998 Nov;114(5):1405–10

Conservative surgical removal of a submandibular duct calculus following interventional sialography. Nixon PP, et al. **Clin Radiol** 1999 May;54(5):337–8

Semiclosed iliac recanalisation by an inguinal approach--modified surgical techniques integrating interventional procedures. Schröder A, et al. **Eur J Vasc Endovasc Surg** 1998 Dec;16(6):501–8

Registration of real and CT-derived virtual bronchoscopic images to assist transbronchial biopsy. Bricault I, et al. **IEEE Trans Med Imaging** 1998 Oct;17(5):703–14

CTA-based angle selection for diagnostic and interventional angiography of saccular intracranial aneurysms. van der Weide R, et al. **IEEE Trans Med Imaging** 1998 Oct; 17(5):831–41

An image-guided planning system for endosseous oral implants. Verstreken K, et al. **IEEE Trans Med Imaging** 1998 Oct;17(5):842–52

Image guidance of therapy [editorial] Viergever MA. **IEEE Trans Med Imaging** 1998 Oct;17(5):669–71

An iterative algorithm for X-ray CT fluoroscopy. Wang G, et al. **IEEE Trans Med Imaging** 1998 Oct;17(5):853–6

Laparoscopic ultrasonography versus operative cholangiography during laparoscopic cholecystectomy: review of the literature and a comparison with open intraoperative ultrasonography. Machi J, et al. **J Am Coll Surg** 1999 Apr;188(4):360–7 (32 ref.)

Peripherally inserted central catheters: guidance with use of US versus venography in 2,650 patients. Chrisman HB, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):473–5

Radiologic peroral gastrostomy. Clark JA, et al. **J Vasc Interv Radiol** 1999 Jul–Aug;10(7):927–32

Real-time CT-fluoroscopy for guidance of percutaneous drainage procedures. Froelich JJ, et al. **J Vasc Interv Radiol** 1998 Sep–Oct;9(5):735–40

Brachial plexus neuropathy: a rare complication of patient positioning during interventional radiologic procedures. Savader SJ, et al. **J Vasc Interv Radiol** 1999 May; 10(5):579–82

Management of misplaced or migrated endovascular stents. Slonim SM, et al. **J Vasc Interv Radiol** 1999 Jul–Aug; 10(7):851–9

Trans-sphenoidal treatment of postsurgical cerebrospinal fluid fistula: CT-guided closure. Floris R, et al. **Neuroradiology** 1998 Oct;40(10):690–4

Endovascular techniques in the damage control setting. Hoffer EK, et al. **Radiographics** 1999 Sep–Oct;19(5):1340–8

Interventional radiology of the liver and pancreas. Newman J. **Radiol Technol** 1999 Jul–Aug;70(6):513–30; quiz 531–3 (25 ref.)

Percutaneous gastrostomy with fluoroscopic guidance: single-center experience in 500 consecutive cancer patients. de Baere T, et al. **Radiology** 1999 Mar;210(3):651–4

Percutaneous gastrostomy and gastrojejunostomy with gastropexy: experience in 701 procedures. Dewald CL, et al. **Radiology** 1999 Jun;211(3):651–6

CT-monitored percutaneous cryoablation in a pig liver model: pilot study. Lee FT Jr, et al. **Radiology** 1999 Jun; 211(3):687–92

Patient doses in interventional radiology: accuracy in measurement and proper use of nomenclature [letter; comment] McParland BJ. **Radiology** 1998 Nov; 209(2):589–90. Comment on: Radiology 1997 Nov;205(2):385–93.

US guidance for thoracic biopsy: a valuable alternative to CT. Sheth S, et al. **Radiology** 1999 Mar;210(3):721–6

"To each his own" will fall short of the mark in the next millennium [editorial] Cuschieri A. **Surg Endosc** 1999 May; 13(5):443–4

[Urologic importance of interventional radiology techniques] Uder M, et al. **Ann Urol (Paris)** 1999;33(3):219–29 (Eng. Abstr.) **(Fre)**

[Treatment of malignant gastric or duodenal stenoses by the insertion of metallic prostheses under fluoroscopic control] De Baère T, et al. **Gastroenterol Clin Biol** 1998 Aug–Sep; 22(8–9):665–8 (Eng. Abstr.) **(Fre)**

[Computed tomography diagnosis of pancreatic abscess and its surgical drainage] Benziane K. **J Chir (Paris)** 1997 Dec; 134(7–8):301–4 (Eng. Abstr.) **(Fre)**

[Scanner-guided biopsy technic with abdominal compression] de Kerviler E, et al. **J Radiol** 1999 Jan; 80(1):60–3 (Eng. Abstr.) **(Fre)**

[Computed tomography-guided diagnostic puncture in abdominal pathology] de Mey J, et al. **J Radiol** 1999 Jan; 80(1):11–6 (33 ref.) (Eng. Abstr.) **(Fre)**

[Cervical epidural injection technic under computed tomography guidance in the treatment of cervicobrachial neuralgia] Morcet N, et al. **J Radiol** 1999 Feb;80(2):161–2 (Eng. Abstr.) **(Fre)**

[Percutaneous resection under computed tomography guidance of osteoid osteoma. Mid-term follow-up of 38 cases] Sans N, et al. **J Radiol** 1999 May;80(5):457–65 (Eng. Abstr.) **(Fre)**

[Computed tomography-guided transthoracic biopsy after negative fiber-optic endoscopy; apropos of 134 patients] Taieb S, et al. **J Radiol** 1999 Jan;80(1):25–9 (Eng. Abstr.) **(Fre)**

[Reduction of radiation exposure for patient and investigator in interventional radiography] Pecher G, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):505–9 (Eng. Abstr.) **(Ger)**

[Effects on vasomotor tone and hemostatic function of radiologic contrast media used during invasive cardiological procedures] De Caterina R, et al. **G Ital Cardiol** 1999 Sep;29(9):1047–52 (40 ref.) (Eng. Abstr.) **(Ita)**

[Description of an original method of interventional treatment of sialolithiasis to complement surgery, and report of a case] Salerno S, et al. **Radiol Med (Torino)** 1998 Dec;96(6):599–601 **(Ita)**

[Progress in interventional radiology (IVR) in emergency medicine] Nishimaki H, et al. **Nippon Geka Gakkai Zasshi** 1999 Jul;100(7):435–42 (27 ref.) (Eng. Abstr.) **(Jpn)**

[Interventional radiology for recurrent cancer] Uchida H, et al. **Nippon Geka Gakkai Zasshi** 1999 Feb;100(2):220–7 (31 ref.) (Eng. Abstr.) **(Jpn)**

[Interventional radiology in the treatment of primary and metastatic liver cancer] Granov AM, et al. **Vestn Rentgenol Radiol** 1998 Mar–Apr;(2):25–31 (Eng. Abstr.) **(Rus)**

[Endoscopic balloon dilatation of achalasia under fluoroscopic guidance] Lukić-Kostić L, et al. **Vojnosanit Pregl** 1999 Jan–Feb;56(1):27–30 (Eng. Abstr.) **(Scc)**

[Percutaneous translumbar sympathectomy guided by computer tomography] Marković N, et al. **Vojnosanit Pregl** 1998 Sep–Oct;55(5 Suppl):43–7 **(Scc)**

ADVERSE EFFECTS

[Percutaneous vertebroplasty complicated by pulmonary embolus of acrylic cement] Perrin C, et al. **Rev Mal Respir** 1999 Apr;16(2):215–7 (Eng. Abstr.) **(Fre)**

ECONOMICS

Cost-effectiveness of image-guided surgery. Jolesz FA, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S428–31

Cost comparison of radiologic versus surgical placement of long-term hemodialysis catheters. Noh HM, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):673–5

Radiologic versus bedside placement of peripherally inserted central catheters [letter] Funaki B, et al. **Radiology** 1998 Oct;209(1):284–5

INSTRUMENTATION

Combined use of portable CT and fluoroscopy in the angiography suite. Dowd MT, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):497–8

Circular spirit level guidance system for CT- and MR-guided punctures. Buecker A, et al. **J Comput Assist Tomogr** 1999 Jul–Aug;23(4):552–4

[Interventional imaging] Pommier M, et al. **J Radiol** 1999 Jul;80(7 Suppl):813–5 **(Fre)**

METHODS

Combined sonographic and fluoroscopic guidance: a modified technique for percutaneous sclerosis of low-flow vascular malformations. Donnelly LF, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):655–7

Interventional radiology in the treatment of renal artery stenosis. Lovaria A, et al. **Ann Urol (Paris)** 1999; 33(3):146–55

Interventional radiology in the treatment of urological vascular complications. Lovaria A, et al. **Ann Urol (Paris)** 1999;33(3):156–67

Ultrasound-fluoroscopy guided access to the intrarenal excretory system. Montanari E, et al. **Ann Urol (Paris)** 1999; 33(3):168–81

Management of bladder outlet obstruction by insertion of stents in the radiological suite. Yachia D. **Ann Urol (Paris)** 1999;33(3):192–202

Interventional radiology in the treatment of uretero-pelvic-junction. Zanetti G, et al. **Ann Urol (Paris)** 1999;33(3):182–5

An improved reversal technique from retrograde to antegrade femoral artery cannulation. Hartnell G. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):512–3 (5 ref.)

Technical report: CT-guided aspiration of anterior cruciate ligament ganglion cysts. Antonacci VP, et al. **Clin Radiol** 1998 Oct;53(10):771–3

Case report: Biliary stent placement via percutaneous non surgical cholecystostomy. Hickey NA, et al. **Clin Radiol** 1998 Dec;53(12):915–6

Percutaneous vertebral biopsy through intact bone: a coaxial bone transgressing technique with 18 gauge needle. Yu SC, et al. **Clin Radiol** 1999 Mar;54(3):176–8

Transcatheter closure of ventricular septal defect using detachable steel coil. Kalra GS, et al. **Heart** 1999 Sep; 82(3):395–6

Intraoperative dynamic fluoroscopic cholangiogram during laparoscopic cholecystectomy. Heniford BT, et al. **J Am Coll Surg** 1999 Jul;189(1):134–7

Case presentations of neuroradiologic interventions for acute cerebrovascular disease. Bader MK. **J Cardiovasc Nurs** 1998 Oct;13(1):1–16 (26 ref.)

3D angiography. Clinical interest. First applications in interventional neuroradiology. Anxionnat R, et al. **J Neuroradiol** 1998 Dec;25(4):251–62

Minimally invasive approach for biopsy of an optic nerve sheath tumor. Leonard DW, et al. **Otolaryngol Head Neck Surg** 1999 May;120(5):776–9

Interventional cardiac catheterization. Pihkala J, et al. **Pediatr Clin North Am** 1999 Apr;46(2):441–64 (181 ref.)

[Interventional imaging] Pommier M, et al. **J Radiol** 1999 Jul;80(7 Suppl):813–5 **(Fre)**

[Percutaneous recanalization of proximal venous thromboses in chronic hemodialysis patients] Vautier-Rodary R, et al. **J Radiol** 1998 Mar;79(3):253–7 (Eng. Abstr.) **(Fre)**

[Superior vena cava endoprostheses] Lacombe P, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S157–61 (22 ref.) **(Fre)**

[Update on transthoracic biopsy] Lucidarme O, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S156–7 **(Fre)**

[Interventional catheterization in pediatric cardiology] Massin M. **Rev Med Liege** 1999 Jan;54(1):22–7 (11 ref.) (Eng. Abstr.) **(Fre)**

[Anticoagulation control during neuroradiological interventions with ACT (activated clotting time)] Berlis A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Apr;170(4):378–83 (Eng. Abstr.) **(Ger)**

[CT-guided percutaneous biopsies for the classification of focal liver lesions: a comparison between 14 G and 18 G puncture biopsy needles] Haage P, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):44–8 (Eng. Abstr.) **(Ger)**

[The percutaneous transarterial embolization therapy of traumatic kidney hemorrhages] Krämer SC, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):297–301 (Eng. Abstr.) **(Ger)**

[A coated stent as alternative therapy for stopping a tumor-induced arrosive hemorrhage] Steudel A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):324–6 (10 ref.) **(Ger)**

[Interventional radiology for the peripheral vascular occlusive disease] Kurata T, et al. **Nippon Rinsho** 1999 Jul; 57(7):1577–82 (13 ref.) (Eng. Abstr.) **(Jpn)**

[The characteristics of surgical cholangiography] Beliaev LB, et al. **Voen Med Zh** 1999 Apr;320(4):40–3 **(Rus)**

STATISTICS & NUMERICAL DATA

Indeterminate findings on imaging-guided biopsy: should additional intervention be pursued? Dameron RD, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):461–4

TRENDS

Interventional neuroradiology. Recent developments and anaesthesiologic aspects. Luginbühl M, et al. **Minerva Anestesiol** 1999 Jun;65(6):445–54 (80 ref.)

[Computer-assisted surgery (CAS)--the challenge for radiologists and surgeons (editorial)] Klimek L. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Mar;170(3):233–4 **(Ger)**

UTILIZATION

Resource requirements for interventional radiologic

management of long-term ambulatory hemodialysis patients. Jaques PF, et al. **AJR Am J Roentgenol** 1999 Oct; 173(4):1017-21

RADIOGRAPHY, PANORAMIC

Prospective comparison of axial computed tomography and standard and panoramic radiographs in the diagnosis of mandibular fractures. Markowitz BL, et al. **Ann Plast Surg** 1999 Feb;42(2):163-9

Dimensional measurements on the human dental panoramic radiographs. Catić A, et al. **Coll Antropol** 1998 Dec;22 Suppl:139-45

The prevalence of carotid atheromas seen on panoramic radiographs of patients with obstructive sleep apnea and their relation to risk factors for atherosclerosis. Friedlander AH, et al. **J Oral Maxillofac Surg** 1999 May;57(5):516-21; discussion 521-2

X-ray diagnosis of impacted upper canines in panoramic radiographs and computed tomographs. Freisfeld M, et al. **J Orofac Orthop** 1999;60(3):177-84 **(Eng, Ger)**

Evaluation of the precision of dimensional measurements of the mandible on panoramic radiographs [published erratum appears in Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 Jul;88(1):112] Catić A, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):242-8

A sensitometric comparison of Kodak Ektavision and Fuji Super HR-S panoramic radiographic films. Wakoh M, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):249-53

[Image deformation resulting from panoramic zonography of different facial cranial regions] Arzhantsev AP, et al. **Vestn Rentgenol Radiol** 1998 Sep-Oct;(5):36-8 (0 ref.) **(Rus)**

INSTRUMENTATION

Aspects of panoramic radiography in general dental practice. Rushton VE, et al. **Br Dent J** 1999 Apr 10;186(7):342-4

Temporomandibular joint pantomography using charge-coupled device, photostimulable phosphor, and film receptors: a comparison. Farman TT, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):9-13

Clinical and in vitro film quality comparison of manual and automatic exposure control in panoramic radiography. Eraso FE, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):518-23

METHODS

Area-dependent enlargement ratios of panoramic tomography on orthograde patient positioning and its significance for implant dentistry. Gomez-Roman G, et al. **Int J Oral Maxillofac Implants** 1999 Mar-Apr;14(2):248-57

Utilization of panoramic radiographs to evaluate short-term complications of mandibular fracture repair. Childress CS, et al. **Laryngoscope** 1999 Aug;109(8):1269-72

Effects of dose reduction on the detectability of standardized radiolucent lesions in digital panoramic radiography. Dula K, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):227-33

[How I investigate...the age of adolescents using panoramic radiography] Domken O, et al. **Rev Med Liege** 1998 Oct; 53(10):633-7 (Eng. Abstr.) **(Fre)**

[Low-dosage dental CT] Rustemeyer P, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):130-5 (Eng. Abstr.) **(Ger)**

STANDARDS

Objective grading system for dental casts and panoramic radiographs. American Board of Orthodontics. Casko JS, et al. **Am J Orthod Dentofacial Orthop** 1998 Nov; 114(5):589-99

The quality of panoramic radiographs in a sample of general dental practices. Rushton VE, et al. **Br Dent J** 1999 Jun 26;186(12):630-3

UTILIZATION

Radiograph selection [letter; comment] Rushton VB, et al. **Br Dent J** 1999 May 22;186(10):486-7. Comment on: Br Dent J 1998 Nov 28;185(10):501.

RADIOGRAPHY, THORACIC

Artificial neural networks in chest radiography: application to the differential diagnosis of interstitial lung disease. Ashizawa K, et al. **Acad Radiol** 1999 Jan;6(1):2-9

Chest radiology case exchange program: a paradigm for resident teaching and independent resident learning. Collins J, et al. **Acad Radiol** 1999 Jan;6(1):34-9

Characteristics of regions suspicious for pulmonary nodules at chest radiography. Drayer JA, et al. **Acad Radiol** 1998 Sep;5(9):613-9

Symptoms or no symptoms: effectiveness of chest radiography. Geijer M, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S333-5

Detection of small peripheral lung cancer by digital chest radiography. Performance of unprocessed versus unsharp mask-processed images. Yang ZG, et al. **Acta Radiol** 1999 Sep;40(5):505-9

The appearance and significance of extrapleural fluid after esophageal atresia repair. Donnelly LF, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):231-3

Central venous catheter motion: a pitfall in catheter localization on pediatric chest radiography. Singh S, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):803-8

Traumatic aortic rupture: delayed presentation with a normal chest radiograph. Savitt DL. **Am J Emerg Med** 1999 May; 17(3):285-7

Association of radiologically ascertained pneumonia before age 3 yr with asthmalike symptoms and pulmonary function during childhood: a prospective study. Castro-Rodriguez JA, et al. **Am J Respir Crit Care Med** 1999 Jun; 159(6):1891-7

The futility of chest roentgenograms following routine central venous line changes. Cullinane DC, et al. **Am J Surg** 1998 Sep;176(3):283-5

The chest radiograph in critically ill surgical patients is inaccurate in predicting ventilator-associated pneumonia. Butler KL, et al. **Am Surg** 1999 Sep;65(9):805-9; discussion 809-10

Position of CVP lines [letter] Sewell J. **Anaesthesia** 1999 Jun; 54(6):617-8

Reduction in retake rates and radiation dosage through computed radiography. Polunin N, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):805-7

A study of chest radiography with mobile X-ray units. Simpson PD, et al. **Br J Radiol** 1998 Jun;71(846):640-5

A 35-year-old woman with cough, dyspnea, and an abnormal chest radiograph. Trulock E. **Chest** 1998 Nov;114(5):1463-4

Multilobar consolidation with abscess formation caused by Legionella pneumophila: an unusual chest radiographic presentation [published erratum appears in Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih 1998 Dec;31(4):264] Chang FY. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Sep;31(3):200-2

"Reel Syndrome": a new form of Twiddler's syndrome? Carnero-Varo A, et al. **Circulation** 1999 Aug 24; 100(8):e45-6

The significance of routine chest X-ray in acute stroke. Colon AJ, et al. **Clin Neurol Neurosurg** 1999 Mar;101(1):1-3

Chest radiographs in the pediatric emergency department for children < or = 18 months of age with wheezing. Mahabee-Gittens EM, et al. **Clin Pediatr (Phila)** 1999 Jul; 38(7):395-9

Automatic segmentation of lung fields on chest radiographic images. Carreira MJ, et al. **Comput Biomed Res** 1999 Jun; 32(3):283-303

Evaluation and progression analysis of pulmonary tuberculosis from digital chest radiographs. Sarkar S, et al. **Comput Med Imaging Graph** 1998 Mar-Apr;22(2):145-55

Cannulation of the internal jugular vein: is postprocedural chest radiography always necessary? Gladwin MT, et al. **Crit Care Med** 1999 Sep;27(9):1819-23

Giant pleural lipoma. Corbi P, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):249-50

Spiral CT: thoracic applications. Padhani AR. **Eur J Radiol** 1998 Aug;28(1):2-17 (77 ref.)

Normal chest radiograph and lung function do not necessarily mean normal lungs [editorial; comment] Shimura S. **Intern Med** 1998 Nov;37(11):901-2 (10 ref.). Comment on: Intern Med 1998 Nov;37(11):922-6.

A peril of minimally invasive surgery. Hearn C. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):500-1

The electrocardiogram complements a chest radiograph for the early detection of pneumothorax in post-coronary artery bypass grafting patients. Ti LK, et al. **J Cardiothorac Vasc Anesth** 1998 Dec;12(6):679-83

Clinical evaluation of irreversible data compression for computed radiography of the chest. Egashira K, et al. **J Digit Imaging** 1998 Nov;11(4):176-81

Application of artificial neural networks for quantitative analysis of image data in chest radiographs for detection of interstitial lung disease. Ishida T, et al. **J Digit Imaging** 1998 Nov;11(4):182-92

Application of temporal subtraction for detection of interval changes on chest radiographs: improvement of subtraction images using automated initial image matching. Ishida T, et al. **J Digit Imaging** 1999 May;12(2):77-86

Perceived fidelity of compressed and reconstructed radiological images: a preliminary exploration of compression, luminance, and viewing distance. Pilgram TK, et al. **J Digit Imaging** 1998 Nov;11(4):168-75

Thoracic computed tomography of patients infected with the human immunodeficiency virus: relevance for the course of disease. Knollmann FD, et al. **J Thorac Imaging** 1999 Jul;14(3):185-93

Correlation of chest radiographic findings with biopsy-proven acute lung rejection. Kundu S, et al. **J Thorac Imaging** 1999 Jul;14(3):178-84

Predicting the need for thoracoscopic evacuation of residual traumatic hemothorax: chest radiograph is insufficient. Velmahos GC, et al. **J Trauma** 1999 Jan;46(1):65-70

Chest roentgenography after outpatient thoracentesis. Capizzi SA, et al. **Mayo Clin Proc** 1998 Oct;73(10):948-50

Optimum tube voltage for chest radiographs obtained by psychophysical analysis. Asai Y, et al. **Med Phys** 1998 Nov; 25(11):2170-5

Iterative image warping technique for temporal subtraction of sequential chest radiographs to detect interval change. Ishida T, et al. **Med Phys** 1999 Jul;26(7):1320-9

Evaluation of a semantic data model for chest radiology: application of a new methodology. Rocha RA, et al. **Methods Inf Med** 1998 Nov;37(4-5):477-90

Chest radiography: potential and limitations. Schaefer-Prokop C. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):10-1 (14 ref.)

Comparison of postoperative cardiopulmonary examinations and chest radiographs to detect pulmonary complications after adult tracheotomy. Park SY, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):274-6

Utility of portable chest radiographs as a predictor of endotracheal tube cuff pressure. Valentino J, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):51-6

Criteria for deciding when to obtain chest radiographs in first time wheezers [letter; comment] Gershel J. **Pediatr Emerg Care** 1998 Dec;14(6):452. Comment on: Pediatr Emerg Care 1998 Jun;14(3):181-4.

Inter- and intra-observer variability in the assessment of atelectasis and consolidation in neonatal chest radiographs. Bloomfield FH, et al. **Pediatr Radiol** 1999 Jun;29(6):459-62

Radiation exposure during chest X-ray examinations in a premature intensive care unit: phantom studies. Duetting T, et al. **Pediatr Radiol** 1999 Mar;29(3):158-62

Familial pulmonary hypoplasia: plain film appearances with histopathological correlation. Green RA, et al. **Pediatr Radiol** 1999 Jun;29(6):455-8

Growth disturbance of the sternum and pectus deformities: imaging studies and clinical correlation. Haje SA, et al. **Pediatr Radiol** 1999 May;29(5):334-41

Spontaneous correction of the malpositioned percutaneous central venous line in infants. Rastogi S, et al. **Pediatr Radiol** 1998 Sep;28(9):694-6

An EGS4-ready tomographic computational model of a 14-year-old female torso for calculating organ doses from CT examinations. Caon M, et al. **Phys Med Biol** 1999 Sep; 44(9):2213-25

Bayesian modeling for linking causally related observations in chest X-ray reports. Chapman WW, et al. **Proc AMIA Symp** 1998;:587-91

Knowledge discovery and data mining to assist natural language understanding. Wilcox A, et al. **Proc AMIA Symp** 1998;:835-9

Radiographic imaging of Pneumocystis carinii pneumonia in patients with acquired immunodeficiency syndrome. Asai S. **Radiat Med** 1998 Nov-Dec;16(6):431-40

Navigating the thoracic inlet. Chiles C, et al. **Radiographics** 1999 Sep-Oct;19(5):1161-76

The flip side of the problem. Geissler K. **Radiol Technol** 1999 May-Jun;70(5):470

Q fever pneumonia: appearance on chest radiographs. Gikas A, et al. **Radiology** 1999 Feb;210(2):339-43

Thoracic CT in the intensive care unit: assessment of clinical usefulness. Miller WT Jr, et al. **Radiology** 1998 Nov; 209(2):491-8

Chest x-ray: don't forget subdiaphragmatic structures! Izbicki G, et al. **Respiration** 1998;65(6):476

An evaluation of a new CD-ROM on the interpretation of adult chest X-rays [letter] Treadwell I. S **Afr Med J** 1998 Sep;88(9):1132

Complications related to osteopenia in the thoracic spine on admission chest radiographs of substance abuse detoxification patients. Haramati LB, et al. **Skeletal Radiol** 1998 Oct;27(10):565-8

Three cases of primary lung cancer undetected by an annual checkup. Miyairi A, et al. **Tokai J Exp Clin Med** 1998 Jun;23(3):119-22

Right atrial dilatation: major contributor to increased cardiothoracic ratio in cardiac transplant candidates. Aravot D, et al. **Transplant Proc** 1999 Jun;31(4):1887-8

Importance of the cardiothoracic ratio in the evaluation of cardiac transplant candidates. Berman M, et al. **Transplant Proc** 1999 Jun;31(4):1885-6

[Interpretation of standard chest x-rays in thoracic trauma: influence of the experience of the interpreter] Le Corre A, et al. **Ann Fr Anesth Reanim** 1999 May;18(5):503-8 (Eng. Abstr.) **(Fre)**

[Radiologic case of the month] Rakza T, et al. **Arch Pediatr** 1999 Jun;6(6):665-7 **(Fre)**

[Cliché of the thorax and asthmatic crisis] Fischler MP, et al. **Schweiz Med Wochenschr** 1999 Jun 26;129(25):966 **(Fre)**

[Effect of collimation and pitch on radiation exposure and image quality in spiral CT of the thorax] Barkhausen J, et al. **Aktuelle Radiol** 1998 Sep;8(5):220-4 (Eng. Abstr.) **(Ger)**

[Clinical relevance of thoracic CT in intensive care and emergency medicine] Gartenschläger M, et al. **Aktuelle Radiol** 1998 Nov;8(6):260-5 (Eng. Abstr.) **(Ger)**

[Chest X ray: routine indication in the follow-up of differentiated thyroid cancer?] Lorenzen J, et al. **Nuklearmedizin** 1998;37(6):208-12 (Eng. Abstr.) **(Ger)**

[Heart diseases in thoracic radiographic images. 2] Eichstädt H, et al. **Radiologe** 1999 Feb;39(2):164-72 **(Ger)**

[Heart diseases in thoracic radiographic images. 1] Eichstädt H. **Radiologe** 1999 Jan;39(1):84-92 **(Ger)**

[Guidelines for the routine assessment of respiratory surgical risk: thoracic radiography] Assenza M, et al. **G Chir** 1999 Apr;20(4):149-53 (Eng. Abstr.) **(Ita)**

[Study with thoracic and abdominal spiral CT in intensive care unit patients] Rollandi GA, et al. **Radiol Med (Torino)** 1998 Nov;96(5):485-91 (Eng. Abstr.) **(Ita)**

[Diagnostic problems in reading chest radiographies of elderly patients at admission. Personal experience] Schiavon F, et al. **Radiol Med (Torino)** 1998 Jul-Aug; 96(1-2):48-54 (Eng. Abstr.) **(Ita)**

[Computed tomography with normal chest radiography in childhood tuberculosis] Katakura S, et al. **Kansenshogaku Zasshi** 1999 Feb;73(2):130-7 (Eng. Abstr.) **(Jpn)**

[Investigation of pulmonary hemodynamics and chest X-ray findings in patients with pulmonary tuberculosis sequelae and obstructive ventilatory impairment] Yasuda J, et al. **Kekkaku** 1999 Jan;74(1):5-18 (Eng. Abstr.) **(Jpn)**

[A resected case of a bronchiolo-alveolar cell carcinoma of the lung accompanying pneumonia-like shadow on chest roentgenogram] Umemori Y, et al. **Kyobu Geka** 1998 Sep; 51(10):888-91 (Eng. Abstr.) **(Jpn)**

[Sarcoidosis presenting as a diffuse micronodular shadow on a chest radiograph] Iwanaga T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jun;36(6):556-9 (Eng. Abstr.) **(Jpn)**

[Plain film and CT findings of pulmonary involvement in rheumatoid arthritis] Sasaka K, et al. **Ryumachi** 1998 Oct; 38(5):705-16 (Eng. Abstr.) **(Jpn)**

[Significance and role of radiation studies in complex diagnosis of exogenous allergic alveolitis] Dmitrieva LI, et al. **Probl Tuberk** 1998;(6):40-4 (0 ref.) (Eng. Abstr.) **(Rus)**

[Clinical and X-ray characteristics of progressive tuberculosis in teenagers] Pavlova MV. **Probl Tuberk** 1999; (3):15-6 (Eng. Abstr.) **(Rus)**

[X-ray computed tomography in the diagnosis of pulmonary tuberculosis] Portnoi LM, et al. **Probl Tuberk** 1999; (4):16-21 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

[Radiation exposure and thoracic tomography] Remy J. **Rev Mal Respir** 1999 Apr;16(2):121-2 **(Fre)**

[Radiation exposure during CT examination of thorax and abdomen. Comparison of sequential, spiral and electron beam computed tomography] Becker CR, et al. **Radiologe** 1998 Sep;38(9):726-9 (Eng. Abstr.) **(Ger)**

[Radiation exposure during thoracic radiography at the intensive care unit. Dose accumulation and risk of radiation-induced cancer in long-term therapy] Leppek R, et al. **Radiologe** 1998 Sep;38(9):730-6 (42 ref.) (Eng. Abstr.) **(Ger)**

ECONOMICS

Routine chest radiographs following central venous recatheterization over a wire are not justified. Palesty JA, et al. **Am J Surg** 1998 Dec;176(6):618-21

To chest x-rays and beyond!! [editorial; comment] Helfaer M. **Crit Care Med** 1999 Aug;27(8):1676-7 (18 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1588-93.

Financial impact of elimination of routine chest radiographs in a pediatric intensive care unit [see comments] Price MB, et al. **Crit Care Med** 1999 Aug;27(8):1588-93. Comment in: Crit Care Med 1999 Aug;27(8):1676-7.

Periodic chest radiography: unnecessary, expensive, but still pervasive. Mangura BT, et al. **Lancet** 1999 Jan 23; 353(9149):319-20

INSTRUMENTATION

Comparison of low contrast detectability between a digital amorphous silicon and a screen-film based imaging system for thoracic radiography. Aufrichtig R. **Med Phys** 1999 Jul;26(7):1349-58

METHODS

Thoracic foreign bodies in adults. Kavanagh PV, et al. **Clin Radiol** 1999 Jun;54(6):353-60 (17 ref.)

The vertical displacement sign: a technique for differentiating between left and right ribs on the lateral chest radiograph. Kurihara Y, et al. **Clin Radiol** 1999 Jun;54(6):367-9

Anatomic region-based dynamic range compression for chest radiographs using warping transformation of correlated distribution. Tsujii O, et al. **IEEE Trans Med Imaging** 1998 Jun;17(3):407-18

Pixelwise fusion for optimizing SNR in multiple-plate computed radiography imaging. Wang T, et al. **IEEE Trans Med Imaging** 1999 Mar;18(3):239-51

Comparison between a screen-film system and a selenium radiography system. An ROC study using simulated thoracic lesions. Kotter E, et al. **Invest Radiol** 1999 Apr; 34(4):296-302

Automated lung segmentation in digital lateral chest radiographs. Armato SG 3rd, et al. **Med Phys** 1998 Aug; 25(8):1507-20

Comparison of low contrast detectability between a digital amorphous silicon and a screen-film based imaging system for thoracic radiography. Aufrichtig R. **Med Phys** 1999 Jul;26(7):1349-58

Effect of filtering on the detection and localization of small Ga-67 lesions in thoracic single photon emission computed tomography images. Wells RG, et al. **Med Phys** 1999 Jul; 26(7):1382-8

Performance of various X-ray film/screen systems in demonstrating small simulated low-density lung nodules. Maruyama Y. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug;58(9):509-15

Direct coronal CT scanning of the neonatal chest. Rencken IO, et al. **Pediatr Radiol** 1999 Jun;29(6):451-4

Low-dose spiral CT: applicability to paediatric chest imaging. Rogalla P, et al. **Pediatr Radiol** 1999 Aug; 29(8):565-9

Helical CT applications in the thorax and abdomen. Rappaport DC. **Postgrad Med** 1998 Nov;104(5):105-8, 113-4 (19 ref.)

Adaptive spatial filtering technique for storage phosphor radiography in portable chest radiographs: parameter optimization. Murayama S, et al. **Radiat Med** 1998 Nov-Dec;16(6):405-10

The ribs: anatomic and radiologic considerations. Kurihara Y, et al. **Radiographics** 1999 Jan-Feb;19(1):105-19; quiz 151-2 (16 ref.)

Three-dimensional CT angiography of the thorax: clinical applications. Kawamoto S, et al. **Semin Ultrasound CT MR** 1998 Oct;19(5):425-38 (46 ref.)

[Lateral view of the thorax: the profile] Giron J, et al. **J Radiol** 1999 Feb;80(2):109-19 (Eng. Abstr.) **(Fre)**

[Thoracic diagnosis with electron-beam computed tomography] Rogalla P, et al. **Radiologe** 1998 Dec; 38(12):1029-35 (Eng. Abstr.) **(Ger)**

[Digital radiography of the thorax with selenium detector. Clinical results and optimization potential of the technique] Procacci C, et al. **Radiol Med (Torino)** 1998 Nov; 96(5):446-53 (Eng. Abstr.) **(Ita)**

[Computer-aided diagnosis in the detection of temporal changes in sequential chest radiographs] Sanada S. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Dec; 58(14):824-30 (Eng. Abstr.) **(Jpn)**

[A new method of thoracic radiography, an alternative to fluorography] Iukelis LI, et al. **Probl Tuberk** 1998;(4):27-8 **(Rus)**

[Personal identification by X-ray views of the chest cavity] Cheremisin VM, et al. **Vestn Rentgenol Radiol** 1998 Mar-Apr;(2):9-13 (Eng. Abstr.) **(Rus)**

STANDARDS

Diagnostic image quality of mobile neonatal chest X-rays and the radiation exposure incurred. Lowe A, et al. **Br J Radiol** 1999 Jan;72(853):55-61

New composite ('quadrant') standard films for classifying radiographs of pneumoconioses. Jacobsen M, et al. **Ind Health** 1998 Oct;36(4):380-3

A reliability study for evaluating information extraction from radiology reports [see comments] Hripcsak G, et al. **J Am Med Inform Assoc** 1999 Mar-Apr;6(2):143-50. Comment in: J Am Med Inform Assoc 1999 Mar-Apr;6(2):176-7.

UTILIZATION

Occult pneumonias: empiric chest radiographs in febrile children with leukocytosis [see comments] Bachur R, et al. **Ann Emerg Med** 1999 Feb;33(2):166-73. Comment in: Ann Emerg Med 1999 Feb;33(2):211-4. Comment in: Ann Emerg Med 1999 Apr;33(4):480.

Evaluation styles for well-appearing febrile children: are you a "risk-minimizer" or a "test-minimizer"? [editorial; comment] Green SM, et al. **Ann Emerg Med** 1999 Feb; 33(2):211-4. Comment on: Ann Emerg Med 1999 Feb;33(2):166-73.

Clinical utility of chest roentgenograms. Geitung JT, et al. **Eur Radiol** 1999;9(4):721-3

VETERINARY

What is your diagnosis? Extensive alveolar pattern in the caudodorsal and caudoventral aspects of the right and left lungs. Costa LR, et al. **J Am Vet Med Assoc** 1999 Sep 1;215(5):623-4

Assessment of the accuracy of thoracic radiography in the diagnosis of canine chronic bronchitis. Mantis P, et al. **J Small Anim Pract** 1998 Nov;39(11):518-20

Normal cross-sectional anatomy of the feline thorax and abdomen: comparison of computed tomography and cadaver anatomy. Samii VF, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):504-11

RADIOIMMUNOASSAY

Autoantibodies to human melanocyte-specific protein pmel17 in the sera of vitiligo patients: a sensitive and quantitative radioimmunoassay (RIA). Kemp EH, et al. **Clin Exp Immunol** 1998 Dec;114(3):333-8

Antibodies to glutamic acid decarboxylase (GAD) in non-obese Japanese diabetics without insulin therapy: a comparison of two commercial RIA kits based on recombinant and pig brain GAD. Bando Y, et al. **Diabetes Res Clin Pract** 1998 Jul;41(1):25-33

Determination of plasma ET-1 by RIA--risks and limitations. Baumgartner-Parzer SM, et al. **Horm Metab Res** 1998 Oct;30(10):633-5

A specific immunoassay for the determination of morphine and its glucuronides in human blood. Beike J, et al. **Int J Legal Med** 1999;112(1):8-14

Determination of thyroxine in the hair of newborns by radioimmunoassay with high-performance liquid chromatographic confirmation. Tagliaro F, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):77-82

About the use and misuse of an ACTH 1-39 radioimmunoassay to measure ACTH 1-24 [letter; comment] Grino M, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):824-5. Comment on: J Clin Endocrinol Metab 1998 May;83(5):1558-62.

Radioimmunoassay for glutamic acid decarboxylase (GAD65) autoantibodies as a diagnostic aid for stiff-man syndrome and a correlate of susceptibility to type 1 diabetes mellitus. Walikonis JE, et al. **Mayo Clin Proc** 1998 Dec; 73(12):1161-6

Development and review of radioimmunoassay of 12-S-hydroxyheptadecatrienoic acid. John H, et al. **Prostaglandins Other Lipid Mediat** 1998 Jun;56(2-3):53-76 (117 ref.)

Assessing dehydroepiandrosterone in saliva: a simple radioimmunoassay for use in studies of children, adolescents and adults. Granger DA, et al. **Psychoneuroendocrinology** 1999 Jul;24(5):567-79

METHODS

An artifact produced by boiling adenyl cyclase reaction mixtures prior to the cyclic AMP-radioimmunoassay. Larner EH, et al. **Anal Biochem** 1978 Dec;91(2):684-90

A radioimmunoassay for tetrahydrocortisol. Mougey EH. **Anal Biochem** 1978 Dec;91(2):566-82

Reproducibility and validity of radioimmunoassays for urinary hormones and metabolites in pre- and postmenopausal women. Falk RT, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):567-77

Improved specificity of a new direct assay for urinary cortisol: application in corticoid treated patients. Sapin R, et al. **Clin Chem Lab Med** 1998 Nov;36(11):855-8

Evaluation of use of singleton measurements of C-peptide by RIA. Stickle DF, et al. **Clin Chim Acta** 1999 May; 283(1-2):195-200

Salivary testosterone determination in studies of child health and development. Granger DA, et al. **Horm Behav** 1999 Feb;35(1):18-27

Plasma leptin concentrations in lean and obese human subjects and Prader-Willi syndrome: comparison of RIA and ELISA methods. Carlson MG, et al. **J Lab Clin Med** 1999 Jan;133(1):75-80

A selective HPLC/RIA for the determination of budesonide. Hochhaus G, et al. **J Pharm Biomed Anal** 1998 Sep; 17(8):1235-42

Radioimmunoassay for TA-0910, a new stable thyrotropin releasing hormone analogue and its metabolite, TA-0910 acid-type, in human plasma and urine. Morikawa S, et al. **J Pharm Biomed Anal** 1998 Apr;16(8):1267-74

An efficient cyclic AMP assay for the functional evaluation of beta-adrenergic receptor ligands. Vansal SS, et al. **J Recept Signal Transduct Res** 1999 Sep;19(5):853-63

In vivo measurements of endothelial cell adhesion molecule expression. Eppihimer MJ, et al. **Methods Enzymol** 1999; 301:14-22

Preparation and chromatographic purification of 125I-[Tyr0]-somatostatin-14 for the use in radioimmunoassay and receptor-binding experiments. Rissler K, et al. **Prep Biochem Biotechnol** 1998 Aug; 28(3):219-33

Radioimmunoassay of regulatory peptides in the presence of acetonitrile: marked improvement of cholecystokinin assays. Herrington MK, et al. **Regul Pept** 1998 Jun 30; 74(2-3):85-90

Elimination of cross-reactivity by addition of an excess of cross-reactant for radioimmunoassay of 17alpha-hydroxypregnenolone. Hill M, et al. **Steroids** 1999 May;64(5):341-55

[The progress and methodologic problems of in vitro radioassay] Ikekubo K. **Kaku Igaku** 1998 Jul;35(6):357-66 (27 ref.) (Eng. Abstr.) **(Jpn)**

STANDARDS

CDTect-RIA and CDTect-EIA for determination of serum carbohydrate-deficient transferrin compared. Arndt T, et al. **Alcohol Alcohol** 1998 Nov-Dec;33(6):639-45

Quantification of MUC1 in breast cancer patients. A method comparison study. Bon GG, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Mar;83(1):67-75

VETERINARY

A radioimmunoassay for porcine intrauterine folate binding protein. Vallet JL, et al. **J Anim Sci** 1999 May; 77(5):1236-40

RADIOIMMUNOCONJUGATES see **IMMUNOCONJUGATES**

RADIOIMMUNODETECTION

The 'Vth Scandinavian Meeting on Radioimmuno-targeting', Umeå, Sweden, February 25-27, 1998 [editorial] Stigbrand T. **Acta Oncol** 1999;38(3):281-2

99m-Technetium sestamibi localized solitary parathyroid adenoma as an indication for limited unilateral surgical exploration. Gupta VK, et al. **Am J Surg** 1998 Nov; 176(5):409-12

Immunoscintigraphy of venous thrombi: clinical effectiveness of a new antifibrin D-dimer monoclonal antibody. Ciavolella M, et al. **Angiology** 1999 Feb;50(2):103-9

Imaging of pancreatic adenocarcinoma with radiolabeled monoclonal antibodies. Mariani G. **Ann Oncol** 1999;10

Suppl 4:37–40 (36 ref.)
Radioimmunoguided surgery for patients with liver metastases secondary to colorectal cancer. Bakalakos EA, et al. **Ann Surg Oncol** 1998 Oct–Nov;5(7):590–4
Results of immunoscintigraphy using a cocktail of radiolabeled monoclonal antibodies in the detection of colorectal cancer. Volpe CM, et al. **Ann Surg Oncol** 1998 Sep;5(6):489–94
Immunoscintigraphy of atherosclerotic uncomplicated lesions in vivo with a monoclonal antibody against D–dimers of insoluble fibrin. Ciavolella M, et al. **Atherosclerosis** 1999 Mar;143(1):171–5
Comparison of clinical staging algorithms and 111indium–capromab pendetide immunoscintigraphy in the prediction of lymph node involvement in high risk prostate carcinoma patients. Polascik TJ, et al. **Cancer** 1999 Apr 1;85(7):1586–92
Impact of radioimmunoscintigraphy on the management of colorectal and ovarian cancer patients: a retrospective study. Blend MJ, et al. **Cancer Invest** 1998;16(7):431–41
A thousand points of light or just dim bulbs? Radiolabeled antibodies and colorectal cancer imaging. Moffat FL Jr, et al. **Cancer Invest** 1999;17(5):322–34 (61 ref.)
Pretargeting of renal cell carcinoma: improved tumor targeting with a bivalent chelate. Boerman OC, et al. **Cancer Res** 1999 Sep 1;59(17):4400–5
Radioimmunoscintigraphy and biodistribution of technetium–99m–labeled monoclonal antibody U36 in patients with head and neck cancer. de Bree R, et al. **Clin Cancer Res** 1995 Jun;1(6):591–8
Immunoscintigraphy of an inflammatory process in Crohn's disease with a technetium–99m–labeled fragment (MN3 Fab') and with an intact monoclonal anti–granulocyte antibody (Mab BW 250/183). Kresnik E, et al. **Clin Nucl Med** 1999 Jan;24(1):64–5
Indium–111 capromab pendetide (ProstaScint) imaging to detect recurrent and metastatic prostate cancer. Petronis JD, et al. **Clin Nucl Med** 1998 Oct;23(10):672–7
Metabolic and receptor imaging of metastatic medullary thyroid cancer: does anti–CEA and somatostatin–receptor scintigraphy allow for prognostic predictions? [letter; comment] Behr TM, et al. **Eur J Nucl Med** 1999 Jan; 26(1):70–1. Comment on: Eur J Nucl Med 1998 Sep;25(9):1277–83.
13th Meeting of the International Research Group on Immunoscintigraphy and Immunotherapy (IRIST). 7–8 May 1999, Göttingen, Germany [news] Behr TM, et al. **Eur J Nucl Med** 1999 Aug;26(8):950–2
Reduction–mediated 99mTc–labeling of antitumor monoclonal antibodies: effect of increasing specific activity on antibody binding kinetics. Boonkitticharoen V, et al. **J Med Assoc Thai** 1998 Oct;81(10):741–9
Noninvasive localization of human atherosclerotic lesions with indium 111–labeled monoclonal Z2D3 antibody specific for proliferating smooth muscle cells [see comments] Carrió I, et al. **J Nucl Cardiol** 1998 Nov–Dec; 5(6):551–7. Comment in: J Nucl Cardiol 1998 Nov–Dec;5(6):626–8.
Scleroderma heart disease: an unusual cause of positive antimyosin cardiac imaging. Lekakis J, et al. **J Nucl Cardiol** 1999 Jan–Feb;6(1 Pt 1):91–2
Strategic targeting of atherosclerotic lesions [editorial; comment] Narula J, et al. **J Nucl Cardiol** 1999 Jan–Feb; 6(1 Pt 1):81–90. Comment on: J Nucl Cardiol 1999 Jan–Feb;6(1 Pt 1):41–53.
Z2D3 imaging: fringe or frontier? [editorial; comment] Strauss HW. **J Nucl Cardiol** 1998 Nov–Dec;5(6):626–8. Comment on: J Nucl Cardiol 1998 Nov–Dec;5(6):551–7.
Radiolabeled MDA2, an oxidation–specific, monoclonal antibody, identifies native atherosclerotic lesions in vivo [see comments] Tsimikas S, et al. **J Nucl Cardiol** 1999 Jan–Feb;6(1 Pt 1):41–53. Comment in: J Nucl Cardiol 1999 Jan–Feb;6(1 Pt 1):81–90.
Biological properties of biotin–chelate conjugates for pretargeted diagnosis and therapy with the avidin/biotin system. Goodwin DA, et al. **J Nucl Med** 1998 Oct; 39(10):1813–8
Two–step targeting and dosimetry for small cell lung cancer xenograft with anti–NCAM/antihistamine bispecific antibody and radioiodinated bivalent hapten. Hosono M, et al. **J Nucl Med** 1999 Jul;40(7):1216–21
111In–labeled antimyosin scintigraphy for detection of cardiac and skeletal muscular involvement in hereditary muscular dystrophy [letter] Ilgin N, et al. **J Nucl Med** 1999 Jul;40(7):1222
Gallium–68 chelate imaging of human colon carcinoma xenografts pretargeted with bispecific anti–CD44V6/anti–gallium chelate antibodies [see comments] Klivényi G, et al. **J Nucl Med** 1998 Oct; 39(10):1769–76. Comment in: J Nucl Med 1998 Oct;39(10):1776–7.
Favorable effects of glycolate conjugation on the biodistribution of humanized antiTac Fab fragment. Kobayashi H, et al. **J Nucl Med** 1999 May;40(5):837–45
Bullets to magic bullets--and miles to go before we sleep [editorial; comment] Lovqvist A, et al. **J Nucl Med** 1998 Oct;39(10):1776–7. Comment on: J Nucl Med 1998 Oct;39(10):1769–76.
Radiation dosimetry of a 99mTc–labeled IgM murine antibody to CD15 antigens on human granulocytes. Mozley PD, et al. **J Nucl Med** 1999 Apr;40(4):625–30
99mTc–labeled antihuman epidermal growth factor receptor antibody in patients with tumors of epithelial origin: Part III. Clinical trials safety and diagnostic efficacy. Ramos–Suzarte M, et al. **J Nucl Med** 1999 May; 40(5):768–75
Biodistribution, radiation dosimetry and pharmacokinetics of 111In–antimyosin in idiopathic inflammatory myopathies. Smith T, et al. **J Nucl Med** 1999 Mar;40(3):464–70
In vivo and in vitro characterizations of three 99mTc–labeled monoclonal antibody G250 preparations. Steffens MG, et al. **J Nucl Med** 1999 May;40(5):829–36
Indium–111 satumomab pendetide: the first FDA–approved monoclonal antibody for tumor imaging. Bohdiewicz PJ. **J Nucl Med Technol** 1998 Sep;26(3):155–63; quiz 170–1
Detection of recurrent malignant melanoma with 99mTc–MIBI scintigraphy. Alonso O, et al. **Melanoma Res** 1998 Aug;8(4):355–60
Bone marrow immunoscintigraphy for the detection of skeletal metastases in patients with breast cancer. Lacić M, et al. **Nucl Med Commun** 1999 Feb;20(2):135–43
Radioimmunoguided surgery of colorectal carcinoma with an 111In–labelled anti–TAG72 monoclonal antibody. Muxi A, et al. **Nucl Med Commun** 1999 Feb;20(2):123–30
Clinical experience with radiolabelled monoclonal antibodies in the detection of colorectal and ovarian carcinoma recurrence and review of the literature. Pinkas L, et al. **Nucl Med Commun** 1999 Aug;20(8):689–96 (26 ref.)
Radioimmunoguided surgery in squamous cell carcinoma [letter] Argenzio V, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):749–51
Use of radioimmunoguided surgery after induction chemotherapy in locally advanced breast cancer. Badellino F, et al. **Semin Surg Oncol** 1998 Dec;15(4):245–8
Intraoperative localization of gut endocrine tumors with radiolabeled somatostatin analogs and a gamma–detecting probe. Benevento A, et al. **Semin Surg Oncol** 1998 Dec; 15(4):239–44
Role of tumor–associated antigen expression in radioimmunoguided surgery for colorectal and breast cancer. Bertoglio S, et al. **Semin Surg Oncol** 1998 Dec; 15(4):249–53
Radioimmunoguided surgery benefits in carcinoembryonic antigen–directed second–look surgery in the asymptomatic patient after curative resection of colorectal cancer. Bertoglio S, et al. **Semin Surg Oncol** 1998 Dec;15(4):263–7
Sentinel node biopsy in patients with cutaneous melanoma. Cafiero F, et al. **Semin Surg Oncol** 1998 Dec;15(4):284–6
Sentinel lymph node mapping opens a new perspective in the surgical management of early–stage breast cancer: a combined approach with vital blue dye lymphatic mapping and radioguided surgery. Canavese G, et al. **Semin Surg Oncol** 1998 Dec;15(4):272–7
Preoperative and intraoperative radioimmunodetection of cancer pretargeted by biotinylated monoclonal antibodies. Di Carlo V, et al. **Semin Surg Oncol** 1998 Dec;15(4):235–8
Radioimmunoguided surgery and intraoperative lung cancer staging. Grazia M, et al. **Semin Surg Oncol** 1998 Dec; 15(4):215–9
Role of radioimmunoguided surgery using iodine–125–labeled B72.3 monoclonal antibody in gastric cancer surgery. Lucisano E, et al. **Semin Surg Oncol** 1998 Dec;15(4):212–4
Intraoperative radioimmunodetection. Martin EW Jr, et al. **Semin Surg Oncol** 1998 Dec;15(4):205–8
Role of radioimmunolocalization in the staging of gastric carcinoma. Mussa A, et al. **Semin Surg Oncol** 1998 Dec; 15(4):209–11
Intraoperative detection of lung cancer by octreotide labeled to Indium–111. Pastore V, et al. **Semin Surg Oncol** 1998 Dec;15(4):220–2
Radioimmunoguided surgery with different iodine–125 radiolabeled monoclonal antibodies in recurrent colorectal cancer. Percivale P, et al. **Semin Surg Oncol** 1998 Dec; 15(4):231–4
Radioimmunoassisted surgery for lung metastases from colorectal cancer: results and perspectives. Prati U, et al. **Semin Surg Oncol** 1998 Dec;15(4):223–5
Radioimmunoguided surgery in colorectal cancer: a 6–year experience with four different technical solutions. Renda A, et al. **Semin Surg Oncol** 1998 Dec;15(4):226–30
Novel clinical approaches in monoclonal antibody–based management in colorectal cancer patients: radioimmunoguided surgery and antigen augmentation. Roselli M, et al. **Semin Surg Oncol** 1998 Dec;15(4):254–62 (49 ref.)
Sentinel lymph node biopsy and axillary staging of T1–T2 N0 breast cancer: a multicenter study. Sandrucci S, et al. **Semin Surg Oncol** 1998 Dec;15(4):278–83
Novel diagnostic and therapeutic strategies with genetically engineered human antibodies. Ouwehand WH, et al. **Vox Sang** 1998;74 Suppl 2:223–32 (53 ref.)
[Immunoscintigraphy] Doležal J. **Acta Medica (Hradec Kralove) Suppl** 1998;41(1):67–71 (Eng. Abstr.) **(Cze)**
[Immunoscintigraphy in the diagnosis of ovarian carcinoma] Bendová M, et al. **Ceska Gynekol** 1998 Aug;63(4):282–7 (Eng. Abstr.) **(Cze)**
[Antimyosin scintigraphy for diagnosis and follow–up of patients with clinically suspected myocarditis] Lauer B, et al. **Z Kardiol** 1998 Sep;87(9):691–8 (Eng. Abstr.) **(Ger)**
[Immunoscintigraphy and radioimmunotherapy of cancer using monoclonal antibodies] Oriuchi N. **Gan To Kagaku Ryoho** 1999 May;26(6):762–7 (8 ref.) (Eng. Abstr.) **(Jpn)**
[Radiolabelling of human IgG with ultraviolet light having its own reactor [letter]] Barreras V, et al. **Rev Esp Med Nucl** 1999 Jun;18(3):225–6 **(Spa)**

INSTRUMENTATION

Intraoperative probes and imaging probes. Hoffman EJ, et al. **Eur J Nucl Med** 1999 Aug;26(8):913–35 (159 ref.)
Clinical applications of gamma–detection probe – radioguided surgery. Schneebaum S, et al. **Eur J Nucl Med** 1999 Apr;26(4 Suppl):S26–35 (68 ref.)
Radioimmunoguided surgery for colorectal carcinoma. Filez L, et al. **Hepatogastroenterology** 1999 Mar–Apr; 46(26):691–700 (78 ref.)

METHODS

Radioimmunoscintigraphy in patients with ovarian cancer. Kalofonos HP, et al. **Acta Oncol** 1999;38(5):629–34
Bone marrow scintigraphy using technetium–99m antigranulocyte antibody in malignant lymphomas. Krause T, et al. **Ann Oncol** 1999 Jan;10(1):79–85
Radioimmunoluminography: a tool for relating tissue antigen concentration to clinical outcome. Boxer G, et al. **Br J Cancer** 1999 May;80(5–6):922–6
Distribution of radiolabeled monoclonal antibody MX35 F(ab')2 in tissue samples by storage phosphor screen image analysis: evaluation of antibody localization to micrometastatic disease in epithelial ovarian cancer. Finstad CL, et al. **Clin Cancer Res** 1997 Aug;3(8):1433–42
Efficacy of monoclonal antibody 131I–B72.3 immunoscintigraphy of pancreatic adenocarcinoma xenografts in nude mice. Kaufmann LW, et al. **Eur J Surg** 1999 Jul;165(7):659–64
Resection guided by antibodies (REGAJ) a reappraisal after 10 years. Jäger W, et al. **Int J Biol Markers** 1998 Oct–Dec; 13(4):221–3
Radioimmunoguided–intraoperative radiation therapy in colorectal carcinoma: a new technique to precisely define the clinical target volume. Nag S, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):133–7
Biodistribution and localization of radiolabeled NR–LU–10 Fab fragment in human breast cancer xenografts. Burak WE Jr, et al. **Nucl Med Biol** 1998 Oct;25(7):633–7
Dynamic distribution and dosimetric evaluation of human non–specific immunoglobulin G labelled with 111In or 99Tcm. Buijs WC, et al. **Nucl Med Commun** 1998 Aug; 19(8):743–51
Immunoscintigraphy (BW 250/183) in neonates and infants with fever of unknown origin. Gratz S, et al. **Nucl Med Commun** 1998 Nov;19(11):1037–45
Bone marrow content measured in radioimmune bone marrow scintigraphy: intra– and inter–observer variability. Roland J, et al. **Nucl Med Commun** 1999 May;20(5):419–26
In vitro and in vivo comparison of binding of 99m–Tc–labeled anti–CEA MAb F33–104 with 99m–Tc–labeled anti–CEA MAb BW431/26. Watanabe N, et al. **Nuklearmedizin** 1999;38(4):115–9
A comparison of image registration techniques for the correlation of radiolabelled antibody distribution with tumour morphology. Flynn AA, et al. **Phys Med Biol** 1999 Jul;44(7):N151–9
Breast cancer imaging with radiolabeled antibodies. Goldenberg DM, et al. **Semin Nucl Med** 1999 Jan; 29(1):41–8 (72 ref.)
Intraoperative localization of the sentinel node in breast cancer: technical aspects of lymphoscintigraphic methods. De Cicco C, et al. **Semin Surg Oncol** 1998 Dec;15(4):268–71
The radioimmunoguided surgery (RIGS) system as a diagnostic tool. Bakalakos EA, et al. **Surg Oncol Clin N Am** 1999 Jan;8(1):129–44 (37 ref.)
[Diagnostic techniques for bronchial cancer. New scintigraphic techniques (immunoscintigraphy and positron–emission tomography)] Vaylet F, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S78–82 (24 ref.) **(Fre)**
[Preliminary experience with radioimmuno–guided surgery of primary neoplasms of the lung] Mansi L, et al. **Minerva Chir** 1998 May;53(5):369–72 (Eng. Abstr.) **(Ita)**

RADIOIMMUNOIMAGING see **RADIOIMMUNODETECTION**

RADIOIMMUNOSCINTIGRAPHY see **RADIOIMMUNODETECTION**

RADIOIMMUNOSORBENT ASSAY OF ALLERGENS see **RADIOALLERGOSORBENT TEST**

RADIOIMMUNOSORBENT TEST

see related **RADIOALLERGOSORBENT TEST**

RADIOIMMUNOTHERAPY

Cluster models in cellular level electron dose calculations. Lampinen JS, et al. **Acta Oncol** 1999;38(3):367–72
The 'Vth Scandinavian Meeting on Radioimmuno–targeting', Umeå, Sweden, February 25–27, 1998 [editorial] Stigbrand T. **Acta Oncol** 1999;38(3):281–2

Intravesical administration of radiolabelled tumour-associated monoclonal antibody in bladder cancer. Syrigos KN, et al. **Acta Oncol** 1999;38(3):379–82

Radioimmunotherapy of colorectal cancer in small volume disease and in an adjuvant setting: preclinical evaluation in comparison to equitoxic chemotherapy and initial results of an ongoing phase-I/II clinical trial. Behr TM, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2427–32

Synergistic therapy of breast cancer with Y-90-chimeric L6 and paclitaxel in the xenografted mouse model: development of a clinical protocol. Denardo SJ, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4011–8

90Yttrium-labeled complementarity-determining-region-grafted monoclonal antibodies for radioimmunotherapy: radiolabeling and animal biodistribution studies. Govindan SV, et al. **Bioconjug Chem** 1998 Nov-Dec;9(6):773–82

The importance of antibody-specificity in determining successful radioimmunotherapy of B-cell lymphoma. Illidge TM, et al. **Blood** 1999 Jul 1;94(1):233–43

Clearance of yttrium-90-labelled anti-tumour antibodies with antibodies raised against the 12N4 DOTA macrocycle. Casey JL, et al. **Br J Cancer** 1998 Nov;78(10):1307–12

Radioimmunotherapy of micrometastases in lung with vascular targeted 213Bi. Kennel SJ, et al. **Br J Cancer** 1999 Apr;80(1–2):175–84

Phase I/II trial of (131)I-MN-14F(ab)2 anti-carcinoembryonic antigen monoclonal antibody in the treatment of patients with metastatic medullary thyroid carcinoma. Juweid ME, et al. **Cancer** 1999 Apr 15; 85(8):1828–42

Cellular immunotherapy for patients with metastatic colorectal carcinoma using lymph node lymphocytes localized in vivo by radiolabeled monoclonal antibody. Kim JA, et al. **Cancer** 1999 Jul 1;86(1):22–30

Combination radioimmunotherapy with local hyperthermia: increased delivery of radioimmunoconjugate by vascular effect and its retention by increased antigen expression in colon cancer xenografts. Kinuya S, et al. **Cancer Lett** 1999 Jun 1;140(1–2):209–18

Intratumoral distribution of two consecutive injections of chimeric antibody G250 in primary renal cell carcinoma: implications for fractionated dose radioimmunotherapy. Steffens MG, et al. **Cancer Res** 1999 Apr 1;59(7):1615–9

Enhanced radioimmunotherapeutic efficacy of a monoclonal antibody cocktail against SMMC-7721 human hepatocellular carcinoma. Song YQ, et al. **Cell Res** 1998 Sep;8(3):241–7

Intrathecal 131I-labeled antitenascin monoclonal antibody 81C6 treatment of patients with leptomeningeal neoplasms or primary brain tumor resection cavities with subarachnoid communication: phase I trial results. Brown MT, et al. **Clin Cancer Res** 1996 Jun;2(6):963–72

Treatment of hormone-refractory prostate cancer with 90Y-CYT-356 monoclonal antibody. Deb N, et al. **Clin Cancer Res** 1996 Aug;2(8):1289–97

Comparison of 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA)-peptide-ChL6, a novel immunoconjugate with catabolizable linker, to 2-iminothiolane-2-[p-(bromoacetamido)benzyl]-DOTA-ChL6 in breast cancer xenografts. DeNardo GL, et al. **Clin Cancer Res** 1998 Oct;4(10):2483–90

Yttrium-90-labeled anti-CD20 monoclonal antibody therapy of recurrent B-cell lymphoma. Knox SJ, et al. **Clin Cancer Res** 1996 Mar;2(3):457–70

Treatment-related parameters predicting efficacy of Lym-1 radioimmunotherapy in patients with B-lymphocytic malignancies. Lamborn KR, et al. **Clin Cancer Res** 1997 Aug;3(8):1253–60

Effect of recombinant alpha-interferon on pharmacokinetics, biodistribution, toxicity, and efficacy of 131I-labeled monoclonal antibody CC49 in breast cancer: a phase II trial. Macey DJ, et al. **Clin Cancer Res** 1997 Sep; 3(9):1547–55

Phase I study of 90Y-labeled B72.3 intraperitoneal administration in patients with ovarian cancer: effect of dose and EDTA coadministration on pharmacokinetics and toxicity. Rosenblum MG, et al. **Clin Cancer Res** 1999 May; 5(5):953–61

13th Meeting of the International Research Group on Immunoscintigraphy and Immunotherapy (IRIST). 7–8 May 1999, Göttingen, Germany [news] Behr TM, et al. **Eur J Nucl Med** 1999 Aug;26(8):950–2

Radioimmunotherapy with alpha-emitting nuclides. McDevitt MR, et al. **Eur J Nucl Med** 1998 Sep; 25(9):1341–51 (68 ref.)

Improving tumour targeting and decreasing normal tissue uptake by optimizing the stoichiometry of a two-step biotinylated-antibody/streptavidin-based targeting strategy: studies in a nude mouse xenograft model. Maraveyas A, et al. **Int J Cancer** 1998 Nov 23;78(5):610–7

Antiangiogenic radioimmunotherapy of human solid tumors in SCID mice using (125)I-labeled anti-endoglin monoclonal antibodies. Tabata M, et al. **Int J Cancer** 1999 Aug 27;82(5):737–42

A novel technique, using radioluminography, for the measurement of uniformity of radiolabelled antibody distribution in a colorectal cancer xenograft model. Flynn AA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1; 43(1):183–9

Maximum-tolerated dose, toxicity, and efficacy of (131)I-Lym-1 antibody for fractionated radioimmunotherapy of non-Hodgkin's lymphoma. DeNardo GL, et al. **J Clin Oncol** 1998 Oct;16(10):3246–56

Follow-up of relapsed B-cell lymphoma patients treated with iodine-131-labeled anti-CD20 antibody and autologous stem-cell rescue. Liu SY, et al. **J Clin Oncol** 1998 Oct; 16(10):3270–8

Dosimetry of 131I-labeled 81C6 monoclonal antibody administered into surgically created resection cavities in patients with malignant brain tumors. Akabani G, et al. **J Nucl Med** 1999 Apr;40(4):631–8

Factors affecting 131I-Lym-1 pharmacokinetics and radiation dosimetry in patients with non-Hodgkin's lymphoma and chronic lymphocytic leukemia. DeNardo GL, et al. **J Nucl Med** 1999 Aug;40(8):1317–26

67Cu-2IT-BAT-Lym-1 pharmacokinetics, radiation dosimetry, toxicity and tumor regression in patients with lymphoma. DeNardo SJ, et al. **J Nucl Med** 1999 Feb; 40(2):302–10

Biological properties of biotin-chelate conjugates for pretargeted diagnosis and therapy with the avidin/biotin system. Goodwin DA, et al. **J Nucl Med** 1998 Oct; 39(10):1813–8

Two-step targeting and dosimetry for small cell lung cancer xenograft with anti-NCAM/antihistamine bispecific antibody and radioiodinated bivalent hapten. Hosono M, et al. **J Nucl Med** 1999 Jul;40(7):1216–21

Bispecific antibody and bivalent hapten radioimmunotherapy in CEA-producing medullary thyroid cancer xenograft. Kraeber-Bodéré F, et al. **J Nucl Med** 1999 Jan; 40(1):198–204

A radionuclide therapy treatment planning and dose estimation system. Liu A, et al. **J Nucl Med** 1999 Jul; 40(7):1151–3

Intratumoral distribution of radiolabeled antibody and radioimmunotherapy in experimental liver metastases model of nude mouse. Sato N, et al. **J Nucl Med** 1999 Apr;40(4):685–92

Radioimmunotherapy for liver micrometastases in mice: pharmacokinetics, dose estimation, and long-term effect. Saga T, et al. **Jpn J Cancer Res** 1999 Mar;90(3):342–8

Use of the fast Hartley transform for three-dimensional dose calculation in radionuclide therapy. Erdi AK, et al. **Med Phys** 1998 Nov;25(11):2226–33

MABDOSE. I: Characterization of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1389–95

Astatine-211 labeling of internalizing anti-EGFRvIII monoclonal antibody using N-succinimidyl 5-[211At]astato-3-pyridinecarboxylate. Reist CJ, et al. **Nucl Med Biol** 1999 May;26(4):405–11

Radioimmunotherapy of orthotopically transplanted pancreatic cancer with 131I-labeled chimeric monoclonal antibody Nd2. Yamamoto A, et al. **Oncol Rep** 1999 Jan-Feb;6(1):179–84

[Radioimmunotherapy of lymphomas and leukemias] Rain JD, et al. **Pathol Biol (Paris)** 1998 May;46(5):341–5 (14 ref.) (Eng. Abstr.) **(Fre)**

[Immunoscintigraphy and radioimmunotherapy of cancer using monoclonal antibodies] Oriuchi N. **Gan To Kagaku Ryoho** 1999 May;26(6):762–7 (8 ref.) (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Marrow toxicity and radiation absorbed dose estimates from rhenium-186-labeled monoclonal antibody. Breitz HB, et al. **J Nucl Med** 1998 Oct;39(10):1746–51

Sigmoidal curves [letter; comment] Charkes ND. **J Nucl Med** 1998 Dec;39(12):2196. Comment on: J Nucl Med 1997 Nov;38(11):1753–4.

METHODS

Methods for estimating uptake and absorbed dose in tumours from 125I labelled monoclonal antibodies, based on scintigraphic imaging of mice. Larsson A, et al. **Acta Oncol** 1999;38(3):361–5

Positron emission tomography and radioimmunotargeting--aspects of quantification and dosimetry. Lubberink M, et al. **Acta Oncol** 1999;38(3):343–9

Positron emission tomography and radioimmunotargeting--general aspects. Lundqvist H, et al. **Acta Oncol** 1999;38(3):335–41

131I radioconjugated antibodies for the locoregional radioimmunotherapy of high-grade malignant glioma--phase I and II study. Riva P, et al. **Acta Oncol** 1999;38(3):351–9

High-linear energy transfer (LET) alpha versus low-LET beta emitters in radioimmunotherapy of solid tumors: therapeutic efficacy and dose-limiting toxicity of 213Bi- versus 90Y-labeled CO17-1A Fab' fragments in a human colonic cancer model. Behr TM, et al. **Cancer Res** 1999 Jun 1;59(11):2635–43

Pilot radioimmunotherapy trial with 131I-labeled murine monoclonal antibody CC49 and deoxyspergualin in metastatic colon carcinoma. Divgi CR, et al. **Clin Cancer Res** 1995 Dec;1(12):1503–10

Adenoviral-mediated delivery of gastrin-releasing peptide receptor results in specific tumor localization of a bombesin analogue in vivo. Rosenfeld ME, et al. **Clin Cancer Res** 1997 Jul;3(7):1187–94

Chronotolerance of experimental radioimmunotherapy: clearance, toxicity, and maximal tolerated dose of 131I-anti-carcinoembryonic antigen (CEA) IgG as a function of time of day of dosing in a murine model. Blumenthal RD, et al. **Eur J Cancer** 1999 May;35(5):815–24

Three-step radioimmunotherapy with yttrium-90 biotin: dosimetry and pharmacokinetics in cancer patients. Cremonesi M, et al. **Eur J Nucl Med** 1999 Feb;26(2):110–20

Combined treatment of advanced oropharyngeal cancer with external radiotherapy and three-step radioimmunotherapy. Paganelli G, et al. **Eur J Nucl Med** 1998 Sep;25(9):1336–9

Phage library-derived human anti-TETA and anti-DOTA ScFv for pretargeting RIT. DeNardo SJ, et al. **Hybridoma** 1999 Feb;18(1):13–21

Delivery of therapeutic doses of radioiodine using bispecific antibody-targeted bivalent haptens. Gautherot E, et al. **J Nucl Med** 1998 Nov;39(11):1937–43

Optimized conditions for chelation of yttrium-90-DOTA immunoconjugates. Kukis DL, et al. **J Nucl Med** 1998 Dec; 39(12):2105–10

Implications of nonuniform tumor doses for radioimmunotherapy. O'Donoghue JA. **J Nucl Med** 1999 Aug;40(8):1337–41

Rhenium-186-mercaptoacetyltriglycine-labeled monoclonal antibody for radioimmunotherapy: in vitro assessment, in vivo kinetics and dosimetry in tumor-bearing nude mice. Kinuya S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):870–8

Intrapatient consistency of imaging biodistributions and their application to predicting therapeutic doses in a phase I clinical study of 90Y-based radioimmunotherapy. Clarke KG, et al. **Med Phys** 1999 May;26(5):799–809

Yttrium-90 biodistribution by yttrium-87 imaging: a theoretical feasibility analysis. Sgouros G. **Med Phys** 1998 Aug;25(8):1487–90

188Re-direct labeling of monoclonal antibodies for radioimmunotherapy of solid tumors: biodistribution, normal organ dosimetry, and toxicology. Iznaga-Escobar N. **Nucl Med Biol** 1998 Jul;25(5):441–7 (58 ref.)

Persistent distension and enhanced diffusive extravasation of tumor vessels improved uniform tumor targeting of radioimmunoconjugate in mice administered with angiotensin II and kininase inhibitor. Kinuya S, et al. **Oncol Res** 1998;10(11–12):551–9

Improving monoclonal antibody pharmacokinetics via chemical modification. Sharifi J, et al. **Q J Nucl Med** 1998 Dec;42(4):242–9 (31 ref.)

TRENDS

Radioimmunotherapy of hematological cancer: problems and progress. Jurcic JG, et al. **Clin Cancer Res** 1995 Dec; 1(12):1439–46 (69 ref.)

RADIOISOTOPE ANGIOGRAPHY see **RADIONUCLIDE ANGIOGRAPHY**

RADIOISOTOPE BRACHYTHERAPY see **BRACHYTHERAPY**

RADIOISOTOPE DILUTION TECHNIQUE

Vitamin A assessment by the isotope-dilution technique: good news from Guatemala [editorial; comment] Olson JA. **Am J Clin Nutr** 1999 Feb;69(2):177–8. Comment on: Am J Clin Nutr 1999 Feb;69(2):278–84.

Use of single-frequency bioimpedance at 50 kHz to estimate total body water in patients with multiple organ failure and fluid overload [see comments] Foley K, et al. **Crit Care Med** 1999 Aug;27(8):1472–7. Comment in: Crit Care Med 1999 Aug;27(8):1655–7.

Of flux and flooding: the advantages and problems of different isotopic methods for quantifying protein turnover in vivo: I. Methods based on the dilution of a tracer. Reeds PJ, et al. **Curr Opin Clin Nutr Metab Care** 1999 Jan; 2(1):23–8 (48 ref.)

RADIOISOTOPE GENERATORS see **RADIONUCLIDE GENERATORS**

RADIOISOTOPE RENOGRAPHY

Urine leaks in renal transplant patients. Diagnostic usefulness of sonography and renography. Gottlieb RH, et al. **Clin Imaging** 1999 Jan-Feb;23(1):35–9

Noninvasive measurement of renal function with 99mTc-MAG3 gamma-camera renography based on the one-compartment model. Oriuchi N, et al. **Clin Nephrol** 1998 Nov;50(5):289–94

Tc-99m DMSA renal scan in polyarteritis nodosa with bilateral intraparenchymal renal artery aneurysms. Basoglu T, et al. **Clin Nucl Med** 1999 Mar;24(3):201–2

Simulation of renal function by tumor and its effect on the calculated glomerular filtration rate. Boxen I. **Clin Nucl Med** 1999 May;24(5):338–42

Scintigraphy of a double renal transplant from an infant donor. Jiménez CE. **Clin Nucl Med** 1999 Mar;24(3):188–9

Tc-99m DTPA uptake in malignant fibrous histiocytoma masquerading as a phantom kidney. Kosuda S, et al. **Clin Nucl Med** 1999 Mar;24(3):200–1

An artifact simulating urinoma on renal transplant imaging. Omar AM, et al. **Clin Nucl Med** 1999 May;24(5):374–5

Tc-99m DTPA renal scintigraphy using deconvolution

analysis with six functional images of the mean time to evaluate acute pyelonephritis. Poropat M, et al. **Clin Nucl Med** 1999 Feb;24(2):120–4

The value of renal scintigraphy during controlled diuresis [letter] Gordon I. **Eur J Nucl Med** 1999 Aug;26(8):938–9

Reproducibility of technetium–99m ethylenedicysteine clearance. Kabasakal L, et al. **Eur J Nucl Med** 1999 Aug; 26(8):900–2

Renographic indices for evaluation of changes in graft function. El–Maghraby TA, et al. **Eur J Nucl Med** 1998 Nov;25(11):1575–86 (79 ref.)

Evaluation of renal function in low–dose cyclosporine–treated patients using technetium–99m diaminocyclohexane: a cationic tubular excretion agent. Sonmezoglu K, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1630–6

Mercaptoacetyltriglycine diuretic renography and output efficiency measurement in renal transplant patients. Spicer ST, et al. **Eur J Nucl Med** 1999 Feb;26(2):152–4

The value of renal scintigraphy during controlled diuresis in children with hydronephrosis. Steiner D, et al. **Eur J Nucl Med** 1999 Jan;26(1):18–21

Quantitative scintigraphic parameters for the assessment of renal transplant patients. el Maghraby TA, et al. **Eur J Radiol** 1998 Oct;28(3):256–69 (74 ref.)

Screening for renovascular hypertension in a population with relatively low prevalence. Helin KH, et al. **J Hypertens** 1998 Oct;16(10):1523–9

Renography before heart transplantation in patients with cardiomyopathy. Aigner RM, et al. **J Nucl Med** 1998 Dec; 39(12):2153–8

Value of captopril renal scintigraphy in hypertensive patients with renal failure. Fernandez P, et al. **J Nucl Med** 1999 Mar;40(3):412–7

A comparison of deconvolution and the Patlak–Rutland plot in renography analysis. Fleming JS, et al. **J Nucl Med** 1999 Sep;40(9):1503–7

Evaluation of glomerular filtration rate by camera–based method in both children and adults. Inoue Y, et al. **J Nucl Med** 1998 Oct;39(10):1784–8

Diuretic renography in children [letter; comment] Piepsz A, et al. **J Nucl Med** 1998 Nov;39(11):2015–6. Comment on: J Nucl Med 1997 Oct;38(10):1647–50.

Hypotensive response to captopril: a potential pitfall of scintigraphic assessment for renal artery stenosis. Stavropoulos SW, et al. **J Nucl Med** 1999 Mar;40(3):406–11

Renal depth estimates to improve the accuracy of glomerular filtration rate. Steinmetz AP, et al. **J Nucl Med** 1998 Oct; 39(10):1822–5

Positive captopril renography in a transplanted kidney with arteriovenous fistula. Mousa D, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3248–9

Utility of SPECT DMSA renal scanning in the evaluation of children with primary vesicoureteral reflux. Merguerian PA, et al. **Urology** 1999 May;53(5):1024–8

Use of diuretic renogram in evaluation of patients before and after endopyelotomy. Niemczyk P, et al. **Urology** 1999 Feb; 53(2):271–5

[Evaluation of 99mTc–MAG3 (mercaptoacetyltriglycine) renography for pediatric patients] Tabuchi K, et al. **Kaku Igaku** 1999 Jan;36(1):15–22 (Eng. Abstr.) **(Jpn)**

[Measurement of glomerular filtration rate in connection with 99Tc–DTPA renography] Cappelen T, et al. **Tidsskr Nor Laegeforen** 1999 Feb 10;119(4):521–5 (Eng. Abstr.) **(Nor)**

[Radioisotopic studies in the diagnosis of obstructive uropathy] Testa HJ. **Rev Esp Med Nucl** 1999 Jun; 18(3):214–24 (43 ref.) **(Spa)**

METHODS

A case of renal artery stenosis after transplantation: can losartan be more accurate than captopril renography? Fuster D, et al. **Clin Nucl Med** 1998 Nov;23(11):731–4

The diagnosis of segmental transplant renal artery stenosis by captopril renography. Mousa D, et al. **Clin Nucl Med** 1999 Jul;24(7):504–6

Improved automatic separation of renal parenchyma and pelvis in dynamic renal scintigraphy using fuzzy regions of interest. Bergmann H, et al. **Eur J Nucl Med** 1999 Aug; 26(8):837–43

Negative captopril renography on patients with renin mediated hypertension due to page kidney and reninoma. Yung BC, et al. **Eur J Radiol** 1999 Jul;31(1):63–8

Evaluation of renal function from 99mTc–MAG3 renography without blood sampling. Inoue Y, et al. **J Nucl Med** 1999 May;40(5):793–8

Automatic motion correction in dynamic radionuclide renography using image registration. Lee KJ, et al. **Nucl Med Commun** 1998 Dec;19(12):1159–67

A dynamic phantom for radionuclide renography. Heikkinen JO. **Phys Med Biol** 1999 Mar;44(3):N39–53

Interventions in renal scintirenography. Fine EJ. **Semin Nucl Med** 1999 Apr;29(2):128–45 (78 ref.)

Radionuclide renography: a personal approach. Taylor A. **Semin Nucl Med** 1999 Apr;29(2):102–27 (104 ref.)

[Comparison of single sample methods for determination of plasma clearance using 99mTc–MAG3] Itoh K, et al. **Kaku Igaku** 1998 Oct;35(8):689–95 (Eng. Abstr.) **(Jpn)**

[Improved the accuracy of 99mTc–MAG3 plasma clearance method: the problem of the calculated plasma volume and its modification] Watanabe N, et al. **Kaku Igaku** 1998 Oct; 35(8):741–7 (Eng. Abstr.) **(Jpn)**

[Kidney function based on dynamic nephroscintigraphic data in the late period after extracorporeal lithotripsy] Dzeranov NK, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):36–40 (Eng. Abstr.) **(Rus)**

STANDARDS

Measurement of glomerular filtration rate by the 99mTc–DTPA renogram is less precise than measured and predicted creatinine clearance. De Santo NG, et al. **Nephron** 1999 Feb;81(2):136–40

Quality assurance in renography: a review. Cosgriff PS. **Nucl Med Commun** 1998 Jul;19(7):711–6 (50 ref.)

Report of the Radionuclides in Nephrourology Committee for evaluation of transplanted kidney (review of techniques). Dubovsky EV, et al. **Semin Nucl Med** 1999 Apr;29(2):175–88 (43 ref.)

Consensus on renal cortical scintigraphy in children with urinary tract infection. Scientific Committee of Radionuclides in Nephrourology. Piepsz A, et al. **Semin Nucl Med** 1999 Apr;29(2):160–74 (125 ref.)

Consensus report on quality control of quantitative measurements of renal function obtained from the renogram: International Consensus Committee from the Scientific Committee of Radionuclides in Nephrourology. Prigent A, et al. **Semin Nucl Med** 1999 Apr;29(2):146–59 (112 ref.)

STATISTICS & NUMERICAL DATA

Intra– and interoperator variations in region–of–interest drawing and their effect on the measurement of glomerular filtration rates. White DR, et al. **Clin Nucl Med** 1999 Mar; 24(3):177–81

Assessment of various parameters in the estimation of differential renal function using technetium–99m mercaptoacetyltriglycine. Lythgoe MF, et al. **Eur J Nucl Med** 1999 Feb;26(2):155–62

RADIOISOTOPE SCANNING see **RADIONUCLIDE IMAGING**

RADIOISOTOPE TELETHERAPY

Radiotherapy for the treatment of giant cell tumor of the spine: a report of six cases and review of the literature. Khan DC, et al. **Cancer Invest** 1999;17(2):110–3 (24 ref.)

[Low dosage, fractionated, percutaneous teletherapy of subfoveal choroid neovascularization] Schittkowski MP, et al. **Ophthalmologe** 1998 Jul;95(7):466–72 (Eng. Abstr.) **(Ger)**

[Treatment results with external radiotherapy in prostate cancer] Prada Gómez PJ, et al. **Arch Esp Urol** 1998 Nov; 51(9):890–6 (Eng. Abstr.) **(Spa)**

INSTRUMENTATION

Viability of an isocentric cobalt–60 teletherapy unit for stereotactic radiosurgery. Poffenbarger BA, et al. **Med Phys** 1998 Oct;25(10):1935–43

METHODS

[The effects of low–dose Co–60 irradiation on the course of aseptic arthritis in a rabbit knee joint] Fischer U, et al. **Strahlenther Onkol** 1998 Dec;174(12):633–9 (Eng. Abstr.) **(Ger)**

RADIOISOTOPES

see related
ISOTOPE LABELING
ISOTOPES

An 225Ac/213Bi generator system for therapeutic clinical applications: construction and operation. McDevitt MR, et al. **Appl Radiat Isot** 1999 May;50(5):895–904

Electrodeposition of radioactive rhenium onto stents to prevent restenosis. Häfeli UO, et al. **Biomaterials** 1998 May; 19(10):925–33

Radionuclides and radiopharmaceuticals for single–photon emission tomography, positron emission tomography and radiotherapy in Russia. Krasikova RN, et al. **Eur J Nucl Med** 1999 Jul;26(7):774–88 (125 ref.)

Comment on article by Reichelt et al. Radioactive contamination incidents involving protective clothing [letter; comment] Poston JW Sr. **Health Phys** 1999 Feb; 76(2):195–6. Comment on: Health Phys 1998 Jan;74(1):99–107.

Preparation and properties of radioactive rhenium glass microspheres intended for in vivo radioembolization therapy. Conzone SD, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):617–25

Improved in vivo stability of actinium–225 macrocyclic complexes. Deal KA, et al. **J Med Chem** 1999 Jul 29; 42(15):2988–92

Radiation absorbed doses to the walls of hollow organs. Stubbs JB, et al. **J Nucl Med** 1998 Nov;39(11):1989–95

74As–arsenate metabolism in Flemish Giant rabbits with renal insufficiency. De Kimpe J, et al. **J Trace Elem Med Biol** 1999 Jul;13(1–2):7–14

Method for determining photonuclear production of radioisotopes using high–energy electron beams. Weeks KJ. **Med Phys** 1999 Jan;26(1):49–54

Radioactive decay. Groch MW. **Radiographics** 1998 Sep–Oct; 18(5):1247–56; quiz 1245–6

ADMINISTRATION & DOSAGE

Biocompatible magnetic polymer carriers for in vivo radionuclide delivery. Schütt W, et al. **Artif Organs** 1999 Jan;23(1):98–103

Rhenium–186–labeled hydroxyethylidene diphosphonate dosimetry and dosing guidelines for the palliation of skeletal metastases from androgen–independent prostate cancer. Graham MC, et al. **Clin Cancer Res** 1999 Jun;5(6):1307–18

Phase I study of intravenous Lu–labeled CC49 murine monoclonal antibody in patients with advanced adenocarcinoma. Mulligan T, et al. **Clin Cancer Res** 1995 Dec;1(12):1447–54

Reductions in finger doses for radiopharmaceutical dispensing afforded by a syringe shield and an automatic dose dispenser. Montgomery A, et al. **Nucl Med Commun** 1999 Feb;20(2):189–94

ADVERSE EFFECTS

Cancer mortality in relation to monitoring for radionuclide exposure in three UK nuclear industry workforces. Carpenter LM, et al. **Br J Cancer** 1998 Nov;78(9):1224–32

Some problems in the skeletal dosimetry of bone–seeking radionuclides. Lloyd RD, et al. **Health Phys** 1999 Apr; 76(4):402–12

Marrow toxicity and radiation absorbed dose estimates from rhenium–186–labeled monoclonal antibody. Breitz HB, et al. **J Nucl Med** 1998 Oct;39(10):1746–51

Chromosome breakage at sites of oncogenes in a population accidentally exposed to radioactive chemical pollution. Ilyinskikh NN, et al. **Mutagenesis** 1999 Jan;14(1):83–6

ANALYSIS

Fallout beryllium–7 as a tracer in soil erosion investigations. Blake WH, et al. **Appl Radiat Isot** 1999 Nov;51(5):599–605

Distribution coefficients (Kd's) for use in risk assessment models of the Kara Sea. Carroll J, et al. **Appl Radiat Isot** 1999 Jul;51(1):121–9

Relationships between ESR–evaluated doses estimated from enamel and activity of radionuclides in bone and teeth of reindeer. Klevezal GA, et al. **Appl Radiat Isot** 1999 Mar; 50(3):567–72

Groundwater flow system in the valley of Toluca, Mexico: an assay of natural radionuclide specific activities. Segovia N, et al. **Appl Radiat Isot** 1999 Mar;50(3):589–98

Radionuclides in the lichen–caribou–human food chain near uranium mining operations in northern Saskatchewan, Canada. Thomas PA, et al. **Environ Health Perspect** 1999 Jul;107(7):527–37

A method to detect low–level 63Ni activity for estimating fast neutron fluence from the Hiroshima atomic bomb. Ito Y, et al. **Health Phys** 1999 Jun;76(6):635–8

Basic applications of the chi–square statistic using counting data. Tries MA, et al. **Health Phys** 1999 Oct;77(4):441–54

A comparison of minimum detectable and proposed maximum allowable soil concentration cleanup levels for selected radionuclides. Wood JL, et al. **Health Phys** 1999 Apr;76(4):413–7

Radionuclides and trace elements in fish collected upstream and downstream of Los Alamos National Laboratory and the doses to humans from the consumption of muscle and bone. Fresquez PR, et al. **J Environ Sci Health B** 1999 Sep;34(5):885–99

Radionuclides in deer and elk from Los Alamos National Laboratory and the doses to humans from the ingestion of muscle and bone. Fresquez PR, et al. **J Environ Sci Health B** 1999 Sep;34(5):901–15

DS86 neutron dose: Monte Carlo analysis for depth profile of 152Eu activity in a large stone sample. Endo S, et al. **J Radiat Res (Tokyo)** 1999 Jun;40(2):169–81

Specific radioactivity of europium–152 in roof tiles exposed to atomic bomb radiation in Nagasaki. Nakanishi T, et al. **J Radiat Res (Tokyo)** 1998 Dec;39(4):243–50

[A radiation hygiene assessment of the use of the deicing preparation Kama–M in Moscow] Loginov AA, et al. **Gig Sanit** 1999 May–Jun;(3):20–2 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Preparation, stability studies and pharmacological behavior of [186Re]Re–HEDP. Kothari K, et al. **Appl Radiat Isot** 1999 Jul;51(1):51–8

Preparation of [186Re]Re–DMSA and its bio–distribution studies. Kothari K, et al. **Appl Radiat Isot** 1999 Jul; 51(1):43–9

DIAGNOSTIC USE

Absorbed doses to patients from 191Pt–, 193mPt– and 195mPt–cisplatin. Areberg J, et al. **Appl Radiat Isot** 1999 Nov;51(5):581–6

Diagnostic medical exposures in the U.K. Shrimpton PC, et al. **Appl Radiat Isot** 1999 Jan;50(1):261–9 (55 ref.)

Improved tumor targeting of rhenium–186–labeled anti–human high–m.w. melanoma–associated antigen monoclonal antibody 763.74 following purification with anti–idiotypic monoclonal antibody MK2–23. Hamby CV, et al. **Int J Cancer** 1998 Nov 9;78(4):486–90

Radiolabeled peptides for targeting cholecystokinin–B/gastrin receptor–expressing tumors. Behr TM, et al. **J Nucl Med** 1999 Jun;40(6):1029–44

RADIOISOTOPES

Rhenium-186-mercaptoacetyltriglycine-labeled monoclonal antibody for radioimmunotherapy: in vitro assessment, in vivo kinetics and dosimetry in tumor-bearing nude mice. Kinuya S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):870-8

Functional cardiac imaging in mice using Ta-178. Hartley CJ, et al. **Nat Med** 1999 Feb;5(2):237-9

[Natural radioactivity of underground waters: surveying of alpha and beta global activity] Zak A, et al. **Med Pr** 1999; 50(1):51-60 (Eng. Abstr.) **(Pol)**

[The significance of radioisotopic methods in internal diseases diagnosis] Rogulski B, et al. **Pol Merkuriusz Lek** 1999 Jan; 6(31):44-6 (10 ref.) (Eng. Abstr.) **(Pol)**

METABOLISM

Comparison of methods for quantitation of radioactivity in protected hybrids in RNase protection assays. Pham K, et al. **Biotechniques** 1998 Aug;25(2):198-200, 202, 204 passim

PHARMACOKINETICS

Relationship between the biodistributions of radioactive metal nuclides in tumor tissue and the physicochemical properties of these metal ions. Ando A, et al. **Ann Nucl Med** 1999 Apr;13(2):83-8

Pharmacokinetic evaluation of biodistribution data obtained with radiolabeled proteins in mice. Nishikawa M, et al. **Biol Pharm Bull** 1999 Feb;22(2):214-8

Biodistribution and kinetics of holmium-166-chitosan complex (DW-166HC) in rats and mice. Suzuki YS, et al. **J Nucl Med** 1998 Dec;39(12):2161-6

Biodistribution studies of the 186Re complex of 3-amino-1-hydroxypropylidene-1,1-bisphosphonic acid in mice. Alyafei S, et al. **Nucl Med Commun** 1999 Jun; 20(6):551-7

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795-801

Transplacental transfer of radionuclides. A review. von Zallinger C, et al. **Zentralbl Veterinarmed A** 1998 Dec; 45(10):581-90 (45 ref.)

STANDARDS

A new experimental determination of the dose calibrator setting for 188Re. Zimmerman BE, et al. **J Nucl Med** 1999 Sep;40(9):1508-16

SUPPLY & DISTRIBUTION

Understanding patient needs: congressmen aid nuclear medicine [news] Kotz D. **J Nucl Med** 1998 Nov;39(11):16N, 21N-22N, 30N

THERAPEUTIC USE

Ophthalmic plaque radiotherapy for age-related macular degeneration associated with subretinal neovascularization. Finger PT, et al. **Am J Ophthalmol** 1999 Feb;127(2):170-7

Double blind glucocorticoid controlled trial of samarium-153 particulate hydroxyapatite radiation synovectomy for chronic knee synovitis. O'Duffy EK, et al. **Ann Rheum Dis** 1999 Sep;58(9):554-8

Radiation dosimetry in nuclear medicine. Stabin MG, et al. **Appl Radiat Isot** 1999 Jan;50(1):73-87 (84 ref.)

Radioimmunotherapy of micrometastases in lung with vascular targeted 213Bi. Kennel SJ, et al. **Br J Cancer** 1999 Apr;80(1-2):175-84

Systemic bone-seeking radionuclides for palliation of painful osseous metastases: current concepts. Mertens WC, et al. **CA Cancer J Clin** 1998 Nov-Dec;48(6):361-74, 321 (89 ref.)

Gene therapy using antisense oligodeoxynucleotides labeled with Auger-emitting radionuclides. Kairemo KJ, et al. **Cancer Gene Ther** 1998 Nov-Dec;5(6):408-12

High-linear energy transfer (LET) alpha versus low-LET beta emitters in radioimmunotherapy of solid tumors: therapeutic efficacy and dose-limiting toxicity of 213Bi- versus 90Y-labeled CO17-1A Fab' fragments in a human colonic cancer model. Behr TM, et al. **Cancer Res** 1999 Jun 1;59(11):2635-43

Locoregional regulatory peptide receptor targeting with the diffusible somatostatin analogue 90Y-labeled DOTA0-D-Phe1-Tyr3-octreotide (DOTATOC): a pilot study in human gliomas. Merlo A, et al. **Clin Cancer Res** 1999 May;5(5):1025-33

Phase I study of 90Y-labeled B72.3 intraperitoneal administration in patients with ovarian cancer: effect of dose and EDTA coadministration on pharmacokinetics and toxicity. Rosenblum MG, et al. **Clin Cancer Res** 1999 May; 5(5):953-61

Pain palliation with rhenium-186 HEDP in breast cancer patients with disseminated bone metastases. Palmedo H, et al. **Clin Nucl Med** 1999 Sep;24(9):643-8

Holmium-166 poly lactic acid microspheres applicable for intra-arterial radionuclide therapy of hepatic malignancies: effects of preparation and neutron activation techniques. Nijsen JF, et al. **Eur J Nucl Med** 1999 Jul;26(7):699-704

A retrospective study on chemical and radioactive synovectomy in severe haemophilia patients with recurrent haemarthrosis. Molho P, et al. **Haemophilia** 1999 Mar; 5(2):115-23

Isotope selection for patients undergoing prostate brachytherapy. Cha CM, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):391-5

Hepatic tumor radioembolization in a rat model using radioactive rhenium (186Re/188Re) glass microspheres. Häfeli UO, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):189-99

A dynamic model for the estimation of optimum timing of computed tomography scan for dose evaluation of 125I or 103Pd seed implant of prostate. Yue N, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):447-54

Combination 186Re-HEDP and cisplatin supra-additive treatment effects in prostate cancer cells. Geldof AA, et al. **J Nucl Med** 1999 Apr;40(4):667-71

186Re-etidronate in breast cancer patients with metastatic bone pain. Han SH, et al. **J Nucl Med** 1999 Apr; 40(4):639-42

Intratumoral injection of rhenium-188 microspheres into an animal model of hepatoma. Wang SJ, et al. **J Nucl Med** 1998 Oct;39(10):1752-7

Bremsstrahlung radiation exposure from pure beta-ray emitters. Zanzonico PB, et al. **J Nucl Med** 1999 Jun; 40(6):1024-8

103Pd loaded cartridge air kerma strength verification. Mellenberg DE Jr, et al. **Med Dosim** 1999 Spring;24(1):73-5

Use of the fast Hartley transform for three-dimensional dose calculation in radionuclide therapy. Erdi AK, et al. **Med Phys** 1998 Nov;25(11):2226-33

Anisotropy functions for 125I and 103Pd sources. Weaver K. **Med Phys** 1998 Dec;25(12):2271-8

A calculation of the relative biological effectiveness of 125I and 103Pd brachytherapy sources using the concept of proximity function. Wuu CS, et al. **Med Phys** 1998 Nov; 25(11):2186-9

Metal complexes of bleomycin: evaluation of [Rh-105]-bleomycin for use in targeted radiotherapy. Brooks RC, et al. **Nucl Med Biol** 1999 May;26(4):421-30

Treatment of lung tumor colonies with 90Y targeted to blood vessels: comparison with the alpha-particle emitter 213Bi. Kennel SJ, et al. **Nucl Med Biol** 1999 Jan;26(1):149-57

Radionuclide therapy [editorial; comment] Buchanan RB, et al. **Nucl Med Commun** 1999 Aug;20(8):687. Comment on: Nucl Med Commun 1999 Aug;20(8):711-7.

Radionuclide therapy in the United Kingdom in 1995 [see comments] Clarke SE, et al. **Nucl Med Commun** 1999 Aug; 20(8):711-7. Comment in: Nucl Med Commun 1999 Aug;20(8):687.

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795-801

Palladium-103 plaque radiotherapy for choroidal melanoma: results of a 7-year study. Finger PT, et al. **Ophthalmology** 1999 Mar;106(3):606-13

Radiotoxicity of bismuth-213 bound to membranes of monolayer and spheroid cultures of tumor cells. Kennel SJ, et al. **Radiat Res** 1999 Mar;151(3):244-56

[Analgesic response and secondary effects in patients with osteoblastic metastasis, treated with Samarium 153 ethylenediaminotetramethylenephosphate] Lovera C, et al. **Rev Med Chil** 1998 Aug;126(8):963-71 (Eng. Abstr.) **(Spa)**

RADIOLIGAND ASSAY

Conditions for biphasic competition curves in radioligand binding for ligands subjected to metabolic transformation. Wikberg JE, et al. **Biochem Pharmacol** 1998 Nov 1; 56(9):1129-37

Polycyclic dinitriles: a novel class of potent GABAergic insecticides provides a new radioligand, [3H]BIDN. Rauh JJ, et al. **Invert Neurosci** 1997 Sep-Dec;3(2-3):261-8

A newly developed assay for melatonin using cells expressing human mel-1a receptor. Ozeki Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):247-8

Synthesis of N-desmethyl derivatives of 17alpha-acetoxy-11beta-(4-N,N-dimethylaminophenyl)-19-norpregna-4,9-die ne-3,20-dione and mifepristone1: substrates for the synthesis of radioligands. Rao PN, et al. **Steroids** 1999 Mar;64(3):205-12

METHODS

In vitro analysis of xenoestrogens by enzyme linked receptor assays (ELRA). Seifert M, et al. **Adv Exp Med Biol** 1998; 444:113-7

Magnetic molecularly imprinted polymer beads for drug radioligand binding assay. Ansell RJ, et al. **Analyst** 1998 Jul;123(7):1611-6

In vivo competition studies of Z-(-,-)-[125I]IQNP against 3-quinuclidinyl 2-(5-bromothienyl)-2-thienylglycolate (BrQNT) demonstrating in vivo m2 muscarinic subtype selectivity for BrQNT. Cohen VI, et al. **J Mol Neurosci** 1998 Aug;11(1):1-9

Pharmacological characterisation of the recombinant human CRF binding protein using a simple assay. Ardati A, et al. **J Neurosci Methods** 1998 Mar 13;80(1):99-105

Radioligand-receptor binding assays in the search for bioactive principles from plants. Phillipson JD. **J Pharm Pharmacol** 1999 May;51(5):493-503

Comparison of an agonist, urocortin, and an antagonist, astressin, as radioligands for characterization of corticotropin-releasing factor receptors. Perrin MH, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):729-34

A microplate binding assay for the somatostatin type-2 receptor (SSTR2). Froidevaux S, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):167-80

Synthesis and characterization of new radioligands for the mammalian melanin-concentrating hormone (MCH) receptor. Hintermann E, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):411-22

Ligand binding methods for analysis of ion channel structure and function. Pedersen SE, et al. **Methods Enzymol** 1999; 294:117-35

Solubilized muscarinic acetylcholine receptors from the rat myocardium: pharmacological and hydrodynamic characterization. Berrie CP, et al. **Methods Mol Biol** 1999; 106:73-87 (9 ref.)

[3H]-GABA binding to GABAA and GABAB sites on rat brain crude synaptic membranes. Bruton R, et al. **Methods Mol Biol** 1999;106:27-35 (16 ref.)

Radioligand binding to solubilized 5-HT3 receptors. Fletcher S, et al. **Methods Mol Biol** 1999;106:49-71 (29 ref.)

Characterization of imidazoline receptors by radioligand binding. Hudson AL, et al. **Methods Mol Biol** 1999; 106:37-47 (12 ref.)

Definition of receptors in radioligand-binding experiments. Keen M. **Methods Mol Biol** 1999;106:187-96 (19 ref.)

Radioligand binding in intact cells. Koenig JA. **Methods Mol Biol** 1999;106:89-98 (18 ref.)

Measurement of agonist-stimulated [35S]GTP gamma S binding to cell membranes. Lazareno S. **Methods Mol Biol** 1999;106:231-45 (43 ref.)

Positron emission tomography (PET) methodology for small animals and its application in radiopharmaceutical preclinical investigation. Hume SP, et al. **Nucl Med Biol** 1998 Nov;25(8):729-32 (43 ref.)

STATISTICS & NUMERICAL DATA

Methods and data analyses in radioligand-receptor binding: unnecessary transformations may cause biased results. Nowak G. **Pol J Pharmacol** 1998 Mar-Apr;50(2):101-5 (10 ref.)

TRENDS

Ligand-binding studies: old beliefs and new strategies. Rovati GE. **Trends Pharmacol Sci** 1998 Sep;19(9):365-9

RADIOLOGIC HEALTH

Radiological and orthopedic score in pediatric hemophilic patients with early and late prophylaxis. Funk M, et al. **Ann Hematol** 1998 Oct;77(4):171-4

Humanity and radiation: the good, the bad, and the unusual. Holcomb WF. **Mil Med** 1999 Jul;164(7):520-5 (37 ref.)

Radiation exposure in the myelomeningocele population. Gaskill SJ, et al. **Pediatr Neurosurg** 1998 Feb;28(2):63-6

RADIOLOGIC PHANTOMS see **PHANTOMS, IMAGING**

RADIOLOGIC PHYSICS see **HEALTH PHYSICS**

RADIOLOGY

Methodological Issues in Diagnostic Clinical Trials: Health Services and Outcomes Research in Radiology. Symposium proceedings. Washington DC, USA, March 15-16, 1998. **Acad Radiol** 1999 Jan;6 Suppl 1:S1-136

A different perspective on the radiologist's involvement in management [comment] Arenson RL. **Acad Radiol** 1999 May;6(5):314-6. Comment on: Acad Radiol 1999 May;6(5):307-13.

Academy of Radiology Research. Baum S. **Acad Radiol** 1998 Sep;5 Suppl 2:S419-20

Radiology research and the NIH: problems and future prospects. Bragg DG. **Acad Radiol** 1998 Sep;5 Suppl 2:S416-8

Proceedings of the meeting of the Radiology Research Association. March 1998. Dunnick NR. **Acad Radiol** 1998 Oct;5(10):718-21

Health-care policy toward medical imaging experience in some European countries. Kesteloot K, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S377-81

Perceptual skill, radiology expertise, and visual test performance with NINA and WALDO. Nodine CF, et al. **Acad Radiol** 1998 Sep;5(9):603-12

Advancing the transition of imaging research into clinical practice. Robb WL. **Acad Radiol** 1998 Sep;5 Suppl 2:S423-4

Radiology department management by radiologists. Siegle RL, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S434-5

Changing roles: the radiologist in management [see comments] Siegle RL, et al. **Acad Radiol** 1999 May; 6(5):307-13. Comment in: Acad Radiol 1999 May;6(5):314-6.

The economy of health service in Russia and the development of modern diagnostic modalities. Sinitsyn VE, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S382-4

Radiology and health-care policy in the Czech Republic. Sprindrich J. **Acad Radiol** 1998 Sep;5 Suppl 2:S400-2

Complementary roles of generalists and specialists in academic radiology [editorial] Steckel RJ, et al. **Acad Radiol** 1998 Sep;5(9):589-90

Radiology managing radiology. Dreisbach JN. **AJNR Am J Neuroradiol** 1998 Nov-Dec;19(10):1813-4

The fate of neuroradiologic abstracts presented at national meetings in 1993: rate of subsequent publication in peer-reviewed, indexed journals. Marx WF, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1173-7

American Roentgen Ray Society 99th annual meeting. New Orleans, Louisiana, USA. May 9-14, 1999. Abstracts. **AJR Am J Roentgenol** 1999;172(3 Suppl):1-223

Observations on the standard of care [letter; comment] Alexander JE. **AJR Am J Roentgenol** 1999 Jul;173(1):238-9 , Comment on: AJR Am J Roentgenol 1998 Oct;171(4):1156-7.

Re: What's in a name? [letter; comment] McHugh K. **AJR Am J Roentgenol** 1999 Jan;172(1):245. Comment on: AJR Am J Roentgenol 1998 Jun;170(6):1415.

The Academy of Radiology Research [editorial] Rogers LF. **AJR Am J Roentgenol** 1999 Mar;172(3):583

Ultrastructural and trace metal studies on radiographers' hair and nails. Majumdar S, et al. **Biol Trace Elem Res** 1999 Feb;67(2):127-38

London whistleblower left with career in tatters [news] Dyer C. **BMJ** 1999 Jul 17;319(7203):142

The benefits of hospital-wide picture archiving and communication systems: a survey of clinical users of radiology services. Bryan S, et al. **Br J Radiol** 1999 May; 72(857):469-78

Forensic radiology. Kahana T, et al. **Br J Radiol** 1999 Feb; 72(854):129-33 (24 ref.)

The radiologist and the patient: breaking bad news. Hammond I, et al. **Can Assoc Radiol J** 1999 Aug; 50(4):233-4

The development of radiology guidelines in Canada, Part 2. Stolberg HO. **Can Assoc Radiol J** 1999 Jun;50(3):152-5

The role of the radiologist [news] Hurley GD. **Eur Radiol** 1998;8(8):1507-8

Turf battles in radiology: how to avoid/how to fight/how to win. Schnyder P, et al. **Eur Radiol** 1999;9(4):741-8 (37 ref.)

World Wide Web and Internet: applications for radiologists. Wunderbaldinger P, et al. **Eur Radiol** 1999;9(6):1170-82 (50 ref.)

Ionising radiation during internal fixation of extracapsular neck of femur fractures. Giannoudis PV, et al. **Injury** 1998 Jul;29(6):469-72

The philosophy of change and adaptation of radiology to the information age. Chacko A, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):67-70

Patterns of use and satisfaction with a university-based teleradiology system. Krupinski EA, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):166-7

The Society for Computer Applications in Radiology. Real-time radiology. Williamson B Jr. **J Digit Imaging** 1999 Feb;12(1):48

Radiologist-patient interactions: implications for picture archiving and communications systems and teleradiology. Williamson EE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):137-8

Chiropractic radiologists: a survey of demographics, abilities, educational attitudes and practice trends. Marchiori DM, et al. **J Manipulative Physiol Ther** 1998 Jul-Aug; 21(6):392-8

The Academy of Radiology Research: the imaging community's advocate for change [news] Williams J. **J Nucl Med** 1999 Jun;40(6):9N-10N, 22N

Senior surgeons and radiologists should assess emergency patients on presentation: a prospective randomized controlled trial. Cochrane RA, et al. **J R Coll Surg Edinb** 1998 Oct;43(5):324-7

In the next decade automated computer analysis will be an accepted sole method to separate "normal" from "abnormal" radiological images. Hoffman KR, et al. **Med Phys** 1999 Jan;26(1):1-4

A hypermedia tool to support the interaction between radiologists and clinicians. DeSimone M, et al. **Medinfo** 1998;9 Pt 2:1301-5

A cytokinesis-blocked micronucleus study of the radioadaptive response of lymphocytes of individuals occupationally exposed to chronic doses of radiation. Gourabi H, et al. **Mutagenesis** 1998 Sep;13(5):475-80

XXIV Congress of The European Society of Neuroradiology, 8th Advanced Course. Lisbon, Portugal, 23-26 September 1998. Abstracts. **Neuroradiology** 1998 Sep; 40 Suppl 1:S1-110

Health of children born to medical radiographers [letter; comment] Tawn EJ. **Occup Environ Med** 1998 Sep; 55(9):647-8. Comment on: Occup Environ Med 1996 Feb;53(2):73-9.

Publication rate for articles presented at the Society for Pediatric Radiology [editorial; comment] Slovis TL, et al. **Pediatr Radiol** 1999 Feb;29(2):79. Comment on: Pediatr Radiol 1999 Feb;29(2):81-6.

Practice corner. It's 10:00 pm: do you know where your radiologist is? [editorial] Heilman RS. **Radiographics** 1999 Sep-Oct;19(5):1178

I don't know, but I'll find out [editorial] Heilman RS. **Radiographics** 1998 Sep-Oct;18(5):1060

infoRAD at RSNA '98. Radiological Society of North America [editorial] Jaffe CC. **Radiographics** 1998 Sep-Oct; 18(5):1059

Radiology and Epcot celebrate new millennium with a patient education and information exhibit. Petasnick JP, et al. **Radiographics** 1999 Sep-Oct;19(5):1105-6

Radiological Society of North America 84th scientific assembly and annual meeting. Chicago, Illinois, USA. November 29-December 4, 1998. Abstracts. **Radiology** 1998 Nov;209 Suppl:17-872

Whose Aunt Minnie? [letter] Applegate KE, et al. **Radiology** 1999 Apr;211(1):292

The year 2000 threat: preparing radiology for nine realms of risk. Berland LL. **Radiology** 1999 Jan;210(1):17-24

Medical education and the RSNA. Fraser DB. **Radiology** 1999 Jun;211(3):597-600

What of the past ... what of the future? [editorial] Frush DP. **Radiology** 1999 Jan;210(1):3

Turf battles in radiology: how individual radiologists can respond to the challenge [editorial] [see comments] Levin DC, et al. **Radiology** 1998 Nov;209(2):330-4. Comment in: Radiology 1999 May;211(2):301-5.

Diagnosis please certificate of recognition awarded to Sergio Julio Moguillansky, MD. Proto AV. **Radiology** 1999 Sep; 212(3):606

Diane S. Babcock, MD, and Carol M. Rumack, MD Armed Forces Institute of Pathology 1998-1999 distinguished scientists. Rosado-de-Christenson ML. **Radiology** 1998 Oct;209(1):23-4

Good clinical practice in clinical trials: what does it mean for a radiology department? [editorial] van Kuijk C. **Radiology** 1998 Dec;209(3):625-7

Decision making in radiology. Wood BP. **Radiology** 1999 Jun;211(3):601-3

Visual expertise. Wood BP. **Radiology** 1999 Apr;211(1):1-3

[XXVI Congress of The French Society for Neuroradiology. Paris, France, 30-31 March 1998. Abstracts] **J Neuroradiol** 1998 Jul;25(2 Suppl):S1-48 **(Fre)**

[JFR '98 book of abstracts] **J Radiol** 1998 Oct;79(10):959-1283 **(Fre)**

[Inforad 98] Bret P. **J Radiol** 1999 May;80(5 Suppl):509-10 **(Fre)**

[The exam request seen by the radiologist, the report seen by the clinician] Dacher JN, et al. **J Radiol** 1999 Aug; 80(8):855-8 (Eng. Abstr.) **(Fre)**

[Radiology assessment: the European dimension (editorial)] Durand-Zaleski I, et al. **J Radiol** 1998 Jul;79(7):643-4 **(Fre)**

[Bibliometric index] Hoeffel JC, et al. **J Radiol** 1998 Aug; 79(8):719-21 (Eng. Abstr.) **(Fre)**

[News of the SIGU (Société d'Imagerie Génito-Urinaire) (editorial)] Lemaitre L. **J Radiol** 1998 Jun;79(6):585 **(Fre)**

[Impact factor: what for? (editorial)] Rouleau P. **J Radiol** 1998 Aug;79(8):717 **(Fre)**

[Attitude: why this reticence with regard to patient information in medical imaging? (editorial; comment)] Schouman-Claeys E, et al. **J Radiol** 1999 May;80(5):415-7 , Comment on: J Radiol 1999 May;80(5):437-40. **(Fre)**

[Digitalized conventional radiology and image network] **Presse Med** 1998 Apr 25;27(16):766-8 **(Fre)**

[Prostatic ultrasonography in routine radiological practice: a survey of 122 radiologists] Crozier F, et al. **Prog Urol** 1999 Feb;9(1):95-100 (Eng. Abstr.) **(Fre)**

[Asbestos-related occupational lung diseases. Role of the pneumology unit in screening and compensation] Bignon J, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 2:S42-8 (Eng. Abstr.) **(Fre)**

[86th Annual meeting of the Swiss Society of Medical Radiology. Geneva, Switzerland, 3-5 June 1999. Abstracts] **Schweiz Med Wochenschr Suppl** 1999;106:3S-36S **(Fre, Ger)**

[Terminology collection of radiologic concepts of modern sectional imaging methods of the hand] Fiedler E, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):272-80 **(Ger)**

[The radiologically neglected child] Tröger J. **Radiologe** 1999 Jun;39(6):451-4 **(Ger)**

[80th German Congress of Radiology. Wiesbaden, Germany, 12-15 May 1999. Abstracts] **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Apr;170 Suppl 1:S1-275 **(Ger)**

[WWW-news: radiology, medicine and Internet. II 1998] Aschoff AJ. **Rontgenpraxis** 1998;51(7):276-7 **(Ger)**

[Will we read Radiologia Medica on the Internet? (editorial)] Di Guglielmo L, et al. **Radiol Med (Torino)** 1999 Jan-Feb; 97(1-2):1-7 **(Ita)**

[The conclusion of the XXXVIII the SIRM National Congress. Milano, 23-27 May, 1998 (editorial)] Grassi R, et al. **Radiol Med (Torino)** 1998 Dec;96(6):555-7 **(Ita)**

[Automated procedures for radiation protection and quality controls in conventional diagnostic radiology] Tofani A, et al. **Radiol Med (Torino)** 1998 Oct;96(4):394-8 (Eng. Abstr.) **(Ita)**

[The 58th annual meeting of the Japan Radiological Society. Tokyo, Japan. April 6-7, 1999. Abstracts] **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 Feb;59(2 Suppl):S1-274 **(Jpn)**

[The 34th autumn meeting of the Japan Radiological Society. Tokyo, Japan. October 5-7, 1998. Abstracts] **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Sep;58(10 Suppl):S299-366 **(Jpn)**

[The neuro-radiologist's approach to the diagnosis and treatment of diseases of the nervous system (editorial)] Solé-Llenas J. **Rev Neurol** 1999 Apr 1-15;28(7):708-10 (13 ref.) **(Spa)**

[Really stupid to abolish "radiologists' vacation" (letter)] Jacobsson H. **Lakartidningen** 1999 Apr 14;96(15):1811-2 **(Swe)**

ECONOMICS

Proceedings of the 2nd Oxford International Symposium on the Costs and Benefits of Radiology. San Francisco, California, USA. August 21-23, 1997. **Acad Radiol** 1998 Sep;5 Suppl 2:S255-462

Cost-effectiveness in radiology: perspective of the European Association of Radiology. Dalla Palma L. **Acad Radiol** 1998 Sep;5 Suppl 2:S421-2

Costs and benefits of radiology: meeting summary, perspective, and plans for the future. Ringertz H. **Acad Radiol** 1998 Sep;5 Suppl 2:S460-2

Public financing systems for radiology: experience in 12 European countries. Kesteloot K. **Eur Radiol** 1999; 9(1):166-73

[Economic assessment in radiology] Durand-Zaleski I, et al. **J Radiol** 1998 Jul;79(7):645-50 **(Fre)**

[Rinke-Trauhand expert assessment proves: rate setting by the German health insurance are not distributed equitably. Radiologists of the North Rhine health insurance will pay about 5,000 DM to support mandatory health insurance services in 1999. The expert report exceeds all apprehensions] **Radiologe** 1999 Jul;39(7):M123-5 **(Ger)**

EDUCATION

Radiology faculty evaluation: bi-institutional implementation of an experimental appraisal instrument. Collins J, et al. **Acad Radiol** 1998 Nov;5(11):804-9

Chest radiology case exchange program: a paradigm for resident teaching and independent resident learning. Collins J, et al. **Acad Radiol** 1999 Jan;6(1):34-9

Information needs and information-seeking behaviors of on-call radiology residents. D'Alessandro MP, et al. **Acad Radiol** 1999 Jan;6(1):16-21

Cost-effective medical education in developing countries. Gooding CA. **Acad Radiol** 1998 Sep;5 Suppl 2:S425-7

Residents: be aggressive in your own education! Harolds JA. **Acad Radiol** 1998 Sep;5(9):655-7

Residents' perspective on the 1998 ACR Intersociety Summer Conference: are today's residents ready for (tomorrow's) practice? McCurdy WE, et al. **Acad Radiol** 1999 May;6(5):305-6

Research in radiology residency programs: a survey [see comments] McGuire CW, et al. **Acad Radiol** 1998 Oct; 5(10):698-700. Comment in: Acad Radiol 1998 Oct;5(10):663-4.

1999 Joseph E. Whitley, MD, Award. Facilitating the production of digital radiology teaching files with the radiology annotation and publishing system: a software tool for radiology educators. Mehta A, et al. **Acad Radiol** 1999 Aug;6(8):496-501

Research in radiology residency: a commentary [editorial; comment] Moss AA. **Acad Radiol** 1998 Oct;5(10):663-4. Comment on: Acad Radiol 1998 Oct;5(10):698-700.

The making of a curriculum [editorial] Resnik CS. **Acad Radiol** 1999 Jun;6(6):325-6

Musculoskeletal radiology curriculum guide. The Education Committee of the American Society of Musculoskeletal Radiology. Resnik CS, et al. **Acad Radiol** 1999 Jun; 6(6):360-7

Physics for radiologists: now more than ever! [editorial] Saba PR, et al. **Acad Radiol** 1999 May;6(5):261-3

Resident assessment: a commentary [editorial; comment] Smith WL. **Acad Radiol** 1999 Jan;6(1):1. Comment on: Acad Radiol 1999 Jan;6(1):66-71.

Assessment of resident knowledge: subjective assessment versus performance on the ACR in-training examination [see comments] Wise S, et al. **Acad Radiol** 1999 Jan; 6(1):66-71. Comment in: Acad Radiol 1999 Jan;6(1):1.

The situation of diagnostic radiology training programs and their graduates in 1998. Crewson PE, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):271-4

Computerized realistic simulation: a teaching module for crisis management in radiology. Sica GT, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):301-4

Clinical integration of three-dimensional helical CT angiography into academic radiology: results of a focused survey. Smith PA, et al. **AJR Am J Roentgenol** 1999 Aug; 173(2):445-7

The virtual lecture: delivery of live and recorded presentations over the Internet. Tamm EP, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):9-12

Radiology 1998: Are today's residents ready for (tomorrow's) practice? Vydareny KH. **AJR Am J Roentgenol** 1999 Sep; 173(3):537-8

Electronic monitoring of clinical experience during undergraduate training in diagnostic radiography. Akehurst JC. **Br J Radiol** 1999 Jan;72(853):76-9

Canadian radiology resident stress in 1988: where are we? [editorial; comment] Forster BB. **Can Assoc Radiol J** 1998 Oct;49(5):311-3. Comment on: Can Assoc Radiol J 1998 Oct;49(5):349-50.

Stress in Canadian radiology residency training: a national survey [letter] [see comments] Forster BB, et al. **Can Assoc Radiol J** 1998 Oct;49(5):349-50. Comment in: Can Assoc Radiol J 1998 Oct;49(5):311-3.

Radiology residents' research in Canada: status of infrastructure. Karlik SJ, et al. **Can Assoc Radiol J** 1998 Oct;49(5):314-9

A core curriculum in the evaluative sciences for diagnostic imaging [editorial] Stolberg HO, et al. **Can Assoc Radiol J** 1998 Oct;49(5):295-306 (66 ref.)

RADIOLOGY

The interventional radiographer [editorial] McConnell J, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):185–6
Towards quality assurance of postgraduate training in radiology. Needham G. **Clin Radiol** 1999 Mar;54(3):140–3 (9 ref.)
Teleradiology in southern Sweden--a tool for reorganization of health care and for education. Pettersson H, et al. **Comput Methods Programs Biomed** 1998 Aug–Sep; 57(1–2):13–9
Reproducibility of brain MRI lesion volume measurements in multiple sclerosis using a local thresholding technique: effects of formal operator training. Rovaris M, et al. **Eur Neurol** 1999;41(4):226–30
Do gastroenterologists want to be trained in ultrasound? A national survey of trainees in gastroenterology. Jamieson CP, et al. **Gut** 1999 Jan;44(1):123–6
The teaching of computer programming and digital image processing in radiography. Allan GL, et al. **Int J Med Inf** 1998 Jun;50(1–3):139–43
MammoWeb continuing medical education (CME): a web–based breast imaging CME program. Krebs TL, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):124–6
Using commercially available off–the–shelf software and hardware to develop an intranet–based hypertext markup language teaching file. Wendt GJ. **J Digit Imaging** 1999 May;12(2 Suppl 1):122–3
Interactive web–based radiology teaching file. Zaidel M, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):203–4
Developing a clinical competency examination in radiology: part I--test structure. Marchiori DM, et al. **J Manipulative Physiol Ther** 1999 Feb;22(2):57–62
Developing a clinical competency examination in radiology: part II--test results. Marchiori DM, et al. **J Manipulative Physiol Ther** 1999 Feb;22(2):63–74
Focused abdominal sonogram for trauma: the learning curve of nonradiologist clinicians in detecting hemoperitoneum. Shackford SR, et al. **J Trauma** 1999 Apr;46(4):553–62; discussion 562–4 (40 ref.)
Factors associated with success or failure in radiological interpretation: diagnostic thinking approaches. Peterson C. **Med Educ** 1999 Apr;33(4):251–9
Design and implementation of a World Wide Web teaching files database on diagnostic radiology. Sparacia G, et al. **Radiol Med (Torino)** 1999 Jan–Feb;97(1–2):76–80
Predictors of success on the ARRT's MRI exam. Paschal RA, et al. **Radiol Technol** 1998 Sep–Oct;70(1):29–36
Training issues in neuroradiology and head and neck radiology [comment] Dillon WP. **Radiology** 1998 Oct; 209(1):15–6. Comment on: Radiology 1998 Oct;209(1):3–7. Comment on: Radiology 1998 Oct;209(1):8–14.
The RSNA–AUR–ARRS introduction to research program for 2nd year radiology residents: effect on career choice and early academic performance. Radiological Society of North America. Association of University Radiologists. American Roentgen Ray Society. Hillman BJ, et al. **Radiology** 1998 Nov;209(2):323–6
Trauma head CT interpretation by radiology residents versus staff radiologists [letter] Wysoki M. **Radiology** 1999 Jan; 210(1):283
[Interuniversity diploma in cardiovascular imaging: a luxury or a necessity? (editorial)] Crochet D. **J Radiol** 1998 Mar; 79(3):203–4 **(Fre)**
[The virtual university in medicine. Context, concepts, specifications, users' manual] Duvauferrier R, et al. **J Radiol** 1998 Sep;79(9):825–35 (Eng. Abstr.) **(Fre)**
[Radiological expertise and diagnosis. I. Theoretical advances] Raufaste E, et al. **J Radiol** 1998 Mar;79(3):227–34 (41 ref.) (Eng. Abstr.) **(Fre)**
[Radiological expertise and diagnosis. II. Empirical study] Raufaste E, et al. **J Radiol** 1998 Mar;79(3):235–40 (Eng. Abstr.) **(Fre)**
[Scientific committee of the French radiology workshops: "how to use" (editorial)] Rémy–Jardin M. **J Radiol** 1998 Mar;79(3):211 **(Fre)**
[Apprenticeship in radiology at the University Hospital Center in Grenoble: research on the most effective methods] Roland S, et al. **J Radiol** 1999 May;80(5):431–5 (Eng. Abstr.) **(Fre)**
[The University of X–ray Laboratory Assistants. Lesson 4. Megabyte memories] Chikirdin EG. **Vestn Rentgenol Radiol** 1998 Mar–Apr;(2):51–60 **(Rus)**
[The University of X–ray Laboratory Assistants. Lesson 5. Image contrast] Chikridin EG. **Vestn Rentgenol Radiol** 1998 Jul–Aug;(4):40–9 **(Rus)**

HISTORY

Eugene W. Caldwell Lecture. Pediatric imaging: the oldest radiological subspecialty comes of age. Kirks DR. **AJR Am J Roentgenol** 1999 Feb;172(2):291–9
Roentgen and his ray: an early impact on modern medicine. Boyd L, et al. **Am Surg** 1999 Mar;65(3):292–4
A century of radiology in osteopathic healthcare. Rosenbaum RR. **J Am Osteopath Assoc** 1998 Dec;98(12):696, 699–702
European radiology: the nowhere building. An initial success of the Italian Society of Medical Radiology [editorial] Cardinale AE. **Radiol Med (Torino)** 1999 Apr;97(4):217–28 **(Eng, Ita)**
Marie Curie--the founder of the Radium Institute in Warsaw. Gwiazdowska B, et al. **Radiother Oncol** 1998 Dec; 49(3):217–21
[Antoine Béclère (1856–1939). In memory of Antoinette Béclère, the admirable guardian of her father's works] Pallardy G, et al. **J Radiol** 1999 Jun;80(6):600–3 **(Fre)**
[Female pioneers of radiology in the first half of the 20th century] Busch U. **Rontgenpraxis** 1999;52(1):38–42 **(Ger)**

INSTRUMENTATION

Polaroid imaging at an archaeological site in Peru. Conlogue G, et al. **Radiol Technol** 1999 Jan–Feb;70(3):244–50
[Efficacy of an ultraviolet device for the disinfection of radiology cassettes] Garcin F, et al. **Pathol Biol (Paris)** 1998 May;46(5):325–9 (Eng. Abstr.) **(Fre)**
[Engineering base for radiation diagnosis] Blinov NN, et al. **Vestn Rentgenol Radiol** 1998 Sep–Oct;(5):58–9 **(Rus)**

LEGISLATION & JURISPRUDENCE

The duty to disclose. Berlin L. **AJR Am J Roentgenol** 1998 Dec;171(6):1463–7
Liability of radiologists when supervising technologists. Berlin L. **AJR Am J Roentgenol** 1999 Feb;172(2):285–9
Software for nervous teachers [letter; comment] Dockray KT. **AJR Am J Roentgenol** 1999 Feb;172(2):552. Comment on: AJR Am J Roentgenol 1994 Jun;162(6):1439–41. Comment on: AJR Am J Roentgenol 1997 Dec;169(6):1483–6. Comment on: AJR Am J Roentgenol 1998 Aug;171(2):295–9.
Potential for fraudulent use of digital radiography. Tsang A, et al. **J Am Dent Assoc** 1999 Sep;130(9):1325–9
[Principles of medical liability and practice in medical imaging] Thibierge M, et al. **J Radiol** 1999 Jul;80(7):701–7 (35 ref.) (Eng. Abstr.) **(Fre)**
[Responsibility of the radiologist in bone radiology (editorial)] Freyschmidt J. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):1–4 **(Ger)**
[Legal malpractice–related aspects of consultation] Freyschmidt JC. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):4–6 **(Ger)**
[Rights and responsibilities of the radiologist in determining indications and applying radiologic procedures] Schunk K. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):7–15 (29 ref.) (Eng. Abstr.) **(Ger)**

MANPOWER

Characteristics of women radiologists in the United States. Frank E, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):531–6
Structural and trace element changes in scalp hair of radiographers. Man AC, et al. **Biol Trace Elem Res** 1998 Jul;63(1):11–8

METHODS

EUFORA mailing list: a European forum for radiologists [letter] Ranschaert ER. **Eur Radiol** 1999;9(3):570
The electronic transformation of radiology: commentary [comment] Arenson RL. **Radiology** 1998 Dec;209(3):609–10 . Comment on: Radiology 1998 Dec;209(3):606–8.
The Society for Computer Applications in Radiology. The electronic transformation of radiology [see comments] Williamson B Jr. **Radiology** 1998 Dec;209(3):606–8. Comment in: Radiology 1998 Dec;209(3):609–10.
[New non–ionic monomeric and dimeric contrasting agents in radiology] Sviridov NK. **Vestn Rentgenol Radiol** 1998 Sep–Oct;(5):56–7 (25 ref.) **(Rus)**

ORGANIZATION & ADMINISTRATION

The Iron Lady: reform and be damned--a cost and benefits analysis of UK radiology post reform. Golding SJ. **Acad Radiol** 1998 Sep;5 Suppl 2:S357–8
Leadership in radiology. Gunderman RB. **Acad Radiol** 1999 Jul;6(7):444–51
The radical revolution of radiology. Nauert RC. **J Health Care Finance** 1998 Winter;25(2):9–19 (0 ref.)
Radiology--a dental specialty awaiting its just recognition [editorial] Ruprecht A, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):525
[Organization of radiologic services in Sarajevo during the war (1992–1995)] Dalagija F, et al. **Med Arh** 1998; 52(3):163–5 (Eng. Abstr.) **(Scr)**

STANDARDS

Morality, ethics, and radiologists' responsibilities. Armstrong JD 2nd. **AJR Am J Roentgenol** 1999 Aug;173(2):279–84
Routine receiver operating characteristic analysis in mammography as a measure of radiologists' performance. Goddard CC, et al. **Br J Radiol** 1998 Oct;71(850):1012–7
Analysis of the status of X–ray diagnosis in Ghana. Schandorf C, et al. **Br J Radiol** 1998 Oct;71(850):1040–8
The development of radiology guidelines in Canada, Part 1. Stolberg HO. **Can Assoc Radiol J** 1999 Apr;50(2):83–8
Advanced–practice sonography in obstetrics and gynecology: a pilot study investigating the efficacy of the ultrasound practitioner. Persutte WH, et al. **J Allied Health** 1999 Summer;28(2):71–9
An expert experiment--medico–legal expert testimony. Stevenson JR. **Med Law** 1999;18(1):47–53
Minimizing occupational exposure. Shymko MJ. **Radiol Technol** 1998 Sep–Oct;70(1):89–90 (3 ref.)
Turf battles in radiology: how the radiology community can collectively respond to the challenge [editorial; comment] Levin DC, et al. **Radiology** 1999 May;211(2):301–5. Comment on: Radiology 1998 Nov;209(2):330–4.
Medical radiologic technologist review: effects on a population–based breast cancer screening program. Tonita JM, et al. **Radiology** 1999 May;211(2):529–33
Comprehensive radiographic evaluation of diffuse idiopathic skeletal hyperostosis: development and interrater reliability of a scoring system. Mata S, et al. **Semin Arthritis Rheum** 1998 Oct;28(2):88–96
[Authors are accountable, even for radiologic illustrations in their articles] **Ned Tijdschr Geneeskd** 1999 Mar 6; 143(10):500–1 (Eng. Abstr.) **(Dut)**
[Evaluation, certification, accreditation: progress in radiology (editorial; comment)] de Chambine S, et al. **J Radiol** 1999 Aug;80(8):823–4. Comment on: J Radiol 1999 Aug;80(8):825–34. **(Fre)**
[A quality reference manual for radiology (see comments)] de Chambine S, et al. **J Radiol** 1999 Aug;80(8):825–34 (Eng. Abstr.). Comment in: J Radiol 1999 Aug;80(8):823–4. **(Fre)**
[Publication of a tool to aid in the implementation of quality measures in radiology (editorial)] Leclet H. **J Radiol** 1999 Apr;80(4):349 **(Fre)**

STATISTICS & NUMERICAL DATA

The need for reliable monitoring of workforce trends [letter; comment] Straub WH. **AJR Am J Roentgenol** 1999 May; 172(5):1449–50. Comment on: AJR Am J Roentgenol 1998 Oct;171(4):919–22.
U.S. radiologists' workload in 1995–1996 and trends since 1991–1992 [letter; comment] Straub WH. **Radiology** 1999 Feb;210(2):584–5. Comment on: Radiology 1998 Jul;208(1):19–24.
Comprehensive radiographic evaluation of diffuse idiopathic skeletal hyperostosis: development and interrater reliability of a scoring system. Mata S, et al. **Semin Arthritis Rheum** 1998 Oct;28(2):88–96
[Mortality and morbidity conference in radiology] Berthold LD, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):585–9 (Eng. Abstr.) **(Ger)**

TRENDS

Directions in radiology for the next millennium. Thrall JH. **AJR Am J Roentgenol** 1998 Dec;171(6):1459–62
Hospital radiology: today and tomorrow [editorial] Hare WS. **Hosp Med** 1999 May;60(5):322–3
The radical revolution of radiology. Nauert RC. **J Health Care Finance** 1998 Winter;25(2):9–19 (0 ref.)
Research in pediatric radiology: preparing for our future. Strife JL, et al. **Pediatr Radiol** 1998 Aug;28(8):563–8 (13 ref.)
International Society of Hepato–Biliary and Pancreatic Radiology. The past, present, and future of hepatobiliary and pancreatic radiology. Bender CE, et al. **Radiology** 1998 Nov;209(2):317–9
Research in gastrointestinal and abdominal radiology: barium and beyond. Ferrucci JT Jr. **Radiology** 1998 Nov; 209(2):320–2
The future of medicine and radiology: Part I. Friedenberg RM. **Radiology** 1999 Aug;212(2):301–4
The Society for the Advancement of Women's Imaging. Radiology: a partner in clinical care [see comments] Hricak H, et al. **Radiology** 1998 Nov;209(2):297–302. Comment in: Radiology 1998 Nov;209(2):303–4.
Women's imaging [comment] Mendelson EB. **Radiology** 1998 Nov;209(2):303–4. Comment on: Radiology 1998 Nov;209(2):297–302.
Radiology and Epcot celebrate new millennium with a patient education and information exhibit. Petasnick JP, et al. **Radiology** 1999 Sep;212(3):607–8
The Society of Gastrointestinal Radiologists: its future and relevance. vanSonnenberg E, et al. **Radiology** 1998 Nov; 209(2):314–6

RADIOLOGY DEPARTMENT, HOSPITAL

Adherence of peripheral blood neutrophils in X–ray operators. Hrycek A, et al. **Acta Physiol Hung** 1997–98; 85(4):315–24
Compliance with do–not–resuscitate orders for hospitalized patients transported to radiology departments [see comments] Heffner JE, et al. **Ann Intern Med** 1998 Nov 15;129(10):801–5. Comment in: Ann Intern Med 1998 Nov 15;129(10):831–3. Comment in: Ann Intern Med 1999 Jul 6;131(1):72–3.
Resuscitation and the radiologist [editorial] [comment] McDermott VG. **Ann Intern Med** 1998 Nov 15; 129(10):831–3. Comment on: Ann Intern Med 1998 Nov 15;129(10):801–5.
The benefits of hospital–wide picture archiving and communication systems: a survey of clinical users of radiology services. Bryan S, et al. **Br J Radiol** 1999 May; 72(857):469–78
Calculating shielding requirements in diagnostic X–ray departments. Petrantonaki M, et al. **Br J Radiol** 1999 Feb; 72(854):179–85
New picture archiving and communications system plus new facility equals critical path planning challenge. Brye PE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):130–3

The process of converting to a near filmless operation at the University of Utah, Department of Radiology. Freeh M, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):41–6

Electronic imaging and clinical implementation: work group approach at Mayo Clinic, Rochester. King BF Jr, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):32–6

[Interventional radiology and the medical applications of information systems: what consequences for the radiology department?] Vergnenègre A, et al. **J Radiol** 1999 Jun; 80(6):565–8 (Eng. Abstr.) **(Fre)**

[Modelling of radiological services in the context of a hospital information system: does the DICOM standard meet the requirements?] König H, et al. **Radiologe** 1998 Oct; 38(10):872–82 (Eng. Abstr.) **(Ger)**

ECONOMICS

[Larger radiology clinics are superior to smaller facilities] Kuhn FP. **Radiologe** 1999 Apr;39(4):M73–4 **(Ger)**

MANPOWER

Staff stretch. Home remedy [news] Serb C. **Hosp Health Netw** 1999 Mar;73(3):22, 24

ORGANIZATION & ADMINISTRATION

A different perspective on the radiologist's involvement in management [comment] Arenson RL. **Acad Radiol** 1999 May;6(5):314–6. Comment on: Acad Radiol 1999 May;6(5):307–13.

Leadership in radiology. Gunderman RB. **Acad Radiol** 1999 Jul;6(7):444–51

Radiology department management by radiologists. Siegle RL, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S434–5

Changing roles: the radiologist in management [see comments] Siegle RL, et al. **Acad Radiol** 1999 May; 6(5):307–13. Comment in: Acad Radiol 1999 May;6(5):314–6.

Multidisciplinary gastrointestinal cancer clinic: abdominal radiologist as active participant. Silverman SG, et al. **Acad Radiol** 1998 Oct;5(10):694–7

An ISO-quality system in the radiology department: a benefit analysis. van den Heuvel J, et al. **Acad Radiol** 1998 Sep; 5 Suppl 2:S441–5

A review of radiation protection facilities at the University College Hospital, Ibadan, Nigeria. Adeniran SA. **Afr J Med Med Sci** 1996 Sep;25(3):269–71

Quality, around the clock [letter; comment] Feld RS. **AJR Am J Roentgenol** 1999 Jul;173(1):242–3. Comment on: AJR Am J Roentgenol 1999 Jan;172(1):7.

Around-the-clock radiology services: quality-of-care issues [see comments] Gottlieb RH. **AJR Am J Roentgenol** 1999 Jan;172(1):7. Comment in: AJR Am J Roentgenol 1999 Jul;173(1):242–3.

File management in a radiology department. King JL, et al. **AJR Am J Roentgenol** 1999 May;172(5):1185–8

A database designed for utilization management in diagnostic imaging. Stolberg HO, et al. **Can Assoc Radiol J** 1999 Aug; 50(4):227–32

24-hour radiology coverage [letter; comment] Fitzgerald R. **Clin Radiol** 1999 Apr;54(4):271. Comment on: Clin Radiol 1997 Aug;52(8):575–81. Comment on: Clin Radiol 1998 Sep;53(9):639–49.

The teleradiology system and changes in work practices. Karasti H, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep;57(1–2):69–78

Maintaining continuity of clinical operations while implementing large-scale filmless operations. Honea R, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):50–3

Workflow management systems--a powerful means to integrate radiologic processes and application systems. Schmidt J, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):214–5

Planning and cost analysis of digital radiography services for a network of hospitals (the Veterans Integrated Service Network). Duerinckx AJ, et al. **J Telemed Telecare** 1998; 4(3):172–8

Technology and art against cancer. Armaroli L. **Lancet** 1999 Jan 23;353(9149):332

A radiology department intranet: development and applications. Willing SJ, et al. **Radiographics** 1999 Jan–Feb; 19(1):169–82

Can academic radiology departments become more efficient and cost less? [see comments] Seltzer SE, et al. **Radiology** 1998 Nov;209(2):405–10. Comment in: Radiology 1999 May;211(2):592.

[Marketing mix in a radiology department: challenges for future radiologists in management] Claikens B. **J Belge Radiol** 1998 Aug;81(4):186–9 (Eng. Abstr.) **(Dut)**

[A project for the organization and planning of a diagnostic ultrasonography area at a radiology department] Cioffi V, et al. **Radiol Med (Torino)** 1998 Oct;96(4):360–8 (Eng. Abstr.) **(Ita)**

STANDARDS

Routine receiver operating characteristic analysis in mammography as a measure of radiologists' performance. Goddard CC, et al. **Br J Radiol** 1998 Oct;71(850):1012–7

Report of an image quality and dose audit according to directive 97/43/Euratom at Spanish private radiodiagnostics facilities. González L, et al. **Br J Radiol** 1999 Feb;72(854):186–92

Variation between experienced observers in the interpretation of accident and emergency radiographs. Robinson PJ, et al. **Br J Radiol** 1999 Apr;72(856):323–30

Analysis of the status of X-ray diagnosis in Ghana. Schandorf C, et al. **Br J Radiol** 1998 Oct;71(850):1040–8

The radiology department and nosocomial infections. Shagam JY. **Radiol Technol** 1999 May-Jun;70(5):418–30; quiz 431–3 (6 ref.)

Efficiency in academic radiology departments [letter; comment] Sprayregen S, et al. **Radiology** 1999 May; 211(2):592. Comment on: Radiology 1998 Nov;209(2):405–10.

[A quality reference manual for radiology (see comments)] de Chambine S, et al. **J Radiol** 1999 Aug;80(8):825–34 (Eng. Abstr.). Comment in: J Radiol 1999 Aug;80(8):823–4. **(Fre)**

[Comparison of accreditation procedures, ISO 9000 certification procedures and total quality management. Personal experiences and application of quality assurance in a department of radiology and medical imaging] Duvauferrier R, et al. **J Radiol** 1999 Apr;80(4):363–7 (Eng. Abstr.) **(Fre)**

STATISTICS & NUMERICAL DATA

A survey of radiology reporting practices in veterinary teaching hospitals. Adams WM. **Vet Radiol Ultrasound** 1998 Sep-Oct;39(5):482–6

UTILIZATION

Effect of trained physicians on emergency department test utilization [letter] Gerbeaux P, et al. **Ann Emerg Med** 1999 Mar;33(3):355–6

RADIOLOGY, DIAGNOSTIC X-RAY see **RADIOGRAPHY**

RADIOLOGY INFORMATION SYSTEMS

Gastrointestinal imaging: a systems analysis comparing digital and conventional techniques. Chawla S, et al. **AJR Am J Roentgenol** 1999 May;172(5):1279–84

File management in a radiology department. King JL, et al. **AJR Am J Roentgenol** 1999 May;172(5):1185–8

A low-cost, full-function picture archiving and communication system using standard PC hardware and the traditional 4-over-4 display format. Kolodny GM, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):591–4

Viewing DICOM-compliant CT images on a desktop personal computer: use of an inexpensive DICOM receive agent and freeware image display applications. Zeman RK, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):305–8

Cine PACS: preprint. Balter S. **Catheter Cardiovasc Interv** 1999 May;47(1):85–90

VoxeLine: a software program for 3D real-time visualization of biomedical images. Diallo B, et al. **Comput Med Imaging Graph** 1998 Jul-Aug;22(4):275–89

3D visualization library for multimodal medical images. Heinonen T, et al. **Comput Med Imaging Graph** 1998 Jul-Aug;22(4):267–73

Fast image accessing based on an analysis of the picture archiving and communications system in Kochi Medical School. Kurihara Y, et al. **Comput Med Imaging Graph** 1998 Nov-Dec;22(6):439–45

Assessment of commercial compression algorithms, of the lossy DCT and lossless types, applied to diagnostic digital image files. Okkalides D. **Comput Med Imaging Graph** 1998 Jan-Feb;22(1):25–30

Image storing system for radiation therapy (radiation oncology information system: ROIS) as a branch of diagnostic PACS; implementation and evaluation. Yamada T, et al. **Comput Med Imaging Graph** 1999 Mar-Apr; 23(2):111–7

Multilevel adaptive process control of acquisition and post-processing of computed radiographic images in picture archiving and communication system environment. Zhang J, et al. **Comput Med Imaging Graph** 1998 Jan-Feb; 22(1):31–40

PACS and teleradiology--Maturing technologies delivering value to users and healthcare. Proceedings of the 2nd Symposium of Scandinavian Japanese Radiological Society, 5th Nordic Japan PACS Symposium. Stockholm, Sweden, June 16–18, 1996. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1–2):1–146

Pax Vobiscum--a Swedish large PACS project. Andersson T. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1–2):35–9

HIS/RIS contribution to image diagnosis and maximization of efficacy of PACS when coupled with HIS/RIS. Inamura K, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1–2):41–9

Results and experience with four years of development work on a filmless department in Mjölby health care centre. Karner G, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep;57(1–2):51–4

New image network system and its informational background at Yamada Red Cross Hospital. Kinosada Y, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1–2):55–61

TRI2SOLID: an application of reverse engineering methods to the creation of CAD models of bone segments. Viceconti M, et al. **Comput Methods Programs Biomed** 1998 Jun; 56(3):211–20

Increasing spiral CT benefits with postprocessing applications. Kirchgeorg MA, et al. **Eur J Radiol** 1998 Aug; 28(1):39–54 (81 ref.)

PACS: the silent revolution. Bick U, et al. **Eur Radiol** 1999; 9(6):1152–60 (71 ref.)

PACS workstation respecification: display, data flow, system integration, and environmental issues, derived from analysis of the Conquest Hospital pre-DICOM PACS experience. Foord KD. **Eur Radiol** 1999;9(6):1161–9

Integrating HIS-RIS-PACS: the Freiburg experience. Kotter E, et al. **Eur Radiol** 1998;8(9):1707–18 (47 ref.)

Is image selection a useful strategy to decrease the transmission time in teleradiology? A study using 100 emergency cranial CTs. Ludwig K, et al. **Eur Radiol** 1998; 8(9):1719–21

EUFORA mailing list: a European forum for radiologists [letter] Ranschaert ER. **Eur Radiol** 1999;9(3):570

Diagnostic imaging. Pictures of health [news] Kelleher K. **Hosp Health Netw** 1999 Sep;73(9):20, 22

Replacement of cinefilm with a digital archive and review network. Cusma JT, et al. **Int J Card Imaging** 1998 Oct; 14(5):293–300 (10 ref.)

The status of the GE approach to the digital catheterization laboratory. Herro PJ. **Int J Card Imaging** 1998 Oct; 14(5):329–33 (0 ref.)

Integrated image storage solution for the Cath department. Weterings RA. **Int J Card Imaging** 1998 Oct;14(5):349–56 (8 ref.)

Integrating learning contexts in a medical informatics program--preparing for the introduction of PACS. Lundberg N. **Int J Med Inf** 1998 Jun;50(1–3):87–93

A review of compression methods for medical images in PACS. Strintzis MG. **Int J Med Inf** 1998 Oct–Dec; 52(1–3):159–65

Portfolio: a prototype workstation for development and evaluation of tools for analysis and management of digital portal images. Boxwala AA, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):455–62

An assessment of picture archiving and communication systems (PACS). The case study of the SMZO Project. Socialmedizinischenes Zentrum Ost. Wild C, et al. **Int J Technol Assess Health Care** 1998 Summer; 14(3):573–82

Proceedings of the 1st TTUHSC Radiology Informatics Conference on Advanced Technologies for Radiology Operations. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):1–47

SCAR 99. PACS: Performance Improvement in Radiology. Proceedings of the 16th Symposium for Computer Applications in Radiology. Houston, Texas, USA. May 6–9, 1999. **J Digit Imaging** 1999 May;12(2 Suppl 1):1–227

Migration from hierarchal storage management to ASM storage server: a case study. Baune D, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):75–7

Web-based viewing of picture archiving and communications systems images--Part I: Optimal personal computer configuration. Bennett WF, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):112–5

Web-based viewing of picture archiving and communications systems images--Part II: The effect of compression on speed of transmission. Bennett WF, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):116–8

Integrated diagnostic workstation. Bergsneider CK, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):160–2

Image processing strategies in picture archiving and communication systems. Blume H. **J Digit Imaging** 1999 Feb;12(1):43–7

New picture archiving and communications system plus new facility equals critical path planning challenge. Brye PE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):130–3

Branching out with filmless radiology. Carbajal R, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):134–6

Parlaying digital imaging and communications in medicine and open architecture to our advantage: the new Department of Defense picture archiving and communications system. Cawthon MA. **J Digit Imaging** 1999 May;12(2 Suppl 1):64–6

Digital photography of digital imaging and communications in medicine-3 images from computers in the radiologist's office. Chin H, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):192–4

Meta-manager: a requirements analysis. Cook JF, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):186–8

Transparent image access in a distributed picture archiving and communications system: the Master Database broker. Cox RD, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):175–7

A literature review on communication between picture archiving and communication systems and radiology information systems and/or hospital information systems. Creighton C. **J Digit Imaging** 1999 Aug;12(3):138–43

The primary interpretation workstation: information beyond image data. Dreyer KJ, et al. **J Digit Imaging** 1998 Nov; 11(4 Suppl 2):16–9

A picture archiving and communications system featuring multiple monitors using Windows98. Ernst R, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):106–8

Distributing digital imaging and communications in medicine data and optimizing access over satellite networks. Ernst

RD, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):195–6

The Conquest Hospital picture archiving and communications system development, 1992 to 1999. Foord K, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):211–3

The process of converting to a near filmless operation at the University of Utah, Department of Radiology. Freeh M, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):41–6

Interfacing the radiology information system to the modality: an integrated approach. Garland HT, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):91–2

Evolution of a filmless digital imaging and communications in medicine-conformant picture archiving and communications system: design issues and lessons learned over the last 3 years. Henri CJ, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):178–80

Maintaining continuity of clinical operations while implementing large-scale filmless operations. Honea R, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):50–3

Information systems integration in radiology. Honeyman JC. **J Digit Imaging** 1999 May;12(2 Suppl 1):218–22

A client server model to facilitate creation of a medical image teaching library. Hornof WJ, et al. **J Digit Imaging** 1999 Aug;12(3):132–7

Reengineering the picture archiving and communication system (PACS) process for digital imaging networks PACS. Horton MC, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):59–61

Crossing the digital divide--moving from film to filmless radiology. Jones WG. **J Digit Imaging** 1999 May;12(2 Suppl 1):47–9

Electronic imaging and clinical implementation: work group approach at Mayo Clinic, Rochester. King BF Jr, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):32–6

Acceptance testing of integrated picture archiving and communications systems. Lewis TE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):163–5

A desktop digital imaging and communications in medicine picture archiving and communications system with multiple monitors using Windows 98. Lutzker S, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):191

The clinical display of radiologic information as an interactive multimedia report. Maloney K, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):119–21

Virtual management of radiology examinations in the virtual radiology environment using common object request broker architecture services. Martinez R, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):181–5

Impact of electronic imaging on clinician behavior in the urgent care setting. Mattern CW, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):148–51

Electronic imaging impact on image and report turnaround times. Mattern CW, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):155–9

Voice recognition--an emerging necessity within radiology: experiences of the Massachusetts General Hospital. Mehta A, et al. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):20–3

Care and feeding of a staff for filmless radiology. Mensch B, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):38–40

Why and how is soft copy reading possible in clinical practice? Mertelmeier T. **J Digit Imaging** 1999 Feb;12(1):3–11

Practical considerations for picture archiving and communications systems over the enterprise network. Miller MT, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):84–7

Wavelet-based vector quantization for high-fidelity compression and fast transmission of medical images. Mitra S, et al. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):24–30

Interhospital network system using the worldwide web and the common gateway interface. Oka A, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):205–7

Performance and function of a high-speed multiple star topology image management system at Mayo Clinic Scottsdale. Pavlicek W, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):168–74

Sophisticated hospital information system/radiology information system/picture archiving and communications system (PACS) integration in a large-scale traumatology PACS. Peer S, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):99–102

Content-based image retrieval in picture archiving and communications systems. Qi H, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):81–3

Technology assessment and requirements analysis: a process to facilitate decision making in picture archiving and communications system implementation. Radvany MG, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):62–3

Radiology information systems, picture archiving and communication systems, teleradiology--overview and design criteria. Roberson GH, et al. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):2–7

Image quality assurance for CRT display systems [editorial] Roehrig H. **J Digit Imaging** 1999 Feb;12(1):1–2

Developing a framework for worldwide image communication. Rowberg AH, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):189–90

Bridging the gap: linking a legacy hospital information system with a filmless radiology picture archiving and communications system within a nonhomogeneous environment. Rubin RK, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):96–8

Establishing radiologic image transmission via a transmission control protocol/Internet protocol network between two teaching hospitals in Houston. Shepherd B. **J Digit Imaging** 1999 May;12(2 Suppl 1):88–90

Integrated radiology information system, picture archiving and communications system, and teleradiology--workflow-driven and future-proof. Shieh YY, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):199–200

Challenges associated with the incorporation of digital radiography into a picture archival and communication system. Siegel EL, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):6–8

A generic digital imaging and communications in medicine solution for a bidirectional interface between the modality and the radiology information system. Smith EM, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):93–5

Evaluating the impact of workstation usage on radiology report times in the initial 6 months following installation. Tamm EP, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):152–4

Photostimulable storage phosphor image acquisition: evaluation of three commercially available state-of-the-art systems. Tucker JE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):54–8

Process mapping in screening mammography. Whitman GJ, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):208

Radiologist-patient interactions: implications for picture archiving and communications systems and teleradiology. Williamson EE, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):137–8

An integrated system for the production of field shaping devices in radiotherapy. Gueorguieva K, et al. **Med Eng Phys** 1999 Jan;21(1):45–51

Hippocrates: an integrated platform for telemedicine applications. Makris L, et al. **Med Inform (Lond)** 1998 Oct-Dec;23(4):265–76

A JAVA environment for medical image data analysis: initial application for brain PET quantitation. Mikolajczyk K, et al. **Med Inform (Lond)** 1998 Jul-Sep;23(3):207–14

Implementation of a low-cost PACS/CR for clinical use in Yonsei Cardiovascular Center. Huh JM, et al. **Medinfo** 1998;9 Pt 2:1091–4

Modeling and performance analysis of image transfer in PACS. Kimura H, et al. **Medinfo** 1998;9 Pt 2:1080–4

Functional requirements for a HIS-RIS-PACS-interface design, including integration of "old" modalities. Adelhard K, et al. **Methods Inf Med** 1999 Mar;38(1):1–8

Term domain distribution analysis: a data mining tool for text databases. Goldman JA, et al. **Methods Inf Med** 1999 Jun;38(2):96–101

Evaluation of a semantic data model for chest radiology: application of a new methodology. Rocha RA, et al. **Methods Inf Med** 1998 Nov;37(4–5):477–90

Towards knowledge-based retrieval of medical images. The role of semantic indexing, image content representation and knowledge-based retrieval. Lowe HJ, et al. **Proc AMIA Symp** 1998;:882–6

Clinical usefulness of the management and delivery of radiation dose-distribution images using the Internet. Nakagawa K, et al. **Radiat Med** 1998 Jul-Aug;16(4):283–7

Voice recognition transcription: surely the future but is it ready? [editorial] Heilman RS. **Radiographics** 1999 Jan-Feb;19(1):2

An economical, personal computer-based picture archiving and communication system. Wu TC, et al. **Radiographics** 1999 Mar-Apr;19(2):523–30

Digital medical image management. Furlow B. **Radiol Technol** 1999 May-Jun;70(5):434–45; quiz 446–8 (31 ref.)

[Should PACS be developed? (editorial; comment)] Gandon Y, et al. **J Radiol** 1998 Dec;79(12):1445–6. Comment on: J Radiol 1998 Dec;79(12):1453–9. **(Fre)**

[Digital archiving of imaged heart catheter studies on CD-R. Detection of irreversible CD damage] Erbel R, et al. **Herz** 1998 Dec;23(8):526–9 (Eng. Abstr.) **(Ger)**

[Definition and specification requirements for PAC-systems (picture archiving and communication system). A performance index with reference to the standard "IEEE Recommended Practice for Software Requirement Specifications"] König H, et al. **Radiologe** 1999 Apr;39(4):269–75 (Eng. Abstr.) **(Ger)**

[PACS. Current status and possible applications (editorial)] Nissen-Meyer S, et al. **Radiologe** 1999 Apr;39(4):255–6 **(Ger)**

[First experiences with the trauma radiologic PACS project at the University of Innsbruck Department of Radiology] Peer S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):459–64 (Eng. Abstr.) **(Ger)**

[Report management system using Web server and search engine] Sasaki M, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Jul;58(8):447–50 (Eng. Abstr.) **(Jpn)**

[Clinical computer applications in the radiology department] Ando Y. **Rinsho Byori** 1999 Feb;47(2):111–8 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Information system of the diagnostic x-ray service of the Moscow Public Health Committee] Zelikman MI. **Med Tekh** 1999 May-Jun;(3):38–9 (Eng. Abstr.) **(Rus)**

ECONOMICS

Economic impact of modern telematic technologies. Lemke HU. **Acad Radiol** 1998 Sep;5 Suppl 2:S436–40

Cost-effectiveness of digital radiography. Reiser M, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S411–5

[Economic and organizational evaluation of an imaging network (PACS) (see comments)] Charvet-Protat S, et al. **J Radiol** 1998 Dec;79(12):1453–9 (Eng. Abstr.). Comment in: J Radiol 1998 Dec;79(12):1445–6. **(Fre)**

[Economic effects of integrated RIS-PACS solution in the university environment] Kröger M, et al. **Radiologe** 1999 Apr;39(4):260–8 (Eng. Abstr.) **(Ger)**

INSTRUMENTATION

Platform independent implementation of DICOM-based miniPACS. Grodzki M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:578–81

Problems with CD-ROM as a long-term archive medium in cardiac catheterizations [letter] Haude M, et al. **Cathet Cardiovasc Diagn** 1998 Nov;45(3):348–9

Toshiba's approach to the digital catheterization laboratory--full-digital system with DVD and network. Fujii S. **Int J Card Imaging** 1998;14 Suppl 1:27–30

The Camtronics experience with the filmless digital catheterization laboratory. Kapp MA, et al. **Int J Card Imaging** 1998 Oct;14(5):343–8 (3 ref.)

Digital networking and archiving with ACOM T.O.P. Saalfrank W. **Int J Card Imaging** 1998 Oct;14(5):323–7 (0 ref.)

Philips CD-medical digital cardiac review, exchange and archiving: today and tomorrow. Vreeswijk K. **Int J Card Imaging** 1998;14 Suppl 1:17–8

Evaluating a picture archiving and communications system workstation. Erickson BJ. **J Digit Imaging** 1999 May;12(2 Suppl 1):223–5

Introducing a downsized, open computer system with asynchronous transfer mode in PACS and its effect on image data transfer. Inoue T, et al. **Radiat Med** 1998 Sep-Oct;16(5):399–402

[Compression of 3- and 4-dimensional medical image data] Steingötter A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:478–9 **(Ger)**

[Digital image archiving--concept of digital image and video documentation in ENT. A contribution to quality assurance] Schmidt H, et al. **HNO** 1999 Jun;47(6):541–5 (Eng. Abstr.) **(Ger)**

[Uniform access to clinical data in a distributed system. The radiology example] Adelhard K, et al. **Radiologe** 1999 Apr;39(4):298–303 (Eng. Abstr.) **(Ger)**

[Aspects of electronic patient records in radiology] Adelhard K, et al. **Radiologe** 1999 Apr;39(4):310–5 (Eng. Abstr.) **(Ger)**

[RIS modality interfaces. From proprietary solutions to DICOM worklist management] Jäger D, et al. **Radiologe** 1999 Apr;39(4):286–91 (Eng. Abstr.) **(Ger)**

[Filmless documentation and image distribution to referring physicians exemplified by a radiologic community practice] Matzko M, et al. **Radiologe** 1999 Apr;39(4):316–9 (Eng. Abstr.) **(Ger)**

[Use of the DICOM standard in a heterogenous environment. Incompatibility or inoperability?] Mildenberger P, et al. **Radiologe** 1999 Apr;39(4):282–5 (Eng. Abstr.) **(Ger)**

[Wish and reality in installation of a clinic-wide system for image and documentation access] Rau WS, et al. **Radiologe** 1999 Apr;39(4):304–9 (Eng. Abstr.) **(Ger)**

[Filmless magnetic resonance tomography. Advantages and disadvantages in comparison with film reports] Vorbeck F, et al. **Radiologe** 1999 Apr;39(4):276–81 (Eng. Abstr.) **(Ger)**

[Standardized image transmission. An important step in the direction of teleradiology and telemedicine] Walz M, et al. **Radiologe** 1999 Apr;39(4):M77–9 **(Ger)**

[Acceptance of digital image distribution in a "filmless hospital"] Hubauer H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Oct;169(4):412–9 (Eng. Abstr.) **(Ger)**

LEGISLATION & JURISPRUDENCE

[Medical picture archiving and communication systems (PACS). Recommendations of the Committee of Computer Services of the German Research Society on compliance with recommendations of the university building code promotion law] **Radiologe** 1999 Apr;39(4):257–9 **(Ger)**

MANPOWER

The importance of a picture archiving and communications system (PACS) manager for large-scale PACS installations. Beird LC. **J Digit Imaging** 1999 May;12(2 Suppl 1):37

ORGANIZATION & ADMINISTRATION

Anatomy of picture archiving and Communications systems: nuts and bolts--image acquisition: getting digital images from imaging modalities. Andriole KP. **J Digit Imaging** 1999 May;12(2 Suppl 1):216–7

Process reengineering: the role of a planning methodology and picture archiving and communications system team building. Carrino JA, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):28–31

Filmless medical imaging: experiences of the Massachusetts General Hospital. Dreyer KJ, et al. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):8–11

Clinical services assessment and reengineering: lessons learned. Lyche DK, et al. **J Digit Imaging** 1999 May;12(2

Suppl 1):127–9
Implementation and evaluation of workflow based on hospital information system/radiology information system/picture archiving and communications system. Osada M, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):103–5
Experience measuring performance improvement in multiphase picture archiving and communications systems implementations. Reed G, et al. **J Digit Imaging** 1999 May; 12(2 Suppl 1):141–3
Economic and clinical impact of filmless operation in a multifacility environment. Siegel EL. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):42–7
Integration, acceptance testing, and clinical operation of the Medical Information, Communication and Archive System, phase II. Smith EM, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):144–7
The strategic and operational characteristics of a distributed phased archive for a multivendor incremental implementation of picture archiving and communications systems. Smith EM, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):71–4
Picture archiving and communication systems planning: a methodology. Unkel PJ, et al. **J Digit Imaging** 1999 Aug; 12(3):144–9
Picture archiving and communication system activities at the Mayo Clinic Rochester. Williamson B. **J Digit Imaging** 1998 Nov;11(4 Suppl 2):12–5
Planning and cost analysis of digital radiography services for a network of hospitals (the Veterans Integrated Service Network). Duerinckx AJ, et al. **J Telemed Telecare** 1998; 4(3):172–8
SCAR 1999. Improving performance in radiology. Drew PG. **MD Comput** 1999 Jul–Aug;16(4):38–9
A hospital-wide distributed PACS based on intranet. Bandon D, et al. **Medinfo** 1998;9 Pt 2:1075–9
Three-tiered integration of PACS and HIS toward next generation total hospital information system. Kim JH, et al. **Medinfo** 1998;9 Pt 2:1086–90
Creating and curating a pediatric radiology digital library to make the internet a useful reference tool for the radiologist. D'Alessandro MP. **Pediatr Radiol** 1998 Nov; 28(11):890–5
Integration of DICOM images into an electronic medical record using thin viewing clients. Stewart BK, et al. **Proc AMIA Symp** 1998;:902–6
[Digital radiography] Barre D. **J Radiol** 1999 Jul;80(7 Suppl):809–12 **(Fre)**
[Imaging networks and teleradiology] Boissart V, et al. **J Radiol** 1999 Jul;80(7 Suppl):777–80 **(Fre)**
[1999! Last chance! (Before total immersion in an all digital world)] Ivon JL. **J Radiol** 1999 Jul;80(7 Suppl):765–70 **(Fre)**

STANDARDS

RCR 1997 scientific meeting: audit poster prize winners. **Clin Radiol** 1998 Dec;53(12):911–2
Clinical importance of the DICOM structured reporting standard. Bidgood WD Jr. **Int J Card Imaging** 1998 Oct; 14(5):307–15 (22 ref.)
The DICOM review stations: are they truly different? Goedhart B, et al. **Int J Card Imaging** 1998 Oct; 14(5):317–22 (7 ref.)
The Kodak approach to digital cardiovascular imaging laboratories. Pelanek GA. **Int J Card Imaging** 1998 Oct; 14(5):335–42 (2 ref.)
The philosophy of benchmark testing a standards-based picture archiving and communications system. Richardson NE, et al. **J Digit Imaging** 1999 May;12(2):87–93
Benchmark testing the Digital Imaging Network–Picture Archiving and Communications System proposal of the Department of Defense. Shelton PD, et al. **J Digit Imaging** 1999 May;12(2):94–8
Proposal of a new Internet standard for DICOM: DICOM-QR URL. Sakusabe T, et al. **Medinfo** 1998;9 Pt 1:438–41
Joint Photographic Experts Group compression of intraoral radiographs for image transmission on the World Wide Web. Yuasa H, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jul;88(1):93–9
[Conventional digital radiology and development of the level of images] **J Radiol** 1998 Apr;79(4):360–1 **(Fre)**
[Standards in digital imaging communication and archiving (editorial)] Mildenberger P. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):1–2 **(Ger)**

TRENDS

Digital image in cardiology now and for the future. Okano A. **Int J Card Imaging** 1998;14 Suppl 1:13–5 (0 ref.)
[Effect of digital imaging, internet and teleradiology on radiologic structures] Kuhn FP. **Radiologe** 1999 Jul; 39(7):M126–8 **(Ger)**

RADIOLOGY, INTERVENTIONAL

Alternative medicine in radiology [editorial; comment] Clouse ME. **Acad Radiol** 1999 Aug;6(8):455–6. Comment on: Acad Radiol 1999 Aug;6(8):457–63.
Imagery content during nonpharmacologic analgesia in the procedure suite: where your patients would rather be [see comments] Fick LJ, et al. **Acad Radiol** 1999 Aug; 6(8):457–63. Comment in: Acad Radiol 1999 Aug;6(8):455–6.
Research in interventional MR imaging: where do we go from here? Silverman SG, et al. **Acad Radiol** 1999 Jun; 6(6):368–9
Interventional neuroradiology. Nakstad PH. **Acta Radiol** 1999 Jul;40(4):344–59 (148 ref.)
The interventional neuroradiological treatment of intracranial aneurysms. Guglielmi G. **Adv Tech Stand Neurosurg** 1998; 24:215–60 (79 ref.)
MR-guided endoscopic sinus surgery. Hsu L, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1235–40
Radiologic placement of tunneled central catheters: rates of success and of immediate complications in a large series. Docktor BL, et al. **AJR Am J Roentgenol** 1999 Aug; 173(2):457–60
Vascular surgical intervention for complications of cardiovascular radiology: 13 years' experience in a single centre. Lewis DR, et al. **Ann R Coll Surg Engl** 1999 Jan; 81(1):23–6
CIRSE 98. Annual meeting and postgraduate course. Cardiovascular and Interventional Radiological Society of Europe. Venice, Italy, September 27–October 1, 1998. Abstracts. **Cardiovasc Intervent Radiol** 1998;21 Suppl 1:S53–201
ISIR and JSAIR'99. 7th International Symposium on Interventional Radiology and New Vascular Imaging. 28th Annual meeting of the Japanese Society of Angiography and Interventional Radiology. Osaka, Japan, May 16–19, 1999. Abstracts. **Cardiovasc Intervent Radiol** 1999;22 Suppl 1:S34–86
Proceedings of the annual meeting of CIRSE Venice, Italy, September 27–October 1, 1998. Cardiovascular and Interventional Radiological Society of Europe. Bezzi M, et al. **Cardiovasc Intervent Radiol** 1999 Mar–Apr; 22(2):169–79
Interventional magnetic resonance: realistic prospect or wishful thinking? Günther RW, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):187–95 (61 ref.)
Complex uterine surgery: a cooperative role for interventional radiology with hysteroscopic surgery. Sanders BH, et al. **Fertil Steril** 1998 Nov;70(5):952–5
Variations in dose to the extremities of vascular/interventional radiologists. Anderson NE, et al. **Health Phys** 1999 Feb;76(2 Suppl):S39–40
Radiological management of oesophageal strictures. Cowling MG, et al. **Hosp Med** 1998 Sep;59(9):693–7 (17 ref.)
Cardiovascular Interventions, Coronary and Peripheral. Transcatheter Cardiovascular Therapeutics 10th annual symposium. Washington, D.C., USA. October 7–11, 1998. Proceedings. **Indian Heart J** 1998 Oct;50 Suppl 1:1–160
MR versus fluoroscopic guidance of a catheter/guidewire system: in vitro comparison of steerability. Zimmermann-Paul GG, et al. **J Magn Reson Imaging** 1998 Sep–Oct;8(5):1177–81
Intraoperative validation of functional magnetic resonance imaging and cortical reorganization patterns in patients with brain tumors involving the primary motor cortex. Fandino J, et al. **J Neurosurg** 1999 Aug;91(2):238–50
SCVIR99. 24th annual meeting of the Society of Cardiovascular and Interventional Radiology. Orlando, Florida, USA. March 20–25, 1999. Proceedings and abstracts. **J Vasc Interv Radiol** 1999 Feb;10(2 Pt 2):1–508
Interventional radiology: a call to arms [letter] Murphy TP. **J Vasc Interv Radiol** 1999 Mar;10(3):377–8
Interventional radiology and the use of metal stents in nonvascular clinical practice: a systematic overview. Pron G, et al. **J Vasc Interv Radiol** 1999 May;10(5):613–28
Percutaneous radiologic placement of peritoneal dialysis catheters. Savader SJ. **J Vasc Interv Radiol** 1999 Mar; 10(3):249–56 (28 ref.)
Antibiotic prophylaxis [letter; comment] Trerotola SO, et al. **J Vasc Interv Radiol** 1999 Feb;10(2 Pt 1):235–7. Comment on: J Vasc Interv Radiol 1998 May–Jun;9(3):401–6.
Intravascular MR-monitored balloon angioplasty: an in vivo feasibility study. Yang X, et al. **J Vasc Interv Radiol** 1998 Nov–Dec;9(6):953–9
A model for merging vascular surgery and interventional radiology: clinical and economical implications. Ouriel K, et al. **J Vasc Surg** 1998 Dec;28(6):1006–10; discussion 1011–3
Brain biopsy using high-field strength interventional magnetic resonance imaging. Hall WA, et al. **Neurosurgery** 1999 Apr;44(4):807–13; discussion 813–4 (11 ref.)
Endoscopic sinus surgery with magnetic resonance imaging guidance: initial patient experience. Fried MP, et al. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):374–80
Surgery without interventions? Guiraudon GM. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2160–5
Interventional procedures for congenital heart disease. Mandell VS. **Radiol Clin North Am** 1999 Mar;37(2):439–61, vii (98 ref.)
Turf battles in radiology: how individual radiologists can respond to the challenge [editorial] [see comments] Levin DC, et al. **Radiology** 1998 Nov;209(2):330–4. Comment in: Radiology 1999 May;211(2):301–5.
Old problems, new techniques: the interventional radiologist and the lacrimal apparatus [editorial; comment] Weissman JL. **Radiology** 1999 Aug;212(2):305–6. Comment on: Radiology 1999 Aug;212(2):365–70.
Langerhans' cell histiocytosis of the spine: use of MRI in guiding biopsy. Kaplan GR, et al. **Skeletal Radiol** 1998 Dec; 27(12):673–6
[Progresses in the study of radiology in China, 1997] Zhang X. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):926–7 (0 ref.) **(Chi)**
[Manufacturers, interventional technicians: unequal combat in materials monitoring? (editorial)] Laurent A. **J Radiol** 1999 Feb;80(2):91–2 **(Fre)**
[Interventional radiology and the medical applications of information systems: what consequences for the radiology department?] Vergnenègre A, et al. **J Radiol** 1999 Jun; 80(6):565–8 (Eng. Abstr.) **(Fre)**
[Quality measures in interventional radiology] Heuser L. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):131–6 (18 ref.) (Eng. Abstr.) **(Ger)**
[Interventional radiology—an option in minimally invasive therapy] Mutze S, et al. **Z Arztl Fortbild Qualitatssich** 1999 Jun;93(4):238–44 (24 ref.) (Eng. Abstr.) **(Ger)**
[Radiation hazards in interventional radiology] Widmark A, et al. **Tidsskr Nor Laegeforen** 1998 Nov 30;118(29):4543–5 (14 ref.) **(Nor)**

EDUCATION

Relevant radiological anatomy of the pig as a training model in interventional radiology. Dondelinger RF, et al. **Eur Radiol** 1998;8(7):1254–73
Teaching interventional electrophysiology: is revision of core curricula in order? [editorial] Saksena S. **J Interv Card Electrophysiol** 1998 Jun;2(2):119–20
[Current status of education and continuing education of nonmedical assistant personnel in interventional cardiology (letter)] Feldkamp E, et al. **Z Kardiol** 1999 Jul;88(7):533–4 **(Ger)**

HISTORY

Kurt Amplatz: a radiology giant steps aside [editorial; comment] Rogers LF. **AJR Am J Roentgenol** 1999 Sep; 173(3):521. Comment on: AJR Am J Roentgenol 1999 Sep;173(3):853.

INSTRUMENTATION

Re: Transbrachial selective pulmonary angiography with a 4 Fr catheter via the antecubital approach [letter; comment] Grollman JH. **Cardiovasc Intervent Radiol** 1999 Mar–Apr; 22(2):168. Comment on: Cardiovasc Intervent Radiol 1998 Jul–Aug;21(4):347–9.
Radiologic damage control: evaluation of a combined CT and angiography suite with a pivoting table. Kos X, et al. **Cardiovasc Intervent Radiol** 1999 Mar–Apr;22(2):124–9
Value of a laser guidance system for CT interventions: a phantom study. Jacobi V, et al. **Eur Radiol** 1999;9(1):137–40
High-accuracy MR tracking of interventional devices: the Overhauser marker enhancement (OMEN) technique. Joensuu RP, et al. **Magn Reson Med** 1998 Dec;40(6):914–21
Human endothelium: endovascular biopsy and molecular analysis. Feng L, et al. **Radiology** 1999 Sep;212(3):655–64
CT fluoroscopy-guided abdominal interventions: techniques, results, and radiation exposure. Silverman SG, et al. **Radiology** 1999 Sep;212(3):673–81
Laparoscopic surgery in a 0.5-t interventional magnetic resonance unit. Gould SW, et al. **Surg Endosc** 1999 Jun; 13(6):604–10
[Comparison of radiation exposure of patients caused by selected interventional and angiography procedures—initial results] Seifert H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):185–90 (Eng. Abstr.) **(Ger)**

LEGISLATION & JURISPRUDENCE

Off-label use of interventional medical devices. Smith JJ, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):539–42

METHODS

Anti-shock trousers (MAST) and transcatheter embolization in the management of massive obstetrics hemorrhage. A report of two cases. Andrae B, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):740–1
Diagnostic imaging and interventional therapy of hepatocellular carcinoma. Palma LD. **Br J Radiol** 1998 Aug;71(848):808–18 (73 ref.)
Interventional radiologic treatment for idiopathic portal hypertension. Hirota S, et al. **Cardiovasc Intervent Radiol** 1999 Jul–Aug;22(4):311–4
Interventional radiology in percutaneous management of bile duct obstruction: biliary drainage through a spontaneous common hepatic duct–duodenal fistula. Mannella P, et al. **Clin Imaging** 1999 Mar–Apr;23(2):103–6
Percutaneous intentional extraluminal (subintimal) recanalization: how to do it yourself. Reekers JA, et al. **Eur J Radiol** 1998 Oct;28(3):192–8
A safety net to prevent embolization during interventional procedures: work in progress. Kerr A, et al. **J Vasc Interv Radiol** 1998 Nov–Dec;9(6):1020–4
Improved device definition in interventional magnetic resonance imaging using a rotated stripes keyhole acquisition. Hwang KP, et al. **Magn Reson Med** 1999 Sep;

42(3):554–60

Study of catheter designs and drug mixing processes using 2D steady numerical simulations. Mongrain R, et al. **Med Biol Eng Comput** 1999 Jan;37(1):64–70

X-ray angiography in stereotactic conditions: techniques and interest for interventional neuroradiology. Picard L, et al. **Stereotact Funct Neurosurg** 1997;68(1–4 Pt 1):117–20

The radioimmunoguided surgery (RIGS) system as a diagnostic tool. Bakalakos EA, et al. **Surg Oncol Clin N Am** 1999 Jan;8(1):129–44 (37 ref.)

[Keyhole-true FISP: fast T2-weighted imaging for interventional MRT at 0.2 T] Wendt M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Apr;170(4):391–3 (Eng. Abstr.) **(Ger)**

[Arterial embolization: present role of an old method of interventional radiology in the treatment of hemorrhages] Florio F, et al. **Radiol Med (Torino)** 1999 Mar;97(3):107–15 (28 ref.) **(Ita)**

[Interventional radiology for chronic hemorrhoids complicated by hemorrhage] Galkin EV, et al. **Vestn Rentgenol Radiol** 1998 Sep–Oct;(5):21–4 (Eng. Abstr.) **(Rus)**

ORGANIZATION & ADMINISTRATION

Resource requirements for interventional radiologic management of long-term ambulatory hemodialysis patients. Jaques PF, et al. **AJR Am J Roentgenol** 1999 Oct; 173(4):1017–21

Improving operational efficiency in interventional radiology. Torres WE, et al. **AJR Am J Roentgenol** 1999 Oct; 173(4):1013–6

[Interventional imaging] Pommier M, et al. **J Radiol** 1999 Jul;80(7 Suppl):813–5 **(Fre)**

STANDARDS

Regulation of low-level radiation. González AJ. **C R Acad Sci III** 1999 Feb–Mar;322(2–3):241–3

Plea for a "surgical conscience" in the interventional radiology suite. Joffre F, et al. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):445–7 (15 ref.)

Surgical face masks: are they mandatory for interventional endovascular procedures? Taylor PR, et al. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):448–9 (22 ref.)

STATISTICS & NUMERICAL DATA

Do interventional radiologists pose a significant threat to the practice of vascular surgery? Levin DC, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1007–11

[Mortality and morbidity conference in radiology] Berthold LD, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):585–9 (Eng. Abstr.) **(Ger)**

TRENDS

The 1999 Charles T. Dotter Lecture. Interventional radiology 2000 and beyond: back from the brink. Becker GJ. **J Vasc Interv Radiol** 1999 Jun;10(6):681–7

Research in gastrointestinal and abdominal radiology: barium and beyond. Ferrucci JT Jr. **Radiology** 1998 Nov; 209(2):320–2

The Society of Cardiovascular and Interventional Radiology. Future directions in vascular and interventional radiology research. Vogelzang RL. **Radiology** 1998 Oct;209(1):17–8; discussion 19–21

RADIOLOGY, THERAPEUTIC see **RADIATION ONCOLOGY**

RADIOMETRY

Cluster models in cellular level electron dose calculations. Lampinen JS, et al. **Acta Oncol** 1999;38(3):367–72

Breast dosimetry. Dance DR, et al. **Appl Radiat Isot** 1999 Jan;50(1):185–203 (77 ref.)

Radiation dose in interventional fluoroscopic procedures. Geise RA, et al. **Appl Radiat Isot** 1999 Jan;50(1):173–84 (61 ref.)

Dosimetry for optimisation of patient protection in computed tomography. Jessen KA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):165–72 (27 ref.)

Radiation dosimetry in nuclear medicine. Stabin MG, et al. **Appl Radiat Isot** 1999 Jan;50(1):73–87 (84 ref.)

Special issue dedicated to Carl H. Durney. **Bioelectromagnetics** 1999;Suppl 4:1–139

Compact shielded exposure system for the simultaneous long-term UHF irradiation of forty small mammals. II. Dosimetry. Moros EG, et al. **Bioelectromagnetics** 1999; 20(2):81–93

What is radiation dose? A tutorial module. Balter S. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):76–81

Radiosterilization dosimetry of vitamins: an ESR study. Basly JP, et al. **Int J Radiat Biol** 1998 Oct;74(4):521–8

Analysis of symmetrical translocations for retrospective biodosimetry in radiation workers of the Mayak nuclear-industrial complex (Southern Urals) using FISH-chromosome painting. Salassidis K, et al. **Int J Radiat Biol** 1998 Oct;74(4):431–9

Implications of nonuniform tumor doses for radioimmunotherapy. O'Donoghue JA. **J Nucl Med** 1999 Aug;40(8):1337–41

A code of ethics for the medical dosimetrist--the American Association of Medical Dosimetrists experience. Martin L, et al. **Med Dosim** 1998 Fall;23(3):257–8

An EGS4 Monte Carlo examination of the response of a PTW-diamond radiation detector in megavoltage electron beams. Mobit PN, et al. **Med Phys** 1999 May;26(5):839–44

Fourier transform Raman spectroscopy of polyacrylamide gels (PAGs) for radiation dosimetry. Baldock C, et al. **Phys Med Biol** 1998 Dec;43(12):3617–27

Commentary: exciting new developments in fast neutron cross sections and dosimetry [comment] Bielajew AF, et al. **Phys Med Biol** 1998 Dec;43(12):3425–6. Comment on: Phys Med Biol 1998 Dec;43(12):3427–47. Comment on: Phys Med Biol 1998 Dec;43(12):3449–57.

Evidence for a significant timer error on a linear accelerator: consequences for a special therapy application [see comments] Biggs PJ. **Phys Med Biol** 1998 Oct; 43(10):3139–43. Comment in: Phys Med Biol 1999 Feb;44(2):L1–2.

A spherical dose model for radiosurgery plan optimization. Cho PS, et al. **Phys Med Biol** 1998 Oct;43(10):3145–8

Intercomparison of calibration procedures for 192Ir HDR sources in Brazil. de Almeida CE, et al. **Phys Med Biol** 1999 Mar;44(3):N31–8

Stopping-power ratios for clinical electron beams from a scatter-foil linear accelerator. Kapur A, et al. **Phys Med Biol** 1999 Sep;44(9):2321–41

Inverse planning with constraints to generate smoothed intensity-modulated beams. Webb S, et al. **Phys Med Biol** 1998 Oct;43(10):2785–94

Population dose near the Semipalatinsk test site. Hille R, et al. **Radiat Environ Biophys** 1998 Oct;37(3):143–9

CT fluoroscopy-guided abdominal interventions: techniques, results, and radiation exposure. Silverman SG, et al. **Radiology** 1999 Sep;212(3):673–81

[Radiation exposure and thoracic tomography] Remy J. **Rev Mal Respir** 1999 Apr;16(2):121–2 **(Fre)**

[Radiation exposure and computed tomography] Trigaux JP, et al. **Rev Mal Respir** 1999 Apr;16(2):127–36 (21 ref.) (Eng. Abstr.) **(Fre)**

HISTORY

The Radiofrequency Radiation Dosimetry Handbook: reminiscences. Allen SJ. **Bioelectromagnetics** 1999;Suppl 4:9–11

25 years of dosimetry: what now? Durney CH. **Bioelectromagnetics** 1999;Suppl 4:133–9

Bioelectromagnetics, Carl Durney, and dosimetry: some historical remarks. Schwan HP. **Bioelectromagnetics** 1999; Suppl 4:3–8

INSTRUMENTATION

Characteristics of radiation detectors for diagnostic radiology. DeWerd LA, et al. **Appl Radiat Isot** 1999 Jan; 50(1):125–36 (52 ref.)

Performance assessment of patient dosimetry services and X-ray quality assurance instruments used in diagnostic radiology. Green S, et al. **Appl Radiat Isot** 1999 Jan; 50(1):137–52 (23 ref.)

Impact of new digital X- and gamma ray imaging systems upon patient doses. Speller R, et al. **Appl Radiat Isot** 1999 Jan;50(1):153–63 (52 ref.)

A comparative study of the work involved in measuring profiles using an ion chamber, a linear diode array and film. Rykers KL, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):73–8

In vivo semiconductor dosimetry as part of routine quality assurance. Millwater CJ, et al. **Br J Radiol** 1998 Jun; 71(846):661–8

Characterization and use of a commercial n-type diode system. Wolff T, et al. **Br J Radiol** 1998 Nov; 71(851):1168–77

Neutron measurements in the stray field produced by 158 GeV c(−1) per nucleon lead ion beams. Agosteo S, et al. **Health Phys** 1998 Dec;75(6):619–29

Intercomparison of radon and decay product measurements in an underground mine and EPA Radon Laboratory: a study organized by the IAEA International Radon Metrology Programme. International Atomic Energy Agency. Budd G, et al. **Health Phys** 1998 Nov;75(5):465–74

IAEA/EPA international climatic test program for integrating radon detectors. International Atomic Energy Agency/Environmental Protection Agency. Hopper RD, et al. **Health Phys** 1999 Sep;77(3):303–8

Passive alpha Electret Ion Chambers. Kasper K. **Health Phys** 1999 May;76(5):475–6

The effect of lung deposition patterns on the activity estimate obtained from a large area germanium detector lung counter. Kramer GH, et al. **Health Phys** 1999 Jul; 77(1):24–32

Spin concentration in a possible ESR dosimeter: An electron spin echo study on X-irradiated ammonium tartrate. Brustolon M, et al. **J Magn Reson** 1999 Apr;137(2):389–96

SRP meeting: External radiation dosimetry in practice, London, 25 March 1999 [news] Scarlett C. **J Radiol Prot** 1999 Jun;19(2):190–1

A gamma camera for measurements of internal contamination after a radiological accident. Wallström E, et al. **J Radiol Prot** 1999 Jun;19(2):143–54

Interfacing a linear diode array to a conventional water scanner for the measurement of dynamic dose distributions and comparison with a linear ion chamber array. Sidhu NP. **Med Dosim** 1999 Spring;24(1):57–60

Ion recombination and polarity effect of ionization chambers in kilovoltage x-ray exposure measurements. Das IJ, et al. **Med Phys** 1998 Sep;25(9):1751–7

In-phantom dosimetry and spectrometry of photoneutrons from an 18 MV linear accelerator. d'Errico F, et al. **Med Phys** 1998 Sep;25(9):1717–24

Characteristics of metal-plate/film detectors at therapy energies. I. Modulation transfer function. Falco T, et al. **Med Phys** 1998 Dec;25(12):2455–62

Characteristics of metal-plate/film detectors at therapy energies. II. Detective quantum efficiency. Falco T, et al. **Med Phys** 1998 Dec;25(12):2463–8

Calibration of a portal imaging device for high-precision dosimetry: a Monte Carlo study. Keller H, et al. **Med Phys** 1998 Oct;25(10):1891–902

Optical CT reconstruction of 3D dose distributions using the ferrous-benzoic-xylenol (FBX) gel dosimeter. Kelly BG, et al. **Med Phys** 1998 Sep;25(9):1741–50

Magnetic resonance imaging of microbubbles in a superheated emulsion chamber for brachytherapy dosimetry. Lamba M, et al. **Med Phys** 1998 Dec; 25(12):2316–25

The use of an electronic portal imaging system to measure portal dose and portal dose profiles [published erratum appears in Med Phys 1999 Feb;26(2):331] Parsaei H, et al. **Med Phys** 1998 Oct;25(10):1903–9

An evaluation of epoxy resin phantom materials for megavoltage photon dosimetry. Allahverdi M, et al. **Phys Med Biol** 1999 May;44(5):1125–32

Volume recombination parameter in ionization chambers. Boutillon M. **Phys Med Biol** 1998 Aug;43(8):2061–72

Ionization chamber shift correction and surface dose measurements in electron beams. Das IJ, et al. **Phys Med Biol** 1998 Nov;43(11):3419–24

Correction factors for the NMi free-air ionization chamber for medium-energy x-rays calculated with the Monte Carlo method. Grimbergen TW, et al. **Phys Med Biol** 1998 Nov; 43(11):3207–24

Determination of water absorbed dose in a carbon ion beam using thimble ionization chambers. Hartmann GH, et al. **Phys Med Biol** 1999 May;44(5):1193–206

General collection efficiency in liquid iso-octane and tetramethylsilane used as sensitive media in a thimble ionization chamber. Johansson BE, et al. **Phys Med Biol** 1999 Sep;44(9):2161–70

Initial recombination in a parallel-plate ionization chamber exposed to heavy ions. Kanai T, et al. **Phys Med Biol** 1998 Dec;43(12):3549–58

Fricke dosimetry: the difference between G(Fe3+) for 60Co gamma-rays and high-energy x-rays. Klassen NV, et al. **Phys Med Biol** 1999 Jul;44(7):1609–24

Dose response of various radiation detectors to synchrotron radiation. Kron T, et al. **Phys Med Biol** 1998 Nov; 43(11):3235–59

A diamond detector in the dosimetry of high-energy electron and photon beams. Laub WU, et al. **Phys Med Biol** 1999 Sep;44(9):2183–92

The calibration of therapy level electron beam ionization chambers in terms of absorbed dose to water. McEwen MR, et al. **Phys Med Biol** 1998 Sep;43(9):2503–19

The importance of radiometer angular response for ultraviolet phototherapy dosimetry. Martin CJ, et al. **Phys Med Biol** 1999 Apr;44(4):843–55

Experimental study on the influence of the central electrode in Farmer-type ionization chambers. Palm A, et al. **Phys Med Biol** 1999 May;44(5):1299–308

Investigation of the chamber correction factor (k(ch)) for the UK secondary standard ionization chamber (NE2561/NE2611) using medium-energy x-rays [see comments] Rosser KE. **Phys Med Biol** 1998 Nov; 43(11):3195–206. Comment in: Phys Med Biol 1999 May;44(5):L9.

Correction factors for Farmer-type chambers for absorbed dose determination in 60Co and 192Ir brachytherapy dosimetry. Tölli H, et al. **Phys Med Biol** 1998 Nov; 43(11):3171–81

Performance of silicon microdosimetry detectors in boron neutron capture therapy. Bradley PD, et al. **Radiat Res** 1999 Mar;151(3):235–43

[Comparison of radiation exposure of patients caused by selected interventional and angiography procedures--initial results] Seifert H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):185–90 (Eng. Abstr.) **(Ger)**

[Dynamics of radiation environment of space station "Mir" by the "DOZA-A1" readings] Chernykh IV, et al. **Aviakosm Ekolog Med** 1998;32(5):51–7 (Eng. Abstr.) **(Rus)**

[Method for determination of radiation effects in cosmonauts by board dosimeter readings made during orbital mission] Kolomenskil AV, et al. **Aviakosm Ekolog Med** 1998; 32(4):44–9 (Eng. Abstr.) **(Rus)**

METHODS

A high-throughput radiometric assay for hepatitis C virus NS3 protease. Cerretani M, et al. **Anal Biochem** 1999 Jan 15;266(2):192–7

Industrial hygiene chemistry: keeping pace with rapid change

in the workplace. Draper WM, et al. **Anal Chem** 1999 Jun 15;71(12):33R–60R (657 ref.)
Whole-column radioactivity detection: simultaneous separation and enhanced detectability. Link JM, et al. **Anal Chem** 1999 Jul 15;71(14):2700–7
Patient dosimetry measurement methods. Faulkner K, et al. **Appl Radiat Isot** 1999 Jan;50(1):113–23 (38 ref.)
Estimating mean glandular dose using proprietary mammography phantoms. Hartley LD, et al. **Appl Radiat Isot** 1999 Jan;50(1):205–13
Estimation of organ dose equivalents from residents of radiation-contaminated buildings with Rando phantom measurements. Lee JS, et al. **Appl Radiat Isot** 1999 May; 50(5):867–73
A comparative study of the work involved in measuring profiles using an ion chamber, a linear diode array and film. Rykers KL, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):73–8
Protocol for measurement of patient entrance surface dose rates for fluoroscopic X-ray equipment. Martin CJ, et al. **Br J Radiol** 1998 Dec;71(852):1283–7
Biomedical concerns in wireless communications. Stuchly MA. **Crit Rev Biomed Eng** 1998;26(1–2):117–51 (115 ref.)
Dosimetry of transmission measurements in nuclear medicine: a study using anthropomorphic phantoms and thermoluminescent dosimeters [published erratum appears in Eur J Nucl Med 1998 Dec;25(12):1686] Almeida P, et al. **Eur J Nucl Med** 1998 Oct;25(10):1435–41
Uptake kinetics of the somatostatin receptor ligand [86Y]DOTA-DPhe1- Tyr3-octreotide ([86Y]SMT487) using positron emission tomography in non-human primates and calculation of radiation doses of the 90Y-labelled analogue. Rösch F, et al. **Eur J Nucl Med** 1999 Apr;26(4):358–66
Monte Carlo estimation of absorbed dose to organs in diagnostic radiology. Alonso M, et al. **Health Phys** 1999 Apr;76(4):388–92
In-vivo measurement of low energy photon emitters: room-temperature semiconductor diodes vs. large scintillators and germanium crystals. Genicot JL, et al. **Health Phys** 1999 Mar;76(3):288–99
NMR microscopy of trabecular bone and its role in skeletal dosimetry. Jokisch DW, et al. **Health Phys** 1998 Dec; 75(6):584–96 (90 ref.)
Intercomparison of passive radon-detectors under field conditions in epidemiological studies. Kreienbrock L, et al. **Health Phys** 1999 May;76(5):558–63
Comparison of the MCNP calculated and measured radiation field quantities near the RB reactor. Pesić MP, et al. **Health Phys** 1999 Sep;77(3):276–81
Implication of microdosimetry in estimation of radiation quality in space environment. Shinn JL, et al. **Health Phys** 1999 May;76(5):510–5
A biosphere modeling methodology for dose assessments of the potential Yucca Mountain deep geological high level radioactive waste repository. Watkins BM, et al. **Health Phys** 1999 Apr;76(4):355–67
A simple method for simultaneous interphase-metaphase chromosome analysis in biodosimetry. Durante M, et al. **Int J Radiat Biol** 1998 Oct;74(4):457–62
Easy biodosimetry for high-dose radiation exposures using drug-induced, prematurely condensed chromosomes. Kanda R, et al. **Int J Radiat Biol** 1999 Apr;75(4):441–6
A novel technique, using radioluminography, for the measurement of uniformity of radiolabelled antibody distribution in a colorectal cancer xenograft model. Flynn AA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1; 43(1):183–9
Image registration of BANG gel dose maps for quantitative dosimetry verification. Meeks SL, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1135–41
MRI dosimetry: a fast quantitative MRI method to determine 3D absorbed dose distributions. Calmet C, et al. **Invest Radiol** 1999 Mar;34(3):236–41
Embryo depth during the first trimester. Data required for embryo dosimetry. Perisinakis K, et al. **Invest Radiol** 1999 Jul;34(7):449–54
MIRD Pamphlet No. 15: Radionuclide S values in a revised dosimetric model of the adult head and brain. Medical Internal Radiation Dose. Bouchet LG, et al. **J Nucl Med** 1999 Mar;40(3):62S–101S
Five pediatric head and brain mathematical models for use in internal dosimetry. Bouchet LG, et al. **J Nucl Med** 1999 Aug;40(8):1327–36
MIRD pamphlet no. 16: Techniques for quantitative radiopharmaceutical biodistribution data acquisition and analysis for use in human radiation dose estimates. Siegel JA, et al. **J Nucl Med** 1999 Feb;40(2):37S–61S
SRP meeting: Radiological effects on the environment--measurable? Important? London, 20 January 1999 [news] Stone D, et al. **J Radiol Prot** 1999 Jun; 19(2):188–90
103Pd loaded cartridge air kerma strength verification. Mellenberg DE Jr, et al. **Med Dosim** 1999 Spring;24(1):73–5
Experimental determination of dosimetry functions of Ir-192 sources. Anctil JC, et al. **Med Phys** 1998 Dec; 25(12):2279–87
The radiation induced magnetic resonance image intensity change provides a more efficient three-dimensional dose measurement in MRI-Fricke-agarose gel dosimetry. Chu WC, et al. **Med Phys** 1998 Dec;25(12):2326–32
Study of dosimetry consistency for kilovoltage x-ray beams. Ma CM, et al. **Med Phys** 1998 Dec;25(12):2376–84
Response to the Letter to the Editor "Estimating RBEs at clinical doses from microdosimetric spectra" [Med. Phys. 25, 1055 (1998)] [letter; comment] Pihet P, et al. **Med Phys** 1999 May;26(5):848–52. Comment on: Med Phys 1998 Jun;25(6):1055–7.
Assays for pancreatic triglyceride lipase and colipase. Lowe ME. **Methods Mol Biol** 1999;109:59–70 (31 ref.)
The measurement of solar ultraviolet radiation. Roy CR, et al. **Mutat Res** 1998 Nov 9;422(1):7–14
Dosimetry of room-air germicidal (254 nm) radiation using spherical actinometry. Rahn RO, et al. **Photochem Photobiol** 1999 Sep;70(3):314–8
Comparison of two methods of therapy level calibration at 60Co gamma beams. Bjerke H, et al. **Phys Med Biol** 1998 Oct;43(10):2729–40
Volume recombination parameter in ionization chambers. Boutillon M. **Phys Med Biol** 1998 Aug;43(8):2061–72
Alanine/EPR dosimetry in brachytherapy. De Angelis C, et al. **Phys Med Biol** 1999 May;44(5):1181–91
Perturbation corrections for flat and thimble-type cylindrical standard ionization chambers for 60Co gamma rays: Monte Carlo calculations. Ferreira IH, et al. **Phys Med Biol** 1998 Oct;43(10):2721–7
Thermoluminescent response and relative efficiency of TLD-100 exposed to low-energy x-rays. Gamboa-deBuen I, et al. **Phys Med Biol** 1998 Aug;43(8):2073–83
Calculation of absorbed dose and biological effectiveness from photonuclear reactions in a bremsstrahlung beam of end point 50 MeV. Gudowska I, et al. **Phys Med Biol** 1999 Sep;44(9):2099–125
Standard effective doses for proliferative tumours. Jones LC, et al. **Phys Med Biol** 1999 Sep;44(9):2127–42
Patient dosimetry in abdominal arteriography. Kemerink GJ, et al. **Phys Med Biol** 1999 May;44(5):1133–45
Calculation of depth dose and dose per monitor unit for irregularly shaped electron fields. Khan FM, et al. **Phys Med Biol** 1998 Oct;43(10):2741–54
Fricke dosimetry: the difference between G(Fe3+) for 60Co gamma-rays and high-energy x-rays. Klassen NV, et al. **Phys Med Biol** 1999 Jul;44(7):1609–24
A diamond detector in the dosimetry of high-energy electron and photon beams. Laub WU, et al. **Phys Med Biol** 1999 Sep;44(9):2183–92
Dynamics of polymerization in polyacrylamide gel (PAG) dosimeters: (I) ageing and long-term stability. McJury M, et al. **Phys Med Biol** 1999 Aug;44(8):1863–73
Assessment of new small-field detectors against standard-field detectors for practical stereotactic beam data acquisition. McKerracher C, et al. **Phys Med Biol** 1999 Sep;44(9):2143–60
Detective quantum efficiency of an amorphous selenium detector to megavoltage radiation. Mah D, et al. **Phys Med Biol** 1999 May;44(5):1369–84
The importance of radiometer angular response for ultraviolet phototherapy dosimetry. Martin CJ, et al. **Phys Med Biol** 1999 Apr;44(4):843–55
Improving calibration accuracy in gel dosimetry. Oldham M, et al. **Phys Med Biol** 1998 Oct;43(10):2709–20
Absorbed dose beam quality correction factors kappaQ for the NE2571 chamber in a 5 MV and a 10 MV photon beam. Palmans H, et al. **Phys Med Biol** 1999 Mar; 44(3):647–63
Quality control of dose volume histogram computation characteristics of 3D treatment planning systems. Panitsa E, et al. **Phys Med Biol** 1998 Oct;43(10):2807–16
Comparison of the spectral biologically effective solar ultraviolet in adjacent tree shade and sun. Parisi AV, et al. **Phys Med Biol** 1999 Aug;44(8):2071–80
Monte Carlo dosimetry study of a 6 MV stereotactic radiosurgery unit. Verhaegen F, et al. **Phys Med Biol** 1998 Oct;43(10):2755–68
Evaluations of gonad and fetal doses for diagnostic radiology. Tung CJ, et al. **Proc Natl Sci Counc Repub China B** 1999 Jul;23(3):107–13
Measurement of distributions of small-scale energy depositions from low-linear energy transfer particles using the superheated drop detector. Evans TM, et al. **Radiat Res** 1999 Jan;151(1):19–30
On the assumption of negligible heat diffusion during the thermal measurement of a nonuniform specific absorption rate. Moros EG, et al. **Radiat Res** 1999 Sep;152(3):312–20
The use of microdosimetric moments in evaluating cell survival for therapeutic alpha-particle emitters. Roeske JC, et al. **Radiat Res** 1999 Jan;151(1):31–8
[Methodical approaches for establishing the values of spatial non-uniformity radiation coefficients for generalized dose calculation to evaluate immediate radiobiological effects] Shafirkin AV. **Aviakosm Ekolog Med** 1999;33(1):50–6 (36 ref.) (Eng. Abstr.) **(Rus)**

STANDARDS

Evaluation of delivered dose changes during radiation therapy. Miszczyk L, et al. **Acta Oncol** 1999;38(2):197–201
Performance assessment of patient dosimetry services and X-ray quality assurance instruments used in diagnostic radiology. Green S, et al. **Appl Radiat Isot** 1999 Jan; 50(1):137–52 (23 ref.)
Patient dosimetry activities in the United States: the nationwide evaluation of X-ray trends (NEXT) and tissue dose handbooks. Suleiman OH, et al. **Appl Radiat Isot** 1999 Jan;50(1):247–59
Improved procedure of measuring on radiometer 500 and 600 series bloodgas analysers [letter] Harff GA, et al. **Clin Chem Lab Med** 1999 Feb;37(2):171–2
Comparison of sliced and whole lung sets for the LLNL and JAERI torso phantoms using GE detectors. Kramer GH, et al. **Health Phys** 1999 May;76(5):547–52
In vivo dosimetry during external photon beam radiotherapy. Essers M, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):245–59 (126 ref.)
A new experimental determination of the dose calibrator setting for 188Re. Zimmerman BE, et al. **J Nucl Med** 1999 Sep;40(9):1508–16
Comment on "Dosimetry of interstitial brachytherapy sources: recommendations of the AAPM Radiation Therapy Committee Task Group No. 43" [Med. Phys. 22, 209–234 (1995)] [letter; comment] Fung AY. **Med Phys** 1998 Dec;25(12):2477. Comment on: Med Phys 1995 Feb;22(2):209–34.
Correlation of medical dosimetry quality indicators to the local tumor control in patients with prostate cancer treated with iodine-125 interstitial implants. Nath R, et al. **Med Phys** 1998 Dec;25(12):2293–307
Dosimetric prerequisites for routine clinical use of new low energy photon interstitial brachytherapy sources. Recommendations of the American Association of Physicists in Medicine Radiation Therapy Committee. Ad Hoc Subcommittee of the Radiation Therapy Committee. Williamson J, et al. **Med Phys** 1998 Dec;25(12):2269–70
The calibration of therapy level electron beam ionization chambers in terms of absorbed dose to water. McEwen MR, et al. **Phys Med Biol** 1998 Sep;43(9):2503–19
Comments on 'Investigation of the chamber correction factor (k(ch)) for the UK secondary standard ionization chamber (NE2561/NE2611) using medium-energy x-rays' [letter; comment] Rosser KE. **Phys Med Biol** 1999 May;44(5):L9 . Comment on: Phys Med Biol 1998 Nov;43(11):3195–206.
Investigation of the chamber correction factor (k(ch)) for the UK secondary standard ionization chamber (NE2561/NE2611) using medium-energy x-rays [see comments] Rosser KE. **Phys Med Biol** 1998 Nov; 43(11):3195–206. Comment in: Phys Med Biol 1999 May;44(5):L9.
Radiation interactions and internal dosimetry in nuclear medicine. Simpkin DJ. **Radiographics** 1999 Jan–Feb; 19(1):155–67; quiz 153–4 (15 ref.)

STATISTICS & NUMERICAL DATA

Monte Carlo dose calculations for a new ovoid shield system for carcinoma of the uterine cervix. Weeks KJ. **Med Phys** 1998 Dec;25(12):2288–92

RADIONUCLIDE ANGIOGRAPHY

Limitations of radionuclide angiographic assessment of left ventricular systolic function before lung transplantation. Mal H, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1396–402
Early detection of anthracycline-induced cardiotoxicity by radionuclide angiocardiography. Suzuki J, et al. **Angiology** 1999 Jan;50(1):37–45
Pattern of left ventricular filling in hypertrophic cardiomyopathy. Assessment by Doppler echocardiography and radionuclide angiography [see comments] Losi MA, et al. **Eur Heart J** 1998 Aug; 19(8):1261–7. Comment in: Eur Heart J 1998 Aug;19(8):1125–7.
Estimation of deadtime in imaging human subjects. Inoue Y, et al. **Eur J Nucl Med** 1998 Sep;25(9):1232–7
Comparison of radionuclide angiography with three echocardiographic parameters of left ventricular function in patients after myocardial infarction. van 't Hof AW, et al. **Int J Card Imaging** 1998 Dec;14(6):413–8

METHODS

[Technical investigation of cerebral blood flow measurements using the Patlak Plot method--a contrivance for positioning of the gamma camera at data collection in radionuclide angiography] Takaki A, et al. **Kaku Igaku** 1999 Feb;36(2):139–44 (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE ANGIOGRAPHY, FIRST-PASS see **VENTRICULOGRAPHY, FIRST-PASS**

RADIONUCLIDE ANGIOGRAPHY, GATED see **GATED BLOOD-POOL IMAGING**

RADIONUCLIDE GENERATORS

Manufacture of strontium-82/rubidium-82 generators and quality control of rubidium-82 chloride for myocardial perfusion imaging in patients using positron emission tomography. Alvarez-Diez TM, et al. **Appl Radiat Isot** 1999 Jun;50(6):1015–23
An 225Ac/213Bi generator system for therapeutic clinical applications: construction and operation. McDevitt MR, et al. **Appl Radiat Isot** 1999 May;50(5):895–904
Rapid renal single-photon emission tomography by continuous infusion of iridium-191m. Treves ST, et al. **Eur J Nucl Med** 1999 May;26(5):489–93
Method for determining photonuclear production of radioisotopes using high-energy electron beams. Weeks KJ.

RADIONUCLIDE GENERATORS

Med Phys 1999 Jan;26(1):49–54

RADIONUCLIDE IMAGING

see related
GAMMA CAMERAS
SCINTILLATION COUNTING

Radionuclide radiology. Bury RF. **Clin Radiol** 1999 Mar; 54(3):139

Use of scintigraphy with 99mtechnetium galactosyl human serum albumin for staging of primary biliary cirrhosis and assessment of prognosis. Shiomi S, et al. **J Gastroenterol Hepatol** 1999 Jun;14(6):566–71

Imaging gene expression: principles and assays. Gambhir SS, et al. **J Nucl Cardiol** 1999 Mar–Apr;6(2):219–33 (70 ref.)

Relevance of accurate Monte Carlo modeling in nuclear medical imaging. Zaidi H. **Med Phys** 1999 Apr; 26(4):574–608 (288 ref.)

An update of radiopharmaceutical schedules in children. Smith T, et al. **Nucl Med Commun** 1998 Nov;19(11):1023–36

Evaluation of the accuracy and precision of lung aerosol deposition measurements from planar radionuclide imaging using simulation. Fleming JS, et al. **Phys Med Biol** 1998 Aug;43(8):2423–9

Dying a thousand deaths. Radionuclide imaging of apoptosis. Blankenberg F, et al. **Q J Nucl Med** 1999 Jun;43(2):170–6 (50 ref.)

Polypeptides from phage display. A superior source of in vivo imaging agents. Ladner RC. **Q J Nucl Med** 1999 Jun; 43(2):119–24 (44 ref.)

[86th Annual meeting of the Swiss Society of Medical Radiology. Geneva, Switzerland, 3–5 June 1999. Abstracts] **Schweiz Med Wochenschr Suppl** 1999;106:3S–36S **(Fre, Ger)**

[The 38th annual meeting of Japanese Society of Nuclear Medicine. Takamatsu City, Japan. October 14–16, 1998. Abstracts] **Kaku Igaku** 1998 Aug;35(7):1–679 **(Jpn)**

[The 39th annual meeting of the Japanese Society of Nuclear Medicine. Akita City, Japan. October 5–7, 1999. Abstracts] **Kaku Igaku** 1999 Aug;36(6):1–681 **(Jpn)**

ADVERSE EFFECTS

Somatic effects in nuclear medicine and radiology. Overbeek FJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):63–72 (48 ref.)

[Influence of disease prognosis and age on the radiation risk from diagnostic nuclear medicine (bone scintigraphy as an example)] Smolarz K, et al. **Nuklearmedizin** 1998; 37(8):286–91 (Eng. Abstr.) **(Ger)**

ECONOMICS

Economics of myocardial perfusion imaging in Europe—the EMPIRE Study [see comments] Underwood SR, et al. **Eur Heart J** 1999 Jan;20(2):157–66. Comment in: Eur Heart J 1999 Jul;20(14):1052.

INSTRUMENTATION

A method to evaluate intra-operative gamma probes for sentinel lymph node localisation. Britten AJ. **Eur J Nucl Med** 1999 Feb;26(2):76–83

Intraoperative probes and imaging probes. Hoffman EJ, et al. **Eur J Nucl Med** 1999 Aug;26(8):913–35 (159 ref.)

Evaluation of surgical gamma probes [letter; comment] van Lingen A, et al. **Eur J Nucl Med** 1999 Feb;26(2):183–4. Comment on: Eur J Nucl Med 1998 Sep;25(9):1224–31.

Rapid evaluation of weekly scintillation camera resolution and linearity using the orthogonal tri-hole phantom. Smith EM, et al. **J Nucl Med Technol** 1999 Mar;27(1):27–31

Radio-imaging for quantitative autoradiography in biology. Charon Y, et al. **Nucl Med Biol** 1998 Nov;25(8):699–704 (26 ref.)

METHODS

The influence of differences in hydration on bone-to-soft tissue ratios and image quality in bone scintigraphy. Klemenz B, et al. **Clin Nucl Med** 1999 Jul;24(7):483–7

Diagnosis of pheochromocytoma using [123I]-compared with [131I]-metaiodobenzylguanidine scintigraphy. Furuta N, et al. **Int J Urol** 1999 Mar;6(3):119–24

Coincidence imaging with a dual-head scintillation camera. Patton JA, et al. **J Nucl Med** 1999 Mar;40(3):432–41

Determination of small objects from pinhole scintigrams. Grošev D, et al. **Nucl Med Commun** 1998 Jul;19(7):679–88

A dynamic phantom for radionuclide renography. Heikkinen JO. **Phys Med Biol** 1999 Mar;44(3):N39–53

Oesophageal transit time evaluated by a biomagnetic method. Daghastanli NA, et al. **Physiol Meas** 1998 Aug;19(3):413–20

Liposomes for scintigraphic imaging: optimization of in vivo behavior. Boerman OC, et al. **Q J Nucl Med** 1998 Dec; 42(4):271–9 (70 ref.)

[Study of the contractility of the gallbladder by ceruletide infusion cholescintigraphy after litholysis] Galuska L, et al. **Orv Hetil** 1998 Oct 4;139(40):2373–6 (Eng. Abstr.) **(Hun)**

[Estimation of the scintigraphy, sialography and fine needle aspiration biopsy use in the diagnosis of the benign parotid gland neoplasms] Gierek T, et al. **Otolaryngol Pol** 1998; 52(5):551–5 (Eng. Abstr.) **(Pol)**

STANDARDS

UK audit of relative renal function measurement using DMSA scintigraphy. Fleming JS, et al. **Nucl Med Commun** 1998 Oct;19(10):989–97

Concordance between abdominal scintigraphy using technetium-99m hexamethylpropylene amine oxime-labelled leucocytes and ileocolonoscopy in patients with spondyloarthropathies and without clinical evidence of inflammatory bowel disease. El Maghraoui A, et al. **Rheumatology (Oxford)** 1999 Jun;38(6):543–6

STATISTICS & NUMERICAL DATA

Counting statistics. Rzeszotarski MS. **Radiographics** 1999 May–Jun;19(3):765–82

TRENDS

[Progress of nuclear oncology] Endo K. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1261–8 (3 ref.) (Eng. Abstr.) **(Jpn)**

UTILIZATION

[Use of 99mTc-labeled myocardial perfusion agents in the Kanto-Koshinetsu area] Hashimoto J, et al. **Kaku Igaku** 1998 Jul;35(6):443–50 (Eng. Abstr.) **(Jpn)**

VETERINARY

Comparison of gastric emptying times in healthy cats simultaneously evaluated with radiopaque markers and nuclear scintigraphy. Goggin JM, et al. **Vet Radiol Ultrasound** 1999 Jan–Feb;40(1):89–95

RADIONUCLIDE TOMOGRAPHY, COMPUTED see **TOMOGRAPHY, EMISSION-COMPUTED**

RADIONUCLIDE TOMOGRAPHY, SINGLE-PHOTON EMISSION-COMPUTED see **TOMOGRAPHY, EMISSION-COMPUTED, SINGLE-PHOTON**

RADIONUCLIDE VENTRICULOGRAPHY

Comparison of echocardiography and radionuclide angiography as predictors of mortality in patients with left ventricular dysfunction (studies of left ventricular dysfunction). Rashid H, et al. **Am J Cardiol** 1999 Aug 1; 84(3):299–303

Comparison of combination of dipyridamole and dobutamine during echocardiography with thallium scintigraphy with thallium scintigraphy to improve viability detection. Sicari R, et al. **Am J Cardiol** 1999 Jan 1;83(1):6–10

Preoperative cardiac evaluation is unnecessary in most patients undergoing vascular operations. Itani KM, et al. **Am J Surg** 1998 Dec;176(6):671–5

Choosing the appropriate stress modality. A clinical cardiologist's perspective. Crawford MH. **Cardiol Clin** 1999 Aug;17(3):597–606, x (28 ref.)

Giant pseudoaneurysm of the left ventricle diagnosed by radionuclide ventriculography. Friedensohn A, et al. **Clin Nucl Med** 1998 Sep;23(9):623

Eventration of the diaphragm on radionuclide ventriculography. Martin WH. **Clin Nucl Med** 1998 Sep; 23(9):625–6

Exercise-induced ST-segment changes in lead V1 identify the significantly narrowed coronary artery in patients with single-vessel disease: correlation with thallium-201 scintigraphy and coronary arteriography data. Michaelides AP, et al. **J Electrocardiol** 1999 Jan;32(1):7–14

Imaging guidelines for nuclear cardiology procedures, part 2. American Society of Nuclear Cardiology. **J Nucl Cardiol** 1999 Mar–Apr;6(2):G47–84

Significance of increased right ventricular uptake on 99mTc-sestamibi SPECT in patients with coronary artery disease. Mannting F, et al. **J Nucl Med** 1999 Jun; 40(6):889–94

Evaluation of technetium-99m red blood cell labeling efficiency in adults receiving chemotherapy and the clinical impact on pediatric oncology patients. White MP, et al. **J Nucl Med Technol** 1998 Dec;26(4):265–8

Why nuclear cardiologists and stress echocardiographers need to cooperate. Sorrell VL. **N C Med J** 1998 Nov–Dec; 59(6):382–3

Quantitative assessment of surgically induced mitral regurgitation using radionuclide ventriculography and first pass radionuclide angiography. Daniel GB, et al. **Vet Radiol Ultrasound** 1998 Sep–Oct;39(5):459–69

METHODS

High dose dipyridamole myocardial imaging: simultaneous sestamibi scintigraphy and two-dimensional echocardiography in the detection and evaluation of coronary artery disease. Italian Group of Nuclear Cardiology. Parodi G, et al. **Coron Artery Dis** 1999 May; 10(3):177–84

STATISTICS & NUMERICAL DATA

The value and correlates of left ventricular cavity assessment in dipyridamole 201Tl SPET studies. Heiba SI, et al. **Nucl Med Commun** 1998 May;19(5):443–9

RADIONUCLIDE VENTRICULOGRAPHY, FIRST-PASS see **VENTRICULOGRAPHY, FIRST-PASS**

RADIONUCLIDE VENTRICULOGRAPHY, GATED see **GATED BLOOD-POOL IMAGING**

RADIONUCLIDES see **RADIOISOTOPES**

RADIOPAQUE MEDIA see **CONTRAST MEDIA**

RADIOPHARMACEUTICALS

Outsourcing radiopharmaceutical services [letter; comment] Ponto JA. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2537 . Comment on: Am J Health Syst Pharm 1998 Aug 1;55(15):1611–7.

Postoperative Tc-99m DISIDA hepatic extravascular diffusion mimicking biliary leakage. Naddaf S, et al. **Clin Nucl Med** 1998 Jul;23(7):478–9

Adsorption of technetium-99m tetrofosmin and technetium-99m furifosmin on plastic syringes. Bartosch R, et al. **Eur J Nucl Med** 1998 Sep;25(9):1333–5

Lessons for medicine and nuclear medicine research [editorial] Dams ET, et al. **Eur J Nucl Med** 1999 Apr; 26(4):311–3

Radionuclides and radiopharmaceuticals for single-photon emission tomography, positron emission tomography and radiotherapy in Russia. Krasikova RN, et al. **Eur J Nucl Med** 1999 Jul;26(7):774–88 (125 ref.)

Immunological Approaches to Tumor Therapy. Proceedings of the 4th International Meeting on Idiotypic Network and Tumor Therapy by Gene Therapy and Drug Targeting. Bonn, Germany, March 6–7, 1998. **Hybridoma** 1999 Feb; 18(1):1–112

Preparation and properties of radioactive rhenium glass microspheres intended for in vivo radioembolization therapy. Conzone SD, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):617–25

Prognostic value of FDG PET imaging in malignant pleural mesothelioma. Bénard F, et al. **J Nucl Med** 1999 Aug; 40(8):1241–5

PET and drug research and development. Fowler JS, et al. **J Nucl Med** 1999 Jul;40(7):1154–63 (102 ref.)

Radiation absorbed doses to the walls of hollow organs. Stubbs JB, et al. **J Nucl Med** 1998 Nov;39(11):1989–95

MIRD Pamphlet No. 14 revised: A dynamic urinary bladder model for radiation dose calculations. Task Group of the MIRD Committee, Society of Nuclear Medicine. Thomas SR, et al. **J Nucl Med** 1999 Apr;40(4):102S–123S

Radiopharmaceuticals in PET imaging. Duncan K. **J Nucl Med Technol** 1998 Dec;26(4):228–34; quiz 242 (17 ref.)

Changing focus: applying antisense to nuclear medicine imaging [letter] Hnatowich DJ. **Mol Med Today** 1999 Apr; 5(4):151

Hyperplasia of all four parathyroid glands in renal failure visualized by Tc-99m tetrofosmin scintigraphy. Martínez-Lázaro R, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1795–6

Proceedings of the Conference on Preclinical Pharmacological Studies with and for Radiopharmaceuticals. Orsay, France, October 24–25, 1996. **Nucl Med Biol** 1998 Nov;25(8):697–798

Effects of alternative reconstitution procedures on the labelling efficiency and in vitro stability of 99Tcm-labelled radiopharmaceuticals. Bogsrud TV, et al. **Nucl Med Commun** 1999 Jan;20(1):61–5

Dose rate measurements from radiopharmaceuticals: implications for nuclear medicine staff and for children with radioactive parents. Greaves CD, et al. **Nucl Med Commun** 1999 Feb;20(2):179–87

Bad blood and biologicals: the need for new radiopharmaceutical source materials [editorial] Perkins AC, et al. **Nucl Med Commun** 1999 Jan;20(1):1–3

Experiences in setting up the first centralized radiopharmacy in Spain. Ramírez de Arellano I, et al. **Nucl Med Commun** 1999 Mar;20(3):279–85

Internalization of [DOTA degrees,125I-Tyr3]Octreotide by somatostatin receptor-positive cells in vitro and in vivo: implications for somatostatin receptor-targeted radio-guided surgery. Hofland LJ, et al. **Proc Assoc Am Physicians** 1999 Jan–Feb;111(1):63–9

11th International Symposium on Radiopharmacology at Washington University. (St. Louis, June 24–27, 1999). Welch MJ. **Q J Nucl Med** 1999 Jun;43(2):115–8

The AAPM/RSNA physics tutorial for residents. Radiopharmaceuticals. Ponto JA. **Radiographics** 1998 Nov–Dec;18(6):1395–404

Cellular inactivation induced by a radiopharmaceutical kit: role of stannous chloride. Assis ML, et al. **Toxicol Lett** 1998 Nov 12;99(3):199–205

ADMINISTRATION & DOSAGE

Imaging experimental intraabdominal abscesses with 99mTc-PEG liposomes and 99mTc-HYNIC IgG. Dams ET, et al. **Ann Surg** 1999 Apr;229(4):551–7

Subareolar versus peritumoral injection for location of the sentinel lymph node. Klimberg VS, et al. **Ann Surg** 1999 Jun;229(6):860–4; discussion 864–5

Rhenium-186-labeled hydroxyethylidene diphosphonate dosimetry and dosing guidelines for the palliation of skeletal metastases from androgen-independent prostate cancer. Graham MC, et al. **Clin Cancer Res** 1999 Jun;5(6):1307–18

An automated injection system (with patient selection) for SPECT imaging in seizure localization. Sepkuty JP, et al.

Epilepsia 1998 Dec;39(12):1350–6

Developing an effective program to complete ictal SPECT in the epilepsy monitoring unit. Smith BJ, et al. **Epilepsy Res** 1999 Feb;33(2–3):189–97

Sentinel node biopsy [letter] Bourgeois P, et al. **Eur J Nucl Med** 1998 Nov;25(11):1588–90

Three-step radioimmunotherapy with yttrium-90 biotin: dosimetry and pharmacokinetics in cancer patients. Cremonesi M, et al. **Eur J Nucl Med** 1999 Feb;26(2):110–20

Are restrictions to behaviour of patients required following fluorine-18 fluorodeoxyglucose positron emission tomographic studies? Cronin B, et al. **Eur J Nucl Med** 1999 Feb;26(2):121–8

MIRD pamphlet No. 17: the dosimetry of nonuniform activity distributions--radionuclide S values at the voxel level. Medical Internal Radiation Dose Committee. Bolch WE, et al. **J Nucl Med** 1999 Jan;40(1):11S–36S

The incidence of blood contamination of lead unit dose containers with and without single-use protective inserts used with commercially prepared radiopharmaceutical unit doses. Pickett MW, et al. **J Nucl Med Technol** 1998 Sep; 26(3):200–3

Microemulsion of seal oil markedly enhances the transfer of a hydrophobic radiopharmaceutical into acetylated low density lipoprotein. Xiao W, et al. **Lipids** 1999 May; 34(5):503–9

Effective dose to children and adolescents from radiopharmaceuticals. Gadd R, et al. **Nucl Med Commun** 1999 Jun;20(6):569–73

An update of radiopharmaceutical schedules in children. Smith T, et al. **Nucl Med Commun** 1998 Nov;19(11):1023–36

Radiation interactions and internal dosimetry in nuclear medicine. Simpkin DJ. **Radiographics** 1999 Jan–Feb; 19(1):155–67; quiz 153–4 (15 ref.)

Administered radionuclides in pregnancy. Adelstein SJ. **Teratology** 1999 Apr;59(4):236–9 (10 ref.)

ADVERSE EFFECTS

Radiation safety considerations for sentinel node techniques [editorial; comment] Glass EC, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):10–1. Comment on: Ann Surg Oncol 1999 Jan–Feb;6(1):75–62.

Exposure of critical groups to nuclear medicine patients. Mountford PJ, et al. **Appl Radiat Isot** 1999 Jan;50(1):89–111 (99 ref.)

Delayed-type allergy to technetium Tc 99m. Mooser G, et al. **Contact Dermatitis** 1998 Nov;39(5):269–70

Biological consequences of the heterogeneous irradiation of lymphocytes during technetium-99m hexamethylpropylene amine oxime white blood cell labelling. de Labriolle-Vaylet C, et al. **Eur J Nucl Med** 1998 Oct;25(10):1423–8

Prevalence of adverse reactions to positron emitting radiopharmaceuticals in nuclear medicine. Pharmacopeia Committee of the Society of Nuclear Medicine. Silberstein EB. **J Nucl Med** 1998 Dec;39(12):2190–2

Treatment of lung tumor colonies with 90Y targeted to blood vessels: comparison with the alpha-particle emitter 213Bi. Kennel SJ, et al. **Nucl Med Biol** 1999 Jan;26(1):149–57

Comparison of three cold kit reconstitution techniques for the reduction of hand radiation dose. Bogsrud TV, et al. **Nucl Med Commun** 1999 Aug;20(8):761–7

Microbiological and radioactive contamination from radioaerosol ventilation scanning: is there a problem? Brown A, et al. **Nucl Med Commun** 1999 Aug;20(8):755–60

[Image contrasting nephropathy in patients with NIDDM: risk factors] Gordeev AV, et al. **Klin Med (Mosk)** 1998; 76(11):34–6 **(Rus)**

ANALYSIS

Spectrophotometric determination of Sn(II) using palladium chloride in kits for 99mTc radiopharmaceuticals. Mushtaq A, et al. **Appl Radiat Isot** 1999 Apr;50(4):649–53

The standardization of 62Cu and experimental determinations of dose calibrator settings for generator-produced 62CuPTSM. Zimmerman BE, et al. **Appl Radiat Isot** 1999 Nov;51(5):515–26

Capillary electrophoresis of 99mtechnetium radiopharmaceuticals. Jankowsky R, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):365–71

Effect of filtering on the detection and localization of small Ga-67 lesions in thoracic single photon emission computed tomography images. Wells RG, et al. **Med Phys** 1999 Jul; 26(7):1382–8

In vivo radiolabel quantification in small-animal models. Ploux L, et al. **Nucl Med Biol** 1998 Nov;25(8):737–42 (37 ref.)

Comparison of HPLC, TLC and minicolumn for measuring the radiochemical purity of 99Tcm-Q12. Yu M, et al. **Nucl Med Commun** 1998 May;19(5):483–7

Quantitative autoradiography using a radioimager based on a multiwire proportional chamber. Petegnief Y, et al. **Phys Med Biol** 1998 Dec;43(12):3629–38

Intestinal accumulation of Tc 99m MDP on bone scan. Tsai SC, et al. **Semin Nucl Med** 1999 Jan;29(1):80–1

[An alternative method to determine the radiochemical purity of the 99mTC-tetrofosmine preparations] Gómez JL, et al. **Rev Esp Med Nucl** 1999;18(2):94–8 (Eng. Abstr.) **(Spa)**

BLOOD

Measurement of blood radioactivity for quantification of cerebral blood flow using a gamma camera. Murase K, et al. **J Nucl Med Technol** 1998 Sep;26(3):191–5

Studies of technetium-99m nitridobisdithiocarboxylate leucocyte specific radiopharmaceutical: [99mTcN(DTCX)2], DTCX = CH3(CH2)8CS2. The cellular and subcellular distribution in human blood cells, and chemical behaviour. Synthesis of the analogous rhenium-188 radiopharmaceutical. Demaimay F, et al. **Nucl Med Biol** 1999 Feb;26(2):225–31

CHEMICAL SYNTHESIS

Compounds labelled with short-lived beta(+)-emitting radionuclides and some applications in life sciences. The importance of time as a parameter. Långström B, et al. **Acta Chem Scand** 1999 Sep;53(9):651–69 (76 ref.)

Radiosynthesis of [18F] N-3-fluoropropyl-2-beta-carbomethoxy-3-beta (4' methylphenyl) nortropane (FPCMT). Chaly T Jr, et al. **Appl Radiat Isot** 1999 Sep;51(3):299–305

NHS-MAS3: a bifunctional chelator alternative to NHS-MAG3. Chang F, et al. **Appl Radiat Isot** 1999 Apr; 50(4):723–32

The synthesis of (R)- and (S)-[N-methyl-11C]beta, beta-difluoromethamphetamine for the investigation of the binding mechanism of biogenic amines in vivo. Gillings NM, et al. **Appl Radiat Isot** 1999 Apr;50(4):707–14

Automated synthesis of [11C]choline, a positron-emitting tracer for tumor imaging. Hara T, et al. **Appl Radiat Isot** 1999 Mar;50(3):531–3

Enzymatic synthesis of no-carrier-added 6-[18F]fluoro-L-dopa with beta-tyrosinase. Kaneko S, et al. **Appl Radiat Isot** 1999 Jun;50(6):1025–32

Preparation of [186Re]Re-DMSA and its bio-distribution studies. Kothari K, et al. **Appl Radiat Isot** 1999 Jul; 51(1):43–9

Preparation, stability studies and pharmacological behavior of [186Re]Re-HEDP. Kothari K, et al. **Appl Radiat Isot** 1999 Jul;51(1):51–8

Preparation and primary evaluation of [11C]CSC as a possible tracer for mapping adenosine A2A receptors by PET. Márián T, et al. **Appl Radiat Isot** 1999 May;50(5):887–93

Evaluation of radioiodination of meta-iodobenzylguanidine (MIBG) catalysed by in situ generated Cu(I) and directly added Cu(II). Prabhakar G, et al. **Appl Radiat Isot** 1999 Jun;50(6):1011–4

Synthesis of [11C]salicylic acid and related compounds and their biodistribution in mice. Sasaki T, et al. **Appl Radiat Isot** 1999 May;50(5):905–9

Synthesis and autoradiographic localization of muscarinic cholinergic antagonist (+)N-[11C]methyl-3-piperidyl benzilate as a potent radioligand for positron emission tomography. Takahashi K, et al. **Appl Radiat Isot** 1999 Mar; 50(3):521–5

A complete remote-control system for reliable preparation of [18F]altanserin. Tan PZ, et al. **Appl Radiat Isot** 1999 May;50(5):923–7

Labeling of monoclonal antibodies with diethylenetriaminepentaacetic acid-appended radioiodinated peptides containing D-amino acids. Govindan SV, et al. **Bioconjug Chem** 1999 Mar-Apr; 10(2):231–40

99mTc-labeling and in vivo studies of a bombesin analogue with a novel water-soluble dithiadiphosphine-based bifunctional chelating agent. Karra SR, et al. **Bioconjug Chem** 1999 Mar-Apr;10(2):254–60

Integrated "3+1" oxorhenium(V) complexes as estrogen mimics. Skaddan MB, et al. **Bioconjug Chem** 1999 Jan-Feb; 10(1):119–29

Iodopyridine-for-iodobenzene substitution for use with low molecular weight radiopharmaceuticals: application to m-iodobenzylguanidine. Vaidyanathan G, et al. **Bioconjug Chem** 1998 Nov-Dec;9(6):758–64

99mTc-labeled MIBG derivatives: novel 99mTc complexes as myocardial imaging agents for sympathetic neurons. Zhuang ZP, et al. **Bioconjug Chem** 1999 Mar-Apr; 10(2):159–68

Simple one-pot synthesis of a 2'-tritium labeled C-deoxynucleoside. Lutz S, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):723–6

Technetium-99m complexes with steroid-2-aminooxyethyliminodiacetic acid conjugates. Yoda R, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar; 47(3):413–6

Evaluation of radiolabelled bombesin analogues for receptor-targeted scintigraphy and radiotherapy. Breeman WA, et al. **Int J Cancer** 1999 May 17;81(4):658–65

Metal-ion speciation in blood plasma incorporating the bisphosphonate, 1-hydroxy-4-aminopropilydenediphosphonate (APD), in therapeutic radiopharmaceuticals. Zeevaart JR, et al. **J Inorg Biochem** 1999 Apr;73(4):265–72

Improved in vivo stability of actinium-225 macrocyclic complexes. Deal KA, et al. **J Med Chem** 1999 Jul 29; 42(15):2988–92

Synthesis and nicotinic acetylcholine receptor in vivo binding properties of 2-fluoro-3-[2(S)-2-azetidinylmethoxy]pyridine: a new positron emission tomography ligand for nicotinic receptors. Doll F, et al. **J Med Chem** 1999 Jun 17; 42(12):2251–9

Synthesis and evaluation of N-[11C]methylated analogues of epibatidine as tracers for positron emission tomographic studies of nicotinic acetylcholine receptors. Horti AG, et al. **J Med Chem** 1998 Oct 22;41(22):4199–206

7alpha-Iodo and 7alpha-fluoro steroids as androgen receptor-mediated imaging agents. Labaree DC, et al. **J Med Chem** 1999 Jun 3;42(11):2021–34

Comparison of four 64Cu-labeled somatostatin analogues in vitro and in a tumor-bearing rat model: evaluation of new derivatives for positron emission tomography imaging and targeted radiotherapy. Lewis JS, et al. **J Med Chem** 1999 Apr 22;42(8):1341–7

Synthesis and biological evaluation of boron-containing polyamines as potential agents for neutron capture therapy of brain tumors. Zhuo JC, et al. **J Med Chem** 1999 Apr 8;42(7):1282–92

Synthesis and characterization of binding of 5-[76Br]bromo-3-[[2(S)-azetidinyl]methoxy]pyridine, a novel nicotinic acetylcholine receptor ligand, in rat brain. Sihver W, et al. **J Neurochem** 1999 Sep;73(3):1264–72

123I-MSP and F[11C]MSP: new selective 5-HT2A receptor radiopharmaceuticals for in vivo studies of neuronal 5-HT2 serotonin receptors. Synthesis, in vitro binding study with unlabelled analogues and preliminary in vivo evaluation in mice. Samnick S, et al. **Life Sci** 1998;63(22):2001–13

Radiosynthesis of [11C]Lu 29-024: a potential radiotracer for 5HT2 receptors PET studies. Amokhtari M, et al. **Nucl Med Biol** 1998 Aug;25(6):517–22

On the synthesis, isolation, and radiochemical studies for the preparation of in-house kits for 99mTc-meso- and d,l-HMPAO: a few additional observations. Banerjee S, et al. **Nucl Med Biol** 1999 Apr;26(3):327–38

Biological evaluation of two iodine-123-labeled D-glucose acetals prepared as glucose transporter radioligands. Brunet-Desruet MD, et al. **Nucl Med Biol** 1998 Jul; 25(5):473–80

99mTc-ENS, a new radiopharmaceutical for aerial lung scintigraphy: comparative studies in rats. Calmanovici G, et al. **Nucl Med Biol** 1998 Jul;25(5):511–3

[11C]NNC 22-0215, a metabolically stable dopamine D1 radioligand for PET. Foged C, et al. **Nucl Med Biol** 1998 Jul;25(5):503–8

Synthesis, biological evaluation, and baboon PET imaging of the potential adrenal imaging agent cholesteryl-p-[18F]fluorobenzoate. Jonson SD, et al. **Nucl Med Biol** 1999 Jan;26(1):131–8

In vitro and in vivo evaluation of 64Cu-TETA-Tyr3-octreotate. A new somatostatin analog with improved target tissue uptake. Lewis JS, et al. **Nucl Med Biol** 1999 Apr;26(3):267–73

A kit formulation for preparation of [(111)In]In-DTPA-folate, a folate-receptor-targeted radiopharmaceutical. Mathias CJ, et al. **Nucl Med Biol** 1998 Aug;25(6):585–7

New preparation of (123I) iodolisuride from the 2-tri-n-butylstannalisuride derivative. Mauclaire L, et al. **Nucl Med Biol** 1999 Apr;26(3):317–21

N-(6-18F-fluorohexyl)-N-methylpropargylamine: a fluorine-18-labeled monoamine oxidase B inhibitor for potential use in PET studies. Mukherjee J, et al. **Nucl Med Biol** 1999 Jan;26(1):111–6

Syntheses of carbon-11 labeled piperidine esters as potential in vivo substrates for acetylcholinesterase. Nguyen TB, et al. **Nucl Med Biol** 1998 Nov;25(8):761–8

Synthesis and biodistribution of 64Cu-labeled monocationic diiminedioxime copper(II) complexes. Packard AB, et al. **Nucl Med Biol** 1998 Aug;25(6):531–7

Technetium-99m complexes of polydentate amine-pyrrole and amine-thiophene ligands. Pillai MR, et al. **Nucl Med Biol** 1999 Jan;26(1):69–77

Experiments on a new phosphine-peptide chelator for labelling of peptides with Tc-99m. Santimaria M, et al. **Nucl Med Biol** 1999 Apr;26(3):251–8

Synthesis of 1-[11C]methylpiperidin-4-yl propionate ([11C]PMP) for in vivo measurements of acetylcholinesterase activity. Snyder SE, et al. **Nucl Med Biol** 1998 Nov;25(8):751–4

Synthesis and biological evaluation of Tc-99m-cyclopentadienyltricarbonyltechnetium-labeled octreotide. Spradau TW, et al. **Nucl Med Biol** 1999 Jan; 26(1):1–7

Design and synthesis of a redox-active Tc-99m radiopharmaceutical with ferrocenedithiocarboxylate [FcCS = Fe(C5H4CS2)(C5H5)-]. Uccelli L, et al. **Nucl Med Biol** 1999 Jan;26(1):63–7

Preparation of 5-[131I]iodo- and 5-[211At]astato-1-(2-deoxy-2-fluoro-beta-D-arabinofuranosyl) uracil by a halodestannylation reaction. Vaidyanathan G, et al. **Nucl Med Biol** 1998 Jul;25(5):487–96

Preliminary evaluation of 2-[4-[3-tert-butylamino)-2-hydroxypropoxy]phenyl]-3-methyl-6-me thoxy-4(3H)-quinazolinone ([+/-]HX-CH 44) as a selective beta1-adrenoceptor ligand for PET. Valette H, et al. **Nucl Med Biol** 1999 Jan;26(1):105–9

Derivatives of WAY 100635 as potential imaging agents for 5-HT1A receptors: syntheses, radiosyntheses, and in vitro and in vivo evaluation. Wilson AA, et al. **Nucl Med Biol** 1998 Nov;25(8):769–76

177Lu-EDTMP: a potential therapeutic bone agent. Ando A, et al. **Nucl Med Commun** 1998 Jun;19(6):587–91

Preparation and properties of 99Tcm-exametazime using

stannous ion augmentation of fractionated cold kits. Baker RJ. **Nucl Med Commun** 1999 Mar;20(3):287-93

Catabolism of neurotensins. Implications for the design of radiolabeling strategies of peptides. Schubiger PA, et al. **Q J Nucl Med** 1999 Jun;43(2):155-8

CHEMISTRY

Spectroscopic and electrochemical evaluation of a perfluorosulfonated ionomer and its gel as preconcentrating media for [Rel(DMPE)3]+, where DMPE = 1,2-bis(dimethylphosphino)ethane. Swaile BH, et al. **Anal Chem** 1998 Oct 15;70(20):4326-32

A paper chromatographic technique for quantitative evaluation of hydrolysed and ionic components in 201Tl radiopharmaceuticals. Chattopadhyay S, et al. **Appl Radiat Isot** 1999 Jun;50(6):995-8

Technetium-99m labeled peptides--an investigation of multiple HPLC peaks. Hnatowich DJ, et al. **Appl Radiat Isot** 1999 May;50(5):911-21

A novel ternary ligand system for 99mTc-labeling of hydrazino nicotinamide-modified biologically active molecules using imine-N-containing heterocycles as coligands. Liu S, et al. **Bioconjug Chem** 1998 Sep-Oct; 9(5):583-95

Enzymatic cleavage of peptide-linked radiolabels from immunoconjugates. Peterson JJ, et al. **Bioconjug Chem** 1999 Jul-Aug;10(4):553-7

Protein and peptide labeling with (cyclopentadienyl)tricarbonyl rhenium and technetium. Spradau TW, et al. **Bioconjug Chem** 1998 Nov-Dec; 9(6):765-72

Bis(hydroxamamide)-based bifunctional chelating agent for 99mTc labeling of polypeptides. Xu LC, et al. **Bioconjug Chem** 1999 Jan-Feb;10(1):9-17

Determination of dissociation constants of 99mTechnetium radiopharmaceuticals by capillary electrophoresis. Jankowsky R, et al. **J Chromatogr A** 1999 Feb 12; 833(1):83-96

Optimized conditions for chelation of yttrium-90-DOTA immunoconjugates. Kukis DL, et al. **J Nucl Med** 1998 Dec; 39(12):2105-10

Adsorption of some technetium-99m radiopharmaceuticals onto disposable plastic syringes. Jansson BA, et al. **J Nucl Med Technol** 1998 Sep;26(3):196-9

Influence of iodine-131 solution volume and storage time on in vitro dissolution. Yu MD, et al. **J Nucl Med Technol** 1998 Dec;26(4):274-7

On the synthesis, isolation, and radiochemical studies for the preparation of in-house kits for 99mTc-meso- and d,l-HMPAO: a few additional observations. Banerjee S, et al. **Nucl Med Biol** 1999 Apr;26(3):327-38

198Au-labeled hydroxymethyl phosphines as models for potential therapeutic pharmaceuticals. Berning DE, et al. **Nucl Med Biol** 1998 Aug;25(6):577-83

Determination of Sn(II) in technetium cold kits by voltammetry at the hanging mercury drop electrode (HMDE) and relevant radiopharmaceutical applications. Decristoforo C, et al. **Nucl Med Biol** 1998 Oct;25(7):675-83

The in vivo behavior of copper-64-labeled azamacrocyclic complexes. Jones-Wilson TM, et al. **Nucl Med Biol** 1998 Aug;25(6):523-30

Prediction of 99mTc-biguanide complex structures and their interactions with biological molecules by molecular mechanics calculations. Neves M, et al. **Nucl Med Biol** 1999 Jan;26(1):85-9

Stability of Adenoscan (adenosine 3 mg ml-1) in plastic syringes. Cooper MS, et al. **Nucl Med Commun** 1998 May; 19(5):479-82

Preparation of 99Tcm-MAG3: no confirmation that sodium chloride injections from plastic containers affect radiochemical purity. Millar AM, et al. **Nucl Med Commun** 1998 May;19(5):475-7

Seven-hour stabilization of 99Tcm-exametazime (HMPAO) for cerebral perfusion. Solanki C, et al. **Nucl Med Commun** 1998 Jun;19(6):567-72

The influence of generator eluate on the radiochemical purity of 99Tcm-sestamibi prepared using fractionated Cardiolite kits. Varelis P, et al. **Nucl Med Commun** 1998 Jul; 19(7):615-23

Tc-99m-labeling of modified RNA. Hilger CS, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1479-81

Polypeptides from phage display. A superior source of in vivo imaging agents. Ladner RC. **Q J Nucl Med** 1999 Jun; 43(2):119-24 (44 ref.)

DIAGNOSTIC USE

The evaluation of cocaine-induced chest pain with acute myocardial perfusion imaging [published erratum appears in Acad Emerg Med 1999 Jun;6(6):657] Feldman JA, et al. **Acad Emerg Med** 1999 Feb;6(2):103-9

Ischaemic electrocardiographic changes after massive blood transfusion: findings based on myocardial scintigraphy using 99mTc-MIBI and 123I-MIBG. Kondo Y, et al. **Acta Cardiol** 1998;53(5):279-83

Scintigraphic assessment of disease activity in psoriatic arthritis with 99m-Tc-labelled non-specific polyclonal human immunoglobulin G. Liberatore M, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:118

[Methyl-11C]thymidine positron emission tomography in tumoral and non-tumoral cerebral lesions. De Reuck J, et al. **Acta Neurol Belg** 1999 Jun;99(2):118-25

Dynamic bone scintigraphy for evaluation of tumor response after preoperative chemotherapy. A retrospective study of osteosarcoma and Ewing's sarcoma patients. Winderen M, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:11-7

Fluorine-18 fluorodeoxyglucose positron emission tomography imaging of parotid mass lesions. Okamura T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:209-13

Monitoring of response to radiotherapy with fluorine-18 deoxyglucose PET of head and neck squamous cell carcinomas. Sakamoto H, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:254-60

Assessment of terminal ileal and colonic inflammation in Crohn's disease with 99mTc-WBC. Charron M, et al. **Acta Paediatr** 1999 Feb;88(2):193-8

Sensitivity and specificity of planar scintimammography with 99mTc-sestamibi. Danielsson R, et al. **Acta Radiol** 1999 Jul;40(4):394-9

Concentration of 123I-metaiodobenzylguanidine in left and right liver lobes. Findings indicate regional differences in function in the normal liver. Jacobsson H, et al. **Acta Radiol** 1999 Mar;40(2):224-8

Clinical utility of positron emission tomography with 18F-fluorodeoxyglucose in detecting residual/recurrent squamous cell carcinoma of the head and neck [see comments] Fischbein NJ, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1189-96. Comment in: AJNR Am J Neuroradiol 1998 Aug;19(7):1197.

Paradoxical hyperfixation of HMPAO in cerebral infarction [editorial] Juni JE, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):732-3

99mTc-bicisate and 99mTc-HMPAO SPECT imaging in early spontaneous reperfusion of cerebral embolism. Ogasawara K, et al. **AJNR Am J Neuroradiol** 1999 Apr; 20(4):626-8

Another spurious description of hyperfixation of HMPAO [letter; comment] Patterson J, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):941-3. Comment on: AJNR Am J Neuroradiol 1997 Nov-dec;18(10):1905-8.

Central pain after pontine infarction is associated with changes in opioid receptor binding: a PET study with 11C-diprenorphine. Willoch F, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):686-90

Diagnosis of pancreatic carcinoma: role of FDG PET. Keogan MT, et al. **AJR Am J Roentgenol** 1998 Dec; 171(6):1565-70

Imaging of adrenal tumors using FDG PET: comparison of benign and malignant lesions. Maurea S, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):25-9

Comparison between 2-dimensional echocardiography and myocardial perfusion imaging in the emergency department in patients with possible myocardial ischemia. Kontos MC, et al. **Am Heart J** 1998 Oct;136(4 Pt 1):724-33

Mismatch between myocardial accumulation of 123I-MIBG and 99mTc-MIBI and late ventricular potentials in patients after myocardial infarction: association with the development of ventricular arrhythmias. Yukinaka M, et al. **Am Heart J** 1998 Nov;136(5):859-67

Impact of limited treadmill exercise on adenosine Tc-99m sestamibi single-photon emission computed tomographic myocardial perfusion imaging in coronary artery disease. Jamil G, et al. **Am J Cardiol** 1999 Aug 15;84(4):400-3

Estimation of shunt flow in coronary-pulmonary fistula by lung perfusion scintigraphy with technetium-99m macroaggregated albumin. Komatsu S, et al. **Am J Cardiol** 1998 Nov 1;82(9):1158-61, A11

Functional assessment with electrocardiographic gated single-photon emission computed tomography improves the ability of technetium-99m sestamibi myocardial perfusion imaging to predict myocardial viability in patients undergoing revascularization. Levine MG, et al. **Am J Cardiol** 1999 Jan 1;83(1):1-5

Thallium scintigraphy compared with 18F-fluorodeoxyglucose positron emission tomography for assessing myocardial viability in patients with moderate versus severe left ventricular dysfunction. Marin-Neto JA, et al. **Am J Cardiol** 1998 Nov 1;82(9):1001-7

Extrahepatic regional chemotherapy: use of technetium-99m labeled macroaggregated albumin. Pelosi E, et al. **Am J Clin Oncol** 1999 Jun;22(3):315-9

A study of vestibular schwannomas using positron emission tomography and monoclonal antibody Ki-67. Chen JM, et al. **Am J Otol** 1998 Nov;19(6):840-5

Differences in airway closure between normal and asthmatic subjects measured with single-photon emission computed tomography and technegas. King GG, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1900-6

99m-Technetium sestamibi localized solitary parathyroid adenoma as an indication for limited unilateral surgical exploration. Gupta VK, et al. **Am J Surg** 1998 Nov; 176(5):409-12

Re: Cost utility of routine imaging with Tc-99m-Sestamibi in primary hyperparathyroidism before initial surgery [letter; comment] Denham DW, et al. **Am Surg** 1999 Aug; 65(8):796-7. Comment on: Am Surg 1998 May;64(5):391-5; discussion 395-6.

Diagnosis of blunt rupture of the right hemidiaphragm by technetium scan. May AK, et al. **Am Surg** 1999 Aug; 65(8):761-5

Immunoscintigraphy of venous thrombi: clinical effectiveness of a new antifibrin D-dimer monoclonal antibody. Ciavolella M, et al. **Angiology** 1999 Feb;50(2):103-9

Lupus carditis: evaluation with technetium-99m MIBI myocardial SPECT and heart rate variability. Laganà B, et al. **Angiology** 1999 Feb;50(2):143-8

Myocardial perfusion imaging with technetium-99m sestamibi in patients with cocaine-associated chest pain. Kontos MC, et al. **Ann Emerg Med** 1999 Jun;33(6):639-45

Visualization of pressure-dependent luxury perfusion in a patient with subacute cerebral infarction. Cho IH, et al. **Ann Nucl Med** 1998 Aug;12(4):217-20

Technetium-99m complex of N-(2-pyridylmethyl)iminodiacetic acid as a new renal radiopharmaceutical. Karube Y, et al. **Ann Nucl Med** 1999 Apr;13(2):127-32

Abnormal brain perfusion demonstrated by Tc-99m MAA total-body scan in two children with complex congenital heart disease. Suga K, et al. **Ann Nucl Med** 1998 Oct; 12(5):297-302

Early and delayed Tc-99m-tetrofosmin myocardial SPECT in patients with left bundle branch block. Sugihara H, et al. **Ann Nucl Med** 1998 Oct;12(5):281-6

Tc-99m diethylenetriamine pentaacetic acid (DTPA)-human serum albumin (HSA) radionuclide lymphography for detecting the location of chyluria. Thet-Thet-Lwin, et al. **Ann Nucl Med** 1998 Aug;12(4):205-7

Predicting the effects on patients with dilated cardiomyopathy of beta-blocker therapy, by using iodine-123 15-(p-iodophenyl)-3-R,S-methylpentadecanoic acid (BMIPP) myocardial scintigraphy. Yoshinaga K, et al. **Ann Nucl Med** 1998 Dec; 12(6):341-7

Whole-body 2-[18F]-fluoro-2-deoxy-D-glucose positron emission tomography (FDG-PET) for accurate staging of Hodgkin's disease. Bangerter M, et al. **Ann Oncol** 1998 Oct; 9(10):1117-22

Detection of unknown primary cancer with fluor-deoxy-glucose positron emission tomography. Jungehülsing M, et al. **Ann Otol Rhinol Laryngol** 1999 Jun; 108(6):623-6

Technetium 99m sestamibi scintigraphy for noninvasive assessment of muscle flap viability [letter] Aygit AC, et al. **Ann Plast Surg** 1999 Sep;43(3):338-40

Imaging experimental intraabdominal abscesses with 99mTc-PEG liposomes and 99mTc-HYNIC IgG. Dams ET, et al. **Ann Surg** 1999 Apr;229(4):551-7

FDG-PET in the staging work-up of patients with suspected intracranial metastatic tumors. Gupta NC, et al. **Ann Surg** 1999 Aug;230(2):202-6

Subareolar versus peritumoral injection for location of the sentinel lymph node. Klimberg VS, et al. **Ann Surg** 1999 Jun;229(6):860-4; discussion 864-5

18Fluorodeoxyglucose-positron emission tomography in the management of patients with suspected pancreatic cancer. Rose DM, et al. **Ann Surg** 1999 May;229(5):729-37; discussion 737-8 (42 ref.)

Will the true sentinel node please stand? [editorial; comment] Morton DL, et al. **Ann Surg Oncol** 1999 Jan-Feb;6(1):12-4 . Comment on: Ann Surg Oncol 1999 Jan-Feb;6(1):83-7.

Filtered versus unfiltered technetium sulfur colloid in lymphatic mapping: a significant variable in a pig model [see comments] Tafra L, et al. **Ann Surg Oncol** 1999 Jan-Feb;6(1):83-7. Comment in: Ann Surg Oncol 1999 Jan-Feb;6(1):12-4.

Evaluation of fluorine-18-fluorodeoxyglucose whole body positron emission tomography imaging in the staging of lung cancer. Saunders CA, et al. **Ann Thorac Surg** 1999 Mar;67(3):790-7

Cost-effectiveness of FDG-PET for staging non-small cell lung cancer: a decision analysis. Scott WJ, et al. **Ann Thorac Surg** 1998 Dec;66(6):1876-83; discussion 1883-5

99mTc-Sestamibi scanning with SDZ PSC 833 as a functional detection method for resistance modulation in patients with solid tumours. Bakker M, et al. **Anticancer Res** 1999 May-Jun;19(3B):2349-53

Correlation between uptake of Tc-99m sestaMIBI and prognostic factors of breast cancer. Cwikla JB, et al. **Anticancer Res** 1999 May-Jun;19(3B):2299-304

99mTc-MIBI scintigraphy as an indicator of the chemosensitivity of anthracyclines in patients with breast cancer. Fujii H, et al. **Anticancer Res** 1998 Nov-Dec; 18(6B):4601-5

Evaluation of chemotherapy response in patients with small cell lung cancer using Technetium-99m-tetrofosmin. Kao CH, et al. **Anticancer Res** 1999 May-Jun;19(3B):2311-5

Functional imaging and detection of local recurrence in soft tissue sarcomas by positron emission tomography. Schwarzbach M, et al. **Anticancer Res** 1999 Mar-Apr; 19(2B):1343-9

Automated synthesis of [11C]choline, a positron-emitting tracer for tumor imaging. Hara T, et al. **Appl Radiat Isot** 1999 Mar;50(3):531-3

A trial study of leukocyte labeling with stabilized Tc-99m D,L-HMPAO by methylene blue and sodium phosphate buffer. Kao CH, et al. **Appl Radiat Isot** 1999 Mar; 50(3):513-9

Platelet labeling with 67Ga chelates. Karanikas G, et al. **Appl Radiat Isot** 1999 Mar;50(3):505-11

Preparation and primary evaluation of [11C]CSC as a possible tracer for mapping adenosine A2A receptors by PET. Márián T, et al. **Appl Radiat Isot** 1999 May;50(5):887-93

Synthesis and autoradiographic localization of muscarinic cholinergic antagonist (+)N-[11C]methyl-3-piperidyl

benzilate as a potent radioligand for positron emission tomography. Takahashi K, et al. **Appl Radiat Isot** 1999 Mar; 50(3):521–5

Myocardial contrast and transesophageal echocardiographic study of the left coronary artery from the main pulmonary artery. Vargas-Barrón J, et al. **Arch Inst Cardiol Mex** 1998 May–Jun;68(3):253–5

Reoperative parathyroid surgery in the era of sestamibi scanning and intraoperative parathyroid hormone monitoring. Thompson GB, et al. **Arch Surg** 1999 Jul; 134(7):699–704; discussion 704–5

Whole-body PET imaging with [18F]fluorodeoxyglucose in management of recurrent colorectal cancer. Valk PE, et al. **Arch Surg** 1999 May;134(5):503–11; discussion 511–3

Tumour size: the only predictive factor for 131I MIBG uptake in phaeochromocytoma and paraganglioma. Nguyen HH, et al. **Aust N Z J Surg** 1999 May;69(5):350–3

Effect of 50 Hz sinusoidal electromagnetic field on the kinetics of 14CO2 exhalation after [14C]-N-nitrosodiethylamine administration in mice. Singh S, et al. **Bioelectromagnetics** 1999;20(1):1–4

123I-MIBG SPECT of Merkel cell carcinoma. Watanabe N, et al. **Br J Radiol** 1998 Aug;71(848):886–7

Chronic compartment syndrome affecting the lower limb: MIBI perfusion imaging as an alternative to pressure monitoring: two case reports. Owens S, et al. **Br J Sports Med** 1999 Feb;33(1):49–51

Detection of response to chemotherapy using positron emission tomography in patients with oesophageal and gastric cancer. Couper GW, et al. **Br J Surg** 1998 Oct; 85(10):1403–6

Evaluation of positron emission tomography with 2-[18F]fluoro-2-deoxy-D-glucose for the differentiation of chronic pancreatitis and pancreatic cancer. Imdahl A, et al. **Br J Surg** 1999 Feb;86(2):194–9

Prospective evaluation of soft tissue masses and sarcomas using fluorodeoxyglucose positron emission tomography. Lucas JD, et al. **Br J Surg** 1999 Apr;86(4):550–6

Comparison of radioguided excision with wire localization of occult breast lesions. Luini A, et al. **Br J Surg** 1999 Apr;86(4):522–5

Radionuclide scanning in parathyroid diseases. Pattou F, et al. **Br J Surg** 1998 Dec;85(12):1605–16 (130 ref.)

Controlled prospective study of positron emission tomography using the glucose analogue [18f]fluorodeoxyglucose in the evaluation of pulmonary nodules. Präuer HW, et al. **Br J Surg** 1998 Nov; 85(11):1506–11

Lower moiety heminephroureterectomy in duplex refluxing kidneys: the accuracy of isotopic scintigraphy in functional assessment [letter; comment] Aktug T, et al. **Br J Urol** 1998 Dec;82(6):932. Comment on: Br J Urol 1998 Mar;81(3):356–9.

Clinical utility of flumazenil-PET versus [18F]fluorodeoxyglucose-PET and MRI in refractory partial epilepsy. A prospective study in 100 patients. Ryvlin P, et al. **Brain** 1998 Nov;121 (Pt 11):2067–81

18Fluoro-2-deoxyglucose (18FDG) PET scan of the brain in propionic acidemia: clinical and MRI correlations. Al-Essa M, et al. **Brain Dev** 1999 Jul;21(5):312–7

18Fluoro-2-deoxyglucose (18FDG) PET scan of the brain in type IV 3-methylglutaconic aciduria: clinical and MRI correlations. Al-Essa M, et al. **Brain Dev** 1999 Jan; 21(1):24–9

Clinical, fluorine-18 labeled 2-fluoro-2-deoxyglucose positron emission tomography of the brain, MR spectroscopy, and therapeutic attempts in methylenetetrahydrofolate reductase deficiency. Al-Essa MA, et al. **Brain Dev** 1999 Jul;21(5):345–9

Tc-99m HMPAO brain perfusion imaging in young Down's syndrome patients. Gökçora N, et al. **Brain Dev** 1999 Mar; 21(2):107–12

Imaging assessment of the responses of osteosarcoma patients to preoperative chemotherapy: angiography compared with thallium-201 scintigraphy. Kunisada T, et al. **Cancer** 1999 Sep 15;86(6):949–56

Primary staging and follow-up of high risk melanoma patients with whole-body 18F-fluorodeoxyglucose positron emission tomography: results of a prospective study of 100 patients [letter; comment] Mijnhout GS, et al. **Cancer** 1999 Mar 1;85(5):1199–201. Comment on: Cancer 1998 May 1;82(9):1664–71.

2-[C-11]thymidine imaging of malignant brain tumors. Eary JF, et al. **Cancer Res** 1999 Feb 1;59(3):615–21

The utility of a somatostatin-type receptor binding peptide radiopharmaceutical (P829) in the evaluation of solitary pulmonary nodules. Blum JE, et al. **Chest** 1999 Jan; 115(1):224–32

Technetium Tc 99m sestamibi myocardial perfusion imaging: current role for evaluation of prognosis. Mandalapu BP, et al. **Chest** 1999 Jun;115(6):1684–94 (77 ref.)

FDG SPECT in patients with lung masses. Mastin ST, et al. **Chest** 1999 Apr;115(4):1012–7

Differential 18F-2-deoxyglucose uptake in viable dysfunctional myocardium with normal resting perfusion: evidence for chronic stunning in pigs. Fallavollita JA, et al. **Circulation** 1999 Jun 1;99(21):2798–805

Comparison of 201Tl, 99mTc-tetrofosmin, and dobutamine magnetic resonance imaging for identifying hibernating myocardium. Gunning MG, et al. **Circulation** 1998 Nov 3;98(18):1869–74

Imaging of somatostatin receptors by indium-111-pentetreotide correlates with quantitative determination of somatostatin receptor type 2 gene expression in neuroblastoma tumors. Briganti V, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2385–91

Detection of in vivo P-glycoprotein inhibition by PSC 833 using Tc-99m sestamibi. Chen CC, et al. **Clin Cancer Res** 1997 Apr;3(4):545–52

Radioimmunoscintigraphy and biodistribution of technetium-99m-labeled monoclonal antibody U36 in patients with head and neck cancer. de Bree R, et al. **Clin Cancer Res** 1995 Jun;1(6):591–8

Giant cell granulamatous hypophysitis with remarkable uptake on Gallium-67 scintigraphy. Shimizu C, et al. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):131–4

Noninvasive measurement of renal function with 99mTc-MAG3 gamma-camera renography based on the one-compartment model. Oriuchi N, et al. **Clin Nephrol** 1998 Nov;50(5):289–94

Fluorine-18 fluorodeoxyglucose splenic uptake from extramedullary hematopoiesis after granulocyte colony-stimulating factor stimulation. Abdel-Dayem HM, et al. **Clin Nucl Med** 1999 May;24(5):319–22

Disappointing results with Tc-99m tetrofosmin for detecting medullary thyroid carcinoma metastases comparison with Tc-99m VDMSA and Tl-201. Adalet I, et al. **Clin Nucl Med** 1999 Sep;24(9):678–83

Fluorine-18 fluorodeoxyglucose uptake in tubovillous adenoma of the colon. Alibazoglu H, et al. **Clin Nucl Med** 1999 May;24(5):357–8

Scintigraphic evaluation of malignant melanoma lesions with Tc-99m tetrofosmin. Alonso O, et al. **Clin Nucl Med** 1998 Oct;23(10):683–5

Cerebral fluorine-18 fluorodeoxyglucose positron emission tomographic findings in x-linked adrenoleukodystrophy. Bakheet S, et al. **Clin Nucl Med** 1999 May;24(5):364–5

F-18-FDG uptake in tuberculosis. Bakheet SM, et al. **Clin Nucl Med** 1998 Nov;23(11):739–42

F-18 FDG whole-body positron emission tomography scan in primary breast sarcoma. Bakheet SM, et al. **Clin Nucl Med** 1998 Sep;23(9):604–8

Incidental second primary in the breast detected by F-18 FDG positron emission tomography scan. Bakheet SM, et al. **Clin Nucl Med** 1998 Sep;23(9):616

Pulmonary Tc-99m tetrofosmin imaging: clinical experience with detecting malignant lesions and monitoring response to therapy. Basoglu T, et al. **Clin Nucl Med** 1998 Nov; 23(11):753–7

Incidental finding of hiatal hernia uptake on Tc-99m sestamibi breast imaging. Beaulieu S, et al. **Clin Nucl Med** 1999 Jun;24(6):455–6

Gastrointestinal bleeding detected on a routine Tc-99m MDP bone scan. Bender LW, et al. **Clin Nucl Med** 1999 Apr; 24(4):274–5

Uptake of Tc-99m MDP in shoulder muscle caused by the use of elbow crutches. Bern G, et al. **Clin Nucl Med** 1999 Sep;24(9):691–2

Tc-99m pyrophosphate uptake in small areas of myocardial injury produced by radiofrequency catheter ablation of arrhythmias. Bom HS, et al. **Clin Nucl Med** 1999 Jan; 24(1):57–9

Combined Tc-99m sestamibi first-pass radionuclide angiography and cardiac SPECT imaging during arbutamine infusion delivered by a computerized closed-loop system. Borges-Neto S, et al. **Clin Nucl Med** 1999 Jan;24(1):42–7

Dual isotope F-18 FDG and Tc-99m RBC imaging for lung cancer. Burt R. **Clin Nucl Med** 1998 Dec;23(12):807–9

False-positive Tc-99m sestamibi examination for parathyroid adenoma in a case of asymmetrical salivary gland enlargement. Campeau RJ, et al. **Clin Nucl Med** 1999 Sep; 24(9):723–4

Nonsegmental ventilation-perfusion scintigraphy mismatch after radiation therapy. Chin BB, et al. **Clin Nucl Med** 1999 Jan;24(1):54–6

Splenic infarction evidenced by whole-body Tc-99m HMPAO-labeled leukocyte scan. Cook BJ, et al. **Clin Nucl Med** 1999 Jan;24(1):61–2

Tc-99m sestamibi imaging as an indicator of P-glycoprotein expression in metastatic pheochromocytoma. Derebek E, et al. **Clin Nucl Med** 1998 Sep;23(9):637–8

Tc-99m MDP uptake in stage D adenocarcinoma of the colon. Dowe DA, et al. **Clin Nucl Med** 1998 Sep;23(9):620

Diagnosis of inferior vena cava obstruction on Tc-99m Arcitumomab (CEA scan) scintigraphy. Entel RJ, et al. **Clin Nucl Med** 1998 Jul;23(7):470–1

Fluorine-18 fluorodeoxyglucose uptake in the retractile testis. Fujii H, et al. **Clin Nucl Med** 1999 May;24(5):323–5

Ga-67 visualization of the coexistence of two mucosa-associated lymphoid tissue (MALT) lymphomas in the thyroid and stomach. Fukumoto M, et al. **Clin Nucl Med** 1998 Jul;23(7):484

Dual isotope SPECT in malignant Jacod's syndrome. Fukumoto M, et al. **Clin Nucl Med** 1998 Jul;23(7):437–40

Female "varicocele": two cases diagnosed by labeled red blood cell angioscintigraphy and treated by percutaneous phlebography and embolization. Gasparini D, et al. **Clin Nucl Med** 1998 Jul;23(7):420–2

Tc-99m sestamibi uptake in a patient with gynecomastia: a potential pitfall in the diagnosis of breast cancer. Gellett LR, et al. **Clin Nucl Med** 1999 Jun;24(6):466

Tc-99m tetrofosmin myocardial perfusion imaging before and six months after percutaneous transluminal coronary angioplasty. Georgoulias P, et al. **Clin Nucl Med** 1998 Oct; 23(10):678–82

Tc-99m MDP uptake in primary breast lymphoma. Goyal M, et al. **Clin Nucl Med** 1998 Sep;23(9):614–5

An ultrashort 1-day protocol of Tc-99m tetrofosmin. Hattori N, et al. **Clin Nucl Med** 1999 Feb;24(2):85–91

Extraosseous metastases of hepatocellular carcinoma detection and therapeutic assessment with Tc-99m PMT SPECT. Hayase N, et al. **Clin Nucl Med** 1999 May; 24(5):326–9

Sclerosing mediastinitis: findings on fluorine-18 fluorodeoxyglucose positron emission tomography. Imran MB, et al. **Clin Nucl Med** 1999 May;24(5):305–8

Usefulness of dual SPECT with Tc-99m pyrophosphate and Tl-201 to predict further events after acute myocardial infarction with single-vessel coronary artery disease. Isoda H, et al. **Clin Nucl Med** 1999 Apr;24(4):227–31

Tc-99m MAG3 scintigraphy in a newborn with acute renal vein thrombosis. Izquierdo V, et al. **Clin Nucl Med** 1999 Apr;24(4):287–8

Early duodenogastric reflux in Tc-99m tetrofosmin myocardial scintigraphy: a case report. Karayalcin B, et al. **Clin Nucl Med** 1998 Dec;23(12):844–5

Reversible cerebral hypoperfusion observed with Tc-99m HMPAO SPECT in reversible dementia caused by hypothyroidism. Kinuya S, et al. **Clin Nucl Med** 1999 Sep; 24(9):666–8

The 24-hour Tl-201 image in dual isotope myocardial perfusion scintigraphy: clinical utility and prognostic significance. Kipper MS, et al. **Clin Nucl Med** 1998 Sep; 23(9):576–81

Prediction of myocardial viability: Tl-201 versus sestamibi versus teboroxime compared with FDG uptake. Kiser JW, et al. **Clin Nucl Med** 1998 Jul;23(7):432–6

Primary hepatic amyloidosis well delineated by Tc-99m DTPA galactosyl HSA liver SPECT. Koizumi K, et al. **Clin Nucl Med** 1999 Apr;24(4):271–3

Primary myocardial lymphoma demonstrated by Tl-201, Tc-99m sestamibi, and Ga-67 SPECT. Kosuda S, et al. **Clin Nucl Med** 1998 Jul;23(7):482–3

Somatostatin receptor scintigraphy for early detection of regional and distant metastases of medullary carcinoma of the thyroid. Krausz Y, et al. **Clin Nucl Med** 1999 Apr; 24(4):256–60

Immunoscintigraphy of an inflammatory process in Crohn's disease with a technetium-99m-labeled fragment (MN3 Fab') and with an intact monoclonal anti-granulocyte antibody (Mab BW 250/183). Kresnik E, et al. **Clin Nucl Med** 1999 Jan;24(1):64–5

Tc-99m dextran: a new and sensitive general purpose scintigraphic agent for diagnosing intestinal inflammation. Lahoti D, et al. **Clin Nucl Med** 1999 Jun;24(6):424–7

Primary osteogenic sarcoma of the breast demonstrated by Tc-99m MDP scintigraphy. Lee JK, et al. **Clin Nucl Med** 1998 Sep;23(9):619

The usefulness of Tc-99m DMSA SPECT and three-dimensional surface rendering in an asymptomatic patient with a single kidney in the pelvis. Leitha T. **Clin Nucl Med** 1998 Jul;23(7):414–6

Ga-67 citrate imaging of a primary thymic seminoma. Lescout JM, et al. **Clin Nucl Med** 1998 Jul;23(7):471–3

Somatostatin receptor scintigraphy and somatostatin therapy in the evaluation and treatment of malignant thymoma. Lin K, et al. **Clin Nucl Med** 1999 Jan;24(1):24–8

Tl-201 and Ga-67 scintigraphy in non-Hodgkin's lymphoma. Mansberg R, et al. **Clin Nucl Med** 1999 Apr;24(4):239–42

Discrepancies in brain perfusion SPECT findings between Tc-99m HMPAO and Tc-99m ECD: evaluation using dynamic SPECT in patients with hyperemia. Miyazawa N, et al. **Clin Nucl Med** 1998 Oct;23(10):686–90

Delayed Tc-99m citrate scintigraphy in the evaluation of palpable breast masses. Mondal A, et al. **Clin Nucl Med** 1999 May;24(5):309–13

Uptake of Tc-99m sestamibi and Tc-99m MDP in anaplastic carcinoma of the thyroid (nondiagnostic CT and ultrasound scans). Montes TC, et al. **Clin Nucl Med** 1999 May; 24(5):355–6

Usefulness of Technetium-99m human serum albumin lymphoscintigraphy in chyluria. Nishiyama Y, et al. **Clin Nucl Med** 1998 Jul;23(7):429–31

Increased F-18 FDG uptake in the stomach. Nunez RF, et al. **Clin Nucl Med** 1999 Apr;24(4):281–2

Calcified mediastinal metastases from ovarian cancer imaged with Tc-99m MDP SPECT. Oguchi M, et al. **Clin Nucl Med** 1998 Jul;23(7):479–81

The usefulness of Tc-99m sestamibi scintimammography in the diagnosis of squamous cell carcinoma of the breast. Ohta H, et al. **Clin Nucl Med** 1998 Sep;23(9):617–8

Tc-99m HMPAO brain perfusion SPECT images in a patient with portal-systemic encephalopathy. Ohta H, et al. **Clin Nucl Med** 1998 Sep;23(9):634–6

Tc-99m phytate images in a patient with a wandering spleen. Ohta H, et al. **Clin Nucl Med** 1999 Jun;24(6):458–9

Focal liver uptake of Tc-99m mebrofenin in a patient with cavernous hemangioma. Oussama N, et al. **Clin Nucl Med** 1998 Jul;23(7):475–7

False-negative scintigraphy with Tc-99m sestamibi in stage IV neuroblastoma. Ozcan Z, et al. **Clin Nucl Med** 1999 Apr;24(4):267–70

Tc-99m HMPAO leukocyte and Tc-99m nanocolloid scintigraphy in posttraumatic bone infection. Papós M, et al. **Clin Nucl Med** 1998 Jul;23(7):423–8

F-18 fluorodeoxyglucose positron emission tomographic imaging in desmoplastic small round cell tumor of the abdomen. Pickhardt PJ. **Clin Nucl Med** 1999 Sep; 24(9):693–4

Tc-99m DTPA renal scintigraphy using deconvolution analysis with six functional images of the mean time to evaluate acute pyelonephritis. Poropat M, et al. **Clin Nucl Med** 1999 Feb;24(2):120–4

The hot rectus abdominis muscle sign. Sabnis EV, et al. **Clin Nucl Med** 1999 Jan;24(1):66–7

Increased F-18 fluorodeoxyglucose thyroidal uptake in Graves' disease. Santiago JF, et al. **Clin Nucl Med** 1999 Sep;24(9):714–5

Increased Tc-99m MIBI uptake in atelectatic lung: a pitfall in scintigraphic evaluation of central bronchogenic carcinoma. Sarikaya A, et al. **Clin Nucl Med** 1998 Sep; 23(9):627–8

Tc-99m dextran and Tc-99m HIG findings in patients with ulcerative colitis. Sarikaya I, et al. **Clin Nucl Med** 1999 Apr;24(4):243–7

Detection of malignant thymoma during myocardial perfusion tomography with Tc-99m sestamibi: potential implications for tumor evaluation and staging. Sciagrà R, et al. **Clin Nucl Med** 1998 Dec;23(12):842–3

Hyperactivity in the lower sternal region with Tc-99m sestamibi: possible cardiac origin. Servais F, et al. **Clin Nucl Med** 1998 Jul;23(7):461–2

Differentiation of malignant and degenerative benign bone disease using Tc-99m MDP and Tc-99m citrate scintigraphy. Sharma R, et al. **Clin Nucl Med** 1998 Nov; 23(11):758–63

Breast uptake of Tc-99m pertechnetate during perfusion lung scan in pregnancy. Sherigar RM, et al. **Clin Nucl Med** 1998 Oct;23(10):700–1

Tc-99m MIBI thoracic SPECT for the detection of intrathoracic tumor masses. Shih WJ, et al. **Clin Nucl Med** 1998 Sep;23(9):594–600

Combined hepatocellular carcinoma and cholangiocarcinoma with high F-18 fluorodeoxyglucose positron emission tomographic uptake. Shiomi S, et al. **Clin Nucl Med** 1999 May;24(5):370–1

Diagnosis of spine metastases by FDG imaging using a gamma camera in the coincidence mode. Shreve PD, et al. **Clin Nucl Med** 1998 Dec;23(12):799–802

Focal nodular hyperplasia of the liver: scintigraphic demonstration using three hepatic imaging agents. Shuke N, et al. **Clin Nucl Med** 1999 Jun;24(6):451–3

Chilaiditi's syndrome on Tc-99m hexamethylpropylene amineoxime imaging. Siraj QH, et al. **Clin Nucl Med** 1999 Sep;24(9):699–700

Detection of metastatic parathyroid carcinoma with Tc-99m sestamibi imaging. Al-Sobhi S, et al. **Clin Nucl Med** 1999 Jan;24(1):21–3

Tc-99m DTPA used as reference imaging to evaluate the distribution of other tumor-seeking tracers in tumors associated with neurofibromatosis. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):435–9

Crossed cerebellar diaschisis demonstrated by brain SPECT with Tc-99m MAA in a child with an intracardiac right-to-left shunt. Suga K, et al. **Clin Nucl Med** 1999 Apr; 24(4):282–3

Tc-99m colloid and Ga-67 imaging of splenic inflammatory pseudotumor correlation with ultrasound, CT, and MRI. Suga K, et al. **Clin Nucl Med** 1999 May;24(5):334–7

Tc-99m pertechnetate scintigraphy to diagnose rectal duplication. Tepmongkol S, et al. **Clin Nucl Med** 1999 Apr; 24(4):289

Early and late Tc-99m diphosphonate uptake in a giant benign breast cystosarcoma phyllodes tumor. Tondeur M, et al. **Clin Nucl Med** 1999 May;24(5):366–7

Unusual Tc-99m MDP bone scan imaging in a case of skull angioma. Tondeur M, et al. **Clin Nucl Med** 1999 May; 24(5):362

Tumor and infection localization in AIDS patients: Ga-67 and Tl-201 findings. Turoglu HT, et al. **Clin Nucl Med** 1998 Jul;23(7):446–59

Perirenal, peripelvic, and upper ureter abscesses in a nearly nonfunctioning kidney demonstrated by Tc-99m DMSA and Ga-67 renal SPECT. Tzen KY, et al. **Clin Nucl Med** 1999 Jan;24(1):68

Use of Tc-99m DTPA galactosyl human serum albumin to predict postoperative residual liver function. Uetake M, et al. **Clin Nucl Med** 1999 Jun;24(6):428–34

I-123 MIBG cardiac imaging in diabetic neuropathy before and after epalrestat therapy. Utsunomiya K, et al. **Clin Nucl Med** 1999 Jun;24(6):418–20

Tl-201 myocardial perfusion SPECT: role of nitrate-augmented redistribution. Wadhwa SS, et al. **Clin Nucl Med** 1999 Jan;24(1):1–5

Colon visualization of bone scan: a special and interesting case. Wang YF, et al. **Clin Nucl Med** 1998 Oct;23(10):723–4

Chest pain explained: Tc-99m sestamibi biliary reflux into a stomach used for esophageal replacement in surgery for carcinoma. Wiest PW, et al. **Clin Nucl Med** 1998 Jul; 23(7):462–4

F-18 fluorodeoxyglucose positron emission tomography imaging in ectopic nonfunctioning glucagonoma. Yasuda S, et al. **Clin Nucl Med** 1998 Jul;23(7):474–5

Elevated F-18 FDG uptake in the psoas muscle. Yasuda S, et al. **Clin Nucl Med** 1998 Oct;23(10):716–7

Identification of new renal scarring in repeated episodes of acute pyelonephritis using Tc-99m DMSA renal SPECT. Yen TC, et al. **Clin Nucl Med** 1998 Dec;23(12):828–31

FDG PET evaluation of residual masses and regrowth of abdominal lymph node metastases from colon cancer compared with CT during chemotherapy. Yoshioka T, et al. **Clin Nucl Med** 1999 Apr;24(4):261–3

How well does radionuclide dipyridamole stress testing detect three-vessel coronary artery disease and ischemia in the region supplied by the most stenotic vessel? Zaacks SM, et al. **Clin Nucl Med** 1999 Jan;24(1):35–41

Biliary excretion of Tc-99m EC in renal studies. Zakko S, et al. **Clin Nucl Med** 1998 Jul;23(7):417–9

Role of PET FDG in the management of head and neck squamous cell cancer. Wong WL, et al. **Clin Oncol (R Coll Radiol)** 1998;10(6):361–6 (41 ref.)

High dose dipyridamole myocardial imaging: simultaneous sestamibi scintigraphy and two-dimensional echocardiography in the detection and evaluation of coronary artery disease. Italian Group of Nuclear Cardiology. Parodi G, et al. **Coron Artery Dis** 1999 May; 10(3):177–84

Localization of the epileptogenic zone by ictal and interictal SPECT with 99mTc-ethyl cysteinate dimer in patients with medically refractory epilepsy. Oliveira AJ, et al. **Epilepsia** 1999 Jun;40(6):693–702

99mTc-MIBI uptake in a primitive leptomeningeal melanoma. Soler C, et al. **Eur J Dermatol** 1998 Apr–May; 8(3):169–72

Simplified reference region model for the kinetic analysis of [99mTc]TRODAT-1 binding to dopamine transporters in nonhuman primates using single-photon emission tomography. Acton PD, et al. **Eur J Nucl Med** 1999 May; 26(5):518–26

Prospective comparison of 18F-FDG PET with conventional imaging modalities (CT, MRI, US) in lymph node staging of head and neck cancer. Adams S, et al. **Eur J Nucl Med** 1998 Sep;25(9):1255–60

123I-5-I-R91150, a new single-photon emission tomography ligand for 5-HT2A receptors: influence of age and gender in healthy subjects. Backen C, et al. **Eur J Nucl Med** 1998 Dec;25(12):1617–22

False-positive defects in technetium-99m sestamibi myocardial single-photon emission tomography in healthy athletes with left ventricular hypertrophy. Bartram P, et al. **Eur J Nucl Med** 1998 Sep;25(9):1308–12

Use of somatostatin analogue scintigraphy in the localization of recurrent medullary thyroid carcinoma. Bernà L, et al. **Eur J Nucl Med** 1998 Nov;25(11):1482–8

Comparison of FDG PET and positron coincidence detection imaging using a dual-head gamma camera with 5/8-inch NaI(Tl) crystals in patients with suspected body malignancies. Boren EL Jr, et al. **Eur J Nucl Med** 1999 Apr;26(4):379–87

Fluorine-18 deoxyglucose positron emission tomography for the detection of bone metastases in patients with non-small cell lung cancer. Bury T, et al. **Eur J Nucl Med** 1998 Sep; 25(9):1244–7

Cerebral blood flow measurement in patients with impaired consciousness: usefulness of 99mTc-HMPAO single-photon emission tomography in clinical practice. Chang CC, et al. **Eur J Nucl Med** 1998 Sep;25(9):1330–2

Current status of commercial colloidal preparations for sentinel lymph node detection [letter] Chinol M, et al. **Eur J Nucl Med** 1999 May;26(5):560

Nuclear medicine procedures in lung cancer. Chiti A, et al. **Eur J Nucl Med** 1999 May;26(5):533–55 (194 ref.)

Association between [18F]fluorodeoxyglucose uptake and postoperative histopathology, hormone receptor status, thymidine labelling index and p53 in primary breast cancer: a preliminary observation. Crippa F, et al. **Eur J Nucl Med** 1998 Oct;25(10):1429–34

Tumour uptake of the radiolabelled somatostatin analogue [DOTA0, TYR3]octreotide is dependent on the peptide amount. de Jong M, et al. **Eur J Nucl Med** 1999 Jul; 26(7):693–8

Imaging of brain tumors in AIDS patients by means of dual-isotope thallium-201 and technetium-99m sestamibi single-photon emission tomography. De La Peña RC, et al. **Eur J Nucl Med** 1998 Oct;25(10):1404–11

Cardiac sympathetic denervation in familial amyloid polyneuropathy assessed by iodine-123 metaiodobenzylguanidine scintigraphy and heart rate variability. Delahaye N, et al. **Eur J Nucl Med** 1999 Apr; 26(4):416–24

Technetium-99m sestamibi imaging in paediatric neuroblastoma and ganglioneuroma and its relation to P-glycoprotein. De Moerloose B, et al. **Eur J Nucl Med** 1999 Apr;26(4):396–403

Influence of high-energy photons on the spectrum of iodine-123 with low- and medium-energy collimators: consequences for imaging with 123I-labelled compounds in clinical practice. Dobbeleir AA, et al. **Eur J Nucl Med** 1999 Jun;26(6):655–8

In vivo imaging of serotonin transporters with [99mTc]TRODAT-1 in nonhuman primates. Dresel SH, et al. **Eur J Nucl Med** 1999 Apr;26(4):342–7

In vivo evaluation in mice and metabolism in blood of human volunteers of [123I]iodo-PK11195: a possible single-photon emission tomography tracer for visualization of inflammation. Dumont F, et al. **Eur J Nucl Med** 1999 Mar; 26(3):194–200

Early detection of the no-reflow phenomenon in reperfused acute myocardial infarction using technetium-99m tetrofosmin imaging. Hamada S, et al. **Eur J Nucl Med** 1999 Mar;26(3):208–14

Technetium-99m tetrofosmin imaging in patients with subacute thyroiditis. Hiromatsu Y, et al. **Eur J Nucl Med** 1998 Oct;25(10):1448–52

Reproducibility of technetium-99m ethylenedicysteine clearance. Kabasakal L, et al. **Eur J Nucl Med** 1999 Aug; 26(8):900–2

The specific gallium-67 scan uptake pattern in psoas abscesses. Kao PF, et al. **Eur J Nucl Med** 1998 Oct; 25(10):1442–7

Use of 123I-BMIPP single-photon emission tomography to estimate areas at risk following successful revascularization in patients with acute myocardial infarction. Kawai Y, et al. **Eur J Nucl Med** 1998 Oct;25(10):1390–5

Evaluation of brain perfusion with technetium-99m bicisate single-photon emission tomography in patients with depressive disorder before and after drug treatment. Kocmur M, et al. **Eur J Nucl Med** 1998 Oct;25(10):1412–4

Role of attenuation correction for fluorine-18 fluorodeoxyglucose positron emission tomography in the primary staging of malignant lymphoma. Kotzerke J, et al. **Eur J Nucl Med** 1999 Jan;26(1):31–8

Comparison of the distribution of fluorine-18 fluoromisonidazole, deoxyglucose and methionine in tumour tissue. Kubota K, et al. **Eur J Nucl Med** 1999 Jul; 26(7):750–7

Use of 123I-IMP brain SPET to predict outcome following STA-MCA bypass surgery: cerebral blood flow but not vasoreactivity is a predictive parameter. Kume N, et al. **Eur J Nucl Med** 1998 Dec;25(12):1637–42

Evaluation in mice of some iodinated melanoma imaging agents using cryosectioning and multi-wire proportional counting. Labarre P, et al. **Eur J Nucl Med** 1999 May; 26(5):494–8

Lesion detectability and quantitative recovery with FDG-PET [letter; comment] Links JM. **Eur J Nucl Med** 1999 Jun;26(6):681–2. Comment on: Eur J Nucl Med 1999 Jan;26(1):39–45.

A PET study of 18FDG uptake in soft tissue masses. Lodge MA, et al. **Eur J Nucl Med** 1999 Jan;26(1):22–30

Attenuation correction in whole-body FDG oncological studies: the role of statistical reconstruction. Lonneux M, et al. **Eur J Nucl Med** 1999 Jun;26(6):591–8

Changing biodistribution of gallium during G-CSF treatment in non- Hodgkin's disease [letter] Maffioli LS, et al. **Eur J Nucl Med** 1999 Jan;26(1):68–9

Preoperative evaluation of hepatic functional reserve following hepatectomy by technetium-99m galactosyl human serum albumin liver scintigraphy and computed tomography. Mitsumori A, et al. **Eur J Nucl Med** 1998 Oct;25(10):1377–82

Feasibility of imaging photodynamic injury to tumours by high-resolution positron emission tomography. Moore JV, et al. **Eur J Nucl Med** 1998 Sep;25(9):1248–54

Quantification of cerebral blood flow using technetium-99m ethyl cysteinate dimer and single-photon emission tomography. Odano I, et al. **Eur J Nucl Med** 1999 Mar; 26(3):246–52

Normal appearances of technetium-99m dimercaptosuccinic acid in children on planar imaging. Pusuwan P, et al. **Eur J Nucl Med** 1999 May;26(5):483–8

Capabilities of two- and three-dimensional FDG-PET for detecting small lesions and lymph nodes in the upper torso: a dynamic phantom study. Raylman RR, et al. **Eur J Nucl Med** 1999 Jan;26(1):39–45

Estimation of regional lung function in interstitial pulmonary disease using 99mTc-technegas and 99mTc-macroaggregated albumin single-photon emission tomography. Sasaki Y, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1623–9

Fluorodeoxyglucose positron emission tomography of soft tissue tumours: is a non-invasive determination of biological activity possible? Schulte M, et al. **Eur J Nucl Med** 1999 Jun;26(6):599–605

Imaging of metastatic melanoma utilising a technetium-99m labelled RGD-containing synthetic peptide. Sivolapenko GB, et al. **Eur J Nucl Med** 1998 Oct;25(10):1383–9

Technetium-99m sestamibi brain single-photon emission tomography for detection of recurrent gliomas after radiation therapy. Soler C, et al. **Eur J Nucl Med** 1998 Dec;25(12):1649–57

Evaluation of renal function in low-dose cyclosporine-treated patients using technetium-99m diaminocyclohexane: a cationic tubular excretion agent. Sonmezoglu K, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1630–6

The value of renal scintigraphy during controlled diuresis in children with hydronephrosis. Steiner D, et al. **Eur J Nucl Med** 1999 Jan;26(1):18–21

Is there a future for clinical fluorine-18 radiopharmaceuticals (excluding FDG)? [editorial] Stöcklin GL. **Eur J Nucl Med** 1998 Dec;25(12):1612–6

Preoperative assessment of cervical lymph nodes in head and neck cancer with fluorine-18 fluorodeoxyglucose using a dual-head coincidence camera: a pilot study. Stokkel MP, et al. **Eur J Nucl Med** 1999 May;26(5):499–503

Potential of iodine-123 metaiodobenzylguanidine single-photon emission tomography to detect abnormal functional status of the pulmonary neuroadrenergic system in irradiated lung. Suga K, et al. **Eur J Nucl Med** 1999 Jun;26(6):647–54

Rapid detection of human infections with fluorine-18 fluorodeoxyglucose and positron emission tomography: preliminary results. Sugawara Y, et al. **Eur J Nucl Med** 1998 Sep;25(9):1238-43

Measurement of lymphatic function with technetium-99m-labelled polyclonal immunoglobulin. Svensson W, et al. **Eur J Nucl Med** 1999 May;26(5):504-10

Technetium-99m HL91 uptake as a tumour hypoxia marker: relationship to tumour blood flow. Tatsumi M, et al. **Eur J Nucl Med** 1999 Feb;26(2):91-4

Effects of aldose reductase inhibitor and vitamin B12 on myocardial uptake of iodine-123 metaiodobenzylguanidine in patients with non-insulin-dependent diabetes mellitus. Utsunomiya K, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1643-8

FDG-PET scan in potentially operable non-small cell lung cancer: do anatometabolic PET-CT fusion images improve the localisation of regional lymph node metastases? The Leuven Lung Cancer Group. Vansteenkiste JF, et al. **Eur J Nucl Med** 1998 Nov;25(11):1495-501

Imaging of lung cancer with fluorine-18 fluorodeoxyglucose: comparison of a dual-head gamma camera in coincidence mode with a full-ring positron emission tomography system. Weber WA, et al. **Eur J Nucl Med** 1999 Apr; 26(4):388-95

Radiopharmaceuticals in sentinel lymph-node detection - an overview. Wilhelm AJ, et al. **Eur J Nucl Med** 1999 Apr; 26(4 Suppl):S36-42 (50 ref.)

False-positive FDG PET in patients with pancreatic masses: an issue of proper patient selection? [letter; comment] Zimny M, et al. **Eur J Nucl Med** 1998 Sep;25(9):1352. Comment on: Eur J Nucl Med 1998 Mar;25(3):259-64.

Influence of technetium-99m-hexamethylpropylene amine oxime injection time on single-photon emission tomography perfusion changes in epilepsy. Zubal IG, et al. **Eur J Nucl Med** 1999 Jan;26(1):12-7

Tc-99m labeled red blood cells scintigraphy: a diagnostic method for orbital cavernous hemangioma. Gdal-On M, et al. **Eur J Ophthalmol** 1999 Apr-Jun;9(2):125-9

Detection of malignant breast tumours in dense breast tissue: results of 99mTc-tetrofosmin scintimammography related to surgery. Bongers V, et al. **Eur J Surg Oncol** 1999 Apr; 25(2):152-6

Assessment of osteosarcoma response to neoadjuvant chemotherapy: comparative usefulness of dynamic gadolinium-enhanced spin-echo magnetic resonance imaging and technetium-99m skeletal angioscintigraphy. Ongolo-Zogo P, et al. **Eur Radiol** 1999;9(5):907-14

FDG PET-negative liver metastases of a malignant melanoma and FDG PET-positive hurthle cell tumor of the thyroid. Wiesner W, et al. **Eur Radiol** 1999;9(5):975-8

A new method for measuring aerosol nebulizer output using radioactive tracers. Gatnash AA, et al. **Eur Respir J** 1998 Aug;12(2):467-71

Combined use of urinary alpha1-microglobulin and 99mTc DMSA scintigraphy in the diagnosis and follow-up of acute pyelonephritis and cystitis in children. Everaert K, et al. **Eur Urol** 1998 Dec;34(6):486-91

Clinical and brain 18fluoro-2-deoxyglucose positron emission tomographic findings in ethylmalonic aciduria, a progressive neurometabolic disease. al-Essa MA, et al. **Europ J Paediatr Neurol** 1999;3(3):125-7

The use of a deuterium tracer technique to follow the fate of fluids ingested by human subjects: effects of drink volume and tracer concentration and content. Lambert CP, et al. **Exp Physiol** 1999 Mar;84(2):391-9

Technetium Tc 99m hexamethyl propylene amine oxine leukocyte scintigraphy in patients with ulcerative colitis: correlation with clinical, biologic, endoscopic, and pathologic intensity, and local release of interleukin 8. Guimbaud R, et al. **Gastrointest Endosc** 1998 Nov; 48(5):491-6

99m-Tc-tetrofosmin scintigraphy and breast cancer. Berghammer P, et al. **Gynecol Oncol** 1999 Apr;73(1):87-90 (16 ref.)

Detection of focal myeloma lesions by technetium-99m-sestaMIBI scintigraphy. Catalano L, et al. **Haematologica** 1999 Feb;84(2):119-24

18F-labeled 2-deoxy-2-fluoro-D-glucose positron-emission tomography scans for the localization of the epileptogenic foci. Hotta SS. **Health Technol Assess (Rockv)** 1998 Jul; (12):i-vi, 1-17 (71 ref.)

The use of radiopharmaceuticals as an effective toxicologic technique for studying nephrotoxicity of drugs: cyclosporine-A. Owunwanne A, et al. **Hum Exp Toxicol** 1998 Nov;17(11):613-9

A standardized blood sampling scheme in quantitative FDG-PET studies. Bentourkia M, et al. **IEEE Trans Med Imaging** 1999 May;18(5):379-84

18F-deoxyglucose positron emission tomography (FDG-PET) for the planning of radiotherapy in lung cancer: high impact in patients with atelectasis. Nestle U, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):593-7

The usefulness of [131I]-metaiodobenzylguanidine ([131I]-MIBG) scintigraphy performed one week after administration in diagnosing pheochromocytoma. Takahashi N, et al. **Int J Urol** 1999 Jul;6(7):331-6

Evaluation of autosomal dominant polycystic kidney disease by DTPA renal scintigraphy. Vlajković M, et al. **Int Urol Nephrol** 1998;30(6):799-805

99mTc-HMPAO SPECT in the diagnosis of brain death [see comments] Facco E, et al. **Intensive Care Med** 1998 Sep; 24(9):911-7. Comment in: Intensive Care Med 1998 Sep;24(9):895-7.

Tc-99m-HMPAO single photon emission computed tomography (SPECT) as an ancillary test in the diagnosis of brain death [editorial; comment] Keske U. **Intensive Care Med** 1998 Sep;24(9):895-7. Comment on: Intensive Care Med 1998 Sep;24(9):911-7.

Cardiac metaiodobenzylguanidine uptake in patients with moderate chronic heart failure: relationship with peak oxygen uptake and prognosis. Cohen-Solal A, et al. **J Am Coll Cardiol** 1999 Mar;33(3):759-66

Blood flow-metabolism imaging with positron emission tomography in patients with diabetes mellitus for the assessment of reversible left ventricular contractile dysfunction. Schöder H, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1328-37

Sentinel lymph node biopsy in breast cancer: unfiltered radioisotope is superior to filtered. Linehan DC, et al. **J Am Coll Surg** 1999 Apr;188(4):377-81

Sentinel lymphadenectomy for breast cancer: experience with 180 consecutive patients: efficacy of filtered technetium 99m sulphur colloid with overnight migration time. Winchester DJ, et al. **J Am Coll Surg** 1999 Jun; 188(6):597-603

Cardiac sympathetic denervation in Ross syndrome demonstrated by MIBG-SPECT. Druschky K, et al. **J Auton Nerv Syst** 1999 May 28;76(2-3):184-7

Stress technetium-99m tetrofosmin myocardial scintigraphy: a new one-hour protocol for the detection of coronary artery disease. Matsuda J, et al. **J Cardiol** 1998 Oct; 32(4):219-26

Assessment of CABG-related risk in patients with CAD and LVD. Contribution of PET with [18F]FDG to the assessment of myocardial viability. Landoni C, et al. **J Cardiovasc Surg (Torino)** 1999 Jun;40(3):363-72

Estimation of component and parameter distributions in spectral analysis. Turkheimer F, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1211-22

Utility of technetium-99m-labeled-galactosyl human serum albumin scintigraphy for estimating the hepatic functional reserve. Fujioka H, et al. **J Clin Gastroenterol** 1999 Jun; 28(4):329-33

Detection of bone metastases in breast cancer by 18FDG PET: differing metabolic activity in osteoblastic and osteolytic lesions. Cook GJ, et al. **J Clin Oncol** 1998 Oct; 16(10):3375-9

FDG-PET finding in early-phase Takayasu arteritis. Hara M, et al. **J Comput Assist Tomogr** 1999 Jan-Feb;23(1):16-8

The pituitary uptake of (111)In-DTPA-D-Phe1-octreotide in the normal pituitary and in pituitary adenomas. Colao A, et al. **J Endocrinol Invest** 1999 Mar;22(3):176-83

False-positive diagnosis of adrenal pheochromocytoma on iodine-123-MIBG scan. Letizia C, et al. **J Endocrinol Invest** 1998 Dec;21(11):779-83

Use of scintigraphy with 99mtechnetium galactosyl human serum albumin for staging of primary biliary cirrhosis and assessment of prognosis. Shiomi S, et al. **J Gastroenterol Hepatol** 1999 Jun;14(6):566-71

Neuronal impairment of adult moyamoya disease detected by quantified proton MRS and comparison with cerebral perfusion by SPECT with tc-99m HM-PAO: a trial of clinical quantification of metabolites. Harada M, et al. **J Magn Reson Imaging** 1999 Aug;10(2):124-9

Comparative study of 99mTc-ECD and 99mTc-HMPAO for peri-ictal SPECT: qualitative and quantitative analysis. O'Brien TJ, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar; 66(3):331-9

(123)I-metaiodobenzylguanidine myocardial scintigraphy in Parkinson's disease. Orimo S, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):189-94

Gating provides improved accuracy for differentiating artifacts from true lesions in equivocal fixed defects on technetium 99m tetrofosmin perfusion SPECT. Choi JY, et al. **J Nucl Cardiol** 1998 Jul-Aug;5(4):395-401

Radionuclide imaging probes for expressed proteins. Fischman AJ. **J Nucl Cardiol** 1999 Jul-Aug;6(4):438-48 (58 ref.)

123I-MIBG myocardial scintigraphy as a noninvasive screen for the diagnosis of coronary artery spasm. Ha JW, et al. **J Nucl Cardiol** 1998 Nov-Dec;5(6):591-7

Validation of left ventricular volume measurements by gated SPECT 99mTc-labeled sestamibi imaging. Iskandrian AE, et al. **J Nucl Cardiol** 1998 Nov-Dec;5(6):574-8

Effects of smoking on pulmonary uptake of technetium-99m methoxyisobutylisonitrile during myocardial perfusion imaging. Kao CH, et al. **J Nucl Cardiol** 1999 Jan-Feb;6(1 Pt 1):29-32

Abnormal thallium-201 chloride myocardial SPECT findings with noncritical coronary angiography in a patient after coronary artery bypass graft. Lin C, et al. **J Nucl Cardiol** 1998 Nov-Dec;5(6):643-5

Cardiac death prediction and impaired cardiac sympathetic innervation assessed by MIBG in patients with failing and nonfailing hearts. Nakata T, et al. **J Nucl Cardiol** 1998 Nov-Dec;5(6):579-90

Reliability of enhanced gated SPECT in assessing wall motion of severely hypoperfused myocardium: echocardiographic validation. Nichols K, et al. **J Nucl Cardiol** 1998 Jul-Aug;5(4):387-94

Evaluation of left ventricular wall motion, volumes, and ejection fraction by gated myocardial tomography with technetium 99m-labeled tetrofosmin: a comparison with cine magnetic resonance imaging. Vaduganathan P, et al. **J Nucl Cardiol** 1999 Jan-Feb;6(1 Pt 1):3-10

Impairment of cardiac neuronal function in acute myocarditis: iodine-123-MIBG scintigraphy study. Agostini D, et al. **J Nucl Med** 1998 Nov;39(11):1841-4

Renography before heart transplantation in patients with cardiomyopathy. Aigner RM, et al. **J Nucl Med** 1998 Dec; 39(12):2153-8

Flare response seen in therapy for osteomalacia. Akaki S, et al. **J Nucl Med** 1998 Dec;39(12):2095-7

Lobar decrease in 99mTc-GSA accumulation in hilar cholangiocarcinoma. Akaki S, et al. **J Nucl Med** 1999 Mar; 40(3):394-8

Segmental colonic transit after oral 67Ga-citrate in healthy subjects and those with chronic idiopathic constipation. Bartholomeusz D, et al. **J Nucl Med** 1999 Feb;40(2):277-82

Technetium-99m-methylene disphosphonate (MDP) bone scan hypercalcemia. Basoglu T, et al. **J Nucl Med** 1998 Dec;39(12):2034, 5A

What can fatty acids add in LBBB and to the myocardial viability issue? [letter; comment] Buell U, et al. **J Nucl Med** 1999 Jan;40(1):213-4. Comment on: J Nucl Med 1998 Feb;39(2):255-60. Comment on: J Nucl Med 1998 Feb;39(2):261-3. Comment on: J Nucl Med 1998 Feb;39(2):263-5.

Things are perhaps not quite so simple...[letter; comment] Buffaz PD, et al. **J Nucl Med** 1998 Dec;39(12):2193. Comment on: J Nucl Med 1997 Nov;38(11):1781-3.

99mTc-ENS: a new radiopharmaceutical for aerosol lung scintigraphy. Comparison between different freeze-dried formulations. Calmanovici GP, et al. **J Nucl Med** 1999 Jun; 40(6):1080-3

Intra-individual comparison of 3(R)-BMIPP and 3(S)-BMIPP isomers in humans. Caveliers V, et al. **J Nucl Med** 1998 Oct;39(10):1672-5

Reproducibility studies with 11C-DTBZ, a monoamine vesicular transporter inhibitor in healthy human subjects. Chan GL, et al. **J Nucl Med** 1999 Feb;40(2):283-9

Technetium-99m-HMPAO brain SPECT in neonates with hypoglycemic encephalopathy. Chiu NT, et al. **J Nucl Med** 1998 Oct;39(10):1711-3

Value of FDG PET in papillary thyroid carcinoma with negative 131I whole-body scan [see comments] Chung JK, et al. **J Nucl Med** 1999 Jun;40(6):986-92. Comment in: J Nucl Med 1999 Jun;40(6):993-4.

Technetium-99m-labeled liposomes to image experimental colitis in rabbits: comparison with technetium-99m-HMPAO-granulocytes and technetium-99m-HYNIC-IgG. Dams ET, et al. **J Nucl Med** 1998 Dec;39(12):2172-8

Lymphoscintigraphy and radioguided biopsy of the sentinel axillary node in breast cancer. De Cicco C, et al. **J Nucl Med** 1998 Dec;39(12):2080-4

Technetium-99m-tetrofosmin scintigraphy in pulmonary tuberculosis. Degirmenci B, et al. **J Nucl Med** 1998 Dec; 39(12):2116-20

FDG PET and dual-head gamma camera positron coincidence detection imaging of suspected malignancies and brain disorders. Delbeke D, et al. **J Nucl Med** 1999 Jan;40(1):110-7

Molecular imaging of atherosclerosis using a technetium-99m-labeled endothelin derivative. Dinkelborg LM, et al. **J Nucl Med** 1998 Oct;39(10):1819-22

In vivo imaging of muscarinic cholinergic receptors in temporal lobe epilepsy with a new PET tracer: [76Br]4-bromodexetimide. Dupont S, et al. **J Nucl Med** 1999 Jun;40(6):935-41

Sympathetic reinnervation of cardiac allografts evaluated by 123I-MIBG imaging. Estorch M, et al. **J Nucl Med** 1999 Jun;40(6):911-6

Localization of radiolabeled streptavidin in tumor [letter; comment] Fawwaz RA, et al. **J Nucl Med** 1998 Nov; 39(11):2017. Comment on: J Nucl Med 1998 Jan;39(1):30-3.

Detection of liver metastases from pancreatic cancer using FDG PET. Fröhlich A, et al. **J Nucl Med** 1999 Feb; 40(2):250-5

99mTc-tetrofosmin assessment of myocardial perfusion and viability in canine models of coronary occlusion and reperfusion. Glover DK, et al. **J Nucl Med** 1999 Jan; 40(1):142-9

Quantitative SPECT uptake of 99mTc-dimercaptosuccinic acid by the kidneys in children. Groshar D, et al. **J Nucl Med** 1999 Jan;40(1):56-9

Renal function after tumor enucleation: assessment by quantitative SPECT of 99mTc-dimercaptosuccinic acid uptake by the kidneys. Groshar D, et al. **J Nucl Med** 1999 Jun;40(6):968-71

Fluorine-18-FDG PET and technetium-99m antigranulocyte antibody scintigraphy in chronic osteomyelitis. Guhlmann A, et al. **J Nucl Med** 1998 Dec; 39(12):2145-52

Abnormal BMIPP uptake in chronically dysfunctional myocardial segments: correlation with contractile response to low-dose dobutamine. Hambye AS, et al. **J Nucl Med** 1998 Nov;39(11):1845-50

BMIPP imaging to improve the value of sestamibi scintigraphy for predicting functional outcome in severe chronic ischemic left ventricular dysfunction. Hambye AS, et al. **J Nucl Med** 1999 Sep;40(9):1468-76

Evaluation of intraoperative radiation therapy for unresectable pancreatic cancer with FDG PET. Higashi T, et al. **J Nucl Med** 1999 Sep;40(9):1424-33

FDG uptake, GLUT-1 glucose transporter and cellularity in human pancreatic tumors. Higashi T, et al. **J Nucl Med** 1998 Oct;39(10):1727-35

18F alpha-methyl tyrosine PET studies in patients with brain tumors. Inoue T, et al. **J Nucl Med** 1999 Mar;40(3):399-405

Increased renal retention of 99mTc-methylene diphosphonate after nephron-sparing surgery. Inoue Y, et al. **J Nucl Med** 1999 Mar;40(3):418-21

Evaluation of glomerular filtration rate by camera-based method in both children and adults. Inoue Y, et al. **J Nucl Med** 1998 Oct;39(10):1784-8

Prospective validation of single plasma sample 99mTc-ethylenedicysteine clearance in adults. Kabasakal L, et al. **J Nucl Med** 1999 Mar;40(3):429-31

Evaluation of regional cerebral blood flow with 99mTc-HMPAO in primary antiphospholipid antibody syndrome. Kao CH, et al. **J Nucl Med** 1999 Sep; 40(9):1446-50

Technetium-99m-HMPAO SPECT and MRI of brain in patients with neuro-Behçet's syndrome. Kao CH, et al. **J Nucl Med** 1998 Oct;39(10):1707-10

New equipment in nuclear medicine, part 2: dual-head FDG coincidence detection cameras [news] Ketchum LE. **J Nucl Med** 1999 Mar;40(3):9N-10N, 13N, 17N-18N passim

Thoracic uptake of technetium-99m-HDP. Kim KS, et al. **J Nucl Med** 1998 Nov;39(11):2014

FDG and L-[1-11C]-tyrosine imaging of soft-tissue tumors before and after therapy. Kole AC, et al. **J Nucl Med** 1999 Mar;40(3):381-6

Factor analysis of dynamic series (FADS) in somatostatin receptor imaging. Kolesnikov-Gauthier H, et al. **J Nucl Med** 1999 Jan;40(1):33-9

Advancing medical care: the role of nuclear medicine in radioguided surgery [news] Kotz D. **J Nucl Med** 1998 Oct; 39(10):13N-14N, 22N

Indium-111-DTPA-D-Phe-1-octreotide and technetium-99m-(V)-dimercaptosuccinic acid scanning in the preoperative staging of medullary thyroid carcinoma. Kurtaran A, et al. **J Nucl Med** 1998 Nov;39(11):1907-9

Technetium-99m(V)-DMSA and gallium-67 in the assessment of bone and joint infection. Lee BF, et al. **J Nucl Med** 1998 Dec;39(12):2128-31

Attenuation compensation in 99mTc SPECT brain imaging: a comparison of the use of attenuation maps derived from transmission versus emission data in normal scans. Licho R, et al. **J Nucl Med** 1999 Mar;40(3):456-63

99mTc-MIBI scintimammography using a dedicated nuclear mammograph. Maini CL, et al. **J Nucl Med** 1999 Jan; 40(1):46-51

Kinetic analysis of 2-[11C]thymidine PET imaging studies: validation studies. Mankoff DA, et al. **J Nucl Med** 1999 Apr;40(4):614-24

Significance of increased right ventricular uptake on 99mTc-sestamibi SPECT in patients with coronary artery disease. Mannting F, et al. **J Nucl Med** 1999 Jun; 40(6):889-94

Double-phase 99mTc-sestamibi scintimammography and trans-scan in diagnosing breast cancer. Melloul M, et al. **J Nucl Med** 1999 Mar;40(3):376-80

Prognostic value of MIBG imaging in idiopathic dilated cardiomyopathy. Merlet P, et al. **J Nucl Med** 1999 Jun; 40(6):917-23

Sympathetic nerve alterations assessed with 123I-MIBG in the failing human heart. Merlet P, et al. **J Nucl Med** 1999 Feb;40(2):224-31

FDG PET can replace bone scintigraphy in primary staging of malignant lymphoma. Moog F, et al. **J Nucl Med** 1999 Sep;40(9):1407-13

Feasibility of simultaneous stress 99mTc-sestamibi/rest 201Tl dual-isotope myocardial perfusion SPECT in the detection of coronary artery disease. Nakamura M, et al. **J Nucl Med** 1999 Jun;40(6):895-903

67Ga scintigraphy in B-cell non-Hodgkin's lymphoma: correlation of 67Ga uptake with histology and transferrin receptor expression. Nejmeddine F, et al. **J Nucl Med** 1999 Jan;40(1):40-5

Technetium-99m-HMPAO white blood cell (WBC) imaging of widespread myositis. Nizami MA, et al. **J Nucl Med** 1998 Nov;39(11):1891, 5A

Minimally invasive radioguided parathyroidectomy: an endocrine surgeon's perspective [news] Norman JG. **J Nucl Med** 1998 Oct;39(10):15N, 24N

SPECT imaging with technetium-99m-tetrofosmin for pulmonary nodules [letter; comment] Ohtake E. **J Nucl Med** 1998 Nov;39(11):2016-7. Comment on: J Nucl Med 1997 Jul;38(7):1015-9.

Increased subglottic gallium uptake in relapsing polychondritis. Okuyama C, et al. **J Nucl Med** 1998 Nov; 39(11):1977-9

Posterior 180 degrees 99mTc-dimercaptosuccinic acid renal SPECT. Peng NJ, et al. **J Nucl Med** 1999 Jan;40(1):60-3

Parametric PET imaging of 5HT2A receptor distribution with 18F-setoperone in the normal human neocortex. Petit-Taboué MC, et al. **J Nucl Med** 1999 Jan;40(1):25-32

Relative 99mTc-MAG3 renal uptake: reproducibility and accuracy. Piepsz A, et al. **J Nucl Med** 1999 Jun;40(6):972-6

Mammography and 99mTc-MIBI scintimammography in suspected breast cancer. Prats E, et al. **J Nucl Med** 1999 Feb;40(2):296-301

Characterization of [18F]fluoroetanidazole, a new radiopharmaceutical for detecting tumor hypoxia. Rasey JS, et al. **J Nucl Med** 1999 Jun;40(6):1072-9

Quantification of glucose transport and phosphorylation in human skeletal muscle using FDG PET. Reinhardt M, et al. **J Nucl Med** 1999 Jun;40(6):977-85

Asialoglycoprotein receptor scintigraphy in evaluation of auxiliary partial orthotopic liver transplantation. Sakahara H, et al. **J Nucl Med** 1999 Sep;40(9):1463-7

Cardiac sympathetic nervous system in early essential hypertension assessed by 123I-MIBG. Sakata K, et al. **J Nucl Med** 1999 Jan;40(1):6-11

Physiological fluctuation of the human left ventricle sympathetic nervous system assessed by iodine-123-MIBG. Sakata K, et al. **J Nucl Med** 1998 Oct;39(10):1667-71

Evaluation of glutathione localization in brain using 99mTc meso-HMPAO. Sasaki T, et al. **J Nucl Med** 1999 Jun; 40(6):1056-60

Cardiac 123I-MIBG uptake in idiopathic ventricular tachycardia and fibrillation. Schäfers M, et al. **J Nucl Med** 1999 Jan;40(1):1-5

Technetium-99m-tetrofosmin SPECT imaging of lung lesions: a not-so-negative study [letter; comment] Schillaci O, et al. **J Nucl Med** 1998 Oct;39(10):1830. Comment on: J Nucl Med 1997 Jul;38(7):1015-9.

Reverse flow-metabolism mismatch: what does it mean? [editorial; comment] Schwaiger M, et al. **J Nucl Med** 1999 Sep;40(9):1499-502. Comment on: J Nucl Med 1999 Sep;40(9):1492-8.

Detecting myocardial salvage after primary PTCA: early myocardial contrast echocardiography versus delayed sestamibi perfusion imaging. Sciagrà R, et al. **J Nucl Med** 1999 Mar;40(3):363-70

Comparison of 99mTc-methoxyisobutyl isonitrile and 201Tl scintigraphy for detection of residual thyroid cancer after 131I ablative therapy. Seabold JE, et al. **J Nucl Med** 1999 Sep;40(9):1434-40

Carbon-11-thymidine and FDG to measure therapy response. Shields AF, et al. **J Nucl Med** 1998 Oct; 39(10):1757-62

Fluorine-18-fluorodeoxyglucose PET identification of cardiac metastasis arising from uterine cervical carcinoma. Shimotsu Y, et al. **J Nucl Med** 1998 Dec;39(12):2084-7

Technetium-99m-HIDA scintigraphy versus endoscopic retrograde cholangiopancreatography in demonstrating bile leaks after laparoscopic cholecystectomy. Shinhar S, et al. **J Nucl Med** 1998 Oct;39(10):1802-4

Biodistribution, radiation dosimetry and pharmacokinetics of 111In-antimyosin in idiopathic inflammatory myopathies. Smith T, et al. **J Nucl Med** 1999 Mar;40(3):464-70

Renal depth estimates to improve the accuracy of glomerular filtration rate. Steinmetz AP, et al. **J Nucl Med** 1998 Oct; 39(10):1822-5

Staging and monitoring of malignant lymphoma of the bone: comparison of 67Ga scintigraphy and MRI. Stroszczynski C, et al. **J Nucl Med** 1999 Mar;40(3):387-93

Splenic fluorodeoxyglucose uptake increased by granulocyte colony-stimulating factor therapy: PET imaging results. Sugawara Y, et al. **J Nucl Med** 1999 Sep;40(9):1456-62

Technetium-99m-tetrofosmin scintigraphy, P-glycoprotein and lung cancer [letter; comment] Tabuenca MJ, et al. **J Nucl Med** 1998 Oct;39(10):1830-1. Comment on: J Nucl Med 1997 Jul;38(7):1015-9.

18F-FDG PET imaging of muscle activity in runners. Tashiro M, et al. **J Nucl Med** 1999 Jan;40(1):70-6

Sympathetic reinnervation demonstrated on serial iodine-123-metaiodobenzylguanidine SPECT images after cardiac transplantation. Toba M, et al. **J Nucl Med** 1998 Nov;39(11):1862-4

Cardiac sympathetic activity estimated by 123I-MIBG myocardial imaging in patients with dilated cardiomyopathy after beta-blocker or angiotensin-converting enzyme inhibitor therapy. Toyama T, et al. **J Nucl Med** 1999 Feb;40(2):217-23

Noninvasive measurement of cerebral metabolic rate of glucose using standardized input function. Tsuchida T, et al. **J Nucl Med** 1999 Sep;40(9):1441-5

Thallium-201, technetium-99m-tetrofosmin and iodine-131 in detecting differentiated thyroid carcinoma metastases. Unal S, et al. **J Nucl Med** 1998 Nov;39(11):1897-902

L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al. **J Nucl Med** 1999 Feb;40(2):262-7

A new look at breast cancer [editorial; comment] Wagner HN Jr. **J Nucl Med** 1999 Jun;40(6):1009-10. Comment on: J Nucl Med 1999 Jun;40(6):1003-8.

Role of FDG PET in metastatic thyroid cancer [editorial; comment] Wong CO, et al. **J Nucl Med** 1999 Jun; 40(6):993-4. Comment on: J Nucl Med 1999 Jun;40(6):986-92.

Comparison of dual-head coincidence gamma camera FDG imaging with FDG PET in detection of breast cancer and axillary lymph node metastasis [see comments] Yutani K, et al. **J Nucl Med** 1999 Jun;40(6):1003-8. Comment in: J Nucl Med 1999 Jun;40(6):1009-10.

Applicability of 99mTc-HL91, a putative hypoxic tracer, to detection of tumor hypoxia. Yutani K, et al. **J Nucl Med** 1999 May;40(5):854-61

Indium-111 satumomab pendetide: the first FDA-approved monoclonal antibody for tumor imaging. Bohdiewicz PJ. **J Nucl Med Technol** 1998 Sep;26(3):155-63; quiz 170-1

Improved renal cortical SPECT of neonates and young infants using narrow imaging pallets. Cooper JA, et al. **J Nucl Med Technol** 1999 Jun;27(2):127-31

Nuclear cardiology, Part III: Scintigraphic evaluation of cardiac perfusion. Everaert H, et al. **J Nucl Med Technol** 1998 Sep;26(3):164-9; quiz 172-3

Dual-isotope protocol for indium-111 capromab pendetide monoclonal antibody imaging. Kelty NL, et al. **J Nucl Med Technol** 1998 Sep;26(3):174-7

Quantitation of iodine-123-beta-CIT dopamine receptor uptake in a phantom model. Leong LK, et al. **J Nucl Med Technol** 1999 Jun;27(2):117-22

Effect of time on liver clearance of technetium-99m-tetrofosmin in patients with acute chest pain: when should imaging begin? Mann A, et al. **J Nucl Med Technol** 1998 Sep;26(3):186-90

Extra-skeletal uptake of bone agents [editorial] Morton KA. **J Nucl Med Technol** 1999 Mar;27(1):51-3

How precisely do SPECT images reflect tracer uptake in myocardial infarction? A comparison of thallium-201 and technetium-99m using a myocardial phantom. Onoguchi M, et al. **J Nucl Med Technol** 1998 Dec;26(4):252-6

Optimized technical considerations for acquiring high-quality FDG studies with a dual-headed gamma camera. Sajdak R, et al. **J Nucl Med Technol** 1998 Dec; 26(4):245-7

A safe, simple method for preparing heat-damaged red cells for diagnosing splenic infarct or trauma. Snowdon GM. **J Nucl Med Technol** 1998 Sep;26(3):204-5

Evaluation of technetium-99m red blood cell labeling efficiency in adults receiving chemotherapy and the clinical impact on pediatric oncology patients. White MP, et al. **J Nucl Med Technol** 1998 Dec;26(4):265-8

18-Fluorodeoxyglucose imaging in oncology. Harolds JA. **J Okla State Med Assoc** 1999 Sep;92(9):457-61 (36 ref.)

Clinical applications of technetium Tc 99m hexamethyl propylene amine oxime leukocyte scan in children with inflammatory bowel disease. Del Rosario MA, et al. **J Pediatr Gastroenterol Nutr** 1999 Jan;28(1):63-70

Clinical impact and prognostic value of metaiodobenzylguanidine imaging in children with metastatic neuroblastoma. Perel Y, et al. **J Pediatr Hematol Oncol** 1999 Jan-Feb;21(1):13-8

Fluorine-18 radiolabelling, biodistribution studies and preliminary PET evaluation of a new memantine derivative for imaging the NMDA receptor. Ametamey SM, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):129-41

No further development of renal scarring after antireflux surgery in children with primary vesicoureteral reflux: review of the results of 99mtechnetium dimercapto-succinic acid renal scan. Choi H, et al. **J Urol** 1999 Sep;162(3 Pt 2):1189-92

The role of 99mtechnetium dimercapto-succinic acid renal scans in the evaluation of occult ectopic ureters in girls with paradoxical incontinence. Pattaras JG, et al. **J Urol** 1999 Sep;162(3 Pt 1):821-5

Fluorodeoxyglucose positron emission tomography scan of prostate cancer bone metastases with flare reaction after endocrine therapy. Shimizu N, et al. **J Urol** 1999 Feb; 161(2):608-9

Residual cardiomyocytes and scintigraphic findings in advanced coronary artery disease: correlation with technetium-99m-tetrofosmin and thallium-201 single photon emission computed tomography. Fujino S, et al. **Jpn Circ J** 1999 Jan;63(1):64-7

Long-term effects of the angiotensin-converting enzyme inhibitor enalapril on chronic heart failure. Examination by 123I-MIBG imaging. Soeki T, et al. **Jpn Heart J** 1998 Nov;39(6):743-51

Primary colorectal cancers detected with PET. Yasuda S, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):638-40

A small breast cancer detected by PET. Yasuda S, et al. **Jpn J Clin Oncol** 1999 Aug;29(8):387-9

Crisis after angiography: time for MIBG [letter; comment] Costa DC, et al. **Lancet** 1998 Dec 12;352(9144):1940. Comment on: Lancet 1998 Oct 17;352(9136):1278.

Screening with exercise thallium testing after coronary-artery-bypass grafting [letter; comment] Kelion AD, et al. **Lancet** 1998 May 23;351(9115):1585; discussion 1586-7. Comment on: Lancet 1998 Feb 28;351(9103):615-22.

Screening with exercise thallium testing after coronary-artery-bypass grafting [letter; comment] Schattner A. **Lancet** 1998 May 23;351(9115):1586; discussion 1586-7. Comment on: Lancet 1998 Feb 28;351(9103):615-22.

Detection of recurrent head and neck squamous cell carcinomas after radiation therapy with 2-18F-fluoro-2-deoxy-D-glucose positron emission tomography. Farber LA, et al. **Laryngoscope** 1999 Jun; 109(6):970-5

Uses and limitations of FDG positron emission tomography in patients with head and neck cancer. Hanasono MM, et al. **Laryngoscope** 1999 Jun;109(6):880-5

Experimental investigation of I-123 iodoamphetamine in the detection of lung cancer. Watanabe N, et al. **Lung Cancer** 1999 Jul;25(1):1-6

Minimally invasive parathyroidectomy utilizing a gamma detecting probe intraoperatively. Singer JA, et al. **Md Med J** 1999 Mar-Apr;48(2):55-8

Improvement of the fluorine-18 fluorodeoxyglucose images in simultaneous F-18 FDG/Tc-99m collimated spect imaging. Knešaurek K, et al. **Med Phys** 1999 Jun; 26(6):917-23

Transport and retention of colloidal tracers in regional

lymphoscintigraphy in melanoma: influence on lymphatic mapping and sentinel node biopsy. Pijpers R, et al. **Melanoma Res** 1998 Oct;8(5):413–8

Age-related changes in brain perfusion of normal subjects detected by 99mTc-HMPAO SPECT. Krausz Y, et al. **Neuroradiology** 1998 Jul;40(7):428–34

In vitro and ex vivo autoradiographic studies of nicotinic acetylcholine receptors using [18F]fluoronochloroepibatidine in rodent and human brain. Gatley SJ, et al. **Nucl Med Biol** 1998 Jul;25(5):449–54

Use of 99mTc-mercaptoacetyltriglycine (MAG3)-biocytin hepatobiliary scintigraphy to study the protective effect of a synthetic enzyme inhibitor on acute hepatotoxicity in mice. Kim MK, et al. **Nucl Med Biol** 1998 Aug;25(6):561–8

Is early sestamibi imaging in head and neck cancer affected by MDR status, p53 expression, or cell proliferation? Leitha T, et al. **Nucl Med Biol** 1998 Aug;25(6):539–41

Radiotracer-derived biochemical profiles via a mathematical model: implications for therapeutic intervention [letter] Schmall B, et al. **Nucl Med Biol** 1998 Nov;25(8):799–801

Evaluation of [1-11C]octanoate as a new radiopharmaceutical for assessing liver function using positron emission tomography. Yamamura N, et al. **Nucl Med Biol** 1998 Jul;25(5):467–72

Clinical significance of denervated but viable myocardium in patients with recanalized acute myocardial infarction. Abe Y, et al. **Nucl Med Commun** 1999 Aug;20(8):727–35

Comparison of SPET brain perfusion and 18F-FDG brain metabolism in patients with chronic fatigue syndrome. Abu-Judeh HH, et al. **Nucl Med Commun** 1998 Nov; 19(11):1065–71

Determination of medullary thyroid carcinoma metastases by 201Tl, 99Tcm(V)DMSA, 99Tcm-MIBI and 99Tcm-tetrofosmin. Adalet I, et al. **Nucl Med Commun** 1999 Apr;20(4):353–9

Simultaneous biplane first-pass radionuclide ventriculography using 99Tcm-tetrofosmin: a comparison with magnetic resonance imaging. Anagnostopoulos C, et al. **Nucl Med Commun** 1998 May;19(5):435–41

Detection of lung and chest tumours using 99Tcm-tetrofosmin: comparison with 201Tl. Arbab AS, et al. **Nucl Med Commun** 1998 Jul;19(7):657–63

Dynamic SPET parameters of 123I-MIBG cardiac imaging. Arbab AS, et al. **Nucl Med Commun** 1999 Jul;20(7):617–22

99Tcm-MIBI scintimammography in the evaluation of breast lesions and axillary involvement: a comparison with mammography and histopathological diagnosis. Arslan N, et al. **Nucl Med Commun** 1999 Apr;20(4):317–25

99Tcm-sestamibi tomoscintigraphy at rest and after nitrate administration in predicting wall motion recovery after revascularization. Baszko A, et al. **Nucl Med Commun** 1998 Dec;19(12):1141–8

Microbiological and radioactive contamination from radioaerosol ventilation scanning: is there a problem? Brown A, et al. **Nucl Med Commun** 1999 Aug;20(8):755–60

Dynamic distribution and dosimetric evaluation of human non-specific immunoglobulin G labelled with 111In or 99Tcm. Buijs WC, et al. **Nucl Med Commun** 1998 Aug; 19(8):743–51

Enalapril plus frusemide MAG3 scintigraphy in hypertensive patients with atherosclerosis and moderate renal insufficiency. Caglar M, et al. **Nucl Med Commun** 1998 Dec;19(12):1135–40

Prospective 153Sm-EDTMP therapy dosimetry by whole-body scintigraphy. Cameron PJ, et al. **Nucl Med Commun** 1999 Jul;20(7):609–15

An analytical solution set for a four-compartment mixed mammillary/catenary model. Charkes ND, et al. **Nucl Med Commun** 1999 Jun;20(6):575–80

Positron emission tomography with 18F-FDG to detect residual disease after therapy for malignant lymphoma. Cremerius U, et al. **Nucl Med Commun** 1998 Nov; 19(11):1055–63

Use of 99Tcm-MIBI in the assessment of patients with suspected recurrent breast cancer. Cwikla JB, et al. **Nucl Med Commun** 1998 Jul;19(7):649–55

Positron emission tomography using 18F-fluorodeoxyglucose in advanced stages of malignant melanoma: a comparison of ultrasonographic and radiological methods of diagnosis. Dietlein M, et al. **Nucl Med Commun** 1999 Mar;20(3):255–61

The role of sentinel lymph node biopsy in breast cancer: certification under the MARS regulations. Ebdon-Jackson S. **Nucl Med Commun** 1999 Apr;20(4):315–6

Evaluation of 99Tcm-HIG as a lymphoscintigraphic agent in rabbits. Ergün EL, et al. **Nucl Med Commun** 1998 Jul; 19(7):665–70

Relationship between extraosseous accumulation in bone scintigraphy with 99Tcm-HMDP and histopathology. Flores LG 2nd, et al. **Nucl Med Commun** 1998 Apr; 19(4):347–54

Radiopharmaceuticals for sentinel node detection. Frier M. **Nucl Med Commun** 1999 Apr;20(4):306–8 (12 ref.)

A method for estimating the integral of the input function for the quantification of cerebral blood flow with 123I-IMP using one-point arterial blood sampling. Fujioka H, et al. **Nucl Med Commun** 1998 Jun;19(6):561–6

Effective dose to children and adolescents from radiopharmaceuticals. Gadd R, et al. **Nucl Med Commun** 1999 Jun;20(6):569–73

Factors affecting and computation of myocardial perfusion reference images. Goris ML, et al. **Nucl Med Commun** 1999 Jul;20(7):627–35

Quantification of 99Tcm-sestamibi and 123I-BMIPP uptake for predicting functional outcome in chronically ischaemic dysfunctional myocardium. Hambye AS, et al. **Nucl Med Commun** 1999 Aug;20(8):737–45

Gated metabolic positron emission tomography (GAPET) of the myocardium: 18F-FDG-PET to optimize recognition of myocardial hibernation. Hör G, et al. **Nucl Med Commun** 1998 Jun;19(6):535–45

99Tcm-MIBI scintimammography for the detection of breast malignancies: the contribution of the count ratio to specificity. Horne T, et al. **Nucl Med Commun** 1999 Jun; 20(6):511–6

An assessment of two methods for generating automatic regions of interest. Houston AS, et al. **Nucl Med Commun** 1998 Oct;19(10):1005–16

Early response of tumour to radiotherapy should be assessed by both uptake and retention of single photon tracers: in vitro analysis with 201Tl-chloride, 99Tcm-sestamibi and 99Tcm-tetrofosmin in human bladder cancer cells and human leukocytes. Kinuya S, et al. **Nucl Med Commun** 1999 Jun;20(6):581–8

Visualization of functional improvement by 123I-IMP lung SPET after thromboendarterectomy for chronic pulmonary embolism. Kume N, et al. **Nucl Med Commun** 1999 Mar; 20(3):247–53

Baumkuchen map analysis to detect postural cerebral hypoperfusion with upright 99Tcm-HMPAO brain SPET. Kume N, et al. **Nucl Med Commun** 1998 Jul;19(7):671–7

Left ventricular function at rest and during bicycle exercise in normal subjects: assessment by ECG-gated myocardial perfusion SPET with 99Tcm-tetrofosmin. Kumita S, et al. **Nucl Med Commun** 1999 May;20(5):427–32

The importance of 99Tcm-DMSA renal scintigraphy in the follow-up of acute pyelonephritis in children: comparison with urographic data. Lavocat MP, et al. **Nucl Med Commun** 1998 Jul;19(7):703–10

Can dual-headed 18F-FDG SPET imaging reliably supersede PET in clinical oncology? A comparative study in lung and gastrointestinal tract cancer. Lonneux M, et al. **Nucl Med Commun** 1998 Nov;19(11):1047–54

Myocardial 123I-MIBG kinetics in acutely hypothyroid patients with differentiated thyroid carcinoma. Maini CL, et al. **Nucl Med Commun** 1999 Aug;20(8):719–26

The discrepancy between 99Tcm-ECD dynamic and static SPET images in patients with ischaemic lesions corresponds to reduced vasoreactivity to acetazolamide. Mizumura S, et al. **Nucl Med Commun** 1998 Nov; 19(11):1073–9

Evaluation of regional cardiac sympathetic innervation in congenital long QT syndrome using 123I-MIBG scintigraphy. Momose M, et al. **Nucl Med Commun** 1998 Oct;19(10):943–51

Comparison of parameters of 123I-MIBG scintigraphy for predicting prognosis in patients with dilated cardiomyopathy. Momose M, et al. **Nucl Med Commun** 1999 Jun;20(6):529–35

67Ga whole-body scintigraphy in the evaluation of head and neck squamous cell carcinoma. Murata Y, et al. **Nucl Med Commun** 1999 Jul;20(7):599–607

111In-pentetreotide scintigraphy is superior to 123I-MIBG scintigraphy in the diagnosis and location of chemodectoma. Muros MA, et al. **Nucl Med Commun** 1998 Aug;19(8):735–42

Effect of 360 degrees and 180 degrees rotation SPET acquisitions on myocardial polar map: comparison of 201Tl-, 99Tcm- and 123I-labelled radiopharmaceuticals. Nakajima K, et al. **Nucl Med Commun** 1998 Apr; 19(4):315–25

Radiolabelled antimicrobial peptides for imaging of infections: a review. Nibbering PH, et al. **Nucl Med Commun** 1998 Dec;19(12):1117–21 (27 ref.)

Evaluation of algorithms for the registration of 99Tcm-HMPAO brain SPET studies. Ros D, et al. **Nucl Med Commun** 1999 Mar;20(3):227–36

Improved labelling of no-carrier-added 123I-MIBG and preliminary clinical evaluation in patients with ventricular arrhythmias. Samnick S, et al. **Nucl Med Commun** 1999 Jun;20(6):537–45

How to interpret differing cerebral blood flow patterns estimated with 99Tcm-HMPAO and 99Tcm-ECD SPET in a healthy population. Siennicki-Lantz A, et al. **Nucl Med Commun** 1999 Mar;20(3):219–26

An update of radiopharmaceutical schedules in children. Smith T, et al. **Nucl Med Commun** 1998 Nov;19(11):1023–36

Seven-hour stabilization of 99Tcm-exametazime (HMPAO) for cerebral perfusion. Solanki C, et al. **Nucl Med Commun** 1998 Jun;19(6):567–72

The routine use of sublingual GTN with resting 99Tcm-tetrofosmin myocardial perfusion imaging. Thorley PJ, et al. **Nucl Med Commun** 1998 Oct;19(10):937–42

Reproducibility of a solid and of a liquid caloric meal for gastric emptying studies. Tosetti C, et al. **Nucl Med Commun** 1998 Jun;19(6):581–6

Uterine blush mimicking a hypervascular tumour in the pelvis as demonstrated by a triple-phase bone scan. Tzen KY, et al. **Nucl Med Commun** 1998 Jun;19(6):605–7

Predictive value of 99Tcm-DTPA captopril scintigraphy in patients with a solitary kidney and reduced kidney function. Van de Wiele C, et al. **Nucl Med Commun** 1999 Mar; 20(3):263–6

Administered activity of 99Tcm-DMSA for kidney scintigraphy in children. Vestergren E, et al. **Nucl Med Commun** 1998 Jul;19(7):695–701

Metoclopramide has no effect on abdominal activity of sestamibi in myocardial SPET. Weinmann P, et al. **Nucl Med Commun** 1999 Jul;20(7):623–5

Effect of radiochemical purity of 99Tcm-Q12 on myocardial SPET image quality. Yu M, et al. **Nucl Med Commun** 1999 Aug;20(8):747–53

Improvement of brain SPECT by stabilization of Tc-99m-HMPAO with methylene blue or cobalt chloride. Comparison with Tc-99m-ECD. Barthel H, et al. **Nuklearmedizin** 1999 Apr;38(3):80–4

A rare case of polyostotic fibrous dysplasia assessed by bone scintigraphy with Tc-99m methylene diphosphonate (MDP). Di Leo C, et al. **Nuklearmedizin** 1999;38(5):169–71

Follow-up findings in regional cerebral blood flow (r-CBF)-SPECT in a case of idiopathic childhood hemidystonia. Functional neuroimaging and pathophysiological implications. Fiedler A, et al. **Nuklearmedizin** 1999;38(2):72–4

Photopenic lesions in bone marrow scintigraphy using technetium-99m labeled antigranulocyte antibody without known tumour. Krause T, et al. **Nuklearmedizin** 1999 Apr; 38(3):85–9

PET and SPECT in medically non-refractory complex partial seizures. Temporal asymmetries of glucose consumption, benzodiazepine receptor density, and blood flow. Matheja P, et al. **Nuklearmedizin** 1998;37(7):221–6

Limited value of fluorine-18-fluorodeoxyglucose PET for the differential diagnosis of focal liver lesions in patients with chronic hepatitis C virus infection. Schröder O, et al. **Nuklearmedizin** 1998;37(8):279–85

Evaluation of scatter correction using a single isotope for simultaneous emission and transmission data. Phantom and clinical patient studies. Yang J, et al. **Nuklearmedizin** 1999; 38(2):49–55

F-18-FDG positron imaging in oncological patients: gamma camera coincidence detection versus dedicated PET. Zimny M, et al. **Nuklearmedizin** 1999;38(4):108–14

Technetium-99m methylene diphosphonate scintimammography for evaluation of palpable breast masses. Lee JK, et al. **Oncol Rep** 1999 May-Jun;6(3):659–63

The role of FDG PET in the clinical management of head and neck cancer. Stokkel MP, et al. **Oral Oncol** 1998 Nov; 34(6):466–71 (63 ref.)

Comparative value of thallium and glucose SPECT imaging in childhood brain tumors. Maria BL, et al. **Pediatr Neurol** 1998 Nov;19(5):351–7

Non-invasive diagnosis of acute heart- or lung-transplant rejection using radiolabeled annexin V. Blankenberg FG, et al. **Pediatr Radiol** 1999 May;29(5):299–305 (53 ref.)

Use of technetium-tagged white blood cells in patients with Crohn's disease and ulcerative colitis: is differential diagnosis possible? Charron M, et al. **Pediatr Radiol** 1998 Nov;28(11):871–7

Evaluation of mebrofenin hepatoscintigraphy in neonatal-onset jaundice. Johnson K, et al. **Pediatr Radiol** 1998 Dec;28(12):937–41

Radiolabeled cholesteryl iopanoate/acetylated low density lipoprotein as a potential probe for visualization of early atherosclerotic lesions in rabbits. Xiao W, et al. **Pharm Res** 1999 Mar;16(3):420–6

Internal absorbed dose estimation by a TLD method for 18F-FDG and comparison with the dose estimates from whole body PET. Deloar HM, et al. **Phys Med Biol** 1999 Feb;44(2):595–606

A technique for manual definition of an irregular volume of interest in single photon emission computed tomography. Fleming JS, et al. **Phys Med Biol** 1999 Feb;44(2):N15–20

Simultaneous technetium-99m/thallium-201 SPECT imaging with model-based compensation for cross-contaminating effects. Kadrmas DJ, et al. **Phys Med Biol** 1999 Jul; 44(7):1843–60

Influence of background correction in the estimation of myocardial uptake of 99mTc labelled perfusion imaging agents. Smith T, et al. **Phys Med Biol** 1998 Sep; 43(9):2695–702

A SPECT HMPAO study of regional cerebral blood flow in depressed adolescents and normal controls. Kowatch RA, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May;23(4):643–56

Liposomes for scintigraphic imaging: optimization of in vivo behavior. Boerman OC, et al. **Q J Nucl Med** 1998 Dec; 42(4):271–9 (70 ref.)

Clinical imaging of multidrug resistance in cancer. Del Vecchio S, et al. **Q J Nucl Med** 1999 Jun;43(2):125–31 (47 ref.)

Clinical applications of radiolabeled blood elements in inflammatory bowel disease. Martin-Comin J, et al. **Q J Nucl Med** 1999 Mar;43(1):74–82 (74 ref.)

Polyclonal, nonspecific 111In-IgG scintigraphy in the evaluation of complicated osteomyelitis and septic arthritis. Molina-Murphy IL, et al. **Q J Nucl Med** 1999 Mar; 43(1):29–37

The clinical role of nuclear medicine in rheumatoid arthritis patients. A comparison with other diagnostic imaging modalities. Vos K, et al. **Q J Nucl Med** 1999 Mar; 43(1):38–45 (74 ref.)

Imaging infection/inflammations. Pathophysiologic basis and radiopharmaceuticals. Weiner RE, et al. **Q J Nucl Med** 1999 Mar;43(1):2–8 (49 ref.)

Modification of measurement of effective renal plasma flow

from blood pool clearance curve of I-123-orthoiodohippurate using single blood sampling. Akutsu T, et al. **Radiat Med** 1998 Jul-Aug;16(4):245-50
99mTc-labeled chimeric anti-NCA 95 antigranulocyte monoclonal antibody for bone marrow imaging. Sarwar M, et al. **Radiat Med** 1998 Sep-Oct;16(5):391-7
Parathyroid imaging with Tc-99m sestamibi planar and SPECT scintigraphy. Nguyen BD. **Radiographics** 1999 May-Jun;19(3):601-14; discussion 615-6
Pitfalls in oncologic diagnosis with FDG PET imaging: physiologic and benign variants. Shreve PD, et al. **Radiographics** 1999 Jan-Feb;19(1):61-77; quiz 150-1 (39 ref.)
Metastatic head and neck cancer: role and usefulness of FDG PET in locating occult primary tumors. AAssar OS, et al. **Radiology** 1999 Jan;210(1):177-81
Radioaerosol scintigraphy in infants and children born to mothers with HIV disease. Pediatric Pulmonary and Cardiovascular Complications (of Vertically Transmitted Human Immunodeficiency Virus) Study Group. Alderson PO, et al. **Radiology** 1999 Mar;210(3):815-22
Measurement of the distribution volume of gadopentetate dimeglumine at echo-planar MR imaging to quantify myocardial infarction: comparison with 99mTc-DTPA autoradiography in rats. Arheden H, et al. **Radiology** 1999 Jun;211(3):698-708
FDG imaging of lung nodules: a phantom study comparing SPECT, camera-based PET, and dedicated PET. Coleman RE, et al. **Radiology** 1999 Mar;210(3):823-8
The rim sign. Dorio PJ. **Radiology** 1998 Dec;209(3):801-2
Value of combined FDG PET and MR imaging in the evaluation of suspected recurrent local-regional breast cancer: preliminary experience. Hathaway PB, et al. **Radiology** 1999 Mar;210(3):807-14
Combined FDG and [F-18]fluoride whole-body PET: a feasible two-in-one approach to cancer imaging? Hoegerle S, et al. **Radiology** 1998 Oct;209(1):253-8
Role of Tc-99m tetrofosmin imaging in the examination of patients with breast lesions [letter; comment] Schillaci O, et al. **Radiology** 1999 Jan;210(1):284-6. Comment on: Radiology 1997 Oct;205(1):214-20.
Lack of perfusion enhancement after administration of nicotinamide and carbogen in patients with glioblastoma: a 99mTc-HMPAO SPECT study. Hulshof MC, et al. **Radiother Oncol** 1998 Aug;48(2):135-42
Using 99mTc-DTPA radioaerosol inhalation lung scintigraphies to detect the lung injury induced by consuming Sauropus androgynus vegetable and comparison with conventional pulmonary function tests. Kao CH, et al. **Respiration** 1999;66(1):46-51
Benign causes of 18-FDG uptake on whole body imaging. Bakheet SM, et al. **Semin Nucl Med** 1998 Oct;28(4):352-8 (67 ref.)
Skeletal metastases from breast cancer: imaging with nuclear medicine. Cook GJ, et al. **Semin Nucl Med** 1999 Jan; 29(1):69-79 (61 ref.)
Fatty acids for myocardial imaging. Corbett JR. **Semin Nucl Med** 1999 Jul;29(3):237-58 (89 ref.)
Breast cancer imaging with radiolabeled antibodies. Goldenberg DM, et al. **Semin Nucl Med** 1999 Jan; 29(1):41-8 (72 ref.)
18-FDG imaging in breast cancer. Hoh CK, et al. **Semin Nucl Med** 1999 Jan;29(1):49-56 (35 ref.)
Technetium-99m labeled myocardial perfusion imaging agents. Jain D. **Semin Nucl Med** 1999 Jul;29(3):221-36 (103 ref.)
The current role of infarct avid imaging. Khaw BA. **Semin Nucl Med** 1999 Jul;29(3):259-70 (59 ref.)
The role of 99mTc-sestamibi and other conventional radiopharmaceuticals in breast cancer diagnosis. Taillefer R. **Semin Nucl Med** 1999 Jan;29(1):16-40 (133 ref.)
A comparison of bone scintigraphy and MRI in the early diagnosis of the occult scaphoid waist fracture. Fowler C, et al. **Skeletal Radiol** 1998 Dec;27(12):683-7
Relevance of positron emission tomography (PET) in oncology. Weber WA, et al. **Strahlenther Onkol** 1999 Aug; 175(8):356-73 (168 ref.)
99m technetium-ethyl-cysteinate-dimer single-photon emission CT can predict fatal ischemic brain edema. Berrouschot J, et al. **Stroke** 1998 Dec;29(12):2556-62
An additional monitoring of regional cerebral oxygen saturation to HMPAO SPECT study during balloon test occlusion. Kaminogo M, et al. **Stroke** 1999 Feb; 30(2):407-13
The efficacy of technetium-99m-MIBI scan and intraoperative methylene blue staining for the localization of abnormal parathyroid glands. Takei H, et al. **Surg Today** 1999;29(4):307-12
Use of somatostatin receptor scintigraphy to image extrahepatic metastases of neuroendocrine tumors. Frilling A, et al. **Surgery** 1998 Dec;124(6):1000-4
The role of fluorodeoxyglucose and positron emission tomography in the evaluation of pancreatic disease. Rajput A, et al. **Surgery** 1998 Oct;124(4):793-7; discussion 797-8
Prospective study of the utility of somatostatin-receptor scintigraphy in the evaluation of patients with multiple endocrine neoplasia type 1. Yim JH, et al. **Surgery** 1998 Dec;124(6):1037-42
Time course of changes in striatal dopamine transporters and D2 receptors with specific iodinated markers in a rat model of Parkinson's disease. Chalon S, et al. **Synapse** 1999 Feb; 31(2):134-9
Stability of [123I]IBZM SPECT measurement of amphetamine-induced striatal dopamine release in humans. Kegeles LS, et al. **Synapse** 1999 Mar 15;31(4):302-8
Examination of co-complexes for radiolabeling of platelets in positron emission tomographic studies. Karanikas G, et al. **Thromb Res** 1999 Apr 15;94(2):111-5
Detection of residual and recurrent thyroid cancer by radionuclide imaging. Maxon HR. **Thyroid** 1999 May; 9(5):443-6 (11 ref.)
Evaluation of indium-111 pentetreotide somatostatin receptor scintigraphy to detect recurrent thyroid carcinoma in patients with negative radioiodine scintigraphy. Valli N, et al. **Thyroid** 1999 Jun;9(6):583-9
18F-fluorodeoxyglucose positron emission tomography study of brain metabolism in cirrhosis: effect of liver transplantation. Burra P, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):418-20
Liver allograft functional reserve estimated by total asialoglycoprotein receptor amount using Tc-GSA liver scintigraphy. Kita Y, et al. **Transplant Proc** 1998 Nov; 30(7):3277-8
Clinical approach in patients with metastatic differentiated thyroid carcinoma and negative 131I whole body scintigraphy: importance of 99mTc MIBI scan combined with high resolution neck ultrasonography. Casara D, et al. **Tumori** 1999 Mar-Apr;85(2):122-7
A case of metastatic axillary lymph nodes involvement from unknown primary cancer: clinical usefulness of [99mTc]-sestamibi. Chiti A, et al. **Tumori** 1998 Sep-Oct;84(5):612-3
Evaluation of solid phase radiolabels of dog food for gastric emptying. Kunze CP, et al. **Vet Radiol Ultrasound** 1999 Mar-Apr;40(2):169-73
Diagnosis and staging of pancreatic cancer by positron emission tomography. Berberat P, et al. **World J Surg** 1999 Sep;23(9):882-7 (54 ref.)
[Clinical application of myocardial perfusion imaging with 99mTc-MIBI SPECT in the diagnosis of coronary artery disease] Guo X, et al. **Hunan I Ke Ta Hsueh Hsueh Pao** 1997;22(3):217-9 (Eng. Abstr.) **(Chi)**
[Differentiation of benign and malignant palpable breast masses using 99mTc-MIBI imaging] He J, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(3):226-8 (Eng. Abstr.) **(Chi)**
[Use of radiopharmaceuticals, radiation burden and radiation risks in examination procedures in nuclear medicine] Hušák V, et al. **Cas Lek Cesk** 1999 May 24;138(11):323-8 (21 ref.) (Eng. Abstr.) **(Cze)**
[FDG-PET in the staging of malignant melanoma] Eigtved A. **Nord Med** 1998 Nov;113(9):301-2 (Eng. Abstr.) **(Dan)**
[Extracorporeal lithotripsy in children. Study of its efficacy and evaluation of renal parenchymal damage by DMSA-Tc 99m scintigraphy: a series of 39 children] Traxer O, et al. **Arch Pediatr** 1999 Mar;6(3):251-8 (Eng. Abstr.) **(Fre)**
[Positron emission tomography (PET) and (F-18)-fluorodeoxyglucose in (FDG) in cancerology] Maublant J, et al. **Bull Cancer** 1998 Nov;85(11):935-50 (Eng. Abstr.) **(Fre)**
[Nuclear oncology update] Maublant J, et al. **Bull Cancer** 1999 Jan;86(1):57-64 (66 ref.) **(Fre)**
[Onco-PET: lesion detection by monitor versus standardized film documentation] Bleckmann C, et al. **Nuklearmedizin** 1999;38(2):56-60 (Eng. Abstr.) **(Ger)**
[F-qi-FDG PET of the thyroid gland in Graves' disease] Börner AR, et al. **Nuklearmedizin** 1998;37(7):227-33 (Eng. Abstr.) **(Ger)**
[F-18-FDG PET in autonomous goiter] Börner AR, et al. **Nuklearmedizin** 1999;38(1):1-6 (Eng. Abstr.) **(Ger)**
[Clinical value of FDG PET for therapy monitoring of malignant lymphoma--results of a retrospective study in 72 patients] Cremerius U, et al. **Nuklearmedizin** 1999; 38(1):24-30 (Eng. Abstr.) **(Ger)**
[Preoperative assessment of asymptomatic adnexal tumors by positron emission tomography and F 18 fluorodeoxyglucose] Fenchel S, et al. **Nuklearmedizin** 1999; 38(4):101-7 (Eng. Abstr.) **(Ger)**
[Somatostatin receptor status in non-medullary thyroid carcinoma] Görges R, et al. **Nuklearmedizin** 1999; 38(1):15-23 (Eng. Abstr.) **(Ger)**
[Calculation of renal clearance by dynamic measurement of excreted activity] Hackstein N, et al. **Nuklearmedizin** 1999; 38(2):43-8 (Eng. Abstr.) **(Ger)**
[Various dynamics of Tc-99m-tetrofosmin and Tc-99m-MIBI in a parathyroid adenoma] Nowak B, et al. **Nuklearmedizin** 1999;38(5):160-3 (Eng. Abstr.) **(Ger)**
[Imaging of an adrenal cortex carcinoma and its metastasis with FDG-PET] Schumacher T, et al. **Nuklearmedizin** 1999;38(4):124-6 (Eng. Abstr.) **(Ger)**
[A search for the focus in patients with fever of unknown origin: is positron-emission tomography with F-18-fluorodeoxyglucose helpful?] Lorenzen J, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):49-53 (Eng. Abstr.) **(Ger)**
[Positron-emission tomography of the skeletal system using 18FNa: the incidence, pattern of the findings and distribution of benign changes] Schirrmeister H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):310-4 (Eng. Abstr.) **(Ger)**
[Diagnosis of recurrent or persistent nasopharyngeal cancers inspite of radiotherapy: Comparison of F-18-deoxyglucose positron emission tomography with computed tomography] Kuwert T. **Strahlenther Onkol** 1999 Aug;175(8):415 **(Ger)**
[Leukocyte scintigraphy in the diagnosis of acute pancreatitis] Takács T, et al. **Orv Hetil** 1999 Feb 28; 140(9):483-8 (Eng. Abstr.) **(Hun)**
[The heterogeneity of myocardial sympathetic innervation in normal subjects: an assessment by iodine-123 metaiodobenzylguanidine scintigraphy] D'Alto M, et al. **Cardiologia** 1998 Nov;43(11):1231-6 (Eng. Abstr.) **(Ita)**
[99mTc pertechnetate scintigraphy and premedication for the search for ectopic gastric mucosa in Meckel's diverticulum] Rampin L, et al. **Minerva Chir** 1998 Nov;53(11):877-82 (Eng. Abstr.) **(Ita)**
[Heart tomography with 99mTc sestamibi and echocardiography with dobutamine in the identification of reversible left ventricular dysfunction in patients with acute myocardial infarction] Gisonni P, et al. **Radiol Med (Torino)** 1999 Apr;97(4):265-70 (Eng. Abstr.) **(Ita)**
[Labeled aprotinin scintigraphy of amyloid. Report of a case] Palumbo B, et al. **Radiol Med (Torino)** 1999 Jun;97(6):551-3 **(Ita)**
[Tumor imaging using 201Tl chloride and 67Ga citrate in nucleomedical surveys] Togawa T, et al. **Gan To Kagaku Ryoho** 1999 May;26(6):749-55 (14 ref.) (Eng. Abstr.) **(Jpn)**
[Reverse redistribution of technetium-99m-tetrofosmin after acute coronary revascularization in patients with myocardial infarction] Arii T, et al. **J Cardiol** 1999 Jul; 34(1):1-8 (Eng. Abstr.) **(Jpn)**
[Evaluation of therapy for dilated cardiomyopathy with heart failure by iodine-123 metaiodobenzylguanidine imaging: comparison with heart rate variability power spectral analysis] Li S, et al. **J Cardiol** 1998 Nov;32(5):323-9 (Eng. Abstr.) **(Jpn)**
[Improved detection of fill-in using sublingual nitroglycerin in technetium-99m tetrofosmin exercise/rest single photon emission computed tomography one day protocol for old myocardial infarction] Miyanaga H, et al. **J Cardiol** 1999 Mar;33(3):135-43 (Eng. Abstr.) **(Jpn)**
[Relationship between ventricular arrhythmias and myocardial fatty acid metabolism in patients with coronary heart disease: evaluation using iodine-123 beta-methyl-p-iodophenyl-pentadecanoic acid] Mori H, et al. **J Cardiol** 1999 Aug;34(2):61-9 (Eng. Abstr.) **(Jpn)**
[Assessment of global and regional LV function obtained by quantitative gated SPECT using 99mTc-tetrofosmin: comparison with left ventricular cineangiography and echocardiography] Ban K, et al. **Kaku Igaku** 1998 Nov; 35(9):881-5 (Eng. Abstr.) **(Jpn)**
[A significance of the washout of 123I-BMIPP in patients with vasospastic angina] Fukumitsu N, et al. **Kaku Igaku** 1999 May;36(4):369-74 (Eng. Abstr.) **(Jpn)**
[Measurement of cerebral blood flow the blood sampling method using 99mTc-ECD: simultaneous scintigram scanning of arterial blood samples and the brain with a gamma camera] Hachiya T, et al. **Kaku Igaku** 1999 Jan; 36(1):51-7 (Eng. Abstr.) **(Jpn)**
[Nuclear oncology with monoclonal antibodies and peptides] Hosono M. **Kaku Igaku** 1998 Oct;35(8):681-7 (51 ref.) (Eng. Abstr.) **(Jpn)**
[99mTc-GSA dynamic SPECT for regional hepatic functional reserve estimation: assessment of quantification] Hwang EH. **Kaku Igaku** 1999 May;36(4):315-22 (Eng. Abstr.) **(Jpn)**
[99mTc-GSA dynamic SPECT for regional hepatic functional reserve estimation: assessment of clinical value for hepatic resection] Hwang EH. **Kaku Igaku** 1999 May; 36(4):323-31 (Eng. Abstr.) **(Jpn)**
[Comparison of single sample methods for determination of plasma clearance using 99mTc-MAG3] Itoh K, et al. **Kaku Igaku** 1998 Oct;35(8):689-95 (Eng. Abstr.) **(Jpn)**
[Serial change of TL/BMIPP dual SPECT myocardial scintigram in patients with acute myocardial infarction; meaning of chronic mismatch phenomenon] Iwasawa H, et al. **Kaku Igaku** 1999 May;36(4):349-55 (Eng. Abstr.) **(Jpn)**
[The usefulness of 123I-BMIPP myocardial SPECT in diagnosis for silent myocardial ischemia induced by vasospasm] Kawasaki T, et al. **Kaku Igaku** 1999 Jan; 36(1):45-50 (Eng. Abstr.) **(Jpn)**
[Discrepancy between 99mTc-HMPAO and 99mTc-ECD in Alzheimer's disease: does the retention mechanism depend on the disease?] Komatani A, et al. **Kaku Igaku** 1998 Oct;35(8):715-20 (Eng. Abstr.) **(Jpn)**
[Reassessment of a combination of cerebrospinal fluid scintigraphy and nasal pledget counts in patients with suspected rhinorrhea] Kosuda S, et al. **Kaku Igaku** 1998 Jul;35(6):435-41 (Eng. Abstr.) **(Jpn)**
[Decision tree sensitivity analysis for cost-effectiveness of chest FDG-PET in patients with a pulmonary tumor (non-small cell carcinoma)] Kosuda S, et al. **Kaku Igaku** 1998 Jul;35(6):395-404 (Eng. Abstr.) **(Jpn)**
[A case of choroidal malignant melanoma in which 123I-IMP scintigraphy was useful for diagnosis] Kotake F, et al. **Kaku Igaku** 1998 Jul;35(6):427-33 (Eng. Abstr.) **(Jpn)**
[Evaluation of clinical utility of 99mTc-MIBI scintigraphy in the localization of thyroid, breast and lung/mediastinum tumors--a report of multicenter phase III clinical trials] Kubo A, et al. **Kaku Igaku** 1998 Nov;35(9):909-28 (Eng. Abstr.) **(Jpn)**
[Evaluation of the safety and clinical feasibility of exercise

99mTc-MIBI SPECT using one day protocol--multicenter phase III clinical trial report] Kubo A, et al. **Kaku Igaku** 1998 Nov;35(9):929-38 (Eng. Abstr.) **(Jpn)**

[Evaluation of clinical utility of 99mTc-MIBI scintigraphy in the localization of hyperfunctioning parathyroid lesions in patients with hyperparathyroidism--a report of multicenter phase III clinical trials] Kusakabe K, et al. **Kaku Igaku** 1998 Nov;35(9):887-99 (Eng. Abstr.) **(Jpn)**

[Measurement of regional cerebral blood flow using one-point arterial blood sampling and microsphere model with 123I-IMP: correction of one-point arterial sampling count by whole brain count ratio] Makino K, et al. **Kaku Igaku** 1998 Jul;35(6):405-12 (Eng. Abstr.) **(Jpn)**

[Assessment of a new non-invasive cerebral blood flow determination method using the brain uptake ratio of 99mTc-ECD] Miyazaki Y, et al. **Kaku Igaku** 1999 Feb; 36(2):113-20 (Eng. Abstr.) **(Jpn)**

[A method for improving the accuracy in measurement of 99mTc-GSA liver uptake] Noguchi A, et al. **Kaku Igaku** 1999 May;36(4):375-82 (Eng. Abstr.) **(Jpn)**

[Quantification of cerebral blood flow with 99mTc-ECD SPECT based on a 3-compartment model] Odano I, et al. **Kaku Igaku** 1998 Oct;35(8):697-703 (Eng. Abstr.) **(Jpn)**

[99mTc-DTPA-HSA lymphoscintigraphy in lymphedema of the lower extremities: diagnostic significance of dynamic study and muscular exercise] Ogawa Y, et al. **Kaku Igaku** 1999 Jan;36(1):31-6 (Eng. Abstr.) **(Jpn)**

[99mTc(V)-DMSA accumulation in gynecomastia] Ohta H. **Kaku Igaku** 1998 Nov;35(9):877-9 (Eng. Abstr.) **(Jpn)**

[Usefulness of myocardial scintigraphy with 99mTc-tetrofosmin for diagnosis in 2 cases of acute coronary syndrome] Okano A, et al. **Kaku Igaku** 1998 Nov; 35(9):871-6 (Eng. Abstr.) **(Jpn)**

[Usefulness of 18F-FDG PET for diagnosis of cardiac sarcoidosis] Okumura W, et al. **Kaku Igaku** 1999 May; 36(4):341-8 (Eng. Abstr.) **(Jpn)**

[123I-metaiodobenzylguanidine (MIBG) scintigraphy for the staging of neuroblastoma] Okuyama C, et al. **Kaku Igaku** 1998 Nov;35(9):835-42 (Eng. Abstr.) **(Jpn)**

[Evaluation of the liver uptake rate measured by 99mTc-GSA SPECT to assess liver function] Onodera Y, et al. **Kaku Igaku** 1999 Jan;36(1):37-44 (Eng. Abstr.) **(Jpn)**

[Evaluation of 99mTc-MAG3 (mercaptoacetyltriglycine) renography for pediatric patients] Tabuchi K, et al. **Kaku Igaku** 1999 Jan;36(1):15-22 (Eng. Abstr.) **(Jpn)**

[Technical investigation of cerebral blood flow measurements using the Patlak Plot method--a contrivance for positioning of the gamma camera at data collection in radionuclide angiography] Takaki A, et al. **Kaku Igaku** 1999 Feb;36(2):139-44 (Eng. Abstr.) **(Jpn)**

[Assessment of enlarged left atrium with 99mTc-tetrofosmin SPECT and echocardiography] Taniguchi Y, et al. **Kaku Igaku** 1998 Jul;35(6):421-6 (Eng. Abstr.) **(Jpn)**

[Usefulness of 123I-MIBG scintigraphy for prediction of effect of beta-blocker therapy in dilated cardiomyopathy] Tawarahara K, et al. **Kaku Igaku** 1998 Jul;35(6):413-20 (Eng. Abstr.) **(Jpn)**

[Assessment of left ventricular function by 201Tl ECG-gated myocardial SPECT] Toba M, et al. **Kaku Igaku** 1999 Jan; 36(1):23-30 (Eng. Abstr.) **(Jpn)**

[Markedly decreased uptake with 123I-MIBG myocardial scintigraphy in a case with vasospastic angina] Watanabe K, et al. **Kaku Igaku** 1998 Oct;35(8):727-32 (Eng. Abstr.) **(Jpn)**

[Improved the accuracy of 99mTc-MAG3 plasma clearance method: the problem of the calculated plasma volume and its modification] Watanabe N, et al. **Kaku Igaku** 1998 Oct; 35(8):741-7 (Eng. Abstr.) **(Jpn)**

[Clinical significance of 123I-BMIPP myocardial SPECT] Yamazaki J. **Kaku Igaku** 1998 Jul;35(6):367-73 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Hepatic clearance of 99mTc-GSA in cases of postoperative biliary atresia--a retrospective comparison with hepatic clearance of 99mTc-PMT] Yamazaki T, et al. **Kaku Igaku** 1998 Nov;35(9):849-56 (Eng. Abstr.) **(Jpn)**

[Evaluation of cardiac sympathetic nerve injuries due to surgical procedures for thoracic aorta using 123I metaiodobenzylguanidine(MIBG) scintigraphy] Miyamoto S, et al. **Nippon Geka Gakkai Zasshi** 1998 Dec;99(12):872 **(Jpn)**

[Uptake of 201TlCl and 99mTc-tetrofosmin in neurofibroma: a case report] Itagaki R, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 May; 59(6):265-7 (Eng. Abstr.) **(Jpn)**

[Ictal 99mTC-HMPAO-SPECT in a case of paroxysmal kinesigenic choreoathetosis] Kitagawa N, et al. **Rinsho Shinkeigaku** 1998 Aug;38(8):767-70 (Eng. Abstr.) **(Jpn)**

[Measurement of glomerular filtration rate in connection with 99Tc-DTPA renography] Cappelen T, et al. **Tidsskr Nor Laegeforen** 1999 Feb 10;119(4):521-5 (Eng. Abstr.) **(Nor)**

[Isotopic study with double phase 99mTc-sestamibi in the localization of parathyroid gland lesions] Bernà L, et al. **Med Clin (Barc)** 1999 Feb 20;112(6):201-5 (Eng. Abstr.) **(Spa)**

[Comparison of endoscopy, radiology and scintigraphy with Tc-99m-exametazine labeled leukocytes and In-111 labeled human polyclonal immunoglobulin G in the diagnosis of inflammatory bowel disease] de Lima Ramos PA, et al. **Med Clin (Barc)** 1998 Sep 12;111(7):241-6 (Eng. Abstr.) **(Spa)**

[Non-invasive methods for evaluating reperfusion in acute myocardial infarct: enzymes and MIBI-SPECT cardiac gammagraphy] Araiz Burdio JJ, et al. **Rev Esp Cardiol** 1998 Sep;51(9):740-9 (Eng. Abstr.) **(Spa)**

[Radionuclide study of gastric emptying in patients who have undergone Roux-en-Y gastrojejunostomy for postoperative alkaline gastritis] Asensio del Barrio C, et al. **Rev Esp Med Nucl** 1998;17(5):358-64 (Eng. Abstr.) **(Spa)**

[Scintigraphy with 99MTc-HMPAO labeled leukocytes and computed tomography in the diagnosis of vascular graft infection. A comparative study] Delgado M, et al. **Rev Esp Med Nucl** 1999;18(2):77-83 (Eng. Abstr.) **(Spa)**

[Scintigraphic assessment of the severity of inflammatory bowel disease using Tc 99m exametazime-labeled leukocytes] de Lima Ramos PA, et al. **Rev Esp Med Nucl** 1998;17(5):351-7 (Eng. Abstr.) **(Spa)**

[Brain SPECT with 99m Tc-HMPAO in a patient diagnosed of megacisterna magna] Fernández A, et al. **Rev Esp Med Nucl** 1999;18(2):110 **(Spa)**

[A Spanish multicenter scintigraphic study of the breast using Tc 99m MIBI. Report of results] Prats E, et al. **Rev Esp Med Nucl** 1998;17(5):338-50 (Eng. Abstr.) **(Spa)**

[Soft tissue visualization with 99m Tc-HDP in a case of dermatomyositis] Ruiz Franco-Baux JV, et al. **Rev Esp Med Nucl** 1999;18(2):109 **(Spa)**

[Thyroid scintigraphy] Secades I, et al. **Rev Esp Med Nucl** 1999 Jun;18(3):227-30 **(Spa)**

[Rol of thallium-201/gallium-67 cerebral tomogammography in the differential diagnosis of cerebral space occupying lesions] Martínez-Lázaro R, et al. **Rev Neurol** 1999 Apr 1-15;28(7):723-6 (Eng. Abstr.) **(Spa)**

ECONOMICS

Re: Cost utility of routine imaging with Tc-99m-Sestamibi in primary hyperparathyroidism before initial surgery [letter; comment] Denham DW, et al. **Am Surg** 1999 Aug; 65(8):796-7. Comment on: Am Surg 1998 May;64(5):391-5; discussion 395-6.

Costs versus charges [letter; comment] Makler PT Jr. **J Nucl Med** 1998 Dec;39(12):2194. Comment on: J Nucl Med 1998 Mar;39(3):20N, 22N-25N.

HISTORY

50th anniversary historical article. Perfusion imaging. Beller GA. **J Am Coll Cardiol** 1999 Jul;34(1):9-11

ISOLATION & PURIFICATION

A critical evaluation of methods for preparing pentavalent 99Tcm-DMSA. Leah M, et al. **Nucl Med Commun** 1999 Aug;20(8):769-73

Effect of radiochemical purity of 99Tcm-Q12 on myocardial SPET image quality. Yu M, et al. **Nucl Med Commun** 1999 Aug;20(8):747-53

METABOLISM

Effect of exercise-induced activation of sympathetic nerve activity on clearance of 123I-MIBG from the myocardium. Sugihara H, et al. **Ann Nucl Med** 1998 Aug;12(4):175-8

Metabolic studies of [18F-alpha-methyl]tyrosine in mice bearing colorectal carcinoma LS-180. Tomiyoshi K, et al. **Anticancer Drugs** 1999 Mar;10(3):329-36

Effect of Peumus boldus on the labeling of red blood cells and plasma proteins with technetium-99m. Reiniger IW, et al. **Appl Radiat Isot** 1999 Aug;51(2):145-9

Retention of biologic activity of human epidermal growth factor following conjugation to a blood-brain barrier drug delivery vector via an extended poly(ethylene glycol) linker. Deguchi Y, et al. **Bioconjug Chem** 1999 Jan-Feb; 10(1):32-7

Technetium-99m-labeled medium-chain fatty acid analogues metabolized by beta-oxidation: radiopharmaceutical for assessing liver function. Yamamura N, et al. **Bioconjug Chem** 1999 May-Jun;10(3):489-95

Images in Cardiovascular Medicine. Myocardial [18F]fluorodeoxyglucose uptake after heterotopic cardiac transplantation assessed by positron emission tomography. Rechavia E. **Circulation** 1999 Jun 29;99(25):3322

Resolved splenic accumulation of Tc-99m HMDP after recovery of disseminated intravascular coagulation in a patient with rhabdomyosarcoma. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):414-7

Synthesis and characterization of binding of 5-[76Br]bromo-3-[[2(S)-azetidinyl]methoxy]pyridine, a novel nicotinic acetylcholine receptor ligand, in rat brain. Sihver W, et al. **J Neurochem** 1999 Sep;73(3):1264-72

Quantitative autoradiography with short-lived positron emission tomography tracers: a study on muscarinic acetylcholine receptors with N-[(11)C]methyl-4-piperidylbenzilate. Sihver S, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):917-22

Cell cycle dependency of 67gallium uptake and cytotoxicity in human cell lines of hematological malignancies. Van Leeuwen-Stok EA, et al. **Leuk Lymphoma** 1998 Nov; 31(5-6):533-44

Positron emission tomography (PET) methodology for small animals and its application in radiopharmaceutical preclinical investigation. Hume SP, et al. **Nucl Med Biol** 1998 Nov;25(8):729-32 (43 ref.)

Quantitative ex vivo and in vitro receptor autoradiography using 11C-labeled ligands and an imaging plate: a study with a dopamine D2-like receptor ligand [11C]nemonapride. Ishiwata K, et al. **Nucl Med Biol** 1999 Apr;26(3):291-6

Comparative breast tumor imaging and comparative in vitro metabolism of 16alpha-[18F]fluoroestradiol-17beta and 16beta-[18F]fluoromoxestrol in isolated hepatocytes. Jonson SD, et al. **Nucl Med Biol** 1999 Jan;26(1):123-30

N-[11C]methylpiperidine esters as acetylcholinesterase substrates: an in vivo structure-reactivity study. Kilbourn MR, et al. **Nucl Med Biol** 1998 Nov;25(8):755-60

Receptor-mediated targeting of 67Ga-deferoxamine-folate to folate-receptor-positive human KB tumor xenografts. Mathias CJ, et al. **Nucl Med Biol** 1999 Jan;26(1):23-5

New iodinated progestins as potential ligands for progesterone receptor imaging in breast cancer. Part 2: In vivo pharmacological characterization. Rijks LJ, et al. **Nucl Med Biol** 1998 Nov;25(8):791-8

New iodinated progestins as potential ligands for progesterone receptor imaging in breast cancer. Part 1: Synthesis and in vitro pharmacological characterization. van den Bos JC, et al. **Nucl Med Biol** 1998 Nov;25(8):781-9

Neutral and stereospecific Tc-99m complexes: [99mTc]N-benzyl-3,4-di-(N-2-mercaptoethyl)-amino-pyrrolidines (P-BAT). Zhuang ZP, et al. **Nucl Med Biol** 1999 Feb;26(2):217-24

In vivo stability and metabolism of 99Tcm-labelled anti-CD4 monoclonal antibodies and Fab' fragments. Kinne RW, et al. **Nucl Med Commun** 1999 Jan;20(1):67-75

PHARMACOKINETICS

Influence of age and gender on iodine-123 MIBG kinetics in normal lung. Kanzaki N, et al. **Ann Nucl Med** 1998 Aug; 12(4):225-9

Quantitative evaluation of the regional hepatic reserve by 99mTc-GSA dynamic SPECT before and after chemolipiodolization in patients with hepatocellular carcinoma. Kira T, et al. **Ann Nucl Med** 1998 Dec; 12(6):369-73

Reverse redistribution of Tc-99m-tetrofosmin in exercise myocardial SPECT in patients with hypertrophic cardiomyopathy. Sugihara H, et al. **Ann Nucl Med** 1998 Oct;12(5):287-92

99mTc-tetrofosmin uptake in bone metastases from breast cancer. Takayama T, et al. **Ann Nucl Med** 1998 Oct; 12(5):293-6

Preparation of [186Re]Re-DMSA and its bio-distribution studies. Kothari K, et al. **Appl Radiat Isot** 1999 Jul; 51(1):43-9

Synthesis of [11C]salicylic acid and related compounds and their biodistribution in mice. Sasaki T, et al. **Appl Radiat Isot** 1999 May;50(5):905-9

Radiopharmacokinetics, renal clearance and dosimetry of 99mTc-MAG3. Arteaga de Murphy C, et al. **Arch Med Res** 1999 Jan-Feb;30(1):49-54

Pre-operative localization and tissue uptake study in parathyroid imaging with technetium-99m-sestamibi. Takami H, et al. **Aust N Z J Surg** 1999 Sep;69(9):629-31

Renal metabolism of 111In-DTPA-D-Phe1-octreotide in vivo. Akizawa H, et al. **Bioconjug Chem** 1998 Nov-Dec; 9(6):662-70

Evaluation of the in vivo biodistribution of indium-111 and yttrium-88 labeled dendrimer-1B4M-DTPA and its conjugation with anti-Tac monoclonal antibody. Kobayashi H, et al. **Bioconjug Chem** 1999 Jan-Feb; 10(1):103-11

Epidermal growth factor radiopharmaceuticals: 111In chelation, conjugation to a blood-brain barrier delivery vector via a biotin-polyethylene linker, pharmacokinetics, and in vivo imaging of experimental brain tumors. Kurihara A, et al. **Bioconjug Chem** 1999 May-Jun;10(3):502-11

Closo-dodecaborate(2-) as a linker for iodination of macromolecules. Aspects on conjugation chemistry and biodistribution. Tolmachev V, et al. **Bioconjug Chem** 1999 May-Jun;10(3):338-45

Direct synthesis of [DOTA-DPhe1]-octreotide and [DOTA-DPhe1,Tyr3]-octreotide (SMT487): two conjugates for systemic delivery of radiotherapeutical nuclides to somatostatin receptor positive tumors in man. Albert R, et al. **Bioorg Med Chem Lett** 1998 May 19; 8(10):1207-10

Uncoupling of fatty acid and glucose metabolism in malignant lymphoma: a PET study. Nuutinen J, et al. **Br J Cancer** 1999 May;80(3-4):513-8

Lung clearance of intratracheally instilled 99mTc-tobramycin using pulmonary surfactant as vehicle. Van't Veen A, et al. **Br J Pharmacol** 1999 Mar; 126(5):1091-6

Uptake of 99mTc(5+)-complexes in ischemic myocardial slices and their dissociable ability. Li SL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):465-7

Biodistribution of radiolabeled monoclonal antibody E48 IgG and F(ab')2 in patients with head and neck cancer. de Bree R, et al. **Clin Cancer Res** 1995 Mar;1(3):277-86

67Cu-versus 131I-labeled Lym-1 antibody: comparative pharmacokinetics and dosimetry in patients with non-Hodgkin's lymphoma. DeNardo GL, et al. **Clin Cancer Res** 1999 Mar;5(3):533-41

Altered radiopharmaceutical distribution in myeloma: bone

tracer in the heart and heart tracer in the bone. Gupta AK, et al. **Clin Nucl Med** 1998 Dec;23(12):820–3

Myocardial sestamibi uptake in healthy subjects is related to age, gender and habitus. Bouvier F, et al. **Clin Physiol** 1999 Jan;19(1):76–83

The effect of breathing frequency on deposition of drug aerosol using an inhalation-synchronized dosimeter in healthy adults. Häkkinen AM, et al. **Clin Physiol** 1999 May; 19(3):269–74

Clearance and renal extraction of technetium-99m-L,L-ethylenedicysteine, I-131-ortho-iodohippurate and I-125-iothalamate in pigs. Nielsen SS, et al. **Clin Physiol** 1999 Jul;19(4):338–43

Deposition of aqueous aerosol of technetium-99m diethylene triamine penta-acetic acid generated and delivered by a novel system (AERx) in healthy subjects. Chan HK, et al. **Eur J Nucl Med** 1999 Apr;26(4):320–7

Technetium-99m sestamibi uptake in hepatocellular carcinoma [letter] Derebek E. **Eur J Nucl Med** 1998 Nov; 25(11):1587–8

Comparative myocardial uptake of technetium-99 m sestamibi and technetium-99m tetrofosmin one hour after stress injection. Gremillet E, et al. **Eur J Nucl Med** 1998 Nov;25(11):1502–10

The specific gallium-67 scan uptake pattern in psoas abscesses. Kao PF, et al. **Eur J Nucl Med** 1998 Oct; 25(10):1442–7

Protein synthesis rate measured with L-[1-11C]tyrosine positron emission tomography correlates with mitotic activity and MIB-1 antibody-detected proliferation in human soft tissue sarcomas. Plaat B, et al. **Eur J Nucl Med** 1999 Apr;26(4):328–32

Influence of urinary iodine excretion on thyroid technetium-99m pertechnetate uptake with and without TSH suppression: what happens when iodine supply increases? Reinhardt MJ, et al. **Eur J Nucl Med** 1998 Nov; 25(11):1475–81

Uptake kinetics of the somatostatin receptor ligand [86Y]DOTA-DPhe1- Tyr3-octreotide ([86Y]SMT487) using positron emission tomography in non-human primates and calculation of radiation doses of the 90Y-labelled analogue. Rösch F, et al. **Eur J Nucl Med** 1999 Apr;26(4):358–66

Uptake of positron emission tomography tracers in experimental bacterial infections: a comparative biodistribution study of radiolabeled FDG, thymidine, L-methionine, 67Ga-citrate, and 125I-HSA. Sugawara Y, et al. **Eur J Nucl Med** 1999 Apr;26(4):333–41

Decreased regional cerebral metabolic rate for glucose in systemic lupus erythematosus patients with psychiatric symptoms. Komatsu N, et al. **Eur Neurol** 1999 Jul; 42(1):41–8

The use of a deuterium tracer technique to follow the fate of fluids ingested by human subjects: effects of drink volume and tracer concentration and content. Lambert CP, et al. **Exp Physiol** 1999 Mar;84(2):391–9

Dynamic imaging and tracer kinetic modeling for emission tomography using rotating detectors. Lau CH, et al. **IEEE Trans Med Imaging** 1998 Dec;17(6):986–94

Preclinical evaluation of the novel hypoxic marker 99mTc-HL91 (Prognox) in murine and xenograft systems in vivo. Honess DJ, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):731–5

Preclinical assessment of hypoxic marker specificity and sensitivity. Iyer RV, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):741–5

Studies of 99mTc-BnAO (HL-91): a non-nitroaromatic compound for hypoxic cell detection. Zhang X, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):737–40

Uptake of seven myocardial tracers during increased myocardial blood flow by dobutamine infusion. Rosenbaum AF, et al. **Invest Radiol** 1999 Feb;34(2):91–8

Regional clearance of solute from peripheral airway epithelia: recovery after sublobar exposure to ozone. Foster WM, et al. **J Appl Physiol** 1999 Feb;86(2):641–6

A model to evaluate the biological effect of natural products: vincristine action on the biodistribution of radiopharmaceuticals in BALB/c female mice. Mattos DM, et al. **J Appl Toxicol** 1999 Jul-Aug;19(4):251–4

Effect of a chemotherapeutic drug on the biodistribution of 99mTc-DTPA in Balb/c mice. Britto DM, et al. **J Exp Clin Cancer Res** 1998 Sep;17(3):313–6

Kinetics of 123I-MIBG after acute myocardial infarction and reperfusion therapy. Bengel FM, et al. **J Nucl Med** 1999 Jun;40(6):904–10

Absolute organ activity estimated by five different methods of background correction. Buijs WC, et al. **J Nucl Med** 1998 Dec;39(12):2167–72

Mechanisms related to [18F]fluorodeoxyglucose uptake of human colon cancers transplanted in nude mice. Chung JK, et al. **J Nucl Med** 1999 Feb;40(2):339–46

New insights on flow-independent mechanisms of 99mTc-HMPAO retention in nervous tissue: in vitro study. Colamussi P, et al. **J Nucl Med** 1999 Sep;40(9):1556–62

Effect of oral glucose loading on the biodistribution of BMIPP in normal volunteers. De Geeter F, et al. **J Nucl Med** 1998 Nov;39(11):1850–6

Factors affecting 131I-Lym-1 pharmacokinetics and radiation dosimetry in patients with non-Hodgkin's lymphoma and chronic lymphocytic leukemia. DeNardo GL, et al. **J Nucl Med** 1999 Aug;40(8):1317–26

Technetium-99m-antiepidermal growth factor-receptor antibody in patients with tumors of epithelial origin: part II. Pharmacokinetics and clearances. Iznaga-Escobar N, et al. **J Nucl Med** 1998 Nov;39(11):1918–27

Pharmacokinetics and metabolism of the methyl-branched fatty acid (BMIPP) in animals and humans. Kropp J, et al. **J Nucl Med** 1999 Sep;40(9):1484–91

Biodistribution and dosimetry of TRODAT-1: a technetium-99m tropane for imaging dopamine transporters. Mozley PD, et al. **J Nucl Med** 1998 Dec; 39(12):2069–76

Placental binding and transfer of radiopharmaceuticals: technetium-99m d, l-HMPAO. Owunwanne A, et al. **J Nucl Med** 1998 Oct;39(10):1810–3

Sensitivity of [11C]phenylephrine kinetics to monoamine oxidase activity in normal human heart. Raffel DM, et al. **J Nucl Med** 1999 Feb;40(2):232–8

MIRD pamphlet no. 16: Techniques for quantitative radiopharmaceutical biodistribution data acquisition and analysis for use in human radiation dose estimates. Siegel JA, et al. **J Nucl Med** 1999 Feb;40(2):37S–61S

Is there a relationship between 99mTc-Sestamibi uptake and oxyphil cell content in hyperparathyroidism? [letter; comment] Staudenherz A, et al. **J Nucl Med** 1999 Aug; 40(8):1402–3. Comment on: J Nucl Med 1998 Aug;39(8):1441–4.

Biodistribution and kinetics of holmium-166-chitosan complex (DW-166HC) in rats and mice. Suzuki YS, et al. **J Nucl Med** 1998 Dec;39(12):2161–6

Coregistration of FDG PET and MRI of the head and neck using normal distribution of FDG. Uematsu H, et al. **J Nucl Med** 1998 Dec;39(12):2121–7

Biodistribution and absorbed radiation dose estimates of 99mTc-labeled dimercaptopropionyl human serum albumin. van Aswegen A, et al. **J Nucl Med** 1999 Sep; 40(9):1532–5

Human biodistribution and dosimetry of the PET perfusion agent copper-62-PTSM. Wallhaus TR, et al. **J Nucl Med** 1998 Nov;39(11):1958–64

Disposition of radioactivity after injection of liver-targeted proteins labeled with 111In or 125I. Effect of labeling on distribution and excretion of radioactivity in rats. Staud F, et al. **J Pharm Sci** 1999 Jun;88(6):577–85

Rhenium-186-mercaptoacetyltriglycine-labeled monoclonal antibody for radioimmunotherapy: in vitro assessment, in vivo kinetics and dosimetry in tumor-bearing nude mice. Kinuya S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):870–8

A theoretical four-compartment model to evaluate separate kidney technetium-99m-MAG3 kinetics in humans. Curti G, et al. **Kidney Int** 1998 Dec;54(6):2029–36

In vivo imaging of brain nicotinic acetylcholine receptors with 5-[123I]iodo-A-85380 using single photon emission computed tomography. Chefer SI, et al. **Life Sci** 1998; 63(25):PL355–60

Transport and retention of colloidal tracers in regional lymphoscintigraphy in melanoma: influence on lymphatic mapping and sentinel node biopsy. Pijpers R, et al. **Melanoma Res** 1998 Oct;8(5):413–8

Glomerular filtration rate estimated from the uptake phase of 99mTc-DTPA renography in chronic renal failure. Petersen LJ, et al. **Nephrol Dial Transplant** 1999 Jul; 14(7):1673–8

Poor renal accumulation of 99mTc-DMSA in idiopathic tubular proteinuria. Suzuki S, et al. **Nephron** 1999 Jan; 81(1):49–54

Tracer kinetic modeling of the 5-HT1A receptor ligand [carbonyl-11C]WAY-100635 for PET. Gunn RN, et al. **Neuroimage** 1998 Nov;8(4):426–40

Evaluation of gallium-68 tris(2-mercaptobenzyl)amine: a complex with brain and myocardial uptake. Cutler CS, et al. **Nucl Med Biol** 1999 Apr;26(3):305–16

Transcapillary transport of metaiodobenzylguanidine (MIBG) in isolated rat heart. DeGrado TR, et al. **Nucl Med Biol** 1998 Jul;25(5):455–65

Comparative studies of epibatidine derivatives [18F]NFEP and [18F]N-methyl-NFEP: kinetics, nicotine effect, and toxicity. Ding YS, et al. **Nucl Med Biol** 1999 Jan; 26(1):139–48

Tc(V)-DMS tumor localization mechanism: a pH-sensitive Tc(V)-DMS-enhanced target/nontarget ratio by glucose-mediated acidosis. Horiuchi K, et al. **Nucl Med Biol** 1998 Aug;25(6):549–55

The in vivo behavior of copper-64-labeled azamacrocyclic complexes. Jones-Wilson TM, et al. **Nucl Med Biol** 1998 Aug;25(6):523–30

Development of step-specific PET tracers for studying fatty acid beta-oxidation: biodistribution of [1-(11)C] octanoate analogs in rats and a cat. Kawashima H, et al. **Nucl Med Biol** 1998 Aug;25(6):543–8

In vitro and in vivo evaluation of 64Cu-TETA-Tyr3-octreotate. A new somatostatin analog with improved target tissue uptake. Lewis JS, et al. **Nucl Med Biol** 1999 Apr;26(3):267–73

Species difference in radioactivity elimination from liver parenchymal cells after injection of radiolabeled proteins. Mukai T, et al. **Nucl Med Biol** 1999 Apr;26(3):281–9

Synthesis and biodistribution of 64Cu-labeled monocationic diiminedioxime copper(II) complexes. Packard AB, et al. **Nucl Med Biol** 1998 Aug;25(6):531–7

The pharmacokinetics of [11C]methoxy-norchloroprogabidic acid, a potential PET tracer for GABA receptors in the brain. Santens P, et al. **Nucl Med Biol** 1999 Apr;26(3):323–5

Characterization and preliminary evaluation of ester-modified technetium-99m SNS/S mixed ligand complexes as potential brain perfusion agents. Tsoukalas C, et al. **Nucl Med Biol** 1999 Apr;26(3):297–304

Importance of the two ester functions for the brain retention of 99mTc-labelled ethylene dicysteine diethyl ester (99mTc-ECD). Vanbilloen HP, et al. **Nucl Med Biol** 1998 Aug;25(6):569–75

Preclinical evaluation of 4-[18F]fluoroprolines: diastereomeric effect on metabolism and uptake in mice. Wester HJ, et al. **Nucl Med Biol** 1999 Apr;26(3):259–65

177Lu-EDTMP: a potential therapeutic bone agent. Ando A, et al. **Nucl Med Commun** 1998 Jun;19(6):587–91

Reproducibility of 99Tcm-MAG3 clearance [letter] Boivin C. **Nucl Med Commun** 1999 Feb;20(2):199–200

Relationship between extraosseous accumulation in bone scintigraphy with 99Tcm-HMDP and histopathology. Flores LG 2nd, et al. **Nucl Med Commun** 1998 Apr; 19(4):347–54

The effect of mitomycin-C on the biodistribution of 99Tcm-MDP in Balb/c mice. Gomes ML, et al. **Nucl Med Commun** 1998 Dec;19(12):1177–9

Factors affecting and computation of myocardial perfusion reference images. Goris ML, et al. **Nucl Med Commun** 1999 Jul;20(7):627–35

Deadtime correction in measurement of fractional renal accumulation of 99Tcm-MAG3. Inoue Y, et al. **Nucl Med Commun** 1999 Mar;20(3):267–72

Patient medication and nuclear medicine tests: a pharmacist's viewpoint [editorial] Sampson CB. **Nucl Med Commun** 1998 Jun;19(6):519–20

Interference of patient medication in the radiolabelling of white blood cells: an update. Sampson CB. **Nucl Med Commun** 1998 Jun;19(6):529–33

Clinical pharmacokinetics of 123I-IAZA in healthy volunteers. Stypinski D, et al. **Nucl Med Commun** 1999 Jun;20(6):559–67

Technetium-99m hexamethyl propylenamine oxime lung clearance in the estimation of pulmonary hypertension in congenital heart disease: A preliminary comparative study with cardiac catheterization and pathology. Yener A, et al. **Pediatr Cardiol** 1999 Jul-Aug;20(4):271–7

Clearance of tracer albumin from peritoneal cavity to plasma at low intraperitoneal volumes and hydrostatic pressures. Zhu Q, et al. **Perit Dial Int** 1998 Sep-Oct;18(5):497–504

Correction for non-ideal tracer pharmacokinetic disposition by disposition decomposition analysis (DDA). Veng-Pedersen P, et al. **Pharm Res** 1998 Sep;15(9):1469–73

A technique for manual definition of an irregular volume of interest in single photon emission computed tomography. Fleming JS, et al. **Phys Med Biol** 1999 Feb;44(2):N15–20

A control systems approach for the simulation of renal dynamic software phantoms for nuclear medicine. Houston AS, et al. **Phys Med Biol** 1999 Feb;44(2):401–11

Effects of genetic engineering on the pharmacokinetics of antibodies. Colcher D, et al. **Q J Nucl Med** 1999 Jun; 43(2):132–9 (38 ref.)

The influence of stereoisomerism on the pharmacokinetics of Tc radiopharmaceuticals. Hansen L, et al. **Q J Nucl Med** 1998 Dec;42(4):280–93 (69 ref.)

Incorporation of an (125)I-labeled hexa-iodinated diglyceride analog into low-density lipoprotein and high specific uptake by cells of cervical carcinoma cell lines. Xiao W, et al. **Radiat Res** 1999 Sep;152(3):250–6

Use of 2-[18F]fluoro-2-deoxyglucose as a potential agent in the prediction of graft rejection by positron emission tomography. Heelan BT, et al. **Transplantation** 1998 Oct 27;66(8):1101–3

Comparison between the scintigraphic uptake and plasma clearance of 99mTc-diethylenetriaminepentacetic acid (DTPA) for the evaluation of the glomerular filtration rate in dogs. Barthez PY, et al. **Vet Radiol Ultrasound** 1998 Sep-Oct;39(5):470–4

Transplacental transfer of radionuclides. A review. von Zallinger C, et al. **Zentralbl Veterinarmed A** 1998 Dec; 45(10):581–90 (45 ref.)

[Results of TcTUs-optimized radioiodine therapy in multifocal and disseminated autonomy] Dunkelmann S, et al. **Nuklearmedizin** 1999;38(5):131–9 (Eng. Abstr.) **(Ger)**

[Investigations on the effect of "ecstasy" on cerebral glucose metabolism: an 18-FDG PET study] Schreckenberger M, et al. **Nuklearmedizin** 1998;37(8):262–7 (Eng. Abstr.) **(Ger)**

[Correlation between 99m Tc-tetrofosmin uptake and P-glycoprotein expression in non-small-cell lung cancer] Tabuenca MJ, et al. **Rev Esp Med Nucl** 1998;17(6):427–34 (Eng. Abstr.) **(Spa)**

PHARMACOLOGY

Preparation, stability studies and pharmacological behavior of [186Re]Re-HEDP. Kothari K, et al. **Appl Radiat Isot** 1999 Jul;51(1):51–8

MIBG inhibits respiration: potential for radio- and hyperthermic sensitization. Biaglow JE, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):871–6

Sympathomimetic effects of MIBG: comparison with tyramine. Graefe KH, et al. **J Nucl Med** 1999 Aug; 40(8):1342–51

PET imaging of dopamine D2 receptors with [18F]fluoroclebopride in monkeys: effects of isoflurane- and ketamine-induced anesthesia. Nader MA, et al. **Neuropsychopharmacology** 1999 Oct;21(4):589–96

STANDARDS

Modified preparation and rapid quality control test for technetium-99m-tetrofosmin. Patel M, et al. **J Nucl Med Technol** 1998 Dec;26(4):269-73

Technetium-99m radiopharmaceutical preparation problems: 12 years of experience. Ponto JA. **J Nucl Med Technol** 1998 Dec;26(4):262-4

Radiochromic film dosimetry: recommendations of AAPM Radiation Therapy Committee Task Group 55. American Association of Physicists in Medicine. Niroomand-Rad A, et al. **Med Phys** 1998 Nov;25(11):2093-115

Artefacts in the thin-layer chromatographic analysis of 99Tcm-tetrofosmin injections. Graham D, et al. **Nucl Med Commun** 1999 May;20(5):439-44

Radiopharmaceutical kit modification [editorial] Lazarus C, et al. **Nucl Med Commun** 1998 Jul;19(7):613-4

Radiopharmaceutical kit modification [letter] Millar AM. **Nucl Med Commun** 1999 Jan;20(1):105-6

SUPPLY & DISTRIBUTION

Understanding patient needs: congressmen aid nuclear medicine [news] Kotz D. **J Nucl Med** 1998 Nov;39(11):16N, 21N-22N, 30N

THERAPEUTIC USE

Complete remission of nonresectable pancreatic cancer after infusional colloidal phosphorus-32 brachytherapy, external beam radiation therapy, and 5-fluorouracil: a preliminary report. DeNittis AS, et al. **Am J Clin Oncol** 1999 Aug; 22(4):355-60

Treatment of malignant pheochromocytomas with 131-I metaiodobenzylguanidine and chemotherapy. Sisson JC, et al. **Am J Clin Oncol** 1999 Aug;22(4):364-70

Strontium-89 (89Sr) analgesia for rare thymic carcinoid tumor with bony metastases. Vishne TH, et al. **Am J Clin Oncol** 1998 Dec;21(6):602-4

Radiolabelled somatostatin analogue(s) for peptide receptor scintigraphy and radionuclide therapy. Krenning EP, et al. **Ann Oncol** 1999;10 Suppl 2:S23-9

Short-term morbidity and acceptability of 125iodine implantation for localized carcinoma of the prostate. Al-Booz H, et al. **BJU Int** 1999 Jan;83(1):53-6

Treatment of malignant pericardial effusion with 32P-colloid. Dempke W, et al. **Br J Cancer** 1999 Aug;80(12):1955-7

Radioimmunotherapy of micrometastases in lung with vascular targeted 213Bi. Kennel SJ, et al. **Br J Cancer** 1999 Apr;80(1-2):175-84

Treatment of multifocal Bowen's disease with a specially designed radioactive skin patch [letter] Chung HS, et al. **Br J Dermatol** 1998 Nov;139(5):938-9

Treatment-related parameters predicting efficacy of Lym-1 radioimmunotherapy in patients with B-lymphocytic malignancies. Lamborn KR, et al. **Clin Cancer Res** 1997 Aug;3(8):1253-60

Locoregional regulatory peptide receptor targeting with the diffusible somatostatin analogue 90Y-labeled DOTA0-D-Phe1-Tyr3-octreotide (DOTATOC): a pilot study in human gliomas. Merlo A, et al. **Clin Cancer Res** 1999 May;5(5):1025-33

Brain uptake of iodine-131 metaiodobenzylguanidine following therapy of malignant pheochromocytoma. Dwamena BA, et al. **Clin Nucl Med** 1998 Jul;23(7):441-5

Efficacy of radiosynovectomy of the knee in rheumatoid arthritis: evaluation with magnetic resonance imaging. Alonso-Ruiz A, et al. **Clin Rheumatol** 1998;17(4):277-81

Treatment of neuroblastoma stage 4 with 131I-meta-iodo-benzylguanidine, high-dose chemotherapy and immunotherapy. A pilot study. Klingebiel T, et al. **Eur J Cancer** 1998 Aug;34(9):1398-402

Antibody-guided three-step therapy for high grade glioma with yttrium-90 biotin. Paganelli G, et al. **Eur J Nucl Med** 1999 Apr;26(4):348-57

A retrospective study on chemical and radioactive synovectomy in severe haemophilia patients with recurrent haemarthrosis. Molho P, et al. **Haemophilia** 1999 Mar; 5(2):115-23

Experiences with high dose radiopeptide therapy: the health physics perspective. Espenan GD, et al. **Health Phys** 1999 Mar;76(3):225-35

Anti-proliferative effect of radiolabelled octreotide in a metastases model in rat liver. Slooter GD, et al. **Int J Cancer** 1999 May 31;81(5):767-71

Comparison of calibration procedures for 192Ir high-dose-rate brachytherapy sources. Baltas D, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):653-61

High dose rate transperineal interstitial brachytherapy for cervical cancer: high pelvic control and low complication rates. Demanes DJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):105-12

Postoperative radiation of pterygium with 90Sr eye applicator. Fukushima S, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):597-600 (15 ref.)

Permanent 125iodine implants for recurrent malignant gliomas. Gaspar LE, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):977-82

Iridium-192 transperineal interstitial brachytherapy for locally advanced or recurrent gynecological malignancies. Gupta AK, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1055-60

Hepatic tumor radioembolization in a rat model using radioactive rhenium (186Re/188Re) glass microspheres. Häfeli UO, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):189-99

Radiotoxicity of systemically administered 211At-labeled human/mouse chimeric monoclonal antibody: a long-term survival study with histologic analysis. McLendon RE, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):491-9

125Iodine brachytherapy for colorectal adenocarcinoma recurrent in the pelvis and paraortics. Martinez-Monge R, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):545-50

Effect of metal reconstruction plates on cobalt-60 dose distribution: a predictive formula and clinical implications. Melian E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):725-30

Randomized trials on radioactive iodine ablation of thyroid remnants for thyroid carcinoma--a critique. Roos DE, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):493-5 (12 ref.)

A method for implementing the American Association of Physicists in Medicine Task Group-43 dosimetry recommendations for 125I transperineal prostate seed implants on commercial treatment planning systems: regarding Luse et al. IJROBP 37:737-741; 1997 [letter; comment] Rustgi SN. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):243. Comment on: Int J Radiat Oncol Biol Phys 1997 Feb 1;37(3):737-41.

Transperineal 125iodine implantation for treatment of clinically localized prostate cancer: 5-year tumor control and morbidity. Storey MR, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):565-70

A subgroup analysis of the Scripps Coronary Radiation to Inhibit Proliferation Poststenting Trial. Teirstein PS, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1097-104

Accelerated fractionated proton/photon irradiation to 90 cobalt gray equivalent for glioblastoma multiforme: results of a phase II prospective trial. Fitzek MM, et al. **J Neurosurg** 1999 Aug;91(2):251-60

Radiotherapy, toxicity and dosimetry of copper-64-TETA-octreotide in tumor-bearing rats. Anderson CJ, et al. **J Nucl Med** 1998 Nov;39(11):1944-51

Absolute organ activity estimated by five different methods of background correction. Buijs WC, et al. **J Nucl Med** 1998 Dec;39(12):2167-72

Response to treatment with yttrium 90-DOTA-lanreotide of a patient with metastatic gastrinoma. Leimer M, et al. **J Nucl Med** 1998 Dec;39(12):2090-4

Quantifying the radiation dosage to individual skeletal lesions treated with samarium-153-EDTMP. van Rensburg AJ, et al. **J Nucl Med** 1998 Dec;39(12):2110-5

Radiation safety when a patient dies after therapy. Bybel B, et al. **J Nucl Med Technol** 1998 Sep;26(3):206-7

The utility of technetium 99m pertechnetate scintigraphy in the evaluation of patients with Meckel's diverticulum. Swaniker F, et al. **J Pediatr Surg** 1999 May;34(5):760-4; discussion 765

Therapy and nuclear medicine. O'Doherty MJ. **J R Coll Physicians Lond** 1998 Nov-Dec;32(6):536-9 (15 ref.)

Neuroblastoma maturation by [(131)I] metaiodobenzylguanidine in chemoresistant neuroblastoma. Ben Arush MW, et al. **Med Pediatr Oncol** 1999 Oct; 33(4):418-9

131I MIBG therapy in neuroblastoma: mechanisms, rationale, and current status. Tepmongkol S, et al. **Med Pediatr Oncol** 1999 Jun;32(6):427-31; discussion 432 (63 ref.)

Radiolabelled somatostatins: towards the magic bullet? [editorial] Buscombe JR, et al. **Nucl Med Commun** 1999 Apr;20(4):299-301 (22 ref.)

Prospective 153Sm-EDTMP therapy dosimetry by whole-body scintigraphy. Cameron PJ, et al. **Nucl Med Commun** 1999 Jul;20(7):609-15

Rhenium-188 microspheres: a new radiation synovectomy agent. Wang SJ, et al. **Nucl Med Commun** 1998 May; 19(5):427-33

Radiation therapy, cisplatin and hyperthermia in combination in management of patients with carcinomas of the head and neck with N2 or N3 metastatic cervical lymph nodes. Serin M, et al. **Radiother Oncol** 1999 Jan;50(1):103-6

Chromosomal analysis of peripheral lymphocytes of patients before and after radiation synovectomy with samarium-153 particulate hydroxyapatite. O'Duffy EK, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):316-20

Guidelines for the use of radio-iodine, thyroid hormone, and treatment of metastatic disease in patients with differentiated thyroid cancer. Paloyan E, et al. **Surg Oncol Clin N Am** 1998 Oct;7(4):665-80 (37 ref.)

[Palliative treatment of bone metastases with bone-seeking radionuclides (see comments)] De Klerk JM, et al. **Ned Tijdschr Geneeskd** 1998 Nov 28;142(48):2618-22 (21 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 23;143(4):224. **(Dut)**

[Nuclear medicine goes therapy? (editorial)] Becker W. **Nuklearmedizin** 1999;38(2):3-5 **(Ger)**

TOXICITY

Problems associated with oligonucleotide radiotherapy [letter] Kairemo KJ, et al. **J Nucl Med** 1999 Sep;40(9):1582

Preclinical evaluation of radiopharmaceutical toxicological prerequisites. Marzin D. **Nucl Med Biol** 1998 Nov; 25(8):733-6 (10 ref.)

RADIOPROTECTIVE AGENTS see **RADIATION-PROTECTIVE AGENTS**

RADIORECEPTOR ASSAY see **RADIOLIGAND ASSAY**

RADIOSELENOMETHIONINE see **SELENOMETHIONINE**

RADIOSENSITIVITY see **RADIATION TOLERANCE**

RADIOSENSITIZING AGENTS see **RADIATION-SENSITIZING AGENTS**

RADIOSURGERY

Gamma-knife surgery for secreting pituitary adenomas. Morange-Ramos I, et al. **Acta Neurochir (Wien)** 1998; 140(5):437-43

Stereotactic radiosurgery for tentorial meningiomas. Muthukumar N, et al. **Acta Neurochir (Wien)** 1998; 140(4):315-20; discussion 320-1

Stereotactic radiosurgery--the role of charged particles. Levy RP, et al. **Acta Oncol** 1999;38(2):165-9 (21 ref.)

Management of choroidal melanomas with linear accelerator-based stereotactic radiosurgery. Leung SW, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):62-5

Noninvasive surgery for epilepsy: the era of image guidance [editorial; comment] Dillon WP, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):185. Comment on: AJNR Am J Neuroradiol 1999 Feb;20(2):213-6.

Successful radiosurgical treatment of arteriovenous malformation accompanied by venous malformation. Kurita H, et al. **AJNR Am J Neuroradiol** 1999 Mar; 20(3):482-5

The outcome of linear accelerator radiosurgery: is an early angiogram needed? [comment] McDermott MW. **AJNR Am J Neuroradiol** 1999 Mar;20(3):374. Comment on: AJNR Am J Neuroradiol 1999 Mar;20(3):475-81.

Radiosurgery of cerebral arteriovenous malformations: is an early angiogram needed? [see comments] Oppenheim C, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):475-81. Comment in: AJNR Am J Neuroradiol 1999 Mar;20(3):374.

Early and delayed MR and PET changes after selective temporomesial radiosurgery in mesial temporal lobe epilepsy [see comments] Regis J, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):213-6. Comment in: AJNR Am J Neuroradiol 1999 Feb;20(2):185.

Stereotactic Irradiation: potential new treatment method for brain metastases resulting from ovarian cancer. Corn BW, et al. **Am J Clin Oncol** 1999 Apr;22(2):143-6

Radiosurgery for the treatment of brain metastases in renal cell carcinoma. Becker G, et al. **Anticancer Res** 1999 Mar-Apr;19(2C):1611-7 (36 ref.)

Short-term neuropsychological outcome following Gamma Knife radiosurgery for arteriovenous malformations: a preliminary report. Blonder LX, et al. **Appl Neuropsychol** 1999;6(3):181-6

Gamma knife radiosurgery for trigeminal neuralgia: results and expectations. Kondziolka D, et al. **Arch Neurol** 1998 Dec;55(12):1524-9

Stereotactic radiosurgery for acoustic neuroma: a Canadian perspective [see comments] Ross IB, et al. **Can J Neurol Sci** 1998 Nov;25(4):310-4 (20 ref.). Comment in: Can J Neurol Sci 1999 May;26(2):154-5.

Stereotactic radiosurgery for brain metastasis from renal cell carcinoma [letter; comment] Nieder C. **Cancer** 1999 Jan 1;85(1):251-3. Comment on: Cancer 1998 Jul 15;83(2):344-53.

Role of radiosurgery in the management of central nervous system metastases. Loeffler JS, et al. **Cancer Chemother Pharmacol** 1999;43 Suppl:S11-4 (18 ref.)

Multimedia educational services in stereotactic radiotherapy. Bazioglou M, et al. **Cancer Radiother** 1999 May-Jun; 3(3):249-53

The case for radiosurgery. Alexander E 3rd, et al. **Clin Neurosurg** 1999;45:32-40 (53 ref.)

Radiosurgery versus surgery for arteriovenous malformations: the case for radiosurgery. Friedman WA. **Clin Neurosurg** 1999;45:18-20 (16 ref.)

Surgical or radiosurgical treatment for brain metastases? Opportunity lost, responsibility shirked. Haines SJ. **Clin Neurosurg** 1999;45:30-1

Controversies in neurosurgery: microsurgery versus radiosurgery for arteriovenous malformations--introduction. Nanda A. **Clin Neurosurg** 1999;45:11-2

Surgical treatment of brain metastases. Sawaya R. **Clin Neurosurg** 1999;45:41-7 (34 ref.)

Novel radiation technologies for malignant gliomas. Shafman TD, et al. **Curr Opin Oncol** 1999 May;11(3):147-51 (39 ref.)

Role of gamma knife therapy in the management of pituitary tumors. Jackson IM, et al. **Endocrinol Metab Clin North Am** 1999 Mar;28(1):133-42 (26 ref.)

Clinical applications of gamma-detection probes - radioguided surgery. Schneebaum S, et al. **Eur J Nucl Med** 1999 Apr;26(4 Suppl):S26-35 (68 ref.)

Reduction of hippocampal-kindled seizure activity in rats by stereotactic radiosurgery. Sun B, et al. **Exp Neurol** 1998 Dec;154(2):691-5

Observation versus early stereotactic radiotherapy of acoustic neuroma: what are you waiting for? [editorial; comment]

Flickinger JC. **Int J Radiat Oncol Biol Phys** 1999 Jun 1; 44(3):481–2. Comment on: Int J Radiat Oncol Biol Phys 1999 Jun 1;44(3):545–50.

Modeling late effects in hypofractionated stereotactic radiotherapy. Hoban PW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):199–210

Stereotactic radiosurgery plus whole brain radiotherapy versus radiotherapy alone for patients with multiple brain metastases [see comments] Kondziolka D, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):427–34. Comment in: Int J Radiat Oncol Biol Phys 1999 Sep 1;45(2):253–4.

Linear accelerator radiosurgery for nonacoustic schwannomas. Mabanta SR, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):545–8

Initial clinical results of LINAC-based stereotactic radiosurgery and stereotactic radiotherapy for pituitary adenomas. Mitsumori M, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):573–80

Five year results of LINAC radiosurgery for arteriovenous malformations: outcome for large AVMS. Miyawaki L, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15; 44(5):1089–106

Stereotactic radiosurgery for cerebral metastatic melanoma: factors affecting local disease control and survival. Mori Y, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1; 42(3):581–9

Linac radiosurgery for benign meningiomas. Shafron DH, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):321–7

Comparison between observation policy and fractionated stereotactic radiotherapy (SRT) as an initial management for vestibular schwannoma [see comments] Shirato H, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):545–50 . Comment in: Int J Radiat Oncol Biol Phys 1999 Jun 1;44(3):481–2.

Radiosurgery for brain metastases: is whole brain radiotherapy necessary? Sneed PK, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):549–58

Fractionated stereotactic radiotherapy of small intracranial malignancies. Tokuuye K, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):989–94

Assessment of neuropsychological changes in patients with arteriovenous malformation (AVM) after radiosurgery. Wenz F, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):995–9

Radiosurgery alone or in combination with whole-brain radiotherapy for brain metastases. Pirzkall A, et al. **J Clin Oncol** 1998 Nov;16(11):3563–9

Patient selection criteria for the treatment of brain metastases with stereotactic radiosurgery. Cho KH, et al. **J Neurooncol** 1998 Oct;40(1):73–86

Prognostic factor analysis for multiple brain metastases after gamma knife radiosurgery: results in 97 patients. Schoeggl A, et al. **J Neurooncol** 1999 Apr;42(2):169–75

Theoretical comparison of surgery and radiosurgery in cerebral arteriovenous malformations. Chang HS, et al. **J Neurosurg** 1999 Apr;90(4):709–19

Stereotactic radiosurgery for brainstem metastases. Huang CF, et al. **J Neurosurg** 1999 Oct;91(4):563–8

Long-term outcomes after meningioma radiosurgery: physician and patient perspectives. Kondziolka D, et al. **J Neurosurg** 1999 Jul;91(1):44–50

Radiosurgery in NF2 [letter] Matsuno A, et al. **J Neurosurg** 1999 Oct;91(4):714–5

Surgery and radiotherapy compared with gamma knife radiosurgery in the treatment of solitary cerebral metastases of small diameter. Muacevic A, et al. **J Neurosurg** 1999 Jul;91(1):35–43

Vestibular schwannoma management. Part I. Failed microsurgery and the role of delayed stereotactic radiosurgery. Pollock BE, et al. **J Neurosurg** 1998 Dec; 89(6):944–8

Vestibular schwannoma management. Part II. Failed radiosurgery and the role of delayed microsurgery. Pollock BE, et al. **J Neurosurg** 1998 Dec;89(6):949–55

Treatment of patients with primary glioblastoma multiforme with standard postoperative radiotherapy and radiosurgical boost: prognostic factors and long-term outcome. Shrieve DC, et al. **J Neurosurg** 1999 Jan;90(1):72–7

Stereotactic radiosurgery in the management of acoustic neuromas associated with neurofibromatosis Type 2. Subach BR, et al. **J Neurosurg** 1999 May;90(5):815–22

Hyperacute changes in glucose metabolism of brain tumors after stereotactic radiosurgery: a PET study. Maruyama I, et al. **J Nucl Med** 1999 Jul;40(7):1085–90

Percutaneous stereotactic differential radiofrequency thermal rhizotomy for the treatment of trigeminal neuralgia. Scrivani SJ, et al. **J Oral Maxillofac Surg** 1999 Feb; 57(2):104–11; discussion 111–2

Radiosurgery as a future part of neurosurgery [editorial; comment] Lunsford LD. **Mayo Clin Proc** 1999 Jan; 74(1):101–3. Comment on: Mayo Clin Proc 1999 Jan;74(1):5–13.

The Mayo Clinic gamma knife experience: indications and initial results [see comments] Pollock BE, et al. **Mayo Clin Proc** 1999 Jan;74(1):5–13. Comment in: Mayo Clin Proc 1999 Jan;74(1):101–3.

Images and image: technology and the social politics of revealing disorder in a North American hospital. Simon CM. **Med Anthropol Q** 1999 Jun;13(2):141–62

Do we need Monte Carlo treatment planning for linac based radiosurgery? A case study. Ayyangar KM, et al. **Med Dosim** 1998 Fall;23(3):161–8

Linac radiosurgery at the Joint Center for Radiation Therapy. Bellerive MR, et al. **Med Dosim** 1998 Fall; 23(3):187–99

The radiobiology of radiosurgery and stereotactic radiotherapy. Buatti JM, et al. **Med Dosim** 1998 Fall; 23(3):201–7

Small photon field dosimetry for stereotactic radiosurgery. Duggan DM, et al. **Med Dosim** 1998 Fall;23(3):153–9 (50 ref.)

Beam shaping for SRT/SRS. Leavitt DD. **Med Dosim** 1998 Fall;23(3):229–36

Treatment planning of stereotactic convergent gamma-ray irradiation using Co-60 sources. Maitz AH, et al. **Med Dosim** 1998 Fall;23(3):169–75

Linac scalpel radiosurgery at the University of Florida. Meeks SL, et al. **Med Dosim** 1998 Fall;23(3):177–85

Image processing in stereotactic planning: volume visualization and image registration. Pelizzari CA. **Med Dosim** 1998 Fall;23(3):137–45 (39 ref.)

Quality assurance in linac-based stereotactic radiosurgery and radiotherapy. Rosenzweig DP, et al. **Med Dosim** 1998 Fall;23(3):147–51

The importance of computed tomography slice thickness in radiographic patient positioning for radiosurgery. Murphy MJ. **Med Phys** 1999 Feb;26(2):171–5

On absorbed dose in narrow 60Co gamma-ray beams and dosimetry of the gamma knife. Nizin PS. **Med Phys** 1998 Dec;25(12):2347–51

Meningioma followed up for radiological findings before and after radiosurgery: case report. Kuroiwa T, et al. **Minim Invasive Neurosurg** 1999 Mar;42(1):44–6

Long-term outcomes after radiosurgery for acoustic neuromas [see comments] Kondziolka D, et al. **N Engl J Med** 1998 Nov 12;339(20):1426–33. Comment in: N Engl J Med 1998 Nov 12;339(20):1471–3. Comment in: N Engl J Med 1999 Apr 8;340(14):1119; discussion 1120–1. Comment in: N Engl J Med 1999 Apr 8;340(14):1119–20; discussion 1120–1. Comment in: N Engl J Med 1999 Apr 8;340(14):1120–1.

Treatment of acoustic neuromas [editorial; comment] Pitts LH, et al. **N Engl J Med** 1998 Nov 12;339(20):1471–3. Comment on: N Engl J Med 1998 Nov 12;339(20):1426–33.

Microsurgical resection of incompletely obliterated intracranial arteriovenous malformations following stereotactic radiosurgery. Chang SD, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38 Suppl:200–7

Cerebral cavernous malformations: serial magnetic resonance imaging findings in patients with and without gamma knife surgery. Yoon PH, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38 Suppl:255–61

Endovascular therapy of brain AVMs prior to radiosurgery. Henkes H, et al. **Neurol Res** 1998 Sep;20(6):479–92 (29 ref.)

Presumed intraventricular meningioma treated by embolisation and the gamma knife. Terada T, et al. **Neuroradiology** 1999 May;41(5):334–7

Stereotactic radiosurgery of angiographically occult vascular malformations: 14-year experience. Chang SD, et al. **Neurosurgery** 1998 Aug;43(2):213–20; discussion 220–1

Expression and changes of Fos protein in the rat forebrain after gamma knife irradiation targeted to the caudate putamen. Duan XQ, et al. **Neurosurgery** 1999 Jul; 45(1):139–45; discussion 145–6

Staged volume radiosurgery followed by microsurgical resection: a novel treatment for giant cerebral arteriovenous malformations: technical case report. Firlik AD, et al. **Neurosurgery** 1998 Nov;43(5):1223–8

Stereotactic radiosurgery for trigeminal schwannomas. Huang CF, et al. **Neurosurgery** 1999 Jul;45(1):11–6; discussion 16

Computed tomography-guided trigeminal tractotomy-nucleotomy in the management of vagoglossopharyngeal and geniculate neuralgias. Kanpolat Y, et al. **Neurosurgery** 1998 Sep;43(3):484–9; discussion 490

Judicious resection and/or radiosurgery for parasagittal meningiomas: outcomes from a multicenter review. Gamma Knife Meningioma Study Group. Kondziolka D, et al. **Neurosurgery** 1998 Sep;43(3):405–13; discussion 413–4

Gamma knife radiosurgery for metastatic melanoma: an analysis of survival, outcome, and complications. Lavine SD, et al. **Neurosurgery** 1999 Jan;44(1):59–64; discussion 64–6

Corpus callosotomy with radiosurgery. Pendl G, et al. **Neurosurgery** 1999 Aug;45(2):303–7; discussion 307–8

Stereotactic radiosurgery for cavernous malformations: Kjellberg's experience with proton beam therapy in 98 cases at the Harvard Cyclotron [letter; comment] Porter RW, et al. **Neurosurgery** 1999 Feb;44(2):424–5. Comment on: Neurosurgery 1998 Jun;42(6):1229–36; discussion 1236–8.

Pallidotomy lesion locations: significance of microelectrode refinement. Tsao K, et al. **Neurosurgery** 1998 Sep; 43(3):506–12; discussion 512–3

Treatment of posterior skull base tumors. Lin C, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):316–9

Lobular carcinoma in situ of the breast: results of a radiosurgical conservative treatment. Cutuli B, et al. **Oncol Rep** 1998 Nov-Dec;5(6):1531–3

A spherical dose model for radiosurgery plan optimization. Cho PS, et al. **Phys Med Biol** 1998 Oct;43(10):3145–8

Dose perturbation caused by high-density inhomogeneities in small beams in stereotactic radiosurgery. Rustgi SN, et al. **Phys Med Biol** 1998 Dec;43(12):3509–18

Monte Carlo dosimetry study of a 6 MV stereotactic radiosurgery unit. Verhaegen F, et al. **Phys Med Biol** 1998 Oct;43(10):2755–68

Stereotactic radiosurgical pallidotomy and thalamotomy with the gamma knife: MR imaging findings with clinical correlation--preliminary experience. Friedman DP, et al. **Radiology** 1999 Jul;212(1):143–50

MR imaging response of brain metastases after gamma knife stereotactic radiosurgery. Peterson AM, et al. **Radiology** 1999 Jun;211(3):807–14

Incidence of tumours suitable for radiosurgery in a developing country like Malaysia: retrospective study done before the decision to start a radiosurgery programme. Abdullah J, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):152–5

LINAC radiosurgery for cavernous sinus meningiomas. Chang SD, et al. **Stereotact Funct Neurosurg** 1998; 71(1):43–50

The effect of LINAC stereotactic radiosurgery on epilepsy associated with arteriovenous malformations. Eisenschenk S, et al. **Stereotact Funct Neurosurg** 1998;71(2):51–61

Black holes, white dwarfs and supernovas: imaging after radiosurgery. Lunsford LD, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:2–10

Parenchymal changes after radiosurgery of cerebral arteriovenous malformations. Preliminary report of a proposed classification. Nataf F, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):143–6

The role of Linac radiosurgery in multidisciplinary management for cerebral arteriovenous malformations: personal experience. Pelissou-Guyotat I, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):147–51

Radiosurgery in lesional epilepsy: brain tumors. Schröttner O, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:50–6

Angiographic follow-up in 37 patients after radiosurgery for cerebral arteriovenous malformations as part of a multimodality treatment approach. Smith KA, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):136–42

Radiosurgical treatment of meningiomas. Zamorano L, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):156–61

Stereotactic radiosurgery for jugular foramen schwannomas. Muthukumar N, et al. **Surg Neurol** 1999 Aug;52(2):172–9

Stereotactic radiosurgery for anterior foramen magnum meningiomas. Muthukumar N, et al. **Surg Neurol** 1999 Mar; 51(3):268–73

[Therapy for intracranial lesions by gamma knife] Hou Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):347–50 (Eng. Abstr.) **(Chi)**

[Gamma knife treatment of brain metastatic tumors] Ma Z, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(1):63–5 (Eng. Abstr.) **(Chi)**

[Extracerebral stereotactic radiotherapy--a new therapeutic principle] von der Maase H, et al. **Ugeskr Laeger** 1999 May 17;161(20):2957 **(Dan)**

[The treatment of intracranial arteriovenous malformations] Hernesniemi J. **Duodecim** 1995;111(21):2039–46 (39 ref.) **(Fin)**

[Comments on the use of the gamma-knife in neurosurgery (letter)] Horváth L, et al. **Orv Hetil** 1999 Jul 4; 140(27):1552–6 **(Hun)**

[Neurosurgery using the Gamma Knife] Várady P, et al. **Orv Hetil** 1999 Feb 14;140(7):331–45 (Eng. Abstr.) **(Hun)**

[Gamma-knife radiosurgery for metastatic brain tumors from primary lung cancer] Uchiyama B, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jun;36(6):503–8 (Eng. Abstr.) **(Jpn)**

[Linac-based stereotactic radiosurgery for arteriovenous malformations (AVMs) in brain: estimation for efficacy of therapeutic response using angiography] Nakanishi A, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 Mar; 59(4):137–42 (Eng. Abstr.) **(Jpn)**

[Prognostic factors for hearing preservation following observation-only versus stereotactic irradiation (STI) in patients with acoustic neuroma] Sakamoto T. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Oct;101(10):1250–9 (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Late complication of radiosurgery of AVMs with the gamma knife: a case report. Radanowicz-Harttmann V, et al. **Acta Neurochir (Wien)** 1998;140(2):194–5

Venous air embolism during Parkinson surgery in patients with spontaneous ventilation. Suarez S, et al. **Anesth Analg** 1999 Apr;88(4):793–4

A multi-institutional analysis of complication outcomes after arteriovenous malformation radiosurgery. Flickinger JC, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):67–74

Radiographic findings and morbidity in patients treated with stereotactic radiosurgery. Gelblum DY, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):391–5

Beneficial effects of the radioprotectant 21-aminosteroid U-74389G in a radiosurgery rat malignant glioma model. Kondziolka D, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):179–84

Immediate side effects of stereotactic radiotherapy and radiosurgery. Werner-Wasik M, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):299–304

Risk of injury to cranial nerves after gamma knife radiosurgery for skull base meningiomas: experience in 88

patients. Morita A, et al. **J Neurosurg** 1999 Jan;90(1):42-9

Management of acoustic neuroma [letter; comment] O'Donoghue GM, et al. **N Engl J Med** 1999 Apr 8; 340(14):1120-1. Comment on: N Engl J Med 1998 Nov 12;339(20):1426-33.

Dose-related effects of single focal irradiation in the medial temporal lobe structures in rats--magnetic resonance imaging and histological study. Ishikawa S, et al. **Neurol Med Chir (Tokyo)** 1999 Jan;39(1):1-7

Imaging changes after radiosurgery for vascular malformations, functional targets, and tumors. Kihlström L, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):167-80 (45 ref.)

Gamma knife radiosurgery for large volume brain tumors: an analysis of acute and chronic toxicity. Linzer D, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:11-8

Long-term complications following gamma knife radiosurgery of vestibular schwannomas. Norén G. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:65-73

Stereotactic radiosurgery toxicity in the treatment of intracanalicular acoustic neuromas: the Seattle Northwest gamma knife experience. Vermeulen S, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:80-7

[An ill tongue...] Disdier P, et al. **Rev Med Interne** 1998;19 Suppl 2:318s-319s **(Fre)**

ECONOMICS

The costs of radiosurgical treatment: comparison between gamma knife and linear accelerator. Königsmaier H, et al. **Acta Neurochir (Wien)** 1998;140(11):1101-10; discussion 1110-1

INSTRUMENTATION

Experimental arterial lesions after narrow-beam gamma irradiation used in stereotactic radiosurgery. Joanes V, et al. **Acta Neurochir (Wien)** 1998;140(10):1077-81

Gamma-knife radiosurgery for brain metastases of renal cell carcinoma: results in 23 patients. Schöggl A, et al. **Acta Neurochir (Wien)** 1998;140(6):549-55

Stereotactic radiosurgery for acoustic neuroma: a Canadian perspective [letter; comment] de Lotbinière AC. **Can J Neurol Sci** 1999 May;26(2):154-5. Comment on: Can J Neurol Sci 1998 Nov;25(4):310-4.

Radiofrequency pulmonary valvotomy using a new 2-French catheter [see comments] Park IS, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):37-42. Comment in: Cathet Cardiovasc Diagn 1998 Sep;45(1):43-4.

Gamma knife radiosurgery in cerebral echinococcosis [letter; comment] Schnider P. **Clin Infect Dis** 1999 Feb;28(2):409 . Comment on: Clin Infect Dis 1998 Jun;26(6):1379-82.

Optical high-precision three-dimensional position measurement system suitable for head motion tracking in frameless stereotactic radiosurgery. Kai J, et al. **Comput Aided Surg** 1998;3(5):257-63

Physics of rotating gamma systems for stereotactic radiosurgery. Goetsch SJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):689-96

Impact of collimator leaf width on stereotactic radiosurgery and 3D conformal radiotherapy treatment plans. Kubo HD, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):937-45

A reduction in the AAPM TG-36 reported peripheral dose distributions with tertiary multileaf collimation. American Association of Physicists in Medicine Task Group 36. Mutic S, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1; 44(4):947-53

Clinical commissioning of Laitinen Stereoadapter for fractionated stereotactic radiotherapy. Weidlich GA, et al. **Med Dosim** 1998 Winter;23(4):302-6

The Brain Bench: virtual tools for stereotactic frame neurosurgery. Serra L, et al. **Med Image Anal** 1997 Sep; 1(4):317-29 (28 ref.)

Monte Carlo calculations and GafChromic film measurements for plugged collimator helmets of Leksell Gamma Knife unit. Cheung JY, et al. **Med Phys** 1999 Jul; 26(7):1252-6

Megavoltage imaging with low Z targets: implementation and characterization of an investigational system. Ostapiak OZ, et al. **Med Phys** 1998 Oct;25(10):1910-8

Viability of an isocentric cobalt-60 teletherapy unit for stereotactic radiosurgery. Poffenbarger BA, et al. **Med Phys** 1998 Oct;25(10):1935-43

Three-dimensional optimization of treatment planning for gamma unit treatment system. Shu H, et al. **Med Phys** 1998 Dec;25(12):2352-7

Clinical experience with image-guided robotic radiosurgery (the Cyberknife) in the treatment of brain and spinal cord tumors. Chang SD, et al. **Neurol Med Chir (Tokyo)** 1998 Nov;38(11):780-3

Lesion topography and outcome after thermocapsulotomy or gamma knife capsulotomy for obsessive-compulsive disorder: relevance of the right hemisphere. Lippitz BE, et al. **Neurosurgery** 1999 Mar;44(3):452-8; discussion 458-60

Assessment of new small-field detectors against standard-field detectors for practical stereotactic beam data acquisition. McKerracher C, et al. **Phys Med Biol** 1999 Sep;44(9):2143-60

Simulation of dose distribution irradiation by the Leksell Gamma Unit. Xiaowei L, et al. **Phys Med Biol** 1999 Feb; 44(2):441-5

Daily positioning accuracy of frameless stereotactic radiation therapy with a fusion of computed tomography and linear accelerator (focal) unit: evaluation of z-axis with a z-marker. Uematsu M, et al. **Radiother Oncol** 1999 Mar; 50(3):337-9

Drainage of subretinal fluid with a radiosurgical instrument: a preliminary report. Gallenga PE, et al. **Retina** 1998; 18(6):555-7

The Cyberknife: a frameless robotic system for radiosurgery. Adler JR Jr, et al. **Stereotact Funct Neurosurg** 1997;69(1-4 Pt 2):124-8

Effect of gamma knife radiosurgery on rat brain sodium channel subunit mRNA expression. Bartolomei F, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:237-42

'Tweaked' GammaPlan for target volume measurement in non-fiducial based images: a simple routine for follow-up assessment. Cheung JY, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:243-8

Protection of visual pathway in gamma knife radiosurgery for craniopharyngiomas. Chung WY, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:139-51

Apoptosis following gamma knife radiosurgery in a case of acoustic schwannoma. Fukuoka S, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:88-94

Gamma knife radiosurgery as the first surgery for trigeminal neuralgia. Kondziolka D, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:187-91

Gamma knife treatment of acoustic neurinoma. Kwon Y, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:57-64

Four years' experiences in the treatment of pituitary adenomas with gamma knife radiosurgery. Lim YL, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:95-109

Gamma knife radiosurgery for large volume brain tumors: an analysis of acute and chronic toxicity. Linzer D, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:11-8

Leksell gamma knife radiosurgery of the tumor glomus jugulare and tympanicum. Liščák R, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:152-60

Black holes, white dwarfs and supernovas: imaging after radiosurgery. Lunsford LD, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:2-10

Pituitary tumors and gamma knife surgery. Clinical experience with more than two years of follow-up. Martinez R, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:110-8

Short-term endocrinological results after gamma knife surgery of pituitary adenomas. Morange-Ramos I, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:127-38

Long-term complications following gamma knife radiosurgery of vestibular schwannomas. Norén G. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:65-73

The effectiveness and factors related to treatment results of gamma knife radiosurgery for meningiomas. Pan DH, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:19-32

Pituitary adenomas: the effect of gamma knife radiosurgery on tumor growth and endocrinopathies. Pan L, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:119-26

Gamma knife radiosurgery for hemangioblastomas. Pan L, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:179-86

Cavernous sinus meningiomas--what is the strategy: upfront or adjuvant gamma knife surgery? Pendl G, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:33-40

Effect of gamma knife on secondary trigeminal neuralgia. Régis J, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:210-7

Preservation of hearing in acoustic neuromas treated by gamma knife surgery. Thomassin JM, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:74-9

Gamma knife treatment of trigeminal neuralgia: clinical and electrophysiological study. Urgošik D, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:200-9

Stereotactic radiosurgery toxicity in the treatment of intracanalicular acoustic neuromas: the Seattle Northwest gamma knife experience. Vermeulen S, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:80-7

Late cyst convolution after gamma knife radiosurgery for cerebral arteriovenous malformations. Yamamoto M, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:166-78

Dose volume histogram analysis of the gamma knife radiosurgery treating twenty-five metastatic intracranial tumors. Yang CC, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:41-9

Pallidotomy with the gamma knife: a positive experience. Young RF, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:218-28

Gamma knife radiosurgery for the treatment of trigeminal neuralgia. Young RF, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:192-9

Treatment of carcinoma of the hard palate with gamma knife radiosurgery. Zhao HY, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:161-5

Gamma knife surgery for skull base meningiomas. The effectiveness of low-dose treatment. Iwai Y, et al. **Surg Neurol** 1999 Jul;52(1):40-4; discussion 44-5

[First experiences with computer-assisted frameless stereotactic interstitial brachytherapy (CASIB)] Bale RJ, et al. **Strahlenther Onkol** 1998 Sep;174(9):473-7 (Eng. Abstr.) **(Ger)**

[Pilot experience with radio-knife "Surgitron"] Lapchenko AS, et al. **Vestn Otorinolaringol** 1999;(4):42-3 (Eng. Abstr.) **(Rus)**

METHODS

Gamma knife radiosurgery of meningiomas in the cavernous sinus region. Liščák R, et al. **Acta Neurochir (Wien)** 1999; 141(5):473-80

Study of ill-conditioning of Linac stereotactic irradiation subspaces using singular values decomposition analysis. Platoni K, et al. **Acta Oncol** 1999;38(5):581-90

Microsurgical removal of a vestibular schwannoma after stereotactic radiosurgery: surgical and pathologic findings. Schulder M, et al. **Am J Otol** 1999 May;20(3):364-7; discussion 368

Radiosurgery for brain tumours. Editorial was wrong to denigrate radiosurgery so strongly [letter; comment] Adams CB. **BMJ** 1999 May 29;318(7196):1489-90. Comment on: BMJ 1999 Feb 13;318(7181):411-2.

Radiosurgery for brain tumours [editorial] [see comments] Brada M, et al. **BMJ** 1999 Feb 13;318(7181):411-2. Comment in: BMJ 1999 May 29;318(7196):1489-90. Comment in: BMJ 1999 May 29;318(7196):1490.

Radiosurgery for brain tumours. Not all practitioners of this technique can have succumbed to marketing [letter; comment] Ganz JC. **BMJ** 1999 May 29;318(7196):1490. Comment on: BMJ 1999 Feb 13;318(7181):411-2.

Radiosurgery for brain tumours [letter] Loeffler JS, et al. **BMJ** 1999 Aug 7;319(7206):383

Stereotactic radiosurgery. VI. Posterior displacement of the brainstem facilitates safer high dose radiosurgery for clival chordoma. Crockard A, et al. **Br J Neurosurg** 1999 Feb; 13(1):65-70

Proximal aneurysms in association with arteriovenous malformations: do they resolve following obliteration of the malformation with stereotactic radiosurgery? Hodgson TJ, et al. **Br J Neurosurg** 1998 Oct;12(5):434-7

Comparison of radioguided excision with wire localization of occult breast lesions. Luini A, et al. **Br J Surg** 1999 Apr;86(4):522-5

Radiosurgery without whole brain radiotherapy in melanoma brain metastases. Club de Cancérologie Cutanée. Grob JJ, et al. **Eur J Cancer** 1998 Jul;34(8):1187-92

Preliminary experience with frameless stereotactic radiotherapy. Buatti JM, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):591-9

A comparison of three stereotactic radiotherapy techniques; ARCS vs. noncoplanar fixed fields vs. intensity modulation. Cardinale RM, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):431-6

Determining the optimal block margin on the planning target volume for extracranial stereotactic radiotherapy. Cardinale RM, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):515-20

A phase I dose escalation study of hypofractionated stereotactic radiotherapy as salvage therapy for persistent or recurrent malignant glioma. Hudes RS, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):293-8

Can the probability for obliteration after radiosurgery for arteriovenous malformations be accurately predicted? Karlsson B, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):313-9

Comparison of intensity-modulated tomotherapy with stereotactically guided conformal radiotherapy for brain tumors. Khoo VS, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):415-25

A new tool for dose conformity evaluation of radiosurgery treatment plans. Leung LH, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):233-41

Noninvasive patient fixation for extracranial stereotactic radiotherapy. Lohr F, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):521-7

Decrease in cranial nerve complications after radiosurgery for acoustic neuromas: a prospective study of dose and volume. Miller RC, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):305-11

Optimization of stereotactically-guided conformal treatment planning of sellar and parasellar tumors, based on normal brain dose volume histograms. Perks JR, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):507-13

A comparison of 3-D data correlation methods for fractionated stereotactic radiotherapy. Yang CC, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):663-70

Survival following alpha particle pituitary irradiation for diabetic retinopathy. Klein BE, et al. **J Diabetes Complications** 1998 Sep-Oct;12(5):246-51

The treatment planning of segmental, conformal stereotactic radiosurgery utilizing a standard multileaf collimator. Archer PG, et al. **Med Dosim** 1999 Spring;24(1):13-9

Optic-guided stereotactic radiotherapy. Bova FJ, et al. **Med Dosim** 1998 Fall;23(3):221-8

Fractionated stereotactic radiotherapy: rationale and methods. Solberg TD, et al. **Med Dosim** 1998 Fall; 23(3):209-19 (69 ref.)

Trimmed radiosurgical fields. Wierzbicki W, et al. **Med Dosim** 1999 Summer;24(2):129-33

Monte Carlo calculation of single-beam dose profiles used in a gamma knife treatment planning system. Cheung JY, et al. **Med Phys** 1998 Sep;25(9):1673-5

Monte Carlo calculations and GafChromic film measurements for plugged collimator helmets of Leksell Gamma Knife unit. Cheung JY, et al. **Med Phys** 1999 Jul; 26(7):1252-6

Inverse radiosurgery treatment planning through deconvolution and constrained optimization. Harmon JF Jr, et al. **Med Phys** 1998 Oct;25(10):1850-7

RADIOSURGERY

A simple and accurate coordinate transformation for a stereotactic radiotherapy system. Li S, et al. **Med Phys** 1999 Apr;26(4):518–23

Management of acoustic neuroma [letter; comment] Lederman G, et al. **N Engl J Med** 1999 Apr 8; 340(14):1119–20; discussion 1120–1. Comment on: N Engl J Med 1998 Nov 12;339(20):1426–33.

Stereotactic radiosurgery for cavernous sinus cavernous hemangioma--case report. Iwai Y, et al. **Neurol Med Chir (Tokyo)** 1999 Apr;39(4):288–90

Comprehensive management of arteriovenous malformations. de Oliveira E, et al. **Neurol Res** 1998 Dec;20(8):673–83 (1 ref.)

The role of radiosurgery for glial neoplasms. Alexander E 3rd, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):351–8 (66 ref.)

Radiosurgery for brain metastases. Boyd TS, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):337–50 (53 ref.)

Dose selection in stereotactic radiosurgery. Flickinger JC, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):271–80 (25 ref.)

Linear accelerator radiosurgery in brain tumor management. Foote KD, et al. **Neurosurg Clin N Am** 1999 Apr; 10(2):203–42 (175 ref.)

Stereotactic proton radiosurgery. Harsh G, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):243–56

Radiosurgery of angiographically occult vascular malformations. Kida Y, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):291–303 (25 ref.)

Stereotactic radiosurgery for meningiomas. Kondziolka D, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):317–25 (21 ref.)

The radiobiology of radiosurgery. Kondziolka D, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):157–66 (48 ref.)

Radiosurgery for pituitary tumors and craniopharyngiomas. Laws ER Jr, et al. **Neurosurg Clin N Am** 1999 Apr; 10(2):327–36 (61 ref.)

Stereotactic radiosurgery for arteriovenous malformations. Pollock BE. **Neurosurg Clin N Am** 1999 Apr;10(2):281–90 (34 ref.)

Extracranial stereotactic radiosurgery: applications for the spine and beyond. Takacs I, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):257–70 (54 ref.)

Gamma Knife radiosurgery: technology, applications, and future directions. Yamamoto M. **Neurosurg Clin N Am** 1999 Apr;10(2):181–202 (160 ref.)

Assessment of new small-field detectors against standard-field detectors for practical stereotactic beam data acquisition. McKerracher C, et al. **Phys Med Biol** 1999 Sep;44(9):2143–60

Dosimetry of Gamma Knife and linac-based radiosurgery using radiochromic and diode detectors. Somigliana A, et al. **Phys Med Biol** 1999 Apr;44(4):887–97

An improved technique for comparing Gamma Knife dose-volume distributions in stereotactic radiosurgery. Tozer-Loft SM, et al. **Phys Med Biol** 1999 Aug; 44(8):1905–19

Commissioning of a micro multi-leaf collimator and planning system for stereotactic radiosurgery. Cosgrove VP, et al. **Radiother Oncol** 1999 Mar;50(3):325–36

Monte Carlo treatment planning for stereotactic radiosurgery. Solberg TD, et al. **Radiother Oncol** 1998 Oct; 49(1):73–84

Stereotactic radiosurgery with linear accelerator. Calvo FA, et al. **Rays** 1998 Jul-Sep;23(3):462–85 **(Eng, Ita)**

Multiple fractionated stereotactic radiotherapy of residual pituitary macroadenomas: initial experience. Coke C, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):183–90

Recurrent glioblastoma multiforme: potential benefits using fractionated stereotactic radiotherapy and concurrent taxol. Lederman G, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):162–74

Acoustic neuroma: potential benefits of fractionated stereotactic radiosurgery. Lederman G, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):175–82

An algorithm for the empirical determination of intracranial stereotactic targets. Ott K. **Stereotact Funct Neurosurg** 1998;71(1):29–35

[Stereotactic radiosurgery with adjusted linear accelerator for cerebral arteriovenous malformations: preliminary results in the Netherlands] Wolbers JG, et al. **Ned Tijdschr Geneeskd** 1999 Jun 5;143(23):1215–21 (Eng. Abstr.) **(Dut)**

[Stereotactic radiotherapy of central nervous system tumors] Jääskeläinen J, et al. **Duodecim** 1995;111(21):2028–37 (20 ref.) **(Fin)**

[First treatment for brain metastases by stereotactic radiosurgery] Feuvret L, et al. **Bull Cancer** 1999 Jul-Aug; 86(7–8):666–72 (Eng. Abstr.) **(Fre)**

[The place of radiosurgery in the treatment of hypophyseal adenoma] Nataf F, et al. **Neurochirurgie** 1998 Dec; 44(5):339–43 (21 ref.) (Eng. Abstr.) **(Fre)**

[Stereotactic one-time irradiation (radiosurgery). The methods, indications and results] Debus J, et al. **Strahlenther Onkol** 1999 Feb;175(2):47–56 (66 ref.) (Eng. Abstr.) **(Ger)**

[The gamma-knife in stereotaxic surgery. A new era in brain surgery] Szeifert G, et al. **Orv Hetil** 1998 Nov 1; 139(44):2627–32 (Eng. Abstr.) **(Hun)**

[Schedule of stereotactic radiotherapy: a study considering the factors of repair and cell proliferation] Shigematsu N, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):516–20 (Eng. Abstr.) **(Jpn)**

[Two cases of facial neurinoma successfully treated with gamma knife radiosurgery] Hasegawa T, et al. **No Shinkei Geka** 1999 Feb;27(2):171–5 (Eng. Abstr.) **(Jpn)**

Noval radiosurgical technique of cuts and hemostasis in otorhinolaryngology] Pogosov VS, et al. **Vestn Otorinolaringol** 1999;(4):40–1 (6 ref.) (Eng. Abstr.) **(Rus)**

STANDARDS

Geometric accuracy of field alignment in fractionated stereotactic conformal radiotherapy of brain tumors. Kortmann RD, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):921–6

Quality assurance for the Leksell gamma unit: considering magnetic resonance image-distortion and delineation failure in the targeting of the internal auditory canal. Ertl A, et al. **Med Phys** 1999 Feb;26(2):166–70

The treatment of movement disorders using Gamma Knife stereotactic radiosurgery. Duma CM, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):379–89 (41 ref.)

Can hearing improve after acoustic tumor radiosurgery? Niranjan A, et al. **Neurosurg Clin N Am** 1999 Apr; 10(2):305–15 (27 ref.)

Radiosurgery for trigeminal neuralgia and epilepsy. Régis J, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):359–77 (86 ref.)

Comparison of actual pallidotomy lesion location with expected stereotactic location. Tsao K, et al. **Stereotact Funct Neurosurg** 1998;71(1):1–19

A quality assurance program in stereotactic radiosurgery using the Gamma Knife unit. Stuecklschweiger GF, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:43–6

TRENDS

Functional radiosurgery. Kondziolka D. **Neurosurgery** 1999 Jan;44(1):12–20; discussion 20–2 (48 ref.)

Vestibular schwannoma management in the next century: a radiosurgical perspective. Pollock BE, et al. **Neurosurgery** 1998 Sep;43(3):475–81; discussion 481–3 (48 ref.)

RADIOTHERAPY

When to consider radiation therapy for your patient. Tisdale BA. **Am Fam Physician** 1999 Mar 1;59(5):1177–84 (24 ref.)

Energy and applicator size and shape used in over 800 intraoperative electron beam therapy fields. Thomas CR Jr, et al. **Am J Clin Oncol** 1999 Apr;22(2):147–9

Biocompatible magnetic polymer carriers for in vivo radionuclide delivery. Schütt W, et al. **Artif Organs** 1999 Jan;23(1):98–103

Intracoronary radiation for prevention of restenosis: dose perturbations caused by stents. Amols HI, et al. **Circulation** 1998 Nov 10;98(19):2024–9

Radionuclides and radiopharmaceuticals for single-photon emission tomography, positron emission tomography and radiotherapy in Russia. Krasikova RN, et al. **Eur J Nucl Med** 1999 Jul;26(7):774–88 (125 ref.)

Risk of self-expanding metal stents in patients with prior radiation or chemotherapy [letter; comment] Nelson D, et al. **Gastrointest Endosc** 1999 Jan;49(1):137–9. Comment on: Gastrointest Endosc 1998 Feb;47(2):113–20.

Molecular analyses of adaptive survival responses (ASRs): role of ASRs in radiotherapy. Boothman DA, et al. **Hum Exp Toxicol** 1998 Aug;17(8):448–53

Effect of simultaneous pulsed hyperthermia and pulsed radiation treatment on survival of SiHa cells. Kim CS, et al. **Int J Hyperthermia** 1998 Nov-Dec;14(6):573–81

Quantification of the steepness of the dose response relation [letter; comment] Brahme A, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):243–5. Comment on: Int J Radiat Oncol Biol Phys 1998 Sep 1;42(2):463.

Radiation safety when a patient dies after therapy. Bybel B, et al. **J Nucl Med Technol** 1998 Sep;26(3):206–7

Enhanced tumor targeting by an intratumoral injection of colloidal chromic 32P in two human tumors (AsPC-1 pancreas and Ls174T colon) in nude mice. Lee I. **J Surg Oncol** 1999 Mar;70(3):161–6

Radionuclide therapy. Chatal JF, et al. **Lancet** 1999 Sep 11; 354(9182):931–5 (21 ref.)

A method of beam-couch intersection detection. Muthuswamy MS. **Med Phys** 1999 Feb;26(2):229–35

Comparing two methods for calculating phantom scatter. McDonough J, et al. **Phys Med Biol** 1999 Feb;44(2):N9–14

A dosimetric intercomparison of kilovoltage X-rays, megavoltage photons and electrons in the Republic of Ireland. Nisbet A, et al. **Radiother Oncol** 1998 Jul; 48(1):95–101

The effect of melatonin on lipid peroxidation during radiotherapy in female rats. Kaya H, et al. **Strahlenther Onkol** 1999 Jun;175(6):285–8

[4th German Congress on Radiation Oncology, Radiobiology and Physical Medicine. Nurenberg, 7–10, November 1998. Abstracts] **Strahlenther Onkol** 1998 Nov;174 Spec No 1:1–134 **(Ger)**

[1st German Congress on Radiation Oncology, Radiobiology, and Physical Medicine. Baden-Baden, 18–21 November 1995. Abstracts] **Strahlenther Onkol** 1995 Nov;171 Suppl 1:1–98 **(Ger)**

[Radiotherapy of the elderly patient. Radiotherapy tolerance and results in older patients] Geinitz H, et al. **Strahlenther Onkol** 1999 Mar;175(3):119–27 (46 ref.) (Eng. Abstr.) **(Ger)**

[The aftercare of radiotherapy patients. The Radiation Protection Commission, the Federal Ministry for the Environment, Nature Protection and Reactor Safety (editorial)] Herrmann T. **Strahlenther Onkol** 1999 Mar; 175(3):89–92 **(Ger)**

[Radiotherapy at the turn of the millennium] Mayer A. **Orv Hetil** 1999 Aug 22;140(34):1875–80 (Eng. Abstr.) **(Hun)**

[Air bubble effect during alloy cooling in shielding blocks radiotherapy] Ostinelli A, et al. **Radiol Med (Torino)** 1998 Oct;96(4):390–3 (Eng. Abstr.) **(Ita)**

[Assessment of potential exposure risk for radiotherapy staff working with lineal accelerators] Tofani A, et al. **Radiol Med (Torino)** 1999 Apr;97(4):286–95 (Eng. Abstr.) **(Ita)**

ADVERSE EFFECTS

Antiemetic effects of Lerisetron in radiation-induced emesis in the dog. Gomez-de-Segura IA, et al. **Acta Oncol** 1998; 37(7–8):759–63

Early menopause and infertility in females after treatment for childhood cancer diagnosed in 1964–1988 in Ontario, Canada. Chiarelli AM, et al. **Am J Epidemiol** 1999 Aug 1;150(3):245–54

ASHP Therapeutic Guidelines on the Pharmacologic Management of Nausea and Vomiting in Adult and Pediatric Patients Receiving Chemotherapy or Radiation Therapy or Undergoing Surgery [see comments] **Am J Health Syst Pharm** 1999 Apr 15;56(8):729–64 (423 ref.). Comment in: Am J Health Syst Pharm 1999 Apr 15;56(8):728.

Does local irradiation affect gastric emptying in humans? Makrauer FL, et al. **Am J Med Sci** 1999 Jan;317(1):33–7

The influence of ionizing radiation on the CLARION 1.2 cochlear implant during radiation therapy. Baumann R, et al. **Am J Otol** 1999 Jan;20(1):50–2

Prospective evaluation of formalin therapy for radiation proctitis. Counter SF, et al. **Am J Surg** 1999 May; 177(5):396–8

Night blindness following hemicolectomy and radiotherapy. Collins DR, et al. **Ann Clin Biochem** 1999 May;36 (Pt 3):395–6

Treatment-related chronic myelogenous leukemia. Waller CF, et al. **Ann Hematol** 1999 Aug;78(8):341–54 (125 ref.)

Radiation-induced cerebral vasculopathy in children with neurofibromatosis and optic pathway glioma. Grill J, et al. **Ann Neurol** 1999 Mar;45(3):393–6

Prevention of chemotherapy- and radiotherapy-induced emesis: results of Perugia Consensus Conference. Antiemetic Subcommittee of the Multinational Association of Supportive Care in Cancer (MASCC). **Ann Oncol** 1998 Aug;9(8):811–9 (103 ref.)

Long-term toxicity of the treatment of Hodgkin's disease. Armitage JO. **Ann Oncol** 1998;9 Suppl 5:S133–6 (28 ref.)

Radiotherapy in early stage Hodgkin's disease: principles and results of recent clinical trials. Noordijk EM. **Ann Oncol** 1998;9 Suppl 5:S63–5 (15 ref.)

Long-term evolution of renal function in patients with ovarian cancer after whole abdominal irradiation with or without preceding cisplatin. Schneider DP, et al. **Ann Oncol** 1999 Jun;10(6):677–83

Rescue revascularization for acute coronary occlusion late after radiotherapy. Caus T, et al. **Ann Thorac Surg** 1999 Jan;67(1):236–8

Good visual outcome following laser therapy for proliferative radiation retinopathy. Thorne JE, et al. **Arch Ophthalmol** 1999 Jan;117(1):125–6

Pseudo Rontals tenotomy. Havas TE, et al. **Aust N Z J Surg** 1999 Feb;69(2):161–2

Experience with dose escalation using CHARTWEL (continuous hyperfractionated accelerated radiotherapy weekend less) in non-small-cell lung cancer. Saunders MI, et al. **Br J Cancer** 1998 Nov;78(10):1323–8

Late side-effects of radiotherapy for subfoveal choroidal neovascularization. Postelmans L, et al. **Bull Soc Belge Ophtalmol** 1999;271:61–8

Validation of a new scoring system for the assessment of clinical trial research of oral mucositis induced by radiation or chemotherapy. Mucositis Study Group. Sonis ST, et al. **Cancer** 1999 May 15;85(10):2103–13

Preferential impairment of nitric oxide-mediated endothelium-dependent relaxation in human cervical arteries after irradiation. Sugihara T, et al. **Circulation** 1999 Aug 10;100(6):635–41

Response of dermal fibroblast cultures from patients with unusually severe responses to radiotherapy and from ataxia telangiectasia heterozygotes to fractionated radiation. DahlBerg WK, et al. **Clin Cancer Res** 1995 Aug;1(8):785–90

Decreased delivery and acute toxicity of cranial irradiation and chemotherapy given with osmotic blood-brain barrier disruption in a rodent model: the issue of sequence. Remsen LG, et al. **Clin Cancer Res** 1995 Jul;1(7):731–9

Subcutaneous calcification as a late effect of orthovoltage chest wall irradiation. Cowie F, et al. **Clin Oncol (R Coll Radiol)** 1999;11(3):196–7

An acceptable risk or negligence? The dilemma of the modern clinical oncologists in the UK in the era of clinical governance [editorial; comment] Maher EJ. **Clin Oncol (R Coll Radiol)** 1998;10(6):353. Comment on:

Clin Oncol (R Coll Radiol) 1998 ;10(6):367–71.

A pilot study of Salix SST (saliva–stimulating lozenges) in post–irradiation xerostomia. Senahayake F, et al. **Curr Med Res Opin** 1998;14(3):155–9

Clinical and preclinical modulation of chemotherapy–induced toxicity in patients with cancer. Hoekman K, et al. **Drugs** 1999 Feb;57(2):133–55 (213 ref.)

Gonadal damage from chemotherapy and radiotherapy. Howell S, et al. **Endocrinol Metab Clin North Am** 1998 Dec;27(4):927–43 (94 ref.)

Efficacy of 5–HT3 receptor antagonists in radiotherapy–induced nausea and vomiting: a quantitative systematic review. Tramèr MR, et al. **Eur J Cancer** 1998 Nov;34(12):1836–44

Oxidant–induced lung injury in anticancer therapy. Beinert T, et al. **Eur J Med Res** 1999 Feb 25;4(2):43–53 (113 ref.)

Spontaneous pregnancy after 13 years of amenorrhea in a patient with a voluminous ovarian dysgerminoma and submitted to left adnexectomy and radiotherapy. Garcea N, et al. **Gynecol Obstet Invest** 1998;46(3):214–6

Thyroid volume is progressively reduced as a sequela of neck irradiation for childhood Hodgkin's disease [letter] Bossi G, et al. **Haematologica** 1998 Aug;83(8):754–6

The risk of acute leukemia in patients treated for Hodgkin's disease is significantly higher aft [see bined modality programs than after chemotherapy alone and is correlated with the extent of radiotherapy and type and duration of chemotherapy: a case–control study [see comments] Brusamolino E, et al. **Haematologica** 1998 Sep;83(9):812–23 . Comment in: Haematologica 1998 Sep;83(9):769–70.

Analysis by alkaline comet assay of cancer patients with severe reactions to radiotherapy: defective rejoining of radioinduced DNA strand breaks in lymphocytes of breast cancer patients. Alapetite C, et al. **Int J Cancer** 1999 Sep 24;83(1):83–90

Describing patients' normal tissue reactions: concerning the possibility of individualising radiotherapy dose prescriptions based on potential predictive assays of normal tissue radiosensitivity. Steering Committee of the BioMed2 European Union Concerted Action Programme on the Development of Predictive Tests of Normal Tissue Response to Radiation Therapy. Burnet NG, et al. **Int J Cancer** 1998 Dec 18;79(6):606–13

Cancer risk following radiotherapy for infertility or menstrual disorders. Ron E, et al. **Int J Cancer** 1999 Sep 9;82(6):795–8

The effects of radiation on craniofacial skeletal growth: a quantitative study. Denys D, et al. **Int J Pediatr Otorhinolaryngol** 1998 Sep 15;45(1):7–13

Radiation–induced emesis: a prospective observational multicenter Italian trial. The Italian Group for Antiemetic Research in Radiotherapy. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):619–25

Vasospastic angina likely related to cisplatin–containing chemotherapy and thoracic irradiation for lung cancer. Fukuda M, et al. **Intern Med** 1999 May;38(5):436–8

Stevens–Johnson syndrome limited to multiple sites of radiation therapy in a patient receiving phenobarbital. Duncan KO, et al. **J Am Acad Dermatol** 1999 Mar; 40(3):493–6

Neuropsychological function in patients with nasopharyngeal carcinoma after radiotherapy. Hua MS, et al. **J Clin Exp Neuropsychol** 1998 Oct;20(5):684–93

Cardiac effects of adjuvant doxorubicin and radiation therapy in breast cancer patients. Shapiro CL, et al. **J Clin Oncol** 1998 Nov;16(11):3493–501

Microcystic adnexal carcinoma arising in the setting of previous radiation therapy. Antley CA, et al. **J Cutan Pathol** 1999 Jan;26(1):48–50 (11 ref.)

Neurological complications of radiotherapy and chemotherapy. Keime–Guibert F, et al. **J Neurol** 1998 Nov; 245(11):695–708 (85 ref.)

Radiation myelopathy with partial functional recovery: PET evidence of long–term increased metabolic activity of the spinal cord. Esik O, et al. **J Neurol Sci** 1999 Feb 1; 163(1):39–43 (15 ref.)

Long–term functional outcome of suprasellar germinomas: usefulness and limitations of radiotherapy. Oka H, et al. **J Neurooncol** 1998 Nov;40(2):185–90

Concerns about risks of irradiation during pregnancy [letter; comment] Osmanagaoglu K, et al. **J Nucl Med** 1998 Dec; 39(12):2194–5. Comment on: J Nucl Med 1998 Feb;39(2):357–61.

Radiotoxicity after strontium–89 therapy for bone metastases using the micronucleus assay. Watanabe N, et al. **J Nucl Med** 1998 Dec;39(12):2077–9

Analgesic effect of hyperbaric oxygen for pain caused by cancer treatment. Krahn MJ, et al. **J Palliat Care** 1999 Summer;15(2):53–5

Late effects of treatment for germ cell tumors during childhood and adolescence. Hale GA, et al. **J Pediatr Hematol Oncol** 1999 Mar–Apr;21(2):115–22

Understanding the level of fatigue in cancer patients undergoing radiotherapy. Smets EM, et al. **J Psychosom Res** 1998 Sep;45(3):277–93

Hyperbaric oxygen therapy for radiation induced hemorrhagic cystitis. Mathews R, et al. **J Urol** 1999 Feb; 161(2):435–7

Radiation–induced esophageal carcinoma 30 years after mediastinal irradiation: case report and review of the literature. Micke O, et al. **Jpn J Clin Oncol** 1999 Mar; 29(3):164–70 (43 ref.)

Epidemiology as a basis for legislation: how far should epidemiology go? Sadetzki S, et al. **Lancet** 1999 Jun 26; 353(9171):2238–9

Megakaryocytic growth factors: is there a new approach for management of thrombocytopenia in patients with malignancies? Hofmann WK, et al. **Leukemia** 1999 Jan; 13(1):14–8 (23 ref.)

Late complications of therapy in 213 children with localized, nonorbital soft–tissue sarcoma of the head and neck: A descriptive report from the Intergroup Rhabdomyosarcoma Studies (IRS)–II and – III. IRS Group of the Children's Cancer Group and the Pediatric Oncology Group. Raney RB, et al. **Med Pediatr Oncol** 1999 Oct;33(4):362–71

Management of chronic radiation enteritis: our experience [letter] Darsini CP, et al. **Natl Med J India** 1999 May–Jun; 12(3):140–1

Differentiation between recurrent brain tumour and post–radiation necrosis: the value of 201Tl SPET versus 18F–FDG PET using a dual–headed coincidence camera—a pilot study. Stokkel M, et al. **Nucl Med Commun** 1999 May;20(5):411–7

Growth hormone deficiency following radiotherapy for orbital and parameningeal sarcomas. Goddard AG, et al. **Pediatr Hematol Oncol** 1999 Jan–Feb;16(1):23–33

Evidence for a significant timer error on a linear accelerator: consequences for a special therapy application [see comments] Biggs PJ. **Phys Med Biol** 1998 Oct; 43(10):3139–43. Comment in: Phys Med Biol 1999 Feb;44(2):L1–2.

Atypical acute reaction associated with radiotherapy: a case report. Akmansu M, et al. **Radiat Med** 1998 Sep–Oct; 16(5):379–82 (11 ref.)

Thyroid dysfunction in children receiving neck irradiation for Hodgkin's disease. Atahan IL, et al. **Radiat Med** 1998 Sep–Oct;16(5):359–61

Enhanced regeneration response of laryngeal and hypopharyngeal mucosa with accelerated hyperfractionated radiation therapy for glottic cancers. Mariya Y, et al. **Radiat Med** 1998 Nov–Dec;16(6):469–72

Prospective study of fatigue in localized prostate cancer patients undergoing radiotherapy. Monga U, et al. **Radiat Oncol Investig** 1999;7(3):178–85

Lenticular opacities in individuals exposed to ionizing radiation in infancy. Hall P, et al. **Radiat Res** 1999 Aug; 152(2):190–5

Protraction of dose effects for radiogenic breast cancer [letter; comment] Rossi HH. **Radiat Res** 1999 Jul; 152(1):104–5. Comment on: Radiat Res 1999 Feb;151(2):225–9.

Hamman–rich syndrome 'primed' by radiation? Wharton SP, et al. **Respir Med** 1999 Feb;93(2):136–7

Future directions in toxicity prevention. Brizel DM. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):17–20 (14 ref.)

Radiation–induced toxicities: the role of radioprotectants. Curran WJ. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):2–4 (14 ref.)

Protection of normal tissues from the cytotoxic effects of radiation therapy: focus on amifostine. Mehta MP. **Semin Radiat Oncol** 1998 Oct;8(4 Suppl 1):14–6 (11 ref.)

Long–term complications and post–treatment follow–up of patients with Wilms' tumor. Egeler RM, et al. **Semin Urol Oncol** 1999 Feb;17(1):55–61 (35 ref.)

The risk of paraplegia through medical treatment. Bacher T, et al. **Spinal Cord** 1999 Mar;37(3):172–82

The analysis of complex patterns of longitudinal binary response: an example of transient dysphagia following radiotherapy. Beacon HJ, et al. **Stat Med** 1998 Nov 30; 17(22):2551–61

Acute radiation morbidity and therapeutic consequences. Proceedings of a workshop of the German Society for Radiooncology. Frankfurt, Germany,May 16–17, 1998. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:1–100

Clinical impact of predictive assays for acute and late radiation morbidity. Budach W, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:20–4 (30 ref.)

Treatment of radiation proctitis with hyperbaric oxygen: what is the optimal number of HBO treatments? Carl UM, et al. **Strahlenther Onkol** 1998 Sep;174(9):482–3 (11 ref.)

Radiation–induced gastrointestinal toxicity. Pathophysiology, approaches to treatment and prophylaxis. Classen J, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:82–4 (29 ref.)

DNA–repair, cell killing and normal tissue damage. Dahm–Daphi J, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:8–11 (30 ref.)

Radiobiological models of normal tissue reactions. Dörr W. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:4–7 (16 ref.)

Risk assessment for cancer induction after low– and high–LET therapeutic irradiation. Engels H, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:47–51

Radiotherapy–induced emesis. An overview. Feyer P, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:56–61 (36 ref.)

Modern therapy of chronic wounds with respect to radiation. Frank J, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:69–73 (26 ref.)

Management of radiation injuries of vulva and vagina. Fraunholz IB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:90–2 (29 ref.)

Radiation–induced impairment of urinary bladder function. Assessment of micturition volumes. Hanfmann B, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:96–8

The role of cytokines in the development of normal–tissue reactions after radiotherapy. Herskind C, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:12–5 (37 ref.)

The influence of field size and other radiotherapy parameters on acute toxicity in pharyngolaryngeal cancers. Miralbell R, et al. **Strahlenther Onkol** 1999 Feb;175(2):74–7

Electronical recording and evaluation of acute radiation morbidity. Niehoff P, et al. **Strahleather Onkol** 1998 Nov; 174 Suppl 3:37–9

Management of postoperative radiation injury of the urinary bladder by hyperbaric oxygen (HBO). Peusch–Dreyer D, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:99–100

The treatment of late radiation effects with hyperbaric oxygenation (HBO). Plafki C, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:66–8 (30 ref.)

Photographic documentation of acute radiation–induced side effects of the oral mucosa. Riesenbeck D, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:40–3

Documentation of radiation–induced oral mucositis. Scoring systems. Riesenbeck D, et al. **Strahlenther Onkol** 1998 Nov; 174 Suppl 3:44–6

Interdisciplinary documentation of treatment side effects in oncology. Present status and perspectives. Seegenschmiedt MH. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:25–9

Radiation–induced bilateral optic neuropathy in cancer of the nasopharynx. Case failure analysis and a review of the literature [see comments] Wijers OB, et al. **Strahlenther Onkol** 1999 Jan;175(1):21–7. Comment in: Strahlenther Onkol 1999 Apr;175(4):189.

Radiation proctitis. Clinical and pathological manifestations, therapy and prophylaxis of acute and late injurious effects of radiation on the rectal mucosa. Zimmermann FB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:85–9 (32 ref.)

Therapy and prophylaxis of acute and late radiation–induced sequelae of the esophagus. Zimmermann FB, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:78–81 (30 ref.)

Individual skin care during radiation therapy. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:74–7 (19 ref.)

Pharmacological management of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:62–5 (43 ref.)

Variability of individual normal tissue radiation sensitivity. An international empirical evaluation of endogenous and exogenous response modifiers. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:16–9

The impact of acute radiation morbidity on therapeutic outcome [editorial] Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:1–3 (24 ref.)

Topographic documentation of acute radiation morbidity. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:30–6

Prevention and management of oral infections in cancer patients [see comments] Heimdahl A. **Support Care Cancer** 1999 Jul;7(4):224–8 (19 ref.). Comment in: Support Care Cancer 1999 Jul;7(4):217–8.

Oral infection [editorial; comment] Peterson DE. **Support Care Cancer** 1999 Jul;7(4):217–8 (8 ref.). Comment on: Support Care Cancer 1999 Jul;7(4):224–8. Comment on: Support Care Cancer 1999 Jul;7(4):244–52.

Transition of nodular toxic goiter to autoimmune hyperthyroidism triggered by 131I therapy. Nygaard B, et al. **Thyroid** 1999 May;9(5):477–81

[Pulmonary damage after radiotherapy for breast cancer] de Fijter WM, et al. **Ned Tijdschr Geneeskd** 1999 Apr 17; 143(16):833–6 (13 ref.) (Eng. Abstr.) **(Dut)**

[Late sequelae of oncologic treatment in children] Heikens J, et al. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2191–5 (49 ref.) (Eng. Abstr.) **(Dut)**

[Ostial stenosis of the common trunk of the left coronary artery 20 years after mediastinal irradiation] Bensaid J, et al. **Ann Cardiol Angeiol (Paris)** 1998 Dec;47(10):732–4 (Eng. Abstr.) **(Fre)**

[Updating 1999 of Standards, Options and Recommendations (SOR) for the clinical use of erythropoietin in oncology] Spaëth D, et al. **Bull Cancer** 1999 Jul–Aug;86(7–8):631–9 (Eng. Abstr.) **(Fre)**

[In vitro radiosensitivity of skin fibroblasts can identify a group of patients with complications in various health tissues after radiotherapy] Alsbeih G, et al. **Cancer Radiother** 1999 Jul–Aug;3(4):318–24 (Eng. Abstr.) **(Fre)**

[the role of radiotherapy for limited stage Hodgkin's disease in 1999: limitations and perspectives] Cosset JM, et al. **Cancer Radiother** 1999 Mar–Apr;3(2):112–8 (Eng. Abstr.) **(Fre)**

[Radiotherapy for leukemias and lymphomas in children] Lévy–Piedbois C, et al. **Cancer Radiother** 1999 Mar–Apr; 3(2):181–6 (Eng. Abstr.) **(Fre)**

[Radiation–induced rectitis, easy endoscopic diagnosis, an occasionally difficult treatment] Vitaux J, et al. **Presse Med** 1998 Jul 4–11;27(24):1255 **(Fre)**

[Pure motor neuropathy after radiation therapy: 6 cases] Lalu T, et al. **Rev Neurol (Paris)** 1998 Jan;154(1):40–4 (Eng. Abstr.) **(Fre)**

[D–xylose test of resorption as a method to determine radiation side effects in the small intestine] Köst S, et al. **Strahlenther Onkol** 1998 Sep;174(9):462–7 (33 ref.) (Eng. Abstr.) **(Ger)**

[Erectile function after treatment of prostatic carcinoma] Lindner H. **Strahlenther Onkol** 1999 Jan;175(1):44–5 **(Ger)**

[Delayed cardiac effects of adjuvant doxorubicin and radiotherapy in breast cancer patients] Sack H.

Strahlenther Onkol 1999 Jun;175(6):293–4 **(Ger)**

[HIT 91: Precision and acute maximal side effects of radiotherapy of craniospinal axis. Concerning the contribution by R.D. Kortmann et al., Strahlenther Onkol 1999;175:162–9 (No.4) (letter)] Weiss E, et al. **Strahlenther Onkol** 1999 May;175(5):245–6 **(Ger)**

[A clinical study of chronic actinic enteropathy] Napolitano L, et al. **G Chir** 1999 Apr;20(4):165–8 (20 ref.) (Eng. Abstr.) **(Ita)**

[Gastrocystoplasty for severely contracted bladder following high dose pelvic irradiation: a case report] Yashi M, et al. **Hinyokika Kiyo** 1998 Aug;44(8):603–6 (Eng. Abstr.) **(Jpn)**

[Quantitative analysis of pulmonary functional damage due to heavy ion particle irradiation therapy for lung cancer] Homma T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb; 37(2):97–101 (Eng. Abstr.) **(Jpn)**

[A case of nasopharyngeal carcinoma presenting with various neurological deficits in the course of treatment (clinical conference)] Hasegawa O, et al. **No To Shinkei** 1999 Apr; 51(4):369–83 **(Jpn)**

[A case of cervical radiation radiculopathy resembling motor neuron disease] Mitsunaga Y, et al. **Rinsho Shinkeigaku** 1998 May;38(5):450–2 (Eng. Abstr.) **(Jpn)**

[Radiation myelopathy] Arakawa K, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):438–41 (15 ref.) **(Jpn)**

[Radiation necrosis] Yamada T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):434–7 (12 ref.) **(Jpn)**

[Late complications after treatment of Hodgkin's disease] Lund MB, et al. **Tidsskr Nor Laegeforen** 1999 Mar 10; 119(7):933–7 (Eng. Abstr.) **(Nor)**

[Dilemas in the evaluation of post-radiation lesions of the larynx] Jordan J, et al. **Otolaryngol Pol** 1997;51 Suppl 25:23–6 (Eng. Abstr.) **(Pol)**

[Myxoedema after radiotherapy of the laryngeal cancer] Obrębowski A, et al. **Otolaryngol Pol** 1998;52(3):355–7 (Eng. Abstr.) **(Pol)**

[Acute radiation reaction and its healing time after skin cancer radiotherapy in elderly patients] Mazurkiewicz M, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):199–201 (Eng. Abstr.) **(Pol)**

[Radiotherapy-induced pemphigus] Correia MP, et al. **Acta Med Port** 1998 Jun;11(6):581–3 (15 ref.) (Eng. Abstr.) **(Por)**

[Radiation therapy and cardiac pacemakers] Serafim P, et al. **Rev Port Cardiol** 1999 May;18(5):503–5 (7 ref.) (Eng. Abstr.) **(Por)**

[An observation of recto-intestinal-vaginal and vesico-vaginal fistula in a patient with metachronous cancer of the uterus after combined radiotherapy] Semikoz NG. **Klin Khir** 1998;(5):49–50 **(Rus)**

[Radiation myelitis] Téllez-Zenteno JF, et al. **Gac Med Mex** 1999 Mar-Apr;135(2):201–2 **(Spa)**

[Unexpected accumulation of 111In-antimyosin in the chest in an area corresponding to the radiation field of a squamous cell lung carcinoma] Peñafiel Ramírez A, et al. **Rev Esp Med Nucl** 1999 Jun;18(3):204–8 (Eng. Abstr.) **(Spa)**

CONTRAINDICATIONS

Collagen vascular diseases and radiation therapy: a critical review. De Naeyer B, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):975–80 (17 ref.)

[Sources of interference for cardiac pacemakers. Technical improvements of pacemakers—risks in the medical realm] Wilke A, et al. **Fortschr Med** 1998 Aug 20;116(22–23):27–31 (9 ref.) (Eng. Abstr.) **(Ger)**

ECONOMICS

Cost-benefit analysis of 3D conformal radiation therapy—treatment of prostate cancer as a model. Cho KH, et al. **Acta Oncol** 1999;38(5):603–11

Assessing the cost-effectiveness of postmastectomy radiation therapy. Marks LB, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):91–8

Costs of standard and conformal photon radiotherapy in Austria. Hohenberg G, et al. **Strahlenther Onkol** 1999 Jun; 175 Suppl 2:99–101

HISTORY

Aspects on the development of radiation therapy and radiation biology since the early work of Rolf Wideröe. Brahme A. **Acta Oncol** 1998;37(6):593–602

Rolf Wideröe—Why is the originator of the science of particle accelerators so neglected, particularly in his home country? Brustad T. **Acta Oncol** 1998;37(6):603–14

Rolf Wideröe and the development of particle accelerators. Wiik BH. **Acta Oncol** 1998;37(6):615–25

The clinic as laboratory: the case of radiation therapy, 1896–1920. Hayter CR. **Bull Hist Med** 1998 Winter; 72(4):663–88

Experimental radiotherapy: a brief history. Rockwell S. **Radiat Res** 1998 Nov;150(5 Suppl):S157–69

[Disease pattern in oncology] Laugier A. **Cancer Radiother** 1999 Mar-Apr;3(2):99–104 **(Fre)**

[The centenary of the discovery of radium] Mazeron JJ, et al. **Cancer Radiother** 1999 Jan-Feb;3(1):19–29 (Eng. Abstr.) **(Fre)**

[Centenary of the discovery of radioactivity. Its impact on biology and medicine] Tubiana M. **Cancer Radiother** 1999 Jan-Feb;3(1):11–2 **(Fre)**

[History of radiotherapy for cancer] Okawa T. **Gan To Kagaku Ryoho** 1999 Jun;26 Suppl 1:15–22 (31 ref.) (Eng. Abstr.) **(Jpn)**

INSTRUMENTATION

Evaluation of an electronic portal imaging device for transit dosimetry. He X, et al. **Acta Oncol** 1999;38(5):591–6

Timer error and beam quality variation during "ramp-up" of a superficial X-ray therapy unit. Heales JC, et al. **Br J Radiol** 1998 Dec;71(852):1306–9

Radiotherapy equipment standards from the International Electrotechnical Commission. Lillicrap SC, et al. **Br J Radiol** 1998 Dec;71(852):1225–8

Verification systems—tools or toys? Tait DM. **Br J Radiol** 1998 Jun;71(846):581–3

Y2K compliance report. Y2K hazard: radiotherapy systems could cause patients to be exposed to inappropriate radiation levels. **Health Devices** 1999 Aug;28(8):318–20

Biophysical characteristics of HIMAC clinical irradiation system for heavy-ion radiation therapy. Kanai T, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):201–10

National Cancer Center has started proton therapy [news] Ogino T. **Jpn J Clin Oncol** 1999 Mar;29(3):179

Evidence for a significantly higher than expected depth dependence of wedge transmission factors on the 4 MV beam of a new dual energy accelerator. Biggs PJ, et al. **Med Phys** 1998 Nov;25(11):2234–6

Monte Carlo calculations to characterize the source for neutron therapy facilities. Bohm TD, et al. **Med Phys** 1999 May;26(5):783–92

A stereotactic radiation therapy device for retinoblastoma using a noncircular collimator and intensity filter. Cormack RA, et al. **Med Phys** 1998 Aug;25(8):1438–42

Verification of segmented beam delivery using a commercial electronic portal imaging device. Curtin-Savard AJ, et al. **Med Phys** 1999 May;26(5):737–42

A test tool for the visual verification of light and radiation fields using film or an electronic portal imaging device. Dunscombe P, et al. **Med Phys** 1999 Feb;26(2):239–43

Clinically shaped fields: relative outputs for Varian multileaf collimators and tray-mounted cerrobend blocks. Meyer KH, et al. **Med Phys** 1999 Jul;26(7):1257–9

Verification of the omni wedge technique. Milliken BD, et al. **Med Phys** 1998 Aug;25(8):1419–23

Multileaf collimator leaf sequencing algorithm for intensity modulated beams with multiple static segments. Xia P, et al. **Med Phys** 1998 Aug;25(8):1424–34

Ion recombination corrections for the NACP parallel-plate chamber in a pulsed electron beam. Burns DT, et al. **Phys Med Biol** 1998 Aug;43(8):2033–45

Low monitor units: significance in special therapy [letter; comment] Das IJ, et al. **Phys Med Biol** 1999 Feb;44(2):L1–2 . Comment on: Phys Med Biol 1998 Sep;43(9):2665–75. Comment on: Phys Med Biol 1998 Oct;43(10):3129–37. Comment on: Phys Med Biol 1998 Oct;43(10):3139–43.

Design and characterization of a dynamic multileaf collimator. Loi G, et al. **Phys Med Biol** 1998 Oct; 43(10):3149–55

An experimental evaluation of recent electron dosimetry codes of practice. Nisbet A, et al. **Phys Med Biol** 1998 Aug;43(8):1999–2014

Calculation of the spatial variation of relative biological effectiveness in a therapeutic proton field for eye treatment. Paganetti H. **Phys Med Biol** 1998 Aug;43(8):2147–57

Gap-stepped MLC leaves with filler blades can eliminate tongue-and-groove underdoses when delivering IMRT with maximum efficiency. Symonds-Tayler JR, et al. **Phys Med Biol** 1998 Aug;43(8):2393–5

A consistent formalism for the application of phantom and collimator scatter factors. Venselaar JL, et al. **Phys Med Biol** 1999 Feb;44(2):365–81

Neutron, proton, and photonuclear cross-sections for radiation therapy and radiation protection. Chadwick MB. **Radiat Environ Biophys** 1998 Dec;37(4):235–42 (39 ref.)

Isoseparation curves: a mechanism for optimizing off-axis dose homogeneity of intact breast irradiation. Buchholz TA, et al. **Radiat Oncol Investig** 1998;6(4):191–8

Acute and late morbidity of using a breast positioning ring in women with large/pendulous breasts. Bentel GC, et al. **Radiother Oncol** 1999 Mar;50(3):277–81

Contrast improvement in a new radiotherapy imaging system. Ostinelli A, et al. **Strahlenther Onkol** 1999 Apr;175(4):182–4

[Fiber optic dosimeter for radiotherapy] Keusen T. **Biomed Tech (Berl)** 1998;43 Suppl:558 **(Ger)**

[Dosimetric characterization of a multileaf collimator] Stasi M, et al. **Radiol Med (Torino)** 1999 May;97(5):382–8 (Eng. Abstr.) **(Ita)**

[A trial of the use of an EHF therapy apparatus in preventing immunodeficiency states in acute respiratory diseases] Efimov EI, et al. **Voen Med Zh** 1999 May;320(5):58–9 **(Rus)**

METHODS

Radiation therapy as a component of high-dose salvage strategies in Hodgkin's disease. Hoppe RT. **Ann Oncol** 1998;9 Suppl 5:S87–90 (14 ref.)

Future strategies in external radiation therapy of renal cell carcinoma. Kortmann RD, et al. **Anticancer Res** 1999 Mar-Apr;19(2C):1601–3 (11 ref.)

Set-up error & organ motion uncertainty: a review. Booth JT, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):29–47 (84 ref.)

Subfoveal choroidal neovascularization: radiotherapy or perifoveal photocoagulation? A fellow eye study. Postelmans L, et al. **Bull Soc Belge Ophtalmol** 1999; 271:73–80

Intraoperatic electron beam irradiation in pancreatic cancer. Willett CG, et al. **Front Biosci** 1998 Nov 15;3:E207–13 (33 ref.)

Experiences with high dose radiopeptide therapy: the health physics perspective. Espenan GD, et al. **Health Phys** 1999 Mar;76(3):225–35

The effect of beam divergence on target coverage. Bentel GC, et al. **Med Dosim** 1999 Summer;24(2):99–113 (11 ref.)

The radiobiology of radiosurgery and stereotactic radiotherapy. Buatti JM, et al. **Med Dosim** 1998 Fall; 23(3):201–7

Effects of collimator jaw setting on dose output for treatments with multileaf collimator. Prasad SC. **Med Dosim** 1998 Winter;23(4):296–8

An integrated system for the production of field shaping devices in radiotherapy. Gueorguieva K, et al. **Med Eng Phys** 1999 Jan;21(1):45–51

Use of CEA TVS film for measuring high energy photon beam dose distributions. Cadman P. **Med Phys** 1998 Aug; 25(8):1435–7

Verification of segmented beam delivery using a commercial electronic portal imaging device. Curtin-Savard AJ, et al. **Med Phys** 1999 May;26(5):737–42

A method for incorporating organ motion due to breathing into 3D dose calculations. Lujan AE, et al. **Med Phys** 1999 May;26(5):715–20

Verification of the omni wedge technique. Milliken BD, et al. **Med Phys** 1998 Aug;25(8):1419–23

Linear accelerator output variations and their consequences for megavoltage imaging. Partridge M, et al. **Med Phys** 1998 Aug;25(8):1443–52

Multileaf collimator leaf sequencing algorithm for intensity modulated beams with multiple static segments. Xia P, et al. **Med Phys** 1998 Aug;25(8):1424–34

188Re DD-3B6/22 Fab' for use in therapy of ovarian cancer: labelling and animal studies. Schmidt PF, et al. **Nucl Med Biol** 1998 Oct;25(7):639–49

Rectangular edge synchronization for intensity modulated radiation therapy with dynamic multileaf collimation. Budgell GJ, et al. **Phys Med Biol** 1998 Oct;43(10):2769–84

Calculation of absorbed dose and biological effectiveness from photonuclear reactions in a bremsstrahlung beam of end point 50 MeV. Gudowska I, et al. **Phys Med Biol** 1999 Sep;44(9):2099–125

Comparisons between MCNP, EGS4 and experiment for clinical electron beams. Jeraj R, et al. **Phys Med Biol** 1999 Mar;44(3):705–17

A new method of readout in radiochromic film dosimetry. Kellermann PO, et al. **Phys Med Biol** 1998 Aug; 43(8):2251–63

Mixing intensity modulated electron and photon beams: combining a steep dose fall-off at depth with sharp and depth-independent penumbras and flat beam profiles. Korevaar EW, et al. **Phys Med Biol** 1999 Sep;44(9):2171–81

Application of a fuzzy pattern classifier to decision making in portal verification of radiotherapy. Leszczynski K, et al. **Phys Med Biol** 1999 Jan;44(1):253–69

Calculation of the spatial variation of relative biological effectiveness in a therapeutic proton field for eye treatment. Paganetti H. **Phys Med Biol** 1998 Aug;43(8):2147–57

Quality control of dose volume histogram computation characteristics of 3D treatment planning systems. Panitsa E, et al. **Phys Med Biol** 1998 Oct;43(10):2807–16

Treatment planning optimization by quasi-Newton and simulated annealing methods for gamma unit treatment system. Shu HZ, et al. **Phys Med Biol** 1998 Oct; 43(10):2795–805

An experimental investigation of the tongue and groove effect for the Philips multileaf collimator. Sykes JR, et al. **Phys Med Biol** 1998 Oct;43(10):3157–65

A thin target approach for portal imaging in medical accelerators. Tsechanski A, et al. **Phys Med Biol** 1998 Aug; 43(8):2221–36

Quality assurance of central axis dose data for photon beams by means of a functional representation of the tissue phantom ratio. Xiao Y, et al. **Phys Med Biol** 1998 Aug; 43(8):2195–206

Dosimetric verification of a commercial inverse treatment planning system. Xing L, et al. **Phys Med Biol** 1999 Feb; 44(2):463–78

Isoseparation curves: a mechanism for optimizing off-axis dose homogeneity of intact breast irradiation. Buchholz TA, et al. **Radiat Oncol Investig** 1998;6(4):191–8

Effect of combined adoptive immunotherapy and radiotherapy on tumor growth. Sumareva R, et al. **Radiat Oncol Investig** 1999;7(1):22–9

An external marker for accurate patient positioning in radiotherapy CT scanning [letter] Kadiri L, et al. **Radiother Oncol** 1998 Sep;48(3):343–4

Modelling the enhancement of fractionated radiotherapy by gene transfer to sensitize tumour cells to radiation. Wheldon TE, et al. **Radiother Oncol** 1998 Jul;48(1):5–13

Oxygen tension in transplanted mouse osteosarcomas during fractionated high-LET- and low-LET

radiotherapy--predictive aspects for choosing beam quality? Auberger T, et al. **Strahlenther Onkol** 1999 Jun; 175 Suppl 2:52–6

[Re-irradiation with hyperthermia in patients with recurrent breast cancer] van der Zee J, et al.
Ned Tijdschr Geneeskd 1999 Jan 9;143(2):80–4 (23 ref.) (Eng. Abstr.) **(Dut)**

[Treatment of pituitary tumors] Valtonen S, et al.
Duodecim 1995;111(21):2013–9 (35 ref.) **(Fin)**

[Radiotherapy update] Daly-Schveitzer N. **Bull Cancer** 1999 Jan;86(1):71–6 (59 ref.) **(Fre)**

[Last ICRU recommendations for the prescription, recording and reporting of external bean therapy] Chavaudra J.
Cancer Radiother 1998 Sep-Oct;2(5):607–14 (Eng. Abstr.) **(Fre)**

[Role of radiotherapy in the treatment of adult nodal non-Hodgkin's lymphoma] Ganem G, et al.
Cancer Radiother 1999 Mar-Apr;3(2):129–40 (Eng. Abstr.) **(Fre)**

[Highly promising new therapeutic agents. Bisphosphonate and erythropoietin in radiotherapy] **Radiologe** 1999 Mar; 39(3 Suppl):1–3 **(Ger)**

[A new method of 3-dimensional imaging of dose distribution in radiotherapy] Jensen JM, et al. **Rontgenpraxis** 1998; 51(10):391–5 (Eng. Abstr.) **(Ger)**

[Management of the unscheduled interruption or prolongation of a radical course of radiotherapy] Baumann M, et al. **Strahlenther Onkol** 1998 Sep;174(9):491–3 **(Ger)**

[Accelerated hyperfractionated compared with conventional radiotherapy in limited small-cell lung carcinoma, with concurrent chemotherapy] Stuschke M.
Strahlenther Onkol 1999 Jun;175(6):296–8 **(Ger)**

[Easy graphical display of beam directions in three-dimensional converging radiation therapy: proposal for a radiation map] Itami J, et al.
Nippon Igaku Hoshasen Gakkai Zasshi 1998 Nov; 58(13):761–3 (Eng. Abstr.) **(Jpn)**

[The preliminary evaluation of the value of interstitial brachytherapy combined with external irradiation in the treatment of advanced vulvar cancer] Makarewicz R, et al. **Ginekol Pol** 1997 Sep;68(9):427–31 (Eng. Abstr.) **(Pol)**

STANDARDS

Radiotherapy equipment standards from the International Electrotechnical Commission. Lillicrap SC, et al.
Br J Radiol 1998 Dec;71(852):1225–8

Comments concerning "Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)" [letter; comment] [published erratum appears in Health Phys 1999 Apr;76(4):450] Reilly JP. **Health Phys** 1999 Mar;76(3):314–6. Comment on: Health Phys 1998 Apr;74(4):494–522.

Scattered fractions of dose from 6,10,18, and 25 MV linear accelerator x rays in radiotherapy facilities. Shobe J, et al. **Health Phys** 1999 Jan;76(1):27–35

A real-time audit of radiation therapy in a regional cancer center. Brundage MD, et al.
Int J Radiat Oncol Biol Phys 1999 Jan 1;43(1):115–24

Guidelines on the implementation of diode in vivo dosimetry programs for photon and electron external beam therapy. Alecu R, et al. **Med Dosim** 1999 Spring;24(1):5–12

Diode verification of routine electron-beam treatments. Frye DM, et al. **Med Dosim** 1999 Spring;24(1):43–8

Radiochromic film dosimetry: recommendations of AAPM Radiation Therapy Committee Task Group 55. American Association of Physicists in Medicine. Niroomand-Rad A, et al. **Med Phys** 1998 Nov;25(11):2093–115

A simple test device for electrometers. Blad B, et al.
Phys Med Biol 1998 Aug;43(8):2385–91

Ion recombination corrections for the NACP parallel-plate chamber in a pulsed electron beam. Burns DT, et al.
Phys Med Biol 1998 Aug;43(8):2033–45

Low monitor units: significance in special therapy [letter; comment] Das IJ, et al. **Phys Med Biol** 1999 Feb;44(2):L1–2 . Comment on: Phys Med Biol 1998 Sep;43(9):2665–75. Comment on: Phys Med Biol 1998 Oct;43(10):3129–37. Comment on: Phys Med Biol 1998 Oct;43(10):3139–43.

Gap-stepped MLC leaves with filler blades can eliminate tongue-and-groove underdoses when delivering IMRT with maximum efficiency. Symonds-Tayler JR, et al.
Phys Med Biol 1998 Aug;43(8):2393–5

Quality assurance of central axis dose data for photon beams by means of a functional representation of the tissue phantom ratio. Xiao Y, et al. **Phys Med Biol** 1998 Aug; 43(8):2195–206

From technical quality assurance of radiotherapy to a comprehensive quality of service management system. Kehoe T, et al. **Radiother Oncol** 1999 Jun;51(3):281–90

Consistency in quality control programmes for electron accelerators in radiotherapy centres. Meijer GJ, et al.
Radiother Oncol 1998 Jul;48(1):103–10

Quality assurance of physical parameters in radiation oncology at the University Hospital of Basel--a retrospect. Roth J, et al. **Radiother Oncol** 1998 Jul;48(1):83–8

Nuclear data for radiotherapy: presentation of a new ICRU report and IAEA initiatives. Chadwick MB, et al.
Strahlenther Onkol 1999 Jun;175 Suppl 2:26–9

MRI-assisted specification/localization of target volumes. Aspects of quality control. Hosten N, et al.
Strahlenther Onkol 1998 Oct;174 Suppl 2:13–8

[Guideline 'Radiotherapy in non-small-cell lung carcinoma. Working Group, National Organization for Quality Assurance in Hospitals, Netherlands (see comments)] Festen J. **Ned Tijdschr Geneeskd** 1998 Oct 10; 142(41):2248–51 (32 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Dec 19;142(15):2809–10. **(Dut)**

[Guideline 'Radiotherapy in non-small-cell lung carcinoma' (letter)] van den Bergh JH, et al.
Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2810 **(Dut)**

[Last ICRU recommendations for the prescription, recording and reporting of external bean therapy] Chavaudra J.
Cancer Radiother 1998 Sep-Oct;2(5):607–14 (Eng. Abstr.) **(Fre)**

[A quality control program for radiotherapy in Hodgkin's disease] Hennequin C, et al. **Cancer Radiother** 1999 Mar-Apr;3(2):187–90 (Eng. Abstr.) **(Fre)**

[Safety of radiotherapy (editorial)] Schicha H.
Nuklearmedizin 1998;37(8):3–5 **(Ger)**

[Evaluation of the effectiveness of radiotherapy in an Austrian-Hungarian collaboration] Esik O, et al.
Orv Hetil 1999 Mar 7;140(10):529–38 (Eng. Abstr.) **(Hun)**

STATISTICS & NUMERICAL DATA

National average for the process of radiation therapy in Japan by Patterns of Care Study. Tanisada K, et al.
Jpn J Clin Oncol 1999 Apr;29(4):209–13

TRENDS

Radiotherapy in Scandinavia [editorial] Olsen DR, et al.
Acta Oncol 1998;37(6):553–60

Modern aspects of radiation therapy for glial tumours of the brain. Rampling R. **Forum (Genova)** 1998 Jul-Sep; 8(3):289–301 (107 ref.)

[Development of radiotherapy--history and future prospects] Okawa T. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1269–74 (24 ref.) (Eng. Abstr.) **(Jpn)**

UTILIZATION

Radionuclide therapy in the United Kingdom in 1995 [see comments] Clarke SE, et al. **Nucl Med Commun** 1999 Aug; 20(8):711–7. Comment in: Nucl Med Commun 1999 Aug;20(8):687.

Indications and treatment schedules for irradiation of benign diseases: a survey. Leer JW, et al. **Radiother Oncol** 1998 Sep;48(3):249–57

RADIOTHERAPY, ADJUVANT

Moderate dose escalation for advanced stage Hodgkin's disease using the bleomycin, etoposide, adriamycin, cyclophosphamide, vincristine, procarbazine, and prednisone scheme and adjuvant radiotherapy: a study of the German Hodgkin's Lymphoma Study Group. Tesch H, et al. **Blood** 1998 Dec 15;92(12):4560–7

Low risk of locoregional recurrence of primary breast carcinoma after treatment with a modification of the Halsted radical mastectomy and selective use of radiotherapy. Bijker N, et al. **Cancer** 1999 Apr 15; 85(8):1773–81 (42 ref.)

Significance of axillary lymph node extranodal soft tissue extension and indications for postmastectomy irradiation. Mignano JE, et al. **Cancer** 1999 Oct 1;86(7):1258–62

Survival advantages and complications of adjuvant therapy in early-stage cervical cancer with pelvic node metastasis. Lin H, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec; 21(4):383–90

p53 immunohistochemical staining predicts residual disease after chemoradiation in patients with high-risk rectal cancer. Spitz FR, et al. **Clin Cancer Res** 1997 Oct; 3(10):1685–90

[Lumpectomy and radiation therapy for the treatment of intraductal breast cancer: findings from national surgical adjuvant breast and bowel project B-17] Noël G, et al.
Cancer Radiother 1999 Jul-Aug;3(4):342–3 **(Fre)**

[Randomized clinical trial on the combination of preoperative irradiation and surgery in the treatment of adenocarcinoma of gastric cardia (AGC)--report on 370 patients] Noël G, et al. **Cancer Radiother** 1999 Jul-Aug;3(4):344 **(Fre)**

ADVERSE EFFECTS

Small intestine protection from radiation by means of a removable adapted prosthesis. Sezeur A, et al.
Am J Surg 1999 Jul;178(1):22–5; discussion 25–6

Problems in neoadjuvant chemoradiotherapy preceding surgery for advanced squamous cell carcinoma of the thoracic esophagus. Ishida K, et al.
Jpn J Thorac Cardiovasc Surg 1999 Jun;47(6):262–6

Postoperative radiotherapy in non-small-cell lung cancer [letter; comment] Rowell NP. **Lancet** 1998 Oct 24; 352(9137):1384; discussion 1385–6. Comment on: Lancet 1998 Jul 25;352(9124):250–1. Comment on: Lancet 1998 Jul 25;352(9124):257–63.

Postmastectomy radiotherapy: toxicities and techniques to reduce them. Hardenbergh PH, et al.
Semin Radiat Oncol 1999 Jul;9(3):259–68 (42 ref.)

[Cutaneous lymphangiectasias acquired after surgical and radiotherapy treatment of breast cancer. Two cases] Bouzit N, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jul; 28(4):384–7 (Eng. Abstr.) **(Fre)**

[Hormonal function of the thyroid gland after therapy for laryngeal cancer] Tarnowska C, et al. **Otolaryngol Pol** 1999; 53(3):289–92 (Eng. Abstr.) **(Pol)**

ECONOMICS

Is the use of radiation therapy after mastectomy cost-effective? Hayman JA, et al. **Semin Radiat Oncol** 1999 Jul;9(3):287–91 (11 ref.)

METHODS

Use of combined intraoperative radiotherapy and 125I brachytherapy in incompletely resected recurrent colorectal carcinoma. Martínez-Monge R, et al.
Rev Med Univ Navarra 1999 Jan-Mar;43(1):11–4

Postmastectomy radiotherapy: toxicities and techniques to reduce them. Hardenbergh PH, et al.
Semin Radiat Oncol 1999 Jul;9(3):259–68 (42 ref.)

[Locoregional radiotherapy after mastectomy and chemotherapy for breast cancer: prolonged survival and better local tumor control (see comments] Struikmans H, et al. **Ned Tijdschr Geneeskd** 1999 Jan 9;143(2):71–3 (8 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):73–5. **(Dut)**

[Hyperthermia in combination with radiotherapy (see comments)] van der Zee J, et al.
Ned Tijdschr Geneeskd 1999 Jan 9;143(2):76–80 (21 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):75–8. **(Dut)**

STANDARDS

[Locoregional radiotherapy after mastectomy not useful for all Dutch breast cancer patients (comment)] Leer JW, et al. **Ned Tijdschr Geneeskd** 1999 Jan 9;143(2):73–5 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):71–2. **(Dut)**

STATISTICS & NUMERICAL DATA

Consistency of variables in PCS and JASTRO great area database. Nishino T, et al. **Radiat Med** 1998 Nov-Dec; 16(6):449–55

RADIOTHERAPY, COMPUTER-ASSISTED

see related
RADIOTHERAPY, CONFORMAL

A comparison of two planning techniques for radiotherapy of high grade astrocytomas. Crosby TD, et al.
Clin Oncol (R Coll Radiol) 1998;10(6):392–8

Predictors of improved outcome for patients with localized prostate cancer treated with neoadjuvant androgen ablation therapy and three-dimensional conformal radiotherapy. Zelefsky MJ, et al. **J Clin Oncol** 1998 Oct;16(10):3380–5

Real-time tumour-tracking radiotherapy [letter] Shirato H, et al. **Lancet** 1999 Apr 17;353(9161):1331–2

User introduced uncertainties in the measurement of field misalignment by a computer aided technique. Thomason C. **Med Dosim** 1998 Winter;23(4):278–83 .

A computerized dosimetric database for conformal stereotactic irradiations. Grandjean P, et al. **Med Phys** 1999 Apr;26(4):524–32

MABDOSE. I: Characterization of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1389–95

MABDOSE. II: Validation of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1396–403

Intensity-modulated conformal radiation therapy and 3-dimensional treatment planning will significantly reduce the need for therapeutic approaches with particles such as protons. Mackie TR, et al. **Med Phys** 1999 Jul; 26(7):1185–7

Tomographic convolutional dosimetry of interstitial brachytherapy implants. Ove R. **Med Phys** 1999 Jul; 26(7):1262–8

Dosimetric verification of two commercially available three-dimensional treatment planning systems using the TG 23 test package. Ramsey CR, et al. **Med Phys** 1999 Jul; 26(7):1188–95

Evaluation of pGL1-TNF-alpha therapy in combination with radiation. Li J, et al. **Oncol Res** 1998;10(7):379–87

The use of compensators to optimise the three dimensional dose distribution in radiotherapy of the intact breast. Carruthers LJ, et al. **Radiother Oncol** 1999 Mar; 50(3):291–300

Dosimetric impact of computed tomography calibration on a commercial treatment planning system for external radiation therapy. Cozzi L, et al. **Radiother Oncol** 1998 Sep;48(3):335–8

Characteristics and clinical application of a treatment simulator with Ct-option. Verellen D, et al.
Radiother Oncol 1999 Mar;50(3):355–66

[Inverse radiotherapy planning] Schlegel W, et al.
Strahlenther Onkol 1999 May;175(5):197–207 (Eng. Abstr.) **(Ger)**

[Quantitative evaluation of the effectiveness of radiotherapy] Lebedenko IM, et al. **Med Tekh** 1998 Jul-Aug;(4):3–5 (Eng. Abstr.) **(Rus)**

[Quantitative method of assessing the effectiveness of radiotherapy of malignant neoplasms based on

computerized tomography data] Lebedenko IM, et al. **Med Tekh** 1998 Jul-Aug;(4):5-9 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

Dosimetric characteristics of a double-focused miniature multileaf collimator. Meeks SL, et al. **Med Phys** 1999 May; 26(5):729-33

Accuracy of a photogrammetry-based patient positioning and monitoring system for radiation therapy. Rogus RD, et al. **Med Phys** 1999 May;26(5):721-8

Computer-guided laser probe for ablation of brain tumours with ultrashort laser pulses. Goetz MH, et al. **Phys Med Biol** 1999 Jun;44(6):N119-27

A macropencil beam model: clinical implementation for conformal and intensity modulated radiation therapy. Phillips MH, et al. **Phys Med Biol** 1999 Apr;44(4):1067-88

METHODS

Use of dose-volume histograms and biophysical models to compare 2D and 3D irradiation techniques for non-small cell lung cancer. Ragazzi G, et al. **Br J Radiol** 1999 Mar; 72(855):279-88

A new method for the placement of brachytherapy probes in paranasal sinus and nasopharynx neoplasms. Kremer B, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):995-1000

A comparison of daily CT localization to a daily ultrasound-based system in prostate cancer [see comments] Lattanzi J, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):719-25. Comment in: Int J Radiat Oncol Biol Phys 1999 Mar 1;43(4):705-6.

What's your position? We have a need to know [editorial; comment] Pollack A. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):705-6. Comment on: Int J Radiat Oncol Biol Phys 1999 Mar 1;43(4):719-25.

Multimodality nuclear medicine imaging in three-dimensional radiation treatment planning for lung cancer: challenges and prospects. Munley MT, et al. **Lung Cancer** 1999 Feb;23(2):105-14

Characterization of the output for helical delivery of intensity modulated slit beams. Balog JP, et al. **Med Phys** 1999 Jan; 26(1):55-64

Virtual light field projection for CT-simulation. Lu HM, et al. **Med Phys** 1999 Jul;26(7):1222-9

Physical characteristics of a miniature multileaf collimator. Xia P, et al. **Med Phys** 1999 Jan;26(1):65-70

Computer-guided laser probe for ablation of brain tumours with ultrashort laser pulses. Goetz MH, et al. **Phys Med Biol** 1999 Jun;44(6):N119-27

Monte Carlo-based inverse treatment planning. Jeraj R, et al. **Phys Med Biol** 1999 Aug;44(8):1885-96

A case study comparing the relative benefit of optimizing beam weights, wedge angles, beam orientations and tomotherapy in stereotactic radiotherapy of the brain. Oldham M, et al. **Phys Med Biol** 1998 Aug;43(8):2123-46

A macropencil beam model: clinical implementation for conformal and intensity modulated radiation therapy. Phillips MH, et al. **Phys Med Biol** 1999 Apr;44(4):1067-88

The clinical application of dynamic shielding and imaging in moving table total body irradiation. Papiez L, et al. **Radiother Oncol** 1999 Jun;51(3):219-24

Verification of set-up deviations in patients with breast cancer using portal imaging in clinical practice. Böhmer D, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:36-9

The application of PET to quality assurance of heavy-ion tumor therapy. Enghardt W, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:33-6

STANDARDS

Computer-assisted decision making in portal verification--optimization of the neural network approach. Leszczynski K, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):215-25

RADIOTHERAPY, CONFORMAL

see related
RADIOTHERAPY DOSAGE
RADIOTHERAPY PLANNING, COMPUTER-ASSISTED

Potential gains using high-energy protons for therapy of malignant tumours. Glimelius B, et al. **Acta Oncol** 1999; 38(2):137-45 (44 ref.)

A comparison of conventional and conformal radiotherapy of the oesophagus: work in progress. Guzel Z, et al. **Br J Radiol** 1998 Oct;71(850):1076-82

Three-dimensional conformal radiation therapy for early prostate cancer [comment] Peschel RE. **Cancer J Sci Am** 1999 May-Jun;5(3):145-6. Comment on: Cancer J Sci Am 1999 May-Jun;5(3):152-8.

Comparison of the conventional 'box technique' with two different 'conformal' beam arrangements for prostate cancer treatment. Magrini SM, et al. **Cancer Radiother** 1999 May-Jun;3(3):215-20

Conformal radiotherapy: a clinical review. Read G. **Clin Oncol (R Coll Radiol)** 1998;10(5):288-96 (87 ref.)

Prostate target volume variations during a course of radiotherapy. Antolak JA, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):661-72

A comparison of three stereotactic radiotherapy techniques; ARCS vs. noncoplanar fixed fields vs. intensity modulation. Cardinale RM, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):431-6

Target position variability throughout prostate radiotherapy. Dawson LA, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1155-61

Dose escalation of chart in non-small cell lung cancer: is three-dimensional conformal radiation therapy really necessary? McGibney C, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):339-50

Minimizing static intensity modulation delivery time using an intensity solid paradigm. Siochi RA. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):671-80

Conformal proton therapy for prostate carcinoma. Slater JD, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):299-304

Inclusion of geometrical uncertainties in radiotherapy treatment planning by means of coverage probability. Stroom JC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):905-19

Regarding Zelefsky, Leibel, Gaudin, et al., IJROBP 1998;41:491-500 [letter; comment] Vicini FA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):235. Comment on: Int J Radiat Oncol Biol Phys 1998 Jun 1;41(3):491-500.

External beam radiotherapy for pelvic node recurrence after curative resection of colon cancer: report of a case. Masaki T, et al. **Jpn J Clin Oncol** 1999 Apr;29(4):229-33 (24 ref.)

Beam shaping for SRT/SRS. Leavitt DD. **Med Dosim** 1998 Fall;23(3):229-36

Image processing in stereotactic planning: volume visualization and image registration. Pelizzari CA. **Med Dosim** 1998 Fall;23(3):137-45 (39 ref.)

Theoretical considerations of monitor unit calculations for intensity modulated beam treatment planning. Boyer A, et al. **Med Phys** 1999 Feb;26(2):187-95

A computerized dosimetric database for conformal stereotactic irradiations. Grandjean P, et al. **Med Phys** 1999 Apr;26(4):524-32

Intensity-modulated conformal radiation therapy and 3-dimensional treatment planning will significantly reduce the need for therapeutic approaches with particles such as protons. Mackie TR, et al. **Med Phys** 1999 Jul; 26(7):1185-7

Temporal resolution requirements for intensity modulated radiation therapy delivered by multileaf collimators. Budgell GJ. **Phys Med Biol** 1999 Jul;44(7):1581-96

Electron contamination and build-up doses in conformal radiotherapy fields. Hounsell AR, et al. **Phys Med Biol** 1999 Jan;44(1):43-55

Is there a subset of patients with PSA > or = 20 ng/ml who do well after conformal beam radiotherapy? Algan O, et al. **Radiat Oncol Investig** 1999;7(2):106-10

Set-up error in supine-positioned patients immobilized with two different modalities during conformal radiotherapy of prostate cancer. Fiorino C, et al. **Radiother Oncol** 1998 Nov;49(2):133-41

The role of high-LET radiotherapy compared to conformal photon radiotherapy in adenoid cystic carcinoma. Debus J, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:63-5 (12 ref.)

A challenge for high-precision radiation therapy: the case for photons. Gahbauer RA. **Strahlenther Onkol** 1999 Jun; 175 Suppl 2:121-2

Proton radiation therapy for pediatric malignancies: status report. Hug EB, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:89-91

Conformal proton beam therapy of prostate cancer--update on the Loma Linda University medical center experience. Rossi CJ. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:82-4

Three dimensional conformal photon radiotherapy at a moderate dose level of 66 Gy for prostate carcinoma: early results. Wachter S, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:84-6

A challenge for high-precision radiation therapy: the case for hadrons. Wambersie A, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:122-8

[Conformal radiotherapy] Hubert J, et al. **Prog Urol** 1999 Jun;9(3):544-51 (35 ref.) (Eng. Abstr.) **(Fre)**

[Probability of seminal vesicle involvement in localized prostatic carcinoma. Significance in conformal radiotherapy] Feldmann HJ, et al. **Strahlenther Onkol** 1998 Nov;174(11):566-70 (Eng. Abstr.) **(Ger)**

[Significance of a rectal balloon as internal immobilization device in conformal radiotherapy of prostatic carcinoma] Gerstner N, et al. **Strahlenther Onkol** 1999 May; 175(5):232-8 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Normal tissue complication probabilities correlated with late effects in the rectum after prostate conformal radiotherapy. Dale E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):385-91

Clinical dose-volume histogram analysis for pneumonitis after 3D treatment for non-small cell lung cancer (NSCLC). Graham MV, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):323-9

Acute morbidity reduction using 3DCRT for prostate carcinoma: a randomized study. Koper PC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):727-34

Comparison of radiation side-effects of conformal and conventional radiotherapy in prostate cancer: a randomised trial [see comments] Dearnaley DP, et al. **Lancet** 1999 Jan 23;353(9149):267-72. Comment in: Lancet 1999 Apr 24;353(9162):1443.

Comparison of radiation side-effects in prostate cancer [letter; comment] Lilleby W, et al. **Lancet** 1999 Apr 24; 353(9162):1443. Comment on: Lancet 1999 Jan 23;353(9149):267-72.

Localiy advanced prostatic cancer: long-term toxicity outcome after three-dimensional conformal radiation therapy--a dose-escalation study. Zelefsky MJ, et al. **Radiology** 1998 Oct;209(1):169-74

ECONOMICS

Costs of standard and conformal photon radiotherapy in Austria. Hohenberg G, et al. **Strahlenther Onkol** 1999 Jun; 175 Suppl 2:99-101

The cost-effectiveness of mixed beam neutron-photon radiation therapy in the treatment of adenocarcinoma of the prostate. Maughan RL, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:104-7

INSTRUMENTATION

Initial clinical experience with a video-based patient positioning system. Johnson LS, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):205-13

Technology assessment of multileaf collimation: a North American users survey. Klein EE, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):705-10

Impact of collimator leaf width on stereotactic radiosurgery and 3D conformal radiotherapy treatment plans. Kubo HD, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):937-45

Synchronizing dynamic multileaf collimators for producing two-dimensional intensity-modulated fields with minimum beam delivery time. Ma L, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1147-54

Multileaf collimator interleaf transmission. Balog JP, et al. **Med Phys** 1999 Feb;26(2):176-86

Delivery verification in sequential and helical tomotherapy. Kapatoes JM, et al. **Phys Med Biol** 1999 Jul;44(7):1815-41

Conformal intensity-modulated radiotherapy (IMRT) delivered by robotic linac--testing IMRT to the limit? Webb S. **Phys Med Biol** 1999 Jul;44(7):1639-54

A cone-beam megavoltage CT scanner for treatment verification in conformal radiotherapy. Mosleh-Shirazi MA, et al. **Radiother Oncol** 1998 Sep;48(3):319-28

Intensity-modulated radiation therapy with dynamic multileaf collimators. Boyer AL, et al. **Semin Radiat Oncol** 1999 Jan;9(1):48-59

METHODS

Target volume definition for three-dimensional conformal radiation therapy of lung cancer. Armstrong JG. **Br J Radiol** 1998 Jun;71(846):587-94 (24 ref.)

The use of independent collimation in the treatment of Graves' ophthalmopathy. Snow A. **Br J Radiol** 1999 Apr; 72(856):389-91

Value of a multileaf prescription preparation system for palliative external beam irradiation. Thilmann C, et al. **Br J Radiol** 1999 Apr;72(856):384-8

The single-isocentre treatment of head and neck cancer: time gain using MLC and automatic set-up. De Meerleer GO, et al. **Cancer Radiother** 1999 May-Jun;3(3):235-41

Planning target volumes for radiotherapy: how much margin is needed? Antolak JA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1165-70

High-precision conformal radiotherapy (HPCRT) of prostate cancer--a new technique for exact positioning of the prostate at the time of treatment. Bergström P, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):305-11

Beam intensity modulation to reduce the field sizes for conformal irradiation of lung tumors: a dosimetric study. Brugmans MJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):893-904

Smart (simultaneous modulated accelerated radiation therapy) boost: a new accelerated fractionation schedule for the treatment of head and neck cancer with intensity modulated radiotherapy. Butler EB, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):21-32

Comparison of intensity-modulated tomotherapy with stereotactically guided conformal radiotherapy for brain tumors. Khoo VS, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):415-25

Comparison of 2D and 3D algorithms for adding a margin to the gross tumor volume in the conformal radiotherapy planning of prostate cancer. Khoo VS, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):673-9

Volumetric and dosimetric evaluation of radiation treatment plans: radiation conformity index. Knöös T, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1169-76

Patterns of failure following high-dose 3-D conformal radiotherapy for high-grade astrocytomas: a quantitative dosimetric study. Lee SW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):79-88

A new tool for dose conformity evaluation of radiosurgery treatment plans. Leung LH, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):233-41

Abutment region dosimetry for serial tomotherapy. Low DA, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1; 45(1):193-203

The effect of patient position and treatment technique in conformal treatment of prostate cancer. McLaughlin PW, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):407-13

Computerized design of target margins for treatment

uncertainties in conformal radiotherapy. Mageras GS, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):437–45
Image registration of BANG gel dose maps for quantitative dosimetry verification. Meeks SL, et al.
Int J Radiat Oncol Biol Phys 1999 Mar 15;43(5):1135–41
Portal imaging based definition of the planning target volume during pelvic irradiation for gynecological malignancies. Mock U, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):227–32
Optimization of stereotactically-guided conformal treatment planning of sellar and parasellar tumors, based on normal brain dose volume histograms. Perks JR, et al.
Int J Radiat Oncol Biol Phys 1999 Sep 1;45(2):507–13
Static field intensity modulation to treat a dominant intra-prostatic lesion to 90 Gy compared to seven field 3-dimensional radiotherapy. Pickett B, et al.
Int J Radiat Oncol Biol Phys 1999 Jul 1;44(4):921–9
Pion conformal radiation of prostate cancer: results of a randomized study. Pickles T, et al.
Int J Radiat Oncol Biol Phys 1999 Jan 1;43(1):47–55
Variation of clinical target volume definition in three-dimensional conformal radiation therapy for prostate cancer. Valicenti RK, et al.
Int J Radiat Oncol Biol Phys 1999 Jul 1;44(4):931–5
Automated treatment planning engine for prostate seed implant brachytherapy. Yu Y, et al.
Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):647–52
Comparison of the 5-year outcome and morbidity of three-dimensional conformal radiotherapy versus transperineal permanent iodine-125 implantation for early-stage prostatic cancer. Zelefsky MJ, et al.
J Clin Oncol 1999 Feb;17(2):517–22
Intensity modulated conformal therapy for intracranial lesions. Grant W 3rd, et al. **Med Dosim** 1998 Fall; 23(3):237–41
Clinical efficacy of respiratory gated conformal radiation therapy. Ramsey CR, et al. **Med Dosim** 1999 Summer; 24(2):115–9
Trimmed radiosurgical fields. Wierzbicki W, et al.
Med Dosim 1999 Summer;24(2):129–33
Delivery verification in sequential and helical tomotherapy. Kapatoes JM, et al. **Phys Med Biol** 1999 Jul;44(7):1815–41
Intensity modulation methods for proton radiotherapy. Lomax A. **Phys Med Biol** 1999 Jan;44(1):185–205
Constrained customization of non-coplanar beam orientations in radiotherapy of brain tumours. Rowbottom CG, et al. **Phys Med Biol** 1999 Feb;44(2):383–99
Conformal intensity-modulated radiotherapy (IMRT) delivered by robotic linac--testing IMRT to the limit? Webb S. **Phys Med Biol** 1999 Jul;44(7):1639–54
Results of a phase II concurrent chemoradiotherapy study using three-dimensional conformal radiotherapy with cisplatin and oral etoposide in stage III nonsmall-cell lung cancer. Chen LM, et al. **Radiat Oncol Investig** 1999; 7(1):49–53
Influence of timing on the dosimetric analysis of transperineal ultrasound-guided, prostatic conformal brachytherapy. Merrick GS, et al. **Radiat Oncol Investig** 1998;6(4):182–90
The advantages of three-dimensional conformal radiotherapy for treatment of childhood cancer. Smitt MC, et al.
Radiat Res 1998 Nov;150(5 Suppl):S170–7
Comparison of a multi-leaf collimator with conformal blocks for the delivery of stereotactically guided conformal radiotherapy. Adams EJ, et al. **Radiother Oncol** 1999 Jun; 51(3):205–9
Stereotactically guided conformal radiotherapy for meningiomas [see comments] Alheit H, et al.
Radiother Oncol 1999 Feb;50(2):145–50. Comment in: Radiother Oncol 1999 Feb;50(2):143–4.
A conformal technique for a ring shaped conjunctive lymphoma treatment. Arráns R, et al. **Radiother Oncol** 1999 Mar;50(3):315–8
A comparison of coplanar four-field techniques for conformal radiotherapy of the prostate. Bedford JL, et al. **Radiother Oncol** 1999 Jun;51(3):225–35
Conformal radiation therapy treatment planning reduces the dose to the optic structures for patients with tumors of the paranasal sinuses. Brizel DM, et al. **Radiother Oncol** 1999 Jun;51(3):215–8
Commissioning of a micro multi-leaf collimator and planning system for stereotactic radiosurgery. Cosgrove VP, et al. **Radiother Oncol** 1999 Mar;50(3):325–36
Three-dimensional dosimetry using polymer gel and magnetic resonance imaging applied to the verification of conformal radiation therapy in head-and-neck cancer. De Deene Y, et al. **Radiother Oncol** 1998 Sep;48(3):283–91
Clinical delivery of intensity modulated conformal radiotherapy for relapsed or second-primary head and neck cancer using a multileaf collimator with dynamic control. De Neve W, et al. **Radiother Oncol** 1999 Mar;50(3):301–14
Stereotactically guided conformal radiotherapy: a new tool for the treatment of intra-cranial benign tumors [editorial; comment] Kantor G. **Radiother Oncol** 1999 Feb;50(2):143–4 (17 ref.). Comment on: Radiother Oncol 1999 Feb;50(2):145–50.
Modulated electron beams using multi-segmented multileaf collimation. Klein EE. **Radiother Oncol** 1998 Sep; 48(3):307–11
A paired wedge filter system for compensation in dose differences. Kobayashi H, et al. **Radiother Oncol** 1998 Dec; 49(3):267–72
Sharpening the penumbra of high energy electron beams with low weight narrow photon beams. Korevaar EW, et al. **Radiother Oncol** 1998 Aug;48(2):213–20
Daily positioning accuracy of frameless stereotactic radiation therapy with a fusion of computed tomography and linear accelerator (focal) unit: evaluation of z-axis with a z-marker. Uematsu M, et al. **Radiother Oncol** 1999 Mar; 50(3):337–9
A single-variable method for the derivation of collimator scatter correction factors in symmetrical and asymmetrical X-ray beams. Venselaar JL, et al. **Radiother Oncol** 1999 Mar;50(3):319–24
Quantification and predictors of prostate position variability in 50 patients evaluated with multiple CT scans during conformal radiotherapy. Zelefsky MJ, et al.
Radiother Oncol 1999 Feb;50(2):225–34
Conformal radiation therapy with hadron beams and the programs of the TERA Foundation. Amaldi U. **Rays** 1998 Jul-Sep;23(3):486–507 **(Eng, Ita)**
Optimized planning using physical objectives and constraints. Bortfeld T. **Semin Radiat Oncol** 1999 Jan;9(1):20–34 (63 ref.)
Optimized radiation therapy based on radiobiological objectives. Brahme A. **Semin Radiat Oncol** 1999 Jan; 9(1):35–47 (41 ref.)
Optimization and clinical use of multisegment intensity-modulated radiation therapy for high-dose conformal therapy. Fraass BA, et al.
Semin Radiat Oncol 1999 Jan;9(1):60–77 (110 ref.)
Clinical and financial issues for intensity-modulated radiation therapy delivery. Grant W 3rd, et al.
Semin Radiat Oncol 1999 Jan;9(1):99–107 (17 ref.)
Managing geometric uncertainty in conformal intensity-modulated radiation therapy. Jaffray DA, et al. **Semin Radiat Oncol** 1999 Jan;9(1):4–19 (57 ref.)
Radiation therapy treatment optimization. Introduction. Mackie TR. **Semin Radiat Oncol** 1999 Jan;9(1):1–3
Tomotherapy. Mackie TR, et al. **Semin Radiat Oncol** 1999 Jan;9(1):108–17
Comparison of three-dimensional conformal radiation therapy and intensity-modulated radiation therapy systems. Verhey LJ. **Semin Radiat Oncol** 1999 Jan;9(1):78–98 (43 ref.)
Aspects of medical physics of Med-Austron. Haverkamp U. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:4–7
Treatment planning for conformal stereotactic radiotherapy. Kneschaurek P, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:8–9
Proton therapy for tumors of the skull base. Munzenrider JE, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:57–63 (46 ref.)
Target localization and treatment verification for intensity modulated conformal radiation therapy of the head and neck region. The AZ-VUB experience. Akademisch Ziekenhuis-Vrije Universiteit Brussel. Verellen D, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:19–27
Intensity modulated radiation therapy. Rose CM.
West J Med 1998 Nov;169(5):285–6
[Practical determination of volume and doses in conformal radiotherapy] Bey P, et al. **Cancer Radiother** 1998 Sep-Oct; 2(5):615–8 (18 ref.) (Eng. Abstr.) **(Fre)**
[3D automatic expansion: clinical application] Gaboriaud G, et al. **Cancer Radiother** 1998 Sep-Oct;2(5):619–22 (Eng. Abstr.) **(Fre)**
[Current status and future prospects of 3D treatment planning in radiation therapy, focusing on IMRT] Nakagawa K, et al. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1248–53 (9 ref.) (Eng. Abstr.) **(Jpn)**

STANDARDS

Treatment plan evaluation using dose-volume histogram (DVH) and spatial dose-volume histogram (zDVH). Cheng CW, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):1143–50
A quality assurance phantom for three-dimensional radiation treatment planning. Craig T, et al.
Int J Radiat Oncol Biol Phys 1999 Jul 1;44(4):955–66
In vivo dosimetry during external photon beam radiotherapy. Essers M, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):245–59 (126 ref.)
The impact of treatment complexity and computer-control delivery technology on treatment delivery errors. Fraass BA, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1; 42(3):651–9
Geometric accuracy of field alignment in fractionated stereotactic conformal radiotherapy of brain tumors. Kortmann RD, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):921–6
Potential role of various dosimetric quality indicators in prostate brachytherapy. Merrick GS, et al.
Int J Radiat Oncol Biol Phys 1999 Jun 1;44(3):717–24
Variability of target volume delineation in cervical esophageal cancer. Tai P, et al.
Int J Radiat Oncol Biol Phys 1998 Sep 1;42(2):277–88
On the quality of treatment planning systems in radiation therapy. Panten T, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:31–5
Initial experience with quality assurance of multi-institutional 3D radiotherapy clinical trials. A brief report. Purdy JA, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:40–2
Quality assurance for 3D conformal radiation therapy. Purdy JA, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:2–7
RBE, reference RBE and clinical RBE: applications of these concepts in hadron therapy. Wambersie A.
Strahlenther Onkol 1999 Jun;175 Suppl 2:39–43
Intensity-modulated radiation therapy: dynamic MLC (DMLC) therapy, multisegment therapy and tomotherapy. An example of QA in DMLC therapy. Webb S.
Strahlenther Onkol 1998 Oct;174 Suppl 2:8–12

STATISTICS & NUMERICAL DATA

Time requirements in conformal radiotherapy treatment planning. Panten T, et al. **Radiother Oncol** 1999 Jun; 51(3):211–4

RADIOTHERAPY DOSAGE

see related
DOSE-RESPONSE RELATIONSHIP, RADIATION
RADIOTHERAPY, CONFORMAL

Reproducibility study of TLD-100 micro-cubes at radiotherapy dose level. da Rosa LA, et al.
Appl Radiat Isot 1999 Mar;50(3):573–7
The derivation of tissue-maximum ratio from percentage depth dose requires peak scatter factor to be considered a function of source-to-surface distance [see comments] Bedford JL, et al. **Br J Radiol** 1998 Aug;71(848):876–81. Comment in: Br J Radiol 1999 Jan;72(853):101.
The derivation of tissue-maximum ratio from percentage depth dose requires peak scatter factor to be considered as a function of SSD [letter; comment] Mihailidis DN, et al. **Br J Radiol** 1999 Jan;72(853):101. Comment on: Br J Radiol 1998 Aug;71(848):876–81.
Toxicity and dosimetry of fractionated total body irradiation prior to allogeneic bone marrow transplantation using a straightforward radiotherapy technique. Gerrard GE, et al. **Clin Oncol (R Coll Radiol)** 1998;10(6):379–83
Dosimetry rules for brachytherapy using high dose rate remote afterloading implants. Hoskin PJ, et al.
Clin Oncol (R Coll Radiol) 1998;10(4):226–30
In vitro apoptosis in peripheral blood mononuclear cells induced by low-dose radiotherapy displays a discontinuous dose-dependence. Kern P, et al. **Int J Radiat Biol** 1999 Aug;75(8):995–1003
Treatment plan evaluation using dose-volume histogram (DVH) and spatial dose-volume histogram (zDVH). Cheng CW, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):1143–50
Dosimetry of hip irradiation for the prevention of heterotopic bone formation after arthroplasty. Evans MD, et al.
Int J Radiat Oncol Biol Phys 1999 Mar 15;43(5):1161–5
Effect of metal reconstruction plates on cobalt-60 dose distribution: a predictive formula and clinical implications. Melian E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):725–30
A method for implementing the American Association of Physicists in Medicine Task Group-43 dosimetry recommendations for 125I transperineal prostate seed implants on commercial treatment planning systems: regarding Luse et al. IJROBP 37:737–741; 1997 [letter; comment] Rustgi SN. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):243. Comment on: Int J Radiat Oncol Biol Phys 1997 Feb 1;37(3):737–41.
External radiation therapy boost to the vaginal vault: feasibility of intracavitary dosimetry using a commercial diode system. Settineri N, et al.
Int J Radiat Oncol Biol Phys 1999 Apr 1;44(1):221–6
Phase I study to determine the maximum-tolerated dose of radiation in standard daily and hyperfractionated-accelerated twice-daily radiation schedules with concurrent chemotherapy for limited-stage small-cell lung cancer. Choi NC, et al. **J Clin Oncol** 1998 Nov;16(11):3528–36
DOSE3D: EGS4 Monte Carlo code-based software for internal radionuclide dosimetry. Clairand I, et al.
J Nucl Med 1999 Sep;40(9):1517–23
The MIRD perspective 1999. Medical Internal Radiation Dose Committee. Howell RW, et al. **J Nucl Med** 1999 Jan; 40(1):3S–10S
A new rectal model for dosimetry applications. Mardirossian G, et al. **J Nucl Med** 1999 Sep;40(9):1524–31
Spinal cord dose is higher than expected in head and neck radiation. Allison R, et al. **Med Dosim** 1999 Summer; 24(2):135–9
The effect of beam divergence on target coverage. Bentel GC, et al. **Med Dosim** 1999 Summer;24(2):99–113 (11 ref.)
Comparison of kilovoltage x-ray and electron beam dose distributions for radiotherapy of the sternum. Keall P, et al. **Med Dosim** 1999 Summer;24(2):141–4
The midline dose distribution for a three-field radiotherapy technique. Meeks SL, et al. **Med Dosim** 1999 Summer; 24(2):91–8
103Pd loaded cartridge air kerma strength verification. Mellenberg DE Jr, et al. **Med Dosim** 1999 Spring;24(1):73–5
Lung compensator design using an electronic portal imaging device. Parsaei H, et al. **Med Dosim** 1999 Spring; 24(1):67–71
Commissioning, clinical implementation and quality assurance of Siemen's Virtual Wedge. Rathee S, et al.
Med Dosim 1999 Summer;24(2):145–53
Interfacing a linear diode array to a conventional water scanner for the measurement of dynamic dose distributions and comparison with a linear ion chamber array. Sidhu NP. **Med Dosim** 1999 Spring;24(1):57–60
Trimmed radiosurgical fields. Wierzbicki W, et al.

Med Dosim 1999 Summer;24(2):129–33
Comparison of the transit dose components and source kinematics of three high dose rate afterloading systems. Wojcicka JB, et al. **Med Dosim** 1999 Spring;24(1):61–5
Proton beam output measurement with an extrapolation chamber. Zankowski C, et al. **Med Dosim** 1998 Winter; 23(4):288–91
Tissue equivalence correction for silicon microdosimetry detectors in boron neutron capture therapy. Bradley PD, et al. **Med Phys** 1998 Nov;25(11):2220–5
Use of CEA TVS film for measuring high energy photon beam dose distributions. Cadman P. **Med Phys** 1998 Aug; 25(8):1435–7
Use of the fast Hartley transform for three-dimensional dose calculation in radionuclide therapy. Erdi AK, et al. **Med Phys** 1998 Nov;25(11):2226–33
Commissioning a p-type silicon diode for use in clinical electron beams. Eveling JN, et al. **Med Phys** 1999 Jan; 26(1):100–7
Functional fitting of interstitial brachytherapy dosimetry data recommended by the AAPM Radiation Therapy Committee Task Group 43. American Association of Physicists in Medicine. Furhang EE, et al. **Med Phys** 1999 Feb;26(2):153–60
Dose enhancement by a thin foil of high-Z material: a Monte Carlo study. Li XA, et al. **Med Phys** 1999 Jul;26(7):1245–51
Study of dosimetry consistency for kilovoltage x-ray beams. Ma CM, et al. **Med Phys** 1998 Dec;25(12):2376–84
The physical basis for empirical rules used to determine equivalent fields for phantom scatter. McDermott PN. **Med Phys** 1998 Nov;25(11):2215–9
Determination of scatter factor parameters and electron disequilibrium for monoenergetic photon beams. McDonough J, et al. **Med Phys** 1999 Feb;26(2):200–5
Application of the scaling factor method to estimation of beta dose distributions for dissimilar media separated by a planar interface. Marcu SM, et al. **Med Phys** 1998 Aug; 25(8):1478–86
Incorporation of functional status into dose-volume analysis. Marks LB, et al. **Med Phys** 1999 Feb;26(2):196–9
Scatter and attenuation measurements at distances greater than 10 cm from an 192Ir source. Mauceri T, et al. **Med Phys** 1999 Jan;26(1):97–9
Dosimetric verification of two commercially available three-dimensional treatment planning systems using the TG 23 test package. Ramsey CR, et al. **Med Phys** 1999 Jul; 26(7):1188–95
Clinical brachytherapy with neutron emitting 252Cf sources and adherence to AAPM TG-43 dosimetry protocol. Rivard MJ, et al. **Med Phys** 1999 Jan;26(1):87–96
Corrected relationship between %dd(10)x and stopping-power ratios. Rogers DW, et al. **Med Phys** 1999 Apr;26(4):538–40
Peripheral dose from a linear accelerator equipped with multileaf collimation. Stern RL. **Med Phys** 1999 Apr; 26(4):559–63
An objective function for radiation treatment optimization based on local biological measures. Alber M, et al. **Phys Med Biol** 1999 Feb;44(2):479–93
Fourier transform Raman spectroscopy of polyacrylamide gels (PAGs) for radiation dosimetry. Baldock C, et al. **Phys Med Biol** 1998 Dec;43(12):3617–27
Direct determination of kerma for a d(48.5) + Be therapy beam [see comments] Binns PJ, et al. **Phys Med Biol** 1998 Dec;43(12):3449–57. Comment in: Phys Med Biol 1998 Dec;43(12):3425–6.
Measurements of the equivalent whole-body dose during radiation therapy by cytogenetic methods. Durante M, et al. **Phys Med Biol** 1999 May;44(5):1289–98
Application of a diamond detector to brachytherapy dosimetry. Rustgi SN. **Phys Med Biol** 1998 Aug; 43(8):2085–94
Perturbation of radiotherapy beams by radiographic film: measurements and Monte Carlo simulations. Suchowerska N, et al. **Phys Med Biol** 1999 Jul;44(7):1755–65
Gap-stepped MLC leaves with filler blades can eliminate tongue-and-groove underdoses when delivering IMRT with maximum efficiency. Symonds-Tayler JR, et al. **Phys Med Biol** 1998 Aug;43(8):2393–5
A consistent formalism for the application of phantom and collimator scatter factors. Venselaar JL, et al. **Phys Med Biol** 1999 Feb;44(2):365–81
Dose errors in the near field of an HDR brachytherapy stepping source. Wong T, et al. **Phys Med Biol** 1999 Feb; 44(2):357–63
Dosimetric verification of a commercial inverse treatment planning system. Xing L, et al. **Phys Med Biol** 1999 Feb; 44(2):463–78
Bladder and rectal doses from external-beam boosts after gynecologic brachytherapy. Ting JY, et al. **Radiology** 1998 Dec;209(3):825–30
The use of compensators to optimise the three dimensional dose distribution in radiotherapy of the intact breast. Carruthers LJ, et al. **Radiother Oncol** 1999 Mar; 50(3):291–300
Moderate dose intraoperative and external beam radiotherapy for locally recurrent rectal carcinoma. Eble MJ, et al. **Radiother Oncol** 1998 Nov;49(2):169–74
A paired wedge filter system for compensation in dose differences. Kobayashi H, et al. **Radiother Oncol** 1998 Dec; 49(3):267–72
The modelled benefits of individualizing radiotherapy patients' dose using cellular radiosensitivity assays with inherent variability. Mackay RI, et al. **Radiother Oncol** 1999 Jan;50(1):67–75
A dosimetric intercomparison of kilovoltage X-rays, megavoltage photons and electrons in the Republic of Ireland. Nisbet A, et al. **Radiother Oncol** 1998 Jul; 48(1):95–101
The effect of independent collimator misalignment on the dosimetry of abutted half-beam blocked fields for the treatment of head and neck cancer. Rosenthal DI, et al. **Radiother Oncol** 1998 Dec;49(3):273–8
The effect of heterogeneity in tumor cell kinetics on radiation dose-response. An exploratory investigation of a plateau effect. Suwinski R, et al. **Radiother Oncol** 1999 Jan; 50(1):57–66
A single-variable method for the derivation of collimator scatter correction factors in symmetrical and asymmetrical X-ray beams. Venselaar JL, et al. **Radiother Oncol** 1999 Mar;50(3):319–24
RBE and its interpretation. Kraft G. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:44–7
The accuracy of dose determination during total body irradiation. Malicki J. **Strahlenther Onkol** 1999 May; 175(5):208–12
RBE, reference RBE and clinical RBE: applications of these concepts in hadron therapy. Wambersie A. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:39–43
[Intensity modulation by inverse planning: preliminary results] Vieillevigne L, et al. **Cancer Radiother** 1999 Jul-Aug;3(4):325–32 (Eng. Abstr.) **(Fre)**
[A new method of 3-dimensional imaging of dose distribution in radiotherapy] Jensen JM, et al. **Rontgenpraxis** 1998; 51(10):391–5 (Eng. Abstr.) **(Ger)**
[In vivo dosimetry. Assessment of exit dose correction factors] Ostinelli A, et al. **Radiol Med (Torino)** 1999 Jan-Feb;97(1-2):81–5 (Eng. Abstr.) **(Ita)**
[Study and implementation of a computerized program for personalized prescriptions for patients treated with radioiodine to be discharged] Puccini S, et al. **Radiol Med (Torino)** 1999 Apr;97(4):279–85 (Eng. Abstr.) **(Ita)**
[Effect of dosage in the planning of intracavitary irradiation] Chekhonadskii VN, et al. **Vopr Onkol** 1998;44(5):551–5 (Eng. Abstr.) **(Rus)**

STANDARDS

Verification of single beam treatment planning using a ferrous dosimeter gel and MRI (FeMRI). Bäck SA, et al. **Acta Oncol** 1998;37(6):561–6
Calculated effects of displacement errors in external beam radiotherapy of prostatic adenocarcinoma. Lennernäs B, et al. **Acta Oncol** 1999;38(2):203–8
Describing patients' normal tissue reactions: concerning the possibility of individualising radiotherapy dose prescriptions based on potential predictive assays of normal tissue radiosensitivity. Steering Committee of the BioMed2 European Union Concerted Action Programme on the Development of Predictive Tests of Normal Tissue Response to Radiation Therapy. Burnet NG, et al. **Int J Cancer** 1998 Dec 18;79(6):606–13
A reduction in the AAPM TG-36 reported peripheral dose distributions with tertiary multileaf collimation. American Association of Physicists in Medicine Task Group 36. Mutic S, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1; 44(4):947–53
Radiochromic film dosimetry: recommendations of AAPM Radiation Therapy Committee Task Group 55. American Association of Physicists in Medicine. Niroomand-Rad A, et al. **Med Phys** 1998 Nov;25(11):2093–115
Ion recombination corrections for the NACP parallel-plate chamber in a pulsed electron beam. Burns DT, et al. **Phys Med Biol** 1998 Aug;43(8):2033–45
An experimental evaluation of recent electron dosimetry codes of practice. Nisbet A, et al. **Phys Med Biol** 1998 Aug;43(8):1999–2014

RADIOTHERAPY DOSE FRACTIONATION see **DOSE FRACTIONATION**

RADIOTHERAPY, HIGH-ENERGY

Radiotherapy on adult patients with soft tissue sarcoma with fast neutrons or photons. Schönekaes KG, et al. **Anticancer Res** 1999 May-Jun;19(3B):2355–9
Clinical characteristics and long-term outcome of patients with generalized patch and/or plaque (T2) mycosis fungoides. Kim YH, et al. **Arch Dermatol** 1999 Jan; 135(1):26–32
The X-ray and electron benchmarking of the Monte Carlo codes MCNP-4A and 4B on different computers. Edwards CR, et al. **Br J Radiol** 1999 Feb;72(854):196–200
Characterization and use of a commercial n-type diode system. Wolff T, et al. **Br J Radiol** 1998 Nov; 71(851):1168–77
Radiotherapy for the treatment of giant cell tumor of the spine: a report of six cases and review of the literature. Khan DC, et al. **Cancer Invest** 1999;17(2):110–3 (24 ref.)
Abnormal bcl-2 and pRb expression are independent correlates of radiation response in muscle-invasive bladder cancer. Pollack A, et al. **Clin Cancer Res** 1997 Oct; 3(10):1823–9
Radical radiotherapy for squamous cell carcinoma of the larynx, oropharynx and hypopharynx: patterns of recurrence, treatment and survival. Jones AS, et al. **Clin Otolaryngol** 1998 Dec;23(6):496–511
Long-term results of 60 patients with pathologic stage I & IIA Hodgkin's disease treated with exclusive mantle radiation therapy. Enrici RM, et al. **Eur J Haematol** 1999 Aug;63(2):126–33
Combined treatment of advanced oropharyngeal cancer with external radiotherapy and three-step radioimmunotherapy. Paganelli G, et al. **Eur J Nucl Med** 1998 Sep;25(9):1336–9
The suppression of heterotopic ossifications: radiation versus NSAID therapy--a prospective study. Sell S, et al. **J Arthroplasty** 1998 Dec;13(8):854–9
Lung compensator design using an electronic portal imaging device. Parsaei H, et al. **Med Dosim** 1999 Spring; 24(1):67–71
Dosimetric considerations of water-based bolus for irradiation of extremities. Saw CB, et al. **Med Dosim** 1998 Winter;23(4):292–5
Proton beam output measurement with an extrapolation chamber. Zankowski C, et al. **Med Dosim** 1998 Winter; 23(4):288–91
Feasibility of intraoperative electron beam radiation therapy in the treatment of locally advanced pediatric malignancies. Nag S, et al. **Med Pediatr Oncol** 1999 May;32(5):382–4
Theoretical considerations of monitor unit calculations for intensity modulated beam treatment planning. Boyer A, et al. **Med Phys** 1999 Feb;26(2):187–95
A consistent set of neutron kerma coefficients from thermal to 150 MeV for biologically important materials. Chadwick MB, et al. **Med Phys** 1999 Jun;26(6):974–91
In-phantom dosimetry and spectrometry of photoneutrons from an 18 MV linear accelerator. d'Errico F, et al. **Med Phys** 1998 Sep;25(9):1717–24
115In as a probe for the characterization of therapy bremsstrahlung beams and the detection of photoneutrons. Krmar M, et al. **Med Phys** 1999 Apr;26(4):564–9
Measured water transmission curves and calculated zero field size tumor maximum ratios for 4, 6, and 15 MV x-rays. Lee NE, et al. **Med Phys** 1999 Jun;26(6):956–61
Peak scatter factors for high energy photon beams. Li XA. **Med Phys** 1999 Jun;26(6):962–6
On-line monitoring of radiotherapy beams: experimental results with proton beams. Litzenberg DW, et al. **Med Phys** 1999 Jun;26(6):992–1006
Determination of scatter factor parameters and electron disequilibrium for monoenergetic photon beams. McDonough J, et al. **Med Phys** 1999 Feb;26(2):200–5
Designing an optical distance indicator for a radiation therapy accelerator. Maughan RL. **Med Phys** 1999 Feb; 26(2):236–8
A comparison of cause-specific melanoma mortality and all-cause mortality in survival analyses after radiation treatment for uveal melanoma [see comments] Kroll S, et al. **Ophthalmology** 1998 Nov;105(11):2035–45. Comment in: Ophthalmology 1998 Nov;105(11):1989–90.
Cause-specific versus all-cause survival [editorial; comment] McLean IW, et al. **Ophthalmology** 1998 Nov; 105(11):1989–90 (3 ref.). Comment on: Ophthalmology 1998 Nov;105(11):2035–45.
Comparison of episcleral plaque and proton beam radiation therapy for the treatment of choroidal melanoma. Wilson MW, et al. **Ophthalmology** 1999 Aug;106(8):1579–87
Tomotherapeutic portal imaging for radiation treatment verification. Hesse BM, et al. **Phys Med Biol** 1998 Dec; 43(12):3607–16
Initial recombination in a parallel-plate ionization chamber exposed to heavy ions. Kanai T, et al. **Phys Med Biol** 1998 Dec;43(12):3549–58
Monte Carlo calculations of electron beam output factors for a medical linear accelerator. Kapur A, et al. **Phys Med Biol** 1998 Dec;43(12):3479–94
A simple method for matching electron beams in radiotherapy. McKenzie AL. **Phys Med Biol** 1998 Dec; 43(12):3465–78
Detective quantum efficiency of an amorphous selenium detector to megavoltage radiation. Mah D, et al. **Phys Med Biol** 1999 May;44(5):1369–84
Relationship between CT number and electron density, scatter angle and nuclear reaction for hadron-therapy treatment planning. Matsufuji N, et al. **Phys Med Biol** 1998 Nov;43(11):3261–75
The practical implementation of a scatter model for portal imaging at 10 MV. Partridge M, et al. **Phys Med Biol** 1998 Sep;43(9):2685–93
Monte Carlo modelling of radiotherapy kV x-ray units. Verhaegen F, et al. **Phys Med Biol** 1999 Jul;44(7):1767–89
A case of follicular thyroid cancer with tracheal stenosis responded to external radiation therapy. Churei H, et al. **Radiat Med** 1999 Jan-Feb;17(1):77–80
Secondary neutron and photon dose in proton therapy. Agosteo S, et al. **Radiother Oncol** 1998 Sep;48(3):293–305
Interaction of paclitaxel (Taxol) and irradiation. In-vitro differences between tumor and fibroblastic cells. Cordes N, et al. **Strahlenther Onkol** 1999 Apr;175(4):175–81
The role of high-LET radiotherapy compared to conformal photon radiotherapy in adenoid cystic carcinoma. Debus J, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:63–5 (12 ref.)
Cancer epidemiology and patient recruitment for hadron therapy. Engels H, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:95–9

RBE and its interpretation. Kraft G. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:44–7
A challenge for high-precision radiation therapy: the case for hadrons. Wambersie A, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:122–8
[Results of analgetic radiotherapy of inflammation of the calcaneus using 6 MV photons] Heyd R, et al. **Rontgenpraxis** 1999;52(1):26–32 **(Ger)**
[Effectiveness of superhigh-frequency electromagnetic radiation in multimodal therapy of patients with pulmonary tuberculosis] Griaznova DA, et al. **Probl Tuberk** 1999; (4):40–2 **(Rus)**

ADVERSE EFFECTS

Left lower lobe radiation pneumonitis in patients with early stage Hodgkin's disease: a reminder [letter] Zissin R, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1127
A case report--delayed vesicocutaneous fistula after radiation therapy for advanced vulvar cancer. Lau KO, et al. **Ann Acad Med Singapore** 1998 Sep;27(5):705–6
Fetal dose estimates for electron-beam treatment to the chest wall of a pregnant patient. Antolak JA, et al. **Med Phys** 1998 Dec;25(12):2388–91
An analysis of the incidence and risk factors of developing severe keratopathy in eyes after megavoltage external beam irradiation. Kwok SK, et al. **Ophthalmology** 1998 Nov; 105(11):2051–5
Measurement of off-axis and peripheral skin dose using radiochromic film. Butson MJ, et al. **Phys Med Biol** 1998 Sep;43(9):2647–50
Haematological toxicity of cranio-spinal irradiation. Jefferies S, et al. **Radiother Oncol** 1998 Jul;48(1):23–7
Sexual function following radical radiotherapy for bladder cancer. Little FA, et al. **Radiother Oncol** 1998 Nov; 49(2):157–61
Risk assessment for cancer induction after low- and high-LET therapeutic irradiation. Engels H, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:47–51
[Radiation-induced optic neuropathy in cancer of the nasopharynx, by O. B. Wijers et al. in Strahlenther Onkol 1999; 175:21–7 (No. 1) (letter; comment)] Dunst J, et al. **Strahlenther Onkol** 1999 Apr;175(4):189. Comment on: Strahlenther Onkol 1999 Jan;175(1):21–7. **(Ger)**

ECONOMICS

Some factors influencing the cost of a hospital based proton therapy centre. Cohilis P, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:102–4

INSTRUMENTATION

Multileaf collimator interleaf transmission. Balog JP, et al. **Med Phys** 1999 Feb;26(2):176–86
Commissioning a p-type silicon diode for use in clinical electron beams. Eveling JN, et al. **Med Phys** 1999 Jan; 26(1):100–7
Characteristics of metal-plate/film detectors at therapy energies. I. Modulation transfer function. Falco T, et al. **Med Phys** 1998 Dec;25(12):2455–62
Characteristics of metal-plate/film detectors at therapy energies. II. Detective quantum efficiency. Falco T, et al. **Med Phys** 1998 Dec;25(12):2463–8
Dosimetric characteristics of acrylic and stainless steel cones for electron beam therapy. Kakinohana Y, et al. **Med Phys** 1999 Jul;26(7):1260–1
Beam characteristics and clinical possibilities of a new compact treatment unit design combining narrow pencil beam scanning and segmental multileaf collimation. Svensson R, et al. **Med Phys** 1998 Dec;25(12):2358–69
Customized mold brachytherapy for oral carcinomas through use of high-dose-rate remote afterloading apparatus. Ariji E, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):508–12
An evaluation of epoxy resin phantom materials for megavoltage photon dosimetry. Allahverdi M, et al. **Phys Med Biol** 1999 May;44(5):1125–32
A study on virtual source position for electron beams from a Mevatron MD linear accelerator. Ravindran BP. **Phys Med Biol** 1999 May;44(5):1309–15
Build-up modification of commercial diodes for entrance dose measurements in 'higher energy' photon beams. Georg D, et al. **Radiother Oncol** 1999 Jun;51(3):249–56
Oblique gantry--an alternative for heavy-ion cancer therapy. Pavlovic M. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:24–6

METHODS

Value of a multileaf prescription preparation system for palliative external beam irradiation. Thilmann C, et al. **Br J Radiol** 1999 Apr;72(856):384–8
Postoperative irradiation: are there long-term effects on nerve regeneration? Brandt K, et al. **J Reconstr Microsurg** 1999 Aug;15(6):421–5
Real-time tumour-tracking radiotherapy [letter] Shirato H, et al. **Lancet** 1999 Apr 17;353(9161):1331–2
Dosimetric characteristics of acrylic and stainless steel cones for electron beam therapy. Kakinohana Y, et al. **Med Phys** 1999 Jul;26(7):1260–1
Electron beam therapy with transverse magnetic fields. Nardi E, et al. **Med Phys** 1999 Jun;26(6):967–73
Optimal electron and combined electron and photon therapy in the phase space of complication-free cure. Asell M, et al. **Phys Med Biol** 1999 Jan;44(1):235–52
Composite energy deposition kernels for focused point monodirectional photon beams. Eklöf A, et al. **Phys Med Biol** 1999 Jul;44(7):1655–68
Quality assurance of the dose delivered by small radiation segments [see comments] Hansen VN, et al. **Phys Med Biol** 1998 Sep;43(9):2665–75. Comment in: Phys Med Biol 1999 Feb;44(2):L1–2.
Intensity modulation methods for proton radiotherapy. Lomax A. **Phys Med Biol** 1999 Jan;44(1):185–205
Clinical efficacy of applying four-field portals to paraaortic irradiation in the treatment of cervical carcinoma. Kodaira T, et al. **Radiat Oncol Investig** 1999;7(3):170–7
Sharpening the penumbra of high energy electron beams with low weight narrow photon beams. Korevaar EW, et al. **Radiother Oncol** 1998 Aug;48(2):213–20
A treatment planning inter-comparison of proton and intensity modulated photon radiotherapy. Lomax AJ, et al. **Radiother Oncol** 1999 Jun;51(3):257–71
Oxygen tension in transplanted mouse osteosarcomas during fractionated high-LET- and low-LET radiotherapy--predictive aspects for choosing beam quality? Auberger T, et al. **Strahlenther Onkol** 1999 Jun; 175 Suppl 2:52–6
Target localization and treatment verification for intensity modulated conformal radiation therapy of the head and neck region. The AZ-VUB experience. Akademisch Ziekenhuis-Vrije Universiteit Brussel. Verellen D, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:19–27
[Fractionated irradiation of cerebellopontine angle neurinoma: 12 years' experience of the Bordeaux University Hospital Center] Maire JP, et al. **Cancer Radiother** 1999 Jul-Aug;3(4):305–10 (Eng. Abstr.) **(Fre)**
[Fractionated radiotherapy of intracranial meningiomas: 15 years' experience at the Bordeaux University Hospital Center] Vendrely V, et al. **Cancer Radiother** 1999 Jul-Aug; 3(4):311–7 (Eng. Abstr.) **(Fre)**

STANDARDS

Selective in vivo dosimetry in radiotherapy using P-type semiconductor diodes: a reliable quality assurance procedure. Howlett S, et al. **Med Dosim** 1999 Spring; 24(1):53–6
Carbon beam dosimetry intercomparison at HIMAC. Fukumura A, et al. **Phys Med Biol** 1998 Dec;43(12):3459–63
Quality assurance of the dose delivered by small radiation segments [see comments] Hansen VN, et al. **Phys Med Biol** 1998 Sep;43(9):2665–75. Comment in: Phys Med Biol 1999 Feb;44(2):L1–2.
Application of a video-optical beam imaging system for quality assurance of medical accelerators. Ma L, et al. **Phys Med Biol** 1998 Dec;43(12):3649–59
Proton dosimetry intercomparison based on the ICRU report 59 protocol. Vatnitsky S, et al. **Radiother Oncol** 1999 Jun; 51(3):273–9
Quality assurance at the heavy-ion therapy facility at GSI. Heeg P, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:36–8
RBE, reference RBE and clinical RBE: applications of these concepts in hadron therapy. Wambersie A. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:39–43
Intensity-modulated radiation therapy: dynamic MLC (DMLC) therapy, multisegment therapy and tomotherapy. An example of QA in DMLC therapy. Webb S. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:8–12

RADIOTHERAPY, INTERSTITIAL see **BRACHYTHERAPY**

RADIOTHERAPY, INTRACAVITY see **BRACHYTHERAPY**

RADIOTHERAPY, LYMPHATIC see **LYMPHATIC IRRADIATION**

RADIOTHERAPY PLANNING, COMPUTER-ASSISTED

see related
RADIOTHERAPY, CONFORMAL

Evaluation of an electronic portal imaging device for transit dosimetry. He X, et al. **Acta Oncol** 1999;38(5):591–6
Aspects on the optimal photon beam energy for radiation therapy. Söderström S, et al. **Acta Oncol** 1999;38(2):179–87
Photon buildup in orthovoltage X-ray beams. Hill RF, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):51–6
Comparing dose calculation algorithms for an orthovoltage beam in a bone phantom. Monti di Sopra F, et al. **Australas Phys Eng Sci Med** 1998 Sep;21(3):148–51
An investigation into the impact of anatomical variation upon mean glandular dose produced within a standard breast. Wilkinson LE, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):53–63
The comparison of isodose plans: radiotherapy techniques in the treatment of thyroid ophtalmopathy. Samija M, et al. **Coll Antropol** 1999 Jun;23(1):167–74
Development in a Windows environment of a radiation treatment planning system for personal computers. Cotrutz C, et al. **Comput Methods Programs Biomed** 1998 Jun; 56(3):261–72
Variability of the location of internal mammary vessels and glandular breast tissue in breast cancer patients undergoing routine CT-based treatment planning. Bentel G, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1017–25
Portfolio: a prototype workstation for development and evaluation of tools for analysis and management of digital portal images. Boxwala AA, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):455–62
Preirradiation evaluation and technical assessment of involved-field radiotherapy using computed tomographic (CT) simulation and neoadjuvant chemotherapy for intracranial germinoma. Kitamura K, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):783–8
Geometric accuracy of field alignment in fractionated stereotactic conformal radiotherapy of brain tumors. Kortmann RD, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):921–6
Minimizing static intensity modulation delivery time using an intensity solid paradigm. Siochi RA. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):671–80
A radionuclide therapy treatment planning and dose estimation system. Liu A, et al. **J Nucl Med** 1999 Jul; 40(7):1151–3
Image processing in stereotactic planning: volume visualization and image registration. Pelizzari CA. **Med Dosim** 1998 Fall;23(3):137–45 (39 ref.)
Commissioning, clinical implementation and quality assurance of Siemen's Virtual Wedge. Rathee S, et al. **Med Dosim** 1999 Summer;24(2):145–53
Standard linear plans in single channel high dose rate brachytherapy: a dosimetric analysis. Schumer W, et al. **Med Dosim** 1998 Winter;23(4):307–10
Clinical considerations in the use of missing tissue compensators for head and neck cases. Sharma SC, et al. **Med Dosim** 1998 Winter;23(4):267–70
A review of digital image networking technologies for radiation oncology treatment planning. Smith CL, et al. **Med Dosim** 1998 Winter;23(4):271–7
Accuracy of numerically produced compensators. Thompson H, et al. **Med Dosim** 1999 Spring;24(1):49–52
Monte Carlo calculations to characterize the source for neutron therapy facilities. Bohm TD, et al. **Med Phys** 1999 May;26(5):783–92
Theoretical considerations of monitor unit calculations for intensity modulated beam treatment planning. Boyer A, et al. **Med Phys** 1999 Feb;26(2):187–95
Intrapatient consistency of imaging biodistributions and their application to predicting therapeutic doses in a phase I clinical study of 90Y-based radioimmunotherapy. Clarke KG, et al. **Med Phys** 1999 May;26(5):799–809
Measurements of low-energy (d,n) reactions for BNCT. Boron Neutron Capture Therapy. Colonna N, et al. **Med Phys** 1999 May;26(5):793–8
Verification of segmented beam delivery using a commercial electronic portal imaging device. Curtin-Savard AJ, et al. **Med Phys** 1999 May;26(5):737–42
Use of the fast Hartley transform for three-dimensional dose calculation in radionuclide therapy. Erdi AK, et al. **Med Phys** 1998 Nov;25(11):2226–33
Calculation of enhanced dynamic wedge factors for symmetric and asymmetric photon fields. Gibbons JP. **Med Phys** 1998 Aug;25(8):1411–8
A computerized dosimetric database for conformal stereotactic irradiations. Grandjean P, et al. **Med Phys** 1999 Apr;26(4):524–32
A 10 MV x-ray zero-area tissue-maximum ratio expression constructed by taking into account depth and off-axis beam quality change. Iwasaki A. **Med Phys** 1998 Nov; 25(11):2209–14
MABDOSE. II: Validation of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1396–403
MABDOSE. I: Characterization of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1389–95
Measurements of head-scatter factors with cylindrical build-up caps and columnar miniphantoms. Jursinic PA, et al. **Med Phys** 1999 Apr;26(4):512–7
Dosimetric evaluation of a widely used kilovoltage x-ray unit for endocavitary radiotherapy. Li XA, et al. **Med Phys** 1998 Aug;25(8):1464–71
Dose enhancement by a thin foil of high-Z material: a Monte Carlo study. Li XA, et al. **Med Phys** 1999 Jul;26(7):1245–51
The physical basis for empirical rules used to determine equivalent fields for phantom scatter. McDermott PN. **Med Phys** 1998 Nov;25(11):2215–9
Intensity-modulated conformal radiation therapy and 3-dimensional treatment planning will significantly reduce the need for therapeutic approaches with particles such as protons. Mackie TR, et al. **Med Phys** 1999 Jul; 26(7):1185–7
A statistical investigation of the scaling factor method of beta-ray dose distribution derivation: the scaling factor for water to bone. Marcu SM, et al. **Med Phys** 1998 Aug; 25(8):1472–7
Application of the scaling factor method to estimation of beta dose distributions for dissimilar media separated by a planar interface. Marcu SM, et al. **Med Phys** 1998 Aug; 25(8):1478–86
Incorporation of functional status into dose-volume analysis. Marks LB, et al. **Med Phys** 1999 Feb;26(2):196–9
Verification of the omni wedge technique. Milliken BD, et al. **Med Phys** 1998 Aug;25(8):1419–23

A method of beam-couch intersection detection. Muthuswamy MS. **Med Phys** 1999 Feb;26(2):229-35
Tissue-air ratios for narrow 60Co gamma-ray beams. Nizin PS, et al. **Med Phys** 1998 Aug;25(8):1458-63
Tomographic convolutional dosimetry of interstitial brachytherapy implants. Ove R. **Med Phys** 1999 Jul; 26(7):1262-8
Monte Carlo method to study the proton fluence for treatment planning. Paganetti H. **Med Phys** 1998 Dec; 25(12):2370-5
Linear accelerator output variations and their consequences for megavoltage imaging. Partridge M, et al. **Med Phys** 1998 Aug;25(8):1443-52
Dosimetric verification of two commercially available three-dimensional treatment planning systems using the TG 23 test package. Ramsey CR, et al. **Med Phys** 1999 Jul; 26(7):1188-95
Correlated histogram representation of Monte Carlo derived medical accelerator photon-output phase space. Schach von Wittenau AE, et al. **Med Phys** 1999 Jul;26(7):1196-211
Further improvements in dose distributions are unlikely to affect cure rates. Schulz RJ. **Med Phys** 1999 Jun; 26(6):1007-9
A simple model for examining issues in radiotherapy optimization. Shepard DM, et al. **Med Phys** 1999 Jul; 26(7):1212-21
Three-dimensional optimization of treatment planning for gamma unit treatment system. Shu H, et al. **Med Phys** 1998 Dec;25(12):2352-7
Performance and beam characteristics of the Siemens Primus linear accelerator. Sontag MR, et al. **Med Phys** 1999 May; 26(5):734-6
Peripheral dose from a linear accelerator equipped with multileaf collimation. Stern RL. **Med Phys** 1999 Apr; 26(4):559-63
A method to determine the in-air spatial spread of clinical electron beams. Vilches M, et al. **Med Phys** 1999 Apr; 26(4):550-8
Multileaf collimator leaf sequencing algorithm for intensity modulated beams with multiple static segments. Xia P, et al. **Med Phys** 1998 Aug;25(8):1424-34
Monte Carlo investigation of electron beam output factors versus size of square cutout. Zhang GG, et al. **Med Phys** 1999 May;26(5):743-50
Optimal electron and combined electron and photon therapy in the phase space of complication-free cure. Asell M, et al. **Phys Med Biol** 1999 Jan;44(1):235-52
An EGS4-ready tomographic computational model of a 14-year-old female torso for calculating organ doses from CT examinations. Caon M, et al. **Phys Med Biol** 1999 Sep; 44(9):2213-25
Monte Carlo calculations of the dose backscatter factor for monoenergetic electrons. Cho SH, et al. **Phys Med Biol** 1999 Jan;44(1):13-26
Calculation of microplanar beam dose profiles in a tissue/lung/tissue phantom. Company FZ, et al. **Phys Med Biol** 1998 Sep;43(9):2491-501
Numerical evaluation of 60 Hz magnetic induction in the human body in complex occupational environments. Dawson TW, et al. **Phys Med Biol** 1999 Apr;44(4):1025-40
Radiance modelling using the P3 approximation. Dickey D, et al. **Phys Med Biol** 1998 Dec;43(12):3559-70
Composite energy deposition kernels for focused point monodirectional photon beams. Eklöf A, et al. **Phys Med Biol** 1999 Jul;44(7):1655-68
A potential application to the study of microscopic energy deposition in a solid by means of heavy charged-particle induced photochromic alterations in a tissue-equivalent matrix. Emfietzoglou D, et al. **Phys Med Biol** 1999 Jan; 44(1):207-21
Predicting the radiation control probability of heterogeneous tumour ensembles: data analysis and parameter estimation using a closed-form expression. Fenwick JD. **Phys Med Biol** 1998 Aug;43(8):2159-78
Optimization of beam orientation in radiotherapy using planar geometry. Haas OC, et al. **Phys Med Biol** 1998 Aug; 43(8):2179-93
Pre-optimization of radiotherapy treatment planning: an artificial neural network classification aided technique. Hosseini-Ashrafi ME, et al. **Phys Med Biol** 1999 Jun; 44(6):1513-28
Electron contamination and build-up doses in conformal radiotherapy fields. Hounsell AR, et al. **Phys Med Biol** 1999 Jan;44(1):43-55
Bootstrap resampling: a powerful method of assessing confidence intervals for doses from experimental data. Iwi G, et al. **Phys Med Biol** 1999 Apr;44(4):N55-62
Accounting for treatment delays when treating highly proliferative tumours. Jones L, et al. **Phys Med Biol** 1999 Jan;44(1):223-34
Delivery verification in sequential and helical tomotherapy. Kapatoes JM, et al. **Phys Med Biol** 1999 Jul;44(7):1815-41
Calculation of depth dose and dose per monitor unit for irregularly shaped electron fields: an addendum. Khan FM, et al. **Phys Med Biol** 1999 Jun;44(6):N77-80
Intensity modulation methods for proton radiotherapy. Lomax A. **Phys Med Biol** 1999 Jan;44(1):185-205
Mass-energy absorption coefficient and backscatter factor ratios for kilovoltage x-ray beams. Ma CM, et al. **Phys Med Biol** 1999 Jan;44(1):131-43
Calculation of the spatial variation of relative biological effectiveness in a therapeutic proton field for eye treatment. Paganetti H. **Phys Med Biol** 1998 Aug;43(8):2147-57
A large-area ionization chamber for portal image calibration. Partridge M, et al. **Phys Med Biol** 1999 Jan;44(1):271-9
Extension of CadPlan algorithm to model the dose distribution under a motorized wedge. Rajapakshe R, et al. **Phys Med Biol** 1999 Jul;44(7):N145-50
A study on virtual source position for electron beams from a Mevatron MD linear accelerator. Ravindran BP. **Phys Med Biol** 1999 May;44(5):1309-15
Beam-orientation customization using an artificial neural network. Rowbottom CG, et al. **Phys Med Biol** 1999 Sep; 44(9):2251-62
Dose perturbation caused by high-density inhomogeneities in small beams in stereotactic radiosurgery. Rustgi SN, et al. **Phys Med Biol** 1998 Dec;43(12):3509-18
Dose calculation models for proton treatment planning using a dynamic beam delivery system: an attempt to include density heterogeneity effects in the analytical dose calculation. Schaffner B, et al. **Phys Med Biol** 1999 Jan; 44(1):27-41
Combined experimental and Monte Carlo verification of 137Cs brachytherapy plans for vaginal applicators. Sloboda RS, et al. **Phys Med Biol** 1998 Dec;43(12):3495-507
Perturbation of radiotherapy beams by radiographic film: measurements and Monte Carlo simulations. Suchowerska N, et al. **Phys Med Biol** 1999 Jul;44(7):1755-65
A thin target approach for portal imaging in medical accelerators. Tsechanski A, et al. **Phys Med Biol** 1998 Aug; 43(8):2221-36
Dosimetric evaluation of the Siemens Virtual Wedge. van Santvoort J. **Phys Med Biol** 1998 Sep;43(9):2651-63
Secondary electron fluence perturbation by high-Z interfaces in clinical proton beams: a Monte Carlo study. Verhaegen F, et al. **Phys Med Biol** 1999 Jan;44(1):167-83
Monte Carlo modelling of radiotherapy kV x-ray units. Verhaegen F, et al. **Phys Med Biol** 1999 Jul;44(7):1767-89
Dosimetric verification of a commercial inverse treatment planning system. Xing L, et al. **Phys Med Biol** 1999 Feb; 44(2):463-78
The dosimetry system DS86 and the neutron discrepancy in Hiroshima--historical review, present status, and future options. Rühm W, et al. **Radiat Environ Biophys** 1998 Dec; 37(4):293-310
Clinical usefulness of the management and delivery of radiation dose-distribution images using the Internet. Nakagawa K, et al. **Radiat Med** 1998 Jul-Aug;16(4):283-7
Computed axial tomography tandem and ovoids (CATTO) dosimetry: three-dimensional assessment of bladder and rectal doses. Gebara WJ, et al. **Radiat Oncol Investig** 1998; 6(6):268-75
Brachytherapy for the next century: use of image-based treatment planning. Martel MK, et al. **Radiat Res** 1998 Nov; 150(5 Suppl):S178-88 (45 ref.)
Cross-sectional nodal atlas: a tool for the definition of clinical target volumes in three-dimensional radiation therapy planning. Martinez-Monge R, et al. **Radiology** 1999 Jun; 211(3):815-28
Utility of three-dimensional planning for axillary node coverage with breast-conserving radiation therapy: early experience. Smitt MC, et al. **Radiology** 1999 Jan; 210(1):221-6
Conformal radiation therapy treatment planning reduces the dose to the optic structures for patients with tumors of the paranasal sinuses. Brizel DM, et al. **Radiother Oncol** 1999 Jun;51(3):215-8
What margins should be added to the clinical target volume in radiotherapy treatment planning for lung cancer? Ekberg L, et al. **Radiother Oncol** 1998 Jul;48(1):71-7
Practical implementation of compensators in breast radiotherapy. Evans PM, et al. **Radiother Oncol** 1998 Dec; 49(3):255-65
The benefit of Beam's eye view based 3D treatment planning for cervical cancer. Gerstner N, et al. **Radiother Oncol** 1999 Apr;51(1):71-8
The magnitude of treatment field set-up parameter correction in radiation therapy. Gluhchev G. **Radiother Oncol** 1998 Jul;48(1):79-82
Improving dose homogeneity in routine head and neck radiotherapy with custom 3-D compensation. Harari PM, et al. **Radiother Oncol** 1998 Oct;49(1):67-71
A horizontal CT system dedicated to heavy-ion beam treatment. Kamada T, et al. **Radiother Oncol** 1999 Feb; 50(2):235-7 (4 ref.)
Modulated electron beams using multi-segmented multileaf collimation. Klein EE. **Radiother Oncol** 1998 Sep; 48(3):307-11
Individualized phantom based on CT slices and auxological data (ICTA) for dose estimations following radiotherapy for skin haemangioma in childhood. Ligot L, et al. **Radiother Oncol** 1998 Dec;49(3):279-85
Treatment planning for radiotherapy in northern Italy: a survey by the National AIFB-AIRO Committee on 3D-Treatment Planning. Italian Association for Biomedical Physics. Italian Association for Radiation Oncology. Palazzi M, et al. **Radiother Oncol** 1998 Jul;48(1):89-94
Planning of beam intensity modulation using an advanced 3D dose calculation algorithm and a simulated annealing method. Redpath AT. **Radiother Oncol** 1998 Dec; 49(3):295-304
Internal organ motion in prostate cancer patients treated in prone and supine treatment position. Stroom JC, et al. **Radiother Oncol** 1999 Jun;51(3):237-48
Radical radiotherapy for carcinoma of the oesophagus: an effective alternative to surgery. Sykes AJ, et al. **Radiother Oncol** 1998 Jul;48(1):15-21
Nuclear data for radiotherapy: presentation of a new ICRU report and IAEA initiatives. Chadwick MB, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:26-9
Treatment planning for the heavy-ion facility at GSI. Jäkel O, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:15-7
Treatment planning for light ions: how to take into account relative biological effectiveness (RBE). Jäkel O, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:12-4
Status report of the NAC particle therapy programme. Jones DT, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:30-2
The NAC proton treatment planning system. Schreuder AN, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:10-2
[A comparison of CT-supported 3D planning with simulator planning in the pelvic irradiation of primary cervical carcinoma] Knocke TH, et al. **Strahlenther Onkol** 1999 Feb; 175(2):68-73 (Eng. Abstr.) **(Ger)**
[Comparison of different 3-dimensional irradiation techniques in local radiotherapy of prostatic carcinoma] Koswig S, et al. **Strahlenther Onkol** 1999 Jan;175(1):10-6 (Eng. Abstr.) **(Ger)**
[Inverse radiotherapy planning] Schlegel W, et al. **Strahlenther Onkol** 1999 May;175(5):197-207 (Eng. Abstr.) **(Ger)**
[A method of quality assurance of dynamic wedges] Schmidt EL, et al. **Strahlenther Onkol** 1999 Jan;175(1):39-41 (Eng. Abstr.) **(Ger)**
[Possibilities of an open magnetic resonance scanner integration in therapy simulation and three-dimensional radiotherapy planning] Schubert K, et al. **Strahlenther Onkol** 1999 May;175(5):225-31 (Eng. Abstr.) **(Ger)**
[Monitor assessment of digitalized and post-processed portal films compared to conventional films presented on a light box] Wachter S, et al. **Strahlenther Onkol** 1998 Nov; 174(11):589-96 (Eng. Abstr.) **(Ger)**
[Choice of the optimum intersection point for beam radiation axis in the planning of radiotherapy] Klepper Lla, et al. **Med Tekh** 1998 Nov-Dec;(6):19-23 (Eng. Abstr.) **(Rus)**
[Choice of optimal centering points of radiation beams in planning radiotherapy in malignant tumors] Klepper Lla. **Med Tekh** 1999 May-Jun;(3):26-30 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

A model simulator for radiotherapy treatment planning and checking. Seaby AW, et al. **Br J Radiol** 1999 Mar; 72(855):293-5
Digital radiotherapy simulator. Cho PS, et al. **Comput Med Imaging Graph** 1998 Jan-Feb;22(1):1-7
A tilt and roll device for automated correction of rotational setup errors. Hornick DC, et al. **Med Phys** 1998 Sep; 25(9):1739-40
Calibration of a portal imaging device for high-precision dosimetry: a Monte Carlo study. Keller H, et al. **Med Phys** 1998 Oct;25(10):1891-902
Physical and dosimetric aspects of a multileaf collimation system used in the dynamic mode for implementing intensity modulated radiotherapy. LoSasso T, et al. **Med Phys** 1998 Oct;25(10):1919-27
Dosimetric characteristics of a double-focused miniature multileaf collimator. Meeks SL, et al. **Med Phys** 1999 May; 26(5):729-33
The use of an electronic portal imaging system to measure portal dose and portal dose profiles [published erratum appears in Med Phys 1999 Feb;26(2):331] Parsaei H, et al. **Med Phys** 1998 Oct;25(10):1903-9
Accuracy of a photogrammetry-based patient positioning and monitoring system for radiation therapy. Rogus RD, et al. **Med Phys** 1999 May;26(5):721-8
A room-based diagnostic imaging system for measurement of patient setup. Schewe JE, et al. **Med Phys** 1998 Dec; 25(12):2385-7
The use of GAFchromic film to determine the absolute activity of beta emitters. Fox RA, et al. **Phys Med Biol** 1999 Apr;44(4):833-42
The importance of radiometer angular response for ultraviolet phototherapy dosimetry. Martin CJ, et al. **Phys Med Biol** 1999 Apr;44(4):843-55
The 'equivalent wedge' implementation of the Varian Enhanced Dynamic Wedge (EDW) into a treatment planning system. Papatheodorou S, et al. **Phys Med Biol** 1999 Feb;44(2):509-24
Accurate portal dose measurement with a fluoroscopic electronic portal imaging device (EPID) for open and wedged beams and dynamic multileaf collimation. Pasma KL, et al. **Phys Med Biol** 1998 Aug;43(8):2047-60
In-water calibration of PDR 192Ir brachytherapy sources with an NE2571 ionization chamber. Reynaert N, et al. **Phys Med Biol** 1998 Aug;43(8):2095-107
Dosimetry of Gamma Knife and linac-based radiosurgery using radiochromic and diode detectors. Somigliana A, et al. **Phys Med Biol** 1999 Apr;44(4):887-97
Localization of the apex of the vagina: implications for radiation therapy planning. Kim CR, et al. **Radiology** 1999 Jul;212(1):155-8
In vivo dosimetry for prostate cancer patients using an electronic portal imaging device (EPID); demonstration of internal organ motion. Kroonwijk M, et al. **Radiother Oncol** 1998 Nov;49(2):125-32
[Simultaneous control of radiotherapy with heavy ions by

positron emission tomography] Hinz R, et al. **Biomed Tech (Berl)** 1998;43 Suppl:30-1 **(Ger)**
[Fiber optic dosimeter for radiotherapy] Keusen T. **Biomed Tech (Berl)** 1998;43 Suppl:558 **(Ger)**
[A 3D MLE algorithm for positron emission tomography during radiotherapy with heavy ions] Lauckner K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:28-9 **(Ger)**

METHODS

Tumour dose estimation using automated TLD techniques. Ferguson HM, et al. **Acta Oncol** 1998;37(5):479-84
A method to predict the effect of organ motion and set-up variations on treatment plans. Keall PJ, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):48-52
CT based 3D Monte Carlo radiation therapy treatment planning. Wallace S, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):41-50
The derivation of tissue-maximum ratio from percentage depth dose requires peak scatter factor to be considered a function of source-to-surface distance [see comments] Bedford JL, et al. **Br J Radiol** 1998 Aug;71(848):876-81. Comment in: Br J Radiol 1999 Jan;72(853):101.
Two-dimensional kinetic models for radiotherapy planning quality assurance. Seaby AW, et al. **Br J Radiol** 1999 Feb; 72(854):193-5
CT and PET lung image registration and fusion in radiotherapy treatment planning using the chamfer-matching method. Cai J, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):883-91
Determining the optimal block margin on the planning target volume for extracranial stereotactic radiotherapy. Cardinale RM, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):515-20
Treatment plan evaluation using dose-volume histogram (DVH) and spatial dose-volume histogram (zDVH). Cheng CW, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15; 43(5):1143-50
Intensity-modulated tangential beam irradiation of the intact breast. Hong L, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1155-64
Use of three-dimensional radiation therapy planning tools and intraoperative ultrasound to evaluate high dose rate prostate brachytherapy implants. Kini VR, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):571-8 (34 ref.)
A change in treatment process with a modern record and verify system. Klein EE, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1163-8
Volumetric and dosimetric evaluation of radiation treatment plans: radiation conformity index. Knöös T, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1169-76
Volumetric visualization of head and neck CT data for treatment planning. Lee JS, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):693-703
Computerized design of target margins for treatment uncertainties in conformal radiotherapy. Mageras GS, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15;43(2):437-45
Intraoperative optimized inverse planning for prostate brachytherapy: early experience. Messing EM, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):801-8
18F-deoxyglucose positron emission tomography (FDG-PET) for the planning of radiotherapy in lung cancer: high impact in patients with atelectasis. Nestle U, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):593-7
A three-dimensional CT-based target definition for elective irradiation of the neck. Nowak PJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):33-9
Optimization of stereotactically-guided conformal treatment planning of sellar and parasellar tumors, based on normal brain dose volume histograms. Perks JR, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):507-13
Static field intensity modulation to treat a dominant intra-prostatic lesion to 90 Gy compared to seven field 3-dimensional radiotherapy. Pickett B, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):921-9
Stereolithographic modelling as an aid to orbital brachytherapy. Poulsen M, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):731-5
An analysis of anatomic landmark mobility and setup deviations in radiotherapy for lung cancer. Samson MJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):827-32
Inclusion of geometrical uncertainties in radiotherapy treatment planning by means of coverage probability. Stroom JC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):905-19
A non-invasive immobilization system and related quality assurance for dynamic intensity modulated radiation therapy of intracranial and head and neck disease. Tsai JS, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):455-67
The use of active breathing control (ABC) to reduce margin for breathing motion. Wong JW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):911-9
A model to accumulate fractionated dose in a deforming organ. Yan D, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):665-75
Automated treatment planning engine for prostate seed implant brachytherapy. Yu Y, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):647-52
Multimodality nuclear medicine imaging in three-dimensional radiation treatment planning for lung cancer: challenges and prospects. Munley MT, et al. **Lung Cancer** 1999 Feb;23(2):105-14
In-vivo rectal dose measurements with diodes to avoid misadministrations during intracavitary high dose rate brachytherapy for carcinoma of the cervix. Alecu R, et al. **Med Phys** 1999 May;26(5):768-70
Characterization of the output for helical delivery of intensity modulated slit beams. Balog JP, et al. **Med Phys** 1999 Jan; 26(1):55-64
Evaluation of optimized compensators on a 3D planning system. Basran PS, et al. **Med Phys** 1998 Oct;25(10):1837-44
Effect of using an initial polyenergetic spectrum with the pencil-beam redefinition algorithm for electron-dose calculations in water. Boyd RA, et al. **Med Phys** 1998 Nov; 25(11):2176-85
Tissue equivalence correction for silicon microdosimetry detectors in boron neutron capture therapy. Bradley PD, et al. **Med Phys** 1998 Nov;25(11):2220-5
Automated seed localization from CT datasets of the prostate. Brinkmann DH, et al. **Med Phys** 1998 Sep;25(9):1667-72
Monte Carlo calculation of single-beam dose profiles used in a gamma knife treatment planning system. Cheung JY, et al. **Med Phys** 1998 Sep;25(9):1673-5
Monte Carlo-aided dosimetry of a new high dose-rate brachytherapy source. Daskalov GM, et al. **Med Phys** 1998 Nov;25(11):2200-8
Measurement of Prepl Pwall factors in electron beams and in a 60Co beam for plane-parallel chambers. Ding GX, et al. **Med Phys** 1998 Aug;25(8):1453-7
The effect of contrast medium and balloon shape on dosimetry for arterial irradiation with 188Re. Fox RA, et al. **Med Phys** 1999 May;26(5):771-6
Inverse radiosurgery treatment planning through deconvolution and constrained optimization. Harmon JF Jr, et al. **Med Phys** 1998 Oct;25(10):1850-7
A generalized film technique for the verification of vertex fields used in the treatment of brain tumors. Huq MS, et al. **Med Phys** 1998 Sep;25(9):1685-91
Optical CT reconstruction of 3D dose distributions using the ferrous-benzoic-xylenol (FBX) gel dosimeter. Kelly BG, et al. **Med Phys** 1998 Sep;25(9):1741-50
Two-effective-source method for the calculation of in-air output at various source-to-detector distances in wedged fields. Kim S, et al. **Med Phys** 1999 Jun;26(6):949-55
Patient position verification using CT images. Kress J, et al. **Med Phys** 1999 Jun;26(6):941-8
XINPUT: a program to edit "DOSRZ" input files. Lauterbach MH, et al. **Med Phys** 1999 May;26(5):760-2
Measured water transmission curves and calculated zero field size tumor maximum ratios for 4, 6, and 15 MV x-rays. Lee NE, et al. **Med Phys** 1999 Jun;26(6):956-61
Peak scatter factors for high energy photon beams. Li XA. **Med Phys** 1999 Jun;26(6):962-6
On-line monitoring of radiotherapy beams: experimental results with proton beams. Litzenberg DW, et al. **Med Phys** 1999 Jun;26(6):992-1006
Virtual light field projection for CT-simulation. Lu HM, et al. **Med Phys** 1999 Jul;26(7):1222-9
A method for incorporating organ motion due to breathing into 3D dose calculations. Lujan AE, et al. **Med Phys** 1999 May;26(5):715-20
A comparison of Monte Carlo and analytic first scatter dose spread arrays. McGary JE, et al. **Med Phys** 1999 May; 26(5):751-9
Dosimetric characteristics of a double-focused miniature multileaf collimator. Meeks SL, et al. **Med Phys** 1999 May; 26(5):729-33
Independent verification using portal imaging of intensity-modulated beam delivery by the dynamic MLC technique. Partridge M, et al. **Med Phys** 1998 Oct; 25(10):1872-9
Wedge factor dependence with depth, field size, and nominal distance--a general computational rule. Popescu A, et al. **Med Phys** 1999 Apr;26(4):541-9
Magnetic resonance imaging based digitally reconstructed radiographs, virtual simulation, and three-dimensional treatment planning for brain neoplasms. Ramsey CR, et al. **Med Phys** 1998 Oct;25(10):1928-34
Corrected relationship between %dd(10)x and stopping-power ratios. Rogers DW, et al. **Med Phys** 1999 Apr;26(4):538-40
Calculation of head scatter factors at isocenter or at center of field for any arbitrary jaw setting. Shih R, et al. **Med Phys** 1999 Apr;26(4):506-11
Calculated dosimetric parameters of the IoGold 125I source model 3631-A. Wierzbicki JG, et al. **Med Phys** 1998 Nov; 25(11):2197-9
An objective function for radiation treatment optimization based on local biological measures. Alber M, et al. **Phys Med Biol** 1999 Feb;44(2):479-93
Temporal resolution requirements for intensity modulated radiation therapy delivered by multileaf collimators. Budgell GJ. **Phys Med Biol** 1999 Jul;44(7):1581-96
Generation of discrete beam-intensity modulation by dynamic multileaf collimation under minimum leaf separation constraints. Convery DJ, et al. **Phys Med Biol** 1998 Sep;43(9):2521-38
Computer-aided radiation therapy simulation: image intensifier spatial distortion correction for large field of view digital fluoroscopy. Cosby NS, et al. **Phys Med Biol** 1998 Aug;43(8):2265-78
Registration using tomographic projection files. Fitchard EE, et al. **Phys Med Biol** 1999 Feb;44(2):495-507
The use of GAFchromic film to determine the absolute activity of beta emitters. Fox RA, et al. **Phys Med Biol** 1999 Apr;44(4):833-42
Range modulation in proton therapy--an optimization technique for clinical and experimental applications. Gardey KU, et al. **Phys Med Biol** 1999 Jun;44(6):N81-8
Verification of a pencil beam based treatment planning system: output factors for open photon beams shaped with MLC or blocks. Hansson H, et al. **Phys Med Biol** 1999 Sep;44(9):N201-7
Dynamics of polymerization in polyacrylamide gel (PAG) dosimeters: (II) modeling oxygen diffusion. Hepworth SJ, et al. **Phys Med Biol** 1999 Aug;44(8):1875-84
Treatment planning for brachytherapy: an integer programming model, two computational approaches and experiments with permanent prostate implant planning. Lee EK, et al. **Phys Med Biol** 1999 Jan;44(1):145-65
Application of a fuzzy pattern classifier to decision making in portal verification of radiotherapy. Leszczynski K, et al. **Phys Med Biol** 1999 Jan;44(1):253-69
The importance of radiometer angular response for ultraviolet phototherapy dosimetry. Martin CJ, et al. **Phys Med Biol** 1999 Apr;44(4):843-55
Relationship between CT number and electron density, scatter angle and nuclear reaction for hadron-therapy treatment planning. Matsufuji N, et al. **Phys Med Biol** 1998 Nov;43(11):3261-75
A case study comparing the relative benefit of optimizing beam weights, wedge angles, beam orientations and tomotherapy in stereotactic radiotherapy of the brain. Oldham M, et al. **Phys Med Biol** 1998 Aug;43(8):2123-46
Developing a dose-volume histogram computation program for brachytherapy. Panitsa E, et al. **Phys Med Biol** 1998 Aug;43(8):2109-21
The 'equivalent wedge' implementation of the Varian Enhanced Dynamic Wedge (EDW) into a treatment planning system. Papatheodorou S, et al. **Phys Med Biol** 1999 Feb;44(2):509-24
In-water calibration of PDR 192Ir brachytherapy sources with an NE2571 ionization chamber. Reynaert N, et al. **Phys Med Biol** 1998 Aug;43(8):2095-107
Constrained customization of non-coplanar beam orientations in radiotherapy of brain tumours. Rowbottom CG, et al. **Phys Med Biol** 1999 Feb;44(2):383-99
Dosimetry of Gamma Knife and linac-based radiosurgery using radiochromic and diode detectors. Somigliana A, et al. **Phys Med Biol** 1999 Apr;44(4):887-97
A consistent formalism for the application of phantom and collimator scatter factors. Venselaar JL, et al. **Phys Med Biol** 1999 Feb;44(2):365-81
Localized specific absorption rate calculations in a realistic phantom leg at 1-30 MHz using a finite element method. Wainwright PR. **Phys Med Biol** 1999 Apr;44(4):1041-52
Derivation of linear attenuation coefficients from CT numbers for low-energy photons. Watanabe Y. **Phys Med Biol** 1999 Sep;44(9):2201-11
Validation of K-edge 125I brachytherapy enhancement with silver compounds. Young LA, et al. **Phys Med Biol** 1999 Aug;44(8):1921-35
Update on the treatment of prostate cancer with external beam irradiation. Horwitz EM, et al. **Prostate** 1998 Nov 1;37(3):195-206 (51 ref.)
Comparison of a multi-leaf collimator with conformal blocks for the delivery of stereotactically guided conformal radiotherapy. Adams EJ, et al. **Radiother Oncol** 1999 Jun; 51(3):205-9
Commissioning of a micro multi-leaf collimator and planning system for stereotactic radiosurgery. Cosgrove VP, et al. **Radiother Oncol** 1999 Mar;50(3):325-36
Set-up error in supine-positioned patients immobilized with two different modalities during conformal radiotherapy of prostate cancer. Fiorino C, et al. **Radiother Oncol** 1998 Nov;49(2):133-41
Quantitative dosimetric verification of an IMRT planning and delivery system. Low DA, et al. **Radiother Oncol** 1998 Dec;49(3):305-16
Monte Carlo treatment planning for stereotactic radiosurgery. Solberg TD, et al. **Radiother Oncol** 1998 Oct; 49(1):73-84
Differences in target outline delineation from CT scans of brain tumours using different methods and different observers. Yamamoto M, et al. **Radiother Oncol** 1999 Feb; 50(2):151-6
Dosimetry of the boron neutron capture reaction for BNCT and BNCEFNT. Burmeister J, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:115-8
The GSI Cancer Therapy Project. Eickhoff H, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:21-4
Initial experience of using an active beam delivery technique at PSI. Pedroni E, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:18-20

STANDARDS

Calculated effects of displacement errors in external beam radiotherapy of prostatic adenocarcinoma. Lennernäs B, et al. **Acta Oncol** 1999;38(2):203-8
Evaluation of delivered dose changes during radiation therapy. Miszczyk L, et al. **Acta Oncol** 1999;38(2):197-201
An independent check method of radiotherapy computer plan derived monitor units. Hill RF, et al. **Australas Phys Eng Sci Med** 1998 Jun;21(2):79-84
A quality assurance phantom for three-dimensional radiation

treatment planning. Craig T, et al.
Int J Radiat Oncol Biol Phys 1999 Jul 1;44(4):955–66

Quality control in health care: an experiment in radiotherapy planning for breast cancer patients after mastectomy. Holli K, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1; 44(4):827–33

Quality assurance of serial tomotherapy for head and neck patient treatments. Low DA, et al.
Int J Radiat Oncol Biol Phys 1998 Oct 1;42(3):681–92

Is it possible to optimize a radiotherapy treatment plan? [letter] Rowbottom CG, et al.
Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):698–9

American Association of Physicists in Medicine Radiation Therapy Committee Task Group 53: quality assurance for clinical radiotherapy treatment planning. Fraass B, et al. **Med Phys** 1998 Oct;25(10):1773–829 (81 ref.)

Quality assurance of central axis dose data for photon beams by means of a functional representation of the tissue phantom ratio. Xiao Y, et al. **Phys Med Biol** 1998 Aug; 43(8):2195–206

On the quality of treatment planning systems in radiation therapy. Panten T, et al. **Strahlenther Onkol** 1998 Oct;174 Suppl 2:31–5

STATISTICS & NUMERICAL DATA

Mapping dose distributions. Beckett C, et al. **Med Phys** 1998 Oct;25(10):1944–53

Forward and adjoint methods for radiotherapy planning. Difilippo FC. **Med Phys** 1998 Sep;25(9):1702–10

A software tool for the quantitative evaluation of 3D dose calculation algorithms. Harms WB Sr, et al. **Med Phys** 1998 Oct;25(10):1830–6

Monte Carlo and TLD dosimetry of an 192Ir high dose-rate brachytherapy source. Karaiskos P, et al. **Med Phys** 1998 Oct;25(10):1975–84

A generalized solution for the calculation of in-air output factors in irregular fields. Kim S, et al. **Med Phys** 1998 Sep;25(9):1692–701

Electron dose calculation using multiple-scattering theory: a hybrid electron pencil-beam model. Luo Z, et al.
Med Phys 1998 Oct;25(10):1954–63

In-phantom neutron fluence measurements in the orthogonal Birmingham boron neutron capture therapy beam. Tattam DA, et al. **Med Phys** 1998 Oct;25(10):1964–6

The regional Monte Carlo method: a dose calculation method based on accuracy requirement. Woo MK, et al.
Med Phys 1998 Oct;25(10):1866–71

A three-dimensional algorithm for optimizing beam weights and wedge filters. Xing L, et al. **Med Phys** 1998 Oct; 25(10):1858–65

Fast iterative algorithms for three-dimensional inverse treatment planning. Xing L, et al. **Med Phys** 1998 Oct; 25(10):1845–9

Use of the Cimmino algorithm and continuous approximation for the dose deposition kernel in the inverse problem of radiation treatment planning. Kolmonen P, et al.
Phys Med Biol 1998 Sep;43(9):2539–54

Maximum likelihood as a common computational framework in tomotherapy. Olivera GH, et al. **Phys Med Biol** 1998 Nov;43(11):3277–94

Time requirements in conformal radiotherapy treatment planning. Panten T, et al. **Radiother Oncol** 1999 Jun; 51(3):211–4

TRENDS

[Current status and future prospects of 3D treatment planning in radiation therapy, focusing on IMRT] Nakagawa K, et al. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1248–53 (9 ref.) (Eng. Abstr.) **(Jpn)**

RADIOTHERAPY, SURFACE see **BRACHYTHERAPY**

RADIOTHERAPY, TARGETED see **RADIOTHERAPY**

RADIUM

Relative radiosensitivity of bone tumor induction among beagles as a function of age at injection of 239Pu or 226Ra. Lloyd RD, et al. **Health Phys** 1999 Jan;76(1):50–6

[Present and future in brachytherapy--from the discovery of radium to the 21st century] Inoue T, et al.
Gan To Kagaku Ryoho 1999 Aug;26(9):1254–60 (13 ref.) (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Studies of U.S. radium dial workers: an epidemiological classic. Fry SA. **Radiat Res** 1998 Nov;150(5 Suppl):S21–9

ANALYSIS

Radon-222 and gamma ray levels associated with the collection, processing, transmission, and utilization of natural gas. van Netten C, et al. **Am Ind Hyg Assoc J** 1998 Sep;59(9):622–8

Procedure for analysis of radium in freshwaters by adsorption on basic lead rhodizonate. Valentini Ganzerli MT, et al. **Anal Chem** 1999 Jan 1;71(1):162–6

Procedures for the determination of 222Rn exhalation and effective 226Ra activity in soil samples. Gómez Escobar V, et al. **Appl Radiat Isot** 1999 Jun;50(6):1039–47

Natural radioactivity of Indian building materials and by-products. Kumar V, et al. **Appl Radiat Isot** 1999 Jul; 51(1):93–6

Naturally occurring radium-226 and radium-228 in water supplies of Michigan. Sidhu KS, et al.
Bull Environ Contam Toxicol 1998 Dec;61(6):722–9

Application of remedy studies to the development of a soil washing pilot plant that uses mineral processing technology: a practical experience. Richardson WS 3rd, et al. **J Hazard Mater** 1999 Apr 23;66(1–2):47–65 (20 ref.)

CHEMISTRY

Application of remedy studies to the development of a soil washing pilot plant that uses mineral processing technology: a practical experience. Richardson WS 3rd, et al. **J Hazard Mater** 1999 Apr 23;66(1–2):47–65 (20 ref.)

HISTORY

Madame Marie Curie (1867–1934): a giant connecting two centuries. Coppes-Zantinga AR, et al.
AJR Am J Roentgenol 1998 Dec;171(6):1453–7

The discovery of radium in 1898 by Maria Sklodowska-Curie (1867–1934) and Pierre Curie (1859–1906) with commentary on their life and times. Mould RF.
Br J Radiol 1998 Dec;71(852):1229–54

Unwanted radioactive sources in the public domain: a historical perspective. Lubenau JO. **Health Phys** 1999 Feb; 76(2 Suppl):S16–22

Radium, Marie Curie and modern science. Langevin-Joliot H. **Radiat Res** 1998 Nov;150(5 Suppl):S3–8

Marie Curie--the founder of the Radium Institute in Warsaw. Gwiazdowska B, et al. **Radiother Oncol** 1998 Dec; 49(3):217–21

The centenary of discovery of radium. Mazeron JJ, et al. **Radiother Oncol** 1998 Dec;49(3):205–16

[Speech by the President of the Republic, Mr. Jacques Chirac, on the occasion of the 100th anniversary of the discovery of radioactivity. Paris, La Sorbonne, 30 September 1998] Chirac J. **Cancer Radiother** 1999 Jan–Feb; 3(1):7–10 **(Fre)**

[Marie Sklodowska-Curie and the Institute of Radium of Warsaw] Gwiazdowska B, et al. **Cancer Radiother** 1999 Jan–Feb;3(1):13–8 **(Fre)**

[The centenary of the discovery of radium] Mazeron JJ, et al. **Cancer Radiother** 1999 Jan–Feb;3(1):19–29 (Eng. Abstr.) **(Fre)**

[Centenary of the discovery of radioactivity. Its impact on biology and medicine] Tubiana M. **Cancer Radiother** 1999 Jan–Feb;3(1):11–2 **(Fre)**

METABOLISM

Accumulation of 210Pb, 226Ra and radioactive cesium by fungi. Kirchner G, et al. **Sci Total Environ** 1998 Oct 15; 222(1–2):63–70

RADIUS

Measurement of radial bone mineral density in patients after heart transplantation. Garlicki AM, et al.
Ann Transplant 1996;1(4):32–4

Longitudinal changes in radial bone density in older men. Overton TR, et al. **Eur J Clin Nutr** 1999 Mar;53(3):211–5

Congenital pseudarthrosis of both forearm bones: long-term results of two cases managed by free vascularized fibular graft. Allieu Y, et al. **J Hand Surg [Am]** 1999 May; 24(3):604–8

Septic arthritis and osteomyelitis of the wrist: reconstruction with a vascularized fibular graft. Chin KR, et al.
J Hand Surg [Am] 1999 Mar;24(2):243–8

Assessment of vascularized fibular graft one year after reconstruction of the wrist after excision of a giant-cell tumour. Ferracini R, et al. **J Hand Surg [Br]** 1999 Aug; 24(4):497–500

Lengthening of a one-bone forearm. A sequel of neonatal osteomyelitis. Tong CW, et al. **J Hand Surg [Br]** 1998 Aug; 23(4):453–6

Management of chronic posttraumatic radial head dislocation in children. Seel MJ, et al. **J Pediatr Orthop** 1999 May–Jun; 19(3):306–12

Partial transient osteoporosis of the hand. Bianchi S, et al. **Skeletal Radiol** 1999 Jun;28(6):324–9

Posterior interosseous nerve palsy caused by parosteal lipoma of proximal radius. Nishida J, et al. **Skeletal Radiol** 1998 Jul;27(7):375–9

[Repair of bone defect of distal end of radius and its functional restoration] Zhang M, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Jul;11(4):229–30 (Eng. Abstr.) **(Chi)**

ABNORMALITIES

Blepharophimosis, hypoplastic radius, hypoplastic left heart, telecanthus, hydronephrosis, fused metacarpals, and "prehensile" halluces: a new syndrome? Day-Salvatore D, et al. **Am J Med Genet** 1998 Dec 4;80(4):309–13

Heterogeneity in omphalocoele with absent radial ray complex [letter; comment] Devriendt K, et al.
Am J Med Genet 1999 Jan 1;82(1):95–6. Comment on: Am J Med Genet 1998 Jan 23;75(3):235–9.

Long first metacarpal in monozygotic twins with probable Baller-Gerold syndrome. Franceschini P, et al.
Am J Med Genet 1998 Dec 4;80(4):303–8 (26 ref.)

TWIST gene mutation in a patient with radial aplasia and craniosynostosis: further evidence for heterogeneity of Baller-Gerold syndrome. Gripp KW, et al.
Am J Med Genet 1999 Jan 15;82(2):170–6

Tsukahara syndrome of radioulnar synostosis, short stature, microcephaly, scoliosis, and mental retardation [letter; comment] Udler Y, et al. **Am J Med Genet** 1998 Dec 28; 80(5):526–8. Comment on: Am J Med Genet 1995 Aug 28;58(2):159–60.

Mutational screening of thrombopoietin receptor gene (c-mpl) in patients with congenital thrombocytopenia and absent radii (TAR). Strippoli P, et al. **Br J Haematol** 1998 Nov;103(2):311–4

Radial defects and testicular dysfunction: a new syndrome? Tuerlings JH, et al. **Clin Dysmorphol** 1999 Jul;8(3):203–5

Prenatal sonographic diagnosis of VATER association. Tongsong T, et al. **J Clin Ultrasound** 1999 Sep;27(7):378–84

Distraction and microvascular epiphysis transfer for radial club hand. Vilkki SK. **J Hand Surg [Br]** 1998 Aug; 23(4):445–52

Recombinant interleukin-6 in the treatment of congenital thrombocytopenia associated with absent radii. Aquino VM, et al. **J Pediatr Hematol Oncol** 1998 Sep–Oct; 20(5):474–6

Management of thrombocytopenia-absent radius (TAR) syndrome. McLaurin TM, et al. **J Pediatr Orthop** 1999 May–Jun;19(3):289–96

Musculoskeletal manifestations of the Antley-Bixler syndrome. Rumball KM, et al. **J Pediatr Orthop B** 1999 Apr;8(2):139–43 (17 ref.)

Radius hypoplasia, radial palsy, and aplasia cutis due to amniotic band syndrome. Nagore E, et al.
Pediatr Dermatol 1999 May–Jun;16(3):217–9

Prenatal diagnosis of thrombocytopenia absent radius (TAR) syndrome and vaginal delivery. Shelton SD, et al.
Prenat Diagn 1999 Jan;19(1):54–7

Immunodeficiency in a patient with Baller-Gerold syndrome: a reason for early demise? Golombek SG, et al.
South Med J 1998 Oct;91(10):966–9

Anatomic basis of dorsoradial approach for radioulnar synostosis. Jin F, et al. **Surg Radiol Anat** 1998;20(4):239–42

RAPADILINO syndrome: a multiple malformation syndrome with radial and patellar aplasia. Jam K, et al.
Teratology 1999 Jul;60(1):37–8

[Bilateral congenital radio-ulnar synostosis with hyperpronation--findings and surgical therapy] Gaulrapp H, et al. **Handchir Mikrochir Plast Chir** 1998 Jul; 30(4):234–8 (Eng. Abstr.) **(Ger)**

[An epidemiological study of the thrombocytopenia with radial aplasia syndrome (TAR) in Spain] Martínez-Frías ML, et al. **An Esp Pediatr** 1998 Dec;49(6):619–23 (Eng. Abstr.) **(Spa)**

[Unilateral Madelung's deformity in dyschondrosteosis (letter)] Gómez Rodríguez N, et al. **An Med Interna** 1999 Jun;16(6):326 **(Spa)**

ANATOMY & HISTOLOGY

Relation between image-based assessment of distal radius trabecular structure and compressive strength. Gordon CL, et al. **Can Assoc Radiol J** 1998 Dec;49(6):390–7

Radiomorphometry and biomechanical assessment of recombinant human bone morphogenetic protein 2 and polymer in rabbit radius ostectomy model. Wheeler DL, et al. **J Biomed Mater Res** 1998 Winter;43(4):365–73

The nonarticulating portion of the radial head: anatomic and clinical correlations for internal fixation. Caputo AE, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1082–90

Elbow joint kinematics after excision of the radial head. Jensen SL, et al. **J Shoulder Elbow Surg** 1999 May–Jun; 8(3):238–41

BLOOD SUPPLY

[Radial bone reconstruction with free vascularized fibular osteocutaneous graft: a case report] Molski M, et al.
Chir Narzadow Ruchu Ortop Pol 1998;63(3):287–91 (Eng. Abstr.) **(Pol)**

DRUG EFFECTS

Forearm bone density in users of Depo-Provera as a contraceptive method. Bahamondes L, et al.
Fertil Steril 1999 May;71(5):849–52

Alendronate increases bone density and bone strength at the distal radius in postmenopausal women. Schneider PF, et al. **J Bone Miner Res** 1999 Aug;14(8):1387–93

GROWTH & DEVELOPMENT

Critical years and stages of puberty for radial bone mass apposition during adolescence. Bonofiglio D, et al.
Horm Metab Res 1999 Aug;31(8):478–82

INJURIES

Isolated posterolateral dislocation of the radial head in a boy. Takami H, et al. **Arch Orthop Trauma Surg** 1999; 119(5–6):360–1

Transverse divergent dislocation of the elbow with ipsilateral distal radius epiphyseal injury in a seven year old [published erratum appears in Injury 1999 Apr;30(3):231] Shankarappa YK. **Injury** 1998 Dec;29(10):798–802

Osteochondral progenitor cells in acute and chronic canine nonunions. Boyan BD, et al. **J Orthop Res** 1999 Mar;

17(2):246–55
Wrist impairment [letter; comment] Schweitzer G. **J Orthop Trauma** 1999 Jun–Jul;13(5):395. Comment on: J Orthop Trauma 1998 Nov–Dec;12(8):577–86.
Snowboarder's wrist: its severity compared with Alpine skiing. Sasaki K, et al. **J Trauma** 1999 Jun;46(6):1059–61
Diaphyseal forearm fractures treated with and without bone graft. Wei SY, et al. **J Trauma** 1999 Jun;46(6):1045–8

METABOLISM

Radial and metacarpal bone mineral density and calcaneal quantitative ultrasound bone mass in normal Japanese women. Ishikawa K, et al. **Calcif Tissue Int** 1999 Aug; 65(2):112–6
Delayed osteon formation in long-bone diaphysis of an 11-year-old giant cow with dermal dysplasia. Mori R, et al. **J Vet Med Sci** 1999 Feb;61(2):101–6

PATHOLOGY

Site-specific effects of strength training on bone structure and geometry of ultradistal radius in postmenopausal women. Adami S, et al. **J Bone Miner Res** 1999 Jan; 14(1):120–4

PHYSIOLOGY

Relation between image-based assessment of distal radius trabecular structure and compressive strength. Gordon CL, et al. **Can Assoc Radiol J** 1998 Dec;49(6):390–7
The effect of dietary calcium intake on bone mineral density in healthy adolescent girls and young women in southern Italy. Maggiolini M, et al. **Int J Epidemiol** 1999 Jun; 28(3):479–84
Tomographical description of tennis-loaded radius: reciprocal relation between bone size and volumetric BMD. Ashizawa N, et al. **J Appl Physiol** 1999 Apr;86(4):1347–51
Load transfer analysis of the distal radius from in-vivo high-resolution CT-imaging. Ulrich D, et al. **J Biomech** 1999 Aug;32(8):821–8
Radiomorphometry and biomechanical assessment of recombinant human bone morphogenetic protein 2 and polymer in rabbit radius ostectomy model. Wheeler DL, et al. **J Biomed Mater Res** 1998 Winter;43(4):365–73
Elastic anisotropy and collagen orientation of osteonal bone are dependent on the mechanical strain distribution. Takano Y, et al. **J Orthop Res** 1999 Jan;17(1):59–66
[Association of bone mineral density with vitamin D receptor gene polymorphism—changes in radial bone mineral density with long-term follow-up: longitudinal study] Murakami F, et al. **Rinsho Byori** 1998 Aug;46(8):766–73 (Eng. Abstr.) **(Jpn)**
[Indices of mechanical strength of the distal radius in healthy women and women with Colles fracture] Pludowski P, et al. **Pol Merkuriusz Lek** 1998 Oct;5(28):208–10 (Eng. Abstr.) **(Pol)**

PHYSIOPATHOLOGY

Radial and lumbar bone mineral density after wrist synovectomy in rheumatoid arthritis. A minimum 2-year follow-up in 10 unilaterally operated patients. Teshima R, et al. **Arch Orthop Trauma Surg** 1998;118(1–2):78–80
[Assessment of geometric, biomechanical, and osteodensitometric properties of the ultradistal radius with peripheral quantitative computerized tomography in uremic patients with severe hyperparathyroidism] Di Leo C, et al. **Radiol Med (Torino)** 1999 Apr;97(4):229–35 (Eng. Abstr.) **(Ita)**

RADIOGRAPHY

Reproducibility of phalanx osteosonography and relation with forearm peripheral quantitative computed tomography: single finger versus average measurement on the last four fingers. Louis O, et al. **Eur J Radiol** 1998 Oct;28(3):270–5
Tomographical description of tennis-loaded radius: reciprocal relation between bone size and volumetric BMD. Ashizawa N, et al. **J Appl Physiol** 1999 Apr;86(4):1347–51
Radiographic diagnosis—benign bone cyst. Stickle R, et al. **Vet Radiol Ultrasound** 1999 Jul–Aug;40(4):365–6
[Assessment of geometric, biomechanical, and osteodensitometric properties of the ultradistal radius with peripheral quantitative computerized tomography in uremic patients with severe hyperparathyroidism] Di Leo C, et al. **Radiol Med (Torino)** 1999 Apr;97(4):229–35 (Eng. Abstr.) **(Ita)**
[Age-related changes of densitometric and strength parameters evaluated with QCT method in healthy women] Pludowski P, et al. **Pol Merkuriusz Lek** 1998 Oct; 5(28):211–4 (Eng. Abstr.) **(Pol)**

SURGERY

Arthroscopic resection of the radial head. Menth-Chiari WA, et al. **Arthroscopy** 1999 Mar;15(2):226–30
Alterations in the biorheological features of some soft tissues after limb lengthening. Huang K, et al. **Biorheology** 1998 Jul–Oct;35(4–5):355–63
Management of the radial composite donor site: an orthopaedic opinion. Sidebottom AJ, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):213–6
Vascularized fibular graft after excision of giant cell tumor of the distal radius. A case report. Ihara K, et al. **Clin Orthop** 1999 Feb;(359):189–96
A reabsorbable tubular chamber for the treatment of large diaphyseal bone defects. Experimental study in rabbits. Giardino R, et al. **Int J Artif Organs** 1998 Aug;21(8):473–82
Treatment of giant-cell tumors of long bones with curettage and bone-grafting. Blackley HR, et al. **J Bone Joint Surg Am** 1999 Jun;81(6):811–20
Revision of the ununited one-bone forearm. Chen F, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1091–6
Lengthening of pediatric forearm deformities using the Ilizarov technique: functional and cosmetic results. Raimondo RA, et al. **J Hand Surg [Am]** 1999 Mar; 24(2):331–8
Recurrent benign chondroblastoma at the distal end of the radius. Minami A, et al. **J Hand Surg [Br]** 1999 Feb; 24(1):113–5
Excision of the radial head in patients younger than 18 years. Hresko MT, et al. **J Pediatr Orthop** 1999 Jan–Feb; 19(1):106–13
Do functional deficits result from radial head resection? Fuchs S, et al. **J Shoulder Elbow Surg** 1999 May–Jun; 8(3):247–51
Surgery for rheumatoid arthritis of the elbow: a comparison of radial-head excision and synovectomy with total elbow replacement. Woods DA, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):291–5
Biplane osteotomy and epiphysiodesis of the distal radius for correction of wrist deformity due to distal ulnar growth arrest. Kaempffe FA. **Orthopedics** 1999 Jan;22(1):84–6
Biomechanical comparison of the trocar tip point and the hollow ground tip point for smooth external skeletal fixation pins. Marti JM, et al. **Vet Surg** 1998 Sep–Oct; 27(5):423–8
[Modified Krukenberg-plasty with callus distraction of the stump and complete skin closure of both forearm branches] Stober R, et al. **Handchir Mikrochir Plast Chir** 1998 Sep; 30(5):325–9 (Eng. Abstr.) **(Ger)**
[Palliative treatment of wrist joint metastasis of primary bronchial carcinoma with a dynamic compression plate] Wille J, et al. **Unfallchirurg** 1998 Sep;101(9):728–30 (Eng. Abstr.) **(Ger)**
[Radial bone reconstruction with free vascularized fibular osteocutaneous graft: a case report] Molski M, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(3):287–91 (Eng. Abstr.) **(Pol)**

RADIUS FRACTURES

Patient rating of wrist pain and disability: a reliable and valid measurement tool [see comments] MacDermid JC, et al. **J Orthop Trauma** 1998 Nov–Dec;12(8):577–86. Comment in: J Orthop Trauma 1999 Jun–Jul;13(5):395.
[Fractures of the radial head] Luboshitz S, et al. **Harefuah** 1998 Aug;135(3–4):145–9 (44 ref.) **(Heb)**

BLOOD

Local effects on the blood gas indices in diaphyseal forearm fractures. Stavrev V, et al. **Folia Med (Plovdiv)** 1998; 40(4):17–23

COMPLICATIONS

Arthroscopic resection of the radial head. Menth-Chiari WA, et al. **Arthroscopy** 1999 Mar;15(2):226–30
Unusual distal radial epiphyseal injury in a child. Arora A, et al. **Injury** 1999 Mar;30(2):149–50
Fracture of the shaft of the radius and dislocation of the ipsilateral radial head in children: beware of rare injuries. Lee CT, et al. **Injury** 1998 Dec;29(10):791–2
Forearm and distal radius fractures in children. Noonan KJ, et al. **J Am Acad Orthop Surg** 1998 May–Jun;6(3):146–56 (43 ref.)
Attritional flexor tendon ruptures due to distal radius fracture and associated with volar displacement of the distal ulna: a case report. Wada A, et al. **J Hand Surg [Am]** 1999 May; 24(3):534–7
Pseudoaneurysm of the ulnar artery occurring after fracture of the distal radius and ulna: a case report. Wang AA, et al. **J Hand Surg [Am]** 1998 Sep;23(5):933–7
Palmar lunate trans-scaphoid, trans-triquetral fracture-dislocation. Harrington P, et al. **J Hand Surg [Br]** 1999 Aug;24(4):493–6
Bilateral proximal radial and scaphoid fractures in a child. Kay RM, et al. **J Hand Surg [Br]** 1999 Apr;24(2):255–7
Intraarticular lesions in distal fractures of the radius in young adults. A descriptive arthroscopic study in 50 patients. Lindau T, et al. **J Hand Surg [Br]** 1997 Oct;22(5):638–43
Reconstruction of the elbow: therapist's commentary. Brach P. **J Hand Ther** 1999 Apr–Jun;12(2):73–4
Ulnar nerve injury after closed forearm fractures in children. Neiman R, et al. **J Pediatr Orthop** 1998 Sep–Oct; 18(5):683–5
Assessment of peripheral sympathetic nervous function for diagnosing early post-traumatic complex regional pain syndrome type I. Schürmann M, et al. **Pain** 1999 Mar; 80(1–2):149–59
Carpal tunnel syndrome after epiphysiolysis of the distal radius in a 5-year-old child. Case report. Krum-Møller D, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):123–4
[Bowing fracture of the ulna with concomitant dislocation of the distal radioulnar joint] Andersen KH, et al. **Ugeskr Laeger** 1999 Feb 1;161(5):605–6 (Eng. Abstr.) **(Dan)**
[Combined fractures of the radius and the ulna at the elbow level in the adult. Analysis of 120 cases after more than 1 year] Heim U. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Apr; 84(2):142–53 (24 ref.) (Eng. Abstr.) **(Fre)**
[Reflex sympathetic dystrophy (Sudeck's disease). An unavoidable complication of distal radius fracture?] Hansis M. **Zentralbl Chir** 1999;124(6):479–82 (Eng. Abstr.) **(Ger)**
[Carpal instability after fractures of the distal end of the radius] Morawiecki P, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(2):127–31 (Eng. Abstr.) **(Pol)**
[The results of the treatment of post-traumatic reflex sympathetic dystrophy within upper extremity] Zyluk A. **Chir Narzadow Ruchu Ortop Pol** 1999;64(2):117–25 (Eng. Abstr.) **(Pol)**

DIAGNOSIS

[MRI scanning in suspected fractures of the scaphoid bone] Lindequist S, et al. **Ugeskr Laeger** 1998 Dec 14; 160(51):7438–41 (Eng. Abstr.) **(Dan)**
[The MR tomographic imaging of uncomplicated secondary fracture healing exemplified by the distal radius fracture] Krüger K, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Mar;170(3):262–8 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

[The effect of phenytoin in healing of fracture of rabbits] Yang T, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):149–52 (Eng. Abstr.) **(Chi)**
[The effect of wumingyi chongji on BMP content in callus] Yu X, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):153–6 (Eng. Abstr.) **(Chi)**

EPIDEMIOLOGY

Forearm fractures in Malmö, Sweden. Changes in the incidence occurring during the 1950s, 1980s and 1990s. Jónsson B, et al. **Acta Orthop Scand** 1999 Apr;70(2):129–32
Changing incidence of hip, distal radius, and proximal humerus fractures in Tottori Prefecture, Japan. Hagino H, et al. **Bone** 1999 Mar;24(3):265–70

ETIOLOGY

Non-union of undisplaced radial neck fracture in a rheumatoid patient. Salai M, et al. **Arch Orthop Trauma Surg** 1999;119(1–2):119–20
Orthopedic problems in Lesch-Nyhan syndrome. Sponseller PD, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):596–602
Relationship between ligamentous laxity and the site of upper extremity fractures in children: extension supracondylar fracture versus distal forearm fracture. Nork SE, et al. **J Pediatr Orthop B** 1999 Apr;8(2):90–2
"Tug-of-war-hand": transforearm amputation by an unusual mechanism. Bruce WD, et al. **Orthopedics** 1999 Aug; 22(8):769–70
[Fracture of the lower end of the radius in adults. Mechanisms, diagnosis, treatment] Herzberg G. **Rev Prat** 1999 Jun 1;49(11):1207–13 **(Fre)**

GENETICS

Vitamin D receptor genotype and the risk of bone fractures in women. Feskanich D, et al. **Epidemiology** 1998 Sep; 9(5):535–9

PATHOLOGY

Trapezoid dislocation with a Galeazzi fracture. Taylor M, et al. **Acta Orthop Belg** 1998 Sep;64(3):328–30
Pathological fracture in non-ossifying fibroma with histological features simulating aneurysmal bone cyst. Hoeffel C, et al. **Eur Radiol** 1999;9(4):669–71
Osteochondral progenitor cells in acute and chronic canine nonunions. Boyan BD, et al. **J Orthop Res** 1999 Mar; 17(2):246–55

PHYSIOPATHOLOGY

Biomechanical evaluation of wrist motor tendons after fractures of the distal radius. Tang JB, et al. **J Hand Surg [Am]** 1999 Jan;24(1):121–32
Bone mineral density in the distal radius in a healthy Japanese population and in relation to fractures of the distal radius. Itoh S, et al. **J Hand Surg [Br]** 1999 Jun;24(3):334–7
Distal radius fractures: mechanisms of injury and strength prediction by bone mineral assessment. Augat P, et al. **J Orthop Res** 1998 Sep;16(5):629–35
Remodeling of forearm fractures in children. Johari AN, et al. **J Pediatr Orthop B** 1999 Apr;8(2):84–7

PREVENTION & CONTROL

Prophylactic plating of the donor site of osteocutaneous radial forearm flaps. Nuñez VA, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):210–2

RADIUS FRACTURES

RADIOGRAPHY

The role of serial radiographs in the management of pediatric torus fractures. Farbman KS, et al.
Arch Pediatr Adolesc Med 1999 Sep;153(9):923-5

Tomography versus computed tomography for assessing step off in intraarticular distal radial fractures. Freedman DM, et al. **Clin Orthop** 1999 Apr;(361):199-204

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Follow up of a positive elbow fat sign. Gorzack A.
J Accid Emerg Med 1998 Nov;15(6):380-1

Tilted lateral radiographs in the evaluation of intra-articular distal radius fractures. Lundy DW, et al.
J Hand Surg [Am] 1999 Mar;24(2):249-56

Bilateral scapholunate dissociations with distal radial fractures and post-traumatic intercarpal fusion. Gupta A.
J Hand Surg [Br] 1998 Dec;23(6):815-6

Tardy displacement of traumatic radial head dislocation in childhood. Weisman DS, et al. **J Pediatr Orthop** 1999 Jul-Aug;19(4):523-6

Radial neck fractures in children: a management algorithm. Evans MC, et al. **J Pediatr Orthop B** 1999 Apr;8(2):93-9

[Distal radius fractures] Rikli D, et al.
Schweiz Med Wochenschr 1999 May 22;129(20):776-85 (43 ref.) (Eng. Abstr.) **(Ger)**

REHABILITATION

Management of fractures of the distal radius: therapist's commentary. Weinstock TB. **J Hand Ther** 1999 Apr-Jun; 12(2):99-102 (9 ref.)

SURGERY

Pin-tract complications in external fixation of fractures of the distal radius. Ahlborg HG, et al.
Acta Orthop Scand 1999 Apr;70(2):116-8

Irreducible Galeazzi injury. Budgen A, et al.
Arch Orthop Trauma Surg 1998;118(3):176-8

Kirschner wire embolization to the heart: an unusual cause of pericardial tamponade. Goodsett JR, et al. **Chest** 1999 Jan;115(1):291-3

Percutaneous intramedullary elastic wiring of displaced diaphyseal forearm fractures in children. A modified technique. Waseem M, et al. **Injury** 1999 Jan;30(1):21-4

The effect of using a tourniquet on the intensity of postoperative pain in forearm fractures. A randomized study in 32 surgically treated patients. Omeroğlu H, et al. **Int Orthop** 1998;22(6):369-73

Intra-articular fractures of the distal aspect of the radius: arthroscopically assisted reduction compared with open reduction and internal fixation. Doi K, et al.
J Bone Joint Surg Am 1999 Aug;81(8):1093-110

Redisplaced unstable fractures of the distal radius [letter; comment] Casteleyn PP. **J Bone Joint Surg Br** 1999 Mar; 81(2):368. Comment on: J Bone Joint Surg Br 1998 Jul;80(4):665-9.

Salvage of the head of the radius after fracture-dislocation of the elbow [letter] Chell J, et al.
J Bone Joint Surg Br 1999 Jul;81(4):745-6

Salvage of the head of the radius after fracture-dislocation of the elbow. A case report. Patel VR, et al.
J Bone Joint Surg Br 1999 Mar;81(2):306-8

The nonarticulating portion of the radial head: anatomic and clinical correlations for internal fixation. Caputo AE, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1082-90

Wire-loop fixation of volar displaced osteochondral fractures of the distal radius. Chin KR, et al. **J Hand Surg [Am]** 1999 May;24(3):525-33

Distal radius fractures: external fixation proves best [letter; comment] Cooney WP. **J Hand Surg [Am]** 1998 Nov; 23(6):1119-21. Comment on: J Hand Surg [Am] 1998 May;23(3):381-94.

Ultrasound diagnosis and surgical pathology of the torn interosseous membrane in forearm fractures/dislocations. Failla JM, et al. **J Hand Surg [Am]** 1999 Mar;24(2):257-66

The evaluation of tension in an experimental model of external fixation of distal radius fractures. Gupta R, et al.
J Hand Surg [Am] 1999 Jan;24(1):108-12

Complications in internal fixation of the distal radius [letter; comment] Lucas GL, et al. **J Hand Surg [Am]** 1998 Nov; 23(6):1117. Comment on: J Hand Surg [Am] 1998 Jul;23(4):737-41.

Un-united fractures of the distal radius: a report of 12 cases. Segalman KA, et al. **J Hand Surg [Am]** 1998 Sep; 23(5):914-9

Posterior interosseous nerve palsy following placement of the compass elbow hinge for acute instability: a case report. Tomaino MM, et al. **J Hand Surg [Am]** 1999 May; 24(3):554-60

A biomechanical comparison of different wrist external fixators with and without K-wire augmentation. Wolfe SW, et al. **J Hand Surg [Am]** 1999 May;24(3):516-24

Augmentation of distal radius fracture fixation with coralline hydroxyapatite bone graft substitute. Wolfe SW, et al.
J Hand Surg [Am] 1999 Jul;24(4):816-27

Operative fluoroscopy in hand and upper limb surgery. One hundred cases. Bain GI, et al. **J Hand Surg [Br]** 1997 Oct; 22(5):656-8

Palmar lunate trans-scaphoid, trans-triquetral fracture-dislocation. Harrington P, et al.
J Hand Surg [Br] 1999 Aug;24(4):493-6

Irreducible Galeazzi fracture-dislocation due to an avulsion fracture of the fovea of the ulna. Kikuchi Y, et al.
J Hand Surg [Br] 1999 Jun;24(3):379-81

Radiocarpal fracture-dislocation. Mudgal CS, et al.
J Hand Surg [Br] 1999 Feb;24(1):92-8

The operative treatment of intraarticular Smith fractures. Nienstedt F. **J Hand Surg [Br]** 1999 Feb;24(1):99-103

Management of fractures of the distal radius: surgeon's perspective. Raskin KB. **J Hand Ther** 1999 Apr-Jun; 12(2):92-8 (11 ref.)

The radioulnar joints and forearm axis: surgeons' perspective. Tang P, et al. **J Hand Ther** 1999 Apr-Jun;12(2):75-84 (40 ref.)

External fixation in the distal forearm: its use in fractures and malunions. Pennig D, et al. **J Orthop Sci** 1999; 4(2):142-58

Intra-focal fixation for treating distal radius fracture: results of 104 cases. Shiota E. **J Orthop Sci** 1999;4(2):106-14

The Monteggia lesion and ipsilateral supracondylar humerus and distal radius fractures. Arazi M, et al.
J Orthop Trauma 1999 Jan;13(1):60-3

Intramedullary nailing of forearm fractures in children. Griffet J, et al. **J Pediatr Orthop B** 1999 Apr;8(2):88-9

Intraarticular radial head osteotomy. Beingessner DM, et al.
J Shoulder Elbow Surg 1999 Mar-Apr;8(2):172-4

Do functional deficits result from radial head resection? Fuchs S, et al. **J Shoulder Elbow Surg** 1999 May-Jun; 8(3):247-51

"Tug-of-war-hand": transforearm amputation by an unusual mechanism. Bruce WD, et al. **Orthopedics** 1999 Aug; 22(8):769-70

[Orthopedic treatment of fractures of the lower extremity of the radius by the Judet technique. Anatomic results in function of the type of lesion: apropos of 280 cases] Camelot C, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Apr; 84(2):124-35 (Eng. Abstr.) **(Fre)**

[Combined fractures of the radius and the ulna at the elbow level in the adult. Analysis of 120 cases after more than 1 year] Heim U.
Rev Chir Orthop Reparatrice Appar Mot 1998 Apr; 84(2):142-53 (24 ref.) (Eng. Abstr.) **(Fre)**

[Temporary external fixation in the correction of non articular mal-unions of the distal radius] Voche P, et al.
Rev Chir Orthop Reparatrice Appar Mot 1999 Mar; 85(1):18-23 (Eng. Abstr.) **(Fre)**

[Results of Kapandji-Sauvé operation after distal radius fractures] Borisch N, et al.
Handchir Mikrochir Plast Chir 1998 Nov;30(6):399-405 (Eng. Abstr.) **(Ger)**

[Alternative surgical method in malalignment of healed distal radius fracture: Kapandji-Sauvé procedure] Pechlaner S.
Handchir Mikrochir Plast Chir 1998 Nov;30(6):379-81 (Eng. Abstr.) **(Ger)**

[Elastic intramedullary nailing--a concept for treatment of unstable forearm fracture in childhood] Richter D, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1160-2 (Eng. Abstr.) **(Ger)**

[Prostheses of the head of the radius. What outcome can be expected?] Wick M, et al. **Unfallchirurg** 1998 Nov; 101(11):817-21 (Eng. Abstr.) **(Ger)**

[Distal, metaphyseal compression fractures of the radius. Results of open reposition, stable defect replacement with cortico-cancellous iliac crest bone and plate osteosynthesis] Zimmermann R, et al. **Unfallchirurg** 1998 Oct;101(10):762-8 (Eng. Abstr.) **(Ger)**

[The treatment of multi-fragmental fractures of distal radius by external fixators by own construction] Niedźwiedź Z.
Chir Narzadow Ruchu Ortop Pol 1999;64(1):91-7 (Eng. Abstr.) **(Pol)**

THERAPY

Triplane fractures in the hand. Mata SG, et al.
Am J Orthop 1999 Feb;28(2):125-7

Mid-third forearm fractures in children: an unorthodox treatment. Shaer JA, et al. **Am J Orthop** 1999 Jan;28(1):60-3

Non-union of undisplaced radial neck fracture in a rheumatoid patient. Salai M, et al.
Arch Orthop Trauma Surg 1999;119(1-2):119-20

The treatment of forearm fractures from penetrating trauma. Kozin SH, et al. **Hand Clin** 1999 May;15(2):221-31, viii (29 ref.)

Office management of distal radial fractures. Kalb RL.
Hosp Pract (Off Ed) 1999 Mar 15;34(3):131-2, 137

The role of therapeutic needle aspiration in radial head fractures. Carley S. **J Accid Emerg Med** 1999 Jul;16(4):282

Dynamic traction for unstable fractures of the distal radius. Hove LM, et al. **J Hand Surg [Br]** 1999 Apr;24(2):210-4

Closed reduction versus Kapandji-pinning for extra-articular distal radial fractures. Stoffelen DV, et al.
J Hand Surg [Br] 1999 Feb;24(1):89-91

Functional limitation immediately after cast immobilization and closed reduction of distal radius fractures: preliminary report. Byl NN, et al. **J Hand Ther** 1999 Jul-Sep; 12(3):201-11

Radial neck fractures in children: a management algorithm. Evans MC, et al. **J Pediatr Orthop B** 1999 Apr;8(2):93-9

Remodeling of forearm fractures in children. Johari AN, et al. **J Pediatr Orthop B** 1999 Apr;8(2):84-7

Displaced fractures of the radial neck in children: long-term results and prognosis of conservative treatment. Vocke AK, et al. **J Pediatr Orthop B** 1998 Jul;7(3):217-22

Radial head fractures associated with elbow dislocations treated by immediate stabilization and early motion. Frankle MA, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug; 8(4):355-60

Kapandji pinning or closed reduction for extra-articular distal radius fractures. Stoffelen DV, et al. **J Trauma** 1998 Oct;45(4):753-7

Fractures of the elbow. Kuntz DG Jr, et al.
Orthop Clin North Am 1999 Jan;30(1):37-61 (89 ref.)

The use of the external fixator in the treatment of intra-articular fractures of the distal radius. Chan BK, et al. **Singapore Med J** 1999 Jun;40(6):420-4

[The influence of the traction on the wrist in the course of healing of the radius distal part comminuted fractures] Larysz D, et al. **Chir Narzadow Ruchu Ortop Pol** 1999; 64(1):5-9 (Eng. Abstr.) **(Pol)**

ULTRASONOGRAPHY

Ultrasonic diagnosis of interosseous ligament failure in radioulnar dissociation. Wallace AL, et al. **Injury** 1999 Jan; 30(1):59-63

Ultrasound diagnosis and surgical pathology of the torn interosseous membrane in forearm fractures/dislocations. Failla JM, et al. **J Hand Surg [Am]** 1999 Mar;24(2):257-66

VETERINARY

Bone plate fixation of distal radius and ulna fractures in small- and miniature-breed dogs. Larsen LJ, et al.
J Am Anim Hosp Assoc 1999 May-Jun;35(3):243-50

RADON

see related

AIR POLLUTANTS, RADIOACTIVE

Influence of the work environment in a Pb-Zn mine on the incidence of cytogenetic damage in miners. Bilban M.
Am J Ind Med 1998 Nov;34(5):455-63

Decrease of respiratory burst in neutrophils of patients with ankylosing spondylitis by combined radon-hyperthermia treatment. Reinisch N, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):335-8

Radon [news] Busby B. **Health Phys** 1999 Oct;77(4):357-8

Use of 222Rn-resistant techniques in new home construction. Watson JE Jr, et al. **Health Phys** 1999 Jan;76(1):62-5

The cost-effectiveness of radon mitigation in schools in Northamptonshire. Denman AR, et al. **J Radiol Prot** 1998 Sep;18(3):203-8

Do the UK workplace Radon Action Levels reflect the radiation dose received by the occupants? Denman AR, et al. **J Radiol Prot** 1999 Mar;19(1):37-43

Genetic effects observed in tetrads of Tradescantia induced by radon. Villalobos-Pietrini R, et al. **Mutat Res** 1999 May 19;426(2):215-9

[New data on the size of the operational reserves of radon thermal springs at the Belokurikha deposit in the Altai] Loginov AA. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov-Dec;(6):50-1 **(Rus)**

ADVERSE EFFECTS

Parallel analyses of individual and ecologic data on residential radon, cofactors, and lung cancer in Sweden. Lagarde F, et al. **Am J Epidemiol** 1999 Feb 1;149(3):268-74

Residential radon exposure and risk of lung cancer in Missouri. Alavanja MC, et al. **Am J Public Health** 1999 Jul;89(7):1042-8

Radon and lung cancer: a cost-effectiveness analysis. Ford ES, et al. **Am J Public Health** 1999 Mar;89(3):351-7

The ebb and flow of radon [editorial] Nicholls G.
Am J Public Health 1999 Jul;89(7):993-5

Reducing radon levels. Householders are not prepared to pay [letter; comment] Denman A, et al. **BMJ** 1998 Nov 21;317(7170):1455-6. Comment on: BMJ 1998 May 23;316(7144):1557.

Reducing radon levels. Responsibility should be with local authority [letter; comment] Le Geyt MP. **BMJ** 1998 Nov 21;317(7170):1455. Comment on: BMJ 1998 May 23;316(7144):1557.

Involvement of radon levels in lung cancer [letter; comment] Miles D, et al. **Br J Cancer** 1999 Mar;79(9-10):1621-3. Comment on: Br J Cancer 1998 Aug;78(3):394-408.

p53 Mutations in lung cancer associated with residential radon exposure. Yngveson A, et al.
Cancer Epidemiol Biomarkers Prev 1999 May;8(5):433-8

Exposure to indoor background radiation and urinary concentrations of 8-hydroxydeoxyguanosine, a marker of oxidative DNA damage. Sperati A, et al.
Environ Health Perspect 1999 Mar;107(3):213-5

Errors in Cohen's home radon-lung cancer analyses [letter; comment] Archer VE. **Health Phys** 1998 Dec;75(6):652-4 . Comment on: Health Phys 1995 Feb;68(2):157-74. Comment on: Health Phys 1997 Apr;72(4):623-8.

Implications of a two-stage clonal expansion model to indoor radon risk assessment. Castrén O. **Health Phys** 1999 Apr; 76(4):393-7

Response to the Lubin rejoinder [letter; comment] Cohen BL. **Health Phys** 1999 Apr;76(4):437-9. Comment on: Health Phys 1998 Jul;75(1):18-22; discussion 29-30.

Response to "Rejoinder" by Field et al [letter; comment] Cohen BL. **Health Phys** 1999 Apr;76(4):439-40. Comment on: Health Phys 1998 Jul;75(1):23-8; discussion 31-3.

Cohen's paradox [letter] Field RW, et al. **Health Phys** 1999 Sep;77(3):328-9 (21 ref.)

Limits and uncertainties--with special regard to radon

measurements. Friedmann H. **Health Phys** 1999 Sep; 77(3):309–12
Response to Cohen's comments on the Lubin rejoinder [letter] Lubin JH. **Health Phys** 1999 Sep;77(3):330–2
Risk management for plausibly hormetic environmental carcinogens: the case of radon. Bogen KT, et al. **Hum Exp Toxicol** 1998 Aug;17(8):463–7
Domestic radon exposure and the frequency of stable or unstable chromosomal aberrations in lymphocytes. Lindholm C, et al. **Int J Radiat Biol** 1999 Aug;75(8):921–8
Excess lung cancer incidence and radon indoors in a Bulgarian town [letter] Pressyanov D, et al. **J Epidemiol Community Health** 1999 Jul;53(7):448
Health effects from radon-222 in drinking water in Algiers. Amrani D, et al. **J Radiol Prot** 1999 Sep;19(3):275–9
Radon exposure and the risk of lung cancer [letter; comment] Cohen BL. **J Radiol Prot** 1999 Mar;19(1):63–5. Comment on: J Radiol Prot 1998 Sep;18(3):163–74.
Mortality and cancer incidence in Misasa, Japan, a spa area with elevated radon levels. Ye W, et al. **Jpn J Cancer Res** 1998 Aug;89(8):789–96
Alkaline single cell gel electrophoresis and human biomonitoring for genotoxicity: a study on subjects with residential exposure to radon. Hellman B, et al. **Mutat Res** 1999 Jun 25;442(2):121–32
Radon-induced lung cancer in smokers and non-smokers: risk implications using a two-mutation carcinogenesis model. Leenhouts HP. **Radiat Environ Biophys** 1999 May; 38(1):57–71
[Radon and bronchial cancer] Melloni B. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S63–4 **(Fre)**
[Exposure to radon-222 of inhabitants of buildings in Olsztyn] Gorzkowski B, et al. **Rocz Panstw Zakl Hig** 1998; 49(2):199–206 (Eng. Abstr.) **(Pol)**
[The measurement of radon in kindergarten and infant nursery buildings in East-North Poland] Zalewski M, et al. **Rocz Panstw Zakl Hig** 1998;49(2):207–12 (Eng. Abstr.) **(Pol)**
[Effects of radon on the development of malignant neoformations of the lungs in residents of the Sverdlovsk region] Lezhnin VL, et al. **Gig Sanit** 1999 Jul–Aug; (4):49–53 **(Rus)**

ANALYSIS

Radon-222 and gamma ray levels associated with the collection, processing, transmission, and utilization of natural gas. van Netten C, et al. **Am Ind Hyg Assoc J** 1998 Sep;59(9):622–8
Procedures for the determination of 222Rn exhalation and effective 226Ra activity in soil samples. Gómez Escobar V, et al. **Appl Radiat Isot** 1999 Jun;50(6):1039–47
Modeling and measuring the indoor randon concentrations in high-rise buildings in Hong Kong. Man CK, et al. **Appl Radiat Isot** 1999 Jun;50(6):1131–5
Radon-222 and related activities in surface waters of the English Lake District. al-Masri MS, et al. **Appl Radiat Isot** 1999 Jun;50(6):1137–43
Exposure to atmospheric radon. Steck DJ, et al. **Environ Health Perspect** 1999 Feb;107(2):123–7
Continuous measurements of outdoor 222Rn concentrations for three years at one location in Colorado. Borak TB, et al. **Health Phys** 1999 Apr;76(4):418–20
Intercomparison of radon and decay product measurements in an underground mine and EPA Radon Laboratory: a study organized by the IAEA International Radon Metrology Programme. International Atomic Energy Agency. Budd G, et al. **Health Phys** 1998 Nov;75(5):465–74
Radon progeny unattached fraction in an atmosphere far from radioactive equilibrium. Cavallo A, et al. **Health Phys** 1999 May;76(5):532–6
Radon emanation of building material--impact of back diffusion and difference between one-dimensional and three-dimensional tests. Chao CY, et al. **Health Phys** 1999 Jun;76(6):675–81
Response to the Goldsmith commentary [letter; comment] Cohen BL. **Health Phys** 1999 May;76(5):568–9. Comment on: Health Phys 1999 May;76(5):553–7.
Spatial variation of residential radon concentrations: the Iowa Radon Lung Cancer Study. Fisher EL, et al. **Health Phys** 1998 Nov;75(5):506–13
Limits and uncertainties--with special regard to radon measurements. Friedmann H. **Health Phys** 1999 Sep; 77(3):309–12
The residential radon-lung cancer association in U.S. counties: a commentary [comment] [see comments] Goldsmith JR. **Health Phys** 1999 May;76(5):553–7. Comment on: Health Phys 1991 May;60(5):631–42. Comment on: Health Phys 1995 Feb;68(2):157–74. Comment in: Health Phys 1999 May;76(5):568–9.
A screening assessment of external radiation levels on the shore of Lake Issyk-Kyol in the Kyrghyz Republic. Hamby DM, et al. **Health Phys** 1999 Oct;77(4):427–30
IAEA/EPA international climatic test program for integrating radon detectors. International Atomic Energy Agency/Environmental Protection Agency. Hopper RD, et al. **Health Phys** 1999 Sep;77(3):303–8
Passive alpha Electret Ion Chambers. Kasper K. **Health Phys** 1999 May;76(5):475–6
Intercomparison of passive radon-detectors under field conditions in epidemiological studies. Kreienbrock L, et al. **Health Phys** 1999 May;76(5):558–63
Radon mitigation by depressurization of concrete walls and slabs. Leung JK, et al. **Health Phys** 1999 Oct;77(4):420–6
Survey of 222Rn concentrations in the air of a tunnel located in Nagano City using the solid-state nuclear track detector method. Muramatsu H, et al. **Health Phys** 1999 Jul; 77(1):43–51
Radon reduction systems in the construction of new houses in Gainesville, Florida [published erratum appears in Health Phys 1999 Jan;76(1):78] Najafi FT. **Health Phys** 1998 Nov; 75(5):514–7
Radon exhalation rates and gamma doses from ceramic tiles. O'Brien RS, et al. **Health Phys** 1998 Dec;75(6):630–9
The usability of wood as a volume trap for the purpose of retrospective radon exposure assessment. Paridaens J, et al. **Health Phys** 1999 Jun;76(6):657–63
Study of 222Rn concentrations in some dwellings of Rajasthan. Singh AK, et al. **Health Phys** 1999 Mar; 76(3):306–10
Radiation hazard of coal-slags as building material in Tatabánya town (Hungary). Somlai J, et al. **Health Phys** 1998 Dec;75(6):648–51
Occupational doses from radon in Spanish spas. Soto J, et al. **Health Phys** 1999 Apr;76(4):398–401
Comment on "On the discrepancies between epidemiologic studies of lung cancer and residential radon and Cohen's ecologic regression" [letter; comment] Straja SR, et al. **Health Phys** 1999 Mar;76(3):316–9. Comment on: Health Phys 1998 Jul;75(1):4–10. Comment on: Health Phys 1998 Jul;75(1):11–7. Comment on: Health Phys 1998 Jul;75(1):18–22; discussion 29–30. Comment on: Health Phys 1998 Jul;75(1):23–8; discussion 29–30.
Optimization of radon measurements with active charcoal. Urošević V, et al. **Health Phys** 1999 Jun;76(6):687–91
Analysis of electret ion chamber radon detector response to 222Rn and interference from background gamma radiation. Usman S, et al. **Health Phys** 1999 Jan;76(1):44–9
Radon mitigation survey among New York State residents living in high radon homes. Wang Y, et al. **Health Phys** 1999 Oct;77(4):403–9
Experimental evidence for stages of health behavior change: the precaution adoption process model applied to home radon testing. Weinstein ND, et al. **Health Psychol** 1998 Sep;17(5):445–53
Measurement of airborne radon concentrations at several sites in a radioactivity research laboratory. Shimizu M, et al. **J Oral Sci** 1999 Jun;41(2):67–9
Radon testing in households with a residential smoker--United States, 1993–1994. **MMWR Morb Mortal Wkly Rep** 1999 Aug 13;48(31):683–6
The chemistry of Norwegian groundwaters: I. The distribution of radon, major and minor elements in 1604 crystalline bedrock groundwaters. Banks D, et al. **Sci Total Environ** 1998 Oct 15;222(1–2):71–91
Temporal and small-scale spatial variability of 222Rn gas in a soil with a high gravel content. Bunzl K, et al. **Sci Total Environ** 1998 Sep 18;220(2–3):157–66
Geological controls to the indoor radon distribution in southern Belgium. Zhu HC, et al. **Sci Total Environ** 1998 Sep 18;220(2–3):195–214
[The evaluation of mean indoor concentration of radon based on the measurement of 210Pb concentration in glass] Skubalski J, et al. **Med Pr** 1998;49(5):483–8 (Eng. Abstr.) **(Pol)**
[The radon therapy: radon inhalation spa in Kowary] Pe'nsko J, et al. **Rocz Panstw Zakl Hig** 1998;49(2):189–98 (Eng. Abstr.) **(Pol)**
[The measurement of radon in kindergarten and infant nursery buildings in East-North Poland] Zalewski M, et al. **Rocz Panstw Zakl Hig** 1998;49(2):207–12 (Eng. Abstr.) **(Pol)**
[The effect of certain factors on the radon concentration in the air of school premises] Mazurenko NIu, et al. **Gig Sanit** 1999 Jan–Feb;(1):40–1 **(Rus)**

CHEMISTRY

Radon exhalation rate and uranium estimation in rock samples from Bihar uranium and copper mines using the SSNTD technique. Singh AK, et al. **Appl Radiat Isot** 1999 Jul; 51(1):107–13
Radon: characteristics in air and dose conversion factors. Porstendörfer J, et al. **Health Phys** 1999 Mar;76(3):300–5
Multiple radon entry modeling in a house with a cellar. Wang F, et al. **J Air Waste Manag Assoc** 1999 Jun;49(6):682–93

STANDARDS

Radon action level for high-rise buildings. Leung JK, et al. **Health Phys** 1999 May;76(5):537–43

THERAPEUTIC USE

[Changes in the mineral metabolic indices of osteoarthrosis patients with the use of radon therapy and mud therapy] Dicheva MA, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 May–Jun; (3):37–8 (Eng. Abstr.) **(Rus)**
[Interference therapy and radon baths in the combined treatment of patients with reflex cervicobrachial syndromes] Gorbunov FE, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov–Dec; (6):38–41 (Eng. Abstr.) **(Rus)**
[The use of dry-air radon baths in the treatment of patients with reactive arthritis] Grigor'eva VD, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Jul–Aug;(4):11–5 (Eng. Abstr.) **(Rus)**
[Radon baths and laser therapy in the rehabilitation of patients with the late sequelae of joint trauma to the head and neck] Kulikov NN, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan–Feb;(1):25–7 (Eng. Abstr.) **(Rus)**
[The view of radon therapy in the light of new data on the natural radioactive background] Kuzin AM. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May–Jun; (3):9–11 **(Rus)**

TOXICITY

Mechanistic model predicts a U-shaped relation of radon exposure to lung cancer risk reflected in combined occupational and US residential data [see comments] Bogen KT. **Hum Exp Toxicol** 1998 Dec;17(12):691–6; discussion 701–4, 708–18 (31 ref.). Comment in: Hum Exp Toxicol 1998 Dec;17(12):705–7; discussion 716–8.
Two-step model for the risk of fatal and incidental lung tumors in rats exposed to radon. Heidenreich WF, et al. **Radiat Res** 1999 Feb;151(2):209–17

RADON DAUGHTERS

Lung exposure from inhalation of radon progeny: calculated from in vivo measurements of 210Pb in the skull. Laurer GR, et al. **Health Phys** 1999 Apr;76(4):380–7

ANALYSIS

Procedures for the determination of 222Rn exhalation and effective 226Ra activity in soil samples. Gómez Escobar V, et al. **Appl Radiat Isot** 1999 Jun;50(6):1039–47
Radon-222 and related activities in surface waters of the English Lake District. al-Masri MS, et al. **Appl Radiat Isot** 1999 Jun;50(6):1137–43

RAEB see **ANEMIA, REFRACTORY, WITH EXCESS OF BLASTS**

RAEM see **ANEMIA, REFRACTORY, WITH EXCESS OF BLASTS**

RAF-1 KINASE see **PROTO-ONCOGENE PROTEINS C-RAF**

RAF-1 PROTEIN see **PROTO-ONCOGENE PROTEINS C-RAF**

RAFFINOSE

ANALOGS & DERIVATIVES

Decreased lactic acidosis and anemia after transfusion of o-raffinose cross-linked and polymerized hemoglobin in severe murine malaria. Freilich D, et al. **Am J Trop Med Hyg** 1999 Feb;60(2):322–8
Hemolink-induced effects on intestinal motor function and attenuation of these effects by selected agents. Wong LT, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1998 Nov;26(5–6):529–48
O-raffinose cross-linking markedly reduces systemic and renal vasoconstrictor effects of unmodified human hemoglobin. Lieberthal W, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1278–87

METABOLISM

alpha-Galactoside uptake in Rhizobium meliloti: isolation and characterization of agpA, a gene encoding a periplasmic binding protein required for melibiose and raffinose utilization. Gage DJ, et al. **J Bacteriol** 1998 Nov; 180(21):5739–48

RAG-1 GENES see **GENES, RAG-1**

RAGE

Rage attacks in children and adolescents with Tourette's disorder: a pilot study. Budman CL, et al. **J Clin Psychiatry** 1998 Nov;59(11):576–80
Conceptualization and treatment of rage in self psychology. Ornstein PH. **J Clin Psychol** 1999 Mar;55(3):283–93
Paroxysmal rage as a presenting symptom of the Chiari I malformation. Report of two cases. Hudgins RJ. **J Neurosurg** 1999 Aug;91(2):328–9

DRUG EFFECTS

Paroxetine treatment of episodic rages associated with Tourette's disorder. Bruun RD, et al. **J Clin Psychiatry** 1998 Nov;59(11):581–4

PHYSIOLOGY

Cholecystokinin B receptors in the periaqueductal gray potentiate defensive rage behavior elicited from the medial hypothalamus of the cat. Luo B, et al. **Brain Res** 1998 Jun 15;796(1–2):27–37

RAGWORT see **SENECIO**

RAILLIETINA see **CESTODA**

RAILLIETINIASIS

RAILLIETINIASIS see **CESTODE INFECTIONS**

RAILROADS

Whole-body vibration of locomotive engineers. Sorainen E, et al. **Am Ind Hyg Assoc J** 1999 May-Jun;60(3):409-11

Rapid, efficient dental identification of 92% of 13 train passengers carbonized during a collision with a petrol tanker. Chapenoire S, et al. **Am J Forensic Med Pathol** 1998 Dec;19(4):352-5

Psychophysical methods and passenger preferences of interior designs. Han SH, et al. **Appl Ergon** 1998 Dec; 29(6):499-506

Coach design for the Korean high-speed train: a systematic approach to passenger seat design and layout. Jung ES, et al. **Appl Ergon** 1998 Dec;29(6):507-19

A train passenger with pulmonary tuberculosis: evidence of limited transmission during travel [see comments] Moore M, et al. **Clin Infect Dis** 1999 Jan;28(1):52-6. Comment in: Clin Infect Dis 1999 Jan;28(1):57-8.

Trains, travel, and the tubercle [editorial; comment] Witt MD. **Clin Infect Dis** 1999 Jan;28(1):57-8. Comment on: Clin Infect Dis 1999 Jan;28(1):52-6.

An unusual case of railway suicide. Romero Palanco JL, et al. **J Forensic Sci** 1999 Mar;44(2):444-6 (27 ref.)

Chronic neurobehavioral and central and autonomic nervous system effects of Tokyo subway sarin poisoning. Yokoyama K, et al. **J Physiol Paris** 1998 Jun-Aug;92(3-4):317-23

Higher earnings, bursting trains and exhausted bodies: the creation of travelling psychosis in post-reform China. Lee S. **Soc Sci Med** 1998 Nov;47(9):1247-61 (81 ref.)

Predicting return to work. A long-term follow-up study of railroad workers after low back injuries. Hunter SJ, et al. **Spine** 1998 Nov 1;23(21):2319-28

Validity of the Holmes-Wright lantern as a color vision test for the rail industry. Hovis JK, et al. **Vision Res** 1998 Nov; 38(21):3487-91

[Can injuries cause by train crash be prevented? Experiences from the train crash in Jelling in 1995] Madsen CF. **Ugeskr Laeger** 1998 Nov 30;160(49):7126-9 (Eng. Abstr.) **(Dan)**

["Stop and train". Ambulatory lung training program in the Zurich central railway station] Baumann K. **Pneumologie** 1999 Apr;53(4):237 **(Ger)**

[Facts regarding the Eschede catastrophe] Oestern HJ, et al. **Unfallchirurg** 1998 Nov;101(11):813-6 (Eng. Abstr.) **(Ger)**

[Experience in organizing teaching of elimination of particularly dangerous infection foci at the railway stations] Artemenkov IuM, et al. **Gig Sanit** 1998 Sep-Oct;(5):48-51 **(Rus)**

[Industrial hygiene and the health status of workers on track power-driven equipment] Kaptsov VA, et al. **Gig Sanit** 1999 Jan-Feb;(1):19-21 (Eng. Abstr.) **(Rus)**

[The ecological problems of railroad transport today] Kaptsov VA. **Gig Sanit** 1999 Mar-Apr;(2):44-6 **(Rus)**

[The evaluation of the working conditions and of the health status of workers in steam-flushing yards] Kaptsov VA, et al. **Gig Sanit** 1999 Mar-Apr;(2):12-6 **(Rus)**

[Disorders of adaptive processes in conductors of passenger cars] Kopirovskii KM, et al. **Gig Sanit** 1998 Sep-Oct; (5):18-21 (Eng. Abstr.) **(Rus)**

[Cleaning-up of environmental pollution after railway accidents with bulk chemical cargo] Kovaleva IV, et al. **Gig Sanit** 1998 Sep-Oct;(5):45-8 **(Rus)**

[Immunoenzyme screening for bacterial antibodies in the blood sera of workers of the Moscow subway] Dubrovskaia TA, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar-Apr;(2):89-90 **(Rus)**

[The characteristics of the sympathico-adrenal and kinin systems in engineers in the early stages of arterial hypertension] Zholov VM. **Lik Sprava** 1999 Apr-May; (3):65-8 (Eng. Abstr.) **(Ukr)**

HISTORY

Sketches from The Lancet. Railways and health. Kandela P. **Lancet** 1999 Apr 10;353(9160):1283

[The 'railway spine': alleged spinal injury caused by railway concussions as a basis for financial claims in 19th century England] Siemerink-Hermans HJ. **Ned Tijdschr Geneeskd** 1998 Apr 11;142(15):864-8 (Eng. Abstr.) **(Dut)**

INSTRUMENTATION

[A new method for improving the visibility of the rolling stock in railroad transportation] Sosnova TL. **Gig Sanit** 1999 Jan-Feb;(1):48-51 **(Rus)**

MANPOWER

[The medical prophylactic problems of driving locomotives by an engineer without an assistant] Kaptsov VA, et al. **Gig Sanit** 1999 May-Jun;(3):22-5 (Eng. Abstr.) **(Rus)**

STANDARDS

[Improved medical criteria in occupational selection for the work of an engineer without an assistant] Pankova VB, et al. **Gig Sanit** 1999 May-Jun;(3):26-8 **(Rus)**

[The physiological hygiene bases for the requirements for illumination and color decor of the quarters for the station masters] Sosnova TL, et al. **Gig Sanit** 1999 May-Jun; (3):28-31 (Eng. Abstr.) **(Rus)**

STATISTICS & NUMERICAL DATA

Injuries among railroad trespassers--Georgia, 1990-1996. **MMWR Morb Mortal Wkly Rep** 1999 Jul 2;48(25):537-41

RAIN

Chemical composition of rainwater collected at two sampling sites in the city of Rijeka. Alebić-Juretić A, et al. **Arh Hig Rada Toksikol** 1998 Sep;49(3):245-50

Quantification of runoff in laboratory-scale chambers. Isensee AR, et al. **Chemosphere** 1999 Apr;38(8):1733-44

Time trends in the concentrations of lead in wet precipitation from rural and urban sites in Austria. Kalina M, et al. **Chemosphere** 1999 May;38(11):2509-15

Physiological responses of exercised-fatigued individuals exposed to wet-cold conditions. Tikuisis P, et al. **J Appl Physiol** 1999 Apr;86(4):1319-28

Runoff and leaching of atrazine and alachlor on a sandy soil as affected by application in sprinkler irrigation. Abdel-Rahman AR, et al. **J Environ Sci Health B** 1999 May;34(3):381-96

Rainfall, evaporation and the risk of non-contact anterior cruciate ligament injury in the Australian Football League. Orchard J, et al. **Med J Aust** 1999 Apr 5;170(7):304-6

Rainfall is not a direct mortality factor for anopheline larvae [letter] Robert V, et al. **Parasite** 1999 Jun;6(2):195-6

Evaluation of the effect of simulated rainfall on the efficacy of Ivomec Pour-On against Cooperia spp. infection in cattle. Rehbein S, et al. **Parasitol Res** 1999 Aug; 85(8-9):783-6

Hyphomycetes in rain water draining from intact trees. Czeczuga B, et al. **Rocz Akad Med Bialymst** 1998;43:66-84

[The effect of abiotic factors on the incidence of Aedes aegypti in the town of 10 de Octobre, Ciudad de la Habana Province, 1982-1992] Marquetti M del C, et al. **Rev Cubana Med Trop** 1995;47(2):88-92 (Eng. Abstr.) **(Spa)**

RAIN, ACID see **ACID RAIN**

RAJA see **SKATES (FISH)**

RALES see **RESPIRATORY SOUNDS**

RALSTONIA EUTROPHA

CLASSIFICATION

CDC group IV c-2: a new Ralstonia species close to Ralstonia eutropha. Moissenet D, et al. **J Clin Microbiol** 1999 Jun;37(6):1777-81

ENZYMOLOGY

Utilization of phenoxyacetic acid, by strains using either the ortho or meta cleavage of catechol during phenol degradation, after conjugal transfer of tfdA, the gene encoding a 2,4-dichlorophenoxyacetic acid/2-oxoglutarate dioxygenase. Radnoti de Lipthay J, et al. **Appl Microbiol Biotechnol** 1999 Feb;51(2):207-14

Substrate specificities of the chloromuconate cycloisomerases from Pseudomonas sp. B13, Ralstonia eutropha JMP134 and Pseudomonas sp. P51. Vollmer MD, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):598-605

PHA production, from bacteria to plants. Valentin HE, et al. **Int J Biol Macromol** 1999 Jun-Jul;25(1-3):303-6

Analysis of 4-phosphopantetheinylation of polyhydroxybutyrate synthase from Ralstonia eutropha: generation of beta-alanine auxotrophic Tn5 mutants and cloning of the panD gene region. Hoppensack A, et al. **J Bacteriol** 1999 Mar;181(5):1429-35

3-Hydroxylaminophenol mutase from Ralstonia eutropha JMP134 catalyzes a Bamberger rearrangement. Schenzle A, et al. **J Bacteriol** 1999 Mar;181(5):1444-50

A megaplasmid-borne anaerobic ribonucleotide reductase in Alcaligenes eutrophus H16. Siedow A, et al. **J Bacteriol** 1999 Aug;181(16):4919-28

Structural analysis of the fds operon encoding the NAD+-linked formate dehydrogenase of Ralstonia eutropha. Oh JI, et al. **J Biol Chem** 1998 Oct 9; 273(41):26349-60

Formation of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) by PHA synthase from Ralstonia eutropha. Dennis D, et al. **J Biotechnol** 1998 Oct 8;64(2-3):177-86

GENETICS

The chlorocatechol-catabolic transposon Tn5707 of Alcaligenes eutrophus NH9, carrying a gene cluster highly homologous to that in the 1,2,4-trichlorobenzene-degrading bacterium Pseudomonas sp. strain P51, confers the ability to grow on 3-chlorobenzoate. Ogawa N, et al. **Appl Environ Microbiol** 1999 Feb;65(2):724-31

hoxX (hypX) is a functional member of the Alcaligenes eutrophus hyp gene cluster. Buhrke T, et al. **Arch Microbiol** 1998 Nov;170(6):460-3

Duplication of hyp genes involved in maturation of [NiFe] hydrogenases in Alcaligenes eutrophus H16. Wolf I, et al. **Arch Microbiol** 1998 Nov;170(6):451-9

Analysis of 4-phosphopantetheinylation of polyhydroxybutyrate synthase from Ralstonia eutropha: generation of beta-alanine auxotrophic Tn5 mutants and cloning of the panD gene region. Hoppensack A, et al. **J Bacteriol** 1999 Mar;181(5):1429-35

Mutational analysis of the cbb operon (CO2 assimilation) promoter of Ralstonia eutropha. Jeffke T, et al. **J Bacteriol** 1999 Jul;181(14):4374-80

A megaplasmid-borne anaerobic ribonucleotide reductase in Alcaligenes eutrophus H16. Siedow A, et al. **J Bacteriol** 1999 Aug;181(16):4919-28

Heterologous phi X174 gene E-expression in Ralstonia eutropha: E-mediated lysis is not restricted to gamma-subclass of proteobacteria. Schroll G, et al. **J Biotechnol** 1998 Dec 11;66(2-3):211-7

Dynamics of multigene expression during catabolic adaptation of Ralstonia eutropha JMP134 (pJP4) to the herbicide 2, 4-dichlorophenoxyacetate. Leveau JH, et al. **Mol Microbiol** 1999 Jul;33(2):396-406

GROWTH & DEVELOPMENT

Earthworm egg capsules as vectors for the environmental introduction of biodegradative bacteria. Daane LL, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2376-81

METABOLISM

Earthworm egg capsules as vectors for the environmental introduction of biodegradative bacteria. Daane LL, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2376-81

Chemoselective nitro group reduction and reductive dechlorination initiate degradation of 2-chloro-5-nitrophenol by Ralstonia eutropha JMP134. Schenzle A, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2317-23

Metabolic modeling of polyhydroxybutyrate biosynthesis. Leaf TA, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):557-70

Characterization of the active site of a hydrogen sensor from Alcaligenes eutrophus. Pierik AJ, et al. **FEBS Lett** 1998 Nov 6;438(3):231-5

Aqueous release and purification of poly(beta-hydroxybutyrate) from Escherichia coli. Resch S, et al. **J Biotechnol** 1998 Oct 27;65(2-3):173-82

VIROLOGY

Heterologous phi X174 gene E-expression in Ralstonia eutropha: E-mediated lysis is not restricted to gamma-subclass of proteobacteria. Schroll G, et al. **J Biotechnol** 1998 Dec 11;66(2-3):211-7

RAMAN SPECTROSCOPY see **SPECTRUM ANALYSIS, RAMAN**

RAMIPRIL

ADMINISTRATION & DOSAGE

A subdepressor low dose of ramipril lowers urinary protein excretion without increasing plasma potassium. Keilani T, et al. **Am J Kidney Dis** 1999 Mar;33(3):450-7

Inhibition of tissue angiotensin converting enzyme activity prevents malignant hypertension in TGR(mREN2)27. Montgomery HE, et al. **J Hypertens** 1998 May;16(5):635-43

Effect of long-term ACE inhibition on myocardial tissue in hypertensive stroke-prone rats. Zimmermann R, et al. **J Mol Cell Cardiol** 1999 Aug;31(8):1447-56

Role of kinins in the renoprotective effect of angiotensin-converting enzyme inhibitors in experimental chronic renal failure. MacLaughlin M, et al. **Kidney Blood Press Res** 1998;21(5):329-34

Renoprotective therapy: titration against urinary protein excretion[comment] De Jong PE, et al. **Lancet** 1999 Jul 31;354(9176):352-3. Comment on: Lancet 1999 Jul 31;354(9176):359-64.

Response of serum total renin to ramipril and metoprolol in hypertensive patients. Matinlauri IH, et al. **Scand J Clin Lab Invest** 1998 Dec;58(8):655-60

[Intra-arterial application of the ACE inhibitor ramipril using a microperforated catheter for the prevention of neointimal proliferation after angioplasty in an animal model] Kalinowski M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):532-6 (Eng. Abstr.) **(Ger)**

ANALOGS & DERIVATIVES

Angiotensin-converting enzyme inhibitor ramiprilat interferes with the sequestration of the B2 kinin receptor within the plasma membrane of native endothelial cells. Benzing T, et al. **Circulation** 1999 Apr 20;99(15):2034-40

Tight binding influencing the future of pharmacokinetics. Brockmeier D. **Methods Find Exp Clin Pharmacol** 1998 Jul-Aug;20(6):505-16 (0 ref.)

ANALYSIS

Spectrophotometric and atomic absorption spectrometric determination of ramipril and perindopril through ternary complex formation with eosin and Cu(II). Abdellatef HE, et al. **J Pharm Biomed Anal** 1999 Jan;18(6):1021-7

Biosensors for the enantioselective analysis of S-enalapril and S-ramipril. Stefan RI, et al. **Prep Biochem Biotechnol** 1998 Nov;28(4):305-12

PHARMACOKINETICS

Tight binding influencing the future of pharmacokinetics. Brockmeier D. **Methods Find Exp Clin Pharmacol** 1998 Jul-Aug;20(6):505-16 (0 ref.)

PHARMACOLOGY

Effects of chronic AVP V2R blockade in congestive heart failure in sheep. Comparison with chronic ACE inhibition. Naitoh M, et al. **Adv Exp Med Biol** 1998;449:445-6

Effect of angiotensin-converting enzyme inhibition on protein kinase C and SR proteins in heart failure. Takeishi Y, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H53-62

Ramipril-induced delayed myocardial protection against free radical injury involves bradykinin B2 receptor-NO pathway and protein synthesis. Jin ZQ, et al. **Br J Pharmacol** 1998 Oct;125(3):556-62

Postinfarction survival and inducibility of ventricular arrhythmias in the spontaneously hypertensive rat : effects of ramipril and hydralazine. Nguyen T, et al. **Circulation** 1998 Nov 10;98(19):2074-80

The effects of ramipril on sympathetic nervous system function in older patients with hypertension. Lee CC, et al. **Clin Pharmacol Ther** 1999 Apr;65(4):420-7

Ramipril prevents basal arterial constriction and enhanced myogenic tone in the femoral artery in mildly uraemic normotensive rats. Savage T, et al. **Clin Sci (Colch)** 1999 Aug;97(2):233-7

Ramipril inhibits in vitro human mesangial cell proliferation and platelet-derived growth factor expression. Grandaliano G, et al. **Exp Nephrol** 1999 May-Jun;7(3):229-35

Functional impact of an increase in ventricular mass after myocardial damage and its attenuation by converting enzyme inhibition. McDonald KM, et al. **J Card Fail** 1998 Sep;4(3):203-12

Angiotensin converting enzyme inhibition reduces the expression of transforming growth factor-beta1 and type IV collagen in diabetic vasculopathy. Rumble JR, et al. **J Hypertens** 1998 Nov;16(11):1603-9

Sub-antihypertensive doses of ramipril normalize sarcoplasmic reticulum calcium ATPase expression and function following cardiac hypertrophy in rats. Boateng SY, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2683-94

Nephroprotection by long-term ACE inhibition with ramipril in spontaneously hypertensive stroke prone rats. Linz W, et al. **Kidney Int** 1998 Dec;54(6):2037-44

[The effect of ramipril on metabolic, renal and cardiac function in hypertension and type II diabetes mellitus] Vitovec J, et al. **Vnitr Lek** 1998 Jun;44(6):336-41 (Eng. Abstr.) **(Cze)**

[The metabolic effects of isradipine, ramipril, Ednit and beta-adrenoblockers in patients with non-insulin-dependent diabetes mellitus and arterial hypertension] Morugova TV, et al. **Eksp Klin Farmakol** 1999 Mar-Apr;62(2):39-42 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Ramipril reduces QT dispersion in patients with acute myocardial infarction and heart failure. Spargias KS, et al. **Am J Cardiol** 1999 Mar 15;83(6):969-71, A10

Accelerated cholesteryl ester transfer in patients with essential hypertension and the effect of ramipril treatment. Bagdade JD, et al. **Atherosclerosis** 1998 Sep;140(1):167-72

Treatment with ramipril improves systolic function even in patients with mild systolic dysfunction and symptoms of heart failure after acute myocardial infarction. Kongstad-Rasmussen O, et al. **Clin Cardiol** 1998 Nov; 21(11):807-11

Antianginal and anti-ischemic effects of nisoldipine and ramipril in patients with syndrome X. Ozçelik F, et al. **Clin Cardiol** 1999 May;22(5):361-5

Effects of Ramipril and Isradipin on hemorheological profiles in patients with arterial hypertension. Muravyov AV, et al. **Clin Hemorheol Microcirc** 1998 Jul;18(2-3):185-90

Beneficial impact of ramipril on left ventricular hypertrophy in normotensive nonalbuminuric NIDDM patients [letter; comment] Lièvre M, et al. **Diabetes Care** 1999 Jan; 22(1):178-9. Comment on: Diabetes Care 1998 May;21(5):804-9.

beta blocker treatment and other prognostic variables in patients with clinical evidence of heart failure after acute myocardial infarction: evidence from the AIRE study. Spargias KS, et al. **Heart** 1999 Jan;81(1):25-32

Late treatment with ramipril increases survival in old spontaneously hypertensive rats. Linz W, et al. **Hypertension** 1999 Aug;34(2):291-5

Effect of ACE inhibitor on DOCA-salt- and aortic coarctation-induced hypertension in mice: do kinin B2 receptors play a role? Rhaleb NE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):329-34

Effects of chronic ramipril treatment in streptozotocin-induced diabetic rats. Hakim ZS, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):353-60

In chronic nephropathies prolonged ACE inhibition can induce remission: dynamics of time-dependent changes in GFR. Investigators of the GISEN Group. Gruppo Italiano Studi Epidemiologici in Nefrologia. Ruggenenti P, et al. **J Am Soc Nephrol** 1999 May;10(5):997-1006

Long-term effects of ramipril and nitrendipine on albuminuria in hypertensive patients with type II diabetes and impaired renal function. Fogari R, et al. **J Hum Hypertens** 1999 Jan;13(1):47-53

The prognostic significance of a history of systemic hypertension in patients randomised to either placebo or ramipril following acute myocardial infarction: evidence from the AIRE study. Acute Infarction Ramipril Efficacy. Spargias K, et al. **J Hum Hypertens** 1999 Aug;13(8):511-6

HOPE for cardiovascular disease prevention with ACE-inhibitor ramipril. Heart Outcomes Prevention Evaluation [news] Kleinert S. **Lancet** 1999 Sep 4; 354(9181):841

REIN follow-up trial. Ramipril Efficacy in Nephropathy [letter; comment] Locatelli F, et al. **Lancet** 1998 Dec 19-26; 352(9145):2020-1; discussion 2021-2. Comment on: Lancet 1998 Jul 25;352(9124):296. Comment on: Lancet 1998 Oct 17;352(9136):1252-6.

REIN follow-up trial. Ramipril Efficacy in Nephropathy [letter; comment] Montagnino G. **Lancet** 1998 Dec 19-26; 352(9145):2021-2. Comment on: Lancet 1998 Oct 17;352(9136):1252-6.

Renoprotective properties of ACE-inhibition in non-diabetic nephropathies with non-nephrotic proteinuria [see comments] Ruggenenti P, et al. **Lancet** 1999 Jul 31; 354(9176):359-64. Comment in: Lancet 1999 Jul 31;354(9176):352-3.

Renal function and requirement for dialysis in chronic nephropathy patients on long-term ramipril: REIN follow-up trial. Gruppo Italiano di Studi Epidemiologici in Nefrologia (GISEN). Ramipril Efficacy in Nephropathy [see comments] Ruggenenti P, et al. **Lancet** 1998 Oct 17; 352(9136):1252-6. Comment in: Lancet 1998 Dec 19-26;352(9145):2020-1; discussion 2021-2. Comment in: Lancet 1998 Dec 19-26;352(9145):2021-2.

L-type calcium channels modulate the regression of left ventricular hypertrophy after ace-inhibition in genetic hypertension. Vulpis V, et al. **Pharmacol Res** 1998 Oct; 38(4):317-22

The Angiotensin Converting Enzyme Inhibition Post Revascularization Study (APRES). Effects of ramipril in patients with reduced left ventricular function. Rationale, design, methods, baseline characteristics and first-year experience. Kjøller-Hansen L, et al. **Scand Cardiovasc J** 1998;32(4):225-32

[Ramipril in the treatment of moderate to moderately severe hypertension. A multicenter open study] Spinar J, et al. **Vnitr Lek** 1998 Jun;44(6):332-5 (Eng. Abstr.) **(Cze)**

[Best antihypotensive agents for the treatment of type 2 diabetes. Ramipril, the first choice, in combination with felodipin is a sensible treatment plan] **Internist (Berl)** 1999 Jul;40(7):A26-30 **(Ger)**

[Ramipril treatment of heart failure in disseminated forms of pulmonary tuberculosis] Ditiatkov AE, et al. **Probl Tuberk** 1999;(2):31-2 (Eng. Abstr.) **(Rus)**

[Ramipril effects on 24 hour profile of blood pressure in patients with mild and moderate hypertension] Kukushkin SK, et al. **Ter Arkh** 1998;70(9):69-71 (Eng. Abstr.) **(Rus)**

RAMPS see **ARCHITECTURAL ACCESSIBILITY**

RAMSAY HUNT AURICULAR SYNDROME see **HERPES ZOSTER OTICUS**

RAMSAY HUNT CEREBELLAR SYNDROME see **CEREBELLAR DYSSYNERGIA**

RAMSAY HUNT DENTATE SYNDROME see **CEREBELLAR DYSSYNERGIA**

RAMSAY HUNT PARALYSIS SYNDROME see **PARKINSON DISEASE**

RANA see **RANIDAE**

RANA CATESBEIANA

Primary structure of a visual pigment in bullfrog green rods. Hisatomi O, et al. **FEBS Lett** 1999 Mar 19;447(1):44-8

Behavioral reduction of infection risk. Kiesecker JM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9165-8

GENETICS

Cloning of cDNAs for the pituitary glycoprotein hormone alpha subunit precursor molecules in three amphibian species, Bufo japonicus, Rana catesbeiana, and Cynops pyrrhogaster. Arai Y, et al. **Gen Comp Endocrinol** 1998 Oct;112(1):46-53

Isolation of genes involved in intestinal remodeling during anuran metamorphosis. Amano T. **Wound Repair Regen** 1998 Jul-Aug;6(4):302-13 (80 ref.)

GROWTH & DEVELOPMENT

The development of the pressure-bearing tendon of the bullfrog, Rana catesbeiana. Carvalho HF, et al. **Anat Embryol (Berl)** 1999 Jul;200(1):55-64

Differential response of the tail and body epidermis of Rana catesbeiana tadpoles in vitro to the anticancer drug, cisplatin [letter] Menon J, et al. **In Vitro Cell Dev Biol Anim** 1999 Jan;35(1):8-11 (12 ref.)

The epiphyseal cartilage and growth of long bones in Rana catesbeiana. Felisbino SL, et al. **Tissue Cell** 1999 Jun; 31(3):301-7

Thyroid hormone induces a reprogramming of gene expression in the liver of premetamorphic Rana catesbeiana tadpoles. Atkinson BG, et al. **Wound Repair Regen** 1998 Jul-Aug;6(4):323-37 (56 ref.)

METABOLISM

Ranatuerins: antimicrobial peptides isolated from the skin of the American bullfrog, Rana catesbeiana. Goraya J, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):589-92

Distribution of cathepsin E in the larval and adult organs of the bullfrog with special reference to the mature form in the larval fore-gut. Mineta T, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Nov; 121(3):333-40

Calcium and ATP regulation of ion transport in larval frog skin. Cox TC. **J Comp Physiol [B]** 1999 Jul;169(4-5):344-50

PHYSIOLOGY

Physiological significance of behavioral hypothermia in hypoglycemic frogs (Rana catesbeiana). Rocha PL, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Apr; 119(4):957-61

Enhancement by proopiomelanocortin-derived peptides of growth hormone and prolactin secretion by bullfrog pituitary cells. Aida T, et al. **Gen Comp Endocrinol** 1999 Jul;115(1):101-9

Structural basis for mechanical transduction in the frog vestibular sensory apparatus: III. The organization of the otoconial mass. Kurc M, et al. **Hear Res** 1999 May; 131(1-2):11-21

Predicting the temporal responses of non-phase-locking bullfrog auditory units to complex acoustic waveforms. Yamada WM, et al. **Hear Res** 1999 Apr;130(1-2):155-70

Activation patterns and length changes in hindlimb muscles of the bullfrog Rana catesbeiana during jumping. Olson JM, et al. **J Exp Biol** 1998 Oct;201 (Pt 19):2763-77

Physiological color change in the bullfrog, Rana catesbeiana. Camargo CR, et al. **J Exp Zool** 1999 Feb 1;283(2):160-9

Fictive gill and lung ventilation in the pre- and postmetamorphic tadpole brain stem. Torgerson CS, et al. **J Neurophysiol** 1998 Oct;80(4):2015-22

Respiratory pattern formation in the isolated bullfrog (Rana catesbeiana) brainstem-spinal cord. Reid SG, et al. **Respir Physiol** 1998 Dec;114(3):239-55

RANA ESCULENTA

Antimicrobial peptides of the brevinin-2 family isolated from gastric tissue of the frog, Rana esculenta. Wang Y, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):600-3

ANATOMY & HISTOLOGY

NADPH-diaphorase-positive neurons and pathways in the brain of the frog Rana esculenta. Lázár G, et al. **Anat Embryol (Berl)** 1999 Feb;199(2):185-98

Organization of the motor centres for the innervation of different muscles of the tongue: a neuromorphological study in the frog. Matesz C, et al. **Eur J Morphol** 1999 Apr;37(2-3):190-4

GENETICS

Genome reduction in a hemiclonal frog Rana esculenta from radioactively contaminated areas. Vinogradov AE, et al. **Genetics** 1999 Mar;151(3):1123-5

METABOLISM

Structure-activity analysis of brevinin 1E amide, an antimicrobial peptide from Rana esculenta. Kwon MY, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):239-48

Regulatory properties of Rana esculenta liver D-fructose-1,6-bisphosphate 1-phosphohydrolase and their comparison with properties of other vertebrate liver isoenzymes. Dziewulska-Szwajkowska D, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Feb; 122(2):241-51

Distribution of calretinin-like immunoreactivity in the brain of Rana esculenta. Necchi D, et al. **J Chem Neuroanat** 1999 Jun;16(4):233-43

Nitric oxide synthase activity reveals an asymmetrical organization of the frog habenulae during development: A histochemical and cytoarchitectonic study from tadpoles to the mature Rana esculenta, with notes on the pineal complex. Guglielmotti V, et al. **J Comp Neurol** 1999 Aug 30;411(3):441-54

Fos localization in cytosolic and nuclear compartments in neurones of the frog, Rana esculenta, brain: an analysis carried out in parallel with GnRH molecular forms. Cobellis G, et al. **J Neuroendocrinol** 1999 Sep;11(9):725-35

MICROBIOLOGY

Experimental infections of Rana esculenta with Aeromonas hydrophila: a molecular mechanism for the control of the normal flora. Simmaco M, et al. **Scand J Immunol** 1998 Oct;48(4):357-63

PHYSIOLOGY

Apolipoproteins and their electrophoretic pattern throughout the reproductive cycle in the green frog Rana esculenta. Paolucci M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr;

RANA ESCULENTA

119(4):647–54
Organization of the motor centres for the innervation of different muscles of the tongue: a neuromorphological study in the frog. Matesz C, et al. **Eur J Morphol** 1999 Apr;37(2–3):190–4
Hormonal and cellular brain mechanisms regulating the amplexus of male and female water frog (Rana esculenta). Gobbetti A, et al. **J Neuroendocrinol** 1999 Aug;11(8):589–96
Position-dependent expression of inwardly rectifying K+ currents by hair cells of frog semicircular canals. Marcotti W, et al. **Neuroreport** 1999 Feb 25;10(3):601–6
Actions of tachykinins on the ion transport across the frog skin. Lippe C, et al. **Peptides** 1998;19(8):1435–8

RANA PIPIENS

ANATOMY & HISTOLOGY

Immunohistochemistry and spinal projections of the reticular formation in the northern leopard frog, Rana pipiens. Adli DS, et al. **J Comp Neurol** 1999 Feb 15;404(3):387–407
Organization of retinal axons within the optic nerve, optic chiasm, and the innervation of multiple central nervous system targets Rana pipiens. Montgomery NM, et al. **J Comp Neurol** 1998 Dec 14;402(2):222–37
Quantitative freeze-fracture analysis of the frog neuromuscular junction synapse--I. Naturally occurring variability in active zone structure. Pawson PA, et al. **J Neurocytol** 1998 Jun;27(5):361–77
Quantitative freeze-fracture analysis of the frog neuromuscular junction synapse--II. Proximal-distal measurements. Pawson PA, et al. **J Neurocytol** 1998 Jun; 27(5):379–91

GROWTH & DEVELOPMENT

Development and regulation of substance P expression in neurons of the tadpole optic tectum. Tu S, et al. **Vis Neurosci** 1999 Jul–Aug;16(4):695–705

METABOLISM

Effects of hypothermic hypoxia on anaerobic energy metabolism in isolated anuran livers. Fedorow CA, et al. **J Comp Physiol [B]** 1998 Dec;168(8):555–61
Distribution of GABA-like immunoreactive neurons and fibers in the central visual nuclei and retina of frog, Rana pipiens. Li Z, et al. **Vis Neurosci** 1998 Nov–Dec; 15(6):995–1006
Development and regulation of substance P expression in neurons of the tadpole optic tectum. Tu S, et al. **Vis Neurosci** 1999 Jul–Aug;16(4):695–705

PHYSIOLOGY

Effects of vestibular nerve lesions on orientation turning in the leopard frog, Rana pipiens. King JR, et al. **Biol Bull** 1998 Oct;195(2):193–4
Potassium currents in auditory hair cells of the frog basilar papilla. Smotherman MS, et al. **Hear Res** 1999 Jun; 132(1–2):117–30
Inhibitory action of the gonadopeptide inhibin on amphibian (Rana pipiens) steroidogenesis and oocyte maturation. Lin YW, et al. **J Exp Zool** 1999 Jul 1;284(2):232–40
Z/I and A-band lattice spacings in frog skeletal muscle: effects of contraction and osmolarity. Irving TC, et al. **J Muscle Res Cell Motil** 1998 Oct;19(7):811–23
Quantitative analysis of muscle fibre type and myosin heavy chain distribution in the frog hindlimb: implications for locomotory design. Lutz GJ, et al. **J Muscle Res Cell Motil** 1998 Oct;19(7):717–31
Nitric oxide in the retinotectal system: a signal but not a retrograde messenger during map refinement and segregation. Renteria RC, et al. **J Neurosci** 1999 Aug 15; 19(16):7066–76
Spinal administration of selective opioid antagonists in amphibians: evidence for an opioid unireceptor. Stevens CW, et al. **Life Sci** 1999;64(10):PL125–30
Role of antioxidant defenses in the tolerance of severe dehydration by anurans. The case of the leopard frog Rana pipiens. Hermes-Lima M, et al. **Mol Cell Biochem** 1998 Dec;189(1–2):79–89

RANA RIDIBUNDA

METABOLISM

Molecular cloning, characterization of cDNA, and distribution of mRNA encoding the frog prohormone convertase PC1. Gangnon F, et al. **J Comp Neurol** 1999 Mar 8;405(2):160–72
Characterization and localization of pituitary adenylate cyclase-activating polypeptide (PACAP) binding sites in the brain of the frog Rana ridibunda. Jeandel L, et al. **J Comp Neurol** 1999 Sep 20;412(2):218–28

PHYSIOLOGY

A cloned frog vasoactive intestinal polypeptide/pituitary adenylate cyclase-activating polypeptide receptor exhibits pharmacological and tissue distribution characteristics of both VPAC1 and VPAC2 receptors in mammals. Alexandre D, et al. **Endocrinology** 1999 Mar;140(3):1285–93
Spontaneous heterosis in larval life-history traits of hemiclonal frog hybrids. Hotz H, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2171–6

RANA TEMPORARIA

Hidden implications of clumps and masses. Grist EP. **Acta Biotheor** 1999;47(1):59–66
Ranatuerin 1T: an antimicrobial peptide isolated from the skin of the frog, Rana temporaria. Goraya J, et al. **Peptides** 1999;20(2):159–63

GROWTH & DEVELOPMENT

Relationship between epithelial and connective tissues in the stomach of the frog Rana temporaria during metamorphosis: an ultrastructural study. Villaro AC, et al. **Tissue Cell** 1998 Aug;30(4):427–45

METABOLISM

[Specific proteins of the lens epithelium of amphibian eyes] Simirskii VN, et al. **Dokl Akad Nauk** 1999 Apr;365(5):704–6 **(Rus)**
[Study of molecular-kinetic properties and characteristics of the activation of glycogen phosphorylase b from skeletal muscles of the frog Rana temporaria] Serebrenikova TP, et al. **Zh Evol Biokhim Fiziol** 1998 May–Jun;34(3):319–24 **(Rus)**

PHYSIOLOGY

Prostaglandin-dependent osmotic water permeability of the frog and trout urinary bladder. Natochin YuV, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Sep; 121(1):59–66
In vitro and in vivo responses of saccular and caudal nucleus neurons in the grassfrog (Rana temporaria). Christensen-Dalsgaard J, et al. **Eur J Morphol** 1999 Apr; 37(2–3):206–10
[Variability of gamete thermoresistance and heat selection of gametes in frogs and molluscs] Andronikov VB, et al. **Tsitologiia** 1998;40(6):559–67 (Eng. Abstr.) **(Rus)**

RANAVIRUS

IMMUNOLOGY

An improved enzyme linked immunosorbent assay for detection of anti-ranavirus antibodies in the serum of the giant toad (Bufo marinus). Zupanovic Z, et al. **Dev Comp Immunol** 1998 Sep–Dec;22(5–6):573–85

RANDOM ALLOCATION

A comparison of conditional and unconditional randomization tests for highly stratified designs. Flyer PA. **Biometrics** 1998 Dec;54(4):1551–9
Understanding controlled trials. Randomisation methods: concealment. Torgerson DJ, et al. **BMJ** 1999 Aug 7; 319(7206):375–6 (4 ref.)
The role of randomization in clinical studies: myths and beliefs. Abel U, et al. **J Clin Epidemiol** 1999 Jun; 52(6):487–97 (87 ref.)
Stratified randomization for clinical trials. Kernan WN, et al. **J Clin Epidemiol** 1999 Jan;52(1):19–26 (38 ref.)
Can unequal be more fair? Ethics, subject allocation, and randomised clinical trials. Avins AL. **J Med Ethics** 1998 Dec;24(6):401–8 (50 ref.)
Rejoinder to Spiegel et al [letter; comment] Fox BH. **Psychooncology** 1998 Nov–Dec;7(6):518–9. Comment on: Psychooncology 1998 Sep–Oct;7(5):371–5.
[Supervision of medical scientific research with mentally competent subjects is impossible without reviewing (comment) (see comments)] Roscam Abbing HD. **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):8–10 (Eng. Abstr.) . Comment on: Ned Tijdschr Geneeskd 1999 Jan 2;143(1):45–50. Comment in: Ned Tijdschr Geneeskd 1999 Mar 27;143(13):700–1. **(Dut)**
[Roaming through methodology. III. Randomization at the level of the physicians] van Houwelingen JC. **Ned Tijdschr Geneeskd** 1998 Jul 18;142(29):1662–5 (2 ref.) (Eng. Abstr.) **(Dut)**

RANDOM AMPLIFIED POLYMORPHIC DNA TECHNIQUE

see related
DNA FINGERPRINTING
GENETIC MARKERS

Random amplified polymorphic DNA analysis of Ustilago violacea. Henry CE, et al. **Ann N Y Acad Sci** 1999 May 18;870:357–61
PCR-based genotyping of epidemic and preepidemic Trichoderma isolates associated with green mold of Agaricus bisporus. Chen X, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2674–8
A randomly amplified polymorphic DNA marker specific for the Bacillus cereus group is diagnostic for Bacillus anthracis. Daffonchio D, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1298–303
Use of conserved randomly amplified polymorphic DNA (RAPD) fragments and RAPD pattern for characterization of Lactobacillus fermentum in Ghanaian fermented maize dough. Hayford AE, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3213–21
Hemolysis, toxicity, and randomly amplified polymorphic DNA analysis of Stachybotrys chartarum strains. Vesper SJ, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3175–81
Randomly amplified polymorphic DNA analysis of clinical and environmental isolates of Vibrio vulnificus and other vibrio species. Warner JM, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1141–4
Genetic variation in captive koalas (Phascolarctos cinereus): parentage determination and individual identification. Fowler EV, et al. **Biochem Genet** 1998 Jun;36(5–6):193–206
RAPD profile variation amongst provenances of neem. Farooqui N, et al. **Biochem Mol Biol Int** 1998 Aug; 45(5):931–9
Aspergillus fumigatus strains recovered from immunocompromised patients (ICP): subtyping of strains by RAPD analysis. Khan ZK, et al. **Biochem Mol Biol Int** 1998 Oct;46(3):537–48
Use of RAPD (random amplified polymorphic DNA) to analyse genetic diversity of dematiaceous fungal pathogens. Caligiorne RB, et al. **Can J Microbiol** 1999 May; 45(5):408–12
Analysis of genomic instability in squamous cell carcinoma of the head and neck using the random amplified polymorphic DNA method. Maeda T, et al. **Cancer Lett** 1999 Apr 26;138(1–2):183–8
Specific detection of Xylella fastidiosa Pierce's disease strains. Banks D, et al. **Curr Microbiol** 1999 Aug;39(2):85–8
Isolation of DNA from the uncultured "Candidatus Liberobacter" species associated with citrus Huanglongbing by RAPD. Hocquellet A, et al. **Curr Microbiol** 1999 Mar; 38(3):176–82
Epidemiological analysis of methicillin-resistant Staphylococcus aureus in a Zagreb Trauma Hospital using a randomly amplified polymorphic DNA-typing method. Tambic A, et al. **Eur J Clin Microbiol Infect Dis** 1999 May; 18(5):335–40
Random amplified polymorphic DNA (RAPD) typing of necrophageous insects (Diptera, Coleoptera) in criminal forensic studies: validation and use in practice. Benecke M. **Forensic Sci Int** 1998 Dec 21;98(3):157–68
Genetic mapping of RAPD markers linked to the densonucleosis refractoriness gene, nsd-1, in the silkworm, Bombyx mori. Abe H, et al. **Genes Genet Syst** 1998 Aug; 73(4):237–42
Identification of novel random amplified polymorphic DNAs (RAPDs) on the W chromosome of the domesticated silkworm, Bombyx mori, and the wild silkworm, B. mandarina, and their retrotransposable element-related nucleotide sequences. Abe H, et al. **Genes Genet Syst** 1998 Aug;73(4):243–54
Greenbug (Homoptera: Aphididae) biotypes characterized using random amplified polymorphic DNA. Aikhionbare FO, et al. **Genet Anal** 1998 Oct;14(4):105–8
Randomly amplified polymorphic DNA (RAPD) for evaluating genetic relationships among varieties of guinea fowl. Sharma D, et al. **Genet Anal** 1998 Oct;14(4):125–8
Genetic analysis of extended life span in Drosophila melanogaster. I. RAPD screen for genetic divergence between selected and control lines. Curtsinger JW, et al. **Genetica** 1998;104(1):21–32
Characterisation of genetic diversity in potential biomass willows (Salix spp.) by RAPD and AFLP analyses. Barker JH, et al. **Genome** 1999 Apr;42(2):173–83
Genetic diversity in Elymus caninus as revealed by isozyme, RAPD, and microsatellite markers. Sun GL, et al. **Genome** 1999 Jun;42(3):420–31
RFLP and RAPD analysis of in vivo genetic interactions between strains of Helicobacter pylori. Danon SJ, et al. **Helicobacter** 1998 Dec;3(4):254–9
Human but not ovine isolates of Bordetella parapertussis are highly clonal as determined by PCR-based RAPD fingerprinting. Yuk MH, et al. **Infection** 1998 Sep–Oct; 26(5):270–3
Characterization of bifidobacteria by random DNA amplification. Vincent D, et al. **Int J Food Microbiol** 1998 Sep 8;43(3):185–93
Detection of mutation(s) or polymorphic loci in the genome of experimental animal and human cancer tissues by RAPD/AP-PCR depend on DNA polymerase. Singh KP, et al. **Int J Oncol** 1999 Apr;14(4):753–8
Genetic diversity within Lactobacillus sakei and Lactobacillus curvatus and design of PCR primers for its detection using randomly amplified polymorphic DNA. Berthier F, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:997–1007
Molecular identification of Lactobacillus hilgardii and genetic relatedness with Lactobacillus brevis. Sohier D, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1075–81
Identification and clustering of dairy propionibacteria by RAPD-PCR and CGE-REA methods. Rossi F, et al. **J Appl Microbiol** 1998 Dec;85(6):956–64
Application of random amplified polymorphic DNA analysis to differentiate strains of Salmonella typhi and other Salmonella species. Shangkuan YH, et al. **J Appl Microbiol** 1998 Oct;85(4):693–702
A fast method for monitoring the colonization rate of lactobacilli in a meat model system. Veyrat A, et al. **J Appl Microbiol** 1999 Jul;87(1):49–61
New PCR primer pairs specific for Cryptococcus neoformans serotype A or B prepared on the basis of random amplified polymorphic DNA fingerprint pattern analyses. Aoki FH, et al. **J Clin Microbiol** 1999 Feb;37(2):315–20

Mycobacterium malmoense-specific nested PCR based on a conserved sequence detected in random amplified polymorphic DNA fingerprints. Kauppinen J, et al. **J Clin Microbiol** 1999 May;37(5):1454–8

Comparison of PCR, nested PCR, and random amplified polymorphic DNA PCR for detection and typing of Ureaplasma urealyticum in specimens from pregnant women. Knox CL, et al. **J Clin Microbiol** 1998 Oct; 36(10):3032–9

Identification of Legionella species by random amplified polymorphic DNA profiles. Lo Presti F, et al. **J Clin Microbiol** 1998 Nov;36(11):3193–7

Genetic analysis of Histoplasma capsulatum strains isolated from clinical specimens in thailand by a PCR-based random amplified polymorphic DNA method. Poonwan N, et al. **J Clin Microbiol** 1998 Oct;36(10):3073–6

Relatedness analyses of Histoplasma capsulatum isolates from Mexican patients with AIDS-associated histoplasmosis by using histoplasmin electrophoretic profiles and randomly amplified polymorphic DNA patterns. Reyes-Montes MR, et al. **J Clin Microbiol** 1999 May;37(5):1404–8

Comparison of randomly amplified polymorphic DNA analysis and pulsed-field gel electrophoresis for typing of Moraxella catarrhalis strains. Vu-Thien H, et al. **J Clin Microbiol** 1999 Feb;37(2):450–2

Molecular typing of Vibrio parahaemolyticus isolates, obtained from patients involved in food poisoning outbreaks in Taiwan, by random amplified polymorphic DNA analysis. Wong HC, et al. **J Clin Microbiol** 1999 Jun; 37(6):1809–12

A hospital outbreak of extended-spectrum beta-lactamase-producing Klebsiella pneumoniae investigated by RAPD typing and analysis of the genetics and mechanisms of resistance [see comments] Shannon K, et al. **J Hosp Infect** 1998 Aug;39(4):291–300. Comment in: J Hosp Infect 1999 Jan;41(1):71–2.

A cluster of cases of infections due to Aeromonas hydrophila revealed by combined RAPD and ERIC-PCR. Davin-Regli A, et al. **J Med Microbiol** 1998 Jun; 47(6):499–504

Rapid DNA extraction methods and new primers for randomly amplified polymorphic DNA analysis of Giardia duodenalis. Deng MQ, et al. **J Microbiol Methods** 1999 Aug;37(2):193–200

Characterization of microbial communities using randomly amplified polymorphic DNA (RAPD). Franklin RB, et al. **J Microbiol Methods** 1999 Apr;35(3):225–35

Intra-specific diversity of Aureobasidium pullulans strains isolated from rocks and other habitats assessed by physiological methods and by random amplified polymorphic DNA (RAPD). Urzì C, et al. **J Microbiol Methods** 1999 May;36(1–2):95–105

Typing Listeria monocytogenes by random amplified polymorphic DNA (RAPD) fingerprinting. Yoshida T, et al. **J Vet Med Sci** 1999 Jul;61(7):857–60

Identification by 16S rDNA fragment amplification and determination of genetic diversity by random amplified polymorphic DNA analysis of Pasteurella pneumotropica isolated from laboratory rodents. Kodjo A, et al. **Lab Anim Sci** 1999 Feb;49(1):49–53

Identification of a RAPD marker linked to progressive rod-cone degeneration in dogs. Gu W, et al. **Mamm Genome** 1998 Sep;9(9):740–4

Molecular typing of Malassezia species with PFGE and RAPD. Boekhout T, et al. **Med Mycol** 1998 Dec; 36(6):365–72

Restriction fragment length polymorphism of 195 bp repeated satellite DNA of Trypanosoma cruzi supports the existence of two phylogenetic groups. Bastrenta B, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):323–8

Comparative analysis by polymerase chain reaction amplified minicircles of kinetoplast DNA of a stable strain of Trypanosoma cruzi from São Felipe, Bahia, its clones and subclones: possibility of predominance of a principal clone in this area. Campos RF, et al. **Mem Inst Oswaldo Cruz** 1999 Jan-Feb;94(1):23–9

Using random amplified polymorphic DNAs in zebrafish genomic analysis. Postlethwait JH, et al. **Methods Cell Biol** 1999;60:165–79 (43 ref.)

Characterization of mycoplasmas by RAPD fingerprinting. Rawadi GA. **Methods Mol Biol** 1998;104:179–87 (12 ref.)

Sequence analysis of DNA randomly amplified from the Saccharomyces cerevisiae genome. McGrath A, et al. **Mol Cell Probes** 1998 Dec;12(6):397–405

Selection of RAPD marker for growth of seedlings at low temperature in rice. Kim KM, et al. **Mol Cells** 1999 Jun 30;9(3):265–9

The identification of a sex-specific DNA marker in the ostrich using a random amplified polymorphic DNA (RAPD) assay. Bello N, et al. **Mol Ecol** 1999 Apr; 8(4):667–9

Estimating population structure in diploids with multilocus dominant DNA markers. Zhivotovsky LA. **Mol Ecol** 1999 Jun;8(6):907–13

Application of random amplified polymorphic DNA PCR for genomic analysis of HIV-1-infected individuals. Aikhionbare FO, et al. **Mutat Res** 1998 Nov;406(1):25–31

Evolutionary distances and identification of Candida species in clinical isolates by randomly amplified polymorphic DNA (RAPD). Melo AS, et al. **Mycopathologia** 1998; 142(2):57–66

Comparison between human and armadillo Paracoccidioides brasiliensis isolates by random amplified polymorphic DNA analysis. Sano A, et al. **Mycopathologia** 1998–99; 143(3):165–9

Molecular typing of Candida spp. by random amplification of polymorphic DNA and analysis of restriction fragment length polymorphism of ribosomal DNA repeats. Cresti S, et al. **New Microbiol** 1999 Jan;22(1):41–52

Direct sequencing of RAPD fragments using 3'-extended oligonucleotide primers and dye terminator cycle-sequencing. Mitchelson KR, et al. **Nucleic Acids Res** 1999 Oct 1;27(19):e28

Characterization of Giardia lamblia groups A and B from North India by isoenzyme and random amplified polymorphic DNA analysis. Paintlia AS, et al. **Parasitol Res** 1999 Jun;85(6):510–2

Specificity and sensitivity of random amplified polymorphic DNA analysis for the identification of single larvae of Trichinella after experimental infection of pigs. Pozio E, et al. **Parasitol Res** 1999 Jun;85(6):504–6

Pseudomonas aeruginosa from cystic fibrosis patients: study using whole cell RAPD and antibiotic susceptibility. Mereghetti L, et al. **Pathol Biol (Paris)** 1998 May; 46(5):319–24

Predictive modelling of fluorescent AFLP: a new approach to the molecular epidemiology of E. coli. Arnold C, et al. **Res Microbiol** 1999 Jan-Feb;150(1):33–44

Molecular nature of RAPD markers from Haemophilus influenzae Rd genome. Mori E, et al. **Res Microbiol** 1999 Mar;150(2):83–93

Random amplified polymorphic DNA (RAPD) analysis of Lutzomyia longipalpis laboratory populations. Dias ES, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jan-Feb;40(1):49–53

Molecular diversity and relationship within Lactococcus lactis, as revealed by randomly amplified polymorphic DNA (RAPD). Tailliez P, et al. **Syst Appl Microbiol** 1998 Dec;21(4):530–8

Diversity among clinical isolates of Proteus penneri detected by random amplified polymorphic DNA analysis. Hoffmann G, et al. **Zentralbl Bakteriol** 1998 Nov; 288(3):351–60

[RAPD typing of Campylobacter jejuni and comparison with Lior's or Penner's serotyping system] Ono K, et al. **Nippon Saikingaku Zasshi** 1998 Aug;53(3):519–29 (Eng. Abstr.) **(Jpn)**

[Use of RAPD-PCR-analysis of cellular DNA for the evaluation of genetic polymorphism and subspecies diagnostics of the Far Eastern leopard Panthera pardus orientalis] Chelomina GN, et al. **Genetika** 1999 May; 35(5):681–7 (Eng. Abstr.) **(Rus)**

[Genetic differentiation of voles of the tribe Arvicolini (Cricetidae, Rodentia) using taxonprint analysis and polymerase chain reaction with random primers] Potapov SG, et al. **Genetika** 1999 Apr;35(4):484–92 (Eng. Abstr.) **(Rus)**

[The use of random amplification of polymorphous bacterial DNA for the typing of bacteria in the genus Citrobacter] Akhunov ED, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug;(4):61–3 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Use of RAPD-PCR fingerprinting to detect genetic diversity of soil Streptomyces isolates. Malkawi HI, et al. **New Microbiol** 1999 Jan;22(1):53–8

INSTRUMENTATION

Accelerated separation of random complex DNA patterns in gels: comparing the performance of discontinuous and continuous buffers. Zsolnai A, et al. **Electrophoresis** 1999 Jun;20(7):1462–8

STANDARDS

PCR typing of Corynebacterium diphtheriae by random amplification of polymorphic DNA. De Zoysa AS, et al. **J Med Microbiol** 1999 Apr;48(4):335–40

STATISTICS & NUMERICAL DATA

An evaluation of RAPD fragment reproducibility and nature. Pérez T, et al. **Mol Ecol** 1998 Oct;7(10):1347–57

VETERINARY

A polymorphic SCAR-RAPD marker between species of tilapia (Pisces: Cichlidae). Bardakci F, et al. **Anim Genet** 1999 Feb;30(1):78–9

Individual DNA bands obtained by RAPD analysis of canine genomic DNA often contain multiple DNA sequences. Gu W, et al. **J Hered** 1999 Jan-Feb;90(1):96–8

Random amplified polymorphic DNA (RAPD) sequences as markers for canine genetic studies. Olivier M, et al. **J Hered** 1999 Jan-Feb;90(1):78–82

Analysis of randomly amplified polymorphic DNA (RAPD) for identifying genetic markers associated with canine hip dysplasia. Wang X, et al. **J Hered** 1999 Jan-Feb; 90(1):99–103

Complementary randomly amplified polymorphic DNA (RAPD) analysis patterns and primer sets to differentiate Mycoplasma gallisepticum strains. Charlton BR, et al. **J Vet Diagn Invest** 1999 Mar;11(2):158–61

Characterisation of Escherichia coli O157:H7 (H-) derived from cattle using random amplification of polymorphic DNA analysis. Katsuda K, et al. **Res Vet Sci** 1998 Sep-Oct; 65(2):177–8

RANDOM PEPTIDE LIBRARY see **PEPTIDE LIBRARY**

RANDOMIZATION see **RANDOM ALLOCATION**

RANDOMIZED CONTROLLED TRIALS

Emergency medicine's "illusion of efficacy" and the public perception of resuscitation research [editorial] Lewis RJ. **Acad Emerg Med** 1999 Aug;6(8):771–2

Hypnosis vs randomization [letter] Sutcher H. **Altern Ther Health Med** 1998 Nov;4(6):22

Trends in the use of pharmacotherapies for acute myocardial infarction among physicians who design and/or implement randomized trials versus physicians in routine clinical practice: the MILIS-TIMI experience. Multicenter Investigation on Limitation of Infarct Size. Thrombolysis in Myocardial Infarction [see comments] Kizer JR, et al. **Am Heart J** 1999 Jan;137(1):79–92. Comment in: Am Heart J 1999 Jan;137(1):4–7.

Long-term nitrate use in chronic coronary artery disease: need for a randomized controlled trial [editorial; comment] Teo KK, et al. **Am Heart J** 1999 Sep;138(3 Pt 1):400–2. Comment on: Am Heart J 1999 Sep;138(3 Pt 1):577–85.

Two versus six hours of bed rest following left-sided cardiac catheterization and a meta-analysis of early ambulation trials. Logemann T, et al. **Am J Cardiol** 1999 Aug 15; 84(4):486–8, A10

Report of a National Institutes of Health--Centers for Disease Control and Prevention workshop on the feasibility of conducting a randomized clinical trial to estimate the long-term health effects of intentional weight loss in obese persons [see comments] Yanovski SZ, et al. **Am J Clin Nutr** 1999 Mar;69(3):366–72. Comment in: Am J Clin Nutr 1999 Mar;69(3):347–9.

The influence of dietary and nondietary calcium supplementation on blood pressure: an updated metaanalysis of randomized controlled trials [see comments] Griffith LE, et al. **Am J Hypertens** 1999 Jan; 12(1 Pt 1):84–92. Comment in: Am J Hypertens 1999 Jan;12(1 Pt 1):82–3. Comment in: Am J Hypertens 1999 Jan;12(1 Pt 1):93–5.

Value of randomized clinical trials [letter; comment] Lewis EJ. **Am J Kidney Dis** 1998 Nov;32(5):907. Comment on: Am J Kidney Dis 1998 May;31(5):866–7.

Randomized trial of intraoperative mitomycin C in surgery for pterygium [letter; comment] Tseng SH. **Am J Ophthalmol** 1999 Feb;127(2):245. Comment on: Am J Ophthalmol 1998 Jan;125(1):59–63.

Randomized clinical trials in medical rehabilitation research. Tate DG, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct; 78(5):486–99 (67 ref.)

Metaanalytic revision of endpoints [editorial; comment] Gallagher EJ. **Ann Emerg Med** 1999 Jul;34(1):91–5 (44 ref.) . Comment on: Ann Emerg Med 1999 Jul;34(1):8–18.

Identification of randomized controlled trials from the emergency medicine literature: comparison of hand searching versus MEDLINE searching. Langham J, et al. **Ann Emerg Med** 1999 Jul;34(1):25–34

RCTs on trial [letter] Petrie DA. **Ann Emerg Med** 1998 Nov; 32(5):633–4; discussion 635–6

Guidelines for clinical trials of new therapeutic agents in multiple sclerosis: reporting extended results from phase III clinical trials. National Multiple Sclerosis Society Advisory Committee on Clinical Trials of New Agents in Multiple Sclerosis. Goodkin DE, et al. **Ann Neurol** 1999 Jul;46(1):132–4

The Cochrane Skin Group. Preparing, maintaining, and disseminating systematic reviews of clinical interventions in dermatology. Williams H, et al. **Arch Dermatol** 1998 Dec; 134(12):1620–6 (43 ref.)

Randomized trials and scientific methods [letter; comment] Wrone DA, et al. **Arch Dermatol** 1999 May;135(5):602. Comment on: Arch Dermatol 1998 Nov;134(11):1368–70.

A review of randomised controlled trials published in Archives of Disease in Childhood from 1982–96. Campbell H, et al. **Arch Dis Child** 1998 Aug;79(2):192–7 (00 ref.)

Distinguishing between "no evidence of effect" and "evidence of no effect" in randomised controlled trials and other comparisons. Tarnow-Mordi WO, et al. **Arch Dis Child** 1999 Mar;80(3):210–1

Informed consent, parental awareness, and reasons for participating in a randomised controlled study. van Stuijvenberg M, et al. **Arch Dis Child** 1998 Aug;79(2):120–5

Is it truly random? [letter] Markey P. **Aust Fam Physician** 1999 Jan;28 Suppl 1:S48

Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists. Ellis PM, et al. **Aust N Z J Surg** 1999 Jul;69(7):486–91

Barriers to participation in randomized clinical trials for early breast cancer among Australian cancer specialists: comment [letter] Malycha P. **Aust N Z J Surg** 1999 Sep;69(9):677

Confidence intervals for the number needed to treat. Altman DG. **BMJ** 1998 Nov 7;317(7168):1309–12 (13 ref.)

Randomised controlled trials in psychiatry: important but poorly accepted. Andrews G. **BMJ** 1999 Aug 28; 319(7209):562–4 (19 ref.)

Contribution of randomised controlled trials to understanding and management of early breast cancer. Baum M, et al.

BMJ 1999 Aug 28;319(7209):568–71 (37 ref.)
Structuring the discussion of scientific papers. Randomised controlled trial of structured discussions is needed [letter] Castro AA. **BMJ** 1999 Aug 28;319(7209):581
Unbiased, relevant, and reliable assessments in health care: important progress during the past century, but plenty of scope for doing better [editorial] Chalmers I. **BMJ** 1998 Oct 31;317(7167):1167–8
Full information about trials might be given retrospectively to participants [letter; comment] Clement S. **BMJ** 1999 Mar 13;318(7185):736. Comment on: BMJ 1998 Mar 28;316(7136):1000–5.
Patients who are eligible but not randomised should be included as additional comparative arm in study [letter; comment] Fielding LP, et al. **BMJ** 1999 Mar 27; 318(7187):874–5. Comment on: BMJ 1998 Oct 13;317(7167):1170–1.
Cluster randomised trials. Standardised approach to analysing and reporting these trials is misguided [letter; comment] Freemantle N, et al. **BMJ** 1999 May 8;318(7193):1286–7. Comment on: BMJ 1998 Oct 31;317(7167):1171–2.
Oakley's case for using randomised controlled trials is misleading [letter; comment] Nutbeam D. **BMJ** 1999 Apr 3;318(7188):944–5. Comment on: BMJ 1998 Oct 31;317(7167):1239–42.
Few patients with prostate cancer are willing to be randomised to treatment [letter; comment] O'Reilly P, et al. **BMJ** 1999 Jun 5;318(7197):1556. Comment on: BMJ 1999 Jan 9;318(7176):126.
Value of educational visits in obstetrics. Randomised controlled trial was unsuitable evaluation [letter; comment] Pannikar J, et al. **BMJ** 1999 Apr 24;318(7191):1143–4. Comment on: BMJ 1998 Oct 17;317(7165):1041–6.
Marketing medicines through randomised controlled trials: the case of interferon. Pieters T. **BMJ** 1998 Oct 31; 317(7167):1231–3 (22 ref.)
Patients' understanding of randomised controlled trials depends on their education [letter] Pucci E, et al. **BMJ** 1999 Mar 27;318(7187):875
Employing staff on long term contracts is important for RCTs [letter] Stead M, et al. **BMJ** 1999 Apr 17; 318(7190):1075
Review of randomised controlled trials of traditional Chinese medicine. Tang JL, et al. **BMJ** 1999 Jul 17;319(7203):160–1
Randomised controlled trials are important [letter] Venning G. **BMJ** 1999 Apr 17;318(7190):1074
Reporting on quality of life in RCTs. CONSORT guidelines should be expanded [letter; comment] Wright SP. **BMJ** 1999 Apr 24;318(7191):1142. Comment on: BMJ 1998 Oct 31;317(7167):1191–4.
CONSORT. Consolidated Standards of Reporting Trials [editorial] [see comments] Needleman I. **Br Dent J** 1999 Mar 13;186(5):207. Comment in: Br Dent J 1999 Jun 26;186(12):601.
First-line chemotherapy for advanced ovarian cancer: paclitaxel, cisplatin and the evidence [see comments] Sandercock J, et al. **Br J Cancer** 1998 Dec;78(11):1471–8 . Comment in: Br J Cancer 1998 Dec;78(11):1402–3.
Carotid endarterectomy before and after publication of randomized controlled trials. Brittenden J, et al. **Br J Surg** 1999 Feb;86(2):206–10
Exercise clinical trials in cancer prevention research: a call to action. McTiernan A, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar;8(3):201–7 (67 ref.)
One year after CAPRIE, IST and ESPS 2. Any changes in concepts? Hankey GJ. **Cerebrovasc Dis** 1998;8 Suppl 5:1–7 (45 ref.)
Systematic reviews and making decisions [editorial] Logan S. **Child Care Health Dev** 1998 Jul;24(4):255–7
Glucose-insulin-potassium for acute myocardial infarction: remarkable results from a new prospective, randomized trial [editorial] Apstein CS. **Circulation** 1998 Nov 24; 98(21):2223–6 (27 ref.)
The importance of randomized clinical trials and evidence-based medicine: a clinician's perspective. Kennedy HL. **Clin Cardiol** 1999 Jan;22(1):6–12 (70 ref.)
Chinese Herbal Medicine in the treatment of acute respiratory tract infections: review of randomized and controlled clinical trials. Liu C, et al. **Clin Infect Dis** 1999 Feb; 28(2):235–6 (27 ref.)
Unconventional therapies and cancer [letter] Bégin M, et al. **CMAJ** 1999 Sep 21;161(6):686–7
Meta-analysis and adverse drug reactions [letter; comment] Mittmann N, et al. **CMAJ** 1999 Apr 6;160(7):987–8. Comment on: CMAJ 1998 Nov 17;159(10):1245–52.
Acupuncture for migraine and headache in primary care: a protocol for a pragmatic, randomized trial. Vickers A, et al. **Complement Ther Med** 1999 Mar;7(1):3–18
An evaluation of a measure of the proportion of the treatment effect explained by a surrogate marker. Bycott PW, et al. **Control Clin Trials** 1998 Dec;19(6):555–68
Improving informed consent in clinical trials: a duty to experiment. Lavori PW, et al. **Control Clin Trials** 1999 Apr; 20(2):187–93
Recruitment strategies in the women's health trial: feasibility study in minority populations. WHT:FSMP Investigators Group. Women's Health Trial:Feasibility Study in Minority Populations. Lewis CE, et al. **Control Clin Trials** 1998 Oct; 19(5):461–76
Internet for clinical trials: past, present, and future. Santoro E, et al. **Control Clin Trials** 1999 Apr;20(2):194–201
The Women's Health Initiative Memory Study (WHIMS): a trial of the effect of estrogen therapy in preventing and slowing the progression of dementia. Shumaker SA, et al. **Control Clin Trials** 1998 Dec;19(6):604–21
Randomized clinical trials in interventional cardiology. Holmes DR Jr. **Curr Opin Cardiol** 1998 Sep;13(5):348–54 (11 ref.)
Outpatients' knowledge about and attitude towards clinical research and randomized clinical trials. The INFO Trial Group. Kjaergaard LL, et al. **Dan Med Bull** 1998 Sep; 45(4):439–43
Acronymic one-upmanship [letter] Cheng TO. **Eur Heart J** 1999 Jul;20(14):1052
The impact of an end-point committee in a large multicentre, randomized, placebo-controlled clinical trial: results with and without the end-point committee's final decision on end-points [see comments] Näslund U, et al. **Eur Heart J** 1999 May;20(10):771–7. Comment in: Eur Heart J 1999 May;20(10):708–9.
Randomized trials in cardiogenic shock: what's the problem? [editorial; comment] Norell MS. **Eur Heart J** 1999 Jul; 20(14):987–8. Comment on: Eur Heart J 1999 Jul;20(14):1030–8.
Trial end-point committees: the king-pin of good clinical practice [editorial; comment] Thygesen K. **Eur Heart J** 1999 May;20(10):708–9. Comment on: Eur Heart J 1999 May;20(10):771–7.
Rationale for randomised trials of prostate cancer screening. The International Prostate Screening Trial Evaluation Group. **Eur J Cancer** 1999 Feb;35(2):262–71 (12 ref.)
Strategy of the EORTC-MCG trial programme for adjuvant treatment of moderate-risk and high-risk melanoma. Eggermont AM. **Eur J Cancer** 1998 Jul;34 Suppl 3:S22–6 (47 ref.)
Prehospital research and clinical decision-making [letter; comment] [see comments] Schou J. **Eur J Emerg Med** 1998 Mar;5(1):74. Comment on: Eur J Emerg Med 1997 Sep;4(3):174–5. Comment in: Eur J Emerg Med 1998 Mar;5(1):73.
Survey of the impact of randomised clinical trials on surgical practice in France. French Associations for Research in Surgery (AURC and ACAPEM). Association Universitaire de Recherche en Chirurgie. Association des Chirurgiens de l'Assistance Publique pour l'Evaluation Médicale. Millat B, et al. **Eur J Surg** 1999 Feb;165(2):87–94
Truth and consequences [editorial; comment] Russell AH. **Gynecol Oncol** 1999 May;73(2):175–6. Comment on: Gynecol Oncol 1999 May;73(2):177–83.
Science in the service of healing. Grady C. **Hastings Cent Rep** 1998 Nov-Dec;28(6):34–8 (19 ref.)
Randomised trials of new surgical procedures are necessary [letter; comment] Sharples LD, et al. **Heart** 1999 Jan; 81(1):100–1. Comment on: Heart 1997 Dec;78(6):533–4. Comment on: Heart 1997 Dec;78(6):535–6.
Swan to phoenix: the metamorphosis [editorial] Brandstetter RD, et al. **Heart Lung** 1998 Jul-Aug;27(4):215–7 (21 ref.)
What randomized trials and systematic reviews can offer decision makers. Altman DG. **Horm Res** 1999;51 Suppl 1:36–43
What observational studies can offer decision makers. Black N. **Horm Res** 1999;51 Suppl 1:44–9
Antiarrhythmic trials: a decade of growth. Kanjwal MY. **Indian Heart J** 1998 May-Jun;50(3):277–84 (19 ref.)
Simple sample size calculation for cluster-randomized trials. Hayes RJ, et al. **Int J Epidemiol** 1999 Apr;28(2):319–26 (24 ref.)
Bone metastasis: review and critical analysis of random allocation trials of local field treatment. Ratanatharathorn V, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):1–18 (25 ref.)
Randomized trials on radioactive iodine ablation of thyroid remnants for thyroid carcinoma--a critique. Roos DE, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):493–5 (12 ref.)
Deriving treatment recommendations from evidence within randomized trials. The role and limitation of meta-analysis. Freemantle N, et al. **Int J Technol Assess Health Care** 1999 Spring;15(2):304–15 (46 ref.)
Maternal-Fetal Medicine Units (MFMU) studies of inhaled corticosteroids during pregnancy. Dombrowski M, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 2):S356–9 (2 ref.)
Randomized controlled trials of individualized homeopathy: a state-of-the-art review [see comments] Linde K, et al. **J Altern Complement Med** 1998 Winter;4(4):371–88 (50 ref.) . Comment in: J Altern Complement Med 1998 Winter;4(4):355–7.
Vitamin-mineral intake and intelligence: a macrolevel analysis of randomized controlled trials. Schoenthaler SJ, et al. **J Altern Complement Med** 1999 Apr;5(2):125–34
Effect of angiotensin converting enzyme inhibition on sudden cardiac death in patients following acute myocardial infarction. A meta-analysis of randomized clinical trials. Domanski MJ, et al. **J Am Coll Cardiol** 1999 Mar; 33(3):598–604
Ventricular reduction therapy: controlled clinical trials overdue [letter] Spodick DH. **J Am Coll Cardiol** 1999 Aug; 34(2):610–1
Recruitment and baseline characteristics of participants in the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. Appel LJ, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S69–75
Dietary Approaches to Stop Hypertension: a summary of study results. DASH Collaborative Research Group. Harsha DW, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S35–9
Descriptive characteristics of the dietary patterns used in the Dietary Approaches to Stop Hypertension Trial. DASH Collaborative Research Group. Karanja NM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S19–27
Pre-enrollment diets of Dietary Approaches to Stop Hypertension trial participants. DASH Collaborative Research Group. Karanja NM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S28–34
The Linear Index Model for establishing nutrient goals in the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. Lin PH, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S40–4
Comparison of 4 nutrient databases with chemical composition data from the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. McCullough ML, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S45–53
Using feeding studies to test the efficacy of dietary interventions: lessons from the Dietary Approaches to Stop Hypertension trial. Obarzanek E, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S9–11
Validation of diet composition for the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. Phillips KM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S60–8
The effects of dietary patterns on quality of life: a substudy of the Dietary Approaches to Stop Hypertension trial. Plaisted CS, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S84–9
The DASH Diet, Sodium Intake and Blood Pressure Trial (DASH-sodium): rationale and design. DASH-Sodium Collaborative Research Group. Svetkey LP, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S96–104
Menu design and selection for multicenter controlled feeding studies: process used in the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. Swain JF, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S54–9
Dietary Approaches to Stop Hypertension: rationale, design, and methods. DASH Collaborative Research Group. Vogt TM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S12–8 (60 ref.)
Translating the Dietary Approaches to Stop Hypertension diet from research to practice: dietary and behavior change techniques. DASH Collaborative Research Group. Windhauser MM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S90–5
Dietary adherence in the Dietary Approaches to Stop Hypertension trial. DASH Collaborative Research Group. Windhauser MM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S76–83
Recruitment of older adults for a randomized, controlled trial of exercise advice in a general practice setting. Halbert JA, et al. **J Am Geriatr Soc** 1999 Apr;47(4):477–81
Rationale and design of the Valsartan Heart Failure Trial: a large multinational trial to assess the effects of valsartan, an angiotensin-receptor blocker, on morbidity and mortality in chronic congestive heart failure [see comments] Cohn JN, et al. **J Card Fail** 1999 Jun;5(2):155–60 . Comment in: J Card Fail 1999 Jun;5(2):77.
Recursive cumulative meta-analysis: a diagnostic for the evolution of total randomized evidence from group and individual patient data. Ioannidis JP, et al. **J Clin Epidemiol** 1999 Apr;52(4):281–91
Stratified randomization for clinical trials. Kernan WN, et al. **J Clin Epidemiol** 1999 Jan;52(1):19–26 (38 ref.)
Exploring heterogeneity in meta-analysis: is the L'Abbé plot useful? Song F. **J Clin Epidemiol** 1999 Aug;52(8):725–30
Meta-analyses of published results are unreliable [letter; comment] Buyse M, et al. **J Clin Oncol** 1999 May; 17(5):1646–7. Comment on: J Clin Oncol 1998 Oct;16(10):3439–60.
National Surgical Adjuvant Breast and Bowel Project breast cancer prevention trial: a reflective commentary. Fisher B. **J Clin Oncol** 1999 May;17(5):1632–9
Cytotoxic and hormonal treatment for metastatic breast cancer: a systematic review of published randomized trials involving 31,510 women [see comments] Fossati R, et al. **J Clin Oncol** 1998 Oct;16(10):3439–60 (213 ref.). Comment in: J Clin Oncol 1999 May;17(5):1646–7.
The tea leaves of small trials [editorial; comment] Harrington DP. **J Clin Oncol** 1999 May;17(5):1336–8. Comment on: J Clin Oncol 1999 May;17(5):1349–55. Comment on: J Clin Oncol 1999 May;17(5):1356–63.
Randomizing carotid endarterectomy to carotid stenting? [editorial] Wholey MH. **J Endovasc Surg** 1999 May; 6(2):127–9; discussion 130 (12 ref.)
On the scientific inference from clinical trials. Holmberg L, et al. **J Eval Clin Pract** 1999 May;5(2):157–62
Problems associated with randomized controlled clinical trials in breast cancer [see comments] Johnson AE. **J Eval Clin Pract** 1998 May;4(2):119–26; discussion 127–30 . Comment in: J Eval Clin Pract 1998 Aug;4(3):231–6.
Quality assessment of reports on clinical trials in the Journal of Hepatology. Gluud C, et al. **J Hepatol** 1998 Aug; 29(2):321–7
A meta-analysis of randomised controlled trials (RCT) among healthy normotensive and essential hypertensive

elderly patients to determine the effect of high salt (NaCl) diet of blood pressure. Alam S, et al. **J Hum Hypertens** 1999 Jun;13(6):367-74

Antihypertensive treatment and the prevention of dementia: further insights from the Syst-Eur trial [editorial] Hansson L. **J Hypertens** 1999 Mar;17(3):307-8 (8 ref.)

Population attitudes toward oncology clinical trials. Valentino J, et al. **J Ky Med Assoc** 1999 Mar;97(3):111-7

Can unequal be more fair? Ethics, subject allocation, and randomised clinical trials. Avins AL. **J Med Ethics** 1998 Dec;24(6):401-8 (50 ref.)

Treating the most intractable cancers progresses slowly [news] Reynolds T. **J Natl Cancer Inst** 1999 Mar 3; 91(5):404-6

Why randomized surgical oncology trials are so scarce [news] Reynolds T. **J Natl Cancer Inst** 1999 Jul 21;91(14):1182-3

The effect of membrane permeability on ESRD: design of a prospective randomised multicentre trial. Locatelli F, et al. **J Nephrol** 1999 Mar-Apr;12(2):85-8

Medical Editors' Trial Amnesty (META) [editorial] **J Neurol** 1998 Aug;245(8):563

International Subarachnoid Aneurysm Trial [letter; comment] Molyneux A, et al. **J Neurosurg** 1999 Aug; 91(2):352-3. Comment on: J Neurosurg 1999 Apr;90(4):656-63.

The "inclusion benefit" in clinical trials [editorial; comment] Lantos JD. **J Pediatr** 1999 Feb;134(2):130-1. Comment on: J Pediatr 1999 Feb;134(2):151-5.

Do sick newborn infants benefit from participation in a randomized clinical trial? [see comments] Schmidt B, et al. **J Pediatr** 1999 Feb;134(2):151-5. Comment in: J Pediatr 1999 Feb;134(2):132-3.

Evidence-based medicine [letter; comment] Jayasinghe S, et al. **J R Coll Physicians Lond** 1998 Jul-Aug;32(4):388-9. Comment on: J R Coll Physicians Lond 1998 Jan-Feb;32(1):23-6.

Responsiveness of endpoints in osteoporosis clinical trials--an update. Cranney A, et al. **J Rheumatol** 1999 Jan; 26(1):222-8 (68 ref.)

The responsiveness of generic quality of life instruments in rheumatic diseases. A systematic review of randomized controlled trials. Ortiz Z, et al. **J Rheumatol** 1999 Jan; 26(1):210-6 (26 ref.)

Brief early psychological interventions following trauma: a systematic review of the literature. Rose S, et al. **J Trauma Stress** 1998 Oct;11(4):697-710 (45 ref.)

Report of randomized controlled trials identified in the Chinese literature vs MEDLINE [letter] Liu M, et al. **JAMA** 1998 Oct 21;280(15):1308-9

Evaluating reporting and abstracts of clinical trials [letter; comment] Mago R, et al. **JAMA** 1999 Jan 6;281(1):34-5. Comment on: JAMA 1998 Jul 15;280(3):269-72.

Investigating alternative medicine therapies in randomized controlled trials. Margolin A, et al. **JAMA** 1998 Nov 11; 280(18):1626-8

Reflections on randomised controlled trials in surgery. Baum M. **Lancet** 1999 Apr;353 Suppl 1:SI6-8 (19 ref.)

Clinical trials in stroke [letter; comment] de Takats P, et al. **Lancet** 1999 Jan 9;353(9147):150-1. Comment on: Lancet 1998 Oct;352 Suppl 3;SIII28-30.

Biases in reporting of trials [letter; comment] Greenwood AN. **Lancet** 1999 Apr 10;353(9160):1277. Comment on: Lancet 1999 Feb 6;353(9151):490-3.

Antihypertensive drugs in very old people: a subgroup meta-analysis of randomised controlled trials. INDANA Group [comment] [see comments] Gueyffier F, et al. **Lancet** 1999 Mar 6;353(9155):793-6. Comment on: Lancet 1999 Jun 26;353(9171):2243. Comment in: ACP J Club 1999 Sep-Oct;131(2):29.

Can randomised trials inform clinical decisions about individual patients? [see comments] Mant D. **Lancet** 1999 Feb 27;353(9154):743-6 (31 ref.). Comment in: Lancet 1999 May 8;353(9164):1622.

Application of evidence from randomised controlled trials to general practice [see comments] Rosser WW. **Lancet** 1999 Feb 20;353(9153):661-4. Comment in: Lancet 1999 Feb 20;353(9153):609-10. Comment in: Lancet 1999 Apr 24;353(9162):1448. Comment in: Lancet 1999 May 1;353(9163):1531-2. Comment in: Lancet 1999 May 8;353(9164):1622.

Quality of reports of randomised trials and estimates of treatment efficacy [letter; comment] Sauerland S, et al. **Lancet** 1998 Nov 7;352(9139):1555-6. Comment on: Lancet 1998 Aug 22;352(9128):609-13.

Clinical trials, consensus conferences, and clinical practice. Sniderman AD. **Lancet** 1999 Jul 24;354(9175):327-30

Consent, information, and neonatal research [letter; comment] Tarnow-Mordi W. **Lancet** 1999 May 1; 353(9163):1530-1. Comment on: Lancet 1999 Feb 27;353(9154):685.

Randomised trials are not unethical [letter; comment] Vaidya JS, et al. **Lancet** 1999 May 15;353(9165):1714. Comment on: Lancet 1999 Mar 20;353(9157):1012.

A review of randomized clinical trials in tinnitus. Dobie RA. **Laryngoscope** 1999 Aug;109(8):1202-11 (85 ref.)

Assessing effects on long-term survival after early termination of randomized trials. Shen Y, et al. **Lifetime Data Anal** 1999;5(1):55-66

Application of random effects models and other methods to the analysis of multidimensional quality of life data in an AIDS clinical trial. Wu AW, et al. **Med Care** 1999 Mar; 37(3):249-58

Surgery and the randomised controlled trial: past, present and future [letter; comment] Hugh TB. **Med J Aust** 1999 Mar 1;170(5):237-8. Comment on: Med J Aust 1998 Oct 5;169(7):348-9. Comment on: Med J Aust 1998 Oct 5;169(7):380-3.

Use of systematic reviews of randomised trials by Australian neonatologists and obstetricians [letter; comment] Jordens CF, et al. **Med J Aust** 1998 Oct 5;169(7):399-400. Comment on: Med J Aust 1998 Mar 16;168(6):267-70.

Randomized controlled trials in population-based intervention studies are not always feasible [comment] Woods WG, et al. **Med Pediatr Oncol** 1999 Oct;33(4):360-1 . Comment on: Med Pediatr Oncol 1999 Oct;33(4):357-9.

Data collection in multi-center clinical trials via Internet. A generic system in Java. Sippel H, et al. **Medinfo** 1998; 9 Pt 1:93-7

Placebo surgery [editorial] Thomas JR. **Mo Med** 1999 Feb; 96(2):41

Use of placebo surgery in controlled trials of a cellular-based therapy for Parkinson's disease. Freeman TB, et al. **N Engl J Med** 1999 Sep 23;341(13):988-92

How to resolve an ethical dilemma concerning randomized clinical trials. Marquis D. **N Engl J Med** 1999 Aug 26; 341(9):691-3

Should meta-analysis replace large randomized control trials? Brogen A, et al. **Natl Med J India** 1999 Mar-Apr;12(2):70-1

Evaluation of new techniques of macular surgery [editorial; comment] Freeman WR, et al. **Ophthalmology** 1999 May; 106(5):861-2. Comment on: Ophthalmology 1999 May;106(5):932-8.

Acknowledging the importance of study design in the organization and quality of manuscripts [editorial] Minckler D. **Ophthalmology** 1999 Jan;106(1):11-2, 182-206

CABG and ICD for all patients with hemodynamically significant ventricular arrhythmia and significant coronary artery disease? Do we know enough to decide--or to design a randomized trial? [editorial; comment] Bergfeldt L. **Pacing Clin Electrophysiol** 1999 Aug;22(8):1129-31 (9 ref.). Comment on: Pacing Clin Electrophysiol 1999 Aug;22(8):1132-9.

Monitoring data and safety in the WHO Antenatal Care Trial. Bergsjø P, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:156-64

The practice of antenatal care: comparing four study sites in different parts of the world participating in the WHO Antenatal Care Randomised Controlled Trial. Piaggio G, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:116-41

Managing data for a randomised controlled clinical trial: experience from the WHO Antenatal Care Trial. WHO Antenatal Care Trial Research Group. Pinol A, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:142-55

The WHO antenatal care randomised controlled trial: rationale and study design. Villar J, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:27-58

The 'n = 1' randomized controlled trial. Miller MG, et al. **Palliat Med** 1999 May;13(3):255-9

The effect of physician recommendation on enrollment in the Breast Cancer Chemoprevention Trial. Kinney AY, et al. **Prev Med** 1998 Sep-Oct;27(5 Pt 1):713-9

The cancer information service research consortium: an emerging laboratory for cancer control research. Marcus AC, et al. **Prev Med** 1998 Sep-Oct;27(5 Pt 2):S3-15

Promoting cancer screening among the first-degree relatives of breast and colorectal cancer patients: the design of two randomized trials. Marcus AC, et al. **Prev Med** 1999 Mar; 28(3):229-42

Clarification regarding comments about a hypothesis [letter] Fox BH. **Psychooncology** 1999 Jul-Aug;8(4):366-7

The importance of randomized clinical trials and evidence-based medicine: a clinician's perspective. Kennedy HL. **Rev Port Cardiol** 1999 May;18(5):471-80 (70 ref.)

Efficacy of epidural steroids in low back pain and sciatica. A critical appraisal by a French Task Force of randomized trials. Critical Analysis Group of the French Society for Rheumatology. Rozenberg S, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):79-85 (23 ref.)

Can the placebo be the cure? [news] [see comments] Enserink M. **Science** 1999 Apr 9;284(5412):238-40. Comment in: Science 1999 May 7;284(5416):913. Comment in: Science 1999 May 7;284(5416):913-4. Comment in: Science 1999 May 7;284(5416):914-5. Comment in: Science 1999 May 7;284(5416):915.

Lyme disease. Patients scarce in test of long-term therapy [news] Marshall E. **Science** 1999 Mar 5;283(5407):1431

Pills or placebos? [letter; comment] Trussell J. **Science** 1999 May 7;284(5416):913. Comment on: Science 1999 Apr 9;284(5412):238-40.

Clinical trials of IIb/IIIa receptor blockers in patients undergoing angioplasty. Mathew TP, et al. **Semin Interv Cardiol** 1999 Jun;4(2):67-75 (60 ref.)

Sample size review in a head injury trial with ordered categorical responses. Bolland K, et al. **Stat Med** 1998 Dec 30;17(24):2835-47

Assessing treatment-time interaction in clinical trials with time to event data: a meta-analysis of hypertension trials. Boutitie F, et al. **Stat Med** 1998 Dec 30;17(24):2883-903

Multivariate non-parametric methods for Mann-Whitney statistics to analyse cross-over studies with two treatment sequences. Jung JW, et al. **Stat Med** 1999 Apr 30; 18(8):989-1017

Issues for covariance analysis of dichotomous and ordered categorical data from randomized clinical trials and non-parametric strategies for addressing them. Koch GG, et al. **Stat Med** 1998 Aug 15-30;17(15-16):1863-92 (46 ref.)

The impact of measurement error on the comparison of two treatments using a responder analysis. Oppenheimer L, et al. **Stat Med** 1999 Aug 30;18(16):2177-88

The International Cochrane Collaboration. Pencheon D. **Trans R Soc Trop Med Hyg** 1998 Sep-Oct;92(5):473-4

[Is the randomized controlled trial overvalued as a basis for clinical decision-making? A review with comments] Dahler-Eriksen K, et al. **Ugeskr Laeger** 1998 Dec 14; 160(51):7414-7 (30 ref.) (Eng. Abstr.) **(Dan)**

[Randomized clinical trials and quasi experimental studies = medical practice (letter; comment)] Gaugin J. **Ugeskr Laeger** 1999 Feb 15;161(7):972. Comment on: Ugeskr Laeger 1998 Dec 14;160(51):7405. **(Dan)**

[What is the relation between randomized trials and evidence-based medicine? (letter)] Gøtzsche PC. **Ugeskr Laeger** 1999 Feb 1;161(5):624 **(Dan)**

[Growing pains of cochranology (letter; comment)] Karle H, et al. **Ugeskr Laeger** 1999 May 3;161(18):2689-91. Comment on: Ugeskr Laeger 1999 Feb 15;161(7):932-4. **(Dan)**

[Randomization and alternatives] Olsen J, et al. **Ugeskr Laeger** 1999 May 3;161(18):2657-60 (25 ref.) (Eng. Abstr.) **(Dan)**

[Meta-analysis or large randomized trial, that is the question] Pignon JP. **Gastroenterol Clin Biol** 1998 Jan;22(1):109-10 **(Fre)**

[Chemoprevention of breast cancer by tamoxifen: should we still ask this question?] Sasco AJ. **Rev Epidemiol Sante Publique** 1999 Jun;47(3):279-85 (20 ref.) (Eng. Abstr.) **(Fre)**

[Problems of study designs with randomization, blinding and placebos] Heusser P. **Forsch Komplementarmed** 1999 Apr; 6(2):89-102 (Eng. Abstr.) **(Ger)**

[Meta-analysis of antiaggregant therapy trials. Proposal of an additional reading key] Blardi P, et al. **Recenti Prog Med** 1998 Oct;89(10):494-500 (Eng. Abstr.) **(Ita)**

[All credit to the randomized controlled study! (letter)] Thelander S. **Lakartidningen** 1998 Dec 9;95(50):5731 **(Swe)**

ECONOMICS

Economics and cost-effectiveness in evaluating the value of cardiovascular therapies. Role of economic models in randomized clinical trials. Hlatky MA. **Am Heart J** 1999 May;137(5):S41-6 (33 ref.)

Analysis and interpretation of cost data in randomised controlled trials: review of published studies [see comments] Barber JA, et al. **BMJ** 1998 Oct 31; 317(7167):1195-200 (34 ref.). Comment in: BMJ 1999 Jun 19;318(7199):1696-7.

Sponsored trials do not necessarily give more-favourable results [letter] Matthews JN. **BMJ** 1999 Jun 26; 318(7200):1762

Estimating uncertainty ranges for costs by the bootstrap procedure combined with probabilistic sensitivity analysis. Lord J, et al. **Health Econ** 1999 Jun;8(4):323-33

Cost-effective design for dental randomized clinical trials with longitudinal observations. Hefti AF, et al. **J Periodontal Res** 1999 Apr;34(3):129-35

Cost effectiveness of screening for clinical trials by research assistants versus senior investigators. Miller NL, et al. **J Psychiatr Res** 1999 Mar-Apr;33(2):81-5

Support for non-competitive trials [editorial] [see comments] **Lancet** 1999 Mar 13;353(9156):855. Comment in: Lancet 1999 May 8;353(9164):1626.

Measuring costs in multisite randomized controlled trials: lessons from the VA Cooperative Studies Program. Hynes D, et al. **Med Care** 1999 Apr;37(4 Suppl Va):AS27-36

HISTORY

Ovarian ablation in breast cancer, 1896 to 1998: milestones along hierarchy of evidence from case report to Cochrane review. Clarke MJ. **BMJ** 1998 Oct 31;317(7167):1246-8

A change in scientific approach: from alternation to randomised allocation in clinical trials in the 1940s. D'Arcy Hart P. **BMJ** 1999 Aug 28;319(7209):572-3 (7 ref.)

"A calculated risk": the Salk polio vaccine field trials of 1954. Meldrum M. **BMJ** 1998 Oct 31;317(7167):1233-6

Experimentation and social interventions: a forgotten but important history [see comments] Oakley A. **BMJ** 1998 Oct 31;317(7167):1239-42. Comment in: BMJ 1999 Apr 3;318(7188):944-5.

Use of randomisation in early clinical trials. Theobald's trial in 1936 incorporated some aspects of randomisation [letter] Olsen SF. **BMJ** 1999 May 15;318(7194):1352

Memories of why allocation by random sampling numbers was used [letter] Scadding JG. **BMJ** 1999 May 15; 318(7194):1352

Mammography and the politics of randomised controlled trials [published erratum appears in BMJ 1998 Dec 5;317(7172):1561] [see comments] Wells J. **BMJ** 1998 Oct 31;317(7167):1224-9. Comment in: BMJ 1999 Apr 3;318(7188):942.

Use of randomisation in the Medical Research Council's clinical trial of streptomycin in pulmonary tuberculosis in the 1940s. Yoshioka A. **BMJ** 1998 Oct 31;317(7167):1220-3

First publication of an individually randomized trial [letter] Doll R, et al. **Control Clin Trials** 1999 Aug;20(4):367–8
Randomized controlled trials mark a golden anniversary [news] Randal J. **J Natl Cancer Inst** 1999 Jan 6;91(1):10–2
[Centenary of Fibiger's controlled clinical trial] Gluud CN. **Ugeskr Laeger** 1998 Dec 14;160(51):7407–8 **(Dan)**
[The randomized trial--a jubilee (editorial) (see comments)] Wulff HR. **Ugeskr Laeger** 1998 Dec 14;160(51):7405. Comment in: Ugeskr Laeger 1999 Feb 15;161(7):972. **(Dan)**
[50 years of clinical trials; a new direction in medicine] Van Gijn J. **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):1–3 (Eng. Abstr.) **(Dut)**
[Hundred years of randomized controlled trials] Bjørndal A. **Tidsskr Nor Laegeforen** 1998 Dec 10;118(30):4635–6 **(Nor)**

LEGISLATION & JURISPRUDENCE

The ethics of placebo-controlled trials for perinatal transmission of HIV in developing countries [see comments] Clark PA. **J Clin Ethics** 1998 Summer; 9(2):156–66. Comment in: J Clin Ethics 1998 Summer;9(2):99–107.
Deconstructing equity, autonomy, and ethical analysis [comment] Howe EG. **J Clin Ethics** 1998 Summer; 9(2):99–107. Comment on: J Clin Ethics 1998 Summer;9(2):156–66. Comment on: J Clin Ethics 1998 Summer;9(2):167–72.
The "best proven therapeutic method" standard in clinical trials in technologically developing countries [see comments] Levine RJ. **J Clin Ethics** 1998 Summer; 9(2):167–72. Comment in: J Clin Ethics 1998 Summer;9(2):99–107.
Placebo-controlled studies in rheumatoid arthritis: ethical issues [see comments] Stein CM, et al. **Lancet** 1999 Jan 30;353(9150):400–3 (37 ref.). Comment in: Lancet 1999 Apr 3;353(9159):1186.

METHODS

Practical issues in conducting clinical trials: randomized, controlled trials of imaging studies. Jarvik JG. **Acad Radiol** 1998 Sep;5 Suppl 2:S266–8
Commentary on the use of run-in periods in clinical trials [editorial] Franciosa JA. **Am J Cardiol** 1999 Mar 15; 83(6):942–4, A9
Multisite formative assessment for the Pathways study to prevent obesity in American Indian schoolchildren. Gittelsohn J, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):767S–772S
Number needed to treat: solid science or a path to pernicious rationing? Black HR, et al. **Am J Hypertens** 1998 Aug;11(8 Pt 2):128S–134S; discussion 135S–137S (30 ref.)
Case studies, single-subject research, and N of 1 randomized trials: comparisons and contrasts. Backman CL, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):170–6 (22 ref.)
The importance of dose-response in study design [letter; comment] Shafer SL. **Anesth Analg** 1999 Sep;89(3):805. Comment on: Anesth Analg 1999 Mar;88(3):611–6.
Methodological variations in estimating apparent progressive visual field loss in clinical trials of glaucoma treatment. Katz J, et al. **Arch Ophthalmol** 1999 Sep;117(9):1137–42
Optimization of placebos for double-blind clinical trials. Experience with a phytopharmaceutical. Knipschild PG, et al. **Arzneimittelforschung** 1998 Oct;48(10):1033–6
Criteria for the validation of surrogate endpoints in randomized experiments. Buyse M, et al. **Biometrics** 1998 Sep;54(3):1014–29
Questions raised by the Benelux CML Study Group: results from the randomized study with hydroxyurea alone versus hydroxyurea combined with low-dose interferon-alpha2b for chronic myeloid leukemia [letter; comment] Kantarjian HM, et al. **Blood** 1998 Oct 15;92(8):2984–7. Comment on: Blood 1998 Apr 15;91(8):2713–21.
Statistics notes. Treatment allocation in controlled trials: why randomise? Altman DG, et al. **BMJ** 1999 May 1; 318(7192):1209 (7 ref.)
Clinical trials. Simple megatrials are not sufficient [letter; comment] Barer D. **BMJ** 1999 Apr 24;318(7191):1138. Comment on: BMJ 1998 Oct 31;317(7167):1170–1.
Ethical issues in the design and conduct of cluster randomised controlled trials. Edwards SJ, et al. **BMJ** 1999 May 22; 318(7195):1407–9 (5 ref.)
Efficient management of randomised controlled trials: nature or nurture. Farrell B. **BMJ** 1998 Oct 31;317(7167):1236–9 (3 ref.)
Randomisation methods in controlled trials. Roberts C, et al. **BMJ** 1998 Nov 7;317(7168):1301 (2 ref.)
Clinical Trials. Randomised database studies could serve as new strategy [letter; comment] Sacristán JA, et al. **BMJ** 1999 Apr 24;318(7191):1138. Comment on: BMJ 1998 Oct 31;317(7167):1170–1.
Reporting on quality of life in randomised controlled trials: bibliographic study [published erratum appears in BMJ 1998 Nov 14;317(7169):1353] [see comments] Sanders C, et al. **BMJ** 1998 Oct 31;317(7167):1191–4 (22 ref.). Comment in: BMJ 1999 Apr 24;318(7191):1142.
Minimisation is much better than the randomised block design in certain cases [letter; comment] Treasure T, et al. **BMJ** 1999 May 22;318(7195):1420. Comment on: BMJ 1999 Jan 23;318(7178):263–4.
Is recruitment more difficult with a placebo arm in randomised controlled trials? A quasirandomised, interview based study. Welton AJ, et al. **BMJ** 1999 Apr 24; 318(7191):1114–7
Randomised trials useful to find best methods of enhancing clinical practice [letter] Wyatt JC, et al. **BMJ** 1999 May 15;318(7194):1353
Recruitment of general practitioners to a randomized trial [letter; comment] Taylor FC, et al. **Br J Gen Pract** 1998 Oct;48(435):1704. Comment on: Br J Gen Pract 1997 Dec;47(425):838.
Randomised trials in maternal and perinatal medicine: global partnerships are the way forward [comment] [see comments] Gülmezoglu M, et al. **Br J Obstet Gynaecol** 1998 Dec;105(12):1244–7. Comment on: Br J Obstet Gynaecol 1997 Jul;104(7):765–7. Comment in: Br J Obstet Gynaecol 1999 Aug;106(8):875.
Sexual activity questionnaires in clinical trials: acceptability to patients with gynaecological disorders. Stead ML, et al. **Br J Obstet Gynaecol** 1999 Jan;106(1):50–4
Methodological arguments for the necessity of randomized trials in high-dose chemotherapy for breast cancer. Schmoor C, et al. **Breast Cancer Res Treat** 1999 Mar; 54(1):31–8
Issues to consider in the evaluation of speech and language therapy for preschool children. Roulstone S, et al. **Child Care Health Dev** 1999 Mar;25(2):141–55 (31 ref.)
Patient preferences and clinical trial design and interpretation: appreciation and critique of a paper by Feine, Awad & Lund [comment] [see comments] Bradley C. **Community Dent Oral Epidemiol** 1999 Apr;27(2):85–8. Comment on: Community Dent Oral Epidemiol 1998 Feb;26(1):70–4. Comment in: Community Dent Oral Epidemiol 1999 Apr;27(2):89–92.
Rejoinder to Bradley: Patient preferences and clinical trial design and appreciation and critique of a paper by Feine, Awad & Lund [comment] Feine JS, et al. **Community Dent Oral Epidemiol** 1999 Apr;27(2):89–92. Comment on: Community Dent Oral Epidemiol 1999 Apr;27(2):85–8.
Data and safety monitoring in the Concorde and Alpha trials. Armitage P. **Control Clin Trials** 1999 Jun;20(3):207–28
Data and safety monitoring in the Delta trial. Armitage P. **Control Clin Trials** 1999 Jun;20(3):229–41
Survival versus years of healthy life: which is more powerful as a study outcome? Diehr P, et al. **Control Clin Trials** 1999 Jun;20(3):267–79
Early stopping of a clinical trial when there is evidence of no treatment benefit: protocol B-14 of the National Surgical Adjuvant Breast and Bowel Project. Dignam JJ, et al. **Control Clin Trials** 1998 Dec;19(6):575–88
A randomized design for repeated binary outcomes used to evaluate continued effectiveness of a breast cancer control intervention strategy. Gimotty PA, et al. **Control Clin Trials** 1999 Jun;20(3):280–93
Three years of experience with prospective randomized effectiveness studies [see comments] Hillis A, et al. **Control Clin Trials** 1998 Oct;19(5):419–26. Comment in: Control Clin Trials 1998 Oct;19(5):427–9.
Prophylactic coronary artery revascularization for elective vascular surgery: study design. Veterans Affairs Cooperative Study Group on Coronary Artery Revascularization Prophylaxis for Elective Vascular Surgery. McFalls EO, et al. **Control Clin Trials** 1999 Jun; 20(3):297–308
Ethics and practice: alternative designs for phase III randomized clinical trials. Palmer CR, et al. **Control Clin Trials** 1999 Apr;20(2):172–86
Zelen randomization: attitudes of parents participating in a neonatal clinical trial. Snowdon C, et al. **Control Clin Trials** 1999 Apr;20(2):149–71
Clinical trials in acute respiratory distress syndrome: what is ARDS? [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1657–8 (13 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1478–85.
Futility of randomized, controlled ARDS trials--a new approach is needed [see comments] Fuhrman BP, et al. **Crit Care Med** 1999 Feb;27(2):431–3. Comment in: Crit Care Med 1999 Feb;27(2):434–6.
Trans-atlantic conference on clinical trial guidelines in PAOD (Peripheral arterial occlusive disease) clinical trial methodology. Labs KH, et al. **Eur J Vasc Endovasc Surg** 1999 Sep;18(3):253–65
Experimental studies: randomized clinical trials. Gjorgov AN. **Folia Med (Plovdiv)** 1998;40(3B Suppl 3):9–16
Prognostic scores and design of clinical studies. Ohmann C. **Infection** 1998 Sep–Oct;26(5):342–4
Capture-recapture method for estimating misclassification errors: application to the measurement of vaccine efficacy in randomized controlled trials. Simondon F, et al. **Int J Epidemiol** 1999 Feb;28(1):113–6
Drugs for AIDS/HIV: assessing the evidence. Jones JL. **Int J Technol Assess Health Care** 1998 Summer; 14(3):567–72
Planning and managing research into day-surgery for cataract. Rose K, et al. **J Adv Nurs** 1999 Jun;29(6):1514–9
Chloroflourocarbon- and hydrofluoroalkalane-cromolyn sodium for asthma: the issue of equivalence trials [letter; comment] Avila PC. **J Allergy Clin Immunol** 1998 Sep; 102(3):529–30. Comment on: J Allergy Clin Immunol 1998 Jan;101(1 Pt 1):7–13.
Effect of investigator bias on the power and level of the two-sample Z-test. DeLucca P, et al. **J Biopharm Stat** 1999 May;9(2):279–88
Application of generalized estimating equations to a dental randomized clinical trial. Hadgu A, et al. **J Biopharm Stat** 1999 Mar;9(1):161–78
Extending Goodman-Kruskal's gamma to the comparison of ordered treatments in multicenter clinical trials. Kianifard F, et al. **J Biopharm Stat** 1999 Aug;9(3):521–9
Empirical power for distribution-free tests of incomplete longitudinal data with applications to AIDS clinical trials. Kuhn AM, et al. **J Biopharm Stat** 1999 Aug;9(3):401–16
Pharmacodynamic analysis of analgesic clinical trials: nonlinear mixed-effects logistic models. Liu CY, et al. **J Biopharm Stat** 1999 May;9(2):253–70
The use of generalized tests in medical research. Ogenstad S. **J Biopharm Stat** 1998 Nov;8(4):497–508
Sample size for comparing linear growth curves. Patel HI, et al. **J Biopharm Stat** 1999 May;9(2):339–50
Nonparametric analysis of covariance for hypothesis testing with logrank and Wilcoxon scores and survival-rate estimation in a randomized clinical trial. Tangen CM, et al. **J Biopharm Stat** 1999 May;9(2):307–38
Complementary nonparametric analysis of covariance for logistic regression in a randomized clinical trial setting. Tangen CM, et al. **J Biopharm Stat** 1999 Mar;9(1):45–66
Noninferiority testing in crossover trials with correlated binary outcomes and small event proportions with applications to the analysis of condom failure data. Taylor DJ, et al. **J Biopharm Stat** 1999 May;9(2):365–77
Combining summaries of binary outcomes with those of continuous outcomes in a meta-analysis. Whitehead A, et al. **J Biopharm Stat** 1999 Mar;9(1):1–16
Surveying physicians to determine the minimal important difference: implications for sample-size calculation. van Walraven C, et al. **J Clin Epidemiol** 1999 Aug;52(8):717–23
Artificial Valve Endocarditis Reduction Trial (AVERT): protocol of a multicenter randomized trial. Schaff H, et al. **J Heart Valve Dis** 1999 Mar;8(2):131–9
Should Zelen pre-randomised consent designs be used in some neonatal trials? [see comments] Allmark P. **J Med Ethics** 1999 Aug;25(4):325–9. Comment in: J Med Ethics 1999 Aug;25(4):291–2.
Can the written information to research subjects be improved?--an empirical study [see comments] Bjørn E, et al. **J Med Ethics** 1999 Jun;25(3):263–7. Comment in: J Med Ethics 1999 Jun;25(3):219–20.
INTERMED: a tool for controlling for confounding variables and designing multimodal treatment [letter; comment] Huyse FJ, et al. **J Psychosom Res** 1999 Apr; 46(4):401–2. Comment on: J Psychosom Res 1997 Sep;43(3):233–40. Comment on: J Psychosom Res 1998 Feb;44(2):197–201.
Validity of area-under-the-curve analysis to summarize effect in rheumatoid arthritis clinical trials. Pham B, et al. **J Rheumatol** 1999 Mar;26(3):712–6
Pain provocation tests for the assessment of sacroiliac joint dysfunction [letter] Bogduk N. **J Spinal Disord** 1999 Aug; 12(4):357–8
Randomised controlled trials in surgery [letter] Fairbank J. **Lancet** 1999 Jul 17;354(9174):257
The interpretation of clinical trials of immediate versus delayed therapy. Mittlböck M, et al. **Lifetime Data Anal** 1998;4(3):253–63
Initiating a clinical trials cooperative group in an increasingly managed care environment: successes and problems in establishing collaboration. Baum HM, et al. **Med Care Res Rev** 1999;56 Suppl 2:139–52
Clinical trials, outcomes, and statistics: how better can be worse [letter; comment] Riggs JE, et al. **Neurology** 1998 Oct;51(4):1234–5. Comment on: Neurology 1997 Sep;49(3):671–8.
Establishing mechanisms to conduct multi-institutional research--fatigue in patients with cancer: an exercise intervention. Mock V, et al. **Oncol Nurs Forum** 1998 Sep; 25(8):1391–7
Quality of life assessment in the collaborative ocular melanoma study: design and methods. COMS-QOLS Report No. 1. COMS Quality of Life Study Group. **Ophthalmic Epidemiol** 1999 Mar;6(1):5–17
Methodological considerations in the design of the WHO Antenatal Care Randomised Controlled Trial. Donner A, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:59–74
Conceptual bases and methodology for the evaluation of women's and providers' perception of the quality of antenatal care in the WHO Antenatal Care Randomised Controlled Trial. Langer A, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:98–115
Methods for economic evaluation alongside a multicentre trial in developing countries: a case study from the WHO Antenatal Care Randomised Controlled Trial. Mugford M, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:75–97
Prerandomization of clinical trials: a more ethical way for performing cleft palate research [editorial] Berkowitz S. **Plast Reconstr Surg** 1998 Oct;102(5):1724–8
Use of placebos in clinical trials involving children and adolescents. Malone RP, et al. **Psychiatr Serv** 1998 Nov; 49(11):1413–4, 1417
A tale of two methods: randomization versus matching trials in clinical research [see comments] Spiegel D, et al. **Psychooncology** 1998 Sep–Oct;7(5):371–5. Comment in: Psychooncology 1998 Nov–Dec;7(6):518–9.
Lumbar epidural steroid injections: is a clinical trial necessary

or appropriate? [editorial] [published erratum appears in Reg Anesth Pain Med 1999 May-Jun;24(3):280] Hopwood MB, et al. **Reg Anesth Pain Med** 1999 Jan-Feb;24(1):5-7

Sample size determination in complex clinical trials comparing more than two groups for survival endpoints. Ahnn S, et al. **Stat Med** 1998 Nov 15;17(21):2525-34

Explaining community-level variance in group randomized trials. Feng Z, et al. **Stat Med** 1999 Mar 15;18(5):539-56

The merits of matching in community intervention trials: a cautionary tale [letter; comment] Thompson SG. **Stat Med** 1998 Sep 30;17(18):2149-52. Comment on: Stat Med 1997 Aug 15;16(15):1753-64.

Erythropoietin to minimize perioperative blood transfusion: a systematic review of randomized trials. The International Study of Peri-operative Transfusion (ISPOT) Investigators. Laupacis A, et al. **Transfus Med** 1998 Dec; 8(4):309-17

[Phase III trials in oncology] Imadalou K, et al. **Bull Cancer** 1999 Feb;86(2):143-7 (26 ref.) (Eng. Abstr.) **(Fre)**

[Methods of controlled clinical studies] Brosteanu O, et al. **Internist (Berl)** 1998 Sep;39(9):909-16 (14 ref.) **(Ger)**

[Efficacy assessment with random assignment using data bases: medicine-based evidence?] Sacristán JA, et al. **Med Clin (Barc)** 1998 Nov 14;111(16):623-7 **(Spa)**

[Methodological aspects of biostatistics and epidemiology in a clinical trial] Suárez E, et al. **P R Health Sci J** 1999 Mar;18(1):23-30 (Eng. Abstr.) **(Spa)**

[Interpretation of negative clinical trials] López-Jiménez F, et al. **Rev Invest Clin** 1998 Sep-Oct;50(5):435-40 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Patient perspectives on participation in a clinical trial of angina management. Dougherty CM, et al. **Appl Nurs Res** 1999 May;12(2):107-11

Random allocation or allocation at random? Patients' perspectives of participation in a randomised controlled trial [see comments] Featherstone K, et al. **BMJ** 1998 Oct 31;317(7167):1177-80. Comment in: BMJ 1999 Mar 27;318(7187):875.

Attitudes of patients to randomised clinical trials of cancer therapy. Fallowfield LJ, et al. **Eur J Cancer** 1998 Sep; 34(10):1554-9

The views of nurses to the conduct of a randomised controlled trial of problem drinkers in an accident and emergency department. Brooker C, et al. **Int J Nurs Stud** 1999 Feb;36(1):33-9

Quantitative assessment of recruitment efforts for prevention trials in two diverse black populations. Fitzgibbon ML, et al. **Prev Med** 1998 Nov-Dec;27(6):838-45

The use of equipoise in clinical trials. Chard JA, et al. **Soc Sci Med** 1998 Oct;47(7):891-8

[Consent to enrollment in randomized clinical trials] Yuasa H, et al. **Gan To Kagaku Ryoho** 1999 Sep;26(10):1459-64 (Eng. Abstr.) **(Jpn)**

STANDARDS

Ethics of randomized clinical trials and the 'ALARA' approach. Zwitter M. **Acta Oncol** 1999;38(1):99-105

Rationale and design of the Prospective Army Coronary Calcium (PACC) Study: utility of electron beam computed tomography as a screening test for coronary artery disease and as an intervention for risk factor modification among young, asymptomatic, active-duty United States Army Personnel. O'Malley PG, et al. **Am Heart J** 1999 May; 137(5):932-41 (38 ref.)

Design and statistical analysis for the Pathways study. Davis CE, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):760S-763S

Mortality in DATATOP [letter; comment] Ben-Shlomo Y, et al. **Ann Neurol** 1999 Jan;45(1):138-9. Comment on: Ann Neurol 1998 Mar;43(3):318-25.

Randomised trials in ovarian cancer: trial design considerations. Brady MF, et al. **Ann Oncol** 1999;10 Suppl 1:75-82

The CONSORT statement: will it lead to improved reporting of clinical trials in ophthalmology? Consolidated Standards of Reporting Trials. Hawkins BS. **Arch Ophthalmol** 1999 May;117(5):677-80 (45 ref.)

Cluster randomised trials: time for improvement. The implications of adopting a cluster design are still largely being ignored [editorial] [see comments] Campbell MK, et al. **BMJ** 1998 Oct 31;317(7167):1171-2. Comment in: BMJ 1999 May 8;318(7193):1286-7.

The ethics of randomised controlled trials from the perspectives of patients, the public, and healthcare professionals. Edwards SJ, et al. **BMJ** 1998 Oct 31; 317(7167):1209-12 (47 ref.)

CRASH trial is based on problematic meta-analysis [letter] Gregson B, et al. **BMJ** 1999 Aug 28;319(7209):578

Understanding controlled trials: baseline imbalance in randomised controlled trials. Roberts C, et al. **BMJ** 1999 Jul 17;319(7203):185

Content and quality of 2000 controlled trials in schizophrenia over 50 years [see comments] Thornley B, et al. **BMJ** 1998 Oct 31;317(7167):1181-4. Comment in: BMJ 1999 Apr 17;318(7190):1075.

Many reports of RCTs give insufficient data for Cochrane reviewers [letter] Walters EH, et al. **BMJ** 1999 Jul 24; 319(7204):257

High quality clinical studies [letter; comment] Chadwick B, et al. **Br Dent J** 1999 Jun 26;186(12):601. Comment on: Br Dent J 1999 Mar 13;186(5):207.

Determining the clinical significance of randomized clinical trials: a review of the efficacy of laser photocoagulation. Sharma S. **Can J Ophthalmol** 1999 Feb;34(1):46-9 (13 ref.)

Simulation studies of phase III clinical trials to test the efficacy of a candidate HIV-1 vaccine. Desai KN, et al. **Epidemiol Infect** 1999 Aug;123(1):65-88

A case in point: exclusions and replacements for exclusions after randomization in clinical trials [editorial; comment] Black AM. **Eur J Anaesthesiol** 1999 Feb;16(2):73-6. Comment on: Eur J Anaesthesiol 1999 Feb;16(2):92-7.

Ethics and clinical trials. Chassany O, et al. **Fundam Clin Pharmacol** 1999;13(4):437-44 (77 ref.)

Choosing between randomised and non-randomised studies: a systematic review. Britton A, et al. **Health Technol Assess** 1998;2(13):i-iv, 1-124 (204 ref.)

Ethical issues in the design and conduct of randomised controlled trials. Edwards SJ, et al. **Health Technol Assess** 1998 Dec;2(15):i-vi, 1-132 (620 ref.)

Assessing the quality of reports of randomised trials: implications for the conduct of meta-analyses. Moher D, et al. **Health Technol Assess** 1999;3(12):i-iv, 1-98 (122 ref.)

Liabilities involved in conducting randomized clinical trials of CAM therapies in the absence of preliminary, foundational studies: a case in point [letter; comment] Margolin A. **J Altern Complement Med** 1999 Feb;5(1):103-4. Comment on: J Altern Complement Med 1998 Winter;4(4):405-18.

Palliative care and severe dementia [letter; comment] Van Nes MC, et al. **J Am Geriatr Soc** 1999 Mar;47(3):378-9. Comment on: J Am Geriatr Soc 1998 Mar;46(3):287-90.

The role of randomization in clinical studies: myths and beliefs. Abel U, et al. **J Clin Epidemiol** 1999 Jun; 52(6):487-97 (87 ref.)

The Delphi list: a criteria list for quality assessment of randomized clinical trials for conducting systematic reviews developed by Delphi consensus. Verhagen AP, et al. **J Clin Epidemiol** 1998 Dec;51(12):1235-41

How should efficacy be evaluated in randomized clinical trials of treatments for depression? Thase ME. **J Clin Psychiatry** 1999;60 Suppl 4:23-31; discussion 32 (34 ref.)

Adjudicating ventilator-associated pneumonia in a randomized trial of critically ill patients. Cook D, et al. **J Crit Care** 1998 Dec;13(4):159-63

Shortcomings of the randomized controlled trial: a view from the boondocks. Herman J. **J Eval Clin Pract** 1998 Nov; 4(4):283-6

Riposte to Guest Commentaries on 'Problems associated with randomized controlled clinical trials in breast cancer' [comment] Johnson AE. **J Eval Clin Pract** 1998 Aug; 4(3):231-6. Comment on: J Eval Clin Pract 1998 May;4(2):119-26; discussion 127-30.

Use of controlled randomized trials to evaluate new technologies and new operative procedures in surgery [editorial] Law S, et al. **J Gastrointest Surg** 1998 Nov-Dec; 2(6):494-5

Randomized clinical trials and longitudinal observational studies in systemic lupus erythematosus: consensus on a preliminary core set of outcome domains. Smolen JS, et al. **J Rheumatol** 1999 Feb;26(2):504-7

Practical information on the conduct of randomized trials. An example from The Netherlands [letter] Kranenbarg EK, et al. **Jpn J Clin Oncol** 1999 May;29(5):272-4

Inadequate reporting of controlled trials as short reports [letter] Deeks JJ, et al. **Lancet** 1998 Dec 12;352(9144):1908

Cancer controversies. Clinical trials confirm but don't innovate--pro. D'Angio GJ. **Med Pediatr Oncol** 1998 Dec; 31(6):525-6

Commentary. Clinical oncology: reality and randomized trials [comment] Davies S. **Med Pediatr Oncol** 1998 Dec; 31(6):530. Comment on: Med Pediatr Oncol 1998 Dec;31(6):527-9.

Cancer controversies. Clinical trials confirm but don't innovate--con. Girling DJ. **Med Pediatr Oncol** 1998 Dec; 31(6):522-4

Overviews of respiratory rehabilitation in chronic obstructive pulmonary disease. Lacasse Y, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):163-7 (33 ref.)

Is informed consent always necessary for randomized, controlled trials? [letter; comment] Carome MA. **N Engl J Med** 1999 Aug 5;341(6):448-9; discussion 450. Comment on: N Engl J Med 1999 Mar 11;340(10):804-7.

Is informed consent always necessary for randomized, controlled trials? [letter; comment] Dresser R. **N Engl J Med** 1999 Aug 5;341(6):449; discussion 450. Comment on: N Engl J Med 1999 Mar 11;340(10):804-7.

Is informed consent always necessary for randomized, controlled trials? [letter] [see comments] Johnson JR. **N Engl J Med** 1999 Aug 5;341(6):449; discussion 450. Comment in: N Engl J Med 1999 Mar 11;340(10):804-7.

Is informed consent always necessary for randomized, controlled trials? [letter; comment] King NM, et al. **N Engl J Med** 1999 Aug 5;341(6):449-50; discussion 450. Comment on: N Engl J Med 1999 Mar 11;340(10):804-7.

The ethical problems with sham surgery in clinical research. Macklin R. **N Engl J Med** 1999 Sep 23;341(13):992-6

Is informed consent always necessary for randomized, controlled trials? [letter; comment] Tenery RM Jr. **N Engl J Med** 1999 Aug 5;341(6):450. Comment on: N Engl J Med 1999 Mar 11;340(10):804-7.

Is informed consent always necessary for randomized, controlled trials? [see comments] Truog RD, et al. **N Engl J Med** 1999 Mar 11;340(10):804-7. Comment in: N Engl J Med 1999 Aug 5;341(6):448-9; discussion 450. Comment in: N Engl J Med 1999 Aug 5;341(6):449; discussion 450. Comment in: N Engl J Med 1999 Aug 5;341(6):449-50; discussion 450.

Clinical trials, outcomes, and statistics: how better can be worse [letter; comment] Riggs JE, et al. **Neuroiogy** 1998 Oct;51(4):1234-5. Comment on: Neurology 1997 Sep;49(3):671-8.

Pacemaker trials: software or hardware randomization? [editorial] Gribbin GM, et al. **Pacing Clin Electrophysiol** 1998 Aug;21(8):1503-7 (37 ref.)

The Fox guarding the clinical trial: internal vs. external validity in randomized studies [letter] Goodwin PJ, et al. **Psychooncology** 1999 May-Jun;8(3):275

Cunning but careless: analysis of a non-replication [letter] Kraemer H, et al. **Psychooncology** 1999 May-Jun;8(3):273-5

Rejoiner to Fox [letter; comment] Speca M. **Psychooncology** 1999 May-Jun;8(3):276. Comment on: Psychooncology 1998 Sep-Oct;7(5):361-70.

Collecting quality of life data in EORTC clinical trials--what happens in practice? Young T, et al. **Psychooncology** 1999 May-Jun;8(3):260-3

Methodological issues concerning evaluation of treatment for sexual offenders: randomization, treatment dropouts, untreated controls, and within-treatment studies [see comments] McConaghy N. **Sex Abuse** 1999 Jul; 11(3):183-93 (32 ref.). Comment in: Sex Abuse 1999 Jul;11(3):179-81.

Re: The management of interim analyses in drug development by Karen M. Facey and John A. Lewis, Statistics in Medicine, 17, 1801-1809 (1998) [letter] Anderson JR, et al. **Stat Med** 1999 Aug 15;18(15):2063-5

Practical issues in equivalence trials. Ebbutt AF, et al. **Stat Med** 1998 Aug 15-30;17(15-16):1691-701

Issues for statisticians in pharmaco-economic evaluations. Grieve AP. **Stat Med** 1998 Aug 15-30;17(15-16):1715-23; discussion 1741-3 (17 ref.)

Therapeutic equivalence investigations: statistical considerations. Röhmel J. **Stat Med** 1998 Aug 15-30; 17(15-16):1703-14 (14 ref.)

Stratification in clinical trials of febrile neutropenia. Elting LS. **Support Care Cancer** 1998 Sep;6(5):457-61 (28 ref.)

[Roaming through methodology. X. The testing of diagnostic procedures] Bossuyt PM, et al. **Ned Tijdschr Geneeskd** 1998 Oct 24;142(43):2345-7 (4 ref.) (Eng. Abstr.) **(Dut)**

[Interferon beta-1b now also for the secondary progressive form of multiple sclerosis? (see comments)] de Haan RJ, et al. **Ned Tijdschr Geneeskd** 1999 Apr 3;143(14):709-11 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Apr 10;143(15):815-7. **(Dut)**

[Roaming through the methodology. XIV. The premature ending of a randomized trial] Vandenbroucke JP. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1305-8 (6 ref.) (Eng. Abstr.) **(Dut)**

[Roaming through methodology. IX. The interpretation of subgroup analyses] van der Windt DA, et al. **Ned Tijdschr Geneeskd** 1998 Oct 10;142(41):2245-7 (Eng. Abstr.) **(Dut)**

[Ethics problems in phase IV of drug studies] Traversa G, et al. **Ann Ist Super Sanita** 1998;34(2):203-8 (Eng. Abstr.) **(Ita)**

STATISTICS & NUMERICAL DATA

Clinical trial designs for demonstrating disease-course-altering effects in dementia. Whitehouse PJ, et al. **Alzheimer Dis Assoc Disord** 1998 Dec;12(4):281-94

Post hoc subgroup analysis and the truth of a clinical trial [editorial; comment] Adams KF Jr. **Am Heart J** 1998 Nov; 136(5):753-8. Comment on: Am Heart J 1998 Nov;136(5):769-77.

Heterogeneity of the baseline risk within patient populations of clinical trials: a proposed evaluation algorithm. Ioannidis JP, et al. **Am J Epidemiol** 1998 Dec 1;148(11):1117-26

A meta-analysis of randomized controlled trials of laparoscopic versus conventional appendectomy. Chung RS, et al. **Am J Surg** 1999 Mar;177(3):250-6

Advances in clinical trials in the twentieth century. Fisher LD. **Annu Rev Public Health** 1999;20:109-24 (49 ref.)

Statistical methods for assessing differential vaccine protection against human immunodeficiency virus types. Gilbert PB, et al. **Biometrics** 1998 Sep;54(3):799-814

The adequacy of reporting randomized, controlled trials in the evaluation of antidepressants. Streiner DL, et al. **Can J Psychiatry** 1998 Dec;43(10):1026-30 (33 ref.)

Detecting selection bias in randomized clinical trials. Berger VW, et al. **Control Clin Trials** 1999 Aug;20(4):319-27

False positive rates of randomized phase II designs. Liu PY, et al. **Control Clin Trials** 1999 Aug;20(4):343-52 (15 ref.)

End-point interpretation in clinical trials: the case for discipline [see comments] Moyé LA. **Control Clin Trials** 1999 Feb;20(1):40-9; discussion 50-1. Comment in: Control Clin Trials 1999 Feb;20(1):1-15.

Randomized play-the-winner clinical trials: review and recommendations. Rosenberger WF. **Control Clin Trials** 1999 Aug;20(4):328-42

Behavioral and pharmacologic interventions: the Raynaud's Treatment Study. Thompson B, et al. **Control Clin Trials** 1999 Feb;20(1):52-63

Recognising the limits of randomized clinical trials [editorial]

Brown N, et al. **Eur Heart J** 1998 Jul;19(7):982–3

Effect of investigator bias on the power and level of the two-sample Z-test. DeLucca P, et al. **J Biopharm Stat** 1999 May;9(2):279–88

Pharmacodynamic analysis of analgesic clinical trials: nonlinear mixed-effects logistic models. Liu CY, et al. **J Biopharm Stat** 1999 May;9(2):253–70

Sample size for comparing linear growth curves. Patel HI, et al. **J Biopharm Stat** 1999 May;9(2):339–50

Nonparametric analysis of covariance for hypothesis testing with logrank and Wilcoxon scores and survival-rate estimation in a randomized clinical trial. Tangen CM, et al. **J Biopharm Stat** 1999 May;9(2):307–38

Noninferiority testing in crossover trials with correlated binary outcomes and small event proportions with applications to the analysis of condom failure data. Taylor DJ, et al. **J Biopharm Stat** 1999 May;9(2):365–77

Performing cost-effectiveness analysis by integrating randomized trial data with a comprehensive decision model: application to treatment of acute ischemic stroke. Samsa GP, et al. **J Clin Epidemiol** 1999 Mar;52(3):259–71

Randomised controlled trials addressing Australian aboriginal health needs: a systematic review of the literature. Morris PS. **J Paediatr Child Health** 1999 Apr;35(2):130–5 (49 ref.)

Handsearching the Journal of the Royal Army Medical Corps for trials. Croft AM, et al. **J R Army Med Corps** 1999 Jun;145(2):86–8

From effect size into number needed to treat [letter] Fang CT, et al. **Lancet** 1999 Aug 14;354(9178):597–8

Strategies for cohort sampling under the Cox proportional hazards model, application to an AIDS clinical trial. Kim S, et al. **Lifetime Data Anal** 1999 Jun;5(2):149–72

General practitioners' use of evidence databases [letter; comment] de Costa CM. **Med J Aust** 1999 Apr 19; 170(8):393. Comment on: Med J Aust 1999 Jan 18;170(2):56–8.

Data bases of clinical trials [letter] Albrich JM. **N Engl J Med** 1999 Jan 7;340(1):65–6

The presentation of statistics. Bryant TN. **Pediatr Allergy Immunol** 1998 Aug;9(3):108–15 (16 ref.)

An assessment of observer bias in the shunt design trial. Kestle J, et al. **Pediatr Neurosurg** 1999 Feb;30(2):57–61

Time to publication as full reports of abstracts of randomized controlled trials in cystic fibrosis. Cheng K, et al. **Pediatr Pulmonol** 1998 Aug;26(2):101–5

A threshold causal model for clinical trials with departures from intended treatment. Albert JM. **Stat Med** 1999 Jul 15;18(13):1615–26

Optimum biased-coin designs for sequential treatment allocation with covariate information. Atkinson AC. **Stat Med** 1999 Jul 30;18(14):1741–52; discussion 1753–5

A comparison of the randomized play-the-winner rule and the triangular test for clinical trials with binary responses. Coad DS, et al. **Stat Med** 1999 Apr 15;18(7):761–9

On model prespecification in confirmatory randomized studies. Edwards D. **Stat Med** 1999 Apr 15;18(7):771–85

Explaining community-level variance in group randomized trials. Feng Z, et al. **Stat Med** 1999 Mar 15;18(5):539–56

Self-designing clinical trials. Fisher LD. **Stat Med** 1998 Jul 30;17(14):1551–62

Visit-driven endpoints in randomized HIV/AIDS clinical trials: impact of missing data on treatment difference measured on summary statistics. Le Corfec E, et al. **Stat Med** 1999 Jul 30;18(14):1803–17; discussion 1819

Estimation of the treatment effect in a clinical trial when recurrent events define the endpoint. Mahé C, et al. **Stat Med** 1999 Jul 30;18(14):1821–9; discussion 1831

Prospective individual matching: covariate balance and power in a comparative study. Makuch RW, et al. **Stat Med** 1998 Jul 15;17(13):1517–26

Optimization of testing times and critical values in sequential equivalence testing. Müller HH, et al. **Stat Med** 1999 Jul 30;18(14):1769–88; discussion 1789

Analysis of data from group-randomized trials with repeat observations on the same groups. Murray DM, et al. **Stat Med** 1998 Jul 30;17(14):1581–600

Bootstrap methods for adaptive designs. Rosenberger WF, et al. **Stat Med** 1999 Jul 30;18(14):1757–67

An empirical study of the effect of the control rate as a predictor of treatment efficacy in meta-analysis of clinical trials. Schmid CH, et al. **Stat Med** 1998 Sep 15; 17(17):1923–42 (75 ref.)

Planning group sizes in clinical trials with a continuous outcome and repeated measures. Schouten HJ. **Stat Med** 1999 Feb 15;18(3):255–64

A strategic view of randomized trial design in low-incidence paediatric cancer. Sposto R, et al. **Stat Med** 1999 May 30; 18(10):1183–97

Some extensions and applications of a Bayesian strategy for monitoring multiple outcomes in clinical trials. Thall PF, et al. **Stat Med** 1998 Jul 30;17(14):1563–80

A discriminant analysis extension to mixed models. Tomasko L, et al. **Stat Med** 1999 May 30;18(10):1249–60

The analysis of a bivariate multi-state Markov transition model for rheumatoid arthritis with an incomplete disease history. Young PJ, et al. **Stat Med** 1999 Jul 15; 18(13):1677–90

Meta-analysis of randomized controlled trials of the efficacy of white cell reduction in preventing HLA-alloimmunization and refractoriness to random-donor platelet transfusions. Vamvakas EC. **Transfus Med Rev** 1998 Oct;12(4):258–70

[Proposed design for a randomized effectiveness study in social medicine] Michel E. **Gesundheitswesen** 1998 Aug-Sep;60(8–9):482–5 (Eng. Abstr.) **(Ger)**

[Methodological quality of controlled studies in the "Medizinische Klinik" journal. Analysis of contributions appearing between 1979 and 1996] Mihan L, et al. **Med Klin** 1999 Jan 15;94(1):1–8 (Eng. Abstr.) **(Ger)**

[The problem of randomization in psychotherapy studies (letter; comment)] Klingberg S, et al. **Psychother Psychosom Med Psychol** 1999 Feb;49(2):68–70 . Comment on: Psychother Psychosom Med Psychol 1997 Aug;47(8):279–84. **(Ger)**

[Clinical single case study (n-of-1 trial)] Speich R. **Ther Umsch** 1998 Sep;55(9):568–72 (Eng. Abstr.) **(Ger)**

TRENDS

Advances in clinical trials in the twentieth century. Fisher LD. **Annu Rev Public Health** 1999;20:109–24 (49 ref.)

Trials: the next 50 years. Large scale randomised evidence of moderate benefits [editorial] [see comments] Peto R, et al. **BMJ** 1998 Oct 31;317(7167):1170–1. Comment in: BMJ 1999 Mar 27;318(7187):874–5. Comment in: BMJ 1999 Apr 24;318(7191):1138.

Randomised controlled trials in cardiovascular medicine: past achievements, future challenges. Yusuf S. **BMJ** 1999 Aug 28;319(7209):564–8 (29 ref.)

UTILIZATION

Schizophrenia: do we really need placebo-controlled studies? Storosum JG, et al. **Eur Neuropsychopharmacol** 1998 Dec; 8(4):279–86

RANGE OF MOTION, ARTICULAR

Effect of forearm rotation on grip strength. De Smet L, et al. **Acta Orthop Belg** 1998 Dec;64(4):360–2

The external spinal fixator does not reduce anterior column motion under axial compressive loads. A mechanical in vitro study. Lund T, et al. **Acta Orthop Scand** 1999 Feb; 70(1):37–41

Poor function after shoulder replacement in fracture patients. A retrospective evaluation of 29 patients followed for 2–12 years. Movin T, et al. **Acta Orthop Scand** 1998 Aug; 69(4):392–6

Extension restriction of the elbow caused by a synovial fold—a report on 2 athletes. Sakai K, et al. **Acta Orthop Scand** 1999 Feb;70(1):85–6

Can an external frame fixation reduce the movements in the sacroiliac joint? A radiostereometric analysis of 10 patients. Sturesson B, et al. **Acta Orthop Scand** 1999 Feb;70(1):42–6

Errors in statistics could lead to misinterpretation [letter; comment] Hamby R. **Am J Occup Ther** 1998 Oct;52(9):770 . Comment on: Am J Occup Ther 1997 Jul-Aug;51(7):538–43.

Glenohumeral joint kinematics and kinetics for three coordinate system representations during wheelchair propulsion. Cooper RA, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):435–46

Intra- and interobserver reproducibility of the shoulder laxity examination. Levy AS, et al. **Am J Sports Med** 1999 Jul-Aug;27(4):460–3

A new dynamic triceps-driven orthosis (DTDO): achieving elbow flexion in patients with C5 deficits. Lawlor BD, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1309–11

Resistance to passive shoulder external rotation in persons with hemiplegia: evaluation of an assessment system. Mngoma NF, et al. **Arch Phys Med Rehabil** 1999 May; 80(5):531–5

Prostheses for persons with lower-limb amputations: an extra joint increases range of motion. Short CA, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):854–6

Functional changes in back muscle activity correlate with pain intensity and prediction of low back pain during pregnancy. Sihvonen T, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1210–2

Warm-up effect on active and passive arthrometric assessment of knee laxity. Steele JR, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):829–36

Incidence of the inability to flex the proximal interphalangeal joint in normal subjects. Wilcox DC, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1405–7

Return of motion after simultaneous repair of displaced bucket-handle meniscal tears and anterior cruciate ligament reconstruction. Costouros JG, et al. **Arthroscopy** 1999 Mar; 15(2):192–6

Internal impingement of the shoulder: comparison of findings between the throwing and nonthrowing shoulders of college baseball players. Halbrecht JL, et al. **Arthroscopy** 1999 Apr;15(3):253–8

Glenohumeral motion after complete capsular release. Moskal MJ, et al. **Arthroscopy** 1999 May;15(4):408–16

The function of posterior tilt of the tibial component following posterior cruciate ligament-retaining total knee arthroplasty. Takatsu T, et al. **Bull Hosp Jt Dis** 1998; 57(4):195–201

The effect of a needle biopsy of the vastus lateralis on isokinetic muscular performance. Laskin J, et al. **Clin J Sport Med** 1998 Jul;8(3):221–3

The Otto Aufranc Award. Image guided navigation system to measure intraoperatively acetabular implant alignment. DiGioia AM, et al. **Clin Orthop** 1998 Oct;(355):8–22

A preliminary report on the effectiveness of trunk targeting in achieving independent sitting balance in children with cerebral palsy. Butler PB. **Clin Rehabil** 1998 Aug; 12(4):281–93

Lumbar spine range of motion as a measure of physical and functional impairment: an investigation of validity. Nattrass CL, et al. **Clin Rehabil** 1999 Jun;13(3):211–8

Effect of transcutaneous electrical nerve stimulation (TENS) on Barthel Activities of Daily Living (ADL) index score following stroke. Tekeoğlu Y, et al. **Clin Rehabil** 1998 Aug; 12(4):277–80

Limited joint mobility in the hands and feet of adolescents with Type 1 diabetes mellitus. Duffin AC, et al. **Diabet Med** 1999 Feb;16(2):125–30

Functional kinesiology in haemophilia, an area yet to be explored. Heijnen L, et al. **Haemophilia** 1998 Jul;4(4):524–7

The effects of complex wrist and forearm posture on wrist range of motion. Marshall MM, et al. **Hum Factors** 1999 Jun;41(2):205–13

Guidance-based quantification of arm impairment following brain injury: a pilot study. Reinkensmeyer DJ, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):1–11

Inertial effects on the assessment of performance in isokinetic dynamometry. Iossifidou AN, et al. **Int J Sports Med** 1998 Nov;19(8):567–73

Tendon transfers to restore elbow flexion after traumatic paralysis of the brachial plexus in adults. Rostoucher P, et al. **Int Orthop** 1998;22(4):255–62

An extra-articular cause of locking knee. Sansone V, et al. **Int Orthop** 1999;23(2):118–9

Transverse ligament and its effect on meniscal motion. Correlation of kinematic MR imaging and anatomic sections. Muhle C, et al. **Invest Radiol** 1999 Sep; 34(9):558–65

Effect of ankle dorsiflexion range of motion on rearfoot motion during walking. Cornwall MW, et al. **J Am Podiatr Med Assoc** 1999 Jun;89(6):272–7

The morphological basis of increased stiffness of rabbit tibialis anterior muscles during surgical limb-lengthening. Williams P, et al. **J Anat** 1998 Jul;193 (Pt 1):131–8

Range of motion after total knee arthroplasty: the effect of implant design and weight-bearing conditions. Dennis DA, et al. **J Arthroplasty** 1998 Oct;13(7):748–52

Intraoperative flexion against gravity as an indication of ultimate range of motion in individual cases after total knee arthroplasty. Lee DC, et al. **J Arthroplasty** 1998 Aug; 13(5):500–3

Home continuous passive motion machine versus professional physical therapy following total knee replacement. Worland RL, et al. **J Arthroplasty** 1998 Oct;13(7):784–7

Three-dimensional modelling of the motion range of axial rotation of the upper arm. Wang X, et al. **J Biomech** 1998 Oct;31(10):899–908

Analysis of ankle deflection during a forward fall in snowboarding. Estes M, et al. **J Biomech Eng** 1999 Apr; 121(2):243–8

Harvest of patellar tendon (bone-tendon-bone) autograft for ACL reconstruction significantly alters surface strain in the human patella. Steen H, et al. **J Biomech Eng** 1999 Apr;121(2):229–33

The functional outcome of operative treatment of ununited fractures of the humeral diaphysis in older patients. Ring D, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):177–90

Manipulation of total knee replacements. Is the flexion gained retained? Esler CN, et al. **J Bone Joint Surg Br** 1999 Jan; 81(1):27–9

Effects of the type of meniscal lesion on knee function. Moffet H, et al. **J Electromyogr Kinesiol** 1998 Dec; 8(6):411–22

1998 Basmajian Student Award Paper: Movement patterns after anterior cruciate ligament injury: a comparison of patients who compensate well for the injury and those who require operative stabilization. Rudolph KS, et al. **J Electromyogr Kinesiol** 1998 Dec;8(6):349–62

The effect of thumb metacarpophalangeal ulnar collateral ligament attachment site on joint range of motion: an in vitro study. Bean CH, et al. **J Hand Surg [Am]** 1999 Mar; 24(2):283–7

A method of restoration of the abduction of the thumb in traumatic tetraplegic patients. Goloborod'ko SA. **J Hand Surg [Am]** 1999 Mar;24(2):320–2

Feasibility of partial A2 and A4 pulley excision: effect on finger flexor tendon biomechanics. Mitsionis G, et al. **J Hand Surg [Am]** 1999 Mar;24(2):310–4

Use of the Odstock wire as a simple method of evaluating multi-articular function in digits [letter; comment] Greenstock MH. **J Hand Surg [Br]** 1997 Oct;22(5):681. Comment on: J Hand Surg [Br] 1996 Aug;21(4):564–5.

Palmar capsulodesis for treatment of symptomatic hyperextensibility of the metacarpophalangeal joints. Hofer SO, et al. **J Hand Surg [Br]** 1999 Aug;24(4):468–70

Intratester and intertester reliability of goniometric measurement of passive lateral shoulder rotation. MacDermid JC, et al. **J Hand Ther** 1999 Jul-Sep; 12(3):187–92

Natural variation of cervical range of motion: a one-way repeated-measures design. Christensen HW, et al. **J Manipulative Physiol Ther** 1998 Jul-Aug;21(6):383–7

Manipulative management of post-Colles' fracture weakness and diminished active range of motion. Kaufman RL, et al. **J Manipulative Physiol Ther** 1999 Feb;22(2):105–7

Validation of the force and frequency characteristics of the

activator adjusting instrument: effectiveness as a mechanical impedance measurement tool. Keller TS, et al. **J Manipulative Physiol Ther** 1999 Feb;22(2):75–86

Changes and implications of blood flow velocity of the vertebral artery during rotation and extension of the head. Li YK, et al. **J Manipulative Physiol Ther** 1999 Feb; 22(2):91–5

Active lateral neck flexion range of motion measurements obtained with a modified goniometer: reliability and estimates of normal [see comments] Pellecchia GL, et al. **J Manipulative Physiol Ther** 1998 Sep;21(7):443–7. Comment in: J Manipulative Physiol Ther 1999 Jun;22(5):349–50.

Motion palpation: it's time to accept the evidence [see comments] Troyanovich SJ, et al. **J Manipulative Physiol Ther** 1998 Oct;21(8):568–71. Comment in: J Manipulative Physiol Ther 1999 Mar–Apr;22(3):181–4. Comment in: J Manipulative Physiol Ther 1999 Mar–Apr;22(3):184–91.

The natural history of primary anterior dislocation of the shoulder in the young. Hovelius L. **J Orthop Sci** 1999; 4(4):307–17

Are subjective clinical findings and objective clinical tests related to the motion characteristics of low back pain subjects? McGregor AH, et al. **J Orthop Sports Phys Ther** 1998 Dec;28(6):370–7

Reproducibility of lumbar spine range of motion measurements using the back range of motion device. Madson TJ, et al. **J Orthop Sports Phys Ther** 1999 Aug; 29(8):470–7

Influence of hip position and gender on active hip internal and external rotation. Simoneau GG, et al. **J Orthop Sports Phys Ther** 1998 Sep;28(3):158–64

Reliability and validity of a new method of measuring posterior shoulder tightness. Tyler TF, et al. **J Orthop Sports Phys Ther** 1999 May;29(5):262–9; discussion 270–4

Wrist impairment [letter; comment] Schweitzer G. **J Orthop Trauma** 1999 Jun–Jul;13(5):395. Comment on: J Orthop Trauma 1998 Nov–Dec;12(8):577–86.

Assessment of flexibility in young female skaters with the modified Marshall Test. Micheli LJ, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):665–8

The effects of fixed and articulated ankle–foot orthoses on gait patterns in subjects with cerebral palsy. Rethlefsen S, et al. **J Pediatr Orthop** 1999 Jul–Aug;19(4):470–4

Long–term results of multiple muscle transfer to reconstruct shoulder function in patients with birth palsy: eleven–year follow–up. Suenaga N, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):669–71

Relationship between ligamentous laxity and the site of upper extremity fractures in children: extension supracondylar fracture versus distal forearm fracture. Nork SE, et al. **J Pediatr Orthop B** 1999 Apr;8(2):90–2

Clinical reliability and validity of elbow functional assessment in rheumatoid arthritis. de Boer YA, et al. **J Rheumatol** 1999 Sep;26(9):1909–17

Reliability of range–of–motion measurement in the elbow and forearm. Armstrong AD, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):573–80

Effect of humeral head component size on hemiarthroplasty translations and rotations. Blevins FT, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):591–8

Passive tension in the supraspinatus musculotendinous unit after long–standing rupture of its tendon: a preliminary report. Hersche O, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):393–6

The results of the Putti–Platt operation with particular reference to arthritis, pain, and limitation of external rotation. Kiss J, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct; 7(5):495–500

Knee manipulation after total knee arthroplasty. Ellis TJ, et al. **J South Orthop Assoc** 1999 Summer;8(2):73–9

Unilateral elbow arthrodesis: the preferred position. Nagy SM 3rd, et al. **J South Orthop Assoc** 1999 Summer;8(2):80–5

Median nerve palsy presenting as absent elbow flexion: a result of a ruptured pectoralis major to biceps tendon transfer. Spinner RJ, et al. **J South Orthop Assoc** 1999 Summer;8(2):105–7

Hamstring extensibility and transverse plane knee control relationship in athletic women. Nyland J, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(4):257–61

Assessment of combined movements of the lumbar spine in asymptomatic and low back pain subjects using a three–dimensional electromagnetic tracking system. Barrett CJ, et al. **Man Ther** 1999 May;4(2):94–9

Inter–examiner and intra–examiner reliability of the standing flexion test. Vincent–Smith B, et al. **Man Ther** 1999 May; 4(2):87–93

A commonsense approach to shoulder problems. Steinfeld R, et al. **Mayo Clin Proc** 1999 Aug;74(8):785–94 (15 ref.)

Limitation of ankle range of motion in survivors of acute lymphoblastic leukemia: a cross–sectional study. Wright MJ, et al. **Med Pediatr Oncol** 1999 Apr;32(4):279–82

Physical measurements of the lumbar spine. Mooney V. **Phys Med Rehabil Clin N Am** 1998 May;9(2):391–410, viii (72 ref.)

An examination of the selective tissue tension scheme, with evidence for the concept of a capsular pattern of the knee [published erratum appears in Phys Ther 1998 Dec;78(12):1339] Fritz JM, et al. **Phys Ther** 1998 Oct; 78(10):1046–56; discussion 1057–61

In ankylosing spondylitis serum interleukin–6 correlates with the degree of mobility restriction, but not with short–term changes in the variables for mobility. Falkenbach A, et al. **Rheumatol Int** 1998;18(3):103–6

Do pathological opposites cancel each other out? Do all patients with both hypermobility and spondylarthropathy fulfill a criterion of any disease? Viitanen JV. **Scand J Rheumatol** 1999;28(2):120–2

Motion analysis of cervical vertebrae during whiplash loading. Kaneoka K, et al. **Spine** 1999 Apr 15;24(8):763–9; discussion 770

Facet coverage in children on flexion lateral cervical radiographs. Kuhns LR, et al. **Spine** 1999 Feb 15; 24(4):339–41

Reliability of the American Medical Association guides' model for measuring spinal range of motion. Its implication for whole–person impairment rating. Nitschke JE, et al. **Spine** 1999 Feb 1;24(3):262–8

Occipitocervical neutral position. Possible surgical implications. Phillips FM, et al. **Spine** 1999 Apr 15; 24(8):775–8

Importance of the intersegmental trunk muscles for the stability of the lumbar spine. A biomechanical study in vitro. Quint U, et al. **Spine** 1998 Sep 15;23(18):1937–45

Functional anatomy of the lateral collateral ligament complex of the elbow. Hannouche D, et al. **Surg Radiol Anat** 1999; 21(3):187–91

Effect of disk fenestration on sagittal kinematics of the canine C5–C6 intervertebral space. Macy NB, et al. **Vet Surg** 1999 May–Jun;28(3):171–9

[Subnormal functional activity in a neglected posterior dislocation of the shoulder] Ghafil D, et al. **Acta Orthop Belg** 1998 Sep;64(3):339–42 (Eng. Abstr.) **(Fre)**

[Varus–flexion osteotomy in avascular femoral head osteonecrosis] Kerboull M. **Acta Orthop Belg** 1999;65 Suppl 1:68–70 **(Fre)**

[Movement efficiency of the cervical spine in pain syndrome associated with instability of the cervical segment of the spine] Jasiak–Tyrkalska B, et al. **Przegl Lek** 1999; 56(2):148–51 (Eng. Abstr.) **(Pol)**

PHYSIOLOGY

Function after anterior cruciate ligament injuries. Influence of visual control and proprioception. Fridén T, et al. **Acta Orthop Scand** 1998 Dec;69(6):590–4

Geometric features of workspace and joint–space paths of 3D reaching movements. Klein Breteler MD, et al. **Acta Psychol (Amst)** 1998 Nov;100(1–2):37–53

Spatial features of angular drawing movements in Parkinson's disease patients. Vinter A, et al. **Acta Psychol (Amst)** 1998 Nov;100(1–2):177–93

The effects of a popliteus muscle load on in situ forces in the posterior cruciate ligament and on knee kinematics. A human cadaveric study. Harner CD, et al. **Am J Sports Med** 1998 Sep–Oct;26(5):669–73

The active compression test: a new and effective test for diagnosing labral tears and acromioclavicular joint abnormality. O'Brien SJ, et al. **Am J Sports Med** 1998 Sep–Oct;26(5):610–3

Effect of rate of distraction on loss of range of joint movement, muscle stiffness, and intramuscular connective tissue content during surgical limb–lengthening: a study in the rabbit. Williams P, et al. **Anat Rec** 1999 May 1; 255(1):78–83

Measurement of clinical change caused by knee replacement. Conventional score or special change indexes? Barck AL. **Arch Orthop Trauma Surg** 1999;119(1–2):76–8

Repeated passive stretching: acute effect on the passive muscle moment and extensibility of short hamstrings. Halbertsma JP, et al. **Arch Phys Med Rehabil** 1999 Apr; 80(4):407–14

Thoracic position effect on shoulder range of motion, strength, and three–dimensional scapular kinematics. Kebaetse M, et al. **Arch Phys Med Rehabil** 1999 Aug; 80(8):945–50

Cruciate injury patterns in knee hyperextension: a cadaveric model. Schenck RC Jr, et al. **Arthroscopy** 1999 Jul–Aug; 15(5):489–95

Kinematic response of the neck to voluntary and involuntary flexion. Margulies SS, et al. **Aviat Space Environ Med** 1998 Sep;69(9):896–903

Glenohumeral joint: internal and external rotation range of motion in javelin throwers. Herrington L. **Br J Sports Med** 1998 Sep;32(3):226–8

Task–dependent reduction of the number of degrees of freedom in sensorimotor systems. Gielen CC, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):136–42 (71 ref.)

The effects of concentric versus eccentric isokinetic strength training of the rotator cuff in the plane of the scapula at various speeds. Bast SC, et al. **Bull Hosp Jt Dis** 1998; 57(3):139–44

Evolution of the concepts of functional anatomy of the knee joint. Pio A, et al. **Chir Organi Mov** 1998 Oct–Dec; 83(4):401–11 **(Eng, Ita)**

Psoas major and its controversial rotational action. Skyrme AD, et al. **Clin Anat** 1999;12(4):264–5

Repeatability of goniometer measurements of the knee in patients wearing an Ilizarov external fixator: a clinic–based study. Barker KL, et al. **Clin Rehabil** 1999 Apr;13(2):156–63

Comparison between two devices for measuring hip joint motions. Bierma–Zeinstra SM, et al. **Clin Rehabil** 1998 Dec; 12(6):497–505

The use of the co–ordinate measuring machine for the study of three–dimensional biomechanics of the knee. Veselko M, et al. **Comput Biol Med** 1998 Jul;28(4):343–57

EMG analysis of voluntary elbow movements in subjects with spasticity. Feng CJ, et al. **Electromyogr Clin Neurophysiol** 1998 Oct–Nov; 38(7):393–404

Muscle responses to simulated torque reactions of hand–held power tools. Armstrong T, et al. **Ergonomics** 1999 Jan; 42(1):146–59

Relationships between isoinertial lumbar dynamometry parameters and demographic parameters in chronic low back pain patients. Hutten MM, et al. **Eur Spine J** 1998; 7(6):454–60

A 3D kinematic method for evaluating voluntary movements of the cervical spine in humans. Bulgheroni MV, et al. **Funct Neurol** 1998 Jul–Sep;13(3):239–45

Quantification of force abnormalities during passive and active–assisted upper–limb reaching movements in post–stroke hemiparesis. Lum PS, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):652–62

A photoelastic study of ligament strain. Hirokawa S, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):300–8

Implantable transducer for two–degree of freedom joint angle sensing. Johnson MW, et al. **IEEE Trans Rehabil Eng** 1999 Sep;7(3):349–59

Usefulness of test: manual muscle testing, goniometry, and daily activities for differential diagnosis of Duchenne muscular dystrophy, Becker's mild muscular dystrophy and Becker's severe muscular dystrophy. Alvarez M, et al. **Int J Rehabil Res** 1998 Mar;21(1):79–85

Loss of extension after reconstruction of the anterior cruciate ligament. Petsche TS, et al. **J Am Acad Orthop Surg** 1999 Mar–Apr;7(2):119–27 (31 ref.)

Contact areas and pressures between native patellas and prosthetic femoral components. Benjamin JB, et al. **J Arthroplasty** 1998 Sep;13(6):693–8

Effects of acetabular abduction on cup wear rates in total hip arthroplasty. Del Schutte H Jr, et al. **J Arthroplasty** 1998 Sep;13(6):621–6

Kinematics of the human ankle complex in passive flexion; a single degree of freedom system. Leardini A, et al. **J Biomech** 1999 Feb;32(2):111–8

A marker–based measurement procedure for unconstrained wrist and elbow motions. Schmidt R, et al. **J Biomech** 1999 Jun;32(6):615–21

In vitro measurement of the tracking pattern of the human patella. Ahmed AM, et al. **J Biomech Eng** 1999 Apr; 121(2):222–8

Strain inhomogeneity in the anterior cruciate ligament under application of external and muscular loads. Bach JM, et al. **J Biomech Eng** 1998 Aug;120(4):497–503

Muscular resistance to varus and valgus loads at the elbow. Buchanan TS, et al. **J Biomech Eng** 1998 Oct;120(5):634–9

Increasing quadriceps loads affect the lengths of the ligaments and the kinematics of the knee. Hsieh YF, et al. **J Biomech Eng** 1998 Dec;120(6):750–6

Study on effect of graded facetectomy on change in lumbar motion segment torsional flexibility using three–dimensional continuum contact representation for facet joints. Natarajan RN, et al. **J Biomech Eng** 1999 Apr; 121(2):215–21

Modeling of facet articulation as a nonlinear moving contact problem: sensitivity study on lumbar facet response. Sharma M, et al. **J Biomech Eng** 1998 Feb;120(1):118–25

In vitro forces in the normal and cruciate–deficient knee during simulated squatting motion. Singerman R, et al. **J Biomech Eng** 1999 Apr;121(2):234–42

Static and dynamic bending responses of the human cervical spine. Voo LM, et al. **J Biomech Eng** 1998 Dec;120(6):693–6

A microstructural model for the tensile constitutive and failure behavior of soft skeletal connective tissues. Wren TA, et al. **J Biomech Eng** 1998 Feb;120(1):55–61

In vivo determination of the direction of rotation and moment–angle relationship of individual elbow muscles. Zhang L, et al. **J Biomech Eng** 1998 Oct;120(5):625–33

The effect of gap formation at the repair site on the strength and excursion of intrasynovial flexor tendons. An experimental study on the early stages of tendon–healing in dogs. Gelberman RH, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):975–82

Early motion of the ankle after operative treatment of a rupture of the Achilles tendon. A prospective, randomized clinical and radiographic study. Mortensen HM, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):983–90

Load–displacement behavior in a distal radial fracture model. The effect of simulated healing on motion. Wolfe SW, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):53–9

The effects of fatigue on the resultant joint moment, agonist and antagonist electromyographic activity at different angles during dynamic knee extension efforts. Kellis E. **J Electromyogr Kinesiol** 1999 Jun;9(3):191–9

Effects of finger posture on carpal tunnel pressure during wrist motion. Keir PJ, et al. **J Hand Surg [Am]** 1998 Nov; 23(6):1004–9

The motion analysis system and goniometry of the finger joints. Chiu HY, et al. **J Hand Surg [Br]** 1998 Dec; 23(6):788–91

Dynamic changes in the shape of the triangular fibrocartilage complex during rotation demonstrated with high resolution magnetic resonance imaging. Nakamura T, et al.

J Hand Surg [Br] 1999 Jun;24(3):338–41
The initiation and sequence of digital joint motion. A three-dimensional motion analysis. Somia N, et al. **J Hand Surg [Br]** 1998 Dec;23(6):792–5
Precision and accuracy of an electrogoniometer. Christensen HW. **J Manipulative Physiol Ther** 1999 Jan;22(1):10–4
Active lateral neck flexion range of motion measurements obtained with a modified goniometer: reliability and estimates of normal [letter; comment] Laber C, et al. **J Manipulative Physiol Ther** 1999 Jun;22(5):349–50. Comment on: J Manipulative Physiol Ther 1998 Sep;21(7):443–7.
The limitations of the instantaneous centre of rotation in joint research. Chen J, et al. **J Oral Rehabil** 1999 Apr;26(4):274–9
Biomechanics of windmill softball pitching with implications about injury mechanisms at the shoulder and elbow. Barrentine SW, et al. **J Orthop Sports Phys Ther** 1998 Dec; 28(6):405–15
Age-related kinetic changes in normal pediatrics. Cupp T, et al. **J Pediatr Orthop** 1999 Jul–Aug;19(4):475–8
Pediatric Escola Paulista de Medicina Range of Motion Scale: a reduced joint count scale for general use in juvenile rheumatoid arthritis. Len C, et al. **J Rheumatol** 1999 Apr; 26(4):909–13
Radiographic evaluation of glenohumeral kinematics: a muscle fatigue model. Chen SK, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):49–52
Effect of joint compression on inferior stability of the glenohumeral joint. Warner JJ, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):31–6
The spinal lax zone and neutral zone: measurement techniques and parameter comparisons. Crawford NR, et al. **J Spinal Disord** 1998 Oct;11(5):416–29
Long-term functional results after manipulation of the frozen shoulder. Reichmister JP, et al. **Md Med J** 1999 Jan–Feb; 48(1):7–11
Steepness of articular eminence and movement of the condyle and disk in asymptomatic temporomandibular joints. Isberg A, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):152–7
Accuracy of an electromagnetic measurement device and application to the measurement and description of knee joint motion. Bull AM, et al. **Proc Inst Mech Eng [H]** 1998; 212(5):347–55
Knee joint motion: description and measurement. Bull AM, et al. **Proc Inst Mech Eng [H]** 1998;212(5):357–72 (122 ref.)
Glenohumeral relationships during physiologic shoulder motion and stress testing: initial experience with open MR imaging and active imaging-plane registration. Beaulieu CF, et al. **Radiology** 1999 Sep;212(3):699–705
Active knee joint flexibility and sports activity. Hahn T, et al. **Scand J Med Sci Sports** 1999 Apr;9(2):74–80
Meta-analysis of normative cervical motion. Chen J, et al. **Spine** 1999 Aug 1;24(15):1571–8
Geometric measurements of the lumbar spine in Chinese men during trunk flexion. Chen YL. **Spine** 1999 Apr 1; 24(7):666–9
Clinical validity and stability of active and passive cervical range of motion with regard to total and unilateral uniplanar motion. Lantz CA, et al. **Spine** 1999 Jun 1; 24(11):1082–9
Kinematics of the chest cage and spine during breathing in healthy individuals and in patients with adolescent idiopathic scoliosis. Leong JC, et al. **Spine** 1999 Jul 1; 24(13):1310–5
Stability of the whole lumbar spine after multilevel fenestration and discectomy. Lu WW, et al. **Spine** 1999 Jul 1;24(13):1277–82
Range of motion and motion patterns in patients with low back pain before and after rehabilitation. Magnusson ML, et al. **Spine** 1998 Dec 1;23(23):2631–9
Dynamic motion study of the whole lumbar spine by videofluoroscopy. Okawa A, et al. **Spine** 1998 Aug 15; 23(16):1743–9
Variations of relative anteversion of the femoral neck during walking [published erratum appears in Surg Radiol Anat 1999;21(1):54] Quesnel T. **Surg Radiol Anat** 1998; 20(6):425–9
[Ceramic cups for hip endoprostheses. 6: Cup design, inclination and antetorsion angle modify range of motion and impingement] Bader R, et al. **Biomed Tech (Berl)** 1999 Jul–Aug;44(7–8):212–9 (Eng. Abstr.) **(Ger)**
[3-dimensional registration of micro-movements of vertebral implants by a specially adapted measuring system using magnetic transducers] Schramm M, et al. **Biomed Tech (Berl)** 1999 Apr;44(4):104–8 (Eng. Abstr.) **(Ger)**
[Effect of implants in the metacarpal head and proximal phalanx on mobility of the metacarpophalangeal joint. An anatomic study] Gausepohl T, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):226–31 (Eng. Abstr.) **(Ger)**
[Changes in the form of the interosseous hood during extension and flexion of the metacarpophalangeal joint] Gausepohl T, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):220–5 (Eng. Abstr.) **(Ger)**
[What is the value of biomechanical knowledge for surgery of the hand?] Kummer B, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):212–8 (34 ref.) (Eng. Abstr.) **(Ger)**
[Active movement therapy after flexor tendon suture using a new dynamic control splint] Säntha E, et al. **Handchir Mikrochir Plast Chir** 1998 Sep;30(5):312–6 (Eng. Abstr.) **(Ger)**
[Long-term effects of ankle joint orthoses on sports specific capability in handball] Jerosch J, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):102–6 (Eng. Abstr.) **(Ger)**
[Arthroscopic therapy of osteochondrosis dissecans of the talus--follow-up with a new "Ankle Score"] Lahm A, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):107–13 (Eng. Abstr.) **(Ger)**
[Changes in proprioceptive capacities of the shoulder joint in ventral shoulder instability. A comparative study before and after arthroscopic labrum refixation] Machner A, et al. **Sportverletz Sportschaden** 1998 Dec;12(4):138–41 (Eng. Abstr.) **(Ger)**

RANID HERPESVIRUS 1 see **HERPESVIRUS 1, RANID**

RANIDAE

ABNORMALITIES

Environmentally induced limb malformations in mink frogs (Rana septentrionalis). Gardiner DM, et al. **J Exp Zool** 1999 Jul 1;284(2):207–16

ANATOMY & HISTOLOGY

Origin of tectal cholinergic projections in amphibians: a combined study of choline acetyltransferase immunohistochemistry and retrograde transport of dextran amines. Marin O, et al. **Vis Neurosci** 1999 Mar–Apr; 16(2):271–83

BLOOD

Effect of ouabain on the breakdown of adenine nucleotides in glucose-depleted nucleated red blood cells. Characterization of ATPase. Kaloyianni M, et al. **Gen Physiol Biophys** 1998 Jun;17(2):143–56

EMBRYOLOGY

Characterization of the hatching enzyme from embryos of an anuran amphibian, Rana pirica. Kitamura Y, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1–2):153–64
Rhombomeric organization of brainstem motor neurons in larval frogs. Straka H, et al. **Biol Bull** 1998 Oct;195(2):220–2
Effects of hypoxia on embryonic development in two Ambystoma and two Rana species. Mills NE, et al. **Physiol Biochem Zool** 1999 Mar–Apr;72(2):179–88

GENETICS

Differences in genetic backgrounds affecting gonadal differentiation between two local populations of the Japanese wrinkled frog (Rana rugosa). Takase M. **Anat Embryol (Berl)** 1998 Aug;198(2):141–8
Evidence for heteromorphic sex chromosomes in males of Rana tagoi and Rana sakuraii in Nishitama district of Tokyo (Anura: Ranidae). Ryuzaki M, et al. **Chromosome Res** 1999; 7(1):31–42
Functional studies of a glucagon receptor isolated from frog Rana tigrina rugulosa: implications on the molecular evolution of glucagon receptors in vertebrates. Ngan ES, et al. **FEBS Lett** 1999 Sep 3;457(3):499–504
Molecular cloning and expression of the SF-1/Ad4BP gene in the frog, Rana rugosa. Kawano K, et al. **Gene** 1998 Nov 19;222(2):169–76
Rana/Pol III: a family of SINE-like sequences in the genomes of western Palearctic water frogs. Bucci S, et al. **Genome** 1999 Jun;42(3):504–11
Isolation and characterization of simple sequence repeat loci in the gray tree frog, Hyla chrysoscelis. Krenz JD, et al. **Genome** 1999 Aug;42(4):676–80
The origin and differentiation of the heteromorphic sex chromosomes Z, W, X, and Y in the frog Rana rugosa, inferred from the sequences of a sex-linked gene, ADP/ATP translocase. Miura I, et al. **Mol Biol Evol** 1998 Dec;15(12):1612–9

GROWTH & DEVELOPMENT

Metamorphic changes in the vagal innervation to the alimentary tract in the green frog, Rana clamitans (Ranidae). Brown CA, et al. **Acta Anat (Basel)** 1992; 145(4):340–4

METABOLISM

Histamine receptors in the skin melanophores of Indian bullfrog Rana tigerina. Ali SA, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Nov; 121(3):229–34
Structural analysis of 20 oligosaccharide-alditols released from the jelly coat of Rana palustris eggs by reductive beta-elimination characterization of the polymerized sequence [Gal(beta1, 3)GalNAc(alpha1–4)]n. Maes E, et al. **Eur J Biochem** 1999 Sep;264(2):301–13
Possible role of serotonin in Merkel-like basal cells of the taste buds of the frog, Rana nigromaculata. Hamasaki K, et al. **J Anat** 1998 Nov;193 (Pt 4):599–610
Gaegurin 4, a peptide antibiotic of frog skin, forms voltage-dependent channels in planar lipid bilayers. Kim HJ, et al. **J Pept Res** 1999 Jan;53(1):1–7

MICROBIOLOGY

Batrachomyomachia: frogs 1, mice 0. Klein J. **Scand J Immunol** 1999 Jan;49(1):11–3 (9 ref.)

PARASITOLOGY

Phylogenetic relationships among Hepatozoon species from snakes, frogs and mosquitoes of Ontario, Canada, determined by ITS-1 nucleotide sequences and life-cycle, morphological and developmental characteristics. Smith TG, et al. **Int J Parasitol** 1999 Feb;29(2):293–304
Experimental infection of striped marshfrog tadpoles (Limnodynastes peronii) by Ichthyophthirius multifiliis. Gleeson DJ. **J Parasitol** 1999 Jun;85(3):568–70
Multiple Cryptosporidium serpentis oocyst isolates from captive snakes are not transmissible to amphibians. Graczyk TK, et al. **J Parasitol** 1998 Dec;84(6):1298–300
Reevaluation of the taxonomic status of Halipegus occidualis Stafford, 1905 (Digenea: Hemiuridae). Zelmer DA, et al. **J Parasitol** 1999 Feb;85(1):157–60
The role of habitat in structuring Halipegus occidualis metapopulations in the green frog. Zelmer DA, et al. **J Parasitol** 1999 Feb;85(1):19–24

PHYSIOLOGY

Heavy metals alter the survival, growth, metamorphosis, and antipredatory behavior of Columbia spotted frog (Rana luteiventris) tadpoles. Lefcort H, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):447–56
Living in the cold: freeze-induced gene responses in freeze-tolerant vertebrates. Storey KB. **Clin Exp Pharmacol Physiol** 1999 Jan;26(1):57–63 (45 ref.)
Influence of noradrenaline on the respiratory status of Rana balcanica red cell suspension under normoxia, hypoxia and hypercapnia: alpha 1-receptor involvement. Kaloyianni M, et al. **Cytobios** 1999;98(388):77–94
Ultrastructure of spermatozoa correlated with phylogenetic relationship between Heteropneustes fossilis and Rana tigrina. Nath A, et al. **Cytobios** 1998;95(380):161–5
Inhibition of S6 kinase by rapamycin blocks maturation of Rana dybowskii oocytes. Bandyopadhyay A, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):230–9
Forebrain arginine vasotocin correlates of alternative mating strategies in cricket frogs. Marler CA, et al. **Horm Behav** 1999 Aug;36(1):53–61
Opposite effects of cooling on twitch contractions of skeletal muscle isolated from tropical toads (Leptodactylidae) and northern frogs (Ranidae). Caputo C, et al. **J Comp Physiol [B]** 1998 Dec;168(8):600–10
Electrophysiological and ultrastructural correlates of cryoinjury in sciatic nerve of the freeze-tolerant wood frog, Rana sylvatica. Costanzo JP, et al. **J Comp Physiol [B]** 1999 Jul;169(4–5):351–9
Inoculative freezing by environmental ice nuclei in the freeze-tolerant wood frog, Rana sylvatica. Costanzo JP, et al. **J Exp Zool** 1999 Jun 15;284(1):7–14
Freeze tolerance in the wood frog Rana sylvatica is associated with unusual structural features in insulin but not in glucagon. Conlon JM, et al. **J Mol Endocrinol** 1998 Oct;21(2):153–9
Water balance, growth, development, and survival of arboreal frog eggs (Chirixalus eiffingeri, Rhacophoridae): importance of egg distribution in bamboo stumps. Kam YC, et al. **Physiol Zool** 1998 Sep–Oct;71(5):534–40
Spontaneous heterosis in larval life-history traits of hemiclonal frog hybrids. Hotz H, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2171–6

RANITIDINE

ADMINISTRATION & DOSAGE

Effects of tablet and effervescent formulations of ranitidine 75 mg and cimetidine 200 mg on gastric acidity and oesophageal acid exposure in healthy humans. Bruley des Varannes S, et al. **Aliment Pharmacol Ther** 1998 Nov; 12(11):1155–61
Ranitidine bismuth citrate (RBC) based triple therapy for 7 days is more effective than RBC plus clarithromycin for 14 days in dyspeptic patients with Helicobacter pylori infection. H. Pylori Lombardy Group. Cestari R. **Aliment Pharmacol Ther** 1998 Oct;12(10):991–6
Bedtime ranitidine does not eliminate the need for a second daily dose of omeprazole to suppress nocturnal gastric pH. Khoury RM, et al. **Aliment Pharmacol Ther** 1999 May; 13(5):675–8
Head-to-head comparison of 1-week triple regimens combining ranitidine or omeprazole with two antibiotics to eradicate Helicobacter pylori. Savarino V, et al. **Aliment Pharmacol Ther** 1999 May;13(5):643–9
High- versus standard-dose ranitidine for control of heartburn in poorly responsive acid reflux disease: a prospective, controlled trial. Kahrilas PJ, et al. **Am J Gastroenterol** 1999 Jan;94(1):92–7
Effect of repeated injection and continuous infusion of omeprazole and ranitidine on intragastric pH over 72 hours. Netzer P, et al. **Am J Gastroenterol** 1999 Feb;94(2):351–7
Gastro-oesophageal reflux symptoms--clinical findings and effect of ranitidine treatment. Hallerbäck B, et al. **Eur J Surg Suppl** 1998;(583):6–13
Effect of intravenous ranitidine and omeprazole on intestinal absorption of water, sodium, and macronutrients in patients

with intestinal resection. Jeppesen PB, et al. **Gut** 1998 Dec; 43(6):763–9

Acid suppression with ranitidine plus oral triple therapy improves ulcer healing but not Helicobacter pylori eradication. Magalhaes AF, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2161–4

Seven days of ranitidine bismuth citrate plus two antimicrobials for Helicobacter pylori eradication [letter] Delle Cave M, et al. **Ital J Gastroenterol Hepatol** 1999 Apr;31(3):265

Omeprazole or ranitidine for intermittent treatment of GERD? Salzberg SA, et al. **J Fam Pract** 1999 May; 48(5):332–3

Orally administered ranitidine plasma concentrations before and after biliopancreatic diversion in morbidly obese patients. Cossu ML, et al. **Obes Surg** 1999 Feb;9(1):36–9

Time to relief of episodic symptoms of gastro–oesophageal reflux disease. A crossover comparison of single doses of the effervescent and standard formulations of ranitidine. Elm M, et al. **Scand J Gastroenterol** 1998 Sep;33(9):900–4

ADVERSE EFFECTS

Drug–induced hypochlorhydria causes high duodenal bacterial counts in the elderly. Pereira SP, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):99–104

Ranitidine–induced acute dystonia. Kapur V, et al. **Am J Emerg Med** 1999 May;17(3):258–60

Use of cimetidine, omeprazole, and ranitidine in pregnant women and pregnancy outcomes. Ruigómez A, et al. **Am J Epidemiol** 1999 Sep 1;150(5):476–81

Dyspepsia on withdrawal of ranitidine in previously asymptomatic volunteers. Smith AD, et al. **Am J Gastroenterol** 1999 May;94(5):1209–13

A randomized, double–blind trial for stress ulcer prophylaxis shows no evidence of increased pneumonia. Hanisch EW, et al. **Am J Surg** 1998 Nov;176(5):453–7

Latex anaphylaxis causing heart block: role of ranitidine. Patterson LJ, et al. **Can J Anaesth** 1999 Aug;46(8):776–8

Safety profile of Lansoprazole: the US clinical trial experience. Freston JW, et al. **Drug Saf** 1999 Feb; 20(2):195–205 (22 ref.)

Meige's syndrome in a patient treated with ranitidine. Le Doze F, et al. **Mov Disord** 1999 Jan;14(1):175–7

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 37–1998. A 41–year–old woman with anemia and severe thrombocytopenia [clinical conference] **N Engl J Med** 1998 Dec 10;339(24):1766–72

ANALOGS & DERIVATIVES

Ranitidine bismuth citrate versus omeprazole triple therapy for the eradication of Helicobacter pylori and healing of duodenal ulcer. Catalano F, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):59–62

Low– versus high–dose azithromycin triple therapy for Helicobacter pylori infection. Chey WD, et al. **Aliment Pharmacol Ther** 1998 Dec;12(12):1263–7 (16 ref.)

Ranitidine bismuth citrate with either clarithromycin 1 g/day or 1.5 g/day is equally effective in the eradication of H. pylori and healing of duodenal ulcer. Dobrilla G, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):63–8

Ranitidine bismuth citrate, tetracycline, clarithromycin twice–a–day triple therapy for clarithromycin susceptible Helicobacter pylori infection. Graham DY, et al. **Aliment Pharmacol Ther** 1999 Feb;13(2):169–72

High Helicobacter pylori eradication rate with a 1–week regimen containing ranitidine bismuth citrate. Gudjonsson H, et al. **Aliment Pharmacol Ther** 1998 Nov;12(11):1113–9

Efficacy of a 1–week regimen of ranitidine bismuth citrate in combination with metronidazole and clarithromycin for Helicobacter pylori eradication. Hoffman JS, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):503–6

Eradication of Helicobacter pylori infection after ranitidine bismuth citrate, metronidazole and tetracycline for 7 or 10 days. Knigge K, et al. **Aliment Pharmacol Ther** 1999 Mar;13(3):323–6

Prospective evaluation of ranitidine bismuth citrate–based triple therapy for the treatment of Helicobacter pylori infection. Mönkemüller KE, et al. **Aliment Pharmacol Ther** 1999 May;13(5):661–5

Spiramycin is comparable to oxytetracycline in eradicating H. pylori when given with ranitidine bismuth citrate and metronidazole. Olafsson S, et al. **Aliment Pharmacol Ther** 1999 May;13(5):651–9

Effect of ranitidine bismuth citrate on the phospholipase A2 activity of Naja naja venom and Helicobacter pylori: a biochemical analysis. Ottlecz A, et al. **Aliment Pharmacol Ther** 1999 Jul;13(7):875–81

Comparison of ranitidine bismuth citrate plus clarithromycin with omeprazole plus clarithromycin for the eradication of Helicobacter pylori. Paré P, et al. **Aliment Pharmacol Ther** 1999 Aug;13(8):1071–8

Helicobacter pylori eradication with proton pump inhibitor–based triple therapies and re–treatment with ranitidine bismuth citrate–based triple therapy. Rinaldi V, et al. **Aliment Pharmacol Ther** 1999 Feb;13(2):163–8

Optimal duration of therapy combining ranitidine bismuth citrate with clarithromycin and metronidazole in the eradication of Helicobacter pylori infection. Savarino V, et al. **Aliment Pharmacol Ther** 1999 Jan;13(1):43–7

One–week use of ranitidine bismuth citrate, amoxycillin and clarithromycin for the treatment of Helicobacter pylori–related duodenal ulcer. Sung JJ, et al. **Aliment Pharmacol Ther** 1998 Aug;12(8):725–30

One–week ranitidine bismuth citrate in combinations with metronidazole, amoxycillin and clarithromycin in the treatment of Helicobacter pylori infection: the RBC–MACH study. Sung JJ, et al. **Aliment Pharmacol Ther** 1999 Aug;13(8):1079–84

The influence of metronidazole resistance on the efficacy of ranitidine bismuth citrate triple therapy regimens for Helicobacter pylori infection. Van der Wouden EJ, et al. **Aliment Pharmacol Ther** 1999 Mar;13(3):297–302

Effects of ranitidine bismuth citrate on Helicobacter pylori motility, morphology and survival. Worku ML, et al. **Aliment Pharmacol Ther** 1999 Jun;13(6):753–60

One–week ranitidine bismuth citrate versus colloidal bismuth subcitrate–based anti–Helicobacter triple therapy: a prospective randomized controlled trial. Kung NN, et al. **Am J Gastroenterol** 1999 Mar;94(3):721–4

Ten–day triple therapy with ranitidine bismuth citrate, amoxicillin, and clarithromycin in eradicating Helicobacter pylori. Vakil N, et al. **Am J Gastroenterol** 1999 May; 94(5):1197–9

Ranitidine bismuth citrate plus clarithromycin: a dual therapy regimen for patients with duodenal ulcer. Lanza FL, et al. **Helicobacter** 1998 Sep;3(3):212–21

Twice–daily versus thrice–daily clarithromycin in combination with ranitidine bismuth citrate in the eradication of Helicobacter pylori. Schwartz HI, et al. **Helicobacter** 1999 Jun;4(2):121–7

Study of the combination of ranitidine bismuth citrate and metronidazole against metronidazole–resistant Helicobacter pylori clinical isolates. López–Brea M, et al. **J Antimicrob Chemother** 1998 Sep;42(3):309–14

ANALYSIS

High–performance thin–layer chromatographic separation of ranitidine hydrochloride and two related compounds. Simonovska B, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 18;715(2):425–30

BLOOD

Simple high–performance liquid chromatographic method for the determination of ranitidine in human plasma. Wong CF, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23; 718(1):205–10

Orally administered ranitidine plasma concentrations before and after biliopancreatic diversion in morbidly obese patients. Cossu ML, et al. **Obes Surg** 1999 Feb;9(1):36–9

CHEMISTRY

Powder diffractometric assay of two polymorphic forms of ranitidine hydrochloride. Agatonovic–Kustrin S, et al. **Int J Pharm** 1999 Jul 5;184(1):107–14

PHARMACOKINETICS

Prediction of dissolution–absorption relationships from a dissolution/Caco–2 system. Ginski MJ, et al. **Int J Pharm** 1999 Jan 15;177(1):117–25

Saturable transport of H2–antagonists ranitidine and famotidine across Caco–2 cell monolayers. Lee K, et al. **J Pharm Sci** 1999 Jul;88(7):680–7

Modulation of the permeability of H2 receptor antagonists cimetidine and ranitidine by P–glycoprotein in rat intestine and the human colonic cell line Caco–2. Collett A, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):171–8

Evaluation of the feasibility and use of a prototype remote drug delivery capsule (RDDC) for non–invasive regional drug absorption studies in the GI tract of man and beagle dog. Parr AF, et al. **Pharm Res** 1999 Feb;16(2):266–71

Use of the InteliSite capsule to study ranitidine absorption from various sites within the human intestinal tract. Pithavala YK, et al. **Pharm Res** 1998 Dec;15(12):1869–75

PHARMACOLOGY

Impact of food intake on the antisecretory effect of low–dose ranitidine and famotidine. Netzer P, et al. **Aliment Pharmacol Ther** 1999 Mar;13(3):407–12

The influence of Helicobacter pylori on oesophageal acid exposure in GERD during acid suppressive therapy. Peters FT, et al. **Aliment Pharmacol Ther** 1999 Jul;13(7):921–6

The effect of Helicobacter pylori eradication on intragastric pH during dosing with lansoprazole or ranitidine. van Herwaarden MA, et al. **Aliment Pharmacol Ther** 1999 Jun; 13(6):731–40

IgE levels in surgery: effect of ranitidine and prednisolone. Kampen GT, et al. **Allergy** 1999 Feb;54(2):171–6

The effects of cimetidine, ranitidine, and famotidine on human neutrophil functions. Mikawa K, et al. **Anesth Analg** 1999 Jul;89(1):218–24

Pharmacodynamic modeling of the acid inhibitory effect of ranitidine in patients in an intensive care unit during prolonged dosing: characterization of tolerance. Mathôt RA, et al. **Clin Pharmacol Ther** 1999 Aug;66(2):140–51

Effect of omeprazole, lansoprazole, and ranitidine on the DNA synthesis of mononuclear cells [see comments] Peddicord TE, et al. **Crit Care Med** 1999 Jan;27(1):90–4. Comment in: Crit Care Med 1999 Jan;27(1):13–4.

Food but not a chemically defined diet interferes with maintenance of intragastric pH at a predefined level using continuous pH–stat–adjusted intravenous infusion of ranitidine in healthy volunteers. Thomson AB, et al. **Dig Dis Sci** 1999 Sep;44(9):1858–64

Histoenzymatic investigations of the thyroid gland of guinea pig after the application of some receptor antagonists and histamine. Danowski J, et al. **Folia Histochem Cytobiol** 1999;37(2):69–70

Adaptation of gastric mucosa to stress. Effect of ranitidine. Ernst H, et al. **J Physiol Pharmacol** 1998 Sep;49(3):405–19

THERAPEUTIC USE

Lansoprazole is superior to ranitidine as maintenance treatment for the prevention of duodenal ulcer relapse. Bardhan KD, et al. **Aliment Pharmacol Ther** 1999 Jun; 13(6):827–32

On–demand treatment of gastro–oesophageal reflux symptoms: a comparison of ranitidine 75 mg with cimetidine 200 mg or placebo. Galmiche JP, et al. **Aliment Pharmacol Ther** 1998 Sep;12(9):909–17

Efficacy of omeprazole versus ranitidine for symptomatic treatment of poorly responsive acid reflux disease–a prospective, controlled trial. Maton PN, et al. **Aliment Pharmacol Ther** 1999 Jun;13(6):819–26

Changes in Helicobacter pylori–induced gastritis in the antrum and corpus during and after 12 months of treatment with ranitidine and lansoprazole in patients with duodenal ulcer disease. Meining A, et al. **Aliment Pharmacol Ther** 1998 Aug;12(8):735–40

An evaluation of increasing doses of ranitidine for treatment of heartburn. Pappa KA, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):475–81

Low–dose ranitidine for the relief of heartburn. Pappa KA, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):459–65

A double–blind, placebo–controlled study of the efficacy and safety of non–prescription ranitidine 75 mg in the prevention of meal–induced heartburn. Pappa KA, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):467–73

H2–antagonist maintenance therapy versus Helicobacter pylori eradication in patients with chronic duodenal ulcer disease: a prospective study. Prach AT, et al. **Aliment Pharmacol Ther** 1998 Sep;12(9):873–80

Triple regimens using lansoprazole or ranitidine bismuth citrate for Helicobacter pylori eradication. Spadaccini A, et al. **Aliment Pharmacol Ther** 1998 Oct;12(10):997–1001

Effects of acid suppression and bismuth medications on the performance of diagnostic tests for Helicobacter pylori infection. Bravo LE, et al. **Am J Gastroenterol** 1999 Sep; 94(9):2380–3

Healing and prevention of NSAID–associated ulcer disease: is seeing believing? Fendrick AM, et al. **Am J Gastroenterol** 1998 Dec;93(12):2628–9

Omeprazole versus high–dose ranitidine in mild gastroesophageal reflux disease: short– and long–term treatment. The Dutch Reflux Study Group. Festen HP, et al. **Am J Gastroenterol** 1999 Apr;94(4):931–6

Symptomatic gastro–oesophageal reflux disease: double blind controlled study of intermittent treatment with omeprazole or ranitidine. The European Study Group. Bardhan KD, et al. **BMJ** 1999 Feb 20;318(7182):502–7

Therapy for ulcers and erosions associated with nonsteroidal anti–inflammatory drugs. Freeman HJ. **Can J Gastroenterol** 1998 Nov–Dec;12(8):537–9 (0 ref.)

Stress ulcer prevention and histamine–2–receptor antagonists: leaps of faith or back to the drawing board? [editorial; comment] Freedman MD. **Crit Care Med** 1999 Jan; 27(1):13–4. Comment on: Crit Care Med 1999 Jan;27(1):90–4.

Health–related quality of life outcomes of omeprazole versus ranitidine in poorly responsive symptomatic gastroesophageal reflux disease. Revicki DA, et al. **Dig Dis** 1998 Sep–Oct;16(5):284–91

Secondary prevention of upper gastrointestinal bleeding associated with maintenance acid–suppressing treatment in patients with peptic ulcer bleed [see comments] García Rodríguez LA, et al. **Epidemiology** 1999 May;10(3):228–32 . Comment in: Epidemiology 1999 May;10(3):211–3.

Stress management. Koretz RL. **Gastroenterology** 1999 Mar; 116(3):773–4

Ranitidine controls nocturnal gastric acid breakthrough on omeprazole: a controlled study in normal subjects. Peghini PL, et al. **Gastroenterology** 1998 Dec;115(6):1335–9

Ranitidine reduced clinically important gastrointestinal bleeding in patients who required mechanical ventilation. Hinds CJ, et al. **Gut** 1999 Jan;44(1):10–1

Omeprazole in patients with mild or moderate reflux esophagitis induces lower relapse rates than ranitidine during maintenance treatment. Annibale B, et al. **Hepatogastroenterology** 1998 May–Jun;45(21):742–51

Effect of ranitidine and metronidazole on IgG activity of patients with Helicobacter pylori infection [letter] Konorev MR. **Int J Antimicrob Agents** 1998 Aug;10(3):249–50

Antacids vs. antacids plus non–prescription ranitidine for heartburn during pregnancy. Rayburn W, et al. **Int J Gynaecol Obstet** 1999 Jul;66(1):35–7

Reliable gastric tonometry after coronary artery surgery: need for acid secretion suppression despite transient failure of acid secretion [see comments] Bams JL, et al. **Intensive Care Med** 1998 Nov;24(11):1139–43. Comment in: Intensive Care Med 1998 Nov;24(11):1123–5.

Suppression of gastric acid secretion: preventing excess gas [editorial; comment] Heard SO. **Intensive Care Med** 1998 Nov;24(11):1123–5 (26 ref.). Comment on: Intensive Care Med 1998 Nov;24(11):1139–43.

RANITIDINE

Role of anti-Helicobacter pylori treatment in H. pylori-positive and cytoprotective drugs in H. pylori-negative, non-ulcer dyspepsia: results of a randomized, double-blind, controlled trial in Asian Indians. Dhali GK, et al. **J Gastroenterol Hepatol** 1999 Jun; 14(6):523-8

Seasonal behaviour of healed duodenal ulcer. Gupta AK, et al. **J Indian Med Assoc** 1998 Apr;96(4):106-8

The H1- and H2-histamine blockers chlorpheniramine and ranitidine applied to the nucleus basalis magnocellularis region modulate anxiety and reinforcement related processes. Privou C, et al. **Neuropharmacology** 1998 Aug; 37(8):1019-32

Treatment with proton pump inhibitors induces tolerance to histamine-2 receptor antagonists in Helicobacter pylori-negative patients. Qvigstad G, et al. **Scand J Gastroenterol** 1998 Dec;33(12):1244-8

Impact of ranitidine on prognosis after simple closure of perforated duodenal ulcer. Singh K, et al. **Trop Gastroenterol** 1999 Apr-Jun;20(2):90-2

[99mTc pertechnetate scintigraphy and premedication for the search for ectopic gastric mucosa in Meckel's diverticulum] Rampin L, et al. **Minerva Chir** 1998 Nov;53(11):877-82 (Eng. Abstr.) **(Ita)**

[Our experience with the use of ranitidine in the prevention of gastroduodenal damage caused by antiblastic polychemotherapy] D'Agata A. **Minerva Med** 1998 Oct; 89(10):359-63 (Eng. Abstr.) **(Ita)**

[The treatment of chronic duodenal ulcer with accompanying Helicobacter pylori infection] Petsch B, et al. **Pol Merkuriusz Lek** 1998 Aug;5(26):66-8 (Eng. Abstr.) **(Pol)**

[Congenital chloridorrhea: adjuvant therapy with ibuprofen and ranitidine] Martinón-Torres F, et al. **An Esp Pediatr** 1999 Jun;50(6):619-22 (19 ref.) **(Spa)**

[Clinical superiority of pantoprazole over ranitidine in the treatment of reflux esophagitis grade II and III. A prospective, double-blind, double-placebo study. Mexican clinical experience. Mexican Pantoprazole Study Group] Gallo S, et al. **Rev Gastroenterol Mex** 1998 Jan-Mar; 63(1):11-6 (Eng. Abstr.) **(Spa)**

RANK-SUM TESTS see **STATISTICS, NONPARAMETRIC**

RANTES

[The role of chemokines such as RANTES in allergic disease] Chihara J. **Rinsho Byori** 1998 Aug;46(8):816-20 (21 ref.) (Eng. Abstr.) **(Jpn)**

ANALOGS & DERIVATIVES

Effective inhibition of HIV-1 isolated from patients with acute primary HIV-1 infection by aminooxypentane-RANTES [letter] Rusconi S, et al. **AIDS** 1999 Jun 18;13(9):1144-5

Aminooxypentane-RANTES, an inhibitor of R5 human immunodeficiency virus type 1, increases the interferon gamma to interleukin 10 ratio without impairing cellular proliferation. Rusconi S, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):861-7

Total chemical synthesis and high-resolution crystal structure of the potent anti-HIV protein AOP-RANTES. Wilken J, et al. **Chem Biol** 1999 Jan;6(1):43-51

Chemical synthesis and characterization of chemokine RANTES and its analogues. Boykins RA, et al. **Cytokine** 1999 Jan;11(1):8-15

Met-RANTES reduces vascular and tubular damage during acute renal transplant rejection: blocking monocyte arrest and recruitment. Gröne HJ, et al. **FASEB J** 1999 Aug; 13(11):1371-83

The CC chemokine receptor antagonist met-RANTES inhibits eosinophil effector functions. Elsner J, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):462-5

Similarities and differences in RANTES- and (AOP)-RANTES-triggered signals: implications for chemotaxis. Rodríguez-Frade JM, et al. **J Cell Biol** 1999 Feb 22;144(4):755-65

Characterization of RANTES- and aminooxypentane-RANTES-triggered desensitization signals reveals differences in recruitment of the G protein-coupled receptor complex. Vila-Coro AJ, et al. **J Immunol** 1999 Sep 15;163(6):3037-44

Highly potent RANTES analogues either prevent CCR5-using human immunodeficiency virus type 1 infection in vivo or rapidly select for CXCR4-using variants. Mosier DE, et al. **J Virol** 1999 May;73(5):3544-50

ANALYSIS

RANTES, macrophage-inhibitory protein 1alpha, and the eosinophil product major basic protein are released into upper respiratory secretions during virus-induced asthma exacerbations in children. Teran LM, et al. **J Infect Dis** 1999 Mar;179(3):677-81

[The expression of chemokines and the dynamics of inflammatory cell infiltration before and after H. pylori eradication] Kikuchi T, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Aug;96(8):933-40 (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Identification of a non peptidic RANTES antagonist. Bright C, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):771-4

Inhibition of microglial cell RANTES production by IL-10 and TGF-beta. Hu S, et al. **J Leukoc Biol** 1999 Jun; 65(6):815-21

BIOSYNTHESIS

Chemokine and chemokine receptor expression after combined anti-HIV-1 interleukin-2 therapy. Blanco J, et al. **AIDS** 1999 Apr 1;13(5):547-55

Differences in HIV replication in CD4+ lymphocytes are not related to beta-chemokine production. Greco G, et al. **AIDS Res Hum Retroviruses** 1998 Nov 1;14(16):1407-11

Rhinovirus replication causes RANTES production in primary bronchial epithelial cells. Schroth MK, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1220-8

Cross-linking of intercellular adhesion molecule-1 induces interleukin-8 and RANTES production through the activation of MAP kinases in human vascular endothelial cells. Sano H, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):694-8

Regulation of RANTES and IL-8 production in normal human dermal fibroblasts by active vitamin D3 (tacalcitol). Fukuoka M, et al. **Br J Pharmacol** 1998 Aug;124(7):1433-8

RANTES expression and contribution to monocyte chemotaxis in arthritis. Volin MV, et al. **Clin Immunol Immunopathol** 1998 Oct;89(1):44-53

Early modifications of chemokine production and mRNA expression during rush venom immunotherapy. Akoum H, et al. **Cytokine** 1998 Sep;10(9):706-12

Chemokines, nitric oxide and antiarthritic effects of 9-(2-phosphonomethoxyethyl)adenine (Adefovir). Zídek Z, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):91-100

beta-Chemokines enhance parasite uptake and promote nitric oxide-dependent microbiostatic activity in murine inflammatory macrophages infected with Trypanosoma cruzi. Aliberti JC, et al. **Infect Immun** 1999 Sep; 67(9):4819-26

Mycobacterium avium infection of epithelial cells results in inhibition or delay in the release of interleukin-8 and RANTES. Sangari FJ, et al. **Infect Immun** 1999 Oct; 67(10):5069-75

Distinct expression of RANTES and GM-CSF by lipopolysaccharide in human nasal fibroblasts but not in other airway fibroblasts. Nonaka M, et al. **Int Arch Allergy Immunol** 1999 Aug;119(4):314-21

Evidence for a local synthesis of beta-chemokines within the genital tract of both HIV-1-infected and uninfected women [letter] Fiore JR, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):255-7

Differential expression and cross-regulatory function of RANTES during mycobacterial (type 1) and schistosomal (type 2) antigen-elicited granulomatous inflammation. Chensue SW, et al. **J Immunol** 1999 Jul 1;163(1):165-73

TNF-alpha inhibits HIV-1 replication in peripheral blood monocytes and alveolar macrophages by inducing the production of RANTES and decreasing C-C chemokine receptor 5 (CCR5) expression. Lane BR, et al. **J Immunol** 1999 Oct 1;163(7):3653-61

Phosphoantigen-reactive Vgamma9Vdelta2 T lymphocytes suppress in vitro human immunodeficiency virus type 1 replication by cell-released antiviral factors including CC chemokines. Poccia F, et al. **J Infect Dis** 1999 Sep; 180(3):858-61

Differential effects of human immunodeficiency virus isolates on beta-chemokine and gamma interferon production and on cell proliferation. Greco G, et al. **J Virol** 1999 Feb; 73(2):1528-34

Requirements for measles virus induction of RANTES chemokine in human astrocytoma-derived U373 cells. Noe KH, et al. **J Virol** 1999 Apr;73(4):3117-24

Selective presence of the chemokine growth-regulated oncogene alpha (GROalpha) in the human follicle and secretion from cultured granulosa-lutein cells at ovulation. Karström-Encrantz L, et al. **Mol Hum Reprod** 1998 Nov; 4(11):1077-83

Expression and modulation of ICAM-1, TNF-alpha and RANTES in human alveolar macrophages from lung-transplant recipients in vitro. Fattal-German M, et al. **Transpl Immunol** 1998 Sep;6(3):183-92

CD8+ T cells produce RANTES during acute rejection of murine allogeneic skin grafts. Koga S, et al. **Transplantation** 1999 Mar 27;67(6):854-64

BLOOD

Longitudinal analysis of serum chemokine levels in the course of HIV-1 infection. Polo S, et al. **AIDS** 1999 Mar 11; 13(4):447-54

Interleukin-6 and RANTES in Takayasu arteritis: a guide for therapeutic decisions? Noris M, et al. **Circulation** 1999 Jul 6;100(1):55-60

Relationship between serum RANTES levels and radiological progression in rheumatoid arthritis patients treated with methotrexate. Boiardi L, et al. **Clin Exp Rheumatol** 1999 Jul-Aug;17(4):419-25

Circulating levels of beta-chemokines in systemic lupus erythematosus. Kaneko H, et al. **J Rheumatol** 1999 Mar; 26(3):568-73

Effects of filtration and gamma radiation on the accumulation of RANTES and transforming growth factor-beta1 in apheresis platelet concentrates during storage. Fujihara M, et al. **Transfusion** 1999 May;39(5):498-505

[The level of RANTES and interleukin-8 in serum of children with bronchial asthma after an exercise test] Boznański A, et al. **Pneumonol Alergol Pol** 1998; 66(3-4):148-53 (Eng. Abstr.) **(Pol)**

CEREBROSPINAL FLUID

Beta-chemokines MCP-1 and RANTES are selectively increased in cerebrospinal fluid of patients with human immunodeficiency virus-associated dementia. Kelder W, et al. **Ann Neurol** 1998 Nov;44(5):831-5

CHEMICAL SYNTHESIS

Chemical synthesis and characterization of chemokine RANTES and its analogues. Boykins RA, et al. **Cytokine** 1999 Jan;11(1):8-15

CHEMISTRY

Low-molecular-weight anti-HIV-1 peptides from the amino-terminal sequence of RANTES: possible lead compounds for coreceptor-directed anti-HIV-1 agents. Nishiyama Y, et al. **Bioorg Med Chem Lett** 1999 May 17; 9(10):1357-60

Chemical synthesis and characterization of chemokine RANTES and its analogues. Boykins RA, et al. **Cytokine** 1999 Jan;11(1):8-15

Identification of amino acid residues critical for aggregation of human CC chemokines macrophage inflammatory protein (MIP)-1alpha, MIP-1beta, and RANTES. Characterization of active disaggregated chemokine variants. Czaplewski LG, et al. **J Biol Chem** 1999 Jun 4; 274(23):16077-84

A new monoclonal antibody, mAb 4A12, identifies a role for the glycosaminoglycan (GAG) binding domain of RANTES in the antiviral effect against HIV-1 and intracellular Ca2+ signaling. Burns JM, et al. **J Exp Med** 1998 Nov 16;188(10):1917-27

GENETICS

Th1- and Th2-type cytokines regulate the expression and production of eotaxin and RANTES by human lung fibroblasts. Teran LM, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):777-86

Elevated expression of the CC chemokine regulated on activation, normal T cell expressed and secreted (RANTES) in advanced breast carcinoma. Luboshits G, et al. **Cancer Res** 1999 Sep 15;59(18):4681-7

Increased levels in vivo of mRNAs for IL-8 and macrophage inflammatory protein-1 alpha (MIP-1 alpha), but not of RANTES mRNA in peripheral blood mononuclear cells of patients with atopic dermatitis (AD). Hatano Y, et al. **Clin Exp Immunol** 1999 Aug;117(2):237-43

Activation of the human RANTES gene promoter in a macrophage cell line by lipopolysaccharide is dependent on stress-activated protein kinases and the IkappaB kinase cascade: implications for exacerbation of allergic inflammation by environmental pollutants [see comments] Hiura TS, et al. **Clin Immunol** 1999 Mar;90(3):287-301. Comment in: Clin Immunol 1999 Mar;90(3):285-6.

Thiazolidinedione inhibits production of RANTES in a cytokine-treated human lung epithelial cell line. Momoi A, et al. **FEBS Lett** 1999 Jun 11;452(3):301-4

Anti-HIV type 1 activity of wild-type and functional defective RANTES intrakine in primary human lymphocytes. Yang AG, et al. **Hum Gene Ther** 1998 Sep 20;9(14):2005-18

RFLAT-1: a new zinc finger transcription factor that activates RANTES gene expression in T lymphocytes. Song A, et al. **Immunity** 1999 Jan;10(1):93-103

Positional candidate gene approach and functional genomics strategy in atopy gene discovery. Nickel RG, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):282-4

Increase in IL-8, IL-10, IL-13, and RANTES mRNA levels (in situ hybridization) in the nasal mucosa after nasal allergen provocation. KleinJan A, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):441-50

No evidence for elevated numbers of mononuclear cells expressing MCP-1 and RANTES mRNA in blood and CSF in multiple sclerosis. Kivisäkk P, et al. **J Neuroimmunol** 1998 Nov 2;91(1-2):108-12

Essential role of interferon regulatory factor 3 in direct activation of RANTES chemokine transcription. Lin R, et al. **Mol Cell Biol** 1999 Feb;19(2):959-66

Expression of chemokines RANTES, MIP-1alpha and GRO-alpha correlates with inflammation in acute experimental autoimmune encephalomyelitis. Glabinski AR, et al. **Neuroimmunomodulation** 1998 May-Aug; 5(3-4):166-71

Virus-inducible expression of a host chemokine gene relies on replication-linked mRNA stabilization. Koga T, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5680-5

Polymorphism in RANTES chemokine promoter affects HIV-1 disease progression. Liu H, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4581-5

Coordinate up-regulation of the beta-chemokine subfamily in autoimmune sialoadenitis of MRL/lpr mice. Mustafa W, et al. **Scand J Immunol** 1998 Dec;48(6):623-8

Molecular cloning of feline CC-chemokine cDNAs. Endo Y, et al. **Vet Immunol Immunopathol** 1998 Oct 23;

65(2–4):113–23
RANTES, IFN-gamma, CCR1, and CCR5 mRNA expression in peripheral blood, lymph node, and bronchoalveolar lavage mononuclear cells during primary simian immunodeficiency virus infection of macaques. Chéret A, et al. **Virology** 1999 Mar 15;255(2):285–93
Alterations in RANTES gene expression and T-cell prevalence in intestinal mucosa during pathogenic or nonpathogenic simian immunodeficiency virus infection. Ndolo T, et al. **Virology** 1999 Jun 20;259(1):110–8

IMMUNOLOGY

Inhibition of HIV type 1 infection with a RANTES-IgG3 fusion protein. Challita-Eid PM, et al.
AIDS Res Hum Retroviruses 1998 Dec 20;14(18):1617–24
HIV type 1 resistance in Kenyan sex workers is not associated with altered cellular susceptibility to HIV type 1 infection or enhanced beta-chemokine production. Fowke KR, et al. **AIDS Res Hum Retroviruses** 1998 Nov 20; 14(17):1521–30
Immunization of RANTES expression plasmid with a DNA vaccine enhances HIV-1-specific immunity. Xin KQ, et al. **Clin Immunol** 1999 Jul;92(1):90–6
Effects of interferon-gamma on mobilization and release of eosinophil-derived RANTES. Velazquez JR, et al.
Int Arch Allergy Immunol 1999 Feb-Apr;118(2–4):447–9
A central role for astrocytes in the inflammatory response to beta-amyloid; chemokines, cytokines and reactive oxygen species are produced. Johnstone M, et al.
J Neuroimmunol 1999 Jan 1;93(1–2):182–93

METABOLISM

Upregulation of RANTES in psoriatic keratinocytes: a possible pathogenic mechanism for psoriasis. Raychaudhuri SP, et al. **Acta Derm Venereol** 1999 Jan;79(1):9–11
RANTES upregulation by HIV-1-infected cells: lack of correlation with viral replication and induction of interferon [letter] Abbate I, et al. **AIDS** 1999 Feb 4; 13(2):288–90
Chemokine expression in CF epithelia: implications for the role of CFTR in RANTES expression. Schwiebert LM, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C700–10
Depletion of extracellular RANTES during human cytomegalovirus infection of endothelial cells. Billstrom MA, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):163–7
Distribution of rantes and interleukin-5 in allergic nasal mucosa and nasal polyps. Lee CH, et al.
Ann Otol Rhinol Laryngol 1999 Jun;108(6):594–8
CD26-processed RANTES(3–68), but not intact RANTES, has potent anti-HIV-1 activity [published erratum appears in Antiviral Res 1999 Jan;40(3):189–90] Schols D, et al. **Antiviral Res** 1998 Oct;39(3):175–87
Rapid mobilization of intracellularly stored RANTES in response to interferon-gamma in human eosinophils. Lacy P, et al. **Blood** 1999 Jul 1;94(1):23–32
GM-CSF, IL-5 and RANTES immunoreactivity and mRNA expression in chronic hyperplastic sinusitis with nasal polyposis (NP). Hamilos DL, et al. **Clin Exp Allergy** 1998 Sep;28(9):1145–52
Lack of expression of interleukin 8 and RANTES in autoimmune bullous skin diseases. Bornscheuer E, et al. **Dermatology** 1999;198(2):118–21
Regulation of RANTES and ICAM-1 expression in murine mesangial cells. Satriano JA, et al. **J Am Soc Nephrol** 1997 Apr;8(4):596–603
Generation of artificial proteoglycans containing glycosaminoglycan-modified CD44. Demonstration of the interaction between rantes and chondroitin sulfate. Wolff EA, et al. **J Biol Chem** 1999 Jan 22;274(4):2518–24
Inhibition of microglial cell RANTES production by IL-10 and TGF-beta. Hu S, et al. **J Leukoc Biol** 1999 Jun; 65(6):815–21
The CC-chemokine RANTES increases the attachment of human immunodeficiency virus type 1 to target cells via glycosaminoglycans and also activates a signal transduction pathway that enhances viral infectivity. Trkola A, et al. **J Virol** 1999 Aug;73(8):6370–9
Effective chemokines and cytokines in the rejection of human retinal pigment epithelium (RPE) cell grafts. Enzmann V, et al. **Transpl Immunol** 1999 Mar;7(1):9–14

PHARMACOLOGY

Priming effect of RANTES on eosinophil oxidative metabolism. Chihara J, et al. **Allergy** 1998 Dec; 53(12):1178–82
Effects of reactive oxygen and nitrogen metabolites on RANTES- and IL-5-induced eosinophil chemotactic activity in vitro. Sato E, et al. **Am J Pathol** 1999 Aug; 155(2):591–8
Effect of RANTES on the infection of monocyte-derived primary macrophages by human immunodeficiency virus type 1 and type 2. Ylisastigui L, et al.
Biomed Pharmacother 1998;52(10):447–53
Mast cell recruitment after subcutaneous injection of RANTES in the sole of the rat paw. Conti P, et al.
Br J Haematol 1998 Dec;103(3):798–803
Chemotaxis and chemotactic selection induced with cytokines (IL-8, RANTES and TNF-alpha) in the unicellular Tetrahymena pyriformis. Kōhidai L, et al.
Cytokine 1998 Jul;10(7):481–6
Intramuscular injection of hrRANTES causes mast cell recruitment and increased transcription of histidine decarboxylase in mice: lack of effects in genetically mast cell-deficient W/WV mice. Conti P, et al. **FASEB J** 1998 Dec;12(15):1693–700
The cysteine-cysteine family of chemokines RANTES, MIP-1alpha, and MIP-1beta induce trypanocidal activity in human macrophages via nitric oxide. Villalta F, et al. **Infect Immun** 1998 Oct;66(10):4690–5
RANTES augments eosinophil lucigenin-dependent chemiluminescence. Chihara J, et al.
Int Arch Allergy Immunol 1998 Sep;117 Suppl 1:40–3
CD26/dipeptidyl peptidase IV differentially regulates the chemotaxis of T cells and monocytes toward RANTES: possible mechanism for the switch from innate to acquired immune response. Iwata S, et al. **Int Immunol** 1999 Mar; 11(3):417–26
Chemokine receptor CCR5 functionally couples to inhibitory G proteins and undergoes desensitization. Zhao J, et al. **J Cell Biochem** 1998 Oct 1;71(1):36–45
Effect of beta-chemokines on human immunodeficiency virus type 1 replication, binding, uncoating, and CCR5 receptor expression in human monocyte-derived macrophages. Jiang Y, et al. **J Hum Virol** 1999 May-Jun;2(3):123–32
Enhancement of human immunodeficiency virus type 1 infection by the CC-chemokine RANTES is independent of the mechanism of virus-cell fusion. Gordon CJ, et al. **J Virol** 1999 Jan;73(1):684–94
The inhibitory effect of RANTES on the infection of primary macrophages by R5 human immunodeficiency virus type-1 depends on the macrophage activation state. Amzazi S, et al. **Virology** 1998 Dec 5;252(1):96–105

PHYSIOLOGY

Cytokines, chemokines, RANTES, and eotaxin. Graziano FM, et al. **Allergy Asthma Proc** 1999 May-Jun;20(3):141–6 (38 ref.)
The role of interleukin-5, interleukin-8 and RANTES in the chemotactic attraction of eosinophils to the allergic lung [see comments] Lampinen M, et al. **Clin Exp Allergy** 1999 Mar;29(3):314–22. Comment in: Clin Exp Allergy 1999 Mar;29(3):287–90.
Contrasting roles for RANTES and macrophage inflammatory protein-1 alpha (MIP-1 alpha) in a murine model of allergic peritonitis. Das AM, et al.
Clin Exp Immunol 1999 Aug;117(2):223–9
Similarities and differences in RANTES- and (AOP)-RANTES-triggered signals: implications for chemotaxis. Rodríguez-Frade JM, et al. **J Cell Biol** 1999 Feb 22;144(4):755–65
RANTES chemokine expression is related to acute cardiac cellular rejection and infiltration by CD45RO T-lymphocytes and macrophages. Azzawi M, et al.
J Heart Lung Transplant 1998 Sep;17(9):881–7
Cutting edge: RANTES regulates Fas ligand expression and killing by HIV-specific CD8 cytotoxic T cells. Hadida F, et al. **J Immunol** 1999 Aug 1;163(3):1105–9
Selective diapedesis of Th1 cells induced by endothelial cell RANTES. Kawai T, et al. **J Immunol** 1999 Sep 15; 163(6):3269–78
Characterization of RANTES- and aminooxypentane-RANTES-triggered desensitization signals reveals differences in recruitment of the G protein-coupled receptor complex. Vila-Coro AJ, et al. **J Immunol** 1999 Sep 15;163(6):3037–44

SECRETION

The chemokine RANTES is secreted by human melanoma cells and is associated with enhanced tumour formation in nude mice. Mrowietz U, et al. **Br J Cancer** 1999 Mar; 79(7–8):1025–31
The effect of fluticasone propionate on respiratory syncytial virus-induced chemokine release by a human bronchial epithelial cell line. Noah TL, et al.
Immunopharmacology 1998 Jun;39(3):193–9
Macrophage inflammatory protein-1alpha and RANTES are present in nasal secretions during ongoing upper respiratory tract infection. Bonville CA, et al.
Pediatr Allergy Immunol 1999 Feb;10(1):39–44

THERAPEUTIC USE

RANTES stimulates cell-mediated transmission of HIV-1 infection. Abbate I, et al. **J Interferon Cytokine Res** 1999 Apr;19(4):345–50

RANULA

SURGERY

[Oral ranula. A follow-up study] Sorribes MM, et al.
Ugeskr Laeger 1999 Feb 22;161(8):1108–11 (Eng. Abstr.) **(Dan)**
[Ambulatory surgery--salivary calculi, retention cysts, and ranula] Komune S. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):286–9 **(Jpn)**

RANVIER'S NODES

DRUG EFFECTS

Neurotoxins targetting receptor site 5 of voltage-dependent sodium channels increase the nodal volume of myelinated axons. Mattei C, et al. **J Neurosci Res** 1999 Mar 15; 55(6):666–73
The wheat proteins puroindoline-a and alpha1-purothionin induce nodal swelling in myelinated axons. Mattei C, et al. **Neuroreport** 1998 Dec 1;9(17):3803–7

IMMUNOLOGY

Anti-ganglioside antibodies can bind peripheral nerve nodes of Ranvier and activate the complement cascade without inducing acute conduction block in vitro [see comments] Paparounas K, et al. **Brain** 1999 May;122 (Pt 5):807–16. Comment in: Brain 1999 May;122 (Pt 5):797–8.

METABOLISM

Ion channel redistribution and function during development of the myelinated axon. Vabnick I, et al. **J Neurobiol** 1998 Oct;37(1):80–96 (90 ref.)

PHYSIOLOGY

Cells expressing the NG2 antigen contact nodes of Ranvier in adult CNS white matter. Butt AM, et al. **Glia** 1999 Mar; 26(1):84–91
Dependence of nodal sodium channel clustering on paranodal axoglial contact in the developing CNS. Rasband MN, et al. **J Neurosci** 1999 Sep 1;19(17):7516–28

RAP GENE PRODUCTS see **GENE PRODUCTS, VPR**

RAPAMYCIN see **SIROLIMUS**

RAPD-PCR see **RANDOM AMPLIFIED POLYMORPHIC DNA TECHNIQUE**

RAPD TECHNIQUE see **RANDOM AMPLIFIED POLYMORPHIC DNA TECHNIQUE**

RAPE

'Don't scream, Miss Annie. Don't scream.' Anderson A.
Am Fam Physician 1999 Jan 1;59(1):213–4
Prophylaxis for STDs after sexual assault [letter; comment] Fieg EL. **Am Fam Physician** 1999 Jun;59(11):2983–4. Comment on: Am Fam Physician 1998 Sep 15;58(4):920–6, 929–30.
ACOG releases a statement on identification and treatment of adolescent victims of sexual assault. American College of Obstetricians and Gynecologists. Rose VL.
Am Fam Physician 1999 Mar 15;59(6):1688
Postexposure prophylaxis for human immunodeficiency virus (HIV) infection following sexual assault. Bamberger JD, et al. **Am J Med** 1999 Mar;106(3):323–6 (22 ref.)
Dissimulation in phallometric testing of rapists' sexual preferences. Harris GT, et al. **Arch Sex Behav** 1999 Jun; 28(3):223–32
Doctors demand AIDS drugs for women who have been raped [news] Sidley P. **BMJ** 1999 Jun 5;318(7197):1507
Sexually transmitted diseases in abused children and adolescent and adult victims of rape: review of selected literature. Beck-Sagué CM, et al. **Clin Infect Dis** 1999 Jan; 28 Suppl 1:S74–83 (101 ref.)
Sexual aggression among Asian Americans: risk and protective factors. Hall GC, et al.
Cult Divers Ment Health 1998;4(4):305–18
Reduced sensory gating of the P1 potential in rape victims and combat veterans with posttraumatic stress disorder. Skinner RD, et al. **Depress Anxiety** 1999;9(3):122–30
ACOG educational bulletin. Adolescent victims of sexual assault. Number 252, October 1998. American College of Obstetricians and Gynecologists. **Int J Gynaecol Obstet** 1999 Feb;64(2):195–9 (30 ref.)
A care package for managing female sexual assault in genitourinary medicine. Harrison JM, et al.
Int J STD AIDS 1999 May;10(5):283–9
Historical disclosure of rape by women attending genitourinary medicine clinics. Horn CK, et al.
Int J STD AIDS 1999 Jan;10(1):47–8
The management of adult male victims of sexual assault in the GUM clinic: a practical guide. Tomlinson DR, et al. **Int J STD AIDS** 1998 Dec;9(12):720–4; quiz 725 (19 ref.)
Recommendations for toxicological investigations of drug-facilitated sexual assaults. LeBeau M, et al.
J Forensic Sci 1999 Jan;44(1):227–30
Forensic identification of a rapist using unusual evidence. Oz C, et al. **J Forensic Sci** 1999 Jul;44(4):860–2
Chorionic villus sampling prior to pregnancy termination, a tool for forensic paternity testing. Reshef A, et al.
J Forensic Sci 1999 Sep;44(5):1065–8
Public protests after rape in Pakistani hospital [news] Ahmad K. **Lancet** 1999 Aug 21;354(9179):659
Evaluation of the adolescent rape victim. Bechtel K, et al. **Pediatr Clin North Am** 1999 Aug;46(4):809–23, xii (26 ref.)
The blame attributed to rape victims. Pascale M, et al.
Psychol Rep 1999 Jun;84(3 Pt 1):880
SAMA Committee wants free AZT for rape survivors [news] van der Linde I. **S Afr Med J** 1999 Jun;89(6):584
The effect of alcohol on the responses of sexually coercive and noncoercive men to an experimental rape analogue. Marx BP, et al. **Sex Abuse** 1999 Apr;11(2):131–45
Adolescent attitudes toward victim precipitation of rape. Marciniak LM. **Violence Vict** 1998 Fall;13(3):287–300
Testing a mediational model of sexually aggressive behavior

in nonincarcerated perpetrators. Ouimette PC, et al. **Violence Vict** 1998 Summer;13(2):117–30

[Jaundice with free bilirubin following preventive anti-retroviral therapy after sexual aggression] Questel F, et al. **Presse Med** 1999 Jan 9;28(1):8–10 (Eng. Abstr.) **(Fre)**

[Securing evidence after sexual offences is an important task for physicians. Increasing severity of crimes and use of DNA analyses necessitate higher quality standards] Ansell R. **Lakartidningen** 1998 Oct 14;95(42):4626–8, 4630–1 (10 ref.) (Eng. Abstr.) **(Swe)**

DIAGNOSIS

Allegations of sexual abuse by nonverbal autistic people via facilitated communication: testing of validity. Konstantareas MM. **Child Abuse Negl** 1998 Oct; 22(10):1027–41 (46 ref.)

Separation of sperm and vaginal cells based on ploidy, MHC class I-, CD45-, and cytokeratin expression for enhancement of DNA typing after sexual assault. Schoell WM, et al. **Cytometry** 1999 Aug 1;36(4):319–23

Sexual assault. Linden JA. **Emerg Med Clin North Am** 1999 Aug;17(3):685–97, vii (42 ref.)

Electrospray and MALDI mass spectrometry in the identification of spermicides in criminal investigations. Hollenbeck TP, et al. **J Forensic Sci** 1999 Jul;44(4):783–8

LEGISLATION & JURISPRUDENCE

Examination for sexual assault: is the documentation of physical injury associated with the laying of charges? A retrospective cohort study. McGregor MJ, et al. **CMAJ** 1999 Jun 1;160(11):1565–9

Issues in statutory rape law enforcement: the views of district attorneys in Kansas. Miller HL, et al. **Fam Plann Perspect** 1998 Jul–Aug;30(4):177–81

Pornography, rape, and sex crimes in Japan. Diamond M, et al. **Int J Law Psychiatry** 1999 Jan–Feb;22(1):1–22 (102 ref.)

The sensitivity of forensic tests for rape. Ferris LE, et al. **Med Law** 1998;17(3):333–50 (30 ref.)

Changes to Section 2 of Sexual Offences Act 1976. Baird V. **Med Sci Law** 1999 Jul;39(3):198–208 (10 ref.)

Legal issues associated with sexual activity between adults and minors in Texas: a review. Smith PB, et al. **Tex Med** 1999 Jul;95(7):65–9

[Expert assessment of coital injuries from the forensic medicine viewpoint] Schulz F, et al. **Arch Kriminol** 1998 Jul–Aug;202(1–2):44–9 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Emergency department characteristics of male sexual assault. Pesola GR, et al. **Acad Emerg Med** 1999 Aug;6(8):792–8

Sexual assault. Linden JA. **Emerg Med Clin North Am** 1999 Aug;17(3):685–97, vii (42 ref.)

Sexual assault: the physician's role in prevention and treatment. Beebe DK. **J Miss State Med Assoc** 1998 Oct; 39(10):366–9

Sexual coercion content in 21 sexuality education curricula. Beyer CE, et al. **J Sch Health** 1998 Nov;68(9):370–5

"He forced me to love him": putting violence on adolescent sexual health agendas. Wood K, et al. **Soc Sci Med** 1998 Jul;47(2):233–42

PSYCHOLOGY

Perceptions of control and long-term recovery from rape. Regehr C, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):110–5

The emotional impact of sexual violence research on participants. Draucker CB. **Arch Psychiatr Nurs** 1999 Aug; 13(4):161–9

Preferential rape in the theory of courtship disorder. Freund K, et al. **Arch Sex Behav** 1998 Oct;27(5):433–43

The effects of suppressing trauma-related thoughts on women with rape-related posttraumatic stress disorder. Shipherd JC, et al. **Behav Res Ther** 1999 Feb;37(2):99–112

Abnormal mismatch negativity in women with sexual assault-related posttraumatic stress disorder. Morgan CA 3rd, et al. **Biol Psychiatry** 1999 Apr 1;45(7):827–32

Validation of a French version of the Dissociative Experiences Scale in a rape-victim population. Darves-Bornoz JM, et al. **Can J Psychiatry** 1999 Apr; 44(3):271–5

Juvenile male rape victims: is the level of post-traumatic stress related to personality and parenting? Ruchkin VV, et al. **Child Abuse Negl** 1998 Sep;22(9):889–99

A review of cognitive factors in the etiology of rape: theories, empirical studies, and implications. Drieschner K, et al. **Clin Psychol Rev** 1999 Jan;19(1):57–77 (70 ref.)

Rape flashbacks: constructing a new narrative. Penn P. **Fam Process** 1998 Fall;37(3):299–310

Crime scene analysis and the escalation of violence in serial rape. Warren J, et al. **Forensic Sci Int** 1999 Mar 15; 100(1–2):37–56

Post-traumatic stress disorder in female survivors of rape attending a genitourinary medicine clinic: a pilot study. Petrak JA, et al. **Int J STD AIDS** 1999 Aug;10(8):531–5

A model for predicting depression in victims of rape. Regehr C, et al. **J Am Acad Psychiatry Law** 1998;26(4):595–605

Combating sexual offenses on the college campus: keys to success. Vickio CJ, et al. **J Am Coll Health** 1999 May; 47(6):283–6

Prevention of post-rape psychopathology: preliminary findings of a controlled acute rape treatment study. Resnick H, et al. **J Anxiety Disord** 1999 Jul–Aug;13(4):359–70

Forced sexual intercourse and associated health-risk behaviors among female college students in the United States. Brener ND, et al. **J Consult Clin Psychol** 1999 Apr; 67(2):252–9

A comparison of normal forgetting, psychopathology, and information-processing models of reported amnesia for recent sexual trauma. Mechanic MB, et al. **J Consult Clin Psychol** 1998 Dec;66(6):948–57

False allegations of pregnancy resulting from incestuous rape and physician misconduct: proof positive. Jamieson MA, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):181–4

A family study of chronic post-traumatic stress disorder following rape trauma. Davidson JR, et al. **J Psychiatr Res** 1998 Sep–Oct;32(5):301–9

Childhood abuse and sexual revictimization in a female Navy recruit sample. Merrill LL, et al. **J Trauma Stress** 1999 Apr;12(2):211–25

Rape attitudes amongst British medical students. Williams L, et al. **Med Educ** 1999 Jan;33(1):24–7

"He forced me to love him": putting violence on adolescent sexual health agendas. Wood K, et al. **Soc Sci Med** 1998 Jul;47(2):233–42

Sexual coercion history, calloused sexual beliefs and judgments of sexual coercion in a date rape analogue. Bernat JA, et al. **Violence Vict** 1999 Summer;14(2):147–60

The association between the perception of threat in a dating situation and sexual victimization. Breitenbecher KH. **Violence Vict** 1999 Summer;14(2):135–46

REHABILITATION

Innovative community services for rape victims: an application of multiple case study methodology. Campbell R, et al. **Am J Community Psychol** 1998 Aug;26(4):537–71

STATISTICS & NUMERICAL DATA

Emergency department characteristics of male sexual assault. Pesola GR, et al. **Acad Emerg Med** 1999 Aug;6(8):792–8

Violence against women in Sierra Leone: frequency and correlates of intimate partner violence and forced sexual intercourse. Coker AL, et al. **Afr J Reprod Health** 1998 Apr;2(1):61–72

A review of cognitive factors in the etiology of rape: theories, empirical studies, and implications. Drieschner K, et al. **Clin Psychol Rev** 1999 Jan;19(1):57–77 (70 ref.)

Prevalence and outcomes of sexual violence among high school students. Mulugeta E, et al. **Ethiop Med J** 1998 Jul; 36(3):167–74

Crime scene analysis and the escalation of violence in serial rape. Warren J, et al. **Forensic Sci Int** 1999 Mar 15; 100(1–2):37–56

Pornography, rape, and sex crimes in Japan. Diamond M, et al. **Int J Law Psychiatry** 1999 Jan–Feb;22(1):1–22 (102 ref.)

What date/acquaintance rape victims tell others: a study of college student recipients of disclosure. Dunn PC, et al. **J Am Coll Health** 1999 Mar;47(5):213–9

Prevalence of drugs used in cases of alleged sexual assault. ElSohly MA, et al. **J Anal Toxicol** 1999 May–Jun; 23(3):141–6

Date rape among adolescents and young adults. Rickert VI, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):167–75 (74 ref.)

Journalist's rape adds to rising rape statistics [news] Baleta A. **Lancet** 1999 Apr 17;353(9161):1340

A comparison of gang and individual rape incidents. Ullman SE. **Violence Vict** 1999 Summer;14(2):123–33

RAPESEED see **BRASSICA**

RAPHE NUCLEI

ANATOMY & HISTOLOGY

Chemoarchitecture of the primate dorsal raphe nucleus. Charara A, et al. **J Chem Neuroanat** 1998 Aug;15(2):111–27

CHEMISTRY

Stimulation of benzodiazepine receptors in the dorsal hippocampus and median raphé reveals differential GABAergic control in two animal tests of anxiety. Gonzalez LE, et al. **Eur J Neurosci** 1998 Dec; 10(12):3673–80

Origins of the glycinergic inputs to the rat locus coeruleus and dorsal raphe nuclei: a study combining retrograde tracing with glycine immunohistochemistry. Rampon C, et al. **Eur J Neurosci** 1999 Mar;11(3):1058–66

Immunohistochemical localization of serotonin transporter in normal and colchicine treated rat brain. Yamamoto H, et al. **Neurosci Res** 1998 Dec;32(4):305–12

Regulation of the transmitter phenotype of rostral and caudal groups of cultured serotonergic raphe neurons. Galter D, et al. **Neuroscience** 1999 Jan;88(2):549–59

Ovarian steroid regulation of serotonin-1A autoreceptor messenger RNA expression in the dorsal raphe of rhesus macaques. Pecins-Thompson M, et al. **Neuroscience** 1999 Mar;89(1):267–77

CYTOLOGY

Activation of serotonin-immunoreactive cells in the dorsal raphe nucleus in rats exposed to an uncontrollable stressor. Grahn RE, et al. **Brain Res** 1999 Apr 24;826(1):35–43

Pharmacological evidence for a periaqueductal gray-nucleus raphe magnus connection mediating the antinociception induced by microinjecting carbachol into the dorsal periaqueductal gray of rats. Guimarães AP, et al. **Brain Res** 1999 May 8;827(1–2):152–9

An electron microscopic observation of the vesicular acetylcholine transporter-immunoreactive fibers in the rat dorsal raphe nucleus. Wang QP, et al. **Brain Res Bull** 1998 Aug;46(6):555–61

Origins of the glycinergic inputs to the rat locus coeruleus and dorsal raphe nuclei: a study combining retrograde tracing with glycine immunohistochemistry. Rampon C, et al. **Eur J Neurosci** 1999 Mar;11(3):1058–66

Neuronal projections from the mesencephalic raphe nuclear complex to the suprachiasmatic nucleus and the deep pineal gland of the golden hamster (Mesocricetus auratus). Leander P, et al. **J Comp Neurol** 1998 Sep 14;399(1):73–93

Projection patterns from the raphe nuclear complex to the ependymal wall of the ventricular system in the rat. Simpson KL, et al. **J Comp Neurol** 1998 Sep 14; 399(1):61–72

Beta-endorphinergic innervation of mu and delta receptor containing neurons in the dorsal raphe nucleus. Wang QP, et al. **Neuroreport** 1998 Sep 14;9(13):3033–6

[Sexual dimorphism in human medial raphe nuclei. Preliminary study with the Golgi cox method] Cordero ME, et al. **Rev Med Chil** 1999 May;127(5):532–8 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

The effect of alpha2-adrenergic drugs on the activity of neurons in the rat nucleus raphe magnus in vitro. Kanda T, et al. **Anesth Analg** 1999 Feb;88(2):459–61

Okadaic acid antagonizes the inhibitory action of internal GTP-gamma-S on the calcium current of dorsal raphe neurons but not that of 5-HT1A receptor activation. Kelly JS, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:220–3

8-OH-DPAT-sensitive neurons in the nucleus raphe magnus modulate thermoregulatory output in rats. Berner NJ, et al. **Brain Res** 1999 Jun 12;831(1–2):155–64

Morphine microinjected into the nucleus raphe magnus does not block the activity of spinal trigeminal nucleus oralis convergent neurons in the rat. Dualé C, et al. **Brain Res** 1998 Aug 24;803(1–2):208–11

Chronic clomipramine administration reverses NMDA-evoked decreases in dopamine release in the raphe nuclei. Pallotta M, et al. **Brain Res** 1999 Mar 27; 823(1–2):217–20

Vasodilator agents and supracollicular transection fail to inhibit cortical spreading depression in the cat [see comments] Kaube H, et al. **Cephalalgia** 1999 Jul;19(6):592–7 . Comment in: Cephalalgia 1999 Jul;19(6):542.

The 5-HT1A receptor antagonist p-MPPI blocks 5-HT1A autoreceptors and increases dorsal raphe unit activity in awake cats. Bjorvatn B, et al. **Eur J Pharmacol** 1998 Sep 4;356(2–3):167–78

Modulatory effect of p-chlorophenylalanine microinjected into the dorsal and median raphe nuclei on cocaine-induced behaviour in the rat. Herges S, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):329–40

Chronic alnespirone-induced desensitization of somatodendritic 5-HT1A autoreceptors in the rat dorsal raphe nucleus. Le Poul E, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):165–73

Effects of nicotine and mecamylamine on rat dorsal raphe neurons. Mihailescu S, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):31–6

Differences between the antinociceptive effects of the cholinergic channel activators A-85380 and (+/-)-epibatidine in rats. Curzon P, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):847–53

Electrophysiological comparison of 5-Hydroxytryptamine1A receptor antagonists on dorsal raphe cell firing. Martin LP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):820–6

Chemosensitivity of rat medullary raphe neurones in primary tissue culture. Wang W, et al. **J Physiol (Lond)** 1998 Sep 1;511 (Pt 2):433–50

Effects of local application of 5-hydroxytryptamine into the dorsal or median raphe nuclei on haloperidol-induced catalepsy in the rat. Wadenberg ML, et al. **Neuropharmacology** 1999 Jan;38(1):151–6

Local treatments of dorsal raphe nucleus induce changes in serotonergic activity in rat major cerebral arteries. Marco EJ, et al. **Stroke** 1999 Aug;30(8):1695–701

MK-801 interaction with the 5-HT transporter: a real-time study in brain slices using fast cyclic voltammetry. Iravani MM, et al. **Synapse** 1999 Jun 1;32(3):212–24

EMBRYOLOGY

Identification and role of serotonin 5-HT1A and 5-HT1B receptors in primary cultures of rat embryonic rostral raphe nucleus neurons. Héry F, et al. **J Neurochem** 1999 May; 72(5):1791–801

Developmental regulation of the serotonergic transmitter phenotype in rostral and caudal raphe neurons by transforming growth factor-betas. Galter D, et al.

J Neurosci Res 1999 Jun 1;56(5):531–8

ENZYMOLOGY

Dopamine-degrading activity of monoamine oxidase in locus coeruleus and dorsal raphe nucleus neurons. A histochemical study in the rat. Arai R, et al. **Neurosci Lett** 1998 Jun 26;250(1):41–4

Tryptophan hydroxylase mRNA levels are elevated by repeated immobilization stress in rat raphe nuclei but not in pineal gland. Chamas F, et al. **Neurosci Lett** 1999 Jun 4;267(3):157–60

METABOLISM

Enduring neurochemical effects of early maternal separation on limbic structures. Andersen SL, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:756–9

Chronic clomipramine administration reverses NMDA-evoked decreases in dopamine release in the raphe nuclei. Pallotta M, et al. **Brain Res** 1999 Mar 27; 823(1–2):217–20

Raphe serotonergic neurons projecting to the olfactory bulb contain galanin or somatostatin but not neurotensin. Araneda S, et al. **Brain Res Bull** 1999 Jun;49(3):209–14

Functional analysis of a novel human serotonin transporter gene promoter in immortalized raphe cells. Mortensen OV, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):141–8

Regulation of the release of 5-hydroxytryptamine in the median raphe nucleus of the rat by catecholaminergic afferents. Adell A, et al. **Eur J Neurosci** 1999 Jul; 11(7):2305–11

Comparative distribution of nitric oxide synthase- and serotonin-containing neurons in the raphe nuclei of four mammalian species. Léger L, et al. **Histochem Cell Biol** 1998 Nov;110(5):517–25

Chemoarchitecture of the primate dorsal raphe nucleus. Charara A, et al. **J Chem Neuroanat** 1998 Aug;15(2):111–27

In vivo assessment of the midbrain raphe nuclear regulation of serotonin release in the hamster suprachiasmatic nucleus. Dudley TE, et al. **J Neurophysiol** 1999 Apr;81(4):1469–77

Co-localization of 5-HT1B- and 5-HT1D receptor mRNA in serotonergic cell bodies in guinea pig dorsal raphé nucleus: a double labeling in situ hybridization histochemistry study. Bonaventure P, et al. **Neurosci Lett** 1998 Sep 25;254(2):113–6

Localization of nitric oxide-synthesizing neurons sending projections to the dorsal raphe nucleus of the rat. Léger L, et al. **Neurosci Lett** 1998 Dec 4;257(3):147–50

Galanin-5-hydroxytryptamine interactions: electrophysiological, immunohistochemical and in situ hybridization studies on rat dorsal raphe neurons with a note on galanin R1 and R2 receptors. Xu ZQ, et al. **Neuroscience** 1998 Nov;87(1):79–94

PATHOLOGY

Morphometry of the dorsal raphe nucleus serotonergic neurons in suicide victims. Underwood MD, et al. **Biol Psychiatry** 1999 Aug 15;46(4):473–83

PHYSIOLOGY

Vagal mechanisms underlying gastric protection induced by chemical activation of raphe pallidus in rats. Kaneko H, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1056–62

RVLM and raphe differentially regulate sympathetic outflows to splanchnic and brown adipose tissue. Morrison SF. **Am J Physiol** 1999 Apr;276(4 Pt 2):R962–73

GABA-mediated inhibition of raphe pallidus neurons regulates sympathetic outflow to brown adipose tissue. Morrison SF, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R290–7

Midline medullary depressor responses are mediated by inhibition of RVLM sympathoexcitatory neurons in rats. Verberne AJ, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1054–62

Discrepancies between the in vitro and in vivo 5-HT and norepinephrine re-uptake blocking properties of venlafaxine. Béïque JC, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:290–1

5-HT1A agonist activity of pindolol: reversal of the inhibitory effects on cell firing in the dorsal raphe nucleus but not in the hippocampus by WAY-100,635. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:274–5

Consequences of 5-HT re-uptake blockade on postsynaptic 5-HT1A receptor activation: an electrophysiological and neurochemical study in guinea pig dorsal raphe and hippocampus. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:272–3

Imidazoline-induced inhibition of firing rate of 5-HT neurons in rat dorsal raphe by modulation of extracellular 5-HT levels. Ugedo L, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:365–8

Inhibitory effect of neural transections of dorsal raphe nucleus on induction of nocturnal prolactin surge by vaginal stimulation in ovariectomized rats. Maekawa F, et al. **Brain Res** 1998 Nov 30;813(1):195–9

The effects of median raphé electrical stimulation on serotonin release in the dorsal hippocampal formation of prenatally protein malnourished rats. Mokler DJ, et al. **Brain Res** 1999 Aug 14;838(1–2):95–103

Reversible inactivation of the median raphe nucleus enhances consolidation and retrieval but not acquisition of passive avoidance learning in rats. Sarihi A, et al. **Brain Res** 1999 Jan 30;817(1–2):59–66

Dorsal raphe nucleus serotonergic neurons innervate the rostral ventrolateral medulla in rat. Underwood MD, et al. **Brain Res** 1999 Apr 3;824(1):45–55

Raphe serotonergic neurons projecting to the olfactory bulb contain galanin or somatostatin but not neurotensin. Araneda S, et al. **Brain Res Bull** 1999 Jun;49(3):209–14

Effects of a lesion in the dorsal raphe nuclei performed during the juvenile period of the female rat, on puberty. Ayala ME, et al. **Brain Res Bull** 1998 Oct;47(3):211–8

Electro-oscillographic correlation between dorsal raphe nucleus, neocortex and hippocampus during wakefulness before and after serotoninergic inactivation. Fonoff ET, et al. **Braz J Med Biol Res** 1999 Apr;32(4):469–72 (14 ref.)

Central mechanisms of pain modulation. Mason P. **Curr Opin Neurobiol** 1999 Aug;9(4):436–41 (33 ref.)

Feedback regulation of thyrotropin-releasing hormone gene expression by thyroid hormone in the caudal raphe nuclei in rats. Yang H, et al. **Endocrinology** 1999 Jan;140(1):43–9

Destruction of serotonergic neurons in the median raphe nucleus blocks circadian rhythm phase shifts to triazolam but not to novel wheel access. Meyer-Bernstein EL, et al. **J Biol Rhythms** 1998 Dec;13(6):494–505

Descending projections from the nucleus raphe obscurus to pudendal motoneurons in the male rat. Hermann GE, et al. **J Comp Neurol** 1998 Aug 10;397(4):458–74

Median raphe serotonergic innervation of medial septum/diagonal band of broca (MSDB) parvalbumin-containing neurons: possible involvement of the MSDB in the desynchronization of the hippocampal EEG. Leranth C, et al. **J Comp Neurol** 1999 Aug 9; 410(4):586–98

Projections of the median raphe nucleus in the rat. Vertes RP, et al. **J Comp Neurol** 1999 May 17;407(4):555–82

Role of serotonin(2A) and serotonin(2B/2C) receptor subtypes in the control of accumbal and striatal dopamine release elicited in vivo by dorsal raphe nucleus electrical stimulation. De Deurwaerdère P, et al. **J Neurochem** 1999 Sep;73(3):1033–42

Physiological properties of raphe magnus neurons during sleep and waking. Leung CG, et al. **J Neurophysiol** 1999 Feb;81(2):584–95

Physiological survey of medullary raphe and magnocellular reticular neurons in the anesthetized rat. Leung CG, et al. **J Neurophysiol** 1998 Oct;80(4):1630–46

Embryonic raphe neurons grafted in vitro on fetal spinal cord slices recognize specific target areas. Giménez y Ribotta M, et al. **J Neurosci Res** 1999 Jul 1;57(1):117–23

Electrophysiological comparison of 5-Hydroxytryptamine1A receptor antagonists on dorsal raphe cell firing. Martin LP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):820–6

Medullary raphe neurones and baroreceptor modulation of the respiratory motor pattern in the cat [published erratum appears in J Physiol (Lond) 1998 Dec 15;513(Pt 3):935] Lindsey BG, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):863–82

Centralis superior raphe, reticularis pontis nuclei, and sleep-wakefulness cycle in cats. Arpa J, et al. **J Sleep Res** 1998 Dec;7(4):263–75

Hippocampal EEG and unit activity responses to modulation of serotonergic median raphe neurons in the freely behaving rat. Nitz DA, et al. **Learn Mem** 1999 Mar-Apr; 6(2):153–67

Injection of endothelin-1 into the raphe obscurus of rats induces depressor responses predominantly through endothelin ET(A) receptors. D'Amico M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):471–6

Dependence of serotonin release in the locus coeruleus on dorsal raphe neuronal activity. Kaehler ST, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):386–93

Effect of acute, short- and long-term milnacipran administration on rat locus coeruleus noradrenergic and dorsal raphe serotonergic neurons. Mongeau R, et al. **Neuropharmacology** 1998 Jul;37(7):905–18

Serotonin and stress. Chaouloff F, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):28S–32S (37 ref.)

Sleep and serotonin: an unfinished story. Jouvet M. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):24S–27S (21 ref.)

Contrasting effects of chronic paroxetine on 5-HT1A control of dorsal raphe cell firing and 5-HT release. Davidson C, et al. **Neuroreport** 1998 Aug 3;9(11):2535–8

8-OH-DPAT in the median raphe nucleus decreases while in the medial septal area it may increase anxiety in female rats. De Almeida RM, et al. **Neurosci Biobehav Rev** 1998; 23(2):259–64

Raphe pallidus and parapyramidal neurons regulate ear pinna vascular conductance in the rabbit. Blessing WW, et al. **Neurosci Lett** 1999 Jul 23;270(1):33–6

The ependymocytes of the bovine subcommissural organ are functionally coupled through gap junctions. González CA, et al. **Neurosci Lett** 1999 Mar 12;262(3):175–8

An electrophysiological and neuroanatomical study of the medial prefrontal cortical projection to the midbrain raphe nuclei in the rat. Hajós M, et al. **Neuroscience** 1998 Nov; 87(1):95–108

Electrical stimulation of the median or dorsal raphe nuclei reduces light-induced FOS protein in the suprachiasmatic nucleus and causes circadian activity rhythm phase shifts. Meyer-Bernstein EL, et al. **Neuroscience** 1999;92(1):267–79

The ascending serotonergic system in the hamster: comparison with projections of the dorsal and median raphe nuclei. Morin LP, et al. **Neuroscience** 1999; 91(1):81–105

Medial septal and median raphe innervation of vasoactive intestinal polypeptide-containing interneurons in the hippocampus. Papp EC, et al. **Neuroscience** 1999 May; 90(2):369–82

Development of chemosensitivity of rat medullary raphe neurons. Wang W, et al. **Neuroscience** 1999 Mar; 90(3):1001–11

Cardiorespiratory responses to glutamate microinjected into the medullary raphé. Bernard DG. **Respir Physiol** 1998 Jul; 113(1):11–21

[Somatostatin in NRM plays roles in inducing analgesia and enhancing electroacupuncture analgesia] Liu L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):342–5 (Eng. Abstr.) **(Chi)**

[Effect of dorsal raphe nucleus stimulation on unit discharges of light-sensitive neurons of suprachiasmatic nucleus in rats] Yu GD, et al. **Sheng Li Hsueh Pao** 1997 Jun; 49(3):314–20 (Eng. Abstr.) **(Chi)**

[A study of the mechanism of L-NNA on sleep inhibition] Zhang Q, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):585–8 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Covariation of activity in habenula and dorsal raphé nuclei following tryptophan depletion. Morris JS, et al. **Neuroimage** 1999 Aug;10(2):163–72

Nucleus reticularis gigantocellularis and nucleus raphe magnus in the brain stem exert opposite effects on behavioral hyperalgesia and spinal Fos protein expression after peripheral inflammation [published erratum appears in Pain 1999 May;81(1–2):215–9] Wei F, et al. **Pain** 1999 Mar;80(1–2):127–41

SECRETION

A microdialysis study of the in vivo release of 5-HT in the median raphe nucleus of the rat. Adell A, et al. **Br J Pharmacol** 1998 Nov;125(6):1361–7

RAPID EYE MOVEMENTS see **SLEEP, REM**

RAPTORS

Production of a falcon herpesvirus vaccine. Wernery U, et al. **Berl Munch Tierarztl Wochenschr** 1999 Sep; 112(9):339–44

Peripheral neuropathy in a turkey vulture with lead toxicosis. Platt SR, et al. **J Am Vet Med Assoc** 1999 Apr 15; 214(8):1218–20, 1200

Metastatic oral squamous cell carcinoma in a Montagu's harrier (Circus pigargus). Ramis A, et al. **J Vet Diagn Invest** 1999 Mar;11(2):191–4

Synovial chondromatosis in raptors. Stone EG, et al. **J Wildl Dis** 1999 Jan;35(1):137–40

Salmonellosis in relation to chlamydiosis and pox and Salmonella infections in captive falcons in the United Arab Emirates. Wernery U, et al. **Zentralbl Veterinarmed [B]** 1998 Dec;45(10):577–83

ANATOMY & HISTOLOGY

A scanning electron microscope study of the luminal surface specializations in the blood vessels of the pecten oculi in a diurnal bird, the black kite (Milvus migrans). Kiama SG, et al. **Anat Anz** 1998 Oct;180(5):455–60

GROWTH & DEVELOPMENT

Energy requirements for growth in relation to sexual size dimorphism in marsh harrier Circus aeruginosus nestlings. Krijgsveld KL, et al. **Physiol Zool** 1998 Nov-Dec; 71(6):693–702

MICROBIOLOGY

Virulence of raptor-origin Pasteurella multocida in domestic chickens. Aye PP, et al. **Avian Dis** 1999 Apr-Jun; 43(2):279–85

PARASITOLOGY

Respiratory nematodiases in raptors in Quebec. Lavoie M, et al. **J Wildl Dis** 1999 Apr;35(2):375–80

Prevalence of encysted apicomplexans in muscles of raptors. Lindsay DS, et al. **Vet Parasitol** 1999 Jan 28;80(4):341–4

Hairworms of birds of prey [letter] Krone O, et al. **Vet Rec** 1999 Jul 24;145(4):115

Prevalence of haematozoa in birds of prey in Catalonia, north-east Spain. Muñoz E, et al. **Vet Rec** 1999 Jun 5; 144(23):632–6

PHYSIOLOGY

Diurnal and nocturnal visual capabilities in shorebirds as a function of their feeding strategies. Rojas LM, et al. **Brain Behav Evol** 1999;53(1):29–43

Heteroxenous coccidia increase the predation risk of parasitized rodents. Voříšek P, et al. **Parasitology** 1998 Dec;

RAPTORS

117 (Pt 6):521–4

RARE EARTH METALS see **METALS, RARE EARTH**

RARE GASES see **NOBLE GASES**

RAS GENES see **GENES, RAS**

RAS ONCOGENE PROTEIN P21 see **ONCOGENE PROTEIN P21(RAS)**

RAS PROTEINS

AGONISTS

Identification of peptide superagonists for a self-K-ras-reactive CD4+ T cell clone using combinatorial peptide libraries and mass spectrometry. Tanaka Y, et al. **J Immunol** 1999 Jun 15;162(12):7155–61

ANTAGONISTS & INHIBITORS

Therapeutic efficacy of an adenovirus-mediated anti-H-ras ribozyme in experimental bladder cancer. Irie A, et al. **Antisense Nucleic Acid Drug Dev** 1999 Aug;9(4):341–9

Inhibition of K-ras-transformed rodent and human cancer cell growth via induction of apoptosis by irreversible inhibitors of Ras endoprotease. Chen Y. **Cancer Lett** 1998 Sep 25;131(2):191–200

Pre-clinical development of farnesyltransferase inhibitors. Lobell RB, et al. **Cancer Metastasis Rev** 1998 Jun; 17(2):203–10 (54 ref.)

lin-35 and lin-53, two genes that antagonize a C. elegans Ras pathway, encode proteins similar to Rb and its binding protein RbAp48. Lu X, et al. **Cell** 1998 Dec 23;95(7):981–91

Selective GRB2 SH2 inhibitors as anti-Ras therapy. Gay B, et al. **Int J Cancer** 1999 Oct 8;83(2):235–41

A new functional Ras antagonist inhibits human pancreatic tumor growth in nude mice. Weisz B, et al. **Oncogene** 1999 Apr 22;18(16):2579–88

A method for computational combinatorial peptide design of inhibitors of Ras protein. Zeng J, et al. **Protein Eng** 1999 Jun;12(6):457–68

BIOSYNTHESIS

Farnesylcysteine methyltransferase activity and Ras protein expression in human stomach tumor tissue. Han ES, et al. **Arch Pharm Res** 1998 Aug;21(4):378–84

Immunohistochemical evaluation of K-ras, p53, and HER-2/neu expression in hyperplastic, dysplastic, and carcinomatous lesions of the pancreas: evidence for multistep carcinogenesis. Apple SK, et al. **Hum Pathol** 1999 Feb;30(2):123–9

Modulation of proto-oncogene expression by polychlorinated biphenyls in 3T3-L1 cell line. Gribaldo L, et al. **J Toxicol Environ Health** 1998 Sep 25;55(2):121–31

BLOOD

Examination of various biomarkers measuring genotoxic endpoints from Barcelona airport personnel. Pitarque M, et al. **Mutat Res** 1999 Apr 6;440(2):195–204

[Studies on serum regulatory protein for cell growth in patients with lung cancer exposed to indoor coal-burning] Li J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Mar;31(2):92–4 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Sequence analysis identifies a ras-associating (RA)-like domain in the N-termini of band 4.1/JEF domains and in the Grb7/10/14 adapter family. Wojcik J, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):113–20

Sec14p-like domains in NF1 and Dbl-like proteins indicate lipid regulation of Ras and Rho signaling [letter] Aravind L, et al. **Curr Biol** 1999 Mar 25;9(6):R195–7

Schistosoma mansoni: cloning and characterization of the Ras homologue. Kampkötter A, et al. **Exp Parasitol** 1999 Mar; 91(3):280–3

Structural and biochemical analysis of Ras-effector signaling via RalGDS. Vetter IR, et al. **FEBS Lett** 1999 May 21; 451(2):175–80

Nuclear magnetic resonance and molecular dynamics studies on the interactions of the Ras-binding domain of Raf-1 with wild-type and mutant Ras proteins. Terada T, et al. **J Mol Biol** 1999 Feb 12;286(1):219–32

Molecular dynamics simulations of the Ras:Raf and Rap:Raf complexes. Zeng J, et al. **Proteins** 1999 Apr 1;35(1):89–100

[Structures and functions of small GTPase and heterotrimeric G proteins] Saito Y. **Nippon Rinsho** 1998 Jul;56(7):1750–5 (20 ref.) (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Activation of a Ca2+-dependent K+ current in mouse fibroblasts by lysophosphatidic acid requires a pertussis toxin-sensitive G protein and Ras. Repp H, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):509–17

Non-Ras targets of farnesyltransferase inhibitors: focus on Rho. Lebowitz PF, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1439–45 (76 ref.)

GENETICS

Adenovirus-mediated gene transfer of RasN17 inhibits specific CCK actions on pancreatic acinar cells. Nicke B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G499–506

K-ras and p53 mutations and overexpressions as prognostic factors in female rectal carcinoma. Hirvikoski P, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):685–91

H-ras activation is an early event in the ptaquiloside-induced carcinogenesis: comparison of acute and chronic toxicity in rats [published erratum appears in Biochem Biophys Res Commun 1998 Oct 20;251(2):668] Shahin M, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):491–7

Double-mutant analysis of the interaction of Ras with the Ras-binding domain of RGL. Shirouzu M, et al. **Biochemistry** 1999 Apr 20;38(16):5103–10

Argos induces programmed cell death in the developing Drosophila eye by inhibition of the Ras pathway. Sawamoto K, et al. **Cell Death Differ** 1998 Apr;5(4):262–70

ras1 and pat1 alleles interact to quantitatively and qualitatively alter conjugation in fission yeast. Mach KE, et al. **Curr Genet** 1998 Sep;34(3):172–82

A screen for mutations that prevent lethality caused by expression of activated sevenless and Ras1 in the Drosophila embryo. Maixner A, et al. **Dev Genet** 1998; 23(4):347–61

Longevity, genes, and aging: a view provided by a genetic model system. Jazwinski SM. **Exp Gerontol** 1999 Jan; 34(1):1–6

A novel human RasGAP-like gene that maps within the prostate cancer susceptibility locus at chromosome 1q25. Noto S, et al. **FEBS Lett** 1998 Dec 11;441(1):127–31

Molecular cloning of Ras cDNA from Penaeus japonicus (Crustacea, decapoda): geranylgeranylation and guanine nucleotide binding. Huang CF, et al. **Gene** 1998 Dec 11; 224(1-2):117–22

Characterization of the C. elegans gap-2 gene encoding a novel Ras-GTPase activating protein and its possible role in larval development. Hayashizaki S, et al. **Genes Cells** 1998 Mar;3(3):189–202

Disruption of the mouse Rce1 gene results in defective Ras processing and mislocalization of Ras within cells. Kim E, et al. **J Biol Chem** 1999 Mar 26;274(13):8383–90

Losses of heterozygosity on chromosomes 17p and 9p/18q may play important roles in early and advanced phases of gallbladder carcinogenesis. Hidaka E, et al. **J Cancer Res Clin Oncol** 1999 Aug-Sep;125(8-9):439–43

The developmental role of warthog, the notch modifier encoding Drab6. Purcell K, et al. **J Cell Biol** 1999 Aug 23;146(4):731–40

Activated Ras signals developmental progression of recombinase-activating gene (RAG)-deficient pro-B lymphocytes. Shaw AC, et al. **J Exp Med** 1999 Jan 4; 189(1):123–9

Facilitated geranylgeranylation of shrimp ras-encoded p25 fusion protein by the binding with guanosine diphosphate. Huang CF, et al. **J Exp Zool** 1999 May 1;283(6):510–21

Cytogenetic, ras, and p53: studies in cases of canine neoplasms (hemangiopericytoma, mastocytoma, histiocytoma, chloroma). Mayr B, et al. **J Hered** 1999 Jan-Feb;90(1):124–8

Cloning oncogenic ras-regulated genes by differential display. Jo H, et al. **Methods** 1998 Dec;16(4):365–72

Gene organization of rab6, a marker for the novel Golgi of Plasmodium. Ming M, et al. **Mol Biochem Parasitol** 1999 May 25;100(2):217–22

An amino terminal intron indicates that transcripts for the Plasmodium falciparum Golgi network marker Rab6 do not encode alternative amino termini. Templeton TJ, et al. **Mol Biochem Parasitol** 1998 Jul 1;94(1):149–53

Crosstalk between the Ras2p-controlled mitogen-activated protein kinase and cAMP pathways during invasive growth of Saccharomyces cerevisiae. Mösch HU, et al. **Mol Biol Cell** 1999 May;10(5):1325–35

The Ras mutant D119N is both dominant negative and activated. Cool RH, et al. **Mol Cell Biol** 1999 Sep; 19(9):6297–305

Distinct subclasses of small GTPases interact with guanine nucleotide exchange factors in a similar manner. Day GJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7444–54

Suppression of E1A-mediated transformation by the p50E4F transcription factor. Fernandes ER, et al. **Mol Cell Biol** 1999 Jul;19(7):4739–49

Telomerase activity is sufficient to allow transformed cells to escape from crisis. Halvorsen TL, et al. **Mol Cell Biol** 1999 Mar;19(3):1864–70

Regulation of RNA polymerase I-dependent promoters by the hepatitis B virus X protein via activated Ras and TATA-binding protein. Wang HD, et al. **Mol Cell Biol** 1998 Dec;18(12):7086–94

A Ras protein from a phytopathogenic fungus causes defects in hyphal growth polarity, and induces tumors in mice. Truesdell GM, et al. **Mol Gen Genet** 1999 Aug;262(1):46–54

Ras mutation, irrespective of cell type and p53 status, determines a cell's destiny to undergo apoptosis by okadaic acid, an inhibitor of protein phosphatase 1 and 2A. Rajesh D, et al. **Mol Pharmacol** 1999 Sep;56(3):515–25

Polycyclic aromatic hydrocarbons: correlations between DNA adducts and ras oncogene mutations. Ross JA, et al. **Mutat Res** 1999 Mar 8;424(1-2):155–66 (59 ref.)

Suppression of Ras-mediated NIH3T3 transformation by p19ARF does not involve alterations of cell growth properties. Calabrò V, et al. **Oncogene** 1999 Mar 25; 18(12):2157–62

Differential contribution of the ERK and JNK mitogen-activated protein kinase cascades to Ras transformation of HT1080 fibrosarcoma and DLD-1 colon carcinoma cells. Plattner R, et al. **Oncogene** 1999 Mar 11; 18(10):1807–17

Guanosine triphosphatase stimulation of oncogenic Ras mutants. Ahmadian MR, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7065–70

Genetics of RAS signaling in C. elegans. Sternberg PW, et al. **Trends Genet** 1998 Nov;14(11):466–72 (83 ref.)

Molecular cloning of homologs of RAS and RHO1 genes from Cryptococcus neoformans. Tanaka K, et al. **Yeast** 1999 Aug;15(11):1133–9

[Studies on mutagenicity of polycyclic aromatic hydrocarbon-DNA adduct] Sun Z, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Mar;31(2):84–7 (Eng. Abstr.) **(Chi)**

HISTORY

Alfred Wittinghofer--Felix Hoppe-Seyler Lecturer 1998 [editorial] Schaffner W. **Biol Chem** 1998 Aug-Sep; 379(8-9):931

IMMUNOLOGY

Persistence, immune specificity, and functional ability of murine mutant ras epitope-specific CD4(+) and CD8(+) T lymphocytes following in vivo adoptive transfer. Bristol JA, et al. **Cell Immunol** 1999 May 25;194(1):78–89

Identification of peptide superagonists for a self-K-ras-reactive CD4+ T cell clone using combinatorial peptide libraries and mass spectrometry. Tanaka Y, et al. **J Immunol** 1999 Jun 15;162(12):7155–61

A phase I vaccine trial with peptides reflecting ras oncogene mutations of solid tumors. Khleif SN, et al. **J Immunother** 1999 Mar;22(2):155–65

METABOLISM

Ion channels as physiological effectors for growth factor receptor and Ras/ERK signaling pathways. Rane SG. **Adv Second Messenger Phosphoprotein Res** 1999;33:107–27 (126 ref.)

Regulation of endothelial cell adherens junctions by a Ras-dependent signal transduction pathway. Hegland DD, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):371–6

Characterization of lectin resistant cell populations derived from human colon carcinoma: correlation of K-Ras with beta1-6 branching of N-linked carbohydrate and CEA production. Wojciechowicz DC, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):588–93

In vivo interaction of AF-6 with activated Ras and ZO-1. Yamamoto T, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):103–7

Evidence for a novel RasGAP-associated protein of 105 kDa in both mature trophoblasts and differentiating choriocarcinoma cells. Ye F, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):523–7

Arachidonoyl-CoA:lysophosphatidylcholine acyltransferase activity in ras-transformed NIH 3T3 fibroblasts depends on the membrane composition. Momchilova A, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):555–61

Ras, superoxide and signal transduction. Irani K, et al. **Biochem Pharmacol** 1998 May 1;55(9):1339–46 (90 ref.)

Modes of interactions between signaling pathways. Jordan JD, et al. **Biochem Pharmacol** 1998 May 1;55(9):1347–52 (35 ref.)

Innovative treatment programs against cancer. I. Ras oncoprotein as a molecular target. Waddick KG, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1411–26 (118 ref.)

Structure determination of the Ras-binding domain of the Ral-specific guanine nucleotide exchange factor Rlf. Esser D, et al. **Biochemistry** 1998 Sep 29;37(39):13453–62

Interaction of a novel GDP exchange inhibitor with the Ras protein. Ganguly AK, et al. **Biochemistry** 1998 Nov 10; 37(45):15631–7

Double-mutant analysis of the interaction of Ras with the Ras-binding domain of RGL. Shirouzu M, et al. **Biochemistry** 1999 Apr 20;38(16):5103–10

Transient kinetic studies on the interaction of Ras and the Ras-binding domain of c-Raf-1 reveal rapid equilibration of the complex. Sydor JR, et al. **Biochemistry** 1998 Oct 6;37(40):14292–9

Phosphorylation of the kinase suppressor of ras by associated kinases. Volle DJ, et al. **Biochemistry** 1999 Apr 20; 38(16):5130–7

Signal transduction via Ras. Wittinghofer A. **Biol Chem** 1998 Aug-Sep;379(8-9):933–7 (14 ref.)

Interleukin-9-induced expression of M-Ras/R-Ras3 oncogene in T-helper clones. Louahed J, et al. **Blood** 1999 Sep 1;94(5):1701–10

GCKR links the Bcr-Abl oncogene and Ras to the stress-activated protein kinase pathway. Shi CS, et al. **Blood** 1999 Feb 15;93(4):1338–45

Small GTP-binding proteins in human endothelial cells. de Leeuw HP, et al. **Br J Haematol** 1998 Oct;103(1):15–9

A potential role of Ras-mediated signal transduction for the enhancement of depolarization-induced Ca2+ responses in hippocampal neurons by basic fibroblast growth factor. Katsuki H, et al. **Brain Res Dev Brain Res** 1998 Dec 7; 111(2):169–76

Harvey ras results in a higher frequency of mammary

carcinomas than Kirsten ras after direct retroviral transfer into the rat mammary gland. Thompson TA, et al. **Cancer Res** 1998 Nov 15;58(22):5097–104

The Drosophila gene hid is a direct molecular target of Ras-dependent survival signaling [see comments] Bergmann A, et al. **Cell** 1998 Oct 30;95(3):331–41. Comment in: Cell 1998 Oct 30;95(3):295–8.

Endomembrane trafficking of ras: the CAAX motif targets proteins to the ER and Golgi [see comments] Choy E, et al. **Cell** 1999 Jul 9;98(1):69–80. Comment in: Cell 1999 Jul 9;98(1):9–12.

Structural and functional analysis of the ARF1-ARFGAP complex reveals a role for coatomer in GTP hydrolysis. Goldberg J. **Cell** 1999 Mar 19;96(6):893–902

Ras promotes cell survival in Drosophila by downregulating hid expression [see comments] Kurada P, et al. **Cell** 1998 Oct 30;95(3):319–29. Comment in: Cell 1998 Oct 30;95(3):295–8.

New insights into the interaction of Ras with the plasma membrane [comment] Magee T, et al. **Cell** 1999 Jul 9; 98(1):9–12 (20 ref.). Comment on: Cell 1999 Jul 9;98(1):69–80.

CNK, a RAF-binding multidomain protein required for RAS signaling. Therrien M, et al. **Cell** 1998 Oct 30;95(3):343–53

Activation of Vav and Ras through the nerve growth factor and B cell receptors by different kinases. Melamed I, et al. **Cell Immunol** 1999 Feb 1;191(2):83–9

What does insulin do to Ras? Goalstone ML, et al. **Cell Signal** 1998 May;10(5):297–301 (43 ref.)

Molecular forceps from combinatorial libraries prevent the farnesylation of Ras by binding to its carboxyl terminus. Dong DL, et al. **Chem Biol** 1999 Mar;6(3):133–41

A novel Rab6-interacting domain defines a family of Golgi-targeted coiled-coil proteins. Barr FA. **Curr Biol** 1999 Apr 8;9(7):381–4

The ras recruitment system, a novel approach to the study of protein-protein interactions. Broder YC, et al. **Curr Biol** 1998 Oct 8;8(20):1121–4

Apoptosis: Ras to the rescue in the fly eye. McNeill H, et al. **Curr Biol** 1999 Mar 11;9(5):R176–9 (16 ref.)

Neurofibromin modulation of ras activity is required for normal endocardial-mesenchymal transformation in the developing heart. Lakkis MM, et al. **Development** 1998 Nov;125(22):4359–67

All in the family? New insights and questions regarding interconnectivity of Ras, Rap1 and Ral. Bos JL. **EMBO J** 1998 Dec 1;17(23):6776–82 (75 ref.)

Net, a negative Ras-switchable TCF, contains a second inhibition domain, the CID, that mediates repression through interactions with CtBP and de-acetylation. Criqui-Filipe P, et al. **EMBO J** 1999 Jun 15; 18(12):3392–403

Characterization of GAPCenA, a GTPase activating protein for Rab6, part of which associates with the centrosome. Cuif MH, et al. **EMBO J** 1999 Apr 1;18(7):1772–82

Activation of the Drosophila C3G leads to cell fate changes and overproliferation during development, mediated by the RAS-MAPK pathway and RAP1. Ishimaru S, et al. **EMBO J** 1999 Jan 4;18(1):145–55

Efficient transition to growth on fermentable carbon sources in Saccharomyces cerevisiae requires signaling through the Ras pathway. Jiang Y, et al. **EMBO J** 1998 Dec 1; 17(23):6942–51

Oncogenic Ras inhibits Fas ligand-mediated apoptosis by downregulating the expression of Fas. Peli J, et al. **EMBO J** 1999 Apr 1;18(7):1824–31

Phosphorylation of Tyr319 in ZAP-70 is required for T-cell antigen receptor-dependent phospholipase C-gamma1 and Ras activation. Williams BL, et al. **EMBO J** 1999 Apr 1; 18(7):1832–44

Pertussis toxin-sensitive and insensitive intracellular signalling pathways in undifferentiated 3T3-L1 cells stimulated by insulin converge with phosphatidylinositol 3-kinase upstream of the Ras mitogen-activated protein kinase cascade. Uehara T, et al. **Eur J Biochem** 1999 Feb; 259(3):801–8

Selective activation of Ha-ras(val12) oncogene increases susceptibilityof NIH/3T3 cells to TNF-alpha. Chang MY, et al. **Exp Cell Res** 1999 May 1;248(2):589–98

A mutation that separates the RasG signals that regulate development and cytoskeletal function in Dictyostelium. Zhang T, et al. **Exp Cell Res** 1999 Mar 15;247(2):356–66

Role of Ras/ERK-dependent pathway in the erythroid differentiation of K562 cells. Kang CD, et al. **Exp Mol Med** 1999 Jun 30;31(2):76–82

Expression of an oncogenic mutant G alpha i2 activates Ras in Rat-1 fibroblast cells. Edamatsu H, et al. **FEBS Lett** 1998 Nov 27;440(1-2):231–4

Solution structure of the Ras-binding domain of RGL. Kigawa T, et al. **FEBS Lett** 1998 Dec 28;441(3):413–8

RNA aptamers that specifically bind to the Ras-binding domain of Raf-1. Kimoto M, et al. **FEBS Lett** 1998 Dec 18;441(2):322–6

Oncogenic Ras-induced germinal vesicle breakdown is independent of phosphatidylinositol 3-kinase in Xenopus oocytes. López-Hernández E, et al. **FEBS Lett** 1999 May 28;451(3):284–8

Cell-free synthesis of the Ras-binding domain of c-Raf-1: binding studies to fluorescently labelled H-ras. Sydor JR, et al. **FEBS Lett** 1999 Jun 11;452(3):375–8

Pharmacological inhibition of Ras-transformed epithelial cell growth is linked to down-regulation of epidermal growth factor-related peptides. Sizemore N, et al. **Gastroenterology** 1999 Sep;117(3):567–76

Ras-mediated signaling pathway regulates the expression of a low-molecular-weight heat-shock protein in fission yeast. Danjoh I, et al. **Gene** 1999 Aug 20;236(2):347–52

Identification of Ce-AF-6, a novel Caenorhabditis elegans protein, as a putative Ras effector. Watari Y, et al. **Gene** 1998 Dec 11;224(1-2):53–8

A mechanism of repression of TGFbeta/ Smad signaling by oncogenic Ras. Kretzschmar M, et al. **Genes Dev** 1999 Apr 1;13(7):804–16

Interleukin-1beta regulation of the human brain natriuretic peptide promoter involves Ras-, Rac-, and p38 kinase-dependent pathways in cardiac myocytes. He Q, et al. **Hypertension** 1999 Jan;33(1 Pt 2):283–9

Expression and activation of RAS and mitogen-activated protein kinases in macrophages treated in vitro with cisplatin: regulation by kinases, phosphatases and Ca2+/calmodulin. Singh RA, et al. **Immunol Cell Biol** 1999 Aug;77(4):356–63

Notch-1 expression levels in 3T3-L1 cells influence ras signaling and transformation by oncogenic ras. Ruiz-Hidalgo MJ, et al. **Int J Oncol** 1999 Apr;14(4):777–83

Hyaluronan activates mitogen-activated protein kinase via Ras-signaling pathway. Serbulea M, et al. **Int J Oncol** 1999 Apr;14(4):733–8

Fyn and JAK2 mediate Ras activation by reactive oxygen species. Abe J, et al. **J Biol Chem** 1999 Jul 23; 274(30):21003–10

Effector recognition by the small GTP-binding proteins Ras and Ral. Bauer B, et al. **J Biol Chem** 1999 Jun 18; 274(25):17763–70

A non-farnesylated Ha-Ras protein can be palmitoylated and trigger potent differentiation and transformation. Booden MA, et al. **J Biol Chem** 1999 Jan 15;274(3):1423–31

Association of the Ras to mitogen-activated protein kinase signal transduction pathway with microfilaments. Evidence for a p185(neu)-containing cell surface signal transduction particle linking the mitogenic pathway to a membrane-microfilament association site. Carraway CA, et al. **J Biol Chem** 1999 Sep 3;274(36):25659–67

Regulation of Ras.GTP loading and Ras-Raf association in neonatal rat ventricular myocytes by G protein-coupled receptor agonists and phorbol ester. Activation of the extracellular signal-regulated kinase cascade by phorbol ester is mediated by Ras. Chiloeches A, et al. **J Biol Chem** 1999 Jul 9;274(28):19762–70

A redox-triggered ras-effector interaction. Recruitment of phosphatidylinositol 3'-kinase to Ras by redox stress. Deora AA, et al. **J Biol Chem** 1998 Nov 6;273(45):29923–8

Thrombin induces proteinase-activated receptor-1 gene expression in endothelial cells via activation of Gi-linked Ras/mitogen-activated protein kinase pathway. Ellis CA, et al. **J Biol Chem** 1999 May 7;274(19):13718–27

Insulin-induced desensitization of extracellular signal-regulated kinase activation results from an inhibition of Raf activity independent of Ras activation and dissociation of the Grb2-SOS complex. Fucini RV, et al. **J Biol Chem** 1999 Jun 25;274(26):18651–8

Pseudomonas aeruginosa exoenzyme S disrupts Ras-mediated signal transduction by inhibiting guanine nucleotide exchange factor-catalyzed nucleotide exchange. Ganesan AK, et al. **J Biol Chem** 1999 Jul 30;274(31):21823–9

Pseudomonas aeruginosa exoenzyme S, a double ADP-ribosyltransferase, resembles vertebrate mono-ADP-ribosyltransferases. Ganesan AK, et al. **J Biol Chem** 1999 Apr 2;274(14):9503–8

Multiple ras effector pathways contribute to G(1) cell cycle progression. Gille H, et al. **J Biol Chem** 1999 Jul 30; 274(31):22033–40

Gi proteins use a novel beta gamma- and Ras-independent pathway to activate extracellular signal-regulated kinase and mobilize AP-1 transcription factors in Jurkat T lymphocytes. Hedin KE, et al. **J Biol Chem** 1999 Jul 9; 274(28):19992–20001

Effect of phosphorylation on activities of Rap1A to interact with Raf-1 and to suppress Ras-dependent Raf-1 activation. Hu CD, et al. **J Biol Chem** 1999 Jan 1; 274(1):48–51

Cyclic strain stress-induced mitogen-activated protein kinase (MAPK) phosphatase 1 expression in vascular smooth muscle cells is regulated by Ras/Rac-MAPK pathways. Li C, et al. **J Biol Chem** 1999 Sep 3;274(36):25273–80

The gene expression of the amiloride-sensitive epithelial sodium channel alpha-subunit is regulated by antagonistic effects between glucocorticoid hormone and ras pathways in salivary epithelial cells. Lin HH, et al. **J Biol Chem** 1999 Jul 30;274(31):21544–54

Thermodynamic and kinetic characterization of the interaction between the Ras binding domain of AF6 and members of the Ras subfamily. Linnemann T, et al. **J Biol Chem** 1999 May 7;274(19):13556–62

Oncogenic ras causes resistance to the growth inhibitor insulin-like growth factor binding protein-3 (IGFBP-3) in breast cancer cells. Martin JL, et al. **J Biol Chem** 1999 Jun 4;274(23):16407–11

Platelet-derived growth factor activates p38 mitogen-activated protein kinase through a Ras-dependent pathway that is important for actin reorganization and cell migration. Matsumoto T, et al. **J Biol Chem** 1999 May 14; 274(20):13954–60

Lipid products of phosphoinositide 3-kinase interact with Rac1 GTPase and stimulate GDP dissociation. Missy K, et al. **J Biol Chem** 1998 Nov 13;273(46):30279–86

Activated Ha-ras induces apoptosis by association with phosphorylated Bcl-2 in a mitogen-activated protein kinase-independent manner. Navarro P, et al. **J Biol Chem** 1999 Jul 2;274(27):18857–63

Coiled-coil interaction of N-terminal 36 residues of cyclase-associated protein with adenylyl cyclase is sufficient for its function in Saccharomyces cerevisiae ras pathway. Nishida Y, et al. **J Biol Chem** 1998 Oct 23; 273(43):28019–24

The death effector domain of PEA-15 is involved in its regulation of integrin activation. Ramos JW, et al. **J Biol Chem** 1998 Dec 18;273(51):33897–900

Discriminatory residues in Ras and Rap for guanine nucleotide exchange factor recognition. van den Berghe N, et al. **J Biol Chem** 1999 Apr 16;274(16):11078–85

Activation of Stat3 by v-Src is through a Ras-independent pathway. Liu JJ, et al. **J Biomed Sci** 1998 Nov-Dec; 5(6):446–50

Myosin light chain kinase functions downstream of Ras/ERK to promote migration of urokinase-type plasminogen activator-stimulated cells in an integrin-selective manner. Nguyen DH, et al. **J Cell Biol** 1999 Jul 12;146(1):149–64

The developmental role of warthog, the notch modifier encoding Drab6. Purcell K, et al. **J Cell Biol** 1999 Aug 23;146(4):731–40

Evidence that atypical protein kinase C-lambda and atypical protein kinase C-zeta participate in Ras-mediated reorganization of the F-actin cytoskeleton. Uberall F, et al. **J Cell Biol** 1999 Feb 8;144(3):413–25

Cloning and expression of a rat Smad1: regulation by TGFbeta and modulation by the Ras/MEK pathway. Yue J, et al. **J Cell Physiol** 1999 Mar;178(3):387–96

Regulation of actin organisation by TGF-beta in H-ras-transformed fibroblasts. Moustakas A, et al. **J Cell Sci** 1999 Apr;112 (Pt 8):1169–79

Hypothermic stress leads to activation of Ras-Erk signaling. Chan EY, et al. **J Clin Invest** 1999 May;103(9):1337–44

Effect of simvastatin, a 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor, on alpha-fetoprotein gene expression through interaction with the ras-mediated pathway. Mazume H, et al. **J Hepatol** 1999 May; 30(5):904–10

MEK and ERK activation in ras-disabled RBL-2H3 mast cells and novel roles for geranylgeranylated and farnesylated proteins in Fc epsilonRI-mediated signaling. Graham TE, et al. **J Immunol** 1998 Dec 15;161(12):6733–44

NCAM stimulates the Ras-MAPK pathway and CREB phosphorylation in neuronal cells. Schmid RS, et al. **J Neurobiol** 1999 Mar;38(4):542–58

Delta opioid receptors expressed by stably transfected jurkat cells signal through the map kinase pathway in a ras-independent manner. Shahabi NA, et al. **J Neuroimmunol** 1999 Feb 1;94(1-2):48–57

Involvement of Ras/MAP kinase in the regulation of Ca2+ channels in adult bullfrog sympathetic neurons by nerve growth factor. Lei S, et al. **J Neurophysiol** 1998 Sep; 80(3):1352–61

Acetylcholine muscarinic receptor regulation. of the Ras/Raf/MAP kinase pathway. Qian NX, et al. **Life Sci** 1995;56(11-12):945–9

A Candida albicans chaperonin subunit (CaCct8p) as a suppressor of morphogenesis and Ras phenotypes in C. albicans and Saccharomyces cerevisiae. Rademacher F, et al. **Microbiology** 1998 Nov;144 (Pt 11):2951–60

Characterization of the Ras homologue of Schistosoma mansoni. Osman A, et al. **Mol Biochem Parasitol** 1999 May 15;100(1):27–41

Ras family GTPases control growth of astrocyte processes. Kalman D, et al. **Mol Biol Cell** 1999 May;10(5):1665–83

A novel Ras-interacting protein required for chemotaxis and cyclic adenosine monophosphate signal relay in Dictyostelium. Lee S, et al. **Mol Biol Cell** 1999 Sep; 10(9):2829–45

Ras pathway activates epithelial Na+ channel and decreases its surface expression in Xenopus oocytes. Mastroberardino L, et al. **Mol Biol Cell** 1998 Dec;9(12):3417–27

Crosstalk between the Ras2p-controlled mitogen-activated protein kinase and cAMP pathways during invasive growth of Saccharomyces cerevisiae. Mösch HU, et al. **Mol Biol Cell** 1999 May;10(5):1325–35

The small GTP-binding protein R-Ras can influence integrin activation by antagonizing a Ras/Raf-initiated integrin suppression pathway. Sethi T, et al. **Mol Biol Cell** 1999 Jun;10(6):1799–809

The multisubstrate docking site of the MET receptor is dispensable for MET-mediated RAS signaling and cell scattering. Tulasne D, et al. **Mol Biol Cell** 1999 Mar; 10(3):551–65

ras activity and cyclin D1 expression: an essential mechanism of mouse skin tumor development. Rodriguez-Puebla ML, et al. **Mol Carcinog** 1999 Jan;24(1):1–6 (61 ref.)

Insulin regulation of the Ras activation/inactivation cycle. Ceresa BP, et al. **Mol Cell Biochem** 1998 May;182(1-2):23–9 (79 ref.)

Identification of constitutive and ras-inducible phosphorylation sites of KSR: implications for 14-3-3 binding, mitogen-activated protein kinase binding, and KSR overexpression. Cacace AM, et al. **Mol Cell Biol** 1999 Jan;19(1):229–40

Cellular ras and cyclin D1 are required during different cell

cycle periods in cycling NIH 3T3 cells. Hitomi M, et al. **Mol Cell Biol** 1999 Jul;19(7):4623–32

The strength of interaction at the Raf cysteine-rich domain is a critical determinant of response of Raf to Ras family small GTPases. Okada T, et al. **Mol Cell Biol** 1999 Sep; 19(9):6057–64

Signals from the Ras, Rac, and Rho GTPases converge on the Pak protein kinase in Rat-1 fibroblasts. Tang Y, et al. **Mol Cell Biol** 1999 Mar;19(3):1881–91

The oxidative stress response mediated via Pos9/Skn7 is negatively regulated by the Ras/PKA pathway in Saccharomyces cerevisiae. Charizanis C, et al. **Mol Gen Genet** 1999 Jun;261(4–5):740–52

Role of SHIP in FcgammaRIIb-mediated inhibition of Ras activation in B cells. Tridandapani S, et al. **Mol Immunol** 1998 Dec;35(17):1135–46

ADP-ribosylation of oncogenic Ras proteins by pseudomonas aeruginosa exoenzyme S in vivo. Vincent TS, et al. **Mol Microbiol** 1999 Jun;32(5):1054–64

Structures of Cdc42 bound to the active and catalytically compromised forms of Cdc42GAP. Nassar N, et al. **Nat Struct Biol** 1998 Dec;5(12):1047–52

EPS8 and E3B1 transduce signals from Ras to Rac. Scita G, et al. **Nature** 1999 Sep 16;401(6750):290–3

Human DNA helicase VIII: a DNA and RNA helicase corresponding to the G3BP protein, an element of the ras transduction pathway. Costa M, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):817–21

Plasma membrane recruitment of RalGDS is critical for Ras-dependent Ral activation. Matsubara K, et al. **Oncogene** 1999 Feb 11;18(6):1303–12

Interdependent action of RalGEF and Erk in Ras-induced primitive endoderm differentiation of F9 embryonal carcinoma cells. Verheijen MH, et al. **Oncogene** 1999 Aug 5;18(31):4435–9

Guanosine triphosphatase stimulation of oncogenic Ras mutants. Ahmadian MR, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7065–70

Moe1, a conserved protein in Schizosaccharomyces pombe, interacts with a Ras effector, Scd1, to affect proper spindle formation. Chen CR, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):517–22

G protein beta gamma subunit-dependent Rac-guanine nucleotide exchange activity of Ras-GRF1/CDC25(Mm). Kiyono M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4826–31

Induction of Ig light chain gene rearrangement in heavy chain-deficient B cells by activated Ras. Shaw AC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2239–43

Design, total chemical synthesis, and binding properties of a [Leu-91-N1-methyl-7-azaTrp]Ras-binding domain of c-Raf-1. Sydor JR, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7865–70

T cell antigen receptor-mediated activation of the Ras/mitogen-activated protein kinase pathway controls interleukin 4 receptor function and type-2 helper T cell differentiation. Yamashita M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1024–9

Reovirus therapy of tumors with activated Ras pathway [see comments] Coffey MC, et al. **Science** 1998 Nov 13; 282(5392):1332–4. Comment in: Science 1998 Nov 13;282(5392):1244–6.

Increased activation of Ras in psoriatic lesions. Lin P, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan–Apr; 12(1–2):90–7

Mobile DNA elements: controlling transposition with ATP-dependent molecular switches. Stellwagen AE, et al. **Trends Biochem Sci** 1998 Dec;23(12):486–90 (45 ref.)

Deletion of SFI1, a novel suppressor of partial Ras–cAMP pathway deficiency in the yeast Saccharomyces cerevisiae, causes G(2) arrest. Ma P, et al. **Yeast** 1999 Aug; 15(11):1097–109

PHARMACOLOGY

Synergistic action of R-Ras and IGF-1 on Bcl-xL expression and caspase-3 inhibition in BaF3 cells: R-Ras and IGF-1 control distinct anti-apoptotic kinase pathways. Suzuki J, et al. **FEBS Lett** 1998 Oct 16;437(1–2):112–6

PHYSIOLOGY

Osmotic swelling-induced activation of the extracellular-signal-regulated protein kinases Erk-1 and Erk-2 in intestine 407 cells involves the Ras/Raf-signalling pathway. van der Wijk T, et al. **Biochem J** 1998 May 1; 331 (Pt 3):863–9

Interleukin-8 receptors R1 and R2 activate mitogen-activated protein kinases and induce c-fos, independent of Ras and Raf-1 in Chinese hamster ovary cells. Shyamala V, et al. **Biochemistry** 1998 Nov 10; 37(45):15918–24

Points of convergence between Ca2+ and Ras signalling pathways. Gawler DJ. **Biochim Biophys Acta** 1998 Dec 10;1448(2):171–82 (90 ref.)

Rab proteins. Martinez O, et al. **Biochim Biophys Acta** 1998 Aug 14;1404(1–2):101–12 (106 ref.)

Ras family proteins: new players involved in the diplotene arrest of Xenopus oocytes. Jessus C, et al. **Biol Cell** 1998 Nov;90(8):573–83 (78 ref.)

Interleukin-4 synergizes with Raf-1 to promote long-term proliferation and activation of c-jun N-terminal kinase. Levings MK, et al. **Blood** 1999 Jun 1;93(11):3694–702

Sprouty, an intracellular inhibitor of Ras signaling. Casci T, et al. **Cell** 1999 Mar 5;96(5):655–65

Conspiracy theory: RAS and RAF do not act alone. Sternberg PW, et al. **Cell** 1998 Nov 13;95(4):447–50 (17 ref.)

The SH3 domain of the S. cerevisiae Cdc25p binds adenylyl cyclase and facilitates Ras regulation of cAMP signalling. Mintzer KA, et al. **Cell Signal** 1999 Feb;11(2):127–35

Modulation of Ras/Raf/extracellular signal-regulated kinase pathway by reactive oxygen species is involved in cyclic strain-induced early growth response-1 gene expression in endothelial cells. Wung BS, et al. **Circ Res** 1999 Apr 16;84(7):804–12

Ras--a versatile cellular switch. Rommel C, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):412–8 (71 ref.)

Ras caught in another affair: the exchange factors for Ral. Wolthuis RM, et al. **Curr Opin Genet Dev** 1999 Feb; 9(1):112–7 (60 ref.)

The beta-catenin homolog BAR-1 and LET-60 Ras coordinately regulate the Hox gene lin-39 during Caenorhabditis elegans vulval development. Eisenmann DM, et al. **Development** 1998 Sep;125(18):3667–80

Extracellular signal-regulated activation of Rap1 fails to interfere in Ras effector signalling. Zwartkruis FJ, et al. **EMBO J** 1998 Oct 15;17(20):5905–12

Role of RAS2 in recovery from chronic stress: effect on yeast life span. Shama S, et al. **Exp Cell Res** 1998 Dec 15; 245(2):368–78

Heat stress-induced life span extension in yeast. Shama S, et al. **Exp Cell Res** 1998 Dec 15;245(2):379–88

LAT is required for TCR-mediated activation of PLCgamma1 and the Ras pathway. Finco TS, et al. **Immunity** 1998 Nov;9(5):617–26

Normoxic and hypoxic regulation of vascular endothelial growth factor (VEGF) by astrocytoma cells is mediated by Ras. Feldkamp MM, et al. **Int J Cancer** 1999 Mar 31; 81(1):118–24

The role of G proteins in insulin signalling. Rizzo MA, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2–4):167–95 (159 ref.)

BAD enables ceramide to signal apoptosis via Ras and Raf-1. Basu S, et al. **J Biol Chem** 1998 Nov 13;273(46):30419–26

Ras regulates the association of serum response factor and CCAAT/enhancer-binding protein beta. Hanlon M, et al. **J Biol Chem** 1999 May 14;274(20):14224–8

Ras proteins induce senescence by altering the intracellular levels of reactive oxygen species. Lee AC, et al. **J Biol Chem** 1999 Mar 19;274(12):7936–40

Membrane interactions of a constitutively active GFP-Ki-Ras 4B and their role in signaling. Evidence from lateral mobility studies. Niv H, et al. **J Biol Chem** 1999 Jan 15;274(3):1606–13

Prolonged activation of extracellular signal-regulated kinase by a protein kinase C-dependent and N17Ras-insensitive mechanism mediates the proliferative response of G(i/o)-coupled somatostatin sst(4) receptors. Sellers LA. **J Biol Chem** 1999 Aug 20;274(34):24280–8

The Ras/Erk pathway induces primitive endoderm but prevents parietal endoderm differentiation of F9 embryonal carcinoma cells. Verheijen MH, et al. **J Biol Chem** 1999 Jan 15;274(3):1487–94

Transformation by oncogenic ras-p21 alters the processing and subcellular localization of the lysosomal protease cathepsin D. Démoz M, et al. **J Cell Biochem** 1999 Jun 1;73(3):370–8

R-Ras signals through specific integrin alpha cytoplasmic domains to promote migration and invasion of breast epithelial cells. Keely PJ, et al. **J Cell Biol** 1999 May 31; 145(5):1077–88

Steps in integrin beta1-chain glycosylation mediated by TGFbeta1 signaling through Ras. Bellis SL, et al. **J Cell Physiol** 1999 Oct;181(1):33–44

Phospho-LAT-independent activation of the ras-mitogen-activated protein kinase pathway: a differential recruitment model of TCR partial agonist signaling. Chau LA, et al. **J Immunol** 1999 Aug 15; 163(4):1853–8

Ceramide inhibits inwardly rectifying K+ currents via a Ras- and Raf-1-dependent pathway in cultured oligodendrocytes. Hida H, et al. **J Neurosci** 1998 Nov 1; 18(21):8712–9

The RafC1 cysteine-rich domain contains multiple distinct regulatory epitopes which control Ras-dependent Raf activation. Daub M, et al. **Mol Cell Biol** 1998 Nov; 18(11):6698–710

Control of growth and differentiation by Drosophila RasGAP, a homolog of p120 Ras-GTPase-activating protein. Feldmann P, et al. **Mol Cell Biol** 1999 Mar; 19(3):1928–37

Ajuba, a novel LIM protein, interacts with Grb2, augments mitogen-activated protein kinase activity in fibroblasts, and promotes meiotic maturation of Xenopus oocytes in a Grb2- and Ras-dependent manner. Goyal RK, et al. **Mol Cell Biol** 1999 Jun;19(6):4379–89

Suppression of Ras-induced apoptosis by the Rac GTPase. Joneson T, et al. **Mol Cell Biol** 1999 Sep;19(9):5892–901

Transcriptional repressor ERF is a Ras/mitogen-activated protein kinase target that regulates cellular proliferation. Le Gallic L, et al. **Mol Cell Biol** 1999 Jun;19(6):4121–33

Differential roles of Akt, Rac, and Ral in R-Ras-mediated cellular transformation, adhesion, and survival. Osada M, et al. **Mol Cell Biol** 1999 Sep;19(9):6333–44

Role of phosphoinositide 3-kinase in activation of ras and mitogen-activated protein kinase by epidermal growth factor. Wennström S, et al. **Mol Cell Biol** 1999 Jun; 19(6):4279–88

Differential expression of group I metabotropic glutamate receptors (mGluRs) in the rat pheochromocytoma cell line PC12: role of nerve growth factor and ras. Kane MD, et al. **Neurosci Lett** 1998 Aug 7;252(1):1–4

SHP-2 binds to Tyr763 and Tyr1009 in the PDGF beta-receptor and mediates PDGF-induced activation of the Ras/MAP kinase pathway and chemotaxis. Rönnstrand L, et al. **Oncogene** 1999 Jun 24;18(25):3696–702

Is the Ras-MAPK signalling pathway necessary for long-term memory formation? Orban PC, et al. **Trends Neurosci** 1999 Jan;22(1):38–44 (90 ref.)

[Regulation of endothelial NO production by Rho GTPase] Laufs U, et al. **Med Klin** 1999 Apr 15;94(4):211–8 (36 ref.) (Eng. Abstr.) **(Ger)**

[Structures and functions of small GTPase and heterotrimeric G proteins] Saito Y. **Nippon Rinsho** 1998 Jul;56(7):1750–5 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Evidence for a Ras/Ral signaling cascade] Urano T. **Seikagaku** 1998 Sep;70(9):1181–3 (15 ref.) **(Jpn)**

THERAPEUTIC USE

Mutated Ras peptides as vaccines in immunotherapy of cancer. Gjertsen MK, et al. **Vox Sang** 1998;74 Suppl 2:489–95 (49 ref.)

RAS PROTO-ONCOGENE PROTEIN P21 see **PROTO-ONCOGENE PROTEIN P21(RAS)**

RASH see **EXANTHEMA**

RAT-BITE FEVER

[Rat-bite fever] Ito A. **Ryoikibetsu Shokogun Shirizu** 1999; (24 Pt 2):300 (2 ref.) **(Jpn)**

DIAGNOSIS

[Rat bite fever after a bite from a tame pet rat] Schuurman B, et al. **Ned Tijdschr Geneeskd** 1998 Sep 5;142(36):2006–9 (Eng. Abstr.) **(Dut)**

RAT NEMATODE see **NIPPOSTRONGYLUS**

RAT VIRUS see **PARVOVIRUS**

RATE SETTING AND REVIEW

see related
RELATIVE VALUE SCALES

Setting fees for medical services: a model for establishing a comprehensive medical service fees structure based on an integrated approach to service components cost analysis. Bossard FO. **Acad Radiol** 1998 Sep;5 Suppl 2:S392–6

The use of the ASTRO-PU and the ASTRO(97)-PU in the setting of prescribing budgets in English general practice [see comments] Baines D, et al. **J Clin Pharm Ther** 1998 Jun;23(3):229–34. Comment in: J Clin Pharm Ther 1999 Apr;24(2):157–8.

LEGISLATION & JURISPRUDENCE

Health insurance reform in the small-group market. Curtis R, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):151–60

What level of scrutiny is required in an antitrust case? 2. Sfikas P. **J Am Dent Assoc** 1999 Apr;130(4):581–3

[Rinke-Trauhand expert assessment proves: rate setting by the German health insurance are not distributed equitably. Radiologists of the North Rhine health insurance will pay about 5,000 DM to support mandatory health insurance services in 1999. The expert report exceeds all apprehensions] **Radiologe** 1999 Jul;39(7):M123–5 **(Ger)**

METHODS

Who gains and who loses with community rating for small business? Buchanan JL, et al. **Inquiry** 1999 Spring; 36(1):30–43

STATISTICS & NUMERICAL DATA

Medicaid managed care payment rates in 1998. Holahan J, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):217–27

Varying health care provider objectives and cost-shifting: the case of retail pharmacy in the US. Brooks JM, et al. **Health Econ** 1999 Mar;8(2):137–50

RATIONAL-EMOTIVE PSYCHOTHERAPY see **PSYCHOTHERAPY, RATIONAL-EMOTIVE**

RATIONALIZATION

Rational (or rationing?) healthcare [editorial; comment] Fante RG, et al. **Ophthalmology** 1999 Sep;106(9):1649–50. Comment on: Ophthalmology 1999 Sep;106(9):1705–12.

RATIONING, HEALTH CARE see **HEALTH CARE RATIONING**

RATITES

Current ratite therapy. Jensen JM.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):485–502, iv (22 ref.)
Infectious diseases and parasites of ratites. Shane SM.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):455–83, iv (41 ref.)
Jurisprudence for ratite practitioners. Shane SM.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):525–31, vii (2 ref.)
United States food and drug laws and ratites as emerging food animals. Spenser EL.
Vet Clin North Am Food Anim Pract 1998 Nov;14(3):533–40 (26 ref.)
Ratite diagnostic imaging. Williams J.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):421–35, vi (13 ref.)

PHYSIOLOGY

Anesthesia and surgery of ratites. Gilsleider EF.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):503–24, vi–vii (7 ref.)
Ratite reproduction. Hicks–Alldredge K.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):437–53, vi (8 ref.)

SURGERY

Anesthesia and surgery of ratites. Gilsleider EF.
Vet Clin North Am Food Anim Pract 1998 Nov; 14(3):503–24, vi–vii (7 ref.)

RATS

see related

RODENT CONTROL

Characterization of a rodent model in which to investigate the molecular and cellular mechanisms underlying the pathophysiology of L–dopa–induced dyskinesia. Henry B, et al. **Adv Neurol** 1998;78:53–61 (36 ref.)
Prevalence of "orphan" parvovirus infections in mice and rats. Ueno Y, et al. **Exp Anim** 1998 Jul;47(3):207–10
Bartonella tribocorum sp. nov., a new Bartonella species isolated from the blood of wild rats. Heller R, et al.
Int J Syst Bacteriol 1998 Oct;48 Pt 4:1333–9
Believes USDA regulations needed for rats and mice [letter] [see comments] Kraus AL. **J Am Vet Med Assoc** 1999 Mar 15;214(6):779. Comment in: J Am Vet Med Assoc 1999 May 1;214(9):1317–8.
Controversy over USDA regulation of rats and mice continues [letter; comment] McLaughlin RM.
J Am Vet Med Assoc 1999 May 1;214(9):1317–8. Comment on: J Am Vet Med Assoc 1999 Mar 15;214(6):779.
Seasonal colonization and decomposition of rat carrion in water and on land in an open field in South Carolina. Tomberlin JK, et al. **J Med Entomol** 1998 Sep;35(5):704–9
"Variable induction of experimental abdominal aortic aneurysms with different preparations of porcine pancreatic elastase" [letter] Curci JA, et al. **J Vasc Surg** 1999 Feb; 29(2):385
A serosurvey of Borna disease virus infection in wild rats by a capture ELISA. Tsujimura K, et al.
J Vet Med Sci 1999 Feb;61(2):113–7
Detection of cilia–associated respiratory (CAR) bacillus in nasal–swab specimens from infected rats by use of polymerase chain reaction. Franklin CL, et al.
Lab Anim Sci 1999 Feb;49(1):114–7
Identification of risk factors in rat bite incidents involving humans. Hirschhorn RB, et al. **Pediatrics** 1999 Sep; 104(3):e35 (21 ref.)
Considerations on anesthesia in experiments using rats [letter] Wako M, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1543–4
Streptobacillus moniliformis infection: 2 cases and a literature review. Hagelskjaer L, et al. **Scand J Infect Dis** 1998; 30(3):309–11 (23 ref.)
[An effective system of measures to protect children's groups from attack by blood–sucking arthropods and the extermination of rodents in the area of children's institutions] Dremova VP, et al. **Med Parazitol (Mosk)** 1998 Jul–Sep;(3):54–5 **(Rus)**

ANATOMY & HISTOLOGY

NADPH–diaphorase positive myenteric neurons in the ileum of guinea–pig, rat, rabbit and cat: a comparative study. Wilhelm M, et al. **Eur J Morphol** 1998 Jul;36(3):143–52
The amygdaloid body of the rabbit—a morphometric study using image analyser. Dziewiątkowski J, et al.
Folia Morphol (Warsz) 1998;57(2):93–103
Neural architecture of the rat medial geniculate body. Winer JA, et al. **Hear Res** 1999 Apr;130(1–2):19–41
Shape differences in the cervical and upper thoracic vertebrae in rats (Rattus norvegicus) and bats (Pteropus poiocephalus): can we see shape patterns derived from position in column and species membership? Johnson DR, et al. **J Anat** 1999 Feb;194 (Pt 2):249–53
Hereditarily elongated carotid sinus nerve in a rat colony. Tanaka K, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2–3):190–7
Subnuclear organization of the rat habenular complexes. Andres KH, et al. **J Comp Neurol** 1999 Apr 28; 407(1):130–50
Cellular and subcellular distribution of substance P receptor immunoreactivity in the dorsal vagal complex of the rat and cat: a light and electron microscope study. Baude A, et al. **J Comp Neurol** 1998 Dec 14;402(2):181–96
Neurogenesis in the adult rat dentate gyrus is enhanced by vitamin E deficiency. Ciaroni S, et al. **J Comp Neurol** 1999 Aug 30;411(3):495–502
Changes in the numbers of neurons and astrocytes during the postnatal development of the rat inferior olive. Cunningham JJ, et al. **J Comp Neurol** 1999 Apr 12; 406(3):375–83
Adult olfactory epithelium contains multipotent progenitors that give rise to neurons and non–neural cells. Huard JM, et al. **J Comp Neurol** 1998 Nov 2;400(4):469–86
Ultrastructural anatomy of physiologically identified jaw–muscle spindle afferent terminations onto retrogradely labeled jaw–elevator motoneurons in the rat. Luo P, et al. **J Comp Neurol** 1999 Apr 12;406(3):384–401
Distribution and phenotype of dendritic cells and resident tissue macrophages in the dura mater, leptomeninges, and choroid plexus of the rat brain as demonstrated in wholemount preparations. McMenamin PG.
J Comp Neurol 1999 Mar 22;405(4):553–62
Different origins and developmental histories of transient neurons in the marginal zone of the fetal and neonatal rat cortex. Meyer G, et al. **J Comp Neurol** 1998 Aug 10; 397(4):493–518
Morphological organization of the globus pallidus–subthalamic nucleus system studied in organotypic cultures. Plenz D, et al. **J Comp Neurol** 1998 Aug 10; 397(4):437–57
Cellular terrain surrounding sympathetic nerve pathways in the rat orbit: comparisons of orbital connective tissue and smooth muscle cell phenotypes. Smith PG, et al.
J Comp Neurol 1998 Nov 2;400(4):529–43
Thalamocortical and intracortical projections to the forelimb–stump SI representation of rats that sustained neonatal forelimb removal. Stojic AS, et al.
J Comp Neurol 1998 Nov 16;401(2):187–204
Quantitative study of neurofilament–positive fiber length in rat spinal cord lesions using isotropic virtual planes. von Euler M, et al. **J Comp Neurol** 1998 Nov 2;400(4):441–8
Electron microscopic study of the parathyroid gland of Rattus rattus. Emura S, et al. **Okajimas Folia Anat Jpn** 1999 May;76(1):71–80

EMBRYOLOGY

Liver development in the rat during the embryonic period (Carnegie stages 15–23). Godlewski G, et al.
Acta Anat (Basel) 1997;160(3):172–8
Chloride concentration in cultured hippocampal neurons increases during long–term exposure to ammonia through enhanced expression of an anion exchanger. Irie T, et al. **Brain Res** 1998 Sep 28;806(2):246–56
Ontogeny of innervation of rat and ovine fetal adrenals. Engeland WC, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):889–98
Immunohistochemical study of microglia cells during the development of rat brain. Domaradzka–Pytel B, et al.
Folia Morphol (Warsz) 1998;57(2):201–2
Different origins and developmental histories of transient neurons in the marginal zone of the fetal and neonatal rat cortex. Meyer G, et al. **J Comp Neurol** 1998 Aug 10; 397(4):493–518
[The heterogeneity of the myocardial mitochondrial apparatus and the mechanisms of its formation in the early ontogeny of rats] Tverdokhleb IV. **Tsitol Genet** 1998 Mar–Apr;32(2):8–12 (Eng. Abstr.) **(Rus)**

GENETICS

Crosses between diabetic BB/OK and wild rats confirm that a third gene is essential for diabetes development. Klöting I, et al. **Acta Diabetol** 1998 Jul;35(2):109–11
Transcriptional activation and protein binding by two regions of the rat surfactant protein A promoter. Rosenberg E, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L134–41
Identification of four new members of the rat prolactin/growth hormone gene family. Ishibashi K, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):575–8
Nucleosome positioning in the rat protamine 1 gene in vivo and in vitro. Adroer R, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):252–60
Expression of a novel rat protein tyrosine phosphatase gene. Carter DA. **Biochim Biophys Acta** 1998 Nov 8; 1442(2–3):405–8
Isolation, cloning, and characterization of a novel rat lung zinc finger gene, RLZF–Y. Dovat S, et al.
Biochim Biophys Acta 1998 Nov 8;1442(2–3):380–8
Molecular cloning and characterization of the rat NHE–2 gene promoter. Muller YL, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):314–9
Molecular cloning and expression of rat bradykinin B1 receptor. Ni A, et al. **Biochim Biophys Acta** 1998 Nov 8; 1442(2–3):177–85
Identification in the rat prolactin gene of sequences homologous to the distal promoter of the human prolactin gene. Shaw–Bruha CM, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):304–13
Cloning and expressions of three mammalian homologues of Drosophila slit suggest possible roles for Slit in the formation and maintenance of the nervous system. Itoh A, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):175–86
Characterization of six rat strains (Rattus norvegicus) by mitochondrial DNA restriction fragment length polymorphism. Hilsdorf AW, et al.
Braz J Med Biol Res 1999 Mar;32(3):267–73
Comparative karyotype of rat and mouse using bidirectional chromosome painting. Guilly MN, et al.
Chromosome Res 1999;7(3):213–21
The rat growth hormone–releasing hormone receptor gene: structure, regulation, and generation of receptor isoforms with different signaling properties. Miller TL, et al.
Endocrinology 1999 Sep;140(9):4152–65
Identification of the start sites for the 1.9– and 1.4–kb rat transforming growth factor–beta1 transcripts and their effect on translational efficiency. Yang Y, et al. **Gene** 1998 Sep 28;219(1–2):81–9
A high–density integrated genetic linkage and radiation hybrid map of the laboratory rat. Steen RG, et al.
Genome Res 1999 Jun;9(6):AP1–8, insert
Cloning and characterization of two new isoforms of the rat kidney urea transporter: UT–A3 and UT–A4. Karakashian A, et al. **J Am Soc Nephrol** 1999 Feb; 10(2):230–7
Hereditarily elongated carotid sinus nerve in a rat colony. Tanaka K, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2–3):190–7
Psychogenetically selected (Roman high– and low–avoidance) rats differ in 24–hour sleep organization. Steimer T, et al. **J Biol Rhythms** 1999 Jun;14(3):221–6
Influence of rat strain on larval production by the parasitic nematode Strongyloides ratti. Gemmill AW, et al.
J Parasitol 1998 Dec;84(6):1289–91
Linkage mapping of fifty–eight new rat microsatellite markers. Sverdlov VE, et al. **Mamm Genome** 1998 Oct; 9(10):816–21
Expression of the rat homologue of the Drosophila fat tumour suppressor gene. Ponassi M, et al. **Mech Dev** 1999 Feb;80(2):207–12
Expression of rat homeobox gene, rHOX, in developing and adult tissues in mice and regulation of its mRNA expression in osteoblasts by bone morphogenetic protein 2 and parathyroid hormone–related protein. Hu YS, et al.
Mol Endocrinol 1998 Nov;12(11):1721–32
Rattus norvegicus and the Industrial Revolution [news; comment] Nadeau JH. **Nat Genet** 1999 May;22(1):3–4. Comment on: Nat Genet 1999 May;22(1):27–36.
A radiation hybrid map of the rat genome containing 5,255 markers [see comments] Watanabe TK, et al. **Nat Genet** 1999 May;22(1):27–36. Comment in: Nat Genet 1999 May;22(1):3–4.
Metastasis–association of the rat ortholog of the human epithelial glycoprotein antigen EGP314. Würfel J, et al.
Oncogene 1999 Apr 8;18(14):2323–34
Proceedings of the 12th International Workshop on Alloantigenic Systems in the Rat. Halifax, Nova Scotia, Canada. July 8–10, 1998. **Transplant Proc** 1999 May; 31(3):1499–630
Integrated linkage maps in the rat. Levan KK, et al.
Transplant Proc 1999 May;31(3):1544–5
An integrated rat genetic map: analysis of linkage conservation with the mouse and human maps. Remmers EF, et al. **Transplant Proc** 1999 May;31(3):1549–54
Rat genetic map and a rat/mouse/human comparative gene map. Serikawa T, et al. **Transplant Proc** 1999 May; 31(3):1537–40
Gene–based anchoring of the rat genetic linkage and cytogenetic maps. Szpirer C, et al. **Transplant Proc** 1999 May;31(3):1541–3
[Molecular phylogeny of forest and field mice of the genus Apodemus (Muridae, Rodentia) based on the data on restriction analysis of total nuclear DNA] Chelomina GN. **Genetika** 1998 Sep;34(9):1286–92 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Effects of ractopamine HCl stereoisomers on growth, nitrogen retention, and carcass composition in rats. Ricke EA, et al. **J Anim Sci** 1999 Mar;77(3):701–7

IMMUNOLOGY

Comparison of methods to assess airborne rat and mouse allergen levels. I. Analysis of air samples. Hollander A, et al. **Allergy** 1999 Feb;54(2):142–9
Comparison of methods to assess airborne rat and mouse allergen levels. II. Factors influencing antigen detection. Renström A, et al. **Allergy** 1999 Feb;54(2):150–7
Characterization and localization of CD38 in the vertebrate eye. Khoo KM, et al. **Brain Res** 1999 Mar 6;821(1):17–25
Allergen exposure, atopy and smoking as determinants of allergy to rats in a cohort of laboratory employees. Cullinan P, et al. **Eur Respir J** 1999 May;13(5):1139–43
Exposure–response relationships for work–related sensitization in workers exposed to rat urinary allergens: results from a pooled study. Heederik D, et al.
J Allergy Clin Immunol 1999 Apr;103(4):678–84

METABOLISM

Transcriptional activation and protein binding by two regions of the rat surfactant protein A promoter. Rosenberg E, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L134–41
Distribution of calbindin D–28k and parvalbumin neurons and fibers in the rat basal ganglia. Hontanilla B, et al.

Brain Res Bull 1998 Sep 15;47(2):107–16 (85 ref.)
Overexpression of sialomucin complex, a rat homologue of MUC4, inhibits tumor killing by lymphokine-activated killer cells. Komatsu M, et al. **Cancer Res** 1999 May 1; 59(9):2229–36
Intracellular Ca2+ storage sites in the carp heart: comparison with the rat heart. Chugun A, et al.
Comp Biochem Physiol A Mol Integr Physiol 1999 May; 123(1):61–7
Early developmental changes in intracellular Ca2+ stores in rat brain. Singh AK.
Comp Biochem Physiol A Mol Integr Physiol 1999 Jun; 123(2):163–72
Comparison of rat and human parathyroid hormone 2 (PTH2) receptor activation: PTH is a low potency partial agonist at the rat PTH2 receptor. Hoare SR, et al.
Endocrinology 1999 Oct;140(10):4419–25
Immunochemical analysis of the sodium channel in rodent and human eye. Mirshahi M, et al. **Exp Eye Res** 1999 Jul; 69(1):21–32
Identification of megalin as the sole rat kidney sialoglycoprotein containing poly alpha2,8 deaminoneuraminic acid. Ziak M, et al.
J Am Soc Nephrol 1999 Feb;10(2):203–9
Coexpression of neurocalcin with other calcium-binding proteins in the rat main olfactory bulb. Briñón JG, et al. **J Comp Neurol** 1999 May 10;407(3):404–14
Metabotropic glutamate receptors in superficial laminae of the rat dorsal horn. Jia H, et al. **J Comp Neurol** 1999 Aug 9;410(4):627–42
Epithelial Na+ channel subunits in rat taste cells: localization and regulation by aldosterone. Lin W, et al.
J Comp Neurol 1999 Mar 15;405(3):406–20
Immunohistochemical localization of GABA(B) receptors in the rat central nervous system. Margeta-Mitrovic M, et al. **J Comp Neurol** 1999 Mar 15;405(3):299–321
Dopamine D1-receptor immunolocalization in goldfish retina. Mora-Ferrer C, et al. **J Comp Neurol** 1999 Sep 6; 411(4):705–14
Expression of presenilin 1 in nervous system during rat development. Moreno-Flores MT, et al. **J Comp Neurol** 1999 Aug 9;410(4):556–70
Expression of NR2 receptor subunit in rat somatic sensory cortex: synaptic distribution and colocalization with NR1 and PSD-95. Valtschanoff JG, et al. **J Comp Neurol** 1999 Aug 9;410(4):599–611
Distinct and interactive effects of d-amphetamine and haloperidol on levels of neurotensin and its mRNA in subterritories in the dorsal and ventral striatum of the rat. Zahm DS, et al. **J Comp Neurol** 1998 Nov 2;400(4):487–503
Comparative nutrient digestibility in dogs, blue foxes, mink and rats. Ahlstrom O, et al. **J Nutr** 1998 Dec;128(12 Suppl):2676S–2677S
The acetylcholine, GABA, glutamate triangle in the rat forebrain. Pepeu G, et al. **J Physiol Paris** 1998 Oct-Dec; 92(5–6):351–5 (51 ref.)
Gamma-atrial natriuretic peptide 1–25 is found in bipolar cells in turtle and rat retinas. Haverkamp S, et al.
Vis Neurosci 1999 Jul-Aug;16(4):771–9

MICROBIOLOGY

Serosurvey of wild rodents for Rickettsioses (spotted fever, murine typhus and Q fever) in Java Island, Indonesia. Ibrahim IN, et al. **Eur J Epidemiol** 1999 Jan;15(1):89–93
Detection of Mycoplasma pulmonis from rats and mice of São Paulo/SP, Brazil. Timenetsky J, et al.
Lab Anim Sci 1998 Apr;48(2):210–3
Shiga toxin-producing Escherichia coli O157 in feedlot cattle and Norwegian rats from a large-scale farm. Cížek A, et al. **Lett Appl Microbiol** 1999 Jun;28(6):435–9
Discrimination of rat-derived Pneumocystis carinii f. sp. Carinii and Pneumocystis carinii f. sp. Ratti using the polymerase chain reaction. Palmer RJ, et al.
Mol Cell Probes 1999 Apr;13(2):147–55

PARASITOLOGY

[Effect of the intensity of host parasitemia on the vectorial competence of Glossina morsitans Westwood, 1850 (Mall) infected by Trypanosoma (Nannonmonas) congolense IL 1180] Kazadi JM, et al. **Parasite** 1999 Mar;6(1):57–62 (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Photic responses of suprachiasmatic area neurons in diurnal degus (Octodon degus) and nocturnal rats (Rattus norvegicus). Jiao YY, et al. **Brain Res** 1999 Jan 30; 817(1–2):93–103
The activation of back muscles during locomotion in the developing rat. Gramsbergen A, et al.
Brain Res Dev Brain Res 1999 Feb 5;112(2):217–28
The phytoestrogen content of rodent diets [letter; comment] Thigpen JE, et al. **Environ Health Perspect** 1999 Apr; 107(4):A182–3. Comment on: Environ Health Perspect 1998 Jul;106(7):369–73.
Auditory frequency discrimination in the white rat. Talwar SK, et al. **Hear Res** 1998 Dec;126(1–2):135–50
Efferent projection from the rostral ventrolateral medulla to the area postrema in rats. Frugière A, et al.
J Auton Nerv Syst 1998 Aug 6;72(1):34–45
The effect of multiple pulses of light on the circadian phase response of the rat. Stokes MA, et al. **J Biol Rhythms** 1999 Jun;14(3):172–84
Ultrastructural change at rat cerebellothalamic synapses associated with volitional motor adaptation. Aumann TD, et al. **J Comp Neurol** 1999 Jun 21;409(1):71–84
Differential projections to the intralaminar and gustatory thalamus from the parabrachial area: a PHA-L study in the rat. Bester H, et al. **J Comp Neurol** 1999 Mar 22; 405(4):421–49
Organisation of reciprocal connections between trigeminal and vestibular nuclei in the rat. Buisseret-Delmas C, et al. **J Comp Neurol** 1999 Jun 21;409(1):153–68
Age-related synaptic changes in the central nucleus of the inferior colliculus of Fischer-344 rats. Helfert RH, et al. **J Comp Neurol** 1999 Apr 12;406(3):285–98
Descending projections from the nucleus raphe obscurus to pudendal motoneurons in the male rat. Hermann GE, et al. **J Comp Neurol** 1998 Aug 10;397(4):458–74
Morphological organization of the globus pallidus-subthalamic nucleus system studied in organotypic cultures. Plenz D, et al. **J Comp Neurol** 1998 Aug 10; 397(4):437–57
Immunohistochemical localization of adenosine A2A receptors in the rat central nervous system. Rosin DL, et al. **J Comp Neurol** 1998 Nov 16;401(2):163–86
Perirhinal cortex projections to the amygdaloid complex and hippocampal formation in the rat. Shi CJ, et al.
J Comp Neurol 1999 Apr 12;406(3):299–328
Projections of the vestibular nuclei to the thalamus in the rat: a Phaseolus vulgaris leucoagglutinin study. Shiroyama T, et al. **J Comp Neurol** 1999 May 10;407(3):318–32
Cellular expression of alpha-gustducin and the A blood group antigen in rat fungiform taste buds cross-reinnervated by the IXth nerve. Smith DV, et al.
J Comp Neurol 1999 Jun 21;409(1):118–30
Distribution of glutamic acid decarboxylase mRNA-containing neurons in rat medulla projecting to thoracic spinal cord in relation to monoaminergic brainstem neurons. Stornetta RL, et al. **J Comp Neurol** 1999 May 10;407(3):367–80
Errors in lamina growth of primary olfactory axons in the rat and mouse olfactory bulb. Tenne-Brown J, et al.
J Comp Neurol 1999 Jul 19;410(1):20–30
Projections of the median raphe nucleus in the rat. Vertes RP, et al. **J Comp Neurol** 1999 May 17;407(4):555–82
Postnatal development and adult organisation of the olivocerebellar projection map in the hypogranular cerebellum of the rat. Zagrebelsky M, et al.
J Comp Neurol 1999 May 17;407(4):527–42
Variations in uterine innervation during the estrous cycle in rat. Zoubina EV, et al. **J Comp Neurol** 1998 Aug 10; 397(4):561–71
Interleukin-1 and nociception in the rat. Bianchi M, et al. **J Neurosci Res** 1998 Sep 15;53(6):645–50 (67 ref.)
A microchip implant system as a method to determine body temperature of terminally ill rats and mice. Kort WJ, et al. **Lab Anim** 1998 Jul;32(3):260–9
Development of an injectable sustained-release formulation of morphine: antinociceptive properties in rats. Tasker RA, et al. **Lab Anim** 1998 Jul;32(3):270–5
Non-linear analysis of the rhythmic activity in rodent brains. Alvarenga MY, et al. **Math Biosci** 1999 Mar 15; 157(1–2):287–302
Scene and object vision in rats. Simpson EL, et al.
Q J Exp Psychol B 1999 Feb;52(1):1–29
Analysis of the mechanisms underlying the age-related impairment in long-term potentiation in the rat. Lynch MA. **Rev Neurosci** 1998 Jul-Dec;9(3):169–201 (336 ref.)
Age-related changes in sleep in the rat. Mendelson WB, et al. **Sleep** 1999 Mar 15;22(2):145–50
[The rat's vomeronasal organ. Histochemical study with lectins] Melgarejo Moreno P, et al.
An Otorrinolaringol Ibero Am 1999;26(1):29–37 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

The partner preference paradigm: a method to study sexual motivation and performance of female rats. Avitsur R, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):320–5
Psychogenetically selected (Roman high- and low-avoidance) rats differ in 24-hour sleep organization. Steimer T, et al. **J Biol Rhythms** 1999 Jun;14(3):221–6

VIROLOGY

Evidence for widespread infection of wild rats with hepatitis E virus in the United States. Kabrane-Lazizi Y, et al.
Am J Trop Med Hyg 1999 Aug;61(2):331–5
[Studies on epidemic hemorrhagic fever among rats in Jianghan Plian, Hubei Province, China] Li S, et al.
Chung Hua Yu Fang I Hsueh Tsa Chih 1997 May; 31(3):137–9 (Eng. Abstr.) **(Chi)**

RATS, BANDICOOT see **MURIDAE**

RATS, BRATTLEBORO

GENETICS

Lack of vasopressin-independent upregulation of AQP-2 gene expression in homozygous Brattleboro rats. Saito T, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R427–33

PHYSIOLOGY

The vasopressin deficient Brattleboro rats: a natural knockout model used in the search for CNS effects of vasopressin. Bohus B, et al. **Prog Brain Res** 1998;119:555–73 (112 ref.)

RATS, COTTON see **HESPEROMYINAE**

RATS, HOLTZMAN see **RATS, SPRAGUE-DAWLEY**

RATS, INBRED A X C 9935 IRISH see **RATS, INBRED ACI**

RATS, INBRED ACI

GENETICS

Linkage mapping of the rat Msh2 DNA mismatch repair gene on chromosome 6. Hirayama Y, et al. **Exp Anim** 1999 Jan; 48(1):63–4

RATS, INBRED BB

GENETICS

Crosses between diabetic BB/OK and wild rats confirm that a third gene is essential for diabetes development. Klöting I, et al. **Acta Diabetol** 1998 Jul;35(2):109–11
BB rat diabetes susceptibility and body weight regulation genes colocalize on chromosome 2. Klaff LS, et al.
Mamm Genome 1999 Sep;10(9):883–7

PHYSIOLOGY

Changes in the aortic endothelium and plasma von Willebrand factor levels during the onset and progression of insulin-dependent diabetes in BB rats. Ribau JC, et al. **Atherosclerosis** 1998 Aug;139(2):291–9
Effects of recurrent hypoglycemia on brainstem function in diabetic BB rats: protective adaptation during acute hypoglycemia. Jacob RJ, et al. **Diabetes** 1999 Jan; 48(1):141–5

RATS, INBRED BN

GENETICS

Genetic background determines the nature of immune responses and experimental immune-mediated blepharoconjunctivitis (EC). Yoshida O, et al.
Curr Eye Res 1999 Feb;18(2):117–24

RATS, INBRED BROWN NORWAY see **RATS, INBRED BN**

RATS, INBRED BUF

GENETICS

Linkage mapping of the rat Msh2 DNA mismatch repair gene on chromosome 6. Hirayama Y, et al. **Exp Anim** 1999 Jan; 48(1):63–4

RATS, INBRED BUFFALO see **RATS, INBRED BUF**

RATS, INBRED CDF see **RATS, INBRED F344**

RATS, INBRED DAHL

Linkage analysis and construction of a congenic strain for a blood pressure QTL on rat chromosome 9. Rapp JP, et al. **Genomics** 1998 Jul 15;51(2):191–6

GENETICS

In search of hypertension genes in Dahl salt-sensitive rats. Deng AY. **J Hypertens** 1998 Dec;16(12 Pt 1):1707–17 (82 ref.)

METABOLISM

Altered protein kinase C activation of Na+/Ca2+ exchange in mesangial cells from salt-sensitive rats. Mashburn NA, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F574–80
A mechanism of oxygen free radical production in the Dahl hypertensive rat. Swei A, et al. **Microcirculation** 1999 Sep; 6(3):179–87

PHYSIOLOGY

Tubuloglomerular feedback in Dahl rats. Karlsen FM, et al.
Am J Physiol 1998 Jun;274(6 Pt 2):R1561–9
Organ and development related difference in tissue norepinephrine concentrations in Dahl rats. Chen QH, et al. **J Auton Nerv Syst** 1998 Jul 15;71(2–3):175–82

RATS, INBRED F344

Giant cell tumor of bone in an aged Fischer 344 rat. Imai T, et al. **Toxicol Pathol** 1998 Nov-Dec;26(6):802–5

GENETICS

Mecamylamine-precipitated nicotine-withdrawal aversion in Lewis and Fischer 344 inbred rat strains. Suzuki T, et al.
Eur J Pharmacol 1999 Mar 19;369(2):159–62

Comparison of genetic susceptibility to experimental allergic/immune-mediated blepharoconjunctivitis between Lewis and Fischer rats. Yoshida O, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov; 236(11):859–64

Identification of a novel inflammation-protective locus in the Fischer rat. Listwak S, et al. **Mamm Genome** 1999 Apr; 10(4):362–5

GROWTH & DEVELOPMENT

Organ weights and fat volume in rats as a function of strain and age. Schoeffner DJ, et al. **J Toxicol Environ Health** 1999 Apr 9;56(7):449–62

PHYSIOLOGY

Age-related changes in plasma and tissue fatty acid composition in Fischer 344 rats. Engler MM, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1117–26

Age-related hematological changes in normal F344 rats: during the neonatal period. Kojima S, et al. **Exp Anim** 1999 Jul;48(3):153–9

Functional integrity of NMDA-dependent LTP induction mechanisms across the lifespan of F-344 rats. Barnes CA, et al. **Learn Mem** 1996 Sep-Oct;3(2–3):124–37

URINE

Effects of water dilution, housing, and food on rat urine collected from the metabolism cage. Lee KM, et al. **Lab Anim Sci** 1998 Oct;48(5):520–5

RATS, INBRED FISCHER 344 see **RATS, INBRED F344**

RATS, INBRED LEC

see related
RATS, LONG-EVANS

MR imaging of hepatic injury in the LEC rat under a high magnetic field (7.05 T). Asanuma T, et al. **J Vet Med Sci** 1999 Mar;61(3):239–44

RATS, INBRED LEW

A rat model of ileal pouch-rectal anastomosis. Lichtman SN, et al. **Inflamm Bowel Dis** 1998 Aug;4(3):187–95

GENETICS

Genetic background determines the nature of immune responses and experimental immune-mediated blepharoconjunctivitis (EC). Yoshida O, et al. **Curr Eye Res** 1999 Feb;18(2):117–24

Mecamylamine-precipitated nicotine-withdrawal aversion in Lewis and Fischer 344 inbred rat strains. Suzuki T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):159–62

Comparison of genetic susceptibility to experimental allergic/immune-mediated blepharoconjunctivitis between Lewis and Fischer rats. Yoshida O, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov; 236(11):859–64

IMMUNOLOGY

Sperm mitochondria-associated cysteine-rich protein (SMCP) is an autoantigen in Lewis rats. Herr JC, et al. **Biol Reprod** 1999 Aug;61(2):428–35

RATS, INBRED LEWIS see **RATS, INBRED LEW**

RATS, INBRED LONG-EVANS CINNAMON see **RATS, INBRED LEC**

RATS, INBRED OLETF

see related
DIABETES MELLITUS, NON-INSULIN-DEPENDENT
RATS, LONG-EVANS

GENETICS

Lack of appropriate citation [letter; comment] Funakoshi A, et al. **J Gastroenterol** 1999 Apr;34(2):296–7. Comment on: J Gastroenterol 1998 Oct;33(5):702–9.

Identification of a quantitative trait locus influencing plasma insulin levels after 70% pancreatectomy using the OLETF rat. Moralejo DH, et al. **J Vet Med Sci** 1998 Oct; 60(10):1157–60

Mapping and characterization of quantitative trait loci for non-insulin-dependent diabetes mellitus with an improved genetic map in the Otsuka Long-Evans Tokushima fatty rat. Wei S, et al. **Mamm Genome** 1999 Mar;10(3):249–58

RATS, INBRED SHR

Proceedings of the XXXIII annual scientific meeting of the Society for the Spontaneously Hypertensive Rat (SHR). Shizuoka, Japan, October 15–17, 1997. **Jpn Heart J** 1998 Jul;39(4):527–77

Spontaneous stroke in renovascular hypertensive rats [letter; comment] Fujii J, et al. **Stroke** 1999 Mar;30(3):695–6. Comment on: Stroke 1998 Aug;29(8):1708–13; discussion 1713–4.

ANATOMY & HISTOLOGY

Pulmonary lymphatic filling is increased in spontaneously hypertensive rats. Aharinejad S, et al. **Anat Embryol (Berl)** 1999 Oct;200(4):425–32

GENETICS

Early captopril treatment prevents hypertrophydependent gene expression in hearts of SHR. Chen S, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1511–7

Enhanced DNA fragmentation in the thymus of spontaneously hypertensive rats. Suzuki H, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2135–40

Genetic isolation of a chromosome 1 region affecting susceptibility to hypertension-induced renal damage in the spontaneously hypertensive rat. St Lezin E, et al. **Hypertension** 1999 Aug;34(2):187–91

Cosegregation of spontaneously hypertensive rat renin gene with elevated blood pressure in an F2 generation. Yu H, et al. **J Hypertens** 1998 Aug;16(8):1141–7

1,4-Dihydropyridine calcium channel blockers inhibit plasma and LDL oxidation and formation of oxidation-specific epitopes in the arterial wall and prolong survival in stroke-prone spontaneously hypertensive rats. Napoli C, et al. **Stroke** 1999 Sep;30(9):1907–15

METABOLISM

Potassium supplement upregulates the expression of renal kallikrein and bradykinin B2 receptor in SHR. Jin L, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F476–84

Nitric oxide synthase in the JGA of the SHR: expression and role in tubuloglomerular feedback. Welch WJ, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):F130–8

Downregulation of soluble guanylyl cyclase in young and aging spontaneously hypertensive rats. Ruetten H, et al. **Circ Res** 1999 Sep 17;85(6):534–41

Comparison of calcium import as a function of contraction in the aortic smooth muscle of Sprague-Dawley, Wistar Kyoto and spontaneously hypertensive rats. Rahmani MA, et al. **Front Biosci** 1999 Apr 15;4:D408–15

Alteration of association of agonist-activated renal D1(A) dopamine receptors with G proteins in proximal tubules of the spontaneously hypertensive rat. Uh M, et al. **J Hypertens** 1998 Sep;16(9):1307–13

Abnormal central serotonergic activities in spontaneously hypertensive rats (SHR). Kim SJ, et al. **Methods Find Exp Clin Pharmacol** 1998 Jul–Aug; 20(6):473–8

Cytosolic free calcium response to angiotensin II in aortic VSMC isolated from male and female SHR. Loukotová J, et al. **Physiol Res** 1998;47(6):507–10

PHYSIOLOGY

Lovastatin reduces renal vascular reactivity in spontaneously hypertensive rats. Jiang J, et al. **Am J Hypertens** 1998 Oct; 11(10):1222–31

Thermal dehydration-induced thirst in spontaneously hypertensive rats. Barney CC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1302–10

Fiber type populations and Ca2+-activation properties of single fibers in soleus muscles from SHR and WKY rats. Bortolotto SK, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C628–37

Resetting of exaggerated tubuloglomerular feedback activity in acutely volume-expanded young SHR. Brännström K, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F409–16

Thromboxane A2 contributes to the enhanced tubuloglomerular feedback activity in young SHR. Brännström K, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F758–66

Short- and long-term enalapril affect renal medullary hemodynamics in the spontaneously hypertensive rat. Dukacz SA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R10–6

Exaggerated Ca2+ signaling in preglomerular arteriolar smooth muscle cells of genetically hypertensive rats. Iversen BM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F260–70

Vasopressin V2 receptor enhances gain of baroreflex in conscious spontaneously hypertensive rats. Sampey DB, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R872–9

Altered muscle metabolism associated with vasoconstriction in spontaneously hypertensive rats. Ye JM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E1007–15

Rectifying effect of exercise on hypertension in spontaneously hypertensive rats via a calcium-dependent dopamine synthesizing system in the brain. Akiyama K, et al. **Brain Res** 1999 Mar 27;823(1–2):154–60

Cholinergic mechanism and blood pressure regulation in the central nervous system. Kubo T. **Brain Res Bull** 1998 Aug; 46(6):475–81 (67 ref.)

Hypertensive rats exhibit heightened expression of corticotropin-releasing factor in activated central neurons in response to restraint stress. Krukoff TL, et al. **Brain Res Mol Brain Res** 1999 Feb 19;65(1):70–9

Postinfarction survival and inducibility of ventricular arrhythmias in the spontaneously hypertensive rat : effects of ramipril and hydralazine. Nguyen T, et al. **Circulation** 1998 Nov 10;98(19):2074–80

The spontaneously hypertensive rat: insight into the pathogenesis of irritative symptoms in benign prostatic hyperplasia and young anxious males. Steers WD, et al. **Exp Physiol** 1999 Jan;84(1):137–47 (55 ref.)

Complementary antihypertensive action of rilmenidine on the pressure-natriuresis relationship and sodium preference in spontaneously hypertensive rats. Cechetto DF, et al. **J Hypertens Suppl** 1998 Aug;16(3):S13–7

Factors involved in the effects of losartan on endothelial dysfunction induced by aging in SHR. Maeso R, et al. **Kidney Int Suppl** 1998 Dec;68:S30–5

Glomerular cell proliferation and apoptosis in uninephrectomized spontaneously hypertensive rats. Rodriguez-López AM, et al. **Kidney Int Suppl** 1998 Dec; 68:S36–40

Influence of extracellular pH on intracellular pH in arterioles and skeletal muscle of spontaneously hypertensive and Wistar-Kyoto rats. Wimberger P, et al. **Kidney Int Suppl** 1998 Sep;67:S180–2

High salt intake differentially regulates kidney angiotensin IV AT4 receptors in Wistar-Kyoto and spontaneously hypertensive rats. Grove KL, et al. **Life Sci** 1999; 64(20):1811–8

Strain differences in Fos expression following airpuff startle in Spontaneously Hypertensive and Wistar Kyoto rats. Palmer AA, et al. **Neuroscience** 1999 Mar;89(3):965–78

Tachycardiac response in SHR and WKY rats induced by stress [letter]. Bermardio MF. **Pflugers Arch** 1999 Jul; 438(2):236–7

Regional haemodynamic differences between normotensive and spontaneously hypertensive rats--a microsphere study. Granstam SO, et al. **Physiol Res** 1998;47(1):9–15

The influence of angiotensin II on sex-dependent proliferation of aortic VSMC isolated from SHR. Loukotová J, et al. **Physiol Res** 1998;47(6):501–5

Glucocorticoid activity in the fetal spontaneously hypertensive rat. Lewis RM, et al. **Reprod Fertil Dev** 1998; 10(4):341–6

PSYCHOLOGY

The spontaneously hypertensive rat: insight into the pathogenesis of irritative symptoms in benign prostatic hyperplasia and young anxious males. Steers WD, et al. **Exp Physiol** 1999 Jan;84(1):137–47 (55 ref.)

RATS, INBRED STRAINS

Rat strain minimally influences anesthetic and convulsant requirements of inhaled compounds in rats. Gong D, et al. **Anesth Analg** 1998 Oct;87(4):963–6

Diet and rat strain as factors in nervous system function and influence of confounders. Kacew S, et al. **Biomed Environ Sci** 1998 Sep;11(3):203–17 (84 ref.)

Lectin histochemistry of dorsal skin of Wistar-derived hypotrichotic WBN/Ila-Ht rats. Iwamoto S, et al. **Exp Anim** 1998 Jul;47(3):183–7

Rodent models of nephropathy associated with type II diabetes. Janssen U, et al. **J Nephrol** 1999 May-Jun; 12(3):159–72 (160 ref.)

Phenotypic variation in strength among eleven inbred strains of rats. Biesiadecki BJ, et al. **Proc Soc Exp Biol Med** 1998 Nov;219(2):126–31

GENETICS

Effect of ovariectomy in heart failure-prone SHHF/Mcc-facp rats. Sharkey LC, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1968–76

Establishment of two substrains, diabetes-prone and non-diabetic, from Long-Evans Tokushima Lean (LETL) rats. Komeda K, et al. **Endocr J** 1998 Dec;45(6):737–44

A genetic linkage map of rat chromosome 9 with a new locus for variant activity of liver aldehyde oxidase. Kunieda T, et al. **Exp Anim** 1999 Jan;48(1):43–5

Linkage mapping of the Bra, Brb and Brg genes for rat protein phosphatase 2A 55 kDa B-regulatory subunit isotypes. Yamada S, et al. **Jpn J Cancer Res** 1998 Oct; 89(10):1014–9

High level of single-nucleotide polymorphism in the rat cyclin B1 gene. Petit J, et al. **Mamm Genome** 1999 Jun; 10(6):635–7

A rat model system for predisposition to stomach cancer. Ushijima T, et al. **Prog Exp Tumor Res** 1999;35:120–30 (29 ref.)

Rat congenic and recombinant inbred strains: a genetic model for the study of quantitative trait loci. Kfen V, et al. **Transplant Proc** 1999 May;31(3):1592–3

IMMUNOLOGY

Comparative studies of specific acquired systemic tolerance induced by intrathymic inoculation of a single synthetic Wistar-Furth (RT1U) allo-MHC class I (RT1.AU) peptide or WAG (RT1U)-derived class I peptide. Chowdhury NC, et al. **Transplantation** 1998 Oct 27;66(8):1059–66

PARASITOLOGY

Brugia pahangi: quantitative analysis of infection in several inbred rat strains. Bell RG, et al. **Exp Parasitol** 1999 Jun; 92(2):120–30

PHYSIOLOGY

Phenotypic variation in sensorimotor performance among eleven inbred rat strains. Biesiadecki BJ, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1383–9

RATS, INBRED STRAINS

Altered renal hemodynamics and impaired myogenic responses in the fawn-hooded rat. van Dokkum RP, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R855-63

Thermoregulatory responses of the inbred heat-tolerant FOK rat to cold. Yahata T, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R362-7

Photoreceptor cell damage by light in young Royal College of Surgeons rats. Organisciak DT, et al. **Curr Eye Res** 1999 Aug;19(2):188-96

Arterial hypertension due to occlusion of the adrenal vein in the rat is strain-dependent. Abramczyk P, et al. **J Hypertens** 1998 Sep;16(9):1249-51

Differences in ethanol sensitivity and acute tolerance between UChA and UChB rats. Tampier L, et al. **J Stud Alcohol** 1999 Mar;60(2):168-71

[Differences in the anxiety level of 2 rat strains can be determined by the density of benzodiazepine receptors in the brain] Liupina IuV, et al. **Eksp Klin Farmakol** 1999 May-Jun;62(3):7-10 (Eng. Abstr.) **(Rus)**

[Biogenic amines in the brain nuclei of August and Wistar rats under repeated stress] Gorbunova AV. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec; 48(6):1051-7 (Eng. Abstr.) **(Rus)**

[The mapping of spike-wave discharges in WAG/Rij rats (a genetic strain of absence epilepsy)] Kuznetsova GD, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Jul-Aug; 48(4):664-70 (Eng. Abstr.) **(Rus)**

[The characteristics of motor asymmetry in rats with genetic epilepsy (the WAG/Rij strain)] Pletneva EV. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 May-Jun; 49(3):483-8 (Eng. Abstr.) **(Rus)**

RATS, INBRED WF

IMMUNOLOGY

Comparative studies of specific acquired systemic tolerance induced by intrathymic inoculation of a single synthetic Wistar-Furth (RT1U) allo-MHC class I (RT1.AU) peptide or WAG (RT1U)-derived class I peptide. Chowdhury NC, et al. **Transplantation** 1998 Oct 27;66(8):1059-66

RATS, INBRED WISTAR FURTH see **RATS, INBRED WF**

RATS, INBRED WKY

METABOLISM

Nitric oxide synthase in the JGA of the SHR: expression and role in tubuloglomerular feedback. Welch WJ, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):F130-8

Comparison of calcium import as a function of contraction in the aortic smooth muscle of Sprague-Dawley, Wistar Kyoto and spontaneously hypertensive rats. Rahmani MA, et al. **Front Biosci** 1999 Apr 15;4:D408-15

PHYSIOLOGY

Fiber type populations and Ca2+-activation properties of single fibers in soleus muscles from SHR and WKY rats. Bortolotto SK, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C628-37

High salt intake differentially regulates kidney angiotensin IV AT4 receptors in Wistar-Kyoto and spontaneously hypertensive rats. Grove KL, et al. **Life Sci** 1999; 64(20):1811-8

Strain differences in Fos expression following airpuff startle in Spontaneously Hypertensive and Wistar Kyoto rats. Palmer AA, et al. **Neuroscience** 1999 Mar;89(3):965-78

Tachycardiac response in SHR and WKY rats induced by stress [letter]. Bermardio MF. **Pflugers Arch** 1999 Jul; 438(2):236-7

RATS, LABORATORY see **RATS**

RATS, LONG-EVANS

see related
RATS, INBRED LEC
RATS, INBRED OLETF

Mechanisms underlying the absence of the pubertal shift in the playful defense of female rats. Smith LK, et al. **Dev Psychobiol** 1998 Sep;33(2):147-56

Spontaneous cholangiofibrosis in Long-Evans Cinnamon rats: a rodent model for Wilson's disease. Schilsky ML, et al. **Lab Anim Sci** 1998 Apr;48(2):156-61

ANATOMY & HISTOLOGY

Projection patterns from the raphe nuclear complex to the ependymal wall of the ventricular system in the rat. Simpson KL, et al. **J Comp Neurol** 1998 Sep 14; 399(1):61-72

GENETICS

Establishment of two substrains, diabetes-prone and non-diabetic, from Long-Evans Tokushima Lean (LETL) rats. Komeda K, et al. **Endocr J** 1998 Dec;45(6):737-44

GROWTH & DEVELOPMENT

Distribution of the low-affinity neurotrophin receptor (p75) in the developing trigeminal brainstem complex in the rat. Crockett DP, et al. **Anat Rec** 1999 Apr 1;254(4):549-65

PHYSIOLOGY

Paced mating behavior in female rats in response to different hormone priming regimens. Brandling-Bennett EM, et al. **Horm Behav** 1999 Apr;35(2):144-54

Brain androgen-inducible aromatase is critical for adolescent organization of environment-specific social interaction in male rats. Kellogg CK, et al. **Horm Behav** 1999 Apr; 35(2):155-62

Colocalization of androgen receptors and mating-induced FOS immunoreactivity in neurons that project to the central tegmental field in male rats. Gréco B, et al. **J Comp Neurol** 1999 May 31;408(2):220-36

RATS, MUTANT STRAINS

Abnormal cerebellar output in the genetically dystonic rat. LeDoux MS, et al. **Adv Neurol** 1998;78:63-78 (84 ref.)

Superovulation of immature hypothyroid rdw rats by thyroxine therapy and the development of eggs after in vitro fertilization. Jiang JY, et al. **J Reprod Fertil** 1999 May;116(1):19-24

Rat hypoplastic kidney (hpk/hpk) induces renal anemia, hyperparathyroidism, and osteodystrophy at the end stage of renal failure. Suzuki H, et al. **J Vet Med Sci** 1998 Oct; 60(10):1051-8

Morphologic and hematologic characteristics of storage pool deficiency in beige rats (Chédiak-Higashi syndrome of rats). Ozaki K, et al. **Lab Anim Sci** 1998 Oct;48(5):502-6

Cardiovascular disease in the JCR:LA-cp rat. Russell JC, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):113-26 (44 ref.)

ANATOMY & HISTOLOGY

Effect of partial pancreatectomy on beta-cell mass in the remnant pancreas of Wistar fatty rats. Ogino T, et al. **J Med Invest** 1998 Aug;45(1-4):103-10

GENETICS

The Royal College of Surgeons rat: an animal model for inherited retinal degeneration with a still unknown genetic defect. Strauss O, et al. **Acta Anat (Basel)** 1998; 162(2-3):101-11 (151 ref.)

Characterization of seizures in the flathead rat: a new genetic model of epilepsy in early postnatal development. Sarkisian MR, et al. **Epilepsia** 1999 Apr;40(4):394-400

The role of cell death in limb development of rats manifesting Lx allele on different genetic backgrounds. Sedmera D, et al. **Eur J Morphol** 1998 Jul;36(3):173-81

Local cerebral glucose utilization in the AS/AGU rat: a mutant with movement disorders. Lam AG, et al. **Eur J Neurosci** 1998 Jun;10(6):1963-7

Regulation of rat pyruvate carboxylase gene expression by alternate promoters during development, in genetically obese rats and in insulin-secreting cells. Multiple transcripts with 5'-end heterogeneity modulate translation. Jitrapakdee S, et al. **J Biol Chem** 1998 Dec 18; 273(51):34422-8

Susceptibility to focal and generalized seizures in Wistar rats with genetic absence-like epilepsy. Brailowsky S, et al. **Neuroscience** 1999;93(3):1173-7

A new neurological mutant rat with symmetrical calcification of Purkinje cells in cerebellum. Ando Y, et al. **Proc Soc Exp Biol Med** 1999 Sep;221(4):361-8

METABOLISM

Elevated neuropeptide Y and corticotropin-releasing factor in the brain of a novel epileptic mutant rat: Noda epileptic rat. Jinde S, et al. **Brain Res** 1999 Jul 3;833(2):286-90

Local cerebral glucose utilization in the AS/AGU rat: a mutant with movement disorders. Lam AG, et al. **Eur J Neurosci** 1998 Jun;10(6):1963-7

Cellular distribution of iron in the brain of the Belgrade rat. Burdo JR, et al. **Neuroscience** 1999;93(3):1189-96

RATS, NORWAY see **RATS**

RATS, RICE see **HESPEROMYINAE**

RATS, SAND see **GERBILLINAE**

RATS, SPONTANEOUSLY HYPERTENSIVE see **RATS, INBRED SHR**

RATS, SPRAGUE-DAWLEY

Three-vessel occlusion using a micro-clip for the proximal left middle cerebral artery produces a reliable neocortical infarct in rats. Yanamoto H, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):209-20

Odor preferences in neonatal and weanling rats. Amiri L, et al. **Dev Psychobiol** 1998 Sep;33(2):157-62

Endogenous opioids and the first suckling episode in the rat. Petrov ES, et al. **Dev Psychobiol** 1998 Sep;33(2):175-83

Spontaneous neoplastic lesions in Harlan Sprague-Dawley rats. Kaspareit J, et al. **Exp Toxicol Pathol** 1999 Jan; 51(1):105-7

A rat model of ileal pouch-rectal anastomosis. Lichtman SN, et al. **Inflamm Bowel Dis** 1998 Aug;4(3):187-95

Infant rat model of the shaken baby syndrome: preliminary characterization and evidence for the role of free radicals in cortical hemorrhaging and progressive neuronal degeneration. Smith SL, et al. **J Neurotrauma** 1998 Sep; 15(9):693-705

Spontaneous pinealoma in a male Crj:CD (SD) IGS rat. Furukawa S, et al. **J Vet Med Sci** 1999 Jan;61(1):41-4

Development of mustard oil-induced hyperalgesia in rats. Jiang MC, et al. **Pain** 1998 Sep;77(3):305-13

ABNORMALITIES

Optic nerve dysplasia associated with meningeal defect in Sprague-Dawley rats. Shibuya K, et al. **Vet Pathol** 1998 Sep;35(5):323-9

ANATOMY & HISTOLOGY

Differences in adrenal morphology in male Dark Agouti, Sprague-Dawley and Wistar rats. Wilkinson JM, et al. **Acta Vet Hung** 1999;47(3):335-9

Postnatal cytoarchitecture of the rat medial geniculate body. Clerici WJ, et al. **J Comp Neurol** 1998 Sep 14;399(1):110-24

Sympathetic innervation of the upper and lower regions of the uterus and cervix in the rat have different origins and routes. Houdeau E, et al. **J Comp Neurol** 1998 Sep 28; 399(3):403-12

Periaqueductal gray matter projection to the parabrachial nucleus in rat [see comments] Krout KE, et al. **J Comp Neurol** 1998 Nov 30;401(4):437-54. Comment in: J Comp Neurol 1998 Nov 30;401(4):429-36.

Cortical, thalamic, and amygdaloid connections of the anterior and posterior insular cortices. Shi CJ, et al. **J Comp Neurol** 1998 Oct 5;399(4):440-68

Cascade projections from somatosensory cortex to the rat basolateral amygdala via the parietal insular cortex. Shi CJ, et al. **J Comp Neurol** 1998 Oct 5;399(4):469-91

Sperm abnormalities and histopathological changes in the testes in Crj:CD(SD)IGS rats. Matsumoto K, et al. **J Toxicol Sci** 1999 Feb;24(1):63-8

EMBRYOLOGY

Effects of amniotic fluid on opioid activity and fetal responses to chemosensory stimuli. Korthank AJ, et al. **Dev Psychobiol** 1998 Nov;33(3):235-48

Regional patterning of reticulospinal and vestibulospinal neurons in the hindbrain of mouse and rat embryos. Auclair F, et al. **J Comp Neurol** 1999 Aug 23;411(2):288-300

A calcium agonist, Bay k 8644, suppresses the embryotoxic effects induced by dihydropyridines calcium channel blockers in cultured rat embryos. Ban Y, et al. **J Vet Med Sci** 1998 Oct;60(10):1067-72

GENETICS

Genomic organization and chromosome location of the rat CD3zeta locus (Cd3z). Matsuura A, et al. **Cytogenet Cell Genet** 1999;85(3-4):301-5

Selection of phenytoin responders and nonresponders in male and female amygdala-kindled Sprague-Dawley rats. Löscher W, et al. **Epilepsia** 1998 Nov;39(11):1138-47

Mapping of the genes for rat P-glycoprotein 1, 2, and 3 (Pgy1, Pgy2, and Pgy3) to chromosome 4. Moralejo DH, et al. **Exp Anim** 1998 Oct;47(4):283-4

Linkage mapping of the Bra, Brb and Brg genes for rat protein phosphatase 2A 55 kDa B-regulatory subunit isotypes. Yamada S, et al. **Jpn J Cancer Res** 1998 Oct; 89(10):1014-9

Familial megacecum and colon in the rat: a new model of gastrointestinal neuromuscular dysfunction. Lipman NS, et al. **Lab Anim Sci** 1998 Jun;48(3):243-52

GROWTH & DEVELOPMENT

Inhibition of the expression of conditioned cardiac responses in the developing rat. Hunt PS, et al. **Dev Psychobiol** 1998 Nov;33(3):221-33

Expression of two forms of glutamic acid decarboxylase (GAD67 and GAD65) during postnatal development of rat somatosensory barrel cortex. Kiser PJ, et al. **J Comp Neurol** 1998 Dec 7;402(1):62-74

Oxytocinergic inputs to the nucleus of the solitary tract and dorsal motor nucleus of the vagus in neonatal rats. Rinaman L. **J Comp Neurol** 1998 Sep 14;399(1):101-9

Organ weights and fat volume in rats as a function of strain and age. Schoeffner DJ, et al. **J Toxicol Environ Health** 1999 Apr 9;56(7):449-62

IMMUNOLOGY

Host response to mycobacterial infection in the alcoholic rat: male and female dimorphism. Li X, et al. **Alcohol** 1998 Oct;16(3):207-12

METABOLISM

Characterization of the neuroanatomical distribution of agouti-related protein immunoreactivity in the rhesus monkey and the rat. Haskell-Luevano C, et al. **Endocrinology** 1999 Mar;140(3):1408-15

Regional distribution and cellular localization of gamma-aminobutyric acid subtype 1 receptor mRNA in the rat brain. Lu XY, et al. **J Comp Neurol** 1999 May 3; 407(2):166-82

Interspecies differences in the metabolism of ethidium bromide by rat, sheep and pig hepatocytes. Tettey JN, et al. **J Vet Pharmacol Ther** 1999 Aug;22(4):283-5

Quantitative in vivo and in vitro sex differences in artemisinin metabolism in rat. Ashton M, et al. **Xenobiotica** 1999 Feb;

29(2):195-204

MICROBIOLOGY

Host response to mycobacterial infection in the alcoholic rat: male and female dimorphism. Li X, et al. **Alcohol** 1998 Oct;16(3):207-12

PARASITOLOGY

Plagiorchis muris: recovery, growth and development in albino rats. Hong SJ, et al. **J Helminthol** 1998 Sep; 72(3):251-6

Comparative infectivity of Toxoplasma gondii bradyzoites in rats and mice. Dubey JP. **J Parasitol** 1998 Dec; 84(6):1279-82

IgG isotype specific immune response in rats infected with Fasciola hepatica. Paz A, et al. **Vet Parasitol** 1998 Nov 16;79(3):229-37

PHYSIOLOGY

Photic responses of suprachiasmatic area neurons in diurnal degus (Octodon degus) and nocturnal rats (Rattus norvegicus). Jiao YY, et al. **Brain Res** 1999 Jan 30; 817(1-2):93-103

Normative reproductive indices for male and female adult Sprague-Dawley rats. Sokol RZ, et al. **Contraception** 1999 Mar;59(3):203-7

Cellular and subcellular distribution of the serotonin 5-HT2A receptor in the central nervous system of adult rat. Cornea-Hébert V, et al. **J Comp Neurol** 1999 Jun 28; 409(2):187-209

Dendritic bias of neurons in rat somatosensory cortex associated with a functional boundary. Hickmott PW, et al. **J Comp Neurol** 1999 Jul 5;409(3):385-99

Transforming growth factor alpha with insulin stimulates cell proliferation in vivo in adult rat vestibular sensory epithelium. Kuntz AL, et al. **J Comp Neurol** 1998 Sep 28; 399(3):413-23

Transient developmental expression of monoamine transporters in the rodent forebrain. Lebrand C, et al. **J Comp Neurol** 1998 Nov 30;401(4):506-24

Expression of the novel galanin receptor subtype GALR2 in the adult rat CNS: distinct distribution from GALR1. O'Donnell D, et al. **J Comp Neurol** 1999 Jul 5;409(3):469-81

Ventrally located commissural neurons express the GABAergic phenotype in developing rat spinal cord. Phelps PE, et al. **J Comp Neurol** 1999 Jun 28;409(2):285-98

Reference database of the main physiological parameters in Sprague-Dawley rats from 6 to 32 months. Alemán CL, et al. **Lab Anim** 1998 Oct;32(4):457-66

Endocrine and behavioral traits in low-avoidance Sprague-Dawley rats. Uvnäs-Moberg K, et al. **Regul Pept** 1999 Mar 17;80(1-2):75-82

RATS, WISTAR

Histopathology and physiopathology of gastric mucous hyperplasia in rats heavily infected with Taenia taeniaeformis. Konno K, et al. **J Vet Med Sci** 1999 Apr; 61(4):317-24

Simple and reproducible model of rat spinal cord injury induced by a controlled cortical impact device. Hiruma S, et al. **Neurol Res** 1999 Apr;21(3):313-23

Early assessment of motor dysfunctions aids in successful occlusion of the middle cerebral artery. Borlongan CV, et al. **Neuroreport** 1998 Nov 16;9(16):3615-21

Spontaneous neoplasms in control Wistar rats: a comparison of reviews. Poteracki J, et al. **Toxicol Sci** 1998 Sep;45(1):1-8

ANATOMY & HISTOLOGY

Innervation pattern of different cartilaginous tissues in the rat. Schwab W, et al. **Acta Anat (Basel)** 1998;163(4):184-90

Differences in adrenal morphology in male Dark Agouti, Sprague-Dawley and Wistar rats. Wilkinson JM, et al. **Acta Vet Hung** 1999;47(3):335-9

Arteries of the carotid body in rats. Unur E, et al. **Anat Histol Embryol** 1999 Jul;28(3):167-9

Rat eustachian tube and its musculature. Mulder JJ, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):277-85

Projections from the lateral, basal, and accessory basal nuclei of the amygdala to the hippocampal formation in rat. Pikkarainen M, et al. **J Comp Neurol** 1999 Jan 11; 403(2):229-60

Efferent and collateral organization of paratrigeminal nucleus projections: an anterograde and retrograde fluorescent tracer study in the rat. Saxon DW, et al. **J Comp Neurol** 1998 Dec 7;402(1):93-110

Calretinin immunoreactive nerve endings in the trachea and bronchi of the rat. Yamamoto Y, et al. **J Vet Med Sci** 1999 Mar;61(3):267-9

EMBRYOLOGY

Quantitative analysis of cerebellar lobulation in normal and agranular rats. Doughty ML, et al. **J Comp Neurol** 1998 Sep 28;399(3):306-20

GENETICS

Laminar boundaries persist in the hippocampal dentate molecular layer of the mutant Shaking Rat Kawasaki despite aberrant granule cell migration. Woodhams PL, et al. **J Comp Neurol** 1999 Jun 21;409(1):57-70

Apomorphine-susceptible and apomorphine-unsusceptible Wistar rats differ in their susceptibility to inflammatory and infectious diseases: a study on rats with group-specific differences in structure and reactivity of hypothalamic-pituitary-adrenal axis. Kavelaars A, et al. **J Neurosci** 1997 Apr 1;17(7):2580-4

GROWTH & DEVELOPMENT

Early walking in the neonatal rat: a kinematic study. Jamon M, et al. **Behav Neurosci** 1998 Oct;112(5):1218-28

The ontogeny of maternal potentiation of the infant rats' isolation call. Hofer MA, et al. **Dev Psychobiol** 1998 Nov; 33(3):189-201

Influence of neonatal focal cerebral hypoxia-ischemia on cardiovascular and neurobehavioral functions in adult Wistar rats. Antier D, et al. **Neurosci Lett** 1998 Jun 26; 250(1):57-60

METABOLISM

The effect of folic acid addition on insulin level and some carbohydrate metabolism indices in male rats fed with excess of methionine. Maciejewska M, et al. **Arch Vet Pol** 1993;33(3-4):217-21

Tissue retention and subcellular distribution of continuously infused melatonin in rats under near physiological conditions. Messner M, et al. **J Pineal Res** 1998 Dec; 25(4):251-9

Proline, leucine, and alanine transport in placental microvillous membrane vesicles prepared from late gestational rats. Bonkobara M, et al. **J Vet Med Sci** 1998 Oct;60(10):1081-5

PHYSIOLOGY

A signal detection analysis of auditory-frequency discrimination in the rat. Talwar SK, et al. **J Acoust Soc Am** 1999 Mar;105(3):1784-800

Zinc-containing afferent projections to the rat corticomedial amygdaloid complex: a retrograde tracing study. Christensen MK, et al. **J Comp Neurol** 1998 Oct 26; 400(3):375-90

Characterization of atypical cells in the juvenile rat organ of corti after aminoglycoside ototoxicity. Daudet N, et al. **J Comp Neurol** 1998 Nov 16;401(2):145-62

Spinal organization and steroid sensitivity of motoneurons innervating the pubococcygeus muscle in the male rat. Manzo J, et al. **J Comp Neurol** 1999 Jul 5;409(3):358-68

Immunocytochemical localization of the insulin-responsive glucose transporter 4 (Glut4) in the rat central nervous system. El Messari S, et al. **J Comp Neurol** 1998 Oct 5; 399(4):492-512

Chemical anatomy of excitatory endings in the dorsal cochlear nucleus of the rat: differential synaptic distribution of aspartate aminotransferase, glutamate, and vesicular zinc. Rubio ME, et al. **J Comp Neurol** 1998 Sep 28;399(3):341-58

A spontaneous corneal change in juvenile Wistar rats. Wojcinski ZW, et al. **J Comp Pathol** 1999 Apr; 120(3):281-94

[Biogenic amines in the brain nuclei of August and Wistar rats under repeated stress] Gorbunova AV. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec; 48(6):1051-7 (Eng. Abstr.) **(Rus)**

RATS, WISTAR FURTH see **RATS, INBRED WF**

RATS, WISTAR KYOTO see **RATS, INBRED WKY**

RATS, ZUCKER

BLOOD

Acute and chronic oral administration of bis(maltolato)oxovanadium(IV) in Zucker diabetic fatty (ZDF) rats. Yuen VG, et al. **Diabetes Res Clin Pract** 1999 Jan;43(1):9-19

METABOLISM

Evidence for increased functional vascular Na+/K+ pump activity in the obese Zucker rat. Golub MS, et al. **Hypertens Res** 1998 Dec;21(4):283-8

PHYSIOLOGY

Hepatic glucose cycling does not contribute to the development of hyperglycemia in Zucker diabetic fatty rats. Henly DC, et al. **Diabetes** 1999 Feb;48(2):342-6

RATTLESNAKE see **CROTALUS**

RATTLESNAKE VENOMS see **CROTALID VENOMS**

RATTUS see **MURIDAE**

RATTUS NORVEGICUS see **RATS**

RAUSCHER VIRUS

Interleukin-12 administration in retroviral infection of mice increases the potential to produce functional dendritic cells from bone marrow stem cells. Kelleher P, et al. **Immunol Lett** 1999 Jan;65(1-2):51-4

IMMUNOLOGY

Retrovirally induced switch from production of IL-12 to IL-4 in dendritic cells. Kelleher P, et al. **Eur J Immunol** 1999 Jul;29(7):2309-18

Vaccine protection by subinfectious doses of a live murine leukemia virus. Rasmussen RA, et al. **Leukemia** 1999 Apr; 13 Suppl 1:S94-5

RAUWOLFIA

CHEMISTRY

PAF antagonistic activity of 2-hydroxy-3-methoxybenzoic acid glucose ester from Gentiana scabra. Huh H, et al. **Arch Pharm Res** 1998 Aug;21(4):436-9

ENZYMOLOGY

Purification, partial amino acid sequence and structure of the product of raucaffricine-O-beta-D-glucosidase from plant cell cultures of Rauwolfia serpentina. Warzecha H, et al. **Phytochemistry** 1999 Apr;50(7):1099-109

RAUWOLSCINE see **YOHIMBINE**

RAYNAUD'S DISEASE

"Primary Raynaud's" is not a disease or even a disorder; it's a trait [editorial] [see comments] Hadler NM. **J Rheumatol** 1998 Dec;25(12):2291-4. Comment in: J Rheumatol 1998 Dec;25(12):2295-7.

Symptoms of hand-arm vibration syndrome in gas distribution operatives. Palmer K, et al. **Occup Environ Med** 1998 Oct;55(10):716-21

Raynaud's phenomenon: state of the art 1998 [editorial] Ho M, et al. **Scand J Rheumatol** 1998;27(5):319-22 (37 ref.)

BLOOD

Whole-body cooling increases plasma endothelin-1 levels in women with primary Raynaud's phenomenon. Leppert J, et al. **Clin Physiol** 1998 Sep;18(5):420-5

Increased plasma adrenomedullin concentrations in patients with Raynaud's phenomenon [letter] Letizia C, et al. **J Rheumatol** 1999 Mar;26(3):759-60

CHEMICALLY INDUCED

Raynauld's phenomenon and propofol [letter] Dodd PH, et al. **Anaesthesia** 1999 Sep;54(9):918

Raynaud's syndrome in a patient treated with milnacipran [letter] Bourgade B, et al. **Ann Pharmacother** 1999 Sep; 33(9):1009-10

5-Fluorouracil-induced Raynaud's phenomenon [letter] Papamichael D, et al. **Eur J Cancer** 1998 Nov;34(12):1983

[Finger tip necroses after dihydroergotamine medication in limited systemic scleroderma] Hahne T, et al. **Hautarzt** 1998 Sep;49(9):722-4 (Eng. Abstr.) **(Ger)**

CLASSIFICATION

[Determination of group classification of Raynaud patients by discriminance analysis of laser Doppler signals] Koop T, et al. **Biomed Tech (Berl)** 1998;43 Suppl:270-1 **(Ger)**

COMPLICATIONS

Raynaud's phenomenon and propofol [letter] Gilston A. **Anaesthesia** 1999 Mar;54(3):307

Fatal myocardial necrosis. Gordon MM, et al. **Ann Rheum Dis** 1999 Apr;58(4):198-9

Symptoms of Raynaud's phenomenon in an inner-city African-American community: prevalence and self-reported cardiovascular comorbidity. Gelber AC, et al. **J Clin Epidemiol** 1999 May;52(5):441-6

Subclinical skin stiffening in adults suffering from type 1 diabetes mellitus. A comparison with Raynaud's syndrome. Piérard-Franchimont C, et al. **J Med Eng Technol** 1998 Sep-Oct;22(5):206-10

Esophageal scintigraphy with a semisolid meal to evaluate esophageal dysmotility in systemic sclerosis and Raynaud's phenomenon. Bestetti A, et al. **J Nucl Med** 1999 Jan; 40(1):77-84

Mucocutaneous disease in Arabs with systemic lupus erythematosus: clinical expression and relevance to autoantibodies. Al-Attia HM, et al. **Lupus** 1998;7(8):535-9

[Extracapillary glomerulonephritis with anti-myeloperoxidase antibodies in 2 patients with systemic scleroderma treated with penicillamine DJ Kyndt X, et al. **Presse Med** 1999 Jan 16;28(2):67-70 (Eng. Abstr.) **(Fre)**

[Restrictive myocardiopathy and pulmonary Raynaud's syndrome] Beynel P, et al. **Rev Pneumol Clin** 1998 Feb; 54(1):42-5 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

A thermal vascular test for distinguishing between patients with Raynaud's phenomenon and healthy controls. Raynaud's Treatment Study Investigators. Jennings JR, et al. **Health Psychol** 1999 Jul;18(4):421-6

The "distal-dorsal difference" as a possible predictor of secondary Raynaud's phenomenon. Clark S, et al. **J Rheumatol** 1999 May;26(5):1125-8

Local cold exposure test with a new arterial photoplethysmographic sensor in healthy controls and

patients with secondary Raynaud's phenomenon. Hahn M, et al. **Microvasc Res** 1999 Mar;57(2):187–98

Occupational Raynaud's phenomenon. Noël B, et al. **Schweiz Med Wochenschr** 1999 May 1;129(17):674

Spectral analysis of laser-Doppler perfusion signal measured during thermal test. Maniewski R, et al. **Technol Health Care** 1999;7(2–3):163–9

Dynamic characteristics of laser-Doppler flux in normal individuals and patients with Raynaud's phenomenon before and after treatment with nifedipine under different thermal conditions. Popivanov D, et al. **Technol Health Care** 1999;7(2–3):193–203

Linear and nonlinear analysis of blood flow in healthy subjects and in subjects with Raynaud's phenomenon. Stefanovska A, et al. **Technol Health Care** 1999; 7(2–3):225–41

Does the measurement of digital arterial pressure using the Doppler ultrasonic technique without testing for vasospasm to detect digital arterial occlusions make good sense? Heidrich H, et al. **Vasa** 1998 Aug;27(3):158–62

[Atrial myxoma: cutaneous manifestations] Le Cam MT, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):32–4 (Eng. Abstr.) **(Fre)**

[Laser Doppler spectral analysis of patients with Raynaud's phenomenon during a standardized thermal test] Léger P. **Ann Dermatol Venereol** 1998 Nov;125 Suppl 2:S28–9 **(Fre)**

[Raynaud's phenomena: diagnostic and treatment study] Priollet P. **Rev Prat** 1998 Oct 1;48(15):1659–64 (27 ref.) (Eng. Abstr.) **(Fre)**

[Cold hands and feet. Raynaud syndrome] Hug B. **Schweiz Rundsch Med Prax** 1999 May 6;88(19):880–2 **(Ger)**

[Occupational exposure to vibration: Raynaud's phenomenon and the vascular response to methacholine iontophoresis] Taccola A, et al. **G Ital Med Lav Ergon** 1998 Oct–Dec; 20(4):243–8 (Eng. Abstr.) **(Ita)**

[Chrono-thermometry in the diagnosis of Raynaud-like vasculopathies caused by prolonged use of vibrating tools] Veronese N, et al. **Med Lav** 1998 Jul–Aug;89(4):334–42 (Eng. Abstr.) **(Ita)**

[Computerized digital thermometry in Raynaud's disease. Personal experience] Ponte E, et al. **Minerva Med** 1998 Jul–Aug;89(7–8):259–66 (Eng. Abstr.) **(Ita)**

DRUG THERAPY

Anaphylactic reactions to buflomedil. Scala E., et al. **Allergy** 1999 Mar;54(3):288–9

Short-term estrogen administration improves abnormal endothelial function in women with systemic sclerosis and Raynaud's phenomenon. Lekakis J, et al. **Am Heart J** 1998 Nov;136(5):905–12

Oral iloprost in Raynaud's phenomenon secondary to systemic sclerosis: a multicentre, placebo-controlled, dose-comparison study. Black CM, et al. **Br J Rheumatol** 1998 Sep;37(9):952–60

Treatment of severe Raynaud's phenomenon and ischemic ulcerations with tissue plasimogen activator [letter] Lakshminarayanan S, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):260

Rational use of calcium-channel antagonists in Raynaud's phenomenon. Sturgill MG, et al. **Curr Opin Rheumatol** 1998 Nov;10(6):584–8

Acute effect of nitric oxide on Raynaud's phenomenon in scleroderma [letter] Freedman RR, et al. **Lancet** 1999 Aug 28;354(9180):739

Efficacy evaluation of prostaglandin E1 against placebo in patients with progressive systemic sclerosis and significant Raynaud's phenomenon. Bartolone S, et al. **Minerva Cardioangiol** 1999 May;47(5):137–43 **(Eng, Ita)**

Probucol improves symptoms and reduces lipoprotein oxidation susceptibility in patients with Raynaud's phenomenon. Denton CP, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):309–15

EPIDEMIOLOGY

Symptoms of Raynaud's phenomenon in an inner-city African-American community: prevalence and self-reported cardiovascular comorbidity. Gelber AC, et al. **J Clin Epidemiol** 1999 May;52(5):441–6

Pulmonary hypertension in systemic lupus erythematosus: clinical association and survival in 18 patients. Li EK, et al. **J Rheumatol** 1999 Sep;26(9):1923–9

ETIOLOGY

Chilblains and Raynaud phenomenon are usually not a sign of hereditary protein C and S deficiencies. Benchikhi H, et al. **Acta Derm Venereol** 1998 Sep;78(5):351–2

Different factors influencing the expression of Raynaud's phenomenon in men and women. Fraenkel L, et al. **Arthritis Rheum** 1999 Feb;42(2):306–10

The aetiology of Raynaud's phenomenon. Turton EP, et al. **Cardiovasc Surg** 1998 Oct;6(5):431–40 (119 ref.)

Lack of habituation of the pattern of cardiovascular response evoked by sound in subjects with primary Raynaud's disease. Edwards CM, et al. **Clin Sci (Colch)** 1998 Sep; 95(3):249–60

The big chill: diseases exacerbated by exposure to cold [see comments] Caplan CE. **CMAJ** 1999 Jan 12;160(1):88. Comment in: CMAJ 1999 May 18;160(10):1433.

Association between cigarette and alcohol consumption and Raynaud's phenomenon. Palesch YY, et al. **J Clin Epidemiol** 1999 Apr;52(4):321–8

The NIOSH review of hand-arm vibration syndrome: vigilance is crucial. National Institute of Occupational Safety and Health [editorial] Bernard B, et al. **J Occup Environ Med** 1998 Sep;40(9):780–5

Seasonal variation of Raynaud's phenomenon secondary to systemic sclerosis. Watson HR, et al. **J Rheumatol** 1999 Aug;26(8):1734–7

Raynaud's syndrome in workers who use vibrating pneumatic air knives. McLafferty RB, et al. **J Vasc Surg** 1999 Jul; 30(1):1–7

[Raynaud's phenomenon and connective tissue diseases] Guilmot JL, et al. **Rev Prat** 1998 Oct 1;48(15):1647–52 (16 ref.) (Eng. Abstr.) **(Fre)**

[Raynaud's phenomena of occupational origin] Hatron PY, et al. **Rev Prat** 1998 Oct 1;48(15):1653–8 (12 ref.) (Eng. Abstr.) **(Fre)**

GENETICS

HLA associations in a family with autoimmune phenomena [letter] Hübscher O, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):262

IMMUNOLOGY

Activation of microvascular pericytes in autoimmune Raynaud's phenomenon and systemic sclerosis. Rajkumar VS, et al. **Arthritis Rheum** 1999 May;42(5):930–41

Increased interferon-gamma (IFN-gamma) levels produced in vitro by alloactivated T lymphocytes in systemic sclerosis and Raynaud's phenomenon. Molteni M, et al. **Clin Exp Immunol** 1999 Apr;116(1):164–8

METABOLISM

Probucol improves symptoms and reduces lipoprotein oxidation susceptibility in patients with Raynaud's phenomenon. Denton CP, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):309–15

PATHOLOGY

Activation of microvascular pericytes in autoimmune Raynaud's phenomenon and systemic sclerosis. Rajkumar VS, et al. **Arthritis Rheum** 1999 May;42(5):930–41

Primary Raynaud's is a disease or a disorder: it is not merely a trait [editorial; comment] Belch JJ, et al. **J Rheumatol** 1998 Dec;25(12):2295–7. Comment on: J Rheumatol 1998 Dec;25(12):2291–4.

PHYSIOPATHOLOGY

Effect of long-term estrogen therapy on brachial arterial endothelium-dependent vasodilation in women with Raynaud's phenomenon secondary to systemic sclerosis. Lekakis J, et al. **Am J Cardiol** 1998 Dec 15;82(12):1555–7, A8

Impaired cholinergic dilator response of resistance arteries isolated from patients with Raynaud's disease. Smith PJ, et al. **Br J Clin Pharmacol** 1999 May;47(5):507–13

Non-invasive assessment of digital vascular reactivity in patients with primary Raynaud's phenonenon and systemic sclerosis. Anderson ME, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):49–54

Cardiovascular responses evoked by mild cool stimuli in primary Raynaud's disease: the role of endothelin. Edwards CM, et al. **Clin Sci (Colch)** 1999 Jun;96(6):577–88

Autonomic nervous system dysfunction in sclerodermic and primary Raynaud's phenomenon. Pancera P, et al. **Clin Sci (Colch)** 1999 Jan;96(1):49–57

Endothelial activation and response in patients with hand arm vibration syndrome. Kennedy G, et al. **Eur J Clin Invest** 1999 Jul;29(7):577–81

Primary Raynaud's is a disease or a disorder: it is not merely a trait [editorial; comment] Belch JJ, et al. **J Rheumatol** 1998 Dec;25(12):2295–7. Comment on: J Rheumatol 1998 Dec;25(12):2291–4.

Laser doppler imaging--a new technique for quantifying microcirculatory flow in patients with primary Raynaud's phenomenon and systemic sclerosis. Clark S, et al. **Microvasc Res** 1999 May;57(3):284–91

Is there any relationship between cold-induced vasodilatation and vasomotion? Nuzzaci G, et al. **Microvasc Res** 1999 Jan;57(1):1–7

Vascular abnormalities in Raynaud's phenomenon. Khan F. **Scott Med J** 1999 Feb;44(1):4–6 (42 ref.)

Different flowmotion patterns in healthy controls and patients with Raynaud's phenomenon. Bertuglia S, et al. **Technol Health Care** 1999;7(2–3):113–23

Dynamic characteristics of laser-Doppler flux in normal individuals and patients with Raynaud's phenomenon before and after treatment with nifedipine under different thermal conditions. Popivanov D, et al. **Technol Health Care** 1999;7(2–3):193–203

Linear and nonlinear analysis of blood flow in healthy subjects and in subjects with Raynaud's phenomenon. Stefanovska A, et al. **Technol Health Care** 1999; 7(2–3):225–41

An objective method to estimate the severity of Raynaud phenomenon: digital blood pressure response to cooling. Maricq HR, et al. **Vasc Med** 1998;3(2):109–13

[The circulatory status in the extremities in Raynaud's disease and syndrome] Pertsov VI. **Klin Khir** 1998;(9–10):34–6 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

[Prevention of vibration syndrome in selected occupational groups in the metallurgy industry] Harazin B, et al. **Med Pr** 1998;49(3):223–33 (Eng. Abstr.) **(Pol)**

RADIOGRAPHY

Hand-arm vibration syndrome with proximal ulnar artery occlusion. Noël B, et al. **Vasa** 1998 Aug;27(3):176–8

SURGERY

Thoracoscopic sympathectomy for ischaemic lesions related to bleomycin therapy for acquired immune deficiency syndrome-related Kaposi's sarcoma. Chakfe N, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):175–7

The use of digital artery sympathectomy as a salvage procedure for severe ischemia of Raynaud's disease and phenomenon. McCall TE, et al. **J Hand Surg [Am]** 1999 Jan;24(1):173–7

[Interdigital periarterial sympathectomy: treatment of severe and refractory Raynaud's phenomenon (letter)] Longy-Boursier M, et al. **Presse Med** 1998 Nov 14; 27(35):1791 **(Fre)**

[Thoracoscopic removal of upper thoracic sympathetic ganglia in treatment of Raynaud disease] Shnitko SN, et al. **Khirurgiia (Mosk)** 1999;(4):60–1 **(Rus)**

THERAPY

Behavioral and pharmacologic interventions: the Raynaud's Treatment Study. Thompson B, et al. **Control Clin Trials** 1999 Feb;20(1):52–63

Spinal cord stimulation in vibration white finger. Sciacca V, et al. **Vasa** 1998 Nov;27(4):247–9

[Raynaud's phenomena: diagnostic and treatment study] Priollet P. **Rev Prat** 1998 Oct 1;48(15):1659–64 (27 ref.) (Eng. Abstr.) **(Fre)**

[Therapeutic effects of prolonged normovolemic hemodilution in patients with Raynaud's disease] Mamurov VA. **Khirurgiia (Mosk)** 1998;(12):22–3 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Doppler spectral waveform analysis of arteries of the hand in patients with Raynaud's phenomenon as compared with healthy subjects. Chikui T, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1605–9

[Color duplex ultrasound of the finger arteries. An alternative to angiography?] Steins A, et al. **Hautarzt** 1998 Aug; 49(8):646–50 (Eng. Abstr.) **(Ger)**

RAZOXANE

ADMINISTRATION & DOSAGE

[Dexrazoxane. Current status and prospectives of cardiotoxicity of chemotherapy] Lopez M. **Clin Ter** 1999 Jan–Feb;150(1):37–49 (82 ref.) (Eng. Abstr.) **(Ita)**

ADVERSE EFFECTS

Cutaneous and subcutaneous necrosis following dexrazoxane-CHOP therapy [letter] Lossos IS, et al. **Ann Pharmacother** 1999 Feb;33(2):253–4

BLOOD

Stereoselective metabolism of dexrazoxane (ICRF-187) and levrazoxane (ICRF-186). Hasinoff BB, et al. **Chirality** 1999; 11(4):286–90

PHARMACOKINETICS

Stereoselective metabolism of dexrazoxane (ICRF-187) and levrazoxane (ICRF-186). Hasinoff BB, et al. **Chirality** 1999; 11(4):286–90

Relative plasma levels of the cardioprotective drug dexrazoxane and its two active ring-opened metabolites in the rat. Hasinoff BB, et al. **Drug Metab Dispos** 1999 Feb;27(2):265–8

PHARMACOLOGY

The cardioprotective and DNA topoisomerase II inhibitory agent dexrazoxane (ICRF-187) antagonizes camptothecin-mediated growth inhibition of Chinese hamster ovary cells by inhibition of DNA synthesis. Hasinoff BB, et al. **Anticancer Drugs** 1999 Jan;10(1):47–54

Doxorubicin cardiotoxicity and serum lipid increase is prevented by dextrazoxane (ICRF-187). Samelis GF, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3305–9

Induction of apoptosis by dexrazoxane (ICRF-187) through caspases in the absence of c-jun expression and c-Jun NH2-terminal kinase 1 (JNK1) activation in VM-26-resistant CEM cells. Khélifa T, et al. **Biochem Pharmacol** 1999 Oct 15;58(8):1247–57

Cardioprotection by dexrazoxane in rats treated with doxorubicin and paclitaxel. Della Torre P, et al. **Cancer Chemother Pharmacol** 1999;44(2):138–42

Protection against doxorubicin-induced cardiotoxicity in weanling rats by dexrazoxane. Della Torre P, et al. **Cancer Chemother Pharmacol** 1999;43(2):151–6

Human small cell lung cancer NYH cells selected for resistance to the bisdioxopiperazine topoisomerase II catalytic inhibitor ICRF-187 demonstrate a functional R162Q mutation in the Walker A consensus ATP binding domain of the alpha isoform. Wessel I, et al. **Cancer Res** 1999 Jul 15;59(14):3442-50

Daunorubicin-induced apoptosis in rat cardiac myocytes is inhibited by dexrazoxane. Sawyer DB, et al. **Circ Res** 1999 Feb 19;84(3):257-65

Plasmodium falciparum and Plasmodium yoelii: effect of the iron chelation prodrug dexrazoxane on in vitro cultures. Loyevsky M, et al. **Exp Parasitol** 1999 Feb;91(2):105-14

Dexrazoxane (ICRF-187). Weiss G, et al. **Gen Pharmacol** 1999 Jan;32(1):155-8 (31 ref.)

ICRF-187 (dexrazoxan) protects from adriamycin-induced nephrotic syndrome in rats. Zima T, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):1975-9

THERAPEUTIC USE

Use of dexrazoxane as a cardioprotectant in patients receiving doxorubicin or epirubicin chemotherapy for the treatment of cancer. The Provincial Systemic Treatment Disease Site Group. Seymour L, et al. **Cancer Prev Control** 1999 Apr; 3(2):145-59

Chemoprotectants: a review of their clinical pharmacology and therapeutic efficacy. Links M, et al. **Drugs** 1999 Mar; 57(3):293-308 (94 ref.)

Dexrazoxane. A review of its use as a cardioprotective agent in patients receiving anthracycline-based chemotherapy. Wiseman LR, et al. **Drugs** 1998 Sep;56(3):385-403 (75 ref.)

Doxorubicin-induced cardiomyopathy [letter; comment] Muggia FM, et al. **N Engl J Med** 1999 Feb 25;340(8):654-5 . Comment on: N Engl J Med 1998 Sep 24;339(13):900-5.

Doxorubicin-induced cardiomyopathy [letter; comment] Swain SM. **N Engl J Med** 1999 Feb 25;340(8):654; discussion 655. Comment on: N Engl J Med 1998 Sep 24;339(13):900-5.

Strategies for reduction of anthracycline cardiac toxicity. Speyer J, et al. **Semin Oncol** 1998 Oct;25(5):525-37 (94 ref.)

[Angiosarcoma of the right atrium: local control via low radiation doses and razoxane. A case report] Rhomberg W, et al. **Strahlenther Onkol** 1999 Mar;175(3):102-4 (17 ref.) (Eng. Abstr.) **(Ger)**

[The role of cardioxane (ICRF-187) in the prevention of cardiotoxicity of anthracyclines in the combined drug therapy of extensive ovarian cancer] Protasov DA, et al. **Vopr Onkol** 1998;44(6):718-21 (Eng. Abstr.) **(Rus)**

RB GENES see **GENES, RETINOBLASTOMA**

RB PROTEIN see **RETINOBLASTOMA PROTEIN**

RDA see **NUTRITION POLICY**

REACTANTS, ACUTE-PHASE see **ACUTE-PHASE PROTEINS**

REACTION, ACUTE-PHASE see **ACUTE-PHASE REACTION**

REACTION CENTER PROTEIN, BACTERIAL see **PHOTOSYNTHETIC REACTION CENTER, BACTERIAL**

REACTION CENTER PROTEIN, PLANT see **PHOTOSYNTHETIC REACTION CENTER, PLANT**

REACTION TIME

Exploration of implicit artificial grammar learning in Parkinson's disease. Peigneux P, et al. **Acta Neurol Belg** 1999 Jun;99(2):107-17

Can interocular pattern reversal visual evoked potential and motor reaction time differences distinguish anisometropic from strabismic amblyopia? McKerral M, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):40-4

Temporal relationships between eye fixations and manual reactions in visual search. Greene HH. **Acta Psychol (Amst)** 1999 Mar;101(1):105-23

Auditory reaction times in patients with chronic tinnitus with normal hearing. Nieschalk M, et al. **Am J Otol** 1998 Sep; 19(5):611-8

Understanding the "H" reflex in lumbosacral radiculopathy [editorial] Johnson EW. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):407

Comparing visual perception on conventional cabinet tachistoscopes and computer monitor tachistoscopes. Hutner N, et al. **Behav Res Methods Instrum Comput** 1999 Aug;31(3):400-9

Hardware and software for tachistoscopy: how to make accurate measurements on any PC utilizing the Microsoft Windows operating system. McKinney CJ, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):129-36

eXpTools: a C++ class library for animation, tachistoscopic presentation, and response timing. Warner CB, et al. **Behav Res Methods Instrum Comput** 1999 Aug;31(3):387-99

Dynamical cell assemblies in the rat auditory cortex in a reaction-time task. Villa AE, et al. **Biosystems** 1998 Sep-Dec;48(1-3):269-77

Preparing to react in the absence of uncertainty: I. New perspectives on simple reaction time. Henderson L, et al. **Br J Psychol** 1998 Nov;89 (Pt 4):531-54 (85 ref.)

The lifetime of automatic semantic priming effects may exceed two seconds. Deacon D, et al. **Brain Res Cogn Brain Res** 1999 Mar;7(4):465-72

Gap effect and reaction time distribution: simple vs choice manual responses. Machado-Pinheiro W, et al. **Braz J Med Biol Res** 1998 Oct;31(10):1313-8 (19 ref.)

Neurobehavioral and respiratory findings in jet engine repair workers: A comparison of exposed and unexposed volunteers. Kilburn KH. **Environ Res** 1999 Apr; 80(3):244-52

Gender differences in choice reaction time: evidence for differential strategies. Adam JJ, et al. **Ergonomics** 1999 Feb; 42(2):327-35

The effects of delay on the kinematics of grasping. Hu Y, et al. **Exp Brain Res** 1999 May;126(1):109-16

Simple and choice reaction-time performance following occlusion of the anterior cerebral arteries in the rat. Ward NM, et al. **Exp Brain Res** 1998 Dec;123(3):269-81

Fast and slow reaction times and associated ERPs in patients with schizophrenia and controls. Bahramali H, et al. **Int J Neurosci** 1998 Sep;95(3-4):155-65

Shorter latencies of components of middle latency auditory evoked potentials in congenitally blind compared to normal sighted subjects. Manjunath NK, et al. **Int J Neurosci** 1998 Sep;95(3-4):173-81

Speed of elementary visual recognition operations in Parkinson's disease as measured by the mutual masking method. Bachmann T, et al. **J Clin Exp Neuropsychol** 1998 Feb;20(1):118-34

Speed of information processing in patients with multiple sclerosis. Kail R. **J Clin Exp Neuropsychol** 1998 Feb; 20(1):98-106

Slowed information processing in HIV-1 disease. The Multicenter AIDS Cohort Study (MACS). Llorente AM, et al. **J Clin Exp Neuropsychol** 1998 Feb;20(1):60-72

Reaction time indicators of attention deficits in closed head injury. Zahn TP, et al. **J Clin Exp Neuropsychol** 1999 Jun; 21(3):352-67

Voluntary motor reactions: does stimulus appearance prolong the actual tremor period? Staude G, et al. **J Electromyogr Kinesiol** 1999 Aug;9(4):277-81

Identifying stimuli of different perceptual categories in mixed blocks of trials: evidence for cost in switching between computational processes. Los SA. **J Exp Psychol Hum Percept Perform** 1999 Feb;25(1):3-23

Impairment of willed actions and use of advance information for movement preparation in schizophrenia. Fuller R, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):502-9

New method to measure central motor conduction time using transcranial magnetic stimulation and T-response. Ofuji A, et al. **J Neurol Sci** 1998 Sep 18;160(1):26-32

Neurobehavioral correlates of perceived mental and motor slowness in HIV infection and AIDS. Lopez OL, et al. **J Neuropsychiatry Clin Neurosci** 1998 Summer;10(3):343-50

Clinical psychomotor retardation and attention in depression. Lemelin S, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):81-8

Differentiation of cognitive and motor slowing in the Digit Symbol Test (DST): differences between depression and schizophrenia. van Hoof JJ, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):99-103

Shoulder reaction time and muscle-firing patterns in response to an anterior translation force. Latimer HA, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):610-5

The time-course of negative priming: little evidence for episodic trace retrieval. Conway AR. **Mem Cognit** 1999 Jul;27(4):575-83

Effects of similarity and practice on speeded classification response times and accuracies: further tests of an exemplar-retrieval model. Nosofsky RM, et al. **Mem Cognit** 1999 Jan;27(1):78-93

Processing irrelevant location information: practice and transfer effects in choice-reaction tasks. Proctor RW, et al. **Mem Cognit** 1999 Jan;27(1):63-77

Comparing naming, lexical decision, and eye fixation times: word frequency effects and individual differences. Schilling HH, et al. **Mem Cognit** 1998 Nov;26(6):1270-81

Contrasting effects of age of acquisition and word frequency on auditory and visual lexical decision. Turner JE, et al. **Mem Cognit** 1998 Nov;26(6):1282-91

Foreperiod length, but not memory, affects human reaction time in a precued, delayed response. Mohagheghi AA, et al. **Motor Control** 1998 Apr;2(2):133-41

Does having to remember the position of a target improve reaction time? Parr-Brownlie L, et al. **Motor Control** 1998 Apr;2(2):142-7

Fractioned reflex and reaction time in children with developmental coordination disorder. Raynor AJ. **Motor Control** 1998 Apr;2(2):114-24

Dopamine agonists reorient visual exploration away from the neglected hemispace. Grujic Z, et al. **Neurology** 1998 Nov; 51(5):1395-8

Cognitive processing speed in Lyme disease. Pollina DA, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Jan; 12(1):72-8

Slowing of reaction time in Parkinson's disease: the involvement of the frontal lobes. Berry EL, et al. **Neuropsychologia** 1999 Jun;37(7):787-95

Cortical visual processing is temporally dispersed by luminance in human subjects. Kammer T, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):133-6

Serial changes of sensory nerve conduction velocity and minimal F-wave latency in streptozotocin-induced diabetic rats. Kato N, et al. **Neurosci Lett** 1998 Mar 20;244(3):169-72

Voice target time in Parkinson's disease: A preliminary report. Jiang J, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):87-91

Reaction and movement time variability in ADD/H: effect of tactile experience. Levine MJ, et al. **Pediatr Rehabil** 1998 Apr-Jun;2(2):57-63

Selective effects of physical exercise on choice reaction processes. Arcelin R, et al. **Percept Mot Skills** 1998 Aug; 87(1):175-85

Revising and validating the random search model for competitive search. Chan AH, et al. **Percept Mot Skills** 1998 Aug;87(1):251-60

Strategic aspects of reaction time in world-class sprinters. Collet C. **Percept Mot Skills** 1999 Feb;88(1):65-75

Visuoperceptual speed of karate practitioners at three levels of skill. Kim HS, et al. **Percept Mot Skills** 1998 Aug; 87(1):96-8

Psychomotor speed in chronic low-back pain patients and healthy controls: construct validity and clinical significance of the measure. Luoto S, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1283-96

Effect of practice in bilateral and unilateral reaction-time tasks. Taniguchi Y. **Percept Mot Skills** 1999 Feb; 88(1):99-109

Temporal inhibition in character identification. Busey TA. **Percept Psychophys** 1998 Nov;60(8):1285-304 (60 ref.)

Multiple-feature discrimination faster than single-feature discrimination within the same object? Fournier LR, et al. **Percept Psychophys** 1998 Nov;60(8):1384-405

Effects of auditory stimulus intensity on response force in simple, go/no-go, and choice RT tasks. Miller J, et al. **Percept Psychophys** 1999 Jan;61(1):107-19

Sequential effects in rudimentary auditory and visual tasks. Quinlan PT, et al. **Percept Psychophys** 1999 Feb; 61(2):375-84

Inhibition of return to color: a replication and nonextension of Law, Pratt, and Abrams (1995) [comment] Taylor TL, et al. **Percept Psychophys** 1998 Nov;60(8):1452-5; discussion 1455-6. Comment on: Percept Psychophys 1995 Apr;57(3):402-8.

Manual and verbal responses to completely masked (unreportable) stimuli: exploring some conditions for the metacontrast dissociation. Ansorge U, et al. **Perception** 1998;27(10):1177-89

Group and individual gustatory reaction times and Piéron's law. Bonnet C, et al. **Physiol Behav** 1999 Jun;66(4):549-58

Spatiotemporal activity patterns of rat cortical neurons predict responses in a conditioned task. Villa AE, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1106-11

Neuropsychological performance across the menstrual cycle in women with and without Premenstrual Dysphoric Disorder. Resnick A, et al. **Psychiatry Res** 1998 Feb 27; 77(3):147-58

Positive and negative schizotypal symptoms relate to different aspects of crossover reaction time task performance. Sarkin AJ, et al. **Psychiatry Res** 1998 Nov 16;81(2):241-9

Identification of speeded and slowed familiar melodies by younger, middle-aged, and older musicians and nonmusicians. Andrews MW, et al. **Psychol Aging** 1998 Sep; 13(3):462-71

Relation of task switching to speed, age, and fluid intelligence. Salthouse TA, et al. **Psychol Aging** 1998 Sep; 13(3):445-61

Fast noisy speech: age differences in processing rapid speech with background noise. Tun PA. **Psychol Aging** 1998 Sep; 13(3):424-34

Aging and the negative priming effect: a meta-analysis. Verhaeghen P, et al. **Psychol Aging** 1998 Sep;13(3):435-44

Increased automatic spreading activation in healthy subjects with elevated scores in a scale assessing schizophrenic language disturbances. Moritz S, et al. **Psychol Med** 1999 Jan;29(1):161-70

Response difficulty: response rate relation and sex of subjects. Armus HL, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):1025-6

Effect of ease-of-acquisition on naming latency for Japanese kanji: a reanalysis of Yamazaki, et al.'s (1997) data. Yamada J, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):991-1002

Random generation and the executive control of working memory. Baddeley A, et al. **Q J Exp Psychol A** 1998 Nov; 51(4):819-52

Planning and executing fast movement sequences: a comparison of speech and handwriting. Fuchs H, et al. **Res Q Exerc Sport** 1999 Jun;70(2):190-5

Slower and more variable reaction times in schizophrenia: what do they signify? Vinogradov S, et al. **Schizophr Res** 1998 Aug 17;32(3):183-90

A randomized comparison of driver reaction time after open and endoscopic tension-free inguinal hernia repair. Wright DM, et al. **Surg Endosc** 1999 Apr;13(4):332-4

A measurement of the ability to drive after different types of inguinal hernia repair. Wilson MS, et al. **Surg Laparosc Endosc** 1998 Oct;8(5):384-7

Effects of anxiety on emotional reactivity, performance and vigilance, in healthy volunteers. Garcia C, et al. **Therapie** 1998 May-Jun;53(3):301-8

The oculomotor gap effect without a foveal fixation point. Fendrich R, et al. **Vision Res** 1999 Feb;39(4):833-41

The effects of ageing on reaction times to motion onset. Porciatti V, et al. **Vision Res** 1999 Jun;39(12):2157-64

[Effects of advance information given by sensory cues on

the duration and precision of a pointing movement in Parkinson's disease] Gueye L, et al. **Dakar Med** 1998; 43(1):49–53 (Eng. Abstr.) **(Fre)**

[A new reading chart for simultaneous determination of reading vision and reading speed] Radner W, et al. **Klin Monatsbl Augenheilkd** 1998 Sep;213(3):174–81 (Eng. Abstr.) **(Ger)**

[Intersensory facilitation: also concomitant visual stimuli can decrease reaction time] Dufft CC, et al. **Z Exp Psychol** 1999;46(1):16–27 (Eng. Abstr.) **(Ger)**

[An investigation of age related slowing in cognitive processing speed in a mental rotation task] Gondo Y, et al. **Shinrigaku Kenkyu** 1998 Dec;69(5):393–400 (Eng. Abstr.) **(Jpn)**

[Delays in recognizing facial expressions resulting from prolonged viewing of adaptation face stimuli] Kamachi M, et al. **Shinrigaku Kenkyu** 1998 Jun;69(2):97–104 (Eng. Abstr.) **(Jpn)**

[The underlying mechanism for process dissociation in recognition: performance, response latency, and eyeblink in a three-process model] Ohira H. **Shinrigaku Kenkyu** 1999 Feb;69(6):449–58 (Eng. Abstr.) **(Jpn)**

[A study of the phenomenon of voice intonation: analysis, usage and diagnosis] Kazanecka E, et al. **Otolaryngol Pol** 1997;51 Suppl 25:263–70 (Eng. Abstr.) **(Pol)**

DRUG EFFECTS

Differential effect of the loop diuretic furosemide on short latency auditory and vestibular-evoked potentials. Freeman S, et al. **Am J Otol** 1999 Jan;20(1):41–5

The effects of midazolam on pure tone audiometry, speech audiometry, and audiological reaction times in human volunteers. Kelly DJ, et al. **Anesth Analg** 1999 May; 88(5):1064–8

Antidepressant-like effects of 5-hydroxytryptamine1A receptor agonists on operant responding under a response duration differentiation schedule. Kinney GG, et al. **Behav Pharmacol** 1998 Jul;9(4):309–18

Quantifying the molecular structure of behavior: separate effects of caffeine, cocaine, and adenosine agonists on interresponse times and lever-press durations. Newland MC. **Behav Pharmacol** 1997 Feb;8(1):1–16

Decreased seizure threshold and more rapid rate of kindling in rats with cortical malformation induced by prenatal treatment with methylazoxymethanol. Chevassus-au-Louis N, et al. **Brain Res** 1998 Nov 23;812(1–2):252–5

Involvement of glutamate release in substance P-induced phase delays of suprachiasmatic neuron activity rhythm in vitro. Hamada T, et al. **Brain Res** 1999 Jul 31; 836(1–2):190–3

Delay-dependent impairment of a matching-to-place task with chronic and intrahippocampal infusion of the NMDA-antagonist D-AP5 [see comments] Steele RJ, et al. **Hippocampus** 1999;9(2):118–36. Comment in: Hippocampus 1999 ;9(2):100.

Methylphenidate does not modify the impact of response frequency or stimulus sequence on performance and event-related potentials of children with attention deficit hyperactivity disorder. Smithee JA, et al. **J Abnorm Child Psychol** 1998 Aug;26(4):233–45

The effect of oral ethanol consumption on eye movements in healthy volunteers. Moser A, et al. **J Neurol** 1998 Aug; 245(8):542–50

The effects of idazoxan on reaction times, eye movements and the mood of healthy volunteers and patients with upper respiratory tract illnesses. Smith A, et al. **J Psychopharmacol** 1999;13(2):148–51

Dimethyl sulfoxide increases latency of anoxic terminal negativity in hippocampal slices of guinea pig in vitro. Hülsmann S, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):1–4

Scopolamine enhances middle-latency auditory evoked magnetic fields. Jääskeläinen IP, et al. **Neurosci Lett** 1999 Jan 4;259(1):41–4

Psychopharmacology of conditioned reward: evidence for a rewarding signal at D1-like dopamine receptors. Sutton MA, et al. **Psychopharmacology (Berl)** 1999 May; 144(2):95–110 (130 ref.)

[The influence of antihistamine agents on reaction time] Rapiejko P, et al. **Otolaryngol Pol** 1997;51 Suppl 25:226–9 (Eng. Abstr.) **(Pol)**

GENETICS

Strain distribution of mice in discriminated Y-maze avoidance learning: genetic and procedural differences. Heyser CJ, et al. **Behav Neurosci** 1999 Feb;113(1):91–102

Amygdala kindling-resistant (SLOW) or -prone (FAST) rat strains show differential fear responses. Mohapel P, et al. **Behav Neurosci** 1998 Dec;112(6):1402–13

PHYSIOLOGY

Correlation between latency and amplitude of peak V in the brainstem auditory evoked potentials: intraoperative recordings in microvascular decompression operations. Hatayama T, et al. **Acta Neurochir (Wien)** 1998;140(7):681–7

Long latency responses in pure sensory stroke due to thalamic infarction. Chen CC, et al. **Acta Neurol Scand** 1998 Jul; 98(1):41–8

Conditioning effect on the long latency potentials in the lower limb to transcranial magnetic stimulation. Chen JT, et al. **Acta Neurol Scand** 1998 Dec;98(6):412–21

Intrinsic neuronal time delays can be compensated in cat visual cortex and frog tectum with regard to motion analysis. Koch HJ. **Acta Physiol Hung** 1997–98; 85(4):303–13

Laryngeal long latency response conditioning in abductor spasmodic dysphonia. Deleyiannis FW, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):612–9

Altered trunk muscle recruitment in people with low back pain with upper limb movement at different speeds. Hodges PW, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1005–12

Equivalent dipoles for middle latency auditory evoked potentials using the dipole tracing method. Nakagawa M, et al. **Auris Nasus Larynx** 1999 Jul;26(3):245–56

Evidence that the slowing caused by acute hypoxia is modality dependent. Beach C, et al. **Aviat Space Environ Med** 1998 Sep;69(9):887–91

Two different components of contingent negative variation (CNV) and their relation to changes in reaction time under hypobaric hypoxic conditions. Takagi M, et al. **Aviat Space Environ Med** 1999 Jan;70(1):30–4

Learning to cope with biting flies: rapid NMDA-mediated acquisition of conditioned analgesia. Kavaliers M, et al. **Behav Neurosci** 1999 Feb;113(1):126–35

A study of motor dysfunction associated with schizophrenia based on analyses of movement-related cerebral potentials and motor conduction time. Kubota F, et al. **Biol Psychiatry** 1999 Feb 15;45(4):412–6

An fMRI study of Stroop word-color interference: evidence for cingulate subregions subserving multiple distributed attentional systems. Peterson BS, et al. **Biol Psychiatry** 1999 May 15;45(10):1237–58 (100 ref.)

Orienting attention in time. Modulation of brain potentials. Miniussi C, et al. **Brain** 1999 Aug;122 (Pt 8):1507–18

Auditory evoked M100 reflects onset acoustics of speech sounds. Gage N, et al. **Brain Res** 1998 Dec 14; 814(1–2):236–9

Simple and choice reaction time in Parkinson's disease. Kutukcu Y, et al. **Brain Res** 1999 Jan 9;815(2):367–72

Stimulation of the chewing area of the cerebral cortex induces inhibitory effects upon swallowing in sheep. Lamkadem M, et al. **Brain Res** 1999 Jun 19;832(1–2):97–111

Long-latency contributions to reciprocal inhibition during various levels of muscle contraction. Leonard CT, et al. **Brain Res** 1999 Jan 30;817(1–2):1–12

Widespread short-latency stretch reflexes and their modulation during stumbling over obstacles. Schillings AM, et al. **Brain Res** 1999 Jan 23;816(2):480–6

Identification of differently timed motor components of conditioned blink responses. Woody CD, et al. **Brain Res** 1999 Jul 31;836(1–2):79–89

Striatal lesions produce distinctive impairments in reaction time performance in two different operant chambers. Brasted PJ, et al. **Brain Res Bull** 1998 Aug;46(6):487–93

MEG correlates of categorical perception of a voice onset time continuum in humans. Simos PG, et al. **Brain Res Cogn Brain Res** 1998 Oct;7(2):215–9

Prediction of migraine attacks [editorial; comment] Kropp P. **Cephalalgia** 1999 Jun;19(5):477. Comment on: Cephalalgia 1999 Jun;19(5):485–91.

Specialization of left auditory cortex for speech perception in man depends on temporal coding. Liégeois-Chauvel C, et al. **Cereb Cortex** 1999 Jul-Aug;9(5):484–96

A spatiotemporal profile of visual system activation revealed by current source density analysis in the awake macaque. Schroeder CE, et al. **Cereb Cortex** 1998 Oct-Nov; 8(7):575–92

Individual and developmental differences in disengagement of fixation in early infancy. Frick JE, et al. **Child Dev** 1999 May-Jun;70(3):537–48

The relation of affect to attention and learning in infancy. Rose SA, et al. **Child Dev** 1999 May-Jun;70(3):549–59

Latency and amplitude variability in serial median nerve SEP recordings. Connemann BJ, et al. **Clin Neurophysiol** 1999 Sep;110(9):1664–8

Vigilance transitions in reaction time test: a method of describing the state of alertness more objectively. Conradt R, et al. **Clin Neurophysiol** 1999 Sep;110(9):1499–509

Peak gamma latency correlated with reaction time in a conventional oddball paradigm. Haig AR, et al. **Clin Neurophysiol** 1999 Jan;110(1):158–65

P300 and response time from a manual Stroop task. Ilan AB, et al. **Clin Neurophysiol** 1999 Feb;110(2):367–73

The technical, neurological and psychological significance of 'alpha', 'delta' and 'theta' waves confounded in EEG evoked potentials: a study of peak latencies. Robinson DL. **Clin Neurophysiol** 1999 Aug;110(8):1427–34

Comparison of endogenous event-related potentials in attend and non-attend conditions: latency changes with normal aging. Squires NK, et al. **Clin Neurophysiol** 1999 Mar; 110(3):564–74

A parallel distributed processing model of stimulus-stimulus and stimulus-response compatibility. Zhang HH, et al. **Cognit Psychol** 1999 May;38(3):386–432

The surface form x problem size interaction in cognitive arithmetic: evidence against an encoding locus. Campbell JI. **Cognition** 1999 Mar 1;70(2):B25–33

Age of acquisition in face categorisation: is there an instance-based account? Lewis MB. **Cognition** 1999 May 3;71(1):B23–39

Interhemispheric transfer in normals and acallosals: latency adjusted evoked potential averaging. Brown WS, et al. **Cortex** 1998 Dec;34(5):677–92

Temporal coding as a means of information transfer in the primate visual system. Gawne TJ. **Crit Rev Neurobiol** 1999; 13(1):83–101 (89 ref.)

Reduced excitability of the cortico-spinal system during the warning period of a reaction time task. Touge T, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec; 109(6):489–95

Normal values of F wave in upper extremities of 50 healthy individuals in Iran. Alavian-Ghavanini MR, et al. **Electromyogr Clin Neurophysiol** 1998 Jul-Aug;38(5):305–8

Test-retest reliability of the ulnar F-wave minimum latency in normal adults. Gill NW 3rd, et al. **Electromyogr Clin Neurophysiol** 1999 Jun;39(4):195–200

Unusual late responses in a patient with an Arnold-Chiari malformation. Kutukcu Y, et al. **Electromyogr Clin Neurophysiol** 1999 Jun;39(4):213–6

Some functional observations related to the N18 component of the median nerve SEP. Manzano GM, et al. **Electromyogr Clin Neurophysiol** 1998 Jul-Aug;38(5):259–66

Sacral reflex latency correlated by age and sex. Pradal-Prat D, et al. **Electromyogr Clin Neurophysiol** 1998 Sep; 38(6):367–70

The effects of lifting speed on the peak external forward bending, lateral bending, and twisting spine moments. Lavender SA, et al. **Ergonomics** 1999 Jan;42(1):111–25

Markers from event-related potential subcomponents and reaction time for information processing dysfunction in schizophrenia. Frodl T, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(6):307–13

Reactivity and event-related potentials during attentional tests in athletes. Fontani G, et al. **Eur J Appl Physiol** 1999 Sep;80(4):308–17

Changes in the excitability of soleus muscle short latency stretch reflexes during human hopping after 4 weeks of hopping training. Voigt M, et al. **Eur J Appl Physiol** 1998 Nov;78(6):522–32

Reaction time performance following unilateral striatal dopamine depletion and lesions of the subthalamic nucleus in the rat. Phillips JM, et al. **Eur J Neurosci** 1999 Mar; 11(3):1003–10

Delayed-onset ipsilateral sensory symptoms in patients with central poststroke pain. Kim JS. **Eur Neurol** 1998 Nov; 40(4):201–6

The time-course of preparatory spinal and cortico-spinal inhibition: an H-reflex and transcranial magnetic stimulation study in man. Hasbroucq T, et al. **Exp Brain Res** 1999 Jan;124(1):33–41

Temporal profile of visual evoked responses to pattern-reversal stimulation analyzed with a whole-head magnetometer. Hashimoto T, et al. **Exp Brain Res** 1999 Apr;125(3):375–82

Functional modification of agonist-antagonist electromyographic activity for rapid movement inhibition. Kudo K, et al. **Exp Brain Res** 1998 Sep;122(1):23–30

Human brain activity related to speed discrimination tasks. Orban GA, et al. **Exp Brain Res** 1998 Sep;122(1):9–22

Role of vestibular information in initiation of rapid postural responses. Runge CF, et al. **Exp Brain Res** 1998 Oct; 122(4):403–12

Specific and non-specific effects of transcranial magnetic stimulation on simple and go/no-go reaction time. Sawaki L, et al. **Exp Brain Res** 1999 Aug;127(4):402–8

Comparison of the timing of hippocampal and subicular spatial signals: implications for path integration. Sharp PE. **Hippocampus** 1999;9(2):158–72

The counting Stroop: an interference task specialized for functional neuroimaging--validation study with functional MRI. Bush G, et al. **Hum Brain Mapp** 1998;6(4):270–82

Effect of premenstrual stress on audiovisual reaction time and audiogram. Das S, et al. **Indian J Physiol Pharmacol** 1997 Jan;41(1):67–70

Average evoked potentials--clinical applications of short latency responses. Tandon OP. **Indian J Physiol Pharmacol** 1998 Apr;42(2):172–88 (49 ref.)

Normal aging and odor intensity effects on the olfactory event-related potential. Covington JW, et al. **Int J Psychophysiol** 1999 Jun;32(3):205–14

Changes in pupil reaction to light in melancholic patients. Fountoulakis K, et al. **Int J Psychophysiol** 1999 Jan; 31(2):121–8

Voluntary movements and event-related potentials in Parkinsonians (stages 1–2). Suvorov N, et al. **Int J Psychophysiol** 1999 Jan;31(2):95–110

Effects of distracting stimuli on CNV amplitude and reaction time. Travis F, et al. **Int J Psychophysiol** 1998 Dec; 31(1):45–50

Coactivation of the flexor muscles as a synergist with the extensors during ballistic finger extension movement in trained kendo and karate athletes. Lee JB, et al. **Int J Sports Med** 1999 Jan;20(1):7–11

Effortful and automatic information processing in boys with ADHD and specific learning disorders. Hazell PL, et al. **J Child Psychol Psychiatry** 1999 Feb;40(2):275–86

Relative timing of neuronal activity in distinct temporal lobe areas during a recognition memory task for words. Breier JI, et al. **J Clin Exp Neuropsychol** 1998 Dec;20(6):782–90

Validation of reaction time in continuous performance tasks as an index of attention by electrophysiological measures. Reinvang I. **J Clin Exp Neuropsychol** 1998 Dec; 20(6):885–97

Implicit learning in Parkinson's disease: evidence from a verbal version of the serial reaction time task. Westwater

H, et al. **J Clin Exp Neuropsychol** 1998 Jun;20(3):413–8
Generators of short latency human somatosensory-evoked potentials recorded over the spine and scalp. Lee EK, et al. **J Clin Neurophysiol** 1998 May;15(3):227–34 (65 ref.)
Lexical effects and lexical properties associated with National Adult Reading Test (NART) stimuli in healthy young adults and healthy elderly adults. Ferraro FR, et al. **J Clin Psychol** 1998 Aug;54(5):577–84
Temporal pattern of locomotor activity in Drosophila melanogaster. Martin JR, et al. **J Comp Physiol [A]** 1999 Jan;184(1):73–84
Can a decay process explain the timing of conditioned responses? [see comments] Gallistel CR. **J Exp Anal Behav** 1999 Mar;71(2):264–71; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):215–51.
Long- and short-looking infants' recognition of symmetrical and asymmetrical forms. Stoecker JJ, et al. **J Exp Child Psychol** 1998 Oct;71(1):63–78
Inhibition of return to successively stimulated locations in a sequential visual search paradigm. Danziger S, et al. **J Exp Psychol Hum Percept Perform** 1998 Oct; 24(5):1467–75
Isolating the contributions of familiarity and source information to item recognition: a time course analysis. McElree B, et al. **J Exp Psychol Learn Mem Cogn** 1999 May;25(3):563–82
Timing and force control during a sequential tapping task in children with and without motor coordination problems. Piek JP, et al. **J Int Neuropsychol Soc** 1999 May;5(4):320–9
Saccadic slowing in myotonic dystrophy and CTG repeat expansion. Osanai R, et al. **J Neurol** 1998 Oct; 245(10):674–80
Resonance effect for neural spike time reliability. Hunter JD, et al. **J Neurophysiol** 1998 Sep;80(3):1427–38
Short-latency vergence eye movements induced by radial optic flow in humans: dependence on ambient vergence level. Yang D, et al. **J Neurophysiol** 1999 Feb;81(2):945–9
High tolerance and delayed elastic response of cultured axons to dynamic stretch injury. Smith DH, et al. **J Neurosci** 1999 Jun 1;19(11):4263–9
Estimating stimulus response latency. Friedman HS, et al. **J Neurosci Methods** 1998 Sep 1;83(2):185–94
Distribution and latency of muscle responses to transcranial magnetic stimulation of motor cortex after spinal cord injury in humans. Calancie B, et al. **J Neurotrauma** 1999 Jan;16(1):49–67
Patterned ballistic movements triggered by a startle in healthy humans. Valls-Solé J, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):931–8
Measurement of the lateral thoracic reflex latency in ponies. Hahn CN, et al. **J Vet Intern Med** 1998 Jul-Aug; 12(4):310–2
Conditioned response timing and integration in the cerebellum. Moore JW, et al. **Learn Mem** 1997 May-Jun; 4(1):116–29
Reaction time distributions across normal forgetting: searching for markers of memory consolidation. Reber PJ, et al. **Learn Mem** 1997 Sep-Oct;4(3):284–90
Effect of varying the intensity and train frequency of forelimb and cerebellar mossy fiber conditioned stimuli on the latency of conditioned eye-blink responses in decerebrate ferrets. Svensson P, et al. **Learn Mem** 1997 May-Jun; 4(1):105–15
Smokeless tobacco, reaction time, and strength in athletes. Escher SA, et al. **Med Sci Sports Exerc** 1998 Oct; 30(10):1548–51
The effect of lifelong exercise on psychomotor reaction time: a study of 38 pairs of male monozygotic twins. Simonen RL, et al. **Med Sci Sports Exerc** 1998 Sep;30(9):1445–50
Movement and reaction times and fine coordination tasks following pallidotomy. Jankovic J, et al. **Mov Disord** 1999 Jan;14(1):57–62
Event-related desynchronization to contingent negative variation and self-paced movement paradigms in Parkinson's disease. Magnani G, et al. **Mov Disord** 1998 Jul;13(4):653–60
Order effects in response times of parkinsonian patients and normal controls. Goodin DS, et al. **Muscle Nerve** 1999 May; 22(5):567–72
The cutaneous silent period is mediated by spinal inhibitory reflex. Logigian EL, et al. **Muscle Nerve** 1999 Apr; 22(4):467–72
The median nerve terminal latency index in carpal tunnel syndrome: a clinical case selection study. Simovic D, et al. **Muscle Nerve** 1999 May;22(5):573–7
The time course of changes during motor sequence learning: a whole-brain fMRI study. Toni I, et al. **Neuroimage** 1998 Jul;8(1):50–61
Effects of a startling acoustic stimulus on reaction time in different parkinsonian syndromes. Valldeoriola F, et al. **Neurology** 1998 Nov;51(5):1315–20
High velocity transient visual processing deficits diminish ability of patients with schizophrenia to recognize objects. Schwartz BD, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Jul; 12(3):170–7
Stimulus-response compatibility in representational space. Bächtold D, et al. **Neuropsychologia** 1998 Aug;36(8):731–5
Interhemispheric transmission times in the presence and absence of the forebrain commissures: effects of luminance and equiluminance. Forster B, et al. **Neuropsychologia** 1998 Sep;36(9):925–34
Directed attention after unilateral frontal excisions in humans. Koski LM, et al. **Neuropsychologia** 1998 Dec; 36(12):1363–71
Facilitation and inhibition arising from the exogenous orienting of covert attention depends on the temporal properties of spatial cues and targets. Maruff P, et al. **Neuropsychologia** 1999 Jun;37(6):731–44
Impact of the surface slipperiness of grasped objects on their subsequent acceleration. Saels P, et al. **Neuropsychologia** 1999 Jun;37(6):751–6
Visual attention deficits in Alzheimer's disease: simple versus conjoined feature search. Foster JK, et al. **Neuropsychology** 1999 Apr;13(2):223–45
Short-latency ocular following of motion by monkeys during a fixation task. Benson PJ, et al. **Neuroreport** 1998 Dec 1;9(17):3981–7
Binding visual features during high-rate serial presentation. Cortese F, et al. **Neuroreport** 1999 May 14;10(7):1565–70
ERPs and chronometry of face recognition: following-up Seeck et al. and George et al [comment] Debruille JB, et al. **Neuroreport** 1998 Oct 26;9(15):3349–53. Comment on: Neuroreport 1997 Apr 14;8(6):1417–23. Comment on: Neuroreport 1997 Aug 18;8(12):2749–54.
Using mismatch negativity to measure auditory temporal resolution thresholds. Desjardins RN, et al. **Neuroreport** 1999 Jul 13;10(10):2079–82
A distinct low-level mechanism for interaural timing analysis in human hearing. Griffiths TD, et al. **Neuroreport** 1998 Oct 26;9(15):3383–6
Random dots blinking: a new approach to elucidate the activities of the extrastriate cortex in humans. Okusa T, et al. **Neuroreport** 1998 Dec 1;9(17):3961–5
It takes longer to recognize the eyes than the whole face in humans. Watanabe S, et al. **Neuroreport** 1999 Jul 13; 10(10):2193–8
Reaction time responding in rats. Blokland A. **Neurosci Biobehav Rev** 1998 Oct;22(6):847–64
Reaction time deficits and Parkinson's disease. Gauntlett-Gilbert J, et al. **Neurosci Biobehav Rev** 1998 Oct; 22(6):865–81 (74 ref.)
Instruction differentiates the processing of temporal and spatial sequential patterns: evidence from slow wave activity in humans. Schubotz R. **Neurosci Lett** 1999 Apr 9;265(1):1–4
Reaction times of head movements occurring in association with express saccades during human gaze shifts. Suzuki T, et al. **Neurosci Lett** 1998 Sep 18;254(1):61–4
Short-latency vergence eye movements elicited by looming step in monkeys. Inoue Y, et al. **Neurosci Res** 1998 Oct; 32(2):185–8
Performance stability in simultaneous tasks of pedalling and reaction time. Arcelin R, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1193–9
Procedure to extract a weekly pattern of performance of human reaction time. Beau J, et al. **Percept Mot Skills** 1999 Apr;88(2):469–83
Relationship between choice reaction time and the Tower of Hanoi test. Bestawros A, et al. **Percept Mot Skills** 1999 Apr;88(2):355–62
Relation of repetition effect and response programming in a speeded choice task. Ito M. **Percept Mot Skills** 1999 Apr; 88(2):503–14
Functional equivalence for response programming of actually performing versus imagining movements. Ito M. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):941–51
Difference in stimulus-response compatibility effect in premotor and motor time between upper and lower limbs. Kato Y, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):939–46
Right hemispheric contribution to motor programming of simultaneous bilateral response. Taniguchi Y. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1283–90
Effects of response type on coordinated responses during arm movement. Azuma R, et al. **Percept Psychophys** 1999 May;61(4):579–90
Age similarities in the inertial properties of attention. Gottlob LR, et al. **Percept Psychophys** 1999 May;61(4):740–55
Examining the effect of practice on inhibition of return in static displays. Pratt J, et al. **Percept Psychophys** 1999 May; 61(4):756–65
Covert signs of expectancy in serial reaction time tasks revealed by event-related potentials. Sommer W, et al. **Percept Psychophys** 1999 Feb;61(2):342–53
Slow-wave sleep and waking cognitive performance among older adults with and without insomnia complaints. Crenshaw MC, et al. **Physiol Behav** 1999 May;66(3):485–92
Visual processing levels revealed by response latencies to changes in different visual attributes. Barbur JL, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 7;265(1412):2321–5
The Noh mask test for analysis of recognition of facial expression. Minoshita S, et al. **Psychiatry Clin Neurosci** 1999 Feb;53(1):83–9
Cross-sectional and longitudinal relationships among age, cognition, and processing speed. Sliwinski M, et al. **Psychol Aging** 1999 Mar;14(1):18–33
Connectionist and diffusion models of reaction time. Ratcliff R, et al. **Psychol Rev** 1999 Apr;106(2):261–300
Contingent negative variation and cognitive performance in hypotension. Costa M, et al. **Psychophysiology** 1998 Nov; 35(6):737–44
The effect of response execution on P3 latency, reaction time, and movement time. Doucet C, et al. **Psychophysiology** 1999 May;36(3):351–63
Effect of the irrelevant location of the response signal on choice reaction time: an electromyographic study in humans. Hasbroucq T, et al. **Psychophysiology** 1999 Jul; 36(4):522–6
Olfactory P3 in young and older adults. Morgan CD, et al. **Psychophysiology** 1999 May;36(3):281–7
Effects of task complexity in young and old adults: reaction time and P300 latency are not always dissociated. Smulders FT, et al. **Psychophysiology** 1999 Jan;36(1):118–25
The lateralized readiness potential: relationship between human data and response activation in a connectionist model. Spencer KM, et al. **Psychophysiology** 1999 May; 36(3):364–70
Motor programming of response force and movement direction. Ulrich R, et al. **Psychophysiology** 1998 Nov; 35(6):721–8
P50 abnormalities in schizophrenia: relationship to clinical and neuropsychological indices of attention. Erwin RJ, et al. **Schizophr Res** 1998 Oct 9;33(3):157–67
Neuronal activity in the primate supplementary motor area and the primary motor cortex in relation to spatio-temporal bimanual coordination. Kermadi I, et al. **Somatosens Mot Res** 1998;15(4):287–308
Peripheral and central delay in processing high spatial frequencies: reaction time and VEP latency studies. Mihaylova M, et al. **Vision Res** 1999 Feb;39(4):699–705
[Fast visual categorization and speed of processing in migraine] Aubertin A, et al. **C R Acad Sci III** 1999 Aug; 322(8):695–704 (Eng. Abstr.) **(Fre)**
[Event-related analysis of interval sequences] Staude G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:256–7 **(Ger)**
[The manifestation in human long-latency auditory evoked potentials of the phenomenon of successive backward masking] Al'tman IaA, et al. **Fiziol Cheloveka** 1999 Jan-Feb;25(1):35–42 **(Rus)**
[Reverse adaptation studied by recording short-latency auditory evoked potentials] Petrov SM, et al. **Fiziol Cheloveka** 1998 Jul-Aug;24(4):71–4 **(Rus)**
[The effect of the visual stimulation of the leading and nonleading eye on the value of the saccadic latency period and on the peak latency of rapid presaccadic potentials] Moiseeva VV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Jan-Feb; 49(1):113–7 (Eng. Abstr.) **(Rus)**
[Long-latency evoked potentials in response to rotational stimulation as an early method for the diagnosis of cochleovestibular disorders] Homza NV. **Lik Sprava** 1998 Jun;(4):116–8 (Eng. Abstr.) **(Ukr)**

REACTIVE ATTACHMENT DISORDER

CLASSIFICATION

[Diagnosis of attachment disorders] Brisch KH, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Jul-Aug; 48(6):425–37 (38 ref.) (Eng. Abstr.) **(Ger)**

DIAGNOSIS

[Diagnosis of attachment disorders] Brisch KH, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Jul-Aug; 48(6):425–37 (38 ref.) (Eng. Abstr.) **(Ger)**

ETIOLOGY

Clinical disturbances of attachment in infancy and early childhood. Boris NW, et al. **Curr Opin Pediatr** 1998 Aug; 10(4):365–8 (27 ref.)

PSYCHOLOGY

Clinical disturbances of attachment in infancy and early childhood. Boris NW, et al. **Curr Opin Pediatr** 1998 Aug; 10(4):365–8 (27 ref.)
Frightening maternal behavior linking unresolved loss and disorganized infant attachment. Schuengel C, et al. **J Consult Clin Psychol** 1999 Feb;67(1):54–63

THERAPY

Dyadic psychotherapy for early relationship disorders: a case study. Keren M, et al. **Isr J Psychiatry Relat Sci** 1998; 35(4):262–70
[Model of residential psychoanalytic integrative parent-child therapy] Subkowski P. **Prax Kinderpsychol Kinderpsychiatr** 1999 Jul-Aug; 48(6):438–44 (Eng. Abstr.) **(Ger)**

REACTIVE DISORDERS see **ADJUSTMENT DISORDERS**

REACTIVE INHIBITION

Childhood derivatives of high and low reactivity in infancy. Kagan J, et al. **Child Dev** 1998 Dec;69(6):1483–93

REACTIVE OXYGEN SPECIES

see related
FREE RADICALS
OXIDATIVE STRESS
PEROXIDES

Reactive oxygen and nitrogen intermediates increase

transforming growth factor-beta1 release from human epithelial alveolar cells through two different mechanisms. Bellocq A, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):128–36

Molecular mechanisms of cellular injury produced by neurotoxic amino acids that generate reactive oxygen species. Metodiewa D. **Amino Acids** 1998;14(1–3):181–7 (19 ref.)

Effects of in vivo taurine depletion on induced-chemiluminescence production in macrophages isolated from rat lungs. Zhang X, et al. **Amino Acids** 1998; 15(1–2):179–86

Surface chemistry and quartz hazard. Fubini B. **Ann Occup Hyg** 1998 Nov;42(8):521–30

Non-steroidal antiestrogens induce apoptosis in HL60 and MOLT3 leukemic cells; involvement of reactive oxygen radicals and protein kinase C. Hayon T, et al. **Anticancer Res** 1999 May–Jun;19(3A):2089–93

Reactive oxygen species are partially involved in the bacteriocidal action of hypochlorous acid. Dukan S, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):311–6

In vitro degradation of tropoelastin by reactive oxygen species. Hayashi A, et al. **Arch Dermatol Res** 1998 Sep; 290(9):497–500

Pro- and anti-oxidant effects of some antileprotic drugs in vitro and their influence on super oxide dismutase activity. Arutla S, et al. **Arzneimittelforschung** 1998 Oct; 48(10):1024–7

Effects of BX661A, a new therapeutic agent for ulcerative colitis, on reactive oxygen species in comparison with salazosulfapyridine and its metabolite sulfapyridine. Kimura I, et al. **Arzneimittelforschung** 1998 Oct;48(10):1007–11

Dialysis kinetics of homocysteine and reactive oxygen species. Biasioli S, et al. **ASAIO J** 1998 Sep–Oct; 44(5):M423–32

Lens proteins block the copper-mediated formation of reactive oxygen species during glycation reactions in vitro. Ortwerth BJ, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):706–10

Human anti-DNA autoantibodies and induced antibodies against ROS-modified-DNA show similar antigenic binding characteristics. Alam K, et al. **Biochem Mol Biol Int** 1999 May;47(5):881–90

Effect of flupirtine on cell death of human umbilical vein endothelial cells induced by reactive oxygen species. Lorenz B, et al. **Biochem Pharmacol** 1998 Dec 15; 56(12):1615–24

Assay for reactive oxygen species-induced DNA damage: measurement of the formamido and thymine glycol lesions. Maccubbin AE, et al. **Biochim Biophys Acta** 1999 May 31; 1454(1):80–8

Scavenging of reactive oxygen species by melatonin. Zang LY, et al. **Biochim Biophys Acta** 1998 Nov 27; 1425(3):469–77

Phagocyte-induced oxidative stress in patients with haemodialysis treatment and organ transplantation. Lojek A, et al. **Biofactors** 1998;8(1–2):165–8

Generation of reactive oxygen species by raphidophycean phytoplankton. Oda T, et al. **Biosci Biotechnol Biochem** 1997 Oct;61(10):1658–62

Functional food science and defence against reactive oxidative species. Diplock AT, et al. **Br J Nutr** 1998 Aug; 80 Suppl 1:S77–112 (279 ref.)

Antioxidants protect against reactive oxygen species associated with adriamycin-treated cardiomyocytes. DeAtley SM, et al. **Cancer Lett** 1999 Feb 8;136(1):41–6

Reactive oxygen species participate in mdr1b mRNA and P-glycoprotein overexpression in primary rat hepatocyte cultures. Ziemann C, et al. **Carcinogenesis** 1999 Mar; 20(3):407–14

Detection of active oxygen species in biological systems. Nakano M. **Cell Mol Neurobiol** 1998 Dec;18(6):565–79 (19 ref.)

Hypervalent chromium mimics reactive oxygen species as measured by the oxidant-sensitive dyes 2',7'-dichlorofluorescin and dihydrorhodamine. Martin BD, et al. **Chem Res Toxicol** 1998 Dec;11(12):1402–10

Polymorphonuclear oxidative burst after Helicobacter pylori water extract stimulation is not influenced by the cytotoxic genotype but indicates infection and gastritis grade. Basso D, et al. **Clin Chem Lab Med** 1999 Mar;37(3):223–9

Role of active oxygen species and NO in plant defence responses. Bolwell GP. **Curr Opin Plant Biol** 1999 Aug; 2(4):287–94 (72 ref.)

Accidental cell death and generation of reactive oxygen intermediates in human lymphocytes induced by thionins from Viscum album L. Büssing A, et al. **Eur J Biochem** 1999 May;262(1):79–87

Reactive oxygen intermediate-release of fibre-exposed monocytes increases inflammatory cytokine-mRNA level, protein tyrosine kinase and NF-kappaB activity in co-cultured bronchial epithelial cells (BEAS-2B). Drumm K, et al. **Eur J Med Res** 1999 Jul 28;4(7):257–63

Characterization of reactive oxygen species induced effects on human spermatozoa movement and energy metabolism. Armstrong JS, et al. **Free Radic Biol Med** 1999 Apr; 26(7–8):869–80

Modulation of leukocyte-endothelial interactions by reactive metabolites of oxygen and nitrogen: relevance to ischemic heart disease. Grisham MB, et al. **Free Radic Biol Med** 1998 Sep;25(4–5):404–33 (208 ref.)

Analysis of the impact of intracellular reactive oxygen species generation on the structural and functional integrity of human spermatozoa: lipid peroxidation, DNA fragmentation and effectiveness of antioxidants. Twigg J, et al. **Hum Reprod** 1998 Jun;13(6):1429–36

Biological effects of man-made mineral fibers (I)--Reactive oxygen species production and calcium homeostasis in alveolar macrophages. Wang QE, et al. **Ind Health** 1999 Jan;37(1):62–7

An update on the role of free radicals and antioxidant defense in human disease. Vendemiale G, et al. **Int J Clin Lab Res** 1999;29(2):49–55

Reactive oxygen species-induced apoptosis and necrosis in bovine corneal endothelial cells. Cho KS, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):911–9

Regulation of reactive oxygen species by nerve growth factor but not Bcl-2 as a novel mechanism of protection of PC12 cells from superoxide anion-induced death. Satoh T, et al. **J Biochem (Tokyo)** 1999 May;125(5):952–9

Fragmentation of the large subunit of ribulose-1,5-bisphosphate carboxylase by reactive oxygen species occurs near Gly-329. Ishida H, et al. **J Biol Chem** 1999 Feb 19;274(8):5222–6

Role of oxygen radicals generated by NADPH oxidase in apoptosis induced in human leukemia cells. Hiraoka W, et al. **J Clin Invest** 1998 Dec 1;102(11):1961–8

Reactive oxygen species and lipid peroxidation product-scavenging ability of yogurt organisms. Lin MY, et al. **J Dairy Sci** 1999 Aug;82(8):1629–34

UVA-induced immune suppression through an oxidative pathway. Iwai I, et al. **J Invest Dermatol** 1999 Jan; 112(1):19–24

Nitric oxide-induced potentiation of the killing of Burkholderia cepacia by reactive oxygen species: implications for cystic fibrosis. Smith AW, et al. **J Med Microbiol** 1999 May;48(5):419–23

Oxidant treatment causes a dose-dependent phenotype of apoptosis in cultured motoneurons. Kaal EC, et al. **J Neurosci Res** 1998 Dec 15;54(6):778–86

Delta opioid peptide [D-Ala2,D-leu5]enkephalin blocks the long-term loss of dopamine transporters induced by multiple administrations of methamphetamine: involvement of opioid receptors and reactive oxygen species. Tsao LI, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):322–31

Redox-dependent regulation of interleukin-8 by tumor necrosis factor-alpha in lung epithelial cells. Simeonova PP, et al. **Lab Invest** 1999 Aug;79(8):1027–37

Peroxyacetyl nitrate-induced apoptosis through generation of reactive oxygen species in HL-60 cells. Liu GY, et al. **Mol Carcinog** 1999 Jul;25(3):196–206

Regulation of reactive oxygen species-induced apoptosis and necrosis by caspase 3-like proteases. Higuchi M, et al. **Oncogene** 1998 Nov 26;17(21):2753–60

Reactive oxygen species-induced molecular damage and its application in pathology. Toyokuni S. **Pathol Int** 1999 Feb; 49(2):91–102 (93 ref.)

Effects of reactive oxygen species on myofilament function in a rabbit coronary artery ligation model of heart failure. MacFarlane NG, et al. **Pflugers Arch** 1999 Aug; 438(3):289–98

Alkyl peroxyl radical-scavenging activity of catechins. Nakao M, et al. **Phytochemistry** 1998 Dec;49(8):2379–82

Inhibitory effects of isoflavones on lipid peroxidation by reactive oxygen species. Toda S, et al. **Phytother Res** 1999 Mar;13(2):163–5

Modulation of protein kinases and protein phosphatases by reactive oxygen species: implications for hippocampal synaptic plasticity. Klann E, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):359–76 (94 ref.)

The role of macrophages and reactive oxygen species in experimental hydronephrosis. Ricardo SD, et al. **Semin Nephrol** 1998 Nov;18(6):612–21 (80 ref.)

Oxidation and the spermatozoa. Kim JG, et al. **Semin Reprod Endocrinol** 1998;16(4):235–9 (43 ref.)

Oxygen radicals, antioxidants, and lipid peroxidation. Santanam N, et al. **Semin Reprod Endocrinol** 1998; 16(4):275–80 (51 ref.)

Pro- and antioxidative properties of cortical tissue preparations from human brain exhibiting NMDA-receptor characteristics. Elstner M, et al. **Z Naturforsch [C]** 1999 May–Jun;54(5–6):438–45

[Oxygen free radicals (letter; comment)] Metche M. **Ann Biol Clin (Paris)** 1998 Mar–Apr;56(2):229. Comment on: Ann Biol Clin (Paris) 1997 Nov–Dec;55(6):565–71. **(Fre)**

[Oxidative injury and its defense system in vivo] Niwa Y. **Rinsho Byori** 1999 Mar;47(3):189–209 (84 ref.) (Eng. Abstr.) **(Jpn)**

[Free radicals and reduced DNA damage in repair-defective human cells] Lisitsyna TA, et al. **Dokl Akad Nauk** 1999 Mar;365(2):263–6 **(Rus)**

[Post-receptor formation of active forms of oxygen in nonphagocytic cells] Gamaleĭ IA, et al. **Tsitologiia** 1999; 41(5):394–9 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

New mechanisms by which secretory phospholipase A2 stimulates neutrophils to provoke the release of cytotoxic agents. Zallen G, et al. **Arch Surg** 1998 Nov; 133(11):1229–33

Possible role of reactive oxygen species in antiviral defense. Skulachev VP. **Biochemistry (Mosc)** 1998 Dec; 63(12):1438–40

Immunochemical detection of oxidative DNA damage in cancer and aging using anti-reactive oxygen species modified DNA monoclonal antibody. Ashok BT, et al. **Int J Biochem Cell Biol** 1998 Dec;30(12):1367–77

Binding of human anti-DNA autoantibodies to reactive oxygen species modified-DNA and probing oxidative DNA damage in cancer using monoclonal antibody. Ashok BT, et al. **Int J Cancer** 1998 Nov 9;78(4):404–9

Reactive oxygen species modified polyguanylic acid: immunogenicity and implications for systemic autoimmunity. Garg DK, et al. **J Autoimmun** 1998 Aug; 11(4):371–8

Macrophage microbicidal mechanisms in vivo: reactive nitrogen versus oxygen intermediates in the killing of intracellular visceral Leishmania donovani. Murray HW, et al. **J Exp Med** 1999 Feb 15;189(4):741–6

A central role for astrocytes in the inflammatory response to beta-amyloid; chemokines, cytokines and reactive oxygen species are produced. Johnstone M, et al. **J Neuroimmunol** 1999 Jan 1;93(1–2):182–93

Changes in rat alveolar macrophageal antioxidant defense and reactive oxygen species release by high dietary vitamin E. Pathania V, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Aug;44(4):491–502

Evidence of oxygen free radical damage in human otitis media. Takoudes TG, et al. **Otolaryngol Head Neck Surg** 1999 May;120(5):638–42

Mechanism of suppression of natural killer cell activity in trauma patients. Joshi P, et al. **Res Commun Mol Pathol Pharmacol** 1998 Sep;101(3):241–8

[Cytokine effects on generation of oxygen active forms by lung and peripheral blood phagocytes] Koval'chuk LV, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):440–3 **(Rus)**

METABOLISM

Effects of a leucocyte depleting arterial line filter on perioperative proteolytic enzyme and oxygen free radical release in patients undergoing aortocoronary bypass surgery. Mair P, et al. **Acta Anaesthesiol Scand** 1999 Apr; 43(4):452–7

Evaluation of reactive oxygen metabolites with micromethod in neonates: determination of standards of normality in full-term babies. Parmigiani S, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:103–6

Oxidative injury in the nervous system. Delanty N, et al. **Acta Neurol Scand** 1998 Sep;98(3):145–53 (90 ref.)

Effect of arachidonic acid alone or with prooxidant on aldehyde dehydrogenases in hepatoma cells. Canuto RA, et al. **Adv Exp Med Biol** 1999;463:133–42

Autoxidation of amyloid precursor protein and formation of reactive oxygen species. Multhaup G, et al. **Adv Exp Med Biol** 1999;448:183–92 (51 ref.)

Effect of dietary fat on chronic ethanol-induced oxidative stress in hepatocytes. Bailey SM, et al. **Alcohol Clin Exp Res** 1999 Jul;23(7):1210–8

The role of Kupffer cells and reactive oxygen species in hepatic injury during acute and chronic alcohol intoxication. Bautista AP. **Alcohol Clin Exp Res** 1998 Aug; 22(5 Suppl):255S–259S

Effects of chronic ethanol exposure on oxidation and NMDA-stimulated neuronal death in primary cortical neuronal cultures. Rudolph JG, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2080–5

Blood eosinophils from asymptomatic allergics have a reduced capacity to produce oxygen-free radicals. Woschnagg C, et al. **Allergy** 1998 Dec;53(12):1162–71

Oral ferrous sulfate supplements increase the free radical-generating capacity of feces from healthy volunteers. Lund EK, et al. **Am J Clin Nutr** 1999 Feb; 69(2):250–5

Effects of reactive oxygen and nitrogen metabolites on RANTES- and IL-5-induced eosinophil chemotactic activity in vitro. Sato E, et al. **Am J Pathol** 1999 Aug; 155(2):591–8

Reactive oxygen intermediates stimulate interleukin-6 production in human bronchial epithelial cells. Yoshida Y, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L900–8

Increased 8-isoprostane, a marker of oxidative stress, in exhaled condensate of asthma patients. Montuschi P, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):216–20

Analysis of reactive oxygen species generated by neutrophils using a chemiluminescence probe L-012. Imada I, et al. **Anal Biochem** 1999 Jun 15;271(1):53–8

Simultaneous analysis of the majority of low-molecular-weight, redox-active compounds from mitochondria. Kristal BS, et al. **Anal Biochem** 1998 Oct 1;263(1):18–25

Plasma antioxidants: evidence for a protective role against reactive oxygen species following cardiac surgery. McColl AJ, et al. **Ann Clin Biochem** 1998 Sep;35 (Pt 5):616–23

Mitochondrial free radical production and aging in mammals and birds. Barja G. **Ann N Y Acad Sci** 1998 Nov 20; 854:224–38 (72 ref.)

Reactive oxygen intermediates, molecular damage, and aging. Relation to melatonin. Reiter RJ, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:410–24 (77 ref.)

Posttranslational modifications of cardiac and skeletal muscle proteins by reactive oxygen species after burn injury in the rat. Fagan JM, et al. **Ann Surg** 1999 Jan;229(1):106–14

Generation of reactive oxygen intermediates (ROI) by the thionins from Viscum album L. Büssing A, et al.

Anticancer Res 1998 Nov-Dec;18(6A):4291-6

Ca2+-stimulated mitochondrial reactive oxygen species generation and permeability transition are inhibited by dibucaine or Mg2+. Kowaltowski AJ, et al. **Arch Biochem Biophys** 1998 Nov 1;359(1):77-81

Reactive oxygen species in the aerobic decomposition of sodium hydroxymethanesulfinate. Makarov SV, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):289-96

Effect of topical ascorbic acid on free radical tissue damage and inflammatory cell influx in the cornea after excimer laser corneal surgery. Kasetsuwan N, et al. **Arch Ophthalmol** 1999 May;117(5):649-52

Effect of d-amphetamine repeated administration on rat antioxidant defences. Carvalho F, et al. **Arch Toxicol** 1999 Mar;73(2):83-9

Effects of BX661A, a new therapeutic agent for ulcerative colitis, on chemotaxis and reactive oxygen species production in polymorphonuclear leukocytes in comparison with salazosulfapyridine and its metabolite sulfapyridine. Kimura I, et al. **Arzneimittelforschung** 1998 Dec;48(12):1163-7

Elevation of reactive oxygen species following ischemia-reperfusion in mouse cochlea observed in vivo. Ohlemiller KK, et al. **Audiol Neurootol** 1999 Sep-Oct; 4(5):219-28

Early elevation of cochlear reactive oxygen species following noise exposure. Ohlemiller KK, et al. **Audiol Neurootol** 1999 Sep-Oct;4(5):229-36

Effects of free radicals on ciliary movement in the human nasal epithelial cells. Min YG, et al. **Auris Nasus Larynx** 1999 Apr;26(2):159-63

Sources of reactive oxygen species production in excitotoxin-stimulated cerebellar granule cells. Boldyrev AA, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):320-4

Silica-induced generation of reactive oxygen species in Rat2 fibroblast: role in activation of mitogen-activated protein kinase. Cho YJ, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):708-12

The requirement of both intracellular reactive oxygen species and intracellular calcium elevation for the induction of heparin-binding EGF-like growth factor in vascular endothelial cells and smooth muscle cells. Kayanoki Y, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):50-5

Active oxygen species in blue light mediated signal transduction in coleoptile tips. Laloraya MM, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):293-8

Diphenyleneiodonium, an NAD(P)H oxidase inhibitor, also potently inhibits mitochondrial reactive oxygen species production. Li Y, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):295-9

Reactive oxygen species as a risk factor in verotoxin-1-exposed rats. Matsunaga T, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):813-9

Ursodeoxycholic acid protects hepatocytes against oxidative injury via induction of antioxidants. Mitsuyoshi H, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):537-42

Involvement of receptor aggregation and reactive oxygen species in osmotic stress-induced Syk activation in B cells. Qin S, et al. **Biochem Biophys Res Commun** 1999 Aug 19; 262(1):231-6

Hypochlorous acid-induced DNA base modification: potentiation by nitrite: biomarkers of DNA damage by reactive oxygen species. Whiteman M, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):572-6

Evidence of Trolox and some gallates as synergistic protectors of erythrocytes against peroxyl radicals. Wu J, et al. **Biochem Cell Biol** 1998;76(4):661-4

Autoinhibition of neuronal nitric oxide synthase: distinct effects of reactive nitrogen and oxygen species on enzyme activity. Kotsonis P, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):745-52

Reactive oxygen species activate a Ca2+-dependent cell death pathway in the unicellular organism Trypanosoma brucei brucei. Ridgley EL, et al. **Biochem J** 1999 May 15; 340 (Pt 1):33-40

Dexamethasone induced expression of phosphatase inhibits generation of reactive oxygen species in Ehrlich ascites tumor cells. Salimath BP, et al. **Biochem Mol Biol Int** 1998 Oct;46(3):559-69

Cocaine cytotoxicity in hepatocyte cultures from phenobarbital-induced rats: involvement of reactive oxygen species and expression of antioxidant defense systems. Diez-Fernández C, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):797-805

Reactive oxygen intermediates as mediators of programmed cell death in plants and animals. Jabs T. **Biochem Pharmacol** 1999 Feb 1;57(3):231-45 (161 ref.)

Inhibitory effects of resveratrol analogs on unopsonized zymosan-induced oxygen radical production. Jang DS, et al. **Biochem Pharmacol** 1999 Mar 15;57(6):705-12

Discrete species of activated oxygen yield different cytochrome P450 heme adducts from aldehydes. Kuo CL, et al. **Biochemistry** 1999 Aug 10;38(32):10511-8

On the problem of a regulatory role of active oxygen species in cells [comment] Kaluev AV. **Biochemistry (Mosc)** 1998 Sep;63(9):1114-5 discussion 1116-7. Comment on: Biochemistry (Mosc) 1997 Dec;62(12):1341-7.

Negative air ions and reactive oxygen species. Comment on A.V. Peskin's comment "Concerning the role of active oxygen species as regulators". Kondrashova MN. **Biochemistry (Mosc)** 1999 Mar;64(3):361-3

Nitric oxide and oxygen radicals in infection, inflammation, and cancer. Maeda H, et al. **Biochemistry (Mosc)** 1998 Jul; 63(7):854-65 (80 ref.)

Sensitivity of chondrocytes of growing cartilage to reactive oxygen species. Fragonas E, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):103-11

Calcium and reactive oxygen species as messengers in endotoxin action on adrenocortical cells. Garcia R, et al. **Biochim Biophys Acta** 1999 May 31;1454(1):1-10

NSAIDs and butyrate sensitize a human colorectal cancer cell line to TNF-alpha and Fas ligation: the role of reactive oxygen species. Giardina C, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):425-38

Calcium-dependent PAF-stimulated generation of reactive oxygen species in a human keratinocyte cell line. Goldman R, et al. **Biochim Biophys Acta** 1999 Jun 10;1438(3):349-58

Sensitivity of the synaptic membrane Na+/Ca2+ exchanger and the expressed NCX1 isoform to reactive oxygen species. Huschenbett J, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1-2):34-46

Detection of mitochondria-derived reactive oxygen species production by the chemilumigenic probes lucigenin and luminol. Li Y, et al. **Biochim Biophys Acta** 1999 Jun 28; 1428(1):1-12

Generation of active oxygen species from advanced glycation end-products (AGEs) during ultraviolet light A (UVA) irradiation and a possible mechanism for cell damaging. Masaki H, et al. **Biochim Biophys Acta** 1999 Jun 28; 1428(1):45-56

Ethanol-related cytotoxicity catalyzed by CYP2E1-dependent generation of reactive oxygen intermediates in transduced HepG2 cells. Cederbaum AI. **Biofactors** 1998;8(1-2):93-6

Characteristics of the production of active oxygen species from adherent and non-adherent neutrophils. Yoshida N, et al. **Biofactors** 1999;9(1):19-26

Role of radical oxygen species in rat testicular germ cell apoptosis induced by heat stress. Ikeda M, et al. **Biol Reprod** 1999 Aug;61(2):393-9

Caspases mediate tumor necrosis factor-alpha-induced neutrophil apoptosis and downregulation of reactive oxygen production. Yamashita K, et al. **Blood** 1999 Jan 15;93(2):674-85

In situ detection of superoxide anions within porcine articular cartilage. Hiran TS, et al. **Br J Biomed Sci** 1998 Sep; 55(3):199-203

Generation of reactive oxygen species by human mesothelioma cells. Kahlos K, et al. **Br J Cancer** 1999 Apr; 80(1-2):25-31

Generation of reactive oxygen species, release of L-glutamate and activation of caspases are required for oxygen-induced apoptosis of embryonic hippocampal neurons in culture. Ishikawa Y, et al. **Brain Res** 1999 Apr 3;824(1):71-80

Oxidized lipoproteins increase reactive oxygen species formation in microglia and astrocyte cell lines. Keller JN, et al. **Brain Res** 1999 May 29;830(1):10-5

Oxygen free radical generation during in-utero hypoxia in the fetal guinea pig brain: the effects of maturity and of magnesium sulfate administration. Maulik D, et al. **Brain Res** 1999 Jan 30;817(1-2):117-22

Glutathione depletion and neuronal cell death: the role of reactive oxygen intermediates and mitochondrial function. Wüllner U, et al. **Brain Res** 1999 Apr 24;826(1):53-62

Effect of vitamin C on androgen independent prostate cancer cells (PC3 and Mat-Ly-Lu) in vitro: involvement of reactive oxygen species-effect on cell number, viability and DNA synthesis. Menon M, et al. **Cancer Biochem Biophys** 1998 Jun;16(1-2):17-30

Analysis of DNA strand breaks, oxidized bases, and glutathione S-transferase P1 in human colon cells from biopsies. Pool-Zobel BL, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jul;8(7):609-14

Role of ROS modified human DNA in the pathogenesis and etiology of cancer. Abdi S, et al. **Cancer Lett** 1999 Jul 19; 142(1):1-9

Induction of mitochondrial Apo2.7 molecules and generation of reactive oxygen-intermediates in cultured lymphocytes by the toxic proteins from Viscum album L. Büssing A, et al. **Cancer Lett** 1999 May 3;139(1):79-88

Augmentation of 12-O-tetradecanoyl 13-phorbol acetate-mediated tumor promoting response by the porphyrin photosensitization of 7,12-dimethyl benz[a]anthracene-initiated murine skin: role of in situ generated reactive oxygen species. Giri U, et al. **Cancer Lett** 1999 Jan 8;135(1):53-60

Reactive nitrogen and oxygen radicals formed during hepatic ischemia-reperfusion kill weakly metastatic colorectal cancer cells. Jessup JM, et al. **Cancer Res** 1999 Apr 15; 59(8):1825-9

Activation of c-Jun NH2-terminal kinase and subsequent CPP32/Yama during topoisomerase inhibitor beta-lapachone-induced apoptosis through an oxidation-dependent pathway. Shiah SG, et al. **Cancer Res** 1999 Jan 15;59(2):391-8

The effect of non-genotoxic carcinogens, phenobarbital and clofibrate, on the relationship between reactive oxygen species, antioxidant enzyme expression and apoptosis. Diez-Fernández C, et al. **Carcinogenesis** 1998 Oct; 19(10):1715-22

Vanadate-induced activation of activator protein-1: role of reactive oxygen species. Ding M, et al. **Carcinogenesis** 1999 Apr;20(4):663-8

Selective induction of apoptosis by capsaicin in transformed cells: the role of reactive oxygen species and calcium. Macho A, et al. **Cell Death Differ** 1999 Feb;6(2):155-65

Articular chondrocytes and synoviocytes in a co-culture system: influence on reactive oxygen species-induced cytotoxicity and lipid peroxidation. Kurz B, et al. **Cell Tissue Res** 1999 Jun;296(3):555-63

Protective effects of baicalein against cell damage by reactive oxygen species. Gao D, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1383-7

Glutathione-dependent generation of reactive oxygen species by the peroxidase-catalyzed redox cycling of flavonoids. Galati G, et al. **Chem Res Toxicol** 1999 Jun;12(6):521-5

Activation of endothelial NADPH oxidase as the source of a reactive oxygen species in lung ischemia. Fisher AB, et al. **Chest** 1999 Jul;116(1 Suppl):25S-26S

Regulation of oxidant production in acute lung injury. Sanders KA, et al. **Chest** 1999 Jul;116(1 Suppl):56S-61S (39 ref.)

Mitochondrial electron transport complex I is a potential source of oxygen free radicals in the failing myocardium. Ide T, et al. **Circ Res** 1999 Aug 20;85(4):357-63

Requirement for protein kinase C in reactive oxygen species-induced apoptosis of vascular smooth muscle cells. Li PF, et al. **Circulation** 1999 Aug 31;100(9):967-73

Lymphocyte proliferation modulated by glutamine: involved in the endogenous redox reaction. Chang WK, et al. **Clin Exp Immunol** 1999 Sep;117(3):482-8

Oxygen radicals and nitric oxide in rat mesenteric ischaemia-reperfusion: modulation by L-arginine and NG-nitro-L-arginine methyl ester. Haklar G, et al. **Clin Exp Pharmacol Physiol** 1998 Nov;25(11):908-12

Effect of dexamethasone on reactive oxygen species generation by leukocytes and plasma interleukin-10 concentrations: a pharmacodynamic study. Dandona P, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):58-65

Diving seals, ischemia-reperfusion and oxygen radicals. Elsner R, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Apr; 119(4):975-80

Effects of UV-C irradiation on phosphoinositide turnover in plant cells: similarities with those occurring via the formation of reactive oxygen intermediates in animal cells. Piacentini MP, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Mar; 122(3):293-9

The modification of alveolar bone proteoglycans by reactive oxygen species in vitro. Moseley R, et al. **Connect Tissue Res** 1998;37(1-2):13-28

Reactive oxygen intermediates and reactive nitrogen intermediates in copper intrauterine device users. Anjalika, et al. **Contraception** 1999 Jan;59(1):67-70

Antioxidants for hypertension. Kitiyakara C, et al. **Curr Opin Nephrol Hypertens** 1998 Sep;7(5):531-8 (61 ref.)

Redox regulation of interleukin-8 expression in MKN28 cells. Shimada T, et al. **Dig Dis Sci** 1999 Feb;44(2):266-73

Oxidative stress affects pancreatic proteins during the early pathogenesis of rat caerulein pancreatitis. Reinheckel T, et al. **Digestion** 1999 Jan-Feb;60(1):56-62

Multiple activated oxygen species in P450 catalysis: contributions To specificity in drug metabolism. Coon MJ, et al. **Drug Metab Dispos** 1998 Dec;26(12):1190-3 (28 ref.)

The P450 catalytic cycle and oxygenation mechanism. Lewis DF, et al. **Drug Metab Rev** 1998 Nov;30(4):739-86 (175 ref.)

Effect of resveratrol and some other natural compounds on tyrosine kinase activity and on cytolysis. Palmieri L, et al. **Drugs Exp Clin Res** 1999;25(2-3):79-85

Sodium palmitate induces partial mitochondrial uncoupling and reactive oxygen species in rat pancreatic islets in vitro. Carlsson C, et al. **Endocrinology** 1999 Aug;140(8):3422-8

Thrombin stimulated reactive oxygen species production in cultured human endothelial cells. Holland JA, et al. **Endothelium** 1998;6(2):113-21

Effects of sevoflurane and isoflurane on free radical formation in the post-ischaemic reperfused heart. Kashimoto S, et al. **Eur J Anaesthesiol** 1998 Sep;15(5):553-8

Oxidative stress in familial adenomatous polyposis. Brás A, et al. **Eur J Cancer Prev** 1999 Aug;8(4):305-10

Dynamics of reactive oxygen intermediate production in human glioma: n-6 essential fatty acid effects [see comments] Leaver HA, et al. **Eur J Clin Invest** 1999 Mar; 29(3):220-31. Comment in: Eur J Clin Invest 1999 Mar;29(3):185-8.

Dipyridamole and dilazep suppress oxygen radicals in puromycin aminonucleoside nephrosis rats. Nakamura K, et al. **Eur J Clin Invest** 1998 Nov;28(11):877-83

Systemically circulating oxidative species in human deep venous thrombosis. Re G, et al. **Eur J Emerg Med** 1998 Mar;5(1):9-12

Production of reactive oxygen intermediates following CD40 ligation correlates with c-Jun N-terminal kinase activation and IL-6 secretion in murine B lymphocytes. Lee JR, et al. **Eur J Immunol** 1998 Dec;28(12):4188-97

Protection of cultured gastric cells against tert-butyl hydroperoxide by glutathione isopropyl ester. Yamaguchi N, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):363-9

Reactive oxygen species as mediators of photoreceptor apoptosis in vitro. Carmody RJ, et al. **Exp Cell Res** 1999 May 1;248(2):520-30

Different types of ROS-scavenging enzymes are expressed during cutaneous wound repair. Steiling H, et al.

Exp Cell Res 1999 Mar 15;247(2):484–94
The aging paradox: free radical theory of aging. Ashok BT, et al. **Exp Gerontol** 1999 Jun;34(3):293–303 (74 ref.)
Age-associated differences in neutrophil oxidative burst (chemiluminescence). Braga PC, et al. **Exp Gerontol** 1998 Aug;33(5):477–84
Reactive oxygen species and biological aging: a mechanistic approach. Schöneich C. **Exp Gerontol** 1999 Jan;34(1):19–34 (168 ref.)
The effects of oxygen radicals on the activity of nitric oxide synthase and guanylate cyclase. Kim SM, et al. **Exp Mol Med** 1998 Dec 31;30(4):221–6
Inducible nitric oxide synthase induction in Thy 1 glomerulonephritis is complement and reactive oxygen species dependent. Mosley K, et al. **Exp Nephrol** 1999 Jan–Feb;7(1):26–34
Chemoattractant- and mitogen-induced generation of reactive oxygen species in human lymphocytes: the role of calcium. Orie NN, et al. **Exp Physiol** 1999 May; 84(3):515–20
Influence of oestrogens on formation of reactive oxygen species in liver microsomes of differently aged male Wistar rats. Barth A, et al. **Exp Toxicol Pathol** 1999 Jul; 51(4–5):282–8
Glutathione is implied in the control of 7-ketocholesterol-induced apoptosis, which is associated with radical oxygen species production. Lizard G, et al. **FASEB J** 1998 Dec;12(15):1651–63
Cold-induced apoptosis in cultured hepatocytes and liver endothelial cells: mediation by reactive oxygen species. Rauen U, et al. **FASEB J** 1999 Jan;13(1):155–68
Curcumin mediated apoptosis in AK-5 tumor cells involves the production of reactive oxygen intermediates. Bhaumik S, et al. **FEBS Lett** 1999 Aug 6;456(2):311–4
The influence of phenobarbital on cytochromes and reactive oxygen species in erythropoietin producing HepG2 cells. Ehleben W, et al. **FEBS Lett** 1998 Dec 4;440(3):343–7
Transition metal ion-catalyzed oxygen activation during pathogenic processes. Hippeli S, et al. **FEBS Lett** 1999 Jan 22;443(1):1–7 (88 ref.)
Hypoxic upregulation of tyrosine hydroxylase gene expression is paralleled, but not induced, by increased generation of reactive oxygen species in PC12 cells. Höhler B, et al. **FEBS Lett** 1999 Aug 20;457(1):53–6
Oxidized LDL activates STAT1 and STAT3 transcription factors: possible involvement of reactive oxygen species. Mazière C, et al. **FEBS Lett** 1999 Apr 1;448(1):49–52
Culture media and their components differ in their ability to scavenge reactive oxygen species in the plasmid relaxation assay. Ermilov A, et al. **Fertil Steril** 1999 Jul; 72(1):154–7
Shark cartilage-containing preparation: protection against reactive oxygen species. Felzenszwalb I, et al. **Food Chem Toxicol** 1998 Dec;36(12):1079–84
gamma-Glutamyltransferase dependent generation of reactive oxygen species from a glutathione/transferrin system. Drozdz R, et al. **Free Radic Biol Med** 1998 Nov 1;25(7):786–92
Reactive oxygen species and DNA oxidation in fetal rat tissues. Fantel AG, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):95–103
Reactive oxygen species activate focal adhesion kinase, paxillin and p130cas tyrosine phosphorylation in endothelial cells. Gozin A, et al. **Free Radic Biol Med** 1998 Dec;25(9):1021–32
Ketosis (acetoacetate) can generate oxygen radicals and cause increased lipid peroxidation and growth inhibition in human endothelial cells. Jain SK, et al. **Free Radic Biol Med** 1998 Dec;25(9):1083–8
The cardiac acetylcholine-activated, inwardly rectifying K+-channel subunit GIRK1 gives rise to an inward current induced by free oxygen radicals. Jeglitsch G, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):253–9
Mitochondrial damage induced by conditions of oxidative stress. Kowaltowski AJ, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):463–71
Effect of in vitro generation of oxygen free radicals on T cell function in young and old rats. Pahlavani MA, et al. **Free Radic Biol Med** 1998 Nov 15;25(8):903–13
Noninvasive evaluation of in vivo free radical reactions catalyzed by iron using in vivo ESR spectroscopy. Phumala N, et al. **Free Radic Biol Med** 1999 May;26(9–10):1209–17
Reactive oxygen species activate human peripheral blood dendritic cells. Rutault K, et al. **Free Radic Biol Med** 1999 Jan;26(1–2):232–8
Formation of reactive oxygen species following bioactivation of gentamicin. Sha SH, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):341–7
Role of reactive oxygen species and poly-ADP-ribose polymerase in the development of AZT-induced cardiomyopathy in rat. Szabados E, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):309–17
The role of reactive oxygen species in triggering proliferation and IL-2 secretion in T cells. Tatla S, et al. **Free Radic Biol Med** 1999 Jan;26(1–2):14–24
Hydrogen peroxide induces endothelial cell atypia and cytoskeleton depolymerization. Valen G, et al. **Free Radic Biol Med** 1999 Jun;26(11–12):1480–8
Reactive oxygen intermediates regulate cellular response to apoptotic stimuli: an hypothesis. Clément MV, et al. **Free Radic Res** 1999 Apr;30(4):247–52 (44 ref.)
Defense against reactive oxygen species. Diplock AT. **Free Radic Res** 1998 Dec;29(6):463–7
Glutathione S-transferases and prevention of cellular free radical damage. Ketterer B. **Free Radic Res** 1998 Jun; 28(6):647–58 (70 ref.)
Aggrecan degradation in chondrocytes is mediated by reactive oxygen species and protected by antioxidants. Tiku ML, et al. **Free Radic Res** 1999 May;30(5):395–405
Preconditioning with hydrogen peroxide (H2O2) or ischemia in H2O2-induced cardiac dysfunction. Valen G, et al. **Free Radic Res** 1998 Sep;29(3):235–45
Enhancement of myeloid cell growth by benzene metabolites via the production of active oxygen species. Wiemels J, et al. **Free Radic Res** 1999 Feb;30(2):93–103
Regulation of the iron regulatory proteins by reactive nitrogen and oxygen species. Hanson ES, et al. **Gene Expr** 1999;7(4–6):367–76 (100 ref.)
Reactive oxygen metabolites, antioxidants and head and neck cancer. Seidman MD, et al. **Head Neck** 1999 Aug; 21(5):467–79 (479 ref.)
Stimulation of free radical formation by aminoglycoside antibiotics. Sha SH, et al. **Hear Res** 1999 Feb; 128(1–2):112–8
Oxygen-derived free radical production by peripheral blood neutrophils in chronic cholestatic liver diseases. D'Odorico A, et al. **Hepatogastroenterology** 1999 May–Jun; 46(27):1831–5
Acute and chronic ethanol increases reactive oxygen species generation and decreases viability in fresh, isolated rat hepatocytes. Bailey SM, et al. **Hepatology** 1998 Nov; 28(5):1318–26
Pretreatment of mice with macrophage inactivators decreases acetaminophen hepatotoxicity and the formation of reactive oxygen and nitrogen species. Michael SL, et al. **Hepatology** 1999 Jul;30(1):186–95
Production of reactive oxygen species by man-made vitreous fibres in human polymorphonuclear leukocytes. Ruotsalainen M, et al. **Hum Exp Toxicol** 1999 Jun; 18(6):354–62
Seminal leukocyte concentration and related specific reactive oxygen species production in patients with male accessory gland infections. Vicari E. **Hum Reprod** 1999 Aug; 14(8):2025–30
Reactive oxygen species are critical in the oleic acid-mediated mitogenic signaling pathway in vascular smooth muscle cells. Lu G, et al. **Hypertension** 1998 Dec; 32(6):1003–10
Impact of acute and subchronic asbestos exposure on some parameters of antioxidant defense system and lung tissue injury. Kaiglová A, et al. **Ind Health** 1999 Jul;37(3):348–51
Glucose 6-phosphate dehydrogenase is required for Salmonella typhimurium virulence and resistance to reactive oxygen and nitrogen intermediates. Lundberg BE, et al. **Infect Immun** 1999 Jan;67(1):436–8
Effect of polyclonal immunoglobulins on neutrophil phagocytic capacity and reactive oxygen production in patients with gram-negative septicemia. Wenisch C, et al. **Infection** 1999 May–Jun;27(3):183–6
The effect of erdosteine and its active metabolite on reactive oxygen species production by inflammatory cells. Miyake K, et al. **Inflamm Res** 1999 Apr;48(4):205–9
Effects of insulin on N-formyl-methionyl-leucyl-phenylalanine (fMet-Leu-Phe)-stimulated production of reactive oxygen metabolites from normal human neutrophils. Oldenborg PA. **Inflamm Res** 1999 Jul;48(7):404–11
The activation of protein kinase C induces higher production of reactive oxygen species by mononuclear cells in patients with multiple sclerosis than in controls. Vladimirova O, et al. **Inflamm Res** 1999 Jul;48(7):412–6
RANTES augments eosinophil lucigenin-dependent chemiluminescence. Chihara J, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:40–3
Relative contribution of leukocytes and of spermatozoa to reactive oxygen species production in human sperm suspensions. Whittington K, et al. **Int J Androl** 1999 Aug; 22(4):229–35
Reactive oxygen species (ROS) production and the outcome of diagnostic tests of sperm function. Whittington K, et al. **Int J Androl** 1999 Aug;22(4):236–42
Mycobacterium lepraemurium, a well-adapted parasite of macrophages: I. Oxygen metabolites. Rojas-Espinosa O, et al. **Int J Lepr Other Mycobact Dis** 1998 Sep;66(3):365–73
Divergent effects of paracetamol on reactive oxygen intermediate and reactive nitrogen intermediate production by U937 cells. Jamil I, et al. **Int J Mol Med** 1999 Sep; 4(3):309–12
Radiation-sensitive tyrosine phosphorylation of cellular proteins: sensitive to changes in GSH content induced by pretreatment with N-acetyl-L-cysteine or L-buthionine-S,R-sulfoximine. Tuttle S, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):833–8
Antioxidant status in patients with acute respiratory distress syndrome [see comments] Metnitz PG, et al. **Intensive Care Med** 1999 Feb;25(2):180–5. Comment in: Intensive Care Med 1999 Feb;25(2):134–6.
Role of reactive oxygen metabolites in organophosphate-bidrin-induced renal tubular cytotoxicity. Poovala VS, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1746–52
Regulation of RANTES and ICAM-1 expression in murine mesangial cells. Satriano JA, et al. **J Am Soc Nephrol** 1997 Apr;8(4):596–603
Involvement of Ca2+ ion and reactive oxygen species as a mediator in pradimicin-induced apoptosis. Oki T, et al. **J Antibiot (Tokyo)** 1999 May;52(5):455–9
UK-2A, B, C and D, novel antifungal antibiotics from Streptomyces sp. 517-02. IV. Comparative studies of UK-2A with antimycin A3 on cytotoxic activity and reactive oxygen species generation in LLC-PK1 cells. Takimoto H, et al. **J Antibiot (Tokyo)** 1999 May;52(5):480–4
Aging and acute exercise enhance free radical generation in rat skeletal muscle. Bejma J, et al. **J Appl Physiol** 1999 Jul;87(1):465–70
Formation of reactive oxygen species by the contracting diaphragm is PLA(2) dependent. Nethery D, et al. **J Appl Physiol** 1999 Aug;87(2):792–800
Breath ethane as a marker of reactive oxygen species during manipulation of diet and oxygen tension in rats. Risby TH, et al. **J Appl Physiol** 1999 Feb;86(2):617–22
Profile of reactive oxygen species generation and antioxidative mechanisms in the maturing rat kidney. Gupta A, et al. **J Appl Toxicol** 1999 Jan–Feb;19(1):55–9
Response of the olfactory bulb antioxidant system following diethyldithiocarbamate (DDTC) administration in rats. Struble RG, et al. **J Appl Toxicol** 1999 Jul–Aug;19(4):221–8
Fyn and JAK2 mediate Ras activation by reactive oxygen species. Abe J, et al. **J Biol Chem** 1999 Jul 23; 274(30):21003–10
beta-amyloid activates the O-2 forming NADPH oxidase in microglia, monocytes, and neutrophils. A possible inflammatory mechanism of neuronal damage in Alzheimer's disease. Bianca VD, et al. **J Biol Chem** 1999 May 28;274(22):15493–9
Intracellular fragmentation of bone resorption products by reactive oxygen species generated by osteoclastic tartrate-resistant acid phosphatase. Halleen JM, et al. **J Biol Chem** 1999 Aug 13;274(33):22907–10
Selective role for beta-protein kinase C in signaling for O-2 generation but not degranulation or adherence in differentiated HL60 cells. Korchak HM, et al. **J Biol Chem** 1998 Oct 16;273(42):27292–9
Ras proteins induce senescence by altering the intracellular levels of reactive oxygen species. Lee AC, et al. **J Biol Chem** 1999 Mar 19;274(12):7936–40
Stimulation of a vascular smooth muscle cell NAD(P)H oxidase by thrombin. Evidence that p47(phox) may participate in forming this oxidase in vitro and in vivo. Patterson C, et al. **J Biol Chem** 1999 Jul 9;274(28):19814–22
Reactive oxygen species mediate the activation of Akt/protein kinase B by angiotensin II in vascular smooth muscle cells. Ushio-Fukai M, et al. **J Biol Chem** 1999 Aug 6;274(32):22699–704
Intracellular reactive oxygen species mediate the linkage of Na+/K+-ATPase to hypertrophy and its marker genes in cardiac myocytes. Xie Z, et al. **J Biol Chem** 1999 Jul 2;274(27):19323–8
Induction of tenascin-C in cardiac myocytes by mechanical deformation. Role of reactive oxygen species. Yamamoto K, et al. **J Biol Chem** 1999 Jul 30;274(31):21840–6
Studies on the biological effects of ozone: 7. Generation of reactive oxygen species (ROS) after exposure of human blood to ozone. Bocci V, et al. **J Biol Regul Homeost Agents** 1998 Jul–Sep;12(3):67–75
Different effects of exogenous horseradish peroxidase on luminol-amplified chemiluminescence induced by soluble and particulate stimuli in human neutrophils. Kopprasch S, et al. **J Biolumin Chemilumin** 1998 Sep–Oct;13(5):267–71
Impaired reactive oxygen metabolism of phagocytic leukocytes in NIDDM patients. A role for non-enzymatic glycosylation of collagen. Scatena R, et al. **J Biolumin Chemilumin** 1998 Sep–Oct;13(5):273–8
Acute simultaneous stimulation of nitric oxide and oxygen radicals by angiotensin II in humans in vivo. Dijkhorst-Oei LT, et al. **J Cardiovasc Pharmacol** 1999 Mar;33(3):420–4
Neurohormonal activation, oxygen free radicals, and apoptosis in the pathogenesis of congestive heart failure. Ruffolo RR Jr, et al. **J Cardiovasc Pharmacol** 1998;32 Suppl 1:S22–30 (48 ref.)
Reactive oxygen metabolites increase mitochondrial calcium in endothelial cells: implication of the Ca2+/Na+ exchanger. Jornot L, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1013–22
Cerium-based histochemical demonstration of oxidative stress in taurocholate-induced acute pancreatitis in rats. A confocal laser scanning microscopic study. Telek G, et al. **J Histochem Cytochem** 1999 Sep;47(9):1201–12
Oxidized low-density lipoprotein increases the production of intracellular reactive oxygen species in endothelial cells: inhibitory effect of lacidipine. Cominacini L, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1913–9
Elevation of mitochondrial transmembrane potential and reactive oxygen intermediate levels are early events and occur independently from activation of caspases in Fas signaling. Banki K, et al. **J Immunol** 1999 Feb 1; 162(3):1466–79
Mycobacterium avium-intracellulare complex activates nuclear transcription factor-kappaB in different cell types through reactive oxygen intermediates. Giri DK, et al. **J Immunol** 1998 Nov 1;161(9):4834–41
Lipopolysaccharide inhibits TNF-induced apoptosis: role of nuclear factor-kappaB activation and reactive oxygen intermediates. Manna SK, et al. **J Immunol** 1999 Feb 1; 162(3):1510–8
Are reactive oxygen species involved in the pathogenesis

of murine cerebral malaria? Sanni LA, et al. **J Infect Dis** 1999 Jan;179(1):217–22

Antioxidants attenuate acute toxicity of tumor necrosis factor–alpha induced by brain injury in rat. Trembovler V, et al. **J Interferon Cytokine Res** 1999 Jul;19(7):791–5

Impaired phagocyte oxidative capacity in patients with human immunodeficiency virus infection. Pitrak DL, et al. **J Lab Clin Med** 1998 Oct;132(4):284–93

Signal transduction by reactive oxygen species in non–phagocytic cells. Finkel T. **J Leukoc Biol** 1999 Mar; 65(3):337–40 (35 ref.)

The synthetic non–toxic drug 2,3–dimethyl–6(2–dimethylaminoethyl)–6H–indolo–(2,3–b) quinoxaline inhibits neutrophil production of reactive oxygen species. Harbecke O, et al. **J Leukoc Biol** 1999 Jun; 65(6):771–7

Macrophage/fibroblast coculture induces macrophage inflammatory protein–1alpha production mediated by intercellular adhesion molecule–1 and oxygen radicals. Steinhauser ML, et al. **J Leukoc Biol** 1998 Nov; 64(5):636–41

Redox regulation of signal transduction in cardiac and smooth muscle. Suzuki YJ, et al. **J Mol Cell Cardiol** 1999 Feb;31(2):345–53 (72 ref.)

Increase of ceramide and induction of mixed apoptosis/necrosis by N–(4–hydroxyphenyl)– retinamide in neuroblastoma cell lines [see comments] Maurer BJ, et al. **J Natl Cancer Inst** 1999 Jul 7;91(13):1138–46. Comment in: J Natl Cancer Inst 1999 Jul 7;91(13):1099–100.

Generation of reactive oxygen species accounts for cytotoxicity of an endogenous dopaminergic neurotoxin, (R)–N–methylsalsolinol, to differentiated dopaminergic SH–SY5Y cells. Minami C, et al. **J Neural Transm** 1998; 105(4–5):397–405

Oxidized low–density lipoprotein induces neuronal death: implications for calcium, reactive oxygen species, and caspases. Keller JN, et al. **J Neurochem** 1999 Jun; 72(6):2601–9

Cells from individuals with SOD–1 associated familial amyotrophic lateral sclerosis do not have an increased susceptibility to radiation–induced free radical production or DNA damage. Mithal NP, et al. **J Neurol Sci** 1999 Mar 15;164(1):89–92

Two distinct mechanisms are involved in 6–hydroxydopamine– and MPP+–induced dopaminergic neuronal cell death: role of caspases, ROS, and JNK. Choi WS, et al. **J Neurosci Res** 1999 Jul 1;57(1):86–94

Expression of nitric oxide synthases and formation of nitrotyrosine and reactive oxygen species in inflammatory bowel disease. Dijkstra G, et al. **J Pathol** 1998 Dec; 186(4):416–21

Reactive oxygen radical levels in caustic esophageal burns. Günel E, et al. **J Pediatr Surg** 1999 Mar;34(3):405–7

Influence of twinline, an elemental diet, on the generation of nitric oxide and reactive–oxygen intermediates from mouse peritoneal macrophages and polymorphonuclear leukocytes. Ueta E, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):935–42

Release of the cerebral protein s–100 into blood after reperfusion during cardiac operations in infants: is there a relation to oxygen radical–induced lipid peroxidation? Abdul–Khaliq H, et al. **J Thorac Cardiovasc Surg** 1999 May; 117(5):1027–8

Sensitivities and gene–expressions of Escherichia coli mutants deficient in DNA repair and reactive oxygen species scavenging capacity exposed to natural sunlight. Yonezawa Y, et al. **J Toxicol Environ Health** 1999 Jun 25;57(4):237–45

Re: Reactive oxygen species production by the spermatozoa of patients with idiopathic infertility: relationship to seminal plasma antioxidants [letter; comment] Durak I, et al. **J Urol** 1999 May;161(5):1583–4. Comment on: J Urol 1997 Jan;157(1):140–3.

Varicocele is associated with elevated spermatozoal reactive oxygen species production and diminished seminal plasma antioxidant capacity. Hendin BN, et al. **J Urol** 1999 Jun; 161(6):1831–4

Growth hormone inhibits apoptosis and up–regulates reactive oxygen intermediates production by human polymorphonuclear neutrophils. Matsuda T, et al. **JPEN J Parenter Enteral Nutr** 1998 Nov–Dec;22(6):368–74

N–acetylcysteine modifies cis–dichlorodiammineplatinum–induced effects in bladder cancer cells. Miyajima A, et al. **Jpn J Cancer Res** 1999 May;90(5):565–70

Generation of reactive oxygen species and 8–hydroxy–2'–deoxyguanosine formation from diesel exhaust particle components in L1210 cells. Arimoto T, et al. **Jpn J Pharmacol** 1999 May;80(1):49–54

Effect of ambroxol on oxygen radical production and generation by bronchoalveolar lavage cells in young and aged guinea pigs. Teramoto S, et al. **Jpn J Pharmacol** 1998 Dec;78(4):429–34

Angiotensin II–mediated expression of p27Kip1 and induction of cellular hypertrophy in renal tubular cells depend on the generation of oxygen radicals [see comments] Hannken T, et al. **Kidney Int** 1998 Dec; 54(6):1923–33. Comment in: Kidney Int 1998 Dec;54(6):2241–2.

CsA and FK506 up–regulate eNOS expression: role of reactive oxygen species and AP–1. Navarro–Antolin J, et al. **Kidney Int Suppl** 1998 Dec;68:S20–4

Antileukemic action of buthionine sulfoximine: evidence for an intrinsic death mechanism based on oxidative stress. Hedley DW, et al. **Leukemia** 1998 Oct;12(10):1545–52

Ginsenoside RH–2 induces apoptotic cell death in rat C6 glioma via a reactive oxygen– and caspase–dependent but Bcl–X(L)–independent pathway. Kim HE, et al. **Life Sci** 1999;65(3):PL33–40

Calphostin C induces expression of amphiregulin mRNA via reactive oxygen species in IEC–6 cells. Miyazaki Y, et al. **Life Sci** 1998;63(25):PL361–5

Oxidative inactivation of surfactants. Andersson S, et al. **Lung** 1999;177(3):179–89

Lipid peroxidation of lung surfactant by bacteria. Bouhafs RK, et al. **Lung** 1999;177(2):101–10

Host defenses in the aged: evaluation of the balance between oxidizing species generation and reducing power in phagocyting human granulocytes. Chaves MM, et al. **Mech Ageing Dev** 1998 Aug 1;104(1):103–9

Could synergistic interactions among reactive oxygen species, proteinases, membrane–perforating enzymes, hydrolases, microbial hemolysins and cytokines be the main cause of tissue damage in infectious and inflammatory conditions? Ginsburg I. **Med Hypotheses** 1998 Oct; 51(4):337–46 (68 ref.)

Therapeutic implications of microglia activation by lipopolysaccharide and reactive oxygen species generation in septic shock and central nervous system pathologies: a review. Mayer AM. **Medicina (B Aires)** 1998;58(4):377–85 (137 ref.)

Antioxidative homeostasis: characterization by means of chemiluminescent technique. Popov I, et al. **Methods Enzymol** 1999;300:437–56

Measurement of reactive oxygen species in whole blood and mononuclear cells using chemiluminescence. Thusu K, et al. **Methods Mol Biol** 1998;108:57–62

Superoxide dismutase and catalase in Photobacterium damselae subsp. piscicida and their roles in resistance to reactive oxygen species. Barnes AC, et al. **Microbiology** 1999 Feb;145 (Pt 2):483–94

Effect of reactive oxygen metabolites on endothelial permeability: role of nitric oxide and iron. Okayama N, et al. **Microcirculation** 1999 Jun;6(2):107–16

A mechanism of oxygen free radical production in the Dahl hypertensive rat. Swei A, et al. **Microcirculation** 1999 Sep; 6(3):179–87

Reactive oxygen species function as second messenger during ischemic preconditioning of heart. Das DK, et al. **Mol Cell Biochem** 1999 Jun;196(1–2):59–67

Reactive oxygen intermediate–dependent NF–kappaB activation by interleukin–1beta requires 5–lipoxygenase or NADPH oxidase activity. Bonizzi G, et al. **Mol Cell Biol** 1999 Mar;19(3):1950–60

Aluminum but not iron treatment induces pro–oxidant events in the rat brain. Bondy SC, et al. **Mol Chem Neuropathol** 1998 Jun–Aug;34(2–3):219–32

High concentration of L–arginine suppresses nitric oxide synthase activity and produces reactive oxygen species in NB9 human neuroblastoma cells. Todoroki S, et al. **Mol Med** 1998 Aug;4(8):515–24

In budding yeast, reactive oxygen species induce both RAS–dependent and RAS–independent cell cycle–specific arrest. Wanke V, et al. **Mol Microbiol** 1999 May; 32(4):753–64

Oxidative inactivation of cytochrome P–450 1A (CYP1A) stimulated by 3,3',4,4'–tetrachlorobiphenyl: production of reactive oxygen by vertebrate CYP1As. Schlezinger JJ, et al. **Mol Pharmacol** 1999 Sep;56(3):588–97

Impediment to calcium influx and reactive oxygen production accounts for the inhibition of neutrophil Mac–1 Up–regulation and adhesion by tetrandrine. Shen YC, et al. **Mol Pharmacol** 1999 Jan;55(1):186–93

Induction of apoptosis by N–(4–hydroxyphenyl)retinamide and its association with reactive oxygen species, nuclear retinoic acid receptors, and apoptosis–related genes in human prostate carcinoma cells. Sun SY, et al. **Mol Pharmacol** 1999 Mar;55(3):403–10

The w/w+ SMART assay of Drosophila melanogaster detects the genotoxic effects of reactive oxygen species inducing compounds. Gaivão I, et al. **Mutat Res** 1999 Apr 6;440(2):139–45

Identification of hydroxyhydroquinone in coffee as a generator of reactive oxygen species that break DNA single strands. Hiramoto K, et al. **Mutat Res** 1998 Nov 9; 419(1–3):43–51

Reactive oxygen species production by monoamine oxidases in intact cells. Pizzinat N, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):428–31

Interferon beta–1b inhibits reactive oxygen species production in peripheral blood monocytes of patients with relapsing–remitting multiple sclerosis. Lucas M, et al. **Neurochem Int** 1998 Aug;33(2):101–2

Expression of heme oxygenase–1 mediated by non–NMDA and metabotropic receptors in glial cells: possible involvement of reactive oxygen species production and protein kinase C activation. Matsuoka Y, et al. **Neuropharmacology** 1999 Jun;38(6):825–34

Reactive oxygen species in reoxygenation injury of rat brain capillary endothelial cells. Wu S, et al. **Neurosurgery** 1998 Sep;43(3):577–83; discussion 584

Manganese–induced developmental neurotoxicity in the CD rat: is oxidative damage a mechanism of action? Brenneman KA, et al. **Neurotoxicology** 1999 Apr–Jun;20(2–3):477–87

Glutamate–stimulated ROS production in neuronal cultures: interactions with lead and the cholinergic system. Savolainen KM, et al. **Neurotoxicology** 1998 Aug–Oct; 19(4–5):669–74 (51 ref.)

Implications for atypical antioxidative properties of manganese in iron–induced brain lipid peroxidation and copper–dependent low density lipoprotein conjugation. Sziráki I, et al. **Neurotoxicology** 1999 Apr–Jun; 20(2–3):455–66

Active oxygen species generation and cellular damage by additives of parenteral preparations: selenium and sulfhydryl compounds. Terada A, et al. **Nutrition** 1999 Sep; 15(9):651–5

Inhibition of p53–dependent apoptosis by the KIT tyrosine kinase: regulation of mitochondrial permeability transition and reactive oxygen species generation. Lee JM. **Oncogene** 1998 Oct 1;17(13):1653–62

Reactive oxygen species in male infertility. Review of literature and personal observations. Conte G, et al. **Panminerva Med** 1999 Mar;41(1):45–53 (58 ref.)

Effects of ambroxol on spontaneous or stimulated generation of reactive oxygen species by bronchoalveolar lavage cells harvested from patients with or without chronic obstructive pulmonary diseases. Teramoto S, et al. **Pharmacology** 1999 Sep;59(3):135–41

The role of reactive nitrogen/oxygen intermediates in cytokine–induced trophoblast apoptosis. Smith SC, et al. **Placenta** 1999 May;20(4):309–15

BN 52021, PAF–receptor antagonist, improves diminished antioxidant defense system of lungs in experimentally induced haemorrhagic shock. Makarewicz–Płońska M, et al. **Pol J Pharmacol** 1998 May–Jun;50(3):265–9

Alterations in enzymatic antioxidant defence in diabetes mellitus––a rational approach. Szaleczky E, et al. **Postgrad Med J** 1999 Jan;75(879):13–7

Mitochondrial disease in mouse results in increased oxidative stress. Esposito LA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4820–5

The alternative oxidase lowers mitochondrial reactive oxygen production in plant cells. Maxwell DP, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8271–6

Lipid A–induced oxidative stress requires protein tyrosine kinases and protein kinase C activation, but not intracellular calcium mobilization in human polymorphonuclear leukocytes. Benquet C, et al. **Proc West Pharmacol Soc** 1998;41:207–10

Melatonin as a pharmacological agent against oxidative damage to lipids and DNA. Reiter RJ, et al. **Proc West Pharmacol Soc** 1998;41:229–36 (156 ref.)

Role of free oxygen radicals and prostanoids in the pathogenesis of Henoch–Schönlein Purpura. Buyan N, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Sep; 59(3):181–4

Tyrosine hydroxylase: mechanisms of oxygen radical formation. Adams JD Jr, et al. **Redox Rep** 1997 Oct–Dec; 3(5–6):273–9

Oxidant mechanisms in gentamicin nephrotoxicity. Walker PD, et al. **Ren Fail** 1999 May–Jul;21(3–4):433–42 (16 ref.)

Teratogenicity of the class III antiarrhythmic drug almokalant. Role of hypoxia and reactive oxygen species. Wellfelt K, et al. **Reprod Toxicol** 1999 Mar–Apr; 13(2):93–101

Protective ability of acetylsalicylic acid (aspirin) to scavenge radiation induced free radicals in J774A.1 macrophage cells. Saini T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Sep; 101(3):259–68

Cytochromes and oxygen radicals as putative members of the oxygen sensing pathway. Ehleben W, et al. **Respir Physiol** 1998 Oct;114(1):25–36

Roles for NAD(P)H oxidases and reactive oxygen species in vascular oxygen sensing mechanisms. Wolin MS, et al. **Respir Physiol** 1999 Apr 1;115(2):229–38 (55 ref.)

Free radical generation following pressure–induced retinal ischemia in the rat. Perlman JI, et al. **Retina** 1999; 19(3):255–7

Circulating granulocyte macrophage colony–stimulating factor in plasma of patients with the systemic inflammatory response syndrome delays neutrophil apoptosis through inhibition of spontaneous reactive oxygen species generation. Fanning NF, et al. **Shock** 1999 Mar; 11(3):167–74

Endothelial cell determinants of susceptibility to neutrophil–mediated killing. Murphy HS, et al. **Shock** 1999 Aug;12(2):111–7

Mitochondrial DNA damage and altered membrane potential (delta psi) in pancreatic acinar cells induced by reactive oxygen species. Ehlers RA, et al. **Surgery** 1999 Aug; 126(2):148–55

Ambient air particles: effects on cellular oxidant radical generation in relation to particulate elemental chemistry. Prahalad AK, et al. **Toxicol Appl Pharmacol** 1999 Jul 15; 158(2):81–91

Comment to the previous paper of J. Zweier: demonstration of reactive oxygen species in reperfused human kidney transplants [comment] Illner WD, et al. **Transplant Proc** 1998 Dec;30(8):4233–4. Comment on: Transplant Proc 1998 Dec;30(8):4228–32.

Cyclosporine increases local glomerular synthesis of reactive oxygen species in rats: effect of vitamin E on cyclosporine nephrotoxicity. Parra T, et al. **Transplantation** 1998 Nov 27;66(10):1325–9

Receptor and non-receptor mediated formation of superoxide anion and hydrogen peroxide in neutrophils of intensive care patients. Manhart N, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):796–801

Pro- and antioxidative properties of cortical tissue preparations from human brain exhibiting NMDA-receptor characteristics. Elstner M, et al. **Z Naturforsch [C]** 1999 May-Jun;54(5-6):438–45

[Hepatotoxicity and formation of reactive oxygen species induced by microcystis aeruginosa toxin] Ding W, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Sep; 32(5):278–80 (Eng. Abstr.) **(Chi)**

[Down-regulation effect of HIM82 on respiratory burst of neutrophil] Jiang X, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Aug; 19(4):247–51 (Eng. Abstr.) **(Chi)**

[Non-enzymatic glycation and oxidative stress in chronic illnesses and diabetes mellitus] Nawroth PP, et al. **Med Klin** 1999 Jan 15;94(1):29–38 (156 ref.) (Eng. Abstr.) **(Ger)**

[Effect if 6-week nutritional intervention with enzymatic yeast cells and antioxidants on exercise stress and antioxidant status] König D, et al. **Wien Med Wochenschr** 1999;149(1):13–8 (Eng. Abstr.) **(Ger)**

[The effects of interferon-alpha on oxygen radical production by human neutrophils] Koie T, et al. **Nippon Eiseigaku Zasshi** 1998 Oct;53(3):536–44 (Eng. Abstr.) **(Jpn)**

[Effects of acute endurance exercise and 8 week training on the production of reactive oxygen species from neutrophils in untrained men] Sato H, et al. **Nippon Eiseigaku Zasshi** 1998 Jul;53(2):431–40 (Eng. Abstr.) **(Jpn)**

[In vivo scavenging effect of ethylcysteine on reactive oxygen species in human semen] Akiyama M. **Nippon Hinyokika Gakkai Zasshi** 1999 Mar;90(3):421–8 (Eng. Abstr.) **(Jpn)**

[Expression of reactive oxygen-related enzymes in human umbilical vein endothelial cells (HUVEC) cultured with high concentrations of glucose] Nakano A, et al. **Rinsho Byori** 1999 Jul;47(7):676–81 (Eng. Abstr.) **(Jpn)**

[Generation of hydrogen peroxide during reduction of 2,4,6-trinitrotoluene and its related compounds] Kiria-Sakai M, et al. **Sangyo Eiseigaku Zasshi** 1999 Jan; 41(1):11–2 **(Jpn)**

[Cooperation of membrane proteins and cytosolic proteins in metabolic regulation--involvement of binding of hexokinase to mitochondria in regulation of glucose metabolism and association and complex formation between membrane proteins and cytosolic proteins in regulation of active oxygen production] Ishibashi S. **Yakugaku Zasshi** 1999 Jan;119(1):16–34 (49 ref.) (Eng. Abstr.) **(Jpn)**

[Role of reactive oxygen species in apoptosis] Bartosz G. **Postepy Biochem** 1998;44(1):22–31 (166 ref.) **(Pol)**

[The role of reactive oxygen species in mutagenesis and carcinogenesis processes] Oliński R, et al. **Postepy Biochem** 1999;45(1):50–8 (51 ref.) **(Pol)**

[Oxidation mechanisms and anti-oxidation in HIV infected patients--effect on disease progression] Jaruga P. **Postepy Hig Med Dosw** 1999;53(1):43–54 (79 ref.) (Eng. Abstr.) **(Pol)**

[Antioxidative mechanisms in response to reactive forms of oxygen, apoptosis and differentiation of myogenic cells] Orzechowski A, et al. **Postepy Hig Med Dosw** 1998; 52(4):401–18 (73 ref.) (Eng. Abstr.) **(Pol)**

[The role of the lungs in regulating the generation of active forms of oxygen by the phagocytes, the concentration of immunoglobulins and the complement activity] Kogan AKh, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):9–14 (Eng. Abstr.) **(Rus)**

[Generation of reactive forms of oxygen by polymorphonuclear leukocytes during hepatoma growth in the peritoneal cavity of animals] Potselueva MM, et al. **Tsitologiia** 1999;41(2):162–6 (Eng. Abstr.) **(Rus)**

[Relationship between the oxidation-reduction system of astrocytes with production of active forms of oxygen] Semenkova GN, et al. **Ukr Biokhim Zh** 1998 Jul-Aug; 70(4):126–30 (Eng. Abstr.) **(Rus)**

[The role of the oxygen-binding properties of the blood in maintaining pro-oxidant-antioxidant equilibrium in the body] Zinchuk VV, et al. **Usp Fiziol Nauk** 1999 Jul-Sep; 30(3):38–48 (84 ref.) (Eng. Abstr.) **(Rus)**

[Active oxygen metabolites in provision and control of natural cytotoxic reactions] Cheknev SB. **Vestn Ross Akad Med Nauk** 1999;(2):10–5 (53 ref.) (Eng. Abstr.) **(Rus)**

[Free radical mechanisms of low-intensive laser radiation] Chichuk TV, et al. **Vestn Ross Akad Med Nauk** 1999; (2):27–32 (54 ref.) (Eng. Abstr.) **(Rus)**

[Physicochemical aspects of cataract genesis] Deev AI, et al. **Vestn Ross Akad Med Nauk** 1999;(2):22–6 (Eng. Abstr.) **(Rus)**

[Serum antioxidative activity] Klebanov GI, et al. **Vestn Ross Akad Med Nauk** 1999;(2):15–22 (46 ref.) (Eng. Abstr.) **(Rus)**

[Phagocyte-dependent free oxygen radical mechanisms of autoaggression in pathogenesis of internal diseases] Kogan AKh. **Vestn Ross Akad Med Nauk** 1999;(2):3–10 (47 ref.) **(Rus)**

[Importance of free radicals during the reproduction cycle] Durán Reyes G, et al. **Ginecol Obstet Mex** 1998 Sep; 66:371–6 (26 ref.) (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

On the possible role of reactive oxygen species in angiogenesis. Lelkes PI, et al. **Adv Exp Med Biol** 1998; 454:295–310

Molecular and cellular responses to oxidative stress and changes in oxidation-reduction imbalance in the intestine. Aw TY. **Am J Clin Nutr** 1999 Oct;70(4):557–65 (67 ref.)

Regulation of IGF binding protein-1 in hep G2 cells by cytokines and reactive oxygen species. Lang CH, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G719–27

Participation of reactive oxygen metabolites in Clostridium difficile toxin A-induced enteritis in rats. Qiu B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G485–90

Activation of the JAK-STAT pathway by reactive oxygen species. Simon AR, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1640–52

Shear-induced tyrosine phosphorylation in endothelial cells requires Rac1-dependent production of ROS. Yeh LH, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C838–47

ROS stimulate reorganization of mesangial cell-collagen gels by tyrosine kinase signaling. Zent R, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F278–87

Oxygen free radical signaling in ischemic preconditioning. Das DK, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:49–65 (107 ref.)

Regulation of gene expression by reactive oxygen. Dalton TP, et al. **Annu Rev Pharmacol Toxicol** 1999;39:67–101 (291 ref.)

Involvement of oxidative reactions and extracellular protein chaperones in the rescue of misassembled thyroglobulin in the follicular lumen. Delom F, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):438–43

Interleukin-1 beta and reactive oxygen species mediate activation of c-Jun NH2-terminal kinases, in human epithelial cells, by two independent pathways. Roberts ML, et al. **Biochem Biophys Res Commun** 1998 Oct 9; 251(1):166–72

Involvement of reactive oxygen species produced via NADPH oxidase in tyrosine phosphorylation in human B- and T-lineage lymphoid cells. Suzuki Y, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):262–7

Involvement of caspases in neutrophil apoptosis: regulation by reactive oxygen species. Fadeel B, et al. **Blood** 1998 Dec 15;92(12):4808–18

Hematopoietic growth factors signal through the formation of reactive oxygen species. Sattler M, et al. **Blood** 1999 May 1;93(9):2928–35

Nuclear factor-kappaB-dependent induction of interleukin-8 gene expression by tumor necrosis factor alpha: evidence for an antioxidant sensitive activating pathway distinct from nuclear translocation. Vlahopoulos S, et al. **Blood** 1999 Sep 15;94(6):1878–89

Induction of reactive oxygen intermediates in human monocytes by tumour cells and their role in spontaneous monocyte cytotoxicity. Mytar B, et al. **Br J Cancer** 1999 Feb;79(5-6):737–43

Inflammatory cell-mediated tumour progression and minisatellite mutation correlate with the decrease of antioxidative enzymes in murine fibrosarcoma cells. Okada F, et al. **Br J Cancer** 1999 Feb;79(3-4):377–85

Cytosolic Ca2+ movements of endothelial cells exposed to reactive oxygen intermediates: role of hydroxyl radical-mediated redox alteration of cell-membrane Ca2+ channels. Az-ma T, et al. **Br J Pharmacol** 1999 Mar; 126(6):1462–70

Roles of oxygen radicals and elastase in citric acid-induced airway constriction of guinea-pigs. Lai YL, et al. **Br J Pharmacol** 1999 Feb;126(3):778–84

Oxidative stress in bacterial meningitis. Koedel U, et al. **Brain Pathol** 1999 Jan;9(1):57–67 (116 ref.)

Demyelination: the role of reactive oxygen and nitrogen species. Smith KJ, et al. **Brain Pathol** 1999 Jan;9(1):69–92 (264 ref.)

Radical species in inflammation and overtraining. Tiidus PM. **Can J Physiol Pharmacol** 1998 May;76(5):533–8 (77 ref.)

Genetic toxicity of cocaine. Yu RC, et al. **Carcinogenesis** 1999 Jul;20(7):1193–9

Reactive oxygen species modulate endothelin-1-induced c-fos gene expression in cardiomyocytes. Cheng TH, et al. **Cardiovasc Res** 1999 Mar;41(3):654–62

Dual role of reactive oxygen species in vascular growth [editorial; comment] Griendling KK, et al. **Circ Res** 1999 Sep 17;85(6):562–3 (14 ref.). Comment on: Circ Res 1999 Sep 17;85(6):524–33.

A role for reactive oxygen species in endothelial cell anoikis. Li AE, et al. **Circ Res** 1999 Aug 20;85(4):304–10

Opposing effects of reactive oxygen species and cholesterol on endothelial nitric oxide synthase and endothelial cell caveolae. Peterson TE, et al. **Circ Res** 1999 Jul 9; 85(1):29–37

Signaling pathways in reactive oxygen species-induced cardiomyocyte apoptosis. von Harsdorf R, et al. **Circulation** 1999 Jun 8;99(22):2934–41

Protection against the co-operative toxicity of nitric oxide and oxygen free radicals by overexpression of antioxidant enzymes in bioengineered insulin-producing RINm5F cells. Tiedge M, et al. **Diabetologia** 1999 Jul;42(7):849–55

Defective antioxidant mechanisms via changes in serum ceruloplasmin and total iron binding capacity of serum in women with pre-eclampsia. Vitoratos N, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 May;84(1):63–7

Angioprotective action of calcium dobesilate against reactive oxygen species-induced capillary permeability in the rat. Brunet J, et al. **Eur J Pharmacol** 1998 Oct 9;358(3):213–20

Impairment of epithelium-dependent relaxation in coaxial bioassay by reactive oxygen species. Burcin IU, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):109–14

Reactive oxygen species in acute lung injury [letter; comment] Ruffmann R. **Eur Respir J** 1998 Dec;12(6):1486 . Comment on: Eur Respir J 1998 Mar;11(3):745–57.

Overexpression of manganese superoxide dismutase protects against mitochondrial-initiated poly(ADP-ribose) polymerase-mediated cell death. Kiningham KK, et al. **FASEB J** 1999 Sep;13(12):1601–10

Thyroxine enhancement and the role of reactive oxygen species in tadpole tail apoptosis. Kashiwagi A, et al. **Free Radic Biol Med** 1999 Apr;26(7-8):1001–9

Cytotoxicity-associated effects of reactive oxygen species on endothelin-1 secretion by pulmonary endothelial cells. Love GP, et al. **Free Radic Biol Med** 1998 Jun; 24(9):1437–45

Antioxidant enzymes and their implications in pathophysiologic processes. Matés JM, et al. **Front Biosci** 1999 Mar 15;4:D339–45 (60 ref.)

Oxidants, antioxidants and alcohol: implications for skeletal and cardiac muscle. Preedy VR, et al. **Front Biosci** 1999 Aug 1;4:e58–66 (70 ref.)

Reactive oxygen species regulate activation-induced T cell apoptosis. Hildeman DA, et al. **Immunity** 1999 Jun; 10(6):735–44

Reactive oxygen species influence the acrosome reaction but not acrosin activity in human spermatozoa. Ichikawa T, et al. **Int J Androl** 1999 Feb;22(1):37–42

Roles of reactive oxygen species: signaling and regulation of cellular functions. Gamaley IA, et al. **Int Rev Cytol** 1999; 188:203–55 (343 ref.)

Involvement of reactive oxygen species in human sperm arcosome reaction induced by A23187, lysophosphatidylcholine, and biological fluid ultrafiltrates. de Lamirande E, et al. **J Androl** 1998 Sep-Oct;19(5):585–94

Requirement for reactive oxygen species in serum-induced and platelet-derived growth factor-induced growth of airway smooth muscle. Brar SS, et al. **J Biol Chem** 1999 Jul 9;274(28):20017–26

Oxygen radical stress in vascular disease: the role of endothelial nitric oxide synthase. Stroes ES, et al. **J Cardiovasc Pharmacol** 1998;32 Suppl 3:S14–21 (129 ref.)

Involvement of reactive oxygen species and caspase 3 activation in arsenite-induced apoptosis. Chen YC, et al. **J Cell Physiol** 1998 Nov;177(2):324–33

Functional inactivation of the oestrogen receptor by the antioestrogen, ZM 182780, sensitises tumour cells to reactive oxygen species. Newton CJ, et al. **J Endocrinol** 1999 May;161(2):199–210

Induction of tubular peroxisomes by UV irradiation and reactive oxygen species in HepG2 cells. Schrader M, et al. **J Histochem Cytochem** 1999 Sep;47(9):1141–8

Reactive oxygen intermediates enhance Fc gamma receptor signaling and amplify phagocytic capacity. Pricop L, et al. **J Immunol** 1999 Jun 15;162(12):7041–8

Mechanisms of lung neutrophil activation after hemorrhage or endotoxemia: roles of reactive oxygen intermediates, NF-kappa B, and cyclic AMP response element binding protein. Shenkar R, et al. **J Immunol** 1999 Jul 15; 163(2):954–62

The effects of radicals compared with UVB as initiating species for the induction of chronic cutaneous photodamage. Ibbotson SH, et al. **J Invest Dermatol** 1999 Jun;112(6):933–8

Reactive oxygen species are required for the phagocytosis of myelin by macrophages. van der Goes A, et al. **J Neuroimmunol** 1998 Dec 1;92(1-2):67–75

Reactive oxygen species mediate activity-dependent neuron-glia signaling in output fibers of the hippocampus. Atkins CM, et al. **J Neurosci** 1999 Sep 1;19(17):7241–8

Involvement of reactive oxygen species in membrane phospholipid breakdown and energy perturbation after traumatic brain injury in the rat. Lewén A, et al. **J Neurotrauma** 1998 Jul;15(7):521–30

Betulinic acid-induced apoptosis in glioma cells: A sequential requirement for new protein synthesis, formation of reactive oxygen species, and caspase processing. Wick W, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1306–12

A reactive oxygen-generating system activates nuclear factor-kappaB and releases tumor necrosis factor-alpha in coronary smooth muscle cells. Newman WH, et al. **J Surg Res** 1999 Jul;85(1):142–7

Free radicals and reactive oxygen species in programmed cell death. Anderson KM, et al. **Med Hypotheses** 1999 May; 52(5):451–63 (135 ref.)

Analytical and numerical techniques for evaluation of free radical damage in cultured cells using imaging cytometry and fluorescent indicators. Buxser SE, et al. **Methods Enzymol** 1999;300:256–75

The role of oxygen free radicals in isoniazid-induced hepatotoxicity. Walubo A, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):649–55

Role of oxygen derived radicals for vascular dysfunction in the diabetic heart: prevention by alpha-tocopherol? Rösen P, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):103–11 (64 ref.)

Oxidative DNA damage and embryo development [letter;

comment] Eriksson UJ. **Nat Med** 1999 Jul;5(7):715. Comment on: Nat Med 1999 May;5(5):582–5.
Oxygen–free radicals and nitric oxide are involved in the thrombus growth produced by iontophoresis of ADP. Peire MA, et al. **Pharmacol Res** 1998 Nov;38(5):353–6
Role of endothelial–derived reactive oxygen species and nitric oxide in norepinephrine–induced rat aortic ring contractions. Srivastava P, et al. **Pharmacol Res** 1998 Oct; 38(4):265–74
Effects of radical scavengers and antioxidant on ischemic acute renal failure in rabbits. Kim SY, et al. **Ren Fail** 1999 Jan;21(1):1–11
Free radicals in disease. Hogg N.
Semin Reprod Endocrinol 1998;16(4):241–8 (67 ref.)
Wollastonite fibers in vitro generate reactive oxygen species able to lyse erythrocytes and activate the complement alternate pathway. Governa M, et al. **Toxicol Sci** 1998 Jul; 44(1):32–8
Role of oxidant stress and antioxidant protection in acephate–induced renal tubular cytotoxicity. Poovala VS, et al. **Toxicol Sci** 1998 Dec;46(2):403–9
Comparison of the roles of reactive oxygen and nitrogen intermediates in the host response to Mycobacterium tuberculosis using transgenic mice. Adams LB, et al.
Tuber Lung Dis 1997;78(5–6):237–46
The role of reactive oxygen species in atherosclerosis. Mügge A. **Z Kardiol** 1998 Nov;87(11):851–64 (81 ref.)
[Hyperthermia–induced priming effect in neutrophil granulocytes] Löer D, et al. **Forsch Komplementarmed** 1999 Apr;6(2):86–8 (Eng. Abstr.) **(Ger)**
[Microcirculatory hemodynamics in oral tissues with reference to neurogenic response and reactive oxygen species interaction] Okabe E, et al.
Nippon Yakurigaku Zasshi 1999 Apr;113(4):219–25 (43 ref.) (Eng. Abstr.) **(Jpn)**
[Physiopathologic effects of nitric oxide and their relationship with oxidative stress] Carrizo PH, et al.
Medicina (B Aires) 1998;58(4):367–73 (Eng. Abstr.) **(Spa)**
[The role of oxygen radicals in the physiology and pathology of human sperm] Man'kovs'ka IM, et al. **Fiziol Zh** 1998; 44(5–6):118–25 (37 ref.) (Eng. Abstr.) **(Ukr)**

REACTIVE SITE see **BINDING SITES**

READINESS POTENTIAL see **CONTINGENT NEGATIVE VARIATION**

READING

see related
DYSLEXIA, ACQUIRED
Development of text structure knowledge as assessed by spoken and signed retellings of a deaf second–grade student. Luetke–Stahlman B, et al. **Am Ann Deaf** 1998 Oct; 143(4):337–46
Reading ability, education, and cognitive status assessment among older adults in Harlem, New York City. Albert SM, et al. **Am J Public Health** 1999 Jan;89(1):95–7
Reading in two alphabets. Lukatela G, et al. **Am Psychol** 1998 Sep;53(9):1057–72
Increased reading speed for stories presented during general anesthesia [see comments] Münte S, et al.
Anesthesiology 1999 Mar;90(3):662–9. Comment in: Anesthesiology 1999 Mar;90(3):648–50.
Legibility of video–blended TV menus. Westerink JH, et al. **Appl Ergon** 1998 Feb;29(1):59–65
Adult reading assessment: are we doing the best with what we have? Stevens KB, et al. **Appl Neuropsychol** 1999; 6(2):68–78
Why literacy matters. Links between reading ability and health. Lee PP. **Arch Ophthalmol** 1999 Jan;117(1):100–3 (28 ref.)
Automatically deriving readers' knowledge structures from texts. Foltz PW, et al.
Behav Res Methods Instrum Comput 1999 May;31(2):208–14
An efficient treatment and new criteria for cure of strabismic amblyopia: reading and Bangerter foils. Lang J.
Binocul Vis Strabismus Q 1999 Spring;14(1):9–10 (6 ref.)
Semantic integration in reading: engagement of the right hemisphere during discourse processing. St George M, et al. **Brain** 1999 Jul;122 (Pt 7):1317–25
Impaired speech perception in poor readers: evidence from hearing and speech reading. de Gelder B, et al.
Brain Lang 1998 Oct 1;64(3):269–81
Onsets and rimes in a phonologically transparent orthography: differences between good and poor beginning readers of Dutch. Geudens A, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):284–90
Can treatment for pure alexia improve letter–by–letter reading speed without sacrificing accuracy? Nitzberg Lott S, et al. **Brain Lang** 1999 May;67(3):188–201
Subword activation in reading Japanese single Kanji character words. Saito H, et al. **Brain Lang** 1999 Jun 1–15; 68(1–2):75–81
Simultaneous activation of reading mechanisms: evidence from a case of deep dyslexia. Southwood MH, et al.
Brain Lang 1999 Mar;67(1):1–29
Scanning direction and line bisection: a study of normal subjects and unilateral neglect patients with opposite reading habits. Chokron S, et al.
Brain Res Cogn Brain Res 1998 Oct;7(2):173–8
Responses to silent Kanji reading of the native Japanese and German in task subtraction magnetoencephalography. Kamada K, et al. **Brain Res Cogn Brain Res** 1998 Jul; 7(1):89–98
Dissociation of normal feature analysis and deficient processing of letter–strings in dyslexic adults. Helenius P, et al. **Cereb Cortex** 1999 Jul–Aug;9(5):476–83
Individual differences in contextual facilitation: evidence from dyslexia and poor reading comprehension. Nation K, et al. **Child Dev** 1998 Aug;69(4):996–1011
Anticipation and execution of a simple reading task enhance corticospinal excitability. Seyal M, et al.
Clin Neurophysiol 1999 Mar;110(3):424–9
The surface form x problem size interaction in cognitive arithmetic: evidence against an encoding locus. Campbell JI. **Cognition** 1999 Mar 1;70(2):B25–33
Improving phonological awareness and word reading in a later learned alphabetic script. Cheung H. **Cognition** 1999 Feb 1;70(1):1–26
Developmental differences in sensitivity to semantic relations among good and poor comprehenders: evidence from semantic priming. Nation K, et al. **Cognition** 1999 Feb 1; 70(1):B1–13
Achieving incremental semantic interpretation through contextual representation. Sedivy JC, et al. **Cognition** 1999 Jun 22;71(2):109–47
Handedness and lexical skills in undergraduates. Annett M. **Cortex** 1999 Jun;35(3):357–72
Visual selective attention and reading efficiency are related in children. Casco C, et al. **Cortex** 1998 Sep;34(4):531–46
Semantically–triggered reading epilepsy: an experimental case study. Pegna AJ, et al. **Cortex** 1999 Feb;35(1):101–11
Remembrance of things past...reading. Brenner S.
Curr Biol 1999 Feb 25;9(4):R115
Cognitive status, language attainment, and prereading skills of 6–year–old very preterm children and their peers: the Bavarian Longitudinal Study. Wolke D, et al.
Dev Med Child Neurol 1999 Feb;41(2):94–109
Analyzing the development of individual differences in terms of Matthew effects in reading: results from a Dutch Longitudinal study. Bast J, et al. **Dev Psychol** 1998 Nov; 34(6):1373–99
Quick, automatic, and general activation of orthographic and phonological representations in young readers. Booth JR, et al. **Dev Psychol** 1999 Jan;35(1):3–19
The structure of genetic influences on general cognitive, language, phonological, and reading abilities. Hohnen B, et al. **Dev Psychol** 1999 Mar;35(2):590–603
Quality of adult book reading affects children's emergent literacy. Reese E, et al. **Dev Psychol** 1999 Jan;35(1):20–8
Reading and writing development: report from an ongoing longitudinal study of language–disordered and normal groups from pre–school to adolescence [see comments] Nauclér K, et al. **Folia Phoniatr Logop** 1998;50(5):271–82 . Comment in: Folia Phoniatr Logop 1998 ;50(5):239–42.
Customized learning [editorial] Lutter LD.
Foot Ankle Int 1999 Mar;20(3):145–6
Auditory and visual word processing studied with fMRI. Chee MW, et al. **Hum Brain Mapp** 1999;7(1):15–28
Regional cerebral blood flow during word and nonword reading. Herbster AN, et al. **Hum Brain Mapp** 1997; 5(2):84–92
Age, luminance, and print legibility in homes, offices, and public places. Charness N, et al. **Hum Factors** 1999 Jun; 41(2):173–93
Designing an interface to optimize reading with small display windows. Rahman T, et al. **Hum Factors** 1999 Mar; 41(1):106–17
Effects of display resolution on visual performance. Ziefle M. **Hum Factors** 1998 Dec;40(4):554–68
Reader–response criticism. Holland NN. **Int J Psychoanal** 1998 Dec;79 (Pt 6):1203–11
Spatio–temporal analysis of electric brain activity during semantic and phonological word processing. Khateb A, et al. **Int J Psychophysiol** 1999 Jun;32(3):215–31
Characteristics of discrepancies between self–reported visual function and measured reading speed. Salisbury Eye Evaluation Project Team. Friedman SM, et al.
Invest Ophthalmol Vis Sci 1999 Apr;40(5):858–64
Comparisons of eye movements before and after a speed–reading course. Calef T, et al.
J Am Optom Assoc 1999 Mar;70(3):171–81
Eye movements and speed reading [letter] Solan HA.
J Am Optom Assoc 1999 Jul;70(7):435
Effects of contingent reward and instruction on oral reading performance at differing levels of passage difficulty. Noell GH, et al. **J Appl Behav Anal** 1998 Winter;31(4):659–63
The use of orthographic analogies in learning to read Chinese. Ho CS, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):393–403
Children's reading levels. Hurry J.
J Child Psychol Psychiatry 1999 Feb;40(2):143–50
Conceptual and perceptual contributions to the acquisition and retention of text–specific reading skill in Alzheimer's disease. Chan AS, et al. **J Clin Exp Neuropsychol** 1999 Jun; 21(3):325–40
Use of the North American Adult Reading Test to estimate premorbid intellectual function in patients with multiple sclerosis. Friend KB, et al. **J Clin Exp Neuropsychol** 1998 Dec;20(6):846–51
Reading ability as an estimator of premorbid intelligence: does it remain stable in emergent dementia? Schmand B, et al. **J Clin Exp Neuropsychol** 1998 Feb;20(1):42–51
Transcranial magnetic stimulation in study of the visual pathway. Amassian VE, et al. **J Clin Neurophysiol** 1998 Jul;15(4):288–304 (74 ref.)
Lexical effects and lexical properties associated with National Adult Reading Test (NART) stimuli in healthy young adults and healthy elderly adults. Ferraro FR, et al.
J Clin Psychol 1998 Aug;54(5):577–84
ERP manifestations of processing printed words at different psycholinguistic levels: time course and scalp distribution. Bentin S, et al. **J Cogn Neurosci** 1999 May;11(3):235–60
Electrophysiological signatures of visual lexical processing: open– and closed–class words. Brown CM, et al.
J Cogn Neurosci 1999 May;11(3):261–81
The neural circuitry involved in the reading of German words and pseudowords: A PET study. Hagoort P, et al.
J Cogn Neurosci 1999 Jul;11(4):383–98
Transfer effects across contextual and linguistic boundaries: evidence from poor readers. Bourassa DC, et al.
J Exp Child Psychol 1998 Oct;71(1):45–61
The limitations of orthographic rime analogies in beginners' word reading: a reply to Goswami (1999) [comment] Bowey JA. **J Exp Child Psychol** 1999 Mar;72(3):220–31. Comment on: J Exp Child Psychol 1999 Mar;72(3):210–9.
Units of analysis in nonword reading: evidence from children and adults. Brown GD, et al. **J Exp Child Psychol** 1999 Jul;73(3):208–42
Sensitivity to onset and rhyme does predict young Children's reading: a comment on Muter, Hulme, Snowling, and Taylor (1997) [comment] Bryant P.
J Exp Child Psychol 1998 Oct;71(1):29–37; discussion 39–44 . Comment on: J Exp Child Psychol 1997 Jun;65(3):370–96. Comment on: J Exp Child Psychol 1998 Oct;71(1):3–27.
Orthographic analogies and phonological priming: a comment on Bowey, Vaughan, and Hansen (1998) [comment] [see comments] Goswami U.
J Exp Child Psychol 1999 Mar;72(3):210–9. Comment on: J Exp Child Psychol 1998 Feb;68(2):108–33. Comment in: J Exp Child Psychol 1999 Mar;72(3):220–31.
Phonological and semantic processes influence beginning readers' ability to learn to read words. Laing E, et al.
J Exp Child Psychol 1999 Jul;73(3):183–207
Fast and slow namers: benefits of segmentation and whole word training. Levy BA, et al. **J Exp Child Psychol** 1999 Jun;73(2):115–38
Segmentation, not rhyming, predicts early progress in learning to read [corrected and republished article originally printed in J Exp Child Psychol 1997 Jun;65(3):370–96] [see comments] Muter V, et al.
J Exp Child Psychol 1998 Oct;71(1):3–27. Comment in: J Exp Child Psychol 1998 Oct;71(1):29–37; discussion 39–44.
Phonological recoding and orthographic learning: A direct test of the self–teaching hypothesis. Share DL.
J Exp Child Psychol 1999 Feb;72(2):95–129
Reading comprehension and working memory in learning–disabled readers: Is the phonological loop more important than the executive system? Swanson HL.
J Exp Child Psychol 1999 Jan;72(1):1–31
Training phonological awareness with and without explicit attention to articulation. Wise BW, et al.
J Exp Child Psychol 1999 Apr;72(4):271–304
Word frequency, repetition, and lexicality effects in word recognition tasks: beyond measures of central tendency. Balota DA, et al. **J Exp Psychol Gen** 1999 Mar;128(1):32–55
Extraction of information to the left of the fixated word in reading. Binder KS, et al.
J Exp Psychol Hum Percept Perform 1999 Aug; 25(4):1162–72
Visual word recognition in bilinguals: evidence from masked phonological priming. Brysbaert M, et al.
J Exp Psychol Hum Percept Perform 1999 Feb;25(1):137–48
Reading homographs: orthographic, phonologic, and semantic dynamics. Gottlob LR, et al.
J Exp Psychol Hum Percept Perform 1999 Apr;25(2):561–74
Interactions between color and word processing in a flanker task. Henik A, et al.
J Exp Psychol Hum Percept Perform 1999 Feb; 25(1):198–209
Reading Finnish compound words: eye fixations are affected by component morphemes. Hyönä J, et al.
J Exp Psychol Hum Percept Perform 1998 Dec; 24(6):1612–27
Activation of phonological codes during eye fixations in reading. Lee YA, et al.
J Exp Psychol Hum Percept Perform 1999 Aug; 25(4):948–64
The effects of "neighborhood size" in reading and lexical decision. Pollatsek A, et al.
J Exp Psychol Hum Percept Perform 1999 Aug; 25(4):1142–58
Dual–coding, context–availability, and concreteness effects in sentence comprehension: an electrophysiological investigation. Holcomb PJ, et al.
J Exp Psychol Learn Mem Cogn 1999 May;25(3):721–42
Unusual modality effects in less–skilled readers. Penney CG, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):284–9
Syntactic ambiguity resolution in discourse: modeling the effects of referential context and lexical frequency. Spivey MJ, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov; 24(6):1521–43
The activation of phonology during silent Chinese word reading. Xu Y, et al. **J Exp Psychol Learn Mem Cogn** 1999

Jul;25(4):838–57
Readability levels of patient education material on the World Wide Web. Graber MA, et al. **J Fam Pract** 1999 Jan; 48(1):58–61
Regular versus randomized sentences, nouns versus prepositions, and assimilation in salience. King DL, et al. **J Gen Psychol** 1999 Apr;126(2):177–83
Phonological and orthographic processing of Hebrew words: electrophysiological aspects. Barnea A, et al. **J Genet Psychol** 1998 Dec;159(4):492–504
Use of oral reading to estimate premorbid intellectual and neuropsychological functioning. Gladsjo JA, et al. **J Int Neuropsychol Soc** 1999 Mar;5(3):247–54
Neurophysiological aspects of synesthetic experience. Schiltz K, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter; 11(1):58–65
Relationships among educational material readability, client literacy, perceived beneficence, and perceived quality. French KS, et al. **J Nurs Care Qual** 1999 Aug;13(6):68–82
Does baccalaureate nursing education for registered nurses foster professional reading? Armstrong ML, et al. **J Prof Nurs** 1999 Jul–Aug;15(4):238–44
The effect of Arabic vowels on the reading comprehension of second- and sixth-grade native Arab children. Abu-Rabia S. **J Psycholinguist Res** 1999 Jan;28(1):93–101
Semantic influence on processing gender agreement: evidence from Hebrew. Deutsch A, et al. **J Psycholinguist Res** 1999 Sep;28(5):515–35
Adaptation of stuttering frequency during repeated readings: associated changes in acoustic parameters of perceptually fluent speech. Max L, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1265–81
Effects of prolonged oral reading on F0, SPL, subglottal pressure and amplitude characteristics of glottal flow waveforms. Vilkman E, et al. **J Voice** 1999 Jun;13(2):303–12
Recognition of script-typical versus script-atypical information: effects of cognitive elaboration. Erdfelder E, et al. **Mem Cognit** 1998 Sep;26(5):922–38
Age of acquisition, word frequency, and the role of phonology in the lexical decision task. Gerhand S, et al. **Mem Cognit** 1999 Jul;27(4):592–602
Sex differences in phonological processes: speeded matching and word reading. Majeres RL. **Mem Cognit** 1999 Mar; 27(2):246–53
Predicting performance on text: delayed versus immediate predictions and tests. Maki RH. **Mem Cognit** 1998 Sep; 26(5):959–64
Focus as a contextual priming mechanism in reading. Morris RK, et al. **Mem Cognit** 1998 Nov;26(6):1313–22
Manipulation of familiarity reveals a necessary lexical component of the word-stem completion priming effect. Postle BR, et al. **Mem Cognit** 1999 Jan;27(1):12–25
Implicit memory for phonological processes in visual stem completion. Rueckl JG, et al. **Mem Cognit** 1999 Jan; 27(1):1–11
The influence of types of character on processing background information in narrative discourse. Sanford AJ, et al. **Mem Cognit** 1998 Nov;26(6):1323–9
The influence of semantic fit on on-line sentence processing. Schmauder AR, et al. **Mem Cognit** 1998 Nov;26(6):1304–12
Context effects in visual word recognition: lexical relatedness and syntactic context. Schriefers H, et al. **Mem Cognit** 1998 Nov;26(6):1292–303
Repetition priming in simple addition depends on surface form and typicality. Sciama SC, et al. **Mem Cognit** 1999 Jan;27(1):116–27
Plausibility and argument structure in sentence comprehension. Speer SR, et al. **Mem Cognit** 1998 Sep; 26(5):965–78
Sources of sentence constraint on lexical ambiguity resolution. Vu H, et al. **Mem Cognit** 1998 Sep; 26(5):979–1001
Perceptual and conceptual priming of individual words in coherent texts. Nicolas S. **Memory** 1998 Nov;6(6):643–63
Time course of fMRI-activation in language and spatial networks during sentence comprehension. Carpenter PA, et al. **Neuroimage** 1999 Aug;10(2):216–24
Brain activation during word identification and word recognition. Jernigan TL, et al. **Neuroimage** 1998 Jul; 8(1):93–105
Three distinct ventral occipitotemporal regions for reading and object naming. Moore CJ, et al. **Neuroimage** 1999 Aug; 10(2):181–92
Activation of lateral extrastriate areas during orthographic processing of Japanese characters studied with fMRI. Uchida I, et al. **Neuroimage** 1999 Feb;9(2):208–15
Dissociation of letter and picture naming resulting from callosal disconnection. Suzuki K, et al. **Neurology** 1998 Nov;51(5):1390–4 (21 ref.)
Processing of visually presented sentences in Mandarin and English studied with fMRI. Chee MW, et al. **Neuron** 1999 May;23(1):127–37
Visual complexity in letter-by-letter reading: "pure" alexia is not pure. Behrmann M, et al. **Neuropsychologia** 1998 Nov; 36(11):1115–32
Poor saccadic control correlates with dyslexia. Biscaldi M, et al. **Neuropsychologia** 1998 Nov;36(11):1189–202
Word repetition within- and across-visual fields: an event-related potential study. Doyle MC, et al. **Neuropsychologia** 1998 Dec;36(12):1403–15
Sentence context and lexical ambiguity resolution by the two hemispheres. Faust M, et al. **Neuropsychologia** 1998 Sep; 36(9):827–35
Right hemisphere emotional perception: evidence across multiple channels. Borod JC, et al. **Neuropsychology** 1998 Jul;12(3):446–58
Reading of lexically stressed words by Italian aphasic patients: a retrospective study. Marangolo P, et al. **Neuropsychology** 1998 Oct;12(4):573–7
Sex differences in brain regions activated by grammatical and reading tasks. Jaeger JJ, et al. **Neuroreport** 1998 Aug 24;9(12):2803–7
Involvement of motor cortices in retrieval of kanji studied by functional MRI. Kato C, et al. **Neuroreport** 1999 Apr 26;10(6):1335–9
'Musical brain' revealed by high-field (3 Tesla) functional MRI. Nakada T, et al. **Neuroreport** 1998 Dec 1;9(17):3853–6
Neuroanatomy, circuitry and plasticity of word reading. Posner MI, et al. **Neuroreport** 1999 Feb 25;10(3):R12–23 (88 ref.)
Can sensitivity to auditory frequency modulation predict children's phonological and reading skills? Talcott JB, et al. **Neuroreport** 1999 Jul 13;10(10):2045–50
Activation of human language processing brain regions after the presentation of random letter strings demonstrated with event-related functional magnetic resonance imaging. Jessen F, et al. **Neurosci Lett** 1999 Jul 23;270(1):13–6
Implicit memory within a word recognition task: an event-related potential study in human subjects. Walla P, et al. **Neurosci Lett** 1999 Jul 16;269(3):129–32
Reading skills and family planning knowledge and practices in a low-income managed-care population. Gazmararian JA, et al. **Obstet Gynecol** 1999 Feb;93(2):239–44
Location and stability of a newly established eccentric retinal locus suitable for reading, achieved through training of patients with a dense central scotoma. Nilsson UL, et al. **Optom Vis Sci** 1998 Dec;75(12):873–8
Patient understanding of postsurgical instruction forms. Alexander RE. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):153–8 (26 ref.)
Literacy promotion for Hispanic families in a primary care setting: a randomized, controlled trial. Golova N, et al. **Pediatrics** 1999 May;103(5 Pt 1):993–7
Child centered literacy orientation: a form of social capital? High P, et al. **Pediatrics** 1999 Apr;103(4):e55
Word-type effects in word-stem priming: evidence for semantic processing in the perceptual representation system? Cooley EL, et al. **Percept Mot Skills** 1998 Aug; 87(1):263–8
Do magnitude estimation and lexical decision tap similar processes? Ferraro FR, et al. **Percept Mot Skills** 1998 Dec; 87(3 Pt 2):1239–45
Semantic priming of Kanji words in the cerebral hemispheres. Kawakami A, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):937–8
Reading comprehension strategies used by deaf middle-school students. Leirer K, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):874
Reply to Greenberg's critique of Malik, et al.'s experiment on the method of subliminal psychodynamic activation. Malik R. **Percept Mot Skills** 1998 Aug;87(1):313–4
Improving perception of letters and visual structure of language. Nelson TM, et al. **Percept Mot Skills** 1999 Apr; 88(2):515–30
SPECT (HMPAO) support for activation of the medial prefrontal cortices during toe graphaesthesia. Persinger MA, et al. **Percept Mot Skills** 1998 Aug;87(1):59–63
Quantitative electroencephalogram of posterior cortical areas of fluent and stuttering participants during reading with normal and altered auditory feedback. Rastatter MP, et al. **Percept Mot Skills** 1998 Oct;87(2):623–33
Scotopic sensitivity/Irlen syndrome and the use of coloured filters: a long-term placebo-controlled study of reading strategies using analysis of miscue. Robinson GL, et al. **Percept Mot Skills** 1999 Feb;88(1):35–52
Effect of active rest by oral reading on a mirror-drawing task. Sada Y. **Percept Mot Skills** 1998 Oct;87(2):635–42
Reversibility of reversible Chinese words. Yang MJ. **Percept Mot Skills** 1998 Oct;87(2):656–8
The role of letter identity and letter position in orthographic priming. Peressotti F, et al. **Percept Psychophys** 1999 May; 61(4):691–706
Cortical auditory signal processing in poor readers. Nagarajan S, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6483–8
The prevalence of low literacy in an indigent psychiatric population. Christensen RC, et al. **Psychiatr Serv** 1999 Feb; 50(2):262–3
Reading skills in hyperlexia: a developmental perspective. Nation K. **Psychol Bull** 1999 May;125(3):338–55 (120 ref.)
Eye movements in reading and information processing: 20 years of research. Rayner K. **Psychol Bull** 1998 Nov; 124(3):372–422 (927 ref.)
Sentences and rehearsals increase rated similarity: support for assimilation-in-salience theory. King DL. **Psychol Rep** 1999 Jun;84(3 Pt 2):1253–66
Individual differences in text comprehension as a function of test anxiety and prior knowledge. Minnaert AE. **Psychol Rep** 1999 Feb;84(1):167–77
Effect of ease-of-acquisition on naming latency for Japanese kanji: a reanalysis of Yamazaki, et al.'s (1997) data. Yamada J, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):991–1002
A connectionist multiple-trace memory model for polysyllabic word reading. Ans B, et al. **Psychol Rev** 1998 Oct;105(4):678–723
Phonology, reading acquisition, and dyslexia: insights from connectionist models. Harm MW, et al. **Psychol Rev** 1999 Jul;106(3):491–528
An electrophysiological analysis of animacy effects in the processing of object relative sentences. Weckerly J, et al. **Psychophysiology** 1999 Sep;36(5):559–70
Inferring sublexical correspondences from sight vocabulary: evidence from 6- and 7-year-olds. Stuart M, et al. **Q J Exp Psychol A** 1999 May;52(2):353–66
Why is learning to read a hard task for some children? Lundberg I. **Scand J Psychol** 1998 Sep;39(3):155–7 (17 ref.)
Reading and writing difficulties do not always occur as the researcher expects. Niemi P, et al. **Scand J Psychol** 1998 Sep;39(3):159–61
Reading epilepsy: report of five new cases and further considerations on the pathophysiology. Wolf P, et al. **Seizure** 1998 Aug;7(4):271–9
Readability of patient information leaflets on antiepileptic drugs in the UK. Wong IC. **Seizure** 1999 Feb;8(1):35–7
Primary reading epilepsy. Yalçin AD, et al. **Seizure** 1998 Aug;7(4):325–7
Psychophysics of reading. XVIII. The effect of print size on reading speed in normal peripheral vision. Chung ST, et al. **Vision Res** 1998 Oct;38(19):2949–62
Word ambiguity and the optimal viewing position in reading. Clark JJ, et al. **Vision Res** 1999 Feb;39(4):843–57
Coherent motion detection and letter position encoding. Cornelissen PL, et al. **Vision Res** 1998 Jul;38(14):2181–91
Combined use of several preferred retinal loci in patients with macular disorders when reading single words [published erratum appears in Vision Res 1999 Aug;39(16):2793] Duret F, et al. **Vision Res** 1999 Feb; 39(4):873–9
Reading with central field loss: number of letters masked is more important than the size of the mask in degrees. Fine EM, et al. **Vision Res** 1999 Feb;39(4):747–56
Reading with simulated scotomas: attending to the right is better than attending to the left. Fine EM, et al. **Vision Res** 1999 Mar;39(5):1039–48
Motion after-effects and word contingency. Meyer GE, et al. **Vision Res** 1998 Nov;38(22):3583–9
[An example of how to measure the relation between developmental dyslexia and illiteracy] Delahaie M, et al. **Sante Publique** 1998 Dec;10(4):369–83 (Eng. Abstr.) **(Fre)**
[A new reading chart for simultaneous determination of reading vision and reading speed] Radner W, et al. **Klin Monatsbl Augenheilkd** 1998 Sep;213(3):174–81 (Eng. Abstr.) **(Ger)**
[Microperimetry and reading saccades in retinopathia solaris. Follow-up with the scanning laser ophthalmoscope] Ehrt O, et al. **Ophthalmologe** 1999 May;96(5):325–31 (Eng. Abstr.) **(Ger)**
[Low Vision Enhancement System (LVES). Initial clinical experiences with a new kind of optoelectronic rehabilitation system] Thierfelder S, et al. **Ophthalmologe** 1998 Nov;95(11):781–3 (Eng. Abstr.) **(Ger)**
[The crossover effect of the propositional text representation and the mental model:the role of individual differences in spatial imagery ability] Dutke S. **Z Exp Psychol** 1999; 46(3):164–76 (Eng. Abstr.) **(Ger)**
[Strategic focusing of attention during narrative reading] Hähnel A, et al. **Z Exp Psychol** 1999;46(3):177–92 (Eng. Abstr.) **(Ger)**
[Egocentric inference of object positions during reading and listening] Hörnig R, et al. **Z Exp Psychol** 1999;46(3):140–51 (Eng. Abstr.) **(Ger)**
[Influence of the type of visualization on the construction of mental models during picture and text comprehension] Schnotz W, et al. **Z Exp Psychol** 1999;46(3):217–36 (Eng. Abstr.) **(Ger)**
[Situation models in text comprehension: will emotionally relieving information be automatically activated?] Wentura D, et al. **Z Exp Psychol** 1999;46(3):193–203 (Eng. Abstr.) **(Ger)**
[100 years research in reading and spelling--what do we know today?] von Suchodoletz W. **Z Kinder Jugendpsychiatr Psychother** 1999 Aug; 27(3):199–206 (70 ref.) **(Ger)**
[Critical reading for medical residents in main specialties] Leyva González FA, et al. **Rev Invest Clin** 1999 Jan–Feb; 51(1):31–8 (Eng. Abstr.) **(Spa)**

READING DISABILITY, ACQUIRED see **DYSLEXIA, ACQUIRED**

READING DISABILITY, DEVELOPMENTAL see **DYSLEXIA**

READING DISORDER see **DYSLEXIA**

READING FRAMES

The complete coding sequence of a European isolate of GB-C/hepatitis G virus. Charrel RN, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):432–7
How translational accuracy influences reading frame maintenance. Farabaugh PJ, et al. **EMBO J** 1999 Mar 15; 18(6):1427–34 (55 ref.)

GENETICS

A small in-frame deletion within the protease domain of muscle-specific calpain, p94 causes early-onset limb-girdle muscular dystrophy 2A. Häffner K, et al. **Hum Mutat** 1998; Suppl 1:S298-300

Polymorphisms in the coding exons of the human luteinizing hormone receptor gene. Mutations in brief no. 124. Online. Wu SM, et al. **Hum Mutat** 1998;11(4):333-4

IMMUNOLOGY

Presentation of out-of-frame peptide/MHC class I complexes by a novel translation initiation mechanism. Malarkannan S, et al. **Immunity** 1999 Jun;10(6):681-90

REAGENT KITS, DIAGNOSTIC

Evaluation of two D-Dimer assays in the diagnosis of venous thromboembolism. Wijns W, et al. **Acta Clin Belg** 1998 Aug; 53(4):270-4

Identification of cytomegalovirus (CMV) infection by different laboratory methods in renal transplant recipients undergoing triple-drug immunosupressive treatment. Siennicka J, et al. **Acta Microbiol Pol** 1999;48(1):61-71

Assay of plasma samples representing different HIV-1 genetic subtypes: an evaluation of new versions of the amplicor HIV-1 monitor assay. Alaeus A, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):889-94

Quantification of RNA in HIV type 1 subtypes D and G by NucliSens and Amplicor assays in Abidjan, Ivory Coast. Nkengasong JN, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):495-8

Estrogen and progesterone receptor contents in ThinPrep-processed fine-needle aspirates of breast. Leung SW, et al. **Am J Clin Pathol** 1999 Jul;112(1):50-6

Comparison of five methods of malaria detection in the outpatient setting. Lema OE, et al. **Am J Trop Med Hyg** 1999 Feb;60(2):177-82

Analysis at home. Zubritsky E. **Anal Chem** 1999 Jun 1; 71(11):395A-398A

Multisite study of a second generation whole blood rapid assay for cardiac troponin T. Azzazy HM, et al. **Ann Clin Biochem** 1999 Jul;36 (Pt 4):438-46

A multi-centre evaluation of the card indirect agglutination test for trypanosomiasis (TrypTect CIATT). Asonganyi T, et al. **Ann Trop Med Parasitol** 1998 Dec;92(8):837-44

Spectrophotometric determination of Sn(II) using palladium chloride in kits for 99mTc radiopharmaceuticals. Mushtaq A, et al. **Appl Radiat Isot** 1999 Apr;50(4):649-53

Practice tips. Incorporating a rapid group A streptococcus assay with the sore throat score. Greiver M. **Can Fam Physician** 1999 May;45:1181-2

Evaluation of screening kits for the detection of anti-human immunodeficiency virus type 1 and 2 (HIV-1/2) antibodies. Chin LT, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1995 Aug;28(3):179-92

Evaluation of four commercial rapid diagnostic kits for identifying Staphylococcus aureus. Wu JJ, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1995 Aug;28(3):218-25

A necessary adjustment of protocol for use of DPC coat-a-count total testosterone assay with saliva. Campbell KL, et al. **Clin Biochem** 1999 Feb;32(1):83-5

Clinical validation of the Helikit: a 13C urea breath test used for the diagnosis of Helicobacter pylori infection. Mock T, et al. **Clin Biochem** 1999 Feb;32(1):59-63

Comparison of two homogeneous assays with a precipitation method and an ultracentrifugation method for the measurement of HDL-cholesterol. Arranz-Peña ML, et al. **Clin Chem** 1998 Dec;44(12):2499-505

Evaluation of interferences in rate and fixed-time nephelometric assays of specific serum proteins. Bossuyt X, et al. **Clin Chem** 1999 Jan;45(1):62-7

Automated detection of the factor V Leiden mutation using the LCx microparticle enzyme immunoassay. Hunault M, et al. **Clin Chem** 1999 Jan;45(1):41-6

Interference of plant peroxidases with guaiac-based fecal occult blood tests is avoidable. Sinatra MA, et al. **Clin Chem** 1999 Jan;45(1):123-6

Screening assay for ethylene glycol in serum [letter; comment] Zoppi F. **Clin Chem** 1998 Nov;44(11):2377. Comment on: Clin Chem 1998 Jan;44(1):168-77.

Measurement of urine relative density using refractometer and reagent strips. Dorizzi RM, et al. **Clin Chem Lab Med** 1998 Dec;36(12):925-8

Screening school children for albuminuria, proteinuria and occult blood with dipsticks. Pugia MJ, et al. **Clin Chem Lab Med** 1999 Feb;37(2):149-57

Clinical evaluation of the CARDIAC STATus, a rapid immunochromatographic assay for simultaneous detection of elevated concentrations of CK-MB and myoglobin in whole blood. Schouten Y, et al. **Clin Chem Lab Med** 1998 Jun;36(7):469-73

Ciguatera fish poisoning [letter; comment] Ebesu J. **CMAJ** 1999 Apr 20;160(8):1127-8. Comment on: CMAJ 1998 Dec 1;159(11):1394.

Rapid diagnosis of acute myocardial infarction: is sooner better? [editorial; comment] Klein LW. **Crit Care Med** 1999 Jun;27(6):1035-6. Comment on: Crit Care Med 1999 Jun;27(6):1085-9.

Assessment of a creatine kinase-MB/myoglobin kit in the prehospital setting in patients presenting with acute nontraumatic chest pain: the "Shahal" experience [see comments] Roth A, et al. **Crit Care Med** 1999 Jun; 27(6):1085-9. Comment in: Crit Care Med 1999 Jun;27(6):1035-6.

Antibodies to glutamic acid decarboxylase (GAD) in non-obese Japanese diabetics without insulin therapy: a comparison of two commercial RIA kits based on recombinant and pig brain GAD. Bando Y, et al. **Diabetes Res Clin Pract** 1998 Jul;41(1):25-33

Use of the Thin Prep Pap Test in clinical practice. Guidos BJ, et al. **Diagn Cytopathol** 1999 Feb;20(2):70-3

Utility of the BTA stat test kit for bladder cancer screening. Nasuti JF, et al. **Diagn Cytopathol** 1999 Jul;21(1):27-9

Modification of CytoRich Red fixative system for use on bloody Pap and fine-needle aspiration smears. Weidmann J, et al. **Diagn Cytopathol** 1999 Feb;20(2):95-8

The detection of positive blood cultures by the AccuMed ESP-384 system: the clinical significance of three-day testing. Han XY, et al. **Diagn Microbiol Infect Dis** 1999 Jan;33(1):1-6

Detection of Helicobacter pylori organisms by Hp-fast in children. Elitsur Y, et al. **Dig Dis Sci** 1999 Jun; 44(6):1169-72

Improved two-dimensional gel electrophoresis representation of serum proteins by using ProtoClear. Lollo BA, et al. **Electrophoresis** 1999 Apr-May;20(4-5):854-9

Evaluation of six commercial systems for identification of medically important yeasts. Buchaille L, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):479-88

Comparison of three different commercial methods for measuring plasma viraemia in patients infected with non-B HIV-1 subtypes. Holguin A, et al. **Eur J Clin Microbiol Infect Dis** 1999 Apr;18(4):256-9

Disparity of serum transferrin receptor measurements among different assay methods. Yeung GS, et al. **Eur J Clin Nutr** 1998 Nov;52(11):801-4

Identification of Clostridium botulinum with API 20 A, Rapid ID 32 A and RapID ANA II. Lindström MK, et al. **FEMS Immunol Med Microbiol** 1999 Jul;24(3):267-74

Performance of a rapid whole blood test for Helicobacter pylori in primary care: a German multicenter study. Hackelsberger A, et al. **Helicobacter** 1998 Sep;3(3):179-83

Comparative evaluation of hepatitis C virus RNA quantitation by branched DNA, NASBA, and monitor assays. Lunel F, et al. **Hepatology** 1999 Feb;29(2):528-35

Serodiagnosis of neuroborreliosis: comparison of reliability of three confirmatory assays. Kaiser R, et al. **Infection** 1999 May-Jun;27(3):177-82

Multicenter evaluation of the performance and clinical utility in longitudinal monitoring of the Bayer Immuno 1 complexed PSA assay. Allard WJ, et al. **Int J Biol Markers** 1999 Apr-Jun;14(2):73-83

Comparison between ICS-Vidas, MSRV and standard cultural method for Salmonella recovery in poultry meat. De Medici D, et al. **Int J Food Microbiol** 1998 Dec 22; 45(3):205-10

Performance of a rapid screening test POCkit HSV2 Rapid Test [letter] Ly TD, et al. **Int J STD AIDS** 1999 Jan; 10(1):68

Reactivity of a dual amplified chlamydia immunoassay with different serovars of Chlamydia trachomatis. Okadome A, et al. **Int J STD AIDS** 1999 Jul;10(7):460-3

Diagnostic tests that are worthwhile for patients with sexually transmitted bacterial infections in industrialized countries. Taylor-Robinson D, et al. **Int J STD AIDS** 1999 Jan;10(1):1-4 (31 ref.)

Clinical utility of a commercial ligase chain reaction kit for the diagnosis of smear-negative pulmonary tuberculosis. Kwiatkowska S, et al. **Int J Tuberc Lung Dis** 1999 May; 3(5):421-5

Evaluation of the MycoDot test in patients with suspected tuberculosis in a field setting in Tanzania. Somi GR, et al. **Int J Tuberc Lung Dis** 1999 Mar;3(3):231-8

Q.E.D. Alcohol test: a simple and quick method to detect ethanol in saliva of patients in emergency departments. Comparison with the conventional determination in blood. Smolle KH, et al. **Intensive Care Med** 1999 May;25(5):492-5

Detection and enumeration of HIV-1-producing cells by ELISPOT (enzyme-linked immunospot) assay. Corne P, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):442-7

Evaluation of DRI drug-of-abuse reagents on the Hitachi 911 [letter] Haver V, et al. **J Anal Toxicol** 1998 Sep; 22(5):403-4

Reliability of CHROMagar O157 for the detection of enterohaemorrhagic Escherichia coli (EHEC) O157 but not EHEC belonging to other serogroups. Bettelheim KA. **J Appl Microbiol** 1998 Sep;85(3):425-8

Evaluation of MRSA-Screen, a simple anti-PBP 2a slide latex agglutination kit, for rapid detection of methicillin resistance in Staphylococcus aureus. Cavassini M, et al. **J Clin Microbiol** 1999 May;37(5):1591-4

Evaluation of the Abbott LCx Mycobacterium tuberculosis assay for direct detection of Mycobacterium tuberculosis complex in human samples. Garrino MG, et al. **J Clin Microbiol** 1999 Jan;37(1):229-32

False-positive Gen-Probe direct Mycobacterium tuberculosis amplification test results for patients with pulmonary M. kansasii and M. avium infections. Jorgensen JH, et al. **J Clin Microbiol** 1999 Jan;37(1):175-8

Evaluation of commercially available Helicobacter pylori serology kits: a review. Laheij RJ, et al. **J Clin Microbiol** 1998 Oct;36(10):2803-9 (91 ref.)

Identification of Yersinia species by the Vitek GNI card. Linde HJ, et al. **J Clin Microbiol** 1999 Jan;37(1):211-4

Ability of the modified Vitek card to detect coagulase-negative staphylococcal with mecA and Oxacillin-resistant phenotypes [letter] Marshall SA, et al. **J Clin Microbiol** 1999 Jun;37(6):2122-3

Performance characteristics of the BDProbeTec system for direct detection of Mycobacterium tuberculosis complex in respiratory specimens. Pfyffer GE, et al. **J Clin Microbiol** 1999 Jan;37(1):137-40

Evaluation of the BBL Crystal MRSA ID System for detection of oxacillin resistance in Staphylococcus aureus. Kampf G, et al. **J Clin Pathol** 1999 Mar;52(3):225-7

Evaluation of a fully automated glycoprotein G-2 based assay for the detection of HSV-2 specific IgG antibodies in serum and plasma. Groen J, et al. **J Clin Virol** 1999 May; 12(3):193-200

Evaluation of the AmpliSensor PCR and the SHARP signal detection system for the early prediction of symptomatic CMV infection in solid transplant recipients. Rautenberg P, et al. **J Clin Virol** 1999 Jun;13(1-2):81-94

Evaluation of ELVIS HSV ID/Typing System for the detection and typing of herpes simplex virus from clinical specimens. Turchek BM, et al. **J Clin Virol** 1999 Jan; 12(1):65-9

Hyperprolactinemia due to big big prolactin is differently detected by commercially available immunoassays. Cavaco B, et al. **J Endocrinol Invest** 1999 Mar;22(3):203-8

Swiss Caucasian population data for 13 STR loci using AmpFISTR profiler plus and cofiler PCR amplification kits. Gehrig C, et al. **J Forensic Sci** 1999 Sep;44(5):1035-8

Prospective comparison of the Gen-probe PACE 2 assay and the Abbott ligase chain reaction for the direct detection of Chlamydia trachomatis in a low prevalence population. Doing KM, et al. **J Med Microbiol** 1999 May;48(5):507-10

Simple/rapid test devices for anti-HIV screening: do they come up to the mark? Giles RE, et al. **J Med Virol** 1999 Sep;59(1):104-9

False negativity by an anti-HIV assay kit (IMx 8B32) and evaluation of its replacement (IMx 8C98). Parry JV, et al. **J Med Virol** 1998 Oct;56(2):138-44

Relationship between levels of aspartate aminotransferase in gingival crevicular fluid and conventional measures of periodontal status assessed using PocketWatch: a cross-sectional study. Shimada K, et al. **J Oral Sci** 1999 Mar;41(1):35-40

Home monitoring of 17 hydroxyprogesterone levels in congenitx127drenal hyperplasia with filter paper blood samples [see comments] Bode HH, et al. **J Pediatr** 1999 Feb;134(2):185-9. Comment in: J Pediatr 1999 Feb;134(2):140-2.

Home monitoring of 17 hydroxyprogesterone levels: "throw away the urine jug, mom, the filter paper just arrived" [editorial; comment] Schwartz RP. **J Pediatr** 1999 Feb; 134(2):140-2. Comment on: J Pediatr 1999 Feb;134(2):185-9.

Validation of an EIA kit for determination of total thyroid hormones in rat serum. Effects of different anaesthetics. Alfonso M, et al. **J Physiol Biochem** 1998 Mar;54(1):15-21

Comparison between the standard anticardiolipin antibody test and a new phospholipid test in patients with connective tissue diseases. Merkel PA, et al. **J Rheumatol** 1999 Mar; 26(3):591-6

Multi-measurement method comparison of three commercial hepatitis B virus DNA quantification assays. Krajden M, et al. **J Viral Hepat** 1998 Nov;5(6):415-22

Role of serology in the diagnosis of Lyme disease [see comments] Brown SL, et al. **JAMA** 1999 Jul 7;282(1):62-6 . Comment in: JAMA 1999 Jul 7;282(1):79-80.

Home HIV kits unreliable [news] **Lancet** 1999 Jul 3; 354(9172):55

Validating aminoterminal BNP assays: a word of caution [letter] Yandle T, et al. **Lancet** 1999 Mar 27; 353(9158):1068-9

Commercially available fluorometers, luminometers and imaging devices for low-light level measurements and allied kits and reagents: survey update 6. Stanley PE. **Luminescence** 1999 Jul-Aug;14(4):201-13

Detection of chlamydial nucleic acid in follicular trachoma [letter; comment] Laming AC, et al. **Med J Aust** 1999 Feb 15;170(4):190. Comment on: Med J Aust 1994 Jun 20;160(12):751-6.

Comparison of four commercialized biochemical systems for clinical yeast identification by colour-producing reactions. Paugam A, et al. **Med Mycol** 1999 Feb;37(1):11-7

Monoclonal antibody 3H8: a useful tool in the diagnosis of candidiasis. Marcilla A, et al. **Microbiology** 1999 Mar;145 (Pt 3):695-701

Detection of Mycoplasma mycoides subspecies mycoides SC in clinical material by a rapid colorimetric PCR. Bashiruddin JB, et al. **Mol Cell Probes** 1999 Feb;13(1):23-8

Roche integrates HIV therapeutics and diagnostics [news] Robertson D. **Nat Biotechnol** 1998 Sep;16(9):815

Determination of Sn(II) in technetium cold kits by voltammetry at the hanging mercury drop electrode (HMDE) and relevant radiopharmaceutical applications. Decristoforo C, et al. **Nucl Med Biol** 1998 Oct;25(7):675-83

Effects of alternative reconstitution procedures on the labelling efficiency and in vitro stability of 99Tcm-labelled radiopharmaceuticals. Bogsrud TV, et al.

Nucl Med Commun 1999 Jan;20(1):61–5
Diagnosis of extrapulmonary tuberculosis by a commercial polymerase chain reaction kit. Bemer-Melchior P, et al. **Pathol Biol (Paris)** 1998 Oct;46(8):597–603
A comparison of commercial and in-house ELISAs for antineutrophil cytoplasmic antibodies directed against proteinase 3 and myeloperoxidase. Pollock W, et al. **Pathology** 1999 Feb;31(1):38–43
Comparison of three rapid, in-office mononucleosis tests [letter] Schwartz RH. **Pediatr Infect Dis J** 1999 Jan; 18(1):80–1
FDA study finds test kits effective in spotting birth defects [news] **Public Health Rep** 1998 Sep-Oct;113(5):382
HIV testing not for self-doers [news] **S Afr Med J** 1998 Sep; 88(9):1062
Stability study on specimens mailed to a state laboratory and tested with the Gen-Probe PACE 2 assay for chlamydia. Parker EK, et al. **Sex Transm Dis** 1999 Apr;26(4):213–5
We must be realistic in evaluating rapid diagnostic tests [editorial; comment] Schachter J. **Sex Transm Dis** 1999 Apr;26(4):241–2. Comment on: Sex Transm Dis 1999 Apr;26(4):232–40.
Diagnosis of Plasmodium falciparum infection using ParaSight(R)-F test in blood and urine of Papua New Guinean children. Genton B, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):35–40
Adaptation of total phenytoin reagent pack for measuring free phenytoin levels with the Abbott AxSYM immunoassay analyzer. Jarzabek JI, et al. **Ther Drug Monit** 1999 Feb;21(1):134–6
A fresh look at D-dimer in suspected pulmonary embolism [editorial; comment] Miller A. **Thorax** 1998 Oct; 53(10):821–2. Comment on: Thorax 1998 Oct;53(10):830–4.
IgA antiphospholipid antibodies [letter; comment] Keil LB, et al. **Thromb Haemost** 1999 Feb;81(2):319–20. Comment on: Thromb Haemost 1998 Feb;79(2):282–5.
A new automated method for von Willebrand factor antigen measurement using latex particles [letter] Veyradier A, et al. **Thromb Haemost** 1999 Feb;81(2):320–1
A chromogenic substrate assay kit for factor XII: evaluation and use for the measurement of factor XII levels in cardiopulmonary bypass patients. Gallimore MJ, et al. **Thromb Res** 1999 Apr 15;94(2):103–9
Evaluation of a new anti-HCV-assay kit for anti-HCV screening in early childhood. Sugiyama K, et al. **Tohoku J Exp Med** 1999 Mar;187(3):257–62
Cellular inactivation induced by a radiopharmaceutical kit: role of stannous chloride. Assis ML, et al. **Toxicol Lett** 1998 Nov 12;99(3):199–205
MalaQuick versus ParaSight F as a diagnostic aid in travellers' malaria. Funk M, et al. **Trans R Soc Trop Med Hyg** 1999 May-Jun;93(3):268–72
Comparison of the ParaSight-F test and the ICT Malaria Pf test with the polymerase chain reaction for the diagnosis of Plasmodium falciparum malaria in travellers. Pieroni P, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr; 92(2):166–9
Evaluation of dipsticks in Schistosoma haematobium infections in four villages in the middle valley of the Senegal River Basin, Senegal. Shaw DJ, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):634–5
Multi-centre evaluation of repeatability and reproducibility of the direct agglutination test for visceral leishmaniasis. Boelaert M, et al. **Trop Med Int Health** 1999 Jan;4(1):31–7
Feasibility of a rapid dipstick antigen-capture assay for self-testing of travellers' malaria. Trachsler M, et al. **Trop Med Int Health** 1999 Jun;4(6):442–7
Field evaluation of a one-step dipstick assay for the diagnosis of human leptospirosis in the Seychelles. Yersin C, et al. **Trop Med Int Health** 1999 Jan;4(1):38–45
Local evaluation of a rapid HIV assay for use in developing countries. Zaw M, et al. **Trop Med Int Health** 1999 Mar; 4(3):216–21
BR-MA, OM-MA, GI-MA and CEA: clinical evaluation using the IMMULITE analyzer. van Dalen A. **Tumour Biol** 1999 May-Jun;20(3):117–29
New tests for detecting HIV infection. Woehrle TA, et al. **West J Med** 1998 Dec;169(6):371–2
The importance of simple/rapid assays in HIV testing. **Wkly Epidemiol Rec** 1998 Oct 16;73(42):321–6 **(Eng, Fre)**
Supplementary anti-hepatitis C virus (HCV) testing with 2nd and 3rd generation recombinant immunoblot assay and matrix applied to enzyme immunoassay positive sera and comparison with HCV-RNA detection. Engel PM, et al. **Zentralbl Bakteriol** 1998 Oct;288(2):267–75
[Assay of cardiac troponin T on Elecsys 2010: comparison with cardiac troponin I] Cauliez B, et al. **Ann Biol Clin (Paris)** 1998 Nov-Dec;56(6):711–5 (Eng. Abstr.) **(Fre)**
[Comparison of three reactants for the detection of activated protein C resistance due to mutation of factor V Leiden during pregnancy] Magdelaine A, et al. **Ann Biol Clin (Paris)** 1998 Jul-Aug;56(4):445–50 (Eng. Abstr.) **(Fre)**
[Measurement of complement C4 fraction in Array 360: beware of monoclonal IgM! (see comments)] Parent X. **Ann Biol Clin (Paris)** 1998 Mar-Apr;56(2):209–10. Comment in: Ann Biol Clin (Paris) 1998 Sep-Oct;56(5):623–5. Comment in: Ann Biol Clin (Paris) 1999 Mar-Apr;57(2):238–9. **(Fre)**
[Utilization of Bichrolatex albicans test for the rapid identification of Candida albicans in blood culture bottles in fungemia: preliminary results from a multicenter study] Cahen P, et al. **Pathol Biol (Paris)** 1999 May;47(5):512–4 (Eng. Abstr.) **(Fre)**
[VIDAS Stallertest: clinico-biological evaluation of a new global test for respiratory allergy] Felden F, et al. **Pathol Biol (Paris)** 1998 Dec;46(10):819–23 (Eng. Abstr.) **(Fre)**
[False negative quick malaria test] Risch L, et al. **Schweiz Med Wochenschr** 1999 Jul 3;129(26):1002 **(Ger)**
[The rapid diagnosis of tropical malaria using the ParaSight-F test] Popov AF, et al. **Klin Lab Diagn** 1999 May;(5):56–7 **(Rus)**
[Specialized kits for delivering emergency medical care at chemical weapons disposal sites] Zhiliaev EG, et al. **Voen Med Zh** 1999 Feb;320(2):63–8 **(Rus)**
[The development and certification of the Hepabest anti-HBc IgG test system for detecting antibodies to the core antigen of the hepatitis B virus] Iaroslavtseva OA, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):49–52 (Eng. Abstr.) **(Rus)**
[Usefulness of BTA Stat test (Bard) in the diagnosis of bladder cancer. Preliminary results and comparison with cytology and cystoscopy] Gutiérrez Baños JL, et al. **Arch Esp Urol** 1998 Oct;51(8):778–82 (Eng. Abstr.) **(Spa)**
[Comparison of 2 fluorescence assays for the diagnosis of Epstein-Barr virus infections (letter)] de Ory F, et al. **Enferm Infecc Microbiol Clin** 1998 Nov;16(9):442–3 **(Spa)**
[Rapid diagnosis and susceptibility of Mycobacterium tuberculosis to antibiotics using MGIT system] Morcillo N, et al. **Rev Argent Microbiol** 1998 Oct-Dec;30(4):155–62 (Eng. Abstr.) **(Spa)**
[Comparative study of the analyzers L-9100 (Merck-Hitachi) and HA-8121 (Menarini) for the determination of glycosylated hemoglobin] Quetglas P, et al. **Sangre (Barc)** 1998 Oct;43(5):439–42 (Eng. Abstr.) **(Spa)**

CLASSIFICATION

FDA issues final rule for classification and reclassification of immunochemistry reagents and kits [editorial] Taylor CR. **Am J Clin Pathol** 1999 Apr;111(4):443–4
Report from the Biological Stain Commission: FDA issues final rule for classification/reclassification of immunochemistry (IHC) reagents and kits. Taylor CR. **Biotech Histochem** 1998 Jul;73(4):175–7

ECONOMICS

CSF bacterial antigen detection tests offer no advantage over Gram's stain in the diagnosis of bacterial meningitis. Mein J, et al. **Pathology** 1999 Feb;31(1):67–9
A home made rapid urease test in the diagnosis of Helicobacter pylori infection. Chiu WY, et al. **Singapore Med J** 1999 Apr;40(4):243–5

MICROBIOLOGY

LIVE/DEAD BacLight : application of a new rapid staining method for direct enumeration of viable and total bacteria in drinking water. Boulos L, et al. **J Microbiol Methods** 1999 Jul;37(1):77–86
Automated detection of Salmonella spp. in foods. Tan W, et al. **J Microbiol Methods** 1999 Jul;37(1):87–91
Comparative evaluation of Fungitest-, Neo-Sensitabs- and M27T-NCCLS broth microdilution methods for antifungal drug susceptibility testing of Candida species and Cryptococcus neoformans. Swinne D, et al. **Mycoses** 1999; 42(4):231–7

STANDARDS

False positives for HIV using commercial viral load quantification assays [letter] de Mendoza C, et al. **AIDS** 1998 Oct 22;12(15):2076–7
FDA warning on HIV tests purchased on the Internet [news] Rose VL. **Am Fam Physician** 1999 Sep 1;60(3):1026, 1029
Diagnostic usefulness of antineutrophil cytoplasmic autoantibody serology. Comparative evaluation of commercial indirect fluorescent antibody kits and enzyme immunoassay kits. Lim LC, et al. **Am J Clin Pathol** 1999 Mar;111(3):363–9
Evaluation of the BeTha gene 1 kit for the qualitative detection of the eight most common Mediterranean beta-thalassemia mutations. Ugozzoli LA, et al. **Am J Hematol** 1998 Nov;59(3):214–22
Identification of acute porphyria: evaluation of a commercial screening test for urinary porphobilinogen. Deacon AC, et al. **Ann Clin Biochem** 1998 Nov;35 (Pt 6):726–32
Evaluation of five different high-density lipoprotein cholesterol assays: the most precise are not the most accurate. de Keijzer MH, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):168–75
Evaluation of six erythropoietin kits. Marsden JT, et al. **Ann Clin Biochem** 1999 May;36 (Pt 3):380–7
Problematic performance of thyroid stimulating hormone kit in external quality assessment does not affect its popularity. Ross HA. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):99–100
Rapid testing for HIV: why so fast? [news] Kane B. **Ann Intern Med** 1999 Sep 21;131(6):481–3
External quality assessment of trans-European multicentre antigen determinations (enzyme-linked immunosorbent assay) of urokinase-type plasminogen activator (uPA) and its type 1 inhibitor (PAI-1) in human breast cancer tissue extracts. Sweep CG, et al. **Br J Cancer** 1998 Dec; 78(11):1434–41
Simultaneous rapid measurement of whole blood myoglobin, creatine kinase MB, and cardiac troponin I by the triage cardiac panel for detection of myocardial infarction. Apple FS, et al. **Clin Chem** 1999 Feb;45(2):199–205
Selection, validation, standardization, and performance of a designated comparison method for HDL-cholesterol for use in the cholesterol reference method laboratory network. Kimberly MM, et al. **Clin Chem** 1999 Oct; 45(10):1803–12
Evaluation of an automated immunoassay method for cytokine measurement using the Immulite Immunoassay system. Berthier F, et al. **Clin Chem Lab Med** 1999 May; 37(5):593–9
On the standardization of total prostate-specific antigen: an exercise with two reference preparations. Blijenberg BG, et al. **Clin Chem Lab Med** 1999 May;37(5):545–52
Evaluation of the activated partial thromboplastin time (APTT) sensitivity to heparin using five commercial reagents: implications for therapeutic monitoring. Manzato F, et al. **Clin Chem Lab Med** 1998 Dec;36(12):975–80
Assessment of package inserts for diagnostic kits. Secchiero S, et al. **Clin Chem Lab Med** 1999 Jun;37(6):663–5
Overview: quality control of tumor marker assays. Kruse R, et al. **Int J Biol Markers** 1998 Oct-Dec;13(4):238–40
HIV home tests can be inaccurate [news] **J Am Osteopath Assoc** 1999 Jul;99(7):355
Comparative study of seven commercial yeast identification systems. Verweij PE, et al. **J Clin Pathol** 1999 Apr; 52(4):271–3
Identification of clinically isolated vancomycin-resistant enterococci: comparison of API and BBL Crystal systems. Hamilton-Miller JM, et al. **J Med Microbiol** 1999 Jul; 48(7):695–6
False-positive rapid tests for malaria in patients with rheumatoid factor [letter] Grobusch MP, et al. **Lancet** 1999 Jan 23;353(9149):297
Analyte-specific reagents [news] Press RD. **Mol Diagn** 1999 Mar;4(1):71
Radiopharmaceutical kit modification [editorial] Lazarus C, et al. **Nucl Med Commun** 1998 Jul;19(7):613–4
Radiopharmaceutical kit modification [letter] Millar AM. **Nucl Med Commun** 1999 Jan;20(1):105–6
Evaluation of a new rapid antigen detection kit for group A beta-hemolytic streptococci. Pitetti RD, et al. **Pediatr Emerg Care** 1998 Dec;14(6):396–8
Rapid serological field tests for diagnosis of tuberculosis in South Africa—reasons for caution [editorial] Weyer K, et al. **S Afr Med J** 1999 May;89(5):532–3
Evaluation of kits for measurement of the soluble transferrin receptor. Akesson A, et al. **Scand J Clin Lab Invest** 1999 Apr;59(2):77–81
Field trials of a rapid test for G6PD deficiency in combination with a rapid diagnosis of malaria. Tantular IS, et al. **Trop Med Int Health** 1999 Apr;4(4):245–50
Enterovirus genome detection in wastewater: multi centric evaluation of a commercial kit. Gantzer C, et al. **Zentralbl Hyg Umweltmed** 1999 Jun;202(1):29–39
[Evaluation of six rapid tests for screening of cannabis in sweat, saliva and tears] Mura P, et al. **Acta Clin Belg Suppl** 1999;1:35–8 (Eng. Abstr.) **(Fre)**
[Informative value of Hemoccult test according to the number of positive slides in mass screening of colorectal cancer] Tazi MA, et al. **Bull Cancer** 1998 Dec;85(12):1055–9 (Eng. Abstr.) **(Fre)**
[Clinical utility of the free prostate specific antigen (PSA), alpha 1-antichymotrypsin-complexed PSA, and free/total PSA ratio using the specific and sensitive enzyme-linked immunosorbent assay "E-plate EIKEN PSA"] Imai K, et al. **Hinyokika Kiyo** 1998 Oct;44(10):755–63 (Eng. Abstr.) **(Jpn)**
[Comparison of Tandem-R PSA and Markit-M PA in the diagnosis of prostate cancer] Okegawa T, et al. **Hinyokika Kiyo** 1999 Mar;45(3):175–8 (Eng. Abstr.) **(Jpn)**
[Standardization of hemopoietic colony assay reagents] Ueda M, et al. **Rinsho Ketsueki** 1998 Sep;39(9):625–30 (Eng. Abstr.) **(Jpn)**

UTILIZATION

Home HIV testing--who does it? [news] **Am J Nurs** 1999 Apr;99(4):17
Home sample collection tests for HIV infection. Branson BM. **JAMA** 1998 Nov 18;280(19):1699–701

VIROLOGY

Impact of HIV type 1 subtype variation on viral RNA quantitation. Parekh B, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):133–42

REAGENT STRIPS

Application of the ParaSight-F dipstick test for malaria diagnosis in a district control program. Kilian AH, et al. **Acta Trop** 1999 Apr 30;72(3):281–93
Evaluation of OptiMAL, a dipstick test for the diagnosis of malaria. John SM, et al. **Ann Trop Med Parasitol** 1998 Jul;

92(5):621–2
Comparison of reagent strip (dipstick) and microscopic haematuria in urological out-patients. Gleeson MJ, et al. **Br J Urol** 1993 Nov;72(5 Pt 1):594–6
Evaluation of a rapid and inexpensive dipstick assay for the diagnosis of Plasmodium falciparum malaria. Mills CD, et al. **Bull World Health Organ** 1999;77(7):553–9
Comparison of pleural fluid pH values obtained using blood gas machine, pH meter, and pH indicator strip. Cheng DS, et al. **Chest** 1998 Nov;114(5):1368–72
False-negative rapid plasma reagin circle card test [letter] Endoh T, et al. **Clin Chim Acta** 1999 Jan;279(1–2):179–81
Evaluation of a rapid test for the detection of antibodies to human immunodeficiency virus type 1 and 2. Ng KP, et al. **Int J STD AIDS** 1999 Jun;10(6):401–4
Performance of AdultaCheck 4 test strips for the detection of adulteration at the point of collection of urine specimens used for drugs-of-abuse testing. King EJ. **J Anal Toxicol** 1999 Jan–Feb;23(1):72
Screening nitrate in forages with a test strip: collaborative study. Jain AV, et al. **J AOAC Int** 1999 Jan–Feb;82(1):9–15
Comparison of instrument-read dipsticks for albumin and creatinine in urine with visual results and quantitative methods. Pugia MJ, et al. **J Clin Lab Anal** 1998;12(5):280–4
Sensitivity and specificity of dipstick tests for rapid diagnosis of malaria in nonimmune travelers. Jelinek T, et al. **J Clin Microbiol** 1999 Mar;37(3):721–3
Immunochromatographic strip-based detection of Entamoeba histolytica-E. dispar and Giardia lamblia coproantigen. Pillai DR, et al. **J Clin Microbiol** 1999 Sep; 37(9):3017–9
Relationship between dipstick positive proteinuria and albumin:creatinine ratios. Davidson MB, et al. **J Diabetes Complications** 1999 Jan–Feb;13(1):52–5
Dipsticks and convulsions [see comments] Koch H. **Lancet** 1998 Dec 5;352(9143):1824. Comment in: Lancet 1999 Feb 20;353(9153):675. Comment in: Lancet 1999 Feb 20;353(9153):675–6.
Evaluation of a rapid reagent strip test for the diagnosis of childhood meningitis. Tsukahara H, et al. **Pediatr Int** 1999 Aug;41(4):443–6
Evaluation of the one-minute ultra-rapid urease test for diagnosing Helicobacter pylori. Misra SP, et al. **Postgrad Med J** 1999 Mar;75(881):154–6
Rapid detection of elevated prostate-specific antigen levels in blood: performance of various membrane strip tests compared. Jung K, et al. **Urology** 1999 Jan;53(1):155–60
[Urinalysis using dipsticks] Cochat P, et al. **Arch Pediatr** 1998 Jan;5(1):65–70 (16 ref.) (Eng. Abstr.) **(Fre)**
[Contribution of ParaSight F to the diagnosis of Plasmodium falciparum malaria] Bellagra N, et al. **Pathol Biol (Paris)** 1998 May;46(5):301–6 (Eng. Abstr.) **(Fre)**
[Evaluation of the test strip Reflotron ALP (alkaline phosphatase) for blood samples of dogs and cats] Hirschberger J, et al. **Tierarztl Prax Ausg K Klientiere Heimtiere** 1998 Sep; 26(5):360–3 (Eng. Abstr.) **(Ger)**

DIAGNOSTIC USE

A survey of bedside methods used to detect pulmonary aspiration of enteral formula in intubated tube-fed patients. Metheny NA, et al. **Am J Crit Care** 1999 May;8(3):160–7; quiz 168–9
Screening for ketonemia in patients with diabetes. Schwab TM, et al. **Ann Emerg Med** 1999 Sep;34(3):342–6
Use of rapid dipstick tests to exclude urinary tract infection in children. Sharief N, et al. **Br J Biomed Sci** 1998 Dec; 55(4):242–6
Performance of a reagent strip device for quantitation of the urine albumin: creatinine ratio in a point of care setting. Parsons M, et al. **Clin Nephrol** 1999 Apr;51(4):220–7
Determination of sensitivity and specificity of the Micral-Test II strip for detection of microalbuminuria in diabetic and nondiabetic patients [letter] Zheng YL, et al. **Nephron** 1999;81(4):455
A rapid screening test for pleural exudates [letter] Burgess LJ, et al. **S Afr Med J** 1999 Jan;89(1):14
LEPTO Dipstick: a rapid and simple method for serodiagnosis of acute leptospirosis. Sehgal SC, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):161–4

STANDARDS

An evaluation of NicCheck I: a dipstick method for analyzing nicotine and its metabolites. Leischow SJ, et al. **Addict Behav** 1999 Jan–Feb;24(1):145–8
Laboratory-based quality assurance programme for near-patient urine dipstick testing, 1990–1997: development, management and results. Tighe P. **Br J Biomed Sci** 1999;56(1):6–15
Personal hormone monitoring for contraception. Bonnar J, et al. **Br J Fam Plann** 1999 Jan;24(4):128–34
Evaluation of a new urinary amylase test strip in the diagnosis of acute pancreatitis. Hedström J, et al. **Scand J Clin Lab Invest** 1998 Dec;58(8):611–6
[First two years of an external quality assurance program for urinalysis] Loria A, et al. **Rev Invest Clin** 1998 Sep–Oct; 50(5):429–33 (Eng. Abstr.) **(Spa)**

REAGENTS see **INDICATORS AND REAGENTS**

REAGINS

BLOOD

False-negative rapid plasma reagin circle card test [letter] Endoh T, et al. **Clin Chim Acta** 1999 Jan;279(1–2):179–81
On-site rapid plasma reagin screening for syphilis in pregnancy [letter] Woods D, et al. **S Afr Med J** 1998 Sep; 88(9):1051, 1054
Predictive value of past and current screening tests for syphilis in blood donors: changing from a rapid plasma reagin test to an automated specific treponemal test for screening. Aberle-Grasse J, et al. **Transfusion** 1999 Feb; 39(2):206–11
[Reagin sensitizations and date of birth. Differences in function according to family history] de Montis G. **Arch Pediatr** 1999 Mar;6(3):259–62 (Eng. Abstr.) **(Fre)**

REAL-TIME SYSTEMS see **COMPUTER SYSTEMS**

REALITY TESTING

Students' misconceptions about perceived physiological responses. Michael JA. **Am J Physiol** 1998 Jun;274(6 Pt 2):S90–8
Reality negotiation in non-depressed and depressed persons. Crowson JJ Jr, et al. **Br J Clin Psychol** 1998 Nov;37 (Pt 4):381–3
Critical thinking and belief in the paranormal: a re-evaluation. Roe CA. **Br J Psychol** 1999 Feb;90 (Pt 1):85–98
Intention and knowledge in preschoolers' conception of pretend. Joseph RM. **Child Dev** 1998 Aug;69(4):966–80; discussion 994–5
Where theories of mind meet magic: the development of children's beliefs about wishing. Woolley JD, et al. **Child Dev** 1999 May-Jun;70(3):571–87
Psychopathology and primitive mental states. Caper R. **Int J Psychoanal** 1998 Jun;79 (Pt 3):539–51
Triangulation, one's own mind and objectivity [see comments] Cavell M. **Int J Psychoanal** 1998 Jun;79 (Pt 3):449–67. Comment in: Int J Psychoanal 1998 Dec;79 (Pt 6):1221–2. Comment in: Int J Psychoanal 1998 Dec;79 (Pt 6):1222–4.
The analyst's subjectivity and the analyst's objectivity. Renik O. **Int J Psychoanal** 1998 Jun;79 (Pt 3):487–97
The relationship of repression to reality testing in adult women who report childhood sexual and physical abuse. Farber BA, et al. **J Am Acad Psychoanal** 1999 Summer; 27(2):205–20
Faith, paranoia, and trust in the psychoanalytic relationship. Levin R. **J Am Acad Psychoanal** 1998 Winter;26(4):553–72
Children's understanding of the relation between delayed video representation and current reality: a test for self-awareness? Suddendorf T. **J Exp Child Psychol** 1999 Mar;72(3):157–76
The accuracy of dysphoric and nondepressed groups' predictions of life events. Kapçi EG, et al. **J Psychol** 1998 Nov;132(6):659–70
The biographical component of schizophrenia: a two-faced definition of relationship? Korn H. **Med Hypotheses** 1999 Jun;52(6):539–44 (32 ref.)
Getting real in analysis. Renik O. **Psychoanal Q** 1998 Oct; 67(4):566–93

REALITY THERAPY

Virtual reality exposure therapy for PTSD Vietnam Veterans: a case study. Rothbaum BO, et al. **J Trauma Stress** 1999 Apr;12(2):263–71

REASSORTANT VIRUSES

Genetic reassortment of avian, swine, and human influenza A viruses in American pigs. Zhou NN, et al. **J Virol** 1999 Oct;73(10):8851–6
Asymmetric infectivity of pseudorecombinants of cabbage leaf curl virus and squash leaf curl virus: implications for bipartite geminivirus evolution and movement. Hill JE, et al. **Virology** 1998 Oct 25;250(2):283–92

GENETICS

Potential for evolution of California serogroup bunyaviruses by genome reassortment in Aedes albopictus. Cheng LL, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):430–8
Cellular immunity delimits adenoviral gene therapy strategies for the treatment of neoplastic diseases. DeMatteo RP, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):88–94
Analysis on reassortment of rotavirus NSP1 genes lacking coding region for cysteine-rich zinc finger motif. Okada J, et al. **Arch Virol** 1999;144(2):345–53
Rearranged and chimaeric primate polyomavirus genomes. Frisque RJ. **Dev Biol Stand** 1998;94:103–13
Sequence analysis of VP1 and VP7 genes suggests occurrence of a reassortant of G2 rotavirus responsible for an epidemic of gastroenteritis. Zao CL, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1407–15
Chimeric SHIV that causes CD4+ T cell loss and AIDS in rhesus macaques. Joag SV, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):59–64
Yellow fever/Japanese encephalitis chimeric viruses: construction and biological properties. Chambers TJ, et al. **J Virol** 1999 Apr;73(4):3095–101
Genetic reassortment of Rift Valley fever virus in nature. Sall AA, et al. **J Virol** 1999 Oct;73(10):8196–200
Characterization of a neutralization-escape variant of SHIVKU-1, a virus that causes acquired immune deficiency syndrome in pig-tailed macaques. Narayan SV, et al. **Virology** 1999 Mar 30;256(1):54–63
[Recombinant human immunodeficiency viruses] Bobkov AF, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb;(1):45–7 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Characterization of high-growth reassortant influenza A viruses generated in MDCK cells cultured in serum-free medium. Voeten JT, et al. **Vaccine** 1999 Apr 9; 17(15–16):1942–50

IMMUNOLOGY

Failure of SIVmac to be neutralized in macrophage cultures is unique to SIVmac and not observed with neutralization of SHIV or HIV-1. Zhuge W, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10;14(12):1045–51
HIV-1 vaccine-induced immune responses which correlate with protection from SHIV infection: compiled preclinical efficacy data from trials with ten different HIV-1 vaccine candidates. Heeney J, et al. **Immunol Lett** 1999 Mar; 66(1–3):189–95
Cell-mediated immune responses in cattle vaccinated with a vaccinia virus recombinant expressing the nucleocapsid protein of rinderpest virus. Ohishi K, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1627–34
Chimeric influenza virus replicating predominantly in the murine upper respiratory tract induces local immune responses against human immunodeficiency virus type 1 in the genital tract. Ferko B, et al. **J Infect Dis** 1998 Nov; 178(5):1359–68
Gene-mutated HIV-1/SIV chimeric viruses as AIDS live attenuated vaccines for potential human use. Hayami M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S42–7

PATHOGENICITY

T cell-tropic simian immunodeficiency virus (SIV) and simian-human immunodeficiency viruses are readily transmitted by vaginal inoculation of rhesus macaques, and Langerhans' cells of the female genital tract are infected with SIV. Miller CJ, et al. **J Infect Dis** 1999 May;179 Suppl 3:S413–7
In vitro infection of primate PBMC with simian/human immunodeficiency virus, SHIV(SF33A): correlation to in vivo outcome. Harouse JM, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):81–6
Changes in human immunodeficiency virus type 1 envelope glycoproteins responsible for the pathogenicity of a multiply passaged simian-human immunodeficiency virus (SHIV-HXBc2). Cayabyab M, et al. **J Virol** 1999 Feb; 73(2):976–84
Viral burden and disease progression in rhesus monkeys infected with chimeric simian-human immunodeficiency viruses. Reimann KA, et al. **Virology** 1999 Mar 30; 256(1):15–21
[A recombinant HIV-1 strain causing an epidemic among injection drug addicts in Kaliningrad] Korovina GI, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb;(1):47–9 (Eng. Abstr.) **(Rus)**

REAVEN SYNDROME X see **INSULIN RESISTANCE**

REC A PROTEIN

RecA-dependent viral burst in bacterial colonies during the entry into stationary phase. Ramirez E, et al. **FEMS Microbiol Lett** 1999 Jan 15;170(2):313–7
[Structural biology of RecA and RuvABC proteins involved in homologous DNA recombination] Iwasaki H, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):495–505 (46 ref.) **(Jpn)**

CHEMISTRY

Intersubunit proximity of residues in the RecA protein as shown by engineered disulfide cross-links. Skiba MC, et al. **Biochemistry** 1999 Sep 14;38(37):11933–41
A molecular model for RecA-promoted strand exchange via parallel triple-stranded helices. Bertucat G, et al. **Biophys J** 1999 Sep;77(3):1562–76
Sequence analysis of the Gluconobacter oxydans RecA protein and construction of a recA-deficient mutant. Liu YT, et al. **Can J Microbiol** 1999 Apr;45(4):347–51
A model for parallel triple helix formation by RecA: single-single association with a homologous duplex via the minor groove. Bertucat G, et al. **J Biomol Struct Dyn** 1998 Dec;16(3):535–46
Quantitative analysis of the kinetics of end-dependent disassembly of RecA filaments from ssDNA. Arenson TA, et al. **J Mol Biol** 1999 May 7;288(3):391–401
Identification of a defined epitope on the surface of the active RecA-DNA filament using a monoclonal antibody and three-dimensional reconstruction. Yu X, et al. **J Mol Biol** 1998 Nov 13;283(5):985–92
Essential monomer-monomer contacts define the minimal length for the N-terminus of RecA protein [letter] Zaitsev

EN, et al. **Mol Microbiol** 1998 Sep;29(5):1317–8

Polymerization and mechanical properties of single RecA–DNA filaments. Hegner M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10109–14

RecA polymerization on double-stranded DNA by using single-molecule manipulation: the role of ATP hydrolysis. Shivashankar GV, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7916–21

[Conformational changes in the bacterial RecA protein upon its interaction with ligands: differential spectrofluorometry of tyrosine and tryptophan protein residues] Isaev-Ivanov VV, et al. **Dokl Akad Nauk** 1999 Jun;366(4):552–6 **(Rus)**

[Optimal rigidity of the protein structure: three classes of rigidity in the eubacterial RecA protein family] Petukhov MG, et al. **Dokl Akad Nauk** 1998 Sep;362(1):118–21 **(Rus)**

GENETICS

RecA-Mediated gene conversion and aminoglycoside resistance in strains heterozygous for rRNA. Prammananan T, et al. **Antimicrob Agents Chemother** 1999 Mar; 43(3):447–53

Cytotoxic hammerhead ribozymes. Levitz R, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):117–23

A Pseudomonas aeruginosa biosensor responds to exposure to ultraviolet radiation. Elasri MO, et al. **Appl Microbiol Biotechnol** 1998 Oct;50(4):455–8

Intersubunit proximity of residues in the RecA protein as shown by engineered disulfide cross-links. Skiba MC, et al. **Biochemistry** 1999 Sep 14;38(37):11933–41

RecA protein of Mycobacterium tuberculosis possesses pH-dependent homologous DNA pairing and strand exchange activities: implications for allele exchange in mycobacteria. Vaze MB, et al. **Biochemistry** 1999 Mar 9; 38(10):3175–86

Sequence analysis of the Gluconobacter oxydans RecA protein and construction of a recA-deficient mutant. Liu YT, et al. **Can J Microbiol** 1999 Apr;45(4):347–51

Characterization of a Caenorhabditis elegans recA-like gene Ce-rdh-1 involved in meiotic recombination. Takanami T, et al. **DNA Res** 1998 Dec 31;5(6):373–7

Comparison of ARDRA and recA-RFLP analysis for genomic species identification of Acinetobacter spp. Jawad A, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):357–62

A consensus sequence for the Rhodospirillaceae SOS operators. Labazi M, et al. **FEMS Microbiol Lett** 1999 Feb 1;171(1):37–42

Construction and physiological analysis of a Xanthomonas oryzae pv. oryzae recA mutant. Mongkolsuk S, et al. **FEMS Microbiol Lett** 1998 Dec 15;169(2):269–75

Identification of the promoter region of the Xanthomonas campestris pv. citri recA gene responsible for induction by DNA-damaging agents. Yang MK, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):57–65

The effect of recA mutation on the expression of EcoKI and EcoR124I hsd genes cloned in a multicopy plasmid. Hubáček J, et al. **Folia Microbiol (Praha)** 1998;43(4):353–9

A new recombinational DNA repair gene from Schizosaccharomyces pombe with homology to Escherichia coli RecA. Khasanov FK, et al. **Genetics** 1999 Aug;152(4):1557–72

Construction and analysis of a Streptococcus parasanguis recA mutant: homologous recombination is not required for adhesion in an in vitro tooth surface model. Froeliger EH, et al. **J Bacteriol** 1999 Jan;181(1):63–7

High-frequency RecA-dependent and -independent mechanisms of Congo red binding mutations in Yersinia pestis. Hare JM, et al. **J Bacteriol** 1999 Aug; 181(16):4896–904

RecA-independent pathways of lambdoid prophage induction in Escherichia coli. Rozanov DV, et al. **J Bacteriol** 1998 Dec;180(23):6306–15

Mutational analysis of the Rhizobium etli recA operator. Tapias A, et al. **J Bacteriol** 1998 Dec;180(23):6325–31

Toxic mutations in the recA gene of E. coli prevent proper chromosome segregation. Campbell MJ, et al. **J Mol Biol** 1999 Feb 19;286(2):417–35

Determination of the Paracoccus denitrificans SOS box. del Rey A, et al. **Microbiology** 1999 Mar;145 (Pt 3):577–84

Molecular analysis of the recA gene and SOS box of the purple non-sulfur bacterium Rhodopseudomonas palustris no. 7. Dumay V, et al. **Microbiology** 1999 May;145 (Pt 5):1275–85

Construction and complementation of a recA deletion mutant of Mycobacterium smegmatis reveals that the intein in Mycobacterium tuberculosis recA does not affect RecA function. Papavinasasundaram KG, et al. **Mol Microbiol** 1998 Nov;30(3):525–34

The mutA mistranslator tRNA-induced mutator phenotype requires recA and recB genes, but not the derepression of lexA-regulated functions. Ren L, et al. **Mol Microbiol** 1999 May;32(3):607–15

Distinct responses of a recA::luxCDABE Escherichia coli strain to direct and indirect DNA damaging agents. Min J, et al. **Mutat Res** 1999 Jun 25;442(2):61–8

Recombinational DNA repair in bacteria and the RecA protein. Cox MM. **Prog Nucleic Acid Res Mol Biol** 1999; 63:311–66 (342 ref.)

The Mycobacterium tuberculosis recA intein can be used in an ORFTRAP to select for open reading frames. Daugelat S, et al. **Protein Sci** 1999 Mar;8(3):644–53

[Preference of RecA-filament to the DNA sequences correlates with genetic code] Ponomarenko MP, et al. **Dokl Akad Nauk** 1998 Nov;363(1):122–5 **(Rus)**

IMMUNOLOGY

Identification of a defined epitope on the surface of the active RecA–DNA filament using a monoclonal antibody and three-dimensional reconstruction. Yu X, et al. **J Mol Biol** 1998 Nov 13;283(5):985–92

METABOLISM

The mutant RecA proteins, RecAR243Q and RecAK245N, exhibit defective DNA binding in homologous pairing. Kurumizaka H, et al. **Arch Biochem Biophys** 1999 May 1; 365(1):83–91

Characterization of the oligomeric states of RecA protein: monomeric RecA protein can form a nucleoprotein filament. Masui R, et al. **Biochemistry** 1998 Oct 20; 37(42):14788–97

A molecular model for RecA-promoted strand exchange via parallel triple-stranded helices. Bertucat G, et al. **Biophys J** 1999 Sep;77(3):1562–76

Single-molecule manipulation of double-stranded DNA using optical tweezers: interaction studies of DNA with RecA and YOYO-1. Bennink ML, et al. **Cytometry** 1999 Jul 1;36(3):200–8

Difference between active and inactive nucleotide cofactors in the effect on the DNA binding and the helical structure of RecA filament dissociation of RecA--DNA complex by inactive nucleotides. Ellouze C, et al. **Eur J Biochem** 1999 May;262(1):88–94

Characterization of thermostable RecA protein and analysis of its interaction with single-stranded DNA. Kato R, et al. **Eur J Biochem** 1999 Feb;259(3):592–601

A unique DNase activity shares the active site with ATPase activity of the RecA/Rad51 homologue (Pk-REC) from a hyperthermophilic archaeon. Rashid N, et al. **FEBS Lett** 1999 Feb 19;445(1):111–4

The L2 loop peptide of RecA stiffens and restricts base motions of single-stranded DNA similar to the intact protein. Selmane T, et al. **FEBS Lett** 1999 Mar 5; 446(1):30–4

DNA strand exchange proteins: a biochemical and physical comparison. Bianco PR, et al. **Front Biosci** 1998 Jun 17; 3:D570–603 (307 ref.)

Recombination in phage lambda: one geneticist's historical perspective. Stahl FW. **Gene** 1998 Nov 26;223(1–2):95–102 (77 ref.)

The RecBC enzyme loads RecA protein onto ssDNA asymmetrically and independently of chi, resulting in constitutive recombination activation. Churchill JJ, et al. **Genes Dev** 1999 Apr 1;13(7):901–11

A novel property of the RecA nucleoprotein filament: activation of double- stranded DNA for strand exchange in trans. Mazin AV, et al. **Genes Dev** 1999 Aug 1; 13(15):2005–16

High-frequency RecA-dependent and -independent mechanisms of Congo red binding mutations in Yersinia pestis. Hare JM, et al. **J Bacteriol** 1999 Aug; 181(16):4896–904

No sliding during homology search by RecA protein. Adzuma K. **J Biol Chem** 1998 Nov 20;273(47):31565–73

A single mutation, RecB(D1080A,) eliminates RecA protein loading but not Chi recognition by RecBCD enzyme. Anderson DG, et al. **J Biol Chem** 1999 Sep 17; 274(38):27139–44

Investigation of the secondary DNA-binding site of the bacterial recombinase RecA. Cazaux C, et al. **J Biol Chem** 1998 Oct 30;273(44):28799–804

Differential rates of NTP hydrolysis by the mutant [S69G]RecA protein. Evidence for a coupling of NTP turnover to DNA strand exchange. Nayak S, et al. **J Biol Chem** 1999 Sep 10;274(37):25979–82

Modulation of RecA nucleoprotein function by the mutagenic UmuD'C protein complex. Rehrauer WM, et al. **J Biol Chem** 1998 Dec 4;273(49):32384–7

Reevaluation of the nucleotide cofactor specificity of the RecA protein from Bacillus subtilis. Steffen SE, et al. **J Biol Chem** 1999 Sep 10;274(37):25990–4

A model for parallel triple helix formation by RecA: single–single association with a homologous duplex via the minor groove. Bertucat G, et al. **J Biomol Struct Dyn** 1998 Dec;16(3):535–46

On the in vivo function of the RecA ATPase. Campbell MJ, et al. **J Mol Biol** 1999 Feb 19;286(2):437–45

Saturation mutagenesis of the E. coli RecA loop L2 homologous DNA pairing region reveals residues essential for recombination and recombinational repair. Hörtnagel K, et al. **J Mol Biol** 1999 Mar 5;286(4):1097–106

The simultaneous binding of two double-stranded DNA molecules by Escherichia coli RecA protein. Zaitsev EN, et al. **J Mol Biol** 1999 Mar 19;287(1):21–31

Influence of RecA on in vivo virulence and Shiga toxin 2 production in Escherichia coli pathogens. Fuchs S, et al. **Microb Pathog** 1999 Jul;27(1):13–23

Investigation of mycobacterial recA function: protein introns in the RecA of pathogenic mycobacteria do not affect competency for homologous recombination. Frischkorn K, et al. **Mol Microbiol** 1998 Sep;29(5):1203–14

RecA binding to a single double-stranded DNA molecule: a possible role of DNA conformational fluctuations. Leger JF, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12295–9

Base pair switching by interconversion of sugar puckers in DNA extended by proteins of RecA-family: a model for homology search in homologous genetic recombination. Nishinaka T, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11071–6

RecA polymerization on double-stranded DNA by using single-molecule manipulation: the role of ATP hydrolysis. Shivashankar GV, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7916–21

[Proteins induction by cysteamine in Escherichia coli cells] Suslov AV, et al. **Radiats Biol Radioecol** 1998 Jul–Aug; 38(4):488–94 (Eng. Abstr.) **(Rus)**

[Quantitative analysis of inducible systems of Escherichia coli and Bacillus subtilis using radioimmunological methods] Suslov AV, et al. **Radiats Biol Radioecol** 1998 Jul–Aug; 38(4):495–501 (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Construction and validation of yeast artificial chromosome contig maps by RecA-assisted restriction endonuclease cleavage. Lauer P, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11318–23

RECA PROTEIN see **REC A PROTEIN**

RECALL

Masked form priming in writing words from pictures: evidence for direct retrieval of orthographic codes. Bonin P, et al. **Acta Psychol (Amst)** 1998 Sep;99(3):311–28

Parallel accounts? Discrepancies between self–report (diary) and recall (questionnaire) measures of the same sexual behaviour. Coxon AP. **AIDS Care** 1999 Apr;11(2):221–34

Effects of cues on memory in alcoholics and controls. Nixon SJ, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):1065–9

What makes alcohol-dependent individuals early in abstinence crave for alcohol: exposure to the drink, images of drinking, or remembrance of drinks past? Weinstein A, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1376–81

Hypnosis enhances recall memory: a test of forced and non-forced conditions. Fligstein D, et al. **Am J Clin Hypn** 1998 Apr;40(4):297–305

How accurate is male recall of reproductive information? Coughlin MT, et al. **Am J Epidemiol** 1998 Oct 15; 148(8):806–9

Reliability of recall of physical activity in the distant past. Falkner KL, et al. **Am J Epidemiol** 1999 Jul 15; 150(2):195–205

Validity of dietary recall over 20 years among California Seventh-day Adventists. Fraser GE, et al. **Am J Epidemiol** 1998 Oct 15;148(8):810–8

Ethnic disparities in patient recall of physician recommendations of diagnostic and treatment procedures for coronary disease [published erratum appears in Am J Epidemiol 1999 Mar 1;149(5):489] Sanderson BK, et al. **Am J Epidemiol** 1998 Oct 15;148(8):741–9

Patient recall and appropriate timing for obtaining informed consent for endoscopic procedures. Proctor DD, et al. **Am J Gastroenterol** 1999 Apr;94(4):967–71

Use of a life events calendar approach to elicit occupational history from farmers. Hoppin JA, et al. **Am J Ind Med** 1998 Nov;34(5):470–6

Is the phonological loop responsible for intelligence–related differences in forward digit span? Conners FA, et al. **Am J Ment Retard** 1998 Jul;103(1):1–11

Spatial but not object memory impairments in children with fetal alcohol syndrome. Uecker A, et al. **Am J Ment Retard** 1998 Jul;103(1):12–8

Incorrect recall of residual risk three years after carrier screening for cystic fibrosis: a comparison of two-step and couple screening. Marteau TM, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):165–9

Immediate recall of oral contraceptive instructions: implications for providers. Rickert VI, et al. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 1):1399–406

Estimating energy intake of urban women in Colombia: comparison of diet records and recalls. Dufour DL, et al. **Am J Phys Anthropol** 1999 Jan;108(1):53–63

Word recall in schizophrenia: a connectionist model. Nestor PG, et al. **Am J Psychiatry** 1998 Dec;155(12):1685–90

Induced recall of film music: an overlooked mirror of transference–countertransference interactions. Diaz de Chumaceiro CL. **Am J Psychoanal** 1998 Sep;58(3):317–27

The role of prior knowledge and elaboration in text comprehension and memory: a comparison of self–generated elaboration and text–provided elaboration. Kim SI, et al. **Am J Psychol** 1998 Fall;111(3):353–78

The contributions of source misattributions, acquiescence, and response bias to children's false memories. McBrien CM, et al. **Am J Psychol** 1998 Winter;111(4):509–28

Auditory recall and response to command during recovery from propofol anaesthesia. Williams ML, et al. **Anaesth Intensive Care** 1999 Jun;27(3):265–8

A gastronomic airway assessment [letter] Sanai L. **Anaesthesia** 1999 Mar;54(3):309

Awareness with recall during general anesthesia [letter; comment] Metz S. **Anesth Analg** 1998 Dec;87(6):1459–60 . Comment on: Anesth Analg 1998 May;86(5):1084–9.

The effect of pain on memory for affective words. Kuhajda MC, et al. **Ann Behav Med** 1998 Winter;20(1):31–5

Reliability of the timeline follow-back sexual behavior interview. Weinhardt LS, et al. **Ann Behav Med** 1998 Winter;20(1):25-30

Brief recall tasks and memory assessment in Alzheimer's disease. Kaltreider LB, et al. **Appl Neuropsychol** 1999; 6(3):165-9

The effect of importance level, delay, and rate of forgetting on prose recall in multiple sclerosis. Lokken K, et al. **Appl Neuropsychol** 1999;6(3):147-53

Does illness experience influence the recall of medical information? Krishnan B, et al. **Arch Dis Child** 1998 Dec; 79(6):514-5

Preliminary adaptation into Portuguese of a standardised picture set for the use in research and neuropsychological assessment. Pompéia S, et al. **Arq Neuropsiquiatr** 1998 Sep; 56(3A):366-74

Learning about categories that are defined by object-like stimuli despite impaired declarative memory. Reed JM, et al. **Behav Neurosci** 1999 Jun;113(3):411-9

Treatment of childhood memories: theory and practice. Arntz A, et al. **Behav Res Ther** 1999 Aug;37(8):715-40 (31 ref.)

Intrusive memories and depression in cancer patients. Brewin CR, et al. **Behav Res Ther** 1998 Dec;36(12):1131-42

Intrusive memories in depression and posttraumatic stress disorder. Reynolds M, et al. **Behav Res Ther** 1999 Mar; 37(3):201-15

Obsessive compulsive disorder, checking, and non-verbal memory: a neuropsychological investigation. Tallis F, et al. **Behav Res Ther** 1999 Feb;37(2):161-6

Memorizing and recalling spatial-temporal patterns in an oscillator model of the hippocampus. Borisyuk RM, et al. **Biosystems** 1998 Sep-Dec;48(1-3):3-10

The ability of odours to serve as state-dependent cues for real-world memories: can Viking smells aid the recall of Viking experiences? Aggleton JP, et al. **Br J Psychol** 1999 Feb;90 (Pt 1):1-7

An experimental investigation of the role of iconic gestures in lexical access using the tip-of-the-tongue phenomenon. Beattie G, et al. **Br J Psychol** 1999 Feb;90 (Pt 1):35-56

Collective memories, political violence and mental health in Northern Ireland. Cairns E, et al. **Br J Psychol** 1999 Feb; 90 (Pt 1):25-33

Experimental tests of prospective remembering: the influence of cue-event frequency on performance. Ellis J, et al. **Br J Psychol** 1999 Feb;90 (Pt 1):9-23

Gender differences in the dual-task effects on autobiographical memory retrieval during social problem solving. Goddard L, et al. **Br J Psychol** 1998 Nov;89 (Pt 4):611-27

Recognition hypermnesia with repeated trials: initial evidence for the alternative retrieval pathways hypothesis. Kazén M, et al. **Br J Psychol** 1999 Aug;90 (Pt 3):405-24

The differential effects of cueing on recall in Parkinson's disease and normal subjects. Knoke D, et al. **Brain Cogn** 1998 Nov;38(2):261-74

Everyday planning difficulties following traumatic brain injury: a role for autobiographical memory. Dritschel BH, et al. **Brain Inj** 1998 Oct;12(10):875-86

Children's recall of medical experiences: the impact of stress. Brown DA, et al. **Child Abuse Negl** 1999 Mar;23(3):209-16

Childhood abuse recollections in a nonclinical population: forgetting and secrecy. Fish V, et al. **Child Abuse Negl** 1999 Aug;23(8):791-802

The value of an aide memoire in the dermatology clinic. Dutton ES, et al. **Clin Exp Dermatol** 1999 Mar;24(2):57-9

Diagnostic recognition: task constraints, object information, and their interactions. Schyns PG. **Cognition** 1998 Jul; 67(1-2):147-79 (95 ref.)

Image-based object recognition in man, monkey and machine. Tarr MJ, et al. **Cognition** 1998 Jul;67(1-2):1-20 (80 ref.)

Limitations of the signal detection model of the remember-know paradigm: a reply to Hirshman [comment] Gardiner JM, et al. **Conscious Cogn** 1998 Jun;7(2):285-8. Comment on: Conscious Cogn 1998 Mar;7(1):103-7.

The role of overt rehearsal in enhanced conscious memory for emotional events. Guy SC, et al. **Conscious Cogn** 1999 Mar;8(1):114-22

Word-identification priming for ignored and attended words. Stone M, et al. **Conscious Cogn** 1998 Jun;7(2):238-58

Memory for medical emergencies experienced by 1- and 2-year-olds. Peterson C, et al. **Dev Psychol** 1998 Sep; 34(5):1059-72

Returning to the scene: reminders and context reinstatement enhance children's recall. Priestley G, et al. **Dev Psychol** 1999 Jul;35(4):1006-19

What develops in working memory? A life span perspective. Swanson HL. **Dev Psychol** 1999 Jul;35(4):986-1000

Hypnotic recall: a positive criterion in the differential diagnosis between epileptic and pseudoepileptic seizures. Kuyk J, et al. **Epilepsia** 1999 Apr;40(4):485-91

Evidence from a partial report task for forgetting in dynamic spatial memory. Gugerty L. **Hum Factors** 1998 Sep; 40(3):498-508

Repetition improves older and younger adult memory for automated appointment messages. Morrow D, et al. **Hum Factors** 1999 Jun;41(2):194-204

Influence of recall period on estimates of diarrhoea morbidity in infants in rural Tamil Nadu. Ramakrishnan R, et al. **Indian J Public Health** 1998 Jan-Mar;42(1):3-6

The effect of recall on estimation of incidence rates for injury in Ghana. Mock C, et al. **Int J Epidemiol** 1999 Aug; 28(4):750-5

Do health factors affect memory performance in old age? Jelicic M, et al. **Int J Geriatr Psychiatry** 1999 Jul; 14(7):572-6

Sequential stream segregation in the absence of spectral cues. Vliegen J, et al. **J Acoust Soc Am** 1999 Jan;105(1):339-46

Adolescents' recall of sexual behavior: consistency of self-report and effect of variations in recall duration. McFarlane M, et al. **J Adolesc Health** 1999 Sep; 25(3):199-206

Civic denial and the memory of war. Schafft G. **J Am Acad Psychoanal** 1998 Summer;26(2):255-72

Literacy and body fatness are associated with underreporting of energy intake in US low-income women using the multiple-pass 24-hour recall: a doubly labeled water study. Johnson RK, et al. **J Am Diet Assoc** 1998 Oct; 98(10):1136-40

Mathematics anxiety and working memory: support for the existence of a deficient inhibition mechanism. Hopko DR, et al. **J Anxiety Disord** 1998 Jul-Aug;12(4):343-55

A neural network explanation of posttraumatic stress disorder. Tryon WW. **J Anxiety Disord** 1998 Jul-Aug; 12(4):373-85 (45 ref.)

Retention interval and eyewitness memory for events and personal identifying attributes. Ebbesen EB, et al. **J Appl Psychol** 1998 Oct;83(5):745-62

Can self-reported encoding strategy and recognition skill be diagnostic of performance in eyewitness identifications? Olsson N, et al. **J Appl Psychol** 1999 Feb;84(1):42-9

Characteristics of early unpleasant dental experiences. Liddell A, et al. **J Behav Ther Exp Psychiatry** 1998 Sep; 29(3):227-37

The consistency of recalled age at first sexual intercourse. Dunne MP, et al. **J Biosoc Sci** 1997 Jan;29(1):1-7

Accuracy of recall of dyspnea after exercise training sessions. Stulbarg MS, et al. **J Cardiopulm Rehabil** 1999 Jul-Aug; 19(4):242-8

Local bias in autistic subjects as evidenced by graphic tasks: perceptual hierarchization or working memory deficit? Mottron L, et al. **J Child Psychol Psychiatry** 1999 Jul; 40(5):743-55

Modelling the training effects of kinaesthetic acuity measurement in children. Sims K, et al. **J Child Psychol Psychiatry** 1998 Jul;39(5):731-46

Accuracy of recall of occupational physical activity by questionnaire. Ainsworth BE, et al. **J Clin Epidemiol** 1999 Mar;52(3):219-27

Diet and the risk of breast cancer in a case-control study: does the threat of disease have an influence on recall bias? Männistö S, et al. **J Clin Epidemiol** 1999 May;52(5):429-39

Speed of elementary visual recognition operations in Parkinson's disease as measured by the mutual masking method. Bachmann T, et al. **J Clin Exp Neuropsychol** 1998 Feb;20(1):118-34

Validation of a new scoring system for the Weigl Color Form Sorting Test in a memory disorders clinic sample. Byrne LM, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):286-92

Memory performances in young, elderly, and very old healthy individuals versus patients with Alzheimer's disease: evidence for discontinuity between normal and pathological aging. Carlesimo GA, et al. **J Clin Exp Neuropsychol** 1998 Feb;20(1):14-29

Word production: dissociation of two retrieval modes of semantic memory across time. Fernaeus SE, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):137-43

Demographic influences on free and cued selective reminding performance in older persons. Grober E, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):221-6

Mayo's older Americans normative studies: category fluency norms. Lucas JA, et al. **J Clin Exp Neuropsychol** 1998 Apr; 20(2):194-200

Learning people's names following severe closed-head injury. Milders M. **J Clin Exp Neuropsychol** 1998 Apr; 20(2):237-44

Retrieving familiar people's names in patients with severe closed-head injuries. Milders MW, et al. **J Clin Exp Neuropsychol** 1999 Apr;21(2):171-85

Does memory test performance in children become more consistent with age? Cross-sectional comparisons using the WRAML. Wide Range Assessment of Memory and Learning. Putzke JD, et al. **J Clin Exp Neuropsychol** 1998 Dec;20(6):835-45

Impact of pediatric traumatic brain injury on components of verbal memory. Roman MJ, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):245-58

Implicit and explicit memory in children with traumatic brain injury. Shum D, et al. **J Clin Exp Neuropsychol** 1999 Apr; 21(2):149-58

Alteration of memory in the reduction of children's distress during repeated aversive medical procedures. Chen E, et al. **J Consult Clin Psychol** 1999 Aug;67(4):481-90

Children's memory for pain. Ornstein PA, et al. **J Dev Behav Pediatr** 1999 Aug;20(4):262-77 (100 ref.)

A comparison of memory for and attitudes about alcohol, cigarette, and other product advertisements in college students. Zinser O, et al. **J Drug Educ** 1999;29(2):175-85

Increment in reminiscing after ECT: possible connections to neuropsychologic changes [letter] Bachar E, et al. **J ECT** 1999 Jun;15(2):165-6

Psychophysics of remembering. White KG, et al. **J Exp Anal Behav** 1999 Jan;71(1):91-113

Augmentation of taste conditioning by a preconditioned odor. Batsell WR Jr, et al. **J Exp Psychol Anim Behav Process** 1999 Jul;25(3):374-88

Memory for the content of caches by scrub jays (Aphelocoma coerulescens). Clayton NS, et al. **J Exp Psychol Anim Behav Process** 1999 Jan;25(1):82-91

Comparator mechanisms and conditioned inhibition: conditioned stimulus preexposure disrupts Pavlovian conditioned inhibition but not explicitly unpaired inhibition. Friedman BX, et al. **J Exp Psychol Anim Behav Process** 1998 Oct;24(4):453-66

Latent inhibition and perceptual learning in a swimming-pool navigation task. Prados J, et al. **J Exp Psychol Anim Behav Process** 1999 Jan;25(1):37-44

Dimensions of mood in mood-dependent memory. Balch WR, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan; 25(1):70-83

Mental representations of perspective and spatial relations from diagrams and models. Bryant DJ, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):137-56

An analysis of item gains and losses in retroactive interference. Burns DJ, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jul;25(4):978-85

Contextual variability and serial position effects in free recall. Howard MW, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jul;25(4):923-41

Age, testing at preferred or nonpreferred times (testing optimality), and false memory. Intons-Peterson MJ, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):23-40

Rate of forgetting in amnesia: I. Recall and recognition of prose. Isaac CL, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jul;25(4):942-62 (75 ref.)

Rate of forgetting in amnesia: II. Recall and recognition of word lists at different levels of organization. Isaac CL, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jul;25(4):963-77

Ironic effects of repetition: measuring age-related differences in memory. Jacoby LL. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):3-22

Competitor priming in spoken word recognition. Monsell S, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov; 24(6):1495-520

The effects of perceptual interference at encoding on organization and order: investigating the roles of item-specific and relational information. Mulligan NW. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):54-69

Unusual modality effects in less-skilled readers. Penney CG, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):284-9

The relationship between skill learning and repetition priming: experimental and computational analyses. Poldrack RA, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):208-35

On the difference between strength-based and frequency-based mirror effects in recognition memory. Stretch V, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov;24(6):1379-96

Decision rules for recognition memory confidence judgments. Stretch V, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov;24(6):1397-410

Priming of visual and functional knowledge on a semantic classification task. Thompson-Schill SL, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):41-53

Time lines and computer-based visual editing: new techniques for assessing exposure in epidemiologic studies. Lawler-Heavner J, et al. **J Expo Anal Environ Epidemiol** 1999 Mar-Apr;9(2):150-7

Dangerous misidentification of people due to flashback phenomena in posttraumatic stress disorder. Silva JA, et al. **J Forensic Sci** 1998 Nov;43(6):1107-11

Observational learning and the use of retrieval information during the second and third years. Abravanel E, et al. **J Genet Psychol** 1998 Dec;159(4):455-76

The relationship between adult happiness and self-appraised childhood happiness and events. Freeman LJ, et al. **J Genet Psychol** 1999 Mar;160(1):46-54

The cognitive determinants of performance on the Austin Maze. Crowe SF, et al. **J Int Neuropsychol Soc** 1999 Jan; 5(1):1-9

Performance discrepancies on the California Verbal Learning Test-Children's Version in the standardization sample. Donders J. **J Int Neuropsychol Soc** 1999 Jan;5(1):26-31

Span of temporal continuity as a measure of personal and present existence [letter] Zakzanis KK, et al. **J Int Neuropsychol Soc** 1999 Jan;5(1):85-6

The effect of semantic and emotional context on written recall for verbal language in high functioning adults with autism spectrum disorder. Beversdorf DQ, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):685-92

Implicit memory in posttraumatic stress disorder with amnesia for the traumatic event. Krikorian R, et al. **J Neuropsychiatry Clin Neurosci** 1998 Summer;10(3):359-62

Unraveling social categorization in the "who said what?" paradigm. Klauer KC, et al. **J Pers Soc Psychol** 1998 Nov; 75(5):1155-78

Effects of ruminative and distracting responses to depressed mood on retrieval of autobiographical memories. Lyubomirsky S, et al. **J Pers Soc Psychol** 1998 Jul; 75(1):166-77

Tales of the unexpected: executive function and person perception. Macrae CN, et al. **J Pers Soc Psychol** 1999 Feb;76(2):200-13

Spontaneous trait transference to familiar communicators: is a little knowledge a dangerous thing? Mae L, et al.

J Pers Soc Psychol 1999 Aug;77(2):233–46

Temperament, recalled parenting styles, and self-regulation: testing the developmental postulates of self-discrepancy theory. Manian N, et al. **J Pers Soc Psychol** 1998 Nov; 75(5):1321–32

The actor as context for social judgments: effects of prior impressions and stereotypes. Stewart TL, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1132–54

A comparison of two methods of dietary assessment in peritoneal dialysis patients. Griffiths A, et al. **J Ren Nutr** 1999 Jan;9(1):26–31

Validation of 24-hour dietary recall: a study in hemodialysis patients. Sharma M, et al. **J Ren Nutr** 1998 Oct;8(4):199–202

Dreaming and insomnia: dream recall and dream content of patients with insomnia. Schredl M, et al. **J Sleep Res** 1998 Sep;7(3):191–8

Intergroup biases and eyewitness testimony. Lindholm T, et al. **J Soc Psychol** 1998 Dec;138(6):710–23

Using qualitative methods to elicit recall of a critical time period. Hatch M, et al. **J Womens Health** 1999 Mar; 8(2):269–77

False memories, lasting scars [news] Lamberg L. **JAMA** 1999 Jul 21;282(3):224

Informed consent: what did the doctor say? [letter; comment] Gattellari M, et al. **Lancet** 1999 May 15;353(9165):1713. Comment on: Lancet 1999 Feb 20;353(9153):645.

Informed consent: what did the doctor say? [letter; comment] Heneghan C. **Lancet** 1999 May 15;353(9165):1713. Comment on: Lancet 1999 Feb 20;353(9153):645.

Patients' ability to recall risk associated with treatment options [letter] [see comments] [published erratum appears in Lancet 1999 Jun 19;353(9170):2164] Lloyd AJ, et al. **Lancet** 1999 Feb 20;353(9153):645. Comment in: Lancet 1999 May 15;353(9165):1713.

Interviewing preschoolers: comparisons of yes/no and wh-questions. Peterson C, et al. **Law Hum Behav** 1999 Oct; 23(5):539–55

Identification accuracy of children versus adults: a meta-analysis. Pozzulo JD, et al. **Law Hum Behav** 1998 Oct;22(5):549–70

Obtaining witness statements: the psychology, best practice and proposals for innovation. Milne B, et al. **Med Sci Law** 1999 Apr;39(2):127–38 (49 ref.)

The prototype effect in face recognition: extension and limits. Cabeza R, et al. **Mem Cognit** 1999 Jan;27(1):139–51

Further evidence for sublexical components in implicit memory for novel words. Dorfman J. **Mem Cognit** 1998 Nov;26(6):1157–72

The role of attention and study time in explicit and implicit memory for unfamiliar visual stimuli. Ganor-Stern D, et al. **Mem Cognit** 1998 Nov;26(6):1187–95

Shades of the mirror effect: recognition of faces with and without sunglasses. Hockley WE, et al. **Mem Cognit** 1999 Jan;27(1):128–38

Familiarity and recollection in item and associative recognition. Hockley WE, et al. **Mem Cognit** 1999 Jul; 27(4):657–64

Source of arousal and memory for detail. Libkuman TM, et al. **Mem Cognit** 1999 Jan;27(1):166–90

The inadvertent use of prior knowledge in a generative cognitive task. Marsh RL, et al. **Mem Cognit** 1999 Jan; 27(1):94–105

More than meets the eye: context effects in word identification. Masson ME, et al. **Mem Cognit** 1998 Nov; 26(6):1245–69

Focus as a contextual priming mechanism in reading. Morris RK, et al. **Mem Cognit** 1998 Nov;26(6):1313–22

The importance of semantic similarity to the irrelevant speech effect. Neely CB, et al. **Mem Cognit** 1999 Jan;27(1):37–44

Effects of similarity and practice on speeded classification response times and accuracies: further tests of an exemplar-retrieval model. Nosofsky RM, et al. **Mem Cognit** 1999 Jan;27(1):78–93

A beautiful day in the neighborhood: what factors determine the generation effect for simple multiplication problems? Pesta BJ, et al. **Mem Cognit** 1999 Jan;27(1):106–15

Name or hum that tune: feeling of knowing for music. Peynircioğlu ZF, et al. **Mem Cognit** 1998 Nov;26(6):1131–7

Manipulation of familiarity reveals a necessary lexical component of the word-stem completion priming effect. Postle BR, et al. **Mem Cognit** 1999 Jan;27(1):12–25

Assessing the accuracy of conflicting autobiographical memories. Ross M, et al. **Mem Cognit** 1998 Nov; 26(6):1233–44

Implicit memory for phonological processes in visual stem completion. Rueckl JG, et al. **Mem Cognit** 1999 Jan; 27(1):1–11

Comparing naming, lexical decision, and eye fixation times: word frequency effects and individual differences. Schilling HH, et al. **Mem Cognit** 1998 Nov;26(6):1270–81

Context effects in visual word recognition: lexical relatedness and syntactic context. Schriefers H, et al. **Mem Cognit** 1998 Nov;26(6):1292–303

Repetition priming in simple addition depends on surface form and typicality. Sciama SC, et al. **Mem Cognit** 1999 Jan;27(1):116–27

Contrasting effects of age of acquisition and word frequency on auditory and visual lexical decision. Turner JE, et al. **Mem Cognit** 1998 Nov;26(6):1282–91

Independent reference frames in human spatial memory: body-centered and environment-centered coding in near and far space. Woodin ME, et al. **Mem Cognit** 1998 Nov; 26(6):1109–16

Illusory tip-of-the-tongue states. Schwartz BL. **Memory** 1998 Nov;6(6):623–42

Successive tests of pair recognition. Sikström SP. **Memory** 1998 Sep;6(5):531–54

Strategies for generating multiple instances of common and ad hoc categories. Vallée-Tourangeau F, et al. **Memory** 1998 Sep;6(5):555–92

People with mental retardation as witnesses in court: a review. Kebbell MR, et al. **Ment Retard** 1999 Jun; 37(3):179–87 (75 ref.)

Sexual abuse and recovered memories [letter; comment] Coney S. **N Z Med J** 1998 Oct 23;111(1076):415–6. Comment on: N Z Med J 1998 Jun 26;111(1068):225–8.

Spatial working memory and reference memory of Brown Norway and WAG rats in a holeboard discrimination task. van der Staay FJ. **Neurobiol Learn Mem** 1999 Jan; 71(1):113–25

Delayed recall in dementia: sensitivity and specificity in patients with higher than average general intellectual abilities. Swearer JM, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):200–6

Validity of a semantically cued recall procedure for the mini-mental state examination [published erratum appears in Neuropsychiatry Neuropsychol Behav Neurol 1999 Jan;12(1):80] Yuspeh RL, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):207–11

Picture naming and progression of Alzheimer's disease: an analysis of error types. Barbarotto R, et al. **Neuropsychologia** 1998 May;36(5):397–405

Impaired word-stem completion priming but intact perceptual identification priming with novel words: evidence from the amnesic patient H.M. Postle BR, et al. **Neuropsychologia** 1998 May;36(5):421–40

Exploring biases in self-reported exercising behavior heuristics based on recency, frequency, and preference. Matt GE, et al. **Percept Mot Skills** 1999 Feb;88(1):126–8

Earwitness recall and identification: comparison of the cognitive interview and the structured interview. Memon A, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):797–807

Some relationships between skills in word-category recall and factors in adults' aphasia. Sommers RK. **Percept Mot Skills** 1998 Aug;87(1):187–98

Prevalence of auditory, olfactory, and gustatory experiences in home dreams. Zadra AL, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):819–26

Effects of talker, rate, and amplitude variation on recognition memory for spoken words. Bradlow AR, et al. **Percept Psychophys** 1999 Feb;61(2):206–19

The analysis of orientation-dependent time costs in visual recognition. Leek EC. **Perception** 1998;27(7):803–16

A study of the efficacy of a comprehensive memory enhancement program in healthy elderly persons. Mohs RC, et al. **Psychiatry Res** 1998 Feb 27;77(3):183–95

A molar entropy model of age differences in spatial memory. Allen PA, et al. **Psychol Aging** 1998 Sep;13(3):501–18

The attentional demands of encoding and retrieval in younger and older adults: 1. Evidence from divided attention costs. Anderson ND, et al. **Psychol Aging** 1998 Sep;13(3):405–23

Identification of speeded and slowed familiar melodies by younger, middle-aged, and older musicians and nonmusicians. Andrews MW, et al. **Psychol Aging** 1998 Sep; 13(3):462–71

The impact of attitudes on memory: an affair to remember. Eagly AH, et al. **Psychol Bull** 1999 Jan;125(1):64–89

Recall of obstetric events by mothers of schizophrenic patients. Cantor-Graae E, et al. **Psychol Med** 1998 Sep; 28(5):1239–43

Recollections of parental behaviour, adult attachment and mental health: mediating and moderating effects. Gittleman MG, et al. **Psychol Med** 1998 Nov;28(6):1443–55 (46 ref.)

Modeling precognitive dreams as meaningful coincidences. Houran J, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1411–4

Sentences and rehearsals increase rated similarity: support for assimilation-in-salience theory. King DL. **Psychol Rep** 1999 Jun;84(3 Pt 2):1253–66

Estimating vaccination coverage using parental recall, vaccination cards, and medical records. Bolton P, et al. **Public Health** 1998 Nov-Dec;113(6):521–6

Estimating vaccination coverage using parental recall, vaccination cards, and medical records [see comments] Bolton P, et al. **Public Health Rep** 1998 Nov-Dec; 113(6):521–6. Comment in: Public Health Rep 1999 Jan-Feb;114(1):3–4.

Random generation and the executive control of working memory. Baddeley A, et al. **Q J Exp Psychol A** 1998 Nov; 51(4):819–52

Determinants of positive and negative generation effects in free recall. Steffens MC, et al. **Q J Exp Psychol A** 1998 Nov;51(4):705–33 (62 ref.)

Simultaneous and delayed matching to sample in gesture users and speakers with mental retardation. Brady NC, et al. **Res Dev Disabil** 1998 Sep-Oct;19(5):409–21

A strategy for screening memory functions in individuals with mental retardation. McDaniel WF, et al. **Res Dev Disabil** 1998 Jul-Aug;19(4):317–25

A mnemonic for the recall of causes of electro-mechanical dissociation (EMD). Rosenberg D, et al. **Resuscitation** 1999 Jan;40(1):57

The link between knowledge and remembering in Alzheimer's disease. Bäckman L. **Scand J Psychol** 1998 Sep; 39(3):131–9 (60 ref.)

Interactions of language and memory in deaf children and adults. Marschark M, et al. **Scand J Psychol** 1998 Sep; 39(3):145–8 (26 ref.)

Evaluation of questionnaire-based information on previous physical work loads. Stockholm MUSIC 1 Study Group. Musculoskeletal Intervention Center. Torgén M, et al. **Scand J Work Environ Health** 1999 Jun;25(3):246–54

Increased repetition blindness in schizophrenia patients and first-degree relatives of schizophrenia patients. Park S, et al. **Schizophr Res** 1998 Jun 22;32(1):59–62

Forgetting as a cause of incomplete reporting of sexual and drug injection partners. Brewer DD, et al. **Sex Transm Dis** 1999 Mar;26(3):166–76

Recall and attitudes in patients with prostate cancer. Miles BJ, et al. **Urology** 1999 Jan;53(1):169–74

[Attention deficit disorders and memory capacity in children with language delay and in normal children] Lauth GW, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Apr; 48(4):260–72 (Eng. Abstr.) **(Ger)**

[Forgetting of word associations in relation to indicators of emotionality. A possibility for evaluating Freud's concept of repression?] Köhler T, et al. **Psychother Psychosom Med Psychol** 1999 Feb;49(2):64–7 (Eng. Abstr.) **(Ger)**

[Small world (editorial)] Hürny C, et al. **Ther Umsch** 1999 Feb;56(2):65 **(Ger)**

[Recollections of ventilated patients after a stay in the intensive care unit] Rosé D, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):148–52 (Eng. Abstr.) **(Ger)**

[Personal biography in the aging process and attitude to personal biography in social work with the elderly] Schweppe C. **Z Gerontol Geriatr** 1998 Oct;31(5):325–30 (35 ref.) (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Impairment of semantic and figural memory by acute ethanol: age-dependent effects. Acheson SK, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7):1437–42

The effect of the interaction of propofol and alfentanil on recall, loss of consciousness, and the Bispectral Index. Iselin-Chaves IA, et al. **Anesth Analg** 1998 Oct; 87(4):949–55

Increased reading speed for stories presented during general anesthesia [see comments] Münte S, et al. **Anesthesiology** 1999 Mar;90(3):662–9. Comment in: Anesthesiology 1999 Mar;90(3):648–50.

Clinical and immunological responses in subjects sensitive to solvents. Little CH, et al. **Arch Environ Health** 1999 Jan-Feb;54(1):6–14

Learning versus performance impairments following regional administration of MK-801 into nucleus accumbens and dorsomedial striatum. Cory-Slechta DA, et al. **Behav Brain Res** 1999 Jul;102(1-2):181–94

Early postnatal treatment with peptide preparations influences spatial navigation of young and adult rats. Gschanes A, et al. **Behav Brain Res** 1999 Apr; 100(1-2):161–6

Effect of chronic nimodipine on spatial learning and on long-term potentiation. Kane KA, et al. **Behav Brain Res** 1999 Jan;98(1):95–101

Sensitivity to cholinergic drug treatments of aged rats with variable degrees of spatial memory impairment. Stemmelin J, et al. **Behav Brain Res** 1999 Jan;98(1):53–66

Postacquisition scopolamine treatments reveal the time course for the formation of lamb odor recognition memory in parturient ewes. Ferreira G, et al. **Behav Neurosci** 1999 Feb;113(1):136–42

Intrahippocampal infusions of a metabotropic glutamate receptor antagonist block the memory of context-specific but not tone-specific conditioned fear. Frohardt RJ, et al. **Behav Neurosci** 1999 Feb;113(1):222–7

Dose-dependent action of glucose on memory processes in women: effect on serial position and recall priority. Messier C, et al. **Brain Res Cogn Brain Res** 1998 Oct;7(2):221–33

Conditions under which lorazepam can facilitate retrieval. File SE, et al. **J Clin Psychopharmacol** 1999 Aug; 19(4):349–53

Effects of TRH administration on orientation time and recall after ECT. Zervas IM, et al. **J ECT** 1998 Dec;14(4):236–40

Effects of D-cycloserine, a positive modulator of N-methyl-D-aspartate receptors, and ST 587, a putative alpha-1 adrenergic agonist, individually and in combination, on the non-delayed and delayed foraging behaviour of rats assessed in the radial arm maze. Pussinen R, et al. **J Psychopharmacol** 1999;13(2):171–9

5-HT1A receptor agonist (8-OH-DPAT) and 5-HT2 receptor agonist (DOI) disrupt the non-cognitive performance of rats in a working memory task. Ruotsalainen S, et al. **J Psychopharmacol** 1998;12(2):177–85

Stimulators of the cAMP cascade reverse amnesia induced by intra-amygdala but not intrahippocampal KN-62 administration. Barros DM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):94–103

Chloramphenicol-induced amnesia for passive avoidance training in the day-old chick. Freeman FM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):80–93

Attenuation of morphine-induced behavioral changes in rodents by D- and L-glucose. Talley CP, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):62–79

Scopolamine impairs memory recall in Octopus vulgaris. Fiorito G, et al. **Neurosci Lett** 1998 Sep 4;253(2):87–90
CGP 42112A antagonism of the angiotensin II and angiotensin II(3–7) facilitation of recall in rats. Braszko JJ, et al. **Pharmacol Res** 1998 Dec;38(6):461–8
Protective effect of acidic fibroblast growth factor against ischemia–induced learning and memory deficits in two tasks in gerbils. Li AJ, et al. **Physiol Behav** 1999 Jun;66(4):577–83
The influence of a glucose drink on a demanding working memory task. Martin PY, et al. **Physiol Behav** 1999 Aug 1;67(1):69–74
Breakfast cereal and caffeinated coffee: effects on working memory, attention, mood, and cardiovascular function. Smith AP, et al. **Physiol Behav** 1999 Aug 1;67(1):9–17
Two weeks of transdermal estradiol treatment in postmenopausal elderly women and its effect on memory and mood: verbal memory changes are associated with the treatment induced estradiol levels. Wolf OT, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):727–41
Effects of dizocilpine (MK–801) on motor activity and memory. Carey RJ, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):241–6
Glucose and memory: fractionation of enhancement effects? Foster JK, et al. **Psychopharmacology (Berl)** 1998 Jun; 137(3):259–70
Memory deficits associated with recreational use of "ecstasy" (MDMA). Morgan MJ. **Psychopharmacology (Berl)** 1999 Jan;141(1):30–6
Glucose–induced increase in memory performance in patients with schizophrenia. Newcomer JW, et al. **Schizophr Bull** 1999;25(2):321–35

PHYSIOLOGY

Increased reading speed for stories presented during general anesthesia [see comments] Münte S, et al. **Anesthesiology** 1999 Mar;90(3):662–9. Comment in: Anesthesiology 1999 Mar;90(3):648–50.
Affective verbal memory in patients with temporal lobe epilepsy. Burton LA, et al. **Appl Neuropsychol** 1999; 6(2):115–20
Verb naming in normal aging. Ramsay CB, et al. **Appl Neuropsychol** 1999;6(2):57–67
Control of resolution and perception in working memory. Cartling B. **Behav Brain Res** 1999 Apr;100(1–2):255–71
Strain–dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17–26
Ibotenate lesions of the hippocampus impair spatial learning but not contextual fear conditioning in mice. Cho YH, et al. **Behav Brain Res** 1999 Jan;98(1):77–87
Long–term reversal of hemispheric specialization for visual memory in a split–brain macaque. Doty RW, et al. **Behav Brain Res** 1999 Jul;102(1–2):99–113
Central serotonin depletion impairs both the acquisition and performance of a symmetrically reinforced go/no–go conditional visual discrimination. Harrison AA, et al. **Behav Brain Res** 1999 Apr;100(1–2):99–112
Stress impairs performance in spatial water maze learning tasks. Hölscher C. **Behav Brain Res** 1999 Apr; 100(1–2):225–35
Basal forebrain damage and object–recognition in rats. Kornecook TJ, et al. **Behav Brain Res** 1999 Jan;98(1):67–76
The role of the agranular insular cortex in working memory for food reward value and allocentric space in rats. Ragozzino ME, et al. **Behav Brain Res** 1999 Jan; 98(1):103–12
Effects of mammillary body lesions on spatial reference and working memory tasks. Santín LJ, et al. **Behav Brain Res** 1999 Jul;102(1–2):137–50
Disrupted allocentric but preserved egocentric spatial learning in transgenic mice with impaired glucocorticoid receptor function. Steckler T, et al. **Behav Brain Res** 1999 Apr;100(1–2):77–89
Learning and anxiety in angiotensin–deficient mice. Walther T, et al. **Behav Brain Res** 1999 Apr;100(1–2):1–4
Differential deficits in the Morris water maze following cytotoxic lesions of the anterior thalamus and fornix transection. Warburton EC, et al. **Behav Brain Res** 1999 Jan;98(1):27–38
Forebrain serotonin depletion facilitates the acquisition and performance of a conditional visual discrimination task in rats. Ward BO, et al. **Behav Brain Res** 1999 Apr; 100(1–2):51–65
Motor learning by imagery is differentially affected in Parkinson's and Huntington's diseases. Yágüez L, et al. **Behav Brain Res** 1999 Jul;102(1–2):115–27
Hippocampectomized rats are capable of homing by path integration. Alyan S, et al. **Behav Neurosci** 1999 Feb; 113(1):19–31
Functional interaction between entorhinal cortex and basolateral amygdala during trace conditioning of odor aversion in the rat. Ferry B, et al. **Behav Neurosci** 1999 Feb;113(1):118–25
Place memory is intact in rats with perirhinal cortex lesions. Glenn MJ, et al. **Behav Neurosci** 1998 Dec;112(6):1353–65
Impaired allocentric spatial working memory and intact retrograde memory after thalamic damage caused by thiamine deficiency in rats. Mumby DG, et al. **Behav Neurosci** 1999 Feb;113(1):42–50
Interactive contributions of intracellular calcium and protein phosphatases to massed–trials learning deficits in Hermissenda. Muzzio IA, et al. **Behav Neurosci** 1999 Feb; 113(1):103–17
The dopaminergic modulation of fear: quinpirole impairs the recall of emotional memories in rats. Nader K, et al. **Behav Neurosci** 1999 Feb;113(1):152–65
Effects of lesions of thalamic intralaminar and midline nuclei and internal medullary lamina on spatial memory and object discrimination. Savage LM, et al. **Behav Neurosci** 1998 Dec; 112(6):1339–52
Olfactory function in the human fetus: evidence from selective neonatal responsiveness to the odor of amniotic fluid. Schaal B, et al. **Behav Neurosci** 1998 Dec; 112(6):1438–49
Analyzing estimates of automatic and conscious retrieval in between– and within–subjects designs. Horton KD, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):347–52
Fractional end–tidal CO2 as an index of the effects of stress on math performance and verbal memory of test–anxious adolescents. Ley R, et al. **Biol Psychol** 1998 Sep; 49(1–2):83–94
Episodic retrieval activates the precuneus irrespective of the imagery content of word pair associates. A PET study. Krause BJ, et al. **Brain** 1999 Feb;122 (Pt 2):255–63
Paradoxical facilitation of a free recall of nonwords in persons with traumatic brain injury. Toomela A, et al. **Brain Cogn** 1999 Apr;39(3):187–201
Priming and aging: an electrophysiological investigation of N400 and recall. Gunter TC, et al. **Brain Lang** 1998 Nov; 65(2):333–55
Reversible inactivation of the median raphe nucleus enhances consolidation and retrieval but not acquisition of passive avoidance learning in rats. Sarihi A, et al. **Brain Res** 1999 Jan 30;817(1–2):59–66
Event–related potential studies of associative recognition and recall: electrophysiological evidence for context dependent retrieval processes. Donaldson DI, et al. **Brain Res Cogn Brain Res** 1999 May;8(1):1–16
A spatio–temporal comparison of semantic and episodic cued recall and recognition using event–related brain potentials. Johnson R Jr, et al. **Brain Res Cogn Brain Res** 1998 Oct; 7(2):119–36
Functional hemispheric asymmetry assessment in a visual language task using MEG. Zouridakis G, et al. **Brain Topogr** 1998 Fall;11(1):57–65
Acting out the details of a pediatric check–up: the impact of interview condition and behavioral style on children's memory reports. Greenhoot AF, et al. **Child Dev** 1999 Mar–Apr;70(2):363–80
Developmental and individual differences in children's on–line representations of dynamic social events. Milch–Reich S, et al. **Child Dev** 1999 Mar–Apr; 70(2):413–31
Neural models of memory. Hasselmo ME, et al. **Curr Opin Neurobiol** 1999 Apr;9(2):184–8 (54 ref.)
Children's recall 1 or 2 years after an event. Pipe ME, et al. **Dev Psychol** 1999 May;35(3):781–9
The APOE epsilon4 allele is associated with decline on delayed recall performance in community–dwelling older adults [see comments] O'Hara R, et al. **J Am Geriatr Soc** 1998 Dec;46(12):1493–8. Comment in: J Am Geriatr Soc 1998 Dec;46(12):1578–9.
Relative timing of neuronal activity in distinct temporal lobe areas during a recognition memory task for words. Breier JI, et al. **J Clin Exp Neuropsychol** 1998 Dec;20(6):782–90
Reconstructive memory bias in recall of neuropsychological symptomatology. Hilsabeck RC, et al. **J Clin Exp Neuropsychol** 1998 Jun;20(3):328–38
Declarative and procedural learning, quantitative measures of the hippocampus, and subcortical white alterations in Alzheimer's disease and ischaemic vascular dementia. Libon DJ, et al. **J Clin Exp Neuropsychol** 1998 Feb; 20(1):30–41
The effects of misleading and inconsistent postevent information on children's recollections of criterion–learned information. Lee K, et al. **J Exp Child Psychol** 1999 Jul; 73(3):161–82
Locus of control and the age difference in free recall from episodic memory. Amrhein PC, et al. **J Gen Psychol** 1999 Apr;126(2):149–64
Influences of age, performance, and item relatedness on verbatim and gist recall of verb–noun pairs. Earles JL, et al. **J Gen Psychol** 1999 Jan;126(1):97–110
The properties of one: facial memory and the isolation effect. Main KM, et al. **J Gen Psychol** 1998 Apr;125(2):192–206
Hypermnesia for prose. Otani H, et al. **J Gen Psychol** 1998 Apr;125(2):147–55
Episodic and semantic contributions to older adults' autobiographical recall. Rybash JM, et al. **J Gen Psychol** 1999 Jan;126(1):85–96
Phonological and orthographic processing of Hebrew words: electrophysiological aspects. Barnea A, et al. **J Genet Psychol** 1998 Dec;159(4):492–504
Longitudinal changes in quantitative and qualitative indicators of word and story recall in young–old and old–old adults. Small BJ, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):P107–15
Reorganization of verbal memory and language: a case of dissociation. Wood AG, et al. **J Int Neuropsychol Soc** 1999 Jan;5(1):69–74
Selective sparing of topographical memory. Maguire EA, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):903–9
Recollection and familiarity in recognition memory: an event–related functional magnetic resonance imaging study. Henson RN, et al. **J Neurosci** 1999 May 15; 19(10):3962–72
Theta/gamma networks with slow NMDA channels learn sequences and encode episodic memory: role of NMDA channels in recall. Jensen O, et al. **Learn Mem** 1996 Sep–Oct;3(2–3):264–78
Facilitation and impairment of event memory produced by photograph review. Koutstaal W, et al. **Mem Cognit** 1999 May;27(3):478–93
Strategies for estimating behavioural frequency in survey interviews. Conrad FG, et al. **Memory** 1998 Jul;6(4):339–66
Remembered saccades with variable delay in Parkinson's disease. Shaunak S, et al. **Mov Disord** 1999 Jan;14(1):80–6
Impaired recruitment of the hippocampus during conscious recollection in schizophrenia [see comments] Heckers S, et al. **Nat Neurosci** 1998 Aug;1(4):318–23. Comment in: Nat Neurosci 1998 Aug;1(4):266–7.
Recall of old and recent information. Srivastava V, et al. **Network** 1998 May;9(2):159–66
Passive avoidance training and recall are associated with increased glutamate levels in the intermediate medial hyperstriatum ventrale of the day–old chick. Daisley JN, et al. **Neural Plast** 1998 Jul–Sep;6(3):53–61
Age–related shift in brain region activity during successful memory performance. Hazlett EA, et al. **Neurobiol Aging** 1998 Sep–Oct;19(5):437–45
Memory improvement by post–trial injection of lidocaine into the tuberomammillary nucleus, the source of neuronal histamine. Frisch C, et al. **Neurobiol Learn Mem** 1999 Sep; 72(2):69–77
The "anxiety state" and its relation with rat models of memory and habituation. Ribeiro RL, et al. **Neurobiol Learn Mem** 1999 Sep;72(2):78–94
The functional neuroanatomy of episodic memory: the role of the frontal lobes, the hippocampal formation, and other areas. Desgranges B, et al. **Neuroimage** 1998 Aug; 8(2):198–213 (120 ref.)
A study of injected dose for brain mapping on the ECAT HR+: activation maps for a parametric verbal working memory task. Isoardi RA, et al. **Neuroimage** 1999 Jan; 9(1):145–53
Brain activation during word identification and word recognition. Jernigan TL, et al. **Neuroimage** 1998 Jul; 8(1):93–105
Functional neuroanatomy of semantic memory: recognition of semantic associations. Ricci PT, et al. **Neuroimage** 1999 Jan;9(1):88–96
Neural correlates of memory retrieval during recognition memory and cued recall. Rugg MD, et al. **Neuroimage** 1998 Oct;8(3):262–73
Load–dependent roles of frontal brain regions in the maintenance of working memory. Rypma B, et al. **Neuroimage** 1999 Feb;9(2):216–26
The effect of emotional content on visual recognition memory: a PET activation study. Taylor SF, et al. **Neuroimage** 1998 Aug;8(2):188–97
Quantitation of regional cerebral blood flow increases in prefrontal cortex during a working memory task: a steady–state arterial spin–tagging study. Ye FQ, et al. **Neuroimage** 1998 Jul;8(1):44–9
Relating hippocampal circuitry to function: recall of memory sequences by reciprocal dentate–CA3 interactions. Lisman JE. **Neuron** 1999 Feb;22(2):233–42 (78 ref.)
Executive processes in Parkinson's disease––random number generation and response suppression. Brown RG, et al. **Neuropsychologia** 1998 Dec;36(12):1355–62
Recognition memory for new associations: electrophysiological evidence for the role of recollection. Donaldson DI, et al. **Neuropsychologia** 1998 May; 36(5):377–95
Recall and recognition memory in patients with focal frontal, temporal lobe and diencephalic lesions. Kopelman MD, et al. **Neuropsychologia** 1998 Aug;36(8):785–95
On the modularity of recognition memory for object form and spatial location: a topographic ERP analysis. Mecklinger A. **Neuropsychologia** 1998 May;36(5):441–60
Identification without manipulation: a study of the relations between object use and semantic memory. Moreaud O, et al. **Neuropsychologia** 1998 Dec;36(12):1295–301
Frequency judgements of abstract designs by patients with diencephalic, temporal lobe or frontal lobe lesions. Stanhope N, et al. **Neuropsychologia** 1998 Dec; 36(12):1387–96
Going, going, gone...? Implicit and explicit test of conceptual knowledge in a longitudinal study of semantic dementia. Tyler LK, et al. **Neuropsychologia** 1998 Dec;36(12):1313–23
Dissociation between recency and span: neuropsychological and experimental evidence. Della Sala S, et al. **Neuropsychology** 1998 Oct;12(4):533–45
Neural correlates of cued recall with and without retrieval of source memory. Allan K, et al. **Neuroreport** 1998 Oct 26;9(15):3463–6
Power of theta waves in the EEG of human subjects increases during recall of haptic information. Grunwald M, et al. **Neurosci Lett** 1999 Feb 5;260(3):189–92
The meaning of pain: cancer patients' rating and recall of pain intensity and affect. Smith WB, et al. **Pain** 1998 Nov; 78(2):123–9
Flanker recall and the flanker validity effect may reflect different attentional processes. Schmidt PA, et al. **Percept Psychophys** 1999 Apr;61(3):424–37

Age-induced cognitive alterations in OF1 mice. Carrié I, et al. **Physiol Behav** 1999 Jun;66(4):651–6
Place cells can flexibly terminate and develop their spatial firing. A new theory for their function. Ludvig N. **Physiol Behav** 1999 Aug 1;67(1):57–67
Investigation of facial recognition memory and happy and sad facial expression perception: an fMRI study. Phillips ML, et al. **Psychiatry Res** 1998 Sep 28;83(3):127–38
Separating habit and recollection in young and older adults: effects of elaborative processing and distinctiveness. Hay JF, et al. **Psychol Aging** 1999 Mar;14(1):122–34
Aging on the input versus output side: theoretical implications of age-linked asymmetries between detecting versus retrieving orthographic information. MacKay DG, et al. **Psychol Aging** 1999 Mar;14(1):3–17
Event-related functional MRI: implications for cognitive psychology. D'Esposito M, et al. **Psychol Bull** 1999 Jan; 125(1):155–64
The primacy model: a new model of immediate serial recall. Page MP, et al. **Psychol Rev** 1998 Oct;105(4):761–81
Contingent negative variation and cognitive performance in hypotension. Costa M, et al. **Psychophysiology** 1998 Nov; 35(6):737–44
Event-related potentials of verbal encoding into episodic memory: dissociation between the effects of subsequent memory performance and distinctiveness. Fernández G, et al. **Psychophysiology** 1998 Nov;35(6):709–20
The contralateral organization of visual memory: a theoretical concept and a research tool. Gratton G. **Psychophysiology** 1998 Nov;35(6):638–47 (60 ref.)
Memory changes with normal aging: behavioral and electrophysiological measures. Joyce CA, et al. **Psychophysiology** 1998 Nov;35(6):669–78
Semantic similarity and immediate serial recall: is there a detrimental effect on order information? Saint-Aubin J, et al. **Q J Exp Psychol A** 1999 May;52(2):367–94
Neuropsychological and oculomotor correlates of spatial working memory performance in schizophrenia patients and controls. Snitz BE, et al. **Schizophr Res** 1999 Jul 27; 38(1):37–50
Motor cortical encoding of serial order in a context-recall task [see comments] Carpenter AF, et al. **Science** 1999 Mar 12;283(5408):1752–7. Comment in: Science 1999 Mar 12;283(5408):1617–8.
Real-time tracking of memory formation in the human rhinal cortex and hippocampus [see comments] Fernández G, et al. **Science** 1999 Sep 3;285(5433):1582–5. Comment in: Science 1999 Sep 3;285(5433):1503–4.
Perspectives: neuroscience. Remembrance of things past [comment] Schacter DL, et al. **Science** 1999 Sep 3; 285(5433):1503–4. Comment on: Science 1999 Sep 3;285(5433):1582–5.
Memory for order found in the motor cortex [news; comment] Wickelgren I. **Science** 1999 Mar 12; 283(5408):1617,1619. Comment on: Science 1999 Mar 12;283(5408):1752–7.

RECEIVER OPERATING CHARACTERISTIC see **ROC CURVE**

RECEPTOR AGGREGATION

see related
RECEPTOR CROSS-TALK

Intrinsically fluorescent luteinizing hormone receptor demonstrates hormone-driven aggregation. Horvat RD, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):382–5
Involvement of receptor aggregation and reactive oxygen species in osmotic stress-induced Syk activation in B cells. Qin S, et al. **Biochem Biophys Res Commun** 1999 Aug 19; 262(1):231–6
Quantifying aggregation of IgE-FcepsilonRI by multivalent antigen. Hlavacek WS, et al. **Biophys J** 1999 May; 76(5):2421–31
Antibody-induced CD3-CD4 coligation inhibits TCR/CD3 activation in the absence of costimulatory signals in normal mouse CD4(+) T lymphocytes. Portolés P, et al. **Cell Immunol** 1999 Aug 1;195(2):96–109
Tyrosine phosphorylation/dephosphorylation controls capping of Fcgamma receptor II in U937 cells. Kwiatkowska K, et al. **Cell Motil Cytoskeleton** 1999; 42(4):298–314
Intracellular mechanisms of L-selectin induced capping. Junge S, et al. **Cell Signal** 1999 Apr;11(4):301–8
Role of abnormal integrin-cytoskeletal interactions in impaired beta1 integrin function in chronic myelogenous leukemia hematopoietic progenitors. Bhatia R, et al. **Exp Hematol** 1999 Sep;27(9):1384–96
Protection of cells from complement-mediated attack: CD59 receptor clustering for the entry of macromolecules into hematopoietic cells. Wojda U, et al. **Immunol Invest** 1999 Mar-May;28(2-3):127–35
Monocyte adhesion and spreading on human endothelial cells is dependent on Rho-regulated receptor clustering. Wójciak-Stothard B, et al. **J Cell Biol** 1999 Jun 14; 145(6):1293–307
Dual requirement for gephyrin in glycine receptor clustering and molybdoenzyme activity [see comments] Feng G, et al. **Science** 1998 Nov 13;282(5392):1321–4. Comment in: Science 1998 Nov 13;282(5392):1277–9.
Gathering glycine receptors at synapses [comment] Froehner SC. **Science** 1998 Nov 13;282(5392):1277–9. Comment on: Science 1998 Nov 13;282(5392):1321–4.

IMMUNOLOGY

Triggering of effector functions on a CD8+ T cell clone upon the aggregation of an activatory CD94/kp39 heterodimer. Bellón T, et al. **J Immunol** 1999 Apr 1; 162(7):3996–4002
Engagement of ICAM-3 activates polymorphonuclear leukocytes: aggregation without degranulation or beta 2 integrin recruitment. Feldhaus MJ, et al. **J Immunol** 1998 Dec 1;161(11):6280–7

PHYSIOLOGY

Thymocyte contact or monoclonal antibody-mediated clustering of 3beta1 or 6beta4 integrins activate interleukin-6 (IL-6) transcription factors (NF-kappaB and NF-IL6) and IL-6 production in human thymic epithelial cells. Ramarli D, et al. **Blood** 1998 Nov 15;92(10):3745–55
Surface aggregation patterns of LDL receptors near coated pits. I. The radially convective diffusion and generalized insertion mechanism. Solana-Arellano E, et al. **IMA J Math Appl Med Biol** 1998 Dec;15(4):351–66
Regulation of the size and distribution of agrin-induced postsynaptic-like apparatus in adult skeletal muscle by electrical muscle activity. Mathiesen I, et al. **Mol Cell Neurosci** 1999 Mar;13(3):207–17
Postsynaptic clustering of major GABAA receptor subtypes requires the gamma 2 subunit and gephyrin [see comments] Essrich C, et al. **Nat Neurosci** 1998 Nov;1(7):563–71. Comment in: Nat Neurosci 1998 Nov;1(7):541–3.
SAP90 binds and clusters kainate receptors causing incomplete desensitization. Garcia EP, et al. **Neuron** 1998 Oct;21(4):727–39
Clustering of AMPA receptors by the synaptic PDZ domain-containing protein PICK1. Xia J, et al. **Neuron** 1999 Jan;22(1):179–87

RECEPTOR-CD3 COMPLEX, ANTIGEN, T-CELL

see related
SIGNAL TRANSDUCTION

ANALYSIS

Type II collagen is a target antigen of clonally expanded T cells in the synovium of patients with rheumatoid arthritis. Sekine T, et al. **Ann Rheum Dis** 1999 Jul; 58(7):446–50
Engagement of T cell receptor triggers its recruitment to low-density detergent-insoluble membrane domains. Montixi C, et al. **EMBO J** 1998 Sep 15;17(18):5334–48

ANTAGONISTS & INHIBITORS

SLP-76 binding to p56lck: a role for SLP-76 in CD4-induced desensitization of the TCR/CD3 signaling complex. Sanzenbacher R, et al. **J Immunol** 1999 Sep 15; 163(6):3143–52

BIOSYNTHESIS

Expression of Tcf-1 mRNA and surface TCR-CD3 complexes are reduced during apoptosis of T cells. Jeon SH, et al. **Int Immunol** 1998 Oct;10(10):1519–27
Establishment and characterization of a human T-lymphocyte cell line immortalized by SV40 and with abnormal expression of TCR/CD3. Chatelut M, et al. **Scand J Immunol** 1998 Dec;48(6):659–66

GENETICS

Association of clonally expanded T cells with the syndrome of primary biliary cirrhosis and limited scleroderma. Mayo MJ, et al. **Hepatology** 1999 Jun;29(6):1635–42
In vivo somatic mutations in Werner's syndrome. Kyoizumi S, et al. **Hum Genet** 1998 Oct;103(4):405–10
T lymphocyte development in the absence of CD3 epsilon or CD3 gamma delta epsilon zeta. Wang B, et al. **J Immunol** 1999 Jan 1;162(1):88–94
Human immunodeficiency virus type 2 produces a defect in CD3-gamma gene transcripts similar to that observed for human immunodeficiency virus type 1. Segura I, et al. **J Virol** 1999 Jun;73(6):5207–13
Diverse T-cell receptor CDR3 length patterns in human CD4+ and CD8+ T lymphocytes from newborns and adults. Halapi E, et al. **Scand J Immunol** 1999 Feb; 49(2):149–54
ZAP-70 and defects of T-cell receptor signaling Elder ME. **Semin Hematol** 1998 Oct;35(4):310–20 (62 ref.)

IMMUNOLOGY

Function of the CD3 subunits of the pre-TCR and TCR complexes during T cell development. Malissen B, et al. **Adv Immunol** 1999;72:103–48 (198 ref.)
The adhesion of anti-CD3-activated mouse T cells to syngeneic colon adenocarcinoma cells is differentially regulated by protein tyrosine kinase-, protein kinase C-, and cAMP-dependent pathways in the effector cell. MacKenzie WM, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):460–5
Fc-dependent immune regulation. Enhancement and/suppression directed by antibody-engaging functional Fc receptors (FcR). Bell CG. **Biochem Soc Trans** 1998 Aug; 26(3):S200
Bispecific antibody fragments with CD20 X CD28 specificity allow effective autologous and allogeneic T-cell activation against malignant cells in peripheral blood and bone marrow cultures from patients with B-cell lineage leukemia and lymphoma. Brandl M, et al. **Exp Hematol** 1999 Aug; 27(8):1264–70
Lifespan of human memory T-cells in the absence of T-cell receptor expression. Umeki S, et al. **Immunol Lett** 1998 Jun;62(2):99–104
CD99 engagement on human peripheral blood T cells results in TCR/CD3-dependent cellular activation and allows for Th1-restricted cytokine production. Waclavicek M, et al. **J Immunol** 1998 Nov 1;161(9):4671–8
A yeast surface display system for the discovery of ligands that trigger cell activation. Cho BK, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):179–88

METABOLISM

Increased Zap-70 association with CD3zeta in CD4 T cells from old mice. Garcia GG, et al. **Cell Immunol** 1998 Dec 15;190(2):91–100
Co-ordinate expression of the pre-T-cell receptor complex and a novel immature thymocyte-specific antigen, IMT-1, during thymocyte development. Tong JJ, et al. **Immunology** 1999 Jan;96(1):48–56
Altered functional responsiveness of thymocyte subsets from CD3delta-deficient mice to TCR-CD3 engagement. Dave VP, et al. **Int Immunol** 1998 Oct;10(10):1481–90
Molecular mechanisms in the TCR (TCR alpha beta-CD3 delta epsilon, gamma epsilon) interaction with zeta 2 homodimers: clues from a 'phenotypic revertant' clone. Martin EP, et al. **Int Immunol** 1999 Jul;11(7):1005–15
Activation-induced apoptosis of mature T cells is dependent upon the level of surface TCR but not on the presence of the CD3 zeta ITAM. She J, et al. **Int Immunol** 1998 Nov;10(11):1733–40
Defective signal transduction via TCR-CD3 complex in patients with systemic lupus erythematosus. Takeuchi T, et al. **Intern Med** 1999 Feb;38(2):169 (6 ref.)
Specific CD3 epsilon association of a phosphodiesterase 4B isoform determines its selective tyrosine phosphorylation after CD3 ligation. Baroja ML, et al. **J Immunol** 1999 Feb 15;162(4):2016–23
Cytolytic T lymphocyte-associated antigen-4 and the TCR zeta/CD3 complex, but not CD28, interact with clathrin adaptor complexes AP-1 and AP-2. Schneider H, et al. **J Immunol** 1999 Aug 15;163(4):1868–79
Phosphorylation and coupling of zeta-chains to activated T-cell receptor (TCR)/CD3 complexes from peripheral blood T-cells of elderly humans. Whisler RL, et al. **Mech Ageing Dev** 1998 Sep 15;105(1-2):115–35
Overexpression of AML1 renders a T hybridoma resistant to T cell receptor-mediated apoptosis. Fujii M, et al. **Oncogene** 1998 Oct 8;17(14):1813–20

PHYSIOLOGY

The role of lysophosphatide acyltransferases and protein kinase C isoforms in the regulation of lymphocyte responses. Szamel M, et al. **Biochem Soc Trans** 1998 Aug; 26(3):370–4
A direct interaction between the adaptor protein Cbl-b and the kinase zap-70 induces a positive signal in T cells. Zhang Z, et al. **Curr Biol** 1999 Feb 25;9(4):203–6
Direct and rapid induction of migration in human CD4+ T lymphocytes within three-dimensional collagen matrices mediated by signalling via CD3 and/or CD2. Nikolai G, et al. **Immunology** 1998 Sep;95(1):62–8
Signals transduced by CD3epsilon, but not by surface pre-TCR complexes, are able to induce maturation of an early thymic lymphoma in vitro. Carleton M, et al. **J Immunol** 1999 Sep 1;163(5):2576–85
Differential CD5-dependent regulation of CD5-associated CK2 activity in mature and immature T cells: implication on TCR/CD3-mediated activation. Raman C, et al. **J Immunol** 1998 Dec 1;161(11):5817–20
SLP-76 binding to p56lck: a role for SLP-76 in CD4-induced desensitization of the TCR/CD3 signaling complex. Sanzenbacher R, et al. **J Immunol** 1999 Sep 15; 163(6):3143–52
Reduced generation but efficient TCR beta-chain selection of CD4+8+ double-positive thymocytes in mice with compromised CD3 complex signaling. Würch A, et al. **J Immunol** 1999 Mar 1;162(5):2741–7
Regulation of T cell receptor (TCR) beta gene expression by CD3 complex signaling in immature thymocytes: implications for TCRbeta allelic exclusion. Biro J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3882–7
ZAP-70 and defects of T-cell receptor signaling. Elder ME. **Semin Hematol** 1998 Oct;35(4):310–20 (62 ref.)

RECEPTOR, COMPLEMENT 3 see **MACROPHAGE-1 ANTIGEN**

RECEPTOR CROSS-TALK

see related
RECEPTOR AGGREGATION
RECEPTORS, CELL SURFACE
SIGNAL TRANSDUCTION

Role of HSP90 in mediating cross-talk between the estrogen receptor and the Ah receptor signal transduction pathways. Caruso JA, et al. **Biochem Pharmacol** 1999 Nov 1; 58(9):1395-403

GFR alpha-4 and the tyrosine kinase Ret form a functional receptor complex for persephin. Enokido Y, et al. **Curr Biol** 1998 Sep 10;8(18):1019-22

Signaling and host cell invasion by Trypanosoma cruzi. Burleigh BA, et al. **Curr Opin Microbiol** 1998 Aug; 1(4):461-5 (47 ref.)

Crosstalk between insulin and angiotensin II signalling systems [see comments] Folli F, et al. **Exp Clin Endocrinol Diabetes** 1999;107(2):133-9 (21 ref.). Comment in: Exp Clin Endocrinol Diabetes 1999 ;107(2):111-2.

Cross-talk between gammadelta T lymphocytes and immune cells in humoral response. Szczepanik M, et al. **Immunology** 1998 Dec;95(4):612-7

Rapid tyrosine phosphorylation of Lck following ligation of the tumor-associated cell surface molecule A6H. Labuda T, et al. **Int Immunol** 1999 Mar;11(3):427-33

Cross-talk between the aryl hydrocarbon receptor and hypoxia inducible factor signaling pathways. Demonstration of competition and compensation. Chan WK, et al. **J Biol Chem** 1999 Apr 23;274(17):12115-23

Orphan nuclear hormone receptor RevErbalpha modulates expression from the promoter of the hydratase-dehydrogenase gene by inhibiting peroxisome proliferator-activated receptor alpha-dependent transactivation. Kassam A, et al. **J Biol Chem** 1999 Aug 6;274(32):22895-900

Convergence of progesterone and epidermal growth factor signaling in breast cancer. Potentiation of mitogen-activated protein kinase pathways. Lange CA, et al. **J Biol Chem** 1998 Nov 20;273(47):31308-16

Cross-talk between orphan nuclear hormone receptor RZRalpha and peroxisome proliferator-activated receptor alpha in regulation of the peroxisomal hydratase-dehydrogenase gene. Winrow CJ, et al. **J Biol Chem** 1998 Nov 20;273(47):31442-8

The common cytokine receptor gamma chain and the pre-T cell receptor provide independent but critically overlapping signals in early alpha/beta T cell development. Di Santo JP, et al. **J Exp Med** 1999 Feb 1;189(3):563-74

Cross talk between m3-muscarinic and beta(2)-adrenergic receptors at the level of receptor phosphorylation and desensitization. Budd DC, et al. **Mol Pharmacol** 1999 Oct; 56(4):813-23

Molecular mechanism of a cross-talk between estrogen and growth-factor signaling pathways. Kato S, et al. **Oncology** 1998 Dec;55 Suppl 1:5-10 (32 ref.)

Interaction affinity between cytokine receptor components on the cell surface. Whitty A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13165-70

IMMUNOLOGY

Obligatory cross-talk with the tyrosine kinases assembled with the TCR/CD3 complex in CD4 signal transduction. Ulivieri C, et al. **Eur J Immunol** 1999 Aug;29(8):2625-35

Mast cell stimulation by co-clustering the type I Fc epsilon-receptors with mast cell function-associated antigens. Schweitzer-Stenner R, et al. **Immunol Lett** 1999 May 3;68(1):71-8

Crosstalk between keratinocytes and T lymphocytes via Fas/Fas ligand interaction: modulation by cytokines. Arnold R, et al. **J Immunol** 1999 Jun 15;162(12):7140-7

PHYSIOLOGY

Interactions between effectors linked to serotonin receptors. Berg KA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:111-20 (24 ref.)

Is there a functional response-overlap between 5-HT3 and nicotinic ion channel receptors? Gyermek L, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:255-7

Operational studies of synergistic interactions with 5-HT1B/1D receptors. Martin GR, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:251-2

Functional cross-talk between endothelial muscarinic and alpha2-adrenergic receptors in rabbit cerebral arteries. Thorin E. **Br J Pharmacol** 1998 Nov;125(6):1188-93

Interactions between the presynaptic alpha2-autoreceptor and presynaptic inhibitory heteroreceptors on noradrenergic neurones. Schlicker E, et al. **Brain Res Bull** 1998 Sep 15;47(2):129-32 (45 ref.)

Molecular control of immune/inflammatory responses: interactions between nuclear factor-kappa B and steroid receptor-signaling pathways. McKay LI, et al. **Endocr Rev** 1999 Aug;20(4):435-59 (271 ref.)

Cross-talk in signal transduction pathways of rat submandibular acinar cells. Martinez JR, et al. **Eur J Morphol** 1998 Aug;36 Suppl:190-3

In vitro studies of the regulation of mucous gland secretion. Zhang Z, et al. **Eur J Morphol** 1998 Aug;36 Suppl:219-21

CREB binding protein is a coactivator for the androgen receptor and mediates cross-talk with AP-1. Frønsdal K, et al. **J Biol Chem** 1998 Nov 27;273(48):31853-9

The II-III loop of the skeletal muscle dihydropyridine receptor is responsible for the Bi-directional coupling with the ryanodine receptor. Grabner M, et al. **J Biol Chem** 1999 Jul 30;274(31):21913-9

Cross-modulation of synaptic plasticity by beta-adrenergic and 5-HT1A receptors in the rat basolateral amygdala. Wang SJ, et al. **J Neurosci** 1999 Jan 15;19(2):570-7

An EGF receptor-mediated signal attenuates the inhibitory effect of LPA on an adenylate cyclase activity. Arimura S, et al. **Life Sci** 1998;63(17):1563-70

Concerted activity of tyrosine phosphatase SHP-2 and focal adhesion kinase in regulation of cell motility. Mañes S, et al. **Mol Cell Biol** 1999 Apr;19(4):3125-35

Crosstalk between Galpha(i)- and Galpha(q)-coupled receptors is mediated by Gbetagamma exchange. Quitterer U, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10626-31

Regulation of Smad signalling by protein associations and signalling crosstalk. Zhang Y, et al. **Trends Cell Biol** 1999 Jul;9(7):274-9 (60 ref.)

Hippocampal synapses: do they talk to their neighbours? Rusakov DA, et al. **Trends Neurosci** 1999 Sep;22(9):382-8 (37 ref.)

RECEPTOR-MEDIATED SIGNAL TRANSDUCTION see **SIGNAL TRANSDUCTION**

RECEPTOR PROTEIN-TYROSINE KINASE

see related

PROTO-ONCOGENE PROTEINS C-KIT

Selective inhibition of kindling development by intraventricular administration of TrkB receptor body. Binder DK, et al. **J Neurosci** 1999 Feb 15;19(4):1424-36

Picture story. Ephrin receptors divided. Smith T. **Nat Struct Biol** 1999 Jan;6(1):17

Tyro-3 family receptors are essential regulators of mammalian spermatogenesis. Lu Q, et al. **Nature** 1999 Apr 22;398(6729):723-8

[Expression of GDNF and GDNFR-alpha mRNAs in human peripheral neuropathies] Yamamoto M, et al. **Rinsho Shinkeigaku** 1999 Jan;39(1):92 **(Jpn)**

ANALYSIS

TrkA expression in mouse olfactory tract following axotomy of olfactory nerves. Miwa T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:79-82

RET protooncogene analysis in the diagnosis of medullary thyroid carcinoma and multiple endocrine neoplasia type II. Matias-Guiu X. **Adv Anat Pathol** 1998 May;5(3):196-201 (19 ref.)

Polarized vascular endothelial growth factor secretion by human retinal pigment epithelium and localization of vascular endothelial growth factor receptors on the inner choriocapillaris. Evidence for a trophic paracrine relation. Blaauwgeers HG, et al. **Am J Pathol** 1999 Aug;155(2):421-8

VEGFR-3 and its ligand VEGF-C are associated with angiogenesis in breast cancer. Valtola R, et al. **Am J Pathol** 1999 May;154(5):1381-90

Quantification of a neurotrophin receptor from submilligram quantities of brain tissue using western blotting. Suneja SK, et al. **Brain Res Brain Res Protoc** 1998 Sep;3(1):88-93

Trk-neurotrophin receptor-like immunoreactivity in the gut of teleost species. Lucini C, et al. **Cell Tissue Res** 1999 May;296(2):323-30

Endothelial growth factor receptors in human fetal heart. Partanen TA, et al. **Circulation** 1999 Aug 10;100(6):583-6

Immunohistochemical detection of K-sam protein in stomach cancer. Hattori Y, et al. **Clin Cancer Res** 1996 Aug; 2(8):1373-81

tie-1 protein tyrosine kinase: a novel independent prognostic marker for gastric cancer. Lin WC, et al. **Clin Cancer Res** 1999 Jul;5(7):1745-51

Regulation of lens regeneration by fibroblast growth factor receptor 1. Del Rio-Tsonis K, et al. **Dev Dyn** 1998 Sep; 213(1):140-6

A search for tyrosine kinase receptors expressed in the rat embryonic pancreas. LeBras S, et al. **Diabetologia** 1998 Dec;41(12):1474-81

Vascular endothelial growth factor and its receptors in male fertility. Obermair A, et al. **Fertil Steril** 1999 Aug; 72(2):269-75

Evidence for upregulation and redistribution of vascular endothelial growth factor (VEGF) receptors flt-1 and flk-1 in the oxygen-injured rat retina. Robbins SG, et al. **Growth Factors** 1998;16(1):1-9

Immunolocalization of the vascular endothelial growth factor receptor-2 in the subepicardial mesenchyme of hamster embryos: identification of the coronary vessel precursors. Pérez-Pomares JM, et al. **Histochem J** 1998 Sep; 30(9):627-34

Molecular mediators of tumor angiogenesis: enhanced expression and activation of vascular endothelial growth factor receptor KDR in primary breast cancer. Kranz A, et al. **Int J Cancer** 1999 Jun 21;84(3):293-8

Neurotrophins and Trk receptors in human pancreatic ductal adenocarcinoma: expression patterns and effects on in vitro invasive behavior. Miknyoczki SJ, et al. **Int J Cancer** 1999 May 5;81(3):417-27

Pancreatic acinar AR42J cells express functional nerve growth factor receptors. Miralles F, et al. **J Endocrinol** 1999 Mar;160(3):433-42

Detection and quantification of complexed and free soluble human vascular endothelial growth factor receptor-1 (sVEGFR-1) by ELISA. Hornig C, et al. **J Immunol Methods** 1999 Jun 24;226(1-2):169-77

TrkA glycosylation regulates receptor localization and activity. Watson FL, et al. **J Neurobiol** 1999 May; 39(2):323-36

Ultrastructural localization of full-length trkB immunoreactivity in rat hippocampus suggests multiple roles in modulating activity-dependent synaptic plasticity. Drake CT, et al. **J Neurosci** 1999 Sep 15;19(18):8009-26

Expression of tie1 and tie2 proteins during reendothelialization in balloon-injured rat carotid artery. Fujikawa K, et al. **J Vasc Res** 1999 Jul-Aug;36(4):272-81

The coronary endothelium: a target for vascular endothelial growth factor. Human coronary artery endothelial cells express functional receptors for vascular endothelial growth factor in vitro and in vivo. Kranz A, et al. **Lab Invest** 1999 Aug;79(8):985-91

Immunolocalization of nitric oxide synthase and VEGF receptors in cultured lymphatic endothelial cells. Nojiri H, et al. **Microcirculation** 1999 Mar;6(1):75-8

Expression of brain-derived neurotrophic factor protein in activated microglia of human immunodeficiency virus type 1 encephalitis. Soontornniyomkij V, et al. **Neuropathol Appl Neurobiol** 1998 Dec;24(6):453-60

TrkA expression in olfactory epithelium and bulb during development. Horikawa I, et al. **Neuroreport** 1999 Jul 13; 10(10):2205-8

Immunohistochemical localization of vascular endothelial growth factor (VEGF) and its two specific receptors, Flt-1 and KDR, in the porcine placenta and non-pregnant uterus. Winther H, et al. **Placenta** 1999 Jan;20(1):35-43

Immunolocalization of basic fibroblast growth factor and fibroblast growth factor receptor-1 and receptor-2 in rat cranial sutures. Mehrara BJ, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1805-17; discussion 1818-20

KDR receptor: a key marker defining hematopoietic stem cells. Ziegler BL, et al. **Science** 1999 Sep 3;285(5433):1553-8

ANTAGONISTS & INHIBITORS

Specific inhibitors of platelet-derived growth factor or epidermal growth factor receptor tyrosine kinase reduce pulmonary fibrosis in rats. Rice AB, et al. **Am J Pathol** 1999 Jul;155(1):213-21

The novel Trk receptor tyrosine kinase inhibitor CEP-701 (KT-5555) exhibits antitumor efficacy against human pancreatic carcinoma (Panc1) xenograft growth and in vivo invasiveness. Miknyoczki SJ, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:252-62

Synthesis and antiproliferative properties of 4-aminoquinazoline derivatives as inhibitors of EGF receptor-associated tyrosine kinase activity. Bouey-Bencteux E, et al. **Anticancer Drug Des** 1998 Dec; 13(8):893-922

Crystal structure of the complex between VEGF and a receptor-blocking peptide. Wiesmann C, et al. **Biochemistry** 1998 Dec 22;37(51):17765-72

Synthesis and biological evaluation of aeroplysinin analogues: a new class of receptor tyrosine kinase inhibitors. Hinterding K, et al. **Bioorg Med Chem** 1998 Aug; 6(8):1153-62

SU5416 is a potent and selective inhibitor of the vascular endothelial growth factor receptor (Flk-1/KDR) that inhibits tyrosine kinase catalysis, tumor vascularization, and growth of multiple tumor types. Fong TA, et al. **Cancer Res** 1999 Jan 1;59(1):99-106

Sustained in vivo regression of Dunning H rat prostate cancers treated with combinations of androgen ablation and Trk tyrosine kinase inhibitors, CEP-751 (KT-6587) or CEP-701 (KT-5555). George DJ, et al. **Cancer Res** 1999 May 15;59(10):2395-401

Benzoquinoid ansamycins (herbimycin A and geldanamycin) interfere with the maturation of growth factor receptor tyrosine kinases. Sakagami M, et al. **Cell Stress Chaperones** 1999 Mar;4(1):19-28

PD153035, a tyrosine kinase inhibitor, prevents epidermal growth factor receptor activation and inhibits growth of cancer cells in a receptor number-dependent manner. Bos M, et al. **Clin Cancer Res** 1997 Nov;3(11):2099-106

Gö 6976 is a potent inhibitor of neurotrophin-receptor intrinsic tyrosine kinase. Behrens MM, et al. **J Neurochem** 1999 Mar;72(3):919-24

TrkA antagonists decrease NGF-induced ChAT activity in vitro and modulate cholinergic synaptic number in vivo. Debeir T, et al. **J Physiol Paris** 1998 Jun-Aug; 92(3-4):205-8

A nerve growth factor mimetic TrkA antagonist causes withdrawal of cortical cholinergic boutons in the adult rat. Debeir T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):4067-72

Inhibition of obliterative bronchiolitis by platelet-derived growth factor receptor protein-tyrosine kinase inhibitor. Kallio E, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):187

Prevention of cardiac allograft arteriosclerosis by protein-tyrosine kinase inhibitor selective for platelet-derived growth factor receptor. Koskinen P, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):102

BIOSYNTHESIS

Changes in CNTF receptor alpha expression in rat skeletal muscle during the recovery period after hindlimb suspension. Guillet C, et al. **Acta Physiol Scand** 1998 Jul; 163(3):273-8

Expression of receptor tyrosine kinase Axl and its ligand Gas6 in rheumatoid arthritis: evidence for a novel endothelial cell survival pathway. O'Donnell K, et al. **Am J Pathol** 1999 Apr;154(4):1171-80

Expression of soluble VEGF receptor 2 and characterization of its binding by surface plasmon resonance. Huang X, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):643-8

Upregulated expression of fibroblast growth factor (FGF) receptors by transforming growth factor-beta1 (TGF-beta1) mediates enhanced mitogenic responses to FGFs in cultured human lung fibroblasts. Thannickal VJ, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):437-41

A vascular endothelial growth factor antagonist is produced by the human placenta and released into the maternal circulation. Clark DE, et al. **Biol Reprod** 1998 Dec; 59(6):1540-8

In vitro hematopoietic and endothelial cell development from cells expressing TEK receptor in murine aorta-gonad-mesonephros region. Hamaguchi I, et al. **Blood** 1999 Mar 1;93(5):1549-56

Production of VEGF and expression of the VEGF receptors Flt-1 and KDR in primary cultures of epithelial and stromal cells derived from breast tumours. Speirs V, et al. **Br J Cancer** 1999 May;80(5-6):898-903

Gestational exposure to methylmercury alters the developmental pattern of trk-like immunoreactivity in the rat brain and results in cortical dysmorphology. Barone S Jr, et al. **Brain Res Dev Brain Res** 1998 Jul 1;109(1):13-31

Up-regulation of GDNFR-alpha and c-ret mRNA in facial motor neurons following facial nerve injury in the rat. Burazin TC, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):331-6

Overexpression of H-Ryk in mouse fibroblasts confers transforming ability in vitro and in vivo: correlation with up-regulation in epithelial ovarian cancer. Katso RM, et al. **Cancer Res** 1999 May 15;59(10):2265-70

Alterations in expression of basic fibroblast growth factor (FGF) 2 and its receptor FGFR-1 in human prostate cancer. Giri D, et al. **Clin Cancer Res** 1999 May; 5(5):1063-71

Significance of vessel count and vascular endothelial growth factor and its receptor (KDR) in intestinal-type gastric cancer. Takahashi Y, et al. **Clin Cancer Res** 1996 Oct; 2(10):1679-84

Coexpression of transcripts encoding EPHB receptor protein tyrosine kinases and their ephrin-B ligands in human small cell lung carcinoma. Tang XX, et al. **Clin Cancer Res** 1999 Feb;5(2):455-60

High-level expression of EPHB6, EFNB2, and EFNB3 is associated with low tumor stage and high TrkA expression in human neuroblastomas. Tang XX, et al. **Clin Cancer Res** 1999 Jun;5(6):1491-6

Hematopoietic tissues, as a playground of receptor tyrosine kinases of the PDGF-receptor family. Yoshida H, et al. **Dev Comp Immunol** 1998 May-Jun;22(3):321-32 (56 ref.)

Expression of Trk receptors in the developing mouse trigeminal ganglion: in vivo evidence for NT-3 activation of TrkA and TrkB in addition to TrkC. Huang EJ, et al. **Development** 1999 May;126(10):2191-203

Stromal cells mediate retinoid-dependent functions essential for renal development. Mendelsohn C, et al. **Development** 1999 Mar;126(6):1139-48

Regulation of the HGF-receptor c-met in the thyroid gland. Schulte KM, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(4):310-8

Long-term estrogen replacement coordinately decreases trkA and beta-PPT mRNA levels in dorsal root ganglion neurons. Liuzzi FJ, et al. **Exp Neurol** 1999 Feb;155(2):260-7

Neurogenin1 and neurogenin2 control two distinct waves of neurogenesis in developing dorsal root ganglia. Ma Q, et al. **Genes Dev** 1999 Jul 1;13(13):1717-28

Coordinated modulation of the fibroblast growth factor dual receptor mechanism during transformation from human colon adenoma to carcinoma. Jayson GC, et al. **Int J Cancer** 1999 Jul 19;82(2):298-304

Expression and function of Flt3/flk2 in human tumor cell lines. Serve H, et al. **Int J Oncol** 1999 Apr;14(4):765-70

Differential regulation of ciliary neurotrophic factor receptor-alpha expression in all major neuronal cell classes during development of the chick retina. Fuhrmann S, et al. **J Comp Neurol** 1998 Oct 19;400(2):244-54

Cutting edge: clonally restricted production of the neurotrophins brain-derived neurotrophic factor and neurotrophin-3 mRNA by human immune cells and Th1/Th2-polarized expression of their receptors. Besser M, et al. **J Immunol** 1999 Jun 1;162(11):6303-6

Differentiation of NK1.1+, Ly49+ NK cells from flt3+ multipotent marrow progenitor cells. Williams NS, et al. **J Immunol** 1999 Sep 1;163(5):2648-56

Distinct thyroid hormone-dependent expression of TrKB and p75NGFR in nonneuronal cells during the critical TH-dependent period of the cochlea. Knipper M, et al. **J Neurobiol** 1999 Feb 15;38(3):338-56

Expression of gp145trkB in the early stage of Schwann cell tube formation. Shi D, et al. **J Orthop Sci** 1999;4(1):22-7

Altered expression of tyrosine kinases of the Src and Syk families in human T-cell leukemia virus type 1-infected T-cell lines. Weil R, et al. **J Virol** 1999 May;73(5):3709-17

Expression of cadherin-catenin cell adhesion molecules, phosphorylated tyrosine residues and growth factor receptor-tyrosine kinases in gastric cancers. Akimoto S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):829-36

Increased expression of KDR/Flk-1 (VEGFR-2) in murine model of ischemia-induced retinal neovascularization. Suzuma K, et al. **Microvasc Res** 1998 Nov;56(3):183-91

Expression of vascular endothelial growth factor and its receptors during lung carcinogenesis by N-nitrosobis(2-hydroxypropyl)amine in rats. Takahama M, et al. **Mol Carcinog** 1999 Apr;24(4):287-93

Expression of fibroblast growth factor receptors in peri-implantation mouse embryos. Rappolee DA, et al. **Mol Reprod Dev** 1998 Nov;51(3):254-64

Immunohistochemical expression of trk receptor proteins in focal cortical dysplasia with intractable epilepsy. Nishio S, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):188-95

Developmental expression of GDNF, neurturin and their receptors in rat hippocampus. Lenhard T, et al. **Neuroreport** 1998 Sep 14;9(13):2927-31

Rabbit experimental sensory ataxic neuropathy: anti-GD1b antibody-mediated trkC downregulation of dorsal root ganglia neurons. Hitoshi S, et al. **Neurosci Lett** 1999 Feb 5;260(3):157-60

Neuronal and non-neuronal Trk neurotrophin receptor-like proteins in Eisenia foetida (Annelida Oligochaeta). Lucini C, et al. **Neurosci Lett** 1999 Feb 19;261(3):163-6

Up-regulation of Eph tyrosine kinase receptors after excitotoxic injury in adult hippocampus. Moreno-Flores MT, et al. **Neuroscience** 1999;91(1):193-201

Expression of the naturally occurring truncated trkB neurotrophin receptor induces outgrowth of filopodia and processes in neuroblastoma cells. Haapasalo A, et al. **Oncogene** 1999 Feb 11;18(6):1285-96

Linkage between melanocytic tumor development and early burst of Ret protein expression for tolerance induction in metallothionein-I/ret transgenic mouse lines. Kato M, et al. **Oncogene** 1999 Jan 21;18(3):837-42

Evidence that downregulation of the M-CSF receptor is not dependent upon receptor kinase activity. Uden M, et al. **Oncogene** 1999 Jul 1;18(26):3846-51

Expression of the Axl receptor tyrosine kinase in human thyroid carcinoma. Ito T, et al. **Thyroid** 1999 Jun;9(6):563-7

Expression of vascular endothelial growth factor receptors in human prostate cancer. Ferrer FA, et al. **Urology** 1999 Sep;54(3):567-72

[Advances in the study of the role of vascular endothelial growth factor and its receptor in tumor angiogenesis and its relation with anti-angiogenesis effect] Bian X, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug;26(4):248-50 (15 ref.) **(Chi)**

BLOOD

A vascular endothelial growth factor antagonist is produced by the human placenta and released into the maternal circulation. Clark DE, et al. **Biol Reprod** 1998 Dec; 59(6):1540-8

CHEMISTRY

p85 subunit of PI3 kinase does not bind to human Flt3 receptor, but associates with SHP2, SHIP, and a tyrosine-phosphorylated 100-kDa protein in Flt3 ligand-stimulated hematopoietic cells. Zhang S, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):440-5

The role of heparin in the complex formation between fibroblast growth factor 2 and its high affinity receptor: comparative modelling and biochemical studies. Pellegrini L, et al. **Biochem Soc Trans** 1998 Aug;26(3):545-9

Characterization and kinetic mechanism of catalytic domain of human vascular endothelial growth factor receptor-2 tyrosine kinase (VEGFR2 TK), a key enzyme in angiogenesis. Parast CV, et al. **Biochemistry** 1998 Nov 24; 37(47):16788-801

Common and specific determinants for fibroblast growth factors in the ectodomain of the receptor kinase complex. Wang F, et al. **Biochemistry** 1999 Jan 5;38(1):160-71

Molecular dynamics simulations of the ErbB-2 transmembrane domain within an explicit membrane environment: comparison with vacuum simulations. Duneau JP, et al. **Biophys Chem** 1999 Jan 11;76(1):35-53

Structural basis for FGF receptor dimerization and activation. Plotnikov AN, et al. **Cell** 1999 Sep 3; 98(5):641-50

Immunohistochemical expression of tyrosine kinase (Trk) receptor proteins in mature neuronal cell tumors of the central nervous system. Nishio S, et al. **Clin Neuropathol** 1998 May-Jun;17(3):123-30

Structure and function of vascular endothelial growth factor receptor-1 and -2. Shibuya M, et al. **Curr Top Microbiol Immunol** 1999;237:59-83 (92 ref.)

Biochemical and functional interactions between the neurotrophin receptors trk and p75NTR. Bibel M, et al. **EMBO J** 1999 Feb 1;18(3):616-22

Crystal structure of an angiogenesis inhibitor bound to the FGF receptor tyrosine kinase domain. Mohammadi M, et al. **EMBO J** 1998 Oct 15;17(20):5896-904

Vascular endothelial growth factor (VEGF) receptor II-derived peptides inhibit VEGF. Piossek C, et al. **J Biol Chem** 1999 Feb 26;274(9):5612-9

Distinct domains of MuSK mediate its abilities to induce and to associate with postsynaptic specializations. Zhou H, et al. **J Cell Biol** 1999 Sep 6;146(5):1133-46

Crystal structures of the neurotrophin-binding domain of TrkA, TrkB and TrkC. Ultsch MH, et al. **J Mol Biol** 1999 Jul 2;290(1):149-59

Evidence for the existence of a novel pregnancy-associated soluble variant of the vascular endothelial growth factor receptor, Flt-1. Banks RE, et al. **Mol Hum Reprod** 1998 Apr;4(4):377-86

The crystal structure of an Eph receptor SAM domain reveals a mechanism for modular dimerization. Stapleton D, et al. **Nat Struct Biol** 1999 Jan;6(1):44-9

Crystal structure of the ligand-binding domain of the receptor tyrosine kinase EphB2. Himanen JP, et al. **Nature** 1998 Dec 3;396(6710):486-91

Crystal structure of nerve growth factor in complex with the ligand-binding domain of the TrkA receptor. Wiesmann C, et al. **Nature** 1999 Sep 9;401(6749):184-8

The transcription coactivator HTIF1 and a related protein are fused to the RET receptor tyrosine kinase in childhood papillary thyroid carcinomas. Klugbauer S, et al. **Oncogene** 1999 Jul 29;18(30):4388-93

Effects of trkB and trkC neurotrophin receptor agonists on thermal nociception: a behavioral and electrophysiological study. Shu XQ, et al. **Pain** 1999 Apr;80(3):463-70

Structural analysis of receptor tyrosine kinases. Hubbard SR. **Prog Biophys Mol Biol** 1999;71(3-4):343-58 (67 ref.)

Identification of a Frizzled-like cysteine rich domain in the extracellular region of developmental receptor tyrosine kinases [corrected and republished with original paging, article originally printed in Protein Sci 1998 Jul;7(7):1632-5] Saldanha J, et al. **Protein Sci** 1998 Aug; 7(8):1632-5

Oligomeric structure of the human EphB2 receptor SAM domain. Thanos CD, et al. **Science** 1999 Feb 5; 283(5403):833-6

A dimeric ternary complex of FGFR [correction of FGFR1], heparin and FGF-1 leads to an 'electrostatic sandwich' model for heparin binding [published erratum appears in Structure Fold Des 1999 Aug 15;7(8):R198] Huhtala MT, et al. **Structure Fold Des** 1999 Jun 15;7(6):699-709

Crystal structure of the kinase domain of human vascular endothelial growth factor receptor 2: a key enzyme in angiogenesis. McTigue MA, et al. **Structure Fold Des** 1999 Mar 15;7(3):319-30

DEFICIENCY

Altered airway and cardiac responses in mice lacking G protein-coupled receptor kinase 3. Walker JK, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1214-21

Mice lacking NT-3, and its receptor TrkC, exhibit profound deficiencies in CNS glial cells. Kahn MA, et al. **Glia** 1999 Apr;26(2):153-65

Formation of transformed endothelial cells in the absence of VEGFR-2/Flk-1 by Polyoma middle T oncogene. Mühlner U, et al. **Oncogene** 1999 Jul 22;18(29):4200-10

DRUG EFFECTS

Effect of herbimycin A on tyrosine kinase receptors and platelet derived growth factor (PDGF)-induced signal transduction. Murakami Y, et al. **Biol Pharm Bull** 1998 Oct; 21(10):1030-5

Modulation of haematopoietic progenitor development by FLT-3 ligand. Banu N, et al. **Cytokine** 1999 Sep; 11(9):679-88

On the mechanism of thrombin-induced angiogenesis. Potentiation of vascular endothelial growth factor activity on endothelial cells by up-regulation of its receptors. Tsopanoglou NE, et al. **J Biol Chem** 1999 Aug 20; 274(34):23969-76

Differential activation of ErbB receptors in the rat olfactory mucosa by transforming growth factor-alpha and epidermal growth factor in vivo. Ezeh PI, et al. **J Neurobiol** 1998 Nov 5;37(2):199-210

Direct activation of the high-affinity nerve growth factor receptor by a non-peptide symmetrical polyanion. Gill JS, et al. **Neuroscience** 1998 Dec;87(4):855-60

GENETICS

Frequent detection of TrkA expression in human neuroblastoma cell lines. Horii Y, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):644-6

RET proto-oncogene: role in kidney development and molecular pathology. Salomon R, et al. **Adv Nephrol Necker Hosp** 1998;28:401-17 (50 ref.)

Congenital insensitivity to pain with anhidrosis: novel mutations in the TRKA (NTRK1) gene encoding a high-affinity receptor for nerve growth factor. Mardy S, et al. **Am J Hum Genet** 1999 Jun;64(6):1570-9

De novo alu-element insertions in FGFR2 identify a distinct pathological basis for Apert syndrome. Oldridge M, et al. **Am J Hum Genet** 1999 Feb;64(2):446-61

Expression of the RET proto-oncogene in human embryos. Attié-Bitach T, et al. **Am J Med Genet** 1998 Dec 28; 80(5):481-6

Patient described by Chun et al. may not present Antley-Bixler syndrome [letter; comment] Gorlin RJ. **Am J Med Genet** 1999 Mar 5;83(1):64. Comment on: Am J Med Genet 1998 May 18;77(3):219-24.

Not Antley-Bixler syndrome [letter; comment] Gripp KW, et al. **Am J Med Genet** 1999 Mar 5;83(1):65-8 (13 ref.). Comment on: Am J Med Genet 1998 May 18;77(3):219-24.

Ocular anterior chamber dysgenesis in craniosynostosis syndromes with a fibroblast growth factor receptor 2

mutation. Okajima K, et al. **Am J Med Genet** 1999 Jul 16;85(2):160–70

Papillary thyroid carcinoma oncogene (RET/PTC) alters the nuclear envelope and chromatin structure. Fischer AH, et al. **Am J Pathol** 1998 Nov;153(5):1443–50

Congenital mesoblastic nephroma t(12;15) is associated with ETV6-NTRK3 gene fusion: cytogenetic and molecular relationship to congenital (infantile) fibrosarcoma. Rubin BP, et al. **Am J Pathol** 1998 Nov;153(5):1451–8

Myocardial overexpression of GRK3 in transgenic mice: evidence for in vivo selectivity of GRKs. Iaccarino G, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1298–306

Paracrine upregulation of VEGF receptor mRNA in endothelial cells by hypoxia-exposed hep G2 cells. Suzuki H, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G92–7

Differential expression of fibroblast growth factor receptors 1 to 4 and ligand genes in late fetal and early postnatal rat lung. Powell PP, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):563–72

Differential expression of the RET gene in human acute myeloid leukemia. Gattei V, et al. **Ann Hematol** 1998 Nov; 77(5):207–10

Regulation and possible function of axl expression in immature human mast cells. Heide I, et al. **Ann Hematol** 1998 Nov;77(5):199–205

Mechanism of Ret activation by a mutation at aspartic acid 631 identified in sporadic pheochromocytoma. Asai N, et al. **Biochem Biophys Res Commun** 1999 Feb 24; 255(3):587–90

Cloning and partial characterization of the human tie-2 receptor tyrosine kinase gene promoter. Hewett PW, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):546–51

Inhibition of hepatic stellate cell contraction during activation in vitro by vascular endothelial growth factor in association with upregulation of FLT tyrosine kinase receptor family, FLT-1. Mashiba S, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):674–8

Overexpression of wild-type and catalytically inactive forms of GRK2 and GRK6 fails to alter the agonist-induced phosphorylation of the C5a receptor (CD88): evidence that GRK6 is autophosphorylated in COS-7 cells. Milcent MD, et al. **Biochem Biophys Res Commun** 1999 May 27; 259(1):224–9

Pulsatile stretch stimulates vascular endothelial growth factor (VEGF) secretion by cultured rat cardiac myocytes. Seko Y, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):462–5

Enhanced GRK5 expression in the hearts of cardiomyopathic hamsters, J2N-k. Takagi C, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):206–10

Identification of receptor genes in renal cell carcinoma associated with angiogenesis by differential hybridization technique. Takahashi A, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):855–9

The mouse neurotrophin receptor trkB gene is transcribed from two different promoters. Barettino D, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):24–34

TrkB mutant lacking the amino-terminal half of the extracellular portion acts as a functional brain-derived neurotrophic factor receptor. Kojima S, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1–2):104–10

Different mutations of the RET gene cause different human tumoral diseases. Santoro M, et al. **Biochimie** 1999 Apr; 81(4):397–402 (57 ref.)

Fusion of ETV6 to neurotrophin-3 receptor TRKC in acute myeloid leukemia with t(12;15)(p13;q25). Eguchi M, et al. **Blood** 1999 Feb 15;93(4):1355–63

Identification of vascular endothelial growth factor (VEGF) receptor-2 (Flk-1) promoter/enhancer sequences sufficient for angioblast and endothelial cell-specific transcription in transgenic mice. Kappel A, et al. **Blood** 1999 Jun 15; 93(12):4284–92

Prognostic implication of FLT3 and N-RAS gene mutations in acute myeloid leukemia. Kiyoi H, et al. **Blood** 1999 May 1;93(9):3074–80

Mutation and deletion analysis of GFR alpha-1, encoding the co-receptor for the GDNF/RET complex, in human brain tumours. Gimm O, et al. **Br J Cancer** 1999 May; 80(3–4):383–6

Molecular evolution of acute myeloid leukaemia in relapse: unstable N-ras and FLT3 genes compared with p53 gene. Nakano Y, et al. **Br J Haematol** 1999 Mar;104(4):659–64

Tandem duplication of the FLT3 gene is found in acute lymphoblastic leukaemia as well as acute myeloid leukaemia but not in myelodysplastic syndrome or juvenile chronic myelogenous leukaemia in children. Xu F, et al. **Br J Haematol** 1999 Apr;105(1):155–62

Expression of BDNF and trkB as a function of age and cognitive performance. Croll SD, et al. **Brain Res** 1998 Nov 23;812(1–2):200–8

Differential temporal expression of mRNAs for ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), interleukin-6 (IL-6), and their receptors (CNTFR alpha, LIFR beta, IL-6R alpha and gp130) in injured peripheral nerves. Ito Y, et al. **Brain Res** 1998 May 18; 793(1–2):321–7

Expression of GDNF receptor (RET and GDNFR-alpha) mRNAs in the spinal cord of patients with amyotrophic lateral sclerosis. Mitsuma N, et al. **Brain Res** 1999 Feb 27; 820(1–2):77–85

Regional changes in the expression of neurotrophic factors and their receptors following acute traumatic brain injury in the adult rat brain. Oyesiku NM, et al. **Brain Res** 1999 Jul 3;833(2):161–72

Expression of glial cell line-derived neurotrophic factor and GDNFR-alpha mRNAs in human peripheral neuropathies. Yamamoto M, et al. **Brain Res** 1998 Nov 2;809(2):175–81

Rapid cloning of cDNA ends polymerase chain reaction of G-protein-coupled receptor kinase 6: an improved method to determine 5'- and 3'-cDNA ends. Fehr C, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):242–51

Expression of receptor tyrosine kinase RYK in developing rat central nervous system. Kamitori K, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):149–60

Up-regulation of GDNFR-alpha and c-ret mRNA in facial motor neurons following facial nerve injury in the rat. Burazin TC, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):331–6

The neurotrophin receptors trkA, trkB and trkC are differentially regulated after excitotoxic lesion in rat striatum. Canals JM, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):242–8

Hippocampal neurotrophin and trk receptor mRNA levels are altered by local administration of nicotine, carbachol and pilocarpine. French SJ, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):124–36

BDNF, and full length and truncated TrkB expression in the hippocampus of the rat following kainic acid excitotoxic damage. Evidence of complex time-dependent and cell-specific responses. Goutan E, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):154–64

Expression of trkB mRNA is altered in rat hippocampus after experimental brain trauma. Hicks RR, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):264–8

Highest trkB mRNA expression in the entorhinal cortex among hippocampal subregions in the adult rat: contrasting pattern with BDNF mRNA expression. Tokuyama W, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):206–15

Discordant expression of c-Ret and glial cell line-derived neurotrophic factor receptor alpha-1 mRNAs in response to motor nerve injury in neonate rats. Tsujino H, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):298–303

Prognostic discrimination among neuroblastomas according to Ha-ras/trk A gene expression: a comparison of the profiles of neuroblastomas detected clinically and those detected through mass screening. Tanaka T, et al. **Cancer** 1998 Oct 15;83(8):1626–33

A rapid method for DNA extraction from fine-needle aspiration biopsies of thyroid tumors, and subsequent RET mutation analysis. Zedenius J, et al. **Cancer Detect Prev** 1998;22(6):544–8

Glioblastoma cell-specific expression of fibroblast growth factor receptor-1beta requires an intronic repressor of RNA splicing. Jin W, et al. **Cancer Res** 1999 Jan 15; 59(2):316–9

ETV6-NTRK3 gene fusions and trisomy 11 establish a histogenetic link between mesoblastic nephroma and congenital fibrosarcoma. Knezevich SR, et al. **Cancer Res** 1998 Nov 15;58(22):5046–8

Ret-mediated mitogenesis requires Src kinase activity. Melillo RM, et al. **Cancer Res** 1999 Mar 1;59(5):1120–6

Hammerhead ribozyme-mediated inactivation of mutant RET in medullary thyroid carcinoma. Parthasarathy R, et al. **Cancer Res** 1999 Aug 15;59(16):3911–4

The phenotypes associated with ret mutations in the multiple endocrine neoplasia type 2 syndrome. Ponder BA. **Cancer Res** 1999 Apr 1;59(7 Suppl):1736s–1741s; discussion 1742s (78 ref.)

The RET/PTC3 oncogene: metastatic solid-type papillary carcinomas in murine thyroids. Powell DJ Jr, et al. **Cancer Res** 1998 Dec 1;58(23):5523–8

Increased expression of integrin and receptor tyrosine kinase genes during autograft fusion in the sponge Geodia cydonium. Wimmer W, et al. **Cell Adhes Commun** 1999; 7(2):111–24

A novel gene delivery system targeting cells expressing VEGF receptors. Li JM, et al. **Cell Res** 1999 Mar; 9(1):11–25

Expression of neurotrophin receptors trkB and trkC and their ligands in rat adrenal gland and the intermediolateral column of the spinal cord. Schober A, et al. **Cell Tissue Res** 1999 May;296(2):271–9

Expression of vascular endothelial growth factor (VEGF) and its receptors during embryonic implantation in the golden hamster (Mesocricetus auratus). Yi XJ, et al. **Cell Tissue Res** 1999 May;296(2):339–49

Molecular diagnosis of Apert syndrome in Chinese patients. Tsai FJ, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan-Feb;40(1):31–3

Role of the Ets transcription factors in the regulation of the vascular-specific Tie2 gene [see comments] Dube A, et al. **Circ Res** 1999 May 28;84(10):1177–85. Comment in: Circ Res 1999 May 28;84(10):1234.

Low frequency of RET mutations in Hirschsprung disease in Sweden. Svensson PJ, et al. **Clin Genet** 1998 Jul; 54(1):39–44

Expression of vascular endothelial growth factor and its receptor (KDR/flk-1) mRNA in experimental choroidal neovascularization. Wada M, et al. **Curr Eye Res** 1999 Mar; 18(3):203–13

FISH mapping of the mouse Ret oncogene to the junction of G-bands E3/F1 on chromosome 6 indicates a need for reassessment of the physical and consensus maps. Nitta Y, et al. **Cytogenet Cell Genet** 1999;84(3–4):186–7

A novel follicle-cell-dependent dominant female sterile allele, StarKojak, alters receptor tyrosine kinase signaling in Drosophila. Ruden DM, et al. **Dev Biol** 1999 Mar 15; 207(2):393–407

Murine fibroblast growth factor receptor 1alpha isoforms mediate node regression and are essential for posterior mesoderm development. Xu X, et al. **Dev Biol** 1999 Apr 15;208(2):293–306

Perturbation of RET signaling in the embryonic kidney. Ehrenfels CW, et al. **Dev Genet** 1999;24(3–4):263–72

The expression and regulation of chick EphA7 suggests roles in limb patterning and innervation. Araujo M, et al. **Development** 1998 Nov;125(21):4195–204

Increased hemangioblast commitment, not vascular disorganization, is the primary defect in flt-1 knock-out mice. Fong GH, et al. **Development** 1999 Jul; 126(13):3015–25

A rapid and dynamic regulation of GDNF-family ligands and receptors correlate with the developmental dependency of cutaneous sensory innervation. Fundin BT, et al. **Development** 1999 Jun;126(12):2597–610

VEGF is required for growth and survival in neonatal mice. Gerber HP, et al. **Development** 1999 Mar;126(6):1149–59

POU domain factor Brn-3a controls the differentiation and survival of trigeminal neurons by regulating Trk receptor expression. Huang EJ, et al. **Development** 1999 Jul; 126(13):2869–82

Dominant effects of RET receptor misexpression and ligand-independent RET signaling on ureteric bud development. Srinivas S, et al. **Development** 1999 Apr; 126(7):1375–86

Signalling by the RET receptor tyrosine kinase and its role in the development of the mammalian enteric nervous system. Taraviras S, et al. **Development** 1999 Jun; 126(12):2785–97

Basic fibroblast growth factor induces expression of VEGF receptor KDR through a protein kinase C and p44/p42 mitogen-activated protein kinase-dependent pathway. Hata Y, et al. **Diabetes** 1999 May;48(5):1145–55

Mutations of ret proto-oncogene in 3 Korean families with MEN 2A: clinical use of new restriction sites for genetic diagnosis. Lee MS, et al. **Endocr J** 1998 Aug;45(4):555–61

Infrequent detectable somatic mutations of the RET and glial cell line-derived neurotrophic factor (GDNF) genes in human pituitary adenomas. Yoshimoto K, et al. **Endocr J** 1999 Feb;46(1):199–207

Induction of an intronic enhancer of the human ciliary neurotrophic factor receptor (CNTFRalpha) gene by the TR3 orphan receptor. Mu XM, et al. **Endocrine** 1998 Aug; 9(1):27–32

The role of amino acids surrounding tyrosine 1062 in ret in specific binding of the shc phosphotyrosine-binding domain. Ishiguro Y, et al. **Endocrinology** 1999 Sep; 140(9):3992–8

Sequestration of dopamine D2 receptors depends on coexpression of G-protein-coupled receptor kinases 2 or 5. Ito K, et al. **Eur J Biochem** 1999 Feb;260(1):112–9

Xenopus muscle-specific kinase: molecular cloning and prominent expression in neural tissues during early embryonic development. Fu AK, et al. **Eur J Neurosci** 1999 Feb;11(2):373–82

Expression of TrkB and TrkC but not BDNF mRNA in neurochemically identified interneurons in rat visual cortex in vivo and in organotypic cultures. Gorba T, et al. **Eur J Neurosci** 1999 Apr;11(4):1179–90

Expression of neurturin, GDNF, and GDNF family-receptor mRNA in the developing and mature mouse. Golden JP, et al. **Exp Neurol** 1999 Aug;158(2):504–28

Role of ets factors in the activity and endothelial cell specificity of the mouse Tie gene promoter. Iljin K, et al. **FASEB J** 1999 Feb;13(2):377–86

Identification and characterization of a novel splice variant of MuSK. Hesser BA, et al. **FEBS Lett** 1999 Jan 15; 442(2-3):133–7

Triplet repeat variability in the signal peptide sequence of the Xmrk receptor tyrosine kinase gene in Xiphophorus fish. Schartl M, et al. **Gene** 1998 Dec 11;224(1–2):17–21

Genomic organization of the human fibroblast growth factor receptor 2 (FGFR2) gene and comparative analysis of the human FGFR gene family. Zhang Y, et al. **Gene** 1999 Apr 1;230(1):69–79

CCND1 and FGFR1 coamplification results in the colocalization of 11q13 and 8p12 sequences in breast tumor nuclei. Bautista S, et al. **Genes Chromosomes Cancer** 1998 Aug;22(4):268–77

Fusion of a novel gene, ELKS, to RET due to translocation t(10;12)(q11;p13) in a papillary thyroid carcinoma. Nakata T, et al. **Genes Chromosomes Cancer** 1999 Jun;25(2):97–103

Intragenic sex-chromosomal crossovers of Xmrk oncogene alleles affect pigment pattern formation and the severity of melanoma in Xiphophorus. Gutbrod H, et al. **Genetics** 1999 Feb;151(2):773–83

Oncological implications of RET gene mutations in Hirschsprung's disease. Sijmons RH, et al. **Gut** 1998 Oct; 43(4):542–7

Antiangiogenic gene therapy in a rat glioma model using a dominant-negative vascular endothelial growth factor receptor 2. Machein MR, et al. **Hum Gene Ther** 1999 May 1;10(7):1117–28

Analysis of the mutational spectrum of the FGFR2 gene in

Pfeiffer syndrome. Cornejo-Roldan LR, et al. **Hum Genet** 1999 May;104(5):425-31

Phenotypic variation in a family with mutations in two Hirschsprung-related genes (RET and endothelin receptor B). Svensson PJ, et al. **Hum Genet** 1998 Aug;103(2):145-8

A GTG to ATG novel point mutation at codon 804 in exon 14 of the RET proto-oncogene in two families affected by familial medullary thyroid carcinoma. Fattoruso O, et al. **Hum Mutat** 1998;Suppl 1:S167-71

Duplication of 9 base pairs in the critical cysteine-rich domain of the RET proto-oncogene causes multiple endocrine neoplasia type 2A. Höppner W, et al. **Hum Mutat** 1998;Suppl 1:S128-30

Deletion-insertion mutation encompassing RET codon 634 is associated with medullary thyroid carcinoma. Marsh DJ, et al. **Hum Mutat** 1998;Suppl 1:S3-4

Clinical spectrum of fibroblast growth factor receptor mutations. Passos-Bueno MR, et al. **Hum Mutat** 1999; 14(2):115-25

Cys 634 mutations in the RET proto-oncogene in Spanish families affected by MEN 2A. Sánchez B, et al. **Hum Mutat** 1998;Suppl 1:S72-3

Co-segregation of MEN2 and Hirschsprung's disease: the same mutation of RET with both gain and loss-of-function? [letter] Takahashi M, et al. **Hum Mutat** 1999;13(4):331-6

Two common mutations 934C to G and 937C to G of fibroblast growth factor receptor 2 (FGFR2) gene in Chinese patients with Apert syndrome. Tsai FJ, et al. **Hum Mutat** 1998;Suppl 1:S18-9

NTRK1 re-arrangement in papillary thyroid carcinomas of children after the Chernobyl reactor accident. Beimfohr C, et al. **Int J Cancer** 1999 Mar 15;80(6):842-7

Infrequent mutations of the MET gene in sporadic breast tumours [letter] Bièche I, et al. **Int J Cancer** 1999 Sep 9; 82(6):908-10

Experimental implication of celiac ganglionotropic invasion of pancreatic-cancer cells bearing c-ret proto-oncogene with reference to glial-cell-line-derived neurotrophic factor (GDNF). Okada Y, et al. **Int J Cancer** 1999 Mar 31;81(1):67-73

Distinct frequency of ret rearrangements in papillary thyroid carcinomas of children and adults from Belarus. Smida J, et al. **Int J Cancer** 1999 Jan 5;80(1):32-8

The combined effects of trkB and trkC mutations on the innervation of the inner ear. Fritzsch B, et al. **Int J Dev Neurosci** 1998 Oct;16(6):493-505

Multiple endocrine neoplasia type 2A with the identical somatic mutation in medullary thyroid carcinoma and pheochromocytoma without germline mutation at the corresponding site in the RET proto-oncogene [see comments] Akama H, et al. **Intern Med** 1999 Feb; 38(2):145-9. Comment in: Intern Med 1999 Feb;38(2):80.

Constitutive expression of VEGF, VEGFR-1, and VEGFR-2 in normal eyes. Kim I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2115-21

Characterization of a soluble KGF receptor cDNA from human corneal and breast epithelial cells. Liu JJ, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2584-93

Ret-proto-oncogene analysis in medullary thyroid carcinoma. O'Keeffe DA, et al. **Ir J Med Sci** 1998 Oct-Dec;167(4):226-30

Octamer-dependent in vivo expression of the endothelial cell-specific TIE2 gene. Fadel BM, et al. **J Biol Chem** 1999 Jul 16;274(29):20376-83

Genomic structure and expression of the mouse growth factor receptor related to tyrosine kinases (Ryk). Halford MM, et al. **J Biol Chem** 1999 Mar 12;274(11):7379-90

Characterization of FIM-FGFR1, the fusion product of the myeloproliferative disorder-associated t(8;13) translocation. Ollendorff V, et al. **J Biol Chem** 1999 Sep 17;274(38):26922-30

Structure-function analysis of G protein-coupled receptor kinase-5. Role of the carboxyl terminus in kinase regulation. Pronin AN, et al. **J Biol Chem** 1998 Nov 20; 273(47):31510-8

The human KDR/flk-1 gene contains a functional initiator element that is bound and transactivated by TFII-I. Wu Y, et al. **J Biol Chem** 1999 Jan 29;274(5):3207-14

Germline RET codon 918 mutation in apparently isolated intestinal ganglioneuromatosis. Eng C, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4191-4

Mutation of the RET proto-oncogene is correlated with RET immunostaining in subpopulations of cells in sporadic medullary thyroid carcinoma. Eng C, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4310-3

Mutation analysis reveals novel sequence variants in NTRK1 in sporadic human medullary thyroid carcinoma. Gimm O, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2784-7

RET/PTC and RET tyrosine kinase expression in adult papillary thyroid carcinomas [see comments] Learoyd DL, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3631-5. Comment in: J Clin Endocrinol Metab 1999 Jun;84(6):2257-8.

Genetic heterogeneity in familial nonmedullary thyroid carcinoma: exclusion of linkage to RET, MNG1, and TCO in 56 families. NMTC Consortium. Lesueur F, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2157-62

RET proto-oncogene in the development of human cancer. Eng C. **J Clin Oncol** 1999 Jan;17(1):380-93 (127 ref.)

Effects of aging and axotomy on the expression of neurotrophin receptors in primary sensory neurons. Bergman E, et al. **J Comp Neurol** 1999 Aug 2;410(3):368-86

Nerve growth factor receptor TrkA is expressed by horizontal and amacrine cells during chicken retinal development. Karlsson M, et al. **J Comp Neurol** 1998 Oct 26;400(3):408-16

Differential expression of TrkC catalytic and noncatalytic isoforms suggests that they act independently or in association. Menn B, et al. **J Comp Neurol** 1998 Nov 9; 401(1):47-64

Expression of trkB and trkC mRNAs by adult midbrain dopamine neurons: a double-label in situ hybridization study. Numan S, et al. **J Comp Neurol** 1999 Jan 18; 403(3):295-308

Quantitative evaluation of neurotrophin and trk mRNA expression in visual and limbic areas along the occipito-temporo-hippocampal pathway in adult macaque monkeys. Okuno H, et al. **J Comp Neurol** 1999 Jun 7; 408(3):378-98

Germline RET proto-oncogene mutations in two Taiwanese families with multiple endocrine neoplasia type 2A. Wu SL, et al. **J Formos Med Assoc** 1998 Sep;97(9):614-8

A novel point mutation affecting the tyrosine kinase domain of the TRKA gene in a family with congenital insensitivity to pain with anhidrosis. Yotsumoto S, et al. **J Invest Dermatol** 1999 May;112(5):810-4

Investigation of germline GFR alpha-1 mutations in Hirschsprung disease. Myers SM, et al. **J Med Genet** 1999 Mar;36(3):217-20

Presence of the Apert canonical S252W FGFR2 mutation in a patient without severe syndactyly. Passos-Bueno MR, et al. **J Med Genet** 1998 Aug;35(8):677-9

High prevalence of the C634Y mutation in the RET proto-oncogene in MEN 2A families in Spain. Sánchez B, et al. **J Med Genet** 1999 Jan;36(1):68-70

Localization and regulation of basic fibroblast growth factor (FGF-2) and FGF receptor-1 in rat superior cervical ganglion after axotomy. Klimaschewski L, et al. **J Neurobiol** 1999 Mar;38(4):499-506

A novel juxtamembrane deletion in rat TrkA blocks differentiative but not mitogenic cell signaling in response to nerve growth factor. Meakin SO, et al. **J Neurochem** 1998 Nov;71(5):1875-88

Stimulation of adenylyl cyclase and induction of brain-derived neurotrophic factor and TrkB mRNA by NKH477, a novel and potent forskolin derivative. Morinobu S, et al. **J Neurochem** 1999 May;72(5):2198-205

Differentiation and growth inhibition of glioma cells induced by transfer of trk A proto-oncogene. Kokunai T, et al. **J Neurooncol** 1999 Mar;42(1):23-34

Chromosome 7 rearrangements in glioblastomas; loci adjacent to EGFR are independently amplified. Liu L, et al. **J Neuropathol Exp Neurol** 1998 Dec;57(12):1138-45

TrkB isoforms with distinct neurotrophin specificities are expressed in predominantly nonoverlapping populations of avian dorsal root ganglion neurons. Boeshore KL, et al. **J Neurosci** 1999 Jun 15;19(12):4739-47

Molecular evidence for the early specification of presumptive functional domains in the embryonic primate cerebral cortex. Donoghue MJ, et al. **J Neurosci** 1999 Jul 15; 19(14):5967-79

Acetylcholinesterase gene expression in axotomized rat facial motoneurons is differentially regulated by neurotrophins: correlation with trkB and trkC mRNA levels and isoforms. Fernandes KJ, et al. **J Neurosci** 1998 Dec 1;18(23):9936-47

Epidermal and fibroblast growth factors behave as mitogenic regulators for a single multipotent stem cell-like population from the subventricular region of the adult mouse forebrain. Gritti A, et al. **J Neurosci** 1999 May 1;19(9):3287-97

Lampetra fluviatilis neurotrophin homolog, descendant of a neurotrophin ancestor, discloses the early molecular evolution of neurotrophins in the vertebrate subphylum. Hallböök F, et al. **J Neurosci** 1998 Nov 1;18(21):8700-11

Multiple actions of neurturin correlate with spatiotemporal patterns of Ret expression in developing chick cranial ganglion neurons. Hashino E, et al. **J Neurosci** 1999 Oct 1;19(19):8476-86

Ephrin-A binding and EphA receptor expression delineate the matrix compartment of the striatum. Janis LS, et al. **J Neurosci** 1999 Jun 15;19(12):4962-71

Upregulation of GFRalpha-1 and c-ret in primary sensory neurons and spinal motoneurons of aged rats. Bergman E, et al. **J Neurosci Res** 1999 Jul 15;57(2):153-65

Lipopolysaccharide differentially regulates microglial trk receptor and neurotrophin expression. Elkabes S, et al. **J Neurosci Res** 1998 Oct 1;54(1):117-22

Localization of mRNAs for trkB isoforms and p75 in rat retinal ganglion cells [published erratum appears in J Neurosci Res 1999 Jan 1;55(1):135] Suzuki A, et al. **J Neurosci Res** 1998 Oct 1;54(1):27-37

Marsupial retinocollicular system shows differential expression of messenger RNA encoding EphA receptors and their ligands during development. Vidovic M, et al. **J Neurosci Res** 1999 Jul 15;57(2):244-54

Adrenal and extra-adrenal pheochromocytomas in a family with germline RET V804L mutation [letter] Nilsson O, et al. **JAMA** 1999 May 5;281(17):1587-8

Differential regulation of MMP-9 and TIMP-2 expression in malignant melanoma developed in metallothionein/RET transgenic mice. Asai M, et al. **Jpn J Cancer Res** 1999 Jan; 90(1):86-92

Two germline missense mutations at codons 804 and 806 of the RET proto-oncogene in the same allele in a patient with multiple endocrine neoplasia type 2B without codon 918 mutation. Miyauchi A, et al. **Jpn J Cancer Res** 1999 Jan;90(1):1-5

Somatic mutations in the RET protooncogene in Japanese and Chinese sporadic medullary thyroid carcinomas. Shan L, et al. **Jpn J Cancer Res** 1998 Sep;89(9):883-6

Genotype-phenotype correlation of patients with multiple endocrine neoplasia type 2 in Japan [see comments] Egawa S, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):590-6. Comment in: Jpn J Clin Oncol 1998 Oct;28(10):588-9.

A ret transgenic mouse model of thyroid carcinogenesis. Capen C, et al. **Lab Anim Sci** 1998 Dec;48(6):580-3 (3 ref.)

Vascular endothelial growth factor and its receptor, KDR, in human brain tissue after ischemic stroke. Issa R, et al. **Lab Invest** 1999 Apr;79(4):417-25

Hepatocyte growth factor increases expression of vascular endothelial growth factor and plasminogen activator inhibitor-1 in human keratinocytes and the vascular endothelial growth factor receptor flk-1 in human endothelial cells. Wojta J, et al. **Lab Invest** 1999 Apr; 79(4):427-38

Expression of receptor tyrosine kinase HTK (hepatoma transmembrane kinase) and HTK ligand by human leukemia-lymphoma cell lines. Steube KG, et al. **Leuk Lymphoma** 1999 Apr;33(3-4):371-6

Internal tandem duplication of the FLT3 gene and clinical evaluation in childhood acute myeloid leukemia. The Children's Cancer and Leukemia Study Group, Japan. Iwai T, et al. **Leukemia** 1999 Jan;13(1):38-43

Axl expression is associated with adverse prognosis and with expression of Bcl-2 and CD34 in de novo acute myeloid leukemia (AML): results from a multicenter trial of the Swiss Group for Clinical Cancer Research (SAKK). Rochlitz C, et al. **Leukemia** 1999 Sep;13(9):1352-8

Human acute myeloid leukemia cells with internal tandem duplications in the Flt3 gene show reduced proliferative ability in stroma supported long-term cultures. Rombouts WJ, et al. **Leukemia** 1999 Jul;13(7):1071-8

Cell-type specific modular regulation of derailed in the Drosophila nervous system. Bonkowsky JL, et al. **Mech Dev** 1999 Apr;82(1-2):181-4

The Drosophila putative kinase linotte (derailed) prevents central brain axons from converging on a newly described interhemispheric ring. Simon AF, et al. **Mech Dev** 1998 Aug;76(1-2):45-55

A single amino acid substitution in the v-Eyk intracellular domain results in activation of Stat3 and enhances cellular transformation. Besser D, et al. **Mol Cell Biol** 1999 Feb; 19(2):1401-9

Germline and somatic mutations of the RET proto-oncogene in apparently sporadic medullary thyroid carcinomas. Scurini C, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):51-7

GDNF family neurotrophic factor signaling: four masters, one servant? Airaksinen MS, et al. **Mol Cell Neurosci** 1999 May;13(5):313-25 (117 ref.)

Isolation and characterization of Dek, a Drosophila eph receptor protein tyrosine kinase. Scully AL, et al. **Mol Cell Neurosci** 1999 May;13(5):337-47

A codon 891 exon 15 RET proto-oncogene mutation in familial medullary thyroid carcinoma: a detection strategy. Dang GT, et al. **Mol Cell Probes** 1999 Feb;13(1):77-9

Genomic structure of the EPHA1 receptor tyrosine kinase gene. Owshalimpur D, et al. **Mol Cell Probes** 1999 Jun; 13(3):169-73

Absence of MEN2A- or 2B-type RET mutations in primary neuroblastoma tumour tissue. Peaston AE, et al. **Mol Cell Probes** 1998 Aug;12(4):239-42

Alternative splicing of vascular endothelial growth factor (VEGF)-R1 (FLT-1) pre-mRNA is important for the regulation of VEGF activity. He Y, et al. **Mol Endocrinol** 1999 Apr;13(4):537-45

Expression of mRNA for vascular endothelial growth factor transmembraneous receptors Flt1 and KDR, and the soluble receptor sflt in cycling human endometrium. Krüssel JS, et al. **Mol Hum Reprod** 1999 May;5(5):452-8

The cloning of GRK7, a candidate cone opsin kinase, from cone- and rod-dominant mammalian retinas. Weiss ER, et al. **Mol Vis** 1998 Dec 8;4:27

Fv2 encodes a truncated form of the Stk receptor tyrosine kinase [see comments] Persons DA, et al. **Nat Genet** 1999 Oct;23(2):159-65. Comment in: Nat Genet 1999 Oct;23(2):128-30.

Expression of GDNF and GDNFR-alpha mRNAs in muscles of patients with motor neuron diseases. Yamamoto M, et al. **Neurochem Res** 1999 Jun;24(6):785-90

Topographic guidance labels in a sensory projection to the forebrain. Feldheim DA, et al. **Neuron** 1998 Dec; 21(6):1303-13

Retarded growth and deficits in the enteric and parasympathetic nervous system in mice lacking GFR alpha2, a functional neurturin receptor. Rossi J, et al. **Neuron** 1999 Feb;22(2):243-52

Rescue of retinal ganglion cells from axotomy-induced apoptosis through TRK oncogene transfer. Garcia Valenzuela E, et al. **Neuroreport** 1998 Oct 5;9(14):3165-70

Identification of mammalian GFRalpha-2 splice isoforms. Wong YW, et al. **Neuroreport** 1998 Dec 1;9(17):3767-73

Glial cell line-derived neurotrophic factor protects dopaminergic neurons from 6-hydroxydopamine toxicity in vitro. Eggert K, et al. **Neurosci Lett** 1999 Jul 16; 269(3):178-82

Glial cell line-derived neurotrophic factor and nerve growth

factor receptor mRNAs are expressed in distinct subgroups of dorsal root ganglion neurons and are differentially regulated by peripheral axotomy in the rat. Kashiba H, et al. **Neurosci Lett** 1998 Aug 14;252(2):107–10

Reduced tyrosine kinase receptor C mRNA levels in the frontal cortex of patients with schizophrenia. Schramm M, et al. **Neurosci Lett** 1998 Nov 27;257(2):65–8

trkB messenger RNA expression in normal human brain and in the substantia nigra of parkinsonian patients: an in situ hybridization study. Benisty S, et al. **Neuroscience** 1998 Oct;86(3):813–26

Correlated long-term increase of brain-derived neurotrophic factor and Trk B proteins in enlarged granule cells of mouse hippocampus after kainic acid injection. Inoue T, et al. **Neuroscience** 1998 Oct;86(3):723–8

Up-regulation of Eph tyrosine kinase receptors after excitotoxic injury in adult hippocampus. Moreno-Flores MT, et al. **Neuroscience** 1999;91(1):193–201

Bioactivity of anti-angiogenic ribozymes targeting Flt-1 and KDR mRNA. Parry TJ, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2569–77

The Glu632-Leu633 deletion in cysteine rich domain of Ret induces constitutive dimerization and alters the processing of the receptor protein. Bongarzone I, et al. **Oncogene** 1999 Aug 26;18(34):4833–8

RET cooperates with RB/p53 inactivation in a somatic multi-step model for murine thyroid cancer. Coxon AB, et al. **Oncogene** 1998 Sep 24;17(12):1625–8

Over-representation of a germline RET sequence variant in patients with sporadic medullary thyroid carcinoma and somatic RET codon 918 mutation. Gimm O, et al. **Oncogene** 1999 Feb 11;18(6):1369–73

Heart-specific activation of LTK results in cardiac hypertrophy, cardiomyocyte degeneration and gene reprogramming in transgenic mice. Honda H, et al. **Oncogene** 1999 Jul 1;18(26):3821–30

Genomic characterization of the human trkC gene. Ichaso N, et al. **Oncogene** 1998 Oct 8;17(14):1871–5

A 5'-CG-3'-rich region in the promoter of the transcriptionally frequently silenced RET protooncogene lacks methylated cytidine residues. Munnes M, et al. **Oncogene** 1998 Nov 19;17(20):2573–83

Ryk is expressed in a differentiation-specific manner in epithelial tissues and is strongly induced in decidualizing uterine stroma. Serfas MS, et al. **Oncogene** 1998 Dec 31; 17(26):3435–44

Ganglioneuromas and renal anomalies are induced by activated RET(MEN2B) in transgenic mice. Sweetser DA, et al. **Oncogene** 1999 Jan 28;18(4):877–86

Differential expression assay of chromosome arm 8p genes identifies Frizzled-related (FRP1/FRZB) and Fibroblast Growth Factor Receptor 1 (FGFR1) as candidate breast cancer genes. Ugolini F, et al. **Oncogene** 1999 Mar 11; 18(10):1903–10

Alteration of fibroblast growth factor and receptor expression after acute pancreatitis in humans. Ebert M, et al. **Pancreas** 1999 Apr;18(3):240–6

Estrogen-inducible, sex-specific expression of brain-derived neurotrophic factor mRNA in a forebrain song control nucleus of the juvenile zebra finch. Dittrich F, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8241–6

EphA4 (Sek1) receptor tyrosine kinase is required for the development of the corticospinal tract. Dottori M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13248–53

Synergistic activities of multiple phosphotyrosine residues mediate full signaling from the Drosophila Torso receptor tyrosine kinase. Gayko U, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):523–8

Roles of trk family neurotrophin receptors in medullary thyroid carcinoma development and progression. McGregor LM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4540–5

Systemic hypoxia changes the organ-specific distribution of vascular endothelial growth factor and its receptors. Marti HH, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15809–14

Neurotrophins regulate agrin-induced postsynaptic differentiation. Wells DG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1112–7

Thyroid carcinomas in RET/PTC transgenic mice. Jhiang SM, et al. **Recent Results Cancer Res** 1998;154:265–70

Rearrangements of RET and NTRK1 tyrosine kinase receptors in papillary thyroid carcinomas. Pierotti MA, et al. **Recent Results Cancer Res** 1998;154:237–47 (47 ref.)

Molecular genetics of childhood papillary thyroid carcinomas after irradiation: high prevalence of RET rearrangement. Rabes HM, et al. **Recent Results Cancer Res** 1998;154:248–64 (92 ref.)

Mechanisms of development of multiple endocrine neoplasia type 2 and Hirschsprung's disease by ret mutations. Takahashi M, et al. **Recent Results Cancer Res** 1998; 154:229–36 (22 ref.)

Genetic aspects of Hirschsprung's disease. Kusafuka T, et al. **Semin Pediatr Surg** 1998 Aug;7(3):148–55 (97 ref.)

Normal thyroid pathology in patients undergoing thyroidectomy for finding a RETgene germline mutation: a report of three cases and review of the literature. Kebebew E, et al. **Thyroid** 1999 Feb;9(2):127–31 (17 ref.)

Low prevalence of the ret/PTC3r1 rearrangement in a series of papillary thyroid carcinomas presenting in Belarus ten years post-Chernobyl. Pisarchik AV, et al. **Thyroid** 1998 Nov;8(11):1003–8 (39 ref.)

Point nucleotidic changes in both the RET proto-oncogene and the endothelin-B receptor gene in a Hirschsprung disease patient associated with Down syndrome. Sakai T, et al. **Tohoku J Exp Med** 1999 Jan;187(1):43–7

Expression of vascular endothelial growth factor gene and its receptor (flt-1) gene in urinary bladder cancer. Sato K, et al. **Tohoku J Exp Med** 1998 Jul;185(3):173–84

Decreased expression of receptors for vascular endothelial growth factor and sinusoidal endothelial cell damage in cold-preserved rat livers. Arai S, et al. **Transplant Proc** 1999 Sep;31(6):2668–72

[Genes and genetics in Hirschsprung's disease] Maas SM, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1352–6 (24 ref.) (Eng. Abstr.) **(Dut)**

[Ret (REarranged during Transfection). Oncogene] **Bull Cancer** 1998 Dec;85(12):985–6 **(Fre)**

[A new inherited RET proto-oncogene mutation associated with familial medullary thyroid carcinoma and polymorphisms in adjacent regions (published erratum appears in Genetika 1999 Jan;35(1):116)] Kalinin VN, et al. **Genetika** 1998 Aug;34(8):1157–9 (Eng. Abstr.) **(Rus)**

[Early diagnosis of multiple endocrine neoplasia type 2 (MEN 2) by detection of mutated RET proto-oncogene carriers] Sansó G, et al. **Medicina (B Aires)** 1998;58(2):179–84 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Monoclonal antibodies targeting the VEGF receptor-2 (Flk1/KDR) as an anti-angiogenic therapeutic strategy. Witte L, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):155–61 (21 ref.)

Characterization of two monoclonal antibodies against the RON tyrosine kinase receptor. Montero-Julian FA, et al. **Hybridoma** 1998 Dec;17(6):541–51

Production of a monoclonal antibody directed against the high-affinity nerve growth factor receptor. Tagliabue E, et al. **Int J Biol Markers** 1999 Apr-Jun;14(2):68–72

Decreased CGRP, but preserved Trk A immunoreactivity in nerve fibres in inflamed human superficial temporal arteries. Saldanha G, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar;66(3):390–2

ISOLATION & PURIFICATION

Evidence for the existence of a novel pregnancy-associated soluble variant of the vascular endothelial growth factor receptor, Flt-1. Banks RE, et al. **Mol Hum Reprod** 1998 Apr;4(4):377–86

METABOLISM

Trk A, B, and C are commonly expressed in human astrocytes and astrocytic gliomas but not by human oligodendrocytes and oligodendroglioma. Wang Y, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):357–64

c-Src, receptor tyrosine kinases, and human cancer. Biscardi JS, et al. **Adv Cancer Res** 1999;76:61–119 (488 ref.)

Exposure to hyperoxia decreases the expression of vascular endothelial growth factor and its receptors in adult rat lungs. Klekamp JG, et al. **Am J Pathol** 1999 Mar; 154(3):823–31

Expression of neurotrophins and their receptors in human bone marrow. Labouyrie E, et al. **Am J Pathol** 1999 Feb; 154(2):405–15

KDR activation is crucial for VEGF165-mediated Ca2+ mobilization in human umbilical vein endothelial cells. Cunningham SA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C176–81

Tyrosine kinase-deficient Wv c-kit induces mast cell adhesion and chemotaxis. Dastych J, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1291–9

Myocardial overexpression of GRK3 in transgenic mice: evidence for in vivo selectivity of GRKs. Iaccarino G, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1298–306

Regulation of c-ret expression by retinoic acid in rat metanephros: implication in nephron mass control. Moreau E, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F938–45

Development of full-length Trk B-immunoreactive structures in the hippocampal formation of the macaque monkey. Hayashi M, et al. **Anat Embryol (Berl)** 1999 Jun; 199(6):529–37

Comparison of ephrin-A ligand and EphA receptor distribution in the developing inner ear. Bianchi LM, et al. **Anat Rec** 1999 Jan;254(1):127–34

VEGF induces nuclear translocation of Flk-1/KDR, endothelial nitric oxide synthase, and caveolin-1 in vascular endothelial cells. Feng Y, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):192–7

Characterization of the VEGF binding site on the Flt-1 receptor. Herley MT, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):731–8

Sck interacts with KDR and Flt-1 via its SH2 domain. Igarashi K, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):77–82

Cytoskeletal reorganization leads to induction of the urokinase-type plasminogen activator gene by activating FAK and Src and subsequently the Ras/Erk signaling pathway. Irigoyen JP, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):666–70

VEGF-A induces expression of eNOS and iNOS in endothelial cells via VEGF receptor-2 (KDR). Kroll J, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):743–6

Enhanced phosphatidylinositol 3-kinase activity and high phosphorylation state of its downstream signalling molecules mediated by ret with the MEN 2B mutation. Murakami H, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):68–75

p85 subunit of PI3 kinase does not bind to human Flt3 receptor, but associates with SHP2, SHIP, and a tyrosine-phosphorylated 100-kDa protein in Flt3 ligand-stimulated hematopoietic cells. Zhang S, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):440–5

Differential regulation of vascular endothelial growth factor and its receptor fms-like-tyrosine kinase is mediated by nitric oxide in rat renal mesangial cells. Frank S, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):367–74

Effects of the binding of a dextran derivative on fibroblast growth factor 2: secondary structure and receptor-binding studies. Bittoun P, et al. **Biochem Pharmacol** 1999 Jun 15; 57(12):1399–406

Tyrosine kinase activity of purified recombinant cytoplasmic domain of platelet-derived growth factor beta-receptor (beta-PDGFR) and discovery of a novel inhibitor of receptor tyrosine kinases. Zaman GJ, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):57–64

Restoration of potent protein-tyrosine phosphatase activity into the membrane-distal domain of receptor protein-tyrosine phosphatase alpha. Buist A, et al. **Biochemistry** 1999 Jan 19;38(3):914–22

Novel peptides selected to bind vascular endothelial growth factor target the receptor-binding site. Fairbrother WJ, et al. **Biochemistry** 1998 Dec 22;37(51):17754–64

Localization of the sites for Ca2+-binding proteins on G protein-coupled receptor kinases. Levay K, et al. **Biochemistry** 1998 Sep 29;37(39):13650–9

Characterization and kinetic mechanism of catalytic domain of human vascular endothelial growth factor receptor-2 tyrosine kinase (VEGFR2 TK), a key enzyme in angiogenesis. Parast CV, et al. **Biochemistry** 1998 Nov 24; 37(47):16788–801

Palmitoylation increases the kinase activity of the G protein-coupled receptor kinase, GRK6. Stoffel RH, et al. **Biochemistry** 1998 Nov 17;37(46):16053–9

cAMP inhibits linoleic acid-induced growth by antagonizing p27(kip1) depletion, but not interfering with the extracellular signal-regulated kinase or AP-1 activities. Hu ZY, et al. **Biochim Biophys Acta** 1998 Oct 21; 1405(1-3):139–46

TrkB mutant lacking the amino-terminal half of the extracellular portion acts as a functional brain-derived neurotrophic factor receptor. Kojima S, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1-2):104–10

Proteoglycans in human malignant mesothelioma. Stimulation of their synthesis induced by epidermal, insulin and platelet-derived growth factors involves receptors with tyrosine kinase activity. Syrokou A, et al. **Biochimie** 1999 Jul;81(7):733–44

Requirement of activation of JNK and p38 for environmental stress-induced erythroid differentiation and apoptosis and of inhibition of ERK for apoptosis. Nagata Y, et al. **Blood** 1999 Aug 1;94(3):853–63

Inflammatory cytokines and vascular endothelial growth factor stimulate the release of soluble tie receptor from human endothelial cells via metalloprotease activation. Yabkowitz R, et al. **Blood** 1999 Mar 15;93(6):1969–79

Early progenitor cells from human mobilized peripheral blood express low levels of the flt3 receptor, but exhibit various biological responses to flt3-L. Aurran-Schleinitz T, et al. **Br J Haematol** 1999 Aug;106(2):357–67

The RET receptor tyrosine kinase, but not its specific ligand, GDNF, is preferentially expressed by acute leukaemias of monocytic phenotype and is up-regulated upon differentiation. Gattei V, et al. **Br J Haematol** 1999 Apr; 105(1):225–40

Immunolocalisation of the VEGF receptors FLT-1, KDR, and FLT-4 in diabetic retinopathy. Smith G, et al. **Br J Ophthalmol** 1999 Apr;83(4):486–94

Induction of glial cell line-derived neurotrophic factor receptor proteins in cerebral cortex and striatum after permanent middle cerebral artery occlusion in rats. Kitagawa H, et al. **Brain Res** 1999 Jul 10;834(1-2):190–5

Gas6, a ligand for the receptor protein-tyrosine kinase Tyro-3, is widely expressed in the central nervous system. Prieto AL, et al. **Brain Res** 1999 Jan 23;816(2):646–61

Change of expression of full-length and truncated TrkBs in the developing monkey central nervous system. Ohira K, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):21–9

Amyloid precursor protein modulates the interaction of nerve growth factor with p75 receptor and potentiates its activation of trkA phosphorylation. Akar CA, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):125–32

Using green fluorescent protein to understand the mechanisms of G-protein-coupled receptor regulation. Ferguson SS. **Braz J Med Biol Res** 1998 Nov;31(11):1471–7 (50 ref.)

KDR activation in astrocytic neoplasms. Carroll RS, et al. **Cancer** 1999 Oct 1;86(7):1335–41

Synthesis and secretion of the anticoagulant protein S and coexpression of the Tyro3 receptor in human lung carcinoma cells. Wimmel A, et al. **Cancer** 1999 Jul 1; 86(1):43–9

Involvement of VEGF and its receptors in ascites tumor formation. Shibuya M, et al. **Cancer Chemother Pharmacol** 1999;43 Suppl:S72–7

A receptor tyrosine kinase, UFO/Axl, and other genes isolated by a modified differential display PCR are overexpressed in metastatic prostatic carcinoma cell line DU145. Jacob AN, et al. **Cancer Detect Prev** 1999; 23(4):325–32

Inhibition of vascular endothelial growth factor induced mitogenesis of human endothelial cells by a chimeric anti-kinase insert domain-containing receptor antibody. Zhu Z, et al. **Cancer Lett** 1999 Mar 1;136(2):203–13

Ret-mediated mitogenesis requires Src kinase activity. Melillo RM, et al. **Cancer Res** 1999 Mar 1;59(5):1120–6

Activation of Vav and Ras through the nerve growth factor and B cell receptors by different kinases. Melamed I, et al. **Cell Immunol** 1999 Feb 1;191(2):83–9

G-protein-linked receptors as tyrosine kinase substrates: new paradigms in signal integration. Malbon CC, et al. **Cell Signal** 1998 Sep;10(8):523–7 (23 ref.)

Synergistic activation of a family of phosphoinositide 3-kinase via G-protein coupled and tyrosine kinase-related receptors. Katada T, et al. **Chem Phys Lipids** 1999 Apr; 98(1–2):79–86 (30 ref.)

Reciprocal in vivo regulation of myocardial G protein-coupled receptor kinase expression by beta-adrenergic receptor stimulation and blockade. Iaccarino G, et al. **Circulation** 1998 Oct 27;98(17):1783–9

GFR alpha-4 and the tyrosine kinase Ret form a functional receptor complex for persephin. Enokido Y, et al. **Curr Biol** 1998 Sep 10;8(18):1019–22

Masking of Eph receptors and ephrins [letter] Sobieszczuk DF, et al. **Curr Biol** 1999 Jul 1;9(13):R469–70

Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia-reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087–96

Quantitative variations in the level of MAPK activity control patterning of the embryonic termini in Drosophila. Ghiglione C, et al. **Dev Biol** 1999 Jan 1;205(1):181–93

Drosophila Src42A is a negative regulator of RTK signaling. Lu X, et al. **Dev Biol** 1999 Apr 1;208(1):233–43

Kinase Receptor Activation (KIRA): a rapid and accurate alternative to endpoint bioassays. Sadick MD. **Dev Biol Stand** 1999;97:121–33

The expression and regulation of chick EphA7 suggests roles in limb patterning and innervation. Araujo M, et al. **Development** 1998 Nov;125(21):4195–204

Transforming growth factor-beta signalling in extraembryonic mesoderm is required for yolk sac vasculogenesis in mice. Goumans MJ, et al. **Development** 1999 Aug;126(16):3473–83

Eph receptors and ephrins: effectors of morphogenesis. Holder N, et al. **Development** 1999 May;126(10):2033–44 (104 ref.)

Multipotential progenitors of the mammalian enteric nervous system capable of colonising aganglionic bowel in organ culture. Natarajan D, et al. **Development** 1999 Jan; 126(1):157–68

Sprouty is a general inhibitor of receptor tyrosine kinase signaling. Reich A, et al. **Development** 1999 Sep; 126(18):4139–47

Signalling by the RET receptor tyrosine kinase and its role in the development of the mammalian enteric nervous system. Taraviras S, et al. **Development** 1999 Jun; 126(12):2785–97

Impaired glucose transport and insulin receptor tyrosine phosphorylation in skeletal muscle from obese women with gestational diabetes. Friedman JE, et al. **Diabetes** 1999 Sep; 48(9):1807–14

Biochemical and functional interactions between the neurotrophin receptors trk and p75NTR. Bibel M, et al. **EMBO J** 1999 Feb 1;18(3):616–22

A function-structure model for NGF-activated TRK. Cunningham ME, et al. **EMBO J** 1998 Dec 15; 17(24):7282–93

A single amino acid substitution in a WW-like domain of diverse members of the PDGF receptor subfamily of tyrosine kinases causes constitutive receptor activation. Irusta PM, et al. **EMBO J** 1998 Dec 1;17(23):6912–23

Tor proteins and protein phosphatase 2A reciprocally regulate Tap42 in controlling cell growth in yeast. Jiang Y, et al. **EMBO J** 1999 May 17;18(10):2782–92

Role of alphavbeta3 integrin in the activation of vascular endothelial growth factor receptor-2. Soldi R, et al. **EMBO J** 1999 Feb 15;18(4):882–92

Multiple binding sites in the growth factor receptor Xmrk mediate binding to p59fyn, GRB2 and Shc. Wellbrock C, et al. **Eur J Biochem** 1999 Feb;260(1):275–83

Expression of vascular endothelial growth factor (VEGF) and its receptors in human neuroblastoma. Meister B, et al. **Eur J Cancer** 1999 Mar;35(3):445–9

TrkA activation in the rat visual cortex by antirat trkA IgG prevents the effect of monocular deprivation. Pizzorusso T, et al. **Eur J Neurosci** 1999 Jan;11(1):204–12

Signaling via fibroblast growth factor receptor-1 is dependent on extracellular matrix in capillary endothelial cell differentiation. Kanda S, et al. **Exp Cell Res** 1999 Apr 10;248(1):203–13

FGF receptor availability regulates skeletal myogenesis. Scata KA, et al. **Exp Cell Res** 1999 Jul 10;250(1):10–21

PI3-kinase is involved in mitogenic signaling by the oncogenic receptor tyrosine kinase Xiphophorus melanoma receptor kinase in fish melanoma. Wellbrock C, et al. **Exp Cell Res** 1999 Sep 15;251(2):340–9

Expression of Flt3 and c-kit during growth and maturation of human CD34+CD38- cells. Xiao M, et al. **Exp Hematol** 1999 May;27(5):916–27

VEGF mRNA and its receptor flt-1 are expressed in reactive astrocytes following neural grafting and tumor cell implantation in the adult CNS. Krum JM, et al. **Exp Neurol** 1998 Nov;154(1):57–65

Regulation of G-protein-coupled receptor kinase subtypes by calcium sensor proteins. Iacovelli L, et al. **FASEB J** 1999 Jan;13(1):1–8 (43 ref.)

Platelet-derived growth factor-induced activation of sphingosine kinase requires phosphorylation of the PDGF receptor tyrosine residue responsible for binding of PLCgamma. Olivera A, et al. **FASEB J** 1999 Sep; 13(12):1593–600

Influence of endogenous GM1 ganglioside on TrkB activity, in cultured neurons. Pitto M, et al. **FEBS Lett** 1998 Nov 13;439(1–2):93–6

Synergistic action of R-Ras and IGF-1 on Bcl-xL expression and caspase-3 inhibition in BaF3 cells: R-Ras and IGF-1 control distinct anti-apoptotic kinase pathways. Suzuki J, et al. **FEBS Lett** 1998 Oct 16;437(1–2):112–6

Drosophila unpaired encodes a secreted protein that activates the JAK signaling pathway. Harrison DA, et al. **Genes Dev** 1998 Oct 15;12(20):3252–63

Take your partners, please—signal diversification by the erbB family of receptor tyrosine kinases. Daly RJ. **Growth Factors** 1999;16(4):255–63 (70 ref.)

Fibroblast growth factor receptor (FGFR)-1 and -2 in the ovine corpus luteum throughout the estrous cycle. Doraiswamy V, et al. **Growth Factors** 1998;16(2):125–35

Characterization of TEK receptor tyrosine kinase and its ligands, Angiopoietins, in human hematopoietic progenitor cells. Sato A, et al. **Int Immunol** 1998 Aug;10(8):1217–27

VEGF, VEGFR-1, VEGFR-2, microvessel density and endothelial cell proliferation in tumours of the ovary. Orre M, et al. **Int J Cancer** 1999 Apr 20;84(2):101–8

Ectopic expression of RET results in microphthalmia and tumors in the retinal pigment epithelium. Schmidt A, et al. **Int J Cancer** 1999 Feb 9;80(4):600–5

Expression patterns of neurturin and its receptor components in developing and degenerative mouse retina. Jomary C, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):568–74

Expressions of angiopoietins and Tie2 in human choroidal neovascular membranes. Otani A, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1912–20

17 Beta-estradiol increases VEGF receptor-2 and promotes DNA synthesis in retinal microvascular endothelial cells. Suzuma I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2122–9

Expression of angiopoietin-1, angiopoietin-2, and the Tie-2 receptor tyrosine kinase during mouse kidney maturation. Yuan HT, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1722–36

Characterization of vascular endothelial cell growth factor interactions with the kinase insert domain-containing receptor tyrosine kinase. A real time kinetic study. Cunningham SA, et al. **J Biol Chem** 1999 Jun 25; 274(26):18421–7

Vascular endothelial growth factor regulates endothelial cell survival through the phosphatidylinositol 3'-kinase/Akt signal transduction pathway. Requirement for Flk-1/KDR activation. Gerber HP, et al. **J Biol Chem** 1998 Nov 13; 273(46):30336–43

Vascular endothelial growth factor signals endothelial cell production of nitric oxide and prostacyclin through flk-1/KDR activation of c-Src. He H, et al. **J Biol Chem** 1999 Aug 27;274(35):25130–5

Growth hormone stimulates phosphorylation and activation of elk-1 and expression of c-fos, egr-1, and junB through activation of extracellular signal-regulated kinases 1 and 2. Hodge C, et al. **J Biol Chem** 1998 Nov 20; 273(47):31327–36

Activation of the protein kinase ERK5/BMK1 by receptor tyrosine kinases. Identification and characterization of a signaling pathway to the nucleus. Kamakura S, et al. **J Biol Chem** 1999 Sep 10;274(37):26563–71

Vascular endothelial growth factor receptor KDR tyrosine kinase activity is increased by autophosphorylation of two activation loop tyrosine residues. Kendall RL, et al. **J Biol Chem** 1999 Mar 5;274(10):6453–60

Sustained activation of the mitogen-activated protein kinase pathway. A mechanism underlying receptor tyrosine kinase specificity for matrix metalloproteinase-9 induction and cell migration. McCawley LJ, et al. **J Biol Chem** 1999 Feb 12;274(7):4347–53

Induction of cell shape changes through activation of the interleukin-3 common beta chain receptor by the RON receptor-type tyrosine kinase. Mera A, et al. **J Biol Chem** 1999 May 28;274(22):15766–74

A novel type of vascular endothelial growth factor, VEGF-E (NZ-7 VEGF), preferentially utilizes KDR/Flk-1 receptor and carries a potent mitotic activity without heparin-binding domain. Ogawa S, et al. **J Biol Chem** 1998 Nov 20;273(47):31273–82

Effect of transmembrane and kinase domain mutations on fibroblast growth factor receptor 3 chimera signaling in PC12 cells. A model for the control of receptor tyrosine kinase activation. Raffioni S, et al. **J Biol Chem** 1998 Dec 25;273(52):35250–9

JunB forms the majority of the AP-1 complex and is a target for redox regulation by receptor tyrosine kinase and G protein-coupled receptor agonists in smooth muscle cells. Rao GN, et al. **J Biol Chem** 1999 Feb 26;274(9):6003–10

A TrkA-selective, fast internalizing nerve growth factor-antibody complex induces trophic but not neuritogenic signals. Saragovi HU, et al. **J Biol Chem** 1998 Dec 25;273(52):34933–40

Homologous up-regulation of KDR/Flk-1 receptor expression by vascular endothelial growth factor in vitro. Shen BQ, et al. **J Biol Chem** 1998 Nov 6;273(45):29979–85

Mapping of the sites involved in ligand association and dissociation at the extracellular domain of the kinase insert domain-containing receptor for vascular endothelial growth factor. Shinkai A, et al. **J Biol Chem** 1998 Nov 20;273(47):31283–8

Brain-derived neurotrophic factor induces rapid and transient release of glutamate through the non-exocytotic pathway from cortical neurons. Takei N, et al. **J Biol Chem** 1998 Oct 16;273(42):27620–4

Fiz1, a novel zinc finger protein interacting with the receptor tyrosine kinase Flt3. Wolf I, et al. **J Biol Chem** 1999 Jul 23;274(30):21478–84

The Csk homologous kinase associates with TrkA receptors and is involved in neurite outgrowth of PC12 cells. Yamashita H, et al. **J Biol Chem** 1999 May 21; 274(21):15059–65

Stat3 plays an important role in oncogenic Ros- and insulin-like growth factor I receptor-induced anchorage-independent growth. Zong CS, et al. **J Biol Chem** 1998 Oct 23;273(43):28065–72

The junction-associated protein AF-6 interacts and clusters with specific Eph receptor tyrosine kinases at specialized sites of cell-cell contact in the brain. Buchert M, et al. **J Cell Biol** 1999 Jan 25;144(2):361–71

Novel protein kinases Ark1p and Prk1p associate with and regulate the cortical actin cytoskeleton in budding yeast. Cope MJ, et al. **J Cell Biol** 1999 Mar 22;144(6):1203–18

Regulation of the actin cytoskeleton organization in yeast by a novel serine/threonine kinase Prk1p. Zeng G, et al. **J Cell Biol** 1999 Jan 11;144(1):71–82

Distinct domains of MuSK mediate its abilities to induce and to associate with postsynaptic specializations. Zhou H, et al. **J Cell Biol** 1999 Sep 6;146(5):1133–46

Receptor tyrosine kinase expression in human bone marrow stromal cells. Satomura K, et al. **J Cell Physiol** 1998 Dec; 177(3):426–38

Activation-dependent clustering of the erbB2 receptor tyrosine kinase detected by scanning near-field optical microscopy. Nagy P, et al. **J Cell Sci** 1999 Jun;112 (Pt 11):1733–41

Cell-type specific and estrogen dependent expression of the receptor tyrosine kinase EphB4 and its ligand ephrin-B2 during mammary gland morphogenesis. Nikolova Z, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2741–51

Mutation of the RET proto-oncogene is correlated with RET immunostaining in subpopulations of cells in sporadic medullary thyroid carcinoma. Eng C, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4310–3

The Ron/STK receptor tyrosine kinase is essential for peri-implantation development in the mouse. Muraoka RS, et al. **J Clin Invest** 1999 May;103(9):1277–85

Immunohistochemical localization of EphA5 in the adult human central nervous system. Olivieri G, et al. **J Histochem Cytochem** 1999 Jul;47(7):855–61

Fibroblast growth factor-1 (FGF-1) enhances IL-2 production and nuclear translocation of NF-kappaB in FGF receptor-bearing Jurkat T cells. Byrd VM, et al. **J Immunol** 1999 May 15;162(10):5853–9

Activation of the RON receptor tyrosine kinase inhibits inducible nitric oxide synthase (iNOS) expression by murine peritoneal exudate macrophages: phosphatidylinositol-3 kinase is required for RON-mediated inhibition of iNOS expression. Chen YQ, et al. **J Immunol** 1998 Nov 1; 161(9):4950–9

Characterization of RANTES- and aminooxypentane-RANTES-triggered desensitization signals reveals differences in recruitment of the G protein-coupled receptor complex. Vila-Coro AJ, et al. **J Immunol** 1999 Sep 15;163(6):3037–44

Kinases involved in MSP/RON signaling. Danilkovitch A, et al. **J Leukoc Biol** 1999 Mar;65(3):345–8 (47 ref.)

Flt3 signaling involves tyrosyl-phosphorylation of SHP-2 and SHIP and their association with Grb2 and Shc in Baf3/Flt3 cells. Zhang S, et al. **J Leukoc Biol** 1999 Mar; 65(3):372–80

Interleukin-1 beta upregulates cardiac expression of vascular endothelial growth factor and its receptor KDR/flk-1 via activation of protein tyrosine kinases. Maruyama K, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):607–17

TrkA glycosylation regulates receptor localization and activity. Watson FL, et al. **J Neurobiol** 1999 May; 39(2):323–36

Extended ceramide exposure activates the trkA receptor by increasing receptor homodimer formation. MacPhee I, et al. **J Neurochem** 1999 Apr;72(4):1423–30

Activation of the high affinity nerve growth factor receptor by two polyanionic chemotherapeutic agents: role in drug induced neurotoxicity. Gill JS, et al. **J Neurooncol** 1998 Oct;40(1):19–27

Differentiation and growth inhibition of glioma cells induced by transfer of trk A proto-oncogene. Kokunai T, et al. **J Neurooncol** 1999 Mar;42(1):23–34

BDNF and full-length and truncated TrkB expression in Alzheimer disease. Implications in therapeutic strategies.

Ferrer I, et al. **J Neuropathol Exp Neurol** 1999 Jul; 58(7):729–39

Immunohistochemical evidence of seizure–induced activation of trk receptors in the mossy fiber pathway of adult rat hippocampus. Binder DK, et al. **J Neurosci** 1999 Jun 1; 19(11):4616–26

Ciliary neurotrophic factor receptor alpha in spinal motoneurons is regulated by gonadal hormones. Forger NG, et al. **J Neurosci** 1998 Nov 1;18(21):8720–9

Ephrin–A binding and EphA receptor expression delineate the matrix compartment of the striatum. Janis LS, et al. **J Neurosci** 1999 Jun 15;19(12):4962–71

Constitutively active MuSK is clustered in the absence of agrin and induces ectopic postsynaptic–like membranes in skeletal muscle fibers. Jones G, et al. **J Neurosci** 1999 May 1;19(9):3376–83

Subcellular localization of full–length and truncated Trk receptor isoforms in polarized neurons and epithelial cells. Kryl D, et al. **J Neurosci** 1999 Jul 15;19(14):5823–33

Differential regulation of neurotrophin and trk receptor mRNAs in catecholaminergic nuclei during chronic opiate treatment and withdrawal. Numan S, et al. **J Neurosci** 1998 Dec 15;18(24):10700–8

Chronic pain is associated with increased TrkA immunoreactivity in spinoreticular neurons. Pezet S, et al. **J Neurosci** 1999 Jul 1;19(13):5482–92

Extracellular signal–regulated kinase (ERK) controls immediate early gene induction on corticostriatal stimulation. Sgambato V, et al. **J Neurosci** 1998 Nov 1; 18(21):8814–25

Selective regulation of trkC expression by NT3 in the developing peripheral nervous system. Wyatt S, et al. **J Neurosci** 1999 Aug 1;19(15):6559–70

Functional expression of TrkA receptors in hippocampal neurons. Aibel L, et al. **J Neurosci Res** 1998 Nov 1; 54(3):424–31

NT–3–mediated TrkC receptor activation promotes proliferation and cell survival of rodent progenitor oligodendrocyte cells in vitro and in vivo. Kumar S, et al. **J Neurosci Res** 1998 Dec 15;54(6):754–65

Expression of vascular endothelial growth factor (VEGF) and its receptors is regulated in eyes with intra–ocular tumours. Stitt AW, et al. **J Pathol** 1998 Nov;186(3):306–12

G–protein coupled receptor kinases as modulators of G–protein signalling. Bünemann M, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):5–23 (186 ref.)

Agonist–specific regulation of delta–opioid receptor trafficking by G protein–coupled receptor kinase and beta–arrestin. Zhang J, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):301–13

Localization of fibroblast growth factor–2 (basic FGF) and FGF receptor–1 in adult human kidney [see comments] Floege J, et al. **Kidney Int** 1999 Sep;56(3):883–97. Comment in: Kidney Int 1999 Sep;56(3):1156–7.

Potential roles of metalloprotease mediated ectodomain cleavage in signaling by the endothelial receptor tyrosine kinase Tie–1. McCarthy MJ, et al. **Lab Invest** 1999 Jul; 79(7):889–95

Expression of vascular endothelial growth factor receptor–3 and podoplanin suggests a lymphatic endothelial cell origin of Kaposi's sarcoma tumor cells. Weninger W, et al. **Lab Invest** 1999 Feb;79(2):243–51

SHC and SHIP phosphorylation and interaction in response to activation of the FLT3 receptor. Marchetto S, et al. **Leukemia** 1999 Sep;13(9):1374–82

Differential expression of KDR/VEGFR–2 and CD34 during mesoderm development of the early human embryo. Cort s F, et al. **Mech Dev** 1999 May;83(1–2):161–4

Different tyrosine autophosphorylation requirements in fibroblast growth factor receptor–1 mediate urokinase–type plasminogen activator induction and mitogenesis. Dell'Era P, et al. **Mol Biol Cell** 1999 Jan;10(1):23–33

Overexpression of a kinase–deficient transforming growth factor–beta type II receptor in mouse mammary stroma results in increased epithelial branching. Joseph H, et al. **Mol Biol Cell** 1999 Apr;10(4):1221–34

Dephosphorylation increases insulin–stimulated receptor kinase activity in skeletal muscle of obese Zucker rats. Zhou Q, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):209–16

A single amino acid substitution in the v–Eyk intracellular domain results in activation of Stat3 and enhances cellular transformation. Besser D, et al. **Mol Cell Biol** 1999 Feb; 19(2):1401–9

Rapamycin antifungal action is mediated via conserved complexes with FKBP12 and TOR kinase homologs in Cryptococcus neoformans. Cruz MC, et al. **Mol Cell Biol** 1999 Jun;19(6):4101–12

Functional analysis of H–Ryk, an atypical member of the receptor tyrosine kinase family. Katso RM, et al. **Mol Cell Biol** 1999 Sep;19(9):6427–40

Growth arrest–specific gene 6 (Gas6)/adhesion related kinase (Ark) signaling promotes gonadotropin–releasing hormone neuronal survival via extracellular signal–regulated kinase (ERK) and Akt. Allen MP, et al. **Mol Endocrinol** 1999 Feb;13(2):191–201

Role of G protein–coupled receptor kinases on the agonist–induced phosphorylation and internalization of the follitropin receptor. Lazari MF, et al. **Mol Endocrinol** 1999 Jun;13(6):866–78

Modulation of fibroblast growth factor–2 receptor binding, signaling, and mitogenic activity by heparin–mimicking polysulfonated compounds. Liekens S, et al. **Mol Pharmacol** 1999 Jul;56(1):204–13

The staurosporine–like compound L–753,000 (NB–506) potentiates the neurotrophic effects of neurotrophin–3 by acting selectively at the TrkA receptor. Pollack S, et al. **Mol Pharmacol** 1999 Jul;56(1):185–95

FGF–2 facilitates binding of SH3 domain of PLC–gamma1 to vinculin and SH2 domains to FGF receptor in corneal endothelial cells. Park SY, et al. **Mol Vis** 1999 Aug 20;5:18

Eph receptors and ephrins restrict cell intermingling and communication. Mellitzer G, et al. **Nature** 1999 Jul 1; 400(6739):77–81

In vivo cell sorting in complementary segmental domains mediated by Eph receptors and ephrins. Xu Q, et al. **Nature** 1999 May 20;399(6733):267–71

Expression of vascular endothelial growth factor and its receptors in rats with protein–overload nephrosis. Horita Y, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2519–28

Eph receptors, ephrins, and PDZs gather in neuronal synapses [comment] Hsueh YP, et al. **Neuron** 1998 Dec; 21(6):1227–9 (12 ref.). Comment on: Neuron 1998 Dec;21(6):1453–63.

Depolarization and cAMP elevation rapidly recruit TrkB to the plasma membrane of CNS neurons. Meyer–Franke A, et al. **Neuron** 1998 Oct;21(4):681–93

Identification and characterization of novel substrates of Trk receptors in developing neurons. Qian X, et al. **Neuron** 1998 Nov;21(5):1017–29

PDZ proteins bind, cluster, and synaptically colocalize with Eph receptors and their ephrin ligands [see comments] Torres R, et al. **Neuron** 1998 Dec;21(6):1453–63. Comment in: Neuron 1998 Dec;21(6):1227–9.

Increased levels of TrkA in the regenerating retinal ganglion cells of fish. Vecino E, et al. **Neuroreport** 1998 Oct 26; 9(15):3409–13

Compartmental expression of trkB receptor protein in the developing striatum. Costantini LC, et al. **Neuroscience** 1999 Mar;89(2):505–13

Visual input regulates the expression of basic fibroblast growth factor and its receptor. Gómez–Pinilla F, et al. **Neuroscience** 1999;88(4):1051–8

Ontogeny of neurotrophin receptor trkC expression in the rat forebrain and anterior hypothalamus with emphasis on the suprachiasmatic nucleus. Hassink GC, et al. **Neuroscience** 1999;92(2):705–12

trkA, trkB, and trkC messenger RNA expression by bulbospinal cells of the rat. King VR, et al. **Neuroscience** 1999;92(3):935–44

Long–term actions of vector–derived nerve growth factor or brain–derived neurotrophic factor on choline acetyltransferase and Trk receptor levels in the adult rat basal forebrain. Klein RL, et al. **Neuroscience** 1999 Mar; 90(3):815–21

Regulation of ciliary neurotrophic factor receptor alpha in sciatic motor neurons following axotomy. MacLennan AJ, et al. **Neuroscience** 1999;91(4):1401–13

The distribution of neurotrophin receptor TrkC–like immunoreactive fibers and varicosities in the rhesus monkey brain. Sandell JH, et al. **Neuroscience** 1998 Oct; 86(4):1181–94

Tyrosine kinase A, galanin and nitric oxide synthase within basal forebrain neurons in the rat. Sobreviela T, et al. **Neuroscience** 1998 Nov;87(2):447–61

Co–expression of TrkB and the N–methyl–D–aspartate receptor subunits NR1–C1, NR2A and NR2B in the rat visual cortex. Tongiorgi E, et al. **Neuroscience** 1999; 90(4):1361–9

Grb2 binding to the different isoforms of Ret tyrosine kinase. Alberti L, et al. **Oncogene** 1998 Sep 3;17(9):1079–87

Regulation of NGF responsiveness in human neuroblastoma. Bogenmann E, et al. **Oncogene** 1998 Nov 5;17(18):2367–76

The Glu632–Leu633 deletion in cysteine rich domain of Ret induces constitutive dimerization and alters the processing of the receptor protein. Bongarzone I, et al. **Oncogene** 1999 Aug 26;18(34):4833–8

The proto–oncogene c–Cbl is a negative regulator of DNA synthesis initiated by both receptor and cytoplasmic tyrosine kinases. Broome MA, et al. **Oncogene** 1999 May 6;18(18):2908–12

Dual effect on the RET receptor of MEN 2 mutations affecting specific extracytoplasmic cysteines. Chappuis–Flament S, et al. **Oncogene** 1998 Dec 3; 17(22):2851–61

Autophosphorylation of KDR in the kinase domain is required for maximal VEGF–stimulated kinase activity and receptor internalization. Dougher M, et al. **Oncogene** 1999 Feb 25;18(8):1619–27

Role of tyrosine residues and protein interaction domains of SHC adaptor in VEGF receptor 3 signaling. Fournier E, et al. **Oncogene** 1999 Jan 14;18(2):507–14

Cot protooncoprotein activates the dual specificity kinases MEK–1 and SEK–1 and induces differentiation of PC12 cells. Hagemann D, et al. **Oncogene** 1999 Feb 18; 18(7):1391–400

Endothelial receptor tyrosine kinases activate the STAT signaling pathway: mutant Tie–2 causing venous malformations signals a distinct STAT activation response. Korpelainen EI, et al. **Oncogene** 1999 Jan 7;18(1):1–8

Rho–dependent and –independent tyrosine phosphorylation of focal adhesion kinase, paxillin and p130Cas mediated by Ret kinase. Murakami H, et al. **Oncogene** 1999 Mar 18; 18(11):1975–82

Tyrosine kinase receptor–activated signal transduction pathways which lead to oncogenesis. Porter AC, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1343–52 (106 ref.)

Ryk is expressed in a differentiation–specific manner in epithelial tissues and is strongly induced in decidualizing uterine stroma. Serfas MS, et al. **Oncogene** 1998 Dec 31; 17(26):3435–44

Growth inhibition of breast cancer cells by Grb2 downregulation is correlated with inactivation of mitogen–activated protein kinase in EGFR, but not in ErbB2, cells. Tari AM, et al. **Oncogene** 1999 Feb 11; 18(6):1325–32

Regulation of vascular endothelial growth factor receptor KDR in vitro by a soluble factor in confluent endothelial cells. Liu W, et al. **Pathobiology** 1998;66(5):247–52

Vascular endothelial growth factor (VEGF) is present in human breast milk and its receptor is present on intestinal epithelial cells. Siafakas CG, et al. **Pediatr Res** 1999 May; 45(5 Pt 1):652–7

The CLAVATA1 receptor–like kinase requires CLAVATA3 for its assembly into a signaling complex that includes KAPP and a Rho–related protein [see comments] Trotochaud AE, et al. **Plant Cell** 1999 Mar;11(3):393–406 . Comment in: Plant Cell 1999 Mar;11(3):299–301.

SbRLK1, a receptor–like protein kinase of Sorghum bicolor (L.) Moench that is expressed in mesophyll cells. Annen F, et al. **Planta** 1999 May;208(3):420–5

Induction of the Tat–binding protein 1 gene accompanies the disabling of oncogenic erbB receptor tyrosine kinases. Park BW, et al. **Proc Natl Acad Sci U S A** 1999 May 25; 96(11):6434–8

Vascular endothelial growth factor (VEGF)–like protein from orf virus NZ2 binds to VEGFR2 and neuropilin–1. Wise LM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):3071–6

Adaptor proteins and T–cell antigen receptor signaling. Samelson LE. **Prog Biophys Mol Biol** 1999;71(3–4):393–403 (53 ref.)

Studying signal transduction in neuronal cells: the Trk/NGF system. Kaplan DR. **Prog Brain Res** 1998;117:35–46 (70 ref.)

Eph receptors and ligands in axon pathway choice, target recognition, and synaptogenesis. Lemke G. **Prog Brain Res** 1998;117:171–6 (34 ref.)

Alterations in the immunohistochemical distribution patterns of vascular endothelial growth factor receptors Flk1 and Flt1 in bleomycin–induced rat lung fibrosis. Fehrenbach H, et al. **Virchows Arch** 1999 Jul;435(1):20–31

[Inhibition of fibroblast growth factor receptor 1 expression in human glioblastoma cell contributes to the cell growth suppression] Yamada SM, et al. **No To Shinkei** 1998 Dec; 50(12):1101–5 (Eng. Abstr.) **(Jpn)**

[Signal transduction of nerve growth factor (NGF) and its TrkA and p75NTR receptors] Niewiadomska G, et al. **Postepy Biochem** 1999;45(1):21–31 (79 ref.) **(Pol)**

PHARMACOLOGY

Flt3LP3nduces the ex–vivo amplification of umbilical cord blood committed progenitors and early stem cells in short–term cultures. De Felice L, et al. **Br J Haematol** 1999 Jul;106(1):133–41

Thrombopoietin, flt3, and kit ligands together suppress apoptosis of human mobilized CD34+ cells and recruit primitive CD34+ Thy–1+ cells into rapid division. Murray LJ, et al. **Exp Hematol** 1999 Jun;27(6):1019–28

Administration of Flk2/Flt3 ligand induces expansion of human high–proliferative potential colony–forming cells in the SCID–hu mouse. Namikawa R, et al. **Exp Hematol** 1999 Jun;27(6):1029–37

PHYSIOLOGY

Expression of c–ret promotes morphogenesis and cell survival in mIMCD–3 cells. O'Rourke DA, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F581–8

VEGF stimulates MAPK through a pathway that is unique for receptor tyrosine kinases. Doanes AM, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):545–8

Lipocortin V may function as a signaling protein for vascular endothelial growth factor receptor–2/Flk–1. Wen Y, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):713–21

Functional activation of EphA5 receptor does not promote cell proliferation in the aberrant EphA5 expressing human glioblastoma U–118 MG cell line. Bruce V, et al. **Brain Res** 1999 Mar 6;821(1):169–76

TrkA receptors delay C6–2B glioma cell growth in rat striatum. Rabin SJ, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):273–6

The pivotal role of VEGF in tumor angiogenesis: molecular facts and therapeutic opportunities. Siemeister G, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):241–8 (70 ref.)

Activation of neurotrophin–3 receptor TrkC induces apoptosis in medulloblastomas. Kim JY, et al. **Cancer Res** 1999 Feb 1;59(3):711–9

Two independent mechanisms essential for tumor angiogenesis: inhibition of human melanoma xenograft growth by interfering with either the vascular endothelial growth factor receptor pathway or the Tie–2 pathway. Siemeister G, et al. **Cancer Res** 1999 Jul 1;59(13):3185–91

Structural basis for FGF receptor dimerization and activation. Plotnikov AN, et al. **Cell** 1999 Sep 3; 98(5):641–50

Vascular endothelial growth factor upregulates the

expression of matrix metalloproteinases in vascular smooth muscle cells: role of flt-1. Wang H, et al. **Circ Res** 1998 Oct 19;83(8):832-40

Role of vascular endothelial growth factor and vascular endothelial growth factor receptors in vascular development. Carmeliet P, et al. **Curr Top Microbiol Immunol** 1999;237:133-58 (133 ref.)

Functions of Tie1 and Tie2 receptor tyrosine kinases in vascular development. Partanen J, et al. **Curr Top Microbiol Immunol** 1999;237:159-72 (67 ref.)

Structure and function of vascular endothelial growth factor receptor-1 and -2. Shibuya M, et al. **Curr Top Microbiol Immunol** 1999;237:59-83 (92 ref.)

Vascular endothelial growth factor receptor-3. Taipale J, et al. **Curr Top Microbiol Immunol** 1999;237:85-96 (44 ref.)

FLT3: receptor and ligand. Biology and potential clinical application. Shurin MR, et al. **Cytokine Growth Factor Rev** 1998 Mar;9(1):37-48 (104 ref.)

Age-dependent differences in the effects of GDNF and NT-3 on the development of neurons and glia from neural crest-derived precursors immunoselected from the fetal rat gut: expression of GFRalpha-1 in vitro and in vivo. Chalazonitis A, et al. **Dev Biol** 1998 Dec 15;204(2):385-406

A novel vascular endothelial growth factor encoded by Orf virus, VEGF-E, mediates angiogenesis via signalling through VEGFR-2 (KDR) but not VEGFR-1 (Flt-1) receptor tyrosine kinases. Meyer M, et al. **EMBO J** 1999 Jan 15;18(2):363-74

The role of amino acids surrounding tyrosine 1062 in ret in specific binding of the shc phosphotyrosine-binding domain. Ishiguro Y, et al. **Endocrinology** 1999 Sep; 140(9):3992-8

Marrow sensitization to 5-fluorouracil using the ligands for Flt-3 and c-Kit. Jin L, et al. **Exp Hematol** 1999 Mar; 27(3):520-5

Vascular endothelial growth factor (VEGF) and its receptors. Neufeld G, et al. **FASEB J** 1999 Jan;13(1):9-22 (182 ref.)

Signal relays in the VEGF system. Ortega N, et al. **Front Biosci** 1999 Feb 1;4:D141-52 (130 ref.)

Roles of ephrinB ligands and EphB receptors in cardiovascular development: demarcation of arterial/venous domains, vascular morphogenesis, and sprouting angiogenesis. Adams RH, et al. **Genes Dev** 1999 Feb 1;13(3):295-306

Eph signaling is required for segmentation and differentiation of the somites. Durbin L, et al. **Genes Dev** 1998 Oct 1; 12(19):3096-109

GDNF family members and their receptors: expression and functions in two oligodendroglial cell lines representing distinct stages of oligodendroglial development. Strelau J, et al. **Glia** 1999 Jun;26(4):291-301

Role of c-kit receptor tyrosine kinase in development of oval cells in the rat 2-acetylaminofluorene/partial hepatectomy model. Matsusaka S, et al. **Hepatology** 1999 Mar;29(3):670-6

Critical role of the TIE2 endothelial cell receptor in the development of definitive hematopoiesis. Takakura N, et al. **Immunity** 1998 Nov;9(5):677-86

The Syk family of protein tyrosine kinases in T-cell activation and development. Chu DH, et al. **Immunol Rev** 1998 Oct;165:167-80 (79 ref.)

Agonist-dependent desensitization of the kappa opioid receptor by G protein receptor kinase and beta-arrestin. Appleyard SM, et al. **J Biol Chem** 1999 Aug 20; 274(34):23802-7

Mechanotransduction in response to shear stress. Roles of receptor tyrosine kinases, integrins, and Shc. Chen KD, et al. **J Biol Chem** 1999 Jun 25;274(26):18393-400

Pleiotropic coupling of G protein-coupled receptors to the mitogen-activated protein kinase cascade. Role of focal adhesions and receptor tyrosine kinases. Della Rocca GJ, et al. **J Biol Chem** 1999 May 14;274(20):13978-84

G protein-coupled receptor kinase 6A phosphorylates the Na(+)/H(+) exchanger regulatory factor via a PDZ domain-mediated interaction. Hall RA, et al. **J Biol Chem** 1999 Aug 20;274(34):24328-34

Requirement of Erk, but not JNK, for arsenite-induced cell transformation. Huang C, et al. **J Biol Chem** 1999 May 21;274(21):14595-601

Ret-dependent and -independent mechanisms of glial cell line-derived neurotrophic factor signaling in neuronal cells. Trupp M, et al. **J Biol Chem** 1999 Jul 23;274(30):20885-94

p53 is essential for developmental neuron death as regulated by the TrkA and p75 neurotrophin receptors. Aloyz RS, et al. **J Cell Biol** 1998 Dec 14;143(6):1691-703

Heptahelical receptor signaling: beyond the G protein paradigm. Hall RA, et al. **J Cell Biol** 1999 May 31; 145(5):927-32 (66 ref.)

A novel receptor tyrosine kinase, Mer, inhibits TNF-alpha production and lipopolysaccharide-induced endotoxic shock. Camenisch TD, et al. **J Immunol** 1999 Mar 15; 162(6):3498-503

Retardation of hair follicle development by the deletion of TrkC, high-affinity neurotrophin-3 receptor [letter] Botchkareva NV, et al. **J Invest Dermatol** 1999 Sep; 113(3):425-7

Proteolytic cleavage and activation of pro-macrophage-stimulating protein and upregulation of its receptor in tissue injury. Nanney LB, et al. **J Invest Dermatol** 1998 Oct;111(4):573-81

A novel juxtamembrane deletion in rat TrkA blocks differentiative but not mitogenic cell signaling in response to nerve growth factor. Meakin SO, et al. **J Neurochem** 1998 Nov;71(5):1875-88

Evidence for a role of truncated trkC receptor isoforms in mouse development. Palko ME, et al. **J Neurosci** 1999 Jan 15;19(2):775-82

TrkB signaling modulates spine density and morphology independent of dendrite structure in cultured neonatal Purkinje cells. Shimada A, et al. **J Neurosci** 1998 Nov 1; 18(21):8559-70

Characterization of an NGF-P-TrkA retrograde-signaling complex and age-dependent regulation of TrkA phosphorylation in sympathetic neurons. Tsui-Pierchala BA, et al. **J Neurosci** 1999 Oct 1;19(19):8207-18

Rapid nuclear responses to target-derived neurotrophins require retrograde transport of ligand-receptor complex. Watson FL, et al. **J Neurosci** 1999 Sep 15;19(18):7889-900

Analysis of receptor internalization as a mechanism for modulating signal transduction. Haugh JM, et al. **J Theor Biol** 1998 Nov 21;195(2):187-218

Biological role of HGF/MET pathway in renal cell carcinoma. Horie S, et al. **J Urol** 1999 Mar;161(3):990-7

VEGF via VEGF receptor-1 (Flt-1) mimics preeclamptic plasma in inhibiting uterine blood vessel relaxation in pregnancy: implications in the pathogenesis of preeclampsia. Brockelsby J, et al. **Lab Invest** 1999 Sep; 79(9):1101-11

Insulin-like growth factor-II expression is down-regulated in TrkA-transfected SK-N-AS neuroblastoma cells. Kim CJ, et al. **Lab Invest** 1999 Aug;79(8):1007-13

Activity-dependent activation of TrkB neurotrophin receptors in the adult CNS. Aloyz R, et al. **Learn Mem** 1999 May-Jun;6(3):216-31

Determinants of BDNF-induced hippocampal synaptic plasticity: role of the Trk B receptor and the kinetics of neurotrophin delivery. Kang H, et al. **Learn Mem** 1996 Sep-Oct;3(2-3):188-96

Expression of Fgfr2 in the early mouse embryo indicates its involvement in preimplantation development. Haffner-Krausz R, et al. **Mech Dev** 1999 Jul;85(1-2):167-72

Requirement for EphA receptor signaling in the segregation of Xenopus third and fourth arch neural crest cells. Helbling PM, et al. **Mech Dev** 1998 Nov;78(1-2):63-79

The receptor tyrosine kinase gene linotte is required for neuronal pathway selection in the Drosophila mushroom bodies. Moreau-Fauvarque C, et al. **Mech Dev** 1998 Nov; 78(1-2):47-61

Trks: signal transduction and intracellular pathways. Klesse LJ, et al. **Microsc Res Tech** 1999 May 15-Jun 1; 45(4-5):210-6 (73 ref.)

Opposing actions of CSW and RasGAP modulate the strength of Torso RTK signaling in the Drosophila terminal pathway. Cleghon V, et al. **Mol Cell** 1998 Dec;2(6):719-27

Involvement of G protein-coupled receptor kinases and arrestins in desensitization to follicle-stimulating hormone action. Troispoux C, et al. **Mol Endocrinol** 1999 Sep; 13(9):1599-614

Agonist induced homologous desensitization of mu-opioid receptors mediated by G protein-coupled receptor kinases is dependent on agonist efficacy. Kovoor A, et al. **Mol Pharmacol** 1998 Oct;54(4):704-11

A C. elegans Ror receptor tyrosine kinase regulates cell motility and asymmetric cell division. Forrester WC, et al. **Nature** 1999 Aug 26;400(6747):881-5

Tyro-3 family receptors are essential regulators of mammalian spermatogenesis. Lu Q, et al. **Nature** 1999 Apr 22;398(6729):723-8

Artemin, a novel member of the GDNF ligand family, supports peripheral and central neurons and signals through the GFRalpha3-RET receptor complex. Baloh RH, et al. **Neuron** 1998 Dec;21(6):1291-302

Modulation of EphA receptor function by coexpressed ephrinA ligands on retinal ganglion cell axons. Hornberger MR, et al. **Neuron** 1999 Apr;22(4):731-42

Eph receptors, ephrins, and PDZs gather in neuronal synapses [comment] Hsueh YP, et al. **Neuron** 1998 Dec; 21(6):1227-9 (12 ref.). Comment on: Neuron 1998 Dec;21(6):1453-63.

Functional consequences of coincident expression of EphA receptors and ephrin-A ligands. McLaughlin T, et al. **Neuron** 1999 Apr;22(4):636-9

GFR alpha3, a component of the artemin receptor, is required for migration and survival of the superior cervical ganglion. Nishino J, et al. **Neuron** 1999 Aug;23(4):725-36

Nociception activates Elk-1 and Sap1a following expression of the ORL1 receptor in Chinese hamster ovary cells. Bevan N, et al. **Neuroreport** 1998 Aug 24;9(12):2703-8

Biological and biochemical properties of Ret with kinase domain mutations identified in multiple endocrine neoplasia type 2B and familial medullary thyroid carcinoma. Iwashita T, et al. **Oncogene** 1999 Jul 1;18(26):3919-22

The Tek/Tie2 receptor signals through a novel Dok-related docking protein, Dok-R. Jones N, et al. **Oncogene** 1998 Sep 3;17(9):1097-108

Interaction of EphB2-tyrosine kinase receptor and its ligand conveys dorsalization signal in Xenopus laevis development. Tanaka M, et al. **Oncogene** 1998 Sep 24; 17(12):1509-16

EphA4 (Sek1) receptor tyrosine kinase is required for the development of the corticospinal tract. Dottori M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13248-53

Conditional requirement for the Flk-1 receptor in the in vitro generation of early hematopoietic cells. Hidaka M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7370-5

Signaling through fibroblast growth factor receptor 2b plays a key role in the development of the exocrine pancreas. Miralles F, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6267-72

Nerve growth factor acutely reduces chemical transmission by means of postsynaptic TrkA-like receptors in squid giant synapse. Moreno H, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14997-5002

In vitro hematopoietic and endothelial potential of flk-1(-/-) embryonic stem cells and embryos. Schuh AC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2159-64

Mechanisms of involvement in development of retinotectal connections: roles of Eph receptor tyrosine kinases, NMDA receptors and nitric oxide. Ernst AF, et al. **Prog Brain Res** 1998;118:115-31 (131 ref.)

Signal transduction by the receptor tyrosine kinase Ret. van Weering DH, et al. **Recent Results Cancer Res** 1998; 154:271-81 (40 ref.)

Cardiovascular failure in mouse embryos deficient in VEGF receptor-3. Dumont DJ, et al. **Science** 1998 Oct 30; 282(5390):946-9

VEGFs, receptors and angiogenesis. Veikkola T, et al. **Semin Cancer Biol** 1999 Jun;9(3):211-20 (99 ref.)

Emerging roles for SH2/PTB-containing Shc adaptor proteins in the developing mammalian brain. Cattaneo E, et al. **Trends Neurosci** 1998 Nov;21(11):476-81 (65 ref.)

[Receptors and development of endothelial and hematopoietic cells] Eichmann A, et al. **J Soc Biol** 1999; 193(2):155-7 (31 ref.) (Eng. Abstr.) **(Fre)**

[Regulation of angiogenesis-expression of VEGF receptors] Morita I. **Hum Cell** 1998 Dec;11(4):215-20 (15 ref.) (Eng. Abstr.) **(Jpn)**

[The signal transduction of receptor tyrosine kinase] Takada T, et al. **Nippon Rinsho** 1998 Jul;56(7):1756-62 (Eng. Abstr.) **(Jpn)**

RECEPTOR TYROSINE KINASE see **RECEPTOR PROTEIN-TYROSINE KINASE**

RECEPTORS, ACETYLCHOLINE see **RECEPTORS, CHOLINERGIC**

RECEPTORS, ACTH see **RECEPTORS, CORTICOTROPIN**

RECEPTORS, ADENOSINE see **RECEPTORS, PURINERGIC P1**

RECEPTORS, ADP see **RECEPTORS, PURINERGIC P2**

RECEPTORS, ADRENERGIC

AGONISTS see ADRENERGIC AGONISTS

ANALYSIS

Non-adrenergic, non-cholinergic neurons innervating the guinea-pig trachea are located in the oesophagus: evidence from retrograde neuronal tracing. Moffatt JD, et al. **Neurosci Lett** 1998 May 22;248(1):37-40

[Receptors of monoamine in sympathetic preganglionic neurons of neonatal rat spinal cord in vitro] Cai SR, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):581-4 (Eng. Abstr.) **(Chi)**

ANTAGONISTS & INHIBITORS see ADRENERGIC ANTAGONISTS

BIOSYNTHESIS

[Regulation of expression of adrenergic receptors by steroid hormones] Dygalo NN, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):1115-20 (30 ref.) (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Characterization of atypical beta-adrenoceptors in the guinea pig duodenum. Horinouchi T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):61-6

Altered adrenergic responsiveness of endothelium-denuded hepatic arteries and portal veins in patients with cirrhosis. Heller J, et al. **Gastroenterology** 1999 Feb;116(2):387-93

Catecholamine facilitated reentrant ventricular tachycardia: uncoupling of adenosine's antiadrenergic effects. Lerman BB, et al. **J Cardiovasc Electrophysiol** 1999 Jan;10(1):17-26

GENETICS

Human adrenoceptor polymorphisms: evolving recognition of clinical importance. Büscher R, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):94-9 (30 ref.)

METABOLISM

Patterns of adrenoceptor change during liver regeneration of the Wistar Kyoto rat: a binding study. Reyes-Salcido V, et al. **Arch Med Res** 1999 Mar-Apr;30(2):89-92

Alpha2A- but not alpha2B/C-adrenoceptors modulate noradrenaline release in rat locus coeruleus: voltammetric data. Callado LF, et al. **Eur J Pharmacol** 1999 Jan 29; 366(1):35-9

Buspirone functionally discriminates tissues endowed with

alpha1-adrenoceptor subtypes A, B, D and L. Eltze M, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):69-83

Effect of alterations in extracellular norepinephrine on adrenoceptors: a microdialysis study in freely moving rats. Seo DO, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):39-46

Alterations in cardiac membrane beta-adrenoceptors and adenylyl cyclase due to hypochlorous acid. Persad S, et al. **J Mol Cell Cardiol** 1999 Jan;31(1):101-11

Hypothyroidism-evoked shifts in hippocampal adrenergic receptors: implications to ischemia-induced hippocampal damage. Hemmings SJ, et al. **Mol Cell Biochem** 1998 Aug; 185(1-2):161-9

Brain noradrenergic receptors in major depression and schizophrenia. Klimek V, et al.
Neuropsychopharmacology 1999 Jul;21(1):69-81

Distribution of adrenergic receptor subtypes in the retractor muscles of the upper eyelid. Esmaeli-Gutstein B, et al. **Ophthal Plast Reconstr Surg** 1999 Mar;15(2):92-9

Molecular basis for the stereoselective interactions of catecholamines with alpha-adrenoceptors. Hieble JP, et al. **Proc West Pharmacol Soc** 1998;41:225-8 (19 ref.)

Castration differentially alters [3H]nisoxetine binding to norepinephrine uptake sites in olfactory bulb and frontal cortex of male rats. Shang Y, et al. **Synapse** 1999 Mar 15; 31(4):250-5

[Cascade of biochemical events triggered by stimulation of adrenergic receptors in the rat pineal gland--from cell membrane to nucleus] Zawilska JB, et al.
Postepy Hig Med Dosw 1999;53(2):233-46 (53 ref.) (Eng. Abstr.) **(Pol)**

[Genetic variations of noradrenaline synthesis and reception in the mouse brain and the animal behavior in the new environment] Dygalo NN, et al.
Ross Fiziol Zh Im I M Sechenova 1999 Jan;85(1):105-9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Preoptic recess noradrenergic receptors control modification of baroreflex sensitivity by hypertonicity. Bealer SL.
Am J Physiol 1999 Jan;276(1 Pt 2):R44-51

Hypothermia in barbiturate-anesthetized rats suppresses natural killer cell activity and compromises resistance to tumor metastasis: a role for adrenergic mechanisms. Ben-Eliyahu S, et al. **Anesthesiology** 1999 Sep;91(3):732-40

Adrenergic receptors and secretory responses of the rat submandibular salivary gland after periodic incisor reduction. Chiarenza AP, et al. **Arch Oral Biol** 1998 Apr; 43(4):261-7

Lack of effect of a selective vasopressin V1A receptor antagonist SR 49,059, on potentiation by vasopressin of adrenoceptor-mediated pressor responses in the rat mesenteric arterial bed. Heinemann A, et al.
Br J Pharmacol 1998 Nov;125(6):1120-7

Receptors involved in nerve-mediated vasoconstriction in small arteries of the rat hepatic mesentery. Phillips JK, et al. **Br J Pharmacol** 1998 Aug;124(7):1403-12

Expression of immediate early genes, GATA-4, and Nkx-2.5 in adrenergic-induced cardiac hypertrophy and during regression in adult mice. Saadane N, et al.
Br J Pharmacol 1999 Jul;127(5):1165-76

Adrenergic reactivity after inhibition of nitric oxide synthesis in the cerebral circulation of awake goats. Diéguez G, et al. **Brain Res** 1998 Dec 7;813(2):381-9

Modulation of the audiogenic seizure network by noradrenergic and glutamatergic receptors of the deep layers of superior colliculus. Faingold C, et al.
Brain Res 1999 Mar 13;821(2):392-9

Adrenergic modulation of astroglial phospholipase D activity and cell proliferation. Kötter K, et al. **Brain Res** 1999 May 29;830(1):138-45

A bolus of inhaled budesonide rapidly reverses airway subsensitivity and beta2-adrenoceptor down-regulation after regular inhaled formoterol. Aziz I, et al. **Chest** 1999 Mar;115(3):623-8

Abnormal norepinephrine clearance and adrenergic receptor sensitivity in idiopathic orthostatic intolerance. Jacob G, et al. **Circulation** 1999 Apr 6;99(13):1706-12

Adrenergic modulation of small bowel haemodynamics in interdigestive motility state of man. Thollander M, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):257-65

Adrenergic innervation of rat sensory ganglia following proximal or distal painful sciatic neuropathy: distinct mechanisms revealed by anti-NGF treatment. Ramer MS, et al. **Eur J Neurosci** 1999 Mar;11(3):837-46

Functional characterization of alpha1-adrenoceptor subtypes in longitudinal and circular muscle of human vas deferens. Amobi N, et al. **Eur J Pharmacol** 1999 Feb 19; 367(2-3):291-8

The involvement of opioidergic and noradrenergic mechanisms in nefopam antinociception. Gray AM, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):149-57

Endogenous noradrenergic tone controls symptoms of allodynia in the spinal nerve ligation model of neuropathic pain. Xu M, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):41-5

Corticosterone response induced by intracerebroventricular administration of met-enkephalin and naloxone in rats under stress. Gądek-Michalska A, et al.
Folia Med Cracov 1997;38(3-4):17-26

Acute coronary syndromes: "unifying" theory versus adrenergic stress. Baroldi G. **G Ital Cardiol** 1998 Nov; 28(11):1303-16 (24 ref.) **(Eng, Ita)**

Adrenoceptor involvement in the cardiovascular responses to B-HT 920 in sinoaortic denervated rats. Ricci D, et al. **Gen Pharmacol** 1999 Jan;32(1):29-34

Involvement of nitric oxide in the mediation of NANC inhibitory neurotransmission of guinea-pig trachea. Venugopalan CS, et al. **J Auton Pharmacol** 1998 Oct; 18(5):281-6

Endogenous nitric oxide influences arteriovenous anastomosis adrenergic tone in the conscious rabbit ear. Li Z, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):349-56

IL-1beta and IL-6 excite neurons and suppress nicotinic and noradrenergic neurotransmission in guinea pig enteric nervous system. Xia Y, et al. **J Clin Invest** 1999 May; 103(9):1309-16

Measurement of adenylate cyclase activity in the minute bovine ciliary epithelial cells during the pharmacological stimulation of adrenergic and cholinergic receptors. Sawada N, et al. **J Clin Lab Anal** 1999;13(2):90-4

Sympathetic nervous system, adrenergic receptors, and obesity [editorial; comment] Bray GA. **J Lab Clin Med** 1999 Jul;134(1):4-6. Comment on: J Lab Clin Med 1999 Jul;134(1):33-41.

Role of adrenoceptors in vasopressin, oxytocin and prolactin responses to conditioned fear stimuli in the rat. Zou CJ, et al. **J Neuroendocrinol** 1998 Dec;10(12):905-10

Involvement of cGMP-dependent protein kinase in adrenergic potentiation of transmitter release from the calyx-type presynaptic terminal. Yawo H. **J Neurosci** 1999 Jul 1;19(13):5293-300

Adrenergic regulation of translocation of protein kinase C isozymes in rat pincalocytes. Ho AK, et al.
Mol Cell Endocrinol 1999 Apr 25;150(1-2):169-78

Adrenoceptor-mediated regulation of myofibrillar Ca2+ sensitivity through the GTP-binding protein-related mechanisms: tension recording in beta-escin-skinned single rat cardiac cells with preserved receptor functions. Satoh S, et al. **Pflugers Arch** 1999 Apr;437(5):702-9

Possible role of adrenergic component and cardiac mast cell degranulation in preconditioning-induced cardioprotection. Parikh V, et al. **Pharmacol Res** 1999 Aug; 40(2):129-37

Causalgia, pathological pain, and adrenergic receptors. Perl ER. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7664-7 (39 ref.)

[The role of the muscarinic, adenosine and adrenoreceptors of the heart in the development of postischemic reperfusion ventricular fibrillation] Eliseev VV, et al.
Eksp Klin Farmakol 1999 May-Jun;62(3):25-7 (Eng. Abstr.) **(Rus)**

[Quantitative analysis of ligand-receptor interactions in physiological experiments] Manukhin BN, et al.
Ross Fiziol Zh Im I M Sechenova 1998 Oct;84(10):1049-60 (Eng. Abstr.) **(Rus)**

[The behavioral changes and the EEG of the rat brain induced by hyperactivation of the amygdaloid body under noradrenergic deficiency] Pankova NB, et al.
Zh Vyssh Nerv Deiat Im I P Pavlova 1999 May-Jun; 49(3):471-82 (Eng. Abstr.) **(Rus)**

RECEPTORS, ADRENERGIC, ALPHA

The functional anatomy of noradrenergic neurons in Parkinson's disease. Soldani P, et al. **Funct Neurol** 1999 Apr-Jun;14(2):97-109 (53 ref.)

AGONISTS see ADRENERGIC ALPHA-AGONISTS

ANALYSIS

Molecular and functional mechanisms of right ventricular adaptation in chronic pulmonary hypertension. Chen EP, et al. **Ann Thorac Surg** 1999 Apr;67(4):1053-8

ANTAGONISTS & INHIBITORS see ADRENERGIC ALPHA-ANTAGONISTS

CHEMISTRY

Identification of a three-amino acid deletion in the alpha2B-adrenergic receptor that is associated with reduced basal metabolic rate in obese subjects. Heinonen P, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2429-33

CLASSIFICATION

Properties of alpha-1-adrenergic receptors in the rat prostate: effect of experimental diabetes. Nishi K, et al. **Urol Int** 1998;61(3):147-53

DRUG EFFECTS

The effects of ramipril on sympathetic nervous system function in older patients with hypertension. Lee CC, et al. **Clin Pharmacol Ther** 1999 Apr;65(4):420-7

Effects of adrenergic-receptor blockade and ligation of spleen vessels on the hemodynamics of dogs injected with scorpion venom [see comments] Tarasiuk A, et al.
Crit Care Med 1999 Feb;27(2):365-72. Comment in: Crit Care Med 1999 Feb;27(2):250.

Intralipid enhances alpha1-adrenergic receptor mediated pressor sensitivity. Haastrup AT, et al. **Hypertension** 1998 Oct;32(4):693-8

Alpha-1-adrenoceptor stimulation induces nitric oxide release in rat pulmonary arteries. Boer C, et al.
J Vasc Res 1999 Jan-Feb;36(1):79-81

Oxytocin increases locus coeruleus alpha 2-adrenoreceptor responsiveness in rats. Petersson M, et al. **Neurosci Lett** 1998 Oct 16;255(2):115-8

Effects of imidazoline and non-imidazoline alpha-adrenergic agents on canine platelet aggregation. Hikasa Y, et al.
Pharmacology 1999 Apr;58(4):171-82

The effect of phenylpropanolamine on the urethral pressure and heart rate is retained after repeated short-term administration in the unanaesthetized, conscious dog. Gillberg PG, et al. **Scand J Urol Nephrol** 1998 May; 32(3):171-6

Antagonism by olanzapine of dopamine D1, serotonin2, muscarinic, histamine H1 and alpha 1-adrenergic receptors in vitro. Bymaster FP, et al. **Schizophr Res** 1999 May 4; 37(1):107-22

GENETICS

Transcriptional regulation of alpha1-adrenoceptor gene in the rat liver during different phases of sepsis. Dong LW, et al. **Biochim Biophys Acta** 1999 Feb 24;1453(2):207-15

HISTORY

[Half a century of adrenoceptors (1948-1998): from the laboratory to the clinic] Sánchez García P.
An R Acad Nac Med (Madr) 1998;115(2):299-304 **(Spa)**

IMMUNOLOGY

Involvement of mu-opioid receptors and alpha-adrenoceptors in the immunomodulatory effects of dihydroetorphine. Wu WR, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):79-85

METABOLISM

Serotonergic ergoline derivatives. Mantegani S, et al.
Bioorg Med Chem Lett 1998 May 5;8(9):1117-22

Attenuation by ACE inhibitor drugs of alpha-adrenoceptor sensitivity in human vessels: possible differences related to drug lipophilicity. Kimura M, et al.
Br J Clin Pharmacol 1998 Dec;46(6):599-603

Alpha 1-adrenergic receptor-mediated increase in the mass of phosphatidic acid and 1,2-diacylglycerol in ischemic rat heart. Kurz T, et al. **Cardiovasc Res** 1999 Apr;42(1):48-56

alpha- and beta-adrenergic pathways differentially regulate cell type-specific apoptosis in rat cardiac myocytes. Iwai-Kanai E, et al. **Circulation** 1999 Jul 20;100(3):305-11

Appreciating alpha-adrenergic receptors and their role in ischemic left ventricular dysfunction [editorial; comment] Kern MJ. **Circulation** 1999 Feb 2;99(4):468-71. Comment on: Circulation 1999 Feb 2;99(4):482-90.

Characterization of [3H]idazoxan binding proteins in solubilized membranes from rabbit and human liver. Remaury A, et al. **J Auton Nerv Syst** 1998 Oct 15; 72(2-3):111-7

Interaction of the alpha(1B)-adrenergic receptor with gC1q-R, a multifunctional protein. Xu Z, et al.
J Biol Chem 1999 Jul 23;274(30):21149-54

Autoradiographic study of alpha1- and alpha2-noradrenergic and serotonin1A receptors in the spinal cord of normal and chronically transected cats. Giroux N, et al.
J Comp Neurol 1999 Apr 12;406(3):402-14

N-(Iodopropenyl)-octahydrobenzo[f]- and -[g]quinolines: synthesis and adrenergic and dopaminergic activity studies. Tagmatarchis N, et al. **J Med Chem** 1998 Oct 8; 41(21):4165-70

Hypoxia-reoxygenation and polyunsaturated fatty acids modulate adrenergic functions in cultured cardiomyocytes. Delerive P, et al. **J Mol Cell Cardiol** 1999 Feb;31(2):377-86

Identification of alpha1B adrenergic receptor protein in gonadotropin releasing hormone neurones of the female rat. Hosny S, et al. **J Neuroendocrinol** 1998 Sep; 10(9):687-92

Insights into the unusual alpha adrenoceptor subtype in dog saphenous vein using phenoxybenzamine. Low AM, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):148-56

Effects of alpha- and beta-adrenoceptor blockade on purine secretion induced by sympathetic nerve stimulation in the rat kidney. Mi Z, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):295-301

Expression of alpha2-adrenergic receptors in rat primary afferent neurones after peripheral nerve injury or inflammation. Birder LA, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):533-42

Cross-influence of membrane polyunsaturated fatty acids and hypoxia-reoxygenation on alpha- and beta-adrenergic function of rat cardiomyocytes. Ponsard B, et al. **Lipids** 1999 May;34(5):457-66

Effects of uremic plasma on alpha- and beta-adrenoceptor subtypes. Ferchland A, et al. **Nephron** 1998 Sep;80(1):46-50

Norepinephrine induced alpha-adrenoceptor mediated increase in rat brain Na-K ATPase activity is dependent on calcium ion. Mallick BN, et al. **Neurochem Int** 1999 Jun;34(6):499-507

Oxytocin increases locus coeruleus alpha 2-adrenoreceptor responsiveness in rats. Petersson M, et al. **Neurosci Lett** 1998 Oct 16;255(2):115-8

Alpha2C-adrenoceptor overexpression disrupts execution of spatial and non-spatial search patterns. Björklund M, et al. **Neuroscience** 1999;88(4):1187-98

Heterogeneous effects of rapid eye movement sleep deprivation on binding to alpha- and beta-adrenergic

receptor subtypes in rat brain. Hipólide DC, et al. **Neuroscience** 1998 Oct;86(3):977–87

Characterization of adrenergic receptors in the accessory lacrimal glands of the upper eyelid. Esmaeli-Gutstein B, et al. **Ophthal Plast Reconstr Surg** 1999 Jul;15(4):245–51

Investigations on the stereoselective action of isoxsuprine on alpha- and beta-adrenoceptors in equine common digital artery. Belloli C, et al. **Pharmacol Res** 1999 Aug; 40(2):177–82

Cocaine-induced alterations in the density of monoaminergic receptors in the embryonic guinea pig cerebral wall. Lidow MS, et al. **Synapse** 1999 Jun 1;32(3):225–37

Properties of alpha-1-adrenergic receptors in the rat prostate: effect of experimental diabetes. Nishi K, et al. **Urol Int** 1998;61(3):147–53

[Effect of corticotropin on formalin-evoked c-fos expression of spinal cord and receptors analysis in rat] Li HD, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):394–6 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

alpha-adrenergic vasoconstriction in active skeletal muscles during dynamic exercise. Buckwalter JB, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H33–9

Central alpha2-receptor mechanisms contribute to enhanced renal responses during ketamine-xylazine anesthesia. Cabral AD, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1867–74

A role for MAP kinase in differentiated smooth muscle contraction evoked by alpha-adrenoceptor stimulation. Dessy C, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1081–6

Sympathetic nervous system activity and alpha-adrenergic responsiveness in older hypertensive humans. Supiano MA, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E519–28

Isoproterenol potentiates alpha-adrenergic and muscarinic receptor-mediated Ca2+ response in rat parotid cells. Tanimura A, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1282–7

Modulation of ACh release from airway cholinergic nerves in horses with recurrent airway obstruction. Zhang XY, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L769–75

Norepinephrine inhibits neurons of the intermediate subnucleus of the lateral septum via alpha2-adrenoceptors. Liu W, et al. **Brain Res** 1998 Sep 21;806(1):36–54

alpha-adrenergic stimulation mediates glucose uptake through phosphatidylinositol 3-kinase in rat heart. Doenst T, et al. **Circ Res** 1999 Mar 5;84(4):467–74

Contribution of alpha-adrenergic and beta-adrenergic stimulation to ischemia-induced glucose transporter (GLUT) 4 and GLUT1 translocation in the isolated perfused rat heart. Egert S, et al. **Circ Res** 1999 Jun 25; 84(12):1407–15

Adrenergic/cholinergic immunomodulation in the rat model--in vivo veritas? Rinner I, et al. **Dev Immunol** 1998; 6(3-4):245–52 (35 ref.)

Characterisation of the functional alpha-adrenoceptor subtype in the isolated female pig urethra. Alberts P, et al. **Eur J Pharmacol** 1999 Apr 23;371(1):31–8

Characterization of postjunctional alpha-adrenoceptors in the pithed mouse. McCafferty GP, et al. **Gen Pharmacol** 1999 Jul;33(1):99–105

Release of osmolytes from perfused rat liver on perivascular nerve stimulation: alpha-adrenergic control of osmolyte efflux from parenchymal and nonparenchymal liver cells. vom Dahl S, et al. **Hepatology** 1999 Jan;29(1):195–204

Phentolamine mesylate relaxes penile corpus cavernosum tissue by adrenergic and non-adrenergic mechanisms. Traish A, et al. **Int J Impot Res** 1998 Dec;10(4):215–23

Alpha-adrenergic systems mediate chronic central AII hypertension in rats fed high sodium chloride diet from weaning. Camara AK, et al. **J Auton Nerv Syst** 1999 Apr 16;76(1):28–34

Enhancement of thermal hyperalgesia by alpha-adrenoceptors in capsaicin-treated skin. Drummond PD. **J Auton Nerv Syst** 1998 Apr 30;69(2–3):96–102

Physiological color change in the bullfrog, Rana catesbeiana. Camargo CR, et al. **J Exp Zool** 1999 Feb 1;283(2):160–9

Effects of sodium depletion on the role of AT1- and alpha-adrenergic receptors in the regulation of forearm vascular tone in humans. Baan J Jr, et al. **J Hypertens** 1999 Feb;17(2):229–35

Site and receptors involved in the sympathoinhibitory actions of rilmenidine. Head GA, et al. **J Hypertens Suppl** 1998 Aug;16(3):S7–12

Receptor subtype mediating the adrenergic sensitivity of pain behavior and ectopic discharges in neuropathic Lewis rats. Lee DH, et al. **J Neurophysiol** 1999 May;81(5):2226–33

alpha2-adrenoceptors modulate NMDA-evoked responses of neurons in superficial and deeper dorsal horn of the medulla. Zhang KM, et al. **J Neurophysiol** 1998 Oct; 80(4):2210–4

Basolateral amygdala noradrenergic influences on memory storage are mediated by an interaction between beta- and alpha1-adrenoceptors. Ferry B, et al. **J Neurosci** 1999 Jun 15;19(12):5119–23

Alpha-adrenoceptor interaction of tetrandrine and isotetrandrine in the rat: functional and binding assays. Catret M, et al. **J Pharm Pharmacol** 1998 Nov; 50(11):1267–73

Activation of alpha- and beta-adrenoceptors by sympathetic nerve stimulation in the large intestine of the rat. Luckensmeyer GB, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):549–61

Functional characterization of alpha1-adrenergic receptors in experimental vein grafts. Davies MG, et al. **J Surg Res** 1999 Jun 1;84(1):40–5

Subacute sepsis impairs vascular smooth muscle contractile machinery and alters vasoconstrictor and dilator mechanisms. Price SA, et al. **J Surg Res** 1999 May 1; 83(1):75–80

Alpha-1-adrenoceptor stimulation induces nitric oxide release in rat pulmonary arteries. Boer C, et al. **J Vasc Res** 1999 Jan-Feb;36(1):79–81

Baroreceptor sensitivity during the compensatory phase of left ventricular overloading. Nishimura H, et al. **Jpn Circ J** 1998 Oct;62(10):773–8

Alpha-adrenoceptor-mediated glucose release from perifused catfish hepatocytes. Fabbri E, et al. **Life Sci** 1999; 65(1):27–35

Alpha-1-adrenergic receptors mediate sensorimotor gating deficits produced by intracerebral dizocilpine administration in rats. Bakshi VP, et al. **Neuroscience** 1999; 92(1):113–21

Microinjection of morphine in the A7 catecholamine cell group produces opposing effects on nociception that are mediated by alpha1- and alpha2-adrenoceptors. Holden JE, et al. **Neuroscience** 1999;91(3):979–90

Evidence against alpha2-adrenoceptor involvement in the regulation of rat melatonin synthesis by ambient lighting. Mustanoja SM, et al. **Neuroscience** 1999;92(3):967–73

Activation of muscarinic M3-like receptors and beta-adrenoceptors, but not M2-like muscarinic receptors or alpha-adrenoceptors, directly modulates corticostriatal neurotransmission in vitro. Niittykoski M, et al. **Neuroscience** 1999 Apr;90(1):95–105

Impaired metabolic modulation of alpha-adrenergic vasoconstriction in dystrophin-deficient skeletal muscle [see comments] Thomas GD, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15090–5. Comment in: Proc Natl Acad Sci U S A 1998 Dec 8;95(25):14592–3.

Alpha 2-adrenoreceptor subtypes regulate ACTH and beta-endorphin secretions during stress in the rat. Zelena D, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):333–43

Alpha1-adrenergic, D1, and D2 receptors interactions in the prefrontal cortex: implications for the modality of action of different types of neuroleptics. Gioanni Y, et al. **Synapse** 1998 Dec;30(4):362–70

[Role of spinal alpha adrenoceptor in the inhibition of renal sympathetic nerve activity and natriuresis induced by blood volume expansion in rabbits] Wang Y, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):679–84 (Eng. Abstr.) **(Chi)**

[Autonomic nervous system and prostatic physiology. Specific features of the alpha-adrenergic system] Mottet N, et al. **Prog Urol** 1999 Feb;9(1):26–36 (78 ref.) (Eng. Abstr.) **(Fre)**

[Possible contribution of alpha-adrenergic abnormalities to cerebral ischemia in the patients with sinus bradycardia. Analysis by pharmacologic autonomic nervous test] Nomura A, et al. **Nippon Ika Daigaku Zasshi** 1999 Apr; 66(2):119–26 (Eng. Abstr.) **(Jpn)**

RECEPTORS, ADRENERGIC, ALPHA-1

A study of the interactions of tricyclic antidepressants with alpha 1-adrenoceptor subtypes in rat aorta and caudal arteries. Ocharan ME, et al. **Proc West Pharmacol Soc** 1998; 41:141–3

AGONISTS

Direct effects of alpha1- and alpha2-adrenergic agonists on spinal and cerebral pial vessels in dogs. Iida H, et al. **Anesthesiology** 1999 Aug;91(2):479–85

Pharmacokinetics of NS-49, a phenethylamine class alpha 1A-adrenoceptor agonist. 1st communication: absorption and excretion in rats after a single administration of 14C-NS-49. Mukai H, et al. **Arzneimittelforschung** 1999 May;49(5):434–40

Alpha-1 noradrenergic receptor stimulation impairs prefrontal cortical cognitive function. Arnsten AF, et al. **Biol Psychiatry** 1999 Jan 1;45(1):26–31

Renal excretion mechanism of NS-49, a phenethylamine class alpha 1A-adrenoceptor agonist. Mukai H, et al. **Biopharm Drug Dispos** 1999 May;20(4):207–15

Analysis of alpha 1L-adrenoceptor pharmacology in rat small mesenteric artery. Stam WB, et al. **Br J Pharmacol** 1999 Jun;127(3):661–70

Modulation of mechanically induced calcium waves in hippocampal astroglial cells. Inhibitory effects of alpha 1-adrenergic stimulation. Muyderman H, et al. **Brain Res** 1998 May 18;793(1–2):127–35

Haloperidol effect on intracellular signals system coupled to alpha1-adrenergic receptor in rat cerebral frontal cortex. Borda T, et al. **Cell Signal** 1999 Apr;11(4):293–300

Chloroethylclonidine is a partial alpha1-adrenoceptor agonist in aorta and caudal arteries of the Wistar Kyoto rat. Villalobos-Molina R, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):49–52

Ovarian hormone dependence of alpha(1)-adrenoceptor activation of the nitric oxide-cGMP pathway: relevance for hormonal facilitation of lordosis behavior. Chu HP, et al. **J Neurosci** 1999 Aug 15;19(16):7191–7

alpha1-Adrenergic receptor stimulation of mitogenesis in human vascular smooth muscle cells: role of tyrosine protein kinases and calcium in activation of mitogen-activated protein kinase. Hu ZW, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):28–37

ANALYSIS

Localization and expression of the alpha1A-1, alpha1B and alpha1D-adrenoceptors in hyperplastic and non-hyperplastic human prostate. Walden PD, et al. **J Urol** 1999 Feb;161(2):635–40

ANTAGONISTS & INHIBITORS

Ex vivo and in vivo alpha1-adrenoceptor binding characteristics of a novel alpha1L-adrenoceptor antagonist, JTH-601, in rat tissues. Ohkura T, et al. **Biol Pharm Bull** 1999 Jul;22(7):687–90

Search for alpha 1-adrenoceptor subtypes selective antagonists: design, synthesis and biological activity of cystazosin, an alpha 1D-adrenoceptor antagonist. Minarini A, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1353–8

4-Oxospiro[benzopyran-2,4'-piperidines] as selective alpha 1a-adrenergic receptor antagonists. Nerenberg JB, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):291–4

Design and synthesis of N-alkylated saccharins as selective alpha-1a adrenergic receptor antagonists. Nerenberg JB, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2467–72

Selective alpha-1a adrenergic receptor antagonists. Effects of pharmacophore regio- and stereochemistry on potency and selectivity. Patane MA, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2495–500

Synthesis of benzanilide derivatives as dual acting agents with alpha 1-adrenoceptor antagonistic action and steroid 5-alpha reductase inhibitory activity. Yoshida K, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):2967–72

Effects of indoramin in rat vas deferens and aorta: concomitant alpha1-adrenoceptor and neuronal uptake blockade. Pupo AS, et al. **Br J Pharmacol** 1999 Aug; 127(8):1832–6

Analysis of alpha 1L-adrenoceptor pharmacology in rat small mesenteric artery. Stam WB, et al. **Br J Pharmacol** 1999 Jun;127(3):661–70

In vitro alpha1-adrenoceptor pharmacology of Ro 70-0004 and RS-100329, novel alpha1A-adrenoceptor selective antagonists. Williams TJ, et al. **Br J Pharmacol** 1999 May; 127(1):252–8

Effects of alpha1-antagonists on production and release of aldosterone and other steroid hormones by porcine adrenocortical cells in vitro. Jager LP, et al. **Can J Physiol Pharmacol** 1998 Jun;76(6):676–83

Disproportional response between refractory period and blood flow to alpha 1- and beta-adrenoceptor blockade in canine ischemic myocardium. Usui K, et al. **Cardiovasc Drugs Ther** 1998 Dec;12(6):561–71

Characterization of specific binding of [125I]L-762,459, a selective alpha1A-adrenoceptor radioligand to rat and human tissues. O'Malley SS, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):287–95

Clinical experience in Europe with uroselective alpha1-antagonists. Debruyne FM, et al. **Eur Urol** 1999;36 Suppl 1:54–8; discussion 65 (36 ref.)

Future prospects for uroselective alpha-1-antagonists. Jardin A. **Eur Urol** 1999;36 Suppl 1:64

Clinical pharmacology of alpha1-adrenoceptor antagonists. Kirby RS. **Eur Urol** 1999;36 Suppl 1:48–53; discussion 65 (37 ref.)

Role of alpha1-adrenoceptors in the future treatment of urological diseases. Langer SZ, et al. **Eur Urol** 1999;36 Suppl 1:66–7

Preclinical pharmacology of alpha1-adrenoceptor antagonists. Martin DJ. **Eur Urol** 1999;36 Suppl 1:35–41; discussion 65 (23 ref.)

alpha1-adrenoceptor selectivity: the North American experience. Wyllie MG. **Eur Urol** 1999;36 Suppl 1:59–63; discussion 65

Selective blockade by nicergoline of vascular responses elicited by stimulation of alpha 1A-adrenoceptor subtype in the rat. Alvarez-Guerra M, et al. **Fundam Clin Pharmacol** 1999;13(1):50–8

Long-term alpha1-adrenergic blockade attenuates diet-induced dyslipidemia and hyperinsulinemia in the rat. Fajardo N, et al. **J Cardiovasc Pharmacol** 1998 Dec; 32(6):913–9

Comparison of relaxation responses of cavernous and trigonal smooth muscles from rabbits by alpha1-adrenoceptor antagonists; prazosin, terazosin, doxazosin, and tamsulosin. Seo KK, et al. **J Korean Med Sci** 1999 Feb;14(1):69–74

Synthesis, pharmacological evaluation, and structure-activity relationship and quantitative structure-activity relationship studies on novel derivatives of 2,4-diamino-6,7-dimethoxyquinazoline alpha1-adrenoceptor antagonists. Leonardi A, et al. **J Med Chem** 1999 Feb 11;42(3):427–37

Design and synthesis of novel alpha1a adrenoceptor-selective dihydropyridine antagonists for the treatment of benign prostatic hyperplasia. Nagarathnam D, et al. **J Med Chem** 1998 Dec 17;41(26):5320–33

Differences of antagonism for a selective alpha1D-adrenoceptor antagonist BMY 7378 in the rabbit thoracic aorta and iliac artery. Satoh M, et al.

J Smooth Muscle Res 1998 Aug;34(4):151–8

A comparison of the antagonistic activities of tamsulosin and terazosin against human vascular alpha1-adrenoceptors. Harada K, et al. **Jpn J Pharmacol** 1999 Jul;80(3):209–15

Naftopidil, a novel alpha1-adrenoceptor antagonist, displays selective inhibition of canine prostatic pressure and high affinity binding to cloned human alpha1-adrenoceptors. Takei R, et al. **Jpn J Pharmacol** 1999 Apr;79(4):447–54

Z–350, a new chimera compound possessing alpha1-adrenoceptor antagonistic and steroid 5alpha-reductase inhibitory actions. Fukuda Y, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):433–8

Discovery of a potent and selective alpha 1A antagonist. Utilization of a rapid screening method to obtain pharmacokinetic parameters. Adkison KK, et al. **Pharm Biotechnol** 1998;11:423–43 (15 ref.)

Modulation of the differentiation status of cultured prostatic smooth muscle cells by an alpha1-adrenergic receptor antagonist. Boesch ST, et al. **Prostate** 1999 Jun 1; 39(4):226–33

Saw palmetto extracts potently and noncompetitively inhibit human alpha1-adrenoceptors in vitro. Goepel M, et al. **Prostate** 1999 Feb 15;38(3):208–15

Influence of the alpha1-adrenergic antagonist, doxazosin, on noradrenaline-induced modulation of cytoskeletal proteins in cultured hyperplastic prostatic stromal cells. Smith P, et al. **Prostate** 1999 Feb 15;38(3):216–27

Identification of cytochrome P450 isozymes involved in metabolism of the alpha1-adrenoceptor blocker tamsulosin in human liver microsomes. Kamimura H, et al. **Xenobiotica** 1998 Oct;28(10):909–22

[Priapism caused by simultaneous use of zuclopentixol and paroxetine] Koers H. **Ned Tijdschr Geneeskd** 1999 Jan 23; 143(4):208–10 (Eng. Abstr.) **(Dut)**

[Cardial output in rats of various ages during blocking of alpha1- and beta-adrenoreceptors] Nigmatullina RR, et al. **Biull Eksp Biol Med** 1999 Jun;127(6):638–41 **(Rus)**

BIOSYNTHESIS

Immunohistochemical localisation of alpha1B-adrenergic receptors in the rat iris. Grayson TH, et al. **Cell Tissue Res** 1998 Sep;293(3):435–44

Reduced reperfusion-induced Ins(1,4,5)P3 generation and arrhythmias in hearts expressing constitutively active alpha1B-adrenergic receptors. Harrison SN, et al. **Circ Res** 1998 Dec 14–28;83(12):1232–40

Expression of alpha 1 adrenoceptor subtypes in rat corpus cavernosum. Véronneau-Longueville F, et al. **Int J Impot Res** 1998 Sep;10(3):187–94

Expression of multiple alpha1-adrenoceptors on vascular smooth muscle: correlation with the regulation of contraction. Hrometz SL, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):452–63

Localization and expression of the alpha1A–1, alpha1B and alpha1D-adrenoceptors in hyperplastic and non-hyperplastic human prostate. Walden PD, et al. **J Urol** 1999 Feb;161(2):635–40

Differential regulation of human alpha1-adrenoceptor subtypes. Yang M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):439–46

CHEMISTRY

Expression of the alpha 1b-adrenergic receptor and G protein subunits in mammalian cell lines using the Semliki Forest virus expression system. Scheer A, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):369–78

CLASSIFICATION

Functional assessment of alpha 1-adrenoceptor subtypes in porcine coronary artery. Yan M, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):682–5

Analysis of alpha1-adrenoceptor subtypes in rabbit aorta and arteries: regional difference and co-existence. Satoh M, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):229–40

Alpha1-adrenoceptor subtypes. Zhong H, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):261–76 (162 ref.)

History and nomenclature of alpha1-adrenoceptors. Langer SZ. **Eur Urol** 1999;36 Suppl 1:2–6

Functional characterization of alpha1-adrenoceptor subtypes in the rabbit spleen. Oriowo MA. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):301–7

Characterization of alpha 1D-adrenoceptor-mediated neurogenic vasopressor response in pithed rats. Lopez RM, et al. **Proc West Pharmacol Soc** 1998;41:153–4

[Comparison of functional alpha 1-adrenoceptor subtypes in aortae between 12 month- and 10 week-old rats] Lu ZZ, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):414–8 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Pharmacokinetics of NS–49, a phenethylamine class alpha 1A-adrenoceptor agonist. 2nd communication: Absorption and excretion in rabbits, dogs and monkeys after a single administration of 14C–NS–49. Mukai H, et al. **Arzneimittelforschung** 1999 Jun;49(6):527–32

Isoxazolo-[3,4-d]-pyridazin-7-(6H)-ones and their corresponding 4,5-disubstituted-3-(2H)-pyridazinone analogues as new substrates for alpha1-adrenoceptor selective antagonists: synthesis, modeling, and binding studies. Montesano F, et al. **Bioorg Med Chem** 1998 Jul; 6(7):925–35

Altered alpha 1-adrenoceptor subtypes mediated cardiac function after treatment of propranolol to rats. Li W, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):237–40

Effects of alpha1-adrenoceptor antagonists on agonist and tilt-induced changes in blood pressure: relationships to uroselectivity. Hieble JP, et al. **Eur J Pharmacol** 1999 May 28;373(1):51–62

Troglitazone inhibits alpha1-adrenoceptor-induced DNA synthesis in vascular smooth muscle cells. Nishio E, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):127–35

Novel adrenoceptor antagonists with a tricyclic pyrrolodipyridazine skeleton. Barlocco D, et al. **J Med Chem** 1999 Jan 14;42(1):173–7

Design, synthesis, and biological activity of prazosin-related antagonists. Role of the piperazine and furan units of prazosin on the selectivity for alpha1-adrenoreceptor subtypes. Bolognesi ML, et al. **J Med Chem** 1998 Nov 19; 41(24):4844–53

Structure-activity relationships in 1,4-benzodioxan-related compounds. 6. Role of the dioxane unit on selectivity for alpha(1)-adrenoreceptor subtypes. Quaglia W, et al. **J Med Chem** 1999 Jul 29;42(15):2961–8

Simple O-acylated derivatives of lysergol and dihydrolysergol-I: synthesis and interaction with 5-HT2A, 5-HT2C and 5-HT1B receptors, and alpha1 adrenergic receptors. Pertz HH, et al. **J Pharm Pharmacol** 1999 Mar; 51(3):319–30

Influence of chloride ions on alpha1-adrenoceptor mediated contraction and Ca2+ influx in rat caudal artery. Min SA, et al. **Life Sci** 1999;64(18):1631–41

Differential regulation of human alpha1-adrenoceptor subtypes. Yang M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):439–46

Maturation and aging-related differences in responsiveness of rat aorta and carotid arteries to alpha1-adrenoceptor stimulation. de Oliveira AM, et al. **Pharmacology** 1998 Dec; 57(6):305–13

[Antagonistic effect of tetrahydroproberberine homologues on alpha 1-adrenoceptor] Lu ZZ, et al. **Yao Hsueh Hsueh Pao** 1996;31(9):652–6 (Eng. Abstr.) **(Chi)**

GENETICS

Adrenergic induction of bimodal myocardial protection: signal transduction and cardiac gene reprogramming. Meng X, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1525–33

The simian virus 40 core C enhancer-like element is a positive regulator in the rat alpha1B adrenergic receptor gene proximal promoter. Dao N, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):804–8

An inverted cAMP response element mediates the cAMP induction of the ovine beta 1-adrenergic receptor gene. Tseng YT, et al. **Biochem Mol Biol Int** 1998 Dec; 46(6):1127–34

Alpha1-adrenergic receptors in human spinal cord: specific localized expression of mRNA encoding alpha1-adrenergic receptor subtypes at four distinct levels. Smith MS, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):254–61

Differential spatiotemporal alterations in adrenoceptor mRNAs and binding sites in cerebral cortex following spreading depression: selective and prolonged up-regulation of alpha1B-adrenoceptors. Shen PJ, et al. **Exp Neurol** 1998 Dec;154(2):612–27

Alpha-adrenergic inhibition of proliferation in HepG2 cells stably transfected with the alpha1B-adrenergic receptor through a p42MAPkinase/p21Cip1/WAF1-dependent pathway. Auer KL, et al. **FEBS Lett** 1998 Sep 25; 436(1):131–8

alpha1-adrenergic receptor subtypes in human peripheral blood lymphocytes. Ricci A, et al. **Hypertension** 1999 Feb; 33(2):708–12

Cell type-specific transcriptional activation and suppression of the alpha1B adrenergic receptor gene middle promoter by nuclear factor 1. Gao B, et al. **J Biol Chem** 1998 Nov 27;273(48):31784–7

Selective activation of alpha1A-adrenergic receptors in neonatal cardiac myocytes is sufficient to cause hypertrophy and differential regulation of alpha1-adrenergic receptor subtype mRNAs. Autelitano DJ, et al. **J Mol Cell Cardiol** 1998 Aug;30(8):1515–23

Neuroendocrine mediators up-regulate alpha1b- and alpha1d-adrenergic receptor subtypes in human monocytes. Rouppe van der Voort C, et al. **J Neuroimmunol** 1999 Mar 1;95(1–2):165–73

Expression of the alpha 1b-adrenergic receptor and G protein subunits in mammalian cell lines using the Semliki Forest virus expression system. Scheer A, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):369–78

Semiquantitative evaluation of alpha1A-adrenoceptor subtype mRNA in human hypertrophied and non-hypertrophied prostates: regional comparison. Moriyama N, et al. **Life Sci** 1999;64(3):201–10

Real-time optical monitoring of ligand-mediated internalization of alpha1b-adrenoceptor with green fluorescent protein. Awaji T, et al. **Mol Endocrinol** 1998 Aug;12(8):1099–111

PCR-based methods for identifying genetic variations in human alpha1B- and beta2-adrenergic receptors. Büscher R, et al. **Mol Genet Metab** 1998 Aug;64(4):266–70

Expression of alpha1D adrenergic receptor messenger RNA in oxytocin- and corticotropin-releasing hormone-synthesizing neurons in the rat paraventricular nucleus. Sands SA, et al. **Neuroscience** 1999;91(2):639–49

[Absence of point mutation in the third intracellular loop of alpha 1B- and alpha 1D adrenergic receptor in the aortae of spontaneously hypertensive rats] Xu KM, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):102–4 (Eng. Abstr.) **(Chi)**

METABOLISM

Differential regulation of 46 and 54 kDa jun N-terminal kinases and p38 mitogen-activated protein kinase by human alpha(1A)-adrenoceptors expressed in Rat-1 cells. Alexandrov A, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):372–6

Alpha1-adrenoceptor-mediated formation of glycerophosphoinositol 4-phosphate in rat heart: possible role in the positive inotropic response. Debetto P, et al. **Biochem Pharmacol** 1999 Nov 1;58(9):1437–46

Regulatory mechanisms of alpha 1B-adrenergic receptor function. Cotecchia S, et al. **Biochem Soc Trans** 1999 Feb; 27(2):154–7

Alpha 1B-adrenoceptor interacts with multiple sites of transglutaminase II: characteristics of the interaction in binding and activation. Feng JF, et al. **Biochemistry** 1999 Feb 16;38(7):2224–32

Comparative study on pharmacokinetics and in vivo alpha1-adrenoceptor binding of [3H]tamsulosin and [3H]prazosin in rats. Ohkura T, et al. **Biol Pharm Bull** 1999 Apr;22(4):412–7

Distribution of alpha1-adrenoceptor subtype mRNAs in human renal cortex. Kurooka Y, et al. **BJU Int** 1999 Feb; 83(3):299–304

Pharmacological analysis of the novel, selective alpha1-adrenoceptor antagonist, KMD–3213, and its suitability as a tritiated radioligand. Murata S, et al. **Br J Pharmacol** 1999 May;127(1):19–26

Effect of chronic hypoxia on adrenoceptor responses of ovine foetal umbilical vessels. Zhang L, et al. **Br J Pharmacol** 1998 Sep;125(1):136–42

The alpha1L-adrenoceptor subtype in the lower urinary tract: a comparison of human urethra and prostate. Fukasawa R, et al. **Br J Urol** 1998 Nov;82(5):733–7

Alpha1-adrenergic hypothesis for pulmonary hypertension. Salvi SS. **Chest** 1999 Jun;115(6):1708–19 (106 ref.)

Influence of noradrenaline on the respiratory status of Rana balcanica red cell suspension under normoxia, hypoxia and hypercapnia: alpha 1-receptor involvement. Kaloyianni M, et al. **Cytobios** 1999;98(388):77–94

Binding and functional characterization of alpha1-adrenoceptor subtypes in the rat prostate. Hiraoka Y, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):119–26

Importance of agonists in alpha-adrenoceptor classification and localisation of alpha1-adrenoceptors in human prostate. McGrath JC, et al. **Eur Urol** 1999;36 Suppl 1:80–8

Alpha-adrenergic inhibition of proliferation in HepG2 cells stably transfected with the alpha1B-adrenergic receptor through a p42MAPkinase/p21Cip1/WAF1-dependent pathway. Auer KL, et al. **FEBS Lett** 1998 Sep 25; 436(1):131–8

Denervation supersensitivity to phenylephrine in guinea-pig vas deferens in vivo and in vitro: functional studies on alpha1-adrenoceptors. Cordellini S, et al. **Gen Pharmacol** 1999 Mar;32(3):393–400

Tamsulosin: assessment of affinity of 3H-prazosin bindings to two alpha1-adrenoceptor subtypes (alpha1H and alpha1L) in bovine prostate and rat heart and brain. Maruyama K, et al. **Gen Pharmacol** 1998 Oct;31(4):597–600

Reduced catecholamine response of lymphocytes from patients with rheumatoid arthritis. Baerwald CG, et al. **Immunobiology** 1999 Feb;200(1):77–91

Neurogenic vasoconstriction as affected by cholinergic and nitroxidergic nerves in dog ciliary and ophthalmic arteries. Toda M, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1753–60

Effect of modifications of the alkylpiperazine moiety of trazodone on 5HT2A and alpha1 receptor binding affinity. Giannangeli M, et al. **J Med Chem** 1999 Feb 11; 42(3):336–45

1-aryl-4-[(5-methoxy-1,2,3,4-tetrahydronaphthalen-1-yl)alkyl]piperazines and their analogues: influence of the stereochemistry of the tetrahydronaphthalen-1-yl nucleus on 5-HT1A receptor affinity and selectivity versus alpha1 and D2 receptors. 5. Perrone R, et al. **J Med Chem** 1999 Feb 11;42(3):490–6

Effect of chronic hypoxia on alpha-1 adrenoceptor-mediated inositol 1,4,5-trisphosphate signaling in ovine uterine artery. Hu XQ, et al. **J Pharmacol Exp Ther** 1999 Mar; 288(3):977–83

In vivo measurement by [3H]Tamsulosin of alpha1 adrenoceptors in rat tissues in relation to the pharmacokinetics. Yamada S, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1575–83

Delayed myocardial preconditioning by alpha1-adrenoceptors involves inhibition of apoptosis. Baghelai K, et al. **J Thorac Cardiovasc Surg** 1999 May; 117(5):980–6

Halogenated derivatives of boldine with high selectivity for alpha1A-adrenoceptors in rat cerebral cortex. Martinez S,

et al. **Life Sci** 1999;64(14):1205–14

Ex vivo occupancy by tamsulosin of alpha1-adrenoceptors in rat tissues in relation to the plasma concentration. Ohkura T, et al. **Life Sci** 1998;63(24):2147–55

Potentiation of recombinant L-type Ca channel currents by alpha1-adrenoceptors coexpressed in baby hamster kidney (BHK) cells. Yoshinaga T, et al. **Life Sci** 1999; 64(18):1643–51

Down-regulation of vascular alpha1-adrenoceptors does not account for the loss of vascular responsiveness to catecholamines in experimental cholestasis. Dabagh K, et al. **Liver** 1999 Jun;19(3):193–8

Real-time optical monitoring of ligand-mediated internalization of alpha1b-adrenoceptor with green fluorescent protein. Awaji T, et al. **Mol Endocrinol** 1998 Aug;12(8):1099–111

Contrasting signaling pathways of alpha1A- and alpha1B-adrenergic receptor subtype activation of phosphatidylinositol 3-kinase and Ras in transfected NIH3T3 cells. Hu ZW, et al. **Mol Endocrinol** 1999 Jan; 13(1):3–14

Correlation between alpha1/beta-adrenoceptor ratio and spontaneous uterine motor activity in the post-partum rat. Zupkó I, et al. **Mol Hum Reprod** 1998 Sep;4(9):921–4

No role for Ca++ or protein kinase C in alpha-1A adrenergic receptor activation of mitogen-activated protein kinase pathways in transfected PC12 cells. Berts A, et al. **Mol Pharmacol** 1999 Feb;55(2):296–303

Selective regulation of G protein-coupled receptor-mediated signaling by G protein-coupled receptor kinase 2 in FRTL-5 cells: analysis of thyrotropin, alpha(1B)-adrenergic, and A(1) adenosine receptor-mediated responses. Iacovelli L, et al. **Mol Pharmacol** 1999 Aug;56(2):316–24

Constitutively active alpha-1b adrenergic receptor mutants display different phosphorylation and internalization features. Mhaouty-Kodja S, et al. **Mol Pharmacol** 1999 Feb; 55(2):339–47

In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats. Chaki S, et al. **Neuropharmacology** 1999 Aug;38(8):1185–94

Effect of concomitant beta-adrenoceptor stimulation on alpha 1-adrenoceptor-mediated increase of inositol-1,4,5-trisphosphate mass in adult rat cardiomyocytes. Viko H, et al. **Pharmacol Toxicol** 1998 Jul;83(1):23–8

[Comparison of functional alpha 1-adrenoceptor subtypes in aortae between 12 month- and 10 week-old rats] Lu ZZ, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):414–8 (Eng. Abstr.) **(Chi)**

[Different susceptibilities to desensitization of three alpha 1-adrenoceptor subtypes induced by sustained norepinephrine stimulation] Zhang YY, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):1–6 (Eng. Abstr.) **(Chi)**

[Age dependence of the density of alpha-1 adrenergic receptors in liver cell membranes of domestic fowl] Neubert E, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun-Jul;112(6–7):229–33 (Eng. Abstr.) **(Ger)**

[Thermal effect on alpha 1-adrenoceptors in the guinea-pig vas deferens: histological and binding studies] Ogawa M, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Sep; 89(9):739–48 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Overexpression of alpha1B-adrenergic receptor induces left ventricular dysfunction in the absence of hypertrophy. Grupp IL, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1338–50

Effects of micromolar concentrations of Mn, Mo, and Si on alpha1-adrenoceptor-mediated contraction in porcine coronary artery. Yan M, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):75–87

Characterization of alpha1-adrenoceptor subtypes mediating vasoconstriction in human umbilical vein. Errasti AE, et al. **Br J Pharmacol** 1999 Jan;126(2):437–42

Infarct size-reducing effect of heat stress and alpha1 adrenoceptors in rats. Joyeux M, et al. **Br J Pharmacol** 1998 Oct;125(4):645–50

Evaluation of alpha1-adrenoceptors in the rabbit iris: pharmacological characterization and expression of mRNA. Nakamura S, et al. **Br J Pharmacol** 1999 Jul; 127(6):1367–74

Characterization of alpha 1-adrenoceptors expressed in a novel vascular smooth muscle cell line cloned from p53 knockout mice, P53LMAC01 (AC01) cells. Ohmi K, et al. **Br J Pharmacol** 1999 Jun;127(3):756–62

Microphysiometric analysis of human alpha1a-adrenoceptor expressed in Chinese hamster ovary cells. Taniguchi T, et al. **Br J Pharmacol** 1999 Jun;127(4):962–8

Functional evidence of alpha1D-adrenoceptors in the vasculature of young and adult spontaneously hypertensive rats. Villalobos-Molina R, et al. **Br J Pharmacol** 1999 Apr; 126(7):1534–6

Pharmacological evidence that alpha1-and alpha2-adrenoceptors mediate vasoconstriction of carotid arteriovenous anastomoses in anaesthetized pigs. Willems EW, et al. **Br J Pharmacol** 1999 Jul;127(5):1263–71

Noradrenergic responses of neurones in the mediolateral part of the lateral septum: alpha1-adrenergic depolarization and rhythmic bursting activities, and alpha2-adrenergic hyperpolarization from guinea pig brain slices. Carette B. **Brain Res Bull** 1999 Feb;48(3):263–76

The left ventricular contractility of the rat heart is modulated by changes in flow and alpha 1-adrenoceptor stimulation. Vassallo PF, et al. **Braz J Med Biol Res** 1998 Oct; 31(10):1353–9

Rat renal alpha 1-adrenoceptor subtypes: characterization, function, and regulation. Buscher R, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):289–92 (37 ref.)

Tyrosine kinases participate in alpha 1A-adrenoceptor-mediated vasoconstriction in perfused rat hindlimb. Zhu WZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):473–7

Functional assessment of alpha 1-adrenoceptor subtypes in porcine coronary artery. Yan M, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):682–5

Human cloned alpha1A-adrenoceptor isoforms display alpha1L-adrenoceptor pharmacology in functional studies. Daniels DV, et al. **Eur J Pharmacol** 1999 Apr 16; 370(3):337–43

Subtypes of functional alpha1- and alpha2-adrenoceptors. Docherty JR. **Eur J Pharmacol** 1998 Nov 13;361(1):1–15 (175 ref.)

Involvement of alpha1-adrenoceptors in the basolateral amygdala in modulation of memory storage. Ferry B, et al. **Eur J Pharmacol** 1999 May 7;372(1):9–16

Sympathetic vasoconstriction in the rat anterior choroid is mediated by alpha1-adrenoceptors. Kawarai M, et al. **Eur J Pharmacol** 1998 Dec 11;363(1):35–40

5-HT2A receptor or alpha1-adrenoceptor activation induces excitatory postsynaptic currents in layer V pyramidal cells of the medial prefrontal cortex. Marek GJ, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):197–206

Functional effects of castration on alpha1-adrenoceptors in rat vas deferens. Pupo AS. **Eur J Pharmacol** 1998 Jun 19; 351(2):217–23

Alpha1-Adrenoceptors as Targets for Therapeutic Agents in Urology. Paris, France, July 23–24, 1998. Proceedings and abstracts. **Eur Urol** 1999;36 Suppl 1:1–119

alpha1-adrenoceptors and bladder function. Andersson K. **Eur Urol** 1999;36 Suppl 1:96–102 (58 ref.)

alpha1-adrenoceptors in urethral function. Brading AF, et al. **Eur Urol** 1999;36 Suppl 1:74–9

Modulation of voiding and storage reflexes by activation of alpha1-adrenoceptors. de Groat WC, et al. **Eur Urol** 1999; 36 Suppl 1:68–73 (20 ref.)

Signal transduction pathways associated with alpha1-adrenoceptor subtypes in cells and tissues including human prostate. Marshall I, et al. **Eur Urol** 1999;36 Suppl 1:42–7; discussion 65 (23 ref.)

Pharmacology of alpha-adrenoceptors in male sexual function. Rampin O. **Eur Urol** 1999;36 Suppl 1:103–6 (19 ref.)

Adrenoceptor pharmacology: urogenital applications. Ruffolo RR Jr, et al. **Eur Urol** 1999;36 Suppl 1:17–22 (57 ref.)

Molecular pharmacology of human alpha1-adrenergic receptors: unique features of the alpha 1a-subtype. Schwinn DA, et al. **Eur Urol** 1999;36 Suppl 1:7–10 (22 ref.)

alpha1- and alpha2-adrenoceptors in BPH. Takeda M, et al. **Eur Urol** 1999;36 Suppl 1:31–4; discussion 65 (23 ref.)

Modulation of basal intracellular calcium by inverse agonists and phorbol myristate acetate in rat-1 fibroblasts stably expressing alpha1d-adrenoceptors. García-Sáinz JA, et al. **FEBS Lett** 1999 Jan 29;443(3):277–81

alpha 1D-adrenoceptors contribute to the neurogenic vasopressor response in pithed rats. Castillo EF, et al. **Fundam Clin Pharmacol** 1998;12(6):584–9

Alpha1A-adrenergic receptors mediate vasoconstriction of the isolated spiral modiolar artery in vitro. Gruber DD, et al. **Hear Res** 1998 May;119(1–2):113–24

Alpha1- and alpha2-adrenoceptor control of sodium transport reverses in developing hypertension. Gesek FA. **Hypertension** 1999 Jan;33(1 Pt 2):524–9

Bbeta-adrenergic receptor kinase-1 levels in catecholamine-induced myocardial hypertrophy: regulation by beta- but not alpha1-adrenergic stimulation. Iaccarino G, et al. **Hypertension** 1999 Jan;33(1 Pt 2):396–401

alpha1-adrenergic-receptor responsiveness in skeletal muscle during dynamic exercise. Buckwalter JB, et al. **J Appl Physiol** 1998 Dec;85(6):2277–83

Effects of pregnancy and chronic hypoxia on contractile responsiveness to alpha1-adrenergic stimulation. White MM, et al. **J Appl Physiol** 1998 Dec;85(6):2322–9

Electrical stimulation-induced alpha1- and alpha2-adrenoceptors-mediated contraction in isolated dog thoracic ducts. Igarashi T, et al. **J Auton Nerv Syst** 1998 Jun 30;71(1):18–24

Role of alpha2-adrenoceptors on the hyperglycaemic and insulin secretory effects derived from alpha1- and beta-adrenoceptor stimulation in the rabbit. García-Barrado MJ, et al. **J Auton Pharmacol** 1998 Oct; 18(5):287–95

Phe310 in transmembrane VI of the alpha1B-adrenergic receptor is a key switch residue involved in activation and catecholamine ring aromatic bonding. Chen S, et al. **J Biol Chem** 1999 Jun 4;274(23):16320–30

Phosphorylation of the cAMP response element-binding protein and activation of transcription by alpha1 adrenergic receptors. Lin RZ, et al. **J Biol Chem** 1998 Nov 6; 273(45):30033–8

Cardiac-specific overexpression of alpha1BAR regulates betaAR activity via molecular crosstalk. Lemire I, et al. **J Mol Cell Cardiol** 1998 Sep;30(9):1827–39

Activation of alpha1-adrenergic receptor during Ca2+ pre-conditioning elicits strong protection against Ca2+ overload injury via protein kinase C signaling pathway. Wang Y, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2423–35

Effects of alpha1-adrenergic stimulation on L-type Ca2+ current in rat ventricular myocytes. Zhang S, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):1955–65

Pharmacological effects of venlafaxine, a new antidepressant, given repeatedly, on the alpha 1-adrenergic, dopamine and serotonin systems. Maj J, et al. **J Neural Transm** 1999; 106(2):197–211

Differential activation of mitogen-activated protein kinase pathways in PC12 cells by closely related alpha1-adrenergic receptor subtypes. Zhong H, et al. **J Neurochem** 1999 Jun;72(6):2388–96

Neuron-glia signaling via alpha(1) adrenoceptor-mediated Ca(2+) release in Bergmann glial cells in situ. Kulik A, et al. **J Neurosci** 1999 Oct 1;19(19):8401–8

alpha1-adrenergic receptor activation of c-fos expression in transfected rat-1 fibroblasts: role of Ca2+. Chen J, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1376–84

Z-350, a novel compound with alpha 1-adrenoceptor antagonistic and steroid 5 alpha-reductase inhibitory actions: pharmacological properties in vivo. Fukuta Y, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1013–8

Adrenoceptors modulate depressor responses of endothelin-1 into the superior colliculus of rats. D'Amico M, et al. **Life Sci** 1999;64(5):337–42

Stimulation of alpha1A-adrenoceptors in Rat-1 cells inhibits extracellular signal-regulated kinase by activating p38 mitogen-activated protein kinase. Alexandrov A, et al. **Mol Pharmacol** 1998 Nov;54(5):755–60

Norepinephrine increases rat mitral cell excitatory responses to weak olfactory nerve input via alpha-1 receptors in vitro. Ciombor KJ, et al. **Neuroscience** 1999 May; 90(2):595–606

alpha1-adrenoceptors antagonize activated chloride conductance of amphibian skin epithelium. Nagel W, et al. **Pflugers Arch** 1998 Nov;436(6):863–70

Diurnal changes in paraventricular hypothalamic alpha1 and alpha2-adrenoceptors and food intake in rats. Morien A, et al. **Pharmacol Biochem Behav** 1999 May;63(1):33–8

Amplification of alpha 1D-adrenoceptor mediated contractions in rat aortic rings partially depolarised with KCl. Lyles GA, et al. **Pharmacol Res** 1998 Jun;37(6):437–54

The role of alpha1-adrenoceptors in the clonidine-induced contraction and relaxation of rat aorta. Iwanaga S, et al. **Res Commun Mol Pathol Pharmacol** 1998 Nov; 102(2):137–47

[Uroselectivity of alpha-1 antagonism in the treatment of benign prostatic hypertrophy: on the pharmacologic concept of the clinical approach] Jolliet P, et al. **Therapie** 1998 Jan-Feb;53(1):61–6 (28 ref.) (Eng. Abstr.) **(Ita)**

RECEPTORS, ADRENERGIC, ALPHA-2

Decreased platelet alpha-2 adrenoceptor density in major depression: effects of tricyclic antidepressants and fluoxetine. Maes M, et al. **Biol Psychiatry** 1999 Feb 1; 45(3):278–84

Midbrain periaqueductal gray (PAG) inhibits nociceptive inputs to sacral dorsal horn nociceptive neurons through alpha2-adrenergic receptors. Budai D, et al. **J Neurophysiol** 1998 Nov;80(5):2244–54

Actions of alpha2 adrenoceptor ligands at alpha2A and 5-HT1A receptors: the antagonist, atipamezole, and the agonist, dexmedetomidine, are highly selective for alpha2A adrenoceptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):197–206

AGONISTS

alpha-2 and imidazoline receptor agonists. Their pharmacology and therapeutic role. Khan ZP, et al. **Anaesthesia** 1999 Feb;54(2):146–65 (215 ref.)

Direct effects of alpha1- and alpha2-adrenergic agonists on spinal and cerebral pial vessels in dogs. Iida H, et al. **Anesthesiology** 1999 Aug;91(2):479–85

Receptor-specific reversible sedation: dangers of vascular effects [letter; comment] Jones JG, et al. **Anesthesiology** 1999 May;90(5):1489–90. Comment on: Anesthesiology 1998 Sep;89(3):560–1. Comment on: Anesthesiology 1998 Sep;89(3):574–84.

Effect of strenuous, acute exercise on alpha2-adrenergic agonist-potentiated platelet activation. Wang JS, et al. **Arterioscler Thromb Vasc Biol** 1999 Jun;19(6):1559–65

GABA(B), opioid and alpha2 receptor inhibition of calcium channels in acutely-dissociated locus coeruleus neurones. Chieng B, et al. **Br J Pharmacol** 1999 Aug;127(7):1533–8

Role of potassium channels in the antinociception induced by agonists of alpha2-adrenoceptors. Galeotti N, et al. **Br J Pharmacol** 1999 Mar;126(5):1214–20

Alpha2-adrenoceptor agonists stimulate high-affinity GTPase activity in a receptor subtype-selective manner. Jansson CC, et al. **Eur J Pharmacol** 1999 Jun 11; 374(1):137–46

Subtype-specific stimulation of [35S]GTPgammaS binding by recombinant alpha2-adrenoceptors. Peltonen JM, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):275-9

Prejunctional control of pH 6-induced bronchoconstriction by NK1, NK2, mu-opioid, alpha2-adrenoceptor and glucocorticoid receptors in guinea-pig isolated perfused lung. Auberson S, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):899-905

Clonidine evokes vasodepressor responses via alpha2-adrenergic receptors in gigantocellular reticular formation. Aicher SA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):688-94

Cardiopulmonary effects of the alpha2-adrenoceptor agonists medetomidine and ST-91 in anesthetized sheep. Celly CS, et al. **J Pharmacol Exp Ther** 1999 May;289(2):712-20

Moxonidine, a selective alpha2-adrenergic and imidazoline receptor agonist, produces spinal antinociception in mice. Fairbanks CA, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):403-12

Influence of G protein type on agonist efficacy. Yang Q, et al. **Mol Pharmacol** 1999 Sep;56(3):651-6

Prejunctional alpha2-adrenoceptors and peroxide-induced potentiation of norepinephrine release from the bovine iris. Opere CA, et al. **Neurochem Res** 1998 Aug;23(8):1093-8

Guanfacine and clonidine, alpha 2-agonists, improve paired associates learning, but not delayed matching to sample, in humans. Jäkälä P, et al. **Neuropsychopharmacology** 1999 Feb;20(2):119-30

Alpha 2 adrenergic agonists. Neurochemistry, efficacy, and clinical guidelines for use in children. Newcorn JH, et al. **Pediatr Clin North Am** 1998 Oct;45(5):1099-22, viii (76 ref.)

Are cholinergic pathways involved in the anesthetic response to alpha2 agonists. Buttermann AE, et al. **Toxicol Lett** 1998 Nov 23;100-101:17-22

ANALYSIS

An increase in [3H] CGS21680 binding in the striatum of postmortem brains of chronic schizophrenics. Kurumaji A, et al. **Brain Res** 1998 Oct 19;808(2):320-3

Regulation of renal alpha 2-adrenoceptor activity in Dahl salt-sensitive rats by dietary sodium changes. Mackraj I, et al. **Methods Find Exp Clin Pharmacol** 1998 Nov; 20(9):755-60

ANTAGONISTS & INHIBITORS

Effect of systemic alpha-2 adrenergic blockade on the morning increase in platelet aggregation in normal subjects. Andrews NP, et al. **Am J Cardiol** 1999 Aug 1;84(3):316-20

The effects of the alpha 2 adrenoceptor blocker idazoxan on defeat-induced immobility and plasma corticosterone in rats is antagonized by administration of adrenocorticotrophin-antiserum. Haller J, et al. **Behav Pharmacol** 1997 Jun;8(2-3):269-73

Systemic administration of atipamezole, an alpha 2-antagonist, can reduce scopolamine-induced hyperactivity in rats. Niittykoski M, et al. **Behav Pharmacol** 1997 Oct;8(5):465-70

Effects of the alkylating agent EEDQ on regulatory G proteins and recovery of agonist and antagonist alpha2-adrenoceptor binding sites in rat brain. Ribas C, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):145-54

Synthesis and biochemical evaluation of 3-fluoromethyl-1,2,3, 4-tetrahydroisoquinolines as selective inhibitors of phenylethanolamine N-methyltransferase versus the alpha(2)-adrenoceptor. Grunewald GL, et al. **J Med Chem** 1999 Sep 9; 42(18):3588-601

Effect of YNS-15P, a new alpha-2 adrenoceptor antagonist, on stress-stimulated colonic propulsion in rats. Yamamoto O, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):691-6

A search for presynaptic imidazoline receptors at rabbit and rat noradrenergic neurones in the absence of alpha 2-autoinhibition. Gaiser EG, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):123-32

Prejunctional alpha2-adrenoceptors and peroxide-induced potentiation of norepinephrine release from the bovine iris. Opere CA, et al. **Neurochem Res** 1998 Aug;23(8):1093-8

Systemic administration of atipamezole, a selective antagonist of alpha-2 adrenoceptors, facilitates behavioural activity but does not influence short-term or long-term memory in trimethyltin-intoxicated and control rats. Niittykoski M, et al. **Neurosci Biobehav Rev** 1998 Oct;22(6):735-50

Enhanced cortical dopamine output and antipsychotic-like effects of raclopride by alpha2 adrenoceptor blockade. Hertel P, et al. **Science** 1999 Oct 1;286(5437):105-7

BIOSYNTHESIS

Expression of alpha2A adrenoceptors during rat neocortical development. Winzer-Serhan UH, et al. **J Neurobiol** 1999 Feb 5;38(2):259-69

BLOOD

Adrenergic receptors in premenstrual dysphoric disorder: I. Platelet alpha 2 receptors: Gi protein coupling, phase of menstrual cycle, and prediction of luteal phase symptom severity. Gurguis GN, et al. **Biol Psychiatry** 1998 Oct 1; 44(7):600-9

Development of an HPLC method for determining the alpha 2-adrenergic receptor agonist brimonidine in blood serum and aqueous humor of the eye. Karamanos NK, et al. **Biomed Chromatogr** 1999 Feb;13(1):86-8

Adrenergic receptor function in panic disorder. I. Platelet alpha 2 receptors: Gi protein coupling, effects of imipramine, and relationship to treatment outcome. Gurguis GN, et al. **Neuropsychopharmacology** 1999 Feb; 20(2):162-76

Platelet alpha2-adrenergic receptor coupling efficiency to Gi protein in subjects with post-traumatic stress disorder and normal controls. Gurguis GN, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):258-66

CHEMISTRY

Comparative molecular field analysis (CoMFA) models of phenylethanolamine N-methyltransferase (PNMT) and the alpha2-adrenoceptor: the development of new, highly selective inhibitors of PNMT. Grunewald GL, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):481-6

Role for the third intracellular loop in cell surface stabilization of the alpha2A-adrenergic receptor. Edwards SW, et al. **J Biol Chem** 1999 Jun 4;274(23):16331-6

Chloroethylclonidine and 2-aminoethyl methanethiosulfonate recognize two different conformations of the human alpha(2A)-adrenergic receptor. Marjamäki A, et al. **J Biol Chem** 1999 Jul 30; 274(31):21867-72

Do alpha 2-adrenoceptors and imidazoline binding sites coexist in the human term placenta? Evidence from direct binding studies. Bagaméry K, et al. **Mol Hum Reprod** 1998 Apr;4(4):387-91

CLASSIFICATION

Rilmenidine reveals differences in the pharmacological characteristics of prejunctional alpha2-adrenoceptors in the guinea-pig, rat and pig. Ali A, et al. **Br J Pharmacol** 1998 Sep;125(1):127-35

Prejunctional alpha2A-autoreceptors in the human gastric and ileocolic arteries. Guimarães S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):207-11

DRUG EFFECTS

Nitrous oxide produces antinociceptive response via alpha2B and/or alpha2C adrenoceptor subtypes in mice. Guo TZ, et al. **Anesthesiology** 1999 Feb;90(2):470-6

Pharmacokinetics of NS-49, a phenethylamine class alpha 1A-adrenoceptor agonist. 3rd communication: metabolism in rats, rabbits, dogs and monkeys, and effects on hepatic drug-metabolizing enzyme activities in rats after repeated administration. Mukai H, et al. **Arzneimittelforschung** 1999 Jul;49(7):612-7

Differential potentiation of arachidonic acid release by rat alpha2 adrenergic receptor subtypes. Audubert F, et al. **Biochim Biophys Acta** 1999 Mar 25;1437(3):265-76

Potentiation of barbiturate-induced alterations in presynaptic noradrenergic function in rat frontal cortex by imidazol(in)e alpha2-adrenoceptor agonists. Dalley JW, et al. **Br J Pharmacol** 1998 Oct;125(3):441-6

Comparison of changes in the extracellular concentration of noradrenaline in rat frontal cortex induced by sibutramine or d-amphetamine: modulation by alpha2-adrenoceptors. Wortley KE, et al. **Br J Pharmacol** 1999 Aug;127(8):1860-6

Cardiovascular effects of rilmenidine, moxonidine and clonidine in conscious wild-type and D79N alpha2A-adrenoceptor transgenic mice. Zhu QM, et al. **Br J Pharmacol** 1999 Mar;126(6):1522-30

Inhibition of spontaneous inhibitory postsynaptic currents (IPSC) by noradrenaline in rat supraoptic neurons through presynaptic alpha2-adrenoceptors. Wang YF, et al. **Brain Res** 1998 Oct 5;807(1-2):61-9

Central noradrenergic mediation of nitrous oxide-induced analgesia in rats. Fukuhara N, et al. **Can J Anaesth** 1998 Nov;45(11):1123-9

The effect of tizanidine on maximal electroshock seizures (MES) in mice. Denizbaşi A, et al. **Gen Pharmacol** 1999 Apr;32(4):513-6

alpha2D/A-adrenergic receptor gene induction in the retina by phorbol ester: involvement of an AP-2 element. Venkataraman V, et al. **Genes Cells** 1999 Mar;4(3):161-73

Endophytic fungal toxin effect on adrenergic receptors in lateral saphenous veins (cranial branch) of cattle grazing tall fescue. Oliver JW, et al. **J Anim Sci** 1998 Nov; 76(11):2853-6

Relationship between imidazoline and alpha2-adrenoceptors involved in the sympatho-inhibitory actions of centrally acting antihypertensive agents. Head GA, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):163-9 (40 ref.)

Ethanol selectively counteracts hypotension evoked by central I(1)-imidazoline but not alpha2-adrenergic receptor activation in spontaneously hypertensive rats. El-Mas MM, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):382-9

Effects of alpha-2 adrenoceptor agonists and antagonists on circling behavior in rats with unilateral 6-hydroxydopamine lesions of the nigrostriatal pathway. Chopin P, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):798-804

Ethanol counteraction of I1-imidazoline but not alpha-2 adrenergic receptor-mediated reduction in vascular resistance in conscious spontaneously hypertensive rats. El-Mas MM, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):455-62

Adrenoceptors mediating the cardiovascular and metabolic effects of alpha-methylnoradrenaline in humans. Schäfers RF, et al. **J Pharmacol Exp Ther** 1999 May;289(2):918-25

Selectivity of atipamezole, yohimbine and tolazoline for alpha-2 adrenergic receptor subtypes: implications for clinical reversal of alpha-2 adrenergic receptor mediated sedation in sheep. Schwartz DD, et al. **J Vet Pharmacol Ther** 1998 Oct;21(5):342-7

Differential modulation of alpha2-adrenoceptor subtypes in rat kidney by chronic desipramine treatment. Callado LF, et al. **Life Sci** 1999;64(25):2327-39

The antipsychotic drug risperidone interacts with auto- and hetero-receptors regulating serotonin output in the rat frontal cortex. Hertel P, et al. **Neuropharmacology** 1999 Aug;38(8):1175-84

Characteristics of norepinephrine and clonidine displacement of [3H]yohimbine binding to platelet alpha2-adrenoreceptors in healthy volunteers. Gurguis GN, et al. **Psychiatry Res** 1999 Mar 22;85(3):305-14

A yohimbine-dependent, UK14,304 induced ion transient in HT29 cells studied by X-ray microanalysis. Zhang W, et al. **Scanning Microsc** 1996;10(1):293-8; discussion 298-9

Effects of inhalational anesthetics on alpha2-adrenergic signaling in isolated platelets. Pentyala S, et al. **Toxicol Lett** 1998 Nov 23;100-101:115-20

GENETICS

Variants in the alpha2A AR adrenergic receptor gene in psychiatric patients. Feng J, et al. **Am J Med Genet** 1998 Sep 7;81(5):405-10

Highly sensitive radioactive in situ hybridization using full length hydrolyzed riboprobes to detect alpha 2 adrenoceptor subtype mRNAs in adult and developing rat brain. Winzer-Serhan UH, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):229-41

Role of alpha2C-adrenoceptor subtype in spatial working memory as revealed by mice with targeted disruption of the alpha2C-adrenoceptor gene. Tanila H, et al. **Eur J Neurosci** 1999 Feb;11(2):599-603

Gender difference in levels of alpha2-adrenoceptor mRNA in the rat tail artery. McNeill AM, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):233-6

Loss of activation of Gs but not Gi following expression of an alpha2A-adrenoceptor-Gi1alpha fusion protein. Sautel M, et al. **FEBS Lett** 1998 Sep 25;436(1):46-50

alpha2D/A-adrenergic receptor gene induction in the retina by phorbol ester: involvement of an AP-2 element. Venkataraman V, et al. **Genes Cells** 1999 Mar;4(3):161-73

Role of the alpha2B-adrenergic receptor in the development of salt-induced hypertension. Makaritsis KP, et al. **Hypertension** 1999 Jan;33(1):14-7

Abnormal regulation of the sympathetic nervous system in alpha2A-adrenergic receptor knockout mice. Altman JD, et al. **Mol Pharmacol** 1999 Jul;56(1):154-61

Evaluation of the alpha(2A)-adrenergic receptor gene in a heritable form of temporal lobe epilepsy. Wilson MH, et al. **Neurology** 1998 Dec;51(6):1730-1

Alpha 2-adrenergic receptor subtypes: subtle mutation of the alpha 2A-adrenergic receptor in vivo by gene targeting strategies reveals the role of this subtype in multiple physiological settings. MacMillan LB, et al. **Recent Prog Horm Res** 1998;53:25-42 (77 ref.)

[Concentration of mRNA of alpha-2A-adrenergic receptors and the number of specific binding sites for their agonists in regions of the brain] Dygalo NN, et al. **Dokl Akad Nauk** 1999 Jan;364(3):417-9 **(Rus)**

METABOLISM

Ontogeny of imidazoline binding sites in the human placenta. Bagaméry K, et al. **Acta Obstet Gynecol Scand** 1999 Feb; 78(2):89-92

Alpha 2-adrenoceptor activation may trigger the increased production of endothelium-derived nitric oxide in skeletal muscle during acute haemorrhage. Ekelund U, et al. **Acta Physiol Scand** 1998 Nov;164(3):285-92

Insulinemia and pancreatic alpha2-adrenoceptors in salt-sensitive (SBH) and salt-resistant (SBN) Sabra rats: effect of high salt diet. Ilhami N, et al. **Am J Hypertens** 1998 Jul;11(7):790-5

Identification of human I1 receptors and their relationship to alpha 2-adrenoceptors. Dontenwill M, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:123-34

Coexpression of imidazoline receptors and alpha 2-adrenoceptors in neuroglial cell line NG 108,15. Greney H, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:54-8

Characterization of the enzymatic activity for biphasic competition by guanoxabenz (1-(2,6-dichlorobenzylidene-amino)-3-hydroxyguanidine) at alpha2-adrenoceptors. II. Description of a xanthine-dependent enzymatic activity in spleen cytosol. Dambrova M, et al. **Biochem Pharmacol** 1998 Nov 1; 56(9):1121-8

Characterization of the enzymatic activity for biphasic competition by guanoxabenz (1-(2,6-dichlorobenzylidene-amino)-3-hydroxyguanidine) at alpha2-adrenoceptors. I. Description of an enzymatic activity in spleen membranes. Uhlén S, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1111-9

Modulation of agonist binding to recombinant human alpha2-adrenoceptors by sodium ions. Pihlavisto M, et al. **Biochim Biophys Acta** 1998 Nov 19;1448(1):135-46

Platelet alpha2-adrenoceptor alterations in patients with essential hypertension. Varani K, et al. **Br J Clin Pharmacol** 1999 Feb;47(2):167–72

Homologous regulation of the alpha2C-adrenoceptor subtype in human hepatocarcinoma, HepG2. Cayla C, et al. **Br J Pharmacol** 1999 Jan;126(1):69–78

Interaction of the alpha-2 adrenergic- and opioid receptor with the cGMP system in the mouse cerebellum. Vulliemoz Y, et al. **Brain Res** 1998 Nov 30;813(1):26–31

Activation of protein kinase C modulates alpha2-adrenergic signalling in rat pancreatic islets. El-Mansoury AM, et al. **Cell Signal** 1998 Oct;10(9):637–43

Estrogen replacement modulates resistance artery smooth muscle and endothelial alpha2-adrenoceptor reactivity. Ferrer M, et al. **Endothelium** 1998;6(2):133–41

Evidence of alpha2-adrenoceptor involvement in B[alpha]P induction processes of drug-metabolizing enzymes: the effect of stress. Konstandi M, et al. **Eur J Drug Metab Pharmacokinet** 1998 Oct–Dec; 23(4):491–5

From the lab to the clinic: activation of an alpha-2 agonist pathway is neuroprotective in models of retinal and optic nerve injury. Wheeler LA, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9 Suppl 1:S17–21

Postjunctional alpha2-adrenoceptors in the rat tail artery: effect of sex and castration. Chen DC, et al. **Eur J Pharmacol** 1999 May 21;372(3):247–52

Alpha2B-adrenoceptors couple to Ca2+ increase in both endogenous and recombinant expression systems. Holmberg CI, et al. **Eur J Pharmacol** 1998 Dec 11; 363(1):65–74

Platelet and brain alpha 2-adrenoceptors and cardiovascular sensitivity to agonists in dogs suffering from endotoxic shock. Hikasa Y, et al. **Fundam Clin Pharmacol** 1998; 12(5):498–509

Characterization of alpha2 adrenergic receptor subtypes in human ocular tissue homogenates. Bylund DB, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2299–306

Alpha2-adrenoreceptor agonists are neuroprotective in a rat model of optic nerve degeneration [published erratum appears in Invest Ophthalmol Vis Sci 199 Oct;40(11):2470] Yoles E, et al. **Invest Ophthalmol Vis Sci** 1999 Jan; 40(1):65–73

Chloroethylclonidine and 2-aminoethyl methanethiosulfonate recognize two different conformations of the human alpha(2A)-adrenergic receptor. Marjamäki A, et al. **J Biol Chem** 1999 Jul 30; 274(31):21867–72

The zeta isoform of 14-3-3 proteins interacts with the third intracellular loop of different alpha2-adrenergic receptor subtypes. Prezeau L, et al. **J Biol Chem** 1999 May 7; 274(19):13462–9

The alpha2A-adrenergic receptor discriminates between Gi heterotrimers of different betagamma subunit composition in Sf9 insect cell membranes. Richardson M, et al. **J Biol Chem** 1999 May 7;274(19):13525–33

Three-dimensional models of alpha(2A)-adrenergic receptor complexes provide a structural explanation for ligand binding. Salminen T, et al. **J Biol Chem** 1999 Aug 13; 274(33):23405–13

Stimulation of mitogen-activated protein kinase by G protein-coupled alpha(2)-adrenergic receptors does not require agonist-elicited endocytosis. Schramm NL, et al. **J Biol Chem** 1999 Aug 27;274(35):24935–40

Acute exercise enhances receptor-mediated endothelium-dependent vasodilation by receptor upregulation. Cheng L, et al. **J Biomed Sci** 1999 Jan; 6(1):22–7

Is there a role for the alpha2 antagonism in the exacerbation of hallucinogen-persisting perception disorder with risperidone? [letter; comment] Alcántara AG. **J Clin Psychopharmacol** 1998 Dec;18(6):487–8. Comment on: J Clin Psychopharmacol 1996 Jun;16(3):238–41. Comment on: J Clin Psychopharmacol 1997 Aug;17(4):327–8.

Modelling of adrenoceptor ligand targets based on novel medium- or macro-sized fused nitrogen heterocyclic systems. Griffith R, et al. **J Comput Aided Mol Des** 1999 Jan;13(1):69–78

Synthesis and evaluation of 3-trifluoromethyl-7-substituted-1,2,3,4-tetrahydroisoquinolines as selective inhibitors of phenylethanolamine N-methyltransferase versus the alpha(2)-adrenoceptor. Grunewald GL, et al. **J Med Chem** 1999 Aug 26;42(17):3315–23

Synthesis, biochemical evaluation, and classical and three-dimensional quantitative structure-activity relationship studies of 7-substituted-1,2,3,4-tetrahydroisoquinolines and their relative affinities toward phenylethanolamine N-methyltransferase and the alpha2-adrenoceptor. Grunewald GL, et al. **J Med Chem** 1999 Jan 14; 42(1):118–34

Up-regulation of immunolabeled alpha2A-adrenoceptors, Gi coupling proteins, and regulatory receptor kinases in the prefrontal cortex of depressed suicides. García-Sevilla JA, et al. **J Neurochem** 1999 Jan;72(1):282–91

Alpha-2 adrenergic receptor functional coupling to G proteins in rat brain during postnatal development. Happe HK, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1134–42

Ligand- and subtype-selective coupling of human alpha-2 adrenoceptors to Ca++ elevation in Chinese hamster ovary cells. Kukkonen JP, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):667–71

G protein-linked receptors: pharmacological evidence for the formation of heterodimers. Maggio R, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):251–7

Dissociation between I2-imidazoline receptors and MAO-B activity in platelets of patients with Alzheimer's type dementia. Soto J, et al. **J Psychiatr Res** 1999 May-Jun; 33(3):251–7

Antipsychotic drug affinities at alpha2-adrenoceptor subtypes in post-mortem human brain. Blake TJ, et al. **J Psychopharmacol** 1998;12(2):151–4

Differential modulation of alpha2-adrenoceptor subtypes in rat kidney by chronic desipramine treatment. Callado LF, et al. **Life Sci** 1999;64(25):2327–39

Alpha2 adrenergic and high affinity serotonergic receptor changes in the brain stem of streptozotocin-induced diabetic rats. Padayatti PS, et al. **Life Sci** 1999;65(4):403–14

Receptor selectivity of the cloned opossum G protein-coupled receptor kinase 2 (GRK2) in intact opossum kidney cells: role in desensitization of endogenous alpha2C-adrenergic but not serotonin 1B receptors. Lembo PM, et al. **Mol Endocrinol** 1999 Jan;13(1):138–47

Do alpha 2-adrenoceptors and imidazoline binding sites coexist in the human term placenta? Evidence from direct binding studies. Bagaméry K, et al. **Mol Hum Reprod** 1998 Apr;4(4):387–91

Modulation of relative intrinsic activity of agonists at the alpha-2A adrenoceptor by mutation of residue 351 of G protein gi1alpha. Jackson VN, et al. **Mol Pharmacol** 1999 Feb;55(2):195–201

Actions of alpha2 adrenoceptor ligands at alpha2A and 5-HT1A receptors: the antagonist, atipamezole, and the agonist, dexmedetomidine, are highly selective for alpha2A adrenoceptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):197–206

The alkylating agent EEDQ facilitates protease-mediated degradation of the human brain alpha2A-adrenoceptor as revealed by a sequence-specific antibody. Ozaita A, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):105–8

PHYSIOLOGY

Non-NMDA and NMDA receptors in the synaptic pathway between area postrema and nucleus tractus solitarius. Aylwin ML, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1236–46

Alpha2-adrenoceptor-mediated presynaptic inhibition in bulbospinal neurons of rostral ventrolateral medulla. Hayar A, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1069–80

Adenosine A2a-receptor activation enhances cardiomyocyte shortening via Ca2+-independent and -dependent mechanisms. Woodiwiss AJ, et al. **Am J Physiol** 1999 May; 276(5 Pt 2):H1434–41

Participation of imidazoline receptors and alpha(2-)-adrenoceptors in the central hypotensive effects of imidazoline-like drugs. Bousquet P, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:272–8 (19 ref.)

Central imidazoline- and alpha 2-receptors involved in the cardiovascular actions of centrally acting antihypertensive agents. Head GA. **Ann N Y Acad Sci** 1999 Jun 21; 881:279–86

Dissociation of the effects of intramedullary monoamine neurotoxins on the hypotensive action of moxonidine and on immunodetected imidazoline and alpha 2-receptor proteins. Head GA, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:300

Gene substitution/knockout to delineate the role of alpha 2-adrenoceptor subtypes in mediating central effects of catecholamines and imidazolines. Hein L, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:265–71

Transfected cells expressing the three subtypes of alpha 2-adrenergic receptors lack I1-imidazoline binding sites. Ordener C, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:59–60

alpha 2A-adrenoceptors, not I1-imidazoline receptors, mediate the hypotensive effects of rilmenidine and moxonidine in conscious mice. In vivo and in vitro studies. Zhu QM, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:287–9

Modification of the beta- and alpha2-adrenergic sensitivity of rat submandibular glands by environmental stimuli and stress. Bellavia SL, et al. **Arch Oral Biol** 1998 Dec; 43(12):933–9

Agonist-mediated downregulation of G alpha i via the alpha 2-adrenergic receptor is targeted by receptor-Gi interaction and is independent of receptor signaling and regulation. Jewell-Motz EA, et al. **Biochemistry** 1998 Nov 10;37(45):15720–5

Pharmacological evidence for different alpha 2-adrenergic receptor sites mediating analgesia and sedation in the rat. Buerkle H, et al. **Br J Anaesth** 1998 Aug;81(2):208–15

Impaired function of alpha-2 adrenoceptors in smooth muscle of mesenteric arteries from spontaneously hypertensive rats. Feres T, et al. **Br J Pharmacol** 1998 Nov;125(6):1144–9

Alpha2-adrenoceptor-mediated contractions of the porcine isolated ear artery: evidence for a cyclic AMP-dependent and a cyclic AMP-independent mechanism. Roberts RE, et al. **Br J Pharmacol** 1998 Jul;124(6):1107–14

The effect of site-directed mutagenesis of two transmembrane serine residues on agonist-specific coupling of a cloned human alpha2A-adrenoceptor to adenylyl cyclase. Rudling JE, et al. **Br J Pharmacol** 1999 Jun; 127(4):877–86

Functional cross-talk between endothelial muscarinic and alpha2-adrenergic receptors in rabbit cerebral arteries. Thorin E. **Br J Pharmacol** 1998 Nov;125(6):1188–93

Pharmacological evidence that alpha1-and alpha2-adrenoceptors mediate vasoconstriction of carotid arteriovenous anastomoses in anaesthetized pigs. Willems EW, et al. **Br J Pharmacol** 1999 Jul;127(5):1263–71

G-protein activation by putative antagonists at mutant Thr373Lys alpha2A adrenergic receptors. Wurch T, et al. **Br J Pharmacol** 1999 Feb;126(4):939–48

Chronic variable stress induces supersensitivity of central alpha2-adrenoceptors which modulate the jaw-opening reflex in the rat. García-Vallejo P, et al. **Brain Res** 1998 Aug 10;801(1-2):72–7

Alpha2A-adrenergic receptors are primarily presynaptic heteroreceptors in the C1 area of the rat rostral ventrolateral medulla. Milner TA, et al. **Brain Res** 1999 Mar 6;821(1):200–11

Alpha2-adrenoceptor-mediated restraint of norepinephrine synthesis, release, and turnover during immobilization in rats. Tjurmina OA, et al. **Brain Res** 1999 May 1; 826(2):243–52

Noradrenergic responses of neurones in the mediolateral part of the lateral septum: alpha1-adrenergic depolarization and rhythmic bursting activities, and alpha2-adrenergic hyperpolarization from guinea pig brain slices. Carette B. **Brain Res Bull** 1999 Feb;48(3):263–76

Dopamine releases endothelium-derived relaxing factor via alpha 2-adrenoceptors in canine vessels: comparisons between femoral arteries and veins. Segawa T, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):669–75

Subtypes of functional alpha1- and alpha2-adrenoceptors. Docherty JR. **Eur J Pharmacol** 1998 Nov 13;361(1):1–15 (175 ref.)

Functional alpha2C-adrenoceptors in human neuroblastoma SH-SY5Y cells. Parsley S, et al. **Eur J Pharmacol** 1999 May 7;372(1):109–15

Alpha2-adrenoceptors mediate the effect of dopamine on adult rat jejunal electrolyte transport. Vieira-Coelho MA, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):59–65

alpha1- and alpha2-adrenoceptors in BPH. Takeda M, et al. **Eur Urol** 1999;36 Suppl 1:31–4; discussion 65 (23 ref.)

Neuroprotective effects of the alpha2-adrenoceptor antagonists, (+)-efaroxan and (+/-)-idazoxan, against quinolinic acid-induced lesions of the rat striatum. Martel J, et al. **Exp Neurol** 1998 Dec;154(2):595–601

Alpha1- and alpha2-adrenoceptor control of sodium transport reverses in developing hypertension. Gesek FA. **Hypertension** 1999 Jan;33(1 Pt 2):524–9

Sympathoinhibitory function of the alpha(2A)-adrenergic receptor subtype. Makaritsis KP, et al. **Hypertension** 1999 Sep;34(3):403–7

Role of alpha2-adrenoceptors on the hyperglycaemic and insulin secretory effects derived from alpha1- and beta-adrenoceptor stimulation in the rabbit. Garcia-Barrado MJ, et al. **J Auton Pharmacol** 1998 Oct; 18(5):287–95

Role of arrestins in endocytosis and signaling of alpha2-adrenergic receptor subtypes. DeGraff JL, et al. **J Biol Chem** 1999 Apr 16;274(16):11253–9

Noradrenaline release from cultured mouse postganglionic sympathetic neurons: autoreceptor-mediated modulation. Trendelenburg AU, et al. **J Neurochem** 1999 Oct; 73(4):1439–45

alpha2C adrenoceptors inhibit adenylyl cyclase in mouse striatum: potential activation by dopamine. Zhang W, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1286–92

Alpha 2-adrenoceptors and I1-imidazoline binding sites: relationship with catecholamines in women of reproductive age. Piletz JE, et al. **J Psychiatr Res** 1998 Mar-Apr; 32(2):55–64

Alpha2-adrenergic receptor-mediated release of lysophosphatidic acid by adipocytes: a paracrine signal for preadipocyte growth. Pagès C, et al. **Lipids** 1999;34 Suppl:S79

Sympathetic and platelet adrenergic activity and salt sensitivity: an experimental study. Somova L, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):657–65

Excessive cerebrocortical release of acetylcholine induced by NMDA antagonists is reduced by GABAergic and alpha2-adrenergic agonists. Kim SH, et al. **Mol Psychiatry** 1999 Jul;4(4):344–52

Analysis of the receptor involved in the central hypotensive effect of rilmenidine and moxonidine. Bock C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):262–71

Alpha-2 adrenoceptor mediated paradoxical (REM) sleep inhibition in the cat. Crochet S, et al. **Neuroreport** 1999 Jul 13;10(10):2199–204

Alpha-2 adrenergic modulation of prefrontal cortical neuronal activity related to a visual discrimination task with GO and NO-GO performances in monkeys. Li BM, et al. **Neurosci Res** 1998 Jun;31(2):83–95

Alpha2-adrenoceptor-mediated enhancement of glycine response in rat sacral dorsal commissural neurons. Nabekura J, et al. **Neuroscience** 1999 Mar;89(1):29–41

D-amphetamine and L-5-hydroxytryptophan-induced behaviours in mice with genetically-altered expression of the alpha2C-adrenergic receptor subtype. Sallinen J, et al. **Neuroscience** 1998 Oct;86(3):959–65

Alpha2-adrenoceptor modulation of cortical acetylcholine release in vivo. Tellez S, et al. **Neuroscience** 1999;

89(4):1041–50
Diurnal changes in paraventricular hypothalamic alpha1 and alpha2-adrenoceptors and food intake in rats. Morien A, et al. **Pharmacol Biochem Behav** 1999 May;63(1):33–8
Tizanidine protects mice against convulsions induced by lidocaine: involvement of alpha 2-adrenoceptors. Altenburg SP, et al. **Pharmacol Toxicol** 1999 Jan; 84(1):29–33

RECEPTORS, ADRENERGIC, BETA

The beta-adrenoceptor. Johnson M.
Am J Respir Crit Care Med 1998 Nov;158(5 Pt 3):S146–53 (60 ref.)
Effect of an atypical adrenergic beta3-agonist, GS-332: sodium (2R)-[3-[3-[2-(3-chlorophenyl)-2-hydroxyethylamino]cyclohexyl]phenoxy] acetate, on urinary bladder function in rats. Iizuka H, et al.
J Smooth Muscle Res 1998 Aug;34(4):139–49
[Pathogenesis of the bronchial obstruction during disturbed adrenergic reception] Akimov DV, et al.
Biull Eksp Biol Med 1999 Mar;127(3):275–7 **(Rus)**

AGONISTS see ADRENERGIC BETA-AGONISTS

ANALYSIS

Molecular and functional mechanisms of right ventricular adaptation in chronic pulmonary hypertension. Chen EP, et al. **Ann Thorac Surg** 1999 Apr;67(4):1053–8
Pre- and post-hatching developmental changes in beta-adrenoceptor subtypes in chick brain. Revilla R, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):159–67
Spatial distribution of nerve processes and beta-adrenoreceptors in the rat atrioventricular node. Petrecca K, et al. **J Anat** 1998 May;192 (Pt 4):517–28
Parametric polar maps of regional myocardial beta-adrenoceptor density. de Jong RM, et al.
J Nucl Med 1999 Apr;40(4):507–12
Evidence for beta3-adrenoceptor subtypes in relaxation of the human urinary bladder detrusor: analysis by molecular biological and pharmacological methods. Takeda M, et al.
J Pharmacol Exp Ther 1999 Mar;288(3):1367–73
An efficient cyclic AMP assay for the functional evaluation of beta-adrenergic receptor ligands. Vansal SS, et al.
J Recept Signal Transduct Res 1999 Sep;19(5):853–63
Coupling efficiency of brain beta-adrenergic receptors to Gs protein in suicide, alcoholism and control subjects. Gurguis GN, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):31–8

ANTAGONISTS & INHIBITORS see ADRENERGIC BETA-ANTAGONISTS

BIOSYNTHESIS

Variability in beta-adrenergic receptor population in cultured chicken muscle cells [letter] Young RB, et al.
In Vitro Cell Dev Biol Anim 1999 Mar;35(3):115–7
Depressed expression of adipocyte beta-adrenergic receptors is a common feature of congenital and diet-induced obesity in rodents. Collins S, et al.
Int J Obes Relat Metab Disord 1999 Jul;23(7):669–77
Beta-adrenergic receptor gene expression in bovine skeletal muscle cells in culture. Bridge KY, et al. **J Anim Sci** 1998 Sep;76(9):2382–91
Expression and possible functional role of the beta3-adrenoceptor in human and rat detrusor muscle. Fujimura T, et al. **J Urol** 1999 Feb;161(2):680–5

CLASSIFICATION

Beta-adrenoceptor subtypes in the ureteral smooth muscle of rats, rabbits and dogs. Tomiyama Y, et al.
Eur J Pharmacol 1998 Jul 10;352(2–3):269–78
beta-Adrenergic receptor subtypes in melanophores of the marine gobies Tridentiger trigonocephalus and Chasmichthys gulosus. Katayama H, et al.
Pigment Cell Res 1999 Jun;12(3):206–17

DRUG EFFECTS

Atypical beta-adrenoceptors mediate isoprenaline induced vasodilatation in the rabbit uterine vascular bed. Oriowo MA. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):123–7
Action of ethanol and zolpidem on gamma-aminobutyric acid responses from cerebellar Purkinje neurons: relationship to beta-adrenergic receptor input. Yang X, et al.
Alcohol Clin Exp Res 1998 Nov;22(8):1655–61
Suppression of beta-adrenergic responsiveness of L-type Ca2+ current by IL-1beta in rat ventricular myocytes. Liu SJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H141–8
Effects of beta-adrenoceptor stimulation on contractility, [Ca2+]i, and Ca2+ current in diabetic rat cardiomyocytes. Tamada A, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H1849–57
Anti-inflammatory agents and allergen-induced beta2-receptor dysfunction in isolated human bronchi. Song P, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1809–14
Propofol-induced alterations in myocardial beta-adrenoceptor binding and responsiveness. Zhou W, et al. **Anesth Analg** 1999 Sep;89(3):604–8
Effects of halothane and isoflurane on beta-adrenoceptor-mediated responses in the vascular smooth muscle of rat aorta. Tanaka S, et al.
Anesthesiology 1998 Nov;89(5):1209–17
3-Pyridylethanolamines: potent and selective human beta 3 adrenergic receptor agonists. Naylor EM, et al.
Bioorg Med Chem Lett 1998 Nov 3;8(21):3087–92
Discovery of L-755,507: a subnanomolar human beta 3 adrenergic receptor agonist. Parmee ER, et al.
Bioorg Med Chem Lett 1998 May 5;8(9):1107–12
Potent, selective benzenesulfonamide agonists of the human beta 3 adrenergic receptor. Weber AE, et al.
Bioorg Med Chem Lett 1998 May 5;8(9):1101–6
Aryl propanolamines: comparison of activity at human beta3 receptors, rat beta3 receptors and rat atrial receptors mediating tachycardia. Cohen ML, et al.
Br J Pharmacol 1999 Feb;126(4):1018–24
Action potential shortening through the putative beta4-adrenoceptor in ferret ventricle: comparison with beta1- and beta2-adrenoceptor-mediated effects. Lowe MD, et al. **Br J Pharmacol** 1998 Aug;124(7):1341–4
Functional analysis of desensitization of the beta-adrenoceptor signalling pathway in rat cardiac tissues following chronic isoprenaline infusion. McMartin L, et al. **Br J Pharmacol** 1999 Jun;127(4):1012–20
Actions of adenosine A1 and A2 receptor antagonists on CFTR antibody-inhibited beta-adrenergic mucin secretion response. Pereira MM, et al. **Br J Pharmacol** 1998 Oct; 125(4):697–704
Modification of beta-adrenoceptors and adenylyl cyclase in hearts perfused with hypochlorous acid. Persad S, et al.
Can J Physiol Pharmacol 1998 Oct–Nov;76(10–11):961–6
Carteolol is a weak partial agonist on beta 3-adrenergic receptors in brown adipocytes. Zhao J, et al.
Can J Physiol Pharmacol 1998 Apr;76(4):428–33
Modulation of the pacemaker current If by beta-adrenoceptor subtypes in ventricular myocytes isolated from hypertensive and normotensive rats. Cerbai E, et al. **Cardiovasc Res** 1999 Apr;42(1):121–9
Leptin, but not a beta 3-adrenergic agonist, upregulates muscle uncoupling protein-3 messenger RNA expression: short-term thermogenic interactions. Gómez-Ambrosi J, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):992–7
Serum and insulin induce a Grb2-dependent shift in agonist affinity of beta-adrenergic receptors. Shih M, et al.
Cell Signal 1998 Sep;10(8):575–82
Reciprocal in vivo regulation of myocardial G protein-coupled receptor kinase expression by beta-adrenergic receptor stimulation and blockade. Iaccarino G, et al. **Circulation** 1998 Oct 27;98(17):1783–9
Impact of exogenous beta-adrenergic receptor stimulation on hepatosplanchnic oxygen kinetics and metabolic activity in septic shock [see comments] Reinelt H, et al.
Crit Care Med 1999 Feb;27(2):325–31. Comment in: Crit Care Med 1999 Feb;27(2):242–3.
Effects of adrenergic-receptor blockade and ligation of spleen vessels on the hemodynamics of dogs injected with scorpion venom [see comments] Tarasiuk A, et al.
Crit Care Med 1999 Feb;27(2):365–72. Comment in: Crit Care Med 1999 Feb;27(2):250.
In vitro inhibition of human colonic motility with SR 59119A and SR 59104A: evidence of a beta3-adrenoceptor-mediated effect. Bardou M, et al.
Eur J Pharmacol 1998 Jul 24;353(2–3):281–7
Influence of beta-adrenoceptor agonists on the pulmonary circulation. Effects of a beta3-adrenoceptor antagonist, SR 59230A. Dumas M, et al. **Eur J Pharmacol** 1998 May 8; 348(2–3):223–8
Beneficial effects of amiodarone in heart failure: interaction with beta-adrenoceptors rather than G proteins. Schnabel P, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):391–4
Blockade of beta-adrenoceptors enhances cAMP signal transduction in vivo. Whalen EJ, et al.
Eur J Pharmacol 1998 Aug 21;355(2–3):189–93
Lack of beta adrenoceptor desensitization in brain following the dual noradrenaline and serotonin reuptake inhibitor venlafaxine. Nalepa I, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):227–32
Functional characterization of beta-adrenoceptors mediating relaxation in sheep gallbladder. Oriowo MA, et al.
Fundam Clin Pharmacol 1999;13(2):187–92
Effects of beta3-adrenoceptor agonist SR 58611A on gastric acid secretion and histamine release in the dog: comparison with ritodrine. Bertini S, et al. **Gen Pharmacol** 1998 Oct; 31(4):625–31
Stimulatory effect of octopamine on beta 3-adrenoceptors to lower the uptake of [14C]-deoxy-D-glucose into rat adipocytes in vitro. Yen ST, et al. **J Auton Pharmacol** 1998 Feb;18(1):13–9
Adrenaline responsiveness in mild hypertension: no evidence for altered beta-adrenoceptor sensitivity. Kahan T, et al.
J Cardiovasc Pharmacol 1998 Nov;32(5):753–9
2-Amino-4-benzyl-4,5,6,7-tetrahydrothiazolo[5,4-c]pyridines: novel selective beta3-adrenoceptor agonists. Zheng W, et al. **J Med Chem** 1999 Jun 17;42(12):2287–94
Potent and selective human beta(3)-adrenergic receptor antagonists. Candelore MR, et al.
J Pharmacol Exp Ther 1999 Aug;290(2):649–55
Beta-3 adrenergic receptor agonists cause an increase in gastrointestinal transit time in wild-type mice, but not in mice lacking the beta-3 adrenergic receptor. Fletcher DS, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):720–4
Interspecies differences in the cardiac negative inotropic effects of beta(3)-adrenoceptor agonists. Gauthier C, et al.
J Pharmacol Exp Ther 1999 Aug;290(2):687–93
Pharmacological inhibition of protein kinases in intact cells: antagonism of beta adrenergic receptor ligand binding by H-89 reveals limitations of usefulness. Penn RB, et al.
J Pharmacol Exp Ther 1999 Feb;288(2):428–37
Effect of a beta3-adrenergic agonist on liver glucokinase gene expression in alloxan-diabetic rats. Milagro FI, et al.
J Physiol Biochem 1999 Mar;55(1):25–31
Effects of propranolol on beta-adrenergic receptor of experimental acute myocardial infarction in rats. Liu Z, et al. **J Tongji Med Univ** 1997;17(3):151–5
Byssinosis: role of polymer length on the effect of tannin on the airway beta-adrenergic receptor. Cloutier MM, et al. **Lung** 1998;176(6):393–401
In vivo induced desensitization of beta-adrenoceptors in rat lung. Effect of nitrendipine. Vassilev PP, et al.
Methods Find Exp Clin Pharmacol 1998 Dec;20(10):833–40
Role of H2O2 in changing beta-adrenoceptor and adenylyl cyclase in ischemia-reperfused hearts. Persad S, et al.
Mol Cell Biochem 1998 Sep;186(1–2):99–106
Selective activation of beta3-adrenoceptors by octopamine: comparative studies in mammalian fat cells. Carpéné C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):310–21
Blockade of putative beta4- and beta1-adrenoceptors by carvedilol in ferret myocardium. Lowe MD, et al.
Naunyn Schmiedebergs Arch Pharmacol 1999 May; 359(5):400–3
The effect of hydrogen peroxide upon beta-adrenoceptor density and function in C6 rat glioma cells. Bergström D, et al. **Neurochem Int** 1999 Jan;34(1):63–70
Psychological states and lymphocyte beta-adrenergic receptor responsiveness. Yu BH, et al.
Neuropsychopharmacology 1999 Jul;21(1):147–52
Haemodynamic improvement in a child with meningococcal sepsis following methylprednisolone: restoration of beta-adrenergic receptor responsiveness? O'Brien K, et al.
Paediatr Anaesth 1998;8(5):419–20
Atypical beta-adrenoceptors mediating relaxation in the human colon: functional evidence for beta3-rather than beta4-adrenoceptors. de Ponti F, et al. **Pharmacol Res** 1999 May;39(5):345–8
Bopindolol: a slowly dissociating antagonist from the beta-adrenoceptors in guinea pig atria. Hosohata Y, et al.
Pharmacology 1998 Oct;57(4):180–7
Modulation of porphyrin derivatives accumulation in C6 glioma cells by drugs acting on beta-adrenergic receptors. A spectrofluorometric study. Croce AC, et al.
Photochem Photobiol 1998 Aug;68(2):222–6
Urinary tract toxicity in rats following administration of beta 3-adrenoceptor agonists. Waghe M, et al.
Toxicol Pathol 1999 Mar–Apr;27(2):165–70
[The effects of lidocaine on lymphocyte beta-adrenergic receptor at different pH] Li Y, et al.
Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih 1997 May; 13(2):168–70 (Eng. Abstr.) **(Chi)**
[Activity of a series of amino acids as potential sensitizers of smooth muscle beta-receptors] Nozdrachev AD, et al.
Dokl Akad Nauk 1998 Nov;363(1):133–6 **(Rus)**
[Dependence of arterial pressure and cardiac output on initial (regulated) arterial tone during beta-adrenoreceptor stimulation in rats] Odsadchii LI, et al.
Ross Fiziol Zh Im I M Sechenova 1998 Nov;84(11):1231–41 (Eng. Abstr.) **(Rus)**

GENETICS

Linkage analysis of glucocorticoid and beta2-adrenergic receptor genes with blood pressure and body mass index. Takami S, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1379–84
Interaction of amiodarone and triiodothyronine on the expression of beta-adrenoceptors in brown adipose tissue of rat. Adli H, et al. **Br J Pharmacol** 1999 Mar; 126(6):1455–61
Alternative splicing generates two isoforms of the beta3-adrenoceptor which are differentially expressed in mouse tissues. Evans BA, et al. **Br J Pharmacol** 1999 Jul; 127(6):1525–31
The tobacco-specific carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone is a beta-adrenergic agonist and stimulates DNA synthesis in lung adenocarcinoma via beta-adrenergic receptor-mediated release of arachidonic acid. Schuller HM, et al. **Cancer Res** 1999 Sep 15;59(18):4510–5
Trp64Arg polymorphism of the beta 3-adrenergic receptor gene is associated with increased plasma leptin levels in obese Chinese women. Lin SY, et al.
Chung Hua I Hsueh Tsa Chih (Taipei) 1999 Sep; 62(9):569–76
In vivo transfer of a beta 2-adrenergic receptor gene into the pressure-overloaded rat heart enhances cardiac response to beta-adrenergic agonist. Kawahira Y, et al.
Circulation 1998 Nov 10;98(19 Suppl):II262–7; discussion II267–8
Lack of associations between serum leptin, a polymorphism in the gene for the beta 3-adrenergic receptor and glucose tolerance in the Dutch population. Janssen JA, et al.
Clin Endocrinol (Oxf) 1998 Aug;49(2):229–34
Beta 3-adrenoreceptor gene polymorphism and leptin. Lack of relationship in type 2 diabetic patients. Vendrell J, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):679–83
Association studies on beta2-adrenoceptor polymorphisms

and enhanced IgE responsiveness in an atopic population. Deichmann KA, et al. **Clin Exp Allergy** 1999 Jun; 29(6):794–9

Potential future therapies for heart failure: gene transfer of beta-adrenergic signaling components. Maurice JP, et al. **Coron Artery Dis** 1999 Sep;10(6):401–5 (33 ref.)

Polymorphism of the human beta3-adrenoceptor gene forms a well-conserved haplotype that is associated with moderate obesity and altered receptor function. Hoffstedt J, et al. **Diabetes** 1999 Jan;48(1):203–5

A quantitative trait locus influencing BMI maps to the region of the beta-3 adrenergic receptor. Mitchell BD, et al. **Diabetes** 1999 Sep;48(9):1863–7

Obesity-related phenotypes and the beta3-adrenoceptor gene variant in postmenopausal women. Tchernof A, et al. **Diabetes** 1999 Jul;48(7):1425–8

Trp64Arg mutation of beta3-adrenoceptor gene deteriorates lipolysis induced by beta3-adrenoceptor agonist in human omental adipocytes. Umekawa T, et al. **Diabetes** 1999 Jan; 48(1):117–20

Molecular scanning of the beta-3-adrenergic receptor gene in Pima Indians and Caucasians. Silver K, et al. **Diabetes Metab Res Rev** 1999 May–Jun;15(3):175–80

Polymorphism of the beta3-adrenergic receptor gene and weight gain in pregnant diabetic women. Yanagisawa K, et al. **Diabetes Res Clin Pract** 1999 Apr;44(1):41–7

The W64R variant of the beta3-adrenergic receptor is not associated with type II diabetes or obesity in a large Finnish sample. Ghosh S, et al. **Diabetologia** 1999 Feb;42(2):238–44

Is Trp64Arg polymorphism of beta3-adrenergic receptor a clinically useful marker for the predisposition to diabetic nephropathy in Type II diabetic patients? [letter] Grzeszczak W, et al. **Diabetologia** 1999 May;42(5):632–3

Synergic effect of polymorphisms in uncoupling protein 1 and beta3-adrenergic receptor genes on weight loss in obese Japanese [letter; comment] Kogure A, et al. **Diabetologia** 1998 Nov;41(11):1399. Comment on: Diabetologia 1998 Mar;41(3):357–61.

Trp64Arg mutation of beta3-adrenoceptor gene is associated with diabetic nephropathy in Type II diabetes mellitus [letter] Sakane N, et al. **Diabetologia** 1998 Dec; 41(12):1533–4

Contribution of a missense mutation (Trp64Arg) in beta3-adrenergic receptor gene to multiple risk factors in Japanese men with hyperuricemia. Hayashi H, et al. **Endocr J** 1998 Dec;45(6):779–84

Using gene knockout and transgenic techniques to study the physiology and pharmacology of beta3-adrenergic receptors. Lowell BB. **Endocr J** 1998 Apr;45 Suppl:S9–13 (19 ref.)

Rhythmic variation in beta1-adrenergic receptor mRNA levels in the rat pineal gland: circadian and developmental regulation. Pfeffer M, et al. **Eur J Neurosci** 1998 Sep; 10(9):2896–904

Genomic cloning and species-specific properties of the recombinant canine beta3-adrenoceptor. Lenzen G, et al. **Eur J Pharmacol** 1998 Dec 18;363(2–3):217–27

The role of the sympathetic nervous system in the regulation of leptin synthesis in C57BL/6 mice [published erratum appears in FEBS Lett 1999 May 21;451(2):214] Evans BA, et al. **FEBS Lett** 1999 Feb 12;444(2–3):149–54

Beta3-adrenergic receptor gene polymorphism is not associated with hypertension in NIDDM patients without nephropathy. Baba T, et al. **Horm Metab Res** 1998 Oct; 30(10):629–32

Racial differences in the frequencies of cardiac beta(1)-adrenergic receptor polymorphisms: analysis of c145A>G and c1165G>C. Moore JD, et al. **Hum Mutat (Online)** 1999 Sep 19;14(3):271

Variant of the beta3-adrenergic receptor gene and coronary atherosclerosis in Japanese subjects [letter] Tamaki S, et al. **Int J Cardiol** 1999 Jun 1;69(3):309–11

Association between beta3-adrenoreceptor polymorphism with obesity and diabetes in Japan. Yoshida T, et al. **Intern Med** 1999 Feb;38(2):207–9 (21 ref.)

Distribution and quantification of beta1-, beta2-, and beta3-adrenergic receptor subtype transcripts in porcine tissues. McNeel RL, et al. **J Anim Sci** 1999 Mar; 77(3):611–21

Trp64Arg polymorphism of the beta3-adrenergic receptor gene in pregnancy: association with mild gestational diabetes mellitus. Festa A, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1695–9

Additive effects of the mutations in the beta3-adrenergic receptor and uncoupling protein-1 genes on weight loss and weight maintenance in Finnish women. Fogelholm M, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4246–50

Trp64Arg variant of the beta3-adrenoceptor and insulin resistance in obese postmenopausal women. Garcia-Rubi E, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4002–5

The association between Trp64Arg polymorphism of the beta3-adrenergic receptor and autonomic nervous system activity. Shihara N, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1623–7

Association of Trp64Arg beta 3-adrenergic-receptor gene polymorphism with essential hypertension in the Sardinian population. Tonolo G, et al. **J Hypertens** 1999 Jan; 17(1):33–8

Adrenoceptor genes in human obesity. Arner P, et al. **J Intern Med** 1999 Jun;245(6):667–72 (49 ref.)

The different effects of a Gln27Glu beta 2-adrenoceptor gene polymorphism on obesity in males and in females. Hellström L, et al. **J Intern Med** 1999 Mar;245(3):253–9

Phenotypic characterization of the beta3-adrenergic receptor mutation and the uncoupling protein 1 polymorphism in Japanese men. Hayakawa T, et al. **Metabolism** 1999 May; 48(5):636–40

Relation of beta3-adrenergic receptor gene mutation to total body fat but not percent body fat and insulin levels in Thais. Ongphiphadhanakul B, et al. **Metabolism** 1999 May; 48(5):564–7

Different regulation of free fatty acid levels and glucose oxidation by the Trp64Arg polymorphism of the beta3-adrenergic receptor gene and the promoter variant (A–3826G) of the uncoupling protein 1 gene in familial combined hyperlipidemia. Pihlajamäki J, et al. **Metabolism** 1998 Nov;47(11):1397–402

The codon 64 polymorphism of the beta3-adrenergic receptor gene is not associated with coronary heart disease or insulin resistance in nondiabetic subjects and non-insulin-dependent diabetic patients. Pulkkinen A, et al. **Metabolism** 1999 Jul;48(7):853–6

Lack of association between genetic variation in the beta3-adrenergic receptor gene and insulin resistance in patients with coronary heart disease. Sheu WH, et al. **Metabolism** 1999 May;48(5):651–4

A Trp 64 Arg mutation in the beta3-adrenergic receptor gene is not associated with moderate overweight in Japanese workers. Shiwaku K, et al. **Metabolism** 1998 Dec; 47(12):1528–30

No effect of Trp64Arg beta3-adrenoceptor polymorphism on the plasma leptin concentration in Pima Indians. Snitker S, et al. **Metabolism** 1998 Dec;47(12):1525–7

Identification of a glucocorticoid response element in the rat beta2-adrenergic receptor gene. Cornett LE, et al. **Mol Pharmacol** 1998 Dec;54(6):1016–23

The Trp64Arg amino acid polymorphism of the beta3-adrenergic receptor gene does not contribute to the genetic susceptibility of diabetic microvascular complications in Caucasian type 1 diabetic patients. Tarnow L, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):895–7

beta2-adrenergic but not vasopressin V2 receptor mRNAs are expressed in the stria vascularis of the rat inner ear. de Minteguiaga C, et al. **Pflugers Arch** 1998 Nov; 436(6):940–7

Differential down-regulation of beta3-adrenergic receptor mRNA and signal transduction by cold exposure in brown adipose tissue of young and senescent rats. Scarpace PJ, et al. **Pflugers Arch** 1999 Feb;437(3):479–83

[Effects of Trp64Arg mutation in the beta 3-adrenergic receptor gene on body fat, plasma glucose level, lipid profile, insulin secretion and action in Chinese] Xiang K, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1998 Dec 10;15(6):337–40 (Eng. Abstr.) **(Chi)**

[Obesity and diseases. 5. Molecular mechanism involved in the onset of obesity and overview of its treatment] Yoshida T, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10; 87(9):1806–10 (25 ref.) **(Jpn)**

[Beta 3 adrenergic receptor polymorphism and obesity] Yoshida T, et al. **Nippon Rinsho** 1998 Jul;56(7):1871–5 (20 ref.) (Eng. Abstr.) **(Jpn)**

HISTORY

[Half a century of adrenoceptors (1948–1998): from the laboratory to the clinic] Sánchez García P. **An R Acad Nac Med (Madr)** 1998;115(2):299–304 **(Spa)**

IMMUNOLOGY

Alterations in cardiac beta-adrenergic receptors in chagasic mice and their association with circulating beta-adrenoceptor-related autoantibodies. Sterin-Borda L, et al. **Cardiovasc Res** 1999 Jan;41(1):116–25

Antibodies against beta1 and beta2 adrenergic receptors in myasthenia gravis. Xu BY, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):82–8

Severity, time, and beta-adrenergic receptor involvement in surgery-induced immune alterations. Nelson CJ, et al. **J Surg Res** 1998 Dec;80(2):115–22

METABOLISM

Endogenous muscarinic activity attenuates adrenergic inotropic effects in field stimulated atrial myocardium from children with congenital heart defects. Borthne K, et al. **Acta Physiol Scand** 1999 Jan;165(1):9–13

Ser16 prevails over Thr17 phospholamban phosphorylation in the beta-adrenergic regulation of cardiac relaxation. Kuschel M, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1625–33

Suppression of beta-adrenergic responsiveness of L-type Ca2+ current by IL-1beta in rat ventricular myocytes. Liu SJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H141–8

Inhibition of beta-adrenergic desensitization by KCa channels in human trachealis. Kume H, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):452–60

Intracellular cAMP and beta 2-adrenergic receptors on CD19+ lymphocytes in patients with rheumatoid arthritis. Wahle M, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:309–11

The effect of amiodarone on the beta-adrenergic receptor is due to a downregulation of receptor protein and not to a receptor-ligand interaction. Drvota V, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):515–20

Multiple-site phosphorylation of the 280 kDa isoform of acetyl-CoA carboxylase in rat cardiac myocytes: evidence that cAMP-dependent protein kinase mediates effects of beta-adrenergic stimulation. Boone AN, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):347–54

Effects of chronic electroconvulsive shock on the expression of beta-adrenergic receptors in rat brain: immunological study. Seo DO, et al. **Biochem Mol Biol Int** 1999 Feb; 47(2):195–203

Direct effects of ephedrine isomers on human beta-adrenergic receptor subtypes. Vansal SS, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):807–10

Upregulation of Kupffer cell beta-adrenoceptors and cAMP levels during the late stage of sepsis. Hahn PY, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):377–84

Human beta3 adrenergic receptor agonists containing imidazolidinone and imidazolone benzenesulfonamides. Naylor EM, et al. **Bioorg Med Chem Lett** 1999 Mar 8; 9(5):755–8

Human beta3 adrenergic receptor agonists containing cyclic ureidobenzenesulfonamides. Parmee ER, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):749–54

Enhanced responsiveness of the myocardial beta-adrenoceptor-adenylate cyclase system in the perfused rat heart (I). Gordeladze JO, et al. **Biosci Rep** 1998 Oct;18(5):229–50

ATP-sensitive K+ channels in smooth muscle cells of guinea-pig mesenteric lymphatics: role in nitric oxide and beta-adrenoceptor agonist-induced hyperpolarizations. von der Weid PY. **Br J Pharmacol** 1998 Sep;125(1):17–22

Effects of chronic application of propranolol on beta-adrenergic signal transduction in heart ventricles from myopathic BIO TO2 and control hamsters. Witte K, et al. **Br J Pharmacol** 1998 Nov;125(5):1033–41

Chronic repetitive transcranial magnetic stimulation alters beta-adrenergic and 5-HT2 receptor characteristics in rat brain. Ben-Shachar D, et al. **Brain Res** 1999 Jan 16; 816(1):78–83

Beta-adrenergic signal transduction following carvedilol treatment in hypertensive cardiac hypertrophy. Böhm M, et al. **Cardiovasc Res** 1998 Oct;40(1):146–55

An inhibitor of nitric oxide synthase does not increase contraction or beta-adrenoceptor sensitivity of ventricular myocytes from failing human heart. Harding SE, et al. **Cardiovasc Res** 1998 Dec;40(3):523–9

Alterations in cardiac beta-adrenergic receptors in chagasic mice and their association with circulating beta-adrenoceptor-related autoantibodies. Sterin-Borda L, et al. **Cardiovasc Res** 1999 Jan;41(1):116–25

Serum and insulin induce a Grb2-dependent shift in agonist affinity of beta-adrenergic receptors. Shih M, et al. **Cell Signal** 1998 Sep;10(8):575–82

Is beta-adrenergic-mediated airway relaxation of salmeterol antagonized by its solvent xinafoic acid? Groeben H, et al. **Chest** 1999 Jun;115(6):1678–83

Syntheses and beta-adrenergic binding affinities of (R)- and (S)-fluoronaphthyloxypropanolamines. Adejare A, et al. **Chirality** 1999;11(2):144–8

Effects of clonidine on myocardial beta-adrenergic receptor-adenyl cyclase-cAMP system after scalds in rats. He HM, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar; 18(2):146–9

Effects of verapamil on down-regulation of norepinephrine-induced beta adrenoceptors in cultured rat cardiomyocytes. Xu B, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):148–50

Acute myocardial beta-adrenergic receptor dysfunction after cardiopulmonary bypass in patients with cardiac valve disease. Duke Heart Center Perioperative Desensitization Group. Gerhardt MA, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II275–81

alpha- and beta-adrenergic pathways differentially regulate cell type-specific apoptosis in rat cardiac myocytes. Iwai-Kanai E, et al. **Circulation** 1999 Jul 20;100(3):305–11

Ischemic preconditioning and the beta-adrenergic signal transduction pathway. Lochner A, et al. **Circulation** 1999 Aug 31;100(9):958–66

Allergen challenge primes for IL-5 mRNA production and abrogates beta-adrenergic function in peripheral blood T lymphocytes from asthmatics. Borger P, et al. **Clin Exp Allergy** 1999 Jul;29(7):933–40

Effect of a 14-day hindlimb suspension on beta-adrenoreceptors in rats. Bouzeghrane F, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 May;123(1):95–102

Characterization of beta-adrenergic receptors in fish and amphibian lymphoid organs. Jozefowski SJ, et al. **Dev Comp Immunol** 1998 Sep–Dec;22(5–6):587–603

Neurotransmitter receptor activation triggers p27(Kip1)and p21(CIP1) accumulation and G1 cell cycle arrest in oligodendrocyte progenitors. Ghiani CA, et al. **Development** 1999 Feb;126(5):1077–90

Polymorphism of the human beta3-adrenoceptor gene forms a well-conserved haplotype that is associated with moderate obesity and altered receptor function. Hoffstedt J, et al. **Diabetes** 1999 Jan;48(1):203–5

Beta-adrenoceptor reserve in human lung: a comparison between airway smooth muscle and mast cells. Chong LK, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):115–22

Validation of S-1'-[18F]fluorocarazolol for in vivo imaging and quantification of cerebral beta-adrenoceptors. Doze P, et al. **Eur J Pharmacol** 1998 Jul 24;353(2–3):215–26

The combined effects of chronic ethanol/desipramine treatment on beta-adrenoceptor density and coupling

efficiency in rat brain. Gurguis GN, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):241-51

Nitric oxide synthase inhibitors have antidepressant-like properties in mice. 2. Chronic treatment results in downregulation of cortical beta-adrenoceptors. Karolewicz B, et al. **Eur J Pharmacol** 1999 May 21; 372(3):215-20

LK 204-545, a highly selective beta1-adrenoceptor antagonist at human beta-adrenoceptors. Louis SN, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):431-5

Activation of beta-adrenoceptors does not cause any change in cytosolic Ca2+ distribution in rat parotid acinar cells. Tojyo Y, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):73-9

Antisense oligonucleotides against receptor kinase GRK2 disrupt target selectivity of beta-adrenergic receptors in atrial myocytes. Wellner-Kienitz MC, et al. **FEBS Lett** 1999 May 28;451(3):279-83

Myocardial beta-adrenergic reactivity in volume overload-induced cardiac hypertrophy in the rat. Communal C, et al. **Fundam Clin Pharmacol** 1998; 12(4):411-9

Myocardial beta-adrenergic reactivity in pressure overload-induced cardiac hypertrophy in the rat. Communal C, et al. **Fundam Clin Pharmacol** 1998; 12(6):590-8

A GppNHp-insensitivity factor modulates the activation of beta-adrenoceptor-coupled Gs protein in rat cortex and cerebellum. Garnier V, et al. **Fundam Clin Pharmacol** 1999; 13(2):169-79

Atypical beta-adrenoceptors of rat thoracic aorta. Shafiei M, et al. **Gen Pharmacol** 1999 May;32(5):557-62

beta-Adrenergic agonist-induced nitrite production in isolated pig ciliary processes. Liu R, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):613-6

The myocardial beta-adrenergic system in spontaneously hypertensive heart failure (SHHF) rats. Anderson KM, et al. **Hypertension** 1999 Jan;33(1 Pt 2):402-7

Chamber-specific alterations of norepinephrine uptake sites in cardiac hypertrophy. Böhm M, et al. **Hypertension** 1998 Nov;32(5):831-7

Comparative study of beta-adrenoceptor blocking efficacy of two formulations of esmolol in vivo and in vitro. Tripathi CB, et al. **Indian J Physiol Pharmacol** 1999 Apr;43(2):255-8

Beta-adrenergic receptor-dependent and -independent stimulation of adenylate cyclase is impaired during severe sepsis in humans. Bernardin G, et al. **Intensive Care Med** 1998 Dec;24(12):1315-22

Increased training load and the beta-adrenergic-receptor system on human lymphocytes. Schaller K, et al. **J Appl Physiol** 1999 Jul;87(1):317-24

Activation of beta3-adrenoceptors by exogenous dopamine to lower glucose uptake into rat adipocytes. Lee TL, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):86-90

Thyroid status affects the rat cardiac beta-adrenoceptor system transiently and time-dependently. Zwaveling J, et al. **J Auton Pharmacol** 1998 Feb;18(1):1-11

Defective beta-adrenergic receptor signaling precedes the development of dilated cardiomyopathy in transgenic mice with calsequestrin overexpression. Cho MC, et al. **J Biol Chem** 1999 Aug 6;274(32):22251-6

Insulin stimulates sequestration of beta-adrenergic receptors and enhanced association of beta-adrenergic receptors with Grb2 via tyrosine 350. Karoor V, et al. **J Biol Chem** 1998 Dec 4;273(49):33035-41

beta3-adrenoceptor control the cystic fibrosis transmembrane conductance regulator through a cAMP/protein kinase A-independent pathway. Leblais V, et al. **J Biol Chem** 1999 Mar 5;274(10):6107-13

The beta3-adrenergic receptor activates mitogen-activated protein kinase in adipocytes through a Gi-dependent mechanism. Soeder KJ, et al. **J Biol Chem** 1999 Apr 23; 274(17):12017-22

Ribozyme approach identifies a functional association between the G protein beta1gamma7 subunits in the beta-adrenergic receptor signaling pathway. Wang Q, et al. **J Biol Chem** 1999 Jun 11;274(24):17365-71

Monitoring of beta-receptor sensitivity in cardiac surgery. Yndgaard S, et al. **J Cardiothorac Vasc Anesth** 1999 Aug; 13(4):454-8

Pharmacologic preconditioning induced by beta-adrenergic stimulation is mediated by activation of protein kinase C. Yabe K, et al. **J Cardiovasc Pharmacol** 1998 Dec; 32(6):962-8

Colocalization of beta-adrenergic receptors and caveolin within the plasma membrane. Schwencke C, et al. **J Cell Biochem** 1999 Oct 1;75(1):64-72

Lack of an effect of age on beta-adrenoceptor-mediated lipolysis in isolated human adipocytes. Gerber JG, et al. **J Gerontol A Biol Sci Med Sci** 1999 Feb;54(2):B71-7

Effects of chronic adenosine uptake blockade on adrenergic responsiveness and left ventricular chamber function in pressure overload hypertrophy in the rat. Chung ES, et al. **J Hypertens** 1998 Dec;16(12 Pt 1):1813-22

Time course of alterations in phospholipid fatty acids and number of beta-adrenoceptors in the rat heart during adrenergic stimulation in vivo. Benediktsdóttir VE, et al. **J Mol Cell Cardiol** 1999 May;31(5):1105-15

Hypoxia-reoxygenation and polyunsaturated fatty acids modulate adrenergic functions in cultured cardiomyocytes. Delerive P, et al. **J Mol Cell Cardiol** 1999 Feb;31(2):377-86

Myocardial beta-adrenergic and muscarinic receptor density in cardiac pressure or volume overload. Guzzetti S, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2095-102

Desensitization of cardiac beta-adrenoceptor signaling with heart failure produced by myocardial infarction in the rat. Evidence for the role of Gi but not Gs or phosphorylating proteins. Kompa AR, et al. **J Mol Cell Cardiol** 1999 Jun; 31(6):1185-201

G proteins, beta-adrenoreceptors and beta-adrenergic responsiveness in immature and adult rat ventricular myocardium: influence of neonatal hypo- and hyperthyroidism. Novotny J, et al. **J Mol Cell Cardiol** 1999 Apr;31(4):761-72

Regulation of intracellular free Mg2+ concentration in isolated rat hearts via beta-adrenergic and muscarinic receptors. Watanabe J, et al. **J Mol Cell Cardiol** 1998 Nov; 30(11):2307-18

Cross-talk between cardiac kappa-opioid and beta-adrenergic receptors in developing hypertensive rats. Yu XC, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):597-605

Ontogeny of cardiac beta-adrenoceptor desensitization mechanisms: agonist treatment enhances receptor/G-protein transduction rather than eliciting uncoupling. Zeiders JL, et al. **J Mol Cell Cardiol** 1999 Feb; 31(2):413-23

Effects of alpha- and beta-adrenoceptor blockade on purine secretion induced by sympathetic nerve stimulation in the rat kidney. Mi Z, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):295-301

Evidence for an endogenous cAMP-adenosine pathway in the rat kidney. Mi Z, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):926-30

Pharmacological inhibition of protein kinases in intact cells: antagonism of beta adrenergic receptor ligand binding by H-89 reveals limitations of usefulness. Penn RB, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):428-37

Participation of beta-adrenergic receptors on macrophages in modulation of LPS-induced cytokine release. Izeboud CA, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):191-202

Beta-adrenoceptors in the detrusor of guinea pig bladder. Yamamoto Y, et al. **J Smooth Muscle Res** 1998 Oct-Dec; 34(5-6):233-42

Cross-influence of membrane polyunsaturated fatty acids and hypoxia-reoxygenation on alpha- and beta-adrenergic function of rat cardiomyocytes. Ponsard B, et al. **Lipids** 1999 May;34(5):457-66

Developmental enhancement of secretory response to isoproterenol coupled with increases in beta-adrenoceptor density and Gs protein function in rat parotid tissues. Ishikawa Y, et al. **Mech Ageing Dev** 1998 Aug 1; 104(1):75-90

Correlation between alpha1/beta-adrenoceptor ratio and spontaneous uterine motor activity in the post-partum rat. Zupkó I, et al. **Mol Hum Reprod** 1998 Sep;4(9):921-4

NOS: modulator, not mediator of cardiac performance [news] Hare JM, et al. **Nat Med** 1999 Mar;5(3):273-4

Muscarinic and beta-adrenergic regulation of heart rate, force of contraction and calcium current is preserved in mice lacking endothelial nitric oxide synthase. Vandecasteele G, et al. **Nat Med** 1999 Mar;5(3):331-4

Effects of uremic plasma on alpha- and beta-adrenoceptor subtypes. Ferchland A, et al. **Nephron** 1998 Sep;80(1):46-50

A comparative study of the beta-adrenoceptors in higher visual centres of birds. Revilla V, et al. **Neurosci Lett** 1998 Nov 6;256(2):81-4

A comparative study of the beta-adrenoceptors in higher song nuclei of birds. Revilla V, et al. **Neurosci Lett** 1999 Aug 13;271(1):9-12

Heterogeneous effects of rapid eye movement sleep deprivation on binding to alpha- and beta-adrenergic receptor subtypes in rat brain. Hipólide DC, et al. **Neuroscience** 1998 Oct;86(3):977-87

Characterization of adrenergic receptors in the accessory lacrimal glands of the upper eyelid. Esmaeli-Gutstein B, et al. **Ophthal Plast Reconstr Surg** 1999 Jul;15(4):245-51

Investigations on the stereoselective action of isoxsuprine on alpha- and beta-adrenoceptors in equine common digital artery. Belloli C, et al. **Pharmacol Res** 1999 Aug; 40(2):177-82

Effect of concomitant beta-adrenoceptor stimulation on alpha 1-adrenoceptor-mediated increase of inositol-1,4,5-trisphosphate mass in adult rat cardiomyocytes. Viko H, et al. **Pharmacol Toxicol** 1998 Jul;83(1):23-8

Cocaine-induced alterations in the density of monoaminergic receptors in the embryonic guinea pig cerebral wall. Lidow MS, et al. **Synapse** 1999 Jun 1;32(3):225-37

On the presence of a putative fourth beta-adrenoceptor in human adipose tissue [letter; comment] Galitzky J, et al. **Trends Pharmacol Sci** 1998 May;19(5):164-6 (16 ref.). Comment on: Trends Pharmacol Sci 1996 Oct;17(10):373-81.

[Alteration of cardiac beta-adrenoceptors and subtypes with increasing age] Li YF, et al. **Sheng Li Hsueh Pao** 1997 Jun;49(3):281-4 (Eng. Abstr.) **(Chi)**

[Determination of beta-adrenergic binding sites in the myocardium of young female chickens of various strains--a study for the clarification of frequent occurrence of sudden death and ascites in male broilers] Neubert E, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun;112(5):180-5 (Eng. Abstr.) **(Ger)**

[Adrenergic structures, M-cholino-, and beta-adrenoreceptors in the thyroid tissue during postnatal ontogenesis of sympathectomized rats] Markov VN, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):340-3 **(Rus)**

[Monoamine level, M-cholino-, and beta-adrenergic reception in the cranial cervical sympathetic ganglion during ontogenesis in desympathectomized rats] Markov VN, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):371-3 **(Rus)**

PHYSIOLOGY

Effect of beta-adrenoceptor stimulation on oxygen consumption and triglyceride/fatty acid cycling after exercise. Børsheim E, et al. **Acta Physiol Scand** 1998 Oct; 164(2):157-66

Possible beta 3-adrenoceptor-mediated relaxation of the human detrusor. Igawa Y, et al. **Acta Physiol Scand** 1998 Sep;164(1):117-8

Ventilatory effects of 8 hours of isocapnic hypoxia with and without beta-blockade. Clar C, et al. **Adv Exp Med Biol** 1998;450:25-7

Dissociation between regional dysfunction and beta-adrenergic receptor signaling in heart failure. Anzai T, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1267-73

Differential regulation of functional responses by beta-adrenergic receptor subtypes in brown adipocytes. Chaudhry A, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R147-53

Facilitatory beta2-adrenoceptors on cholinergic and adrenergic nerve endings of the guinea pig trachea. de Haas JR, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L420-5

beta-Adrenergic regulation of lipolysis and blood flow in human skeletal muscle in vivo. Hagström-Toft E, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E909-16

Myocardial overexpression of GRK3 in transgenic mice: evidence for in vivo selectivity of GRKs. Iaccarino G, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1298-306

A unique mechanism of desensitization to lipolysis mediated by beta(3)-adrenoceptor in rats with thermal injury. Ikezu T, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E316-24

Adrenergic stimulation of Na+ transport across alveolar epithelial cells involves activation of apical Cl- channels. Jiang X, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1610-20

beta-adrenergic modulation of L-type Ca2+-channel currents in early-stage embryonic mouse heart. Liu W, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H608-13

Molecular beta-adrenergic signaling abnormalities in failing rabbit hearts after infarction. Maurice JP, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1853-60

Inhibition of beta-adrenergic-dependent alveolar epithelial clearance by oxidant mechanisms after hemorrhagic shock. Modelska K, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L844-57

Microtubules modulate cardiomyocyte beta-adrenergic response in cardiac hypertrophy. Palmer BM, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1707-16

Effect of beta-adrenoceptor activation on [Ca2+]i regulation in murine skeletal myotubes. Prakash YS, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1038-45

Norepinephrine stimulates lymphoid cell mobilization from the perfused rat spleen via beta-adrenergic receptors. Rogausch H, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R724-30

Modulation of ACh release from airway cholinergic nerves in horses with recurrent airway obstruction. Zhang XY, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L769-75

Thermogenesis is beta3- but not beta1-adrenergically mediated in rat brown fat cells, even after cold acclimation. Zhao J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2002-11

The relaxant effect of propofol on guinea pig tracheal muscle is independent of airway epithelial function and beta-adrenoceptor activity. Hashiba E, et al. **Anesth Analg** 1999 Jul;89(1):191-6

Amygdaloid and hippocampal beta-adrenoceptors in the olfactory bulbectomy syndrome: effects of desipramine. Richardson JS, et al. **Ann N Y Acad Sci** 1999 Jun 29; 877:764-8

Beta-adrenergic receptors and receptor signaling in heart failure. Post SR, et al. **Annu Rev Pharmacol Toxicol** 1999; 39:343-60 (107 ref.)

Modification of the beta- and alpha2-adrenergic sensitivity of rat submandibular glands by environmental stimuli and stress. Bellavía SL, et al. **Arch Oral Biol** 1998 Dec; 43(12):933-9

Modulation by presynaptic beta-adrenoceptors of noradrenaline release from sympathetic nerves in human dental pulp. Parker DA, et al. **Arch Oral Biol** 1998 Dec; 43(12):949-54

Role of the beta(3)-adrenergic receptor and/or a putative beta(4)-adrenergic receptor on the expression of uncoupling proteins and peroxisome proliferator-activated receptor-gamma coactivator-1. Boss O, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):870-6

The role of the beta-noradrenergic system in cholecystokinin-tetrapeptide-induced panic symptoms. Le Mellédo JM, et al. **Biol Psychiatry** 1998 Sep 1;44(5):364-6

3-Pyridyloxypropanolamine agonists of the beta 3 adrenergic receptor with improved pharmacokinetic properties. Weber AE, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2111-6

Impaired beta-adrenoceptor mediated venodilation in patients with diabetes mellitus. Harada K, et al. **Br J Clin Pharmacol** 1999 Apr;47(4):427-31

Department of Pharmacology, Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest.

Haskó G, et al. **Br J Pharmacol** 1998 Nov;125(6):1297–303
Functional and molecular biological evidence for a possible beta3–adrenoceptor in the human detrusor muscle. Igawa Y, et al. **Br J Pharmacol** 1999 Feb;126(3):819–25
Pharmacological characterization of beta–adrenoceptors mediating relaxation of the rat urinary bladder in vitro. Longhurst PA, et al. **Br J Pharmacol** 1999 Aug; 127(7):1744–50
Desensitization of ET(A) endothelin receptor–mediated negative chronotropic response in right atria—species difference and intracellular mechanisms. Ono K, et al. **Br J Pharmacol** 1998 Oct;125(4):787–97
Metabolic response to various beta–adrenoceptor agonists in beta3–adrenoceptor knockout mice: evidence for a new beta–adrenergic receptor in brown adipose tissue. Preitner F, et al. **Br J Pharmacol** 1998 Aug;124(8):1684–8
Characterization of beta–adrenoceptor mediated smooth muscle relaxation and the detection of mRNA for beta1–, beta2– and beta3–adrenoceptors in rat ileum. Roberts SJ, et al. **Br J Pharmacol** 1999 Jun;127(4):949–61
Beta–adrenergic receptors mediate a stress–induced decrease in IGF–II mRNA in the rat cerebellum. Tritos N, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):525–34
Contribution of alpha–adrenergic and beta–adrenergic stimulation to ischemia–induced glucose transporter (GLUT) 4 and GLUT1 translocation in the isolated perfused rat heart. Egert S, et al. **Circ Res** 1999 Jun 25; 84(12):1407–15
Establishment of beta–adrenergic modulation of L–type Ca2+ current in the early stages of cardiomyocyte development. Maltsev VA, et al. **Circ Res** 1999 Feb 5; 84(2):136–45
In vivo inhibition of elevated myocardial beta–adrenergic receptor kinase activity in hybrid transgenic mice restores normal beta–adrenergic signaling and function [see comments] Akhter SA, et al. **Circulation** 1999 Aug 10; 100(6):648–53. Comment in: Circulation 1999 Aug 10;100(6):579–82.
New insight into the role of enhanced adrenergic receptor–effector coupling in the heart [editorial; comment] Feldman AM, et al. **Circulation** 1999 Aug 10;100(6):579–82 . Comment on: Circulation 1999 Aug 10;100(6):648–53.
Effect of hypoglycemia on beta–adrenergic sensitivity in normal and type 1 diabetic subjects. Fritsche A, et al. **Diabetes Care** 1998 Sep;21(9):1505–10
Reduced beta–adrenergic sensitivity in patients with type 1 diabetes and hypoglycemia unawareness. Korytkowski MT, et al. **Diabetes Care** 1998 Nov;21(11):1939–43
Development of beta 3–adrenoceptor agonists for the treatment of obesity and diabetes—an update. Weyer C, et al. **Diabetes Metab** 1999 Mar;25(1):11–21 (94 ref.)
Induction of rat muscle insulin resistance by epinephrine is accompanied by increased interstitial glucose and lactate concentrations. Niklasson M, et al. **Diabetologia** 1998 Dec; 41(12):1467–73
Using gene knockout and transgenic techniques to study the physiology and pharmacology of beta3–adrenergic receptors. Lowell BB. **Endocr J** 1998 Apr;45 Suppl:S9–13 (19 ref.)
Dopaminergic stimulation of cortisol secretion from bovine zfr cells occurs through nonspecific stimulation of adrenergic beta–receptors. Bird IM, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):769–72
beta1 to beta3 switch in control of cyclic adenosine monophosphate during brown adipocyte development explains distinct beta–adrenoceptor subtype mediation of proliferation and differentiation. Bronnikov G, et al. **Endocrinology** 1999 Sep;140(9):4185–97
Pretranslational regulation of rhythmic type II iodothyronine deiodinase expression by beta–adrenergic mechanism in the rat pineal gland. Kamiya Y, et al. **Endocrinology** 1999 Mar; 140(3):1272–8
Beta–adrenergic and fibroblast growth factor receptors induce neuronal process outgrowth through different mechanisms. Kwon JH, et al. **Eur J Neurosci** 1998 Sep; 10(9):2776–89
Possible role of Ca2+ channels in the vasodilating effect of 5beta–dihydrotestosterone in rat aorta. Perusquía M, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):169–78
Activation of muscarinic K+ current by beta–adrenergic receptors in cultured atrial myocytes transfected with beta1 subunit of heterotrimeric G proteins. Bender K, et al. **FEBS Lett** 1998 Nov 13;439(1–2):115–20
Transgenic replacement of type V adenylyl cyclase identifies a critical mechanism of beta–adrenergic receptor dysfunction in the G alpha q overexpressing mouse. Tepe NM, et al. **FEBS Lett** 1999 Sep 17;458(2):236–40
Impaired isoproterenol–induced hyperpolarization in isolated mesenteric arteries of aged rats. Fujii K, et al. **Hypertension** 1999 Aug;34(2):222–8
Bbeta–adrenergic receptor kinase–1 levels in catecholamine–induced myocardial hypertrophy: regulation by beta– but not alpha1–adrenergic stimulation. Iaccarino G, et al. **Hypertension** 1999 Jan;33(1 Pt 2):396–401
Substrate utilization and thermogenic responses to beta–adrenergic stimulation in obese subjects with NIDDM. Blaak EE, et al. **Int J Obes Relat Metab Disord** 1999 Apr;23(4):411–8
Post–beta–receptor defect in isolated hearts of obese–hypertensive rabbits. Carroll JF. **Int J Obes Relat Metab Disord** 1999 Aug;23(8):863–6
Endurance training increases the beta–adrenergic lipolytic response in subcutaneous adipose tissue in obese subjects. Stich V, et al. **Int J Obes Relat Metab Disord** 1999 Apr; 23(4):374–81
Role of alpha2–adrenoceptors on the hyperglycaemic and insulin secretory effects derived from alpha1– and beta–adrenoceptor stimulation in the rabbit. García–Barrado MJ, et al. **J Auton Pharmacol** 1998 Oct; 18(5):287–95
Beta–adrenergic receptor blockade arrests myocyte damage and preserves cardiac function in the transgenic G(salpha) mouse. Asai K, et al. **J Clin Invest** 1999 Sep;104(5):551–8
The negative inotropic effect of beta3–adrenoceptor stimulation is mediated by activation of a nitric oxide synthase pathway in human ventricle. Gauthier C, et al. **J Clin Invest** 1998 Oct 1;102(7):1377–84
Differential effects of jaundice and cirrhosis on beta–adrenoceptor signaling in three rat models of cirrhotic cardiomyopathy. Ma Z, et al. **J Hepatol** 1999 Mar; 30(3):485–91
Norepinephrine–mediated inhibition of antitumor cytotoxic T lymphocyte generation involves a beta–adrenergic receptor mechanism and decreased TNF–alpha gene expression. Kalinichenko VV, et al. **J Immunol** 1999 Sep 1;163(5):2492–9
Mechanism of catecholamine–mediated destabilization of messenger RNA encoding Thy–1 protein in T–lineage cells. Wajeman–Chao SA, et al. **J Immunol** 1998 Nov 1; 161(9):4825–33
Inactivation of (Gialpha) proteins increases arrhythmogenic effects of beta–adrenergic stimulation in the heart. Grimm M, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):1917–28
Cardiac–specific overexpression of alpha1BAR regulates betaAR activity via molecular crosstalk. Lemire I, et al. **J Mol Cell Cardiol** 1998 Sep;30(9):1827–39
Activation of a beta–adrenergic–sensitive signal transduction pathway by the secosteroid hormone 1,25–(OH)2–vitamin D3 in chick heart. Santillán GE, et al. **J Mol Cell Cardiol** 1999 May;31(5):1095–104
Pyruvate potentiates beta–adrenergic inotropism of stunned guinea–pig myocardium. Tejero–Taldo MI, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2327–39
Physiological consequences of beta–adrenergic receptor disruption. Rohrer DK. **J Mol Med** 1998 Oct;76(11):764–72 (72 ref.)
Requirement of peptidergic sensory innervation for disease activity in murine models of immune hepatitis and protection by beta–adrenergic stimulation. Tiegs G, et al. **J Neuroimmunol** 1999 May 3;96(2):131–43
Epinephrine produces a beta–adrenergic receptor–mediated mechanical hyperalgesia and in vitro sensitization of rat nociceptors. Khasar SG, et al. **J Neurophysiol** 1999 Mar; 81(3):1104–12
Basolateral amygdala noradrenergic influences on memory storage are mediated by an interaction between beta– and alpha1–adrenoceptors. Ferry B, et al. **J Neurosci** 1999 Jun 15;19(12):5119–23
Attenuation of emotional and nonemotional memories after their reactivation: role of beta adrenergic receptors. Przybyslawski J, et al. **J Neurosci** 1999 Aug 1;19(15):6623–8
Cross–modulation of synaptic plasticity by beta–adrenergic and 5–HT1A receptors in the rat basolateral amygdala. Wang SJ, et al. **J Neurosci** 1999 Jan 15;19(2):570–7
Depletion of protein kinase C–alpha by antisense oligonucleotides alters beta–adrenergic function and reverses the phorbol ester–induced reduction of isoproterenol–induced adenosine 3'–5'–cyclic monophosphate accumulation in murine Swiss 3T3 fibroblasts. Levesque L, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):425–34
Overexpression of nerve growth factor in the heart alters ion channel activity and beta–adrenergic signalling in an adult transgenic mouse. Heath BM, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):779–91
Activation of alpha– and beta–adrenoceptors by sympathetic nerve stimulation in the large intestine of the rat. Luckensmeyer GB, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):549–61
Beta 2–adrenoceptor agonist–induced down–regulation after short–term exposure. Hardin AO, et al. **J Recept Signal Transduct Res** 1999 Sep;19(5):835–52
Exercise and beta–adrenergic regulation of rat cardiac myosin isoforms. Wade ME, et al. **J Sports Med Phys Fitness** 1999 Mar;39(1):42–6
Expression and possible functional role of the beta3–adrenoceptor in human and rat detrusor muscle. Fujimura T, et al. **J Urol** 1999 Feb;161(2):680–5
Consolidation of memory for odor–reward association: beta–adrenergic receptor involvement in the late phase. Sara SJ, et al. **Learn Mem** 1999 Mar–Apr;6(2):88–96
Role of genomic mechanisms on cAMP–dependent positive inotropism in isolated left atrium of rat. Rubín JM, et al. **Life Sci** 1999;65(5):565–72
Atypical adrenoceptor–mediated relaxation of canine pulmonary artery through a cyclic adenosine monophosphate–dependent pathway. Tagaya E, et al. **Lung** 1999;177(5):321–32
Physiological and biochemical adrenergic regulation of the stunned myocardium. Vatner DE, et al. **Mol Cell Biochem** 1998 Sep;186(1–2):131–7
Beta2 adrenergic receptors mediate cAMP, tissue–type plasminogen activator and transferrin production in rat Sertoli cells. Troispoux C, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1–2):75–86
Stimulation of the extracellular signal–regulated kinase 1/2 pathway by human beta–3 adrenergic receptor: new pharmacological profile and mechanism of activation. Gerhardt CC, et al. **Mol Pharmacol** 1999 Feb;55(2):255–62
Consolidation of memory after its reactivation: involvement of beta noradrenergic receptors in the late phase. Roullet P, et al. **Neural Plast** 1998 Jul–Sep;6(3):63–8
The effect of hydrogen peroxide upon beta–adrenoceptor density and function in C6 rat glioma cells. Bergström D, et al. **Neurochem Int** 1999 Jan;34(1):63–70
Beta–adrenergic receptor subtype effects on stress fever and thermoregulation. Mayfield KP, et al. **Neuroimmunomodulation** 1999 Jul–Aug;6(4):305–17
Modulation of dialysate levels of dopamine, noradrenaline, and serotonin (5–HT) in the frontal cortex of freely–moving rats by (–)–pindolol alone and in association with 5–HT reuptake inhibitors: comparative roles of beta–adrenergic, 5–HT1A, and 5–HT1B receptors. Gobert A, et al. **Neuropsychopharmacology** 1999 Aug;21(2):268–84
Antioxidant protection of cerebellar beta–adrenergic receptor function in aged F344 rats. Gould TJ, et al. **Neurosci Lett** 1998 Jul 10;250(3):165–8
Activation of muscarinic M3–like receptors and beta–adrenoceptors, but not M2–like muscarinic receptors or alpha–adrenoceptors, directly modulates corticostriatal neurotransmission in vitro. Niittykoski M, et al. **Neuroscience** 1999 Apr;90(1):95–105
Effect of beta–adrenergic stimulation on oxygen metabolism in the fetal lamb. Gournay VA, et al. **Pediatr Res** 1999 Mar;45(3):432–6
Co–ordinated changes in cAMP, phosphorylated phospholamban, Ca2+ and contraction following beta–adrenergic stimulation of rat heart. Calaghan SC, et al. **Pflugers Arch** 1998 Nov;436(6):948–56
beta–adrenergic modulation of maxi–K channels in vascular smooth muscle via Gi through a membrane–delimited pathway. Chung S, et al. **Pflugers Arch** 1999 Feb; 437(3):508–10
Use of electrochemical impedance measurements to monitor beta–adrenergic stimulation of bovine aortic endothelial cells. Wegener J, et al. **Pflugers Arch** 1999 May; 437(6):925–34
Regulation of beta–adrenoceptor signaling in cardiac function and disease. Dzimiri N. **Pharmacol Rev** 1999 Sep; 51(3):465–501 (357 ref.)
Augmenting beta receptors in the heart: short–term gains offset by long–term pains? Limbird LE, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7125–7
Memory for emotional events: differential effects of centrally versus peripherally acting beta–blocking agents. van Stegeren AH, et al. **Psychopharmacology (Berl)** 1998 Aug; 138(3–4):305–10
Secretory immunoglobulin A and cardiovascular reactions to mental arithmetic, cold pressor, and exercise: effects of beta–adrenergic blockade. Winzer A, et al. **Psychophysiology** 1999 Sep;36(5):591–601
Effects of the infusion of non–selective beta–, and selective beta1– or beta2–adrenergic agonists, on body fat mobilisation in underfed or overfed non–pregnant heifers. Ferlay A, et al. **Reprod Nutr Dev** 1999 Jul–Aug; 39(4):409–21
Regulation of beta–adrenergic receptor responsiveness modulation of receptor gene expression. Danner S, et al. **Rev Physiol Biochem Pharmacol** 1999;136:183–223 (192 ref.)
Catecholamine refractoriness and their mechanisms in cardiocirculatory shock and chronic heart failure. Böhm M. **Thorac Cardiovasc Surg** 1998 Sep;46 Suppl 2:270–5; discussion 276 (41 ref.)
[Down regulation] Ogawa R. **Masui** 1998 Dec;47 Suppl:S88–92 (6 ref.) **(Jpn)**
[Relaxation of canine pulmonary arteries caused by stimulation of atypical beta–adrenergic receptors] Tagaya E, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May; 36(5):433–7 (Eng. Abstr.) **(Jpn)**

RECEPTORS, ADRENERGIC, BETA–1

AGONISTS

Dobutamine as selective beta(1)–adrenoceptor agonist in in vivo studies on human thermogenesis and lipid utilization. Schiffelers SL, et al. **J Appl Physiol** 1999 Sep;87(3):977–81

ANALYSIS

Preliminary evaluation of 2–[4–[3–tert–butylamino)–2–hydroxypropoxy]phenyl]–3–methyl–6–me thoxy–4(3H)–quinazolinone ([+/–]HX–CH 44) as a selective beta1–adrenoceptor ligand for PET. Valette H, et al. **Nucl Med Biol** 1999 Jan;26(1):105–9

ANTAGONISTS & INHIBITORS

Beta–blocker selectivity at cloned human beta 1– and beta 2–adrenergic receptors. Smith C, et al. **Cardiovasc Drugs Ther** 1999 Apr;13(2):123–6
Catecholamines and heart function in heart transplant patients: effects of beta1– versus nonselective beta–blockade. Leenen FH, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):522–35
[Optimization of hypotensive therapy in hypertensive patients

with new beta-1 selective long-acting adrenoblocker] Karazhanova LK, et al. **Klin Med (Mosk)** 1998;76(8):40-2 (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

Diabetes-induced down-regulation of beta1-adrenoceptor mRNA expression in rat heart. Matsuda N, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):881-5

Agonistic anti-beta1-adrenergic receptor autoantibodies from cardiomyopathy patients reduce the beta1-adrenergic receptor expression in neonatal rat cardiomyocytes. Podlowski S, et al. **Circulation** 1998 Dec 1;98(22):2470-6

CHEMISTRY

Identification of binding sites of bopindolol and its two metabolites with beta1-adrenoceptors by molecular modeling: comparison with beta2 adrenoceptors. Hattori K, et al. **Pharmacology** 1999 Apr;58(4):183-9

DEFICIENCY

Cardiovascular and metabolic alterations in mice lacking both beta1- and beta2-adrenergic receptors. Rohrer DK, et al. **J Biol Chem** 1999 Jun 11;274(24):16701-8

DRUG EFFECTS

Effects of antidepressant treatment on inhibitory avoidance behavior and amygdaloid beta-adrenoceptors in rats. Daws LC, et al. **Neuropsychopharmacology** 1998 Oct;19(4):300-13

GENETICS

Characterization of two human beta1-adrenergic receptor transcripts: cloning and alterations in the failing heart. Ellis CE, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):552-8

Agonist-mediated destabilization of human beta1-adrenergic receptor mRNA: role of the 3' untranslated translated region. Mitchusson KD, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):357-62

Constitutively active mutants of the beta1-adrenergic receptor. Lattion A, et al. **FEBS Lett** 1999 Sep 3; 457(3):302-6

Characterization of a unique genetic variant in the beta1-adrenoceptor gene and evaluation of its role in idiopathic dilated cardiomyopathy. CARDIGENE Group. Tesson F, et al. **J Mol Cell Cardiol** 1999 May;31(5):1025-32

Coupling efficiencies of beta 1- and beta 2-adrenergic receptors expressed alone or together in transfected GH3 pituitary cells. Guerrero SW, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):980-8

Common polymorphisms of beta1-adrenoceptor: identification and rapid screening assay [letter] Maqbool A, et al. **Lancet** 1999 Mar 13;353(9156):897

Progressive hypertrophy and heart failure in beta1-adrenergic receptor transgenic mice. Engelhardt S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7059-64

Further characterization of the 5'-flanking promoter region of the human beta1-adrenergic receptor gene. Okawa Y, et al. **Psychiatry Clin Neurosci** 1998 Aug;52(4):453-8

IMMUNOLOGY

Screening of serum autoantibodies to cardiac beta1-adrenoceptors and M2-muscarinic acetylcholine receptors in 408 healthy subjects of varying ages. Liu HR, et al. **Autoimmunity** 1999;29(1):43-51

Autoantibodies activating human beta1-adrenergic receptors are associated with reduced cardiac function in chronic heart failure. Jahns R, et al. **Circulation** 1999 Feb 9; 99(5):649-54

Agonistic anti-beta1-adrenergic receptor autoantibodies from cardiomyopathy patients reduce the beta1-adrenergic receptor expression in neonatal rat cardiomyocytes. Podlowski S, et al. **Circulation** 1998 Dec 1;98(22):2470-6

METABOLISM

Evidence for cooperative binding of (-)Isoproterenol to rat brain beta1-adrenergic receptors. Fowler CJ, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):629-34

Translocation of G-protein beta3 subunit from the cytosol pool to the membrane pool by beta1-adrenergic receptor stimulation in perfused rat hearts. Kageyama K, et al. **Biochem Pharmacol** 1999 Nov 1;58(9):1497-500

Heat stress-induced B1 receptor synthesis in the rat: an ex vivo study. Lagneux C, et al. **Br J Pharmacol** 1998 Oct; 125(4):812-6

Coupling of beta-adrenergic receptors to cardiac L-type Ca2+ channels: preferential coupling of the beta1 versus beta2 receptor subtype and evidence for PKA-independent activation of the channel. Yatani A, et al. **Cell Signal** 1999 May;11(5):337-42

Structure-function relationships of the alpha1b-adrenergic receptor. Scheer A, et al. **Eur Urol** 1999;36 Suppl 1:11-6

Constitutively active mutants of the beta1-adrenergic receptor. Lattion A, et al. **FEBS Lett** 1999 Sep 3; 457(3):302-6

A gain-of-function polymorphism in a G-protein coupling domain of the human beta1-adrenergic receptor. Mason DA, et al. **J Biol Chem** 1999 Apr 30;274(18):12670-4

Beta1-adrenergic receptors but not beta2-adrenergic or vasopressin receptors regulate K+ secretion in vestibular dark cells of the inner ear. Wangemann P, et al. **J Membr Biol** 1999 Jul 1;170(1):67-77

Coupling efficiencies of beta 1- and beta 2-adrenergic receptors expressed alone or together in transfected GH3 pituitary cells. Guerrero SW, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):980-8

Depletion of endogenous dopamine stores and shift in beta-adrenoceptor subtypes in cardiac tissue following five weeks of chronic denervation. Van der Vusse GJ, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):215-9

[Kinetic analysis of therapeutic doses of beta-blockers for angina pectoris based on receptor occupancy theory--relationship between beta 1-receptor occupancy or vasodilative action and dose] Yamada Y, et al. **Yakugaku Zasshi** 1999 Jul;119(7):495-501 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Relaxation of isolated human myometrial muscle by beta2-adrenergic receptors but not beta1-adrenergic receptors. Liu YL, et al. **Am J Obstet Gynecol** 1998 Oct; 179(4):895-8

Inhibition of bronchoprotective effects of beta2-adrenoceptor agonists by peroxynitrite in guinea pig airways. Kanazawa H, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1272-6

Synthesis and beta-adrenergic properties of (Z)-N-[3-(alkylamino)-2-hydroxypropylidene](aryl-methyloxy)amines: effects of the configuration around the methyloxyiminomethyl (MOIM) double bond on the biopharmacological properties of MOIM-type beta-blocking agents. Balsamo A, et al. **Bioorg Med Chem** 1998 Nov;6(11):2151-60

Characterization of beta-adrenoceptor mediated smooth muscle relaxation and the detection of mRNA for beta1-, beta2- and beta3-adrenoceptors in rat ileum. Roberts SJ, et al. **Br J Pharmacol** 1999 Jun;127(4):949-61

Adrenoceptors modulate depressor responses of endothelin-1 into the superior colliculus of rats. D'Amico M, et al. **Life Sci** 1999;64(5):337-42

RECEPTORS, ADRENERGIC, BETA-2

AGONISTS

beta(2)-adrenoceptor agonist-induced upregulation of tachykinin NK(2) receptor expression and function in airway smooth muscle. Katsuhuma T, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):409-17

Inhaled salmeterol and fluticasone: a study comparing monotherapy and combination therapy in asthma [see comments] Pearlman DS, et al. **Ann Allergy Asthma Immunol** 1999 Mar;82(3):257-65. Comment in: Ann Allergy Asthma Immunol 1999 Mar;82(3):229-30.

Reduction in health care resource utilization associated with extended-release theophylline. Schulz RM, et al. **Ann Allergy Asthma Immunol** 1999 Mar;82(3):267-72 (23 ref.)

Effects of beta2 adrenoceptor agonists on T-cell subpopulations. Holen E, et al. **APMIS** 1998 Sep; 106(9):849-57

S1319: a novel beta2-andrenoceptor agonist from a marine sponge Dysidea sp. Suzuki H, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1361-4

Enantioselective sulfation of beta 2-receptor agonists by the human intestine and the recombinant M-form phenolsulfotransferase. Hartman AP, et al. **Chirality** 1998; 10(9):800-3

Activation of beta2-adrenergic receptors hastens relaxation and mediates phosphorylation of phospholamban, troponin I, and C-protein in ventricular myocardium from patients with terminal heart failure. Kaumann A, et al. **Circulation** 1999 Jan 5-12;99(1):65-72

Inotropic and sympathetic responses to the intracoronary infusion of a beta2-receptor agonist: a human in vivo study. Newton GE, et al. **Circulation** 1999 May 11;99(18):2402-7

Interactions between beta2-adrenoreceptor agonist and NO donors in the relaxation of guinea pig trachea in vitro. Vaali K, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):169-74

Effects of salmeterol on host resistance to Trichinella spiralis in rats. de Waal EJ, et al. **Int J Immunopharmacol** 1999 Aug;21(8):523-9

Ligand-independent activation of the glucocorticoid receptor by beta2-adrenergic receptor agonists in primary human lung fibroblasts and vascular smooth muscle cells. Eickelberg O, et al. **J Biol Chem** 1999 Jan 8;274(2):1005-10

Agonist-induced sorting of human beta2-adrenergic receptors to lysosomes during downregulation. Moore RH, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):329-38

Dual D2-receptor and beta2-adrenoceptor agonists for the treatment of airway diseases. 1. Discovery and biological evaluation of some 7-(2-aminoethyl)-4-hydroxybenzothiazol-2(3H)-one analogues. Bonnert RV, et al. **J Med Chem** 1998 Dec 3; 41(25):4915-7

Beta2 agonists and heart failure [letter; comment] Lindmark B, et al. **Lancet** 1998 Nov 21;352(9141):1709-10. Comment on: Lancet 1998 Oct 3;352(9134):1081-2.

Asthma exacerbations during first therapy with long acting beta 2-agonists. Gerrits CM, et al. **Pharm World Sci** 1999 Jun;21(3):116-9

[Effect of salbutamol on proliferation of human bronchial epithelial cells: role of MAP kinase] Nishimura K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May;36(5):428-32 (Eng. Abstr.) **(Jpn)**

ANALYSIS

Characterization and localization of beta2-adrenergic receptors in the bovine oviduct: indication for progesterone-mediated expression. Einspanier R, et al. **Endocrinology** 1999 Jun;140(6):2679-84

ANTAGONISTS & INHIBITORS

Effect of oxytocin receptor and beta2-adrenoceptor blockade on myometrial oxytocin receptors in parturient rats. Engström T, et al. **Biol Reprod** 1999 Feb;60(2):322-9

Beta-blocker selectivity at cloned human beta 1- and beta 2-adrenergic receptors. Smith C, et al. **Cardiovasc Drugs Ther** 1999 Apr;13(2):123-6

Inhibition of beta(2)-adrenergic and muscarinic cholinergic receptor endocytosis after depletion of phosphatidylinositol bisphosphate. Sorensen SD, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):603-10

BIOSYNTHESIS

Beta2-adrenergic receptor overexpression in the developing mouse heart: evidence for targeted modulation of ion channels. An R, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):19-30

CHEMISTRY

Characterization of ligand-induced conformational states in the beta 2 adrenergic receptor. Kobilka B, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):293-300

Mutation of a highly conserved aspartic acid in the beta2 adrenergic receptor: constitutive activation, structural instability, and conformational rearrangement of transmembrane segment 6. Rasmussen SG, et al. **Mol Pharmacol** 1999 Jul;56(1):175-84

Domain swapping in G-protein coupled receptor dimers. Gouldson PR, et al. **Protein Eng** 1998 Dec;11(12):1181-93

DEFICIENCY

Cardiovascular and metabolic alterations in mice lacking both beta1- and beta2-adrenergic receptors. Rohrer DK, et al. **J Biol Chem** 1999 Jun 11;274(24):16701-8

DRUG EFFECTS

The effects of the beta 2-agonist drug clenbuterol on taurine levels in heart and other tissues in the rat. Doheny MH, et al. **Amino Acids** 1998;15(1-2):13-25

Arsenic induces decreased expression of beta2-adrenergic receptors in cultured keratinocytes. Chang HR, et al. **Arch Dermatol Res** 1998 Jul;290(7):402-4

Pharmacological characterization of beta2-adrenoceptor in PGT-beta mouse pineal gland tumour cells. Suh BC, et al. **Br J Pharmacol** 1999 Jan;126(2):399-406

Activation of beta 2-adrenergic receptors and ventricular fibrillation. Billman GE, et al. **Cardiologia** 1998 Aug; 43(8):811-8 (69 ref.)

Terbutaline-induced desensitization of human cardiac beta 2-adrenoceptor-mediated positive inotropic effects: attenuation by ketotifen. Poller U, et al. **Cardiovasc Res** 1998 Oct;40(1):211-22

Dopexamine attenuates endotoxin-induced microcirculatory changes in rat mesentery: role of beta2 adrenoceptors [see comments] Schmidt W, et al. **Crit Care Med** 1998 Oct; 26(10):1639-45. Comment in: Crit Care Med 1998 Oct;26(10):1621-2.

Concomitant inhaled corticosteroid resensitises cardiac beta2-adrenoceptors in the presence of long-acting beta2-agonist therapy. Aziz I, et al. **Eur J Clin Pharmacol** 1998 Jul;54(5):377-81

Phosphodiesterase inhibitors suppress alpha2-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits. Freitag A, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):67-71

The beta2-adrenergic agonist salbutamol is a potent suppressor of established collagen-induced arthritis: mechanisms of action. Malfait AM, et al. **J Immunol** 1999 May 15;162(10):6278-83

Modulation of interleukin-6 by beta2-adrenoceptor in endotoxin-stimulated renal macrophage cells. Nakamura A, et al. **Kidney Int** 1999 Sep;56(3):839-49

[Use of delayed-action beta-2 mimetics in the management of chronic obstructive bronchial diseases--for] Muir JF, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S75-6 (10 ref.) **(Fre)**

[Use of delayed-action beta-2 mimetics in the management of chronic obstructive bronchial disease--against] Terrioux P. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S76-7 **(Fre)**

[Long-acting beta-2-adrenergic agonists in bronchospasm therapy (editorial)] Plusa T. **Pol Merkuriusz Lek** 1999 May; 6(35):227-31 (11 ref.) (Eng. Abstr.) **(Pol)**

GENETICS

Transcriptional and posttranscriptional regulation of beta(2)-adrenergic receptor gene in rat liver during sepsis. Yang J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R132-9

Association of persistent bronchial hyperresponsiveness with beta2-adrenoceptor (ADRB2) haplotypes. A population study. D'amato M, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1968–73

The Gln27Glu beta2-adrenergic receptor variant is associated with obesity due to subcutaneous fat accumulation in Japanese men. Mori Y, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):138–40

Identification of novel polymorphisms within the promoter region of the human beta2 adrenergic receptor gene. Scott MG, et al. **Br J Pharmacol** 1999 Feb;126(4):841–4

Impact of genetic polymorphisms of the beta2-adrenergic receptor on albuterol bronchodilator pharmacodynamics. Lima JJ, et al. **Clin Pharmacol Ther** 1999 May;65(5):519–25

Beta2-adrenoceptor polymorphism and bronchoprotective sensitivity with regular short- and long-acting beta2-agonist therapy [see comments] Lipworth BJ, et al. **Clin Sci (Colch)** 1999 Mar;96(3):253–9. Comment in: Clin Sci (Colch) 1999 Mar;96(3):219–20.

A genetic twist to the beta-agonist 'debate' [comment] Walters EH, et al. **Clin Sci (Colch)** 1999 Mar;96(3):219–20 . Comment on: Clin Sci (Colch) 1999 Mar;96(3):253–9.

Association of polymorphisms in the beta2-adrenergic receptor gene with obesity, hypertriglyceridaemia, and diabetes mellitus. Ishiyama-Shigemoto S, et al. **Diabetologia** 1999 Jan;42(1):98–101

Association of polymorphisms in the beta2-adrenoreceptor gene with higher levels of parasitic infection. Ramsay CE, et al. **Hum Genet** 1999 Mar;104(3):269–74

beta-2 Adrenergic receptor variants affect resting blood pressure and agonist-induced vasodilation in young adult Caucasians. Gratze G, et al. **Hypertension** 1999 Jun; 33(6):1425–30

Molecular and genetic basis of beta2-adrenergic receptor function. Liggett SB. **J Allergy Clin Immunol** 1999 Aug; 104(2 Pt 2):S42–6 (24 ref.)

Targeted disruption of the beta2 adrenergic receptor gene. Chruscinski AJ, et al. **J Biol Chem** 1999 Jun 11; 274(24):16694–700

Polymorphism in the 5'-leader cistron of the beta2-adrenergic receptor gene associated with obesity and type 2 diabetes. Yamada K, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1754–7

The Ile164 beta2-adrenergic receptor polymorphism adversely affects the outcome of congestive heart failure. Liggett SB, et al. **J Clin Invest** 1998 Oct 15;102(8):1534–9

Polymorphisms of the 5' leader cistron of the human beta2-adrenergic receptor regulate receptor expression. McGraw DW, et al. **J Clin Invest** 1998 Dec 1; 102(11):1927–32

Enhancement of cardiac function after adenoviral-mediated in vivo intracoronary beta2-adrenergic receptor gene delivery. Maurice JP, et al. **J Clin Invest** 1999 Jul; 104(1):21–9

Coupling efficiencies of beta 1- and beta 2-adrenergic receptors expressed alone or together in transfected GH3 pituitary cells. Guerrero SW, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):980–8

Gene transfection of beta 2-adrenergic receptor into the normal rat heart enhances cardiac response to beta-adrenergic agonist. Kawahira Y, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):446–51

Beta2-adrenoceptor gene polymorphism, body weight, and physical activity [letter] [see comments] Meirhaeghe A, et al. **Lancet** 1999 Mar 13;353(9156):896. Comment in: Lancet 1999 Jun 5;353(9168):1976.

Beta2-adrenoceptor gene polymorphism and obesity [letter; comment] Sakane N, et al. **Lancet** 1999 Jun 5; 353(9168):1976. Comment on: Lancet 1999 Mar 13;353(9156):896.

PCR-based methods for identifying genetic variations in human alpha1B- and beta2-adrenergic receptors. Büscher R, et al. **Mol Genet Metab** 1998 Aug;64(4):266–70

Mutation of a highly conserved aspartic acid in the beta2 adrenergic receptor: constitutive activation, structural instability, and conformational rearrangement of transmembrane segment 6. Rasmussen SG, et al. **Mol Pharmacol** 1999 Jul;56(1):175–84

Low- and high-level transgenic expression of beta2-adrenergic receptors differentially affect cardiac hypertrophy and function in Galphaq-overexpressing mice. Dorn GW 2nd, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6400–5

Mutations of the DRY motif that preserve beta 2-adrenoceptor coupling. Seibold A, et al. **Receptors Channels** 1998;5(6):375–85

[Genetic polymorphism of adrenergic beta 2 receptors] Marthan R. **Rev Pneumol Clin** 1998 Jan;54 Suppl 1:S11–3 **(Fre)**

IMMUNOLOGY

[Detection of circulating autoantibodies to beta 2-adrenergic receptors in patients with asthma] Wu J, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Apr;36(4):238–41 (Eng. Abstr.) **(Chi)**

METABOLISM

Restricting mobility of Gsalpha relative to the beta2-adrenoceptor enhances adenylate cyclase activity by reducing Gsalpha GTPase activity. Wenzel-Seifert K, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):519–24

Probing the salmeterol binding site on the beta 2-adrenergic receptor using a novel photoaffinity ligand, [(125)I]iodoazidosalmeterol. Rong Y, et al. **Biochemistry** 1999 Aug 31;38(35):11278–86

Influence of receptor number on the stimulation by salmeterol of gene transcription in CHO-K1 cells transfected with the human beta2-adrenoceptor. McDonnell J, et al. **Br J Pharmacol** 1998 Oct;125(4):717–26

L-type calcium current and contractility in ventricular myocytes from mice overexpressing the cardiac beta 2-adrenoceptor [see comments] Heubach JF, et al. **Cardiovasc Res** 1999 Apr;42(1):173–82. Comment in: Cardiovasc Res 1999 Apr;42(1):3–5.

On the effects of overexpression of beta 2-adrenoceptors in a transgenic mouse model [editorial; comment] Pappano AJ. **Cardiovasc Res** 1999 Apr;42(1):3–5. Comment on: Cardiovasc Res 1999 Apr;42(1):173–82.

Stable association of G proteins with beta 2AR is independent of the state of receptor activation. Lachance M, et al. **Cell Signal** 1999 Jul;11(7):523–33

Coupling of beta-adrenergic receptors to cardiac L-type Ca2+ channels: preferential coupling of the beta1 versus beta2 receptor subtype and evidence for PKA-independent activation of the channel. Yatani A, et al. **Cell Signal** 1999 May;11(5):337–42

Examining the efficiency of receptor/G-protein coupling with a cleavable beta2-adrenoceptor-gsalpha fusion protein. Seifert R, et al. **Eur J Biochem** 1999 Mar; 260(3):661–6

Comparative trough effects of formoterol and salmeterol on lymphocyte beta2-adrenoceptor--regulation and bronchodilatation. Aziz I, et al. **Eur J Clin Pharmacol** 1999 Aug;55(6):431–6

Adrenaline influences the release of interleukin-6 from murine pituicytes: role of beta2-adrenoceptors. Christensen JD, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):143–8

Characterisation of beta2-adrenoceptors, using the agonist [11C]formoterol and positron emission tomography. Visser TJ, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):35–41

Reduced catecholamine response of lymphocytes from patients with rheumatoid arthritis. Baerwald CG, et al. **Immunobiology** 1999 Feb;200(1):77–91

Quantitative structure-activity relationship study of iodinated analogues of trimetoquinol as highly potent beta 2-adrenoceptor ligands. Kumar R, et al. **Indian J Biochem Biophys** 1998 Dec;35(6):390–2

Molecular and genetic basis of beta2-adrenergic receptor function. Liggett SB. **J Allergy Clin Immunol** 1999 Aug; 104(2 Pt 2):S42–6 (24 ref.)

Nitric oxide modulates beta(2)-adrenergic receptor palmitoylation and signaling. Adam L, et al. **J Biol Chem** 1999 Sep 10;274(37):26337–43

Src-mediated tyrosine phosphorylation of dynamin is required for beta2-adrenergic receptor internalization and mitogen-activated protein kinase signaling. Ahn S, et al. **J Biol Chem** 1999 Jan 15;274(3):1185–8

Characterization of dominant negative arrestins that inhibit beta2-adrenergic receptor internalization by distinct mechanisms. Orsini MJ, et al. **J Biol Chem** 1998 Dec 18; 273(51):34616–22

Evidence for a beta2-adrenergic/arachidonic acid pathway in ventricular cardiomyocytes. Regulation by the beta1-adrenergic/camp pathway. Pavoine C, et al. **J Biol Chem** 1999 Jan 8;274(2):628–37

Degradation of the G protein-coupled receptor kinase 2 by the proteasome pathway. Penela P, et al. **J Biol Chem** 1998 Dec 25;273(52):35238–44

Similar structures and shared switch mechanisms of the beta2-adrenoceptor and the parathyroid hormone receptor. Zn(II) bridges between helices III and VI block activation. Sheikh SP, et al. **J Biol Chem** 1999 Jun 11;274(24):17033–41

Dynamic complexes of beta2-adrenergic receptors with protein kinases and phosphatases and the role of gravin. Shih M, et al. **J Biol Chem** 1999 Jan 15;274(3):1588–95

Agonist-induced sorting of human beta2-adrenergic receptors to lysosomes during downregulation. Moore RH, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):329–38

Beta1-adrenergic receptors but not beta2-adrenergic or vasopressin receptors regulate K+ secretion in vestibular dark cells of the inner ear. Wangemann P, et al. **J Membr Biol** 1999 Jul 1;170(1):67–77

Coupling efficiencies of beta 1- and beta 2-adrenergic receptors expressed alone or together in transfected GH3 pituitary cells. Guerrero SW, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):980–8

Characterization of ligand-induced conformational states in the beta 2 adrenergic receptor. Kobilka B, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):293–300

Modulation of interleukin-6 by beta2-adrenoceptor in endotoxin-stimulated renal macrophage cells. Nakamura A, et al. **Kidney Int** 1999 Sep;56(3):839–49

Depletion of endogenous dopamine stores and shift in beta-adrenoceptor subtypes in cardiac tissue following five weeks of chronic denervation. Van der Vusse GJ, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):215–9

Cross talk between m3-muscarinic and beta(2)-adrenergic receptors at the level of receptor phosphorylation and desensitization. Budd DC, et al. **Mol Pharmacol** 1999 Oct; 56(4):813–23

Identification of a key amino acid of the beta2-adrenergic receptor for high affinity binding of salmeterol. Isogaya M, et al. **Mol Pharmacol** 1998 Oct;54(4):616–22

Effects of guanine, inosine, and xanthine nucleotides on beta(2)-adrenergic receptor/G(s) interactions: evidence for multiple receptor conformations. Seifert R, et al. **Mol Pharmacol** 1999 Aug;56(2):348–58

Spontaneous beta(2)-adrenergic signaling fails to modulate L-type Ca(2+) current in mouse ventricular myocytes. Zhou YY, et al. **Mol Pharmacol** 1999 Sep;56(3):485–93

A kinase-regulated PDZ-domain interaction controls endocytic sorting of the beta2-adrenergic receptor. Cao TT, et al. **Nature** 1999 Sep 16;401(6750):286–90

Structure-affinity profile of 8-hydroxycarbostyril-based agonists that dissociate slowly from the beta2-adrenoceptor. Deyrup MD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):168–77

Neutrophil beta2-adrenergic receptor coupling efficiency to Gs protein in subjects with post-traumatic stress disorder and normal controls. Gurguis GN, et al. **Psychopharmacology (Berl)** 1999 Apr;143(2):131–40

Beta-arrestin-dependent formation of beta2 adrenergic receptor-Src protein kinase complexes [see comments] Luttrell LM, et al. **Science** 1999 Jan 29;283(5402):655–61 . Comment in: Science 1999 Jan 29;283(5402):650–1.

The path to specificity [comment] Zuker CS, et al. **Science** 1999 Jan 29;283(5402):650–1. Comment on: Science 1999 Jan 29;283(5402):655–61.

PHYSIOLOGY

Relaxation of isolated human myometrial muscle by beta2-adrenergic receptors but not beta1-adrenergic receptors. Liu YL, et al. **Am J Obstet Gynecol** 1998 Oct; 179(4):895–8

Synthesis and beta-adrenergic properties of (Z)-N-[3-(alkylamino)-2-hydroxypropylidene](aryl-methyloxy)amines: effects of the configuration around the methyloxyiminomethyl (MOIM) double bond on the biopharmacological properties of MOIM-type beta-blocking agents. Balsamo A, et al. **Bioorg Med Chem** 1998 Nov;6(11):2151–60

Beta 2-adrenergic responsiveness in vivo during abdominal surgery. Ewaldsson CA, et al. **Br J Anaesth** 1998 Sep; 81(3):343–7

Contribution of nitric oxide to beta2-adrenoceptor mediated vasodilatation in human forearm arterial vasculature. Majmudar NG, et al. **Br J Clin Pharmacol** 1999 Feb; 47(2):173–7

Activation of nitric oxide synthase by beta 2-adrenoceptors in human umbilical vein endothelium in vitro. Ferro A, et al. **Br J Pharmacol** 1999 Apr;126(8):1872–80

Treatment with inverse agonists enhances baseline atrial contractility in transgenic mice with chronic beta2-adrenoceptor activation. Nagaraja S, et al. **Br J Pharmacol** 1999 Jul;127(5):1099–104

Characterization of beta-adrenoceptor mediated smooth muscle relaxation and the detection of mRNA for beta1-, beta2- and beta3-adrenoceptors in rat ileum. Roberts SJ, et al. **Br J Pharmacol** 1999 Jun;127(4):949–61

Activation of beta 2-adrenergic receptors and ventricular fibrillation. Billman GE, et al. **Cardiologia** 1998 Aug; 43(8):811–8 (69 ref.)

Effects of genetic polymorphism on ex vivo and in vivo function of beta2-adrenoceptors in asthmatic patients. Lipworth BJ, et al. **Chest** 1999 Feb;115(2):324–8

Coupling of beta2-adrenoceptor to Gi proteins and its physiological relevance in murine cardiac myocytes. Xiao RP, et al. **Circ Res** 1999 Jan 8–22;84(1):43–52

beta2-adrenergic cAMP signaling is uncoupled from phosphorylation of cytoplasmic proteins in canine heart. Kuschel M, et al. **Circulation** 1999 May 11;99(18):2458–65

Dopexamine attenuates endotoxin-induced microcirculatory changes in rat mesentery: role of beta2 adrenoceptors [see comments] Schmidt W, et al. **Crit Care Med** 1998 Oct; 26(10):1639–45. Comment in: Crit Care Med 1998 Oct;26(10):1621–2.

Phosphodiesterase inhibitors suppress alpha2-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits. Freitag A, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):67–71

Specific changes in beta2-adrenoceptor trafficking kinetics and intracellular sorting during downregulation. Moore RH, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):113–23

Decreased beta2 adrenergic mediated venodilatation in Native Americans. Vajo Z, et al. **Int Angiol** 1998 Dec; 17(4):276–81

Contrasting properties of albuterol stereoisomers. Page CP, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 2):S31–41 (75 ref.)

Targeted disruption of the beta2 adrenergic receptor gene. Chruscinski AJ, et al. **J Biol Chem** 1999 Jun 11; 274(24):16694–700

G(i) protein-mediated functional compartmentalization of cardiac beta(2)-adrenergic signaling. Kuschel M, et al. **J Biol Chem** 1999 Jul 30;274(31):22048–52

Disodium cromoglycate does not prevent terbutaline-induced desensitization of beta 2-adrenoceptor-mediated cardiovascular in vivo functions in human volunteers. Schäfers RF, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):822–7

Brain-derived neurotrophic factor exerts opposing effects on beta2-adrenergic receptor according to depolarization status of cerebellar neurons. Gaiddon C, et al.

J Neurochem 1999 Oct;73(4):1467–76

Dual modulation of a potassium channel by the m1 muscarinic and beta2–adrenergic receptors. Peralta EG. **Life Sci** 1995;56(11–12):957–64

NGF mediates the neuroprotective effect of the beta2–adrenoceptor agonist clenbuterol in vitro and in vivo: evidence from an NGF–antisense study. Culmsee C, et al. **Neurochem Int** 1999 Jul;35(1):47–57

The beta2–adrenergic receptor/betaarrestin complex recruits the clathrin adaptor AP–2 during endocytosis. Laporte SA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3712–7

beta2–Adrenergic receptor regulation by GIT1, a G protein–coupled receptor kinase–associated ADP ribosylation factor GTPase–activating protein. Premont RT, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14082–7

Beta 2–adrenergic receptor endocytic pathway is controlled by a saturable mechanism distinct from that of transferrin receptor. Marullo S, et al. **Receptors Channels** 1999; 6(4):255–69

RECEPTORS, ADRENOCORTICOTROPIC HORMONE see **RECEPTORS. CORTICOTROPIN**

RECEPTORS, AH see **RECEPTORS, ARYL HYDROCARBON**

RECEPTORS, ALDOSTERONE

ANALYSIS

Expression of mRNAs encoding hormone receptors in the endolymphatic sac of the rat. Furuta H, et al. **Acta Otolaryngol (Stockh)** 1999 Jan;119(1):53–7

ANTAGONISTS & INHIBITORS

Aldosterone receptor blockade inhibits increased furosemide–sensitive sodium reabsorption in rats with liver cirrhosis. Jonassen TE, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):931–6

BLOOD

Transient pseudo–hypoaldosteronism following resection of the ileum: normal level of lymphocytic aldosterone receptors outside the acute phase. Vantyghem MC, et al. **J Endocrinol Invest** 1999 Feb;22(2):122–7

METABOLISM

[Aldosterone receptors: new insights in hormonal signal transduction] Rafestin–Oblin ME, et al. **Therapie** 1998 May–Jun;53(3):227–35 (100 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Molecular and cellular determinants of mineralocorticoid selectivity. Farman N. **Curr Opin Nephrol Hypertens** 1999 Jan;8(1):45–51 (64 ref.)

RECEPTORS, ALPHA–ADRENERGIC see **RECEPTORS, ADRENERGIC, ALPHA**

RECEPTORS, ALPHA–1 ADRENERGIC see **RECEPTORS, ADRENERGIC, ALPHA–1**

RECEPTORS, ALPHA–2 ADRENERGIC see **RECEPTORS, ADRENERGIC, ALPHA–2**

RECEPTORS, AMINO ACID

CHEMISTRY

Signaling domain of the aspartate receptor is a helical hairpin with a localized kinase docking surface: cysteine and disulfide scanning studies. Bass RB, et al. **Biochemistry** 1999 Jul 20;38(29):9317–27

Conformational changes in the cytoplasmic domain of the Escherichia coli aspartate receptor upon adaptive methylation. Le Moual H, et al. **Biochemistry** 1998 Oct 20;37(42):14852–9

Identification of a site critical for kinase regulation on the central processing unit (CPU) helix of the aspartate receptor. Trammell MA, et al. **Biochemistry** 1999 Jan 5; 38(1):329–36

Four–helical–bundle structure of the cytoplasmic domain of a serine chemotaxis receptor. Kim KK, et al. **Nature** 1999 Aug 19;400(6746):787–92

Perspectives: signal transduction. Proteins in motion [comment] Gerstein M, et al. **Science** 1999 Sep 10; 285(5434):1682–3. Comment on: Science 1999 Sep 10;285(5434):1751–4.

A piston model for transmembrane signaling of the aspartate receptor [see comments] Ottemann KM, et al. **Science** 1999 Sep 10;285(5434):1682–3. Comment on: Science 1999 Sep 10;285(5434):1751–4.

The aspartate receptor cytoplasmic domain: in situ chemical analysis of structure, mechanism and dynamics. Bass RB, et al. **Structure Fold Des** 1999 Jul 15;7(7):829–40

METABOLISM

Thermodynamic study of the binding of the tandem–SH2 domain of the Syk kinase to a dually phosphorylated ITAM peptide: evidence for two conformers. Grucza RA, et al. **Biochemistry** 1999 Apr 20;38(16):5024–33

Perspectives: signal transduction. Proteins in motion [comment] Gerstein M, et al. **Science** 1999 Sep 10; 285(5434):1682–3. Comment on: Science 1999 Sep 10;285(5434):1751–4.

A piston model for transmembrane signaling of the aspartate receptor [see comments] Ottemann KM, et al. **Science** 1999 Sep 10;285(5434):1751–4. Comment in: Science 1999 Sep 10;285(5434):1682–3.

PHYSIOLOGY

Identification of a site critical for kinase regulation on the central processing unit (CPU) helix of the aspartate receptor. Trammell MA, et al. **Biochemistry** 1999 Jan 5; 38(1):329–36

Contribution of NMDA and non–NMDA receptors to synaptic transmission from the brachium of the inferior colliculus to the medial subdivision of the medial geniculate nucleus in the rabbit. Webber TJ, et al. **Exp Brain Res** 1999 Feb;124(3):295–303

Postischemic enhancements of N–methyl–D–aspartic acid (NMDA) and non–NMDA receptor–mediated responses in hippocampal CA1 pyramidal neurons. Mitani A, et al. **J Cereb Blood Flow Metab** 1998 Oct;18(10):1088–98

Carnosine modulates zinc and copper effects on amino acid receptors and synaptic transmission. Trombley PQ, et al. **Neuroreport** 1998 Oct 26;9(15):3503–7

Role of Na+/H+ exchangers, excitatory amino acid receptors and voltage–operated Ca2+ channels in human immunodeficiency virus type 1 gp120–mediated increases in intracellular Ca2+ in human neurons and astrocytes. Holden CP, et al. **Neuroscience** 1999;91(4):1369–78

Involvement of excitatory amino acid receptors and nitric oxide in the rostral ventromedial medulla in modulating secondary hyperalgesia produced by mustard oil. Urban MO, et al. **Pain** 1999 May;81(1–2):45–55

The organization and regulation of non–NMDA receptors in neurons. Wenthold RJ, et al. **Prog Brain Res** 1998; 116:133–52 (139 ref.)

RECEPTORS, AMPA

Characterization of phosphorylation sites on the glutamate receptor 4 subunit of the AMPA receptors. Carvalho AL, et al. **J Neurosci** 1999 Jun 15;19(12):4748–54

AGONISTS

A molecular envelope of the ligand–binding domain of a glutamate receptor in the presence and absence of agonist. Abele R, et al. **Biochemistry** 1999 Aug 24;38(34):10949–57

Characterization of a new AMPA receptor radioligand, [3H]2–amino–3–(3–carboxy–5–methyl–4–isoxazolyl) propionic acid. Stensbøl TB, et al. **Eur J Pharmacol** 1999 Jun 4;373(2–3):251–62

Synergistic interactions between ampakines and antipsychotic drugs. Johnson SA, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):392–7

ANALYSIS

Immunocytochemical localization of the AMPA receptor subunits in the mesencephalic trigeminal nucleus of the rat. Mineff EM, et al. **Arch Physiol Biochem** 1998 Jul; 106(3):203–9

Mossy cells in the mouse dentate gyrus: identification in the dorsal hilus and their distribution along the dorsoventral axis. Fujise N, et al. **Brain Res** 1999 Jan 23;816(2):500–11

Differential synaptic distribution of the AMPA–GluR2 subunit on GABAergic and non–GABAergic neurons in the basolateral amygdala. He Y, et al. **Brain Res** 1999 May 8;827(1–2):51–62

Molecular analysis of AMPA–specific receptors: subunit composition, editing, and calcium influx determination in small amounts of tissue. Lee JC, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):142–54

Subcellular and subsynaptic distribution of the NR1 subunit of the NMDA receptor in the neostriatum and globus pallidus of the rat: co–localization at synapses with the GluR2/3 subunit of the AMPA receptor. Bernard V, et al. **Eur J Neurosci** 1998 Dec;10(12):3721–36

AMPA receptors at primary afferent synapses in substantia gelatinosa after sciatic nerve section. Popratiloff A, et al. **Eur J Neurosci** 1998 Oct;10(10):3220–30

Presence of a non–NMDA glutamate receptor subtype in the sympathetic nervous system of neonatal swine. Ruggiero DA, et al. **J Auton Nerv Syst** 1998 Nov 10; 73(2–3):101–8

Glutamate receptor subunits in the nucleus of the tractus solitarius and other regions of the medulla oblongata in the cat. Ambalavanar R, et al. **J Comp Neurol** 1998 Dec 7;402(1):75–92

Characterization of glutamate receptor interacting protein–immunopositive neurons in cerebellum and cerebral cortex of the albino rat. Burette A, et al. **J Comp Neurol** 1999 Sep 6;411(4):601–12

Immunogold localization of AMPA and NMDA receptors in somatic sensory cortex of albino rat. Kharazia VN, et al. **J Comp Neurol** 1999 Sep 20;412(2):292–302

Dendritic localization of Ca(2+)–permeable AMPA/kainate channels in hippocampal pyramidal neurons. Yin HZ, et al. **J Comp Neurol** 1999 Jun 28;409(2):250–60

A novel two–site enzyme immunoassay reveals the regional distributions of and developmental changes in GluR1 and NMDAR1 protein contents in the rat brain. Ibaraki K, et al. **J Neurochem** 1999 Jul;73(1):408–17

Synaptic coexistence of AMPA and NMDA receptors in the rat hippocampus: a postembedding immunogold study. He Y, et al. **J Neurosci Res** 1998 Nov 15;54(4):444–9

Cell type and pathway dependence of synaptic AMPA receptor number and variability in the hippocampus. Nusser Z, et al. **Neuron** 1998 Sep;21(3):545–59

AMPA–type glutamate receptor subunits are expressed in the avian cochlear hair cells and ganglion cells. Reng D, et al. **Neuroreport** 1999 Jul 13;10(10):2137–41

Immunohistochemical localization of N–methyl–D–aspartate and alpha–amino–3–hydroxy–5–methyl–4–isoxazolepropionate receptor subunits in the substantia nigra pars compacta of the rat. Albers DS, et al. **Neuroscience** 1999 Mar; 89(1):209–20

ANTAGONISTS & INHIBITORS

Intrathecal co–administration of NMDA antagonist and NK–1 antagonist reduces MAC of isoflurane in rats. Ishizaki K, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):753–9

Effects of glutamate antagonists on the activity of aromatic L–amino acid decarboxylase. Fisher A, et al. **Amino Acids** 1998;14(1–3):43–9

Antagonists of glutamate in the treatment of Parkinson's disease: from laboratory to the clinic. Starr MS. **Amino Acids** 1998;14(1–3):41–2

The spinal antinociceptive effects of a novel competitive AMPA receptor antagonist, YM872, on thermal or formalin–induced pain in rats. Nishiyama T, et al. **Anesth Analg** 1999 Jul;89(1):143–7

AMPA/kainate receptor antagonists as novel analgesic agents [editorial;comment] Brennan TJ. **Anesthesiology** 1998 Nov;89(5):1049–51. Comment on: Anesthesiology 1998 Nov;89(5):1060–7.

AMPA/kainate antagonist LY293558 reduces capsaicin–evoked hyperalgesia but not pain in normal skin in humans [see comments] Sang CN, et al. **Anesthesiology** 1998 Nov;89(5):1060–7. Comment in: Anesthesiology 1998 Nov;89(5):1049–51.

An alpha–amino–3–hydroxy–5–methyl–4–isoxazolepropionic acid (AMPA) antagonist and an N–methyl–D–aspartate (NMDA) channel blocker synergistically impair spatial memory in rats. Li H, et al. **Biol Pharm Bull** 1998 Nov; 21(11):1228–30

5–Aminomethylquinoxaline–2,3–diones. Part I: A novel class of AMPA receptor antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):65–70

5–Aminomethylquinoxaline–2,3–diones. Part II: N–aryl derivatives as novel NMDA/glycine and AMPA antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):71–6

7,8–Methylenedioxy–4H–2,3–benzodiazepin–4–ones as novel AMPA receptor antagonists. De Sarro A, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):971–6

Studies of the antagonist actions of (RS)–2–amino–3–[5–tert–butyl–3–(phosphonomethoxy)–4–isoxazolyl] propionic acid (ATPO) on non–NMDA receptors in cultured rat neurones. Dai WM, et al. **Br J Pharmacol** 1998 Dec;125(7):1517–28

Neuroprotective interaction effects of NMDA and AMPA receptor antagonists in an in vitro model of cerebral ischemia. Arias RL, et al. **Brain Res** 1999 Jan 23; 816(2):299–308

Neuroprotective effect of the novel glutamate AMPA receptor antagonist YM872 assessed with in vivo MR imaging of rat MCA occlusion. Häberg A, et al. **Brain Res** 1998 Nov 16;811(1–2):63–70

A novel AMPA receptor antagonist, YM872, reduces infarct size after middle cerebral artery occlusion in rats. Kawasaki–Yatsugi S, et al. **Brain Res** 1998 May 18; 793(1–2):39–46

NS–257, a novel competitive AMPA receptor antagonist, interacts with kainate and NMDA receptors. Nijholt I, et al. **Brain Res** 1999 Mar 13;821(2):374–82

Effect of a glutamate receptor antagonist (GYKI 52466) on 4–aminopyridine–induced seizure activity developed in rat cortical slices. Dóczi J, et al. **Brain Res Bull** 1999 Aug; 49(6):435–40

Consequences of alpha–amino–3–hydroxy–5–methyl–4–isoxazolepropionic acid receptor blockade during status epilepticus in the developing brain. Mikati MA, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):139–42

LY 300164, a novel antagonist of AMPA/kainate receptors, potentiates the anticonvulsive activity of antiepileptic drugs. Czuczwar SJ, et al. **Eur J Pharmacol** 1998 Oct 23; 359(2–3):103–9

Effects of YM90K, a selective AMPA receptor antagonist, on amygdala–kindling and long–term hippocampal potentiation in the rat. Kodama M, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):11–9

In vivo and in vitro evaluation of AMPA receptor antagonists in rat hippocampal neurones and cultured mouse cortical neurones. Mathiesen C, et al. **Eur J Pharmacol** 1998 Jul 24;353(2–3):159–67

AMPA/kainate–related mechanisms contribute to convulsant and proconvulsant effects of 3–nitropropionic acid.

Urbanska EM, et al. **Eur J Pharmacol** 1999 Apr 16; 370(3):251–6

Synthesis and anticonvulsant activity of new 2,3-benzodiazepines as AMPA receptor antagonists. De Sarro A, et al. **Farmaco** 1999 Mar 31;54(3):178–87

Effects of the AMPA receptor antagonist NBQX on outcome of newborn pigs after asphyxic cardiac arrest. Brambrink AM, et al. **J Cereb Blood Flow Metab** 1999 Aug; 19(8):927–38

Design and synthesis of novel quinoxaline-2,3-dione AMPA/GlyN receptor antagonists: amino acid derivatives. Nikam SS, et al. **J Med Chem** 1999 Jun 17;42(12):2266–71

Systemic administration of NMDA and AMPA receptor antagonists reverses the neurochemical changes induced by nigrostriatal denervation in basal ganglia. Vila M, et al. **J Neurochem** 1999 Jul;73(1):344–52

Inhibition of AMPA responses by mutated presenilin 1. Moerman AM, et al. **J Neurosci Res** 1999 Sep 15; 57(6):962–7

Delayed treatment with YM90K, an AMPA receptor antagonist, protects against ischaemic damage after middle cerebral artery occlusion in rats. Kawasaki-Yatsugi S, et al. **J Pharm Pharmacol** 1998 Aug;50(8):891–8

In-vitro characterization of YM872, a selective, potent and highly water-soluble alpha-amino-3-hydroxy-5-methylisoxazole-4-propionate receptor antagonist. Kohara A, et al. **J Pharm Pharmacol** 1998 Jul;50(7):795–801

CNQX but not NBQX prevents expression of amphetamine-induced place preference conditioning: a role for the glycine site of the NMDA receptor, but not AMPA receptors. Mead AN, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):9–15

SPD 502: a water-soluble and in vivo long-lasting AMPA antagonist with neuroprotective activity. Nielsen EO, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1492–501

Neuroprotective efficacy of YM872, an alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptor antagonist, after permanent middle cerebral artery occlusion in rats. Takahashi M, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):559–66

Ethanol directly depresses AMPA and NMDA glutamate currents in spinal cord motor neurons independent of actions on GABAA or glycine receptors. Wang MY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):362–7

Use-dependent AMPA receptor block in mice lacking GluR2 suggests postsynaptic site for LTP expression. Mainen ZF, et al. **Nat Neurosci** 1998 Nov;1(7):579–86

YM90K, an AMPA receptor antagonist, protects against ischemic damage caused by permanent and transient middle cerebral artery occlusion in rats. Kawasaki-Yatsugi S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):586–91

Decahydroisoquinolines: novel competitive AMPA/kainate antagonists with neuroprotective effects in global cerebral ischaemia. O'Neill MJ, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1211–22

Pharmacology and toxicology of ATOA, an AMPA receptor antagonist and a partial agonist at GluR5 receptors. Wahl P, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10–11):1205–10

Effects of N-methyl-D-aspartate (dizocilpine) and alpha-amino-3-hydroxy-4-isoxazolepropionate (LY215490) receptor antagonists on the voiding reflex induced by perineal stimulation in the neonatal rat. Yoshiyama M, et al. **Neuroscience** 1999;90(4):1415–20

The neuroprotective effect of the novel AMPA receptor antagonist PD152247 (PNQX) in temporary focal ischemia in the rat. Schielke GP, et al. **Stroke** 1999 Jul;30(7):1472–7

YM872, a highly water-soluble AMPA receptor antagonist, preserves the hemodynamic penumbra and reduces brain injury after permanent focal ischemia in rats. Shimizu-Sasamata M, et al. **Stroke** 1998 Oct;29(10):2141–8

AMPA antagonist LY293558 blocks the development, without blocking the expression, of behavioral sensitization to morphine. Carlezon WA Jr, et al. **Synapse** 1999 Mar 15;31(4):256–62

[Ionic channel blocking as an approach to investigation of AMPA receptor subtypes] Magazanik LG. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):994–1005 (61 ref.) (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

Chronic ethanol upregulates NMDA and AMPA, but not kainate receptor subunit proteins in rat primary cortical cultures. Chandler LJ, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):363–70

Expression of the AMPA-type glutamate receptor subunits in the chick optic tectum changes biphasically after retinal deafferentation. Pires RS, et al. **Brain Res** 1998 Nov 9; 810(1–2):283–7

GluR2 hippocampal knockdown reveals developmental regulation of epileptogenicity and neurodegeneration. Friedman LK, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):224–31

Differential expression of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate receptor subunits by calretinin-immunoreactive neurons in the human striatum. Cicchetti F, et al. **Neuroscience** 1999; 93(1):89–97

CHEMISTRY

Postnatal development of detergent-insoluble properties of NMDA and AMPA receptor subunits in the rat brain synaptic membrane. Park HT, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):83–7

Differential distribution of ionotropic glutamate receptor subunits in the rat olfactory bulb. Montague AA, et al. **J Comp Neurol** 1999 Mar 8;405(2):233–46

Calnexin and the immunoglobulin binding protein (BiP) coimmunoprecipitate with AMPA receptors. Rubio ME, et al. **J Neurochem** 1999 Sep;73(3):942–8

Crystal clear structure/function relationships for GluRs [comment] Gasic G. **Neuron** 1998 Nov;21(5):938–40 (12 ref.). Comment on: Neuron 1998 Mar;20(3):371–80. Comment on: Neuron 1998 Mar;20(3):381–7. Comment on: Neuron 1998 Mar;20(3):427–44.

Novel anchorage of GluR2/3 to the postsynaptic density by the AMPA receptor-binding protein ABP. Srivastava S, et al. **Neuron** 1998 Sep;21(3):581–91

Probing the ligand binding domain of the GluR2 receptor by proteolysis and deletion mutagenesis defines domain boundaries and yields a crystallizable construct. Chen GQ, et al. **Protein Sci** 1998 Dec;7(12):2623–30

DRUG EFFECTS

Comparison of the effects of convulsant and depressant barbiturate stereoisomers on AMPA-type glutamate receptors. Kamiya Y, et al. **Anesthesiology** 1999 Jun; 90(6):1704–13

AMPA receptors and motivation for drug: effect of the selective antagonist NBQX on behavioural sensitization and on self-administration in mice. Jackson A, et al. **Behav Pharmacol** 1998 Sep;9(5–6):457–67

Allosteric modulators of the AMPA receptor: novel 6-substituted dihydrophthalazines. Pei XF, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):539–42

Novel potent AMPA analogues differentially affect desensitisation of AMPA receptors in cultured hippocampal neurons. Banke TG, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):405–12

Aniracetam, 1-BCP and cyclothiazide differentially modulate the function of NMDA and AMPA receptors mediating enhancement of noradrenaline release in rat hippocampal slices. Pittaluga A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):272–9

Neuropharmacology of AMPA and kainate receptors. Bleakman D, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10–11):1187–204 (275 ref.)

Induction of LTD in the adult hippocampus by the synaptic activation of AMPA/kainate and metabotropic glutamate receptors. Kemp N, et al. **Neuropharmacology** 1999 Apr; 38(4):495–504

Dissociation between the Joro spider toxin sensitivity of recombinant alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors and their ability to increase intracellular calcium. Meucci O, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1431–43

Actions of kainate and AMPA selective glutamate receptor ligands on nociceptive processing in the spinal cord. Procter MJ, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10–11):1287–97

Interactions of GYKI 52466 and NBQX with cyclothiazide at AMPA receptors: experiments with outside-out patches and EPSCs in hippocampal neurones. Rammes G, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1299–320

LY339434, a GluR5 kainate receptor agonist. Small B, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1261–7

Zinc modulation of AMPA receptors may be relevant to splice variants in carp retina. Shen Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):177–80

Heparin modulates the single channel kinetics of reconstituted AMPA receptors from rat brain. Sinnarajah S, et al. **Synapse** 1999 Mar 1;31(3):203–9

GENETICS

GluR2 antisense knockdown produces seizure behavior and hippocampal neurodegeneration during a critical window. Friedman LK, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:541–5

Mice with genetically modified NMDA and AMPA receptors. Sprengel R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:494–501

Multiple behavioral anomalies in GluR2 mutant mice exhibiting enhanced LTP. Gerlai R, et al. **Behav Brain Res** 1998 Sep;95(1):37–45

Molecular analysis of AMPA-specific receptors: subunit composition, editing, and calcium influx determination in small amounts of tissue. Lee JC, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):142–54

Goldfish brain GluR2: multiple forms, RNA editing, and alternative splicing. Li Z, et al. **Brain Res Mol Brain Res** 1999 Apr 20;67(2):211–20

Postsynaptic expression of Ca2+-permeable AMPA-type glutamate receptor channels by viral-mediated gene transfer. Sudo M, et al. **Brain Res Mol Brain Res** 1999 Mar 5;65(2):176–85

The C. elegans homeodomain gene unc-42 regulates chemosensory and glutamate receptor expression. Baran R, et al. **Development** 1999 May;126(10):2241–51

Hippocampal AMPA and NMDA mRNA levels and subunit immunoreactivity in human temporal lobe epilepsy patients and a rodent model of chronic mesial limbic epilepsy. Mathern GW, et al. **Epilepsy Res** 1998 Sep;32(1–2):154–71

Glutamate receptor phenotypes in the auditory brainstem and mid-brain of the developing rat. Caicedo A, et al. **Eur J Neurosci** 1999 Jan;11(1):51–74

Investigation by ion channel domain transplantation of rat glutamate receptor subunits, orphan receptors and a putative NMDA receptor subunit. Villmann C, et al. **Eur J Neurosci** 1999 May;11(5):1765–78

The reversible change of GluR2 RNA editing in gerbil hippocampus in course of ischemic tolerance. Yamaguchi K, et al. **J Cereb Blood Flow Metab** 1999 Apr;19(4):370–5

Different expressions of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid and N-methyl-D-aspartate receptor subunit mRNAs between visceromotor and somatomotor neurons of the rat lumbosacral spinal cord. Shibata T, et al. **J Comp Neurol** 1999 Feb 8;404(2):172–82

Neuroadaptations in ionotropic and metabotropic glutamate receptor mRNA produced by cocaine treatment. Ghasemzadeh MB, et al. **J Neurochem** 1999 Jan; 72(1):157–65

Alterations in AMPA receptor subunit expression after experimental spinal cord contusion injury. Grossman SD, et al. **J Neurosci** 1999 Jul 15;19(14):5711–20

Comparative analysis of multiple receptor subunit mRNA in micropunches obtained from different brain regions using a competitive RT-PCR method. Durgam VR, et al. **J Neurosci Methods** 1998 Oct 1;84(1–2):33–40

Turnover rates of the AMPA-type glutamate receptor GluR1 measured by transient gene expression. Horikawa HP, et al. **J Neurosci Methods** 1998 Oct 1;84(1–2):173–9

Use-dependent AMPA receptor block in mice lacking GluR2 suggests postsynaptic site for LTP expression. Mainen ZF, et al. **Nat Neurosci** 1998 Nov;1(7):579–86

A point mutation in the glutamate binding site blocks desensitization of AMPA receptors. Stern-Bach Y, et al. **Neuron** 1998 Oct;21(4):907–18

The protein kinase C alpha binding protein PICK1 interacts with short but not long form alternative splice variants of AMPA receptor subunits. Dev KK, et al. **Neuropharmacology** 1999 May;38(5):635–44

Regulation of ionotropic glutamate receptors in the rat brain in response to the atypical antipsychotic seroquel (quetiapine fumarate). Tascedda F, et al. **Neuropsychopharmacology** 1999 Aug;21(2):211–7

Growth factor-mediated Fyn signaling regulates alpha-amino-3- hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor expression in rodent neocortical neurons [published erratum appears in Proc Natl Acad Sci U S A 1999 May 11;96(10):5890] Narisawa-Saito M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2461–6

AMPA receptors: molecular and functional diversity. Borges K, et al. **Prog Brain Res** 1998;116:153–70 (98 ref.)

Repeated amphetamine administration alters AMPA receptor subunit expression in rat nucleus accumbens and medial prefrontal cortex. Lu W, et al. **Synapse** 1999 May; 32(2):119–31

Flip and flop variants of AMPA receptor subunits in the human cerebellum: implication for the selective vulnerability of Purkinje cells. Tomiyama M, et al. **Synapse** 1999 Feb;31(2):163–7

IMMUNOLOGY

Monitoring of brain spiking activity and autoantibodies to N-terminus domain of GluR1 subunit of AMPA receptors in blood serum of rats with cobalt-induced epilepsy. Dambinova SA, et al. **J Neurochem** 1998 Nov; 71(5):2088–93

METABOLISM

AMPA receptor forms a biochemically functional complex with NSF and alpha- and beta-SNAPs. Osten P, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:558–60

ABP: a novel AMPA receptor binding protein. Srivastava S, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:561–4

Synthesis, glycine/NMDA and AMPA binding activity of some new 2,5,6-trioxopyrazino[1,2,3-de]quinoxalines and of their restricted analogs 2,5-dioxo- and 4,5-dioxoimidazo[1,5,4-de]quinoxalines. Varano F, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):201–7

A molecular envelope of the ligand-binding domain of a glutamate receptor in the presence and absence of agonist. Abele R, et al. **Biochemistry** 1999 Aug 24;38(34):10949–57

Circadian rhythm of AMPA receptor GluR2/3 subunit-immunoreactivity in the suprachiasmatic nuclei of Syrian hamster and effect of a light-dark cycle. Chambille I. **Brain Res** 1999 Jun 26;833(1):27–38

Selective changes in AMPA receptors in rabbit cerebellum following classical conditioning of the eyelid-nictitating membrane response. Hauge SA, et al. **Brain Res** 1998 Aug 24;803(1–2):9–18

Immunoelectron microscopy of AMPA receptor subunits reveals three types of putative glutamatergic synapse in the rat vestibular end organs. Matsubara A, et al. **Brain Res** 1999 Feb 20;819(1–2):58–64

Neurosteroid modulation of recombinant ionotropic glutamate receptors. Yaghoubi N, et al. **Brain Res** 1998 Aug 24;803(1–2):153–60

Arachidonic acid potentiates currents through Ca2+-permeable AMPA receptors by interacting with a CaMKII pathway. Nishizaki T, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):184–9

Receptor clustering: activate to accumulate? Kamboj S, et al. **Curr Biol** 1998 Oct 8;8(20):R719–21 (13 ref.)

Food toxins, ampa receptors, and motor neuron diseases. Spencer PS. **Drug Metab Rev** 1999 Aug;31(3):561–87 (99 ref.)

Glutamate receptor mechanisms in human epileptic dysplastic cortex. Babb TL, et al. **Epilepsy Res** 1998 Sep;32(1–2):24–33

Subpopulations of GABAergic and non-GABAergic rat dorsal horn neurons express Ca2+-permeable AMPA receptors. Albuquerque C, et al. **Eur J Neurosci** 1999 Aug; 11(8):2758–66

Learning-specific, time-dependent increases in hippocampal Ca2+/calmodulin-dependent protein kinase II activity and AMPA GluR1 subunit immunoreactivity. Cammarota M, et al. **Eur J Neurosci** 1998 Aug;10(8):2669–76

AMPA receptor subunits are differentially expressed in parvalbumin- and calretinin-positive neurons of the rat hippocampus. Catania MV, et al. **Eur J Neurosci** 1998 Nov; 10(11):3479–90

NMDA and AMPA receptors on neocortical neurons are differentially distributed. Dodt HU, et al. **Eur J Neurosci** 1998 Nov;10(11):3351–7

Pharmacological properties of homomeric and heteromeric GluR1o and GluR3o receptors. Nielsen BS, et al. **Eur J Pharmacol** 1998 Nov 6;360(2–3):227–38

Ca2+ permeability and joro spider toxin sensitivity of AMPA and kainate receptors on cerebellar granule cells. Savidge JR, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):131–8

Glutamate receptor subunit GluR2 and NMDAR1 immunoreactivity in the retina of macaque monkeys with experimental glaucoma does not identify vulnerable neurons. Hof PR, et al. **Exp Neurol** 1998 Oct;153(2):234–41

Selective reduction of GluR2 protein in adult hippocampal CA3 neurons following status epilepticus but prior to cell loss. Friedman LK. **Hippocampus** 1998;8(5):511–25

Subtype-specific assembly of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptor subunits is mediated by their n-terminal domains. Leuschner WD, et al. **J Biol Chem** 1999 Jun 11; 274(24):16907–16

Laminar and cellular distribution of AMPA, kainate, and NMDA receptor subunits in monkey sensory-motor cortex. Muñoz A, et al. **J Comp Neurol** 1999 May 17;407(4):472–90

4,5-Dihydro-1,2,4-triazolo[1,5-a]quinoxalin-4-ones: excitatory amino acid antagonists with combined glycine/NMDA and AMPA receptor affinity. Catarzi D, et al. **J Med Chem** 1999 Jul 1;42(13):2478–84

Changes in AMPA receptor-spliced variant expression and shift in AMPA receptor spontaneous desensitization pharmacology during cerebellar granule cell maturation in vitro. Longone P, et al. **J Mol Neurosci** 1998 Aug; 11(1):23–41

The distribution of neurons expressing calcium-permeable AMPA receptors in the superficial laminae of the spinal cord dorsal horn. Engelman HS, et al. **J Neurosci** 1999 Mar 15;19(6):2081–9

Association of AMPA receptors with a subset of glutamate receptor-interacting protein in vivo. Wyszynski M, et al. **J Neurosci** 1999 Aug 1;19(15):6528–37

Turnover rates of the AMPA-type glutamate receptor GluR1 measured by transient gene expression. Horikawa HP, et al. **J Neurosci Methods** 1998 Oct 1;84(1–2):173–9

Evidence for caspase-mediated cleavage of AMPA receptor subunits in neuronal apoptosis and Alzheimer's disease. Chan SL, et al. **J Neurosci Res** 1999 Aug 1;57(3):315–23

Development of calcium-permeable alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors in cultured neocortical neurons visualized by cobalt staining. Jensen JB, et al. **J Neurosci Res** 1998 Oct 15;54(2):273–81

Expression of glutamate receptors on cultured cerebral endothelial cells. Krizbai IA, et al. **J Neurosci Res** 1998 Dec 15;54(6):814–9

Facilitation of currents through rat Ca2+-permeable AMPA receptor channels by activity-dependent relief from polyamine block. Rozov A, et al. **J Physiol (Lond)** 1998 Sep 1;511 (Pt 2):361–77

Modulation of the glycine response by Ca2+-permeable AMPA receptors in rat spinal neurones. Xu TL, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):701–11

AMPA/kainate receptors permeable to divalent cations in amphibian central nervous system. Estabel J, et al. **Life Sci** 1999;64(8):607–16

Aging of glutamate receptors: correlations between binding and spatial memory performance in mice. Magnusson KR. **Mech Ageing Dev** 1998 Sep 1;104(3):227–48

Selective acquisition of AMPA receptors over postnatal development suggests a molecular basis for silent synapses. Petralia RS, et al. **Nat Neurosci** 1999 Jan;2(1):31–6

Different modes of expression of AMPA and NMDA receptors in hippocampal synapses. Takumi Y, et al. **Nat Neurosci** 1999 Jul;2(7):618–24

Protein phosphatase 1 modulation of neostriatal AMPA channels: regulation by DARPP-32 and spinophilin. Yan Z, et al. **Nat Neurosci** 1999 Jan;2(1):13–7

The AMPA receptor interacts with and signals through the protein tyrosine kinase Lyn. Hayashi T, et al. **Nature** 1999 Jan 7;397(6714):72–6

NMDA induces long-term synaptic depression and dephosphorylation of the GluR1 subunit of AMPA receptors in hippocampus. Lee HK, et al. **Neuron** 1998 Nov; 21(5):1151–62

Variability of neurotransmitter concentration and nonsaturation of postsynaptic AMPA receptors at synapses in hippocampal cultures and slices [see comments] Liu G, et al. **Neuron** 1999 Feb;22(2):395–409. Comment in: Neuron 1999 Feb;22(2):206–7.

Nomadic AMPA receptors and LTP [comment] Morales M, et al. **Neuron** 1999 Jul;23(3):431–4 (20 ref.). Comment on: Neuron 1998 Aug;21(2):267–70.

Activity-dependent modulation of synaptic AMPA receptor accumulation [see comments] O'Brien RJ, et al. **Neuron** 1998 Nov;21(5):1067–78. Comment in: Neuron 1998 Nov;21(5):933–5.

Novel anchorage of GluR2/3 to the postsynaptic density by the AMPA receptor-binding protein ABP. Srivastava S, et al. **Neuron** 1998 Sep;21(3):581–91

A point mutation in the glutamate binding site blocks desensitization of AMPA receptors. Stern-Bach Y, et al. **Neuron** 1998 Oct;21(4):907–18

Thinking globally, acting locally: AMPA receptor turnover and synaptic strength [comment] Turrigiano GG, et al. **Neuron** 1998 Nov;21(5):933–5 (10 ref.). Comment on: Neuron 1998 Nov;21(5):1067–78.

Surface expression and metabolic half-life of AMPA receptors in cultured rat cerebellar granule cells. Archibald K, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10–11):1345–53

The protein kinase C alpha binding protein PICK1 interacts with short but not long form alternative splice variants of AMPA receptor subunits. Dev KK, et al. **Neuropharmacology** 1999 May;38(5):635–44

AMPA-receptors are involved in the expression of amphetamine-induced behavioural sensitisation, but not in the expression of amphetamine-induced conditioned activity in mice. Mead AN, et al. **Neuropharmacology** 1998 Sep;37(9):1131–8

AMPA receptor binding and subunit mRNA expression in prefrontal cortex and striatum of elderly schizophrenics. Healy DJ, et al. **Neuropsychopharmacology** 1998 Oct; 19(4):278–86

Cultured motor neurons possess calcium-permeable AMPA/kainate receptors. Bar-Peled O, et al. **Neuroreport** 1999 Mar 17;10(4):855–9

Low expression of GluR2 AMPA receptor subunit protein by human motor neurons. Shaw PJ, et al. **Neuroreport** 1999 Feb 5;10(2):261–5

Differential changes in the subcellular distribution of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate and N-methyl-D-aspartate receptors in neonate and adult rat cortex. Archibald K, et al. **Neurosci Lett** 1999 Jul 23; 270(1):49–52

Hypoxia induces c-Fos protein expression in NMDA but not AMPA glutamate receptor labeled neurons within the nucleus tractus solitarii of the conscious rat. Gozal D, et al. **Neurosci Lett** 1999 Mar 5;262(2):93–6

Cyclothiazide and GYKI 52466 modulate AMPA receptor-mediated apoptosis in cortical neuronal cultures. John CA, et al. **Neurosci Lett** 1999 Jun 11;268(1):9–12

Glutamate receptor subunits associated with rat sympathetic preganglionic neurons. McNair CJ, et al. **Neurosci Lett** 1998 Oct 30;256(1):29–32

Brain-derived neurotrophic factor regulates the expression of AMPA receptor proteins in neocortical neurons. Narisawa-Saito M, et al. **Neuroscience** 1999;88(4):1009–14

Probing the ligand binding domain of the GluR2 receptor by proteolysis and deletion mutagenesis defines domain boundaries and yields a crystallizable construct. Chen GQ, et al. **Protein Sci** 1998 Dec;7(12):2623–30

Long-term depression in hippocampal interneurons: joint requirement for pre- and postsynaptic events. Laezza F, et al. **Science** 1999 Aug 27;285(5432):1411–4

Rapid spine delivery and redistribution of AMPA receptors after synaptic NMDA receptor activation [see comments] Shi SH, et al. **Science** 1999 Jun 11;284(5421):1811–6. Comment in: Science 1999 Jun 11;284(5421):1755–7.

Deafferentation-induced regulation of AMPA receptors in the spinal cord of the adult rat. Helgren ME, et al. **Somatosens Mot Res** 1999;16(1):39–48

Distribution of AMPA receptor subunits GluR1–4 in the dorsal vagal complex of the rat: a light and electron microscope immunocytochemical study. Kessler JP, et al. **Synapse** 1999 Oct;34(1):55–67

Responses of directionally selective retinal ganglion cells to activation of AMPA glutamate receptors. Jensen RJ. **Vis Neurosci** 1999 Mar-Apr;16(2):205–19

Localization of AMPA-selective glutamate receptor subunits in the cat retina: a light- and electron-microscopic study. Qin P, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):169–77

PHYSIOLOGY

AMPA receptor activation of area postrema neurons. Hay M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R586–90

Direct and indirect presynaptic control of dopamine release by excitatory amino acids. Chéramy A, et al. **Amino Acids** 1998;14(1–3):63–8 (25 ref.)

Determining the activation time course of synaptic AMPA receptors from openings of colocalized NMDA receptors. Kleppe IC, et al. **Biophys J** 1999 Sep;77(3):1418–27

Mild kainate toxicity produces selective motoneuron death with marked activation of CA(2+)-permeable AMPA/kainate receptors. Terro F, et al. **Brain Res** 1998 Nov 2;809(2):319–24

Cellular distributions of AMPA glutamate receptor subunits in fetal ventral mesencephalon transplants in the dopamine-depleted striatum of a rat. Todaka K, et al. **Brain Res Bull** 1998 Nov 1;47(4):325–30

Metabotropic glutamate receptors are involved in calcium-induced LTP of AMPA and NMDA receptor-mediated responses in the rat hippocampus. Yang SN, et al. **Brain Res Bull** 1998 Aug;46(6):505–12

Consequences of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor blockade during status epilepticus in the developing brain. Mikati MA, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):139–42

Synaptic transmission: two players team up for a new tune. Jahn R. **Curr Biol** 1998 Nov 19;8(23):R856–8 (18 ref.)

Regulation of growth hormone secretion by alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptors in infantile, prepubertal, and adult male rats. González LC, et al. **Endocrinology** 1999 Mar; 140(3):1279–84

Ionotropic glutamate receptors in isolated horizontal cells of the rabbit retina. Blanco R, et al. **Eur J Neurosci** 1999 Mar;11(3):867–73

Biochemical and pharmacological evidence of a functional role of AMPA receptors in motor neuron dysfunction in mnd mice. Mennini T, et al. **Eur J Neurosci** 1999 May; 11(5):1705–10

AMPA-preferring receptors with high Ca2+ permeability mediate dendritic plasticity of retinal horizontal cells. Okada T, et al. **Eur J Neurosci** 1999 Mar;11(3):1085–95

Mature hippocampal astrocytes exhibit functional metabotropic and ionotropic glutamate receptors in situ. Shelton MK, et al. **Glia** 1999 Mar;26(1):1–11

Kainate activation of horizontal, bipolar, amacrine, and ganglion cells in the rabbit retina. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):65–76

Different mechanisms of Ca2+ transport in NMDA and Ca2+-permeable AMPA glutamate receptor channels. Wollmuth LP, et al. **J Gen Physiol** 1998 Nov;112(5):623–36

Current-source density analysis in the rat olfactory bulb: laminar distribution of kainate/AMPA- and NMDA-receptor-mediated currents. Aroniadou-Anderjaska V, et al. **J Neurophysiol** 1999 Jan; 81(1):15–28

Glutamate controls the induction of GABA-mediated giant depolarizing potentials through AMPA receptors in neonatal rat hippocampal slices. Bolea S, et al. **J Neurophysiol** 1999 May;81(5):2095–102

Lack of AMPA receptor desensitization during basal synaptic transmission in the hippocampal slice. Hjelmstad GO, et al. **J Neurophysiol** 1999 Jun;81(6):3096–9

Activity-dependent modulation of glutamate receptors by polyamines. Bowie D, et al. **J Neurosci** 1998 Oct 15; 18(20):8175–85

Enhancement of AMPA-mediated current after traumatic injury in cortical neurons. Goforth PB, et al. **J Neurosci** 1999 Sep 1;19(17):7367–74

Impairment of AMPA receptor function in cerebellar granule cells of ataxic mutant mouse stargazer. Hashimoto K, et al. **J Neurosci** 1999 Jul 15;19(14):6027–36

AMPA receptor activates a G-protein that suppresses a cGMP-gated current. Kawai F, et al. **J Neurosci** 1999 Apr 15;19(8):2954–9

Ca(2+)-permeable AMPA receptors induce phosphorylation of cAMP response element-binding protein through a phosphatidylinositol 3-kinase-dependent stimulation of the mitogen-activated protein kinase signaling cascade in neurons. Perkinton MS, et al. **J Neurosci** 1999 Jul 15; 19(14):5861–74

Ca(2+)-permeable AMPA receptors and spontaneous presynaptic transmitter release at developing excitatory spinal synapses. Rohrbough J, et al. **J Neurosci** 1999 Oct 1;19(19):8528–41

Differences in the properties of ionotropic glutamate synaptic currents in oxytocin and vasopressin neuroendocrine neurons. Stern JE, et al. **J Neurosci** 1999 May 1; 19(9):3367–75

AMPA receptor protein expression and function in astrocytes cultured from hippocampus. Fan D, et al. **J Neurosci Res** 1999 Aug 15;57(4):557–71

BIIR 561 CL: a novel combined antagonist of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors and voltage-dependent sodium channels with anticonvulsive and neuroprotective properties. Weiser T, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1343–9

AMPA-preferring glutamate receptors in cochlear physiology of adult guinea-pig. Ruel J, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):667–80

Persistent phosphorylation parallels long-term desensitization of cerebellar purkinje cell AMPA-type glutamate receptors. Nakazawa K, et al. **Learn Mem** 1997 Mar-Apr; 3(6):578–91

Differential expression of short-term potentiation by AMPA and NMDA receptors in dentate gyrus. Xie X, et al. **Learn Mem** 1996 Sep-Oct;3(2-3):115–23

A stimulus paradigm inducing long-term desensitization of AMPA receptors evokes a specific increase in BDNF mRNA in cerebellar slices. Yuzaki M, et al.

RECEPTORS, AMPA

Learn Mem 1994 Nov-Dec;1(4):230-42

Glutamate uptake in Purkinje cells in rat cerebellar slices. Takahashi M, et al. **Methods Enzymol** 1998;296:608-17

The regulation of AMPA receptor-binding sites. Dev KK, et al. **Mol Neurobiol** 1998 Winter;17(1-3):33-58 (170 ref.)

Miniature synaptic events maintain dendritic spines via AMPA receptor activation [see comments] McKinney RA, et al. **Nat Neurosci** 1999 Jan;2(1):44-9. Comment in: Nat Neurosci 1999 Jan;2(1):5-7.

Afferent-specific innervation of two distinct AMPA receptor subtypes on single hippocampal interneurons. Tóth K, et al. **Nat Neurosci** 1998 Nov;1(7):572-8

The diazoxide derivative 7-chloro-3-methyl-3,4-dihydro-2H-1,2,4-benzothiadiazine-S,S-dioxide augments AMPA- and GABA-mediated synaptic responses in cultured hippocampal neurons. Yamada KA, et al. **Neurobiol Dis** 1998 Sep;5(3):196-205

AMPA receptor-mediated alterations of intracellular calcium homeostasis in rat cerebellar Purkinje cells in vitro: correlates to dark cell degeneration. Strahlendorf JC, et al. **Neurochem Res** 1998 Nov;23(11):1355-62

NMDA and AMPA receptors evoke transmitter release from noradrenergic axon terminals in the rat spinal cord. Sundström E, et al. **Neurochem Res** 1998 Dec;23(12):1501-7

Crystal clear structure/function relationships for GluRs [comment] Gasic G. **Neuron** 1998 Nov;21(5):938-40 (12 ref.). Comment on: Neuron 1998 Mar;20(3):371-80. Comment on: Neuron 1998 Mar;20(3):381-7. Comment on: Neuron 1998 Mar;20(3):427-44.

Postsynaptically silent synapses in single neuron cultures [see comments] Gomperts SN, et al. **Neuron** 1998 Dec; 21(6):1443-51. Comment in: Neuron 1998 Dec;21(6):1226-7.

Activation of AMPA, kainate, and metabotropic receptors at hippocampal mossy fiber synapses: role of glutamate diffusion. Min MY, et al. **Neuron** 1998 Sep;21(3):561-70

Role of the carboxy-terminal region of the GluR epsilon2 subunit in synaptic localization of the NMDA receptor channel. Mori H, et al. **Neuron** 1998 Sep;21(3):571-80

Activity-dependent modulation of synaptic AMPA receptor accumulation [see comments] O'Brien RJ, et al. **Neuron** 1998 Nov;21(5):1067-78. Comment in: Neuron 1998 Nov;21(5):933-5.

Clustering of AMPA receptors by the synaptic PDZ domain-containing protein PICK1. Xia J, et al. **Neuron** 1999 Jan;22(1):179-87

An investigation of the expression mechanism of LTP of AMPA receptor-mediated synaptic transmission at hippocampal CA1 synapses using failures analysis and dendritic recordings. Isaac JT, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1399-410

Functional properties of ionotropic glutamate receptor channels in rat sacral dorsal commissural neurons. Xu TL, et al. **Neuropharmacology** 1999 May;38(5):659-70

Kainate-induced retina amacrine-like cell damage is mediated by AMPA receptors. Ferreira IL, et al. **Neuroreport** 1998 Oct 26;9(15):3471-5

Hippocampal theta rhythm in anesthetized rats: role of AMPA glutamate receptors. Puma C, et al. **Neuroreport** 1999 Aug 2;10(11):2297-300

A role for AMPA/kainate receptors in conditioned place preference induced by diazepam in the rat. Gray A, et al. **Neurosci Lett** 1999 Jun 25;268(3):127-30

Stereoselective neuroprotection by novel 2,3-benzodiazepine non-competitive AMPA antagonist against non-NMDA receptor-mediated excitotoxicity in primary rat hippocampal cultures. May PC, et al. **Neurosci Lett** 1999 Mar 12;262(3):219-21

Desensitization of AMPA receptors on horizontal cells isolated from crucian carp retina. Lu T, et al. **Neurosci Res** 1998 Jun;31(2):123-35

Allosteric regulation of alpha-amino-3-hydroxy-5-methyl-4-isoxazole-propionate receptors by thiocyanate and cyclothiazide at a common modulatory site distinct from that of 2,3-benzodiazepines. Donevan SD, et al. **Neuroscience** 1998 Dec;87(3):615-29

Excitatory amino acid responses in relay neurons of the rat lateral geniculate nucleus. Harata N, et al. **Neuroscience** 1999 Mar;89(1):109-25

Ca2+/calmodulin-kinase II enhances channel conductance of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate type glutamate receptors. Derkach V, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3269-74

The AMPA receptor subunit GluR-B in its Q/R site-unedited form is not essential for brain development and function. Kask K, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13777-82

Preferential Zn2+ influx through Ca2+-permeable AMPA/kainate channels triggers prolonged mitochondrial superoxide production. Sensi SL, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2414-9

AMPA receptors: molecular and functional diversity. Borges K, et al. **Prog Brain Res** 1998;116:153-70 (98 ref.)

New clues to how neurons strengthen their connections [news; comment] Barinaga M. **Science** 1999 Jun 11; 284(5421):1755-7. Comment on: Science 1999 Jun 11;284(5421):1805-11. Comment on: Science 1999 Jun 11;284(5421):1811-6.

Importance of AMPA receptors for hippocampal synaptic plasticity but not for spatial learning [see comments] Zamanillo D, et al. **Science** 1999 Jun 11;284(5421):1805-11. Comment in: Science 1999 Jun 11;284(5421):1755-7.

Expression of cyclooxygenase-2 mRNA after global ischemia is regulated by AMPA receptors and glucocorticoids. Koistinaho J, et al. **Stroke** 1999 Sep;30(9):1900-5; discussion 1905-6

[Analysis of molecular basis of neuronal properties using the patch-clamp RT-PCR method] Tsuzuki K. **Nippon Rinsho** 1998 Jul;56(7):1681-7 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Ca2+ permeation through the ionotropic glutamate receptor] Ozawa S. **Tanpakushitsu Kakusan Koso** 1998 Sep; 43(12 Suppl):1589-95 (29 ref.) **(Jpn)**

[Reciprocal suppression of the AMPA and NMDA components of the excitatory postsynaptic potentials in the CA1 area of the rat hippocampus in vitro] Bazhenov AV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep-Oct; 48(5):885-93 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Afferents from rat temporal cortex synapse on lateral amygdala neurons that express NMDA and AMPA receptors. Farb CR, et al. **Synapse** 1999 Sep 1;33(3):218-29

RECEPTORS, ANDROGEN

AGONISTS

Nonsteroidal androgen receptor agonists based on 4-(trifluoromethyl)-2H-pyrano[3,2-g]quinolin-2-one. Edwards JP, et al. **Bioorg Med Chem Lett** 1999 Apr 5; 9(7):1003-8

4-Alkyl- and 3,4-dialkyl-1,2,3,4-tetrahydro-8-pyridono[5,6-g]quinolines: potent, nonsteroidal androgen receptor agonists. Higuchi RI, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1335-40

Switching androgen receptor antagonists to agonists by modifying C-ring substituents on piperidino[3,2-g]quinolinone. Zhi L, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1009-12

Discovery of a potent, orally active, nonsteroidal androgen receptor agonist: 4-ethyl-1,2,3,4-tetrahydro-6-(trifluoromethyl)-8-pyridono[5,6-g]- quinoline (LG121071). Hamann LG, et al. **J Med Chem** 1999 Jan 28;42(2):210-2

Distinguishing androgen receptor agonists and antagonists: distinct mechanisms of activation by medroxyprogesterone acetate and dihydrotestosterone. Kemppainen JA, et al. **Mol Endocrinol** 1999 Mar;13(3):440-54

ANALYSIS

Quantitative immunohistochemistry of androgen receptors in a microsphere model system and in prostate tissue sections. Houtsmuller AB, et al. **Anal Quant Cytol Histol** 1998 Oct;20(5):365-72

Androgen receptor expression in male breast carcinoma: lack of clinicopathological association. Pich A, et al. **Br J Cancer** 1999 Feb;79(5-6):959-64

Androgen receptor immunoreactivity in specific neural regions in normal and hypogonadal male mice: effect of androgens. Apostolinas S, et al. **Brain Res** 1999 Jan 30; 817(1-2):19-24

Androgen and glucocorticoid receptors in the stroma and epithelium of prostatic hyperplasia and carcinoma. Mohler JL, et al. **Clin Cancer Res** 1996 May;2(5):889-95

Localization of type 5 17beta-hydroxysteroid dehydrogenase, 3beta-hydroxysteroid dehydrogenase, and androgen receptor in the human prostate by in situ hybridization and immunocytochemistry. El-Alfy M, et al. **Endocrinology** 1999 Mar;140(3):1481-91

An analysis of microvessel density, androgen receptor, p53 and HER-2/neu expression and Gleason score in prostate cancer . preliminary results and therapeutic implications. Mydlo JH, et al. **Eur Urol** 1998;34(5):426-32

Tissue prostate-specific antigen and androgen receptor immunoreactivity in prostate cancer biopsies before, during and after neo-adjuvant androgen deprivation followed by radiotherapy. Ogreid P, et al. **Eur Urol** 1999 Aug; 36(2):116-22

Immunohistochemical evaluation of androgen receptors in genital and extragenital lichen sclerosus: evidence for loss of androgen receptors in lesional epidermis. Clifton MM, et al. **J Am Acad Dermatol** 1999 Jul;41(1):43-6

Androgen receptor distribution in adult human testis. Suárez-Quian CA, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):350-8

Variability of immunohistochemical reactivity on stored paraffin slides [letter; comment] Olapade-Olaopa EO, et al. **J Clin Pathol** 1998 Dec;51(12):943. Comment on: J Clin Pathol 1998 May;51(5):370-4.

Seasonal changes in androgen receptor immunoreactivity in the song nucleus HVc of a wild bird. Soma KK, et al. **J Comp Neurol** 1999 Jun 28;409(2):224-36

The sexually dimorphic expression of androgen receptors in the song nucleus hyperstriatalis ventrale pars caudale of the zebra finch develops independently of gonadal steroids. Gahr M, et al. **J Neurosci** 1999 Apr 1;19(7):2628-36

Evidence of androgen receptor expression in lichen sclerosus: an immunohistochemical study. Kohlberger PD, et al. **J Soc Gynecol Investig** 1998 Nov-Dec;5(6):331-3

Androgen-sensitive preganglionic neurons innervate the male rat pelvic ganglion. Watkins TW, et al. **Neuroscience** 1999; 93(3):1147-57

Identification of an androgen receptor within the uterus of the domestic fowl. Kawashima M, et al. **Poult Sci** 1999 Jan;78(1):107-13

Immunolocalization of androgen receptor in canine prostatic hyperplasia--effect of antiandrogen. Murakoshi M, et al. **Tokai J Exp Clin Med** 1998 Nov;23(5):209-12

[Transcriptional regulation and subcellular localization of mutant androgen receptor in spinal and bulbar muscular atrophy] Miwa S, et al. **Nippon Rinsho** 1999 Apr; 57(4):869-73 (20 ref.) (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Distinguishing androgen receptor agonists and antagonists: distinct mechanisms of activation by medroxyprogesterone acetate and dihydrotestosterone. Kemppainen JA, et al. **Mol Endocrinol** 1999 Mar;13(3):440-54

Antiandrogens as environmental endocrine disruptors. Kelce WR, et al. **Reprod Fertil Dev** 1998;10(1):105-11 (65 ref.)

BIOSYNTHESIS

The association of Becker nevus with hypersensitivity to androgens [letter] Nirdé P, et al. **Arch Dermatol** 1999 Feb; 135(2):212-4

Androgen receptor messenger ribonucleic acid in brains and pituitaries of male rhesus monkeys: studies on distribution, hormonal control, and relationship to luteinizing hormone secretion. Abdelgadir SE, et al. **Biol Reprod** 1999 May; 60(5):1251-6

Developmental expression of the androgen receptor during virilization of the urogenital system of a marsupial. Butler CM, et al. **Biol Reprod** 1998 Oct;59(4):725-32

Calcium/phospholipid-dependent protein kinases in rat Sertoli cells: regulation of androgen receptor messenger ribonucleic acid. Ree AH, et al. **Biol Reprod** 1999 May; 60(5):1257-62

Expression of the vitamin D receptor, of estrogen and thyroid hormone receptor alpha- and beta-isoforms, and of the androgen receptor in cultures of native mouse bone marrow and of stromal/osteoblastic cells. Gruber R, et al. **Bone** 1999 May;24(5):465-73

Methylation of the androgen receptor promoter CpG island is associated with loss of androgen receptor expression in prostate cancer cells. Jarrard DF, et al. **Cancer Res** 1998 Dec 1;58(23):5310-4

Androgen receptor expression in the testes and epididymides of prenatal and postnatal Sprague-Dawley rats. You L, et al. **Endocrine** 1998 Dec;9(3):253-61

Ontogeny and autoregulation of androgen receptor mRNA expression in the nervous system. Young WJ, et al. **Endocrine** 1998 Aug;9(1):79-88

Androgen receptor expression in prostatic intraepithelial neoplasia and cancer. Sweat SD, et al. **J Urol** 1999 Apr; 161(4):1229-32

Androgen receptor expression in prostate cancer lymph node metastases is predictive of outcome after surgery. Sweat SD, et al. **J Urol** 1999 Apr;161(4):1233-7

Expression of androgen receptors in nasopharyngeal angiofibroma: an immunohistochemical study of 24 cases. Hwang HC, et al. **Mod Pathol** 1998 Nov;11(11):1122-6

Expression of androgen receptor, gross cystic disease fluid protein, and CD44 in salivary duct carcinoma. Kapadia SB, et al. **Mod Pathol** 1998 Nov;11(11):1033-8

Expression of pepsinogen II with androgen and estrogen receptors in human prostate carcinoma. Konishi N, et al. **Pathol Int** 1999 Mar;49(3):203-7

CHEMISTRY

Redox-dependent DNA binding of the purified androgen receptor: evidence for disulfide-linked androgen receptor dimers. Liao M, et al. **Biochemistry** 1999 Jul 27; 38(30):9718-27

Transcriptional interferences between normal or mutant androgen receptors and the activator protein 1--dissection of the androgen receptor functional domains. Lobaccaro JM, et al. **Endocrinology** 1999 Jan;140(1):350-7

An androgen receptor mutation in the direct vicinity of the proposed C-terminal alpha-helix of the ligand binding domain containing the AF-2 transcriptional activating function core is associated with complete androgen insensitivity. Peters I, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1-2):47-53

DRUG EFFECTS

Androgen antagonistic effect of estramustine phosphate (EMP) metabolites on wild-type and mutated androgen receptor. Wang LG, et al. **Biochem Pharmacol** 1998 May 1;55(9):1427-33

Switch from antagonist to agonist of the androgen receptor bicalutamide is associated with prostate tumour progression in a new model system. Culig Z, et al. **Br J Cancer** 1999 Sep;81(2):242-51

Increased transcriptional activity of prostate-specific antigen in the presence of TNP-470, an angiogenesis inhibitor. Horti J, et al. **Br J Cancer** 1999 Mar;79(9-10):1588-93

Interleukin-6 regulates prostate-specific protein expression in prostate carcinoma cells by activation of the androgen

receptor. Hobisch A, et al. **Cancer Res** 1998 Oct 15; 58(20):4640–5

Homologous androgen receptor up–regulation in osteoblastic cells may be associated with enhanced functional androgen responsiveness. Wiren K, et al. **Endocrinology** 1999 Jul; 140(7):3114–24

Mechanism of androgen receptor activation and possible implications for chemoprevention trials. Klocker H, et al. **Eur Urol** 1999;35(5–6):413–9 (28 ref.)

Inhibition of estrogen–induced sexual receptivity by androgens: role of the androgen receptor. Blasberg ME, et al. **Horm Behav** 1998 Dec;34(3):283–93

The fungicide procymidone alters sexual differentiation in the male rat by acting as an androgen–receptor antagonist in vivo and in vitro. Ostby J, et al. **Toxicol Ind Health** 1999 Jan–Mar;15(1–2):80–93

GENETICS

Clonality analysis using X–chromosome inactivation at the human androgen receptor gene (Humara). Evaluation of large cohorts of patients with chronic myeloproliferative diseases, secondary neutrophilia, and reactive thrombocytosis. Mitterbauer G, et al. **Am J Clin Pathol** 1999 Jul;112(1):93–100

Using fluorescence–based human androgen receptor gene assay to analyze the clonality of microdissected dendritic cell tumors. Wu CD, et al. **Am J Clin Pathol** 1999 Jan; 111(1):105–10

Heterogeneity of clonal development in chronic myeloproliferative disorders. Ferraris AM, et al. **Am J Hematol** 1999 Feb;60(2):158–60

Heterogeneous X inactivation in trophoblastic cells of human full–term female placentas. Looijenga LH, et al. **Am J Hum Genet** 1999 May;64(5):1445–52

Modification of BRCA1–associated breast cancer risk by the polymorphic androgen–receptor CAG repeat. Rebbeck TR, et al. **Am J Hum Genet** 1999 May;64(5):1371–7

A new point mutation of the androgen receptor gene in a patient with partial androgen resistance and severe oligozoospermia. Knoke I, et al. **Andrologia** 1999 Jul; 31(4):199–201

Polymorphic CAG repeats of the androgen receptor gene and rheumatoid arthritis. Kawasaki T, et al. **Ann Rheum Dis** 1999 Aug;58(8):500–2

Fish androgen receptor: cDNA cloning, steroid activation of transcription in transfected mammalian cells, and tissue mRNA levels. Todo T, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):378–83

The androgen receptor CAG repeat polymorphism and its relationship to prostate cancer. Kantoff P, et al. **Biochim Biophys Acta** 1998 Nov 26;1378(3):C1–5 (25 ref.)

Sequence and expression of a cDNA encoding the red sea bream androgen receptor [corrected and republished in Biochim Biophys Acta 1999 Jul 8;1450(3):481–5] Touhata K, et al. **Biochim Biophys Acta** 1999 Mar 8;1449(2):199–202

Sequence and expression of a cDNA encoding the red seabream androgen receptor. Touhata K, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):481–5

New nonsteroidal androgen receptor modulators based on 4–(trifluoromethyl)–2(1H)–pyrrolidino[3,2–g] quinolinone. Edwards JP, et al. **Bioorg Med Chem Lett** 1998 Apr 7; 8(7):745–50

X chromosome inactivation patterns in normal females. Racchi O, et al. **Blood Cells Mol Dis** 1998 Dec;24(4):439–47

The androgen receptor gene GGN microsatellite and prostate cancer risk. Platz EA, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May;7(5):379–84

Selection for androgen receptor mutations in prostate cancers treated with androgen antagonist. Taplin ME, et al. **Cancer Res** 1999 Jun 1;59(11):2511–5

Functional characterization of mutant androgen receptors from androgen–independent prostate cancer. Fenton MA, et al. **Clin Cancer Res** 1997 Aug;3(8):1383–8

Androgen receptor variants with short glutamine or glycine repeats may identify unique subpopulations of men with prostate cancer. Hakimi JM, et al. **Clin Cancer Res** 1997 Sep;3(9):1599–608

Mutations in the androgen receptor gene are associated with progression of human prostate cancer to androgen independence. Tilley WD, et al. **Clin Cancer Res** 1996 Feb; 2(2):277–85

No association between the androgen receptor gene CAG repeat and impaired sperm production in Swedish men [letter] Giwercman YL, et al. **Clin Genet** 1998 Nov; 54(5):435–6

Analysis of the transactivation domain of the androgen receptor in patients with male infertility. Wang Q, et al. **Clin Genet** 1998 Sep;54(3):185–92

Parathyroid hormone–related protein signaling is necessary for sexual dimorphism during embryonic mammary development. Dunbar ME, et al. **Development** 1999 Aug; 126(16):3485–93

Transcription activating and repressing functions of the androgen receptor are differentially influenced by mutations in the deoxyribonucleic acid–binding domain. Aarnisalo P, et al. **Endocrinology** 1999 Jul;140(7):3097–105

Transcriptional interferences between normal or mutant androgen receptors and the activator protein 1—dissection of the androgen receptor functional domains. Lobaccaro JM, et al. **Endocrinology** 1999 Jan;140(1):350–7

Estrogen, but not androgens, regulates androgen receptor messenger ribonucleic acid expression in the developing male rat forebrain. McAbee MD, et al. **Endocrinology** 1999 Aug;140(8):3674–81

Regulation of androgen receptor messenger ribonucleic acid expression in the developing rat forebrain. McAbee MD, et al. **Endocrinology** 1999 Apr;140(4):1807–14

Differential posttranscriptional regulation of androgen receptor gene expression by androgen in prostate and breast cancer cells. Yeap BB, et al. **Endocrinology** 1999 Jul; 140(7):3282–91

Induction of androgen receptor by 1alpha,25–dihydroxyvitamin D3 and 9–cis retinoic acid in LNCaP human prostate cancer cells. Zhao XY, et al. **Endocrinology** 1999 Mar;140(3):1205–12

(CAG)nCAA and GGN repeats in the human androgen receptor gene are not associated with prostate cancer in a French–German population. Correa–Cerro L, et al. **Eur J Hum Genet** 1999 Apr;7(3):357–62

Expression of two functionally different androgen receptors in a patient with androgen insensitivity. Holterhus PM, et al. **Eur J Pediatr** 1999 Sep;158(9):702–6

Clinical and molecular aspects of androgen receptor defects. Wieacker PF, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(6):446–53 (52 ref.)

A frame shift mutation in the DNA–binding domain of the androgen receptor gene associated with complete androgen insensitivity, persistent müllerian structures, and germ cell tumors in dysgenetic gonads. Chen CP, et al. **Fertil Steril** 1999 Jul;72(1):170–3

Significance of the CAG repeat length in the androgen receptor gene (AR) for the transactivation function of an M780I mutant AR. Knoke I, et al. **Hum Genet** 1999 Mar; 104(3):257–61

Functional characterisation of mutations in the ligand–binding domain of the androgen receptor gene in patients with androgen insensitivity syndrome. Lundberg Giwercman Y, et al. **Hum Genet** 1998 Oct;103(4):529–31

Update of the androgen receptor gene mutations database. Gottlieb B, et al. **Hum Mutat** 1999;14(2):103–14

A novel point mutation (R840S) in the androgen receptor in a Brazilian family with partial androgen insensitivity syndrome. Melo KF, et al. **Hum Mutat (Online)** 1999 Oct; 14(4):353

Androgen receptor gene mutations in 46,XY females with germ cell tumours. Chen CP, et al. **Hum Reprod** 1999 Mar; 14(3):664–70

Androgen receptor polymorphisms: association with prostate cancer risk, relapse and overall survival. Edwards SM, et al. **Int J Cancer** 1999 Oct 22;84(5):458–65

Clonality analysis of granulocytes and T lymphocytes in healthy females by the PCR–based HUMARA method. Nakahara Y, et al. **Int J Hematol** 1999 Jun;69(4):237–43

Efficacious diagnosis of primary and metastatic human carcinomas with a combination of p53 mutation analysis and clonality analysis of androgen receptor gene. Aotake T, et al. **Int J Oncol** 1998 Oct;13(4):773–9

A case of complete testicular feminization: laparoscopic orchiectomy and analysis of androgen receptor gene mutation. Kanayama H, et al. **Int J Urol** 1999 Jun; 6(6):327–30

Characterization of a TPA–response element in the 5'–flanking region of the androgen receptor gene. Kumar MV, et al. **J Androl** 1998 Sep–Oct;19(5):595–602

Androgen receptor (AR) maps to Xp1.1–q1.1 in the porcine genome. Rohrer GA. **J Anim Sci** 1999 Feb;77(2):499–500

Genetic linkage and physical mapping of the porcine androgen receptor (AR) gene. Seifert JN, et al. **J Anim Sci** 1999 Mar;77(3):785–6

The linkage of Kennedy's neuron disease to ARA24, the first identified androgen receptor polyglutamine region–associated coactivator. Hsiao PW, et al. **J Biol Chem** 1999 Jul 16;274(29):20229–34

Cooperative assembly of androgen receptor into a nucleoprotein complex that regulates the prostate–specific antigen enhancer. Huang W, et al. **J Biol Chem** 1999 Sep 3;274(36):25756–68

cDNA cloning of a novel androgen receptor subtype. Ikeuchi T, et al. **J Biol Chem** 1999 Sep 3;274(36):25205–9

Specific androgen receptor activation by an artificial coactivator. Sui X, et al. **J Biol Chem** 1999 Apr 2; 274(14):9449–54

Two distinct isoforms of cDNA encoding rainbow trout androgen receptors. Takeo J, et al. **J Biol Chem** 1999 Feb 26;274(9):5674–80

Activation of Rb and decline in androgen receptor protein precede retinoic acid–induced apoptosis in androgen–dependent LNCaP cells and their androgen–independent derivative. Gao M, et al. **J Cell Physiol** 1999 Jun;179(3):336–46

Trafficking of androgen receptor mutants fused to green fluorescent protein: a new investigation of partial androgen insensitivity syndrome. Georget V, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3597–603

Discordant measures of androgen–binding kinetics in two mutant androgen receptors causing mild or partial androgen insensitivity, respectively. Shkolny DL, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):805–10

Complete androgen insensitivity caused by a new frameshift deletion of two base pairs in exon 1 of the human androgen receptor gene. Thiele B, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1751–3

Azoospermia associated with a mutation in the ligand–binding domain of an androgen receptor displaying normal ligand binding, but defective trans–activation. Wang Q, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4303–9

A novel mutation in the CAG triplet region of exon 1 of androgen receptor gene causes complete androgen insensitivity syndrome in a large kindred. Zhu YS, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1590–4

Oligospermic infertility associated with an androgen receptor mutation that disrupts interdomain and coactivator (TIF2) interactions. Ghadessy FJ, et al. **J Clin Invest** 1999 Jun; 103(11):1517–25

Distribution of aromatase, estrogen receptor, and androgen receptor mRNA in the forebrain of songbirds and nonsongbirds. Metzdorf R, et al. **J Comp Neurol** 1999 Apr 28;407(1):115–29

Androgen receptor polymorphisms (CAG repeat lengths) in androgenetic alopecia, hirsutism, and acne. Sawaya ME, et al. **J Cutan Med Surg** 1998 Jul;3(1):9–15

Evidence that the CAG repeat in the androgen receptor gene is associated with the age–related decline in serum androgen levels in men. Krithivas K, et al. **J Endocrinol** 1999 Jul;162(1):137–42

Evidence for androgen receptor gene expression and growth inhibitory effect of dihydrotestosterone on human adrenocortical cells. Rossi R, et al. **J Endocrinol** 1998 Dec; 159(3):373–80

STR HUMARA locus gene and genotype frequencies in Han and Bei populations in China. Wu MY, et al. **J Forensic Sci** 1999 Sep;44(5):1039–41

Evidence for a polyclonal etiology of palmar fibromatosis. Chansky HA, et al. **J Hand Surg [Am]** 1999 Mar; 24(2):339–44

Synergistic activation of yeast–expressed rat androgen receptor by modulators of protein kinase–A. Rana S, et al. **J Mol Biol** 1999 Feb 26;286(3):669–81

Trinucleotide repeats in the human androgen receptor: a molecular basis for disease. Choong CS, et al. **J Mol Endocrinol** 1998 Dec;21(3):235–57 (211 ref.)

Evolution of the primate androgen receptor: a structural basis for disease. Choong CS, et al. **J Mol Evol** 1998 Sep; 47(3):334–42

The androgen receptor: genetic considerations in the development and treatment of prostate cancer. Cude KJ, et al. **J Mol Med** 1999 May;77(5):419–26 (81 ref.)

Androgen receptor exon 1 CAG repeat length and breast cancer in women before age forty years. Spurdle AB, et al. **J Natl Cancer Inst** 1999 Jun 2;91(11):961–6

Amplification of the androgen receptor gene is associated with P53 mutation in hormone–refractory recurrent prostate cancer. Koivisto PA, et al. **J Pathol** 1999 Jan; 187(2):237–41

Complete androgen insensitivity caused by a splice donor site mutation in intron 2 of the human androgen receptor gene resulting in an exon 2–lacking transcript with premature stop–codon and reduced expression. Hellwinkel OJ, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1–2):1–9

Molecular defects of the androgen receptor. McPhaul MJ. **J Steroid Biochem Mol Biol** 1999 Apr–Jun;69(1–6):315–22 (42 ref.)

The CAG repeat within the androgen receptor gene and benign prostatic hyperplasia. **J Urol** 1999 Jul;162(1):269–70

CAG repeats in the androgen receptor: a case of spinal and bulbar muscular atrophy associated with prostate cancer. Yasui T, et al. **J Urol** 1999 Aug;162(2):495

Differential induction of the androgen receptor transcriptional activity by selective androgen receptor coactivators. Yeh S, et al. **Keio J Med** 1999 Jun;48(2):87–92 (40 ref.)

Linkage between male infertility and trinucleotide repeat expansion in the androgen–receptor gene [see comments] Dowsing AT, et al. **Lancet** 1999 Aug 21;354(9179):640–3 . Comment in: Lancet 1999 Aug 21;354(9179):611–2.

Clonality analysis of refractory anemia with ring sideroblasts: simultaneous study of clonality and cytochemistry of bone marrow progenitors. Suzuki H, et al. **Leukemia** 1999 Jan; 13(1):130–4

Human acquired naevi are clonal. Robinson WA, et al. **Melanoma Res** 1998 Dec;8(6):499–503

Modulation of androgen receptor (AR)–mediated transcriptional activity by EGF in the developing mouse reproductive tract primary cells. Gupta C. **Mol Cell Endocrinol** 1999 Jun 25;152(1–2):169–78

An androgen receptor mutation in the direct vicinity of the proposed C–terminal alpha–helix of the ligand binding domain containing the AF–2 transcriptional activating function core is associated with complete androgen insensitivity. Peters I, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1–2):47–53

Frame–shift mutation in hormone binding domain of human androgen receptor gene causes complete androgen insensitivity. Chung HW, et al. **Mol Cells** 1998 Dec 31; 8(6):741–5

Functional interactions of the AF–2 activation domain core region of the human androgen receptor with the amino–terminal domain and with the transcriptional coactivator TIF2 (transcriptional intermediary factor2). Berrevoets CA, et al. **Mol Endocrinol** 1998 Aug; 12(8):1172–83

Catalytic cleavage of the androgen receptor messenger RNA and functional inhibition of androgen receptor activity by a hammerhead ribozyme. Chen S, et al. **Mol Endocrinol** 1998 Oct;12(10):1558–66

Negative regulation of the androgen receptor gene promoter by NFI and an adjacently located multiprotein-binding site. Song CS, et al. **Mol Endocrinol** 1999 Sep;13(9):1487–96

Mutations in the promoter region of the androgen receptor gene are not common in males with idiopathic infertility. Ghadessy FJ, et al. **Mol Hum Reprod** 1999 Mar;5(3):287–90

CAG repeat length in the androgen receptor gene of infertile Japanese males with oligozoospermia. Komori S, et al. **Mol Hum Reprod** 1999 Jan;5(1):14–6

Association of the androgen receptor gene (AR) with ADHD and conduct disorder. Comings DE, et al. **Neuroreport** 1999 May 14;10(7):1589–92

Localization and sex steroid regulation of androgen receptor gene expression in rhesus monkey uterus. Adesanya-Famuyiwa OO, et al. **Obstet Gynecol** 1999 Feb; 93(2):265–70

Clonal composition of malignant fibrous histiocytoma: analysis by PCR-based assay of the human androgen receptor gene (HUMARA). Fujita MQ, et al. **Oncology** 1998 Nov-Dec;55(6):600–6

Androgen receptor mutation in Kennedy's disease. Fischbeck KH, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29;354(1386):1075–8 (26 ref.)

Suppression of Delta(5)-androstenediol-induced androgen receptor transactivation by selective steroids in human prostate cancer cells. Chang HC, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11173–7

From HER2/Neu signal cascade to androgen receptor and its coactivators: a novel pathway by induction of androgen target genes through MAP kinase in prostate cancer cells. Yeh S, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5458–63

CAG repeat within the androgen receptor gene and incidence of surgery for benign prostatic hyperplasia in U.S. physicians. Giovannucci E, et al. **Prostate** 1999 May; 39(2):130–4

"Decoy" of androgen-responsive element induces apoptosis in LNCaP cells. Kuratsukuri K, et al. **Prostate** 1999 Oct 1;41(2):121–6

Androgen receptor transactivation domain and control of spermatogenesis. Yong EL, et al. **Rev Reprod** 1998 Sep; 3(3):141–4 (21 ref.)

Point mutations in the steroid-binding domain of the androgen receptor gene of five Japanese patients with androgen insensitivity syndrome. Yaegashi N, et al. **Tohoku J Exp Med** 1999 Mar;187(3):263–72

The CAG repeat within the androgen receptor gene and benign prostatic hyperplasia. Giovannucci E, et al. **Urology** 1999 Jan;53(1):121–5

Androgen receptor gene CAG repeat length varies in a race-specific fashion in men without prostate cancer. Sartor O, et al. **Urology** 1999 Feb;53(2):378–80

[Androgen-independent prostate carcinoma and androgen-receptor: recent progress in molecular genetics] Sultan C, et al. **Bull Cancer** 1999 Jul-Aug;86(7-8):618–21 (Eng. Abstr.) **(Fre)**

[In vitro aggregation and cellular toxicity of mutant androgen receptor protein in spinal and bulbar muscular atrophy] Kobayashi Y, et al. **Nippon Rinsho** 1999 Apr;57(4):874–9 (Eng. Abstr.) **(Jpn)**

[Transcriptional regulation and subcellular localization of mutant androgen receptor in spinal and bulbar muscular atrophy] Miwa S, et al. **Nippon Rinsho** 1999 Apr; 57(4):869–73 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Pathogenesis of androgen insensitivity syndrome] Okabe T, et al. **Nippon Rinsho** 1998 Jul;56(7):1881–6 (4 ref.) (Eng. Abstr.) **(Jpn)**

[Somatic mosaicism of expanded CAG trinucleotide repeat in spinal and bulbar muscular atrophy (SBMA)] Tanaka F, et al. **Nippon Rinsho** 1999 Apr;57(4):862–8 (14 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Application of an androgen receptor assay for the characterisation of the androgenic or antiandrogenic activity of various phenylurea herbicides and their derivatives. Bauer ER, et al. **Analyst** 1998 Dec; 123(12):2485–7

Androgen insensitivity syndrome: an immunohistochemical, ultrastructural, and morphometric study. Regadera J, et al. **Arch Pathol Lab Med** 1999 Mar;123(3):225–34

Physiology and pathophysiology of androgen action. Hiort O, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr; 12(1):115–32 (96 ref.)

Caspase-3 cleaves the expanded androgen receptor protein of spinal and bulbar muscular atrophy in a polyglutamine repeat length-dependent manner. Kobayashi Y, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):145–50

Phosphorylation/dephosphorylation of androgen receptor as a determinant of androgen agonistic or antagonistic activity. Wang LG, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):21–8

Differential DNA binding by the androgen and glucocorticoid receptors involves the second Zn-finger and a C-terminal extension of the DNA-binding domains. Schoenmakers E, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):515–21

Affinity labeling of the androgen receptor with nonsteroidal chemoaffinity ligands. Mukherjee A, et al. **Biochem Pharmacol** 1999 Oct 15;58(8):1259–67

Synergistic effect of estramustine and [3'-keto-Bmtl]-[Val2]-cyclosporine (PSC 833) on the inhibition of androgen receptor phosphorylation in LNCaP cells. Wang LG, et al. **Biochem Pharmacol** 1999 Oct 1; 58(7):1115–21

Redox-dependent DNA binding of the purified androgen receptor: evidence for disulfide-linked androgen receptor dimers. Liao M, et al. **Biochemistry** 1999 Jul 27; 38(30):9718–27

Hydrolysis of androgen receptor by cathepsin D: its biological significance in human prostate cancer. Mordente JA, et al. **Br J Urol** 1998 Sep;82(3):431–5

Mechanistic concepts in androgen-dependence of prostate cancer. Craft N, et al. **Cancer Metastasis Rev** 1998–99; 17(4):421–7 (53 ref.)

Androgen receptor expression in androgen-independent prostate cancer is associated with increased expression of androgen-regulated genes. Gregory CW, et al. **Cancer Res** 1998 Dec 15;58(24):5718–24

D-type cyclins complex with the androgen receptor and inhibit its transcriptional transactivation ability. Knudsen KE, et al. **Cancer Res** 1999 May 15;59(10):2297–301

Malignant transformation of human prostatic epithelium is associated with the loss of androgen receptor immunoreactivity in the surrounding stroma. Olapade-Olaopa EO, et al. **Clin Cancer Res** 1999 Mar; 5(3):569–76

Immunohistochemical identification of androgen receptors in human lacrimal glands. Smith RE, et al. **Curr Eye Res** 1999 Apr;18(4):300–9

Androgen receptor, estrogen receptor alpha, and estrogen receptor beta show distinct patterns of expression in forebrain song control nuclei of European starlings. Bernard DJ, et al. **Endocrinology** 1999 Oct;140(10):4633–43

Characterization of two nuclear androgen receptors in Atlantic croaker: comparison of their biochemical properties and binding specificities. Sperry TS, et al. **Endocrinology** 1999 Apr;140(4):1602–11

Homologous androgen receptor up-regulation in osteoblastic cells may be associated with enhanced functional androgen responsiveness. Wiren K, et al. **Endocrinology** 1999 Jul; 140(7):3114–24

Effects of hindlimb suspension and androgen treatment on testosterone receptors in rat skeletal muscles. Bricout VA, et al. **Eur J Appl Physiol** 1999 Apr;79(5):443–8

Phorbol ester causes ligand-independent activation of the androgen receptor. Darne C, et al. **Eur J Biochem** 1998 Sep 15;256(3):541–9

Could testicular descent in humans be promoted by direct androgen stimulation of the gubernaculum testis? Hosie S, et al. **Eur J Pediatr Surg** 1999 Feb;9(1):37–41

Comparison of chromatin remodeling and transcriptional activation of the mouse mammary tumor virus promoter by the androgen and glucocorticoid receptor. List HJ, et al. **Exp Cell Res** 1999 Aug 1;250(2):414–22

Functional testosterone receptors in plasma membranes of T cells. Benten WP, et al. **FASEB J** 1999 Jan;13(1):123–33

Androgen receptors and sexual dimorphisms in the larynx of the bullfrog. Boyd SK, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):59–68

Altered bone mineral density in patients with complete androgen insensitivity syndrome. Bertelloni S, et al. **Horm Res** 1998;50(6):309–14

Androgen receptors in bone-forming tissue. Noble B, et al. **Horm Res** 1999;51(1):31–6

Polyglutamine-expanded androgen receptors form aggregates that sequester heat shock proteins, proteasome components and SRC-1, and are suppressed by the HDJ-2 chaperone. Stenoien DL, et al. **Hum Mol Genet** 1999 May; 8(5):731–41

Sex and androgenic steroid receptor expression in hepatic adenomas. Cohen C, et al. **Hum Pathol** 1998 Dec; 29(12):1428–32

Expression of androgen receptors in five mammary myofibroblastomas in both sexes [letter; comment] Silverman JS, et al. **Hum Pathol** 1999 Mar;30(3):359–61. Comment on: Hum Pathol 1998 Apr;29(4):347–51.

Androgen concentrations and their receptors in the periurethral region are higher than those of the subcapsular zone in benign prostatic hyperplasia (BPH). Monti S, et al. **J Androl** 1998 Jul-Aug;19(4):428–33

Tip60 is a nuclear hormone receptor coactivator. Brady ME, et al. **J Biol Chem** 1999 Jun 18;274(25):17599–604

CREB binding protein is a coactivator for the androgen receptor and mediates cross-talk with AP-1. Frønsdal K, et al. **J Biol Chem** 1998 Nov 27;273(48):31853–9

Cloning and characterization of androgen receptor coactivator, ARA55, in human prostate. Fujimoto N, et al. **J Biol Chem** 1999 Mar 19;274(12):8316–21

Identification of ARA70 as a ligand-enhanced coactivator for the peroxisome proliferator-activated receptor gamma. Heinlein CA, et al. **J Biol Chem** 1999 Jun 4; 274(23):16147–52

Isolation and characterization of ARA160 as the first androgen receptor N-terminal-associated coactivator in human prostate cells. Hsiao PW, et al. **J Biol Chem** 1999 Aug 6;274(32):22373–9

Cloning and characterization of human prostate coactivator ARA54, a novel protein that associates with the androgen receptor. Kang HY, et al. **J Biol Chem** 1999 Mar 26; 274(13):8570–6

Differential regulation of androgen and glucocorticoid receptors by retinoblastoma protein. Lu J, et al. **J Biol Chem** 1998 Nov 20;273(47):31528–33

Ubc9 interacts with the androgen receptor and activates receptor-dependent transcription. Poukka H, et al. **J Biol Chem** 1999 Jul 2;274(27):19441–6

Androgen-independent induction of prostate-specific antigen gene expression via cross-talk between the androgen receptor and protein kinase A signal transduction pathways. Sadar MD. **J Biol Chem** 1999 Mar 19; 274(12):7777–83

Azoospermia associated with a mutation in the ligand-binding domain of an androgen receptor displaying normal ligand binding, but defective trans-activation. Wang Q, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4303–9

Correlation between androgen receptor expression and FGF8 mRNA levels in patients with prostate cancer and benign prostatic hypertrophy. Wang Q, et al. **J Clin Pathol** 1999 Jan;52(1):29–34

Colocalization of androgen receptors and mating-induced FOS immunoreactivity in neurons that project to the central tegmental field in male rats. Gréco B, et al. **J Comp Neurol** 1999 May 31;408(2):220–36

7alpha-Iodo and 7alpha-fluoro steroids as androgen receptor-mediated imaging agents. Labaree DC, et al. **J Med Chem** 1999 Jun 3;42(11):2021–34

Selective activation of the probasin androgen-responsive region by steroid hormones. Kasper S, et al. **J Mol Endocrinol** 1999 Jun;22(3):313–25

Evolution of the primate androgen receptor: a structural basis for disease. Choong CS, et al. **J Mol Evol** 1998 Sep; 47(3):334–42

Immunoreactivity for intracellular androgen receptors in identified subpopulations of neurons, astrocytes and oligodendrocytes in primate prefrontal cortex. Finley SK, et al. **J Neurobiol** 1999 Sep 15;40(4):446–57

Androgen receptor immunoreactivity in the male and female Syrian hamster brain. Wood RI, et al. **J Neurobiol** 1999 Jun 5;39(3):359–70

Kennedy's disease: caspase cleavage of the androgen receptor is a crucial event in cytotoxicity. Ellerby LM, et al. **J Neurochem** 1999 Jan;72(1):185–95

Expression of androgen receptor and growth factors in premalignant lesions of the prostate. Harper ME, et al. **J Pathol** 1998 Oct;186(2):169–77

Mechanisms of androgen receptor activation and function. Brinkmann AO, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):307–13 (32 ref.)

Proliferative activity and steroid hormone receptor status in male breast carcinoma. Muñoz de Toro MM, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(4):333–9

Activation of androgen receptor function by a novel nuclear protein kinase. Moilanen AM, et al. **Mol Biol Cell** 1998 Sep;9(9):2527–43

Mitogen-activated protein kinase kinase kinase 1 activates androgen receptor-dependent transcription and apoptosis in prostate cancer. Abreu-Martin MT, et al. **Mol Cell Biol** 1999 Jul;19(7):5143–54

The androgen receptor amino-terminal domain plays a key role in p160 coactivator-stimulated gene transcription. Alen P, et al. **Mol Cell Biol** 1999 Sep;19(9):6085–97

Partial androgen insensitivity and correlations with the predicted three dimensional structure of the androgen receptor ligand-binding domain. Yong EL, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):41–50 (29 ref.)

Functional interactions of the AF-2 activation domain core region of the human androgen receptor with the amino-terminal domain and with the transcriptional coactivator TIF2 (transcriptional intermediary factor2). Berrevoets CA, et al. **Mol Endocrinol** 1998 Aug; 12(8):1172–83

Catalytic cleavage of the androgen receptor messenger RNA and functional inhibition of androgen receptor activity by a hammerhead ribozyme. Chen S, et al. **Mol Endocrinol** 1998 Oct;12(10):1558–66

Androgen specificity of a response unit upstream of the human secretory component gene is mediated by differential receptor binding to an essential androgen response element. Verrijdt G, et al. **Mol Endocrinol** 1999 Sep;13(9):1558–70

A mechanism for hormone-independent prostate cancer through modulation of androgen receptor signaling by the HER-2/neu tyrosine kinase [see comments] Craft N, et al. **Nat Med** 1999 Mar;5(3):280–5. Comment in: Nat Med 1999 Mar;5(3):264–5.

New pieces to the prostate cancer puzzle [news; comment] Visakorpi T. **Nat Med** 1999 Mar;5(3):264–5. Comment on: Nat Med 1999 Mar;5(3):275–9. Comment on: Nat Med 1999 Mar;5(3):280–5.

Androgen receptor immunoreactivity is present in primary sensory neurons of male rats. Keast JR, et al. **Neuroreport** 1998 Dec 21;9(18):4137–40

Localization and sex steroid regulation of androgen receptor gene expression in rhesus monkey uterus. Adesanya-Famuyiwa OO, et al. **Obstet Gynecol** 1999 Feb; 93(2):265–70

The role of the androgen receptor in the development and progression of prostate cancer. Jenster G. **Semin Oncol** 1999 Aug;26(4):407–21 (173 ref.)

Regulation of androgen action. Roy AK, et al. **Vitam Horm** 1999;55:309–52 (224 ref.)

[The effect of exercise on the androgen receptor binding capacity and the level of testosterone in the skeletal muscle] Lu Y, et al.

Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih 1997 Aug; 13(3):198–201 (Eng. Abstr.) **(Chi)**

[In vitro aggregation and cellular toxicity of mutant androgen receptor protein in spinal and bulbar muscular atrophy] Kobayashi Y, et al. **Nippon Rinsho** 1999 Apr;57(4):874–9 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Fish androgen receptor: cDNA cloning, steroid activation of transcription in transfected mammalian cells, and tissue mRNA levels. Todo T, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):378–83

Evolution of the androgen receptor: structure–function implications. Thornton JW, et al. **Bioessays** 1998 Oct; 20(10):860–9

Tumor susceptibility gene 101 protein represses androgen receptor transactivation and interacts with p300. Sun Z, et al. **Cancer** 1999 Aug 15;86(4):689–96

Promotion of estrogen-induced mammary gland carcinogenesis by androgen in the male Noble rat: probable mediation by steroid receptors. Liao DZ, et al. **Carcinogenesis** 1998 Dec;19(12):2173–80

Evaluation of RU58841 as an anti-androgen in prostate PC3 cells and a topical anti-alopecia agent in the bald scalp of stumptailed macaques. Pan HJ, et al. **Endocrine** 1998 Aug;9(1):39–43

c-Fos dimerization with c-Jun represses c-Jun enhancement of androgen receptor transactivation. Tillman K, et al. **Endocrine** 1998 Oct;9(2):193–200

Transcription activating and repressing functions of the androgen receptor are differentially influenced by mutations in the deoxyribonucleic acid-binding domain. Aarnisalo P, et al. **Endocrinology** 1999 Jul;140(7):3097–105

Androgen receptor up-regulates insulin-like growth factor binding protein-5 (IGFBP-5) expression in a human prostate cancer xenograft. Gregory CW, et al. **Endocrinology** 1999 May;140(5):2372–81

Identification of the deoxyribonucleic acid-binding site of a regulatory protein involved in prostate-specific and androgen receptor-dependent gene expression. Patrikainen L, et al. **Endocrinology** 1999 May;140(5):2063–70

Androgen receptors in two androgen-mediated, sexually dimorphic characters of frogs. Emerson SB, et al. **Gen Comp Endocrinol** 1999 May;114(2):173–80

Behavioral actions of androgens and androgen receptor expression in the electrocommunication system of an electric fish, Eigenmannia virescens. Dunlap KD, et al. **Horm Behav** 1998 Aug;34(1):30–8

A testis-specific androgen receptor coregulator that belongs to a novel family of nuclear proteins. Moilanen AM, et al. **J Biol Chem** 1999 Feb 5;274(6):3700–4

Androgen receptor-mediated hypersensitivity to androgens in women with nonhyperandrogenic hirsutism: skewing of X-chromosome inactivation. Vottero A, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1091–5

Androgen receptor transactivation domain and control of spermatogenesis. Yong EL, et al. **Rev Reprod** 1998 Sep; 3(3):141–4 (21 ref.)

Peripubertal exposure to the antiandrogenic fungicide, vinclozolin, delays puberty, inhibits the development of androgen-dependent tissues, and alters androgen receptor function in the male rat. Monosson E, et al. **Toxicol Ind Health** 1999 Jan–Mar;15(1–2):65–79

RECEPTORS, ANF see **RECEPTORS, ATRIAL NATRIURETIC FACTOR**

RECEPTORS, ANGIOTENSIN

Angiotensin II receptors–antagonists, molecular biology, and signal transduction. Jagadeesh G. **Indian J Exp Biol** 1998 Dec;36(12):1171–94 (223 ref.)

Function and Clinical Perspectives of Angiotensin II Subtype 1 (AT1) Receptors. Workshop proceedings. Budapest, Hungary, May 6–9, 1998. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S1–254

Identification of a novel dual angiotensin II/vasopressin receptor. Ruiz-Opazo N. **Nephrologie** 1998;19(7):417–20 (24 ref.)

AGONISTS

Mechanism of constitutive activation of the AT1 receptor: influence of the size of the agonist switch binding residue Asn(111). Feng YH, et al. **Biochemistry** 1998 Nov 10; 37(45):15791–8

Role of aromaticity of agonist switches of angiotensin II in the activation of the AT1 receptor. Miura S, et al. **J Biol Chem** 1999 Mar 12;274(11):7103–10

Patients with preeclampsia develop agonistic autoantibodies against the angiotensin AT1 receptor. Wallukat G, et al. **J Clin Invest** 1999 Apr;103(7):945–52

Erythropoietin upregulates angiotensin receptors in cultured rat vascular smooth muscle cells. Barrett JD, et al. **J Hypertens** 1998 Dec;16(12 Pt 1):1749–57

Agonist-induced phosphorylation of the angiotensin AT1a receptor is localized to a serine/threonine-rich region of its cytoplasmic tail. Smith RD, et al. **Mol Pharmacol** 1998 Dec;54(6):935–41

ANALYSIS

Localization of the ANG II type 2 receptor in the microcirculation of skeletal muscle. Nora EH, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1395–403

Immunohistochemical localization of the angiotensin II type 1 receptor in human hypothalamus and brainstem. Benarroch EE, et al. **Brain Res** 1998 Nov 23;812(1–2):292–6

Angiotensin II receptor binding sites in the ventral portion of the bed nucleus of the stria terminalis are reduced by interruption of the medial forebrain bundle. Grove KL, et al. **Brain Res** 1998 Oct 26;809(1):5–11

Angiotensin II type 1 receptor expression in two cases of juxtaglomerular cell tumor: correlation to negative feedback of renin secretion by angiotensin II. Tanabe A, et al. **Horm Metab Res** 1999 Jul;31(7):429–34

Human spiral artery renin–angiotensin system. Morgan T, et al. **Hypertension** 1998 Oct;32(4):683–7

Localization of angiotensin AT1 and AT2 receptors. Allen AM, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S23–9 (80 ref.)

Concentrations and actions of intraluminal angiotensin II. Navar LG, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S189–95 (55 ref.)

Angiotensin II receptors within the nucleus of the solitary tract mediate the developmental attenuation of the baroreceptor vagal reflex in pre-weaned rats. Kasparov S, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2–3):160–8

Visualization of specific angiotensin II binding sites in the rat limbic system. von Bohlen und Halbach O, et al. **Neuropeptides** 1998 Jun;32(3):241–5

[Kidney] Imanishi K, et al. **Nippon Rinsho** 1999 May; 57(5):1036–41 (27 ref.) (Eng. Abstr.) **(Jpn)**

[Distribution and function of angiotensin receptor subtypes in cardiovascular system] Nakamura Y, et al. **Nippon Rinsho** 1999 May;57(5):1032–5 (19 ref.) (Eng. Abstr.) **(Jpn)**

[Angiotensin receptor in the lung] Noda K. **Nippon Rinsho** 1999 May;57(5):1049–53 (22 ref.) (Eng. Abstr.) **(Jpn)**

[Angiotensin II receptor subtype in human adrenal glands] Tanabe A, et al. **Nippon Rinsho** 1999 May;57(5):1042–8 (21 ref.) (Eng. Abstr.) **(Jpn)**

[Distribution and function of angiotensin II receptor subtypes--central nervous system] Tsuchihashi T, et al. **Nippon Rinsho** 1999 May;57(5):1028–31 (8 ref.) (Eng. Abstr.) **(Jpn)**

[Expression of angiotensin type-2 receptors in rat brain during the cell injury] Shibata K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:53P–57P (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Effect of angiotensin II and telmisartan, an angiotensin1 receptor antagonist, on rat gastric mucosal blood flow. Heinemann A, et al. **Aliment Pharmacol Ther** 1999 Mar; 13(3):347–55

Angioedema due to losartan. Rupprecht R, et al. **Allergy** 1999 Jan;54(1):81–2

Angiotensin II receptor antagonists in the treatment of hypertension. Kaplan NM. **Am Fam Physician** 1999 Sep 15;60(4):1185–90 (16 ref.)

Angiotensin-II receptor antagonists: their place in therapy. Kirk JK. **Am Fam Physician** 1999 Jun;59(11):3140–8 (42 ref.)

Efficacy and tolerability of tasosartan, a novel angiotensin II receptor blocker: results from a 10-week, double-blind, placebo-controlled, dose-titration study. Tasosartan Investigators Group. Neutel JM, et al. **Am Heart J** 1999 Jan;137(1):118–25

Effect of treatment on survival in an animal model of chronic heart failure. Bastien N, et al. **Am J Cardiol** 1998 Nov 19; 82(10A):50S–52S (11 ref.)

How do angiotensin II receptor antagonists affect blood pressure? de Leeuw PW. **Am J Cardiol** 1999 Jul 22; 84(2A):5K–6K (30 ref.)

Pharmacoeconomic issues in antihypertensive therapy. Giles TD. **Am J Cardiol** 1999 Jul 22;84(2A):25K–28K (10 ref.)

Modulation of arterial thrombosis by angiotensin-converting enzyme inhibition and angiotensin II type 1-receptor blockade. Mehta JL. **Am J Cardiol** 1998 Nov 19; 82(10A):53S–56S (11 ref.)

Optimal dosing characteristics of the angiotensin II receptor antagonist telmisartan. Meredith PA. **Am J Cardiol** 1999 Jul 22;84(2A):7K–12K (16 ref.)

Safety and efficacy of angiotensin II receptor antagonists. Neutel JM. **Am J Cardiol** 1999 Jul 22;84(2A):13K–17K (13 ref.)

Effects of candesartan cilexetil in patients with severe systemic hypertension. Candesartan Cilexetil Study Investigators. Oparil S, et al. **Am J Cardiol** 1999 Aug 1; 84(3):289–93

Overview of angiotensin II–receptor antagonists. Pitt B, et al. **Am J Cardiol** 1998 Nov 19;82(10A):47S–49S (12 ref.)

Effects of candesartan cilexetil in patients with systemic hypertension. Candesartan Cilexetil Study Investigators. Reif M, et al. **Am J Cardiol** 1998 Oct 15;82(8):961–5

Guidelines for assessing outcomes of antihypertensive treatment. Weber M. **Am J Cardiol** 1999 Jul 22; 84(2A):2K–4K (4 ref.)

Impact of hypertension and antihypertensive treatment on organ damage. Zanchetti A. **Am J Cardiol** 1999 Jul 22; 84(2A):18K–24K (26 ref.)

A comparison of the angiotensin II antagonists valsartan and losartan in the treatment of essential hypertension. Hedner T, et al. **Am J Hypertens** 1999 Apr;12(4 Pt 1):414–7

Comparison of the effects of AT1 receptor blockade and angiotensin converting enzyme inhibition on atherosclerosis. Hope S, et al. **Am J Hypertens** 1999 Jan; 12(1 Pt 1):28–34

Effect of angiotensin II receptor antagonism on vascular hypertrophy and aortic impedance in abdominal aortic-banded rat. Obayashi M, et al. **Am J Hypertens** 1999 Apr;12(4 Pt 1):381–7

Effect of luminal angiotensin II receptor antagonists on proximal tubule transport. Quan A, et al. **Am J Hypertens** 1999 May;12(5):499–503

Angiotensin II subtype-1 receptor antagonists improve hemodynamic and renal changes without affecting glucose metabolisms in genetic rat model of non-insulin-dependent diabetes mellitus. Uehara Y, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):21–7

Antagonism of ANG II type 1 receptors protects the endothelium during the early stages of renal hypertension in rats. Hoshino J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1950–7

Salt-sensitive hypertension in ANP knockout mice is prevented by AT1 receptor antagonist losartan. Melo LG, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R624–30

Effect of AT2 receptor blockade on the pathogenesis of renal fibrosis. Morrissey JJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F39–45

Effects of chronic inhibition of ACE and AT1 receptors on glomerular injury in dahl salt-sensitive rats. Otsuka F, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2): R1797–806

ACE inhibition and ANG II receptor blockade improve glomerular size-selectivity in IgA nephropathy. Remuzzi A, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F457–66

Blockade of AT(1) receptors and Na(+)/H(+) exchanger and LV dysfunction after myocardial infarction in rats. Ruzicka M, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H610–6

Effects of AT1-receptor blockade on progression of left ventricular dysfunction in dogs with heart failure. Tanimura M, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1385–92

Effects of AT1 receptor blockade after myocardial infarct on myocardial fibrosis, stiffness, and contractility. Thai HM, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H873–80

Guinea pig airway hyperresponsiveness induced by blockade of the angiotensin II type 1 receptor. Role for endogenous nitric oxide. Kanazawa H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):165–8

Refractory hypotension after induction of anesthesia in a patient chronically treated with angiotensin receptor antagonists. Brabant SM, et al. **Anesth Analg** 1999 Oct; 89(4):887–8

Treatment of intraoperative refractory hypotension with terlipressin in patients chronically treated with an antagonist of the renin-angiotensin system. Eyraud D, et al. **Anesth Analg** 1999 May;88(5):980–4

ACE inhibitor- versus angiotensin II blocker-induced cough and angioedema. Pylypchuk GB. **Ann Pharmacother** 1998 Oct;32(10):1060–6 (63 ref.)

Angioneurotic edema attributed to the use of losartan. van Rijnsoever EW, et al. **Arch Intern Med** 1998 Oct 12; 158(18):2063–5

Effects of the new angiotensin II type 1 receptor antagonist KRH-594 on several types of experimental hypertension. Inada Y, et al. **Arzneimittelforschung** 1999 Jan;49(1):13–21

Angiotensin receptor antagonists and ACE inhibitors. Howes LG, et al. **Aust Fam Physician** 1998 Oct;27(10):914–7, 919–21 (33 ref.)

Pharmacology of angiotensin receptors and AT1 receptor blockers. Chung O, et al. **Basic Res Cardiol** 1998;93 Suppl 2:15–23 (31 ref.)

Attenuation of myocardial stunning by the AT1 receptor antagonist candesartan. Dörge H, et al. **Basic Res Cardiol** 1999 Jun;94(3):208–14

Role of ACE inhibition or AT1 blockade in the remodeling following myocardial infarction. Holtz J. **Basic Res Cardiol** 1998;93 Suppl 2:92–100 (65 ref.)

AT1 receptor blockade in experimental myocardial ischemia/reperfusion. Jalowy A, et al. **Basic Res Cardiol** 1998;93 Suppl 2:85–91 (58 ref.)

Therapeutic advantages of AT1 blockers in hypertension. Kendall MJ. **Basic Res Cardiol** 1998;93 Suppl 2:47–50 (20 ref.)

The angiotensin AT1 receptor antagonist CV-11974 regulates cerebral blood flow and brain angiotensin AT1 receptor expression. Nishimura Y, et al. **Basic Res Cardiol** 1998;93 Suppl 2:63–8

Clinical efficacy of a new AT1 blocker. Philipp T, et al. **Basic Res Cardiol** 1998;93 Suppl 2:51–3 (20 ref.)

Angiotensin II receptor blockade and renal protection. Sharma AM, et al. **Basic Res Cardiol** 1998;93 Suppl 2:120–4 (51 ref.)

Comparison between angiotensin receptor antagonism and converting enzyme inhibition in heart failure. Differential acute effects according to the renin-angiotensin system activation. Su J, et al. **Basic Res Cardiol** 1999 Apr; 94(2):128–35

Design and synthesis of nonpeptide angiotensin II receptor antagonists featuring acyclic imidazole-mimicking structural units. Angiolini M, et al. **Bioorg Med Chem** 1998 Nov;6(11):2013–27

Antihypertensive treatment with candesartan cilexetil does

not affect glucose homeostasis or serum lipid profile in patients with mild hypertension and type II diabetes. Trenkwalder P, et al. **Blood Press** 1998 May;7(3):170–5

Pharmacokinetics and haemodynamics of candesartan cilexetil in hypertensive patients on regular haemodialysis. Pfister M, et al. **Br J Clin Pharmacol** 1999 Jun;47(6):645–51

Start of therapy with the angiotensin II antagonist losartan after immediate switch from pretreatment with an ACE inhibitor. Scholze J, et al. **Br J Clin Pharmacol** 1998 Aug; 46(2):169–72

Angiotensin II receptor subtype I antagonism and diastolic cardiac filling in man [letter] Shiels P, et al. **Br J Clin Pharmacol** 1999 Mar;47(3):337–8

Endogenous angiotensin II and baroreceptor dysfunction: a comparative study of losartan and enalapril in man. Yee KM, et al. **Br J Clin Pharmacol** 1998 Dec;46(6):583–8

The antihypertensive profile of the angiotensin AT1 receptor antagonist, GR138950, and the influence of potential homeostatic compensatory mechanisms in renal hypertensive rats. Anderson IK, et al. **Br J Pharmacol** 1998 Nov;125(6):1236–46

Action of AT1 receptor antagonists on angiotensin II–induced tone in human isolated subcutaneous resistance arteries. Garcha RS, et al. **Br J Pharmacol** 1999 Aug; 127(8):1876–82

Effects of angiotensin II receptor blockade on proximal fluid uptake in the rat kidney. Smart ML, et al. **Br J Pharmacol** 1999 Feb;126(3):697–700

Distinction between surmountable and insurmountable selective AT1 receptor antagonists by use of CHO–K1 cells expressing human angiotensin II AT1 receptors. Vanderheyden PM, et al. **Br J Pharmacol** 1999 Feb; 126(4):1057–65

Three-month effects of candesartan cilexetil, an angiotensin II type 1 (AT1) receptor antagonist, on left ventricular mass and hemodynamics in patients with essential hypertension. Mitsunami K, et al. **Cardiovasc Drugs Ther** 1998 Oct;12(5):469–74

AT1-receptor antagonists for the treatment of chronic heart failure [editorial] Baan J Jr. **Cardiovasc Res** 1999 Jan; 41(1):14–5

Chronic effects of early started angiotensin converting enzyme inhibition and angiotensin AT1-receptor subtype blockade in rats with myocardial infarction: role of bradykinin. Hu K, et al. **Cardiovasc Res** 1998 Aug; 39(2):401–12

Effects of long-term angiotensin II AT1 receptor blockade on survival, hemodynamics and cardiac remodeling in chronic heart failure in rats. Richer C, et al. **Cardiovasc Res** 1999 Jan;41(1):100–8

Combined effects of angiotensin converting enzyme inhibition and angiotensin II receptor antagonism in conscious pigs with congestive heart failure. Shen YT, et al. **Cardiovasc Res** 1998 Aug;39(2):413–22

The involvement of the renin-angiotensin system in the regulation of cell proliferation in the rat endometrium. Pawlikowski M, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):506–10

Angiotensin II type 2 receptor blockade amplifies the early signals of cardiac growth response to angiotensin II in hypertrophied hearts. Bartunek J, et al. **Circulation** 1999 Jan 5–12;99(1):22–5

Augmented short- and long-term hemodynamic and hormonal effects of an angiotensin receptor blocker added to angiotensin converting enzyme inhibitor therapy in patients with heart failure. Vasodilator Heart Failure Trial (V-HeFT) Study Group. Baruch L, et al. **Circulation** 1999 May 25;99(20):2658–64

Effects of acute angiotensin II type 1 receptor antagonism and angiotensin converting enzyme inhibition on plasma fibrinolytic parameters in patients with heart failure. Goodfield NE, et al. **Circulation** 1999 Jun 15;99(23):2983–5

Influence of the angiotensin II antagonist valsartan on left ventricular hypertrophy in patients with essential hypertension [letter; comment] Gottdiener JS. **Circulation** 1999 Aug 10;100(6):685–6. Comment on: Circulation 1998 Nov 10;98(19):2037–42.

Addition of angiotensin II receptor blockade to maximal angiotensin-converting enzyme inhibition improves exercise capacity in patients with severe congestive heart failure. Hamroff G, et al. **Circulation** 1999 Mar 2; 99(8):990–2

Activation of cardiac aldosterone production in rat myocardial infarction: effect of angiotensin II receptor blockade and role in cardiac fibrosis. Silvestre JS, et al. **Circulation** 1999 May 25;99(20):2694–701

Increased NADH-oxidase-mediated superoxide production in the early stages of atherosclerosis: evidence for involvement of the renin-angiotensin system. Warnholtz A, et al. **Circulation** 1999 Apr 20;99(15):2027–33

Effect of angiotensin convertase inhibitors and AT1 angiotensin receptor antagonists on the development of oxidative stress in the kidney of diabetic rats. Kędziora-Kornatowska K. **Clin Chim Acta** 1999 Sep; 287(1–2):19–27

Improvement in the capillarity of the left ventricular wall of stroke-prone spontaneously hypertensive rats following angiotensin II receptor blockade. Xie Z, et al. **Clin Exp Hypertens** 1999 May;21(4):441–52

Differential kinetics of circulating angiotensin IV and II after treatment with angiotensin II type 1 receptor antagonist and their plasma levels in patients with chronic renal failure. Shibasaki Y, et al. **Clin Nephrol** 1999 Feb; 51(2):83–91

Serial changes in sarcoplasmic reticulum gene expression in volume-overloaded cardiac hypertrophy in the rat: effect of an angiotensin II receptor antagonist. Hashida H, et al. **Clin Sci (Colch)** 1999 Apr;96(4):387–95

An elective-titration study of the comparative effectiveness of two angiotensin II–receptor blockers, irbesartan and losartan [letter; comment] Bunt T. **Clin Ther** 1999 Mar; 21(3):611–2. Comment on: Clin Ther 1998 May–Jun;20(3):398–409.

Dose-responsive antihypertensive efficacy of valsartan, a new angiotensin II–receptor blocker. Pool J, et al. **Clin Ther** 1998 Nov–Dec;20(6):1106–14

Angiotensin II receptor blockers. Thai H, et al. **Coron Artery Dis** 1999 Sep;10(6):377–81 (36 ref.)

Angiotensin II receptor antagonists and treatment of hypertension and renal disease. Perico N, et al. **Curr Opin Nephrol Hypertens** 1998 Sep;7(5):571–8 (62 ref.)

A new class of diacidic nonpeptide angiotensin II receptor antagonists: candesartan cilexetil. Naka T, et al. **Curr Pharm Des** 1999 Jun;5(6):453–72 (38 ref.)

Comparative safety and tolerability of angiotensin II receptor antagonists. Mazzolai L, et al. **Drug Saf** 1999 Jul; 21(1):23–33 (84 ref.)

Telmisartan. McClellan KJ, et al. **Drugs** 1998 Dec; 56(6):1039–44; discussion 1045–6 (22 ref.)

AT1-receptor blockers in hypertension and heart failure: clinical experience and future directions. Willenheimer R, et al. **Eur Heart J** 1999 Jul;20(14):997–1008 (105 ref.)

Pharmacokinetics and pharmacodynamics of candesartan cilexetil in patients with normal to severely impaired renal function. Buter H, et al. **Eur J Clin Pharmacol** 1999 Feb; 54(12):953–8

Acute effects of candesartan cilexetil (the new angiotensin II antagonist) on systemic and renal haemodynamics in hypertensive patients. Fridman K, et al. **Eur J Clin Pharmacol** 1998 Sep;54(7):497–501

Effects of systemic treatment with irbesartan and losartan on central responses to angiotensin II in conscious, normotensive rats. Culman J, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):255–65

Effect of losartan on afferent nerve stimulation. Damase-Michel C, et al. **Eur J Pharmacol** 1998 Aug 21; 355(2–3):125–32

Insurmountable angiotensin AT1 receptor antagonists: the role of tight antagonist binding. Fierens FL, et al. **Eur J Pharmacol** 1999 May 14;372(2):199–206

Tranilast, an anti-allergic drug, possesses antagonistic potency to angiotensin II. Jin D, et al. **Eur J Pharmacol** 1998 Nov 20;361(2–3):199–205

The angiotensin AT1 receptor antagonist, losartan, induces barrel rotation in the rat. Kawachi A, et al. **Eur J Pharmacol** 1998 Dec 18;363(2–3):103–6

Nonpeptide angiotensin II receptor antagonist recognizes inter-species differences in angiotensin AT1 receptors. Kawano K, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):33–9

Possible mechanism for the anemia induced by candesartan cilexetil (TCV-116), an angiotensin II receptor antagonist, in rats. Naeshiro I, et al. **Eur J Pharmacol** 1998 Aug 7; 354(2–3):179–87

Angiotensin II type I receptor antagonist suppresses proteinuria and glomerular lesions in experimental nephritis. Nagamatsu T, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):93–101

Expression, secretion, and inhibition of angiotensin-converting enzyme in cultured human bronchial epithelial cells. Takimoto M, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):169–77

Synthesis of biphenylyltetrazole derivatives of 1-aminopyrroles as angiotensin II antagonists. Attanasi OA, et al. **Farmaco** 1999 Jan–Feb;54(1–2):64–76

Angiotensin II receptor antagonists in the pharmacological therapy of portal hypertension: a caution. Garcia-Tsao G. **Gastroenterology** 1999 Sep;117(3):740–2

Regulation of peripheral vascular tone in patients with heart failure: contribution of angiotensin II. Newby DE, et al. **Heart** 1998 Aug;80(2):134–40

Effect of losartan, an angiotensin II receptor antagonist, on portal pressure in cirrhosis. Schneider AW, et al. **Hepatology** 1999 Feb;29(2):334–9

Effects of losartan and PD123319 on antigensin II–induced proto-oncogene expression and protein synthesis in cultured neonatal rat cardiac myocytes. Ling Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):283–6

Diverse effects of AT1 receptor antagonists on normal blood pressure and regulatory system. Hashimoto Y, et al. **Hypertens Res** 1999 Jul;22(2):121–7

Angiotensin II receptor antagonists: an emerging new class of cardiovascular therapeutics. Timmermans PB. **Hypertens Res** 1999 Jul;22(2):147–53 (26 ref.)

Effects of eprosartan on renal function and cardiac hypertrophy in rats with experimental heart failure. Brodsky S, et al. **Hypertension** 1998 Oct;32(4):746–52

Comparative effect of angiotensin-converting enzyme inhibition and angiotensin II type 1 receptor antagonism on plasma fibrinolytic balance in humans. Brown NJ, et al. **Hypertension** 1999 Aug;34(2):285–90

Proximal tubular angiotensin II levels and renal functional responses to AT1 receptor blockade in nonclipped kidneys of Goldblatt hypertensive rats. Cervenka L, et al. **Hypertension** 1999 Jan;33(1):102–7

Angiotensin II type 1 receptor antagonist downregulates nonmuscle myosin heavy chains in spontaneously hypertensive rat aorta. Fujii K, et al. **Hypertension** 1999 Apr;33(4):975–80

Alpha1-adrenergic plus angiotensin receptor blockade reduces atherosclerosis in apolipoprotein E–deficient mice. Makaritsis KP, et al. **Hypertension** 1998 Dec;32(6):1044–8

Prevention of renal damage by angiotensin II blockade, accompanied by increased renal hepatocyte growth factor in experimental hypertensive rats. Matsumoto K, et al. **Hypertension** 1999 Aug;34(2):279–84

Angiotensin II receptor blockade in normotensive subjects: A direct comparison of three AT1 receptor antagonists. Mazzolai L, et al. **Hypertension** 1999 Mar;33(3):850–5

Mechanistic differences of various AT1-receptor blockers in isolated vessels of different origin. Morsing P, et al. **Hypertension** 1999 Jun;33(6):1406–13

Effects of candesartan and cilazapril on rats with myocardial infarction assessed by echocardiography. Yoshiyama M, et al. **Hypertension** 1999 Apr;33(4):961–8

Valsartan in heart failure patients previously untreated with an ACE inhibitor. Mazayev VP, et al. **Int J Cardiol** 1998 Aug;65(3):239–46

Effect of angiotensin II receptor blockade on bronchial responsiveness in asthmatic subjects. Dicpinigaitis PV, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):521–2

Recent insight into therapy of congestive heart failure: focus on ACE inhibition and angiotensin-II antagonism. Brunner-La Rocca HP, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1163–73 (135 ref.)

Dose-related beneficial long-term hemodynamic and clinical efficacy of irbesartan in heart failure. Havranek EP, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1174–81

Infarct size reduction by AT1-receptor blockade through a signal cascade of AT2-receptor activation, bradykinin and prostaglandins in pigs [published erratum appears in J Am Coll Cardiol 1999 Feb;33(2):591] [see comments] Jalowy A, et al. **J Am Coll Cardiol** 1998 Nov 15; 32(6):1787–96. Comment in: J Am Coll Cardiol 1999 Jul;34(1):310–1.

Myocardial salvage, AT1-receptor blockade, AT2-receptor activation and coronary collaterals [letter; comment] Jugdutt BI, et al. **J Am Coll Cardiol** 1999 Jul;34(1):310–1 . Comment on: J Am Coll Cardiol 1998 Nov 15;32(6):1787–96.

Normalizing the expression of nitric oxide synthase by low-dose AT1 receptor antagonism parallels improved vascular morphology in hypertensive rats. Bennai F, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S104–15

Candesartan normalizes exaggerated tubuloglomerular feedback activity in young spontaneously hypertensive rats. Brännström K, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S213–9

Comparative antihypertensive effects of angiotensin II receptor antagonists. Burnier M, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S278–82 (40 ref.)

Candesartan and progression of preglomerular lesions in N(G)-nitro-L-arginine methyl ester hypertensive rats. Casellas D, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S230–3

Renal responses of the nonclipped kidney of two-kidney/one-clip Goldblatt hypertensive rats to type 1 angiotensin II receptor blockade with candesartan. Cervenka L, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S197–201

Analysis of the effects of candesartan on responses to angiotensin II in the hindquarters vascular bed of the cat. Champion HC, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S101–3

Nitric oxide participates in the renal vasodilatory effect of candesartan in anesthetized rats. Demeilliers B, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S208–12

Historical evolution of angiotensin II receptor blockers: therapeutic advantages. Gavras H. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S255–7

Candesartan cilexetil protects against loss of autoregulatory efficiency in angiotensin II–infused rats. Inscho EW, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S178–83

AT1 receptor blockade in experimental myocardial ischemia/reperfusion. Jalowy A, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S129–36 (66 ref.)

Angiotensin receptor blockers in chronic renal disease: the promise of a bright clinical future. Mackenzie HS, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S283–6 (43 ref.)

Angiotensin-converting enzyme inhibition and AT1 receptor blockade modify the pressure-natriuresis relationship by additive mechanisms in rats with human renin and angiotensinogen genes. Mervaala E, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1669–80

Angiotensin receptor blockers: pharmacology and clinical significance. Mimran A, et al. **J Am Soc Nephrol** 1999 Apr; 10 Suppl 12:S273–7 (48 ref.)

Candesartan: a new-generation angiotensin II AT1 receptor blocker: pharmacology, antihypertensive efficacy, renal function, and renoprotection. Morsing P. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S248–54 (69 ref.)

Intrarenal angiotensin II generation and renal effects of AT1 receptor blockade. Navar LG, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S266–72 (65 ref.)

The antiproteinuric effect of angiotensin antagonism in human IgA nephropathy is potentiated by indomethacin. Perico N, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2308–17

Combined treatment with ibuprofen and the AT1 receptor antagonist candesartan in young spontaneously hypertensive rats. Pollock DM, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S116–9

Effects of candesartan on angiotensin II–induced renal vasoconstriction in rats and mice. Ruan X, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S202–7

Effects of the angiotensin AT1 receptor blocker candesartan on myocardial ischemic/reperfusion injury. Shimizu M, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S137–42

AT1 receptor inhibition blunts angiotensin II–stimulated nitric oxide release in renal arteries. Thorup C, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S220–4

Renin–angiotensin system dependence of renal hemodynamics in mice. Traynor TR, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S184–8

AT1 angiotensin II receptor inhibition in pacing–induced heart failure: effects on left ventricular performance and regional blood flow patterns. Clair MJ, et al. **J Card Fail** 1998 Dec;4(4):311–23

The angiotensin receptor blockers [editorial; comment] Cohn JN. **J Card Fail** 1999 Jun;5(2):77–8. Comment on: J Card Fail 1999 Jun;5(2):146–54. Comment on: J Card Fail 1999 Jun;5(2):155–60.

Angiotensin AT1 receptor inhibition, angiotensin–converting enzyme inhibition, and combination therapy with developing heart failure: cellular mechanisms of action. Spinale FG, et al. **J Card Fail** 1998 Dec;4(4):325–32

Angiotensin type 1 receptor antagonism with irbesartan inhibits ventricular hypertrophy and improves diastolic function in the remodeling post–myocardial infarction ventricle. Ambrose J, et al. **J Cardiovasc Pharmacol** 1999 Mar;33(3):433–9

Inhibition of angiotensin II–induced contraction by losartan in human coronary arteries. Holmgren A, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):662–4

Functional and binding studies of insurmountable antagonism of 606A, a novel AT1–receptor antagonist in rabbit tissues. Kurosawa Y, et al. **J Cardiovasc Pharmacol** 1999 Jul; 34(1):132–8

In vivo pharmacologic profile of SK–1080, an orally active nonpeptide AT1–receptor antagonist. Lee BH, et al. **J Cardiovasc Pharmacol** 1999 Mar;33(3):375–82

Characterization of angiotensin II antagonism displayed by SK–1080, a novel nonpeptide AT1–receptor antagonist. Lee SH, et al. **J Cardiovasc Pharmacol** 1999 Mar; 33(3):367–74

The angiotensin II AT1–receptor antagonist candesartan improves functional recovery and reduces the no–reflow area in reperfused ischemic rat hearts. Shimizu M, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):78–81

Angiotensin II AT1–receptor blockade inhibits monocyte activation and adherence in transgenic (mRen2)27 rats. Strawn WB, et al. **J Cardiovasc Pharmacol** 1999 Mar; 33(3):341–51

Antihypertensive activity and pharmacokinetics of KD3–671, a nonpeptide AT1–receptor antagonist, in renal hypertensive dogs. Takata Y, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):834–44

The role of angiotensin II AT1 receptor in the maintenance of hemodynamics in a canine model of coronary microembolization–induced heart failure. Wang J, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):335–40

Bradykinin–dependent cardioprotective effects of losartan against ischemia and reperfusion in rat hearts. Zhu P, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):785–90

Practical considerations of the pharmacology of angiotensin receptor blockers. McConnaughey MM, et al. **J Clin Pharmacol** 1999 Jun;39(6):547–59 (170 ref.)

Oral bioavailability and disposition characteristics of irbesartan, an angiotensin antagonist, in healthy volunteers. Vachharajani NN, et al. **J Clin Pharmacol** 1998 Aug; 38(8):702–7

2nd International Symposium on Angiotensin II Antagonism. London, United Kingdom, 15–18 February 1999. Abstracts. **J Hum Hypertens** 1999 May;13 Suppl 3:S1–49

Angiotensin II receptor pharmacology and AT1–receptor blockers. Chung O, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S11–20; discussion S33–4 (107 ref.)

Angiotensin receptor antagonism with losartan and the regression of left ventricular hypertrophy [comment] Gibbs CR, et al. **J Hum Hypertens** 1998 Aug;12(8):493–5. Comment on: J Hum Hypertens 1996 Nov;10(11):729–34. Comment on: J Hum Hypertens 1998 Aug;12(8):505–10.

Effect of an angiotensin II receptor antagonist, candesartan, on insulin resistance and pressor mechanisms in essential hypertension. Higashiura K, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S71–4

Pharmacologic properties of candesartan cilexetil—possible mechanisms of long–acting antihypertensive action. Inada Y, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S75–80 (34 ref.)

Effects of candesartan on the proteinuria of chronic glomerulonephritis. Kurokawa K. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S57–60; discussion S61

Effect of an angiotensin II receptor antagonist, candesartan cilexetil, on canine intima hyperplasia after balloon injury. Miyazaki M, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S21–5; discussion S33–4

Clinical efficacy and tolerability of candesartan cilexetil. Candesartan Study Groups in Japan. Ogihara T, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S27–31; discussion S33–4 (42 ref.)

Dose–response efficacy of valsartan, a new angiotensin II receptor blocker. Pool JL, et al. **J Hum Hypertens** 1999 Apr;13(4):275–81

Key features of candesartan cilexetil and a comparison with other angiotensin II receptor antagonists. Sever PS. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S3–10; discussion S33–4

Effects of candesartan cilexetil on oxidative state and renal function in 5/6 nephrectomized rats. Sugimoto K, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S63–70; discussion S81

ACE–I vs angiotensin II receptor antagonists: prevention of renal injury in chronic rat models. Taal MW, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S51–6; discussion S61 (41 ref.)

Non–peptide angiotensin type 1 receptor antagonists in the treatment of hypertension. Birkenhäger WH, et al. **J Hypertens** 1999 Jul;17(7):873–81 (85 ref.)

Efficacy and safety of telmisartan, a selective AT1 receptor antagonist, compared with enalapril in elderly patients with primary hypertension. TEES Study Group. Karlberg BE, et al. **J Hypertens** 1999 Feb;17(2):293–302

Effect of losartan on heart rate and blood pressure variability during tilt test and trinitroglycerine vasodilation. Pancera P, et al. **J Hypertens** 1999 Apr;17(4):513–21

Effects of angiotensin antagonism with tasosartan on regional and systemic haemodynamics in hypertensive patients. Rhéaume C, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2085–9

Hypotensive effect of ZD7155, an angiotensin II receptor antagonist, parallels receptor occupancy in two–kidney, one–clip Goldblatt hypertensive rats. Yoshida K, et al. **J Hypertens** 1998 May;16(5):645–55

Pharmacological mechanism of angiotensin II receptor antagonists: implications for the treatment of elevated systolic blood pressure. Brooks DP, et al. **J Hypertens Suppl** 1999 Jun;17(2):S27–32 (63 ref.)

Management of hypertension: the advent of a new angiotensin II receptor antagonist. Hedner T. **J Hypertens Suppl** 1999 Jun;17(2):S21–5 (28 ref.)

Angiotensin II receptor blockade and end–organ protection: pharmacological rationale and evidence. Unger T, et al. **J Hypertens Suppl** 1998 Sep;16(7):S3–9 (55 ref.)

Angiotensin II receptor blockade limits kidney injury in two–kidney, one–clip Goldblatt hypertensive rats with special reference to phenotypic changes. Kobayashi S, et al. **J Lab Clin Med** 1999 Feb;133(2):134–43

Differential effects of angiotensin II receptor blockade on pressure–induced left ventricular hypertrophy and fibrosis in rats. Baba HA, et al. **J Mol Cell Cardiol** 1999 Feb; 31(2):445–55

The renoprotective effect of antihypertensive drugs. Locatelli F, et al. **J Nephrol** 1998 Nov–Dec;11(6):330–6 (36 ref.)

Transport of [3H]losartan across isolated perfused rabbit proximal tubule. Edwards RM, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):38–42

Effects of BAY 10–6734 (Embusartan), a new angiotensin II type I receptor antagonist, on vascular smooth muscle cell growth. Iouzalen L, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):181–7

Angiotensin II type 1 receptor blockade prevents up–regulation of angiotensin II type 1A receptors in rat injured artery. Tazawa S, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):898–904

Effects of peptide and non–peptide antagonists of angiotensin II receptors on drinking behavior in rats. Alova LG, et al. **J Physiol Paris** 1999 May–Jun;93(3):219–24

Vasodilation mediated by angiotensin II type 2 receptor is impaired in afferent arterioles of young spontaneously hypertensive rats. Endo Y, et al. **J Vasc Res** 1998 Nov–Dec; 35(6):421–7

Inhibitory effects of a subdepressor dose of L–158,809, an angiotensin II type 1 receptor antagonist, on cardiac hypertrophy and nephropathy via the activated human renin–angiotensin system in double transgenic mice with hypertension. Kai T, et al. **Jpn Circ J** 1998 Aug; 62(8):599–603

Angiotensin II type 1–receptor antagonist candesartan cilexitil prevents left ventricular dysfunction in myocardial infarcted rats. Hanatani A, et al. **Jpn J Pharmacol** 1998 Sep;78(1):45–54

Angiotensin II type 1 receptor antagonist, TCV–116, prevents neointima formation in injured arteries in the dog. Miyazaki M, et al. **Jpn J Pharmacol** 1999 Apr;79(4):455–60

Inhibition of the angiotensin II Type 1 receptor by TCV–116: quantitation by in vitro autoradiography. Song K, et al. **Jpn J Pharmacol** 1999 Feb;79(2):131–9

Hypotensive effects of an angiotensin II type 1 receptor antagonist differ between exercised and sedentary rats aged from 4 to 19 weeks. Fujii N, et al. **Jpn J Physiol** 1998 Jun;48(3):215–8

Effect of indomethacin on the renal response to angiotensin II receptor blockade in healthy subjects. Fricker AF, et al. **Kidney Int** 1998 Dec;54(6):2089–97

Effect of candesartan cilexetil (TCV–116) in rats with chronic renal failure. Noda M, et al. **Kidney Int** 1999 Sep; 56(3):898–909

Losartan–sensitive renal damage caused by chronic NOS inhibition does not involve increased renal angiotensin II concentrations. Verhagen AM, et al. **Kidney Int** 1999 Jul; 56(1):222–31

Angiotensin II receptor antagonists in hypertension. Burnier M, et al. **Kidney Int Suppl** 1998 Dec;68:S107–11 (33 ref.)

Discovery of new angiotensin II receptor antagonists. A review of pharmacological studies. Merlos M, et al. **Methods Find Exp Clin Pharmacol** 1998 Nov;20(9):805–15 (90 ref.)

Comparison of the effects of ACE inhibition with those of angiotensin II receptor antagonism on systolic and diastolic myocardial stunning in isolated rabbit heart. Morales C, et al. **Mol Cell Biochem** 1998 Sep;186(1–2):117–21

The systemic and renal response to NO inhibition is not modified by angiotensin–II–receptor blockade in healthy humans. Bech JN, et al. **Nephrol Dial Transplant** 1999 Mar; 14(3):641–7

The effect of angiotensin II receptor antagonist on the exogenous erythropoietin requirement of haemodialysis patients [letter] [see comments] Chew CG, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):2047–9. Comment in: Nephrol Dial Transplant 1999 Aug;14(8):1836–41.

The role of ACE inhibitors and angiotensin II receptor blockers in the response to epoetin [editorial; comment] Macdougall IC. **Nephrol Dial Transplant** 1999 Aug; 14(8):1836–41 (28 ref.). Comment on: Nephrol Dial Transplant 1999 Aug;14(8):1912–6. Comment on: Nephrol Dial Transplant 1999 Aug;14(8):2047–9.

Angiotensin converting enzyme inhibitors and angiotensin receptor (AT1) antagonists: either or both for primary renal disease? [editorial] McLaughlin K, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):25–8 (30 ref.)

Treatment with the angiotensin II antagonist valsartan in patients with chronic renal failure and hypertension. Plum J, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:25–7

Advantages of Ang II receptor blockade over ACE inhibition with respect to suppression of sympathetic activity: heartening news for the kidney? Rump LC. **Nephrol Dial Transplant** 1999 Mar;14(3):556–9

The acute renal effects of angiotensin II receptor blockers [editorial] Veelken R, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):1928–9 (13 ref.)

Angiotensin–converting enzyme inhibitors but not angiotensin II AT 1 receptor antagonists affect erythropoiesis in patients with anemia of end–stage renal disease [letter] Schiffl H, et al. **Nephron** 1999 Jan; 81(1):106–8

Modulation of motor functions involving the dopaminergic system by AT1 receptor antagonist, losartan. Raghavendra V, et al. **Neuropeptides** 1998 Jun;32(3):275–80

Investigation of the polymorphism of the angiotensin II antagonist agent MK–996. Jahansouz H, et al. **Pharm Dev Technol** 1999 May;4(2):181–7

Effects of eprosartan on glomerular injury in rats with reduced renal mass. Gandhi M, et al. **Pharmacology** 1999 Aug;59(2):89–94

Vascular and excretory effects of angiotensin II in the rat isolated perfused kidney: influence of an AT1 and a nonselective AT receptor antagonist. Hilchey S, et al. **Pharmacology** 1998 Oct;57(4):196–205

A review of eprosartan pharmacokinetic and pharmacodynamic drug interaction studies. Blum RA, et al. **Pharmacotherapy** 1999 Apr;19(4 Pt 2):79S–85S (23 ref.)

Review of eprosartan: a new angiotensin II receptor antagonist. Introduction. Hollenberg NK. **Pharmacotherapy** 1999 Apr;19(4 Pt 2):71S–72S

Review of eprosartan: a new angiotensin II receptor antagonist. Summary. Sica DA. **Pharmacotherapy** 1999 Apr;19(4 Pt 2):108S–109S

The renal profile of eprosartan. Sica DA, et al. **Pharmacotherapy** 1999 Apr;19(4 Pt 2):86S–94S (42 ref.)

Clinical efficacy of eprosartan. Weber M. **Pharmacotherapy** 1999 Apr;19(4 Pt 2):95S–101S (12 ref.)

Angiotensin–converting enzyme inhibitors and angiotensin II receptor antagonists in the treatment of heart failure caused by left ventricular systolic dysfunction. Sander GE, et al. **Prog Cardiovasc Dis** 1999 Jan–Feb;41(4):265–300 (241 ref.)

Angiotensin II receptor antagonism increases gut oxygen delivery but fails to improve intestinal mucosal acidosis in porcine endotoxin shock. Oldner A, et al. **Shock** 1999 Feb;11(2):127–35

Screening for the detection of angiotensin–converting enzyme inhibitors, their metabolites, and AT II receptor antagonists. Maurer HH, et al. **Ther Drug Monit** 1998 Dec; 20(6):706–13

Blockade of angiotensin II AT 1 receptor reduces hematocrit in patients with posttransplant erythrocytosis. Tsang WK, et al. **Transplant Proc** 1998 Nov;30(7):3072–3

[Effect of calcium and angiotensin II receptor on angiotensin II–stimulated protein synthesis in neonatal myocardial cells] Zhou X, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):35–40 (Eng. Abstr.) **(Chi)**

[Are the antagonists of angiotensin II AT1 receptors protectors of the kidney?] Deray G. **Arch Mal Coeur Vaiss** 1999 Jul;92(7):903–7 (26 ref.) (Eng. Abstr.) **(Fre)**

[Pharma–clinics. The drug of the month. Candesartan (Atacand)] Kulbertus H. **Rev Med Liege** 1999 Jun; 54(6):557–60 (18 ref.) (Eng. Abstr.) **(Fre)**

[Angiotensin II AT1 receptor antagonists: clinical development and future perspectives] Burnier M, et al. **Therapie** 1998 May–Jun;53(3):279–84 (43 ref.) (Eng. Abstr.) **(Fre)**

[Antihypertensive therapy using a combination of

angiotensin-1 receptor inhibitors and angiotensin-converting enzyme inhibitors (letter; comment)] Schute L. **Dtsch Med Wochenschr** 1998 Oct 23; 123(43):1295. Comment on: Dtsch Med Wochenschr 1998 May 22;123(21):681. **(Ger)**

[Combination therapy with ACE inhibitors and angiotensin receptor antagonists] Kisters K. **Internist (Berl)** 1999 Jun; 40(6):678–9 **(Ger)**

[Angioedema induced by ACE inhibitors and angiotensin II-receptor antagonists: analysis of 98 cases] Schuster C, et al. **Schweiz Med Wochenschr** 1999 Mar 6;129(9):362–9 (Eng. Abstr.) **(Ger)**

[Regarding: Shuster C, Reinhart WH, Hartmann K, Kuhn M. Angioma induced by ACE inhibitors and angiotensin II receptor antagonists: analysis of 98 cases (letter)] Wüthrich B. **Schweiz Med Wochenschr** 1999 Jul 3; 129(26):1003–4 **(Ger)**

[Hypertension therapy and molecular biology--with special reference to renin-angiotensin system] Matsubara H. **Nippon Naika Gakkai Zasshi** 1999 May 10;88(5):920–7 (23 ref.) **(Jpn)**

[Potential role of angiotensin receptor antagonists in renal protection] Hayashi K, et al. **Nippon Rinsho** 1999 May; 57(5):1164–7 (6 ref.) (Eng. Abstr.) **(Jpn)**

[The effects of angiotensin II receptor antagonists on insulin resistance] Higashiura K, et al. **Nippon Rinsho** 1999 May; 57(5):1182–6 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Comparison with other antihypertensive drugs, especially with ACEI] Hiwada K. **Nippon Rinsho** 1999 May; 57(5):1187–93 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Pharmacological profiles of candesartan cilexetil (TCV-116)] Inada Y. **Nippon Rinsho** 1999 May; 57(5):1130–6 (31 ref.) (Eng. Abstr.) **(Jpn)**

[Efficacy of angiotensin II receptor antagonists as a novel drug for the treatment of chronic heart failure--in comparison with ACE inhibitors] Kitakaze M, et al. **Nippon Rinsho** 1999 May;57(5):1148–57 (27 ref.) (Eng. Abstr.) **(Jpn)**

[Angiotensin II receptor antagonists as the agents to treat cerebrovascular disease] Kitazono T, et al. **Nippon Rinsho** 1999 May;57(5):1168–75 (21 ref.) **(Jpn)**

[Pathophysiological function of angiotensin II AT1 and AT2 receptors and clinical application of AT1 antagonists] Matsubara H, et al. **Nippon Rinsho** 1998 Jul;56(7):1912–8 (29 ref.) (Eng. Abstr.) **(Jpn)**

[Pharmacological properties and its significance in clinical practice] Nishikibe M, et al. **Nippon Rinsho** 1999 May; 57(5):1124–9 (16 ref.) (Eng. Abstr.) **(Jpn)**

[The usefulness of a new class antihypertensive drug, angiotensin II receptor antagonist, for essential hypertension] Rakugi H, et al. **Nippon Rinsho** 1999 May; 57(5):1141–7 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Angiotensin II receptor antagonists: a review of the development and future perspective] Saito I, et al. **Nippon Rinsho** 1999 May;57(5):1015–9 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Vascular remodeling and angiotensin II] Takemoto M, et al. **Nippon Rinsho** 1999 May;57(5):1158–63 (28 ref.) (Eng. Abstr.) **(Jpn)**

[The effects of angiotensin II receptor antagonists on glucose, lipid, and uric acid metabolism in essential hypertensives] Takizawa H, et al. **Nippon Rinsho** 1999 May;57(5):1137–40 (7 ref.) (Eng. Abstr.) **(Jpn)**

[Drug-interactions and adverse effects of losartan potassium, an angiotensin II receptor antagonist] Yoshinaga K. **Nippon Rinsho** 1999 May;57(5):1194–7 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Therapy of arterial hypertension with angiotensin receptor blockers] Nobre FL. **Rev Port Cardiol** 1999 Apr; 18(4):407–12 (23 ref.) (Eng. Abstr.) **(Por)**

[Losartan--a nonpeptide antagonist of angiotensin-II receptors in the treatment of heart failure] Berezin AE, et al. **Klin Med (Mosk)** 1998;76(7):12–5 (43 ref.) **(Rus)**

[Effect of renitek--an ACE inhibitor--versus cozaar--an angiotensin I receptors antagonists--on morphofunctional state of left ventricular myocardium in patients with symptomatic cardiac insufficiency] Vizir VA, et al. **Klin Med (Mosk)** 1999;77(3):20–2 (Eng. Abstr.) **(Rus)**

[Neurohumoral changes in patients with mild and moderate forms of hypertension under the influence of losartan] Koval' SN, et al. **Lik Sprava** 1999 Mar;(2):117–20 (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

Transcriptional suppression of rat angiotensin AT1a receptor gene expression by interferon-gamma in vascular smooth muscle cells. Ikeda Y, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):494–8

Role of N-glycosylation in the expression and functional properties of human AT1 receptor. Lanctôt PM, et al. **Biochemistry** 1999 Jul 6;38(27):8621–7

The increase in angiotensin type-2 receptor mRNA level by glutamate stimulation in cultured rat cortical cells. Makino I, et al. **Brain Res** 1998 Sep 7;804(2):296–305

Effect of losartan and captopril on expression of cardiac angiotensin II AT1 receptor mRNA in rats following myocardial infarction. Zhang GX, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):431–4

Expression of functional angiotensin-converting enzyme and AT1 receptors in cultured human cardiac fibroblasts. Hafizi S, et al. **Circulation** 1998 Dec 8;98(23):2553–9

Identification of endocrine cell populations expressing the AT1B subtype of angiotensin II receptors in the anterior pituitary. Lenkei Z, et al. **Endocrinology** 1999 Jan; 140(1):472–7

Mesangial AT1 receptors: expression, signaling, and regulation. Ardaillou R, et al. **J Am Soc Nephrol** 1999 Jan; 10 Suppl 11:S40–6 (63 ref.)

Angiotensin II and the control of cardiovascular structure. Pratt RE. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S120–8 (96 ref.)

The effects of candesartan on human AT1 receptor-expressing Chinese hamster ovary cells. Vauquelin G, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S15–7

Angiotensin II type 1 receptor blockade prevents up-regulation of angiotensin II type 1A receptors in rat injured artery. Tazawa S, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):898–904

Differential expression of type 1 angiotensin II receptor mRNA and aldosterone responsiveness to angiotensin in aldosterone-producing adenoma. Chen YM, et al. **Mol Cell Endocrinol** 1999 Jun 25;152(1-2):47–55

Ontogeny and regulation of cardiac angiotensin types 1 and 2 receptors during fetal life in sheep. Samyn ME, et al. **Pediatr Res** 1998 Sep;44(3):323–9

Myocardial angiotensin II receptor expression and ischemia-reperfusion injury. Yang B, et al. **Vasc Med** 1998; 3(2):121–30 (69 ref.)

CHEMISTRY

Study on the functionality and molecular properties of the AT4 receptor. Briand SI, et al. **Endocr Res** 1998 Aug-Nov; 24(3-4):315–23

Identification of a Ca2+/calmodulin-binding domain within the carboxyl-terminus of the angiotensin II (AT1A) receptor. Thomas WG, et al. **FEBS Lett** 1999 Jul 23; 455(3):367–71

Several interesting phenotypes of the AT1 receptor produced by site-directed mutagenesis. Conchon S, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S8–14 (43 ref.)

Molecular biology and signaling of angiotensin receptors: an overview. Inagami T. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S2–7 (69 ref.)

Structure of two fragments of the third cytoplasmic loop of the rat angiotensin II AT1A receptor. Implications with respect to receptor activation and G-protein selection and coupling. Franzoni L, et al. **J Biol Chem** 1999 Jan 1; 274(1):227–35

Structural analysis of angiotensin IV receptor (AT4) from selected bovine tissues. Zhang JH, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1075–83

CLASSIFICATION

Angiotensin II receptors. Ardaillou R. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S30–9 (105 ref.)

DEFICIENCY

Inhibition of adenosine-1 receptor-mediated preglomerular vasoconstriction in AT1A receptor-deficient mice. Traynor T, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F922–7

Anxiety-like behavior in mice lacking the angiotensin II type-2 receptor. Okuyama S, et al. **Brain Res** 1999 Mar 6;821(1):150–9

Angiotensin induces the urinary peristaltic machinery during the perinatal period. Miyazaki Y, et al. **J Clin Invest** 1998 Oct 15;102(8):1489–97

DRUG EFFECTS

Pharmacology of eprosartan, an angiotensin II receptor antagonist: exploring hypotheses from clinical data. Brooks DP, et al. **Am Heart J** 1999 Sep;138(3 Pt 2):246–51 (53 ref.)

Modulation of the vascular smooth muscle angiotensin subtype 2 (AT2) receptor by angiotensin II. Zahradka P, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):476–80

Evidence of a possible role of altered angiotensin function in the treatment, but not etiology, of depression. Gard PR, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1030–4

Changes in angiotensin II receptors in dopamine-rich regions of the mouse brain with age and ethanol consumption. Daubert DL, et al. **Brain Res** 1999 Jan 16;816(1):8–16

Angiotensin and cerebral blood flow. Saavedra JM, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):553–73 (111 ref.)

Insulin induces upregulation of vascular AT1 receptor gene expression by posttranscriptional mechanisms. Nickenig G, et al. **Circulation** 1998 Dec 1;98(22):2453–60

Proximal tubular angiotensin II levels and renal functional responses to AT1 receptor blockade in nonclipped kidneys of Goldblatt hypertensive rats. Cervenka L, et al. **Hypertension** 1999 Jan;33(1):102–7

Actions of angiotensin II on the renal microvasculature. Arendshorst WJ, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S149–61 (100 ref.)

Angiotensin II stimulates macula densa basolateral sodium/hydrogen exchange via type 1 angiotensin II receptors. Bell PD, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S225–9

Central sympathoexcitatory actions of angiotensin II: role of type 1 angiotensin II receptors. DiBona GF. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S90–4 (51 ref.)

Renal hemodynamic responses to intrarenal infusion of ligands for the putative angiotensin IV receptor in anesthetized rats. Fitzgerald SM, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):206–11

Cyclosporine A up-regulates angiotensin II receptors and calcium responses in human vascular smooth muscle cells. Avdonin PV, et al. **Kidney Int** 1999 Jun;55(6):2407–14

Signals from the AT2 (angiotensin type 2) receptor of angiotensin II inhibit p21ras and activate MAPK (mitogen-activated protein kinase) to induce morphological neuronal differentiation in NG108-15 cells. Gendron L, et al. **Mol Endocrinol** 1999 Sep;13(9):1615–26

[Losartan: angiotensin II type 1 receptor antagonist] Piątkowska H, et al. **Wiad Lek** 1999;52(1-2):49–55 (20 ref.) (Eng. Abstr.) **(Pol)**

GENETICS

Early expression of all components of the renin-angiotensin system in human development. Corvol P, et al. **Adv Nephrol Necker Hosp** 1998;28:195–212

Influence of gene polymorphisms of the renin-angiotensin system on clinical outcome in heart failure among the Chinese. Sanderson JE, et al. **Am Heart J** 1999 Apr;137(4 Pt 1):653–7

Nephrogenesis and angiotensin II receptor subtypes gene expression in the fetal lamb. Gimonet V, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1062–9

Reversal of hypertension by angiotensin II type 1 receptor antisense gene therapy in the adult SHR. Katovich MJ, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1260–4

Increased expression of glomerular AT1 receptors in rats with myocardial infarction. Mento PF, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1247–53

Localization of the ANG II type 2 receptor in the microcirculation of skeletal muscle. Nora EH, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1395–403

Amplification of angiotensin II signaling in cardiac myocytes by adenovirus-mediated overexpression of the AT1 receptor. Booz GW, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:20–6

Efficient transcription of the human angiotensin II type 2 receptor gene requires intronic sequence elements. Warnecke C, et al. **Biochem J** 1999 May 15;340 (Pt 1):17–24

An A/T-rich cis-element is essential for rat angiotensin II type 1A receptor transcription in vascular smooth muscle cells. Beason KB, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):25–34

Angiotensin II, type 2 receptor in the development of vesico-ureteric reflux. Hohenfellner K, et al. **BJU Int** 1999 Feb;83(3):318–22

Differential regulation of angiotensinogen and AT1A receptor mRNA within the rat subfornical organ during dehydration. Barth SW, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):151–64

Regulation of the angiotensin type-1 receptor by antisense oligonucleotides occurs through an RNase H-type mechanism. Ho SP, et al. **Brain Res Mol Brain Res** 1999 Feb 19;65(1):23–33

Molecular cloning and pharmacological characterization of an atypical gerbil angiotensin II type-1 receptor and its mRNA expression in brain and peripheral tissues. Moriuchi R, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):234–46

Angiotensin-converting enzyme and angiotensin II receptor 1 polymorphisms: association with early coronary disease. Alvarez R, et al. **Cardiovasc Res** 1998 Nov;40(2):375–9

Angiotensin converting enzyme and angiotensin II type 1-receptor gene polymorphisms and risk of ischaemic heart disease. Rice GI, et al. **Cardiovasc Res** 1999 Mar; 41(3):746–53

Angiotensin II type 2 receptor is upregulated in human heart with interstitial fibrosis, and cardiac fibroblasts are the major cell type for its expression. Tsutsumi Y, et al. **Circ Res** 1998 Nov 16;83(10):1035–46

1166 A/C polymorphism of the angiotensin II type 1 receptor gene and the response to short-term infusion of angiotensin II. Hilgers KF, et al. **Circulation** 1999 Sep 28; 100(13):1394–9

Insulin induces upregulation of vascular AT1 receptor gene expression by posttranscriptional mechanisms. Nickenig G, et al. **Circulation** 1998 Dec 1;98(22):2453–60

Angiotensin receptors: molecular biology and signalling. Inagami T, et al. **Clin Exp Pharmacol Physiol** 1999 Jul; 26(7):544–9 (53 ref.)

The A1166C mutation in the angiotensin II type 1 receptor and hypertension in the elderly. Liyou N, et al. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):525–6

A role for p21ras in the angiotensin II AT2 receptor transduction pathway. Gendron L, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):409–12

Isolation of an ovine genomic sequence containing the full-length angiotensin II type-1 receptor. Millican DS, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):387–90

N-linked glycosylation is required for optimal AT1a angiotensin receptor expression in COS-7 cells. Jayadev S, et al. **Endocrinology** 1999 May;140(5):2010–7

Angiotensin II type 1 receptor A1166C gene polymorphism. Absence of an association with the risk of coronary artery disease and myocardial infarction and of a synergistic effect with angiotensin-converting enzyme gene polymorphism on the risk of these diseases. Gardemann A, et al. **Eur Heart J** 1998 Nov;19(11):1657–65

Is the A1166C polymorphism of the angiotensin II type 1 receptor involved in cardiovascular disease? van Geel PP, et al. **Eur Heart J** 1998 Jul;19 Suppl G:G13–7 (31 ref.)
Binding of the antagonist [3H]candesartan to angiotensin II AT1 receptor-transfected [correction of tranfected] Chinese hamster ovary cells [published erratum appears in Eur J Pharmacol 1999 May 28;373(1):125] Fierens F, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):413–22
Presence of angiotensin II and expression of angiotensin II type-2 receptor in human fallopian tube. Johnson MC, et al. **Fertil Steril** 1998 Oct;70(4):740–6
Gene expression and roles of angiotensin II type 1 and type 2 receptors in human adrenals. Tanabe A, et al. **Horm Metab Res** 1998 Aug;30(8):490–5
Angiotensin II type 1 receptor antisense gene therapy prevents altered renal vascular calcium homeostasis in hypertension. Gelband CH, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):360–5
Regulation of angiotensin II type 1 receptor mRNA and protein in angiotensin II–induced hypertension. Harrison-Bernard LM, et al. **Hypertension** 1999 Jan;33(1 Pt 2):340–6
Evidence for involvement of the type 1 angiotensin II receptor locus in essential hypertension. Kainulainen K, et al. **Hypertension** 1999 Mar;33(3):844–9
AT1 receptor A/C1166 polymorphism contributes to cardiac hypertrophy in subjects with hypertrophic cardiomyopathy. Osterop AP, et al. **Hypertension** 1998 Nov;32(5):825–30
Several interesting phenotypes of the AT1 receptor produced by site-directed mutagenesis. Conchon S, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S8–14 (43 ref.)
Quantitative trait loci for blood pressure exist near the IGF-1, the Liddle syndrome, the angiotensin II–receptor gene and the renin loci in man. Nagy Z, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1709–16
Angiotensin II receptor type 1 gene expression in human glomerulonephritis and diabetes mellitus. Wagner J, et al. **J Am Soc Nephrol** 1999 Mar;10(3):545–51
Expression of the AT2 receptor developmentally programs extracellular signal-regulated kinase activity and influences fetal vascular growth. Akishita M, et al. **J Clin Invest** 1999 Jan;103(1):63–71
Angiotensin II plays a pathogenic role in immune-mediated renal injury in mice. Hisada Y, et al. **J Clin Invest** 1999 Mar;103(5):627–35
Communication between myocytes and fibroblasts in cardiac remodeling in angiotensin chimeric mice. Matsusaka T, et al. **J Clin Invest** 1999 May 15;103(10):1451–8
Ontogeny of angiotensin II type 2 receptor mRNA expression in fetal and neonatal rat brain. Nuyt AM, et al. **J Comp Neurol** 1999 May 3;407(2):193–206
Expression and localization of the renin-angiotensin system in the rat pancreas. Leung PS, et al. **J Endocrinol** 1999 Jan;160(1):13–9
Tissue-specific changes of type 1 angiotensin II receptor and angiotensin-converting enzyme mRNA in angiotensinogen gene-knockout mice. Tamura K, et al. **J Endocrinol** 1999 Mar;160(3):401–8
New polymorphisms of the angiotensin II type 1 receptor gene and their associations with myocardial infarction and blood pressure: the ECTIM study. Etude Cas-Témoin de l'Infarctus du Myocarde. Poirier O, et al. **J Hypertens** 1998 Oct;16(10):1443–7
Distortion of maternal-fetal angiotensin II type 1 receptor allele transmission in pre-eclampsia. Morgan L, et al. **J Med Genet** 1998 Aug;35(8):632–6
Angiotensin II type 1 receptor gene polymorphism is associated with an increased vascular reactivity in the human mammary artery in vitro. Henrion D, et al. **J Vasc Res** 1998 Sep-Oct;35(5):356–62
Genetic mapping of modifier loci affecting malignant hypertension in TGRmRen2 rats. Kantachuvesiri S, et al. **Kidney Int** 1999 Aug;56(2):414–20
Potent antihypertrophic effect of the bradykinin B2 receptor system on the renal vasculature. Tsuchida S, et al. **Kidney Int** 1999 Aug;56(2):509–16
Expression of the chicken angiotensin II receptor: atypical pattern compared to its mammalian homologues. Kempf H, et al. **Mech Dev** 1999 Jun;84(1–2):177–80
Role of the angiotensin type 2 receptor gene in congenital anomalies of the kidney and urinary tract, CAKUT, of mice and men. Nishimura H, et al. **Mol Cell** 1999 Jan; 3(1):1–10
Adrenal angiotensin II type 1 and type 2 receptors in Cushing's and Conn's syndromes. Kitamura Y, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1–2):37–45
Effects of ACTH on adrenal angiotensin II receptor subtype expression in vivo. Kitamura Y, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):187–95
Phosphorylation of the angiotensin II (AT1A) receptor carboxyl terminus: a role in receptor endocytosis. Thomas WG, et al. **Mol Endocrinol** 1998 Oct;12(10):1513–24
Risk of developing diabetic nephropathy is not associated with synergism between the angiotensin II (type 1) receptor C1166 allele and poor glycaemic control. Savage DA, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):891–4
Tissue-specific expression of human angiotensin II AT1 and AT2 receptors and cellular localization of subtype mRNAs in adult human renal cortex using in situ hybridization. Matsubara H, et al. **Nephron** 1998 Sep;80(1):25–34
Muscarinic acetylcholine receptor-mediated increase of angiotensin type 2 receptor mRNA in PC12 cells. Shibata K, et al. **Neuroreport** 1998 Dec 1;9(17):3783–9
Angiotensin type 2 receptor is important in the normal development of the ureter. Hohenfellner K, et al. **Pediatr Nephrol** 1999 Apr;13(3):187–91
Ontogeny of vascular angiotensin II receptor subtype expression in ovine development. Cox BE, et al. **Pediatr Res** 1999 Mar;45(3):414–24
Mutational analysis of the angiotensin type 2 receptor: contribution of conserved amino acids in the region of the sixth transmembrane domain. Heerding JN, et al. **Regul Pept** 1998 Jun 30;74(2–3):113–9
Angiotensin II receptor on BALF macrophages from Japanese patients with active sarcoidosis. Nagai S, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):67–74
Angiotensin II maintains the structure and function of glomerular mesangium via type 1a receptor. What we have learned from null mutant mice minus the angiotensin II type 1a receptor gene. Inokuchi S, et al. **Virchows Arch** 1998 Oct;433(4):349–57
[Molecular structure and function of angiotensin ii receptors] Clauser E. **Nephrologie** 1998;19(7):403–10 (53 ref.) (Eng. Abstr.) **(Fre)**
[Gene loci and polymorphisms of angiotensin II receptor] Katsuya T, et al. **Nippon Rinsho** 1999 May;57(5):1020–7 (20 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Angiotensin II plays a pathogenic role in immune-mediated renal injury in mice. Hisada Y, et al. **J Clin Invest** 1999 Mar;103(5):627–35
Characterization of a specific antibody to the rat angiotensin II AT1 receptor. Giles ME, et al. **J Histochem Cytochem** 1999 Apr;47(4):507–16

ISOLATION & PURIFICATION

Characterization and purification of the bovine adrenal angiotensin IV receptor (AT4) using [125I]benzoylphenylalanine-angiotensin IV as a specific photolabel. Zhang JH, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):416–24

METABOLISM

Regulation of angiotensin II receptors and PKC isoforms by glucose in rat mesangial cells. Amiri F, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F691–9
Characterization of angiotensin IV-degrading enzymes and receptors on rat mesangial cells. Chansel D, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):F535–42
Angiotensin-(1–7) can interact with the rat proximal tubule AT(4) receptor system. Handa RK. **Am J Physiol** 1999 Jul;277(1 Pt 2):F75–83
Renal endosomes contain angiotensin peptides, converting enzyme, and AT(1A) receptors. Imig JD, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F303–11
Role of central AT1 and V1 receptors in cardiovascular adaptation to hemorrhage in SD and renin TGR rats. Paczwa P, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1918–26
Amplification of angiotensin II signaling in cardiac myocytes by adenovirus-mediated overexpression of the AT1 receptor. Booz GW, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:20–6
Myocardial angiotensin receptors in human hearts. Regitz-Zagrosek V, et al. **Basic Res Cardiol** 1998;93 Suppl 2:37–42 (17 ref.)
Vascular response to angiotensin II is exaggerated through an upregulation of AT1 receptor in AT2 knockout mice. Tanaka M, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):194–8
Role of the His273 located in the sixth transmembrane domain of the angiotensin II receptor subtype AT2 in ligand-receptor interaction. Turner CA, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):704–7
Modulation of the vascular smooth muscle angiotensin subtype 2 (AT2) receptor by angiotensin II. Zahradka P, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):476–80
N-glycosylation requirements for the AT1a angiotensin II receptor delivery to the plasma membrane. Deslauriers B, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):397–405
Angiotensin II stimulates serine phosphorylation of the adaptor protein Nck: physical association with the serine/threonine kinases Pak1 and casein kinase I. Voisin L, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):217–23
Mechanism of constitutive activation of the AT1 receptor: influence of the size of the agonist switch binding residue Asn(111). Feng YH, et al. **Biochemistry** 1998 Nov 10; 37(45):15791–8
Role of N-glycosylation in the expression and functional properties of human AT1 receptor. Lanctôt PM, et al. **Biochemistry** 1999 Jul 6;38(27):8621–7
Functional expression of sperm angiotensin II type I receptor in Xenopus oocyte: modulation of a sperm $Ca2+$-activated $K+$ channel. So SC, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):261–5
Different receptors for angiotensin II at pre- and postjunctional level of the canine mesenteric and pulmonary arteries. Guimarães S, et al. **Br J Pharmacol** 1998 Jul;124(6):1207–12
Modulation of AT1 receptor-mediated contraction of rat uterine artery by AT2 receptors. Zwart AS, et al. **Br J Pharmacol** 1998 Dec;125(7):1429–36
Changes in angiotensin II receptors in dopamine-rich regions of the mouse brain with age and ethanol consumption. Daubert DL, et al. **Brain Res** 1999 Jan 16;816(1):8–16
Ischemia-induced neuronal cell loss is associated with loss of atypical angiotensin type-1 receptor expression in the gerbil hippocampal formation. Häuser W, et al. **Brain Res** 1999 Jan 30;817(1–2):34–44
Chemical lesion of the inferior olive reduces [125I]sarcosine1-angiotensin II binding to AT2 receptors in the cerebellar cortex of young rats. Jöhren O, et al. **Brain Res** 1998 May 18;793(1–2):176–86
Co-localization of estrogen and angiotensin receptors within subfornical organ neurons. Rosas-Arellano MP, et al. **Brain Res** 1999 Aug 7;837(1–2):254–62
Chronic intracerebroventricular infusion of angiotensin II increases brain AT1 receptor expression in young rats. Porter JP. **Brain Res Dev Brain Res** 1999 Feb 5; 112(2):293–5
Regulation of the angiotensin type-1 receptor by antisense oligonucleotides occurs through an RNase H-type mechanism. Ho SP, et al. **Brain Res Mol Brain Res** 1999 Feb 19;65(1):23–33
Molecular cloning and pharmacological characterization of an atypical gerbil angiotensin II type-1 receptor and its mRNA expression in brain and peripheral tissues. Moriuchi R, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):234–46
Modulation of vascular development and injury by angiotensin II. Hutchinson HG, et al. **Cardiovasc Res** 1999 Mar;41(3):689–700
Modulation and function of extrarenal angiotensin receptors. Wang DH, et al. **Cell Biochem Biophys** 1999;31(1):1–17 (121 ref.)
Characterization of AT2 receptor expression in NIH 3T3 fibroblasts. Heemskerk FM, et al. **Cell Mol Neurobiol** 1999 Apr;19(2):277–88
Tumor necrosis factor-alpha upregulates angiotensin II type 1 receptors on cardiac fibroblasts. Gurantz D, et al. **Circ Res** 1999 Aug 6;85(3):272–9
Upregulation of endothelial receptor for oxidized low-density lipoprotein (LOX-1) in cultured human coronary artery endothelial cells by angiotensin II type 1 receptor activation [see comments] Li DY, et al. **Circ Res** 1999 May 14;84(9):1043–9. Comment in: Circ Res 1999 May 14;84(9):1113–5.
Differential regulation of cardiac angiotensin converting enzyme binding sites and AT1 receptor density in the failing human heart. Zisman LS, et al. **Circulation** 1998 Oct 27;98(17):1735–41
Haemorphin peptides may be endogenous ligands for brain angiotensin AT4 receptors. Moeller I, et al. **Clin Exp Pharmacol Physiol Suppl** 1998 Nov;25:S68–71 (45 ref.)
Ontogeny of angiotensin II type 1 receptor (AT1R) in the sheep adrenal gland. Coulter CL, et al. **Endocr Res** 1998 Aug-Nov;24(3–4):935–6
Regulation of cell proliferation and angiotensin II type 2 receptors in R3T3 cells. Li JY, et al. **Endocr Res** 1998 Aug-Nov;24(3–4):297–305
N-linked glycosylation is required for optimal AT1a angiotensin receptor expression in COS-7 cells. Jayadev S, et al. **Endocrinology** 1999 May;140(5):2010–7
Binding of the antagonist [3H]candesartan to angiotensin II AT1 receptor-transfected [correction of tranfected] Chinese hamster ovary cells [published erratum appears in Eur J Pharmacol 1999 May 28;373(1):125] Fierens F, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):413–22
Direct evidence for an angiotensin AT1 receptor type in rat vas deferens. Maletínská L, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):371–5
Role of the third intracellular loop of the angiotensin II receptor subtype AT2 in ligand-receptor interaction. Dittus J, et al. **FEBS Lett** 1999 Feb 19;445(1):23–6
AT2 receptor stimulation induces generation of ceramides in PC12W cells. Gallinat S, et al. **FEBS Lett** 1999 Jan 22; 443(1):75–9
Identification of a $Ca2+$/calmodulin-binding domain within the carboxyl-terminus of the angiotensin II (AT1A) receptor. Thomas WG, et al. **FEBS Lett** 1999 Jul 23; 455(3):367–71
Intracellular sodium modulates the expression of angiotensin II subtype 2 receptor in PC12W cells. Tamura M, et al. **Hypertension** 1999 Feb;33(2):626–32
Differential regulation of renal angiotensin subtype AT1A and AT2 receptor protein in rats with angiotensin-dependent hypertension. Wang ZQ, et al. **Hypertension** 1999 Jan;33(1):96–101
Pituitary-dependent expression of the testicular angiotensin II receptor and its subtypes in rats. Hirai K, et al. **Int J Androl** 1998 Aug;21(4):177–85
Involvement of angiotensin II receptor subtypes during testicular development in rats. Kanehara H, et al. **Int J Androl** 1998 Aug;21(4):186–95
Renal proximal tubular AT2 receptor: signaling and transport. Haithcock D, et al. **J Am Soc Nephrol** 1999 Jan; 10 Suppl 11:S69–74
Molecular mechanisms of angiotensin II receptor internalization. Hunyady L. **J Am Soc Nephrol** 1999 Jan; 10 Suppl 11:S47–56 (95 ref.)
Cross-talk between angiotensin II receptors and the tyrosine kinases and phosphatases. Inagami T, et al.

J Am Soc Nephrol 1999 Jan;10 Suppl 11:S57-61 (23 ref.)
AT1 calcium signaling in renal vascular smooth muscle cells. Iversen BM, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S84-9
Cloning and characterization of ATRAP, a novel protein that interacts with the angiotensin II type 1 receptor. Daviet L, et al. **J Biol Chem** 1999 Jun 11;274(24):17058-62
Activation of the de novo biosynthesis of sphingolipids mediates angiotensin II type 2 receptor-induced apoptosis. Lehtonen JY, et al. **J Biol Chem** 1999 Jun 11; 274(24):16901-6
AT1 receptors mediate angiotensin II uptake and transport by bovine brain microvessel endothelial cells in primary culture. Rose JM, et al. **J Cardiovasc Pharmacol** 1999 Jan; 33(1):30-5
Communication between myocytes and fibroblasts in cardiac remodeling in angiotensin chimeric mice. Matsusaka T, et al. **J Clin Invest** 1999 May 15;103(10):1451-8
Direct vasoconstrictor action of homologous angiotensin II on isolated arterial ring preparations in an elasmobranch fish. Hamano K, et al. **J Endocrinol** 1998 Sep;158(3):419-23
Characterization of a specific antibody to the rat angiotensin II AT1 receptor. Giles ME, et al.
J Histochem Cytochem 1999 Apr;47(4):507-16
Renal angiotensin II receptor regulation and renin-angiotensin system inhibition in one-kidney, one clip hypertensive rats. Amiri F, et al. **J Hypertens** 1999 Feb; 17(2):279-86
Angiotensin II type 1 and type 2 receptors bind angiotensin II through different types of epitope recognition. Miura S, et al. **J Hypertens** 1999 Mar;17(3):397-404
Mapping tissue angiotensin-converting enzyme and angiotensin AT1, AT2 and AT4 receptors. Zhuo J, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2027-37 (102 ref.)
A globin fragment, LVV-hemorphin-7, induces [3H]thymidine incorporation in a neuronal cell line via the AT4 receptor. Moeller I, et al. **J Neurochem** 1999 Jul; 73(1):301-8
Angiotensin II type 1 receptor activation modulates L- and T-type calcium channel activity through distinct mechanisms in bovine adrenal glomerulosa cells. Maturana AD, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):509-20
A quantitative study on vascular angiotensin II receptors in rats with portal hypertension. Li J, et al.
J Tongji Med Univ 1997;17(4):235-8
Angiotensin II receptors in the kidney. Chung O, et al.
Kidney Blood Press Res 1998;21(2-4):245-8 (29 ref.)
Cyclosporine A up-regulates angiotensin II receptors and calcium responses in human vascular smooth muscle cells. Avdonin PV, et al. **Kidney Int** 1999 Jun;55(6):2407-14
High salt intake differentially regulates kidney angiotensin IV AT4 receptors in Wistar-Kyoto and spontaneously hypertensive rats. Grove KL, et al. **Life Sci** 1999; 64(20):1811-8
Determination of peptide contact points in the human angiotensin II type I receptor (AT1) with photosensitive analogs of angiotensin II. Laporte SA, et al.
Mol Endocrinol 1999 Apr;13(4):578-86
Analysis of functional domains of angiotensin II type 2 receptor involved in apoptosis. Lehtonen JY, et al.
Mol Endocrinol 1999 Jul;13(7):1051-60
Phosphorylation of the angiotensin II (AT1A) receptor carboxyl terminus: a role in receptor endocytosis. Thomas WG, et al. **Mol Endocrinol** 1998 Oct;12(10):1513-24
Angiotensin II type I receptor-modulated signaling pathways in neurons. Richards EM, et al. **Mol Neurobiol** 1999 Feb; 19(1):25-41 (117 ref.)
Relationship between internalization and mRNA decay in down-regulation of recombinant type 1 angiotensin II receptor (AT1) expression in smooth muscle cells. Adams B, et al. **Mol Pharmacol** 1999 Jun;55(6):1028-36
Functional coupling of human L-type Ca2+ channels and angiotensin AT1A receptors coexpressed in xenopus laevis oocytes: involvement of the carboxyl-terminal Ca2+ sensors. Oz M, et al. **Mol Pharmacol** 1998 Dec; 54(6):1106-12
Angiotensin II-complexities beyond AT1 and AT2 receptors [editorial] Ardaillou R. **Nephrol Dial Transplant** 1998 Dec; 13(12):2988-90 (15 ref.)
Absence of effect of chronic angiotensin II type 1 receptor blockade on endogenous kinin concentrations-induced paw edema model in the rat. Blais C Jr, et al. **Peptides** 1999; 20(3):343-52
Receptor-mediated angiotensin II transcytosis by brain microvessel endothelial cells. Rose JM, et al. **Peptides** 1998; 19(6):1023-30
Angiotensin II inhibits long-term potentiation within the lateral nucleus of the amygdala through AT1 receptors. von Bohlen und Halbach O, et al. **Peptides** 1998; 19(6):1031-6
AT1 receptor up-regulation in intestine in chronic renal failure is segment specific. Hatch M, et al.
Pflugers Arch 1999 May;437(6):881-7
Immunohistochemical localization of angiotensin II receptors (AT1) in the heart with anti-peptide antibodies showing a positive chronotropic effect. Fu ML, et al.
Receptors Channels 1998;6(2):99-111
Angiotensin II receptors in the human brain. Allen AM, et al. **Regul Pept** 1999 Jan 1;79(1):1-7 (75 ref.)
Angiotensin II receptors induce tyrosine dephosphorylation in rat fetal membranes. Ciuffo GM, et al. **Regul Pept** 1998 Jun 30;74(2-3):129-35
Mapping of angiotensin AT1 receptors in the rat limbic system. von Bohlen und Halbach O, et al. **Regul Pept** 1998 Nov 30;78(1-3):51-6
[Angiotensin II receptors: classification, structure, and signal transduction] Miserey S, et al. **Therapie** 1998 May-Jun; 53(3):205-11 (29 ref.) (Eng. Abstr.) **(Fre)**
[Myocardial hypertrophy in rabbits with vasorenal arterial hypertension during pharmacological blockade of formation of angiotensin II and its interaction with specific receptors] Frolov VA, et al. **Biull Eksp Biol Med** 1999 May;127(5):506-9 **(Rus)**

PHYSIOLOGY

Biology and functions of renal receptors for angiotensin II and its active fragments. Ardaillou R, et al.
Adv Nephrol Necker Hosp 1998;28:225-57 (123 ref.)
Evidence that brain angiotensin II is involved in both thirst and sodium appetite in baboons. Blair-West JR, et al.
Am J Physiol 1998 Nov;275(5 Pt 2):R1639-46
Heat acclimation and hypohydration: involvement of central angiotensin II receptors in thermoregulation. Horowitz M, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R47-55
Biological roles of angiotensin II via its type 2 receptor during rat follicle atresia. Kotani E, et al.
Am J Physiol 1999 Jan;276(1 Pt 1):E25-33
Control of adrenal cell proliferation by AT1 receptors in response to angiotensin II and low-sodium diet. McEwan PE, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E303-9
Angiotensin II acts at AT1 receptors in the nucleus of the solitary tract to attenuate the baroreceptor reflex. Matsumura K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1611-9
Distribution of angiotensin AT1 and AT2 receptor subtypes in the rat kidney. Miyata N, et al. **Am J Physiol** 1999 Sep; 277(3 Pt 2):F437-46
Angiotensin IV receptor-mediated activation of lung endothelial NOS is associated with vasorelaxation. Patel JM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1061-8
A comparison of brain angiotensin II receptors during lactation and diestrus of the estrous cycle in the rat. Speth RC, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R904-9
Angiotensin II stimulates collagen synthesis in human vascular smooth muscle cells. Involvement of the AT(1) receptor, transforming growth factor-beta, and tyrosine phosphorylation. Ford CM, et al.
Arterioscler Thromb Vasc Biol 1999 Aug;19(8):1843-51
Pharmacology of angiotensin receptors and AT1 receptor blockers. Chung O, et al. **Basic Res Cardiol** 1998;93 Suppl 2:15-23 (31 ref.)
Interaction between insulin and AT1 receptor. Relevance for hypertension and arteriosclerosis. Nickenig G, et al.
Basic Res Cardiol 1998;93 Suppl 2:135-9 (26 ref.)
Human cardiac fibroblasts and receptors for angiotensin II and bradykinin: a potential role for bradykinin in the modulation of cardiac extracellular matrix. Villarreal FJ, et al. **Basic Res Cardiol** 1998;93 Suppl 3:4-7
Increased vasoconstrictor response of the mouse lacking angiotensin II type 2 receptor. Akishita M, et al.
Biochem Biophys Res Commun 1999 Aug 2;261(2):345-9
Ca2+ mobilization in adult rat cardiomyocytes by angiotensin type 1 and 2 receptors. Shao Q, et al.
Biochem Pharmacol 1998 May 1;55(9):1413-8
Contractile effects by intracellular angiotensin II via receptors with a distinct pharmacological profile in rat aorta. Brailoiu E, et al. **Br J Pharmacol** 1999 Mar; 126(5):1133-8
Prejunctional angiotensin receptors involved in the facilitation of noradrenaline release in mouse tissues. Cox SL, et al. **Br J Pharmacol** 1999 Jul;127(5):1256-62
The subtype 2 of angiotensin II receptors and pressure-natriuresis in adult rat kidneys. Liu KL, et al.
Br J Pharmacol 1999 Feb;126(3):826-32
Adrenal steroid regulation of central angiotensin II receptor subtypes and oxytocin receptors in rat brain. Shelat SG, et al. **Brain Res** 1998 Oct 5;807(1-2):135-46
Angiotensin receptors in the nervous system. Allen AM, et al. **Brain Res Bull** 1998 Sep 1;47(1):17-28 (152 ref.)
Role of angiotensin II and vasopressin receptors within the supraoptic nucleus in water and sodium intake induced by the injection of angiotensin II into the medial septal area. Antunes VR, et al. **Braz J Med Biol Res** 1998 Dec; 31(12):1597-600
Effect of selective angiotensin antagonists on the antidiuresis produced by angiotensin-(1-7) in water-loaded rats. Baracho NC, et al. **Braz J Med Biol Res** 1998 Sep; 31(9):1221-7
The hyperglycemia induced by angiotensin II in rats is mediated by AT1 receptors. Machado LJ, et al.
Braz J Med Biol Res 1998 Oct;31(10):1349-52
Modulation and function of extrarenal angiotensin receptors. Wang DH, et al. **Cell Biochem Biophys** 1999;31(1):1-17 (121 ref.)
Angiotensin II type 1 receptor-mediated inhibition of K+ channel subunit kv2.2 in brain stem and hypothalamic neurons. Gelband CH, et al. **Circ Res** 1999 Feb 19; 84(3):352-9
Vascular injury causes neointimal formation in angiotensin II type 1a receptor knockout mice. Harada K, et al.
Circ Res 1999 Feb 5;84(2):179-85
Stimulation of different subtypes of angiotensin II receptors, AT1 and AT2 receptors, regulates STAT activation by negative crosstalk. Horiuchi M, et al. **Circ Res** 1999 Apr 30;84(8):876-82
Pathophysiological role of angiotensin II type 2 receptor in cardiovascular and renal diseases. Matsubara H.
Circ Res 1998 Dec 14-28;83(12):1182-91 (151 ref.)
Angiotensin receptors: molecular biology and signalling. Inagami T, et al. **Clin Exp Pharmacol Physiol** 1999 Jul; 26(7):544-9 (53 ref.)
Stress and brain angiotensin II receptors. Watanabe T, et al. **Crit Rev Neurobiol** 1998;12(4):305-17 (109 ref.)
Signaling events activated by angiotensin II receptors: what goes before and after the calcium signals. Balla T, et al.
Endocr Res 1998 Aug-Nov;24(3-4):335-44
Study on the functionality and molecular properties of the AT4 receptor. Briand SI, et al. **Endocr Res** 1998 Aug-Nov; 24(3-4):315-23
Angiotensin II receptors in human preadipocytes: role in cell cycle regulation. Crandall DL, et al. **Endocrinology** 1999 Jan;140(1):154-8
Angiotensin II type 2 receptor-mediated apoptosis of cultured neurons from newborn rat brain. Shenoy UV, et al. **Endocrinology** 1999 Jan;140(1):500-9
Angiotensin AT1 receptors in Clone 9 rat liver cells: Ca2+ signaling and c-fos expression. Garcia-Sáinz JA, et al.
Eur J Pharmacol 1998 Dec 4;362(2-3):235-43
Vascular angiotensin II receptor and calcium signaling in toadfish. Qin ZL, et al. **Gen Comp Endocrinol** 1999 Jul; 115(1):122-31
Gene expression and roles of angiotensin II type 1 and type 2 receptors in human adrenals. Tanabe A, et al.
Horm Metab Res 1998 Aug;30(8):490-5
Cross talk between angiotensin II type 1 and type 2 receptors: cellular mechanism of angiotensin type 2 receptor-mediated cell growth inhibition. Xoriuchi M, et al. **Hypertens Res** 1999 Jul;22(2):67-74 (70 ref.)
Role of angiotensin receptor subtypes in mesenteric vascular proliferation and hypertrophy. Cao Z, et al.
Hypertension 1999 Sep;34(3):408-14
Recent progress in angiotensin II type 2 receptor research in the cardiovascular system. Horiuchi M, et al.
Hypertension 1999 Feb;33(2):613-21 (91 ref.)
Antisense inhibition of AT1 receptor in vascular smooth muscle cells using adeno-associated virus-based vector. Mohuczy D, et al. **Hypertension** 1999 Jan;33(1 Pt 2):354-9
Neuroendocrine effects of dehydration in mice lacking the angiotensin AT1a receptor. Morris M, et al.
Hypertension 1999 Jan;33(1 Pt 2):482-6
Angiotensin AT1 receptor subtype as a cardiac target of aldosterone: role in aldosterone-salt-induced fibrosis. Robert V, et al. **Hypertension** 1999 Apr;33(4):981-6
Protective role of the angiotensin AT2 receptor in a renal wrap hypertension model. Siragy HM, et al.
Hypertension 1999 May;33(5):1237-42
Role of AT2 receptors in angiotensin II-stimulated contraction of small mesenteric arteries in young SHR. Touyz RM, et al. **Hypertension** 1999 Jan;33(1 Pt 2):366-72
AT2 receptor and vascular smooth muscle cell differentiation in vascular development. Yamada H, et al.
Hypertension 1999 Jun;33(6):1414-9
Angiotensin II type 1 receptor-mediated peroxide production in human macrophages. Yanagitani Y, et al.
Hypertension 1999 Jan;33(1 Pt 2):335-9
Roles of AT1 and AT2 receptors in the hypertensive Ren-2 gene transgenic rat kidney. Zhuo J, et al. **Hypertension** 1999 Jan;33(1 Pt 2):347-53
Infarct size reduction by AT1-receptor blockade through a signal cascade of AT2-receptor activation, bradykinin and prostaglandins in pigs [published erratum appears in J Am Coll Cardiol 1999 Feb;33(2):591] [see comments] Jalowy A, et al. **J Am Coll Cardiol** 1998 Nov 15; 32(6):1787-96. Comment in: J Am Coll Cardiol 1999 Jul;34(1):310-1.
Myocardial salvage, AT1-receptor blockade, AT2-receptor activation and coronary collaterals [letter; comment] Jugdutt BI, et al. **J Am Coll Cardiol** 1999 Jul;34(1):310-1 . Comment on: J Am Coll Cardiol 1998 Nov 15;32(6):1787-96.
Molecular biology and signaling of angiotensin receptors: an overview. Inagami T. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S2-7 (69 ref.)
Regulation of renin secretion by angiotensin II-AT1 receptors. Kurtz A, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S162-8 (77 ref.)
Reciprocal role of the AT1 receptor in modulating renal and neuronal AT1 mRNA expression. Li J, et al.
J Am Soc Nephrol 1999 Jan;10 Suppl 11:S18-22
Intrarenal angiotensin II generation and renal effects of AT1 receptor blockade. Navar LG, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S266-72 (65 ref.)
AT1 receptors mediate chronic central nervous system AII hypertension in rats fed high sodium chloride diet from weaning. Camara AK, et al. **J Auton Nerv Syst** 1998 Aug 6;72(1):16-23
Angiotensin II (ATII)-inducible platelet-derived growth factor A-chain gene expression is p42/44 extracellular signal-regulated kinase-1/2 and Egr-1-dependent and mediated via the ATII type 1 but not type 2 receptor. Induction by ATII antagonized by nitric oxide. Day FL, et al. **J Biol Chem** 1999 Aug 20;274(34):23726-33
The renin-angiotensin system and its receptors. Stroth U, et al. **J Cardiovasc Pharmacol** 1999;33 Suppl 1:S21-8; discussion S41-3 (115 ref.)

Angiotensin II-stimulated collagen gel contraction by heart fibroblasts: role of the AT1 receptor and tyrosine kinase activity. Watson S, et al. **J Cell Physiol** 1998 Nov; 177(2):224–31

Increased renal vasodilator prostanoids prevent hypertension in mice lacking the angiotensin subtype-2 receptor. Siragy HM, et al. **J Clin Invest** 1999 Jul;104(2):181–8

Angiotensin II stimulates both aldosterone secretion and DNA synthesis via type 1 but not type 2 receptors in bovine adrenocortical cells. Tanabe A, et al. **J Endocrinol Invest** 1998 Nov;21(10):668–72

Angiotensin II receptor pharmacology and AT1-receptor blockers. Chung O, et al. **J Hum Hypertens** 1999 Jan;13 Suppl 1:S11–20; discussion S33–4 (107 ref.)

Effects of sodium depletion on the role of AT1- and alpha-adrenergic receptors in the regulation of forearm vascular tone in humans. Baan J Jr, et al. **J Hypertens** 1999 Feb;17(2):229–35

Role of the angiotensin II AT2-subtype receptors in the blood pressure-lowering effect of losartan in salt-restricted rats. Gigante B, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2039–43

Regulation of adrenal angiotensin receptor subtypes: a possible mechanism for sympathectomy-induced adrenal hypertrophy. Qiu J, et al. **J Hypertens** 1999 Jul;17(7):933–40

Regulation of vascular type 1 angiotensin II receptor in hypertension and sodium loading: role of angiotensin II. Wang DH, et al. **J Hypertens** 1998 Apr;16(4):467–75

2-Tetradecylglycidic acid, an inhibitor of carnitine palmitoyltransferase-1, induces myocardial hypertrophy via the AT1 receptor. Wolkowicz PE, et al. **J Mol Cell Cardiol** 1999 Aug;31(8):1405–12

Genetic deletion and overexpression of angiotensin II receptors. Hein L. **J Mol Med** 1998 Oct;76(11):756–63 (82 ref.)

Contributions of the brain angiotensin IV-AT4 receptor subtype system to spatial learning. Wright JW, et al. **J Neurosci** 1999 May 15;19(10):3952–61

Angiotensin receptor subtype 1 mediates angiotensin II enhancement of isoproterenol-induced cyclic AMP production in preglomerular microvascular smooth muscle cells. Inoue T, et al. **J Pharmacol Exp Ther** 1999 Mar; 288(3):1229–34

Effects of targeted disruption of the mouse angiotensin II type 2 receptor gene on stress-induced hyperthermia. Watanabe T, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):881–5

Adenosine-angiotensin II interactions in pentylenetetrazol seizure threshold in mice. Tchekalarova J, et al. **J Physiol Paris** 1999 May-Jun;93(3):191–7

Angiotensin II type 1 receptor gene polymorphism is associated with an increased vascular reactivity in the human mammary artery in vitro. Henrion D, et al. **J Vasc Res** 1998 Sep-Oct;35(5):356–62

Physiological and pharmacological implications of AT1 versus AT2 receptors. Chung O, et al. **Kidney Int Suppl** 1998 Sep;67:S95–9 (59 ref.)

Localization and interactions of vasoactive peptide receptors in renomedullary interstitial cells of the kidney. Zhuo J, et al. **Kidney Int Suppl** 1998 Sep;67:S22–8 (29 ref.)

Deferential roles of angiotensin receptor subtypes in adrenocortical function in mice. Naruse M, et al. **Life Sci** 1998;63(18):1593–8

Angiotensin II type 2 receptor mediates vascular smooth muscle cell apoptosis and antagonizes angiotensin II type 1 receptor action: an in vitro gene transfer study. Yamada T, et al. **Life Sci** 1998;63(19):PL289–95

Participation of angiotensin receptors in acute hypoxia in mice. I. Effects of angiotensin peptide receptor ligands saralasin and sarmesin. Georgiev V, et al. **Methods Find Exp Clin Pharmacol** 1999 Jul-Aug; 21(6):415–9

Action of angiotensin receptor subtypes on the renal tubules and vasculature: implications for volume homeostasis and atherosclerosis. Zitnay C, et al. **Miner Electrolyte Metab** 1998;24(6):362–70 (93 ref.)

Angiotensin II receptor coupling to phospholipase D is mediated by the betagamma subunits of heterotrimeric G proteins in vascular smooth muscle cells. Ushio-Fukai M, et al. **Mol Pharmacol** 1999 Jan;55(1):142–9

Involvement of central angiotensin receptors in stress adaptation. Dumont EC, et al. **Neuroscience** 1999; 93(3):877–84

The role of angiotensin II and of its receptor subtypes in the acetic acid-induced abdominal constriction test. Georgieva D, et al. **Pharmacol Biochem Behav** 1999 Feb; 62(2):229–32

CGP 42112A antagonism of the angiotensin II and angiotensin II(3–7) facilitation of recall in rats. Braszko JJ, et al. **Pharmacol Res** 1998 Dec;38(6):461–8

Effects of angiotensin II on sexual function, blood pressure, and fluid intake are differentially affected by AT-1 receptor blockade. Keaton AK, et al. **Physiol Behav** 1998 Jun 1; 64(3):339–46

Reduced growth, abnormal kidney structure, and type 2 (AT2) angiotensin receptor-mediated blood pressure regulation in mice lacking both AT1A and AT1B receptors for angiotensin II. Oliverio MI, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15496–501

Sustained hypersensitivity to angiotensin II and its mechanism in mice lacking the subtype-2 (AT2) angiotensin receptor. Siragy HM, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6506–10

Angiotensin charge relay system: role of arginine. Pires JM, et al. **Proc West Pharmacol Soc** 1998;41:197–9

Angiotensin AT1 receptor subtypes in the rabbit pulmonary artery. A ligand binding study. Sim MK, et al. **Receptors Channels** 1998;5(6):323–9

The AT2 receptor: fact, fancy and fantasy. de Gasparo M, et al. **Regul Pept** 1999 May 31;81(1-3):11–24 (154 ref.)

Regulation of angiotensin II type 1 (AT1) receptor function. Thomas WG. **Regul Pept** 1999 Jan 1;79(1):9–23 (121 ref.)

[Molecular structure and function of angiotensin ii receptors] Clauser E. **Nephrologie** 1998;19(7):403–10 (53 ref.) (Eng. Abstr.) **(Fre)**

[Functions of AT2 receptors of angiotensin II] Heymes C, et al. **Therapie** 1998 May-Jun;53(3):213–6 (21 ref.) (Eng. Abstr.) **(Fre)**

[Modulations by stimulation of angiotensin II type 1 receptor of gastrointestinal functions] Katsuragi T, et al. **Nippon Rinsho** 1999 May;57(5):1054–9 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Structure and function of angiotensin II receptor] Kim S, et al. **Nippon Rinsho** 1999 May;57(5):1065–9 (17 ref.) **(Jpn)**

[Angiotensin II receptor-mediated function unmasked by gene-engineered animals] Matsubara H, et al. **Nippon Rinsho** 1999 May;57(5):1084–9 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Pathophysiological function of angiotensin II AT1 and AT2 receptors and clinical application of AT1 antagonists] Matsubara H, et al. **Nippon Rinsho** 1998 Jul;56(7):1912–8 (29 ref.) (Eng. Abstr.) **(Jpn)**

[Intracellular signaling pathways of angiotensin II receptor type 1 involved in the development of cardiovascular diseases] Miyazaki H, et al. **Nippon Rinsho** 1998 Jul; 56(7):1906–11 (22 ref.) (Eng. Abstr.) **(Jpn)**

[Signal transduction systems of angiotensin II receptors] Takeuchi K. **Nippon Rinsho** 1999 May;57(5):1070–7 (30 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, ANTIGEN

BIOSYNTHESIS

The bacterial endotoxin lipopolysaccharide has the ability to target the brain in upregulating its membrane CD14 receptor within specific cellular populations. Lacroix S, et al. **Brain Pathol** 1998 Oct;8(4):625–40

Fas receptor expression on asthmatic eosinophils. Fahy JE, et al. **Res Commun Mol Pathol Pharmacol** 1998 Oct; 102(1):93–6

BLOOD

Binding of HIV-1 to RBCs involves the Duffy antigen receptors for chemokines (DARC). Lachgar A, et al. **Biomed Pharmacother** 1998;52(10):436–9

GENETICS

CsA-sensitive purine-box transcriptional regulator in bronchial epithelial cells contains NF45, NF90, and Ku. Aoki Y, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1164–72

Towards understanding the evolutionary origins and early diversification of rearranging antigen receptors. Rast JP, et al. **Immunol Rev** 1998 Dec;166:79–86 (54 ref.)

Mutational pattern of the nurse shark antigen receptor gene (NAR) is similar to that of mammalian Ig genes and to spontaneous mutations in evolution: the translesion synthesis model of somatic hypermutation. Diaz M, et al. **Int Immunol** 1999 May;11(5):825–33

Partial block in B lymphocyte development at the transition into the pre-B cell receptor stage in Vpre-B1-deficient mice. Mårtensson A, et al. **Int Immunol** 1999 Mar; 11(3):453–60

Somatic hypermutation of the new antigen receptor gene (NAR) in the nurse shark does not generate the repertoire: possible role in antigen-driven reactions in the absence of germinal centers. Diaz M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14343–8

IMMUNOLOGY

FcR-mediated inhibition of cell activation and other forms of coinhibition. Anderson CC, et al. **Crit Rev Immunol** 1998; 18(6):525–44 (131 ref.)

Receptor-dependent immune responses in pigs after oral immunization with F4 fimbriae. Van den Broeck W, et al. **Infect Immun** 1999 Feb;67(2):520–6

Somatic hypermutation of the new antigen receptor gene (NAR) in the nurse shark does not generate the repertoire: possible role in antigen-driven reactions in the absence of germinal centers. Diaz M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14343–8

Antigen receptors in lymphoid cell development and lymphocyte activation. Di Santo JP, et al. **Res Immunol** 1998 Nov-Dec;149(9):868–71

METABOLISM

An antigen receptor (NCCRP-1) on nonspecific cytotoxic cells is a phosphoprotein associated with the JAK-STAT activation pathway. Evans DL, et al. **Cell Signal** 1999 Apr; 11(4):287–92

IL-4-dependent IgE class switching in an anti-trinitrophenyl B-cell hybridoma after engagement of antigen receptors. Hikida M, et al. **Immunol Lett** 1999 Feb;65(3):161–6

Accessibility of nucleosomal DNA to V(D)J cleavage is modulated by RSS positioning and HMG1. Kwon J, et al. **Mol Cell** 1998 Dec;2(6):829–39

Antigen receptor signaling: integration of protein tyrosine kinase functions. Tamir I, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1353–64 (203 ref.)

PHYSIOLOGY

Bone marrow transplantation, fetal B-cell repertoire development, and the mechanism of immune reconstitution [letter] Raaphorst FM. **Blood** 1998 Dec 15;92(12):4873–4

Role for myelin-associated glycoprotein as a functional tenascin-R receptor. Yang H, et al. **J Neurosci Res** 1999 Mar 15;55(6):687–701

Regulation of antigen receptor function by protein tyrosine kinases. Bubeck-Wardenburg J, et al. **Prog Biophys Mol Biol** 1999;71(3–4):373–92 (126 ref.)

RECEPTORS, ANTIGEN, B-CELL

ANALYSIS

CD79a detected by ZL7.4 separates chronic lymphocytic leukemia from mantle cell lymphoma in the leukemic phase. Bell PB, et al. **Cytometry** 1999 Jun 15;38(3):102–5

Expression of CD79a antigen in acute lymphoblastic leukaemias in children. Nowicki M, et al. **Folia Histochem Cytobiol** 1999;37(2):149–50

B-cell (CD79a+) lymphoma affecting the tarsal joint synovia in a sheep. Pearson GR, et al. **J Comp Pathol** 1999 Apr; 120(3):295–9

ANTAGONISTS & INHIBITORS

Primary stenting and glycoprotein IIb/IIIa inhibitors in acute myocardial infarction. Colombo A, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):153–7 (37 ref.)

IIb/IIIa receptor blockade in acute myocardial infarction. Ferguson JJ, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):164–70 (24 ref.)

Low-dose fibrinolytics and glycoprotein IIb/IIIa receptor blockade for the treatment of acute myocardial infarction. Ferrario M, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):121–5 (45 ref.)

The SH2 domain-containing inositol 5'-phosphatase (SHIP) recruits the p85 subunit of phosphoinositide 3-kinase during FcgammaRIIb1-mediated inhibition of B cell receptor signaling. Gupta N, et al. **J Biol Chem** 1999 Mar 12; 274(11):7489–94

Inhibitory modulation of B cell receptor-mediated Ca2+ mobilization by Src homology 2 domain-containing inositol 5'-phosphatase (SHIP). Hashimoto A, et al. **J Biol Chem** 1999 Apr 16;274(16):11203–8

BIOSYNTHESIS

Four-color flow cytometric investigation of terminal deoxynucleotidyl transferase-positive lymphoid precursors in pediatric bone marrow: CD79a expression precedes CD19 in early B-cell ontogeny. Dworzak MN, et al. **Blood** 1998 Nov 1;92(9):3203–9

Induction of the antigen receptor expression on B lymphocytes results in rapid competence for signaling of SLP-65 and Syk. Zhang Y, et al. **EMBO J** 1998 Dec 15; 17(24):7304–10

Modulation of the IL-7 dose-response threshold during pro-B cell differentiation is dependent on pre-B cell receptor expression. Marshall AJ, et al. **J Immunol** 1998 Dec 1;161(11):6038–45

CHEMISTRY

Role of transmembrane domains in the functions of B- and T-cell receptors. Zidovetzki R, et al. **Immunol Lett** 1998 Dec;64(2–3):97–107 (110 ref.)

Crystallization and stabilization of MB-1, a de novo designed protein for optimized feeding technology. Grundy J, et al. **J Biotechnol** 1998 Jul 30;63(1):9–15

DEFICIENCY

An alternatively spliced form of CD79b gene may account for altered B-cell receptor expression in B-chronic lymphocytic leukemia. Alfarano A, et al. **Blood** 1999 Apr 1;93(7):2327–35

GENETICS

Genetic analysis of B cell antigen receptor signaling. Kurosaki T. **Annu Rev Immunol** 1999;17:555–92 (182 ref.)

Receptor editing: genetic reprogramming of autoreactive lymphocytes. Retter MW, et al. **Cell Biochem Biophys** 1999; 31(1):81–8 (66 ref.)

V(D)J hypermutation and receptor revision: coloring outside the lines. Kelsoe G. **Curr Opin Immunol** 1999 Feb; 11(1):70–5 (53 ref.)

Alternative splicing of CD79a (Ig alpha) and CD79b (Ig beta) transcripts in human B-CLL cells. Alfarano A, et al. **Curr Top Microbiol Immunol** 1999;246:241–6; discussion 247–8 (28 ref.)

Chronic lymphocytic leukemia B cells express restricted sets of mutated and unmutated antigen receptors. Fais F, et al. **J Clin Invest** 1998 Oct 15;102(8):1515–25

Distinct signal thresholds for the unique antigen receptor-linked gene expression programs in mature and immature B cells. Benschop RJ, et al. **J Exp Med** 1999 Sep 20;190(6):749-56

Receptor editing occurs frequently during normal B cell development. Retter MW, et al. **J Exp Med** 1998 Oct 5; 188(7):1231-8

Expression levels of B cell surface immunoglobulin regulate efficiency of allelic exclusion and size of autoreactive B-1 cell compartment. Watanabe N, et al. **J Exp Med** 1999 Aug 16;190(4):461-69

Models for antigen receptor gene rearrangement. I. Biased receptor editing in B cells: implications for allelic exclusion. Mehr R, et al. **J Immunol** 1999 Aug 15;163(4):1793-8

B cell deletion, anergy, and receptor editing in "knock in" mice targeted with a germline-encoded or somatically mutated anti-DNA heavy chain. Pewzner-Jung Y, et al. **J Immunol** 1998 Nov 1;161(9):4634-45

Rapid elimination of mature autoreactive B cells demonstrated by Cre-induced change in B cell antigen receptor specificity in vivo. Lam KP, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13171-5

IMMUNOLOGY

Impairment of B-lymphocyte differentiation induced by dual triggering of the B-cell antigen receptor and CD40 in advanced HIV-1-disease. Conge AM, et al. **AIDS** 1998 Aug 20;12(12):1437-49

Flow cytometric diagnosis of the cell lineage and developmental stage of acute lymphoblastic leukemia by novel monoclonal antibodies specific to human pre-B-cell receptor. Tsuganezawa K, et al. **Blood** 1998 Dec 1; 92(11):4317-24

Regulation of B cell antigen receptor signaling by the Lyn/CD22/SHP1 pathway. Cornall RJ, et al. **Curr Top Microbiol Immunol** 1999;244:57-68 (67 ref.)

Influence of B cell receptor ligation and TCR affinity on T-B collaboration in vitro. Cook MC, et al. **Eur J Immunol** 1998 Dec;28(12):4037-49

B cell epitopes of the major timothy grass pollen allergen, phl p 1, revealed by gene fragmentation as candidates for immunotherapy. Ball T, et al. **FASEB J** 1999 Aug; 13(11):1277-90

Antigen-stimulated dissociation of BCR mIg from Ig-alpha/Ig-beta: implications for receptor desensitization. Vilen BJ, et al. **Immunity** 1999 Feb;10(2):239-48

The in vivo balance between B cell clonal expansion and elimination is regulated by CD95 both on B cells and in their micro-environment. Rathmell JC, et al. **Immunol Cell Biol** 1998 Oct;76(5):387-94

Immune cell signaling defects in lupus: activation, anergy and death. Tsokos GC, et al. **Immunol Today** 1999 Mar; 20(3):119-24

The dynamics of protein kinase B regulation during B cell antigen receptor engagement. Astoul E, et al. **J Cell Biol** 1999 Jun 28;145(7):1511-20

Augmentation of antigen receptor-mediated responses by histamine H1 receptor signaling. Banu Y, et al. **J Exp Med** 1999 Feb 15;189(4):673-82

B cell antigen receptor specificity and surface density together determine B-1 versus B-2 cell development. Lam KP, et al. **J Exp Med** 1999 Aug 16;190(4):471-7

B cell apoptosis triggered by antigen receptor ligation proceeds via a novel caspase-dependent pathway. Chen W, et al. **J Immunol** 1999 Sep 1;163(5):2483-91

Antagonistic roles for phospholipase D activities in B cell signaling: while the antigen receptors transduce mitogenic signals via a novel phospholipase D activity, phosphatidylcholine-phospholipase D mediates antiproliferative signals. Gilbert JJ, et al. **J Immunol** 1998 Dec 15;161(12):6575-84

B cell responses to a peptide epitope. VI. The kinetics of antigen recognition modulates B cell-mediated recruitment of T helper subsets. Vijayakrishnan L, et al. **J Immunol** 1998 Nov 1;161(9):4661-70

The capsid gene of feline calicivirus contains linear B-cell epitopes in both variable and conserved regions. Radford AD, et al. **J Virol** 1999 Oct;73(10):8496-502

Interleukin-4 overcomes the negative influence of cyclic AMP accumulation on antigen receptor stimulated B lymphocytes. Venkataraman C, et al. **Mol Immunol** 1998 Oct;35(14-15):997-1014

B cell antigen receptor signalling in the balance of tolerance and immunity. Cornall RJ, et al. **Novartis Found Symp** 1998; 215:21-30; discussion 30-40 (38 ref.)

Paired immunoglobulin-like receptor B (PIR-B) inhibits BCR-induced activation of Syk and Btk by SHP-1. Maeda A, et al. **Oncogene** 1999 Apr 8;18(14):2291-7

Rapid elimination of mature autoreactive B cells demonstrated by Cre-induced change in B cell antigen receptor specificity in vivo. Lam KP, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13171-5

A Trypanosoma cruzi alkaline antigen induces polyclonal B-cell activation of normal murine spleen cells by T-cell-independent, BCR-directed stimulation. Montes CL, et al. **Scand J Immunol** 1999 Aug;50(2):159-66

ISOLATION & PURIFICATION

Evaluation of B and T lymphocytes and plasma cells in colonic mucosa from healthy dogs and from dogs with inflammatory bowel disease. Stonehewer J, et al. **Res Vet Sci** 1998 Jul-Aug;65(1):59-63

METABOLISM

Lymphocyte antigen receptor signal integration and regulation by the SHC adaptor. Baldari CT, et al. **Biol Chem** 1999 Feb;380(2):129-34 (42 ref.)

Activation of Vav and Ras through the nerve growth factor and B cell receptors by different kinases. Melamed I, et al. **Cell Immunol** 1999 Feb 1;191(2):83-9

Lymphocyte signaling: adapting new adaptors. Rudd CE. **Curr Biol** 1998 Nov 5;8(22):R805-8 (18 ref.)

Signal transduction from the B cell antigen-receptor. Campbell KS. **Curr Opin Immunol** 1999 Jun;11(3):256-64 (74 ref.)

Co-receptors on B lymphocytes. Tsubata T. **Curr Opin Immunol** 1999 Jun;11(3):249-55 (58 ref.)

Antigen receptor signaling induces differential tyrosine kinase activation and population stability in B-cell lymphoma. Hsueh RC, et al. **Curr Top Microbiol Immunol** 1999; 246:299-304; discussion 305 (14 ref.)

The formation and selection of cells expressing preB cell receptors and B cell receptors. ten Boekel E, et al. **Curr Top Microbiol Immunol** 1999;246:3-9; discussion 9-10 (38 ref.)

Antigen receptor-mediated activation of extracellular related kinase (ERK) in B lymphocytes of teleost fishes. MacDougal KC, et al. **Dev Comp Immunol** 1999 Apr; 23(3):221-30

Requirement of PEST domain tyrosine phosphatase PEP in B cell antigen receptor-induced growth arrest and apoptosis. Hasegawa K, et al. **Eur J Immunol** 1999 Mar; 29(3):887-96

Caspase activation by BCR cross-linking in immature B cells: differential effects on growth arrest and apoptosis. Brás A, et al. **FASEB J** 1999 May;13(8):931-44

Cross-linking of the B cell receptor induces activation of phospholipase D through Syk, Btk and phospholipase C-gamma2. Hitomi T, et al. **FEBS Lett** 1999 Feb 26; 445(2-3):371-4

Rel-dependent induction of A1 transcription is required to protect B cells from antigen receptor ligation-induced apoptosis. Grumont RJ, et al. **Genes Dev** 1999 Feb 15; 13(4):400-11

Negative selection of immature B cells by receptor editing or deletion is determined by site of antigen encounter. Sandel PC, et al. **Immunity** 1999 Mar;10(3):289-99

mel-18 negatively regulates cell cycle progression upon B cell antigen receptor stimulation through a cascade leading to c-myc/cdc25. Tetsu O, et al. **Immunity** 1998 Oct; 9(4):439-48

MAPkinase: a second site of G-protein regulation of B-cell activation via the antigen receptors. Deehan MR, et al. **Immunology** 1998 Oct;95(2):169-77

B cell receptor-induced apoptosis in primary transitional murine B cells: signaling requirements and modulation by T cell help. Sater RA, et al. **Int Immunol** 1998 Nov; 10(11):1673-82

The src homology domain 2-containing inositol phosphatase SHIP forms a ternary complex with Shc and Grb2 in antigen receptor-stimulated B lymphocytes. Harmer SL, et al. **J Biol Chem** 1999 Apr 23;274(17):12183-91

Suboptimal cross-linking of antigen receptor induces Syk-dependent activation of p70S6 kinase through protein kinase C and phosphoinositol 3-kinase. Li HL, et al. **J Biol Chem** 1999 Apr 2;274(14):9812-20

Activation of the Rap1 GTPase by the B cell antigen receptor. McLeod SJ, et al. **J Biol Chem** 1998 Oct 30; 273(44):29218-23

B cell antigen receptor engagement inhibits stromal cell-derived factor (SDF)-1alpha chemotaxis and promotes protein kinase C (PKC)-induced internalization of CXCR4. Guinamard R, et al. **J Exp Med** 1999 May 3;189(9):1461-6

Involvement of guanosine triphosphatases and phospholipase C-gamma2 in extracellular signal-regulated kinase, c-Jun NH2-terminal kinase, and p38 mitogen-activated protein kinase activation by the B cell antigen receptor. Hashimoto A, et al. **J Exp Med** 1998 Oct 5;188(7):1287-95

Different protein tyrosine kinases are required for B cell antigen receptor-mediated activation of extracellular signal-regulated kinase, c-Jun NH2-terminal kinase 1, and p38 mitogen-activated protein kinase. Jiang A, et al. **J Exp Med** 1998 Oct 5;188(7):1297-306

The inositol polyphosphate 5-phosphatase ship is a crucial negative regulator of B cell antigen receptor signaling. Liu Q, et al. **J Exp Med** 1998 Oct 5;188(7):1333-42

The guanine-nucleotide exchange factor Vav is a crucial regulator of B cell receptor activation and B cell responses to nonrepetitive antigens. Bachmann MF, et al. **J Immunol** 1999 Jul 1;163(1):137-42

B cell apoptosis triggered by antigen receptor ligation proceeds via a novel caspase-dependent pathway. Chen W, et al. **J Immunol** 1999 Sep 1;163(5):2483-91

Presentation of antigens internalized through the B cell receptor requires newly synthesized MHC class II molecules. Forquet F, et al. **J Immunol** 1999 Mar 15; 162(6):3408-16

Mu-surrogate light chain physicochemical interactions of the human preB cell receptor: implications for VH repertoire selection and cell signaling at the preB cell stage. Gauthier L, et al. **J Immunol** 1999 Jan 1;162(1):41-50

Antigen receptor engagement selectively induces macrophage inflammatory protein-1 alpha (MIP-1 alpha) and MIP-1 beta chemokine production in human B cells. Krzysiek R, et al. **J Immunol** 1999 Apr 15;162(8):4455-63

Cutting edge: recruitment of the CD19/CD21 coreceptor to B cell antigen receptor is required for antigen-mediated expression of Bcl-2 by resting and cycling hen egg lysozyme transgenic B cells. Roberts T, et al. **J Immunol** 1999 Apr 15;162(8):4377-80

Co-expression of CD79a (JCB117) and CD3 by lymphoblastic lymphoma. Pilozzi E, et al. **J Pathol** 1998 Oct;186(2):140-3

SH3P7 is a cytoskeleton adapter protein and is coupled to signal transduction from lymphocyte antigen receptors. Larbolette O, et al. **Mol Cell Biol** 1999 Feb;19(2):1539-46

Mammalian Polycomb group genes are categorized as a new type of early response gene induced by B-cell receptor cross-linking. Hasegawa M, et al. **Mol Immunol** 1998 Jun; 35(9):559-63

Quantitative and qualitative control of antigen receptor signalling in tolerant B lymphocytes. Healy JI, et al. **Novartis Found Symp** 1998;215:137-44; discussion 144-5, 186-90

PHYSIOLOGY

The B-cell transmembrane protein CD72 binds to and is an in vivo substrate of the protein tyrosine phosphatase SHP-1. Wu Y, et al. **Curr Biol** 1998 Sep 10;8(18):1009-17

B cell development: signal transduction by antigen receptors and their surrogates. Benschop RJ, et al. **Curr Opin Immunol** 1999 Apr;11(2):143-51 (87 ref.)

Epstein-Barr virus LMP2A drives B cell development and survival in the absence of normal B cell receptor signals. Caldwell RG, et al. **Immunity** 1998 Sep;9(3):405-11

Modulation of B lymphocyte antigen receptor signal transduction by a CD19/CD22 regulatory loop. Fujimoto M, et al. **Immunity** 1999 Aug;11(2):191-200

PU.1 and Spi-B are required for normal B cell receptor-mediated signal transduction. Garrett-Sinha LA, et al. **Immunity** 1999 Apr;10(4):399-408

Protein kinase C-delta is a target of B-cell antigen receptor signaling. Barbazuk SM, et al. **Immunol Lett** 1999 Aug 3; 69(2):259-67

Role of transmembrane domains in the functions of B- and T-cell receptors. Zidovetzki R, et al. **Immunol Lett** 1998 Dec;64(2-3):97-107 (110 ref.)

Death signals from the B cell antigen receptor target mitochondria, activating necrotic and apoptotic death cascades in a murine B cell line, WEHI-231. Doi T, et al. **Int Immunol** 1999 Jun;11(6):933-41

Molecular dissection of B cell antigen receptor signaling (review). Kurosaki T. **Int J Mol Med** 1998 Mar;1(3):515-27 (115 ref.)

Engagement of the B-cell antigen receptor by antigen negatively regulates IgE production by antigen-specific B cells. Oshiba A, et al. **J Allergy Clin Immunol** 1999 Feb; 103(2 Pt 1):341-8

The inositol phosphatase SHIP inhibits Akt/PKB activation in B cells. Aman MJ, et al. **J Biol Chem** 1998 Dec 18; 273(51):33922-8

The Gab1 protein is a docking site for multiple proteins involved in signaling by the B cell antigen receptor. Ingham RJ, et al. **J Biol Chem** 1998 Nov 13;273(46):30630-7

Antigens varying in affinity for the B cell receptor induce differential B lymphocyte responses. Kouskoff V, et al. **J Exp Med** 1998 Oct 19;188(8):1453-64

Phosphorylation of CD19 Y484 and Y515, and linked activation of phosphatidylinositol 3-kinase, are required for B cell antigen receptor-mediated activation of Bruton's tyrosine kinase. Buhl AM, et al. **J Immunol** 1999 Apr 15; 162(8):4438-46

Involvement of MIIC-like late endosomes in B cell receptor-mediated antigen processing in murine B cells. Drake JR, et al. **J Immunol** 1999 Jan 15;162(2):1150-5

The B cell antigen receptor activates the Akt (protein kinase B)/glycogen synthase kinase-3 signaling pathway via phosphatidylinositol 3-kinase. Gold MR, et al. **J Immunol** 1999 Aug 15;163(4):1894-905

Cutting edge: association of phospholipase C-gamma 2 Src homology 2 domains with BLNK is critical for B cell antigen receptor signaling. Ishiai M, et al. **J Immunol** 1999 Aug 15;163(4):1746-9

Antigen receptor-induced signal transduction imbalances associated with the negative selection of immature B cells. King LB, et al. **J Immunol** 1999 Mar 1;162(5):2655-62

Convergence of CD19 and B cell antigen receptor signals at MEK1 in the ERK2 activation cascade. Li X, et al. **J Immunol** 1998 Dec 1;161(11):5901-8

Role of the inositol phosphatase SHIP in B cell receptor-induced Ca2+ oscillatory response. Okada H, et al. **J Immunol** 1998 Nov 15;161(10):5129-32

Ig alpha and Ig beta are required for efficient trafficking to late endosomes and to enhance antigen presentation. Siemasko K, et al. **J Immunol** 1999 Jun 1;162(11):6518-25

Inhibition of B cell receptor-mediated apoptosis by IFN. Su L, et al. **J Immunol** 1999 Jun 1;162(11):6317-21

B cell antigen receptor-mediated activation of cyclin-dependent retinoblastoma protein kinases and inhibition by co-cross-linking with Fc gamma receptors. Tanguay D, et al. **J Immunol** 1999 Sep 15;163(6):3160-8

Regulation of B cell receptor-mediated MHC class II antigen processing by FcgammaRIIB1. Wagle NM, et al. **J Immunol** 1999 Mar 1;162(5):2732-40

Engagement of B cell receptor regulates the invariant

chain-dependent MHC class II presentation pathway. Zimmermann VS, et al. **J Immunol** 1999 Mar 1; 162(5):2495-502

Induction of late activation events by Igbeta signaling subunit of B-cell receptor in Jurkat T-cell without tyrosine phosphorylation. Lim JH, et al. **Mol Cells** 1998 Aug 31; 8(4):408-15

Signaling through the antigen receptor of B lymphocytes activates a p53-independent pathway of c-Myc-induced apoptosis. Hagiyama H, et al. **Oncogene** 1999 Jul 15; 18(28):4091-8

[Regulation of B cell receptor signaling through tyrosine kinases and phosphatases] Takata M, et al. **Tanpakushitsu Kakusan Koso** 1999 Apr;44(5):655-67 (43 ref.) **(Jpn)**

RECEPTORS, ANTIGEN, T-CELL

see related
ANTIGENS, CD3
GENE REARRANGEMENT, T-LYMPHOCYTE
GENES, T-CELL RECEPTOR

Role of the T cell receptor in idiopathic thrombocytopenic purpura (ITP). Hedlund-Treutiger I, et al. **Acta Paediatr Suppl** 1998 Jun;424:46-50 (35 ref.)

Adapter molecules in T cell receptor signaling. Boerth NJ, et al. **Inflamm Bowel Dis** 1999 May;5(2):107-18 (116 ref.)

Triggering a second T cell receptor on diabetogenic T cells can prevent induction of diabetes. Fossati G, et al. **J Exp Med** 1999 Aug 16;190(4):577-83

Chicken CD4, CD8alphabeta, and CD8alphaalpha T cell co-receptor molecules. Luhtala M. **Poult Sci** 1998 Dec; 77(12):1858-73 (122 ref.)

T cell receptors in health and disease. Introduction. Grunewald J, et al. **Springer Semin Immunopathol** 1999; 21(1):1-4 (6 ref.)

[Structural biology of the immune response on cell surface] Kato K, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):325-37 (41 ref.) **(Jpn)**

AGONISTS

Aging increases CD8 T cell apoptosis induced by hyperstimulation but decreases apoptosis induced by agonist withdrawal in mice. Telford WG, et al. **Cell Immunol** 1999 Feb 1;191(2):131-8

Phospho-LAT-independent activation of the ras-mitogen-activated protein kinase pathway: a differential recruitment model of TCR partial agonist signaling. Chau LA, et al. **J Immunol** 1999 Aug 15; 163(4):1853-8

Induction of T cell anergy by low numbers of agonist ligands. Korb LC, et al. **J Immunol** 1999 Jun 1;162(11):6401-9

ANALYSIS

Prolonged CD8+ T-cell expansions after adoptive transfer of syngeneic lymphocytes between HIV-discordant identical twins [letter] Tan R, et al. **AIDS** 1998 Nov 12; 12(16):2240-1

T-cell receptor analysis in Omenn's syndrome: evidence for defects in gene rearrangement and assembly. Brooks EG, et al. **Blood** 1999 Jan 1;93(1):242-50

Expression and activity of signaling molecules in T lymphocytes obtained from patients with metastatic melanoma before and after interleukin 2 therapy. Rabinowich H, et al. **Clin Cancer Res** 1996 Aug; 2(8):1263-74

Permeabilization and fixation conditions for intracellular flow cytometric detection of the T-cell receptor zeta chain and other intracellular proteins in lymphocyte subpopulations. Lazarus AH, et al. **Cytometry** 1998 Jul 1;32(3):206-13

Surgical stress induces decreased expression of signal-transducing zeta molecules in T cells. Ichihara F, et al. **Eur Surg Res** 1999;31(2):138-46

A comparison of two techniques for the molecular tracking of specific T-cell responses; CD4+ human T-cell clones persist in a stable hierarchy but at a lower frequency than clones in the CD8+ population. Maini MK, et al. **Immunology** 1998 Aug;94(4):529-35

Quantitation of T-cell receptor frequencies by competitive PCR: generation and evaluation of novel TCR subfamily and clone specific competitors. McKee MD, et al. **J Immunother** 1999 Mar;22(2):93-102

Heterogeneity of T-acute lymphoblastic leukemia (T-ALL) cell lines: suggestion for classification by immunophenotype and T-cell receptor studies. Burger R, et al. **Leuk Res** 1999 Jan;23(1):19-27

[Detection of monoclonality in childhood lymphoma with the polymerase chain reaction] Soukup J, et al. **Cesk Patol** 1998 Nov;34(4):131-5 (Eng. Abstr.) **(Cze)**

ANTAGONISTS & INHIBITORS

Antibody-induced CD3-CD4 coligation inhibits TCR/CD3 activation in the absence of costimulatory signals in normal mouse CD4(+) T lymphocytes. Portolés P, et al. **Cell Immunol** 1999 Aug 1;195(2):96-109

Therapeutic potential of TCR antagonists is determined by their ability to modulate a diverse repertoire of autoreactive T cells. Anderton SM, et al. **Eur J Immunol** 1999 Jun; 29(6):1850-7

T cell receptor (TCR) antagonism without a negative signal: evidence from T cell hybridomas expressing two independent TCRs. Stotz SH, et al. **J Exp Med** 1999 Jan 18;189(2):253-64

Hypervariable region 1 variants act as TCR antagonists for hepatitis C virus-specific CD4+ T cells. Frasca L, et al. **J Immunol** 1999 Jul 15;163(2):650-8

Cutting edge: N-hydroxy peptides: a new class of TCR antagonists. Hin S, et al. **J Immunol** 1999 Sep 1; 163(5):2363-7

A new role for platelet-endothelial cell adhesion molecule-1 (CD31): inhibition of TCR-mediated signal transduction. Newton-Nash DK, et al. **J Immunol** 1999 Jul 15; 163(2):682-8

Cutting edge: dueling TCRs: peptide antagonism of CD4+ T cells with dual antigen specificities. Robertson JM, et al. **J Immunol** 1999 Aug 15;163(4):1750-4

The Src-homology domain 2-bearing protein tyrosine phosphatase-1 inhibits antigen receptor-induced apoptosis of activated peripheral T cells. Zhang J, et al. **J Immunol** 1999 Jun 1;162(11):6359-67

Copolymer 1 acts against the immunodominant epitope 82-100 of myelin basic protein by T cell receptor antagonism in addition to major histocompatibility complex blocking. Aharoni R, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):634-9

T cell receptor antagonism in vivo, at last [comment] Jameson SC. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14001-2 (27 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14332-6.

BIOSYNTHESIS

Absent or low expression of the zeta chain in T cells at the tumor site correlates with poor survival in patients with oral carcinoma. Reichert TE, et al. **Cancer Res** 1998 Dec 1;58(23):5344-7

Clinical significance of decreased zeta chain expression in peripheral blood lymphocytes of patients with head and neck cancer. Kuss I, et al. **Clin Cancer Res** 1999 Feb; 5(2):329-34

Local delivery of cytokines by retrovirally transduced antigen-specific TCR+ hybridoma cells in experimental autoimmune encephalomyelitis. Dal Canto RA, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):83-91

The expression of TIA-1+ cytolytic-type granules and other cytolytic lymphocyte-associated markers in CD30+ anaplastic large cell lymphomas (ALCL): correlation with morphology, immunophenotype, ultrastructure, and clinical features. Felgar RE, et al. **Hum Pathol** 1999 Feb; 30(2):228-36

Expression of signal transducing T-cell receptor zeta molecules after adoptive immunotherapy in patients with gastric and colon cancer. Kono K, et al. **Int J Cancer** 1998 Oct 29;78(3):301-5

The dependence for leukocyte function-associated antigen-1/ICAM-1 interactions in T cell activation cannot be overcome by expression of high density TCR ligand. Abraham C, et al. **J Immunol** 1999 Apr 15;162(8):4399-405

Identification and functional characterization of the zeta-chain dimerization motif for TCR surface expression. Bolliger L, et al. **J Immunol** 1999 Oct 1;163(7):3867-76

Generation of IL-2-dependent cytolytic T lymphocytes (CTLs) with altered TCR responses derived from antigen-dependent CTL clones. Gullo CA, et al. **J Immunol** 1999 Jun 1;162(11):6466-72

BLOOD

Production of serum immunoglobulins and T cell antigen binding molecules specific for cow's milk antigens in adults intolerant to cow's milk. Little CH, et al. **Clin Immunol Immunopathol** 1998 Nov;89(2):160-70

Identification of overrepresented T cell receptor genes in blood and tissue biopsies by PCR-ELISA. VanderBorght A, et al. **J Immunol Methods** 1999 Feb 1;223(1):47-61

CHEMISTRY

Infrared-mediated thermocycling for ultrafast polymerase chain reaction amplification of DNA. Oda RP, et al. **Anal Chem** 1998 Oct 15;70(20):4361-8

Structural basis of T cell recognition. Garcia KC, et al. **Annu Rev Immunol** 1999;17:369-97 (143 ref.)

Identification of a highly promiscuous and an HLA allele-specific T-cell epitope in the birch major allergen Bet v 1: HLA restriction, epitope mapping and TCR sequence comparisons. Friedl-Hajek R, et al. **Clin Exp Allergy** 1999 Apr;29(4):478-87

Contribution of kinases and the CD45 phosphatase to the generation of tyrosine phosphorylation patterns in the T-cell receptor complex zeta chain. Hegedüs Z, et al. **Immunol Lett** 1999 Mar 15;67(1):31-9

Role of transmembrane domains in the functions of B- and T-cell receptors. Zidovetzki R, et al. **Immunol Lett** 1998 Dec;64(2-3):97-107 (110 ref.)

A molecular basis for how a single TCR interfaces multiple ligands. Boesteanu A, et al. **J Immunol** 1998 Nov 1; 161(9):4719-27

Identification and functional characterization of the zeta-chain dimerization motif for TCR surface expression. Bolliger L, et al. **J Immunol** 1999 Oct 1;163(7):3867-76

Structural features of autoreactive TCR that determine the degree of degeneracy in peptide recognition. Hausmann S, et al. **J Immunol** 1999 Jan 1;162(1):338-44

The importance of pairwise interactions between peptide residues in the delineation of TCR specificity. Leggatt GR, et al. **J Immunol** 1998 Nov 1;161(9):4728-35

Structural features of the interaction between an anti-clonotypic antibody and its cognate T-cell antigen receptor. Mazza G, et al. **J Mol Biol** 1999 Apr 9; 287(4):773-80

Structure, specificity and CDR mobility of a class II restricted single-chain T-cell receptor. Hare BJ, et al. **Nat Struct Biol** 1999 Jun;6(6):574-81

Molecular dynamics simulations of HLA-DR4 (DRB1*0405) complexed with analogue peptide: conformational changes in the putative T-cell receptor binding regions. Toh H, et al. **Protein Eng** 1998 Nov;11(11):1027-32

GENETICS

Syntenic assignment of CD3G to bovine chromosome 15. Amarante MR, et al. **Anim Genet** 1999 Feb;30(1):67-8

Evolution of immunoglobulin and T-cell receptor gene assembly. Lewis SM. **Ann N Y Acad Sci** 1999 May 18; 870:58-67 (35 ref.)

Murine model of oral tolerance. Induction of Fas-mediated apoptosis by blockade of interleukin-12. Marth T, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:290-4

Evolution of antigen binding receptors. Litman GW, et al. **Annu Rev Immunol** 1999;17:109-47 (171 ref.)

T-cell receptor analysis in Omenn's syndrome: evidence for defects in gene rearrangement and assembly. Brooks EG, et al. **Blood** 1999 Jan 1;93(1):242-50

Prospective study of mutant frequencies at the hprt and T-cell receptor gene loci in pediatric cancer patients during chemotherapy. Sawada M, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Aug;7(8):711-7

Characterization of a mutant T-cell hybridoma line with defects in the TCR-mediated apoptotic pathway. Morgan G, et al. **Cell Death Differ** 1999 Jan;6(1):36-47

Cytolysis of tumor cells expressing the Neu/erbB-2, erbB-3, and erbB-4 receptors by genetically targeted naive T lymphocytes. Altenschmidt U, et al. **Clin Cancer Res** 1996 Jun;2(6):1001-8

Checkpoints for regulation of development and interferon gamma production by Th1 cells in TCR-transgenic models. O'Garra A. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):41-2 (10 ref.)

Loss of heterozygosity of BRCA1, TP53 and TCRD markers analysed in sporadic endometrial cancer. Niederacher D, et al. **Eur J Cancer** 1998 Oct;34(11):1770-6

T-cell receptor gene usage in patients with fibrosing alveolitis and control subjects. Lympany PA, et al. **Eur J Clin Invest** 1999 Feb;29(2):173-81

Chronic intravenous injections of antigen induce and maintain tolerance in T cell receptor-transgenic mice. Bercovici N, et al. **Eur J Immunol** 1999 Jan;29(1):345-54

Genetic re-targeting of T lymphocyte specificity [editorial] Bolhuis RL, et al. **Gene Ther** 1998 Sep;5(9):1153-5

Characterization of the lysinuric protein intolerance (LPI) region within T-cell receptor alpha/delta gene cluster on chromosome site 14q11. Lauteala T, et al. **Hereditas** 1999; 130(1):19-24

Grafting T cells with tumor specificity: the chimeric receptor strategy for use in immunotherapy of malignant diseases. Hombach A, et al. **Hybridoma** 1999 Feb;18(1):57-61 (10 ref.)

Molecular tracking of an Human Immunodeficiency Virus nef specific cytotoxic T-cell clone shows persistence of clone-specific T-cell receptor DNA but not mRNA following early combination antiretroviral therapy. Nixon DF, et al. **Immunol Lett** 1999 Mar;66(1-3):219-28

T-cell receptors in ectothermic vertebrates. Charlemagne J, et al. **Immunol Rev** 1998 Dec;166:87-102 (35 ref.)

Tolerance and autoimmunity in TCR transgenic mice specific for myelin basic protein. Goverman J. **Immunol Rev** 1999 Jun;169:147-59 (111 ref.)

Different modes of pathogenesis in T-cell-dependent autoimmunity: clues from two TCR transgenic systems. Ji H, et al. **Immunol Rev** 1999 Jun;169:139-46 (55 ref.)

The distribution of human TCR junctional region lengths shifts with age in both CD4 and CD8 T cells. Hall MA, et al. **Int Immunol** 1998 Oct;10(10):1407-19

CD45 can act as a negative regulator for the transition from early to late CD4+ CD8+ thymocytes. Sato T, et al. **Int Immunol** 1999 Jan;11(1):89-97

Molecular fingerprinting reveals non-overlapping T cell oligoclonality between an inflamed site and peripheral blood. Wedderburn LR, et al. **Int Immunol** 1999 Apr; 11(4):535-43

Chimeric anti-TAG72 receptors with immunoglobulin constant Fc domains and gamma or zeta signalling chains. Hombach A, et al. **Int J Mol Med** 1998 Jul;2(1):99-103

T cell receptor gene in synovial tissues of rheumatoid arthritis. Cantagrel A, et al. **Int Rev Immunol** 1998; 17(5-6):323-37 (64 ref.)

Mutations in T cell receptor zeta chain mRNA of peripheral T cells from systemic lupus erythematosus patients. Tsuzaka K, et al. **J Autoimmun** 1998 Oct;11(5):381-5

Expression of the T cell antigen receptor zeta chain following activation is controlled at distinct checkpoints. Implications for cell surface receptor down-modulation and re-expression. Bronstein-Sitton N, et al. **J Biol Chem** 1999 Aug 13;274(33):23659-65

Positive and negative regulation of V(D)J recombination by the E2A proteins. Bain G, et al. **J Exp Med** 1999 Jan 18; 189(2):289-300

Stability and diversity of T cell receptor repertoire usage during lymphocytic choriomeningitis virus infection of mice. Lin MY, et al. **J Exp Med** 1998 Dec 7; 188(11):1993–2005

Evolution of antigen-specific T cell receptors in vivo: preimmune and antigen-driven selection of preferred complementarity-determining region 3 (CDR3) motifs. McHeyzer-Williams LJ, et al. **J Exp Med** 1999 Jun 7; 189(11):1823–38

A kinetic threshold between negative and positive selection based on the longevity of the T cell receptor-ligand complex. Williams CB, et al. **J Exp Med** 1999 May 17; 189(10):1531–44

Characterization of T cell epitopes in measles virus nucleoprotein. Marttila J, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1609–15

Human class I supertypes and CTL repertoires extend to chimpanzees. Bertoni R, et al. **J Immunol** 1998 Oct 15; 161(8):4447–55

B7.1 is a quantitatively stronger costimulus than B7.2 in the activation of naive CD8+ TCR-transgenic T cells. Fields PE, et al. **J Immunol** 1998 Nov 15;161(10):5268–75

T lymphocyte development in the absence of CD3 epsilon or CD3 gamma delta epsilon zeta. Wang B, et al. **J Immunol** 1999 Jan 1;162(1):88–94

Identification of overrepresented T cell receptor genes in blood and tissue biopsies by PCR-ELISA. VanderBorght A, et al. **J Immunol Methods** 1999 Feb 1;223(1):47–61

First comparative delineation of the T cell receptor repertoire in primary and multiple subsequent/coexisting metastatic melanoma sites [published erratum appears in J Invest Dermatol 1999 Feb;112(2):256] Strohal R, et al. **J Invest Dermatol** 1998 Dec;111(6):1085–91

Aberrations in the primary T-cell receptor repertoire as a predisposition for synovial inflammation in rheumatoid arthritis. Yang H, et al. **J Investig Med** 1999 May; 47(5):236–45

Specific-pathogen-free conditions enhance inflammatory bowel disease in T-cell receptor knockout, but not C3H/HeJBir mice [letter; comment] Patterson MM, et al. **Lab Anim Sci** 1998 Oct;48(5):432–3. Comment on: Lab Anim Sci 1997 Dec;47(6):650–5.

Genotypic classification of childhood acute lymphoid leukemia. Pinkel D. **Leukemia** 1999 Apr;13 Suppl 1:S90–1

TCR AV24 gene expression in double negative T cells in systemic lupus erythematosus [letter] Sumida T, et al. **Lupus** 1998;7(8):565–8

Mutant p53: epigenetic mutator of the T-cell receptor via induction of methylation. Iwamoto KS, et al. **Mol Carcinog** 1999 Jun;25(2):113–21

Biomarkers in long survivors of pediatric acute lymphoblastic leukemia patients: late effects of cancer chemotherapy. Koishi S, et al. **Mutat Res** 1998 Dec 3;422(2):213–22

Synovial T cell receptor heterogeneity in early arthritis. Fang Q, et al. **Pathobiology** 1999 Mar-Apr;67(2):59–74

Selection of functional T cell receptor mutants from a yeast surface-display library. Kieke MC, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5651–6

T cell receptor gene deletion circles identify recent thymic emigrants in the peripheral T cell pool. Kong FK, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1536–40

Inhibition of intrathymic T cell development by expression of a transgenic antagonist peptide. Levelt CN, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14349–54

On the role of thymic epithelium vs. bone marrow-derived cells in repertoire selection of T cells. Zinkernagel RM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8092–7

[Clinical and histopathological aspects of 113 necrotizing malignant melanomas of the choroid. 2. Immunogenetic characterization of T-cell receptor-positive tumor-infiltrating lymphocytes and survival of patients with necrotizing melanomas of the choroid] Bialasiewicz AA, et al. **Klin Monatsbl Augenheilkd** 1998 Nov; 213(5):271–7 (Eng. Abstr.) **(Ger)**

[Disturbance of signalling pathways for apoptosis in thymic lymphomas from TCR transgenic mice] Strzadala L. **Postepy Hig Med Dosw** 1999;53(2):345–50 (15 ref.) (Eng. Abstr.) **(Pol)**

[Long-term effects of chronic radiation exposure on the level of somatic mutations in peripheral blood cells] Akleev AV, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):573–85 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Immune cells in the tumor microenvironment. Mechanisms responsible for functional and signaling defects. Whiteside TL. **Adv Exp Med Biol** 1998;451:167–71

Human decidualized endometrial T lymphocytes do not substantially down-regulate CD3zeta. Bedenicki I, et al. **Am J Reprod Immunol** 1999 Apr;41(4):245–52

Association of HLA and T-cell receptor gene polymorphisms with Semple rabies vaccine-induced autoimmune encephalomyelitis. Piyasirisilp S, et al. **Ann Neurol** 1999 May;45(5):595–600

T-cell activation and the dynamic world of rafts. Viola A, et al. **APMIS** 1999 Jul;107(7):615–23 (70 ref.)

Formation of peripheral immunoreceptor repertoire for antigens: potential relationship to the pathogenesis of rheumatoid arthritis. Kohsaka H, et al. **Arthritis Rheum** 1998 Nov;41(11):1911–8 (50 ref.)

Targeting the T cell receptor in rheumatoid arthritis [editorial; comment] Kotzin BL, et al. **Arthritis Rheum** 1998 Nov;41(11):1906–10 (30 ref.). Comment on: Arthritis Rheum 1998 Nov;41(11):1919–29.

T-cell receptor-independent activation of clonal Th2 cells associated with chronic hypereosinophilia. Roufosse F, et al. **Blood** 1999 Aug 1;94(3):994–1002

Haematological response of patients with myelodysplastic syndrome to antithymocyte globulin is associated with a loss of lymphocyte-mediated inhibition of CFU-GM and alterations in T-cell receptor Vbeta profiles. Molldrem JJ, et al. **Br J Haematol** 1998 Sep;102(5):1314–22

Low CD4 counts rather than superantigenic-like effects account for differences in expressed T-cell receptor (TCR) repertoires between HIV-1 seropositive long-term non-progressors and individuals with progressive disease. Westby M, et al. **Br J Haematol** 1998 Sep;102(5):1187–96

Restoration of expression of signal-transduction molecules in lymphocytes from patients with metastatic renal cell cancer after combination immunotherapy. Gratama JW, et al. **Cancer Immunol Immunother** 1999 Aug;48(5):263–9

From TCR engagement to T cell activation: a kinetic view of T cell behavior. Lanzavecchia A, et al. **Cell** 1999 Jan 8;96(1):1–4 (29 ref.)

Endothelial antigen presentation: stimulation of previously activated but not naïve TCR-transgenic mouse T cells. Perez VL, et al. **Cell Immunol** 1998 Oct 10;189(1):31–40

The CD8beta ectodomain contributes to the augmented coreceptor function of CD8alphabeta heterodimers relative to CD8alphaalpha homodimers. Witte T, et al. **Cell Immunol** 1999 Feb 1;191(2):90–6

Positive and negative thymocyte selection. Saito T, et al. **Crit Rev Immunol** 1998;18(4):359–70 (89 ref.)

Costimulatory regulation of T cell function. Chambers CA, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):203–10 (81 ref.)

T cell receptor specificity and mimotopes. Sparbier K, et al. **Curr Opin Immunol** 1999 Apr;11(2):214–8 (29 ref.)

Inhibition of TCR triggering by a spectrum of altered peptide ligands suggests the mechanism for TCR antagonism. Bachmann MF, et al. **Eur J Immunol** 1998 Oct; 28(10):3110–9

Chronic intravenous injections of antigen induce and maintain tolerance in T cell receptor-transgenic mice. Bercovici N, et al. **Eur J Immunol** 1999 Jan;29(1):345–54

Characterization of T cell-expressed chimeric receptors with antibody-type specificity for the CD4 binding site of HIV-1 gp120 [published erratum appears in Eur J Immunol 1996 Feb;29(2):725] Bitton N, et al. **Eur J Immunol** 1998 Dec;28(12):4177–87

Influence of B cell receptor ligation and TCR affinity on T-B collaboration in vitro. Cook MC, et al. **Eur J Immunol** 1998 Dec;28(12):4037–49

Diverse CD1d-restricted reactivity patterns of human T cells bearing "invariant" AV24BV11 TCR. Couedel C, et al. **Eur J Immunol** 1998 Dec;28(12):4391–7

An endogenously processed self peptide and the corresponding exogenous peptide bound to the same MHC class II molecule could be distinct ligands for TCR with different kinetic stability. Gyotoku T, et al. **Eur J Immunol** 1998 Dec;28(12):4050–61

Quantitative determination of TCR cross-reactivity using peptide libraries and protein databases. Hiemstra HS, et al. **Eur J Immunol** 1999 Aug;29(8):2385–91

Peptide length-dependent TCR antagonism on class II HLA-restricted responses of peripheral blood mononuclear cells and T cell clones. Matsushita S, et al. **Eur J Immunol** 1999 Feb;29(2):431–6

Spontaneous clustering of Thy-1 antigens on CD4+ CD8+ thymocytes lacking TCR engagement by MHC/peptide complexes. Sano T, et al. **Eur J Immunol** 1999 Feb; 29(2):403–12

Positive selection of CD4+ T cells by TCR-specific antibodies requires low valency TCR cross-linking: implications for repertoire selection in the thymus. Suzuki H, et al. **Eur J Immunol** 1998 Oct;28(10):3252–8

Gene therapy approaches to HIV-infection: immunological strategies: use of T bodies and universal receptors to redirect cytolytic T-cells. Bitton N, et al. **Front Biosci** 1999 Apr 1;4:D386–93 (95 ref.)

Immunotherapy with T cells bearing chimeric antitumor receptors [comment] Paillard F. **Hum Gene Ther** 1999 Jan 20;10(2):151–3. Comment on: Hum Gene Ther 1999 Jan 20;10(2):165–73.

T cell response in xenorecognition and xenografts: a review. Brouard S, et al. **Hum Immunol** 1999 Jun;60(6):455–68 (98 ref.)

Differential signaling and hierarchical response thresholds induced by an immunodominant peptide of myelin basic protein and an altered peptide ligand in human T cells. Crowe PD, et al. **Hum Immunol** 1998 Nov;59(11):679–89

Possible mechanisms of immunotherapy for maintaining pregnancy in recurrent spontaneous aborters: analysis of anti-idiotypic antibodies directed against autologous T-cell receptors. Ito K, et al. **Hum Reprod** 1999 Mar;14(3):650–5

Biochemical association of CD45 with the T cell receptor complex: regulation by CD45 isoform and during T cell activation. Leitenberg D, et al. **Immunity** 1999 Jun; 10(6):701–11

A kinetic basis for T cell receptor repertoire selection during an immune response. Savage PA, et al. **Immunity** 1999 Apr; 10(4):485–92

TCR specificity in infection induced granulomas. Hogan LH, et al. **Immunol Lett** 1999 May 3;68(1):115–20 (36 ref.)

Thymocyte selection: not by TCR alone. Amsen D, et al. **Immunol Rev** 1998 Oct;165:209–29 (202 ref.)

Recognition surfaces of MHC class I. Jones EY, et al. **Immunol Rev** 1998 Jun;163:121–8 (45 ref.)

A kinetic differentiation model for the action of altered TCR ligands. Lord GM, et al. **Immunol Today** 1999 Jan; 20(1):33–9 (48 ref.)

T-cell anergy and altered T-cell receptor signaling: effects on autoimmune disease. Salojin KV, et al. **Immunol Today** 1998 Oct;19(10):468–73

Immune cell signaling defects in lupus: activation, anergy and death. Tsokos GC, et al. **Immunol Today** 1999 Mar; 20(3):119–24

Bolus injection of aqueous antigen leads to a high density of T-cell-receptor ligand in the spleen, transient T-cell activation and anergy induction. Switzer SK, et al. **Immunology** 1998 Aug;94(4):513–22

The Ii41 isoform of invariant chain mediates both positive and negative selection events in T-cell receptor transgenic mice. Wright RJ, et al. **Immunology** 1998 Nov;95(3):309–13

Different roles are played by alpha beta and gamma delta T cells in acquired immunity to Chlamydia trachomatis pulmonary infection. Yang X, et al. **Immunology** 1998 Aug; 94(4):469–75

Isolation of T-cell antigens by using a recombinant protein library and its application to the identification of novel vaccine candidates against schistosomiasis. Eberl M, et al. **Infect Immun** 1999 Jul;67(7):3383–9

Molecular basis of drug recognition by specific T-cell receptors. von Greyerz S, et al. **Int Arch Allergy Immunol** 1999 Jul;119(3):173–80 (49 ref.)

The extracellular versus intracellular mechanisms of inhibition of TCR-triggered activation in thymocytes by adenosine under conditions of inhibited adenosine deaminase. Apasov SG, et al. **Int Immunol** 1999 Feb; 11(2):179–89

Changes in the strength of co-stimulation through the B7/CD28 pathway alter functional T cell responses to altered peptide ligands. Murtaza A, et al. **Int Immunol** 1999 Mar;11(3):407–16

Chimeric anti-TAG72 receptors with immunoglobulin constant Fc domains and gamma or zeta signalling chains. Hombach A, et al. **Int J Mol Med** 1998 Jul;2(1):99–103

Increased expression of CD40 on thymocytes and peripheral T cells in autoimmunity: a mechanism for acquiring changes in the peripheral T cell receptor repertoire. Wagner DH Jr, et al. **Int J Mol Med** 1999 Sep;4(3):231–42

T cell receptor repertoire in rheumatoid arthritis. Goronzy JJ, et al. **Int Rev Immunol** 1998;17(5-6):339–63 (77 ref.)

Modification of human T-cell responses by altered peptide ligands: a new approach to antigen-specific modification. Nishimura Y, et al. **Intern Med** 1998 Oct;37(10):804–17 (96 ref.)

Tyrosine 319, a newly identified phosphorylation site of ZAP-70, plays a critical role in T cell antigen receptor signaling. Di Bartolo V, et al. **J Biol Chem** 1999 Mar 5; 274(10):6285–94

T cell recognition of hapten. Anatomy of T cell receptor binding of a H-2kd-associated photoreactive peptide derivative. Kessler B, et al. **J Biol Chem** 1999 Feb 5; 274(6):3622–31

Hypothesis: A recurrent, moderate activation fosters systemic autoimmunity--the apoptotic roles of TCR, IL-2 and Fas ligand. Matsui K, et al. **J Biomed Sci** 1999 Sep-Oct; 6(5):306–13 (57 ref.)

Developmental regulation of Lck targeting to the CD8 coreceptor controls signaling in naive and memory T cells. Bachmann MF, et al. **J Exp Med** 1999 May 17; 189(10):1521–30

Augmentation of antigen receptor-mediated responses by histamine H1 receptor signaling. Banu Y, et al. **J Exp Med** 1999 Feb 15;189(4):673–82

The final maturation of at least some single-positive CD4(hi) thymocytes does not require T cell receptor-major histocompatibility complex contact. Dyall R, et al. **J Exp Med** 1999 Sep 20;190(6):757–64

The avidity spectrum of T cell receptor interactions accounts for T cell anergy in a double transgenic model. Girgis L, et al. **J Exp Med** 1999 Jan 18;189(2):265–78

Molecular recognition of lipid antigens by T cell receptors. Grant EP, et al. **J Exp Med** 1999 Jan 4;189(1):195–205

Stability and diversity of T cell receptor repertoire usage during lymphocytic choriomeningitis virus infection of mice. Lin MY, et al. **J Exp Med** 1998 Dec 7; 188(11):1993–2005

Regulatory CD4(+) T cells expressing endogenous T cell receptor chains protect myelin basic protein-specific transgenic mice from spontaneous autoimmune encephalomyelitis. Olivares-Villagómez D, et al. **J Exp Med** 1998 Nov 16;188(10):1883–94

The JNK pathway regulates the In vivo deletion of immature CD4(+)CD8(+) thymocytes. Rincón M, et al. **J Exp Med** 1998 Nov 16;188(10):1817–30

In vivo expression of natural killer cell inhibitory receptors by human melanoma-specific cytolytic T lymphocytes. Speiser DE, et al. **J Exp Med** 1999 Sep 20;190(6):775–82

An invariant T cell receptor alpha chain defines a novel TAP-independent major histocompatibility complex class Ib-restricted alpha/beta T cell subpopulation in mammals. Tilloy F, et al. **J Exp Med** 1999 Jun 21;189(12):1907–21

A role for neutral sphingomyelinase-mediated ceramide production in T cell receptor-induced apoptosis and mitogen-activated protein kinase-mediated signal

transduction. Tonnetti L, et al. **J Exp Med** 1999 May 17; 189(10):1581–9

CD4(+) T cells prevent spontaneous experimental autoimmune encephalomyelitis in anti-myelin basic protein T cell receptor transgenic mice. Van de Keere F, et al. **J Exp Med** 1998 Nov 16;188(10):1875–82

Dependence of T cell antigen recognition on the dimensions of an accessory receptor-ligand complex. Wild MK, et al. **J Exp Med** 1999 Jul 5;190(1):31–41

Structural evidence of T cell xeno-reactivity in the absence of molecular mimicry. Zhao R, et al. **J Exp Med** 1999 Jan 18;189(2):359–70

Association of simian immunodeficiency virus Nef with the T-cell receptor (TCR) zeta chain leads to TCR down-modulation. Bell I, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2717–27

Loss of original antigenic specificity in T cell hybridomas transduced with a chimeric receptor containing single-chain Fv of an anti-collagen antibody and Fc epsilonRI-signaling gamma subunit. Annenkov AE, et al. **J Immunol** 1998 Dec 15;161(12):6604–13

Normal thymic selection of TCR transgenic CD4 T cells, but impaired survival in the periphery despite the presence of selecting MHC molecules. Barthlott T, et al. **J Immunol** 1998 Oct 15;161(8):3992–9

In the normal repertoire of CD4+ T cells, a single class II MHC/peptide complex positively selects TCRs with various antigen specificities. Chmielowski B, et al. **J Immunol** 1999 Jan 1;162(1):95–105

Limiting TCR expression leads to quantitative but not qualitative changes in thymic selection. Dave VP, et al. **J Immunol** 1999 May 15;162(10):5764–74

The TCR zeta-chain immunoreceptor tyrosine-based activation motifs are sufficient for the activation and differentiation of primary T lymphocytes. Geiger TL, et al. **J Immunol** 1999 May 15;162(10):5931–9

Cutting edge: TCR stimulation by antibody and bacterial superantigen induces Stat3 activation in human T cells. Gerwien J, et al. **J Immunol** 1999 Aug 15;163(4):1742–5

CD3/TCR complex-associated lymphocyte activation gene-3 molecules inhibit CD3/TCR signaling. Hannier S, et al. **J Immunol** 1998 Oct 15;161(8):4058–65

Definition of natural T cell antigens with mimicry epitopes obtained from dedicated synthetic peptide libraries. Hiemstra HS, et al. **J Immunol** 1998 Oct 15;161(8):4078–82

Peptide modification or blocking of CD8, resulting in weak TCR signaling, can activate CTL for Fas- but not perforin-dependent cytotoxicity or cytokine production. Kessler B, et al. **J Immunol** 1998 Dec 15;161(12):6939–46

Diverse fine specificity and receptor repertoire of T cells reactive to the major VP1 epitope (VP1230–250) of Theiler's virus: V beta restriction correlates with T cell recognition of the c-terminal residue. Kim BS, et al. **J Immunol** 1999 Jun 15;162(12):7049–57

Recognition of an MHC class I-restricted antigenic peptide can be modulated by para-substitution of its buried tyrosine residues in a TCR-specific manner. Saito NG, et al. **J Immunol** 1999 May 15;162(10):5998–6008

TCR signaling induces selective exclusion of CD43 from the T cell–antigen-presenting cell contact site. Sperling AI, et al. **J Immunol** 1998 Dec 15;161(12):6459–62

Negative regulation of human T cell activation by the receptor-type protein tyrosine phosphatase CD148. Tangye SG, et al. **J Immunol** 1998 Oct 15;161(8):3803–7

p38 mitogen-activated protein kinase mediates signal integration of TCR/CD28 costimulation in primary murine T cells. Zhang J, et al. **J Immunol** 1999 Apr 1; 162(7):3819–29

Specific lysis of melanoma cells by receptor grafted T cells is enhanced by anti-idiotypic monoclonal antibodies directed to the scFv domain of the receptor. Reinhold U, et al. **J Invest Dermatol** 1999 May;112(5):744–50

Regulation of delta opioid receptor expression by anti-CD3-epsilon, PMA, and ionomycin in murine splenocytes and T cells. Li MD, et al. **J Leukoc Biol** 1999 May;65(5):707–14

A major influence of the T cell receptor repertoire as compared to antigen processing-presentation in the selection of myelin basic protein epitopes in multiple sclerosis. Ristori G, et al. **J Neuroimmunol** 1999 May 3; 96(2):241–4

Human immunodeficiency virus type 1 derived from cocultures of immature dendritic cells with autologous T cells carries T-cell-specific molecules on its surface and is highly infectious. Frank I, et al. **J Virol** 1999 Apr; 73(4):3449–54

Diminished reproduction, failure to thrive, and altered immunologic function in a colony of T-cell receptor transgenic mice: possible role of Citrobacter rodentium. Maggio-Price L, et al. **Lab Anim Sci** 1998 Apr;48(2):145–55

Altered T cell repertoire usage in CD4 and CD8 subsets of multiple myeloma patients, a Study of the Eastern Cooperative Oncology Group (E9487). Kay N, et al. **Leuk Lymphoma** 1999 Mar;33(1-2):127–33

Differential signalling by variant ligands of the T cell receptor and the kinetic model of T cell activation. Madrenas J. **Life Sci** 1999;64(9):717–31 (118 ref.)

Structure, specificity and CDR mobility of a class II restricted single-chain T-cell receptor. Hare BJ, et al. **Nat Struct Biol** 1999 Jun;6(6):574–81

Does a shift in the T-cell receptor repertoire precede the onset of MS? Haegert DG, et al. **Neurology** 1999 Aug 11; 53(3):485–90

Tolerance induction in mature T lymphocytes. Alferink J, et al. **Novartis Found Symp** 1998;215:191–6; discussion 196–9, 218–30

Signals that regulate the host response to Mycobacterium tuberculosis. Beyers AD, et al. **Novartis Found Symp** 1998; 217:145–57; discussion 157–9 (40 ref.)

In vivo antagonism of a T cell response by an endogenously expressed ligand [see comments] Basu D, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14332–6. Comment in: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14001–2.

Functional differences between memory and naive CD8 T cells. Cho BK, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2976–81

The Rho-family GTP exchange factor Vav is a critical transducer of T cell receptor signals to the calcium, ERK, and NF-kappaB pathways. Costello PS, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3035–40

Specific requirement for CD3epsilon in T cell development. DeJarnette JB, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14909–14

Explaining high alloreactivity as a quantitative consequence of affinity-driven thymocyte selection. Detours V, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5153–8

A logical analysis of T cell activation and anergy. Kaufman M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):3894–9

Intercellular adhesion molecule-1 inhibits interleukin 4 production by naive T cells. Luksch CR, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3023–8

Ontogeny of T cell tolerance to peripherally expressed antigens. Morgan DJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3854–8

T cell antigen receptor-mediated activation of the Ras/mitogen-activated protein kinase pathway controls interleukin 4 receptor function and type-2 helper T cell differentiation. Yamashita M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1024–9

Recognition of the encephalitogenic myelin basic protein (74–85) peptide by the immune system: importance of conformation. Pires JM, et al. **Proc West Pharmacol Soc** 1998;41:193–5

Signalling through the TCR. Cantrell D, et al. **Res Immunol** 1998 Nov-Dec;149(9):866–7

Peptide binding and editing: generation of TCR ligands. Hammerling GJ, et al. **Res Immunol** 1998 Nov-Dec; 149(9):863–5

TCR peptide-reactive T cells and peripheral tolerance to myelin basic protein. Kumar V. **Res Immunol** 1998 Nov-Dec;149(9):827–34; discussion 852–4, 855–60 (66 ref.)

Decreased TCR AV24AJ18+ double-negative T cells in rheumatoid synovium [letter] Maeda T, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):186–8

The standard model of T-cell receptor function: a critical reassessment. Langman RE, et al. **Scand J Immunol** 1999 Jun;49(6):570–7 (24 ref.)

Analysis of the T-cell receptors utilized for allogeneic HLA-DR recognition: comparison of different responder-cell donors possessing an identical HLA-DR allele. Obata F, et al. **Scand J Immunol** 1998 Oct; 48(4):364–70

Requirement for diverse, low-abundance peptides in positive selection of T cells. Barton GM, et al. **Science** 1999 Jan 1;283(5398):67–70

Cell-fate decisions in early T cell development: regulation by cytokine receptors and the pre-TCR. Haks MC, et al. **Semin Immunol** 1999 Feb;11(1):23–37 (143 ref.)

Control of early thymocyte development by the pre-T cell receptor complex: A receptor without a ligand? Wiest DL, et al. **Semin Immunol** 1999 Aug;11(4):251–62 (111 ref.)

Involvement of T cells and alterations in T cell receptors in sarcoidosis. Moller DR. **Semin Respir Infect** 1998 Sep; 13(3):174–83 (80 ref.)

B lymphocytes influence the shape of the mature preimmune CD4+ TCR repertoire. Noorchashm H, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):832–3

Positive and negative signaling pathways. Pratt JC, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):772–4 (23 ref.)

The 2C T-cell transgenic mouse: an in vivo model of allospecific cytotoxic T-cell activation and homing. Stegall MD, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):779

Direct allorecognition: a mechanism in intrathymic tolerance induction. Turvey SE, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):844

The fate of donor T-cell receptor transgenic T cells with known host antigen specificity in a graft-versus-host disease model. Dey B, et al. **Transplantation** 1999 Jul 15; 68(1):141–9

METABOLISM

Integration of T cell receptor-dependent signaling pathways by adapter proteins. Clements JL, et al. **Annu Rev Immunol** 1999;17:89–108 (105 ref.)

The dynamics of T cell receptor signaling: complex orchestration and the key roles of tempo and cooperation. Germain RN, et al. **Annu Rev Immunol** 1999;17:467–522 (271 ref.)

Thermodynamic study of the binding of the tandem-SH2 domain of the Syk kinase to a dually phosphorylated ITAM peptide: evidence for two conformers. Grucza RA, et al. **Biochemistry** 1999 Apr 20;38(16):5024–33

Lymphocyte antigen receptor signal integration and regulation by the SHC adaptor. Baldari CT, et al. **Biol Chem** 1999 Feb;380(2):129–34 (42 ref.)

T-cell stimulation through the T-cell receptor/CD3 complex regulates CD2 lateral mobility by a calcium/calmodulin-dependent mechanism. Liu SQ, et al. **Biophys J** 1999 Mar;76(3):1679–92

Caspase-mediated degradation of T-cell receptor zeta-chain. Gastman BR, et al. **Cancer Res** 1999 Apr 1;59(7):1422–7

Caspases in T-cell receptor-induced thymocyte apoptosis. Jiang D, et al. **Cell Death Differ** 1999 May;6(5):402–11

Increased Zap-70 association with CD3zeta in CD4 T cells from old mice. Garcia GG, et al. **Cell Immunol** 1998 Dec 15;190(2):91–100

Analysis of Raf-1 activation in response to TCR activation and costimulation in murine T-lymphocytes: effect of age. Kirk CJ, et al. **Cell Immunol** 1998 Nov 25;190(1):33–42

Soluble, high-affinity dimers of T-cell receptors and class II major histocompatibility complexes: biochemical probes for analysis and modulation of immune responses. Lebowitz MS, et al. **Cell Immunol** 1999 Mar 15;192(2):175–84

Beta2-integrin, LFA-1, and TCR/CD3 synergistically induce tyrosine phosphorylation of focal adhesion kinase (pp125(FAK)) in PHA-activated T cells. Tabassam FH, et al. **Cell Immunol** 1999 May 1;193(2):179–84

Alterations in T cell receptor and signal transduction molecules in melanoma patients. Zea AH, et al. **Clin Cancer Res** 1995 Nov;1(11):1327–35

Lymphocyte signaling: adapting new adaptors. Rudd CE. **Curr Biol** 1998 Nov 5;8(22):R805–8 (18 ref.)

The regulation of antigen-receptor signaling by protein tyrosine phosphatases: a hole in the story. Thomas ML. **Curr Opin Immunol** 1999 Jun;11(3):270–6 (59 ref.)

Engagement of T cell receptor triggers its recruitment to low-density detergent-insoluble membrane domains. Montixi C, et al. **EMBO J** 1998 Sep 15;17(18):5334–48

Phosphorylation of Tyr319 in ZAP-70 is required for T-cell antigen receptor-dependent phospholipase C-gamma1 and Ras activation. Williams BL, et al. **EMBO J** 1999 Apr 1; 18(7):1832–44

A Nck-Pak1 signaling module is required for T-cell receptor-mediated activation of NFAT, but not of JNK. Yablonski D, et al. **EMBO J** 1998 Oct 1;17(19):5647–57

Absence of co-stimulation and not the intensity of TCR signaling is critical for the induction of T cell unresponsiveness in vivo. Bachmann MF, et al. **Eur J Immunol** 1999 Jul;29(7):2156–66

TCRzeta is transported to and retained in the Golgi apparatus independently of other TCR chains: implications for TCR assembly. Dietrich J, et al. **Eur J Immunol** 1999 May; 29(5):1719–28

NF-kappaB regulates Fas/APO-1/CD95- and TCR-mediated apoptosis of T lymphocytes. Dudley E, et al. **Eur J Immunol** 1999 Mar;29(3):878–86

CD4+ CD45RA+ and CD4+ CD45RO+ T cells differ in their TCR-associated signaling responses. Hall SR, et al. **Eur J Immunol** 1999 Jul;29(7):2098–106

Transient alteration of T cell fine specificity by a strong primary stimulus correlates with T cell receptor down-regulation. Martin S, et al. **Eur J Immunol** 1998 Oct; 28(10):2991–3002

Switch in chemokine receptor expression upon TCR stimulation reveals novel homing potential for recently activated T cells. Sallusto F, et al. **Eur J Immunol** 1999 Jun;29(6):2037–45

The connecting peptide domain of pT alpha dictates weak association of the pre-T cell receptor with the TCR zeta subunit. Trop S, et al. **Eur J Immunol** 1999 Jul; 29(7):2187–96

Obligatory cross-talk with the tyrosine kinases assembled with the TCR/CD3 complex in CD4 signal transduction. Ulivieri C, et al. **Eur J Immunol** 1999 Aug;29(8):2625–35

Functional testosterone receptors in plasma membranes of T cells. Benten WP, et al. **FASEB J** 1999 Jan;13(1):123–33

A chimeric receptor that selectively targets membrane-bound carcinoembryonic antigen (mCEA) in the presence of soluble CEA. Hombach A, et al. **Gene Ther** 1999 Feb;6(2):300–4

Qualitative and quantitative differences in T cell receptor binding of agonist and antagonist ligands. Alam SM, et al. **Immunity** 1999 Feb;10(2):227–37

Initiation of signal transduction through the T cell receptor requires the multivalent engagement of peptide/MHC ligands [corrected] [published erratum appears in Immunity 1998 Dec;9(6):891] Boniface JJ, et al. **Immunity** 1998 Oct; 9(4):459–66

High- and low-potency ligands with similar affinities for the TCR: the importance of kinetics in TCR signaling. Kersh GJ, et al. **Immunity** 1998 Dec;9(6):817–26

Biochemical association of CD45 with the T cell receptor complex: regulation by CD45 isoform and during T cell activation. Leitenberg D, et al. **Immunity** 1999 Jun; 10(6):701–11

Divergent changes in the sensitivity of maturing T cells to structurally related ligands underlies formation of a useful T cell repertoire. Lucas B, et al. **Immunity** 1999 Mar; 10(3):367–76

Engagement of GPI-linked CD48 contributes to TCR signals and cytoskeletal reorganization: a role for lipid rafts in T cell activation. Moran M, et al. **Immunity** 1998 Dec; 9(6):787–96

A kinetic basis for T cell receptor repertoire selection during

an immune response. Savage PA, et al. **Immunity** 1999 Apr; 10(4):485–92

Peptide antagonism and T cell receptor interactions with peptide–MHC complexes. Sykulev Y, et al. **Immunity** 1998 Oct;9(4):475–83

Designing and maintaining the mature TCR repertoire: the continuum of self-peptide:self-MHC complex recognition. Viret C, et al. **Immunity** 1999 May;10(5):559–68

TCR binding to peptide–MHC stabilizes a flexible recognition interface. Willcox BE, et al. **Immunity** 1999 Mar;10(3):357–65

T cell receptor and coreceptor CD8 alphaalpha bind peptide–MHC independently and with distinct kinetics. Wyer JR, et al. **Immunity** 1999 Feb;10(2):219–25

The cytoplasmic tail of killer inhibitory receptor (KIR) associates with TCR zeta in a phosphorylation–dependent manner. Cho HI, et al. **Immunol Lett** 1999 Jun 1; 68(2–3):339–45

Binding energetics of T–cell receptors: correlation with immunological consequences. Manning TC, et al. **Immunol Today** 1999 Sep;20(9):417–22 (49 ref.)

Conserved T–cell receptor class II major histocompatibility complex contact detected in a T–lymphocyte population. Feng M, et al. **Immunology** 1998 Oct;95(2):185–92

Activation–induced apoptosis of mature T cells is dependent upon the level of surface TCR but not on the presence of the CD3 zeta ITAM. She J, et al. **Int Immunol** 1998 Nov;10(11):1733–40

Co–ligation of alpha4beta1 integrin and TCR rescues human thymocytes from steroid–induced apoptosis. Zaitseva MB, et al. **Int Immunol** 1998 Oct;10(10):1551–61

T–cell receptor contact and MHC binding residues of a major rye grass pollen allergen T–cell epitope. Burton MD, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):255–61

The lck SH3 domain is required for activation of the mitogen–activated protein kinase pathway but not the initiation of T–cell antigen receptor signaling. Denny MF, et al. **J Biol Chem** 1999 Feb 19;274(8):5146–52

T cell receptor zeta allows stable expression of receptors containing the CD3gamma leucine–based receptor–sorting motif. Dietrich J, et al. **J Biol Chem** 1998 Oct 9; 273(41):26281–4

Phosphoinositide 3–kinase regulation of T cell receptor–mediated interleukin–2 gene expression in normal T cells. Eder AM, et al. **J Biol Chem** 1998 Oct 23; 273(43):28025–31

Role of protein kinase C in signal attenuation following T cell receptor engagement. Fernández B, et al. **J Biol Chem** 1999 Jul 16;274(29):20244–50

Modification of the T cell antigen receptor (TCR) complex by UDP–glucose:glycoprotein glucosyltransferase. TCR folding is finalized convergent with formation of alpha beta delta epsilon gamma epsilon complexes. Gardner TG, et al. **J Biol Chem** 1999 May 14;274(20):14094–9

The second domain of the CD45 protein tyrosine phosphatase is critical for interleukin–2 secretion and substrate recruitment of TCR–zeta in vivo. Kashio N, et al. **J Biol Chem** 1998 Dec 11;273(50):33856–63

A cell surface ADP–ribosyltransferase modulates T cell receptor association and signaling. Liu ZX, et al. **J Biol Chem** 1999 Jun 18;274(25):17399–401

Fyn and ZAP–70 are required for Vav phosphorylation in T cells stimulated by antigen–presenting cells. Michel F, et al. **J Biol Chem** 1998 Nov 27;273(48):31932–8

Tyrosine 319 in the interdomain B of ZAP–70 is a binding site for the Src homology 2 domain of Lck. Pelosi M, et al. **J Biol Chem** 1999 May 14;274(20):14229–37

Interactions of CD45–associated protein with the antigen receptor signaling machinery in T–lymphocytes. Veillette A, et al. **J Biol Chem** 1999 May 14;274(20):14392–9

CAST, a novel CD3epsilon–binding protein transducing activation signal for interleukin–2 production in T cells. Yamazaki T, et al. **J Biol Chem** 1999 Jun 25; 274(26):18173–80

Dual regulation of T cell receptor–mediated signaling by oncogenic Cbl mutant 70Z. Zhang Z, et al. **J Biol Chem** 1999 Feb 19;274(8):4883–9

The CD3–gamma delta epsilon transducing module mediates CD38–induced protein–tyrosine kinase and mitogen–activated protein kinase activation in Jurkat T cells. Zubiaur M, et al. **J Biol Chem** 1999 Jul 16; 274(29):20633–42

ZAP–70 association with T cell receptor zeta (TCRzeta): fluorescence imaging of dynamic changes upon cellular stimulation. Sloan–Lancaster J, et al. **J Cell Biol** 1998 Nov 2;143(3):613–24

Recent developments in lymphocyte activation: linking kinases to downstream signaling events. Clements JL, et al. **J Clin Invest** 1999 Apr;103(7):925–9 (43 ref.)

ZAP–70 protein promotes tyrosine phosphorylation of T cell receptor signaling motifs (ITAMs) in immature CD4(+)8(+) thymocytes with limiting p56(lck). Ashe JM, et al. **J Exp Med** 1999 Apr 5;189(7):1163–8

CD5 expression is developmentally regulated by T cell receptor (TCR) signals and TCR avidity. Azzam HS, et al. **J Exp Med** 1998 Dec 21;188(12):2301–11

A T cell receptor–specific blockade of positive selection. Baldwin KK, et al. **J Exp Med** 1999 Jan 4;189(1):13–24

Cooperative inhibition of T–cell antigen receptor signaling by a complex between a kinase and a phosphatase. Cloutier JF, et al. **J Exp Med** 1999 Jan 4;189(1):111–21

Preselection thymocytes are more sensitive to T cell receptor stimulation than mature T cells. Davey GM, et al. **J Exp Med** 1998 Nov 16;188(10):1867–74

Induction of Fas ligand expression by HIV involves the interaction of Nef with the T cell receptor zeta chain. Xu XN, et al. **J Exp Med** 1999 May 3;189(9):1489–96

A step to clarify the real target autoantigen in primary biliary cirrhosis [editorial; comment] Ishibashi H. **J Gastroenterol** 1998 Oct;33(5):779–81. Comment on: J Gastroenterol 1998 Oct;33(5):694–701.

Analysis of peripheral blood mononuclear cell stimulated with pyruvate dehydrogenase complex, T–cell receptors from patients with primary biliary cirrhosis [see comments] Ochiai H, et al. **J Gastroenterol** 1998 Oct;33(5):694–701. Comment in: J Gastroenterol 1998 Oct;33(5):779–81.

The dependence for leukocyte function–associated antigen–1/ICAM–1 interactions in T cell activation cannot be overcome by expression of high density TCR ligand. Abraham C, et al. **J Immunol** 1999 Apr 15;162(8):4399–405

Costimulation reverses the defect in IL–2 but not effector cytokine production by T cells with impaired IkappaBalpha degradation. Aune TM, et al. **J Immunol** 1999 May 15; 162(10):5805–12

Specific CD3 epsilon association of a phosphodiesterase 4B isoform determines its selective tyrosine phosphorylation after CD3 ligation. Baroja ML, et al. **J Immunol** 1999 Feb 15;162(4):2016–23

Diverse TCRs recognize murine CD1. Behar SM, et al. **J Immunol** 1999 Jan 1;162(1):161–7

NK and CTL recognition of a single chain H–2Dd molecule: distinct sites of H–2Dd interact with NK and TCR. Chung DH, et al. **J Immunol** 1999 Oct 1;163(7):3699–708

TCR engagement regulates differential responsiveness of human memory T cells to Fas (CD95)–mediated apoptosis. Di Somma MM, et al. **J Immunol** 1999 Apr 1;162(7):3851–8

An altered peptide ligand specifically inhibits Th2 cytokine synthesis by abrogating TCR signaling. Faith A, et al. **J Immunol** 1999 Feb 1;162(3):1836–42

Surface expression and functional competence of CD3–independent TCR zeta–chains in immature thymocytes. Grassi F, et al. **J Immunol** 1999 Mar 1; 162(5):2589–96

Structural features of autoreactive TCR that determine the degree of degeneracy in peptide recognition. Hausmann S, et al. **J Immunol** 1999 Jan 1;162(1):338–44

Peptide recognition by two HLA–A2/Tax11–19–specific T cell clones in relationship to their MHC/peptide/TCR crystal structures. Hausmann S, et al. **J Immunol** 1999 May 1;162(9):5389–97

Serial TCR engagement and down–modulation by peptide:MHC molecule ligands: relationship to the quality of individual TCR signaling events. Itoh Y, et al. **J Immunol** 1999 Feb 15;162(4):2073–80

Differential requirements for ZAP–70 in TCR signaling and T cell development. Kadlecek TA, et al. **J Immunol** 1998 Nov 1;161(9):4688–94

Strong TCR ligation without costimulation causes rapid onset of Fas–dependent apoptosis of naive murine CD4+ T cells. Kishimoto H, et al. **J Immunol** 1999 Aug 15;163(4):1817–26

Induction of T cell anergy by low numbers of agonist ligands. Korb LC, et al. **J Immunol** 1999 Jun 1;162(11):6401–9

Differential CD3 zeta phosphorylation is not required for the induction of T cell antagonism by altered peptide ligands. Liu H, et al. **J Immunol** 1999 Jul 15;163(2):599–602

Highly cross–reactive T cell responses to myelin basic protein epitopes reveal a nonpredictable form of TCR degeneracy. Loftus C, et al. **J Immunol** 1999 Jun 1;162(11):6451–7

Degree of TCR internalization and Ca2+ flux correlates with thymocyte selection. Mariathasan S, et al. **J Immunol** 1998 Dec 1;161(11):6030–7

Restricted receptor segregation into membrane microdomains occurs on human T cells during apoptosis induced by galectin–1. Pace KE, et al. **J Immunol** 1999 Oct 1; 163(7):3801–11

TCR activation inhibits chemotaxis toward stromal cell–derived factor–1: evidence for reciprocal regulation between CXCR4 and the TCR. Peacock JW, et al. **J Immunol** 1999 Jan 1;162(1):215–23

Cutting edge: the tyrosine phosphatase SHP–1 regulates thymocyte positive selection. Plas DR, et al. **J Immunol** 1999 May 15;162(10):5680–4

pp56Lck mediates TCR zeta–chain binding to the microfilament cytoskeleton. Rozdzial MM, et al. **J Immunol** 1998 Nov 15;161(10):5491–9

TCR and CD28 are coupled via ZAP–70 to the activation of the Vav/Rac–1–/PAK–1/p38 MAPK signaling pathway. Salojin KV, et al. **J Immunol** 1999 Jul 15; 163(2):844–53

IL–4 enhances IL–10 gene expression in murine Th2 cells in the absence of TCR engagement. Schmidt–Weber CB, et al. **J Immunol** 1999 Jan 1;162(1):238–44

Cytolytic T lymphocyte–associated antigen–4 and the TCR zeta/CD3 complex, but not CD28, interact with clathrin adaptor complexes AP–1 and AP–2. Schneider H, et al. **J Immunol** 1999 Aug 15;163(4):1868–79

TCR, LFA–1, and CD28 play unique and complementary roles in signaling T cell cytoskeletal reorganization. Sedwick CE, et al. **J Immunol** 1999 Feb 1;162(3):1367–75

Profound enhancement of T cell activation mediated by the interaction between the TCR and the D3 domain of CD4. Vignali DA, et al. **J Immunol** 1999 Feb 1;162(3):1431–9

Interaction of sulfonamide derivatives with the TCR of sulfamethoxazole–specific human alpha beta+ T cell clones. von Greyerz S, et al. **J Immunol** 1999 Jan 1; 162(1):595–602

Binding and internalization of an ICAM–1 peptide by the surface receptors of T cells. Gürsoy RN, et al. **J Pept Res** 1999 Apr;53(4):414–21

Zeta chain of the T–cell receptor interacts with nef of simian immunodeficiency virus and human immunodeficiency virus type 2. Howe AY, et al. **J Virol** 1998 Dec; 72(12):9827–34

Phosphorylation and coupling of zeta–chains to activated T–cell receptor (TCR)/CD3 complexes from peripheral blood T–cells of elderly humans. Whisler RL, et al. **Mech Ageing Dev** 1998 Sep 15;105(1–2):115–35

CD5 negatively regulates the T–cell antigen receptor signal transduction pathway: involvement of SH2–containing phosphotyrosine phosphatase SHP–1. Perez–Villar JJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2903–12

Interdomain B in ZAP–70 regulates but is not required for ZAP–70 signaling function in lymphocytes. Zhao Q, et al. **Mol Cell Biol** 1999 Jan;19(1):948–56

Tyrosine phosphorylation and complex formation of Cbl–b upon T cell receptor stimulation. Elly C, et al. **Oncogene** 1999 Feb 4;18(5):1147–56

Induction of signalling anergy via the T–cell receptor in cultured Jurkat T cells by pre–exposure to a filarial nematode secreted product. Harnett MM, et al. **Parasite Immunol** 1998 Nov;20(11):551–63

Thermodynamics of T cell receptor binding to peptide–MHC: evidence for a general mechanism of molecular scanning. Boniface JJ, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11446–51

T–cell receptor Valpha gene expression of infiltrating T cells in pancreatic cancer. Müller–Ostermeyer F, et al. **Scand J Gastroenterol** 1998 Aug;33(8):872–9

Costimulation: building an immunological synapse [comment] Dustin ML, et al. **Science** 1999 Jan 29;283(5402):649–50. Comment on: Science 1999 Jan 29;283(5402):680–2.

The immunological synapse: a molecular machine controlling T cell activation [see comments] Grakoui A, et al. **Science** 1999 Jul 9;285(5425):221–7. Comment in: Science 1999 Jul 9;285(5425):207–8.

Molecular basis of T cell inactivation by CTLA–4. Lee KM, et al. **Science** 1998 Dec 18;282(5397):2263–6

Dancing the immunological two–step [comment] Malissen B. **Science** 1999 Jul 9;285(5425):207–8. Comment on: Science 1999 Jul 9;285(5425):221–7.

Requirement for Tec kinases Rlk and Itk in T cell receptor signaling and immunity. Schaeffer EM, et al. **Science** 1999 Apr 23;284(5414):638–41

T lymphocyte costimulation mediated by reorganization of membrane microdomains [see comments] Viola A, et al. **Science** 1999 Jan 29;283(5402):680–2. Comment in: Science 1999 Jan 29;283(5402):649–50.

STAT5 interaction with the T cell receptor complex and stimulation of T cell proliferation. Welte T, et al. **Science** 1999 Jan 8;283(5399):222–5

T cell receptor usage in malignant diseases. Halapi E, et al. **Springer Semin Immunopathol** 1999;21(1):19–35 (131 ref.)

Treatments targeting the T cell receptor (TCR): effects of TCR peptide–specific T cells on activation, migration, and encephalitogenicity of myelin basic protein–specific T cells. Offner H, et al. **Springer Semin Immunopathol** 1999; 21(1):77–90

PHYSIOLOGY

T–cell receptor transgenic analysis of tumor–specific CD8 and CD4 responses in the eradication of solid tumors. Marzo AL, et al. **Cancer Res** 1999 Mar 1;59(5):1071–9

Cells' perception of position in a concentration gradient. Gurdon JB, et al. **Cell** 1998 Oct 16;95(2):159–62 (21 ref.)

Rapid and phosphoinositol–dependent binding of the SWI/SNF–like BAF complex to chromatin after T lymphocyte receptor signaling. Zhao K, et al. **Cell** 1998 Nov 25;95(5):625–36

MHC class I molecules on CD4 T cells regulate receptor–mediated activation signals. Wang ZQ, et al. **Cell Immunol** 1999 Apr 10;193(1):108–14

T–cell receptor usage in the intestine. Probert CS, et al. **Chem Immunol** 1998;71:27–39 (43 ref.)

Gamma delta T cells: bodyguards and/or sleepers in the gut. Takahashi I, et al. **Chem Immunol** 1998;71:77–87 (59 ref.)

Signal transduction in T lymphocytes. Peterson EJ, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):107–14 (111 ref.)

T cell antigen–receptor signal transduction. van Leeuwen JE, et al. **Curr Opin Immunol** 1999 Jun;11(3):242–8 (81 ref.)

Prolactin receptor signaling: shared components with the T–cell antigen receptor in Nb2 lymphoma cells. Krumenacker JS, et al. **Endocrine** 1998 Dec;9(3):313–20

In vitro induction of naive cytotoxic T lymphocytes with complexes of peptide and recombinant MHC class I molecules coated onto beads: role of TCR/ligand density. Motta I, et al. **Eur J Immunol** 1998 Nov;28(11):3685–95

Partial agonism and independent modulation of T cell receptor and CD8 in hapten–specific cytotoxic T cells. Preckel T, et al. **Eur J Immunol** 1998 Nov;28(11):3706–18

T cell signaling: effect of age. Pahlavani MA. **Front Biosci** 1998 Nov 1;3:D1120–33 (144 ref.)

Crippling of CD3–zeta ITAMs does not impair T cell receptor signaling. Ardouin L, et al. **Immunity** 1999 Apr; 10(4):409–20

Differential TCR signaling regulates apoptosis and immunopathology during antigen responses in vivo.

Combadière B, et al. **Immunity** 1998 Sep;9(3):305-13
LAT is required for TCR-mediated activation of PLCgamma1 and the Ras pathway. Finco TS, et al. **Immunity** 1998 Nov;9(5):617-26
Low-affinity ligands for the TCR drive proliferation of mature CD8+ T cells in lymphopenic hosts. Goldrath AW, et al. **Immunity** 1999 Aug;11(2):183-90
Pre-TCR signaling and inactivation of p53 induces crucial cell survival pathways in pre-T cells. Haks MC, et al. **Immunity** 1999 Jul;11(1):91-101
c-Cbl: a regulator of T cell receptor-mediated signalling. Thien CB, et al. **Immunol Cell Biol** 1998 Oct;76(5):473-82 (90 ref.)
Role of transmembrane domains in the functions of B- and T-cell receptors. Zidovetzki R, et al. **Immunol Lett** 1998 Dec;64(2-3):97-107 (110 ref.)
Generation of antigen-specific cytotoxic T lymphocytes and regulation of cytokine production takes place in the absence of CD3zeta. She J, et al. **Int Immunol** 1999 May; 11(5):845-57
Functional analysis of LAT in TCR-mediated signaling pathways using a LAT-deficient Jurkat cell line. Zhang W, et al. **Int Immunol** 1999 Jun;11(6):943-50
T cell activation stimulates the association of enzymatically active tyrosine-phosphorylated ZAP-70 with the Crk adapter proteins. Gelkop S, et al. **J Biol Chem** 1999 Jul 30;274(31):21519-27
Interaction between CD45-AP and protein-tyrosine kinases involved in T cell receptor signaling. Motoya S, et al. **J Biol Chem** 1999 Jan 15;274(3):1407-14
Dual fatty acylation of p59(Fyn) is required for association with the T cell receptor zeta chain through phosphotyrosine-Src homology domain-2 interactions. van't Hof W, et al. **J Cell Biol** 1999 Apr 19;145(2):377-89
Recognition of the major histocompatibility complex restriction element modulates CD8(+) T cell specificity and compensates for loss of T cell receptor contacts with the specific peptide. Sandberg JK, et al. **J Exp Med** 1999 Mar 15;189(6):883-94
Cutting edge: receptor-mediated endocytosis of heat shock proteins by professional antigen-presenting cells. Arnold-Schild D, et al. **J Immunol** 1999 Apr 1; 162(7):3757-60
The CD3 epsilon subunit of the TCR contains endocytosis signals. Borroto A, et al. **J Immunol** 1999 Jul 1;163(1):25-31
Signals transduced by CD3epsilon, but not by surface pre-TCR complexes, are able to induce maturation of an early thymic lymphoma in vitro. Carleton M, et al. **J Immunol** 1999 Sep 1;163(5):2576-85
Phospho-LAT-independent activation of the ras-mitogen-activated protein kinase pathway: a differential recruitment model of TCR partial agonist signaling. Chau LA, et al. **J Immunol** 1999 Aug 15; 163(4):1853-8
Potent inhibition of CD4/TCR-mediated T cell apoptosis by a CD4-binding glycoprotein secreted from breast tumor and seminal vesicle cells. Gaubin M, et al. **J Immunol** 1999 Mar 1;162(5):2631-8
Protective effects of notch-1 on TCR-induced apoptosis. Jehn BM, et al. **J Immunol** 1999 Jan 15;162(2):635-8
The extracellular domain of the zeta-chain is essential for TCR function. Johansson B, et al. **J Immunol** 1999 Jan 15;162(2):878-85
TCR signaling thresholds regulating T cell development and activation are dependent upon SHP-1. Johnson KG, et al. **J Immunol** 1999 Apr 1;162(7):3802-13
A new role for platelet-endothelial cell adhesion molecule-1 (CD31): inhibition of TCR-mediated signal transduction. Newton-Nash DK, et al. **J Immunol** 1999 Jul 15; 163(2):682-8
Direct suppression of TCR-mediated activation of extracellular signal-regulated kinase by leukocyte protein tyrosine phosphatase, a tyrosine-specific phosphatase. Oh-hora M, et al. **J Immunol** 1999 Aug 1;163(3):1282-8
Tyrosine phosphorylation of Crk-associated substrate lymphocyte-type is a critical element in TCR- and beta 1 integrin-induced T lymphocyte migration. Ohashi Y, et al. **J Immunol** 1999 Oct 1;163(7):3727-34
A role for p21ras/MAP kinase in TCR-mediated activation of LFA-1. O'Rourke AM, et al. **J Immunol** 1998 Dec 1; 161(11):5800-3
Cutting edge: thymic selection and autoreactivity are regulated by multiple coreceptors involved in T cell activation. Page DM. **J Immunol** 1999 Oct 1;163(7):3577-81
Requirement for Shc in TCR-mediated activation of a T cell hybridoma. Pratt JC, et al. **J Immunol** 1999 Sep 1; 163(5):2586-91
A mouse carrying genetic defect in the choice between T and B lymphocytes. Tokoro Y, et al. **J Immunol** 1998 Nov 1;161(9):4591-8
Galectin-1 specifically modulates TCR signals to enhance TCR apoptosis but inhibit IL-2 production and proliferation. Vespa GN, et al. **J Immunol** 1999 Jan 15; 162(2):799-806
Nitric oxide synthase plays a signaling role in TCR-triggered apoptotic death. Williams MS, et al. **J Immunol** 1998 Dec 15;161(12):6526-31
TCR and IL-12 receptor signals cooperate to activate an individual response element in the IFN-gamma promoter in effector Th cells. Zhang F, et al. **J Immunol** 1999 Jul 15;163(2):728-35
Altered thymic positive selection and intracellular signals in Cbl-deficient mice. Naramura M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15547-52
An inverse relationship between T cell receptor affinity and antigen dose during CD4(+) T cell responses in vivo and in vitro. Rees W, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9781-6
SLAP, a dimeric adapter protein, plays a functional role in T cell receptor signaling. Tang J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9775-80
T cell antigen receptor-mediated activation of the Ras/mitogen-activated protein kinase pathway controls interleukin 4 receptor function and type-2 helper T cell differentiation. Yamashita M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1024-9
Class I MHC molecules on hematopoietic cells can support intrathymic positive selection of T cell receptor transgenic T cells. Zerrahn J, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11470-5
Adaptor proteins and T-cell antigen receptor signaling. Samelson LE. **Prog Biophys Mol Biol** 1999;71(3-4):393-403 (53 ref.)
Regulation of naive T cell differentiation by varying the potency of TCR signal transduction. Leitenberg D, et al. **Semin Immunol** 1999 Aug;11(4):283-92 (51 ref.)
T cell receptor-mediated signs and signals governing T cell development. van Oers NS. **Semin Immunol** 1999 Aug; 11(4):227-37 (82 ref.)
T cell receptor usage in infectious disease. Callan MF, et al. **Springer Semin Immunopathol** 1999;21(1):37-54 (78 ref.)
T cell receptor usage in autoimmune disease. Moss P, et al. **Springer Semin Immunopathol** 1999;21(1):5-17 (108 ref.)
[Physiopathology of autoimmune diseases--recent findings. 2) Analysis of abnormalities of T cell receptor proximal signal transduction in systemic erythematodes] Takeuchi T, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10; 87(9):1724-8 **(Jpn)**
[T cell receptor and its related molecules in signal transduction] Kobata T, et al. **Nippon Rinsho** 1999 Feb; 57(2):273-7 (25 ref.) (Eng. Abstr.) **(Jpn)**

RADIATION EFFECTS

Variations in the frequency of T-cell receptor beta/gamma-interlocus recombination in long-term cultures of non-irradiated and X- and gamma-irradiated human lymphocytes. Meydan D, et al. **Int J Radiat Biol** 1998 Dec;74(6):697-703

THERAPEUTIC USE

HLA-derived peptides as novel immunomodulatory therapeutics. Murphy B, et al. **J Am Soc Nephrol** 1999 Jun; 10(6):1346-55 (78 ref.)

RECEPTORS, ANTIGEN, T-CELL, ALPHA-BETA

see related
GENE REARRANGEMENT, ALPHA-CHAIN T-CELL ANTIGEN RECEPTOR
GENE REARRANGEMENT, BETA-CHAIN T-CELL ANTIGEN RECEPTOR
GENES, T-CELL RECEPTOR ALPHA
GENES, T-CELL RECEPTOR BETA

Alpha beta/gamma delta lineage commitment in the thymus of normal and genetically manipulated mice. Fehling HJ, et al. **Adv Immunol** 1999;71:1-76 (236 ref.)
Analysis of T cell receptors specific for U1-70kD small nuclear ribonucleoprotein autoantigen: the alpha chain complementarity determining region three is highly conserved among connective tissue disease patients. Talken BL, et al. **Hum Immunol** 1999 Mar;60(3):200-8
The role of the T-cell receptor (TCR) in alpha beta/gamma delta lineage commitment: clues from intracellular TCR staining. MacDonald HR, et al. **Immunol Rev** 1998 Oct; 165:87-94 (42 ref.)
Crucial function of the pre-T-cell receptor (TCR) in TCR beta selection, TCR beta allelic exclusion and alpha beta versus gamma delta lineage commitment. von Boehmer H, et al. **Immunol Rev** 1998 Oct;165:111-9 (56 ref.)
Autoreactive CD4- CD8- alpha beta T cells to vaccinate adjuvant arthritis. Haque MA, et al. **Immunology** 1998 Aug; 94(4):536-42
Co-ordinate expression of the pre-T-cell receptor complex and a novel immature thymocyte-specific antigen, IMT-1, during thymocyte development. Tong JJ, et al. **Immunology** 1999 Jan;96(1):48-56
Development and function of autospecific dual TCR+ T lymphocytes. Paterson RK, et al. **Int Immunol** 1999 Jan; 11(1):113-9
HLA-restricted, processing- and metabolism-independent pathway of drug recognition by human alpha beta T lymphocytes. Zanni MP, et al. **J Clin Invest** 1998 Oct 15; 102(8):1591-8

ANALYSIS

Expression of T cell receptor V beta chain in lesional skin of atopic dermatitis. Ha SJ, et al. **Acta Derm Venereol** 1998 Nov;78(6):424-7
Clonal deletion of some V beta+ T cells in peripheral lymphocytes from C57BL/6 mice infected with MHV3. Gagne S, et al. **Adv Exp Med Biol** 1998;440:485-9
Intrahepatic alpha beta-TcRintermediate LFA-1high T cells are stimulated during mouse hepatitis viral infection. Lamontagne L, et al. **Adv Exp Med Biol** 1998;440:479-83
Functional analysis of T lymphocytes infiltrating the dermis and epidermis of post-burn hypertrophic scar tissues. Bernabei P, et al. **Burns** 1999 Feb;25(1):43-8
Analysis of T cell receptor Vbeta repertoires of annular erythema associated with Sjögren's syndrome. Yamamoto T, et al. **Eur J Dermatol** 1998 Jun;8(4):248-51
The role of IL-4 in the staphylococcal enterotoxin B-triggered immune response: increased susceptibility to shock and deletion of CD8Vbeta8+ T cells in IL-4 knockout mice. Aroeira LS, et al. **Eur J Immunol** 1999 Apr;29(4):1397-405
Dynamics of intra-hepatic lymphocytes in chronic hepatitis C: enrichment for Valpha24+ T cells and rapid elimination of effector cells by apoptosis. Nuti S, et al. **Eur J Immunol** 1998 Nov;28(11):3448-55
Sheep CD4(+) alphabeta T cells express novel members of the T19 multigene family. O'Keeffe MA, et al. **Immunogenetics** 1999 Jan;49(1):45-55
T cell receptor V-segment frequencies in peripheral CD8+ T cells in aging. Esparza B, et al. **Immunol Invest** 1998 Jul-Sep;27(4-5):303-7
Phenotypic identification of the subgroups of murine T-cell receptor alphabeta+ CD4+ CD8- thymocytes and its implication in the late stage of thymocyte development. Ge Q, et al. **Immunology** 1999 Aug;97(4):665-71
In vitro expansion of T-cell-receptor Valpha2.3(+) CD4(+) T lymphocytes in HLA-DR17(3), DQ2(+) individuals upon stimulation with Mycobacterium tuberculosis. Esin S, et al. **Infect Immun** 1999 Aug;67(8):3800-9
Increased T-cell receptor vbeta8+ T cells in bronchoalveolar lavage fluid of subjects with poorly controlled asthma: a potential role for microbial superantigens. Hauk PJ, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):37-45
Characteristics of T-cell receptor Valpha24JalphaQ T cells, a human counterpart of murine NK1 T cells, from normal subjects. Sakamoto A, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 2):S445-51
Identification of a late stage of small noncycling pTalpha-pre-T cells as immediate precursors of T cell receptor alpha/beta+ thymocytes. Trigueros C, et al. **J Exp Med** 1998 Oct 19;188(8):1401-12
The frequency of different T-cell receptor V-families in oral lichen planus and lichenoid contact lesions: an immunohistochemical study. Bratel J, et al. **J Oral Pathol Med** 1998 Oct;27(9):415-9
T cell receptor repertoire in B cell lymphoproliferative lesions in primary Sjögren's syndrome. Pivetta B, et al. **J Rheumatol** 1999 May;26(5):1101-9
T-cell receptor analysis in anti-Hu associated paraneoplastic encephalomyelitis. Voltz R, et al. **Neurology** 1998 Oct; 51(4):1146-50
CD40 upregulation in TCR alpha/beta+ CD68+ cells and parenchymal CD40L induction and associated with NF-kappa B activation in chronic rejecting human renal allografts. Gaweco AS, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1359-60
IL-4 production in IDDM-nonrecurrent pancreas-transplanted BB rats with donor-derived NKR-P1+TCR alpha beta + (NKT) cells, but not in IDDM-recurrent BB rats. Tori M, et al. **Transplant Proc** 1999 Aug;31(5):1940-1
Positive and negative selection of alphabetaTCR+ T cells in thymectomized adult radiation bone marrow chimeras. Colson YL, et al. **Transplantation** 1999 Aug 15;68(3):403-10

ANTAGONISTS & INHIBITORS

Cutting edge: a test of the dominant negative signal model for TCR antagonism. Daniels MA, et al. **J Immunol** 1999 Apr 1;162(7):3761-4

BIOSYNTHESIS

The T cell receptor repertoire of CD8+CD28- T lymphocytes is dominated by expanded clones that persist over time. Mugnaini EN, et al. **Clin Exp Immunol** 1999 Aug;117(2):298-303
Threshold of pre-T-cell-receptor surface expression is associated with alphabeta T-cell lineage commitment. Bruno L, et al. **Curr Biol** 1999 Jun 3;9(11):559-68
A retroviral vector that directs simultaneous expression of alpha and beta T cell receptor genes. Pogulis RJ, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2299-304
TCR repertoire of suppressor CD8+CD28- T cell populations. Pennesi G, et al. **Hum Immunol** 1999 Apr; 60(4):291-304
Dramatic influence of V beta gene polymorphism on an antigen-specific CD8+ T cell response in vivo. Bour H, et al. **J Immunol** 1999 Apr 15;162(8):4647-56
Requirement for CD4+ T cells in V beta 4+CD8+ T cell activation associated with latent murine gammaherpesvirus infection. Flaño E, et al. **J Immunol** 1999 Sep 15; 163(6):3403-8
Invariant or highly conserved TCR alpha are expressed on double-negative (CD3+CD4-CD8-) and CD8+ T cells. Han M, et al. **J Immunol** 1999 Jul 1;163(1):301-11
Single amino acid replacements in an antigenic peptide are sufficient to alter the TCR V beta repertoire of the responding CD8+ cytotoxic lymphocyte population.

Kalergis AM, et al. **J Immunol** 1999 Jun 15;162(12):7263-70

Biased TCR repertoire in HIV-1-infected patients due to clonal expansion of HIV-1-reverse transcriptase-specific CTL clones. Kolowos W, et al. **J Immunol** 1999 Jun 15; 162(12):7525-33

Splenic NK1.1-negative, TCR alpha beta intermediate CD4+ T cells exist in naive NK1.1 allelic positive and negative mice, with the capacity to rapidly secrete large amounts of IL-4 and IFN-gamma upon primary TCR stimulation. Moodycliffe AM, et al. **J Immunol** 1999 May 1;162(9):5156-63

Interaction of sulfonamide derivatives with the TCR of sulfamethoxazole-specific human alpha beta+ T cell clones. von Greyerz S, et al. **J Immunol** 1999 Jan 1; 162(1):595-602

Identification of a new type of invariant V alpha 14+ T cells and responsiveness to a superantigen, Yersinia pseudotuberculosis-derived mitogen. Yagi J, et al. **J Immunol** 1999 Sep 15;163(6):3083-91

T cell repertoire expression in murine recipients of bone marrow transplant after LF 08-0299 (Tresperimus) administration. Annat J, et al. **Transpl Immunol** 1998 Dec; 6(4):217-24

BLOOD

Quantitative flow cytometry for the analysis of T cell receptor Vbeta chain expression. Faint JM, et al. **J Immunol Methods** 1999 May 27;225(1-2):53-60

CHEMISTRY

Four A6-TCR/peptide/HLA-A2 structures that generate very different T cell signals are nearly identical. Ding YH, et al. **Immunity** 1999 Jul;11(1):45-56

Three-dimensional structure of the complex between a T cell receptor beta chain and the superantigen staphylococcal enterotoxin B. Li H, et al. **Immunity** 1998 Dec;9(6):807-16

Analysis of sheep T-cell receptor beta-chain heterogeneity. Halsey WA Jr, et al. **Immunogenetics** 1999 Mar; 49(3):206-14

Structure-function studies of T-cell receptor-superantigen interactions. Li H, et al. **Immunol Rev** 1998 Jun;163:177-86 (52 ref.)

Glimpses at the recognition of peptide/MHC complexes by T-cell antigen receptors. Mazza G, et al. **Immunol Rev** 1998 Jun;163:187-96 (34 ref.)

Characterization of an avian (Gallus gallus domesticus) TCR alpha delta gene locus. Kubota T, et al. **J Immunol** 1999 Oct 1;163(7):3858-66

Clonal expansion of CD4+ TCRbetabeta+ T cells in TCR alpha-chain- deficient mice by gut-derived antigens. Takahashi I, et al. **J Immunol** 1999 Feb 1;162(3):1843-50

Molecular analysis of the complementarity determining region 3 of the human T cell receptor beta chain. Establishment of a reference panel of CDR3 lengths from phytohaemagglutinin activated lymphocytes. Mugnaini EN, et al. **J Immunol Methods** 1999 Mar 4;223(2):207-16

Folding, heterodimeric association and specific peptide recognition of a murine alphabeta T-cell receptor expressed in Escherichia coli. Pecorari F, et al. **J Mol Biol** 1999 Jan 29;285(4):1831-43

The X-ray crystal structure of a Valpha2.6Jalpha38 mouse T cell receptor domain at 2.5 A resolution: alternate modes of dimerization and crystal packing. Plaksin D, et al. **J Mol Biol** 1999 Jun 25;289(5):1153-61

Multivalent structure of an alphabetaT cell receptor. Fernández-Miguel G, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1547-52

DEFICIENCY

Collagen-induced arthritis development requires alpha beta T cells but not gamma delta T cells: studies with T cell-deficient (TCR mutant) mice. Corthay A, et al. **Int Immunol** 1999 Jul;11(7):1065-73

Alteration of interleukin 4 production results in the inhibition of T helper type 2 cell-dominated inflammatory bowel disease in T cell receptor alpha chain-deficient mice. Iijima H, et al. **J Exp Med** 1999 Sep 6;190(5):607-15

GENETICS

An automated method for the analysis of T-cell receptor repertoires. Rapid RT-PCR fragment length analysis of the T-cell receptor beta chain complementarity-determining region 3. Lue C, et al. **Am J Clin Pathol** 1999 May;111(5):683-90

Association of a T-cell receptor constant alpha chain gene polymorphism with progression of IgA nephropathy in Japanese patients. Deenitchina SS, et al. **Am J Kidney Dis** 1999 Aug;34(2):279-88

Dominant and shared T cell receptor beta chain variable regions of T cells inducing synovial hyperplasia in rheumatoid arthritis. Mima T, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):172-80

Detection and characterization of alpha-beta-T-cell clonality by denaturing gradient gel electrophoresis (DGGE). thor Straten P, et al. **Biotechniques** 1998 Aug; 25(2):244-50

T-cell expansions with conserved T-cell receptor beta chain motifs in the peripheral blood of HLA-DRB1*0401 positive patients with necrotizing vasculitis. Grunewald J, et al. **Blood** 1998 Nov 15;92(10):3737-44

Oligoclonal TCRBV gene usage in B-cell chronic lymphocytic leukemia: major perturbations are preferentially seen within the CD4 T-cell subset. Rezvany MR, et al. **Blood** 1999 Aug 1;94(3):1063-9

Ig heavy chain gene rearrangements in T-cell acute lymphoblastic leukemia exhibit predominant DH6-19 and DH7-27 gene usage, can result in complete V-D-J rearrangements, and are rare in T-cell receptor alpha beta lineage. Szczepański T, et al. **Blood** 1999 Jun 15; 93(12):4079-85

Detection of identical T-cell clonotype expansions in both the donor and recipient after allogeneic bone marrow transplantation. Trentin L, et al. **Br J Haematol** 1999 Jul; 106(1):119-27

Heterogeneity of T-cell receptor usage in experimental autoimmune neuritis in the Lewis rat. Stienekemeier M, et al. **Brain** 1999 Mar;122 (Pt 3):523-35

Differential impact of T cell repertoire diversity in diabetes-prone or -resistant IL-10 transgenic mice. Balasa B, et al. **Cell Immunol** 1999 May 1;193(2):170-8

An endogenous retrovirus with nucleic acid sequences similar to those of the multiple sclerosis associated retrovirus at the human T-cell receptor alpha, delta gene locus. Alliel PM, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep; 44(6):927-31

T-cell receptor beta variable region diversity in melanoma metastases after interleukin 2-based immunotherapy. Willhauck M, et al. **Clin Cancer Res** 1996 Apr;2(4):767-72

Quantitative analysis of T-cell receptor beta variable-gene usage in cutaneous late-phase reactions: implications for T-lymphocyte recruitment in cutaneous inflammation. Lessin SR, et al. **Clin Diagn Lab Immunol** 1999 Jan; 6(1):85-8

Selection of hprt mutant T cells as surrogates for dividing cells reveals a restricted T cell receptor BV repertoire in insulin-dependent diabetes mellitus. Falta MT, et al. **Clin Immunol** 1999 Mar;90(3):340-51

Assignment of TCRB encoding the T-cell receptor beta chain gene to cat chromosome A2q25-q26 by fluorescence in situ hybridization. Lee JH, et al. **Cytogenet Cell Genet** 1999;84(1-2):109-10

Antigen-receptor junctional diversity in growth-factor-receptor mutant mice. Rodewald HR, et al. **Dev Comp Immunol** 1998 May-Jun;22(3):351-65

Absolute requirement of macrophages for the development and activation of beta-cell cytotoxic CD8+ T-cells in T-cell receptor transgenic NOD mice. Jun HS, et al. **Diabetes** 1999 Jan;48(1):34-42

Improved polymerase chain reaction detection of clonally rearranged T-cell receptor beta chain genes. Zemlin M, et al. **Diagn Mol Pathol** 1998 Jun;7(3):138-45

Disruption of alpha beta but not of gamma delta T cell development by overexpression of the helix-loop-helix protein Id3 in committed T cell progenitors. Blom B, et al. **EMBO J** 1999 May 17;18(10):2793-802

Absolute requirement for the pre-T cell receptor alpha chain during NK1.1+ TCRalphabeta cell development. Eberl G, et al. **Eur J Immunol** 1999 Jun;29(6):1966-71

Differential reactivity of TCR Vbeta10 alleles to a mouse mammary tumor virus superantigen. Maillard I, et al. **Eur J Immunol** 1998 Oct;28(10):3075-85

Genomic structure of the human pre-T cell receptor alpha chain and expression of two mRNA isoforms. Saint-Ruf C, et al. **Eur J Immunol** 1998 Nov;28(11):3824-31

Endoplasmic reticulum retention and degradation of T cell antigen receptor beta chain. Lee SJ. **Exp Mol Med** 1998 Sep 30;30(3):159-64

The critical role of interleukin 4 but not interferon gamma in the pathogenesis of colitis in T-cell receptor alpha mutant mice. Mizoguchi A, et al. **Gastroenterology** 1999 Feb;116(2):320-6

Contributions of CD4+, CD8+, and CD4+CD8+ T cells to skewing within the peripheral T cell receptor beta chain repertoire of healthy macaques. Currier JR, et al. **Hum Immunol** 1999 Mar;60(3):209-22

Positive selection of an H2-M3 restricted T cell receptor. Berg RE, et al. **Immunity** 1999 Jul;11(1):33-43

Differential MHC expression requirements for positive selection of separate TCR Vb families. Brenden N, et al. **Immunogenetics** 1999 Jan;49(1):1-6

FVB/N (H2(q)) mouse is resistant to arthritis induction and exhibits a genomic deletion of T-cell receptor V beta gene segments. Osman GE, et al. **Immunogenetics** 1999 Sep; 49(10):851-9

T-cell receptor vbeta deletion and valpha polymorphism are responsible for the resistance of SWR mouse to arthritis induction. Osman GE, et al. **Immunogenetics** 1999 Aug; 49(9):764-72

Sequence and diversity of T-cell receptor beta-chain V and J genes of the owl monkey Aotus nancymaae. Vecino W, et al. **Immunogenetics** 1999 Aug;49(9):792-9

Biased T-cell receptor usage is associated with allelic variation in the MHC class II peptide binding groove. Yassine-Diab B, et al. **Immunogenetics** 1999 Jun; 49(6):532-40

Developmental regulation of V(D)J recombination at the TCR alpha/delta locus. Krangel MS, et al. **Immunol Rev** 1998 Oct;165:131-47 (181 ref.)

Accessibility control of variable region gene assembly during T-cell development. Sleckman BP, et al. **Immunol Rev** 1998 Oct;165:121-30 (59 ref.)

T cell- and perforin-dependent depletion of B cells in vivo by staphylococcal enterotoxin A. Sundstedt A, et al. **Immunology** 1998 Sep;95(1):76-82

Restricted usage of T-cell receptor Valpha-Vbeta genes in infiltrating cells in the aortic tissue of a patient with atherosclerotic aortic aneurysm. Seko Y, et al. **Int Angiol** 1998 Jun;17(2):89-92

Helix-loop-helix (E2-5, HEB, TAL1 and Id1) protein interaction with the TCRalphadelta enhancers. Bernard M, et al. **Int Immunol** 1998 Oct;10(10):1539-49

Collagen-induced arthritis development requires alpha beta T cells but not gamma delta T cells: studies with T cell-deficient (TCR mutant) mice. Corthay A, et al. **Int Immunol** 1999 Jul;11(7):1065-73

Conserved sequence motifs of CDR3 loops of TCR specific for two major epitopes of the grass pollen allergen PhI p 1. Friedl-Hajek R, et al. **Int Immunol** 1998 Nov; 10(11):1725-32

Differential CD4/CD8 subset-specific expression of highly homologous rat Tcrb-V8 family members suggests a role of CDR2 and/or CDR4 (HV4) in MHC class-specific thymic selection. Herrmann T, et al. **Int Immunol** 1999 Mar; 11(3):435-44

In vitro positive selection and anergy induction of class II-restricted TCR transgenic thymocytes by a cortical thymic epithelial cell line. Nelson AJ, et al. **Int Immunol** 1998 Sep;10(9):1335-46

Expression of a type II collagen-specific TCR transgene accelerates the onset of arthritis in mice. Osman GE, et al. **Int Immunol** 1998 Nov;10(11):1613-22

A shared TCR CDR3 sequence in NOD mouse autoimmune diabetes. Tikochinski Y, et al. **Int Immunol** 1999 Jun; 11(6):951-6

Analysis of T-cell-receptor beta-chain-gene usage in peripheral-blood and tumor-infiltrating lymphocytes from human non-small-cell lung carcinomas. Echchakir H, et al. **Int J Cancer** 1999 Apr 12;81(2):205-13

A nuclear matrix attachment region upstream of the T cell receptor beta gene enhancer binds Cux/CDP and SATB1 and modulates enhancer-dependent reporter gene expression but not endogenous gene expression. Chattopadhyay S, et al. **J Biol Chem** 1998 Nov 6; 273(45):29838-46

A functional link for major TCR expansions in healthy adults caused by persistent Epstein-Barr virus infection. Silins SL, et al. **J Clin Invest** 1998 Oct 15;102(8):1551-8

Longitudinal changes in TCRB variable gene expression and markers of gingival inflammation in experimental gingivitis. Preshaw PM, et al. **J Clin Periodontol** 1998 Oct; 25(10):774-80

Early T cell receptor beta gene expression is regulated by the pre-T cell receptor-CD3 complex. Aifantis I, et al. **J Exp Med** 1999 Jul 5;190(1):141-4

T cell receptor beta chain lacking the large solvent-exposed Cbeta FG loop supports normal alpha/beta T cell development and function in transgenic mice. Degermann S, et al. **J Exp Med** 1999 May 17;189(10):1679-84

Direct evidence for thymic function in adult humans. Poulin JF, et al. **J Exp Med** 1999 Aug 16;190(4):479-86

Dramatic influence of V beta gene polymorphism on an antigen-specific CD8+ T cell response in vivo. Bour H, et al. **J Immunol** 1999 Apr 15;162(8):4647-56

T cell repertoire alterations of vascularized xenografts. Brouard S, et al. **J Immunol** 1999 Mar 15;162(6):3367-77

Functional similarity and differences between selection-independent CD4-CD8- alphabeta T cells and positively selected CD8 T cells expressing the same TCR and the induction of anergy in CD4-CD8- alphabeta T cells in antigen-expressing mice. Caveno J, et al. **J Immunol** 1999 Aug 1;163(3):1222-9

Critical role of costimulation in the activation of naive antigen-specific TCR transgenic CD8+ T cells in vitro. Chai JG, et al. **J Immunol** 1999 Aug 1;163(3):1298-305

Efficient transfer of a tumor antigen-reactive TCR to human peripheral blood lymphocytes confers anti-tumor reactivity. Clay TM, et al. **J Immunol** 1999 Jul 1; 163(1):507-13

Biased TCR repertoire in infiltrating lesional T cells in human Bancroftian filariasis. Freedman DO, et al. **J Immunol** 1999 Feb 1;162(3):1756-64

Cross-reactivity of myelin basic protein-specific T cells with multiple microbial peptides: experimental autoimmune encephalomyelitis induction in TCR transgenic mice. Grogan JL, et al. **J Immunol** 1999 Oct 1;163(7):3764-70

Oligoclonality of rat intestinal intraepithelial T lymphocytes: overlapping TCR beta-chain repertoires in the CD4 single-positive and CD4/CD8 double-positive subsets. Helgeland L, et al. **J Immunol** 1999 Mar 1;162(5):2683-92

Persistent expression of experimental autoimmune encephalomyelitis (EAE)-specific Vbeta8.2 TCR spectratype in the central nervous system of rats with chronic relapsing EAE. Kim G, et al. **J Immunol** 1998 Dec 15;161(12):6993-8

TCR-mediated involvement of CD4+ transgenic T cells in spontaneous inflammatory bowel disease in lymphopenic mice. Koh WP, et al. **J Immunol** 1999 Jun 15; 162(12):7208-16

Characterization of an avian (Gallus gallus domesticus) TCR alpha delta gene locus. Kubota T, et al. **J Immunol** 1999 Oct 1;163(7):3858-66

Models for antigen receptor gene rearrangement. II. Multiple rearrangement in the TCR: allelic exclusion or inclusion?

Piper H, et al. **J Immunol** 1999 Aug 15;163(4):1799–808
Reciprocal expression in CD4 or CD8 subsets of different members of the V alpha 11 gene family correlates with sequence polymorphism. Sim BC, et al. **J Immunol** 1999 Mar 15;162(6):3153–9
Frequency of clonally expanded T cells evaluated by PCR from a single cell. Kurokawa M, et al. **J Immunol Methods** 1999 Apr 22;224(1–2):203–8
Pneumocystis carinii pneumonia in mutant mice deficient in both TCRalphabeta and TCRgammadelta cells: cytokine and antibody responses. Hanano R, et al. **J Infect Dis** 1999 Feb;179(2):455–9
Persistent expansion, in a human immunodeficiency virus–infected person, of V beta–restricted CD4+CD8+ T lymphocytes that express cytotoxicity–associated molecules and are committed to produce interferon–gamma and tumor necrosis factor–alpha. Weiss L, et al. **J Infect Dis** 1998 Oct;178(4):1158–62
T cell receptor beta–chain repertoire in inclusion body myositis. Fyhr IM, et al. **J Neuroimmunol** 1998 Nov 2; 91(1–2):129–34
Conserved T–cell receptor beta chain CDR3 sequences in IgA nephropathy biopsies. Wu H, et al. **Kidney Int** 1999 Jan;55(1):109–19
A new element within the T–cell receptor alpha locus required for tissue–specific locus control region activity. Ortiz BD, et al. **Mol Cell Biol** 1999 Mar;19(3):1901–9
Regulation of V(D)J recombination by transcriptional promoters. Sikes ML, et al. **Mol Cell Biol** 1999 Apr; 19(4):2773–81
Enhanced sensitivity with a novel TCRgamma PCR assay for clonality studies in 569 formalin–fixed, paraffin–embedded (FFPE) cases. Krafft AE, et al. **Mol Diagn** 1999 Jun;4(2):119–33
T–cell receptors in channel catfish: structure and expression of TCR alpha and beta genes [published erratum appears in Mol Immunol 1998 Dec;35(18):1219] Wilson MR, et al. **Mol Immunol** 1998 Jun;35(9):545–57
Hyper–IgE syndrome [letter; comment] Presotto F, et al. **N Engl J Med** 1999 Jul 29;341(5):375–6; discussion 376–7 . Comment on: N Engl J Med 1999 Mar 4;340(9):692–702.
Conserved T cell receptor complementarity–determining region 3 of ocular T cells in mice with experimental autoimmune uveoretinitis. Uehara R, et al. **Ophthalmic Res** 1999;31(4):249–55
Potential use of T cell receptor genes to modify hematopoietic stem cells for the gene therapy of cancer. Clay TM, et al. **Pathol Oncol Res** 1999;5(1):3–15 (84 ref.)
Regulation of T cell receptor (TCR) beta gene expression by CD3 complex signaling in immature thymocytes: implications for TCRbeta allelic exclusion. Biro J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3882–7
Perturbation of the T cell repertoire in rheumatoid arthritis. Wagner UG, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14447–52
The stability and fate of a spliced intron from vertebrate cells. Clement JQ, et al. **RNA** 1999 Feb;5(2):206–20
Peripheral blood T–cell receptor beta–chain V–repertoire in atopic dermatitis patients after in vitro exposure to Pityrosporum orbiculare extract. Johansson C, et al. **Scand J Immunol** 1999 Mar;49(3):293–301
Rapid screening of T–cell receptor (TCR) variable gene usage by multiplex PCR: application for assessment of clonal composition. Akatsuka Y, et al. **Tissue Antigens** 1999 Feb;53(2):122–34
In vivo cytokine production by allospecific CD8+ transgenic T cells after heart transplantation. Hara M, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):91
Identification of a rat invariant T–cell receptor; alpha chain similar to mouse V alpha 14–J alpha 281 and human V alpha 24–J alpha Q. Matsuura A, et al. **Transplant Proc** 1999 May;31(3):1577–8
Analysis of variable region of T–cell receptor beta chain usage in the human anti–porcine xenoresponse. Chen M, et al. **Transplantation** 1999 Aug 27;68(4):586–9
Viral–antigen dependence and T–cell receptor expression in leucocytes from rhabdovirus immunized trout. Estepa A, et al. **Vet Immunol Immunopathol** 1999 Mar 29;68(1):73–89

IMMUNOLOGY

Diversity of the T–cell receptor BV repertoire in HIV–1–infected patients reflects the biphasic CD4+ T–cell repopulation kinetics during highly active antiretroviral therapy. Kostense S, et al. **AIDS** 1998 Dec 24; 12(18):F235–40
Successful prevention of retrocochlear hearing loss in murine experimental allergic encephalomyelitis with T cell receptor Vbeta8–specific antibody. Suzuki M, et al. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):917–27
The T–cell receptor Vbeta repertoire of nickel–specific T cells. Zollner TM, et al. **Arch Dermatol Res** 1998 Jul; 290(7):397–401
T cell receptor peptide vaccination in rheumatoid arthritis: a placebo–controlled trial using a combination of Vbeta3, Vbeta14, and Vbeta17 peptides [see comments] Moreland LW, et al. **Arthritis Rheum** 1998 Nov;41(11):1919–29. Comment in: Arthritis Rheum 1998 Nov;41(11):1906–10.
Characterization of T–cell repertoire of the bone marrow in immune–mediated aplastic anemia: evidence for the involvement of antigen–driven T–cell response in cyclosporine–dependent aplastic anemia. Zeng W, et al. **Blood** 1999 May 1;93(9):3008–16
Acute graft–versus–host disease after bone marrow transplantation with a single HLA–DPB1*1001 mismatch: involvement of different TCRBV subsets. Gaschet J, et al. **Bone Marrow Transplant** 1998 Aug;22(4):385–92
Effects of superantigenic stimulation on the cord blood alphabeta T cell repertoire. Toubert A, et al. **Bone Marrow Transplant** 1998 Jul;22 Suppl 1:S36–8
Fas modulates both positive and negative selection of thymocytes. Kurasawa K, et al. **Cell Immunol** 1999 Jun 15;194(2):127–35
Differential regulation of IFN–gamma, TNF–alpha, and IL–10 production by CD4(+) alphabetaTCR+ T cells and vdelta2(+) gammadelta T cells in response to monocytes infected with Mycobacterium tuberculosis–H37Ra. Tsukaguchi K, et al. **Cell Immunol** 1999 May 25; 194(1):12–20
Regulation of allergy and asthma by T–cell Vbeta family subsets [editorial; comment] Bakakos P, et al. **Clin Exp Allergy** 1998 Dec;28(12):1449–53. Comment on: Clin Exp Allergy 1998 Dec;28(12):1571–80.
Vbeta8+ T lymphocytes are essential in the regulation of airway hyperresponsiveness and bronchoalveolar eosinophilia but not in allergen–specific IgE in a murine model of allergic asthma [see comments] Hofstra CL, et al. **Clin Exp Allergy** 1998 Dec;28(12):1571–80. Comment in: Clin Exp Allergy 1998 Dec;28(12):1449–53.
Circulating CLA+ lymphocytes from children with atopic dermatitis contain an increased percentage of cells bearing staphylococcal–related T–cell receptor variable segments. Torres MJ, et al. **Clin Exp Allergy** 1998 Oct;28(10):1264–72
Regional variation in the lamina propria T cell receptor V beta repertoire in normal human colon. Bennet JD, et al. **Clin Immunol** 1999 Jan;90(1):38–46
Evidence implicating Gfi–1 and Pim–1 in pre–T–cell differentiation steps associated with beta–selection. Schmidt T, et al. **EMBO J** 1998 Sep 15;17(18):5349–59
Anti–Vbeta8 antibodies induce and maintain staphylococcal enterotoxin B–triggered Vbeta8+ T cell anergy. Aroeira LS, et al. **Eur J Immunol** 1999 Feb;29(2):437–45
Cytotoxic T cell recognition of allelic variants of HLA B35 bound to an Epstein–Barr virus epitope: influence of peptide conformation and TCR–peptide interaction. Khanna R, et al. **Eur J Immunol** 1999 May;29(5):1587–97
Differential reactivity of TCR Vbeta10 alleles to a mouse mammary tumor virus superantigen. Maillard I, et al. **Eur J Immunol** 1998 Oct;28(10):3075–85
Characterization of CD4+ T cells in mouse bone marrow. I. Increased activated/memory phenotype and altered TCR Vbeta repertoire. Price PW, et al. **Eur J Immunol** 1999 Mar;29(3):1051–6
The transcriptional regulator Rel is essential for antigen receptor–mediated stimulation of mature T cells but dispensable for positive and negative selection of thymocytes and T cell apoptosis. Strasser A, et al. **Eur J Immunol** 1999 Mar;29(3):928–35
Inhibition of thymocyte positive selection by natural MHC: peptide ligands. Tourne S, et al. **Eur J Immunol** 1999 Feb; 29(2):394–402
Twenty–five types of T–cell receptor Vbeta family repertoire in patients with Kawasaki syndrome. Nomura Y, et al. **Eur J Pediatr** 1998 Dec;157(12):981–6
T–cell depletion of allogeneic bone marrow using anti–alphabetaTCR monoclonal antibody: prevention of graft–versus–host disease without affecting engraftment potential in rats. Neipp M, et al. **Exp Hematol** 1999 May; 27(5):860–7
T cells facilitate Brugia malayi development in TCRalpha(null) mice. Shultz LD, et al. **Exp Parasitol** 1999 Sep;93(1):55–7
Retroviral–mediated expression of an MHC class I–restricted T cell receptor in the CD8 T cell compartment of bone marrow–reconstituted mice. Pogulis RJ, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2285–97
T–cell repertoire analysis in chronic plaque psoriasis suggests an antigen–specific immune response. Bour H, et al. **Hum Immunol** 1999 Aug;60(8):665–76
Activation of human Valpha24NKT cells by alpha–glycosylceramide in a CD1d–restricted and Valpha24TCR–mediated manner. Nieda M, et al. **Hum Immunol** 1999 Jan;60(1):10–9
Clonal characteristics of T cell infiltrates in skin and synovium of patients with psoriatic arthritis. Tassiulas I, et al. **Hum Immunol** 1999 Jun;60(6):479–91
Positive selection as a developmental progression initiated by alpha beta TCR signals that fix TCR specificity prior to lineage commitment. Bhandoola A, et al. **Immunity** 1999 Mar;10(3):301–11
Skewed TCRV beta repertoire in human thymus persists after thymic emigration: influence of genomic imposition, thymic maturation and environmental challenge on human TCRV beta usage in vivo. Reinhardt C, et al. **Immunobiology** 1998 Jul;199(1):74–86
Biased T–cell receptor usage is associated with allelic variation in the MHC class II peptide binding groove. Yassine–Diab B, et al. **Immunogenetics** 1999 Jun; 49(6):532–40
'Naïve' and 'memory' CD4+ T–cells and T–cell receptor (TCR) V beta repertoire dynamics are independent of the levels of viremia following HIV seroconversion. King DJ, et al. **Immunol Lett** 1999 Mar;66(1–3):199–206
Structure–function studies of T–cell receptor–superantigen interactions. Li H, et al. **Immunol Rev** 1998 Jun;163:177–86 (52 ref.)
Rat NKR–P1+ CD3+ T cells: selective proliferation in interleukin–2, diverse T–cell–receptor–Vbeta repertoire and polarized interferon–gamma expression. Badovinac V, et al. **Immunology** 1998 Sep;95(1):117–25
Polyclonal expansion of TCRBV2– and TCRBV6–bearing T cells in patients with Kawasaki disease. Yoshioka T, et al. **Immunology** 1999 Mar;96(3):465–72
Identification of amino acid residues of the T–cell epitope of Mycobacterium tuberculosis alpha antigen critical for Vbeta11(+) Th1 cells. Kariyone A, et al. **Infect Immun** 1999 Sep;67(9):4312–9
T cell receptor vbeta repertoire in bronchoalveolar lavage in Wegener's granulomatosis and sarcoidosis. Schnabel A, et al. **Int Arch Allergy Immunol** 1999 Jul;119(3):223–30
Regulation of NOD mouse autoimmune diabetes by T cells that recognize a TCR CDR3 peptide. Elias D, et al. **Int Immunol** 1999 Jun;11(6):957–66
A novel recognition motif of human NKT antigen receptor for a glycolipid ligand. Kawano T, et al. **Int Immunol** 1999 Jun;11(6):881–7
In vitro positive selection and anergy induction of class II–restricted TCR transgenic thymocytes by a cortical thymic epithelial cell line. Nelson AJ, et al. **Int Immunol** 1998 Sep;10(9):1335–46
Expression of a type II collagen–specific TCR transgene accelerates the onset of arthritis in mice. Osman GE, et al. **Int Immunol** 1998 Nov;10(11):1613–22
Characterization of the interaction of a TCR alpha chain variable domain with MHC II I–A molecules. Qadri A, et al. **Int Immunol** 1999 Jun;11(6):967–77
Memory/effector T cells in TCR transgenic mice develop via recognition of enteric antigens by a second, endogenous TCR. Saparov A, et al. **Int Immunol** 1999 Aug; 11(8):1253–64
Age–related modifications of the human alphabeta T cell repertoire due to different clonal expansions in the CD4+ and CD8+ subsets. Wack A, et al. **Int Immunol** 1998 Sep; 10(9):1281–8
MHC class II–independent, Vbeta–specific activation of T cells by superantigen mutants fused to anti–tumor Fab fragments: implications for use in treatment of human colon carcinoma. Newton DW, et al. **Int J Mol Med** 1998 Jan; 1(1):157–62
TCR–Vbeta usage in the thymus and blood of myasthenia gravis patients. Navaneetham D, et al. **J Autoimmun** 1998 Dec;11(6):621–33
Analysis of T cell receptor Vbeta gene usage during the course of disease in patients with chronic hepatitis B. Dou HY, et al. **J Biomed Sci** 1998 Nov–Dec;5(6):428–34
Development of CD8alpha/alpha and CD8alpha/beta T cells in major histocompatibility complex class I–deficient mice. Das G, et al. **J Exp Med** 1999 Sep 20;190(6):881–4
The common cytokine receptor gamma chain and the pre–T cell receptor provide independent but critically overlapping signals in early alpha/beta T cell development. Di Santo JP, et al. **J Exp Med** 1999 Feb 1;189(3):563–74
Effects of complementarity determining region mutations on the affinity of an alpha/beta T cell receptor: measuring the energy associated with CD4/CD8 repertoire skewing. Manning TC, et al. **J Exp Med** 1999 Feb 1;189(3):461–70
Selection and expansion of CD8alpha/alpha(1) T cell receptor alpha/beta(1) intestinal intraepithelial lymphocytes in the absence of both classical major histocompatibility complex class I and nonclassical CD1 molecules. Park SH, et al. **J Exp Med** 1999 Sep 20; 190(6):885–90
Molecular requirements for T cell recognition by a major histocompatibility complex class II–restricted T cell receptor: the involvement of the fourth hypervariable loop of the Valpha domain. Thatte J, et al. **J Exp Med** 1999 Feb 1;189(3):509–20
An analysis of T cell antigen receptor variable beta genes during the clinical course of patients with chronic hepatitis B. Sugyo S, et al. **J Gastroenterol Hepatol** 1999 Apr; 14(4):333–8
Dual MHC class I and class II restriction of a single T cell receptor: distinct modes of tolerance induction by two classes of autoantigens. Arsov I, et al. **J Immunol** 1999 Feb 15;162(4):2008–15
T cell repertoire alterations of vascularized xenografts. Brouard S, et al. **J Immunol** 1999 Mar 15;162(6):3367–77
Activation of human CD8+ alpha beta TCR+ cells by Mycobacterium tuberculosis via an alternate class I MHC antigen–processing pathway. Canaday DH, et al. **J Immunol** 1999 Jan 1;162(1):372–9
Cutting edge: a test of the dominant negative signal model for TCR antagonism. Daniels MA, et al. **J Immunol** 1999 Apr 1;162(7):3761–4
Differential effects of CD28 engagement and IL–12 on T cell activation by altered peptide ligands. Ding L, et al. **J Immunol** 1998 Dec 15;161(12):6614–21
Preferential localization of CD8+ alpha E beta 7+ T cells around acinar epithelial cells with apoptosis in patients with Sjögren's syndrome. Fujihara T, et al. **J Immunol** 1999 Aug 15;163(4):2226–35
Development of peptide–selected CD8 T cells in fetal thymic organ culture occurs via the conventional pathway. Hogquist KA, et al. **J Immunol** 1998 Oct 15; 161(8):3896–901
Differential requirements for ZAP–70 in TCR signaling and T cell development. Kadlecek TA, et al. **J Immunol** 1998

Nov 1;161(9):4688–94
Induction or protection from experimental autoimmune encephalomyelitis depends on the cytokine secretion profile of TCR peptide–specific regulatory CD4 T cells. Kumar V, et al. **J Immunol** 1998 Dec 15;161(12):6585–91
Self-restricted dual receptor memory T cells. Lee WT, et al. **J Immunol** 1998 Nov 1;161(9):4513–9
Differential responses of invariant V alpha 24J alpha Q T cells and MHC class II–restricted CD4+ T cells to dexamethasone. Milner JD, et al. **J Immunol** 1999 Sep 1; 163(5):2522–9
Regulatory role of peritoneal NK1.1+ alpha beta T cells in IL–12 production during Salmonella infection. Naiki Y, et al. **J Immunol** 1999 Aug 15;163(4):2057–63
CD1–restricted microbial lipid antigen–specific recognition found in the CD8+ alpha beta T cell pool. Rosat JP, et al. **J Immunol** 1999 Jan 1;162(1):366–71
Structural aspects of the interaction between heterogeneic human papillomavirus type 1 E4–specific T cell receptors and the same peptide/HLA–DQ8 complex. Steele JC, et al. **J Immunol** 1998 Nov 1;161(9):4745–52
Selective accumulation of related CD4+ T cell clones in the synovial fluid of patients with rheumatoid arthritis. Striebich CC, et al. **J Immunol** 1998 Oct 15;161(8):4428–36
A novel function of Valpha14+CD4+NKT cells: stimulation of IL–12 production by antigen–presenting cells in the innate immune system. Tomura M, et al. **J Immunol** 1999 Jul 1;163(1):93–101
TCR vaccines against T cell lymphoma: QS–21 and IL–12 adjuvants induce a protective CD8+ T cell response. Wong CP, et al. **J Immunol** 1999 Feb 15;162(4):2251–8
A yeast surface display system for the discovery of ligands that trigger cell activation. Cho BK, et al. **J Immunol Methods** 1998 Nov 1;220(1–2):179–88
Functional expression and analysis of a human HLA–DQ restricted, nickel-reactive T cell receptor in mouse hybridoma cells. Vollmer J, et al. **J Invest Dermatol** 1999 Aug;113(2):175–81
Recognition of local anesthetics by alphabeta+ T cells. Zanni MP, et al. **J Invest Dermatol** 1999 Feb;112(2):197–204
T cell receptor beta–chain repertoire in inclusion body myositis. Fyhr IM, et al. **J Neuroimmunol** 1998 Nov 2; 91(1–2):129–34
Changes in integrin/adhesion molecule expression, but not in the T–cell receptor repertoire, in old mice infected with tuberculosis. Orme IM, et al. **Mech Ageing Dev** 1998 Sep 15;105(1–2):19–29
Functional characteristics of human peripheral blood alpha/betaTCR+, CD4– and CD8– double–negative (DN) T cells. Nichues T, et al. **Microbiol Immunol** 1999; 43(2):153–9
Point mutations in the beta chain CDR3 can alter the T cell receptor recognition pattern on an MHC class I/peptide complex over a broad interface area. Goyarts EC, et al. **Mol Immunol** 1998 Jul;35(10):593–607
Diabetes induced by Coxsackie virus: initiation by bystander damage and not molecular mimicry [see comments] Horwitz MS, et al. **Nat Med** 1998 Jul;4(7):781–5. Comment in: Nat Med 1998 Jul;4(7):770–1.
Negative regulation of airway responsiveness that is dependent on gammadelta T cells and independent of alphabeta T cells [see comments] Lahn M, et al. **Nat Med** 1999 Oct;5(10):1150–6. Comment in: Nat Med 1999 Oct;5(10):1127–8.
The viral triggering of autoimmune disease [news; comment] Wekerle H. **Nat Med** 1998 Jul;4(7):770–1. Comment on: Nat Med 1998 Jul;4(7):781–5.
Cytolytic and IFN–gamma–producing activities of gamma delta T cells in the mouse intestinal epithelium are T cell receptor–beta–chain dependent. Kohyama M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7451–5
Selection of distinct Valpha/beta T–cell receptor families during in vivo and in vitro T–cell maturation. Caccamo N, et al. **Scand J Immunol** 1999 May;49(5):474–80
Characterization of the T–cell receptor V–beta repertoire in Kawasaki disease. Mancia L, et al. **Scand J Immunol** 1998 Oct;48(4):443–9
Characterization of subpopulations of T–cell receptor intermediate (TCRint) T cells. Sköld M, et al. **Scand J Immunol** 1999 Jun;49(6):611–9
Oligoclonality of TCRint cells with a low diversity of TCR complementarity–determining region 3 in mice with graft–versus–host disease. Sugahara S, et al. **Scand J Immunol** 1998 Dec;48(6):592–604
Using thymus anatomy to dissect T cell repertoire selection. Laufer TM, et al. **Semin Immunol** 1999 Feb;11(1):65–70 (49 ref.)
All or none peripheral tolerance induction in H–Y antigen–specific TCR transgenic mice. Sheng B, et al. **Transpl Immunol** 1998 Jun;6(2):78–83
Preferred T–cell receptor V beta usage in the xenogeneic human antiporcine cytolytic response. Chen MC, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):930–1
Anti–alpha beta–T cell receptor monoclonal antibody induces tolerance without dominant infiltration by Th2 cells into grafts. Hamano K, et al. **Transplant Proc** 1998 Nov; 30(7):3892
Allospecific T–cell receptor V–beta repertoire in human mixed lymphocyte cultures is conserved and oligoclonally restricted. Mancia L, et al. **Transplant Proc** 1998 Dec; 30(8):3984–5
The use of an anti–TCRalphabeta monoclonal antibody to control host–versus–graft reactions in canine marrow allograft recipients conditioned with low dose total body irradiation. Barsoukov AA, et al. **Transplantation** 1999 May 27;67(10):1329–35
Increased usage of TCR V–beta8 in kidney transplant recipients with aberrant immune reconstitution and clinical complications. Kolopp–Sarda MN, et al. **Transplantation** 1999 Jun 15;67(11):1441–6
T–cell receptor variable gene analysis of renal allograft–infiltrating cells in biopsy specimens using a nonradioisotopic micromethod. Obata F, et al. **Transplantation** 1998 Nov 27;66(10):1389–92
CD2 and CD3 receptor–mediated tolerance: constraints on T cell activation. Punch JD, et al. **Transplantation** 1999 Mar 15;67(5):741–8
Suppression of allograft rejection with anti–alphabeta T cell receptor antibody in rat corneal transplantation. Yamagami S, et al. **Transplantation** 1999 Feb 27;67(4):600–4
[Donor leukocyte transfusion in a patient with relapsed chronic myeloid leukemia after allogeneic bone marrow transplantation: analysis of natural killer cell activity and T–cell receptor repertoire in bone marrow T cells that exhibited graft–versus–leukemia activity] Suehiro Y, et al. **Rinsho Ketsueki** 1999 Jan;40(1):40–5 (Eng. Abstr.) **(Jpn)**

ISOLATION & PURIFICATION

Common intra–articular T cell expansions in patients with reactive arthritis: identical beta–chain junctional sequences and cytotoxicity toward HLA–B27. Dulphy N, et al. **J Immunol** 1999 Apr 1;162(7):3830–9
Regulation of apoptosis in mature alphabeta+CD4–CD8– antigen–specific suppressor T cell clones. Khan Q, et al. **J Immunol** 1999 May 15;162(10):5860–7
A model for the origin of TCR–alphabeta+ CD4–CD8– B220+ cells based on high affinity TCR signals. Mixter PF, et al. **J Immunol** 1999 May 15;162(10):5747–56

METABOLISM

Evidence of T cell receptor beta–chain patterns in inflammatory and noninflammatory bowel disease states. Saubermann LJ, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G613–21
Characterization of T–cell receptor beta chain mRNA expression in IFN–alpha–responsive chronic myelogenous leukaemia patients. Shimomura T, et al. **Br J Haematol** 1999 Apr;105(1):173–80
The interchain disulfide linkage of T–cell antigen receptor–alpha and –beta chains is a prerequisite for T–cell activation. Li Z, et al. **Cell Immunol** 1998 Dec 15; 190(2):101–11
The connecting peptide domain of pT alpha dictates weak association of the pre–T cell receptor with the TCR zeta subunit. Trop S, et al. **Eur J Immunol** 1999 Jul; 29(7):2187–96
Reduced expression of the alphabeta T–cell antigen receptor by alveolar T–cells. Yamaguchi E, et al. **Eur Respir J** 1999 Apr;13(4):814–9
Endoplasmic reticulum retention and degradation of T cell antigen receptor beta chain. Lee SJ. **Exp Mol Med** 1998 Sep 30;30(3):159–64
Targeting of gliadin peptides, CD8, alpha/beta–TCR, and gamma/delta–TCR to Golgi complexes and vacuoles within celiac disease enterocytes. Zimmer KP, et al. **FASEB J** 1998 Oct;12(13):1349–57
A novel recognition motif of human NKT antigen receptor for a glycolipid ligand. Kawano T, et al. **Int Immunol** 1999 Jun;11(6):881–7
Construction and binding analysis of recombinant single–chain TCR derived from tumor–infiltrating lymphocytes and a cytotoxic T lymphocyte clone directed against MAGE–1. Lake DF, et al. **Int Immunol** 1999 May; 11(5):745–51
Molecular mechanisms in the TCR (TCR alpha beta–CD3 delta epsilon, gamma epsilon) interaction with zeta 2 homodimers: clues from a 'phenotypic revertant' clone. Martin EP, et al. **Int Immunol** 1999 Jul;11(7):1005–15
Characterization of the interaction of a TCR alpha chain variable domain with MHC II I–A molecules. Qadri A, et al. **Int Immunol** 1999 Jun;11(6):967–77
Interleukin 2–mediated uncoupling of T cell receptor alpha/beta from CD3 signaling. Haughn L, et al. **J Exp Med** 1998 Nov 2;188(9):1575–86
Essential and partially overlapping role of CD3gamma and CD3delta for development of alphabeta and gammadelta T lymphocytes. Wang B, et al. **J Exp Med** 1998 Oct 5; 188(7):1375–80
Specific V beta T cell subsets are associated with cat and birch pollen allergy in humans. Beyer K, et al. **J Immunol** 1999 Jan 15;162(2):1186–91
Chronic modulation of the TCR repertoire in the lymphoid periphery. Blish CA, et al. **J Immunol** 1999 Mar 15; 162(6):3131–40
Selection and long–term persistence of reactive CTL clones during an EBV chronic response are determined by avidity, CD8 variable contribution compensating for differences in TCR affinities. Couedel C, et al. **J Immunol** 1999 Jun 1; 162(11):6351–8
Distinct effects of Jak3 signaling on alphabeta and gammadelta thymocyte development. Eynon EE, et al. **J Immunol** 1999 Feb 1;162(3):1448–59
A common TCR V–D–J sequence in V beta 13.1 T cells recognizing an immunodominant peptide of myelin basic protein in multiple sclerosis. Hong J, et al. **J Immunol** 1999 Sep 15;163(6):3530–8
Role of Bcl–2 in alpha beta T cell development in mice deficient in the common cytokine receptor gamma–chain: the requirement for Bcl–2 differs depending on the TCR/MHC affinity. Nakajima H, et al. **J Immunol** 1999 Jan 15;162(2):782–90
Cooperative activation of TCRs by enterotoxin superantigens. Niedergang F, et al. **J Immunol** 1998 Dec 1;161(11):6054–8
Cutting edge: LFA–1 is required for liver NK1.1+TCR alpha beta+ cell development: evidence that liver NK1.1+TCR alpha beta+ cells originate from multiple pathways. Ohteki T, et al. **J Immunol** 1999 Apr 1; 162(7):3753–6
Alterations in TCR–MHC contacts subsequent to cross–recognition of class I MHC and singly substituted peptide variants. Ono T, et al. **J Immunol** 1998 Nov 15; 161(10):5454–63
Cutting edge: trimolecular interaction of TCR with MHC class II and bacterial superantigen shows a similar affinity to MHC:peptide ligands. Redpath S, et al. **J Immunol** 1999 Jul 1;163(1):6–10
Clonal expansion of CD4+ TCRbetabeta+ T cells in TCR alpha–chain– deficient mice by gut–derived antigens. Takahashi I, et al. **J Immunol** 1999 Feb 1;162(3):1843–50
TCR reactivity in human nickel allergy indicates contacts with complementarity–determining region 3 but excludes superantigen–like recognition. Vollmer J, et al. **J Immunol** 1999 Sep 1;163(5):2723–31
The orientation and nature of the interaction between beef insulin–specific TCRs and the insulin/class II MHC complex. Wither JE, et al. **J Immunol** 1999 Feb 15; 162(4):2113–22
Folding, heterodimeric association and specific peptide recognition of a murine alphabeta T–cell receptor expressed in Escherichia coli. Pecorari F, et al. **J Mol Biol** 1999 Jan 29;285(4):1831–43

PHYSIOLOGY

Cryptosporidium parvum initiates inflammatory bowel disease in germfree T cell receptor–alpha–deficient mice. Sacco RE, et al. **Am J Pathol** 1998 Dec;153(6):1717–22
Pleiotropic changes controlled by the pre–T–cell receptor. von Boehmer H, et al. **Curr Opin Immunol** 1999 Apr; 11(2):135–42 (68 ref.)
The roles of intrahepatic Valpha14(+) NK1.1(+) T cells for liver injury induced by Salmonella infection in mice. Ishigami M, et al. **Hepatology** 1999 Jun;29(6):1799–808
On the role of the pre–T cell receptor in alphabeta versus gammadelta T lineage commitment. Aifantis I, et al. **Immunity** 1998 Nov;9(5):649–55
Role of the T cell receptor alpha chain in stabilizing TCR–superantigen–MHC class II complexes. Andersen PS, et al. **Immunity** 1999 Apr;10(4):473–83
RAG reexpression and DNA recombination at T cell receptor loci in peripheral CD4+ T cells. McMahan CJ, et al. **Immunity** 1998 Nov;9(5):637–47
Predictive parameters of joint disease in DBA/1 transgenic mice. Cheunsuk S, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jul;54(7):B271–5
A novel role for HEB downstream or parallel to the pre–TCR signaling pathway during alpha beta thymopoiesis. Barndt R, et al. **J Immunol** 1999 Sep 15; 163(6):3331–43
Pre–T cell receptor signals are responsible for the down–regulation of Syk protein tyrosine kinase expression. Chu DH, et al. **J Immunol** 1999 Sep 1;163(5):2610–20
Tolerant CD8 T cells induced by multiple injections of peptide antigen show impaired TCR signaling and altered proliferative responses in vitro and in vivo. Dubois PM, et al. **J Immunol** 1998 Nov 15;161(10):5260–7
TCR–independent pathways mediate the effects of antigen dose and altered peptide ligands on Th cell polarization. Grakoui A, et al. **J Immunol** 1999 Feb 15;162(4):1923–30
TCR alpha beta–independent CD28 signaling and costimulation require non–CD4–associated Lck. Leung BL, et al. **J Immunol** 1999 Aug 1;163(3):1334–41
A conserved sequence block in the murine and human TCR J alpha region: assessment of regulatory function in vivo. Riegert P, et al. **J Immunol** 1999 Mar 15;162(6):3471–80
A central role for alpha beta T cells in the pathogenesis of murine lupus. Seery JP, et al. **J Immunol** 1999 Jun 15; 162(12):7241–8
Thymus–derived glucocorticoids set the thresholds for thymocyte selection by inhibiting TCR–mediated thymocyte activation. Vacchio MS, et al. **J Immunol** 1999 Aug 1;163(3):1327–33
A limited role for beta–selection during gamma delta T cell development. Wilson A, et al. **J Immunol** 1998 Dec 1; 161(11):5851–4
Reduced generation but efficient TCR beta–chain selection of CD4+8+ double–positive thymocytes in mice with compromised CD3 complex signaling. Würch A, et al. **J Immunol** 1999 Mar 1;162(5):2741–7
Display of functional alphabeta single–chain T–cell receptor molecules on the surface of bacteriophage. Weidanz JA, et al. **J Immunol Methods** 1998 Dec 1;221(1–2):59–76
Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247–52

Csk controls antigen receptor-mediated development and selection of T-lineage cells. Schmedt C, et al. **Nature** 1998 Aug 27;394(6696):901-4

Signals involved in gamma/delta T cell versus alpha/beta T cell lineage commitment. Hayday AC, et al. **Semin Immunol** 1999 Aug;11(4):239-49 (79 ref.)

Alpha beta TCR+ T cells play a nonredundant role in the rejection of heart allografts in mice. Exner BG, et al. **Surgery** 1999 Aug;126(2):121-6

Rejection of discordant skin xenografts by CD4- CD8- TCR alpha beta+ cells in CD4- and CD8-deficient mice. Umesue M, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):890-1

Transfer of porcine MHC DRalpha into IEalpha-deficient murine bone marrow results in reduced IE-restricted Vbeta usage. Emery DW, et al. **Transplantation** 1998 Oct 27; 66(8):1081-8

[Signal suppression of gene recombination with beta chain T-cell antigen receptor--mechanism for allelic exclusion] Swat W. **Postepy Hig Med Dosw** 1999;53(2):343-4 **(Pol)**

THERAPEUTIC USE

T cell receptor V beta 5 and V beta 17 clonal diversity in cerebrospinal fluid and peripheral blood lymphocytes of multiple sclerosis patients. Lozeron P, et al. **Mult Scler** 1998 Jun;4(3):154-61

RECEPTORS, ANTIGEN, T-CELL, GAMMA-DELTA

see related
GENE REARRANGEMENT, DELTA-CHAIN T-CELL ANTIGEN RECEPTOR
GENE REARRANGEMENT, GAMMA-CHAIN T-CELL ANTIGEN RECEPTOR
GENES, T-CELL RECEPTOR DELTA
GENES, T-CELL RECEPTOR GAMMA

CD4+ and/or gammadelta+ T cells in the liver spontaneously produce IL-4 in vitro during the early phase of Leishmania major infection in susceptible BALB/c mice. Yamashita T, et al. **Acta Trop** 1999 Jul 30;73(2):109-19

Immunoregulatory functions of gamma delta T cells. Born W, et al. **Adv Immunol** 1999;71:77-144 (357 ref.)

Alpha beta/gamma delta lineage commitment in the thymus of normal and genetically manipulated mice. Fehling HJ, et al. **Adv Immunol** 1999;71:1-76 (236 ref.)

Gammadelta T-cells alterations in the peripheral blood of high risk diabetes type 1 subjects with subclinical pancreatic B-cells impairment. Krętowski A, et al. **Immunol Lett** 1999 Jun 1;68(2-3):289-93

The role of the T-cell receptor (TCR) in alpha beta/gamma delta lineage commitment: clues from intracellular TCR staining. MacDonald HR, et al. **Immunol Rev** 1998 Oct; 165:87-94 (42 ref.)

Crucial function of the pre-T-cell receptor (TCR) in TCR beta selection, TCR beta allelic exclusion and alpha beta versus gamma delta lineage commitment. von Boehmer H, et al. **Immunol Rev** 1998 Oct;165:111-9 (56 ref.)

The role of gammadelta T cells in induction of bacterial antigen-specific protective CD8+ cytotoxic T cells in immune response against the intracellular bacteria Listeria monocytogenes. Nomura A, et al. **Immunology** 1998 Oct; 95(2):226-33

Cross-talk between gammadelta T lymphocytes and immune cells in humoral response. Szczepanik M, et al. **Immunology** 1998 Dec;95(4):612-7

Co-ordinate expression of the pre-T-cell receptor complex and a novel immature thymocyte-specific antigen, IMT-1, during thymocyte development. Tong JJ, et al. **Immunology** 1999 Jan;96(1):48-56

Differential effects of type I IFNs on the growth of WC1- CD8+ gamma delta T cells and WC1+ CD8- gamma delta T cells in vitro. Tuo W, et al. **J Immunol** 1999 Jan 1;162(1):245-53

Phenotypically activated gammadelta T lymphocytes in the peripheral blood of patients with tuberculosis. Behr-Perst SI, et al. **J Infect Dis** 1999 Jul;180(1):141-9

[Peripheral gamma delta T-cell lymphoma] Kato R, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):319-22 (15 ref.) **(Jpn)**

ANALYSIS

Gammadelta T cell receptor repertoire in middle ear effusions in children. Takeuchi K, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):563-6

Clonal expansion of gammadelta-T lymphocytes in an HTLV-I carrier, associated with chronic neutropenia and rheumatoid arthritis. Horiuchi T, et al. **Ann Hematol** 1999 Feb;78(2):101-4

Changing jejunal gamma delta T cell receptor (TCR)-bearing intraepithelial lymphocyte density in coeliac disease. Iltanen S, et al. **Clin Exp Immunol** 1999 Jul;117(1):51-5

Serial analysis of circulating T gamma/delta lymphocyte subpopulations in Graves' disease. Sasián S, et al. **Endocr Res** 1998 May;24(2):285-95

The homogeneity of the TCRdelta repertoire expressed by the Thy-1dull gammadelta T cell population is due to cellular selection. Azuara V, et al. **Eur J Immunol** 1998 Nov;28(11):3456-67

Phosphoantigen activation induces surface translocation of intracellular CD94/NKG2A class I receptor on CD94- peripheral Vgamma9 Vdelta2 T cells but not on CD94- thymic or mature gammadelta T cell clones. Boullier S, et al. **Eur J Immunol** 1998 Nov;28(11):3399-410

Gamma delta T cells in infection-induced and autoimmune-induced testicular inflammation. Mukasa A, et al. **Immunology** 1998 Nov;95(3):395-401

Murine gamma delta T lymphocytes elicited during Plasmodium yoelii infection respond to Plasmodium heat shock proteins. Kopacz J, et al. **Infect Immun** 1999 Jan; 67(1):57-63

Expansion of gammadelta T cells in an infant with severe combined immunodeficiency syndrome after disseminated BCG infection and bone marrow transplantation. Fisch P, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1218-9

Differential effects of IL-2 and IL-15 on the death and survival of activated TCR gamma delta+ intestinal intraepithelial lymphocytes. Chu CL, et al. **J Immunol** 1999 Feb 15;162(4):1896-903

A case of TCRgammadelta+ T-ALL with cross-lineage CD19 expression [letter] Pereira J, et al. **Leukemia** 1999 May;13(5):824-5

Pure red-cell aplasia associated with clonal expansion of granular lymphocytes expressing killer-cell inhibitory receptors [see comments] Handgretinger R, et al. **N Engl J Med** 1999 Jan 28;340(4):278-84. Comment in: N Engl J Med 1999 Jan 28;340(4):314-5. Comment in: N Engl J Med 1999 Jun 24;340(25):2004; discussion 2005. Comment in: N Engl J Med 1999 Jun 24;340(25):2004-5.

Does a low level of expression of HLA molecules engender autoimmunity? [editorial; comment] Raulet DH. **N Engl J Med** 1999 Jan 28;340(4):314-5. Comment on: N Engl J Med 1999 Jan 28;340(4):278-84.

Peripheral deletion of gammadelta T cells in haemodialysis patients. Matsumoto Y, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2861-6

Increased frequency of CD8 positive gamma/delta T-lymphocytes (CD8+ gamma/delta+) in unmedicated schizophrenic patients: relation to impairment of the blood-brain barrier and HLA-DPA*02011 [letter] Müller N, et al. **Schizophr Res** 1998 Jun 22;32(1):69-71

Prominence of gammadelta T cells in the elicitation phase of dinitrochlorobenzene-induced contact hypersensitivity in lambs. Jörundsson E, et al. **Vet Pathol** 1999 Jan; 36(1):42-50

BIOSYNTHESIS

Homing of transgenic gammadelta T cells into murine vaginal epithelium. Rakasz E, et al. **Int Immunol** 1998 Oct; 10(10):1509-17

Expression of a CD3 epsilon transgene in CD3 epsilon(null) mice does not restore CD3 gamma and delta expression but efficiently rescues T cell development from a subpopulation of prothymocytes. Wang N, et al. **Int Immunol** 1998 Dec;10(12):1777-88

IL-4-producing gamma delta T cells that express a very restricted TCR repertoire are preferentially localized in liver and spleen. Gerber DJ, et al. **J Immunol** 1999 Sep 15;163(6):3076-82

Inflammation alone evokes the response of a TCR-invariant mouse gamma delta T cell subset. Mukasa A, et al. **J Immunol** 1999 Apr 15;162(8):4910-3

IL-12-mediated NKRP1A up-regulation and consequent enhancement of endothelial transmigration of V delta 2+ TCR gamma delta+ T lymphocytes from healthy donors and multiple sclerosis patients. Poggi A, et al. **J Immunol** 1999 Apr 1;162(7):4349-54

A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E-selectin ligands and L-selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914-9

Post transplant CD8+ gammadelta T-cell lymphoma associated with human herpes virus-6 infection. Lin WC, et al. **Leuk Lymphoma** 1999 Apr;33(3-4):377-84 (40 ref.)

CHEMISTRY

Characterization of an avian (Gallus gallus domesticus) TCR alpha delta gene locus. Kubota T, et al. **J Immunol** 1999 Oct 1;163(7):3858-66

DEFICIENCY

Collagen-induced arthritis development requires alpha beta T cells but not gamma delta T cells: studies with T cell-deficient (TCR mutant) mice. Corthay A, et al. **Int Immunol** 1999 Jul;11(7):1065-73

DRUG EFFECTS

Gamma/delta T-cell stimulation by pamidronate [letter] Kunzmann V, et al. **N Engl J Med** 1999 Mar 4;340(9):737-8

GENETICS

Advances in molecular hematopathology: T-cell receptor gamma and bcl-2 genes [see comments] Greiner TC. **Am J Pathol** 1999 Jan;154(1):7-9 (28 ref.). Comment in: Am J Pathol 1999 Jan;154(1):67-75. Comment in: Am J Pathol 1999 Jan;154(1):97-103.

Detection of clonal T-cell receptor gamma gene rearrangements in paraffin-embedded tissue by polymerase chain reaction and nonradioactive single-strand conformational polymorphism analysis [see comments] Signoretti S, et al. **Am J Pathol** 1999 Jan;154(1):67-75. Comment in: Am J Pathol 1999 Jan;154(1):7-9.

gammac gene transfer in the presence of stem cell factor, FLT-3L, interleukin-7 (IL-7), IL-1, and IL-15 cytokines restores T-cell differentiation from gammac(-) X-linked severe combined immunodeficiency hematopoietic progenitor cells in murine fetal thymic organ cultures. Hacein-Bey S, et al. **Blood** 1998 Dec 1;92(11):4090-7

An endogenous retrovirus with nucleic acid sequences similar to those of the multiple sclerosis associated retrovirus at the human T-cell receptor alpha, delta gene locus. Alliel PM, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep; 44(6):927-31

T-cell receptor TCRG1 and TCRG2 clusters map separately in two different regions of sheep chromosome 4. Massari S, et al. **Chromosome Res** 1998 Aug;6(5):419-20

Antigen-receptor junctional diversity in growth-factor-receptor mutant mice. Rodewald HR, et al. **Dev Comp Immunol** 1998 May-Jun;22(3):351-65

Rapid detection of gammaT cell receptor gene rearrangements in acute lymphoblastic leukemia by electrophoresis and silver staining: implications for detection of minimal residual disease. Valetto A, et al. **Electrophoresis** 1998 Jun;19(8-9):1385-7

Disruption of alpha beta but not of gamma delta T cell development by overexpression of the helix-loop-helix protein Id3 in committed T cell progenitors. Blom B, et al. **EMBO J** 1999 May 17;18(10):2793-802

Use of TCR ADV gene segments by the delta chain is independent of their position and of CD3 expression. Gallagher M, et al. **Eur J Immunol** 1998 Nov; 28(11):3878-85

Impact of chimeric immune receptor extracellular protein domains on T cell function. Patel SD, et al. **Gene Ther** 1999 Mar;6(3):412-9

Analysis of clonality of atypical cutaneous lymphoid infiltrates associated with drug therapy by PCR/DGGE. Brady SP, et al. **Hum Pathol** 1999 Feb;30(2):130-6

Induction of germline transcription in the TCRgamma locus by Stat5: implications for accessibility control by the IL-7 receptor. Ye SK, et al. **Immunity** 1999 Aug;11(2):213-23

TCR diversity in gammadeltaTCR+ hybridomas derived from mice given portal vein donor-specific pre-immunization and skin allografts. Sun Y, et al. **Immunol Lett** 1998 Dec;64(2-3):85-95

Developmental regulation of V(D)J recombination at the TCR alpha/delta locus. Krangel MS, et al. **Immunol Rev** 1998 Oct;165:131-47 (181 ref.)

Accessibility control of variable region gene assembly during T-cell development. Sleckman BP, et al. **Immunol Rev** 1998 Oct;165:121-30 (59 ref.)

The protective role of T-cell receptor Vgamma1+ T cells in primary infection with Listeria monocytogenes. Nakamura T, et al. **Immunology** 1999 Jan;96(1):29-34

Helix-loop-helix (E2-5, HEB, TAL1 and Id1) protein interaction with the TCRalphadelta enhancers. Bernard M, et al. **Int Immunol** 1998 Oct;10(10):1539-49

Collagen-induced arthritis development requires alpha beta T cells but not gamma delta T cells: studies with T cell-deficient (TCR mutant) mice. Corthay A, et al. **Int Immunol** 1999 Jul;11(7):1065-73

PJA-BP expression and TCR delta deletion during human T cell differentiation. Verschuren MC, et al. **Int Immunol** 1998 Dec;10(12):1873-80

Over-utilization of the J delta 3 gene-segment in Crohn's disease. Landau SB, et al. **J Clin Lab Immunol** 1996; 48(1):33-44

A novel element upstream of the Vgamma2 gene in the murine T cell receptor gamma locus cooperates with the 3' enhancer to act as a locus control region. Baker JE, et al. **J Exp Med** 1999 Sep 6;190(5):669-79

Interleukin 7 receptor control of T cell receptor gamma gene rearrangement: role of receptor-associated chains and locus accessibility. Durum SK, et al. **J Exp Med** 1998 Dec 21; 188(12):2233-41

Assembly of productive T cell receptor delta variable region genes exhibits allelic inclusion. Sleckman BP, et al. **J Exp Med** 1998 Oct 19;188(8):1465-71

Characterization of an avian (Gallus gallus domesticus) TCR alpha delta gene locus. Kubota T, et al. **J Immunol** 1999 Oct 1;163(7):3858-66

Pneumocystis carinii pneumonia in mutant mice deficient in both TCRalphabeta and TCRgammadelta cells: cytokine and antibody responses. Hanano R, et al. **J Infect Dis** 1999 Feb;179(2):455-9

Enhanced sensitivity with a novel TCRgamma PCR assay for clonality studies in 569 formalin-fixed, paraffin-embedded (FFPE) cases. Krafft AE, et al. **Mol Diagn** 1999 Jun;4(2):119-33

High expression of a specific T-cell receptor gamma transcript in epithelial cells of the prostate. Essand M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9287-92

Diversification, expression, and gamma delta T cell recognition of evolutionarily distant members of the MIC family of major histocompatibility complex class I-related molecules. Steinle A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12510-5

[An analysis of the linkage of hypertrophic cardiomyopathy and the delta locus of the T-cell receptor (TCRD) chain in the family of P] Miakotkin VA, et al. **Ter Arkh** 1999; 71(5):67-70 (Eng. Abstr.) **(Rus)**

RECEPTORS, ANTIGEN, T-CELL, GAMMA-DELTA

IMMUNOLOGY

Innate functions of epithelial gamma delta T cells. Havran WL, et al. **Adv Exp Med Biol** 1998;452:29–35 (42 ref.)

The role of gamma/delta T cell receptor positive cells in pregnancy. Polgar B, et al. **Am J Reprod Immunol** 1999 Apr;41(4):239–44

Increased density of jejunal gammadelta+ T cells in patients having normal mucosa--marker of operative autoimmune mechanisms? Iltanen S, et al. **Autoimmunity** 1999; 29(3):179–87

Graft-facilitating doses of ex vivo activated gammadelta T cells do not cause lethal murine graft-vs.-host disease. Drobyski WR, et al. **Biol Blood Marrow Transplant** 1999; 5(4):222–30

Demonstration of frequent occurrence of clonal T cells in the peripheral blood but not in the skin of patients with small plaque parapsoriasis. Muche JM, et al. **Blood** 1999 Aug 15;94(4):1409–17

Enhancing effect of tumor necrosis factor (TNF)-alpha, but not IFN-gamma, on the tumor-specific cytotoxicity of gammadeltaT cells from glioblastoma patients. Suzuki Y, et al. **Cancer Lett** 1999 Jun 1;140(1–2):161–7

Stimulation through CD50 preferentially induces apoptosis of TCR1+ human peripheral blood lymphocytes. López-Briones S, et al. **Cell Adhes Commun** 1998; 6(6):465–79

Differential regulation of IFN-gamma, TNF-alpha, and IL-10 production by CD4(+) alphabetaTCR+ T cells and vdelta2(+) gammadelta T cells in response to monocytes infected with Mycobacterium tuberculosis-H37Ra. Tsukaguchi K, et al. **Cell Immunol** 1999 May 25; 194(1):12–20

Gammadelta receptor bearing T cells in scleroderma: enhanced interaction with vascular endothelial cells in vitro. Kahaleh MB, et al. **Clin Immunol** 1999 May; 91(2):188–95

Role of gamma delta T lymphocytes in immune response in humans and mice. Salerno A, et al. **Crit Rev Immunol** 1998;18(4):327–57 (194 ref.)

Recognition by human gut gamma delta cells of stress inducible major histocompatibility molecules on enterocytes. Griffith E, et al. **Gut** 1998 Aug;43(2):166–7

Human gamma delta T cells recognize alkylamines derived from microbes, edible plants, and tea: implications for innate immunity. Bukowski JF, et al. **Immunity** 1999 Jul; 11(1):57–65

Antigen-driven clonal accumulation of peritoneal gammadelta T cells in vivo. Kodaira Y, et al. **Immunol Invest** 1999 Mar-May;28(2–3):137–48

The effects of interleukin-15 on human gammadelta T cell responses to Plasmodium falciparum in vitro. Elloso MM, et al. **Immunol Lett** 1998 Dec;64(2–3):125–32

Preferential tissue localization of bovine gamma delta T cell subsets defined by anti-T cell receptor for antigen antibodies. Wilson E, et al. **Immunol Lett** 1998 Nov; 64(1):39–44

Role of gamma delta T cells in immunopathology of pulmonary Mycobacterium avium infection in mice. Saunders BM, et al. **Infect Immun** 1998 Nov;66(11):5508–14

Gamma delta T-cell function in pathogenesis of cerebral malaria in mice infected with Plasmodium berghei ANKA. Yañez DM, et al. **Infect Immun** 1999 Jan;67(1):446–8

Expansion and immunological study of human tumor infiltrating gamma/delta T lymphocytes in vitro. Yu S, et al. **Int Arch Allergy Immunol** 1999 May;119(1):31–7

An enlarged subpopulation of T lymphocytes bearing two distinct gammadelta TCR in an HIV-positive patient. Taupin JL, et al. **Int Immunol** 1999 Apr;11(4):545–52

Analysis of the TCR Vgamma repertoire in healthy donors and HIV-1-infected individuals. Wesch D, et al. **Int Immunol** 1998 Aug;10(8):1067–75

Human gamma delta T cells recognize heat shock protein-60 on oral tumor cells. Laad AD, et al. **Int J Cancer** 1999 Mar 1;80(5):709–14

Interleukin-2 dependent selective activation of porcine gamma delta T lymphocytes by an extract from the leaves of Acanthospermum hispidum. Summerfield A, et al. **Int J Immunopharmacol** 1998 Jan-Mar;20(1–3):85–98

Possible protective and pathogenic roles of gamma delta T lymphocytes in HIV-infections (Review). Poccia F, et al. **Int J Mol Med** 1998 Feb;1(2):409–13 (62 ref.)

Role of gamma/delta T cells in a patient with CD4+CD3- lymphocytosis, hypereosinophilia, and high levels of IgE. Bank I, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):621–30

Over-utilization of the J delta 3 gene-segment in Crohn's disease. Landau SB, et al. **J Clin Lab Immunol** 1996; 48(1):33–44

Development of an animal model for neurocysticercosis: immune response in the central nervous system is characterized by a predominance of gamma delta T cells. Cardona AE, et al. **J Immunol** 1999 Jan 15;162(2):995–1002

Differential requirements for ZAP-70 in TCR signaling and T cell development. Kadlecek TA, et al. **J Immunol** 1998 Nov 1;161(9):4688–94

Generation of nitric oxide by the inducible nitric oxide synthase protects gamma delta T cells from Mycobacterium tuberculosis-induced apoptosis. Sciorati C, et al. **J Immunol** 1999 Aug 1;163(3):1570–6

Depletion of IL-10- and TGF-beta-producing regulatory gamma delta T cells by administering a daunomycin-conjugated specific monoclonal antibody in early tumor lesions augments the activity of CTLs and NK cells. Seo N, et al. **J Immunol** 1999 Jul 1;163(1):242–9

Lyme arthritis synovial gamma delta T cells respond to Borrelia burgdorferi lipoproteins and lipidated hexapeptides. Vincent MS, et al. **J Immunol** 1998 Nov 15; 161(10):5762–71

Phosphoantigen-reactive Vgamma9Vdelta2 T lymphocytes suppress in vitro human immunodeficiency virus type 1 replication by cell-released antiviral factors including CC chemokines. Poccia F, et al. **J Infect Dis** 1999 Sep; 180(3):858–61

Role of CD8+ and WC-1+ gamma/delta T cells in resistance to Mycobacterium bovis infection in the SCID-bo mouse. Smith RA, et al. **J Leukoc Biol** 1999 Jan; 65(1):28–34

gamma delta+ T cells regulate major histocompatibility complex class II(IA and IE)-dependent susceptibility to coxsackievirus B3-induced autoimmune myocarditis. Huber SA, et al. **J Virol** 1999 Jul;73(7):5630–6

The role of intrahepatic gammadelta-T cells for liver injury induced by Salmonella infection in mouse. Ishigami M, et al. **Microbiol Immunol** 1999;43(5):461–9

gammadelta T cells provide a breath of fresh air for asthma research [news; comment] Holt PG, et al. **Nat Med** 1999 Oct;5(10):1127–8. Comment on: Nat Med 1999 Oct;5(10):1150–6.

Negative regulation of airway responsiveness that is dependent on gammadelta T cells and independent of alphabeta T cells [see comments] Lahn M, et al. **Nat Med** 1999 Oct;5(10):1150–6. Comment in: Nat Med 1999 Oct;5(10):1127–8.

The gammadelta T-cell bridge: linking innate and acquired immunity [news] Mak TW, et al. **Nat Med** 1998 Jul; 4(7):764–5

Proliferative response of CD8+ gamma delta+ T cells to Streptococcus sanguis in patients with Behçet's disease. Nishida T, et al. **Ocul Immunol Inflamm** 1998 Sep; 6(3):139–44

Broad tumor-associated expression and recognition by tumor-derived gamma delta T cells of MICA and MICB. Groh V, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6879–84

Cytolytic and IFN-gamma-producing activities of gamma delta T cells in the mouse intestinal epithelium are T cell receptor-beta-chain dependent. Kohyama M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7451–5

Small cytoplasmic antigens from Pseudomonas aeruginosa stimulate gammadelta T lymphocytes. Julià MR, et al. **Scand J Immunol** 1998 Dec;48(6):672–8

Isolation and characterisation of T lymphocytes from the urethra of patients with acute urethritis [published erratum appears in Sex Transm Infect 1998 Dec;74(6):459] Brunst M, et al. **Sex Transm Infect** 1998 Aug;74(4):279–83

[Effect of pathogen-stimulated human CD4+ T cells on gamma delta T cells] He W, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec; 19(6):401–8 (Eng. Abstr.) **(Chi)**

[Regulation of the contact sensitivity reaction by suppression of T gamma delta lymphocytes] Szczepanik M. **Folia Med Cracov** 1998;39(1–2):5–33 (68 ref.) (Eng. Abstr.) **(Pol)**

METABOLISM

Hepatosplenic gamma delta T-cell lymphoma--not just alphabet soup. Chang KL, et al. **Adv Anat Pathol** 1998 Jan;5(1):21–9 (22 ref.)

The role of gamma/delta T cells in progesterone-mediated immunomodulation during pregnancy: a review. Szekeres-Bartho J, et al. **Am J Reprod Immunol** 1999 Jul; 42(1):44–8 (47 ref.)

Regulation by cytokines (IL-12, IL-15, IL-4 and IL-10) of the Vgamma9Vdelta2 T cell response to mycobacterial phosphoantigens in responder and anergic HIV-infected persons. Boullier S, et al. **Eur J Immunol** 1999 Jan; 29(1):90–9

Targeting of gliadin peptides, CD8, alpha/beta-TCR, and gamma/delta-TCR to Golgi complexes and vacuoles within celiac disease enterocytes. Zimmer KP, et al. **FASEB J** 1998 Oct;12(13):1349–57

Activation and peripheral expansion of murine T-cell receptor gamma delta intraepithelial lymphocytes. Guehler SR, et al. **Gastroenterology** 1999 Feb;116(2):327–34

Bovine gammadelta T-cell responses to the intracellular protozoan parasite Theileria parva. Daubenberger CA, et al. **Infect Immun** 1999 May;67(5):2241–9

Implication of gammadelta T cells in the human immune response to cytomegalovirus. Déchanet J, et al. **J Clin Invest** 1999 May 15;103(10):1437–49

Essential and partially overlapping role of CD3gamma and CD3delta for development of alphabeta and gammadelta T lymphocytes. Wang B, et al. **J Exp Med** 1998 Oct 5; 188(7):1375–80

Distinct effects of Jak3 signaling on alphabeta and gammadelta thymocyte development. Eynon EE, et al. **J Immunol** 1999 Feb 1;162(3):1448–59

The specificity of a weak gamma delta TCR interaction can be modulated by the glycosylation of the ligand. Hampl J, et al. **J Immunol** 1999 Jul 1;163(1):288–94

MHC class II-dependent NK1.1+ gammadelta T cells are induced in mice by Salmonella infection. Nishimura H, et al. **J Immunol** 1999 Feb 1;162(3):1573–81

HSV-1 glycoprotein I-reactive TCR gamma delta cells directly recognize the peptide backbone in a conformationally dependent manner. Sciammas R, et al. **J Immunol** 1998 Nov 15;161(10):5187–92

Major expansion of gammadelta T lymphocytes following cytomegalovirus infection in kidney allograft recipients. Déchanet J, et al. **J Infect Dis** 1999 Jan;179(1):1–8

Predominance of Vgamma9/Vdelta2 T lymphocytes in the cerebrospinal fluid of children with tuberculous meningitis: reversal after chemotherapy. Dieli F, et al. **Mol Med** 1999 May;5(5):301–12

In vivo gammadelta T cell priming to mycobacterial antigens by primary Mycobacterium tuberculosis infection and exposure to nonpeptidic ligands. Poccia F, et al. **Mol Med** 1999 Jul;5(7):471–6

Interleukin-15 enhances host protection against acute Toxoplasma gondii infection in T-cell receptor alpha-/-deficient mice. Lee YH, et al. **Parasite Immunol** 1999 Jun;21(6):299–306

Costimulatory function of CD28 in avian gammadelta T cells is evolutionarily conserved. Koskela K, et al. **Scand J Immunol** 1998 Dec;48(6):635–41

Sheep perforin: identification and expression by gammadelta T cells from pregnant sheep uterine epithelium. Fox A, et al. **Vet Immunol Immunopathol** 1999 May;68(2–4):293–6

[Diminution of the number of gamma delta T lymphocytes in hepatocellular carcinoma patients treated with transcatheter arterial embolization] Akizuki S, et al. **Nihon Rinsho Meneki Gakkai Kaishi** 1998 Jun;21(3):108–17 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Pleiotropic changes controlled by the pre-T-cell receptor. von Boehmer H, et al. **Curr Opin Immunol** 1999 Apr; 11(2):135–42 (68 ref.)

On the role of the pre-T cell receptor in alphabeta versus gammadelta T lineage commitment. Aifantis I, et al. **Immunity** 1998 Nov;9(5):649–55

Gamma delta intraepithelial lymphocytes drive tumor necrosis factor-alpha responsiveness to intestinal iron challenge: relevance to hemochromatosis. Ten Elshof AE, et al. **Immunol Rev** 1999 Feb;167:223–32

Characteristics of the strong antibody response to mycobacterial Hsp70: a primary, T cell-dependent IgG response with no evidence of natural priming or gamma delta T cell involvement. Bonorino C, et al. **J Immunol** 1998 Nov 15;161(10):5210–6

Cutting edge: protective response to pulmonary injury requires gamma delta T lymphocytes. King DP, et al. **J Immunol** 1999 May 1;162(9):5033–6

gammadelta T cells contribute to control of chronic parasitemia in Plasmodium chabaudi infections in mice. Seixas EM, et al. **J Immunol** 1999 Mar 1;162(5):2837–41

A limited role for beta-selection during gamma delta T cell development. Wilson A, et al. **J Immunol** 1998 Dec 1; 161(11):5851–4

Immunophenotypic and immunogenotypic characteristics of TCRgammadelta+ T cell acute lymphoblastic leukemia. Langerak AW, et al. **Leukemia** 1999 Feb;13(2):206–14

Signals involved in gamma/delta T cell versus alpha/beta T cell lineage commitment. Hayday AC, et al. **Semin Immunol** 1999 Aug;11(4):239–49 (79 ref.)

gamma delta T cells, their T cell receptor usage and role in human diseases. Kabelitz D, et al. **Springer Semin Immunopathol** 1999;21(1):55–75 (196 ref.)

RECEPTORS, ARYL HYDROCARBON

AGONISTS

The flavonoid galangin is an inhibitor of CYP1A1 activity and an agonist/antagonist of the aryl hydrocarbon receptor. Ciolino HP, et al. **Br J Cancer** 1999 Mar;79(9–10):1340–6

Diluted mainstream cigarette smoke condensates activate estrogen receptor and aryl hydrocarbon receptor-mediated gene transcription. Meek MD, et al. **Environ Res** 1999 Jan; 80(1):9–17

Ah receptor agonists as endocrine disruptors: antiestrogenic activity and mechanisms. Safe S, et al. **Toxicol Lett** 1998 Dec 28;102–103:343–7 (13 ref.)

ANALYSIS

Arylhydrocarbon receptor expression in the human endometrium. Küchenhoff A, et al. **Fertil Steril** 1999 Feb; 71(2):354–60

ANTAGONISTS & INHIBITORS

The flavonoid galangin is an inhibitor of CYP1A1 activity and an agonist/antagonist of the aryl hydrocarbon receptor. Ciolino HP, et al. **Br J Cancer** 1999 Mar;79(9–10):1340–6

Resveratrol has antagonist activity on the aryl hydrocarbon receptor: implications for prevention of dioxin toxicity. Casper RF, et al. **Mol Pharmacol** 1999 Oct;56(4):784–90

Flavone antagonists bind competitively with 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) to the aryl hydrocarbon receptor but inhibit nuclear uptake and transformation. Henry EC, et al. **Mol Pharmacol** 1999 Apr; 55(4):716–25

BIOSYNTHESIS

Lipopolysaccharide activation of murine splenocytes and

splenic B cells increased the expression of aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator. Marcus RS, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1113–8

CHEMISTRY

Functional diversity of vertebrate ARNT proteins: identification of ARNT2 as the predominant form of ARNT in the marine teleost, Fundulus heteroclitus. Powell WH, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):156–63

Characterization of the AhR–hsp90–XAP2 core complex and the role of the immunophilin-related protein XAP2 in AhR stabilization. Meyer BK, et al. **Biochemistry** 1999 Jul 13; 38(28):8907–17

Lipoxin A4: a new class of ligand for the Ah receptor. Schaldach CM, et al. **Biochemistry** 1999 Jun 8; 38(23):7594–600

Physicochemical differences in the AH receptors of the most TCDD-susceptible and the most TCDD-resistant rat strains. Pohjanvirta R, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):82–95

DEFICIENCY

Adverse reproductive outcomes in the transgenic Ah receptor-deficient mouse. Abbott BD, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):62–70

Knockout animals in toxicology: assessment of toxin bioactivation pathways using mice deficient in xenobiotic metabolizing enzymes. Pineau T, et al. **Toxicol Lett** 1998 Dec 28;102–103:459–64

DRUG EFFECTS

The Ah receptor: a regulator of the biochemical and toxicological actions of structurally diverse chemicals. Denison MS, et al. **Bull Environ Contam Toxicol** 1998 Nov; 61(5):557–68 (45 ref.)

Suppression of cell cycle progression by flavonoids: dependence on the aryl hydrocarbon receptor. Reiners JJ Jr, et al. **Carcinogenesis** 1999 Aug;20(8):1561–6

Differential response to benzo[A]pyrene in human lung adenocarcinoma cell lines: the absence of aryl hydrocarbon receptor activation. Chang KW, et al. **Life Sci** 1999; 65(13):1339–49

Transactivation activity of human, zebrafish, and rainbow trout aryl hydrocarbon receptors expressed in COS-7 cells: greater insight into species differences in toxic potency of polychlorinated dibenzo-p-dioxin, dibenzofuran, and biphenyl congeners. Abnet CC, et al. **Toxicol Appl Pharmacol** 1999 Aug 15;159(1):41–51

Mechanisms of ligand-induced aryl hydrocarbon receptor-mediated biochemical and toxic responses [see comments] Wilson CL, et al. **Toxicol Pathol** 1998 Sep–Oct; 26(5):657–71 (200 ref.). Comment in: Toxicol Pathol 1998 Sep–Oct;26(5):672–3.

Evidence for Ah receptor mediation of increased ACTH concentrations in primary cultures of rat anterior pituitary cells exposed to TCDD. Bestervelt LL, et al. **Toxicol Sci** 1998 Dec;46(2):294–9

GENETICS

AH receptor-controlled transcriptional regulation and function of rat and human UDP-glucuronosyltransferase isoforms. Bock KW, et al. **Adv Enzyme Regul** 1998; 38:207–22

Daily cycle of bHLH–PAS proteins, Ah receptor and Arnt, in multiple tissues of female Sprague–Dawley rats. Richardson VM, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):225–31

Divergent mechanisms for loss of Ah-responsiveness in benzo[a]pyrene- and adriamycinR-resistant MCF-7 cells. Caruso JA, et al. **Biochem Pharmacol** 1999 Jun 1; 57(11):1253–63

Cloning and characterization of the zebrafish (Danio rerio) aryl hydrocarbon receptor. Tanguay RL, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):35–48

Regulation of mouse Ah receptor (Ahr) gene basal expression by members of the Sp family of transcription factors. Fitzgerald CT, et al. **DNA Cell Biol** 1998 Sep;17(9):811–22

Role of canonical glucocorticoid responsive elements in modulating expression of genes regulated by the arylhydrocarbon receptor. Linder MW, et al. **Drug Metab Rev** 1999 Feb;31(1):247–71 (41 ref.)

Functional analysis of the human cytochrome P4501A1 (CYP1A1) gene enhancer. Kress S, et al. **Eur J Biochem** 1998 Dec 1;258(2):803–12

Physical localization of the mouse aryl hydrocarbon receptor nuclear translocator-2 (Arnt2) gene within the c112K deletion. Wines ME, et al. **Genomics** 1998 Jul 15; 51(2):223–32

Aryl-hydrocarbon receptor is an inhibitory regulator of lipid synthesis and of commitment to adipogenesis. Alexander DL, et al. **J Cell Sci** 1998 Nov;111 (Pt 22):3311–22

Regulation of preB cell apoptosis by aryl hydrocarbon receptor/transcription factor-expressing stromal/adherent cells. Near RI, et al. **Proc Soc Exp Biol Med** 1999 Jul; 221(3):242–52

AH receptor, ARNT, glucocorticoid receptor, EGF receptor, EGF, TGF alpha, TGF beta 1, TGF beta 2, and TGF beta 3 expression in human embryonic palate, and effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Abbott BD, et al. **Teratology** 1998 Aug;58(2):30–43

Characterization of 2,3,7,8-tetrachlorodibenzofuran-dependent suppression and AH receptor pathway gene expression in the developing mouse mammary gland. Hushka LJ, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):200–10

Induction of arylhydrocarbon receptor expression in embryoblast cells of rabbit preimplantation blastocysts upon degeneration of Rauber's polar trophoblast. Tscheudschilsuren G, et al. **Toxicol Appl Pharmacol** 1999 Jun 1;157(2):125–33

The AH receptor and a novel gene determine acute toxic responses to TCDD: segregation of the resistant alleles to different rat lines. Tuomisto JT, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):71–81

ISOLATION & PURIFICATION

Two forms of aryl hydrocarbon receptor type 2 in rainbow trout (Oncorhynchus mykiss). Evidence for differential expression and enhancer specificity. Abnet CC, et al. **J Biol Chem** 1999 May 21;274(21):15159–66

METABOLISM

The lack of AHD4 induction by TCDD in corneal cells may involve tissue-specific regulatory proteins. Vasiliou V, et al. **Adv Exp Med Biol** 1999;463:181–8

Interactions of nuclear receptor coactivator/corepressor proteins with the aryl hydrocarbon receptor complex. Nguyen TA, et al. **Arch Biochem Biophys** 1999 Jul 15; 367(2):250–7

DNA binding activity of the aryl hydrocarbon receptor is sensitive to redox changes in intact cells. Xu C, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):149–56

Dietary flavonols quercetin and kaempferol are ligands of the aryl hydrocarbon receptor that affect CYP1A1 transcription differentially. Ciolino HP, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):715–22

Role of HSP90 in mediating cross-talk between the estrogen receptor and the Ah receptor signal transduction pathways. Caruso JA, et al. **Biochem Pharmacol** 1999 Nov 1; 58(9):1395–403

Cytochrome 1A1 induction by primaquine in human hepatocytes and HepG2 cells: absence of binding to the aryl hydrocarbon receptor. Fontaine F, et al. **Biochem Pharmacol** 1999 Feb 1;57(3):255–62

Lipoxin A4: a new class of ligand for the Ah receptor. Schaldach CM, et al. **Biochemistry** 1999 Jun 8; 38(23):7594–600

Regulation of constitutive gene expression through interactions of Sp1 protein with the nuclear aryl hydrocarbon receptor complex. Wang F, et al. **Biochemistry** 1999 Aug 31;38(35):11490–500

Resveratrol inhibits transcription of CYP1A1 in vitro by preventing activation of the aryl hydrocarbon receptor. Ciolino HP, et al. **Cancer Res** 1998 Dec 15;58(24):5707–12

Prediction of aryl hydrocarbon receptor-mediated enzyme induction of drugs and chemicals by mRNA quantification. Frötschl R, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1447–52

The aryl hydrocarbon receptor: a comparative perspective. Hahn ME. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Nov;121(1–3):23–53 (385 ref.)

The aryl hydrocarbon receptor: studies using the AHR-null mice. Gonzalez FJ, et al. **Drug Metab Dispos** 1998 Dec; 26(12):1194–8 (41 ref.)

Gonadotropin and steroid regulation of steroid receptor and aryl hydrocarbon receptor messenger ribonucleic acid in macaque granulosa cells during the periovulatory interval. Chaffin CL, et al. **Endocrinology** 1999 Oct;140(10):4753–60

Ah receptor and estrogen receptor-dependent modulation of gene expression by extracts of diesel exhaust particles. Meek MD. **Environ Res** 1998 Nov;79(2):114–21

Identification of a novel mechanism of regulation of Ah (dioxin) receptor function. Mimura J, et al. **Genes Dev** 1999 Jan 1;13(1):20–5

Induction of drug metabolizing enzymes by 1,7-phenanthroline and oltipraz in mice is unrelated to Ah-responsiveness. Carr BA, et al. **J Biochem Mol Toxicol** 1999;13(2):77–82

Cross-talk between the aryl hydrocarbon receptor and hypoxia inducible factor signaling pathways. Demonstration of competition and compensation. Chan WK, et al. **J Biol Chem** 1999 Apr 23;274(17):12115–23

Repression of dioxin signal transduction in fibroblasts. Identification Of a putative repressor associated with Arnt. Gradin K, et al. **J Biol Chem** 1999 May 7;274(19):13511–8

Evidence that the co-chaperone p23 regulates ligand responsiveness of the dioxin (Aryl hydrocarbon) receptor. Kazlauskas A, et al. **J Biol Chem** 1999 May 7; 274(19):13519–24

Differential recruitment of coactivator RIP140 by Ah and estrogen receptors. Absence of a role for LXXLL motifs. Kumar MB, et al. **J Biol Chem** 1999 Aug 6; 274(32):22155–64

Ah receptor and NF-kappaB interactions, a potential mechanism for dioxin toxicity. Tian Y, et al. **J Biol Chem** 1999 Jan 1;274(1):510–5

Aryl-hydrocarbon receptor is an inhibitory regulator of lipid synthesis and of commitment to adipogenesis. Alexander DL, et al. **J Cell Sci** 1998 Nov;111 (Pt 22):3311–22

Estrogen and aryl hydrocarbon responsiveness of ECC-1 endometrial cancer cells. Castro-Rivera E, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):11–21

The aryl hydrocarbon receptor interacts with transcription factor IIB. Swanson HI, et al. **Mol Pharmacol** 1998 Oct; 54(4):671–7

Carbaryl, a carbamate insecticide, is a ligand for the hepatic Ah (dioxin) receptor. Denison MS, et al. **Toxicol Appl Pharmacol** 1998 Oct;152(2):406–14

Characterization of 2,3,7,8-tetrachlorodibenzofuran-dependent suppression and AH receptor pathway gene expression in the developing mouse mammary gland. Hushka LJ, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):200–10

The existence of the 4S polycyclic aromatic hydrocarbon-protein binding in 14-day-old chick embryo liver. Raha A, et al. **Toxicol Appl Pharmacol** 1999 Jul 1; 158(1):1–8

Ah receptor and ARNT protein and mRNA concentrations in rat prostate: effects of stage of development and 2,3,7, 8-tetrachlorodibenzo-p-dioxin treatment. Sommer RJ, et al. **Toxicol Appl Pharmacol** 1999 Mar 1;155(2):177–89

A chimeric aryl hydrocarbon receptor knockout mouse model indicates that aryl hydrocarbon receptor activation in hematopoietic cells contributes to the hepatic lesions induced by 2,3,7, 8-tetrachlorodibenzo-p-dioxin. Thurmond TS, et al. **Toxicol Appl Pharmacol** 1999 Jul 1; 158(1):33–40

Cytotoxic effects and induction of cytochromes P450 1A1/2 by insecticides, in hepatic or epidermal cells: binding capability to the Ah receptor. Delescluse C, et al. **Toxicol Lett** 1998 Aug;96–97:33–9

Hepatic Ah receptor binding affinity for 2,3,7,8-tetrachlorodibenzo-p-dioxin: similarity between beagle dog and cynomolgus monkey. Sandoz C, et al. **Toxicol Lett** 1999 Sep 20;109(1–2):115–21

AhR, ARNT, and CYP1A1 mRNA quantitation in cultured human embryonic palates exposed to TCDD and comparison with mouse palate in vivo and in culture. Abbott BD, et al. **Toxicol Sci** 1999 Jan;47(1):62–75

RT-PCR quantification of AHR, ARNT, GR, and CYP1A1 mRNA in craniofacial tissues of embryonic mice exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin and hydrocortisone. Abbott BD, et al. **Toxicol Sci** 1999 Jan; 47(1):76–85

PHYSIOLOGY

Regulation of cytochrome P450 enzymes by aryl hydrocarbon receptor in human cells: CYP1A2 expression in the LS180 colon carcinoma cell line after treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin or 3-methylcholanthrene. Li W, et al. **Biochem Pharmacol** 1998 Sep 1;56(5):599–612

The Ah receptor: a regulator of the biochemical and toxicological actions of structurally diverse chemicals. Denison MS, et al. **Bull Environ Contam Toxicol** 1998 Nov; 61(5):557–68 (45 ref.)

Influence of aromatic hydrocarbon receptor-mediated events on the genotoxicity of cigarette smoke condensate. Dertinger SD, et al. **Carcinogenesis** 1998 Nov; 19(11):2037–42

Aryl hydrocarbon receptor function in early vertebrates: inducibility of cytochrome P450 1A in agnathan and elasmobranch fish. Hahn ME, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jul;120(1):67–75

p27(Kip1) induction and inhibition of proliferation by the intracellular Ah receptor in developing thymus and hepatoma cells. Kolluri SK, et al. **Genes Dev** 1999 Jul 1; 13(13):1742–53

Effects of diesel organic extracts on chemokine production by peripheral blood mononuclear cells. Fahy O, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1115–24

Aryl hydrocarbon receptor regulation of ceramide-induced apoptosis in murine hepatoma 1c1c7 cells. A function independent of aryl hydrocarbon receptor nuclear translocator. Reiners JJ Jr, et al. **J Biol Chem** 1999 Jan 22;274(4):2502–10

Multiple roles of ligand in transforming the dioxin receptor to an active basic helix-loop-helix/PAS transcription factor complex with the nuclear protein Arnt. Lees MJ, et al. **Mol Cell Biol** 1999 Aug;19(8):5811–22

Aryl hydrocarbon receptor regulation of cytochrome P4501B1 in rat mammary fibroblasts: evidence for transcriptional repression by glucocorticoids. Brake PB, et al. **Mol Pharmacol** 1998 Nov;54(5):825–33

Regulation of cytochrome P-450 (CYP) 1B1 in mouse Hepa-1 variant cell lines: A possible role for aryl hydrocarbon receptor nuclear translocator (ARNT) as a suppressor of CYP1B1 gene expression. Eltom SE, et al. **Mol Pharmacol** 1999 Mar;55(3):594–604

The AH receptor and a novel gene determine acute toxic responses to TCDD: segregation of the resistant alleles to different rat lines. Tuomisto JT, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):71–81

Are there redeeming qualities in one of nature's toxic orphan receptors? [comment] Wilker C. **Toxicol Pathol** 1998 Sep–Oct;26(5):672–3. Comment on: Toxicol Pathol 1998 Sep–Oct;26(5):657–71.

Mechanisms of ligand-induced aryl hydrocarbon receptor-mediated biochemical and toxic responses [see comments] Wilson CL, et al. **Toxicol Pathol** 1998 Sep–Oct;

26(5):657–71 (200 ref.). Comment in: Toxicol Pathol 1998 Sep–Oct;26(5):672–3.
Amelioration of TCDD-induced teratogenesis in aryl hydrocarbon receptor (AhR)-null mice. Peters JM, et al. **Toxicol Sci** 1999 Jan;47(1):86–92

RECEPTORS, ATP see **RECEPTORS, PURINERGIC P2**

RECEPTORS, ATRIAL NATRIURETIC FACTOR

The guanylyl cyclase family of natriuretic peptide receptors. Schulz S, et al. **Vitam Horm** 1999;57:123–51 (99 ref.)

ANALYSIS

Expression of mRNAs encoding hormone receptors in the endolymphatic sac of the rat. Furuta H, et al. **Acta Otolaryngol (Stockh)** 1999 Jan;119(1):53–7
Localization of atrial natriuretic peptide receptors in the rat tongue and hard palate. Park BK, et al. **Arch Oral Biol** 1998 Aug;43(8):611–8
Functional receptors in the avian kidney for C-type natriuretic peptide. Brenner D, et al. **Endocrinology** 1999 Apr;140(4):1622–9
Immunolocalization of natriuretic peptide receptor B in the rat kidney. Bonhomme MC, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1777–86

ANTAGONISTS & INHIBITORS

Efficacy of isatin analogues as antagonists of rat brain and heart atrial natriuretic peptide receptors coupled to particulate guanylyl cyclase. Medvedev AE, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):913–5

BIOSYNTHESIS

Expression and purification of the extracellular ligand-binding domain of the atrial natriuretic peptide (ANP) receptor: monovalent binding with ANP induces 2:2 complexes. Misono KS, et al. **Biochemistry** 1999 Jan 12;38(2):516–23

CHEMISTRY

Development of p-benzoylbenzoylated [N,C,rANP(1–28)]pBNP32 (pBNP1) derivatives and affinity photolabeling of the bovine NPR-A receptor. Coupal M, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):81–6
Intracellular fragments of the natriuretic peptide receptor-C (NPR-C) attenuate dopamine efflux. Kanwal S, et al. **Endocrinology** 1999 Mar;140(3):1118–24
Identification of the G protein-activating domain of the natriuretic peptide clearance receptor (NPR-C). Murthy KS, et al. **J Biol Chem** 1999 Jun 18;274(25):17587–92

DEFICIENCY

NPR-A-Deficient mice show increased susceptibility to hypoxia-induced pulmonary hypertension. Zhao L, et al. **Circulation** 1999 Feb 9;99(5):605–7

DRUG EFFECTS

1,25-Dihydroxyvitamin D3 upregulates natriuretic peptide receptor-C expression in mouse osteoblasts. Yanaka N, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E965–73

GENETICS

Cloning, characterization, and functional expression of a CNP receptor regulating CFTR in the shark rectal gland. Aller SG, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C442–9
B-type natriuretic peptide: a myocyte-specific marker for characterizing load-induced alterations in cardiac gene expression. Magga J, et al. **Ann Med** 1998 Aug;30 Suppl 1:39–45 (73 ref.)
Structure of the type B human natriuretic peptide receptor gene and association of a novel microsatellite polymorphism with essential hypertension. Rehemudula D, et al. **Circ Res** 1999 Mar 19;84(5):605–10
Sp1 dependence of natriuretic peptide receptor A gene transcription in rat aortic smooth muscle cells. Liang F, et al. **Endocrinology** 1999 Apr;140(4):1695–701
Cloning, properties and tissue distribution of natriuretic peptide receptor-A of euryhaline eel, Anguilla japonica. Kashiwagi M, et al. **Eur J Biochem** 1999 Jan; 259(1–2):204–11
Gene regulation of atrial natriuretic peptide A, B, and C receptors in rat glomeruli. Itoh K, et al. **Exp Nephrol** 1999 Jul–Aug;7(4):328–36
A disulfide-bridged mutant of natriuretic peptide receptor-A displays constitutive activity. Role of receptor dimerization in signal transduction. Labrecque J, et al. **J Biol Chem** 1999 Apr 2;274(14):9752–9
Gene expression of the natriuretic peptide system in atrial tissue of patients with paroxysmal and persistent atrial fibrillation. Tuinenburg AE, et al. **J Cardiovasc Electrophysiol** 1999 Jun;10(6):827–35
Natriuretic peptides receptors in human aldosterone-secreting adenomas. Sarzani R, et al. **J Endocrinol Invest** 1999 Jul–Aug;22(7):514–8
Natriuretic peptide receptors, NPR-A and NPR-B, in cultured rabbit retinal pigment epithelium cells. Fujiseki Y, et al. **Jpn J Pharmacol** 1999 Mar;79(3):359–68
A constitutively "phosphorylated" guanylyl cyclase-linked atrial natriuretic peptide receptor mutant is resistant to desensitization. Potter LR, et al. **Mol Biol Cell** 1999 Jun; 10(6):1811–20
Three new allelic mouse mutations that cause skeletal overgrowth involve the natriuretic peptide receptor C gene (Npr3). Jaubert J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10278–83

ISOLATION & PURIFICATION

Expression and purification of the extracellular ligand-binding domain of the atrial natriuretic peptide (ANP) receptor: monovalent binding with ANP induces 2:2 complexes. Misono KS, et al. **Biochemistry** 1999 Jan 12;38(2):516–23

METABOLISM

Cloning, characterization, and functional expression of a CNP receptor regulating CFTR in the shark rectal gland. Aller SG, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C442–9
1,25-Dihydroxyvitamin D3 upregulates natriuretic peptide receptor-C expression in mouse osteoblasts. Yanaka N, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E965–73
B-type natriuretic peptide: a myocyte-specific marker for characterizing load-induced alterations in cardiac gene expression. Magga J, et al. **Ann Med** 1998 Aug;30 Suppl 1:39–45 (73 ref.)
Cloning, properties and tissue distribution of natriuretic peptide receptor-A of euryhaline eel, Anguilla japonica. Kashiwagi M, et al. **Eur J Biochem** 1999 Jan; 259(1–2):204–11
Effects of water deprivation on atrial natriuretic peptide secretion and density of binding sites in adrenal glands and kidneys of maternal and fetal rats in late gestation. Deloof S, et al. **Eur J Endocrinol** 1999 Aug;141(2):160–8
Distribution and characterization of natriuretic peptide receptors in the kidney of the toad, Bufo marinus. Meier SK, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):244–53
Angiotensin II modulates ANP-R2/ANP-C receptor-mediated inhibition of adenylyl cyclase in vascular smooth muscle cells: role of protein kinase C. Palaparti A, et al. **J Mol Cell Cardiol** 1998 Aug; 30(8):1471–82
Clearance of human brain natriuretic peptide in rabbits; effect of the kidney, the natriuretic peptide clearance receptor, and peptidase activity. Almirez R, et al. **J Pharmacol Exp Ther** 1999 May;289(2):976–80
Mesangial cells from diabetic NOD mice constitutively express increased density of atrial natriuretic peptide C receptors. Ardaillou N, et al. **Kidney Int** 1999 Apr; 55(4):1293–302
A constitutively "phosphorylated" guanylyl cyclase-linked atrial natriuretic peptide receptor mutant is resistant to desensitization. Potter LR, et al. **Mol Biol Cell** 1999 Jun; 10(6):1811–20
Comparative binding study of rat natriuretic peptide receptor-A. Marquis M, et al. **Mol Cell Biochem** 1999 Apr; 194(1–2):23–30
Human A-type ANP receptor upregulation by PACAP and carbachol in neuroblastoma cells. Forgeur A, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):189–93
Higher proportions of type C than of types A and B natriuretic peptide receptors exist in the rat ciliary body. Moya FJ, et al. **Vision Res** 1998 Dec;38(24):3833–41

PHYSIOLOGY

Focus on: "G protein-dependent activation of smooth muscle eNOS via natriuretic peptide clearance receptor" [editorial; comment] Galligan JJ. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1407–8 (14 ref.). Comment on: Am J Physiol 1998 Dec;275(6 Pt 1):C1409–16.
Atrial natriuretic peptide clearance receptor participates in modulating endothelial permeability. Hempel A, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1818–25
G protein-dependent activation of smooth muscle eNOS via natriuretic peptide clearance receptor [see comments] Murthy KS, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1409–16. Comment in: Am J Physiol 1998 Dec;275(6 Pt 1):C1407–8.
Regulation of natriuretic peptide receptors by thyrotropin in FRTL-5 rat thyroid cells: evidence for nonguanylate cyclase atrial natriuretic factor-binding sites in cells lacking the natriuretic peptide receptor C. Sellitti DF, et al. **Endocrinology** 1999 Mar;140(3):1365–74
Type B and type C natriuretic peptide receptors modulate intraocular pressure in the rabbit eye. Fernández-Durango R, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):107–13
The guanylate cyclase-coupled natriuretic peptide receptor: a new target for prevention of cold ischemia-reperfusion damage of the rat liver. Gerbes AL, et al. **Hepatology** 1998 Nov;28(5):1309–17
The natriuretic peptide system in obesity-related hypertension: new pathophysiological aspects. Dessi-Fulgheri P, et al. **J Nephrol** 1998 Nov–Dec; 11(6):296–9 (11 ref.)
The natriuretic peptide clearance receptor locally modulates the physiological effects of the natriuretic peptide system. Matsukawa N, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7403–8
[Natriuretic peptide receptors and heart failure] Andreassi MG, et al. **Cardiologia** 1999 Mar;44(3):241–8 (75 ref.) **(Ita)**
[Pathophysiological significance of the natriuretic peptide system: receptor subtype as another key factor] Naruse M, et al. **Nippon Yakurigaku Zasshi** 1998 Sep;112(3):147–54 (18 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, ATRIOPEPTIN see **RECEPTORS, ATRIAL NATRIURETIC FACTOR**

RECEPTORS, BENZODIAZEPINE see **RECEPTORS, GABA-A**

RECEPTORS, BENZODIAZEPINE-GABA see **RECEPTORS, GABA-A**

RECEPTORS, BETA-ADRENERGIC see **RECEPTORS, ADRENERGIC, BETA**

RECEPTORS, BETA-1 ADRENERGIC see **RECEPTORS, ADRENERGIC, BETA-1**

RECEPTORS, BETA-2 ADRENERGIC see **RECEPTORS, ADRENERGIC, BETA-2**

RECEPTORS, BIOGENIC AMINE

AGONISTS

Quantitative structure-activity studies of octopaminergic agonists and antagonists against nervous system of Locusta migratoria. Hirashima A, et al. **Bioorg Med Chem** 1998 Jul; 6(7):903–10
Three-dimensional pharmacophore hypotheses for the locust neuronal octopamine receptor (OAR3). Part 2: agonists. Hirashima A, et al. **Bioorg Med Chem** 1999 Jul;7(7):1437–43

ANTAGONISTS & INHIBITORS

Quantitative structure-activity studies of octopaminergic agonists and antagonists against nervous system of Locusta migratoria. Hirashima A, et al. **Bioorg Med Chem** 1998 Jul; 6(7):903–10

CHEMISTRY

Crystallization and preliminary X-ray analysis of the periplasmic receptor (PotF) of the putrescine transport system in Escherichia coli. Vassylyev DG, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):132–4
Three-dimensional pharmacophore hypotheses for the locust neuronal octopamine receptor (OAR3). Part 2: agonists. Hirashima A, et al. **Bioorg Med Chem** 1999 Jul;7(7):1437–43

DRUG EFFECTS

In vivo intrinsic efficacy of the 5-HT1A receptor antagonists NAD-299, WAY-100,635 and (S)-(-)-UH-301 at rat brain monoamine receptors. Ahlenius S, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):15–9

GENETICS

Isolation of a cDNA for an octopamine-like, G-protein coupled receptor from the cattle tick, Boophilus microplus. Baxter GD, et al. **Insect Biochem Mol Biol** 1999 May; 29(5):461–7

PHYSIOLOGY

Regulation of neurotransmitter interactions in the ventral striatum. McGinty JF. **Ann N Y Acad Sci** 1999 Jun 29; 877:129–39 (54 ref.)

RECEPTORS, BOMBESIN

ANALYSIS

99mTc-labeling and in vivo studies of a bombesin analogue with a novel water-soluble dithiadiphosphine-based bifunctional chelating agent. Karra SR, et al. **Bioconjug Chem** 1999 Mar–Apr;10(2):254–60
Evaluation of radiolabelled bombesin analogues for receptor-targeted scintigraphy and radiotherapy. Breeman WA, et al. **Int J Cancer** 1999 May 17;81(4):658–65
Bombesin-like neuropeptides in nematodes. Huntington MK, et al. **J Parasitol** 1999 Jun;85(3):473–7

ANTAGONISTS & INHIBITORS

PD 176252—the first high affinity non-peptide gastrin-releasing peptide (BB2) receptor antagonist. Ashwood V, et al. **Bioorg Med Chem Lett** 1998 Sep 22; 8(18):2589–94
Syntheses and biological activities of potent bombesin receptor antagonists. Llinares M, et al. **J Pept Res** 1999 Mar;53(3):275–83
Comparative pharmacology of the nonpeptide neuromedin B receptor antagonist PD 168368. Ryan RR, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1202–11

BIOSYNTHESIS

Correlation of expression of bombesin-like peptides and receptors with growth inhibition by an anti-bombesin

antibody in small-cell lung cancer cell lines. Yang HK, et al. **Lung Cancer** 1998 Sep;21(3):165-75

DRUG EFFECTS

Bombesin-like peptides depolarize rat hippocampal interneurones through interaction with subtype 2 bombesin receptors. Lee K, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):791-802

GENETICS

Molecular cloning, genomic organization and selective expression of bombesin receptor subtype 3 in the sheep hypothalamus and pituitary. Whitley JC, et al. **J Mol Endocrinol** 1999 Aug;23(1):107-16

Characterization of gastrin-releasing peptide receptors aberrantly expressed by non-antral gastric adenocarcinomas. Carroll RE, et al. **Peptides** 1999; 20(2):229-37

METABOLISM

Aberrant expression of gastrin-releasing peptide and its receptor by well-differentiated colon cancers in humans. Carroll RE, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G655-65

An aspartate residue at the extracellular boundary of TMII and an arginine residue in TMVII of the gastrin-releasing peptide receptor interact to facilitate heterotrimeric G protein coupling. Donohue PJ, et al. **Biochemistry** 1999 Jul 20;38(29):9366-72

Pharmacology and cell biology of the bombesin receptor subtype 4 (BB4-R). Katsuno T, et al. **Biochemistry** 1999 Jun 1;38(22):7307-20

Gastrin-releasing peptide receptors in the human prostate: relation to neoplastic transformation. Markwalder R, et al. **Cancer Res** 1999 Mar 1;59(5):1152-9

The bombesin receptor subtypes have distinct G protein specificities. Jian X, et al. **J Biol Chem** 1999 Apr 23; 274(17):11573-81

Pharmacology and intracellular signaling mechanisms of the native human orphan receptor BRS-3 in lung cancer cells. Ryan RR, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):366-80

A combinatorial peptoid library for the identification of novel MSH and GRP/bombesin receptor ligands. Heizmann G, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):449-66

Bombesin receptors inhibit G protein-coupled inwardly rectifying K+ channels expressed in Xenopus oocytes through a protein kinase C-dependent pathway. Stevens EB, et al. **Mol Pharmacol** 1999 Jun;55(6):1020-7

Role of receptor and protein kinase C activation in the internalization of the gastrin-releasing peptide receptor. Williams BY, et al. **Mol Pharmacol** 1998 Nov;54(5):889-98

Characterization of gastrin-releasing peptide receptors aberrantly expressed by non-antral gastric adenocarcinomas. Carroll RE, et al. **Peptides** 1999; 20(2):229-37

Visualization of internalization and recycling of the gastrin releasing peptide receptor-green fluorescent protein chimera expressed in epithelial cells. Slice LW, et al. **Receptors Channels** 1998;6(3):201-12

PHYSIOLOGY

Bombesin stimulates in vitro growth of human breast cancer independent of estrogen receptors status. Bold RJ, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4051-6

Pharmacology and cell biology of the bombesin receptor subtype 4 (BB4-R). Katsuno T, et al. **Biochemistry** 1999 Jun 1;38(22):7307-20

Adenoviral-mediated delivery of gastrin-releasing peptide receptor results in specific tumor localization of a bombesin analogue in vivo. Rosenfeld ME, et al. **Clin Cancer Res** 1997 Jul;3(7):1187-94

Multiple protein kinase pathways are involved in gastrin-releasing peptide receptor-regulated secretion. Hellmich MR, et al. **J Biol Chem** 1999 Aug 20; 274(34):23901-9

Functional properties of two bombesin-like peptide receptors revealed by the analysis of mice lacking neuromedin B receptor. Ohki-Hamazaki H, et al. **J Neurosci** 1999 Feb 1;19(3):948-54

The influence of the cellular context on receptor function: a necessary consideration for physiologic interpretations of receptor expression studies. Logsdon CD. **Life Sci** 1999; 64(6-7):369-74 (38 ref.)

Hyperresponsiveness to palatable and aversive taste stimuli in genetically obese (bombesin receptor subtype-3-deficient) mice. Yamada K, et al. **Physiol Behav** 1999 Jul;66(5):863-7

RECEPTORS, BRADYKININ

Kinin receptors. Marceau F, et al. **Clin Rev Allergy Immunol** 1998 Winter;16(4):385-401 (94 ref.)

AGONISTS

Bradykinin down-regulates LPS-induced eosinophil accumulation in the pleural cavity of mice through type 2-kinin receptor activation: a role for prostaglandins. Silva AR, et al. **Br J Pharmacol** 1999 May;127(2):569-75

Bradykinin-evoked Ca2+ mobilization in Madin Darby canine kidney cells. Jan CR, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):219-33

B1 kinin receptor activity in pigs is associated with pre-existing infection. Siebeck M, et al. **Immunopharmacology** 1998 Jul;40(1):49-55

Involvement of the amino terminus of the B(2) receptor in agonist-induced receptor dimerization. AbdAlla S, et al. **J Biol Chem** 1999 Sep 10;274(37):26079-84

Probing the topological arrangement of the N- and C-terminal residues of bradykinin for agonist activity at the B1 receptor. Pellegrini M, et al. **J Med Chem** 1999 Aug 26;42(17):3369-77

Inflammation modifies the role of cyclooxygenases in the contractile responses of the rat detrusor smooth muscle to kinin agonists. Meini S, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):137-43

Capsaicin pretreatment does not alter rat urinary bladder motor responses induced by a kinin B1 receptor agonist after endotoxin treatment. Lecci A, et al. **Neurosci Lett** 1999 Mar 5;262(2):73-6

Nonpeptide antagonists for kinin receptors. Altamura M, et al. **Regul Pept** 1999 Mar 17;80(1-2):13-26 (94 ref.)

ANTAGONISTS & INHIBITORS

Traumatic brain contusions: a clinical role for the kinin antagonist CP-0127. Narotam PK, et al. **Acta Neurochir (Wien)** 1998;140(8):793-802; discussion 802-3

The design of non-peptide human bradykinin B2 receptor antagonists employing the benzodiazepine peptidomimetic scaffold. Dziadulewicz EK, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):463-8

Novel series of O-substituted 8-quinolines and 4-benzothiazoles as potent antagonists of the bradykinin B2 receptors. Heitsch H, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):327-32

Suppressive effect of distinct bradykinin B2 receptor antagonist on allergen-evoked exudation and leukocyte infiltration in sensitized rats. Bandeira-Melo C, et al. **Br J Pharmacol** 1999 May;127(2):315-20

The nonpeptide B2 receptor antagonist FR173657: inhibition of effects of bradykinin related to its role in nociception. Griesbacher T, et al. **Br J Pharmacol** 1998 Jul; 124(6):1328-34

Reduction of sodium deoxycholic acid-induced scratching behaviour by bradykinin B2 receptor antagonists. Hayashi I, et al. **Br J Pharmacol** 1999 Jan;126(1):197-204

LF 16.0335, a novel potent and selective nonpeptide antagonist of the human bradykinin B2 receptor. Pruneau D, et al. **Br J Pharmacol** 1998 Sep;125(2):365-72

Effects of a nonpeptide bradykinin B2 receptor antagonist, FR167344, on guinea-pig tracheal smooth muscle bradykinin receptors. Asano M, et al. **Can J Physiol Pharmacol** 1998 Oct-Nov;76(10-11):1051-5

Kinins modulate the sodium-dependent autoregulation of renal medullary blood flow. Nafz B, et al. **Cardiovasc Res** 1998 Dec;40(3):573-9

Bradykinin B2 receptor antagonist icatibant reduces inhibitory effect of captopril on growth of cultured neonatal rat cardiomyocytes. Lei BL, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):241-4

Effect of icatibant, a bradykinin B2 receptor antagonist, on the development of experimental ulcerative colitis in mice. Arai Y, et al. **Dig Dis Sci** 1999 Apr;44(4):845-51

Bradykinin B2 receptors in nodose ganglia of rat and human. Krstew E, et al. **Eur J Pharmacol** 1998 May 8; 348(2-3):175-80

Oral anti-inflammatory action of NPC 18884, a novel bradykinin B2 receptor antagonist. Saleh TS, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):179-87

Effects of the orally active non-peptide bradykinin B2 receptor antagonist, FR173657, on plasma extravasation in guinea pig airways. Watanabe M, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):373-8

In vitro and in vivo effects of the new nonpeptide bradykinin B2 receptor antagonist, LF 16-0335C, on guinea-pig and rat kinin receptors. Pruneau D, et al. **Fundam Clin Pharmacol** 1999;13(1):75-83

Effect of bradykinin and its antagonist on survival time after coronary artery occlusion in rats. Atif Abbas S, et al. **Gen Pharmacol** 1999 Sep;33(3):243-7

Two B1 and B2 bradykinin receptor antagonists fail to inhibit the Ca2+ response elicited by bradykinin in human skin fibroblasts. Cassano G, et al. **Gen Pharmacol** 1999 Feb; 32(2):239-44

Type 2 bradykinin-receptor antagonism does not modify kinin or angiotensin peptide levels. Campbell DJ, et al. **Hypertension** 1999 May;33(5):1233-6

Long-term effects of angiotensin-converting enzyme inhibition on renal medullary neutral lipid in spontaneously hypertensive rats. O'Sullivan JB, et al. **Hypertension** 1999 May;33(5):1214-7

Chronic bradykinin infusion and receptor blockade in angiotensin II hypertension in rats. Pasquié JL, et al. **Hypertension** 1999 Mar;33(3):830-4

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 4. Discovery of novel frameworks mimicking the active conformation. Abe Y, et al. **J Med Chem** 1998 Nov 5;41(23):4587-98

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 2. Overcoming the species difference between guinea pig and man. Abe Y, et al. **J Med Chem** 1998 Oct 8;41(21):4053-61

A novel class of orally active non-peptide bradykinin B2 receptor antagonists. 3. Discovering bioisosteres of the imidazo[1,2-a] pyridine moiety. Abe Y, et al. **J Med Chem** 1998 Oct 8;41(21):4062-79

Synthesis and pharmacological evaluation of dimer derivatives of the bradykinin receptor antagonist HOE-140. Daffix I, et al. **J Pept Res** 1998 Jul;52(1):1-14

Cyclic and linear bradykinin analogues: implications for B2 antagonist design. Hsieh KH, et al. **J Pept Res** 1999 Jul; 54(1):23-31

Synthesis and activity of dimeric bradykinin antagonists containing diaminodicarboxylic acid bridge residues. Lange M, et al. **J Pept Sci** 1998 Jun;4(4):289-93

Bradykinin and inhibition of angiotensin-converting enzyme in hypertension [letter; comment] Agarwal R. **N Engl J Med** 1999 Mar 25;340(12):967-8; discussion 968-9 . Comment on: N Engl J Med 1998 Oct 29;339(18):1285-92.

Effect of bradykinin-receptor blockade on the response to angiotensin-converting-enzyme inhibitor in normotensive and hypertensive subjects [see comments] Gainer JV, et al. **N Engl J Med** 1998 Oct 29;339(18):1285-92. Comment in: N Engl J Med 1999 Mar 25;340(12):967; discussion 968-9. Comment in: N Engl J Med 1999 Mar 25;340(12):967-8; discussion 968-9. Comment in: N Engl J Med 1999 Mar 25;340(12):968-9.

Activity of tachykinin NK1 and bradykinin B2 receptor antagonists, and an opioid ligand at different stimulation parameters in neurogenic inflammation in the rat. Towler PK, et al. **Neurosci Lett** 1998 Nov 20;257(1):5-8

Modulation of vasoconstrictor and dilator pancreatic metabolites in streptozotocine diabetic rats: effect of bradykinin blockage and NO inhibition. Ortiz MA, et al. **Prostaglandins Other Lipid Mediat** 1999 Jul;57(5-6):281-90

Nonpeptide antagonists for kinin receptors. Altamura M, et al. **Regul Pept** 1999 Mar 17;80(1-2):13-26 (94 ref.)

BIOSYNTHESIS

Interleukin 8 (IL-8) induces the expression of kinin B1 receptor in human lung fibroblasts. Bastian S, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):750-5

Glucocorticoids inhibit the bradykinin B2 receptor increase induced by interleukin-1beta in human bronchial smooth muscle cells. Schmidlin F, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):R7-8

Induction of human B2 bradykinin receptor mRNA and membrane receptors by IFNgamma. Lung CC, et al. **Immunopharmacology** 1998 Jun;39(3):243-53

Monophosphoryl lipid A, a derivative of bacterial lipopolysaccharide, fails to induce B1-receptor-dependent responses to (des-Arg9)-bradykinin in the rabbit in vivo. Mazenot C, et al. **Immunopharmacology** 1999 Feb; 41(2):165-8

Further pharmacological characterization of bradykinin B1 receptor up-regulation in human umbilical vein. Sardi SP, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1019-25

CHEMISTRY

Overexpression and functional characterization of kinin receptors reveal subtype-specific phosphorylation. Blaukat A, et al. **Biochemistry** 1999 Jan 26;38(4):1300-9

Involvement of the amino terminus of the B(2) receptor in agonist-induced receptor dimerization. AbdAlla S, et al. **J Biol Chem** 1999 Sep 10;274(37):26079-84

Investigation of the extracellular accessibility of the connecting loop between membrane domains I and II of the bradykinin B2 receptor. Quitterer U, et al. **J Biol Chem** 1999 May 21;274(21):14773-8

Synthesis and pharmacological evaluation of dimer derivatives of the bradykinin receptor antagonist HOE-140. Daffix I, et al. **J Pept Res** 1998 Jul;52(1):1-14

CLASSIFICATION

The B1 receptors for kinins. Marceau F, et al. **Pharmacol Rev** 1998 Sep;50(3):357-86 (241 ref.)

DRUG EFFECTS

Enhancement of bradykinin and resensitization of its B2 receptor. Marcic B, et al. **Hypertension** 1999 Mar; 33(3):835-43

Lipopolysaccharide upregulates bradykinin 1 receptors in the isolated mouse bladder. Busser BW, et al. **J Urol** 1998 Dec; 160(6 Pt 1):2267-73

Glucocorticoids increase bradykinin B2 receptor gene transcription in cultured guinea-pig tracheal smooth muscle cells. Scherrer D, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):153-9

Nerve growth factor increases sensitivity to bradykinin, mediated through B2 receptors, in capsaicin-sensitive small neurons cultured from rat dorsal root ganglia. Kasai M, et al. **Neurosci Res** 1998 Nov;32(3):231-9

GENETICS

Screening the human bradykinin B2 receptor gene in patients with cardiovascular diseases: identification of a functional mutation in the promoter and a new coding variant (T21M). Erdmann J, et al. **Am J Med Genet** 1998 Dec 28;80(5):521-5

Regulation by interleukin-1beta of gene expression of bradykinin B1 receptor in MH-S murine alveolar macrophage cell line. Tsukagoshi H, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):476–82

Molecular cloning and expression of rat bradykinin B1 receptor. Ni A, et al. **Biochim Biophys Acta** 1998 Nov 8; 1442(2–3):177–85

Evidence for in vitro expression of B1 receptor in the mouse trachea and urinary bladder. Trevisani M, et al. **Br J Pharmacol** 1999 Mar;126(6):1293–300

Molecular characterisation of cloned bradykinin B1 receptors from rat and human. Jones C, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):423–33

Altered frequency of a promoter polymorphic allele of the kinin B1 receptor gene in inflammatory bowel disease [see comments] Bachvarov DR, et al. **Gastroenterology** 1998 Nov;115(5):1045–8. Comment in: Gastroenterology 1998 Nov;115(5):1286–9.

Early onset salt-sensitive hypertension in bradykinin B(2) receptor null mice. Cervenka L, et al. **Hypertension** 1999 Aug;34(2):176–80

METABOLISM

Potassium supplement upregulates the expression of renal kallikrein and bradykinin B2 receptor in SHR. Jin L, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F476–84

NMR and CD conformational studies of bradykinin and its agonists and antagonists: application to receptor binding. Kotovych G, et al. **Biochem Cell Biol** 1998;76(2–3):257–66 (88 ref.)

Activation of bradykinin B2 receptors increases calcium entry and intracellular mobilization in C9 liver cells. García-Sáinz JA, et al. **Biochem Mol Biol Int** 1999 Jun; 47(6):927–33

In vivo B1 kinin-receptor upregulation. Evidence for involvement of protein kinases and nuclear factor kappaB pathways. Campos MM, et al. **Br J Pharmacol** 1999 Aug; 127(8):1851–9

Ramipril-induced delayed myocardial protection against free radical injury involves bradykinin B2 receptor-NO pathway and protein synthesis. Jin ZQ, et al. **Br J Pharmacol** 1998 Oct;125(3):556–62

Differential regulation of bradykinin receptor density, intracellular Ca2+, and prostanoid release in skin and foreskin fibroblasts. Effects of cell density and interleukin-1alpha. Ochsenbein RM, et al. **Br J Pharmacol** 1999 May;127(2):583–9

Pharmacological characterization of the bradykinin B2 receptor: inter-species variability and dissociation between binding and functional responses. Paquet JL, et al. **Br J Pharmacol** 1999 Mar;126(5):1083–90

Bradykinin B2-receptor-mediated modulation of membrane currents in guinea-pig cardiomyocytes. Sakamoto N, et al. **Br J Pharmacol** 1998 Sep;125(2):283–92

Bradykinin down-regulates LPS-induced eosinophil accumulation in the pleural cavity of mice through type 2-kinin receptor activation: a role for prostaglandins. Silva AR, et al. **Br J Pharmacol** 1999 May;127(2):569–75

Angiotensin-converting enzyme inhibitor ramiprilat interferes with the sequestration of the B2 kinin receptor within the plasma membrane of native endothelial cells. Benzing T, et al. **Circulation** 1999 Apr 20;99(15):2034–40

Rat renomedullary interstitial cells possess bradykinin B2 receptors in vivo and in vitro. Dean R, et al. **Clin Exp Pharmacol Physiol** 1999 Jan;26(1):48–55

Functional proteomics of signal transduction by membrane receptors. Godovac-Zimmermann J, et al. **Electrophoresis** 1999 Apr-May;20(4–5):952–61

Localization of bradykinin B2 receptors in the endometrium and myometrium of rat uterus and the effects of estrogen and progesterone. Murone C, et al. **Endocrinology** 1999 Jul; 140(7):3372–82

Bradykinin receptor localization and cell signaling pathways used by bradykinin in the regulation of gonadotropin-releasing hormone secretion. Shi B, et al. **Endocrinology** 1999 Oct;140(10):4669–76

Bradykinin B1 receptors in human umbilical vein: pharmacological evidence of up-regulation, and induction by interleukin-1 beta. Sardi SP, et al. **Eur J Pharmacol** 1998 Oct 9;358(3):221–7

Characterization of B2-bradykinin receptors in rabbit principal cells of the collecting duct. Ardaillou N, et al. **Exp Nephrol** 1998 Nov-Dec;6(6):534–41

Activation of mitogen-activated protein kinase by the bradykinin B2 receptor is independent of receptor phosphorylation and phosphorylation-triggered internalization. Blaukat A, et al. **FEBS Lett** 1999 May 28; 451(3):337–41

Kallikrein-kininogen system activation and bradykinin (B2) receptors in indomethacin induced enterocolitis in genetically susceptible Lewis rats. Stadnicki A, et al. **Gut** 1998 Sep;43(3):365–74

Bradykinin B2-receptors mediate the pressor and renal hemodynamic effects of intravenous bradykinin in conscious rats. Hoagland KM, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):7–15

Bradykinin-induced internalization of the human B2 receptor requires phosphorylation of three serine and two threonine residues at its carboxyl tail. Pizard A, et al. **J Biol Chem** 1999 Apr 30;274(18):12738–47

Receptor-regulated translocation of endothelial nitric-oxide synthase. Frabhakar P, et al. **J Biol Chem** 1998 Oct 16; 273(42):27383–8

Motif mutation of bradykinin B2 receptor second intracellular loop and proximal C terminus is critical for signal transduction, internalization, and resensitization. Prado GN, et al. **J Biol Chem** 1998 Dec 11;273(50):33548–55

Correlations in palmitoylation and multiple phosphorylation of rat bradykinin B2 receptor in Chinese hamster ovary cells. Soskic V, et al. **J Biol Chem** 1999 Mar 26; 274(13):8539–45

MEN 11270, A novel selective constrained peptide antagonist with high affinity at the human B2 kinin receptor. Meini S, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1250–6

Differential induction of functional B1-bradykinin receptors along the rat nephron in endotoxin induced inflammation. Marín-Castaño ME, et al. **Kidney Int** 1998 Dec; 54(6):1888–98

Autoregulation of bradykinin receptors: agonists in the presence of interleukin-1beta shift the repertoire of receptor subtypes from B2 to B1 in human lung fibroblasts. Phagoo SB, et al. **Mol Pharmacol** 1999 Aug;56(2):325–33

Changes in hippocampal and cortical B1 bradykinin receptor biological activity in two experimental models of epilepsy. Bregola G, et al. **Neuroscience** 1999;92(3):1043–9

Modulation of kinin B1 but not B2 receptors-mediated rat paw edema by IL-1beta and TNFalpha. Campos MM, et al. **Peptides** 1998;19(7):1269–76

Crosstalk between Galpha(i)- and Galpha(q)-coupled receptors is mediated by Gbetagamma exchange. Quitterer U, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10626–31

Bradykinin and its receptors in non-mammalian vertebrates. Conlon JM. **Regul Pept** 1999 Feb 5;79(2–3):71–81 (85 ref.)

Kinin B1 receptor-mediated motor responses in normal or inflamed rat urinary bladder in vivo. Lecci A, et al. **Regul Pept** 1999 Mar 17;80(1–2):41–7

PHYSIOLOGY

Overexpression and functional characterization of kinin receptors reveal subtype-specific phosphorylation. Blaukat A, et al. **Biochemistry** 1999 Jan 26;38(4):1300–9

The bradykinin B1 receptor and the central regulation of blood pressure in spontaneously hypertensive rats. Emanueli C, et al. **Br J Pharmacol** 1999 Apr;126(8):1769–76

B1 receptor involvement in the effect of bradykinin on venular endothelial cell proliferation and potentiation of FGF-2 effects. Morbidelli L, et al. **Br J Pharmacol** 1998 Jul;124(6):1286–92

Bradykinin B1 and B2 receptors, tumour necrosis factor alpha and inflammatory hyperalgesia. Poole S, et al. **Br J Pharmacol** 1999 Feb;126(3):649–56

Kinin B2 receptor-mediated contraction of tail arteries from normal or streptozotocin-induced diabetic rats. Wang Z, et al. **Br J Pharmacol** 1998 Sep;125(1):143–51

Involvement of bradykinin B1 and B2 receptors in pulmonary leukocyte accumulation induced by Sephadex beads in guinea pigs. Perron MS, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):83–9

An enhanced effect of arginine vasopressin in bradykinin B2 receptor null mutant mice. Alfie ME, et al. **Hypertension** 1999 Jun;33(6):1436–40

Type 2 bradykinin-receptor antagonism does not modify kinin or angiotensin peptide levels. Campbell DJ, et al. **Hypertension** 1999 May;33(5):1233–6

Effect of ACE inhibitor on DOCA-salt- and aortic coarctation-induced hypertension in mice: do kinin B2 receptors play a role? Rhaleb NE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):329–34

Endogenous B1 receptor mediated hypotension produced by contact system activation in the presence of endotoxemia. Schmid A, et al. **Immunopharmacology** 1998 Aug; 40(2):131–7

A novel mitogenic signaling pathway of bradykinin in the human colon carcinoma cell line SW-480 involves sequential activation of a Gq/11 protein, phosphatidylinositol 3-kinase beta, and protein kinase Cepsilon. Graness A, et al. **J Biol Chem** 1998 Nov 27; 273(48):32016–22

Bradykinin B2-receptor-mediated positive chronotropic effect of bradykinin in isolated rat atria. Li Q, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):452–6

Endogenous bradykinin activates ischaemically sensitive cardiac visceral afferents through kinin B2 receptors in cats. Tjen-A-Looi SC, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):633–41

Lipopolysaccharide upregulates bradykinin 1 receptors in the isolated mouse bladder. Busser BW, et al. **J Urol** 1998 Dec; 160(6 Pt 1):2267–73

Potent antihypertrophic effect of the bradykinin B2 receptor system on the renal vasculature. Tsuchida S, et al. **Kidney Int** 1999 Aug;56(2):509–16

Localization and interactions of vasoactive peptide receptors in renomedullary interstitial cells of the kidney. Zhuo J, et al. **Kidney Int Suppl** 1998 Sep;67:S22–8 (29 ref.)

Bradykinin B(2) receptor-mediated mitogen-activated protein kinase activation in COS-7 cells requires dual signaling via both protein kinase C pathway and epidermal growth factor receptor transactivation. Adomeit A, et al. **Mol Cell Biol** 1999 Aug;19(8):5289–97

Constitutive activation of the human bradykinin B2 receptor induced by mutations in transmembrane helices III and VI. Marie J, et al. **Mol Pharmacol** 1999 Jan;55(1):92–101

Regression of glomerular injury by kallikrein infusion in Dahl salt-sensitive rats is a bradykinin B2-receptor-mediated event. Hirawa N, et al. **Nephron** 1999 Feb;81(2):183–93

Role of kinin B1 and B2 receptors and mast cells in post intestinal infection-induced hypersensitivity to distension. McLean PG, et al. **Neurogastroenterol Motil** 1998 Dec; 10(6):499–508

Systemic treatment with Mycobacterium bovis bacillus Calmette-Guérin (BCG) potentiates kinin B1 receptor agonist-induced nociception and oedema formation in the formalin test in mice. de Campos RO, et al. **Neuropeptides** 1998 Oct;32(5):393–403

Response of fetal rabbit ductus arteriosus to bradykinin: role of nitric oxide, prostaglandins, and bradykinin receptors. Bateson EA, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):568–74

B1 receptors as a new inflammatory target. Could this B the 1? Ahluwalia A, et al. **Trends Pharmacol Sci** 1999 Mar; 20(3):100–4

RECEPTORS, C3B see **RECEPTORS, COMPLEMENT 3B**

RECEPTORS, C3D see **RECEPTORS, COMPLEMENT 3D**

RECEPTORS, CAERULEIN see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, CALCITONIN

BIOSYNTHESIS

Calcitonin responsiveness and receptor expression in porcine and murine osteoclasts: a comparative study. Galvin RJ, et al. **Bone** 1998 Sep;23(3):233–40

Expression of calcitonin receptor-like receptor and receptor-activity-modifying proteins in human cranial arteries. Sams A, et al. **Neurosci Lett** 1998 Dec 11; 258(1):41–4

GENETICS

A simple approach to single-cell microdissection and molecular analysis. Zhang Z, et al. **Anal Quant Cytol Histol** 1997 Dec;19(6):514–8

The porcine calcitonin receptor promoter directs expression of a linked reporter gene in a tissue and developmental specific manner in transgenic mice. Jagger C, et al. **Endocrinology** 1999 Jan;140(1):492–9

Calcitonin receptor polymorphism is associated with a decreased fracture risk in post-menopausal women. Taboulet J, et al. **Hum Mol Genet** 1998 Dec;7(13):2129–33

IMMUNOLOGY

Calcitonin receptor antibodies in the identification of osteoclasts. Quinn JM, et al. **Bone** 1999 Jul;25(1):1–8

METABOLISM

Glycosylation is important for binding to human calcitonin receptors. Ho HH, et al. **Biochemistry** 1999 Feb 9; 38(6):1866–72

Expression of calcitonin receptors in mouse preimplantation embryos and their function in the regulation of blastocyst differentiation by calcitonin. Wang J, et al. **Development** 1998 Nov;125(21):4293–302

Calcitonin-dependent down-regulation of the mouse C1a calcitonin receptor in cells of the osteoclast lineage involves a transcriptional mechanism. Inoue D, et al. **Endocrinology** 1999 Mar;140(3):1060–8

Protein kinase C antagonizes pertussis-toxin-sensitive coupling of the calcitonin receptor to adenylyl cyclase. Shyu JF, et al. **Eur J Biochem** 1999 May;262(1):95–101

The RAMP2/CRLR complex is a functional adrenomedullin receptor in human endothelial and vascular smooth muscle cells. Kamitani S, et al. **FEBS Lett** 1999 Apr 1;448(1):111–4

Cytoskeleton-dependent tyrosine phosphorylation of the p130(Cas) family member HEF1 downstream of the G protein-coupled calcitonin receptor. Calcitonin induces the association of HEF1, paxillin, and focal adhesion kinase. Zhang Z, et al. **J Biol Chem** 1999 Aug 27;274(35):25093–8

Calcitonin receptor binding properties in bone and kidney of the chicken during the oviposition cycle. Yasuoka T, et al. **J Bone Miner Res** 1998 Sep;13(9):1412–9

Multiple amylin receptors arise from receptor activity-modifying protein interaction with the calcitonin receptor gene product. Christopoulos G, et al. **Mol Pharmacol** 1999 Jul;56(1):235–42

The amino terminus of receptor activity modifying proteins is a critical determinant of glycosylation state and ligand binding of calcitonin receptor-like receptor. Fraser NJ, et al. **Mol Pharmacol** 1999 Jun;55(6):1054–9

RAMPs: accessory proteins for seven transmembrane domain receptors. Foord SM, et al. **Trends Pharmacol Sci** 1999 May;20(5):184–7 (32 ref.)

PHYSIOLOGY

Human calcitonin receptor is directly targeted to and retained in the basolateral surface of MDCK cells. Nussenzveig DR, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1264–76

A receptor activity modifying protein (RAMP)2-dependent adrenomedullin receptor is a calcitonin gene-related peptide receptor when coexpressed with human RAMP1. Bühlmann N, et al. **Endocrinology** 1999 Jun;140(6):2883–90

The porcine calcitonin receptor promoter directs expression

of a linked reporter gene in a tissue and developmental specific manner in transgenic mice. Jagger C, et al. **Endocrinology** 1999 Jan;140(1):492–9

An amylin receptor is revealed following co-transfection of a calcitonin receptor with receptor activity modifying proteins-1 or -3. Muff R, et al. **Endocrinology** 1999 Jun; 140(6):2924–7

The CGRP receptor can couple via pertussis toxin sensitive and insensitive G proteins. Main MJ, et al. **FEBS Lett** 1998 Dec 11;441(1):6–10

RECEPTORS, CALCITONIN GENE-RELATED PEPTIDE

ANALYSIS

A receptor activity modifying protein (RAMP)2-dependent adrenomedullin receptor is a calcitonin gene-related peptide receptor when coexpressed with human RAMP1. Bühlmann N, et al. **Endocrinology** 1999 Jun;140(6):2883–90

ANTAGONISTS & INHIBITORS

Influence of CGRP (8–37), but not adrenomedullin (22–52), on the haemodynamic responses to lipopolysaccharide in conscious rats. Gardiner SM, et al. **Br J Pharmacol** 1999 Aug;127(7):1611–8

Endogenous calcitonin gene-related peptide suppresses vasoconstriction mediated by adrenergic nerves in rat mesenteric resistance blood vessels. Takenaga M, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):239–45

Migration of 3T3 and lung fibroblasts in response to calcitonin gene-related peptide and bombesin. Yule KA, et al. **Exp Lung Res** 1999 Apr–May;25(3):261–73

Effect of intravenous calcitonin gene-related peptide antagonist on the laryngeal chemoreflex in piglets. Bauman NM, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):1–6

BIOSYNTHESIS

Expression of calcitonin gene-related peptide-1 receptor mRNA in human tooth pulp and trigeminal ganglion. Uddman R, et al. **Arch Oral Biol** 1999 Jan;44(1):1–6

Cardiac expression of genes encoding putative adrenomedullin/calcitonin gene-related peptide receptors. Autelitano DJ. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):689–93

Rat-2 fibroblasts express specific adrenomedullin receptors, but not calcitonin-gene-related-peptide receptors, which mediate increased intracellular cAMP and inhibit mitogen-activated protein kinase activity. Coppock HA, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):15–22

CHEMISTRY

Structural determinants for binding to CGRP receptors expressed by human SK-N-MC and Col 29 cells: studies with chimeric and other peptides. Poyner DR, et al. **Br J Pharmacol** 1998 Aug;124(8):1659–66

GENETICS

Regional and cellular localization of calcitonin gene-related peptide-receptor component protein mRNA in the guinea-pig central nervous system. Oliver KR, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):205–10

Testes exhibit elevated expression of calcitonin gene-related peptide receptor component protein. Balkan W, et al. **Endocrinology** 1999 Mar;140(3):1459–69

IMMUNOLOGY

Monoclonal antibodies reveal expression of the CGRP receptor in Purkinje cells, interneurons and astrocytes of rat cerebellar cortex. Morara S, et al. **Neuroreport** 1998 Nov 16;9(16):3755–9

METABOLISM

Calcitonin gene-related peptide-immunoreactive nerves and neuroendocrine cells after lung transplantation in the rat. Buvry A, et al. **Am J Respir Cell Mol Biol** 1999 Jun; 20(6):1268–73

Interaction of amylin with calcitonin gene-related peptide receptors in the microvasculature of the hamster cheek pouch in vivo. Hall JM, et al. **Br J Pharmacol** 1999 Jan; 126(1):280–4

Characterization of receptors for calcitonin gene-related peptide and adrenomedullin on the guinea-pig vas deferens. Poyner DR, et al. **Br J Pharmacol** 1999 Mar;126(5):1276–82

Structural determinants for binding to CGRP receptors expressed by human SK-N-MC and Col 29 cells: studies with chimeric and other peptides. Poyner DR, et al. **Br J Pharmacol** 1998 Aug;124(8):1659–66

Conformational restraints revealing bioactive beta-bend structures for halpha CGRP8-37 at the CGRP2 receptor of the rat prostatic vas deferens. Wisskirchen FM, et al. **Br J Pharmacol** 1999 Mar;126(5):1163–70

Calcitonin gene-related peptide (CGRP) increases intracellular free Ca2+ concentrations but not cyclic AMP formation in CGRP receptor-positive osteosarcoma cells (OHS-4). Drissi H, et al. **Cytokine** 1999 Mar;11(3):200–7

Adrenomedullin and calcitonin gene-related peptide (CGRP) interact with a common receptor of the CGRP1 subtype in the human adrenal zona glomerulosa. Belloni AS, et al. **Endocr Res** 1999 Feb;25(1):29–34

Receptors for calcitonin gene-related peptide (CGRP) in the rat adrenal cortex. Renshaw D, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):773–6

Desensitization of CGRP and adrenomedullin receptors in SK-N-MC cells: implications for the RAMP hypothesis. Drake WM, et al. **Endocrinology** 1999 Jan;140(1):533–7

Receptor activity modifying proteins regulate the activity of a calcitonin gene-related peptide receptor in rabbit aortic endothelial cells. Muff R, et al. **FEBS Lett** 1998 Dec 28; 441(3):366–8

Binding of CGRP analogs and their effect on adenylate cyclase activity in porcine iris-ciliary body. Heino P, et al. **J Ocul Pharmacol Ther** 1998 Dec;14(6):543–54

Receptor for calcitonin gene-related peptide: localization in the dorsal and ventral spinal cord. Ye Z, et al. **Neuroscience** 1999;92(4):1389–97

Characterization of binding sites for calcitonin gene related peptide in abalone gill. Duvail L, et al. **Peptides** 1999; 20(3):361–6

CGRP 27–37 analogues with high affinity to the CGRP1 receptor show antagonistic properties in a rat blood flow assay. Rist B, et al. **Regul Pept** 1999 Feb 5;79(2–3):153–8

RAMPs: accessory proteins for seven transmembrane domain receptors. Foord SM, et al. **Trends Pharmacol Sci** 1999 May;20(5):184–7 (32 ref.)

PHYSIOLOGY

Activation of renal pelvic chemoreceptors in rats: role of calcitonin gene-related peptide receptors. Gontijo JA, et al. **Acta Physiol Scand** 1999 Jun;166(2):159–65

Adrenomedullin and CGRP receptors mediate different effects in the rat adrenal cortex. Hinson JP, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):725–8

The CGRP receptor can couple via pertussis toxin sensitive and insensitive G proteins. Main MJ, et al. **FEBS Lett** 1998 Dec 11;441(1):6–10

Limitations in using peptide drugs to characterize calcitonin gene-related peptide receptors. Waugh DJ, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1419–26

Calcitonin gene-related peptide receptor independently stimulates 3',5'-cyclic adenosine monophosphate and Ca2+ signaling pathways. Aiyar N, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):179–85

RECEPTORS, CALCITRIOL

The vitamin D receptor and the syndrome of hereditary 1,25-dihydroxyvitamin D-resistant rickets. Malloy PJ, et al. **Endocr Rev** 1999 Apr;20(2):156–88 (273 ref.)

ANALYSIS

Analysis of 1,25-dihydroxyvitamin D(3) receptors (VDR) in basal cell carcinomas. Reichrath J, et al. **Am J Pathol** 1999 Aug;155(2):583–9

Vitamin D receptors in the rheumatoid lesion: expression by chondrocytes, macrophages, and synoviocytes. Tetlow LC, et al. **Ann Rheum Dis** 1999 Feb;58(2):118–21

Studies on 24R,25-dihydroxyvitamin D3: evidence for a nonnuclear membrane receptor in the chick tibial fracture-healing callus. Kato A, et al. **Bone** 1998 Aug; 23(2):141–6

Sustained osteoblast nuclear receptor binding of converted 1alpha, 25-dihydroxyvitamin D3 after administration of 3H-1alpha-hydroxyvitamin D3: a combined receptor autoradiography and radioassay time course study with comparison to 3H-1alpha, 25-dihydroxyvitamin D3. Koike N, et al. **Calcif Tissue Int** 1998 Nov;63(5):391–5

Distribution of 1,25-dihydroxyvitamin D3 receptor immunoreactivity in the rat olfactory system. Glaser SD, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):613–24

Immunohistochemical analysis of 1,25-dihydroxyvitamin D3 receptor in cervical carcinoma. Reichrath J, et al. **Histochem J** 1998 Aug;30(8):561–7

Distribution of 1,25-dihydroxyvitamin D3 receptor immunoreactivity in the rat brain and spinal cord. Prüfer K, et al. **J Chem Neuroanat** 1999 Feb;16(2):135–45

Vitamin D receptor expression in colorectal cancer. Thomas MG, et al. **J Clin Pathol** 1999 Mar;52(3):181–3

Analysis of 1alpha,25-dihydroxyvitamin D3 receptor in cell extracts with low protein concentration. Trydal T, et al. **J Steroid Biochem Mol Biol** 1993 Sep;46(3):349–54

BIOSYNTHESIS

Bacterial expression and characterization of the ligand-binding domain of the vitamin D receptor. Strugnell SA, et al. **Arch Biochem Biophys** 1999 Apr 1;364(1):42–52

Expression of the vitamin D receptor, of estrogen and thyroid hormone receptor alpha- and beta-isoforms, and of the androgen receptor in cultures of native mouse bone marrow and of stromal/osteoblastic cells. Gruber R, et al. **Bone** 1999 May;24(5):465–73

Expression of vitamin D receptor in cultured human keratinocytes and fibroblasts is not altered by corticosteroids. Midorikawa K, et al. **J Dermatol Sci** 1999 Sep;21(1):8–12

Anchorage-dependent expression of the vitamin D receptor in normal human keratinocytes. Segaert S, et al. **J Invest Dermatol** 1998 Oct;111(4):551–8

CHEMISTRY

Bacterial expression and characterization of the ligand-binding domain of the vitamin D receptor. Strugnell SA, et al. **Arch Biochem Biophys** 1999 Apr 1;364(1):42–52

Putative helices 3 and 5 of the human vitamin D3 receptor are important for the binding of calcitriol. Väisänen S, et al. **FEBS Lett** 1998 Nov 27;440(1-2):203–7

Selective recognition of vitamin D receptor conformations mediates promoter selectivity of vitamin D analogs. Quack M, et al. **Mol Pharmacol** 1999 Jun;55(6):1077–87

DRUG EFFECTS

Metabolism of the vitamin D3 analogue EB1089 alters receptor complex formation and reduces promoter selectivity. Quack M, et al. **Br J Pharmacol** 1998 Oct; 125(4):607–14

Differential effects of 20-epi vitamin D analogs on the vitamin D receptor homodimer. Koszewski NJ, et al. **J Bone Miner Res** 1999 Apr;14(4):509–17

Inhibitory effect of uremic solutions on protein-DNA-complex formation of the vitamin D receptor and other members of the nuclear receptor superfamily. Toell A, et al. **J Cell Biochem** 1999 Sep 1; 74(3):386–94

The independent and combined effects of RAR-, RXR-, and VDR-selective ligands on the growth of squamous cell carcinoma in vitro. Enepekides DJ, et al. **J Otolaryngol** 1999 Apr;28(2):83–9

GENETICS

BsmI polymorphism of the vitamin D receptor gene in hyperparathyroid or hypoparathyroid dialysis patients. Tagliabue J, et al. **Am J Clin Pathol** 1999 Sep;112(3):366–70

Vitamin D resistance. Malloy PJ, et al. **Am J Med** 1999 Mar; 106(3):355–70 (107 ref.)

Association of vitamin D and estrogen receptor gene polymorphism with the effect of hormone replacement therapy on bone mineral density in Japanese women. Kurabayashi T, et al. **Am J Obstet Gynecol** 1999 May; 180(5):1115–20

Inhibition of luciferase expression from a commercial reporter vector by 1,25-dihydroxycholecalciferol. Prathalingam SR, et al. **Anal Biochem** 1998 Oct 1; 263(1):113–5

Vitamin D receptor alleles predict growth and bone density in girls. Tao C, et al. **Arch Dis Child** 1998 Dec;79(6):488–93; discussion 493–4

Lack of association between osteoarthritis of the hip and gene polymorphisms of VDR, COL1A1, and COL2A1 in postmenopausal women. Aerssens J, et al. **Arthritis Rheum** 1998 Nov;41(11):1946–50

Vitamin D receptor 3'-untranslated region polymorphisms: lack of effect on mRNA stability. Durrin LK, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):311–20

Vitamin D3 receptor (VDR) expression in HC-11 mammary cells: regulation by growth-modulatory agents, differentiation, and Ha-ras transformation. Escaleira MT, et al. **Breast Cancer Res Treat** 1999 Mar;54(2):123–33

Factors affecting peak bone density in Japanese women. Fujita Y, et al. **Calcif Tissue Int** 1999 Feb;64(2):107–11

Early and late postmenopausal bone loss is associated with BsmI vitamin D receptor gene polymorphism in Japanese women. Kikuchi R, et al. **Calcif Tissue Int** 1999 Feb; 64(2):102–6

Lack of relationship between BsmI vitamin D receptor polymorphism and primary hyperparathyroidism in a Spanish female population. Menárguez J, et al. **Calcif Tissue Int** 1999 Sep;65(3):214–6

Vitamin D receptor polymorphisms, circulating vitamin D metabolites, and risk of prostate cancer in United States physicians. Ma J, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May;7(5):385–90

Association of breast cancer progression with a vitamin D receptor gene polymorphism. South-East Sweden Breast Cancer Group. Lundin AC, et al. **Cancer Res** 1999 May 15;59(10):2332–4

Fok I polymorphism at the human vitamin D receptor gene locus in Europeans and Africans [letter] Lucotte G, et al. **Clin Genet** 1999 Apr;55(4):281–2

Estrogen increases 1,25-dihydroxyvitamin D receptors expression and bioresponse in the rat duodenal mucosa. Liel Y, et al. **Endocrinology** 1999 Jan;140(1):280–5

Bone mineral density and gene-environment interactions in the search for osteoporosis genes [editorial] Sambrook P, et al. **Environ Health Perspect** 1999 Mar;107(3):A130–1

Vitamin D receptor genotype and the risk of bone fractures in women. Feskanich D, et al. **Epidemiology** 1998 Sep; 9(5):535–9

Advanced onset of menarche and higher bone mineral density depending on vitamin D receptor gene polymorphism. Kitagawa I, et al. **Eur J Endocrinol** 1998 Nov;139(5):522–7

Putative susceptibility markers of coronary artery disease: association between VDR genotype, smoking, and aromatic DNA adduct levels in human right atrial tissue. Van Schooten FJ, et al. **FASEB J** 1998 Oct;12(13):1409–17

Vitamin-D receptor genotype does not predict bone mineral density, bone turnover, and growth in prepubertal children. Baroncelli GI, et al. **Horm Res** 1999;51(3):150–6

Does vitamin D receptor polymorphism influence the response of bone to brisk walking in postmenopausal women? Tsuritani I, et al. **Horm Res** 1998;50(6):315–9

Change of bone mass in postmenopausal Caucasian women with and without hormone replacement therapy is associated with vitamin D receptor and estrogen receptor genotypes. Deng HW, et al. **Hum Genet** 1998 Nov; 103(5):576–85

Molecular mechanism of vitamin D receptor action. Issa LL, et al. **Inflamm Res** 1998 Dec;47(12):451–75 (288 ref.)

Suggestive evidence for a susceptibility gene near the vitamin D receptor locus in idiopathic calcium stone formation. Scott P, et al. **J Am Soc Nephrol** 1999 May;10(5):1007–13

Vitamin D receptor gene FokI polymorphism predicts calcium absorption and bone mineral density in children. Ames SK, et al. **J Bone Miner Res** 1999 May;14(5):740–6

FokI polymorphism at translation initiation site of the vitamin D receptor gene predicts bone mineral density and vertebral fractures in postmenopausal Italian women. Gennari L, et al. **J Bone Miner Res** 1999 Aug;14(8):1379–86

The vitamin D receptor gene start codon polymorphism: a functional analysis of FokI variants. Gross C, et al. **J Bone Miner Res** 1998 Nov;13(11):1691–9

The human vitamin D receptor gene (VDR) is localized to region 12cen–q12 by fluorescent in situ hybridization and radiation hybrid mapping: genetic and physical VDR map. Taymans SE, et al. **J Bone Miner Res** 1999 Jul;14(7):1163–6

The caudal-related homeodomain protein Cdx-2 regulates vitamin D receptor gene expression in the small intestine. Yamamoto H, et al. **J Bone Miner Res** 1999 Feb;14(2):240–7

Identification of an autonomous transactivation domain in helix H3 of the vitamin D receptor. Kraichely DM, et al. **J Cell Biochem** 1999 Oct 1;75(1):82–92

Inhibitory effect of uremic solutions on protein–DNA–complex formation of the vitamin D receptor and other members of the nuclear receptor superfamily. Toell A, et al. **J Cell Biochem** 1999 Sep 1; 74(3):386–94

The vitamin D receptor (VDR) start codon polymorphism in primary hyperparathyroidism and parathyroid VDR messenger ribonucleic acid levels. Correa P, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1690–4

Bone mineral mass and calcium and phosphate metabolism in young men: relationships with vitamin D receptor allelic polymorphisms. Ferrari S, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2043–8

Interactive effect of estradiol and vitamin D receptor gene polymorphisms as a possible determinant of growth in male and female infants. Suarez F, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3563–8

Familial calcium stone disease: TaqI polymorphism and the vitamin D receptor. Jackman SV, et al. **J Endourol** 1999 May;13(4):313–6

Tuberculosis and chronic hepatitis B virus infection in Africans and variation in the vitamin D receptor gene. Bellamy R, et al. **J Infect Dis** 1999 Mar;179(3):721–4

Association of vitamin D receptor genotype with leprosy type. Roy S, et al. **J Infect Dis** 1999 Jan;179(1):187–91

Association of BsmI vitamin-D receptor gene polymorphism with combined bone mass in spine and proximal femur in Icelandic women. Sigurdsson G, et al. **J Intern Med** 1997 Jun;241(6):501–5

Vitamin D receptor polymorphism is associated with psoriasis. Park BS, et al. **J Invest Dermatol** 1999 Jan; 112(1):113–6

Association of vitamin D receptor gene polymorphism with multiple sclerosis in Japanese. Fukazawa T, et al. **J Neurol Sci** 1999 Jun 15;166(1):47–52

1,25-Dihydroxyvitamin D3 regulates the expression of VDR and NGF gene in Schwann cells in vitro. Cornet A, et al. **J Neurosci Res** 1998 Sep 15;53(6):742–6

Association between vitamin D receptor gene polymorphism and nephrolithiasis. Ruggiero M, et al. **Miner Electrolyte Metab** 1999 May–Jun;25(3):185–90

Differential RNA display identifies novel genes associated with decreased vitamin D receptor expression. Dabrowski M, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1–2):131–9

Vitamin D receptor polymorphisms as a determinant of bone mass and PTH secretion: from facts to controversies [editorial] Bover J, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1066–8 (14 ref.)

The vitamin D receptor gene polymorphism and parathyroid function [letter] Jofré R, et al. **Nephrol Dial Transplant** 1999 May;14(5):1336–7

Does the vitamin D receptor genotype predict bone mineral loss in haemodialysed patients? Karkoszka H, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2077–80

The association of bone mineral density with vitamin D receptor gene polymorphisms. Gong G, et al. **Osteoporos Int** 1999;9(1):55–64

Vitamin D receptor gene polymorphism: correlation with bone mineral density in a Brazilian population with insulin-dependent diabetes mellitus. Hauache OM, et al. **Osteoporos Int** 1998;8(3):204–10

Polymorphism of the vitamin D receptor gene and corticosteroid-related osteoporosis. Ho YV, et al. **Osteoporos Int** 1999;9(2):134–8

How about vitamin D receptor polymorphisms? Pols HA, et al. **Osteoporos Int** 1998;8 Suppl 2:S20–3 (28 ref.)

Vitamin D receptor translation initiation codon polymorphism and markers of osteoporotic risk in older African-American women. Zmuda JM, et al. **Osteoporos Int** 1999;9(3):214–9

Difference in height associated with a translation start site polymorphism in the vitamin D receptor gene. Minamitani K, et al. **Pediatr Res** 1998 Nov;44(5):628–32

Intragenic polymorphisms of the vitamin D receptor gene associated with intervertebral disc degeneration. Videman T, et al. **Spine** 1998 Dec 1;23(23):2477–85

[Preliminary studies on the relationship between vitamin D receptor gene polymorphism and osteoporosis in Chinese women] Zhang H, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Feb; 19(1):12–4 (Eng. Abstr.) **(Chi)**

[The frequencies of the vitamin D receptor gene alleles in adults of Han nationality in Beijing area] Zhao J, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):18–23 (Eng. Abstr.) **(Chi)**

[The association between vitamin D receptor gene polymorphisms, bone mineral density and osteocalcin in Chinese women] Zhao J, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Aug; 19(4):252–6 (Eng. Abstr.) **(Chi)**

[Bone density and bone metabolism regulated by vitamin D receptor allele polymorphism in a German study sample] Baltzer AW, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun; 137(3):273–9 (Eng. Abstr.) **(Ger)**

[Characterization of ligand-dependent transactivation regions of the human vitamin D receptor] Nakajima S. **Nippon Rinsho** 1998 Jul;56(7):1717–21 (12 ref.) (Eng. Abstr.) **(Jpn)**

[Vitamin D receptor and its abnormality in human diseases] Ozono K. **Nippon Rinsho** 1998 Jul;56(7):1892–7 (19 ref.) (Eng. Abstr.) **(Jpn)**

[Association of bone mineral density with vitamin D receptor gene polymorphism--changes in radial bone mineral density with long-term follow-up: longitudinal study] Murakami F, et al. **Rinsho Byori** 1998 Aug;46(8):766–73 (Eng. Abstr.) **(Jpn)**

[Vitamin D receptor gene polymorphism and the rate of bone loss of the femur neck and lumbar spine in hemodialized patients with chronic renal failure] Karkoszka H, et al. **Pol Merkuriusz Lek** 1998 Oct;5(28):199–202 (Eng. Abstr.) **(Pol)**

METABOLISM

Vitamin D receptor interacts with DnaK/heat shock protein 70: identification of DnaK interaction site on vitamin D receptor. Swamy N, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):219–26

Studies on the interaction between the vitamin D receptor and the radiolabelled 20-epi vitamin D analogue GS 1500. Mathiasen IS, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):283–6

The interaction of the vitamin D receptor with nuclear receptor corepressors and coactivators. Tagami T, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):358–63

Singly dehydroxylated A-ring analogues of 19-nor-1alpha,25-dihydroxyvitamin D3 and 19-nor-22-oxa-1alpha,25-dihydroxyvitamin D3: novel vitamin D3 analogues with potent transcriptional activity but extremely low affinity for vitamin D receptor. Okano T, et al. **Biol Pharm Bull** 1998 Dec;21(12):1300–5

1,25-Dihydroxyvitamin D3 receptors in the central nervous system of the rat embryo. Veenstra TD, et al. **Brain Res** 1998 Sep 7;804(2):193–205

Resistance of HBL100 human breast epithelial cells to vitamin D action. Agadir A, et al. **Carcinogenesis** 1999 Apr; 20(4):577–82

Convergent synthesis, chiral HPLC, and vitamin D receptor affinity of analogs of 1,25-dihydroxycholecalciferol. Odrzywolska M, et al. **Chirality** 1999;11(3):249–55

Vitamin D receptor expression, 24-hydroxylase activity, and inhibition of growth by 1alpha,25-dihydroxyvitamin D3 in seven human prostatic carcinoma cell lines. Miller GJ, et al. **Clin Cancer Res** 1995 Sep;1(9):997–1003

Stimulation of osteoclast formation by 1,25-dihydroxyvitamin D requires its binding to vitamin D receptor (VDR) in osteoblastic cells: studies using VDR knockout mice. Takeda S, et al. **Endocrinology** 1999 Feb; 140(2):1005–8

The vitamin D receptor binds in a transcriptionally inactive form and without a defined polarity on a retinoic acid response element. Jimenez-Lara AM, et al. **FASEB J** 1999 Jun;13(9):1073–81

Putative helices 3 and 5 of the human vitamin D3 receptor are important for the binding of calcitriol. Väisänen S, et al. **FEBS Lett** 1998 Nov 27;440(1–2):203–7

Lysine 246 of the vitamin D receptor is crucial for ligand-dependent interaction with coactivators and transcriptional activity. Jiménez-Lara AM, et al. **J Biol Chem** 1999 May 7;274(19):13503–10

The autonomous transactivation domain in helix H3 of the vitamin D receptor is required for transactivation and coactivator interaction. Kraichely DM, et al. **J Biol Chem** 1999 May 14;274(20):14352–8

Hormone-dependent translocation of vitamin D receptors is linked to transactivation. Racz A, et al. **J Biol Chem** 1999 Jul 2;274(27):19352–60

Positive and negative modulation of vitamin D receptor function by transforming growth factor-beta signaling through smad proteins. Yanagi Y, et al. **J Biol Chem** 1999 May 7;274(19):12971–4

20-Epi analc¸ues of 1,25-dihydroxyvitamin D3 are highly potent inducers of DRIP coactivator complex binding to the vitamin D3 receptor. Yang W, et al. **J Biol Chem** 1999 Jun 11;274(24):16838–45

Identification of a membrane receptor for 1,25-dihydroxyvitamin D3 which mediates rapid activation of protein kinase C [see comments] Nemere I, et al. **J Bone Miner Res** 1998 Sep;13(9):1353–9. Comment in: J Bone Miner Res 1998 Sep;13(9):1360–9.

DNA bending is induced by binding of vitamin D receptor–retinoid X receptor heterodimers to vitamin D response elements. Kimmel-Jehan C, et al. **J Cell Biochem** 1999 Aug 1;74(2):220–8

Proteasome-mediated degradation of the vitamin D receptor (VDR) and a putative role for SUG1 interaction with the AF-2 domain of VDR. Masuyama H, et al. **J Cell Biochem** 1998 Dec 1;71(3):429–40

Structural variants of the vitamin D analogue EB1089 reduce its ligand sensitivity and promoter selectivity. Quack M, et al. **J Cell Biochem** 1998 Dec 1;71(3):340–50

Additional protein factors play a role in the formation of VDR/RXR complexes on vitamin D response elements. Zierold C, et al. **J Cell Biochem** 1998 Dec 15;71(4):515–23

Expression of 1,25-dihydroxy vitamin D3 receptor in breast carcinoma. Friedrich M, et al. **J Histochem Cytochem** 1998 Nov;46(11):1335–7

1,25-Dihydroxyvitamin D3 receptors in peripheral blood mononuclear cells from patients with renal insufficiency. Olmos JM, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):699–707

Human TAF(II)55 interacts with the vitamin D(3) and thyroid hormone receptors and with derivatives of the retinoid X receptor that have altered transactivation properties. Lavigne AC, et al. **Mol Cell Biol** 1999 Aug; 19(8):5486–94

Selective interaction of vitamin D receptor with transcriptional coactivators by a vitamin D analog. Takeyama K, et al. **Mol Cell Biol** 1999 Feb;19(2):1049–55

A positive GATA element and a negative vitamin D receptor-like element control atrial chamber-specific expression of a slow myosin heavy-chain gene during cardiac morphogenesis. Wang GF, et al. **Mol Cell Biol** 1998 Oct;18(10):6023–34

Tumor necrosis factor activates a nuclear inhibitor of vitamin D and retinoid-X receptors. Fernandez-Martin JL, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1–2):65–72

Synergistic activation of the prolactin promoter by vitamin D receptor and GHF-1: role of the coactivators, CREB-binding protein and steroid hormone receptor coactivator-1 (SRC-1). Castillo AI, et al. **Mol Endocrinol** 1999 Jul;13(7):1141–54

Turning a negative into a positive: vitamin D receptor interactions with the avian parathyroid hormone response element. Koszewski NJ, et al. **Mol Endocrinol** 1999 Mar; 13(3):455–65

Thyroid hormone receptor does not heterodimerize with the vitamin D receptor but represses vitamin D receptor-mediated transactivation. Raval-Pandya M, et al. **Mol Endocrinol** 1998 Sep;12(9):1367–79

Identification of mouse TRAP100: a transcriptional coregulatory factor for thyroid hormone and vitamin D receptors. Zhang J, et al. **Mol Endocrinol** 1999 Jul; 13(7):1130–40

Vitamin D receptor in SH-SY5Y human neuroblastoma cells and effect of 1,25-dihydroxyvitamin D3 on cellular proliferation. Celli A, et al. **Neurochem Int** 1999 Feb; 34(2):117–24

Prostaglandin E2 regulates vitamin D receptor expression, vitamin D-24-hydroxylase activity and cell proliferation in an adherent human myeloid leukemia cell line (Ad-HL60). Smith SJ, et al. **Prostaglandins Other Lipid Mediat** 1999 May;57(2–3):73–85

Convergence of transforming growth factor-beta and vitamin D signaling pathways on SMAD transcriptional coactivators. Yanagisawa J, et al. **Science** 1999 Feb 26; 283(5406):1317–21

C-6 functionalized analogs of 25-hydroxyvitamin D3 and 1alpha,25-dihydroxyvitamin D3: synthesis and binding analysis with vitamin D-binding protein and vitamin D receptor. Addo JK, et al. **Steroids** 1999 Apr;64(4):273–82

PHYSIOLOGY

Induction of a functional vitamin D receptor in all-trans-retinoic acid-induced monocytic differentiation of M2-type leukemic blast cells. Manfredini R, et al. **Cancer Res** 1999 Aug 1;59(15):3803–11

Novel nonsecosteroidal vitamin D mimics exert VDR-modulating activities with less calcium mobilization than 1,25-dihydroxyvitamin D3. Boehm MF, et al. **Chem Biol** 1999 May;6(5):265–75

Three synthetic vitamin D analogues induce prostate-specific acid phosphatase and prostate-specific antigen while inhibiting the growth of human prostate cancer cells in a vitamin D receptor-dependent fashion. Hedlund TE, et al. **Clin Cancer Res** 1997 Aug;3(8):1331–8

AP-1 and vitamin D receptor (VDR) signaling pathways converge at the rat osteocalcin VDR element: requirement for the internal activating protein-1 site for vitamin D-mediated trans-activation. Aslam F, et al. **Endocrinology** 1999 Jan;140(1):63–70

Vitamin D represses retinoic acid-dependent transactivation of the retinoic acid receptor-beta2 promoter: the AF-2 domain of the vitamin D receptor is required for transrepression. Jiménez-Lara AM, et al. **Endocrinology** 1999 Jun;140(6):2898–907

Role of vitamin D3 receptor in the synergistic differentiation

of WEHI-3B leukemia cells by vitamin D3 and retinoic acid. Li J, et al. **Exp Cell Res** 1999 Jun 15;249(2):279-90
Molecular mechanism of vitamin D receptor action. Issa LL, et al. **Inflamm Res** 1998 Dec;47(12):451-75 (288 ref.)
Receptors for 1alpha,25(OH)2D3: past, present, and future [editorial; comment] Norman AW. **J Bone Miner Res** 1998 Sep;13(9):1360-9 (110 ref.). Comment on: J Bone Miner Res 1998 Sep;13(9):1353-9.
Physiological importance of the 1,25(OH)2D3 membrane receptor and evidence for a membrane receptor specific for 24,25(OH)2D3. Pedrozo HA, et al. **J Bone Miner Res** 1999 Jun;14(6):856-67
Transcriptional targets of the vitamin D3 receptor-mediating cell cycle arrest and differentiation. Freedman LP. **J Nutr** 1999 Feb;129(2S Suppl):581S-586S (34 ref.)
In vivo function of VDR in gene expression-VDR knock-out mice. Kato S, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):247-51 (23 ref.)
A two-hit mechanism for vitamin D3-mediated transcriptional repression of the granulocyte-macrophage colony-stimulating factor gene: vitamin D receptor competes for DNA binding with NFAT1 and stabilizes c-Jun. Towers TL, et al. **Mol Cell Biol** 1999 Jun; 19(6):4191-9
Ligand-dependent transcription activation by nuclear receptors requires the DRIP complex. Rachez C, et al. **Nature** 1999 Apr 29;398(6730):824-8
The role of the T-box for the function of the vitamin D receptor on different types of response elements. Quack M, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5372-8
Vitamin D receptors: not just in the nucleus anymore. Fleet JC. **Nutr Rev** 1999 Feb;57(2):60-2 (13 ref.)
[Function and therapeutic potential of the dopamine D3 receptor] Sokoloff P, et al. **C R Seances Soc Biol Fil** 1998; 192(6):1111-25 (35 ref.) (Eng. Abstr.) **(Fre)**
[Molecular mechanisms of fat-soluble vitamins: vitamin receptor knockout mice] Kato S. **Tanpakushitsu Kakusan Koso** 1998 Aug;43(10):1321-35 (74 ref.) **(Jpn)**

RECEPTORS, CALCIUM CHANNEL BLOCKER see **CALCIUM CHANNELS**

RECEPTORS, CATECHOLAMINE

ISOLATION & PURIFICATION

Mutations in the zebrafish unmask shared regulatory pathways controlling the development of catecholaminergic neurons. Guo S, et al. **Dev Biol** 1999 Apr 15;208(2):473-87

METABOLISM

Occlusal disharmonies modulate central catecholaminergic activity in the rat. Areso MP, et al. **J Dent Res** 1999 Jun; 78(6):1204-13

PHYSIOLOGY

[Evolution of monoamine receptors and the origin of motivational and emotional systems in vertebrates] Vincent JD, et al. **Bull Acad Natl Med** 1998;182(7):1505-14; discussion 1515-6 (Eng. Abstr.) **(Fre)**

RECEPTORS, CCK see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, CCR5

Comparison of the antibody repertoire generated in healthy volunteers following immunization with a monomeric recombinant gp120 construct derived from a CCR5/CXCR4-using human immunodeficiency virus type 1 isolate with sera from naturally infected individuals. Beddows S, et al. **J Virol** 1999 Feb;73(2):1740-5

AGONISTS

The LD78beta isoform of MIP-1alpha is the most potent CCR5 agonist and HIV-1-inhibiting chemokine. Menten P, et al. **J Clin Invest** 1999 Aug;104(4):R1-5

ANALYSIS

Intrinsic human immunodeficiency virus type 1 resistance of hematopoietic stem cells despite coreceptor expression. Shen H, et al. **J Virol** 1999 Jan;73(1):728-37
Quantification of CD4, CCR5, and CXCR4 levels on lymphocyte subsets, dendritic cells, and differentially conditioned monocyte-derived macrophages. Lee B, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5215-20

ANTAGONISTS & INHIBITORS

Anti-HIV type 1 activity of wild-type and functional defective RANTES intrakine in primary human lymphocytes. Yang AG, et al. **Hum Gene Ther** 1998 Sep 20;9(14):2005-18
The B-oligomer of pertussis toxin deactivates CC chemokine receptor 5 and blocks entry of M-tropic HIV-1 strains [see comments] Alfano M, et al. **J Exp Med** 1999 Sep 6; 190(5):597-605. Comment in: J Exp Med 1999 Sep 6;190(5):591-5.
TNF-alpha inhibits HIV-1 replication in peripheral blood monocytes and alveolar macrophages by inducing the production of RANTES and decreasing C-C chemokine receptor 5 (CCR5) expression. Lane BR, et al. **J Immunol** 1999 Oct 1;163(7):3653-61
Reciprocal desensitization of CCR5 and CD4 is mediated by IL-16 and macrophage-inflammatory protein-1 beta, respectively. Mashikian MV, et al. **J Immunol** 1999 Sep 15;163(6):3123-30
Progesterone-induced inhibition of chemokine receptor expression on peripheral blood mononuclear cells correlates with reduced HIV-1 infectability in vitro. Vassiliadou N, et al. **J Immunol** 1999 Jun 15;162(12):7510-8
HIV-1 entry inhibitors and virus emergence [letter] D'Aquila RT, et al. **Nat Med** 1999 Oct;5(10):1091
A small-molecule, nonpeptide CCR5 antagonist with highly potent and selective anti-HIV-1 activity. Baba M, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5698-703

BIOSYNTHESIS

High molecular mass dextran sulfate increases expression of HIV-1 coreceptor CCR-5 in macrophage-monocytes in culture. Jagodzinski PP, et al. **Acta Biochim Pol** 1998; 45(1):241-4
Early reduction of immune activation in lymphoid tissue following highly active HIV therapy. Andersson J, et al. **AIDS** 1998 Jul 30;12(11):F123-9
Expression of CCR5 is increased in human monocyte-derived macrophages and alveolar macrophages in the course of in vivo and in vitro Mycobacterium tuberculosis infection. Fraziano M, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):869-74
Excitotoxic brain injury stimulates expression of the chemokine receptor CCR5 in neonatal rats. Galasso JM, et al. **Am J Pathol** 1998 Nov;153(5):1631-40
Interferon-gamma upregulates CCR5 expression in cord and adult blood mononuclear phagocytes. Hariharan D, et al. **Blood** 1999 Feb 15;93(4):1137-44
IL-10 up-regulates CCR5 gene expression in human monocytes. Houle M, et al. **Inflammation** 1999 Jun; 23(3):241-51
Effect of beta-chemokines on human immunodeficiency virus type 1 replication, binding, uncoating, and CCR5 receptor expression in human monocyte-derived macrophages. Jiang Y, et al. **J Hum Virol** 1999 May-Jun;2(3):123-32
Coexpression of CCR5 and IL-2 in human genital but not blood T cells: implications for the ontogeny of the CCR5+ Th1 phenotype. Hladik F, et al. **J Immunol** 1999 Aug 15; 163(4):2306-13
Peripheral blood-derived CD34+ progenitor cells: CXC chemokine receptor 4 and CC chemokine receptor 5 expression and infection by HIV. Ruiz ME, et al. **J Immunol** 1998 Oct 15;161(8):4169-76
HIV-1 Tat induces monocyte chemoattractant protein-1-mediated monocyte transmigration across a model of the human blood-brain barrier and up-regulates CCR5 expression on human monocytes. Weiss JM, et al. **J Immunol** 1999 Sep 1;163(5):2953-9
Dendritic cell-T-cell interactions support coreceptor-independent human immunodeficiency virus type 1 transmission in the human genital tract. Hladik F, et al. **J Virol** 1999 Jul;73(7):5833-42
Tat protein induces human immunodeficiency virus type 1 (HIV-1) coreceptors and promotes infection with both macrophage-tropic and T-lymphotropic HIV-1 strains. Huang L, et al. **J Virol** 1998 Nov;72(11):8952-60
Enhanced human immunodeficiency virus infection in macrophages by high-molecular-weight dextran sulfate is associated with conformational changes of gp120 and expression of the CCR5 receptor. Jagodzinski PP, et al. **Viral Immunol** 1999;12(1):23-33
Interferon-beta-induced human immunodeficiency virus resistance in CD34(+) human hematopoietic progenitor cells: correlation with a down-regulation of CCR-5 expression. Cremer I, et al. **Virology** 1999 Jan 20; 253(2):241-9
Early activation of mitogen-activated protein kinase kinase, extracellular signal-regulated kinase, p38 mitogen-activated protein kinase, and c-Jun N-terminal kinase in response to binding of simian immunodeficiency virus to Jurkat T cells expressing CCR5 receptor. Popik W, et al. **Virology** 1998 Dec 5;252(1):210-7

BLOOD

Predominance of mononuclear cells expressing the chemokine receptor CCR5 in synovial effusions of patients with different forms of arthritis. Mack M, et al. **Arthritis Rheum** 1999 May;42(5):981-8

CHEMISTRY

Tyrosine sulfation of the amino terminus of CCR5 facilitates HIV-1 entry. Farzan M, et al. **Cell** 1999 Mar 5;96(5):667-76
Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746-56
Epitope mapping of CCR5 reveals multiple conformational states and distinct but overlapping structures involved in chemokine and coreceptor function. Lee B, et al. **J Biol Chem** 1999 Apr 2;274(14):9617-26
Molecular modeling of HIV-1 coreceptor CCR5 and exploring of conformational space of its extracellular domain in molecular dynamics simulation. Efremov RG, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):77-90
CCR5-Mediated human immunodeficiency virus entry depends on an amino-terminal gp120-binding site and on the conformational integrity of all four extracellular domains. Genoud S, et al. **J Virol** 1999 Feb;73(2):1645-8
Five-transmembrane domains appear sufficient for a G protein-coupled receptor: functional five-transmembrane domain chemokine receptors. Ling K, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7922-7

GENETICS

32 bp deletion in CCR-5 gene and human immunodeficiency virus epidemic in the Czech Republic [letter] Drábek J, et al. **Acta Virol** 1998 Apr;42(2):121-2
The estimated impact of the CCR-5 delta32 gene deletion on HIV disease progression varies with study design. Oslo HIV Cohort Study Group. Eskild A, et al. **AIDS** 1998 Dec 3;12(17):2271-4
HIV-1 infection in a heterosexual man homozygous for CCR-5 delta32 [letter] Heiken H, et al. **AIDS** 1999 Mar 11;13(4):529-30
An HIV-1-infected individual homozygous for the CCR-5 delta32 allele and the SDF-1 3'A allele [letter] Kuipers H, et al. **AIDS** 1999 Feb 25;13(3):433-4
Protection against parenteral HIV-1 infection by homozygous deletion in the C-C chemokine receptor 5 gene. Kupfer B, et al. **AIDS** 1999 Jun 18;13(9):1025-8
Analysis of the CC chemokine receptor 5 m303 mutation in infants born to HIV-1-seropositive mothers [letter] Ometto L, et al. **AIDS** 1999 May 7;13(7):871-2
Association between a defective CCR-5 gene and progression to disease in HIV infection. Balfe P, et al. **AIDS Res Hum Retroviruses** 1998 Sep 20;14(14):1229-34
The role of dendritic cells in the infection of CD4+ T cells with the human immunodeficiency virus: use of dendritic cells from individuals homozygous for the delta32CCR5 allele as a model. Dybul M, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1109-13
Functional analysis of the proximal CCR5 promoter. Liu R, et al. **AIDS Res Hum Retroviruses** 1998 Nov 20; 14(17):1509-19
Elevated frequencies of the mutant allele delta32 at the CCR5 gene in Ashkenazic Jews. Lucotte G, et al. **AIDS Res Hum Retroviruses** 1999 Jan 1;15(1):1-2
Mutations in CCR5-coding sequences are not associated with SIV carrier status in African nonhuman primates. Müller-Trutwin MC, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):931-9
Species-specific changes in the CCR5 gene from African and Asian nonhuman primates. Saksena NK, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):479-83
Partial resistance to infection by R5X4 primary HIV type 1 isolates in an exposed-uninfected individual homozygous for CCR5 32-base pair deletion. Xiao L, et al. **AIDS Res Hum Retroviruses** 1999 Sep 1;15(13):1201-8
Frequency of a mutated CCR-5 allele (delta32) among Italian healthy donors and individuals at risk of parenteral HIV infection. Zamarchi R, et al. **AIDS Res Hum Retroviruses** 1999 Mar 1;15(4):337-44
Feline peripheral blood mononuclear cells express message for both CXC and CC type chemokine receptors. Kovacs EM, et al. **Arch Virol** 1999;144(2):273-85
Association of rheumatoid arthritis with a functional chemokine receptor, CCR5. Gómez-Reino JJ, et al. **Arthritis Rheum** 1999 May;42(5):989-92
Predominance of mononuclear cells expressing the chemokine receptor CCR5 in synovial effusions of patients with different forms of arthritis. Mack M, et al. **Arthritis Rheum** 1999 May;42(5):981-8
A hammerhead ribozyme targeted to the human chemokine receptor CCR5. González MA, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):592-6
Frequencies of the CC chemokine receptor 5 delta 32 allele in various populations of defined racial background. Lucotte G. **Biomed Pharmacother** 1997;51(10):469-73
Combined genotypes of CCR5, CCR2, SDF1, and HLA genes can predict the long-term nonprogressor status in human immunodeficiency virus-1-infected individuals. Magierowska M, et al. **Blood** 1999 Feb 1;93(3):936-41
GATA-1 transcription factor transactivates the promoter for CCR5, a coreceptor for human immunodeficiency virus type 1 entry [letter] Moriuchi M, et al. **Blood** 1999 Feb 15;93(4):1433-5
Reduced risk of AIDS lymphoma in individuals heterozygous for the CCR5-delta32 mutation. Dean M, et al. **Cancer Res** 1999 Aug 1;59(15):3561-4
Frequency of the CCR5 gene 32-basepair deletion in Hispanic Mexicans. Salas-Alanis JC, et al. **Clin Exp Dermatol** 1999 Mar;24(2):127-9
Regulation of CCR5 and CXCR4 expression by type 1 and type 2 cytokines: CCR5 expression is downregulated by IL-10 in CD4-positive lymphocytes. Patterson BK, et al. **Clin Immunol** 1999 Jun;91(3):254-62
Heterozygous defect in HIV-1 coreceptor CCR5 and chemokine production. Yang JY, et al. **Cytokine** 1999 Jan; 11(1):1-7
Mutant chemokine receptor (CCR-5) and its relevance to HIV infection in Arabs [letter] al-Sheikh IH, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):183-5
CCR5 genotype and human immunodeficiency virus type

1 infection in perinatally exposed infants. Villalba N, et al. **Eur J Clin Microbiol Infect Dis** 1999 May;18(5):389–91

Frequency of the HIV-1 resistance CCR5 deletion allele in Hungarian newborns [letter] Szalai C, et al. **Eur J Pediatr** 1998 Sep;157(9):782

Sequence specific cleavage of the HIV-1 coreceptor CCR5 gene by a hammer-head ribozyme and a DNA-enzyme: inhibition of the coreceptor function by DNA-enzyme. Goila R, et al. **FEBS Lett** 1998 Oct 2;436(2):233–8

Distribution of the CCR5 gene 32 base pair deletion and SDF1-3'A variant in healthy individuals from different populations. Magierowska M, et al. **Immunogenetics** 1998 Nov-Dec;48(6):417–9

High frequency of the CCR5 deletion allele in Gypsies living in Hungary. Szalai C, et al. **Immunol Lett** 1998 Aug; 63(1):57–8

IL-10 up-regulates CCR5 gene expression in human monocytes. Houle M, et al. **Inflammation** 1999 Jun; 23(3):241–51

CCR5 genotype and resistance to vertical transmission of HIV-1. Philpott S, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):189–93

CCR5, vertical transmission of HIV-1, and disease progression. European Collaborative Study [letter] Bailey AJ, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Feb 1;20(2):211–2

Distinctive effects of CCR5, CCR2, and SDF1 genetic polymorphisms in AIDS progression. Hendel H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):381–6

Distribution of the CCR5 gene 32-base pair deletion in Israeli ethnic groups. Kantor R, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Jan 1;20(1):81–4

Differential effects of CC chemokines on CC chemokine receptor 5 (CCR5) phosphorylation and identification of phosphorylation sites on the CCR5 carboxyl terminus. Oppermann M, et al. **J Biol Chem** 1999 Mar 26; 274(13):8875–85

Natural infection of a homozygous delta24 CCR5 red-capped mangabey with an R2b-tropic simian immunodeficiency virus. Chen Z, et al. **J Exp Med** 1998 Dec 7;188(11):2057–65

Inheritance pattern of mutant human immunodeficiency virus type 1 coreceptor gene CCR5 in an Indian family. Husain S, et al. **J Hum Virol** 1998 Mar-Apr;1(3):187–92

Prevalence of a CCR5 gene 32-bp deletion in an Israeli cohort of HIV-1-infected and uninfected hemophilia patients. Kantor R, et al. **J Hum Virol** 1998 May-Jun; 1(4):299–301

Role of the CCR5 delta 32 allele in resistance to HIV-1 infection in west Africa. Kokkotou E, et al. **J Hum Virol** 1998 Nov-Dec;1(7):469–74

CCR5 genotype and HIV-1 infection in perinatally-exposed infants. Mas A, et al. **J Infect** 1999 Jan;38(1):9–11

Human immunodeficiency virus (HIV)-specific cytotoxic T lymphocyte activity in HIV-exposed seronegative persons. Bernard NF, et al. **J Infect Dis** 1999 Mar;179(3):538–47

Impact of heterozygosity for the chemokine receptor CCR5 32-bp-deleted allele on plasma virus load and CD4 T lymphocytes in perinatally human immunodeficiency virus-infected children at 8 years of age. Buseyne F, et al. **J Infect Dis** 1998 Oct;178(4):1019–23

Protection against human immunodeficiency virus type 1 infection in persons with repeated exposure: evidence for T cell immunity in the absence of inherited CCR5 coreceptor defects. Goh WC, et al. **J Infect Dis** 1999 Mar; 179(3):548–57

Cervical human immunodeficiency virus type 1 shedding is associated with genital beta-chemokine secretion. Iversen AK, et al. **J Infect Dis** 1998 Nov;178(5):1334–42

Effect of chemokine receptor mutations on heterosexual human immunodeficiency virus transmission. Lockett SF, et al. **J Infect Dis** 1999 Sep;180(3):614–21

CCR5 delta32 deletion and reduced risk of toxoplasmosis in persons infected with human immunodeficiency virus type 1. The SEROCO-HEMOCO-SEROGEST Study Groups. Meyer L, et al. **J Infect Dis** 1999 Sep;180(3):920–4

No evidence for an effect of the CCR5 delta32/+ and CCR2b 64I/+ mutations on human immunodeficiency virus (HIV)-1 disease progression among HIV-1-infected injecting drug users. Schinkel J, et al. **J Infect Dis** 1999 Apr;179(4):825–31

Reduced prevalence of the CCR5 delta32 heterozygous genotype in human immunodeficiency virus-infected individuals with AIDS dementia complex. van Rij RP, et al. **J Infect Dis** 1999 Sep;180(3):854–7

A 32-bp deletion within the CCR5 locus protects against transmission of parenterally acquired human immunodeficiency virus but does not affect progression to AIDS-defining illness [see comments] Wilkinson DA, et al. **J Infect Dis** 1998 Oct;178(4):1163–6. Comment in: J Infect Dis 1999 May;179(5):1310–2.

CCR5 genotype and human immunodeficiency virus (HIV)-specific mucosal antibody in seronegative women at high risk for HIV infection [letter] Williams SB, et al. **J Infect Dis** 1999 May;179(5):1310–2

Chemokine receptors and the molecular basis for human immunodeficiency virus type 1 entry into peripheral hematopoietic stem cells and their progeny. Zhao SF, et al. **J Infect Dis** 1998 Dec;178(6):1623–34

Frequencies of SDF-1 chemokine, CCR-5, and CCR-2 chemokine receptor gene alleles conferring resistance to human immunodeficiency virus type 1 and AIDS in Kuwaitis. Voevodin A, et al. **J Med Virol** 1999 May; 58(1):54–8

CC chemokine receptor 5 polymorphism in rheumatoid arthritis. Garred P, et al. **J Rheumatol** 1998 Aug; 25(8):1462–5

Association of the CCR5delta32 mutation with improved response to antiretroviral therapy [letter] Valdez H, et al. **JAMA** 1999 Aug 25;282(8):734

Sequence evolution of the CCR5 chemokine receptor gene in primates. Zhang YW, et al. **Mol Biol Evol** 1999 Sep; 16(9):1145–54

Application of random amplified polymorphic DNA PCR for genomic analysis of HIV-1-infected individuals. Aikhionbare FO, et al. **Mutat Res** 1998 Nov;406(1):25–31

Genealogy of the CCR5 locus and chemokine system gene variants associated with altered rates of HIV-1 disease progression. Mummidi S, et al. **Nat Med** 1998 Jul; 4(7):786–93

Role of CCR5 chemokine receptor gene in vertical human immunodeficiency virus type 1 transmission and disease progression. Esposito S, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):847–9

Chemokine receptor CCR2 and CCR5 polymorphisms in children with insulin-dependent diabetes mellitus. Szalai C, et al. **Pediatr Res** 1999 Jul;46(1):82–4

Lack of infection in HIV-exposed individuals is associated with a strong CD8(+) cell noncytotoxic anti-HIV response. Stranford SA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1030–5

Genetic acceleration of AIDS progression by a promoter variant of CCR5. Martin MP, et al. **Science** 1998 Dec 4; 282(5395):1907–11

RANTES, IFN-gamma, CCR1, and CCR5 mRNA expression in peripheral blood, lymph node, and bronchoalveolar lavage mononuclear cells during primary simian immunodeficiency virus infection of macaques. Chéret A, et al. **Virology** 1999 Mar 15;255(2):285–93

[Frequency of the coreceptor CCR5 gene delta 32 mutation in different French regions] Lucotte G, et al. **C R Acad Sci III** 1998 May;321(5):409–13 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Acute upregulation of CCR-5 expression by CD4+ T lymphocytes in HIV-infected patients treated with interleukin-2. ANRS 048 IL-2 Study Group. Zou W, et al. **AIDS** 1999 Mar 11;13(4):455–63

The susceptibility to X4 and R5 human immunodeficiency virus-1 strains of dendritic cells derived in vitro from CD34(+) hematopoietic progenitor cells is primarily determined by their maturation stage. Canque B, et al. **Blood** 1999 Jun 1;93(11):3866–75

A synthetic peptide derived from human immunodeficiency virus type 1 gp120 downregulates the expression and function of chemokine receptors CCR5 and CXCR4 in monocytes by activating the 7-transmembrane G-protein-coupled receptor FPRL1/LXA4R. Deng X, et al. **Blood** 1999 Aug 15;94(4):1165–73

Induction of inhibitory antibodies to the CCR5 chemokine receptor and their complementary role in preventing SIV infection in macaques. Lehner T, et al. **Eur J Immunol** 1999 Aug;29(8):2427–35

Selecting antibodies that block the HIV-1 coreceptor [news] Dorrell S. **Mol Med Today** 1998 Dec;4(12):507

CCR5(+) and CXCR3(+) T cells are increased in multiple sclerosis and their ligands MIP-1alpha and IP-10 are expressed in demyelinating brain lesions. Balashov KE, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6873–8

Induction of autoantibodies to mouse CCR5 with recombinant papillomavirus particles. Chackerian B, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2373–8

Constitutive cell surface association between CD4 and CCR5. Xiao X, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22; 96(13):7496–501

METABOLISM

Coreceptor requirements of primary HIV type 1 group O isolates from Cameroon. Dittmar MT, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):707–12

Coreceptor ligand inhibition of fetal brain cell infection by HIV type 1. Hibbitts S, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20;15(11):989–1000

Distribution of the human immunodeficiency virus coreceptors CXCR4 and CCR5 in fetal lymphoid organs: implications for pathogenesis in utero. Kitchen SG, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):143–8

Exclusion of HIV coreceptors CXCR4, CCR5, and CCR3 from the HIV envelope. Lallos LB, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):895–7

Altered expression of CD4, CD54, CD62L, and CCR5 in primary lymphocytes productively infected with the human immunodeficiency virus. Marodon G, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):161–71

Role of CD4 and CCR5 levels in the susceptibility of primary macrophages to infection by CCR5-dependent HIV type 1 isolates. Pesenti E, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20;15(11):983–7

Interaction of human immunodeficiency virus type 1 envelope glycoprotein V3 loop with CCR5 and CD4 at the membrane of human primary macrophages [published erratum appears in AIDS Res Hum Retroviruses 1999 Mar 20;15(5):493] Rabehi L, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1605–15

Role of the HIV type 1 glycoprotein 120 V3 loop in determining coreceptor usage. Verrier F, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):731–43

A hammerhead ribozyme targeted to the human chemokine receptor CCR5. González MA, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):592–6

Conformational changes of gp120 in epitopes near the CCR5 binding site are induced by CD4 and a CD4 miniprotein mimetic. Zhang W, et al. **Biochemistry** 1999 Jul 20; 38(29):9405–16

CCR5 binds multiple CC-chemokines: MCP-3 acts as a natural antagonist. Blanpain C, et al. **Blood** 1999 Sep 15; 94(6):1899–905

CCR5 has an expanded ligand-binding repertoire and is the primary receptor used by MCP-2 on activated T cells. Ruffing N, et al. **Cell Immunol** 1998 Nov 1;189(2):160–8

Intestinal macrophages display reduced permissiveness to human immunodeficiency virus 1 and decreased surface CCR5. Li L, et al. **Gastroenterology** 1999 May; 116(5):1043–53

HIV-1 infectability of CD4+ lymphocytes with relation to beta-chemokines and the CCR5 coreceptor. Paxton WA, et al. **Immunol Lett** 1999 Mar;66(1-3):71–5

Selective accumulation of CCR5+ T lymphocytes into inflamed joints of rheumatoid arthritis. Suzuki N, et al. **Int Immunol** 1999 Apr;11(4):553–9

Predominance of CCR5-dependent HIV-1 subtype E isolates in Cambodia. Menu E, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):481–7

Extracellular cysteines of CCR5 are required for chemokine binding, but dispensable for HIV-1 coreceptor activity. Blanpain C, et al. **J Biol Chem** 1999 Jul 2;274(27):18902–8

Naturally occurring CCR5 extracellular and transmembrane domain variants affect HIV-1 Co-receptor and ligand binding function. Howard OM, et al. **J Biol Chem** 1999 Jun 4;274(23):16228–34

A critical site in the core of the CCR5 chemokine receptor required for binding and infectivity of human immunodeficiency virus type 1. Siciliano SJ, et al. **J Biol Chem** 1999 Jan 22;274(4):1905–13

Chemokine receptor CCR5 functionally couples to inhibitory G proteins and undergoes desensitization. Zhao J, et al. **J Cell Biochem** 1998 Oct 1;71(1):36–45

Preferential coreceptor utilization and cytopathicity by dual-tropic HIV-1 in human lymphoid tissue ex vivo [see comments] Glushakova S, et al. **J Clin Invest** 1999 Sep; 104(5):R7–R11. Comment in: J Clin Invest 1999 Sep;104(5):531.

Physiological coreceptor use by dual-tropic HIV-1: one plus one equals one [comment] Rollins BJ. **J Clin Invest** 1999 Sep;104(5):531–2. Comment on: J Clin Invest 1999 Sep;104(5):R7–R11.

Induction of phosphorylation and intracellular association of CC chemokine receptor 5 and focal adhesion kinase in primary human CD4+ T cells by macrophage-tropic HIV envelope. Cicala C, et al. **J Immunol** 1999 Jul 1;163(1):420–6

Cofactors for human immunodeficiency virus entry into primary macrophages. Collman RG, et al. **J Infect Dis** 1999 May;179 Suppl 3:S422–6

Chemokine-induced phosphorylation of CC chemokine receptor 5 (CCR5). Olbrich H, et al. **J Leukoc Biol** 1999 Mar;65(3):281–5 (36 ref.)

Expanded tropism of primary human immunodeficiency virus type 1 R5 strains to CD4(+) T-cell lines determined by the capacity to exploit low concentrations of CCR5. Dejucq N, et al. **J Virol** 1999 Sep;73(9):7842–7

Functional dissection of CCR5 coreceptor function through the use of CD4-independent simian immunodeficiency virus strains. Edinger AL, et al. **J Virol** 1999 May; 73(5):4062–73

CCR5-Mediated human immunodeficiency virus entry depends on an amino-terminal gp120-binding site and on the conformational integrity of all four extracellular domains. Genoud S, et al. **J Virol** 1999 Feb;73(2):1645–8

Analysis of the critical domain in the V3 loop of human immunodeficiency virus type 1 gp120 involved in CCR5 utilization. Hung CS, et al. **J Virol** 1999 Oct;73(10):8216–26

Role of naturally occurring basic amino acid substitutions in the human immunodeficiency virus type 1 subtype E envelope V3 loop on viral coreceptor usage and cell tropism. Kato K, et al. **J Virol** 1999 Jul;73(7):5520–6

Highly potent RANTES analogues either prevent CCR5-using human immunodeficiency virus type 1 infection in vivo or rapidly select for CXCR4-using variants. Mosier DE, et al. **J Virol** 1999 May;73(5):3544–50

Differential inhibition of human immunodeficiency virus type 1 fusion, gp120 binding, and CC-chemokine activity by monoclonal antibodies to CCR5. Olson WC, et al. **J Virol** 1999 May;73(5):4145–55

Primary human immunodeficiency virus type 2 (HIV-2) isolates infect CD4-negative cells via CCR5 and CXCR4: comparison with HIV-1 and simian immunodeficiency virus and relevance to cell tropism in vivo. Reeves JD, et al. **J Virol** 1999 Sep;73(9):7795–804

Envelope-dependent restriction of human immunodeficiency virus type 1 spreading in CD4(+) T lymphocytes: R5 but not X4 viruses replicate in the absence of T-cell receptor

restimulation. Vicenzi E, et al. **J Virol** 1999 Sep; 73(9):7515–23
Enhanced replication of M-tropic HIV-1 strains in Herpesvirus saimiri immortalised T-cells which express CCR5. Vella C, et al. **J Virol Methods** 1999 Apr;79(1):51–63
Expression of the C-C chemokine receptor 5 in human kidney diseases [see comments] Segerer S, et al. **Kidney Int** 1999 Jul;56(1):52–64. Comment in: Kidney Int 1999 Jul;56(1):347–8.
CCR5- and CXCR4-tropic HIV-1 are equally cytopathic for their T-cell targets in human lymphoid tissue [see comments] Grivel JC, et al. **Nat Med** 1999 Mar;5(3):344–6 . Comment in: Nat Med 1999 Jun;5(6):592–3.
Cytokine modulation of HIV-1 chemokine receptor expression [letter; comment] Landay AL, et al. **Nat Med** 1999 Jun;5(6):592–3. Comment on: Nat Med 1999 Mar;5(3):344–6.
Fusion of monocytes and macrophages with HIV-1 correlates with biochemical properties of CXCR4 and CCR5 [published erratum appears in Nat Med 1999 May;5(5):590] Lapham CK, et al. **Nat Med** 1999 Mar; 5(3):303–8
Chemokine control of HIV-1 infection [letter] Mellado M, et al. **Nature** 1999 Aug 19;400(6746):723–4
Distinct pathogenic sequela in rhesus macaques infected with CCR5 or CXCR4 utilizing SHIVs. Harouse JM, et al. **Science** 1999 Apr 30;284(5415):816–9
HIV and SIV gp120 binding does not predict coreceptor function. Baik SS, et al. **Virology** 1999 Jul 5;259(2):267–73

PHYSIOLOGY

Human immunodeficiency virus type 1 entry and chemokine receptors: a new therapeutic target. Cammack N. **Antivir Chem Chemother** 1999 Mar;10(2):53–62 (94 ref.)
Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746–56
Differential regulation of CXCR4 and CCR5 endocytosis. Signoret N, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2819–30
Active participation of CCR5(+)CD8(+) T lymphocytes in the pathogenesis of liver injury in graft-versus-host disease. Murai M, et al. **J Clin Invest** 1999 Jul;104(1):49–57
Interference with the signaling capacity of CC chemokine receptor 5 can compromise its role as an HIV-1 entry coreceptor in primary T lymphocytes [comment] Wang JM, et al. **J Exp Med** 1999 Sep 6;190(5):591–5 (40 ref.). Comment on: J Exp Med 1999 Sep 6;190(5):597–605.
Shorter survival in advanced human immunodeficiency virus type 1 infection is more closely associated with T lymphocyte activation than with plasma virus burden or virus chemokine coreceptor usage. Giorgi JV, et al. **J Infect Dis** 1999 Apr;179(4):859–70
Microglia express CCR5, CXCR4, and CCR3, but of these, CCR5 is the principal coreceptor for human immunodeficiency virus type 1 dementia isolates. Albright AV, et al. **J Virol** 1999 Jan;73(1):205–13
CCR5- and CXCR4-utilizing strains of human immunodeficiency virus type 1 exhibit differential tropism and pathogenesis in vivo. Berkowitz RD, et al. **J Virol** 1998 Dec;72(12):10108–17
V3 recombinants indicate a central role for CCR5 as a coreceptor in tissue infection by human immunodeficiency virus type 1. Chan SY, et al. **J Virol** 1999 Mar;73(3):2350–8
Adaptation of a CCR5-using, primary human immunodeficiency virus type 1 isolate for CD4-independent replication. Kolchinsky P, et al. **J Virol** 1999 Oct;73(10):8120–6
Human lymphoblastoid CD4(+) T cells become permissive to macrophage-tropic strains of human immunodeficiency virus type 1 after passage into severe combined immunodeficient mice through in vivo upregulation of CCR5: in vivo dynamics of CD4(+) T-cell differentiation in pathogenesis of AIDS. Lapenta C, et al. **J Virol** 1998 Dec;72(12):10323–7
CCR2-641 polymorphism is not associated with altered CCR5 expression or coreceptor function. Mariani R, et al. **J Virol** 1999 Mar;73(3):2450–9
Primary human immunodeficiency virus type 2 (HIV-2) isolates, like HIV-1 isolates, frequently use CCR5 but show promiscuity in coreceptor usage. Mörner A, et al. **J Virol** 1999 Mar;73(3):2343–9
Will multiple coreceptors need to be targeted by inhibitors of human immunodeficiency virus type 1 entry? Zhang YJ, et al. **J Virol** 1999 Apr;73(4):3443–8
Use of coreceptors other than CCR5 by non-syncytium-inducing adult and pediatric isolates of human immunodeficiency virus type 1 is rare in vitro. Zhang YJ, et al. **J Virol** 1998 Nov;72(11):9337–44
Stable exposure of the coreceptor-binding site in a CD4-independent HIV-1 envelope protein. Hoffman TL, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6359–64
Five-transmembrane domains appear sufficient for a G protein-coupled receptor: functional five-transmembrane domain chemokine receptors. Ling K, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7922–7
Mycobacterium avium complex augments macrophage HIV-1 production and increases CCR5 expression. Wahl SM, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12574–9
Hypervariable region 3 residues of HIV type 1 gp120 involved in CCR5 coreceptor utilization: therapeutic and prophylactic implications. Wang WK, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4558–62
The effect of different immune responses on the evolution of virulent CXCR4-tropic HIV. Wodarz D, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 22;265(1411):2149–58
The effect of immunization on chemokines and CCR5 and CXCR4 coreceptor functions in SIV binding and chemotaxis. Wang Y, et al. **Vaccine** 1999 Apr 9; 17(15–16):1826–36

RECEPTORS, CD4 see **ANTIGENS, CD4**

RECEPTORS, CELL-ADHESION PROTEIN see **INTEGRINS**

RECEPTORS, CELL SURFACE

Cloning and characterization of a novel orphan G-protein-coupled receptor localized to human chromosome 2p16. Tarttelin EE, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):174–80
Visual pigment: G-protein-coupled receptor for light signals. Shichida Y, et al. **Cell Mol Life Sci** 1998 Dec; 54(12):1299–315 (153 ref.)
Dystroglycan in development and disease. Durbeej M, et al. **Curr Opin Cell Biol** 1998 Oct;10(5):594–601 (71 ref.)
RelB is essential for the development of myeloid-related CD8alpha- dendritic cells but not of lymphoid-related CD8alpha+ dendritic cells. Wu L, et al. **Immunity** 1998 Dec;9(6):839–47
Human CD38, a surface receptor, an enzyme, an adhesion molecule and not a simple marker. Funaro A, et al. **J Biol Regul Homeost Agents** 1999 Jan-Mar;13(1):54–61 (121 ref.)
Identification of receptor ligands with phage display peptide libraries. Koivunen E, et al. **J Nucl Med** 1999 May; 40(5):883–8 (66 ref.)
Proceedings of the 8th Swiss Workshop of Methodology in Receptor Research. Morschach, May 3–7, 1998. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):1–780
A tribute to the Swiss receptor workshops and scientific meetings in general. Manning M. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):773–7
The toll of innate immunity on microbial pathogens. Modlin RL, et al. **N Engl J Med** 1999 Jun 10;340(23):1834–5 (5 ref.)
Sperm plasma membrane receptors for the porcine oocyte plasma membrane. Betancourt M, et al. **Zygote** 1998 May; 6(2):155–8
[Recent progress in clinical aspects of receptor research] Imura H. **Nippon Rinsho** 1998 Jul;56(7):1658–66 (11 ref.) (Eng. Abstr.) **(Jpn)**
[Recent progress in the molecular biology of receptors and intra-cellular signal transduction] Kaziro Y. **Nippon Rinsho** 1998 Jul;56(7):1651–7 (6 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS

Qualitative and quantitative assessment of relative agonist efficacy. Christopoulos A, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):735–48 (77 ref.)
Binding, gating, affinity and efficacy: the interpretation of structure-activity relationships for agonists and of the effects of mutating receptors. Colquhoun D. **Br J Pharmacol** 1998 Nov;125(5):924–47 (111 ref.)
Melatonin. Mor M, et al. **Curr Med Chem** 1999 Jun; 6(6):501–18 (142 ref.)
Pharmacophoric search and 3D-QSAR comparative molecular field analysis studies on agonists of melatonin sheep receptors. Marot C, et al. **J Med Chem** 1998 Nov 5;41(23):4453–65
The quest for novel bioactive peptides utilizing orphan seven-transmembrane-domain receptors. Hinuma S, et al. **J Mol Med** 1999 Jun;77(6):495–504 (64 ref.)
Partial agonism: mechanisms based on ligand-receptor interactions and on stimulus-response coupling. Pliška V. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1–4):597–629 (33 ref.)
Aluminum is a weak agonist for the calcium-sensing receptor. Spurney RF, et al. **Kidney Int** 1999 May;55(5):1750–8
Comprehensive survey of chemical libraries yielding enzyme inhibitors, receptor agonists and antagonists, and other biologically active agents: 1992 through 1997. Dolle RE. **Mol Divers** 1998;3(4):199–233 (81 ref.)
Human urotensin-II is a potent vasoconstrictor and agonist for the orphan receptor GPR14. Ames RS, et al. **Nature** 1999 Sep 16;401(6750):282–6
Comparison of the structure-activity relationships of melatonin receptor agonists and antagonists: lengthening the N-acyl side-chain has differing effects on potency on Xenopus melanophores. Teh MT, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):522–8
Partial agonists and G protein-coupled receptor desensitization. Clark RB, et al. **Trends Pharmacol Sci** 1999 Jul;20(7):279–86 (63 ref.)

ANALYSIS

VEGFR-3 and its ligand VEGF-C are associated with angiogenesis in breast cancer. Valtola R, et al. **Am J Pathol** 1999 May;154(5):1381–90
Optimization of the cost and sensitivity of receptor- and enzyme-based assays. Model MA, et al. **Anal Biochem** 1999 Jun 15;271(1):59–69
Evaluation of asialoglycoprotein receptor imaging agent as a marker of hepatic ischemia-reperfusion injury and recovery. Toyama H, et al. **Ann Nucl Med** 1999 Jun; 13(3):155–60
Cell surface expression of urokinase receptor in normal mammary epithelial cells and breast cancer cell lines. Li Y, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1223–8
Clinical relevance of the urokinase plasminogen activator system in breast cancer. Look MP, et al. **APMIS** 1999 Jan; 107(1):150–9 (50 ref.)
Immunohistochemical analysis of proteins of the Bcl-2 family in pulmonary lymphangioleiomyomatosis: association of Bcl-2 expression with hormone receptor status. Usuki J, et al. **Arch Pathol Lab Med** 1998 Oct;122(10):895–902
Tissue plasminogen activator and its receptor in the human amnion, chorion, and decidua at preterm and term. Bogic LV, et al. **Biol Reprod** 1999 Apr;60(4):1006–12
Biosensing with G-protein coupled receptor systems. Lundström I, et al. **Biosens Bioelectron** 1998 Sep 15; 13(6):689–95 (37 ref.)
Decreasing extracellular pH increases CD13 receptor surface content and alters the metabolism of HL60 cells cultured in stirred tank bioreactors. McDowell CL, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):567–72
Localization of ADAM10 and Notch receptors in bone. Dallas DJ, et al. **Bone** 1999 Jul;25(1):9–15
Comparison of immunohistochemistry with immunoassay (ELISA) for the detection of components of the plasminogen activation system in human tumour tissue. Ferrier CM, et al. **Br J Cancer** 1999 Mar;79(9–10):1534–41
Localization of verotoxin receptors in nervous system. Ren J, et al. **Brain Res** 1999 Apr 17;825(1–2):183–8
The urokinase plasminogen activator system as a target for prognostic studies in breast cancer. Stephens RW, et al. **Breast Cancer Res Treat** 1998;52(1–3):99–111 (45 ref.)
The breast cancer-associated MUC1 gene generates both a receptor and its cognate binding protein. Baruch A, et al. **Cancer Res** 1999 Apr 1;59(7):1552–61
Co-localization of urokinase and its receptor on established human umbilical vein endothelial cell. Ueshima S, et al. **Cell Struct Funct** 1999 Apr;24(2):71–8
Endothelial growth factor receptors in human fetal heart. Partanen TA, et al. **Circulation** 1999 Aug 10;100(6):583–6
Prognostic significance of the receptor for urokinase plasminogen activator in breast cancer. Grøndahl-Hansen J, et al. **Clin Cancer Res** 1995 Oct;1(10):1079–87
Tumor receptor imaging: proceedings of the National Cancer Institute workshop, review of current work, and prospective for further investigations. Katzenellenbogen JA, et al. **Clin Cancer Res** 1995 Aug;1(8):921–32
tie-1 protein tyrosine kinase: a novel independent prognostic marker for gastric cancer. Lin WC, et al. **Clin Cancer Res** 1999 Jul;5(7):1745–51
Classification and identification of proteins by means of common and specific amino acid n-tuples in unaligned sequences. Daeyaert F, et al. **Comput Methods Programs Biomed** 1998 Jun;56(3):221–33
Supramolecular receptor structures in the plasma membrane of lymphocytes revealed by flow cytometric energy transfer, scanning force- and transmission electron-microscopic analyses. Damjanovich S, et al. **Cytometry** 1998 Oct 1;33(2):225–33
Expression of asialoglycoprotein receptor in human fetal liver. Yoshida S, et al. **Endocr J** 1999 Feb;46(1):67–73
Distribution of calcium sensing receptor in rats: an immunohistochemical study. Mitsuma T, et al. **Endocr Regul** 1999 Jun;33(2):55–9
Human epidermal Langerhans cells express the mannose-fucose binding receptor. Condaminet B, et al. **Eur J Immunol** 1998 Nov;28(11):3541–51
Localization of thrombospondin-1 and its cysteine-serine-valine-threonine-cysteine-glycine receptor in colonic anastomotic healing tissue. Roth JJ, et al. **Histol Histopathol** 1998 Oct;13(4):967–71
Analysis of receptor for Vibrio cholerae El tor hemolysin with a monoclonal antibody that recognizes glycophorin B of human erythrocyte membrane. Zhang D, et al. **Infect Immun** 1999 Oct;67(10):5332–7
Analysis of fibrinolytic proteins in relation to DNA ploidy in prostate cancer. Plas E, et al. **Int J Cancer** 1998 Oct 29;78(3):320–5
Novel C5-dependent mechanism of neutrophil stimulation by bioincompatible dialyzer membranes. Rosenkranz AR, et al. **J Am Soc Nephrol** 1999 Jan;10(1):128–35
A radioimmunoassay for porcine intrauterine folate binding protein. Vallet JL, et al. **J Anim Sci** 1999 May; 77(5):1236–40
Failure to detect the extracellular calcium-sensing receptor (CasR) in human osteoblast cell lines. Pi M, et al. **J Bone Miner Res** 1999 Aug;14(8):1310–9
The 1998 Moyer Award. Characteristics of thrombospondin-1 and its cysteine-serine-valine-threonine-cysteine-glycine receptor in burn wounds. Roth JJ, et al. **J Burn Care Rehabil** 1998 Nov-Dec;19(6):487–93
Expression of calcium-sensing receptor and characterization of intracellular signaling in human pituitary adenomas. Romoli R, et al. **J Clin Endocrinol Metab** 1999 Aug;

84(8):2848–53
Expression of urokinase-type plasminogen activator receptor and plasminogen activator inhibitor-1 in gastric cancer. **Kawasaki K, et al. J Gastroenterol Hepatol** 1998 Sep; 13(9):936–44
Green- and red-fluorescent nanospheres for the detection of cell surface receptors by flow cytometry. Bhalgat MK, et al. **J Immunol Methods** 1998 Oct 1;219(1–2):57–68
Characterization of membrane melatonin receptor in mouse peritoneal macrophages: inhibition of adenylyl cyclase by a pertussis toxin-sensitive G protein. García-Pergañeda A, et al. **J Neuroimmunol** 1999 Mar 1;95(1–2):85–94
99mTc-HYNIC-folate: a novel receptor-based targeted radiopharmaceutical for tumor imaging. Guo W, et al. **J Nucl Med** 1999 Sep;40(9):1563–9
Asialoglycoprotein receptor scintigraphy in evaluation of auxiliary partial orthotopic liver transplantation. Sakahara H, et al. **J Nucl Med** 1999 Sep;40(9):1463–7
Expression of Met protein and urokinase-type plasminogen activator receptor (uPA-R) in papillary carcinoma of the thyroid. Zanetti A, et al. **J Pathol** 1998 Nov;186(3):287–91
Expression of tie1 and tie2 proteins during reendothelialization in balloon-injured rat carotid artery. Fujikawa K, et al. **J Vasc Res** 1999 Jul-Aug;36(4):272–81
Expression and localization of the urokinase-type plasminogen activator receptor (uPAR) in the human placenta. Nishida Y, et al. **Kobe J Med Sci** 1998 Feb; 44(1):31–43
Analysis of binding data. Hulme EC. **Methods Mol Biol** 1999; 106:139–85 (30 ref.)
Definition of receptors in radioligand-binding experiments. Keen M. **Methods Mol Biol** 1999;106:187–96 (19 ref.)
Immunolocalization of nitric oxide synthase and VEGF receptors in cultured lymphatic endothelial cells. Nojiri H, et al. **Microcirculation** 1999 Mar;6(1):75–8
Plasmodium yoelii YM MAEBL protein is coexpressed and colocalizes with rhoptry proteins. Noe AR, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1–2):27–35
Whole hemisphere autoradiography of the postmortem human brain. Hall H, et al. **Nucl Med Biol** 1998 Nov; 25(8):715–9
Ligand-receptor binding measured by laser-scanning imaging. Zuck P, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11122–7
Analysis of tissue-type plasminogen activator receptor (t-PAR) in human endothelial cells. Fukao H, et al. **Semin Thromb Hemost** 1998;24(3):269–73
Liver allograft functional reserve estimated by total asialoglycoprotein receptor amount using Tc-GSA liver scintigraphy. Kita Y, et al. **Transplant Proc** 1998 Nov; 30(7):3277–8
[Evidence of a renin receptor on human mesangial cells: effects on PAI1 and cGMP] Nguyen G, et al. **Nephrologie** 1998;19(7):411–6 (8 ref.) (Eng. Abstr.) **(Fre)**

ANTAGONISTS & INHIBITORS

Reduction of blood ethanol levels by the gamma-hydroxybutyric acid receptor antagonist, NCS-382. Colombo G, et al. **Alcohol** 1999 Feb;17(2):93–5
Primary stenting and glycoprotein IIb/IIIa inhibitors in acute myocardial infarction. Colombo A, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):153–7 (37 ref.)
IIb/IIIa receptor blockade in acute myocardial infarction. Ferguson JJ, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):164–70 (24 ref.)
Low-dose fibrinolytics and glycoprotein IIb/IIIa receptor blockade for the treatment of acute myocardial infarction. Ferrario M, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):121–5 (45 ref.)
Glycoprotein IIb/IIIa receptor antagonists in the management of cardiovascular diseases. Chong PH. **Am J Health Syst Pharm** 1998 Nov 15;55(22):2363–86 (117 ref.)
Urokinase receptor antagonists: discovery and application to in vivo models of tumor growth. Tressler RJ, et al. **APMIS** 1999 Jan;107(1):168–73
Structure-based exploration of the ganglioside GM1 binding sites of Escherichia coli heat-labile enterotoxin and cholera toxin for the discovery of receptor antagonists. Minke WE, et al. **Biochemistry** 1999 May 4;38(18):5684–92
Synthesis and structure-activity relationships of novel naphthalenic and bioisosteric related amidic derivatives as melatonin receptor ligands. Leclerc V, et al. **Bioorg Med Chem** 1998 Oct;6(10):1875–87
The putative melatonin receptor antagonist GR128107 is a partial agonist on Xenopus laevis melanophores. Teh MT, et al. **Br J Pharmacol** 1999 Mar;126(5):1237–45
Involvement of a putative G-protein-coupled receptor and a branching pathway in argipressin (4-8) signal transduction in rat hippocampus. Qiao LY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):15–20
Protein kinase C-dependent in vivo phosphorylation of prourokinase leads to the formation of a receptor competitive antagonist. Franco P, et al. **J Biol Chem** 1998 Oct 16;273(42):27734–40
Different mechanisms are involved in the antibody mediated inhibition of ligand binding to the urokinase receptor: a study based on biosensor technology. List K, et al. **J Immunol Methods** 1999 Jan 1;222(1–2):125–33
Melatonergic properties of the (+)- and (-)-enantiomers of N-(4-methoxy-2,3-dihydro-1H-phenalen-2-yl)amide derivatives. Jellimann C, et al. **J Med Chem** 1999 Mar 25; 42(6):1100–5
An alternative method to evaluate the nature of an antagonist and its potency: a theoretical approach. Calderone V. **J Pharmacol Toxicol Methods** 1998 Apr;39(3):129–35
Comparison of the structure-activity relationships of melatonin receptor agonists and antagonists: lengthening the N-acyl side-chain has differing effects on potency on Xenopus melanophores. Teh MT, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):522–8
[Clinical use of glycoprotein IIb/IIIa receptor blockers in invasive cardiology] Cervinka P. **Vnitr Lek** 1998 Jul; 44(7):439–43 (Eng. Abstr.) **(Cze)**
[Use of platelet glycoprotein IIb/IIIa receptor inhibitors in acute coronary syndrome and coronary intervention] Kakuta T, et al. **Nippon Rinsho** 1998 Oct;56(10):2630–4 (11 ref.) (Eng. Abstr.) **(Jpn)**
[Urgent protection of cells from foot-and-mouth infection by blocking their receptors with antigen molecules] Dudnikov AI, et al. **Vopr Virusol** 1999 Jul-Aug;44(4):181–3 (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

The expression of p53, Ki-67 and urokinase plasminogen activator receptor in colorectal adenomas with true invasion and pseudoinvasion. Hansen TP, et al. **APMIS** 1999 Jul;107(7):689–94
Expression and localization of messenger ribonucleic acid for the vitellogenin receptor in ovarian follicles throughout oogenesis in the rainbow trout, Oncorhynchus mykiss. Perazzolo LM, et al. **Biol Reprod** 1999 May;60(5):1057–68
Decreasing extracellular pH increases CD13 receptor surface content and alters the metabolism of HL60 cells cultured in stirred tank bioreactors. McDowell CL, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):567–72
Soluble urokinase receptor released from human carcinoma cells: a plasma parameter for xenograft tumour studies. Holst-Hansen C, et al. **Br J Cancer** 1999 Sep;81(2):203–11
The asialoglycoprotein receptor in human hepatocellular carcinomas: its expression on proliferating cells. Trerè D, et al. **Br J Cancer** 1999 Oct;81(3):404–8
Production of G-protein-coupled receptors in yeast. Reiländer H, et al. **Curr Opin Biotechnol** 1998 Oct; 9(5):510–7 (46 ref.)
Expression of receptors for human angiogenin in vascular smooth muscle cells. Hatzi E, et al. **Eur J Biochem** 1999 Mar;260(3):825–32
Reactivation of Delta-Notch signaling after injury: complementary expression patterns of ligand and receptor in dental pulp. Mitsiadis TA, et al. **Exp Cell Res** 1999 Feb 1;246(2):312–8
Regulation of the HGF-receptor c-met in the thyroid gland. Schulte KM, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(4):310–8
Expression of an extracellular calcium-sensing receptor in rat stomach. Cheng I, et al. **Gastroenterology** 1999 Jan; 116(1):118–26
Expression of the transmembrane protein tyrosine phosphatase RPTPalpha in human oral squamous cell carcinoma. Berndt A, et al. **Histochem Cell Biol** 1999 May; 111(5):399–403
Differing expression of MMPs-1 and -9 and urokinase receptor between diffuse- and intestinal-type gastric carcinoma. Migita T, et al. **Int J Cancer** 1999 Feb 19; 84(1):74–9
Elevated levels of urokinase-type plasminogen activator and its receptor during tumor growth in vivo. Mohanam S, et al. **Int J Oncol** 1999 Jan;14(1):169–74
Expression of folate receptor alpha in the mammalian retinol pigmented epithelium and retina. Smith SB, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):840–8
Specific involvement of G proteins in regulation of serum response factor-mediated gene transcription by different receptors. Mao J, et al. **J Biol Chem** 1998 Oct 16; 273(42):27118–23
Inhibition of BMP receptor synthesis by antisense oligonucleotides attenuates OP-1 action in primary cultures of fetal rat calvaria cells. Yeh LC, et al. **J Bone Miner Res** 1998 Dec;13(12):1870–9
Aggregation of mononucleated precursors triggers cell surface expression of alphavbeta3 integrin, essential to formation of osteoclast-like multinucleated cells. Boissy P, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2563–74
Toll4 (TLR4) expression in cardiac myocytes in normal and failing myocardium. Frantz S, et al. **J Clin Invest** 1999 Aug; 104(3):271–80
Reduced binding and phagocytosis of Pneumocystis carinii by alveolar macrophages from persons infected with HIV-1 correlates with mannose receptor downregulation. Koziel H, et al. **J Clin Invest** 1998 Oct 1;102(7):1332–44
Direct evidence that hepatocyte growth factor-induced invasion of hepatocellular carcinoma cells is mediated by urokinase. Monvoisin A, et al. **J Hepatol** 1999 Mar; 30(3):511–8
Von Willebrand factor receptor GPIb alpha is expressed by human factor XIIIa-positive dermal dendrocytes and is upregulated by mast cell degranulation. Monteiro MR, et al. **J Invest Dermatol** 1999 Aug;113(2):272–6
Urokinase plasminogen activator receptor (CD87) expression of tumor-associated macrophages in ductal carcinoma in situ, breast cancer, and resident macrophages of normal breast tissue. Hildenbrand R, et al. **J Leukoc Biol** 1999 Jul; 66(1):40–9
Select de novo gene and protein expression during renal epithelial cell culture in rotating wall vessels is shear stress dependent. Kaysen JH, et al. **J Membr Biol** 1999 Mar 1; 168(1):77–89
Increase of urokinase-type plasminogen activator receptor expression in human gingival fibroblasts by Porphyromonas gingivalis lipopolysaccharide. Ogura N, et al. **J Periodontol** 1999 Apr;70(4):402–8
mRNAs coding for the calcium-sensing receptor along the rat nephron: effect of a low-phosphate diet. Caride AJ, et al. **Kidney Blood Press Res** 1998;21(5):305–9
Extracellular matrix receptors and the differentiation of human megakaryocytes in vitro. Molla A, et al. **Leuk Lymphoma** 1999 Mar;33(1–2):15–23 (46 ref.)
Distinct expression patterns of notch family receptors and ligands during development of the mammalian inner ear. Lewis AK, et al. **Mech Dev** 1998 Nov;78(1–2):159–63
Expression of mt1 melatonin receptor in rat retina: evidence for multiple cell targets for melatonin. Fujieda H, et al. **Neuroscience** 1999;93(2):793–9
Relationship of urokinase and urokinase receptor in non-small cell lung cancer to proliferation, angiogenesis, metastasis and patient survival. Volm M, et al. **Oncol Rep** 1999 May-Jun;6(3):611–5
Photodynamic alteration of the surface receptor expression pattern of murine splenic dendritic cells. King DE, et al. **Scand J Immunol** 1999 Feb;49(2):184–92
Increased expression of u-PA and u-PAR on monocytes by LDL and Lp(a) lipoproteins—consequences for plasmin generation and monocyte adhesion. Ganné F, et al. **Thromb Haemost** 1999 Apr;81(4):594–600
Expression of the Axl receptor tyrosine kinase in human thyroid carcinoma. Ito T, et al. **Thyroid** 1999 Jun;9(6):563–7
Expression and activity of urokinase and its receptor in endothelial and pulmonary epithelial cells exposed to asbestos. Barchowsky A, et al. **Toxicol Appl Pharmacol** 1998 Oct;152(2):388–96
Inhibition of protein synthesis by chromium(VI) differentially affects expression of urokinase and its receptor in human type II pneumocytes. Shumilla JA, et al. **Toxicol Appl Pharmacol** 1999 Aug 1;158(3):288–95
[Expression of a new family of receptors similar to CXC chemokine receptors in endothelial cell precursors] Devic E, et al. **Pathol Biol (Paris)** 1999 Apr;47(4):330–8 (Eng. Abstr.) **(Fre)**

BLOOD

Soluble urokinase plasminogen activator receptor in plasma of patients with inflammatory rheumatic disorders: increased concentrations in rheumatoid arthritis. Slot O, et al. **Ann Rheum Dis** 1999 Aug;58(8):488–92
The urokinase plasminogen activator receptor in blood from healthy individuals and patients with cancer. Brünner N, et al. **APMIS** 1999 Jan;107(1):160–7 (62 ref.)
Physiological and pathological changes of plasma urokinase-type plasminogen activator, plasminogen activator inhibitor-1, and urokinase-type plasminogen activator receptor levels in healthy females and breast cancer patients. Chung HC, et al. **Breast Cancer Res Treat** 1998 May;49(1):41–50
Plasma urokinase receptor levels in patients with colorectal cancer: relationship to prognosis. Stephens RW, et al. **J Natl Cancer Inst** 1999 May 19;91(10):869–74
Elevation of serum levels of urokinase-type plasminogen activator and its receptor is associated with disease progression and prognosis in patients with prostate cancer. Miyake H, et al. **Prostate** 1999 May;39(2):123–9
Blast cell-surface and plasma soluble urokinase receptor in acute leukemia patients: relationship to classification and response to therapy. Mustjoki S, et al. **Thromb Haemost** 1999 May;81(5):705–10
Search for the sialic acid-independent receptor on red blood cells for invasion by Plasmodium falciparum. Soubes SC, et al. **Vox Sang** 1999;76(2):107–14

CHEMISTRY

Subcloning, crystallization and preliminary X-ray analysis of the signal receiver domain of ETR1, an ethylene receptor from Arabidopsis thaliana. Grantz AA, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):690–2
Crystallization and preliminary X-ray analysis of ferric enterobactin receptor FepA, an integral membrane protein from Escherichia coli. Smith BS, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):697–9
Cloning and characterization of a novel orphan G-protein-coupled receptor localized to human chromosome 2p16. Tarttelin EE, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):174–80
G-protein coupled receptors: conformations and states. Strange PG. **Biochem Pharmacol** 1999 Oct 1;58(7):1081–8 (49 ref.)
Structure-based exploration of the ganglioside GM1 binding sites of Escherichia coli heat-labile enterotoxin and cholera toxin for the discovery of receptor antagonists. Minke WE, et al. **Biochemistry** 1999 May 4;38(18):5684–92
Effect of protein hydration on receptor conformation: decreased levels of bound water promote metarhodopsin II formation. Mitchell DC, et al. **Biochemistry** 1999 Jun

15;38(24):7617–23
Structure and topology of diphtheria toxin R domain in lipid membranes. Quertenmont P, et al. **Biochemistry** 1999 Jan 12;38(2):660–6
Evidence for indole-3-acetic acid binding site in plant peroxidases. Structural similarity between peroxidases and auxin-binding proteins. Savitsky PA, et al. **Biochemistry (Mosc)** 1998 Jun;63(6):629–33
Molecular recognition of concanavalin A on mannoside diacetylene lipid monolayer at the air–water interface. Wang S, et al. **Biochim Biophys Acta** 1999 Jul 15; 1419(2):307–12
Steric effects on multivalent ligand–receptor binding: exclusion of ligand sites by bound cell surface receptors. Hlavacek WS, et al. **Biophys J** 1999 Jun;76(6):3031–43
Protein surface recognition by synthetic agents: design and structural requirements of a family of artificial receptors that bind to cytochrome c. Lin Q, et al. **Biopolymers** 1998; 47(4):285–97
Melatonin. Mor M, et al. **Curr Med Chem** 1999 Jun; 6(6):501–18 (142 ref.)
NMR of drugs and ligands bound to membrane receptors. Watts A. **Curr Opin Biotechnol** 1999 Feb;10(1):48–53 (46 ref.)
Generation and screening of synthetic receptor libraries. de Miguel YR, et al. **Curr Opin Chem Biol** 1998 Jun; 2(3):417–21 (30 ref.)
Crystal structure of the complex formed by the membrane type 1-matrix metalloproteinase with the tissue inhibitor of metalloproteinases-2, the soluble progelatinase A receptor. Fernandez-Catalan C, et al. **EMBO J** 1998 Sep 1;17(17):5238–48
Analysis of the ternary complex formation of human urokinase with the separated two domains of its receptor. Oda M, et al. **Eur J Biochem** 1998 Sep 1;256(2):411–8
Glycosylation of G-protein–coupled receptors for hormones central to normal reproductive functioning: its occurrence and role. Wheatley M, et al. **Hum Reprod Update** 1999 Jul–Aug;5(4):356–64 (76 ref.)
The modular architecture of leukocyte cell–surface receptors. Campbell ID. **Immunol Rev** 1998 Jun;163:11–8 (53 ref.)
Structural characterization of the lactoferrin receptor from Neisseria meningitidis. Prinz T, et al. **J Bacteriol** 1999 Jul; 181(14):4417–9
Ultrastructural and biochemical properties of the 120-kDa form of chick kinectin. Kumar J, et al. **J Biol Chem** 1998 Nov 27;273(48):31738–43
The intrinsic factor–vitamin B12 receptor, cubilin, is assembled into trimers via a coiled-coil alpha-helix. Lindblom A, et al. **J Biol Chem** 1999 Mar 5;274(10):6374–80
Biochemical analysis of the receptor for ubiquitin-like polypeptide. Nakamura M, et al. **J Biol Chem** 1999 Jun 18;274(25):18026–32
Reconstitution of the human endothelial cell protein C receptor with thrombomodulin in phosphatidylcholine vesicles enhances protein C activation. Xu J, et al. **J Biol Chem** 1999 Mar 5;274(10):6704–10
Gradient reversed-phase liquid chromatography coupled on-line to receptor–affinity detection based on the urokinase receptor. Oosterkamp AJ, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 11;715(1):331–8
BUNDLE: a program for building the transmembrane domains of G-protein–coupled receptors. Filizola M, et al. **J Comput Aided Mol Des** 1998 Mar;12(2):111–8
Structural organization of G-protein–coupled receptors. Lomize AL, et al. **J Comput Aided Mol Des** 1999 Jul; 13(4):325–53 (142 ref.)
Structure and expression of an adhesive protein-like molecule of mosquito invasive-stage malarial parasite. Yuda M, et al. **J Exp Med** 1999 Jun 21;189(12):1947–52
The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte–macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496–501
Molecular modelling studies on G protein–coupled receptors: from sequence to structure? van Neuren AS, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):341–53
MFR, a putative receptor mediating the fusion of macrophages. Saginario C, et al. **Mol Cell Biol** 1998 Nov; 18(11):6213–23
Structural basis of G protein–coupled receptor function. Schöneberg T, et al. **Mol Cell Endocrinol** 1999 May 25; 151(1–2):181–93 (154 ref.)
Characterization of two LGR genes homologous to gonadotropin and thyrotropin receptors with extracellular leucine-rich repeats and a G protein–coupled, seven-transmembrane region. Hsu SY, et al. **Mol Endocrinol** 1998 Dec;12(12):1830–45
Structural features of heterotrimeric G-protein–coupled receptors and their modulatory proteins. LeVine H 3rd. **Mol Neurobiol** 1999 Apr;19(2):111–49 (232 ref.)
Molecular basis of receptor/G-protein–coupling selectivity. Wess J. **Pharmacol Ther** 1998 Dec;80(3):231–64 (345 ref.)
The ethylene-receptor family from Arabidopsis: structure and function. Bleecker AB, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29; 353(1374):1405–12 (42 ref.)
Intermolecular interactions between dimeric calcium-sensing receptor monomers are important for its normal function. Bai M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):2834–9
Ionophores and receptors using cation–pi interactions: collarenes. Choi HS, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12094–9
Heightened sensitivity of a lattice of membrane receptors. Duke TA, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10104–8
The structure of the nuclear hormone receptors. Kumar R, et al. **Steroids** 1999 May;64(5):310–9 (80 ref.)
Receptor dimerization and Hill coefficients [letter] Hall D, et al. **Trends Pharmacol Sci** 1999 Sep;20(9):357–8
GPCR–Galpha fusion proteins: molecular analysis of receptor–G-protein coupling. Seifert R, et al. **Trends Pharmacol Sci** 1999 Sep;20(9):383–9
[Structure and function of melatonin receptors] Jockers R, et al. **C R Seances Soc Biol Fil** 1998;192(4):659–67 (12 ref.) (Eng. Abstr.) **(Fre)**
[Structure and function of phospholipase A2 receptor] Arita H. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1025–31 (30 ref.) **(Jpn)**

CLASSIFICATION

A novel subgroup of class I G-protein–coupled receptors. Schöneberg T, et al. **Biochim Biophys Acta** 1999 Jul 7; 1446(1–2):57–70
Methods for the evaluation of drug action at the human melatonin receptor subtypes. Nonno R, et al. **Biol Signals Recept** 1999 Jan–Apr;8(1–2):32–40
An updated phylogenetic analysis of vertebrate melatonin receptor sequences: reflection on the melatonin receptor nomenclature by the Nomenclature Subcommittee of the International Union of Pharmacology. Shiu SY, et al. **Biol Signals Recept** 1998 Jul–Aug;7(4):244–8
Molecular and pharmacological evidence for MT1 melatonin receptor subtype in the tail artery of juvenile Wistar rats. Ting KN, et al. **Br J Pharmacol** 1999 Jun;127(4):987–95
The characterization and classification of receptors. Humphrey PP. **J Recept Signal Transduct Res** 1998 Jul–Nov;18(4–6):345–62 (79 ref.)
[Classification of cell-surface receptors based on molecular structures and functions] Yokoyama S, et al. **Nippon Rinsho** 1998 Jul;56(7):1745–9 (19 ref.) (Eng. Abstr.) **(Jpn)**

DEFICIENCY

Deficient activity of von Willebrand's factor-cleaving protease in patients with disseminated malignancies. Oleksowicz L, et al. **Cancer Res** 1999 May 1;59(9):2244–50

DRUG EFFECTS

Respiratory epithelial cells demonstrate lactoferrin receptors that increase after metal exposure. Ghio AJ, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L933–40
In vivo correlation of neutrophil receptor expression, ischemia–reperfusion injury, and selective 5-lipoxygenase inhibition in guinea pigs. Dolan R, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1377–80
Grafting protein ligand monolayers onto the surface of microparticles for probing the accessibility of cell surface receptors. Frey A, et al. **Bioconjug Chem** 1999 Jul–Aug; 10(4):562–71
Methods for the evaluation of drug action at the human melatonin receptor subtypes. Nonno R, et al. **Biol Signals Recept** 1999 Jan–Apr;8(1–2):32–40
Ligand efficacy and potency at recombinant human MT2 melatonin receptors: evidence for agonist activity of some mt1-antagonists. Nonno R, et al. **Br J Pharmacol** 1999 Jul; 127(5):1288–94
General anaesthetic actions on ligand-gated ion channels. Krasowski MD, et al. **Cell Mol Life Sci** 1999 Aug 15; 55(10):1278–303 (376 ref.)
Association between [18F]fluorodeoxyglucose uptake and postoperative histopathology, hormone receptor status, thymidine labelling index and p53 in primary breast cancer: a preliminary observation. Crippa F, et al. **Eur J Nucl Med** 1998 Oct;25(10):1429–34
Effects of ginseng saponins on responses induced by various receptor stimuli. Tachikawa E, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):23–32
Expression of mannose-ligand receptors on human spermatozoa: effect of lecithin and association with sperm binding to the zona pellucida. Gamzu R, et al. **Fertil Steril** 1998 Oct;70(4):766–70
Inhibition of the transmembrane protein tyrosine phosphatase lar by 3S-peptide-I enhances insulin receptor phosphorylation in intact cells. Kole HK, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2–4):111–26
Transforming growth factor-beta1 preserves epithelial barrier function: identification of receptors, biochemical intermediates, and cytokine antagonists. Planchon S, et al. **J Cell Physiol** 1999 Oct;181(1):55–66
Mechanisms of ethanol-induced impairment in asialoglycoprotein receptor expression and function [editorial; comment] Ishii H. **J Gastroenterol** 1998 Dec; 33(6):920–1 (15 ref.). Comment on: J Gastroenterol 1998 Dec;33(6):855–9.
Suppressive effect of ethanol on the expression of hepatic asialoglycoprotein receptors augmented by interleukin-1beta, interleukin-6, and tumor necrosis factor-alpha [see comments] Kato J, et al. **J Gastroenterol** 1998 Dec;33(6):855–9. Comment in: J Gastroenterol 1998 Dec;33(6):920–1.
Design and synthesis of novel amphiphilic dendritic galactosides for selective targeting of liposomes to the hepatic asialoglycoprotein receptor. Sliedregt LA, et al. **J Med Chem** 1999 Feb 25;42(4):609–18
Extracts and constituents of Hypericum perforatum inhibit the binding of various ligands to recombinant receptors expressed with the Semliki Forest virus system. Simmen U, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):59–74
Multiple domains of melatonin receptor are involved in the regulation of glucocorticoid receptor–induced gene expression. Persengiev SP. **J Steroid Biochem Mol Biol** 1999 Mar;68(5–6):181–7
Naturally occurring analogs of lysophosphatidic acid elicit different cellular responses through selective activation of multiple receptor subtypes. Fischer DJ, et al. **Mol Pharmacol** 1998 Dec;54(6):979–88
Purine and pyrimidine nucleotides inhibit a noninactivating K+ current and depolarize adrenal cortical cells through a G protein–coupled receptor. Xu L, et al. **Mol Pharmacol** 1999 Feb;55(2):364–76
What's all the RAVE about receptor internalization? [comment] Roth BL, et al. **Neuron** 1999 Aug;23(4):629–31 . Comment on: Neuron 1999 Aug;23(4):737–46.
Antagonistic effects of S 22153, a new mt1 and MT2 receptor ligand, on the neophobia-reducing properties of melatonin in BALB/c mice. Kopp C, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):131–6
Design of subtype selective melatonin receptor agonists and antagonists. Sugden D, et al. **Reprod Nutr Dev** 1999 May–Jun;39(3):335–44
Nitrous oxide impairs the signaling of neutrophils downstream of receptors. Fröhlich D, et al. **Toxicol Lett** 1998 Nov 23;100–101:121–7
[Rapid direct inhibition of thrombocyte receptors: Epifibatid additive in acute coronary syndromes. 65th Annual Meeting of the German Society for Cardiology and Cardiovascular Research. Mannheim, 8 April 1999] **Dtsch Med Wochenschr** 1999 Jul 30;124(30 Suppl):1–4 **(Ger)**
[Hormonal receptors of laryngeal cancer] Kruk-Zagajewska A, et al. **Otolaryngol Pol** 1999;53(1):41–6 (25 ref.) (Eng. Abstr.) **(Pol)**
[Hypoxic bioreductive agents: the possible immune and receptor–mediated mechanisms of antitumor action] Shchepetkin IA. **Eksp Klin Farmakol** 1999 May–Jun; 62(3):67–74 (80 ref.) (Eng. Abstr.) **(Rus)**

GENETICS

Localization of familial benign hypercalcemia, Oklahoma variant (FBHOk), to chromosome 19q13. Lloyd SE, et al. **Am J Hum Genet** 1999 Jan;64(1):189–95
Will angiotensin converting enzyme genotype, receptor mutation identification, and other miracles of molecular biology permit reduction of NNT? Materson BJ. **Am J Hypertens** 1998 Aug;11(8 Pt 2):138S–142S (40 ref.)
Hensin, the polarity reversal protein, is encoded by DMBT1, a gene frequently deleted in malignant gliomas. Takito J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F277–89
Identification of sequence tagged sites in the Asian and African elephant. Burk NE, et al. **Anim Biotechnol** 1998; 9(2):155–60
Investigation of prevalence and regulation of expression of progression associated protein (PAP). Gnirke AU, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4363–9
Sequence and tissue distribution of a novel G-protein–coupled receptor expressed prominently in human placenta. Cikos S, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):352–6
Allelic variants of human melatonin 1a receptor: function and prevalence in subjects with circadian rhythm sleep disorders. Ebisawa T, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):832–7
Identification of a novel seven–transmembrane receptor with homology to glycoprotein receptors and its expression in the adult and developing mouse. Hermey G, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):273–9
Molecular cloning of Frizzled-10, a novel member of the Frizzled gene family. Koike J, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):39–43
Molecular cloning, differential expression, and chromosomal localization of human frizzled-1, frizzled-2, and frizzled-7. Sagara N, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):117–22
Identification of receptor genes in renal cell carcinoma associated with angiogenesis by differential hybridization technique. Takahashi A, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):855–9
Cloning and characterization of a novel orphan G-protein–coupled receptor localized to human chromosome 2p16. Tarttelin EE, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):174–80
Genomic organization of a receptor from sea anemones, structurally and evolutionarily related to glycoprotein hormone receptors from mammals. Vibede N, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):497–501
Mammalian expression of transmembrane receptors for pharmaceutical applications. Rhodes AD, et al. **Biochem Soc Trans** 1998 Nov;26(4):699–704 (26 ref.)
Analysis of the mouse MAP1B gene identifies a highly conserved 4.3 kb 3' untranslated region and provides evidence against the proposed structure of DBI-1 cDNA.

Meixner A, et al. **Biochim Biophys Acta** 1999 Jun 9; 1445(3):345–50

Disorders of the calcium-sensing receptor. Thakker RV. **Biochim Biophys Acta** 1998 Dec 10;1448(2):166–70

Transcriptional regulation of a receptor protein tyrosine phosphatase gene hPTP-J by PKC-mediated signaling pathways in Jurkat and Molt-4 T lymphoma cells. Wang B, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):331–40

A genetic algorithm for designing gene family-specific oligonucleotide sets used for hybridization: the G protein-coupled receptor protein superfamily. Kel A, et al. **Bioinformatics** 1998;14(3):259–70

Isolation of complementary deoxyribonucleic acids encoding putative secreted and membrane-bound folate binding proteins from endometrium of swine. Vallet JL, et al. **Biol Reprod** 1999 Aug;61(2):372–9

Using genetic algorithms for the construction of phylogenetic trees: application to G-protein coupled receptor sequences. Reijmers TH, et al. **Biosystems** 1999 Jan;49(1):31–43

Polymorphisms of platelet membrane glycoprotein Ib associated with arterial thrombotic disease. Gonzalez-Conejero R, et al. **Blood** 1998 Oct 15; 92(8):2771–6

Structural and functional implications of the intron/exon organization of the human endothelial cell protein C/activated protein C receptor (EPCR) gene: comparison with the structure of CD1/major histocompatibility complex alpha1 and alpha2 domains. Simmonds RE, et al. **Blood** 1999 Jul 15;94(2):632–41

Cloning and characterization of the human interleukin-3 (IL-3)/IL-5/ granulocyte-macrophage colony-stimulating factor receptor betac gene: regulation by Ets family members. van Dijk TB, et al. **Blood** 1998 Nov 15; 92(10):3636–46

Targeted disruption of the K-ras oncogene in an invasive colon cancer cell line down-regulates urokinase receptor expression and plasminogen-dependent proteolysis. Allgayer H, et al. **Br J Cancer** 1999 Aug;80(12):1884–91

Binding, gating, affinity and efficacy: the interpretation of structure-activity relationships for agonists and of the effects of mutating receptors. Colquhoun D. **Br J Pharmacol** 1998 Nov;125(5):924–47 (111 ref.)

Cloning experiments and developmental expression of both melatonin receptor Mel1A mRNA and melatonin binding sites in the Syrian hamster suprachiasmatic nuclei. Gauer F, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):193–202

LAR tyrosine phosphatase receptor: proximal membrane alternative splicing is coordinated with regional expression and intraneuronal localization. Honkaniemi J, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):1–12

Molecular cloning and characterization of two putative G protein-coupled receptors which are highly expressed in the central nervous system. Leng N, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):73–83

Identification and cloning of three novel human G protein-coupled receptor genes GPR52, PsiGPR53 and GPR55: GPR55 is extensively expressed in human brain. Sawzdargo M, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):193–8

Melatonin receptor RNA expression in Xenopus retina. Wiechmann AF, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):297–303

Characterization of a novel receptor that maps near the natural killer gene complex: demonstration of carbohydrate binding and expression in hematopoietic cells. Fernandes MJ, et al. **Cancer Res** 1999 Jun 1;59(11):2709–17

Dual mechanisms for lysophospholipid induction of proliferation of human breast carcinoma cells. Goetzl EJ, et al. **Cancer Res** 1999 Sep 15;59(18):4732–7

Adenovirus-mediated delivery of antisense gene to urokinase-type plasminogen activator receptor suppresses glioma invasion and tumor growth. Mohan PM, et al. **Cancer Res** 1999 Jul 15;59(14):3369–73

Enhanced expression of urokinase receptor induced through the tissue factor-factor VIIa pathway in human pancreatic cancer. Taniguchi T, et al. **Cancer Res** 1998 Oct 1; 58(19):4461–7

Expression of DMBT1, a candidate tumor suppressor gene, is frequently lost in lung cancer. Wu W, et al. **Cancer Res** 1999 Apr 15;59(8):1846–51

Putative mammalian taste receptors: a class of taste-specific GPCRs with distinct topographic selectivity. Hoon MA, et al. **Cell** 1999 Feb 19;96(4):541–51

A growing family of receptor genes for lysophosphatidic acid (LPA) and other lysophospholipids (LPs). Chun J, et al. **Cell Biochem Biophys** 1999;30(2):213–42 (75 ref.)

Prohibitin and RACK homologues are up-regulated in trypanosomes induced to undergo apoptosis and in naturally occurring terminally differentiated forms. Welburn SC, et al. **Cell Death Differ** 1998 Jul;5(7):615–22

Allelic deletion analyses of MMAC/PTEN and DMBT1 loci in gliomas: relationship to prognostic significance. Lin H, et al. **Clin Cancer Res** 1998 Oct;4(10):2447–54

An adult patient with severe hypercalcaemia and hypocalciuria due to a novel homozygous inactivating mutation of calcium-sensing receptor. Chikatsu N, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):537–43

Antisense oligonucleotides against the urokinase receptor: a therapeutic strategy for the control of cell invasion in rheumatoid arthritis and cancer [editorial] Del Rosso M, et al. **Clin Exp Rheumatol** 1998 Jul-Aug;16(4):389–93 (56 ref.)

Expression and recovery of functional G-protein-coupled receptors using baculovirus expression systems. Bouvier M, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):522–7 (48 ref.)

Production of G-protein-coupled receptors in yeast. Reiländer H, et al. **Curr Opin Biotechnol** 1998 Oct; 9(5):510–7 (46 ref.)

Molecular biology and clinical importance of the Ca(2+)-sensing receptor. De Luca F, et al. **Curr Opin Pediatr** 1998 Aug;10(4):435–40 (28 ref.)

In vivo evidence that Patched and Smoothened constitute distinct binding and transducing components of a Hedgehog receptor complex. Chen Y, et al. **Development** 1998 Dec;125(24):4943–8

The netrin receptor frazzled is required in the target for establishment of retinal projections in the Drosophila visual system. Gong Q, et al. **Development** 1999 Apr;126(7):1451–6

Mutation in ankyrin repeats of the mouse Notch2 gene induces early embryonic lethality. Hamada Y, et al. **Development** 1999 Aug;126(15):3415–24

Specificity of TGFbeta signaling is conferred by distinct type 1 receptors and their associated SMAD proteins in Caenorhabditis elegans. Krishna S, et al. **Development** 1999 Jan;126(2):251–60

Dpp receptor levels contribute to shaping the Dpp morphogen gradient in the Drosophila wing imaginal disc. Lecuit T, et al. **Development** 1998 Dec;125(24):4901–7

Molecular tinkering of G protein-coupled receptors: an evolutionary success. Bockaert J, et al. **EMBO J** 1999 Apr 1;18(7):1723–9 (56 ref.)

Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581–6

A region between -141 and -61 bp containing a proximal AP-1 is essential for constitutive expression of urokinase-type plasminogen activator receptor. Dang J, et al. **Eur J Biochem** 1999 Aug;264(1):92–9

Three receptor genes for plasminogen related growth factors in the genome of the puffer fish Fugu rubripes. Cottage A, et al. **FEBS Lett** 1999 Jan 29;443(3):370–4

Cloning, molecular analysis and differential cell localisation of the p36 RACK analogue antigen from the parasite protozoon Crithidia fasciculata. Taladriz S, et al. **FEBS Lett** 1999 Jan 29;443(3):375–80

Can functional regions of proteins be predicted from their coding sequences? The case study of G-protein coupled receptors. Arrigo P, et al. **Gene** 1998 Oct 9; 221(1):GC65–110

A sequence with homology to human HPFH-linked enhancer elements and to a family of G-protein linked membrane receptor genes is located downstream of the chicken beta-globin locus. Staines DM, et al. **Gene** 1999 Jul 8;234(2):345–52

TLR6: A novel member of an expanding toll-like receptor family. Takeuchi O, et al. **Gene** 1999 Apr 29;231(1-2):59–65

Comparative analysis of three murine G-protein coupled receptors activated by sphingosine-1-phosphate. Zhang G, et al. **Gene** 1999 Feb 4;227(1):89–99

Ligand substitution of receptor targeted DNA complexes affects gene transfer into hepatoma cells. Ziady AG, et al. **Gene Ther** 1998 Dec;5(12):1685–97

Axis determination by inhibition of Wnt signaling in Xenopus. Itoh K, et al. **Genes Dev** 1999 Sep 1;13(17):2328–36

Characterization of the Wsc1 protein, a putative receptor in the stress response of Saccharomyces cerevisiae. Lodder AL, et al. **Genetics** 1999 Aug;152(4):1487–99

Cloning and mapping of the UNC5C gene to human chromosome 4q21-q23. Ackerman SL, et al. **Genomics** 1998 Sep 1;52(2):205–8

Chromosomal localization of the human and murine orthologues of the Drosophila smoothened gene. Chidambaram A, et al. **Genomics** 1998 Nov 1;53(3):416–7

EDG6, a novel G-protein-coupled receptor related to receptors for bioactive lysophospholipids, is specifically expressed in lymphoid tissue. Gräler MH, et al. **Genomics** 1998 Oct 15;53(2):164–9

Assignment of the melatonin-related receptor to human chromosome X (GPR50) and mouse chromosome X (Gpr50). Gubitz AK, et al. **Genomics** 1999 Jan 15; 55(2):248–51

GPR56, a novel secretin-like human G-protein-coupled receptor gene. Liu M, et al. **Genomics** 1999 Feb 1; 55(3):296–305

Molecular cloning and chromosomal localization of the mouse Gpr37 gene encoding an orphan G-protein-coupled peptide receptor expressed in brain and testis. Marazziti D, et al. **Genomics** 1998 Nov 1;53(3):315–24

Discovery of three novel orphan G-protein-coupled receptors. Marchese A, et al. **Genomics** 1999 Feb 15; 56(1):12–21

Cloning of a novel G-protein-coupled receptor GPR 51 resembling GABAB receptors expressed predominantly in nervous tissues and mapped proximal to the hereditary sensory neuropathy type 1 locus on chromosome 9. Ng GY, et al. **Genomics** 1999 Mar 15;56(3):288–95

Genes for the CPE receptor (CPETR1) and the human homolog of RVP1 (CPETR2) are localized within the Williams-Beuren syndrome deletion. Paperna T, et al. **Genomics** 1998 Dec 15;54(3):453–9

Human neuropilin-1 and neuropilin-2 map to 10p12 and 2q34, respectively. Rossignol M, et al. **Genomics** 1999 May 1;57(3):459–60

Chromosomal localization of the human smoothened gene (SMOH) to 7q32. 3 by fluorescence in situ hybridization and radiation hybrid mapping. Sublett JE, et al. **Genomics** 1998 May 15;50(1):112–4

Cloning and characterization of a human and murine T-cell orphan G-protein-coupled receptor similar to the growth hormone secretagogue and neurotensin receptors. Tan CP, et al. **Genomics** 1998 Sep 1;52(2):223–9

Characterization and expression pattern of the frizzled gene Fzd9, the mouse homolog of FZD9 which is deleted in Williams-Beuren syndrome. Wang YK, et al. **Genomics** 1999 Apr 15;57(2):235–48

Identification of a human homologue of the sea urchin receptor for egg jelly: a polycystic kidney disease-like protein. Hughes J, et al. **Hum Mol Genet** 1999 Mar; 8(3):543–9

Urokinase plasminogen activator receptor (uPAR; CD87) expression on monocytic cells and T cells is modulated by HIV-1 infection. Speth C, et al. **Immunobiology** 1998 Jul;199(1):152–62

Identification and functional characterization of the Neisseria gonorrhoeae lbpB gene product. Biswas GD, et al. **Infect Immun** 1999 Jan;67(1):455–9

Characterization of Moraxella (Branhamella) catarrhalis lbpB, lbpA, and lactoferrin receptor orf3 isogenic mutants. Bonnah RA, et al. **Infect Immun** 1999 Mar;67(3):1517–20

A second two-component regulatory system of Bordetella bronchiseptica required for bacterial resistance to oxidative stress, production of acid phosphatase, and in vivo persistence. Jungnitz H, et al. **Infect Immun** 1998 Oct; 66(10):4640–50

Cloning and complete sequence characterization of two gypsy moth aminopeptidase-N cDNAs, including the receptor for Bacillus thuringiensis Cry1Ac toxin. Garner KJ, et al. **Insect Biochem Mol Biol** 1999 Jun;29(6):527–35

Cancer cells overexpress mRNA of urokinase-type plasminogen activator, its receptor and inhibitors in human non-small-cell lung cancer tissue: analysis by Northern blotting and in situ hybridization. Morita S, et al. **Int J Cancer** 1998 Oct 29;78(3):286–92

Neuroreceptor mRNA expression in the rat mesenteric artery develops independently of innervation. Phillips JK, et al. **Int J Dev Neurosci** 1999 Jul;17(4):377–86

NahY, a catabolic plasmid-encoded receptor required for chemotaxis of Pseudomonas putida to the aromatic hydrocarbon naphthalene. Grimm AC, et al. **J Bacteriol** 1999 May;181(10):3310–6

In vitro analysis of the butyrolactone autoregulator receptor protein (FarA) of Streptomyces lavendulae FRI-5 reveals that FarA acts as a DNA-binding transcriptional regulator that controls its own synthesis. Kitani S, et al. **J Bacteriol** 1999 Aug;181(16):5081–4

Characterization of colicin S4 and its receptor, OmpW, a minor protein of the Escherichia coli outer membrane. Pilsl H, et al. **J Bacteriol** 1999 Jun;181(11):3578–81

Ig-hepta, a novel member of the G protein-coupled hepta-helical receptor (GPCR) family that has immunoglobulin-like repeats in a long N-terminal extracellular domain and defines a new subfamily of GPCRs. Abe J, et al. **J Biol Chem** 1999 Jul 9; 274(28):19957–64

Transactivation of the urokinase-type plasminogen activator receptor gene through a novel promoter motif bound with an activator protein-2alpha-related factor. Allgayer H, et al. **J Biol Chem** 1999 Feb 19;274(8):4702–14

Transcriptional induction of the urokinase receptor gene by a constitutively active Src. Requirement of an upstream motif (-152/-135) bound with Sp1. Allgayer H, et al. **J Biol Chem** 1999 Jun 25;274(26):18428–37

Molecular cloning and characterization of a novel retinoic acid-inducible gene that encodes a putative G protein-coupled receptor. Cheng Y, et al. **J Biol Chem** 1998 Dec 25;273(52):35008–15

PU.1 and USF are required for macrophage-specific mannose receptor promoter activity. Egan BS, et al. **J Biol Chem** 1999 Mar 26;274(13):9098–107

Cloning and characterization of the 5'-flanking region of the human growth hormone secretagogue receptor gene. Kaji H, et al. **J Biol Chem** 1998 Dec 18;273(51):33885–8

The low density lipoprotein receptor-related protein/alpha2-macroglobulin receptor regulates cell surface plasminogen activator activity on human trophoblast cells. Zhang JC, et al. **J Biol Chem** 1998 Nov 27;273(48):32273–80

No evidence for mutations in the calcium-sensing receptor gene in sporadic parathyroid adenomas. Cetani F, et al. **J Bone Miner Res** 1999 Jun;14(6):878–82

The putative sponge aggregation receptor. Isolation and characterization of a molecule composed of scavenger receptor cysteine-rich domains and short consensus repeats. Blumbach B, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2635–44

A progesterone-induced endometrial homolog of a new candidate tumor suppressor, DMBT1. Ace CI, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3569–73

A novel activating mutation in calcium-sensing receptor gene associated with a family of autosomal dominant hypocalcemia. Okazaki R, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):363–6

Central melatonin receptors in the rainbow trout: comparative distribution of ligand binding and gene

expression. Mazurais D, et al. **J Comp Neurol** 1999 Jun 28;409(2):313–24

Lysophosphatidic acid receptor gene vzg-1/lpA1/edg-2 is expressed by mature oligodendrocytes during myelination in the postnatal murine brain. Weiner JA, et al. **J Comp Neurol** 1998 Sep 7;398(4):587–98

The effect of pregnancy on the expression of uterine oxytocin, oestrogen and progesterone receptors during early pregnancy in the cow. Robinson RS, et al. **J Endocrinol** 1999 Jan;160(1):21–33

Mannose receptor and its putative ligands in normal murine lymphoid and nonlymphoid organs: In situ expression of mannose receptor by selected macrophages, endothelial cells, perivascular microglia, and mesangial cells, but not dendritic cells. Linehan SA, et al. **J Exp Med** 1999 Jun 21;189(12):1961–72

Isolation and radiation hybrid mapping of a dinucleotide repeat polymorphism at the human calcium-sensing receptor (CASR) locus. Tsukamoto K, et al. **J Hum Genet** 1998;43(4):280–2

Cutting edge: cells that carry A null allele for toll-like receptor 2 are capable of responding to endotoxin. Heine H, et al. **J Immunol** 1999 Jun 15;162(12):6971–5

A composite C/EBP binding site is essential for the activity of the promoter of the IL-3/IL-5/granulocyte-macrophage colony-stimulating factor receptor beta c gene. van Dijk TB, et al. **J Immunol** 1999 Sep 1;163(5):2674–80

Cutting edge: functional characterization of the effect of the C3H/HeJ defect in mice that lack an Lpsn gene: in vivo evidence for a dominant negative mutation. Vogel SN, et al. **J Immunol** 1999 May 15;162(10):5666–70

UVB increases urokinase-type plasminogen activator receptor (uPAR) expression. Marschall C, et al. **J Invest Dermatol** 1999 Jul;113(1):69–76

Evolution of oogenesis: the receptor for vitellogenin from the rainbow trout. Davail B, et al. **J Lipid Res** 1998 Oct; 39(10):1929–37

Characterization of the phosphatidylinositol-specific phospholipase C isozymes present in the bovine parathyroid and in human kidney HEK293 cells stably transfected with the human parathyroid Ca2+-sensing receptor. Darè E, et al. **J Mol Endocrinol** 1998 Aug;21(1):7–17

Expression of functional growth hormone secretagogue receptors in human pituitary adenomas: polymerase chain reaction, triple in-situ hybridization and cell culture studies. Barlier A, et al. **J Neuroendocrinol** 1999 Jul;11(7):491–502

The ovine melatonin-related receptor: cloning and preliminary distribution and binding studies. Drew JE, et al. **J Neuroendocrinol** 1998 Sep;10(9):651–61

Growth hormone-releasing hormone receptor (GHRH-R) and growth hormone secretagogue receptor (GHS-R) mRNA levels during postnatal development in male and female rats. Kamegai J, et al. **J Neuroendocrinol** 1999 Apr; 11(4):299–306

Deletion of the R78 G protein-coupled receptor gene from rat cytomegalovirus results in an attenuated, syncytium-inducing mutant strain. Beisser PS, et al. **J Virol** 1999 Sep;73(9):7218–30

A986S polymorphism of the calcium-sensing receptor and circulating calcium concentrations [see comments] Cole DE, et al. **Lancet** 1999 Jan 9;353(9147):112–5. Comment in: Lancet 1999 Jan 9;353(9147):83–4. Comment in: Lancet 1999 Apr 10;353(9160):1274.

A986S polymorphism of calcium-sensing receptor [letter; comment] Kanazawa H, et al. **Lancet** 1999 Apr 10; 353(9160):1274. Comment on: Lancet 1999 Jan 9;353(9147):112–5.

Extracellular "calcistat" in health and disease [comment] Pearce S. **Lancet** 1999 Jan 9;353(9147):83–4. Comment on: Lancet 1999 Jan 9;353(9147):112–5.

Human acute myeloid leukemia cells with internal tandem duplications in the Flt3 gene show reduced proliferative ability in stroma supported long-term cultures. Rombouts WJ, et al. **Leukemia** 1999 Jul;13(7):1071–8

Chromosomal localization of three human genes encoding bone morphogenetic protein receptors. Aström AK, et al. **Mamm Genome** 1999 Mar;10(3):299–302

Rat osteotesticular phosphatase gene (Esp): genomic structure and chromosome location. Lathrop W, et al. **Mamm Genome** 1999 Apr;10(4):366–70

Amino acid sequence and embryonic expression of msr/apj, the mouse homolog of Xenopus X-msr and human APJ. Devic E, et al. **Mech Dev** 1999 Jun;84(1-2):199–203

mCelsr1 is an evolutionarily conserved seven-pass transmembrane receptor and is expressed during mouse embryonic development. Hadjantonakis AK, et al. **Mech Dev** 1998 Nov;78(1-2):91–5

Characterization of two frizzled8 homologues expressed in the embryonic shield and prechordal plate of zebrafish embryos. Kim SH, et al. **Mech Dev** 1998 Nov; 78(1-2):193–201

Leukocyte common antigen-related tyrosine phosphatase receptor: increased expression and neuronal-type splicing in breast cancer cells and tissue. Yang T, et al. **Mol Carcinog** 1999 Jun;25(2):139–49

The tmp gene, encoding a membrane protein, is a c-Myc target with a tumorigenic activity. Ben-Porath I, et al. **Mol Cell Biol** 1999 May;19(5):3529–39

A single amino acid substitution in the v-Eyk intracellular domain results in activation of Stat3 and enhances cellular transformation. Besser D, et al. **Mol Cell Biol** 1999 Feb; 19(2):1401–9

Structure and developmental expression of the mouse RGR opsin gene. Tao L, et al. **Mol Vis** 1998 Dec 2;4:25

Mutations in CUBN, encoding the intrinsic factor-vitamin B12 receptor, cubilin, cause hereditary megaloblastic anaemia 1. Aminoff M, et al. **Nat Genet** 1999 Mar; 21(3):309–13

Fv2 encodes a truncated form of the Stk receptor tyrosine kinase [see comments] Persons DA, et al. **Nat Genet** 1999 Oct;23(2):159–65. Comment in: Nat Genet 1999 Oct;23(2):128–30.

Receptor seeks ligand: on the way to cloning the molecular receptors for sweet and bitter taste [news] Lindemann B. **Nat Med** 1999 Apr;5(4):381–2

Endotoxin opens the Tollgates to innate immunity [news] Ulevitch RJ. **Nat Med** 1999 Feb;5(2):144–5

A frequent activated smoothened mutation in sporadic basal cell carcinomas. Lam CW, et al. **Oncogene** 1999 Jan 21; 18(3):833–6

Ryk is expressed in a differentiation-specific manner in epithelial tissues and is strongly induced in decidualizing uterine stroma. Serfas MS, et al. **Oncogene** 1998 Dec 31; 17(26):3435–44

Molecular analysis of two putative tumour suppressor genes, PTEN and DMBT, which have been implicated in glioblastoma multiforme disease progression. Somerville RP, et al. **Oncogene** 1998 Oct 1;17(13):1755–7

Differential expression of genes involved in the biosynthesis and perception of ethylene during ripening of passion fruit (Passiflora edulis Sims). Mita S, et al. **Plant Cell Physiol** 1998 Nov;39(11):1209–17

Transcript level for a gene encoding a putative type 1a plasma membrane receptor is induced by gibberellin in deepwater rice. van der Knaap E, et al. **Plant Cell Physiol** 1998 Nov; 39(11):1127–32

Differential expression and internal feedback regulation of 1-aminocyclopropane-1-carboxylate synthase, 1-aminocyclopropane-1-carboxylate oxidase, and ethylene receptor genes in tomato fruit during development and ripening. Nakatsuka A, et al. **Plant Physiol** 1998 Dec; 118(4):1295–305

Stage- and tissue-specific expression of ethylene receptor homolog genes during fruit development in muskmelon. Sato-Nara K, et al. **Plant Physiol** 1999 May;120(1):321–30

Differential expression of two novel members of the tomato ethylene-receptor family. Tieman DM, et al. **Plant Physiol** 1999 May;120(1):165–72

Antisense targeting of the urokinase receptor blocks urokinase-dependent proliferation, chemoinvasion, and chemotaxis of human synovial cells and chondrocytes in vitro. Fibbi G, et al. **Proc Assoc Am Physicians** 1998 Jul-Aug;110(4):340–50

Myeloid DAP12-associating lectin (MDL)-1 is a cell surface receptor involved in the activation of myeloid cells. Bakker AB, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9792–6

Target genes of beta-catenin-T cell-factor/lymphoid-enhancer-factor signaling in human colorectal carcinomas. Mann B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1603–8

Xenopus laevis sperm receptor gp69/64 glycoprotein is a homolog of the mammalian sperm receptor ZP2. Tian J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):829–34

A newly developed assay for melatonin using cells expressing human mel-1a receptor. Ozeki Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):247–8

Identification of a novel G-protein coupled receptor expressed in distinct brain regions and a defined olfactory zone. Raming K, et al. **Receptors Channels** 1998;6(2):141–51

Two iron-regulated putative ferric siderophore receptor genes in Bordetella bronchiseptica and Bordetella pertussis. Beall B. **Res Microbiol** 1998 Mar;149(3):189–201

Auxin-dependent cell expansion mediated by overexpressed auxin-binding protein 1. Jones AM, et al. **Science** 1998 Nov 6;282(5391):1114–7

Extended life-span and stress resistance in the Drosophila mutant methuselah [see comments] Lin YJ, et al. **Science** 1998 Oct 30;282(5390):943–6. Comment in: Science 1998 Oct 30;282(5390):856.

Molecular origin of species [comment] Nei M, et al. **Science** 1998 Nov 20;282(5393):1428–9. Comment on: Science 1998 Nov 20;282(5393):1501–4.

The context of molecular data [letter; comment] Penney BK. **Science** 1998 Dec 11;282(5396):1992–3. Comment on: Science 1998 Oct 30;282(5390):856.

Single gene controls fruit fly life-span [news; comment] [see comments] Pennisi E. **Science** 1998 Oct 30;282(5390):856. Comment on: Science 1998 Oct 30;282(5390):943–6. Comment in: Science 1998 Dec 11;282(5396):1992–3. Comment in: Science 1999 Mar 26;283(5410):2019.

Defective LPS signaling in C3H/HeJ and C57BL/10ScCr mice: mutations in Tlr4 gene. Poltorak A, et al. **Science** 1998 Dec 11;282(5396):2085–8

Binding of human single chain urokinase to Chinese Hamster Ovary cells and cloning of hamster u-PAR. Fowler B, et al. **Thromb Haemost** 1998 Jul;80(1):148–54

Nucleotide structure and characterization of the murine gene encoding the endothelial cell protein C receptor. Liang Z, et al. **Thromb Haemost** 1999 Apr;81(4):585–8

Native atherosclerosis and vein graft arterialization: association with increased urokinase receptor expression in vitro and in vivo. Okada SS, et al. **Thromb Haemost** 1998 Jul;80(1):140–7

Proteolytically activated receptor-3. A member of an emerging gene family of protease receptors expressed on vascular endothelial cells and platelets. Cupit LD, et al. **Trends Cardiovasc Med** 1999 Jan-Feb;9(1-2):42–8 (39 ref.)

Many G-protein-coupled receptors are encoded by retrogenes [letter] Brosius J. **Trends Genet** 1999 Aug; 15(8):304–5

Why are human G-protein-coupled receptors predominantly intronless? [letter] Gentles AJ, et al. **Trends Genet** 1999 Feb;15(2):47–9 (12 ref.)

Host resistance to infection: genetic control of lipopolysaccharide responsiveness by TOLL-like receptor genes. Qureshi ST, et al. **Trends Genet** 1999 Aug; 15(8):291–4 (24 ref.)

7TM receptors: the splicing on the cake. Kilpatrick GJ, et al. **Trends Pharmacol Sci** 1999 Jul;20(7):294–301 (88 ref.)

Cloning, sequencing and site of origin of the rat sperm receptor protein, ZP3. Scobie GA, et al. **Zygote** 1999 Feb; 7(1):27–35

[Use of a G-protein-coupled receptor to communicate. An evolutionary success] Bockaert J, et al. **C R Acad Sci III** 1998 Jul;321(7):529–51 (131 ref.) (Eng. Abstr.) **(Fre)**

[Molecular analysis of the human "growth hormone secretagogue"-receptor] Petersenn S, et al. **Med Klin** 1999 Apr 15;94(4):202–6 (Eng. Abstr.) **(Ger)**

[Detection of receptor mRNAs using nonradioactive in situ hybridization] Shin M, et al. **Nippon Rinsho** 1998 Jul; 56(7):1667–73 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Variant type von Willebrand disease with defective binding to factor VIII] Shima M. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):430–3 (7 ref.) **(Jpn)**

IMMUNOLOGY

The frequency of occurrence of anti-cardiac receptor autoantibodies and their correlation with clinical manifestation in patients with hypertrophic cardiomyopathy. Peukert S, et al. **Autoimmunity** 1999; 29(4):291–7

Membrane receptors for soluble defense collagens. Tenner AJ. **Curr Opin Immunol** 1999 Feb;11(1):34–41 (79 ref.)

A lymphoid tissue-specific receptor, EDG6, with potential immune modulatory functions mediated by extracellular lysophospholipids. Gräler MH, et al. **Curr Top Microbiol Immunol** 1999;246:131–6; discussion 137 (31 ref.)

Human epidermal Langerhans cells lack functional mannose receptors and a fully developed endosomal/lysosomal compartment for loading of HLA class II molecules. Mommaas AM, et al. **Eur J Immunol** 1999 Feb;29(2):571–80

Characterization of two monoclonal antibodies against the RON tyrosine kinase receptor. Montero-Julian FA, et al. **Hybridoma** 1998 Dec;17(6):541–51

The mannose receptor mediates uptake of pathogenic and nonpathogenic mycobacteria and bypasses bactericidal responses in human macrophages. Astarie-Dequeker C, et al. **Infect Immun** 1999 Feb;67(2):469–77

Translocated intimin receptors (Tir) of Shiga-toxigenic Escherichia coli isolates belonging to serogroups O26, O111, and O157 react with sera from patients with hemolytic-uremic syndrome and exhibit marked sequence heterogeneity. Paton AW, et al. **Infect Immun** 1998 Nov; 66(11):5580–6

Analysis of the immunological responses to transferrin and lactoferrin receptor proteins from Moraxella catarrhalis. Yu RH, et al. **Infect Immun** 1999 Aug;67(8):3793–9

American Academy of Dermatology 1999 Awards for Young Investigators in Dermatology. Pemphigus vulgaris IgG regulates expression of urokinase receptor and junctional proteins that may contribute to acantholysis. Xue W. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):462–3

A member of the dendritic cell family that enters B cell follicles and stimulates primary antibody responses identified by a mannose receptor fusion protein. Berney C, et al. **J Exp Med** 1999 Sep 20;190(6):851–60

Deficiency in CD22, a B cell-specific inhibitory receptor, is sufficient to predispose to development of high affinity autoantibodies. O'Keefe TL, et al. **J Exp Med** 1999 Apr 19;189(8):1307–13

MD-2, a molecule that confers lipopolysaccharide responsiveness on Toll-like receptor 4. Shimazu R, et al. **J Exp Med** 1999 Jun 7;189(11):1777–82

Mouse CD94/NKG2A is a natural killer cell receptor for the nonclassical major histocompatibility complex (MHC) class I molecule Qa-1(b). Vance RE, et al. **J Exp Med** 1998 Nov 16;188(10):1841–8

Cutting edge: recognition of Gram-positive bacterial cell wall components by the innate immune system occurs via Toll-like receptor 2. Yoshimura A, et al. **J Immunol** 1999 Jul 1;163(1):1–5

Expression of recombinant mouse sperm protein sp56 and assessment of its potential for use as an antigen in an immunocontraceptive vaccine. Hardy CM, et al. **Mol Reprod Dev** 1999 Feb;52(2):216–24

Natural killer cells fertile with receptors for HLA-G? [see comments] Lanier LL. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5343–5. Comment in: Proc Natl Acad Sci U S A 1999 May 11;96(10):5674–9.

Human CD16 as a lysis receptor mediating direct natural killer cell cytotoxicity. Mandelboim O, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5640–4

Mapping the sensitivity of T cells with an optical trap: polarity and minimal number of receptors for Ca(2+) signaling. Wei X, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8471–6

Partial agonists and G protein–coupled receptor desensitization. Clark RB, et al. **Trends Pharmacol Sci** 1999 Jul;20(7):279–86 (63 ref.)

[The evaluation of expression of T-lymphocytes and NK cell surface receptors in women with threatened miscarriage] Jerzak M, et al. **Ginekol Pol** 1998 Dec; 69(12):923–9 (Eng. Abstr.) **(Pol)**

ISOLATION & PURIFICATION

Identification of a new high-affinity binding protein for neurotoxic phospholipases A2. Vučemilo N, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):209–12

The P histo-blood group-related glycosphingolipid sialosyl galactosyl globoside as a preferred binding receptor for uropathogenic Escherichia coli: isolation and structural characterization from human kidney. Stroud MR, et al. **Biochemistry** 1998 Dec 15;37(50):17420–8

Schistosoma TOR (trispanning orphan receptor), a novel, antigenic surface receptor of the blood–dwelling, Schistosoma parasite. Inal JM. **Biochim Biophys Acta** 1999 Jun 9;1445(3):283–98

Characterization of E-selectin-binding epitopes expressed by skin-homing T cells. Priest R, et al. **Immunology** 1998 Aug; 94(4):523–8

The putative sponge aggregation receptor. Isolation and characterization of a molecule composed of scavenger receptor cysteine-rich domains and short consensus repeats. Blumbach B, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2635–44

The quest for novel bioactive peptides utilizing orphan seven-transmembrane-domain receptors. Hinuma S, et al. **J Mol Med** 1999 Jun;77(6):495–504 (64 ref.)

Isolation of synaptotagmin as a receptor for types A and E botulinum neurotoxin and analysis of their comparative binding using a new microtiter plate assay. Li L, et al. **J Nat Toxins** 1998 Oct;7(3):215–26

Use of mass spectrometric methods for protein identification in receptor research. Schrotz-King P, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):659–72

Isolation and characterization of kinectin. Kumar J, et al. **Methods Enzymol** 1998;298:185–97

Binding of enterostatin to the human neuroepithelioma cell line SK-N-MC. Berger K, et al. **Peptides** 1998; 19(9):1525–31

Myeloid DAP12-associating lectin (MDL)-1 is a cell surface receptor involved in the activation of myeloid cells. Bakker AB, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9792–6

METABOLISM

Zonal variation in the distribution of an alpha 1-acid glycoprotein glycoform receptor in human adrenal cortex. Andersen UO, et al. **Acta Histochem** 1999 Feb;101(1):113–9

Cell surface aggregation of elastin receptor molecules caused by suramin amplified signals leading to proliferation of human glioma cells. Hinek A, et al. **Acta Neuropathol (Berl)** 1999 Apr;97(4):399–407

Extracellular acidification: a novel detection system for ligand/receptor interactions. Demonstration with bioactive peptides and CHO or pancreatic beta cells, but of possible interest for tracing putative receptors in ethanol metabolism. Bonetto V, et al. **Adv Exp Med Biol** 1999; 463:351–8

Evidence for the existence of a surface receptor for ferriclactoferrin and ferrictransferrin associated with the plasma membrane of the protozoan parasite Leishmania donovani. Britigan BE, et al. **Adv Exp Med Biol** 1998; 443:135–40

Role of the first N-terminal basic cluster of human lactoferrin (R2R3R4R5) in the interactions with the Jurkat human lymphoblastic T-cells. Legrand D, et al. **Adv Exp Med Biol** 1998;443:49–55

Identification and analysis of a CA(2+)-dependent lactoferrin receptor in rat liver. Lactoferrin binds to the asialoglycoprotein receptor in a galactose-independent manner. McAbee DD, et al. **Adv Exp Med Biol** 1998; 443:113–21

Bacterial lactoferrin receptors. Schryvers AB, et al. **Adv Exp Med Biol** 1998;443:123–33 (31 ref.)

Thyroid disease mediated by molecular defects in cell surface and nuclear receptors. Bodenner DL, et al. **Am J Med** 1998 Dec;105(6):524–38 (80 ref.)

Role and localization of urokinase receptor in the formation of new microvascular structures in fibrin matrices. Kroon ME, et al. **Am J Pathol** 1999 Jun;154(6):1731–42

Respiratory epithelial cells demonstrate lactoferrin receptors that increase after metal exposure. Ghio AJ, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L933–40

Basic FGF decreases clearance receptor of natriuretic peptides in fetoplacental artery endothelium. Itoh H, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R541–7

Interstrain differences in activity pattern, pineal function, and SCN melatonin receptor density of rats. Klante G, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1078–86

Structure and activity of OK-GC: a kidney receptor guanylate cyclase activated by guanylin peptides. London RM, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F882–91

Hepatocyte nuclear factor-4 regulates intestinal expression of the guanylin/heat-stable toxin receptor. Swenson ES, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G728–36

Mediation of attachment of Burkholderia pseudomallei to human pharyngeal epithelial cells by the asialoganglioside GM1-GM2 receptor complex. Gori AH, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):473–5

Determination of ligand binding affinities for endogenous seven-transmembrane receptors using fluorometric microvolume assay technology. Mellentin-Michelotti J, et al. **Anal Biochem** 1999 Aug 1;272(2):182–90

An automated aequorin luminescence-based functional calcium assay for G-protein-coupled receptors. Ungrin MD, et al. **Anal Biochem** 1999 Jul 15;272(1):34–42

Ovarian cancer-associated lymphocyte recognition of folate binding protein peptides. Peoples GE, et al. **Ann Surg Oncol** 1998 Dec;5(8):743–50

G protein-coupled receptor kinases. Pitcher JA, et al. **Annu Rev Biochem** 1998;67:653–92 (255 ref.)

Receptor-mediated endocytosis of cobalamin (vitamin B12). Seetharam B. **Annu Rev Nutr** 1999;19:173–95 (93 ref.)

Desensitization of G-protein-coupled receptors in the cardiovascular system. Bünemann M, et al. **Annu Rev Physiol** 1999;61:169–92 (148 ref.)

Characterization of P1,P4-diadenosine 5'-tetraphosphate binding on bovine aortic endothelial cells. Campbell SA, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):280–5

High-affinity folate receptor in human ovary, serous ovarian adenocarcinoma, and ascites: radioligand binding mechanism, molecular size, ionic properties, hydrophobic domain, and immunoreactivity. Holm J, et al. **Arch Biochem Biophys** 1999 Jun 15;366(2):183–91

Protease expression in dedifferentiated parosteal osteosarcoma. Haeckel C, et al. **Arch Pathol Lab Med** 1999 Mar;123(3):213–21

At least two receptors of asymmetric acetylcholinesterase are present at the synaptic basal lamina of Torpedo electric organ. Casanueva OI, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):312–7

Hamster diphtheria toxin receptor: a naturally occurring chimera of monkey and mouse HB-EGF precursors. Cha JH, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):325–9

Cell surface n-acetylneuraminic acid alpha2,3-galactoside-dependent intercellular adhesion of human colon cancer cells. Dimitroff CJ, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):631–6

High extracellular calcium inhibits osteoclast-like cell formation by directly acting on the calcium-sensing receptor existing in osteoclast precursor cells. Kanatani M, et al. **Biochem Biophys Res Commun** 1999 Jul 22; 261(1):144–8

Adamantyl globotriaosyl ceramide: a monovalent soluble mimic which inhibits verotoxin binding to its glycolipid receptor. Mylvaganam M, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):391–4

Alteration by maternal pinealectomy of fetal and neonatal melatonin and dopamine D1 receptor binding in the suprachiasmatic nuclei. Naitoh N, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):850–4

EDG3 is a functional receptor specific for sphingosine 1-phosphate and sphingosylphosphorylcholine with signaling characteristics distinct from EDG1 and AGR16. Okamoto H, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):203–8

Identification of a Wnt-responsive signal transduction pathway in primary endothelial cells. Wright M, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):384–8

Activation of Gi1 by lysophosphatidic acid receptor without ligand in the baculovirus expression system. Yoshida A, et al. **Biochem Biophys Res Commun** 1999 May 27; 259(1):78–84

Receptor-activated Ca2+ inflow in animal cells: a variety of pathways tailored to meet different intracellular Ca2+ signalling requirements. Barritt GJ. **Biochem J** 1999 Jan 15;337 (Pt 2):153–69 (203 ref.)

Receptors linked to polyphosphoinositide hydrolysis stimulate Ca2+ extrusion by a phospholipase C-independent mechanism. Broad LM, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):199–206

The novel sphingosine 1-phosphate receptor AGR16 is coupled via pertussis toxin-sensitive and -insensitive G-proteins to multiple signalling pathways. Gonda K, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):67–75

Iron loading of isolated rat hepatocytes inhibits asialoglycoprotein receptor dynamics and induces formation of rat hepatic lectin-1 [correction of leptin-1] (RHL-1) oligomers [published erratum appears in Biochem J 1998 Sep 15;334(Pt 3):743] McAbee DD, et al. **Biochem J** 1998 May 1;331 (Pt 3):719–26

Differential signaling of human Mel1a and Mel1b melatonin receptors through the cyclic guanosine 3'-5'-monophosphate pathway. Petit L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):633–9

Proteinase-activated receptors: a growing family of heptahelical receptors for thrombin, trypsin and tryptase. Déry O, et al. **Biochem Soc Trans** 1999 Feb;27(2):246–54 (50 ref.)

BipA affects Ca++ fluxes and phosphorylation of the translocated intimin receptor (Tir/Hp90) in host epithelial cells infected with enteropathogenic E. coli. Farris M, et al. **Biochem Soc Trans** 1998 Aug;26(3):S225

A novel approach to the analysis of the clonal expression of a putative membrane receptor stably transfected in a human cell line. Herrity NC, et al. **Biochem Soc Trans** 1998 Nov;26(4):S363

Diversity in the signalling and regulation of G-protein-coupled receptors. Milligan G, et al. **Biochem Soc Trans** 1999 Feb;27(2):149–54 (33 ref.)

Receptor mediated apoptosis of CD8+T cells by the B subunits of cholera-like enterotoxins. Pitman RS, et al. **Biochem Soc Trans** 1998 Nov;26(4):S338

Carboxy-terminal processing of the urokinase receptor: implications for substrate recognition and glycosylphosphatidylinositol anchor addition. Aceto J, et al. **Biochemistry** 1999 Jan 19;38(3):992–1001

Tryptophan B27 in the relaxin-like factor (RLF) is crucial for RLF receptor-binding. Büllesbach EE, et al. **Biochemistry** 1999 Mar 9;38(10):3073–8

Human DNase I contains mannose 6-phosphate and binds the cation-independent mannose 6-phosphate receptor. Cacia J, et al. **Biochemistry** 1998 Oct 27;37(43):15154–61

Assembly of urokinase receptor-mediated plasminogen activation complexes involves direct, non-active-site interactions between urokinase and plasminogen. Ellis V, et al. **Biochemistry** 1999 Jan 12;38(2):651–9

The p11 subunit of the annexin II tetramer plays a key role in the stimulation of t-PA-dependent plasminogen activation. Kassam G, et al. **Biochemistry** 1998 Dec 1; 37(48):16958–66

A major G protein alpha O isoform in bovine brain is deamidated at Asn346 and Asn347, residues involved in receptor coupling. McIntire WE, et al. **Biochemistry** 1998 Oct 20;37(42):14651–8

Identification of specific sites involved in ligand binding by photoaffinity labeling of the receptor for the urokinase-type plasminogen activator. Residues located at equivalent positions in uPAR domains I and III participate in the assembly of a composite ligand-binding site. Ploug M. **Biochemistry** 1998 Nov 24;37(47):16494–505

Formation and biochemical characterization of tube/pelle death domain complexes: critical regulators of postreceptor signaling by the Drosophila toll receptor. Schiffmann DA, et al. **Biochemistry** 1999 Sep 7;38(36):11722–33

Membrane domain formation by calcium-dependent, lipid-binding proteins: insights from the C2 motif. Hinderliter AK, et al. **Biochim Biophys Acta** 1998 Dec 10; 1448(2):227–35

Interactions of surfactant protein A with epithelial cells and phagocytes. Tino MJ, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2–3):241–63 (112 ref.)

Thyroglobulin binding and TSH regulation of the RHL-1 subunit of the asialoglycoprotein receptor in rat thyroid. Pacifico F, et al. **Biochimie** 1999 May;81(5):493–6

Microdistribution of substratum-bound ligands affects cell function: hepatocyte spreading on PEO-tethered galactose. Griffith LG, et al. **Biomaterials** 1998 Jun;19(11–12):979–86

Binding of HIV-1 to RBCs involves the Duffy antigen receptors for chemokines (DARC). Lachgar A, et al. **Biomed Pharmacother** 1998;52(10):436–9

Synthesis of benzocycloalkane derivatives as new conformationally restricted ligands for melatonin receptors. Kloubert S, et al. **Bioorg Med Chem Lett** 1998 Dec 1; 8(23):3325–30

Steric effects on multivalent ligand-receptor binding: exclusion of ligand sites by bound cell surface receptors. Hlavacek WS, et al. **Biophys J** 1999 Jun;76(6):3031–43

Probabilistic modeling of shear-induced formation and breakage of doublets cross-linked by receptor-ligand bonds. Long M, et al. **Biophys J** 1999 Feb;76(2):1112–28

Macrophage mannosyl fucosyl receptor: its role in invasion of virulent and avirulent L. donovani promastigotes. Chakraborty R, et al. **Biosci Rep** 1998 Jun;18(3):129–42

An analysis of analyte-receptor binding kinetics for biosensor applications: influence of the fractal dimension on the binding rate coefficient. Sadana A. **Biosens Bioelectron** 1998 Nov 1;13(10):1127–40

Increased clearance explains lower plasma levels of tissue-type plasminogen activator by estradiol: evidence for potently enhanced mannose receptor expression in mice. Lansink M, et al. **Blood** 1999 Aug 15;94(4):1330–6

Characterization of cell-associated plasminogen activation catalyzed by urokinase-type plasminogen activator, but independent of urokinase receptor (uPAR, CD87). Longstaff C, et al. **Blood** 1999 Jun 1;93(11):3839–46

Lack of DMBT1 expression in oesophageal, gastric and colon cancers. Mori M, et al. **Br J Cancer** 1999 Jan;79(2):211–3

Down-regulation and redistribution of GPV/GPVf2, a subunit of von Willebrand factor receptor (GPIb/IX/V complex), on the surface membrane of thrombin-stimulated human platelets. Kawano H, et al. **Br J Haematol** 1999 Jan;104(1):55–63

Expression and functional role of urokinase-type plasminogen activator receptor in normal and acute leukaemic cells. Lanza F, et al. **Br J Haematol** 1998 Oct; 103(1):110–23

Immunolocalisation of the VEGF receptors FLT-1, KDR, and FLT-4 in diabetic retinopathy. Smith G, et al. **Br J Ophthalmol** 1999 Apr;83(4):486–94

Selective inhibition of M-type potassium channels in rat sympathetic neurons by uridine nucleotide preferring receptors. Boehm S. **Br J Pharmacol** 1998 Jul;124(6):1261–9

Orphan G-protein-coupled receptors: the next generation of drug targets? Wilson S, et al. **Br J Pharmacol** 1998 Dec;

125(7):1387–92 (25 ref.)
African trypanosomiasis in the rat alters melatonin secretion and melatonin receptor binding in the suprachiasmatic nucleus. Kristensson K, et al. **Brain Res Bull** 1998 Oct; 47(3):265–9
Identification and characterization of RPTP rho, a novel RPTP mu/kappa–like receptor protein tyrosine phosphatase whose expression is restricted to the central nervous system. McAndrew PE, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):9–21
Relationship between Ca–dependent change of serum PTH and extracellular Ca2+–sensing receptor expression in parathyroid adenoma. Kaneko C, et al. **Calcif Tissue Int** 1999 Mar;64(3):271–2
Role of the plasminogen activator and matrix metalloproteinase systems in epidermal growth factor– and scatter factor–stimulated invasion of carcinoma cells. Rosenthal EL, et al. **Cancer Res** 1998 Nov 15; 58(22):5221–30
Chimeric axon guidance receptors: the cytoplasmic domains of slit and netrin receptors specify attraction versus repulsion [see comments] Bashaw GJ, et al. **Cell** 1999 Jun 25;97(7):917–26. Comment in: Cell 1999 Jun 25;97(7):821–4.
A ligand–gated association between cytoplasmic domains of UNC5 and DCC family receptors converts netrin–induced growth cone attraction to repulsion [see comments] Hong K, et al. **Cell** 1999 Jun 25;97(7):927–41. Comment in: Cell 1999 Jun 25;97(7):821–4.
Attraction versus repulsion: modular receptors make the difference in axon guidance [comment] Seeger MA, et al. **Cell** 1999 Jun 25;97(7):821–4 (14 ref.). Comment on: Cell 1999 Jun 25;97(7):917–26. Comment on: Cell 1999 Jun 25;97(7):927–41.
Rhodopsin's carboxy–terminal cytoplasmic tail acts as a membrane receptor for cytoplasmic dynein by binding to the dynein light chain Tctex–1. Tai AW, et al. **Cell** 1999 Jun 25;97(7):877–87
Plexin A is a neuronal semaphorin receptor that controls axon guidance. Winberg ML, et al. **Cell** 1998 Dec 23; 95(7):903–16
Analysis of spatial distributions of cellular molecules during mechanical stressing of cell surface receptors using confocal microscopy. Rychly J, et al. **Cell Biol Int** 1998; 22(1):7–12
Cell activation by glycated proteins. AGE receptors, receptor recognition factors and functional classification of AGEs. Thornalley PJ. **Cell Mol Biol (Noisy–le–grand)** 1998 Nov;44(7):1013–23 (70 ref.)
G–protein–linked receptors as tyrosine kinase substrates: new paradigms in signal integration. Malbon CC, et al. **Cell Signal** 1998 Sep;10(8):523–7 (23 ref.)
G protein–coupled receptor signalling in the kidney. Weiss RH. **Cell Signal** 1998 May;10(5):313–20 (82 ref.)
A cardiomyocyte mannose receptor system is involved in Trypanosoma cruzi invasion and is down–modulated after infection. Soeiro M de N, et al. **Cell Struct Funct** 1999 Jun;24(3):139–49
Scratching the (cell) surface: cytokine engineering for improved ligand/receptor trafficking dynamics. Lauffenburger DA, et al. **Chem Biol** 1998 Oct; 5(10):R257–63 (58 ref.)
Analysis of the characteristics of folate binding proteins and its relationship with expression of multidrug resistance P–glycoprotein in myelodysplastic syndromes. Chen J, et al. **Chin Med J (Engl)** 1998 Mar;111(3):235–8
Melatonin: a chemical photoperiodic signal with clinical significance in humans. Pang SF, et al. **Chin Med J (Engl)** 1998 Mar;111(3):197–203 (69 ref.)
Urokinase receptor (uPAR, CD87) is a platelet receptor important for kinetics and TNF–induced endothelial adhesion in mice. Piguet PF, et al. **Circulation** 1999 Jun 29;99(25):3315–21
Vitronectin binding to urokinase receptor in human breast cancer. Carriero MV, et al. **Clin Cancer Res** 1997 Aug; 3(8):1299–308
Chromatin clearance in C57Bl/10 mice: interaction with heparan sulphate proteoglycans and receptors on Kupffer cells. Du Clos TW, et al. **Clin Exp Immunol** 1999 Aug; 117(2):403–11
IL–10 down–regulates T cell activation by antigen–presenting liver sinusoidal endothelial cells through decreased antigen uptake via the mannose receptor and lowered surface expression of accessory molecules. Knolle PA, et al. **Clin Exp Immunol** 1998 Dec; 114(3):427–33
Invasion by esophageal cancer cells: functional contribution of the urokinase plasminogen activation system, and inhibition by antisense oligonucleotides to urokinase or urokinase receptor. Morrissey D, et al. **Clin Exp Metastasis** 1999 Feb;17(1):77–85
GFR alpha–4 and the tyrosine kinase Ret form a functional receptor complex for persephin. Enokido Y, et al. **Curr Biol** 1998 Sep 10;8(18):1019–22
Cytokinin action: two receptors better than one? Estelle M. **Curr Biol** 1998 Jul 16;8(15):R539–41 (9 ref.)
Ethylene signalling: redundant receptors all have their say. Theologis A. **Curr Biol** 1998 Dec 3;8(24):R875–8 (16 ref.)
Is another mannose receptor–like lectin present in retinal pigment epithelium? Wilt SD, et al. **Curr Eye Res** 1999 Jul;19(1):1–3
NMR of drugs and ligands bound to membrane receptors. Watts A. **Curr Opin Biotechnol** 1999 Feb;10(1):48–53 (46 ref.)
Oligosaccharide receptors for bacteria: a view to a kill. Lingwood CA. **Curr Opin Chem Biol** 1998 Dec; 2(6):695–700 (57 ref.)
Sperm–egg binding in the sea urchin: a high level of intracellular ATP stabilizes sperm attachment to the egg receptor. Hirohashi N, et al. **Dev Biol** 1998 Sep 15; 201(2):270–9
A developmental pathway controlling outgrowth of the Xenopus tail bud. Beck CW, et al. **Development** 1999 Apr; 126(8):1611–20
Synergistic signaling by two BMP ligands through the SAX and TKV receptors controls wing growth and patterning in Drosophila. Haerry TE, et al. **Development** 1998 Oct; 125(20):3977–87
Notch signaling imposes two distinct blocks in the differentiation of C2C12 myoblasts. Nofziger D, et al. **Development** 1999 Apr;126(8):1689–702
Phosphorylation modulates direct interactions between the Toll receptor, Pelle kinase and Tube. Shen B, et al. **Development** 1998 Dec;125(23):4719–28
LvNotch signaling mediates secondary mesenchyme specification in the sea urchin embryo. Sherwood DR, et al. **Development** 1999 Apr;126(8):1703–13
Diadenosine polyphosphates in insulin–secreting cells: interaction with specific receptors and degradation. Verspohl EJ, et al. **Diabetes** 1998 Nov;47(11):1727–34
Urokinase receptor–dependent and –independent p56/59(hck) activation state is a molecular switch between myelomonocytic cell motility and adherence. Chiaradonna F, et al. **EMBO J** 1999 Jun 1;18(11):3013–23
Regulation of embryonic/fetal globin genes by nuclear hormone receptors: a novel perspective on hemoglobin switching. Filipe A, et al. **EMBO J** 1999 Feb 1;18(3):687–97
Inhibition of the receptor–binding function of clathrin adaptor protein AP–2 by dominant–negative mutant mu2 subunit and its effects on endocytosis. Nesterov A, et al. **EMBO J** 1999 May 4;18(9):2489–99
OCA–B integrates B cell antigen receptor–, CD40L– and IL 4–mediated signals for the germinal center pathway of B cell development. Qin XF, et al. **EMBO J** 1998 Sep 1;17(17):5066–75
PI 3–kinase gamma and protein kinase C–zeta mediate RAS–independent activation of MAP kinase by a Gi protein–coupled receptor. Takeda H, et al. **EMBO J** 1999 Jan 15;18(2):386–95
Regulation of PAMP and adrenomedullin receptor expression in the rat adrenal zona glomerulosa. Kapas S, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):717–20
Abnormal expression and function of hormone receptors in adrenal Cushing's syndrome. Lacroix A, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):835–43 (24 ref.)
Effect of chronic thyroxine treatment on pregnancy in rats: effects on oestrogen, progesterone, prolactin and GH receptors in uterus, liver and mammary gland. Rosato RR, et al. **Endocr Res** 1998 May;24(2):269–84
Ligand recognition and domain structure of Vps10p, a vacuolar protein sorting receptor in Saccharomyces cerevisiae. Jørgensen MU, et al. **Eur J Biochem** 1999 Mar; 260(2):461–9
Cell death by overload of the elastin–laminin receptor on human activated lymphocytes: protection by lactose and melibiose. Péterszegi G, et al. **Eur J Clin Invest** 1999 Feb; 29(2):166–72
Cancer chemotherapy based on targeting of cytotoxic peptide conjugates to their receptors on tumors. Schally AV, et al. **Eur J Endocrinol** 1999 Jul;141(1):1–14 (102 ref.)
Expression and functional role of urokinase–type plasminogen activator receptor (UPA–R; CD87) in normal and acute leukemia cells. Castagnari B, et al. **Eur J Histochem** 1997;41 Suppl 2:109–10
M6P/IGFII–receptor complexes urokinase receptor and plasminogen for activation of transforming growth factor–beta1. Godár S, et al. **Eur J Immunol** 1999 Mar; 29(3):1004–13
Effects of transient oxygen–glucose deprivation on G–proteins and G–protein–coupled receptors in rat CA3 pyramidal cells in vitro. Tanabe M, et al. **Eur J Neurosci** 1998 Jun;10(6):2037–45
Evidence for a G protein–coupled diadenosine–5',5'''–P1,P4–tetraphosphate (Ap4A) receptor binding site in lung membranes from rat. Laubinger W, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):93–100
The distribution of circulating receptors on COS 7 cells. Bretscher MS. **Exp Cell Res** 1999 May 1;248(2):552–6
SP–A binding sites on bovine alveolar macrophages. Plaga S, et al. **Exp Cell Res** 1998 Nov 25;245(1):116–22
Urokinase–type plasminogen activator binding to its receptor stimulates tumor cell migration by enhancing integrin–mediated signal transduction. Yebra M, et al. **Exp Cell Res** 1999 Jul 10;250(1):231–40
Proliferative disorders of the aging human prostate: involvement of protein hormones and their receptors. Untergasser G, et al. **Exp Gerontol** 1999 Apr;34(2):275–87
Membrane–bound calmodulin in Xenopus laevis oocytes as a novel binding site for melatonin. Romero MP, et al. **FASEB J** 1998 Oct;12(13):1401–8
Urokinase induces proliferation of human ovarian cancer cells: characterization of structural elements required for growth factor function. Fischer K, et al. **FEBS Lett** 1998 Oct 30;438(1–2):101–5
Isolation of a novel auxin receptor from soluble fractions of rice (Oryza sativa L.) shoots. Kim YS, et al. **FEBS Lett** 1998 Nov 6;438(3):241–4
The auxin–binding protein Nt–ERabp1 alone activates an auxin–like transduction pathway. Leblanc N, et al. **FEBS Lett** 1999 Apr 16;449(1):57–60
Caspase 7–induced cleavage of kinectin in apoptotic cells. Machleidt T, et al. **FEBS Lett** 1998 Sep 25;436(1):51–4
Activation of phospholipase C–Ca2+ system by sphingosine 1–phosphate in CHO cells transfected with Edg–3, a putative lipid receptor. Sato K, et al. **FEBS Lett** 1999 Jan 22;443(1):25–30
Extensive proteolysis inhibits high–level production of eukaryal G protein–coupled receptors in the archaeon Haloferax volcanii. Patenge N, et al. **FEMS Microbiol Lett** 1999 Feb 1;171(1):27–35
Biological significance of the expression of urokinase–type plasminogen activator receptors (uPARs) in brain tumors. Mohanam S, et al. **Front Biosci** 1999 Feb 15;4:D178–87 (113 ref.)
Decreased affinity of urinary intrinsic factor–cobalamin receptor in a case of Gräsbeck–Imerslund syndrome [letter] Guéant JL, et al. **Gastroenterology** 1999 May;116(5):1274–6
Spatio–temporally regulated expression of receptor tyrosine kinases, mRor1, mRor2, during mouse development: implications in development and function of the nervous system. Oishi I, et al. **Genes Cells** 1999 Jan;4(1):41–56
ECSIT is an evolutionarily conserved intermediate in the Toll/IL–1 signal transduction pathway. Kopp E, et al. **Genes Dev** 1999 Aug 15;13(16):2059–71
EDG6, a novel G–protein–coupled receptor related to receptors for bioactive lysophospholipids, is specifically expressed in lymphoid tissue. Gräler MH, et al. **Genomics** 1998 Oct 15;53(2):164–9
Cloning of a novel G–protein–coupled receptor GPR 51 resembling GABAB receptors expressed predominantly in nervous tissues and mapped proximal to the hereditary sensory neuropathy type 1 locus on chromosome 9. Ng GY, et al. **Genomics** 1999 Mar 15;56(3):288–95
Effect of in vitro aging on the modulation of protein and fibronectin biosynthesis by the elastin–laminin receptor in human skin fibroblasts. Fodil–Bourahla I, et al. **Gerontology** 1999 Jan–Feb;45(1):23–30
Identification and functional characterization of the mannose receptor in astrocytes. Burudi EM, et al. **Glia** 1999 Jan; 25(1):44–55
Extracellular calcium–sensing receptor in rat oligodendrocytes: expression and potential role in regulation of cellular proliferation and an outward K+ channel. Chattopadhyay N, et al. **Glia** 1998 Dec; 24(4):449–58
Tenascin–C inhibits beta1 integrin–dependent cell adhesion and neurite outgrowth on fibronectin by a disialoganglioside–mediated signaling mechanism. Probstmeier R, et al. **Glycobiology** 1999 Feb;9(2):101–14
Urokinase type plasminogen activator receptor expression in colorectal neoplasms [see comments] Suzuki S, et al. **Gut** 1998 Dec;43(6):798–805. Comment in: Gut 1998 Dec;43(6):739–40.
von Willebrand factor contained in a high purity FVIII concentrate (Fanhdi) binds to platelet glycoproteins and supports platelet adhesion to subendothelium under flow conditions. Rivera J, et al. **Haematologica** 1999 Jan; 84(1):5–11
Perioperative changes in hepatic function as assessed by asialoglycoprotein receptor indices by technetium 99m galactosyl human serum albumin. Tanaka A, et al. **Hepatogastroenterology** 1999 Jan–Feb;46(25):369–75
Secretory low–molecular–weight phospholipases A2 and their specific receptor in bile ducts of patients with intrahepatic calculi: factors of chronic proliferative cholangitis. Shoda J, et al. **Hepatology** 1999 Apr; 29(4):1026–36
Collagen–platelet interaction: platelet non–integrin receptors. Chiang TM. **Histol Histopathol** 1999 Apr;14(2):579–85 (93 ref.)
Correlating notch signaling with thymocyte maturation. Deftos ML, et al. **Immunity** 1998 Dec;9(6):777–86
C3 molecules internalize and enhance the growth of Lewis lung carcinoma cells. di Renzo L, et al. **Immunobiology** 1999 Feb;200(1):92–105
Elevated plasminogen receptor expression occurs as a degradative phase event in cellular apoptosis. O'Mullane MJ, et al. **Immunol Cell Biol** 1999 Jun;77(3):249–55
Protection of cells from complement–mediated attack: CD59 receptor clustering for the entry of macromolecules into hematopoietic cells. Wojda U, et al. **Immunol Invest** 1999 Mar–May;28(2–3):127–35
Potential role of the mannose receptor in antigen transport. Martínez–Pomares L, et al. **Immunol Lett** 1999 Jan; 65(1–2):9–13
Enterohemorrhagic Escherichia coli O157:H7 produces Tir, which is translocated to the host cell membrane but is not tyrosine phosphorylated. DeVinney R, et al. **Infect Immun** 1999 May;67(5):2389–98
Wheat germ agglutinin induces NADPH–oxidase activity in human neutrophils by interaction with mobilizable receptors. Karlsson A. **Infect Immun** 1999 Jul;67(7):3461–8
Identification of two laminin–binding fimbriae, the type 1 fimbria of Salmonella enterica serovar typhimurium and the G fimbria of Escherichia coli, as plasminogen receptors. Kukkonen M, et al. **Infect Immun** 1998 Oct;66(10):4965–70

Identification of surface molecules on salivary glands of the mosquito, Aedes aegypti, by a panel of monoclonal antibodies. Barreau C, et al. **Insect Biochem Mol Biol** 1999 Jun;29(6):515–26

Hypoxia-mediated stimulation of carcinoma cell invasiveness via upregulation of urokinase receptor expression. Graham CH, et al. **Int J Cancer** 1999 Feb 9;80(4):617–23

pap, reg Ialpha and reg Ibeta mRNAs are concomitantly up-regulated during human colorectal carcinogenesis. Rechreche H, et al. **Int J Cancer** 1999 May 31;81(5):688–94

Interleukin-10 increases mannose receptor expression and endocytic activity in monocyte-derived dendritic cells. Longoni D, et al. **Int J Clin Lab Res** 1998;28(3):162–9

Localization of urokinase-type plasminogen activator, its receptor, and inhibitors in mouse forebrain during postnatal development. Del Bigio MR, et al. **Int J Dev Neurosci** 1999 Jul;17(4):387–99

Receptor-mediated interleukin-2 gene transfer into human hepatoma cells. Junbo H, et al. **Int J Mol Med** 1999 Jun; 3(6):601–8

Elevation of urokinase-type plasminogen activator and its receptor densities as new predictors of disease progression and prognosis in men with prostate cancer. Miyake H, et al. **Int J Oncol** 1999 Mar;14(3):535–41

Modulation of tumor cell motility by plasmin. Chikahisa L, et al. **Invasion Metastasis** 1997;17(6):323–33

Bone morphogenic proteins 2 and 4 and their receptors in the adult human cornea. Mohan RR, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2626–36

Reduced expression of the renal calcium-sensing receptor in rats with experimental chronic renal insufficiency. Mathias RS, et al. **J Am Soc Nephrol** 1998 Nov; 9(11):2067–74

Comparison in vitro of a high- and a low-abundance chemoreceptor of Escherichia coli: similar kinase activation but different methyl-accepting activities. Barnakov AN, et al. **J Bacteriol** 1998 Dec;180(24):6713–8

Use of heme-protein complexes by the Yersinia enterocolitica HemR receptor: histidine residues are essential for receptor function. Bracken CS, et al. **J Bacteriol** 1999 Oct; 181(19):6063–72

Essential role of the iron-regulated outer membrane receptor FauA in alcaligin siderophore-mediated iron uptake in Bordetella species. Brickman TJ, et al. **J Bacteriol** 1999 Oct;181(19):5958–66

Ferric enterobactin binding and utilization by Neisseria gonorrhoeae. Carson SD, et al. **J Bacteriol** 1999 May; 181(9):2895–901

In vitro analysis of the butyrolactone autoregulator receptor protein (FarA) of Streptomyces lavendulae FRI-5 reveals that FarA acts as a DNA-binding transcriptional regulator that controls its own synthesis. Kitani S, et al. **J Bacteriol** 1999 Aug;181(16):5081–4

HmbR, a hemoglobin-binding outer membrane protein of Neisseria meningitidis, undergoes phase variation. Richardson AR, et al. **J Bacteriol** 1999 Apr;181(7):2067–74

Nucleotide exchange in genomic DNA of rat hepatocytes using RNA/DNA oligonucleotides. Targeted delivery of liposomes and polyethyleneimine to the asialoglycoprotein receptor. Bandyopadhyay P, et al. **J Biol Chem** 1999 Apr 9;274(15):10163–72

Cripto-1 indirectly stimulates the tyrosine phosphorylation of erb B-4 through a novel receptor. Bianco C, et al. **J Biol Chem** 1999 Mar 26;274(13):8624–9

The agonist-binding domain of the calcium-sensing receptor is located at the amino-terminal domain. Bräuner-Osborne H, et al. **J Biol Chem** 1999 Jun 25;274(26):18382–6

Molecular and functional identification of a Ca2+ (polyvalent cation)-sensing receptor in rat pancreas. Bruce JI, et al. **J Biol Chem** 1999 Jul 16;274(29):20561–8

The subcellular localizations of atypical synaptotagmins III and VI. Synaptotagmin III is enriched in synapses and synaptic plasma membranes but not in synaptic vesicles. Butz S, et al. **J Biol Chem** 1999 Jun 25;274(26):18290–6

Pyrimidinoceptor-mediated potentiation of inducible nitric-oxide synthase induction in J774 macrophages. Role of intracellular calcium. Chen BC, et al. **J Biol Chem** 1998 Nov 6;273(45):29754–63

Toll-like receptor-4 mediates lipopolysaccharide-induced signal transduction. Chow JC, et al. **J Biol Chem** 1999 Apr 16;274(16):10689–92

Reciprocal antagonism coordinates C-type natriuretic peptide and mitogen-signaling pathways in fibroblasts. Chrisman TD, et al. **J Biol Chem** 1999 Feb 12;274(7):4293–9

Analysis of estrogen response element binding by genetically selected steroid receptor DNA binding domain mutants exhibiting altered specificity and enhanced affinity. Chusacultanachai S, et al. **J Biol Chem** 1999 Aug 13; 274(33):23591–8

Both group IB and group IIA secreted phospholipases A2 are natural ligands of the mouse 180-kDa M-type receptor. Cupillard L, et al. **J Biol Chem** 1999 Mar 12; 274(11):7043–51

Chemical probes that differentially modulate peroxisome proliferator-activated receptor alpha and BLTR, nuclear and cell surface receptors for leukotriene B(4). Devchand PR, et al. **J Biol Chem** 1999 Aug 13;274(33):23341–8

A carboxyl-terminal domain controls the cooperativity for extracellular Ca2+ activation of the human calcium sensing receptor. A study with receptor-green fluorescent protein fusions. Gama L, et al. **J Biol Chem** 1998 Nov 6; 273(45):29712–8

Differential involvement of Galpha12 and Galpha13 in receptor-mediated stress fiber formation. Gohla A, et al. **J Biol Chem** 1999 Jun 18;274(25):17901–7

Use of a sandwich enzyme-linked immunosorbent assay strategy to study mechanisms of G protein-coupled receptor assembly. Jakubik J, et al. **J Biol Chem** 1999 Jan 15;274(3):1349–58

Mitogenic effects of urokinase on melanoma cells are independent of high affinity binding to the urokinase receptor. Koopman JL, et al. **J Biol Chem** 1998 Dec 11; 273(50):33267–72

Molecular dissection of the intrinsic factor-vitamin B12 receptor, cubilin, discloses regions important for membrane association and ligand binding. Kristiansen M, et al. **J Biol Chem** 1999 Jul 16;274(29):20540–4

Alternate coupling of receptors to Gs and Gi in pancreatic and submandibular gland cells. Luo X, et al. **J Biol Chem** 1999 Jun 18;274(25):17684–90

Analysis of receptor binding by the channel-forming toxin aerolysin using surface plasmon resonance. MacKenzie CR, et al. **J Biol Chem** 1999 Aug 6;274(32):22604–9

A receptor-like protein-tyrosine phosphatase PTPzeta/RPTPbeta binds a heparin-binding growth factor midkine. Involvement of arginine 78 of midkine in the high affinity binding to PTPzeta. Maeda N, et al. **J Biol Chem** 1999 Apr 30;274(18):12474–9

The 100-kDa neurotensin receptor is gp95/sortilin, a non-G-protein-coupled receptor. Mazella J, et al. **J Biol Chem** 1998 Oct 9;273(41):26273–6

Complete mapping of divergent amino acids responsible for differential ligand binding of folate receptors alpha and beta. Maziarz KM, et al. **J Biol Chem** 1999 Apr 16; 274(16):11086–91

Induction of cell shape changes through activation of the interleukin-3 common beta chain receptor by the RON receptor-type tyrosine kinase. Mera A, et al. **J Biol Chem** 1999 May 28;274(22):15766–74

Phosphorylation and free pool of beta-catenin are regulated by tyrosine kinases and tyrosine phosphatases during epithelial cell migration. Müller T, et al. **J Biol Chem** 1999 Apr 9;274(15):10173–83

EDG1 is a functional sphingosine-1-phosphate receptor that is linked via a Gi/o to multiple signaling pathways, including phospholipase C activation, Ca2+ mobilization, Ras-mitogen-activated protein kinase activation, and adenylate cyclase inhibition. Okamoto H, et al. **J Biol Chem** 1998 Oct 16;273(42):27104–10

ErbB receptor-induced activation of stat transcription factors is mediated by Src tyrosine kinases. Olayioye MA, et al. **J Biol Chem** 1999 Jun 11;274(24):17209–18

Dimerization of the calcium-sensing receptor occurs within the extracellular domain and is eliminated by Cys --> Ser mutations at Cys101 and Cys236. Pace AJ, et al. **J Biol Chem** 1999 Apr 23;274(17):11629–34

Characterization of the elastin binding domain in the cell-surface 25-kDa elastin-binding protein of staphylococcus aureus (EbpS). Park PW, et al. **J Biol Chem** 1999 Jan 29;274(5):2845–50

Identification of low density lipoprotein receptor-related protein-2/megalin as an endocytic receptor for seminal vesicle secretory protein II. Ranganathan S, et al. **J Biol Chem** 1999 Feb 26;274(9):5557–63

Coordinated movement of RACK1 with activated betaIIPKC. Ron D, et al. **J Biol Chem** 1999 Sep 17; 274(38):27039–46

Peptidoglycan- and lipoteichoic acid-induced cell activation is mediated by toll-like receptor 2. Schwandner R, et al. **J Biol Chem** 1999 Jun 18;274(25):17406–9

Follicular thyroglobulin (TG) suppression of thyroid-restricted genes involves the apical membrane asialoglycoprotein receptor and TG phosphorylation. Ulianich L, et al. **J Biol Chem** 1999 Aug 27; 274(35):25099–107

Intersubunit interaction between transmembrane helices of the bacterial aspartate chemoreceptor homodimer. Umemura T, et al. **J Biol Chem** 1998 Nov 13; 273(46):30110–5

Sphingosine 1-phosphate-induced cell rounding and neurite retraction are mediated by the G protein-coupled receptor H218. Van Brocklyn JR, et al. **J Biol Chem** 1999 Feb 19; 274(8):4626–32

The very low density lipoprotein receptor regulates urokinase receptor catabolism and breast cancer cell motility in vitro. Webb DJ, et al. **J Biol Chem** 1999 Mar 12;274(11):7412–20

Cross-talk between orphan nuclear hormone receptor RZRalpha and peroxisome proliferator-activated receptor alpha in regulation of the peroxisomal hydratase-dehydrogenase gene. Winrow CJ, et al. **J Biol Chem** 1998 Nov 20;273(47):31442–8

The RACK1 signaling scaffold protein selectively interacts with the cAMP-specific phosphodiesterase PDE4D5 isoform. Yarwood SJ, et al. **J Biol Chem** 1999 May 21; 274(21):14909–17

Interaction of the xanthine nucleotide binding Goalpha mutant with G protein-coupled receptors. Yu B, et al. **J Biol Chem** 1998 Nov 13;273(46):30183–8

A newly identified member of tumor necrosis factor receptor superfamily (TR6) suppresses LIGHT-mediated apoptosis. Yu KY, et al. **J Biol Chem** 1999 May 14;274(20):13733–6

The N-terminal domain of RGS4 confers receptor-selective inhibition of G protein signaling. Zeng W, et al. **J Biol Chem** 1998 Dec 25;273(52):34687–90

Cellular trafficking of G protein-coupled receptor/beta-arrestin endocytic complexes. Zhang J, et al. **J Biol Chem** 1999 Apr 16;274(16):10999–1006

Mouse osteoblastic cell line (MC3T3-E1) expresses extracellular calcium (Ca2+o)-sensing receptor and its agonists stimulate chemotaxis and proliferation of MC3T3-E1 cells. Yamaguchi T, et al. **J Bone Miner Res** 1998 Oct;13(10):1530–8

Human p120ctn catenin: tissue-specific expression of isoforms and molecular interactions with BP180/type XVII collagen. Aho S, et al. **J Cell Biochem** 1999 Jun 1; 73(3):390–9

CD44 is not an adhesive receptor for osteopontin. Smith LL, et al. **J Cell Biochem** 1999 Apr 1;73(1):20–30

The receptor recycling pathway contains two distinct populations of early endosomes with different sorting functions. Sheff DR, et al. **J Cell Biol** 1999 Apr 5; 145(1):123–39

A role for caveolin and the urokinase receptor in integrin-mediated adhesion and signaling. Wei Y, et al. **J Cell Biol** 1999 Mar 22;144(6):1285–94

Cellular glycosylphosphatidylinositol-specific phospholipase D regulates urokinase receptor shedding and cell surface expression. Wilhelm OG, et al. **J Cell Physiol** 1999 Aug; 180(2):225–35

Therapeutic strategies targeting proteins that regulate folate and reduced folate transport. Trippett TM, et al. **J Chemother** 1999 Feb;11(1):3–10 (67 ref.)

Chiral resolution of the enantiomers of tetrahydronaphthalenic derivatives, new agonist and antagonist ligands for melatonin receptors, using high-performance liquid chromatography on cellulose chiral stationary phases. Vaccher C, et al. **J Chromatogr A** 1998 Oct 16;824(1):15–23

Growth hormone secretagogue receptor expression in human pituitary tumors. Skinner MM, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4314–20

Proteolysis of monocyte CD14 by human leukocyte elastase inhibits lipopolysaccharide-mediated cell activation. Le-Barillec K, et al. **J Clin Invest** 1999 Apr;103(7):1039–46

The Ron/STK receptor tyrosine kinase is essential for peri-implantation development in the mouse. Muraoka RS, et al. **J Clin Invest** 1999 May;103(9):1277–85

Organization of kinases, phosphatases, and receptor signaling complexes. Schillace RV, et al. **J Clin Invest** 1999 Mar; 103(6):761–5 (27 ref.)

Empirical scoring functions. II. The testing of an empirical scoring function for the prediction of ligand-receptor binding affinities and the use of Bayesian regression to improve the quality of the model. Murray CW, et al. **J Comput Aided Mol Des** 1998 Sep;12(5):503–19

The measurement of molecular diversity by receptor site interaction simulation. Parks CA, et al. **J Comput Aided Mol Des** 1998 Sep;12(5):441–9

Functional involvement of urokinase-type plasminogen activator receptor in pemphigus acantholysis. Xue W, et al. **J Cutan Pathol** 1998 Oct;25(9):469–74

Comparative affinity of synthetic multi-antennary galactosyl derivatives for the Gal/GalNAc receptor of rat hepatocytes and peritoneal macrophages. Kichler A, et al. **J Drug Target** 1998;6(3):201–5

Human toll-like receptor 2 confers responsiveness to bacterial lipopolysaccharide. Kirschning CJ, et al. **J Exp Med** 1998 Dec 7;188(11):2091–7

Immunoglobulin and enzyme-conjugated dextran polymers enhance u-PAR staining intensity of carcinoma cells in peripheral blood smears. Werther K, et al. **J Histochem Cytochem** 1999 Jul;47(7):959–64

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496–501

Activation of the RON receptor tyrosine kinase inhibits inducible nitric oxide synthase (iNOS) expression by murine peritoneal exudate macrophages: phosphatidylinositol-3 kinase is required for RON-mediated inhibition of iNOS expression. Chen YQ, et al. **J Immunol** 1998 Nov 1; 161(9):4950–9

Cutting edge: cells that carry A null allele for toll-like receptor 2 are capable of responding to endotoxin. Heine H, et al. **J Immunol** 1999 Jun 15;162(12):6971–5

Different mechanisms are involved in the antibody mediated inhibition of ligand binding to the urokinase receptor: a study based on biosensor technology. List K, et al. **J Immunol Methods** 1999 Jan 1;222(1-2):125–33

Localization of receptors for endocytosis of lysosomal enzymes on different brain cells. Schluff P, et al. **J Inherit Metab Dis** 1998 Jun;21(3):313–7

Kinases involved in MSP/RON signaling. Danilkovitch A, et al. **J Leukoc Biol** 1999 Mar;65(3):345–8 (47 ref.)

Competition of Abeta amyloid peptide and apolipoprotein E for receptor-mediated endocytosis. Winkler K, et al. **J Lipid Res** 1999 Mar;40(3):447–55

The 1.25 A resolution refinement of the cholera toxin B-pentamer: evidence of peptide backbone strain at the receptor-binding site. Merritt EA, et al. **J Mol Biol** 1998 Oct 9;282(5):1043–59

Intracellular calcium regulation of channel and receptor expression in the plasmalemma: potential sites of sensitivity along the pathways linking transcription, translation, and insertion. Barish ME. **J Neurobiol** 1998 Oct;37(1):146–57

(101 ref.)
Internalization of G protein-coupled receptors in single olfactory receptor neurons. Rankin ML, et al. **J Neurochem** 1999 Feb;72(2):541–8
The ovine melatonin-related receptor: cloning and preliminary distribution and binding studies. Drew JE, et al. **J Neuroendocrinol** 1998 Sep;10(9):651–61
Conformational ensembles: the role of neuropeptide structures in receptor binding. Edison AS, et al. **J Neurosci** 1999 Aug 1;19(15):6318–26
Netrin-3, a mouse homolog of human NTN2L, is highly expressed in sensory ganglia and shows differential binding to netrin receptors. Wang H, et al. **J Neurosci** 1999 Jun 15;19(12):4938–47
Recovery of hepatic asialoglycoprotein receptors after major hepatic resection. Kokudo N, et al. **J Nucl Med** 1999 Jan; 40(1):137–41
Urinary excretion of intrinsic factor and the receptor for its cobalamin complex in Gräsbeck-Imerslund patients: the disease may have subsets. Dugué B, et al. **J Pediatr Gastroenterol Nutr** 1999 Aug;29(2):227–30
Characterization of 2-[125I]iodomelatonin binding sites in Syrian hamster peripheral organs. Paul P, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):334–40
Modulation of human erg K+ channel gating by activation of a G protein-coupled receptor and protein kinase C. Barros F, et al. **J Physiol (Lond)** 1998 Sep 1;511 (Pt 2):333–46
G-protein coupled receptor kinases as modulators of G-protein signalling. Bünemann M, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):5–23 (186 ref.)
Melatonin receptors in PC3 human prostate tumor cells. Gilad E, et al. **J Pineal Res** 1999 May;26(4):211–20
Molecular and cellular analyses of melatonin receptor-mediated cAMP signaling in rat corpus epididymis. Li L, et al. **J Pineal Res** 1998 Dec;25(4):219–28
Effects of two melatonin analogues, S-20098 and S-20928, on melatonin receptors in the pars tuberalis of the rat. Masson-Pévet M, et al. **J Pineal Res** 1998 Oct;25(3):172–6
Long-term exposure of hypothalamic explants to melatonin alters the release of gonadotrophin releasing hormone and the density of melatonin binding sites in the pars tuberalis of the male mink (Mustela vison). Messager S, et al. **J Pineal Res** 1999 Jan;26(1):17–27
Melatonin receptors in neonatal pig brain and pituitary gland. Williams LM, et al. **J Pineal Res** 1999 Jan;26(1):43–9
Partial agonism: mechanisms based on ligand-receptor interactions and on stimulus-response coupling. Pliška V. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):597–629 (33 ref.)
Extracts and constituents of Hypericum perforatum inhibit the binding of various ligands to recombinant receptors expressed with the Semliki Forest virus system. Simmen U, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):59–74
Development of a dual glow-signal firefly and Renilla luciferase assay reagent for the analysis of G-protein coupled receptor signalling. Stables J, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):395–410
Molecular modelling studies on G protein-coupled receptors: from sequence to structure? van Neuren AS, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):341–53
Sex hormone-binding globulin, its membrane receptor, and breast cancer: a new approach to the modulation of estradiol action in neoplastic cells. Fortunati N, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):473–9 (45 ref.)
Characterization of hepatitis C virus E2 glycoprotein interaction with a putative cellular receptor, CD81. Flint M, et al. **J Virol** 1999 Aug;73(8):6235–44
Decreased calcium-sensing receptor expression in hyperplastic parathyroid glands of uremic rats: role of dietary phosphate. Brown AJ, et al. **Kidney Int** 1999 Apr; 55(4):1284–92
Up-regulation of Duffy antigen receptor expression in children with renal disease. Liu XH, et al. **Kidney Int** 1999 Apr;55(4):1491–500
Potential roles of metalloprotease mediated ectodomain cleavage in signaling by the endothelial receptor tyrosine kinase Tie-1. McCarthy MJ, et al. **Lab Invest** 1999 Jul; 79(7):889–95
Presence of urokinase-type plasminogen activator receptor in urine of cancer patients and its possible clinical relevance. Sier CF, et al. **Lab Invest** 1999 Jun;79(6):717–22
Expression of vascular endothelial growth factor receptor-3 and podoplanin suggests a lymphatic endothelial cell origin of Kaposi's sarcoma tumor cells. Weninger W, et al. **Lab Invest** 1999 Feb;79(2):243–51
Targeting of cytosolic phospholipase A2 to plasma membrane inhibits its activation by G-protein coupled receptors. Klapisz E, et al. **Lipids** 1999;34 Suppl:S67
Stromal expression of urokinase-type plasminogen activator receptor (uPAR) is associated with invasive growth in primary liver cancer. Akahane T, et al. **Liver** 1998 Dec; 18(6):414–9
Effect of in vitro aging on the biosynthesis of glycosaminoglycans by human skin fibroblasts. Modulation by the elastin-laminin receptor. Fodil-Bourahla I, et al. **Mech Ageing Dev** 1999 Jan 15;106(3):241–60
Receptors for proteins modified by advanced glycation endproducts (AGE)--their functional role in atherosclerosis. Sano H, et al. **Mech Ageing Dev** 1999 Mar 15;107(3):333–46 (58 ref.)
The nuclear receptor transcription factor, retinoid-related orphan receptor beta, regulates retinal progenitor proliferation. Chow L, et al. **Mech Dev** 1998 Oct; 77(2):149–64
Modern drug development from traditional medicinal plants using radioligand receptor-binding assays. Misra R. **Med Res Rev** 1998 Nov;18(6):383–402 (37 ref.)
Isolation and characterization of kinectin. Kumar J, et al. **Methods Enzymol** 1998;298:185–97
Receptor-ligand internalization. Orlandini G, et al. **Methods Enzymol** 1999;307:340–50
Overview of ligand-receptor binding techniques. Qume M. **Methods Mol Biol** 1999;106:3–23 (20 ref.)
Attachment of nontypable Haemophilus influenzae to human pharyngeal epithelial cells mediated by a ganglioside receptor. Kawakami K, et al. **Microbiol Immunol** 1998; 42(10):697–702
In vitro assessment of a chemically synthesized Shiga toxin receptor analog attached to chromosorb P (Synsorb Pk) as a specific absorbing agent of Shiga toxin 1 and 2. Takeda T, et al. **Microbiol Immunol** 1999;43(4):331–7
Urokinase-type plasminogen activator receptor is internalized by different mechanisms in polarized and nonpolarized Madin-Darby canine kidney epithelial cells. Vilhardt F, et al. **Mol Biol Cell** 1999 Jan;10(1):179–95
Morphological and functional association of Sec22b/ERS-24 with the pre-Golgi intermediate compartment. Zhang T, et al. **Mol Biol Cell** 1999 Feb;10(2):435–53
A single amino acid substitution in the v-Eyk intracellular domain results in activation of Stat3 and enhances cellular transformation. Besser D, et al. **Mol Cell Biol** 1999 Feb; 19(2):1401–9
Engagement of the cellular receptor for glycoprotein B of human cytomegalovirus activates the interferon-responsive pathway. Boyle KA, et al. **Mol Cell Biol** 1999 May; 19(5):3607–13
Activated notch inhibits myogenic activity of the MADS-Box transcription factor myocyte enhancer factor 2C. Wilson-Rawls J, et al. **Mol Cell Biol** 1999 Apr; 19(4):2853–62
Transcriptional silencing is defined by isoform- and heterodimer-specific interactions between nuclear hormone receptors and corepressors. Wong CW, et al. **Mol Cell Biol** 1998 Oct;18(10):5724–33
Structural basis of G protein-coupled receptor function. Schöneberg T, et al. **Mol Cell Endocrinol** 1999 May 25; 151(1-2):181–93 (154 ref.)
A model of multivalent ligand-receptor equilibria which explains the effect of multivalent binding inhibitors. Hubble J. **Mol Immunol** 1999 Jan;36(1):13–8
The identification of three biologically relevant globotriaosyl ceramide receptor binding sites on the Verotoxin 1 B subunit. Bast DJ, et al. **Mol Microbiol** 1999 Jun; 32(5):953–60
Toxin binding site of the diphtheria toxin receptor: loss and gain of diphtheria toxin binding of monkey and mouse heparin-binding, epidermal growth factor-like growth factor precursors by reciprocal site-directed mutagenesis. Cha JH, et al. **Mol Microbiol** 1998 Sep;29(5):1275–84
Proteoglycan receptor binding by Neisseria gonorrhoeae MS11 is determined by the HV-1 region of OpaA. Grant CC, et al. **Mol Microbiol** 1999 Apr;32(2):233–42
Binding of intimin from enteropathogenic Escherichia coli to Tir and to host cells. Hartland EL, et al. **Mol Microbiol** 1999 Apr;32(1):151–8
Phosphorylation of tyrosine 474 of the enteropathogenic Escherichia coli (EPEC) Tir receptor molecule is essential for actin nucleating activity and is preceded by additional host modifications. Kenny B. **Mol Microbiol** 1999 Feb; 31(4):1229–41
A Saccharomyces cerevisiae G-protein coupled receptor, Gpr1, is specifically required for glucose activation of the cAMP pathway during the transition to growth on glucose. Kraakman L, et al. **Mol Microbiol** 1999 Jun;32(5):1002–12
Phase variation of HpuAB and HmbR, two distinct haemoglobin receptors of Neisseria meningitidis DNM2. Lewis LA, et al. **Mol Microbiol** 1999 Jun;32(5):977–89
Effect of loop deletions on the binding and transport of ferric enterobactin by FepA. Newton SM, et al. **Mol Microbiol** 1999 Jun;32(6):1153–65
Conversion of a bacterial warm sensor to a cold sensor by methylation of a single residue in the presence of an attractant. Nishiyama SI, et al. **Mol Microbiol** 1999 Apr; 32(2):357–65
Novel sensing mechanisms and targets for the cAMP-protein kinase A pathway in the yeast Saccharomyces cerevisiae. Thevelein JM, et al. **Mol Microbiol** 1999 Sep;33(5):904–18 (101 ref.)
Transduction of intracellular calcium signals through G protein-mediated activation of phospholipase C by recombinant sphingosine 1-phosphate receptors. An S, et al. **Mol Pharmacol** 1999 May;55(5):787–94
Estrogen hits the surface [news] Collins P, et al. **Nat Med** 1999 Oct;5(10):1130–1
Enhanced inhibition of hepatitis B virus production by asialoglycoprotein receptor-directed interferon. Eto T, et al. **Nat Med** 1999 May;5(5):577–81
The intrinsic factor-vitamin B12 receptor, cubilin, is a high-affinity apolipoprotein A-I receptor facilitating endocytosis of high-density lipoprotein. Kozyraki R, et al. **Nat Med** 1999 Jun;5(6):656–61
Apoptosis. Death deceiver [news; comment] Green DR. **Nature** 1998 Dec 17;396(6712):629–30. Comment on: Nature 1998 Dec 17;396(6712):679–703.
Genomic amplification of a decoy receptor for Fas ligand in lung and colon cancer. Pitti RM, et al. **Nature** 1998 Dec 17;396(6712):699–703
Neurogenic phenotypes and altered Notch processing in Drosophila Presenilin mutants [see comments] Yu Y, et al. **Nature** 1999 Apr 8;398(6727):525–9. Comment in: Nature 1999 Apr 8;398(6727):466–7.
Symptomatic hypocalcaemia in hypermagnesaemia-induced hypoparathyroidism, during magnesium tocolytic therapy--possible involvement of the calcium-sensing receptor. Mayan H, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1764–6
Melatonin receptor subtype expression in human cerebellum. Al-Ghoul WM, et al. **Neuroreport** 1998 Dec 21; 9(18):4063–8
Functional evidence for involvement of bumetanide-sensitive Na+K+2Cl- cotransport in the hepatoportal Na+ receptor of the Sprague-Dawley rat. Morita H, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):65–8
Exogenous expression of a dominant negative RORalpha1 vector in muscle cells impairs differentiation: RORalpha1 directly interacts with p300 and myoD. Lau P, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):411–20
The ras-related GTPase rac1 regulates a proliferative pathway selectively utilized by G-protein coupled receptors. Burstein ES, et al. **Oncogene** 1998 Sep 24; 17(12):1617–23
Role of tyrosine residues and protein interaction domains of SHC adaptor in VEGF receptor 3 signaling. Fournier E, et al. **Oncogene** 1999 Jan 14;18(2):507–14
Ryk is expressed in a differentiation-specific manner in epithelial tissues and is strongly induced in decidualizing uterine stroma. Serfas MS, et al. **Oncogene** 1998 Dec 31; 17(26):3435–44
Transforming growth factor beta induces urokinase receptor expression in cultured retinal pigment epithelial cells. Sirén V, et al. **Ophthalmic Res** 1999;31(3):184–91
Modifications of receptor concentrations for adrenaline, steroid hormones, prostaglandin F2alpha and gonadotropins in hypophysis and ovary of dairy cows with ovarian cysts. Odore R, et al. **Pharmacol Res** 1999 Apr; 39(4):297–304
Immunohistochemical identification of the receptor for urokinase plasminogen activator associated with fibrin deposition in normal and ectopic human placenta. Pierleoni C, et al. **Placenta** 1998 Sep;19(7):501–8
Assignment of the auxin binding abilities of ABP44 in gel. Reinard T, et al. **Plant Cell Physiol** 1998 Aug;39(8):874–8
Endogenous drug-like factors. Mrozikiewicz A. **Pol J Pharmacol** 1998 Nov-Dec;50(6):393–7 (26 ref.)
Receptor recruitment: a mechanism for interactions between G protein-coupled receptors. Holtbäck U, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7271–5
Xenopus laevis sperm receptor gp69/64 glycoprotein is a homolog of the mammalian sperm receptor ZP2. Tian J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):829–34
A tubular endosomal fraction from rat liver: biochemical evidence of receptor sorting by default. Vergés M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10146–51
Prokaryotic expression of bovine lactoferrin deletion mutants that bind to the Ca2+-dependent lactoferrin receptor on isolated rat hepatocytes. Sitaram MP, et al. **Protein Expr Purif** 1998 Nov;14(2):229–36
Neutrophil elastase enhances macrophage production of chemokines in receptor-mediated reaction. Ishihara K, et al. **Res Commun Mol Pathol Pharmacol** 1999 Feb; 103(2):139–47
Cell activation and apoptosis by bacterial lipoproteins through toll-like receptor-2. Aliprantis AO, et al. **Science** 1999 Jul 30;285(5428):736–9
Host defense mechanisms triggered by microbial lipoproteins through toll-like receptors. Brightbill HD, et al. **Science** 1999 Jul 30;285(5428):732–6
A copper cofactor for the ethylene receptor ETR1 from Arabidopsis. Rodriguez FI, et al. **Science** 1999 Feb 12; 283(5404):996–8
American Society for Cell Biology. Homing in on a sperm receptor [news] Strauss E. **Science** 1999 Jan 8;283(5399):169
Understanding of ears, bristles jumps a notch [news] Vogel G. **Science** 1998 Nov 13;282(5392):1235
Structural conservation of Notch receptors and ligands. Fleming RJ. **Semin Cell Dev Biol** 1998 Dec;9(6):599–607 (65 ref.)
Sex hormone-binding globulin receptor signal transduction proceeds via a G protein. Nakhla AM, et al. **Steroids** 1999 Mar;64(3):213–6
The clearance of thrombin-antithrombin and related serpin-enzyme complexes from the circulation: role of various hepatocyte receptors. Wells MJ, et al. **Thromb Haemost** 1999 Mar;81(3):325–37 (179 ref.)
Biological regulation of receptor-hormone complex concentrations in relation to dose-response assessments for endocrine-active compounds. Andersen ME, et al. **Toxicol Sci** 1999 Mar;48(1):38–50 (50 ref.)
Gettin' down with ubiquitin: turning off cell-surface receptors, transporters and channels. Hicke L. **Trends Cell Biol** 1999 Mar;9(3):107–12 (52 ref.)
Sensitivity, cooperativity and gain in chemotaxis signal

transduction. Stock J. **Trends Microbiol** 1999 Jan;7(1):1–4
HIV-1 attachment: another look. Ugolini S, et al. **Trends Microbiol** 1999 Apr;7(4):144–9 (62 ref.)
G-protein-coupled, extracellular Ca(2+)-sensing receptor: a versatile regulator of diverse cellular functions. Brown EM, et al. **Vitam Horm** 1999;55:1–71 (247 ref.)
[Evidence of a renin receptor on human mesangial cells: effects on PAI1 and cGMP] Nguyen G, et al. **Nephrologie** 1998;19(7):411–6 (8 ref.) (Eng. Abstr.) **(Fre)**
[Signaling by melatonin receptors] Petit L, et al. **Therapie** 1998 Sep–Oct;53(5):421–8 (55 ref.) (Eng. Abstr.) **(Fre)**
[Signal transmission in plant cells; plasma membrane receptors] Barańska J. **Postepy Biochem** 1998;44(3):201–8 (38 ref.) **(Pol)**
[Characteristics of proteins bound to high density lipoproteids on the surface of human fetal hepatocytes] Bocharov AV, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):459–63 **(Rus)**
[A new graphic method for determining the rate constant for affinity of a ligand for its receptor] Bobrovnik SA. **Ukr Biokhim Zh** 1998 Nov–Dec;70(6):144–6 (Eng. Abstr.) **(Rus)**
[The ways of designing new-generation medicinal and biochemical agents by using ligand-receptor interactions for active membrane transport] Iurkevich AM, et al. **Vestn Ross Akad Med Nauk** 1999;(3):3–7 (14 ref.) (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Intracellular targeting and protein kinase C in vascular smooth muscle cells: specific effects of different membrane-bound receptors. Haller H, et al. **Acta Physiol Scand** 1998 Dec;164(4):599–609
Structural basis for cytokine hormone-receptor recognition and receptor activation. Kossiakoff AA, et al. **Adv Protein Chem** 1998;52:67–108 (99 ref.)
Role and localization of urokinase receptor in the formation of new microvascular structures in fibrin matrices. Kroon ME, et al. **Am J Pathol** 1999 Jun;154(6):1731–42
Surfactant protein A inhibits T cell proliferation via its collagen-like tail and a 210-kDa receptor. Borron P, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L679–86
Stimulation of intestinal glucoreceptors in rats increases pancreatic islet blood flow through vagal mechanisms. Carlsson PO, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R233–6
Proinsulin stimulates growth of small intestinal crypt-like cells acting via specific receptors. Jehle PM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E262–8
Membrane and receptor modifications of oxidative stress vulnerability in aging. Nutritional considerations. Joseph JA, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:268–76 (62 ref.)
A three-state receptor model: predictions of multiple agonist pharmacology for the same receptor type. Scaramellini C, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:97–103
Effect of galactose on binding and endocytosis of asialoglycoprotein in cultured rat hepatocytes. Hata S, et al. **Ann Nucl Med** 1998 Oct;12(5):255–9
Surface receptors and transporters of Trypanosoma brucei. Borst P, et al. **Annu Rev Microbiol** 1998;52:745–78 (144 ref.)
Presynaptic ionotropic receptors and the control of transmitter release. MacDermott AB, et al. **Annu Rev Neurosci** 1999;22:443–85 (216 ref.)
The urokinase receptor. A cell surface, regulated chemokine. Blasi F. **APMIS** 1999 Jan;107(1):96–101 (56 ref.)
Urokinase receptor-dependent upregulation of smooth muscle cell adhesion to vitronectin by urokinase. Chang AW, et al. **Arterioscler Thromb Vasc Biol** 1998 Dec; 18(12):1855–60
Potentiation of G-protein-coupled receptor-induced MAP kinase activation by exogenous EGF receptors in SK-N-MC neuroepithelioma cells. Buist A, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):6–10
Asialoglycoprotein receptor-mediated gene transfer using novel galactosylated cationic liposomes. Kawakami S, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):78–83
Downregulation of mRNA expression of Edg-3, a putative sphingosine 1-phosphate receptor coupled to Ca2+ signaling, during differentiation of HL-60 leukemia cells. Sato K, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):253–6
Direct visualization of HIV-1 entry: mechanisms and role of cell surface receptors. Stauber RH, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):695–702
Distinct characteristics of receptor-operated Ca2+ influx and refilling in pancreatic acinar cells. Tsunoda Y, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):579–83
The endothelial cell protein C receptor (EPCR) functions as a primary receptor for protein C activation on endothelial cells in arteries, veins, and capillaries. Ye X, et al. **Biochem Biophys Res Commun** 1999 Jun 16; 259(3):671–7
Gpr1p, a putative G-protein coupled receptor, regulates glucose-dependent cellular cAMP level in yeast Saccharomyces cerevisiae. Yun CW, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):29–33
Pharmacological characterisation of melatonin mt1 receptor-mediated stimulation of [35S]-GTPgammaS binding. Beresford IJ, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1167–74
Mechanism of CheA protein kinase activation in receptor signaling complexes. Levit MN, et al. **Biochemistry** 1999 May 18;38(20):6651–8
Characterization of G protein-coupled receptor regulation in antisense mRNA-expressing cells with reduced arrestin levels. Mundell SJ, et al. **Biochemistry** 1999 Jul 6; 38(27):8723–32
Hormones as life regulators in the current molecular endocrinology. Pankov YA. **Biochemistry (Mosc)** 1998 Dec;63(12):1361–73 (125 ref.)
Signal perception and transduction: the role of protein kinases. Schenk PW, et al. **Biochim Biophys Acta** 1999 Feb 4;1449(1):1–24 (174 ref.)
Melatonin receptors and signal transduction mechanisms. Barrett P, et al. **Biol Signals Recept** 1999 Jan–Apr; 8(1–2):6–14 (45 ref.)
Cell death induced in lymphocytes expressing the elastin-laminin receptor by excess agonists: necrosis and apoptosis. Péterszegi G, et al. **Biomed Pharmacother** 1998; 52(9):369–77 (33 ref.)
Measuring two-dimensional receptor-ligand binding kinetics by micropipette. Chesla SE, et al. **Biophys J** 1998 Sep; 75(3):1553–72
Adhesion energy of receptor-mediated interaction measured by elastic deformation. Moy VT, et al. **Biophys J** 1999 Mar;76(3):1632–8
Molecular mechanisms of zinc-dependent leukocyte adhesion involving the urokinase receptor and beta2-integrins. Chavakis T, et al. **Blood** 1999 May 1;93(9):2976–83
Src-dependence and pertussis-toxin sensitivity of urokinase receptor-dependent chemotaxis and cytoskeleton reorganization in rat smooth muscle cells. Degryse B, et al. **Blood** 1999 Jul 15;94(2):649–62
Shear-dependent rolling on von Willebrand factor of mammalian cells expressing the platelet glycoprotein Ib-IX-V complex. Fredrickson BJ, et al. **Blood** 1998 Nov 15;92(10):3684–93
Protein replacement by receptor-mediated endocytosis corrects the sensitivity of Fanconi anemia group C cells to mitomycin C. Youssoufian H, et al. **Blood** 1999 Jan 1; 93(1):363–9
The sialomucin CD164 (MGC-24v) is an adhesive glycoprotein expressed by human hematopoietic progenitors and bone marrow stromal cells that serves as a potent negative regulator of hematopoiesis [see comments] Zannettino AC, et al. **Blood** 1998 Oct 15; 92(8):2613–28. Comment in: Blood 1998 Oct 15;92(8):2609–12.
Genetic and physical mapping of the Lps locus: identification of the toll-4 receptor as a candidate gene in the critical region [published erratum appears in Blood Cells Mol Dis 1999 Feb;25(1):78] Poltorak A, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):340–55
Signal transduction by bone morphogenetic protein receptors: functional roles of Smad proteins. Miyazono K. **Bone** 1999 Jul;25(1):91–3 (39 ref.)
HIV infection of fetal human astrocytes: the potential role of a receptor-mediated endocytic pathway. Hao HN, et al. **Brain Res** 1999 Mar 27;823(1–2):24–32
Thrombin and trypsin receptors: the same mechanism of signalling on cellular surfaces. Olejar T, et al. **Bratisl Lek Listy** 1999 Feb;100(2):75–9 (35 ref.)
Melatonin inhibition of cancer growth in vivo involves suppression of tumor fatty acid metabolism via melatonin receptor-mediated signal transduction events. Blask DE, et al. **Cancer Res** 1999 Sep 15;59(18):4693–701
frizzled and frizzled 2 play a partially redundant role in wingless signaling and have similar requirements to wingless in neurogenesis. Bhat KM. **Cell** 1998 Dec 23; 95(7):1027–36
Use of dsRNA-mediated genetic interference to demonstrate that frizzled and frizzled 2 act in the wingless pathway. Kennerdell JR, et al. **Cell** 1998 Dec 23;95(7):1017–26
Spatially restricted activation of the SAX receptor by SCW modulates DPP/TKV signaling in Drosophila dorsal-ventral patterning. Neul JL, et al. **Cell** 1998 Nov 13;95(4):483–94
Interpretation of a BMP activity gradient in Drosophila embryos depends on synergistic signaling by two type I receptors, SAX and TKV. Nguyen M, et al. **Cell** 1998 Nov 13;95(4):495–506
Protein tyrosine kinase-mediated pathways in G protein-coupled receptor signaling. Dikic I, et al. **Cell Biochem Biophys** 1999;30(3):369–87 (84 ref.)
Carbohydrate-bearing cell surface receptors involved in innate immunity: interleukin-12 induction by mitogenic and nonmitogenic lectins. Muraille E, et al. **Cell Immunol** 1999 Jan 10;191(1):1–9
Enteropathogenic Escherichia coli: a pathogen that inserts its own receptor into host cells. DeVinney R, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):961–76 (122 ref.)
Cell surface receptors, nuclear receptors and ligands that regulate adipose tissue development. Ailhaud G. **Clin Chim Acta** 1999 Aug;286(1–2):181–90 (36 ref.)
Coactivation and corepression in transcriptional regulation by steroid/nuclear hormone receptors. Chen JD, et al. **Crit Rev Eukaryot Gene Expr** 1998;8(2):169–90 (130 ref.)
Nuclear hormone receptors and adipogenesis. Gimble JM, et al. **Crit Rev Eukaryot Gene Expr** 1998;8(2):141–68 (308 ref.)
Inducible recruitment of Cdc42 or WASP to a cell-surface receptor triggers actin polymerization and filopodium formation. Castellano F, et al. **Curr Biol** 1999 Apr 8; 9(7):351–60
Apoptosis control by death and decoy receptors. Ashkenazi A, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):255–60 (66 ref.)
Regulation of tyrosine kinase cascades by G-protein-coupled receptors. Luttrell LM, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):177–83 (56 ref.)
Interactions between mitogenic stimuli, or, a thousand and one connections. Schwartz MA, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):197–202 (51 ref.)
The Toll-receptor family and control of innate immunity. Kopp EB, et al. **Curr Opin Immunol** 1999 Feb;11(1):13–8 (48 ref.)
Molecular biology and clinical importance of the Ca(2+)-sensing receptor. De Luca F, et al. **Curr Opin Pediatr** 1998 Aug;10(4):435–40 (28 ref.)
Vascular endothelial growth factor receptor-3. Taipale J, et al. **Curr Top Microbiol Immunol** 1999;237:85–96 (44 ref.)
Estradiol coupling to endothelial nitric oxide stimulates gonadotropin-releasing hormone release from rat median eminence via a membrane receptor. Prevot V, et al. **Endocrinology** 1999 Feb;140(2):652–9
Regulation of alkaline phosphatase activity by p38 MAP kinase in response to activation of Gi protein-coupled receptors by epinephrine in osteoblast-like cells. Suzuki A, et al. **Endocrinology** 1999 Jul;140(7):3177–82
Characterization of G protein-coupled receptors expressed by ECV304 human endothelial cells. Howl J, et al. **Endothelium** 1998;6(1):23–32
Control of neuronal excitability by anion-sensing receptor. Washburn DL, et al. **Eur J Neurosci** 1999 Jun;11(6):1947–54
Involvement of sigma receptors in the modulation of the glutamatergic/NMDA neurotransmission in the dopaminergic systems. Gronier B, et al. **Eur J Pharmacol** 1999 Mar 5;368(2–3):183–96
Cell surface receptors transmit sufficient force to bend collagen fibrils. Lee GM, et al. **Exp Cell Res** 1999 Apr 10;248(1):294–305
Mutational analysis of the cysteines in the extracellular domain of the human Ca2+ receptor: effects on cell surface expression, dimerization and signal transduction. Fan GF, et al. **FEBS Lett** 1998 Oct 9;436(3):353–6
The Drosophila melanogaster Suppressor of deltex gene, a regulator of the Notch receptor signaling pathway, is an E3 class ubiquitin ligase. Cornell M, et al. **Genetics** 1999 Jun;152(2):567–76
Mechanisms of aging of the extracellular matrix: role of the elastin-laminin receptor. Robert L. **Gerontology** 1998; 44(6):307–17 (68 ref.)
Growth hormone secretagogues: a pill for growth? Clark RG. **Growth Horm rGF Res** 1999 Apr;9 Suppl A:85–8 (15 ref.)
Growth hormone (GH) secretagogues and neuroendocrine regulation of GH secretion. Dickson SL, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:89–91 (20 ref.)
The growth hormone secretagogue receptor. Korbonits M, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:93–9 (46 ref.)
Urokinase receptor is a key player in tumour progression [comment] Taniguchi T, et al. **Gut** 1998 Dec;43(6):739–40 . Comment on: Gut 1998 Dec;43(6):798–805.
Inflammation, sepsis, and coagulation. Esmon CT, et al. **Haematologica** 1999 Mar;84(3):254–9 (24 ref.)
Regulation and functions of the protein C anticoagulant pathway. Esmon CT, et al. **Haematologica** 1999 Apr; 84(4):363–8 (42 ref.)
Glycosylation of G-protein-coupled receptors for hormones central to normal reproductive functioning: its occurrence and role. Wheatley M, et al. **Hum Reprod Update** 1999 Jul–Aug;5(4):356–64 (76 ref.)
Proadrenomedullin N-terminal 20 peptide (PAMP), acting through PAMP(12–20)-sensitive receptors, inhibits Ca2+-dependent, agonist-stimulated secretion of human adrenal glands. Belloni AS, et al. **Hypertension** 1999 May; 33(5):1185–9
Expression pattern of notch1, 2 and 3 and Jagged1 and 2 in lymphoid and stromal thymus components: distinct ligand-receptor interactions in intrathymic T cell development. Felli MP, et al. **Int Immunol** 1999 Jul; 11(7):1017–25
Influence of MUC18/MCAM/CD146 expression on human melanoma growth and metastasis in SCID mice. Schlagbauer-Wadl H, et al. **Int J Cancer** 1999 Jun 11; 81(6):951–5
Structure and function of the extracellular calcium-sensing receptor (Review). Bai M. **Int J Mol Med** 1999 Aug; 4(2):115–25 (98 ref.)
Increased invasion of neuroglioma cells transfected with urokinase plasminogen activator receptor cDNA. Mohanam S, et al. **Int J Oncol** 1998 Dec;13(6):1285–90
An appreciation of molecular biology: signals, receptors, conveyors and processors (editorial). Wolf S. **Integr Physiol Behav Sci** 1998 Oct–Dec;33(4):309–10
Activation of various G-protein coupled receptors modulates Ca2+ channel currents via PTX-sensitive and voltage-dependent pathways in rat intracardiac neurons. Jeong SW, et al. **J Auton Nerv Syst** 1999 Apr 16;76(1):68–74
Differential pharmacological properties and signal transduction of the sphingosine 1-phosphate receptors EDG-1, EDG-3, and EDG-5. Ancellin N, et al. **J Biol Chem** 1999 Jul 2;274(27):18997–9002

Comparison of intrinsic activities of the putative sphingosine 1-phosphate receptor subtypes to regulate several signaling pathways in their cDNA-transfected Chinese hamster ovary cells. Kon J, et al. **J Biol Chem** 1999 Aug 20; 274(34):23940–7

Engineering novel cell surface receptors for virus-mediated gene transfer. Lee JH, et al. **J Biol Chem** 1999 Jul 30; 274(31):21878–84

Copper and zinc ions differentially block asialoglycoprotein receptor-mediated endocytosis in isolated rat hepatocytes. McAbee DD, et al. **J Biol Chem** 1999 May 21; 274(21):14750–8

Signaling mechanisms and molecular characteristics of G protein-coupled receptors for lysophosphatidic acid and sphingosine 1-phosphate. An S, et al. **J Cell Biochem Suppl** 1998;30–31:147–57 (46 ref.)

Heptahelical receptor signaling: beyond the G protein paradigm. Hall RA, et al. **J Cell Biol** 1999 May 31; 145(5):927–32 (66 ref.)

Regulation of the collagenase-3 receptor and its role in intracellular ligand processing in rat osteoblastic cells. Walling HW, et al. **J Cell Physiol** 1998 Dec;177(4):563–74

Leukotriene B4 receptor transgenic mice reveal novel protective roles for lipoxins and aspirin-triggered lipoxins in reperfusion. Chiang N, et al. **J Clin Invest** 1999 Aug; 104(3):309–16

Dysregulated hematopoiesis and a progressive neurological disorder induced by expression of an activated form of the human common beta chain in transgenic mice. D'Andrea RJ, et al. **J Clin Invest** 1998 Dec 1;102(11):1951–60

Endotoxin-tolerant mice have mutations in Toll-like receptor 4 (Tlr4) [see comments] [published erratum appears in J Exp Med 1999 May 3;189(9):following 1518] Qureshi ST, et al. **J Exp Med** 1999 Feb 15;189(4):615–25. Comment in: J Exp Med 1999 Feb 15;189(4):605–9.

Toll, a new piece in the puzzle of innate immunity [comment] Wright SD. **J Exp Med** 1999 Feb 15;189(4):605–9. Comment on: J Exp Med 1999 Feb 15;189(4):615–25.

CD36 is required for phagocytosis of apoptotic cells by human macrophages that use either a phosphatidylserine receptor or the vitronectin receptor (alpha v beta 3). Fadok VA, et al. **J Immunol** 1998 Dec 1;161(11):6250–7

Cutting edge: inflammatory signaling by Borrelia burgdorferi lipoproteins is mediated by toll-like receptor 2. Hirschfeld M, et al. **J Immunol** 1999 Sep 1;163(5):2382–6

Cutting edge: Toll-like receptor 4 (TLR4)-deficient mice are hyporesponsive to lipopolysaccharide: evidence for TLR4 as the Lps gene product. Hoshino K, et al. **J Immunol** 1999 Apr 1;162(7):3749–52

Human toll-like receptors mediate cellular activation by Mycobacterium tuberculosis. Means TK, et al. **J Immunol** 1999 Oct 1;163(7):3920–7

Signaling events induced by lipopolysaccharide-activated toll-like receptor 2. Yang RB, et al. **J Immunol** 1999 Jul 15;163(2):639–43

Von Willebrand factor receptor GPIb alpha is expressed by human factor XIIIa-positive dermal dendrocytes and is upregulated by mast cell degranulation. Monteiro MR, et al. **J Invest Dermatol** 1999 Aug;113(2):272–6

Proteolytic cleavage and activation of pro-macrophage-stimulating protein and upregulation of its receptor in tissue injury. Nanney LB, et al. **J Invest Dermatol** 1998 Oct;111(4):573–81

The metamorphosis of a molecule: from soluble enzyme to the leukocyte receptor CD38. Ferrero E, et al. **J Leukoc Biol** 1999 Feb;65(2):151–61 (77 ref.)

The extracellular calcium-sensing receptor is expressed in rat microglia and modulates an outward K+ channel. Chattopadhyay N, et al. **J Neurochem** 1999 May; 72(5):1915–22

Urokinase induces receptor mediated brain tumor cell migration and invasion. MacDonald TJ, et al. **J Neurooncol** 1998 Dec;40(3):215–26

A dominant negative receptor for specific secreted semaphorins is generated by deleting an extracellular domain from neuropilin-1. Renzi MJ, et al. **J Neurosci** 1999 Sep 15;19(18):7870–80

Melatonin receptor potentiation of cyclic AMP and the cystic fibrosis transmembrane conductance regulator ion channel. Nelson CS, et al. **J Pineal Res** 1999 Mar;26(2):113–21

Methodology of receptor research--a philosophical perspective. Janich P. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):1–14

Receptor-operated calcium influx mediated by protein tyrosine kinase pathways. Tsunoda Y. **J Recept Signal Transduct Res** 1998 Jul–Nov; 18(4–6):281–310 (126 ref.)

Biological role of HGF/MET pathway in renal cell carcinoma. Horie S, et al. **J Urol** 1999 Mar;161(3):990–7

An orphan G protein-coupled receptor, GPR1, acts as a coreceptor to allow replication of human immunodeficiency virus types 1 and 2 in brain-derived cells. Shimizu N, et al. **J Virol** 1999 Jun;73(6):5231–9

Extracellular matrix receptors and the differentiation of human megakaryocytes in vitro. Molla A, et al. **Leuk Lymphoma** 1999 Mar;33(1–2):15–23 (46 ref.)

The generation of nitric oxide by G protein-coupled receptors. Christopoulos A, et al. **Life Sci** 1999;64(1):1–15 (104 ref.)

Intercellular interactions as a basis for the expedient behaviour of multicellular systems. Chailakhyan LM. **Membr Cell Biol** 1998;11(6):693–700 (9 ref.)

Ligand-induced trafficking of the sphingosine-1-phosphate receptor EDG-1. Liu CH, et al. **Mol Biol Cell** 1999 Apr; 10(4):1179–90

A network of mitogen-activated protein kinases links G protein-coupled receptors to the c-jun promoter: a role for c-Jun NH2-terminal kinase, p38s, and extracellular signal-regulated kinase 5. Marinissen MJ, et al. **Mol Cell Biol** 1999 Jun;19(6):4289–301

Neuronal injury increases retrograde axonal transport of the neurotrophins to spinal sensory neurons and motor neurons via multiple receptor mechanisms. Curtis R, et al. **Mol Cell Neurosci** 1998 Oct;12(3):105–18

Potential receptor function of three homologous components, TatA, TatB and TatE, of the twin-arginine signal sequence-dependent metalloenzyme translocation pathway in Escherichia coli. [letter] Chanal A, et al. **Mol Microbiol** 1998 Nov;30(3):674–6

Structural features of heterotrimeric G-protein-coupled receptors and their modulatory proteins. LeVine H 3rd. **Mol Neurobiol** 1999 Apr;19(2):111–49 (232 ref.)

Review: amino acid domains involved in constitutive activation of G-protein-coupled receptors. Pauwels PJ, et al. **Mol Neurobiol** 1998 Winter;17(1–3):109–35 (145 ref.)

Recombinant human G protein-coupled lysophosphatidic acid receptors mediate intracellular calcium mobilization. An S, et al. **Mol Pharmacol** 1998 Nov;54(5):881–8

Possible involvement of cell surface receptors in sphingosine 1-phosphate-induced activation of extracellular signal-regulated kinase in C6 glioma cells. Sato K, et al. **Mol Pharmacol** 1999 Jan;55(1):126–33

Rho as a mediator of G protein-coupled receptor signaling. Seasholtz TM, et al. **Mol Pharmacol** 1999 Jun;55(6):949–56 (98 ref.)

Role of receptor and protein kinase C activation in the internalization of the gastrin-releasing peptide receptor. Williams BY, et al. **Mol Pharmacol** 1998 Nov;54(5):889–98

G-protein-coupled receptors act via protein kinase C and Src to regulate NMDA receptors. Lu WY, et al. **Nat Neurosci** 1999 Apr;2(4):331–8

Differential modulation of GABAA receptor function by Mel1a and Mel1b receptors. Wan Q, et al. **Nat Neurosci** 1999 May;2(5):401–3

Impairment of dynamin's GAP domain stimulates receptor-mediated endocytosis [see comments] Sever S, et al. **Nature** 1999 Apr 8;398(6727):481–6. Comment in: Nature 1999 Apr 8;398(6727):470–1.

The role of calcium-sensing receptor abnormality in the pathogenesis of secondary hyperparathyroidism. Akizawa T, et al. **Nephrol Dial Transplant** 1999;14 Suppl 1:66–7

Involvement of chloride channels in the receptormediated activation of longitudinal colonic muscle. Kölbel CB, et al. **Neurogastroenterol Motil** 1998 Dec;10(6):489–98

Allosteric receptors after 30 years. Changeux JP, et al. **Neuron** 1998 Nov;21(5):959–80 (272 ref.)

Neuropilin-2 is a receptor for semaphorin IV: insight into the structural basis of receptor function and specificity [see comments] Giger RJ, et al. **Neuron** 1998 Nov;21(5):1079–92 . Comment in: Neuron 1998 Nov;21(5):935–6.

Multiple intramembrane receptor-receptor interactions in the regulation of striatal dopamine D2 receptors. Rimondini R, et al. **Neuroreport** 1999 Jul 13;10(10):2051–4

Role of the elastin-laminin receptor in the cardiovascular system. Faury G. **Pathol Biol (Paris)** 1998 Sep;46(7):517–26 (84 ref.)

The Ca2+-sensing receptor in the rabbit cortical thick ascending limb (CTAL) is functionally not coupled to phospholipase C. Desfleurs E, et al. **Pflugers Arch** 1999 Apr;437(5):716–23

Pharmacologic modulation of protein kinase C isozymes: the role of RACKs and subcellular localisation. Csukai M, et al. **Pharmacol Res** 1999 Apr;39(4):253–9 (44 ref.)

Heightened sensitivity of a lattice of membrane receptors. Duke TA, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10104–8

Cubilin, the endocytic receptor for intrinsic factor-vitamin B(12) complex, mediates high-density lipoprotein holoparticle endocytosis. Hammad SM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10158–63

A functional bone morphogenetic protein system in the ovary. Shimasaki S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7282–7

Schwann cell survival mediated by the signaling phospholipid lysophosphatidic acid. Weiner JA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5233–8

Transcriptional and posttranslational plasticity and the generation of inflammatory pain. Woolf CJ, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7723–30 (83 ref.)

Modulation of ions channels and membrane receptors activities by mechanical interventions in cardiomyocytes: possible mechanisms for mechanosensitivity. Cazorla O, et al. **Prog Biophys Mol Biol** 1999;71(1):29–58 (143 ref.)

Eph receptors and ligands in axon pathway choice, target recognition, and synaptogenesis. Lemke G. **Prog Brain Res** 1998;117:171–6 (34 ref.)

The calcium-sensing receptor (CaR) permits Ca2+ to function as a versatile extracellular first messenger. Brown EM, et al. **Recent Prog Horm Res** 1998;53:257–80; discussion 280–1 (146 ref.)

Polymorphism and signalling of melatonin receptors. Brydon L, et al. **Reprod Nutr Dev** 1999 May–Jun;39(3):315–24

EIN2, a bifunctional transducer of ethylene and stress responses in Arabidopsis. Alonso JM, et al. **Science** 1999 Jun 25;284(5423):2148–52

Notch signaling: cell fate control and signal integration in development. Artavanis-Tsakonas S, et al. **Science** 1999 Apr 30;284(5415):770–6 (92 ref.)

Cardiovascular failure in mouse embryos deficient in VEGF receptor-3. Dumont DJ, et al. **Science** 1998 Oct 30; 282(5390):946–9

Auxin-dependent cell expansion mediated by overexpressed auxin-binding protein 1. Jones AM, et al. **Science** 1998 Nov 6;282(5391):1114–7

Orphan nuclear receptors: shifting endocrinology into reverse. Kliewer SA, et al. **Science** 1999 Apr 30; 284(5415):757–60 (37 ref.)

A cell's sense of direction. Parent CA, et al. **Science** 1999 Apr 30;284(5415):765–70 (35 ref.)

The serum mannose-binding protein and the macrophage mannose receptor are pattern recognition molecules that link innate and adaptive immunity. Fraser IP, et al. **Semin Immunol** 1998 Oct;10(5):363–72 (94 ref.)

Hepatocyte-directed gene delivery by receptor-mediated endocytosis. Smith RM, et al. **Semin Liver Dis** 1999; 19(1):83–92 (107 ref.)

1,25-(OH)2D3 modulates growth plate chondrocytes via membrane receptor-mediated protein kinase C by a mechanism that involves changes in phospholipid metabolism and the action of arachidonic acid and PGE2. Boyan BD, et al. **Steroids** 1999 Jan–Feb;64(1–2):129–36 (63 ref.)

Notch/LIN-12 signaling: transduction by regulated protein slicing. Kimble J, et al. **Trends Biochem Sci** 1998 Sep; 23(9):353–7 (48 ref.)

Agonist-independent regulation of constitutively active G-protein-coupled receptors. Leurs R, et al. **Trends Biochem Sci** 1998 Nov;23(11):418–22 (50 ref.)

Integrins take partners: cross-talk between integrins and other membrane receptors. Porter JC, et al. **Trends Cell Biol** 1998 Oct;8(10):390–6 (57 ref.)

Neurexin IV, caspr and paranodin--novel members of the neurexin family: encounters of axons and glia. Bellen HJ, et al. **Trends Neurosci** 1998 Oct;21(10):444–9 (48 ref.)

Frizzled proteins constitute a novel family of G protein-coupled receptors, most closely related to the secretin family. Barnes MR, et al. **Trends Pharmacol Sci** 1998 Oct;19(10):399–400

Metabotropic receptors for ATP and UTP: exploring the correspondence between native and recombinant nucleotide receptors. King BF, et al. **Trends Pharmacol Sci** 1998 Dec;19(12):506–14 (71 ref.)

Receptors for a growing family of secreted phospholipases A2. Lambeau G, et al. **Trends Pharmacol Sci** 1999 Apr; 20(4):162–70 (92 ref.)

Novel GPCRs and their endogenous ligands: expanding the boundaries of physiology and pharmacology. Marchese A, et al. **Trends Pharmacol Sci** 1999 Sep;20(9):370–5 (49 ref.)

G protein regulation of adenylate cyclase. Simonds WF. **Trends Pharmacol Sci** 1999 Feb;20(2):66–73 (79 ref.)

Cell-surface heparan sulfate facilitates human immunodeficiency virus Type 1 entry into some cell lines but not primary lymphocytes. Ibrahim J, et al. **Virus Res** 1999 Apr;60(2):159–69

[Ca2+ receptor in cell membrane] Lou SJ, et al. **Sheng Li Ko Hsueh Chin Chan** 1996 Jul;27(3):252–4 (7 ref.) **(Chi)**

[The pathology of receptors: a concept which revives endocrinology] Despert F. **Arch Pediatr** 1999;6 Suppl 2:494s–495s **(Fre)**

[Structure and function of melatonin receptors] Jockers R, et al. **C R Seances Soc Biol Fil** 1998;192(4):659–67 (12 ref.) (Eng. Abstr.) **(Fre)**

[Intracellular calcium channels, hormone receptors and intercellular calcium waves] Tordjmann T, et al. **C R Seances Soc Biol Fil** 1998;192(1):149–57 (Eng. Abstr.) **(Fre)**

[Regulated exocytosis: Ca(2+)-sensor in exocrine cells?] Gebhardt R, et al. **Z Gastroenterol** 1999 Jan;37(1):121–4 **(Ger)**

[Calcium-sensing receptor and its related diseases] Aida K, et al. **Nippon Rinsho** 1999 Mar;57(3):746–55 (43 ref.) (Eng. Abstr.) **(Jpn)**

[Structure and function of phospholipase A2 receptor] Arita H. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1025–31 (30 ref.) **(Jpn)**

[Involvement of urokinase and its receptor in the remodeling of normal and pathological tissue] Tkachuk VA, et al. **Vestn Ross Akad Med Nauk** 1998;(8):36–41 (61 ref.) (Eng. Abstr.) **(Rus)**

[Membrane receptors and their enzymatic mechanisms of action. Associated endocrine diseases] Johnson MC. **Rev Med Chil** 1998 Nov;126(11):1384–92 (34 ref.) (Eng. Abstr.) **(Spa)**

ULTRASTRUCTURE

PALIREL, a computer program for analyzing particle-to-membrane relations, with emphasis on electron micrographs of immunocytochemical preparations and gold labeled molecules. Ruud HK, et al. **Comput Biomed Res** 1999 Apr;32(2):93–122

Ultrastructural and biochemical properties of the 120-kDa form of chick kinectin. Kumar J, et al. **J Biol Chem** 1998 Nov 27;273(48):31738–43

RECEPTORS, CGRP

RECEPTORS, CGRP see **RECEPTORS, CALCITONIN GENE-RELATED PEPTIDE**

RECEPTORS, CHEMOKINE

Proceedings of the Euroconference of Institute Pasteur. Chemokines and their Receptors: From Basic Research to Therapeutic Intervention. Paris, France, March 11-13, 1999. **Eur Cytokine Netw** 1999 Jun;10(2):253-307

Chemokines and chemokine receptors: role in HIV infection. Kalinkovich A, et al. **Immunol Lett** 1999 Jun 1; 68(2-3):281-7 (84 ref.)

[Molecular medicine of chemokine receptors] Hirai K. **Nippon Rinsho** 1998 Jul;56(7):1807-12 (21 ref.) (Eng. Abstr.) **(Jpn)**

[Chemokines and Chemokine receptors in collagen diseases] Kawasaki S, et al. **Nippon Rinsho** 1999 Feb;57(2):278-82 (20 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS

Agonists and inverse agonists for the herpesvirus 8-encoded constitutively active seven-transmembrane oncogene product, ORF-74. Rosenkilde MM, et al. **J Biol Chem** 1999 Jan 8;274(2):956-61

ANALYSIS

The biologic role of interleukin-8: functional analysis and expression of CXCR1 and CXCR2 on human eosinophils. Petering H, et al. **Blood** 1999 Jan 15;93(2):694-702

Lymphocyte-specific chemokine receptor CXCR3: regulation, chemokine binding and gene localization. Loetscher M, et al. **Eur J Immunol** 1998 Nov; 28(11):3696-705

Chemokine receptor expression by human intestinal epithelial cells. Dwinell MB, et al. **Gastroenterology** 1999 Aug; 117(2):359-67

Detection and localization of Mip-3alpha/LARC/Exodus, a macrophage proinflammatory chemokine, and its CCR6 receptor in human pancreatic cancer. Kleeff J, et al. **Int J Cancer** 1999 May 17;81(4):650-7

Expression of specific chemokines and chemokine receptors in the central nervous system of multiple sclerosis patients. Sørensen TL, et al. **J Clin Invest** 1999 Mar;103(6):807-15

Enhanced expression of eotaxin and CCR3 in atopic dermatitis. Yawalkar N, et al. **J Invest Dermatol** 1999 Jul; 113(1):43-8

Chemokines and chemokine receptors in allergic diseases. Uguccioni M. **Pediatr Pulmonol Suppl** 1999;18:113-4 (10 ref.)

ANTAGONISTS & INHIBITORS

A His19 to Ala mutant of melanoma growth-stimulating activity is a partial antagonist of the CXCR2 receptor. Baly DL, et al. **J Immunol** 1998 Nov 1;161(9):4944-9

Inhibition of murine neutrophil recruitment in vivo by CXC chemokine receptor antagonists. McColl SR, et al. **J Immunol** 1999 Sep 1;163(5):2829-35

Cloning and characterization of the guinea pig eosinophil eotaxin receptor, C-C chemokine receptor-3: blockade using a monoclonal antibody in vivo. Sabroe I, et al. **J Immunol** 1998 Dec 1;161(11):6139-47

BIOSYNTHESIS

Cloning of the murine interferon-inducible protein 10 (IP-10) receptor and its specific expression in lymphoid organs. Tamaru M, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):41-8

Expression of macrophage inflammatory protein-1 receptors in human CD34(+) hematopoietic cells and their modulation by tumor necrosis factor-alpha and interferon-gamma. Dürig J, et al. **Blood** 1998 Nov 1; 92(9):3073-81

Regulation of chemokine receptors in mononuclear phagocytes versus dendritic cells and in the amplification of Th1 versus Th2 responses. Mantovani A, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):76-80 (28 ref.)

Upon dendritic cell (DC) activation chemokines and chemokine receptor expression are rapidly regulated for recruitment and maintenance of DC at the inflammatory site. Foti M, et al. **Int Immunol** 1999 Jun;11(6):979-86

T helper cell type 2 cytokine-mediated comitogenic responses and CCR3 expression during differentiation of human mast cells in vitro. Ochi H, et al. **J Exp Med** 1999 Jul 19;190(2):267-80

Up-regulation of CCR1 and CCR3 and induction of chemotaxis to CC chemokines by IFN-gamma in human neutrophils. Bonecchi R, et al. **J Immunol** 1999 Jan 1; 162(1):474-9

Expression and function of the chemokine receptors CXCR1 and CXCR2 in sepsis. Cummings CJ, et al. **J Immunol** 1999 Feb 15;162(4):2341-6

Differential monocyte chemoattractant protein-1 and chemokine receptor 2 expression by murine lung fibroblasts derived from Th1- and Th2-type pulmonary granuloma models. Hogaboam CM, et al. **J Immunol** 1999 Aug 15; 163(4):2193-201

Eotaxin activates T cells to chemotaxis and adhesion only if induced to express CCR3 by IL-2 together with IL-4. Jinquan T, et al. **J Immunol** 1999 Apr 1;162(7):4285-92

Chemokine receptor expression and signaling in macaque and human fetal neurons and astrocytes: implications for the neuropathogenesis of AIDS. Klein RS, et al. **J Immunol** 1999 Aug 1;163(3):1636-46

CC-chemokine receptor 6 is expressed on diverse memory subsets of T cells and determines responsiveness to macrophage inflammatory protein 3 alpha. Liao F, et al. **J Immunol** 1999 Jan 1;162(1):186-94

Characterization of fractalkine in rat brain cells: migratory and activation signals for CX3CR-1-expressing microglia. Maciejewski-Lenoir D, et al. **J Immunol** 1999 Aug 1; 163(3):1628-35

Up-regulation of CCR2 chemokine receptor expression and increased susceptibility to the multitropic HIV strain 89.6 in monocytes exposed to glucocorticoid hormones. Penton-Rol G, et al. **J Immunol** 1999 Sep 15;163(6):3524-9

IL-15 induces the expression of chemokines and their receptors in T lymphocytes. Perera LP, et al. **J Immunol** 1999 Mar 1;162(5):2606-12

Chemokine receptor responses on T cells are achieved through regulation of both receptor expression and signaling. Rabin RL, et al. **J Immunol** 1999 Apr 1; 162(7):3840-50

Cutting edge: immature dendritic cells generated from monocytes in the presence of TGF-beta 1 express functional C-C chemokine receptor 6. Yang D, et al. **J Immunol** 1999 Aug 15;163(4):1737-41

Recombinant IFN-alpha (2b) increases the expression of apoptosis receptor CD95 and chemokine receptors CCR1 and CCR3 in monocytoid cells. Zella D, et al. **J Immunol** 1999 Sep 15;163(6):3169-75

Assessment of chemokine receptor expression by human Th1 and Th2 cells in vitro and in vivo. Annunziato F, et al. **J Leukoc Biol** 1999 May;65(5):691-9

Regulation of chemokine receptor expression in dendritic cells. Mantovani A, et al. **Res Immunol** 1998 Sep-Oct; 149(7-8):639-41 (19 ref.)

Differential response of CD34+ cells isolated from cord blood and bone marrow to MIP-1 alpha and the expression of MIP-1 alpha receptors on these immature cells. de Wynter EA, et al. **Stem Cells** 1998;16(5):349-56

[Expression of a new family of receptors similar to CXC chemokine receptors in endothelial cell precursors] Devic E, et al. **Pathol Biol (Paris)** 1999 Apr;47(4):330-8 (Eng. Abstr.) **(Fre)**

BLOOD

Increased mature and immature CCR3 messenger RNA+ eosinophils in bone marrow from patients with atopic asthma compared with atopic and nonatopic control subjects. Zeibecoglou K, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):99-106

CHEMISTRY

Solution structure and dynamics of the CX3C chemokine domain of fractalkine and its interaction with an N-terminal fragment of CX3CR1. Mizoue LS, et al. **Biochemistry** 1999 Feb 2;38(5):1402-14

Polymorphisms in the human CC chemokine receptor-3 gene. Zimmermann N, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2-3):170-6

Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746-56

DRUG EFFECTS

STCP-1 (MDC) CC chemokine acts specifically on chronically activated Th2 lymphocytes and is produced by monocytes on stimulation with Th2 cytokines IL-4 and IL-13. Andrew DP, et al. **J Immunol** 1998 Nov 1; 161(9):5027-38

SLC/exodus2/6Ckine/TCA4 induces chemotaxis of hematopoietic progenitor cells: differential activity of ligands of CCR7, CXCR3, or CXCR4 in chemotaxis vs. suppression of progenitor proliferation. Kim CH, et al. **J Leukoc Biol** 1999 Sep;66(3):455-61

GENETICS

Chemokine and chemokine receptor expression after combined anti-HIV-1 interleukin-2 therapy. Blanco J, et al. **AIDS** 1999 Apr 1;13(5):547-55

Persistent alterations in T-cell repertoire, cytokine and chemokine receptor gene expression after 1 year of highly active antiretroviral therapy. Martinon F, et al. **AIDS** 1999 Feb 4;13(2):185-94

CC-chemokine receptor variants, SDF-1 polymorphism, and disease progression in 720 HIV-infected patients. SEROCO Cohort. Amsterdam Cohort Studies on AIDS [letter] Meyer L, et al. **AIDS** 1999 Apr 1;13(5):624-6

Alleles that may influence HIV-1 pathogenesis in Chinese subjects [letter] Shieh B, et al. **AIDS** 1999 Feb 25; 13(3):421-4

Effect of C-C chemokine receptor 2 (CCR2) knockout on type-2 (schistosomal antigen-elicited) pulmonary granuloma formation: analysis of cellular recruitment and cytokine responses. Warmington KS, et al. **Am J Pathol** 1999 May;154(5):1407-16

The role of the C-C chemokine receptor 2 gene polymorphism V64I (CCR2-64I) in sarcoidosis in a Japanese population. Hizawa N, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2021-3

Prokaryotic expression of human cytomegalovirus pUS22 and its reactivity with human antibody. Dal Monte P, et al. **Arch Virol** 1998;143(12):2413-9

Cloning of the murine interferon-inducible protein 10 (IP-10) receptor and its specific expression in lymphoid organs. Tamaru M, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):41-8

Polymorphisms in the human CC chemokine receptor-3 gene. Zimmermann N, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2-3):170-6

Human thymocytes express CCR-3 and are activated by eotaxin. Franz-Bacon K, et al. **Blood** 1999 May 15; 93(10):3233-40

Metalloproteinases are involved in lipopolysaccharide- and tumor necrosis factor-alpha-mediated regulation of CXCR1 and CXCR2 chemokine receptor expression. Khandaker MH, et al. **Blood** 1999 Apr 1;93(7):2173-85

Mast cell migratory response to interleukin-8 is mediated through interaction with chemokine receptor CXCR2/Interleukin-8RB. Nilsson G, et al. **Blood** 1999 May 1;93(9):2791-7

Chemotactic response toward chemokines and its regulation by transforming growth factor-beta1 of murine bone marrow hematopoietic progenitor cell-derived different subset of dendritic cells. Ogata M, et al. **Blood** 1999 May 15;93(10):3225-32

Chemokine and chemokine receptor gene variants and risk of non-Hodgkin's lymphoma in human immunodeficiency virus-1-infected individuals. Rabkin CS, et al. **Blood** 1999 Mar 15;93(6):1838-42

Switch in chemokine receptor expression upon TCR stimulation reveals novel homing potential for recently activated T cells. Sallusto F, et al. **Eur J Immunol** 1999 Jun;29(6):2037-45

Molecular cloning, functional characterization and mRNA expression analysis of the murine chemokine receptor CCR6 and its specific ligand MIP-3alpha. Varona R, et al. **FEBS Lett** 1998 Nov 27;440(1-2):188-94

Discovery of three novel orphan G-protein-coupled receptors. Marchese A, et al. **Genomics** 1999 Feb 15; 56(1):12-21

Coevolution of the mammalian chemokines and their receptors. Hughes AL, et al. **Immunogenetics** 1999 Feb; 49(2):115-24

Increased mature and immature CCR3 messenger RNA+ eosinophils in bone marrow from patients with atopic asthma compared with atopic and nonatopic control subjects. Zeibecoglou K, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):99-106

Cloning and functional characterization of the 5'-flanking region of the human monocyte chemoattractant protein-1 receptor (CCR2) gene. Essential role of 5'-untranslated region in tissue-specific expression. Yamamoto K, et al. **J Biol Chem** 1999 Feb 19;274(8):4646-54

Kinetics of transcription of human cytomegalovirus chemokine receptor US28 in different cell types. Zipeto D, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):543-7

Point mutation causing constitutive signaling of CXCR2 leads to transforming activity similar to Kaposi's sarcoma herpesvirus-G protein-coupled receptor. Burger M, et al. **J Immunol** 1999 Aug 15;163(4):2017-22

Monocyte chemoattractant protein-1 mediates cockroach allergen-induced bronchial hyperreactivity in normal but not CCR2-/- mice: the role of mast cells. Campbell EM, et al. **J Immunol** 1999 Aug 15;163(4):2160-7

Cloning and characterization of the guinea pig eosinophil eotaxin receptor, C-C chemokine receptor-3: blockade using a monoclonal antibody in vivo. Sabroe I, et al. **J Immunol** 1998 Dec 1;161(11):6139-47

Cutting edge: identification of the orphan chemokine receptor GPR-9-6 as CCR9, the receptor for the chemokine TECK. Zaballos A, et al. **J Immunol** 1999 May 15;162(10):5671-5

Effect of chemokine receptor mutations on heterosexual human immunodeficiency virus transmission. Lockett SF, et al. **J Infect Dis** 1999 Sep;180(3):614-21

Role of CCR2 genotype in the clinical course of syncytium-inducing (SI) or non-SI human immunodeficiency virus type 1 infection and in the time to conversion to SI virus variants. van Rij RP, et al. **J Infect Dis** 1998 Dec;178(6):1806-11

Cloning of two chemokine receptor homologs (CXC-R4 and CC-R7) in rainbow trout Oncorhynchus mykiss. Daniels GD, et al. **J Leukoc Biol** 1999 May;65(5):684-90

Expression of the monocyte chemoattractant protein-1 receptor CCR2 is increased in hypercholesterolemia. Differential effects of plasma lipoproteins on monocyte function. Han KH, et al. **J Lipid Res** 1999 Jun;40(6):1053-63

Cultured rat microglia express functional beta-chemokine receptors. Boddeke EW, et al. **J Neuroimmunol** 1999 Aug 3;98(2):176-84

Expression of the open reading frame 74 (G-protein-coupled receptor) gene of Kaposi's sarcoma (KS)-associated herpesvirus: implications for KS pathogenesis. Kirshner JR, et al. **J Virol** 1999 Jul;73(7):6006-14

Chemokine receptor mRNA expression at the in vitro blood-brain barrier during HIV infection. Shaw KT, et al. **Neuroreport** 1999 Jan 18;10(1):53-6

Chemokines regulate hippocampal neuronal signaling and gp120 neurotoxicity. Meucci O, et al.

Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14500–5
RANTES, IFN–gamma, CCR1, and CCR5 mRNA expression in peripheral blood, lymph node, and bronchoalveolar lavage mononuclear cells during primary simian immunodeficiency virus infection of macaques. Chéret A, et al. **Virology** 1999 Mar 15;255(2):285–93
[Distribution of the 32 bp deletion in the CCR5 chemokine receptor gene in populations of the Volga–Ural region] Galeeva AR, et al. **Genetika** 1998 Aug;34(8):1160–2 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Prokaryotic expression of human cytomegalovirus pUS22 and its reactivity with human antibody. Dal Monte P, et al. **Arch Virol** 1998;143(12):2413–9
The CC chemokine receptor antagonist met–RANTES inhibits eosinophil effector functions. Elsner J, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):462–5
IP–10 mediated reinforcement of human type 1 cytokine synthesis to environmental allergens among non–atopic subjects. Gangur V, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):387–90
Selective recruitment of CCR4–bearing Th2 cells toward antigen–presenting cells by the CC chemokines thymus and activation–regulated chemokine and macrophage–derived chemokine. Imai T, et al. **Int Immunol** 1999 Jan;11(1):81–8
Chemokine receptors and chemokines in HIV infection [published erratum appears in J Clin Immunol 1998 Nov;18(6):441] Garzino–Demo A, et al. **J Clin Immunol** 1998 Jul;18(4):243–55 (159 ref.)
Depletion of eosinophils in mice through the use of antibodies specific for C–C chemokine receptor 3 (CCR3). Grimaldi JC, et al. **J Leukoc Biol** 1999 Jun;65(6):846–53
Cultured rat microglia express functional beta–chemokine receptors. Boddeke EW, et al. **J Neuroimmunol** 1999 Aug 3;98(2):176–84
CCR5(+) and CXCR3(+) T cells are increased in multiple sclerosis and their ligands MIP–1alpha and IP–10 are expressed in demyelinating brain lesions. Balashov KE, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6873–8

ISOLATION & PURIFICATION

Macrophage–inflammatory protein–1alpha receptor expression on normal and chronic myeloid leukemia CD34+ cells. Nicholls SE, et al. **J Immunol** 1999 May 15;162(10):6191–9

METABOLISM

Exclusion of HIV coreceptors CXCR4, CCR5, and CCR3 from the HIV envelope. Lallos LB, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):895–7
Chemokine receptors as HIV coreceptors: implications and interactions. Rucker J, et al. **AIDS Res Hum Retroviruses** 1998 Oct;14 Suppl 3:S241–6 (100 ref.)
Depletion of extracellular RANTES during human cytomegalovirus infection of endothelial cells. Billstrom MA, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):163–7
CD4 receptor–dependent entry of human immunodeficiency virus type–1 env–pseudotypes into CCR5–, CCR3–, and CXCR4–expressing human alveolar macrophages is preferentially mediated by the CCR5 coreceptor. Park IW, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):864–71
Expression of chemokine receptors in the rat brain. Bajetto A, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:201–9
Expression of CCR2 by endothelial cells : implications for MCP–1 mediated wound injury repair and In vivo inflammatory activation of endothelium. Weber KS, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2085–93
Absence of CC chemokine receptor–2 reduces atherosclerosis in apolipoprotein E–deficient mice. Dawson TC, et al. **Atherosclerosis** 1999 Mar;143(1):205–11
Downregulation by tumor necrosis factor–alpha of monocyte CCR2 expression and monocyte chemotactic protein–1–induced transendothelial migration is antagonized by oxidized low–density lipoprotein: a potential mechanism of monocyte retention in atherosclerotic lesions. Weber C, et al. **Atherosclerosis** 1999 Jul;145(1):115–23
Kaposi's sarcoma–associated herpesvirus (KSHV) chemokine vMIP–II and human SDF–1alpha inhibit signaling by KSHV G protein–coupled receptor. Geras–Raaka E, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):725–7
Glycosaminoglycans interact selectively with chemokines and modulate receptor binding and cellular responses. Kuschert GS, et al. **Biochemistry** 1999 Sep 28; 38(39):12959–68
CCR7 ligands, SLC/6Ckine/Exodus2/TCA4 and CKbeta–11/MIP–3beta/ELC, are chemoattractants for CD56(+)CD16(–) NK cells and late stage lymphoid progenitors. Kim CH, et al. **Cell Immunol** 1999 May 1; 193(2):226–35
Intracellular signalling pathways induced by chemokines in natural killer cells. Maghazachi AA. **Cell Signal** 1999 Jun; 11(6):385–90 (63 ref.)
Functional significance of CXCR2 downregulation on neutrophils from patients with severe sepsis. Goodman R, et al. **Chest** 1999 Jul;116(1 Suppl):111S–112S
Recent advances in chemokines and chemokine receptors. Zlotnik A, et al. **Crit Rev Immunol** 1999;19(1):1–47 (198 ref.)
Chemokine receptors in lymphoid organ homeostasis. Jung S, et al. **Curr Opin Immunol** 1999 Jun;11(3):319–25 (53 ref.)
CD45 modulation of CXCR1 and CXCR2 in human polymorphonuclear leukocytes. Mitchell GB, et al. **Eur J Immunol** 1999 May;29(5):1467–76
Distinct patterns and kinetics of chemokine production regulate dendritic cell function. Sallusto F, et al. **Eur J Immunol** 1999 May;29(5):1617–25
Marrow engraftment of hematopoietic stem and progenitor cells is independent of Galphai–coupled chemokine receptors. Wiesmann A, et al. **Exp Hematol** 1999 May; 27(5):946–55
Selective recognition of the membrane–bound CX3C chemokine, fractalkine, by the human cytomegalovirus–encoded broad–spectrum receptor US28. Kledal TN, et al. **FEBS Lett** 1998 Dec 18;441(2):209–14
Genetic co–inactivation of macrophage– and T–tropic HIV–1 chemokine coreceptors CCR–5 and CXCR–4 by intrakines. Bai X, et al. **Gene Ther** 1998 Jul;5(7):984–94
Chemokine receptor trafficking and viral replication. Pelchen–Matthews A, et al. **Immunol Rev** 1999 Apr; 168:33–49 (158 ref.)
Regulation of chemotactic and proadhesive responses to chemoattractant receptors by RGS (regulator of G–protein signaling) family members. Bowman EP, et al. **J Biol Chem** 1998 Oct 23;273(43):28040–8
LD78beta, a non–allelic variant of human MIP–1alpha (LD78alpha), has enhanced receptor interactions and potent HIV suppressive activity. Nibbs RJ, et al. **J Biol Chem** 1999 Jun 18;274(25):17478–83
Truncation of macrophage–derived chemokine by CD26/ dipeptidyl–peptidase IV beyond its predicted cleavage site affects chemotactic activity and CC chemokine receptor 4 interaction. Proost P, et al. **J Biol Chem** 1999 Feb 12; 274(7):3988–93
Role of clathrin–mediated endocytosis in CXCR2 sequestration, resensitization, and signal transduction. Yang W, et al. **J Biol Chem** 1999 Apr 16;274(16):11328–33
CC chemokine receptor–3 undergoes prolonged ligand–induced internalization. Zimmermann N, et al. **J Biol Chem** 1999 Apr 30;274(18):12611–8
Visualization of chemokine binding sites on human brain microvessels. Andjelkovic AV, et al. **J Cell Biol** 1999 Apr 19;145(2):403–12
Chemokines activate Kaposi's sarcoma–associated herpesvirus G protein–coupled receptor in mammalian cells in culture [see comments] Gershengorn MC, et al. **J Clin Invest** 1998 Oct 15;102(8):1469–72. Comment in: J Clin Invest 1998 Oct 15;102(8):1467–8.
Chronic inflammation upregulates chemokine receptors and induces neutrophil migration to monocyte chemoattractant protein–1. Johnston B, et al. **J Clin Invest** 1999 May; 103(9):1269–76
Dominant myelopoietic effector functions mediated by chemokine receptor CCR1. Broxmeyer HE, et al. **J Exp Med** 1999 Jun 21;189(12):1987–92
The Kaposi's sarcoma–related herpesvirus (KSHV)–encoded chemokine vMIP–I is a specific agonist for the CC chemokine receptor (CCR)8. Endres MJ, et al. **J Exp Med** 1999 Jun 21;189(12):1993–8
Anti–HIV agent trichosanthin enhances the capabilities of chemokines to stimulate chemotaxis and G protein activation, and this is mediated through interaction of trichosanthin and chemokine receptors. Zhao J, et al. **J Exp Med** 1999 Jul 5;190(1):101–11
Selective up–regulation of chemokine receptors CCR4 and CCR8 upon activation of polarized human type 2 Th cells. D'Ambrosio D, et al. **J Immunol** 1998 Nov 15; 161(10):5111–5
The CC chemokine receptor–7 ligands 6Ckine and macrophage inflammatory protein–3 beta are potent chemoattractants for in vitro– and in vivo–derived dendritic cells. Kellermann SA, et al. **J Immunol** 1999 Apr 1;162(7):3859–64
Characterization of the signal transduction pathway activated in human monocytes and dendritic cells by MPIF–1, a specific ligand for CC chemokine receptor 1. Nardelli B, et al. **J Immunol** 1999 Jan 1;162(1):435–44
A chondroitin sulfate proteoglycan on human neutrophils specifically binds platelet factor 4 and is involved in cell activation. Petersen F, et al. **J Immunol** 1998 Oct 15; 161(8):4347–55
CD26/dipeptidyl–peptidase IV down–regulates the eosinophil chemotactic potency, but not the anti–HIV activity of human eotaxin by affecting its interaction with CC chemokine receptor 3. Struyf S, et al. **J Immunol** 1999 Apr 15;162(8):4903–9
Chemokines and chemokine receptors in CNS pathology. Glabinski AR, et al. **J Neurovirol** 1999 Feb;5(1):3–12 (89 ref.)
Chemokine regulation of inflammatory–mediated nervous system diseases [editorial] Karpus WJ. **J Neurovirol** 1999 Feb;5(1):1–2
Chemokines/chemokine receptors in the central nervous system and Alzheimer's disease. Xia MQ, et al. **J Neurovirol** 1999 Feb;5(1):32–41 (106 ref.)
Patterns of chemokine receptor fusion cofactor utilization by human immunodeficiency virus type 1 variants from the lungs and blood. Singh A, et al. **J Virol** 1999 Aug; 73(8):6680–90
Expression and use of human immunodeficiency virus type 1 coreceptors by human alveolar macrophages. Worgall S, et al. **J Virol** 1999 Jul;73(7):5865–74
Lymphotropic virions affect chemokine receptor–mediated neural signaling and apoptosis: implications for human immunodeficiency virus type 1–associated dementia. Zheng J, et al. **J Virol** 1999 Oct;73(10):8256–67
Chemokines, chemokine receptors and renal disease [editorial; comment] Egido J. **Kidney Int** 1999 Jul; 56(1):347–8 (10 ref.). Comment on: Kidney Int 1999 Jul;56(1):52–64.
Chemokine receptor (CCR5) expression in human kidneys and in the HIV infected macaque [see comments] Eitner F, et al. **Kidney Int** 1998 Dec;54(6):1945–54. Comment in: Kidney Int 1998 Dec;54(6):2243–4.
The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells. Campbell JJ, et al. **Nature** 1999 Aug 19;400(6746):776–80
Cytomegalovirus encodes a potent alpha chemokine. Penfold ME, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9839–44
Tumor necrosis factor alpha regulates CXC chemokine receptor expression and function. Jawa RS, et al. **Shock** 1999 Jun;11(6):385–90
Induction of interferon–alpha by glycoprotein D of herpes simplex virus: a possible role of chemokine receptors. Ankel H, et al. **Virology** 1998 Nov 25;251(2):317–26
Chemokine and orphan receptors in HIV–2 and SIV tropism and pathogenesis. Edinger AL, et al. **Virology** 1999 Aug 1;260(2):211–21 (129 ref.)

PHYSIOLOGY

Role of chemokine receptors in HIV–1 infection and pathogenesis. Ross TM, et al. **Adv Virus Res** 1999;52:233–67 (151 ref.)
Promiscuous chemokine receptors and their redundant ligands play an enigmatic role during HIV–1 infection. Kunkel SL. **Am J Respir Cell Mol Biol** 1999 May; 20(5):859–60
Chemokine receptors as HIV–1 coreceptors: roles in viral entry, tropism, and disease. Berger EA, et al. **Annu Rev Immunol** 1999;17:657–700 (230 ref.)
Chemokines and chemokine receptors: biology and clinical relevance in inflammation and AIDS. Locati M, et al. **Annu Rev Med** 1999;50:425–40 (78 ref.)
Chemokine receptors in HIV–1 and SIV infection. Choe H. **Arch Pharm Res** 1998 Dec;21(6):634–9 (38 ref.)
Chemokine receptors—future therapeutic targets for HIV? Proudfoot AE, et al. **Biochem Pharmacol** 1999 Mar 1; 57(5):451–63 (123 ref.)
CC chemokine receptors, CCR–1 and CCR–3, are potentially involved in antigen–presenting cell function of human peripheral blood monocyte–derived dendritic cells. Sato K, et al. **Blood** 1999 Jan 1;93(1):34–42
Signalling by CXC–chemokine receptors 1 and 2 expressed in CHO cells: a comparison of calcium mobilization, inhibition of adenylyl cyclase and stimulation of GTPgammaS binding induced by IL–8 and GROalpha. Hall DA, et al. **Br J Pharmacol** 1999 Feb;126(3):810–8
T–cell subsets: chemokine receptors guide the way. O'Garra A, et al. **Curr Biol** 1998 Sep 10;8(18):R646–9 (29 ref.)
The role of chemokine receptors in directing traffic of naive, type 1 and type 2 T cells. Sallusto F, et al. **Curr Top Microbiol Immunol** 1999;246:123–8; discussion 129 (21 ref.)
Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G–protein coupled receptors implications for HIV–1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746–56
Regulation of hematopoiesis in a sea of chemokine family members with a plethora of redundant activities. Broxmeyer HE, et al. **Exp Hematol** 1999 Jul;27(7):1113–23 (147 ref.)
Novel CXCR2–dependent liver regenerative qualities of ELR–containing CXC chemokines. Hogaboam CM, et al. **FASEB J** 1999 Sep;13(12):1565–74
Chemokine receptors and their role in leukocyte activation. Wells TN, et al. **Immunol Lett** 1999 Jan;65(1–2):35–40 (46 ref.)
Chemokine receptors and HIV–1: the fusion of two major research fields. Horuk R. **Immunol Today** 1999 Feb; 20(2):89–94 (51 ref.)
Chemokines and chemokine receptors in T–cell priming and Th1/Th2–mediated responses. Sallusto F, et al. **Immunol Today** 1998 Dec;19(12):568–74 (89 ref.)
Chemokine receptors and their antagonists in allergic lung disease. Wells TN, et al. **Inflamm Res** 1999 Jul;48(7):353–62 (64 ref.)
HHV8–encoded vMIP–I selectively engages chemokine receptor CCR8. Agonist and antagonist profiles of viral chemokines. Dairaghi DJ, et al. **J Biol Chem** 1999 Jul 30; 274(31):21569–74
The chemokine receptor CXCR3 is expressed on malignant B cells and mediates chemotaxis. Trentin L, et al. **J Clin Invest** 1999 Jul;104(1):115–21
Fractalkine and CX3CR1 mediate a novel mechanism of leukocyte capture, firm adhesion, and activation under physiologic flow. Fong AM, et al. **J Exp Med** 1998 Oct 19;188(8):1413–9
Cutting edge: species specificity of the CC chemokine 6Ckine signaling through the CXC chemokine receptor CXCR3: human 6Ckine is not a ligand for the human or mouse CXCR3 receptors. Jenh CH, et al. **J Immunol** 1999 Apr

RECEPTORS, CHEMOKINE

1;162(7):3765–9
Differential regulation of eosinophil chemokine signaling via CCR3 and non-CCR3 pathways. Sabroe I, et al. **J Immunol** 1999 Mar 1;162(5):2946–55
Cutting edge: secondary lymphoid-tissue chemokine (SLC) and CC chemokine receptor 7 (CCR7) participate in the emigration pathway of mature dendritic cells from the skin to regional lymph nodes. Saeki H, et al. **J Immunol** 1999 Mar 1;162(5):2472–5
Differential effects of leukotactin-1 and macrophage inflammatory protein-1 alpha on neutrophils mediated by CCR1. Zhang S, et al. **J Immunol** 1999 Apr 15; 162(8):4938–42
Chemokine and chemokine receptor expression in the central nervous system. Hesselgesser J, et al. **J Neurovirol** 1999 Feb;5(1):13–26 (120 ref.)
Microglia express CCR5, CXCR4, and CCR3, but of these, CCR5 is the principal coreceptor for human immunodeficiency virus type 1 dementia isolates. Albright AV, et al. **J Virol** 1999 Jan;73(1):205–13
Chemokine coreceptor usage by diverse primary isolates of human immunodeficiency virus type 1. Zhang L, et al. **J Virol** 1998 Nov;72(11):9307–12
Potential role for G-protein coupled receptors in HIV-associated nephropathy [editorial; comment] Klotman M. **Kidney Int** 1998 Dec;54(6):2243–4 (10 ref.). Comment on: Kidney Int 1998 Dec;54(6):1945–54.
HIV coreceptors, cell tropism and inhibition by chemokine receptor ligands. Clapham PR, et al. **Mol Membr Biol** 1999 Jan–Mar;16(1):49–55 (58 ref.)
HIV-1 envelope determinants for cell tropism and chemokine receptor use. Hoffman TL, et al. **Mol Membr Biol** 1999 Jan–Mar;16(1):57–65 (106 ref.)
Chemokine receptors and their crucial role in human immunodeficiency virus infection: major breakthroughs in HIV research. Kristiansen TB, et al. **Scand J Immunol** 1998 Oct;48(4):339–46 (80 ref.)
The role of chemokine receptors in HIV infection. Rowland-Jones S. **Sex Transm Infect** 1999 Jun;75(3):148–51 (40 ref.)
Distinct biological effects of macrophage inflammatory protein-1alpha and stroma-derived factor-1alpha on CD34+ hemopoietic cells. Dürig J, et al. **Stem Cells** 1999; 17(2):62–71
Chemokines and chemokine receptors in the CNS: a possible role in neuroinflammation and patterning. Mennicken F, et al. **Trends Pharmacol Sci** 1999 Feb;20(2):73–8 (83 ref.)
Definition, function and pathophysiological significance of chemokine receptors. Wells TN, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):376–80 (73 ref.)
[Analysis of monocyte/macrophage function in a human MCAF/MCP-1 transgenic mouse] Ato M. **Hokkaido Igaku Zasshi** 1998 Jul;73(4):389–405 (Eng. Abstr.) **(Jpn)**
[Role of chemokine receptors in T lymphocytes] Utsunomiya I. **Seikagaku** 1998 Oct;70(10):1266–70 (15 ref.) **(Jpn)**

RECEPTORS, CHOLECYSTOKININ

Radiolabeled peptides for targeting cholecystokinin-B/gastrin receptor-expressing tumors. Behr TM, et al. **J Nucl Med** 1999 Jun;40(6):1029–44

AGONISTS

CCK receptor trafficking: a novel paradigm of travel focus on "regulation of lateral mobility and cellular trafficking of the CCK receptor by a partial agonist" [editorial; comment] del Valle J. **Am J Physiol** 1999 Mar;276(3 Pt 1):C537–8 (20 ref.). Comment on: Am J Physiol 1999 Mar;276(3 Pt 1):C539–47.
Regulation of lateral mobility and cellular trafficking of the CCK receptor by a partial agonist [see comments] Roettger BF, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C539–47. Comment in: Am J Physiol 1999 Mar;276(3 Pt 1):C527–8.
Opposite effects of CCK(B) agonists in grooming behaviour in rats: further evidence for two CCK(B) subsites. Ladurelle N, et al. **Br J Pharmacol** 1998 Jul;124(6):1091–8
Recent advances in the chemistry of cholecystokinin receptor ligands (agonists and antagonists). de Tullio P, et al. **Curr Med Chem** 1999 Jun;6(6):433–55 (201 ref.)
Cholecystokinin receptor agonists block the jumping behaviour precipitated in morphine-dependent mice by naloxone. Bourin M, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):37–43
A peptide agonist acts by occupation of a monomeric G protein-coupled receptor: dual sites of covalent attachment to domains near TM1 and TM7 of the same molecule make biologically significant domain-swapped dimerization unlikely. Hadac EM, et al. **J Med Chem** 1999 Jun 17; 42(12):2105–11
SR146131: a new potent, orally active, and selective nonpeptide cholecystokinin subtype 1 receptor agonist. I. In vitro studies. Bignon E, et al. **J Pharmacol Exp Ther** 1999 May;289(2):742–51
SR146131: a new potent, orally active, and selective nonpeptide cholecystokinin subtype 1 receptor agonist. II. In vivo pharmacological characterization. Bignon E, et al. **J Pharmacol Exp Ther** 1999 May;289(2):752–61
Opposing effects of two CCK(B) agonists on the retrieval phase of a two-trial memory task after systemic injection in the rat. Léna I, et al. **Neuropharmacology** 1999 Apr; 38(4):543–53
Dose response of adrenocorticotropin and cortisol to the CCK-B agonist pentagastrin. Abelson JL, et al. **Neuropsychopharmacology** 1999 Oct;21(4):485–94
Reduction of cholecystokinin-8S-neurons in the paraventricular hypothalamic nucleus of neonatally overfed weanling rats. Plagemann A, et al. **Neurosci Lett** 1998 Dec 11;258(1):13–6
Orally active nonpeptide CCK-A agonists. Sugg EE, et al. **Pharm Biotechnol** 1998;11:507–24 (25 ref.)
Behavioral effects of AR-R 15849, a highly selective CCK-A agonist. Simmons RD, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):549–57
Cognitive enhancing effects in young and old rats of pBC264, a selective CCK(B) receptor agonist. Taghzouti K, et al. **Psychopharmacology (Berl)** 1999 Apr;143(2):141–9

ANALYSIS

Expression of cholecystokinin-B/gastrin receptors in medullary thyroid cancer. Amiri-Mosavi A, et al. **Eur J Surg** 1999 Jul;165(7):628–31
Receptor autoradiographic evaluation of cholecystokinin, neurotensin, somatostatin and vasoactive intestinal peptide receptors in gastro-intestinal adenocarcinoma samples: where are they really located? Reubi JC, et al. **Int J Cancer** 1999 May 5;81(3):376–86
High gastrin and cholecystokinin (CCK) gene expression in human neuronal, renal, and myogenic stem cell tumors: comparison with CCK-A and CCK-B receptor contents. Schaer JC, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):233–9

ANTAGONISTS & INHIBITORS

Effects of S-0509, a novel CCKB/gastrin receptor antagonist, on acid secretion and experimental duodenal ulcers in rats. Takeuchi K, et al. **Aliment Pharmacol Ther** 1999 Jan;13(1):87–96
CCK-A receptor antagonists have selective effects on nutrient-induced food intake suppression in rats. Trigazis L, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R323–30
Differential effects of intrathecally administered morphine and its interaction with cholecystokinin-B antagonist on thermal hyperalgesia following two models of experimental mononeuropathy in the rat. Yamamoto T, et al. **Anesthesiology** 1999 May;90(5):1382–91
JMV1155: a novel inhibitor of glycine-extended progastrin-mediated growth of a human colon cancer in vivo. Litvak DA, et al. **Anticancer Res** 1999 Jan–Feb; 19(1A):45–9
CCK receptor antagonists in animal models of anxiety: comparison between exploration tests, conflict procedures and a model based on defensive behaviours. Griebel G, et al. **Behav Pharmacol** 1997 Nov;8(6–7):549–60
CR 2945: a novel CCKB receptor antagonist with anxiolytic-like activity. Revel L, et al. **Behav Pharmacol** 1998 May;9(3):183–94
Novel constrained CCK-B dipeptoid antagonists derived from pipecolic acid. Bellier B, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1419–24
Highly constrained dipeptoid analogues containing a type II'beta-turn mimic as novel and selective CCK-A receptor ligands. de la Figuera N, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):43–8
Relationship between dihedral angles of N1 and C9 substituents in 1,4-benzodiazepines and dual cholecystokinin-A and -B antagonistic activities. Tabuchi S, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1449–54
Analysis of the behaviour of selected CCKB/gastrin receptor antagonists in radioligand binding assays performed in mouse and rat cerebral cortex. Harper EA, et al. **Br J Pharmacol** 1999 Mar;126(6):1496–503
Pharmacological analysis of CCK2 receptor antagonists using isolated rat stomach ECL cells. Lindström E, et al. **Br J Pharmacol** 1999 May;127(2):530–6
L-365,260 inhibits in vitro acid secretion by interacting with a PKA pathway. Oiry C, et al. **Br J Pharmacol** 1999 May; 127(1):259–67
Stress reduces morphine's antinociceptive potency: dependence upon spinal cholecystokinin processes. Hawranko AA, et al. **Brain Res** 1999 Apr 10;824(2):251–7
Synthesis of phenoxyacetic acid derivatives as highly potent antagonists of gastrin/cholecystokinin-B receptors. III. Takeda Y, et al. **Chem Pharm Bull (Tokyo)** 1999 Jun; 47(6):755–71
Recent advances in the chemistry of cholecystokinin receptor ligands (agonists and antagonists). de Tullio P, et al. **Curr Med Chem** 1999 Jun;6(6):433–55 (201 ref.)
Antisecretory and ulcer healing effects of S-0509, a novel CCK-B/gastrin receptor antagonist, in rats. Amagase K, et al. **Dig Dis Sci** 1999 May;44(5):879–88
Effects of spiroglumide, a gastrin receptor antagonist, on acid secretion in humans. Beltinger J, et al. **Eur J Clin Invest** 1999 Feb;29(2):153–9
Characterization of antisecretory and antiulcer activity of CR 2945, a new potent and selective gastrin/CCK(B) receptor antagonist. Makovec F, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):81–90
Effects of CCK antagonists on GABA mechanism-induced antinociception in the formalin test. Rezayat M, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):9–14
CCK receptor antagonists. Dunlop J. **Gen Pharmacol** 1998 Oct;31(4):519–24 (51 ref.)
Effect of cholecystokinin blockade on the recovery of alterations induced by acute pancreatitis in glycoconjugates of rat zymogen granules. De Dios I, et al. **Glycoconj J** 1998 Sep;15(9):923–8
The effect of intermittent injections of CCK-8S and the CCK-A receptor antagonist devazepide on cell proliferation in exocrine rat pancreas. Ohlsson B, et al. **Int J Pancreatol** 1998 Dec;24(3):211–8
Benzotriazonine as a new core structure for the design of CCK-receptor antagonists. Escherich A, et al. **J Pept Sci** 1999 Mar;5(3):155–8
The development of a sensitive and specific enzyme immunoassay for FK480, a novel cholecystokinin type-A receptor antagonist, in human plasma. Nozaki K, et al. **J Pharm Biomed Anal** 1998 Sep;17(8):1381–92
Cholecystokinin-B (CCK-B) receptor antagonists improve "aged" sleep: a new class of sleep modulators? Crespi F. **Methods Find Exp Clin Pharmacol** 1999 Jan–Feb;21(1):31–8
The role of cholecystokinin (CCK), CCK-A or CCK-B receptor antagonists in the spontaneous preference for drugs of abuse (alcohol or cocaine) in naive rats. Crespi F. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):679–97
Discovery of new CCK2 receptor antagonists. A review of pharmacological studies. Part I: Development of potential therapeutic tools for gastrin-related gastrointestinal diseases. Revel L, et al. **Methods Find Exp Clin Pharmacol** 1999 Jun;21(5):375–83 (115 ref.)
Proglumide, a cholecystokinin receptor antagonist, exacerbates beta, beta'-iminodipropionitrile-induced dyskinetic syndrome in rats. Tariq M, et al. **Neurotoxicol Teratol** 1998 Sep–Oct;20(5):571–9
Effect of FK480, a CCK-A receptor antagonist, on spontaneously developed chronic pancreatitis in WBN/Kob rats. Ito H, et al. **Pancreas** 1998 Oct; 17(3):295–300
Pharmacologic profile of TS-941, a new benzodiazepine derivative cholecystokinin-receptor antagonist, in in vitro isolated rat pancreatic acini. Tashiro M, et al. **Pancreas** 1999 Mar;18(2):156–64
Effects of a new cholecystokinin antagonist, TS-941, on experimental acute pancreatitis in rats. Wang Y, et al. **Pancreas** 1998 Oct;17(3):289–94
The anxieties of drug discovery and development. CCK-B receptor antagonists. Lombardo F, et al. **Pharm Biotechnol** 1998;11:465–79 (16 ref.)
CI-1015. An orally active CCK-B receptor antagonist with an improved pharmacokinetic profile. Trivedi BK, et al. **Pharm Biotechnol** 1998;11:481–505 (51 ref.)
Differential role of cholecystokinin receptor subtypes in opioid modulation of ongoing maternal behavior. Miranda-Paiva CM, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):165–9
Reversibility of cholecystokinin-B/gastrin receptor blockade: a study of the gastrin-ECL cell axis in the rat. Norlén P, et al. **Pharmacol Toxicol** 1999 Apr;84(4):159–64
Cholecystokinin receptor mechanism(s) and morphine tolerance in mice. Zarrindast MR, et al. **Pharmacol Toxicol** 1999 Jan;84(1):46–50
Interactions between antinociception induced by cholecystokinin antagonists and GABA agonists in the tail-flick test. Zarrindast MR, et al. **Pharmacol Toxicol** 1998 Oct;83(4):143–8
Influence of L-365,260, a CCK-B/gastrin receptor antagonist, on tetragastrin-stimulated mucin metabolism in rat gastric mucosa. Komuro Y, et al. **Pharmacology** 1999 Jul;59(1):11–20
CholecystokininB receptor antagonist increases food intake in rats. Dorré D, et al. **Physiol Behav** 1998 Aug;65(1):11–4
CCK2 receptor antagonists: pharmacological tools to study the gastrin-ECL cell-parietal cell axis. Håkanson R, et al. **Regul Pept** 1999 Mar 17;80(1–2):1–12 (117 ref.)
Effect of lintitript, a new CCK-A receptor antagonist, on gastric emptying of a solid-liquid meal in humans. Kreiss C, et al. **Regul Pept** 1998 Jun 30;74(2–3):143–9
Effects of intraduodenal administration of tarazepide on pancreatic secretion and duodenal EMG in neonatal calves. Zabielski R, et al. **Regul Pept** 1998 Nov 30;78(1–3):113–23
In vivo metabolism of a novel cholecystokinin B (CCK-B) antagonist in rat and dog plasma and rat faeces. Kajbaf M, et al. **Xenobiotica** 1998 Aug;28(8):785–94
The role of endogenous gastrin in the development of enterochromaffin-like cell carcinoid tumors in Mastomys natalensis: a study with the specific gastrin receptor antagonist AG-041R. Chiba T, et al. **Yale J Biol Med** 1998 May–Aug;71(3–4):247–55

BIOSYNTHESIS

Gastrin induces heparin-binding epidermal growth factor-like growth factor in rat gastric epithelial cells transfected with gastrin receptor. Miyazaki Y, et al. **Gastroenterology** 1999 Jan;116(1):78–89

CHEMISTRY

Direct identification of the agonist binding site in the human brain cholecystokininB receptor. Anders J, et al. **Biochemistry** 1999 May 11;38(19):6043–55
CCK-B receptor: chemistry, molecular biology, biochemistry and pharmacology. Noble F, et al. **Prog Neurobiol** 1999 Jul;58(4):349–79 (287 ref.)

DEFICIENCY

Response of the gastric vagal afferent activity to cholecystokinin in rats lacking type A cholecystokinin receptors. Kurosawa M, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):51–9

Abnormal gastric morphology and function in CCK–B/gastrin receptor–deficient mice. Rindi G, et al. **Yale J Biol Med** 1998 May–Aug;71(3–4):347–54

DRUG EFFECTS

Structurally similar small molecule photoaffinity CCK–A agonists and antagonists as novel tools for directly probing 7TM receptors–ligand interactions. Darrow JW, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3127–32

Proliferative effects of cholecystokinin in GH3 pituitary cells mediated by CCK2 receptors and potentiated by insulin. Smith AJ, et al. **Br J Pharmacol** 1999 Jan;126(1):79–86

Inhibition of gastrin–stimulated cell proliferation by the CCK–B/gastrin receptor ligand CI–988. Dethloff LA, et al. **Food Chem Toxicol** 1999 Feb–Mar;37(2–3):105–10

Rat hippocampal neurons are critically involved in physiological improvement of memory processes induced by cholecystokinin–B receptor stimulation. Sebret A, et al. **J Neurosci** 1999 Aug 15;19(16):7230–7

Mutations within the cholecystokinin–B/gastrin receptor ligand 'pocket' interconvert the functions of nonpeptide agonists and antagonists. Bläker M, et al. **Mol Pharmacol** 1998 Nov;54(5):857–63

Exogenous CCK and gastrin stimulate pancreatic exocrine secretion via CCK–A but also via CCK–B/gastrin receptors in the calf. Le Dréan G, et al. **Pflugers Arch** 1999 Jun;438(1):86–93

Small synthetic ligands of the cholecystokinin–B/gastrin receptor can mimic the function of endogenous peptide hormones. Beinborn M, et al. **Yale J Biol Med** 1998 May–Aug;71(3–4):337–46

GENETICS

An 84–kilobase physical map and repeat polymorphisms of the gastrin/cholecystokinin brain receptor region at the junction of chromosome segments 11p15.4 and 15.5. O'Briant KC, et al. **Chromosome Res** 1998 Aug;6(5):415–8

Missense variants in the human cholecystokinin type A receptor gene: no evidence for association with early–onset obesity. Hamann A, et al. **Horm Metab Res** 1999 Apr; 31(4):287–8

Lack of appropriate citation [letter; comment] Funakoshi A, et al. **J Gastroenterol** 1999 Apr;34(2):296–7. Comment on: J Gastroenterol 1998 Oct;33(5):702–9.

Differential tissular expression of the CCK(A) and CCK(B) gastrin receptor genes during postnatal development in the calf. Desbois C, et al. **Life Sci** 1998;63(23):2059–70

A major quantitative trait locus co–localizing with cholecystokinin type A receptor gene influences poor pancreatic proliferation in a spontaneously diabetogenic rat. Moralejo DH, et al. **Mamm Genome** 1998 Oct;9(10):794–8

Mutations within the cholecystokinin–B/gastrin receptor ligand 'pocket' interconvert the functions of nonpeptide agonists and antagonists. Bläker M, et al. **Mol Pharmacol** 1998 Nov;54(5):857–63

Investigation of cholecystokinin system genes in panic disorder. Kennedy JL, et al. **Mol Psychiatry** 1999 May; 4(3):284–5

Cholecystokinin A and B receptor mRNA expression in human pancreas. Nishimori I, et al. **Pancreas** 1999 Aug; 19(2):109–13

CCK–B receptor: chemistry, molecular biology, biochemistry and pharmacology. Noble F, et al. **Prog Neurobiol** 1999 Jul;58(4):349–79 (287 ref.)

Cloning and characterization of 5'–end alternatively spliced human cholecystokinin–B receptor mRNAs. Monstein HJ, et al. **Receptors Channels** 1998;6(3):165–77

Abnormal gastric morphology and function in CCK–B/gastrin receptor–deficient mice. Rindi G, et al. **Yale J Biol Med** 1998 May–Aug;71(3–4):347–54

[Is gastrin trophic? Gastrin/ gastrin receptor "knockout" mice confirm the old hypothesis] Schmitz F, et al. **Z Gastroenterol** 1998 Jul;36(7):613–6 **(Ger)**

[Mechanism of aging: obesity, non–insulin dependent diabetes mellitus (NIDDM) and abnormal behavior, and CCK–A receptor gene abnormality] Miyasaka K, et al. **Nippon Ronen Igakkai Zasshi** 1999 Feb;36(2):90–4 **(Jpn)**

METABOLISM

Electrical physiological evidence for highand low–affinity vagal CCK–A receptors. Li Y, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G469–77

CCK receptor dysfunction in muscle membranes from human gallbladders with cholesterol stones. Xiao ZL, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):G1401–7

Ontogeny and species differences in the pancreatic expression and localization of the CCK(A) receptors. Bourassa J, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):820–8

Concerted action of cytosolic Ca2+ and protein kinase C in receptor–mediated phospholipase D activation in Chinese hamster ovary cells expressing the cholecystokinin–A receptor. Bosch RR, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):263–8

CCKA receptor activation stimulates p130(Cas) tyrosine phosphorylation, translocation, and association with Crk in rat pancreatic acinar cells. Ferris HA, et al. **Biochemistry** 1999 Feb 2;38(5):1497–508

Highly constrained dipeptoid analogues containing a type II 'beta–turn mimic as novel and selective CCK–A receptor ligands. de la Figuera N, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):43–8

Characterization of the binding of a novel radioligand to CCKB/gastrin receptors in membranes from rat cerebral cortex. Harper EA, et al. **Br J Pharmacol** 1999 Mar; 126(6):1504–12

Cholecystokinin receptors in human pancreatic cancer cell lines. Mandair KK, et al. **Eur J Cancer** 1998 Aug; 34(9):1455–9

Pyridothiadiazinedioxides structurally related to quinazolinones cholecystokinin/gastrin receptor ligands: synthesis and biological evaluation. Pirotte B, et al. **Eur J Pharm Sci** 1998 Dec;7(1):29–40

Human pancreatic cancer cell lines express the CCKB receptor. de Weerth A, et al. **Hepatogastroenterology** 1999 Jan–Feb;46(25):472–8

Cholecystokinin, acting through the A receptor subtype, stimulates the proliferative activity of adrenocortical cells and thymocytes in the rat. Malendowicz LK, et al. **Histol Histopathol** 1999 Apr;14(2):439–43

Src–family tyrosine kinases in activation of ERK–1 and p85/p110–phosphatidylinositol 3–kinase by G/CCKB receptors. Daulhac L, et al. **J Biol Chem** 1999 Jul 16; 274(29):20657–63

Structurally related peptide agonist, partial agonist, and antagonist occupy a similar binding pocket within the cholecystokinin receptor. Rapid analysis using fluorescent photoaffinity labeling probes and capillary electrophoresis. Dong M, et al. **J Biol Chem** 1999 Feb 19;274(8):4778–85

Arginine 336 and asparagine 333 of the human cholecystokinin–A receptor binding site interact with the penultimate aspartic acid and the C–terminal amide of cholecystokinin. Gigoux V, et al. **J Biol Chem** 1999 Jul 16;274(29):20457–64

Interspecies polymorphisms confer constitutive activity to the Mastomys cholecystokinin–B/gastrin receptor. Schaffer K, et al. **J Biol Chem** 1998 Oct 30; 273(44):28779–84

Evidence for a direct interaction between the penultimate aspartic acid of cholecystokinin and histidine 207, located in the second extracellular loop of the cholecystokinin B receptor. Silvente–Poirot S, et al. **J Biol Chem** 1999 Aug 13;274(33):23191–7

Defects of cholecystokinin (CCK)–A receptor gene expression and CCK–A receptor–mediated biological functions in Otsuka Long–Evans Tokushima Fatty (OLETF) rats [see comments] Nakamura H, et al. **J Gastroenterol** 1998 Oct;33(5):702–9. Comment in: J Gastroenterol 1999 Apr;34(2):296–7.

Expression of progastrin–derived peptides and gastrin receptors in a panel of gastrointestinal carcinoma cell lines. Kelly A, et al. **J Gastroenterol Hepatol** 1998 Feb; 13(2):208–14

Effects of peripheral axotomy on cholecystokinin neurotransmission in the rat spinal cord. Antunes Bras JM, et al. **J Neurochem** 1999 Feb;72(2):858–67

The cholecystokininB receptor is coupled to two effector pathways through pertussis toxin–sensitive and –insensitive G proteins. Pommier B, et al. **J Neurochem** 1999 Jul; 73(1):281–8

Expression of gastrin/CCK–B receptors does not lead to a mitogenic response to gastrin in two colon cell lines. Imdahl A, et al. **J Surg Res** 1999 Sep;86(1):108–15

Differential tissular expression of the CCK(A) and CCK(B) gastrin receptor genes during postnatal development in the calf. Desbois C, et al. **Life Sci** 1998;63(23):2059–70

Changes with ageing in the modulation of murine lymphocyte chemotaxis by CCK–8S, GRP and NPY. Medina S, et al. **Mech Ageing Dev** 1998 May 15;102(2–3):249–61

Glycine–extended gastrin exerts growth–promoting effects on human colon cancer cells. Stepan VM, et al. **Mol Med** 1999 Mar;5(3):147–59

Single amino acid substitution of serine82 to asparagine in first intracellular loop of human cholecystokinin (CCK)–B receptor confers full cyclic AMP responses to CCK and gastrin. Wu SV, et al. **Mol Pharmacol** 1999 May; 55(5):795–803

Evidence for CCK(B) receptors in the guinea–pig kidney: localization and characterization by [125I]gastrin binding studies and by RT–PCR. von Schrenck T, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):287–92

Peripheral stimulation of CCK–B receptors by BC264 induces a hyperexploration, dependent on the delta opioid system in the nucleus accumbens of rat. Daugé V, et al. **Neuropharmacology** 1999 Jul;38(7):999–1007

Effects of cholecystokinin octapeptide on a pancreatic acinar carcinoma in the rat. Hajri A, et al. **Pharm Res** 1998 Nov; 15(11):1767–74

CCK(A) and 5–HT3 receptors interact in anorectic responses to amino acid deficiency. Aja SM, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):487–91

CCK receptor subtype in insulin–producing cells: a combined functional and in situ hybridization study in rat islets and a rat insulinoma cell line. Karlsson S, et al. **Regul Pept** 1998 Nov 30;78(1–3):95–103

Small synthetic ligands of the cholecystokinin–B/gastrin receptor can mimic the function of endogenous peptide hormones. Beinborn M, et al. **Yale J Biol Med** 1998 May–Aug;71(3–4):337–46

PHYSIOLOGY

Involvement of cholecystokininA receptors in transient lower esophageal sphincter relaxations triggered by gastric distension. Boeckxstaens GE, et al. **Am J Gastroenterol** 1998 Oct;93(10):1823–8

Estradiol alters cholecystokinin stimulus–response coupling in rat pancreatic acini. Blevins GT Jr, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G993–8

Cholecystokinin and serotonin receptors in the regulation of fat–induced satiety in rats. Burton–Freeman B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R429–34

CCK receptor trafficking: a novel paradigm of travel focus on "regulation of lateral mobility and cellular trafficking of the CCK receptor by a partial agonist" [editorial; comment] del Valle J. **Am J Physiol** 1999 Mar;276(3 Pt 1):C537–8 (20 ref.). Comment on: Am J Physiol 1999 Mar;276(3 Pt 1):C539–47.

Involvement of RhoA and its interaction with protein kinase C and Src in CCK–stimulated pancreatic acini. Nozu F, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G915–23

Regulation of lateral mobility and cellular trafficking of the CCK receptor by a partial agonist [see comments] Roettger BF, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C539–47. Comment in: Am J Physiol 1999 Mar;276(3 Pt 1):C527–8.

Duodenal loading with glucose induces fos expression in rat brain: selective blockade by devazepide. Wang L, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R667–74

Cholecystokinin B receptors in the periaqueductal gray potentiate defensive rage behavior elicited from the medial hypothalamus of the cat. Luo B, et al. **Brain Res** 1998 Jun 15;796(1–2):27–37

Evidence for a functional role of the cholecystokinin–B/gastrin receptor in the human fetal and adult pancreas. Saillan–Barreau C, et al. **Diabetes** 1999 Oct; 48(10):2015–21

Physiological role of cholecystokinin B/gastrin receptor in leptin secretion. Attoub S, et al. **Endocrinology** 1999 Oct; 140(10):4406–10

Gastrin/cholecystokinin type B receptors in the kidney: molecular, pharmacological, functional characterization, and localization. de Weerth A, et al. **Eur J Clin Invest** 1998 Jul;28(7):592–601

CCK1 and CCK2 receptors regulate gastric pepsinogen secretion. Blandizzi C, et al. **Eur J Pharmacol** 1999 May 28;373(1):71–84

The cholecystokinin–A receptor mediates inhibition of food intake yet is not essential for the maintenance of body weight [published erratum appears in J Clin Invest 1999 Mar;103(5):759] Kopin AS, et al. **J Clin Invest** 1999 Feb; 103(3):383–91

Evidence that cholecystokinin receptors are not involved in the hypothalamic–pituitary–adrenal response to intraperitoneal administration of interleukin–1beta. Day HE, et al. **J Neuroendocrinol** 1999 Jul;11(7):561–8

CCK–A and CCK–B receptors enhance olfactory recognition via distinct neuronal pathways. Lemaire M, et al. **Learn Mem** 1994 Sep–Oct;1(3):153–64

The influence of the cellular context on receptor function: a necessary consideration for physiologic interpretations of receptor expression studies. Logsdon CD. **Life Sci** 1999; 64(6–7):369–74 (38 ref.)

CCK(B) receptors in the periaqueductal grey are involved in electroacupuncture antinociception in the rat cold water tail–flick test. Chen XH, et al. **Neuropharmacology** 1998 Jun;37(6):751–7

Disruption of cholecystokinin (CCK)–B receptor gene did not modify bile or pancreatic secretion or pancreatic growth: a study in CCK–B receptor gene knockout mice. Miyasaka K, et al. **Pancreas** 1999 Aug;19(2):114–8

Role of cholecystokinin type B receptors in ultrasound induced behavior in rats. Voits M, et al. **Peptides** 1999; 20(3):383–6

The expression of behavioral sensitization to amphetamine: role of CCK(A) receptors. DeSousa NJ, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):31–7

Cholecystokinin receptor mechanism(s) and morphine tolerance in mice. Zarrindast MR, et al. **Pharmacol Toxicol** 1999 Jan;84(1):46–50

Impaired learning and memory in OLETF rats without cholecystokinin (CCK)–A receptor. Nomoto S, et al. **Physiol Behav** 1999 Jul;66(5):869–72

The cholecystokinin––gastrin family of peptides and their receptors. Rehfeld JF. **Results Probl Cell Differ** 1999; 26:293–321 (170 ref.)

[Gastrin–17 and G17–gly induce proliferation of LoVo cells through the CCK B/gastrin receptor] Artru P, et al. **Gastroenterol Clin Biol** 1998 Jun–Jul;22(6–7):607–12 (Eng. Abstr.) **(Fre)**

[Receptors for cholecystokinin and gastrin] de Weerth A, et al. **Z Gastroenterol** 1999 May;37(5):389–401 (92 ref.) (Eng. Abstr.) **(Ger)**

RECEPTORS, CHOLINERGIC

Monoclonal antibodies raised against human acetylcholine receptor bind to all five subunits of the fetal isoform. Jacobson L, et al. **J Neuroimmunol** 1999 Aug 3;98(2):112–20

AGONISTS see CHOLINERGIC AGONISTS

RECEPTORS, CHOLINERGIC

ANALYSIS

Aggregates of acetylcholine receptors are not observed under anti-agrin staining schwann cell processes at the frog neuromuscular junction. Werle MJ, et al. **J Neurobiol** 1999 Jul;40(1):45–54

Targeting of acetylcholine receptor and 43 kDa rapsyn to the postsynaptic membrane in Torpedo marmorata electrocyte. Bignami F, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):177–81

Nitric oxide synthase and the acetylcholine receptor in the prefrontal cortex: metasynaptic organization of the brain. Csillik B, et al. **Neurobiology (Bp)** 1998;6(4):383–404

Non-adrenergic, non-cholinergic neurons innervating the guinea-pig trachea are located in the oesophagus: evidence from retrograde neuronal tracing. Moffatt JD, et al. **Neurosci Lett** 1998 May 22;248(1):37–40

ANTAGONISTS & INHIBITORS see CHOLINERGIC ANTAGONISTS

BIOSYNTHESIS

Evidence for a neural inhibitory factor which downregulates fetal-type acetylcholine receptor expression in skeletal muscle cell lines. Montgomery JM, et al. **Brain Res** 1999 Feb 13;818(2):346–54

Effects of HI-6 on muscle acetylcholine receptor: analysis on minimal reaction model. Chen HC, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):428–31

Expression of acetylcholine receptor mRNAs in atrophying and nonatrophying skeletal muscles of old rats. Gomes RR Jr, et al. **J Appl Physiol** 1998 Nov;85(5):1903–8

A cysteine-rich form of Xenopus neuregulin induces the expression of acetylcholine receptors in cultured myotubes. Yang JF, et al. **Mol Cell Neurosci** 1999 Jun;13(6):415–29

BLOOD

Specific immunoadsorbent for myasthenia gravis treatment: development of synthetic peptide designed to remove antiacetylcholine receptor antibody. Miyahara T, et al. **Ther Apher** 1998 Aug;2(3):246–8

CHEMISTRY

The conformational switch in 7-transmembrane receptors: the muscarinic receptor paradigm. Hulme EC, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):247–60 (83 ref.)

Globular domains of agrin are functional units that collaborate to induce acetylcholine receptor clustering. Cornish T, et al. **J Cell Sci** 1999 Apr;112 (Pt 8):1213–23

Delimiting the binding site for quaternary ammonium lidocaine derivatives in the acetylcholine receptor channel. Pascual JM, et al. **J Gen Physiol** 1998 Nov;112(5):611–21

DRUG EFFECTS

Treatment of Alzheimer's disease: an evaluation of the cholinergic approach. Lemière J, et al. **Acta Neurol Belg** 1999 Jun;99(2):96–106 (113 ref.)

Glucose metabolism in cholinoceptive cortical rat brain regions after basal forebrain cholinergic lesion. Mehlhorn G, et al. **Int J Dev Neurosci** 1998 Nov-Dec;16(7–8):675–90

Cardiac anticholinergic effects of procainamide and its N-acetylated metabolite: experimental pharmacological and radioligand binding studies. Boucher M, et al. **J Auton Pharmacol** 1998 Apr;18(2):83–7

Chronic nicotine treatment up-regulates human alpha3 beta2 but not alpha3 beta4 acetylcholine receptors stably transfected in human embryonic kidney cells. Wang F, et al. **J Biol Chem** 1998 Oct 30;273(44):28721–32

Age dependent response to exogenous estrogen on micturition, contractility and cholinergic receptors of the rat bladder. Diep N, et al. **Life Sci** 1999;64(23):PL 279–89

Effects of posttraining administration of insulin on retention of a habituation response in mice: participation of a central cholinergic mechanism. Kopf SR, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):50–61

Amphetamine acts as a channel blocker of the acetylcholine receptor. Spitzmaul GF, et al. **Neuroreport** 1999 Jul 13; 10(10):2175–81

Cholinergic and serotonergic alterations in the rat hippocampus following trimethyltin exposure and fetal neural transplantation. Roy A, et al. **Neurosci Lett** 1999 Jan 15;259(3):173–6

In vivo muscarinic cholinergic mediated effects of Lu 25-109, a M1 agonist and M2/M3 antagonist in vitro. Sánchez C, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):233–40

[Blocking effects of dimethoate on acetylcholine receptor channels] Xu H, et al. **Wei Sheng Yen Chiu** 1997 May; 26(3):154–8 (Eng. Abstr.) **(Chi)**

[Blockade of the ion channels of the skeletal muscle acetylcholine receptor] Danilov AF. **Eksp Klin Farmakol** 1998 Nov-Dec;61(6):73–5 (22 ref.) (Eng. Abstr.) **(Rus)**

[The function of the cholinergic and sympathoadrenal systems in miners with long-term exposure to manganese oxides] Iashchenko AB. **Lik Sprava** 1998 Aug;(6):152–5 (Eng. Abstr.) **(Rus)**

[The effect of the parenteral administration of alpha-ketoglutarate on the resistance of rats to ionizing radiation and on their cholinergic systems] Shostakovs'ka IV, et al. **Fiziol Zh** 1999;45(1–2):119–26 (Eng. Abstr.) **(Ukr)**

GENETICS

Mutation of the acetylcholine receptor epsilon-subunit promoter in congenital myasthenic syndrome. Nichols P, et al. **Ann Neurol** 1999 Apr;45(4):439–43

A mutational analysis of the acetylcholine receptor channel transmitter binding site. Akk G, et al. **Biophys J** 1999 Jan; 76(1 Pt 1):207–18

ERK MAP kinase activation is required for acetylcholine receptor inducing activity-induced increase in all five acetylcholine receptor subunit mRNAs as well as synapse-specific expression of acetylcholine receptor varepsilon-transgene. Si J, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):18–27

Acetylcholine receptor alpha subunit mRNA expression in human thymus: augmented expression in myasthenia gravis and upregulation by interferon-gamma. Zheng Y, et al. **Clin Immunol** 1999 May;91(2):170–7

Overexpression of agrin isoforms in Xenopus embryos alters the distribution of synaptic acetylcholine receptors during development of the neuromuscular junction. Godfrey EW, et al. **Dev Biol** 1999 Jan 1;205(1):22–32

Polymerase chain reaction-based diagnosis of rhabdomyosarcomas: comparison of fetal type acetylcholine receptor subunits and myogenin. Gattenlöhner S, et al. **Diagn Mol Pathol** 1998 Jun; 7(3):129–34

Autosomal dominant nocturnal frontal lobe epilepsy: an electroclinical study of a Norwegian family with ten affected members. Nakken KO, et al. **Epilepsia** 1999 Jan; 40(1):88–92

Alternative splicing generates multiple mRNA forms of the acetylcholine receptor gamma-subunit in rat muscle. Villarroel A. **FEBS Lett** 1999 Jan 29;443(3):381–4

Expression of somatostatin receptor genes and acetylcholine receptor development in rat skeletal muscle during postnatal development. Peng M, et al. **Int J Mol Med** 1998 May;1(5):841–8

Delimiting the binding site for quaternary ammonium lidocaine derivatives in the acetylcholine receptor channel. Pascual JM, et al. **J Gen Physiol** 1998 Nov;112(5):611–21

Acetylcholinesterase activity of skeletal muscle in a non-immunogenic model for myasthenia gravis in rats. Van Kempen GT, et al. **J Neural Transm** 1999;106(5–6):423–31

Constitutively active MuSK is clustered in the absence of agrin and induces ectopic postsynaptic-like membranes in skeletal muscle fibers. Jones G, et al. **J Neurosci** 1999 May 1;19(9):3376–83

Single-cell RT-PCR and functional characterization of Ca2+ channels in motoneurons of the rat facial nucleus. Plant TD, et al. **J Neurosci** 1998 Dec 1;18(23):9573–84

Essential roles of c-JUN and c-JUN N-terminal kinase (JNK) in neuregulin-increased expression of the acetylcholine receptor epsilon-subunit. Si J, et al. **J Neurosci** 1999 Oct 1;19(19):8498–508

Congenital myasthenic syndromes: experiments of nature. Engel AG, et al. **J Physiol Paris** 1998 Apr;92(2):113–7 (25 ref.)

Transcriptional pathways for synapse-specific, neuregulin-induced and electrical activity-dependent transcription. Fromm L, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):173–6

Acetylcholine receptor M3 domain: stereochemical and volume contributions to channel gating [published erratum appears in Nat Neurosci 1999 May;2(5):485] Wang HL, et al. **Nat Neurosci** 1999 Mar;2(3):226–33

Association of acetylcholine receptor alpha-subunit gene expression in mixed thymoma with myasthenia gravis. Wilisch A, et al. **Neurology** 1999 Apr 22;52(7):1460–6

Congenital myasthenic syndromes: gene mutation. **Neuromuscul Disord** 1998 Oct;8(7):XII–XIII

Congenital myasthenic syndrome caused by a mutation in the Ets-binding site of the promoter region of the acetylcholine receptor epsilon subunit gene. Ohno K, et al. **Neuromuscul Disord** 1999 May;9(3):131–5

Induction of utrophin gene expression by heregulin in skeletal muscle cells: role of the N-box motif and GA binding protein. Gramolini AO, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3223–7

Serum choline activates mutant acetylcholine receptors that cause slow channel congenital myasthenic syndromes. Zhou M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10466–71

[Comparison of the transcription of the fetal type acetylcholine receptor and myogenin in rhabdomyosarcoma] Gattenlöhner S, et al. **Verh Dtsch Ges Pathol** 1998;82:195–201 (Eng. Abstr.) **(Ger)**

HISTORY

Antibody to acetylcholine receptor in myasthenia gravis: prevalence, clinical correlates, and diagnostic value. 1975 [classical article] Lindstrom JM, et al. **Neurology** 1998 Oct; 51(4):933 and 6 pages following

IMMUNOLOGY

The B-cell repertoire in myasthenia gravis includes all four acetylcholine receptor subunits. Wang WZ, et al. **Acta Neurol Scand** 1998 Dec;98(6):422–6

Early-onset myasthenia gravis: a recurring T-cell epitope in the adult-specific acetylcholine receptor epsilon subunit presented by the susceptibility allele HLA-DR52a. Hill M, et al. **Ann Neurol** 1999 Feb;45(2):224–31

TE671 cell-based ELISA for anti-acetylcholine receptor antibody determination in myasthenia gravis. Franciotta D, et al. **Clin Chem** 1999 Mar;45(3):400–5

Detection of antibodies directed against the cytoplasmic region of the human acetylcholine receptor in sera from myasthenia gravis patients. Tzartos SJ, et al. **Clin Exp Immunol** 1999 Apr;116(1):146–52

Decrease of LFA-1 is associated with upregulation of TGF-beta in CD4(+) T cell clones derived from rats nasally tolerized against experimental autoimmune myasthenia gravis. Xiao BG, et al. **Clin Immunol Immunopathol** 1998 Dec;89(3):196–204

Determinant spreading and immune responses to acetylcholine receptors in myasthenia gravis. Vincent A, et al. **Immunol Rev** 1998 Aug;164:157–68 (87 ref.)

Development of an assay for modulating anti-acetylcholine receptor autoantibodies using human rhabdomyosarcoma cell line. Lyons BW, et al. **J Clin Lab Anal** 1998;12(5):315–9

Scanning a DRB3*0101 (DR52a)-restricted epitope cross-presented by DR3: overlapping natural and artificial determinants in the human acetylcholine receptor. Nagvekar N, et al. **J Immunol** 1999 Apr 1;162(7):4079–87

Mechanisms of nasal tolerance induction in experimental autoimmune myasthenia gravis: identification of regulatory cells. Shi FD, et al. **J Immunol** 1999 May 15; 162(10):5757–63

Interleukin-4 deficiency facilitates development of experimental myasthenia gravis and precludes its prevention by nasal administration of CD4+ epitope sequences of the acetylcholine receptor. Karachunski PI, et al. **J Neuroimmunol** 1999 Mar 1;95(1–2):73–84

Subcutaneous administration of T-epitope sequences of the acetylcholine receptor prevents experimental myasthenia gravis. Karachunski PI, et al. **J Neuroimmunol** 1999 Jan 1;93(1–2):108–21

Construction and characterization of a humanized single chain Fv antibody fragment against the main immunogenic region of the acetylcholine receptor. Papanastasiou D, et al. **J Neuroimmunol** 1999 Feb 1;94(1–2):182–95

Generation of acetylcholine receptor-specific human T cell lines using heterobifunctional antibody-targeted antigen presentation. Wang D, et al. **J Neuroimmunol** 1999 Sep 1;99(1):114–21

CD4+ T cell repertoire on the epsilon subunit of muscle acetylcholine receptor in myasthenia gravis. Wang ZY, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):33–42

Antibody dependent cell-mediated cytotoxicity--an additional mechanism in human autoimmune myasthenia gravis. Xu BY, et al. **J Neuroimmunol** 1999 Oct 29; 99(2):183–8

Myasthenia gravis: lessons from the past 10 years. Shelton GD. **J Small Anim Pract** 1998 Aug;39(8):368–72

Antigen-specific modulation of experimental myasthenia gravis: nasal tolerization with recombinant fragments of the human acetylcholine receptor alpha-subunit. Barchan D, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6; 96(14):8086–91

Altered peptide ligands act as partial agonists by inhibiting phospholipase C activity induced by myasthenogenic T cell epitopes. Faber-Elmann A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14320–5

[Effect of acetylcholine receptor antibody derived from myasthenia gravis on the rat central neuronal nicotinic acetylcholine receptor] Li Z, et al. **Chung Hua Nei Ko Tsa Chih** 1997;36(1):15–7 (Eng. Abstr.) **(Chi)**

[Systemic manifestations of myasthenia gravis and its putative pathogenesis] Zhang H, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jun;36(6):368–71 (Eng. Abstr.) **(Chi)**

[Myasthenia gravis with electrophysiological features of Lambert-Eaton myasthenic syndrome: usefulness of serum autoantibodies assay and neuromuscular junction biopsy] Matsumoto R, et al. **Rinsho Shinkeigaku** 1999 May; 39(5):531–7 (25 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Immobilized nicotinic receptor stationary phase for on-line liquid chromatographic determination of drug-receptor affinities. Zhang Y, et al. **Anal Biochem** 1998 Nov 1; 264(1):22–5

Acquired slow-channel syndrome: a form of myasthenia gravis with prolonged open time of the acetylcholine receptor channel. Wintzen AR, et al. **Ann Neurol** 1998 Oct; 44(4):657–64

A mutational analysis of the acetylcholine receptor channel transmitter binding site. Akk G, et al. **Biophys J** 1999 Jan; 76(1 Pt 1):207–18

The role of alternative splicing in regulating agrin binding to muscle cells. Deyst KA, et al. **Brain Res Dev Brain Res** 1998 Oct 1;110(2):185–91

Positive- and negative-regulation of Ca2+ entry through ACh receptor channels by phosphorylation. Nishizaki T, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):295–301

ERK MAP kinase activation is required for acetylcholine receptor inducing activity-induced increase in all five acetylcholine receptor subunit mRNAs as well as synapse-specific expression of acetylcholine receptor varepsilon-transgene. Si J, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):18–27

Rapid increase in cytosolic calcium ion concentration

mediated by acetylcholine receptors in cultured retinal neurons and Müller cells. Wakakura M, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):934–9

ECC–1 human endometrial cells as a model system to study dioxin disruption of steroid hormone function. Ricci MS, et al. **In Vitro Cell Dev Biol Anim** 1999 Apr;35(4):183–9

Cellular localization of estrogen receptors on neurones in various regions of cultured rat CNS: coexistence with cholinergic and galanin receptors. Hösli E, et al. **Int J Dev Neurosci** 1999 Jul;17(4):317–30

Phosphorylation and cytoskeletal anchoring of the acetylcholine receptor by Src class protein–tyrosine kinases. Activation by rapsyn. Mohamed AS, et al. **J Biol Chem** 1999 Jul 16;274(29):20529–39

Altered glycosylation sites of the delta subunit of the acetylcholine receptor (AChR) reduce alpha delta association and receptor assembly. Ramanathan VK, et al. **J Biol Chem** 1999 Jul 16;274(29):20513–20

A functional role for specific spliced variants of the alpha7beta1 integrin in acetylcholine receptor clustering. Burkin DJ, et al. **J Cell Biol** 1998 Nov 16;143(4):1067–75

Distinct domains of MuSK mediate its abilities to induce and to associate with postsynaptic specializations. Zhou H, et al. **J Cell Biol** 1999 Sep 6;146(5):1133–46

Rate constants of acetylcholine receptor internalization and degradation in mouse muscles. Xu R, et al. **J Cell Physiol** 1999 Oct;181(1):107–12

Partial purification of acetylcholine receptor binding components from the Duvernoy's secretions of blanding's tree snake (Boiga blandingi) and the mangrove snake (Boiga dendrophila). Broaders M, et al. **J Nat Toxins** 1999 Jun; 8(2):155–66

Neuronal acetylcholine receptors with alpha7 subunits are concentrated on somatic spines for synaptic signaling in embryonic chick ciliary ganglia. Shoop RD, et al. **J Neurosci** 1999 Jan 15;19(2):692–704

Paradoxical cholinergic and purinergic vascular reactivity of rabbit thoracic aorta cold-stored in University of Wisconsin solution. Alexander B, et al. **J Pharm Pharmacol** 1999 May;51(5):623–30

Single channel properties of human alpha3 AChRs: impact of beta2, beta4 and alpha5 subunits. Nelson ME, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):657–78

Role of M2 domain residues in conductance and gating of acetylcholine receptors in developing Xenopus muscle. Sullivan MP, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):31–9

Smoke–induced airway hyperresponsiveness to inhaled wood smoke in guinea pigs: tachykininergic and cholinergic mechanisms. Hsu TH, et al. **Life Sci** 1998;63(17):1513–24

Regulation of the size and distribution of agrin–induced postsynaptic–like apparatus in adult skeletal muscle by electrical muscle activity. Mathiesen I, et al. **Mol Cell Neurosci** 1999 Mar;13(3):207–17

Alterations of striatal cholinergic receptors after lesioning of the substantia nigra. Sanvarinda Y, et al. **Neurochem Int** 1998 Aug;33(2):187–93

Role of subunit composition in determining acetylcholine receptor degradation rates in rat myotubes. Sala C, et al. **Neurosci Lett** 1998 Oct 30;256(1):1–4

Neurotrophins regulate agrin–induced postsynaptic differentiation. Wells DG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1112–7

Agrin and the neuromuscular junction [letter; comment] Lømo T. **Trends Neurosci** 1998 Oct;21(10):426–7. Comment on: Trends Neurosci 1998 Jan;21(1):22–7.

[Effect of qiangji jianli capsule on metabolism of acetylcholine receptor] Li SM. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Apr; 17(4):230–1 (Eng. Abstr.) **(Chi)**

[The injury of Xenopus laevis oocytes membrane and its acetylcholine receptor by free radical and the protection of lycium barbarum polysaccharide] Zhang B, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):322–5 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Role of cholinergic receptors and cholinesterase activity in hemodynamic responses to cocaine in conscious rats. Knuepfer MM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R103–12

Cholinergic systems in the nucleus of the solitary tract of rats. Shihara M, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1141–8

Strain–dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17–26

Epibatidine activates muscle acetylcholine receptors with unique site selectivity. Prince RJ, et al. **Biophys J** 1998 Oct;75(4):1817–27

Analyses of signal transduction cascades in rat pinealocytes reveal a switch in cholinergic signaling during postnatal development. Schomerus C, et al. **Brain Res** 1999 Jun 26; 833(1):39–50

Fiber atrophy, but not changes in acetylcholine receptor expression, contributes to the muscle dysfunction after immobilization. Ibebunjo C, et al. **Crit Care Med** 1999 Feb; 27(2):275–85

Adrenergic/cholinergic immunomodulation in the rat model—in vivo veritas? Rinner I, et al. **Dev Immunol** 1998; 6(3–4):245–52 (35 ref.)

Involvement of nitric oxide in the mediation of NANC inhibitory neurotransmission of guinea–pig trachea. Venugopalan CS, et al. **J Auton Pharmacol** 1998 Oct; 18(5):281–6

Measurement of adenylate cyclase activity in the minute bovine ciliary epithelial cells during the pharmacological stimulation of adrenergic and cholinergic receptors. Sawada N, et al. **J Clin Lab Anal** 1999;13(2):90–4

Roles of rapsyn and agrin in interaction of postsynaptic proteins with acetylcholine receptors. Fuhrer C, et al. **J Neurosci** 1999 Aug 1;19(15):6405–16

Evidence of an agrin receptor in cortical neurons. Hilgenberg LG, et al. **J Neurosci** 1999 Sep 1;19(17):7384–93

Single channel currents at six microsecond resolution elicited by acetylcholine in mouse myoballs. Parzefall F, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):181–8

Effects of SIB–1508Y, a novel neuronal nicotinic acetylcholine receptor agonist, on motor behavior in parkinsonian monkeys. Schneider JS, et al. **Mov Disord** 1998 Jul;13(4):637–42

One GABA and two acetylcholine receptors function at the C. elegans neuromuscular junction. Richmond JE, et al. **Nat Neurosci** 1999 Sep;2(9):791–7

Effect of neostigmine on the hippocampal noradrenaline release: role of cholinergic receptors. Kiss JP, et al. **Neuroreport** 1999 Jan 18;10(1):81–6

Spontaneous changes in acetylcholine receptor and calcium leakage activity in cell–attached patches from cultured dystrophic myotubes. Carlson CG. **Pflugers Arch** 1999 Feb; 437(3):371–80

Serum choline activates mutant acetylcholine receptors that cause slow channel congenital myasthenic syndromes. Zhou M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10466–71

[Quantitative analysis of ligand–receptor interactions in physiological experiments] Manukhin BN, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):1049–60 (Eng. Abstr.) **(Rus)**

[The participation of the cholinergic system of the shell and core portions of the nucleus accumbens in regulating instrumental behavior in dogs] Shapovalova KB. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov–Dec; 48(6):1099–103 (Eng. Abstr.) **(Rus)**

[The participation of the parafascicular thalamic nucleus and of the neostriatal cholinoreactive system in regulating the food–procuring reflex in rats at different stages of learning] Tikhonravov DL. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Mar–Apr; 49(2):200–10 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

[The effect of the parenteral administration of alpha–ketoglutarate on the resistance of rats to ionizing radiation and on their cholinergic systems] Shostakovs'ka IV, et al. **Fiziol Zh** 1999;45(1–2):119–26 (Eng. Abstr.) **(Ukr)**

ULTRASTRUCTURE

[The morphological bases for the cholinoreactivity of the mast cells of the respiratory organs] Zuga MV, et al. **Morfologiia** 1998;114(4):72–7 (Eng. Abstr.) **(Rus)**

RECEPTORS, CHORIONIC GONADOTROPIN see **RECEPTORS, LH**

RECEPTORS, CKR5 see **RECEPTORS, CCR5**

RECEPTORS, COLONY–STIMULATING FACTOR

BIOSYNTHESIS

Direct comparison of the effects of CSF–1 (M–CSF) and GM–CSF on human monocyte DNA synthesis and CSF receptor expression. Finnin M, et al. **J Interferon Cytokine Res** 1999 Apr;19(4):417–23

CHEMISTRY

Separation and characterization of the activated pool of colony–stimulating factor 1 receptor forming distinct multimeric complexes with signalling molecules in macrophages. Kanagasundaram V, et al. **Mol Cell Biol** 1999 Jun;19(6):4079–92

PHYSIOLOGY

Hemopoietic growth factor receptor abnormalities in leukemia. Alexander WS, et al. **Leuk Res** 1998 Dec; 22(12):1097–111 (134 ref.)

RECEPTORS, COMPLEMENT

Papers presented at the XVIIth International Complement Workshop. Rhodes, Greece, 11–16 October 1998. **Immunopharmacology** 1999 May;42(1–3):1–254

XVII International Complement Workshop. Rhodes, Greece, October 11–16, 1998. Abstracts. **Mol Immunol** 1998 Apr–May;35(6–7):329–425

ANALYSIS

Assessment of certain neutrophil receptors, opsonophagocytosis and soluble intercellular adhesion molecule–1 (ICAM–1) following thermal injury. Ahmed S el–D, et al. **Burns** 1999 Aug;25(5):395–401

Comparison of C1q–receptors on rat microglia and peritoneal macrophages. Wing MG, et al. **J Neuroimmunol** 1999 Feb 1;94(1–2):74–81

Cultured human glomerular mesangial cells express the C5a receptor. Braun M, et al. **Kidney Int** 1998 Nov;54(5):1542–9

Complement inhibition prevents gut ischemia and endothelial cell dysfunction after hemorrhage/resuscitation. Fruchterman TM, et al. **Surgery** 1998 Oct;124(4):782–91; discussion 791–2

ANTAGONISTS & INHIBITORS

Selection of a C5a receptor antagonist from phage libraries attenuating the inflammatory response in immune complex disease and ischemia/reperfusion injury. Heller T, et al. **J Immunol** 1999 Jul 15;163(2):985–94

Low–molecular–weight peptidic and cyclic antagonists of the receptor for the complement factor C5a. Finch AM, et al. **J Med Chem** 1999 Jun 3;42(11):1965–74

BIOSYNTHESIS

Elevated complement C5a receptor expression on neurons and glia in astrocyte–targeted interleukin–3 transgenic mice. Paradisis PM, et al. **Glia** 1998 Nov;24(3):338–45

Renal, central nervous system and pancreatic overexpression of recombinant soluble Crry in transgenic mice. A novel means of protection from complement–mediated injury. Alexander JJ, et al. **Immunopharmacology** 1999 May; 42(1–3):245–54

Human T cells express the C5a receptor and are chemoattracted to C5a. Nataf S, et al. **J Immunol** 1999 Apr 1;162(7):4018–23

BLOOD

Soluble complement receptor type 1 (sCR1) in chronic liver diseases: serum levels at different stages of liver diseases. Di Bona D, et al. **Clin Exp Immunol** 1998 Oct;114(1):102–5

Monocyte activation in rheumatoid arthritis (RA): increased integrin, Fc gamma and complement receptor expression and the effect of glucocorticoids. Torsteinsdóttir I, et al. **Clin Exp Immunol** 1999 Mar;115(3):554–60

Enhancement of protein S anticoagulant function by beta2–glycoprotein I, a major target antigen of antiphospholipid antibodies: beta2–glycoprotein I interferes with binding of protein S to its plasma inhibitor, C4b–binding protein. Merrill JT, et al. **Thromb Haemost** 1999 May;81(5):748–57

Complement receptor 1 red cell expression is not controlled by the In(Lu) gene. Moulds JM, et al. **Transfusion** 1999 Jul;39(7):751–5

CHEMISTRY

Effects of a new C5a receptor antagonist on C5a– and endotoxin–induced neutropenia in the rat. Short A, et al. **Br J Pharmacol** 1999 Feb;126(3):551–4

The complement regulator C4b–binding protein analyzed by molecular modeling, bioinformatics and computer–aided experimental design. Villoutreix BO, et al. **Immunopharmacology** 1999 May;42(1–3):121–34 (94 ref.)

C5a receptor activation. Genetic identification of critical residues in four transmembrane helices. Baranski TJ, et al. **J Biol Chem** 1999 May 28;274(22):15757–65

Selection of a C5a receptor antagonist from phage libraries attenuating the inflammatory response in immune complex disease and ischemia/reperfusion injury. Heller T, et al. **J Immunol** 1999 Jul 15;163(2):985–94

Inhibition of a membrane complement regulatory protein by a monoclonal antibody induces acute lethal shock in rats primed with lipopolysaccharide. Mizuno M, et al. **J Immunol** 1999 May 1;162(9):5477–82

Low–molecular–weight peptidic and cyclic antagonists of the receptor for the complement factor C5a. Finch AM, et al. **J Med Chem** 1999 Jun 3;42(11):1965–74

Crystal structure of human p32, a doughnut–shaped acidic mitochondrial matrix protein. Jiang J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3572–7

GENETICS

Characterization of a polymorphism in the coding region of the human C5a anaphylatoxin receptor. Marceau F, et al. **Immunogenetics** 1999 Jul;49(7–8):618–9

Chimeric receptors of the human C3a receptor and C5a receptor (CD88). Crass T, et al. **J Biol Chem** 1999 Mar 26;274(13):8367–70

Kinetics of anaphylatoxin C5a receptor expression during experimental allergic encephalomyelitis. Nataf S, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):147–55

Cloning of the mouse homolog of the 126–kDa human C1q/MBL/SP–A receptor, C1qR(p). Norsworthy PJ, et al. **Mamm Genome** 1999 Aug;10(8):789–93

Absence of an association between intercellular adhesion molecule 1, complement receptor 1 and interleukin 1 receptor antagonist gene polymorphisms and severe malaria in a West African population. Bellamy R, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):312–6

Complement receptor 1 red cell expression is not controlled by the In(Lu) gene. Moulds JM, et al. **Transfusion** 1999 Jul;39(7):751–5

RECEPTORS, COMPLEMENT

IMMUNOLOGY

Protection of baculovirus-vectors against complement-mediated inactivation by recombinant soluble complement receptor type 1. Hofmann C, et al. **Biol Chem** 1999 Mar;380(3):393-5

Some anticardiolipin antibodies recognize a combination of phospholipids with thrombin-modified antithrombin, complement C4b-binding protein, and lipopolysaccharide binding protein. Arvieux J, et al. **Blood** 1999 Jun 15; 93(12):4248-55

C1q-binding proteins and C1q receptors. Nicholson-Weller A, et al. **Curr Opin Immunol** 1999 Feb;11(1):42-6 (47 ref.)

A prototype pathogen bound ex vivo to human erythrocyte complement receptor 1 via bispecific monoclonal antibody complexes is cleared to the liver in a mouse model. Nardin A, et al. **Eur J Immunol** 1999 May;29(5):1581-6

Measles: immunosuppression, interleukin-12, and complement receptors. Karp CL. **Immunol Rev** 1999 Apr; 168:91-101 (109 ref.)

Inhibition of a membrane complement regulatory protein by a monoclonal antibody induces acute lethal shock in rats primed with lipopolysaccharide. Mizuno M, et al. **J Immunol** 1999 May 1;162(9):5477-82

Kinetics of anaphylatoxin C5a receptor expression during experimental allergic encephalomyelitis. Nataf S, et al. **J Neuroimmunol** 1998 Nov 2;91(1-2):147-55

METABOLISM

C5a receptor and interleukin-6 are expressed in tissue macrophages and stimulated keratinocytes but not in pulmonary and intestinal epithelial cells. Fayyazi A, et al. **Am J Pathol** 1999 Feb;154(2):495-501

Ligand binding sites on guinea pig C3aR: point and deletion mutations in the large extracellular loop and vicinity. Fukuoka Y, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):357-60

Overexpression of wild-type and catalytically inactive forms of GRK2 and GRK6 fails to alter the agonist-induced phosphorylation of the C5a receptor (CD88): evidence that GRK6 is autophosphorylated in COS-7 cells. Milcent MD, et al. **Biochem Biophys Res Commun** 1999 May 27; 259(1):224-9

Receptor activation by human C5a des Arg74 but not intact C5a is dependent on an interaction between Glu199 of the receptor and Lys68 of the ligand. Crass T, et al. **Biochemistry** 1999 Jul 27;38(30):9712-7

The C4b-binding protein-protein S interaction is hydrophobic in nature. Blom AM, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):181-9

Involvement of amino acid residues 423-429 of human protein S in binding to C4b-binding protein. Fernández JA, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):101-12; discussion 113

Consumption of C4b-binding protein (C4BP) during in vivo activation of the classical complement pathway. Bergamaschini L, et al. **Clin Exp Immunol** 1999 May; 116(2):220-4

The receptor for the globular "heads" of C1q, gC1q-R, binds to fibrinogen/fibrin and impairs its polymerization. Lu PD, et al. **Clin Immunol** 1999 Mar;90(3):360-7

Regulation of human lung fibroblast C1q-receptors by transforming growth factor-beta and tumor necrosis factor-alpha. Lurton J, et al. **Exp Lung Res** 1999 Mar; 25(2):151-64

Receptor for the C3a anaphylatoxin is expressed by neurons and glial cells. Davoust N, et al. **Glia** 1999 May; 26(3):201-11

Interaction of C1q and the collectins with the potential receptors calreticulin (cC1qR/collectin receptor) and megalin. Sim RB, et al. **Immunobiology** 1998 Aug; 199(2):208-24 (77 ref.)

C3a(desArg) does not bind to and signal through the human C3a receptor. Wilken HC, et al. **Immunol Lett** 1999 Apr 1;67(2):141-5

Role of complement receptors in uptake of Mycobacterium avium by macrophages in vivo: evidence from studies using CD18-deficient mice. Bermudez LE, et al. **Infect Immun** 1999 Sep;67(9):4912-6

Cell surface regulators of complement, 5I2 antigen, and CD59, in the rat eye and adnexal tissues. Bardenstein DS, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):519-24

Role of the second extracellular loop of human C3a receptor in agonist binding and receptor function. Chao TH, et al. **J Biol Chem** 1999 Apr 2;274(14):9721-8

Interaction of the alpha(1B)-adrenergic receptor with gC1q-R, a multifunctional protein. Xu Z, et al. **J Biol Chem** 1999 Jul 23;274(30):21149-54

Transgenic mice overexpressing the complement inhibitor crry as a soluble protein are protected from antibody-induced glomerular injury. Quigg RJ, et al. **J Exp Med** 1998 Oct 5;188(7):1321-31

Inhibition of complement regulation is key to the pathogenesis of active Heymann nephritis. Schiller B, et al. **J Exp Med** 1998 Oct 5;188(7):1353-8

Up-regulation of endothelial cell binding proteins/receptors for complement component C1q by inflammatory cytokines [see comments] Guo WX, et al. **J Lab Clin Med** 1999 Jun; 133(6):541-50. Comment in: J Lab Clin Med 1999 Jun;133(6):520-2.

C1q receptors and endothelial cell activation [editorial; comment] Soares MP, et al. **J Lab Clin Med** 1999 Jun; 133(6):520-2. Comment on: J Lab Clin Med 1999 Jun;133(6):541-50.

Expression of a functional anaphylatoxin C3a receptor by astrocytes. Ischenko A, et al. **J Neurochem** 1998 Dec; 71(6):2487-96

Possible role of the 34-kilodalton hyaluronic acid-binding protein in visceral Leishmaniasis. Rao CM, et al. **J Parasitol** 1999 Aug;85(4):682-7

The influence of Lys68 in decepeptide agonists of C5a on C5a receptor binding, activation and selectivity. Vogen SM, et al. **J Pept Res** 1999 Jan;53(1):8-17

Analysis of the C5a anaphylatoxin core domain using a C5a phage library selected on differentiated U937 cells. Kola A, et al. **Mol Immunol** 1999 Feb;36(2):145-52

A monomeric human C4b-binding protein (C4bp) more efficiently inactivates C3b than natural C4bp: participation of C-terminal domains in factor I-cofactor activity. Mikata S, et al. **Mol Immunol** 1998 Jun;35(9):537-44

Differential CR1 expression in idiopathic focal segmental glomerulosclerosis [letter] Arora M, et al. **Nephron** 1999 Jan;81(1):115-6

Expression of C5a receptor in mouse brain: role in signal transduction and neurodegeneration. Osaka H, et al. **Neuroscience** 1999;88(4):1073-82

C1q--how many functions? How many receptors? Eggleton P, et al. **Trends Cell Biol** 1998 Nov;8(11):428-31 (29 ref.)

Complement anaphylatoxin receptors on neurons: new tricks for old receptors? Nataf S, et al. **Trends Neurosci** 1999 Sep; 22(9):397-402 (70 ref.)

PHYSIOLOGY

Total complement inhibition: an effective strategy to limit ischemic injury during coronary revascularization on cardiopulmonary bypass. Lazar HL, et al. **Circulation** 1999 Sep 28;100(13):1438-42

Cytokeratin 1 and gC1qR mediate high molecular weight kininogen binding to endothelial cells. Joseph K, et al. **Clin Immunol** 1999 Sep;92(3):246-55

Structure and function of gC1q-R: a multiligand binding cellular protein. Ghebrehiwet B, et al. **Immunobiology** 1998 Aug;199(2):225-38 (58 ref.)

Platelet receptors for the complement component C1q: implications for hemostasis and thrombosis. Peerschke EI, et al. **Immunobiology** 1998 Aug;199(2):239-49 (47 ref.)

C1q receptors: regulating specific functions of phagocytic cells. Tenner AJ. **Immunobiology** 1998 Aug;199(2):250-64 (70 ref.)

Renal, central nervous system and pancreatic overexpression of recombinant soluble Crry in transgenic mice. A novel means of protection from complement-mediated injury. Alexander JJ, et al. **Immunopharmacology** 1999 May; 42(1-3):245-54

Interaction between protein S and complement C4b-binding protein (C4BP). Affinity studies using chimeras containing c4bp beta-chain short consensus repeats. van de Poel RH, et al. **J Biol Chem** 1999 May 21;274(21):15144-50

C1qRP is a heavily O-glycosylated cell surface protein involved in the regulation of phagocytic activity. Nepomuceno RR, et al. **J Immunol** 1999 Mar 15; 162(6):3583-9

Complement as a promiscuous signal transduction device. Asghar SS, et al. **Lab Invest** 1998 Oct;78(10):1203-25 (157 ref.)

Dynamics of a chemoattractant receptor in living neutrophils during chemotaxis. Servant G, et al. **Mol Biol Cell** 1999 Apr;10(4):1163-78

Complement C5a anaphylatoxin fragment causes apoptosis in TGW neuroblastoma cells. Farkas I, et al. **Neuroscience** 1998 Oct;86(3):903-11

Transplanted hepatocytes infected with a complement receptor type 1 (CR1)-containing recombinant adenovirus are resistant to hyperacute rejection. Hammel JM, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):939

Complement inhibition by soluble complement receptor type 1 improves microcirculation after rat liver transplantation. Lehmann TG, et al. **Transplantation** 1998 Sep 27; 66(6):717-22

Effect of complement inhibition with soluble complement receptor 1 on pig allotransplant lung function. Pierre AF, et al. **Transplantation** 1998 Sep 27;66(6):723-32

THERAPEUTIC USE

Neuronal protection in stroke by an sLex-glycosylated complement inhibitory protein. Huang J, et al. **Science** 1999 Jul 23;285(5427):595-9

Inhibition of complement reduces obliterative bronchiolitis. Kallio E, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):188

RECEPTORS, COMPLEMENT 3B

BIOSYNTHESIS

No quantitative relationship between CR1 and Lutheran expression on erythrocytes: In(Lu) gene product is not a common regulator of CR1 expression on erythrocytes. Oudin S, et al. **Exp Clin Immunogenet** 1999;16(2):72-80

Complement receptor 1 (CD35) on human reticulocytes: normal expression in systemic lupus erythematosus and HIV-infected patients. Lach-Trifilieff E, et al. **J Immunol** 1999 Jun 15;162(12):7549-54

Complement receptor type 1 gene regulation: retinoic acid and cytosine arabinoside increase CR1 expression. Funkhouser TA, et al. **Scand J Immunol** 1999 Jan; 49(1):21-8

BLOOD

Soluble complement receptor 1 is increased in patients with leukemia and after administration of granulocyte colony-stimulating factor. Sadallah S, et al. **J Leukoc Biol** 1999 Jan;65(1):94-101

CHEMISTRY

Independently melting modules and highly structured intermodular junctions within complement receptor type 1. Kirkitadze MD, et al. **Biochemistry** 1999 Jun 1; 38(22):7019-31

Structure-activity relationships within the N-terminal short consensus repeats (SCR) of human CR1 (C3b/C4b receptor, CD35): SCR 3 plays a critical role in inhibition of the classical and alternative pathways of complement activation. Mossakowska D, et al. **Eur J Immunol** 1999 Jun;29(6):1955-65

CLASSIFICATION

Reference typing report for complement receptor 1 (CR1). Moulds JM, et al. **Exp Clin Immunogenet** 1998;15(4):291-4

DEFICIENCY

Complement sensitivity of erythrocytes in a patient with inherited complete deficiency of CD59 or with the Inab phenotype. Shichishima T, et al. **Br J Haematol** 1999 Feb; 104(2):303-6

GENETICS

Characterization of the human CR1 gene promoter. Kim JH, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):655-63

Structure-activity relationships within the N-terminal short consensus repeats (SCR) of human CR1 (C3b/C4b receptor, CD35): SCR 3 plays a critical role in inhibition of the classical and alternative pathways of complement activation. Mossakowska D, et al. **Eur J Immunol** 1999 Jun;29(6):1955-65

Reference typing report for complement receptor 1 (CR1). Moulds JM, et al. **Exp Clin Immunogenet** 1998;15(4):291-4

No quantitative relationship between CR1 and Lutheran expression on erythrocytes: In(Lu) gene product is not a common regulator of CR1 expression on erythrocytes. Oudin S, et al. **Exp Clin Immunogenet** 1999;16(2):72-80

Complement receptor type 1 gene regulation: retinoic acid and cytosine arabinoside increase CR1 expression. Funkhouser TA, et al. **Scand J Immunol** 1999 Jan; 49(1):21-8

Mechanism of regulation of complement receptor type 1 transcription by cytosine arabinoside in a pre-erythroid model. Funkhouser TA, et al. **Scand J Immunol** 1999 Jan; 49(1):29-37

IMMUNOLOGY

Rabbit IgG antibodies against cord red blood cell membranes bind to complement receptor 1 (CD35). Giuliani AL, et al. **Acta Haematol** 1998 Dec;100(3):123-9

Contribution of the innate immune system to autoimmune diabetes: a role for the CR1/CR2 complement receptors. Noorchashm H, et al. **Cell Immunol** 1999 Jul 10;195(1):75-9

Infusion of bispecific monoclonal antibody complexes into monkeys provides immunologic protection against later challenge with a model pathogen. Craig ML, et al. **Clin Immunol** 1999 Aug;92(2):170-80

The influence of antibody functional affinity on the effector functions involved in the clearance of circulating immune complexes anti-BSA IgG/BSA. Marzocchi-Machado CM, et al. **Immunol Invest** 1999 Mar-May;28(2-3):89-101

Targeting of influenza epitopes to murine CR1/CR2 using single-chain antibodies. Prechl J, et al. **Immunopharmacology** 1999 May;42(1-3):159-65

Modulation of the humoral immune response by antibody-mediated antigen targeting to complement receptors and Fc receptors. Baiu DC, et al. **J Immunol** 1999 Mar 15;162(6):3125-30

Interaction with complement receptor 1 (CD35) leads to amelioration of sepsis-triggered mortality but aggravation of arthritis during Staphylococcus aureus infection. Sakiniene E, et al. **Scand J Immunol** 1999 Sep;50(3):250-5

Prevention of hyperacute rejection by phosphatidylinositol-anchored mini-complement receptor type 1. Mikata S, et al. **Transpl Immunol** 1998 Jun; 6(2):107-10

[The relation of erythrocyte immunologic function and serum T3, T4 concentration in dogs during operation stress] Song C, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):4, 35 **(Chi)**

METABOLISM

Hypoxia-induced expression of complement receptor type 1 (CR1, CD35) in human vascular endothelial cells. Collard CD, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C450-8

Role of complement receptors CD21/CD35 in B lymphocyte activation and survival. Carroll M. **Curr Top Microbiol Immunol** 1999;246:63-8; discussion 69

(27 ref.)
Lysophosphatidylcholine abrogates the CR1 preserving effect of surfactant on quartz-exposed human granulocytes. Zetterberg G, et al. **Inflammation** 1999 Apr;23(2):179-89
Identification of residues within the 727-767 segment of human complement component C3 important for its interaction with factor H and with complement receptor 1 (CR1, CD35). Oran AE, et al. **J Biol Chem** 1999 Feb 19;274(8):5120-30
HGF activates signal transduction from EPO receptor on human cord blood CD34+/CD45+ cells. Iguchi T, et al. **Stem Cells** 1999;17(2):82-91
[Study on therapeutic effect and immunological mechanism of fuzhengfang herbs in mice with Lewis lung cancer] Cheng XD, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1997 Feb; 17(2):88-90 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Antiinflammatory effects of soluble complement receptor type 1 promote rapid recovery of ischemia/reperfusion injury in rat small intestine. Eror AT, et al.
Clin Immunol 1999 Feb;90(2):266-75

RECEPTORS, COMPLEMENT 3D

ANALYSIS

Human B and T lymphocytes have similar amounts of CD21 mRNA, but differ in surface expression of the CD21 glycoprotein. Braun M, et al. **Int Immunol** 1998 Aug; 10(8):1197-202

BIOSYNTHESIS

Distribution of immune cells expressing CD3a, CD21 and S-100 protein markers in the porcine gut-associated lymphoid tissues. Lacković G, et al. **Eur J Histochem** 1999; 43(1):39-46
IgMhighCD21high lymphocytes enriched in the splenic marginal zone generate effector cells more rapidly than the bulk of follicular B cells. Oliver AM, et al.
J Immunol 1999 Jun 15;162(12):7198-207

GENETICS

Human B and T lymphocytes have similar amounts of CD21 mRNA, but differ in surface expression of the CD21 glycoprotein. Braun M, et al. **Int Immunol** 1998 Aug; 10(8):1197-202
Lymphoid transcription of the murine CD21 gene is positively regulated by histone acetylation. Zabel MD, et al. **J Immunol** 1999 Sep 1;163(5):2697-703
Evidence for a new transcript of the Epstein-Barr virus/C3d receptor (CR2, CD21) which is due to alternative exon usage. Barel M, et al. **Mol Immunol** 1998 Nov; 35(16):1025-31

IMMUNOLOGY

Non-structural determinants of immunogenicity and the B cell co-receptors, CD19, CD21, and CD22. Fearon DT. **Adv Exp Med Biol** 1998;452:181-4 (44 ref.)
Anti-B-cell monoclonal antibody treatment of severe posttransplant B-lymphoproliferative disorder: prognostic factors and long-term outcome. Benkerrou M, et al.
Blood 1998 Nov 1;92(9):3137-47
Contribution of the innate immune system to autoimmune diabetes: a role for the CR1/CR2 complement receptors. Noorchashm H, et al. **Cell Immunol** 1999 Jul 10;195(1):75-9
Soluble CD21 induces activation and differentiation of human monocytes through binding to membrane CD23. Frémeaux-Bacchi V, et al. **Eur J Immunol** 1998 Dec; 28(12):4268-74
Targeting of influenza epitopes to murine CR1/CR2 using single-chain antibodies. Prechl J, et al.
Immunopharmacology 1999 May;42(1-3):159-65
Modulation of the humoral immune response by antibody-mediated antigen targeting to complement receptors and Fc receptors. Baiu DC, et al. **J Immunol** 1999 Mar 15;162(6):3125-30
Complement opsonization is required for presentation of immune complexes by resting peripheral blood B cells. Boackle SA, et al. **J Immunol** 1998 Dec 15;161(12):6537-43
Evidence for an important interaction between a complement-derived CD21 ligand on follicular dendritic cells and CD21 on B cells in the initiation of IgG responses. Qin D, et al. **J Immunol** 1998 Nov 1;161(9):4549-54
Biorecognition of HPMA copolymer-adriamycin conjugates by lymphocytes mediated by synthetic receptor binding epitopes. Omelyanenko V, et al. **Pharm Res** 1999 Jul; 16(7):1010-9

METABOLISM

Hodgkin's disease expressing follicular dendritic cell marker CD21 without any other B-cell marker: a clinicopathologic study of nine cases. Nakamura S, et al.
Am J Surg Pathol 1999 Apr;23(4):363-76
Analysis of Epstein-Barr virus (EBV) receptor CD21 on peripheral B lymphocytes of long-term EBV- adults. Jabs WJ, et al. **Clin Exp Immunol** 1999 Jun;116(3):468-73
Role of complement receptors CD21/CD35 in B lymphocyte activation and survival. Carroll M.
Curr Top Microbiol Immunol 1999;246:63-8; discussion 69 (27 ref.)
CD21high IgMhigh splenic B cells enriched in the marginal zone: distinct phenotypes and functions. Martin F, et al. **Curr Top Microbiol Immunol** 1999;246:45-50; discussion 51-2 (9 ref.)
Soluble CD21 (sCD21) forms biologically active complexes with CD23: sCD21 is present in normal plasma as a complex with trimeric CD23 and inhibits soluble CD23-induced IgE synthesis by B cells. Frémeaux-Bacchi V, et al. **Int Immunol** 1998 Oct;10(10):1459-66
Characterization of C3dg binding to a recess formed between short consensus repeats 1 and 2 of complement receptor type 2 (CR2; CD21). Prodinger WM, et al. **J Immunol** 1998 Nov 1;161(9):4604-10
Cutting edge: recruitment of the CD19/CD21 coreceptor to B cell antigen receptor is required for antigen-mediated expression of Bcl-2 by resting and cycling hen egg lysozyme transgenic B cells. Roberts T, et al.
J Immunol 1999 Apr 15;162(8):4377-80
Epstein-Barr virus and CD21 expression in gastrointestinal tumors. Kim YS, et al. **Pathol Res Pract** 1998; 194(10):705-11

PHYSIOLOGY

Hemodynamic changes induced by liposomes and liposome-encapsulated hemoglobin in pigs: a model for pseudoallergic cardiopulmonary reactions to liposomes. Role of complement and inhibition by soluble CR1 and anti-C5a antibody. Szebeni J, et al. **Circulation** 1999 May 4;99(17):2302-9
Functional properties of soluble CD21. Frémeaux-Bacchi V, et al. **Immunopharmacology** 1999 May;42(1-3):31-7 (34 ref.)
Signaling through the EBV/C3d receptor (CR2, CD21) in human B lymphocytes: activation of phosphatidylinositol 3-kinase via a CD19-independent pathway. Bouillie S, et al. **J Immunol** 1999 Jan 1;162(1):136-43
CD21-Dependent infection of an epithelial cell line, 293, by Epstein-Barr virus. Fingeroth JD, et al. **J Virol** 1999 Mar; 73(3):2115-25

RECEPTORS, CONCANAVALIN A

METABOLISM

[The actions of nucleating proteins in vesicle aggregation and fusion: a preliminary study] Chen Y, et al.
Chung Hua Wai Ko Tsa Chih 1997 Mar;35(3):181-5 (Eng. Abstr.) **(Chi)**
[Study in the combining quantity of Con A-binding sites on membrane surface of artesunate-resistance strain of Plasmodium berghei] Liu AR, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1997 Mar; 17(3):160-1 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Age-dependence of the lateral diffusion coefficient of concanavalin-A receptors in the plasma membrane of ex vivo prepared brain cortical nerve cells of BN/BiRijHsd rats. Zs.-Nagy I, et al. **Exp Brain Res** 1999 Jan; 124(2):233-40

RECEPTORS, CORTICOSTEROID see **RECEPTORS, STEROID**

RECEPTORS, CORTICOTROPIN

AGONISTS

Feeding effects of hypothalamic injection of melanocortin 4 receptor ligands. Giraudo SQ, et al. **Brain Res** 1998 Nov 2;809(2):302-6

ANTAGONISTS & INHIBITORS

Long term orexigenic effect of a novel melanocortin 4 receptor selective antagonist. Skuladottir GV, et al.
Br J Pharmacol 1999 Jan;126(1):27-34
Feeding effects of hypothalamic injection of melanocortin 4 receptor ligands. Giraudo SQ, et al. **Brain Res** 1998 Nov 2;809(2):302-6
Differential influence of a selective melanocortin MC4 receptor antagonist (HS014) on melanocortin-induced behavioral effects in rats. Vergoni AV, et al.
Eur J Pharmacol 1998 Dec 4;362(2-3):95-101
Selective melanocortin MC4 receptor blockage reduces immobilization stress-induced anorexia in rats. Vergoni AV, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):11-5
Evaluation of behavioural effects of neural melanocortin receptor antagonists injected ICV and in VTA in rats. Klusa V, et al. **Neuropeptides** 1998 Dec;32(6):573-80
Long-term administration of MC4 receptor antagonist HS014 causes hyperphagia and obesity in rats. Kask A, et al.
Neuroreport 1999 Mar 17;10(4):707-11

BIOSYNTHESIS

Expression of melanocortin receptors and pro-opiomelanocortin in the rat spinal cord in relation to neurotrophic effects of melanocortins. van der Kraan M, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):276-86
Enhanced expression of melanocortin-1 receptor (MC1-R) in normal human keratinocytes during differentiation: evidence for increased expression of POMC peptides near suprabasal layer of epidermis. Chakraborty AK, et al.
J Invest Dermatol 1999 Jun;112(6):853-60

CHEMISTRY

Synthesis of 153N-6 analogues and structure-function analysis at murine melanocortin-1 (MC1) receptors. Sahm UG, et al. **Peptides** 1999;20(3):387-94

DRUG EFFECTS

Asp10 in Lys-gamma2-MSH determines selective activation of the melanocortin MC3 receptor. Oosterom J, et al.
Eur J Pharmacol 1998 Jul 31;354(1):R9-11
Aminoglutethimide suppresses adrenocorticotropin receptor expression in the NCI-h295 adrenocortical tumor cell line. Fassnacht M, et al. **J Endocrinol** 1998 Oct;159(1):35-42

GENETICS

Characterization of the promoter region of the human melanocortin-1 receptor (MC1R) gene. Moro O, et al.
Biochem Biophys Res Commun 1999 Aug 27;262(2):452-60
Loss of function mutations of the human melanocortin 1 receptor are common and are associated with red hair. Schiöth HB, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):488-91
A possible involvement of melanocortin 3 receptor in the regulation of adrenal gland function in the chicken. Takeuchi S, et al. **Biochim Biophys Acta** 1999 Jan 11; 1448(3):512-8
Evolutionarily conserved telomeric location of BBC1 and MC1R on a microchromosome questions the identity of MC1R and a pigmentation locus on chromosome 1 in chicken. Sazanov A, et al. **Chromosome Res** 1998 Dec; 6(8):651-4
Assignment of the melanocortin 4 receptor (MC4R) gene to human chromosome band 18q22 by in situ hybridisation and radiation hybrid mapping. Sundaramurthy D, et al.
Cytogenet Cell Genet 1998;82(1-2):97-8
ACTH receptor mRNA in human adrenocortical tumors: overexpression in aldosteronomas. Arnaldi G, et al.
Endocr Res 1998 Aug-Nov;24(3-4):845-9
Analysis of the first exon of the murine ACTH receptor gene. King PJ, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):397-402
SF-1 and the transcriptional regulation of the human ACTH receptor gene. Naville D, et al. **Endocr Res** 1998 Aug-Nov; 24(3-4):391-5
Tawny: a novel light coat color mutation found in a wild population of Mus musculus molossinus, a new allele at the melanocortin 1 receptor (Mc1r) locus. Wada A, et al.
Exp Anim 1999 Apr;48(2):73-8
Molecular analysis of a new splice variant of the human melanocortin-1 receptor. Tan CP, et al. **FEBS Lett** 1999 May 21;451(2):137-41
Melanocortin receptor genes in the chicken--tissue distributions. Takeuchi S, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):220-31
Melanocortin receptor 1 (MC1R) mutations and coat color in pigs. Kijas JM, et al. **Genetics** 1998 Nov;150(3):1177-85
High polymorphism at the human melanocortin 1 receptor locus. Rana BK, et al. **Genetics** 1999 Apr;151(4):1547-57
Rapid communication: human melanocortin receptor sequences reveal a SacI restriction fragment length polymorphism at the porcine adrenocorticotropic hormone receptor (MC2R) locus. Hiendleder S, et al.
J Anim Sci 1999 Aug;77(8):2313-4
Several mutations in the melanocortin-4 receptor gene including a nonsense and a frameshift mutation associated with dominantly inherited obesity in humans. Hinney A, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1483-6
Exclusion of the adrenocorticotropin (ACTH) receptor (MC2R) locus in some families with ACTH resistance but no mutations of the MC2R coding sequence (familial glucocorticoid deficiency type 2). Naville D, et al.
J Clin Endocrinol Metab 1998 Oct;83(10):3592-6
Skin type, melanoma, and melanocortin 1 receptor variants [letter; comment] Healy E, et al. **J Invest Dermatol** 1999 Apr;112(4):512-3. Comment on: J Invest Dermatol 1998 Jul;111(1):119-22. Comment on: J Invest Dermatol 1998 Aug;111(2):218-21.
Mutational analysis of the N-ras, p53, p16INK4a, CDK4, and MC1R genes in human congenital melanocytic naevi. Papp T, et al. **J Med Genet** 1999 Aug;36(8):610-4
Detection of melanocortin-3 receptor mRNA in immature rat pituitary: functional relation to gamma3-MSH-induced changes in intracellular Ca2+ concentration? Lorsignol A, et al. **J Neuroendocrinol** 1999 Mar;11(3):171-9
Molecular and pharmacological characterization of dominant black coat color in sheep. Våge DI, et al.
Mamm Genome 1999 Jan;10(1):39-43
A role for guanyl nucleotide-binding regulatory protein beta- and gamma-subunits in the expression of the adrenocorticotropin receptor. Qiu R, et al.
Mol Endocrinol 1998 Dec;12(12):1879-87
Genetic heterogeneity of adrenocorticotropin (ACTH) resistance syndromes: identification of a novel mutation of the ACTH receptor gene in hereditary glucocorticoid deficiency. Wu SM, et al. **Mol Genet Metab** 1998 Aug; 64(4):256-65
A frameshift mutation in human MC4R is associated with a dominant form of obesity [letter] Vaisse C, et al.
Nat Genet 1998 Oct;20(2):113-4

A frameshift mutation in MC4R associated with dominantly inherited human obesity [letter] Yeo GS, et al. **Nat Genet** 1998 Oct;20(2):111–2

Virilizing adrenocortical adenoma: in vitro steroidogenesis, immunohistochemical studies of steroidogenic enzymes, and gene expression of corticotropin receptor. Imai T, et al. **Surgery** 1999 Apr;125(4):396–402

[Myocardiopathy and isolated glucocorticoid deficit with ACTH resistance: a fortuitous association?] Vigneron P, et al. **Arch Pediatr** 1999 Mar;6(3):283–5 (Eng. Abstr.) **(Fre)**

[ACTH receptor, ACTH receptor anomaly, and familial glucocorticoid deficiency] Fukata J, et al. **Nippon Rinsho** 1998 Jul;56(7):1836–42 (21 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Analogs of MTII, lactam derivatives of alpha-melanotropin, modified at the N-terminus, and their selectivity at human melanocortin receptors 3, 4, and 5. Bednarek MA, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):209–13

Amino acid residues in third intracellular loop of melanocortin 1 receptor are involved in G-protein coupling. Frändberg PA, et al. **Biochem Mol Biol Int** 1998 Dec;46(5):913–22

Autoradiographic discrimination of melanocortin receptors indicates that the MC3 subtype dominates in the medial rat brain. Lindblom J, et al. **Brain Res** 1998 Nov 9; 810(1–2):161–71

Involvement of agouti-related protein, an endogenous antagonist of hypothalamic melanocortin receptor, in leptin action. Ebihara K, et al. **Diabetes** 1999 Oct;48(10):2028–33

Altered energy balance causes selective changes in melanocortin-4(MC4-R), but not melanocortin-3 (MC3-R), receptors in specific hypothalamic regions: further evidence that activation of MC4-R is a physiological inhibitor of feeding. Harrold JA, et al. **Diabetes** 1999 Feb;48(2):267–71

ACTH induces c-fos proto-oncogene in fibroblasts expressing the ACTH receptor. Forti FL, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):433–7

Expression of ACTH receptors (MC2-R and MC5-R) in the glomerulosa and the fasciculata-reticularis zones of bovine adrenal cortex. Liakos P, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):427–32

Evidence for involvement of the melanocortin MC4 receptor in the effects of leptin on food intake and body weight. Kask A, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):15–9

Down-regulation of melanocortin receptor signaling mediated by the amino terminus of Agouti protein in Xenopus melanophores. Ollmann MM, et al. **J Biol Chem** 1999 May 28;274(22):15837–46

Conformation of the core sequence in melanocortin peptides directs selectivity for the melanocortin MC3 and MC4 receptors. Oosterom J, et al. **J Biol Chem** 1999 Jun 11; 274(24):16853–60

Contribution of melanocortin receptor exoloops to Agouti-related protein binding. Yang YK, et al. **J Biol Chem** 1999 May 14;274(20):14100–6

POMC gene-derived peptides activate melanocortin type 3 receptor on murine macrophages, suppress cytokine release, and inhibit neutrophil migration in acute experimental inflammation. Getting SJ, et al. **J Immunol** 1999 Jun 15;162(12):7446–53

Characterization of Agouti-related protein binding to melanocortin receptors. Yang YK, et al. **Mol Endocrinol** 1999 Jan;13(1):148–55

Thyrotropin releasing hormone (TRH) selectively binds and activates the melanocortin 1 receptor. Schiöth HB, et al. **Peptides** 1999;20(3):395–400

PHYSIOLOGY

Peptide modulation of fever and inflammation within the brain. Catania A, et al. **Ann N Y Acad Sci** 1998 Sep 29; 856:62–8 (54 ref.)

The melanocortin 4 receptor mediates leptin stimulation of luteinizing hormone and prolactin surges in steroid-primed ovariectomized rats. Watanobe H, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):860–4

A possible involvement of melanocortin 3 receptor in the regulation of adrenal gland function in the chicken. Takeuchi S, et al. **Biochim Biophys Acta** 1999 Jan 11; 1448(3):512–8

Melanocortin receptors and antagonists regulate pigmentation and body weight. Jordan SA, et al. **Bioessays** 1998 Aug;20(8):603–6 (27 ref.)

Melanocortin receptors: perspectives for novel drugs. Wikberg JE. **Eur J Pharmacol** 1999 Jun 30; 375(1–3):295–310 (130 ref.)

Interactions between the melanocortin system and leptin in control of sympathetic nerve traffic. Haynes WG, et al. **Hypertension** 1999 Jan;33(1 Pt 2):542–7

Functional characterization of naturally occurring mutations of the human adrenocorticotropin receptor: poor correlation of phenotype and genotype. Elias LL, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2766–70

Receptor-mediated modulation of murine mast cell function by alpha-melanocyte stimulating hormone. Adachi S, et al. **J Immunol** 1999 Sep 15;163(6):3363–8

Brainstem application of melanocortin receptor ligands produces long-lasting effects on feeding and body weight. Grill HJ, et al. **J Neurosci** 1998 Dec 1;18(23):10128–35

Melanocortin and leptin signaling systems: central regulation of catabolic energy balance. Fisher SL, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):203–16 (34 ref.)

Response of melanocortin-4 receptor-deficient mice to anorectic and orexigenic peptides. Marsh DJ, et al. **Nat Genet** 1999 Jan;21(1):119–22

RECEPTORS, CORTICOTROPIN-RELEASING HORMONE

AGONISTS

D-amino acid-substituted analogs of corticotropin-releasing hormone (CRH) and urocortin with selective agonist activity at CRH1 and CRH2beta receptors. Wei ET, et al. **Peptides** 1998;19(7):1183–90

ANALYSIS

Autoradiographic and in situ hybridization localization of corticotropin-releasing factor 1 and 2 receptors in nonhuman primate brain. Sánchez MM, et al. **J Comp Neurol** 1999 Jun 7;408(3):365–77

Corticotropin-releasing factor receptor 1 in mouse spleen: expression after immune stimulation and identification of receptor-bearing cells. Radulovic M, et al. **J Immunol** 1999 Mar 1;162(5):3013–21

Characterization of native corticotropin-releasing factor receptor type 1 (CRFR1) in the rat and mouse central nervous system. Radulovic J, et al. **J Neurosci Res** 1998 Nov 15;54(4):507–21

The temporal and spatial development of CRF binding sites in the postnatal mouse cerebellum. Madtes P Jr, et al. **Neurosci Res** 1999 May;34(1):45–50

ANTAGONISTS & INHIBITORS

Prevention of stress-induced weight loss by third ventricle CRF receptor antagonist. Smagin GN, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1461–8

Involvement of stress in the sleep rebound mechanism induced by sleep deprivation in the rat: use of alpha-helical CRH (9–41). González MM, et al. **Behav Pharmacol** 1998 Dec;9(8):655–62

Purin-8-ones as corticotropin-releasing hormone (CRH-R1) receptor antagonists. Beck JP, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):967–72

Thiazolo[4,5-d]pyrimidine thiones and -ones as corticotropin-releasing hormone (CRH-R1) receptor antagonists. Beck JP, et al. **Bioorg Med Chem Lett** 1999 Apr 19;9(8):1185–8

4-Aryl-2-anilinopyrimidines as corticotropin-releasing hormone (CRH) antagonists. Cocuzza AJ, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1057–62

Use of the Suzuki reaction for the synthesis of aryl-substituted heterocycles as corticotropin-releasing hormone (CRH) antagonists. Cocuzza AJ, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1063–6

Synthesis and biological activity of oxo-7H-benzo[e]perimidine-4-carboxylic acid derivatives as potent, nonpeptide corticotropin releasing factor (CRF) receptor antagonists. Luthin DR, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):765–70

Pyrazolo[1,5-a]pyrimidine CRF-1 receptor antagonists. Wustrow DJ, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2067–70

Recent advances with the CRF1 receptor: design of small molecule inhibitors, receptor subtypes and clinical indications. McCarthy JR, et al. **Curr Pharm Des** 1999 May; 5(5):289–315 (183 ref.)

The impact of the nonpeptide corticotropin-releasing hormone antagonist antalarmin on behavioral and endocrine responses to stress. Deak T, et al. **Endocrinology** 1999 Jan;140(1):79–86

Activation of protein kinase C by oxytocin inhibits the biological activity of the human myometrial corticotropin-releasing hormone receptor at term. Grammatopoulos DK, et al. **Endocrinology** 1999 Feb; 140(2):585–94

In vitro excitatory actions of corticotropin-releasing factor on rat colonic motility. Mancinelli R, et al. **J Auton Pharmacol** 1998 Dec;18(6):319–24

Non-peptide corticotropin-releasing hormone antagonists: syntheses and structure-activity relationships of 2-anilinopyrimidines and -triazines. Arvanitis AG, et al. **J Med Chem** 1999 Mar 11;42(5):805–18

Synthesis, corticotropin-releasing factor receptor binding affinity, and pharmacokinetic properties of triazolo-, imidazo-, and pyrrolopyrimidines and -pyridines. Chorvat RJ, et al. **J Med Chem** 1999 Mar 11;42(5):833–48

Corticotropin-releasing hormone receptor antagonists: framework design and synthesis guided by ligand conformational studies. Hodge CN, et al. **J Med Chem** 1999 Mar 11;42(5):819–32

Receptor binding, behavioral, and electrophysiological profiles of nonpeptide corticotropin-releasing factor subtype 1 receptor antagonists CRA1000 and CRA1001. Okuyama S, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):926–35

The rationale for corticotropin-releasing hormone receptor (CRH-R) antagonists to treat depression and anxiety. Holsboer F. **J Psychiatr Res** 1999 May–Jun;33(3):181–214 (163 ref.)

Chronic administration of the non-peptide CRH type 1 receptor antagonist antalarmin does not blunt hypothalamic-pituitary-adrenal axis responses to acute immobilization stress. Wong ML, et al. **Life Sci** 1999; 65(4):PL53–8

Non-peptidic corticotropin-releasing hormone receptor type 1 antagonist reverses restraint stress-induced shortening of sodium pentobarbital-induced sleeping time of rats: evidence that an increase in arousal induced by stress is mediated through CRH receptor type 1. Arai K, et al. **Neurosci Lett** 1998 Oct 16;255(2):103–6

Structural requirements for peptidic antagonists of the corticotropin-releasing factor receptor (CRFR): development of CRFR2beta-selective antisauvagine-30. Rühmann A, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15264–9

BIOSYNTHESIS

Fluoxetine induces the transcription of genes encoding c-fos, corticotropin-releasing factor and its type 1 receptor in rat brain. Torres G, et al. **Neuroscience** 1998 Nov; 87(2):463–77

CHEMISTRY

The ligand-selective domains of corticotropin-releasing factor type 1 and type 2 receptor reside in different extracellular domains: generation of chimeric receptors with a novel ligand-selective profile. Dautzenberg FM, et al. **J Neurochem** 1999 Aug;73(2):821–9

Identification of amino acids in the N-terminal domain of corticotropin-releasing factor receptor 1 that are important determinants of high-affinity ligand binding. Wille S, et al. **J Neurochem** 1999 Jan;72(1):388–95

Structure and function of the ovine type 1 corticotropin releasing factor receptor (CRF1) and a carboxyl-terminal variant. Myers DA, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1–2):21–35

DEFICIENCY

Reduced anxiety-like and cognitive performance in mice lacking the corticotropin-releasing factor receptor 1. Contarino A, et al. **Brain Res** 1999 Jul 17;835(1):1–9

CRF type I receptor-deficient mice exhibit a pronounced pituitary-adrenal response to local inflammation. Turnbull AV, et al. **Endocrinology** 1999 Feb;140(2):1013–7

DRUG EFFECTS

Potent mast cell degranulation and vascular permeability triggered by urocortin through activation of corticotropin-releasing hormone receptors. Singh LK, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1349–56

Differential behavioural effects of chronic infusion of CRH 1 and CRH 2 receptor antisense oligonucleotides into the rat brain. Liebsch G, et al. **J Psychiatr Res** 1999 Mar–Apr; 33(2):153–63

Urocortin and inflammation: confounding effects of hypotension on measures of inflammation. Torpy DJ, et al. **Neuroimmunomodulation** 1999 May–Jun;6(3):182–6

GENETICS

Altered expression of type 2 CRH receptor mRNA in the VMH by glucocorticoids and starvation. Makino S, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1138–45

Cloning and characterization of a short variant of the corticotropin-releasing factor receptor subtype from rat amygdala. Miyata I, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):692–6

Reduced anxiety-like and cognitive performance in mice lacking the corticotropin-releasing factor receptor 1. Contarino A, et al. **Brain Res** 1999 Jul 17;835(1):1–9

Overexpression of vasopressin (V3) and corticotrophin-releasing hormone receptor genes in corticotroph tumours. de Keyzer Y, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):475–82

Corticotropin-releasing factor receptor type 1 from Tupaia belangeri--cloning, functional expression and tissue distribution. Palchaudhuri MR, et al. **Eur J Biochem** 1998 Nov 15;258(1):78–84

The genomic organization of the human corticotropin-releasing factor type-1 receptor. Sakai K, et al. **Gene** 1998 Sep 28;219(1–2):125–30

Ectopic ACTH Cushing's syndrome: V3 vasopressin receptor but not CRH receptor gene expression in a pulmonary carcinoid tumor. Chabot V, et al. **Horm Res** 1998;50(4):226–31

Levels of corticotrophin-releasing hormone receptor subtype 1 mRNA in pregnancy and during labour in human myometrium measured by quantitative competitive PCR. Rodriguez-Liñares B, et al. **J Mol Endocrinol** 1998 Oct; 21(2):201–8

The ligand-selective domains of corticotropin-releasing factor type 1 and type 2 receptor reside in different extracellular domains: generation of chimeric receptors with a novel ligand-selective profile. Dautzenberg FM, et al. **J Neurochem** 1999 Aug;73(2):821–9

Identification of amino acids in the N-terminal domain of

corticotropin-releasing factor receptor 1 that are important determinants of high-affinity ligand binding. Wille S, et al. **J Neurochem** 1999 Jan;72(1):388–95

Leptin effects on the expression of type-2 CRH receptor mRNA in the ventromedial hypothalamus in the rat. Nishiyama M, et al. **J Neuroendocrinol** 1999 Apr; 11(4):307–14

Isolation and pharmacological characterization of two functional splice variants of corticotropin-releasing factor type 2 receptor from Tupaia belangeri. Palchaudhuri MR, et al. **J Neuroendocrinol** 1999 Jun;11(6):419–28

Nitric oxide stimulates ACTH secretion and the transcription of the genes encoding for NGFI-B, corticotropin-releasing factor, corticotropin-releasing factor receptor type 1, and vasopressin in the hypothalamus of the intact rat. Lee S, et al. **J Neurosci** 1999 Sep 1;19(17):7640–7

Molecular identification and analysis of a novel human corticotropin-releasing factor (CRF) receptor: the CRF2gamma receptor. Kostich WA, et al. **Mol Endocrinol** 1998 Aug;12(8):1077–85

Human CRF2 alpha and beta splice variants: pharmacological characterization using radioligand binding and a luciferase gene expression assay. Ardati A, et al. **Neuropharmacology** 1999 Mar;38(3):441–8

Chronic treatment with the antidepressant amitriptyline decreases CRF-R1 receptor mRNA levels in the rat amygdala. Aubry JM, et al. **Neurosci Lett** 1999 May 14; 266(3):197–200

Stress-axis, coping and dementia: gene-manipulation studies. Heinrichs SC. **Trends Pharmacol Sci** 1999 Aug;20(8):311–5 (51 ref.)

METABOLISM

Urocortin, a newly identified corticotropin-releasing factor-related mammalian peptide, stimulates atrial natriuretic peptide and brain natriuretic peptide secretions from neonatal rat cardiomyocytes. Ikeda K, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):298–304

The role of the fourth extracellular domain of the rat corticotropin-releasing factor receptor type 1 in ligand binding. Sydow S, et al. **Eur J Biochem** 1999 Jan; 259(1–2):55–62

Corticotropin-releasing factor induces phosphorylation of phospholipase C-gamma at tyrosine residues via its receptor 2beta in human epidermoid A-431 cells. Kiang JG, et al. **Eur J Pharmacol** 1998 Dec 18;363(2–3):203–10

Functional, endogenously expressed corticotropin-releasing factor receptor type 1 (CRF1) and CRF1 receptor mRNA expression in human neuroblastoma SH-SY5Y cells. Schoeffter P, et al. **Fundam Clin Pharmacol** 1999; 13(4):484–9

Corticotropin-releasing hormone receptor subtype 1 is significantly up-regulated at the time of labor in the human myometrium. Stevens MY, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4107–15

Receptor binding, behavioral, and electrophysiological profiles of nonpeptide corticotropin-releasing factor subtype 1 receptor antagonists CRA1000 and CRA1001. Okuyama S, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):926–35

Comparison of an agonist, urocortin, and an antagonist, astressin, as radioligands for characterization of corticotropin-releasing factor receptors. Perrin MH, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):729–34

Structure and function of the ovine type 1 corticotropin releasing factor receptor (CRF1) and a carboxyl-terminal variant. Myers DA, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1–2):21–35

Molecular identification and analysis of a novel human corticotropin-releasing factor (CRF) receptor: the CRF2gamma receptor. Kostich WA, et al. **Mol Endocrinol** 1998 Aug;12(8):1077–85

Corticotropin releasing factor modulates interleukin-1-induced prostaglandin synthesis in fibroblasts: receptor binding and effects of antagonists. Fleisher-Berkovich S, et al. **Regul Pept** 1998 Oct 16; 77(1–3):121–6

PHYSIOLOGY

Effect of a chronic stress on CRF neuronal activity and expression of its type 1 receptor in the rat brain. Bonaz B, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1438–49

Peripheral urocortin delays gastric emptying: role of CRF receptor 2. Nozu T, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G867–74

Corticotropin-releasing factor receptor type 1 mediates emotional stress-induced inhibition of food intake and behavioral changes in rats. Hotta M, et al. **Brain Res** 1999 Mar 27;823(1–2):221–5

Does the CRH binding protein shield the anterior pituitary from placental CRH? Thomson M. **Endocrine** 1998 Dec; 9(3):221–6 (46 ref.)

Corticotropin-releasing factor type 1 and type 2alpha receptors regulate phosphorylation of calcium/cyclic adenosine 3',5'-monophosphate response element-binding protein and activation of p42/p44 mitogen-activated protein kinase. Rossant CJ, et al. **Endocrinology** 1999 Apr; 140(4):1525–36

Differential regulation of the expression of corticotropin-releasing factor receptor type 2 (CRF2) in hypothalamus and amygdala of the immature rat by sensory input and food intake. Eghbal-Ahmadi M, et al. **J Neurosci** 1999 May 15;19(10):3982–91

Modulation of learning and anxiety by corticotropin-releasing factor (CRF) and stress: differential roles of CRF receptors 1 and 2. Radulovic J, et al. **J Neurosci** 1999 Jun 15;19(12):5016–25

Leptin affects food intake via CRF-receptor-mediated pathways. Gardner JD, et al. **Nat Neurosci** 1998 Jun; 1(2):103

Stress-induced behaviors require the corticotropin-releasing hormone (CRH) receptor, but not CRH. Weninger SC, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8283–8

CRF and CRF receptors. Radulovic J, et al. **Results Probl Cell Differ** 1999;26:67–90 (140 ref.)

RECEPTORS, CR1 see **RECEPTORS, COMPLEMENT 3B**

RECEPTORS, CR2 see **RECEPTORS, COMPLEMENT 3D**

RECEPTORS, CRH see **RECEPTORS, CORTICOTROPIN-RELEASING HORMONE**

RECEPTORS, CXCR4

Comparison of the antibody repertoire generated in healthy volunteers following immunization with a monomeric recombinant gp120 construct derived from a CCR5/CXCR4-using human immunodeficiency virus type 1 isolate with sera from naturally infected individuals. Beddows S, et al. **J Virol** 1999 Feb;73(2):1740–5

Ligand efficacy and affinity in an interacting 7TM receptor model. Ongun Onaran H, et al. **Trends Pharmacol Sci** 1999 Jul;20(7):274–8

ANALYSIS

Intrinsic human immunodeficiency virus type 1 resistance of hematopoietic stem cells despite coreceptor expression. Shen H, et al. **J Virol** 1999 Jan;73(1):728–37

Quantification of CD4, CCR5, and CXCR4 levels on lymphocyte subsets, dendritic cells, and differentially conditioned monocyte-derived macrophages. Lee B, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5215–20

ANTAGONISTS & INHIBITORS

A low-molecular-weight inhibitor against the chemokine receptor CXCR4: a strong anti-HIV peptide T140. Tamamura H, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):877–82

Pharmacophore identification of a chemokine receptor (CXCR4) antagonist, T22 ([Tyr(5,12),Lys7]-polyphemusin II), which specifically blocks T cell-line-tropic HIV-1 infection. Tamamura H, et al. **Bioorg Med Chem** 1998 Jul; 6(7):1033–41

Inhibition of tyrosine kinase activation blocks the down-regulation of CXC chemokine receptor 4 by HIV-1 gp120 in CD4+ T cells. Su SB, et al. **J Immunol** 1999 Jun 15;162(12):7128–32

Progesterone-induced inhibition of chemokine receptor expression on peripheral blood mononuclear cells correlates with reduced HIV-1 infectability in vitro. Vassiliadou N, et al. **J Immunol** 1999 Jun 15;162(12):7510–8

Down-regulation of CXCR4 by human herpesvirus 6 (HHV-6) and HHV-7. Yasukawa M, et al. **J Immunol** 1999 May 1;162(9):5417–22

Synthesis and structure-activity relationships of phenylenebis(methylene)-linked bis-azamacrocycles that inhibit HIV-1 and HIV-2 replication by antagonism of the chemokine receptor CXCR4. Bridger GJ, et al. **J Med Chem** 1999 Sep 23;42(19):3971–81

T134, a small-molecule CXCR4 inhibitor, has no cross-drug resistance with AMD3100, a CXCR4 antagonist with a different structure. Arakaki R, et al. **J Virol** 1999 Feb; 73(2):1719–23

Bicyclams, selective antagonists of the human chemokine receptor CXCR4, potently inhibit feline immunodeficiency virus replication. Egberink HF, et al. **J Virol** 1999 Aug; 73(8):6346–52

Shift of clinical human immunodeficiency virus type 1 isolates from X4 to R5 and prevention of emergence of the syncytium-inducing phenotype by blockade of CXCR4. Esté JA, et al. **J Virol** 1999 Jul;73(7):5577–85

Inhibitory mechanism of the CXCR4 antagonist T22 against human immunodeficiency virus type 1 infection. Murakami T, et al. **J Virol** 1999 Sep;73(9):7489–96

HIV-1 entry inhibitors and virus emergence [letter] D'Aquila RT, et al. **Nat Med** 1999 Oct;5(10):1091

Promising anti-HIV therapeutic strategy with a small molecule CXCR4 antagonist. Schols D. **Verh K Acad Geneeskd Belg** 1999;61(4):551–64

BIOSYNTHESIS

Early reduction of immune activation in lymphoid tissue following highly active HIV therapy. Andersson J, et al. **AIDS** 1998 Jul 30;12(11):F123–9

Vascular endothelial growth factor and basic fibroblast growth factor induce expression of CXCR4 on human endothelial cells: In vivo neovascularization induced by stromal-derived factor-1alpha. Salcedo R, et al. **Am J Pathol** 1999 Apr;154(4):1125–35

Phenotypic and functional evidence for the expression of CXCR4 receptor during megakaryocytopoiesis. Rivière C, et al. **Blood** 1999 Mar 1;93(5):1511–23

Activation of blood T lymphocytes down-regulates CXCR4 expression and interferes with propagation of X4 HIV strains. Bermejo M, et al. **Eur J Immunol** 1998 Oct; 28(10):3192–204

Reduced expression of the CXCR4 receptor mRNA in hepatocellular carcinoma and lack of inducibility of its ligand alpha-chemokine hIRH/SDF1alpha/PBSF in vitro. Begum NA, et al. **Int J Oncol** 1999 May;14(5):927–34

CXCR4 mRNA expression in colon, esophageal and gastric cancers and hepatitis C infected liver. Mitra P, et al. **Int J Oncol** 1999 May;14(5):917–25

Cutting edge: CXCR4-Lo: molecular cloning and functional expression of a novel human CXCR4 splice variant. Gupta SK, et al. **J Immunol** 1999 Sep 1;163(5):2368–72

Expression of stromal cell-derived factor-1/pre-B cell growth-stimulating factor receptor, CXC chemokine receptor 4, on CD34+ human bone marrow cells is a phenotypic alteration for committed lymphoid progenitors. Ishii T, et al. **J Immunol** 1999 Oct 1;163(7):3612–20

Peripheral blood-derived CD34+ progenitor cells: CXC chemokine receptor 4 and CC chemokine receptor 5 expression and infection by HIV. Ruiz ME, et al. **J Immunol** 1998 Oct 15;161(8):4169–76

Extracellular HIV-1 tat protein up-regulates the expression of surface CXC-chemokine receptor 4 in resting CD4+ T cells. Secchiero P, et al. **J Immunol** 1999 Feb 15; 162(4):2427–31

Modulation of CXCR4 expression and SDF-1alpha functional activity during differentiation of human monocytes and macrophages. Gupta SK, et al. **J Leukoc Biol** 1999 Jul;66(1):135–43

IL-4 and a glucocorticoid up-regulate CXCR4 expression on human CD4+ T lymphocytes and enhance HIV-1 replication. Wang J, et al. **J Leukoc Biol** 1998 Nov; 64(5):642–9

Dendritic cell-T-cell interactions support coreceptor-independent human immunodeficiency virus type 1 transmission in the human genital tract. Hladik F, et al. **J Virol** 1999 Jul;73(7):5833–42

Tat protein induces human immunodeficiency virus type 1 (HIV-1) coreceptors and promotes infection with both macrophage-tropic and T-lymphotropic HIV-1 strains. Huang L, et al. **J Virol** 1998 Nov;72(11):8952–60

CHEMISTRY

Five-transmembrane domains appear sufficient for a G protein-coupled receptor: functional five-transmembrane domain chemokine receptors. Ling K, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7922–7

DRUG EFFECTS

SLC/exodus2/6Ckine/TCA4 induces chemotaxis of hematopoietic progenitor cells: differential activity of ligands of CCR7, CXCR3, or CXCR4 in chemotaxis vs. suppression of progenitor proliferation. Kim CH, et al. **J Leukoc Biol** 1999 Sep;66(3):455–61

New bicyclam-AZT conjugates: design, synthesis, anti-HIV evaluation, and their interaction with CXCR-4 coreceptor. Dessolin J, et al. **J Med Chem** 1999 Jan 28;42(2):229–41

Enhanced inhibition of human immunodeficiency virus type 1 by Met-stromal-derived factor 1beta correlates with down-modulation of CXCR4. Yang OO, et al. **J Virol** 1999 Jun;73(6):4582–9

Activity of different bicyclam derivatives against human immunodeficiency virus depends on their interaction with the CXCR4 chemokine receptor. Esté JA, et al. **Mol Pharmacol** 1999 Jan;55(1):67–73

New polyazamacrocycle-nucleoside conjugates: synthesis, anti-HIV evaluation and interaction with CXCR-4 coreceptor. Dessolin J, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):881–2

GENETICS

HTLV type I Tax activation of the CXCR4 promoter by association with nuclear respiratory factor 1. Moriuchi M, et al. **AIDS Res Hum Retroviruses** 1999 Jun 10;15(9):821–7

The human immunodeficiency virus (HIV)-type 1 coreceptor CXCR-4 (fusin) is preferentially expressed on the more immature CD34+ hematopoietic stem cells. Viardot A, et al. **Ann Hematol** 1998 Nov;77(5):193–7

Feline peripheral blood mononuclear cells express message for both CXC and CC type chemokine receptors. Kovacs EM, et al. **Arch Virol** 1999;144(2):273–85

Regulation of CCR5 and CXCR4 expression by type 1 and type 2 cytokines: CCR5 expression is downregulated by IL-10 in CD4-positive lymphocytes. Patterson BK, et al. **Clin Immunol** 1999 Jun;91(3):254–62

CXCR4 polymorphisms and HIV-1 pathogenesis [letter] Martin MP, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):430

Interferon downregulates CXCR4 (fusin) gene expression in peripheral blood mononuclear cells. Shirazi Y, et al. **J Hum Virol** 1998 Jan-Feb;1(2):69–76

cAMP up-regulates cell surface expression of lymphocyte CXCR4: implications for chemotaxis and HIV-1 infection. Cole SW, et al. **J Immunol** 1999 Feb 1;162(3):1392–400

Cutting edge: CXCR4-Lo: molecular cloning and functional expression of a novel human CXCR4 splice variant. Gupta SK, et al. **J Immunol** 1999 Sep 1;163(5):2368–72

USF/c-Myc enhances, while Yin-Yang 1 suppresses, the promoter activity of CXCR4, a coreceptor for HIV-1 entry. Moriuchi M, et al. **J Immunol** 1999 May 15; 162(10):5986–92

Chemokine receptors and the molecular basis for human immunodeficiency virus type 1 entry into peripheral hematopoietic stem cells and their progeny. Zhao SF, et al. **J Infect Dis** 1998 Dec;178(6):1623–34

Cloning of two chemokine receptor homologs (CXC-R4 and CC-R7) in rainbow trout Oncorhynchus mykiss. Daniels GD, et al. **J Leukoc Biol** 1999 May;65(5):684–90

Genomic organization and expression of the CXCR4 gene in mouse and man: absence of a splice variant corresponding to mouse CXCR4-B in human tissues. Frodl R, et al. **J Recept Signal Transduct Res** 1998 Jul–Nov; 18(4–6):321–44

Molecular characterization of CXCR-4: a potential brain tumor-associated gene. Sehgal A, et al. **J Surg Oncol** 1998 Dec;69(4):239–48

Effect of mutations in the second extracellular loop of CXCR4 on its utilization by human and feline immunodeficiency viruses. Brelot A, et al. **J Virol** 1999 Apr;73(4):2576–86

Antisense oligodeoxynucleotide complementary to CXCR4 mRNA block replication of HIV-1 in COS cells. Kusunoki A, et al. **Nucleosides Nucleotides** 1999 Jun-Jul; 18(6–7):1705–8

A cell-autonomous requirement for CXCR4 in long-term lymphoid and myeloid reconstitution. Kawabata K, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5663–7

Chemokine receptor (CXCR4) mRNA-expressing leukocytes are increased in human renal allograft rejection. Eitner F, et al. **Transplantation** 1998 Dec 15;66(11):1551–7

IMMUNOLOGY

Human CD34(+) cells express CXCR4 and its ligand stromal cell-derived factor-1. Implications for infection by T-cell tropic human immunodeficiency virus. Aiuti A, et al. **Blood** 1999 Jul 1;94(1):62–73

The susceptibility to X4 and R5 human immunodeficiency virus-1 strains of dendritic cells derived in vitro from CD34(+) hematopoietic progenitor cells is primarily determined by their maturation stage. Canque B, et al. **Blood** 1999 Jun 1;93(11):3866–75

A synthetic peptide derived from human immunodeficiency virus type 1 gp120 downregulates the expression and function of chemokine receptors CCR5 and CXCR4 in monocytes by activating the 7-transmembrane G-protein-coupled receptor FPRL1/LXA4R. Deng X, et al. **Blood** 1999 Aug 15;94(4):1165–73

Enhanced HIV expression during Th2-oriented responses explained by the opposite regulatory effect of IL-4 and IFN-gamma of fusin/CXCR4. Galli G, et al. **Eur J Immunol** 1998 Oct;28(10):3280–90

HIV-1 envelope gp120 inhibits the monocyte response to chemokines through CD4 signal-dependent chemokine receptor down-regulation. Wang JM, et al. **J Immunol** 1998 Oct 15;161(8):4309–17

Intracellular CXCR4 signaling, neuronal apoptosis and neuropathogenic mechanisms of HIV-1-associated dementia. Zheng J, et al. **J Neuroimmunol** 1999 Aug 3; 98(2):185–200

CD40-Mediated induction of CD4 and CXCR4 on B lymphocytes correlates with restricted susceptibility to human immunodeficiency virus type 1 infection: potential role of B lymphocytes as a viral reservoir. Moir S, et al. **J Virol** 1999 Oct;73(10):7972–80

CXCR4 and CD4 mediate a rapid CD95-independent cell death in CD4(+) T cells. Berndt C, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12556–61

A mechanism of resistance to HIV-1 entry: inefficient interactions of CXCR4 with CD4 and gp120 in macrophages. Dimitrov DS, et al. **Virology** 1999 Jun 20; 259(1):1–6

ISOLATION & PURIFICATION

Pertussis toxin-sensitive signal controls the trafficking of thymocytes across the corticomedullary junction in the thymus. Suzuki G, et al. **J Immunol** 1999 May 15; 162(10):5981–5

METABOLISM

The implication of the chemokine receptor CXCR4 in HIV-1 envelope protein-induced apoptosis is independent of the G protein-mediated signalling. Blanco J, et al. **AIDS** 1999 May 28;13(8):909–17

Coreceptor requirements of primary HIV type 1 group O isolates from Cameroon. Dittmar MT, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):707–12

Coreceptor ligand inhibition of fetal brain cell infection by HIV type 1. Hibbitts S, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20;15(11):989–1000

Distribution of the human immunodeficiency virus coreceptors CXCR4 and CCR5 in fetal lymphoid organs: implications for pathogenesis in utero. Kitchen SG, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):143–8

Exclusion of HIV coreceptors CXCR4, CCR5, and CCR3 from the HIV envelope. Lallos LB, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):895–7

Role of the HIV type 1 glycoprotein 120 V3 loop in determining coreceptor usage. Verrier F, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):731–43

Marked increase in anti-HIV activity, as well as inhibitory activity against HIV entry mediated by CXCR4, linked to enhancement of the binding ability of tachyplesin analogs to CXCR4. Xu Y, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):419–27

Progressive and persistent downregulation of surface CXCR4 in CD4(+) T cells infected with human herpesvirus 7. Secchiero P, et al. **Blood** 1998 Dec 15;92(12):4521–8

Megakaryocyte precursors, megakaryocytes and platelets express the HIV co-receptor CXCR4 on their surface: determination of response to stromal-derived factor-1 by megakaryocytes and platelets. Kowalska MA, et al. **Br J Haematol** 1999 Feb;104(2):220–9

Expression of CXCR4, the receptor for stromal cell-derived factor-1 on fetal and adult human lympho-hematopoietic progenitors. Aiuti A, et al. **Eur J Immunol** 1999 Jun; 29(6):1823–31

The N-linked glycan of the V3 region of HIV-1 gp120 and CXCR4-dependent multiplication of a human immunodeficiency virus type 1 lymphocyte-tropic variant. Losman B, et al. **FEBS Lett** 1999 Jul 2;454(1-2):47–52

Loss of SDF-1 receptor expression during positive selection in the thymus. Suzuki G, et al. **Int Immunol** 1998 Aug; 10(8):1049–56

Preferential coreceptor utilization and cytopathicity by dual-tropic HIV-1 in human lymphoid tissue ex vivo [see comments] Glushakova S, et al. **J Clin Invest** 1999 Sep; 104(5):R7–R11. Comment in: J Clin Invest 1999 Sep;104(5):531.

Physiological coreceptor use by dual-tropic HIV-1: one plus one equals one [comment] Rollins BJ. **J Clin Invest** 1999 Sep;104(5):531–2. Comment on: J Clin Invest 1999 Sep;104(5):R7–R11.

B cell antigen receptor engagement inhibits stromal cell-derived factor (SDF)-1alpha chemotaxis and promotes protein kinase C (PKC)-induced internalization of CXCR4. Guinamard R, et al. **J Exp Med** 1999 May 3;189(9):1461–6

Mutations in the env gene of human immunodeficiency virus type 1 NDK isolates and the use of African green monkey CXCR4 as a co-receptor in COS-7 cells. Dumonceaux J, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):1975–82

cAMP up-regulates cell surface expression of lymphocyte CXCR4: implications for chemotaxis and HIV-1 infection. Cole SW, et al. **J Immunol** 1999 Feb 1;162(3):1392–400

T cell-tropic HIV gp120 mediates CD4 and CD8 cell chemotaxis through CXCR4 independent of CD4: implications for HIV pathogenesis. Iyengar S, et al. **J Immunol** 1999 May 15;162(10):6263–7

CD4-independent utilization of the CXCR4 chemokine receptor by HIV-1 and HIV-2. Hoxie JA, et al. **J Reprod Immunol** 1998 Dec;41(1-2):197–211 (56 ref.)

CXCR-4, a chemokine receptor, is overexpressed in and required for proliferation of glioblastoma tumor cells. Sehgal A, et al. **J Surg Oncol** 1998 Oct;69(2):99–104

Mutagenesis of CXCR4 identifies important domains for human immunodeficiency virus type 1 X4 isolate envelope-mediated membrane fusion and virus entry and reveals cryptic coreceptor activity for R5 isolates. Chabot DJ, et al. **J Virol** 1999 Aug;73(8):6598–609

Identification of CXCR4 domains that support coreceptor and chemokine receptor functions. Doranz BJ, et al. **J Virol** 1999 Apr;73(4):2752–61

Role of naturally occurring basic amino acid substitutions in the human immunodeficiency virus type 1 subtype E envelope V3 loop on viral coreceptor usage and cell tropism. Kato K, et al. **J Virol** 1999 Jul;73(7):5520–6

CD4-Chemokine receptor hybrids in human immunodeficiency virus type 1 infection. Klasse PJ, et al. **J Virol** 1999 Sep;73(9):7453–66

Highly potent RANTES analogues either prevent CCR5-using human immunodeficiency virus type 1 infection in vivo or rapidly select for CXCR4-using variants. Mosier DE, et al. **J Virol** 1999 May;73(5):3544–50

Both neutralization resistance and high infectivity phenotypes are caused by mutations of interacting residues in the human immunodeficiency virus type 1 gp41 leucine zipper and the gp120 receptor- and coreceptor-binding domains. Park EJ, et al. **J Virol** 1999 Jul;73(7):5707–13

Primary human immunodeficiency virus type 2 (HIV-2) isolates infect CD4-negative cells via CCR5 and CXCR4: comparison with HIV-1 and simian immunodeficiency virus and relevance to cell tropism in vivo. Reeves JD, et al. **J Virol** 1999 Sep;73(9):7795–804

Shared usage of the chemokine receptor CXCR4 by primary and laboratory-adapted strains of feline immunodeficiency virus. Richardson J, et al. **J Virol** 1999 May;73(5):3661–71

Envelope-dependent restriction of human immunodeficiency virus type 1 spreading in CD4(+) T lymphocytes: R5 but not X4 viruses replicate in the absence of T-cell receptor restimulation. Vicenzi E, et al. **J Virol** 1999 Sep; 73(9):7515–23

CCR5- and CXCR4-tropic HIV-1 are equally cytopathic for their T-cell targets in human lymphoid tissue [see comments] Grivel JC, et al. **Nat Med** 1999 Mar;5(3):344–6 . Comment in: Nat Med 1999 Jun;5(6):592–3.

Cytokine modulation of HIV-1 chemokine receptor expression [letter; comment] Landay AL, et al. **Nat Med** 1999 Jun;5(6):592–3. Comment on: Nat Med 1999 Mar;5(3):344–6.

Fusion of monocytes and macrophages with HIV-1 correlates with biochemical properties of CXCR4 and CCR5 [published erratum appears in Nat Med 1999 May;5(5):590] Lapham CK, et al. **Nat Med** 1999 Mar; 5(3):303–8

CXCR4 utilization is sufficient to trigger CD4+ T cell depletion in HIV-1-infected human lymphoid tissue. Penn ML, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19; 96(2):663–8

Distinct pathogenic sequela in rhesus macaques infected with CCR5 or CXCR4 utilizing SHIVs. Harouse JM, et al. **Science** 1999 Apr 30;284(5415):816–9

Induction of interferon-alpha by glycoprotein D of herpes simplex virus: a possible role of chemokine receptors. Ankel H, et al. **Virology** 1998 Nov 25;251(2):317–26

Identification of determinants of interaction between CXCR4 and gp120 of a dual-tropic HIV-1DH12 isolate. Lee MK, et al. **Virology** 1999 May 10;257(2):290–6

PHYSIOLOGY

A CXC chemokine SDF-1/PBSF: a ligand for a HIV coreceptor, CXCR4. Nagasawa T, et al. **Adv Immunol** 1999; 71:211–28 (77 ref.)

Human immunodeficiency virus type 1 entry and chemokine receptors: a new therapeutic target. Cammack N. **Antivir Chem Chemother** 1999 Mar;10(2):53–62 (94 ref.)

A CD4-independent interaction of human immunodeficiency virus-1 gp120 with CXCR4 induces their cointernalization, cell signaling, and T-cell chemotaxis. Missé D, et al. **Blood** 1999 Apr 15;93(8):2454–62

Embryonic expression and function of the chemokine SDF-1 and its receptor, CXCR4. McGrath KE, et al. **Dev Biol** 1999 Sep 15;213(2):442–56

The chemokine receptor CXCR4 is required for the retention of B lineage and granulocytic precursors within the bone marrow microenvironment. Ma Q, et al. **Immunity** 1999 Apr;10(4):463–71

Stromal cell-derived factor-1alpha associates with heparan sulfates through the first beta-strand of the chemokine. Amara A, et al. **J Biol Chem** 1999 Aug 20;274(34):23916–25

Differential regulation of CXCR4 and CCR5 endocytosis. Signoret N, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2819–30

TCR activation inhibits chemotaxis toward stromal cell-derived factor-1: evidence for reciprocal regulation between CXCR4 and the TCR. Peacock JW, et al. **J Immunol** 1999 Jan 1;162(1):215–23

Shorter survival in advanced human immunodeficiency virus type 1 infection is more closely associated with T lymphocyte activation than with plasma virus burden or virus chemokine coreceptor usage. Giorgi JV, et al. **J Infect Dis** 1999 Apr;179(4):859–70

Microglia express CCR5, CXCR4, and CCR3, but of these, CCR5 is the principal coreceptor for human immunodeficiency virus type 1 dementia isolates. Albright AV, et al. **J Virol** 1999 Jan;73(1):205–13

CCR5- and CXCR4-utilizing strains of human immunodeficiency virus type 1 exhibit differential tropism and pathogenesis in vivo. Berkowitz RD, et al. **J Virol** 1998 Dec;72(12):10108–17

T-tropic human immunodeficiency virus type 1 (HIV-1)-derived V3 loop peptides directly bind to CXCR-4 and inhibit T-tropic HIV-1 infection. Sakaida H, et al. **J Virol** 1998 Dec;72(12):9763–70

Role of CXCR4 in cell-cell fusion and infection of monocyte-derived macrophages by primary human immunodeficiency virus type 1 (HIV-1) strains: two distinct mechanisms of HIV-1 dual tropism. Yi Y, et al. **J Virol** 1999 Sep;73(9):7117–25

Will multiple coreceptors need to be targeted by inhibitors of human immunodeficiency virus type 1 entry? Zhang YJ, et al. **J Virol** 1999 Apr;73(4):3443–8

The role of the chemokine receptor CXCR4 in infection with feline immunodeficiency virus. Willett BJ, et al. **Mol Membr Biol** 1999 Jan–Mar;16(1):67–72 (47 ref.)

Stable exposure of the coreceptor-binding site in a CD4-independent HIV-1 envelope protein. Hoffman TL, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6359–64

Five-transmembrane domains appear sufficient for a G protein-coupled receptor: functional five-transmembrane domain chemokine receptors. Ling K, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7922–7

The neutral glycosphingolipid globotriaosylceramide promotes fusion mediated by a CD4-dependent CXCR4-utilizing HIV type 1 envelope glycoprotein. Puri A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14435–40

The effect of different immune responses on the evolution of virulent CXCR4-tropic HIV. Wodarz D, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 22;265(1411):2149–58

Dependence of human stem cell engraftment and repopulation of NOD/SCID mice on CXCR4. Peled A, et al. **Science** 1999 Feb 5;283(5403):845–8

The effect of immunization on chemokines and CCR5 and CXCR4 coreceptor functions in SIV binding and chemotaxis. Wang Y, et al. **Vaccine** 1999 Apr 9; 17(15–16):1826–36

RECEPTORS, CYCLIC AMP

see related
CYCLIC AMP-DEPENDENT PROTEIN KINASES
CYCLIC AMP RECEPTOR PROTEIN

BIOSYNTHESIS

Sequence-specific protein interaction with a transcriptional enhancer involved in the autoregulated expression of cAMP receptor 1 in Dictyostelium. Mu X, et al. **Development** 1998 Sep;125(18):3689–98

CHEMISTRY

The sequential mechanism of guanidine hydrochloride-induced denaturation of cAMP receptor protein from Escherichia coli. A fluorescent study using 8-anilino-1-naphthalenesulfonic acid. Malecki J, et al. **J Protein Chem** 1998 Nov;17(8):745–55

GENETICS

Construction and characterization of avian Escherichia coli cya crp mutants. Peighambari SM, et al. **Avian Dis** 1998 Oct-Dec;42(4):698–710

Overexpression of CAF1 encoding a novel Ca2+-binding protein stimulates the transition of Dictyostelium cells from growth to differentiation. Itoh M, et al. **Dev Growth Differ** 1998 Dec;40(6):677–83

METABOLISM

Interactions between the Escherichia coli cAMP receptor protein and the C-terminal domain of the alpha subunit of RNA polymerase at class I promoters. Law EC, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):415–23

Glycogen synthase kinase-3 (GSK-3) is regulated during Dictyostelium development via the serpentine receptor cAR3. Plyte SE, et al. **Development** 1999 Jan;126(2):325–33

Temperature-sensitive Gbeta mutants discriminate between G protein-dependent and -independent signaling mediated by serpentine receptors. Jin T, et al. **EMBO J** 1998 Sep 1;17(17):5076–84

Dissection of the cAMP induced cytosolic calcium response in Dictyostelium discoideum: the role of cAMP receptor subtypes and G protein subunits. Sonnemann J, et al. **FEBS Lett** 1998 Oct 2;436(2):271–6

Effect of mutations at the monomer-monomer interface of cAMP receptor protein on specific DNA binding. Shi Y, et al. **J Biol Chem** 1999 Mar 12;274(11):6946–56

Desensitization of G-protein-coupled receptors. agonist-induced phosphorylation of the chemoattractant receptor cAR1 lowers its intrinsic affinity for cAMP. Xiao Z, et al. **J Biol Chem** 1999 Jan 15;274(3):1440–8

The sequential mechanism of guanidine hydrochloride-induced denaturation of cAMP receptor protein from Escherichia coli. A fluorescent study using 8-anilino-1-naphthalenesulfonic acid. Malecki J, et al. **J Protein Chem** 1998 Nov;17(8):745–55

Selection of gbeta subunits with point mutations that fail to activate specific signaling pathways in vivo: dissecting cellular responses mediated by a heterotrimeric G protein in Dictyostelium discoideum. Jin T, et al. **Mol Biol Cell** 1998 Oct;9(10):2949–61

Functional promiscuity of gene regulation by serpentine receptors in Dictyostelium discoideum. Verkerke-Van Wijk I, et al. **Mol Cell Biol** 1998 Oct;18(10):5744–9

RECEPTORS, CYTOKINE

[Structure and function of helical cytokines and their cognate receptors] Senda T. **Tanpakushitsu Kakusan Koso** 1999 Mar; 44(4 Suppl):318–24 (35 ref.) **(Jpn)**

ANALYSIS

Chemokine receptor CCR2 expression and monocyte chemoattractant protein-1-mediated chemotaxis in human monocytes. A regulatory role for plasma LDL. Han KH, et al. **Arterioscler Thromb Vasc Biol** 1998 Dec; 18(12):1983–91

Localization of leukemia inhibitory factor and its receptor in human placenta throughout pregnancy. Sharkey AM, et al. **Biol Reprod** 1999 Feb;60(2):355–64

T-lymphocyte functionality assessed by analysis of cytokine receptor expression, intracellular cytokine expression, and femtomolar detection of cytokine secretion by quantitative flow cytometry. Collins DP, et al. **Cytometry** 1998 Oct 1;33(2):249–55

Occurrence of cytokine receptors on different lymphoid leukaemic cells. Koubek K, et al. **Eur J Haematol** 1999 Jul;63(1):1–10

Expression of cytokine receptors on different myeloid leukemic cells [published erratum appears in Neoplasma 1998;45(6):397–9] Koubek K, et al. **Neoplasma** 1998; 45(4):198–203

Ligand-receptor binding measured by laser-scanning imaging. Zuck P, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11122–7

[Immunohistochemical detection of cytokine receptors on cryostat tissue sections] Kumberová A, et al. **Cesk Patol** 1999 Jan;35(1):30–5 (Eng. Abstr.) **(Cze)**

ANTAGONISTS & INHIBITORS

Immunological evaluation of cytokine and anticytokine immunotherapy in vivo: what have we learnt? Jorgensen C, et al. **Ann Rheum Dis** 1999 Mar;58(3):136–41 (48 ref.)

BIOSYNTHESIS

Significance of enhanced cytokine receptor expression by glucocorticoids [letter] Almawi WY, et al. **Blood** 1998 Nov 15;92(10):3979–80

Loss of CCR2 expression and functional response to monocyte chemotactic protein (MCP-1) during the differentiation of human monocytes: role of secreted MCP-1 in the regulation of the chemotactic response. Fantuzzi L, et al. **Blood** 1999 Aug 1;94(3):875–83

Reduced expression of hemopoietic cytokine receptors on cord blood progenitor cells in neonates at risk for atopy. Upham JW, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):370–5

Differential monocyte chemoattractant protein-1 and chemokine receptor 2 expression by murine lung fibroblasts derived from Th1- and Th2-type pulmonary granuloma models. Hogaboam CM, et al. **J Immunol** 1999 Aug 15; 163(4):2193–201

Up-regulation of CCR2 chemokine receptor expression and increased susceptibility to the multitropic HIV strain 89.6 in monocytes exposed to glucocorticoid hormones. Penton-Rol G, et al. **J Immunol** 1999 Sep 15;163(6):3524–9

Altered cytokine (receptor) mRNA expression as a tool in immunotoxicology. Vandebriel RJ, et al. **Toxicology** 1998 Sep 1;130(1):43–67 (225 ref.)

BLOOD

Cytokine network in congestive heart failure secondary to ischemic or idiopathic dilated cardiomyopathy. Aukrust P, et al. **Am J Cardiol** 1999 Feb 1;83(3):376–82

Soluble cytokine receptor CD30 in atopic disorders: a case-control study. Latza U, et al. **Clin Exp Allergy** 1999 Jan;29(1):97–104

The presence in human serum of a circulating soluble leukemia inhibitory factor receptor (sgp190) and its evolution during pregnancy. Pitard V, et al. **Eur Cytokine Netw** 1998 Dec;9(4):599–605

Increased circulating cytokine receptors and ex vivo interleukin-1 receptor antagonist and interleukin-1beta production but decreased tumour necrosis factor-alpha production after a 5-km run [see comments] Drenth JP, et al. **Eur J Clin Invest** 1998 Oct;28(10):866–72. Comment in: Eur J Clin Invest 1998 Oct;28(10):873–4.

Are circulating cytokine receptors and ex vivo interleukin-1 receptor antagonist and interleukin-1beta production increased and tumour necrosis factor-alpha production decreased after a 5-km run? [comment] Gleeson M. **Eur J Clin Invest** 1998 Oct;28(10):873–4. Comment on: Eur J Clin Invest 1998 Oct;28(10):866–72.

Relation between depression and circulating immune products in patients with advanced colorectal cancer. Allen-Mersh TG, et al. **J R Soc Med** 1998 Aug; 91(8):408–13

Inflammatory cytokines and their receptors in arterial and mixed venous blood before, during and after infusion of drained untreated blood. Krohn CD, et al. **Transfus Med** 1999 Jun;9(2):125–30

CHEMISTRY

A two-step selection approach for the identification of ligand-binding determinants in cytokine receptors. Friedrich K, et al. **Anal Biochem** 1999 Mar 15;268(2):179–86

Reconstitution of the functional mouse oncostatin M (OSM) receptor: molecular cloning of the mouse OSM receptor beta subunit. Tanaka M, et al. **Blood** 1999 Feb 1; 93(3):804–15

Cytoplasmic domains of the leukemia inhibitory factor receptor required for STAT3 activation, differentiation, and growth arrest of myeloid leukemic cells. Tomida M, et al. **Blood** 1999 Mar 15;93(6):1934–41

Targeting growth factor and cytokine receptors with recombinant peptide libraries. Dower WJ. **Curr Opin Chem Biol** 1998 Jun;2(3):328–34 (35 ref.)

Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746–56

Biochemical analysis of the receptor for ubiquitin-like polypeptide. Nakamura M, et al. **J Biol Chem** 1999 Jun 18;274(25):18026–32

The signal transducer gp130: solution structure of the carboxy-terminal domain of the cytokine receptor homology region. Kernebeck T, et al. **Protein Sci** 1999 Jan;8(1):5–12

CLASSIFICATION

[Classification of cytokine receptor superfamily and signal transduction--structural feature and functional property] Tanaka M, et al. **Nippon Rinsho** 1998 Jul;56(7):1784–90 (25 ref.) (Eng. Abstr.) **(Jpn)**

DEFICIENCY

Inherited cytokine and cytokine receptor deficiencies in man. Di Santo JP. **Int Rev Immunol** 1998;17(1-4):103–20 (68 ref.)

Role of Bcl-2 in alpha beta T cell development in mice deficient in the common cytokine receptor gamma-chain: the requirement for Bcl-2 differs depending on the TCR/MHC affinity. Nakajima H, et al. **J Immunol** 1999 Jan 15;162(2):782–90

DRUG EFFECTS

The downregulation of interleukin 1 and tumour necrosis factor receptors by topical tacalcitol (1,24(OH)2D3) in psoriasis [letter] Mizutani H, et al. **Br J Dermatol** 1998 Sep; 139(3):536–7

Cytokines and their receptors as therapeutic targets in asthma. Pauwels RA, et al. **Clin Exp Allergy** 1998 Aug;28 Suppl 3:1–5 (45 ref.)

LPS down-regulates the expression of chemokine receptor CCR2 in mice and abolishes macrophage infiltration in acute inflammation. Zhou Y, et al. **J Leukoc Biol** 1999 Feb; 65(2):265–9

Symposium overview: alterations in cytokine receptors by xenobiotics. Cohen MD, et al. **Toxicol Sci** 1999 Apr; 48(2):163–9

GENETICS

Leukemia inhibitory factor (LIF) and LIF receptor in human lung. Distribution and regulation of LIF release. Knight DA, et al. **Am J Respir Cell Mol Biol** 1999 Apr; 20(4):834–41

Further characterization of CD34-low/negative mouse hematopoietic stem cells. Nakauchi H, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:57–66; discussion 66–70

Gene cloning, RNA distribution, and functional expression of mCX3CR1, a mouse chemotactic receptor for the CX3C chemokine fractalkine. Combadiere C, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):728–32

Combined genotypes of CCR5, CCR2, SDF1, and HLA genes can predict the long-term nonprogressor status in human immunodeficiency virus-1-infected individuals. Magierowska M, et al. **Blood** 1999 Feb 1;93(3):936–41

Enhanced myeloid progenitor cell cycling and apoptosis in mice lacking the chemokine receptor, CCR2. Reid S, et al. **Blood** 1999 Mar 1;93(5):1524–33

Enhanced human cell engraftment in mice deficient in RAG2 and the common cytokine receptor gamma chain. Goldman JP, et al. **Br J Haematol** 1998 Nov;103(2):335–42

Differential temporal expression of mRNAs for ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), interleukin-6 (IL-6), and their receptors (CNTFR alpha, LIFR beta, IL-6R alpha and gp130) in injured peripheral nerves. Ito Y, et al. **Brain Res** 1998 May 18; 793(1-2):321–7

Persistent Borna disease virus infection of neonatal rats causes brain regional changes of mRNAs for cytokines, cytokine receptor components and neuropeptides. Plata-Salamán CR, et al. **Brain Res Bull** 1999 Aug;49(6):441–51

Regulation of expression of chemokine receptor BLR1/CXCR5 during B cell maturation. Pevzner V, et al. **Curr Top Microbiol Immunol** 1999;246:79–84; discussion 85 (18 ref.)

Novel pathways for negative regulation of inflammatory cytokines centered on receptor expression. Mantovani A, et al. **Dev Biol Stand** 1999;97:97–104 (50 ref.)

Functional expression of the fractalkine (CX3C) receptor and its regulation by lipopolysaccharide in rat microglia. Boddeke EW, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):309–13

The autocrine motility factor receptor gene encodes a novel type of seven transmembrane protein. Shimizu K, et al. **FEBS Lett** 1999 Aug 6;456(2):295–300

Rainbow trout cytokine and cytokine receptor genes. Secombes C, et al. **Immunol Rev** 1998 Dec;166:333–40 (34 ref.)

Inherited cytokine and cytokine receptor deficiencies in man. Di Santo JP. **Int Rev Immunol** 1998;17(1-4):103–20 (68 ref.)

Distinctive effects of CCR5, CCR2, and SDF1 genetic polymorphisms in AIDS progression. Hendel H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):381–6

Binding of leukemia inhibitory factor (LIF) to mutants of its low affinity receptor, gp190, reveals a LIF binding site outside and interactions between the two cytokine binding domains. Taupin JL, et al. **J Biol Chem** 1999 May 14; 274(20):14482–9

Functional map of a placenta-specific enhancer of the human leukemia inhibitory factor receptor gene. Wang Z, et al. **J Biol Chem** 1998 Oct 2;273(40):26069–77

PU.1 regulates the CXCR1 promoter. Wilkinson NC, et al. **J Biol Chem** 1999 Jan 1;274(1):438–43

Downstream activation of a TATA-less promoter by Oct-2, Bob1, and NF-kappaB directs expression of the homing receptor BLR1 to mature B cells. Wolf I, et al. **J Biol Chem** 1998 Oct 30;273(44):28831–6

Monocyte chemoattractant protein-1 mediates cockroach allergen-induced bronchial hyperreactivity in normal but not CCR2-/- mice: the role of mast cells. Campbell EM, et al. **J Immunol** 1999 Aug 15;163(4):2160–7

Cervical human immunodeficiency virus type 1 shedding is associated with genital beta-chemokine secretion. Iversen AK, et al. **J Infect Dis** 1998 Nov;178(5):1334–42

No evidence for an effect of the CCR5 delta32/+ and CCR2b 641/+ mutations on human immunodeficiency virus (HIV)-1 disease progression among HIV-1-infected injecting drug users. Schinkel J, et al. **J Infect Dis** 1999 Apr;179(4):825–31

Role of CCR2 genotype in the clinical course of syncytium-inducing (SI) or non-SI human immunodeficiency virus type 1 infection and in the time to conversion to SI virus variants. van Rij RP, et al.

J Infect Dis 1998 Dec;178(6):1806–11

A novel immunodeficient mouse model--RAG2 x common cytokine receptor gamma chain double mutants--requiring exogenous cytokine administration for human hematopoietic stem cell engraftment. Mazurier F, et al. **J Interferon Cytokine Res** 1999 May;19(5):533–41

Frequencies of SDF-1 chemokine, CCR-5, and CCR-2 chemokine receptor gene alleles conferring resistance to human immunodeficiency virus type 1 and AIDS in Kuwaitis. Voevodin A, et al. **J Med Virol** 1999 May; 58(1):54–8

CCR2-64I polymorphism is not associated with altered CCR5 expression or coreceptor function. Mariani R, et al. **J Virol** 1999 Mar;73(3):2450–9

mRNA expression of leukaemia inhibitory factor (LIF) and its receptor subunits glycoprotein 130 and LIF-receptor-beta in bovine embryos derived in vitro or in vivo. Eckert J, et al. **Mol Hum Reprod** 1998 Oct; 4(10):957–65

A signal sequence trap based on a constitutively active cytokine receptor. Kojima T, et al. **Nat Biotechnol** 1999 May;17(5):487–90

Expression of placental leptin and leptin receptor transcripts in early pregnancy and at term. Henson MC, et al. **Obstet Gynecol** 1998 Dec;92(6):1020–8

Chemokine receptor CCR2 and CCR5 polymorphisms in children with insulin-dependent diabetes mellitus. Szalai C, et al. **Pediatr Res** 1999 Jul;46(1):82–4

Localization of leptin receptor splice variants in mouse peripheral tissues by immunohistochemistry. De Matteis R, et al. **Proc Nutr Soc** 1998 Aug;57(3):441–8

Expression and ligand binding assays of soluble cytokine receptor-immunoglobulin fusion proteins. Brown SJ, et al. **Protein Expr Purif** 1998 Oct;14(1):120–4

Genetic acceleration of AIDS progression by a promoter variant of CCR5. Martin MP, et al. **Science** 1998 Dec 4; 282(5395):1907–11

[Obesity and diseases. 6. Clinical significance of obesity gene product (leptin)] Ogawa Y, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1811–6 (16 ref.) **(Jpn)**

IMMUNOLOGY

Soluble cytokine receptors: basic immunology and clinical applications. Fernandez-Botran R. **Crit Rev Clin Lab Sci** 1999 Jun;36(3):165–224 (243 ref.)

The common cytokine receptor gamma chain and the pre-T cell receptor provide independent but critically overlapping signals in early alpha/beta T cell development. Di Santo JP, et al. **J Exp Med** 1999 Feb 1;189(3):563–74

Prevention of crescentic glomerulonephritis by immunoneutralization of the fractalkine receptor CX3CR1 rapid communication. Feng L, et al. **Kidney Int** 1999 Aug; 56(2):612–20

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1999 Apr;109(4):551–6

METABOLISM

A two-step selection approach for the identification of ligand-binding determinants in cytokine receptors. Friedrich K, et al. **Anal Biochem** 1999 Mar 15;268(2):179–86

Identification of a Leu-Ile internalization motif within the cytoplasmic domain of the leukaemia inhibitory factor receptor. Thiel S, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):15–9

IL-6 type cytokine receptor complexes: hexamer, tetramer or both? Grötzinger J, et al. **Biol Chem** 1999 Jul-Aug; 380(7-8):803–13 (77 ref.)

Small molecule cytokine mimetics. Whitty A, et al. **Chem Biol** 1999 Apr;6(4):R107–18 (42 ref.)

Presence of leukaemia inhibitory factor (LIF) and LIF-receptor chain (gp190) in osteoclast-like cells cultured from human giant cell tumour of bone. Ultrastructural distribution. Gouin F, et al. **Cytokine** 1999 Apr;11(4):282–9

Flow cytometry measurement of cytokine receptors in acute leukemias. Clinical and biologic implications. Lanza F, et al. **Eur J Histochem** 1997;41 Suppl 2:25–6

Target cells for an immunosuppressive cytokine, glycosylation-inhibiting factor. Sugie K, et al. **Int Immunol** 1999 Jul;11(7):1149–56

Immunohistochemical evidence of cytokine networks during progression of human melanocytic lesions. Moretti S, et al. **Int J Cancer** 1999 Apr 20;84(2):160–8

Prognostic values of MUC-1 molecule expressing cytokine receptor-like epitope and DF3 in patients with gastric carcinoma. Nakagawa K, et al. **Int J Oncol** 1999 Mar; 14(3):425–35

Leukemia inhibitory factor and its receptor promote adipocyte differentiation via the mitogen-activated protein kinase cascade. Aubert J, et al. **J Biol Chem** 1999 Aug 27;274(35):24965–72

beta-arrestins regulate interleukin-8-induced CXCR1 internalization. Barlic J, et al. **J Biol Chem** 1999 Jun 4; 274(23):16287–94

The carboxyl-terminal domains of gp130-related cytokine receptors are necessary for suppressing embryonic stem cell differentiation. Involvement of STAT3. Ernst M, et al. **J Biol Chem** 1999 Apr 2;274(14):9729–37

Molecular uncoupling of fractalkine-mediated cell adhesion and signal transduction. Rapid flow arrest of CX3CR1-expressing cells is independent of G-protein activation. Haskell CA, et al. **J Biol Chem** 1999 Apr 9; 274(15):10053–8

Receptor recognition sites of cytokines are organized as exchangeable modules. Transfer of the leukemia inhibitory factor receptor-binding site from ciliary neurotrophic factor to interleukin-6. Kallen KJ, et al. **J Biol Chem** 1999 Apr 23;274(17):11859–67

Monomeric monocyte chemoattractant protein-1 (MCP-1) binds and activates the MCP-1 receptor CCR2B. Paavola CD, et al. **J Biol Chem** 1998 Dec 11;273(50):33157–65

Binding of leukemia inhibitory factor (LIF) to mutants of its low affinity receptor, gp190, reveals a LIF binding site outside and interactions between the two cytokine binding domains. Taupin JL, et al. **J Biol Chem** 1999 May 14; 274(20):14482–9

Postnatally induced inactivation of gp130 in mice results in neurological, cardiac, hematopoietic, immunological, hepatic, and pulmonary defects. Betz UAK, et al. **J Exp Med** 1998 Nov 16;188(10):1955–65

Lymphotoxin alpha/beta and tumor necrosis factor are required for stromal cell expression of homing chemokines in B and T cell areas of the spleen. Ngo VN, et al. **J Exp Med** 1999 Jan 18;189(2):403–12

Coreceptor usage of BOB/GPR15 and Bonzo/STRL33 by primary isolates of human immunodeficiency virus type 1. Pöhlmann S, et al. **J Gen Virol** 1999 May;80 (Pt 5):1241–51

Oxidized alpha2-macroglobulin (alpha2M) differentially regulates receptor binding by cytokines/growth factors: implications for tissue injury and repair mechanisms in inflammation. Wu SM, et al. **J Immunol** 1998 Oct 15; 161(8):4356–65

Human IP-9: A keratinocyte-derived high affinity CXC-chemokine ligand for the IP-10/Mig receptor (CXCR3). Tensen CP, et al. **J Invest Dermatol** 1999 May; 112(5):716–22

The expression of cytokines and their receptors in normal and mildly reactive human brain. Morris CS, et al. **J Neuroimmunol** 1998 Dec 1;92(1-2):85–97

The Jak-STAT pathway: cytokine signalling from the receptor to the nucleus. Heim MH. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):75–120 (239 ref.)

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1999 Apr;109(4):551–6

Localization of autocrine motility factor receptor to caveolae and clathrin-independent internalization of its ligand to smooth endoplasmic reticulum. Benlimame N, et al. **Mol Biol Cell** 1998 Jul;9(7):1773–86

A signal sequence trap based on a constitutively active cytokine receptor. Kojima T, et al. **Nat Biotechnol** 1999 May;17(5):487–90

Chemokine control of HIV-1 infection [letter] Mellado M, et al. **Nature** 1999 Aug 19;400(6746):723–4

HIV type I envelope determinants for use of the CCR2b, CCR3, STRL33, and APJ coreceptors. Hoffman TL, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11360–5

Cytoplasmic and nuclear cytokine receptor complexes. Mertani HC, et al. **Vitam Horm** 1999;57:79–121 (290 ref.)

PHYSIOLOGY

General mechanisms of cytokine receptor signaling. Carpenter LR, et al. **Adv Protein Chem** 1998;52:109–40 (138 ref.)

Cytokines in hematopoiesis: specificity and redundancy in receptor function. Socolovsky M, et al. **Adv Protein Chem** 1998;52:141–98 (254 ref.)

Abnormalities of cytokine receptor signalling contributing to diseases of red blood cell production. Goyal RK, et al. **Ann Med** 1999 Jun;31(3):208–16 (75 ref.)

Signaling by the cytokine receptor superfamily. Ihle JN, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:1–9 (50 ref.)

Oncostatin M (OM) promotes the growth of DU 145 human prostate cancer cells, but not PC-3 or LNCaP, through the signaling of the OM specific receptor. Mori S, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1011–5

Cytoplasmic domains of the leukemia inhibitory factor receptor required for STAT3 activation, differentiation, and growth arrest of myeloid leukemic cells. Tomida M, et al. **Blood** 1999 Mar 15;93(6):1934–41

Loss of a gp130 cardiac muscle cell survival pathway is a critical event in the onset of heart failure during biomechanical stress. Hirota H, et al. **Cell** 1999 Apr 16; 97(2):189–98

The role of cytokine receptor signaling in lymphocyte development. Baird AM, et al. **Curr Opin Immunol** 1999 Apr;11(2):157–66 (111 ref.)

Recent advances in cytokines, cytokine receptors and signal transduction. Rubinstein M, et al. **Cytokine Growth Factor Rev** 1998 Jun;9(2):175–81

The specification of sympathetic neurotransmitter phenotype depends on gp130 cytokine receptor signaling. Geissen M, et al. **Development** 1998 Dec;125(23):4791–801

Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746–56

Multiple gamma c-dependent cytokines regulate T-cell development. Malek TR, et al. **Immunol Today** 1999 Feb; 20(2):71–6 (55 ref.)

Cytokine pleiotropy and redundancy--gp130 cytokines in human implantation. Sánchez-Cuenca J, et al. **Immunol Today** 1999 Feb;20(2):57–9 (32 ref.)

SOCS: suppressors of cytokine signalling. Starr R, et al. **Int J Biochem Cell Biol** 1998 Oct;30(10):1081–5 (13 ref.)

Signal transduction through cytokine receptors. Hibi M, et al. **Int Rev Immunol** 1998;17(1-4):75–102 (150 ref.)

The box-1 region of the leukemia inhibitory factor receptor alpha-chain cytoplasmic domain is sufficient for hemopoietic cell proliferation and differentiation. Zhang Y, et al. **J Biol Chem** 1998 Dec 18;273(51):34370–83

The role of the common cytokine receptor gamma-chain in regulating IL-2-dependent, activation-induced CD8+ T cell death. Dai Z, et al. **J Immunol** 1999 Sep 15; 163(6):3131–7

Signaling pathways mediated by the TNF- and cytokine-receptor families target a common cis-element of the IFN regulatory factor 1 promoter. Gupta S, et al. **J Immunol** 1998 Dec 1;161(11):5997–6004

Specificity of signaling by hematopoietic cytokine receptors: instructive versus permissive effects. Skoda RC. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):741–72 (163 ref.)

Will multiple coreceptors need to be targeted by inhibitors of human immunodeficiency virus type 1 entry? Zhang YJ, et al. **J Virol** 1999 Apr;73(4):3443–8

Specific activation of leukocyte beta2 integrins lymphocyte function-associated antigen-1 and Mac-1 by chemokines mediated by distinct pathways via the alpha subunit cytoplasmic domains. Weber KS, et al. **Mol Biol Cell** 1999 Apr;10(4):861–73

Decreased lesion formation in CCR2-/- mice reveals a role for chemokines in the initiation of atherosclerosis. Boring L, et al. **Nature** 1998 Aug 27;394(6696):894–7

The chemokine monocyte chemoattractant protein-1 induces functional responses through dimerization of its receptor CCR2. Rodríguez-Frade JM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3628–33

Interaction affinity between cytokine receptor components on the cell surface. Whitty A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13165–70

[Interactions of cytokines with their receptors in the regulation of hematopoiesis, clinical and diagnostic applications] Koubek K, et al. **Sb Lek** 1998;99(1):33–51 (54 ref.) (Eng. Abstr.) **(Cze)**

[Analysis of cytokine receptor function by gene manipulation] Taga T. **Nippon Rinsho** 1998 Jul; 56(7):1674–80 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Bone morphogenetic protein (BMP) receptors and signal transduction] Yamashita H, et al. **Nippon Rinsho** 1999 Jan; 57(1):220–6 (19 ref.) (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Soluble cytokine receptors: basic immunology and clinical applications. Fernandez-Botran R. **Crit Rev Clin Lab Sci** 1999 Jun;36(3):165–224 (243 ref.)

ULTRASTRUCTURE

Ultrastructural immunolocalization of leptin receptor in mouse brain. De Matteis R, et al. **Neuroendocrinology** 1998 Dec;68(6):412–9

RECEPTORS, CYTOPLASMIC AND NUCLEAR

see related

TRANSCRIPTION FACTORS

Differential expression patterns of inositol trisphosphate receptor types 1 and 3 in the rat suprachiasmatic nucleus. Hamada T, et al. **Brain Res** 1999 Aug 14;838(1-2):131–5

A unified nomenclature system for the nuclear receptor superfamily [letter] **Cell** 1999 Apr 16;97(2):161–3

Mechanism of action of the nongenotoxic peroxisome proliferators: role of the peroxisome proliferator-activator receptor alpha. Gonzalez FJ, et al. **J Natl Cancer Inst** 1998 Nov 18;90(22):1702–9 (77 ref.)

[Current topics in the regulation of prostanoids--4. The feedback regulation by PPAR-gamma] Ohara M, et al. **Masui** 1999 Feb;48(2):146–51 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Lipid metabolism related nuclear receptor--the structure, function, expression and classification of peroxisome proliferation-activated receptor (PPAR)] Kawada T. **Nippon Rinsho** 1998 Jul;56(7):1722–8 (26 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS

Age-associated alterations in splenic iNOS regulation: influence of constitutively expressed IFN-gamma and correction following supplementation with PPARalpha activators or vitamin E. Poynter ME, et al. **Cell Immunol** 1999 Aug 1;195(2):127–36

Melatonin. Mor M, et al. **Curr Med Chem** 1999 Jun; 6(6):501–18 (142 ref.)

Peroxisome proliferator-activated receptor-alpha activators regulate genes governing lipoprotein metabolism, vascular inflammation and atherosclerosis. Fruchart JC, et al. **Curr Opin Lipidol** 1999 Jun;10(3):245–57 (99 ref.)

Role of skeletal muscle in thiazolidinedione insulin sensitizer

(PPARgamma agonist) action. Zierath JR, et al. **Endocrinology** 1998 Dec;139(12):5034–41

Troglitazone upregulates nitric oxide synthesis in vascular smooth muscle cells. Hattori Y, et al. **Hypertension** 1999 Apr;33(4):943–8

Novel peroxisome proliferator-activated receptor (PPAR) gamma and PPARdelta ligands produce distinct biological effects. Berger J, et al. **J Biol Chem** 1999 Mar 5; 274(10):6718–25

Endothelial cell apoptosis induced by the peroxisome proliferator-activated receptor (PPAR) ligand 15-deoxy-Delta12, 14-prostaglandin J2. Bishop-Bailey D, et al. **J Biol Chem** 1999 Jun 11;274(24):17042–8

A potent antidiabetic thiazolidinedione with unique peroxisome proliferator-activated receptor gamma-activating properties. Reginato MJ, et al. **J Biol Chem** 1998 Dec 4;273(49):32679–84

Regulation of differentiation of sheep subcutaneous and abdominal preadipocytes in culture. Soret B, et al. **J Endocrinol** 1999 Jun;161(3):517–24

A ureido-thioisobutyric acid (GW9578) is a subtype-selective PPARalpha agonist with potent lipid-lowering activity. Brown PJ, et al. **J Med Chem** 1999 Sep 23;42(19):3785–8

N-(2-Benzoylphenyl)-L-tyrosine PPARgamma agonists. 3. Structure-activity relationship and optimization of the N-aryl substituent. Cobb JE, et al. **J Med Chem** 1998 Dec 3;41(25):5055–69

N-(2-Benzoylphenyl)-L-tyrosine PPARgamma agonists. 2. Structure-activity relationship and optimization of the phenyl alkyl ether moiety. Collins JL, et al. **J Med Chem** 1998 Dec 3;41(25):5037–54

N-(2-Benzoylphenyl)-L-tyrosine PPARgamma agonists. 1. Discovery of a novel series of potent antihyperglycemic and antihyperlipidemic agents. Henke BR, et al. **J Med Chem** 1998 Dec 3;41(25):5020–36

Pharmacophoric search and 3D-QSAR comparative molecular field analysis studies on agonists of melatonin sheep receptors. Marot C, et al. **J Med Chem** 1998 Nov 5;41(23):4453–65

In vitro induction of UCP1 mRNA in preadipocytes from rabbit considered as a model of large mammals brown adipose tissue development: importance of PPARgamma agonists for cells isolated in the postnatal period. Cambon B, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):49–58

A novel method for analysis of nuclear receptor function at natural promoters: peroxisome proliferator-activated receptor gamma agonist actions on aP2 gene expression detected using branched DNA messenger RNA quantitation. Burris TP, et al. **Mol Endocrinol** 1999 Mar; 13(3):410–7

Acyclophostin: a ribose-modified analog of adenophostin A with high affinity for inositol 1,4,5-trisphosphate receptors and pH-dependent efficacy. Beecroft MD, et al. **Mol Pharmacol** 1999 Jan;55(1):109–17

Comparison of the structure-activity relationships of melatonin receptor agonists and antagonists: lengthening the N-acyl side-chain has differing effects on potency on Xenopus melanophores. Teh MT, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):522–8

Activators of peroxisome proliferator-activated receptor-gamma (PPARgamma) inhibit inducible nitric oxide synthase expression but increase heme oxygenase-1 expression in rat glial cells. Kitamura Y, et al. **Neurosci Lett** 1999 Mar 5;262(2):129–32

ANALYSIS

Optimization of the cost and sensitivity of receptor- and enzyme-based assays. Model MA, et al. **Anal Biochem** 1999 Jun 15;271(1):59–69

Differential distribution of inositol trisphosphate receptor isoforms in mouse oocytes. Fissore RA, et al. **Biol Reprod** 1999 Jan;60(1):49–57

DHR3 is required for the prepupal-pupal transition and differentiation of adult structures during Drosophila metamorphosis. Lam G, et al. **Dev Biol** 1999 Aug 1; 212(1):204–16

Detection and functional characterisation of the transcription factor peroxisome proliferator-activated receptor gamma in lutein cells. Löhrke B, et al. **J Endocrinol** 1998 Dec; 159(3):429–39

A constitutive nuclear localization signal from the second zinc-finger of orphan nuclear receptor TR2. Yu Z, et al. **J Endocrinol** 1998 Oct;159(1):53–60

Cytosolic and nuclear distribution of PPARgamma2 in differentiating 3T3-L1 preadipocytes. Thuillier P, et al. **J Lipid Res** 1998 Dec;39(12):2329–38

Characterization of membrane melatonin receptor in mouse peritoneal macrophages: inhibition of adenylyl cyclase by a pertussis toxin-sensitive G protein. García-Pergañeda A, et al. **J Neuroimmunol** 1999 Mar 1;95(1-2):85–94

Localization of type I inositol 1,4,5-triphosphate receptor in the outer segments of mammalian cones. Wang TL, et al. **J Neurosci** 1999 Jun 1;19(11):4221–8

Immunohistochemical localization of the INsP4 receptor GTPase-activating protein GAP1IP4BP in the rat brain. Signore AP, et al. **J Neurosci Res** 1999 Feb 1;55(3):321–8

Characterization of major phosphoproteins in the cGMP-mediated protein phosphorylation system of vascular smooth muscle membranes. Fujita S, et al. **J Vasc Res** 1999 Jul-Aug;36(4):299–310

Are there inositol 1,4,5-triphosphate (IP3) receptors in human sperm? Kuroda Y, et al. **Life Sci** 1999;65(2):135–43

ANTAGONISTS & INHIBITORS

Synthesis and structure-activity relationships of novel naphthalenic and bioisosteric related amidic derivatives as melatonin receptor ligands. Leclerc V, et al. **Bioorg Med Chem** 1998 Oct;6(10):1875–87

The putative melatonin receptor antagonist GR128107 is a partial agonist on Xenopus laevis melanophores. Teh MT, et al. **Br J Pharmacol** 1999 Mar;126(5):1237–45

Two organochlorine pesticides, toxaphene and chlordane, are antagonists for estrogen-related receptor alpha-1 orphan receptor. Yang C, et al. **Cancer Res** 1999 Sep 15; 59(18):4519–24

Pharmacokinetics of troglitazone, a PPAR-gamma agonist, in patients with hepatic insufficiency. Ott P, et al. **Eur J Clin Pharmacol** 1998 Sep;54(7):567–71

Melatonergic properties of the (+)- and (-)-enantiomers of N-(4-methoxy-2,3-dihydro-1H-phenalen-2-yl)amide derivatives. Jellimann C, et al. **J Med Chem** 1999 Mar 25; 42(6):1100–5

Comparison of the structure-activity relationships of melatonin receptor agonists and antagonists: lengthening the N-acyl side-chain has differing effects on potency on Xenopus melanophores. Teh MT, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):522–8

A peroxisome proliferator-activated receptor gamma ligand inhibits adipocyte differentiation. Oberfield JL, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6102–6

BIOSYNTHESIS

Induction of mitogen-inducible nuclear orphan receptor by interleukin 1 in human synovial and gingival fibroblasts. Borghaei RC, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):334–8

Expression of peroxisome proliferator activated receptor mRNA in normal and tumorigenic rodent mammary glands. Gimble JM, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):813–7

Induction of PPARgamma1 expression in human THP-1 monocytic leukemia cells by 9-cis-retinoic acid is associated with cellular growth suppression. Zhu L, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):842–8

Biosynthesis of inositol trisphosphate receptors: selective association with the molecular chaperone calnexin. Joseph SK, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):153–61

Down regulation of peroxisome proliferator-activated receptorgamma expression by inflammatory cytokines and its reversal by thiazolidinediones. Tanaka T, et al. **Diabetologia** 1999 Jun;42(6):702–10

The murine nuclear orphan receptor GCNF is expressed in the XY body of primary spermatocytes. Bauer UM, et al. **FEBS Lett** 1998 Nov 20;439(3):208–14

Use of a PPAR gamma-specific monoclonal antibody to demonstrate thiazolidinediones induce PPAR gamma receptor expression in vitro. Su JL, et al. **Hybridoma** 1999 Jun;18(3):273–80

Peroxisome proliferation, adipocyte determination and differentiation of C3H10T1/2 fibroblast cells induced by humic acid: induction of PPAR in diverse cells. Lee Y, et al. **J Cell Physiol** 1999 May;179(2):218–25

Antisense knock out of the inositol 1,3,4,5-tetrakisphosphate receptor GAP1(IP4BP) in the human erythroleukemia cell line leads to the appearance of intermediate conductance K(Ca) channels that hyperpolarize the membrane and enhance calcium influx. Lu X, et al. **J Gen Physiol** 1999 Jan;113(1):81–96

Regulation of peroxisome proliferator-activated receptor gamma expression by adipocyte differentiation and determination factor 1/sterol regulatory element binding protein 1: implications for adipocyte differentiation and metabolism. Fajas L, et al. **Mol Cell Biol** 1999 Aug; 19(8):5495–503

Expression of mt1 melatonin receptor in rat retina: evidence for multiple cell targets for melatonin. Fujieda H, et al. **Neuroscience** 1999;93(2):793–9

CHEMISTRY

Kinetics of elementary Ca2+ puffs evoked in Xenopus oocytes by different Ins(1,4,5)P3 receptor agonists. Marchant JS, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):505–9

The effects of thimerosal on the purified InsP3 receptor. Mezna M, et al. **Biochem Soc Trans** 1998 Aug;26(3):S290

Identification of rat brain p42(IP4), a high-affinity inositol(1,3,4,5)tetrakisphosphate/phosphatidylinositol(3,4,5) trisphosphate binding protein. Aggensteiner M, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):117–28

Single channel function of recombinant type-1 inositol 1,4,5-trisphosphate receptor ligand binding domain splice variants. Ramos-Franco J, et al. **Biophys J** 1998 Dec; 75(6):2783–93

Melatonin. Mor M, et al. **Curr Med Chem** 1999 Jun; 6(6):501–18 (142 ref.)

Generation and screening of synthetic receptor libraries. de Miguel YR, et al. **Curr Opin Chem Biol** 1998 Jun; 2(3):417–21 (30 ref.)

The LXRs: a new class of oxysterol receptors. Peet DJ, et al. **Curr Opin Genet Dev** 1998 Oct;8(5):571–5 (37 ref.)

An adipogenic cofactor bound by the differentiation domain of PPARgamma. Castillo G, et al. **EMBO J** 1999 Jul 1; 18(13):3676–87

Structure and specificity of nuclear receptor-coactivator interactions. Darimont BD, et al. **Genes Dev** 1998 Nov 1; 12(21):3343–56

Determinants of coactivator LXXLL motif specificity in nuclear receptor transcriptional activation. McInerney EM, et al. **Genes Dev** 1998 Nov 1;12(21):3357–68

Crystal structure of the ligand binding domain of the human nuclear receptor PPARgamma. Uppenberg J, et al. **J Biol Chem** 1998 Nov 20;273(47):31108–12

Agonist-dependent phosphorylation of the inositol 1,4,5-trisphosphate receptor: A possible mechanism for agonist-specific calcium oscillations in pancreatic acinar cells. LeBeau AP, et al. **J Gen Physiol** 1999 Jun; 113(6):851–72

Cyclosporin A inhibits inositol 1,4,5-trisphosphate binding to its receptors and release of calcium from intracellular stores in peritoneal macrophages. Misra UK, et al. **J Immunol** 1998 Dec 1;161(11):6122–7

Molecular recognition of fatty acids by peroxisome proliferator-activated receptors. Xu HE, et al. **Mol Cell** 1999 Mar;3(3):397–403

Acyclophostin: a ribose-modified analog of adenophostin A with high affinity for inositol 1,4,5-trisphosphate receptors and pH-dependent efficacy. Beecroft MD, et al. **Mol Pharmacol** 1999 Jan;55(1):109–17

Structure of the nuclear transport complex karyopherin-beta2-Ran x GppNHp [see comments] Chook YM, et al. **Nature** 1999 May 20;399(6733):230–7. Comment in: Nature 1999 May 20;399(6733):208–10.

Ciona intestinalis nuclear receptor 1: a member of steroid/thyroid hormone receptor family. Carosa E, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11152–7

A peroxisome proliferator-activated receptor gamma ligand inhibits adipocyte differentiation. Oberfield JL, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6102–6

The aspartate receptor cytoplasmic domain: in situ chemical analysis of structure, mechanism and dynamics. Bass RB, et al. **Structure Fold Des** 1999 Jul 15;7(7):829–40

[Structure and function of melatonin receptors] Jockers R, et al. **C R Seances Soc Biol Fil** 1998;192(4):659–67 (12 ref.) (Eng. Abstr.) **(Fre)**

CLASSIFICATION

Methods for the evaluation of drug action at the human melatonin receptor subtypes. Nonno R, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1-2):32–40

An updated phylogenetic analysis of vertebrate melatonin receptor sequences: reflection on the melatonin receptor nomenclature by the Nomenclature Subcommittee of the International Union of Pharmacology. Shiu SY, et al. **Biol Signals Recept** 1998 Jul-Aug;7(4):244–8

Molecular and pharmacological evidence for MT1 melatonin receptor subtype in the tail artery of juvenile Wistar rats. Ting KN, et al. **Br J Pharmacol** 1999 Jun;127(4):987–95

DEFICIENCY

Structural and immunohistological modifications in olfactory bulb of the staggerer mutant mouse. Monnier Z, et al. **Biol Cell** 1999 Jan;91(1):29–44

In vivo involvement of cytochrome P450 4A family in the oxidative metabolism of the lipid peroxidation product trans-4-hydroxy-2-nonenal, using PPARalpha-deficient mice. Guéraud F, et al. **J Lipid Res** 1999 Jan;40(1):152–9

DRUG EFFECTS

Conjugated linoleic acid activates peroxisome proliferator-activated receptor alpha and beta subtypes but does not induce hepatic peroxisome proliferation in Sprague-Dawley rats. Moya-Camarena SY, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):331–42

Methods for the evaluation of drug action at the human melatonin receptor subtypes. Nonno R, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1-2):32–40

Differential activity of rosiglitazone enantiomers at PPAR gamma. Parks DJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3657–8

Ligand efficacy and potency at recombinant human MT2 melatonin receptors: evidence for agonist activity of some mt1-antagonists. Nonno R, et al. **Br J Pharmacol** 1999 Jul; 127(5):1288–94

Tamoxifen aziridine binding to cytosolic proteins from human breast specimens is negatively associated with estrogen receptors, progesterone receptors, pS2, and cathepsin-D. Navarro D, et al. **Breast Cancer Res Treat** 1998 Jul; 50(2):155–66

A novel insulin sensitizer acts as a coligand for peroxisome proliferator-activated receptor-alpha (PPAR-alpha) and PPAR-gamma: effect of PPAR-alpha activation on abnormal lipid metabolism in liver of Zucker fatty rats. Murakami K, et al. **Diabetes** 1998 Dec;47(12):1841–7

Calmodulin inhibits inositol 1,4,5-trisphosphate-induced calcium release through the purified and reconstituted inositol 1,4,5-trisphosphate receptor type 1. Hirota J, et al. **FEBS Lett** 1999 Aug 6;456(2):322–6

Multiple domains of melatonin receptor are involved in the regulation of glucocorticoid receptor-induced gene expression. Persengiev SP. **J Steroid Biochem Mol Biol** 1999 Mar;68(5-6):181–7

The PPAR activator docosahexaenoic acid prevents

acetaminophen hepatotoxicity in male CD-1 mice. Nguyen KA, et al. **J Toxicol Environ Health** 1999 Oct 15; 58(3):171-86

Environmental xenobiotics and the antihormones cyproterone acetate and spironolactone use the nuclear hormone pregnenolone X receptor to activate the CYP3A23 hormone response element. Schuetz EG, et al. **Mol Pharmacol** 1998 Dec;54(6):1113-7

Antagonistic effects of S 22153, a new mt1 and MT2 receptor ligand, on the neophobia-reducing properties of melatonin in BALB/c mice. Kopp C, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):131-6

Design of subtype selective melatonin receptor agonists and antagonists. Sugden D, et al. **Reprod Nutr Dev** 1999 May-Jun;39(3):335-44

New developments in the molecular pharmacology of the myo-inositol 1,4,5-trisphosphate receptor. Wilcox RA, et al. **Trends Pharmacol Sci** 1998 Nov;19(11):467-75 (62 ref.)

[Nonsteroidal anti-rheumatic drugs and colon carcinoma: COX versus PPAR] Wächtershäuser A, et al. **Z Gastroenterol** 1999 Mar;37(3):257-61 **(Ger)**

GENETICS

Identification of PEX10, the gene defective in complementation group 7 of the peroxisome-biogenesis disorders. Warren DS, et al. **Am J Hum Genet** 1998 Aug; 63(2):347-59

Identification of sequence tagged sites in the Asian and African elephant. Burk NE, et al. **Anim Biotechnol** 1998; 9(2):155-60

Rat pregnane X receptor: molecular cloning, tissue distribution, and xenobiotic regulation. Zhang H, et al. **Arch Biochem Biophys** 1999 Aug 1;368(1):14-22

PPARgamma activation in human endothelial cells increases plasminogen activator inhibitor type-1 expression: PPARgamma as a potential mediator in vascular disease. Marx N, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar; 19(3):546-51

Alleic variants of human melatonin 1a receptor: function and prevalence in subjects with circadian rhythm sleep disorders. Ebisawa T, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):832-7

Effect of the Pro12Ala variant of the human peroxisome proliferator-activated receptor gamma 2 gene on adiposity, fat distribution, and insulin sensitivity in Japanese men. Mori Y, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):195-8

Pro12Ala missense mutation of the peroxisome proliferator activated receptor gamma and diabetes mellitus. Ringel J, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):450-3

Functional heterogeneity of C-terminal peroxisome targeting signal 1 in PEX5-defective patients. Shimozawa N, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):504-8

Muscle-specific mRNA isoform encodes a protein composed mainly of the N-terminal 175 residues of type 2 Ins(1,4,5)P3 receptor. Futatsugi A, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):559-63

Cloning experiments and developmental expression of both melatonin receptor Mel1A mRNA and melatonin binding sites in the Syrian hamster suprachiasmatic nuclei. Gauer F, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):193-202

Melatonin receptor RNA expression in Xenopus retina. Wiechmann AF, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):297-303

Changes in IP3R1 and SERCA2b mRNA levels in the gerbil brain after chronic ethanol administration and transient cerebral ischemia-reperfusion. Xia J, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):22-8

Two organochlorine pesticides, toxaphene and chlordane, are antagonists for estrogen-related receptor alpha-1 orphan receptor. Yang C, et al. **Cancer Res** 1999 Sep 15; 59(18):4519-24

Differential regulation of peroxisome proliferator activated receptor gamma1 (PPARgamma1) and PPARgamma2 messenger RNA expression in the early stages of adipogenesis. Saladin R, et al. **Cell Growth Differ** 1999 Jan; 10(1):43-8

Activation of the osteopontin promoter by the orphan nuclear receptor estrogen receptor related alpha. Vanacker JM, et al. **Cell Growth Differ** 1998 Dec;9(12):1007-14

Severe atherosclerosis and hypoalphalipoproteinemia in the staggerer mouse, a mutant of the nuclear receptor RORalpha. Mamontova A, et al. **Circulation** 1998 Dec 15; 98(24):2738-43

PPARalpha activators inhibit cytokine-induced vascular cell adhesion molecule-1 expression in human endothelial cells. Marx N, et al. **Circulation** 1999 Jun 22;99(24):3125-31

Hypertension and insulin resistance: role of peroxisome proliferator-activated receptor gamma. Itoh H, et al. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):558-60

Expression of nuclear hormone receptors in Escherichia coli. Mossakowska DE. **Curr Opin Biotechnol** 1998 Oct; 9(5):502-5 (29 ref.)

Expression of inositol 1,4,5-trisphosphate receptors in mouse oocytes and early embryos: the type I isoform is upregulated in oocytes and downregulated after fertilization. Parrington J, et al. **Dev Biol** 1998 Nov 15; 203(2):451-61

Identification of new mutations in the hepatocyte nuclear factor 4alpha gene among families with early onset Type 2 diabetes mellitus. Malecki MT, et al. **Diabet Med** 1999 Mar;16(3):193-200

Association of the Pro12Ala variant in the peroxisome proliferator-activated receptor-gamma2 gene with obesity in two Caucasian populations. Beamer BA, et al. **Diabetes** 1998 Nov;47(11):1806-8

Pro12Ala substitution in the peroxisome proliferator-activated receptor-gamma2 is not associated with type 2 diabetes. Mancini FP, et al. **Diabetes** 1999 Jul; 48(7):1466-8

Palmitate and oleate induce the immediate-early response genes c-fos and nur-77 in the pancreatic beta-cell line INS-1. Roche E, et al. **Diabetes** 1999 Oct;48(10):2007-14

Peroxisome proliferator activated receptor-gamma, leptin and tumor necrosis factor-alpha mRNA expression during very low calorie diet in subcutaneous adipose tissue in obese women. Bastard JP, et al. **Diabetes Metab Res Rev** 1999 Mar-Apr;15(2):92-8

PPARgamma, the ultimate thrifty gene. Auwerx J. **Diabetologia** 1999 Sep;42(9):1033-49 (190 ref.)

Homozygosity of the Pro12Ala variant of the peroxisome proliferation-activated receptor-gamma2 (PPAR-gamma2): divergent modulating effects on body mass index in obese and lean Caucasian men. Ek J, et al. **Diabetologia** 1999 Jul;42(7):892-5

The PPARgamma2 amino acid polymorphism Pro 12 Ala is prevalent in offspring of Type II diabetic patients and is associated to increased insulin sensitivity in a subgroup of obese subjects. Koch M, et al. **Diabetologia** 1999 Jun; 42(6):758-62

Nutrient channelling-regulated peroxisome proliferator-activated receptor-gamma-2 (PPARgamma-2) and leptin gene expression in human subcutaneous fat [letter] Nisoli E, et al. **Diabetologia** 1999 Apr;42(4):495-7

Glucose regulates expression of inositol 1,4,5-trisphosphate receptor isoforms in isolated rat pancreatic islets. Lee B, et al. **Endocrinology** 1999 May;140(5):2173-82

Expression of peroxisome proliferator-activated receptor alpha messenger ribonucleic acid and protein in human and rat testis. Schultz R, et al. **Endocrinology** 1999 Jul; 140(7):2968-75

Effects of contractile activity and hypothyroidism on nuclear hormone receptor mRNA isoforms in rat skeletal muscle. Schuler MJ, et al. **Eur J Biochem** 1999 Sep;264(3):982-8

Pluripotent PPARgamma polymorphisms. Berg JP. **Eur J Endocrinol** 1999 Apr;140(4):293-5 (17 ref.)

Missense variants in the human peroxisome proliferator-activated receptor-gamma2 gene in lean and obese subjects. Hamann A, et al. **Eur J Endocrinol** 1999 Jul;141(1):90-2

PPARgamma activators down-regulate the expression of PPARgamma in 3T3-L1 adipocytes. Camp HS, et al. **FEBS Lett** 1999 Mar 26;447(2-3):186-90

PPARgamma3 mRNA: a distinct PPARgamma mRNA subtype transcribed from an independent promoter. Fajas L, et al. **FEBS Lett** 1998 Oct 30;438(1-2):55-60

Translocon-associated protein alpha transcripts are induced by granulocyte-macrophage colony-stimulating factor and exhibit complex alternative polyadenylation. Hirama T, et al. **FEBS Lett** 1999 Jul 23;455(3):223-7

Involvement of a chloroplast homologue of the signal recognition particle receptor protein, FtsY, in protein targeting to thylakoids. Kogata N, et al. **FEBS Lett** 1999 Mar 26;447(2-3):329-33

The cytoplasmic helical linker domain of receptor histidine kinase and methyl-accepting proteins is common to many prokaryotic signalling proteins. Aravind L, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):111-6

Identification of two hERR2-related novel nuclear receptors utilizing bioinformatics and inverse PCR. Chen F, et al. **Gene** 1999 Mar 4;228(1-2):101-9

RXR-2, a member of the retinoid x receptor family in Schistosoma mansoni. Freebern WJ, et al. **Gene** 1999 Jun 11;233(1-2):33-8

Expression and cDNA cloning of porcine peroxisome proliferator-activated receptor gamma (PPARgamma). Houseknecht KL, et al. **Gene** 1998 Dec 28;225(1-2):89-96

Activation of the mouse inositol 1,4,5-trisphosphate receptor type 1 promoter by AP-2. Ohkawa N, et al. **Gene** 1999 Mar 18;229(1-2):11-9

Sequencing and exon mapping of the inositol 1,4,5-trisphosphate receptor cDNA from Drosophila embryos suggests the presence of differentially regulated forms of RNA and protein. Sinha M, et al. **Gene** 1999 Jun 11;233(1-2):271-6

The nuclear receptor superfamily has undergone extensive proliferation and diversification in nematodes. Sluder AE, et al. **Genome Res** 1999 Feb;9(2):103-20

The human lamin B receptor/sterol reductase multigene family. Holmer L, et al. **Genomics** 1998 Dec 15;54(3):469-76

The human homologue of the Drosophila tailless gene (TLX): characterization and mapping to a region of common deletion in human lymphoid leukemia on chromosome 6q21. Jackson A, et al. **Genomics** 1998 May 15;50(1):34-43

Linkage of the nuclear hormone receptor genes NR1D2, THRB, and RARB: evidence for an ancient, large-scale duplication. Koh YS, et al. **Genomics** 1999 Apr 15; 57(2):289-92

RORgamma t, a novel isoform of an orphan receptor, negatively regulates Fas ligand expression and IL-2 production in T cells. He YW, et al. **Immunity** 1998 Dec; 9(6):797-806

Basis for selective action of a synthetic molting hormone agonist, RH-5992 on lepidopteran insects. Sundaram M, et al. **Insect Biochem Mol Biol** 1998 Sep;28(9):693-704

Relationships of PPARgamma and PPARgamma2 mRNA levels to obesity, diabetes and hyperinsulinaemia in rhesus monkeys. Hotta K, et al. **Int J Obes Relat Metab Disord** 1998 Oct;22(10):1000-10

Neisseria gonorrhoeae PilA is an FtsY homolog. Arvidson CG, et al. **J Bacteriol** 1999 Feb;181(3):731-9

Characterization of binding sequences for butyrolactone autoregulator receptors in streptomycetes. Kinoshita H, et al. **J Bacteriol** 1999 Aug;181(16):5075-80

Peroxisome proliferator-activated receptor alpha-isoform deficiency leads to progressive dyslipidemia with sexually dimorphic obesity and steatosis. Costet P, et al. **J Biol Chem** 1998 Nov 6;273(45):29577-85

Peroxisomal and mitochondrial fatty acid beta-oxidation in mice nullizygous for both peroxisome proliferator-activated receptor alpha and peroxisomal fatty acyl-CoA oxidase. Genotype correlation with fatty liver phenotype. Hashimoto T, et al. **J Biol Chem** 1999 Jul 2; 274(27):19228-36

The expression of poly(A)-binding protein gene is translationally regulated in a growth-dependent fashion through a 5'-terminal oligopyrimidine tract motif. Hornstein E, et al. **J Biol Chem** 1999 Jan 15;274(3):1708-14

Activation of the promoter of the orphan receptor SHP by orphan receptors that bind DNA as monomers. Lee YK, et al. **J Biol Chem** 1999 Jul 23;274(30):20869-73

The repressed nuclear receptor CAR responds to phenobarbital in activating the human CYP2B6 gene. Sueyoshi T, et al. **J Biol Chem** 1999 Mar 5;274(10):6043-6

Three v-SNAREs and two t-SNAREs, present in a pentameric cis-SNARE complex on isolated vacuoles, are essential for homotypic fusion. Ungermann C, et al. **J Cell Biol** 1999 Jun 28;145(7):1435-42

Central melatonin receptors in the rainbow trout: comparative distribution of ligand binding and gene expression. Mazurais D, et al. **J Comp Neurol** 1999 Jun 28;409(2):313-24

Antisense knock out of the inositol 1,3,4,5-tetrakisphosphate receptor GAP1(IP4BP) in the human erythroleukemia cell line leads to the appearance of intermediate conductance K(Ca) channels that hyperpolarize the membrane and enhance calcium influx. Lu X, et al. **J Gen Physiol** 1999 Jan;113(1):81-96

Age-related adipose tissue mRNA expression of ADD1/SREBP1, PPARgamma, lipoprotein lipase, and GLUT4 glucose transporter in rhesus monkeys [see comments] Hotta K, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):B183-8. Comment in: J Gerontol A Biol Sci Med Sci 1999 May;54(5):B189-90; discussion B191.

A novel nonsense mutation of the PEX7 gene in a patient with rhizomelic chondrodysplasia punctata. Shimozawa N, et al. **J Hum Genet** 1999;44(2):123-5

Molecular basis of rhizomelic chondrodysplasia punctata type I: high frequency of the Leu-292 stop mutation in 38 patients. Brites P, et al. **J Inherit Metab Dis** 1998 Jun; 21(3):306-8

Differential expression of peroxisome proliferator-activated receptor subtypes during the differentiation of human keratinocytes. Rivier M, et al. **J Invest Dermatol** 1998 Dec; 111(6):1116-21

Rat preputial sebocyte differentiation involves peroxisome proliferator-activated receptors. Rosenfield RL, et al. **J Invest Dermatol** 1999 Feb;112(2):226-32

A novel 3T3-L1 preadipocyte variant that expresses PPARgamma2 and RXRalpha but does not undergo differentiation. Baillie RA, et al. **J Lipid Res** 1998 Oct; 39(10):2048-53

Characterization of inositol 1,4,5-trisphosphate receptor isoform mRNA expression and regulation in rat pancreatic islets, RINm5F cells and betaHC9 cells. Lee B, et al. **J Mol Endocrinol** 1998 Aug;21(1):31-9

Transcriptional regulation of mouse type 1 inositol 1,4,5-trisphosphate receptor gene by NeuroD-related factor. Konishi Y, et al. **J Neurochem** 1999 Apr; 72(4):1717-24

The ovine melatonin-related receptor: cloning and preliminary distribution and binding studies. Drew JE, et al. **J Neuroendocrinol** 1998 Sep;10(9):651-61

UNC-55, an orphan nuclear hormone receptor, orchestrates synaptic specificity among two classes of motor neurons in Caenorhabditis elegans. Zhou HM, et al. **J Neurosci** 1998 Dec 15;18(24):10438-44

Signal recognition particle receptor (SRPR) is downregulated in a rat model of cyclosporin A-induced gingival overgrowth. Marley JJ, et al. **J Periodontal Res** 1999 May;34(4):188-96

Peroxisome proliferator-activated receptor gamma induces growth arrest and differentiation markers of human colon cancer cells. Kitamura S, et al. **Jpn J Cancer Res** 1999 Jan;90(1):75-80

Adipose peroxisome proliferator-activated receptor gamma mRNA expression in insulin-resistant obese patients: relationship with adipocyte membrane phospholipids. Zeghari N, et al. **Lipids** 1999;34 Suppl:S161

Anteroposterior patterning and organogenesis of Xenopus laevis require a correct dose of germ cell nuclear factor (xGCNF). David R, et al. **Mech Dev** 1998 Dec;

79(1-2):137-52
Subcutaneous or visceral adipose tissue expression of the PPARgamma gene is not altered in the fatty (fa/fa) Zucker rat. Shimoike T, et al. **Metabolism** 1998 Dec;47(12):1494-8
The erg-3 (sterol delta14,15-reductase) gene of Neurospora crassa: generation of null mutants by repeat-induced point mutation and complementation by proteins chimeric for human lamin B receptor sequences. Prakash A, et al. **Microbiology** 1999 Jun;145 (Pt 6):1443-51
A signal recognition particle receptor gene from the early-diverging eukaryote, Giardia lamblia. Svärd SG, et al. **Mol Biochem Parasitol** 1999 Jan 25;98(2):253-64
Correlation between expression of peroxisome proliferator-activated receptor beta and squamous differentiation in epidermal and tracheobronchial epithelial cells. Matsuura H, et al. **Mol Cell Endocrinol** 1999 Jan 25; 147(1-2):85-92
Coactivators for the orphan nuclear receptor RORalpha. Atkins GB, et al. **Mol Endocrinol** 1999 Sep;13(9):1550-7
A novel method for analysis of nuclear receptor function at natural promoters: peroxisome proliferator-activated receptor gamma agonist actions on aP2 gene expression detected using branched DNA messenger RNA quantitation. Burris TP, et al. **Mol Endocrinol** 1999 Mar; 13(3):410-7
Fibrates increase human REV-ERBalpha expression in liver via a novel peroxisome proliferator-activated receptor response element. Gervois P, et al. **Mol Endocrinol** 1999 Mar;13(3):400-9
A truncated human peroxisome proliferator-activated receptor alpha splice variant with dominant negative activity. Gervois P, et al. **Mol Endocrinol** 1999 Sep; 13(9):1535-49
The short- and long-term effects of tumor necrosis factor-alpha and BRL 49653 on peroxisome proliferator-activated receptor (PPAR)gamma2 gene expression and other adipocyte genes. Rosenbaum SE, et al. **Mol Endocrinol** 1998 Aug;12(8):1150-60
Inhibition of estrogen receptor action by the orphan receptor SHP (short heterodimer partner). Seol W, et al. **Mol Endocrinol** 1998 Oct;12(10):1551-7
Transcriptional activities of the orphan nuclear receptor ERR alpha (estrogen receptor-related receptor-alpha). Vanacker JM, et al. **Mol Endocrinol** 1999 May;13(5):764-73
Overexpression of yeast karyopherin Pse1p/Kap121p stimulates the mitochondrial import of hydrophobic proteins in vivo. Corral-Debrinski M, et al. **Mol Microbiol** 1999 Mar;31(5):1499-511
A Pro12Ala substitution in PPARgamma2 associated with decreased receptor activity, lower body mass index and improved insulin sensitivity. Deeb SS, et al. **Nat Genet** 1998 Nov;20(3):284-7
Rhizomelic chondrodysplasia punctata, a peroxisomal biogenesis disorder caused by defects in Pex7p, a peroxisomal protein import receptor: a minireview. Purdue PE, et al. **Neurochem Res** 1999 Apr;24(4):581-6 (43 ref.)
MK-801, a non-competitive NMDA receptor antagonist, prevents postischemic decrease of inositol 1,4,5-trisphosphate receptor mRNA expression in mongolian gerbil brain. Uhm CS, et al. **Neurosci Lett** 1998 Oct 16;255(2):111-4
A genetic mutation in PPAR gamma is associated with enhanced fat cell differentiation: implications for human obesity. Freake HC. **Nutr Rev** 1999 May;57(5 Pt 1):154-6 (12 ref.)
Identification of candidate target genes for EVI-1, a zinc finger oncoprotein, using a novel selection strategy. Kim JH, et al. **Oncogene** 1998 Sep 24;17(12):1527-38
The plant PTS1 receptor: similarities and differences to its human and yeast counterparts. Wimmer C, et al. **Plant J** 1998 Nov;16(4):453-64
Identification of a photoreceptor cell-specific nuclear receptor. Kobayashi M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4814-9
Identification and analysis of the plant peroxisomal targeting signal 1 receptor NtPEX5. Kragler F, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13336-41
Unique forms of human and mouse nuclear receptor corepressor SMRT. Ordentlich P, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2639-44
Thiazolidinediones and insulin resistance: peroxisome proliferatoractivated receptor gamma activation stimulates expression of the CAP gene. Ribon V, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14751-6
A newly developed assay for melatonin using cells expressing human mel-1a receptor. Ozeki Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):247-8
Cloning and sequence of a 3.835 kbp DNA fragment containing the HIS4 gene and a fragment of a PEX5-like gene from Candida albicans. Navarro-García F, et al. **Yeast** 1998 Sep 15;14(12):1147-57

IMMUNOLOGY

Development of Purkinje cells in humans: an immunohistochemical study using a monoclonal antibody against the inositol 1,4,5-triphosphate type 1 receptor (IP3R1). Miyata M, et al. **Acta Neuropathol (Berl)** 1999 Sep;98(3):226-32
Use of a PPAR gamma-specific monoclonal antibody to demonstrate thiazolidinediones induce PPAR gamma receptor expression in vitro. Su JL, et al. **Hybridoma** 1999 Jun;18(3):273-80

ISOLATION & PURIFICATION

Localisation of inositol trisphosphate and ryanodine receptors during mouse spermatogenesis: possible functional implications. Treviño CL, et al. **Zygote** 1998 May; 6(2):159-72

METABOLISM

Nuclear receptors, their coactivators and modulation of transcription. Manteuffel-Cymborowska M. **Acta Biochim Pol** 1999;46(1):77-89 (90 ref.)
Activity of the human aldehyde dehydrogenase 2 promoter is influenced by the balance between activation by hepatocyte nuclear factor 4 and repression by perosixome proliferator activated receptor delta, chicken ovalbumin upstream promoter-transcription factor, and apolipoprotein regulatory protein-1. Pinaire J, et al. **Adv Exp Med Biol** 1999;463:115-21
Fatty acids, eicosanoids, and hypolipidemic agents regulate gene expression through direct binding to peroxisome proliferator-activated receptors. Wahli W, et al. **Adv Exp Med Biol** 1999;447:199-209 (40 ref.)
Thyroid disease mediated by molecular defects in cell surface and nuclear receptors. Bodenner DL, et al. **Am J Med** 1998 Dec;105(6):524-38 (80 ref.)
Interstrain differences in activity pattern, pineal function, and SCN melatonin receptor density of rats. Klante G, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1078-86
Renal type I inositol 1,4,5-trisphosphate receptor is reduced in streptozotocin-induced diabetic rats and mice. Sharma K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F54-61
Rat pregnane X receptor: molecular cloning, tissue distribution, and xenobiotic regulation. Zhang H, et al. **Arch Biochem Biophys** 1999 Aug 1;368(1):14-22
PPARgamma activation in human endothelial cells increases plasminogen activator inhibitor type-1 expression: PPARgamma as a potential mediator in vascular disease. Marx N, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar; 19(3):546-51
Interaction between mitochondrial precursor proteins and cytosolic soluble domains of mitochondrial import receptors, Tom20 and Tom70, measured by surface plasmon resonance. Iwata K, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):648-52
15-Deoxy-Delta(12,14)-prostaglandin J(2), a ligand for peroxisome proliferator-activated receptor-gamma, induces apoptosis in JEG3 choriocarcinoma cells. Keelan JA, et al. **Biochem Biophys Res Commun** 1999 Sep 7; 262(3):579-85
Increased expression of cyclooxygenases and peroxisome proliferator-activated receptor-gamma in Alzheimer's disease brains. Kitamura Y, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):582-6
Tissue-specific expression and endogenous subcellular distribution of the inositol 1,3,4,5-tetrakisphosphate-binding proteins GAP1(IP4BP) and GAP1(m). Lockyer PJ, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):421-6
Evidence for direct binding of fatty acids and eicosanoids to human peroxisome proliferators-activated receptor alpha. Murakami K, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):609-13
Alteration by maternal pinealectomy of fetal and neonatal melatonin and dopamine D1 receptor binding in the suprachiasmatic nuclei. Naitoh N, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):850-4
Real time analysis of interaction between inositol 1,4, 5-trisphosphate receptor type I and its ligand. Natsume T, et al. **Biochem Biophys Res Commun** 1999 Jul 5; 260(2):527-33
SRPK1 and LBR protein kinases show identical substrate specificities. Papoutsopoulou S, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):602-7
Evidence for the presence of a functional pregnane X receptor response element in the CYP3A7 promoter gene. Pascussi JM, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):377-81
PPARgamma activation induces the expression of the adipocyte fatty acid binding protein gene in human monocytes. Pelton PD, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):456-8
Thiazolidinediones suppress endothelin-1 secretion from bovine vascular endothelial cells: a new possible role of PPARgamma on vascular endothelial function. Satoh H, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):757-63
PPARgamma ligand-dependent induction of STAT1, STAT5A, and STAT5B during adipogenesis. Stephens JM, et al. **Biochem Biophys Res Commun** 1999 Aug 19; 262(1):216-22
High efficient expression of the functional ligand binding site of the inositol 1,4,5-triphosphate receptor in Escherichia coli. Yoshikawa F, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):792-7
C-terminal tripeptide Ser-Asn-Leu (SNL) of human D-aspartate oxidase is a functional peroxisome-targeting signal. Amery L, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):367-71
Regulation of cerebellar Ins(1,4,5)P3 receptor by interaction between Ins(1,4,5)P3 and Ca2+. Coquil JF, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):697-704
Enhanced purinoceptor-mediated Ca2+ signalling in L-fibroblasts overexpressing type 1 inositol 1,4,5-trisphosphate receptors. Davis RJ, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):813-20
Evidence for the involvement of a small subregion of the endoplasmic reticulum in the inositol trisphosphate receptor-induced activation of Ca2+ inflow in rat hepatocytes. Gregory RB, et al. **Biochem J** 1999 Jul 15; 341 (Pt 2):401-8
Down-regulation of types I, II and III inositol 1,4,5-trisphosphate receptors is mediated by the ubiquitin/proteasome pathway. Oberdorf J, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):453-61
Nerve growth factor- and epidermal growth factor-stimulated translocation of the ADP-ribosylation factor-exchange factor GRP1 to the plasma membrane of PC12 cells requires activation of phosphatidylinositol 3-kinase and the GRP1 pleckstrin homology domain. Venkateswarlu K, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):139-46
Ryanodine and inositol trisphosphate receptors are differentially distributed and expressed in rat parotid gland. Zhang X, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):519-27
Phosphorylation of peroxisome proliferator-activated receptor alpha in rat Fao cells and stimulation by ciprofibrate. Passilly P, et al. **Biochem Pharmacol** 1999 Sep 15;58(6):1001-8
Differential signaling of human Mel1a and Mel1b melatonin receptors through the cyclic guanosine 3'-5'-monophosphate pathway. Petit L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):633-9
Molecular recognition of adenophostin, a very potent Ca2+ inducer, at the D-myo-inositol 1,4,5-trisphosphate receptor. Hotoda H, et al. **Biochemistry** 1999 Jul 20; 38(29):9234-41
Ligand selectivity of the peroxisome proliferator-activated receptor alpha. Lin Q, et al. **Biochemistry** 1999 Jan 5; 38(1):185-90
Conjugated linoleic acid activates peroxisome proliferator-activated receptor alpha and beta subtypes but does not induce hepatic peroxisome proliferation in Sprague-Dawley rats. Moya-Camarena SY, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):331-42
Inositol trisphosphate receptors: Ca2+-modulated intracellular Ca2+ channels. Taylor CW. **Biochim Biophys Acta** 1998 Dec 8;1436(1-2):19-33 (162 ref.)
Syntheses of D- and L-myo-inositol 1,2,4,5-tetrakisphosphate and stereoselectivity of the I(1,4,5)P3 receptor binding. Chung SK, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):659-62
Synthesis of benzocycloalkane derivatives as new conformationally restricted ligands for melatonin receptors. Kloubert S, et al. **Bioorg Med Chem Lett** 1998 Dec 1; 8(23):3325-30
Synthesis and pharmacological evaluation of benzofuran-acetamides as "antineophobic" mitochondrial DBI receptor complex ligands. Liao Y, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2099-102
An alternative synthesis of 4,4-dimethyl-5 alpha-cholesta-8,14,24-trien-3 beta-ol, an intermediate in sterol biosynthesis and a reported activator of meiosis and of nuclear orphan receptor LXR alpha. Ruan B, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):233-6
Single channel function of recombinant type-1 inositol 1,4,5-trisphosphate receptor ligand binding domain splice variants. Ramos-Franco J, et al. **Biophys J** 1998 Dec; 75(6):2783-93
Loss of inositol 1,4,5-trisphosphate receptor sites and decreased PKC levels correlate with staging of Alzheimer's disease neurofibrillary pathology. Kurumatani T, et al. **Brain Res** 1998 Jun 15;796(1-2):209-21
African trypanosomiasis in the rat alters melatonin secretion and melatonin receptor binding in the suprachiasmatic nucleus. Kristensson K, et al. **Brain Res Bull** 1998 Oct; 47(3):265-9
The inositol trisphosphate receptor regulates a 50-second behavioral rhythm in C. elegans. Dal Santo P, et al. **Cell** 1999 Sep 17;98(6):757-67
Increasing the complexity of coactivation in nuclear receptor signaling. Freedman LP. **Cell** 1999 Apr 2;97(1):5-8 (22 ref.)
Adenine-nucleotide binding sites on the inositol 1,4,5-trisphosphate receptor bind caffeine, but not adenophostin A or cyclic ADP-ribose. Maes K, et al. **Cell Calcium** 1999 Feb;25(2):143-52
Interactions between inositol trisphosphate receptors and fluorescent Ca2+ indicators. Morris SA, et al. **Cell Calcium** 1999 Feb;25(2):137-42
Expression patterns of sarco/endoplasmic reticulum Ca(2+)-ATPase and inositol 1,4,5-trisphosphate receptor isoforms in vascular endothelial cells. Mountian I, et al. **Cell Calcium** 1999 May;25(5):371-80
Nuclear calcium release by InsP3-receptor channels plays a role in meiosis reinitiation in the mouse oocyte. Pesty A, et al. **Cell Calcium** 1998 Oct;24(4):239-51
Modulation of type 1, 2 and 3 inositol 1,4,5-trisphosphate receptors by cyclic ADP-ribose and thimerosal. Vanlingen S, et al. **Cell Calcium** 1999 Feb;25(2):107-14
Use of phosphorofluoridate analogues of D-myo-inositol 1,4,5-trisphosphate to assess the involvement of ionic interactions in its recognition by the receptor and metabolising enzymes. Yoshimura K, et al. **Cell Signal** 1999 Feb;11(2):117-25

Membrane association of a new inositol 1,4,5-trisphosphate binding protein, p130 is not dependent on the pleckstrin homology domain. Takeuchi H, et al. **Chem Phys Lipids** 1999 Apr;98(1-2):35-47

Melatonin: a chemical photoperiodic signal with clinical significance in humans. Pang SF, et al. **Chin Med J (Engl)** 1998 Mar;111(3):197-203 (69 ref.)

Chronic exposure of smooth muscle cells to minimally oxidized LDL results in depressed inositol 1,4,5-trisphosphate receptor density and Ca(2+) transients. Massaeli H, et al. **Circ Res** 1999 Sep 17;85(6):515-23

Expression and distribution of the type 1 and type 3 inositol 1,4, 5-trisphosphate receptor in developing vascular smooth muscle. Tasker PN, et al. **Circ Res** 1999 Mar 19; 84(5):536-42

The translocation of transportin-cargo complexes through nuclear pores is independent of both Ran and energy. Ribbeck K, et al. **Curr Biol** 1999 Jan 14;9(1):47-50

Separate nuclear import pathways converge on the nucleoporin Nup153 and can be dissected with dominant-negative inhibitors. Shah S, et al. **Curr Biol** 1998 Dec 17-31;8(25):1376-86

Therapeutic potential of selective modulators of nuclear receptor action. Resche-Rigon M, et al. **Curr Opin Chem Biol** 1998 Aug;2(4):501-7 (57 ref.)

The nuclear receptor PPARgamma - bigger than fat. Kliewer SA, et al. **Curr Opin Genet Dev** 1998 Oct;8(5):576-81 (50 ref.)

The LXRs: a new class of oxysterol receptors. Peet DJ, et al. **Curr Opin Genet Dev** 1998 Oct;8(5):571-5 (37 ref.)

Coactivator and corepressor complexes in nuclear receptor function. Xu L, et al. **Curr Opin Genet Dev** 1999 Apr; 9(2):140-7 (57 ref.)

Peroxisome proliferator-activated receptors in atherosclerosis [editorial] Medh JD. **Curr Opin Lipidol** 1999 Feb;10(1):69-71

Peroxisome proliferator-activated receptor alpha in metabolic disease, inflammation, atherosclerosis and aging. Pineda Torra I, et al. **Curr Opin Lipidol** 1999 Apr; 10(2):151-9 (97 ref.)

Lipid metabolism [editorial] Rotondo D, et al. **Curr Opin Lipidol** 1998 Oct;9(5):503-5

Spatiotemporal dynamics of the [Ca2+]i rise induced by microinjection of sperm extract into mouse eggs: preferential induction of a Ca2+ wave from the cortex mediated by the inositol 1,4,5-trisphosphate receptor. Oda S, et al. **Dev Biol** 1999 May 1;209(1):172-85

A novel N-aryl tyrosine activator of peroxisome proliferator-activated receptor-gamma reverses the diabetic phenotype of the Zucker diabetic fatty rat. Brown KK, et al. **Diabetes** 1999 Jul;48(7):1415-24

Activators of peroxisome proliferator-activated receptor-alpha induce the expression of the uncoupling protein-3 gene in skeletal muscle: a potential mechanism for the lipid intake-dependent activation of uncoupling protein-3 gene expression at birth. Brun S, et al. **Diabetes** 1999 Jun;48(6):1217-22

Insulin acutely regulates the expression of the peroxisome proliferator-activated receptor-gamma in human adipocytes. Rieusset J, et al. **Diabetes** 1999 Apr; 48(4):699-705

A proteome analysis of livers from obese (ob/ob) mice treated with the peroxisome proliferator WY14,643. Edvardsson U, et al. **Electrophoresis** 1999 Apr-May;20(4-5):935-42

An adipogenic cofactor bound by the differentiation domain of PPARgamma. Castillo G, et al. **EMBO J** 1999 Jul 1; 18(13):3676-87

Regulation of embryonic/fetal globin genes by nuclear hormone receptors: a novel perspective on hemoglobin switching. Filipe A, et al. **EMBO J** 1999 Feb 1;18(3):687-97

Role of the essential yeast protein PSU1 in p6anscriptional enhancement by the ligand-dependent activation function AF-2 of nuclear receptors. Gaudon C, et al. **EMBO J** 1999 Apr 15;18(8):2229-40

The importin beta/importin 7 heterodimer is a functional nuclear import receptor for histone H1. Jäkel S, et al. **EMBO J** 1999 May 4;18(9):2411-23

A mitochondrial ketogenic enzyme regulates its gene expression by association with the nuclear hormone receptor PPARalpha. Meertens LM, et al. **EMBO J** 1998 Dec 1;17(23):6972-8

Encoding of Ca2+ signals by differential expression of IP3 receptor subtypes. Miyakawa T, et al. **EMBO J** 1999 Mar 1;18(5):1303-8

Nuclear receptor coregulators: cellular and molecular biology. McKenna NJ, et al. **Endocr Rev** 1999 Jun; 20(3):321-44 (216 ref.)

c-Jun N-terminal kinase phosphorylates peroxisome proliferator-activated receptor-gamma1 and negatively regulates its transcriptional activity. Camp HS, et al. **Endocrinology** 1999 Jan;140(1):392-7

Expression of peroxisome proliferator-activated receptor alpha messenger ribonucleic acid and protein in human and rat testis. Schultz R, et al. **Endocrinology** 1999 Jul; 140(7):2968-75

Recombinant p42IP4, a brain-specific 42-kDa high-affinity Ins(1,3,4,5)P4 receptor protein, specifically interacts with lipid membranes containing Ptd-Ins(3,4,5)P3. Hanck T, et al. **Eur J Biochem** 1999 Apr;261(2):577-84

Nucleocytoplasmic shuttling by protein nuclear import factors. Truant R, et al. **Eur J Cell Biol** 1998 Dec; 77(4):269-75

Cortical granule translocation during maturation of starfish oocytes requires cytoskeletal rearrangement triggered by InsP3-mediated Ca2+ release. Santella L, et al. **Exp Cell Res** 1999 May 1;248(2):567-74

Membrane-bound calmodulin in Xenopus laevis oocytes as a novel binding site for melatonin. Romero MP, et al. **FASEB J** 1998 Oct;12(13):1401-8

PPARgamma activators down-regulate the expression of PPARgamma in 3T3-L1 adipocytes. Camp HS, et al. **FEBS Lett** 1999 Mar 26;447(2-3):186-90

Velcro in the nuclear envelope: LBR and LAPs. Chu A, et al. **FEBS Lett** 1998 Dec 18;441(2):165-9 (43 ref.)

Calmodulin inhibits inositol 1,4,5-trisphosphate-induced calcium release through the purified and reconstituted inositol 1,4,5-trisphosphate receptor type 1. Hirota J, et al. **FEBS Lett** 1999 Aug 6;456(2):322-6

Involvement of a chloroplast homologue of the signal recognition particle receptor protein, FtsY, in protein targeting to thylakoids. Kogata N, et al. **FEBS Lett** 1999 Mar 26;447(2-3):329-33

Activation of PPARgamma inhibits cell growth and induces apoptosis in human gastric cancer cells. Takahashi N, et al. **FEBS Lett** 1999 Jul 16;455(1-2):135-9

Oligomeric complexes involved in translocation of proteins across the membrane of the endoplasmic reticulum. Wang L, et al. **FEBS Lett** 1999 Sep 3;457(3):316-22

Secretagogues cause ubiquitination and down-regulation of inositol 1, 4,5-trisphosphate receptors in rat pancreatic acinar cells. Wojcikiewicz RJ, et al. **Gastroenterology** 1999 May;116(5):1194-201

Adjuvant arthritis in the rat is associated with decreased binding of nuclear receptors to thyroid hormone responsive element in spleen extracts. Brtko J, et al. **Gen Physiol Biophys** 1998 Dec;17(4):341-7

Nuclear receptor binding factor-1 (NRBF-1), a protein interacting with a wide spectrum of nuclear hormone receptors. Masuda N, et al. **Gene** 1998 Oct 23;221(2):225-33

Nuclear export of Far1p in response to pheromones requires the export receptor Msn5p/Ste21p. Blondel M, et al. **Genes Dev** 1999 Sep 1;13(17):2284-300

Orphan nuclear receptors--new ligands and new possibilities. Blumberg B, et al. **Genes Dev** 1998 Oct 15;12(20):3149-55 (46 ref.)

Structure and specificity of nuclear receptor-coactivator interactions. Darimont BD, et al. **Genes Dev** 1998 Nov 1; 12(21):3343-56

Cyclo-oxygenase-2-derived prostacyclin mediates embryo implantation in the mouse via PPARdelta. Lim H, et al. **Genes Dev** 1999 Jun 15;13(12):1561-74

The novel human HUEL (C4orf1) gene maps to chromosome 4p12-p13 and encodes a nuclear protein containing the nuclear receptor interaction motif. Sim DL, et al. **Genomics** 1999 Jul 15;59(2):224-33

Expression of inositol 1,4,5-trisphosphate receptor isoforms in rat cirrhosis. Dufour JF, et al. **Hepatology** 1999 Oct; 30(4):1018-26

Bile acids go nuclear! Karpen SJ. **Hepatology** 1999 Oct; 30(4):1107-9

Effect of peroxisome proliferator-activated receptor alpha activators on tumor necrosis factor expression in mice during endotoxemia. Hill MR, et al. **Infect Immun** 1999 Jul;67(7):3488-93

alpha-Mannosidase from rat epididymal fluid is a ligand for phosphomannosyl receptors on the sperm surface. Belmonte SA, et al. **Int J Androl** 1998 Oct;21(5):277-82

Relationship between inositol 1,4,5-trisphosphate receptor isoforms and subcellular Ca2+ signaling patterns in nonpigmented ciliary epithelia. Hirata K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2046-53

Novel peroxisome proliferator-activated receptor (PPAR) gamma and PPARdelta ligands produce distinct biological effects. Berger J, et al. **J Biol Chem** 1999 Mar 5; 274(10):6718-25

Definition of a consensus transportin-specific nucleocytoplasmic transport signal. Bogerd HP, et al. **J Biol Chem** 1999 Apr 2;274(14):9771-7

Tip60 is a nuclear hormone receptor coactivator. Brady ME, et al. **J Biol Chem** 1999 Jun 18;274(25):17599-604

Activation of proliferator-activated receptors alpha and gamma induces apoptosis of human monocyte-derived macrophages. Chinetti G, et al. **J Biol Chem** 1998 Oct 2; 273(40):25573-80

Interleukin 1beta induces type II-secreted phospholipase A(2) gene in vascular smooth muscle cells by a nuclear factor kappaB and peroxisome proliferator-activated receptor-mediated process. Couturier C, et al. **J Biol Chem** 1999 Aug 13;274(33):23085-93

Chemical probes that differentially modulate peroxisome proliferator-activated receptor alpha and BLTR, nuclear and cell surface receptors for leukotriene B(4). Devchand PR, et al. **J Biol Chem** 1999 Aug 13;274(33):23341-8

Adipose expression of the phosphoenolpyruvate carboxykinase promoter requires peroxisome proliferator-activated receptor gamma and 9-cis-retinoic acid receptor binding to an adipocyte-specific enhancer in vivo. Devine JH, et al. **J Biol Chem** 1999 May 7; 274(19):13604-12

Identification of nuclear receptor corepressor as a peroxisome proliferator-activated receptor alpha interacting protein. Dowell P, et al. **J Biol Chem** 1999 May 28;274(22):15901-7

L-764406 is a partial agonist of human peroxisome proliferator-activated receptor gamma. The role of Cys313 in ligand binding. Elbrecht A, et al. **J Biol Chem** 1999 Mar 19;274(12):7913-22

Phytanic acid activates the peroxisome proliferator-activated receptor alpha (PPARalpha) in sterol carrier protein 2-/ sterol carrier protein x-deficient mice. Ellinghaus P, et al. **J Biol Chem** 1999 Jan 29;274(5):2766-72

Identification of a functional peroxisome proliferator-responsive element in the murine fatty acid transport protein gene. Frohnert BI, et al. **J Biol Chem** 1999 Feb 12;274(7):3970-7

p300 interacts with the N- and C-terminal part of PPARgamma2 in a ligand-independent and -dependent manner, respectively. Gelman L, et al. **J Biol Chem** 1999 Mar 19;274(12):7681-8

Mitochondria suppress local feedback activation of inositol 1,4, 5-trisphosphate receptors by Ca2+. Hajnóczky G, et al. **J Biol Chem** 1999 May 14;274(20):14157-62

Activation of peroxisome proliferator-activated receptor gamma bypasses the function of the retinoblastoma protein in adipocyte differentiation. Hansen JB, et al. **J Biol Chem** 1999 Jan 22;274(4):2386-93

Phosphorylation of the inositol 1,4,5-trisphosphate receptor by cyclic nucleotide-dependent kinases in vitro and in rat cerebellar slices in situ. Haug LS, et al. **J Biol Chem** 1999 Mar 12;274(11):7467-73

Identification of ARA70 as a ligand-enhanced coactivator for the peroxisome proliferator-activated receptor gamma. Heinlein CA, et al. **J Biol Chem** 1999 Jun 4; 274(23):16147-52

An additional region of coactivator GRIP1 required for interaction with the hormone-binding domains of a subset of nuclear receptors. Hong H, et al. **J Biol Chem** 1999 Feb 5;274(6):3496-502

A carboxyl-terminal extension of the zinc finger domain contributes to the specificity and polarity of peroxisome proliferator-activated receptor DNA binding. Hsu MH, et al. **J Biol Chem** 1998 Oct 23;273(43):27988-97

Reconstitution of insulin-sensitive glucose transport in fibroblasts requires expression of both PPARgamma and C/EBPalpha. El-Jack AK, et al. **J Biol Chem** 1999 Mar 19;274(12):7946-51

Regulation of the transcriptional activity of the peroxisome proliferator-activated receptor alpha by phosphorylation of a ligand-independent trans-activating domain. Juge-Aubry CE, et al. **J Biol Chem** 1999 Apr 9; 274(15):10505-10

Orphan nuclear hormone receptor RevErbalpha modulates expression from the promoter of the hydratase-dehydrogenase gene by inhibiting peroxisome proliferator-activated receptor alpha-dependent transactivation. Kassam A, et al. **J Biol Chem** 1999 Aug 6;274(32):22895-900

Peroxisome proliferator-activated receptor alpha controls the hepatic CYP4A induction adaptive response to starvation and diabetes. Kroetz DL, et al. **J Biol Chem** 1998 Nov 20;273(47):31581-9

Tumor necrosis factor alpha-induced pancreatic beta-cell insulin resistance is mediated by nitric oxide and prevented by 15-deoxy-Delta12,14-prostaglandin J2 and aminoguanidine. A role for peroxisome proliferator-activated receptor gamma activation and inos expression. Kwon G, et al. **J Biol Chem** 1999 Jun 25; 274(26):18702-8

The difference in recognition of terminal tripeptides as peroxisomal targeting signal 1 between yeast and human is due to different affinities of their receptor Pex5p to the cognate signal and to residues adjacent to it. Lametschwandtner G, et al. **J Biol Chem** 1998 Dec 11; 273(50):33635-43

Activation of the promoter of the orphan receptor SHP by orphan receptors that bind DNA as monomers. Lee YK, et al. **J Biol Chem** 1999 Jul 23;274(30):20869-73

Estrogen-induced production of a peroxisome proliferator-activated receptor (PPAR) ligand in a PPARgamma-expressing tissue. Ma H, et al. **J Biol Chem** 1998 Nov 13;273(46):30131-8

ATP regulation of type 1 inositol 1,4,5-trisphosphate receptor channel gating by allosteric tuning of Ca(2+) activation. Mak DO, et al. **J Biol Chem** 1999 Aug 6; 274(32):22231-7

Role of PPARgamma in regulating a cascade expression of cyclin-dependent kinase inhibitors, p18(INK4c) and p21(Waf1/Cip1), during adipogenesis. Morrison RF, et al. **J Biol Chem** 1999 Jun 11;274(24):17088-97

Peroxisome proliferator-activated receptor alpha activation modulates cellular redox status, represses nuclear factor-kappaB signaling, and reduces inflammatory cytokine production in aging. Poynter ME, et al. **J Biol Chem** 1998 Dec 4;273(49):32833-41

Recombinant human peroxisomal targeting signal receptor PEX5. Structural basis for interaction of PEX5 with PEX14. Schliebs W, et al. **J Biol Chem** 1999 Feb 26; 274(9):5666-73

Modulation of inositol 1,4,5-trisphosphate binding to the recombinant ligand-binding site of the type-1 inositol 1,4, 5-trisphosphate receptor by Ca2+ and calmodulin. Sipma H, et al. **J Biol Chem** 1999 Apr 23;274(17):12157-62

Hormone-evoked elementary Ca2+ signals are not stereotypic, but reflect activation of different size channel clusters and variable recruitment of channels within a cluster. Thomas D, et al. **J Biol Chem** 1998 Oct 16; 273(42):27130-6

Competition between thyroid hormone receptor-associated protein (TRAP) 220 and transcriptional intermediary factor (TIF) 2 for binding to nuclear receptors. Implications for the recruitment of TRAP and p160 coactivator complexes. Treuter E, et al. **J Biol Chem** 1999 Mar 5;274(10):6667-77

Chloroplast FtsY, chloroplast signal recognition particle, and GTP are required to reconstitute the soluble phase of light-harvesting chlorophyll protein transport into thylakoid membranes. Tu CJ, et al. **J Biol Chem** 1999 Sep 17;274(38):27219-24

Cross-talk between orphan nuclear hormone receptor RZRalpha and peroxisome proliferator-activated receptor alpha in regulation of the peroxisomal hydratase-dehydrogenase gene. Winrow CJ, et al. **J Biol Chem** 1998 Nov 20;273(47):31442-8

Peroxisome proliferator-activated receptor gamma ligands are potent inhibitors of angiogenesis in vitro and in vivo. Xin X, et al. **J Biol Chem** 1999 Mar 26;274(13):9116-21

Cooperative formation of the ligand-binding site of the inositol 1,4, 5-trisphosphate receptor by two separable domains. Yoshikawa F, et al. **J Biol Chem** 1999 Jan 1; 274(1):328-34

Trypsinized cerebellar inositol 1,4,5-trisphosphate receptor. Structural and functional coupling of cleaved ligand binding and channel domains. Yoshikawa F, et al. **J Biol Chem** 1999 Jan 1;274(1):316-27

Inositol 1,4,5-trisphosphate receptor down-regulation is activated directly by inositol 1,4,5-trisphosphate binding. Studies with binding-defective mutant receptors. Zhu CC, et al. **J Biol Chem** 1999 Feb 5;274(6):3476-84

Regulation of the miniature plasma membrane Ca(2+) channel I(min) by inositol 1,4,5-trisphosphate receptors. Zubov AI, et al. **J Biol Chem** 1999 Sep 10;274(37):25983-5

Characterization of the circadian system of NGFI-A and NGFI-A/NGFI-B deficient mice. Kilduff TS, et al. **J Biol Rhythms** 1998 Aug;13(4):347-57

The ribosome regulates the GTPase of the beta-subunit of the signal recognition particle receptor. Bacher G, et al. **J Cell Biol** 1999 Aug 23;146(4):723-30

Expression of the 180-kD ribosome receptor induces membrane proliferation and increased secretory activity in yeast. Becker F, et al. **J Cell Biol** 1999 Jul 26;146(2):273-84

Temporal differences in the appearance of NEP-B78 and an LBR-like protein during Xenopus nuclear envelope reassembly reflect the ordered recruitment of functionally discrete vesicle types. Drummond S, et al. **J Cell Biol** 1999 Jan 25;144(2):225-40

Involvement of Pex13p in Pex14p localization and peroxisomal targeting signal 2-dependent protein import into peroxisomes. Girzalsky W, et al. **J Cell Biol** 1999 Mar 22;144(6):1151-62

Transportin-SR, a nuclear import receptor for SR proteins. Kataoka N, et al. **J Cell Biol** 1999 Jun 14;145(6):1145-52

Specific binding of the karyopherin Kap121p to a subunit of the nuclear pore complex containing Nup53p, Nup59p, and Nup170p. Marelli M, et al. **J Cell Biol** 1998 Dec 28; 143(7):1813-30

CRM1-mediated recycling of snurportin 1 to the cytoplasm. Paraskeva E, et al. **J Cell Biol** 1999 Apr 19;145(2):255-64

Subcellular distribution of the Xenopus p58/lamin B receptor in oocytes and eggs. Gajewski A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2583-96

The role of sequences unique to nuclear intermediate filaments in the targeting and assembly of human lamin B: evidence for lack of interaction of lamin B with its putative receptor. Mical TI, et al. **J Cell Sci** 1998 Dec;111 (Pt 23):3471-85

The putative nuclear receptor mediator TIF1alpha is tightly associated with euchromatin. Remboutsika E, et al. **J Cell Sci** 1999 Jun;112 (Pt 11):1671-83

Chiral resolution of the enantiomers of tetrahydronaphthalenic derivatives, new agonist and antagonist ligands for melatonin receptors, using high-performance liquid chromatography on cellulose chiral stationary phases. Vaccher C, et al. **J Chromatogr A** 1998 Oct 16;824(1):15-23

A novel therapy for colitis utilizing PPAR-gamma ligands to inhibit the epithelial inflammatory response. Su CG, et al. **J Clin Invest** 1999 Aug;104(4):383-9

Differential cellular expression of isoforms of inositol 1,4,5-triphosphate receptors in neurons and glia in brain. Sharp AH, et al. **J Comp Neurol** 1999 Apr 5;406(2):207-20

Geranylgeranylacetone, an anti-ulcer drug, stimulates hexosamine production in a rat gastric mucosal cell line through binding to a specific cytosolic protein. Hassan S, et al. **J Gastroenterol Hepatol** 1998 Aug;13(8):809-15

Agonist-dependent phosphorylation of the inositol 1,4,5-trisphosphate receptor: A possible mechanism for agonist-specific calcium oscillations in pancreatic acinar cells. LeBeau AP, et al. **J Gen Physiol** 1999 Jun; 113(6):851-72

Location of the permeation pathway in the recombinant type 1 inositol 1,4,5-trisphosphate receptor. Ramos-Franco J, et al. **J Gen Physiol** 1999 Aug;114(2):243-50

Rosiglitazone (BRL49653), a PPARgamma-selective agonist, causes peroxisome proliferator-like liver effects in obese mice. Edvardsson U, et al. **J Lipid Res** 1999 Jul; 40(7):1177-84

Conjugated linoleic acid is a potent naturally occurring ligand and activator of PPARalpha. Moya-Camarena SY, et al. **J Lipid Res** 1999 Aug;40(8):1426-33

Synthesis, calcium mobilizing, and physicochemical properties of D-chiro-inositol 1,3,4,6-tetrakisphosphate, a novel and potent ligand at the D-myo-inositol 1,4,5-trisphosphate receptor. Liu C, et al. **J Med Chem** 1999 Jun 3;42(11):1991-8

Developmental regulation of the aldolase A muscle-specific promoter during in vivo muscle maturation is controlled by a nuclear receptor binding element. Spitz F, et al. **J Mol Biol** 1999 Jun 18;289(4):893-903

The ovine melatonin-related receptor: cloning and preliminary distribution and binding studies. Drew JE, et al. **J Neuroendocrinol** 1998 Sep;10(9):651-61

Inositol-1,4,5-trisphosphate receptor-mediated Ca mobilization is not required for cerebellar long-term depression in reduced preparations. Narasimhan K, et al. **J Neurophysiol** 1998 Dec;80(6):2963-74

Melatonin receptors in PC3 human prostate tumor cells. Gilad E, et al. **J Pineal Res** 1999 May;26(4):211-20

Molecular and cellular analyses of melatonin receptor-mediated cAMP signaling in rat corpus epididymis. Li L, et al. **J Pineal Res** 1998 Dec;25(4):219-28

Effects of two melatonin analogues, S-20098 and S-20928, on melatonin receptors in the pars tuberalis of the rat. Masson-Pévet M, et al. **J Pineal Res** 1998 Oct;25(3):172-6

Long-term exposure of hypothalamic explants to melatonin alters the release of gonadotrophin releasing hormone and the density of melatonin binding sites in the pars tuberalis of the male mink (Mustela vison). Messager S, et al. **J Pineal Res** 1999 Jan;26(1):17-27

Melatonin receptors in neonatal pig brain and pituitary gland. Williams LM, et al. **J Pineal Res** 1999 Jan;26(1):43-9

Nuclear receptor coactivators: multiple enzymes, multiple complexes, multiple functions. McKenna NJ, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):3-12 (92 ref.)

Human Ad4BP/SF-1 and its related nuclear receptor. Nawata H, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun; 69(1-6):323-8 (27 ref.)

Dorsal and ventral retinal territories defined by retinoic acid synthesis, break-down and nuclear receptor expression. McCaffery P, et al. **Mech Dev** 1999 Apr;82(1-2):119-30

15-Deoxy-delta(12,14) prostaglandin J2: a putative endogenous promoter of adipogenesis suppresses the ob gene. Sinha D, et al. **Metabolism** 1999 Jun;48(6):786-91

Measurement of inositol(1,4,5)trisphosphate using a stereospecific radioreceptor mass assay. Smart D. **Methods Mol Biol** 1999;114:175-83 (11 ref.)

Measurement of Ca2+ flux through Ins(1,4,5)P3 receptor-Ca2+ channels in lipid bilayers ("dip-tip" and "Schindler" methodology). Thrower EC. **Methods Mol Biol** 1999;114:221-33 (19 ref.)

Pex19p interacts with Pex3p and Pex10p and is essential for peroxisome biogenesis in Pichia pastoris. Snyder WB, et al. **Mol Biol Cell** 1999 Jun;10(6):1745-61

beta-catenin can be transported into the nucleus in a Ran-unassisted manner. Yokoya F, et al. **Mol Biol Cell** 1999 Apr;10(4):1119-31

Phosphorylation of the nuclear receptor SF-1 modulates cofactor recruitment: integration of hormone signaling in reproduction and stress. Hammer GD, et al. **Mol Cell** 1999 Apr;3(4):521-6

Loss-of-function mutations in PPAR gamma associated with human colon cancer. Sarraf P, et al. **Mol Cell** 1999 Jun; 3(6):799-804

Endogenous bile acids are ligands for the nuclear receptor FXR/BAR. Wang H, et al. **Mol Cell** 1999 May;3(5):543-53

Molecular recognition of fatty acids by peroxisome proliferator-activated receptors. Xu HE, et al. **Mol Cell** 1999 Mar;3(3):397-403

Increased peroxisomal fatty acid beta-oxidation and enhanced expression of peroxisome proliferator-activated receptor-alpha in diabetic rat liver. Asayama K, et al. **Mol Cell Biochem** 1999 Apr;194(1-2):227-34

The androgen receptor amino-terminal domain plays a key role in p160 coactivator-stimulated gene transcription. Alen P, et al. **Mol Cell Biol** 1999 Sep;19(9):6085-97

Characterization of the DNA-binding and dimerization properties of the nuclear orphan receptor germ cell nuclear factor. Greschik H, et al. **Mol Cell Biol** 1999 Jan; 19(1):690-703

The nuclear orphan receptor CAR-retinoid X receptor heterodimer activates the phenobarbital-responsive enhancer module of the CYP2B gene. Honkakoski P, et al. **Mol Cell Biol** 1998 Oct;18(10):5652-8

Phenobarbital-responsive nuclear translocation of the receptor CAR in induction of the CYP2B gene. Kawamoto T, et al. **Mol Cell Biol** 1999 Sep;19(9):6318-22

Activating signal cointegrator 1, a novel transcription coactivator of nuclear receptors, and its cytosolic localization under conditions of serum deprivation. Kim HJ, et al. **Mol Cell Biol** 1999 Sep;19(9):6323-32

Mechanistic principles in NR box-dependent interaction between nuclear hormone receptors and the coactivator TIF2. Leers J, et al. **Mol Cell Biol** 1998 Oct;18(10):6001-13

Multiple signal input and output domains of the 160-kilodalton nuclear receptor coactivator proteins. Ma H, et al. **Mol Cell Biol** 1999 Sep;19(9):6164-73

Conserved amino acids in the ligand-binding and tau(i) domains of the peroxisome proliferator-activated receptor alpha are necessary for heterodimerization with RXR. Gorla-Bajszczak A, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1-2):37-47

Subtype- and response element-dependent differences in transactivation by peroxisome proliferator-activated receptors alpha and gamma. Kassam A, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):153-62

Receptor-interacting protein 140 interacts with and inhibits transactivation by, peroxisome proliferator-activated receptor alpha and liver-X-receptor alpha. Miyata KS, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):69-76

Estrogen receptor, a common interaction partner for a subset of nuclear receptors. Lee SK, et al. **Mol Endocrinol** 1998 Aug;12(8):1184-92

Transition from monomeric to homodimeric DNA binding by nuclear receptors: identification of RevErbAalpha determinants required for RORalpha homodimer complex formation. Moraitis AN, et al. **Mol Endocrinol** 1999 Mar; 13(3):431-9

Inhibition of estrogen receptor action by the orphan receptor SHP (short heterodimer partner). Seol W, et al. **Mol Endocrinol** 1998 Oct;12(10):1551-7

Transcriptional activities of the orphan nuclear receptor ERR alpha (estrogen receptor-related receptor-alpha). Vanacker JM, et al. **Mol Endocrinol** 1999 May;13(5):764-73

Nuclear receptors have distinct affinities for coactivators: characterization by fluorescence resonance energy transfer. Zhou G, et al. **Mol Endocrinol** 1998 Oct;12(10):1594-604

Isolation of the Ca2+ releasing component(s) of mammalian sperm extracts: the search continues. Fissore RA, et al. **Mol Hum Reprod** 1999 Mar;5(3):189-92 (57 ref.)

Presence and dynamic redistribution of type 1 inositol 1,4,5-trisphosphate receptors in human oocytes and embryos during in-vitro maturation, fertilization and early cleavage divisions. Goud PT, et al. **Mol Hum Reprod** 1999 May;5(5):441-51

A Pro12Ala substitution in PPARgamma2 associated with decreased receptor activity, lower body mass index and improved insulin sensitivity. Deeb SS, et al. **Nat Genet** 1998 Nov;20(3):284-7

Androstane metabolites bind to and deactivate the nuclear receptor CAR-beta [see comments] Forman BM, et al. **Nature** 1998 Oct 8;395(6702):612-5. Comment in: Nature 1998 Oct 8;395(6702):543-4.

Type III InsP3 receptor channel stays open in the presence of increased calcium. Hagar RE, et al. **Nature** 1998 Nov 5;396(6706):81-4

Interleukin-4-dependent production of PPAR-gamma ligands in macrophages by 12/15-lipoxygenase. Huang JT, et al. **Nature** 1999 Jul 22;400(6742):378-82

The receptor Msn5 exports the phosphorylated transcription factor Pho4 out of the nucleus. Kaffman A, et al. **Nature** 1998 Dec 3;396(6710):482-6

Cell biology. Snail mail to the nucleus [news; comment] Mattaj IW, et al. **Nature** 1999 May 20;399(6733):208-10. Comment on: Nature 1999 May 20;399(6733):221-9. Comment on: Nature 1999 May 20;399(6733):230-7.

Molecular endocrinology. Two orphans find a home [news; comment] Picard D. **Nature** 1998 Oct 8;395(6702):543-4. Comment on: Nature 1998 Oct 8;395(6702):612-5.

Interdomain communication regulating ligand binding by PPAR-gamma. Shao D, et al. **Nature** 1998 Nov 26; 396(6709):377-80

Intracerebroventricular administration of quinolinic acid induces a selective decrease of inositol(1,4,5)-trisphosphate receptor in rat brain. Haug LS, et al. **Neurochem Int** 1998 Aug;33(2):109-19

Homer binds a novel proline-rich motif and links group 1 metabotropic glutamate receptors with IP3 receptors. Tu JC, et al. **Neuron** 1998 Oct;21(4):717-26

Melatonin receptor subtype expression in human cerebellum. Al-Ghoul WM, et al. **Neuroreport** 1998 Dec 21; 9(18):4063-8

Localization of a novel inositol 1,4,5-trisphosphate binding protein, p130 in rat brain. Matsuda M, et al. **Neurosci Lett** 1998 Nov 27;257(2):97-100

Selective inhibition of inositol 1,4,5-triphosphate-induced Ca2+ release in the CA1 region of the hippocampus in the ischemic gerbil. Nagata E, et al. **Neuroscience** 1999; 93(3):995-1001

The role of oxysterols in cholesterol homeostasis. Wolf G. **Nutr Rev** 1999 Jun;57(6):196-8 (10 ref.)

The role of oxidized low-density lipoprotein in the activation of peroxisome proliferator-activated receptor gamma: implications for atherosclerosis. Wolf G. **Nutr Rev** 1999 Mar;57(3):88-91 (11 ref.)

The EWS/TEC fusion protein encoded by the t(9;22) chromosomal translocation in human chondrosarcomas is a highly potent transcriptional activator. Labelle Y, et al. **Oncogene** 1999 May 27;18(21):3303-8

Mutational analyses of a type 2 peroxisomal targeting signal that is capable of directing oligomeric protein import into tobacco BY-2 glyoxysomes. Flynn CR, et al. **Plant J** 1998 Dec;16(6):709-20

The plant PTS1 receptor: similarities and differences to its human and yeast counterparts. Wimmer C, et al. **Plant J** 1998 Nov;16(4):453-64

Identification of a human nuclear receptor defines a new signaling pathway for CYP3A induction. Bertilsson G, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12208-13

Calcineurin controls inositol 1,4,5-trisphosphate type 1 receptor expression in neurons. Genazzani AA, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5797-801

Structural requirements of ligands for the oxysterol liver X receptors LXRalpha and LXRbeta. Janowski BA, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):266-71

A critical role for the peroxisome proliferator-activated receptor alpha (PPARalpha) in the cellular fasting response: the PPARalpha-null mouse as a model of fatty acid oxidation disorders. Leone TC, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7473-8

Seeking ligands for lonely orphan receptors [comment] Gustafsson JA. **Science** 1999 May 21;284(5418):1285-6. Comment on: Science 1999 May 21;284(5418):1362-5. Comment on: Science 1999 May 21;284(5418):1365-8.

Identification of a nuclear receptor for bile acids [see comments] Makishima M, et al. **Science** 1999 May 21; 284(5418):1362-5. Comment in: Science 1999 May 21;284(5418):1285-6.

Bile acids: natural ligands for an orphan nuclear receptor [see comments] Parks DJ, et al. **Science** 1999 May 21; 284(5418):1365-8. Comment in: Science 1999 May 21;284(5418):1285-6.

Regulation of nerve growth mediated by inositol 1,4,5-trisphosphate receptors in growth cones. Takei K, et al. **Science** 1998 Nov 27;282(5394):1705-8

An improved synthesis of (20R,22R)-cholest-5-ene-3beta,20,22-triol, an intermediate in steroid hormone formation and an activator of nuclear orphan receptor LXR alpha. Ruan B, et al. **Steroids** 1999 Jun;64(6):385-95

Fatty acids, diacylglycerol, Ins(1,4,5)P3 receptors and Ca2+ influx. Kiselyov K, et al. **Trends Neurosci** 1999 Aug; 22(8):334-7 (57 ref.)

[Signaling by melatonin receptors] Petit L, et al. **Therapie** 1998 Sep-Oct;53(5):421-8 (55 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

P450 gene induction by structurally diverse xenochemicals: central role of nuclear receptors CAR, PXR, and PPAR. Waxman DJ. **Arch Biochem Biophys** 1999 Sep 1; 369(1):11-23 (128 ref.)

Peroxisome proliferator-activated receptor activators target human endothelial cells to inhibit leukocyte-endothelial cell interaction. Jackson SM, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2094-104

Thiazolidinediones down-regulate plasminogen activator inhibitor type 1 expression in human vascular endothelial cells: A possible role for PPARgamma in endothelial function. Kato K, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):431-5

Association of bone mineral density with a polymorphism of the peroxisome proliferator-activated receptor gamma gene: PPARgamma expression in osteoblasts. Ogawa S, et al. **Biochem Biophys Res Commun** 1999 Jun 24; 260(1):122-6

Modulation of Ins(2,4,5)P3-stimulated Ca2+ mobilization by ins(1,3,4, 5)P4: enhancement by activated G-proteins, and evidence for the involvement of a GAP1 protein, a putative Ins(1,3,4,5)P4 receptor. Loomis-Husselbee JW, et al. **Biochem J** 1998 May 1;331 (Pt 3):947-52

Protein-protein interactions in intracellular Ca2+-release channel function. MacKrill JJ. **Biochem J** 1999 Feb 1;337 (Pt 3):345-61 (220 ref.)

Pharmacological characterisation of melatonin mt1 receptor-mediated stimulation of [35S]-GTPgammaS binding. Beresford IJ, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1167-74

Binding specificity and modulation of the human ApoCIII promoter activity by heterodimers of ligand-dependent nuclear receptors. Lavrentiadou SN, et al. **Biochemistry** 1999 Jan 19;38(3):964-75

Melatonin receptors and signal transduction mechanisms. Barrett P, et al. **Biol Signals Recept** 1999 Jan-Apr; 8(1-2):6-14 (45 ref.)

Fibrates suppress fibrinogen gene expression in rodents via activation of the peroxisome proliferator-activated receptor-alpha. Kockx M, et al. **Blood** 1999 May 1; 93(9):2991-8

Melatonin inhibition of cancer growth in vivo involves suppression of tumor fatty acid metabolism via melatonin receptor-mediated signal transduction events. Blask DE, et al. **Cancer Res** 1999 Sep 15;59(18):4693-701

Modulation of aromatase expression in the breast tissue by ERR alpha-1 orphan receptor. Yang C, et al. **Cancer Res** 1998 Dec 15;58(24):5695-700

Role of peroxisome proliferator-activated receptor alpha in altered cell cycle regulation in mouse liver. Peters JM, et al. **Carcinogenesis** 1998 Nov;19(11):1989-94

Increasing the complexity of coactivation in nuclear receptor signaling. Freedman LP. **Cell** 1999 Apr 2;97(1):5-8 (22 ref.)

Nuclear orphan receptors control cholesterol catabolism. Russell DW. **Cell** 1999 May 28;97(5):539-42 (17 ref.)

Thiazolidinedione induces the adipose differentiation of fibroblast-like cells resident within bovine skeletal muscle. Torii SI, et al. **Cell Biol Int** 1998;22(6):421-7

Molecular properties of inositol 1,4,5-trisphosphate receptors. Patel S, et al. **Cell Calcium** 1999 Mar; 25(3):247-64 (186 ref.)

An update on the mechanisms of action of the peroxisome proliferator-activated receptors (PPARs) and their roles in inflammation and cancer. Gelman L, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):932-43 (141 ref.)

Inositol 1,3,4,5-tetrakisphosphate as a second messenger--a special role in neurones? Irvine RF, et al. **Chem Phys Lipids** 1999 Apr;98(1-2):49-57 (50 ref.)

Peroxisome proliferator-activated receptor activators inhibit thrombin-induced endothelin-1 production in human vascular endothelial cells by inhibiting the activator protein-1 signaling pathway. Delerive P, et al. **Circ Res** 1999 Sep 3;85(5):394-402

Peroxisome proliferator-activated receptor gamma activators inhibit gene expression and migration in human vascular smooth muscle cells. Marx N, et al. **Circ Res** 1998 Nov 30;83(11):1097-103

Cell surface receptors, nuclear receptors and ligands that regulate adipose tissue development. Ailhaud G. **Clin Chim Acta** 1999 Aug;286(1-2):181-90 (36 ref.)

Peroxisome proliferator-activated receptors: mediators of a fast food impact on gene regulation. Gelman L, et al. **Curr Opin Clin Nutr Metab Care** 1999 Jul;2(4):307-12 (72 ref.)

Peroxisome proliferator-activated receptor alpha in metabolic disease, inflammation, atherosclerosis and aging. Pineda Torra I, et al. **Curr Opin Lipidol** 1999 Apr; 10(2):151-9 (97 ref.)

DHR3 is required for the prepupal-pupal transition and differentiation of adult structures during Drosophila metamorphosis. Lam G, et al. **Dev Biol** 1999 Aug 1; 212(1):204-16

A role for xGCNF in midbrain-hindbrain patterning in Xenopus laevis. Song K, et al. **Dev Biol** 1999 Sep 1; 213(1):170-9

Troglitazone, an antidiabetic agent, inhibits cholesterol biosynthesis through a mechanism independent of peroxisome proliferator-activated receptor-gamma. Wang M, et al. **Diabetes** 1999 Feb;48(2):254-60

PPARgamma, the ultimate thrifty gene. Auwerx J. **Diabetologia** 1999 Sep;42(9):1033-49 (190 ref.)

Maturation of peroxisomes in differentiating human hepatoblastoma cells (HepG2): possible involvement of the peroxisome proliferator-activated receptor alpha (PPAR alpha). Stier H, et al. **Differentiation** 1998 Nov;64(1):55-66

Biochemical and functional analysis of nuclear receptors as targets in cAMP-dependent control of bovine CYP17. Lund J, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):497-504

Orphan receptors, proto-oncogenes and other nuclear factors regulate P450C17 gene transcription. Mellon SH, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):505-13

Effects of general receptor for phosphoinositides I on insulin and insulin-like growth factor I-induced cytoskeletal rearrangement, glucose transporter-4 translocation, and deoxyribonucleic acid synthesis. Clodi M, et al. **Endocrinology** 1998 Dec;139(12):4984-90

Peroxisome proliferator-activated receptors gamma and alpha mediate in vivo regulation of uncoupling protein (UCP-1, UCP-2, UCP-3) gene expression. Kelly LJ, et al. **Endocrinology** 1998 Dec;139(12):4920-7

ROR alpha augments thyroid hormone receptor-mediated transcriptional activation. Koibuchi N, et al. **Endocrinology** 1999 Mar;140(3):1356-64

A corepressor and chicken ovalbumin upstream promoter transcriptional factor proteins modulate peroxisome proliferator-activated receptor-gamma2/retinoid X receptor alpha-activated transcription from the murine lipoprotein lipase promoter. Robinson CE, et al. **Endocrinology** 1999 Apr;140(4):1586-93

PPARgamma: from adipose tissue to the atherosclerotic plaque. Lopez-Liuchi JV, et al. **Eur J Endocrinol** 1998 Oct; 139(4):363-4 (9 ref.)

Chloroplast precursor protein translocon. May T, et al. **FEBS Lett** 1999 Jun 4;452(1-2):52-6 (53 ref.)

Activation of PPARgamma leads to inhibition of anchorage-independent growth of human colorectal cancer cells [see comments] Brockman JA, et al. **Gastroenterology** 1998 Nov;115(5):1049-55. Comment in: Gastroenterology 1998 Nov;115(5):1283-5.

A gut check for PPARgamma [editorial; comment] Wu GD, et al. **Gastroenterology** 1998 Nov;115(5):1283-5 (48 ref.). Comment on: Gastroenterology 1998 Nov;115(5):1049-55.

Orphan nuclear receptors--new ligands and new possibilities. Blumberg B, et al. **Genes Dev** 1998 Oct 15;12(20):3149-55 (46 ref.)

Expression of peroxisome proliferator-activated receptor PPARdelta promotes induction of PPARgamma and adipocyte differentiation in 3T3C2 fibroblasts. Bastie C, et al. **J Biol Chem** 1999 Jul 30;274(31):21920-5

Rat peroxisome proliferator-activated receptors and brown adipose tissue function during cold acclimatization. Guardiola-Diaz HM, et al. **J Biol Chem** 1999 Aug 13; 274(33):23368-77

The orphan nuclear receptor SHP inhibits agonist-dependent transcriptional activity of estrogen receptors ERalpha and ERbeta. Johansson L, et al. **J Biol Chem** 1999 Jan 1; 274(1):345-53

Activation of the prolactin gene by peroxisome proliferator-activated receptor-alpha appears to be DNA binding-independent. Tolón RM, et al. **J Biol Chem** 1998 Oct 9;273(41):26652-61

The nuclear receptors peroxisome proliferator-activated receptor alpha and Rev-erbalpha mediate the species-specific regulation of apolipoprotein A-I expression by fibrates. Vu-Dac N, et al. **J Biol Chem** 1998 Oct 2;273(40):25713-20

Cross-talk between janus kinase-signal transducer and activator of transcription (JAK-STAT) and peroxisome proliferator-activated receptor-alpha (PPARalpha) signaling pathways. Growth hormone inhibition of pparalpha transcriptional activity mediated by stat5b. Zhou YC, et al. **J Biol Chem** 1999 Jan 29;274(5):2672-81

PPAR gamma-ligands inhibit migration mediated by multiple chemoattractants in vascular smooth muscle cells. Goetze S, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):798-806

Inhibition of Osf2/Cbfa1 expression and terminal osteoblast differentiation by PPARgamma2. Lecka-Czernik B, et al. **J Cell Biochem** 1999 Sep 1;74(3):357-71

Peroxisome proliferator-activated receptor alpha mediates the adaptive response to fasting. Kersten S, et al. **J Clin Invest** 1999 Jun;103(11):1489-98

Modulating nuclear receptor function: may the phos be with you. Shao D, et al. **J Clin Invest** 1999 Jun;103(12):1617-8 (28 ref.)

Transcriptional activation of the cholesterol 7alpha-hydroxylase gene (CYP7A) by nuclear hormone receptors. Crestani M, et al. **J Lipid Res** 1998 Nov; 39(11):2192-200

Peroxisome proliferator-activated receptor alpha: role in rodent liver cancer and species differences. Holden PR, et al. **J Mol Endocrinol** 1999 Feb;22(1):1-8 (70 ref.)

Germ cell nuclear factor: an orphan receptor with unexpected properties. Greschik H, et al. **J Mol Med** 1998 Nov-Dec;76(12):800-10 (75 ref.)

Type I inositol 1,4,5-trisphosphate receptor knock-out mice: their phenotypes and their meaning in neuroscience and clinical practice. Matsumoto M, et al. **J Mol Med** 1999 May;77(5):406-11 (36 ref.)

Glutamate regulates IP3-type and CICR stores in the avian cochlear nucleus. Kato BM, et al. **J Neurophysiol** 1999 Apr; 81(4):1587-96

UNC-55, an orphan nuclear hormone receptor, orchestrates synaptic specificity among two classes of motor neurons in Caenorhabditis elegans. Zhou HM, et al. **J Neurosci** 1998 Dec 15;18(24):10438-44

Peroxisome proliferator-activated receptors: a critical link among fatty acids, gene expression and carcinogenesis. Vanden Heuvel JP. **J Nutr** 1999 Feb;129(2S Suppl):575S-580S (60 ref.)

Modulation of cytochrome P-450 gene expression in endotoxemic mice is tissue specific and peroxisome proliferator-activated receptor-alpha dependent. Barclay TB, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1250-7

Melatonin receptor potentiation of cyclic AMP and the cystic fibrosis transmembrane conductance regulator ion channel. Nelson CS, et al. **J Pineal Res** 1999 Mar;26(2):113-21

Peroxisome proliferator-activated receptor gamma induces growth arrest and differentiation markers of human colon cancer cells. Kitamura S, et al. **Jpn J Cancer Res** 1999 Jan;90(1):75-80

Medical significance of peroxisome proliferator-activated receptors. Vamecq J, et al. **Lancet** 1999 Jul 10; 354(9173):141-8 (55 ref.)

Roles of lipid-activated receptors in the adipogenic action of fatty acids. Grimaldi PA. **Lipids** 1999;34 Suppl:S205-8 (23 ref.)

Dietary polyunsaturated fatty acids and hepatic gene expression. Jump DB, et al. **Lipids** 1999;34 Suppl:S209-12 (25 ref.)

SMRTER, a Drosophila nuclear receptor coregulator, reveals that EcR-mediated repression is critical for development. Tsai CC, et al. **Mol Cell** 1999 Aug; 4(2):175-86

Coactivators and corepressors as mediators of nuclear receptor function: an update. Jenster G. **Mol Cell Endocrinol** 1998 Aug 25;143(1-2):1-7 (68 ref.)

Stat 5b and the orphan nuclear receptors regulate expression of the alpha2-macroglobulin (alpha2M) gene in rat ovarian granulosa cells. Dajee M, et al. **Mol Endocrinol** 1998 Sep; 12(9):1393-409

Differential modulation of GABAA receptor function by Mell a and Mell b receptors. Wan Q, et al. **Nat Neurosci** 1999 May;2(5):401-3

Dissatisfaction encodes a tailless-like nuclear receptor expressed in a subset of CNS neurons controlling Drosophila sexual behavior. Finley KD, et al. **Neuron** 1998 Dec;21(6):1363-74

Calmodulin mediates calcium-dependent inactivation of the cerebellar type 1 inositol 1,4,5-trisphosphate receptor. Michikawa T, et al. **Neuron** 1999 Aug;23(4):799-808

The role of inositol trisphosphate-induced Ca2+ release from IP3-receptor in the rat suprachiasmatic nucleus on circadian entrainment mechanism. Hamada T, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):125-8

Activation of the thyroid hormone receptor alpha gene promoter by the orphan nuclear receptor ERR alpha. Vanacker JM, et al. **Oncogene** 1998 Nov 12;17(19):2429-35

The relative order of IP3 sensitivity of types 1 and 3 IP3 receptors is pH dependent. De Smet P, et al. **Pflugers Arch** 1999 Jul;438(2):154-8

Inositol 1,4,5-trisphosphate [correction of tris-phosphate] activation of inositol trisphosphate [correction of tris-phosphate] receptor Ca2+ channel by ligand tuning of Ca2+ inhibition [published erratum appears in Proc Natl Acad Sci U S A 1999 Mar 16;96(6):3330] Mak DO, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15821-5

Mouse steroid receptor coactivator-1 is not essential for peroxisome proliferator-activated receptor alpha-regulated gene expression. Qi C, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1585-90

Polymorphism and signalling of melatonin receptors. Brydon L, et al. **Reprod Nutr Dev** 1999 May-Jun;39(3):315-24

Orphan nuclear receptors: shifting endocrinology into reverse. Kliewer SA, et al. **Science** 1999 Apr 30;

284(5415):757–60 (37 ref.)
Fibrate–modulated expression of fibrinogen, plasminogen activator inhibitor–1 and apolipoprotein A–I in cultured cynomolgus monkey hepatocytes — role of the peroxisome proliferator–activated receptor–alpha. Kockx M, et al. **Thromb Haemost** 1998 Dec;80(6):942–8
Fenofibrate modifies transaminase gene expression via a peroxisome proliferator activated receptor alpha–dependent pathway. Edgar AD, et al. **Toxicol Lett** 1998 Sep 1;98(1–2):13–23
Peroxisome proliferator–activated receptor (PPAR) alpha activation and its consequences in humans. Hertz R, et al. **Toxicol Lett** 1998 Dec 28;102–103:85–90 (40 ref.)
Peroxisome proliferator–activated receptor (PPAR) alpha–regulated growth responses and their importance to hepatocarcinogenesis. James NH, et al. **Toxicol Lett** 1998 Dec 28;102–103:91–6 (40 ref.)
Peroxisome proliferator–activated receptors (PPARS) and carcinogenesis. Vanden Heuvel JP. **Toxicol Sci** 1999 Jan; 47(1):1–8 (72 ref.)
[Structure and function of melatonin receptors] Jockers R, et al. **C R Seances Soc Biol Fil** 1998;192(4):659–67 (12 ref.) (Eng. Abstr.) **(Fre)**
[Is PPAR–gamma (peroxisome proliferator–activated receptor–gamma) implicated in the negative regulation of monocyte–macrophage activity?] Reimund JM. **Gastroenterol Clin Biol** 1999 Apr;23(4):544–6 **(Fre)**
[Nuclear receptors] Milgrom E. **Therapie** 1999 May–Jun; 54(3):327–31 (37 ref.) (Eng. Abstr.) **(Fre)**
[Ca+ metabolism in the sarcoplasmic reticulum and the role of ryanodine and IP3 receptors in the nervous system] Nagata E, et al. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2522–9 (30 ref.) **(Jpn)**
[Endocrine signaling system mediated by nuclear receptors] Umesono K. **Nippon Rinsho** 1998 Jul;56(7):1693–8 (12 ref.) (Eng. Abstr.) **(Jpn)**
[IP3 receptor] Mikoshiba K, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1596–602 (40 ref.) **(Jpn)**

RECEPTORS, DELTA see **RECEPTORS, OPIOID, DELTA**

RECEPTORS, DELTA OPIOID see **RECEPTORS, OPIOID, DELTA**

RECEPTORS, DIAZEPAM see **RECEPTORS, GABA–A**

RECEPTORS, DIIODOTYROSINE see **RECEPTORS, THYROID HORMONE**

RECEPTORS, DIOXIN see **RECEPTORS, ARYL HYDROCARBON**

RECEPTORS, DOPAMINE

AGONISTS see DOPAMINE AGONISTS

ANALYSIS

Striatal dopaminergic abnormalities in human cocaine users. Little KY, et al. **Am J Psychiatry** 1999 Feb;156(2):238–45
Images in neuroscience. Brain development, X: pruning during development. Seeman P. **Am J Psychiatry** 1999 Feb; 156(2):168
Receptor imaging in the diagnosis and treatment of pituitary tumors. Kwekkeboom DJ, et al. **J Endocrinol Invest** 1999 Jan;22(1):80–8 (63 ref.)
Quantitation of iodine–123–beta–CIT dopamine receptor uptake in a phantom model. Leong LK, et al. **J Nucl Med Technol** 1999 Jun;27(2):117–22
External radioactive reference markers in SPECT imaging of the dopamine system. Vines DC, et al. **J Nucl Med Technol** 1999 Jun;27(2):112–6
Distribution of dopamine receptors and dopamine receptor homologs in the brain of the honey bee, Apis mellifera L. Kokay IC, et al. **Microsc Res Tech** 1999 Jan 15–Feb 1;44(2–3):179–89

ANTAGONISTS & INHIBITORS see DOPAMINE ANTAGONISTS

BIOSYNTHESIS

Changes in dopamine receptor mRNA expression following chronic mild stress and chronic antidepressant treatment. Dziedzicka–Wasylewska M, et al. **Behav Pharmacol** 1997 Nov;8(6–7):607–18

DRUG EFFECTS

NMSP binding to dopamine and serotonin receptors in MPTP–induced parkinsonism: relation to dopa therapy. Borbely K, et al. **Acta Neurol Scand** 1999 Jul;100(1):42–52
Inhibitory effects of ginseng total saponin on nicotine–induced hyperactivity, reverse tolerance and dopamine receptor supersensitivity. Kim HS, et al. **Behav Brain Res** 1999 Aug;103(1):55–61
Mechanisms of action of anti–psychotic drugs. Strange PG. **Biochem Soc Trans** 1999 Feb;27(2):175–8 (27 ref.)
Synthesis and dopamine receptor modulating activity of unsubstituted and substituted triproline analogues of L–prolyl–L–leucyl–glycinamide (PLG). Baures PW, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2349–52
Synthesis and dopaminergic features of six novel 3–arylpiperidines. Kostic–Rajacic A, et al. **Boll Chim Farm** 1998 Nov;137(10):417–21
Regulation of striatal dopamine receptors by corticosterone: an in vivo and in vitro study. Lammers CH, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):281–5
Growth hormone response to placebo, apomorphine and growth hormone releasing hormone in abstinent alcoholics and control subjects. Wiesbeck GA, et al. **Drug Alcohol Depend** 1998 Sep 1;52(1):53–6
Neuroadaptations in the dopaminergic system after active self–administration but not after passive administration of methamphetamine. Stefanski R, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):123–35
Ergoline derivatives: receptor affinity and selectivity. Mantegani S, et al. **Farmaco** 1999 May 30;54(5):288–96 (15 ref.)
Pharmacological differentiation of classical and novel antipsychotics. Arnt J. **Int Clin Psychopharmacol** 1998 Mar; 13 Suppl 3:S7–14 (46 ref.)
D2 and 5–HT2 receptor effects of antipsychotics: bridging basic and clinical findings using PET. Remington G, et al. **J Clin Psychiatry** 1999;60 Suppl 10:15–9 (50 ref.)
Synthesis and dopamine receptor modulating activity of novel peptidomimetics of L–prolyl–L–leucyl–glycinamide featuring alpha,alpha–disubstituted amino acids. Evans MC, et al. **J Med Chem** 1999 Apr 22;42(8):1441–7
The dopamine D2, but not D3 or D4, receptor subtype is essential for the disruption of prepulse inhibition produced by amphetamine in mice. Ralph RJ, et al. **J Neurosci** 1999 Jun 1;19(11):4627–33
Ergoline derivative LEK–8829–induced turning behavior in rats with unilateral striatal ibotenic acid lesions: interaction with bromocriptine. Sprah L, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1093–100
Dopamine receptors, antipsychotic action and schizophrenia [letter] Reynolds GP. **J Psychopharmacol** 1999;13(2):202–3
NMDA receptor antagonism produces antinociception which is partially mediated by brain opioids and dopamine. Forman LJ. **Life Sci** 1999;64(21):1877–87
Effects of antidepressant drugs on the dopamine D2/D3 receptors in the rat brain differentiated by agonist and antagonist binding--an autoradiographic analysis. Rogoz R, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):178–86
Effects of lithium, alone or associated with pilocarpine, on muscarinic and dopaminergic receptors and on phosphoinositide metabolism in rat hippocampus and striatum. Marinho MM, et al. **Neurochem Int** 1998 Oct; 33(4):299–306
Involvement of dopamine receptors on locomotor stimulation and sensitization elicited by the interaction of ethanol and mazindol in mice. Gevaerd MS, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):395–9
Inhibition by ginsenosides Rb1 and Rg1 of cocaine–induced hyperactivity, conditioned place preference, and postsynaptic dopamine receptor supersensitivity in mice. Kim HS, et al. **Pharmacol Biochem Behav** 1999 Jul; 63(3):407–12
Dopamine autoreceptors in rat nucleus accumbens modulate prepulse inhibition of acoustic startle. Yamada S, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):803–8
Locomotion and conditioned place preference produced by acute intravenous amphetamine: role of dopamine receptors and individual differences in amphetamine self–administration. Bardo MT, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):39–46
Dopaminergic mechanisms mediating the incentive to seek cocaine and heroin following long–term withdrawal of IV drug self–administration. De Vries TJ, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):254–60
D2S, D2L, D3, and D4 dopamine receptors couple to a voltage–dependent potassium current in N18TG2 x mesencephalon hybrid cell (MES–23.5) via distinct G proteins. Liu LX, et al. **Synapse** 1999 Feb;31(2):108–18
Evolutionary game theory and multiple chemical sensitivity. Newlin DB. **Toxicol Ind Health** 1999 Apr–Jun; 15(3–4):313–22 (56 ref.)
Effects of chronic lead (Pb) exposure on neurobehavioral function and dopaminergic neurotransmitter receptors in rats. Ma T, et al. **Toxicol Lett** 1999 Mar 29;105(2):111–21
[Effect of (+/–)12–chloroscoulerine on brain dopamine receptors] Chen LJ, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):185–9 (Eng. Abstr.) **(Chi)**
[How do antipsychotics exert their effects on dopamine receptor subtypes?] Inoue A, et al. **Nippon Yakurigaku Zasshi** 1998 Dec;112(6):351–61 (46 ref.) (Eng. Abstr.) **(Jpn)**
[Effect of prokinetic drugs inhibiting dopaminergic system on gallbladder motility in subjects with duodenal ulcer] Szabelska K, et al. **Pol Merkuriusz Lek** 1999 Apr; 6(34):188–91 (Eng. Abstr.) **(Pol)**
[The effect of rudotel on the synaptic activity of dopaminergic neurons] Podgornaia EK, et al. **Eksp Klin Farmakol** 1998 Jul–Aug;61(4):10–1 (Eng. Abstr.) **(Rus)**
[The EAA–ergic modulation of the brain dopaminergic system as a basis for creating new nootropic agents with stress–protective activity] Petrov VI, et al. **Vestn Ross Akad Med Nauk** 1998;(11):29–34 (Eng. Abstr.) **(Rus)**
[Functional role and pharmacological regulation of the dopaminergic system of the brain] Raevskii KS. **Vestn Ross Akad Med Nauk** 1998;(8):19–24 (34 ref.) (Eng. Abstr.) **(Rus)**

GENETICS

Dopamine D4 gene 7–repeat allele and attention deficit hyperactivity disorder. Faraone SV, et al. **Am J Psychiatry** 1999 May;156(5):768–70
New insights into dopaminergic receptor function using antisense and genetically altered animals. Sibley DR. **Annu Rev Pharmacol Toxicol** 1999;39:313–41 (96 ref.)
Dopamine receptor genetic variation, psychosis, and aggression in Alzheimer disease. Sweet RA, et al. **Arch Neurol** 1998 Oct;55(10):1335–40
Control of transcription and neurological diseases [news] Borrelli E, et al. **Mol Psychiatry** 1999 Mar;4(2):112–4
PET imaging of the pre–synaptic dopamine uptake sites in rapid–onset dystonia–parkinsonism (RDP). Brashear A, et al. **Mov Disord** 1999 Jan;14(1):132–7
Expression of dopamine receptors in the subthalamic nucleus of the rat: characterization using reverse transcriptase–polymerase chain reaction and autoradiography. Flores G, et al. **Neuroscience** 1999; 91(2):549–56
Association of a missense change in the D2 dopamine receptor with myoclonus dystonia. Klein C, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5173–6

METABOLISM

Stimulation of the dopamine 1 receptor increases lung edema clearance. Barnard ML, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):982–6
Serotonergic ergoline derivatives. Mantegani S, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1117–22
Azepinoindole derivatives with high affinity for brain dopamine and serotonin receptors. Maryanoff BE, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):983–8
Enantio– and diastereocontrolled dopamine D1, D2, D3 and D4 receptor binding of N–(3–pyrrolidinylmethyl)benzamides synthesized from aspartic acid. Thomas C, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):841–6
Striatal dopaminergic markers in dementia with Lewy bodies, Alzheimer's and Parkinson's diseases: rostrocaudal distribution. Piggott MA, et al. **Brain** 1999 Aug;122 (Pt 8):1449–68
Lewis and Fischer rats: a comparison of dopamine transporter and receptors levels. Flores G, et al. **Brain Res** 1998 Dec 14;814(1–2):34–40
Bioisosteric approach in the design of new dopaminergic/serotonergic ligands. Soskić V, et al. **Curr Med Chem** 1998 Dec;5(6):493–512 (102 ref.)
Reduced number of caudate nucleus dopamine uptake sites in vascular dementia. Allard P, et al. **Dement Geriatr Cogn Disord** 1999 Mar–Apr;10(2):77–80
Decreased dopamine receptor expression and its second–messenger cAMP in malignant human colon tissue. Basu S, et al. **Dig Dis Sci** 1999 May;44(5):916–21
In vivo effects of olanzapine on striatal dopamine D(2)/D(3) receptor binding in schizophrenic patients: an iodine–123 iodobenzamide single–photon emission tomography study. Dresel S, et al. **Eur J Nucl Med** 1999 Aug;26(8):862–8
Assessment of dynamic neurotransmitter changes with bolus or infusion delivery of neuroreceptor ligands. Endres CJ, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1196–210
N–(Iodopropenyl)–octahydrobenzo[f]– and –[g]quinolines: synthesis and adrenergic and dopaminergic activity studies. Tagmatarchis N, et al. **J Med Chem** 1998 Oct 8; 41(21):4165–70
Characterization of the phosphoinositide–linked dopamine receptor in a mouse hippocampal–neuroblastoma hybrid cell line. Jin LQ, et al. **J Neurochem** 1998 Nov; 71(5):1935–43
Sequential changes of dopaminergic receptors in the rat brain after 6–hydroxydopamine lesions of the medial forebrain bundle. Araki T, et al. **J Neurol Sci** 1998 Oct 8;160(2):121–7
Effects of single and multiple treatments with L–dihydroxyphenylalanine (L–DOPA) on dopamine receptor–G protein interactions and supersensitive immediate early gene responses in striata of rats after reserpine treatment or with unilateral nigrostriatal lesions. Khan SM, et al. **J Neurosci Res** 1999 Jan 1;55(1):71–9
Simultaneous SPECT studies of pre– and postsynaptic dopamine binding sites in baboons. Dresel SH, et al. **J Nucl Med** 1999 Apr;40(4):660–6
Gestational exposure to cocaine or pharmacologically related compounds: effects on behavior and striatal dopamine receptors. Stewart CW, et al. **Life Sci** 1998;63(22):2015–22
Polymorphisms in the dopamine D2 receptor gene and their relationships to striatal dopamine receptor density of healthy volunteers. Jönsson EG, et al. **Mol Psychiatry** 1999 May;4(3):290–6
In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats. Chaki S, et al. **Neuropharmacology** 1999 Aug;38(8):1185–94
Interactions of the novel antipsychotic aripiprazole (OPC–14597) with dopamine and serotonin receptor subtypes. Lawler CP, et al. **Neuropsychopharmacology** 1999 Jun;20(6):612–27
Dopamine and nicotinic receptor binding and the levels of

dopamine and homovanillic acid in human brain related to tobacco use. Court JA, et al. **Neuroscience** 1998 Nov; 87(1):63–78

Expression of dopamine receptors in the subthalamic nucleus of the rat: characterization using reverse transcriptase–polymerase chain reaction and autoradiography. Flores G, et al. **Neuroscience** 1999; 91(2):549–56

Effects of SCH23390 and raclopride on anxiety–like behavior in rats tested in the black–white box. Timothy C, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):323–7

Intracranial self–stimulation under a progressive–ratio schedule in rats: effects of strength of stimulation, d–amphetamine, 7–OH–DPAT and haloperidol. Depoortere R, et al. **Psychopharmacology (Berl)** 1999 Mar; 142(3):221–9

Cocaine–induced alterations in the density of monoaminergic receptors in the embryonic guinea pig cerebral wall. Lidow MS, et al. **Synapse** 1999 Jun 1;32(3):225–37

[The suppression of c–fos protein expression in the islands of Calleja in damage to the mesostriatal dopaminergic system of the brain] Shapoval MV. **Fiziol Zh** 1999; 45(4):92–8 (Eng. Abstr.) **(Ukr)**

PHYSIOLOGY

New insights into dopaminergic receptor function using antisense and genetically altered animals. Sibley DR. **Annu Rev Pharmacol Toxicol** 1999;39:313–41 (96 ref.)

Dopamine D2 receptor–mediated regulation of partner preferences in female prairie voles (Microtus ochrogaster): a mechanism for pair bonding? Wang Z, et al. **Behav Neurosci** 1999 Jun;113(3):602–11

Contributions of cysteine 114 of the human D3 dopamine receptor to ligand binding and sensitivity to external oxidizing agents. Alberts GL, et al. **Br J Pharmacol** 1998 Oct;125(4):705–10

Does the antimigraine action of flunarizine involve the dopaminergic system? A clinical–neuroendocrinological study. Cupini LM, et al. **Cephalalgia** 1999 Jan;19(1):27–31

Relationship between electroacupuncture analgesia and dopamine receptors in nucleus accumbens. Wang YQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):494–6

Role of dopamine in the pathogenesis of hypertension. Jose PA, et al. **Clin Exp Pharmacol Physiol Suppl** 1999 Apr; 26:S10–3 (63 ref.)

Dopaminergic modulation of early signs of excitotoxicity in visualized rat neostriatal neurons. Cepeda C, et al. **Eur J Neurosci** 1998 Nov;10(11):3491–7

SK&F 83959 and non–cyclase–coupled dopamine D1–like receptors in jaw movements via dopamine D1–like/D2–like receptor synergism. Adachi K, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):143–9

Competitive NMDA receptor antagonists disrupt prepulse inhibition without reduction of startle amplitude in a dopamine receptor–independent manner in mice. Furuya Y, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):133–40

N–methyl–D–aspartate and dopamine receptor involvement in the modulation of locomotor activity and memory processes. Adriani W, et al. **Exp Brain Res** 1998 Nov; 123(1–2):52–9 (55 ref.)

Hypotensive action of bromocriptine in the DOCA–salt hypertensive rat: contribution of spinal dopamine receptors. Lahlou S, et al. **Fundam Clin Pharmacol** 1998;12(6):599–606

Dopamine activates two different receptors to produce variability in sign at an identified synapse. Magoski NS, et al. **J Neurophysiol** 1999 Mar;81(3):1330–40

Rat strain differences in the ability to disrupt sensorimotor gating are limited to the dopaminergic system, specific to prepulse inhibition, and unrelated to changes in startle amplitude or nucleus accumbens dopamine receptor sensitivity. Kinney GG, et al. **J Neurosci** 1999 Jul 1; 19(13):5644–53

K+ channel modulation in rodent neurohypophysial nerve terminals by sigma receptors and not by dopamine receptors. Wilke RA, et al. **J Physiol (Lond)** 1999 Jun 1; 517 (Pt 2):391–406

Developmental pharmacodynamics: implications for child and adolescent psychopharmacology. Carrey N, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):274–6 (16 ref.)

D5 dopamine receptors mediate estrogen–induced stimulation of hypothalamic atrial natriuretic factor neurons. Lee D, et al. **Mol Endocrinol** 1999 Feb;13(2):344–52

Beyond the dopamine receptor: the DARPP–32/protein phosphatase–1 cascade. Greengard P, et al. **Neuron** 1999 Jul;23(3):435–47 (89 ref.)

Presynaptic involvement of nitric oxide in dopamine D1/D5 receptor–induced sustained enhancement of synaptic currents mediated by ionotropic glutamate receptors in the rat hippocampus. Yang SN. **Neurosci Lett** 1999 Jul 30; 270(2):87–90

Role of accumbens and cortical dopamine receptors in the regulation of cortical acetylcholine release. Moore H, et al. **Neuroscience** 1999;88(3):811–22

Renal dopamine receptors in health and hypertension. Jose PA, et al. **Pharmacol Ther** 1998 Nov;80(2):149–82 (477 ref.)

Interactive modulation by dopamine and serotonin neurons of receptor sensitivity of the alternate neurochemical system. Kostrzewa RM, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):39–47 (84 ref.)

PET measurements of dopaminergic pathways in the brain. Perlmutter JS, et al. **Q J Nucl Med** 1999 Jun;43(2):140–54 (158 ref.)

Modulation of GABA release by dopamine in the substantia nigra. Matuszewich L, et al. **Synapse** 1999 Apr;32(1):29–36

[Anhedonia––a general nosology surmounting correlate of a dysfunctional dopaminergic reward system?] Heinz A. **Nervenarzt** 1999 May;70(5):391–8 (94 ref.) (Eng. Abstr.) **(Ger)**

[Functional role and pharmacological regulation of the dopaminergic system of the brain] Raevskii KS. **Vestn Ross Akad Med Nauk** 1998;(8):19–24 (34 ref.) (Eng. Abstr.) **(Rus)**

RECEPTORS, DOPAMINE D1

AGONISTS

Priming with L–DOPA differently affects dynorphin and substance P mRNA levels in the striatum of 6–hydroxydopamine–lesioned rats after challenge with dopamine D1–receptor agonist. van de Witte SV, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):219–23

Effects of the full dopamine D1 receptor agonist dihydrexidine in Parkinson's disease. Blanchet PJ, et al. **Clin Neuropharmacol** 1998 Nov–Dec;21(6):339–43

Effect of YM435, a dopamine DA1 receptor agonist, in a canine model of ischemic acute renal failure. Yatsu T, et al. **Gen Pharmacol** 1998 Nov;31(5):803–7

Impaired renal vascular response to a D1–like receptor agonist but not to an ACE inhibitor in conscious spontaneously hypertensive rats. de Vries PA, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):191–8

Alteration of association of agonist–activated renal D1(A) dopamine receptors with G proteins in proximal tubules of the spontaneously hypertensive rat. Uh M, et al. **J Hypertens** 1998 Sep;16(9):1307–13

CoMFA–based prediction of agonist affinities at recombinant D1 vs D2 dopamine receptors. Wilcox RE, et al. **J Med Chem** 1998 Oct 22;41(22):4385–99

Differential regulation of striatal preproenkephalin and preprotachykinin mRNA levels in MPTP–lesioned monkeys chronically treated with dopamine D1 or D2 receptor agonists. Morissette M, et al. **J Neurochem** 1999 Feb;72(2):682–92

Dopamine D1B receptor chimeras reveal modulation of partial agonist activity by carboxyl–terminal tail sequences. Sugamori KS, et al. **J Neurochem** 1998 Dec;71(6):2593–9

Effects of dopamine D(1–like) and D(2–like) agonists in rats that self–administer cocaine. Caine SB, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):353–60

A dopamine D1 agonist elevates self–stimulation thresholds: comparison to other dopamine–selective drugs. Baldo BA, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):659–72

Clozapine: dopamine D1 receptor agonism in the prefrontal cortex as the code to decipher a Rosetta stone of antipsychotic drugs. Ahlenius S. **Pharmacol Toxicol** 1999 May;84(5):193–6 (39 ref.)

Effects of D1 dopamine receptor agonists on oral ethanol self–administration in rats: comparison with their efficacy to produce grooming and hyperactivity. Cohen C, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):102–10

Is clozapine an (partial) agonist at both dopamine D1 and D2 receptors? [letter; comment] Jackson DM, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):213–6. Comment on: Psychopharmacology (Berl) 1998 Feb;135(3):311–7.

Actions of the D1 agonists A–77636 and A–86929 on locomotion and dyskinesia in MPTP–treated L–dopa–primed common marmosets. Pearce RK, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):51–60

ANALYSIS

Non–neuronal dopamine in the gastrointestinal system. Mezey E, et al. **Clin Exp Pharmacol Physiol Suppl** 1999 Apr;26:S14–22

Dopamine D1 and D2 receptor–mediated acute and long–lasting behavioral effects of glial cell line–derived neurotrophic factor administered into the striatum. Kobayashi S, et al. **Exp Neurol** 1998 Dec;154(2):302–14

Dopamine D1–receptor immunolocalization in goldfish retina. Mora–Ferrer C, et al. **J Comp Neurol** 1999 Sep 6; 411(4):705–14

Dopamine receptor upregulation in Lesch–Nyhan syndrome: a postmortem study. Saito Y, et al. **Neuropediatrics** 1999 Apr;30(2):66–71

Expression of dopamine D1–receptor mRNA in the carotid body of adult rabbits, cats and rats. Bairam A, et al. **Neurosci Res** 1998 Jun;31(2):147–54

D1– and D2–like dopamine receptors are co–localized on the presynaptic varicosities of striatal and nucleus accumbens neurons in vitro. Wong AC, et al. **Neuroscience** 1999 Mar;89(1):221–33

Alterations of the dopaminergic and glutamatergic neurotransmission in adult rats with postnatal ibotenic acid hippocampal lesion. Schroeder H, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):61–6

Striatal dopamine receptors and transporters in monkeys with neonatal temporal limbic damage. Heinz A, et al. **Synapse** 1999 May;32(2):71–9

ANTAGONISTS & INHIBITORS

Effects of a D1 antagonist and of sexual experience on copulation–induced Fos–like immunoreactivity in the medial preoptic nucleus. Lumley LA, et al. **Brain Res** 1999 May 22;829(1–2):55–68

Comparison of the effects of dopamine D1 and D2 receptor antagonists on nerve growth factor mRNA expression. Ozaki T, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):133–43

Effects of D1 and D2 dopamine receptor antagonists on cocaine–induced self–stimulation and locomotor activity in rats. Kita K, et al. **Eur Neuropsychopharmacol** 1999 Jan; 9(1–2):1–7

A transmembrane domain–derived peptide inhibits D1 dopamine receptor function without affecting receptor oligomerization. George SR, et al. **J Biol Chem** 1998 Nov 13;273(46):30244–8

D1 receptor blockade improves L–dopa–induced dyskinesia but worsens parkinsonism in MPTP monkeys. Grondin R, et al. **Neurology** 1999 Mar 10;52(4):771–6

Chronic dopamine D1, dopamine D2 and combined dopamine D1 and D2 antagonist treatment in Cebus apella monkeys: antiamphetamine effects and extrapyramidal side effects. Peacock L, et al. **Neuropsychopharmacology** 1999 Jan;20(1):35–43

Blockade of subthalamic dopamine D1 receptors elicits akinesia in rats. Hauber W. **Neuroreport** 1998 Dec 21; 9(18):4115–8

Effects of selective dopamine D1– and D2–type receptor antagonists on the development of behavioral sensitization to 7–OH–DPAT. Mattingly BA, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):387–97

BIOSYNTHESIS

Diminished expression of renal dopamine D1A receptors in the kidney inner medulla of the spontaneously hypertensive rat. Sidhu A, et al. **J Hypertens** 1998 May;16(5):601–8

Effect of antidepressant drugs on dopamine D1 and D2 receptor expression and dopamine release in the nucleus accumbens of the rat. Ainsworth K, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):470–7

BLOOD

Dopamine D1–like receptor subtypes in human peripheral blood lymphocytes. Ricci A, et al. **J Neuroimmunol** 1999 May 3;96(2):234–40

CHEMISTRY

Quantitative structure–activity relationship modeling of dopamine D(1) antagonists using comparative molecular field analysis, genetic algorithms–partial least–squares, and K nearest neighbor methods. Hoffman B, et al. **J Med Chem** 1999 Aug 26;42(17):3217–26

DRUG EFFECTS

GABA(A), D1, and D5, but not progestin receptor, antagonist and anti–sense oligonucleotide infusions to the ventral tegmental area of cycling rats and hamsters attenuate lordosis. Frye CA, et al. **Behav Brain Res** 1999 Aug;103(1):23–34

The effects of anandamide on memory consolidation in mice involve both D1 and D2 dopamine receptors. Castellano C, et al. **Behav Pharmacol** 1997 Dec;8(8):707–12

Dopamine–dependent behavioural stimulation by non–peptide delta opioids BW 373U86 and SNC 80: 3. Facilitation of D1 and D2 responses in unilaterally 6–hydroxydopamine–lesioned rats. Pinna A, et al. **Behav Pharmacol** 1998 Feb;9(1):15–21

A phosphoinositide–linked dopamine D1 receptor mediates repetitive jaw movements in rats. Rosengarten H, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1178–84

Phencyclidine induces D–1 dopamine receptor mediated Fos–like immunoreactivity in discretely localised populations of striatopallidal and striatoentopeduncular neurons in the rat. Griffiths MR, et al. **Brain Res** 1999 Mar 6;821(1):177–89

Differential vulnerability of dopamine receptors in the mouse brain treated with MPTP. Tanji H, et al. **Brain Res** 1999 Apr 10;824(2):224–31

Characteristics of tetrahydroprotoberberines on dopamine D1 and D2 receptors in calf striatum. Guo X, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):225–30

The alleged dopamine D1 receptor agonist SKF 83959 is a dopamine D1 receptor antagonist in primate cells and interacts with other receptors. Andringa G, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):33–41

The expression of neuropeptide–induced excessive grooming behavior in dopamine D1 and D2 receptor–deficient mice. Drago F, et al. **Eur J Pharmacol** 1999 Jan 22; 365(2–3):125–31

Functional potencies of new antiparkinsonian drugs at recombinant human dopamine D1, D2 and D3 receptors. Perachon S, et al. **Eur J Pharmacol** 1999 Feb 5; 366(2–3):293–300

Chronic haloperidol alters dopamine receptors: effects of cocaine exposure during the preweaning period. Shi X, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):241–9

Dopamine D1 and D2 receptor agents and their interaction influence the synaptic density of the rat prefrontal cortex. Sugahara M, et al. **Neurosci Lett** 1999 Jan 15;259(3):141–4

Effects of intrasubthalamic injection of dopamine receptor agonists on subthalamic neurons in normal and 6–hydroxydopamine–lesioned rats: an electrophysiological and c–Fos study. Hassani OK, et al. **Neuroscience** 1999;

92(2):533–43

Synthesis of 3-aryl-1-[(4-phenyl-1-piperazinyl)butyl]indazole derivatives and their affinity to 5-HT1A serotonin and dopamine D1 receptors. Andronati S, et al. **Pharmazie** 1999 Feb;54(2):99–101

Effects of specific dopamine D1 and D2 receptor antagonists and agonists and neuroleptic drugs on emotional defecation in a rat model of akathisia. Sachdev PS, et al. **Psychiatry Res** 1998 Dec 14;81(3):323–32

Striatal and nigral D1 mechanisms involved in the antiparkinsonian effects of SKF 82958 (APB): studies of tremulous jaw movements in rats. Mayorga AJ, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):72–81

Enhancement of the acoustic startle response in rats by the dopamine D1 receptor agonist SKF 82958. Meloni EG, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):373–80

Psychopharmacology of conditioned reward: evidence for a rewarding signal at D1-like dopamine receptors. Sutton MA, et al. **Psychopharmacology (Berl)** 1999 May; 144(2):95–110 (130 ref.)

Amisulpride versus flupentixol in schizophrenia with predominantly positive symptomatology — a double-blind controlled study comparing a selective D2-like antagonist to a mixed D1-/D2-like antagonist. The Amisulpride Study Group. Wetzel H, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):223–32

Antagonism by olanzapine of dopamine D1, serotonin2, muscarinic, histamine H1 and alpha 1-adrenergic receptors in vitro. Bymaster FP, et al. **Schizophr Res** 1999 May 4; 37(1):107–22

Effects of SCH-23390 on dopamine D1 receptor occupancy and locomotion produced by intraaccumbens cocaine infusion. Neisewander JL, et al. **Synapse** 1998 Oct; 30(2):194–204

GENETICS

Dopamine D1 receptor gene polymorphism and schizophrenia in Japan. Kojima H, et al. **Am J Med Genet** 1999 Apr 16;88(2):116–9

No association between dopamine D1, D2, and D3 receptor genes and manic-depressive illness. Savoye C, et al. **Biol Psychiatry** 1998 Oct 1;44(7):644–7

D1 and D2 dopamine receptor messenger ribonucleic acid in brain and pituitary during the reproductive cycle of the turkey hen. Schnell SA, et al. **Biol Reprod** 1999 Jun; 60(6):1378–83

Conditional coupling of striatal dopamine D1 receptor to transcription factors: ontogenic and regional differences in CREB activation. Arnauld E, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):127–32

Chronic morphine exposure and spontaneous withdrawal are associated with modifications of dopamine receptor and neuropeptide gene expression in the rat striatum. Georges F, et al. **Eur J Neurosci** 1999 Feb;11(2):481–90

Paradoxical locomotor behavior of dopamine D1 receptor transgenic mice. Dracheva S, et al. **Exp Neurol** 1999 May; 157(1):169–79

Human D3 dopamine receptor in the medulloblastoma TE671 cell line: cross-talk between D1 and D3 receptors. Levavi-Sivan B, et al. **FEBS Lett** 1998 Nov 13; 439(1-2):138–42

Dopamine receptor genes are associated with age at first sexual intercourse. Miller WB, et al. **J Biosoc Sci** 1999 Jan; 31(1):43–54

Functional dopamine-1 receptors and DARPP-32 are expressed in human ovary and granulosa luteal cells in vitro. Mayerhofer A, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):257–64

Anatomical and functional characterisation of a dopaminergic system in the suprachiasmatic nucleus of the neonatal Siberian hamster. Duffield GE, et al. **J Comp Neurol** 1999 May 24;408(1):73–96

Dopamine D1B receptor chimeras reveal modulation of partial agonist activity by carboxyl-terminal tail sequences. Sugamori KS, et al. **J Neurochem** 1998 Dec;71(6):2593–9

OCD-Like behaviors caused by a neuropotentiating transgene targeted to cortical and limbic D1+ neurons. Campbell KM, et al. **J Neurosci** 1999 Jun 15;19(12):5044–53

A study of chromosome 4p markers and dopamine D5 receptor gene in schizophrenia and bipolar disorder. Asherson P, et al. **Mol Psychiatry** 1998 Jul;3(4):310–20

Mapping susceptibility loci in attention deficit hyperactivity disorder: preferential transmission of parental alleles at DAT1, DBH and DRD5 to affected children. Daly G, et al. **Mol Psychiatry** 1999 Mar;4(2):192–6

Functional analysis of the human D5 dopamine receptor missense and nonsense variants: differences in dopamine binding affinities. Cravchik A, et al. **Pharmacogenetics** 1999 Apr;9(2):199–206

Dopamine receptor subtypes expressed in vertebrate (carp and eel) retinae: cloning, sequencing and comparison of five D1-like and three D2-like receptors. Hirano J, et al. **Receptors Channels** 1998;5(6):387–404

METABOLISM

Levodopa induces a cytoplasmic localization of D1 dopamine receptors in striatal neurons in Parkinson's disease. Muriel MP, et al. **Ann Neurol** 1999 Jul;46(1):103–11

Alteration by maternal pinealectomy of fetal and neonatal melatonin and dopamine D1 receptor binding in the suprachiasmatic nuclei. Naitoh N, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):850–4

There is a limited critical period for dopamine's effects on D1 receptor expression in the developing rat neostriatum. Thomas WS, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):99–106

Specific reductions of striatal prodynorphin and D1 dopamine receptor messenger RNAs during cocaine abstinence. Svensson P, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):162–8

Chronic treatment with (-)-stepholidine alters density and turnover of D1 and D2 receptors in striatum. Zou LL, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):485–9

Dopamine D1-like receptor subtypes in the rat kidney: a microanatomical study. Amenta F, et al. **Clin Exp Hypertens** 1999 Jan-Feb;21(1-2):17–23

Postnatal development of dopamine D1-like receptors in rat cortical and striatolimbic brain regions: An autoradiographic study. Tarazi FI, et al. **Dev Neurosci** 1999; 21(1):43–9

Modifications of dopamine D1 receptor complex in rats self-administering cocaine. Graziella De Montis M, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):9–15

Alpha-melanotropin hormone inhibits the binding of [3H]SCH 23390 to the dopamine D1 receptor in vitro. Lezcano NE, et al. **Eur J Pharmacol** 1998 Dec 18; 363(2-3):211–5

Dopamine D1 and D2 receptor selectivities of phenyl-benzazepines in rhesus monkey striata. Weed MR, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):129–42

Dopamine-1 receptor coupling defect in renal proximal tubule cells in hypertension. Sanada H, et al. **Hypertension** 1999 Apr;33(4):1036–42

Dopamine D1 receptor and protein kinase C isoforms in spontaneously hypertensive rats. Yao LP, et al. **Hypertension** 1998 Dec;32(6):1049–53

Positron emission tomographic analysis of central dopamine D1 receptor binding in normal subjects treated with the atypical neuroleptic, SDZ MAR 327. Christian BT, et al. **Int J Mol Med** 1998 Jan;1(1):243–7

Distinct dynamin-dependent and -independent mechanisms target structurally homologous dopamine receptors to different endocytic membranes. Vickery RG, et al. **J Cell Biol** 1999 Jan 11;144(1):31–43

Alteration of association of agonist-activated renal D1(A) dopamine receptors with G proteins in proximal tubules of the spontaneously hypertensive rat. Uh M, et al. **J Hypertens** 1998 Sep;16(9):1307–13

N-n-Propyl-substituted 3-(dimethylphenyl)piperidines display novel discriminative properties between dopamine receptor subtypes: synthesis and receptor binding studies. Cervetto L, et al. **J Med Chem** 1998 Dec 3;41(25):4933–8

Adaptive changes in postsynaptic dopamine receptors despite unaltered dopamine dynamics in mice lacking monoamine oxidase B. Chen L, et al. **J Neurochem** 1999 Aug; 73(2):647–55

D1 receptor in interneurons of macaque prefrontal cortex: distribution and subcellular localization. Muly EC 3rd, et al. **J Neurosci** 1998 Dec 15;18(24):10553–65

A dopamine/D1 receptor/protein kinase A/dopamine- and cAMP-regulated phosphoprotein (Mr 32 kDa)/protein phosphatase-1 pathway regulates dephosphorylation of the NMDA receptor. Snyder GL, et al. **J Neurosci** 1998 Dec 15;18(24):10297–303

Postnatal development of dopamine D1 receptor immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 May 15;56(4):397–404

Carbon-11-NNC 112: a radioligand for PET examination of striatal and neocortical D1-dopamine receptors. Halldin C, et al. **J Nucl Med** 1998 Dec;39(12):2061–8

Behavioral effects of cocaine: interactions with D1 dopaminergic antagonists and agonists in mice and squirrel monkeys. Katz JL, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):265–79

Coupling of D1 and D5 dopamine receptors to multiple G proteins: Implications for understanding the diversity in receptor-G protein coupling. Sidhu A. **Mol Neurobiol** 1998 Apr;16(2):125–34 (52 ref.)

Regulation of D(1) dopamine receptors with mutations of protein kinase phosphorylation sites: attenuation of the rate of agonist-induced desensitization. Jiang D, et al. **Mol Pharmacol** 1999 Oct;56(4):675–83

Endogenous dopamine increases extracellular concentrations of glutamate and GABA in striatum of the freely moving rat: involvement of D1 and D2 dopamine receptors. Expósito I, et al. **Neurochem Res** 1999 Jul;24(7):849–56

Evidence for the presence of dopamine D1 receptor mRNA and binding sites in monkey amniotic epithelial cells. Elwan MA, et al. **Neurosci Lett** 1999 Feb 26;262(1):9–12

On the distribution patterns of D1, D2, tyrosine hydroxylase and dopamine transporter immunoreactivities in the ventral striatum of the rat. Jansson A, et al. **Neuroscience** 1999 Mar;89(2):473–89

Dopaminergic activities in the human striatum: rostrocaudal gradients of uptake sites and of D1 and D2 but not of D3 receptor binding or dopamine. Piggott MA, et al. **Neuroscience** 1999 May;90(2):433–45

Effects of hippocampal kainic acid lesions on striatolimbic dopamine D1-, D2-, and D4-like receptors. Tarazi FI, et al. **Neuroscience** 1998 Nov;87(1):1–4

[11C]NNC 22-0215, a metabolically stable dopamine D1 radioligand for PET. Foged C, et al. **Nucl Med Biol** 1998 Jul;25(5):503–8

DA1 receptor activity opposes anorectic responses to amino acid-imbalanced diets. Aja SM, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):493–8

Behavioral effects of dopamine agonists and antagonists: influence of estrous cycle, ovariectomy, and estrogen replacement in rats. Diaz-Véliz G, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):21–9

Differential effects of olanzapine at dopamine D1 and D2 receptors in dopamine depleted animals. Ninan I, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):175–81

Comparison of dopamine receptor antagonists on hyperlocomotion induced by cocaine, amphetamine, MK-801 and the dopamine D1 agonist C-APB in mice. O'Neill MF, et al. **Psychopharmacology (Berl)** 1999 Aug; 145(3):237–50

PET studies of binding competition between endogenous dopamine and the D1 radiotracer [11C]NNC 756. Abi-Dargham A, et al. **Synapse** 1999 May;32(2):93–109

In vivo regulation of intraneuronal trafficking of G protein-coupled receptors for neurotransmitters. Bloch B, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):315–9 (44 ref.)

PHYSIOLOGY

Effects of costimulation of dopamine D1- and D2-like receptors on renal function. Jose PA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R986–94

Neural substrates of drug craving and relapse in drug addiction. Self DW. **Ann Med** 1998 Aug;30(4):379–89 (93 ref.)

Differential distribution, affinity and plasticity of dopamine D-1 and D-2 receptors in the target sites of the mesolimbic system in an animal model of ADHD. Carey MP, et al. **Behav Brain Res** 1998 Jul;94(1):173–85

Strain-dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17–26

D1 dopamine receptors and the reversal of isolation-induced behaviors in mice. Gariépy JL, et al. **Behav Brain Res** 1998 Sep;95(1):103–11

Amygdaloid D1 dopamine receptor involvement in Pavlovian fear conditioning. Guarraci FA, et al. **Brain Res** 1999 May 8;827(1-2):28–40

Sensitization of amphetamine-induced stereotyped behaviors during the acute response: role of D1 and D2 dopamine receptors. Kuczenski R, et al. **Brain Res** 1999 Mar 20; 822(1-2):164–74

Involvement of dopamine D(1) and D(2) receptors in the ethanol-associated place preference in rats exposed to conditioned fear stress. Matsuzawa S, et al. **Brain Res** 1999 Jul 24;835(2):298–305

Dopaminergic regulation of serotonin release in the substantia nigra of the freely moving rat using microdialysis. Thorré K, et al. **Brain Res** 1998 Jun 15;796(1-2):107–16

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125–34

Dopamine D-1 regulation of caudate neurotensin mRNA in the presence or absence of the nigrostriatal dopamine pathway. Hanson GR, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):111–21

Renal dopamine receptor signaling mechanisms in spontaneously hypertensive and Fischer 344 old rats. Hussain T, et al. **Clin Exp Hypertens** 1999 Jan-Feb; 21(1-2):25–36 (51 ref.)

Blockade of neurotensin receptors suppresses the dopamine D1/D2 synergism on immediate early gene expression in the rat brain. Alonso R, et al. **Eur J Neurosci** 1999 Mar; 11(3):967–74

Differential response of cortical-limbic neuropotentiated compulsive mice to dopamine D1 and D2 receptor antagonists. Campbell KM, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):103–11

Opposing roles for dopamine D1 and D2 receptors in the regulation of hypothalamic tuberoinfundibular dopamine neurons. Durham RA, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):141–7

Disruption of dopamine D1 receptor gene expression attenuates alcohol-seeking behavior. El-Ghundi M, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):149–58

Selective inhibition of the renal dopamine subtype D1A receptor induces antinatriuresis in conscious rats. Wang ZQ, et al. **Hypertension** 1999 Jan;33(1 Pt 2):504–10

Apparent dopamine D1 and D2 receptors in the weaver mutant mouse: receptor binding and coupling to adenylyl cyclase. Dewar KM, et al. **J Neural Transm** 1999; 106(5-6):487–97

RGS mRNA expression in rat striatum: modulation by dopamine receptors and effects of repeated amphetamine administration. Burchett SA, et al. **J Neurochem** 1999 Apr; 72(4):1529–33

Voltage-dependent neuromodulation of Na+ channels by D1-like dopamine receptors in rat hippocampal neurons. Cantrell AR, et al. **J Neurosci** 1999 Jul 1;19(13):5301–10

Targeted expression of a toxin gene to D1 dopamine receptor neurons by cre-mediated site-specific recombination. Drago J, et al. **J Neurosci** 1998 Dec 1;18(23):9845–57

Striatal neuronal activity and responsiveness to dopamine and glutamate after selective blockade of D1 and D2 dopamine

receptors in freely moving rats. Kiyatkin EA, et al. **J Neurosci** 1999 May 1;19(9):3594–609

Opposing role of dopamine D1 and D2 receptors in modulation of rat nucleus accumbens noradrenaline release. Vanderschuren LJ, et al. **J Neurosci** 1999 May 15; 19(10):4123–31

Characterization of dopamine receptor subtypes involved in experimentally induced gastric and duodenal ulcers in rats. Desai JK, et al. **J Pharm Pharmacol** 1999 Feb;51(2):187–92

Multisecond oscillations in firing rate in the globus pallidus: synergistic modulation by D1 and D2 dopamine receptors. Ruskin DN, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1493–501

Renal hemodynamics in radiocontrast medium–induced renal dysfunction: A role for dopamine–1 receptors. Bakris GL, et al. **Kidney Int** 1999 Jul;56(1):206–10

Dopamine depolarizes podocytes via a D1–like receptor. Bek M, et al. **Nephrol Dial Transplant** 1999 Mar;14(3):581–7

Chronic D1 and D2 dopaminomimetic treatment of MPTP–denervated monkeys: effects on basal ganglia GABA(A)/benzodiazepine receptor complex and GABA content. Calon F, et al. **Neurochem Int** 1999 Jul;35(1):81–91

Dopamine autoreceptor function is lost in advanced Parkinson's disease. Ekesbo A, et al. **Neurology** 1999 Jan 1;52(1):120–5

Modulation by dopamine D1–like receptors of synaptic transmission and NMDA receptors in rat nucleus accumbens is attenuated by the protein kinase C inhibitor Ro 32–0432. Chergui K, et al. **Neuropharmacology** 1999 Feb;38(2):223–31

Topographical evaluation of the phenotype of spontaneous behaviour in mice with targeted gene deletion of the D1A dopamine receptor: paradoxical elevation of grooming syntax. Clifford JJ, et al. **Neuropharmacology** 1998 Dec; 37(12):1595–602

Long–lasting effects of chronic mu–opioid intake on the signal transmission via dopamine D1 receptors in the limbic forebrain of drug deprived rats. May T, et al. **Neuropharmacology** 1998 Aug;37(8):997–1006

Cocaine induced T cell proliferation in the rat: role of amygdala dopamine D1 receptors. Caroleo MC, et al. **Neurosci Lett** 1998 Nov 6;256(2):61–4

Different sensitivity of in vivo acetylcholine transmission to D1 receptor stimulation in shell and core of nucleus accumbens. Consolo S, et al. **Neuroscience** 1999; 89(4):1209–17

Increased striatal expression of glutamate decarboxylase 67 after priming of 6–hydroxydopamine–lesioned rats. Consolo S, et al. **Neuroscience** 1999;89(4):1183–7

Dopamine receptor coupling to adenylyl cyclase in rat olfactory pathway: a combined pharmacological–radioautographic approach. Coronas V, et al. **Neuroscience** 1999 Apr;90(1):69–78

Local infusion of the (+/–)–alpha–amino–3–hydroxy–5–methylisoxazole–4–propionate/kainate receptor antagonist 6–cyano–7–nitroquinoxaline–2,3–dione does not block D1 dopamine receptor–mediated increases in immediate early gene expression in the dopamine–depleted striatum. Keefe KA, et al. **Neuroscience** 1999 Mar;89(2):491–504

D1 and D2 dopamine receptor mediation of amphetamine–induced acetylcholine release in nucleus accumbens. Keys AS, et al. **Neuroscience** 1998 Sep; 86(2):521–31

Forskolin and dopamine D1 receptor activation increase huntingtin's association with endosomes in immortalized neuronal cells of striatal origin. Kim M, et al. **Neuroscience** 1999;89(4):1159–67

Dopamine D1 receptor modulation of glutamate receptor messenger RNA levels in the neocortex and neostriatum of unilaterally 6–hydroxydopamine–lesioned rats. Rodriguez–Puertas R, et al. **Neuroscience** 1999 Mar; 89(3):781–97

Regulation of human D1 dopamine receptor function and gene expression in SK–N–MC neuroblastoma cells. Sidhu A, et al. **Neuroscience** 1999;91(2):537–47

Ventral hippocampal dopamine D1 and D2 systems and spatial working memory in rats. Wilkerson A, et al. **Neuroscience** 1999 Mar;89(3):743–9

Serotonin2A receptor modulation of D1 dopamine receptor–mediated grooming behavior. Scalzitti JM, et al. **Pharmacol Biochem Behav** 1999 Jun;63(2):279–84

Involvement of DA1 and DA2 receptors in the gastroprotective activity of amylin in the rat. Clementi G, et al. **Pharmacol Res** 1998 Sep;38(3):221–4

Dopamine receptor subtypes modulate olfactory bulb gamma–aminobutyric acid type A receptors. Brünig I, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2456–60

Enhancement of D1 dopamine receptor–mediated locomotor stimulation in M(4) muscarinic acetylcholine receptor knockout mice. Gomeza J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10483–8

Adaptations in the mesoaccumbens dopamine system resulting from repeated administration of dopamine D1 and D2 receptor–selective agonists: relevance to cocaine sensitization. Henry DJ, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):233–42

D1 dopamine receptor blockade prevents the facilitation of amphetamine self–administration induced by prior exposure to the drug. Pierre PJ, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):159–66

Dopamine induces neutrophil apoptosis through a dopamine D–1 receptor–independent mechanism. Sookhai S, et al. **Surgery** 1999 Aug;126(2):314–22

Alpha1–adrenergic, D1, and D2 receptors interactions in the prefrontal cortex: implications for the modality of action of different types of neuroleptics. Gioanni Y, et al. **Synapse** 1998 Dec;30(4):362–70

Modulation of endogenous GABA release by an antagonistic adenosine A1/dopamineD1 receptor interaction in rat brain limbic regions but not basal ganglia. Mayfield RD, et al. **Synapse** 1999 Sep 15;33(4):274–81

[The participation of the brain dopamine D1 and D2 receptors in the process of the development of depression induced by social confrontations in mice] Alekseenko OV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov–Dec; 48(6):1090–8 (Eng. Abstr.) **(Rus)**

RECEPTORS, DOPAMINE D2

Effects of D2 dopamine receptor agonist and antagonist on brain activity in the rat assessed by functional magnetic resonance imaging. Hagino H, et al. **Brain Res** 1998 Dec 7;813(2):367–73

AGONISTS

Dopamine 'D2–like' receptor agonists in combination with cocaine: absence of interactive effects on locomotor activity. Tirelli E, et al. **Behav Pharmacol** 1997 Jun; 8(2–3):147–59

Comparison of the ability of dopamine receptor agonists to inhibit forskolin–stimulated adenosine 3'5'–cyclic monophosphate (cAMP) accumulation via D2L (long isoform) and D3 receptors expressed in Chinese hamster ovary (CHO) cells. Hall DA, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):285–9

Novel derivatives of 3–(dipropylamino)chroman. Interactions with 5–HT1A and D2A receptors. Caldirola P, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1583–6

Neurohumoral response to carmoxirole, a selective dopamine (D2) receptor agonist, in patients with chronic moderate heart failure. van der Ent M, et al. **Cardiovasc Drugs Ther** 1998 Sep;12(4):387–94

Treating and preventing levodopa–induced dyskinesias: current and future strategies. Durif F. **Drugs Aging** 1999 May;14(5):337–45 (49 ref.)

NGD 94–1 as an agonist at human recombinant dopamine D4.4 receptors expressed in HEK293 cells. Gazi L, et al. **Eur J Pharmacol** 1999 May 21;372(3):R9–10

Dopamine D2 receptor agonists protect against ischaemia–induced hippocampal neurodegeneration in global cerebral ischaemia. O'Neill MJ, et al. **Eur J Pharmacol** 1998 Jul 3;352(1):37–46

The effects of dopaminergic D2 stimulation and blockade on smoking behavior. Caskey NH, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):72–8

Nicotine alone and in combination with L–DOPA methyl ester or the D(2) agonist N–0923 in MPTP–induced chronic hemiparkinsonian monkeys. Domino EF, et al. **Exp Neurol** 1999 Aug;158(2):414–21

Interaction of the dopamine D2 receptor agonist quinpirole with sympathetic vasomotor tone and the central action of rilmenidine in conscious rabbits. van den Buuse M, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2–3):187–94

Molecular moment similarity between clozapine and substituted [(4–phenylpiperazinyl)–methyl] benzamides: selective dopamine D4 agonists. Silverman BD, et al. **J Comput Aided Mol Des** 1998 Nov;12(6):525–32

Dual D2–receptor and beta2–adrenoceptor agonists for the treatment of airway diseases. 1. Discovery and biological evaluation of some 7–(2–aminoethyl)–4–hydroxybenzothiazol–2(3H)–one analogues. Bonnert RV, et al. **J Med Chem** 1998 Dec 3; 41(25):4915–7

CoMFA–based prediction of agonist affinities at recombinant D1 vs D2 dopamine receptors. Wilcox RE, et al. **J Med Chem** 1998 Oct 22;41(22):4385–99

D–3 receptor agonists: combined action neurologic and neuropsychiatric agents [editorial; comment] Cummings JL. **J Neurol Sci** 1999 Feb 1;163(1):2–3 (17 ref.). Comment on: J Neurol Sci 1999 Feb 1;163(1):25–31.

Effects of dopamine D(1–like) and D(2–like) agonists in rats that self–administer cocaine. Caine SB, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):353–60

Both the antioxidant and D3 agonist actions of pramipexole mediate its neuroprotective actions in mesencephalic cultures. Ling ZD, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):202–10

N–0923, a novel soluble dopamine D2 agonist in the treatment of parkinsonism. Calabrese VP, et al. **Mov Disord** 1998 Sep;13(5):768–74

Cocaine addiction therapy––are we partially there? [news] Koob GF, et al. **Nat Med** 1999 Sep;5(9):993–5

Behavioural pharmacology. Breaking the chain of addiction [news; comment] Aston–Jones G, et al. **Nature** 1999 Jul 22;400(6742):317, 319. Comment on: Nature 1999 Jul 22;400(6742):371–5.

Selective inhibition of cocaine–seeking behaviour by a partial dopamine D3 receptor agonist [see comments] Pilla M, et al. **Nature** 1999 Jul 22;400(6742):371–5. Comment in: Nature 1999 Jul 22;400(6742):317, 319.

Dopamine D3 receptor agonists produce similar decreases in body temperature and locomotor activity in D3 knock–out and wild–type mice. Boulay D, et al. **Neuropharmacology** 1999 Apr;38(4):555–65

Altered activity of midbrain dopamine neurons following 7–day withdrawal from chronic cocaine abuse is normalized by D2 receptor stimulation during the early withdrawal phase. Lee TH, et al. **Neuropsychopharmacology** 1999 Jul;21(1):127–36

Serotonergic agonists behave as partial agonists at the dopamine D2 receptor. Rinken A, et al. **Neuroreport** 1999 Feb 25;10(3):493–5

Selective attenuation of the antinociceptive effects of mu opioids by the putative dopamine D3 agonist 7–OH–DPAT. Cook CD, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):239–47

The effects of dopamine D3/D2 receptor agonists on intracranial self stimulation in the rat. Hatcher JP, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):405–10

Is clozapine an (partial) agonist at both dopamine D1 and D2 receptors? [letter; comment] Jackson DM, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):213–6. Comment on: Psychopharmacology (Berl) 1998 Feb;135(3):311–7.

ANALYSIS

Prediction of reinforcing responses to psychostimulants in humans by brain dopamine D2 receptor levels. Volkow ND, et al. **Am J Psychiatry** 1999 Sep;156(9):1440–3

Absence of the dopamine D2 receptor leads to a decreased expression of GDNF and NT–4 mRNAs in restricted brain areas. Bozzi Y, et al. **Eur J Neurosci** 1999 Apr; 11(4):1275–84

Dopamine D1 and D2 receptor–mediated acute and long–lasting behavioral effects of glial cell line–derived neurotrophic factor administered into the striatum. Kobayashi S, et al. **Exp Neurol** 1998 Dec;154(2):302–14

Magnetic resonance imaging and 11C–N–methylspiperone/positron emission tomography studies in a patient with the interval form of carbon monoxide poisoning. Yoshii F, et al. **J Neurol Sci** 1998 Sep 18;160(1):87–91

D2 receptor imaging with iodine–123–iodobenzamide brain SPECT in infants with hypoxic–ischemic brain injury. Kapucu LO, et al. **J Nucl Med** 1998 Oct;39(10):1703–7

Direct determination of dopamine D4 receptors in normal and schizophrenic postmortem brain tissue: a [3H]NGD–94–1 study. Lahti RA, et al. **Mol Psychiatry** 1998 Nov;3(6):528–33

Mapping of central D2 dopamine receptors in man using [11C]raclopride: PET with anatomic standardization technique. Ito H, et al. **Neuroimage** 1999 Feb;9(2):235–42

Dopamine receptor upregulation in Lesch–Nyhan syndrome: a postmortem study. Saito Y, et al. **Neuropediatrics** 1999 Apr;30(2):66–71

D1– and D2–like dopamine receptors are co–localized on the presynaptic varicosities of striatal and nucleus accumbens neurons in vitro. Wong AC, et al. **Neuroscience** 1999 Mar;89(1):221–33

Neurons exhibiting dopamine D2 receptor immunoreactivity in the substantia nigra of the mutant weaver mouse. Xu SG, et al. **Neuroscience** 1999 Mar;89(1):191–207

Effects of the method of drawing regions of interest on the differential diagnosis of extrapyramidal syndromes using 123I–iodolisuride SPET. Baulieu JL, et al. **Nucl Med Commun** 1999 Jan;20(1):77–84

Alterations of the dopaminergic and glutamatergic neurotransmission in adult rats with postnatal ibotenic acid hippocampal lesion. Schroeder H, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):61–6

Dopamine D2 densities and the schizophrenic brain. Zakzanis KK, et al. **Schizophr Res** 1998 Aug 17;32(3):201–6

Striatal dopamine receptors and transporters in monkeys with neonatal temporal limbic damage. Heinz A, et al. **Synapse** 1999 May;32(2):71–9

[Clinical impact of cerebral dopamine–D2 receptor scintigraphy] Larisch R, et al. **Nuklearmedizin** 1998; 37(7):245–50 (Eng. Abstr.) **(Ger)**

ANTAGONISTS & INHIBITORS

Adverse reactions to antinauseants in common use in the UK. Soukop M. **Adverse Drug React Toxicol Rev** 1998 Jun–Sep; 17(2–3):91–113 (57 ref.)

Effects of microinjection of the D2 dopamine antagonist raclopride into the ventral tegmental area on ethanol and sucrose self–administration. Samson HH, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):421–6

Assessment of the discriminative stimulus effects of the D3 dopamine antagonist PNU–99194A in rats: comparison with psychomotor stimulants. Baker LE, et al. **Behav Pharmacol** 1997 Jun;8(2–3):243–52

Fused aminotetralins: novel antagonists with high selectivity for the dopamine D3 receptor. Avenell KY, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2859–64

Novel benzopyrano[3,4–c]pyrrole derivatives as potent and selective dopamine D3 receptor antagonist. Dubuffet T, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2059–64

Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97–102

Design and synthesis of 2–[4–[4–(m–(ethylsulfonamido)–phenyl)

piperazin-1-yl]butyl]-1,3-dioxoperhydropyrrolo[1,2-c]imidazole (EF-7412) using neural networks. A selective derivative with mixed 5-HT1A/D2 antagonist properties. López-Rodríguez ML, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1679-82

Synthesis, SAR and pharmacology of CP-293,019: a potent, selective dopamine D4 receptor antagonist. Sanner MA, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):725-30

NGB 2904 and NGB 2849: two highly selective dopamine D3 receptor antagonists. Yuan J, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2715-8

Effects of D2 dopamine receptor agonist and antagonist on brain activity in the rat assessed by functional magnetic resonance imaging. Hagino H, et al. **Brain Res** 1998 Dec 7;813(2):367-73

Partial antagonism of 8-OH-DPAT'S effects on male rat sexual behavior with a D2, but not a 5-HT1A, antagonist. Matuszewich L, et al. **Brain Res** 1999 Feb 27; 820(1-2):55-62

The discovery of potent and selective dopamine D4 receptor antagonists. Faraci WS, et al. **Curr Opin Chem Biol** 1998 Aug;2(4):535-40 (27 ref.)

The dopamine D3 receptor antagonist PNU-99194A fails to block (+)-7-OH-DPAT substitution for D-amphetamine or cocaine. Baker LE, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):101-9

Comparison of the effects of dopamine D1 and D2 receptor antagonists on nerve growth factor mRNA expression. Ozaki T, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):133-43

Effects of D1 and D2 dopamine receptor antagonists on cocaine-induced self-stimulation and locomotor activity in rats. Kita K, et al. **Eur Neuropsychopharmacol** 1999 Jan; 9(1-2):1-7

The effects of dopaminergic D2 stimulation and blockade on smoking behavior. Caskey NH, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):72-8

Design, synthesis, and evaluation of chromen-2-ones as potent and selective human dopamine D4 antagonists. Kesten SR, et al. **J Med Chem** 1999 Sep 9;42(18):3718-25

Clozapine, haloperidol, and the D4 antagonist PNU-101387G: in vivo effects on mesocortical, mesolimbic, and nigrostriatal dopamine and serotonin release. Broderick PA, et al. **J Neural Transm** 1998; 105(6-7):749-67

A comparative in vitro and in vivo pharmacological characterization of the novel dopamine D3 receptor antagonists (+)-S 14297, nafadotride, GR 103,691 and U 99194. Audinot V, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):187-97

Effects of acute and repeated administration of amisulpride, a dopamine D2/D3 receptor antagonist, on the electrical activity of midbrain dopaminergic neurons. Di Giovanni G, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):51-7

S 18126 ([2-[4-(2,3-dihydrobenzo[1,4]dioxin-6-yl)piperazin-1-yl methyl]indan-2-yl]), a potent, selective and competitive antagonist at dopamine D4 receptors: an in vitro and in vivo comparison with L 745,870 (3-(4-[4-chlorophenyl]piperazin-1-yl)methyl-1H-pyrrolo[2, 3b]pyridine) and raclopride. Millan MJ, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):167-86

Zinc modulates antagonist interactions with D2-like dopamine receptors through distinct molecular mechanisms. Schetz JA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):956-64

Human D2 and D4 dopamine receptors couple through betagamma G-protein subunits to inwardly rectifying K+ channels (GIRK1) in a Xenopus oocyte expression system: selective antagonism by L-741,626 and L-745,870 respectively. Pillai G, et al. **Neuropharmacology** 1998 Aug; 37(8):983-7

Chronic dopamine D1, dopamine D2 and combined dopamine D1 and D2 antagonist treatment in Cebus apella monkeys: antiamphetamine effects and extrapyramidal side effects. Peacock L, et al. **Neuropsychopharmacology** 1999 Jan;20(1):35-43

Enkephalin regulates acute D2 dopamine receptor antagonist-induced immediate-early gene expression in striatal neurons. Steiner H, et al. **Neuroscience** 1999; 88(3):795-810

Dopamine D4 receptor antagonist reversal of subchronic phencyclidine-induced object retrieval/detour deficits in monkeys. Jentsch JD, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):78-84

The effects of dopamine D2 and D3 antagonists on spontaneous motor activity and morphine-induced hyperactivity in male mice. Manzanedo C, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):82-8

Effects of selective dopamine D1- and D2-type receptor antagonists on the development of behavioral sensitization to 7-OH-DPAT. Mattingly BA, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):387-97

Plasticity of responses to synaptic inputs in rat ventral striatal neurons after repeated administration of the dopamine D2 antagonist raclopride. Finch DM. **Synapse** 1999 Mar 15; 31(4):297-301

BIOSYNTHESIS

Dopamine D4 receptor isoform mRNA and protein are expressed in the rat cortical collecting duct. Sun D, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):F742-51

Differential actions of the dopamine agonist bromocriptine on growth of SMtTW tumors exhibiting a prolactin and/or a somatotroph cell phenotype: relation to dopamine D2 receptor expression. Trouillas J, et al. **Endocrinology** 1999 Jan;140(1):13-21

Associative and limbic regions of monkey striatum express high levels of dopamine D3 receptors: effects of MPTP and dopamine agonist replacement therapies. Morissette M, et al. **Eur J Neurosci** 1998 Aug;10(8):2565-73

Olfactory receptor neurons express D2 dopamine receptors. Koster NL, et al. **J Comp Neurol** 1999 Sep 6;411(4):666-73

Quantitation of dopamine D2 receptor mRNA in a mesencephalic cell culture using a nonradioactive competitive reverse transcription polymerase chain reaction method. Gross J, et al. **J Neurosci Methods** 1998 Aug 1;82(2):187-94

Developmental regulation of expression of the D3 dopamine receptor in rat nucleus accumbens and islands of Calleja. Gurevich EV, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):587-98

Effect of antidepressant drugs on dopamine D1 and D2 receptor expression and dopamine release in the nucleus accumbens of the rat. Ainsworth K, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):470-7

Time course of changes in striatal dopamine transporters and D2 receptors with specific iodinated markers in a rat model of Parkinson's disease. Chalon S, et al. **Synapse** 1999 Feb; 31(2):134-9

BLOOD

Labeling of dopamine D3 and D4 receptor subtypes in human peripheral blood lymphocytes with [3H]7-OH-DPAT: a combined radioligand binding assay and immunochemical study. Ricci A, et al. **J Neuroimmunol** 1998 Dec 1; 92(1-2):191-5

CHEMISTRY

Electrostatic and aromatic microdomains within the binding-site crevice of the D2 receptor: contributions of the second membrane-spanning segment. Javitch JA, et al. **Biochemistry** 1999 Jun 22;38(25):7961-8

Novel 1,2,3,4-tetrahydroisoquinolines with high affinity and selectivity for the dopamine D3 receptor. Austin NE, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):179-84

Effects of reciprocal chimeras between the C-terminal portion of third intracellular loops of the human dopamine D2 and D3 receptors. Filteau F, et al. **FEBS Lett** 1999 Mar 26;447(2-3):251-6

Association of the D2 dopamine receptor third cytoplasmic loop with spinophilin, a protein phosphatase-1-interacting protein. Smith FD, et al. **J Biol Chem** 1999 Jul 9; 274(28):19894-900

Role of conserved serine residues in the interaction of agonists with D3 dopamine receptors. Sartania N, et al. **J Neurochem** 1999 Jun;72(6):2621-4

DEFICIENCY

Alcohol preference and sensitivity are markedly reduced in mice lacking dopamine D2 receptors. Phillips TJ, et al. **Nat Neurosci** 1998 Nov;1(7):610-5

Lack of a role for the D3 receptor in clozapine induction of c-fos demonstrated in D3 dopamine receptor-deficient mice. Carta AR, et al. **Neuroscience** 1999 Mar;90(3):1021-9

Potentiation of the D2 mutant motor phenotype in mice lacking dopamine D2 and D3 receptors. Jung MY, et al. **Neuroscience** 1999;91(3):911-24

DRUG EFFECTS

Bromocriptine-induced tachycardia in conscious rats: blunted response following isoproterenol pretreatment for 5 days. Lahlou S, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(3):165-74

Pramipexole in refractory bipolar depression [letter] Goldberg JF, et al. **Am J Psychiatry** 1999 May;156(5):798

Indirect modulation of dopamine D2 receptors as potential pharmacotherapy for schizophrenia: I. Adenosine agonists. Dixon DA, et al. **Ann Pharmacother** 1999 Apr;33(4):480-8 (94 ref.)

The effects of anandamide on memory consolidation in mice involve both D1 and D2 dopamine receptors. Castellano C, et al. **Behav Pharmacol** 1997 Dec;8(8):707-12

Effects of D3-preferring agonists 7-OH-PIPAT and PD-128,907 on motor behaviors and place conditioning. Khroyan TV, et al. **Behav Pharmacol** 1997 Feb;8(1):65-74

Dopamine-dependent behavioural stimulation by non-peptide delta opioids BW 373U86 and SNC 80: 3. Facilitation of D1 and D2 responses in unilaterally 6-hydroxydopamine-lesioned rats. Pinna A, et al. **Behav Pharmacol** 1998 Feb;9(1):15-21

Dopamine agonist-induced hypothermia and disruption of prepulse inhibition: evidence for a role of D3 receptors? Varty GB, et al. **Behav Pharmacol** 1998 Sep;9(5-6):445-55

Pharmacological characterisation of the D2 dopamine receptor expressed in the yeast Schizosaccharomyces pombe. Presland J, et al. **Biochem Pharmacol** 1998 Sep 1; 56(5):577-82

Isoindolinone enantiomers having affinity for the dopamine D4 receptor. Belliotti TR, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1499-502

Butyrophenone analogues in the carbazole series: synthesis and determination of affinities at D2 and 5-HT2A receptors. Masaguer CF, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3571-6

Phenylpiperazine derivatives with strong affinity for 5HT1A, D2A and D3 receptors. Terán C, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3567-70

Comparison of the functional potencies of ropinirole and other dopamine receptor agonists at human D2(long), D3 and D4.4 receptors expressed in Chinese hamster ovary cells. Coldwell MC, et al. **Br J Pharmacol** 1999 Aug; 127(7):1696-702

Direct dopamine D2-receptor-mediated modulation of arachidonic acid release in transfected CHO cells without the concomitant administration of a Ca2+-mobilizing agent. Nilsson CL, et al. **Br J Pharmacol** 1998 Aug; 124(8):1651-8

Loss of regulation by presynaptic dopamine D2 receptors of exogenous L-DOPA-derived dopamine release in the dopaminergic denervated striatum. Maeda T, et al. **Brain Res** 1999 Jan 30;817(1-2):185-91

Differential vulnerability of dopamine receptors in the mouse brain treated with MPTP. Tanji H, et al. **Brain Res** 1999 Apr 10;824(2):224-31

Characteristics of tetrahydroprotoberberines on dopamine D1 and D2 receptors in calf striatum. Guo X, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):225-30

Effects of tetrahydroprotoberberines on dopamine D2 receptors in ventral tegmental area of rat. Wang LM, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar;18(2):143-6

Behavioural topography in the striatum: differential effects of quinpirole and D-amphetamine microinjections. Canales JJ, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):111-9

The expression of neuropeptide-induced excessive grooming behavior in dopamine D1 and D2 receptor-deficient mice. Drago F, et al. **Eur J Pharmacol** 1999 Jan 22; 365(2-3):125-31

Partial agonism at serotonin 5-HT1B and dopamine D2L receptors using a luciferase reporter gene assay. Kemp DM, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):215-22

Neuropharmacological assessment of potential dopamine D4 receptor-selective radioligands. Kula NS, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):139-42

Effect of antidepressant drugs administered repeatedly on the dopamine D3 receptors in the rat brain. Maj J, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):31-7

Functional potencies of new antiparkinsonian drugs at recombinant human dopamine D1, D2 and D3 receptors. Perachon S, et al. **Eur J Pharmacol** 1999 Feb 5; 366(2-3):293-300

Chronic haloperidol alters dopamine receptors: effects of cocaine exposure during the preweaning period. Shi X, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):241-9

Implications of brain imaging for the management of schizophrenia. Nyberg S, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S15-20 (52 ref.)

Plasma prolactin and central D2 receptor occupancy in antipsychotic drug-treated patients. Nordström AL, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):305-10

1-(3-Cyanobenzylpiperidin-4-yl)-5-methyl-4-phenyl-1, 3-dihydroimidazol-2-one: a selective high-affinity antagonist for the human dopamine D(4) receptor with excellent selectivity over ion channels. Carling RW, et al. **J Med Chem** 1999 Jul 15;42(14):2706-15

Synthesis and dopaminergic properties of benzo-fused analogues of quinpirole and quinelorane. Doll MK, et al. **J Med Chem** 1999 Mar 11;42(5):935-40

Comparison of the ligand binding and signaling properties of human dopamine D(2) and D(3) receptors in Chinese hamster ovary cells. Vanhauwe JF, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):908-16

Effects of bromocriptine and haloperidol on prepulse inhibition of the acoustic startle response in man [letter] Martin-Iverson MT. **J Psychopharmacol** 1999;13(2):198-9

Dopamine activation of endogenous cannabinoid signaling in dorsal striatum [see comments] Giuffrida A, et al. **Nat Neurosci** 1999 Apr;2(4):358-63. Comment in: Nat Neurosci 1999 Apr;2(4):303-4.

Central administration of dopamine D3 receptor antisense to rat: effects on locomotion, dopamine release and [3H]spiperone binding. Ekman A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):342-50

Actions of roxindole at recombinant human dopamine D2, D3 and D4 and serotonin 5-HT1A, 5-HT1B and 5-HT1D receptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):447-53

Dopamine D3 receptors in the rat kidney: glomerular and tubular actions. Luippold G, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:24-5

Discriminative stimulus properties of the putative dopamine D3 receptor agonist, (+)-PD 128907: role of presynaptic dopamine D2 autoreceptors. Bristow LJ, et al. **Neuropharmacology** 1998 Jun;37(6):793-802

Dopamine D1 and D2 receptor agents and their interaction influence the synaptic density of the rat prefrontal cortex. Sugahara M, et al. **Neurosci Lett** 1999 Jan 15;259(3):141-4

The effect of acute kainic acid treatment on dopamine D2 receptors in rat brain. Ridd MJ, et al. **Neurosci Res** 1998 Mar;30(3):201-11

Effects of intrasubthalamic injection of dopamine receptor agonists on subthalamic neurons in normal and

6-hydroxydopamine-lesioned rats: an electrophysiological and c-Fos study. Hassani OK, et al. **Neuroscience** 1999; 92(2):533-43

Lead-induced decrements in waiting behavior: involvement of D2-like dopamine receptors. Brockel BJ, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):423-34

Dopamine D2 receptor binding before and after treatment of major depression measured by [123I]IBZM SPECT. Klimke A, et al. **Psychiatry Res** 1999 Apr 26;90(2):91-101

In vivo determination of striatal dopamine D2 receptor occupancy in patients treated with olanzapine. Raedler TJ, et al. **Psychiatry Res** 1999 Apr 26;90(2):81-90

Effects of specific dopamine D1 and D2 receptor antagonists and agonists and neuroleptic drugs on emotional defecation in a rat model of akathisia. Sachdev PS, et al. **Psychiatry Res** 1998 Dec 14;81(3):323-32

Preferential involvement of D3 versus D2 dopamine receptors in the effects of dopamine receptor ligands on oral ethanol self-administration in rats. Cohen C, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):478-85

Enhancement of the acoustic startle response in rats by the dopamine D1 receptor agonist SKF 82958. Meloni EG, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):373-80

Amisulpride versus flupentixol in schizophrenia with predominantly positive symptomatology -- a double-blind controlled study comparing a selective D2-like antagonist to a mixed D1-/D2-like antagonist. The Amisulpride Study Group. Wetzel H, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):223-32

Changes in striatal D2-receptor density following chronic treatment with amphetamine as assessed with PET in nonhuman primates. Ginovart N, et al. **Synapse** 1999 Feb; 31(2):154-62

Neuroleptics with differential affinities at dopamine D2 receptors and sigma receptors affect differently the N-methyl-D-aspartate-induced increase in intracellular calcium concentration: involvement of protein kinase. Hayashi T, et al. **Synapse** 1999 Jan;31(1):20-8

[Blockade of (+/-) 12-chloroscoulerine on feed-back regulation of dopamine D2 autoreceptors] Chen LJ, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):477-80 (Eng. Abstr.) **(Chi)**

GENETICS

No association between DRD2 locus and alcoholism after controlling the ADH and ALDH genotypes in Chinese Han population. Lee JF, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):592-9

Lack of an allelic association between polymorphisms of the dopamine D2 receptor gene and alcohol dependence in the German population. Sander T, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):578-81

No association of a functional polymorphism in the dopamine D2 receptor promoter region with bipolar or unipolar affective disorders. Furlong RA, et al. **Am J Med Genet** 1998 Sep 7;81(5):385-7

Allelic variants of dopamine receptor D4 (DRD4) and serotonin receptor 5HT2c (HTR2c) and temperament factors: replication tests. Kühn KU, et al. **Am J Med Genet** 1999 Apr 16;88(2):168-72

Association analysis in an evolutionary context: cladistic analysis of the DRD2 locus to test for association with alcoholism. Lobos EA, et al. **Am J Med Genet** 1998 Sep 7;81(5):411-9

No interaction of GABA(A) alpha-1 subunit and dopamine receptor D4 exon 3 genes in symptomatology of major psychoses. Serretti A, et al. **Am J Med Genet** 1999 Feb 5;88(1):44-9

Association between novelty seeking and the type 4 dopamine receptor gene in a large Finnish cohort sample. Ekelund J, et al. **Am J Psychiatry** 1999 Sep;156(9):1453-5

Glutamatergic modulation of subcortical motor and limbic circuits. Healy DJ, et al. **Ann N Y Acad Sci** 1999 Jun 29; 877:684-7

A genetic polymorphism in the promoter region of DRD4 associated with expression and schizophrenia. Okuyama Y, et al. **Biochem Biophys Res Commun** 1999 May 10; 258(2):292-5

No association between D2 dopamine receptor (DRD2) alleles or haplotypes and cocaine dependence or severity of cocaine dependence in European- and African-Americans. Gelernter J, et al. **Biol Psychiatry** 1999 Feb 1;45(3):340-5

No association between D2 dopamine receptor (DRD2) "A" system alleles, or DRD2 haplotypes, and posttraumatic stress disorder. Gelernter J, et al. **Biol Psychiatry** 1999 Mar 1;45(5):620-5

Dopamine D4 receptor gene polymorphisms and neuroleptic response in schizophrenia. Hwu HG, et al. **Biol Psychiatry** 1998 Sep 15;44(6):483-7

No association between dopamine D1, D2, and D3 receptor genes and manic-depressive illness. Savoye C, et al. **Biol Psychiatry** 1998 Oct 1;44(7):644-7

D1 and D2 dopamine receptor messenger ribonucleic acid in brain and pituitary during the reproductive cycle of the turkey hen. Schnell SA, et al. **Biol Reprod** 1999 Jun; 60(6):1378-83

Postnatal development of dopamine D4-like receptors in rat forebrain regions: comparison with D2-like receptors. Tarazi FI, et al. **Brain Res Dev Brain Res** 1998 Oct 1; 110(2):227-33

D2 dopamine receptor but not AMPA and kainate glutamate receptor genes show altered expression in response to long term treatment with trans- and cis-flupenthixol in the rat brain. Chen AC, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1-2):14-21

Differential effects on D2 dopamine receptor and prolactin gene expression by haloperidol and aripiprazole in the rat pituitary. Inoue A, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):285-92

Association of long variants of the dopamine D4 receptor exon 3 repeat polymorphism with Parkinson's disease. Ricketts MH, et al. **Clin Genet** 1998 Jul;54(1):33-8

Human dopamine D4 receptor allele genotyping by ultrathin agarose gel electrophoresis with To-Pro-3 complexation. Szoke M, et al. **Electrophoresis** 1999 Mar;20(3):497-501

Myocardial stunning and dopamine receptor polymorphism [letter] Poullis M. **Eur J Cardiothorac Surg** 1999 Apr; 15(4):553-4

Dopamine D4 receptor polymorphism and idiopathic Parkinson's disease. Kronenberg MF, et al. **Eur J Hum Genet** 1999 Apr;7(3):397-400

The dopamine D2 receptor subfamily in rat retina: ultrastructural immunogold and in situ hybridization studies. Derouiche A, et al. **Eur J Neurosci** 1999 Apr; 11(4):1391-402

Bromocriptine protects dopaminergic neurons from levodopa-induced toxicity by stimulating D(2)receptors. Takashima H, et al. **Exp Neurol** 1999 Sep;159(1):98-104

Human D3 dopamine receptor in the medulloblastoma TE671 cell line: cross-talk between D1 and D3 receptors. Levavi-Sivan B, et al. **FEBS Lett** 1998 Nov 13; 439(1-2):138-42

Dopamine D3 receptor polymorphism is not associated with the polycystic ovary syndrome. Kahsar-Miller M, et al. **Fertil Steril** 1999 Mar;71(3):436-8

Evidence suggesting the role of specific genetic factors in cigarette smoking [see comments] Lerman C, et al. **Health Psychol** 1999 Jan;18(1):14-20. Comment in: Health Psychol 1999 Jan;18(1):3-6. Comment in: Health Psychol 1999 Jan;18(1):7-13.

Pituitary estrogen receptor alpha and dopamine subtype 2 receptor gene expression in transgenic mice with overproduction of heterologous growth hormones. Vidal S, et al. **Histochem Cell Biol** 1999 Mar;111(3):235-41

A global survey of haplotype frequencies and linkage disequilibrium at the DRD2 locus. Kidd KK, et al. **Hum Genet** 1998 Aug;103(2):211-27

Dopamine receptor genes are associated with age at first sexual intercourse. Miller WB, et al. **J Biosoc Sci** 1999 Jan; 31(1):43-54

Molecular cloning and tissue distribution of an avian D2 dopamine receptor mRNA from the domestic turkey (Maleagris gallopavo). Schnell SA, et al. **J Comp Neurol** 1999 May 17;407(4):543-54

Allelic variations of the D2 dopamine receptor gene in children with idiopathic short stature. Miyake H, et al. **J Hum Genet** 1999;44(1):26-9

Modulation of dopamine D2 receptor expression by an NMDA receptor antagonist in rat brain. Nair VD, et al. **J Mol Neurosci** 1998 Oct;11(2):121-6

Dopamine D2 receptor-deficient mice exhibit decreased dopamine transporter function but no changes in dopamine release in dorsal striatum. Dickinson SD, et al. **J Neurochem** 1999 Jan;72(1):148-56

Dopamine D2-receptor isoforms expressed in AtT20 cells inhibit Q-type high-voltage-activated Ca2+ channels via a membrane-delimited pathway. Wolfe SE, et al. **J Neurochem** 1999 Feb;72(2):479-90

Human dopamine D3 and D2L receptors couple to inward rectifier potassium channels in mammalian cell lines. Kuzhikandathil EV, et al. **Mol Cell Neurosci** 1998 Dec; 12(6):390-402

Absence of dopaminergic control on melanotrophs leads to Cushing's-like syndrome in mice. Saiardi A, et al. **Mol Endocrinol** 1998 Aug;12(8):1133-9

Dopamine D4 receptor (D4DR) and serotonin transporter promoter (5-HTTLPR) polymorphisms in the determination of temperament in 2-month-old infants. Auerbach J, et al. **Mol Psychiatry** 1999 Jul;4(4):369-73

Lack of an association between a dopamine-4 receptor polymorphism and attention-deficit/hyperactivity disorder: genetic and brain morphometric analyses [see comments] Castellanos FX, et al. **Mol Psychiatry** 1998 Sep; 3(5):431-4. Comment in: Mol Psychiatry 1998 Sep;3(5):370-2.

Molecular heterosis as the explanation for the controversy about the effect of the DRD2 gene on dopamine D2 receptor density [letter] Comings DE. **Mol Psychiatry** 1999 May;4(3):213-5

Homozygosity at the dopamine D3 receptor gene is associated with opiate dependence. Duaux E, et al. **Mol Psychiatry** 1998 Jul;3(4):333-6

Polymorphisms in the dopamine D2 receptor gene and their relationships to striatal dopamine receptor density of healthy volunteers. Jönsson EG, et al. **Mol Psychiatry** 1999 May;4(3):290-6

No association between the serotonin transporter promoter region (5-HTTLPR) and the dopamine D3 receptor (Ball D3DR) polymorphisms and heroin addiction [letter] Kotler M, et al. **Mol Psychiatry** 1999 Jul;4(4):313-4

Dopamine D3 receptor gene variants and substance abuse in schizophrenia. Krebs MO, et al. **Mol Psychiatry** 1998 Jul;3(4):337-41

Single genes and complex phenotypes [news] Low MJ, et al. **Mol Psychiatry** 1998 Sep;3(5):373-7

The regulation of D2 dopamine receptor gene expression: epigenetic factors should not be forgotten [letter] Petronis A. **Mol Psychiatry** 1999 May;4(3):212-3

Dopamine DRD4 receptor polymorphism and attention deficit hyperactivity disorder [see comments] Rowe DC, et al. **Mol Psychiatry** 1998 Sep;3(5):419-26. Comment in: Mol Psychiatry 1998 Sep;3(5):370-2.

Genotypic association between the dopamine D3 receptor and tardive dyskinesia in chronic schizophrenia. Segman R, et al. **Mol Psychiatry** 1999 May;4(3):247-53

Evidence that the dopamine D4 receptor is a susceptibility gene in attention deficit hyperactivity disorder [see comments] [published erratum appears in Mol Psychiatry 1999 Jan;4(1):100] Smalley SL, et al. **Mol Psychiatry** 1998 Sep;3(5):427-30. Comment in: Mol Psychiatry 1998 Sep;3(5):370-2.

Association between the dopamine D4 receptor (DRD4) exon III polymorphism and measures of Novelty Seeking in a German population. Strobel A, et al. **Mol Psychiatry** 1999 Jul;4(4):378-84

Attention deficit hyperactivity disorder: unravelling the molecular genetics [editorial; comment] Thapar A. **Mol Psychiatry** 1998 Sep;3(5):370-2 (13 ref.). Comment on: Mol Psychiatry 1998 Sep;3(5):386-96. Comment on: Mol Psychiatry 1998 Sep;3(5):419-26. Comment on: Mol Psychiatry 1998 Sep;3(5):427-30. Comment on: Mol Psychiatry 1998 Sep;3(5):431-4.

Lack of allelic association of dopamine D4 receptor gene polymorphisms with Parkinson's disease in a Chinese population. Wan DC, et al. **Mov Disord** 1999 Mar; 14(2):225-9

Dopamine D3 receptor agonists produce similar decreases in body temperature and locomotor activity in D3 knock-out and wild-type mice. Boulay D, et al. **Neuropharmacology** 1999 Apr;38(4):555-65

Step-wise analysis of polymorphisms in the human dopamine D2 receptor gene. Jones KW, et al. **Neuropharmacology** 1998 Jun;37(6):803-14

Association of the MscI polymorphism of the dopamine D3 receptor gene with tardive dyskinesia in schizophrenia. Basile VS, et al. **Neuropsychopharmacology** 1999 Jul; 21(1):17-27

D2 dopamine receptor gene (DRD2) allele and haplotype frequencies in alcohol dependent and control subjects: no association with phenotype or severity of phenotype. Gelernter J, et al. **Neuropsychopharmacology** 1999 Jun; 20(6):640-9

Dopamine D4 receptor gene: novelty or nonsense? Paterson AD, et al. **Neuropsychopharmacology** 1999 Jul;21(1):3-16 (90 ref.)

DNA methylation at the putative promoter region of the human dopamine D2 receptor gene. Popendikyte V, et al. **Neuroreport** 1999 Apr 26;10(6):1249-55

Quantification of dopamine D3 receptor mRNA level associated with the development of amphetamine-induced behavioral sensitization in the rat brain. Hondo H, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):69-72

Vitamin A functions in the regulation of the dopaminergic system in the brain and pituitary gland. Wolf G. **Nutr Rev** 1998 Dec;56(12):354-5 (12 ref.)

Lack of association between a polymorphism in the promoter region of the dopamine-2 receptor gene and clozapine response. Arranz MJ, et al. **Pharmacogenetics** 1998 Dec; 8(6):481-4

Lack of association between the dopamine D2 receptor gene allele DRD2*A1 and cigarette smoking in a United Kingdom population. Singleton AB, et al. **Pharmacogenetics** 1998 Apr;8(2):125-8

Investigation of dopamine system genes in obsessive-compulsive disorder. Billett EA, et al. **Psychiatr Genet** 1998 Autumn;8(3):163-9

The Bal I and Msp I polymorphisms in the dopamine D3 receptor gene display, linkage disequilibrium with each other but no association with Tourette syndrome. Devor EJ, et al. **Psychiatr Genet** 1998 Summer;8(2):49-52

Tests of linkage, allelic and genotypic association between schizophrenia and the gene for the D3 dopamine receptor, DRD3. Kalsi G, et al. **Psychiatr Genet** 1998 Autumn; 8(3):187-9

Dopamine D3 receptor gene polymorphism and alcohol dependence: relation to personality rating. Thome J, et al. **Psychiatr Genet** 1999 Mar;9(1):17-21

Biological research on schizophrenia. Toru M. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S170-2 (28 ref.)

Association analysis between dopamine receptor genes and bipolar affective disorder. Li T, et al. **Psychiatry Res** 1999 Jun 30;86(3):193-201

D2 dopamine receptor and GABA(A) receptor beta3 subunit genes and alcoholism. Noble EP, et al. **Psychiatry Res** 1998 Nov 16;81(2):133-47

Functional polymorphism of -141C Ins/Del in the dopamine D2 receptor gene promoter and schizophrenia. Ohara K, et al. **Psychiatry Res** 1998 Nov 16;81(2):117-23

Dopamine receptor D4 gene is associated with delusional symptomatology in mood disorders. Serretti A, et al. **Psychiatry Res** 1998 Aug 17;80(2):129-36

Self-esteem in remitted patients with mood disorders is not associated with the dopamine receptor D4 and the serotonin transporter genes. Serretti A, et al.

Psychiatry Res 1998 Aug 17;80(2):137–44

Dopamine D2 receptor promoter polymorphism: no association with schizophrenia. Tallerico T, et al. **Psychiatry Res** 1999 Feb 22;85(2):215–9

Lack of association between dopamine D4 receptor gene and personality traits. Jönsson EG, et al. **Psychol Med** 1998 Jul;28(4):985–9

Polymorphisms of the dopamine D4 receptor and response to antipsychotic drugs. Cohen BM, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):6–10

Dopamine receptor subtypes expressed in vertebrate (carp and eel) retinae: cloning, sequencing and comparison of five D1-like and three D2-like receptors. Hirano J, et al. **Receptors Channels** 1998;5(6):387–404

Case-control, haplotype relative risk and transmission disequilibrium analysis of a dopamine D2 receptor functional promoter polymorphism in schizophrenia. Li T, et al. **Schizophr Res** 1998 Jul 27;32(2):87–92

Dopamine receptor D2 Ser/Cys311 variant associated with disorganized symptomatology of schizophrenia. Serretti A, et al. **Schizophr Res** 1998 Nov 30;34(3):207–10

Genetics of alcoholism [letter; comment] Edenberg HJ. **Science** 1998 Nov 13;282(5392):1269. Comment on: Science 1998 Aug 28;281(5381):1287–8.

Dopamine D3 receptor antisense administration reduces basal c-fos and NGFI-B mRNA levels in the rat forebrain. Tremblay M, et al. **Synapse** 1999 Apr;32(1):51–7

Dopamine D3 receptor mutant and wild-type mice exhibit identical responses to putative D3 receptor-selective agonists and antagonists. Xu M, et al. **Synapse** 1999 Mar 1;31(3):210–5

[Hereditary alcoholism: some neurochemical and genetic mechanisms] Anokhina IP, et al. **Vestn Ross Akad Med Nauk** 1999;(6):43–7 **(Rus)**

[Association of allele polymorphism of dopamine d2 receptors with schizophrenic and affective disorders] Golimbet VE, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):32–5 (Eng. Abstr.) **(Rus)**

[Dopamine D2 and D4 receptor genes distinguish the clinical presence of tics in obsessive-compulsive disorder] Nicolini H, et al. **Gac Med Mex** 1998 Sep-Oct;134(5):521–7 (Eng. Abstr.) **(Spa)**

METABOLISM

Clinical and theoretical implications of 5-HT2 and D2 receptor occupancy of clozapine, risperidone, and olanzapine in schizophrenia. Kapur S, et al. **Am J Psychiatry** 1999 Feb;156(2):286–93

Suggested minimal effective dose of risperidone based on PET-measured D2 and 5-HT2A receptor occupancy in schizophrenic patients. Nyberg S, et al. **Am J Psychiatry** 1999 Jun;156(6):869–75

Rapid release of antipsychotic drugs from dopamine D2 receptors: an explanation for low receptor occupancy and early clinical relapse upon withdrawal of clozapine or quetiapine. Seeman P, et al. **Am J Psychiatry** 1999 Jun; 156(6):876–84

D3 dopamine and kappa opioid receptor alterations in human brain of cocaine-overdose victims. Mash DC, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:507–22

D2 receptor binding in dopa-responsive dystonia. Künig G, et al. **Ann Neurol** 1998 Nov;44(5):758–62

G protein-mediated mitogen-activated protein kinase activation by two dopamine D2 receptors. Choi EY, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):33–40

Dopamine D4-like binding sites labeled by [3H]nemonapride include substantial serotonin 5-HT2A receptors in primate cerebral cortex. Noda-Saita K, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):367–70

Isolation and characterization of a novel endogenous peptide ligand for the human APJ receptor. Tatemoto K, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):471–6

Reciprocal interactions between adenosine A2A and dopamine D2 receptors in Chinese hamster ovary cells co-transfected with the two receptors. Kull B, et al. **Biochem Pharmacol** 1999 Sep 15;58(6):1035–45

SH3 binding domains in the dopamine D4 receptor. Oldenhof J, et al. **Biochemistry** 1998 Nov 10;37(45):15726–36

Substituted pyrazoles as novel selective ligands for the human dopamine D4 receptor. Bourrain S, et al. **Bioorg Med Chem** 1998 Oct;6(10):1731–43

Structural analogues of 5-OMe-BPAT: synthesis and interactions with dopamine D2, D3, and serotonin 5-HT1A receptors. Homan EJ, et al. **Bioorg Med Chem** 1999 Jun; 7(6):1111–21

2-aminotetralin-derived substituted benzamides with mixed dopamine D2, D3, and serotonin 5-HT1A receptor binding properties: a novel class of potential atypical antipsychotic agents. Homan EJ, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2111–26

SAR of novel biarylmethylamine dopamine D4 receptor ligands. Arlt M, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):2033–8

Synthesis and sar of 2- and 3-substituted 7-azaindoles as potential dopamine D4 ligands. Curtis NR, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):585–8

2,2-Dicyanovinyl as a nonaromatic aryl bioisostere: synthesis, binding experiments and SAR studies of highly selective dopamine D4 receptor ligands. Haubmann C, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1969–72

A novel series of N-(hexahydro-1,4-diazepin-6-yl) and N-(hexahydroazepin- 3-yl)benzamides with high affinity for 5-HT3 and dopamine D2 receptors. Hirokawa Y, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):619–24

Synthesis of N-(1-ethyl-4-methylhexahydro-1,4-diazepin-6-yl) nicotinamides and their affinities for 5-HT3 and dopamine D2 receptors. Hirokawa Y, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1551–4

Azaindole derivatives with high affinity for the dopamine D4 receptor: synthesis, ligand binding studies and comparison of molecular electrostatic potential maps. Löber S, et al. **Bioorg Med Chem Lett** 1999 Jan 4; 9(1):97–102

4-N-linked-heterocyclic piperidine derivatives with high affinity and selectivity for human dopamine D4 receptors. Moore KW, et al. **Bioorg Med Chem Lett** 1999 May 3; 9(9):1285–90

Beta-analogs of PLG (L-prolyl-L-leucyl-glycinamide): ex-chiral pool syntheses and dopamine D2 receptor modulating effects. Thomas C, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2885–90

Prominent binding of the dopamine D3 agonist [3H]PD 128907 in the caudate-putamen of the adult rat. Hillefors M, et al. **Brain Res** 1999 Mar 20;822(1-2):126–31

Adenylyl cyclase interaction with the D2 dopamine receptor family; differential coupling to Gi, Gz, and Gs. Obadiah J, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):653–64

Chronic treatment with (-)-stepholidine alters density and turnover of D1 and D2 receptors in striatum. Zou LL, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):485–9

Sequestration of dopamine D2 receptors depends on coexpression of G-protein-coupled receptor kinases 2 or 5. Ito K, et al. **Eur J Biochem** 1999 Feb;260(1):112–9

Native human neocortex release-regulating dopamine D2 type autoreceptors are dopamine D2 subtype. Fedele E, et al. **Eur J Neurosci** 1999 Jul;11(7):2351–8

Requirement for DARPP-32 in mediating effect of dopamine D2 receptor activation. Nishi A, et al. **Eur J Neurosci** 1999 Jul;11(7):2589–92

Imaging of the dopaminergic neurotransmission system using single-photon emission tomography and positron emission tomography in patients with parkinsonism. Booij J, et al. **Eur J Nucl Med** 1999 Feb;26(2):171–82 (132 ref.)

Comparison of iodine-123 epidepride and iodine-123 IBZM for dopamine D2 receptor imaging in clinically non-functioning pituitary macroadenomas and macroprolactinomas. de Herder WW, et al. **Eur J Nucl Med** 1999 Jan;26(1):46–50

Binding of [3H]U-101958 to sigma1 receptor-like sites in human cerebellum and neuroblastoma cells. Helmeste DM, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):205–9

Existence and pharmacological properties of dopamine D4 receptors in guinea pig vas deferens. Morishita H, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):255–61

Dopamine D1 and D2 receptor selectivities of phenyl-benzazepines in rhesus monkey striata. Weed MR, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):129–42

Dopamine D2 and D4 receptor ligands: relation to antipsychotic action. Wilson JM, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):273–86 (130 ref.)

Application of gene therapy to treat age-related loss of dopamine D2 receptor. Ingram DK, et al. **Exp Gerontol** 1998 Nov-Dec;33(7-8):793–804 (33 ref.)

Synthesis and D2-like binding affinity of 4,5-dihydro-1H-benzo[g]indole-3-carboxamide derivatives as conformationally restricted 5-phenyl-pyrrole-3-carboxamide analogs. Pinna GA, et al. **Farmaco** 1998 Oct-Nov;53(10-11):684–9

Effects of reciprocal chimeras between the C-terminal portion of third intracellular loops of the human dopamine D2 and D3 receptors. Filteau F, et al. **FEBS Lett** 1999 Mar 26;447(2-3):251–6

Dopamine D2 receptor dimers in human and rat brain. Zawarynski P, et al. **FEBS Lett** 1998 Dec 28;441(3):383–6

In vivo evidence that endogenous dopamine modulates sympathetic activity in man. Mannelli M, et al. **Hypertension** 1999 Sep;34(3):398–402

Expression of the dopamine D3 receptor protein in the rat kidney. O'Connell DP, et al. **Hypertension** 1998 Nov; 32(5):886–95

Alkaloid binding and activation of D2 dopamine receptors in cell culture. Larson BT, et al. **J Anim Sci** 1999 Apr; 77(4):942–7

Dopamine D2-like receptors in the kidney of spontaneously hypertensive rats: a radioligand binding assay and light microscope autoradiography study. Barili P, et al. **J Auton Pharmacol** 1998 Apr;18(2):89–97

Pharmacological characterization and autoradiographic localization of a putative dopamine D4 receptor in the heart. Ricci A, et al. **J Auton Pharmacol** 1998 Apr; 18(2):115–21

Distinct roles for Galphai2, Galphai3, and Gbeta gamma in modulation offorskolin- or Gs-mediated cAMP accumulation and calcium mobilization by dopamine D2S receptors. Ghahremani MH, et al. **J Biol Chem** 1999 Apr 2;274(14):9238–45

Distinct dynamin-dependent and -independent mechanisms target structurally homologous dopamine receptors to different endocytic membranes. Vickery RG, et al. **J Cell Biol** 1999 Jan 11;144(1):31–43

Quantitation of extrastriatal D2 receptors using a very high-affinity ligand (FLB 457) and the multi-injection approach. Delforge J, et al. **J Cereb Blood Flow Metab** 1999 May;19(5):533–46

Measurement of striatal D2 dopamine receptor density and affinity with [11C]-raclopride in vivo: a test-retest analysis. Hietala J, et al. **J Cereb Blood Flow Metab** 1999 Feb; 19(2):210–7

Loss of D2 receptor binding with age in rhesus monkeys: importance of correction for differences in striatal size. Morris ED, et al. **J Cereb Blood Flow Metab** 1999 Feb; 19(2):218–29

Differential regional and cellular distribution of dopamine D2-like receptors: an immunocytochemical study of subtype-specific antibodies in rat and human brain. Khan ZU, et al. **J Comp Neurol** 1998 Dec 21;402(3):353–71

N-Substituted (2,3-dihydro-1,4-benzodioxin-2-yl)methylamine derivatives as D(2) antagonists/5-HT(1A) partial agonists with potential as atypical antipsychotic agents. Birch AM, et al. **J Med Chem** 1999 Aug 26;42(17):3342–55

N-n-Propyl-substituted 3-(dimethylphenyl)piperidines display novel discriminative properties between dopamine receptor subtypes: synthesis and receptor binding studies. Cervetto L, et al. **J Med Chem** 1998 Dec 3;41(25):4933–8

New generation dopaminergic agents. 6. Structure-activity relationship studies of a series of 4-(aminoethoxy)indole and 4-(aminoethoxy)indolone derivatives based on the newly discovered 3-hydroxyphenoxyethylamine D2 template. Mewshaw RE, et al. **J Med Chem** 1999 Jun 3; 42(11):2007–20

1-aryl-4-[(5-methoxy-1,2,3,4-tetrahydronaphthalen-1-yl)alkyl]piperazines and their analogues: influence of the stereochemistry of the tetrahydronaphthalen-1-yl nucleus on 5-HT1A receptor affinity and selectivity versus alpha1 and D2 receptors. 5. Perrone R, et al. **J Med Chem** 1999 Feb 11;42(3):490–6

N-[2-[4-(4-Chlorophenyl)piperazin-1-yl]ethyl]-3-methoxybenzamide: a potent and selective dopamine D4 ligand. Perrone R, et al. **J Med Chem** 1998 Nov 19; 41(24):4903–9

Conformationally constrained butyrophenones with mixed dopaminergic (D(2)) and serotoninergic (5-HT(2A), 5-HT(2C)) affinities: synthesis, pharmacology, 3D-QSAR, and molecular modeling of (aminoalkyl)benzo- and -thienocycloalkanones as putative atypical antipsychotics. Raviña E, et al. **J Med Chem** 1999 Jul 29;42(15):2774–97

Enhancement of 3H-N-methylspiperone binding but not 3H-raclopride binding in mouse striatum by MK-801: evidence that factors other than competition by endogenous dopamine are responsible for changes in D2 receptor binding in vivo. Short communication. Inoue O, et al. **J Neural Transm** 1999;106(2):131–7

Adaptive changes in postsynaptic dopamine receptors despite unaltered dopamine dynamics in mice lacking monoamine oxidase B. Chen L, et al. **J Neurochem** 1999 Aug; 73(2):647–55

Role of conserved serine residues in the interaction of agonists with D3 dopamine receptors. Sartania N, et al. **J Neurochem** 1999 Jun;72(6):2621–4

Activation of human D3 dopamine receptor inhibits P/Q-type calcium channels and secretory activity in AtT-20 cells. Kuzhikandathil EV, et al. **J Neurosci** 1999 Mar 1;19(5):1698–707

Detection of dopamine D2 receptor mRNA and binding sites in monkey amniotic epithelial cells. Elwan MA, et al. **J Neurosci Res** 1999 May 1;56(3):316–22

Reinforcing effects of psychostimulants in humans are associated with increases in brain dopamine and occupancy of D(2) receptors. Volkow ND, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):409–15

Melatonin administration increases the affinity of D2 dopamine receptors in the rat striatum. Hamdi A. **Life Sci** 1998;63(23):2115–20

G protein activation by human dopamine D3 receptors in high-expressing Chinese hamster ovary cells: A guanosine-5'-O-(3-[35S]thio)- triphosphate binding and antibody study. Newman-Tancredi A, et al. **Mol Pharmacol** 1999 Mar;55(3):564–74

Molecular heterosis as the explanation for the controversy about the effect of the DRD2 gene on dopamine D2 receptor density [letter] Comings DE. **Mol Psychiatry** 1999 May;4(3):213–5

Dopamine D3 receptor is decreased and D2 receptor is elevated in the striatum of Parkinson's disease. Ryoo HL, et al. **Mov Disord** 1998 Sep;13(5):788–97

Loss of autoreceptor functions in mice lacking the dopamine transporter. Jones SR, et al. **Nat Neurosci** 1999 Jul; 2(7):649–55

Behavioural pharmacology. Breaking the chain of addiction [news; comment] Aston-Jones G, et al. **Nature** 1999 Jul 22;400(6742):317, 319. Comment on: Nature 1999 Jul 22;400(6742):371–5.

Endogenous dopamine increases extracellular concentrations of glutamate and GABA in striatum of the freely moving rat: involvement of D1 and D2 dopamine receptors. Expósito I, et al. **Neurochem Res** 1999 Jul;24(7):849–56

Decreased striatal dopamine-receptor binding in sporadic ALS: glutamate hyperactivity? Vogels OJ, et al. **Neurology** 1999 Apr 12;52(6):1275–7

Effects of the substituted (S)-3-phenylpiperidine (-)-OSU6162 on PET measurements of [11C]SCH23390 and [11C]raclopride binding in primate brains. Ekesbo A, et al. **Neuropharmacology** 1999 Mar;38(3):331–8

Adenosine A2A and group I metabotropic glutamate receptors synergistically modulate the binding characteristics of dopamine D2 receptors in the rat striatum. Ferré S, et al. **Neuropharmacology** 1999 Jan; 38(1):129–40

Distribution of dopamine D3 receptor expressing neurons in the human forebrain: comparison with D2 receptor expressing neurons. Gurevich EV, et al. **Neuropsychopharmacology** 1999 Jan;20(1):60–80

Raclopride and chlorpromazine, but not clozapine, increase muscle rigidity in the rat: relationship with D2 dopamine receptor occupancy. Hemsley KM, et al. **Neuropsychopharmacology** 1999 Jul;21(1):101–9

Loss of dopamine D2 receptors in Alzheimer's disease with parkinsonism but not Parkinson's or Alzheimer's disease. Joyce JN, et al. **Neuropsychopharmacology** 1998 Dec; 19(6):472–80

PET imaging of dopamine D2 receptors with [18F]fluoroclebopride in monkeys: effects of isoflurane- and ketamine-induced anesthesia. Nader MA, et al. **Neuropsychopharmacology** 1999 Oct;21(4):589–96

On the distribution patterns of D1, D2, tyrosine hydroxylase and dopamine transporter immunoreactivities in the ventral striatum of the rat. Jansson A, et al. **Neuroscience** 1999 Mar;89(2):473–89

Activation of dopamine D2 receptors decreases DARPP-32 phosphorylation in striatonigral and striatopallidal projection neurons via different mechanisms. Lindskog M, et al. **Neuroscience** 1999;88(4):1005–8

Dopaminergic activities in the human striatum: rostrocaudal gradients of uptake sites and of D1 and D2 but not of D3 receptor binding or dopamine. Piggott MA, et al. **Neuroscience** 1999 May;90(2):433–45

Effects of hippocampal kainic acid lesions on striatolimbic dopamine D1-, D2-, and D4-like receptors. Tarazi FI, et al. **Neuroscience** 1998 Nov;87(1):1–4

Quantitative ex vivo and in vitro receptor autoradiography using 11C-labeled ligands and an imaging plate: a study with a dopamine D2-like receptor ligand [11C]nemonapride. Ishiwata K, et al. **Nucl Med Biol** 1999 Apr;26(3):291–6

Effects of dopamine on the in vivo binding of dopamine D2 receptor radioligands in rat striatum. Moresco RM, et al. **Nucl Med Biol** 1999 Jan;26(1):91–8

Left-right asymmetry of striatal dopamine D2 receptors. Larisch R, et al. **Nucl Med Commun** 1998 Aug;19(8):781–7

Analysis of neuroleptic binding affinities and potencies for the different human D2 dopamine receptor missense variants. Cravchik A, et al. **Pharmacogenetics** 1999 Feb; 9(1):17–23

Behavioral effects of dopamine agonists and antagonists: influence of estrous cycle, ovariectomy, and estrogen replacement in rats. Diaz-Véliz G, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):21–9

Early withdrawal from repeated cocaine administration upregulates muscarinic and dopaminergic D2-like receptors in rat neostriatum. Sousa FC, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):15–20

Acute and chronic citalopram treatment differently modulates rat exploratory behavior in the exploration box test: no evidence for increased anxiety or changes in the [3H]raclopride binding. Matto V, et al. **Pharmacology** 1999 Feb;58(2):59–69

D2-dopamine receptor occupancy measured by IBZM-SPECT in relation to extrapyramidal side effects. Broich K, et al. **Pharmacopsychiatry** 1998 Sep;31(5):159–62

[3H]Pramipexole: a selective radioligand for the high affinity dopamine D2 receptor in bovine striatal membranes. Ohnmacht U, et al. **Pharmazie** 1999 Apr;54(4):294–7

Ex-chiral pool synthesis and pharmacological aspects of 3-pyrrolidinylisoxazoles. Thomas C, et al. **Pharmazie** 1999 Apr;54(4):248–50

HIV type 1 envelope determinants for use of the CCR2b, CCR3, STRL33, and APJ coreceptors. Hoffman TL, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11360–5

N-[11C]methylspiperone PET, in contrast to [11C]raclopride, fails to detect D2 receptor occupancy by an atypical neuroleptic. Hagberg G, et al. **Psychiatry Res** 1998 Jun 30;82(3):147–60

Dopamine D2 receptor binding before and after treatment of major depression measured by [123I]IBZM SPECT. Klimke A, et al. **Psychiatry Res** 1999 Apr 26;90(2):91–101

Positive correlation between reduction of handwriting area and D2 dopamine receptor occupancy during treatment with neuroleptic drugs. Kuenstler U, et al. **Psychiatry Res** 1999 Feb 22;90(1):31–9

Occupancy of striatal D(2)-like dopamine receptors after treatment with the sigma ligand EMD 57445, a putative atypical antipsychotic. Gründer G, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):81–6

Differential effects of olanzapine at dopamine D1 and D2 receptors in dopamine depleted animals. Ninan I, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):175–81

In vivo 123I IBZM SPECT imaging of striatal dopamine-2 receptor occupancy in schizophrenic patients treated with olanzapine in comparison to clozapine and haloperidol. Tauscher J, et al. **Psychopharmacology (Berl)** 1999 Jan; 141(2):175–81

Short- and long-term heterologous sensitization of adenylate cyclase by D4 dopamine receptors. Watts VJ, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):83–92

Imaging dopamine D4 receptors in the living primate brain: a positron emission tomography study using the novel D1/D4 antagonist [11C]SDZ GLC 756. Boy C, et al. **Synapse** 1998 Dec;30(4):341–50

Repeated treatment with the selective kappa opioid agonist U-69593 produces a marked depletion of dopamine D2 receptors. Izenwasser S, et al. **Synapse** 1998 Nov; 30(3):275–83

[Effects of serotonergic drugs on the up-regulation of dopamine D2 receptors induced by haloperidol in rat striatum] Ishikane T. **Hokkaido Igaku Zasshi** 1998 Sep; 73(5):441–9 (Eng. Abstr.) **(Jpn)**

[Phase 1 clinical study of 123I-IBF, a new radioligand for evaluating dopamine D2 receptor with SPECT (I); biodistribution and dosimetry] Yonekura Y, et al. **Kaku Igaku** 1999 Feb;36(2):145–53 (Eng. Abstr.) **(Jpn)**

[Phase 1 clinical study of 123I-IBF, a new radioligand for evaluating Dopamine D2 receptor with SPECT (II); pharmacokinetics study and quantification in the brain] Yonekura Y, et al. **Kaku Igaku** 1999 Feb;36(2):155–68 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Effects of costimulation of dopamine D1- and D2-like receptors on renal function. Jose PA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R986–94

Neural substrates of drug craving and relapse in drug addiction. Self DW. **Ann Med** 1998 Aug;30(4):379–89 (93 ref.)

D3 receptors and the actions of neuroleptics in the ventral striatopallidal system of schizophrenics. Joyce JN, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:595–613 (61 ref.)

Dopamine D4 receptors are strategically localized for primary involvement in the presynaptic effects of dopamine in the rat nucleus accumbens shell. Svingos AL, et al. **Ann N Y Acad Sci** 1998 Jun 29;877:679–83

Differential distribution, affinity and plasticity of dopamine D-1 and D-2 receptors in the target sites of the mesolimbic system in an animal model of ADHD. Carey MP, et al. **Behav Brain Res** 1998 Jul;94(1):173–85

Strain-dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17–26

Dopamine D2 receptor-mediated regulation of partner preferences in female prairie voles (Microtus ochrogaster): a mechanism for pair bonding? Wang Z, et al. **Behav Neurosci** 1999 Jun;113(3):602–11

Dopamine agonist-induced hypothermia and disruption of prepulse inhibition: evidence for a role of D3 receptors? Varty GB, et al. **Behav Pharmacol** 1998 Sep;9(5–6):445–55

Pharmacological characterization of extracellular acidification rate responses in human D2(long), D3 and D4.4 receptors expressed in Chinese hamster ovary cells. Coldwell MC, et al. **Br J Pharmacol** 1999 Jul; 127(5):1135–44

Dopamine D2 receptor-mediated antioxidant and neuroprotective effects of ropinirole, a dopamine agonist. Iida M, et al. **Brain Res** 1999 Aug 14;838(1–2):51–9

Sensitization of amphetamine-induced stereotyped behaviors during the acute response: role of D1 and D2 dopamine receptors. Kuczenski R, et al. **Brain Res** 1999 Mar 20; 822(1–2):164–74

Involvement of dopamine D(1) and D(2) receptors in the ethanol-associated place preference in rats exposed to conditioned fear stress. Matsuzawa S, et al. **Brain Res** 1999 Jul 24;835(2):298–305

Role of NMDA glutamate receptors in regulating D2 dopamine-dependent Fos induction in the rat striatopallidal pathway. Pollack AE, et al. **Brain Res** 1999 Feb 13; 818(2):543–7

Time dependence and role of N-methyl-D-aspartate glutamate receptors in the priming of D2-mediated rotational behavior and striatal Fos expression in 6-hydroxydopamine lesioned rats. Pollack AE, et al. **Brain Res** 1999 May 8;827(1–2):160–8

Dopaminergic regulation of serotonin release in the substantia nigra of the freely moving rat using microdialysis. Thorré K, et al. **Brain Res** 1998 Jun 15;796(1–2):107–16

Agonism and inverse agonism at dopamine D2-like receptors. Strange PG. **Clin Exp Pharmacol Physiol Suppl** 1999 Apr; 26:S3–9 (36 ref.)

Dopamine D2/D3 receptors modulate cocaine's reinforcing and discriminative stimulus effects in rhesus monkeys. Sinnott RS, et al. **Drug Alcohol Depend** 1999 Apr 1; 54(2):97–110

Neuropeptide Y and tuberoinfundibular dopamine activities are altered during lactation: role of prolactin. Li C, et al. **Endocrinology** 1999 Jan;140(1):118–23

Dynamin and rab5 regulate GRK2-dependent internalization of dopamine D2 receptors. Iwata K, et al. **Eur J Biochem** 1999 Jul;263(2):596–602

Blockade of neurotensin receptors suppresses the dopamine D1/D2 synergism on immediate early gene expression in the rat brain. Alonso R, et al. **Eur J Neurosci** 1999 Mar; 11(3):967–74

Differential response of cortical-limbic neuropotentiated compulsive mice to dopamine D1 and D2 receptor antagonists. Campbell KM, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):103–11

Opposing roles for dopamine D1 and D2 receptors in the regulation of hypothalamic tuberoinfundibular dopamine neurons. Durham RA, et al. **Eur J Pharmacol** 1998 Aug 21;355(2–3):141–7

Involvement of spinal dopamine receptors in mediation of the hypotensive and bradycardic effects of systemic quinpirole in anaesthetised rats. Lahlou S. **Eur J Pharmacol** 1998 Jul 24;353(2–3):227–37

Involvement of dopamine D2 receptors in apomorphine-induced facilitation of forebrain serotonin output. Mendlin A, et al. **Eur J Pharmacol** 1998 Jun 26; 351(3):291–8

Dopamine D2 receptor-mediated modulation of rod-cone coupling in the Xenopus retina. Krizaj D, et al. **J Comp Neurol** 1998 Sep 7;398(4):529–38

Apparent dopamine D1 and D2 receptors in the weaver mutant mouse: receptor binding and coupling to adenylyl cyclase. Dewar KM, et al. **J Neural Transm** 1999; 106(5–6):487–97

Adaptations of NMDA and dopamine D2, but not of muscarinic receptors following 14 days administration of uncompetitive NMDA receptor antagonists. Hesselink MB, et al. **J Neural Transm** 1999;106(5–6):409–21

Modulatory effects of L-DOPA on D2 dopamine receptors in rat striatum, measured using in vivo microdialysis and PET. Opacka-Juffry J, et al. **J Neural Transm** 1998; 105(4–5):349–64

Tonic dopamine inhibition of L-type Ca2+ channel activity reduces alpha1D Ca2+ channel gene expression. Fass DM, et al. **J Neurosci** 1999 May 1;19(9):3345–52

Striatal neuronal activity and responsiveness to dopamine and glutamate after selective blockade of D1 and D2 dopamine receptors in freely moving rats. Kiyatkin EA, et al. **J Neurosci** 1999 May 1;19(9):3594–609

Functional roles of dopamine D2 and D3 autoreceptors on nigrostriatal neurons analyzed by antisense knockdown in vivo. Tepper JM, et al. **J Neurosci** 1997 Apr 1; 17(7):2519–30

Opposing role of dopamine D1 and D2 receptors in modulation of rat nucleus accumbens noradrenaline release. Vanderschuren LJ, et al. **J Neurosci** 1999 May 15; 19(10):4123–31

Selective activation of Galphao by D2L dopamine receptors in NS20Y neuroblastoma cells. Watts VJ, et al. **J Neurosci** 1998 Nov 1;18(21):8692–9

Characterization of dopamine receptor subtypes involved in experimentally induced gastric and duodenal ulcers in rats. Desai JK, et al. **J Pharm Pharmacol** 1999 Feb;51(2):187–92

Multisecond oscillations in firing rate in the globus pallidus: synergistic modulation by D1 and D2 dopamine receptors. Ruskin DN, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1493–501

Reductions in binding and functions of D2 dopamine receptors in the rat ventral striatum during amphetamine sensitization. Chen JC, et al. **Life Sci** 1999;64(5):343–54

Both dopamine and the putative dopamine D3 receptor antagonist PNU-99194A induce a biphasic inhibition of phorbol ester-stimulated arachidonic acid release from CHO cells transfected with the dopamine D3 receptor. Nilsson CL, et al. **Life Sci** 1999;64(11):939–51

D4 dopamine receptor-mediated phospholipid methylation and its implications for mental illnesses such as schizophrenia. Sharma A, et al. **Mol Psychiatry** 1999 May; 4(3):235–46

Anandamide: a candidate neurotransmitter heads for the big leagues [news; comment] Self DW. **Nat Neurosci** 1999 Apr; 2(4):303–4. Comment on: Nat Neurosci 1999 Apr;2(4):358–63.

Chronic D1 and D2 dopaminomimetic treatment of MPTP-denervated monkeys: effects on basal ganglia GABA(A)/benzodiazepine receptor complex and GABA content. Calon F, et al. **Neurochem Int** 1999 Jul;35(1):81–91

Quantification of human dopamine D2s receptor interactions with G alpha(i,1,2)- and G alpha(o)-proteins. Simonović M, et al. **Neurochem Int** 1998 Sep;33(3):271–5

D2 dopamine-receptor-mediated inhibition of proliferation of rat lactotropes in culture is accompanied by changes in cell shape. Arita J, et al. **Neuroendocrinology** 1998 Sep; 68(3):163–71

Dopamine autoreceptor function is lost in advanced Parkinson's disease. Ekesbo A, et al. **Neurology** 1999 Jan 1;52(1):120–5

Multiple intramembrane receptor-receptor interactions in the regulation of striatal dopamine D2 receptors. Rimondini R, et al. **Neuroreport** 1999 Jul 13;10(10):2051–4

Blockade of cannabinoid receptors by SR141716 selectively increases Fos expression in rat mesocorticolimbic areas via reduced dopamine D2 function. Alonso R, et al. **Neuroscience** 1999;91(2):607–20

Lack of a role for the D3 receptor in clozapine induction of c-fos demonstrated in D3 dopamine receptor-deficient mice. Carta AR, et al. **Neuroscience** 1999 Mar;90(3):1021–9

Dopamine receptor coupling to adenylyl cyclase in rat olfactory pathway: a combined pharmacological-radioautographic approach. Coronas V, et al. **Neuroscience** 1999 Apr;90(1):69–78

D1 and D2 dopamine receptor mediation of amphetamine-induced acetylcholine release in nucleus accumbens. Keys AS, et al. **Neuroscience** 1998 Sep; 86(2):521–31

Dopaminergic input is required for increases in serotonin output produced by behavioral activation: an in vivo microdialysis study in rat forebrain. Mendlin A, et al. **Neuroscience** 1999;93(3):897–905

Ventral hippocampal dopamine D1 and D2 systems and

spatial working memory in rats. Wilkerson A, et al. **Neuroscience** 1999 Mar;89(3):743–9

Involvement of DA1 and DA2 receptors in the gastroprotective activity of amylin in the rat. Clementi G, et al. **Pharmacol Res** 1998 Sep;38(3):221–4

Dopamine receptor subtypes modulate olfactory bulb gamma-aminobutyric acid type A receptors. Brünig I, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2456–60

Expression of a dopamine D2 receptor-activated K+ channel on identified striatopallidal and striatonigral neurons. Waszczak BL, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11440–4

D(2) dopamine receptors induce mitogen-activated protein kinase and cAMP response element-binding protein phosphorylation in neurons. Yan Z, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11607–12

The antisense strategy applied to the study of dopamine D3 receptor functions in rat forebrain. Tremblay M, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):857–82

A PET study of D2 dopamine receptor density at different phases of the menstrual cycle. Nordström AL, et al. **Psychiatry Res** 1998 Jul 15;83(1):1–6

Adaptations in the mesoaccumbens dopamine system resulting from repeated administration of dopamine D1 and D2 receptor-selective agonists: relevance to cocaine sensitization. Henry DJ, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):233–42

Alpha1-adrenergic, D1, and D2 receptors interactions in the prefrontal cortex: implications for the modality of action of different types of neuroleptics. Gioanni Y, et al. **Synapse** 1998 Dec;30(4):362–70

[The participation of the brain dopamine D1 and D2 receptors in the process of the development of depression induced by social confrontations in mice] Alekseenko OV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec; 48(6):1090–8 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Mmu and D2 receptor antisense oligonucleotides injected in nucleus accumbens suppress high alcohol intake in genetic drinking HEP rats. Myers RD, et al. **Alcohol** 1999 Jun-Jul;18(2–3):225–33

RECEPTORS, DRUG

Proceedings of the 3rd International Symposium on Imidazoline Receptors. Bonn, Germany, July 22–24, 1998. **Ann N Y Acad Sci** 1999 Jun 21;881:1–454

7th International meeting of the European Behavioural Pharmacology Society. Brno, Czech Republic, 2–6 September 1998. Abstracts. **Behav Pharmacol** 1998 Aug;9 Suppl 1:S11–98

Drug Discrimination in Behavioral Neuroscience. Society for Stimulus Properties of Drugs. A satellite of the 7th International meeting of the European Behavioural Pharmacology Society. Antwerp, Belgium, 30 August–1 September 1998. Abstracts. **Behav Pharmacol** 1998 Aug;9 Suppl 1:S103–26

Application of microbial receptor assay to quantitation of residues of spectinomycin in bovine milk and comparison with liquid chromatographic analysis. Shaikh B, et al. **J AOAC Int** 1999 Jul-Aug;82(4):1002–5

Imidazoline Receptor Workshop. Melbourne, Australia, 10 September 1997. Proceedings. **J Auton Nerv Syst** 1998 Oct 15;72(2–3):73–219

Proceedings of the International symposium on Endogenous Cannabinoids. Madrid, Spain, March 4–5, 1998. **Life Sci** 1999;65(6–7):573–736

[2-Arachidonoylglycerol: an endogenous cannabinoid receptor agonist] Sugiura T, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1104–10 (28 ref.) **(Jpn)**

AGONISTS

alpha-2 and imidazoline receptor agonists. Their pharmacology and therapeutic role. Khan ZP, et al. **Anaesthesia** 1999 Feb;54(2):146–65 (215 ref.)

Central I1-imidazoline receptors as targets of centrally acting antihypertensive drugs. Clinical pharmacology of moxonidine and rilmenidine. Van Zwieten PA, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:420–9 (33 ref.)

Inhibition of the production of endothelium-derived hyperpolarizing factor by cannabinoid receptor agonists. Fleming I, et al. **Br J Pharmacol** 1999 Feb;126(4):949–60

Effect of the cannabinoid receptor agonist WIN55212-2 on sympathetic cardiovascular regulation. Niederhoffer N, et al. **Br J Pharmacol** 1999 Jan;126(2):457–66

Agonist-inverse agonist characterization at CB1 and CB2 cannabinoid receptors of L759633, L759656, and AM630. Ross RA, et al. **Br J Pharmacol** 1999 Feb;126(3):665–72

Differential receptor-G-protein coupling evoked by dissimilar cannabinoid receptor agonists. Houston DB, et al. **Cell Signal** 1998 Oct;10(9):667–74

Selective imidazoline receptor agonists and lipid metabolism [letter] Elisaf M, et al. **Clin Chem Lab Med** 1999 Feb; 37(2):165

Increase in meso-prefrontal dopaminergic activity after stimulation of CB1 receptors by cannabinoids. Diana M, et al. **Eur J Neurosci** 1998 Sep;10(9):2825–30

Effects of pre-exposure and co-administration of the cannabinoid receptor agonist CP 55,940 on behavioral sensitization to cocaine. Arnold JC, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):9–16

Anandamide transport inhibition by the vanilloid agonist olvanil. Beltramo M, et al. **Eur J Pharmacol** 1999 Jan 1; 364(1):75–8

Neuronal responses to cannabinoid receptor ligands in the solitary tract nucleus. Himmi T, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):49–54

Pulmonary actions of anandamide, an endogenous cannabinoid receptor agonist, in guinea pigs. Stengel PW, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):57–66

Evaluation of cannabimimetic effects of structural analogs of anandamide in rats. Wiley JL, et al. **Eur J Pharmacol** 1998 Aug 21;355(2–3):113–8

I1-imidazoline agonist moxonidine decreases sympathetic nerve activity and blood pressure in hypertensives. Wenzel RR, et al. **Hypertension** 1998 Dec;32(6):1022–7

Effects of moxonidine on stress-induced peak blood pressure and renal function: a randomized, double-blind, placebo-controlled crossover study. Fauvel JP, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):495–9

Dual activation and inhibition of adenylyl cyclase by cannabinoid receptor agonists: evidence for agonist-specific trafficking of intracellular responses. Bonhaus DW, et al. **J Pharmacol Exp Ther** 1998 Dec; 287(3):884–8

Moxonidine, a selective alpha2-adrenergic and imidazoline receptor agonist, produces spinal antinociception in mice. Fairbanks CA, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):403–12

A role for N-arachidonylethanolamine (anandamide) as the mediator of sensory nerve-dependent Ca2+-induced relaxation. Ishioka N, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):245–50

Manipulation of the tetrahydrocannabinol side chain delineates agonists, partial agonists, and antagonists. Martin BR, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1065–79

SR 144528, an antagonist for the peripheral cannabinoid receptor that behaves as an inverse agonist. Portier M, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):582–9

A simplified empirical approach to evaluate the dissociation constant of a full agonist by the irreversible receptor inactivation method. Calderone V, et al. **J Pharmacol Toxicol Methods** 1998 Jul;40(1):57–62

Gi protein modulation induced by a selective inverse agonist for the peripheral cannabinoid receptor CB2: implication for intracellular signalization cross-regulation. Bouaboula M, et al. **Mol Pharmacol** 1999 Mar;55(3):473–80

Self-administration of the cannabinoid receptor agonist WIN 55,212-2 in drug-naive mice. Martellotta MC, et al. **Neuroscience** 1998 Jul;85(2):327–30

The cannabinoid receptor agonist WIN 55,212-2 mesylate blocks the development of hyperalgesia produced by capsaicin in rats. Li J, et al. **Pain** 1999 May;81(1–2):25–33

Effects of moxonidine and clonidine on potassium excretion in Sprague-Dawley rats. Hohage H, et al. **Pharmacol Res** 1999 May;39(5):357–61

Principles of agonism: undressing efficacy. Schwartz TW, et al. **Trends Pharmacol Sci** 1998 Nov;19(11):433–6

Agonist promiscuity: a positive twist [letter; comment] Zernig G, et al. **Trends Pharmacol Sci** 1999 Jan;20(1):7–8 . Comment on: Trends Pharmacol Sci 1998 Jul;19(7):270–6.

[Agonists of the imidazoline receptors] Ol'binskaia LI, et al. **Eksp Klin Farmakol** 1999 Mar-Apr;62(2):68–72 **(Rus)**

ANALYSIS

Identification of human I1 receptors and their relationship to alpha 2-adrenoceptors. Dontenwill M, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:123–34

Pharmacologic characterization of imidazoline receptor proteins identified by immunologic techniques and other methods. Escribá PV, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:8–25 (36 ref.)

Pre- and postsynaptic distribution of cannabinoid and mu opioid receptors in rat spinal cord. Hohmann AG, et al. **Brain Res** 1999 Mar 20;822(1–2):17–25

Immunocytochemical localization of the vanilloid receptor 1 (VR1): relationship to neuropeptides, the P2X3 purinoceptor and IB4 binding sites. Guo A, et al. **Eur J Neurosci** 1999 Mar;11(3):946–58

Imidazoline binding sites and receptors in cardiovascular tissue. Molderings GJ, et al. **Gen Pharmacol** 1999 Jan; 32(1):17–22 (53 ref.)

Presence and functional regulation of cannabinoid receptors in immune cells. Parolaro D. **Life Sci** 1999;65(6–7):637–44 (63 ref.)

Evidence for the presence of CB1 cannabinoid receptors on peripheral neurones and for the existence of neuronal non-CB1 cannabinoid receptors. Pertwee RG. **Life Sci** 1999;65(6–7):597–605 (54 ref.)

Regulation of cannabinoid and mu opioid receptors in rat lumbar spinal cord following neonatal capsaicin treatment. Hohmann AG, et al. **Neurosci Lett** 1998 Aug 7;252(1):13–6

Cannabinoid CB1 receptors are localized primarily on cholecystokinin-containing GABAergic interneurons in the rat hippocampal formation. Tsou K, et al. **Neuroscience** 1999;93(3):969–75

Variations in [3H]imipramine and 5-HT2A but not [3H]paroxetine binding sites in suicide brains. Rosel P, et al. **Psychiatry Res** 1998 Jun 30;82(3):161–70

Analysis of cannabinoid receptor binding and mRNA expression and endogenous cannabinoid contents in the developing rat brain during late gestation and early postnatal period. Berrendero F, et al. **Synapse** 1999 Sep 1;33(3):181–91

ANTAGONISTS & INHIBITORS

SR 141716, a CB1 cannabinoid receptor antagonist, selectively reduces sweet food intake in marmoset. Simiand J, et al. **Behav Pharmacol** 1998 Mar;9(2):179–81

The cannabinoid CB1 receptor antagonist, SR141716A, selectively facilitates nociceptive responses of dorsal horn neurones in the rat. Chapman V. **Br J Pharmacol** 1999 Aug; 127(8):1765–7

Agonist-inverse agonist characterization at CB1 and CB2 cannabinoid receptors of L759633, L759656, and AM630. Ross RA, et al. **Br J Pharmacol** 1999 Feb;126(3):665–72

Down-regulation of cannabinoid receptor agonist-stimulated [35S]GTP gamma S binding in synaptic plasma membrane from chronic ethanol exposed mouse. Basavarajappa BS, et al. **Brain Res** 1999 Jan 2;815(1):89–97

The development of cannabinoid antagonists. Barth F, et al. **Curr Med Chem** 1999 Aug;6(8):745–55 (74 ref.)

Characterisation of new efaroxan derivatives for use in purification of imidazoline-binding sites. Chan SL, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):67–76

Evaluation of the cannabinoid CB2 receptor-selective antagonist, SR144528: further evidence for cannabinoid CB2 receptor absence in the rat central nervous system. Griffin G, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):117–25

Regulation of peripheral cannabinoid receptor CB2 phosphorylation by the inverse agonist SR 144528. Implications for receptor biological responses. Bouaboula M, et al. **J Biol Chem** 1999 Jul 16;274(29):20397–405

Structure-activity relationships of pyrazole derivatives as cannabinoid receptor antagonists. Lan R, et al. **J Med Chem** 1999 Feb 25;42(4):769–76

Manipulation of the tetrahydrocannabinol side chain delineates agonists, partial agonists, and antagonists. Martin BR, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1065–79

SR 144528, an antagonist for the peripheral cannabinoid receptor that behaves as an inverse agonist. Portier M, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):582–9

Effect of the CB1 receptor antagonist, SR141716A, on cannabinoid-induced ocular hypotension in normotensive rabbits. Pate DW, et al. **Life Sci** 1998;63(24):2181–8

Stoichiometry of sulfonylurea-induced ATP-sensitive potassium channel closure. Dörschner H, et al. **Mol Pharmacol** 1999 Jun;55(6):1060–6

SR 141716A acts as an inverse agonist to increase neuronal voltage-dependent Ca2+ currents by reversal of tonic CB1 cannabinoid receptor activity. Pan X, et al. **Mol Pharmacol** 1998 Dec;54(6):1064–72

A search for presynaptic imidazoline receptors at rabbit and rat noradrenergic neurones in the absence of alpha 2-autoinhibition. Gaiser EG, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):123–32

CB1 cannabinoid receptor antagonist-induced opiate withdrawal in morphine-dependent rats. Navarro M, et al. **Neuroreport** 1998 Oct 26;9(15):3397–402

A capsaicin-receptor antagonist, capsazepine, reduces inflammation-induced hyperalgesic responses in the rat: evidence for an endogenous capsaicin-like substance. Kwak JY, et al. **Neuroscience** 1998 Sep;86(2):619–26

The cannabinoid CB1 receptor antagonist SR141716A attenuates the memory impairment produced by delta9-tetrahydrocannabinol or anandamide. Mallet PE, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):11–9

Blockade of cannabinoid (CB1) receptors by 141716 selectively antagonizes drug-induced reinstatement of exploratory behaviour in gerbils. Poncelet M, et al. **Psychopharmacology (Berl)** 1999 May;144(2):144–50

BIOSYNTHESIS

Chronic ethanol administration down-regulates cannabinoid receptors in mouse brain synaptic plasma membrane. Basavarajappa BS, et al. **Brain Res** 1998 May 18; 793(1–2):212–8

Effects of long-term exposure to delta9-THC on expression of cannabinoid receptor (CB1) mRNA in different rat brain regions. Zhuang S, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):141–9

Chronic effects of xanthines on levels of central receptors in mice. Shi D, et al. **Cell Mol Neurobiol** 1999 Dec; 19(6):719–32

Capsaicin sensitivity is associated with the expression of the vanilloid (capsaicin) receptor (VR1) mRNA in adult rat sensory ganglia. Helliwell RJ, et al. **Neurosci Lett** 1998 Jul 10;250(3):177–80

Expression of sulphonylurea receptor protein in mouse kidney. Beesley AH, et al. **Pflugers Arch** 1999 Jun; 438(1):1–7

BLOOD

Plasma agmatine and platelet imidazoline receptors in depression. Halaris A, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:445–51

I2-imidazoline receptors in platelets of patients with Parkinson's disease and Alzheimer's type dementia. Ulibarri I, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:199–202

CHEMISTRY

Stereospecificity of the sensory irritation receptor for nonreactive chemicals illustrated by pinene enantiomers. Kasanen JP, et al. **Arch Toxicol** 1998 Jul-Aug;72(8):514-23

Ligand-ligand and ligand-receptor approaches to modeling the cannabinoid CB1 and CB2 receptors: achievements and challenges. Reggio PH. **Curr Med Chem** 1999 Aug; 6(8):665-83 (141 ref.)

Generation and screening of synthetic receptor libraries. de Miguel YR, et al. **Curr Opin Chem Biol** 1998 Jun; 2(3):417-21 (30 ref.)

Host-guest chemistry: combinatorial receptors. Linton B, et al. **Curr Opin Chem Biol** 1999 Jun;3(3):307-12 (30 ref.)

Design of libraries to explore receptor sites. Murray CM, et al. **J Chem Inf Comput Sci** 1999 Jan-Feb;39(1):46-50

Use of a partial-filling technique in affinity capillary electrophoresis for determining binding constants of ligands to receptors. Heintz J, et al. **J Chromatogr A** 1999 Apr 30;840(2):261-8

Methods of screening combinatorial libraries using immobilized or restrained receptors. Woodbury CP Jr, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2; 725(1):113-37 (111 ref.)

Involvement of the carboxyl terminus of the third intracellular loop of the cannabinoid CB1 receptor in constitutive activation of Gs. Abadji V, et al. **J Neurochem** 1999 May;72(5):2032-8

(Extra)thermodynamics of the drug-receptor interaction. Raffa RB. **Life Sci** 1999;65(10):967-80 (29 ref.)

Ligand-receptor 3-D similarity studies using multiple 4-point pharmacophores. Mason JS, et al. **Pac Symp Biocomput** 1999;:456-67

Pharmacophore and pseudoreceptor modelling of class Ib antiarrhythmic and local anaesthetic lidocaine analogues. Schleifer KJ, et al. **Pharmazie** 1998 Sep;53(9):596-602

Flexible docking using Tabu search and an empirical estimate of binding affinity. Baxter CA, et al. **Proteins** 1998 Nov 15;33(3):367-82

Computer simulation study of synthetic 4-helix bundle that binds halothane. Woska AB, et al. **Toxicol Lett** 1998 Nov 23;100-101:377-85

Assessing the distribution of parameters in models of ligand-receptor interaction: to log or not to log. Christopoulos A. **Trends Pharmacol Sci** 1998 Sep; 19(9):351-7

The slope parameter and the receptor reserve. Giraldo J. **Trends Pharmacol Sci** 1998 Nov;19(11):445; Discussion 445-6

CLASSIFICATION

Presynaptic imidazoline receptors. New developments in characterization and classification. Göthert M, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:171-84 (21 ref.)

DRUG EFFECTS

Respiratory action of capsaicin microinjected into the nucleus of the solitary tract: involvement of vanilloid and tachykinin receptors. Mazzone SB, et al. **Br J Pharmacol** 1999 May;127(2):473-81

Pharmacology of cannabinoid receptor ligands. Pertwee RG. **Curr Med Chem** 1999 Aug;6(8):635-64 (171 ref.)

Cannabis and endogenous cannabinoid systems. Childers SR, et al. **Drug Alcohol Depend** 1998 Jun-Jul;51(1-2):173-87 (165 ref.)

1,5-Bis(4-amidinophenoxy)pentane (pentamidine) is a potent inhibitor of [3H]idazoxan binding to imidazoline I2 binding sites. Wood DH, et al. **Eur J Pharmacol** 1998 Jul 17; 353(1):97-103

Delta9-tetrahydrocannabinol induces apoptosis in C6 glioma cells. Sánchez C, et al. **FEBS Lett** 1998 Sep 25;436(1):6-10

Does a second generation of centrally acting antihypertensive drugs really exist? Feldman J, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):94-7 (42 ref.)

Relationship between imidazoline and alpha2-adrenoceptors involved in the sympatho-inhibitory actions of centrally acting antihypertensive agents. Head GA, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):163-9 (40 ref.)

Ethanol selectively counteracts hypotension evoked by central I(1)-imidazoline but not alpha2-adrenergic receptor activation in spontaneously hypertensive rats. El-Mas MM, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):382-9

Ethanol counteraction of I1-imidazoline but not alpha-2 adrenergic receptor-mediated reduction in vascular resistance in conscious spontaneously hypertensive rats. El-Mas MM, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):455-62

Modulation of CB1 cannabinoid receptor functions after a long-term exposure to agonist or inverse agonist in the Chinese hamster ovary cell expression system. Rinaldi-Carmona M, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1038-47

Wortmannin, an inhibitor of phosphatidylinositol kinases, blocks the MgATP-dependent recovery of Kir6.2/SUR2A channels. Xie LH, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):655-65

Imidazoline receptor proteins are regulated in platelet-precursor MEG-01 cells by agonists and antagonists. Ivanov TR, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):65-79

Dopamine activation of endogenous cannabinoid signaling in dorsal striatum [see comments] Giuffrida A, et al. **Nat Neurosci** 1999 Apr;2(4):358-63. Comment in: Nat Neurosci 1999 Apr;2(4):303-4.

Cannabinoid CB1 receptor-mediated inhibition of NMDA- and kainate-stimulated noradrenaline and dopamine release in the brain. Kathmann M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):466-70

Modification of 5-HT2 receptor mediated behaviour in the rat by oleamide and the role of cannabinoid receptors. Cheer JF, et al. **Neuropharmacology** 1999 Apr;38(4):533-41

Anandamide induces overeating: mediation by central cannabinoid (CB1) receptors. Williams CM, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):315-7

Approaches to proving there are general anesthetic sites on ligand gated ion channels. Miller KW, et al. **Toxicol Lett** 1998 Nov 23;100-101:139-47 (30 ref.)

Influence of anesthetics on endogenous and recombinantly expressed G protein-coupled receptors in the Xenopus oocyte. Nietgen GW, et al. **Toxicol Lett** 1998 Nov 23; 100-101:319-27 (28 ref.)

Do anesthetics act by competitive binding to specific receptors? Phase transition of firefly luciferase. Ueda I, et al. **Toxicol Lett** 1998 Nov 23;100-101:405-11

A quantitative genetic approach towards volatile anesthetic mechanisms in C. elegans. van Swinderen B, et al. **Toxicol Lett** 1998 Nov 23;100-101:309-17 (21 ref.)

Unifying characteristics of sites of anesthetic action revealed by combined use of anesthetics and non-anesthetics. Xu Y, et al. **Toxicol Lett** 1998 Nov 23;100-101:347-52 (17 ref.)

[Clinical pharmacology of hypotensive drugs acting on central imidazoline receptors] Drzewoski J, et al. **Pol Arch Med Wewn** 1998 Dec;100(6):561-9 (35 ref.) **(Pol)**

GENETICS

Genetic control of renal thiazide receptor response to dietary NaCl and hypertension. Fanestil DD, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R901-4

Loss of imprinted genes and paternal SUR1 mutations lead to hyperinsulinism in focal adenomatous hyperplasia. Fournet JC, et al. **Ann Endocrinol (Paris)** 1998;59(6):485-91

Imidazoline receptor antisera-selected cDNA clone and mRNA distribution. Piletz JE, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:1-7

Hyperinsulinism: molecular aetiology of focal disease. Ryan F, et al. **Arch Dis Child** 1998 Nov;79(5):445-7

Time-dependent differences of repeated administration with Delta9-tetrahydrocannabinol in proenkephalin and cannabinoid receptor gene expression and G-protein activation by mu-opioid and CB1-cannabinoid receptors in the caudate-putamen. Corchero J, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):148-57

Clinical characterization of polymorphisms in the sulphonylurea receptor 1 gene in Japanese subjects with Type 2 diabetes mellitus. Ishiyama-Shigemoto S, et al. **Diabet Med** 1998 Oct;15(10):826-9

Hyperinsulinism caused by paternal-specific inheritance of a recessive mutation in the sulfonylurea-receptor gene. Glaser B, et al. **Diabetes** 1999 Aug;48(8):1652-7

A point mutation inactivating the sulfonylurea receptor causes the severe form of persistent hyperinsulinemic hypoglycemia of infancy in Finland. Otonkoski T, et al. **Diabetes** 1999 Feb;48(2):408-15

Variants in the sulphonylurea receptor gene: association of the exon 16-3t variant with Type II diabetes mellitus in Dutch Caucasians. 't Hart LM, et al. **Diabetologia** 1999 May;42(5):617-20

Alternative sulfonylurea receptor expression defines metabolic sensitivity of K-ATP channels in dopaminergic midbrain neurons. Liss B, et al. **EMBO J** 1999 Feb 15; 18(4):833-46

Immunocytochemical localization of the vanilloid receptor 1 (VR1): relationship to neuropeptides, the P2X3 purinoceptor and IB4 binding sites. Guo A, et al. **Eur J Neurosci** 1999 Mar;11(3):946-58

Variant in sulfonylurea receptor-1 gene is associated with high insulin concentrations in non-diabetic Mexican Americans: SUR-1 gene variant and hyperinsulinemia. Goksel DL, et al. **Hum Genet** 1998 Sep;103(3):280-5

Intragenic single nucleotide polymorphism haplotype analysis of SUR1 mutations in familial hyperinsulinism. Glaser B, et al. **Hum Mutat** 1999;14(1):23-9

Characterization of a partial cDNA clone detected by imidazoline receptor-selective antisera. Ivanov TR, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):98-110

Characterization of the mouse sulfonylurea receptor 1 promoter and its regulation. Hernández-Sánchez C, et al. **J Biol Chem** 1999 Jun 25;274(26):18261-70

Cloning of a stretch-inhibitable nonselective cation channel. Suzuki M, et al. **J Biol Chem** 1999 Mar 5;274(10):6330-5

Suppression of insulin oversecretion by subcutaneous recombinant human insulin-like growth factor I in children with congenital hyperinsulinism due to defective beta-cell sulfonylurea receptor. Katz LE, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3117-24

Paternal mutation of the sulfonylurea receptor (SUR1) gene and maternal loss of 11p15 imprinted genes lead to persistent hyperinsulinism in focal adenomatous hyperplasia. Verkarre V, et al. **J Clin Invest** 1998 Oct 1; 102(7):1286-91

Cannabinoid receptor and WIN-55,212-2-stimulated [35S]GTP gamma S binding and cannabinoid receptor mRNA levels in the basal ganglia and the cerebellum of adult male rats chronically exposed to delta 9-tetrahydrocannabinol. Romero J, et al. **J Mol Neurosci** 1998 Oct;11(2):109-19

Internalization and recycling of the CB1 cannabinoid receptor. Hsieh C, et al. **J Neurochem** 1999 Aug; 73(2):493-501

Differential expression of the mRNA for the vanilloid receptor subtype 1 in cells of the adult rat dorsal root and nodose ganglia and its downregulation by axotomy. Michael GJ, et al. **J Neurosci** 1999 Mar 1;19(5):1844-54

Retroviral insertions in Evi12, a novel common virus integration site upstream of Tra1/Grp94, frequently coincide with insertions in the gene encoding the peripheral cannabinoid receptor Cnr2. Valk PJ, et al. **J Virol** 1999 May;73(5):3595-602

A human succinate-ubiquinone oxidoreductase CII-3 subunit gene ending in a polymorphic dinucleotide repeat is located within the sulfonylurea receptor (SUR) gene. Wohllk N, et al. **Mol Genet Metab** 1998 Nov;65(3):187-90

A mutation in the second transmembrane region of the CB1 receptor selectively disrupts G protein signaling and prevents receptor internalization. Roche JP, et al. **Mol Pharmacol** 1999 Sep;56(3):611-8

The causes of neonatal hypoglycemia [editorial; comment] Stanley CA, et al. **N Engl J Med** 1999 Apr 15; 340(15):1200-1. Comment on: N Engl J Med 1999 Apr 15;340(15):1169-75.

Molecular genetics of substance abuse vulnerability: a current approach. Uhl GR. **Neuropsychopharmacology** 1999 Jan; 20(1):3-9 (35 ref.)

Localization of central cannabinoid CB1 receptor messenger RNA in neuronal subpopulations of rat dorsal root ganglia: a double-label in situ hybridization study. Hohmann AG, et al. **Neuroscience** 1999 Mar;90(3):923-31

Antisense oligodeoxynucleotides of sulfonylurea receptors inhibit ATP-sensitive K+ channels in cultured neonatal rat ventricular cells. Yokoshiki H, et al. **Pflugers Arch** 1999 Feb;437(3):400-8

Altered gene expression in striatal projection neurons in CB1 cannabinoid receptor knockout mice [see comments] Steiner H, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5786-90. Comment in: Proc Natl Acad Sci U S A 1999 May 11;96(10):5338-9.

Increased mortality, hypoactivity, and hypoalgesia in cannabinoid CB1 receptor knockout mice [see comments] Zimmer A, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5780-5. Comment in: Proc Natl Acad Sci U S A 1999 May 11;96(10):5338-9.

Genetic dissection of the molecular target(s) of anesthetics with the gene knockout approach in mice. Homanics GE, et al. **Toxicol Lett** 1998 Nov 23;100-101:301-7 (18 ref.)

A quantitative genetic approach towards volatile anesthetic mechanisms in C. elegans. van Swinderen B, et al. **Toxicol Lett** 1998 Nov 23;100-101:309-17 (21 ref.)

ISOLATION & PURIFICATION

Characterisation of new efaroxan derivatives for use in purification of imidazoline-binding sites. Chan SL, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):67-76

METABOLISM

Ontogeny of imidazoline binding sites in the human placenta. Bagaméry K, et al. **Acta Obstet Gynecol Scand** 1999 Feb; 78(2):89-92

Genetic control of renal thiazide receptor response to dietary NaCl and hypertension. Fanestil DD, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R901-4

Immobilized nicotinic receptor stationary phase for on-line liquid chromatographic determination of drug-receptor affinities. Zhang Y, et al. **Anal Biochem** 1998 Nov 1; 264(1):22-5

Densities of I2-imidazoline receptors, imidazoline receptor proteins, and MAO-B sites in human gliomas and pituitary adenomas. Barturen F, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:203-7

Imidazoline (I2) binding sites in chicken brain. Danbury TC, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:189-92

Identification of human I1 receptors and their relationship to alpha 2-adrenoceptors. Dontenwill M, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:123-34

Pharmacologic characterization of imidazoline receptor proteins identified by immunologic techniques and other methods. Escribá PV, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:8-25 (36 ref.)

Imidazoline receptors and human brain disorders. García-Sevilla JA, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:392-409 (45 ref.)

Coexpression of imidazoline receptors and alpha 2-adrenoceptors in neuroglial cell line NG 108,15. Greney H, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:54-8

Evidence for presynaptic high affinity imidazoline-specific binding sites in the bovine brainstem. Heemskerk FM, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:185-8

Endogenous indoleamines demonstrate moderate affinity for I2 binding sites. Hudson AL, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:212-6

Novel selective compounds for the investigation of imidazoline receptors. Hudson AL, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:81-91

Identification of imidazoline-receptor binding sites in cortex

and medulla of the bovine adrenal gland. Colocalization with MAO-A and MAO-B. King PR, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:161-70

Inhibition of central monoamine oxidase by imidazoline2 site-selective ligands. Lalies MD, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:114-7

Lack of effect of reserpine on immunoreactive imidazoline receptor proteins in rat brain. Miralles A, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:61-4

Pharmacologic and molecular discrimination of I2-imidazoline receptor subtypes. Olmos G, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:144-60

Transfected cells expressing the three subtypes of alpha 2-adrenergic receptors lack I1-imidazoline binding sites. Ordener C, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:59-60

Binding of tracizolines to the imidazoline receptor. Role of lipophilicity in quantitative structure-activity relationship models. Pigini M, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:118-22

Imidazoline binding domains on MAO-B. Localization and accessibility. Raddatz R, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:26-31 (17 ref.)

Agmatine: an endogenous ligand at imidazoline receptors is a novel neurotransmitter. Reis DJ, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:65-80 (54 ref.)

Relationship between I2 imidazoline binding sites and monoamine oxidase B in liver. Remaury A, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:32-4

Binding of the imidazoline ligand 3H-2-benzofuranyl-2-imidazoline (BFI) to human brain and platelets. Potentiation by tranylcypromine and role of MAO isoforms. Steinberg MI, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:193-8

Autoradiography of I2 receptors in frog brain. Tyacke RJ, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:208-11

Identification of I1 and I2 imidazoline receptors in striatum membranes from different species. Vauquelin G, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:135-43

Pentamidine is a potent inhibitor of [3H]idazoxan binding to imidazoline I2 receptors. Wood DH, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:110-3

Unsaturated long-chain N-acyl-vanillyl-amides (N-AVAMs): vanilloid receptor ligands that inhibit anandamide-facilitated transport and bind to CB1 cannabinoid receptors. Melck D, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):275-84

Modification of the mitochondrial sulfonylurea receptor by thiol reagents. Szewczyk A, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):255-8

Enzymes of porcine brain hydrolyzing 2-arachidonoylglycerol, an endogenous ligand of cannabinoid receptors. Goparaju SK, et al. **Biochem Pharmacol** 1999 Feb 15;57(4):417-23

Drug binding and nucleotide hydrolyzability are essential requirements in the vanadate-induced inhibition of the human P-glycoprotein ATPase. Rao US. **Biochemistry** 1998 Oct 20;37(42):14981-8

Ligand binding to I2 imidazoline receptor: the role of lipophilicity in quantitative structure-activity relationship models. Pigini M, et al. **Bioorg Med Chem** 1998 Dec; 6(12):2245-60

Enantioselective synthesis and pharmacology of 11-hydroxy-(1'S,2'R)-dimethylheptyl-delta 8-THC. Liddle J, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2223-6

In vitro functional evidence of neuronal cannabinoid CB1 receptors in human ileum. Croci T, et al. **Br J Pharmacol** 1998 Dec;125(7):1393-5

An investigation into the structural determinants of cannabinoid receptor ligand efficacy. Griffin G, et al. **Br J Pharmacol** 1999 Apr;126(7):1575-84

Mg2+ and ATP dependence of K(ATP) channel modulator binding to the recombinant sulphonylurea receptor, SUR2B. Hambrock A, et al. **Br J Pharmacol** 1998 Oct; 125(3):577-83

Comparison of cannabinoid binding sites in guinea-pig forebrain and small intestine. Ross RA, et al. **Br J Pharmacol** 1998 Nov;125(6):1345-51

A non-pungent triprenyl phenol of fungal origin, scutigeral, stimulates rat dorsal root ganglion neurons via interaction at vanilloid receptors. Szallasi A, et al. **Br J Pharmacol** 1999 Mar;126(6):1351-8

Stimulation of locus coeruleus neurons by non-I1/I2-type imidazoline receptors: an in vivo and in vitro electrophysiological study. Ugedo L, et al. **Br J Pharmacol** 1998 Dec;125(8):1685-94

Imidazoline receptors: from discovery to antihypertensive therapy (facts and doubts). Farsang C, et al. **Brain Res Bull** 1999 Jul 15;49(5):317-31 (241 ref.)

Specific vanilloid responses in C6 rat glioma cells. Bíró T, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):89-98

Differential receptor-G-protein coupling evoked by dissimilar cannabinoid receptor agonists. Houston DB, et al. **Cell Signal** 1998 Oct;10(9):667-74

Quantitative method to determine mRNA levels by reverse transcriptase-polymerase chain reaction from leukocyte subsets purified by fluorescence-activated cell sorting: application to peripheral cannabinoid receptors. Marchand J, et al. **Cytometry** 1999 Mar 1;35(3):227-34

Identification of the high-affinity tolbutamide site on the SUR1 subunit of the K(ATP) channel. Ashfield R, et al. **Diabetes** 1999 Jun;48(6):1341-7

Cannabinoid receptor binding and mRNA levels in several brain regions of adult male and female rats perinatally exposed to delta9-tetrahydrocannabinol. García-Gil L, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1-2):127-36

Inward rectification in KATP channels: a pH switch in the pore. Baukrowitz T, et al. **EMBO J** 1999 Feb 15; 18(4):847-53

Potassium channel openers require ATP to bind to and act through sulfonylurea receptors. Schwanstecher M, et al. **EMBO J** 1998 Oct 1;17(19):5529-35

Increase in meso-prefrontal dopaminergic activity after stimulation of CB1 receptors by cannabinoids. Diana M, et al. **Eur J Neurosci** 1998 Sep;10(9):2825-30

Anandamide and WIN 55212-2 inhibit cyclic AMP formation through G-protein-coupled receptors distinct from CB1 cannabinoid receptors in cultured astrocytes. Sagan S, et al. **Eur J Neurosci** 1999 Feb;11(2):691-9

An entourage effect: inactive endogenous fatty acid glycerol esters enhance 2-arachidonoyl-glycerol cannabinoid activity. Ben-Shabat S, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):23-31

Characterisation and localisation of [3H]2-(2-benzofuranyl)-2-imidazoline binding in rat brain: a selective ligand for imidazoline I2 receptors. Lione LA, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):123-35

A phorbol ester-binding protein is required downstream of Rab5 in endosome fusion. Aballay A, et al. **FEBS Lett** 1998 Dec 28;441(3):373-8

Sulfonylurea receptors set the maximal open probability, ATP sensitivity and plasma membrane density of KATP channels. Babenko AP, et al. **FEBS Lett** 1999 Feb 19; 445(1):131-6

Cannabinoid receptor CB1 activates the Na+/H+ exchanger NHE-1 isoform via Gi-mediated mitogen activated protein kinase signaling transduction pathways. Bouaboula M, et al. **FEBS Lett** 1999 Apr 16;449(1):61-5

Stimulation of peripheral cannabinoid receptor CB2 induces MCP-1 and IL-8 gene expression in human promyelocytic cell line HL60. Jbilo O, et al. **FEBS Lett** 1999 Apr 9; 448(2-3):273-7

An acid amidase hydrolyzing anandamide as an endogenous ligand for cannabinoid receptors. Ueda N, et al. **FEBS Lett** 1999 Jul 9;454(3):267-70

Presynaptic imidazoline receptors mediate inhibition of noradrenaline release from sympathetic nerves in rat blood vessels. Molderings GJ, et al. **Fundam Clin Pharmacol** 1998; 12(4):388-97

Localization of cannabinoid CB1 receptors in the human anterior eye and retina. Straiker AJ, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2442-8

Dietary magnesium, not calcium, regulates renal thiazide receptor. Fanestil DD, et al. **J Am Soc Nephrol** 1999 Mar; 10(3):458-63

Arachidonic acid release from PC12 pheochromocytoma cells is regulated by I1-imidazoline receptors. Ernsberger P. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):147-54

Pharmacology and subcellular distribution of [3H]rilmenidine binding sites in rat brain. Hosseini AR, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):129-36

[3H]Rilmenidine-labelled imidazoline-receptor binding sites co-localize with [3H]2-(benzofuranyl)-2-imidazoline-labelled imidazoline-receptor binding sites and monoamine oxidase-B in rabbit, but not rat, kidney. King PR, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):118-28

Investigation of I1-imidazoline receptors using microphysiometry and molecular modelling. Musgrave IF, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):137-46

Agmatine: an endogenous ligand at imidazoline receptors may be a novel neurotransmitter in brain. Reis DJ, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):80-5 (26 ref.)

Characterization of [3H]idazoxan binding proteins in solubilized membranes from rabbit and human liver. Remaury A, et al. **J Auton Nerv Syst** 1998 Oct 15; 72(2-3):111-7

Imidazoline receptor mediated natriuresis: central and/or peripheral effect? Smyth DD, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):155-62

Two regions of sulfonylurea receptor specify the spontaneous bursting and ATP inhibition of KATP channel isoforms. Babenko AP, et al. **J Biol Chem** 1999 Apr 23; 274(17):11587-92

The molecular assembly of ATP-sensitive potassium channels. Determinants on the pore forming subunit. Giblin JP, et al. **J Biol Chem** 1999 Aug 6;274(32):22652-9

The C terminus of SUR1 is required for trafficking of KATP channels. Sharma N, et al. **J Biol Chem** 1999 Jul 16; 274(29):20628-32

Evidence that the cannabinoid CB1 receptor is a 2-arachidonoylglycerol receptor. Structure-activity relationship of 2-arachidonoylglycerol, ether-linked analogues, and related compounds. Sugiura T, et al. **J Biol Chem** 1999 Jan 29;274(5):2794-801

Characterization of sulfonylurea receptors in isolated human pancreatic islets. Giannaccini G, et al. **J Cell Biochem** 1998 Nov 1;71(2):182-8

New actin mutants allow further characterization of the nucleotide binding cleft and drug binding sites. Belmont LD, et al. **J Cell Sci** 1999 May;112 (Pt 9):1325-36

Design of libraries to explore receptor sites. Murray CM, et al. **J Chem Inf Comput Sci** 1999 Jan-Feb;39(1):46-50

Rapid drug metabolite profiling using fast liquid chromatography, automated multiple-stage mass spectrometry and receptor-binding. Lim HK, et al. **J Chromatogr A** 1999 Jan 29;831(2):227-41

MCDOCK: a Monte Carlo simulation approach to the molecular docking problem. Liu M, et al. **J Comput Aided Mol Des** 1999 Sep;13(5):435-51

I1-imidazoline receptors: an update. Bousquet P, et al. **J Hypertens Suppl** 1998 Aug;16(3):S1-5 (55 ref.)

High blood pressure management: potential benefits of I1 agents. Esler M. **J Hypertens Suppl** 1998 Aug;16(3):S19-24 (47 ref.)

Novel analogues of arachidonylethanolamide (anandamide): affinities for the CB1 and CB2 cannabinoid receptors and metabolic stability. Lin S, et al. **J Med Chem** 1998 Dec 31;41(27):5353-61

2-(2-Phenylcyclopropyl)imidazolines: reversed enantioselective interaction at I(1) and I(2) imidazoline receptors. Quaglia W, et al. **J Med Chem** 1999 Jul 29; 42(15):2737-40

The bioactive conformation of aminoalkylindoles at the cannabinoid CB1 and CB2 receptors: insights gained from (E)- and (Z)-naphthylidene indenes. Reggio PH, et al. **J Med Chem** 1998 Dec 17;41(26):5177-87

A hydrolase enzyme inactivating endogenous ligands for cannabinoid receptors. Ueda N, et al. **J Med Invest** 1998 Aug;45(1-4):27-36 (54 ref.)

Chronic ethanol increases the cannabinoid receptor agonist anandamide and its precursor N-arachidonoylphosphatidylethanolamine in SK-N-SH cells. Basavarajappa BS, et al. **J Neurochem** 1999 Feb; 72(2):522-8

Evidence for the existence of imidazoline-specific binding sites in synaptosomal plasma membranes of the bovine brainstem. Heemskerk FM, et al. **J Neurochem** 1998 Nov; 71(5):2193-202

Internalization and recycling of the CB1 cannabinoid receptor. Hsieh C, et al. **J Neurochem** 1999 Aug; 73(2):493-501

Relationships between ligand affinities for the cerebellar cannabinoid receptor CB1 and the induction of GDP/GTP exchange. Kearn CS, et al. **J Neurochem** 1999 Jun; 72(6):2379-87

Large receptor reserve for cannabinoid actions in the central nervous system. Gifford AN, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):478-83

Kinetic analysis of drug-receptor interactions of long-acting beta2 sympathomimetics in isolated receptor membranes: evidence against prolonged effects of salmeterol and formoterol on receptor-coupled adenylyl cyclase. Teschemacher A, et al. **J Pharmacol Exp Ther** 1999 Mar; 288(3):1084-92

The central cannabinoid receptor (CB1) mediates inhibition of nitric oxide production by rat microglial cells. Waksman Y, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1357-66

Glucose-receptive neurones in the rat ventromedial hypothalamus express KATP channels composed of Kir6.1 and SUR1 subunits. Lee K, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):439-52

Involvement of the n-terminus of Kir6.2 in coupling to the sulphonylurea receptor. Reimann F, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):325-36

Dissociation between I2-imidazoline receptors and MAO-B activity in platelets of patients with Alzheimer's type dementia. Soto J, et al. **J Psychiatr Res** 1999 May-Jun; 33(3):251-7

Characterization of the rat mesangial cell type 2 sulfonylurea receptor. Asano K, et al. **Kidney Int** 1999 Jun;55(6):2289-98

The peripheral cannabinoid receptor, Cb2, in retrovirally-induced leukemic transformation and normal hematopoiesis. Valk PJ, et al. **Leuk Lymphoma** 1998 Dec; 32(1-2):29-43 (108 ref.)

Signal transduction of eicosanoid CB1 receptor ligands. Howlett AC, et al. **Life Sci** 1999;65(6-7):617-25 (32 ref.)

Cannabinoid receptor interactions with the antagonists SR 141716A and SR 144528. Shire D, et al. **Life Sci** 1999; 65(6-7):627-35 (35 ref.)

Modeling and simulation in molecular pharmacology. Mihalas GI, et al. **Medinfo** 1998;9 Pt 1:372-5

Characterization of imidazoline receptors by radioligand binding. Hudson AL, et al. **Methods Mol Biol** 1999; 106:37-47 (12 ref.)

Do alpha 2-adrenoceptors and imidazoline binding sites coexist in the human term placenta? Evidence from direct binding studies. Bagaméry K, et al. **Mol Hum Reprod** 1998 Apr;4(4):387-91

A transmembrane domain of the sulfonylurea receptor mediates activation of ATP-sensitive K(+) channels by K(+) channel openers. D'hahan N, et al. **Mol Pharmacol** 1999 Aug;56(2):308-15

ATP-Sensitive K+ channel modulator binding to sulfonylurea receptors SUR2A and SUR2B: opposite effects of MgADP. Hambrock A, et al. **Mol Pharmacol** 1999 May;55(5):832-40

The difference between the CB(1) and CB(2) cannabinoid receptors at position 5.46 is crucial for the selectivity of WIN55212-2 for CB(2). Song ZH, et al. **Mol Pharmacol** 1999 Oct;56(4):834-40

Role of a conserved lysine residue in the peripheral cannabinoid receptor (CB2): evidence for subtype specificity. Tao Q, et al. **Mol Pharmacol** 1999 Mar; 55(3):605-13

A capsaicin-receptor homologue with a high threshold for

noxious heat. Caterina MJ, et al. **Nature** 1999 Apr 1; 398(6726):436–41

Vanilloid receptors on sensory nerves mediate the vasodilator action of anandamide. Zygmunt PM, et al. **Nature** 1999 Jul 29;400(6743):452–7

Characterization of cannabinoid receptors coupled to vasorelaxation by endothelium-derived hyperpolarizing factor. Harris D, et al.
Naunyn Schmiedebergs Arch Pharmacol 1999 Jan; 359(1):48–52

Biochemistry of the endogenous ligands of cannabinoid receptors. Di Marzo V, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):386–404 (123 ref.)

The CB1 cannabinoid receptor in the brain. Howlett AC. **Neurobiol Dis** 1998 Dec;5(6 Pt B):405–16 (60 ref.)

The neurobiology of cannabinoid transmission: from anandamide signaling to higher cerebral functions and disease. Navarro M, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):379–85 (48 ref.)

Cannabinoid receptor and WIN-55,212-2-stimulated [35S]GTPgammaS binding and cannabinoid receptor mRNA levels in several brain structures of adult male rats chronically exposed to R-methanandamide. Romero J, et al. **Neurochem Int** 1999 Jun;34(6):473–82

Glial cell line derived neurotrophic factor (GDNF) regulates VR1 and substance P in cultured sensory neurons. Ogun-Muyiwa P, et al. **Neuroreport** 1999 Jul 13; 10(10):2107–11

The endogenous cannabinoid anandamide, but not the CB2 ligand palmitoylethanolamide, prevents the viscero-visceral hyper-reflexia associated with inflammation of the rat urinary bladder. Jaggar SI, et al. **Neurosci Lett** 1998 Sep 4;253(2):123–6

mRNAs for clozapine-sensitive receptors co-localize in rat prefrontal cortex neurons. Vysokanov A, et al.
Neurosci Lett 1998 Dec 24;258(3):179–82

A light and electron microscopic study of the CB1 cannabinoid receptor in primate brain. Ong WY, et al. **Neuroscience** 1999;92(4):1177–91

Ligand-receptor 3-D similarity studies using multiple 4-point pharmacophores. Mason JS, et al. **Pac Symp Biocomput** 1999;:456–67

Thujone exhibits low affinity for cannabinoid receptors but fails to evoke cannabimimetic responses. Meschler JP, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):473–80

Vanilloid (Capsaicin) receptors and mechanisms. Szallasi A, et al. **Pharmacol Rev** 1999 Jun;51(2):159–212 (598 ref.)

Cooperative binding of ATP and MgADP in the sulfonylurea receptor is modulated by glibenclamide. Ueda K, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1268–72

A new perspective on cannabinoid signalling: complementary localization of fatty acid amide hydrolase and the CB1 receptor in rat brain. Egertová M, et al.
Proc R Soc Lond B Biol Sci 1998 Nov 7;265(1410):2081–5

Structural requirements for arachidonylethanolamide interaction with CB1 and CB2 cannabinoid receptors: pharmacology of the carbonyl and ethanolamide groups [published erratum appears in Prostaglandins Leukot Essent Fatty Acids 1999 Feb;60(2):140] Berglund BA, et al.
Prostaglandins Leukot Essent Fatty Acids 1998 Aug; 59(2):111–8

Carotid body I1-imidazoline receptors: binding, visualization and modulatory function. Ernsberger P, et al.
Respir Physiol 1998 Jun;112(3):239–51

Time-course of the cannabinoid receptor down-regulation in the adult rat brain caused by repeated exposure to delta9-tetrahydrocannabinol. Romero J, et al. **Synapse** 1998 Nov;30(3):298–308

Endocannabinoids: endogenous cannabinoid receptor ligands with neuromodulatory action [published erratum appears in Trends Neurosci 1999 Feb;22(2):80] Di Marzo V, et al. **Trends Neurosci** 1998 Dec;21(12):521–8 (80 ref.)

PHYSIOLOGY

Cannabinoid receptors and their role in the regulation of the serotonin transporter in human placenta. Kenney SP, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):491–7

Cannabinoid CB1 receptor of cat cerebral arterial muscle functions to inhibit L-type Ca2+ channel current. Gebremedhin D, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2085–93

Attenuation of tolerance to opioid-induced antinociception by idazoxan and other I2-ligands. Boronat MA, et al.
Ann N Y Acad Sci 1999 Jun 21;881:359–63

Participation of imidazoline receptors and alpha(2-)-adrenoceptors in the central hypotensive effects of imidazoline-like drugs. Bousquet P, et al.
Ann N Y Acad Sci 1999 Jun 21;881:272–8 (19 ref.)

The I1-imidazoline receptor and its cellular signaling pathways. Ernsberger P. **Ann N Y Acad Sci** 1999 Jun 21; 881:35–53 (86 ref.)

Presynaptic imidazoline receptors. New developments in characterization and classification. Göthert M, et al.
Ann N Y Acad Sci 1999 Jun 21;881:171–84 (21 ref.)

Moxonidine acting centrally inhibits airway reflex responses. Haxhiu MA, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:372–82

Dissociation of the effects of intramedullary monoamine neurotoxins on the hypotensive action of moxonidine and on immunodetected imidazoline and alpha 2-receptor proteins. Head GA, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:300

Central imidazoline- and alpha 2-receptors involved in the cardiovascular actions of centrally acting antihypertensive agents. Head GA. **Ann N Y Acad Sci** 1999 Jun 21; 881:279–86

Behavioral effects of RS-45041-190, a selective I2 imidazoline ligand, in rats. Jett MF, et al.
Ann N Y Acad Sci 1999 Jun 21;881:369–71

Imidazoline recognition sites and stomach function. Molderings GJ, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:332–43 (56 ref.)

Imidazolines and pancreatic hormone secretion. Morgan NG, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:217–28 (41 ref.)

Novel targets and techniques in imidazoline receptor research. Musgrave IF, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:301–12 (51 ref.)

Peripheral and central effects of naphazoline on ocular hydrodynamics. Involvement of imidazoline receptors, ANP, and Gi proteins. Ogidigben MJ, et al.
Ann N Y Acad Sci 1999 Jun 21;881:388–91

Modulation of MAO activity by imidazoline and guanidine derivatives. Raasch W, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:313–31

Anti-proliferative and anti-inflammatory actions of imidazoline agents. Are imidazoline receptors involved? Regunathan S, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:410–9

Importance of imidazoline receptors in the cardiovascular responses of clonidine in sinoaortic denervated rats. Ricci D, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:290–4

Imidazolines and the pancreatic B-cell. Actions and binding sites. Rustenbeck I, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:229–40

Peripheral and central imidazoline receptor-mediated natriuresis in the rat. Smyth DD, et al.
Ann N Y Acad Sci 1999 Jun 21;881:344–57 (72 ref.)

alpha 2A-adrenoceptors, not I1-imidazoline receptors, mediate the hypotensive effects of rilmenidine and moxonidine in conscious mice. In vivo and in vitro studies. Zhu QM, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:287–9

The antiarrhythmic agent cibenzoline inhibits KATP channels by binding to Kir6.2. Mukai E, et al.
Biochem Biophys Res Commun 1998 Oct 20;251(2):477–81

Regulation of Gi by the CB1 cannabinoid receptor C-terminal juxtamembrane region: structural requirements determined by peptide analysis. Mukhopadhyay S, et al. **Biochemistry** 1999 Mar 16;38(11):3447–55

Stage-specific excitation of cannabinoid receptor exhibits differential effects on mouse embryonic development. Wang J, et al. **Biol Reprod** 1999 Apr;60(4):839–44

Modulation and functional involvement of CB2 peripheral cannabinoid receptors during B-cell differentiation. Carayon P, et al. **Blood** 1998 Nov 15;92(10):3605–15

Excitatory transmission to the circular muscle of the guinea-pig ileum: evidence for the involvement of cannabinoid CB1 receptors. Izzo AA, et al.
Br J Pharmacol 1998 Aug;124(7):1363–8

Involvement of CB1 cannabinoid receptors in the EDHF-dependent vasorelaxation in rabbits. Niederhoffer N, et al. **Br J Pharmacol** 1999 Mar;126(6):1383–6

Cannabinoid receptor activation inhibits GABAergic neurotransmission in rostral ventromedial medulla neurons in vitro. Vaughan CW, et al. **Br J Pharmacol** 1999 Jun; 127(4):935–40

Opioid and cannabinoid receptor-mediated regulation of the increase in adrenocorticotropin hormone and corticosterone plasma concentrations induced by central administration of delta(9)-tetrahydrocannabinol in rats. Manzanares J, et al. **Brain Res** 1999 Aug 21;839(1):173–9

Independence of, and interactions between, cannabinoid and opioid signal transduction pathways in N18TG2 cells. Shapira M, et al. **Brain Res** 1998 Sep 21;806(1):26–35

Dual intracellular signaling pathways mediated by the human cannabinoid CB1 receptor. Calandra B, et al.
Eur J Pharmacol 1999 Jun 25;374(3):445–55

Increased motivation for beer in rats following administration of a cannabinoid CB1 receptor agonist. Gallate JE, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):233–40

Interactions between synthetic vanilloids and the endogenous cannabinoid system. Di Marzo V, et al. **FEBS Lett** 1998 Oct 9;436(3):449–54

I1-imidazoline receptors and cholinergic outflow to the airways. Haxhiu MA, et al. **J Auton Nerv Syst** 1998 Jul 15;71(2-3):167–74

Recent advances in imidazoline receptor research: ligands--localization and isolation--signaling--functional and clinical studies. Head GA, et al.
J Auton Nerv Syst 1998 Oct 15;72(2-3):74–9 (50 ref.)

Getting stoned without inhaling: anandamide is the brain's natural marijuana. Stahl SM. **J Clin Psychiatry** 1998 Nov; 59(11):566–7

Site and receptors involved in the sympathoinhibitory actions of rilmenidine. Head GA, et al. **J Hypertens Suppl** 1998 Aug;16(3):S7–12

Involvement of the carboxyl terminus of the third intracellular loop of the cannabinoid CB1 receptor in constitutive activation of Gs. Abadji V, et al.
J Neurochem 1999 May;72(5):2032–8

Distinct domains of the CB1 cannabinoid receptor mediate desensitization and internalization. Jin W, et al.
J Neurosci 1999 May 15;19(10):3773–80

Presynaptically located CB1 cannabinoid receptors regulate GABA release from axon terminals of specific hippocampal interneurons. Katona I, et al. **J Neurosci** 1999 Jun 1; 19(11):4544–58

Potentiation of quantal catecholamine secretion by glibenclamide: evidence for a novel role of sulphonylurea receptors in regulating the Ca(2+) sensitivity of exocytosis. Taylor SC, et al. **J Neurosci** 1999 Jul 15;19(14):5741–9

Synthesis and characterization of potent and selective agonists of the neuronal cannabinoid receptor (CB1). Hillard CJ, et al. **J Pharmacol Exp Ther** 1999 Jun; 289(3):1427–33

Cannabinoid inhibition of the processing of intact lysozyme by macrophages: evidence for CB2 receptor participation. McCoy KL, et al. **J Pharmacol Exp Ther** 1999 Jun; 289(3):1620–5

Alpha 2-adrenoceptors and I1-imidazoline binding sites: relationship with catecholamines in women of reproductive age. Piletz JE, et al. **J Psychiatr Res** 1998 Mar-Apr; 32(2):55–64

Presence and functional regulation of cannabinoid receptors in immune cells. Parolaro D. **Life Sci** 1999;65(6-7):637–44 (63 ref.)

Endocrine and other responses to acute administration of cannabinoid compounds to non-stressed male calves. Zenor BN, et al. **Life Sci** 1999;65(2):125–33

Analysis of the receptor involved in the central hypotensive effect of rilmenidine and moxonidine. Bock C, et al.
Naunyn Schmiedebergs Arch Pharmacol 1999 Apr; 359(4):262–71

Defaecation, intestinal fluid accumulation and motility in rodents: implications of cannabinoid CB1 receptors. Izzo AA, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan;359(1):65–70

Effects of imidazoline receptor ligands on monoamine synthesis in the rat brain in vivo. Sastre-Coll A, et al.
Naunyn Schmiedebergs Arch Pharmacol 1999 Jul; 360(1):50–62

The functional neuroanatomy of brain cannabinoid receptors. Breivogel CS, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):417–31 (120 ref.)

Brain cannabinoid systems as targets for the therapy of neurological disorders. Consroe P. **Neurobiol Dis** 1998 Dec; 5(6 Pt B):534–51 (159 ref.)

Cannabinoid transmission and reward-related events. Gardner EL, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):502–33 (314 ref.)

Role of cannabinoid receptors in memory storage. Hampson RE, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):474–82 (72 ref.)

Cannabinoid transmission and pain perception. Martin BR, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):447–61 (131 ref.)

Function of cannabinoid receptors in the neuroendocrine regulation of hormone secretion. Murphy LL, et al.
Neurobiol Dis 1998 Dec;5(6 Pt B):432–46 (126 ref.)

Endogenous cannabinoid signaling. Piomelli D, et al.
Neurobiol Dis 1998 Dec;5(6 Pt B):462–73 (79 ref.)

Role of the endogenous cannabinoid system in the regulation of motor activity. Rodriguez de Fonseca F, et al.
Neurobiol Dis 1998 Dec;5(6 Pt B):483–501 (130 ref.)

The cloned capsaicin receptor integrates multiple pain-producing stimuli [see comments] Tominaga M, et al. **Neuron** 1998 Sep;21(3):531–43. Comment in: Neuron 1998 Oct;21(4):644–5.

Blockade of cannabinoid receptors by SR141716 selectively increases Fos expression in rat mesocorticolimbic areas via reduced dopamine D2 function. Alonso R, et al.
Neuroscience 1999;91(2):607–20

Finding of the endocannabinoid signalling system in Hydra, a very primitive organism: possible role in the feeding response. De Petrocellis L, et al. **Neuroscience** 1999; 92(1):377–87

Cannabinoid receptors undergo axonal flow in sensory nerves. Hohmann AG, et al. **Neuroscience** 1999; 92(4):1171–5

Unresponsiveness to cannabinoids and reduced addictive effects of opiates in CB1 receptor knockout mice. Ledent C, et al. **Science** 1999 Jan 15;283(5400):401–4

Particulate matter initiates inflammatory cytokine release by activation of capsaicin and acid receptors in a human bronchial epithelial cell line. Veronesi B, et al.
Toxicol Appl Pharmacol 1999 Jan 1;154(1):106–15

Inhibition of the cAMP signaling cascade via cannabinoid receptors: a putative mechanism of immune modulation by cannabinoid compounds. Kaminski NE. **Toxicol Lett** 1998 Dec 28;102–103:59–63 (26 ref.)

RECEPTORS, EICOSANOID

METABOLISM

A 12(S)-HETE receptor in Lewis lung carcinoma cells. Herbertsson H, et al. **Adv Exp Med Biol** 1999;447:193–8 (24 ref.)

Receptors for the 5-oxo class of eicosanoids in neutrophils. O'Flaherty JT, et al. **J Biol Chem** 1998 Dec 4; 273(49):32535–41

RECEPTORS, ENDOGENOUS SUBSTANCES see **RECEPTORS, CELL SURFACE**

RECEPTORS, ENDORPHIN see **RECEPTORS, OPIOID**

RECEPTORS, ENDOTHELIN

Desensitization of ET(A) endothelin receptor-mediated negative chronotropic response in right atria--species difference and intracellular mechanisms. Ono K, et al. **Br J Pharmacol** 1998 Oct;125(4):787-97

AGONISTS

Mechanism of ET(A)-receptor stimulation-induced increases in intracellular Ca2+ in SK-N-MC cells. Heinroth-Hoffmann I, et al. **Br J Pharmacol** 1998 Nov; 125(6):1202-11

Endothelin ET(B1) receptor-mediated relaxation of rabbit basilar artery. Zuccarello M, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):67-71

Modification of blood flow in the HSN tumour and normal tissues of the rat by the endothelin ET(B) receptor agonist, IRL 1620. Bell KM, et al. **Int J Cancer** 1999 Jan 18; 80(2):295-302

Development of ET(B) selective agonists: solution structure of a linear endothelin-1 analogue, ET-1 [Cys(Acm)(1,15), Ala3, Leu7, dAsp8, Aib11]. Hewage CM, et al. **J Biomol Struct Dyn** 1998 Oct;16(2):425-35

ANALYSIS

Endothelin and endothelin receptors A and B in the human testis. Ergün S, et al. **Anat Embryol (Berl)** 1998 Mar; 199(3):207-14

Endothelins and their receptors in cirrhotic and neoplastic livers of Canadian and Chinese populations. Cai L, et al. **Anticancer Res** 1999 May-Jun;19(3B):2243-7

Increased endothelin-receptor density in myxomatous canine mitral valve leaflets. Mow T, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):254-60

Expression of endothelin(A) receptors in human gliomas and meningiomas, with high affinity for the selective antagonist PD156707. Harland SP, et al. **Neurosurgery** 1998 Oct; 43(4):890-8; discussion 898-9

Radioiodinated endothelin-1: a radiotracer for imaging endothelin receptor distribution and occupancy. Gibson RE, et al. **Nucl Med Biol** 1999 Feb;26(2):193-9

ANTAGONISTS & INHIBITORS

Protective effect of the endothelin antagonist Bosentan against ischemic skeletal muscle necrosis. Hvaal K, et al. **Acta Orthop Scand** 1999 Jun;70(3):293-7

Effects of endothelin receptor type A antagonism and nitric oxide synthase inhibition on cerebral blood flow in hypertensive rats. Granstam SO, et al. **Acta Physiol Scand** 1998 Oct;164(2):213-8

Protection against aspirin-induced human gastric mucosal injury by bosentan, a new endothelin-1 receptor antagonist. Duggan AE, et al. **Aliment Pharmacol Ther** 1999 May; 13(5):631-5

Anti-ulcerogenic properties of endothelin receptor antagonists in the rat. Padol I, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):537-44

Total peripheral conductance mediates antihypertensive effect of nonpeptide mixed endothelin receptor antagonist in deoxycorticosterone acetate-salt hypertensive rats. Yu M, et al. **Am J Hypertens** 1999 Aug;12(8 Pt 1):845-8

Coronary vascular reactivity is improved by endothelin A receptor blockade in DOCA-salt hypertensive rats. Giulumian AD, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1613-8

Elevation of blood pressure by genetic and pharmacological disruption of the ETB receptor in mice. Ohuchi T, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1071-7

An endothelin receptor antagonist ameliorates injuries of sinusoid lining cells in porcine liver transplantation. Fukunaga K, et al. **Am J Surg** 1999 Jul;178(1):64-8

Endothelin receptor blockade improves fluid sequestration, pancreatic capillary blood flow, and survival in severe experimental pancreatitis. Foitzik T, et al. **Ann Surg** 1998 Nov;228(5):670-5

Effect of non-selective endothelin blockade, TAK-044, on the ischemic cellular injury of rat heart. Geshi E, et al. **Basic Res Cardiol** 1999 Apr;94(2):94-101

Novel sodium binding properties of some cyclopentapeptide endothelin A selective receptor antagonists: electrospray and fast-atom-bombardment mass spectrometric studies. Ngoka LC, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):713-9

Endothelin receptor antagonists: synthesis and structure-activity relationships of substituted benzothiazine-1,1-dioxides. Berryman KA, et al. **Bioorg Med Chem** 1998 Sep;6(9):1447-56

Discovery of a series of pyrrolidine-based endothelin receptor antagonists with enhanced ET(A) receptor selectivity. Boyd SA, et al. **Bioorg Med Chem** 1999 Jun; 7(6):991-1002

The discovery and structure-activity relationships of nonpeptide, low molecular weight antagonists selective for the endothelin ET(B) receptor. Chan MF, et al. **Bioorg Med Chem** 1998 Dec;6(12):2301-16

Hybrid peptides constructed from RES-701-1, an endothelin B receptor antagonist, and endothelin; binding selectivity for endothelin receptors and their pharmacological activity. Shibata K, et al. **Bioorg Med Chem** 1998 Dec;6(12):2459-67

Endothelin antagonists: discovery of EMD 122946, a highly potent and orally active ETA selective antagonist. Mederski WW, et al. **Bioorg Med Chem Lett** 1998 Jul 7; 8(13):1771-6

Benzofuro[3,2-b]pyridines as mixed ET(A)/ET(B) and selective ET(B) endothelin receptor antagonists. Mederski WW, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):619-22

Discovery of IRL 3461: a novel and potent endothelin antagonist with balanced ETA/ETB affinity. Sakaki J, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2241-6

Stereoselective synthesis of a novel and bifunctional endothelin antagonist, IRL 3630. Sakaki J, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2247-52

Differentiated effects on splanchnic homeostasis by selective and non-selective endothelin receptor antagonism in porcine endotoxaemia. Oldner A, et al. **Br J Pharmacol** 1999 Aug;127(8):1793-804

Acute effects of an endothelin-1 receptor antagonist bosentan at different stages of heart failure in conscious dogs. Choussat R, et al. **Cardiovasc Res** 1998 Sep;39(3):580-8

The endothelin A receptor antagonist LU 135252 protects the myocardium from neutrophil injury during ischaemia/reperfusion. Gonon AT, et al. **Cardiovasc Res** 1998 Sep;39(3):674-82

Chronic blockade of endothelin ETA receptors improves flow dependent dilation in resistance arteries of hypertensive rats. Iglarz M, et al. **Cardiovasc Res** 1998 Sep; 39(3):657-64

Endothelin and mechanical properties of the carotid artery in Wistar-Kyoto and spontaneously hypertensive rats. Marano G, et al. **Cardiovasc Res** 1999 Mar;41(3):701-7

Beneficial effects of long-term selective endothelin type A receptor blockade in canine experimental heart failure. Moe GW, et al. **Cardiovasc Res** 1998 Sep;39(3):571-9

Endothelin in hypertension: a role for receptor antagonists? Moreau P. **Cardiovasc Res** 1998 Sep;39(3):534-42 (81 ref.)

Selective ETA receptor blockade prevents left ventricular remodeling and deterioration of cardiac function in experimental heart failure. Mulder P, et al. **Cardiovasc Res** 1998 Sep;39(3):600-8

Comparison of the acute effects of a selective endothelin ETA and a mixed ETA/ETB receptor antagonist in heart failure. Ohnishi M, et al. **Cardiovasc Res** 1998 Sep; 39(3):617-24

Endothelin blockers and renal protection: a new strategy to prevent end-organ damage in cardiovascular disease? Rabelink TJ, et al. **Cardiovasc Res** 1998 Sep;39(3):543-9 (102 ref.)

Endothelin-A and -B antagonists protect myocardial and endothelial function after ischemia/reperfusion in a rat heart transplantation model. Szabó G, et al. **Cardiovasc Res** 1998 Sep;39(3):683-90

Endothelin B receptor-mediated vasoconstriction induced by endothelin A receptor antagonist. Zhang Y, et al. **Cardiovasc Res** 1998 Sep;39(3):665-73

Thieno[2,3-d]pyrimidine-3-acetic acids. A new class of nonpeptide endothelin receptor antagonists. Cho N, et al. **Chem Pharm Bull (Tokyo)** 1998 Nov;46(11):1724-37

Chronic endothelin receptor antagonism preserves coronary endothelial function in experimental hypercholesterolemia. Best PJ, et al. **Circulation** 1999 Apr 6;99(13):1747-52

Endothelin A receptor blockade causes adverse left ventricular remodeling but improves pulmonary artery pressure after infarction in the rat. Nguyen QT, et al. **Circulation** 1998 Nov 24;98(21):2323-30

Short-term oral endothelin-receptor antagonist therapy in conventionally treated patients with symptomatic severe chronic heart failure. Sütsch G, et al. **Circulation** 1998 Nov 24;98(21):2262-8

Effects of a specific endothelin-converting enzyme inhibitor on cardiac, renal, and neurohumoral functions in congestive heart failure: comparison of effects with those of endothelin A receptor antagonism. Wada A, et al. **Circulation** 1999 Feb 2;99(4):570-7

Role of endothelin in deterioration of heart failure due to cardiomyopathy in hamsters: increase in endothelin-1 production in the heart and beneficial effect of endothelin-A receptor antagonist on survival and cardiac function. Yamauchi-Kohno R, et al. **Circulation** 1999 Apr 27;99(16):2171-6

Endothelin-1 potentiates human smooth muscle cell growth to PDGF: effects of ETA and ETB receptor blockade. Yang Z, et al. **Circulation** 1999 Jul 6;100(1):5-8

Effects of nitric oxide synthase inhibition and endothelin ETA receptor blockade on haemodynamics in hypertensive rats. Granstam SO, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):693-701

Pharmacokinetics and pharmacodynamics of SB 209670, an endothelin receptor antagonist: effects on the regulation of renal vascular tone. Freed MI, et al. **Clin Pharmacol Ther** 1999 May;65(5):473-82

Improvement of renal dysfunction in dogs with endotoxemia by a nonselective endothelin receptor antagonist. Mitaka C, et al. **Crit Care Med** 1999 Jan;27(1):146-53

Investigations of structural requirements for endothelin antagonism. van der Walle CF, et al. **Curr Med Chem** 1998 Aug;5(4):321-35 (78 ref.)

Absorption, excretion, and metabolism of the endothelin receptor antagonist bosentan in healthy male subjects. Weber C, et al. **Drug Metab Dispos** 1999 Jul;27(7):810-5

Endothelin-1 receptor antagonism does not influence myocardial function in hypertensive dogs. Massart PE, et al. **Eur J Clin Invest** 1998 Oct;28(10):798-806

Endothelin ET(A) receptor antagonist reverses the inhibitory effect of platelet-derived growth factor on cytokine-induced nitric oxide production. Hirahashi J, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):119-23

Effects of the endothelin ET(A) receptor antagonist, TA-0201, on pulmonary arteries isolated from hypoxic rats. Itoh H, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):233-8

The effect of the endothelin ET(A) receptor antagonist CI-1020 on hypoxic pulmonary vasoconstriction. Jones RD, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):367-75

Atypical receptors mediate the response to endothelin-1 and sarafotoxin S6b in the human umbilical artery. Laursen M, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):167-72

Endothelin release by capsaicin in isolated working rat heart. Szolcsányi J, et al. **Eur J Pharmacol** 1999 Jul 9; 376(3):247-50

Pharmacology of A-216546: a highly selective antagonist for endothelin ET(A) receptor. Wu-Wong JR, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):189-201

Endothelin-1-(1-31), a novel vasoactive peptide, increases [Ca2+]i in human coronary artery smooth muscle cells. Yoshizumi M, et al. **Eur J Pharmacol** 1998 May 8; 348(2-3):305-9

Synthesis and structure-activity relationship studies of new endothelin pseudopeptide analogues containing alkyl spacers. Galoppini C, et al. **Farmaco** 1999 Apr 30; 54(4):213-7

Chronic blockade of endothelin receptors in cirrhotic rats: hepatic and hemodynamic effects. Poo JL, et al. **Gastroenterology** 1999 Jan;116(1):161-7

BQ788, an endothelin ET(B) receptor antagonist, attenuates stab wound injury-induced reactive astrocytes in rat brain. Koyama Y, et al. **Glia** 1999 May;26(3):268-71

ET(A) receptor antagonist ameliorates nephrosclerosis and left ventricular hypertrophy induced in rat by prolonged inhibition of nitric oxide synthesis. Nakamura T, et al. **Hypertens Res** 1998 Dec;21(4):251-7

Stimulation of the renin-angiotensin system by endothelin subtype A receptor blockade in conscious dogs. Berthold H, et al. **Hypertension** 1999 Jun;33(6):1420-4

Early-onset but not late-onset endothelin-A-receptor blockade can modulate hypertension, cerebral edema, and proteinuria in stroke-prone hypertensive rats. Blezer EL, et al. **Hypertension** 1999 Jan;33(1):137-44

Chronic ETA receptor blockade attenuates cardiac hypertrophy independently of blood pressure effects in renovascular hypertensive rats. Ehmke H, et al. **Hypertension** 1999 Apr;33(4):954-60

Endothelin-dependent tone limits acetylcholine-induced dilation of resistance coronary vessels after blockade of NO formation in conscious dogs. Ming Z, et al. **Hypertension** 1998 Nov;32(5):844-8

Systemic blockade of the endothelin-B receptor increases peripheral vascular resistance in healthy men. Strachan FE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):581-5

Effect of Ox-LDL on endothelium-dependent response in pig ciliary artery: prevention by an ET(A) antagonist. Zhu P, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):1015-20

The effects of endothelin-A receptor blockade during the progression of pacing-induced congestive heart failure. Saad D, et al. **J Am Coll Cardiol** 1998 Nov 15;32(6):1779-86

The ET(A) receptor blocker LU 135252 prevents chronic transplant nephropathy in the "Fisher to Lewis" model. Orth SR, et al. **J Am Soc Nephrol** 1999 Feb;10(2):387-91

Effects of nonpeptide endothelin receptor antagonists in rats with reduced renal mass. Clozel M, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):611-8

Aggravation of left ventricular remodeling by a novel specific endothelin ET(A) antagonist EMD94246 in rats with experimental myocardial infarction. Hu K, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):505-8

Pharmacological characterization of PABSA, an orally active and highly potent endothelin-receptor antagonist. Iwasaki T, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):139-47

Dexamethasone modulates the expression of endothelin-1 and -A receptors in A7r5 vascular smooth muscle cells. Koshino Y, et al. **J Cardiovasc Pharmacol** 1998 Oct; 32(4):665-72

Protective effects of endothelin receptor antagonists in dogs with aortic cross-clamping. Roux S, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):199-205

Does blockade of endothelinB1-receptor activation increase endothelinB2/endothelinA receptor-mediated constriction in the rabbit basilar artery? Zuccarello M, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):679-84

Multiple-dose pharmacokinetics, safety, and tolerability of bosentan, an endothelin receptor antagonist, in healthy male volunteers. Weber C, et al. **J Clin Pharmacol** 1999 Jul; 39(7):703-14

Effect of the endothelin-receptor antagonist bosentan on the pharmacokinetics and pharmacodynamics of warfarin. Weber C, et al. **J Clin Pharmacol** 1999 Aug;39(8):847-54

Effects of BQ-123 on systemic and renal hemodynamic responses to endothelin-1 in the rat split hydronephrotic kidney. Cavarape A, et al. **J Hypertens** 1998 Oct; 16(10):1449-58

Renal haemodynamic effects of endothelin-1 and the ETA/ETB antagonist TAK-044 in anaesthetized rabbits. Evans RG, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1897-905

Discovery and synthesis of (S)-3-[2-(3,4-dimethoxyphenyl)ethoxy]-2-(4,6-dimethylpyrimidin-2-yloxy)-3,3-dipheny'propionic

acid (LU 302872), a novel orally active mixed ET(A)/ET(B) receptor antagonist. Amberg W, et al. **J Med Chem** 1999 Aug 12;42(16):3026–32

Design, synthesis, and activity of a series of pyrrolidine–3–carboxylic acid–based, highly specific, orally active ET(B) antagonists containing a diphenylmethylamine acetamide side chain. Liu G, et al. **J Med Chem** 1999 Sep 9;42(18):3679–89

Biphenylsulfonamide endothelin antagonists: structure–activity relationships of a series of mono– and disubstituted analogues and pharmacology of the orally active endothelin antagonist 2'–amino–N–(3,4–dimethyl–5–isoxazolyl)–4'–(2–methylpropyl)[1,1'–biphenyl]–2–sulfonamide (BMS–187308). Murugesan N, et al. **J Med Chem** 1998 Dec 17;41(26):5198–218

Butenolide endothelin antagonists with improved aqueous solubility. Patt WC, et al. **J Med Chem** 1999 Jun 17; 42(12):2162–8

Pyrrolidine–3–carboxylic acids as endothelin antagonists. 4. Side chain conformational restriction leads to ET(B) selectivity. von Geldern TW, et al. **J Med Chem** 1999 Sep 9;42(18):3668–78

Different contributions of the endothelin ET(A) receptor to hypertension induced by acute or chronic inhibition of nitric oxide synthesis. Hashimoto N, et al. **J Pharm Pharmacol** 1998 Sep;50(9):1051–8

Primary active transport of peptidic endothelin antagonists by rat hepatic canalicular membrane. Akhteruzzaman S, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):575–81

Carrier–mediated hepatic uptake of peptidic endothelin antagonists in rats. Akhteruzzaman S, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1107–15

Pharmacology of tezosentan, new endothelin receptor antagonist designed for parenteral use. Clozel M, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):840–6

Pharmacological properties of J–104132 (L–753,037), a potent, orally active, mixed ETA/ETB endothelin receptor antagonist. Nishikibe M, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1262–70

Pharmacological profile of ZD1611, a novel, orally active endothelin ETA receptor antagonist. Wilson C, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1085–91

Contribution of nitric oxide to the presynaptic inhibition by endothelin ETB receptor of the canine stellate ganglionic transmission. Yamada K, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1175–81

Influence endothelin ETA receptor antagonist--BQ–123--on changes of endothelin–1 level in plasma of rats with acute vasospasm following subarachnoid hemorrhage. Jośko J, et al. **J Physiol Pharmacol** 1998 Sep;49(3):367–75

Chronic blockade of nitric oxide synthase and endothelin receptors during pregnancy in the rat: effect on reactivity of the uterine artery in vitro. Wight E, et al. **J Soc Gynecol Investig** 1998 Nov–Dec;5(6):288–95

Endothelin receptor blockade prevents the rise in pulmonary vascular resistance after cardiopulmonary bypass in lambs with increased pulmonary blood flow. Petrossian E, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):314–23

Macrophage and myofibroblast involvement in ischemic acute renal failure is attenuated by endothelin receptor antagonists. Forbes JM, et al. **Kidney Int** 1999 Jan; 55(1):198–208

Endothelin receptor antagonists influence cardiovascular morphology in uremic rats. Nabokov AV, et al. **Kidney Int** 1999 Feb;55(2):512–9

Endothelin antagonists. Benigni A, et al. **Lancet** 1999 Jan 9;353(9147):133–8 (87 ref.)

Endothelin receptor antagonists reduce the pressor effects of angiotensin II into the periaqueductal gray area of rats. D'Amico M, et al. **Life Sci** 1999;65(9):PL95–9

In vitro stability and intestinal absorption characteristics of hexapeptide endothelin receptor antagonists. Han HK, et al. **Life Sci** 1998;63(18):1599–609

ET(A)/ET(B) receptor antagonist bosentan inhibits neointimal development in collared carotid arteries of rabbits. Marano G, et al. **Life Sci** 1998;63(18):PL259–66

The effects of diminishing albumin binding to some Endothelin receptor antagonists. Szczepankiewicz BG, et al. **Life Sci** 1998;63(21):1905–12

Endothelin subtype A receptor antagonist induces osteopenia in growing rats. Tsukahara H, et al. **Metabolism** 1998 Nov; 47(11):1403–7

Treatment of cardiovascular changes in renal failure--ACE inhibition, endothelin receptor blockade or a combination of both strategies? Amann K, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:43–4

Novel strategies to retard renal disease progression: combining ACE inhibition with endothelin receptor blocking? [editorial] Benigni A, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2734–8

Prevention of cold ischaemia–reperfusion injury by an endothelin receptor antagonist in experimental renal transplantation. Herrero I, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):872–80

Protective effects of endothelin antagonists in chronic renal failure. Wolf SC, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:29–30

Prevention of vasospasm after subarachnoid hemorrhage in dogs by continuous intravenous infusion of PD156707. Macdonald RL, et al. **Neurol Med Chir (Tokyo)** 1998;38 Suppl:138–45

Prevention of vasospasm after subarachnoid hemorrhage in dogs by continuous intravenous infusion of PD156707. Macdonald RL, et al. **Neurol Med Chir (Tokyo)** 1998 Sep; 38 Suppl:138–45

Expression of endothelin(A) receptors in human gliomas and meningiomas, with high affinity for the selective antagonist PD156707. Harland SP, et al. **Neurosurgery** 1998 Oct; 43(4):890–8; discussion 898–9

Systemic administration of the endothelin–A receptor antagonist TBC 11251 attenuates cerebral vasospasm after experimental subarachnoid hemorrhage: dose study and review of endothelin–based therapies in the literature on cerebral vasospasm. Wanebo JE, et al. **Neurosurgery** 1998 Dec;43(6):1409–17; discussion 1417–8 (95 ref.)

Articular nociception induced by endothelin–1, carrageenan and LPS in naive and previously inflamed knee–joints in the rat: inhibition by endothelin receptor antagonists. De–Melo JD, et al. **Pain** 1998 Sep;77(3):261–9

Endothelin A receptor blockade decreases pulmonary vascular resistance in premature lambs with hyaline membrane disease. Ivy DD, et al. **Pediatr Res** 1998 Aug; 44(2):175–80

Discovery and development of an endothelin A receptor–selective antagonist PD 156707. Doherty AM, et al. **Pharm Biotechnol** 1998;11:81–112 (126 ref.)

Endothelin receptor antagonists. Elliott JD, et al. **Pharm Biotechnol** 1998;11:113–29 (37 ref.)

Analysis of nonlinear hepatic clearance of a cyclopentapeptide, BQ–123, with the multiple indicator dilution method using the dispersion model. Hisaka A, et al. **Pharm Res** 1999 Jan;16(1):103–9

Reduction of burn injury using TAK–044 [letter; comment] Ang E. **Plast Reconstr Surg** 1998 Nov;102(6):2278. Comment on: Plast Reconstr Surg 1997 May;99(6):1610–9.

Endothelin ETA receptor blockade restores NO–mediated endothelial function and inhibits atherosclerosis in apolipoprotein E–deficient mice. Barton M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14367–72

An endothelin receptor B antagonist inhibits growth and induces cell death in human melanoma cells in vitro and in vivo. Lahav R, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11496–500

Endothelin–1 and endothelin receptor antagonists in cardiovascular remodeling. Kirchengast M, et al. **Proc Soc Exp Biol Med** 1999 Sep;221(4):312–25 (118 ref.)

Blocking of the endothelin system: the development of receptor antagonists. Battistini B, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):97–112 (137 ref.)

The ETA antagonist CI–1020 inhibits hypoxic pulmonary vasoconstriction in small isolated rat pulmonary arteries. Jones RD, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):177–81

Effect of endothelin receptor antagonists (BQ–485, Ro 47–0203) on collagen deposition during the development of bleomycin–induced pulmonary fibrosis in rats. Mutsaers SE, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):221–5

The effect of the ETA receptor antagonist (CI–1020) in rats with established hypoxic pulmonary hypertension. Sheedy W, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):173–6

Effect of SB 217242 on hypoxia–induced cardiopulmonary changes in the high altitude–sensitive rat. Underwood DC, et al. **Pulm Pharmacol Ther** 1999;12(1):13–26

Teratogenic effects of the endothelin receptor antagonist L–753,037 in the rat [published erratum appears in Reprod Toxicol 1999 May–Jun;13(3):237] Spence S, et al. **Reprod Toxicol** 1999 Jan–Feb;13(1):15–29

Effects of selective and non–selective endothelin antagonists on ischemia–reperfusion damage in the isolated perfused murine liver. Tanaka K, et al. **Res Commun Mol Pathol Pharmacol** 1999 Feb; 103(2):129–38

L–arginine and endothelin receptor antagonist bosentan counteract hemodynamic effects of modified hemoglobin. Fischer SR, et al. **Shock** 1999 Apr;11(4):283–90

Developmental toxicity and toxicokinetics of two endothelin receptor antagonists in rats and rabbits. Treinen KA, et al. **Teratology** 1999 Jan;59(1):51–9

Endothelin–A receptor antagonist BQ123 protects against myocardial and endothelial reperfusion injury. Szabó G, et al. **Thorac Cardiovasc Surg** 1998 Aug;46(4):232–6

Coronary arteriopathy in monkeys following administration of CI–1020, an endothelin A receptor antagonist. Albassam MA, et al. **Toxicol Pathol** 1999 Mar–Apr;27(2):156–64

Endothelin antagonist improves viability of liver grafts from non–heart–beating donors. Fukunaga K, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):460–1

Successful liver transplantation from non–heart–beating donors by blockade of endothelin and PAE. Fukunaga K, et al. **Transplant Proc** 1998 Nov;30(7):3797

Effect of ETA/ETB receptor antagonist administration on iNOS gene expression in a rat renal transplantation model. Herrero I, et al. **Transplant Proc** 1999 Sep;31(6):2344–5

Endothelin–1 receptor blockade and its effect on chronic rejection. Tang JL, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1249

Endothelin receptor antagonist improves pulmonary hemodynamics during lung ischemia/reperfusion injury. Shennib H, et al. **Transplantation** 1998 Oct 15;66(7):917–37

Heart failure and endothelin receptor antagonists. Miyauchi T, et al. **Trends Pharmacol Sci** 1999 May;20(5):210–7 (89 ref.)

Effects of endothelin and endothelin receptor antagonism in arteriolar and venolar microcirculation. Hergenröder S, et al. **Vasa** 1998 Nov;27(4):216–9

[Endothelins in chronic cardiac insufficiency] Pousset F. **Arch Mal Coeur Vaiss** 1998 Dec;91(12 Suppl):23–6 (23 ref.) (Eng. Abstr.) **(Fre)**

BIOSYNTHESIS

Localization and distribution of endothelin receptor subtypes in pulmonary vasculature of normal and hypoxia–exposed rats. Soma S, et al. **Am J Respir Cell Mol Biol** 1999 Apr; 20(4):620–30

Suppression of endothelin system in Vero cells latently infected with influenza virus B/Lee/40. Hayase Y, et al. **Arch Virol** 1999;144(7):1421–7

Truncated human endothelin receptor A produced by alternative splicing and its expression in melanoma. Zhang YF, et al. **Br J Cancer** 1998 Nov;78(9):1141–6

Expression of endothelin 1 and endothelin A receptor in ovarian carcinoma: evidence for an autocrine role in tumor growth. Bagnato A, et al. **Cancer Res** 1999 Feb 1; 59(3):720–7

Presence and location of endothelin and endothelin–binding sites in human nasal mucosa under normal and metaplastic conditions. Gulisano M, et al. **Cell Tissue Res** 1998 Sep; 293(3):509–16

The endothelin system in human and monkey ovaries: in situ gene expression of the different components. Karam H, et al. **Cell Tissue Res** 1999 Jan;295(1):101–9

Effects of insulin treatment on diabetes–induced alterations in endothelin receptors in rat ureter. Saito M, et al. **Int J Urol** 1999 Jul;6(7):361–8

Superoxide–induced changes in endothelin (ET) receptors in hepatic stellate cells. Gabriel A, et al. **J Hepatol** 1998 Oct;29(4):614–27

Overexpression of vascular endothelin–1 and endothelin–A receptors in a fructose–induced hypertensive rat model. Juan CC, et al. **J Hypertens** 1998 Dec;16(12 Pt 1):1775–82

CHEMISTRY

Solution structure of a novel ETB receptor selective agonist ET1–21 [Cys(Acm)1,15, Aib3,11, Leu7] by nuclear magnetic resonance spectroscopy and molecular modelling. Hewage CM, et al. **J Pept Res** 1999 Mar;53(3):223–33

Structural basis of the function of endothelin receptor. Masaki T, et al. **Mol Cell Biochem** 1999 Jan;190(1–2):153–6 (29 ref.)

CLASSIFICATION

PD 142893, SB 209670, and BQ 788 selectively antagonize vascular endothelial versus vascular smooth muscle ET(B)–receptor activity in the rat. Schroeder RL, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):935–43

Endothelin receptor subtypes: distribution and function in the lung. Goldie RG. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):89–95 (103 ref.)

DEFICIENCY

Both ET(A) and ET(B) receptors are involved in mitogen–activated protein kinase activation and DNA synthesis of astrocytes: study using ET(B) receptor–deficient rats (aganglionosis rats). Sasaki Y, et al. **Eur J Neurosci** 1998 Sep;10(9):2984–93

Endothelin B receptor–deficient rats as a subtraction model to study the cerebral endothelin system. Ehrenreich H, et al. **Neuroscience** 1999;91(3):1067–75

DRUG EFFECTS

Endothelin–induced contractions in placental arteries is mediated by both ETA– and ETB–receptors. Sand AE, et al. **Acta Physiol Scand** 1998 Jul;163(3):227–34

Pharmacological characterization of endothelin receptor subtypes in the guinea–pig prostate gland. Lau WA, et al. **Br J Pharmacol** 1999 Jul;127(5):1091–8

Desensitization of ET(A) endothelin receptor–mediated negative chronotropic response in right atria--species difference and intracellular mechanisms. Ono K, et al. **Br J Pharmacol** 1998 Oct;125(4):787–97

Involvement of ET(A) and ET(B) receptors in the activation of phospholipase D by endothelins in cultured rat cortical astrocytes. Servitja JM, et al. **Br J Pharmacol** 1998 Aug; 124(8):1728–34

Pharmacological characterization of endothelin–induced contraction in the guinea–pig oesophageal muscularis mucosae. Uchida K, et al. **Br J Pharmacol** 1998 Oct; 125(4):849–57

In vivo and in vitro action of endothelin–1 on goat cerebrovascular bed. Fernández N, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):199–211

Modulation by endothelin–1 of lipopolysaccharide–induced cyclooxygenase 2 expression in mouse peritoneal macrophages. Shimada K, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):285–92

Cytokines induce increased endothelin ET(B) receptor–mediated contraction. Uddman E, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):223–32

Solution–structure of a peptide designed to mimic the C–terminal hexapeptide of endothelin. Van der Walle CF, et al. **J Pharm Pharmacol** 1998 Aug;50(8):837–44

Endothelin receptors in testosterone–induced prostatic

hypertrophy in rats. Auger-Pourmarin L, et al. **Jpn J Pharmacol** 1998 Aug;77(4):307-10

Endothelin receptors and calcium translocation pathways in human airways. Hay DW, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):404-10

Role of endothelin receptor subtypes in the behavioral effects of the intracerebroventricular administration of endothelin-1 in conscious rats. Nagasaka J, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):171-6

Characterisation of endothelin induced relaxation in guinea-pig airways: evidence for dilatory ETA- and ETB-receptors. Granström B, et al. **Pulm Pharmacol Ther** 1997 Oct-Dec;10(5-6):293-8

GENETICS

Polymorphisms of the endothelin-A and -B receptor genes in relation to blood pressure and myocardial infarction: the Etude Cas-Témoins sur l'Infarctus du Myocarde (ECTIM) Study. Nicaud V, et al. **Am J Hypertens** 1999 Mar;12(3):304-10

Endothelin-1 inhibits secretin-stimulated ductal secretion by interacting with ETA receptors on large cholangiocytes. Caligiuri A, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G835-46

Quantification of endothelin ETA and ETB receptor mRNA by competitive reverse transcription-polymerase chain reaction: development of a multispecies assay. Smith PJ, et al. **Anal Biochem** 1999 Jun 15;271(1):93-6

Variants of endothelin-1 and its receptors in atopic asthma. Mao XQ, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):259-62

Expression of endothelin-1, endothelin-converting enzyme, and endothelin receptors in chronic heart failure. Zolk O, et al. **Circulation** 1999 Apr 27;99(16):2118-23

Increased levels of endothelin ETB receptor mRNA in human omental arteries after organ culture: quantification by competitive reverse transcription-polymerase chain reaction. Möller S, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):788-94

Mutations in the endothelin-receptor B gene in Hirschsprung disease in Sweden [letter] Svensson PJ, et al. **Clin Genet** 1999 Mar;55(3):215-7

Impaired growth and differentiation of diploid but not immortal melanoblasts from endothelin receptor B mutant (piebald) mice. Sviderskaya EV, et al. **Dev Dyn** 1998 Dec; 213(4):452-63

Pharmacological inactivation of the endothelin type A receptor in the early chick embryo: a model of mispatterning of the branchial arch derivatives. Kempf H, et al. **Development** 1998 Dec;125(24):4931-41

Characterization and regulation of type A endothelin receptor gene expression in bovine luteal cell types. Mamluk R, et al. **Endocrinology** 1999 May;140(5):2110-6

Endothelin-1, endothelin receptors and ecNOS gene transcription in vital organs during traumatic shock in rats. Minchenko AG, et al. **Endothelium** 1999;6(4):303-14

Altered ratio of endothelin ET(A)- and ET(B) receptor mRNA in bronchial biopsies from patients with asthma and chronic airway obstruction. Möller S, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):R1-3

Nucleotide sequence of endothelin-B receptor gene reveals origin of piebald mutation in laboratory mouse. Kumagai T, et al. **Exp Anim** 1998 Oct;47(4):265-9

Novel endothelin B receptor transcripts with the potential of generating a new receptor. Tsutsumi M, et al. **Gene** 1999 Mar 4;228(1-2):43-9

Phenotypic variation in a family with mutations in two Hirschsprung-related genes (RET and endothelin receptor B). Svensson PJ, et al. **Hum Genet** 1998 Aug;103(2):145-8

Assignment of porcine serotonin receptor subtype 2 alpha and endothelin-B receptor to chromosome 11 by linkage analysis. Sun HS, et al. **J Anim Sci** 1999 Mar;77(3):795-6

Glucocorticoids regulate the expression of the human osteoblastic endothelin A receptor gene. Börcsök I, et al. **J Exp Med** 1998 Nov 2;188(9):1563-73

Mutational analysis of the endothelin-B receptor gene in Japanese Hirschsprung's disease. Inoue M, et al. **J Pediatr Surg** 1998 Aug;33(8):1206-8

Altered endothelin-3 and endothelin-B receptor mRNA expression in Hirschsprung's disease. Oue T, et al. **J Pediatr Surg** 1999 Aug;34(8):1257-60

The expression patterns of endothelin-A receptor and endothelin 1 in the avian embryo. Nataf V, et al. **Mech Dev** 1998 Jul;75(1-2):145-9

Nitric oxide in cyclosporine A-induced hypertension: endothelin receptors gene expression. Oriji GK. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul; 61(1):41-4

Quantification of mRNA levels of endothelin receptor subtypes and preproEndothelin-1 in renal needle biopsies by competitive reverse transcriptase polymerase chain reaction. Asberg A, et al. **Scand J Clin Lab Invest** 1998 Jul;58(4):299-306

Genetic aspects of Hirschsprung's disease. Kusafuka T, et al. **Semin Pediatr Surg** 1998 Aug;7(3):148-55 (97 ref.)

Point nucleotidic changes in both the RET proto-oncogene and the endothelin-B receptor gene in a Hirschsprung disease patient associated with Down syndrome. Sakai T, et al. **Tohoku J Exp Med** 1999 Jan;187(1):43-7

Gene expression of the renal endothelin system in renal transplant recipients on cyclosporine A based immunosuppression. Asberg A, et al. **Transplantation** 1999 Apr 15;67(7):1056-60

[Endothelin B receptor system and Hirschsprung disease] Inoue M, et al. **Nippon Rinsho** 1998 Jul;56(7):1876-80 (20 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Increased endothelin ETB contractile activity in cultured segments of human temporal artery. White LR, et al. **Acta Physiol Scand** 1998 Sep;164(1):21-7

Expression of endothelin-1, ETA and ETB receptors, and ECE and distribution of endothelin-1 in failing rat heart. Kobayashi T, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1197-206

High affinity interaction of endothelin-3 with recombinant ETA receptors. Desmarets J, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):357-60

Characterization of the carboxyl terminal-truncated endothelin B receptor coexpressed with G protein-coupled receptor kinase 2. Shibasaki T, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):569-77

Endothelin receptors in adult human and swine isolated ventricular cardiomyocytes. Modesti PA, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):369-74

Interactions of endothelin receptor subtypes A and B with Gi, Go, and Gq in reconstituted phospholipid vesicles. Doi T, et al. **Biochemistry** 1999 Mar 9;38(10):3090-9

SV40 virus transformation down-regulates endothelin receptor. Chiou WJ, et al. **Biochim Biophys Acta** 1999 May 6;1450(1):35-44

Increased expression of endothelin B receptors in the diabetic rabbit urinary bladder: functional relevance. Mumtaz FH, et al. **BJU Int** 1999 Jan;83(1):113-22

Development of endothelin receptors in perinatal rabbit pulmonary resistance arteries. Docherty C, et al. **Br J Pharmacol** 1998 Jul;124(6):1165-74

Characterization of the endothelin receptor subtype mediating epithelium-derived relaxant nitric oxide release from guinea-pig trachea. Emanueli C, et al. **Br J Pharmacol** 1998 Nov;125(5):963-8

Endothelin receptor expression and pharmacology in human saphenous vein graft. Maguire JJ, et al. **Br J Pharmacol** 1999 Jan;126(2):443-50

Ca2+ signalling by endothelin receptors in rat and human cultured airway smooth muscle cells. Maxwell MJ, et al. **Br J Pharmacol** 1998 Dec;125(8):1768-78

Suc-[Glu9,Ala11,15]-endothelin-1 (8-21), IRL 1620, identifies two populations of ET(B) receptors in guinea-pig bronchus. Mazzoni MR, et al. **Br J Pharmacol** 1999 Jul; 127(6):1406-14

Modulation of ET-1-induced contraction of human bronchi by airway epithelium-dependent nitric oxide release via ET(A) receptor activation. Naline E, et al. **Br J Pharmacol** 1999 Jan;126(2):529-35

Transcriptional down-regulation of the rabbit pulmonary artery endothelin B receptor during phenotypic modulation. Owe-Young R, et al. **Br J Pharmacol** 1999 Jan;126(1):103-10

Biochemical and molecular endothelin responses to morphine sulfate infusion in conscious newborn piglets. Modanlou HD, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):443-50

Endothelin B receptor-mediated vasoconstriction induced by endothelin A receptor antagonist. Zhang Y, et al. **Cardiovasc Res** 1998 Sep;39(3):665-73

Functional effects of endothelin and regulation of endothelin receptors in isolated human nonfailing and failing myocardium. Pieske B, et al. **Circulation** 1999 Apr 13; 99(14):1802-9

Endothelin-1- and endothelin-receptors in lung biopsies of patients with pulmonary hypertension due to congenital heart disease. Lutz J, et al. **Clin Chem Lab Med** 1999 Apr; 37(4):423-8

Endothelin receptor distribution and function in the airways. Henry PJ. **Clin Exp Pharmacol Physiol** 1999 Feb; 26(2):162-7 (51 ref.)

Pharmacological and molecular biological evidence for ETA endothelin receptor subtype mediating mechanical responses in the detrusor smooth muscle of the human urinary bladder. Okamoto-Koizumi T, et al. **Clin Sci (Colch)** 1999 Apr;96(4):397-402

Inhibition of in vitro enteric neuronal development by endothelin-3: mediation by endothelin B receptors. Wu JJ, et al. **Development** 1999 Mar;126(6):1161-73

Functional proteomics of signal transduction by membrane receptors. Godovac-Zimmermann J, et al. **Electrophoresis** 1999 Apr-May;20(4-5):952-61

Regional variations in endothelin-1 and its receptor subtypes in human coronary vasculature: pathophysiological implications in coronary disease. Dashwood MR, et al. **Endothelium** 1998;6(1):61-70

Endothelin-1 enhances vascular cell adhesion molecule-1 expression in tumor necrosis factor alpha-stimulated vascular endothelial cells. Ishizuka T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):237-45

Subcellular mechanisms of endothelin action in vascular system. Masaki T, et al. **Eur J Pharmacol** 1999 Jun 30; 375(1-3):133-8 (38 ref.)

The role of endothelin in mediating virus-induced changes in endothelinB receptor density in mouse airways. Henry PJ, et al. **Eur Respir J** 1999 Jul;14(1):92-7

Immunoreactivity of endothelins and endothelin receptor in the stria vascularis of the mouse cochlea. Fujimura T, et al. **Hear Res** 1999 Feb;128(1-2):135-46

Different contributions of endothelin-A and endothelin-B receptors in the pathogenesis of deoxycorticosterone acetate-salt-induced hypertension in rats. Matsumura Y, et al. **Hypertension** 1999 Feb;33(2):759-65

c-Src activation plays a role in endothelin-dependent hypertrophy of the cardiac myocyte. Kovačič B, et al. **J Biol Chem** 1998 Dec 25;273(52):35185-93

Endothelin stimulates glucose uptake and GLUT4 translocation via activation of endothelin ETA receptor in 3T3-L1 adipocytes. Wu-Wong JR, et al. **J Biol Chem** 1999 Mar 19;274(12):8103-10

Characterisation of constrictor endothelin receptors in the human internal thoracic artery and saphenous vein. Pate MA, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):567-72

Down-regulation of endothelin receptors by transforming growth factor beta1 in hepatic stellate cells. Gabriel A, et al. **J Hepatol** 1999 Mar;30(3):440-50

Activation of the endothelin receptor inhibits the G protein-coupled inwardly rectifying potassium channel by a phospholipase A2-mediated mechanism. Rogalski SL, et al. **J Neurochem** 1999 Apr;72(4):1409-16

Positive and negative coupling of the endothelin ETA receptor to Ca2+-permeable channels in rabbit cerebral cortex arterioles. Guibert C, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):843-56

The correlation of blood pressure, age and endothelin-1 binding sites in aortic smooth muscle cells of rats. Lu MH, et al. **Jpn Circ J** 1998 Jul;62(7):532-6

High density of endothelin binding sites in the hearts of infants and children. Giannessi D, et al. **Life Sci** 1999; 64(8):697-705

Gestational changes in endothelin-1-induced receptors and myometrial contractions in rat. Sakamoto S, et al. **Mol Hum Reprod** 1999 Mar;5(3):270-6

Endothelin B receptor modulates inflammatory pain and cutaneous inflammation. Griswold DE, et al. **Mol Pharmacol** 1999 Oct;56(4):807-12

Specific galpha11beta3gamma5 protein involvement in endothelin receptor-induced phosphatidylinositol hydrolysis and Ca2+ release in rat portal vein myocytes. Macrez N, et al. **Mol Pharmacol** 1999 Apr;55(4):684-92

Endothelin induces dopamine release from rat striatum via endothelin-B receptors. Webber KM, et al. **Neuroscience** 1998 Oct;86(4):1173-80

Endothelin-1 inhibits voltage-sensitive Ca2+ channels in cultured rat cerebellar granule neurones via the ET-A receptor. Held B, et al. **Pflugers Arch** 1998 Oct; 436(5):766-75

Interleukin-1beta potentiates endothelin ET(B) receptor-mediated contraction in cultured segments of human temporal artery. White LR, et al. **Regul Pept** 1999 May 31;81(1-3):89-95

PHYSIOLOGY

Haemodynamic influence and endothelin-1 plasma concentrations by selective or non-selective endothelin receptor antagonists in the pig in vivo. Holm P, et al. **Acta Physiol Scand** 1999 Feb;165(2):163-8

Endothelin-receptor blockade does not alter closure of the ductus arteriosus. Fineman JR, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1620-6

Endothelins inhibit the mineralization of osteoblastic MC3T3-E1 cells through the A-type endothelin receptor. Hiruma Y, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1099-105

Endothelium-independent vascular relaxation mediating ETB receptor in rabbit mesenteric arteries. Iwasaki T, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H383-90

Receptor-mediated vascular and metabolic actions of endothelin-1 in canine small intestine. King-VanVlack CE, et al. **Am J Physiol** 1999 May;276(5 Pt 1):G1131-6

Endothelin-B receptors activate Galpha13. Kitamura K, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C930-7

Enhanced ET(A)-receptor-mediated inhibition of K(v) channels in hypoxic hypertensive rat pulmonary artery myocytes. Li KX, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H363-70

Chronic hypoxia augments endothelin-B receptor-mediated vasodilation in isolated perfused rat lungs. Muramatsu M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L358-64

Role and mechanism of endothelin-B receptors in mediating ET-1-induced vasoconstriction in pig skin. Pang CY, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1066-74

ETB receptor activation leads to activation and phosphorylation of NHE3. Peng Y, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C938-45

Hypoxia inhibits increased ETB receptor-mediated NO synthesis in hypertensive rat lungs. Sato K, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):L571-81

Endothelin converting enzyme activity in primary rat astrocytes is modulated by endothelin B receptors. Ehrenreich H, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):149-55

Evidence for a tyrosine kinase-dependent activation of the adenylyl Cyclase/PKA cascade downstream from the G-protein-linked endothelin ETA receptor in vascular smooth muscle. El-Mowafy AM, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):494-500

Endothelin ET(B) receptor-mediated action on systemic and renal hemodynamics and urine formation in deoxycorticosterone acetate-salt-induced hypertensive

rats. Hashimoto N, et al. **Biol Pharm Bull** 1998 Aug; 21(8):800–4

ET(A) receptors are the primary mediators of myofilament calcium sensitization induced by ET–1 in rat pulmonary artery smooth muscle: a tyrosine kinase independent pathway. Evans AM, et al. **Br J Pharmacol** 1999 May; 127(1):153–60

Essential role for endothelin ET(B) receptors in fever induced by LPS (E. coli) in rats. Fabricio AS, et al. **Br J Pharmacol** 1998 Oct;125(3):542–8

Selective activation of excitation–contraction coupling pathways by ET(A) and ET(B) receptors in guinea–pig tracheal smooth muscle. Inui T, et al. **Br J Pharmacol** 1999 Feb;126(4):893–902

Endothelin–1 enhances neutrophil adhesion to human coronary artery endothelial cells: role of ET(A) receptors and platelet–activating factor. Zouki C, et al. **Br J Pharmacol** 1999 Jun;127(4):969–79

Involvement of the endothelin receptor subtype A in neuronal pathogenesis after traumatic brain injury. Sato M, et al. **Brain Res** 1998 Oct 26;809(1):39–49

Effects of hypertension, diabetes mellitus, and hypercholesterolemia on endothelin type B receptor–mediated nitric oxide release from rat kidney. Kakoki M, et al. **Circulation** 1999 Mar 9;99(9):1242–8

Endothelins in health and disease: an overview. Goldie RG. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):145–8 (35 ref.)

Endothelin 1 receptors, signal transduction and effects on DNA and proteoglycan synthesis in rat articular chondrocytes. Khatib AM, et al. **Cytokine** 1998 Sep; 10(9):669–79

Both ET(A) and ET(B) receptors are involved in mitogen–activated protein kinase activation and DNA synthesis of astrocytes: study using ET(B) receptor–deficient rats (aganglionosis rats). Sasaki Y, et al. **Eur J Neurosci** 1998 Sep;10(9):2984–93

Effects of endothelin ET(B) receptor agonists and antagonists on the biphasic response in the ileum. Miasiro N, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):205–13

Modulatory effects of endothelin on baroreflex activation in the nucleus of the solitary tract. Mosqueda–Garcia R, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):203–7

Autocrine role for the endothelin–B receptor in the secretion of adrenomedullin. Jougasaki M, et al. **Hypertension** 1998 Nov;32(5):917–22

Endothelin B receptors are functionally important in mediating vasoconstriction in the systemic circulation in patients with left ventricular systolic dysfunction [see comments] Cowburn PJ, et al. **J Am Coll Cardiol** 1999 Mar 15;33(4):932–8. Comment in: J Am Coll Cardiol 1999 Mar 15;33(4):939–42.

Endothelin, the bad actor in the play: a marker or mediator of cardiovascular disease [editorial; comment] Deedwania PC. **J Am Coll Cardiol** 1999 Mar 15;33(4):939–42. Comment on: J Am Coll Cardiol 1999 Mar 15;33(4):932–8.

Differential activity of the G protein beta5 gamma2 subunit at receptors and effectors. Lindorfer MA, et al. **J Biol Chem** 1998 Dec 18;273(51):34429–36

Transmembrane helix 7 of the endothelin B receptor regulates downstream signaling. Vichi P, et al. **J Biol Chem** 1999 Apr 9;274(15):10331–8

Central effects of endothelin and its antagonists on sympathetic and cardiovascular regulation in SHR–SP. Nakamura K, et al. **J Cardiovasc Pharmacol** 1999 Jun; 33(6):876–82

Does blockade of endothelinB1–receptor activation increase endothelinB2/endothelinA receptor–mediated constriction in the rabbit basilar artery? Zuccarello M, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):679–84

Delayed loss of ETB receptor–mediated vasorelaxation after cold lesion of the rat parietal cortex. Görlach C, et al. **J Cereb Blood Flow Metab** 1998 Dec;18(12):1357–64

Role of endothelin in the human craniofacial morphogenesis. Barni T, et al. **J Craniofac Genet Dev Biol** 1998 Oct–Dec; 18(4):183–94

Functional characterization of endothelin receptors in hypertensive resistance vessels. Montagnani M, et al. **J Hypertens** 1999 Jan;17(1):45–52

Thrombin receptor activation inhibits monocyte spreading by induction of ET(B) receptor–coupled nitric oxide release. Srivastava KD, et al. **J Immunol** 1998 Nov 1; 161(9):5039–44

Downregulation of endothelin B receptor in human melanoma cell lines parallel to differentiation genes. Eberle J, et al. **J Invest Dermatol** 1999 Jun;112(6):925–32

Expression of Ca(2+)–mobilizing endothelin(A) receptors and their role in the control of Ca(2+) influx and growth hormone secretion in pituitary somatotrophs. Tomić M, et al. **J Neurosci** 1999 Sep 15;19(18):7721–31

Typical endothelin ETA receptors mediate atypical endothelin–1–induced contractions in sheep isolated tracheal smooth muscle. Henry PJ, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1385–90

Mechanisms of endothelin–induced venoconstriction in isolated guinea pig mesentery. Johnson RJ, et al. **J Pharmacol Exp Ther** 1999 May;289(2):762–7

Endothelin–B receptors mediate intimal hyperplasia in an organ culture of human saphenous vein. Porter KE, et al. **J Vasc Surg** 1998 Oct;28(4):695–701

Localization and interactions of vasoactive peptide receptors in renomedullary interstitial cells of the kidney. Zhuo J, et al. **Kidney Int Suppl** 1998 Sep;67:S22–8 (29 ref.)

Structural basis of the function of endothelin receptor. Masaki T, et al. **Mol Cell Biochem** 1999 Jan;190(1–2):153–6 (29 ref.)

Injection of endothelin–1 into the raphe obscurus of rats induces depressor responses predominantly through endothelin ET(A) receptors. D'Amico M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):471–6

Endothelin ET(A) receptor blockade prevents the progression of renal failure and hypertension in uraemic rats. Brochu E, et al. **Nephrol Dial Transplant** 1999 Aug; 14(8):1881–8

Cytokines increase endothelin ETB receptor contractile activity in rat cerebral artery. Leseth KH, et al. **Neuroreport** 1999 Aug 2;10(11):2355–9

Detrimental subtype–specific endothelin–1 (ET–1) signaling in myocardial cells: the ET(A) mediated proliferation and ET(B)receptor down–regulation. Drimal J, et al. **Physiol Res** 1999;48(1):9–19

Myocardial infarction mediated by endothelin receptor signaling in hypercholesterolemic mice. Caligiuri G, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6920–4

Endothelin and the airway mucosa. Baraniuk JN, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):113–23 (102 ref.)

Roles of endothelins and their receptors in immune complex–induced/polymorphonuclear–mediated lung injury (reversed passive arthus reaction) in CD–1 mice. Battistini B, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):165–72

The effect of chronic hypoxia on endothelin receptor subtype–mediated responses in rat isolated airways. Clayton RA, et al. **Pulm Pharmacol Ther** 1999;12(3):203–13

Endothelin–1: an interesting peptide or an important mediator in pulmonary diseases? Hay DW. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):141–6 (75 ref.)

Endothelin–1: a mediator of pulmonary hypertension? MacLean MR. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):125–32 (95 ref.)

Endothelin–1 activates MAP kinases and c–Jun in pulmonary artery smooth muscle. Yamboliev IA, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):205–8

The role of endothelin–1 in circulatory changes during hypodynamic sepsis in the rat [see comments] Szalay L, et al. **Shock** 1998 Aug;10(2):123–8. Comment in: Shock 1999 Feb;11(2):149–50.

Suppressed endothelin–1 production by FK506 and cyclosporin A in ischemia/reperfusion of rat small intestine. Soda Y, et al. **Surgery** 1999 Jan;125(1):23–32

New bone formation in an osteoblastic tumor model is increased by endothelin–1 overexpression and decreased by endothelin A receptor blockade. Nelson JB, et al. **Urology** 1999 May;53(5):1063–9

[Endothelin–1 and cardiovascular diseases] Cracowski JL, et al. **Rev Med Interne** 1999 Jul;20(7):589–96 (58 ref.) (Eng. Abstr.) **(Fre)**

[Endothelin receptor/physiological role] Abe Y, et al. **Nippon Rinsho** 1998 Jul;56(7):1898–905 (49 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, ENDOTHELIUM–DERIVED VASOCONSTRICTOR FACTOR see **RECEPTORS, ENDOTHELIN**

RECEPTORS, ENKEPHALIN see **RECEPTORS, OPIOID**

RECEPTORS, EPIDERMAL GROWTH FACTOR–UROGASTRONE

Growth inhibition of breast cancer cells by Grb2 downregulation is correlated with inactivation of mitogen–activated protein kinase in EGFR, but not in ErbB2, cells. Tari AM, et al. **Oncogene** 1999 Feb 11; 18(6):1325–32

AGONISTS

Carbachol stimulates transactivation of epidermal growth factor receptor and mitogen–activated protein kinase in T84 cells. Implications for carbachol–stimulated chloride secretion. Keely SJ, et al. **J Biol Chem** 1998 Oct 16; 273(42):27111–7

ANALYSIS

Upregulation of basic fibroblast growth factor in breast carcinoma and its relationship to vascular density, oestrogen receptor, epidermal growth factor receptor and survival. Smith K, et al. **Ann Oncol** 1999 Jun;10(6):707–13

Epidermal growth factor and its receptor as prognostic indicators in Chinese patients with pancreatic cancer. Dong M, et al. **Anticancer Res** 1998 Nov–Dec;18(6B):4613–9

Enhancement of chemosensitivity and programmed cell death by tyrosine kinase inhibitors correlates with EGFR expression in non–small cell lung cancer cells. Lei W, et al. **Anticancer Res** 1999 Jan–Feb;19(1A):221–8

The immunohistochemical localization of phospholipase Cgamma and the epidermal growth–factor, platelet–derived growth–factor and fibroblast growth–factor receptors in the cells of the rat molar enamel organ during early amelogenesis. Tanikawa Y, et al. **Arch Oral Biol** 1999 Sep;44(9):771–80

Differential expression of epidermal growth factor receptor in melanocytic tumours demonstrated by immunohistochemistry and mRNA in situ hybridization. Sparrow LE, et al. **Australas J Dermatol** 1999 Feb; 40(1):19–24

The type 1 growth factor receptor family: new ligands and receptors and their role in breast cancer. Gullick WJ, et al. **Breast Cancer Res Treat** 1998;52(1–3):43–53 (46 ref.)

Tumour epidermal growth factor receptor, erbB–2 and cathepsin D in node–negative invasive breast cancer: their impact on the selection of patients for systemic adjuvant therapy. Tonkin KS, et al. **Cancer Prev Control** 1999 Apr; 3(2):131–6

Elevation of the epidermal growth factor receptor and dependent signaling in human papillomavirus–infected laryngeal papillomas. Johnston D, et al. **Cancer Res** 1999 Feb 15;59(4):968–74

Cell surface density of p185(c–erbB–2) determines susceptibility to anti–p185(c–erbB–2)–ricin A chain (RTA) immunotoxin therapy alone and in combination with anti–p170(EGFR)–RTA in ovarian cancer cells. Dean GS, et al. **Clin Cancer Res** 1998 Oct;4(10):2545–50

Epidermal growth factor receptor and labeling index are independent prognostic factors in glial tumor outcome. Etienne MC, et al. **Clin Cancer Res** 1998 Oct;4(10):2383–90

Overexpression of the epidermal growth factor receptor and its ligand transforming growth factor alpha is frequent in resectable non–small cell lung cancer but does not predict tumor progression. Rusch V, et al. **Clin Cancer Res** 1997 Apr;3(4):515–22

Changing pattern of expression of the epidermal growth factor receptor and transforming growth factor alpha in the progression of prostatic neoplasms. Scher HI, et al. **Clin Cancer Res** 1995 May;1(5):545–50

Epidermal growth factor receptor and transforming growth factor alpha expression in papillary and nonpapillary renal cell carcinoma: correlation with metastatic behavior and prognosis. Uhlman DL, et al. **Clin Cancer Res** 1995 Aug; 1(8):913–20

Epidermal growth factor receptor ectodomain in the urine of patients with squamous cell carcinoma. Witters LM, et al. **Clin Cancer Res** 1995 May;1(5):551–7

Immunohistochemical comparative analysis of transforming growth factor alpha, epidermal growth factor, and epidermal growth factor receptor in normal, hyperplastic and neoplastic human prostates. De Miguel P, et al. **Cytokine** 1999 Sep;11(9):722–7

Roles of transforming growth factor–alpha and epidermal growth factor in chick limb development. Dealy CN, et al. **Dev Biol** 1998 Oct 1;202(1):43–55

Immunolocalization of transforming growth factor–alpha and epidermal growth factor receptor in the rat gastroduodenal area. Montaner B, et al. **Dig Dis Sci** 1999 Jul;44(7):1408–16

Hyperexpression of epidermal growth factor receptors in granulosa cells from women with polycystic ovary syndrome. Almahbobi G, et al. **Fertil Steril** 1998 Oct; 70(4):750–8

Clinical relevance of transforming growth factor alpha, epidermal growth factor receptor, p53, and Ki67 in colorectal liver metastases and corresponding primary tumors. De Jong KP, et al. **Hepatology** 1998 Oct; 28(4):971–9

Expression of epidermal growth factor receptor and CD44 splicing variants sharing exons 6 and 9 on gastric and esophageal carcinomas: a two–color flow–cytometric analysis. Koyama S, et al. **J Cancer Res Clin Oncol** 1999; 125(1):47–54

Variability of immunohistochemical reactivity on stored paraffin slides [letter; comment] Olapade–Olaopa EO, et al. **J Clin Pathol** 1998 Dec;51(12):943. Comment on: J Clin Pathol 1998 May;51(5):370–4.

Prognostic evaluation in supratentorial astrocytic tumors using p53, epidermal growth factor receptor, c–erbB–2 immunostaining. Hwang SL, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Oct; 14(10):607–15

Prognostic significance of Ki67, p53 and epidermal growth factor receptor immunostaining in human glioblastomas. Bouvier–Labit C, et al. **Neuropathol Appl Neurobiol** 1998 Oct;24(5):381–8

Immunohistochemical demonstration of angiogenic growth factors and EGF receptor in hepatic metastases and primary human gastric cancer. Takita M, et al. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):358–66

Absence of epidermal growth factor receptor expression in squamous cell carcinoma of the uterine cervix is an indicator of limited tumor disease. Biesterfeld S, et al. **Oncol Rep** 1999 Jan–Feb;6(1):205–9

Epidermal growth factor receptor, somatostatin and bcl–2 in human pancreatic tumor xenografts. An immunohistochemical study. Zalatnai A. **Pathol Oncol Res** 1999;5(2):146–51

Rapid characterization of green fluorescent protein fusion proteins on the molecular and cellular level by fluorescence correlation microscopy. Brock R, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10123–8

Overexpression of transforming growth factor–alpha and epidermal growth factor–receptor in idiopathic pulmonary fibrosis. Baughman RP, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):57–61

Evaluation of malignancy and the prognosis of esophageal cancer based on an immunohistochemical study (p53, E–cadherin, epidermal growth factor receptor). Inada S,

et al. **Surg Today** 1999;29(6):493–503
[Prognostic significance of EGFR and p53 expression, and angiogenesis in laryngeal squamous cell carcinoma] Watanabe H, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):243–53 (Eng. Abstr.) **(Jpn)**
[Valoration of the epidermal growth factor receptor (EGFR) in benign breast disease and its relation with expression in malignant tumors classified by hormonal dependence] Allende MT, et al. **Rev Esp Med Nucl** 1999;18(1):32–6 (Eng. Abstr.) **(Spa)**

ANTAGONISTS & INHIBITORS

Epidermal growth factor receptor inhibition by a monoclonal antibody as anticancer therapy. Mendelsohn J. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2703–7 (48 ref.)
The rationale and strategy used to develop a series of highly potent, irreversible, inhibitors of the epidermal growth factor receptor family of tyrosine kinases. Bridges AJ. **Curr Med Chem** 1999 Sep;6(9):825–43 (122 ref.)
Sprouty: a common antagonist of FGF and EGF signaling pathways in Drosophila. Kramer S, et al. **Development** 1999 Jun;126(11):2515–25
Inhibition of growth of primary human tumour cell cultures by a 4–anilinoquinazoline inhibitor of the epidermal growth factor receptor family of tyrosine kinases. Baguley BC, et al. **Eur J Cancer** 1998 Jun;34(7):1086–90
Pharmacological inhibition of Ras–transformed epithelial cell growth is linked to down–regulation of epidermal growth factor–related peptides. Sizemore N, et al. **Gastroenterology** 1999 Sep;117(3):567–76
IP–10 inhibits epidermal growth factor–induced motility by decreasing epidermal growth factor receptor–mediated calpain activity. Shiraha H, et al. **J Cell Biol** 1999 Jul 12; 146(1):243–54
Tyrosine kinase inhibitors. 15. 4–(Phenylamino)quinazoline and 4–(phenylamino)pyrido[d]pyrimidine acrylamides as irreversible inhibitors of the ATP binding site of the epidermal growth factor receptor. Smaill JB, et al. **J Med Chem** 1999 May 20;42(10):1803–15
Use of a pharmacophore model for the design of EGFR tyrosine kinase inhibitors: isoflavones and 3–phenyl–4(1H)–quinolones. Traxler P, et al. **J Med Chem** 1999 Mar 25;42(6):1018–26
Human psoriatic skin in organ culture: comparison with normal skin exposed to exogenous growth factors and effects of an antibody to the EGF receptor. Varani J, et al. **Pathobiology** 1998;66(6):253–9

BIOSYNTHESIS

Transduction pathways involved in rapid hormone receptor regulation in the mammary epithelium. Bolander FF Jr. **Am J Physiol** 1998 Oct;275(4 Pt 1):E553–7
Immunohistochemical expression of c–erbB–2 oncoprotein and EGF–R in pre– and postmenopausal breast cancer. Ratnakar N, et al. **APMIS** 1998 Nov;106(11):1075–80
Numerical abnormalities of chromosome 7 in interphase cell nuclei of breast carcinoma have no impact on immunohistochemically determined EGFR status. Sauer T, et al. **APMIS** 1999 Feb;107(2):211–6
Fibroblast and epidermal growth factor receptor expression in Xenopus oocytes displays distinct calcium oscillatory patterns. Browaeys–Poly E, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):484–9
Growth stimulation and induction of epidermal growth factor receptor by overexpression of cyclooxygenases 1 and 2 in human colon carcinoma cells. Kinoshita T, et al. **Biochim Biophys Acta** 1999 Apr 19;1438(1):120–30
Complex post–transcriptional regulation of EGF–receptor expression by EGF and TGF–alpha in human prostate cancer cells. Seth D, et al. **Br J Cancer** 1999 May; 80(5–6):657–69
Epidermal growth factor receptor–regulated human bladder cancer motility is in part a phosphatidylinositol 3–kinase–mediated process. Theodorescu D, et al. **Cell Growth Differ** 1998 Nov;9(11):919–28
Epidermal growth factor receptor expression and gene amplification in high–grade non–brainstem gliomas of childhood. Bredel M, et al. **Clin Cancer Res** 1999 Jul; 5(7):1786–92
The inducible expression of dominant–negative epidermal growth factor receptor–CD533 results in radiosensitization of human mammary carcinoma cells. Contessa JN, et al. **Clin Cancer Res** 1999 Feb;5(2):405–11
Oncogene alterations in carcinomas of the uterine cervix: overexpression of the epidermal growth factor receptor is associated with poor prognosis. Kersemaekers AM, et al. **Clin Cancer Res** 1999 Mar;5(3):577–86
Increased epidermal growth factor receptor expression in metaplastic bronchial epithelium. Kurie JM, et al. **Clin Cancer Res** 1996 Oct;2(10):1787–93
Expression of epidermal growth factor receptor and c–erbB2 during the development of tamoxifen resistance in human breast cancer. Newby JC, et al. **Clin Cancer Res** 1997 Sep; 3(9):1643–51
Hormonal regulation of epidermal growth factor receptor content and signaling in bovine mammary tissue. Sheffield LG. **Endocrinology** 1998 Nov;139(11):4568–75
The expression of type I growth factor receptors in the squamous neoplastic changes of uterine cervix. Chang JL, et al. **Gynecol Oncol** 1999 Apr;73(1):62–71
Photocytotoxic action of EGF–PVA–Sn(IV)chlorin e6 and EGF–dextran–Sn(IV)chlorin e6 internalizable conjugates on A431 cells. Gijsens A, et al. **Int J Oncol** 1998 Dec; 13(6):1171–7
Expressions of epidermal growth factor family and its receptor in hepatocellular carcinoma cell lines: relationship to cell proliferation. Hisaka T, et al. **Int J Oncol** 1999 Mar; 14(3):453–60
Transforming growth factor–alpha short–circuits downregulation of the epidermal growth factor receptor. Ouyang X, et al. **J Cell Physiol** 1999 Apr;179(1):52–7
Expression of EGF receptor and FGF receptor isoforms during neuroepithelial stem cell differentiation. Kalyani AJ, et al. **J Neurobiol** 1999 Feb 5;38(2):207–24
Effects of an environmental endocrine disruptor on fetal development, estrogen receptor(alpha) and epidermal growth factor receptor expression in the porcine male genital tract. Barthold JS, et al. **J Urol** 1999 Sep;162(3 Pt 1):864–71
Inhibition of pp60c–Src reduces Bcl–XL expression and reverses the transformed phenotype of cells overexpressing EGF and HER–2 receptors. Karni R, et al. **Oncogene** 1999 Aug 19;18(33):4654–62
Downregulation of protein kinase C by phorbol ester increases expression of epidermal growth factor receptors in transformed trophoblasts and amplifies human chorionic gonadotropin production. Baker VL, et al. **Placenta** 1998 Sep;19(7):475–82
Induction of EGFR tyrosine kinase in the gastric mucosa of diabetic rats. Khan AJ, et al. **Proc Soc Exp Biol Med** 1999 Jun;221(2):105–10
[The correlation of TGF–alpha, EGFR in precancerous lesions and carcinoma of stomach with PCNA expression] Luan F, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Feb;26(1):31–4 (Eng. Abstr.) **(Chi)**
[Expression of p53, c–erbB1, c–myc and p16 gene proteins in human glioma] Zhu R, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Dec;26(6):343–5 (Eng. Abstr.) **(Chi)**
[Expression of CerbB–2 and EGFR mRNA in human nasopharyngeal carcinomas and pericarcinomatous tissues] Jin O, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(6):487–90 (Eng. Abstr.) **(Chi)**
[Expression of epidermal growth factor and its receptor in human primary hepatocellular carcinoma] Wu X, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(6):544–6 **(Chi)**

BLOOD

Detection of tumor cells in peripheral blood samples from patients with germ cell tumors using immunocytochemical and reverse transcriptase–polymerase chain reaction techniques. Hildebrandt MO, et al. **Bone Marrow Transplant** 1998 Oct;22(8):771–5
p53 protein, EGF receptor, and anti–p53 antibodies in serum from patients with occupationally derived lung cancer. Schneider J, et al. **Br J Cancer** 1999 Aug;80(12):1987–94
Serum sErbB1 and epidermal growth factor levels as tumor biomarkers in women with stage III or IV epithelial ovarian cancer. Baron AT, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Feb;8(2):129–37
Detection of cancer cells in peripheral blood of breast cancer patients using reverse transcription–polymerase chain reaction for epidermal growth factor receptor. Leitzel K, et al. **Clin Cancer Res** 1998 Dec;4(12):3037–43
Serum and correspondent tissue measurements of epidermal growth factor (EGF) and epidermal growth factor receptor (EGF–R). Clinical relevance in pancreatic cancer and chronic pancreatitis. Birk D, et al. **Int J Pancreatol** 1999 Apr;25(2):89–96
A sandwich type acridinium–linked immunosorbent assay (ALISA) detects soluble ErbB1 (sErbB1) in normal human sera. Baron AT, et al. **J Immunol Methods** 1998 Oct 1; 219(1–2):23–43
Increased serum concentrations of growth factor receptors and Neu in workers previously exposed to asbestos. Lahat N, et al. **Occup Environ Med** 1999 Feb;56(2):114–7

CHEMISTRY

Crystallization and preliminary X–ray crystallographic analysis of the EGF receptor ectodomain. Degenhardt M, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):999–1001
Nuclear magnetic resonance and restrained molecular dynamics studies of the interaction of an epidermal growth factor–derived peptide with protein tyrosine phosphatase 1B. Glover NR, et al. **Biochemistry** 1999 Apr 20; 38(16):5256–71
Epidermal growth factor receptor transmembrane domain: 2H NMR implications for orientation and motion in a bilayer environment. Jones DH, et al. **Biochemistry** 1998 Nov 24;37(47):16780–7
Molecular dynamics simulations of protein–tyrosine phosphatase 1B. I. ligand–induced changes in the protein motions. Peters GH, et al. **Biophys J** 1999 Jul;77(1):505–15
Structure–based minimization of transforming growth factor–alpha (TGF–alpha) through NMR analysis of the receptor–bound ligand. Design, solution structure, and activity of TGF–alpha 8–50. McInnes C, et al. **J Biol Chem** 1998 Oct 16;273(42):27357–63
Solution structure of the SH2 domain of Grb2 complexed with the Shc–derived phosphotyrosine–containing peptide. Ogura K, et al. **J Mol Biol** 1999 Jun 11;289(3):439–45
Phosphorylation of tyrosine 992, 1068, and 1086 is required for conformational change of the human epidermal growth factor receptor c–terminal tail. Bishayee A, et al. **Mol Biol Cell** 1999 Mar;10(3):525–36
[Studies of small GTPase Rab7 association with endosomes of cells expressing normal and mutant forms of epidermal growth factor receptors] Sokolova IP, et al. **Tsitologiia** 1998;40(10):862–8 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Synthesis and antiproliferative properties of 4–aminoquinazoline derivatives as inhibitors of EGF receptor–associated tyrosine kinase activity. Bouey–Bencteux E, et al. **Anticancer Drug Des** 1998 Dec; 13(8):893–922
Possible regulation of epidermal growth factor–receptor tyrosine autophosphorylation by calcium and G proteins in chemically permeabilized rat UMR106 cells. Kawase T, et al. **Arch Oral Biol** 1999 Feb;44(2):157–71
Inhibition of transforming growth factor alpha (TGF–alpha)–mediated growth effects in ovarian cancer cell lines by a tyrosine kinase inhibitor ZM 252868. Simpson BJ, et al. **Br J Cancer** 1999 Mar;79(7–8):1098–103
Suppression of extracellular signals and cell proliferation by the black tea polyphenol, theaflavin–3,3'–digallate [published erratum appears in Carcinogenesis 1999 Jul;20(7):1383] Liang YC, et al. **Carcinogenesis** 1999 Apr; 20(4):733–6
Immunotoxins that target an oncogenic mutant epidermal growth factor receptor expressed in human tumors. Lorimer IA, et al. **Clin Cancer Res** 1995 Aug;1(8):859–64
Role of sialoglycan structures for the function of the epidermal growth factor receptor and the in vitro proliferation of head and neck cancer. Bergler W, et al. **Eur Arch Otorhinolaryngol** 1998;255(8):414–9
Up–regulated EGF receptors undergo to rapid internalization and ubiquitin–dependent degradation in human cancer cells exposed to 8–Cl–cAMP. Caraglia M, et al. **FEBS Lett** 1999 Mar 26;447(2–3):203–8
Arachidonate–induced tyrosine phosphorylation of epidermal growth factor receptor and Shc–Grb2–Sos association. Dulin NO, et al. **Hypertension** 1998 Dec;32(6):1089–93
Regulation of EGF–receptor expression by EGF and TGF alpha in epidermoid cancer cells is cell type–specific. McCulloch RK, et al. **Int J Biochem Cell Biol** 1998 Nov; 30(11):1265–78
Androgenic regulation of growth factor and growth factor receptor expression in the CWR22 model of prostatic adenocarcinoma. Myers RB, et al. **Int J Cancer** 1999 Jul 30;82(3):424–9
Expression of full length or truncated epidermal growth factor precursor transforms NIH3T3 fibroblasts. Kwan RW, et al. **Int J Oncol** 1999 Aug;15(2):281–4
Effect of thiazinotrienomycin B, an ansamycin antibiotic, on the function of epidermal growth factor receptor in human stomach tumor cells. Hosokawa N, et al. **J Antibiot (Tokyo)** 1999 May;52(5):485–90
Peroxynitrite induces covalent dimerization of epidermal growth factor receptors in A431 epidermoid carcinoma cells. van der Vliet A, et al. **J Biol Chem** 1998 Nov 27; 273(48):31860–6
Growth inhibition of experimental pancreatic cancers and sustained reduction in epidermal growth factor receptors during therapy with hormonal peptide analogs. Szepesházi K, et al. **J Cancer Res Clin Oncol** 1999 Aug–Sep; 125(8–9):444–52
4–hydroxynonenal triggers an epidermal growth factor receptor–linked signal pathway for growth inhibition. Liu W, et al. **J Cell Sci** 1999 Jul;112 (Pt 14):2409–17
Effects of an environmental endocrine disruptor on fetal development, estrogen receptor(alpha) and epidermal growth factor receptor expression in the porcine male genital tract. Barthold JS, et al. **J Urol** 1999 Sep;162(3 Pt 1):864–71
Growth factor deprivation therapy of hormone insensitive prostate and breast cancers utilizing antisense oligonucleotides. Rubenstein M, et al. **Methods Find Exp Clin Pharmacol** 1998 Dec;20(10):825–31
Differential expression and translocation of protein tyrosine phosphatase 1B–related proteins in ME–180 tumor cells expressing apoptotic sensitivity and resistance to tumor necrosis factor: potential interaction with epidermal growth factor receptor. Perez M, et al. **Oncogene** 1999 Jan 28; 18(4):967–78
[Effect of nocodazole on endocytosis of epidermal growth factor receptor] Sokolova IP, et al. **Tsitologiia** 1998; 40(10):855–61 (Eng. Abstr.) **(Rus)**

GENETICS

Mouse lactoferrin gene. Promoter–specific regulation by EGF and cDNA cloning of the EGF–response–element binding protein. Teng C, et al. **Adv Exp Med Biol** 1998; 443:65–78
Differential expression of EGFR during early reparative phase of the gastric mucosa between young and aged rats. Liu L, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G943–50
Association of EGFR gene fragments with nuclear matrices in glioblastoma cell lines. Wang ZH, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4329–32
Retargeting to EGFR enhances adenovirus infection

efficiency of squamous cell carcinoma. Blackwell JL, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug; 125(8):856–63

Kinetics of activation of the tyrosine kinase of a deletion mutant of epidermal growth factor receptor missing the sites of self-phosphorylation. Sherrill JM, et al. **Biochemistry** 1999 Mar 9;38(10):3106–11

Expression of epidermal growth factor receptor mRNA and protein in primary breast carcinomas. Walker RA, et al. **Breast Cancer Res Treat** 1999 Jan;53(2):167–76

Antisense oligonucleotides to the epidermal growth factor receptor. Witters L, et al. **Breast Cancer Res Treat** 1999 Jan;53(1):41–50

Intragenic mutation analysis of the human epidermal growth factor receptor (EGFR) gene in malignant human oral keratinocytes. Shintani S, et al. **Cancer Res** 1999 Aug 15; 59(16):4142–7

Angiotensin II-induced transactivation of epidermal growth factor receptor regulates fibronectin and transforming growth factor-beta synthesis via transcriptional and posttranscriptional mechanisms. Moriguchi Y, et al. **Circ Res** 1999 May 14;84(9):1073–84

PD153035, a tyrosine kinase inhibitor, prevents epidermal growth factor receptor activation and inhibits growth of cancer cells in a receptor number-dependent manner. Bos M, et al. **Clin Cancer Res** 1997 Nov;3(11):2099–106

Analysis of transforming growth factor (TGF)-alpha/epidermal growth factor receptor, hepatocyte growth Factor/c-met,TGF-beta receptor type II, and p53 expression in human hepatocellular carcinomas. Kiss A, et al. **Clin Cancer Res** 1997 Jul;3(7):1059–66

Further evidence for prognostic significance of epidermal growth factor receptor gene amplification in patients with esophageal squamous cell carcinoma. Kitagawa Y, et al. **Clin Cancer Res** 1996 May;2(5):909–14

Immunotoxins that target an oncogenic mutant epidermal growth factor receptor expressed in human tumors. Lorimer IA, et al. **Clin Cancer Res** 1995 Aug;1(8):859–64

Level and function of epidermal growth factor receptor predict the metastatic potential of human colon carcinoma cells. Radinsky R, et al. **Clin Cancer Res** 1995 Jan; 1(1):19–31

Altered gene expression in drug-resistant human breast cancer cells. Wosikowski K, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2405–14

The control of cell fate in the embryonic visual system by atonal, tailless and EGFR signaling. Daniel A, et al. **Development** 1999 Jul;126(13):2945–54

Regulation of EGF receptor signaling establishes pattern across the developing Drosophila retina. Spencer SA, et al. **Development** 1998 Dec;125(23):4777–90

Signaling through the stromal epidermal growth factor receptor is necessary for mammary ductal development. Wiesen JF, et al. **Development** 1999 Jan;126(2):335–44

Identification of heparin-binding EGF-like growth factor as a target in intercellular regulation of epidermal basal cell growth by suprabasal retinoic acid receptors. Xiao JH, et al. **EMBO J** 1999 Mar 15;18(6):1539–48

Endothelin-mediated vascular growth requires p42/p44 mitogen-activated protein kinase and p70 S6 kinase cascades via transactivation of epidermal growth factor receptor. Iwasaki H, et al. **Endocrinology** 1999 Oct; 140(10):4659–68

Human EGFR, a candidate gene for the Silver–Russell syndrome, is biallelically expressed in a wide range of fetal tissues [published errata appear in Eur J Hum Genet 1998 Jul-Aug;6(4):415 and 1998 Sep-Oct;6(5):532] Wakeling EL, et al. **Eur J Hum Genet** 1998 Mar-Apr;6(2):158–64

Transcriptional regulation of the EGF receptor promoter by HPV16 and retinoic acid in human ectocervical epithelial cells. Sizemore N, et al. **Exp Cell Res** 1998 Oct 10;244(1):349–56

Neuronal-glial differential expression of TGF-alpha and its receptor in the dorsal root ganglia in response to sciatic nerve lesion. Xian CJ, et al. **Exp Neurol** 1999 Jun; 157(2):317–26

Molecular genetic characterisation of intracerebrally transplanted brain tumours. Schlegel J, et al. **Exp Toxicol Pathol** 1999 Jan;51(1):41–5

A constitutively active epidermal growth factor receptor cooperates with disruption of G1 cell-cycle arrest pathways to induce glioma-like lesions in mice. Holland EC, et al. **Genes Dev** 1998 Dec 1;12(23):3675–85

A genetic screen for modifiers of drosophila Src42A identifies mutations in Egfr, rolled and a novel signaling gene. Zhang Q, et al. **Genetics** 1999 Feb;151(2):697–711

Reverse transcriptase polymerase chain reaction as a reliable method to detect epidermal growth factor receptor exon 2–7 gene deletion in human glioblastomas. Worm K, et al. **Hum Pathol** 1999 Feb;30(2):222–7

Modulation of epidermal growth factor receptor gene transcription by a polymorphic dinucleotide repeat in intron 1. Gebhardt F, et al. **J Biol Chem** 1999 May 7; 274(19):13176–80

A differential requirement for the COOH-terminal region of the epidermal growth factor (EGF) receptor in amphiregulin and EGF mitogenic signaling. Wong L, et al. **J Biol Chem** 1999 Mar 26;274(13):8900–9

An antisense EGFR oligodeoxynucleotide enveloped in Lipofectin induces growth inhibition in human malignant gliomas in vitro. Sugawa N, et al. **J Neurooncol** 1998 Sep; 39(3):237–44

Acquired rearrangement of an amplified epidermal growth factor receptor (EGFR) gene in a human glioblastoma xenograft. Goike HM, et al. **J Neuropathol Exp Neurol** 1999 Jul;58(7):697–701

Epidermal and fibroblast growth factors behave as mitogenic regulators for a single multipotent stem cell-like population from the subventricular region of the adult mouse forebrain. Gritti A, et al. **J Neurosci** 1999 May 1;19(9):3287–97

Abnormal astrocyte development and neuronal death in mice lacking the epidermal growth factor receptor. Kornblum HI, et al. **J Neurosci Res** 1998 Sep 15;53(6):697–717

The effect of epidermal growth factor on the preimplantation development, implantation and its receptor expression in mouse embryos. Kim CH, et al. **J Obstet Gynaecol Res** 1999 Apr;25(2):87–93

Electric field-directed cell motility involves up-regulated expression and asymmetric redistribution of the epidermal growth factor receptors and is enhanced by fibronectin and laminin. Zhao M, et al. **Mol Biol Cell** 1999 Apr; 10(4):1259–76

The promyelocytic leukemia protein interacts with Sp1 and inhibits its transactivation of the epidermal growth factor receptor promoter. Vallian S, et al. **Mol Cell Biol** 1998 Dec;18(12):7147–56

Activation of the Ras/mitogen-activated protein kinase pathway by kinase-defective epidermal growth factor receptors results in cell survival but not proliferation. Walker F, et al. **Mol Cell Biol** 1998 Dec;18(12):7192–204

Prepubertal genistein treatment modulates TGF-alpha, EGF and EGF-receptor mRNAs and proteins in the rat mammary gland. Brown NM, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1–2):149–65

Retinoid and androgen regulation of cell growth, epidermal growth factor and retinoic acid receptors in normal and carcinoma rat prostate cells. Richter F, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):29–38

Antisense epidermal growth factor receptor RNA transfection in human malignant glioma cells leads to inhibition of proliferation and induction of differentiation. Tian XX, et al. **Neuropathol Appl Neurobiol** 1998 Oct; 24(5):389–96

Dominant negative EGFR-CD533 and inhibition of MAPK modify JNK1 activation and enhance radiation toxicity of human mammary carcinoma cells. Reardon DB, et al. **Oncogene** 1999 Aug 19;18(33):4756–66

A comparative study of epidermal growth factor receptor (EGFR) and MDM2 gene amplification and protein immunoreactivity in human glioblastomas. Rieske P, et al. **Pol J Pathol** 1998;49(3):145–9

Genetic evidence that Shp-2 tyrosine phosphatase is a signal enhancer of the epidermal growth factor receptor in mammals. Qu CK, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8528–33

Expression of transforming growth factor alpha and epidermal growth factor receptor in human bladder cancer. Thøgersen VB, et al. **Scand J Clin Lab Invest** 1999 Jul; 59(4):267–77

IMMUNOLOGY

A new treatment for high grade gliomas of the brain. Brady LW. **Bull Mem Acad R Med Belg** 1998;153(5–6):255–61; discussion 261–2

Receptor-mediated gene delivery using the Fab fragments of anti-epidermal growth factor receptor antibodies: improved immunogene approach. Chen J, et al. **Cancer Gene Ther** 1998 Nov-Dec;5(6):357–64

Epidermal growth factor receptor blockade with C225 modulates proliferation, apoptosis, and radiosensitivity in squamous cell carcinomas of the head and neck. Huang SM, et al. **Cancer Res** 1999 Apr 15;59(8):1935–40

Differential susceptibility of primary and established human glioma cells to adenovirus infection: targeting via the epidermal growth factor receptor achieves fiber receptor-independent gene transfer. Miller CR, et al. **Cancer Res** 1998 Dec 15;58(24):5738–48

Eradication of established tumors by a fully human monoclonal antibody to the epidermal growth factor receptor without concomitant chemotherapy. Yang XD, et al. **Cancer Res** 1999 Mar 15;59(6):1236–43

Cooperative antiproliferative effects of 8-chloro-cyclic AMP and 528 anti-epidermal growth factor receptor monoclonal antibody on human cancer cells. Ciardiello F, et al. **Clin Cancer Res** 1995 Feb;1(2):161–7

Biological efficacy of a chimeric antibody to the epidermal growth factor receptor in a human tumor xenograft model. Goldstein NI, et al. **Clin Cancer Res** 1995 Nov;1(11):1311–8

125I-labeled anti-epidermal growth factor receptor-vIII single-chain Fv exhibits specific and high-level targeting of glioma xenografts. Kuan CT, et al. **Clin Cancer Res** 1999 Jun;5(6):1539–49

Epidermal growth factor receptor inhibition by a monoclonal antibody as anticancer therapy. Mendelsohn J. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2703–7 (48 ref.)

Up-regulation of E-cadherin by an anti-epidermal growth factor receptor monoclonal antibody in lung cancer cell lines. Al Moustafa AE, et al. **Clin Cancer Res** 1999 Mar; 5(3):681–6

Anti-epidermal growth factor receptor antibody C225 inhibits angiogenesis in human transitional cell carcinoma growing orthotopically in nude mice. Perrotte P, et al. **Clin Cancer Res** 1999 Feb;5(2):257–65

Mouse-human chimeric anti-epidermal growth factor receptor antibody C225 inhibits the growth of human renal cell carcinoma xenografts in nude mice. Prewett M, et al. **Clin Cancer Res** 1998 Dec;4(12):2957–66

Monoclonal antibodies as potentiators of radiotherapy and chemotherapy in the management of head and neck cancer. Wheeler RH, et al. **Curr Opin Oncol** 1999 May;11(3):187–90 (40 ref.)

Binding of EGF peptide and EGF receptor antibodies and its fragments in different tumor models. Senekowitsch-Schmidtke R. **Hybridoma** 1999 Feb; 18(1):29–35

The inhibitory effect of an EGF receptor-specific tyrosine kinase inhibitor on pancreatic cancer cell lines was more potent than inhibitory antibodies against the receptors for EGF and IGF I. Kobari M, et al. **Int J Pancreatol** 1998 Oct;24(2):85–95

Technetium-99m-antiepidermal growth factor-receptor antibody in patients with tumors of epithelial origin: part II. Pharmacokinetics and clearances. Iznaga-Escobar N, et al. **J Nucl Med** 1998 Nov;39(11):1918–27

99mTc-labeled antihuman epidermal growth factor receptor antibody in patients with tumors of epithelial origin: Part III. Clinical trials safety and diagnostic efficacy. Ramos-Suzarte M, et al. **J Nucl Med** 1999 May; 40(5):768–75

Ex vivo delivery of suicide genes into melanoma cells using epidermal growth factor receptor-specific Fab immunogene. Ohtake Y, et al. **Jpn J Cancer Res** 1999 Apr; 90(4):460–8

Biodistribution of 99mTc-labeled anti-human epidermal growth factor receptor (EGF-R) humanized monoclonal antibody h-R3 in a xenograft model of human lung adenocarcinoma. Morales-Morales A, et al. **Nucl Med Biol** 1999 Apr;26(3):275–9

Astatine-211 labeling of internalizing anti-EGFRvIII monoclonal antibody using N-succinimidyl 5-[211At]astato-3-pyridinecarboxylate. Reist CJ, et al. **Nucl Med Biol** 1999 May;26(4):405–11

Immune responses to all ErbB family receptors detectable in serum of cancer patients. Bei R, et al. **Oncogene** 1999 Feb 11;18(6):1267–75

ISOLATION & PURIFICATION

Coexpression of the HER-2 gene product, p185HER-2, and epidermal growth factor receptor, p170EGF-R, on epithelial ovarian cancers and normal tissues. Bast RC Jr, et al. **Hybridoma** 1998 Aug;17(4):313–21

METABOLISM

Expression of epidermal growth factor receptor in normal colonic mucosa and in adenocarcinomas of the colon. Ozğul C, et al. **Acta Physiol Hung** 1997–98;85(2):121–8

Immunohistochemical localization of the epidermal growth factor receptor in normal mouse tissues. Ozoğul C, et al. **Acta Physiol Hung** 1997–98;85(2):113–20

Specific inhibitors of platelet-derived growth factor or epidermal growth factor receptor tyrosine kinase reduce pulmonary fibrosis in rats. Rice AB, et al. **Am J Pathol** 1999 Jul;155(1):213–21

Regulating epithelia from the apical side: new insights. Focus on "Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells" [editorial; comment] Karnaky KJ Jr. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1417–8. Comment on: Am J Physiol 1998 Dec;275(6 Pt 1):C1419–28.

Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells [see comments] Kuwada SK, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1419–28 . Comment in: Am J Physiol 1998 Dec;275(6 Pt 1):C1417–8.

EGF-Receptor phosphorylation and signaling are targeted by H2O2 redox stress. Goldkorn T, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):786–98

Expression of c-erbB receptors and ligands in human bronchial mucosa. Polosa R, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):914–23

Modulation of the protein tyrosine kinase activity and autophosphorylation of the epidermal growth factor receptor by its juxtamembrane region. Poppleton HM, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):227–36

EGF-Induced receptor autophosphorylation in primary hepatocytes isolated from phenobarbitone-treated mice. Fletcher K, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):483–7

Spatial organization of EGF receptor transmodulation by PDGF. Liu P, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):695–700

Different in vitro and in vivo activity of low Mr phosphotyrosine protein phosphatase on epidermal growth factor receptor. Rigacci S, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):577–81

Chronic ethanol consumption disrupts complexation between EGF receptor and phospholipase C-gamma1: relevance to impaired hepatocyte proliferation. Zhang BH, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):89–94

Muscarinic M3 and epidermal growth factor receptors activate mutually inhibitory signaling cascades in human neuroblastoma SH-SY5Y cells. Zhang L, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):774–7

The linear C-terminal regions of epidermal growth factor (EGF) and transforming growth factor-alpha bind to different epitopes on the human EGF receptor. Lenferink

AE, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):147–51

Epidermal growth factor receptor activation is localized within low-buoyant density, non-caveolar membrane domains. Waugh MG, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):591–7

Nuclear magnetic resonance and restrained molecular dynamics studies of the interaction of an epidermal growth factor-derived peptide with protein tyrosine phosphatase 1B. Glover NR, et al. **Biochemistry** 1999 Apr 20; 38(16):5256–71

Epidermal growth factor receptor internalization rate is regulated by negative charges near the SH2 binding site Tyr992. Holbrook MR, et al. **Biochemistry** 1999 Jul 20; 38(29):9348–56

Kinetics of activation of the tyrosine kinase of a deletion mutant of epidermal growth factor receptor missing the sites of self-phosphorylation. Sherrill JM, et al. **Biochemistry** 1999 Mar 9;38(10):3106–11

Lymphocyte antigen receptor signal integration and regulation by the SHC adaptor. Baldari CT, et al. **Biol Chem** 1999 Feb;380(2):129–34 (42 ref.)

Progesterone regulation of epidermal growth factor receptor in rat decidua basalis during pregnancy. Dai D, et al. **Biol Reprod** 1999 Jul;61(1):326–32

Escape of autocrine ligands into extracellular medium: experimental test of theoretical model predictions. Oehrtman GT, et al. **Biotechnol Bioeng** 1998 Mar 5; 57(5):571–82

Epidermal growth factor receptor expression: predictive value for the outcome after cystectomy for bladder cancer? Sriplakich S, et al. **BJU Int** 1999 Mar;83(4):498–503

Amphiregulin acts as an autocrine growth factor in two human polarizing colon cancer lines that exhibit domain selective EGF receptor mitogenesis. Damstrup L, et al. **Br J Cancer** 1999 Jun;80(7):1012–9

A multifactorial approach including tumoural epidermal growth factor receptor, p53, thymidylate synthase and dihydropyrimidine dehydrogenase to predict treatment outcome in head and neck cancer patients receiving 5-fluorouracil. Etienne MC, et al. **Br J Cancer** 1999 Apr; 79(11–12):1864–9

Complex post-transcriptional regulation of EGF-receptor expression by EGF and TGF-alpha in human prostate cancer cells. Seth D, et al. **Br J Cancer** 1999 May; 80(5–6):657–69

Function of aberrant EGFR in malignant gliomas. Sugawa N, et al. **Brain Tumor Pathol** 1998;15(1):53–7

Comparative analysis of epidermal growth factor receptor mRNA levels in normal, benign hyperplastic and carcinomatous prostate. Kumar VL, et al. **Cancer Lett** 1998 Dec 25;134(2):177–80

The anti-proliferative effects of tyrosine kinase inhibitors towards tamoxifen-sensitive and tamoxifen-resistant human breast cancer cell lines in relation to the expression of epidermal growth factor receptors (EGF-R) and the inhibition of EGF-R tyrosine kinase. El-Zarruk AA, et al. **Cancer Lett** 1999 Aug 3;142(2):185–93

Sialidase gene transfection enhances epidermal growth factor receptor activity in an epidermoid carcinoma cell line, A431. Meuillet EJ, et al. **Cancer Res** 1999 Jan 1; 59(1):234–40

Epidermal growth factor (EGF) receptor blockade inhibits the action of EGF, insulin-like growth factor I, and a protein kinase A activator on the mitogen-activated protein kinase pathway in prostate cancer cell lines. Putz T, et al. **Cancer Res** 1999 Jan 1;59(1):227–33

The transmembrane molecule kekkon 1 acts in a feedback loop to negatively regulate the activity of the Drosophila EGF receptor during oogenesis. Ghiglione C, et al. **Cell** 1999 Mar 19;96(6):847–56

A retinal axon fascicle uses spitz, an EGF receptor ligand, to construct a synaptic cartridge in the brain of Drosophila. Huang Z, et al. **Cell** 1998 Nov 25;95(5):693–703

Twin peaks: Spitz and Argos star in patterning of the Drosophila egg [comment] Stevens L. **Cell** 1998 Oct 30; 95(3):291–4 (16 ref.). Comment on: Cell 1998 Oct 30;95(3):355–64.

An autoregulatory cascade of EGF receptor signaling patterns the Drosophila egg [see comments] Wasserman JD, et al. **Cell** 1998 Oct 30;95(3):355–64. Comment in: Cell 1998 Oct 30;95(3):291–4.

Growth induction of hepatic stimulator substance in hepatocytes through its regulation on EGF receptors. An W, et al. **Cell Res** 1999 Mar;9(1):37–49

Differential association of phosphatidylinositol-5-phosphate 4-kinase with the EGF/ErbB family of receptors. Castellino AM, et al. **Cell Signal** 1999 Mar;11(3):171–7

Intensification of growth factor receptor signalling by phorbol treatment of ligand-primed cells implies a dimer-stabilizing effect of protein kinase C-dependent juxtamembrane domain phosphorylation. Gulliford T, et al. **Cell Signal** 1999 Apr;11(4):245–52

ERK2 signalling from internalised epidermal growth factor receptor in broken A431 cells. Xue L, et al. **Cell Signal** 1998 May;10(5):339–48

C-erbB-2 expression and its relationship with ploidy, p53 abnormalities and epidermal growth factor receptor content in human non-small cell lung cancer. López-Guerrero JA, et al. **Clin Chim Acta** 1999 Jul; 285(1–2):105–20

Immunohistochemical investigation of p53 and EGFR expression of oligodendrogliomas. Broholm H, et al. **Clin Neuropathol** 1999 Jul–Aug;18(4):176–80

Complexity of EGF receptor signalling revealed in Drosophila. Freeman M. **Curr Opin Genet Dev** 1998 Aug; 8(4):407–11 (46 ref.)

EGF receptor signaling in Drosophila oogenesis. Nilson LA, et al. **Curr Top Dev Biol** 1999;44:203–43 (143 ref.)

Comparison of fixation protocols for adherent cultured cells applied to a GFP fusion protein of the epidermal growth factor receptor. Brock R, et al. **Cytometry** 1999 Apr 1; 35(4):353–62

Hedgehog activates the EGF receptor pathway during Drosophila head development. Amin A, et al. **Development** 1999 Jun;126(12):2623–30

rhomboid and Star interact synergistically to promote EGFR/MAPK signaling during Drosophila wing vein development. Guichard A, et al. **Development** 1999 Jun; 126(12):2663–76

Dissecting the roles of the Drosophila EGF receptor in eye development and MAP kinase activation. Kumar JP, et al. **Development** 1998 Oct;125(19):3875–85

Targeted inactivation of the EGF and amphiregulin genes reveals distinct roles for EGF receptor ligands in mouse mammary gland development. Luetteke NC, et al. **Development** 1999 Jun;126(12):2739–50

Antagonism of EGFR and notch signalling in the reiterative recruitment of Drosophila adult chordotonal sense organ precursors. zur Lage P, et al. **Development** 1999 Jun; 126(14):3149–57

Overexpression of epidermal growth factor receptor in Peutz-Jeghers syndrome. McGarrity TJ, et al. **Dig Dis Sci** 1999 Jun;44(6):1136–41

Integrins induce activation of EGF receptor: role in MAP kinase induction and adhesion-dependent cell survival. Moro L, et al. **EMBO J** 1998 Nov 16;17(22):6622–32

Growth hormone-induced tyrosine phosphorylation of EGF receptor as an essential element leading to MAP kinase activation and gene expression. Yamauchi T, et al. **Endocr J** 1998 Apr;45 Suppl:S27–31 (25 ref.)

Epidermal growth factor-induced heterologous desensitization of the luteinizing hormone/choriogonadotropin receptor in a cell-free membrane preparation is associated with the tyrosine phosphorylation of the epidermal growth factor receptor. Lamm ML, et al. **Endocrinology** 1999 Jan;140(1):29–36

Biological response to ErbB ligands in nontransformed cell lines correlates with a specific pattern of receptor expression. Sundaresan S, et al. **Endocrinology** 1998 Dec; 139(12):4756–64

Role of sialoglycan structures for the function of the epidermal growth factor receptor and the in vitro proliferation of head and neck cancer. Bergler W, et al. **Eur Arch Otorhinolaryngol** 1998;255(8):414–9

A cytosolic domain of the erythropoietin receptor contributes to endoplasmic reticulum-associated degradation. Supino-Rosin L, et al. **Eur J Biochem** 1999 Jul;263(2):410–9

[125I]EGF binding in basal ganglia of patients with Parkinson's disease and progressive supranuclear palsy and in MPTP-treated monkeys. Villares J, et al. **Exp Neurol** 1998 Nov;154(1):146–56

A Sos-derived peptidimer blocks the Ras signaling pathway by binding both Grb2 SH3 domains and displays antiproliferative activity. Cussac D, et al. **FASEB J** 1999 Jan;13(1):31–8

Up-regulated EGF receptors undergo to rapid internalization and ubiquitin-dependent degradation in human cancer cells exposed to 8-Cl-cAMP. Caraglia M, et al. **FEBS Lett** 1999 Mar 26;447(2–3):203–8

Binding specificities and affinities of egf domains for ErbB receptors. Jones JT, et al. **FEBS Lett** 1999 Mar 26; 447(2–3):227–31

Actinomycin D as a novel SH2 domain ligand inhibits Shc/Grb2 interaction in B104-1-1 (neu*-transformed NIH3T3) and SAA (hEGFR-overexpressed NIH3T3) cells. Kim HK, et al. **FEBS Lett** 1999 Jun 18;453(1–2):174–8

EAST, a novel EGF receptor substrate, associates with focal adhesions and actin fibers. Lohi O, et al. **FEBS Lett** 1998 Oct 9;436(3):419–23

ebi regulates epidermal growth factor receptor signaling pathways in Drosophila. Dong X, et al. **Genes Dev** 1999 Apr 15;13(8):954–65

c-Cbl/Sli-1 regulates endocytic sorting and ubiquitination of the epidermal growth factor receptor. Levkowitz G, et al. **Genes Dev** 1998 Dec 1;12(23):3663–74

Epidermal growth factor receptor in proliferating reactive glia following transient focal ischemia in the rat brain. Planas AM, et al. **Glia** 1998 Jun;23(2):120–9

Take your partners, please--signal diversification by the erbB family of receptor tyrosine kinases. Daly RJ. **Growth Factors** 1999;16(4):255–63 (70 ref.)

Enhanced ligand-induced activation of EGF-receptor and overall tyrosine kinase and phospholipase C in colonocytes isolated from azoxymethane-treated rats. Malecka-Panas E, et al. **Hepatogastroenterology** 1998 May-Jun; 45(21):733–7

The expression of transforming growth factor alpha receptor protein and its activation in chicken ovarian granulosa cells of maturing follicles. Onagbesan OM, et al. **Histochem J** 1998 Sep;30(9):647–56

EGF receptor. Wells A. **Int J Biochem Cell Biol** 1999 Jun; 31(6):637–43 (15 ref.)

Epidermal growth factor receptor expression in primary laryngeal cancer: an independent prognostic factor of neck node relapse. Almadori G, et al. **Int J Cancer** 1999 Apr 20;84(2):188–91

Expression of bone morphogenetic protein 6 in normal mammary tissue and breast cancer cell lines and its regulation by epidermal growth factor. Clement JH, et al. **Int J Cancer** 1999 Jan 18;80(2):250–6

Selective increase of alpha2-integrin sub-unit expression on human carcinoma cells upon EGF-receptor activation. Krensel K, et al. **Int J Cancer** 1999 Feb 9;80(4):546–52

Inhibition of human bladder cancer cell motility by genistein is dependent on epidermal growth factor receptor but not p21ras gene expression. Theodorescu D, et al. **Int J Cancer** 1998 Dec 9;78(6):775–82

Serum and correspondent tissue measurements of epidermal growth factor (EGF) and epidermal growth factor receptor (EGF-R). Clinical relevance in pancreatic cancer and chronic pancreatitis. Birk D, et al. **Int J Pancreatol** 1999 Apr;25(2):89–96

Induction of transforming growth factor alpha in irradiated mouse jejunum. Ruifrok AC, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1137–46

The effect of portal hypertension on transforming growth factor-alpha and epidermal growth factor receptor in the gastric mucosa of rats. Wang JY, et al. **Int Surg** 1998 Jul-Sep;83(3):220–3

c-Src-mediated phosphorylation of the epidermal growth factor receptor on Tyr845 and Tyr1101 is associated with modulation of receptor function. Biscardi JS, et al. **J Biol Chem** 1999 Mar 19;274(12):8335–43

Endocytosis of functional epidermal growth factor receptor-green fluorescent protein chimera. Carter RE, et al. **J Biol Chem** 1998 Dec 25;273(52):35000–7

The role of individual SH2 domains in mediating association of phospholipase C-gamma1 with the activated EGF receptor. Chattopadhyay A, et al. **J Biol Chem** 1999 Sep 10;274(37):26091–7

Ca2+/calmodulin-dependent kinase II phosphorylates the epidermal growth factor receptor on multiple sites in the cytoplasmic tail and serine 744 within the kinase domain to regulate signal generation. Feinmesser RL, et al. **J Biol Chem** 1999 Jun 4;274(23):16168–73

Oncogenic Ha-Ras-dependent mitogen-activated protein kinase activity requires signaling through the epidermal growth factor receptor. Hamilton M, et al. **J Biol Chem** 1998 Oct 23;273(43):28155–62

Effect of epidermal growth factor receptor internalization on regulation of the phospholipase C-gamma1 signaling pathway. Haugh JM, et al. **J Biol Chem** 1999 Mar 26; 274(13):8958–65

Decorin is a biological ligand for the epidermal growth factor receptor. Iozzo RV, et al. **J Biol Chem** 1999 Feb 19; 274(8):4489–92

A leucine-based determinant in the epidermal growth factor receptor juxtamembrane domain is required for the efficient transport of ligand-receptor complexes to lysosomes. Kil SJ, et al. **J Biol Chem** 1999 Jan 29;274(5):3141–50

Integrin-mediated migration of murine B82L fibroblasts is dependent on the expression of an intact epidermal growth factor receptor. Li J, et al. **J Biol Chem** 1999 Apr 16; 274(16):11209–19

Age-dependent decline in mitogenic stimulation of hepatocytes. Reduced association between Shc and the epidermal growth factor receptor is coupled to decreased activation of Raf and extracellular signal-regulated kinases. Palmer HJ, et al. **J Biol Chem** 1999 Apr 16; 274(16):11424–30

PLD2 complexes with the EGF receptor and undergoes tyrosine phosphorylation at a single site upon agonist stimulation. Slaaby R, et al. **J Biol Chem** 1998 Dec 11; 273(50):33722–7

Nitric oxide inhibits angiotensin II-induced activation of the calcium-sensitive tyrosine kinase proline-rich tyrosine kinase 2 without affecting epidermal growth factor receptor transactivation. Wang D, et al. **J Biol Chem** 1999 Aug 20; 274(34):24342–8

The RING finger of c-Cbl mediates desensitization of the epidermal growth factor receptor. Waterman H, et al. **J Biol Chem** 1999 Aug 6;274(32):22151–4

ErbB-2 amplification inhibits down-regulation and induces constitutive activation of both ErbB-2 and epidermal growth factor receptors. Worthylake R, et al. **J Biol Chem** 1999 Mar 26;274(13):8865–74

Distinct calcium-dependent pathways of epidermal growth factor receptor transactivation and PYK2 tyrosine phosphorylation in PC12 cells. Zwick E, et al. **J Biol Chem** 1999 Jul 23;274(30):20989–96

Modulation of osteoclast function by adenovirus vector-induced epidermal growth factor receptor. Tanaka S, et al. **J Bone Miner Res** 1998 Nov;13(11):1714–20

Inhibition of epidermal-growth-factor-receptor-dependent signalling by tyrphostins A25 and AG1478 blocks growth and induces apoptosis in colorectal tumor cells in vitro. Partik G, et al. **J Cancer Res Clin Oncol** 1999 Jul; 125(7):379–88

Overexpression of ErbB2 impairs ligand-dependent downregulation of epidermal growth factor receptors via a post-transcriptional mechanism. Huang G, et al. **J Cell Biochem** 1999 Jul 1;74(1):23–30

Receptor recognition by histidine 16 of human epidermal growth factor via hydrogen-bond donor/acceptor interactions. Nandagopal K, et al. **J Cell Biochem** 1999 Jan 1;72(1):16–24

Sorting mechanisms regulating membrane protein traffic in the apical transcytotic pathway of polarized MDCK cells. Gibson A, et al. **J Cell Biol** 1998 Oct 5;143(1):81–94

Intracellular movement of green fluorescent protein–tagged phosphatidylinositol 3–kinase in response to growth factor receptor signaling. Gillham H, et al. **J Cell Biol** 1999 Aug 23;146(4):869–80

Human mammary epithelial cells rapidly exchange empty EGFR between surface and intracellular pools. Burke PM, et al. **J Cell Physiol** 1999 Sep;180(3):448–60

Down–regulation of epidermal growth factor receptor–signaling pathway by binding of GRP78/BiP to the receptor under glucose–starved stress conditions. Cai B, et al. **J Cell Physiol** 1998 Nov;177(2):282–8

Epidermal growth factor receptor relocalization and kinase activity are necessary for directional migration of keratinocytes in DC electric fields. Fang KS, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):1967–78

Clathrin, adaptors and eps15 in endosomes containing activated epidermal growth factor receptors. Sorkina T, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):317–27

Comparison of different scoring systems for immunohistochemical staining. Adams EJ, et al. **J Clin Pathol** 1999 Jan;52(1):75–7

Patterns of expressions of transforming growth factor and epidermal growth factor receptor in squamous cell lesions of the urinary bladder. Tungekar MF, et al. **J Clin Pathol** 1998 Aug;51(8):583–7

A comparative study of nucleolar organizer region, proliferating cell nuclear antigen and epidermal growth factor receptor staining in colon tumours. Shimada N, et al. **J Gastroenterol Hepatol** 1998 Aug;13(8):794–800

Tissue–specific levels and cellular distribution of epidermal growth factor receptors within control and neomycin–damaged neonatal rat Organ of Corti. Zine A, et al. **J Neurobiol** 1999 Feb 15;38(3):313–22

The expression and activation of EGF and c–NEU receptors are increased in enterocytes during intestinal adaptation. Falcone RA Jr, et al. **J Pediatr Surg** 1999 May;34(5):663–7

An EGF receptor–mediated signal attenuates the inhibitory effect of LPA on an adenylate cyclase activity. Arimura S, et al. **Life Sci** 1998;63(17):1563–70

Transforming growth factor–alpha and epidermal growth factor receptor in chronic liver disease and hepatocellular carcinoma. Harada K, et al. **Liver** 1999 Aug;19(4):318–25

Phosphorylation of tyrosine 992, 1068, and 1086 is required for conformational change of the human epidermal growth factor receptor c–terminal tail. Bishayee A, et al. **Mol Biol Cell** 1999 Mar;10(3):525–36

Radiation–induced release of transforming growth factor alpha activates the epidermal growth factor receptor and mitogen–activated protein kinase pathway in carcinoma cells, leading to increased proliferation and protection from radiation–induced cell death. Dent P, et al. **Mol Biol Cell** 1999 Aug;10(8):2493–506

Endocytosis deficiency of epidermal growth factor (EGF) receptor–ErbB2 heterodimers in response to EGF stimulation. Wang Z, et al. **Mol Biol Cell** 1999 May; 10(5):1621–36

Basolateral localization of the Caenorhabditis elegans epidermal growth factor receptor in epithelial cells by the PDZ protein LIN–10. Whitfield CW, et al. **Mol Biol Cell** 1999 Jun;10(6):2087–100

Tyrosine phosphorylation of selected secretory carrier membrane proteins, SCAMP1 and SCAMP3, and association with the EGF receptor. Wu TT, et al. **Mol Biol Cell** 1998 Jul;9(7):1661–74

Reduced receptor expression for platelet–derived growth factor and epidermal growth factor in dividing mouse lung epithelial cells. Rice PL, et al. **Mol Carcinog** 1999 Aug; 25(4):285–94

Identification of a family of sorting nexin molecules and characterization of their association with receptors. Haft CR, et al. **Mol Cell Biol** 1998 Dec;18(12):7278–87

ErbB tyrosine kinases and the two neuregulin families constitute a ligand–receptor network [published erratum appears in Mol Cell Biol 1998 Dec;18(12):7602] Pinkas–Kramarski R, et al. **Mol Cell Biol** 1998 Oct; 18(10):6090–101

Epidermal growth factor receptor and ligands in elongating bovine blastocysts. Kliem A, et al. **Mol Reprod Dev** 1998 Dec;51(4):402–12

Activation of epidermal growth factor receptor in the early phase after renal ischemia–reperfusion in rat. Yano T, et al. **Nephron** 1999 Feb;81(2):230–3

cbl–b inhibits epidermal growth factor receptor signaling. Ettenberg SA, et al. **Oncogene** 1999 Mar 11;18(10):1855–66

Suppression of metastasis formation by a recombinant single chain antibody–toxin targeted to full–length and oncogenic variant EGF receptors. Schmidt M, et al. **Oncogene** 1999 Mar 4;18(9):1711–21

Augmentation of a humanized anti–HER2 mAb 4D5 induced growth inhibition by a human–mouse chimeric anti–EGF receptor mAb C225. Ye D, et al. **Oncogene** 1999 Jan 21; 18(3):731–8

Epidermal growth factor receptor (EGFR), proliferating cell nuclear antigen (PCNA) and Ki–67 antigen in laryngeal epithelial lesions. Kręcicki T, et al. **Oral Oncol** 1999 Mar; 35(2):180–6

Immunolocalization of transforming growth factor alpha and epidermal growth factor receptor in lungs of patients with cystic fibrosis. Hardie WD, et al. **Pediatr Dev Pathol** 1999 Sep–Oct;2(5):415–23

Real–time quantitative measurement of autocrine ligand binding indicates that autocrine loops are spatially localized. Lauffenburger DA, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15368–73

Epidermal growth factor system regulates mucin production in airways. Takeyama K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3081–6

Mechanism of biological synergy between cellular Src and epidermal growth factor receptor. Tice DA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1415–20

Reciprocal interactions between beta1–integrin and epidermal growth factor receptor in three–dimensional basement membrane breast cultures: a different perspective in epithelial biology. Wang F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14821–6

Modification of a receptor–binding surface of epidermal growth factor (EGF): analogs with enhanced receptor affinity at low pH or at neutrality. Mullenbach GT, et al. **Protein Eng** 1998 Jun;11(6):473–80

Adsorption of EGF receptor ligands to test tubes--a factor with implications for studies on the potency of these peptides. Jørgensen PE, et al. **Scand J Clin Lab Invest** 1999 May;59(3):191–7

Versatility in signalling: multiple responses to EGF receptor activation during Drosophila oogenesis. Van Buskirk C, et al. **Trends Cell Biol** 1999 Jan;9(1):1–4 (31 ref.)

Correlation between EGFR and c–erbB–2 oncoprotein status and response to neoadjuvant chemotherapy in cervical carcinoma. Kim JW, et al. **Yonsei Med J** 1999 Jun; 40(3):207–14

[Signal transduction mechanisms induced by epidermal growth factor receptor (EGFR) and their role in apoptosis regulation] Oldak M, et al. **Postepy Hig Med Dosw** 1999; 53(2):315–29 (78 ref.) (Eng. Abstr.) **(Pol)**

[Clinical and prognostic importance of the expression of epidermal growth factor receptors in non–small–cell lung carcinoma] Kostyleva OI, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):446–9 **(Rus)**

[Epidermal growth factor receptors during endometrial adenomatosis] Smetnik VP, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):45–9 **(Rus)**

[EGF–dependent association of 20S–proteasome and alpha–RNP particles with the epidermal growth factor receptor in A–431 cells] Konstantinova IM, et al. **Tsitologiia** 1998;40(11):954–7 (Eng. Abstr.) **(Rus)**

[Prognostic significance of epidermal growth factor receptors in stage I–II breast cancer: results of a six–year follow–up] Gerstein ES, et al. **Vopr Onkol** 1998;44(4):383–9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

The epidermal growth factor receptor and its ligand family: their potential role in repair and remodelling in asthma. Davies DE, et al. **Allergy** 1999 Aug;54(8):771–83 (132 ref.)

Membrane receptor location defines receptor interaction with signaling proteins in a polarized epithelium. Amsler K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C91–C101

Role of epidermal growth factor and its receptor in mechanical stress–induced differentiation of human periodontal ligament cells in vitro. Matsuda N, et al. **Arch Oral Biol** 1998 Dec;43(12):987–97

Potentiation of G–protein–coupled receptor–induced MAP kinase activation by exogenous EGF receptors in SK–N–MC neuroepithelioma cells. Buist A, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):6–10

Mechanisms of growth stimulation by suramin in non–small–cell lung cancer cell lines. Lokshin A, et al. **Cancer Chemother Pharmacol** 1999;43(4):341–7

Sprouty, an intracellular inhibitor of Ras signaling. Casci T, et al. **Cell** 1999 Mar 5;96(5):655–65

EGF receptor signaling stimulates SRC kinase phosphorylation of clathrin, influencing clathrin redistribution and EGF uptake. Wilde A, et al. **Cell** 1999 Mar 5;96(5):677–87

Activation and function of the epidermal growth factor receptor and erbB–2 during mammary gland morphogenesis. Sebastian J, et al. **Cell Growth Differ** 1998 Sep;9(9):777–85

4,5–bis(4–fluoroanilino)phthalimide: A selective inhibitor of the epidermal growth factor receptor signal transduction pathway with potent in vivo antitumor activity. Buchdunger E, et al. **Clin Cancer Res** 1995 Aug;1(8):813–21

Reciprocal changes in p27(Kip1) and p21(Cip1) in growth inhibition mediated by blockade or overstimulation of epidermal growth factor receptors. Fan Z, et al. **Clin Cancer Res** 1997 Nov;3(11):1943–8

Multiple functions of the EGF receptor in Drosophila eye development. Dominguez M, et al. **Curr Biol** 1998 Sep 24; 8(19):1039–48 (46 ref.)

Epidermal growth factor receptors: critical mediators of multiple receptor pathways. Hackel PO, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):184–9 (65 ref.)

Multiple positive and negative regulators of signaling by the EGF–receptor. Moghal N, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):190–6 (64 ref.)

Wingless, decapentaplegic and EGF receptor signaling pathways interact to specify dorso–ventral pattern in the adult abdomen of Drosophila. Kopp A, et al. **Development** 1999 Aug;126(16):3495–507

Role of the EGF receptor pathway in growth and patterning of the Drosophila wing through the regulation of vestigial. Nagaraj R, et al. **Development** 1999 Feb;126(5):975–85

Heparin–binding EGF–like growth factor interacts with mouse blastocysts independently of ErbB1: a possible role for heparan sulfate proteoglycans and ErbB4 in blastocyst implantation. Paria BC, et al. **Development** 1999 May; 126(9):1997–2005

1,25–Dihydroxyvitamin D3 increases the growth–promoting activity of autocrine epidermal growth factor receptor ligands in keratinocytes. Garach–Jehoshua O, et al. **Endocrinology** 1999 Feb;140(2):713–21

Selective changes in EGF receptor expression and function during the proliferation, differentiation and apoptosis of mammary epithelial cells. Darcy KM, et al. **Eur J Cell Biol** 1999 Jul;78(7):511–23

Role of epidermal growth factor receptor in basal and stimulated colonic epithelial cell migration in vitro. Wilson AJ, et al. **Exp Cell Res** 1999 Jul 10;250(1):187–96

Central role of epidermal growth factor (EGF) receptor density in anchorage–independent growth of normal rat kidney cells. Lahaye DH, et al. **FEBS Lett** 1999 Mar 12; 446(2–3):256–60

Ontogeny of EGF receptors in the human gut. Chailler P, et al. **Front Biosci** 1999 Jan 15;4:D87–101 (193 ref.)

Epidermal growth factor receptor (EGFR) biology and human oral cancer. Todd R, et al. **Histol Histopathol** 1999 Apr;14(2):491–500 (107 ref.)

Regulation of epidermal growth factor receptor by androgens in human endometrial cells in culture. Watson H, et al. **Hum Reprod** 1998 Sep;13(9):2585–91

Involvement of PYK2 in angiotensin II signaling of vascular smooth muscle cells. Eguchi S, et al. **Hypertension** 1999 Jan;33(1 Pt 2):201–6

Transfection of anti–sense complementary DNA of human epidermal–growth–factor receptor attenuates the proliferation of human non–small–cell–lung–cancer cells. Fang K, et al. **Int J Cancer** 1999 May 5;81(3):471–8

Stable expression of activated Ki–Ras does not constitutively activate the mitogen–activated protein kinase pathway but attenuates epidermal growth factor receptor activation in human astrocytoma cells. Luo W, et al. **Int J Oncol** 1999 Jan;14(1):53–62

Transmodulation of epidermal growth factor receptor function by cyclic AMP–dependent protein kinase. Barbier AJ, et al. **J Biol Chem** 1999 May 14;274(20):14067–73

Pleiotropic coupling of G protein–coupled receptors to the mitogen–activated protein kinase cascade. Role of focal adhesions and receptor tyrosine kinases. Della Rocca GJ, et al. **J Biol Chem** 1999 May 14;274(20):13978–84

Contact–dependent growth inhibition and apoptosis of epidermal growth factor (EGF) receptor–expressing cells by the membrane–anchored form of heparin–binding EGF–like growth factor. Iwamoto R, et al. **J Biol Chem** 1999 Sep 3;274(36):25906–12

Keratinocyte collagenase–1 expression requires an epidermal growth factor receptor autocrine mechanism. Pilcher BK, et al. **J Biol Chem** 1999 Apr 9;274(15):10372–81

Employment of the epidermal growth factor receptor in growth factor–independent signaling pathways. Carpenter G. **J Cell Biol** 1999 Aug 23;146(4):697–702 (61 ref.)

Transforming growth factor–alpha acting at the epidermal growth factor receptor reduces infarct volume after permanent middle cerebral artery occlusion in rats. Justicia C, et al. **J Cereb Blood Flow Metab** 1999 Feb;19(2):128–32

The role of epidermal growth factor (EGF) and its receptor in mucosal protection, adaptation to injury, and ulcer healing: involvement of EGF–R signal transduction pathways. Tarnawski AS, et al. **J Clin Gastroenterol** 1998; 27 Suppl 1:S12–20 (63 ref.)

Requirement of Stat3 but not Stat1 activation for epidermal growth factor receptor– mediated cell growth In vitro. Grandis JR, et al. **J Clin Invest** 1998 Oct 1;102(7):1385–92

The trefoil gene family are coordinately expressed immediate–early genes: EGF receptor– and MAP kinase–dependent interregulation. Taupin D, et al. **J Clin Invest** 1999 May;103(9):R31–8

Epidermal growth factor– and hepatocyte growth factor–receptor activity in serum–free cultures of human hepatocytes. Runge DM, et al. **J Hepatol** 1999 Feb; 30(2):265–74

A central role of Bcl–X(L) in the regulation of keratinocyte survival by autocrine EGFR ligands. Jost M, et al. **J Invest Dermatol** 1999 Apr;112(4):443–9

The E–cadherin/epidermal growth factor receptor interaction: a hypothesis of reciprocal and reversible control of intercellular adhesion and cell proliferation [editorial] Jawhari AU, et al. **J Pathol** 1999 Jan; 187(2):155–7

Epidermal growth factor receptor as a mediator of developmental toxicity of dioxin in mouse embryonic teeth. Partanen AM, et al. **Lab Invest** 1998 Dec;78(12):1473–81

Mathematical modelling of juxtacrine cell signalling. Owen MR, et al. **Math Biosci** 1998 Nov;153(2):125–50

Comparative mitogenic potencies of EGF and TGF alpha and their dependence on receptor–limitation versus ligand–limitation. Reddy CC, et al. **Med Biol Eng Comput** 1998 Jul;36(4):499–507

Contributions of the epidermal growth factor receptor to keratinocyte motility. Hudson LG, et al. **Microsc Res Tech** 1998 Dec 1;43(5):444–55 (140 ref.)

Epidermal growth factor receptor–mediated motility in fibroblasts. Wells A, et al. **Microsc Res Tech** 1998 Dec 1;43(5):395–411

Epidermal growth factor receptor function is necessary for normal craniofacial development and palate closure. Miettinen PJ, et al. **Nat Genet** 1999 May;22(1):69–73

Cooperative activity between HER oncogenes and the tumor suppressor IRF–1 results in apoptosis. Kirchhoff S, et al. **Oncogene** 1999 Jun 24;18(25):3725–36

The transmembrane protein tyrosine phosphatase RPTPsigma modulates signaling of the epidermal growth factor receptor in A431 cells. Suárez Pestana E, et al. **Oncogene** 1999 Jul 15;18(28):4069–79

Metalloprotease–mediated ligand release regulates autocrine signaling through the epidermal growth factor receptor. Dong J, et al. **Proc Natl Acad Sci U S A** 1999 May 25; 96(11):6235–40

[Epidermal growth factor receptors in breast neoplasms: from experiment to the clinical use] Kushlinskii NE, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):485–96 (91 ref.) **(Rus)**

[Nuclear–cytoplasmic distribution of MAP–kinase isoforms p42 and p44 after treatment with epidermal growth factors (EGF) of cells with different functional state of EGF receptor] Arnautov AM, et al. **Tsitologiia** 1998;40(7):633–8 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Rapid characterization of green fluorescent protein fusion proteins on the molecular and cellular level by fluorescence correlation microscopy. Brock R, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10123–8

RECEPTORS, EPINEPHRINE see **RECEPTORS, ADRENERGIC**

RECEPTORS, ERYTHROPOIETIN

AGONISTS

Isolation of erythropoietin receptor agonist peptides using evolved phage libraries. McConnell SJ, et al. **Biol Chem** 1998 Oct;379(10):1279–86

Activation of erythropoietin receptor in the absence of hormone by a peptide that binds to a domain different from the hormone binding site. Naranda T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7569–74

ANALYSIS

Tissue distribution of erythropoietin and erythropoietin receptor in the developing human fetus. Juul SE, et al. **Early Hum Dev** 1998 Oct;52(3):235–49

Immunohistochemical localization of erythropoietin and its receptor in the developing human brain. Juul SE, et al. **Pediatr Dev Pathol** 1999 Mar–Apr;2(2):148–58

ANTAGONISTS & INHIBITORS

An antagonist peptide–EPO receptor complex suggests that receptor dimerization is not sufficient for activation [see comments] Livnah O, et al. **Nat Struct Biol** 1998 Nov; 5(11):993–1004. Comment in: Nat Struct Biol 1998 Nov;5(11):938–40.

BIOSYNTHESIS

Impaired erythropoiesis in transgenic mice overexpressing a truncated erythropoietin receptor. Nakamura Y, et al. **Exp Hematol** 1998 Nov;26(12):1105–10

A potential role for erythropoietin in focal permanent cerebral ischemia in mice. Bernaudin M, et al. **J Cereb Blood Flow Metab** 1999 Jun;19(6):643–51

CHEMISTRY

Activation of the erythropoietin receptor by the gp55–P viral envelope protein is determined by a single amino acid in its transmembrane domain. Constantinescu SN, et al. **EMBO J** 1999 Jun 15;18(12):3334–47

A cytosolic domain of the erythropoietin receptor contributes to endoplasmic reticulum–associated degradation. Supino–Rosin L, et al. **Eur J Biochem** 1999 Jul;263(2):410–9

Using affinity capillary electrophoresis to study the interaction of the extracellular binding domain of erythropoietin receptor with peptides. Caldwell GW, et al. **J Biochem Biophys Methods** 1999 Jul 28;40(1–2):17–25

Physical and functional interaction between p72(syk) and erythropoietin receptor. Duprez V, et al. **J Biol Chem** 1998 Dec 18;273(51):33985–90

Will any dimer do? [news; comment] Ballinger MD, et al. **Nat Struct Biol** 1998 Nov;5(11):938–40. Comment on: Nat Struct Biol 1998 Nov;5(11):993–1004.

NMR structure of human erythropoietin and a comparison with its receptor bound conformation. Cheetham JC, et al. **Nat Struct Biol** 1998 Oct;5(10):861–6

An antagonist peptide–EPO receptor complex suggests that receptor dimerization is not sufficient for activation [see comments] Livnah O, et al. **Nat Struct Biol** 1998 Nov; 5(11):993–1004. Comment in: Nat Struct Biol 1998 Nov;5(11):938–40.

Crystallographic evidence for preformed dimers of erythropoietin receptor before ligand activation. Livnah O, et al. **Science** 1999 Feb 12;283(5404):987–90

Erythropoietin receptor activation by a ligand–induced conformation change. Remy I, et al. **Science** 1999 Feb 12; 283(5404):990–3

GENETICS

Expression of the erythropoietin receptor by trophoblast cellsin the human placenta. Fairchild Benyo D, et al. **Biol Reprod** 1999 Apr;60(4):861–70

Localization and characterization of curved DNA in the human erythropoietin receptor gene by experimental and theoretical approaches. Rodley P, et al. **DNA Res** 1998 Dec 31;5(6):349–54

A human erythropoietin receptor gene mutant causing familial erythrocytosis is associated with deregulation of the rates of Jak2 and Stat5 inactivation. Arcasoy MO, et al. **Exp Hematol** 1999 Jan;27(1):63–74

GATA–1 and erythropoietin receptor genes are highly expressed in erythroleukemia. Komatsu N, et al. **Exp Hematol** 1998 Nov;26(12):1148–54

Analysis of erythropoietin and erythropoietin receptor genes expression in cattle during acute infection with Trypanosoma congolense. Suliman HB, et al. **Exp Hematol** 1999 Jan;27(1):37–45

Human, rat, and mouse kidney cells express functional erythropoietin receptors. Westenfelder C, et al. **Kidney Int** 1999 Mar;55(3):808–20

The extracellular domain of the human erythropoietin receptor: expression as a fusion protein in Escherichia coli, purification, and biological properties. Ahaded A, et al. **Prep Biochem Biotechnol** 1999 May;29(2):163–76

METABOLISM

Tyrosine residues of the erythropoietin receptor are dispensable for erythroid differentiation of human CD34+ progenitors. Fichelson S, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):685–91

A novel way to induce erythroid progenitor self renewal: cooperation of c–Kit with the erythropoietin receptor. Wessely O, et al. **Biol Chem** 1999 Feb;380(2):187–202

Ineffective erythropoiesis in myelodysplastic syndromes: correlation with Fas expression but not with lack of erythropoietin receptor signal transduction. Fontenay–Roupie M, et al. **Br J Haematol** 1999 Aug; 106(2):464–73

Activation of the erythropoietin receptor by the gp55–P viral envelope protein is determined by a single amino acid in its transmembrane domain. Constantinescu SN, et al. **EMBO J** 1999 Jun 15;18(12):3334–47

A cytosolic domain of the erythropoietin receptor contributes to endoplasmic reticulum–associated degradation. Supino–Rosin L, et al. **Eur J Biochem** 1999 Jul;263(2):410–9

Physical and functional interaction between p72(syk) and erythropoietin receptor. Duprez V, et al. **J Biol Chem** 1998 Dec 18;273(51):33985–90

Shared and unique determinants of the erythropoietin (EPO) receptor are important for binding EPO and EPO mimetic peptide. Middleton SA, et al. **J Biol Chem** 1999 May 14; 274(20):14163–9

Identification of the erythropoietin receptor domain required for calcium channel activation. Miller BA, et al. **J Biol Chem** 1999 Jul 16;274(29):20465–72

Proteasomes regulate erythropoietin receptor and signal transducer and activator of transcription 5 (STAT5) activation. Possible involvement of the ubiquitinated Cis protein. Verdier F, et al. **J Biol Chem** 1998 Oct 23; 273(43):28185–90

Oligomerization and scaffolding functions of the erythropoietin receptor cytoplasmic tail. Watowich SS, et al. **J Biol Chem** 1999 Feb 26;274(9):5415–21

Recombinant herpes simplex virus type 1 engineered for targeted binding to erythropoietin receptor–bearing cells. Laquerre S, et al. **J Virol** 1998 Dec;72(12):9683–97

High expression of erythropoietin receptor in human chronic progressive glomerulonephritis [letter] Ikegaya N, et al. **Kidney Int** 1999 Sep;56(3):1159–60

Human, rat, and mouse kidney cells express functional erythropoietin receptors. Westenfelder C, et al. **Kidney Int** 1999 Mar;55(3):808–20

Kinetic analysis of macromolecular interactions using surface plasmon resonance biosensors. Morton TA, et al. **Methods Enzymol** 1998;295:268–94

Efficiency of signalling through cytokine receptors depends critically on receptor orientation. Syed RS, et al. **Nature** 1998 Oct 1;395(6701):511–6

Activation of erythropoietin receptor in the absence of hormone by a peptide that binds to a domain different from the hormone binding site. Naranda T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7569–74

Engineering a soluble extracellular erythropoietin receptor (EPObp) in Pichia pastoris to eliminate microheterogeneity, and its complex with erythropoietin. Zhan H, et al. **Protein Eng** 1999 Jun;12(6):505–13

Erythropoietin receptor activation by a ligand–induced conformation change. Remy I, et al. **Science** 1999 Feb 12; 283(5404):990–3

PHYSIOLOGY

Erythropoietin receptor and hematological disease. McMullin MF, et al. **Am J Hematol** 1999 Jan;60(1):55–60 (71 ref.)

Mechanism of the upregulation of erythropoietin–induced uptake clearance by the spleen. Kato M, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E887–95

Genetic evidence for an additional factor required for erythropoietin–induced signal transduction. Gaffen SL, et al. **Blood** 1999 Jul 1;94(1):74–86

The C–terminus of c–ABL is required for proliferation and viability signaling in a c–ABL/erythropoietin receptor fusion protein. Okuda K, et al. **Blood** 1998 Nov 15; 92(10):3848–56

The glucocorticoid receptor cooperates with the erythropoietin receptor and c–Kit to enhance and sustain proliferation of erythroid progenitors in vitro. von Lindern M, et al. **Blood** 1999 Jul 15;94(2):550–9

The molecular physiology of erythropoietin and the erythropoietin receptor. Zhu Y, et al. **Curr Opin Hematol** 1994 Mar;1(2):113–8 (39 ref.)

Characterization of the domains of the erythropoietin receptor necessary for induction of cell growth and differentiation. Ishiguro K, et al. **Cytokine** 1998 Aug; 10(8):564–77

Inactivation of erythropoietin leads to defects in cardiac morphogenesis. Wu H, et al. **Development** 1999 Aug; 126(16):3597–605

Dominant negative effect of a truncated erythropoietin receptor (EPOR–T) on erythropoietin–induced erythroid differentiation: possible involvement of EPOR–T in ineffective erythropoiesis of myelodysplastic syndrome. Shimizu R, et al. **Exp Hematol** 1999 Feb;27(2):229–33

Erythropoietic, neurotrophic, and angiogenic functions of erythropoietin and regulation of erythropoietin production. Masuda S, et al. **Int J Hematol** 1999 Jul;70(1):1–6 (62 ref.)

HGF activates signal transduction from EPO receptor on human cord blood CD34+/CD45+ cells. Iguchi T, et al. **Stem Cells** 1999;17(2):82–91

RECEPTORS, ESTRADIOL

ANALYSIS

[The factors affecting the level of ovarian hormone receptors in breast tumors in women] Borisenkov MF, et al. **Ontogenez** 1999 Mar–Apr;30(2):130–3 (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

Estradiol receptor and prognostic parameters of human breast cancer. Görlich M, et al. **Neoplasma** 1999;46(2):112–6

CHEMISTRY

The HDQVH–motif in domain E of the estradiol receptor alpha is responsible for zinc–binding and zinc–induced hormone release. Humeny A, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):71–8

DRUG EFFECTS

Rapid insulinotropic effect of 17beta–estradiol via a plasma membrane receptor. Nadal A, et al. **FASEB J** 1998 Oct; 12(13):1341–8

Hormonal regulation of oestrogen and progesterone receptors in cultured bovine endometrial cells. Xiao CW, et al. **J Reprod Fertil** 1999 Jan;115(1):101–9

GENETICS

Effect of labor induction on the expression of oxytocin receptor, cytochrome P450 aromatase, and estradiol receptor in the reproductive tract of the late–pregnant ewe. Leung ST, et al. **Biol Reprod** 1999 Apr;60(4):814–20

Interactive effect of estradiol and vitamin D receptor gene polymorphisms as a possible determinant of growth in male and female infants. Suarez F, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3563–8

IMMUNOLOGY

Subcellular localization of estradiol receptor in MCF7 cells studied with nanogold–labelled antibody fragments. Kessels MM, et al. **Eur J Histochem** 1998;42(4):259–70

METABOLISM

Role of estradiol receptor–alpha in differential expression of 2,3,7, 8–tetrachlorodibenzo–p–dioxin–inducible genes in the RL95–2 and KLE human endometrial cancer cell lines. Jana NR, et al. **Arch Biochem Biophys** 1999 Aug 1; 368(1):31–9

Effect of CDRI–85/287 on uterine estradiol and progesterone receptor levels/morphometric measurements during preimplantation period in rat. Gupta S, et al. **Endocr Res** 1998 May;24(2):171–84

Subcellular localization of estradiol receptor in MCF7 cells studied with nanogold–labelled antibody fragments. Kessels MM, et al. **Eur J Histochem** 1998;42(4):259–70

Immunohistochemical localization of receptors for progesterone and oestradiol–17 beta in the implantation site of the rhesus monkey. Ghosh D, et al. **Hum Reprod** 1999 Feb;14(2):505–14

Apoptosis, proliferation, and sex hormone receptors in superficial parts of human endometrium at the end of the secretory phase. Dahmoun M, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1737–43

The HDQVH–motif in domain E of the estradiol receptor alpha is responsible for zinc–binding and zinc–induced hormone release. Humeny A, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):71–8

RECEPTORS, ESTRADIOL

PHYSIOLOGY

Estrogen enhances baroreflex control of heart rate in conscious ovariectomized rats. el-Mas MM, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):381-6

[Molecular and clinical endocrinology of the endometrium] Bamberger AM, et al. **Pathologe** 1999 Jan;20(1):50-5 (Eng. Abstr.) **(Ger)**

RECEPTORS, ESTROGEN

Steroid hormone receptors in breast cancer management. Osborne CK. **Breast Cancer Res Treat** 1998;51(3):227-38 (76 ref.)

Estrogen receptor-beta: implications for the prostate gland. Chang WY, et al. **Prostate** 1999 Jul 1;40(2):115-24 (63 ref.)

Oestrogen receptor beta (ER beta). Saunders PT. **Rev Reprod** 1998 Sep;3(3):164-71 (46 ref.)

Risk of premenopausal breast cancer in association with occupational exposure to polycyclic aromatic hydrocarbons and benzene. Petralia SA, et al. **Scand J Work Environ Health** 1999 Jun;25(3):215-21

AGONISTS

Two compounds commonly used for phospholipase C inhibition activate the nuclear estrogen receptors. Cenni B, et al. **Biochem Biophys Res Commun** 1999 Aug 2; 261(2):340-4

Genistein-mediated attenuation of tamoxifen-induced antagonism from estrogen receptor-regulated genes. Schwartz JA, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):38-43

Estradiol disrupts sea urchin embryogenesis differently from methoxychlor. Mwatibo JM, et al. **Bull Environ Contam Toxicol** 1998 Nov;61(5):577-82

Selective estrogen receptor modulators (SERMs). Grese TA, et al. **Curr Pharm Des** 1998 Feb;4(1):71-92 (183 ref.)

Selective estrogen receptor modulators: clinical spectrum. Cosman F, et al. **Endocr Rev** 1999 Jun;20(3):418-34 (179 ref.)

A sensitive zonagenetic assay for rapid in vitro assessment of estrogenic potency of xenobiotics and mycotoxins. Celius T, et al. **Environ Health Perspect** 1999 Jan;107(1):63-8

Diluted mainstream cigarette smoke condensates activate estrogen receptor and aryl hydrocarbon receptor-mediated gene transcription. Meek MD, et al. **Environ Res** 1999 Jan; 80(1):9-17

Searching for the ideal SERM [editorial; comment] Poletti A. **Pharmacol Res** 1999 May;39(5):333. Comment on: Pharmacol Res 1999 May;39(5):335-44.

Sensitivity of a Tier I screening battery compared to an in utero exposure for detecting the estrogen receptor agonist 17 beta-estradiol. O'Connor JC, et al. **Toxicol Sci** 1998 Aug;44(2):169-84

[Action of SERM and SAS (tibolone) on breast tissue] Gompel A, et al. **Contracept Fertil Sex** 1999 May; 27(5):368-75 (25 ref.) (Eng. Abstr.) **(Fre)**

ANALYSIS

Tissue heterogeneity of immunohistochemically detected estrogen receptor. Implications for image analysis quantification. Layfield LJ, et al. **Am J Clin Pathol** 1998 Dec;110(6):758-64

Use of cultured cells as a control for quantitative immunocytochemical analysis of estrogen receptor in breast cancer. The Quicgel method. Riera J, et al. **Am J Clin Pathol** 1999 Mar;111(3):329-35

Immunohistochemical assay for detecting estrogen receptors in canine mammary tumors. Graham JC, et al. **Am J Vet Res** 1999 May;60(5):627-30

Laser scanning cytometry quantification of estrogen receptors in breast cancer. Gorczyca W, et al. **Anal Quant Cytol Histol** 1998 Dec;20(6):470-6

Upregulation of basic fibroblast growth factor in breast carcinoma and its relationship to vascular density, oestrogen receptor, epidermal growth factor receptor and survival. Smith K, et al. **Ann Oncol** 1999 Jun;10(6):707-13

Modified true-color computer-assisted image analysis versus subjective scoring of estrogen receptor expression in breast cancer: a comparison. Kohlberger PD, et al. **Anticancer Res** 1999 May-Jun;19(3B):2189-93

Immunohistochemical detection of estrogen and progesterone receptors in primary breast cancer. Chariyalertsak S, et al. **Asian Pac J Allergy Immunol** 1998 Dec;16(4):161-6

Correlation between immunohistochemical and biochemical estrogen receptors in the prognosis of patients with breast cancer. Chariyalertsak S, et al. **Asian Pac J Allergy Immunol** 1999 Jun;17(2):107-12

Cloning, sequencing, and localization of bovine estrogen receptor-beta within the ovarian follicle. Rosenfeld CS, et al. **Biol Reprod** 1999 Mar;60(3):691-7

Absence of progesterone receptor associated with secondary breast cancer in postmenopausal women. Balleine RL, et al. **Br J Cancer** 1999 Mar;79(9-10):1564-71

Stage III and oestrogen receptor negativity are associated with poor prognosis after adjuvant high-dose therapy in high-risk breast cancer. Hohaus S, et al. **Br J Cancer** 1999 Mar;79(9-10):1500-7

Leptin receptors in estrogen receptor-containing neurons of the female rat hypothalamus. Diano S, et al. **Brain Res** 1998 Nov 23;812(1-2):256-9

Estrogen receptor negative and progesterone receptor positive primary breast cancer: pathological characteristics and clinical outcome. Institut Curie Breast Cancer Study Group. Bernoux A, et al. **Breast Cancer Res Treat** 1998 Jun;49(3):219-25

Quantitation of estrogen receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):47-55

Direct comparisons of adjuvant endocrine therapy, chemotherapy, and chemoendocrine therapy for operable breast cancer patients stratified by estrogen receptor and menopausal status. Nomura Y, et al. **Breast Cancer Res Treat** 1998 May;49(1):51-60

Comparison of immunohistochemical and biochemical measurement of steroid receptors in primary breast cancer: evaluation of discordant findings. Stierer M, et al. **Breast Cancer Res Treat** 1998 Jul;50(2):125-34

Steroid receptors in hereditary breast carcinomas associated with BRCA1 or BRCA2 mutations or unknown susceptibility genes [letter; comment] Eisinger F, et al. **Cancer** 1999 May 15;85(10):2291-5. Comment on: Cancer 1998 Jul 15;83(2):310-9.

The stability of estrogen and progesterone receptor expression on breast carcinoma cells stored as PreservCyt suspensions and as ThinPrep slides. Tabbara SO, et al. **Cancer** 1998 Dec 25;84(6):355-60

Paraffin section immunocytochemistry and cytosol-based ligand-binding assays for ER and PR detection in breast cancer: the time has come for more objectivity. Goussard J. **Cancer Lett** 1998 Oct 23;132(1-2):61-6 (27 ref.)

Biphasic Scatchard plots of oestrogen receptors are associated with low pS2 levels in human breast cancers. Marsigliante S, et al. **Cancer Lett** 1999 Sep 20;144(1):17-23

Apoptosis induction and potent antiestrogen receptor-negative breast cancer activity in vivo by a retinoid antagonist. Fanjul AN, et al. **Cancer Res** 1998 Oct 15;58(20):4607-10

Estrogen and progesterone receptors in normal and varicose saphenous veins. Mashiah A, et al. **Cardiovasc Surg** 1999 Apr;7(3):327-31

Expression of estrogen receptors and progesterone receptors in transitional cell carcinoma of bladder [letter] Shan Y, et al. **Chin Med J (Engl)** 1998 Feb;111(2):191-2

Relationship between hormone receptor concentration and tumor shrinkage in uterine myoma after treatment with a GnRHa. Wang PH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 May;62(5):294-9

Upregulation of estrogen receptor-alpha expression in rabbit cardiac allograft. Lou H, et al. **Circ Res** 1998 Nov 2; 83(9):947-51

Apoptosis in breast carcinomas detected with monoclonal antibody to single-stranded DNA: relation to bcl-2 expression, hormone receptors, and lymph node metastases. Frankfurt OS, et al. **Clin Cancer Res** 1997 Mar;3(3):465-71

Determination of angiogenesis adds information to estrogen receptor status in predicting the efficacy of adjuvant tamoxifen in node-positive breast cancer patients. Gasparini G, et al. **Clin Cancer Res** 1996 Jul;2(7):1191-8

Use of reverse transcription-polymerase chain reaction methodology to detect estrogen-regulated gene expression in small breast cancer specimens. Knowlden JM, et al. **Clin Cancer Res** 1997 Nov;3(11):2165-72

Positron emission tomography with 2-[18F]Fluoro-2-deoxy-D-glucose and 16alpha-[18F]fluoro-17beta-estradiol in breast cancer: correlation with estrogen receptor status and response to systemic therapy. Mortimer JE, et al. **Clin Cancer Res** 1996 Jun;2(6):933-9

Immunohistochemical detection of oestrogen and progesterone receptors in salivary tumours. Jeannon JP, et al. **Clin Otolaryngol** 1999 Feb;24(1):52-4

Estrogen-receptor expression and function in thymocytes in relation to gender and age. Kohen F, et al. **Dev Immunol** 1998;5(4):277-85

Expression of estrogen receptor-beta protein in rodent ovary. Fitzpatrick SL, et al. **Endocrinology** 1999 Jun; 140(6):2581-91

Differential regulation and action of estrogen receptors alpha and beta in GH3 cells. Mitchner NA, et al. **Endocrinology** 1999 Jun;140(6):2651-8

Estrogen receptor-alpha detected on the plasma membrane of aldehyde-fixed GH3/B6/F10 rat pituitary tumor cells by enzyme-linked immunocytochemistry. Norfleet AM, et al. **Endocrinology** 1999 Aug;140(8):3805-14

Stage- and region-specific expression of estrogen receptor alpha isoforms during ontogeny of the pituitary gland. Pasqualini C, et al. **Endocrinology** 1999 Jun;140(6):2781-9

Biologically active estrogen receptor-beta: evidence from in vivo autoradiographic studies with estrogen receptor alpha-knockout mice. Shughrue PJ, et al. **Endocrinology** 1999 Jun;140(6):2613-20

Oestrogen receptor status predicts local recurrence following breast conservation surgery for early breast cancer. Yaghan R, et al. **Eur J Surg Oncol** 1998 Oct;24(5):424-6

Immunolocalization of aromatase and estrogen receptors in bank vole Leydig cells. Schmalz B, et al. **Folia Histochem Cytobiol** 1999;37(2):89-90

An immunohistochemical analysis of heat shock protein 70, p53, and estrogen receptor status in carcinoma of the uterine cervix. Park CS, et al. **Gynecol Oncol** 1999 Jul; 74(1):53-60

Relationship between steroid receptors (as continuous variables) and response to adjuvant treatments in postmenopausal women with node-positive breast cancer. Coradini D, et al. **Int J Biol Markers** 1999 Apr-Jun; 14(2):60-7

Expression pattern of the AP-1 family in breast cancer: association of fosB expression with a well-differentiated, receptor-positive tumor phenotype. Bamberger AM, et al. **Int J Cancer** 1999 Oct 22;84(5):533-8

A simple index using video image analysis to predict disease outcome in primary breast cancer. Lockwood CA, et al. **Int J Cancer** 1999 Jun 21;84(3):203-8

Effect of c-erbB(2) and estrogen receptor status on survival of women with primary breast cancer treated with adjuvant cyclophosphamide/methotrexate/fluorouracil. Miles DW, et al. **Int J Cancer** 1999 Aug 20;84(4):354-9

Expression of steroid receptors, Ki-67, and p53 in uterine leiomyosarcomas. Zhai YL, et al. **Int J Gynecol Pathol** 1999 Jan;18(1):20-8

Non-evidence of estrogen receptors in the rectal mucosa. Rizk DE, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1998;9(3):136-9

Expression and localization of estrogen receptor-beta in murine and human bone. Vidal O, et al. **J Bone Miner Res** 1999 Jun;14(6):923-9

Detection of oestrogen receptor variants in endometrium, myometrium, leiomyoma and peripheral blood mononuclear cells: comparison to variants present in breast cancer. Moutsatsou P, et al. **J Cancer Res Clin Oncol** 1998; 124(9):478-84

Immune functions, clinical parameters and hormone receptor status in breast cancer patients. Shevde LA, et al. **J Cancer Res Clin Oncol** 1999;125(5):313-20

Cyclin D1 overexpression in invasive breast cancers: correlation with cyclin-dependent kinase 4 and oestrogen receptor overexpression, and lack of correlation with mitotic activity. Takano Y, et al. **J Cancer Res Clin Oncol** 1999 Aug-Sep;125(8-9):505-12

Demonstration of estrogen receptor-beta immunoreactivity in human growth plate cartilage. Nilsson LO, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):370-3

Estrogen receptor status by immunohistochemistry is superior to the ligand-binding assay for predicting response to adjuvant endocrine therapy in breast cancer. Harvey JM, et al. **J Clin Oncol** 1999 May;17(5):1474-81

Timing of breast cancer surgery within the menstrual cycle: tumor proliferative activity, receptor status and short-term clinical outcome. Mangia A, et al. **J Exp Clin Cancer Res** 1998 Sep;17(3):317-23

Differential immunolocalization of estrogen receptor alpha and beta in rat ovary and uterus. Hiroi H, et al. **J Mol Endocrinol** 1999 Feb;22(1):37-44

Re: Multifactorial analysis of differences between sporadic breast cancers and cancers involving BRCA1 and BRCA2 mutations [letter; comment] Brown DL, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):90-1. Comment on: J Natl Cancer Inst 1998 Aug 5;90(15):1138-45.

Evidence for extensive distribution of oestrogen receptor alpha-immunoreactivity in the cerebral cortex of adult rats [see comments] Butler JA, et al. **J Neuroendocrinol** 1999 May;11(5):325-9. Comment in: J Neuroendocrinol 1999 May;11(5):323-4.

Evidence for oestrogen receptor alpha-immunoreactivity in gonadotrophin-releasing hormone-expressing neurones [see comments] Butler JA, et al. **J Neuroendocrinol** 1999 May;11(5):331-5. Comment in: J Neuroendocrinol 1999 May;11(5):323-4.

Might oestrogen act directly on GnRH neurones? [editorial; comment] Leng G. **J Neuroendocrinol** 1999 May; 11(5):323-4. Comment on: J Neuroendocrinol 1999 May;11(5):325-9. Comment on: J Neuroendocrinol 1999 May;11(5):331-5.

Oestrogen and progesterone receptor immunoreactivity and c-fos expression in the ovine cervix. Zhao Y, et al. **J Reprod Fertil** 1999 Mar;115(2):287-92

Integration of estrogen and progesterone receptors with pathological and molecular prognostic factors in breast cancer patients. Gago FE, et al. **J Steroid Biochem Mol Biol** 1998 Dec;67(5-6):431-7

4-iodotamoxifen aziridine, a new affinity labeling agent for the rapid detection of estrogen receptor isoforms. Maaroufi Y, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(2):95-104

Immuno-histochemical analysis of estrogen receptors on the malignant gallbladder tissue. Malik IA, et al. **JPMA J Pak Med Assoc** 1998 May;48(5):123-6

Oestrogen-receptor status in management of breast cancer in UK [letter] Mander BJ, et al. **Lancet** 1998 Jul 4; 352(9121):36-7

Aromatase and estrogen receptor immunoreactivity in the coronary arteries of monkeys and human subjects. Diano S, et al. **Menopause** 1999 Spring;6(1):21-8

Estrogen receptor immunoreactivity in prepubertal and adult male Syrian hamsters. Romeo RD, et al. **Neurosci Lett** 1999 Apr 23;265(3):167-70

Tamoxifen induces p21WAF1 and p27KIP1 expression in estrogen receptor-negative lung cancer cells. Lee TH, et al. **Oncogene** 1999 Jul 22;18(29):4269-74

Radiotoxicity of Auger electron-emitting estrogens in MCF-7 spheroids: a potential treatment for estrogen receptor-positive tumors. Kearney T, et al. **Radiat Res** 1999 May;151(5):570-9

The association between c-fos and c-jun expression and estrogen and progesterone receptors is lost in human endometrial cancer. Salmi A, et al. **Tumour Biol** 1999

Jul-Aug;20(4):202-11

[Study on p53, mdm-2 and p21WAF1 protein expression in ER-positive and ER-negative human breast cancer cell lines and its relation to biological features] Jiang M, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Dec;26(6):327-30 (Eng. Abstr.) **(Chi)**

[The importance of steroid receptors for the prognosis and hormone treatment of breast cancer patients: a retrospective study in Southeastern Netherlands] Voogd AC, et al. **Ned Tijdschr Geneeskd** 1998 Aug 1; 142(31):1772-8 (Eng. Abstr.) **(Dut)**

[Steroid hormone receptor status and other immunohistochemical prognostic markers in benign and malignant diseases of the breast] Nizze H, et al. **Zentralbl Chir** 1998;123 Suppl 5:14-8 (46 ref.) (Eng. Abstr.) **(Ger)**

[Relationship of estrogen and progesterone receptors to the menstrual cycle and menopausal status at the time of breast surgery] Karbowski B, et al. **Zentralbl Gynakol** 1999; 121(8):367-74 (Eng. Abstr.) **(Ger)**

[A randomized study of adjuvant treatments for operable breast cancer patients stratified by estrogen receptor and menopausal status] Nomura Y, et al. **Gan To Kagaku Ryoho** 1999 Apr;26(5):643-9 (Eng. Abstr.) **(Jpn)**

[Estrogen receptors in the malignant and benign neoplasms of the thyroid] Lewy-Trenda I. **Pol Merkuriusz Lek** 1998 Aug;5(26):80-3 (Eng. Abstr.) **(Pol)**

ANTAGONISTS & INHIBITORS

Selective estrogen receptor modulators: a new category of therapeutic agents for extending the health of postmenopausal women. Goldstein SR. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1479-84

Idoxifene antagonizes estradiol-dependent MCF-7 breast cancer xenograft growth through sustained induction of apoptosis. Johnston SR, et al. **Cancer Res** 1999 Aug 1; 59(15):3646-51

Two organochlorine pesticides, toxaphene and chlordane, are antagonists for estrogen-related receptor alpha-1 orphan receptor. Yang C, et al. **Cancer Res** 1999 Sep 15; 59(18):4519-24

Selective estrogen receptor modulators (SERMs). Grese TA, et al. **Curr Pharm Des** 1998 Feb;4(1):71-92 (183 ref.)

Orphan receptor hepatocyte nuclear factor-4 antagonizes estrogen receptor alpha-mediated induction of human coagulation factor XII gene. Farsetti A, et al. **Endocrinology** 1998 Nov;139(11):4581-9

Functional inactivation of the oestrogen receptor by the antioestrogen, ZM 182780, sensitises tumour cells to reactive oxygen species. Newton CJ, et al. **J Endocrinol** 1999 May;161(2):199-210

An estrogen receptor basis for raloxifene action in bone. Bryant HU, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):37-44 (34 ref.)

Comparison of tamoxifen ligands on estrogen receptor interaction with estrogen response elements. Klinge CM, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1-2):79-90

Searching for the ideal SERM [editorial; comment] Poletti A. **Pharmacol Res** 1999 May;39(5):333. Comment on: Pharmacol Res 1999 May;39(5):335-44.

An estrogen receptor-selective coregulator that potentiates the effectiveness of antiestrogens and represses the activity of estrogens. Montano MM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6947-52

Peptide antagonists of the human estrogen receptor. Norris JD, et al. **Science** 1999 Jul 30;285(5428):744-6

Inhibition of estrogen receptor function promotes porcine coronary artery smooth muscle cell proliferation. Lavigne MC, et al. **Steroids** 1999 Jul;64(7):472-80

[Action of SERM and SAS (tibolone) on breast tissue] Gompel A, et al. **Contracept Fertil Sex** 1999 May; 27(5):368-75 (25 ref.) (Eng. Abstr.) **(Fre)**

BIOSYNTHESIS

Proteasome inhibitors MG132 and lactacystin hyperphosphorylate HSF1 and induce hsp70 and hsp27 expression. Kim D, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):264-8

hAG-2, the human homologue of the Xenopus laevis cement gland gene XAG-2, is coexpressed with estrogen receptor in breast cancer cell lines. Thompson DA, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):111-6

Expression of the vitamin D receptor, of estrogen and thyroid hormone receptor alpha- and beta-isoforms, and of the androgen receptor in cultures of native mouse bone marrow and of stromal/osteoblastic cells. Gruber R, et al. **Bone** 1999 May;24(5):465-73

Differential regulation of specific genes in MCF-7 and the ICI 182780-resistant cell line MCF-7/182R-6. Jensen BL, et al. **Br J Cancer** 1999 Feb;79(3-4):386-92

Expression of oestrogen and progesterone receptors in gastric cancer: a flow cytometric study. Karat D, et al. **Br J Cancer** 1999 Jun;80(8):1271-4

Estrogen receptor-beta messenger RNA expression in human breast tumor biopsies: relationship to steroid receptor status and regulation by progestins. Dotzlaw H, et al. **Cancer Res** 1999 Feb 1;59(3):529-32

Expression of estrogen receptor beta1, beta2, and beta5 messenger RNAs in human breast tissue. Leygue E, et al. **Cancer Res** 1999 Mar 15;59(6):1175-9

Differential expression of estrogen receptor-alpha and -beta messenger RNAs as a potential marker of ovarian carcinogenesis. Pujol P, et al. **Cancer Res** 1998 Dec 1; 58(23):5367-73

Coexpression of estrogen receptor alpha and beta: poor prognostic factors in human breast cancer? Speirs V, et al. **Cancer Res** 1999 Feb 1;59(3):525-8

Flow cytometric analysis of estrogen, progesterone receptor expression and DNA content in formalin-fixed, paraffin-embedded human breast tumors. Redkar AA, et al. **Cytometry** 1999 Apr 15;38(2):61-9

Heat shock protein (HSP)27: a further refinement in the diagnosis of suspicious fine needle aspirates of breast. Keeling J, et al. **Cytopathology** 1999 Feb;10(1):40-9

Identification of novel chicken estrogen receptor-alpha messenger ribonucleic acid isoforms generated by alternative splicing and promoter usage. Griffin C, et al. **Endocrinology** 1998 Nov;139(11):4614-25

Transcription activation by the human estrogen receptor subtype beta (ER beta) studied with ER beta and ER alpha receptor chimeras. McInerney EM, et al. **Endocrinology** 1998 Nov;139(11):4513-22

Ontogeny of estrogen receptor-beta expression in rat testis. van Pelt AM, et al. **Endocrinology** 1999 Jan;140(1):478-83

Molecular cloning of an estrogen receptor beta subtype from the goldfish, Carassius auratus. Tchoudakova A, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):388-400

Cloning, in vitro expression, and novel phylogenetic classification of a channel catfish estrogen receptor. Xia Z, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):360-8

Expression of estrogen receptor alpha mRNA and protein variants in human endometrial carcinoma. Jazaeri O, et al. **Gynecol Oncol** 1999 Jul;74(1):38-47

Selective expression of estrogen receptor alpha and beta isoforms in human pituitary tumors. Shupnik MA, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3965-72

Murine progesterone receptor expression in proliferating mammary epithelial cells during normal pubertal development and adult estrous cycle. Association with eralpha and erbeta status. Zeps N, et al. **J Histochem Cytochem** 1999 Oct;47(10):1323-30

HSP70 and ER expression in cervical intraepithelial neoplasia and cervical cancer. Kim KK, et al. **J Korean Med Sci** 1998 Aug;13(4):383-8

Expression and neuropeptidergic characterization of estrogen receptors (ERalpha and ERbeta) throughout the rat brain: anatomical evidence of distinct roles of each subtype. Laflamme N, et al. **J Neurobiol** 1998 Sep 5;36(3):357-78

Effects of an environmental endocrine disruptor on fetal development, estrogen receptor(alpha) and epidermal growth factor receptor expression in the porcine male genital tract. Barthold JS, et al. **J Urol** 1999 Sep;162(3 Pt 1):864-71

Stable over-expression of estrogen receptor-alpha in ECV304 cells inhibits proliferation and levels of secreted endothelin-1 and vascular endothelial growth factor. Ali SH, et al. **Mol Cell Endocrinol** 1999 Jun 25;152(1-2):1-9

Spontaneous conversion to estrogen receptor expression by the human breast epithelial cell line, MCF-10A. Lane MA, et al. **Oncol Rep** 1999 May-Jun;6(3):507-11

Expression of pepsinogen II with androgen and estrogen receptors in human prostate carcinoma. Konishi N, et al. **Pathol Int** 1999 Mar;49(3):203-7

Induction of hepatic estrogen receptor in juvenile Atlantic salmon in vivo by the environmental estrogen, 4-nonylphenol. Yadetie F, et al. **Sci Total Environ** 1999 Aug 15;233(1-3):201-10

The activation of plasminogen activator inhibitor-1 expression by IL-1beta is attenuated by estrogen in hepatoblastoma HepG2 cells expressing estrogen receptor alpha. Kilbourne EJ, et al. **Thromb Haemost** 1999 Mar; 81(3):423-7

BLOOD

Estradiol coupling to human monocyte nitric oxide release is dependent on intracellular calcium transients: evidence for an estrogen surface receptor. Stefano GB, et al. **J Immunol** 1999 Oct 1;163(7):3758-63

UFT and mitomycin plus tamoxifen for stage II, ER-positive breast cancer. Hokkaido ACETBC Study Group. Hata Y, et al. **Oncology (Huntingt)** 1999 Jul;13(7 Suppl 3):91-5

CHEMISTRY

Crystallization of an intact GST-estrogen receptor hormone binding domain fusion protein. Lally JM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):423-6

Distinct effects on the conformation of estrogen receptor alpha and beta by both the antiestrogens ICI 164,384 and ICI 182,780 leading to opposite effects on receptor stability. Van Den Bemd GJ, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):1-5

Evolution towards hormone independence of the MXT mouse mammary tumor is associated with a gradual change in its estrogen receptor molecular polymorphism. Piccart MJ, et al. **Cancer Biochem Biophys** 1998 Jun;16(1-2):169-82

The structural basis of estrogen receptor/coactivator recognition and the antagonism of this interaction by tamoxifen. Shiau AK, et al. **Cell** 1998 Dec 23;95(7):927-37

Novel structural templates for estrogen-receptor ligands and prospects for combinatorial synthesis of estrogens. Fink BE, et al. **Chem Biol** 1999 Apr;6(4):205-19

Structural and dynamic differences of the estrogen receptor DNA-binding domain, binding as a dimer and as a monomer to DNA: molecular dynamics simulation studies [published erratum appears in Eur Biophys J 1999;28(4):356] Eriksson MA, et al. **Eur Biophys J** 1999; 28(2):102-11

Site-directed spin labeling study of subunit interactions in the alpha-crystallin domain of small heat-shock proteins. Comparison of the oligomer symmetry in alphaA-crystallin, HSP 27, and HSP 16.3. Berengian AR, et al. **J Biol Chem** 1999 Mar 5;274(10):6305-14

Mutations in the AF-2/hormone-binding domain of the chimeric activator GAL4.estrogen receptor.VP16 inhibit hormone-dependent transcriptional activation and chromatin remodeling in yeast. Stafford GA, et al. **J Biol Chem** 1998 Dec 18;273(51):34240-6

Conformational dynamics and molecular recognition: backbone dynamics of the estrogen receptor DNA-binding domain. Wikström A, et al. **J Mol Biol** 1999 Jun 18; 289(4):963-79

Expression and neuropeptidergic characterization of estrogen receptors (ERalpha and ERbeta) throughout the rat brain: anatomical evidence of distinct roles of each subtype. Laflamme N, et al. **J Neurobiol** 1998 Sep 5;36(3):357-78

Changes in the structure of the ligand or substitutions to AF2 residues in the estrogen receptor make independent contributions to coactivator sensitivity by SRC-1. Schwartz JA, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):223-32

Phosphorylation of human estrogen receptor alpha by protein kinase A regulates dimerization. Chen D, et al. **Mol Cell Biol** 1999 Feb;19(2):1002-15

Molecular determinants of the estrogen receptor-coactivator interface. Mak HY, et al. **Mol Cell Biol** 1999 May; 19(5):3895-903

Estrogen receptor (ER) modulators each induce distinct conformational changes in ER alpha and ER beta. Paige LA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):3999-4004

Comparison of estrogen receptor alpha and beta subtypes based on comparative molecular field analysis (CoMFA). Xing L, et al. **SAR QSAR Environ Res** 1999;10(2-3):215-37

CLASSIFICATION

Cloning, in vitro expression, and novel phylogenetic classification of a channel catfish estrogen receptor. Xia Z, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):360-8

DRUG EFFECTS

Selective estrogen receptor modulators and postmenopausal women's health: the promise for the next millennium [editorial] Agnusdei D. **Aging (Milano)** 1998 Aug; 10(4):269-72 (26 ref.)

Is raloxifene the answer to the HRT story? [editorial; comment] Apgar B. **Am Fam Physician** 1999 Sep 15; 60(4):1092, 1095. Comment on: Am Fam Physician 1999 Sep 15;60(4):1131-9.

Raloxifene: a selective estrogen receptor modulator [see comments] Scott JA, et al. **Am Fam Physician** 1999 Sep 15;60(4):1131-9 (27 ref.). Comment in: Am Fam Physician 1999 Sep 15;60(4):1092, 1095.

Selective estrogen receptor modulators: Women's panacea for the next millennium? Spencer CP, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):763-70 (120 ref.)

Nongenomic stimulation of nitric oxide release by estrogen is mediated by estrogen receptor alpha localized in caveolae. Kim HP, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):257-62

Novel nonsteroidal selective estrogen receptor modulators. Carbon and heteroatom replacement of oxygen in the ethoxypiperidine region of raloxifene. Schmid CR, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):523-8

Clinical use of selective estrogen receptor modulators. Delmas PD. **Bone** 1999 Jul;25(1):115-8 (31 ref.)

The two phyto-oestrogens genistein and quercetin exert different effects on oestrogen receptor function. Miodini P, et al. **Br J Cancer** 1999 Jun;80(8):1150-5

The effect of three week tamoxifen treatment on oestrogen receptor levels in primary breast tumours: a flow cytometric study [letter; comment] Sheard M. **Br J Cancer** 1999 Mar;79(9-10):1621. Comment on: Br J Cancer 1998 May;77(10):1657-60.

Effect of interferon alpha-2a on hormone receptor status in patients with advanced breast cancer. Kornek G, et al. **Cancer Invest** 1999;17(3):189-94

The interaction of raloxifene and the active metabolite of the antiestrogen EM-800 (SC 5705) with the human estrogen receptor. Schafer JI, et al. **Cancer Res** 1999 Sep 1;59(17):4308-13

3,3'4,4'-Tetrachlorobiphenyl exhibits antiestrogenic and antitumorigenic activity in the rodent uterus and mammary cells and in human breast cancer cells. Ramamoorthy K, et al. **Carcinogenesis** 1999 Jan;20(1):115-23

Validation and application of a rapid in vitro assay for assessing the estrogenic potency of halogenated phenolic chemicals. Körner W, et al. **Chemosphere** 1998 Oct-Nov; 37(9-12):2395-407

Estrogens and atherosclerosis: phytoestrogens and selective estrogen receptor modulators. St Clair RW.

Curr Opin Lipidol 1998 Oct;9(5):457–63 (101 ref.)

Clinical pharmacology of selective estrogen receptor modulators. Haynes B, et al. **Drugs Aging** 1999 May; 14(5):323–36 (168 ref.)

Suppression of ligand-dependent estrogen receptor activity by bone-resorbing cytokines in human osteoblasts. Bodine PV, et al. **Endocrinology** 1999 Jun;140(6):2439–51

Idoxifene: a novel selective estrogen receptor modulator prevents bone loss and lowers cholesterol levels in ovariectomized rats and decreases uterine weight in intact rats. Nuttall ME, et al. **Endocrinology** 1998 Dec; 139(12):5224–34

Relaxin stimulates uterine edema via activation of estrogen receptors: blockade of its effects using ICI 182,780, a specific estrogen receptor antagonist. Pillai SB, et al. **Endocrinology** 1999 May;140(5):2426–9

Estrogenic potential of certain pyrethroid compounds in the MCF-7 human breast carcinoma cell line. Go V, et al. **Environ Health Perspect** 1999 Mar;107(3):173–7

Phytoestrogens: the "natural" selective estrogen receptor modulators? Brzezinski A, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jul;85(1):47–51 (33 ref.)

Melatonin blocks the activation of estrogen receptor for DNA binding. Rato AG, et al. **FASEB J** 1999 May; 13(8):857–68

Randomized, double-blind, placebo-controlled study of the effects of raloxifene and conjugated equine estrogen on plasma homocysteine levels in healthy postmenopausal women. Mijatovic V, et al. **Fertil Steril** 1998 Dec; 70(6):1085–9

Safety evaluation of phytosterol esters. Part 1. Assessment of oestrogenicity using a combination of in vivo and in vitro assays. Baker VA, et al. **Food Chem Toxicol** 1999 Jan;37(1):13–22

Effects of tamoxifen on steroid hormone receptors and hormone concentration and the results of DNA analysis by flow cytometry in endometrial carcinoma. Nola M, et al. **Gynecol Oncol** 1999 Mar;72(3):331–6

Comparative effects of the selective estrogen receptor modulators (-)-, (+)- and (+/-)-Z bisdehydrodoisynolic acids on metabolic and reproductive parameters in male and female rats. Banz WJ, et al. **Horm Metab Res** 1998 Dec;30(12):730–6

Binary quantitative structure-activity relationship (QSAR) analysis of estrogen receptor ligands. Gao H, et al. **J Chem Inf Comput Sci** 1999 Jan-Feb;39(1):164–8

Differential activation by xenoestrogens of ER alpha and ER beta when linked to different response elements. Pennie WD, et al. **J Endocrinol** 1998 Sep;158(3):R11–4

Estrogen receptor as a target for the prevention of breast cancer. Jordan VC. **J Lab Clin Med** 1999 May; 133(5):408–14 (44 ref.)

Re: In search of the perfect SERM: beyond tamoxifen and raloxifene [letter; comment] Williams GM. **J Natl Cancer Inst** 1998 Nov 4;90(21):1671. Comment on: J Natl Cancer Inst 1998 Jul 1;90(13):956–7.

LY353381.HCl: a novel raloxifene analog with improved SERM potency and efficacy in vivo. Sato M, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):1–7

Effects of an environmental endocrine disruptor on fetal development, estrogen receptor(alpha) and epidermal growth factor receptor expression in the porcine male genital tract. Barthold JS, et al. **J Urol** 1999 Sep;162(3 Pt 1):864–71

Selective estrogen receptor modulators: a controversial approach for managing postmenopausal health. Curtis MG. **J Womens Health** 1999 Apr;8(3):321–33 (151 ref.)

Encouraging news from the SERM frontier. Selective estrogen receptor modulator [editorial; comment] Franks AL, et al. **JAMA** 1999 Jun 16;281(23):2243–4. Comment on: JAMA 1999 Jun 16;281(23):2189–97.

Selective estrogen receptor modulators and phytoestrogens: new therapies for the postmenopausal women. Fitzpatrick LA. **Mayo Clin Proc** 1999 Jun;74(6):601–7 (22 ref.)

Sensitivity of human melanoma cells to oestrogens, tamoxifen and quercetin: is there any relationship with type I and II oestrogen binding site expression? Lama G, et al. **Melanoma Res** 1998 Aug;8(4):313–22

Raloxifene induces neurite outgrowth in estrogen receptor positive PC12 cells. Nilsen J, et al. **Menopause** 1998 Winter; 5(4):211–6

Bisphenol A interacts with the estrogen receptor alpha in a distinct manner from estradiol. Gould JC, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1-2):203–14

The effect of intrauterine levonorgestrel use on the expression of c-JUN, oestrogen receptors, progesterone receptors and Ki-67 in human endometrium. Salmi A, et al. **Mol Hum Reprod** 1998 Dec;4(12):1110–5

PC-SPES in prostate cancer [letter; comment] Geliebter J, et al. **N Engl J Med** 1999 Feb 18;340(7):567–8. Comment on: N Engl J Med 1998 Sep 17;339(12):785–91.

PC-SPES in prostate cancer [letter; comment] Small EJ. **N Engl J Med** 1999 Feb 18;340(7):566–7; discussion 567–8 . Comment on: N Engl J Med 1998 Sep 17;339(12):785–91.

Reporter cell lines to study the estrogenic effects of xenoestrogens. Balaguer P, et al. **Sci Total Environ** 1999 Aug 15;233(1-3):47–56

Acetaminophen-induced proliferation of breast cancer cells involves estrogen receptors. Harnagea-Theophilus E, et al. **Toxicol Appl Pharmacol** 1999 Mar 15;155(3):273–9

[Selective estrogen receptor modulators as a new concept in preventing health risks of menopause] Vokrouhlická J, et al. **Cas Lek Cesk** 1998 Nov 16;137(22):679–85 (Eng. Abstr.) **(Cze)**

[Does anti-estrogen therapy after estrogen receptor analysis have value in palliative therapy of hepatocellular carcinoma?] Kreysel C, et al. **Z Gastroenterol** 1998 Jul; 36(7):605–7 **(Ger)**

[Estrogen receptor and selective estrogen receptor modulators (SERMs)] Shioi A, et al. **Nippon Rinsho** 1999 May;57(5):1199–207 (19 ref.) (Eng. Abstr.) **(Jpn)**

GENETICS

Fragile X premutations and (TA)n estrogen receptor polymorphism in women with ovarian dysfunction. Syrrou M, et al. **Am J Med Genet** 1999 May 28;84(3):306–8

Association of vitamin D and estrogen receptor gene polymorphism with the effect of hormone replacement therapy on bone mineral density in Japanese women. Kurabayashi T, et al. **Am J Obstet Gynecol** 1999 May; 180(5):1115–20

Estrogen acutely stimulates endothelial nitric oxide synthase in H441 human airway epithelial cells. Kirsch EA, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):658–66

Reproductive phenotypes in the estrogen receptor-alpha knockout mouse. Couse JF, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):143–8 (51 ref.)

Association of oestrogen receptor gene polymorphisms with age at onset of rheumatoid arthritis. Ushiyama T, et al. **Ann Rheum Dis** 1999 Jan;58(1):7–10

Analysis of oestrogen receptor mRNA by reverse transcriptase-polymerase chain reaction in human periodontal ligament cells. Morishita M, et al. **Arch Oral Biol** 1999 Sep;44(9):781–3

Alternative initiation of translation accounts for a 67/45 kDa dimorphism of the human estrogen receptor ERalpha. Barraille P, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):84–8

Functional estrogen receptor beta in colon cancer cells. Fiorelli G, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):521–7

Differential modulation of transcriptional activity of oestrogen receptors by direct protein-protein interactions with retinoid receptors. Song MR, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):711–7

Distribution of estrogen receptor-beta messenger ribonucleic acid in the male sheep hypothalamus. Hileman SM, et al. **Biol Reprod** 1999 Jun;60(6):1279–84

Estradiol up-regulates estrogen receptor-alpha messenger ribonucleic acid in sheep endometrium by increasing its stability. Ing NH, et al. **Biol Reprod** 1999 Jan;60(1):134–9

Cloning, sequencing, and localization of bovine estrogen receptor-beta within the ovarian follicle. Rosenfeld CS, et al. **Biol Reprod** 1999 Mar;60(3):691–7

Mutual and intercompartmental regulation of estrogen receptor and progesterone receptor expression in the mouse uterus. Tibbetts TA, et al. **Biol Reprod** 1998 Nov; 59(5):1143–52

DNA methylation analysis at distal and proximal promoter regions of the oestrogen receptor gene in breast cancers. Iwase H, et al. **Br J Cancer** 1999 Aug;80(12):1982–6

Differential regulation of specific genes in MCF-7 and the ICI 182780-resistant cell line MCF-7/182R-6. Jensen BL, et al. **Br J Cancer** 1999 Feb;79(3-4):386–92

Oestrogen receptor-alpha variant mRNA expression in primary human breast tumours and matched lymph node metastases. Leygue E, et al. **Br J Cancer** 1999 Feb; 79(5-6):978–83

Sex with knockout models: behavioral studies of estrogen receptor alpha. Rissman EF, et al. **Brain Res** 1999 Jul 17; 835(1):80–90 (88 ref.)

Regulated expression of estrogen receptor alpha and beta mRNA in granule cells during development of the rat cerebellum. Belcher SM. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):57–69

Regulation of estrogen receptor beta mRNA in the brain: opposite effects of 17beta-estradiol and the phytoestrogen, coumestrol. Patisaul HB, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):165–71

Modulation of estrogen receptor gene expression in human breast cancer cells: a decoy strategy with specific PCR-generated DNA fragments. Penolazzi L, et al. **Breast Cancer Res Treat** 1998 Jun;49(3):227–35

Methyl-deficient diets, methylated ER genes and breast cancer: an hypothesized association. Zhu K, et al. **Cancer Causes Control** 1998 Dec;9(6):615–20 (58 ref.)

Estrogen receptor activation via activation function 2 predicts agonism of xenoestrogens in normal and neoplastic cells of the uterine myometrium. Hunter DS, et al. **Cancer Res** 1999 Jul 1;59(13):3090–9

The estrogen receptor variant lacking exon 5 has dominant negative activity in the human breast epithelial cell line HMT-3522S1. Ohlsson H, et al. **Cancer Res** 1998 Oct 1; 58(19):4264–8

Two organochlorine pesticides, toxaphene and chlordane, are antagonists for estrogen-related receptor alpha-1 orphan receptor. Yang C, et al. **Cancer Res** 1999 Sep 15; 59(18):4519–24

Activation of the osteopontin promoter by the orphan nuclear receptor estrogen receptor related alpha. Vanacker JM, et al. **Cell Growth Differ** 1998 Dec;9(12):1007–14

Variant estrogen and progesterone receptor messages in human vascular smooth muscle. Hodges YK, et al. **Circulation** 1999 May 25;99(20):2688–93

Cyclin D1 and estrogen receptor messenger RNA levels are positively correlated in primary breast cancer. Hui R, et al. **Clin Cancer Res** 1996 Jun;2(6):923–8

Methylation of estrogen and progesterone receptor gene 5' CpG islands correlates with lack of estrogen and progesterone receptor gene expression in breast tumors. Lapidus RG, et al. **Clin Cancer Res** 1996 May;2(5):805–10

Estrogen receptor methylation is associated with improved survival in adult acute myeloid leukemia. Li Q, et al. **Clin Cancer Res** 1999 May;5(5):1077–84

Relationship of clone 4 estrogen receptor variant messenger RNA expression to some known prognostic variables in human breast cancer. Murphy LC, et al. **Clin Cancer Res** 1995 Feb;1(2):155–9

Identification of a variant estrogen receptor lacking exon 4 and its coexpression with wild-type estrogen receptor in ovarian carcinomas. Park W, et al. **Clin Cancer Res** 1996 Dec;2(12):2029–35

Serum oestradiol and oestrogen-receptor gene polymorphism are associated with bone mineral density independently of serum testosterone in normal males. Ongphiphadhanakul B, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):803–9

The estrogen receptor family. Warner M, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):249–54 (50 ref.)

Assignment of the horse progesterone receptor (PGR) and estrogen receptor (ESR1) genes to horse chromosomes 7 and 31, respectively, by in situ hybridization. Lear TL, et al. **Cytogenet Cell Genet** 1998;82(1-2):110–1

Cloning and sequencing of the gilthead sea bream estrogen receptor cDNA. Muñoz-Cueto JA, et al. **DNA Seq** 1999; 10(2):75–84

Stage-specific expression of estrogen receptor subtypes and estrogen responsive finger protein in preimplantational mouse embryos. Hiroi H, et al. **Endocr J** 1999 Feb; 46(1):153–8

Analysis of bone mineral density and polymorphism of estrogen receptor gene in patients with precocious puberty. Nakayama Y, et al. **Endocr J** 1998 Apr;45 Suppl:S183–4

Characterization of estrogen receptor-beta (ERbeta) messenger ribonucleic acid and protein expression in rat granulosa cells. O'Brien ML, et al. **Endocrinology** 1999 Oct; 140(10):4530–41

Modifications of testosterone-dependent behaviors by estrogen receptor-alpha gene disruption in male mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5058–69

Roles of estrogen receptor-alpha gene expression in reproduction-related behaviors in female mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5070–81

Targeted disruption of the estrogen receptor-alpha gene in female mice: characterization of ovarian responses and phenotype in the adult. Schomberg DW, et al. **Endocrinology** 1999 Jun;140(6):2733–44

Evidence for the colocalization of estrogen receptor-beta mRNA and estrogen receptor-alpha immunoreactivity in neurons of the rat forebrain. Shughrue PJ, et al. **Endocrinology** 1998 Dec;139(12):5267–70

Estrogen receptor-beta messenger ribonucleic acid expression in the pituitary gland. Wilson ME, et al. **Endocrinology** 1998 Dec;139(12):5151–6

Localization of curved DNA and its association with nucleosome phasing in the promoter region of the human estrogen receptor alpha gene. Wada-Kiyama Y, et al. **FEBS Lett** 1999 Feb 5;444(1):117–24

Estrogen receptor alpha and beta expression in the vaginal walls and uterosacral ligaments of premenopausal and postmenopausal women. Chen GD, et al. **Fertil Steril** 1999 Jun;71(6):1099–102

Association of estrogen receptor gene polymorphisms with endometriosis. Georgiou I, et al. **Fertil Steril** 1999 Jul; 72(1):164–6

Identification of two hERR2-related novel nuclear receptors utilizing bioinformatics and inverse PCR. Chen F, et al. **Gene** 1999 Mar 4;228(1-2):101–9

Localization and expression of the human estrogen receptor beta gene in uterine leiomyomata. Pedeutour F, et al. **Genes Chromosomes Cancer** 1998 Dec;23(4):361–6

Ligand-independent recruitment of steroid receptor coactivators to estrogen receptor by cyclin D1. Zwijsen RM, et al. **Genes Dev** 1998 Nov 15;12(22):3488–98

Expression of estrogen receptor-alpha in cells of the osteoclastic lineage. Oreffo RO, et al. **Histochem Cell Biol** 1999 Feb;111(2):125–33

Pituitary estrogen receptor alpha and dopamine subtype 2 receptor gene expression in transgenic mice with overproduction of heterologous growth hormones. Vidal S, et al. **Histochem Cell Biol** 1999 Mar;111(3):235–41

Change of bone mass in postmenopausal Caucasian women with and without hormone replacement therapy is associated with vitamin D receptor and estrogen receptor genotypes. Deng HW, et al. **Hum Genet** 1998 Nov; 103(5):576–85

Analysis of estrogen receptor dinucleotide polymorphism by capillary gel electrophoresis with a population genetic study in 180 Finns. Kunnas TA, et al. **Hum Hered** 1999 Jun;49(3):142–5

Transcriptional activation of functional endogenous estrogen receptor gene expression in MCF10AT cells: a model for early breast cancer. Shekhar PV, et al. **Int J Oncol** 1998 Nov;13(5):907–15

Estrogen receptor in the human eye: influence of gender and age on gene expression. Ogueta SB, et al.

Invest Ophthalmol Vis Sci 1999 Aug;40(9):1906–11

Isolation of mouse TFIID and functional characterization of TBP and TFIID in mediating estrogen receptor and chromatin transcription. Wu SY, et al. **J Biol Chem** 1999 Aug 13;274(33):23480–90

Genetic markers, bone mineral density, and serum osteocalcin levels. Sowers M, et al. **J Bone Miner Res** 1999 Aug; 14(8):1411–9

Lack of association between estrogen receptor genotypes and bone mineral density, fracture history, or muscle strength in elderly women. Vandevyver C, et al.
J Bone Miner Res 1999 Sep;14(9):1576–82

The oestrogen receptor codon 10 polymorphism detected in breast cancer is also present in non-malignant cells. Moutsatsou P, et al. **J Cancer Res Clin Oncol** 1999; 125(3–4):214–8

Coexpression of alternatively spliced estrogen and progesterone receptor transcripts in human breast cancer. Balleine RL, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1370–7

Estrogen receptor beta: mine is longer than yours? [letter] Leygue E, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3754–5

Systematic mutation screening of the estrogen receptor beta gene in probands of different weight extremes: identification of several genetic variants. Rosenkranz K, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4524–7

Messenger ribonucleic acid in situ hybridization analysis of estrogen receptors alpha and beta in human breast carcinoma. Sasano H, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):781–5

Estrogen receptor polymorphism predicts the onset of natural and surgical menopause. Weel AE, et al.
J Clin Endocrinol Metab 1999 Sep;84(9):3146–50

Distribution of aromatase, estrogen receptor, and androgen receptor mRNA in the forebrain of songbirds and nonsongbirds. Metzdorf R, et al. **J Comp Neurol** 1999 Apr 28;407(1):115–29

Estrogen receptor gene polymorphism is associated with bone mineral density in premenopausal women but not in postmenopausal women. Ongphiphadhanakul B, et al.
J Endocrinol Invest 1998 Sep;21(8):487–93

Inducible site-specific recombination in the brain. Kellendonk C, et al. **J Mol Biol** 1999 Jan 8;285(1):175–82

Expression of estrogen receptors alpha and beta in human meningiomas. Carroll RS, et al. **J Neurooncol** 1999 Apr; 42(2):109–16

Induction of progestin receptors by estradiol in the forebrain of estrogen receptor-alpha gene-disrupted mice. Moffatt CA, et al. **J Neurosci** 1998 Nov 15;18(22):9556–63

Differential expression of estrogen receptor alpha and beta in rat dorsal root ganglion neurons. Taleghany N, et al.
J Neurosci Res 1999 Sep 1;57(5):603–15

Identification of sex hormone receptors in human and rabbit ligaments of the knee by reverse transcription-polymerase chain reaction: evidence that receptors are present in tissue from both male and female subjects. Sciore P, et al.
J Orthop Res 1998 Sep;16(5):604–10

A novel human estrogen receptor beta: identification and functional analysis of additional N-terminal amino acids. Bhat RA, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):233–40

Estrogen causes cell death of estrogen receptor stably transfected cells via apoptosis. Lee Y, et al.
J Steroid Biochem Mol Biol 1998 Nov;67(4):327–32

Suppression of gene expression by tethering KRAB domain to promoter of ER target genes. Ma ZQ, et al.
J Steroid Biochem Mol Biol 1999 Apr–Jun;69(1–6):155–63

Expression of exon 5 deleted estrogen receptor variant messenger RNA in human uterine myometrium and leiomyoma. Mito K, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):9–16

Sex hormone binding globulin expression and colocalization with estrogen receptor in the human Fallopian tube. Noé G. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):111–7

Tamoxifen up-regulates oestrogen receptor-alpha, c-fos and glyceraldehyde 3-phosphate-dehydrogenase mRNAs in ovine endometrium. Robertson JA, et al.
J Steroid Biochem Mol Biol 1998 Nov;67(4):285–92

Transcriptional suppression of estrogen receptor gene expression by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Tian Y, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):17–24

Hypomethylation of an exon I estrogen receptor CpG island in spontaneous and carcinogen-induced mammary tumorigenesis in the rat. Yenbutr P, et al.
Mech Ageing Dev 1998 Dec 1;106(1–2):93–102

Identification of the novel player deltaEF1 in estrogen transcriptional cascades. Chamberlain EM, et al.
Mol Cell Biol 1999 May;19(5):3600–6

Ovarian estrogen receptor alpha and beta mRNA expression: impact of development and estrogen. Drummond AE, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):153–61

Expression of human estrogen receptor using an efficient adenoviral gene delivery system is able to restore hormone-dependent features to estrogen receptor-negative breast carcinoma cells. Lazennec G, et al.
Mol Cell Endocrinol 1999 Mar 25;149(1–2):93–105

Putative estrogen receptor beta and alpha mRNA expression in male and female rhesus macaques. Pau CY, et al.
Mol Cell Endocrinol 1998 Nov 25;146(1–2):59–68

Estrogen receptor transactivation in MCF-7 breast cancer cells by melatonin and growth factors. Ram PT, et al.
Mol Cell Endocrinol 1998 Jun 25;141(1–2):53–64

Estrogen receptor mutations. Taylor JA, et al.
Mol Cell Endocrinol 1998 Oct 25;145(1–2):61–6 (59 ref.)

Expression of oestrogen receptor isoforms in relation to enzymes of oestrogen synthesis in rat ovary. Tetsuka M, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1–2):29–35

Cloning of bovine estrogen receptor beta (ERbeta): expression of novel deleted isoforms in reproductive tissues. Walther N, et al. **Mol Cell Endocrinol** 1999 Jun 25; 152(1–2):37–45

A tumor-specific truncated estrogen receptor splice variant enhances estrogen-stimulated gene expression. Chaidarun SS, et al. **Mol Endocrinol** 1998 Sep;12(9):1355–66

Differentially expressed messenger RNA isoforms of the human estrogen receptor-alpha gene are generated by alternative splicing and promoter usage. Flouriot G, et al.
Mol Endocrinol 1998 Dec;12(12):1939–54

Two functionally different protein isoforms are produced from the chicken estrogen receptor-alpha gene. Griffin C, et al. **Mol Endocrinol** 1999 Sep;13(9):1571–87

Functional analysis of a novel estrogen receptor-beta isoform. Hanstein B, et al. **Mol Endocrinol** 1999 Jan; 13(1):129–37

Ribozyme-mediated cleavage of the estrogen receptor messenger RNA and inhibition of receptor function in target cells. Lavrovsky Y, et al. **Mol Endocrinol** 1999 Jun; 13(6):925–34

Adenovirus-mediated delivery of a dominant negative estrogen receptor gene abrogates estrogen-stimulated gene expression and breast cancer cell proliferation. Lazennec G, et al. **Mol Endocrinol** 1999 Jun;13(6):969–80

The novel estrogen-responsive B-box protein (EBBP) gene is tamoxifen-regulated in cells expressing an estrogen receptor DNA-binding domain mutant. Liu HL, et al.
Mol Endocrinol 1998 Nov;12(11):1733–48

Positive and negative discrimination of estrogen receptor agonists and antagonists using site-specific DNA recombinase fusion proteins. Logie C, et al.
Mol Endocrinol 1998 Aug;12(8):1120–32

Cell membrane and nuclear estrogen receptors (ERs) originate from a single transcript: studies of ERalpha and ERbeta expressed in Chinese hamster ovary cells. Razandi M, et al. **Mol Endocrinol** 1999 Feb;13(2):307–19

Transcriptional regulation by a naturally occurring truncated rat estrogen receptor (ER), truncated ER product-1 (TERP-1). Schreihofer DA, et al. **Mol Endocrinol** 1999 Feb;13(2):320–9

Functional interaction between the estrogen receptor and CTF1: analysis of the vitellogenin gene B1 promoter in yeast. Tsai-Pflugfelder M, et al. **Mol Endocrinol** 1998 Oct; 12(10):1525–41

Transcriptional activities of the orphan nuclear receptor ERR alpha (estrogen receptor-related receptor-alpha). Vanacker JM, et al. **Mol Endocrinol** 1999 May;13(5):764–73

Oestrogen receptor (ER)-alpha and ER-beta isoforms in normal endometrial and endometriosis-derived stromal cells. Brandenberger AW, et al. **Mol Hum Reprod** 1999 Jul;5(7):651–5

Expression of oestrogen receptor-alpha and -beta in ovarian endometriomata. Fujimoto J, et al. **Mol Hum Reprod** 1999 Aug;5(8):742–7

Oestrogen receptor alpha and beta mRNA expression in human endometrium throughout the menstrual cycle. Matsuzaki S, et al. **Mol Hum Reprod** 1999 Jun;5(6):559–64

Expression of oestrogen receptor alpha and beta mRNA in corpus luteum of human subjects. Misao R, et al.
Mol Hum Reprod 1999 Jan;5(1):17–21

Expression of oestrogen receptor-alpha splicing variants and oestrogen receptor-beta in endometrium of infertile patients. Rey JM, et al. **Mol Hum Reprod** 1998 Jul; 4(7):641–7

Potential role of the estrogen receptor gene (ESR1) in anxiety. Comings DE, et al. **Mol Psychiatry** 1999 Jul; 4(4):374–7

Estrogen action in the estrogen receptor alpha-knockout mouse: is this due to ER-beta? Shughrue PJ.
Mol Psychiatry 1998 Jul;3(4):299–302

Developmental sex differences in estrogen receptor-beta mRNA expression in the mouse hypothalamus/preoptic region. Karolczak M, et al. **Neuroendocrinology** 1998 Oct; 68(4):229–34

Identification of differentially expressed 5'-end mRNA variants by an improved RACE technique (PEETA). Flouriot G, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):e8

Regulation of estrogen receptor alpha gene mediated by promoter B responsible for its enhanced expressionin human breast cancer. Tanimoto K, et al.
Nucleic Acids Res 1999 Feb 1;27(3):903–9

Genetic and epigenetic alterations of the estrogen receptor gene and hormone independence in human breast cancer. Iwase H, et al. **Oncology** 1998 Dec;55 Suppl 1:11–6 (39 ref.)

Requirement of estrogen receptor expression and function for [12Val] K-Ras-mediated NIH3T3 cell transformation. Kato K, et al. **Oncology** 1998 Dec;55 Suppl 1:45–52

Expression of human estrogen receptor-alpha and -beta, progesterone receptor, and androgen receptor mRNA in normal and malignant ovarian epithelial cells. Lau KM, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5722–7

Estrogen receptor mRNA in uteri of normal estrous cycling and ovariectomized rats by in situ hybridization. Katsuda SI, et al. **Proc Soc Exp Biol Med** 1999 Jul;221(3):207–14

Comparative distribution of estrogen receptor-alpha (ER-alpha) and beta (ER-beta) mRNA in the rat pituitary, gonad, and reproductive tract. Shughrue PJ, et al.
Steroids 1998 Oct;63(10):498–504

[DNA bend sites in the promoter region of the human estrogen receptor alpha gene] Kuwabara K, et al.
Nippon Ika Daigaku Zasshi 1998 Dec;65(6):459–70 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Estrogen receptor immunoreactivity in prepubertal and adult male Syrian hamsters. Romeo RD, et al. **Neurosci Lett** 1999 Apr 23;265(3):167–70

ISOLATION & PURIFICATION

Magnetic separation to concentrate the estrogen receptor from adipose tissue for western analysis. Welter BH, et al. **Biotechniques** 1999 Aug;27(2):282–6

METABOLISM

In vitro analysis of xenoestrogens by enzyme linked receptor assays (ELRA). Seifert M, et al. **Adv Exp Med Biol** 1998; 444:113–7

Estrogen and progesterone receptor contents in ThinPrep-processed fine-needle aspirates of breast. Leung SW, et al. **Am J Clin Pathol** 1999 Jul;112(1):50–6

Estrogen receptor expression in prostate cancer and premalignant prostatic lesions. Bonkhoff H, et al.
Am J Pathol 1999 Aug;155(2):641–7

Estrogen receptors (ERalpha/ERbeta) in normal and pathological growth of the human myometrium: pregnancy and leiomyoma. Benassayag C, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1112–8

Gel-filtration chromatographic method for determining relative binding affinities: rat hepatic estrogen receptor as an example system. Cox BJ, et al. **Anal Biochem** 1999 Feb 15;267(2):357–65

Quantitative image analysis of estrogen and progesterone receptors as a prognostic tool for selecting breast cancer patients for therapy. Castagnetta LA, et al.
Anal Quant Cytol Histol 1999 Feb;21(1):59–62

Role of IRS-1 signaling in insulin-induced modulation of estrogen receptors in breast cancer cells. Ando' S, et al.
Biochem Biophys Res Commun 1998 Dec 18;253(2):315–9

Functional estrogen receptor beta in colon cancer cells. Fiorelli G, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):521–7

Nongenomic stimulation of nitric oxide release by estrogen is mediated by estrogen receptor alpha localized in caveolae. Kim HP, et al.
Biochem Biophys Res Commun 1999 Sep 16;263(1):257–62

Binding characteristics of dialkyl phthalates for the estrogen receptor. Nakai M, et al.
Biochem Biophys Res Commun 1999 Jan 19;254(2):311–4

Oestrogen receptor facilitates the formation of preinitiation complex assembly: involvement of the general transcription factor TFIIB. Sabbah M, et al. **Biochem J** 1998 Dec 15; 336 (Pt 3):639–46

Differential modulation of transcriptional activity of oestrogen receptors by direct protein-protein interactions with retinoid receptors. Song MR, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):711–7

Role of HSP90 in mediating cross-talk between the estrogen receptor and the Ah receptor signal transduction pathways. Caruso JA, et al. **Biochem Pharmacol** 1999 Nov 1; 58(9):1395–403

Interaction of human estrogen receptors alpha and beta with the same naturally occurring estrogen response elements [published erratum appears in Biochem Pharmacol 1999 Jun 15;57(12):1447] Hyder SM, et al.
Biochem Pharmacol 1999 Mar 15;57(6):597–601

Transcription factor, BTF3, and the AF-1 function of the estrogen receptor. el-Tanani MK, et al.
Biochem Soc Trans 1998 Aug;26(3):S252

Estrogen receptor alpha requires no accessory factors for high-affinity binding to a consensus response element. Anderson I, et al. **Biochemistry** 1998 Dec 8;37(49):17287–98

Identification of a unique liganded estrogen receptor complex released from the nucleus by decavanadate. Fritsch M, et al. **Biochemistry** 1999 Jun 1;38(22):6987–96

Integrated "3+1" oxorhenium(V) complexes as estrogen mimics. Skaddan MB, et al. **Bioconjug Chem** 1999 Jan–Feb; 10(1):119–29

Binding characteristics of estrogen receptor (ER) in Atlantic croaker (Micropogonias undulatus) testis: different affinity for estrogens and xenobiotics from that of hepatic ER. Loomis AK, et al. **Biol Reprod** 1999 Jul;61(1):51–60

Synthesis and estrogen receptor binding affinity of a porphyrin-estradiol conjugate for targeted photodynamic therapy of cancer. James DA, et al.
Bioorg Med Chem Lett 1999 Aug 16;9(16):2379–84

Facile synthesis of high affinity styrylpyridine systems as inherently fluorescent ligands for the estrogen receptor. Meyers MJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15; 8(24):3589–94

Ligands for the estrogen receptor, containing cyclopentadienyltricarbonylrhenium units. Spradau TW, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3235–40

Immunofluorescent localization of estrogen receptor-alpha in growth plates of rabbits, but not in rats, at sexual

maturity. Kennedy J, et al. **Bone** 1999 Jan;24(1):9–16

Alcohol consumption and breast cancer oestrogen and progesterone receptor status. Enger SM, et al. **Br J Cancer** 1999 Mar;79(7–8):1308–14

Expression of interleukin 6 (IL-6) correlates with oestrogen receptor in human breast carcinoma. Fontanini G, et al. **Br J Cancer** 1999 May;80(3–4):579–84

Possible permanent down regulation of oestrogen receptor expression during fetal life and breast cancer risk [letter] Lawson JS, et al. **Br J Cancer** 1999 Jul;80(10):1678

Effect of photoperiod on neural estrogen and progestin receptor immunoreactivity in female Syrian hamsters. Mangels RA, et al. **Brain Res** 1998 Jun 15;796(1–2):63–74

Co-localization of estrogen and angiotensin receptors within subfornical organ neurons. Rosas-Arellano MP, et al. **Brain Res** 1999 Aug 7;837(1–2):254–62

Pattern of distribution of cells positive for estrogen receptor alpha and progesterone receptor in relation to proliferating cells in the mammary gland. Russo J, et al. **Breast Cancer Res Treat** 1999 Feb;53(3):217–27

Evidence for plasma membrane-mediated effects of estrogen [editorial] Brubaker KD, et al. **Calcif Tissue Int** 1999 Jun; 64(6):459–62 (57 ref.)

Estrogen and progesterone receptor concentrations and prevalence of tumor hormonal phenotypes in older breast cancer patients. Ashba J, et al. **Cancer Detect Prev** 1999; 23(3):238–44

p53 overexpression and mutation in endometrial carcinoma: inverted relation with estrogen and progesterone receptor status. Niwa K, et al. **Cancer Detect Prev** 1999;23(2):147–54

Differential distribution of protein phosphatase 2A in human breast carcinoma cell lines and its relation to estrogen receptor status. Gopalakrishna R, et al. **Cancer Lett** 1999 Mar 1;136(2):143–51

Association of cytochrome P450 1B1 (CYP1B1) polymorphism with steroid receptor status in breast cancer [published erratum appears in Cancer Res 1999 Mar 15;59(6):1388] Bailey LR, et al. **Cancer Res** 1998 Nov 15; 58(22):5038–41

Estrogen receptor activation via activation function 2 predicts agonism of xenoestrogens in normal and neoplastic cells of the uterine myometrium. Hunter DS, et al. **Cancer Res** 1999 Jul 1;59(13):3090–9

Estrogen receptor expression activates the transcriptional and growth-inhibitory response to retinoids without enhanced retinoic acid receptor alpha expression. Rosenauer A, et al. **Cancer Res** 1998 Nov 15;58(22):5110–6

Expression of CYP1A1 and CYP1B1 depends on cell-specific factors in human breast cancer cell lines: role of estrogen receptor status. Angus WG, et al. **Carcinogenesis** 1999 Jun; 20(6):947–55

The structural basis of estrogen receptor/coactivator recognition and the antagonism of this interaction by tamoxifen. Shiau AK, et al. **Cell** 1998 Dec 23;95(7):927–37

A metastatic breast tumor cell line, GI-101A, is estrogen receptor positive and responsive to estrogen but resistant to tamoxifen. Morrissey JJ, et al. **Cell Biol Int** 1998; 22(6):413–9

Applicability of a yeast oestrogen screen for the detection of oestrogen-like activities in environmental samples. Rehmann K, et al. **Chemosphere** 1999 Jun;38(14):3303–12

In breast cancer, amplification of the steroid receptor coactivator gene AIB1 is correlated with estrogen and progesterone receptor positivity. Bautista S, et al. **Clin Cancer Res** 1998 Dec;4(12):2925–9

Messenger RNA determination of estrogen receptor, progesterone receptor, pS2, and plasminogen activator inhibitor-1 by competitive reverse transcription-polymerase chain reaction in human breast cancer. Tong D, et al. **Clin Cancer Res** 1999 Jun; 5(6):1497–502

Aggressive angiomyxoma of the vulva: expression of estroprogestinic receptors and follow-up. De Salvia D, et al. **Clin Exp Obstet Gynecol** 1998;25(4):141–3

Immunocytochemical detection of estrogen and progesterone receptors in the rabbit submandibular gland. Camacho-Arroyo I, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):179–86

Time-dependent relationship between the estrogen receptors and the matrix metalloproteinases following deciduoma induction in rats. Spencer F, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):283–8

Therapeutic potential of selective estrogen receptor modulators. Gustafsson JA. **Curr Opin Chem Biol** 1998 Aug;2(4):508–11 (27 ref.)

The estrogen receptor family. Warner M, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):249–54 (50 ref.)

Selective estrogen receptor modulators. Weryha G, et al. **Curr Opin Rheumatol** 1999 Jul;11(4):301–6 (49 ref.)

Correlation of interleukin 6 with interleukin 1alpha in human mammary tumours, but not with oestrogen receptor expression. Robinson EK, et al. **Cytokine** 1998 Dec; 10(12):970–6

Transcriptional targets shared by estrogen receptor- related receptors (ERRs) and estrogen receptor (ER) alpha, but not by ERbeta. Vanacker JM, et al. **EMBO J** 1999 Aug 2;18(15):4270–9

Aromatase and sex steroid receptors in human vena cava. Sasano H, et al. **Endocr J** 1999 Apr;46(2):233–42

Androgen receptor, estrogen receptor alpha, and estrogen receptor beta show distinct patterns of expression in forebrain song control nuclei of European starlings. Bernard DJ, et al. **Endocrinology** 1999 Oct;140(10):4633–43

Estrogen receptor immunoreactivity is present in the majority of central histaminergic neurons: evidence for a new neuroendocrine pathway associated with luteinizing hormone-releasing hormone-synthesizing neurons in rats and humans. Fekete CS, et al. **Endocrinology** 1999 Sep; 140(9):4335–41

Rapid action of 17beta-estradiol on kainate-induced currents in hippocampal neurons lacking intracellular estrogen receptors. Gu Q, et al. **Endocrinology** 1999 Feb;140(2):660–6

Fluctuating estrogen and progesterone receptor expression in brainstem norepinephrine neurons through the rat estrous cycle. Haywood SA, et al. **Endocrinology** 1999 Jul; 140(7):3255–63

Modulation of estrogen receptor levels in mouse uterus by protein kinase C isoenzymes. Migliaccio S, et al. **Endocrinology** 1998 Nov;139(11):4598–606

Characterization of estrogen receptor-beta (ERbeta) messenger ribonucleic acid and protein expression in rat granulosa cells. O'Brien ML, et al. **Endocrinology** 1999 Oct; 140(10):4530–41

Differential expression of estrogen receptor-beta and estrogen receptor-alpha in the rat ovary. Sar M, et al. **Endocrinology** 1999 Feb;140(2):963–71

Expression and function of estrogen receptor subtypes in granulosa cells: regulation by estradiol and forskolin. Sharma SC, et al. **Endocrinology** 1999 Sep;140(9):4320–34

Evidence for the colocalization of estrogen receptor-beta mRNA and estrogen receptor-alpha immunoreactivity in neurons of the rat forebrain. Shughrue PJ, et al. **Endocrinology** 1998 Dec;139(12):5267–70

Novel ligands that function as selective estrogens or antiestrogens for estrogen receptor-alpha or estrogen receptor-beta. Sun J, et al. **Endocrinology** 1999 Feb; 140(2):800–4

Estrogen induces adenosine deaminase gene expression in MCF-7 human breast cancer cells: role of estrogen receptor-Sp1 interactions. Xie W, et al. **Endocrinology** 1999 Jan;140(1):219–27

Human umbilical vein endothelial cells lack expression of the estrogen receptor. Jensen I, et al. **Endothelium** 1998; 6(1):9–21

Rapid screening of environmental chemicals for estrogen receptor binding capacity. Bolger R, et al. **Environ Health Perspect** 1998 Sep;106(9):551–7

Characterization of estrogenicity of phytoestrogens in an endometrial-derived experimental model. Hopert AC, et al. **Environ Health Perspect** 1998 Sep;106(9):581–6

Ah receptor and estrogen receptor-dependent modulation of gene expression by extracts of diesel exhaust particles. Meek MD. **Environ Res** 1998 Nov;79(2):114–21

Laryngeal carcinoma and estrogen receptor analysis in patients after long-term follow-up. Oğretmenoğlu O, et al. **Eur Arch Otorhinolaryngol** 1998;255(9):457–61

Structural and dynamic differences of the estrogen receptor DNA-binding domain, binding as a dimer and as a monomer to DNA: molecular dynamics simulation studies [published erratum appears in Eur Biophys J 1999;28(4):356] Eriksson MA, et al. **Eur Biophys J** 1999; 28(2):102–11

Synergism between a half-site and an imperfect estrogen-responsive element, and cooperation with COUP-TFI are required for estrogen receptor (ER) to achieve a maximal estrogen-stimulation of rainbow trout ER gene. Petit FG, et al. **Eur J Biochem** 1999 Jan; 259(1–2):385–95

Structural requirements of para-alkylphenols to bind to estrogen receptor. Tabira Y, et al. **Eur J Biochem** 1999 May;262(1):240–5

Increased use of immunohistochemistry for oestrogen receptor measurement in mammary carcinoma: the need for quality assurance. Barnes DM, et al. **Eur J Cancer** 1998 Oct;34(11):1677–82 (28 ref.)

Is steroid receptor profile in contralateral breast cancer a marker of independence of the corresponding primary tumour? Coradini D, et al. **Eur J Cancer** 1998 May; 34(6):825–30

Predicted anti-oestrogen resistance in BRCA-associated familial breast cancers. Osin P, et al. **Eur J Cancer** 1998 Oct;34(11):1683–6

Estrogen and progesterone receptor manipulations in castrated rat uterus models and the clinical adaptation. Saygili U, et al. **Eur J Gynaecol Oncol** 1998;19(4):410–4

The utility of mitotic index, oestrogen receptor and Ki-67 measurements in the creation of novel prognostic indices for node-negative breast cancer. Clahsen PC, et al. **Eur J Surg Oncol** 1999 Aug;25(4):356–63

Melatonin blocks the activation of estrogen receptor for DNA binding. Rato AG, et al. **FASEB J** 1999 May; 13(8):857–68

Implication of proteasome in estrogen receptor degradation. El Khissiin A, et al. **FEBS Lett** 1999 Apr 1;448(1):160–6

Endometrial estrogen and progesterone receptor and pinopode expression in stimulated cycles of oocyte donors. Develioglu OH, et al. **Fertil Steril** 1999 Jun;71(6):1040–7

Correlation between the growth of uterine leiomyomata and estrogen and progesterone receptor content in needle biopsy specimens. Ichimura T, et al. **Fertil Steril** 1998 Nov; 70(5):967–71

Changes in estrogen receptor expression and cell activity of lactotropes in female mink (Mustela vison) pituitary in response to variations in the gonadal steroid environment. Vidal S, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):365–77

A GATA-2/estrogen receptor chimera functions as a ligand-dependent negative regulator of self-renewal. Heyworth C, et al. **Genes Dev** 1999 Jul 15;13(14):1847–60

Localization of estrogen receptor beta-immunoreactivity in astrocytes of the adult rat brain. Azcoitia I, et al. **Glia** 1999 May;26(3):260–7

Prognostic significance of progesterone receptor immunohistochemistry for lymph node metastases in endometrial carcinoma. Iwai K, et al. **Gynecol Oncol** 1999 Mar;72(3):351–9

Effect of retinoid (vitamin A or retinoic acid) treatment (hormonal imprinting) through breastmilk on the glucocorticoid receptor and estrogen receptor binding capacity of the adult rat offspring. Gaál A, et al. **Hum Exp Toxicol** 1998 Oct;17(10):560–3

Sex and androgenic steroid receptor expression in hepatic adenomas. Cohen C, et al. **Hum Pathol** 1998 Dec; 29(12):1428–32

The cyclic pattern of the immunocytochemical expression of oestrogen and progesterone receptors in human myometrial and endometrial layers: characterization of the endometrial-subendometrial unit. Noe M, et al. **Hum Reprod** 1999 Jan;14(1):190–7

Expression of estrogen receptors during growth of human pancreatic adenocarcinoma cells (Capan-1)-relationship with differentiation. Hollande E, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul-Aug;34(7):593–9

ECC-1 human endometrial cells as a model system to study dioxin disruption of steroid hormone function. Ricci MS, et al. **In Vitro Cell Dev Biol Anim** 1999 Apr;35(4):183–9

Estrogen receptor content in adenovirus type 9-induced rat mammary tumors. Ankerst J, et al. **In Vivo** 1999 Mar-Apr; 13(2):151–3

GATA-3 is expressed in association with estrogen receptor in breast cancer. Hoch RV, et al. **Int J Cancer** 1999 Apr 20;84(2):122–8

Estrogenic and anti-estrogenic regulation of estrogen receptor in MCF-7 breast-cancer cells: comparison of immunocytochemical data with biochemical measurements. Seo HS, et al. **Int J Cancer** 1998 Dec 9;78(6):760–5

Cellular localization of estrogen receptors on neurones in various regions of cultured rat CNS: coexistence with cholinergic and galanin receptors. Hösli E, et al. **Int J Dev Neurosci** 1999 Jul;17(4):317–30

Calmodulin is essential for estrogen receptor interaction with its motif and activation of responsive promoter. Biswas DK, et al. **J Biol Chem** 1998 Dec 11;273(50):33817–24

Sequence requirements for estrogen receptor binding to estrogen response elements. Driscoll MD, et al. **J Biol Chem** 1998 Nov 6;273(45):29321–30

Different classes of coactivators recognize distinct but overlapping binding sites on the estrogen receptor ligand binding domain. Eng FC, et al. **J Biol Chem** 1998 Oct 23; 273(43):28371–7

Hormone-independent transcriptional activation and coactivator binding by novel orphan nuclear receptor ERR3. Hong H, et al. **J Biol Chem** 1999 Aug 6; 274(32):22618–26

Differential recruitment of coactivator RIP140 by Ah and estrogen receptors. Absence of a role for LXXLL motifs. Kumar MB, et al. **J Biol Chem** 1999 Aug 6; 274(32):22155–64

Potentiation of human estrogen receptor alpha transcriptional activation through phosphorylation of serines 104 and 106 by the cyclin A-CDK2 complex. Rogatsky I, et al. **J Biol Chem** 1999 Aug 6;274(32):22296–302

Mutations in the AF-2/hormone-binding domain of the chimeric activator GAL4.estrogen receptor.VP16 inhibit hormone-dependent transcriptional activation and chromatin remodeling in yeast. Stafford GA, et al. **J Biol Chem** 1998 Dec 18;273(51):34240–6

A transcriptional coactivator, steroid receptor coactivator-3, selectively augments steroid receptor transcriptional activity. Suen CS, et al. **J Biol Chem** 1998 Oct 16; 273(42):27645–53

A PCR analysis of ERalpha and ERbeta mRNA abundance in rats and the effect of ovariectomy. Lim SK, et al. **J Bone Miner Res** 1999 Jul;14(7):1189–96

Binary quantitative structure-activity relationship (QSAR) analysis of estrogen receptor ligands. Gao H, et al. **J Chem Inf Comput Sci** 1999 Jan-Feb;39(1):164–8

Sex steroid receptors in human myometrium and fibroids: changes during the menstrual cycle and gonadotropin-releasing hormone treatment. Englund K, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4092–6

Identification and characterization of a novel functional estrogen receptor on human sperm membrane that interferes with progesterone effects. Luconi M, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1670–8

Estrogen receptor alpha mediates the nongenomic activation of endothelial nitric oxide synthase by estrogen [published erratum appears in J Clin Invest 1999 May;103(9):1363] Chen Z, et al. **J Clin Invest** 1999 Feb;103(3):401–6

Estrogen receptor immunoreactivity in the adult primate brain: neuronal distribution and association with p75, trkA, and choline acetyltransferase. Blurton-Jones MM, et al. **J Comp Neurol** 1999 Mar 22;405(4):529–42

Concerted expression of BK virus large T- and small t-antigens strongly enhances oestrogen receptor-mediated

transcription. Moens U, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):585–94

Oestrogen receptors – an overview. Enmark E, et al. **J Intern Med** 1999 Aug;246(2):133–8 (29 ref.)

Synthesis and evaluation of 11beta–substituted 21–chloro/iodo–(17alpha,20E/Z)–19–norpregna–1,3,5(10) ,20–te traene–3, 17beta–diols: high–affinity ligands for the estrogen receptor. Hanson RN, et al. **J Med Chem** 1998 Nov 19;41(24):4686–92

Carboxylic acid analogues of tamoxifen: (Z)–2–[p–(1, 2–diphenyl–1–butenyl)phenoxy]–N,N–dimethylethylamine. Estrogen receptor affinity and estrogen antagonist effects in MCF–7 cells. Kraft KS, et al. **J Med Chem** 1999 Aug 12;42(16):3126–33

Estrogen receptor subtype–selective ligands: asymmetric synthesis and biological evaluation of cis– and trans–5,11–dialkyl– 5,6,11, 12–tetrahydrochrysenes. Meyers MJ, et al. **J Med Chem** 1999 Jul 1;42(13):2456–68

Estrogen enhances proliferative capacity of cardiac fibroblasts by estrogen receptor– and mitogen–activated protein kinase–dependent pathways. Lee HW, et al. **J Mol Cell Cardiol** 1998 Jul;30(7):1359–68

Polyamine biosynthesis inhibitors alter protein–protein interactions involving estrogen receptor in MCF–7 breast cancer cells. Thomas T, et al. **J Mol Endocrinol** 1999 Apr; 22(2):131–9

More about: multifactorial analysis of differences between sporadic breast cancers and cancers involving BRCA1 and BRCA2 mutations [letter] Eisinger F, et al. **J Natl Cancer Inst** 1999 Aug 18;91(16):1421–2

New estrogen receptor adds complexity, recasts drug strategies [news] Reynolds T. **J Natl Cancer Inst** 1999 Sep 1;91(17):1445–7

Estrogen receptor immunoreactivity in Schwann–like brain macroglia. Gudiño–Cabrera G, et al. **J Neurobiol** 1999 Sep 15;40(4):458–70 (106 ref.)

Estrogen receptor expression in the facial nucleus of adult hamsters: does axotomy recapitulate development? Tanzer L, et al. **J Neurobiol** 1999 Jun 5;39(3):438–46

Oestrogen receptor–alpha–immunoreactive neurones project to the suprachiasmatic nucleus of the female Syrian hamster. De La Iglesia HO, et al. **J Neuroendocrinol** 1999 Jul;11(7):481–90

Immunohistochemical distribution of oestrogen receptor and luteinizing hormone B subunit in the ovine pituitary gland during foetal development. Sheng C, et al. **J Neuroendocrinol** 1998 Sep;10(9):713–8

Metastatic lesions from prostate cancer do not express oestrogen and progesterone receptors [letter; comment] Castagnetta LA, et al. **J Pathol** 1998 Aug;185(4):435–7. Comment on: J Pathol 1997 Jul;182(3):356–61.

Detection of oestrogen receptors in non–invasive and invasive transitional cell carcinomas of the urinary bladder using both conventional immunohistochemistry and the tyramide staining amplification (TSA) technique. Kaufmann O, et al. **J Pathol** 1998 Oct;186(2):165–8

A novel human estrogen receptor beta: identification and functional analysis of additional N–terminal amino acids. Bhat RA, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):233–40

Regulation of human estrogen receptor by phytoestrogens in yeast and human cells. Breithofer A, et al. **J Steroid Biochem Mol Biol** 1998 Dec;67(5–6):421–9

Regulation of estrogen activity by sulfation in human Ishikawa endometrial adenocarcinoma cells. Kotov A, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):137–44

Proliferative activity and steroid hormone receptor status in male breast carcinoma. Muñoz de Toro MM, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(4):333–9

Changes in the structure of the ligand or substitutions to AF2 residues in the estrogen receptor make independent contributions to coactivator sensitivity by SRC–1. Schwartz JA, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):223–32

Interaction between estrogen receptor and Pit–1 protein is influenced by estrogen in pituitary cells. Ying C, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):145–52

Effect of single neonatal vitamin K1 treatment (imprinting) on the binding capacity of thymic glucocorticoid and uterine estrogen receptors of adolescent and adult rats. Csaba G, et al. **Life Sci** 1999;65(1):PL1–5

Expression of estrogen receptor alpha and beta during mouse embryogenesis. Lemmen JG, et al. **Mech Dev** 1999 Mar; 81(1–2):163–7

Endometrial endothelial cells express estrogen and progesterone receptors and exhibit a tissue specific response to angiogenic growth factors. Iruela–Arispe ML, et al. **Microcirculation** 1999 Jun;6(2):127–40

Immunohistochemical evaluation of estrogen and progesterone receptors in paraffin–embedded, formalin–fixed endometrial tissues: comparison with enzyme immunoassay and immunohistochemical analysis of frozen tissue. Ravn V, et al. **Mod Pathol** 1998 Aug; 11(8):709–15

Direct visualization of the human estrogen receptor alpha reveals a role for ligand in the nuclear distribution of the receptor. Htun H, et al. **Mol Biol Cell** 1999 Feb; 10(2):471–86

Ligand–independent recruitment of SRC–1 to estrogen receptor beta through phosphorylation of activation function AF–1. Tremblay A, et al. **Mol Cell** 1999 Apr; 3(4):513–9

Phosphorylation of human estrogen receptor alpha by protein kinase A regulates dimerization. Chen D, et al. **Mol Cell Biol** 1999 Feb;19(2):1002–15

Role for Hsp90–associated cochaperone p23 in estrogen receptor signal transduction. Knoblauch R, et al. **Mol Cell Biol** 1999 May;19(5):3748–59

Design of conditionally active STATs: insights into STAT activation and gene regulatory function. Milocco LH, et al. **Mol Cell Biol** 1999 Apr;19(4):2913–20

Dominant activity of activation function 1 (AF–1) and differential stoichiometric requirements for AF–1 and –2 in the estrogen receptor alpha–beta heterodimeric complex. Tremblay GB, et al. **Mol Cell Biol** 1999 Mar;19(3):1919–27

Estrogenicity of bisphenol A in a human endometrial carcinoma cell line. Bergeron RM, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):179–87

Estrogen and aryl hydrocarbon responsiveness of ECC–1 endometrial cancer cells. Castro–Rivera E, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):11–21

Comparison of tamoxifen ligands on estrogen receptor interaction with estrogen response elements. Klinge CM, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):79–90

Estrogen receptor down–regulation is regulated noncooperatively by estrogen at the transcription level. Lee YJ, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):85–92

Oxidant stress impaired DNA–binding of estrogen receptor from human breast cancer. Liang X, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):151–61

Studies of dehydroepiandrosterone (DHEA) with the human estrogen receptor in yeast. Nephew KP, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):133–42

Proteasome–mediated proteolysis of estrogen receptor: a novel component in autologous down–regulation. Alarid ET, et al. **Mol Endocrinol** 1999 Sep;13(9):1522–34

Potential regulation of membrane trafficking by estrogen receptor alpha via induction of rab11 in uterine glands during implantation. Chen D, et al. **Mol Endocrinol** 1999 Jun;13(6):993–1004

An explanation for observed estrogen receptor binding to single–stranded estrogen–responsive element DNA. Driscoll MD, et al. **Mol Endocrinol** 1999 Jun;13(6):958–68

Functional analysis of a novel estrogen receptor–beta isoform. Hanstein B, et al. **Mol Endocrinol** 1999 Jan; 13(1):129–37

Estrogen receptor, a common interaction partner for a subset of nuclear receptors. Lee SK, et al. **Mol Endocrinol** 1998 Aug;12(8):1184–92

Positive and negative discrimination of estrogen receptor agonists and antagonists using site–specific DNA recombinase fusion proteins. Logie C, et al. **Mol Endocrinol** 1998 Aug;12(8):1120–32

Titration by estrogen receptor activation function–2 of targets that are downstream from coactivators. Lopez GN, et al. **Mol Endocrinol** 1999 Jun;13(6):897–909

Regulation of estrogen receptor activation of the prolactin enhancer/promoter by antagonistic activation function–2–interacting proteins. Schaufele F. **Mol Endocrinol** 1999 Jun;13(6):935–45

Inhibition of estrogen receptor action by the orphan receptor SHP (short heterodimer partner). Seol W, et al. **Mol Endocrinol** 1998 Oct;12(10):1551–7

Functional interaction between the estrogen receptor and CTF1: analysis of the vitellogenin gene B1 promoter in yeast. Tsai–Pflugfelder M, et al. **Mol Endocrinol** 1998 Oct; 12(10):1525–41

Transcriptional activities of the orphan nuclear receptor ERR alpha (estrogen receptor–related receptor–alpha). Vanacker JM, et al. **Mol Endocrinol** 1999 May;13(5):764–73

Transcriptional activation of E2F1 gene expression by 17beta–estradiol in MCF–7 cells is regulated by NF–Y–Sp1/estrogen receptor interactions. Wang W, et al. **Mol Endocrinol** 1999 Aug;13(8):1373–87

Estrogen receptor activation function 1 works by binding p160 coactivator proteins. Webb P, et al. **Mol Endocrinol** 1998 Oct;12(10):1605–18

Upstream stimulatory factors mediate estrogen receptor activation of the cathepsin D promoter. Xing W, et al. **Mol Endocrinol** 1998 Sep;12(9):1310–21

Nuclear receptors have distinct affinities for coactivators: characterization by fluorescence resonance energy transfer. Zhou G, et al. **Mol Endocrinol** 1998 Oct;12(10):1594–604

Estrogen receptor beta activates the human retinoic acid receptor alpha–1 promoter in response to tamoxifen and other estrogen receptor antagonists, but not in response to estrogen. Zou A, et al. **Mol Endocrinol** 1999 Mar; 13(3):418–30

Expression of oestrogen receptor alpha and beta in cultured human ovarian surface epithelial cells. Hillier SG, et al. **Mol Hum Reprod** 1998 Aug;4(8):811–5

Developmental action of estrogen receptor–alpha feminizes the growth hormone–Stat5b pathway and expression of Cyp2a4 and Cyp2d9 genes in mouse liver. Sueyoshi T, et al. **Mol Pharmacol** 1999 Sep;56(3):473–7

Estrogen hits the surface [news] Collins P, et al. **Nat Med** 1999 Oct;5(10):1130–1

Partial cloning and distribution of estrogen receptor beta in the avian brain. Lakaye B, et al. **Neuroreport** 1998 Aug 24;9(12):2743–8

Re: "The pelvic floor muscles: muscle thickness in healthy and urinary–incontinent women measured by perineal ultrasonography with reference to the effect of pelvic floor training. Estrogen receptor studies." Neurourol. Urodynam. 1997;16:237–275 [letter] Khullar V, et al. **Neurourol Urodyn** 1999;18(1):69–70

A yeast–based bioassay for the determination of functional and non–functional estrogen receptors. Balmelli–Gallacchi P, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1875–81

Immunostaining of the estrogen receptor in conjunctival primary acquired melanosis. Chowers I, et al. **Ophthalmic Res** 1999;31(3):210–2

Determination of estrogen receptor in primary breast cancer using two different monoclonal antibodies, and correlation with its mRNA expression. Hori M, et al. **Pathol Int** 1999 Mar;49(3):191–7

P/CAF associates with cyclin D1 and potentiates its activation of the estrogen receptor. McMahon C, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5382–7

An estrogen receptor–selective coregulator that potentiates the effectiveness of antiestrogens and represses the activity of estrogens. Montano MM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6947–52

Proteasome–dependent degradation of the human estrogen receptor. Nawaz Z, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1858–62

Estrogen receptor–dependent regulation of sensory neuron survival in developing dorsal root ganglion. Patrone C, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10905–10

Depletion of specific binding sites for estrogen receptor by Uncaria tomentosa. Salazar EL, et al. **Proc West Pharmacol Soc** 1998;41:123–4

Specific binding of hydroxylated polychlorinated biphenyl metabolites and other substances to bovine calf uterine estrogen receptor: structure–binding relationships. Kramer VJ, et al. **Sci Total Environ** 1999 Aug 15;233(1–3):141–61

Amphibians as a model to study endocrine disruptors: I. Environmental pollution and estrogen receptor binding. Lutz I, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):49–57

BRCA1 inhibition of estrogen receptor signaling in transfected cells. Fan S, et al. **Science** 1999 May 21; 284(5418):1354–6

Peptide antagonists of the human estrogen receptor. Norris JD, et al. **Science** 1999 Jul 30;285(5428):744–6

Novel high–affinity steroidal estrogenic ligands: synthesis and receptor binding of 11 beta–vinyl–17 alpha–E/Z–phenylselenovinyl estradiols. Hanson RN, et al. **Steroids** 1998 Sep;63(9):479–83

Exchange of bound estrogens and antiestrogens in MCF–7 cells: evidence for ligand–induced stable configurations of the estrogen receptor. El khissiin A, et al. **Steroids** 1998 Nov;63(11):565–74

Synthesis and binding affinities of new 17 alpha–substituted estradiol–rhenium "n + 1" mixed–ligand and thioether–carbonyl complexes. Wüst F, et al. **Steroids** 1998 Dec;63(12):665–71

Sex hormone–receptor–negative tumors have a higher proliferative activity than sex hormone–receptor–positive tumors in human adenocarcinomas of the gastrointestinal tract. Korenaga D, et al. **Surg Today** 1998;28(10):1007–14

A cost–effectiveness analysis of axillary node dissection in postmenopausal women with estrogen receptor–positive breast cancer and clinically negative axillary nodes. Orr RK, et al. **Surgery** 1999 Sep;126(3):568–76

Immunohistochemical characteristics of estrogen receptor alpha positive cells in glandular epithelium of the rat seminal vesicle. Yuasa H, et al. **Tohoku J Exp Med** 1999 Jan;187(1):25–35

Some alkyl hydroxy benzoate preservatives (parabens) are estrogenic. Routledge EJ, et al. **Toxicol Appl Pharmacol** 1998 Nov;153(1):12–9

Development of a stably transfected estrogen receptor–mediated luciferase reporter gene assay in the human T47D breast cancer cell line. Legler J, et al. **Toxicol Sci** 1999 Mar;48(1):55–66

pS2 in breast carcinoma: association with steroid hormone receptor status. Nikolić–Vukosavljević D, et al. **Tumori** 1998 Nov–Dec;84(6):691–4

[And if BRCA1 regulates the cell response to estrogens (comment)] Bénard J, et al. **Bull Cancer** 1999 Jul–Aug; 86(7–8):608. Comment on: Bull Cancer 1998 Oct;85(10):833. **(Fre)**

[Prognostic significance of epidermal growth factor receptors in stage I–II breast cancer: results of a six–year follow–up] Gerstein ES, et al. **Vopr Onkol** 1998;44(4):383–9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Bombesin stimulates in vitro growth of human breast cancer independent of estrogen receptors status. Bold RJ, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4051–6

Estrogen attenuates endothelin–1 production by bovine endothelial cells via estrogen receptor. Akishita M, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):17–21

Sex with knockout models: behavioral studies of estrogen receptor alpha. Rissman EF, et al. **Brain Res** 1999 Jul 17; 835(1):80–90 (88 ref.)

NMDA receptor type 2D gene as target for estrogen receptor in the brain. Watanabe T, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):375–9

Overexpression and amplification of c–myc in the Syrian hamster kidney during estrogen carcinogenesis: a probable critical role in neoplastic transformation. Li JJ, et al. **Cancer Res** 1999 May 15;59(10):2340–6

The estrogen receptor variant lacking exon 5 has dominant

negative activity in the human breast epithelial cell line HMT-3522S1. Ohlsson H, et al. **Cancer Res** 1998 Oct 1; 58(19):4264–8

Modulation of aromatase expression in the breast tissue by ERR alpha–1 orphan receptor. Yang C, et al. **Cancer Res** 1998 Dec 15;58(24):5695–700

Posttranscriptional regulation of the c-myb proto-oncogene in estrogen receptor-positive breast cancer cells. Gudas JM, et al. **Clin Cancer Res** 1995 Feb;1(2):235–43

Selective estrogen receptor modulators: a look ahead. Mitlak BH, et al. **Drugs** 1999 May;57(5):653–63 (82 ref.)

Selective estrogen receptor modulators: clinical spectrum. Cosman F, et al. **Endocr Rev** 1999 Jun;20(3):418–34 (179 ref.)

Estrogen receptor null mice: what have we learned and where will they lead us? [published erratum appears in Endocr Rev 1999 Aug;20(4):459] Couse JF, et al. **Endocr Rev** 1999 Jun;20(3):358–417 (511 ref.)

Negative regulation of N-cadherin-mediated cell-cell adhesion by the estrogen receptor signaling pathway in rat pituitary GH3 cells. Heinrich CA, et al. **Endocrine** 1999 Feb;10(1):67–76

Tissue compartment-specific estrogen receptor-alpha participation in the mouse uterine epithelial secretory response. Buchanan DL, et al. **Endocrinology** 1999 Jan; 140(1):484–91

Estrogen receptor regulation of the Na+/H+ exchange regulatory factor. Ediger TR, et al. **Endocrinology** 1999 Jul;140(7):2976–82

Methoxychlor stimulates estrogen-responsive messenger ribonucleic acids in mouse uterus through a non-estrogen receptor (non-ER) alpha and non-ER beta mechanism. Ghosh D, et al. **Endocrinology** 1999 Aug;140(8):3526–33

Inhibition of dendritic spine induction on hippocampal CA1 pyramidal neurons by a nonsteroidal estrogen antagonist in female rats. McEwen BS, et al. **Endocrinology** 1999 Mar; 140(3):1044–7

Uterine decidual response occurs in estrogen receptor-alpha-deficient mice. Paria BC, et al. **Endocrinology** 1999 Jun;140(6):2704–10

Transcriptional activation of insulin-like growth factor-binding protein-4 by 17beta-estradiol in MCF-7 cells: role of estrogen receptor-Sp1 complexes. Qin C, et al. **Endocrinology** 1999 Jun;140(6):2501–8

Estradiol induces galanin gene expression in the pituitary of the mouse in an estrogen receptor alpha-dependent manner. Shen ES, et al. **Endocrinology** 1999 Jun; 140(6):2628–31

Cervical ripening after treatment with prostaglandin E2 or antiprogestin (RU486). Possible mechanisms in relation to gonadal steroids. Stjernholm YM, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 May;84(1):83–8

The estrogen receptor beta subtype: a novel mediator of estrogen action in neuroendocrine systems. Kuiper GG, et al. **Front Neuroendocrinol** 1998 Oct;19(4):253–86 (170 ref.)

Sex differences in the activational effect of ERalpha on spatial learning. Fugger HN, et al. **Horm Behav** 1998 Oct; 34(2):163–70

The effect of a levonorgestrel-releasing intrauterine device on human endometrial oestrogen and progesterone receptors after one year of use. Zhu P, et al. **Hum Reprod** 1999 Apr;14(4):970–5

Expression of the oxytocin receptor in relation to steroid receptors in the uterus of a primate model, the marmoset monkey. Einspanier A, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):634–46

Endometrial oestrogen and progesterone receptors and their relationship to sonographic appearance of the endometrium. Ohno Y, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):560–4 (17 ref.)

Reproductive risk factors for breast cancer by receptor status, histology, laterality and location. Wohlfahrt J, et al. **Int J Cancer** 1999 Mar 31;81(1):49–55

The orphan nuclear receptor SHP inhibits agonist-dependent transcriptional activity of estrogen receptors ERalpha and ERbeta. Johansson L, et al. **J Biol Chem** 1999 Jan 1; 274(1):345–53

Estrogen receptor reduces CYP1A1 induction in cultured human endometrial cells. Ricci MS, et al. **J Biol Chem** 1999 Feb 5;274(6):3430–8

The estrogen receptor's involvement in osteoblasts' adaptive response to mechanical strain. Damien E, et al. **J Bone Miner Res** 1998 Aug;13(8):1275–82

Selective estrogen receptor modulators: different actions on vascular cell adhesion molecule-1 (VCAM-1) expression in human endothelial cells. Simoncini T, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):815–8

Identification and characterization of estrogen receptor alpha-containing neurons projecting to the vicinity of the gonadotropin-releasing hormone perikarya in the rostral preoptic area of the rat. Simonian SX, et al. **J Comp Neurol** 1999 Aug 23;411(2):346–58

Estradiol modulates bcl-2 in cerebral ischemia: a potential role for estrogen receptors. Dubal DB, et al. **J Neurosci** 1999 Aug 1;19(15):6385–93

Stable transfection of PC12 cells with estrogen receptor (ERalpha): protective effects of estrogen on cell survival after serum deprivation. Gollapudi L, et al. **J Neurosci Res** 1999 Apr 1;56(1):99–108

Estrogen and NGF synergistically protect terminally differentiated, ERalpha-transfected PC12 cells from apoptosis. Gollapudi L, et al. **J Neurosci Res** 1999 Jun 1; 56(5):471–81

The oestrogen receptor regulates NFkappaB and AP-1 activity in a cell-specific manner. Cerillo G, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(2):79–88

A comparison of transcriptional activation by ER alpha and ER beta. Cowley SM, et al. **J Steroid Biochem Mol Biol** 1999 Apr–Jun;69(1–6):165–75

Function of estrogen receptor (ER) in gene expression [editorial] Kato S. **Jpn J Clin Oncol** 1999 Jul;29(7):321–2

Timing of dietary fat exposure and mammary tumorigenesis: role of estrogen receptor and protein kinase C activity. Hilakivi-Clarke L, et al. **Mol Cell Biochem** 1998 Nov; 188(1–2):5–12 (82 ref.)

Purification and identification of p68 RNA helicase acting as a transcriptional coactivator specific for the activation function 1 of human estrogen receptor alpha. Endoh H, et al. **Mol Cell Biol** 1999 Aug;19(8):5363–72

The role of estrogen in folliculogenesis. Drummond AE, et al. **Mol Cell Endocrinol** 1999 May 25;151(1–2):57–64 (45 ref.)

Estrogen receptor binding to estrogen response elements slows ligand dissociation and synergistically activates reporter gene expression. Klinge CM. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):99–111

Estrogen receptor mutations. Taylor JA, et al. **Mol Cell Endocrinol** 1998 Oct 25;145(1–2):61–6 (59 ref.)

Estrogen receptor does not directly regulate the murine Muc-1 promoter. Zhou X, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):65–78

Estrogen receptor domains E and F: role in dimerization and interaction with coactivator RIP-140. Peters GA, et al. **Mol Endocrinol** 1999 Feb;13(2):286–96

Transcriptional regulation by a naturally occurring truncated rat estrogen receptor (ER), truncated ER product-1 (TERP-1). Schreihofer DA, et al. **Mol Endocrinol** 1999 Feb;13(2):320–9

HMG-1 stimulates estrogen response element binding by estrogen receptor from stably transfected HeLa cells. Zhang CC, et al. **Mol Endocrinol** 1999 Apr;13(4):632–43

Activation of the thyroid hormone receptor alpha gene promoter by the orphan nuclear receptor ERR alpha. Vanacker JM, et al. **Oncogene** 1998 Nov 12;17(19):2429–35

Effects of cold exposure on estrous behavior and neural estrogen receptor in Syrian hamsters. Early AH, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):763–8

Tamoxifen inhibits acidification in cells independent of the estrogen receptor. Altan N, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4432–7

Disruption of estrogen signaling does not prevent progesterone action in the estrogen receptor alpha knockout mouse uterus. Curtis SW, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3646–51

Generation and reproductive phenotypes of mice lacking estrogen receptor beta. Krege JH, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15677–82

Differentiation between vasculoprotective and uterotrophic effects of ligands with different binding affinities to estrogen receptors alpha and beta. Mäkelä S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7077–82

Rapid actions of estrogens in GH3/B6 pituitary tumor cells via a plasma membrane version of estrogen receptor-alpha. Watson CS, et al. **Steroids** 1999 Jan–Feb;64(1–2):5–13

Examination of the in vitro and in vivo estrogenic activities of eight commercial phthalate esters. Zacharewski TR, et al. **Toxicol Sci** 1998 Dec;46(2):282–93

[Receptors and mechanisms of action of estrogen in bones] Stulc T, et al. **Ceska Gynekol** 1998 Jun;63(3):244–8 **(Cze)**

[Estrogen-induced genes in breast cancer, and their medical importance] Rochefort H. **Bull Acad Natl Med** 1999; 183(5):955–68; discussion 968–71 (29 ref.) (Eng. Abstr.) **(Fre)**

[Effect of estrogens on arterial physiology and mechanisms of their atherosclerosis-protective effect in animals] Arnal JF, et al. **Therapie** 1999 May–Jun;54(3):339–46 (58 ref.) (Eng. Abstr.) **(Fre)**

[Nuclear receptors] Milgrom E. **Therapie** 1999 May–Jun; 54(3):327–31 (37 ref.) (Eng. Abstr.) **(Fre)**

[Effect of estrogens on vascular proliferation] Perrot-Applanat M. **Therapie** 1999 May–Jun;54(3):333–7 (Eng. Abstr.) **(Fre)**

RECEPTORS, EXCITATORY AMINO ACID see **RECEPTORS, GLUTAMATE**

RECEPTORS, FC

ANALYSIS

Human mesangial cells in culture and in kidney sections fail to express Fc alpha receptor (CD89). Westerhuis R, et al. **J Am Soc Nephrol** 1999 Apr;10(4):770–8

BLOOD

[Use of a fluorescent method for detection of lymphocyte Fc-receptors] Shiauris AI, et al. **Ukr Biokhim Zh** 1998 Jan–Feb;70(1):121–5 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Characterization of the 2:1 complex between the class I MHC-related Fc receptor and its Fc ligand in solution. Martin WL, et al. **Biochemistry** 1999 Sep 28; 38(39):12639–47

Stoichiometry of the interaction between the major histocompatibility complex-related Fc receptor and its Fc ligand. Sánchez LM, et al. **Biochemistry** 1999 Jul 20; 38(29):9471–6

Immunoglobulin-binding sites of human FcalphaRI (CD89) and bovine Fcgamma2R are located in their membrane-distal extracellular domains. Morton HC, et al. **J Exp Med** 1999 Jun 7;189(11):1715–22

Identification of residues in the first domain of human Fc alpha receptor essential for interaction with IgA. Wines BD, et al. **J Immunol** 1999 Feb 15;162(4):2146–53

DRUG EFFECTS

Analysis of signal transduction pathways regulating cytokine-mediated Fc receptor activation on human eosinophils. Bracke M, et al. **J Immunol** 1998 Dec 15; 161(12):6768–74

GENETICS

Transcriptional control of the murine polymeric IgA receptor promoter by glucocorticoids. Li TW, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):G1425–34

Characterization of the 5'-flanking region of the murine polymeric IgA receptor gene. Martin MG, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G778–88

Characterization of the human myeloid IgA Fc receptor I (CD89) gene in a cosmid clone. van Vuuren AJ, et al. **Immunogenetics** 1999 Jun;49(6):586–9

Nonvectorial surface transport, endocytosis via a Di-leucine-based motif, and bidirectional transcytosis of chimera encoding the cytosolic tail of rat FcRn expressed in Madin-Darby canine kidney cells. Stefaner I, et al. **J Biol Chem** 1999 Mar 26;274(13):8998–9005

Immunoglobulin G Fc-receptor (FcgammaR) IIA and IIIB polymorphisms related to disability in MS. Myhr KM, et al. **Neurology** 1999 Jun 10;52(9):1771–6

Fc gamma receptor allotypes in children with bacterial meningitis. A preliminary study. Tezcan I, et al. **Turk J Pediatr** 1998 Oct–Dec;40(4):533–8

IMMUNOLOGY

Human immunoglobulin A receptor (FcalphaRI, CD89) function in transgenic mice requires both FcR gamma chain and CR3 (CD11b/CD18). van Egmond M, et al. **Blood** 1999 Jun 15;93(12):4387–94

FcR-mediated inhibition of cell activation and other forms of coinhibition. Anderson CC, et al. **Crit Rev Immunol** 1998; 18(6):525–44 (131 ref.)

Toxicity of major histocompatibility complex class II specific monoclonal antibodies: audietur et altera pars. Toral IJ, et al. **Croat Med J** 1999 Sep;40(3):353–6

Tumor-growth inhibition with bispecific antibody fragments in a syngeneic mouse melanoma model: the role of targeted T-cell co-stimulation via CD28. Grosse-Hovest L, et al. **Int J Cancer** 1999 Jan 5;80(1):138–44

Alternative endocytic pathway for immunoglobulin A Fc receptors (CD89) depends on the lack of FcRgamma association and protects against degradation of bound ligand. Launay P, et al. **J Biol Chem** 1999 Mar 12; 274(11):7216–25

A member of the dendritic cell family that enters B cell follicles and stimulates primary antibody responses identified by a mannose receptor fusion protein. Berney C, et al. **J Exp Med** 1999 Sep 20;190(6):851–60

Effective phagocytosis and killing of Candida albicans via targeting FcgammaRI (CD64) or FcalphaRI (CD89) on neutrophils. van Spriel AB, et al. **J Infect Dis** 1999 Mar; 179(3):661–9

Phase I trial of a humanized, Fc receptor nonbinding OKT3 antibody, huOKT3gamma1(Ala–Ala) in the treatment of acute renal allograft rejection. Woodle ES, et al. **Transplantation** 1999 Sep 15;68(5):608–16

[Fc receptor redux: the role of immunoglobulin receptor (FcR) in glomerulonephritis] Ra C, et al. **Nippon Naika Gakkai Zasshi** 1998 Aug 10;87(8):1568–76 (19 ref.) **(Jpn)**

ISOLATION & PURIFICATION

Sedimentation equilibrium analysis of interference optical data by systematic noise decomposition. Schuck P. **Anal Biochem** 1999 Aug 1;272(2):199–208

Isolation and purification of an early pregnancy factor-like molecule from culture supernatants obtained from lymphocytes of pregnant women: II. Identification of the molecule as a Fc-receptor-like molecule: a preliminary report. Aranha C, et al. **J Assist Reprod Genet** 1998 Nov; 15(10):619–24

METABOLISM

Stoichiometry of the interaction between the major histocompatibility complex-related Fc receptor and its Fc ligand. Sánchez LM, et al. **Biochemistry** 1999 Jul 20; 38(29):9471–6

Glycoprotein Ib-V-IX, a receptor for von Willebrand factor, couples physically and functionally to the Fc receptor gamma-chain, Fyn, and Lyn to activate human platelets. Falati S, et al. **Blood** 1999 Sep 1;94(5):1648–56

Improving the efficacy of antibody-interleukin 2 fusion proteins by reducing their interaction with Fc receptors. Gillies SD, et al. **Cancer Res** 1999 May 1;59(9):2159-66

Fc receptor-mediated phagocytosis requires CDC42 and Rac1. Massol P, et al. **EMBO J** 1998 Nov 2;17(21):6219-29

Identification and function of neonatal Fc receptor in mammary gland of lactating mice. Cianga P, et al. **Eur J Immunol** 1999 Aug;29(8):2515-23

Metal-catalyzed oxidation of immunoglobulin G impairs Fc receptor-mediated binding to macrophages. Margiloff L, et al. **Free Radic Biol Med** 1998 Nov 1;25(7):780-5

Transcytosis of immunoglobulin A in the mouse enterocyte occurs through glycolipid raft- and rab17-containing compartments. Hansen GH, et al. **Gastroenterology** 1999 Mar;116(3):610-22

Fc receptor beta subunit is required for full activation of mast cells through Fc receptor engagement. Hiraoka S, et al. **Int Immunol** 1999 Feb;11(2):199-207

Characterization of the interaction between the herpes simplex virus type I Fc receptor and immunoglobulin G. Chapman TL, et al. **J Biol Chem** 1999 Mar 12; 274(11):6911-9

Identification of residues in the CH2/CH3 domain interface of IgA essential for interaction with the human fcalpha receptor (FcalphaR) CD89. Pleass RJ, et al. **J Biol Chem** 1999 Aug 13;274(33):23508-14

Canalicular export pumps traffic with polymeric immunoglobulin A receptor on the same microtubule-associated vesicle in rat liver. Soroka CJ, et al. **J Biol Chem** 1999 Sep 10;274(37):26416-24

Sorting mechanisms regulating membrane protein traffic in the apical transcytotic pathway of polarized MDCK cells. Gibson A, et al. **J Cell Biol** 1998 Oct 5;143(1):81-94

Immunoglobulin-binding sites of human FcalphaRI (CD89) and bovine Fcgamma2R are located in their membrane-distal extracellular domains. Morton HC, et al. **J Exp Med** 1999 Jun 7;189(11):1715-22

Modulation of the humoral immune response by antibody-mediated antigen targeting to complement receptors and Fc receptors. Baiu DC, et al. **J Immunol** 1999 Mar 15;162(6):3125-30

Identification of residues in the first domain of human Fc alpha receptor essential for interaction with IgA. Wines BD, et al. **J Immunol** 1999 Feb 15;162(4):2146-53

Immune complexes from vasculitis patients bind to endothelial Fc receptors independent of the allelic polymorphism of FcgammaRIIa. Gröger M, et al. **J Invest Dermatol** 1999 Jul;113(1):56-60

Varicella-zoster virus Fc receptor component gI is phosphorylated on its endodomain by a cyclin-dependent kinase. Ye M, et al. **J Virol** 1999 Feb;73(2):1320-30

Cell surface expression of a human IgG Fc chimera activates macrophages through Fc receptors. Stabila PF, et al. **Nat Biotechnol** 1998 Dec;16(13):1357-60

Expression and physical association of Fc alpha receptor and Fc receptor gamma chain in human mesangial cells. Suzuki Y, et al. **Nephrol Dial Transplant** 1999 May;14(5):1117-23

Reduced binding of immunoglobulin A (IgA) from patients with primary IgA nephropathy to the myeloid IgA Fc-receptor, CD89. van Zandbergen G, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3058-64

Fc-binding molecules specific for human IgG1 and IgG3 are present in Echinococcus granulosus protoscoleces. Baz A, et al. **Parasite Immunol** 1998 Sep;20(9):399-404

Evaluation of Fc-receptor positive (FcR+) and negative (FcR-) monocyte subsets in sepsis. Schinkel C, et al. **Shock** 1999 Apr;11(4):229-34

PHYSIOLOGY

Role of Src in the modulation of multiple adaptor proteins in FcalphaRI oxidant signaling. Park RK, et al. **Blood** 1999 Sep 15;94(6):2112-20

Facilitated antigen presentation by B cells expressing IgD when responding T cells express IgD-receptors. Wu Y, et al. **Cell Immunol** 1999 Mar 15;192(2):194-202

The MHC class I binding proteins LIR-1 and LIR-2 inhibit Fc receptor-mediated signaling in monocytes. Fanger NA, et al. **Eur J Immunol** 1998 Nov;28(11):3423-34

The human Fc receptor for IgA (Fc alpha RI, CD89) on transgenic peritoneal macrophages triggers phagocytosis and tumor cell lysis. van Egmond M, et al. **Immunol Lett** 1999 May 3;68(1):83-7

4 beta, 15-Diacetoxyscirpenol induces cytotoxicity and alterations in phagocytic and Fc-receptor expression functions in chicken macrophages in vitro. Qureshi MA, et al. **Immunopharmacol Immunotoxicol** 1998 Nov; 20(4):541-53

Functional expression of the MHC class I-related receptor, FcRn, in endothelial cells of mice. Borvak J, et al. **Int Immunol** 1998 Sep;10(9):1289-98

Fc receptor-mediated platelet activation is dependent on phosphatidylinositol 3-kinase activation and involves p120(Cbl). Saci A, et al. **J Biol Chem** 1999 Jan 22; 274(4):1898-904

Varicella-zoster virus glycoprotein gE: endocytosis and trafficking of the Fc receptor. Olson JK, et al. **J Infect Dis** 1998 Nov;178 Suppl 1:S2-6

IgA induced activation of human mesangial cells: independent of FcalphaR1 (CD 89). Diven SC, et al. **Kidney Int** 1998 Sep;54(3):837-47

RECEPTORS, FC EPSILON see **RECEPTORS, IGE**

RECEPTORS, FC GAMMA see **RECEPTORS, IGG**

RECEPTORS, FGF see **RECEPTORS, FIBROBLAST GROWTH FACTOR**

RECEPTORS, FIBRINOGEN see **PLATELET GLYCOPROTEIN GPIIB-IIIA COMPLEX**

RECEPTORS, FIBROBLAST GROWTH FACTOR

Retargeted delivery of adenoviral vectors through fibroblast growth factor receptors involves unique cellular pathways. Doukas J, et al. **FASEB J** 1999 Aug;13(11):1459-66

ANALYSIS

The immunohistochemical localization of phospholipase Cgamma and the epidermal growth-factor, platelet-derived growth-factor and fibroblast growth-factor receptors in the cells of the rat molar enamel organ during early amelogenesis. Tanikawa Y, et al. **Arch Oral Biol** 1999 Sep;44(9):771-80

Differential expression of fibroblast growth factor receptor-1, -2, and -3 and syndecan-1, -2, and -4 in neonatal rat mandibular condyle and calvaria during osteogenic differentiation in vitro. Molténi A, et al. **Bone** 1999 Apr; 24(4):337-47

Immunohistochemical detection of K-sam protein in stomach cancer. Hattori Y, et al. **Clin Cancer Res** 1996 Aug; 2(8):1373-81

The expression and localization of fibroblast growth factor-1 (FGF-1) and FGF receptor-1 (FGFR-1) in human breast cancer. Yoshimura N, et al. **Clin Immunol Immunopathol** 1998 Oct;89(1):28-34

Regulation of lens regeneration by fibroblast growth factor receptor 1. Del Rio-Tsonis K, et al. **Dev Dyn** 1998 Sep; 213(1):140-6

Prevalent expression of fibroblast growth factor (FGF) receptors and FGF2 in human tumor cell lines. Chandler LA, et al. **Int J Cancer** 1999 May 5;81(3):451-8

Expression of receptors for basic fibroblast growth factor on human periodontal ligament cells. Takayama S, et al. **J Periodontal Res** 1998 Aug;33(6):315-22

Immunolocalization of basic fibroblast growth factor and fibroblast growth factor receptor-1 and receptor-2 in rat cranial sutures. Mehrara BJ, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1805-17; discussion 1818-20

ANTAGONISTS & INHIBITORS

Benzodiazepine compounds as inhibitors of the src protein tyrosine kinase: screening of a combinatorial library of 1,4-benzodiazepines. Ramdas L, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):394-400

BIOSYNTHESIS

Upregulated expression of fibroblast growth factor (FGF) receptors by transforming growth factor-beta1 (TGF-beta1) mediates enhanced mitogenic responses to FGFs in cultured human lung fibroblasts. Thannickal VJ, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):437-41

Fibroblast and epidermal growth factor receptor expression in Xenopus oocytes displays distinct calcium oscillatory patterns. Browaeys-Poly E, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):484-9

Alterations in expression of basic fibroblast growth factor (FGF) 2 and its receptor FGFR-1 in human prostate cancer. Giri D, et al. **Clin Cancer Res** 1999 May; 5(5):1063-71

Basic FGF and FGF receptor 1 are expressed in microglia during experimental autoimmune encephalomyelitis: temporally distinct expression of midkine and pleiotrophin. Liu X, et al. **Glia** 1998 Dec;24(4):390-7

Ligation of HLA class I molecules on smooth muscle cells with anti-HLA antibodies induces tyrosine phosphorylation, fibroblast growth factor receptor expression and cell proliferation. Bian H, et al. **Int Immunol** 1998 Sep;10(9):1315-23

Coordinated modulation of the fibroblast growth factor dual receptor mechanism during transformation from human colon adenoma to carcinoma. Jayson GC, et al. **Int J Cancer** 1999 Jul 19;82(2):298-304

Expression of EGF receptor and FGF receptor isoforms during neuroepithelial stem cell differentiation. Kalyani AJ, et al. **J Neurobiol** 1999 Feb 5;38(2):207-24

Fgf-R3 is expressed in a subset of chicken spinal motorneurons. Philippe JM, et al. **Mech Dev** 1998 Nov; 78(1-2):119-23

Expression of fibroblast growth factor receptors in peri-implantation mouse embryos. Rappolee DA, et al. **Mol Reprod Dev** 1998 Nov;51(3):254-64

Anti-HLA antibodies transduce proliferative signals in endothelial cells and smooth muscle cells. Bian H, et al. **Transplant Proc** 1999 Jun;31(4):1924

CHEMISTRY

Preparation of insoluble transmembrane peptides: glycophorin-A, prion (110-137), and FGFR (368-397). Glover KJ, et al. **Anal Biochem** 1999 Aug 1;272(2):270-4

The role of heparin in the complex formation between fibroblast growth factor 2 and its high affinity receptor: comparative modelling and biochemical studies. Pellegrini L, et al. **Biochem Soc Trans** 1998 Aug;26(3):545-9

Common and specific determinants for fibroblast growth factors in the ectodomain of the receptor kinase complex. Wang F, et al. **Biochemistry** 1999 Jan 5;38(1):160-71

Structural basis for FGF receptor dimerization and activation. Plotnikov AN, et al. **Cell** 1999 Sep 3; 98(5):641-50

Isolation of fibroblast growth factor receptor binding sequences using evolved phage display libraries. McConnell SJ, et al. **Comb Chem High Throughput Screen** 1999 Jun; 2(3):155-63

Crystal structure of an angiogenesis inhibitor bound to the FGF receptor tyrosine kinase domain. Mohammadi M, et al. **EMBO J** 1998 Oct 15;17(20):5896-904

Structure and activation of the large latent transforming growth factor-Beta complex. Nunes I, et al. **J Am Optom Assoc** 1998 Oct;69(10):643-8 (45 ref.)

Molecular characteristics of fibroblast growth factor-fibroblast growth factor receptor-heparin-like glycosaminoglycan complex. Venkataraman G, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3658-63

A dimeric ternary complex of FGFR [correction of FGFR1], heparin and FGF-1 leads to an 'electrostatic sandwich' model for heparin binding [published erratum appears in Structure Fold Des 1999 Aug 15;7(8):R198] Huhtala MT, et al. **Structure Fold Des** 1999 Jun 15;7(6):699-709

DRUG EFFECTS

Wortmannin, a phosphoinositide 3-kinase inhibitor, selectively enhances cytotoxicity of receptor-directed-toxin chimeras in vitro and in vivo. Davol PA, et al. **Anticancer Res** 1999 May-Jun; 19(3A):1705-13

GENETICS

Molecular defects in achondroplasia and the effects of growth hormone treatment. Seino Y, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):118-20

Methylation levels at selected CpG sites in the factor VIII and FGFR3 genes, in mature female and male germ cells: implications for male-driven evolution. El-Maarri O, et al. **Am J Hum Genet** 1998 Oct;63(4):1001-8

De novo alu-element insertions in FGFR2 identify a distinct pathological basis for Apert syndrome. Oldridge M, et al. **Am J Hum Genet** 1999 Feb;64(2):446-61

A novel skeletal dysplasia with developmental delay and acanthosis nigricans is caused by a Lys650Met mutation in the fibroblast growth factor receptor 3 gene. Tavormina PL, et al. **Am J Hum Genet** 1999 Mar;64(3):722-31

Severe achondroplasia with developmental delay and acanthosis nigricans (SADDAN): phenotypic analysis of a new skeletal dysplasia caused by a Lys650Met mutation in fibroblast growth factor receptor 3. Bellus GA, et al. **Am J Med Genet** 1999 Jul 2;85(1):53-65

Thanatophoric dysplasia type I with syndactyly. Brodie SG, et al. **Am J Med Genet** 1998 Nov 16;80(3):260-2

Platyspondylic lethal skeletal dysplasia, San Diego type, is caused by FGFR3 mutations. Brodie SG, et al. **Am J Med Genet** 1999 Jun 11;84(5):476-80

Patient described by Chun et al. may not present Antley-Bixler syndrome [letter; comment] Gorlin RJ. **Am J Med Genet** 1999 Mar 5;83(1):64. Comment on: Am J Med Genet 1998 May 18;77(3):219-24.

Not Antley-Bixler syndrome [letter; comment] Gripp KW, et al. **Am J Med Genet** 1999 Mar 5;83(1):65-8 (13 ref.). Comment on: Am J Med Genet 1998 May 18;77(3):219-24.

Ocular anterior chamber dysgenesis in craniosynostosis syndromes with a fibroblast growth factor receptor 2 mutation. Okajima K, et al. **Am J Med Genet** 1999 Jul 16;85(2):160-70

Nonpenetrance in FGFR3-associated coronal synostosis syndrome [letter] Robin NH, et al. **Am J Med Genet** 1998 Nov 16;80(3):296-7

Decreased proliferation and altered differentiation in osteoblasts from genetically and clinically distinct craniosynostotic disorders. Fragale A, et al. **Am J Pathol** 1999 May;154(5):1465-77

Differential expression of fibroblast growth factor receptors 1 to 4 and ligand genes in late fetal and early postnatal rat lung. Powell PP, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):563-72

In vitro growth suppression of vascular smooth muscle cells using adenovirus-mediated gene transfer of a truncated form of fibroblast growth factor receptor. Yukawa H, et al. **Atherosclerosis** 1998 Nov;141(1):125-32

The t(4;14) translocation in myeloma dysregulates both FGFR3 and a novel gene, MMSET, resulting in IgH/MMSET hybrid transcripts. Chesi M, et al. **Blood** 1998 Nov 1;92(9):3025-34

FGFR3 gene mutations associated with human skeletal disorders occur rarely in multiple myeloma [letter; comment] Fracchiolla NS, et al. **Blood** 1998 Oct 15; 92(8):2987-9. Comment on: Blood 1997 Nov 15;90(10):4062-70.

The t(6;8)(q27;p11) translocation in a stem cell myeloproliferative disorder fuses a novel gene, FOP, to fibroblast growth factor receptor 1. Popovici C, et al. **Blood** 1999 Feb 15;93(4):1381-9

Glioblastoma cell-specific expression of fibroblast growth

factor receptor-1beta requires an intronic repressor of RNA splicing. Jin W, et al. **Cancer Res** 1999 Jan 15; 59(2):316–9

Fibroblast growth factor receptor mutational screening in newborns affected by metopic synostosis. Tartaglia M, et al. **Childs Nerv Syst** 1999 Aug;15(8):389–93; discussion 393–4

Molecular diagnosis of Apert syndrome in Chinese patients. Tsai FJ, et al.
Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih 1999 Jan–Feb;40(1):31–3

Molecularly proven hypochondroplasia with cloverleaf skull deformity: a novel association. Angle B, et al.
Clin Genet 1998 Nov;54(5):417–20

Murine fibroblast growth factor receptor 1alpha isoforms mediate node regression and are essential for posterior mesoderm development. Xu X, et al. **Dev Biol** 1999 Apr 15;208(2):293–306

Repression of hedgehog signaling and BMP4 expression in growth plate cartilage by fibroblast growth factor receptor 3. Naski MC, et al. **Development** 1998 Dec;125(24):4977–88

A missense mutation of C1659 in the fibroblast growth factor receptor 3 gene in Russian patients with hypochondroplasia. Fofanova OV, et al. **Endocr J** 1998 Dec;45(6):791–5

G370C mutation in the FGFR3 gene in a Japanese patient with thanatophoric dysplasia. Katsumata N, et al.
Endocr J 1998 Apr;45 Suppl:S171–4

Genomic organization of the human fibroblast growth factor receptor 2 (FGFR2) gene and comparative analysis of the human FGFR gene family. Zhang Y, et al. **Gene** 1999 Apr 1;230(1):69–79

CCND1 and FGFR1 coamplification results in the colocalization of 11q13 and 8p12 sequences in breast tumor nuclei. Bautista S, et al. **Genes Chromosomes Cancer** 1998 Aug;22(4):268–77

Targeted delivery of DNA encoding cytotoxic proteins through high-affinity fibroblast growth factor receptors. Hoganson DK, et al. **Hum Gene Ther** 1998 Nov 20; 9(17):2565–75

Analysis of the mutational spectrum of the FGFR2 gene in Pfeiffer syndrome. Cornejo-Roldan LR, et al.
Hum Genet 1999 May;104(5):425–31

A Lys644Glu substitution in fibroblast growth factor receptor 3 (FGFR3) causes dwarfism in mice by activation of STATs and ink4 cell cycle inhibitors. Li C, et al.
Hum Mol Genet 1999 Jan;8(1):35–44

Asn540Thr substitution in the fibroblast growth factor receptor 3 tyrosine kinase domain causing hypochondroplasia. Deutz-Terlouw PP, et al.
Hum Mutat 1998;Suppl 1:S62–5

A novel missense mutation Ile538Val in the fibroblast growth factor receptor 3 in hypochondroplasia. Mutations in brief no. 122. Online. Grigelioniené G, et al. **Hum Mutat** 1998; 11(4):333

Clinical spectrum of fibroblast growth factor receptor mutations. Passos-Bueno MR, et al. **Hum Mutat** 1999; 14(2):115–25

Two common mutations 934C to G and 937C to G of fibroblast growth factor receptor 2 (FGFR2) gene in Chinese patients with Apert syndrome. Tsai FJ, et al.
Hum Mutat 1998;Suppl 1:S18–9

Achondroplasia, hypochondroplasia and thanatophoric dysplasia: clinically related skeletal dysplasias that are also related at the molecular level. Cohen MM Jr.
Int J Oral Maxillofac Surg 1998 Dec;27(6):451–5 (28 ref.)

Characterization of a soluble KGF receptor cDNA from human corneal and breast epithelial cells. Liu JJ, et al.
Invest Ophthalmol Vis Sci 1998 Dec;39(13):2584–93

Characterization of FIM-FGFR1, the fusion product of the myeloproliferative disorder-associated t(8;13) translocation. Ollendorff V, et al. **J Biol Chem** 1999 Sep 17;274(38):26922–30

Genotype phenotype correlation in achondroplasia and hypochondroplasia. Matsui Y, et al.
J Bone Joint Surg Br 1998 Nov;80(6):1052–6

Parathyroid hormone regulates the expression of fibroblast growth factor-2 mRNA and fibroblast growth factor receptor mRNA in osteoblastic cells. Hurley MM, et al.
J Bone Miner Res 1999 May;14(5):776–83

Sex related expressivity of the phenotype in coronal craniosynostosis caused by the recurrent P250R FGFR3 mutation. Lajeunie E, et al. **J Med Genet** 1999 Jan; 36(1):9–13

Presence of the Apert canonical S252W FGFR2 mutation in a patient without severe syndactyly. Passos-Bueno MR, et al. **J Med Genet** 1998 Aug;35(8):677–9

Localization and regulation of basic fibroblast growth factor (FGF-2) and FGF receptor-1 in rat superior cervical ganglion after axotomy. Klimaschewski L, et al.
J Neurobiol 1999 Mar;38(4):499–506

Epidermal and fibroblast growth factors behave as mitogenic regulators for a single multipotent stem cell-like population from the subventricular region of the adult mouse forebrain. Gritti A, et al. **J Neurosci** 1999 May 1;19(9):3287–97

Spatio-temporal expression of FGFR 1, 2 and 3 genes during human embryo-fetal ossification. Delezoide AL, et al.
Mech Dev 1998 Sep;77(1):19–30

Polymorphism at position 882 of the fibroblast growth factor receptor 3 (FGFR3) gene detected by SSCP analysis. Tartaglia M, et al. **Mol Cell Probes** 1998 Oct;12(5):335–7

Frequent activating mutations of FGFR3 in human bladder and cervix carcinomas. Cappellen D, et al. **Nat Genet** 1999 Sep;23(1):18–20

Differential expression assay of chromosome arm 8p genes identifies Frizzled-related (FRP1/FRZB) and Fibroblast Growth Factor Receptor 1 (FGFR1) as candidate breast cancer genes. Ugolini F, et al. **Oncogene** 1999 Mar 11; 18(10):1903–10

Alteration of fibroblast growth factor and receptor expression after acute pancreatitis in humans. Ebert M, et al.
Pancreas 1999 Apr;18(3):240–6

Pleiotropic features of syndromic craniosynostoses correlate with differential expression of fibroblast growth factor receptors 1 and 2 during human craniofacial development. Chan CT, et al. **Pediatr Res** 1999 Jan;45(1):46–53

Prenatal diagnosis of thanatophoric dysplasia by mutational analysis of the fibroblast growth factor receptor 3 gene and a proposed correction of previously published PCR results. Sawai H, et al. **Prenat Diagn** 1999 Jan;19(1):21–4

A mouse model for achondroplasia produced by targeting fibroblast growth factor receptor 3. Wang Y, et al.
Proc Natl Acad Sci U S A 1999 Apr 13;96(8):4455–60

Expression of basic fibroblast growth factor and its receptors FGFR1 and FGFR2 in human benign prostatic hyperplasia treated with finasteride. Sáez C, et al. **Prostate** 1999 Jul 1;40(2):83–8

Fibroblast growth factor receptors regulate the ability for hindlimb regeneration in Xenopus laevis. D'Jamoos CA, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):388–97

[Mutations of the fibroblast growth factor receptor 3 gene in achondroplasia] Zhao P, et al.
Chung Hua I Hsueh I Chuan Hsueh Tsa Chih 1999 Feb 10;16(1):16–8 (Eng. Abstr.) **(Chi)**

[Gene expression of basic fibroblast growth factor receptor in bovine lens epithelial cells] Li X, et al.
Chung Hua Yen Ko Tsa Chih 1997 May;33(3):226–9 (Eng. Abstr.) **(Chi)**

[Gly380Arg and Asn540Lys mutations of fibroblast growth factor receptor 3 in achondroplasia and hypochndroplasia in the Spanish population] Ezquieta Zubicaray B, et al.
Med Clin (Barc) 1999 Mar 6;112(8):290–3 (Eng. Abstr.) **(Spa)**

METABOLISM

Effects of the binding of a dextran derivative on fibroblast growth factor 2: secondary structure and receptor-binding studies. Bittoun P, et al. **Biochem Pharmacol** 1999 Jun 15; 57(12):1399–406

Fibroblast growth factor receptor-1 expression in the cortex and hippocampus in Alzheimer's disease. Takami K, et al.
Brain Res 1998 Aug 17;802(1–2):89–97

bFGF inhibits the activation of caspase-3 and apoptosis of P19 embryonal carcinoma cells during neuronal differentiation. Miho Y, et al. **Cell Death Differ** 1999 May; 6(5):463–70

Basic fibroblast growth factor receptors and their prognostic value in human breast cancer. Blanckaert VD, et al.
Clin Cancer Res 1998 Dec;4(12):2939–47

Receptor tyrosine phosphatases: the worm clears the picture. Zinn K. **Curr Biol** 1998 Oct 8;8(20):R725–6 (9 ref.)

A role for the fibroblast growth factor receptor in cell fate decisions in the developing vertebrate retina. McFarlane S, et al. **Development** 1998 Oct;125(20):3967–75

Heartbroken is a specific downstream mediator of FGF receptor signalling in Drosophila. Michelson AM, et al.
Development 1998 Nov;125(22):4379–89

Expression of basic fibroblast growth factor and its receptor by fibroblast, macrophages and mast cells in hypertrophic scar. Akimoto S, et al. **Eur J Dermatol** 1999 Jul–Aug; 9(5):357–62

Overexpression of fibroblast growth factor receptor 3 in a human thyroid carcinoma cell line results in overgrowth of the confluent cultures. Onose H, et al.
Eur J Endocrinol 1999 Feb;140(2):169–73

Signaling via fibroblast growth factor receptor-1 is dependent on extracellular matrix in capillary endothelial cell differentiation. Kanda S, et al. **Exp Cell Res** 1999 Apr 10;248(1):203–13

FGF receptor availability regulates skeletal myogenesis. Scata KA, et al. **Exp Cell Res** 1999 Jul 10;250(1):10–21

Up-regulation of fibroblast growth factor receptor-1 in lens epithelial cells paralleled by growth stimulation [letter] Marunouchi T, et al. **Exp Eye Res** 1998 Nov;67(5):611–6

Fibroblast growth factor receptor (FGFR)-1 and -2 in the ovine corpus luteum throughout the estrous cycle. Doraiswamy V, et al. **Growth Factors** 1998;16(2):125–35

Subcellular localization of (latent) transforming growth factor beta and the latent TGF-beta binding protein in rat hepatocytes and hepatic stellate cells. Roth-Eichhorn S, et al. **Hepatology** 1998 Dec;28(6):1588–96

Expression of basic fibroblast growth factor and its receptor in angiosarcoma. Yamamoto T, et al.
J Am Acad Dermatol 1999 Jul;41(1):127–9

Structure and activation of the large latent transforming growth factor-Beta complex. Nunes I, et al.
J Am Optom Assoc 1998 Oct;69(10):643–8 (45 ref.)

Specificity for fibroblast growth factors determined by heparan sulfate in a binary complex with the receptor kinase. Kan M, et al. **J Biol Chem** 1999 May 28; 274(22):15947–52

Fibroblast growth factor receptor-1-mediated endothelial cell proliferation is dependent on the Src homology (SH) 2/SH3 domain-containing adaptor protein Crk. Larsson H, et al. **J Biol Chem** 1999 Sep 3;274(36):25726–34

Requirement for anticoagulant heparan sulfate in the fibroblast growth factor receptor complex. McKeehan WL, et al. **J Biol Chem** 1999 Jul 30;274(31):21511–4

Effect of transmembrane and kinase domain mutations on fibroblast growth factor receptor 3 chimera signaling in PC12 cells. A model for the control of receptor tyrosine kinase activation. Raffioni S, et al. **J Biol Chem** 1998 Dec 25;273(52):35250–9

Fibroblast growth factor-1 (FGF-1) enhances IL-2 production and nuclear translocation of NF-kappaB in FGF receptor-bearing Jurkat T cells. Byrd VM, et al.
J Immunol 1999 May 15;162(10):5853–9

Immunohistochemical localization of fibroblast growth factors (FGFs) and FGF receptor-1 in human normal salivary glands and pleomorphic adenomas. Kusafuka K, et al. **J Oral Pathol Med** 1998 Aug;27(7):287–92

Localization of fibroblast growth factor-2 (basic FGF) and FGF receptor-1 in adult human kidney [see comments] Floege J, et al. **Kidney Int** 1999 Sep;56(3):883–97. Comment in: Kidney Int 1999 Sep;56(3):1156–7.

Evidence that FGF receptor signaling is necessary for endoderm-regulated development of precardiac mesoderm. Zhu X, et al. **Mech Ageing Dev** 1999 Apr 1;108(1):77–85

The Xenopus Ets transcription factor XER81 is a target of the FGF signaling pathway. Münchberg SR, et al.
Mech Dev 1999 Jan;80(1):53–65

Different tyrosine autophosphorylation requirements in fibroblast growth factor receptor-1 mediate urokinase-type plasminogen activator induction and mitogenesis. Dell'Era P, et al. **Mol Biol Cell** 1999 Jan;10(1):23–33

Modulation of fibroblast growth factor-2 receptor binding, signaling, and mitogenic activity by heparin-mimicking polysulfonated compounds. Liekens S, et al.
Mol Pharmacol 1999 Jul;56(1):204–13

FGF-2 facilitates binding of SH3 domain of PLC-gamma1 to vinculin and SH2 domains to FGF receptor in corneal endothelial cells. Park SY, et al. **Mol Vis** 1999 Aug 20;5:18

Human fibroblast growth factor receptor 1 is a co-receptor for infection by adeno-associated virus 2 [see comments] Qing K, et al. **Nat Med** 1999 Jan;5(1):71–7. Comment in: Nat Med 1999 May;5(5):467–8.

Adeno-associated virus 2 co-receptors? [letter; comment] Qiu J, et al. **Nat Med** 1999 May;5(5):467–8. Comment on: Nat Med 1999 Jan;5(1):71–7. Comment on: Nat Med 1999 Jan;5(1):78–82.

Fibroblast growth factor receptor expression in outer hair cells of rat cochlea. Pickles JO, et al. **Neuroreport** 1998 Dec 21;9(18):4093–5

Visual input regulates the expression of basic fibroblast growth factor and its receptor. Gómez-Pinilla F, et al.
Neuroscience 1999;88(4):1051–8

Increased expression of fibroblast growth factor 8 in human breast cancer. Marsh SK, et al. **Oncogene** 1999 Jan 28; 18(4):1053–60

Immunohistochemical study of fibroblast growth factor-2 (FGF-2) and fibroblast growth factor receptor (FGF-R) in experimental squamous cell carcinoma of rat submandibular gland. Sumitomo S, et al. **Oral Oncol** 1999 Jan;35(1):98–104

Comparison of the intracellular signaling responses by three chimeric fibroblast growth factor receptors in PC12 cells. Raffioni S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22; 96(13):7178–83

Identification of two new hydrophobic residues on basic fibroblast growth factor important for fibroblast growth factor receptor binding. Zhu H, et al. **Protein Eng** 1998 Oct;11(10):937–40

[Studies on the expression of fibroblast growth factors and fibroblast growth factor receptors in human prostate cancer] Takahashi H. **Nippon Hinyokika Gakkai Zasshi** 1998 Oct;89(10):836–45 (Eng. Abstr.) **(Jpn)**

[Inhibition of fibroblast growth factor receptor 1 expression in human glioblastoma cell contributes to the cell growth suppression] Yamada SM, et al. **No To Shinkei** 1998 Dec; 50(12):1101–5 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

In vitro growth suppression of vascular smooth muscle cells using adenovirus-mediated gene transfer of a truncated form of fibroblast growth factor receptor. Yukawa H, et al. **Atherosclerosis** 1998 Nov;141(1):125–32

Role of fibroblast growth factors and their receptors in mouse primordial germ cell growth. Resnick JL, et al.
Biol Reprod 1998 Nov;59(5):1224–9

Structural basis for FGF receptor dimerization and activation. Plotnikov AN, et al. **Cell** 1999 Sep 3; 98(5):641–50

How tumor cells make use of CD44. Herrlich P, et al.
Cell Adhes Commun 1998;6(2–3):141–7 (52 ref.)

Fibroblast growth factor receptors (FGFRs) and their roles in limb development. Xu X, et al. **Cell Tissue Res** 1999 Apr;296(1):33–43 (102 ref.)

FGFR-3 and FGFR-4 function cooperatively to direct alveogenesis in the murine lung. Weinstein M, et al.
Development 1998 Sep;125(18):3615–23

Beta-adrenergic and fibroblast growth factor receptors induce neuronal process outgrowth through different mechanisms. Kwon JH, et al. **Eur J Neurosci** 1998 Sep; 10(9):2776–89

Signal transduction by fibroblast growth factor receptors. Klint P, et al. **Front Biosci** 1999 Feb 15;4:D165–77 (123

ref.)
FGF signal transduction in PC12 cells: comparison of the responses induced by endogenous and chimeric receptors. Foehr ED, et al. **Immunol Cell Biol** 1998 Oct;76(5):406–13
Evidence for a role of FGF-2 and FGF receptors in the proliferation of non-small cell lung cancer cells. Berger W, et al. **Int J Cancer** 1999 Oct 29;83(3):415–23
Fibroblast growth factor receptors participate in the control of mitogen-activated protein kinase activity during nerve growth factor-induced neuronal differentiation of PC12 cells. Chevet E, et al. **J Biol Chem** 1999 Jul 23; 274(30):20901–8
Fibroblast growth factor receptor signaling in Xenopus retinal axon extension. Lom B, et al. **J Neurobiol** 1998 Dec; 37(4):633–41
Expression of Fgfr2 in the early mouse embryo indicates its involvement in preimplantation development. Haffner-Krausz R, et al. **Mech Dev** 1999 Jul;85(1–2):167–72
Syndecan-3 in limb skeletal development. Kosher RA. **Microsc Res Tech** 1998 Oct 15;43(2):123–30 (97 ref.)
The Drosophila protein Dof is specifically required for FGF signaling [published erratum appears in Mol Cell 1999 Apr;3(4):following 540] Vincent S, et al. **Mol Cell** 1998 Oct;2(4):515–25
Myelin basic protein and myelin basic protein peptides induce the proliferation of Schwann cells via ganglioside GM1 and the FGF receptor. Tzeng SF, et al. **Neurochem Res** 1999 Feb;24(2):255–60
Signaling through fibroblast growth factor receptor 2b plays a key role in the development of the exocrine pancreas. Miralles F, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6267–72
A mouse model for achondroplasia produced by targeting fibroblast growth factor receptor 3. Wang Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4455–60
Targeting human prostatic carcinoma through basic fibroblast growth factor receptors in an animal model: characterizing and circumventing mechanisms of tumor resistance. Davol PA, et al. **Prostate** 1999 Aug 1; 40(3):178–91

RECEPTORS, FIBRONECTIN

Two-step spreading mode of human glioma cells on fibrin monomer: interaction of alpha(v)beta3 with the substratum followed by interaction of alpha5beta1 with endogenous cellular fibronectin secreted in the extracellular matrix. Yang W, et al. **Thromb Res** 1999 Mar 15;93(6):279–90

BIOSYNTHESIS

Upregulated expression of fibronectin receptors underlines the adhesive capability of thymocytes to thymic epithelial cells during the early stages of differentiation: lessons from sublethally irradiated mice. Dalmau SR, et al. **Blood** 1999 Feb 1;93(3):974–90
Role of fibronectin-stimulated tumor cell migration in glioma invasion in vivo: clinical significance of fibronectin and fibronectin receptor expressed in human glioma tissues. Ohnishi T, et al. **Clin Exp Metastasis** 1998 Nov; 16(8):729–41
Endothelial cell integrin alpha5beta1 expression is modulated by cytokines and during migration in vitro. Collo G, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):569–78
Costimulation of CD28- T cells through CD3 and beta1-integrins induces a limited Th1 cytokine response. Saukkonen JJ, et al. **Scand J Immunol** 1999 Aug;50(2):145–9
[Expression and detection of integrin alpha 5 beta 1, fibronectin and its fragment in patients with hepatocellular carcinoma] Zhao J, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Apr;26(2):65–9 (Eng. Abstr.) **(Chi)**
[A study on expression of fibronectin receptor alpha 5 beta 1 of Ito cells in experimental liver fibrosis in rats] Zhou X, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Feb; 26(1):19–22 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Identification of amino acid residues that form part of the ligand-binding pocket of integrin alpha5 beta1. Mould AP, et al. **J Biol Chem** 1998 Oct 2;273(40):25664–72
The 'ligand-induced conformational change' of alpha 5 beta 1 integrin. Relocation of alpha 5 subunit to uncover the beta 1 stalk region. Tsuchida J, et al. **J Cell Sci** 1998 Jun; 111 (Pt 12):1759–66

DRUG EFFECTS

Effect of dexamethasone on the assembly of the matrix of fibronectin and on its receptors organization in Ehlers-Danlos syndrome skin fibroblasts. Zoppi N, et al. **Cell Biol Int** 1998;22(7–8):499–508

IMMUNOLOGY

Use of a novel fibronectin receptor for liver infiltration by a mouse lymphoma cell line RL-male1. Gazi MH, et al. **Cancer Res** 1999 Mar 1;59(5):1115–9
Dual control by divalent cations and mitogenic cytokines of alpha 4 beta 1 and alpha 5 beta 1 integrin avidity expressed by human hemopoietic cells. Takamatsu Y, et al. **Cell Adhes Commun** 1998 Jul;5(5):349–66

METABOLISM

Modulation of RGD sequence motifs regulates disintegrin recognition of alphaIIb beta3 and alpha5 beta1 integrin complexes. Replacement of elegantin alanine-50 with proline, N-terminal to the RGD sequence, diminishes recognition of the alpha5 beta1 complex with restoration induced by Mn2+ cation. Rahman S, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):247–57
Surface densities of ephrin-B1 determine EphB1-coupled activation of cell attachment through alphavbeta3 and alpha5beta1 integrins. Huynh-Do U, et al. **EMBO J** 1999 Apr 15;18(8):2165–73
Tenascin-C inhibits beta1 integrin-dependent T lymphocyte adhesion to fibronectin through the binding of its fnIII 1–5 repeats to fibronectin. Hauzenberger D, et al. **Eur J Immunol** 1999 May;29(5):1435–47
The muscle-specific laminin receptor alpha7 beta1 integrin negatively regulates alpha5 beta1 fibronectin receptor function. Tomatis D, et al. **Exp Cell Res** 1999 Feb 1; 246(2):421–32
Urokinase-type plasminogen activator binding to its receptor stimulates tumor cell migration by enhancing integrin-mediated signal transduction. Yebra M, et al. **Exp Cell Res** 1999 Jul 10;250(1):231–40
Alteration of cytoskeletal structure, integrin distribution, and migratory activity by phagocytic challenge in cells from an ocular tissue--the trabecular meshwork. Zhou L, et al. **In Vitro Cell Dev Biol Anim** 1999 Mar;35(3):144–9
Interaction of Leishmania gp63 with cellular receptors for fibronectin. Brittingham A, et al. **Infect Immun** 1999 Sep; 67(9):4477–84
Quantitative relationship among integrin-ligand binding, adhesion, and signaling via focal adhesion kinase and extracellular signal-regulated kinase 2. Asthagiri AR, et al. **J Biol Chem** 1999 Sep 17;274(38):27119–27
Requirements for alpha(5)beta(1) integrin-mediated retraction of fibronectin-fibrin matrices. Corbett SA, et al. **J Biol Chem** 1999 Jul 23;274(30):20943–8
Two-stage activation for alpha5beta1 integrin binding to surface-adsorbed fibronectin. Garcia AJ, et al. **J Biol Chem** 1998 Dec 25;273(52):34710–5
The RGD motif and the C-terminal segment of proprotein convertase 1 are critical for its cellular trafficking but not for its intracellular binding to integrin alpha5beta1. Rovère C, et al. **J Biol Chem** 1999 Apr 30;274(18):12461–7
Control of type II transforming growth factor-beta receptor expression by integrin ligation. Wang D, et al. **J Biol Chem** 1999 Apr 30;274(18):12840–7
A molecular mechanism of integrin crosstalk: alphavbeta3 suppression of calcium/calmodulin-dependent protein kinase II regulates alpha5beta1 function. Blystone SD, et al. **J Cell Biol** 1999 May 17;145(4):889–97
Interaction of metargidin (ADAM-15) with alphavbeta3 and alpha5beta1 integrins on different haemopoietic cells. Nath D, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):579–87
The 'ligand-induced conformational change' of alpha 5 beta 1 integrin. Relocation of alpha 5 subunit to uncover the beta 1 stalk region. Tsuchida J, et al. **J Cell Sci** 1998 Jun; 111 (Pt 12):1759–66
Fibronectin fragments modulate monocyte VLA-5 expression and monocyte migration. Trial J, et al. **J Clin Invest** 1999 Aug;104(4):419–30
Inhibition of integrin signaling with Arg-Gly-Asp motifs in rat hepatic stellate cells. Iwamoto H, et al. **J Hepatol** 1998 Nov;29(5):752–9
Affinity modulation of very late antigen-5 through phosphatidylinositol 3-kinase in mast cells. Kinashi T, et al. **J Immunol** 1999 Mar 1;162(5):2850–7
Periodontal-derived cells attach to cementum attachment protein via alpha 5 beta 1 integrin. Ivanovski S, et al. **J Periodontal Res** 1999 Apr;34(3):154–9

PHYSIOLOGY

Alpha4beta1 and alpha5beta1 control cell migration on fibronectin by differentially regulating cell speed and motile cell phenotype. Chon JH, et al. **Ann Biomed Eng** 1998 Nov-Dec;26(6):1091–101
Calcium/calmodulin-dependent protein kinase II controls integrin alpha5beta1-mediated cell adhesion through the integrin cytoplasmic domain associated protein-1alpha. Bouvard D, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):46–50
Development of cytotrophoblast columns from explanted first-trimester human placental villi: role of fibronectin and integrin alpha5beta1. Aplin JD, et al. **Biol Reprod** 1999 Apr;60(4):828–38
Modulation of integrin function in hematopoietic progenitor cells by CD43 engagement: possible involvement of protein tyrosine kinase and phospholipase C-gamma. Anzai N, et al. **Blood** 1999 May 15;93(10):3317–26
CrkL activates integrin-mediated hematopoietic cell adhesion through the guanine nucleotide exchange factor C3G. Arai A, et al. **Blood** 1999 Jun 1;93(11):3713–22
The Tat protein of human immunodeficiency virus type-1 promotes vascular cell growth and locomotion by engaging the alpha5beta1 and alphavbeta3 integrins and by mobilizing sequestered basic fibroblast growth factor. Barillari G, et al. **Blood** 1999 Jul 15;94(2):663–72
Integrins involved in the adhesion of megakaryocytes to fibronectin and fibrinogen. Schick PK, et al. **Blood** 1998 Oct 15;92(8):2650–6
H-Ras is involved in the inside-out signaling pathway of interleukin-3-induced integrin activation. Shibayama H, et al. **Blood** 1999 Mar 1;93(5):1540–8
Integrin alpha5beta1: a potent inhibitor of experimental lung metastasis. Schirner M, et al. **Clin Exp Metastasis** 1998 Jul; 16(5):427–35
Fibronectin and alpha5beta1 integrin mediate binding of Pseudomonas aeruginosa to repairing airway epithelium. Roger P, et al. **Eur Respir J** 1999 Jun;13(6):1301–9
Migration arrest in glioma cells is dependent on the alphav integrin subunit. Treasurywala S, et al. **Glia** 1998 Oct; 24(2):236–43
The cytoplasmic domains of a beta1 integrin mediate polarization in Madin-Darby canine kidney cells by selective basolateral stabilization. Gut A, et al. **J Biol Chem** 1998 Nov 6;273(45):29381–8
Modulation of calcium current in arteriolar smooth muscle by alphav beta3 and alpha5 beta1 integrin ligands. Wu X, et al. **J Cell Biol** 1998 Oct 5;143(1):241–52
Interaction between alpha 5 beta 1 integrin and secreted fibronectin is involved in macrophage differentiation of human HL-60 myeloid leukemia cells. Laouar A, et al. **J Immunol** 1999 Jan 1;162(1):407–14
Regulation of integrin-mediated T cell adhesion by the transmembrane protein tyrosine phosphatase CD45. Shenoi H, et al. **J Immunol** 1999 Jun 15;162(12):7120–7
Structural analysis of the sixth immunoglobulin-like domain of mouse neural cell adhesion molecule L1 and its interactions with alpha(v)beta3, alpha(IIb)beta3, and alpha5beta1 integrins. Blaess S, et al. **J Neurochem** 1998 Dec;71(6):2615–25

RECEPTORS, FOLLICLE-STIMULATING HORMONE
see **RECEPTORS, FSH**

RECEPTORS, FSH

Gonadotropin receptors. Hai MV, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):89–92 (24 ref.)

AGONISTS

Developments in human recombinant follicle stimulating hormone technology: are we going in the right direction? Fauser BC. **Hum Reprod** 1998 Jun;13 Suppl 3:36–46; discussion 47–51 (47 ref.)
A global model to define the behavior of partial agonists (bell-shaped dose-response inducers) in pharmacological evaluation of activity in the presence of the full agonist. Ghosh K, et al. **J Biopharm Stat** 1998 Nov;8(4):645–65

ANALYSIS

Follicle-stimulating hormone receptor and its messenger ribonucleic acid are present in the bovine cervix and can regulate cervical prostanoid synthesis. Mizrachi D, et al. **Biol Reprod** 1999 Sep;61(3):776–84
The effect of follicle-stimulating hormone (FSH) on the expression of FSH receptor in cultured rat granulosa cells. Tano M, et al. **Life Sci** 1999;64(12):1063–9

BIOSYNTHESIS

Pharmacological characterization of soluble human FSH receptor extracellular domain: facilitated secretion by coexpression with FSH. Stevis PE, et al. **Endocrine** 1999 Apr;10(2):153–60
Hormone-refractory prostate cancer cells express functional follicle-stimulating hormone receptor (FSHR). Ben-Josef E, et al. **J Urol** 1999 Mar;161(3):970–6

CHEMISTRY

Structure-function relationship of follicle-stimulating hormone and its receptor. Ulloa-Aguirre A, et al. **Hum Reprod Update** 1998 May-Jun;4(3):260–83 (263 ref.)

DRUG EFFECTS

Involvement of G protein-coupled receptor kinases and arrestins in desensitization to follicle-stimulating hormone action. Troispoux C, et al. **Mol Endocrinol** 1999 Sep; 13(9):1599–614

GENETICS

Comparative expression of luteinizing hormone and follicle-stimulating hormone receptors in ovarian follicles from high and low prolific sheep breeds. Abdennebi L, et al. **Biol Reprod** 1999 Apr;60(4):845–54
Molecular cloning of the mouse follicle-stimulating hormone receptor complementary deoxyribonucleic acid: functional expression of alternatively spliced variants and receptor inactivation by a C566T transition in exon 7 of the coding sequence. Tena-Sempere M, et al. **Biol Reprod** 1999 Jun; 60(6):1515–27
The search for the gonadotropin-resistant ovary -- a lost planet or a dinosaur? [editorial; comment] McDonough PG. **Fertil Steril** 1999 Jun;71(6):1169–70. Comment on: Fertil Steril 1998 Jun;71(6):1167–8.
The search for gonadotropin-resistant ovary--a lost planet or a dinosaur? [letter; comment] [see comments] Stavrou S. **Fertil Steril** 1999 Jun;71(6):1167–8. Comment on: Fertil Steril 1998 Aug;70(2):326–31. Comment in: Fertil Steril 1999 Jun;71(6):1169–70.
Screening male intracytoplasmic sperm injection candidates

for mutations of the follicle stimulating hormone receptor gene. Tuerlings JH, et al. **Hum Reprod** 1998 Aug; 13(8):2098–101

The frequency of an inactivating point mutation (566C–>T) of the human follicle-stimulating hormone receptor gene in four populations using allele-specific hybridization and time-resolved fluorometry. Jiang M, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4338–43

Analysis of mutations in genes of the follicle-stimulating hormone receptor signaling pathway in ovarian granulosa cell tumors. Ligtenberg MJ, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2233–4

Mutational analysis of the follicle-stimulating hormone (FSH) receptor in normal and infertile men: identification and characterization of two discrete FSH receptor isoforms. Simoni M, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):751–5

A novel phenotype related to partial loss of function mutations of the follicle stimulating hormone receptor. Beau I, et al. **J Clin Invest** 1998 Oct 1;102(7):1352–9

Mechanisms of desensitization of follicle-stimulating hormone (FSH) action in a murine granulosa cell line stably transfected with the human FSH receptor complementary deoxyribonucleic acid. Manna PR, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):163–76

Control of FSH receptor mRNA expression in rat granulosa cells by 3',5'-cyclic adenosine monophosphate, activin, and follistatin. Minegishi T, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):71–7

The unique exon 10 of the human luteinizing hormone receptor is necessary for expression of the receptor protein at the plasma membrane in the human luteinizing hormone receptor, but deleterious when inserted into the human follicle-stimulating hormone receptor. Zhang FP, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1–2):165–74

Multiple promoter elements contribute to activity of the follicle-stimulating hormone receptor (FSHR) gene in testicular Sertoli cells. Heckert LL, et al. **Mol Endocrinol** 1998 Oct;12(10):1499–512

Differential regulation of leucine-rich primary response gene 1 (LRPR1) mRNA expression in rat testis and ovary. Slegtenhorst-Eegdeman KE, et al. **Mol Hum Reprod** 1998 Jul;4(7):649–56

Homologous and heterologous ligands downregulate follicle-stimulating hormone receptor mRNA in porcine granulosa cells. Murphy BD, et al. **Mol Reprod Dev** 1999 Jun;53(2):198–207

[Activating mutations of the gonadotrophin receptors] Beck-Peccoz P, et al. **Arch Pediatr** 1998;5 Suppl 4:380S–384S (17 ref.) (Eng. Abstr.) **(Fre)**

[Premature ovarian insufficiency] Christin-Maitre S. **Rev Prat** 1999 Jun 15;49(12):1297–302 (Eng. Abstr.) **(Fre)**

[cDNA cloning of human testicular follicle-stimulating hormone receptor and analysis of its in vitro function] Aihara T. **Hokkaido Igaku Zasshi** 1998 Nov;73(6):627–40 (Eng. Abstr.) **(Jpn)**

[A study on the role of the transmembrane V to VI regions of the human luteinizing hormone receptor in its constitutive activation] Kudo M. **Hokkaido Igaku Zasshi** 1999 Jan;74(1):53–65 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Generating FSH antagonists and agonists through immunization against FSH receptor N-terminal decapeptides. Abdennebi L, et al. **J Mol Endocrinol** 1999 Apr;22(2):151–9

In vitro inhibition of the bioactivity of follicle-stimulating hormone by antisera against a peptide representing part of the FSH-receptor. Zijlstra-Westhoff WE, et al. **J Reprod Immunol** 1998 Jul;38(2):139–54

METABOLISM

Receptor binding activity and in vitro biological activity of the human FSH charge isoforms as disclosed by heterologous and homologous assay systems: implications for the structure-function relationship of the FSH variants. Zambrano E, et al. **Endocrine** 1999 Apr;10(2):113–21

FSH does not directly influence testicular macrophages. Carpenter AM, et al. **J Androl** 1998 Jul–Aug;19(4):420–7

High affinity hormone binding to the extracellular N-terminal exodomain of the follicle-stimulating hormone receptor is critically modulated by exoloop 3. Ryu K, et al. **J Biol Chem** 1998 Oct 30;273(44):28953–8

Inactivating FSH receptor mutations and gonadal dysfunction. Tapanainen JS, et al. **Mol Cell Endocrinol** 1998 Oct 25;145(1–2):129–35 (54 ref.)

Role of G protein-coupled receptor kinases on the agonist-induced phosphorylation and internalization of the follitropin receptor. Lazari MF, et al. **Mol Endocrinol** 1999 Jun;13(6):866–78

Impairing follicle-stimulating hormone (FSH) signaling in vivo: targeted disruption of the FSH receptor leads to aberrant gametogenesis and hormonal imbalance. Dierich A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13612–7

[Mechanisms of polarized targeting of the FSH receptor] Beau I, et al. **J Soc Biol** 1999;193(2):139–45 (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Follicle-stimulating hormone receptor and its messenger ribonucleic acid are present in the bovine cervix and can regulate cervical prostanoid synthesis. Mizrachi D, et al. **Biol Reprod** 1999 Sep;61(3):776–84

Chicken lutropin acts like follitropin in rat ovarian follitropin receptor: an isoelectric focusing study. Iwasawa A, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jul;120(1):83–9

Follicle stimulating hormone and its receptor: future perspectives. Chappel S, et al. **Hum Reprod** 1998 Jun;13 Suppl 3:18–35; discussion 47–51 (77 ref.)

Structure-function relationship of follicle-stimulating hormone and its receptor. Ulloa-Aguirre A, et al. **Hum Reprod Update** 1998 May–Jun;4(3):260–83 (263 ref.)

Role of the third intracellular loop for the activation of gonadotropin receptors. Schulz A, et al. **Mol Endocrinol** 1999 Feb;13(2):181–90

RECEPTORS, GABA

BDNF regulates the maturation of inhibition and the critical period of plasticity in mouse visual cortex. Huang ZJ, et al. **Cell** 1999 Sep 17;98(6):739–55

[GABA receptor chloride ion channel] Hashimoto T. **Nippon Rinsho** 1998 Jul;56(7):1824–9 (13 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS see GABA AGONISTS

ANALYSIS

A new approach to estimate the number, density and variability of receptors at central synapses. Nusser Z. **Eur J Neurosci** 1999 Mar;11(3):745–52 (52 ref.)

Altered development of glutamate and GABA receptors in the basal ganglia of girls with Rett syndrome. Blue ME, et al. **Exp Neurol** 1999 Apr;156(2):345–52

Polycyclic dinitriles: a novel class of potent GABAergic insecticides provides a new radioligand, [3H]BIDN. Rauh JJ, et al. **Invert Neurosci** 1997 Sep–Dec;3(2–3):261–8

Immunocytochemical mapping of an RDL-like GABA receptor subunit and of GABA in brain structures related to learning and memory in the cricket Acheta domesticus. Strambi C, et al. **Learn Mem** 1998 May–Jun;5(1–2):78–89

ANTAGONISTS & INHIBITORS see GABA ANTAGONISTS

BIOSYNTHESIS

Separate domains for desensitization of GABA rho 1 and beta 2 subunits expressed in Xenopus oocytes. Lu L, et al. **J Membr Biol** 1998 Jul 15;164(2):115–24

CHEMISTRY

GABAC receptor rho subunits are heterogeneously expressed in the human CNS and form homo- and heterooligomers with distinct physical properties. Enz R, et al. **Eur J Neurosci** 1999 Jan;11(1):41–50

A single amino acid in the second transmembrane domain of GABA rho subunits is a determinant of the response kinetics of GABAC receptors. Qian H, et al. **J Neurobiol** 1999 Jul;40(1):67–76

A single hydrophobic residue confers barbiturate sensitivity to gamma-aminobutyric acid type C receptor. Amin J. **Mol Pharmacol** 1999 Mar;55(3):411–23

Role of heteromer formation in GABAB receptor function [see comments] Kuner R, et al. **Science** 1999 Jan 1; 283(5398):74–7. Comment in: Science 1999 Jan 1;283(5398):14–5.

Glycine-immunoreactive synaptic terminals in the nucleus tractus solitarii of the cat: ultrastructure and relationship to GABA-immunoreactive terminals. Saha S, et al. **Synapse** 1999 Sep 1;33(3):192–206

CLASSIFICATION

GABA(C) receptor antagonists differentiate between human rho1 and rho2 receptors expressed in Xenopus oocytes. Chebib M, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2–3):227–34

DRUG EFFECTS

Simultaneous cocaine exposure abolishes ethanol tolerance. Peris J, et al. **Behav Pharmacol** 1997 Aug;8(4):319–30

Anisatin modulation of the gamma-aminobutyric acid receptor-channel in rat dorsal root ganglion neurons. Ikeda T, et al. **Br J Pharmacol** 1999 Aug;127(7):1567–76

Cross-resistance with dieldrin of a novel tricyclic dinitrile GABA receptor antagonist. Matsuda K, et al. **Br J Pharmacol** 1999 Jul;127(6):1305–7

Branched-chain amino acid-induced hippocampal norepinephrine release is antagonized by picrotoxin: evidence for a central mode of action. Torigoe K, et al. **Brain Res Bull** 1999 Jul 1;49(4):281–4

Missing action of carbamazepine on postsynaptic GABA-responses of hippocampal CA3-neurons (slice, guinea pig). Bonnet U, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):353–6

Characterization and comparative pharmacological studies of a functional gamma-aminobutyric acid (GABA) receptor cloned from the tobacco budworm, Heliothis virescens (Noctuidae:Lepidoptera). Wolff MA, et al. **Invert Neurosci** 1998 Mar;3(4):305–15

Transcriptional analysis of the Drosophila GABA receptor gene resistance to dieldrin. Stilwell GE, et al. **J Neurobiol** 1998 Sep 15;36(4):468–84

Complementary regulation of anaesthetic activation of human (alpha6beta3gamma2L) and Drosophila (RDL) GABA receptors by a single amino acid residue. Pistis M, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):3–18

Bicuculline-resistant, Cl- dependent GABA response in the rat spinal dorsal horn. Park JS, et al. **Neurosci Res** 1999 Apr;33(4):261–8

Role of GABAA receptors in the regulation of sleep: initial sleep responses to peripherally administered modulators and agonists. Lancel M. **Sleep** 1999 Feb 1;22(1):33–42 (128 ref.)

GENETICS

Selective genotyping for the role of 5-HT2A, 5-HT2C, and GABA alpha 6 receptors and the serotonin transporter in the level of response to alcohol: a pilot study. Schuckit MA, et al. **Biol Psychiatry** 1999 Mar 1;45(5):647–51

Origin of neuronal-like receptors in Metazoa: cloning of a metabotropic glutamate/GABA-like receptor from the marine sponge Geodia cydonium. Perovic S, et al. **Cell Tissue Res** 1999 May;296(2):395–404

Emotion-induced myoclonic absence-like seizures in a patient with inv-dup(15) syndrome: a clinical, EEG, and molecular genetic study. Aguglia U, et al. **Epilepsia** 1999 Sep;40(9):1316–9

GABAC receptor rho subunits are heterogeneously expressed in the human CNS and form homo- and heterooligomers with distinct physical properties. Enz R, et al. **Eur J Neurosci** 1999 Jan;11(1):41–50

Cloning of a novel G-protein-coupled receptor GPR 51 resembling GABAB receptors expressed predominantly in nervous tissues and mapped proximal to the hereditary sensory neuropathy type 1 locus on chromosome 9. Ng GY, et al. **Genomics** 1999 Mar 15;56(3):288–95

Transcriptional analysis of the Drosophila GABA receptor gene resistance to dieldrin. Stilwell GE, et al. **J Neurobiol** 1998 Sep 15;36(4):468–84

The Caenorhabditis elegans unc-49 locus encodes multiple subunits of a heteromultimeric GABA receptor. Bamber BA, et al. **J Neurosci** 1999 Jul 1;19(13):5348–59

Molecular identification of the human GABABR2: cell surface expression and coupling to adenylyl cyclase in the absence of GABABR1. Martin SC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):180–91

Heterodimerization is required for the formation of a functional GABA(B) receptor [see comments] White JH, et al. **Nature** 1998 Dec 17;396(6712):679–82. Comment in: Nature 1998 Dec 17;396(6712):629–30.

Consensus phosphorylation sites of human GABA(c)/GABArho receptors are not critical for inhibition by protein kinase C activation. Kusama T, et al. **Neurosci Lett** 1998 Oct 9;255(1):17–20

METABOLISM

GABA receptors in the phrenic nucleus of the rat. Chitravanshi VC, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R420–8

How fast does the gamma-aminobutyric acid receptor channel open? Kinetic investigations in the microsecond time region using a laser-pulse photolysis technique. Jayaraman V, et al. **Biochemistry** 1999 Aug 31; 38(35):11372–8

Comparison of glutamate and gamma-aminobutyric acid uptake binding sites in frontal and temporal lobes in schizophrenia. Simpson MD, et al. **Biol Psychiatry** 1998 Sep 15;44(6):423–7

GABA receptors and benzodiazepine binding sites modulate hippocampal acetylcholine release in vivo. Moor E, et al. **Eur J Pharmacol** 1998 Oct 23;359(2–3):119–26

Gamma-aminobutyric acid and glutamic acid receptors may mediate theophylline-induced seizures in mice. Amabeoku GJ. **Gen Pharmacol** 1999 Mar;32(3):365–72

A novel serine kinase with specificity for beta3-subunits is tightly associated with GABA(A) receptors. Kannenberg K, et al. **J Biol Chem** 1999 Jul 23;274(30):21257–64

Indoleamine-accumulating amacrine cells are presynaptic to rod bipolar cells through GABA(C) receptors. Fletcher EL, et al. **J Comp Neurol** 1999 Oct 11;413(1):155–67

The Caenorhabditis elegans unc-49 locus encodes multiple subunits of a heteromultimeric GABA receptor. Bamber BA, et al. **J Neurosci** 1999 Jul 1;19(13):5348–59

Evidence for phosphorylation-dependent internalization of recombinant human rho1 GABAC receptors. Filippova N, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):385–99

Molecular identification of the human GABABR2: cell surface expression and coupling to adenylyl cyclase in the absence of GABABR1. Martin SC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):180–91

Occurrence of GABA and GABA receptors in human spermatozoa. Ritta MN, et al. **Mol Hum Reprod** 1998 Aug; 4(8):769–73

Differential modulation of the gamma-aminobutyric acid type C receptor by neuroactive steroids. Morris KD, et al. **Mol Pharmacol** 1999 Oct;56(4):752–9

GABA synapses enter the molecular big time [news; comment] Schwartzkroin PA. **Nat Med** 1998 Oct;

4(10):1115–6. Comment on: Nat Med 1998 Oct;4(10):1166–72.
Channel opening locks agonist onto the GABAC receptor [see comments] Chang Y, et al. **Nat Neurosci** 1999 Mar; 2(3):219–25. Comment in: Nat Neurosci 1999 Mar;2(3):201–2.
GABA(B) receptors function as a heteromeric assembly of the subunits GABA(B)R1 and GABA(B)R2. Jones KA, et al. **Nature** 1998 Dec 17;396(6712):674–9
GABA(B)-receptor subtypes assemble into functional heteromeric complexes. Kaupmann K, et al. **Nature** 1998 Dec 17;396(6712):683–7
The diazoxide derivative 7-chloro-3-methyl-3,4-dihydro-2H-1,2,4-benzothiadiazine-S,S-dioxide augments AMPA- and GABA-mediated synaptic responses in cultured hippocampal neurons. Yamada KA, et al. **Neurobiol Dis** 1998 Sep;5(3):196–205
The GABA(C) receptor is present in cone-horizontal cell axon terminals isolated from catfish retina. Jung CS, et al. **Neurosci Lett** 1999 Feb 5;260(3):185–8
Consensus phosphorylation sites of human GABA(c)/GABArho receptors are not critical for inhibition by protein kinase C activation. Kusama T, et al. **Neurosci Lett** 1998 Oct 9;255(1):17–20
Function of GABA rho1 receptors is up-regulated by chronic GABA treatment in Xenopus oocytes. Lin LH, et al. **Neurosci Lett** 1998 Sep 25;254(2):81–4
The pharmacokinetics of [11C]methoxy-norchloroprogabidic acid, a potential PET tracer for GABA receptors in the brain. Santens P, et al. **Nucl Med Biol** 1999 Apr;26(3):323–5
Interaction of ivermectin with gamma-aminobutyric acid receptors in Trichinella spiralis muscle larvae. Ros-Moreno RM, et al. **Parasitol Res** 1999 Apr;85(4):320–3
Effect of neurosteroids on glutamate binding sites and glutamate uptake in rat hippocampus. Leśkiewicz M, et al. **Pol J Pharmacol** 1998 Jul-Oct;50(4–5):355–60
Role of heteromer formation in GABAB receptor function [see comments] Kuner R, et al. **Science** 1999 Jan 1; 283(5398):74–7. Comment in: Science 1999 Jan 1;283(5398):14–5.
Postnatal development of perisomatic GABAergic axon terminals on neurons projecting from area 17 to area 18 of the cat visual cortex. Pérez-Cerdá F, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):35–44

PHYSIOLOGY

Electrophysiological studies of oxytocin neurons in organotypic slice cultures. Jourdain P, et al. **Adv Exp Med Biol** 1998;449:135–45
Reduced GABA inhibition of sympathetic function in renal-wrapped hypertensive rats. Martin DS, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1523–9
GABAergic mechanisms that shape the temporal response to odors in moth olfactory projection neurons. Christensen TA, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:475–81 (38 ref.)
Inhibitory postsynaptic currents of rat substantia nigra pars reticulata neurons: role of GABA receptors and GABA uptake. Chan PK, et al. **Brain Res** 1999 Aug 14; 838(1-2):18–26
Bicarbonate-dependent lipid ordering and protein aggregation are part of the nongenomic action of progesterone on capacitated spermatozoa. Purohit SB, et al. **J Androl** 1998 Sep-Oct;19(5):608–18
Melatonin's role as an anticonvulsant and neuronal protector: experimental and clinical evidence. Muñoz-Hoyos A, et al. **J Child Neurol** 1998 Oct;13(10):501–9 (112 ref.)
A single amino acid in the second transmembrane domain of GABA rho subunits is a determinant of the response kinetics of GABAC receptors. Qian H, et al. **J Neurobiol** 1999 Jul;40(1):67–76
Divalent cations modulate N-methyl-D-aspartate receptor function at the glycine site. Hashemzadeh-Gargari H, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1356–62
GABAA and GABAC receptors in adult porcine cones: evidence from a photoreceptor-glia co-culture model. Picaud S, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):33–42
GABAC receptors mediate slow membrane potentials in neurons of the rat major pelvic ganglia. Munakata Y, et al. **Kurume Med J** 1998;45(4):295–9
Excessive cerebrocortical release of acetylcholine induced by NMDA antagonists is reduced by GABAergic and alpha2-adrenergic agonists. Kim SH, et al. **Mol Psychiatry** 1999 Jul;4(4):344–52
One GABA and two acetylcholine receptors function at the C. elegans neuromuscular junction. Richmond JE, et al. **Nat Neurosci** 1999 Sep;2(9):791–7
The protein MAP-1B links GABA(C) receptors to the cytoskeleton at retinal synapses. Hanley JG, et al. **Nature** 1999 Jan 7;397(6714):66–9
Stimulation of chloride in—>out permeation across the Deiters' neuron membrane by pentobarbital on the cytoplasmic side: additional evidence of GABA(A) receptors acting as chloride extrusion pumps. Rapallino MV, et al. **Neurochem Res** 1999 Mar;24(3):453–8
Monoaminergic long-term facilitation of GABA-mediated inhibitory transmission at cerebellar synapses. Mitoma H, et al. **Neuroscience** 1999;88(3):871–83
The synaptic pharmacology underlying sensory processing in the superior colliculus. Binns KE. **Prog Neurobiol** 1999 Oct;59(2):129–59 (172 ref.)
[Sensitivity of the respiratory system to lung mechanoreceptor impulses during GABAergic system activation] Tarakanov IA, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):265–9 **(Rus)**
[The molecular aspects of the functional heterogeneity of the GABA receptors] Golovko AI, et al. **Usp Fiziol Nauk** 1999 Jan-Mar;30(1):29–38 (89 ref.) (Eng. Abstr.) **(Rus)**

RECEPTORS, GABA-A

Mapping the agonist binding site of the GABAA receptor: evidence for a beta-strand. Boileau AJ, et al. **J Neurosci** 1999 Jun 15;19(12):4847–54
[Benzodiazepine receptor imaging in the brain: recent developments and clinical validity] Morimoto K. **Kaku Igaku** 1999 May;36(4):307–13 (35 ref.) (Eng. Abstr.) **(Jpn)**
[GABA receptor chloride ion channel] Hashimoto T. **Nippon Rinsho** 1998 Jul;56(7):1824–9 (13 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS

Molecular structure and stereoelectronic properties of sarmazenil--a weak inverse agonist at the omega modulatory sites (benzodiazepine receptors): comparison with bretazenil and flumazenil. López-Romero B, et al. **Bioorg Med Chem** 1998 Oct;6(10):1745–57
2-Phenyl-imidazo[1,2-a]pyridine derivatives as ligands for peripheral benzodiazepine receptors: stimulation of neurosteroid synthesis and anticonflict action in rats. Serra M, et al. **Br J Pharmacol** 1999 May;127(1):177–87
GABAA receptor stimulation blocks NMDA-induced bursting of dopaminergic neurons in vitro by decreasing input resistance. Paladini CA, et al. **Brain Res** 1999 Jun 19;832(1-2):145–51
Rat pup ultrasonic vocalization: effects of benzodiazepine receptor ligands. Olivier B, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):117–28
L-Arginine abolishes the anxiolytic-like effect of diazepam in the elevated plus-maze test in rats. Volke V, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):287–90
Effects of the GABA-A receptor agonist and antagonist on the in vitro release of hypothalamic catecholamines: apparent parallelism between these effects and the LHRH secretion in adult male rats. Feleder C, et al. **Exp Clin Endocrinol Diabetes** 1999;107(1):80–4
GABAA receptor agonists modulate K+ currents in adult hippocampal glial cells in situ. Bekar LK, et al. **Glia** 1999 Apr;26(2):129–38
gamma-Aminobutyrate-A receptor modulation by 3-aryl-1-(arylsulfonyl)- 1,4,5,6-tetrahydropyridazines. Rybczynski PJ, et al. **J Med Chem** 1999 Jul 1;42(13):2403–8
Inhibitory nature of tiagabine-augmented GABAA receptor-mediated depolarizing responses in hippocampal pyramidal cells. Jackson MF, et al. **J Neurophysiol** 1999 Mar;81(3):1192–8
GABA induces norepinephrine exocytosis from hippocampal noradrenergic axon terminals by a dual mechanism involving different voltage-sensitive calcium channels. Fassio A, et al. **J Neurosci Res** 1999 Aug 1;57(3):324–31
Drug discrimination analysis of partial agonists at the benzodiazepine site. I. Differential effects of U-78875 across training conditions in baboons and rats. Ator NA, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1434–46
Benzodiazepine receptor agonists modulate thymocyte apoptosis through reduction of the mitochondrial transmembrane potential. Tanimoto Y, et al. **Jpn J Pharmacol** 1999 Feb;79(2):177–83
Neuropharmacological profile of peripheral benzodiazepine receptor agonists, DAA1097 and DAA1106. Okuyama S, et al. **Life Sci** 1999;64(16):1455–64
Agonist and potentiation actions of n-octanol on gamma-aminobutyric acid type A receptors. Kurata Y, et al. **Mol Pharmacol** 1999 Jun;55(6):1011–9
Presence of an endogenous factor in avian CNS with agonistic action on benzodiazepine receptors. Gravielle MC, et al. **Neurochem Res** 1998 Nov;23(11):1395–401
Perinatal delta9-tetrahydrocannabinol exposure augmented the magnitude of motor inhibition caused by GABA(B), but not GABA(A), receptor agonists in adult rats. Garcia-Gil L, et al. **Neurotoxicol Teratol** 1999 May-Jun; 21(3):277–83
Differences in anxiolytic-like profile of two novel nonbenzodiazepine BZ (omega) receptor agonists on defensive behaviors of mice. Griebel G, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):689–94
Pharmacological characterization of 6-bromo-3'-nitroflavone, a synthetic flavonoid with high affinity for the benzodiazepine receptors. Wolfman C, et al. **Pharmacol Biochem Behav** 1998 Nov;61(3):239–46
Effects of chlordiazepoxide and FG 7142 on a rat model of diencephalic amnesia as measured by delayed-matching-to-sample performance. Burk JA, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):413–20
Effects of different classes of partial benzodiazepine agonists on punished and unpunished responding in pigeons. Kleven MS, et al. **Psychopharmacology (Berl)** 1999 Jun; 144(4):405–10
Positive allosteric modulators of the GABA(A) receptor: differential interaction of benzodiazepines and neuroactive steroids with ethanol. Vanover KE, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):77–82

ANALYSIS

Autoradiographic localization of alpha5 subunit-containing GABAA receptors in rat brain. Sur C, et al. **Brain Res** 1999 Mar 20;822(1-2):265–70
Prevalence of the GABAA receptor assemblies containing alpha1-subunit in the rat cerebellum and cerebral cortex as determined by immunoprecipitation: lack of modulation by chronic ethanol administration. Mehta AK, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):194–9
Peripheral-type benzodiazepine receptor (PBR) in human breast cancer: correlation of breast cancer cell aggressive phenotype with PBR expression, nuclear localization, and PBR-mediated cell proliferation and nuclear transport of cholesterol. Hardwick M, et al. **Cancer Res** 1999 Feb 15; 59(4):831–42
Clusters of GABAA receptors on cultured hippocampal cells correlate only partially with functional synapses. Kannenberg K, et al. **Eur J Neurosci** 1999 Apr; 11(4):1256–64
Characterization of neuronal migration disorders in neocortical structures: quantitative receptor autoradiography of ionotropic glutamate, GABA(A) and GABA(B) receptors. Zilles K, et al. **Eur J Neurosci** 1998 Oct;10(10):3095–106
Single-photon emission computed tomography image of benzodiazepine receptors in a patient with Creutzfeldt-Jakob disease. Itoh Y, et al. **Intern Med** 1998 Oct;37(10):896–900
Composition of the GABA(A) receptors of retinal dopaminergic neurons. Gustincich S, et al. **J Neurosci** 1999 Sep 15;19(18):7812–22
GABA(A) receptors expressed in undifferentiated human teratocarcinoma NT2 cells differ from those expressed by differentiated NT2-N cells. Neelands TR, et al. **J Neurosci** 1999 Aug 15;19(16):7057–65
Postnatal development of GABAA receptor beta1, beta2/3, and gamma2 immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 Jul 15;57(2):185–94
PET and SPECT in medically non-refractory complex partial seizures. Temporal asymmetries of glucose consumption, benzodiazepine receptor density, and blood flow. Matheja P, et al. **Nuklearmedizin** 1998;37(7):221–6
Imaging neurochemistry of cerebrovascular disease with PET and SPECT. Hatazawa J, et al. **Q J Nucl Med** 1998 Sep;42(3):193–8 (35 ref.)
Positron emission tomography receptor studies in epilepsy. Duncan JS. **Rev Neurol (Paris)** 1999 Jul;155(6-7):482–8 (50 ref.)

ANTAGONISTS & INHIBITORS

Molecular structure and stereoelectronic properties of sarmazenil--a weak inverse agonist at the omega modulatory sites (benzodiazepine receptors): comparison with bretazenil and flumazenil. López-Romero B, et al. **Bioorg Med Chem** 1998 Oct;6(10):1745–57
Antagonistic action of pitrazepin on human and rat GABA(A) receptors. Demuro A, et al. **Br J Pharmacol** 1999 May;127(1):57–64
Epileptiform activity generated by endogenous acetylcholine during blockade of GABAergic inhibition in immature and adult rat hippocampus. Gruslin E, et al. **Brain Res** 1999 Jul 24;835(2):290–7
The tyrosine kinase inhibitor genistein directly inhibits GABAA receptors. Huang RQ, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):177–83
The main determinant of furosemide inhibition on GABA(A) receptors is located close to the first transmembrane domain. Jackel C, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2-3):251–6
Rat pup ultrasonic vocalization: effects of benzodiazepine receptor ligands. Olivier B, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):117–28
Effects of the GABA-A receptor agonist and antagonist on the in vitro release of hypothalamic catecholamines: apparent parallelism between these effects and the LHRH secretion in adult male rats. Feleder C, et al. **Exp Clin Endocrinol Diabetes** 1999;107(1):80–4
Interaction of non-competitive blockers within the gamma-aminobutyric acid type A chloride channel using chemically reactive probes as chemical sensors for cysteine mutants. Perret P, et al. **J Biol Chem** 1999 Sep 3; 274(36):25350–4
Altered in vitro and in vivo flumazenil binding in human epileptogenic neocortex. Nagy F, et al. **J Cereb Blood Flow Metab** 1999 Sep;19(9):939–47
Blood-brain barrier transport and protein binding of flumazenil and iomazenil in the rat: implications for neuroreceptor studies. Videbaek C, et al. **J Cereb Blood Flow Metab** 1999 Sep;19(9):948–55
Modulation of American ginseng on brainstem GABAergic effects in rats. Yuan CS, et al. **J Ethnopharmacol** 1998 Oct; 62(3):215–22
Blockade of GABAA receptors facilitates induction of NMDA receptor-independent long-term potentiation. Grover LM, et al. **J Neurophysiol** 1999 Jun;81(6):2814–22
Antisense oligonucleotide to GABA(A) receptor gamma2 subunit induces limbic status epilepticus. Karle J, et al. **J Neurosci Res** 1998 Dec 15;54(6):863–9

Zinc inhibition of gamma-aminobutyric acid(A) receptor function is decreased in the cerebral cortex during pilocarpine-induced status epilepticus. Banerjee PK, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):361-6

Inhibition of GABAA receptor function by tyrosine kinase inhibitors and their inactive analogues. Dunne EL, et al. **Mol Cell Neurosci** 1998 Nov;12(4-5):300-10

Differential blockade of gamma-aminobutyric acid type A receptors by the neuroactive steroid dehydroepiandrosterone sulfate in posterior and intermediate pituitary. Hansen SL, et al. **Mol Pharmacol** 1999 Mar;55(3):489-96

Residues in transmembrane domains I and II determine gamma-aminobutyric acid type AA receptor subtype-selective antagonism by furosemide. Thompson SA, et al. **Mol Pharmacol** 1999 Jun;55(6):993-9

Microinfusions of flumazenil into the basolateral but not the central nucleus of the amygdala enhance memory consolidation in rats. Da Cunha C, et al. **Neurobiol Learn Mem** 1999 Jul;72(1):1-7

Clozapine and several other antipsychotic/antidepressant drugs preferentially block the same 'core' fraction of GABA(A) receptors. Squires RF, et al. **Neurochem Res** 1998 Oct;23(10):1283-90

The vigilance promoting drug modafinil increases extracellular glutamate levels in the medial preoptic area and the posterior hypothalamus of the conscious rat: prevention by local GABAA receptor blockade. Ferraro L, et al. **Neuropsychopharmacology** 1999 Apr;20(4):346-56

Bis(7)-tacrine, a novel dimeric AChE inhibitor, is a potent GABA(A) receptor antagonist. Li CY, et al. **Neuroreport** 1999 Mar 17;10(4):795-800

Strong synergism between GABA(A) and glycine receptors on isolated carp third-order neurons. Li P, et al. **Neuroreport** 1998 Aug 24;9(12):2875-9

Does intravenous administration of GABA(A) receptor antagonists induce both descending antinociception and touch-evoked allodynia? Koyama N, et al. **Pain** 1998 Jun; 76(3):327-36

Effects of S-8510, a benzodiazepine receptor partial inverse agonist, on event-related potentials (P300) in monkeys. Abe K, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):71-6

GABA(A) receptors modulate ethanol-induced conditioned place preference and taste aversion in mice. Chester JA, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):363-72

Picrotoxin in the medial prefrontal cortex impairs sensorimotor gating in rats: reversal by haloperidol. Japha K, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):347-54

The GABA(A) receptor antagonist picrotoxin attenuates most sleep changes induced by progesterone. Lancel M, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):213-9

Blocking GABA(A) receptors in the anterior ventral tegmental area attenuates ethanol intake of the alcohol-preferring P rat. Nowak KL, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1-2):108-16

[Mechanisms of tacrine modulation of the GABA-activated currents in the isolated cerebellar neurons] Kolbaev SN, et al. **Biull Eksp Biol Med** 1999 May;127(5):539-42 **(Rus)**

BIOSYNTHESIS

Mitochondrial peripheral-type benzodiazepine receptor expression. Correlation with gonadotropin-releasing hormone (GnRH) agonist-induced apoptosis in the corpus luteum. Papadopoulos V, et al. **Biochem Pharmacol** 1999 Nov 1;58(9):1389-93

Expression of the GABA(A) receptor gamma 4-subunit gene: anatomical distribution of the corresponding mRNA in the domestic chick forebrain and the effect of imprinting training. Harvey RJ, et al. **Eur J Neurosci** 1998 Sep; 10(9):3024-8

Regulation of GABA(A) receptor alpha1 protein is a sensitive indicator of benzodiazepine agonist efficacy. Johnston JD, et al. **Eur J Pharmacol** 1998 May 8;348(2-3):321-4

Separate domains for desensitization of GABA rho 1 and beta 2 subunits expressed in Xenopus oocytes. Lu L, et al. **J Membr Biol** 1998 Jul 15;164(2):115-24

GnRH agonist treatment decreases progesterone synthesis, luteal peripheral benzodiazepine receptor mRNA, ligand binding and steroidogenic acute regulatory protein expression during pregnancy. Sridaran R, et al. **J Mol Endocrinol** 1999 Feb;22(1):45-54

Properties and sex-specific differences of GABAA receptors in neurons expressing gamma1 subunit mRNA in the preoptic area of the rat. Nett ST, et al. **J Neurophysiol** 1999 Jan;81(1):192-203

Preferential coassembly of alpha4 and delta subunits of the gamma-aminobutyric acidA receptor in rat thalamus. Sur C, et al. **Mol Pharmacol** 1999 Jul;56(1):110-5

Selective changes in single cell GABA(A) receptor subunit expression and function in temporal lobe epilepsy [see comments] [published erratum appears in Nat Med 1999 May;5(5):590] Brooks-Kayal AR, et al. **Nat Med** 1998 Oct; 4(10):1166-72. Comment in: Nat Med 1998 Oct;4(10):1115-6.

GABA(B) receptor activation protects GABA(A) receptor from cyclic AMP-dependent down-regulation in rat cerebellar granule cells. Barilà B, et al. **Neuroscience** 1999; 93(3):1077-82

Benzodiazepine-mediated regulation of alpha1, alpha2, beta1-3 and gamma2 GABA(A) receptor subunit proteins in the rat brain hippocampus and cortex. Chen S, et al. **Neuroscience** 1999;93(1):33-44

Expression of alpha3, beta3 and gamma1 GABA(A) receptor subunit messenger RNAs in visual cortex and lateral geniculate nucleus of normal and monocularly deprived monkeys. Huntsman MM, et al. **Neuroscience** 1998 Nov; 87(2):385-400

Immunohistochemical evidence for dysregulation of the GABAergic system ipsilateral to photochemically induced cortical infarcts in rats. Neumann-Haefelin T, et al. **Neuroscience** 1998 Dec;87(4):871-9

Measurement of GABAergic parameters in the prefrontal cortex in schizophrenia: focus on GABA content, GABA(A) receptor alpha-1 subunit messenger RNA and human GABA transporter-1 (HGAT-1) messenger RNA expression. Ohnuma T, et al. **Neuroscience** 1999;93(2):441-8

Temporal and regional regulation of alpha1, beta2 and beta3, but not alpha2, alpha4, alpha5, alpha6, beta1 or gamma2 GABA(A) receptor subunit messenger RNAs following one-week oral flurazepam administration. Tietz EI, et al. **Neuroscience** 1999;91(1):327-41

Differentially expressed GABAA-receptor subunits result in structurally and functionally receptor assemblies following excitatory afferent synaptic transmission. Grayson DR, et al. **Perspect Dev Neurobiol** 1998;5(2-3):193-205 (72 ref.)

Developmental expression of cerebellar GABAA-receptor subunit mRNAs. Nature versus nurture. Siegel RE. **Perspect Dev Neurobiol** 1998;5(2-3):207-17 (52 ref.)

Peripheral benzodiazepine receptor expression on leukocytes and neutrophil function during anticonvulsant monotherapy. Caldiroli E, et al. **Pharmacology** 1998 Oct; 57(4):215-21

CHEMISTRY

Oxaprozin interference with urinary benzodiazepine immunoassays and noninterference with receptor assay. Nishikawa T, et al. **J Anal Toxicol** 1999 Mar-Apr; 23(2):125-6

A significant part of native gamma-aminobutyric AcidA receptors containing alpha4 subunits do not contain gamma or delta subunits. Bencsits E, et al. **J Biol Chem** 1999 Jul 9;274(28):19613-6

Two invariant tryptophans on the alpha1 subunit define domains necessary for GABA(A) receptor assembly. Srinivasan S, et al. **J Biol Chem** 1999 Sep 17; 274(38):26633-8

Delineation of a membrane-proximal beta-rich domain in the GABAA receptor by progressive deletions. Xue H, et al. **J Mol Biol** 1999 Jan 8;285(1):55-61

GABAA receptor subunit composition and functional properties of Cl- channels with differential sensitivity to zolpidem in embryonic rat hippocampal cells. Maric D, et al. **J Neurosci** 1999 Jun 15;19(12):4921-37

Identification of amino acid residues within GABA(A) receptor beta subunits that mediate both homomeric and heteromeric receptor expression. Taylor PM, et al. **J Neurosci** 1999 Aug 1;19(15):6360-71

The benzodiazepine binding pocket of recombinant alpha1beta2gamma2 gamma-aminobutyric acidA receptors: relative orientation of ligands and amino acid side chains. Sigel E, et al. **Mol Pharmacol** 1998 Dec; 54(6):1097-105

Identification of subunits mediating clustering of GABA(A) receptors by rapsyn. Ebert V, et al. **Neurochem Int** 1999 May;34(5):453-63

Structure and subunit composition of GABA(A) receptors. Sieghart W, et al. **Neurochem Int** 1999 May;34(5):379-85 (71 ref.)

Differentially expressed GABAA-receptor subunits result in structurally and functionally receptor assemblies following excitatory afferent synaptic transmission. Grayson DR, et al. **Perspect Dev Neurobiol** 1998;5(2-3):193-205 (72 ref.)

Distinct structural requirements for the direct and indirect actions of the anaesthetic etomidate at GABA(A) receptors. Moody EJ, et al. **Toxicol Lett** 1998 Nov 23; 100-101:209-15

The molecular mechanism of action of general anesthetics: structural aspects of interactions with GABA(A) receptors. Olsen RW. **Toxicol Lett** 1998 Nov 23;100-101:193-201 (45 ref.)

Functional characteristics of recombinant human GABA(A) receptors containing the epsilon-subunit. Thompson SA, et al. **Toxicol Lett** 1998 Nov 23;100-101:233-8

[Current views on molecular structure of benzodiazepine receptors] Golovko AI, et al. **Vestn Ross Akad Med Nauk** 1999;(7):20-4 (34 ref.) (Eng. Abstr.) **(Rus)**

CLASSIFICATION

The diversity of GABAA receptors. Pharmacological and electrophysiological properties of GABAA channel subtypes. Hevers W, et al. **Mol Neurobiol** 1998 Aug; 18(1):35-86 (428 ref.)

DEFICIENCY

Decreased platelet peripheral-type benzodiazepine receptors in adolescent inpatients with repeated suicide attempts. Soreni N, et al. **Biol Psychiatry** 1999 Aug 15;46(4):484-8

DRUG EFFECTS

Neuroprotective properties of propofol and midazolam, but not pentobarbital, on neuronal damage induced by forebrain ischemia, based on the GABAA receptors. Ito H, et al. **Acta Anaesthesiol Scand** 1999 Feb;43(2):153-62

Direct antagonism of ethanol's effects on GABA(A) receptors by increased atmospheric pressure. Davies DL, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1689-97

Alteration in the sensitivity of GABA(A) receptors to allosteric modulatory drugs in rat hippocampus after chronic intermittent ethanol treatment. Kang MH, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2165-73

Action of ethanol and zolpidem on gamma-aminobutyric acid responses from cerebellar Purkinje neurons: relationship to beta-adrenergic receptor input. Yang X, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1655-61

Actions of fluorinated alkanols on GABA(A) receptors: relevance to theories of narcosis. Ueno S, et al. **Anesth Analg** 1999 Apr;88(4):877-83

Different actions of general anesthetics on the firing patterns of neocortical neurons mediated by the GABA(A) receptor. Antkowiak B. **Anesthesiology** 1999 Aug; 91(2):500-11

Dual actions of volatile anesthetics on GABA(A) IPSCs: dissociation of blocking and prolonging effects [see comments] Banks MI, et al. **Anesthesiology** 1999 Jan; 90(1):120-34. Comment in: Anesthesiology 1999 Jan;90(1):1-3.

Isobolographic analysis of the interactions between midazolam and propofol at GABA(A) receptors in embryonic mouse neurons. McAdam LC, et al. **Anesthesiology** 1998 Dec;89(6):1444-54

Preparation of barbiturate optical isomers and their effects on GABA(A) receptors. Tomlin SL, et al. **Anesthesiology** 1999 Jun;90(6):1714-22

Ganaxolone, a selective, high-affinity steroid modulator of the gamma-aminobutyric acid-A receptor, exacerbates seizures in animal models of absence. Snead OC 3rd. **Ann Neurol** 1998 Oct;44(4):688-91

Molecular and neurochemical evaluation of the effects of etizolam on GABAA receptors under normal and stress conditions. Sanna E, et al. **Arzneimittelforschung** 1999 Feb; 49(2):88-95

Influence of plasma dialysate from normal and renal dysfunction rats on the electroencephalogram and gamma-aminobutyric acid A receptor complex modulation of thiopental. Srivastava K, et al. **Biol Pharm Bull** 1999 Mar;22(3):288-94

Behavioral, neuroendocrine, and cardiovascular response to flumazenil: no evidence for an altered benzodiazepine receptor sensitivity in panic disorder. Ströhle A, et al. **Biol Psychiatry** 1999 Feb 1;45(3):321-6

Potentiation of GABAA receptors expressed in Xenopus oocytes by perfume and phytoncid. Aoshima H, et al. **Biosci Biotechnol Biochem** 1999 Apr;63(4):743-8

Dual mode of stimulation by the beta-carboline ZK 91085 of recombinant GABA(A) receptor currents: molecular determinants affecting its action. Thomet U, et al. **Br J Pharmacol** 1999 Jul;127(5):1231-9

Subunit mutations affect ethanol actions on GABA(A) receptors expressed in Xenopus oocytes. Ueno S, et al. **Br J Pharmacol** 1999 May;127(2):377-82

Influence of gender on chronic ethanol-induced alterations in GABAA receptors in rats. Devaud LL, et al. **Brain Res** 1998 Jun 15;796(1-2):222-30

Postnatal ethanol exposure blunts upregulation of GABAA receptor currents in Purkinje neurons. Hsiao SH, et al. **Brain Res** 1999 Jun 19;832(1-2):124-35

Sulfated and unsulfated steroids modulate gamma-aminobutyric acidA receptor function through distinct sites. Park-Chung M, et al. **Brain Res** 1999 May 29;830(1):72-87

Cocaine and lidocaine have additive inhibitory effects on the GABAA current of acutely dissociated hippocampal pyramidal neurons. Ye JH, et al. **Brain Res** 1999 Mar 6; 821(1):26-32

[(3)H]-girisopam, a novel selective benzodiazepine for the 2, 3-benzodiazepine binding site. Horváth EJ, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):230-5

Modulation of GABA(A) receptor function by neuroactive steroids: evidence for heterogeneity of steroid sensitivity of recombinant GABA(A) receptor isoforms. Maitra R, et al. **Can J Physiol Pharmacol** 1998 Sep;76(9):909-20

Cytotoxic effects of 125I-labeled PBZr ligand PK 11195 in prostatic tumor cells: therapeutic implications. Alenfall J, et al. **Cancer Lett** 1998 Dec 25;134(2):187-92

An electrogenic ionic pump derived from an ionotropic receptor: assessment of a candidate. Rapallino MV, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):681-90

Ligands for the benzodiazepine binding site--a survey. Teuber L, et al. **Curr Pharm Des** 1999 May;5(5):317-43 (300 ref.)

Effects of neurosteroids on spike-wave discharges in the genetic epileptic WAG/Rij rat. Budziszewska B, et al. **Epilepsy Res** 1999 Jan;33(1):23-9

The periaqueductal grey is a critical site in the neuronal network for audiogenic seizures: modulation by GABA(A), NMDA and opioid receptors. N'Gouemo P, et al. **Epilepsy Res** 1999 May;35(1):39-46

Neuroactive steroids induce GABA(A) receptor-mediated depolarizing postsynaptic potentials in hippocampal CA1 pyramidal cells of the rat. Burg M, et al. **Eur J Neurosci** 1998 Sep;10(9):2880-6

Subunit-selective modulation of GABAA receptors by the

non-steroidal anti-inflammatory agent, mefenamic acid. Halliwell RF, et al. **Eur J Neurosci** 1999 Aug; 11(8):2897-905

Pharmacological properties of the GABA(A) receptor complex from brain regions of (hypoemotional) Roman high- and (hyperemotional) low-avoidance rats. Bentareha R, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):91-7

Pharmacological and functional implications of developmentally-regulated changes in GABA(A) receptor subunit expression in the cerebellum. Carlson BX, et al. **Eur J Pharmacol** 1998 Jul 3;352(1):1-14 (135 ref.)

Physiological modulation of GABA(A) receptor plasticity by progesterone metabolites. Concas A, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):225-35

Loreclezole and La3+ differentiate cerebellar granule cell GABA(A) receptor subtypes. Mäkelä R, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):101-5

Effect of muscimol on cholinomimetic-induced cardiovascular responses in rats. Onat F, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):173-81

Benzodiazepine modulation of recombinant alpha1beta3gamma2 GABA(A) receptor function efficacy determination using the Cytosensor microphysiometer. Smith AJ, et al. **Eur J Pharmacol** 1998 Oct 23; 359(2-3):261-9

Midazolam-induced hyperalgesia in rats: modulation via GABA(A) receptors at supraspinal level. Tatsuo MA, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):9-15

A follow-up study of the acute behavioral effects of benzodiazepine-receptor ligands in humans: comparison of quazepam and triazolam. Rush CR, et al. **Exp Clin Psychopharmacol** 1999 Aug;7(3):257-65

Structure-activity relationship investigations of the modulating effect of core substituents on the affinity of pyrazoloquinolinone congeners for the benzodiazepine receptor. Karolak-Wojciechowska J, et al. **Farmaco** 1998 Aug-Sep;53(8-9):579-85

Biosynthesis of progesterone derived neurosteroids by developing avian CNS: in vitro effects on the GABAA receptor complex. Pignataro L, et al. **Int J Dev Neurosci** 1998 Aug;16(5):433-41

Differential effects of GABAA receptor antagonists in the control of respiratory neuronal discharge patterns. Dogas Z, et al. **J Neurophysiol** 1998 Nov;80(5):2368-77

Zinc and flunitrazepam modulation of GABA-mediated currents in rat suprachiasmatic neurons. Strecker GJ, et al. **J Neurophysiol** 1999 Jan;81(1):184-91

Chlorpromazine inhibits miniature GABAergic currents by reducing the binding and by increasing the unbinding rate of GABAA receptors. Mozrzymas JW, et al. **J Neurosci** 1999 Apr 1;19(7):2474-88

Effect of zolpidem on miniature IPSCs and occupancy of postsynaptic GABAA receptors in central synapses. Perrais D, et al. **J Neurosci** 1999 Jan 15;19(2):578-88

Modulatory action of zinc on GABA(A) receptor complex during avian CNS development. Gravielle MC, et al. **J Neurosci Res** 1999 Aug 15;57(4):536-40

Imidazenil, a positive allosteric GABAA receptor modulator, inhibits the effects of cocaine on locomotor activity and extracellular dopamine in the nucleus accumbens shell without tolerance liability. Giorgetti M, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):58-66

Substituted 3beta-phenylethynyl derivatives of 3alpha-hydroxy-5alpha-pregnan-20-one: remarkably potent neuroactive steroid modulators of gamma-aminobutyric acidA receptors. Hawkinson JE, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):198-207

Central GABAA and GABAB receptor modulation of basal and stress-induced plasma interleukin-6 levels in mice. Song DK, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):144-9

Ethanol directly depresses AMPA and NMDA glutamate currents in spinal cord motor neurons independent of actions on GABAA or glycine receptors. Wang MY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):362-7

Modulation of neuronal and recombinant GABAA receptors by redox reagents. Amato A, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):35-50

Olfactory memory in rats, cholinergic agents and benzodiazepine receptor ligands. Anglade F, et al. **J Physiol Paris** 1999 May-Jun;93(3):225-32

Spontaneous and gamma-aminobutyric acid (GABA)-activated GABA(A) receptor channels formed by epsilon subunit-containing isoforms. Neelands TR, et al. **Mol Pharmacol** 1999 Jan;55(1):168-78

Rat and human hippocampal alpha5 subunit-containing gamma-aminobutyric AcidA receptors have alpha5 beta3 gamma2 pharmacological characteristics. Sur C, et al. **Mol Pharmacol** 1998 Nov;54(5):928-33

Acute effects of ethanol on GABAA and glycine receptor function. Mihic SJ. **Neurochem Int** 1999 Aug;35(2):115-23 (89 ref.)

Differential effects of zinc on native GABA(A) receptor function in rat hippocampus and cerebellum. Schmid G, et al. **Neurochem Int** 1999 May;34(5):399-405

The GABA-A receptor gene family: new targets for therapeutic intervention. Whiting PJ. **Neurochem Int** 1999 May;34(5):387-90 (38 ref.)

The GABA(A) receptor complex as a target for fluoxetine action. Tunnicliff G, et al. **Neurochem Res** 1999 Oct; 24(10):1271-6

The endozepine ODN stimulates [3H]thymidine incorporation in cultured rat astrocytes. Gandolfo P, et al. **Neuropharmacology** 1999 May;38(5):725-32

Effects of pregnanolone on behavioural parameters and the responses to GABA(A) receptor antagonists in the late gestation fetal sheep. Nicol MB, et al. **Neuropharmacology** 1999 Jan;38(1):49-63

Increased membrane cholesterol reduces the potentiation of GABA(A) currents by neurosteroids in dissociated hippocampal neurones. Sooksawate T, et al. **Neuropharmacology** 1998 Sep;37(9):1103-10

Benzodiazepines do not modulate desensitization of recombinant alpha1beta2gamma2 GABA(A) receptors. Ghansah E, et al. **Neuroreport** 1999 Mar 17;10(4):817-21

Differential alcohol modulation of GABA(A) and NMDA receptors. Peoples RW, et al. **Neuroreport** 1999 Jan 18; 10(1):97-101

Melatonin potentiates the GABA(A) receptor-mediated current in cultured chick spinal cord neurons. Wu FS, et al. **Neurosci Lett** 1999 Feb 5;260(3):177-80

The expression of GABA(A) receptor alpha2 subunit is upregulated by testosterone in rat cerebral cortex. Zhang L, et al. **Neurosci Lett** 1999 Apr 9;265(1):25-8

Polychlorocycloalkane insecticide action on GABA-and glycine-dependent chloride flux. Suñol C, et al. **Neurotoxicology** 1998 Aug-Oct;19(4-5):573-80 (54 ref.)

GABA excites immature CA3 pyramidal cells through bicuculline-sensitive and -insensitive chloride-dependent receptors. Cherubini E, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):289-304

Ventilatory effects of negative GABA(A) modulators in rhesus monkeys. Gerak LR, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):375-80

Study of the modulatory activity of BZ (omega) receptor ligands on defensive behaviors in mice: evaluation of the importance of intrinsic efficacy and receptor subtype selectivity. Griebel G, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):81-98

Interaction of 3beta, 5alpha-tetrahydrodeoxycorticosterone in rat and guinea-pig neurons: a comparison of Ca2+ - and GABA(A)-Cl- -channel current modulation. ffrench-Mullen JM. **Steroids** 1999 Jan-Feb;64(1-2):76-82

Volatile anesthetics and a volatile convulsant differentially affect GABA(A) receptor-chloride channel complex. Ikemoto Y, et al. **Toxicol Lett** 1998 Nov 23;100-101:225-31 (27 ref.)

Distinct structural requirements for the direct and indirect actions of the anaesthetic etomidate at GABA(A) receptors. Moody EJ, et al. **Toxicol Lett** 1998 Nov 23; 100-101:209-15

The molecular mechanism of action of general anesthetics: structural aspects of interactions with GABA(A) receptors. Olsen RW. **Toxicol Lett** 1998 Nov 23;100-101:193-201 (45 ref.)

General anaesthetics and their effects on GABA(A) receptor desensitization. Orser BA, et al. **Toxicol Lett** 1998 Nov 23;100-101:217-24 (33 ref.)

Neuroactive steroids: potential therapeutic use in neurological and psychiatric disorders. Gasior M, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):107-12 (60 ref.)

[Prevention of recurrent alcoholism with acamprosate. Neurobiological principles and clinical results] Soyka M, et al. **Internist (Berl)** 1999 Mar;40(3):330-6 (27 ref.) **(Ger)**

[Effect of chronic morphine administration on NAD and GABA-benzodiazepine complex receptors in synaptic membranes] Fomenko AI, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):295-8 **(Rus)**

[Characteristics of human lymphocyte benzodiazepine receptors] Lesnichuk SA, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):405-8 **(Rus)**

GENETICS

Association analysis of sequence variants of GABA(A) alpha6, beta2, and gamma2 gene cluster and alcohol dependence. Sander T, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):427-31

No interaction of GABA(A) alpha-1 subunit and dopamine receptor D4 exon 3 genes in symptomatology of major psychoses. Serretti A, et al. **Am J Med Genet** 1999 Feb 5;88(1):44-9

Relationship between a GABAA alpha 6 Pro385Ser substitution and benzodiazepine sensitivity. Iwata N, et al. **Am J Psychiatry** 1999 Sep;156(9):1447-9

Molecular and functional diversity of the expanding GABA-A receptor gene family. Whiting PJ, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:645-53 (46 ref.)

Subunit mutations affect ethanol actions on GABA(A) receptors expressed in Xenopus oocytes. Ueno S, et al. **Br J Pharmacol** 1999 May;127(2):377-82

Regulation of the expression of peripheral benzodiazepine receptors and their endogenous ligands during rat sciatic nerve degeneration and regeneration: a role for PBR in neurosteroidogenesis. Lacor P, et al. **Brain Res** 1999 Jan 2;815(1):70-80

Alterations of GABAA receptor subunit mRNA levels associated with increases in punished responding induced by acute alprazolam administration: an in situ hybridization study. Liu M, et al. **Brain Res** 1999 Mar 20;822(1-2):8-16

Upregulation of GABAA-receptor alpha1- and alpha2-subunit mRNAs following ischemic cortical lesions in rats. Neumann-Haefelin T, et al. **Brain Res** 1999 Jan 16;816(1):234-7

GABA(A) receptor alpha4 subunit in DBA/2J and C57BL/6J mice. Cestari IN, et al. **Brain Res Bull** 1998 Dec;47(6):643-7

Functional characterization and visualization of a GABAA receptor-GFP chimera expressed in Xenopus oocytes. Bueno OF, et al. **Brain Res Mol Brain Res** 1998 Aug 31; 59(2):165-77

Changes in the gene expression of GABAA receptor subunit mRNAs in the septum of rats subjected to pentylenetetrazol-induced kindling. Follesa P, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):1-8

Increased abundance of GABAA receptor subunit mRNAs in the brain of Long-Evans Cinnamon rats, an animal model of Wilson's disease. Follesa P, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):268-75

Search for mutations near the alternatively spliced 8-amino-acid exon in the GABAA receptor gamma 2 subunit gene and lack of allelic association with alcoholism among four aboriginal groups and Han Chinese in Taiwan. Hsu YP, et al. **Brain Res Mol Brain Res** 1998 May; 56(1-2):284-6

GABAA receptor beta 2 and beta 3 subunits mRNA in the hippocampal formation of aged human brain with Alzheimer-related neuropathology. Mizukami K, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):268-72

Transcriptional regulation of GABAA receptor gamma2 subunit gene. Mu W, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):137-47

Transient expression of GABAA receptor subunit mRNAs in the cellular processes of cultured cortical neurons and glia. Poulter MO, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):44-52

Decreased expression of GABAA receptor alpha6 and beta3 subunits in stargazer mutant mice: a possible role for brain-derived neurotrophic factor in the regulation of cerebellar GABAA receptor expression? Thompson CL, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):282-90

Expression of GABA(A) receptor subunits in the hippocampus of the rat after kainic acid-induced seizures. Sperk G, et al. **Epilepsy Res** 1998 Sep;32(1-2):129-39

The intrinsic specification of gamma-aminobutyric acid type A receptor alpha6 subunit gene expression in cerebellar granule cells. Bahn S, et al. **Eur J Neurosci** 1999 Jun; 11(6):2194-8

Expression of the GABA(A) receptor gamma 4-subunit gene: anatomical distribution of the corresponding mRNA in the domestic chick forebrain and the effect of imprinting training. Harvey RJ, et al. **Eur J Neurosci** 1998 Sep; 10(9):3024-8

Cerebellar granule-cell-specific GABAA receptors attenuate benzodiazepine-induced ataxia: evidence from alpha 6-subunit-deficient mice. Korpi ER, et al. **Eur J Neurosci** 1999 Jan;11(1):233-40

Alterations in the expression of GABAA receptor subunits in cerebellar granule cells after the disruption of the alpha6 subunit gene. Nusser Z, et al. **Eur J Neurosci** 1999 May; 11(5):1685-97

The effects of a point mutation of the beta2 subunit of GABA(A) receptor on direct and modulatory actions of general anesthetics. Fukami S, et al. **Eur J Pharmacol** 1999 Mar 5;368(2-3):269-76

Alterations in GABAA receptor alpha 1 and alpha 4 subunit mRNA levels in thalamic relay nuclei following absence-like seizures in rats. Banerjee PK, et al. **Exp Neurol** 1998 Nov;154(1):213-23

Evolution of GABA(A) receptor diversity in the human genome. Russek SJ. **Gene** 1999 Feb 18;227(2):213-22

Immature granule neurons from cerebella of different ages exhibit distinct developmental potentials. Raetzman LT, et al. **J Neurobiol** 1999 Mar;38(4):559-70

Ontogeny of diazepam binding inhibitor/acyl-CoA binding protein mRNA and peripheral benzodiazepine receptor mRNA expression in the rat. Bürgi B, et al. **J Neuroendocrinol** 1999 Feb;11(2):85-100

Human neuronal gamma-aminobutyric acid(A) receptors: coordinated subunit mRNA expression and functional correlates in individual dentate granule cells. Brooks-Kayal AR, et al. **J Neurosci** 1999 Oct 1;19(19):8312-8

Mice lacking the beta3 subunit of the GABAA receptor have the epilepsy phenotype and many of the behavioral characteristics of Angelman syndrome. DeLorey TM, et al. **J Neurosci** 1998 Oct 15;18(20):8505-14

Expression of the GABAA receptor delta subunit is selectively modulated by depolarization in cultured rat cerebellar granule neurons. Gault LM, et al. **J Neurosci** 1997 Apr 1;17(7):2391-9

Composition of the GABA(A) receptors of retinal dopaminergic neurons. Gustincich S, et al. **J Neurosci** 1999 Sep 15;19(18):7812-22

Differential expression of alpha1, alpha2, alpha3, and alpha5 GABAA receptor subunits in seizure-prone and seizure-resistant rat models of temporal lobe epilepsy. Poulter MO, et al. **J Neurosci** 1999 Jun 1;19(11):4654-61

Comparative analysis of multiple receptor subunit mRNA in micropunches obtained from different brain regions using a competitive RT-PCR method. Durgam VR, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):33-40

A synthetic standard for competitive RT-PCR quantitation of 13 GABA receptor type A subunit mRNAs in rats and mice. Liu ZF, et al. **J Neurosci Methods** 1998 Nov 1; 85(1):89-98

Acute pentylenetetrazol injection reduces rat GABAA receptor mRNA levels and GABA stimulation of benzodiazepine binding with No effect on benzodiazepine binding site density. Walsh LA, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1626–33

Decreased benzodiazepine binding with little effect on gamma-aminobutyric acid binding in rat brain after treatment with antisense oligodeoxynucleotide to the gamma-aminobutyric acidA receptor gamma-2 subunit. Zhao TJ, et al. **J Pharmacol Exp Ther** 1998 Nov; 287(2):752–9

GABAA receptor subunit gamma2 and delta subtypes confer unique kinetic properties on recombinant GABAA receptor currents in mouse fibroblasts. Haas KF, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):27–45

Genomic mapping and evolution of human GABA(A) receptor subunit gene clusters. Bailey ME, et al. **Mamm Genome** 1999 Aug;10(8):839–43

Genetic association of a GABA(A) receptor gamma2 subunit variant with severity of acute physiological dependence on alcohol. Buck KJ, et al. **Mamm Genome** 1998 Dec; 9(12):975–8

Subcellular localization and endocytosis of homomeric gamma2 subunit splice variants of gamma-aminobutyric acid type A receptors. Connolly CN, et al. **Mol Cell Neurosci** 1999 Apr;13(4):259–71

Duplication of the Rdl GABA receptor subunit gene in an insecticide-resistant aphid, Myzus persicae. Anthony N, et al. **Mol Gen Genet** 1998 Nov;260(2–3):165–75

A gene promotes anxiety in mice–and also in scientists [news] McNaughton N. **Nat Med** 1999 Oct;5(10):1131–2

Anxiety: at the intersection of genes and experience [news; comment] Anagnostaras SG, et al. **Nat Neurosci** 1999 Sep; 2(9):780–2. Comment on: Nat Neurosci 1999 Sep;2(9):833–9.

Effects of progesterone or neuroactive steroid? [letter; comment] Morrow AL, et al. **Nature** 1998 Oct 15; 395(6703):652–3. Comment on: Nature 1998 Apr 30;392(6679):926–30.

Heterodimerization is required for the formation of a functional GABA(B) receptor [see comments] White JH, et al. **Nature** 1998 Dec 17;396(6712):679–82. Comment in: Nature 1998 Dec 17;396(6712):629–30.

Portacaval anastomosis causes selective alterations of peripheral-type benzodiazepine receptor expression in rat brain and peripheral tissues. Desjardins P, et al. **Neurochem Int** 1999 Oct;35(4):293–9

Pharmacologic and therapeutic aspects of the developmentally regulated expression of GABA(A) and GABA(B) receptors: cerebellar granule cells as a model system. Schousboe A. **Neurochem Int** 1999 May;34(5):373–7 (50 ref.)

The GABA-A receptor gene family: new targets for therapeutic intervention. Whiting PJ. **Neurochem Int** 1999 May;34(5):387–90 (38 ref.)

Arginine residue 120 of the human GABAA receptor alpha 1, subunit is essential for GABA binding and chloride ion current gating. Westh-Hansen SE, et al. **Neuroreport** 1999 Aug 2;10(11):2417–21

Temporal modulation of GABA(A) receptor subunit gene expression in developing monkey cerebral cortex. Huntsman MM, et al. **Neuroscience** 1999;91(4):1223–45

GABA(A) receptor subunit messenger RNA expression in the enteric nervous system of the rat: implications for functional diversity of enteric GABA(A) receptors. Poulter MO, et al. **Neuroscience** 1999;93(3):1159–65

Change in mRNAs for neuropeptides and the GABA(A) receptor in dorsal root ganglion neurons in a rat experimental neuropathic pain model. Fukuoka T, et al. **Pain** 1998 Oct;78(1):13–26

Developmental expression of cerebellar GABAA-receptor subunit mRNAs. Nature versus nurture. Siegel RE. **Perspect Dev Neurobiol** 1998;5(2–3):207–17 (52 ref.)

theta, a novel gamma-aminobutyric acid type A receptor subunit. Bonnert TP, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9891–6

Altered ratios of alternatively spliced long and short gamma2 subunit mRNAs of the gamma-amino butyrate type A receptor in prefrontal cortex of schizophrenics. Huntsman MM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8; 95(25):15066–71

Hormone-dependent regulation of GABAA receptor gamma subunit mRNAs in sexually dimorphic regions of the rat brain. Clark AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1853–9

Genotyping microsatellite polymorphisms by agarose gel electrophoresis with ethidium bromide staining: application to quantitative trait loci analysis of seizure susceptibility in mice. Ferraro TN, et al. **Psychiatr Genet** 1998 Winter; 8(4):227–33

GABAA alpha-1 subunit gene not associated with depressive symptomatology in mood disorders. Serretti A, et al. **Psychiatr Genet** 1998 Winter;8(4):251–4

D2 dopamine receptor and GABA(A) receptor beta3 subunit genes and alcoholism. Noble EP, et al. **Psychiatry Res** 1998 Nov 16;81(2):133–47

IMMUNOLOGY

GABA(A) receptors mediate inhibition of T cell responses. Tian J, et al. **J Neuroimmunol** 1999 Apr 1;96(1):21–8

METABOLISM

The expression of GABA(A) receptors during the development of the rabbit retina. Hu M, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):515–20

Activation of GABAA but not GABAB receptors in the NTSblocked bradycardia of chemoreflex in awake rats. Callera JC, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1902–10

Alterations of benzodiazepine receptors in type II alcoholic subjects measured with SPECT and [123I]iomazenil. Abi-Dargham A, et al. **Am J Psychiatry** 1998 Nov; 155(11):1550–5

Effects of temperature and volatile anesthetics on GABA(A) receptors. Jenkins A, et al. **Anesthesiology** 1999 Feb; 90(2):484–91

Changes in GABAA receptor-mediated synaptic transmission in oxytocin neurons during female reproduction: plasticity in a neuroendocrine context. Brussaard AB, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:677–80

Effect of amygdala kindling on emotional behavior and benzodiazepine receptor binding in rats. Kalynchuk LE, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:737–41

Activity-dependent regulation of GABAA receptors. Penschuck S, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:654–66

Postsynaptic colocalization of gephyrin and GABAA receptors. Sassoè-Pognetto M, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:693–6

Structural requirements for the interaction of unsaturated free fatty acids with recombinant human GABAA receptor complexes. Witt MR, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:697–700

Asymmetries of benzodiazepine receptor binding potential in the inferior medial temporal lobe and cerebellum detected with 123I-iomazenil SPECT in comparison with 99mTc-HMPAO SPECT in patients with partial epilepsy. Kuji I, et al. **Ann Nucl Med** 1998 Aug;12(4):185–90

Synthesis, physicochemical properties, anticonvulsant activities, and GABA-ergic and voltage-sensitive calcium channel receptor affinities of alpha-substituted N-benzylamides of gamma-hydroxybutyric acid. Part 4: Search for new anticonvulsant compounds. Malawska B, et al. **Arch Pharm (Weinheim)** 1999 May;332(5):167–74

Cerebellar granule cell GABA(A) receptors studied at the single-channel level: modulation by protein kinase G. Robello M, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):768–73

6-Methyl-3'-bromoflavone, a high-affinity ligand for the benzodiazepine binding site of the GABA(A) receptor with some antagonistic properties. Viola H, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):643–6

Interaction of anisatin with rat brain gamma-aminobutyric acidA receptors: allosteric modulation by competitive antagonists. Kakemoto E, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):617–21

Effect of 1-(2-chlorophenyl)-N-methyl-N-(1-methylpropyl)-3-isoquinoline carboxamide (PK11195), a specific ligand of the peripheral benzodiazepine receptor, on the lipid fluidity of mitochondria in human glioma cells. Miccoli L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):715–21

Quantitative structure-activity relationship studies on some nonbenzodiazepine series of compounds acting at the benzodiazepine receptor. Gupta SP, et al. **Bioorg Med Chem** 1998 Nov;6(11):2213–8

Adaptive changes in the pharmacodynamics of midazolam in different experimental models of epilepsy: kindling, cortical stimulation and genetic absence epilepsy. Cleton A, et al. **Br J Pharmacol** 1998 Oct;125(4):615–20

Flunitrazepam rapidly reduces GABA(A) receptor subunit protein expression via a protein kinase C-dependent mechanism. Johnston JD, et al. **Br J Pharmacol** 1998 Aug; 124(7):1338–40

Reduced levels of GABA-benzodiazepine receptor in alcohol dependency in the absence of grey matter atrophy. Lingford-Hughes AR, et al. **Br J Psychiatry** 1998 Aug; 173:116–22

Propofol modulation of [3H]flunitrazepam binding to GABAA receptors in guinea pig cerebral cortex. Bruner KR, et al. **Brain Res** 1998 Sep 21;806(1):122–5

Fluorescence imaging of GABAA receptor-mediated intracellular [Cl-] in P19-N cells reveals unique pharmacological properties. Chistina Grobin A, et al. **Brain Res** 1999 May 8;827(1–2):1–11

Modulation of GABAergic receptor binding by activation of calcium and calmodulin-dependent kinase II membrane phosphorylation. Churn SB, et al. **Brain Res** 1998 Oct 26; 809(1):68–76

Influence of gender on chronic ethanol-induced alterations in GABAA receptors in rats. Devaud LL, et al. **Brain Res** 1998 Jun 15;796(1–2):222–30

Development of GABAA receptors on medial septum/diagonal band (MS/DB) neurons after postnatal ethanol exposure. Hsiao SH, et al. **Brain Res** 1998 Nov 9;810(1–2):100–13

Modulation of acetylcholine release via GABAA and GABAB receptors in rat striatum. Ikarashi Y, et al. **Brain Res** 1999 Jan 16;816(1):238–40

Subunit dependent modulation of GABAA receptor function by neuroactive steroids. Maitra R, et al. **Brain Res** 1999 Feb 20;819(1–2):75–82

An investigation on the role of nitric oxide in the modulation of the binding characteristics of various radioligands of GABAA receptors by 5alpha-pregnan-3alpha-ol-20-one in the rat brain regions. Mehta AK, et al. **Brain Res** 1999 Jun 19;832(1–2):164–7

Bihemispheric reduction of GABAA receptor binding following focal cortical photothrombotic lesions in the rat brain. Qü M, et al. **Brain Res** 1998 Dec 7;813(2):374–80

Phosphorylation of the GABAA receptor gamma2L subunit in rat sensory neurons may not be necessary for ethanol sensitivity. Zhai J, et al. **Brain Res** 1998 Sep 14; 805(1–2):116–22

Effect of surgical stress on benzodiazepine receptors as a consequence of placebo pellet implantation in rat: an autoradiographic study. Revilla V, et al. **Brain Res Bull** 1999 Aug;49(6):413–8

Neurosteroid modulation of the GABAA receptor in the developing guinea pig cerebral cortex. Bailey CD, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):21–8

Neuronal activity influences the growth of barrels in developing rat primary somatosensory cortex without affecting the expression pattern of four major GABAA receptor alpha subunits. Penschuck S, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):117–27

Evidence for a diazepam-binding inhibitor (DBI) benzodiazepine receptor-like mechanism in ecdysteroidogenesis by the insect prothoracic gland. Snyder MJ, et al. **Cell Tissue Res** 1998 Oct;294(1):161–8

Ligands for the benzodiazepine binding site--a survey. Teuber L, et al. **Curr Pharm Des** 1999 May;5(5):317–43 (300 ref.)

Developmental expression of the peripheral-type benzodiazepine receptor and the advent of steroidogenesis in rat adrenal glands. Zilz A, et al. **Endocrinology** 1999 Feb;140(2):859–64

Flow cytometry assay of peripheral benzodiazepine receptors (pBZrs) on leukocytes following carbamazepine treatment. Gritti D, et al. **Eur J Histochem** 1997;41 Suppl 2:111–2

Subunit-selective modulation of GABAA receptors by the non-steroidal anti-inflammatory agent, mefenamic acid. Halliwell RF, et al. **Eur J Neurosci** 1999 Aug; 11(8):2897–905

Ovarian steroids and stress produce changes in peripheral benzodiazepine receptor density. Bitran D, et al. **Eur J Pharmacol** 1998 Nov 20;361(2–3):235–42

Binding characteristics of [3H]DAA1106, a novel and selective ligand for peripheral benzodiazepine receptors. Chaki S, et al. **Eur J Pharmacol** 1999 Apr 29; 371(2–3):197–204

A threonine residue in the M2 region of the beta1 subunit is needed for expression of functional alpha1beta1 GABA(A) receptors. Dalziel JE, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):345–8

Changes of benzodiazepine receptors during chronic benzodiazepine administration in humans. Fujita M, et al. **Eur J Pharmacol** 1999 Mar 5;368(2–3):161–72

Chicken GABA(A) receptor beta4 subunits form robust homomeric GABA-gated channels in Xenopus oocytes. Liu SC, et al. **Eur J Pharmacol** 1998 Aug 7;354(2–3):253–9

[3H]t-butylbicycloorthobenzoate binding to recombinant alpha1beta2gamma2s GABA(A) receptor. Pericić D, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):99–104

Amino acid residue 200 on the alpha1 subunit of GABA(A) receptors affects the interaction with selected benzodiazepine binding site ligands. Schaerer MT, et al. **Eur J Pharmacol** 1998 Aug 7;354(2–3):283–7

A molecular model for the synergic interaction between gamma-aminobutyric acid and general anaesthetics. Van Rijn CM, et al. **Eur J Pharmacol** 1999 Apr 29; 371(2–3):213–26

Comparison of the rat dorsal and ventral striatopallidal system. A study using the GABA(A)-receptor alpha1-subunit and parvalbumin immunolabeling. Riedel A, et al. **Exp Brain Res** 1998 Jul;121(2):215–21

The effects of superoxide and the peripheral benzodiazepine receptor ligands on the mitochondrial processing of manganese-dependent superoxide dismutase. Wright G, et al. **Exp Cell Res** 1999 Feb 1;246(2):443–50

Benzodiazepine receptor function in the chick social separation-stress procedure. Watson GS, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):83–9

Partial restoration of striatal GABAA receptor balance by functional mesencephalic dopaminergic grafts in mice with hereditary parkinsonism. Stasi K, et al. **Exp Neurol** 1999 Jun;157(2):259–67

Gamma-aminobutyric acid (GABA) A and B receptors mediate the stimulatory effects of GABA on the human sperm acrosome reaction: interaction with progesterone. Calogero AE, et al. **Fertil Steril** 1999 May;71(5):930–6

Activation of protein kinase C induces gamma-aminobutyric acid type A receptor internalization in Xenopus oocytes. Chapell R, et al. **J Biol Chem** 1998 Dec 4;273(49):32595–601

A GABAA receptor alpha1 subunit tagged with green fluorescent protein requires a beta subunit for functional surface expression. Connor JX, et al. **J Biol Chem** 1998 Oct 30;273(44):28906–11

Cloning and characterization of PRAX-1. A new protein that specifically interacts with the peripheral benzodiazepine receptor. Galiègue S, et al. **J Biol Chem** 1999 Jan 29;274(5):2938–52

Interaction of non-competitive blockers within the gamma-aminobutyric acid type A chloride channel using

chemically reactive probes as chemical sensors for cysteine mutants. Perret P, et al. **J Biol Chem** 1999 Sep 3; 274(36):25350-4

Structural elements of the gamma-aminobutyric acid type A receptor conferring subtype selectivity for benzodiazepine site ligands. Renard S, et al. **J Biol Chem** 1999 May 7;274(19):13370-4

Development of GABA, glycine, and their receptors in the auditory brainstem of gerbil: a light and electron microscopic study. Korada S, et al. **J Comp Neurol** 1999 Jul 12;409(4):664-81

Benzodiazepine receptor ligands. 4. Synthesis and pharmacological evaluation of 3-heteroaryl-8-chloropyrazolo[5,1-c][1,2,4] benzotriazine 5-oxides. Costanzo A, et al. **J Med Chem** 1999 Jun 17; 42(12):2218-26

Predictive models for GABAA/benzodiazepine receptor subtypes: studies of quantitative structure-activity relationships for imidazobenzodiazepines at five recombinant GABAA/benzodiazepine receptor subtypes [alphaxbeta3gamma2 (x = 1-3, 5, and 6)] via comparative molecular field analysis. Huang Q, et al. **J Med Chem** 1998 Oct 8;41(21):4130-42

Piperazine imidazo[1,5-a]quinoxaline ureas as high-affinity GABAA ligands of dual functionality. Jacobsen EJ, et al. **J Med Chem** 1999 Apr 8;42(7):1123-44

Novel 2-phenylimidazo[1,2-a]pyridine derivatives as potent and selective ligands for peripheral benzodiazepine receptors: synthesis, binding affinity, and in vivo studies. Trapani G, et al. **J Med Chem** 1999 Sep 23;42(19):3934-41

Increased benzodiazepine receptor density in the prefrontal cortex in patients with panic disorder. Brandt CA, et al. **J Neural Transm** 1998;105(10-12):1325-33

Discrepancy of benzodiazepine receptor occupancy between 3H-flumazenil and 125I-iomazenil in intact mouse brain. Hosoi R, et al. **J Neural Transm** 1999;106(3-4):243-56

Changes in serotonin2A and GABA(A) receptors in schizophrenia: studies on the human dorsolateral prefrontal cortex. Dean B, et al. **J Neurochem** 1999 Apr;72(4):1593-9

Calcium released from intracelluiar stores inhibits GABAA-mediated currents in ganglion cells of the turtle retina. Akopian A, et al. **J Neurophysiol** 1998 Sep; 80(3):1105-15

Synaptic activation of GABAA receptors induces neuronal uptake of Ca2+ in adult rat hippocampal slices. Autere AM, et al. **J Neurophysiol** 1999 Feb;81(2):811-6

Defining affinity with the GABAA receptor. Jones MV, et al. **J Neurosci** 1998 Nov 1;18(21):8590-604

Native gamma-aminobutyric acid type A receptors from rat hippocampus, containing both alpha 1 and alpha 5 subunits, exhibit a single benzodiazepine binding site with alpha 5 pharmacological properties. Araujo F, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):989-97

Acute pentylenetetrazol injection reduces rat GABAA receptor mRNA levels and GABA stimulation of benzodiazepine binding with No effect on benzodiazepine binding site density. Walsh LA, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1626-33

Modulation of neuronal and recombinant GABAA receptors by redox reagents. Amato A, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):35-50

GABAA receptor subunit gamma2 and delta subtypes confer unique kinetic properties on recombinant GABAA receptor currents in mouse fibroblasts. Haas KF, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):27-45

Plasma concentrations of endogenous benzodiazepine-receptor ligands in patients with hepatic encephalopathy: a comparative study. Hernández-Avila CA, et al. **J Psychiatry Neurosci** 1998 Sep;23(4):217-22

The interaction of chlorinated alicyclic insecticides with brain GABA(A) receptors in channel catfish (Ictalurus punctatus). Carr RL, et al. **J Toxicol Environ Health** 1999 Apr 23;56(8):543-53

Changes in benzodiazepine receptor binding detected with SPECT in patients with cerebral infarction. Itoh Y, et al. **Keio J Med** 1998 Sep;47(3):168-73

Temperature dependence and GABA modulation of beta-carboline binding to rat cerebellum benzodiazepine receptors. Gessi S, et al. **Life Sci** 1999;64(16):PL185-92

Peripheral type benzodiazepine receptor in T lymphocyte rich preparation. Maeda S, et al. **Life Sci** 1998; 63(16):1423-30

Age-related changes in septal serotonergic, GABAergic and glutamatergic facilitation of retention in SAMP8 mice. Flood JF, et al. **Mech Ageing Dev** 1998 Sep 15; 105(1-2):173-88

Plasma and CSF benzodiazepine receptor ligand concentrations in cirrhotic patients with hepatic encephalopathy: relationship to severity of encephalopathy and to pharmaceutical benzodiazepine intake. Perney P, et al. **Metab Brain Dis** 1998 Sep;13(3):201-10

[3H]-GABA binding to GABAA and GABAB sites on rat brain crude synaptic membranes. Bruton R, et al. **Methods Mol Biol** 1999;106:27-35 (16 ref.)

Measurement of brain GABA-benzodiazepine receptor levels in vivo using emission tomography. Lingford-Hughes A, et al. **Methods Mol Biol** 1999;106:119-36 (24 ref.)

Tagetone modulates the coupling of flunitrazepam and GABA binding sites at GABAA receptor from chick brain membranes. Perillo MA, et al. **Mol Membr Biol** 1999 Apr-Jun;16(2):189-94

Mutagenesis of the rat alpha1 subunit of the gamma-aminobutyric acid(A) receptor reveals the importance of residue 101 in determining the allosteric effects of benzodiazepine site ligands. Dunn SM, et al. **Mol Pharmacol** 1999 Oct;56(4):768-74

Postnatal development of hippocampal dentate granule cell gamma-aminobutyric acidA receptor pharmacological properties. Kapur J, et al. **Mol Pharmacol** 1999 Mar; 55(3):444-52

Incorporation of the pi subunit into functional gamma-aminobutyric Acid(A) receptors. Neelands TR, et al. **Mol Pharmacol** 1999 Sep;56(3):598-610

The alpha9 nicotinic acetylcholine receptor shares pharmacological properties with type A gamma-aminobutyric acid, glycine, and type 3 serotonin receptors. Rothlin CV, et al. **Mol Pharmacol** 1999 Feb; 55(2):248-54

Rat and human hippocampal alpha5 subunit-containing gamma-aminobutyric AcidA receptors have alpha5 beta3 gamma2 pharmacological characteristics. Sur C, et al. **Mol Pharmacol** 1998 Nov;54(5):928-33

Adjacent phosphorylation sites on GABAA receptor beta subunits determine regulation by cAMP-dependent protein kinase. McDonald BJ, et al. **Nat Neurosci** 1998 May; 1(1):23-8

GABA(A)-receptor-associated protein links GABA(A) receptors and the cytoskeleton. Wang H, et al. **Nature** 1999 Jan 7;397(6714):69-72

Chronic D1 and D2 dopaminomimetic treatment of MPTP-denervated monkeys: effects on basal ganglia GABA(A)/benzodiazepine receptor complex and GABA content. Calon F, et al. **Neurochem Int** 1999 Jul;35(1):81-91

Equilibrium binding characteristics of [3H]thiomuscimol. Ebert B, et al. **Neurochem Int** 1999 May;34(5):427-34

GABAergic neurons and GABA(A)-receptors in temporal lobe epilepsy. Fritschy JM, et al. **Neurochem Int** 1999 May; 34(5):435-45

Bimodal action of furosemide on convulsant [3H]EBOB binding to cerebellar and cortical GABA(A) receptors. Maksay G, et al. **Neurochem Int** 1998 Oct;33(4):353-8

No evidence of altered in vivo benzodiazepine receptor binding in schizophrenia. Abi-Dargham A, et al. **Neuropsychopharmacology** 1999 Jun;20(6):650-61

Regional differences in the inhibition of mouse in vivo [3H]Ro 15-1788 binding reflect selectivity for alpha 1 versus alpha 2 and alpha 3 subunit-containing GABAA receptors. Atack JR, et al. **Neuropsychopharmacology** 1999 Mar;20(3):255-62

Platelet peripheral-type benzodiazepine in pregnancy and lactation. Weizman A, et al. **Neuropsychopharmacology** 1999 Oct;21(4):513-8

Arginine residue 120 of the human GABAA receptor alpha 1, subunit is essential for GABA binding and chloride ion current gating. Westh-Hansen SE, et al. **Neuroreport** 1999 Aug 2;10(11):2417-21

Sensitivity of the rat hippocampal GABA(A) receptor alpha 4 subunit to electroshock seizures. Clark M. **Neurosci Lett** 1998 Jun 26;250(1):17-20

Chronic exposure of rat primary astrocyte cultures to manganese results in increased binding sites for the 'peripheral-type' benzodiazepine receptor ligand 3H-PK 11195. Hazell AS, et al. **Neurosci Lett** 1999 Aug 13; 271(1):5-8

Differential localization of GABA(A) receptor alpha and beta subunits in the hamster retina and relationship with glutamic acid decarboxylase immunoreactivity. Lee YL, et al. **Neurosci Lett** 1998 May 22;248(1):29-32

Characterization of benzodiazepine receptor binding following kainic acid administration: an autoradiography study in rats. Rocha L, et al. **Neurosci Lett** 1999 Mar 12; 262(3):211-4

EDPC: a novel high affinity ligand for the benzodiazepine site on rat GABA(A) receptors. Thomet U, et al. **Neurosci Lett** 1999 Jul 9;269(2):63-6

Age-related changes in GABA(A) receptor subunit composition and function in rat auditory system. Caspary DM, et al. **Neuroscience** 1999;93(1):307-12

Ambiguous respiratory neurons are modulated by GABA(A) receptor-mediated inhibition. Yajima Y, et al. **Neuroscience** 1999 Apr;90(1):249-57

GABAA receptor subunit mRNAs in rat superior cervical ganglia. Liu ZF, et al. **Pharmacology** 1999 Jan;58(1):51-8

Alcohol intake and brain [3H]muscimol binding sites in alcohol-preferring and non-preferring rats. Dyr W, et al. **Pol J Pharmacol** 1999 Mar-Apr;51(2):119-23

Role of brain allopregnanolone in the plasticity of gamma-aminobutyric acid type A receptor in rat brain during pregnancy and after delivery. Concas A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13284-9

Peripheral-type benzodiazepine receptors in diagnostic subtypes of schizophrenic patients. Wodarz N, et al. **Psychiatry Res** 1998 Dec 14;81(3):363-9

In vivo and in vitro hyperbaric studies in mice suggest novel sites of action for ethanol. Davies DL, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):339-50

The role of GABA(A) receptors in the acute and chronic effects of ethanol. Grobin AC, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1-2):2-19 (224 ref.)

Discriminative stimulus effects of ethyl-beta-carboline-3-carboxylate at two training doses in rats. Rowlett JK, et al. **Psychopharmacology (Berl)** 1999 Aug;145(3):324-32

Evaluation of neuronal loss in adult moyamoya disease by 123I-iomazenil SPECT. Sato S, et al. **Surg Neurol** 1999 Feb;51(2):158-63

Regional and temporal expression of the peripheral benzodiazepine receptor in MPTP neurotoxicity. Kuhlmann AC, et al. **Toxicol Sci** 1999 Mar;48(1):107-16

[Changes in gamma-amino-butyric acid and N-methyl-D-aspartic acid receptor-gated currents from freshly isolated hippocampal CA1 pyramidal neurons of hepatic encephalopathy rats] Zhang Z, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jun;77(6):439-42 (Eng. Abstr.) **(Chi)**

[Functional imaging in idiopathic generalized epilepsy] Ryvlin P, et al. **Rev Neurol (Paris)** 1998 Oct;154(10):691-3 (13 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Acetazolamide and amiloride inhibit pentobarbital-induced facilitation of nocifensive reflexes. Archer DP, et al. **Anesthesiology** 1999 Apr;90(4):1158-64

GABAA and GABAB modulations of synaptic transmission between L1-L2 locomotor network and the motoneurons in the newborn rat isolated spinal cord. Bertrand S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:470-1

Expression of functional GABAA receptors in isolated human insulinoma cells. Glassmeier G, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:241-8

Role of the basolateral amygdala in panic disorder. Shekhar A, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:747-50

Influence of progesterone and GABAA receptor on calcium mobilization during human sperm acrosome reaction. Kuroda Y, et al. **Arch Androl** 1999 May-Jun;42(3):185-91

Ethanol, GABA and epilepsy. Brailowsky S, et al. **Arch Med Res** 1999 Jan-Feb;30(1):3-9 (62 ref.)

GABA(A), D1, and D5, but not progestin receptor, antagonist and anti-sense oligonucleotide infusions to the ventral tegmental area of cycling rats and hamsters attenuate lordosis. Frye CA, et al. **Behav Brain Res** 1999 Aug;103(1):23-34

Feeding induced by GABA(A) receptor stimulation within the nucleus accumbens shell: regional mapping and characterization of macronutrient and taste preference. Basso AM, et al. **Behav Neurosci** 1999 Apr;113(2):324-36

Peripheral-type benzodiazepine receptors in the regulation of proliferation of MCF-7 human breast carcinoma cell line. Carmel I, et al. **Biochem Pharmacol** 1999 Jul 15; 58(2):273-8

A single amino acid confers barbiturate sensitivity upon the GABA rho 1 receptor. Belelli D, et al. **Br J Pharmacol** 1999 Jun;127(3):601-4

Pharmacological modulation of GABA(A) receptor-mediated postsynaptic potentials in the CA1 region of the rat hippocampus. Manuel NA, et al. **Br J Pharmacol** 1998 Dec;125(7):1529-42

Mutation at the putative GABA(A) ion-channel gate reveals changes in allosteric modulation. Thompson SA, et al. **Br J Pharmacol** 1999 Jul;127(6):1349-58

Effects of repeated amphetamine treatment on regional GABAA receptor binding. Gruen RJ, et.al. **Brain Res** 1999 Apr 17;825(1-2):180-2

Modulation of GABAA receptor-mediated inhibition by postsynaptic calcium in epileptic hippocampal neurons. Isokawa M. **Brain Res** 1998 Nov 9;810(1-2):241-50

The role of dorsal striatal GABA(A) receptors in dopamine agonist-induced behavior and neuropeptide gene expression. Jones EA, et al. **Brain Res** 1999 Jul 31; 836(1-2):99-109

Cholinergic cell expression in the developing rat medial septal nucleus in vitro is differentially controlled by GABAA and GABAB receptors. Kenigsberg RL, et al. **Brain Res** 1998 Sep 14;805(1-2):123-30

Temperature-dependent effect of zolpidem on the GABAA receptor-mediated response at recombinant human GABAA receptor subtypes. Munakata M, et al. **Brain Res** 1998 Oct 5;807(1-2):199-202

Blockade of GABAA receptors in the medial ventral pallidum elicits feeding in satiated rats. Stratford TR, et al. **Brain Res** 1999 Apr 17;825(1-2):199-203

Cerebellar GABA(A) receptors and anxiolytic action of diazepam. Vekovischeva OY, et al. **Brain Res** 1999 Aug 7;837(1-2):184-7

Waglerin-1 inhibits GABA(A) current of neurons in the nucleus accumbens of neonatal rats. Ye JH, et al. **Brain Res** 1999 Aug 7;837(1-2):29-37

An update on GABAA receptors. Mehta AK, et al. **Brain Res Brain Res Rev** 1999 Apr;29(2-3):196-217 (370 ref.)

GABAa receptor-mediated field potentials are enhanced in area CA1 following prenatal cocaine exposure. Little JZ, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):115-9

Developmental study of miniature IPSCs of CA3 hippocampal cells: modulation by midazolam. Rovira C, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):79-88

In vivo studies on the role of the peripheral benzodiazepine receptor (PBR) in steroidogenesis. Papadopoulos V, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):479-87

Peripheral-type benzodiazepine receptor function in cholesterol transport. Identification of a putative cholesterol recognition/interaction amino acid sequence and consensus pattern. Li H, et al. **Endocrinology** 1998 Dec; 139(12):4991-7

Acute cellular alterations in the hippocampus after status

epilepticus. Macdonald RL, et al. **Epilepsia** 1999;40 Suppl 1:S9-20; discussion S21-2 (65 ref.)

GABA(A) receptor function in epileptic human dentate granule cells: comparison to epileptic and control rat. Shumate MD, et al. **Epilepsy Res** 1998 Sep;32(1-2):114-28

Relationships between trait and state anxiety and the central benzodiazepine receptor: a PET study. Abadie P, et al. **Eur J Neurosci** 1999 Apr;11(4):1470-8

Can GABAA conductances explain the fast oscillation frequency of absence seizures in rodents? Destexhe A. **Eur J Neurosci** 1999 Jun;11(6):2175-81

Molecular and functional adaptation of the GABA(A) receptor complex during pregnancy and after delivery in the rat brain. Follesa P, et al. **Eur J Neurosci** 1998 Sep; 10(9):2905-12

Stimulation of benzodiazepine receptors in the dorsal hippocampus and median raphé reveals differential GABAergic control in two animal tests of anxiety. Gonzalez LE, et al. **Eur J Neurosci** 1998 Dec; 10(12):3673-80

Intracellular calcium stores modulate miniature GABA-mediated synaptic currents in neonatal rat hippocampal neurons. Savić N, et al. **Eur J Neurosci** 1998 Nov;10(11):3379-86

Effects of antidepressants and benzodiazepine treatments on the dendritic structure of CA3 pyramidal neurons after chronic stress. Magariños AM, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):113-22

Inhibitory regulation of amylase release in rat parotid acinar cells by benzodiazepine receptors. Okubo M, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):243-9

Possible role of Ca2+ channels in the vasodilating effect of 5beta-dihydrotestosterone in rat aorta. Perusquia M, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):169-78

Effects of bilobalide on gamma-aminobutyric acid levels and glutamic acid decarboxylase in mouse brain. Sasaki K, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):165-73

GABA(A) receptor modulates the activity of inner hair cell afferents in guinea pig cochlea. Arnold T, et al. **Hear Res** 1998 Nov;125(1-2):147-53

The role of gamma-aminobutyric acid (GABA)-benzodiazepine neurotransmission in an animal model of methamphetamine-induced psychosis. Ito K. **Hokkaido Igaku Zasshi** 1999 Mar;74(2):135-44

Signal transmission in ligand-gated receptors. Gage PW. **Immunol Cell Biol** 1998 Oct;76(5):436-40

Retinal GABA(A) receptors participate in the regulation of circadian responses to light. Della Maggiore V, et al. **J Biol Rhythms** 1999 Feb;14(1):47-53

A reexamination of the role of GABA in the mammalian suprachiasmatic nucleus. Gribkoff VK, et al. **J Biol Rhythms** 1999 Apr;14(2):126-30

Melatonin's role as an anticonvulsant and neuronal protector: experimental and clinical evidence. Muñoz-Hoyos A, et al. **J Child Neurol** 1998 Oct;13(10):501-9 (112 ref.)

The role of the hippocampus and 5-HT/GABA interaction in the central effects of benzodiazepine receptor ligands. Nazar M, et al. **J Neural Transm** 1999;106(5-6):369-81

Increased acute cocaine sensitivity and decreased cocaine sensitization in GABA(A) receptor beta3 subunit knockout mice. Resnick A, et al. **J Neurochem** 1999 Oct; 73(4):1539-48

Role of the conserved lysine residue in the middle of the predicted extracellular loop between M2 and M3 in the GABA(A) receptor. Sigel E, et al. **J Neurochem** 1999 Oct; 73(4):1758-64

Activation of peripheral GABAA receptors inhibits temporomandibular joint-evoked jaw muscle activity. Cairns BE, et al. **J Neurophysiol** 1999 Apr;81(4):1966-9

Temporal patterns and depolarizing actions of spontaneous GABAA receptor activation in granule cells of the early postnatal dentate gyrus. Hollrigel GS, et al. **J Neurophysiol** 1998 Nov;80(5):2340-51

Physiological properties of GABAA receptors from acutely dissociated rat dentate granule cells. Kapur J, et al. **J Neurophysiol** 1999 May;81(5):2464-71

GABAA currents in immature dentate gyrus granule cells. Liu YB, et al. **J Neurophysiol** 1998 Nov;80(5):2255-67

Cutaneous responsiveness of lumbar spinal dorsal horn neurons is reduced by general anesthesia, an effect dependent in part on GABAA mechanisms. Ota K, et al. **J Neurophysiol** 1998 Sep;80(3):1383-90

Changing properties of GABA(A) receptor-mediated signaling during early neocortical development. Owens DF, et al. **J Neurophysiol** 1999 Aug;82(2):570-83

Functional GABAA receptor heterogeneity of acutely dissociated hippocampal CA1 pyramidal cells. Tietz EI, et al. **J Neurophysiol** 1999 Apr;81(4):1575-86

Alphaxalone activates a Cl- conductance independent of GABAA receptors in cultured embryonic human dorsal root ganglion neurons. Valeyev AY, et al. **J Neurophysiol** 1999 Jul;82(1):10-5

Different subtypes of GABAB receptors are present at pre- and postsynaptic sites within the rat dorsolateral septal nucleus. Yamada K, et al. **J Neurophysiol** 1999 Jun; 81(6):2875-83

Single-channel properties of synaptic and extrasynaptic GABAA receptors suggest differential targeting of receptor subtypes. Brickley SG, et al. **J Neurosci** 1999 Apr 15;19(8):2960-73

Human neuronal gamma-aminobutyric acid(A) receptors: coordinated subunit mRNA expression and functional correlates in individual dentate granule cells. Brooks-Kayal AR, et al. **J Neurosci** 1999 Oct 1;19(19):8312-8

Mechanisms of induction and expression of long-term depression at GABAergic synapses in the neonatal rat hippocampus. Caillard O, et al. **J Neurosci** 1999 Sep 1; 19(17):7568-77

Junctional versus extrajunctional glycine and GABA(A) receptor-mediated IPSCs in identified lamina I neurons of the adult rat spinal cord. Chéry N, et al. **J Neurosci** 1999 Sep 1;19(17):7342-55

Spike-and-wave oscillations based on the properties of GABAB receptors. Destexhe A. **J Neurosci** 1998 Nov 1; 18(21):9099-111

Synaptic control of glycine and GABA(A) receptors and gephyrin expression in cultured motoneurons. Lévi S, et al. **J Neurosci** 1999 Sep 1;19(17):7434-49

GABAA receptors mediate trophic effects of GABA on embryonic brainstem monoamine neurons in vitro. Liu J, et al. **J Neurosci** 1997 Apr 1;17(7):2420-8

Modulation of synaptic GABAA receptor function by PKA and PKC in adult hippocampal neurons. Poisbeau P, et al. **J Neurosci** 1999 Jan 15;19(2):674-83

Presynaptic mu and delta opioid receptor modulation of GABAA IPSCs in the rat globus pallidus in vitro. Stanford IM, et al. **J Neurosci** 1999 Jun 15;19(12):4796-803

Identification of amino acid residues within GABA(A) receptor beta subunits that mediate both homomeric and heteromeric receptor expression. Taylor PM, et al. **J Neurosci** 1999 Aug 1;19(15):6360-71

Three GABA receptor-mediated postsynaptic potentials in interneurons in the rat lateral geniculate nucleus. Zhu JJ, et al. **J Neurosci** 1999 Jul 15;19(14):5721-30

Effect of benzodiazepines and neurosteroids on ammonia-induced swelling in cultured astrocytes. Bender AS, et al. **J Neurosci Res** 1998 Dec 1;54(5):673-80

Potentiation of GABA(A) receptor-mediated Cl-current by urotensin peptides in identified Aplysia neurons. Sawada M, et al. **J Neurosci Res** 1999 Jun 1;56(5):547-52

Incremental conductance levels of GABAA receptors in dopaminergic neurones of the rat substantia nigra pars compacta. Guyon A, et al. **J Physiol (Lond)** 1999 May 1; 516 (Pt 3):719-37

Receptor system response kinetics reveal functional subtypes of native murine and recombinant human GABAA receptors. McClellan AM, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):711-27

Persistent depolarizing action of GABA in rat Cajal-Retzius cells. Mienville JM. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):809-17

GABAA and GABAC receptors in adult porcine cones: evidence from a photoreceptor-glia co-culture model. Picaud S, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):33-42

Lanthanum-mediated modification of GABAA receptor deactivation, desensitization and inhibitory synaptic currents in rat cerebellar neurons. Zhu WJ, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):647-61

Electrophysiological evidence for an inverse benzodiazepine receptor agonist in panic disorder. Röschke J, et al. **J Psychiatr Res** 1999 Jan-Feb;33(1):1-5

In vitro studies on the role of the peripheral-type benzodiazepine receptor in steroidogenesis. Culty M, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):123-30 (47 ref.)

Cardiac effects of benzodiazepine receptor agonists and antagonists in the isolated rat heart: a comparative study. Zeegers A, et al. **Life Sci** 1998;63(16):1439-56

Improvement of chronic hepatic encephalopathy in dogs by the benzodiazepine-receptor partial inverse agonist sarmazenil, but not by the antagonist flumazenil. Meyer HP, et al. **Metab Brain Dis** 1998 Sep;13(3):241-51

Subcellular localization and endocytosis of homomeric gamma2 subunit splice variants of gamma-aminobutyric acid type A receptors. Connolly CN, et al. **Mol Cell Neurosci** 1999 Apr;13(4):259-71

New perspectives in the functional role of GABA(A) channel heterogeneity. Vicini S. **Mol Neurobiol** 1999 Apr; 19(2):97-110 (79 ref.)

Early-onset cerebellar ataxia (EOCA) with retained reflexes: reduced cerebellar benzodiazepine-receptor binding, progressive metabolic and cognitive impairment. Mielke R, et al. **Mov Disord** 1998 Jul;13(4):739-45

Self-sustained rhythmic activity in the thalamic reticular nucleus mediated by depolarizing GABAA receptor potentials. Bazhenov M, et al. **Nat Neurosci** 1999 Feb; 2(2):168-74

Decreased GABAA-receptor clustering results in enhanced anxiety and a bias for threat cues [see comments] Crestani F, et al. **Nat Neurosci** 1999 Sep;2(9):833-9. Comment in: Nat Neurosci 1999 Sep;2(9):780-2.

Postsynaptic clustering of major GABAA receptor subtypes requires the gamma 2 subunit and gephyrin [see comments] Essrich C, et al. **Nat Neurosci** 1998 Nov;1(7):563-71. Comment in: Nat Neurosci 1998 Nov;1(7):541-3.

Differential modulation of GABAA receptor function by Mel1a and Mel1b receptors. Wan Q, et al. **Nat Neurosci** 1999 May;2(5):401-3

Microinfusions of flumazenil into the basolateral but not the central nucleus of the amygdala enhance memory consolidation in rats. Da Cunha C, et al. **Neurobiol Learn Mem** 1999 Jul;72(1):1-7

Mechanism by which GABA, through its GABA(A) receptor, modulates glutamate release from rat cortical neurons in culture. Herrero MT, et al. **Neurochem Int** 1999 Feb;34(2):141-8

Differential effects of zinc on native GABA(A) receptor function in rat hippocampus and cerebellum. Schmid G, et al. **Neurochem Int** 1999 May;34(5):399-405

Possible involvement of GABA(A) and GABA(B) receptors in the inhibitory action of lindane on transmitter release from cerebellar granule neurons. Damgaard I, et al. **Neurochem Res** 1999 Sep;24(9):1189-93

Role of GABAA receptors in rat hindbrain nuclei controlling gastric motor function. Sivarao DV, et al. **Neurogastroenterol Motil** 1998 Aug;10(4):305-13

Normal electrophysiological and behavioral responses to ethanol in mice lacking the long splice variant of the gamma2 subunit of the gamma-aminobutyrate type A receptor. Homanics GE, et al. **Neuropharmacology** 1999 Feb;38(2):253-65

Pregnenolone sulfate and dehydroepiandrosterone sulfate inhibit GABA-gated chloride currents in Xenopus oocytes expressing picrotoxin-insensitive GABA(A) receptors. Shen W, et al. **Neuropharmacology** 1999 Feb;38(2):267-71

Properties of GABA(A) receptors in cultured rat oligodendrocyte progenitor cells. Williamson AV, et al. **Neuropharmacology** 1998 Jul;37(7):859-73

Contribution of GABA(A)-mediated conductances to anoxia-induced depolarization. D'Antuono M, et al. **Neuroreport** 1998 Dec 21;9(18):4189-92

Dieldrin and picrotoxinin modulation of GABA(A) receptor single channels. Ikeda T, et al. **Neuroreport** 1998 Oct 5; 9(14):3189-95

The evidence for tonic GABAergic regulation of basal L-DOPA release via activation of inhibitory GABA(A) receptors in the nucleus tractus solitarii of anesthetized rats. Goshima Y, et al. **Neurosci Lett** 1999 Feb 19;261(3):155-8

GABA may function tonically via GABA(A) receptors to inhibit hypotension and bradycardia by L-DOPA microinjected into depressor sites of the nucleus tractus solitarii in anesthetized rats. Honjo K, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):93-6

Molecular modulation of recombinant rat alpha1beta2gamma2 GABA(A) receptor channels by diazepam. Krampfl K, et al. **Neurosci Lett** 1998 Nov 13; 256(3):143-6

Zn2+ differentially modulates glycine receptors versus GABA receptors in isolated carp retinal third-order neurons. Li P, et al. **Neurosci Lett** 1999 Jul 9;269(2):75-8

The antiepileptic drug AWD 131-138 stimulates different recombinant isoforms of the rat GABA(A) receptor through the benzodiazepine binding site. Sigel E, et al. **Neurosci Lett** 1998 Apr 3;245(2):85-8

Role of GABA-A receptor in the preoptic area in the regulation of sleep-wakefulness and rapid eye movement sleep. Ali M, et al. **Neurosci Res** 1999 Mar;33(3):245-50

Peripheral GABA(A) receptors: evidence for peripheral primary afferent depolarization. Carlton SM, et al. **Neuroscience** 1999;93(2):713-22

The octadecaneuropeptide-induced response of corticotropin-releasing hormone messenger RNA levels is mediated by GABA(A) receptors and modulated by endogenous steroids. Givalois L, et al. **Neuroscience** 1998 Jul;85(2):557-67

GABAergic input to cholinergic nucleus basalis neurons. Khateb A, et al. **Neuroscience** 1998 Oct;86(3):937-47

Striatal, pallidal, and pars reticulata evoked inhibition of nigrostriatal dopaminergic neurons is mediated by GABA(A) receptors in vivo. Paladini CA, et al. **Neuroscience** 1999 Mar;89(3):799-812

Early developmental modulation of GABAA receptor function. Influence on adaptive responses. Kellogg CK. **Perspect Dev Neurobiol** 1998;5(2-3):219-34 (81 ref.)

GABAA-receptor subtypes in developing brain. Actors or spectators? Paysan J, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):179-92 (59 ref.)

Involvement of GABA(A) and GABA(B) receptors in the mediation of discriminative stimulus effects of gamma-hydroxybutyric acid. Colombo G, et al. **Physiol Behav** 1998 Jun 1;64(3):293-302

Dopamine receptor subtypes modulate olfactory bulb gamma-aminobutyric acid type A receptors. Brünig I, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2456-60

Antagonism by pivagabine of stress-induced changes in GABAA receptor function and corticotropin-releasing factor concentrations in rat brain. Serra M, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):269-84

Differential effects of GABA(A) and GABA(B) agonists on sensitization to the locomotor stimulant effects of ethanol in DBA/2 J mice. Broadbent J, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):197-205

The discriminative stimulus effects of ethanol are mediated by NMDA and GABA(A) receptors in specific limbic brain regions. Hodge CW, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1-2):95-107

Reciprocal inhibitory connections and network synchrony in the mammalian thalamus. Huntsman MM, et al. **Science** 1999 Jan 22;283(5401):541-3

Functional selection of adaptive auditory space map by GABAA-mediated inhibition [see comments] Zheng W, et al. **Science** 1999 May 7;284(5416):962-5. Comment in: Science 1999 May 7;284(5416):925-6.

Protein kinase-mediated reciprocal modulatory changes in anesthetic sensitivity of (BK)-K+- and GABA-A

receptor-gated conductances in guinea-pig sympathetic neurons. Stapelfeldt WH, et al. **Toxicol Lett** 1998 Nov 23; 100-101:97-102

[Pharmacology of the GABA receptor functions in the central nervous systems] Fukuda H, et al. **Yakugaku Zasshi** 1998 Sep;118(9):339-52 (54 ref.) (Eng. Abstr.) **(Jpn)**

[Differences in the anxiety level of 2 rat strains can be determined by the density of benzodiazepine receptors in the brain] Liupina IuV, et al. **Eksp Klin Farmakol** 1999 May-Jun;62(3):7-10 (Eng. Abstr.) **(Rus)**

RECEPTORS, GABA-B

AGONISTS

The GABAB agonist baclofen modifies cocaine self-administration in rats. Shoaib M, et al. **Behav Pharmacol** 1998 May;9(3):195-206

GABA(B), opioid and alpha2 receptor inhibition of calcium channels in acutely-dissociated locus coeruleus neurones. Chieng B, et al. **Br J Pharmacol** 1999 Aug;127(7):1533-8

GABAB receptor stimulation phase-shifts the mammalian circadian clock in vitro. Biggs KR, et al. **Brain Res** 1998 Oct 5;807(1-2):250-4

GABA(B) receptor activation changes membrane and filter properties of auditory thalamic neurons. Tennigkeit F, et al. **Hear Res** 1998 Aug;122(1-2):18-24

GABA(B) receptor activation promotes seizure activity in the juvenile rat hippocampus. Motalli R, et al. **J Neurophysiol** 1999 Aug;82(2):638-47

Perinatal delta9-tetrahydrocannabinol exposure augmented the magnitude of motor inhibition caused by GABA(B), but not GABA(A), receptor agonists in adult rats. Garcia-Gil L, et al. **Neurotoxicol Teratol** 1999 May-Jun; 21(3):277-83

Baclofen and AII 3-7 on learning and memory processes in rats chronically treated with ethanol. Kuziemka-Leska M, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):39-43

ANALYSIS

Subpopulations of neurons in the rat neostriatum display GABABR1 receptor immunoreactivity. Yung KK, et al. **Brain Res** 1999 Jun 5;830(2):345-52

GABAB-receptor splice variants GB1a and GB1b in rat brain: developmental regulation, cellular distribution and extrasynaptic localization. Fritschy JM, et al. **Eur J Neurosci** 1999 Mar;11(3):761-8

Characterization of neuronal migration disorders in neocortical structures: quantitative receptor autoradiography of ionotropic glutamate, GABA(A) and GABA(B) receptors. Zilles K, et al. **Eur J Neurosci** 1998 Oct;10(10):3095-106

ANTAGONISTS & INHIBITORS

Synthesis of a new homologous series of p-chlorophenyl alcohol amides, their anticonvulsant activity and their testing as potential GABAB receptor antagonists. Meza-Toledo SE, et al. **Arzneimittelforschung** 1998 Aug; 48(8):797-801

Inhibition of R-[3H]-baclofen binding to rat brain synaptic membranes by a homologous series of phenyl alcohol amides anticonvulsants and their evaluation as GABAB receptor blockers. Meza-Toledo SE, et al. **Arzneimittelforschung** 1998 Nov;48(11):1051-7

Comparison of antagonist potencies at pre- and post-synaptic GABA(B) receptors at inhibitory synapses in the CA1 region of the rat hippocampus. Pozza MF, et al. **Br J Pharmacol** 1999 May;127(1):211-9

Effects of GABAB receptor antagonism on the development of pentylenetetrazol-induced kindling in mice. Getova D, et al. **Brain Res** 1998 Nov 2;809(2):182-8

GABA(B) receptor antagonism by 7-MBFG, a benzo[b]furan analogue of baclofen, in central and peripheral tissues. Ong J, et al. **Can J Physiol Pharmacol** 1998 Jul-Aug; 76(7-8):798-801

Evaluation of 3-aminopropanesulphonamide analogues of GABA as antagonists at GABA(B) receptors in peripheral and central preparations. Ong J, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):207-11

Comparative potencies of CGP 47654A and CGP 46165A as GABA(B) receptor antagonists in rat brain. Ong J, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):351-4

Morpholin-2-yl-phosphinic acids are potent GABA(B) receptor antagonists in rat brain. Ong J, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):27-34

The morpholino-acetic acid analogue Sch 50911 is a selective GABA(B) receptor antagonist in rat neocortical slices. Ong J, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):35-41

Antagonism of GABA(B) receptors by morpholino-2-acetic acid derivatives Sch 54679 and Sch 51324 in rat brain. Ong J, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):33-7

Activation of nigral dopamine neurons by the selective GABA(B)-receptor antagonist SCH 50911. Erhardt S, et al. **J Neural Transm** 1999;106(5-6):383-94

GABAB receptor antagonism: facilitatory effects on memory parallel those on LTP induced by TBS but not HFS. Stäubli U, et al. **J Neurosci** 1999 Jun 1;19(11):4609-15

Blockade of GABA(B) receptors facilitates muscarinic agonist-induced epileptiform activity in immature rat piriform cortex in vitro. Libri V, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):168-74

BIOSYNTHESIS

Cloning the human gamma-aminobutyric acid B receptor gene: multiple windows of opportunity in biological psychiatry [editorial; comment] Berrettini W. **Biol Psychiatry** 1998 Oct 15;44(8):657-8. Comment on: Biol Psychiatry 1998 Oct 15;44(8):659-66.

Spatial distribution of GABA(B)R1 receptor mRNA and binding sites in the rat brain. Bischoff S, et al. **J Comp Neurol** 1999 Sep 13;412(1):1-16

CHEMISTRY

Developmental changes of agonist affinity at GABABR1 receptor variants in rat brain. Malitschek B, et al. **Mol Cell Neurosci** 1998 Sep;12(1-2):56-64

Role of heteromer formation in GABAB receptor function [see comments] Kuner R, et al. **Science** 1999 Jan 1; 283(5398):74-7. Comment in: Science 1999 Jan 1;283(5398):14-5.

Filling in the blanks of the GABAB receptor [news; comment] Wickelgren I. **Science** 1999 Jan 1;283(5398):14-5 . Comment on: Science 1999 Jan 1;283(5398):74-7.

CLASSIFICATION

GABAB receptors make it to the top--as dimers. Möhler H, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):87-9

DRUG EFFECTS

GABA(B) receptors as potential targets for drugs able to prevent excessive excitatory amino acid transmission in the spinal cord. Bonanno G, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):143-8

GABA inhibits endozepine release from cultured rat astrocytes. Patte C, et al. **Glia** 1999 Feb 15;25(4):404-11

Gamma-hydroxybutyrate is a GABAB receptor agonist that increases a potassium conductance in rat ventral tegmental dopamine neurons. Madden TE, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):261-5

Central GABAA and GABAB receptor modulation of basal and stress-induced plasma interleukin-6 levels in mice. Song DK, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):144-9

GABA excites immature CA3 pyramidal cells through bicuculline-sensitive and -insensitive chloride-dependent receptors. Cherubini E, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):289-304

Implication of the GABA(B) receptor in gamma vinyl-GABA's inhibition of cocaine-induced increases in nucleus accumbens dopamine. Ashby CR Jr, et al. **Synapse** 1999 Feb;31(2):151-3

GENETICS

GABA (gamma-amino-butyric acid) neurotransmission: identification and fine mapping of the human GABAB receptor gene. Grifa A, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):240-5

Cloning and tissue distribution of novel splice variants of the rat GABAB receptor. Isomoto S, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):10-5

Cloning the human gamma-aminobutyric acid B receptor gene: multiple windows of opportunity in biological psychiatry [editorial; comment] Berrettini W. **Biol Psychiatry** 1998 Oct 15;44(8):657-8. Comment on: Biol Psychiatry 1998 Oct 15;44(8):659-66.

Human gamma-aminobutyric acid B receptor gene: complementary DNA cloning, expression, chromosomal location, and genomic organization [see comments] Goei VL, et al. **Biol Psychiatry** 1998 Oct 15;44(8):659-66. Comment in: Biol Psychiatry 1998 Oct 15;44(8):657-8.

Molecular cloning of human GABABR1 and its tissue distribution. Makoff A. **Brain Res Mol Brain Res** 1999 Jan 22;64(1):137-40

GABAB-receptor splice variants GB1a and GB1b in rat brain: developmental regulation, cellular distribution and extrasynaptic localization. Fritschy JM, et al. **Eur J Neurosci** 1999 Mar;11(3):761-8

Alternative splicing generates a novel isoform of the rat metabotropic GABA(B)R1 receptor. Pfaff T, et al. **Eur J Neurosci** 1999 Aug;11(8):2874-82

gamma-aminobutyric acid type B receptor splice variant proteins GBR1a and GBR1b are both associated with GBR2 in situ and display differential regional and subcellular distribution. Benke D, et al. **J Biol Chem** 1999 Sep 17;274(38):27323-30

Regional distribution and cellular localization of gamma-aminobutyric acid subtype 1 receptor mRNA in the rat brain. Lu XY, et al. **J Comp Neurol** 1999 May 3; 407(2):166-82

Distribution of GABA(B) receptor mRNAs in the rat brain and peripheral organs. Castelli MP, et al. **Life Sci** 1999; 64(15):1321-8

Developmental changes of agonist affinity at GABABR1 receptor variants in rat brain. Malitschek B, et al. **Mol Cell Neurosci** 1998 Sep;12(1-2):56-64

Molecular identification of the human GABABR2: cell surface expression and coupling to adenylyl cyclase in the absence of GABABR1. Martin SC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):180-91

Pharmacologic and therapeutic aspects of the developmentally regulated expression of GABA(A) and GABA(B) receptors: cerebellar granule cells as a model system. Schousboe A. **Neurochem Int** 1999 May;34(5):373-7 (50 ref.)

Differential localization of GABA(B) receptors in the mouse retina. Zhang C, et al. **Neuroreport** 1998 Oct 26; 9(15):3493-7

METABOLISM

Processing of GABABR1 in heterologous expression systems. Mosbacher J, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:689-92

Cloning and tissue distribution of novel splice variants of the rat GABAB receptor. Isomoto S, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):10-5

Synthesis of a series of sulfinic acid analogs of GABA and evaluation of their GABAB receptor affinities. Carruthers NI, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):3059-64

GABA(B) receptor isoforms GBR1a and GBR1b, appear to be associated with pre- and post-synaptic elements respectively in rat and human cerebellum. Billinton A, et al. **Br J Pharmacol** 1999 Mar;126(6):1387-92

Modulation of acetylcholine release via GABAA and GABAB receptors in rat striatum. Ikarashi Y, et al. **Brain Res** 1999 Jan 16;816(1):238-40

Substance P release in the dorsal horn assessed by receptor internalization: NMDA receptors counteract a tonic inhibition by GABA(B) receptors. Marvizón JC, et al. **Eur J Neurosci** 1999 Feb;11(2):417-26

A threonine residue in the M2 region of the beta1 subunit is needed for expression of functional alpha1beta1 GABA(A) receptors. Dalziel JE, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):345-8

Tiagabine antinociception in rodents depends on GABA(B) receptor activation: parallel antinociception testing and medial thalamus GABA microdialysis. Ipponi A, et al. **Eur J Pharmacol** 1999 Mar 5;368(2-3):205-11

Gamma-aminobutyric acid (GABA) A and B receptors mediate the stimulatory effects of GABA on the human sperm acrosome reaction: interaction with progesterone. Calogero AE, et al. **Fertil Steril** 1999 May;71(5):930-6

gamma-aminobutyric acid type B receptor splice variant proteins GBR1a and GBR1b are both associated with GBR2 in situ and display differential regional and subcellular distribution. Benke D, et al. **J Biol Chem** 1999 Sep 17;274(38):27323-30

Intracellular retention of recombinant GABAB receptors. Couve A, et al. **J Biol Chem** 1998 Oct 9;273(41):26361-7

Mutagenesis and modeling of the GABAB receptor extracellular domain support a venus flytrap mechanism for ligand binding. Galvez T, et al. **J Biol Chem** 1999 May 7;274(19):13362-9

Identification of a GABAB receptor subunit, gb2, required for functional GABAB receptor activity. Ng GY, et al. **J Biol Chem** 1999 Mar 19;274(12):7607-10

Immunohistochemical localization of GABA(B) receptors in the rat central nervous system. Margeta-Mitrovic M, et al. **J Comp Neurol** 1999 Mar 15;405(3):299-321

Decreased hippocampal expression, but not functionality, of GABA(B) receptors after transient cerebral ischemia in rats. Francis J, et al. **J Neurochem** 1999 Jan;72(1):87-94

Age-related changes in septal serotonergic, GABAergic and glutamatergic facilitation of retention in SAMP8 mice. Flood JF, et al. **Mech Ageing Dev** 1998 Sep 15; 105(1-2):173-88

[3H]-GABA binding to GABAA and GABAB sites on rat brain crude synaptic membranes. Bruton R, et al. **Methods Mol Biol** 1999;106:27-35 (16 ref.)

Molecular identification of the human GABABR2: cell surface expression and coupling to adenylyl cyclase in the absence of GABABR1. Martin SC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):180-91

The N-terminal domain of gamma-aminobutyric Acid(B) receptors is sufficient to specify agonist and antagonist binding. Malitschek B, et al. **Mol Pharmacol** 1999 Aug; 56(2):448-54

GABA(B) receptors function as a heteromeric assembly of the subunits GABA(B)R1 and GABA(B)R2. Jones KA, et al. **Nature** 1998 Dec 17;396(6712):674-9

GABA(B)-receptor subtypes assemble into functional heteromeric complexes. Kaupmann K, et al. **Nature** 1998 Dec 17;396(6712):683-7

Role of heteromer formation in GABAB receptor function [see comments] Kuner R, et al. **Science** 1999 Jan 1; 283(5398):74-7. Comment in: Science 1999 Jan 1;283(5398):14-5.

Filling in the blanks of the GABAB receptor [news; comment] Wickelgren I. **Science** 1999 Jan 1;283(5398):14-5 . Comment on: Science 1999 Jan 1;283(5398):74-7.

Rapid effects of estrogen to modulate G protein-coupled receptors via activation of protein kinase A and protein kinase C pathways. Kelly MJ, et al. **Steroids** 1999 Jan-Feb; 64(1-2):64-75

[Studies on desensitization of GABAB receptor coupled adenylate cyclase] Yu ZF, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):25-30 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

GABAB receptors and supraoptic neuronal activity. Pittman QJ, et al. **Adv Exp Med Biol** 1998;449:107-15 (38 ref.)

GABAA and GABAB modulations of synaptic transmission between L1-L2 locomotor network and the motoneurons in the newborn rat isolated spinal cord. Bertrand S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:470–1

GABA(B) receptor-mediated stimulation of adenylyl cyclase activity in membranes of rat olfactory bulb. Olianas MC, et al. **Br J Pharmacol** 1999 Feb;126(3):657–64

Neuropeptide Y blocks GABAB-induced phase-shifts of the suprachiasmatic circadian clock in vitro. Biggs KR, et al. **Brain Res** 1999 Mar 13;821(2):461–6

GABAB receptor-mediated inhibition of spontaneous action potential discharge in rat supraoptic neurons in vitro. Ibrahim N, et al. **Brain Res** 1998 Nov 30;813(1):88–96

Mu opioids enhance mossy fiber synaptic transmission indirectly by reducing GABAB receptor activation. Jin W, et al. **Brain Res** 1999 Mar 13;821(2):286–93

Cholinergic cell expression in the developing rat medial septal nucleus in vitro is differentially controlled by GABAA and GABAB receptors. Kenigsberg RL, et al. **Brain Res** 1998 Sep 14;805(1–2):123–30

The reduction in paired-pulse inhibition in the rat hippocampus by gabapentin is independent of GABA(B) receptor receptor activation. Stringer JL, et al. **Epilepsy Res** 1999 Feb;33(2–3):169–76

GABAB-receptor-mediated control of GABAergic inhibition in rat histaminergic neurons in vitro. Stevens DR, et al. **Eur J Neurosci** 1999 Apr;11(4):1148–54

Involvement of GABA(B) receptors in convulsant-induced epileptiform activity in rat neocortex in vitro. Sutor B, et al. **Eur J Neurosci** 1998 Nov;10(11):3417–27

Postnatal development of GABAB receptor-mediated modulation of voltage-activated Ca2+ currents in mouse brain-stem neurons. Zhang W, et al. **Eur J Neurosci** 1999 Jul;11(7):2332–42

Prolonged GABA(B) receptor-mediated synaptic inhibition in the cat spinal cord: an in vivo study. Curtis DR, et al. **Exp Brain Res** 1998 Aug;121(3):319–33

Enhanced gamma-aminobutyric acid-B receptor agonist responses and mRNA within the nucleus of the solitary tract in hypertension. Durgam VR, et al. **Hypertension** 1999 Jan;33(1 Pt 2):530–6

Interaction of GABAB-mediated inhibition with voltage-gated currents of pyramidal cells: computational mechanism of a sensory searchlight. Berman NJ, et al. **J Neurophysiol** 1998 Dec;80(6):3197–213

GABAB receptor-mediated modulation of presynaptic currents and excitatory transmission at a fast central synapse. Isaacson JS. **J Neurophysiol** 1998 Sep;80(3):1571–6

GABAB receptor-mediated regulation of glutamate-activated calcium transients in hypothalamic and cortical neuron development. Obrietan K, et al. **J Neurophysiol** 1999 Jul;82(1):94–102

Tonic activation of presynaptic GABAB receptors in the opener neuromuscular junction of crayfish. Parnas I, et al. **J Neurophysiol** 1999 Mar;81(3):1184–91

Role of GABAB receptor-mediated inhibition in reciprocal interareal pathways of rat visual cortex. Shao Z, et al. **J Neurophysiol** 1999 Mar;81(3):1014–24

Interactive effects of the GABABergic modulation of calcium channels and calcium-dependent potassium channels in lamprey. Tegnér J, et al. **J Neurophysiol** 1999 Mar;81(3):1318–29

Spike-and-wave oscillations based on the properties of GABAB receptors. Destexhe A. **J Neurosci** 1998 Nov 1; 18(21):9099–111

GABA(B) receptors inhibit mechanosensitivity of primary afferent endings. Page AJ, et al. **J Neurosci** 1999 Oct 1; 19(19):8597–602

Presynaptic inhibition of GABA(B)-mediated synaptic potentials in the ventral tegmental area during morphine withdrawal. Shoji Y, et al. **J Neurosci** 1999 Mar 15; 19(6):2347–55

N-type calcium channels and their regulation by GABAB receptors in axons of neonatal rat optic nerve. Sun BB, et al. **J Neurosci** 1999 Jul 1;19(13):5185–94

Three GABA receptor-mediated postsynaptic potentials in interneurons in the rat lateral geniculate nucleus. Zhu JJ, et al. **J Neurosci** 1999 Jul 15;19(14):5721–30

Possible involvement of GABA(A) and GABA(B) receptors in the inhibitory action of lindane on transmitter release from cerebellar granule neurons. Damgaard I, et al. **Neurochem Res** 1999 Sep;24(9):1189–93

A powerful GABA(B) receptor-mediated inhibition of GABAergic neurons in the arcuate nucleus. Wagner EJ, et al. **Neuroreport** 1998 Dec 21;9(18):4171–7

Calcium currents and GABAB receptors in the dorsal sensory cells of the lamprey spinal cord. Batueva IV, et al. **Neurosci Behav Physiol** 1999 Jan-Feb;29(1):67–77

GABA(B) receptors in the nucleus tractus solitarii modulate the carotid chemoreceptor reflex in rats. Suzuki M, et al. **Neurosci Lett** 1999 Jan 22;260(1):21–4

GABA(B) receptor activation protects GABA(A) receptor from cyclic AMP-dependent down-regulation in rat cerebellar granule cells. Barilà B, et al. **Neuroscience** 1999; 93(3):1077–82

GABAergic input to cholinergic nucleus basalis neurons. Khateb A, et al. **Neuroscience** 1998 Oct;86(3):937–47

Involvement of GABA(A) and GABA(B) receptors in the mediation of discriminative stimulus effects of gamma-hydroxybutyric acid. Colombo G, et al. **Physiol Behav** 1998 Jun 1;64(3):293–302

Human gamma-aminobutyric acid type B receptors are differentially expressed and regulate inwardly rectifying K+ channels. Kaupmann K, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14991–6

GABAB receptors are involved in the control of acute opiate withdrawal in isolated tissue. Capasso A. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb; 23(2):289–99

Differential effects of GABA(A) and GABA(B) agonists on sensitization to the locomotor stimulant effects of ethanol in DBA/2 J mice. Broadbent J, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):197–205

Baclofen and antidepressant—induced antinociception in formalin test: possible GABA(B) mechanism involvement. Sabetkasai M, et al. **Psychopharmacology (Berl)** 1999 Mar; 142(4):426–31

[Pharmacology of the GABA receptor functions in the central nervous systems] Fukuda H, et al. **Yakugaku Zasshi** 1998 Sep;118(9):339–52 (54 ref.) (Eng. Abstr.) **(Jpn)**

[Interaction central GABA-B receptors with serotoninergic brain system during regulation of the hypothalamo-hypophyseal-testicular axis by the negative feedback mechanism in rats] Amikishieva AV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May-Jun; 84(5–6):474–9 (Eng. Abstr.) **(Rus)**

RECEPTORS, GABA-BENZODIAZEPINE see **RECEPTORS, GABA-A**

RECEPTORS, GAMMA-AMINOBUTYRIC ACID see **RECEPTORS, GABA**

RECEPTORS, GASTRIN see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, GASTRIN-RELEASING PEPTIDE see **RECEPTORS, BOMBESIN**

RECEPTORS, GASTROINTESTINAL HORMONE

ANTAGONISTS & INHIBITORS

Erythromycin derivatives ABT 229 and GM 611 act on motilin receptors in the rabbit duodenum. Clark MJ, et al. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):242–5

CHEMISTRY

Construction of chimeras between human VIP1 and secretin receptors: identification of receptor domains involved in selectivity towards VIP, secretin, and PACAP. Du K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:386–9

Characterization of the carboxyl-terminal domain of the rat glucose-dependent insulinotropic polypeptide (GIP) receptor. A role for serines 426 and 427 in regulating the rate of internalization. Wheeler MB, et al. **J Biol Chem** 1999 Aug 27;274(35):24593–601

Identification of the motilide pharmacophores using quantitative structure activity relationships. Khiat A, et al. **J Pept Res** 1998 Oct;52(4):321–8

Molecular cloning and in vitro properties of the recombinant rabbit secretin receptor. Svoboda M, et al. **Peptides** 1998; 19(6):1055–62

Structure of the integral membrane domain of the GLP1 receptor. Frimurer TM, et al. **Proteins** 1999 Jun 1; 35(4):375–86

Receptor for motilin identified in the human gastrointestinal system. Feighner SD, et al. **Science** 1999 Jun 25; 284(5423):2184–8

CLASSIFICATION

Frizzled proteins constitute a novel family of G protein-coupled receptors, most closely related to the secretin family. Barnes MR, et al. **Trends Pharmacol Sci** 1998 Oct;19(10):399–400

GENETICS

Discovery of amino acid variants in the human glucose-dependent insulinotropic polypeptide (GIP) receptor: the impact on the pancreatic beta cell responses and functional expression studies in Chinese hamster fibroblast cells. Almind K, et al. **Diabetologia** 1998 Oct; 41(10):1194–8

Regional distribution of Y-receptor subtype mRNAs in rat brain. Parker RM, et al. **Eur J Neurosci** 1999 Apr; 11(4):1431–48

The human secretin receptor gene: genomic organization and promoter characterization. Ho PK, et al. **FEBS Lett** 1999 Jul 23;455(3):209–14

Molecular mapping of epitopes involved in ligand activation of the human receptor for the neuropeptide, VIP, based on hybrids with the human secretin receptor. Olde B, et al. **J Mol Neurosci** 1998 Oct;11(2):127–34

Properties of a recombinant human secretin receptor: a comparison with the rat and rabbit receptors. Di Paolo E, et al. **Pancreas** 1999 Jul;19(1):51–5

Structure of the rat glucose-dependent insulinotropic polypeptide receptor gene. Boylan MO, et al. **Peptides** 1999;20(2):219–28

Mutations of aromatic residues in the first transmembrane helix impair signalling by the secretin receptor. Di Paolo E, et al. **Receptors Channels** 1999;6(4):309–15

Cloning of a neuropeptide Y/peptide YY receptor from the Atlantic cod: the Yb receptor. Arvidsson AK, et al. **Regul Pept** 1998 Sep 25;75–76:39–43

Receptor for motilin identified in the human gastrointestinal system. Feighner SD, et al. **Science** 1999 Jun 25; 284(5423):2184–8

[Aberrant expression of the GIP (Gastric Inhibitory Polypeptide) receptor in an adrenal cortical adenoma responsible for a case of food-dependent Cushing's syndrome] Luton JP, et al. **Bull Acad Natl Med** 1998; 182(9):1839–49; discussion 1849–50 (Eng. Abstr.) **(Fre)**

METABOLISM

Vagus nerve modulates secretin binding sites in the rat forestomach. Kwon HY, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 1):G1052–8

Cellular distribution of secretin receptor expression in rat pancreas. Ulrich CD 2nd, et al. **Am J Physiol** 1998 Dec; 275(6 Pt 1):G1437–44

Construction of chimeras between human VIP1 and secretin receptors: identification of receptor domains involved in selectivity towards VIP, secretin, and PACAP. Du K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:386–9

Characterization of pancreastatin receptors and signaling in adipocyte membranes. González-Yanes C, et al. **Biochim Biophys Acta** 1999 Aug 12;1451(1):153–62

The effect of inhibitors of receptor internalization on the desensitization and resensitization of three Gs-coupled receptor responses. Mundell SJ, et al. **Br J Pharmacol** 1998 Dec;125(7):1594–600

An action of erythromycin in the intestine that is not mediated via motilin receptors. Furness JB, et al. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):100–4

Role of regulator of G protein signaling in desensitization of the glucose-dependent insulinotropic peptide receptor. Tseng CC, et al. **Endocrinology** 1998 Nov;139(11):4470–5

Pharmacological profile of the rat intestinal crypt peptide YY receptor vs. the recombinant rat Y5 receptor. Goumain M, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):245–9

Demonstration of a direct interaction between residue 22 in the carboxyl-terminal half of secretin and the amino-terminal tail of the secretin receptor using photoaffinity labeling. Dong M, et al. **J Biol Chem** 1999 Jan 8;274(2):903–9

Identification of an interaction between residue 6 of the natural peptide ligand and a distinct residue within the amino-terminal tail of the secretin receptor. Dong M, et al. **J Biol Chem** 1999 Jul 2;274(27):19161–7

Real-time evaluation of human secretin receptor activity using cytosensor microphysiometry. Ng SS, et al. **J Cell Biochem** 1999 Mar 15;72(4):517–27

PHYSIOLOGY

Discovery of amino acid variants in the human glucose-dependent insulinotropic polypeptide (GIP) receptor: the impact on the pancreatic beta cell responses and functional expression studies in Chinese hamster fibroblast cells. Almind K, et al. **Diabetologia** 1998 Oct; 41(10):1194–8

Food-dependent Cushing's syndrome: characterization and functional role of gastric inhibitory polypeptide receptor in the adrenals of three patients. Lebrethon MC, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4514–9

RECEPTORS, GASTROINTESTINAL PEPTIDES see **RECEPTORS, GASTROINTESTINAL HORMONE**

RECEPTORS, GLUCAGON

see related **GLUCAGON**

AGONISTS

Exendin-(9–39) is an inverse agonist of the murine glucagon-like peptide-1 receptor: implications for basal intracellular cyclic adenosine 3',5'-monophosphate levels and beta-cell glucose competence. Serre V, et al. **Endocrinology** 1998 Nov;139(11):4448–54

ANALYSIS

Differential expression of a novel seven transmembrane domain protein in epididymal fat from aged and diabetic mice. Yang H, et al. **Endocrinology** 1999 Jun;140(6):2859–67

ANTAGONISTS & INHIBITORS

Potent, orally absorbed glucagon receptor antagonists. de Laszlo SE, et al. **Bioorg Med Chem Lett** 1999 Mar 8; 9(5):641–6

Central infusion of glucagon-like peptide-1-(7–36) amide (GLP-1) receptor antagonist attenuates lithium chloride-induced c-Fos induction in rat brainstem. Thiele TE, et al. **Brain Res** 1998 Aug 10;801(1–2):164–70

Characterization of a novel, non-peptidyl antagonist of the human glucagon receptor. Cascieri MA, et al. **J Biol Chem** 1999 Mar 26;274(13):8694–7

Discovery and structure-activity relationship of the first non-peptide competitive human glucagon receptor antagonists. Madsen P, et al. **J Med Chem** 1998 Dec 17;

41(26):5150-7

BIOSYNTHESIS

Over-expression of the N-terminal domain of the glucagon-like peptide-1 receptor in Escherichia coli. Willshaw A, et al. **Biochem Soc Trans** 1998 Aug;26(3):S288

The genomic organization of the human GLP-1 receptor gene. Wilmen A, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(4):299-302

CHEMISTRY

Over-expression of the N-terminal domain of the glucagon-like peptide-1 receptor in Escherichia coli. Willshaw A, et al. **Biochem Soc Trans** 1998 Aug;26(3):S288

Two cytoplasmic loops of the glucagon receptor are required to elevate cAMP or intracellular calcium. Cypess AM, et al. **J Biol Chem** 1999 Jul 2;274(27):19455-64

GENETICS

Gene expression of the human glucagon-like peptide-1 receptor is regulated by Sp1 and Sp3. Wildhage I, et al. **Endocrinology** 1999 Feb;140(2):624-31

Contribution of a PS1-like element to the tissue- and cell-specific expression of the human GLP-1 receptor gene. Galehshahi FS, et al. **FEBS Lett** 1998 Oct 2; 436(2):163-8

Functional studies of a glucagon receptor isolated from frog Rana tigrina rugulosa: implications on the molecular evolution of glucagon receptors in vertebrates. Ngan ES, et al. **FEBS Lett** 1999 Sep 3;457(3):499-504

Glucagon receptor gene mutation (Gly40Ser) in human essential hypertension: the PEGASE study. Brand E, et al. **Hypertension** 1999 Jul;34(1):15-7

Absence of genetic variation in some obesity candidate genes (GLP1R, ASIP, MC4R, MC5R) among Pima indians. Norman RA, et al. **Int J Obes Relat Metab Disord** 1999 Feb;23(2):163-5

Identification of a glucose response element in the promoter of the rat glucagon receptor gene. Portois L, et al. **J Biol Chem** 1999 Mar 19;274(12):8181-90

Distribution of pre-pro-glucagon and glucagon-like peptide-1 receptor messenger RNAs in the rat central nervous system. Merchenthaler I, et al. **J Comp Neurol** 1999 Jan 11;403(2):261-80

Tissue distribution of rat glucagon receptor and GLP-1 receptor gene expression. Dunphy JL, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):179-86

Tissue-specific modulation of rat glucagon receptor mRNA by thyroid status. Morales A, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):71-81

Mutations to the third cytoplasmic domain of the glucagon-like peptide 1 (GLP-1) receptor can functionally uncouple GLP-1-stimulated insulin secretion in HIT-T15 cells. Salapatek AM, et al. **Mol Endocrinol** 1999 Aug; 13(8):1305-17

Screening for the Gly40Ser mutation in the glucagon receptor gene among patients with type 2 diabetes or essential hypertension in Taiwan. Huang CN, et al. **Pancreas** 1999 Mar;18(2):151-5

METABOLISM

GLP-1 receptors in golden Syrian hamster islets: identification and functional characterization. Rosselin G, et al. **Endocrine** 1998 Jun;8(3):323-30

Pancreatic glucagon-like peptide-1 receptor couples to multiple G proteins and activates mitogen-activated protein kinase pathways in Chinese hamster ovary cells. Montrose-Rafizadeh C, et al. **Endocrinology** 1999 Mar; 140(3):1132-40

Functional studies of a glucagon receptor isolated from frog Rana tigrina rugulosa: implications on the molecular evolution of glucagon receptors in vertebrates. Ngan ES, et al. **FEBS Lett** 1999 Sep 3;457(3):499-504

Characterization of a novel, non-peptidyl antagonist of the human glucagon receptor. Cascieri MA, et al. **J Biol Chem** 1999 Mar 26;274(13):8694-7

Two cytoplasmic loops of the glucagon receptor are required to elevate cAMP or intracellular calcium. Cypess AM, et al. **J Biol Chem** 1999 Jul 2;274(27):19455-64

High-level expression of the GLP-I receptor results in receptor desensitization. Fehmann HC, et al. **Pancreas** 1998 Oct;17(3):309-14

PHYSIOLOGY

Stimulatory transducing systems in pancreatic islet cells. Emami S, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:118-31 (78 ref.)

Altered cAMP and Ca2+ signaling in mouse pancreatic islets with glucagon-like peptide-1 receptor null phenotype. Flamez D, et al. **Diabetes** 1999 Oct;48(10):1979-86

Mutations to the third cytoplasmic domain of the glucagon-like peptide 1 (GLP-1) receptor can functionally uncouple GLP-1-stimulated insulin secretion in HIT-T15 cells. Salapatek AM, et al. **Mol Endocrinol** 1999 Aug; 13(8):1305-17

Prototypic G protein-coupled receptor for the intestinotrophic factor glucagon-like peptide 2. Munroe DG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1569-73

RECEPTORS, GLUCOCORTICOID

AGONISTS

Dexamethasone enhances serum deprivation-induced necrotic death of rat C6 glioma cells through activation of glucocorticoid receptors. Morita K, et al. **Brain Res** 1999 Jan 23;816(2):309-16

Corticosterone facilitates the acquisition of cocaine self-administration in rats: opposite effects of the type II glucocorticoid receptor agonist dexamethasone. Mantsch JR, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):72-80

ANALYSIS

Glucocorticoid receptor immunoreactivity in neurons and pituitary cells implicated in reproductive functions in rainbow trout: a double immunohistochemical study. Teitsma CA, et al. **Biol Reprod** 1999 Mar;60(3):642-50

Androgen and glucocorticoid receptors in the stroma and epithelium of prostatic hyperplasia and carcinoma. Mohler JL, et al. **Clin Cancer Res** 1996 May;2(5):889-95

Tumor necrosis factor alpha decreases, and interleukin-10 increases, the sensitivity of human monocytes to dexamethasone: potential regulation of the glucocorticoid receptor. Franchimont D, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2834-9

Characterization of mineralocorticoid and glucocorticoid receptors in pigs: comparison of Meishan and Large White breeds. Perreau V, et al. **Life Sci** 1999;64(17):1501-15

Glucocorticoid receptor expression in human bronchial epithelial cells: effects of smoking and COPD. Verheggen MM, et al. **Mediators Inflamm** 1998;7(4):275-81

Down-regulation of ACTH and glucocorticoid receptor immunoreactivity in hypothalamic arcuate neurons after adrenalectomy in the rat. Ozawa H, et al. **Neuroreport** 1999 May 14;10(7):1571-5

[Content of progesterone, glucocorticoid and glycyrrhizic acid receptors in normal and tumoral human breast tissue] Il'icheva TN, et al. **Vopr Onkol** 1998;44(4):390-4 (Eng. Abstr.) **(Rus)**

ANTAGONISTS & INHIBITORS

Sympathectomy-induced immune changes are not abrogated by the glucocorticoid receptor blocker RU-486. Kruszewska B, et al. **Brain Behav Immun** 1998 Sep; 12(3):181-200

Glucocorticoid receptor antagonists in the hippocampus modify the negative feedback following neural stimuli. Feldman S, et al. **Brain Res** 1999 Mar 6;821(1):33-7

The novel progesterone receptor antagonists RTI 3021-012 and RTI 3021-022 exhibit complex glucocorticoid receptor antagonist activities: implications for the development of dissociated antiprogestins. Wagner BL, et al. **Endocrinology** 1999 Mar;140(3):1449-58

Continuous blockade of brain glucocorticoid receptors facilitates spatial learning and memory in rats. Oitzl MS, et al. **Eur J Neurosci** 1998 Dec;10(12):3759-66

Adrenocorticotrophin-induced hypertension: effects of mineralocorticoid and glucocorticoid receptor antagonism. Li M, et al. **J Hypertens** 1999 Mar;17(3):419-26

Evaluation of RU28318 and RU40555 as selective mineralocorticoid receptor and glucocorticoid receptor antagonists, respectively: receptor measures and functional studies. Kim PJ, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(3):213-22

Effects of adrenalectomy and glucocorticoid receptor antagonist, RU38486, on pituitary growth hormone-releasing hormone receptor gene expression in rats. Ohyama T, et al. **Peptides** 1998;19(6):1063-7

BIOSYNTHESIS

In vitro glucocorticoid receptor binding and transcriptional activation by topically active glucocorticoids. Smith CL, et al. **Arzneimittelforschung** 1998 Sep;48(9):956-60

Interaction between glucocorticoids and beta2-agonists: alpha and beta glucocorticoid-receptor mRNA expression in human bronchial epithelial cells. Korn SH, et al. **Biochem Pharmacol** 1998 Dec 15;56(12):1561-9

Chronic amitriptyline treatment induces hippocampal NGFI-A, glucocorticoid receptor and mineralocorticoid receptor mRNA expression in rats. Johansson IM, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):92-5

Glucocorticoid-induced cell death requires autoinduction of glucocorticoid receptor expression in human leukemic T cells. Ramdas J, et al. **Cancer Res** 1999 Mar 15; 59(6):1378-85

Cellular localization and distribution of glucocorticoid receptor immunoreactivity and the expression of glucocorticoid receptor messenger RNA in rat pituitary gland. A combined double immunohistochemistry study and in situ hybridization histochemical analysis. Ozawa H, et al. **Cell Tissue Res** 1999 Feb;295(2):207-14

Glucocorticoid-stimulated gene expression knocked out by knock-in mutation. Berg JP. **Eur J Endocrinol** 1998 Nov; 139(5):479-80 (13 ref.)

The cytoskeletal network controls c-Jun expression and glucocorticoid receptor transcriptional activity in an antagonistic and cell-type-specific manner. Oren A, et al. **Mol Cell Biol** 1999 Mar;19(3):1742-50

Environmental enrichment alters nerve growth factor-induced gene A and glucocorticoid receptor messenger RNA expression after middle cerebral artery occlusion in rats. Dahlqvist P, et al. **Neuroscience** 1999; 93(2):527-35

Elevated hepatic glucocorticoid receptor expression during liver regeneration in rats. Karabélyos C, et al. **Pathol Oncol Res** 1999;5(2):107-9

BLOOD

Imbalanced expression of the glucocorticoid receptor isoforms in cultured lymphocytes from a patient with systemic glucocorticoid resistance and chronic lymphocytic leukemia. Shahidi H, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):559-65

Glucocorticoid receptors on mononuclear leukocytes in polycystic ovary syndrome. Güven M, et al. **Int J Gynaecol Obstet** 1998 Oct;63(1):33-7

The modulation of glucocorticoid receptor content by 3-O-methyl-D-glucose transport in human mononuclear leukocyte in obesity. Güven M, et al. **J Endocrinol Invest** 1998 Nov;21(10):656-61

CHEMISTRY

Interdomain signaling in a two-domain fragment of the human glucocorticoid receptor. Kumar R, et al. **J Biol Chem** 1999 Aug 27;274(35):24737-41

AF-2-dependent potentiation of CCAAT enhancer binding protein beta-mediated transcriptional activation by glucocorticoid receptor. Boruk M, et al. **Mol Endocrinol** 1998 Nov;12(11):1749-63

Structural and dynamic effects of point mutations in the recognition helix of the glucocorticoid receptor DNA-binding domain. Eriksson MA, et al. **Protein Eng** 1998 Jul;11(7):589-600

DEFICIENCY

Glucocorticoid resistance caused by reduced expression of the glucocorticoid receptor in cells from human vascular lesions. Bray PJ, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1180-9

DRUG EFFECTS

A study of the effect of theophylline on the anti-inflammatory potency of dexamethasone using alpha-aminoisobutyric acid uptake in rat skin fibroblasts: a possible mechanism through the glucocorticoid receptor. Xenos K, et al. **Cell Biol Int** 1998;22(9-10):695-9

The proinflammatory cytokine, interleukin-1alpha, reduces glucocorticoid receptor translocation and function. Pariante CM, et al. **Endocrinology** 1999 Sep;140(9):4359-66

Interactions between methylsulfonyl PCBs and the glucocorticoid receptor. Johansson M, et al. **Environ Health Perspect** 1998 Dec;106(12):769-72

Glucocorticoid receptor activation in the rat nucleus of the solitary tract facilitates memory consolidation: involvement of the basolateral amygdala. Roozendaal B, et al. **Eur J Neurosci** 1999 Apr;11(4):1317-23

Downregulation of brain mineralocorticoid and glucocorticoid receptor by antisense oligodeoxynucleotide treatment fails to alter spatial navigation in rats. Engelmann M, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):17-26

Trimethylamine N-oxide-induced cooperative folding of an intrinsically unfolded transcription-activating fragment of human glucocorticoid receptor. Baskakov IV, et al. **J Biol Chem** 1999 Apr 16;274(16):10693-6

Epiphenomenal, causal, or correlational--more on the mechanism(s) of action of antidepressants [editorial] Shader RI, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):265-7 (26 ref.)

Prejunctional control of pH 6-induced bronchoconstriction by NK1, NK2, mu-opioid, alpha2-adrenoceptor and glucocorticoid receptors in guinea-pig isolated perfused lung. Auberson S, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):899-905

Fourth-generation model for corticosteroid pharmacodynamics: a model for methylprednisolone effects on receptor/gene-mediated glucocorticoid receptor down-regulation and tyrosine aminotransferase induction in rat liver. Sun YN, et al. **J Pharmacokinet Biopharm** 1998 Jun;26(3):289-317

Dose-dependence and repeated-dose studies for receptor/gene-mediated pharmacodynamics of methylprednisolone on glucocorticoid receptor down-regulation and tyrosine aminotransferase induction in rat liver. Sun YN, et al. **J Pharmacokinet Biopharm** 1998 Dec;26(6):619-48

Pharmacokinetic/Pharmacodynamic models for corticosteroid receptor down-regulation and glutamine synthetase induction in rat skeletal muscle by a Receptor/Gene-mediated mechanism. Sun YN, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):720-8

Multiple domains of melatonin receptor are involved in the regulation of glucocorticoid receptor-induced gene expression. Persengiev SP. **J Steroid Biochem Mol Biol** 1999 Mar;68(5-6):181-7

Natural variants of the beta isoform of the human glucocorticoid receptor do not alter sensitivity to glucocorticoids. de Lange P, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):163-8

Effect of nimesulide on glucocorticoid receptor activity in human synovial fibroblasts. Pelletier JP, et al.

Rheumatology (Oxford) 1999 May;38 Suppl 1:11–3
New steroidal anti-inflammatory antedrugs bind to macrophage glucocorticoid receptors and inhibit nitric oxide generation. Heiman AS, et al. **Steroids** 1998 Dec; 63(12):644–9

GENETICS

Linkage analysis of glucocorticoid and beta2-adrenergic receptor genes with blood pressure and body mass index. Takami S, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1379–84
Glucocorticoid-mediated suppression of the promoter activity of the cyclooxygenase-2 gene is modulated by expression of its receptor in vascular endothelial cells. Inoue H, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):292–8
Tissue-specific differences in rat glucocorticoid receptor gene transcriptional regulation. McCormick JA, et al. **Biochem Soc Trans** 1998 Aug;26(3):S207
Expression of 11beta-hydroxysteroid dehydrogenase, glucocorticoid receptor, and mineralocorticoid receptor genes in rat ovary. Tetsuka M, et al. **Biol Reprod** 1999 Feb;60(2):330–5
Cloning of glucocorticoid receptor and mineralocorticoid receptor cDNA and gene expression in the central nervous system of the tree shrew (Tupaia belangeri). Meyer U, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):243–53
Low level of glucocorticoid receptor messenger ribonucleic acid in pituitary adenomas manifesting Cushing's disease with resistance to a high dose-dexamethasone suppression test. Mu YM, et al. **Clin Endocrinol (Oxf)** 1998 Sep; 49(3):301–6
Genetic dissection of glucocorticoid receptor function in mice. Tronche F, et al. **Curr Opin Genet Dev** 1998 Oct; 8(5):532–8 (49 ref.)
Analysis of mice carrying targeted mutations of the glucocorticoid receptor gene argues against an essential role of glucocorticoid signalling for generating adrenal chromaffin cells. Finotto S, et al. **Development** 1999 Jul; 126(13):2935–44
Functional characterization of the MODY1 gene mutations HNF4(R127W), HNF4(V255M), and HNF4(E276Q). Navas MA, et al. **Diabetes** 1999 Jul;48(7):1459–65
Glucocorticoid-stimulated gene expression knocked out by knock-in mutation. Berg JP. **Eur J Endocrinol** 1998 Nov; 139(5):479–80 (13 ref.)
Impaired glucocorticoid receptor function evolves in aberrant physiological responses to bacterial endotoxin. Linthorst AC, et al. **Eur J Neurosci** 1999 Jan;11(1):178–86
Dysfunctional glucocorticoid receptor with a single point mutation ablates the CCAAT/enhancer binding protein-dependent growth suppression response in a steroid-resistant rat hepatoma cell variant. Ramos RA, et al. **FASEB J** 1999 Jan;13(1):169–80
Melatonin regulates glucocorticoid receptor: an answer to its antiapoptotic action in thymus. Sainz RM, et al. **FASEB J** 1999 Sep;13(12):1547–56
The glucocorticoid receptor gene as a candidate for gene therapy in asthma. Mathieu M, et al. **Gene Ther** 1999 Feb; 6(2):245–52
Distribution of Na,K-ATPase is normal in the inner ear of a mouse with a null mutation of the glucocorticoid receptor. Erichsen S, et al. **Hear Res** 1998 Oct; 124(1–2):146–54
Multiple glucocorticoid receptor transcripts in membrane glucocorticoid receptor-enriched S-49 mouse lymphoma cells. Chen F, et al. **J Cell Biochem** 1999 Sep 1;74(3):418–29
Association of the glucocorticoid receptor alternatively-spliced transcript 1A with the presence of the high molecular weight membrane glucocorticoid receptor in mouse lymphoma cells. Chen F, et al. **J Cell Biochem** 1999 Sep 1;74(3):430–46
Glucocorticoid receptor polymorphism in genetic hypertension. Kenyon CJ, et al. **J Mol Endocrinol** 1998 Aug;21(1):41–50
Alpha and beta glucocorticoid receptor mRNA expression in skeletal muscle. Korn SH, et al. **J Muscle Res Cell Motil** 1998 Oct;19(7):757–65
Differential regulation of hippocampal glucocorticoid receptors mRNA and fast feedback: relevance to post-traumatic stress disorder. Liberzon I, et al. **J Neuroendocrinol** 1999 Jan;11(1):11–7
Partial blockade of T-cell differentiation during ontogeny and marked alterations of the thymic microenvironment in transgenic mice with impaired glucocorticoid receptor function. Sacedón R, et al. **J Neuroimmunol** 1999 Aug 3; 98(2):157–67
Regulation of corticosteroid receptor gene expression in depression and antidepressant action. Barden N. **J Psychiatry Neurosci** 1999 Jan;24(1):25–39
Long duration electroporation for achieving high level expression of glucocorticoid receptors in mammalian cell lines. Bodwell J, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1–2):77–82
The human glucocorticoid receptor promoter upstream sequences contain binding sites for the ubiquitous transcription factor, Yin Yang 1. Breslin MB, et al. **J Steroid Biochem Mol Biol** 1998 Dec;67(5–6):369–81
Mutagenesis of the glucocorticoid receptor in mice. Kellendonk C, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1–6):253–9 (45 ref.)
cAMP activates transcription of the human glucocorticoid receptor gene promoter. Peñuelas I, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(2):89–94
Histone acetyltransferase complexes can mediate transcriptional activation by the major glucocorticoid receptor activation domain. Wallberg AE, et al. **Mol Cell Biol** 1999 Sep;19(9):5952–9
Natural variants of the beta isoform of the human glucocorticoid receptor do not alter sensitivity to glucocorticoids. de Lange P, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):163–8
Interleukin-1 regulation of corticotropin-releasing factor (CRF), glucocorticoid receptor, c-fos and c-jun messenger RNA in the NPLC-KC cell line. Gill PS, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):31–9
An ACTH-producing small cell lung cancer expresses aberrant glucocorticoid receptor transcripts from a normal gene. Parks LL, et al. **Mol Cell Endocrinol** 1998 Jul 25; 142(1–2):175–81
Transrepression of c-jun gene expression by the glucocorticoid receptor requires both AP-1 sites in the c-jun promoter. Wei P, et al. **Mol Endocrinol** 1998 Sep; 12(9):1322–33
Glucocorticoid resistance in premature pubarche and adolescent hyperandrogenism. Witchel SF, et al. **Mol Genet Metab** 1999 Feb;66(2):137–41
Disruption of the glucocorticoid receptor gene in the nervous system results in reduced anxiety. Tronche F, et al. **Nat Genet** 1999 Sep;23(1):99–103
Environmental enrichment alters nerve growth factor-induced gene A and glucocorticoid receptor messenger RNA expression after middle cerebral artery occlusion in rats. Dahlqvist P, et al. **Neuroscience** 1999; 93(2):527–35
Enhanced morphine-induced behavioural effects and dopamine release in the nucleus accumbens in a transgenic mouse model of impaired glucocorticoid (type II) receptor function: influence of long-term treatment with the antidepressant moclobemide. Sillaber I, et al. **Neuroscience** 1998 Jul;85(2):415–25
Structural and dynamic effects of point mutations in the recognition helix of the glucocorticoid receptor DNA-binding domain. Eriksson MA, et al. **Protein Eng** 1998 Jul;11(7):589–600
AH receptor, ARNT, glucocorticoid receptor, EGF receptor, EGF, TGF alpha, TGF beta 1, TGF beta 2, and TGF beta 3 expression in human embryonic palate, and effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Abbott BD, et al. **Teratology** 1998 Aug;58(2):30–43
Stress-axis, coping and dementia: gene-manipulation studies. Heinrichs SC. **Trends Pharmacol Sci** 1999 Aug;20(8):311–5 (51 ref.)
[Familial cortisol resistance and mutations of the glucocorticoid receptor gene] Iida S, et al. **Nippon Rinsho** 1998 Jul;56(7):1887–91 (9 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Glucocorticoid receptor activity in inflammatory bowel disease: hindsight or foresight? [comment] Stange EF. **Eur J Clin Invest** 1999 Apr;29(4):278–9. Comment on: Eur J Clin Invest 1999 Apr;29(4):330–6.

ISOLATION & PURIFICATION

Immunoaffinity isolation of native membrane glucocorticoid receptor from S-49++ lymphoma cells: biochemical characterization and interaction with Hsp 70 and Hsp 90. Powell CE, et al. **Endocrine** 1999 Jun;10(3):271–80

METABOLISM

Negative regulation of rat hepatic aldehyde dehydrogenase 3 by glucocorticoids. Lindahl R, et al. **Adv Exp Med Biol** 1999;463:159–64
Increased glucocorticoid receptor beta in airway cells of glucocorticoid-insensitive asthma. Hamid QA, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1600–4
Enhancement of phosphorylation and transcriptional activity of the glucocorticoid receptor in human synovial fibroblasts by nimesulide, a preferential cyclooxygenase 2 inhibitor. Di Battista JA, et al. **Arthritis Rheum** 1999 Jan;42(1):157–66
In vitro glucocorticoid receptor binding and transcriptional activation by topically active glucocorticoids. Smith CL, et al. **Arzneimittelforschung** 1998 Sep;48(9):956–60
Differential DNA binding by the androgen and glucocorticoid receptors involves the second Zn-finger and a C-terminal extension of the DNA-binding domains. Schoenmakers E, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):515–21
Heat stress affects the glucocorticoid receptor interaction with heat shock protein Hsp70 in the rat liver. Cvoro A, et al. **Biochem Mol Biol Int** 1998 Sep;46(1):63–70
The Cre/loxP system--a versatile tool to study glucocorticoid signalling in mice. Reichardt HM, et al. **Biochem Soc Trans** 1999 Feb;27(2):78–83 (22 ref.)
Glucocorticoid receptors in anorexia nervosa and Cushing's disease. Invitti C, et al. **Biol Psychiatry** 1999 Jun 1; 45(11):1467–71
Glucocorticoid receptor-immunoreactivity in corticotrophin-releasing factor afferents to the locus coeruleus. Lechner SM, et al. **Brain Res** 1999 Jan 16; 816(1):17–28
A study of the effect of theophylline on the anti-inflammatory potency of dexamethasone using alpha-aminoisobutyric acid uptake in rat skin fibroblasts: a possible mechanism through the glucocorticoid receptor. Xenos K, et al. **Cell Biol Int** 1998;22(9–10):695–9
Genetic dissection of glucocorticoid receptor function in mice. Tronche F, et al. **Curr Opin Genet Dev** 1998 Oct; 8(5):532–8 (49 ref.)
Cytochemical demonstration of the glucocorticoid receptor in skeletal cells of the rat. Silvestrini G, et al. **Endocr Res** 1999 Feb;25(1):117–28
Defense of adrenocorticosteroid receptor expression in rat hippocampus: effects of stress and strain. Herman JP, et al. **Endocrinology** 1999 Sep;140(9):3981–91
The proinflammatory cytokine, interleukin-1alpha, reduces glucocorticoid receptor translocation and function. Pariante CM, et al. **Endocrinology** 1999 Sep;140(9):4359–66
Glucocorticoid receptors are down-regulated in inflamed colonic mucosa but not in peripheral blood mononuclear cells from patients with inflammatory bowel disease [see comments] Rogler G, et al. **Eur J Clin Invest** 1999 Apr; 29(4):330–6. Comment in: Eur J Clin Invest 1999 Apr;29(4):278–9.
Impaired glucocorticoid receptor function evolves in aberrant physiological responses to bacterial endotoxin. Linthorst AC, et al. **Eur J Neurosci** 1999 Jan;11(1):178–86
Real-time imaging of glucocorticoid receptor dynamics in living neurons and glial cells in comparison with non-neural cells. Nishi M, et al. **Eur J Neurosci** 1999 Jun; 11(6):1927–36
Binding kinetics of budesonide to the human glucocorticoid receptor. Esmailpour N, et al. **Eur J Pharm Sci** 1998 Jul; 6(3):219–23
Delimitation of two regions in the 90-kDa heat shock protein (Hsp90) able to interact with the glucocorticosteroid receptor (GR). Jibard N, et al. **Exp Cell Res** 1999 Mar 15;247(2):461–74
Comparison of chromatin remodeling and transcriptional activation of the mouse mammary tumor virus promoter by the androgen and glucocorticoid receptor. List HJ, et al. **Exp Cell Res** 1999 Aug 1;250(2):414–22
Plasticity of hippocampal corticosteroid receptors during aging in the rat. Hassan AH, et al. **FASEB J** 1999 Jan; 13(1):115–22
Dysfunctional glucocorticoid receptor with a single point mutation ablates the CCAAT/enhancer binding protein-dependent growth suppression response in a steroid-resistant rat hepatoma cell variant. Ramos RA, et al. **FASEB J** 1999 Jan;13(1):169–80
Effect of retinoid (vitamin A or retinoic acid) treatment (hormonal imprinting) through breastmilk on the glucocorticoid receptor and estrogen receptor binding capacity of the adult rat offspring. Gaál A, et al. **Hum Exp Toxicol** 1998 Oct;17(10):560–3
In vivo modulation of glucocorticoid receptor mRNA by inhaled fluticasone propionate in bronchial mucosa and blood lymphocytes in subjects with mild asthma. Andersson O, et al. **J Allergy Clin Immunol** 1999 Apr; 103(4):595–600
Nocturnal asthma is associated with reduced glucocorticoid receptor binding affinity and decreased steroid responsiveness at night. Kraft M, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):66–71
Heterodimeric interactions between chicken ovalbumin upstream promoter-transcription factor family members ARP1 and ear2. Avram D, et al. **J Biol Chem** 1999 May 14;274(20):14331–6
The glucocorticoid receptor is tethered to DNA-bound Oct-1 at the mouse gonadotropin-releasing hormone distal negative glucocorticoid response element. Chandran UR, et al. **J Biol Chem** 1999 Jan 22;274(4):2372–8
Ligand-independent activation of the glucocorticoid receptor by beta2-adrenergic receptor agonists in primary human lung fibroblasts and vascular smooth muscle cells. Eickelberg O, et al. **J Biol Chem** 1999 Jan 8;274(2):1005–10
Inhibition of glucocorticoid receptor nucleocytoplasmic shuttling by okadaic acid requires intact cytoskeleton. Galigniana MD, et al. **J Biol Chem** 1999 Jun 4; 274(23):16222–7
Nucleocytoplasmic trafficking of steroid-free glucocorticoid receptor. Haché RJ, et al. **J Biol Chem** 1999 Jan 15; 274(3):1432–9
Valine 571 functions as a regional organizer in programming the glucocorticoid receptor for differential binding of glucocorticoids and mineralocorticoids. Lind U, et al. **J Biol Chem** 1999 Jun 25;274(26):18515–23
Differential regulation of androgen and glucocorticoid receptors by retinoblastoma protein. Lu J, et al. **J Biol Chem** 1998 Nov 20;273(47):31528–33
Direct association with thioredoxin allows redox regulation of glucocorticoid receptor function. Makino Y, et al. **J Biol Chem** 1999 Jan 29;274(5):3182–8
Redox-dependent regulation of nuclear import of the glucocorticoid receptor. Okamoto K, et al. **J Biol Chem** 1999 Apr 9;274(15):10363–71
Glucocorticoid receptor transcriptional activity determined by spacing of receptor and nonreceptor DNA sites. Pearce D, et al. **J Biol Chem** 1998 Nov 13;273(46):30081–5
Selective binding of steroid hormone receptors to octamer transcription factors determines transcriptional synergism at the mouse mammary tumor virus promoter. Préfontaine GG, et al. **J Biol Chem** 1999 Sep 17;274(38):26713–9
Conformational change in the human glucocorticoid receptor

induced by ligand binding is altered by mutation of isoleucine 747 by a threonine. Roux S, et al. **J Biol Chem** 1999 Apr 9;274(15):10059–65

Nuclear integration of glucocorticoid receptor and nuclear factor–kappaB signaling by CREB–binding protein and steroid receptor coactivator–1. Sheppard KA, et al. **J Biol Chem** 1998 Nov 6;273(45):29291–4

Receptor interacting protein RIP140 inhibits both positive and negative gene regulation by glucocorticoids. Subramaniam N, et al. **J Biol Chem** 1999 Jun 18; 274(25):18121–7

Association of the glucocorticoid receptor alternatively–spliced transcript 1A with the presence of the high molecular weight membrane glucocorticoid receptor in mouse lymphoma cells. Chen F, et al. **J Cell Biochem** 1999 Sep 1;74(3):430–46

A nuclear action of the eukaryotic cochaperone RAP46 in downregulation of glucocorticoid receptor activity. Schneikert J, et al. **J Cell Biol** 1999 Sep 6;146(5):929–40

Expression of type 2 11beta–hydroxysteroid dehydrogenase and corticosteroid hormone receptors in early human fetal life. Condon J, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4490–7

Immunohistochemical localization of glucocorticoid receptors in the forebrain of the rainbow trout (Oncorhynchus mykiss). Teitsma CA, et al. **J Comp Neurol** 1998 Nov 23;401(3):395–410

Regulation of corticosteroid receptors in patients with anorexia nervosa and Cushing's syndrome. Armanini D, et al. **J Endocrinol** 1998 Sep;158(3):435–9

The HIV–1 virion–associated protein vpr is a coactivator of the human glucocorticoid receptor. Kino T, et al. **J Exp Med** 1999 Jan 4;189(1):51–62

Corticosterone treatment differentially affects adrenocorticoid receptors expression and binding in the hippocampus and spinal cord of the rat. Patacchioli FR, et al. **J Mol Neurosci** 1998 Aug;11(1):95–103

Long duration electroporation for achieving high level expression of glucocorticoid receptors in mammalian cell lines. Bodwell J, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1–2):77–82

Association of the rat liver glucocorticoid receptor with Hsp90 and Hsp70 upon whole body hyperthermic stress. Cvoro A, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(4):319–25

Import of the glucocorticoid receptor into rat liver mitochondria in vivo and in vitro. Demonacos C, et al. **J Steroid Biochem Mol Biol** 1993 Sep;46(3):401–13

Aminosulfhydryl and aminodisulfide compounds enhance binding of the glucocorticoid receptor complex to deoxyribonucleic acid–coated cellulose and to chromatin. Karle JM, et al. **J Steroid Biochem Mol Biol** 1993 Sep; 46(3):289–97

Involvement of glucocorticoid receptor in the induction of differentiation by ginsenosides in F9 teratocarcinoma cells. Lee YN, et al. **J Steroid Biochem Mol Biol** 1998 Oct; 67(2):105–11

Glucocorticoid receptor binding to rat liver nuclei occurs without nuclear transport. Miyashita Y, et al. **J Steroid Biochem Mol Biol** 1993 Sep;46(3):309–20

Quantity of partial agonist activity for antiglucocorticoids complexed with mutant glucocorticoid receptors is constant in two different transactivation assays but not predictable from steroid structure. Sarlis NJ, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):89–102

Subcellular localization of glucocorticoid receptor protein in the human kidney glomerulus. Yan K, et al. **Kidney Int** 1999 Jul;56(1):65–73

Effect of single neonatal vitamin K1 treatment (imprinting) on the binding capacity of thymic glucocorticoid and uterine estrogen receptors of adolescent and adult rats. Csaba G, et al. **Life Sci** 1999;65(1):PL1–5

Coactivator TIF1beta interacts with transcription factor C/EBPbeta and glucocorticoid receptor to induce alpha1–acid glycoprotein gene expression. Chang CJ, et al. **Mol Cell Biol** 1998 Oct;18(10):5880–7

Distinct glucocorticoid receptor transcriptional regulatory surfaces mediate the cytotoxic and cytostatic effects of glucocorticoids. Rogatsky I, et al. **Mol Cell Biol** 1999 Jul; 19(7):5036–49

Discrimination between NL1– and NL2–mediated nuclear localization of the glucocorticoid receptor. Savory JG, et al. **Mol Cell Biol** 1999 Feb;19(2):1025–37

Histone acetyltransferase complexes can mediate transcriptional activation by the major glucocorticoid receptor activation domain. Wallberg AE, et al. **Mol Cell Biol** 1999 Sep;19(9):5952–9

The glucocorticoid properties of the synthetic steroid pregna–1,4–diene–11beta–ol–3,20–dione (deltaHOP) are not entirely correlated with the steroid binding to the glucocorticoid receptor. Vicent GP, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):207–19

Heat shock protein 90–dependent (geldanamycin–inhibited) movement of the glucocorticoid receptor through the cytoplasm to the nucleus requires intact cytoskeleton. Galigniana MD, et al. **Mol Endocrinol** 1998 Dec; 12(12):1903–13

Chromatin recycling of glucocorticoid receptors: implications for multiple roles of heat shock protein 90. Liu J, et al. **Mol Endocrinol** 1999 Mar;13(3):355–65

Inhibition by insulin of glucocorticoid–induced gene transcription: involvement of the ligand–binding domain of the glucocorticoid receptor and independence from the phosphatidylinositol 3–kinase and mitogen–activated protein kinase pathways. Pierreux CE, et al. **Mol Endocrinol** 1998 Sep;12(9):1343–54

The DNA–binding and tau2 transactivation domains of the rat glucocorticoid receptor constitute a nuclear matrix–targeting signal. Tang Y, et al. **Mol Endocrinol** 1998 Sep;12(9):1420–31

Inhibition of glucocorticoid receptor binding by nitric oxide. Galigniana MD, et al. **Mol Pharmacol** 1999 Feb; 55(2):317–23

Rifampicin is not an activator of the glucocorticoid receptor in A549 human alveolar cells. Jaffuel D, et al. **Mol Pharmacol** 1999 May;55(5):841–6

Rifampicin: a glucocorticoid receptor ligand? [letter; comment] Ray DW, et al. **Nat Med** 1998 Oct;4(10):1090–1 . Comment on: Nat Med 1998 Jan;4(1):92–6.

Long–term lack of endogenous glucocorticoids down–regulates glucocorticoid receptor levels in the rat forebrain. Hu Z, et al. **Neuroscience** 1999;90(4):1185–95

The molecular chaperone Hsp90 can negatively regulate the activity of a glucocorticosteroid–dependent promoter. Kang KI, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1439–44

Heat shock protein interactions with the glucocorticoid receptor. Bertorelli G, et al. **Pulm Pharmacol Ther** 1998 Feb;11(1):7–12 (57 ref.)

Glucocorticoid receptor mRNA levels in bronchial epithelial cells of patients with COPD: influence of glucocorticoids. Korn SH, et al. **Respir Med** 1998 Sep;92(9):1102–9

Plasma membrane–resident glucocorticoid receptors in rodent lymphoma and human leukemia models. Gametchu B, et al. **Steroids** 1999 Jan–Feb;64(1–2):107–19 (47 ref.)

Iodinated and fluorinated steroid 2'–aryl–[3,2–c] pyrazoles as potential glucocorticoid receptor imaging agents. Hoyte RM, et al. **Steroids** 1998 Nov;63(11):595–602

RT–PCR quantification of AHR, ARNT, GR, and CYP1A1 mRNA in craniofacial tissues of embryonic mice exposed to 2,3,7,8–tetrachlorodibenzo–p–dioxin and hydrocortisone. Abbott BD, et al. **Toxicol Sci** 1999 Jan; 47(1):76–85

[Dependence of the antineoplastic effect of hormonal cytostatic cortifen on expression of glucocorticoid receptors in brain tumor cells] Smirnova ZS, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):331–3 **(Rus)**

PHYSIOLOGY

Effects of cytokines on glucocorticoid receptor expression and function. Glucocorticoid resistance and relevance to depression. Miller AH, et al. **Adv Exp Med Biol** 1999; 461:107–16 (33 ref.)

Enhanced conditioned approach responses in transgenic mice with impaired glucocorticoid receptor function. Steckler T, et al. **Behav Brain Res** 1999 Jul;102(1–2):151–63

Disrupted allocentric but preserved egocentric spatial learning in transgenic mice with impaired glucocorticoid receptor function. Steckler T, et al. **Behav Brain Res** 1999 Apr;100(1–2):77–89

Role of CBP in glucocorticoid–induced gene repression. Adcock IM, et al. **Biochem Soc Trans** 1998 Aug;26(3):S255

Ser/Thr protein phosphatase type 5 (PP5) is a negative regulator of glucocorticoid receptor–mediated growth arrest. Zuo Z, et al. **Biochemistry** 1999 Jul 13; 38(28):8849–57

Glucocorticoid receptor–mediated post–ceramide inhibition of the interleukin–1beta–dependent induction of ovarian prostaglandin endoperoxide synthase–2 in rats. Irahara M, et al. **Biol Reprod** 1999 Apr;60(4):946–53

The glucocorticoid receptor cooperates with the erythropoietin receptor and c–Kit to enhance and sustain proliferation of erythroid progenitors in vitro. von Lindern M, et al. **Blood** 1999 Jul 15;94(2):550–9

Ligand–induced differentiation of glucocorticoid receptor (GR) trans–repression and transactivation: preferential targetting of NF–kappaB and lack of I–kappaB involvement. Adcock IM, et al. **Br J Pharmacol** 1999 Jun; 127(4):1003–11

Effects of weaning and restraint stress on glucocorticoid receptor binding capacity in limbic areas of domestic pigs. Kanitz E, et al. **Brain Res** 1998 Sep 7;804(2):311–5

Phenylethanolamine N–methyltransferase gene expression: synergistic activation by Egr–1, AP–2 and the glucocorticoid receptor. Wong DL, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):154–61

Identification of potential sites of cortisol actions on the reproductive axis in rainbow trout. Teitsma C, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):243–9 (33 ref.)

Molecular control of immune/inflammatory responses: interactions between nuclear factor–kappa B and steroid receptor–signaling pathways. McKay LI, et al. **Endocr Rev** 1999 Aug;20(4):435–59 (271 ref.)

Thiazolidinedione effects on glucocorticoid receptor–mediated gene transcription and differentiation in osteoblastic cells. Johnson TE, et al. **Endocrinology** 1999 Jul;140(7):3245–54

Glucocorticoid receptor down–regulates c–Jun amino terminal kinases induced by tumor necrosis factor alpha in fetal rat hepatocyte primary cultures. Ventura JJ, et al. **Hepatology** 1999 Mar;29(3):849–57

11Beta–hydroxysteroid dehydrogenase type 2 in human lung: possible regulator of mineralocorticoid action. Suzuki T, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4022–5

Strain differences in corticosteroid receptor efficiencies and regulation in Brown Norway and Fischer 344 rats. Marissal–Arvy N, et al. **J Neuroendocrinol** 1999 Apr; 11(4):267–73

Binding characteristics of the glucocorticoid receptor in peripheral blood lymphocytes in multiple sclerosis. Then Bergh F, et al. **J Neurol** 1999 Apr;246(4):292–8

Pharmacokinetic/Pharmacodynamic models for corticosteroid receptor down–regulation and glutamine synthetase induction in rat skeletal muscle by a Receptor/Gene–mediated mechanism. Sun YN, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):720–8

Glucocorticoid receptor, C/EBP, HNF3, and protein kinase A coordinately activate the glucocorticoid response unit of the carbamoylphosphate synthetase I gene. Christoffels VM, et al. **Mol Cell Biol** 1998 Nov;18(11):6305–15

Glucocorticoid signalling—multiple variations of a common theme. Reichardt HM, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):1–6 (38 ref.)

Glucocorticoid receptor/signal transducer and activator of transcription 5 (STAT5) interactions enhance STAT5 activation by prolonging STAT5 DNA binding and tyrosine phosphorylation. Wyszomierski SL, et al. **Mol Endocrinol** 1999 Feb;13(2):330–43

Disruption of the glucocorticoid receptor gene in the nervous system results in reduced anxiety. Tronche F, et al. **Nat Genet** 1999 Sep;23(1):99–103

Support for a bimodal role for type II adrenal steroid receptors in spatial memory. Conrad CD, et al. **Neurobiol Learn Mem** 1999 Jul;72(1):39–46

Enhanced morphine–induced behavioural effects and dopamine release in the nucleus accumbens in a transgenic mouse model of impaired glucocorticoid (type II) receptor function: influence of long–term treatment with the antidepressant moclobemide. Sillaber I, et al. **Neuroscience** 1998 Jul;85(2):415–25

Antiglucocorticoid activity of hepatocyte nuclear factor–6. Pierreux CE, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8961–6

Basolateral amygdala noradrenergic influence enables enhancement of memory consolidation induced by hippocampal glucocorticoid receptor activation. Roozendaal B, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11642–7

Differential effects of neonatal handling on anxiety, corticosterone response to stress, and hippocampal glucocorticoid and serotonin (5–HT)2A receptors in Lewis rats. Durand M, et al. **Psychoneuroendocrinology** 1998 May; 23(4):323–35

[Induction of apoptosis in lymphocytes by glucocorticoids: between physiology and pharmacology] Pallardy M, et al. **C R Seances Soc Biol Fil** 1998;192(6):1051–63 (37 ref.) (Eng. Abstr.) **(Fre)**

RECEPTORS, GLUTAMATE

AGONISTS see EXCITATORY AMINO ACID AGONISTS

ANALYSIS

An immunocytochemical assay for activity–dependent redistribution of glutamate receptors from the postsynaptic plasma membrane. Lissin DV, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:550–3

Differential effects of electroconvulsive shock on the glutamate receptor mRNAs for NR2A, NR2B and mGluR5b. Watkins CJ, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):108–13

A new approach to estimate the number, density and variability of receptors at central synapses. Nusser Z. **Eur J Neurosci** 1999 Mar;11(3):745–52 (52 ref.)

Altered development of glutamate and GABA receptors in the basal ganglia of girls with Rett syndrome. Blue ME, et al. **Exp Neurol** 1999 Apr;156(2):345–52

Differential distribution of intracellular glutamate receptors in dendrites. Rubio ME, et al. **J Neurosci** 1999 Jul 1; 19(13):5549–62

Cloning and localisation of an avermectin receptor–related subunit from Haemonchus contortus. Delany NS, et al. **Mol Biochem Parasitol** 1998 Nov 30;97(1–2):177–87

Presence of glutamate receptor subtypes on barosensitive neurons in the nucleus tractus solitarius of the dog. Botsford SA, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):113–7

ANTAGONISTS & INHIBITORS see EXCITATORY AMINO ACID ANTAGONISTS

BIOSYNTHESIS

Unilateral labyrinthectomy downregulates glutamate receptor delta–2 expression in the rat vestibulocerebellum. Kitahara T, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1–2):170–8

Glutamate receptor expression regulates quantal size and quantal content at the Drosophila neuromuscular junction. DiAntonio A, et al. **J Neurosci** 1999 Apr 15;19(8):3023–32

BLOOD

Supersensitive platelet glutamate receptors as a possible peripheral marker in schizophrenia. Berk M, et al.

RECEPTORS, GLUTAMATE

Int Clin Psychopharmacol 1999 Mar;14(2):119–22

CHEMISTRY

Glutamate receptor anchoring proteins and the molecular organization of excitatory synapses. Sheng M, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:483–93

Three-dimensional models of glutamate receptors. Sutcliffe MJ, et al. **Biochem Soc Trans** 1998 Aug;26(3):450–8 (50 ref.)

Differential expression of ionotropic glutamate receptor subunits in the outer retina. Morigiwa K, et al. **J Comp Neurol** 1999 Mar 8;405(2):173–84

Structure of a glutamate-receptor ligand-binding core in complex with kainate. Armstrong N, et al. **Nature** 1998 Oct 29;395(6705):913–7

CLASSIFICATION

Selective agonists of metabotropic glutamate receptors elicit significant EEG effects when infused in the nucleus accumbens of rats. Popoli P, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):183–8

DRUG EFFECTS

Glutamate release inhibitors: a critical assessment of their action mechanism. Obrenovitch TP, et al. **Amino Acids** 1998;14(1–3):143–50 (43 ref.)

2,3'-disubstituted-2-(2'-carboxycyclopropyl)glycines as potent and selective antagonists of metabotropic glutamate receptors. Collado I, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2849–54

The network-selective actions of quinoxalines on the neurocircuitry operations of the rabbit retina. Cohen ED, et al. **Brain Res** 1999 Jun 12;831(1–2):206–28

Glutamate receptor antagonists inhibit calpain-mediated cytoskeletal proteolysis in focal cerebral ischemia. Minger SL, et al. **Brain Res** 1998 Nov 9;810(1–2):181–99

The effect of pentylenetetrazol kindling on synaptic mechanisms of interacting glutamatergic and opioid system in the hippocampus of rats. Schroeder H, et al. **Brain Res** 1998 Nov 16;811(1–2):40–6

Pharmacological profile of the isomers of the GluR-specific agonist ATPA. Curry K, et al. **Can J Physiol Pharmacol** 1998 Jun;76(6):690–2

Glutamate receptor requirement for neuronal death from anoxia-reoxygenation: an in Vitro model for assessment of the neuroprotective effects of estrogens. Zaulyanov LL, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):705–18

Respiratory effects of glutamate receptor antagonists in neonate and adult mammals. Borday V, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):235–46

Metabotropic glutamate receptors and cell-type-specific vulnerability in the striatum: implication for ischemia and Huntington's disease. Calabresi P, et al. **Exp Neurol** 1999 Jul;158(1):97–108

Phosphorylation of myristoylated alanine-rich protein kinase C substrate by mitogen-activated protein kinase in cultured rat hippocampal neurons following stimulation of glutamate receptors. Ohmitsu M, et al. **J Biol Chem** 1999 Jan 1; 274(1):408–17

Pharmacological characterization, anatomical distribution and sex differences of the non-NMDA excitatory amino acid receptors in the quail brain as identified by CNQX binding. Martinez de la Torre M, et al. **J Chem Neuroanat** 1998 Sep;15(3):187–200

Some interactions of L-DOPA and its related compounds with glutamate receptors. Miyamae T, et al. **Life Sci** 1999; 64(12):1045–54

The activation of glutamate receptors by kainic acid and domoic acid. Hampson DR, et al. **Nat Toxins** 1998; 6(3–4):153–8 (60 ref.)

Ionotropic glutamate receptors as sites of action for ethanol in the brain. Woodward JJ. **Neurochem Int** 1999 Aug; 35(2):107–13 (63 ref.)

Modulation of desensitization at glutamate receptors in isolated crucian carp horizontal cells by concanavalin A, cyclothiazide, aniracetam and PEPA. Shen Y, et al. **Neuroscience** 1999 Mar;89(3):979–90

Effects of antiepileptic drugs on the activation of glutamate receptors. Taubøll E, et al. **Prog Brain Res** 1998;116:385–93 (63 ref.)

Defensive reactions are counteracted by midazolam and muscimol and elicited by activation of glutamate receptors in the inferior colliculus of rats. Pandossio JE, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):360–8

Localization of ionotropic glutamate receptors in caudate-putamen and nucleus accumbens septi of rat brain: comparison of NMDA, AMPA, and kainate receptors. Tarazi FI, et al. **Synapse** 1998 Oct;30(2):227–35

Mechanism of action of volatile anesthetics: effects of halothane on glutamate receptors in vitro. Perouansky M, et al. **Toxicol Lett** 1998 Nov 23;100–101:65–9

Horizontal cell glutamate receptor modulation by NO: mechanisms and functional implications for the first visual synapse. McMahon DG, et al. **Vis Neurosci** 1999 May-Jun; 16(3):425–33

[The EAA-ergic modulation of the brain dopaminergic system as a basis for creating new nootropic agents with stress-protective activity] Petrov VI, et al. **Vestn Ross Akad Med Nauk** 1998;(11):29–34 (Eng. Abstr.) **(Rus)**

GENETICS

GluR delta 2 and the development and death of cerebellar Purkinje neurons in lurcher mice. Heintz N, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:502–14

Mice with genetically modified NMDA and AMPA receptors. Sprengel R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:494–501

Genetic regulation of glutamate receptor ion channels. Myers SJ, et al. **Annu Rev Pharmacol Toxicol** 1999;39:221–41 (119 ref.)

The lurcher mutation and ionotropic glutamate receptors: contributions to programmed neuronal death in vivo. De Jager PL, et al. **Brain Pathol** 1998 Oct;8(4):795–807 (67 ref.)

D2 dopamine receptor but not AMPA and kainate glutamate receptor genes show altered expression in response to long term treatment with trans- and cis-flupenthixol in the rat brain. Chen AC, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):14–21

Molecular cloning and expression of the rat EAAT4 glutamate transporter subtype. Lin CL, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):174–9

Expression of glutamate receptor subunit/subtype messenger RNAS for NMDAR1, GLuR1, GLuR2 and mGLuR5 by accumbal projection neurons. Lu XY, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):287–96

Differential effects of electroconvulsive shock on the glutamate receptor mRNAs for NR2A, NR2B and mGluR5b. Watkins CJ, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):108–13

Hotfoot mouse mutations affect the delta 2 glutamate receptor gene and are allelic to lurcher. Lalouette A, et al. **Genomics** 1998 May 15;50(1):9–13

Mapping of the mouse glutamate receptor delta1 subunit (Grid1) to chromosome 14. Treadaway J, et al. **Genomics** 1998 Dec 1;54(2):359–60

Editing of glutamate receptor subunit B pre-mRNA by splice-site variants of interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Feb 19;274(8):5070–7

Laminar segregation of the cortical plate during corticogenesis is accompanied by changes in glutamate receptor expression. Furuta A, et al. **J Neurobiol** 1999 Apr; 39(1):67–80

Expression of NMDAR1, GluR1, GluR7, and KA1 glutamate receptor mRNAs is decreased in frontal cortex of "neuroleptic-free" schizophrenics: evidence on reversible up-regulation by typical neuroleptics. Sokolov BP. **J Neurochem** 1998 Dec;71(6):2454–64

Hormonal regulation of glutamate receptor gene expression in the anteroventral periventricular nucleus of the hypothalamus. Gu G, et al. **J Neurosci** 1999 Apr 15; 19(8):3213–22

Cloning and localisation of an avermectin receptor-related subunit from Haemonchus contortus. Delany NS, et al. **Mol Biochem Parasitol** 1998 Nov 30;97(1–2):177–87

Molecular evolution of glutamate receptors: a primitive signaling mechanism that existed before plants and animals diverged. Chiu J, et al. **Mol Biol Evol** 1999 Jun;16(6):826–38

Neurological dysfunctions in mice expressing different levels of the Q/R site-unedited AMPAR subunit GluR-B. Feldmeyer D, et al. **Nat Neurosci** 1999 Jan;2(1):57–64

Glutamate-receptor genes in plants [letter] Lam HM, et al. **Nature** 1998 Nov 12;396(6707):125–6

The AMPA receptor subunit GluR-B in its Q/R site-unedited form is not essential for brain development and function. Kask K, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13777–82

IMMUNOLOGY

Antibodies prepared to neuronal glutamate receptor subunit3 bind IFNalpha-receptors: implications for an autoimmune process. Gahring LC, et al. **Autoimmunity** 1998;28(4):243–8

ISOLATION & PURIFICATION

[3H]CNQX and NMDA-sensitive [3H]glutamate binding sites and AMPA receptor subunit RNA transcripts in the striatum of normal and weaver mutant mice and effects of ventral mesencephalic grafts. Mitsacos A, et al. **Cell Transplant** 1999 Jan-Feb;8(1):11–23

METABOLISM

Glutamate receptors in the cingulate cortex, hippocampus, and cerebellar vermis of alcoholics. Freund G, et al. **Alcohol Clin Exp Res** 1999 Jan;23(1):1–6

Terfenadine induces toxicity in cultured cerebellar neurons: a role for glutamate receptors. Diaz-Trelles R, et al. **Amino Acids** 1999;16(1):59–70

Characterization, expression, and distribution of GRIP protein. Dong H, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:535–40

The arrangement of glutamate receptors in excitatory synapses. Takumi Y, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:474–82

Development of amino acid receptors in frontal cortex from girls with Rett syndrome. Blue ME, et al. **Ann Neurol** 1999 Apr;45(4):541–5

A molecular envelope of the ligand-binding domain of a glutamate receptor in the presence and absence of agonist. Abele R, et al. **Biochemistry** 1999 Aug 24;38(34):10949–57

Comparison of glutamate and gamma-aminobutyric acid uptake binding sites in frontal and temporal lobes in schizophrenia. Simpson MD, et al. **Biol Psychiatry** 1998 Sep 15;44(6):423–7

Effects of ionic compositions of the medium on monosodium glutamate binding to taste epithelial cells. Hayashi Y, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):480–4

Inflammation-induced changes in peripheral glutamate receptor populations. Carlton SM, et al. **Brain Res** 1999 Feb 27;820(1–2):63–70

Molecular and immunochemical characterization of the ionotropic glutamate receptors in the rat heart. Gill SS, et al. **Brain Res Bull** 1998 Jul 15;46(5):429–34

Selectivity in the distribution of glutamate receptors in neurons. Petralia RS, et al. **Cell Biol Int** 1998; 22(9–10):603–8 (36 ref.)

Ionotropic glutamate receptors. Bigge CF. **Curr Opin Chem Biol** 1999 Aug;3(4):441–7 (50 ref.)

Glutamate receptor mechanisms in human epileptic dysplastic cortex. Babb TL, et al. **Epilepsy Res** 1998 Sep;32(1–2):24–33

A novel form of long-term depression in the CA1 area of the adult rat hippocampus independent of glutamate receptors activation. Berretta N, et al. **Eur J Neurosci** 1998 Sep;10(9):2957–63

Gamma-aminobutyric acid and glutamic acid receptors may mediate theophylline-induced seizures in mice. Amabeoku GJ. **Gen Pharmacol** 1999 Mar;32(3):365–72

Turnover analysis of glutamate receptors identifies a rapidly degraded pool of the N-methyl-D-aspartate receptor subunit, NR1, in cultured cerebellar granule cells. Huh KH, et al. **J Biol Chem** 1999 Jan 1;274(1):151–7

Homer 1b regulates the trafficking of group I metabotropic glutamate receptors. Roche KW, et al. **J Biol Chem** 1999 Sep 3;274(36):25953–7

The glutamate hypothesis of schizophrenia [editorial] Akhondzadeh S. **J Clin Pharm Ther** 1998 Aug;23(4):243–6

Repeated cocaine alters glutamate receptor subunit levels in the nucleus accumbens and ventral tegmental area of rats that develop behavioral sensitization. Churchill L, et al. **J Neurochem** 1999 Jun;72(6):2397–403

Subtype-specific effects of lithium on glutamate receptor function. Karkanias NB, et al. **J Neurophysiol** 1999 Apr; 81(4):1506–12

Regulation of F-actin stability in dendritic spines by glutamate receptors and calcineurin. Halpain S, et al. **J Neurosci** 1998 Dec 1;18(23):9835–44

Postsynaptic density-93 interacts with the delta2 glutamate receptor subunit at parallel fiber synapses. Roche KW, et al. **J Neurosci** 1999 May 15;19(10):3926–34

Distribution of functional glutamate receptors in cultured embryonic Drosophila myotubes revealed using focal release of L-glutamate from caged compound by laser. Saitoe M, et al. **J Neurosci Methods** 1998 Apr 30; 80(2):163–70

Hippocampal AMPA and NMDA mRNA levels correlate with aberrant fascia dentata mossy fiber sprouting in the pilocarpine model of spontaneous limbic epilepsy. Mathern GW, et al. **J Neurosci Res** 1998 Dec 15;54(6):734–53

Chronic morphine treatment selectively augments metabotropic glutamate receptor-induced inhibition of N-methyl-D-aspartate receptor-mediated neurotransmission in nucleus accumbens. Martin G, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):30–5

Ca2+ permeability and kinetics of glutamate receptors in rat medial habenula neurones: implications for purinergic transmission in this nucleus. Robertson SJ, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):539–49

Glutamate uptake in Purkinje cells in rat cerebellar slices. Takahashi M, et al. **Methods Enzymol** 1998;296:608–17

Determination of membrane topology of glutamate receptors. VanDongen HM, et al. **Methods Mol Biol** 1999;128:155–66 (32 ref.)

Rapid redistribution of glutamate receptors contributes to long-term depression in hippocampal cultures. Carroll RC, et al. **Nat Neurosci** 1999 May;2(5):454–60

Receptor interactions of beta-N-oxalyl-L-alpha,beta-diaminopropionic acid, the Lathyrus sativus putative excitotoxin, with synaptic membranes. Jain RK, et al. **Neurochem Res** 1998 Sep; 23(9):1191–6

Candidate editases for GluR channels in single neurons of rat hippocampus and cerebellum. Köhr G, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1411–7

Variations in the tangential distribution of postsynaptic glutamate receptors in Purkinje cell parallel and climbing fiber synapses during development. Petralia RS, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1321–34

Ionotropic glutamate receptor modulation of 5-HT6 and 5-HT7 mRNA expression in rat brain. Healy DJ, et al. **Neuropsychopharmacology** 1999 Sep;21(3):341–51

Expression of long-term potentiation in single wide dynamic range neurons in the rat is sensitive to blockade of glutamate receptors. Svendsen F, et al. **Neurosci Lett** 1999 Jan 4;259(1):25–8

Constitutive expression of cytoplasmic activator protein-1 with DNA binding activity and responsiveness to ionotropic glutamate signals in the murine hippocampus. Azuma Y, et al. **Neuroscience** 1999;92(4):1295–308

A study of the mechanism of the release of ATP from rat cortical astroglial cells evoked by activation of glutamate receptors. Queiroz G, et al. **Neuroscience** 1999; 91(3):1171–81

An investigation of the possible interaction of clomethiazole with glutamate and ion channel sites as an explanation of its neuroprotective activity. Green AR, et al. **Pharmacol Toxicol** 1998 Aug;83(2):90–4

The modulatory effect of spermine on the glutamate–NMDA receptor is regionally variable in normal human adult cerebral cortex. Mortensen M, et al. **Pharmacol Toxicol** 1999 Mar;84(3):135–42

Extracellular glutamate diffusion determines the occupancy of glutamate receptors at CA1 synapses in the hippocampus. Kullmann DM, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28; 354(1381):395–402 (57 ref.)

Effect of neurosteroids on glutamate binding sites and glutamate uptake in rat hippocampus. Leśkiewicz M, et al. **Pol J Pharmacol** 1998 Jul–Oct;50(4–5):355–60

Anchoring of glutamate receptors at the synapse. Hsueh YP, et al. **Prog Brain Res** 1998;116:123–31 (46 ref.)

Synaptic arrangement of glutamate receptors. Takumi Y, et al. **Prog Brain Res** 1998;116:105–21 (94 ref.)

In vivo studies of the cerebral glutamate receptor/NO/cGMP pathway. Fedele E, et al. **Prog Neurobiol** 1999 May;58(1):89–120 (168 ref.)

A new protein folding screen: application to the ligand binding domains of a glutamate and kainate receptor and to lysozyme and carbonic anhydrase. Armstrong N, et al. **Protein Sci** 1999 Jul;8(7):1475–83

Precisely localized LTD in the neocortex revealed by infrared-guided laser stimulation. Dodt H, et al. **Science** 1999 Oct 1;286(5437):110–3

Cytoskeletal dynamics in dendritic spines: direct modulation by glutamate receptors? van Rossum D, et al. **Trends Neurosci** 1999 Jul;22(7):290–5 (80 ref.)

Biochemical and morphological analysis of non-NMDA receptor mediated excitotoxicity in chick embryo retina. Chen Q, et al. **Vis Neurosci** 1999 Jan–Feb;16(1):131–9

[Effects of deltamethrin on the binding of glutamate receptor to rat cerebral cortical synaptosomal membrane] Zhao X, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 May; 31(3):157–9 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Electrophysiological studies of oxytocin neurons in organotypic slice cultures. Jourdain P, et al. **Adv Exp Med Biol** 1998;449:135–45

Metabotropic glutamate receptors in the plasticity of excitatory responses in the hippocampus. Clinical impact. Merlin LR. **Adv Exp Med Biol** 1998;446:131–44 (70 ref.)

Glutamate receptor-mediated mechanisms in levodopa-induced motor fluctuations in an experimental model of parkinsonism. Marin C, et al. **Adv Neurol** 1999; 80:129–33

Non-NMDA and NMDA receptors in the synaptic pathway between area postrema and nucleus tractus solitarius. Aylwin ML, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1236–46

Functional specificity of ventral striatal compartments in appetitive behaviors. Kelley AE. **Ann N Y Acad Sci** 1999 Jun 29;877:71–90 (115 ref.)

A quantitative autoradiographic comparison of binding to glutamate receptor sub-types in hippocampus and forebrain regions of a food-storing and a non-food-storing bird. Stewart MG, et al. **Behav Brain Res** 1999 Jan;98(1):89–94

Hyperexcitability of amygdala neurons of senescence-accelerated mouse revealed by electrical and optical recordings in an in vitro slice preparation. Nakanishi H, et al. **Brain Res** 1998 Nov 23;812(1–2):142–9

Effect of glutamate receptor antagonists on excitatory postsynaptic potentials in striatum. Világi I, et al. **Brain Res Bull** 1998 Aug;46(6):483–6

The in vivo proconvulsant effects of corticotropin releasing hormone in the developing rat are independent of ionotropic glutamate receptor activation. Brunson KL, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):119–28

Assembly of signaling machinery at the postsynaptic membrane. Kirsch J. **Curr Opin Neurobiol** 1999 Jun; 9(3):329–35 (61 ref.)

Rasmussen's encephalitis with concomitant cortical dysplasia: the role of GluR3. Palmer CA, et al. **Epilepsia** 1999 Feb; 40(2):242–7

Glutamate receptor activation can trigger electrical activity in human glioma cells. Labrakakis C, et al. **Eur J Neurosci** 1998 Jun;10(6):2153–62

Rapid desensitization converts prolonged glutamate release into a transient EPSC at ribbon synapses between retinal bipolar and amacrine cells. Maguire G. **Eur J Neurosci** 1999 Jan;11(1):353–62

Spatiotemporal patterning of glutamate receptors in developing ferret striate cortex. Smith AL, et al. **Eur J Neurosci** 1999 Mar;11(3):923–34

Are glutamate receptors specifically implicated in some forms of memory processes? Ungerer A, et al. **Exp Brain Res** 1998 Nov;123(1–2):45–51 (31 ref.)

Regulation of calcium/calmodulin-dependent protein kinase II in the adult rat retina is mediated by ionotropic glutamate receptors. Laabich A, et al. **Exp Eye Res** 1999 Jun; 68(6):703–13

Carnosine and beta-alanine release is stimulated by glutamatergic receptors in cultured rat oligodendrocytes. Bakardjiev A. **Glia** 1998 Nov;24(3):346–51

Glial hyperpolarization upon nerve root stimulation in the leech Hirudo medicinalis. Schmidt J, et al. **Glia** 1999 Jul; 27(1):32–8

Pressor response to compression of the ventrolateral medulla mediated by glutamate receptors. Morimoto S, et al. **Hypertension** 1999 May;33(5):1207–13

Effects of neonatal cholinergic basal forebrain lesions on excitatory amino acid receptors in neocortex. Hohmann CF, et al. **Int J Dev Neurosci** 1998 Nov–Dec;16(7–8):645–60

The glutamatergic system and neurodegeneration in dementia: preventive strategies in Alzheimer's disease. Cacabelos R, et al. **Int J Geriatr Psychiatry** 1999 Jan; 14(1):3–47 (228 ref.)

Glutamatergic neurotransmission in alcoholism. Tsai G. **J Biomed Sci** 1998 Sep–Oct;5(5):309–20 (146 ref.)

Activation of excitatory amino acid receptors in bovine dental pulp evokes the release of iCGRP. Jackson DL, et al. **J Dent Res** 1999 Jan;78(1):54–60

Changes in functional glutamate receptors on a postsynaptic neuron accompany formation and maturation of an identified synapse. Conrad P, et al. **J Neurobiol** 1999 May; 39(2):237–48

NMDA and non-NMDA ionotropic glutamate receptors modulate striatal acetylcholine release via pre- and postsynaptic mechanisms. Morari M, et al. **J Neurochem** 1998 Nov;71(5):2006–17

Effects of oxidants and glutamate receptor activation on mitochondrial membrane potential in rat forebrain neurons. Scanlon JM, et al. **J Neurochem** 1998 Dec;71(6):2392–400

Role of non-NMDA receptors in osmotic and glutamate stimulation of vasopressin release: effect of rapid receptor desensitization. Sladek CD, et al. **J Neuroendocrinol** 1998 Dec;10(12):897–903

Dendrodendritic recurrent excitation in mitral cells of the rat olfactory bulb. Aroniadou-Anderjaska V, et al. **J Neurophysiol** 1999 Jul;82(1):489–94

Differential roles of ionotropic glutamate receptors in canine medullary inspiratory neurons of the ventral respiratory group. Krolo M, et al. **J Neurophysiol** 1999 Jul;82(1):60–8

Glutamate-triggered events inducing corticostriatal long-term depression. Calabresi P, et al. **J Neurosci** 1999 Jul 15;19(14):6102–10

Rapid, activation-induced redistribution of ionotropic glutamate receptors in cultured hippocampal neurons [published erratum appears in J Neurosci 1999 Apr 15;19(8):3275] Lissin DV, et al. **J Neurosci** 1999 Feb 15; 19(4):1263–72

Differential expression of brain-derived neurotrophic factor, neurotrophin-3, and neurotrophin-4/5 in the adult rat spinal cord: regulation by the glutamate receptor agonist kainic acid. Scarisbrick IA, et al. **J Neurosci** 1999 Sep 15; 19(18):7757–69

Glutamate receptors mediate TTX-resistant synchronous activity in the rat hippocampus. Strowbridge BW. **J Neurosci** 1999 Jul 15;19(14):5758–67

Signal transduction through ion channels associated with excitatory amino acid receptors. Ogita K, et al. **Methods Enzymol** 1999;294:385–410

Activation of glycine and glutamate receptors increases intracellular calcium in cells derived from the endocrine pancreas. Weaver CD, et al. **Mol Pharmacol** 1998 Oct; 54(4):639–46

Arachidonic acid elicits a substrate-gated proton current associated with the glutamate transporter EAAT4. Fairman WA, et al. **Nat Neurosci** 1998 Jun;1(2):105–13

Focal photolysis of caged glutamate produces long-term depression of hippocampal glutamate receptors [see comments] Kandler K, et al. **Nat Neurosci** 1998 Jun; 1(2):119–23. Comment in: Nat Neurosci 1998 Jun;1(2):89–90.

Can molecules explain long-term potentiation? Sanes JR, et al. **Nat Neurosci** 1999 Jul;2(7):597–604 (122 ref.)

Modification of glutamate receptor channels: molecular mechanisms and functional consequences. Hatt H. **Naturwissenschaften** 1999 Apr;86(4):177–86 (51 ref.)

Calcium influx via ionotropic glutamate receptors causes long lasting inhibition of metabotropic glutamate receptor-coupled phosphoinositide hydrolysis. Facchinetti F, et al. **Neurochem Int** 1998 Sep;33(3):263–70

Effects of endogenous glutamate on extracellular concentrations of GABA, dopamine, and dopamine metabolites in the prefrontal cortex of the freely moving rat: involvement of NMDA and AMPA/KA receptors. Del Arco A, et al. **Neurochem Res** 1999 Aug;24(8):1027–35

Role of glutamate receptors and glutamate transporters in the regulation of the glutamate-glutamine cycle in the awake rat. Segovia G, et al. **Neurochem Res** 1999 Jun; 24(6):779–83

Modulation of cardiovascular effects produced by nitric oxide and ionotropic glutamate receptor interaction in the nucleus tractus solitarii of rats. Lin HC, et al. **Neuropharmacology** 1999 Jul;38(7):935–41

Divalent cations modulate glutamate receptors in retinal horizontal cells of the perch (Perca fluviatilis). Schmidt KF. **Neurosci Lett** 1999 Mar 5;262(2):109–12

Effects of hippocampal lesions on striatolimbic ionotropic glutamatergic receptors. Tarazi FI, et al. **Neurosci Lett** 1998 Jun 26;250(1):13–6

Presynaptic involvement of nitric oxide in dopamine D1/D5 receptor-induced sustained enhancement of synaptic currents mediated by ionotropic glutamate receptors in the rat hippocampus. Yang SN. **Neurosci Lett** 1999 Jul 30; 270(2):87–90

Nociceptive stimulation induces glutamate receptor down-regulation in the trigeminal nucleus. Florenzano F, et al. **Neuroscience** 1999 Apr;90(1):201–7

Trigeminovascular nociceptive transmission involves N-methyl-D-aspartate and non-N-methyl-D-aspartate glutamate receptors. Storer RJ, et al. **Neuroscience** 1999; 90(4):1371–6

Glutamatergic receptors regulate expression, phosphorylation and accumulation of neurofilaments in spinal cord neurons. Vartiainen N, et al. **Neuroscience** 1999; 93(3):1123–33

Role of glutamate receptors and nitric oxide in the rostral ventromedial medulla in visceral hyperalgesia. Coutinho SV, et al. **Pain** 1998 Oct;78(1):59–69

The glutamate receptor ion channels. Dingledine R, et al. **Pharmacol Rev** 1999 Mar;51(1):7–61 (695 ref.)

Metabotropic glutamate receptor-initiated translocation of protein kinase p90rsk to polyribosomes: a possible factor regulating synaptic protein synthesis. Angenstein F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15078–83

Ionotropic glutamate receptors and dopamine release in the frontal cortex in experimental hepatic encephalopathy. Borkowska HD, et al. **Proc West Pharmacol Soc** 1998; 41:107–9

Glutamate and its receptors in the pathophysiology of brain and spinal cord injuries. Alessandri B, et al. **Prog Brain Res** 1998;116:303–30 (180 ref.)

Glutamate receptors in epilepsy. Chapman AG. **Prog Brain Res** 1998;116:371–83 (125 ref.)

The synaptic pharmacology underlying sensory processing in the superior colliculus. Binns KE. **Prog Neurobiol** 1999 Oct;59(2):129–59 (172 ref.)

The intact isolated (ex vivo) retina as a model system for the study of excitotoxicity. Romano C, et al. **Prog Retin Eye Res** 1998 Oct;17(4):465–83 (124 ref.)

Glutamate receptors and asthmatic airway disease. Said SI. **Trends Pharmacol Sci** 1999 Apr;20(4):132–4

[Running fit and generalized tonic-clonic seizure are differently controlled by different subtype receptors in the brainstem] Yasuda S, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Aug; 18(4):123–8 (Eng. Abstr.) **(Jpn)**

[Calcium channels associated with glutamate receptors] Ogita K, et al. **Nippon Rinsho** 1998 Jul;56(7):1819–23 (19 ref.) (Eng. Abstr.) **(Jpn)**

[Glutamate receptors and brain function] Nakanishi S. **Seikagaku** 1998 Sep;70(9):1145–58 (63 ref.) **(Jpn)**

[Mechanisms of neuronal calcium homeostasis destabilization caused by hyperstimulation of glutamate receptors] Khodorov BI, et al. **Vestn Ross Akad Med Nauk** 1998; (8):41–6 (Eng. Abstr.) **(Rus)**

RECEPTORS, GLUTAMATE, METABOTROPIC see **RECEPTORS, METABOTROPIC GLUTAMATE**

RECEPTORS, GLYCINE

AGONISTS

L-687,414, a low efficacy NMDA receptor glycine site partial agonist in vitro, does not prevent hippocampal LTP in vivo at plasma levels known to be neuroprotective. Priestley T, et al. **Br J Pharmacol** 1998 Aug;124(8):1767–73

NMDA agonists and antagonists as probes of glutamatergic dysfunction and pharmacotherapies in neuropsychiatric disorders. Krystal JH, et al. **Harv Rev Psychiatry** 1999 Sep–Oct;7(3):125–43 (214 ref.)

A novel domain of the inhibitory glycine receptor determining antagonist efficacies: further evidence for partial agonism resulting from self-inhibition. Schmieden V, et al. **Mol Pharmacol** 1999 Sep;56(3):464–72

ANALYSIS

Glycine receptors in adult guinea pig brain stem auditory nuclei: regulation after unilateral cochlear ablation. Suneja SK, et al. **Exp Neurol** 1998 Dec;154(2):473–88

ANTAGONISTS & INHIBITORS

Actions of 3-[2-phosphonomethyl[1,1-biphenyl]-3-yl]alanine (PMBA) on cloned glycine receptors. Hosie AM, et al. **Br J Pharmacol** 1999 Mar;126(5):1230–6

LU 73068, a new non-NMDA and glycine/NMDA receptor antagonist: pharmacological characterization and comparison with NBQX and L-701,324 in the kindling model of epilepsy. Potschka H, et al. **Br J Pharmacol** 1998 Nov;125(6):1258–66

Evaluation of glycine site antagonists of the NMDA receptor in global cerebral ischaemia. Hicks CA, et al. **Brain Res** 1999 Feb 20;819(1–2):65–74

A possible mechanism underlying corymine inhibition of glycine-induced Cl- current in Xenopus oocytes. Leewanich P, et al. **Eur J Pharmacol** 1998 May 8; 348(2–3):271–7

Substituted analogues of GV150526 as potent glycine binding site antagonists in animal models of cerebral ischemia. Di Fabio R, et al. **J Med Chem** 1999 Sep 9;42(18):3486–93

Design and synthesis of novel quinoxaline-2,3-dione AMPA/GlyN receptor antagonists: amino acid derivatives. Nikam SS, et al. **J Med Chem** 1999 Jun 17;42(12):2266–71

Selective blocking effects of tropisetron and atropine on recombinant glycine receptors. Maksay G, et al.

J Neurochem 1999 Aug;73(2):802–6

The role of probenecid–sensitive organic acid transport in the pharmacokinetics of N–methyl–D–aspartate receptor antagonists acting at the glycine(B)–site: microdialysis and maximum electroshock seizures studies. Hesselink MB, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):543–50

Potent antihyperalgesic activity without tolerance produced by glycine site antagonist of N–methyl–D–aspartate receptor GV196771A. Quartaroli M, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):158–69

A novel domain of the inhibitory glycine receptor determining antagonist efficacies: further evidence for partial agonism resulting from self–inhibition. Schmieden V, et al. **Mol Pharmacol** 1999 Sep;56(3):464–72

Anticonvulsant effects of eliprodil alone or combined with the glycineB receptor antagonist L–701,324 or the competitive NMDA antagonist CGP 40116 in the amygdala kindling model in rats. Wlaź P, et al. **Neuropharmacology** 1999 Feb;38(2):243–51

Strong synergism between GABA(A) and glycine receptors on isolated carp third–order neurons. Li P, et al. **Neuroreport** 1998 Aug 24;9(12):2875–9

Anxiolytic– and antidepressant–like effects of an antagonist at glycineB receptors. Przegaliński E, et al. **Pol J Pharmacol** 1998 Jul–Oct;50(4–5):349–54

BIOSYNTHESIS

Stable expression of human glycine alpha1 and alpha2 homomeric receptors in mouse L(tk–) cells. Wick MJ, et al. **J Neurosci Methods** 1999 Feb 1;87(1):97–103

CHEMISTRY

Functional integrity of green fluorescent protein conjugated glycine receptor channels. David–Watine B, et al. **Neuropharmacology** 1999 Jun;38(6):785–92

Glycine–immunoreactive synaptic terminals in the nucleus tractus solitarii of the cat: ultrastructure and relationship to GABA–immunoreactive terminals. Saha S, et al. **Synapse** 1999 Sep 1;33(3):192–206

DRUG EFFECTS

Glycine derivatives of imidazolones as potential ligands of glycine binding site of NMDA receptors. Part 1. Kieć–Kononowicz K, et al. **Acta Pol Pharm** 1998 Sep–Oct; 55(5):381–8

Structure and activity studies on glycine receptor ligands. Part 5. Diphenyl imidazolin–4–one glycinamides. Kieć–Kononowicz K, et al. **Acta Pol Pharm** 1998 Sep–Oct; 55(5):389–96

Cycloalkyl indole–2–carboxylates as useful tools for mapping the "north–eastern" region of the glycine binding site associated with the NMDA receptor. Micheli F, et al. **Arch Pharm (Weinheim)** 1999 Mar;332(3):73–80

Enhancement of glycine receptor function by ethanol: role of phosphorylation. Mascia MP, et al. **Br J Pharmacol** 1998 Sep;125(2):263–70

Ethanol affects the function of a neurotransmitter receptor protein without altering the membrane lipid phase. Tapia JC, et al. **Eur J Pharmacol** 1998 Aug 7;354(2–3):239–44

Amino acid volume and hydropathy of a transmembrane site determine glycine and anesthetic sensitivity of glycine receptors. Yamakura T, et al. **J Biol Chem** 1999 Aug 13; 274(33):23006–12

Effects of (+)–HA–966, CGS–19755, phencyclidine, and dizocilpine on repeated acquisition of response chains in pigeons: systemic manipulation of central glycine sites. Campbell CM, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):521–7

CNQX but not NBQX prevents expression of amphetamine–induced place preference conditioning: a role for the glycine site of the NMDA receptor, but not AMPA receptors. Mead AN, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):9–15

Ethanol directly depresses AMPA and NMDA glutamate currents in spinal cord motor neurons independent of actions on GABAA or glycine receptors. Wang MY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):362–7

Comparison of glycine and GABA actions on the zebrafish homomeric glycine receptor. Fucile S, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):369–83

Acute effects of ethanol on GABAA and glycine receptor function. Mihic SJ. **Neurochem Int** 1999 Aug;35(2):115–23 (89 ref.)

Multiple picrotoxinin effect on glycine channels in rat hippocampal neurons. Yoon KW, et al. **Neuroscience** 1998 Dec;87(4):807–15

Polychlorocycloalkane insecticide action on GABA–and glycine–dependent chloride flux. Suñol C, et al. **Neurotoxicology** 1998 Aug–Oct;19(4–5):573–80 (54 ref.)

Modulation of glycine receptors in retinal ganglion cells by zinc. Han Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3234–8

Post–synaptic inhibitory mechanisms of anaesthesia: glycine receptors. Daniels S, et al. **Toxicol Lett** 1998 Nov 23; 100–101:71–6

GENETICS

Effects of ethanol on recombinant glycine receptors expressed in mammalian cell lines. Valenzuela CF, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):1132–6

Structure–function relationships of the human glycine receptor: insights from hyperekplexia mutations. Lewis TM, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:681–4

Novel GLRA1 missense mutation (P250T) in dominant hyperekplexia defines an intracellular determinant of glycine receptor channel gating. Saul B, et al. **J Neurosci** 1999 Feb 1;19(3):869–77

Expression and localization of the neuronal glycine receptor beta–subunit in human, rabbit and rat kidneys. Sarang SS, et al. **Nephron** 1999;82(3):254–60

Cloning, expression and electrophysiological characterization of glycine receptor alpha subunit from zebrafish. David–Watine B, et al. **Neuroscience** 1999 Apr;90(1):303–17

ISOLATION & PURIFICATION

Purification and heterologous expression of inhibitory glycine receptors. Laube B, et al. **Methods Enzymol** 1999; 294:260–73

METABOLISM

Structure and functions of inhibitory and excitatory glycine receptors. Betz H, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:667–76 (81 ref.)

Synthesis, glycine/NMDA and AMPA binding activity of some new 2,5,6–trioxopyrazino[1,2,3–de]quinoxalines and of their restricted analogs 2,5–dioxo– and 4,5–dioxoimidazo[1,5,4–de]quinoxalines. Varano F, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):201–7

Investigation of the alpha(1)–glycine receptor channel–opening kinetics in the submillisecond time domain. Grewer C. **Biophys J** 1999 Aug;77(2):727–38

Receptor clustering: activate to accumulate? Kamboj S, et al. **Curr Biol** 1998 Oct 8;8(20):R719–21 (13 ref.)

Cultured oligodendrocyte progenitors derived from cerebral cortex express a glycine receptor which is pharmacologically distinct from the neuronal isoform. Belachew S, et al. **Eur J Neurosci** 1998 Nov;10(11):3556–64

Age–related changes in [3H]strychnine binding in the vestibular nuclei of rats. Nakayama M, et al. **Hear Res** 1999 Jan;127(1–2):103–7

Development of GABA, glycine, and their receptors in the auditory brainstem of gerbil: a light and electron microscopic study. Korada S, et al. **J Comp Neurol** 1999 Jul 12;409(4):664–81

4,5–Dihydro–1,2,4–triazolo[1,5–a]quinoxalin–4–ones: excitatory amino acid antagonists with combined glycine/NMDA and AMPA receptor affinity. Catarzi D, et al. **J Med Chem** 1999 Jul 1;42(13):2478–84

Hydrophobic interactions mediate binding of the glycine receptor beta–subunit to gephyrin. Kneussel M, et al. **J Neurochem** 1999 Mar;72(3):1323–6

Zinc potentiation of the glycine receptor chloride channel is mediated by allosteric pathways. Lynch JW, et al. **J Neurochem** 1998 Nov;71(5):2159–68

Glycine uptake governs glycine site occupancy at NMDA receptors of excitatory synapses. Berger AJ, et al. **J Neurophysiol** 1998 Dec;80(6):3336–40

The alpha9 nicotinic acetylcholine receptor shares pharmacological properties with type A gamma–aminobutyric acid, glycine, and type 3 serotonin receptors. Rothlin CV, et al. **Mol Pharmacol** 1999 Feb; 55(2):248–54

Bidirectional allosteric modulation of strychnine–sensitive glycine receptors by tropeines and 5–HT3 serotonin receptor ligands. Maksay G. **Neuropharmacology** 1998 Dec; 37(12):1633–41

Inhibition of reinforcing effects of morphine and naloxone–precipitated opioid withdrawal by novel glycine site and uncompetitive NMDA receptor antagonists. Popik P, et al. **Neuropharmacology** 1998 Aug;37(8):1033–42

The human immunodeficiency virus–1 envelope protein gp120 binds through its V3 sequence to the glycine site of N–methyl–D–aspartate receptors mediating noradrenaline release in the hippocampus. Pattarini R, et al. **Neuroscience** 1998 Nov;87(1):147–57

An improved synthesis of [11C]L–703,717 as a radioligand for the glycine site of the NMDA receptor. Haradahira T, et al. **Nucl Med Biol** 1999 Feb;26(2):245–7

PHYSIOLOGY

cAMP–dependent protein kinase modulation of glycine–activated chloride current in neurons freshly isolated from rat ventral tegmental area. Ren J, et al. **Brain Res** 1998 Nov 16;811(1–2):71–8

The inhibitory glycine receptor: prospects for a therapeutic orphan? Breitinger HG, et al. **Curr Pharm Des** 1998 Aug; 4(4):315–34 (274 ref.)

Glycinergic miniature synaptic currents and receptor cluster sizes differ between spinal cord interneurons. Oleskevich S, et al. **J Neurophysiol** 1999 Jul;82(1):312–9

Development of glycinergic synaptic transmission to rat brain stem motoneurons. Singer JH, et al. **J Neurophysiol** 1998 Nov;80(5):2608–20

Contribution of single–channel properties to the time course and amplitude variance of quantal glycine currents recorded in rat motoneurons. Singer JH, et al. **J Neurophysiol** 1999 Apr;81(4):1608–16

Junctional versus extrajunctional glycine and GABA(A) receptor–mediated IPSCs in identified lamina I neurons of the adult rat spinal cord. Chéry N, et al. **J Neurosci** 1999 Sep 1;19(17):7342–55

Synaptic control of glycine and GABA(A) receptors and gephyrin expression in cultured motoneurons. Lévi S, et al. **J Neurosci** 1999 Sep 1;19(17):7434–49

Quantal size is correlated with receptor cluster area at glycinergic synapses in the rat brainstem. Lim R, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):505–12

The startle disease mutation Q266H, in the second transmembrane domain of the human glycine receptor, impairs channel gating. Moorhouse AJ, et al. **Mol Pharmacol** 1999 Feb;55(2):386–95

Activation of glycine and glutamate receptors increases intracellular calcium in cells derived from the endocrine pancreas. Weaver CD, et al. **Mol Pharmacol** 1998 Oct; 54(4):639–46

Zn2+ differentially modulates glycine receptors versus GABA receptors in isolated carp retinal third–order neurons. Li P, et al. **Neurosci Lett** 1999 Jul 9;269(2):75–8

Glycine and N–methyl–D–aspartate receptors: physiological significance and possible therapeutic applications. Danysz W, et al. **Pharmacol Rev** 1998 Dec;50(4):597–664 (806 ref.)

Glycine/NMDA receptor and seizure phenomena. Wlaź P. **Pol J Pharmacol** 1999 Jan–Feb;51(1):98–100 (25 ref.)

Modulation of glycine receptors in retinal ganglion cells by zinc. Han Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3234–8

Dual requirement for gephyrin in glycine receptor clustering and molybdoenzyme activity [see comments] Feng G, et al. **Science** 1998 Nov 13;282(5392):1321–4. Comment in: Science 1998 Nov 13;282(5392):1277–9.

Gathering glycine receptors at synapses [comment] Froehner SC. **Science** 1998 Nov 13;282(5392):1277–9. Comment on: Science 1998 Nov 13;282(5392):1321–4.

RECEPTORS, GNRH see **RECEPTORS, LHRH**

RECEPTORS, GONADOLIBERIN see **RECEPTORS, LHRH**

RECEPTORS, GONADORELIN see **RECEPTORS, LHRH**

RECEPTORS, GONADOTROPIN

The rate of internalization of the gonadotropin receptors is greatly affected by the origin of the extracellular domain. Nakamura K, et al. **J Biol Chem** 1999 Sep 3; 274(36):25426–32

GENETICS

Cloning, functional characterization, and expression of a gonadotropin receptor cDNA in the ovary and testis of amago salmon (Oncorhynchus rhodurus). Oba Y, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):584–90

PHYSIOLOGY

Gonadotropin receptors and the control of gonadal steroidogenesis: physiology and pathology. Misrahi M, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):35–66 (170 ref.)

RECEPTORS, GRANULOCYTE COLONY–STIMULATING FACTOR

AGONISTS

Circular permutation of the granulocyte colony–stimulating factor receptor agonist domain of myelopoietin. McWherter CA, et al. **Biochemistry** 1999 Apr 6; 38(14):4564–71

ANALYSIS

The immunohistochemical localization of the interferon–gamma and granulocyte colony–stimulating factor receptors during early amelogenesis in rat molars. Otsuji W, et al. **Arch Oral Biol** 1999 Feb;44(2):173–81

[Progression of multiple myeloma during treatment with recombinant G–CSF and absence of G–CSF and IL–6 cell surface receptors on malignant cells] Spička I, et al. **Cas Lek Cesk** 1998 Nov 2;137(21):660–3 (Eng. Abstr.) **(Cze)**

BIOSYNTHESIS

Expression and purification of cytokine receptor homology domain of human granulocyte–colony stimulating factor receptor in Escherichia coli. Tanaka R, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1809–11

Human granulocyte colony–stimulating factor (G–CSF) stimulates the in vitro and in vivo development but not commitment of primitive multipotential progenitors from transgenic mice expressing the human G–CSF receptor. Yang FC, et al. **Blood** 1998 Dec 15;92(12):4632–40

Granulocyte colony–stimulating factor receptor expression on neutrophils of term and preterm neonates with and without signs of infection. Gessler P, et al. **Eur J Pediatr** 1999 Jun;158(6):497–500

CHEMISTRY

Interaction of granulocyte colony–stimulating factor (G–CSF) with its receptor. Evidence that Glu19 of G–CSF interacts with Arg288 of the receptor. Layton JE, et al. **J Biol Chem** 1999 Jun 18;274(25):17445–51

DEFICIENCY

Sustained receptor activation and hyperproliferation in response to granulocyte colony-stimulating factor (G-CSF) in mice with a severe congenital neutropenia/acute myeloid leukemia-derived mutation in the G-CSF receptor gene. Hermans MH, et al. **J Exp Med** 1999 Feb 15;189(4):683-92

GENETICS

G-CSF receptor mutations in patients with severe congenital neutropenia do not abrogate Jak2 activation and stat1/stat3 translocation. Herbst A, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:320-5; discussion 325-7

A G-CSF receptor-gyrase B fusion gene: A new type of molecular switch for expansion of genetically modified hematopoietic cells. Kume A, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):9-12

Circular permutation of the granulocyte colony-stimulating factor receptor agonist domain of myelopoietin. McWherter CA, et al. **Biochemistry** 1999 Apr 6; 38(14):4564-71

Gestational regulation of granulocyte-colony stimulating factor receptor expression in the human placenta. McCracken SA, et al. **Biol Reprod** 1999 Apr;60(4):790-6

Deletion of a critical internalization domain in the G-CSFR in acute myelogenous leukemia preceded by severe congenital neutropenia. Hunter MG, et al. **Blood** 1999 Jan 15;93(2):440-6

Defective internalization and sustained activation of truncated granulocyte colony-stimulating factor receptor found in severe congenital neutropenia/acute myeloid leukemia. Ward AC, et al. **Blood** 1999 Jan 15;93(2):447-58

Human granulocyte colony-stimulating factor (G-CSF) stimulates the in vitro and in vivo development but not commitment of primitive multipotential progenitors from transgenic mice expressing the human G-CSF receptor. Yang FC, et al. **Blood** 1998 Dec 15;92(12):4632-40

Clinical implications of G-CSF receptor mutations. Tidow N, et al. **Crit Rev Oncol Hematol** 1998 Jun;28(1):1-6 (23 ref.)

Granulocyte-colony-stimulating factor enhances invasive potential of human head-and-neck-carcinoma cell lines. Noda I, et al. **Int J Cancer** 1999 Jan 5;80(1):78-84

Novel point mutation in the extracellular domain of the granulocyte colony-stimulating factor (G-CSF) receptor in a case of severe congenital neutropenia hyporesponsive to G-CSF treatment. Ward AC, et al. **J Exp Med** 1999 Aug 16;190(4):497-507

Cell lineage specificity in G-CSF receptor gene methylation. Felgner J, et al. **Leukemia** 1999 Apr;13(4):530-4

Coexpression of G-CSF with an unglycosylated G-CSF receptor mutant results in secretion of a stable complex. Horan TP, et al. **Protein Expr Purif** 1998 Oct;14(1):45-53

METABOLISM

The Src-like tyrosine kinase Hck is activated by granulocyte colony-stimulating factor (G-CSF) and docks to the activated G-CSF receptor. Ward AC, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):117-23

Direct binding of Shc, Grb2, SHP-2 and p40 to the murine granulocyte colony-stimulating factor receptor. Ward AC, et al. **Biochim Biophys Acta** 1998 Nov 19;1448(1):70-6

Identification of a novel Stat3 recruitment and activation motif within the granulocyte colony-stimulating factor receptor. Chakraborty A, et al. **Blood** 1999 Jan 1; 93(1):15-24

Functional differentiation signals mediated by distinct regions of the cytoplasmic domain of the granulocyte colony-stimulating factor receptor. Koay DC, et al. **Blood** 1999 Jun 1;93(11):3774-84

Tyrosine-dependent and -independent mechanisms of STAT3 activation by the human granulocyte colony-stimulating factor (G-CSF) receptor are differentially utilized depending on G-CSF concentration. Ward AC, et al. **Blood** 1999 Jan 1;93(1):113-24

Defective internalization and sustained activation of truncated granulocyte colony-stimulating factor receptor found in severe congenital neutropenia/acute myeloid leukemia. Ward AC, et al. **Blood** 1999 Jan 15;93(2):447-58

A functional granulocyte colony-stimulating factor receptor is required for normal chemoattractant-induced neutrophil activation. Betsuyaku T, et al. **J Clin Invest** 1999 Mar; 103(6):825-32

Permissive role of thrombopoietin and granulocyte colony-stimulating factor receptors in hematopoietic cell fate decisions in vivo. Stoffel R, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):698-702

PHYSIOLOGY

Differential effects of human granulocyte colony-stimulating factor (hG-CSF) and thrombopoietin on megakaryopoiesis and platelet function in hG-CSF receptor-transgenic mice. Yang FC, et al. **Blood** 1999 Aug 1;94(3):950-8

A role for G-CSF receptor signaling in the regulation of hematopoietic cell function but not lineage commitment or differentiation. Semerad CL, et al. **Immunity** 1999 Aug; 11(2):153-61

Multiple signals mediate proliferation, differentiation, and survival from the granulocyte colony-stimulating factor receptor in myeloid 32D cells. Ward AC, et al. **J Biol Chem** 1999 May 21;274(21):14956-62

Stimulation of Stat5 by granulocyte colony-stimulating factor (G-CSF) is modulated by two distinct cytoplasmic regions of the G-CSF receptor. Dong F, et al. **J Immunol** 1998 Dec 15;161(12):6503-9

RECEPTORS, GRANULOCYTE-MACROPHAGE COLONY-STIMULATING FACTOR

ANALYSIS

Differential quantitation of alternatively spliced messenger RNAs using isoform-specific real-time RT-PCR. Kafert S, et al. **Anal Biochem** 1999 Apr 10;269(1):210-3

Expression of granulocyte-macrophage colony-stimulating factor (GM-CSF) receptor on B-1a cell from persistent lymphocytosis (PL) cows and lymphoma cell induced by bovine leukemia virus. Murakami K, et al. **Vet Immunol Immunopathol** 1999 Mar 29;68(1):49-59

ANTAGONISTS & INHIBITORS

Induction of apoptosis in multidrug-resistant and radiation-resistant acute myeloid leukemia cells by a recombinant fusion toxin directed against the human granulocyte macrophage colony-stimulating factor receptor. Perentesis JP, et al. **Clin Cancer Res** 1997 Mar; 3(3):347-55

BIOSYNTHESIS

Cytokine-regulated expression of activated leukocyte cell adhesion molecule (CD166) on monocyte-lineage cells and in rheumatoid arthritis synovium. Levesque MC, et al. **Arthritis Rheum** 1998 Dec;41(12):2221-9

Primitive human hematopoietic progenitor cells express receptors for granulocyte-macrophage colony-stimulating factor. Lund-Johansen F, et al. **Exp Hematol** 1999 Apr; 27(4):762-72

CHEMISTRY

The soluble granulocyte-macrophage colony-stimulating factor receptor's carboxyl-terminal domain mediates retention of the soluble receptor on the cell surface through interaction with the granulocyte-macrophage colony-stimulating factor receptor beta-subunit. Murray EW, et al. **Biochemistry** 1998 Oct 6;37(40):14113-20

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501

GENETICS

Receptor clearance obscures the magnitude of granulocyte-macrophage colony-stimulating factor responses in mice to endotoxin or local infections. Metcalf D, et al. **Blood** 1999 Mar 1;93(5):1579-85

Activating point mutations in the betaC chain of the GM-CSF, IL-3 and IL-5 receptors are not a major contributory factor in the pathogenesis of acute myeloid leukaemia. Freeburn RW, et al. **Br J Haematol** 1998 Oct; 103(1):66-71

Expression of the human GM-CSF receptor alpha subunit in Saccharomyces cerevisiae. Tu J, et al. **Cytokines Cell Mol Ther** 1998 Sep;4(3):147-51

A cell type-specific constitutive point mutant of the common beta-subunit of the human granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin (IL)-3, and IL-5 receptors requires the GM-CSF receptor alpha-subunit for activation. Jenkins BJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8669-77

A composite C/EBP binding site is essential for the activity of the promoter of the IL-3/IL-5/granulocyte-macrophage colony-stimulating factor receptor beta c gene. van Dijk TB, et al. **J Immunol** 1999 Sep 1;163(5):2674-80

IMMUNOLOGY

In vivo biotherapy of HL-60 myeloid leukemia with a genetically engineered recombinant fusion toxin directed against the human granulocyte macrophage colony-stimulating factor receptor. Perentesis JP, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2217-27

METABOLISM

Close association between clearance of recombinant human granulocyte colony-stimulating factor (G-CSF) and G-CSF receptor on neutrophils in cancer patients. Terashi K, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):21-4

Receptor clearance obscures the magnitude of granulocyte-macrophage colony-stimulating factor responses in mice to endotoxin or local infections. Metcalf D, et al. **Blood** 1999 Mar 1;93(5):1579-85

Identification of a 14-3-3 binding sequence in the common beta chain of the granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin-3 (IL-3), and IL-5 receptors that is serine-phosphorylated by GM-CSF. Stomski FC, et al. **Blood** 1999 Sep 15; 94(6):1933-42

Regulation of proliferation, differentiation and survival by the IL-3/IL-5/GM-CSF receptor family. de Groot RP, et al. **Cell Signal** 1998 Oct;10(9):619-28 (176 ref.)

Growth stimulation of non-small cell lung cancer xenografts by granulocyte-macrophage colony-stimulating factor (GM-CSF). Oshika Y, et al. **Eur J Cancer** 1998 Nov; 34(12):1958-61

Changes in signal transduction downstream from the granulocyte-macrophage colony-stimulating factor receptor during differentiation of primary hemopoietic cells. Wheadon H, et al. **Exp Hematol** 1999 Jun; 27(6):1077-86

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501

The expression, activity and regulation of granulocyte macrophage-colony stimulating factor in human endometrial epithelial and stromal cells. Chegini N, et al. **Mol Hum Reprod** 1999 May;5(5):459-66

Mechanism of activation of the GM-CSF, IL-3, and IL-5 family of receptors. Guthridge MA, et al. **Stem Cells** 1998; 16(5):301-13 (86 ref.)

PHYSIOLOGY

Signaling domains of the beta c chain of the GM-CSF/IL-3/IL-5 receptor. Okuda K, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:305-12; discussion 312-3 (20 ref.)

Activation of granulocyte-macrophage colony-stimulating factor and interleukin-3 receptor subunits in a multipotential hematopoietic progenitor cell line leads to differential effects on development. Evans CA, et al. **Blood** 1999 Sep 1;94(5):1504-14

Functional analysis of mature hematopoietic cells from mice lacking the betac chain of the granulocyte-macrophage colony-stimulating factor receptor. Scott CL, et al. **Blood** 1998 Dec 1;92(11):4119-27

Simultaneous antagonism of interleukin-5, granulocyte-macrophage colony-stimulating factor, and interleukin-3 stimulation of human eosinophils by targetting the common cytokine binding site of their receptors. Sun Q, et al. **Blood** 1999 Sep 15;94(6):1943-51

RECEPTORS, GROWTH FACTOR

Diversity of cellular receptors and functions for the lysophospholipid growth factors lysophosphatidic acid and sphingosine 1-phosphate. Goetzl EJ, et al. **FASEB J** 1998 Dec;12(15):1589-98 (52 ref.)

Growth factor receptors as targets for therapy in pediatric brain tumors. Meuillet EJ, et al. **Pediatr Neurosurg** 1998 Jul;29(1):1-13 (116 ref.)

[Structural biology of growth factors and growth factor receptors] Kohda D. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):338-46 (17 ref.) **(Jpn)**

ANALYSIS

Polarized vascular endothelial growth factor secretion by human retinal pigment epithelium and localization of vascular endothelial growth factor receptors on the inner choriocapillaris. Evidence for a trophic paracrine relation. Blaauwgeers HG, et al. **Am J Pathol** 1999 Aug;155(2):421-8

Endothelial growth factor receptors in human fetal heart. Partanen TA, et al. **Circulation** 1999 Aug 10;100(6):583-6

Activin family members in the developing chick retina: expression patterns, protein distribution, and in vitro effects. Belecky-Adams TL, et al. **Dev Biol** 1999 Jun 1; 210(1):107-23

Vascular endothelial growth factor and its receptors in male fertility. Obermair A, et al. **Fertil Steril** 1999 Aug; 72(2):269-75

Evidence for upregulation and redistribution of vascular endothelial growth factor (VEGF) receptors flt-1 and flk-1 in the oxygen-injured rat retina. Robbins SG, et al. **Growth Factors** 1998;16(1):1-9

Immunolocalization of the vascular endothelial growth factor receptor-2 in the subepicardial mesenchyme of hamster embryos: identification of the coronary vessel precursors. Pérez-Pomares JM, et al. **Histochem J** 1998 Sep; 30(9):627-34

Molecular mediators of tumor angiogenesis: enhanced expression and activation of vascular endothelial growth factor receptor KDR in primary breast cancer. Kranz A, et al. **Int J Cancer** 1999 Jun 21;84(3):293-8

The coronary endothelium: a target for vascular endothelial growth factor. Human coronary artery endothelial cells express functional receptors for vascular endothelial growth factor in vitro and in vivo. Kranz A, et al. **Lab Invest** 1999 Aug;79(8):985-91

Immunohistochemical localization of vascular endothelial growth factor (VEGF) and its two specific receptors, Flt-1 and KDR, in the porcine placenta and non-pregnant uterus. Winther H, et al. **Placenta** 1999 Jan;20(1):35-43

KDR receptor: a key marker defining hematopoietic stem cells. Ziegler BL, et al. **Science** 1999 Sep 3;285(5433):1553-8

ANTAGONISTS & INHIBITORS

Crystal structure of the complex between VEGF and a receptor-blocking peptide. Wiesmann C, et al. **Biochemistry** 1998 Dec 22;37(51):17765-72

SU5416 is a potent and selective inhibitor of the vascular

endothelial growth factor receptor (Flk-1/KDR) that inhibits tyrosine kinase catalysis, tumor vascularization, and growth of multiple tumor types. Fong TA, et al. **Cancer Res** 1999 Jan 1;59(1):99-106

Inhibition of neointima hyperplasia of mouse vein grafts by locally applied suramin. Hu Y, et al. **Circulation** 1999 Aug 24;100(8):861-8

BIOSYNTHESIS

Expression of soluble VEGF receptor 2 and characterization of its binding by surface plasmon resonance. Huang X, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):643-8

Retinoids control the expression of c-erbB receptors in breast cancer cells. Offterdinger M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):907-13

Characterization of inhibin/activin subunit, activin receptor, and follistatin messenger ribonucleic acid in human and mouse oocytes: evidence for activin's paracrine signaling from granulosa cells to oocytes. Sidis Y, et al. **Biol Reprod** 1998 Oct;59(4):807-12

Sequential expression of bone morphogenetic protein, tumor necrosis factor, and their receptors in bone-forming reaction after mouse femoral marrow ablation. Shimizu T, et al. **Bone** 1998 Aug;23(2):127-33

Production of VEGF and expression of the VEGF receptors Flt-1 and KDR in primary cultures of epithelial and stromal cells derived from breast tumours. Speirs V, et al. **Br J Cancer** 1999 May;80(5-6):898-903

Expression of vascular endothelial growth factor and its receptors in hematopoietic malignancies. Bellamy WT, et al. **Cancer Res** 1999 Feb 1;59(3):728-33

Significance of vessel count and vascular endothelial growth factor and its receptor (KDR) in intestinal-type gastric cancer. Takahashi Y, et al. **Clin Cancer Res** 1996 Oct; 2(10):1679-84

Hematopoietic tissues, as a playground of receptor tyrosine kinases of the PDGF-receptor family. Yoshida H, et al. **Dev Comp Immunol** 1998 May-Jun;22(3):321-32 (56 ref.)

Hepatocyte extracellular matrix modulates expression of growth factors and growth factor receptors in human colon cancer cells. Zvibel I, et al. **Exp Cell Res** 1998 Nov 25; 245(1):123-31

Expression of cadherin-catenin cell adhesion molecules, phosphorylated tyrosine residues and growth factor receptor-tyrosine kinases in gastric cancers. Akimoto S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):829-36

Increased expression of KDR/Flk-1 (VEGFR-2) in murine model of ischemia-induced retinal neovascularization. Suzuma K, et al. **Microvasc Res** 1998 Nov;56(3):183-91

Expression of vascular endothelial growth factor and its receptors during lung carcinogenesis by N-nitrosobis(2-hydroxypropyl)amine in rats. Takahama M, et al. **Mol Carcinog** 1999 Apr;24(4):287-93

Expression of growth factors and their receptors in the postnatal rat cochlea. Malgrange B, et al. **Neurochem Res** 1998 Aug;23(8):1133-8

Expression of vascular endothelial growth factor receptors in human prostate cancer. Ferrer FA, et al. **Urology** 1999 Sep;54(3):567-72

[Advances in the study of the role of vascular endothelial growth factor and its receptor in tumor angiogenesis and its relation with anti-angiogenesis effect] Bian X, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug;26(4):248-50 (15 ref.) **(Chi)**

CHEMISTRY

Characterization and kinetic mechanism of catalytic domain of human vascular endothelial growth factor receptor-2 tyrosine kinase (VEGFR2 TK), a key enzyme in angiogenesis. Parast CV, et al. **Biochemistry** 1998 Nov 24; 37(47):16788-801

Targeting growth factor and cytokine receptors with recombinant peptide libraries. Dower WJ. **Curr Opin Chem Biol** 1998 Jun;2(3):328-34 (35 ref.)

Structure and function of vascular endothelial growth factor receptor-1 and -2. Shibuya M, et al. **Curr Top Microbiol Immunol** 1999;237:59-83 (92 ref.)

Vascular endothelial growth factor (VEGF) receptor II-derived peptides inhibit VEGF. Piossek C, et al. **J Biol Chem** 1999 Feb 26;274(9):5612-9

The disulfide bond arrangement in the extracellular domain of the activin type II receptor. Fischer WH, et al. **J Protein Chem** 1999 May;18(4):437-46

Three-finger toxin fold for the extracellular ligand-binding domain of the type II activin receptor serine kinase. Greenwald J, et al. **Nat Struct Biol** 1999 Jan;6(1):18-22 (29 ref.)

Crystal structure of the kinase domain of human vascular endothelial growth factor receptor 2: a key enzyme in angiogenesis. McTigue MA, et al. **Structure Fold Des** 1999 Mar 15;7(3):319-30

DEFICIENCY

Cloning and expression of a novel chicken sulfotransferase cDNA regulated by GH. Cao H, et al. **J Endocrinol** 1999 Mar;160(3):491-500

Formation of transformed endothelial cells in the absence of VEGFR-2/Flk-1 by Polyoma middle T oncogene. Mühlner U, et al. **Oncogene** 1999 Jul 22;18(29):4200-10

DRUG EFFECTS

On the mechanism of thrombin-induced angiogenesis. Potentiation of vascular endothelial growth factor activity on endothelial cells by up-regulation of its receptors. Tsopanoglou NE, et al. **J Biol Chem** 1999 Aug 20; 274(34):23969-76

GENETICS

Left-right axis malformations associated with mutations in ACVR2B, the gene for human activin receptor type IIB. Kosaki R, et al. **Am J Med Genet** 1999 Jan 1;82(1):70-6

Paracrine upregulation of VEGF receptor mRNA in endothelial cells by hypoxia-exposed hep G2 cells. Suzuki H, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G92-7

Keratinocyte growth factor and its receptor messenger RNA expression in nasal mucosa and nasal polyps. Ishibashi T, et al. **Ann Otol Rhinol Laryngol** 1998 Oct;107(10 Pt 1):885-90

Inhibition of hepatic stellate cell contraction during activation in vitro by vascular endothelial growth factor in association with upregulation of FLT tyrosine kinase receptor family, FLT-1. Mashiba S, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):674-8

Pulsatile stretch stimulates vascular endothelial growth factor (VEGF) secretion by cultured rat cardiac myocytes. Seko Y, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):462-5

Impaired differentiation of endocrine and exocrine cells of the pancreas in transgenic mouse expressing the truncated type II activin receptor. Shiozaki S, et al. **Biochim Biophys Acta** 1999 May 6;1450(1):1-11

Identification of vascular endothelial growth factor (VEGF) receptor-2 (Flk-1) promoter/enhancer sequences sufficient for angioblast and endothelial cell-specific transcription in transgenic mice. Kappel A, et al. **Blood** 1999 Jun 15; 93(12):4284-92

Transducing the Dpp morphogen gradient in the wing of Drosophila: regulation of Dpp targets by brinker. Campbell G, et al. **Cell** 1999 Feb 19;96(4):553-62

The Drosophila gene brinker reveals a novel mechanism of Dpp target gene regulation. Jaźwińska A, et al. **Cell** 1999 Feb 19;96(4):563-73

A novel gene delivery system targeting cells expressing VEGF receptors. Li JM, et al. **Cell Res** 1999 Mar; 9(1):11-25

Expression of vascular endothelial growth factor (VEGF) and its receptors during embryonic implantation in the golden hamster (Mesocricetus auratus). Yi XJ, et al. **Cell Tissue Res** 1999 May;296(2):339-49

Expression of vascular endothelial growth factor and its receptor (KDR/flk-1) mRNA in experimental choroidal neovascularization. Wada M, et al. **Curr Eye Res** 1999 Mar; 18(3):203-13

VEGF is required for growth and survival in neonatal mice. Gerber HP, et al. **Development** 1999 Mar;126(6):1149-59

The type I serine/threonine kinase receptor ActRIA (ALK2) is required for gastrulation of the mouse embryo. Gu Z, et al. **Development** 1999 Jun;126(11):2551-61

Specificity of TGFbeta signaling is conferred by distinct type I receptors and their associated SMAD proteins in Caenorhabditis elegans. Krishna S, et al. **Development** 1999 Jan;126(2):251-60

Basic fibroblast growth factor induces expression of VEGF receptor KDR through a protein kinase C and p44/p42 mitogen-activated protein kinase-dependent pathway. Hata Y, et al. **Diabetes** 1999 May;48(5):1145-55

The Drosophila activin receptor baboon signals through dSmad2 and controls cell proliferation but not patterning during larval development. Brummel T, et al. **Genes Dev** 1999 Jan 1;13(1):98-111

Cloning and mapping of the UNC5C gene to human chromosome 4q21-q23. Ackerman SL, et al. **Genomics** 1998 Sep 1;52(2):205-8

Antiangiogenic gene therapy in a rat glioma model using a dominant-negative vascular endothelial growth factor receptor 2. Machein MR, et al. **Hum Gene Ther** 1999 May 1;10(7):1117-28

Constitutive expression of VEGF, VEGFR-1, and VEGFR-2 in normal eyes. Kim I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2115-21

Characterization of a soluble KGF receptor cDNA from human corneal and breast epithelial cells. Liu JJ, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2584-93

Expression of alternatively spliced growth factor receptor isoforms in the human trabecular meshwork. Wordinger RJ, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):242-7

Expression of inhibin/activin subunits and their receptors and binding proteins in human preimplantation embryos. He ZY, et al. **J Assist Reprod Genet** 1999 Feb;16(2):73-80

The human KDR/flk-1 gene contains a functional initiator element that is bound and transactivated by TFII-I. Wu Y, et al. **J Biol Chem** 1999 Jan 29;274(5):3207-14

Mutational analysis of activin/transforming growth factor-beta type I and type II receptor kinases in human pituitary tumors. D'Abronzo FH, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1716-21

Vascular endothelial growth factor and its receptor, KDR, in human brain tissue after ischemic stroke. Issa R, et al. **Lab Invest** 1999 Apr;79(4):417-25

Hepatocyte growth factor increases expression of vascular endothelial growth factor and plasminogen activator inhibitor-1 in human keratinocytes and the vascular endothelial growth factor receptor flk-1 in human endothelial cells. Wojta J, et al. **Lab Invest** 1999 Apr; 79(4):427-38

Human ovary and placenta express messenger RNA for multiple activin receptors. Peng C, et al. **Life Sci** 1999; 64(12):983-94

Restricted expression of the receptor serine/threonine kinase BMPR-IB in zebrafish. Nikaido M, et al. **Mech Dev** 1999 Apr;82(1-2):219-22

Cloning of zebrafish activin type IIB receptor (ActRIIB) cDNA and mRNA expression of ActRIIB in embryos and adult tissues. Garg RR, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):169-81

Co-ordinate expression of activin A and its type I receptor mRNAs during phorbol ester-induced differentiation of human K562 erythroleukemia cells. Hildén K, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):137-45

Alternative splicing of vascular endothelial growth factor (VEGF)-R1 (FLT-1) pre-mRNA is important for the regulation of VEGF activity. He Y, et al. **Mol Endocrinol** 1999 Apr;13(4):537-45

Expression of mRNA for vascular endothelial growth factor transmembraneous receptors Flt1 and KDR, and the soluble receptor sflt in cycling human endometrium. Krüssel JS, et al. **Mol Hum Reprod** 1999 May;5(5):452-8

Bioactivity of anti-angiogenic ribozymes targeting Flt-1 and KDR mRNA. Parry TJ, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2569-77

Systemic hypoxia changes the organ-specific distribution of vascular endothelial growth factor and its receptors. Marti HH, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15809-14

Decreased expression of receptors for vascular endothelial growth factor and sinusoidal endothelial cell damage in cold-preserved rat livers. Arai S, et al. **Transplant Proc** 1999 Sep;31(6):2668-72

IMMUNOLOGY

Monoclonal antibodies targeting the VEGF receptor-2 (Flk1/KDR) as an anti-angiogenic therapeutic strategy. Witte L, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):155-61 (21 ref.)

METABOLISM

Ion channels as physiological effectors for growth factor receptor and Ras/ERK signaling pathways. Rane SG. **Adv Second Messenger Phosphoprotein Res** 1999;33:107-27 (126 ref.)

Exposure to hyperoxia decreases the expression of vascular endothelial growth factor and its receptors in adult rat lungs. Klekamp JG, et al. **Am J Pathol** 1999 Mar; 154(3):823-31

KDR activation is crucial for VEGF165-mediated Ca2+ mobilization in human umbilical vein endothelial cells. Cunningham SA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C176-81

Gene therapy of gliomas: receptor and transcriptional targeting. Spear MA. **Anticancer Res** 1998 Sep-Oct; 18(5A):3223-31 (123 ref.)

VEGF induces nuclear translocation of Flk-1/KDR, endothelial nitric oxide synthase, and caveolin-1 in vascular endothelial cells. Feng Y, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):192-7

Characterization of the VEGF binding site on the Flt-1 receptor. Herley MT, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):731-8

Sck interacts with KDR and Flt-1 via its SH2 domain. Igarashi K, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):77-82

VEGF-A induces expression of eNOS and iNOS in endothelial cells via VEGF receptor-2 (KDR). Kroll J, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):743-6

Differential regulation of vascular endothelial growth factor and its receptor fms-like-tyrosine kinase is mediated by nitric oxide in rat renal mesangial cells. Frank S, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):367-74

Novel peptides selected to bind vascular endothelial growth factor target the receptor-binding site. Fairbrother WJ, et al. **Biochemistry** 1998 Dec 22;37(51):17754-64

Characterization of the extracellular ligand-binding domain of the type II activin receptor. Greenwald J, et al. **Biochemistry** 1998 Nov 24;37(47):16711-8

Heparin is essential for a single keratinocyte growth factor molecule to bind and form a complex with two molecules of the extracellular domain of its receptor. Hsu YR, et al. **Biochemistry** 1999 Feb 23;38(8):2523-34

Characterization and kinetic mechanism of catalytic domain of human vascular endothelial growth factor receptor-2 tyrosine kinase (VEGFR2 TK), a key enzyme in angiogenesis. Parast CV, et al. **Biochemistry** 1998 Nov 24; 37(47):16788-801

Immunolocalisation of the VEGF receptors FLT-1, KDR, and FLT-4 in diabetic retinopathy. Smith G, et al. **Br J Ophthalmol** 1999 Apr;83(4):486-94

KDR activation in astrocytic neoplasms. Carroll RS, et al. **Cancer** 1999 Oct 1;86(7):1335-41

Involvement of VEGF and its receptors in ascites tumor formation. Shibuya M, et al. **Cancer Chemother Pharmacol** 1999;43 Suppl:S72-7

Inhibition of vascular endothelial growth factor induced mitogenesis of human endothelial cells by a chimeric anti-kinase insert domain-containing receptor antibody. Zhu Z, et al. **Cancer Lett** 1999 Mar 1;136(2):203-13

The duration of phorbol-inducible ErbB2 tyrosine dephosphorylation parallels that of receptor endocytosis rather than threonine-686 phosphorylation: implications for the physiological role of protein kinase C in growth factor receptor signalling. Ouyang X, et al. **Carcinogenesis** 1998 Nov;19(11):2013-9

A ligand-gated association between cytoplasmic domains of UNC5 and DCC family receptors converts netrin-induced growth cone attraction to repulsion [see comments] Hong K, et al. **Cell** 1999 Jun 25;97(7):927-41. Comment in: Cell 1999 Jun 25;97(7):821-4.

Crosstalk between protein kinase A and growth factor receptor signaling pathways in arterial smooth muscle. Bornfeldt KE, et al. **Cell Signal** 1999 Jul;11(7):465-77 (170 ref.)

Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia-reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087-96

In vivo analysis using variants of zebrafish BMPR-IA: range of action and involvement of BMP in ectoderm patterning. Nikaido M, et al. **Development** 1999 Jan;126(1):181-90

Role of alphavbeta3 integrin in the activation of vascular endothelial growth factor receptor-2. Soldi R, et al. **EMBO J** 1999 Feb 15;18(4):882-92

Activin and inhibin binding to the soluble extracellular domain of activin receptor II. Donaldson CJ, et al. **Endocrinology** 1999 Apr;140(4):1760-6

Expression of transforming growth factor-beta1, activin A, and their receptors in thyroid follicle cells: negative regulation of thyrocyte growth and function. Franzén A, et al. **Endocrinology** 1999 Sep;140(9):4300-10

Expression of vascular endothelial growth factor (VEGF) and its receptors in human neuroblastoma. Meister B, et al. **Eur J Cancer** 1999 Mar;35(3):445-9

Internalization of growth factor-receptor complexes under the influence of antibodies initiates cell apoptosis in vitro. Lavrovsky VA, et al. **Eur J Cell Biol** 1999 Mar;78(3):194-8

Growth factor receptor expression in human gastroenteropancreatic neuroendocrine tumours. Wulbrand U, et al. **Eur J Clin Invest** 1998 Dec;28(12):1038-49

Expression of HGF, KGF, EGF and receptor messenger RNAs following corneal epithelial wounding. Wilson SE, et al. **Exp Eye Res** 1999 Apr;68(4):377-97

Drosophila dSmad2 and Atr-1 transmit activin/TGFbeta signals. Das P, et al. **Genes Cells** 1999 Feb;4(2):123-34

Redundancy of autocrine loops in human osteosarcoma cells. Benini S, et al. **Int J Cancer** 1999 Feb 9;80(4):581-8

VEGF, VEGFR-1, VEGFR-2, microvessel density and endothelial cell proliferation in tumours of the ovary. Orre M, et al. **Int J Cancer** 1999 Apr 20;84(2):101-8

17 Beta-estradiol increases VEGF receptor-2 and promotes DNA synthesis in retinal microvascular endothelial cells. Suzuma I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2122-9

Bone morphogenetic proteins and growth and differentiation factors in the human cornea. You L, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):296-311

Vascular endothelial growth factor regulates endothelial cell survival through the phosphatidylinositol 3'-kinase/Akt signal transduction pathway. Requirement for Flk-1/KDR activation. Gerber HP, et al. **J Biol Chem** 1998 Nov 13; 273(46):30336-43

Vascular endothelial growth factor signals endothelial cell production of nitric oxide and prostacyclin through flk-1/KDR activation of c-Src. He H, et al. **J Biol Chem** 1999 Aug 27;274(35):25130-5

Vascular endothelial growth factor receptor KDR tyrosine kinase activity is increased by autophosphorylation of two activation loop tyrosine residues. Kendall RL, et al. **J Biol Chem** 1999 Mar 5;274(10):6453-60

A novel type of vascular endothelial growth factor, VEGF-E (NZ-7 VEGF), preferentially utilizes KDR/Flk-1 receptor and carries a potent mitotic activity without heparin-binding domain. Ogawa S, et al. **J Biol Chem** 1998 Nov 20;273(47):31273-82

Homologous up-regulation of KDR/Flk-1 receptor expression by vascular endothelial growth factor in vitro. Shen BQ, et al. **J Biol Chem** 1998 Nov 6;273(45):29979-85

Mapping of the sites involved in ligand association and dissociation at the extracellular domain of the kinase insert domain-containing receptor for vascular endothelial growth factor. Shinkai A, et al. **J Biol Chem** 1998 Nov 20;273(47):31283-8

Identification of two amino acids in activin A that are important for biological activity and binding to the activin type II receptors. Wuytens G, et al. **J Biol Chem** 1999 Apr 2;274(14):9821-7

Receptor-mediated endocytosis of keratinocyte growth factor. Marchese C, et al. **J Cell Sci** 1998 Dec;111 (Pt 23):3517-27

Growth factors and goitrogenesis. Bidey SP, et al. **J Endocrinol** 1999 Mar;160(3):321-32 (123 ref.)

Interleukin-1 beta upregulates cardiac expression of vascular endothelial growth factor and its receptor KDR/flk-1 via activation of protein tyrosine kinases. Maruyama K, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):607-17

Expression of vascular endothelial growth factor (VEGF) and its receptors is regulated in eyes with intra-ocular tumours. Stitt AW, et al. **J Pathol** 1998 Nov;186(3):306-12

Immunohistochemical analysis of EGF-R in gastric mucosa in portal hypertensive with cirrhosis. Yang Z. **J Tongji Med Univ** 1997;17(4):232-4

Differential expression of KDR/VEGFR-2 and CD34 during mesoderm development of the early human embryo. Cort s F, et al. **Mech Dev** 1999 May;83(1-2):161-4

Roles of pathway-specific and inhibitory Smads in activin receptor signaling. Lebrun JJ, et al. **Mol Endocrinol** 1999 Jan;13(1):15-23

Expression of vascular endothelial growth factor and its receptors in rats with protein-overload nephrosis. Horita Y, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2519-28

Inhibition of phospholipase C-gamma1 activation blocks glioma cell motility and invasion of fetal rat brain aggregates. Khoshyomn S, et al. **Neurosurgery** 1999 Mar; 44(3):568-77; discussion 577-8

Autophosphorylation of KDR in the kinase domain is required for maximal VEGF-stimulated kinase activity and receptor internalization. Dougher M, et al. **Oncogene** 1999 Feb 25;18(8):1619-27

Regulation of vascular endothelial growth factor receptor KDR in vitro by a soluble factor in confluent endothelial cells. Liu W, et al. **Pathobiology** 1998;66(5):247-52

Vascular endothelial growth factor (VEGF) is present in human breast milk and its receptor is present on intestinal epithelial cells. Siafakas CG, et al. **Pediatr Res** 1999 May; 45(5 Pt 1):652-7

Vascular endothelial growth factor (VEGF)-like protein from orf virus NZ2 binds to VEGFR2 and neuropilin-1. Wise LM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):3071-6

Alterations in the immunohistochemical distribution patterns of vascular endothelial growth factor receptors Flk1 and Flt1 in bleomycin-induced rat lung fibrosis. Fehrenbach H, et al. **Virchows Arch** 1999 Jul;435(1):20-31

PHYSIOLOGY

Growth factors and their receptors in the olfactory system. Plendl J, et al. **Anat Histol Embryol** 1999 May;28(2):73-9 (78 ref.)

Lipocortin V may function as a signaling protein for vascular endothelial growth factor receptor-2/Flk-1. Wen Y, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):713-21

Heparan sulfate proteoglycan modulates keratinocyte growth factor signaling through interaction with both ligand and receptor. LaRochelle WJ, et al. **Biochemistry** 1999 Feb 9; 38(6):1765-71

Distinct phenotypes of mutant mice lacking agrin, MuSK, or rapsyn. Gautam M, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):171-8

The pivotal role of VEGF in tumor angiogenesis: molecular facts and therapeutic opportunities. Siemeister G, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):241-8 (70 ref.)

Two independent mechanisms essential for tumor angiogenesis: inhibition of human melanoma xenograft growth by interfering with either the vascular endothelial growth factor receptor pathway or the Tie-2 pathway. Siemeister G, et al. **Cancer Res** 1999 Jul 1;59(13):3185-91

Expression of AP-2 transcription factors in human breast cancer correlates with the regulation of multiple growth factor signalling pathways. Turner BC, et al. **Cancer Res** 1998 Dec 1;58(23):5466-72

The role of activin type I receptors in activin A-induced growth arrest and apoptosis in mouse B-cell hybridoma cells. Hashimoto O, et al. **Cell Signal** 1998 Nov;10(10):743-9

Role of vascular endothelial growth factor and vascular endothelial growth factor receptors in vascular development. Carmeliet P, et al. **Curr Top Microbiol Immunol** 1999;237:133-58 (133 ref.)

Structure and function of vascular endothelial growth factor receptor-1 and -2. Shibuya M, et al. **Curr Top Microbiol Immunol** 1999;237:59-83 (92 ref.)

Multiple roles for activin-like kinase-2 signaling during mouse embryogenesis. Mishina Y, et al. **Dev Biol** 1999 Sep 15;213(2):314-26

The type II activin receptors are essential for egg cylinder growth, gastrulation, and rostral head development in mice. Song J, et al. **Dev Biol** 1999 Sep 1;213(1):157-69

Dual specificity of activin type II receptor ActRIIb in dorso-ventral patterning during zebrafish embryogenesis. Nagaso H, et al. **Dev Growth Differ** 1999 Apr;41(2):119-33

A novel vascular endothelial growth factor encoded by Orf virus, VEGF-E, mediates angiogenesis via signalling through VEGFR-2 (KDR) but not VEGFR-1 (Flt-1) receptor tyrosine kinases. Meyer M, et al. **EMBO J** 1999 Jan 15;18(2):363-74

Vascular endothelial growth factor (VEGF) and its receptors. Neufeld G, et al. **FASEB J** 1999 Jan;13(1):9-22 (182 ref.)

Signal relays in the VEGF system. Ortega N, et al. **Front Biosci** 1999 Feb 1;4:D141-52 (130 ref.)

Growth-factor-dependent migration of human lung-cancer cells. Bredin CG, et al. **Int J Cancer** 1999 Jul 30; 82(3):338-45

The mitogen activated protein kinase pathway is required for proliferation but not invasion of human squamous cell carcinoma lines. Tsang DK, et al. **Int J Oncol** 1999 Sep; 15(3):519-23

Growth factors: biological and clinical aspects. Ruifrok AC, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):877-81

Differential pharmacological properties and signal transduction of the sphingosine 1-phosphate receptors EDG-1, EDG-3, and EDG-5. Ancellin N, et al. **J Biol Chem** 1999 Jul 2;274(27):18997-9002

A short loop on the ALK-2 and ALK-4 activin receptors regulates signaling specificity but cannot account for all their effects on early Xenopus development. Armes NA, et al. **J Biol Chem** 1999 Mar 19;274(12):7929-35

Mechanotransduction in response to shear stress. Roles of receptor tyrosine kinases, integrins, and Shc. Chen KD, et al. **J Biol Chem** 1999 Jun 25;274(26):18393-400

Specific activation of Smad1 signaling pathways by the BMP7 type I receptor, ALK2. Macias-Silva M, et al. **J Biol Chem** 1998 Oct 2;273(40):25628-36

The nuclear cap-binding complex is a novel target of growth factor receptor-coupled signal transduction. Wilson KF, et al. **J Biol Chem** 1999 Feb 12;274(7):4166-73

Evidence of an agrin receptor in cortical neurons. Hilgenberg LG, et al. **J Neurosci** 1999 Sep 1;19(17):7384-93

VEGF via VEGF receptor-1 (Flt-1) mimics preeclamptic plasma in inhibiting uterine blood vessel relaxation in pregnancy: implications in the pathogenesis of preeclampsia. Brockelsby J, et al. **Lab Invest** 1999 Sep; 79(9):1101-11

Conditional requirement for the Flk-1 receptor in the in vitro generation of early hematopoietic cells. Hidaka M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7370-5

In vitro hematopoietic and endothelial potential of flk-1(-/-) embryonic stem cells and embryos. Schuh AC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2159-64

A quantitative analysis of signal transduction from activin receptor to nucleus and its relevance to morphogen gradient interpretation. Shimizu K, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6791-6

VEGFs, receptors and angiogenesis. Veikkola T, et al. **Semin Cancer Biol** 1999 Jun;9(3):211-20 (99 ref.)

Increased activation of Ras in psoriatic lesions. Lin P, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan-Apr; 12(1-2):90-7

Growth factors and receptors in allograft arteriosclerosis. Delafontaine P, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):111-4 (41 ref.)

[Neuronal growth factors--neurotrophins (see comments)] Meyer M, et al. **Ugeskr Laeger** 1999 Apr 5;161(14):2063-70 (40 ref.) (Eng. Abstr.). Comment in: Ugeskr Laeger 1999 May 24;161(21):3112-3. **(Dan)**

[Receptors and development of endothelial and hematopoietic cells] Eichmann A, et al. **J Soc Biol** 1999; 193(2):155-7 (31 ref.) (Eng. Abstr.) **(Fre)**

[Regulation of angiogenesis-expression of VEGF receptors] Morita I. **Hum Cell** 1998 Dec;11(4):215-20 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Recent advances in growth factor receptor research] Kanzaki M, et al. **Nippon Rinsho** 1998 Jul;56(7):1791-7 (18 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, GROWTH HORMONE see **RECEPTORS, SOMATOTROPIN**

RECEPTORS, HEMATOPOIETIC GROWTH FACTORS see **RECEPTORS, COLONY-STIMULATING FACTOR**

RECEPTORS, HISTAMINE

Tick histamine-binding proteins: isolation, cloning, and three-dimensional structure. Paesen GC, et al. **Mol Cell** 1999 May;3(5):661-71

AGONISTS see HISTAMINE AGONISTS

ANALYSIS

Positron emission tomography receptor studies in epilepsy. Duncan JS. **Rev Neurol (Paris)** 1999 Jul;155(6-7):482-8 (50 ref.)

ANTAGONISTS & INHIBITORS see HISTAMINE ANTAGONISTS

CLASSIFICATION

Role of histamine H1 and H2 receptor antagonists in the prevention of intimal thickening. Miyazawa N, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):53-9

DRUG EFFECTS

Alcohol-histamine interactions. Zimatkin SM, et al. **Alcohol Alcohol** 1999 Mar-Apr;34(2):141-7 (50 ref.)

[The role of the histaminergic receptor in the vestibular habituation: an experimental study] Kaźmierczak H, et al. **Otolaryngol Pol** 1998;52(4):447-50 (Eng. Abstr.) **(Pol)**

GENETICS

Diesel exhaust particulates upregulate histamine receptor mRNA and increase histamine-induced IL-8 and GM-CSF production in nasal epithelial cells and endothelial cells [see comments] Terada N, et al. **Clin Exp Allergy** 1999 Jan;29(1):52-9. Comment in: Clin Exp Allergy 1999 Jan;29(1):4-8.

Lack of histamine synthesis and down-regulation of H1 and H2 receptor mRNA levels by dexamethasone in cerebral endothelial cells. Karlstedt K, et al.

RECEPTORS, HISTAMINE

J Cereb Blood Flow Metab 1999 Mar;19(3):321-30

METABOLISM

Histamine receptors in the skin melanophores of Indian bullfrog Rana tigerina. Ali SA, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Nov; 121(3):229-34

Urocanic acid binds to GABA but not to histamine (H1, H2, or H3) receptors [letter] Laihia JK, et al. **J Invest Dermatol** 1998 Oct;111(4):705-6

The role of histamine H1, H2 and H3 receptors on enteric ascending synaptic transmission in the guinea pig ileum. Izzo AA, et al. **J Pharmacol Exp Ther** 1998 Dec; 287(3):952-7

The fate of released histamine: reception, response and termination. Rangachari PK. **Yale J Biol Med** 1998 May-Aug;71(3-4):173-82 (41 ref.)

[The histamine receptors of the heart] Sergeev PV, et al. **Eksp Klin Farmakol** 1999 Jan-Feb;62(1):65-9 (63 ref.) (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Participation of histamine H1 and H2 receptors in passive cutaneous anaphylaxis-induced scratching behavior in ICR mice. Inagaki N, et al. **Eur J Pharmacol** 1999 Feb 19; 367(2-3):361-71

Histaminergic ligands attenuate barrel rotation in rats following unilateral labyrinthectomy. Pan JB, et al. **Methods Find Exp Clin Pharmacol** 1998 Nov;20(9):771-7

RECEPTORS, HISTAMINE H1

ADMINISTRATION & DOSAGE

Intranasal corticosteroids versus oral H1 receptor antagonists in allergic rhinitis: systematic review of randomised controlled trials. Weiner JM, et al. **BMJ** 1998 Dec 12; 317(7173):1624-9

ANALYSIS

Expression of histamine H1 and H2 receptors in human nasal mucosa. Uddman R, et al. **Acta Otolaryngol** 1999; 119(5):588-91

CHEMISTRY

Molecular properties and signalling pathways of the histamine H1 receptor. Smit MJ, et al. **Clin Exp Allergy** 1999 Jul;29 Suppl 3:19-28 (76 ref.)

DRUG EFFECTS

Cardiac histamine receptors: their pharmacological consequences and signal transduction pathways. Hattori Y. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):123-31 (113 ref.)

Antagonism by olanzapine of dopamine D1, serotonin2, muscarinic, histamine H1 and alpha 1-adrenergic receptors in vitro. Bymaster FP, et al. **Schizophr Res** 1999 May 4; 37(1):107-22

[Identification of protein kinase C phosphorylation sites involved in desensitization of the histamine H1 receptor] Fujimoto K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:143P-147P (Eng. Abstr.) **(Jpn)**

GENETICS

Structure of the human histamine H1 receptor gene. De Backer MD, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):663-70

Gene expression of histamine H1 receptor in guinea pig primary sensory neurons: a relationship between H1 receptor mRNA-expressing neurons and peptidergic neurons. Kashiba H, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):24-34

Identification of the histamine H1 receptor gene as a differentially repressed target of the human TR2 orphan receptor. Lee HJ, et al. **Mol Cell Biochem** 1999 Apr; 194(1-2):199-207

Behavioural characterization and amounts of brain monoamines and their metabolites in mice lacking histamine H1 receptors. Yanai K, et al. **Neuroscience** 1998 Nov; 87(2):479-87

METABOLISM

Effect of tracer metabolism on PET measurement of [11C]pyrilamine binding to histamine H1 receptors. Kim SE, et al. **Ann Nucl Med** 1999 Apr;13(2):101-7

Histamine H1 receptor and reactivity of the nasal mucosa in sensitized guinea pigs. Ohkawa C, et al. **Auris Nasus Larynx** 1999 Jul;26(3):293-8

N alpha-alkylated derivatives of 2-phenylhistamines: synthesis and in vitro activity of potent histamine H1-receptor agonists. Kramer K, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2583-8

Desensitization of the histamine H1-receptor and transcriptional down-regulation of histamine H1-receptor gene expression in bovine tracheal smooth muscle. Pype JL, et al. **Br J Pharmacol** 1998 Dec;125(7):1477-84

Pharmacology of [3H]-pyrilamine binding and of the histamine-induced inositol phosphates generation, intracellular Ca2+ -mobilization and cytokine release from human corneal epithelial cells. Sharif NA, et al. **Br J Pharmacol** 1998 Nov;125(6):1336-44

Histamine H1-receptor-mediated increase in the Ca2+ transient without a change in the Ca2+ current in electrically stimulated guinea-pig atrial myocytes. Yoshimoto K, et al. **Br J Pharmacol** 1998 Aug; 124(8):1744-50

Putative sigma(3) sites in mammalian brain have histamine H(1) receptor properties: evidence from ligand binding and distribution studies with the novel H(1) radioligand [(3)H]-(-)-trans-1-phenyl-3-aminotetralin. Booth RG, et al. **Brain Res** 1999 Aug 7;837(1-2):95-105

Roles of histamine receptor in a guinea pig asthma model. Tohda Y, et al. **Int J Immunopharmacol** 1998 Oct; 20(10):565-71

Histamine-induced calcium mobilization in single cultured cells expressing histamine H1 receptors: a relationship between its sensitivity and the density of H1 receptors. Ohuchi Y, et al. **Int J Mol Med** 1998 Feb;1(2):355-60

Ca2+/calmodulin-mediated regulation of agonist-induced sequestration of Gq protein-coupled histamine H1 receptors in human U373 MG astrocytoma cells. Hishinuma S, et al. **J Neurochem** 1998 Dec;71(6):2626-33

Histamine H1 receptor binding capacities in the amygdalas of the amygdaloid kindled rat. Toyota H, et al. **J Neurochem** 1999 May;72(5):2177-80

Identification of protein kinase C phosphorylation sites involved in phorbol ester-induced desensitization of the histamine H1 receptor. Fujimoto K, et al. **Mol Pharmacol** 1999 Apr;55(4):735-42

PHYSIOLOGY

Histamine response and local cooling in the human skin: involvement of H1- and H2-receptors. Grossmann M, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):216-22

Analysis of an H1 receptor-mediated, zinc-potentiated vasoconstrictor action of the histidyl dipeptide carnosine in rabbit saphenous vein. O'Dowd A, et al. **Br J Pharmacol** 1998 Nov;125(6):1272-80

Effects of different subtypes of histamine receptors on proliferation and differentiation of murine colony forming unit granulocyte-macrophage and colony forming unit megakaryocyte. Tan M, et al. **Chin Med J (Engl)** 1998 Feb; 111(2):132-5

New findings in pharmacological effects induced by antihistamines: from PET studies to knock-out mice. Yanai K, et al. **Clin Exp Allergy** 1999 Jul;29 Suppl 3:29-36; discussion 37-8

Endogenous histamine reduces plasma insulin-like growth factor I via H1 receptor-mediated pathway in the rat. Liao W, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):471-6

Effects of histamine H1 receptors on the feeding and drinking patterns in pygmy goats. Rossi R, et al. **J Dairy Sci** 1998 Sep;81(9):2369-75

Augmentation of antigen receptor-mediated responses by histamine H1 receptor signaling. Banu Y, et al. **J Exp Med** 1999 Feb 15;189(4):673-82

Histamine excites rat cerebellar granule cells in vitro through H1 and H2 receptors. Li WC, et al. **J Physiol Paris** 1999 May-Jun;93(3):239-44

Involvement of prostaglandins in histamine H1 receptor-operated Ca2+ entry in human gingival fibroblasts. Ogata Y, et al. **Life Sci** 1999;64(4):PL71-7

Effect of the H1-histamine receptor agonist betahistine on drinking and eating behavior in pygmy goats. Rossi R, et al. **Physiol Behav** 1999 May;66(3):517-21

[Ligand recognition and activation mechanism of histamine H1 receptor] Fukui H, et al. **Nippon Yakurigaku Zasshi** 1999 May;113(5):289-97 (13 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, HISTAMINE H2

ANALYSIS

Expression of histamine H1 and H2 receptors in human nasal mucosa. Uddman R, et al. **Acta Otolaryngol** 1999; 119(5):588-91

CHEMISTRY

A pH-dependent model of the activation mechanism of the histamine H2 receptor. Giraldo J. **Biochem Pharmacol** 1999 Jul 15;58(2):343-53

DRUG EFFECTS

Effects of histamine H2 receptor agonists and antagonists on the isolated guinea pig gallbladder. Coruzzi G, et al. **Fundam Clin Pharmacol** 1999;13(1):84-90

Histamine H2-receptor modulation in two mouse models of seizure susceptibility. Seeley NA, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S67-8

Cardiac histamine receptors: their pharmacological consequences and signal transduction pathways. Hattori Y. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):123-31 (113 ref.)

GENETICS

Human histamine H2 receptor gene: multiple transcription initiation and tissue-specific expression. Murakami H, et al. **FEBS Lett** 1999 May 28;451(3):327-31

Expression and localization of histamine H2 receptor messenger RNA in human nasal mucosa. Hirata N, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):944-9

METABOLISM

Interaction of the new histamine H2-receptor antagonist pibutidine hydrochloride with canine cloned H2-receptor expressed cells. Kaku S, et al. **Arzneimittelforschung** 1999 Jan;49(1):67-71

A pH-dependent model of the activation mechanism of the histamine H2 receptor. Giraldo J. **Biochem Pharmacol** 1999 Jul 15;58(2):343-53

Up-regulation of H2 receptor and adenylate cyclase in rabbit parietal cells during prolonged treatment with H2-receptor antagonists. Takeuchi K, et al. **Dig Dis Sci** 1999 Aug; 44(8):1703-9

Changes in H2 receptor expression and coupling during Ca2+-induced differentiation in mouse epidermal keratinocytes. Fitzsimons C, et al. **Inflamm Res** 1999 Apr; 48 Suppl 1:S73-4

Histaminergic H2 receptor ligands modulate acetylcholine release in the ventral striatum. Philippu A, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S57-8

Roles of histamine receptor in a guinea pig asthma model. Tohda Y, et al. **Int J Immunopharmacol** 1998 Oct; 20(10):565-71

PHYSIOLOGY

Histamine response and local cooling in the human skin: involvement of H1- and H2-receptors. Grossmann M, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):216-22

Effects of different subtypes of histamine receptors on proliferation and differentiation of murine colony forming unit granulocyte-macrophage and colony forming unit megakaryocyte. Tan M, et al. **Chin Med J (Engl)** 1998 Feb; 111(2):132-5

Histamine H2-receptor modulation in two mouse models of seizure susceptibility. Seeley NA, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S67-8

Histamine excites rat cerebellar granule cells in vitro through H1 and H2 receptors. Li WC, et al. **J Physiol Paris** 1999 May-Jun;93(3):239-44

H2 histaminergic control of inhibition of eating induced by intragastric NaCl in rats. Kraly FS, et al. **Physiol Behav** 1998 Aug;65(1):105-13

RECEPTORS, HISTAMINE H3

Development of a sensitive and quantitative analytical method for 1H-4-substituted imidazole histamine H3-receptor antagonists utilizing high-performance liquid chromatography and dabsyl derivatization. Handley MK, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):239-49

ANALYSIS

Distribution of histamine H3-receptor binding in the normal human basal ganglia: comparison with Huntington's and Parkinson's disease cases. Goodchild RE, et al. **Eur J Neurosci** 1999 Feb;11(2):449-56

CHEMISTRY

From histamine to imidazolylalkyl-sulfonamides: the design of a novel series of histamine H3-receptor antagonists. Tozer MJ, et al. **Bioorg Med Chem Lett** 1999 Jul 5; 9(13):1825-30

DRUG EFFECTS

Trans-4-methyl-3-imidazoyl pyrrolidine as a potent, highly selective histamine H3 receptor agonist in vivo. Shih NY, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):243-8

General construction pattern of histamine H3-receptor antagonists: change of a paradigm. Stark H, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):2011-6

In vivo modulation of rat hypothalamic histamine release by the histamine H3 receptor ligands, immepip and clobenpropit. Effects of intrahypothalamic and peripheral application. Jansen FP, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):149-55

High antagonist potency of GT-2227 and GT-2331, new histamine H3 receptor antagonists, in two functional models. Tedford CE, et al. **Eur J Pharmacol** 1998 Jun 26; 351(3):307-11

Pharmacological characterization of histamine H3 receptors in human saphenous vein and guinea pig ileum. Valentine AF, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):73-8

Histamine H3 receptor binding sites in rat cortex following L-histidine loading. Lozeva V, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S59-60

Design, synthesis, and structure-activity relationships of acetylene-based histamine H3 receptor antagonists. Ali SM, et al. **J Med Chem** 1999 Mar 11;42(5):903-9

4-Alkynylphenyl imidazolylpropyl ethers as selective histamine H3-receptor antagonists with high oral central nervous system activity. Krause M, et al. **J Med Chem** 1998 Oct 8;41(21):4171-6

Development of chiral N-alkylcarbamates as new leads for potent and selective H3-receptor antagonists: synthesis, capillary electrophoresis, and in vitro and oral in vivo activity. Sasse A, et al. **J Med Chem** 1999 Feb 25; 42(4):593-600

Neurochemical and behavioral effects of ciproxifan, a potent

histamine H3-receptor antagonist. Ligneau X, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):658-66

Sch 50971, an orally active histamine H3 receptor agonist, inhibits central neurogenic vascular inflammation and produces sedation in the guinea pig. McLeod RL, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):43-50

Development of trans-2-[1H-imidazol-4-yl] cyclopropane derivatives as new high-affinity histamine H3 receptor ligands. Tedford CE, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1160-8

Identification and pharmacological characterization of a series of new 1H-4-substituted-imidazoyl histamine H3 receptor ligands. Yates SL, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1151-9

Cognitive implications for H3 and 5-HT3 receptor modulation of cortical cholinergic function: a parallel story. Passani MB, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):725-33 (96 ref.)

Ciproxifan and chemically related compounds are highly potent and selective histamine H3-receptor antagonists. Kathmann M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):623-7

Thioperamide, a histamine H3 receptor antagonist, suppresses NPY-but not dynorphin A-induced feeding in rats. Itoh E, et al. **Regul Pept** 1998 Sep 25;75-76:373-6

Therapeutic potential of histamine H3 receptor agonists and antagonists. Leurs R, et al. **Trends Pharmacol Sci** 1998 May; 19(5):177-83 (97 ref.)

GENETICS

Cloning and functional expression of the human histamine H3 receptor. Lovenberg TW, et al. **Mol Pharmacol** 1999 Jun;55(6):1101-7

METABOLISM

Synthesis of potent non-imidazole histamine H3-receptor antagonists. Ganellin CR, et al. **Arch Pharm (Weinheim)** 1998 Dec;331(12):395-404

New acetylene based histamine H3 receptor antagonists derived from the marine natural product verongamine. Ali SM, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1133-8

The effects of histamine H3-receptor antagonists on amygdaloid kindled seizures in rats. Kakinoki H, et al. **Brain Res Bull** 1998 Jul 15;46(5):461-5

Agonist and antagonist effects of histamine H3 receptor ligands on 5-HT3 receptor-mediated ion currents in NG108-15 cells. Allen MC. **Eur J Pharmacol** 1998 Nov 20;361(2-3):261-8

Potentiation of the discriminative-stimulus effects of methamphetamine by the histamine H3 receptor antagonist thioperamide in rats. Munzar P, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):93-101

Histamine H3-receptor stimulation is unable to modulate noradrenaline release by the isolated rat heart during ischaemia-reperfusion. Mazenot C, et al. **Fundam Clin Pharmacol** 1999;13(4):455-60

The histamine H3 receptor agonist N alpha-methylhistamine produced by Helicobacter pylori does not alter somatostatin release from cultured rabbit fundic D-cells. Beales IL, et al. **Gut** 1998 Aug;43(2):176-81

Histamine H3 receptor binding sites in rat cortex following L-histidine loading. Lozeva V, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S59-60

Characterization of the binding site of the histamine H3 receptor. 1. Various approaches to the synthesis of 2-(1H-imidazol-4-yl)cyclopropylamine and histaminergic activity of (1R,2R)- and (1S,2S)-2-(1H-imidazol-4-yl)-cyclopropylamine. De Esch IJ, et al. **J Med Chem** 1999 Apr 8;42(7):1115-22

Synthesis and in vitro pharmacology of a series of new chiral histamine H3-receptor ligands: 2-(R and S)-Amino-3-(1H-imidazol-4(5)-yl)propyl ether derivatives. Kovalainen JT, et al. **J Med Chem** 1999 Apr 8;42(7):1193-202

Brain histamine H3 receptors in rats with portacaval anastomosis: in vitro and in vivo studies. Lozeva V, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):574-81

PHYSIOLOGY

Thioperamide, a histamine H3 receptor antagonist, powerfully suppresses peptide YY-induced food intake in rats. Itoh E, et al. **Biol Psychiatry** 1999 Feb 15;45(4):475-81

4-[(1H-imidazol-4-yl) methyl] benzamidines and benzylamidines: novel antagonists of the histamine H3 receptor. Aslanian R, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2263-8

Novel H3 receptor antagonists. Sulfonamide homologs of histamine. Wolin R, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2157-62

Histamine H3 receptor-mediated inhibition of noradrenaline release in the human brain. Schlicker E, et al. **Fundam Clin Pharmacol** 1999;13(1):120-2

Histamine H3 activation depresses cardiac function in experimental sepsis. Li X, et al. **J Appl Physiol** 1998 Nov; 85(5):1693-701

Differential effect of histamine 3 receptor-active agents on brain, but not peritoneal, mast cell activation. Roznieckl JJ, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1427-35

Histamine H3 receptor-mediated inhibition of excitatory synaptic transmission in the rat dentate gyrus in vivo. Chang M, et al. **Jpn J Pharmacol** 1998 Jul;77(3):251-5

Autoregulation of histamine release in medulla oblongata via H3-receptors in rabbits. Kanamaru M, et al. **Neurosci Res** 1998 May;31(1):53-60

Effects of histamine H3 receptor ligands in experimental models of anxiety and depression. Pérez-García C, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):215-20

RECEPTORS, HIV

see related
HIV ENVELOPE PROTEIN GP120

HIV coreceptors. Dimitrov DS, et al. **J Membr Biol** 1998 Nov 15;166(2):75-90 (111 ref.)

ANALYSIS

Failure of HIV-1 to infect human oocytes directly. Baccetti B, et al. **J Acquir Immune Defic Syndr** 1999 Aug 15; 21(5):355-61

ANTAGONISTS & INHIBITORS

Blocking HIV co-receptors by chemokines. Virelizier JL. **Dev Biol Stand** 1999;97:105-9 (15 ref.)

Anti-HIV type 1 activity of wild-type and functional defective RANTES intrakine in primary human lymphocytes. Yang AG, et al. **Hum Gene Ther** 1998 Sep 20;9(14):2005-18

BIOSYNTHESIS

Coreceptor/chemokine receptor expression on human hematopoietic cells: biological implications for human immunodeficiency virus-type 1 infection. Lee B, et al. **Blood** 1999 Feb 15;93(4):1145-56

GENETICS

Gene cloning, RNA distribution, and functional expression of mCX3CR1, a mouse chemotactic receptor for the CX3C chemokine fractalkine. Combadiere C, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):728-32

Functional expression of the fractalkine (CX3C) receptor and its regulation by lipopolysaccharide in rat microglia. Boddeke EW, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):309-13

Transgenic mice expressing human HIV receptors become persistently recipient of HIV DNA after injection with infected human cell lines. Simeoni L, et al. **Folia Microbiol (Praha)** 1998;43(5):525-6

IMMUNOLOGY

HIV entry and tropism. When one receptor is not enough. Berger EA. **Adv Exp Med Biol** 1998;452:151-7 (39 ref.)

Antigenic characterization of HIV-1 gp41 binding proteins. Chen YH, et al. **Immunol Lett** 1998 Jun;62(2):75-9

Few clues for AIDS vaccines from structural data on gp120 and its receptors and antibodies [letter] Kohler H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):315-6

Prevention of crescentic glomerulonephritis by immunoneutralization of the fractalkine receptor CX3CR1 rapid communication. Feng L, et al. **Kidney Int** 1999 Aug; 56(2):612-20

Postexposure immunoprophylaxis of primary isolates by an antibody to HIV receptor complex. Wang CY, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10367-72

METABOLISM

HIV-1 subtype C syncytium- and non-syncytium-inducing phenotypes and coreceptor usage among Ethiopian patients with AIDS. Abebe A, et al. **AIDS** 1999 Jul 30; 13(11):1305-11

The C domain of HIV-1 gp41 binds the putative cellular receptor protein P62. Chen YH, et al. **AIDS** 1999 Jun 18; 13(9):1021-4

Adaptation to promiscuous usage of CC and CXC-chemokine coreceptors in vivo correlates with HIV-1 disease progression. Xiao L, et al. **AIDS** 1998 Sep 10;12(13):F137-43

Coreceptor requirements of primary HIV type 1 group O isolates from Cameroon. Dittmar MT, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):707-12

Chemokine receptors as HIV coreceptors: implications and interactions. Rucker J, et al. **AIDS Res Hum Retroviruses** 1998 Oct;14 Suppl 3:S241-6 (100 ref.)

Establishment of a new system for determination of coreceptor usages of HIV based on the human glioma NP-2 cell line. Soda Y, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):313-21

Molecular uncoupling of fractalkine-mediated cell adhesion and signal transduction. Rapid flow arrest of CX3CR1-expressing cells is independent of G-protein activation. Haskell CA, et al. **J Biol Chem** 1999 Apr 9; 274(15):10053-8

Leukotriene binding, signaling, and analysis of HIV coreceptor function in mouse and human leukotriene B4 receptor-transfected cells. Martin V, et al. **J Biol Chem** 1999 Mar 26;274(13):8597-603

Preferential coreceptor utilization and cytopathicity by dual-tropic HIV-1 in human lymphoid tissue ex vivo [see comments] Glushakova S, et al. **J Clin Invest** 1999 Sep; 104(5):R7-R11. Comment in: J Clin Invest 1999 Sep;104(5):531.

Physiological coreceptor use by dual-tropic HIV-1: one plus one equals one [comment] Rollins BJ. **J Clin Invest** 1999 Sep;104(5):531-2. Comment on: J Clin Invest 1999 Sep;104(5):R7-R11.

Coreceptor usage of BOB/GPR15 and Bonzo/STRL33 by primary isolates of human immunodeficiency virus type 1. Pöhlmann S, et al. **J Gen Virol** 1999 May;80 (Pt 5):1241-51

New insights into the interaction between the gp120 and the HIV receptor in human sperm (human.sperm/gp120/galactoglycerolipid/antigalactosylc eramide/seminolip id/spermatogonia). Brogi A, et al. **J Reprod Immunol** 1998 Dec;41(1-2):213-31

Glycolipids as potential binding sites for HIV: topology in the sperm plasma membrane in relation to the regulation of membrane fusion. Gadella BM, et al. **J Reprod Immunol** 1998 Dec;41(1-2):233-53

Patterns of chemokine receptor fusion cofactor utilization by human immunodeficiency virus type 1 variants from the lungs and blood. Singh A, et al. **J Virol** 1999 Aug; 73(8):6680-90

The CC-chemokine RANTES increases the attachment of human immunodeficiency virus type 1 to target cells via glycosaminoglycans and also activates a signal transduction pathway that enhances viral infectivity. Trkola A, et al. **J Virol** 1999 Aug;73(8):6370-9

Expression and use of human immunodeficiency virus type 1 coreceptors by human alveolar macrophages. Worgall S, et al. **J Virol** 1999 Jul;73(7):5865-74

HIV and SIV gp120 binding does not predict coreceptor function. Baik SS, et al. **Virology** 1999 Jul 5;259(2):267-73

Use of GPR1, GPR15, and STRL33 as coreceptors by diverse human immunodeficiency virus type 1 and simian immunodeficiency virus envelope proteins. Edinger AL, et al. **Virology** 1998 Sep 30;249(2):367-78

Chemokine and orphan receptors in HIV-2 and SIV tropism and pathogenesis. Edinger AL, et al. **Virology** 1999 Aug 1;260(2):211-21 (129 ref.)

Changes in and discrepancies between cell tropisms and coreceptor uses of human immunodeficiency virus type 1 induced by single point mutations at the V3 tip of the env protein. Shimizu N, et al. **Virology** 1999 Jul 5;259(2):324-33

PHYSIOLOGY

Chemokine receptors as HIV-1 coreceptors: roles in viral entry, tropism, and disease. Berger EA, et al. **Annu Rev Immunol** 1999;17:657-700 (230 ref.)

Chemokine receptors in HIV-1 and SIV infection. Choe H. **Arch Pharm Res** 1998 Dec;21(6):634-9 (38 ref.)

Direct visualization of HIV-1 entry: mechanisms and role of cell surface receptors. Stauber RH, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):695-702

A trans-receptor mechanism for infection of CD4-negative cells by human immunodeficiency virus type 1. Speck RF, et al. **Curr Biol** 1999 May 20;9(10):547-50

Human chemokine receptors CCR5, CCR3 and CCR2B share common polarity motif in the first extracellular loop with other human G-protein coupled receptors implications for HIV-1 coreceptor function. Efremov R, et al. **Eur J Biochem** 1999 Aug;263(3):746-56

Roles of CD4 and coreceptors in binding, endocytosis, and proteolysis of gp120 envelope glycoproteins derived from human immunodeficiency virus type 1. Kozak SL, et al. **J Biol Chem** 1999 Aug 13;274(33):23499-507

Functional gene transfer of HIV DNA by an HIV receptor-independent mechanism. Spetz AL, et al. **J Immunol** 1999 Jul 15;163(2):736-42

Microglia express CCR5, CXCR4, and CCR3, but of these, CCR5 is the principal coreceptor for human immunodeficiency virus type 1 dementia isolates. Albright AV, et al. **J Virol** 1999 Jan;73(1):205-13

V3 recombinants indicate a central role for CCR5 as a coreceptor in tissue infection by human immunodeficiency virus type 1. Chan SY, et al. **J Virol** 1999 Mar;73(3):2350-8

CCR2-641 polymorphism is not associated with altered CCR5 expression or coreceptor function. Mariani R, et al. **J Virol** 1999 Mar;73(3):2450-9

Primary human immunodeficiency virus type 2 (HIV-2) isolates, like HIV-1 isolates, frequently use CCR5 but show promiscuity in coreceptor usage. Mörner A, et al. **J Virol** 1999 Mar;73(3):2343-9

Differential tropism and replication kinetics of human immunodeficiency virus type 1 isolates in thymocytes: coreceptor expression allows viral entry, but productive infection of distinct subsets is determined at the postentry level. Pedroza-Martins L, et al. **J Virol** 1998 Dec; 72(12):9441-52

An orphan G protein-coupled receptor, GPR1, acts as a coreceptor to allow replication of human immunodeficiency virus types 1 and 2 in brain-derived cells. Shimizu N, et al. **J Virol** 1999 Jun;73(6):5231-9

Use of coreceptors other than CCR5 by non-syncytium-inducing adult and pediatric isolates of human immunodeficiency virus type 1 is rare in vitro. Zhang YJ, et al. **J Virol** 1998 Nov;72(11):9337-44

HIV coreceptors, cell tropism and inhibition by chemokine receptor ligands. Clapham PR, et al. **Mol Membr Biol** 1999 Jan-Mar;16(1):49-55 (58 ref.)

RECEPTORS, HUMAN CHORIONIC GONADOTROPIN see **RECEPTORS, LH**

RECEPTORS, HYALURONAN see **ANTIGENS, CD44**

RECEPTORS, HYPOTHALAMIC RELEASE-INHIBITING HORMONES see **RECEPTORS, PITUITARY HORMONE-REGULATING HORMONE**

RECEPTORS, HYPOTHALAMIC RELEASING HORMONES see **RECEPTORS, PITUITARY HORMONE-REGULATING HORMONE**

RECEPTORS, IGE

Inhibition of sCD23 and immunoglobulin E release from human B cells by a metalloproteinase inhibitor, GI 129471. Wheeler DJ, et al. **Immunology** 1998 Sep;95(1):105–10

ANALYSIS

Endogenous superallergen protein Fv induces IL-4 secretion from human Fc epsilon RI+ cells through interaction with the VH3 region of IgE. Patella V, et al. **J Immunol** 1998 Nov 15;161(10):5647–55

Large number of CD19+/CD23+ B cells and small number of CD8+ T cells as early markers for cow's milk allergy (CMA). Järvinen KM, et al. **Pediatr Allergy Immunol** 1998 Aug;9(3):139–42

CD5 and CD23 expression on B cells in peripheral blood and synovial fluid of rheumatoid arthritis patients: relationship with interleukin-4, soluble CD23 and tumour necrosis factor alpha levels. Loza E, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):325–8

ANTAGONISTS & INHIBITORS

Structure/function studies on IgE as a basis for the development of rational IgE antagonists. Helm BA, et al. **Allergy** 1998;53(45 Suppl):77–82

Hydroxamate-based inhibitors of low affinity IgE receptor (CD23) processing. Bailey S, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):23–8

Selective inhibition of low affinity IgE receptor (CD23) processing. Bailey S, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):29–34

gp49B1 inhibits IgE-initiated mast cell activation through both immunoreceptor tyrosine-based inhibitory motifs, recruitment of src homology 2 domain-containing phosphatase-1, and suppression of early and late calcium mobilization. Lu-Kuo JM, et al. **J Biol Chem** 1999 Feb 26;274(9):5791–6

Production of a chimeric form of CD23 that is oligomeric and blocks IgE binding to the Fc epsilonRI. Kelly AE, et al. **J Immunol** 1998 Dec 15;161(12):6696–704

BIOSYNTHESIS

Epitope-dependent synergism and antagonism between CD40 antibodies and soluble CD40 ligand for the regulation of CD23 expression and IgE synthesis in human B cells. Challa A, et al. **Allergy** 1999 Jun;54(6):576–83

High expression of CD23 in the proliferation centers of chronic lymphocytic leukemia in lymph nodes and spleen. Lampert IA, et al. **Hum Pathol** 1999 Jun;30(6):648–54

Expression of FCepsilonII/CD23 on human neutrophils isolated from rheumatoid arthritis patients. Vella A, et al. **Inflammation** 1999 Oct;23(5):471–9

Regulation of FcARI expression on monocytic cell lines. Dubois GR, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2-4):294–5

The expression of murine B cell CD23, in vivo, is regulated by its ligand, IgE. Kisselgof AB, et al. **Int Immunol** 1998 Sep;10(9):1377–84

STAT6, NF-kappaB and C/EBP in CD23 expression and IgE production. Tinnell SB, et al. **Int Immunol** 1998 Oct; 10(10):1529–38

Inhibitors of the p38 mitogen-activated kinase modulate IL-4 induction of low affinity IgE receptor (CD23) in human monocytes. Marshall LA, et al. **J Immunol** 1998 Dec 1; 161(11):6005–13

IL-4 inhibits mouse mast cell Fc epsilonRI expression through a STAT6-dependent mechanism. Ryan JJ, et al. **J Immunol** 1998 Dec 15;161(12):6915–23

Intracellular expression and release of Fc epsilon RI alpha by human eosinophils. Seminario MC, et al. **J Immunol** 1999 Jun 1;162(11):6893–900

IgE enhances Fc epsilon receptor I expression and IgE-dependent release of histamine and lipid mediators from human umbilical cord blood-derived mast cells: synergistic effect of IL-4 and IgE on human mast cell Fc epsilon receptor I expression and mediator release. Yamaguchi M, et al. **J Immunol** 1999 May 1;162(9):5455–65

CD23 antigen expression on B lymphocytes and soluble CD23 levels in peripheral blood of high-risk type 1 diabetes subjects. Krętowski A, et al. **Scand J Immunol** 1999 Jan; 49(1):78–81

BLOOD

Serum levels of soluble CD23 in patients with asthma or rhinitis monosensitive to Parietaria. Its relation to total serum IgE levels and eosinophil cationic protein during and out of the pollen season. Di Lorenzo G, et al. **Allergy Asthma Proc** 1999 Mar-Apr;20(2):119–25

Decrease of serum levels of soluble CD23 during immunotherapy in patients with perennial allergic rhinitis. Tanaka A, et al. **Ann Otol Rhinol Laryngol** 1999 Feb; 108(2):193–200

Soluble CD23 in allergic diseases. Rogala B, et al. **Arch Immunol Ther Exp (Warsz)** 1999;47(4):251–5

Effects of azelastine on the level of serum interleukin-4 and soluble CD23 antigen in the treatment of nasal allergy. Ito H, et al. **Arzneimittelforschung** 1998 Dec;48(12):1143–7

Serum soluble CD23 levels and CD23 expression on peripheral blood mononuclear cells in juvenile chronic arthritis. Massa M, et al. **Clin Exp Rheumatol** 1998 Sep-Oct; 16(5):611–6

Clinico-prognostic implications of simultaneous increased serum levels of soluble CD23 and beta2-microglobulin in B-cell chronic lymphocytic leukemia. Molica S, et al. **Eur J Haematol** 1999 Feb;62(2):117–22

Hemoglobin levels correlate with serum soluble CD23 and TNF-Rs concentrations in patients with rheumatoid arthritis. Vaiopoulos G, et al. **Haematologia (Budap)** 1998; 29(2):89–99

Upregulation of FcepsilonRI on human basophils by IgE antibody is mediated by interaction of IgE with FcepsilonRI. MacGlashan D Jr, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):492–8

Down-regulation of human basophil IgE and FC epsilon RI alpha surface densities and mediator release by anti-IgE-infusions is reversible in vitro and in vivo. Saini SS, et al. **J Immunol** 1999 May 1;162(9):5624–30

CD23 antigen expression on B lymphocytes and soluble CD23 levels in peripheral blood of high-risk type 1 diabetes subjects. Krętowski A, et al. **Scand J Immunol** 1999 Jan; 49(1):78–81

Serum sCD23 in patients with lepromatous and tuberculoid leprosy. Bansal AS, et al. **Scand J Infect Dis** 1998; 30(2):133–5

CHEMISTRY

The crystal structure of the human high-affinity IgE receptor (Fc epsilon RI alpha). Garman SC, et al. **Annu Rev Immunol** 1999;17:973–6 (15 ref.)

Quantifying aggregation of IgE-FcepsilonRI by multivalent antigen. Hlavacek WS, et al. **Biophys J** 1999 May; 76(5):2421–31

Crystal structure of the human high-affinity IgE receptor. Garman SC, et al. **Cell** 1998 Dec 23;95(7):951–61

The structural basis of human IgE-Fc receptor interactions. Sayers I, et al. **Clin Exp Allergy** 1999 May;29(5):585–94 (92 ref.)

Thirty years with Fc(sigma)R. Stanworth DR. **Immunol Lett** 1999 May 3;68(1):167–71

Protein and cell engineering of components of the human immunoglobulin E receptor/effector system: applications for therapy and diagnosis. Helm BA, et al. **Technol Health Care** 1998 Sep;6(2-3):195–207

GENETICS

Lack of association between atopy and RsaI polymorphism within intron 2 of the Fc(epsilon)RI-beta gene in a Spanish population sample. Castro J, et al. **Allergy** 1998 Nov; 53(11):1083–6

Polymorphisms of the beta chain of the high-affinity immunoglobulin E receptor (Fcepsilon RI-beta) in South African black and white asthmatic and nonasthmatic individuals. Green SL, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1487–92

Polymorphism of the beta chain of the high affinity immunoglobulin E receptor (FcepsilonRI-beta) in South African black and white asthmatic and nonasthmatic individuals [letter] Hollá L, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):756–7

Functional expression of the high affinity receptor for IgE (FcepsilonRI) in human platelets and its' intracellular expression in human megakaryocytes. Hasegawa S, et al. **Blood** 1999 Apr 15;93(8):2543–51

Prevalence of high affinity IgE receptor [Fc epsilon RI beta] gene polymorphisms in Kuwaiti Arabs with asthma [letter] Haider MZ, et al. **Clin Genet** 1998 Aug;54(2):166–7

Screening of the Fc epsilon RI-beta-gene in a Swiss population of asthmatic children: no association with E237G and identification of new sequence variations. Rohrbach M, et al. **Dis Markers** 1998 Nov;14(3):177–86

Molecular cloning of cDNAs encoding dog high-affinity IgE receptor alpha, beta, and gamma chains. Goitsuka R, et al. **Immunogenetics** 1999 Jun;49(6):580–2

Candidate gene and mutational analysis in asthma and atopy. Wilkinson J, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2-4):265–7

No association between atopic asthma and a coding variant of Fc epsilon R1 beta in a Japanese population. Ishizawa M, et al. **J Hum Genet** 1999;44(5):308–11

Importance of CD23 for collagen-induced arthritis: delayed onset and reduced severity in CD23-deficient mice. Kleinau S, et al. **J Immunol** 1999 Apr 1;162(7):4266–70

The transcription factors Elf-1 and GATA-1 bind to cell-specific enhancer elements of human high-affinity IgE receptor alpha-chain gene. Nishiyama C, et al. **J Immunol** 1999 Jul 15;163(2):623–30

Humoral response suppression observed with CD23 transgenics. Payet ME, et al. **J Immunol** 1999 Jul 1; 163(1):217–23

Linkage and association studies of atopy and the chromosome 11q13 region. Deichmann KA, et al. **J Med Genet** 1999 May;36(5):379–82

Association of the FcepsilonRIbeta gene with bronchial hyper-responsiveness in an Italian population. Trabetti E, et al. **J Med Genet** 1998 Aug;35(8):680–1

Mutational analysis of the high affinity immunoglobulin E receptor beta subunit gene in asthma. Dickson PW, et al. **Thorax** 1999 May;54(5):409–12

HISTORY

Thirty years with Fc(sigma)R. Stanworth DR. **Immunol Lett** 1999 May 3;68(1):167–71

IMMUNOLOGY

CD23 and allergic pulmonary inflammation: potential role as an inhibitor. Cernadas M, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):1–8

Mouse Langerhans cells do not express the high-affinity receptor for IgE. Hayashi S, et al. **Arch Dermatol Res** 1999 Apr;291(4):241–3

Production of IL-13 by human lung mast cells in response to Fcepsilon receptor cross-linkage [see comments] Kobayashi H, et al. **Clin Exp Allergy** 1998 Oct; 28(10):1219–27. Comment in: Clin Exp Allergy 1998 Oct;28(10):1167–70.

The anti-IgE/anti-FcepsilonRIalpha autoantibody network in allergic and autoimmune diseases. Marone G, et al. **Clin Exp Allergy** 1999 Jan;29(1):17–27 (109 ref.)

IgE-Fc epsilonRI-mast cell axis in the allergic cycle. Pawankar R, et al. **Clin Exp Allergy** 1998 Aug;28 Suppl 3:6–14

Soluble CD21 induces activation and differentiation of human monocytes through binding to membrane CD23. Frémeaux-Bacchi V, et al. **Eur J Immunol** 1998 Dec; 28(12):4268–74

Human anti-FcepsilonRIalpha autoantibodies isolated from healthy donors cross-react with tetanus toxoid. Horn MP, et al. **Eur J Immunol** 1999 Apr;29(4):1139–48

Functional Fc epsilonRI engagement by a second secretory IgE isoform detected in humans. Lorenzi R, et al. **Eur J Immunol** 1999 Mar;29(3):936–45

Mast cell stimulation by co-clustering the type I Fc epsilon-receptors with mast cell function-associated antigens. Schweitzer-Stenner R, et al. **Immunol Lett** 1999 May 3;68(1):71–8

Regulation of FcepsilonARI synthesis in human eosinophils. Bjerke T, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2-4):440–2

gp49B1 and its related family of counterregulatory receptors of the immunoglobulin superfamily. Katz HR. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):177–9

An in vitro model for the allergen-IgE-FcARI interaction. Laffer S, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2-4):116–8

A novel regulatory mechanism for FcARI expression on human primary monocytes. Reischl IG, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):296–7

IgE downmodulates stem cell factor-driven mast cell development from cultured peripheral blood mononuclear cells. Welker P, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):292–3

Anti-Fc(epsilon)RI auto antibodies and basophil histamine releasability in chronic idiopathic urticaria. Sabroe RA, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):651–8

Cutaneous inflammatory cell infiltrate in chronic idiopathic urticaria: comparison of patients with and without anti-FcepsilonRI or anti-IgE autoantibodies. Sabroe RA, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):484–93

Chronic idiopathic urticaria: comparison of the clinical features of patients with and without anti-FcepsilonRI or anti-IgE autoantibodies. Sabroe RA, et al. **J Am Acad Dermatol** 1999 Mar;40(3):443–50

The immunoglobulin-like modules Cepsilon3 and alpha2 are the minimal units necessary for human IgE-FcepsilonRI interaction. Vangelista L, et al. **J Clin Invest** 1999 Jun; 103(11):1571–8

Loss of original antigenic specificity in T cell hybridomas transduced with a chimeric receptor containing single-chain Fv of an anti-collagen antibody and Fc epsilonRI-signaling gamma subunit. Annenkov AE, et al. **J Immunol** 1998 Dec 15;161(12):6604–13

MEK and ERK activation in ras-disabled RBL-2H3 mast cells and novel roles for geranylgeranylated and farnesylated proteins in Fc epsilonRI-mediated signaling. Graham TE, et al. **J Immunol** 1998 Dec 15;161(12):6733–44

Humoral response suppression observed with CD23 transgenics. Payet ME, et al. **J Immunol** 1999 Jul 1; 163(1):217–23

Mutations in the activation loop tyrosines of protein tyrosine kinase Syk abrogate intracellular signaling but not kinase activity. Zhang J, et al. **J Immunol** 1998 Oct 15; 161(8):4366–74

Defective early T and T-dependent B cell activation in systemic lupus erythematosus. Fernández-Gutiérrez B, et al. **Lupus** 1998;7(5):314–22

Induction of anaphylaxis in mouse intestine by orally administered antigen and its prevention with soluble high affinity receptor for IgE. Ohtsuka Y, et al. **Pediatr Res**

1999 Mar;45(3):300-5
Upregulated surface expression of intracellularly sequestered Igepsilon receptors (FcepsilonRII/CD23) following activation in human peripheral blood eosinophils. Sano H, et al. **Proc Assoc Am Physicians** 1999 Jan-Feb;111(1):82-91
One lyn molecule is sufficient to initiate phosphorylation of aggregated high-affinity IgE receptors. Wofsy C, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8615-20

METABOLISM

Demonstration of the low-affinity IgE receptor Fc epsilonRII/CD23 in psoriatic epidermis: inflammatory dendritic epidermal cells (IDEC) but not Langerhans cells are the relevant CD1a-positive cell population. Wollenberg A, et al. **Arch Dermatol Res** 1998 Sep;290(9):517-21
Human conjunctival mast cells: expression of Fc epsilonRI, c-kit, ICAM-1, and IgE. Stahl JL, et al. **Arch Ophthalmol** 1999 Apr;117(4):493-7
Functional association of FcepsilonRIgamma with arginine(632) of paired immunoglobulin-like receptor (PIR)-A3 in murine macrophages. Taylor LS, et al. **Blood** 1999 Sep 1;94(5):1790-6
Transendothelial migration of lymphocytes in chronic lymphocytic leukaemia is impaired and involved down-regulation of both L-selectin and CD23. Chen JR, et al. **Br J Haematol** 1999 Apr;105(1):181-9
Translocation (11;14)(q13;q32) and overexpression of cyclin D1 protein in a CD23-positive low-grade B-cell neoplasm. Nanjangud G, et al. **Cancer Genet Cytogenet** 1998 Oct 1; 106(1):37-43
The structural basis of human IgE-Fc receptor interactions. Sayers I, et al. **Clin Exp Allergy** 1999 May;29(5):585-94 (92 ref.)
The role of the SRC homology 2-containing inositol 5'-phosphatase in Fc epsilon R1-induced signaling. Huber M, et al. **Curr Top Microbiol Immunol** 1999;244:29-41 (39 ref.)
Human intestinal mast cells produce IL-5 in vitro upon IgE receptor cross-linking and in vivo in the course of intestinal inflammatory disease. Lorentz A, et al. **Eur J Immunol** 1999 May;29(5):1496-503
The membrane-proximal part of FcepsilonRIalpha contributes to human IgE and antibody binding—implications for a general structural motif in Fc receptors. Nechansky A, et al. **FEBS Lett** 1998 Dec 18; 441(2):225-30
Inhibition of IgE-mediated triggering of mast cells by complement-derived peptides interacting with the Fc epsilon RI. Erdei A, et al. **Immunol Lett** 1999 May 3; 68(1):79-82
Mast cell stimulation by co-clustering the type I Fc epsilon-receptors with mast cell function-associated antigens. Schweitzer-Stenner R, et al. **Immunol Lett** 1999 May 3;68(1):71-8
Surface and gene expression of immunoglobulin E receptors on mast cells and mast-cell numbers in interleukin-4-gene knockout mice. Chen XJ, et al. **Immunology** 1999 Apr; 96(4):544-50
Soluble CD21 (sCD21) forms biologically active complexes with CD23: sCD21 is present in normal plasma as a complex with trimeric CD23 and inhibits soluble CD23-induced IgE synthesis by B cells. Frémeaux-Bacchi V, et al. **Int Immunol** 1998 Oct;10(10):1459-66
Human mast cells produce IL-13 by high-affinity IgE receptor cross-linking: enhanced IL-13 production by IL-4-primed human mast cells. Toru H, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):491-502
Chronic idiopathic urticaria: comparison of the clinical features of patients with and without anti-FcepsilonRI or anti-IgE autoantibodies. Sabroe RA, et al. **J Am Acad Dermatol** 1999 Mar;40(3):443-50
Structural aspects of the association of FcepsilonRI with detergent-resistant membranes. Field KA, et al. **J Biol Chem** 1999 Jan 15;274(3):1753-8
Fine structure analysis of interaction of FcepsilonRI with IgE. Hulett MD, et al. **J Biol Chem** 1999 May 7; 274(19):13345-52
Binding of anti-CD23 monoclonal antibody to the leucine zipper motif of FcepsilonRII/CD23 on B cell membrane promotes its proteolytic cleavage. Evidence for an effect on the oligomer/monomer equilibrium. Munoz O, et al. **J Biol Chem** 1998 Nov 27;273(48):31795-800
Requirement for a negative charge at threonine 60 of the FcRgamma for complete activation of Syk. Swann PG, et al. **J Biol Chem** 1999 Aug 13;274(33):23068-77
The vitronectin receptor and its associated CD47 molecule mediates proinflammatory cytokine synthesis in human monocytes by interaction with soluble CD23. Hermann P, et al. **J Cell Biol** 1999 Feb 22;144(4):767-75
Critical role for cholesterol in Lyn-mediated tyrosine phosphorylation of FcepsilonRI and their association with detergent-resistant membranes. Sheets ED, et al. **J Cell Biol** 1999 May 17;145(4):877-87
Characterization of gene expression in resting and activated mast cells [published erratum appears in J Exp Med 1998 Dec 21;188(12):2387] Chen H, et al. **J Exp Med** 1998 Nov 2;188(9):1657-68
The balance between sphingosine and sphingosine-1-phosphate is decisive for mast cell activation after Fc epsilon receptor I triggering. Prieschl EE, et al. **J Exp Med** 1999 Jul 5;190(1):1-8
Production of a chimeric form of CD23 that is oligomeric and blocks IgE binding to the Fc epsilonRI. Kelly AE, et al. **J Immunol** 1998 Dec 15;161(12):6696-704
Inhibitors of the p38 mitogen-activated kinase modulate IL-4 induction of low affinity IgE receptor (CD23) in human monocytes. Marshall LA, et al. **J Immunol** 1998 Dec 1; 161(11):6005-13
The transcription factors Elf-1 and GATA-1 bind to cell-specific enhancer elements of human high-affinity IgE receptor alpha-chain gene. Nishiyama C, et al. **J Immunol** 1999 Jul 15;163(2):623-30
Lyn dissociation from phosphorylated Fc epsilon RI subunits: a new regulatory step in the Fc epsilon RI signaling cascade revealed by studies of Fc epsilon RI dimer signaling activity. Ortega E, et al. **J Immunol** 1999 Jan 1; 162(1):176-85
FcepsilonRII/CD23 is expressed in Parkinson's disease and induces, in vitro, production of nitric oxide and tumor necrosis factor-alpha in glial cells. Hunot S, et al. **J Neurosci** 1999 May 1;19(9):3440-7
Evaluation of CD23 expression in paraffin-embedded gastric lymphomas of mucosa-associated lymphoid tissue. Kroft SH, et al. **Mod Pathol** 1998 Oct;11(10):967-70
N-glycosylation influences epitope expression and receptor binding structures in human IgE. Björklund JE, et al. **Mol Immunol** 1999 Feb;36(3):213-21
Up-regulation of interleukin-4 and CD23/FcepsilonRII in minimal change nephrotic syndrome. Cho BS, et al. **Pediatr Nephrol** 1999 Apr;13(3):199-204
Evidence that IgE receptor stimulation increases adenosine release from rat basophilic leukaemia (RBL-2H3) cells. Lloyd HG, et al. **Pulm Pharmacol Ther** 1998 Feb;11(1):41-6

PHYSIOLOGY

The high-affinity IgE receptor (Fc epsilon RI): from physiology to pathology. Kinet JP. **Annu Rev Immunol** 1999;17:931-72 (249 ref.)
Amino acid residues that influence Fc epsilon RI-mediated effector functions of human immunoglobulin E. Sayers I, et al. **Biochemistry** 1998 Nov 17;37(46):16152-64
Membrane organization in immunoglobulin E receptor signaling. Sheets ED, et al. **Curr Opin Chem Biol** 1999 Feb; 3(1):95-9 (41 ref.)
Regulation by endogenous INTERLEUKIN-10 of the expression of nitric oxide synthase induced after ligation of CD23 in human macrophages. Dugas N, et al. **Cytokine** 1998 Sep;10(9):680-9
A quantitative approach to signal transduction. Metzger H, et al. **Immunol Lett** 1999 May 3;68(1):53-7 (31 ref.)
Parameters determining the stimulatory capacity of the type I Fc epsilon-receptor. Schweitzer-Stenner R, et al. **Immunol Lett** 1999 May 3;68(1):59-69 (54 ref.)
Specific signaling pathways in the regulation of TNF-alpha mRNA synthesis and TNF-alpha secretion in RBL-2H3 mast cells stimulated through the high affinity IgE receptor. Pelletier C, et al. **Inflamm Res** 1998 Dec;47(12):493-500
Activation of Fc epsilon RI inhibits the pyruvate kinase through direct interaction with the gamma-chain. Oak MH, et al. **Int Arch Allergy Immunol** 1999 Jun;119(2):95-100
Production of chemokines and proinflammatory and antiinflammatory cytokines by human alveolar macrophages activated by IgE receptors. Gosset P, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):289-97
Upregulation of FcepsilonRI on human basophils by IgE antibody is mediated by interaction of IgE with FcepsilonRI. MacGlashan D Jr, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):492-8
Signal transduction pathways triggered by the FcepsilonRIIb receptor (CD23) in human monocytes lead to nuclear factor-kappaB activation. Ten RM, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):376-87
SLP-76 deficiency impairs signaling via the high-affinity IgE receptor in mast cells. Pivniouk VI, et al. **J Clin Invest** 1999 Jun;103(12):1737-43
Fc epsilon RI on dendritic cells: a receptor, which links IgE mediated allergic reaction and T cell mediated cellular response. Shibaki A. **J Dermatol Sci** 1998 May;20(1):29-38 (90 ref.)
Mitogen-activated protein kinase activation through Fc epsilon receptor I and stem cell factor receptor is differentially regulated by phosphatidylinositol 3-kinase and calcineurin in mouse bone marrow-derived mast cells. Ishizuka T, et al. **J Immunol** 1999 Feb 15;162(4):2087-94
Importance of CD23 for collagen-induced arthritis: delayed onset and reduced severity in CD23-deficient mice. Kleinau S, et al. **J Immunol** 1999 Apr 1;162(7):4266-70
Fc epsilonRI-mediated induction of TNF-alpha gene expression in the RBL-2H3 mast cell line: regulation by a novel NF-kappaB-like nuclear binding complex. Pelletier C, et al. **J Immunol** 1998 Nov 1;161(9):4768-76
The signal transduction pathway of CD23 (Fc epsilon RIIb) targets I kappa B kinase. Ten RM, et al. **J Immunol** 1999 Oct 1;163(7):3851-7
Cutting edge: extracellular signal-regulated kinase activates syk: a new potential feedback regulation of Fc epsilon receptor signaling. Xu R, et al. **J Immunol** 1999 Aug 1; 163(3):1110-4
CD45 is essential for Fc epsilon RI signaling by ZAP70, but not Syk, in Syk-negative mast cells. Zhang J, et al. **J Immunol** 1999 Sep 1;163(5):2508-16
Terreic acid, a quinone epoxide inhibitor of Bruton's tyrosine kinase. Kawakami Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2227-32

RECEPTORS, IGF-I see **RECEPTORS, INSULIN-LIKE-GROWTH FACTOR I**

RECEPTORS, IGF-II see **RECEPTORS, INSULIN-LIKE-GROWTH-FACTOR II**

RECEPTORS, IGG

Enhancement by stem cell factor of interleukin-2 (IL-2)-induced DNA synthesis in human decidual CD16-CD56bright natural killer cells mediated by increased expression of the IL-2 receptor alpha chain. Umekage H, et al. **J Reprod Immunol** 1998 Oct;40(1):1-24

ANALYSIS

Fc gamma-receptors in skin and serum from patients with psoriasis, before and after therapy. Bjerke JR, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:141-2
The usefulness of CD64, other monocyte-associated antigens, and CD45 gating in the subclassification of acute myeloid leukemias with monocytic differentiation. Krasinskas AM, et al. **Am J Clin Pathol** 1998 Dec;110(6):797-805
Distinct scavenger receptor expression and function in the human CD14(+)/CD16(+) monocyte subset. Draude G, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1144-9
Assessment of certain neutrophil receptors, opsonophagocytosis and soluble intercellular adhesion molecule-1 (ICAM-1) following thermal injury. Ahmed S el-D, et al. **Burns** 1999 Aug;25(5):395-401
CD14++ monocytes, CD14+/CD16+ subset and soluble CD14 as biological markers of inflammatory systemic diseases and monitoring immunosuppressive therapy. Scherberich JE, et al. **Clin Chem Lab Med** 1999 Mar; 37(3):209-13 (18 ref.)
Topical distribution of Fc gammaRI, Fc gammaRII and Fc gammaRIII in inflamed human gingiva. Yuan ZN, et al. **J Clin Periodontol** 1999 Jul;26(7):441-7
Detection of urinary macrophages expressing the CD16 (Fc gamma RIII) molecule: a novel marker of acute inflammatory glomerular injury. Hotta O, et al. **Kidney Int** 1999 May;55(5):1927-34
Close localization of mouse CD14 and CD32/16 in the cell surface of monocytic cell lines. Hisaka H, et al. **Pathobiology** 1999 Mar-Apr;67(2):92-8

ANTAGONISTS & INHIBITORS

Isolation and characterization of an anti-CD16 single-chain Fv fragment and construction of an anti-HER2/neu/anti-CD16 bispecific scFv that triggers CD16-dependent tumor cytolysis. McCall AM, et al. **Mol Immunol** 1999 May;36(7):433-45
NA1/NA2 antisera inhibit FcgammaRI- but not FcgammaRII- mediated phagocytosis. Flesch BK, et al. **Vox Sang** 1998;75(3):247-52

BIOSYNTHESIS

Characterization and crystallization of soluble human Fc gamma receptor II (CD32) isoforms produced in insect cells. Sondermann P, et al. **Biochemistry** 1999 Jun 29; 38(26):8469-77
Sulfur mustard exposure enhances Fc receptor expression on human epidermal keratinocytes in cell culture: implications for toxicity and medical countermeasures. Cowan FM, et al. **Cell Biol Toxicol** 1998 Aug;14(4):261-6
Regulation of the expression of Fc gamma receptor on circulating neutrophils and monocytes in Kawasaki disease. Nakatani K, et al. **Clin Exp Immunol** 1999 Aug; 117(2):418-22
Macrophage Fcgamma receptors expression is altered by treatment with dopaminergic drugs. Gomez F, et al. **Clin Immunol** 1999 Mar;90(3):375-87
Regulation of production of soluble Fc gamma receptors type III in normal and pathological conditions. Moldovan I, et al. **Immunol Lett** 1999 May 3;68(1):125-34 (31 ref.)
Expression of receptor Fc gamma RIII and phagocytic capacity of neutrophils in septic children. Woźniakowska-Gęsicka T, et al. **Int J Clin Lab Res** 1998; 28(4):242-5

BLOOD

Protection by L-2-oxothiazolidine-4-carboxylic acid of hydrogen peroxide-induced CD3zeta and CD16zeta chain down-regulation in human peripheral blood lymphocytes and lymphokine-activated killer cells. Corsi MM, et al. **Biochem Pharmacol** 1998 Sep 1;56(5):657-62
Levels of soluble Fc gammaRIII correlate with disease severity in sepsis. Muller Kobold AC, et al. **Clin Exp Immunol** 1998 Nov;114(2):220-7
Regulation of the expression of Fc gamma receptor on circulating neutrophils and monocytes in Kawasaki disease. Nakatani K, et al. **Clin Exp Immunol** 1999 Aug; 117(2):418-22
Monocyte activation in rheumatoid arthritis (RA): increased integrin, Fc gamma and complement receptor expression and the effect of glucocorticoids. Torsteinsdóttir I, et al. **Clin Exp Immunol** 1999 Mar;115(3):554-60
Activation of three classes of nonreceptor tyrosine kinases following Fc gamma receptor crosslinking in human monocytes. Pan XQ, et al. **Clin Immunol** 1999 Jan; 90(1):55-64

Soluble CD16 in plasma cell dyscrasias. Mathiot C, et al. **Leuk Lymphoma** 1999 Feb;32(5-6):467-74 (48 ref.)
Neutrophils from term and preterm newborn infants express the high affinity Fcgamma-receptor I (CD64) during bacterial infections. Fjaertoft G, et al. **Pediatr Res** 1999 Jun;45(6):871-6

CHEMISTRY

The cytoplasmic region of mouse Fc gamma RIIb1, but not Fc gamma RIIb2, binds phospholipid membranes. Chen L, et al. **Biochemistry** 1999 Feb 16;38(7):2102-9
Hydrogen bonding and equilibrium protium-deuterium fractionation factors in the immunoglobulin G binding domain of protein G. Khare D, et al. **Biochemistry** 1999 Mar 30;38(13):3918-25
Characterization and crystallization of soluble human Fc gamma receptor II (CD32) isoforms produced in insect cells. Sondermann P, et al. **Biochemistry** 1999 Jun 29; 38(26):8469-77
Crystal structure of the soluble form of the human fcgamma-receptor IIb: a new member of the immunoglobulin superfamily at 1.7 A resolution. Sondermann P, et al. **EMBO J** 1999 Mar 1;18(5):1095-103
N-glycan structures of a recombinant mouse soluble Fcgamma receptor II. Takahashi N, et al. **Glycoconj J** 1998 Sep;15(9):905-14
Biochemical analysis and crystallisation of Fc gamma RIIa, the low affinity receptor for IgG. Powell MS, et al. **Immunol Lett** 1999 May 3;68(1):17-23
Immunoglobulin-binding sites of human FcalphaRI (CD89) and bovine Fcgamma2R are located in their membrane-distal extracellular domains. Morton HC, et al. **J Exp Med** 1999 Jun 7;189(11):1715-22
The second and third extracellular domains of FcgammaRI (CD64) confer the unique high affinity binding of IgG2a. Hulett MD, et al. **Mol Immunol** 1998 Oct;35(14-15):989-96
Crystal structure of the human leukocyte Fc receptor, Fc gammaRIIa. Maxwell KF, et al. **Nat Struct Biol** 1999 May; 6(5):437-42

DEFICIENCY

FcgammaRIII (CD16)-deficient mice show IgG isotype-dependent protection to experimental autoimmune hemolytic anemia. Meyer D, et al. **Blood** 1998 Dec 1; 92(11):3997-4002
IgG-mediated enhancement of antibody responses is low in Fc receptor gamma chain-deficient mice and increased in Fc gamma RII-deficient mice. Wernersson S, et al. **J Immunol** 1999 Jul 15;163(2):618-22

DRUG EFFECTS

Analysis of signal transduction pathways regulating cytokine-mediated Fc receptor activation on human eosinophils. Bracke M, et al. **J Immunol** 1998 Dec 15; 161(12):6768-74

GENETICS

The Fc gammaRIIIA-158F allele is a risk factor for systemic lupus erythematosus. Koene HR, et al. **Arthritis Rheum** 1998 Oct;41(10):1813-8
Altered distribution of Fcgamma receptor IIIA alleles in a cohort of Korean patients with lupus nephritis. Salmon JE, et al. **Arthritis Rheum** 1999 Apr;42(4):818-9
The use of allele-specific recombinant Fc gamma receptor IIIb antigens for the detection of granulocyte antibodies. Bux J, et al. **Blood** 1999 Jan 1;93(1):357-62
Neutrophil antigen (FcgammaRIIIB) SH gene frequencies in six racial groups [letter] Hessner MJ, et al. **Blood** 1999 Feb 1;93(3):1115-6
Relevance of Fc gamma RIIIa-158V-F polymorphism to recurrence of adult periodontitis in Japanese patients. Sugita N, et al. **Clin Exp Immunol** 1999 Aug;117(2):350-4
No association between neutrophil FcgammaRIIa allelic polymorphism and anti-neutrophil cytoplasmic antibody (ANCA)-positive systemic vasculitis. Tse WY, et al. **Clin Exp Immunol** 1999 Jul;117(1):198-205
Association of human Fc gamma RIIa (CD32) polymorphism with susceptibility to and severity of meningococcal disease. Platonov AE, et al. **Clin Infect Dis** 1998 Oct; 27(4):746-50
Localization of FCGR1 encoding Fcgamma receptor class I in primates: molecular evidence for two pericentric inversions during the evolution of human chromosome 1. Maresco DL, et al. **Cytogenet Cell Genet** 1998;82(1-2):71-4
The alternatively spliced CD64 transcript FcgammaRIb2 does not specify a surface-expressed isoform. van Vugt MJ, et al. **Eur J Immunol** 1999 Jan;29(1):143-9
Fc gamma receptor IIIB cDNA gene frequencies in patients with systemic lupus erythematosus and healthy individuals of Malay and Chinese ethnicity. Yap SN, et al. **Immunol Lett** 1999 Jun 1;68(2-3):295-300
Nonvectorial surface transport, endocytosis via a Di-leucine-based motif, and bidirectional transcytosis of chimera encoding the cytosolic tail of rat FcRn expressed in Madin-Darby canine kidney cells. Stefaner I, et al. **J Biol Chem** 1999 Mar 26;274(13):8998-9005
Augmentation of pulmonary host defense against Pseudomonas by FcgammaRIIA cDNA transfer to the respiratory epithelium. Worgall S, et al. **J Clin Invest** 1999 Aug;104(4):409-18
IgG-mediated enhancement of antibody responses is low in Fc receptor gamma chain-deficient mice and increased in Fc gamma RII-deficient mice. Wernersson S, et al. **J Immunol** 1999 Jul 15;163(2):618-22
Fcgamma receptor polymorphisms determine the magnitude of in vitro phagocytosis of Streptococcus pneumoniae mediated by pneumococcal conjugate sera. Jansen WT, et al. **J Infect Dis** 1999 Sep;180(3):888-91
Regulation of neutrophil FcgammaRIIIb (CD16) surface expression following delayed apoptosis in response to GM-CSF and sodium butyrate. Moulding DA, et al. **J Leukoc Biol** 1999 Jun;65(6):875-82
Human Fc gamma receptor IIA (FcgammaRIIA) genotyping and association with systemic lupus erythematosus (SLE) in Chinese and Malays in Malaysia. Yap SN, et al. **Lupus** 1999;8(4):305-10
Molecular characterization of six variant Fcgamma receptor class I (CD64) transcripts. Ernst LK, et al. **Mol Immunol** 1998 Oct;35(14-15):943-54
Dynamics of immunoglobulins at the feto-maternal interface. Saji F, et al. **Rev Reprod** 1999 May;4(2):81-9 (85 ref.)
FcgammaRIIIB polymorphism: evidence that NA1/NA2 and SH are located in two closely linked loci and that the SH allele is linked to the NA1 allele in the Danish population. Steffensen R, et al. **Transfusion** 1999 Jun;39(6):593-8

IMMUNOLOGY

Fc-dependent immune regulation. Enhancement and/suppression directed by antibody-engaging functional Fc receptors (FcR). Bell CG. **Biochem Soc Trans** 1998 Aug; 26(3):S200
Characterization of the Fc receptors (FcR) functioning as bridge between antibody and cell-effector function: antibody-FcR-linked activation of immune responsiveness. Bell CG. **Biochem Soc Trans** 1998 Aug;26(3):S201
Fc gamma receptors in negative signaling--as potential candidates for the antibody induced regulation of humoral responses. Bell CG. **Biochem Soc Trans** 1998 Aug; 26(3):S202
Human immunoglobulin A receptor (FcalphaRI, CD89) function in transgenic mice requires both FcR gamma chain and CR3 (CD11b/CD18). van Egmond M, et al. **Blood** 1999 Jun 15;93(12):4387-94
The FcgammaRIa (CD64) ligand binding chain triggers major histocompatibility complex class II antigen presentation independently of its associated FcR gamma-chain. van Vugt MJ, et al. **Blood** 1999 Jul 15; 94(2):808-17
Antibody dependent cellular phagocytosis (ADCP) and antibody dependent cellular cytotoxicity (ADCC) of breast cancer cells mediated by bispecific antibody, MDX-210. Watanabe M, et al. **Breast Cancer Res Treat** 1999 Feb; 53(3):199-207
Monocyte-mediated lysis of acute myeloid leukemia cells in the presence of the bispecific antibody 251 x 22 (anti-CD33 x anti-CD64). Chen J, et al. **Clin Cancer Res** 1995 Nov; 1(11):1319-25
Characterization of a novel bispecific antibody that mediates Fcgamma receptor type I-dependent killing of tumor-associated glycoprotein-72-expressing tumor cells. Russoniello C, et al. **Clin Cancer Res** 1998 Sep;4(9):2237-43
IgG-mediated anaphylaxis via Fc gamma receptor in CD40-deficient mice. Wakayama H, et al. **Clin Exp Immunol** 1998 Nov;114(2):154-60
Development of a trispecific antibody conjugate that directs two distinct tumor-associated antigens to CD64 on myeloid effector cells. Somasundaram C, et al. **Hum Antibodies** 1999;9(1):47-54
Low affinity Fc gamma receptors on murine macrophages: mitogen-activated protein kinase activation and AP-1 DNA binding activity. Cote-Vélez MJ, et al. **Immunol Lett** 1999 Apr 15;67(3):251-5
The human high-affinity immunoglobulin G receptor activates SH2-containing inositol phosphatase (SHIP). Cameron AJ, et al. **Immunology** 1999 Aug;97(4):641-7
Cross-linking of Fc(gamma)-receptor on monocytes inhibits hepatitis C virus-specific cytotoxic T-lymphocyte induction in vitro. Kanto T, et al. **Immunology** 1998 Aug; 94(4):461-8
Differentiation-dependent switch in protein kinase C isoenzyme activation by FcgammaRI, the human high-affinity receptor for immunoglobulin G. Melendez AJ, et al. **Immunology** 1999 Mar;96(3):457-64
Modulation of immune complex-induced inflammation in vivo by the coordinate expression of activation and inhibitory Fc receptors. Clynes R, et al. **J Exp Med** 1999 Jan 4;189(1):179-85
Fcgamma receptor-mediated induction of dendritic cell maturation and major histocompatibility complex class I-restricted antigen presentation after immune complex internalization. Regnault A, et al. **J Exp Med** 1999 Jan 18;189(2):371-80
Modulation of immunoglobulin (Ig)E-mediated systemic anaphylaxis by low-affinity Fc receptors for IgG. Ujike A, et al. **J Exp Med** 1999 May 17;189(10):1573-9
Cutting edge: Fc receptor type I for IgG on macrophages and complement mediate the inflammatory response in immune complex peritonitis. Heller T, et al. **J Immunol** 1999 May 15;162(10):5657-61
Therapy with monoclonal antibodies. II. The contribution of Fc gamma receptor binding and the influence of C(H)1 and C(H)3 domains on in vivo effector function. Isaacs JD, et al. **J Immunol** 1998 Oct 15;161(8):3862-9
Ligation of Fc gamma RII (CD32) pivotally regulates survival of human eosinophils. Kim JT, et al. **J Immunol** 1999 Apr 1;162(7):4253-9
Antineutrophil cytoplasmic antibodies preferentially engage Fc gammaRIIIb on human neutrophils. Kocher M, et al. **J Immunol** 1998 Dec 15;161(12):6909-14
Quantitative analysis of the effect of CD16 ligation on human NK cell proliferation. Warren HS, et al. **J Immunol** 1999 Jan 15;162(2):735-42
Crucial role of FcgammaRIIa (CD32) in assessment of functional anti-Streptococcus pneumoniae antibody activity in human sera. Rodriguez ME, et al. **J Infect Dis** 1999 Feb;179(2):423-33
Effective phagocytosis and killing of Candida albicans via targeting FcgammaRI (CD64) or FcalphaRI (CD89) on neutrophils. van Spriel AB, et al. **J Infect Dis** 1999 Mar; 179(3):661-9
Analysis of heavy and light chain pairings indicates that receptor editing shapes the human antibody repertoire. de Wildt RM, et al. **J Mol Biol** 1999 Jan 22;285(3):895-901
Nonspecific immunity in pregnancy: monocyte surface Fcgamma receptor expression and function. Davis D, et al. **J Reprod Immunol** 1998 Nov;40(2):119-28
Anti-CD16/CD30 bispecific antibodies as possible treatment for refractory Hodgkin's disease. Hartmann F, et al. **Leuk Lymphoma** 1998 Oct;31(3-4):385-92
Human Fc gamma receptor IIA (FcgammaRIIA) genotyping and association with systemic lupus erythematosus (SLE) in Chinese and Malays in Malaysia. Yap SN, et al. **Lupus** 1999;8(4):305-10
The second and third extracellular domains of FcgammaRI (CD64) confer the unique high affinity binding of IgG2a. Hulett MD, et al. **Mol Immunol** 1998 Oct;35(14-15):989-96
Efficient IgG-mediated suppression of primary antibody responses in Fcgamma receptor-deficient mice. Karlsson MC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2; 96(5):2244-9
Human CD16 as a lysis receptor mediating direct natural killer cell cytotoxicity. Mandelboim O, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5640-4
Identification of two distinct mechanisms of phagocytosis controlled by different Rho GTPases. Caron E, et al. **Science** 1998 Nov 27;282(5394):1717-21
Immunoregulatory role of CD8alpha in the veto effect. Asiedu C, et al. **Transplantation** 1999 Feb 15;67(3):372-80
[The effect of the vaccinal strain of Yersinia pestis on the expression of Fc-gamma receptors on macrophage surfaces] Vasil'eva GI, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar-Apr; (2):85-6 **(Rus)**

ISOLATION & PURIFICATION

Biochemical analysis and crystallisation of Fc gamma RIIa, the low affinity receptor for IgG. Powell MS, et al. **Immunol Lett** 1999 May 3;68(1):17-23

METABOLISM

The role of cholesterol and sphigomyelin in tyrosine phosphorylation of proteins and capping of Fcgamma receptor II. Drzewiecka A, et al. **Acta Biochim Pol** 1999; 46(1):107-16
Engagement of spectrin and actin in capping of FcgammaRII revealed by studies on permeabilized U937 cells. Kwiatkowska K, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):287-93
Actin polymerization induces shedding of FcgammaRIIIb (CD16) from human neutrophils. Middelhoven PJ, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):568-74
Human Fcgamma receptor IIb expressed in Escherichia coli reveals IgG binding capability. Sondermann P, et al. **Biol Chem** 1999 Jun;380(6):717-21
Treatment with progesterone analogues decreases macrophage Fcgamma receptors expression. Gomez F, et al. **Clin Immunol Immunopathol** 1998 Dec;89(3):231-9
Hormonal profiles and immunological studies of male lupus in Taiwan. Chang DM, et al. **Clin Rheumatol** 1999; 18(2):158-62
The unexpected complexity of Fc gamma RIIB signal transduction. Cambier JC, et al. **Curr Top Microbiol Immunol** 1999;244:43-55 (70 ref.)
Negative regulation of hematopoietic cell activation and proliferation by Fc gamma RIIB. Malbec O, et al. **Curr Top Microbiol Immunol** 1999;244:13-27 (84 ref.)
Allergy receptor pictured [news] **Environ Health Perspect** 1999 Jun;107(6):A294-6
Evidence that phospholipase C-gamma2 interacts with SLP-76, Syk, Lyn, LAT and the Fc receptor gamma-chain after stimulation of the collagen receptor glycoprotein VI in human platelets. Gross BS, et al. **Eur J Biochem** 1999 Aug;263(3):612-23
CD16+CD56+CD8+ natural killer (NK) cells are decreased during HIV infection. Lucia MB, et al. **Eur J Histochem** 1997;41 Suppl 2:197-8
Lack of correlation between HLA-DR and CD25 "activation" related antigens on CD16+ NK cells in HIV infection. Lucia MB, et al. **Eur J Histochem** 1997;41 Suppl 2:31-2
Recombinant human IgG molecules lacking Fcgamma receptor I binding and monocyte triggering activities. Armour KL, et al. **Eur J Immunol** 1999 Aug;29(8):2613-24

Fcgamma receptor-mediated inhibition of human B cell activation: the role of SHP-2 phosphatase. Koncz G, et al. **Eur J Immunol** 1999 Jun;29(6):1980–9

The alternatively spliced CD64 transcript FcgammaRIb2 does not specify a surface-expressed isoform. van Vugt MJ, et al. **Eur J Immunol** 1999 Jan;29(1):143–9

Characterization of Cbl-Nck and Nck-Pak1 interactions in myeloid FcgammaRII signaling. Izadi KD, et al. **Exp Cell Res** 1998 Dec 15;245(2):330–42

The influence of the hinge region length in binding of human IgG to human Fcgamma receptors. Redpath S, et al. **Hum Immunol** 1998 Nov;59(11):720–7

Independently ligating CD38 and Fc gammaRIIB relays a dominant negative signal to B cells. Oliver AM, et al. **Hybridoma** 1999 Apr;18(2):113–9

Unique features of SHIP, SHP-1 and SHP-2 binding to FcgammaRIIb revealed by surface plasmon resonance analysis. Famiglietti SJ, et al. **Immunol Lett** 1999 May 3; 68(1):35–40

Regulation of production of soluble Fc gamma receptors type III in normal and pathological conditions. Moldovan I, et al. **Immunol Lett** 1999 May 3;68(1):125–34 (31 ref.)

Vav and SLP-76 recruitment by cross-linking of FcgammaRIIa1 in promyelocytic HL-60 cells. Rouard H, et al. **Immunol Lett** 1999 Jun 1;68(2–3):347–53

Arachidonic acid, but not its metabolites, is essential for FcgammaR-stimulated intracellular killing of Staphylococcus aureus by human monocytes. Zheng L, et al. **Immunology** 1999 Jan;96(1):90–7

Five homologous repeats of the protein G-related protein MIG cooperate in binding to goat immunoglobulin G. Vasi J, et al. **Infect Immun** 1999 Jan;67(1):413–6

Interaction of IgG immunoglobulins with the guinea pig peritoneal macrophage Fc gamma receptors. Effect on the association of the receptors with the membrane skeleton and the cytoskeleton. Sokal I, et al. **Int J Biochem Cell Biol** 1998 Dec;30(12):1353–65

The SH2 domain-containing inositol 5'-phosphatase (SHIP) recruits the p85 subunit of phosphoinositide 3-kinase during FcgammaRIIb1-mediated inhibition of B cell receptor signaling. Gupta N, et al. **J Biol Chem** 1999 Mar 12; 274(11):7489–94

FcgammaRIIb modulation of surface immunoglobulin-induced Akt activation in murine B cells. Jacob A, et al. **J Biol Chem** 1999 May 7;274(19):13704–10

Fcgamma receptor-mediated mitogen-activated protein kinase activation in monocytes is independent of Ras. Sánchez-Mejorada G, et al. **J Biol Chem** 1998 Oct 16; 273(42):27610–9

Rap1B and Rap2B translocation to the cytoskeleton by von Willebrand factor involves FcgammaII receptor-mediated protein tyrosine phosphorylation. Torti M, et al. **J Biol Chem** 1999 May 7;274(19):13690–7

Intracellular traffic of the MHC class I-like IgG Fc receptor, FcRn, expressed in epithelial MDCK cells. Praetor A, et al. **J Cell Sci** 1999 Jul;112 (Pt 14):2291–9

The major receptor for C-reactive protein on leukocytes is fcgamma receptor II. Bharadwaj D, et al. **J Exp Med** 1999 Aug 16;190(4):585–90

Immunoglobulin-binding sites of human FcalphaRI (CD89) and bovine Fcgamma2R are located in their membrane-distal extracellular domains. Morton HC, et al. **J Exp Med** 1999 Jun 7;189(11):1715–22

Deletion of fcgamma receptor IIB renders H-2(b) mice susceptible to collagen-induced arthritis. Yuasa T, et al. **J Exp Med** 1999 Jan 4;189(1):187–94

Ligation of Fc gamma RII (CD32) pivotally regulates survival of human eosinophils. Kim JT, et al. **J Immunol** 1999 Apr 1;162(7):4253–9

Differential interaction of Crkl with Cbl or C3G, Hef-1, and gamma subunit immunoreceptor tyrosine-based activation motif in signaling of myeloid high affinity Fc receptor for IgG (Fc gamma RI). Kyono WT, et al. **J Immunol** 1998 Nov 15;161(10):5555–63

The SH2-containing 5'-inositol phosphatase (SHIP) is tyrosine phosphorylated after Fc gamma receptor clustering in monocytes. Maresco DL, et al. **J Immunol** 1999 Jun 1;162(11):6458–65

Human myeloid cells express an activating ILT receptor (ILT1) that associates with Fc receptor gamma-chain. Nakajima H, et al. **J Immunol** 1999 Jan 1;162(1):5–8

Protein interactions of Src homology 2 (SH2) domain-containing inositol phosphatase (SHIP): association with Shc displaces SHIP from FcgammaRIIb in B cells. Tridandapani S, et al. **J Immunol** 1999 Feb 1;162(3):1408–14

Quantitative analysis of the effect of CD16 ligation on human NK cell proliferation. Warren HS, et al. **J Immunol** 1999 Jan 15;162(2):735–42

Immune complexes from vasculitis patients bind to endothelial Fc receptors independent of the allelic polymorphism of FcgammaRIIa. Gröger M, et al. **J Invest Dermatol** 1999 Jul;113(1):56–60

Effects of platelet release products on neutrophilic Fc gamma receptors. Sakamoto N, et al. **J Leukoc Biol** 1998 Nov; 64(5):631–5

Analysis of the endocytic pathway upon intracellular transport of IgG molecules through Fc receptors. Athanassakis I, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):143–54

Interaction of poliovirus with its receptor affords a high level of infectivity to the virion in poliovirus infections mediated by the Fc receptor. Arita M, et al. **J Virol** 1999 Feb; 73(2):1066–74

Distinct contribution of Fc receptors and angiotensin II-dependent pathways in anti-GBM glomerulonephritis. Suzuki Y, et al. **Kidney Int** 1998 Oct;54(4):1166–74

Role of SHIP in FcgammaRIIb-mediated inhibition of Ras activation in B cells. Tridandapani S, et al. **Mol Immunol** 1998 Dec;35(17):1135–46

Mechanism of intravenous immune globulin therapy [letter; comment] Spellberg B. **N Engl J Med** 1999 Jul 1; 341(1):57–8. Comment on: N Engl J Med 1999 Jan 21;340(3):227–8.

Mechanism of intravenous immune globulin therapy in antibody-mediated autoimmune diseases [see comments] Yu Z, et al. **N Engl J Med** 1999 Jan 21;340(3):227–8 (9 ref.). Comment in: N Engl J Med 1999 Jul 1;341(1):57–8.

[Signal transmission by Fc gamma receptors] Lisowski J. **Postepy Hig Med Dosw** 1999;53(2):195–203 (43 ref.) (Eng. Abstr.) **(Pol)**

[Insulin-binding activity of lymphocytes bearing Fcgamma-receptors in pregnant women with diabetes mellitus] Zhumagalieva GD, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):230–3 **(Rus)**

PHYSIOLOGY

Oxidized LDL-containing immune complexes induce Fc gamma receptor I-mediated mitogen-activated protein kinase activation in THP-1 macrophages. Huang Y, et al. **Arterioscler Thromb Vasc Biol** 1999 Jul;19(7):1600–7

Extracellular signal-regulated kinase 1 or 2 activation by Fc gamma RI aggregation in U937 cells. Sim MA, et al. **Biochem Soc Trans** 1998 Aug;26(3):S198

A regulatory role for Fcgamma receptors CD16 and CD32 in the development of murine B cells. de Andres B, et al. **Blood** 1998 Oct 15;92(8):2823–9

Monoclonal Lym-1 antibody-dependent cytolysis by neutrophils exposed to granulocyte-macrophage colony-stimulating factor: intervention of FcgammaRII (CD32), CD11b-CD18 integrins, and CD66b glycoproteins. Ottonello L, et al. **Blood** 1999 May 15; 93(10):3505–11

Tyrosine phosphorylation/dephosphorylation controls capping of Fcgamma receptor II in U937 cells. Kwiatkowska K, et al. **Cell Motil Cytoskeleton** 1999; 42(4):298–314

Glomerular inflammation: use of genetically deficient mice to elucidate the roles of leukocyte adhesion molecules and Fc-gamma receptors in vivo. Mayadas TN, et al. **Curr Opin Nephrol Hypertens** 1999 May;8(3):293–8 (26 ref.)

Structural requirements of Syk kinase for Fcgamma receptor-mediated phagocytosis. Hunter S, et al. **Exp Hematol** 1999 May;27(5):875–84

SHIP recruitment attenuates Fc gamma RIIB-induced B cell apoptosis. Pearse RN, et al. **Immunity** 1999 Jun; 10(6):753–60

A microscopic study of Fc gamma RIII-mediated respiratory burst in neutrophils. Model MA, et al. **Immunobiology** 1998 Jul;199(1):39–50

A regulatory role for Fc gamma receptors (CD16 and CD32) in hematopoiesis. de Andres B, et al. **Immunol Lett** 1999 May 3;68(1):109–13

Cooperation between SHP-2, phosphatidyl inositol 3-kinase and phosphoinositol 5-phosphatase in the Fc gamma RIIb mediated B cell regulation. Sármay G, et al. **Immunol Lett** 1999 May 3;68(1):25–34

FC gamma receptor mediated phagocytosis by human neutrophil cytoplasts. Fleit HB, et al. **Inflammation** 1999 Jun;23(3):253–62

The p85 subunit of phosphatidylinositol 3-kinase associates with the Fc receptor gamma-chain and linker for activitor of T cells (LAT) in platelets stimulated by collagen and convulxin. Gibbins JM, et al. **J Biol Chem** 1998 Dec 18; 273(51):34437–43

Fc gamma receptor-mediated activation of phospholipase D regulates macrophage phagocytosis of IgG-opsonized particles. Kusner DJ, et al. **J Immunol** 1999 Feb 15; 162(4):2266–74

The role of the human Fc receptor Fc gamma RIIA in the immune clearance of platelets: a transgenic mouse model. McKenzie SE, et al. **J Immunol** 1999 Apr 1;162(7):4311–8

Negative regulation of c-kit-mediated cell proliferation by Fc gamma RIIB. Malbec O, et al. **J Immunol** 1999 Apr 15;162(8):4424–9

Beta 1 integrin cross-linking inhibits CD16-induced phospholipase D and secretory phospholipase A2 activity and granule exocytosis in human NK cells: role of phospholipase D in CD16-triggered degranulation. Milella M, et al. **J Immunol** 1999 Feb 15;162(4):2064–72

CD94/NKG2-A inhibitory complex blocks CD16-triggered Syk and extracellular regulated kinase activation, leading to cytotoxic function of human NK cells. Palmieri G, et al. **J Immunol** 1999 Jun 15;162(12):7181–8

Reactive oxygen intermediates enhance Fc gamma receptor signaling and amplify phagocytic capacity. Pricop L, et al. **J Immunol** 1999 Jun 15;162(12):7041–8

Regulation of B cell receptor-mediated MHC class II antigen processing by FcgammaRIIB1. Wagle NM, et al. **J Immunol** 1999 Mar 1;162(5):2732–40

Cbl functions downstream of Src kinases in Fc gamma RI signaling in primary human macrophages. Erdreich-Epstein A, et al. **J Leukoc Biol** 1999 Apr; 65(4):523–34

Amyloid fibrils activate tyrosine kinase-dependent signaling and superoxide production in microglia. McDonald DR, et al. **J Neurosci** 1997 Apr 1;17(7):2284–94

Soluble CD16 in plasma cell dyscrasias. Mathiot C, et al. **Leuk Lymphoma** 1999 Feb;32(5–6):467–74 (48 ref.)

In situ detection of activated Bruton's tyrosine kinase in the Ig signaling complex by phosphopeptide-specific monoclonal antibodies. Nisitani S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2221–6

Phospholipase A2 enzymes regulate alpha IIb beta3-mediated, but not Fc gammaRII receptor-mediated, pp125FAK phosphorylation in platelets. Haimovich B, et al. **Thromb Haemost** 1999 Apr;81(4):618–24

Influence of the human high-affinity IgG receptor FcgammaRI (CD64) on residual infectivity of neutralized dengue virus. Schlesinger JJ, et al. **Virology** 1999 Jul 20; 260(1):84–8

[Fc gamma receptors in health and disease] Flores-Borja F, et al. **Rev Invest Clin** 1998 Nov-Dec;50(6):529–40 (114 ref.) (Eng. Abstr.) **(Spa)**

RECEPTORS, IL-1 see **RECEPTORS, INTERLEUKIN-1**

RECEPTORS, IL-2 see **RECEPTORS, INTERLEUKIN-2**

RECEPTORS, IL-3 see **RECEPTORS, INTERLEUKIN-3**

RECEPTORS, IL-4 see **RECEPTORS, INTERLEUKIN-4**

RECEPTORS, IL-6 see **RECEPTORS, INTERLEUKIN-6**

RECEPTORS, IL-7 see **RECEPTORS, INTERLEUKIN-7**

RECEPTORS, IMMUNOLOGIC

Regulation of immune responses by inhibitory receptors. Long EO. **Adv Exp Med Biol** 1998;452:19–28 (56 ref.)

Paul Ehrlich's passion: the origins of his receptor immunology. Silverstein AM. **Cell Immunol** 1999 Jun 15; 194(2):213–21

[Structure and function of a novel scavenger receptor expressed in human endothelial cells] Adachi H, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1282–6 (24 ref.) **(Jpn)**

[Scavenger receptor class B] Ikemoto M, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1268–76 (49 ref.) **(Jpn)**

[Macrophage scavenger receptor class A] Inoue K, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1261–7 (20 ref.) **(Jpn)**

AGONISTS

Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast. Klein C, et al. **Nat Biotechnol** 1998 Dec;16(13):1334–7

ANALYSIS

Analysis of macrophage scavenger receptor (SR-A) expression in human aortic atherosclerotic lesions. Gough PJ, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar; 19(3):461–71

Sialoadhesin-positive host macrophages play an essential role in graft-versus-leukemia reactivity in mice. Müerköster S, et al. **Blood** 1999 Jun 15;93(12):4375–86

Assessment of certain neutrophil receptors, opsonophagocytosis and soluble intercellular adhesion molecule-1 (ICAM-1) following thermal injury. Ahmed S el-D, et al. **Burns** 1999 Aug;25(5):395–401

Receptor for advanced glycation endproducts (RAGE) exhibits highly differential cellular and subcellular localisation in rat and human lung. Fehrenbach H, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;44(7):1147–57

Differential regulation of killer cell Ig-like receptors and CD94 lectin-like dimers on NK and T lymphocytes from HIV-1-infected individuals. André P, et al. **Eur J Immunol** 1999 Apr;29(4):1076–85

Transplantation of anergic histoincompatible bone marrow cells [letter] Gallardo D, et al. **N Engl J Med** 1999 Sep 30;341(14):1082

Pure red-cell aplasia associated with clonal expansion of granular lymphocytes expressing killer-cell inhibitory receptors [see comments] Handgretinger R, et al. **N Engl J Med** 1999 Jan 28;340(4):278–84. Comment in: N Engl J Med 1999 Jan 28;340(4):314–5. Comment in: N Engl J Med 1999 Jun 24;340(25):2004; discussion 2005. Comment in: N Engl J Med 1999 Jun 24;340(25):2004–5.

Does a low level of expression of HLA molecules engender autoimmunity? [editorial; comment] Raulet DH. **N Engl J Med** 1999 Jan 28;340(4):314–5. Comment on: N Engl J Med 1999 Jan 28;340(4):278–84.

ANTAGONISTS & INHIBITORS

Phe-D-Leu-Phe-D-Leu-Phe derivatives as formylpeptide receptor antagonists in human neutrophils: cellular and conformational aspects. Dalpiaz A, et al. **Biochim Biophys Acta** 1999 Jun 15;1432(1):27–39

Formylpeptide receptor antagonists: structure and activity. Dalpiaz A, et al. **Boll Chim Farm** 1999 Mar;138(3):44–8

Identification of a small-molecule, nonpeptide macrophage scavenger receptor antagonist. Lysko PG, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1277–85

RECEPTORS, IMMUNOLOGIC

BIOSYNTHESIS

Response of murine and normal human skin to injection of allogeneic blood-derived psoriatic immunocytes: detection of T cells expressing receptors typically present on natural killer cells, including CD94, CD158, and CD161. Nickoloff BJ, et al. **Arch Dermatol** 1999 May;135(5):546–52

Different expression of the alpha2-macroglobulin receptor/low-density lipoprotein receptor-related protein in human keratinocytes and fibroblasts. Birkenmeier G, et al. **Arch Dermatol Res** 1998 Oct;290(10):561–8

Lovastatin decreases the receptor-mediated degradation of acetylated and oxidized LDLs in human blood monocytes during the early stage of differentiation into macrophages. Hrboticky N, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1267–75

Scavenger receptor activity is increased in macrophages from rabbits with low atherosclerotic response: studies in normocholesterolemic high and low atherosclerotic response rabbits. Teupser D, et al.
Arterioscler Thromb Vasc Biol 1999 May;19(5):1299–305

Expression of receptor for advanced glycosylation end products (AGEP) and inhibition of AGEP-induced cytosolic calcium elevation by diltiazem in cultured rat aortic smooth muscle cells. Zhou QG, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Sep;18(5):425–30

Cytokine-induced expression of killer inhibitory receptors in human T lymphocytes. Ponte M, et al.
Eur Cytokine Netw 1998 Sep;9(3 Suppl):69–72 (23 ref.)

Altered expression of Ly-49 receptors on NK cells developing in mixed allogeneic bone marrow chimeras. Manilay JO, et al. **Int Immunol** 1998 Dec;10(12):1943–55

Characterization of human endotoxin lipopolysaccharide receptor CD14 expression in transgenic mice. Hetherington CJ, et al. **J Immunol** 1999 Jan 1;162(1):503–9

Diversity of NK cell receptor repertoire in adult and neonatal mice. Kubota A, et al. **J Immunol** 1999 Jul 1;163(1):212–6

Levels of Ly-49 receptor expression are determined by the frequency of interactions with MHC ligands: evidence against receptor calibration to a "useful" level. Manilay JO, et al. **J Immunol** 1999 Sep 1;163(5):2628–33

Human myeloid cells express an activating ILT receptor (ILT1) that associates with Fc receptor gamma-chain. Nakajima H, et al. **J Immunol** 1999 Jan 1;162(1):5–8

Modulation of formyl peptide receptor expression by IL-10 in human monocytes and neutrophils. Thivierge M, et al. **J Immunol** 1999 Mar 15;162(6):3590–5

Alpha-2-macroglobulin receptor is differently expressed in peritoneal macrophages from C3H and C57/B16 mice and up-regulated during Trypanosoma cruzi infection. Coutinho CM, et al. **Tissue Cell** 1998 Aug;30(4):407–15

[Expression of the bone marrow macrophage receptors during cytostatic myelosuppression] Gol'dberg ED, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):25–7 **(Rus)**

BLOOD

Transcriptional inhibition by interleukin-6 of the class A macrophage scavenger receptor in macrophages derived from human peripheral monocytes and the THP-1 monocytic cell line. Liao HS, et al.
Arterioscler Thromb Vasc Biol 1999 Aug;19(8):1872–80

Blood platelets do not contain the low-density receptor-related protein (LRP). Riddell DR, et al.
Biochem Soc Trans 1998 Aug;26(3):S244

Effect of dietary cholesterol on low density lipoprotein-receptor, 3-hydroxy-3-methylglutaryl-CoA reductase, and low density lipoprotein receptor-related protein mRNA expression in healthy humans. Boucher P, et al. **Lipids** 1998 Dec;33(12):1177–86

Evolutionary conservation of circulating soluble low density lipoprotein receptor-related protein-like ("LRP-like") molecules. Grimsley PG, et al. **Thromb Res** 1999 May 1; 94(3):153–64

Surface receptors of neutrophils towards B. burgdorferi. Cinco M, et al. **Wien Klin Wochenschr** 1998 Dec 23; 110(24):866–9

CHEMISTRY

Crystallization and preliminary diffraction studies of the extracellular region of human p58 killer cell inhibitory receptor (KIR2). Maenaka K, et al.
Acta Crystallogr D Biol Crystallogr 1998 May 1;54 (Pt 3):433–5

Sequencing of two alternatively spliced mRNAs corresponding to the extracellular domain of the rat receptor for advanced glycosylation end products (RAGE). Girón MD, et al.
Biochem Biophys Res Commun 1998 Oct 9;251(1):230–4

Characterization of the calcium site in two complement-like domains from the low-density lipoprotein receptor-related protein (LRP) and comparison with a repeat from the low-density lipoprotein receptor. Dolmer K, et al.
Biochemistry 1998 Dec 1;37(48):17016–23

Solid phase synthesis of a biased mini tetrapeptoid-library for the discovery of monodentate ITAM mimics as ZAP-70 inhibitors. Révész L, et al.
Bioorg Med Chem Lett 1998 Mar 3;8(5):405–8

Sialylation of the sialic acid binding lectin sialoadhesin regulates its ability to mediate cell adhesion. Barnes YC, et al. **Blood** 1999 Feb 15;93(4):1245–52

Ligation of the alpha2M signalling receptor elevates the levels of p21Ras-GTP in macrophages. Misra UK, et al.
Cell Signal 1998 Jun;10(6):441–5

Purification and partial amino acid sequences of the binding protein from Bombyx mori for CryIAa delta-endotoxin of Bacillus thuringiensis. Ihara H, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 May; 120(1):197–204

Human formyl peptide receptor function role of conserved and nonconserved charged residues. Lala A, et al.
Eur J Biochem 1999 Sep;264(2):495–9

Structural analysis of the CD5 antigen—expression, disulphide bond analysis and physical characterisation of CD5 scavenger receptor superfamily domain 1. McAlister MS, et al. **Eur J Biochem** 1998 Oct 1;257(1):131–41

Characterization of the soluble form of the low density lipoprotein receptor-related protein (LRP). Quinn KA, et al. **Exp Cell Res** 1999 Sep 15;251(2):433–41

Structure of CD94 reveals a novel C-type lectin fold: implications for the NK cell-associated CD94/NKG2 receptors. Boyington JC, et al. **Immunity** 1999 Jan; 10(1):75–82

DAP12: a key accessory protein for relaying signals by natural killer cell receptors. Campbell KS, et al.
Int J Biochem Cell Biol 1999 Jun;31(6):631–6 (17 ref.)

NMR solution structure of complement-like repeat CR8 from the low density lipoprotein receptor-related protein. Huang W, et al. **J Biol Chem** 1999 May 14;274(20):14130–6

The putative sponge aggregation receptor. Isolation and characterization of a molecule composed of scavenger receptor cysteine-rich domains and short consensus repeats. Blumbach B, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2635–44

Identification of the CD85 antigen as ILT2, an inhibitory MHC class I receptor of the immunoglobulin superfamily. Banham AH, et al. **J Leukoc Biol** 1999 Jun;65(6):841–5

Crystal structure of a scavenger receptor cysteine-rich domain sheds light on an ancient superfamily. Hohenester E, et al. **Nat Struct Biol** 1999 Mar;6(3):228–32

Crystal structure of the HLA-Cw3 allotype-specific killer cell inhibitory receptor KIR2DL2. Snyder GA, et al.
Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3864–9

Crystal structure of the human p58 killer cell inhibitory receptor (KIR2DL3) specific for HLA-Cw3-related MHC class I. Maenaka K, et al. **Structure** 1999 Apr 15;7(4):391–8

DEFICIENCY

Scavenger receptor deficiency leads to more complex atherosclerotic lesions in APOE3Leiden transgenic mice. de Winther MP, et al. **Atherosclerosis** 1999 Jun; 144(2):315–21

DRUG EFFECTS

Stable antisense RNA expression neutralizes the activity of low-density lipoprotein receptor-related protein and promotes urokinase accumulation in the medium of an astrocytic tumor cell line. Hussaini IM, et al.
Antisense Nucleic Acid Drug Dev 1999 Apr;9(2):183–90

fMLP-OMe analogs substituted at the methionine residue: an insight into the receptor properties. Cavicchioni G, et al. **Arch Pharm (Weinheim)** 1998 Nov;331(11):368–70

Transcriptional inhibition by interleukin-6 of the class A macrophage scavenger receptor in macrophages derived from human peripheral monocytes and the THP-1 monocytic cell line. Liao HS, et al.
Arterioscler Thromb Vasc Biol 1999 Aug;19(8):1872–80

N-formylpeptides induce two distinct concentration optima for mouse neutrophil chemotaxis by differential interaction with two N-formylpeptide receptor (FPR) subtypes. Molecular characterization of FPR2, a second mouse neutrophil FPR. Hartt JK, et al. **J Exp Med** 1999 Sep 6; 190(5):741–7

GENETICS

Hensin, the polarity reversal protein, is encoded by DMBT1, a gene frequently deleted in malignant gliomas. Takito J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F277–89

Expression of macrophage colony-stimulating factor, scavenger receptors, and macrophage proliferation in the pregnant mouse uterus. Kyaw Y, et al.
Arch Histol Cytol 1998 Dec;61(5):383–93

Association of polymorphisms at the SR-BI gene locus with plasma lipid levels and body mass index in a white population. Acton S, et al.
Arterioscler Thromb Vasc Biol 1999 Jul;19(7):1734–43

Analysis of macrophage scavenger receptor (SR-A) expression in human aortic atherosclerotic lesions. Gough PJ, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar; 19(3):461–71

Lipopolysaccharide inhibits the expression of the scavenger receptor Cla-1 in human monocytes and macrophages. Buechler C, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):251–4

Sequencing of two alternatively spliced mRNAs corresponding to the extracellular domain of the rat receptor for advanced glycosylation end products (RAGE). Girón MD, et al.
Biochem Biophys Res Commun 1998 Oct 9;251(1):230–4

Genomic organization and chromosomal localization of the human CD163 (M130) gene: a member of the scavenger receptor cysteine-rich superfamily. Ritter M, et al.
Biochem Biophys Res Commun 1999 Jul 5;260(2):466–74

Decrease with age in methylcytosines in the promoter region of receptor for advanced glycated end products (RAGE) gene in autopsy human cortex. Tohgi H, et al.
Brain Res Mol Brain Res 1999 Feb 19;65(1):124–8

De novo expression of the class-A macrophage scavenger receptor conferring resistance to apoptosis in differentiated human THP-1 monocytic cells. Liao HS, et al.
Cell Death Differ 1999 Mar;6(3):245–55

NILR-1, a novel immunoglobulin-like receptor expressed by neutrophilic granulocytes, is encoded by a leukocyte receptor gene complex on rat chromosome 1. Berg SF, et al. **Eur J Immunol** 1999 Jun;29(6):2000–6

The murine homologue of the human NKp46, a triggering receptor involved in the induction of natural cytotoxicity. Biassoni R, et al. **Eur J Immunol** 1999 Mar;29(3):1014–20

2F1 antigen, the mouse homolog of the rat "mast cell function-associated antigen", is a lectin-like type II transmembrane receptor expressed by natural killer cells. Hanke T, et al. **Eur J Immunol** 1998 Dec;28(12):4409–17

Cloning of murine NKG2A, B and C: second family of C-type lectin receptors on murine NK cells. Lohwasser S, et al. **Eur J Immunol** 1999 Mar;29(3):755–61

Gene structure of the murine NK cell receptor 2B4: presence of two alternatively spliced isoforms with distinct cytoplasmic domains. Stepp SE, et al. **Eur J Immunol** 1999 Aug;29(8):2392–9

Isotypic variation of novel immunoglobulin-like transcript/killer cell inhibitory receptor loci in the leukocyte receptor complex. Torkar M, et al.
Eur J Immunol 1998 Dec;28(12):3959–67

Identification of mRNAs differentially expressed in lymphocytes following interleukin-2 activation. Damiani G, et al. **Exp Cell Res** 1998 Nov 25;245(1):27–33

Molecular cloning, chromosome mapping and characterization of the mouse CRTH2 gene, a putative member of the leukocyte chemoattractant receptor family. Abe H, et al. **Gene** 1999 Feb 4;227(1):71–7

A retroviral vector system 'STITCH' in combination with an optimized single chain antibody chimeric receptor gene structure allows efficient gene transduction and expression in human T lymphocytes. Weijtens ME, et al.
Gene Ther 1998 Sep;5(9):1195–203

Differential expansion of the N-formylpeptide receptor gene cluster in human and mouse. Gao JL, et al. **Genomics** 1998 Jul 15;51(2):270–6

Structure and chromosomal localization of the human and murine genes for the macrophage MARCO receptor. Kangas M, et al. **Genomics** 1999 May 15;58(1):82–9

Strategy to sequence the 89 exons of the human LRP1 gene coding for the lipoprotein receptor related protein: identification of one expressed mutation among 48 polymorphisms [published erratum appears in Genomics 1999 May 15;58(1):111] Van Leuven F, et al. **Genomics** 1998 Sep 1;52(2):138–44

Analysis of the human LRPAP1 gene coding for the lipoprotein receptor-associated protein: identification of 22 polymorphisms and one mutation. Van Leuven F, et al. **Genomics** 1998 Sep 1;52(2):145–51

Association between coding variability in the LRP gene and the risk of late-onset Alzheimer's disease. Wavrant-DeVrièze F, et al. **Hum Genet** 1999 May; 104(5):432–4

The human Ly-49L gene. Barten R, et al.
Immunogenetics 1999 Jul;49(7–8):731–4

Cloning and expression of new receptors belonging to the immunoglobulin superfamily from the marine sponge Geodia cydonium. Blumbach B, et al. **Immunogenetics** 1999 Aug;49(9):751–63

Expression analysis of new Ly49 genes: most transcripts of Ly49j lack the transmembrane domain. McQueen KL, et al. **Immunogenetics** 1999 Jul;49(7–8):685–91

Evidence for recombination as a mechanism for KIR diversification. Shilling HG, et al. **Immunogenetics** 1998 Nov–Dec;48(6):413–6

Molecular cloning of mouse NKG2A and C. Silver ET, et al. **Immunogenetics** 1999 Jul;49(7–8):727–30

Linkage of the NKG2 and CD94 receptor genes to D12S77 in the human natural killer gene complex. Sobanov Y, et al. **Immunogenetics** 1999 Feb;49(2):99–105

Diversity of the repertoire of p58 killer cell inhibitory receptors in a single individual. Chwae YJ, et al.
Immunol Lett 1999 Jun 1;68(2–3):267–74

Identification of the rat homologue of the human NKp46 triggering receptor. Falco M, et al. **Immunol Lett** 1999 Jun 1;68(2–3):411–4

Sp1-binding elements in the promoter of RAGE are essential for amphoterin-mediated gene expression in cultured neuroblastoma cells. Li J, et al. **J Biol Chem** 1998 Nov 20;273(47):30870–8

The low density lipoprotein receptor gene family. Differential expression of two alpha2-macroglobulin receptors in the brain. Stockinger W, et al.
J Biol Chem 1998 Nov 27;273(48):32213–21

Gene structure, expression pattern, and biological activity of mouse killer cell activating receptor-associated protein (KARAP)/DAP-12. Tomasello E, et al. **J Biol Chem** 1998 Dec 18;273(51):34115–9

NKp44, a triggering receptor involved in tumor cell lysis by activated human natural killer cells, is a novel member of the immunoglobulin superfamily. Cantoni C, et al.
J Exp Med 1999 Mar 1;189(5):787–96

Identification and molecular cloning of p75/AIRM1, a novel member of the sialoadhesin family that functions as an

inhibitory receptor in human natural killer cells. Falco M, et al. **J Exp Med** 1999 Sep 20;190(6):793–802

Genetic control of natural killing and in vivo tumor elimination by the Chok locus. Idris AH, et al. **J Exp Med** 1998 Dec 21;188(12):2243–56

Increased susceptibility of thymocytes to apoptosis in mice lacking AIM, a novel murine macrophage-derived soluble factor belonging to the scavenger receptor cysteine-rich domain superfamily. Miyazaki T, et al. **J Exp Med** 1999 Jan 18;189(2):413–22

Characterization of human endotoxin lipopolysaccharide receptor CD14 expression in transgenic mice. Hetherington CJ, et al. **J Immunol** 1999 Jan 1;162(1):503–9

Selective expression of a novel surface molecule by human Th2 cells in vivo. Nagata K, et al. **J Immunol** 1999 Feb 1;162(3):1278–86

Genes encoding three new members of the leukocyte antigen 6 superfamily and a novel member of Ig superfamily, together with genes encoding the regulatory nuclear chloride ion channel protein (hRNCC) and an N omega-N omega-dimethylarginine dimethylaminohydrolase homologue, are found in a 30-kb segment of the MHC class III region. Ribas G, et al. **J Immunol** 1999 Jul 1; 163(1):278–87

Simple and fast method to test the receptor for advanced glycosylated endproducts (RAGE) for its tumor suppressive potential using the Tet-On system. Bendik I, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1–4):717–28

Down-regulation of hepatic high-density lipoprotein receptor, SR-B1, in nephrotic syndrome. Liang K, et al. **Kidney Int** 1999 Aug;56(2):621–6

Human mesangial cells express inducible macrophage scavenger receptor. Ruan XZ, et al. **Kidney Int** 1999 Aug; 56(2):440–51

Reduction of scavenger receptor expression and function by dietary fish oil is accompanied by a reduction in scavenger receptor mRNA. Miles EA, et al. **Lipids** 1999;34 Suppl:S215–6

Aberrant presenilin-1 expression downregulates LDL receptor-related protein (LRP): is LRP central to Alzheimer's disease pathogenesis? Van Uden E, et al. **Mol Cell Neurosci** 1999 Aug;14(2):129–40

Low density lipoprotein receptor related protein gene amplification and 766T polymorphism in astrocytomas. Baum L, et al. **Neurosci Lett** 1998 Oct 30;256(1):5–8

Low density lipoprotein receptor related protein gene exon 3 polymorphism association with Alzheimer's disease in Chinese. Baum L, et al. **Neurosci Lett** 1998 May 8; 247(1):33–6

The polymorphism in exon 3 of the low density lipoprotein receptor-related protein gene is weakly associated with Alzheimer's disease. Beffert U, et al. **Neurosci Lett** 1999 Jan 4;259(1):29–32

Cryptic intron activation within the large exon of the mouse polymeric immunoglobulin receptor gene: cryptic splice sites correspond to protein domain boundaries. Bruce SR, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3446–54

Characterization of plasmid DNA binding and uptake by peritoneal macrophages from class A scavenger receptor knockout mice. Takakura Y, et al. **Pharm Res** 1999 Apr; 16(4):503–8

Paternal monoallelic expression of the paired immunoglobulin-like receptors PIR-A and PIR-B. Chen CC, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6868–72

Cloning of gp-340, a putative opsonin receptor for lung surfactant protein D. Holmskov U, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10794–9

The natural killer gene complex genetic locus Chok encodes Ly-49D, a target recognition receptor that activates natural killing. Idris AH, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6330–5

Molecular characterization of a novel human natural killer cell receptor homologous to mouse 2B4. Boles KS, et al. **Tissue Antigens** 1999 Jul;54(1):27–34

Identification of a new variant, HLA-Cw*1507, differing from Cw*1502 only at the KIR-related dimorphism of codons 77 and 80. Day S, et al. **Tissue Antigens** 1999 May; 53(5):513–5

Multiple transcripts of the killer cell immunoglobulin-like receptor family, KIR3DL1 (NKB1), are expressed by natural killer cells of a single individual. Vyas Y, et al. **Tissue Antigens** 1998 Dec;52(6):510–9

Structure of a human natural killer cell inhibitory receptor. Fan QR, et al. **Transplant Proc** 1999 Jun;31(4):1871–2 (13 ref.)

IMMUNOLOGY

Activating and inhibitory NK cell receptors. Lanier LL. **Adv Exp Med Biol** 1998;452:13–8 (57 ref.)

The function of small GTPases in signaling by immune recognition and other leukocyte receptors. Altman A, et al. **Adv Immunol** 1999;72:1–101 (561 ref.)

Inhibitory pathways triggered by ITIM-containing receptors. Bolland S, et al. **Adv Immunol** 1999;72:149–77 (180 ref.)

Involvement of macrophage scavenger receptors in protection against murine malaria. Nogami S, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):843–5

Roles of a macrophage receptor with collagenous structure (MARCO) in host defense and heterogeneity of splenic marginal zone macrophages. Ito S, et al. **Arch Histol Cytol** 1999 Mar;62(1):83–95

A novel macrophage receptor enhances MHC II-peptide loading and surface expression of a hapten-protein conjugate. Weaver DJ Jr, et al. **Biol Cell** 1998 Sep; 90(5):427–38

RAGE mediates a novel proinflammatory axis: a central cell surface receptor for S100/calgranulin polypeptides. Hofmann MA, et al. **Cell** 1999 Jun 25;97(7):889–901

Interactions of LIRs, a family of immunoreceptors expressed in myeloid and lymphoid cells, with viral and cellular MHC class I antigens. Borges L, et al. **Curr Top Microbiol Immunol** 1999;244:123–36 (49 ref.)

Regulation of NK cell functions through interaction of the CD94/NKG2 receptors with the nonclassical class I molecule HLA-E. Braud VM, et al. **Curr Top Microbiol Immunol** 1999;244:85–95 (30 ref.)

The enigma of activating isoforms of ITIM-bearing molecules. Cambiaggi A, et al. **Curr Top Microbiol Immunol** 1999;244:169–76 (40 ref.)

A novel family of inhibitory receptors for HLA class I molecules that modulate function of lymphoid and myeloid cells. Colonna M, et al. **Curr Top Microbiol Immunol** 1999; 244:115–22 (39 ref.)

Paired immunoglobulin-like receptors of activating and inhibitory types. Kubagawa H, et al. **Curr Top Microbiol Immunol** 1999;244:137–49 (24 ref.)

LAIR-1, a widely distributed human ITIM-bearing receptor on hematopoietic cells. Meyaard L. **Curr Top Microbiol Immunol** 1999;244:151–7 (37 ref.)

HLA-specific and non-HLA-specific human NK receptors. Moretta A, et al. **Curr Top Microbiol Immunol** 1999; 244:69–84 (84 ref.)

A role for scavenger receptors in phagocytosis of protein-coated particles in rainbow trout head kidney macrophages. Frøystad MK, et al. **Dev Comp Immunol** 1998 Sep-Dec;22(5–6):533–49

CD4 T cell traffic control: in vivo evidence that ligation of OX40 on CD4 T cells by OX40-ligand expressed on dendritic cells leads to the accumulation of CD4 T cells in B follicles. Brocker T, et al. **Eur J Immunol** 1999 May; 29(5):1610–6

Alpha1/alpha2 domains of H-2D(d), but not H-2L(d), induce "missing self" reactivity in vivo--no effect of H-2L(d) on protection against NK cells expressing the inhibitory receptor Ly49G2. Johansson MH, et al. **Eur J Immunol** 1998 Dec;28(12):4198–206

NKp46 is the major triggering receptor involved in the natural cytotoxicity of fresh or cultured human NK cells. Correlation between surface density of NKp46 and natural cytotoxicity against autologous, allogeneic or xenogeneic target cells. Sivori S, et al. **Eur J Immunol** 1999 May; 29(5):1656–66

Anti-tumor activity of human T cells expressing the CC49-zeta chimeric immune receptor [see comments] McGuinness RP, et al. **Hum Gene Ther** 1999 Jan 20; 10(2):165–73. Comment in: Hum Gene Ther 1999 Jan 20;10(2):151–3.

Human cytomegalovirus, MHC class I and inhibitory signalling receptors: more questions than answers. Cosman D, et al. **Immunol Rev** 1999 Apr;168:177–85 (71 ref.)

Modulation of Ly49A receptors on mature cells to changes in major histocompatibility complex class I molecules. Khoo NK, et al. **Immunology** 1998 Sep;95(1):126–31

The leukocyte Ig-like receptor (LIR)-1 for the cytomegalovirus UL18 protein displays a broad specificity for different HLA class I alleles: analysis of LIR-1 + NK cell clones. Vitale M, et al. **Int Immunol** 1999 Jan; 11(1):29–35

Chemoattractant receptor cross-desensitization. Ali H, et al. **J Biol Chem** 1999 Mar 5;274(10):6027–30 (52 ref.)

Biochemical nature and cellular distribution of the paired immunoglobulin-like receptors, PIR-A and PIR-B. Kubagawa H, et al. **J Exp Med** 1999 Jan 18;189(2):309–18

Mouse Ly-49D recognizes H-2Dd and activates natural killer cell cytotoxicity. Nakamura MC, et al. **J Exp Med** 1999 Feb 1;189(3):493–500

A human histocompatibility leukocyte antigen (HLA)-G-specific receptor expressed on all natural killer cells. Rajagopalan S, et al. **J Exp Med** 1999 Apr 5; 189(7):1093–100

In vivo expression of natural killer cell inhibitory receptors by human melanoma-specific cytolytic T lymphocytes. Speiser DE, et al. **J Exp Med** 1999 Sep 20;190(6):775–82

Tolerance and alloreactivity of the Ly49D subset of murine NK cells. George TC, et al. **J Immunol** 1999 Aug 15; 163(4):1859–67

Leukocyte-associated Ig-like receptor-1 functions as an inhibitory receptor on cytotoxic T cells. Meyaard L, et al. **J Immunol** 1999 May 15;162(10):5800–4

Regulation and functional involvement of macrophage scavenger receptor MARCO in clearance of bacteria in vivo. van der Laan LJ, et al. **J Immunol** 1999 Jan 15; 162(2):939–47

Inhibitory and stimulatory functions of paired Ig-like receptor (PIR) family in RBL-2H3 cells. Yamashita Y, et al. **J Immunol** 1998 Oct 15;161(8):4042–7

A novel family of Ig-like receptors for HLA class I molecules that modulate function of lymphoid and myeloid cells. Colonna M, et al. **J Leukoc Biol** 1999 Sep; 66(3):375–81 (61 ref.)

The leukocyte immunoglobulin-like receptors (LIRs): a new family of immune regulators. Fanger NA, et al. **J Leukoc Biol** 1999 Aug;66(2):231–6 (65 ref.)

Inhibitory receptors sensing HLA-G1 molecules in pregnancy: decidua-associated natural killer cells express LIR-1 and CD94/NKG2A and acquire p49, an HLA-G1-specific receptor [see comments] Ponte M, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5674–9 . Comment in: Proc Natl Acad Sci U S A 1999 May 11;96(10):5343–5.

Characterization of inhibitory and stimulatory forms of the murine natural killer cell receptor 2B4. Schatzle JD, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3870–5

Differential binding to HLA-C of p50-activating and p58-inhibitory natural killer cell receptors. Valés-Gómez M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14326–31

Direct binding of purified HLA class I antigens by soluble NKG2/CD94 C-type lectins from natural killer cells. Ding Y, et al. **Scand J Immunol** 1999 May;49(5):459–65

Why so many coinhibitory receptors? Sinclair NR. **Scand J Immunol** 1999 Jul;50(1):10–3 (28 ref.)

Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA [see comments] Bauer S, et al. **Science** 1999 Jul 30;285(5428):727–9. Comment in: Science 1999 Jul 30;285(5428):645–6.

Receptor and non-receptor mediated formation of superoxide anion and hydrogen peroxide in neutrophils of intensive care patients. Manhart N, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):796–801

Human-porcine receptor-ligand compatibility within the immune system: relevance for xenotransplantation. Warrens AN, et al. **Xenotransplantation** 1999 May;6(2):75–8 (20 ref.)

ISOLATION & PURIFICATION

Identification of an intestinal neutral glycosphingolipid as a phenotype-specific receptor for the K88ad fimbrial adhesin of Escherichia coli. Grange PA, et al. **Infect Immun** 1999 Jan;67(1):165–72

The NKR-P1B gene product is an inhibitory receptor on SJL/J NK cells. Kung SK, et al. **J Immunol** 1999 May 15;162(10):5876–87

METABOLISM

Distinct scavenger receptor expression and function in the human CD14(+)/CD16(+) monocyte subset. Draude G, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1144–9

Reconstitution of killer cell inhibitory receptor-mediated signal transduction machinery in a cell-free model system. Cho HI, et al. **Arch Biochem Biophys** 1999 Aug 15; 368(2):221–31

Upregulation of macrophage plasma membrane and nuclear phospholipase D activity on ligation of the alpha2-macroglobulin signaling receptor: involvement of heterotrimeric and monomeric G proteins. Misra UK, et al. **Arch Biochem Biophys** 1999 Mar 1;363(1):68–80

CD36, a novel receptor for oxidized low-density lipoproteins, is highly expressed on lipid-laden macrophages in human atherosclerotic aorta. Nakata A, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1333–9

Alpha-tocopherol down-regulates scavenger receptor activity in macrophages. Teupser D, et al. **Atherosclerosis** 1999 May;144(1):109–15

Shedding of CD163, a novel regulatory mechanism for a member of the scavenger receptor cysteine-rich family. Droste A, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):110–3

Characterization of the advanced glycation end-product receptor complex in human vascular endothelial cells. Stitt AW, et al. **Biochem Biophys Res Commun** 1999 Mar 24; 256(3):549–56

Molecular analysis of sialoside binding to sialoadhesin by NMR and site-directed mutagenesis. Crocker PR, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):355–61

Low-density-lipoprotein-receptor-related protein (LRP) interacts with a GTP-binding protein. Goretzki L, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):381–6

Multiple activation steps of the N-formyl peptide receptor. Prossnitz ER, et al. **Biochemistry** 1999 Feb 23;38(8):2240–7

Study of intracellular localization and traffic of newly synthesized ceruloplasmin receptor in cultured human fibroblasts. Sasina LK, et al. **Biochemistry (Mosc)** 1998 Oct; 63(10):1172–7

Functional association of FcepsilonRIgamma with arginine(632) of paired immunoglobulin-like receptor (PIR)-A3 in murine macrophages. Taylor LS, et al. **Blood** 1999 Sep 1;94(5):1790–6

Three complement-type repeats of the low-density lipoprotein receptor-related protein define a common binding site for RAP, PAI-1, and lactoferrin. Vash B, et al. **Blood** 1998 Nov 1;92(9):3277–85

Expression and cellular localization of low-density lipoprotein receptor-related protein/alpha 2-macroglobulin receptor in human glioblastoma in vivo. Yamamoto M, et al. **Brain Tumor Pathol** 1998;15(1):23–30

Chimeric axon guidance receptors: the cytoplasmic domains of slit and netrin receptors specify attraction versus repulsion [see comments] Bashaw GJ, et al. **Cell** 1999 Jun 25;97(7):917–26. Comment in: Cell 1999 Jun 25;97(7):821–4.

Slit proteins bind Robo receptors and have an evolutionarily conserved role in repulsive axon guidance. Brose K, et al. **Cell** 1999 Mar 19;96(6):795–806

Slit is the midline repellent for the robo receptor in

Drosophila. Kidd T, et al. **Cell** 1999 Mar 19;96(6):785–94

Vertebrate slit, a secreted ligand for the transmembrane protein roundabout, is a repellent for olfactory bulb axons. Li HS, et al. **Cell** 1999 Mar 19;96(6):807–18

Cell activation by glycated proteins. AGE receptors, receptor recognition factors and functional classification of AGEs. Thornalley PJ.
Cell Mol Biol (Noisy-le-grand) 1998 Nov;44(7):1013–23 (70 ref.)

Scavenger receptors: diverse activities and promiscuous binding of polyanionic ligands. Platt N, et al.
Chem Biol 1998 Aug;5(8):R193–203 (66 ref.)

Expression of human scavenger receptor class B type I in cultured human monocyte-derived macrophages and atherosclerotic lesions. Hirano K, et al. **Circ Res** 1999 Jul 9;85(1):108–16

Activation of receptor for advanced glycation end products: a mechanism for chronic vascular dysfunction in diabetic vasculopathy and atherosclerosis. Schmidt AM, et al.
Circ Res 1999 Mar 19;84(5):489–97 (89 ref.)

How to extinguish lymphocyte activation, immunotyrosine-based inhibition motif (ITIM)-bearing molecules a solution? Blery M, et al.
Clin Chem Lab Med 1999 Mar;37(3):187–91 (54 ref.)

Scavenger receptors and oxidized low density lipoproteins. Dhaliwal BS, et al. **Clin Chim Acta** 1999 Aug; 286(1–2):191–205 (91 ref.)

Expression of killer inhibitory receptors on cytotoxic cells from HIV-1-infected individuals. Galiani MD, et al.
Clin Exp Immunol 1999 Mar;115(3):472–6

Natural killer cell activation and inhibition by receptors for MHC class I. López-Botet M, et al.
Curr Opin Immunol 1999 Jun;11(3):301–7 (75 ref.)

Recent progress in defining the role of scavenger receptors in lipid transport, atherosclerosis and host defence. Greaves DR, et al. **Curr Opin Lipidol** 1998 Oct;9(5):425–32 (63 ref.)

Scavenger receptor BI and cholesterol trafficking. Williams DL, et al. **Curr Opin Lipidol** 1999 Aug;10(4):329–39 (97 ref.)

The mouse SLIT family: secreted ligands for ROBO expressed in patterns that suggest a role in morphogenesis and axon guidance. Yuan W, et al. **Dev Biol** 1999 Aug 15;212(2):290–306

Kinetics and peptide dependency of the binding of the inhibitory NK receptor CD94/NKG2-A and the activating receptor CD94/NKG2-C to HLA-E. Valés-Gómez M, et al. **EMBO J** 1999 Aug 2;18(15):4250–60

The human natural killer lymphocyte receptors for MHC class I molecules. Bensussan A. **Eur Cytokine Netw** 1998 Dec;9(4):577–83 (73 ref.)

Effect of tumor growth factor-beta on NK receptor expression by allostimulated CD8+ T lymphocytes. Guerra N, et al. **Eur Cytokine Netw** 1999 Sep;10(3):357–64

Glycan specificity of myelin-associated glycoprotein and sialoadhesin deduced from interactions with synthetic oligosaccharides. Strenge K, et al. **Eur J Biochem** 1998 Dec 1;258(2):677–85

Oligonucleotide aggregates bind to the macrophage scavenger receptor. Suzuki K, et al. **Eur J Biochem** 1999 Mar;260(3):855–60

CD8(+)NKR-P1A (+)T cells preferentially accumulate in human liver. Ishihara S, et al. **Eur J Immunol** 1999 Aug; 29(8):2406–13

The ILT2(LIR1) and CD94/NKG2A NK cell receptors respectively recognize HLA-G1 and HLA-E molecules co-expressed on target cells. Navarro F, et al.
Eur J Immunol 1999 Jan;29(1):277–83

Alpha macroglobulins and the low-density-lipoprotein-related protein/alpha-2-macroglobulin receptor in experimental renal fibrosis. van Goor H, et al. **Exp Nephrol** 1999 Jan–Feb;7(1):35–43

Independent contributions of HLA epitopes and killer inhibitory receptor expression to the functional alloreactive specificity of natural killer cells. Young NT, et al.
Hum Immunol 1998 Nov;59(11):700–12

Direct assessment of MHC class I binding by seven Ly49 inhibitory NK cell receptors. Hanke T, et al. **Immunity** 1999 Jul;11(1):67–77

Kinetics of interaction of HLA-C ligands with natural killer cell inhibitory receptors [published erratum appears in Immunity 1998 Dec;9(6):892] Valés-Gómez M, et al.
Immunity 1998 Sep;9(3):337–44

The cytoplasmic tail of killer inhibitory receptor (KIR) associates with TCR zeta in a phosphorylation-dependent manner. Cho HI, et al. **Immunol Lett** 1999 Jun 1; 68(2–3):339–45

GPI-microdomains: a role in signalling via immunoreceptors. Horejsi V, et al. **Immunol Today** 1999 Aug;20(8):356–61 (51 ref.)

The Cbl protooncoprotein: a negative regulator of immune receptor signal transduction. Lupher ML Jr, et al.
Immunol Today 1999 Aug;20(8):375–82 (62 ref.)

H-2Dd engagement of Ly49A leads directly to Ly49A phosphorylation and recruitment of SHP1. Daws MR, et al. **Immunology** 1999 Aug;97(4):656–64

PGG-glucan, a soluble beta-(1,3)-glucan, enhances the oxidative burst response, microbicidal activity, and activates an NF-kappa B-like factor in human PMN: evidence for a glycosphingolipid beta-(1,3)-glucan receptor. Wakshull E, et al. **Immunopharmacology** 1999 Feb;41(2):89–107

Modulation of lipopolysaccharide-induced monocyte activation by heparin-binding protein and fucoidan. Heinzelmann M, et al. **Infect Immun** 1998 Dec; 66(12):5842–7

New scavenger receptor-like receptors for the binding of lipopolysaccharide to liver endothelial and Kupffer cells. van Oosten M, et al. **Infect Immun** 1998 Nov; 66(11):5107–12

Natural killing of MHC class I(–) lymphoblasts by NK cells from long-term bone marrow culture requires effector cell expression of Ly49 receptors. Lindberg J, et al.
Int Immunol 1999 Aug;11(8):1239–46

Deposition of advanced glycation end products (AGE) and expression of the receptor for AGE in cardiovascular tissue of the diabetic rat. Sun M, et al. **Int J Exp Pathol** 1998 Aug;79(4):207–22

N(epsilon)(carboxymethyl)lysin and the AGE receptor RAGE colocalize in age-related macular degeneration. Hammes HP, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1855–9

SLP-76 is a direct substrate of SHP-1 recruited to killer cell inhibitory receptors. Binstadt BA, et al.
J Biol Chem 1998 Oct 16;273(42):27518–23

RGS1 is expressed in monocytes and acts as a GTPase-activating protein for G-protein-coupled chemoattractant receptors. Denecke B, et al.
J Biol Chem 1999 Sep 17;274(38):26860–8

Down-regulation of monocyte tissue factor mediated by tissue factor pathway inhibitor and the low density lipoprotein receptor-related protein. Hamik A, et al.
J Biol Chem 1999 Feb 19;274(8):4962–9

Only multimeric hensin located in the extracellular matrix can induce apical endocytosis and reverse the polarity of intercalated cells. Hikita C, et al. **J Biol Chem** 1999 Jun 18;274(25):17671–6

Recruitment and activation of SHP-1 protein-tyrosine phosphatase by human platelet endothelial cell adhesion molecule-1 (PECAM-1). Identification of immunoreceptor tyrosine-based inhibitory motif-like binding motifs and substrates. Hua CT, et al. **J Biol Chem** 1998 Oct 23; 273(43):28332–40

Receptor for advanced glycation end products (RAGE)-mediated neurite outgrowth and activation of NF-kappaB require the cytoplasmic domain of the receptor but different downstream signaling pathways. Huttunen HJ, et al. **J Biol Chem** 1999 Jul 9;274(28):19919–24

Analysis of a structural determinant in thrombin-protease nexin 1 complexes that mediates clearance by the low density lipoprotein receptor-related protein. Knauer MF, et al. **J Biol Chem** 1999 Jan 1;274(1):275–81

Mutation at the processing site of chicken low density lipoprotein receptor-related protein impairs efficient endoplasmic reticulum exit, but proteolytic cleavage is not essential for its endocytic functions. Ko KW, et al.
J Biol Chem 1998 Oct 23;273(43):27779–85

The light chain of factor VIII comprises a binding site for low density lipoprotein receptor-related protein. Lenting PJ, et al. **J Biol Chem** 1999 Aug 20;274(34):23734–9

DAP12-mediated signal transduction in natural killer cells. A dominant role for the Syk protein-tyrosine kinase. McVicar DW, et al. **J Biol Chem** 1998 Dec 4; 273(49):32934–42

Coordinate regulation of the alpha(2)-macroglobulin signaling receptor and the low density lipoprotein receptor-related protein/alpha(2)-macroglobulin receptor by insulin. Misra UK, et al. **J Biol Chem** 1999 Sep 3; 274(36):25785–91

Expression of macrophage MARCO receptor induces formation of dendritic plasma membrane processes. Pikkarainen T, et al. **J Biol Chem** 1999 Apr 16; 274(16):10975–82

Mechanism of scavenger receptor class B type I-mediated selective uptake of cholesteryl esters from high density lipoprotein to adrenal cells. Rodrigueza WV, et al.
J Biol Chem 1999 Jul 16;274(29):20344–50

Liver-specific overexpression of scavenger receptor BI decreases levels of very low density lipoprotein ApoB, low density lipoprotein ApoB, and high density lipoprotein in transgenic mice. Wang N, et al. **J Biol Chem** 1998 Dec 4;273(49):32920–6

The low density lipoprotein receptor-related protein/alpha2-macroglobulin receptor regulates cell surface plasminogen activator activity on human trophoblast cells. Zhang JC, et al. **J Biol Chem** 1998 Nov 27;273(48):32273–80

Expression of alpha2-macroglobulin receptor-associated protein in normal human epidermal melanocytes and human melanoma cell lines. Li Y, et al. **J Cell Biochem** 1998 Nov 1;71(2):149–57

CDO, a robo-related cell surface protein that mediates myogenic differentiation. Kang JS, et al. **J Cell Biol** 1998 Oct 19;143(2):403–13

Lipoprotein clearance mechanisms in LDL receptor-deficient "Apo-B48-only" and "Apo-B100-only" mice. Véniant MM, et al. **J Clin Invest** 1998 Oct 15; 102(8):1559–68

Tetrameric complexes of human histocompatibility leukocyte antigen (HLA)-G bind to peripheral blood myelomonocytic cells. Allan DS, et al. **J Exp Med** 1999 Apr 5;189(7):1149–56

The major receptor for C-reactive protein on leukocytes is fcgamma receptor II. Bharadwaj D, et al. **J Exp Med** 1999 Aug 16;190(4):585–90

Structure of human histocompatibility leukocyte antigen (HLA)-Cw4, a ligand for the KIR2D natural killer cell inhibitory receptor. Fan QR, et al. **J Exp Med** 1999 Jul 5;190(1):113–23

A seven-transmembrane, G protein-coupled receptor, FPRL1, mediates the chemotactic activity of serum amyloid A for human phagocytic cells. Su SB, et al.
J Exp Med 1999 Jan 18;189(2):395–402

MHC class I-restricted presentation of maleylated protein binding to scavenger receptors. Bansal P, et al.
J Immunol 1999 Apr 15;162(8):4430–7

Triggering of effector functions on a CD8+ T cell clone upon the aggregation of an activatory CD94/kp39 heterodimer. Bellón T, et al. **J Immunol** 1999 Apr 1; 162(7):3996–4002

Mouse NKR-P1B, a novel NK1.1 antigen with inhibitory function. Carlyle JR, et al. **J Immunol** 1999 May 15; 162(10):5917–23

NK and CTL recognition of a single chain H-2Dd molecule: distinct sites of H-2Dd interact with NK and TCR. Chung DH, et al. **J Immunol** 1999 Oct 1;163(7):3699–708

Positive recognition of MHC class I molecules by the Ly49D receptor of murine NK cells. George TC, et al.
J Immunol 1999 Feb 15;162(4):2035–43

External and internal calibration of the MHC class I-specific receptor Ly49A on murine natural killer cells. Käse A, et al. **J Immunol** 1998 Dec 1;161(11):6133–8

Differential interaction of Crkl with Cbl or C3G, Hef-1, and gamma subunit immunoreceptor tyrosine-based activation motif in signaling of myeloid high affinity Fc receptor for IgG (Fc gamma RI). Kyono WT, et al. **J Immunol** 1998 Nov 15;161(10):5555–63

Recognition of class I MHC by NK receptor Ly-49C: identification of critical residues. Lian RH, et al.
J Immunol 1999 Jun 15;162(12):7271–6

Intracellular signaling of gp34, the OX40 ligand: induction of c-jun and c-fos mRNA expression through gp34 upon binding of its receptor, OX40. Matsumura Y, et al.
J Immunol 1999 Sep 15;163(6):3007–11

Stochastic acquisition of Qa1 receptors during the development of fetal NK cells in vitro accounts in part but not in whole for the ability of these cells to distinguish between class I-sufficient and class I-deficient targets. Toomey JA, et al. **J Immunol** 1999 Sep 15;163(6):3176–84

Specificity of the SH2 domains of SHP-1 in the interaction with the immunoreceptor tyrosine-based inhibitory motif-bearing receptor gp49B. Wang LL, et al.
J Immunol 1999 Feb 1;162(3):1318–23

The beta-glucan-binding lectin site of mouse CR3 (CD11b/CD18) and its function in generating a primed state of the receptor that mediates cytotoxic activation in response to iC3b-opsonized target cells. Xia Y, et al.
J Immunol 1999 Feb 15;162(4):2281–90

Specific detection by flow cytometry of histidine-tagged ligands bound to their receptors using a tag-specific monoclonal antibody. Wilken HC, et al.
J Immunol Methods 1999 Jun 24;226(1–2):139–45

Priming of blood neutrophils in children with cystic fibrosis: correlation between functional and phenotypic expression of opsonin receptors before and after platelet-activating factor priming. Witko-Sarsat V, et al. **J Infect Dis** 1999 Jan;179(1):151–62

Impaired granulocyte formylpeptide-induced superoxide generation in chronically ill, malnourished, elderly patients. Cederholm T, et al. **J Intern Med** 1999 May;245(5):475–82

Induction of DAP12 phosphorylation, calcium mobilization, and cytokine secretion by Ly49H. Gosselin P, et al.
J Leukoc Biol 1999 Jul;66(1):165–71

Peptide model of a highly conserved, N-terminal domain of apolipoprotein E is able to modulate lipoprotein binding to a member of the class A scavenger receptor family. Dominguez SR, et al. **J Lipid Res** 1999 Apr;40(4):753–63

Cellular cholesterol regulates expression of the macrophage type B scavenger receptor, CD36. Han J, et al.
J Lipid Res 1999 May;40(5):830–8

An Lrp-type transcriptional regulator from Agrobacterium tumefaciens condenses more than 100 nucleotides of DNA into globular nucleoprotein complexes. Jafri S, et al.
J Mol Biol 1999 May 21;288(5):811–24

Alpha2-macroglobulin enhances the clearance of endogenous soluble beta-amyloid peptide via low-density lipoprotein receptor-related protein in cortical neurons. Qiu Z, et al.
J Neurochem 1999 Oct;73(4):1393–8

Identification of an alpha2-macroglobulin receptor in human mammary epithelial cells. Beshgetoor D, et al. **J Nutr** 1999 Jan;129(1):152–7

The human and rat recombinant receptors for advanced glycation end products have a high degree of homology but different pharmacokinetic properties in rats. Renard C, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1458–66

Simple and fast method to test the receptor for advanced glycosylated endproducts (RAGE) for its tumor suppressive potential using the Tet-On system. Bendik I, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):717–28

The uncoupled state of the human formyl peptide receptor. Gilbert TL, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):327–40

Human mesangial cells express inducible macrophage scavenger receptor: an Ap-1 and ets mediated response. Ruan XZ, et al. **Kidney Int Suppl** 1999 Jul;71:S163–6

Expression of hepatocyte low-density lipoprotein receptor-related protein is post-transcriptionally regulated by extracellular matrix. Schmoelzl S, et al. **Lab Invest** 1998 Nov;78(11):1405–13

Role for the leucine-responsive regulatory protein (Lrp) as a structural protein in regulating the Escherichia coli gcvTHP operon. Stauffer LT, et al. **Microbiology** 1999 Mar;145 (Pt 3):569–76

Roles for GcvA-binding sites 3 and 2 and the Lrp-binding region in gcvT::lacZ expression in Escherichia coli. Stauffer LT, et al. **Microbiology** 1998 Oct;144 (Pt 10):2865–72

The major SHP-1-binding, tyrosine-phosphorylated protein in macrophages is a member of the KIR/LIR family and an SHP-1 substrate. Berg KL, et al. **Oncogene** 1998 Nov 12;17(19):2535–41

Characterization of plasmid DNA binding and uptake by peritoneal macrophages from class A scavenger receptor knockout mice. Takakura Y, et al. **Pharm Res** 1999 Apr; 16(4):503–8

Myeloid DAP12-associating lectin (MDL)-1 is a cell surface receptor involved in the activation of myeloid cells. Bakker AB, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9792–6

Differential binding to HLA-C of p50-activating and p58-inhibitory natural killer cell receptors. Valés-Gómez M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14326–31

Localization of basic residues required for receptor binding to the single alpha-helix of the receptor binding domain of human alpha2-macroglobulin. Huang W, et al. **Protein Sci** 1998 Dec;7(12):2602–12

A trigger of natural (and other) killers [news; comment] Hagmann M. **Science** 1999 Jul 30;285(5428):645, 647. Comment on: Science 1999 Jul 30;285(5428):727–9. Comment on: Science 1999 Jul 30;285(5428):730–2.

An activating immunoreceptor complex formed by NKG2D and DAP10 [see comments] Wu J, et al. **Science** 1999 Jul 30;285(5428):730–2. Comment in: Science 1999 Jul 30;285(5428):645–6.

Plasminogen activator inhibitor 1 contains a cryptic high affinity receptor binding site that is exposed upon complex formation with tissue-type plasminogen activator. Horn IR, et al. **Thromb Haemost** 1998 Nov;80(5):822–8

Membrane fusion by surrogate receptor-bound influenza haemagglutinin. Millar BM, et al. **Virology** 1999 May 10; 257(2):415–23

[The proposed role of the ceruloplasmin receptor and Cu2+-transferring Menkes ATPase in copper metabolism in mammals] Puchkova LV, et al. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):287–90 **(Rus)**

[The interaction between neuromediators and immune receptors] Ado AD, et al. **Patol Fiziol Eksp Ter** 1999 Jan-Mar;(1):4–6 **(Rus)**

PHYSIOLOGY

Role of macrophage scavenger receptors in hepatic granuloma formation in mice. Hagiwara SI, et al. **Am J Pathol** 1999 Mar;154(3):705–20

Glycoprotein-340 binds surfactant protein-A (SP-A) and stimulates alveolar macrophage migration in an SP-A-independent manner. Tino MJ, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):759–68

Regulation of immune responses through inhibitory receptors. Long EO. **Annu Rev Immunol** 1999;17:875–904 (160 ref.)

Class A scavenger receptors and the phagocytosis of apoptotic cells. Platt N, et al. **Biochem Soc Trans** 1998 Nov; 26(4):639–44 (27 ref.)

Role of the buried glutamate in the alpha-helical coiled coil domain of the macrophage scavenger receptor. Suzuki K, et al. **Biochemistry** 1999 Feb 9;38(6):1751–6

Macrophage scavenger receptor confers an adherent phenotype to cells in culture. Robbins AK, et al. **Biotechniques** 1998 Aug;25(2):240–4

Sialylation of the sialic acid binding lectin sialoadhesin regulates its ability to mediate cell adhesion. Barnes YC, et al. **Blood** 1999 Feb 15;93(4):1245–52

T20/DP178, an ectodomain peptide of human immunodeficiency virus type 1 gp41, is an activator of human phagocyte N-formyl peptide receptor. Su SB, et al. **Blood** 1999 Jun 1;93(11):3885–92

Receptor mediated subversion of macrophage cytokine production by intracellular pathogens. Mosser DM, et al. **Curr Opin Immunol** 1999 Aug;11(4):406–11 (34 ref.)

Biology of immunoreceptor tyrosine-based inhibition motif-bearing molecules. Daëron M, et al. **Curr Top Microbiol Immunol** 1999;244:1–12 (78 ref.)

Inhibitory role of murine Ly49 lectin-like receptors on natural killer cells. Salcedo M. **Curr Top Microbiol Immunol** 1999;244:97–105 (45 ref.)

A gp330/megalin-related protein is required in the major epidermis of Caenorhabditis elegans for completion of molting. Yochem J, et al. **Development** 1999 Feb; 126(3):597–606

Genes required for axon pathfinding and extension in the C. elegans nerve ring. Zallen JA, et al. **Development** 1999 Aug;126(16):3679–92

Scavenger receptor class B type I in the rat ovary: possible role in high density lipoprotein cholesterol uptake and in the recognition of apoptotic granulosa cells. Svensson PA, et al. **Endocrinology** 1999 Jun;140(6):2494–500

The MHC class I binding proteins LIR-1 and LIR-2 inhibit Fc receptor-mediated signaling in monocytes. Fanger NA, et al. **Eur J Immunol** 1998 Nov;28(11):3423–34

AIM, a murine apoptosis inhibitory factor, induces strong and sustained growth inhibition of B lymphocytes in combination with TGF-beta1. Yusa S, et al. **Eur J Immunol** 1999 Apr;29(4):1086–93

The role of scavenger receptor class A in the adhesion of cells is dependent on cell type and cellular activation state. van Velzen AG, et al. **Exp Cell Res** 1999 Jul 10; 250(1):264–71

Chronic ethanol consumption impairs receptor-mediated endocytosis of formaldehyde-treated albumin by isolated rat liver endothelial cells. Thiele GM, et al. **Hepatology** 1999 May;29(5):1511–7

Immunoreceptor tyrosine-based inhibition motif-bearing receptors regulate the immunoreceptor tyrosine-based activation motif-induced activation of immune competent cells. Gergely J, et al. **Immunol Lett** 1999 May 3;68(1):3–15 (161 ref.)

Signal transduction in leucocytes via GPI-anchored proteins: an experimental artefact or an aspect of immunoreceptor function? Horejsi V, et al. **Immunol Lett** 1998 Sep; 63(2):63–73 (185 ref.)

Class A scavenger receptors and the phagocytosis of apoptotic cells. Platt N, et al. **Immunol Lett** 1999 Jan; 65(1-2):15–9 (27 ref.)

Non-serum-dependent chemotactic factors produced by Candida albicans stimulate chemotaxis by binding to the formyl peptide receptor on neutrophils and to an unknown receptor on macrophages. Edens HA, et al. **Infect Immun** 1999 Mar;67(3):1063–71

New scavenger receptor-like receptors for the binding of lipopolysaccharide to liver endothelial and Kupffer cells. van Oosten M, et al. **Infect Immun** 1998 Nov; 66(11):5107–12

Yops of Yersinia enterocolitica inhibit receptor-dependent superoxide anion production by human granulocytes. Visser LG, et al. **Infect Immun** 1999 Mar;67(3):1245–50

Formyl peptide receptor signaling in HL-60 cells through sphingosine kinase. Alemany R, et al. **J Biol Chem** 1999 Feb 12;274(7):3994–9

Hensin remodels the apical cytoskeleton and induces columnarization of intercalated epithelial cells: processes that resemble terminal differentiation. Vijayakumar S, et al. **J Cell Biol** 1999 Mar 8;144(5):1057–67

Impaired antibacterial host defense in mice lacking the N-formylpeptide receptor. Gao JL, et al. **J Exp Med** 1999 Feb 15;189(4):657–62

N-formylpeptides induce two distinct concentration optima for mouse neutrophil chemotaxis by differential interaction with two N-formylpeptide receptor (FPR) subtypes. Molecular characterization of FPR2, a second mouse neutrophil FPR. Hartt JK, et al. **J Exp Med** 1999 Sep 6; 190(5):741–7

Complementary roles for scavenger receptor A and CD36 of human monocyte-derived macrophages in adhesion to surfaces coated with oxidized low-density lipoproteins and in secretion of H2O2. Maxeiner H, et al. **J Exp Med** 1998 Dec 21;188(12):2257–65

Role of the scavenger receptor MARCO in alveolar macrophage binding of unopsonized environmental particles. Palecanda A, et al. **J Exp Med** 1999 May 3; 189(9):1497–506

Differential roles of N- and C-terminal immunoreceptor tyrosine-based inhibition motifs during inhibition of cell activation by killer cell inhibitory receptors. Bruhns P, et al. **J Immunol** 1999 Mar 15;162(6):3168–75

Conserved residues amino-terminal of cytoplasmic tyrosines contribute to the SHP-1-mediated inhibitory function of killer cell Ig-like receptors. Burshtyn DN, et al. **J Immunol** 1999 Jan 15;162(2):897–902

The MHC class I molecule H-2Dp inhibits murine NK cells via the inhibitory receptor Ly49A. Olsson-Alheim MY, et al. **J Immunol** 1999 Jun 15;162(12):7010–4

Cutting edge: human 2B4, an activating NK cell receptor, recruits the protein tyrosine phosphatase SHP-2 and the adaptor signaling protein SAP. Tangye SG, et al. **J Immunol** 1999 Jun 15;162(12):6981–5

A novel family of Ig-like receptors for HLA class I molecules that modulate function of lymphoid and myeloid cells. Colonna M, et al. **J Leukoc Biol** 1999 Sep; 66(3):375–81 (61 ref.)

Effects of roundabout on growth cone dynamics, filopodial length, and growth cone morphology at the midline and throughout the neuropile. Murray MJ, et al. **J Neurosci** 1999 Sep 15;19(18):7901–12

The ectodomain of a novel member of the immunoglobulin subfamily related to the poliovirus receptor has the attributes of a bona fide receptor for herpes simplex virus types 1 and 2 in human cells. Cocchi F, et al. **J Virol** 1998 Dec;72(12):9992–10002

Dynamics of a chemoattractant receptor in living neutrophils during chemotaxis. Servant G, et al. **Mol Biol Cell** 1999 Apr;10(4):1163–78

Neurobiology. Slit, the midline repellent [news] Harris WA, et al. **Nature** 1999 Apr 8;398(6727):462–3

Paired immunoglobulin-like receptor B (PIR-B) inhibits BCR-induced activation of Syk and Btk by SHP-1. Maeda A, et al. **Oncogene** 1999 Apr 8;18(14):2291–7

Requirement for croquemort in phagocytosis of apoptotic cells in Drosophila. Franc NC, et al. **Science** 1999 Jun 18; 284(5422):1991–4

Recognizing death: the phagocytosis of apoptotic cells. Platt N, et al. **Trends Cell Biol** 1998 Sep;8(9):365–72 (59 ref.)

RECEPTORS, INSULIN

Plasma leptin levels: interaction of obesity with a common variant of insulin receptor substrate-1. Krempler F, et al. **Arterioscler Thromb Vasc Biol** 1998 Nov;18(11):1686–90

Insulin receptor has tyrosine kinase activity toward Shc in rat liver. Páez-Espinosa EV, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1415–9

AGONISTS

Caveolin is an activator of insulin receptor signaling. Yamamoto M, et al. **J Biol Chem** 1998 Oct 9; 273(41):26962–8

ANALYSIS

Obese mice have higher insulin receptor levels in the hepatocyte cell nucleus following insulin stimulation in vivo with an oral glucose meal. Gletsu NA, et al. **Biochim Biophys Acta** 1999 Aug 30;1454(3):251–60

The insulin receptor tyrosine kinase substrate p58/53 and the insulin receptor are components of CNS synapses. Abbott MA, et al. **J Neurosci** 1999 Sep 1;19(17):7300–8

BIOSYNTHESIS

Insulin receptor expression in primary and cultured osteoclast-like cells [see comments] Thomas DM, et al. **Bone** 1998 Sep;23(3):181–6. Comment in: Bone 1999 Aug;25(2):251.

Functional insulin receptors are overexpressed in thyroid tumors: is this an early event in thyroid tumorigenesis? Frittitta L, et al. **Cancer** 1999 Jan 15;85(2):492–8

Insulin and insulin-like growth factor-I (IGF-I) receptor overexpression in breast cancers leads to insulin/IGF-I hybrid receptor overexpression: evidence for a second mechanism of IGF-I signaling. Pandini G, et al. **Clin Cancer Res** 1999 Jul;5(7):1935–44

Insulin receptor-related receptor is expressed in pancreatic beta-cells and stimulates tyrosine phosphorylation of insulin receptor substrate-1 and -2. Hirayama I, et al. **Diabetes** 1999 Jun;48(6):1237–44

Role of proline 193 in the insulin receptor post-translational processing. Maggi D, et al. **Diabetologia** 1999 Apr; 42(4):435–42

Treatment of streptozotocin-induced diabetic rats with vanadate and phlorizin prevents the over-expression of the liver insulin receptor gene. Amessou M, et al. **Eur J Endocrinol** 1999 Jan;140(1):79–86

Characterization of teleost insulin receptor family members. Greene MW, et al. **Gen Comp Endocrinol** 1999 Aug; 115(2):254–69

Opposite effects of insulin on focal adhesion proteins in 3T3-L1 adipocytes and in cells overexpressing the insulin receptor. Wang Q, et al. **Mol Biol Cell** 1998 Nov; 9(11):3057–69

CHEMISTRY

Localisation and dynamics of receptor-insulin contacts by NMR studies on the human insulin receptor ectodomain. Schaefer E, et al. **Biochem Soc Trans** 1998 Aug;26(3):S294

Reversible change in thiol redox status of the insulin receptor alpha-subunit in intact cells. Garant MJ, et al. **Biochemistry** 1999 May 4;38(18):5896–904

The insulin receptor tyrosine kinase domain in a chimaeric epidermal growth factor-insulin receptor generates Ca2+ signals through the PLC-gamma1 pathway. Telting D, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):421–32

Members of the insulin receptor family contain three fibronectin type III domains. Ward CW. **Growth Factors** 1999;16(4):315–22

Congenital insulin resistance associated with a conformational alteration in a conserved beta-sheet in the insulin receptor L1 domain. Rouard M, et al. **J Biol Chem** 1999 Jun 25;274(26):18487–91

Quaternary structure of the insulin-insulin receptor complex. Luo RZ, et al. **Science** 1999 Aug 13;285(5430):1077–80

A third fibronectin-type-III domain in the insulin-family receptors [letter] Mulhern TD, et al. **Trends Biochem Sci** 1998 Dec;23(12):465–6

DEFICIENCY

Tissue-specific knockout of the insulin receptor in pancreatic beta cells creates an insulin secretory defect similar to that in type 2 diabetes. Kulkarni RN, et al. **Cell** 1999 Feb 5; 96(3):329–39

DRUG EFFECTS

Differential effects of ethanol on insulin-signaling through the insulin receptor substrate-1. de la Monte SM, et al. **Alcohol Clin Exp Res** 1999 May;23(5):770–7

Insulin-induced insulin receptor substrate-1 degradation is mediated by the proteasome degradation pathway. Sun XJ, et al. **Diabetes** 1999 Jul;48(7):1359–64

Ethanol inhibits hepatocyte proliferation in insulin receptor substrate 1 transgenic mice. Mohr L, et al. **Gastroenterology** 1998 Dec;115(6):1558–65

Inhibition of the transmembrane protein tyrosine phosphatase

lar by 3S-peptide-I enhances insulin receptor phosphorylation in intact cells. Kole HK, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2–4):111–26

Effect of isoflavone genistein on insulin receptors in perfused liver of ovariectomized rats. Maćkowiak P, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):283–92

In vivo tissue specific modulation of rat insulin receptor gene expression in an experimental model of mineralocorticoid excess. Campión J, et al. **Mol Cell Biochem** 1998 Aug; 185(1–2):177–82

[The effect of insulin therapy on erythrocyte insulin receptor activity in patients with terminal kidney failure] Tychka IB, et al. **Lik Sprava** 1998 Oct–Nov;(7):80–2 (Eng. Abstr.) **(Ukr)**

GENETICS

Genetic engineering in mice: impact on insulin signalling and action. Lamothe B, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):193–204 (107 ref.)

Molecular studies of diabetes reported at the Fourth European Congress of endocrinology. Pankov YA. **Biochemistry (Mosc)** 1999 Jan;64(1):95–7

Cell nonautonomy of C. elegans daf-2 function in the regulation of diapause and life span. Apfeld J, et al. **Cell** 1998 Oct 16;95(2):199–210

Tissue-specific knockout of the insulin receptor in pancreatic beta cells creates an insulin secretory defect similar to that in type 2 diabetes. Kulkarni RN, et al. **Cell** 1999 Feb 5; 96(3):329–39

Genetic analysis of the insulin receptor gene in Chinese patients with extreme insulin resistance. Lee WJ, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Nov; 61(11):636–42

Variants of the insulin receptor substrate-1 and fatty acid binding protein 2 genes and the risk of type 2 diabetes, obesity, and hyperinsulinemia in African-Americans: the Atherosclerosis Risk in Communities Study. Lei HH, et al. **Diabetes** 1999 Sep;48(9):1868–72

Implications of compound heterozygous insulin receptor mutations in congenital muscle fibre type disproportion myopathy for the receptor kinase activation. Klein HH, et al. **Diabetologia** 1999 Feb;42(2):245–9

Insulin/insulin-like growth factor-I hybrid receptors with high affinity for insulin are developmentally regulated during neurogenesis. García-de Lacoba M, et al. **Endocrinology** 1999 Jan;140(1):233–43

Substitution of the insulin receptor transmembrane domain with that of glycophorin A inhibits insulin action. Gardin A, et al. **FASEB J** 1999 Aug;13(11):1347–57

The daf-2 gene network for longevity regulates oxidative stress resistance and Mn-superoxide dismutase gene expression in Caenorhabditis elegans. Honda Y, et al. **FASEB J** 1999 Aug;13(11):1385–93

Two pleiotropic classes of daf-2 mutation affect larval arrest, adult behavior, reproduction and longevity in Caenorhabditis elegans. Gems D, et al. **Genetics** 1998 Sep; 150(1):129–55

Cloning and sequencing of the complete cDNA encoding the human insulin receptor related receptor. Hänze J, et al. **Horm Metab Res** 1999 Feb-Mar;31(2–3):77–9

Novel allele of the insulin receptor substrate-1 bearing two non-conservative amino acid substitutions in a patient with noninsulin-dependent diabetes mellitus. Mutations in brief no. 130. Online. Mammarella S, et al. **Hum Mutat** 1998; 11(5):411

Syndromes associated with insulin resistance and acanthosis nigricans. Taylor SI, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2–4):419–39 (76 ref.)

Progressive decline in insulin levels in Rabson-Mendenhall syndrome. Longo N, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2623–9

Effect of fasting on insulin receptor-related receptor messenger ribonucleic acid in rat kidney. Chrysis D, et al. **J Endocrinol** 1998 Nov;159(2):R9–R12

A partial cDNA sequence of the ovine insulin receptor gene: evidence for alternative splicing of an exon 11 region and for tissue-specific regulation of receptor isoform expression in sheep muscle, adipose tissue and liver. McGrattan PD, et al. **J Endocrinol** 1998 Dec;159(3):381–7

Protein carbonyl accumulation in aging dauer formation-defective (daf) mutants of Caenorhabditis elegans. Yasuda K, et al. **J Gerontol A Biol Sci Med Sci** 1999 Feb;54(2):B47–51; discussion B52–3

Insulin receptor exon 11+/- isoform mRNA in spontaneously hypertensive and adrenocorticotropin-hypertensive rats. Lou Y, et al. **J Hypertens** 1998 Jul;16(7):1009–14

Targeted gene mutations define the roles of insulin and IGF-I receptors in mouse embryonic development. Accili D, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):475–85 (62 ref.)

In vivo tissue specific modulation of rat insulin receptor gene expression in an experimental model of mineralocorticoid excess. Campión J, et al. **Mol Cell Biochem** 1998 Aug; 185(1–2):177–82

A novel insulin receptor substrate protein, xIRS-u, potentiates insulin signaling: functional importance of its pleckstrin homology domain. Ohan N, et al. **Mol Endocrinol** 1998 Aug;12(8):1086–98

[The study of mutation in exon 17 of insulin receptor gene in essential hypertensive pedigrees] Pang L, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr; 19(2):83–8 (Eng. Abstr.) **(Chi)**

[Insulin receptor abnormality and its clinical aspect] Taira M, et al. **Nippon Rinsho** 1998 Jul;56(7):1866–70 (8 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Successful treatment with plasmapheresis, cyclophosphamide, and cyclosporin A in type B syndrome of insulin resistance. Case report. Eriksson JW, et al. **Diabetes Care** 1998 Aug;21(8):1217–20

Antiinsulin receptor autoantibodies induce insulin receptors to constitutively associate with insulin receptor substrate-1 and -2 and cause severe cell resistance to both insulin and insulin-like growth factor I. Auclair M, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3197–206

Insulin receptor antibodies and insulin resistance. Magsino CH Jr, et al. **South Med J** 1999 Jul;92(7):717–9

[Syndromes of severe insulin resistance] Araki S. **Nippon Rinsho** 1999 Mar;57(3):617–21 (7 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Insulin action and insulin resistance: diseases involving defects in insulin receptors, signal transduction, and the glucose transport effector system. Hunter SJ, et al. **Am J Med** 1998 Oct;105(4):331–45 (100 ref.)

Insulin receptor autophosphorylation in cultured myoblasts correlates to glucose disposal in Pima Indians. Youngren JF, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E990–4

Role of IRS-1 signaling in insulin-induced modulation of estrogen receptors in breast cancer cells. Ando' S, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):315–9

SH2-Balpha is an insulin-receptor adapter protein and substrate that interacts with the activation loop of the insulin-receptor kinase. Kotani K, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):103–9

Timing-dependence of insulin-receptor mitogenic versus metabolic signalling: a plausible model based on coincidence of hormone and effector binding. Shymko RM, et al. **Biochem J** 1999 May 1;339 (Pt 3):675–83

Insulin stimulates the tyrosine dephosphorylation of docking protein p130cas (Crk-associated substrate), promoting the switch of the adaptor protein crk from p130cas to newly phosphorylated insulin receptor substrate-1. Sorokin A, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):595–600

Angiotensin-converting enzyme inhibitor increases insulin-induced pp185 phosphorylation in liver and muscle of obese rats. Carvalho DS, et al. **Biochem Mol Biol Int** 1998 Oct;46(2):259–66

Localisation and dynamics of receptor-insulin contacts by NMR studies on the human insulin receptor ectodomain. Schaefer E, et al. **Biochem Soc Trans** 1998 Aug;26(3):S294

Reversible change in thiol redox status of the insulin receptor alpha-subunit in intact cells. Garant MJ, et al. **Biochemistry** 1999 May 4;38(18):5896–904

Incorporation of exogenous lipids modulates insulin signaling in the hepatoma cell line, HepG2. Meuillet EJ, et al. **Biochim Biophys Acta** 1999 May 31;1454(1):38–48

Expression of insulin receptors in osteoclast-like cells [letter; comment] Puche RC. **Bone** 1999 Aug;25(2):251. Comment on: Bone 1998 Sep;23(3):181–6.

Insulin induces tyrosine phosphorylation of the insulin receptor and SHC, and SHC/GRB2 association in cerebellum but not in forebrain cortex of rats. de L A Fernandes ML, et al. **Brain Res** 1999 Apr 24;826(1):74–82

Insulin signalling in heart involves insulin receptor substrates-1 and -2, activation of phosphatidylinositol 3-kinase and the JAK 2-growth related pathway. Velloso LA, et al. **Cardiovasc Res** 1998 Oct;40(1):96–102

Autonomous control of cell and organ size by CHICO, a Drosophila homolog of vertebrate IRS1-4. Böhni R, et al. **Cell** 1999 Jun 25;97(7):865–75

Identification of structural characteristics that contribute to a difference in antiapoptotic function between human insulin and insulin-like growth factor 1 receptors. Chen H, et al. **Cell Growth Differ** 1998 Nov;9(11):939–47

Insulin-family peptide-receptor interaction at the early stage of vertebrate evolution. Leibush BN, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep; 121(1):57–63 (25 ref.)

Insulin-receptor binding characteristics in perfused SHR and WKY rat hearts. Bikhazi AB, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jul;120(1):127–36

Novel hepatoselective insulin analogues: studies with covalently linked thyroxyl-insulin complexes. Shojaee-Moradie F, et al. **Diabet Med** 1998 Nov; 15(11):928–36

Impaired glucose transport and insulin receptor tyrosine phosphorylation in skeletal muscle from obese women with gestational diabetes. Friedman JE, et al. **Diabetes** 1999 Sep; 48(9):1807–14

Islet transplantation restores normal levels of insulin receptor and substrate tyrosine phosphorylation and phosphatidylinositol 3-kinase activity in skeletal muscle and myocardium of streptozocin-induced diabetic rats. Giorgino F, et al. **Diabetes** 1999 Apr;48(4):801–12

Insulin receptor-related receptor is expressed in pancreatic beta-cells and stimulates tyrosine phosphorylation of insulin receptor substrate-1 and -2. Hirayama I, et al. **Diabetes** 1999 Jun;48(6):1237–44

Molecular basis of insulin action. Combettes-Souverain M, et al. **Diabetes Metab** 1998 Dec;24(6):477–89 (125 ref.)

Development of vanadate sensitive human erythrocytes insulin receptor tyrosine phosphatase assay. Okada Y, et al. **Diabetes Res Clin Pract** 1998 Sep;41(3):157–63

Insulin degradation: progress and potential. Duckworth WC, et al. **Endocr Rev** 1998 Oct;19(5):608–24 (237 ref.)

Effect of diazoxide on brain capillary insulin receptor binding and food intake in hyperphagic obese Zucker rats. Alemzadeh R, et al. **Endocrinology** 1999 Jul; 140(7):3197–202

Insulin/insulin-like growth factor-I hybrid receptors with high affinity for insulin are developmentally regulated during neurogenesis. García-de Lacoba M, et al. **Endocrinology** 1999 Jan;140(1):233–43

Investigation of insulin-like growth factor (IGF)-I and insulin receptor binding and expression in jejunum of parenterally fed rats treated with IGF-I or growth hormone. Ney DM, et al. **Endocrinology** 1999 Oct; 140(10):4850–60

Growth hormone stimulates the tyrosine kinase activity of JAK2 and induces tyrosine phosphorylation of insulin receptor substrates and Shc in rat tissues. Thirone AC, et al. **Endocrinology** 1999 Jan;140(1):55–62

Effect of age and caloric restriction on insulin receptor binding and glucose transporter levels in aging rats. Wang ZQ, et al. **Exp Gerontol** 1997 Nov-Dec;32(6):671–84

Substitution of the insulin receptor transmembrane domain with that of glycophorin A inhibits insulin action. Gardin A, et al. **FASEB J** 1999 Aug;13(11):1347–57

A third fibronectin type III domain in the extracellular region of the insulin receptor family. Marino-Buslje C, et al. **FEBS Lett** 1998 Dec 18;441(2):331–6

p68 Sam is a substrate of the insulin receptor and associates with the SH2 domains of p85 PI3K. Sánchez-Margalet V, et al. **FEBS Lett** 1999 Jul 23;455(3):307–10

The inhibitory effect of 2-deoxyglucose on insulin receptor autophosphorylation does not depend on known serine phosphorylation sites or other conserved serine residues of the receptor beta-subunit. Strack V, et al. **FEBS Lett** 1999 Apr 23;449(2–3):111–4

The in vitro synthesized and processed human insulin receptor precursor binds insulin. Tsuda S, et al. **FEBS Lett** 1999 Aug 20;457(1):13–7

Differential autocrine regulation of intestine epithelial cell proliferation and differentiation by insulin-like growth factor (IGF) system components. Jehle PM, et al. **Horm Metab Res** 1999 Feb-Mar;31(2–3):97–102

Insulin-stimulated insulin secretion in single pancreatic beta cells. Aspinwall CA, et al. **J Biol Chem** 1999 Mar 5; 274(10):6360–5

Mutation of tyrosine 960 within the insulin receptor juxtamembrane domain impairs glucose transport but does not inhibit ligand-mediated phosphorylation of insulin receptor substrate-2 in 3T3-L1 adipocytes. Chaika OV, et al. **J Biol Chem** 1999 Apr 23;274(17):12075–80

Effect of alternative glycosylation on insulin receptor processing. Hwang JB, et al. **J Biol Chem** 1999 Aug 6; 274(32):22813–20

The carboxyl terminal extension of the Drosophila insulin receptor homologue binds IRS-1 and influences cell survival. Marin-Hincapie M, et al. **J Biol Chem** 1999 Aug 27;274(35):24987–94

Differential role of insulin receptor substrate (IRS)-1 and IRS-2 in L6 skeletal muscle cells expressing the Arg1152 --> Gln insulin receptor. Miele C, et al. **J Biol Chem** 1999 Jan 29;274(5):3094–102

The influence of short-term endurance training on the insulin blood level, binding, and degradation of 125I-insulin by erythrocyte receptors in patients after myocardial infarction. Dylewicz P, et al. **J Cardiopulm Rehabil** 1999 Mar-Apr;19(2):98–105

Antiinsulin receptor autoantibodies induce insulin receptors to constitutively associate with insulin receptor substrate-1 and -2 and cause severe cell resistance to both insulin and insulin-like growth factor I. Auclair M, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3197–206

Role of hyperinsulinemia on hepatic insulin receptor concentration and autophosphorylation in the presence of high growth hormone levels in transgenic mice overexpressing growth hormone gene. Dominici FP, et al. **J Endocrinol** 1998 Oct;159(1):15–25

Unraveling the riddle of insulin resistance [editorial; comment] Goldfine ID. **J Lab Clin Med** 1999 Aug; 134(2):100–2. Comment on: J Lab Clin Med 1999 Aug;134(2):115–23.

Brain insulin and insulin receptors in aging and sporadic Alzheimer's disease. Frölich L, et al. **J Neural Transm** 1998; 105(4–5):423–38

The influence of exercise-induced oxidative stress on binding and degradation of 125I-insulin by the receptors on erythrocytes. Szczęśniak L, et al. **J Physiol Pharmacol** 1998 Sep;49(3):421–32

From insulin receptor signalling to Glut 4 translocation abnormalities in obesity and insulin resistance. Le Marchand-Brustel Y, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):217–28 (41 ref.)

Effect of isoflavone genistein on insulin receptors in perfused liver of ovariectomized rats. Maćkowiak P, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):283–92

Human insulin receptor and insulin signaling proteins in hepatic disease. Spector SA, et al. **J Surg Res** 1999 May 1;83(1):32-5

Age-associated alterations in cardiac and skeletal muscle glucose transporters, insulin and IGF-1 receptors, and PI3-kinase protein contents in the C57BL/6 mouse. Martineau LC, et al. **Mech Ageing Dev** 1999 Jan 15; 106(3):217-32

Insulin receptor internalization and signalling. Di Guglielmo GM, et al. **Mol Cell Biochem** 1998 May;182(1-2):59-63 (41 ref.)

Binding of SH2 containing proteins to the insulin receptor: a new way for modulating insulin signalling. Liu F, et al. **Mol Cell Biochem** 1998 May;182(1-2):73-8 (42 ref.)

Increased tyrosine phosphorylation of the insulin receptor, the insulin receptor substrate-1 and a 73 kDa protein associated with insulin-induced mitogenesis in SV40-transformed 3T3T cells. Wang H. **Mol Cell Biochem** 1999 Jul;197(1-2):61-70

Insulin receptor isoform A, a newly recognized, high-affinity insulin-like growth factor II receptor in fetal and cancer cells. Frasca F, et al. **Mol Cell Biol** 1999 May;19(5):3278-88

A novel insulin receptor substrate protein, xIRS-u, potentiates insulin signaling: functional importance of its pleckstrin homology domain. Ohan N, et al. **Mol Endocrinol** 1998 Aug;12(8):1086-98

Insulin receptor activation by IGF-II in breast cancers: evidence for a new autocrine/paracrine mechanism. Sciacca L, et al. **Oncogene** 1999 Apr 15;18(15):2471-9

Re-engineering the target specificity of the insulin receptor by modification of a PTB domain binding site. van der Geer P, et al. **Oncogene** 1999 May 20;18(20):3071-5

Uptake and degradation of blood-borne insulin by the olfactory bulb. Banks WA, et al. **Peptides** 1999;20(3):373-8

Changes of insulin binding in rat tissues after exposure to stress. Macho L, et al. **Physiol Res** 1999;48(1):51-8

A third fibronectin-type-III domain in the insulin-family receptors [letter] Mulhern TD, et al. **Trends Biochem Sci** 1998 Dec;23(12):465-6

[Insulin-binding activity of lymphocytes bearing Fcgamma-receptors in pregnant women with diabetes mellitus] Zhumagalieva GD, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):230-3 **(Rus)**

PHYSIOLOGY

Insulin-like growth factor-1 receptors mediate infragenicular vascular smooth muscle cell proliferation in response to glucose and insulin not by insulin receptors. Avena R, et al. **Am J Surg** 1999 Aug;178(2):156-61

Journey beyond immunology. Regulation of receptor internalization by major histocompatibility complex class I (MHC-I) and effect of peptides derived from MHC-I. Stagsted J. **APMIS Suppl** 1998;85:1-40 (553 ref.)

Early steps in insulin action. Dorrestijn J, et al. **Arch Physiol Biochem** 1998 Oct;106(4):269-89 (207 ref.)

Myocardial protection by insulin is dependent on phospatidylinositol 3-kinase but not protein kinase C or KATP channels in the isolated rabbit heart. Baines CP, et al. **Basic Res Cardiol** 1999 Jun;94(3):188-98

Relative involvement of Shc tyrosine 239/240 and tyrosine 317 on insulin induced mitogenic signaling in rat1 fibroblasts expressing insulin receptors. Ishihara H, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):139-44

Identification of a novel complement-dependent serum-elicited inward current in the Xenopus oocyte provoking Ca2+ influx and subsequent activation of Cl- channels. Newsholme P, et al. **Biochem Pharmacol** 1999 Mar 1;57(5):491-501

Antiapoptotic signaling by the insulin receptor in Chinese hamster ovary cells. Lee-Kwon W, et al. **Biochemistry** 1998 Nov 10;37(45):15747-57

Differential signaling of insulin and IGF-1 receptors to glycogen synthesis in murine hepatocytes. Park BC, et al. **Biochemistry** 1999 Jun 8;38(23):7517-23

Insulin/IGF-I hybrid receptors play a major role in IGF-I signaling in thyroid cancer. Belfiore A, et al. **Biochimie** 1999 Apr;81(4):403-7

The insulin receptor substrate 1 associates with phosphotyrosine phosphatase SHPTP2 in liver and muscle of rats. Lima MH, et al. **Braz J Med Biol Res** 1998 Nov; 31(11):1409-13 (17 ref.)

Insulin, insulin-like growth factor-I (IGF-I) and glucagon: the evolution of their receptors. Navarro I, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Feb; 122(2):137-53 (153 ref.)

Calorie restriction increases insulin-stimulated glucose transport in skeletal muscle from IRS-1 knockout mice. Gazdag AC, et al. **Diabetes** 1999 Oct;48(10):1930-6

Activation of the hexosamine pathway by glucosamine in vivo induces insulin resistance of early postreceptor insulin signaling events in skeletal muscle. Patti ME, et al. **Diabetes** 1999 Aug;48(8):1562-71

Insulin sensitivity in subjects with type 2 diabetes. Relationship to cardiovascular risk factors: the Insulin Resistance Atherosclerosis Study. Haffner SM, et al. **Diabetes Care** 1999 Apr;22(4):562-8

Modulation of insulin receptor signalling by pancreastatin in HTC hepatoma cells. Sánchez-Margalet V. **Diabetologia** 1999 Mar;42(3):317-25

Regional difference in insulin inhibition of non-esterified fatty acid release from human adipocytes: relation to insulin receptor phosphorylation and intracellular signalling through the insulin receptor substrate-1 pathway. Zierath JR, et al. **Diabetologia** 1998 Nov;41(11):1343-54

Synergistic role of the phosphatidylinositol 3-kinase and mitogen-activated protein kinase cascade in the regulation of insulin receptor trafficking. Sasaoka T, et al. **Endocrinology** 1999 Aug;140(8):3826-34

Insulin receptors and signal transduction proteins in the hypothalamo-hypophyseal system: a review on morphological findings and functional implications. Unger JW, et al. **Histol Histopathol** 1998 Oct;13(4):1215-24 (74 ref.)

The insulin receptor--a critical link in glucose homeostasis and insulin action. Patti ME, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2-4):89-109 (78 ref.)

The role of G proteins in insulin signalling. Rizzo MA, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2-4):167-95 (159 ref.)

Insulin receptor substrate 2 and Shc play different roles in insulin-like growth factor I signaling. Kim B, et al. **J Biol Chem** 1998 Dec 18;273(51):34543-50

Interaction of insulin receptor substrate 3 with insulin receptor, insulin receptor-related receptor, insulin-like growth factor-1 receptor, and downstream signaling proteins. Xu P, et al. **J Biol Chem** 1999 May 21; 274(21):15262-70

Targeted gene mutations define the roles of insulin and IGF-I receptors in mouse embryonic development. Accili D, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):475-85 (62 ref.)

A muscle-specific insulin receptor knockout exhibits features of the metabolic syndrome of NIDDM without altering glucose tolerance. Brüning JC, et al. **Mol Cell** 1998 Nov; 2(5):559-69

The C. elegans PTEN homolog, DAF-18, acts in the insulin receptor-like metabolic signaling pathway. Ogg S, et al. **Mol Cell** 1998 Dec;2(6):887-93

Insulin receptor-associated protein tyrosine phosphatase(s): role in insulin action. Drake PG, et al. **Mol Cell Biochem** 1998 May;182(1-2):79-89 (87 ref.)

Role of binding proteins to IRS-1 in insulin signalling. Ogawa W, et al. **Mol Cell Biochem** 1998 May;182(1-2):13-22 (108 ref.)

The IRS-signalling system: a network of docking proteins that mediate insulin action. White MF. **Mol Cell Biochem** 1998 May;182(1-2):3-11 (81 ref.)

Prolonged vs transient roles for early cell cycle signaling components. Rose DW, et al. **Oncogene** 1998 Aug 20; 17(7):889-99

Insulin receptor regulation of cell surface integrins: a possible mechanism contributing to the development of diabetic complications. Wertheimer E, et al. **Proc Assoc Am Physicians** 1998 Jul-Aug;110(4):333-9

Neurosecretory control of aging in Caenorhabditis elegans. Ailion M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22; 96(13):7394-7

The PTEN tumor suppressor homolog in Caenorhabditis elegans regulates longevity and dauer formation in an insulin receptor-like signaling pathway. Mihaylova VT, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7427-32

GLUT-4, tumor necrosis factor, essential fatty acids and daf-genes and their role in insulin resistance and non-insulin dependent diabetes mellitus. Das UN. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jan; 60(1):13-20 (43 ref.)

The IRS-signaling system: a network of docking proteins that mediate insulin and cytokine action. White MF. **Recent Prog Horm Res** 1998;53:119-38 (125 ref.)

The insulin receptor and metabolic signaling. Gustafson TA, et al. **Rev Physiol Biochem Pharmacol** 1999;137:71-190 (523 ref.)

[Insulin resistance. Receptor and post-receptor abnormalities] Liguori M, et al. **Minerva Endocrinol** 1998 Jun;23(2):37-52 (81 ref.) (Eng. Abstr.) **(Ita)**

ULTRASTRUCTURE

Single-molecule imaging of human insulin receptor ectodomain and its Fab complexes. Tulloch PA, et al. **J Struct Biol** 1999 Mar;125(1):11-8

RECEPTORS, INSULIN-LIKE-GROWTH FACTOR I

[The effect of blocking insulin-like growth factor-1 (IGF-1)-receptor system on tendon cell proliferation] Xiang Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):35-8 (Eng. Abstr.) **(Chi)**

ANALYSIS

Synthesis and characterization of photoreactive insulin-like growth factor 1 derivatives for receptor analysis. Fabry M. **Bioconjug Chem** 1999 Mar-Apr;10(2):200-5

Insulin-like growth factors in human breast cancer. Ellis MJ, et al. **Breast Cancer Res Treat** 1998;52(1-3):175-84 (62 ref.)

An immunohistochemical study of type I insulin-like growth factor receptors in the placentae of pregnancies with appropriately grown or growth restricted fetuses. Holmes R, et al. **Placenta** 1999 May;20(4):325-30

Characterisation and location of insulin-like-growth factor (IGF) receptors in the foetal bovine Semitendinosus muscle. Listrat A, et al. **Reprod Nutr Dev** 1999 Jul-Aug; 39(4):467-79

ANTAGONISTS & INHIBITORS

Inhibition of insulin-like growth factor I receptor signaling by the vitamin D analogue EB1089 in MCF-7 breast cancer cells: A role for insulin-like growth factor binding proteins. Rozen F, et al. **Int J Oncol** 1999 Sep;15(3):589-94

Phasic synaptic remodeling of the rat arcuate nucleus during the estrous cycle depends on insulin-like growth factor-I receptor activation. Fernandez-Galaz MC, et al. **J Neurosci Res** 1999 Feb 1;55(3):286-92

BIOSYNTHESIS

Expression and regulation of the insulin-like growth factor-1 receptor by growing and quiescent H4IIE hepatoma. Zahradka P, et al. **Biochim Biophys Acta** 1998 Oct 15; 1375(1-2):131-9

Expression of insulin-like growth factor-1 receptor in synovial sarcoma: association with an aggressive phenotype. Xie Y, et al. **Cancer Res** 1999 Aug 1; 59(15):3588-91

Characterization of the insulin-like growth factor axis in a human hepatoma cell line (PLC). Scharf JG, et al. **Carcinogenesis** 1998 Dec;19(12):2121-8

Insulin and insulin-like growth factor-I (IGF-I) receptor overexpression in breast cancers leads to insulin/IGF-I hybrid receptor overexpression: evidence for a second mechanism of IGF-I signaling. Pandini G, et al. **Clin Cancer Res** 1999 Jul;5(7):1935-44

Growth hormone (GH) receptor and IGF-I receptor messenger RNA expression in peripheral lymphocytes from patients with GH deficiency and acromegaly. Fukuda I, et al. **Endocr J** 1998 Apr;45 Suppl:S109-12

Differential regulation of IGF-I, its receptor and GH receptor mRNAs in the right ventricle and caval vein in volume-loaded genetically hypertensive and normotensive rats. Wickman A, et al. **J Endocrinol** 1999 May; 161(2):263-71

Possible protective role of growth hormone in hypoxia-ischemia in neonatal rats. Gustafson K, et al. **Pediatr Res** 1999 Mar;45(3):318-23

[The expression of IGF-1 and its receptor in cultured tendon cell] Xiang Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):369-71 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Synthetic peptide sequence from the C-terminus of the insulin-like growth factor-I receptor that induces apoptosis and inhibition of tumor growth. Reiss K, et al. **J Cell Physiol** 1999 Oct;181(1):124-35

GENETICS

Angiotensin II activation of insulin-like growth factor 1 receptor transcription is mediated by a tyrosine kinase-dependent redox-sensitive mechanism. Du J, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2119-26

Altered expression of the IGF-1 receptor in a tamoxifen-resistant human breast cancer cell line. Parisot JP, et al. **Br J Cancer** 1999 Feb;79(5-6):693-700

N-myc regulation of type I insulin-like growth factor receptor in a human neuroblastoma cell line. Chambéry D, et al. **Cancer Res** 1999 Jun 15;59(12):2898-902

Regulation of insulin-like growth factor I receptor expression by the pure antiestrogen ICI 182780. Huynh H, et al. **Clin Cancer Res** 1996 Dec;2(12):2037-42

Inhibition of tumor growth by a dominant negative mutant of the insulin-like growth factor I receptor with a bystander effect. Reiss K, et al. **Clin Cancer Res** 1998 Nov; 4(11):2647-55

The effect of an antisense expression plasmid to the IGF-1 receptor on hamster mesothelioma proliferation. Pass HI, et al. **Dev Biol Stand** 1998;94:321-8

Insulin/insulin-like growth factor-I hybrid receptors with high affinity for insulin are developmentally regulated during neurogenesis. García-de Lacoba M, et al. **Endocrinology** 1999 Jan;140(1):233-43

Testosterone stimulates insulin-like growth factor-I and insulin-like growth factor-I-receptor gene expression in the mandibular condyle--a model of endochondral ossification. Maor G, et al. **Endocrinology** 1999 Apr; 140(4):1901-10

Expression of IGF system genes during T-antigen driven pituitary tumorigenesis. Grewal A, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):155-60

Insulin and IGF-I receptors signaling in protection from apoptosis. Prisco M, et al. **Horm Metab Res** 1999 Feb-Mar; 31(2-3):80-9

Androgens promote insulin-like growth factor-I and insulin-like growth factor-I receptor gene expression in the primate ovary. Vendola K, et al. **Hum Reprod** 1999 Sep;14(9):2328-32

Antitumor effects elicited by antisense-mediated downregulation of the insulin-like growth factor I receptor (review). Resnicoff M. **Int J Mol Med** 1998 May;1(5):883-8 (44 ref.)

Distinct and common pathways in the regulation of insulin-like growth factor-1 receptor gene expression by angiotensin II and basic fibroblast growth factor. Scheidegger KJ, et al. **J Biol Chem** 1999 Feb 5;

274(6):3522-30
Spatial and temporal expression of insulin-like growth factor-I, insulin-like growth factor-II and the insulin-like growth factor-I receptor in the sheep fetal mammary gland. Forsyth IA, et al. **J Dairy Res** 1999 Feb;66(1):35-44
Ciliary neurotrophic factor induces expression of the IGF type I receptor and FGF receptor 1 mRNAs in adult rat brain oligodendrocytes. Jiang F, et al. **J Neurosci Res** 1999 Aug 15;57(4):447-57
Targeted gene mutations define the roles of insulin and IGF-I receptors in mouse embryonic development. Accili D, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):475-85 (62 ref.)
Follicular and luteal expression of insulin-like growth factors I and II and the type 1 IGF receptor in the bovine ovary. Perks CM, et al. **J Reprod Fertil** 1999 May;116(1):157-65
IGF-I binding proteins, IGF-I binding protein mRNA and IGF-I receptor mRNA in rats with acute renal failure given IGF-I. Bohé J, et al. **Kidney Int** 1998 Oct; 54(4):1070-82
Genomic structure of the human M6P/IGF2 receptor. Killian JK, et al. **Mamm Genome** 1999 Jan;10(1):74-7
Insulin-like growth factor I synergizes with interleukin 4 for hematopoietic cell proliferation independent of insulin receptor substrate expression. Soon L, et al. **Mol Cell Biol** 1999 May;19(5):3816-28
Dysregulation of the type 1 IGF receptor as a paradigm in tumor progression [published erratum appears in Mol Cell Endocrinol 1998 Nov 25;146(1-2):213] Werner H. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):1-5 (38 ref.)
Expression of insulin-like growth factor binding protein-4, insulin-like growth factor-I receptor, and insulin-like growth factor-I in the mouse uterus throughout the estrous cycle. Henemyre C, et al. **Mol Reprod Dev** 1999 Apr; 52(4):350-9
Alterations in insulin-like growth factor-1 gene and protein expression and type 1 insulin-like growth factor receptors in the brains of ageing rats. Sonntag WE, et al. **Neuroscience** 1999 Jan;88(1):269-79

IMMUNOLOGY

Characterization of an antibody that can detect an activated IGF-I receptor in human cancers. Rubini M, et al. **Exp Cell Res** 1999 Aug 25;251(1):22-32
Insulin-like growth factor-I (IGF-I) and IGF-I receptor (IGF-IR) immunoreactivity in normal and osteopetrotic (toothless, tl/tl) rat tibia. Joseph BK, et al. **Growth Factors** 1999;16(4):279-91
The inhibitory effect of an EGF receptor-specific tyrosine kinase inhibitor on pancreatic cancer cell lines was more potent than inhibitory antibodies against the receptors for EGF and IGF I. Kobari M, et al. **Int J Pancreatol** 1998 Oct;24(2):85-95

METABOLISM

Glucose regulation of the IGF response system in chondrocytes: induction of an IGF-I-resistant state. Kelley KM, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1164-71
Expression, purification, and characterization of the cytoplasmic domain of the human IGF-1 receptor using a baculovirus expression system. Tennagels N, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):724-8
Identification of structural characteristics that contribute to a difference in antiapoptotic function between human insulin and insulin-like growth factor 1 receptors. Chen H, et al. **Cell Growth Differ** 1998 Nov;9(11):939-47
Expression of IGF-I and IGF-II receptors in rat C6 glioma cells as a function of the growth phase. Wang Q, et al. **Cell Physiol Biochem** 1998;8(6):304-13
Insulin-like growth factor-I resistance. Jain S, et al. **Endocr Rev** 1998 Oct;19(5):625-46 (206 ref.)
Insulin/insulin-like growth factor-I hybrid receptors with high affinity for insulin are developmentally regulated during neurogenesis. García-de Lacoba M, et al. **Endocrinology** 1999 Jan;140(1):233-43
Activation of the insulin-like growth factor type 1 receptor by deletion of amino acids 870-905. Li S, et al. **Exp Cell Res** 1998 Sep 15;243(2):326-33
Characterization of an antibody that can detect an activated IGF-I receptor in human cancers. Rubini M, et al. **Exp Cell Res** 1999 Aug 25;251(1):22-32
Increased tyrosine kinase activity but not calcium mobilization is required for ceramide-induced apoptosis. Stewart CE, et al. **Exp Cell Res** 1999 Aug 1;250(2):329-38
Expression of the insulin-like growth factor 1 receptor (IGF-1R) in breast cancer cells: evidence for a regulatory role of dolichyl phosphate in the transition from an intracellular to an extracellular IGF-1 pathway. Dricu A, et al. **Glycobiology** 1999 Jun;9(6):571-9
Increased, not decreased activation of the insulin-like growth factor (IGF) receptor signalling pathway during ceramide-induced apoptosis. Stewart CE, et al. **Growth Horm IGF Res** 1999 Apr;9(2):131-42
Insulin-like growth factor I receptors are expressed by the enteroendocrine cell line STC-1: relationship with proliferation and cholecystokinin expression. Ye F, et al. **Horm Res** 1998 Sep;50(3):183-9
Activation of the insulin-like growth factor-1 receptor promotes the survival of human keratinocytes following ultraviolet B irradiation. Kuhn C, et al. **Int J Cancer** 1999 Jan 29;80(3):431-8
C-terminal Src kinase associates with ligand-stimulated insulin-like growth factor-I receptor. Arbet-Engels C, et al. **J Biol Chem** 1999 Feb 26;274(9):5422-8
beta-arrestins regulate mitogenic signaling and clathrin-mediated endocytosis of the insulin-like growth factor I receptor. Lin FT, et al. **J Biol Chem** 1998 Nov 27;273(48):31640-3
Growth and differentiation signals by the insulin-like growth factor 1 receptor in hemopoietic cells are mediated through different pathways. Valentinis B, et al. **J Biol Chem** 1999 Apr 30;274(18):12423-30
Stat3 plays an important role in oncogenic Ros- and insulin-like growth factor I receptor-induced anchorage-independent growth. Zong CS, et al. **J Biol Chem** 1998 Oct 23;273(43):28065-72
TGF-beta 1 and IGF-1 expression in atrophic post-menopausal endometrium. Loverro G, et al. **Maturitas** 1999 Jan 4;31(2):179-84
Age-associated alterations in cardiac and skeletal muscle glucose transporters, insulin and IGF-1 receptors, and PI3-kinase protein contents in the C57BL/6 mouse. Martineau LC, et al. **Mech Ageing Dev** 1999 Jan 15; 106(3):217-32
Enhancement of susceptibility to diverse skin tumor promoters by activation of the insulin-like growth factor-1 receptor in the epidermis of transgenic mice. Wilker E, et al. **Mol Carcinog** 1999 Jun;25(2):122-31
Protein kinase C-delta is an important signaling molecule in insulin-like growth factor I receptor-mediated cell transformation. Li W, et, al. **Mol Cell Biol** 1998 Oct; 18(10):5888-98
Irs-2 coordinates Igf-1 receptor-mediated beta-cell development and peripheral insulin signalling. Withers DJ, et al. **Nat Genet** 1999 Sep;23(1):32-40
Alteration of spinal cord IGF-I receptors and skeletal muscle IGF-I after hind-limb immobilization in the rat. Suliman IA, et al. **Neuroreport** 1999 Apr 26;10(6):1195-9
Anti-apoptotic signaling of the IGF-I receptor in fibroblasts following loss of matrix adhesion. Valentinis B, et al. **Oncogene** 1999 Mar 11;18(10):1827-36
Influence of high-carbohydrate enriched diets on plasma insulin levels and insulin and IGF-I receptors in trout. Baños N, et al. **Regul Pept** 1998 Oct 16;77(1-3):55-62
Expression of IGF-1, IGF-1 receptor and TGF-beta following balloon angioplasty in atherosclerotic and normal rabbit iliac arteries: an immunocytochemical study. Grant MB, et al. **Regul Pept** 1999 Jan 1;79(1):47-53
[Analysis of the density of insulin-like growth factor-1 receptor on tendon cell] Yang Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):164-8 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Insulin-like growth factor-1 receptors mediate infragenicular vascular smooth muscle cell proliferation in response to glucose and insulin not by insulin receptors. Avena R, et al. **Am J Surg** 1999 Aug;178(2):156-61
Differential signaling of insulin and IGF-1 receptors to glycogen synthesis in murine hepatocytes. Park BC, et al. **Biochemistry** 1999 Jun 8;38(23):7517-23
Insulin/IGF-1 hybrid receptors play a major role in IGF-I signaling in thyroid cancer. Belfiore A, et al. **Biochimie** 1999 Apr;81(4):403-7
The insulin-like growth factor 1 receptor induces transformation and tumorigenicity of ovarian mesothelial cells and down-regulates their Fas-receptor expression. Coppola D, et al. **Cancer Res** 1999 Jul 1;59(13):3264-70
The role of growth hormone and insulin-like growth factors in the immune system. van Buul-Offers SC, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1083-94 (160 ref.)
Insulin-like growth factor-I receptor signal transduction: at the interface between physiology and cell biology. Butler AA, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep;121(1):19-26 (59 ref.)
Insulin, insulin-like growth factor-I (IGF-I) and glucagon: the evolution of their receptors. Navarro I, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Feb; 122(2):137-53 (153 ref.)
The effect of an antisense expression plasmid to the IGF-1 receptor on hamster mesothelioma proliferation. Pass HI, et al. **Dev Biol Stand** 1998;94:321-8
The insulin-sensitive glucose transporter (GLUT4) is involved in early bone growth in control and diabetic mice, but is regulated through the insulin-like growth factor I receptor. Maor G, et al. **Endocrinology** 1999 Apr; 140(4):1841-51
The insulin-like growth factors (IGF) and IGF type I receptor during postnatal growth of the murine mammary gland: sites of messenger ribonucleic acid expression and potential functions. Richert MM, et al. **Endocrinology** 1999 Jan;140(1):454-61
The activated insulin-like growth factor I receptor induces depolarization in breast epithelial cells characterized by actin filament disassembly and tyrosine dephosphorylation of FAK, Cas, and paxillin. Guvakova MA, et al. **Exp Cell Res** 1999 Aug 25;251(1):244-55
Differential effects of the insulin-like growth factor I receptor on radiosensitivity and spontaneous necrosis formation of human glioblastoma cells grown in multicellular spheroids. Watanabe H, et al. **Exp Cell Res** 1999 Jul 10;250(1):99-111
Interaction of insulin receptor substrate 3 with insulin receptor, insulin receptor-related receptor, insulin-like growth factor-1 receptor, and downstream signaling proteins. Xu P, et al. **J Biol Chem** 1999 May 21; 274(21):15262-70
The role of insulin-like growth factor I and its receptor in cell growth, transformation, apoptosis, and chemoresistance in solid tumors. Grothey A, et al. **J Cancer Res Clin Oncol** 1999;125(3-4):166-73 (77 ref.)
Dissociation between resistance to apoptosis and the transformed phenotype in IGF-1 receptor signaling. Romano G, et al. **J Cell Biochem** 1999 Feb 1;72(2):294-310
Targeted gene mutations define the roles of insulin and IGF-I receptors in mouse embryonic development. Accili D, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):475-85 (62 ref.)
Involvement of insulin-like growth factors-I and -II and their receptors in medroxyprogesterone acetate-induced growth of mouse mammary adenocarcinomas. Elizalde PV, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(4):305-17
Expression of the insulin-like growth factor-1 receptor and its anti-apoptotic effect in malignant melanoma: a potential therapeutic target. Kanter-Lewensohn L, et al. **Melanoma Res** 1998 Oct;8(5):389-97
Dysregulation of the type 1 IGF receptor as a paradigm in tumor progression [published erratum appears in Mol Cell Endocrinol 1998 Nov 25;146(1-2):213] Werner H. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):1-5 (38 ref.)
Prolonged vs transient roles for early cell cycle signaling components. Rose DW, et al. **Oncogene** 1998 Aug 20; 17(7):889-99

THERAPEUTIC USE

Inhibition of tumor growth by a dominant negative mutant of the insulin-like growth factor I receptor with a bystander effect. Reiss K, et al. **Clin Cancer Res** 1998 Nov; 4(11):2647-55

RECEPTORS, INSULIN-LIKE-GROWTH-FACTOR II

Type-2 IGF receptor: a multi-ligand binding protein. Braulke T. **Horm Metab Res** 1999 Feb-Mar;31(2-3):242-6 (60 ref.)

ANALYSIS

Insulin-like growth factors in human breast cancer. Ellis MJ, et al. **Breast Cancer Res Treat** 1998;52(1-3):175-84 (62 ref.)
Characterisation and location of insulin-like-growth factor (IGF) receptors in the foetal bovine Semitendinosus muscle. Listrat A, et al. **Reprod Nutr Dev** 1999 Jul-Aug; 39(4):467-79

BIOSYNTHESIS

Overexpression of cation-dependent mannose 6-phosphate receptor prevents cell death induced by serum deprivation in PC12 cells. Kanamori S, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):204-8
Characterization of the insulin-like growth factor axis in a human hepatoma cell line (PLC). Scharf JG, et al. **Carcinogenesis** 1998 Dec;19(12):2121-8

BLOOD

Regulation of soluble insulin-like growth factor II/mannose 6-phosphate receptor in human serum: measurement by enzyme-linked immunosorbent assay. Costello M, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):611-7

CHEMISTRY

Mannose 6-phosphate receptors (MPR 300 and MPR 46) from a teleostean fish (trout). Nadimpalli SK, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jul; 123(3):261-5
Stabilization of mutant 46-kDa mannose 6-phosphate receptors by proteasomal inhibitor lactacystin. Breuer P, et al. **J Biol Chem** 1998 Dec 11;273(50):33254-8

GENETICS

The clinicopathological features of gastric carcinomas with microsatellite instability may be mediated by mutations of different "target genes": a study of the TGFbeta RII, IGFII R, and BAX genes. Oliveira C, et al. **Am J Pathol** 1998 Oct;153(4):1211-9 (44 ref.)
Lack of reciprocal genomic imprinting of sense and antisense RNA of mouse insulin-like growth factor II receptor in the central nervous system. Hu JF, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):604-8
Characterization of truncated and glycosylation-deficient forms of the cation-dependent mannose 6-phosphate receptor expressed in baculovirus-infected insect cells. Marron-Terada PG, et al. **Biochemistry** 1998 Dec 8; 37(49):17223-9
Molecular evolution of an imprinted gene: repeatability of patterns of evolution within the mammalian insulin-like growth factor type II receptor. Smith NG, et al. **Genetics** 1998 Oct;150(2):823-33
Failure to detect genetic alteration of the mannose-6-phosphate/insulin-like growth factor 2 receptor (M6P/IGF2R) gene in hepatocellular carcinomas

in Japan. Wada I, et al. **Hepatology** 1999 Jun;29(6):1718–21
Alteration in pancreatic immunoreactivity of insulin–like growth factor (IGF)–binding protein (IGFBP)–6 and in intracellular degradation of IGFBP–3 in fibroblasts of IGF–II receptor/IGF–II–deficient mice. Braulke T, et al. **Horm Metab Res** 1999 Feb–Mar;31(2–3):235–41
Microsatellite alterations and p53, TGFbetaRII, IGFIIR and BAX mutations in sporadic non–small–cell lung cancer. Caligo MA, et al. **Int J Cancer** 1998 Nov 23;78(5):606–9
Insulin–like growth factor–II/mannose 6 phosphate receptors facilitate the matrix effects of latent transforming growth factor–beta1 released from genetically modified keratinocytes in a fibroblast/keratinocyte co–culture system. Ghahary A, et al. **J Cell Physiol** 1999 Jul; 180(1):61–70
The up–regulation of endosomal–lysosomal components in amyloid beta–resistant cells. Li Y, et al. **J Neurochem** 1999 Oct;73(4):1477–82
The PTEN, BAX, and IGFIIR genes are mutated in endometrial atypical hyperplasia. Yoshinaga K, et al. **Jpn J Cancer Res** 1998 Oct;89(10):985–90
An insulin–like growth factor II (IGF–II) affinity–enhancing domain localized within extracytoplasmic repeat 13 of the IGF–II/mannose 6–phosphate receptor. Devi GR, et al. **Mol Endocrinol** 1998 Nov;12(11):1661–72
The imprinting box of the mouse Igf2r gene. Birger Y, et al. **Nature** 1999 Jan 7;397(6714):84–8
I–cell disease–like phenotype in mice deficient in mannose 6–phosphate receptors. Dittmer F, et al. **Transgenic Res** 1998 Nov;7(6):473–83

IMMUNOLOGY

High–affinity antibodies from hen's–egg yolks against human mannose–6–phosphate/insulin–like growth–factor–II receptor (M6P/IGFII–R): characterization and potential use in clinical cancer studies. Lemamy GJ, et al. **Int J Cancer** 1999 Mar 15;80(6):896–902

METABOLISM

Altered ligand binding by insulin–like growth factor II/mannose 6–phosphate receptors bearing missense mutations in human cancers. Devi GR, et al. **Cancer Res** 1999 Sep 1;59(17):4314–9
Expression of IGF–I and IGF–II receptors in rat C6 glioma cells as a function of the growth phase. Wang Q, et al. **Cell Physiol Biochem** 1998;8(6):304–13
Insulin–like growth factor–1 resistance. Jain S, et al. **Endocr Rev** 1998 Oct;19(5):625–46 (206 ref.)
M6P/IGFII–receptor complexes urokinase receptor and plasminogen for activation of transforming growth factor–beta1. Godár S, et al. **Eur J Immunol** 1999 Mar; 29(3):1004–13
Cellular response to latent TGF–beta1 is facilitated by insulin–like growth factor–II/mannose–6–phosphate receptors on MS–9 cells. Ghahary A, et al. **Exp Cell Res** 1999 Aug 25;251(1):111–20
Mannose 6–Phosphate/Insulin–like growth factor II receptor mediates internalization and degradation of leukemia inhibitory factor but not signal transduction. Blanchard F, et al. **J Biol Chem** 1999 Aug 27;274(35):24685–93
Disruption of ligand binding to the insulin–like growth factor II/mannose 6–phosphate receptor by cancer–associated missense mutations. Byrd JC, et al. **J Biol Chem** 1999 Aug 20;274(34):24408–16
Insulin regulation of protein traffic in rat adipose cells. Kandror KV. **J Biol Chem** 1999 Sep 3;274(36):25210–7
The mannose 6–phosphate/insulin–like growth factor–II receptor is a substrate of type V transforming growth factor–beta receptor. Liu Q, et al. **J Biol Chem** 1999 Jul 9;274(28):20002–10
The kangaroo cation–independent mannose 6–phosphate receptor binds insulin–like growth factor II with low affinity. Yandell CA, et al. **J Biol Chem** 1999 Sep 17; 274(38):27076–82
The rate of internalization of the mannose 6–phosphate/insulin–like growth factor II receptor is enhanced by multivalent ligand binding. York SJ, et al. **J Biol Chem** 1999 Jan 8;274(2):1164–71
Endocytosis of pro–cathepsin D into breast cancer cells is mostly independent of mannose–6–phosphate receptors. Laurent–Matha V, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2539–49
Localization of receptors for endocytosis of lysosomal enzymes on different brain cells. Schluff P, et al. **J Inherit Metab Dis** 1998 Jun;21(3):313–7
Mapmodulin, cytoplasmic dynein, and microtubules enhance the transport of mannose 6–phosphate receptors from endosomes to the trans–golgi network. Itin C, et al. **Mol Biol Cell** 1999 Jul;10(7):2191–7
High–affinity binding of the AP–1 adaptor complex to trans–golgi network membranes devoid of mannose 6–phosphate receptors. Zhu Y, et al. **Mol Biol Cell** 1999 Mar;10(3):537–49
Rat milk and dietary long arginine3 insulin–like growth factor I promote intestinal growth of newborn rat pups. Staley MD, et al. **Pediatr Res** 1998 Oct;44(4):512–8
Retinoic acid alters the intracellular trafficking of the mannose–6–phosphate/insulin–like growth factor II receptor and lysosomal enzymes. Kang JX, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13687–91
Upregulation and spatial shift in the localization of the mannose 6–phosphate/insulin–like growth factor II receptor during radiation enteropathy development in the rat. Wang J, et al. **Radiother Oncol** 1999 Feb;50(2):205–13

PHYSIOLOGY

Inhibition of insulin–like growth factor I receptor expression in neuroblastoma cells induces the regression of established tumors in mice. Liu X, et al. **Cancer Res** 1998 Dec 1; 58(23):5432–8
Alternative mechanisms for trafficking of lysosomal enzymes in mannose 6–phosphate receptor–deficient mice are cell type–specific. Dittmer F, et al. **J Cell Sci** 1999 May;112 (Pt 10):1591–7
Involvement of insulin–like growth factors–I and –II and their receptors in medroxyprogesterone acetate–induced growth of mouse mammary adenocarcinomas. Elizalde PV, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(4):305–17
Expression of the wild–type insulin–like growth factor II receptor gene suppresses growth and causes death in colorectal carcinoma cells. Souza RF, et al. **Oncogene** 1999 Jul 15;18(28):4063–8

RECEPTORS, INSULIN–LIKE GROWTH FACTORS see **RECEPTORS, SOMATOMEDIN**

RECEPTORS, INTERFERON

AGONISTS

Unrestricted agonist activity on murine and human cells of a lipopeptide derived from IFN–gamma. Thiam K, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):639–47

ANALYSIS

The immunohistochemical localization of the interferon–gamma and granulocyte colony–stimulating factor receptors during early amelogenesis in rat molars. Otsuji W, et al. **Arch Oral Biol** 1999 Feb;44(2):173–81
Immunohistochemical analysis of hepatic interferon alpha–beta receptor level: relationship between receptor expression and response to interferon therapy in patients with chronic hepatitis C. Yatsuhashi H, et al. **J Hepatol** 1999 Jun;30(6):995–1003
Expression of interferon alpha/beta receptor in the liver of chronic hepatitis C patients. Mizukoshi E, et al. **J Med Virol** 1998 Nov;56(3):217–23
Expression of type I interferon receptor and its relation with other prognostic factors in human neuroblastoma. Mejia C, et al. **Oncol Rep** 1999 Jan–Feb;6(1):149–53

ANTAGONISTS & INHIBITORS

Mycobacterium avium infection of mouse macrophages inhibits IFN–gamma Janus kinase–STAT signaling and gene induction by down–regulation of the IFN–gamma receptor. Hussain S, et al. **J Immunol** 1999 Aug 15; 163(4):2041–8

BIOSYNTHESIS

Cutting edge: phorbol ester induction of IFN–gamma receptors leads to enhanced DR alpha gene expression. Sakamoto S, et al. **J Immunol** 1999 Apr 15;162(8):4381–4
Dietary omega–3 polyunsaturated fatty acids reduce IFN–gamma receptor expression in mice. Feng C, et al. **J Interferon Cytokine Res** 1999 Jan;19(1):41–8
Expression of type I interferon receptor in renal cell carcinoma. Morell–Quadreny L, et al. **Oncol Rep** 1999 May–Jun;6(3):639–42

BLOOD

T–cell interferon gamma receptor binding in interferon beta–1b–treated patients with multiple sclerosis. Bongioanni P, et al. **Arch Neurol** 1999 Feb;56(2):217–22
Interferon–gamma receptor beta–chain expression and formation of alpha– and beta–chain complexes after receptor conjugation on human peripheral eosinophils. Ishiharu C, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:72–6

CHEMISTRY

The proximal tyrosines of the cytoplasmic domain of the beta chain of the type I interferon receptor are essential for signal transducer and activator of transcription (Stat) 2 activation. Evidence that two Stat2 sites are required to reach a threshold of interferon alpha–induced Stat2 tyrosine phosphorylation that allows normal formation of interferon–stimulated gene factor 3. Nadeau OW, et al. **J Biol Chem** 1999 Feb 12;274(7):4045–52
On the importance of being aromatic at an antibody–protein antigen interface: mutagenesis of the extracellular interferon gamma receptor and recognition by the neutralizing antibody A6. Hofstädter K, et al. **J Mol Biol** 1999 Jan 15;285(2):805–15
Biophysical analysis of the interaction of human ifnar2 expressed in E. coli with IFNalpha2. Piehler J, et al. **J Mol Biol** 1999 May 28;289(1):57–67

DEFICIENCY

Listeria monocytogenes and recurrent mycobacterial infections in a child with complete interferon–gamma–receptor (IFNgammaR1) deficiency: mutational analysis and evaluation of therapeutic options. Roesler J, et al. **Exp Hematol** 1999 Sep;27(9):1368–74 (23 ref.)
Revision of the functional analysis and structural features of immortalized dendritic cell lines derived from mice lacking both type I and type II interferon receptors. Nunez R. **Immunol Lett** 1999 May 3;68(1):173–86
Novel human immunodeficiencies reveal the essential role of type–I cytokines in immunity to intracellular bacteria. Ottenhoff TH, et al. **Immunol Today** 1998 Nov;19(11):491–4 (21 ref.)
Interferon–gamma receptor deficiency: relationship between genotype, environment, and phenotype (Review). Lamhamedi S, et al. **Int J Mol Med** 1998 Feb;1(2):415–8 (19 ref.)
[Infections caused by BCG and atypical mycobacteria in children: a new group of immune deficiencies (editorial)] Casanova JL. **Arch Pediatr** 1999 Feb;6(2):139–40 **(Fre)**

DRUG EFFECTS

Induction by interferon–gamma of its receptor varies with epithelial differentiation and cell type. Arany I, et al. **Arch Dermatol Res** 1998 Jun;290(6):331–4
Tumor necrosis factor–alpha signals to the IFN–gamma receptor complex to increase Stat1alpha activation. Han Y, et al. **J Interferon Cytokine Res** 1999 Jul;19(7):731–40
Symposium overview: alterations in cytokine receptors by xenobiotics. Cohen MD, et al. **Toxicol Sci** 1999 Apr; 48(2):163–9

GENETICS

Severe hepatic fibrosis in Schistosoma mansoni infection is controlled by a major locus that is closely linked to the interferon–gamma receptor gene. Dessein AJ, et al. **Am J Hum Genet** 1999 Sep;65(3):709–21
Nonpathogenic common variants of IFNGR1 and IFNGR2 in association with total serum IgE levels. Gao PS, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):425–9
A syndrome resembling human systemic sclerosis (scleroderma) in MRL/lpr mice lacking interferon–gamma (IFN–gamma) receptor (MRL/lprgammaR–/–). Le Hir M, et al. **Clin Exp Immunol** 1999 Feb;115(2):281–7
Familial disseminated infection due to atypical mycobacteria with childhood onset. Vesterhus P, et al. **Clin Infect Dis** 1998 Oct;27(4):822–5
The combination of polymorphisms within interferon–gamma receptor 1 and receptor 2 associated with the risk of systemic lupus erythematosus. Nakashima H, et al. **FEBS Lett** 1999 Jun 18;453(1–2):187–90
Comparative genomic analysis of the interferon/interleukin–10 receptor gene cluster. Reboul J, et al. **Genome Res** 1999 Mar;9(3):242–50
Interferon alfa receptor expression and growth inhibition by interferon alfa in human liver cancer cell lines. Yano H, et al. **Hepatology** 1999 Jun;29(6):1708–17
Association of the interferon–gamma receptor variant (Val14Met) with systemic lupus erythematosus. Tanaka Y, et al. **Immunogenetics** 1999 Apr;49(4):266–71
Inflammatory bowel disease and the genes for the natural resistance–associated macrophage protein–1 and the interferon–gamma receptor 1. Stokkers PC, et al. **Int J Colorectal Dis** 1999 Feb;14(1):13–7
Genetic variation among 129 substrains: practical consequences [letter; comment] Cantin E, et al. **J Immunol** 1999 May 15;162(10):6294–5. Comment on: J Immunol 1997 Dec 15;159(12):5766–8.
Enhanced autoimmune arthritis in IFN–gamma receptor–deficient mice is conditioned by mycobacteria in Freund's adjuvant and by increased expansion of Mac–1+ myeloid cells. Matthys P, et al. **J Immunol** 1999 Sep 15; 163(6):3503–10
Mice with IFN–gamma receptor deficiency are less susceptible to experimental autoimmune myasthenia gravis. Zhang GX, et al. **J Immunol** 1999 Apr 1;162(7):3775–81
Abnormal regulation of interferon–gamma, interleukin–12, and tumor necrosis factor–alpha in human interferon–gamma receptor 1 deficiency. Holland SM, et al. **J Infect Dis** 1998 Oct;178(4):1095–104
Expression of interferon receptor genes in the liver as a predictor of interferon response in patients with chronic hepatitis C. Morita K, et al. **J Med Virol** 1999 Aug; 58(4):359–65
Cloning of the porcine interferon–gamma receptor and its foeto–endometrial expression in early pregnancy. D'Andréa S, et al. **Mol Reprod Dev** 1998 Nov;51(3):225–34
Mediating immunity to mycobacteria [news; comment] Foote S. **Nat Genet** 1999 Apr;21(4):345–6. Comment on: Nat Genet 1999 Apr;21(4):370–8.
A human IFNGR1 small deletion hotspot associated with dominant susceptibility to mycobacterial infection [see comments] Jouanguy E, et al. **Nat Genet** 1999 Apr; 21(4):370–8. Comment in: Nat Genet 1999 Apr;21(4):345–6.
The intracellular domain of interferon–alpha receptor 2c (IFN–alphaR2c) chain is responsible for Stat activation. Kotenko SV, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5007–12

IMMUNOLOGY

Antibodies prepared to neuronal glutamate receptor subunit3 bind IFNalpha–receptors: implications for an autoimmune

process. Gahring LC, et al. **Autoimmunity** 1998;28(4):243–8

Antitumour activity of the novel immune modulator 5,6-dimethylxanthenone-4-acetic acid (DMXAA) in mice lacking the interferon-gamma receptor. Pang JH, et al. **Eur J Cancer** 1998 Jul;34(8):1282–9

Immortalized cell lines derived from mice lacking both type I and type II IFN receptors unify some functions of immature and mature dendritic cells. Nunez R, et al. **Immunol Cell Biol** 1999 Apr;77(2):153–63

Signal transduction through interferon-gamma receptor on human eosinophils. Ochiai K, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):443–6

Cytokines and anti-cytokine autoantibodies during experimental african trypanosomiasis in mice with disrupted interferon-gamma and interferon-gamma receptor genes. Eltayeb R, et al. **Int J Mol Med** 1998 Jan; 1(1):177–83

Human MxA protein protects mice lacking a functional alpha/beta interferon system against La crosse virus and other lethal viral infections. Hefti HP, et al. **J Virol** 1999 Aug;73(8):6984–91

Type I interferons and IRF-1 play a critical role in the control of a gammaherpesvirus infection. Dutia BM, et al. **Virology** 1999 Sep 1;261(2):173–9

[Expression of receptors for human alpha- and gamma-interferons on the surface of peripheral blood mononuclear cells in viral infections] Barkova EP, et al. **Vopr Virusol** 1999 Jan–Feb;44(1):16–8 (Eng. Abstr.) **(Rus)**

METABOLISM

Surface redistribution of interferon gamma-receptor and its colocalization with the actin cytoskeleton. Cruz M, et al. **Arch Med Res** 1999 Mar–Apr;30(2):97–105

T-lymphocyte interferon-gamma receptor binding in patients with myasthenia gravis. Bongioanni P, et al. **Arch Neurol** 1999 Aug;56(8):933–8

Formation of a uniquely stable type I interferon receptor complex by interferon beta is dependent upon particular interactions between interferon beta and its receptor and independent of tyrosine phosphorylation. Russell-Harde D, et al. **Biochem Biophys Res Commun** 1999 Feb 16; 255(2):539–44

Transcription factor, BTF3, and the AF-1 function of the estrogen receptor. el-Tanani MK, et al. **Biochem Soc Trans** 1998 Aug;26(3):S252

Biomolecular interaction analysis of IFN gamma-induced signaling events in whole-cell lysates: prevalence of latent STAT1 in high-molecular weight complexes. Lackmann M, et al. **Growth Factors** 1998;16(1):39–51

African trypanosome infections in mice that lack the interferon-gamma receptor gene: nitric oxide-dependent and -independent suppression of T-cell proliferative responses and the development of anaemia. Mabbott NA, et al. **Immunology** 1998 Aug;94(4):476–80

Determination of residues involved in ligand binding and signal transmission in the human IFN-alpha receptor 2. Chuntharapai A, et al. **J Immunol** 1999 Jul 15;163(2):766–73

Biophysical analysis of the interaction of human ifnar2 expressed in E. coli with IFNalpha2. Piehler J, et al. **J Mol Biol** 1999 May 28;289(1):57–67

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1998 Oct;108(10):1528–33

Retinoic acid and interferon signaling cross talk in normal and RA-resistant APL cells. Chelbi-Alix MK, et al. **Leukemia** 1999 Aug;13(8):1167–74 (107 ref.)

Ligand-independent recruitment of SRC-1 to estrogen receptor beta through phosphorylation of activation function AF-1. Tremblay A, et al. **Mol Cell** 1999 Apr; 3(4):513–9

PHYSIOLOGY

Interferon-gamma receptor-mediated but not tumor necrosis factor receptor type 1- or type 2-mediated signaling is crucial for the activation of cerebral blood vessel endothelial cells and microglia in murine Toxoplasma encephalitis. Deckert-Schlüter M, et al. **Am J Pathol** 1999 May;154(5):1549–61

Type I interferons: expression and signalization. Doly J, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1109–21 (136 ref.)

Signaling and signaling dysfunction through the interferon gamma receptor. Rodig S, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):49–53 (25 ref.)

The proximal tyrosines of the cytoplasmic domain of the beta chain of the type I interferon receptor are essential for signal transducer and activator of transcription (Stat) 2 activation. Evidence that two Stat2 sites are required to reach a threshold of interferon alpha-induced Stat2 tyrosine phosphorylation that allows normal formation of interferon-stimulated gene factor 3. Nadeau OW, et al. **J Biol Chem** 1999 Feb 12;274(7):4045–52

Interferons regulate the phenotype of wild-type and mutant herpes simplex viruses in vivo. Leib DA, et al. **J Exp Med** 1999 Feb 15;189(4):663–72

Effector cells of both nonhemopoietic and hemopoietic origin are required for interferon (IFN)-gamma- and tumor necrosis factor (TNF)-alpha-dependent host resistance to the intracellular pathogen, Toxoplasma gondii. Yap GS, et al. **J Exp Med** 1999 Apr 5;189(7):1083–92

Gamma interferon (IFN-gamma) receptor null-mutant mice are more susceptible to herpes simplex virus type 1 infection than IFN-gamma ligand null-mutant mice. Cantin E, et al. **J Virol** 1999 Jun;73(6):5196–200

[Anti-viral proteins: from interferon alpha to its receptor] Chieux V, et al. **Ann Biol Clin (Paris)** 1999 May; 57(3):283–90 (52 ref.) (Eng. Abstr.) **(Fre)**

RECEPTORS, INTERLEUKIN

The cytokines IL-1beta and IL-1 receptor antagonist, IL-2 and IL-2 soluble receptor-alpha, IL-6 and IL-6 soluble receptor, TNF-alpha and TNF soluble receptor I, and IL10 in drained and systemic blood after major orthopaedic surgery. Krohn CD, et al. **Eur J Surg** 1999 Feb; 165(2):101–9

Characterization of the cytoplasmic domain of interleukin-13 receptor-alpha. Orchansky PL, et al. **J Biol Chem** 1999 Jul 23;274(30):20818–25

[IL-18 and IL-18 receptor] Kashiwamura S, et al. **Nippon Rinsho** 1998 Jul;56(7):1798–806 (36 ref.) (Eng. Abstr.) **(Jpn)**

ANALYSIS

Pancreatic cancer cells express interleukin-13 and -4 receptors, and their growth is inhibited by Pseudomonas exotoxin coupled to interleukin-13 and -4. Kornmann M, et al. **Anticancer Res** 1999 Jan–Feb;19(1A):125–31

The biologic role of interleukin-8: functional analysis and expression of CXCR1 and CXCR2 on human eosinophils. Petering H, et al. **Blood** 1999 Jan 15;93(2):694–702

Constitutive and induced IL-18 receptor expression by various peripheral blood cell subsets as determined by anti-hIL-18R monoclonal antibody. Kunikata T, et al. **Cell Immunol** 1998 Nov 1;189(2):135–43

Receptor for interleukin 13 is a marker and therapeutic target for human high-grade gliomas. Debinski W, et al. **Clin Cancer Res** 1999 May;5(5):985–90

An immune regulatory cytokine receptor and glioblastoma multiforme: an unexpected link. Debinski W. **Crit Rev Oncog** 1998;9(3–4):255–68 (81 ref.)

Regulation of interleukin (IL)-12 receptor beta2 subunit expression by endogenous IL-12: a critical step in the differentiation of pathogenic autoreactive T cells. Chang JT, et al. **J Exp Med** 1999 Mar 15;189(6):969–78

ANTAGONISTS & INHIBITORS

A His19 to Ala mutant of melanoma growth-stimulating activity is a partial antagonist of the CXCR2 receptor. Baly DL, et al. **J Immunol** 1998 Nov 1;161(9):4944–9

BIOSYNTHESIS

Receptor for interleukin 13 on AIDS-associated Kaposi's sarcoma cells serves as a new target for a potent Pseudomonas exotoxin-based chimeric toxin protein. Husain SR, et al. **Clin Cancer Res** 1997 Feb;3(2):151–6

Cholera toxin suppresses interleukin (IL)-12 production and IL-12 receptor beta1 and beta2 chain expression. Braun MC, et al. **J Exp Med** 1999 Feb 1;189(3):541–52

The natural killer T (NKT) cell ligand alpha-galactosylceramide demonstrates its immunopotentiating effect by inducing interleukin (IL)-12 production by dendritic cells and IL-12 receptor expression on NKT cells. Kitamura H, et al. **J Exp Med** 1999 Apr 5;189(7):1121–8

Expression and function of the chemokine receptors CXCR1 and CXCR2 in sepsis. Cummings CJ, et al. **J Immunol** 1999 Feb 15;162(4):2341–6

The IL-4 rapidly produced in BALB/c mice after infection with Leishmania major down-regulates IL-12 receptor beta 2-chain expression on CD4+ T cells resulting in a state of unresponsiveness to IL-12. Himmelrich H, et al. **J Immunol** 1998 Dec 1;161(11):6156–63

Expression of the IL-12 receptor beta 1 and beta 2 subunits in human tuberculosis. Zhang M, et al. **J Immunol** 1999 Feb 15;162(4):2441–7

BLOOD

In vitro interleukin 12 activation of peripheral blood CD3(+)CD56(+) and CD3(+)CD56(–) gammadelta T cells from glioblastoma patients. Fujimiya Y, et al. **Clin Cancer Res** 1997 Apr;3(4):633–43

CHEMISTRY

Kinetic analysis of high affinity forms of interleukin (IL)-13 receptors: suppression of IL-13 binding by IL-2 receptor gamma chain. Kuznetsov VA, et al. **Biophys J** 1999 Jul; 77(1):154–72

Purification of receptor complexes of interleukin-10 stoichiometry and the importance of deglycosylation in their crystallization. Hoover DM, et al. **Eur J Biochem** 1999 May;262(1):134–41

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496–501

Interleukin-11 (IL-11) enhances clonal proliferation of acute myelogenous leukemia cells with strong expression of the IL-11 receptor alpha chain and signal transducing gp130. Kimura T, et al. **Leukemia** 1999 Jul;13(7):1018–27

The interleukin-11/receptor complex: rational design of agonists/antagonists and immunoassays potentially useful in human therapy. Jacques Y, et al. **Res Immunol** 1998 Sep–Oct;149(7–8):737–40 (13 ref.)

Structure of a CXC chemokine-receptor fragment in complex with interleukin-8. Skelton NJ, et al. **Structure Fold Des** 1999 Feb 15;7(2):157–68

DEFICIENCY

Novel human immunodeficiencies reveal the essential role of type-I cytokines in immunity to intracellular bacteria. Ottenhoff TH, et al. **Immunol Today** 1998 Nov;19(11):491–4 (21 ref.)

Deficiency of IL-5 receptor alpha-chain selectively influences the development of the common mucosal immune system independent IgA-producing B-1 cell in mucosa-associated tissues. Hiroi T, et al. **J Immunol** 1999 Jan 15;162(2):821–8

Cutting edge: generation of IL-18 receptor-deficient mice: evidence for IL-1 receptor-related protein as an essential IL-18 binding receptor. Hoshino K, et al. **J Immunol** 1999 May 1;162(9):5041–4

GENETICS

Retroviral-mediated transfer and expression of the common gamma chain into human hematopoietic progenitors. Candotti F, et al. **Acta Haematol** 1999;101(2):106–10

CD34(+)/interleukin-5Ralpha messenger RNA+ cells in the bronchial mucosa in asthma: potential airway eosinophil progenitors. Robinson DS, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):9–13

A scintillation proximity assay for human interleukin-5 (hIL-5) high-affinity binding in insect cells coexpressing hIL-5 receptor alpha and beta subunits. Zhang J, et al. **Anal Biochem** 1999 Mar 1;268(1):134–42

Differential modulation of pro- and anti-inflammatory cytokine receptors by N-(4-trifluoromethylphenyl)-2-cyano-3-hydroxy-crotonic acid amide (A77 1726), the physiologically active metabolite of the novel immunomodulator leflunomide. Mirmohammadsadegh A, et al. **Biochem Pharmacol** 1998 May 1;55(9):1523–9

Metalloproteinases are involved in lipopolysaccharide- and tumor necrosis factor-alpha-mediated regulation of CXCR1 and CXCR2 chemokine receptor expression. Khandaker MH, et al. **Blood** 1999 Apr 1;93(7):2173–85

Mast cell migratory response to interleukin-8 is mediated through interaction with chemokine receptor CXCR2/Interleukin-8RB. Nilsson G, et al. **Blood** 1999 May 1;93(9):2791–7

Activating point mutations in the betaC chain of the GM-CSF, IL-3 and IL-5 receptors are not a major contributory factor in the pathogenesis of acute myeloid leukaemia. Freeburn RW, et al. **Br J Haematol** 1998 Oct; 103(1):66–71

Dolphin interleukin-8 receptor. Map position 18q25-26. Bielec P, et al. **Chromosome Res** 1998 Dec;6(8):661

A novel mutant gammac chain from a patient with typical phenotype of X-linked severe combined immunodeficiency (SCID) has partial signalling function for mediating IL-2 and IL-4 receptor action. Kumaki S, et al. **Clin Exp Immunol** 1999 Feb;115(2):356–61

IL-10 is an autocrine inhibitor of human placental cytotrophoblast MMP-9 production and invasion. Roth I, et al. **Dev Biol** 1999 Jan 1;205(1):194–204

The cell surface expression level of the human interleukin-5 receptor alpha subunit determines the agonistic/antagonistic balance of the human interleukin-5 E13Q mutein. Van Ostade X, et al. **Eur J Biochem** 1999 Feb;259(3):954–60

A fusion protein of interleukin-11 and soluble interleukin-11 receptor acts as a superagonist on cells expressing gp130 [published erratum appears in FEBS Lett 1999 Jul 2;454(1–2):172] Pflanz S, et al. **FEBS Lett** 1999 Apr 30; 450(1–2):117–22

Comparative genomic analysis of the interferon/interleukin-10 receptor gene cluster. Reboul J, et al. **Genome Res** 1999 Mar;9(3):242–50

Cloning and expression of a single-chain Fv fragment specific for the human interleukin 18 receptor. Nishida Y, et al. **Hybridoma** 1998 Dec;17(6):577–80

Receptor for interleukin 13 is abundantly and specifically over-expressed in patients with glioblastoma multiforme. Debinski W, et al. **Int J Oncol** 1999 Sep;15(3):481–6

A cell type-specific constitutive point mutant of the common beta-subunit of the human granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin (IL)-3, and IL-5 receptors requires the GM-CSF receptor alpha-subunit for activation. Jenkins BJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8669–77

PU.1 regulates the CXCR1 promoter. Wilkinson NC, et al. **J Biol Chem** 1999 Jan 1;274(1):438–43

Deficiency of IL-5 receptor alpha-chain selectively influences the development of the common mucosal immune system independent IgA-producing B-1 cell in mucosa-associated tissues. Hiroi T, et al. **J Immunol** 1999 Jan 15;162(2):821–8

Cutting edge: generation of IL-18 receptor-deficient mice: evidence for IL-1 receptor-related protein as an essential IL-18 binding receptor. Hoshino K, et al. **J Immunol** 1999 May 1;162(9):5041–4

In vivo IL-12 production and IL-12 receptors beta1 and

beta2 mRNA expression in the spleen are differentially up-regulated in resistant B6 and susceptible A/J mice during early blood-stage Plasmodium chabaudi AS malaria. Sam H, et al. **J Immunol** 1999 Feb 1;162(3):1582-9

Depressed IL-12-mediated signal transduction in T cells from patients with Sézary syndrome is associated with the absence of IL-12 receptor beta 2 mRNA and highly reduced levels of STAT4. Showe LC, et al. **J Immunol** 1999 Oct 1;163(7):4073-9

A composite C/EBP binding site is essential for the activity of the promoter of the IL-3/IL-5/granulocyte-macrophage colony-stimulating factor receptor beta c gene. van Dijk TB, et al. **J Immunol** 1999 Sep 1;163(5):2674-80

Interleukin-10 inhibits both production of cytokines and expression of cytokine receptors in microglia. Sawada M, et al. **J Neurochem** 1999 Apr;72(4):1466-71

Dimeric RFX proteins contribute to the activity and lineage specificity of the interleukin-5 receptor alpha promoter through activation and repression domains. Iwama A, et al. **Mol Cell Biol** 1999 Jun;19(6):3940-50

IMMUNOLOGY

Interleukin-12: a cytokine at the interface of inflammation and immunity. Trinchieri G. **Adv Immunol** 1998;70:83-243 (754 ref.)

The interleukin-12-mediated pathway of immune events is dysfunctional in human immunodeficiency virus-infected individuals. Marshall JD, et al. **Blood** 1999 Aug 1; 94(3):1003-11

The structure and function of gamma c-dependent cytokines and receptors: regulation of T lymphocyte development and homeostasis. He YW, et al. **Crit Rev Immunol** 1998; 18(6):503-24 (159 ref.)

Regulation of IL-5 and IL-5 receptor expression in the bone marrow of allergic asthmatics. Denburg JA, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):101-3

Interleukin-8 receptor modulates IgE production and B-cell expansion and trafficking in allergen-induced pulmonary inflammation. De Sanctis GT, et al. **J Clin Invest** 1999 Feb; 103(4):507-15

Antibodies to the IL-12 receptor beta 2 chain mark human Th1 but not Th2 cells in vitro and in vivo. Rogge L, et al. **J Immunol** 1999 Apr 1;162(7):3926-32

The interleukin-11/receptor complex: rational design of agonists/antagonists and immunoassays potentially useful in human therapy. Jacques Y, et al. **Res Immunol** 1998 Sep-Oct;149(7-8):737-40 (13 ref.)

ISOLATION & PURIFICATION

Lack of interleukin 10 regulation of antigen presentation-associated molecules expressed on colonic epithelial cells. Bourreille A, et al. **Eur J Clin Invest** 1999 Jan;29(1):48-55

METABOLISM

Expression and localization of the Th2-type cytokine interleukin-13 and its receptor in the placenta during human pregnancy. Dealtry GB, et al. **Am J Reprod Immunol** 1998 Oct;40(4):283-90

Soluble tumor necrosis factor (TNF) receptors p55 and p75 and interleukin-10 downregulate TNF-alpha activity during the lung response to silica particles in NMRI mice. Huaux F, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):137-45

A generic particle-based nonradioactive homogeneous multiplex method for high-throughput screening using microvolume fluorimetry. Martens C, et al. **Anal Biochem** 1999 Aug 15;273(1):20-31

Direct interaction of STAT4 with the IL-12 receptor. Yao BB, et al. **Arch Biochem Biophys** 1999 Aug 1;368(1):147-55

Tip60 interacts with human interleukin-9 receptor alpha-chain. Sliva D, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):149-55

Physical interaction between interleukin-12 receptor beta 2 subunit and Jak2 tyrosine kinase: Jak2 associates with cytoplasmic membrane-proximal region of interleukin-12 receptor beta 2 via amino-terminus. Yamamoto K, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):400-4

Identification of a 14-3-3 binding sequence in the common beta chain of the granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin-3 (IL-3), and IL-5 receptors that is serine-phosphorylated by GM-CSF. Stomski FC, et al. **Blood** 1999 Sep 15; 94(6):1933-42

Human glioma cells overexpress receptors for interleukin 13 and are extremely sensitive to a novel chimeric protein composed of interleukin 13 and pseudomonas exotoxin. Debinski W, et al. **Clin Cancer Res** 1995 Nov;1(11):1253-8

The distribution of IL-13 receptor alpha1 expression on B cells, T cells and monocytes and its regulation by IL-13 and IL-4. Graber P, et al. **Eur J Immunol** 1998 Dec; 28(12):4286-98

Diminished responses to IL-13 by human monocytes differentiated in vitro: role of the IL-13Ralpha1 chain and STAT6. Hart PH, et al. **Eur J Immunol** 1999 Jul; 29(7):2087-97

CD45 modulation of CXCR1 and CXCR2 in human polymorphonuclear leukocytes. Mitchell GB, et al. **Eur J Immunol** 1999 May;29(5):1467-76

Characterization of mouse interleukin-12 p40 homodimer binding to the interleukin-12 receptor subunits. Wang X, et al. **Eur J Immunol** 1999 Jun;29(6):2007-13

IL-12 receptor beta2 and CD30 expression in paranasal sinus mucosa of patients with chronic sinusitis. Suzuki H, et al. **Eur Respir J** 1999 May;13(5):1008-13

Two different IL-13 receptor chains are expressed in normal human skin fibroblasts, and IL-4 and IL-13 mediate signal transduction through a common pathway. Murata T, et al. **Int Immunol** 1998 Aug;10(8):1103-10

beta-arrestins regulate interleukin-8-induced CXCR1 internalization. Barlic J, et al. **J Biol Chem** 1999 Jun 4; 274(23):16287-94

Identification of three distinct receptor binding sites of murine interleukin-11. Barton VA, et al. **J Biol Chem** 1999 Feb 26;274(9):5755-61

Identification of a STAT4 binding site in the interleukin-12 receptor required for signaling. Naeger LK, et al. **J Biol Chem** 1999 Jan 22;274(4):1875-8

Galphai is not required for chemotaxis mediated by Gi-coupled receptors [published erratum appears in J Biol Chem 1999 Mar 12;274(11):7598] Neptune ER, et al. **J Biol Chem** 1999 Jan 29;274(5):2824-8

The designer cytokine hyper-interleukin-6 is a potent activator of STAT3-dependent gene transcription in vivo and in vitro. Rakemann T, et al. **J Biol Chem** 1999 Jan 15;274(3):1257-66

Differential mechanisms of recognition and activation of interleukin-8 receptor subtypes. Suetomi K, et al. **J Biol Chem** 1999 Apr 23;274(17):11768-72

Randomization of the receptor alpha chain recruitment epitope reveals a functional interleukin-5 with charge depletion in the CD loop. Wu SJ, et al. **J Biol Chem** 1999 Jul 16;274(29):20479-88

Role of clathrin-mediated endocytosis in CXCR2 sequestration, resensitization, and signal transduction. Yang W, et al. **J Biol Chem** 1999 Apr 16;274(16):11328-33

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501

IL-18 up-regulates perforin-mediated NK activity without increasing perforin messenger RNA expression by binding to constitutively expressed IL-18 receptor. Hyodo Y, et al. **J Immunol** 1999 Feb 1;162(3):1662-8

Antibodies to the IL-12 receptor beta 2 chain mark human Th1 but not Th2 cells in vitro and in vivo. Rogge L, et al. **J Immunol** 1999 Apr 1;162(7):3926-32

Establishment of the cells useful for murine interleukin-18 bioassay by introducing murine interleukin-18 receptor cDNA into human myelomonocytic KG-1 cells. Taniguchi M, et al. **J Immunol Methods** 1998 Aug 1;217(1-2):97-102

Regulation of IL-8RA (CXCR1) expression in polymorphonuclear leukocytes by hypoxia/reoxygenation. Grutkoski PS, et al. **J Leukoc Biol** 1999 Feb;65(2):171-8

Binding of interleukin-13 and interleukin-4 to the interleukin (IL)-4/IL-13 receptor of human synovial fibroblasts. Lutz RA, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):181-90

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1998 Oct;108(10):1528-33

Cytomegalovirus encodes a potent alpha chemokine. Penfold ME, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9839-44

Mechanism of activation of the GM-CSF, IL-3, and IL-5 family of receptors. Guthridge MA, et al. **Stem Cells** 1998; 16(5):301-13 (86 ref.)

Interleukin-12 (IL-12)-driven alloimmune responses in vitro and in vivo: requirement for beta1 subunit of the IL-12 receptor. Piccotti JR, et al. **Transplantation** 1999 Jun 15; 67(11):1453-60

PHYSIOLOGY

Signaling domains of the beta c chain of the GM-CSF/IL-3/IL-5 receptor. Okuda K, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:305-12; discussion 312-3 (20 ref.)

Interleukin-8 receptors R1 and R2 activate mitogen-activated protein kinases and induce c-fos, independent of Ras and Raf-1 in Chinese hamster ovary cells. Shyamala V, et al. **Biochemistry** 1998 Nov 10; 37(45):15918-24

Simultaneous antagonism of interleukin-5, granulocyte-macrophage colony-stimulating factor, and interleukin-3 stimulation of human eosinophils by targetting the common cytokine binding site of their receptors. Sun Q, et al. **Blood** 1999 Sep 15;94(6):1943-51

Signalling by CXC-chemokine receptors 1 and 2 expressed in CHO cells: a comparison of calcium mobilization, inhibition of adenylyl cyclase and stimulation of GTPgammaS binding induced by IL-8 and GROalpha. Hall DA, et al. **Br J Pharmacol** 1999 Feb;126(3):810-8

Murine endotoxin-induced uveitis, but not immune complex-induced uveitis, is dependent on the IL-8 receptor homolog. Brito BE, et al. **Curr Eye Res** 1999 Jul;19(1):76-85

Ly-6A/E induction by interleukin-6 and interleukin-9 in T cells. Demoulin JB, et al. **Eur Cytokine Netw** 1999 Mar; 10(1):49-56

Novel CXCR2-dependent liver regenerative qualities of ELR-containing CXC chemokines. Hogaboam CM, et al. **FASEB J** 1999 Sep;13(12):1565-74

Multiple gamma c-dependent cytokines regulate T-cell development. Malek TR, et al. **Immunol Today** 1999 Feb; 20(2):71-6 (55 ref.)

Structure of and signal transduction through interleukin-4 and interleukin-13 receptors (review). Murata T, et al. **Int J Mol Med** 1998 Mar;1(3):551-7 (95 ref.)

Receptors and cytokines involved in allergic TH2 cell responses. de Vries JE, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 2):S492-6 (31 ref.)

Interleukin-10 receptor signaling through the JAK-STAT pathway. Requirement for two distinct receptor-derived signals for anti-inflammatory action. Riley JK, et al. **J Biol Chem** 1999 Jun 4;274(23):16513-21

Selective expression and functions of interleukin 18 receptor on T helper (Th) type 1 but not Th2 cells. Xu D, et al. **J Exp Med** 1998 Oct 19;188(8):1485-92

Differences between IL-4- and IL-4 receptor alpha-deficient mice in chronic leishmaniasis reveal a protective role for IL-13 receptor signaling. Mohrs M, et al. **J Immunol** 1999 Jun 15;162(12):7302-8

A soluble form of IL-13 receptor alpha 1 promotes IgG2a and IgG2b production by murine germinal center B cells. Poudrier J, et al. **J Immunol** 1999 Aug 1;163(3):1153-61

TCR and IL-12 receptor signals cooperate to activate an individual response element in the IFN-gamma promoter in effector Th cells. Zhang F, et al. **J Immunol** 1999 Jul 15;163(2):728-35

Mucosal and systemic candidiasis in IL-8Rh-/- BALB/c mice. Balish E, et al. **J Leukoc Biol** 1999 Jul;66(1):144-50

THERAPEUTIC USE

Evidence for a role of IL-17 in alloimmunity: a novel IL-17 antagonist promotes heart graft survival. Antonysamy MA, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):93

RECEPTORS, INTERLEUKIN-1

A method for correcting for the variability of inhibitory effects of soluble human interleukin 1 receptor II measured by different ELISAS. Krakauer T, et al. **J Immunoassay** 1999 Aug;20(3):185-200

ADMINISTRATION & DOSAGE

A phase I study of recombinant human soluble interleukin-1 receptor (rhu IL-1R) in patients with relapsed and refractory acute myeloid leukemia. Bernstein SH, et al. **Cancer Chemother Pharmacol** 1999;43(2):141-4

ANALYSIS

Gene expressions of antiinflammatory mediators in THR retrieved interfacial membranes. Nabae M, et al. **Acta Orthop Scand** 1999 Apr;70(2):149-54

Characteristics and regulation of the expression on interleukin 1 receptors by murine Langerhans cells and keratinocytes. Cumberbatch M, et al. **Arch Dermatol Res** 1998 Dec; 290(12):688-95

Expression and localization of p80 and p68 interleukin-1 receptor proteins in the brain of adult mice. French RA, et al. **J Neuroimmunol** 1999 Jan 1;93(1-2):194-202

Distribution of interleukin-1 receptors in term human fetal membranes and decidua. Whittle WI, et al. **Placenta** 1999 Jan;20(1):27-33

ANTAGONISTS & INHIBITORS

Interleukin-1 receptor antagonist inhibits interleukin-8 expression in A549 respiratory epithelial cells infected in vitro with a replication-deficient recombinant adenovirus vector. Schwarz YA, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):388-94

Interleukin 1 receptor antagonist suppresses allosensitization in corneal transplantation. Yamada J, et al. **Arch Ophthalmol** 1998 Oct;116(10):1351-7

Efficacy of sustained blood levels of interleukin-1 receptor antagonist in animal models of arthritis: comparison of efficacy in animal models with human clinical data. Bendele A, et al. **Arthritis Rheum** 1999 Mar;42(3):498-506

Maternal depression and risk for postpartum complications: role of prenatal corticotropin-releasing hormone and interleukin-1 receptor antagonist. Schmeelk KH, et al. **Behav Med** 1999 Summer;25(2):88-94

Allelic variation at the interleukin-1 receptor antagonist gene is associated with early postmenopausal bone loss at the spine. Keen RW, et al. **Bone** 1998 Oct;23(4):367-71

Plasma concentration of cytokine antagonists in patients with infection following liver resection. Kimura F, et al. **Br J Surg** 1998 Dec;85(12):1631-5

Lipopolysaccharide-induced changes in monoamines in specific areas of the brain: blockade by interleukin-1 receptor antagonist. MohanKumar SM, et al. **Brain Res** 1999 Apr 10;824(2):232-7

Induction of interleukin 1 receptor antagonist after interleukin 1 therapy in patients with cancer. Kopp WC, et al. **Clin Cancer Res** 1996 Mar;2(3):501-6

Is there an interleukin-1 genetic predisposition to developing severe sepsis? [editorial; comment] Dinarello CA. **Crit Care Med** 1999 Jul;27(7):1397-8. Comment on: Crit Care Med 1999 Jul;27(7):1330-4.

Comparison of two polymorphisms of the interleukin-1 gene family: interleukin-1 receptor antagonist polymorphism contributes to susceptibility to severe sepsis [see comments] Fang XM, et al. **Crit Care Med** 1999 Jul;27(7):1330-4.

Comment in: Crit Care Med 1999 Jul;27(7):1397-8.
Adenoviral gene transfer of the interleukin-1 receptor antagonist protein to human islets prevents IL-1beta-induced beta-cell impairment and activation of islet cell apoptosis in vitro. Giannoukakis N, et al. **Diabetes** 1999 Sep;48(9):1730-6
Genetic heterogeneity within ulcerative colitis determined by an interleukin-1 receptor antagonist gene polymorphism and antineutrophil cytoplasmic antibodies [see comments] Papo M, et al. **Eur J Gastroenterol Hepatol** 1999 Apr; 11(4):413-20. Comment in: Eur J Gastroenterol Hepatol 1999 Apr;11(4):405-7.
Genetic markers in ulcerative colitis. Why are the results different? [comment] Peña AS, et al. **Eur J Gastroenterol Hepatol** 1999 Apr;11(4):405-7. Comment on: Eur J Gastroenterol Hepatol 1999 Apr;11(4):413-20.
Expression of multiple forms of IL-1 receptor antagonist (IL-1ra) by human retinal pigment epithelial cells: identification of a new IL-1ra exon. Holtkamp GM, et al. **Eur J Immunol** 1999 Jan;29(1):215-24
An increased ratio of interleukin-1 receptor antagonist to interleukin-1alpha in inflammatory skin diseases. Terui T, et al. **Exp Dermatol** 1998 Dec;7(6):327-34
Interleukin-1 receptor antagonist prevents embryonic implantation by a direct effect on the endometrial epithelium. Simón C, et al. **Fertil Steril** 1998 Nov; 70(5):896-906
Analysis of the cytokine interaction among interleukin-1beta, interleukin-8, and interleukin-1 receptor antagonist in the rabbit ovulatory process. Ujioka T, et al. **Fertil Steril** 1998 Oct;70(4):759-65
Differential expression of interleukin 1 receptor antagonist isoforms in human intestinal epithelial cells. Böcker U, et al. **Gastroenterology** 1998 Dec;115(6):1426-38
Enhancement of apoptotic susceptibility by interleukin-1 beta in human endometrial epithelial cells. Tanaka T, et al. **Gynecol Endocrinol** 1998 Oct;12(5):315-9
Effects of interleukin-1 receptor antagonist overexpression on infection by Listeria monocytogenes. Irikura VM, et al. **Infect Immun** 1999 Apr;67(4):1901-9
Arthritis: is the cure in your genes? Herndon JH, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):152-7 (36 ref.)
Regulation of prostaglandin production in intact fetal membranes by interleukin-1 and its receptor antagonist. Brown NL, et al. **J Endocrinol** 1998 Dec;159(3):519-26
Influence of polymorphism in the genes for the interleukin (IL)-1 receptor antagonist and IL-1beta on tuberculosis. Wilkinson RJ, et al. **J Exp Med** 1999 Jun 21; 189(12):1863-74
Intracellular IL-1 receptor antagonist is elevated in human dermal fibroblasts that overexpress intracellular precursor IL-1 alpha. Higgins GC, et al. **J Immunol** 1999 Oct 1; 163(7):3969-75
Rhinovirus regulation of IL-1 receptor antagonist in vivo and in vitro: a potential mechanism of symptom resolution. Yoon HJ, et al. **J Immunol** 1999 Jun 15;162(12):7461-9
Activin A regulates the production of mature interleukin-1beta and interleukin-1 receptor antagonist in human monocytic cells. Ohguchi M, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):491-8
Spontaneous and inducible cytokine responses in healthy humans receiving a single dose of IFN-alpha2b: increased production of interleukin-1 receptor antagonist and suppression of IL-1-induced IL-8. Reznikov LL, et al. **J Interferon Cytokine Res** 1998 Oct;18(10):897-903
Determination of interleukin-1 receptor antagonist, interleukin-10, and transforming growth factor-beta1 in synovial fluid aspirates of patients with temporomandibular disorders. Fang PK, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):922-8; discussion 928-9
Lipopolysaccharide from Actinobacillus actinomycetemcomitans stimulates production of interleukin-1beta, tumor necrosis factor-alpha, interleukin-6 and interleukin-1 receptor antagonist in human whole blood. Schytte Blix IJ, et al. **J Periodontal Res** 1999 Jan;34(1):34-40
The association of peripheral monocyte derived interleukin 1beta (IL-1beta), IL-1 receptor antagonist, and tumor necrosis factor-alpha with osteoarthritis in the elderly. Fraenkel L, et al. **J Rheumatol** 1998 Sep;25(9):1820-6
Interleukin-1 receptor antagonist attenuates tumor necrosis factor-induced alterations in wound breaking strength. Maish GO 3rd, et al. **J Trauma** 1999 Sep;47(3):533-7
Expression of an IL-1 receptor antagonist during mouse hepatocarcinogenesis demonstrated by differential display analysis. Yamada Y, et al. **Lab Invest** 1999 Sep; 79(9):1059-67
Increased pro-inflammatory cytokines (TNF-alpha and IL-6) and anti-inflammatory compounds (sTNFRp55 and sTNFRp75) in Brazilian patients during exanthematic dengue fever. Pinto LM, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):387-94
Relevance of interleukin 1 receptor antagonist intron 2 polymorphism in Italian MS patients. Sciacca FL, et al. **Neurology** 1999 Jun 10;52(9):1896-8
Significant differences in the interleukin-1beta and interleukin-1 receptor antagonist gene polymorphisms in a Hungarian population with inflammatory bowel disease. Nemetz A, et al. **Scand J Gastroenterol** 1999 Feb; 34(2):175-9
Resistance to human cytomegalovirus infection may be influenced by genetic polymorphisms of the tumour necrosis factor-alpha and interleukin-1 receptor antagonist genes. Hurme M, et al. **Scand J Infect Dis** 1998;30(5):447-9
Serum levels of soluble IL-2 receptor alpha, IL-6 and IL-1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97-106
The interleukin-1 receptor antagonist gene shows no allelic association with three autoimmune diseases [letter] Heward J, et al. **Thyroid** 1999 Jun;9(6):627-8
Circulating interleukin-1 receptor antagonist (IL-1RA) serum levels in patients undergoing orthotopic heart transplantation. Thiele RI, et al. **Transpl Int** 1998; 11(6):443-8
[Treatment of chronic polyarthritis with a human recombinant interleukin 1 receptor antagonist] Rau R, et al. **Z Rheumatol** 1998 Oct;57(5):312-9 **(Ger)**
[Changes of serum cytokine levels after thoracoscopic esophagectomy] Takemura M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1305-10 (Eng. Abstr.) **(Jpn)**

BIOSYNTHESIS

Tyrosine kinase is essential for the constitutive expression of type I interleukin-1 receptor in human fibroblast cells. Takii T, et al. **Eur Cytokine Netw** 1999 Jun;10(2):237-46
Augmentation of type I IL-1 receptor expression and IL-1 signaling by IL-6 and glucocorticoid in murine hepatocytes. Ito A, et al. **J Immunol** 1999 Apr 1; 162(7):4260-5
Expression of interleukin-1 genes and interleukin-1 receptors in the mouse brain after hippocampal injury. Gabellec MM, et al. **Neurosci Res** 1999 Apr;33(4):251-60
[Gene cloning and expression of mouse type I soluble interleukin 1 receptor in insect cells] Zhang ZP, et al. **I Chuan Hsueh Pao** 1999;26(1):8-14 (Eng. Abstr.) **(Chi)**

BLOOD

Maternal depression and risk for postpartum complications: role of prenatal corticotropin-releasing hormone and interleukin-1 receptor antagonist. Schmeelk KH, et al. **Behav Med** 1999 Summer;25(2):88-94
Elevated circulating levels of soluble interleukin-1 receptor type II during interleukin-2 immunotherapy. Vannier E, et al. **Eur Cytokine Netw** 1999 Mar;10(1):37-42
IL-1 receptor-type expression in relation to atopy. Gupta K, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1100-7
Serum levels of soluble IL-2 receptor alpha, IL-6 and IL-1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97-106

CHEMISTRY

Interleukin 1 (IL-1) causes changes in lateral and rotational mobilities of IL-1 type I receptors. Guo C, et al. **Biochemistry** 1999 Feb 2;38(5):1618-25

DEFICIENCY

Cutaneous barrier repair and pathophysiology following barrier disruption in IL-1 and TNF type I receptor deficient mice. Man MQ, et al. **Exp Dermatol** 1999 Aug; 8(4):261-6
[Infections caused by BCG and atypical mycobacteria in children: a new group of immune deficiencies (editorial)] Casanova JL. **Arch Pediatr** 1999 Feb;6(2):139-40 **(Fre)**

DRUG EFFECTS

Dexamethasone regulation of interleukin-1-receptors in the hippocampus of Theiler's virus-infected mice: effects on virus-mediated demyelination. Lledó A, et al. **Eur J Pharmacol** 1999 May 7;372(1):75-83

GENETICS

Expression of interleukin-1 system genes in human gametes. de los Santos MJ, et al. **Biol Reprod** 1998 Dec;59(6):1419-24
The interleukin-1 type I receptor is expressed in human hypothalamus. Hammond EA, et al. **Brain** 1999 Sep;122 (Pt 9):1697-707
Expression of the mRNA for types I and II interleukin-1 receptors in dental tissues of mice during tooth development. Xu LX, et al. **Calcif Tissue Int** 1998 Oct; 63(4):351-6
Identification and characterization of SIGIRR, a molecule representing a novel subtype of the IL-1R superfamily. Thomassen E, et al. **Cytokine** 1999 Jun;11(6):389-99
Genetic heterogeneity within ulcerative colitis determined by an interleukin-1 receptor antagonist gene polymorphism and antineutrophil cytoplasmic antibodies [see comments] Papo M, et al. **Eur J Gastroenterol Hepatol** 1999 Apr; 11(4):413-20. Comment in: Eur J Gastroenterol Hepatol 1999 Apr;11(4):405-7.
Genetic markers in ulcerative colitis. Why are the results different? [comment] Peña AS, et al. **Eur J Gastroenterol Hepatol** 1999 Apr;11(4):405-7. Comment on: Eur J Gastroenterol Hepatol 1999 Apr;11(4):413-20.
Interleukin-1 receptor cluster: gene organization of IL1R2, IL1R1, IL1RL2 (IL-1Rrp2), IL1RL1 (T1/ST2), and IL18R1 (IL-1Rrp) on human chromosome 2q. Dale M, et al. **Genomics** 1999 Apr 1;57(1):177-9
Cloning of a novel receptor subunit, AcPL, required for interleukin-18 signaling. Born TL, et al. **J Biol Chem** 1998 Nov 6;273(45):29445-50
The interleukin-1 type 2 receptor gene displays immediate early gene responsiveness in glucocorticoid-stimulated human epidermal keratinocytes. Lukiw WJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8630-8
Phosphatidylinositol 3-kinase translocation to the nucleus is induced by interleukin 1 and prevented by mutation of interleukin 1 receptor in human osteosarcoma Saos-2 cells. Bavelloni A, et al. **J Cell Sci** 1999 Mar;112 (Pt 5):631-40
Bacterial lipopolysaccharide causes rapid shedding, followed by inhibition of mRNA expression, of the IL-1 type II receptor, with concomitant up-regulation of the type I receptor and induction of incompletely spliced transcripts. Penton-Rol G, et al. **J Immunol** 1999 Mar 1;162(5):2931-8
A new member of the IL-1 receptor family highly expressed in hippocampus and involved in X-linked mental retardation. Carrié A, et al. **Nat Genet** 1999 Sep;23(1):25-31
Association of interleukin-1beta and interleukin-1 receptor antagonist genes with disease severity in MS. Schrijver HM, et al. **Neurology** 1999 Feb;52(3):595-9
Identification of regions in alleles of the flax rust resistance gene L that determine differences in gene-for-gene specificity. Ellis JG, et al. **Plant Cell** 1999 Mar; 11(3):495-506
Significant differences in the interleukin-1beta and interleukin-1 receptor antagonist gene polymorphisms in a Hungarian population with inflammatory bowel disease. Nemetz A, et al. **Scand J Gastroenterol** 1999 Feb; 34(2):175-9
Absence of an association between intercellular adhesion molecule 1, complement receptor 1 and interleukin 1 receptor antagonist gene polymorphisms and severe malaria in a West African population. Bellamy R, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):312-6

IMMUNOLOGY

Hypersensitive cytokine response to beta-amyloid 25-35 in astroglial cells from IL-1 receptor type I-deficient mice. Eriksson G, et al. **Int J Mol Med** 1998 Jan;1(1):201-6
Cultured sympathetic neurons express functional interleukin-1 receptors. Bai Y, et al. **J Neuroimmunol** 1998 Nov 2;91(1-2):43-54
Effects of soluble interleukin-1 type II receptor on rabbit antigen-induced arthritis: clinical, biochemical and histological assessment. Dawson J, et al. **Rheumatology (Oxford)** 1999 May;38(5):401-6

METABOLISM

Extracellular regulation of interleukin (IL)-1beta through lung epithelial cells and defective IL-1 type II receptor expression. Coulter KR, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):964-75
A generic particle-based nonradioactive homogeneous multiplex method for high-throughput screening using microvolume fluorimetry. Martens C, et al. **Anal Biochem** 1999 Aug 15;273(1):20-31
ATP-sensitive association of mortalin with the IL-1 receptor type I. Sacht G, et al. **Biofactors** 1999;9(1):49-60
Soluble interleukin-1 receptor type II levels are elevated in cerebrospinal fluid in Alzheimer's disease patients. Garlind A, et al. **Brain Res** 1999 Apr 24;826(1):112-6
Divergent effects of LPS on expression of IL-1 receptor family members in mononuclear phagocytes in vitro and in vivo. Saccani S, et al. **Cytokine** 1998 Oct;10(10):773-80
Effects of IL-1 receptor-associated kinase (IRAK) expression on IL-1 signaling are independent of its kinase activity. Knop J, et al. **FEBS Lett** 1999 Apr 1;448(1):81-5
Phosphatidylinositol 3-kinase is recruited to a specific site in the activated IL-1 receptor I. Marmiroli S, et al. **FEBS Lett** 1998 Oct 30;438(1-2):49-54
ECSIT is an evolutionarily conserved intermediate in the Toll/IL-1 signal transduction pathway. Kopp E, et al. **Genes Dev** 1999 Aug 15;13(16):2059-71
Pyropheophorbide-a methyl ester-mediated photosensitization activates transcription factor NF-kappaB through the interleukin-1 receptor-dependent signaling pathway. Matroule JY, et al. **J Biol Chem** 1999 Jan 29;274(5):2988-3000
Recruitment of a heparan sulfate subunit to the interleukin-1 receptor complex. Regulation by fibronectin attachment. Vallés S, et al. **J Biol Chem** 1999 Jul 16;274(29):20103-9
IRAK-M is a novel member of the Pelle/interleukin-1 receptor-associated kinase (IRAK) family. Wesche H, et al. **J Biol Chem** 1999 Jul 2;274(27):19403-10
The IL-1 receptor and Rho directly associate to drive cell activation in inflammation. Singh R, et al. **J Clin Invest** 1999 Jun;103(11):1561-70
The type II IL-1 receptor interacts with the IL-1 receptor accessory protein: a novel mechanism of regulation of IL-1 responsiveness. Lang D, et al. **J Immunol** 1998 Dec 15; 161(12):6871-7
Impaired cytokine signaling in mice lacking the IL-1 receptor-associated kinase. Thomas JA, et al. **J Immunol** 1999 Jul 15;163(2):978-84
Binding of interleukin-18 to the interleukin-1 receptor homologous receptor IL-1Rrp1 leads to activation of signaling pathways similar to those used by interleukin-1. Thomassen E, et al. **J Interferon Cytokine Res** 1998 Dec;

18(12):1077–88
Aspirin-induced increases in soluble IL-1 receptor type II concentrations in vitro and in vivo. Daun JM, et al. **J Leukoc Biol** 1999 Jun;65(6):863–6
Mutant cells that do not respond to interleukin-1 (IL-1) reveal a novel role for IL-1 receptor-associated kinase. Li X, et al. **Mol Cell Biol** 1999 Jul;19(7):4643–52
The rat intraovarian interleukin (IL)-1 system: cellular localization, cyclic variation and hormonal regulation of IL-1beta and of the type I and type II IL-1 receptors. Kol S, et al. **Mol Cell Endocrinol** 1999 Mar 25; 149(1–2):115–28
Interleukin-1 receptor-ligand interactions modulate interstitial collagenase-1 production by human endometrial fibroblasts. Singer CF, et al. **Mol Hum Reprod** 1999 Mar; 5(3):240–5
A new member of the IL-1 receptor family highly expressed in hippocampus and involved in X-linked mental retardation. Carrié A, et al. **Nat Genet** 1999 Sep;23(1):25–31
The number of interleukin 1 receptors on lung fibroblasts in patients with idiopathic pulmonary fibrosis. Takeuchi M, et al. **Respiration** 1999;66(3):236–41

PHYSIOLOGY

Identification and functional importance of IL-1 receptors on rat parietal cells. Schepp W, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1094–105
Anterior hypothalamic interleukin-1 receptors are involved in mediation of fever during bacterial sepsis in rats. Gourine AV, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:266–9
Langerhans cell migration in mice requires intact type I interleukin 1 receptor (IL-1RI) function. Cumberbatch M, et al. **Arch Dermatol Res** 1999 Jun;291(6):357–61
The interleukin 1 receptor: ligand interactions and signal transduction. Auron PE. **Cytokine Growth Factor Rev** 1998 Sep–Dec;9(3–4):221–37 (91 ref.)
Interleukin-1. Stylianou E, et al. **Int J Biochem Cell Biol** 1998 Oct;30(10):1075–9 (13 ref.)
IL-1 and TNF receptor-deficient mice show decreased inflammation in an immune complex model of uveitis. Brito BE, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2583–9
Estrogen's bone-protective effects may involve differential IL-1 receptor regulation in human osteoclast-like cells. Sunyer T, et al. **J Clin Invest** 1999 May 15;103(10):1409–18
IL-1 receptor accessory protein is an essential component of the IL-1 receptor. Cullinan EB, et al. **J Immunol** 1998 Nov 15;161(10):5614–20
Soluble murine IL-1 receptor type I induces release of constitutive IL-1 alpha. Netea MG, et al. **J Immunol** 1999 Apr 15;162(8):4876–81
Dynamic regulation of the proinflammatory cytokine, interleukin-1beta: molecular biology for non-molecular biologists. Watkins LR, et al. **Life Sci** 1999;65(5):449–81 (290 ref.)
An interleukin-1 receptor fragment blocks ambient temperature-induced increases in brain temperature but not sleep in rabbits. Kushikata T, et al. **Neurosci Lett** 1998 Mar 20;244(3):125–8
Neutralizing antibodies to interleukin 1-receptor reduce pain associated behavior in mice with experimental neuropathy. Sommer C, et al. **Neurosci Lett** 1999 Jul 23;270(1):25–8
Co-localization of interleukin-1 receptor type I and interleukin-1 receptor antagonist with vasopressin in magnocellular neurons of the paraventricular and supraoptic nuclei of the rat hypothalamus. Diana A, et al. **Neuroscience** 1999 Mar;89(1):137–47

RECEPTORS, INTERLEUKIN-2

ANALYSIS

Immunologic aspects of isocyanate asthma: IL-1 beta, IL-3, IL-4, sIL2R, and sICAM-1. Grammer LC, et al. **Allergy Asthma Proc** 1998 Sep–Oct;19(5):301–5
Salivary and serum soluble interleukin-2 receptor in primary Sjögren's syndrome. Tishler M, et al. **Arch Oral Biol** 1999 Apr;44(4):305–8
A rapid flow cytometric method to explore cellular immunity against Toxoplasma gondii in humans. Kahi S, et al. **Clin Diagn Lab Immunol** 1998 Nov;5(6):745–8
Serum immunoglobulin and soluble IL-2 receptor levels in small intestinal overgrowth with indigenous gut flora. Riordan SM, et al. **Dig Dis Sci** 1999 May;44(5):939–44
CD69, CD25, and HLA-DR activation antigen expression on CD3+ lymphocytes and relationship to serum TNF-alpha, IFN-gamma, and sIL-2R levels in aging. Rea IM, et al. **Exp Gerontol** 1999 Jan;34(1):79–93
A progressive postoperative increase in the serum level of soluble receptors for interleukin-2 is an indicator of a poor prognosis in patients with gastric cancer. Maeta M, et al. **Int J Mol Med** 1998 Jan;1(1):113–6
Anti-soluble interleukin-2R alpha combinations measure different epitopes: comparison between different anti-sIL-2R alpha antibody combinations and a newly developed in-house sIL-2R alpha sandwich ELISA. Kazim K, et al. **J Clin Lab Immunol** 1998;50(1):17–25
Effective depletion of alloreactive lymphocytes from peripheral blood mononuclear cell preparations. Garderet L, et al. **Transplantation** 1999 Jan 15;67(1):124–30
[The concentration of interleukin-2 and interleukin-2 soluble receptors in peritoneal fluid of patients with unexplained infertility] Gogacz M, et al. **Ginekol Pol** 1998 Dec; 69(12):1203–6 (Eng. Abstr.) **(Pol)**

ANTAGONISTS & INHIBITORS

The murine anti-human common gamma chain monoclonal antibody CP.B8 blocks the second step in the formation of the intermediate affinity IL-2 receptor. Baker DP, et al. **Biochemistry** 1998 Oct 13;37(41):14337–49

BIOSYNTHESIS

Defective IL-2 receptor expression in lymphocytes of patients with arsenic-induced Bowen's disease. Yu HS, et al. **Arch Dermatol Res** 1998 Dec;290(12):681–7
Expression of the activation antigen CD69 predicts functionality of in vitro expanded peripheral blood mononuclear cells (PBMC) from healthy donors and HIV-infected patients. Nielsen SD, et al. **Clin Exp Immunol** 1998 Oct;114(1):66–72
Dysregulation of interleukin-2 receptor beta and interleukin-2 receptor gamma expression during HIV infection. David D, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):97–101 (38 ref.)
Inhibitory effects of the Trypanosoma cruzi membrane glycoprotein AGC10 on the expression of IL-2 receptor chains and secretion of cytokines by subpopulations of activated human T lymphocytes. Kierszenbaum F, et al. **Eur J Immunol** 1999 May;29(5):1684–91
Interleukin 2 receptor regulation and IL-2 function in the human infant. Zola H, et al. **Hum Immunol** 1998 Oct; 59(10):615–24
Defective IL-2-mediated IL-2 receptor alpha chain expression in Stat3-deficient T lymphocytes. Akaishi H, et al. **Int Immunol** 1998 Nov;10(11):1747–51
Thymus and autoimmunity: production of CD25+CD4+ naturally anergic and suppressive T cells as a key function of the thymus in maintaining immunologic self-tolerance. Itoh M, et al. **J Immunol** 1999 May 1;162(9):5317–26
The absence of IL-6 does not affect Th2 cell development in vivo, but does lead to impaired proliferation, IL-2 receptor expression, and B cell responses. La Flamme AC, et al. **J Immunol** 1999 May 15;162(10):5829–37
Enhancement by stem cell factor of interleukin-2 (IL-2)-induced DNA synthesis in human decidual CD16-CD56bright natural killer cells mediated by increased expression of the IL-2 receptor alpha chain. Umekage H, et al. **J Reprod Immunol** 1998 Oct;40(1):1–24
Expression of epstein-barr virus nuclear antigen 1 is associated with enhanced expression of CD25 in the Hodgkin cell line L428. Kube D, et al. **J Virol** 1999 Feb; 73(2):1630–6
Contribution of the expression of ICAM-1, HLA-DR and IL-2R to the diagnosis of acute rejection in renal allograft aspirative cytology. Ribeiro-David DS, et al. **Transpl Int** 1998;11 Suppl 1:S19–25
Expression of interleukin-2 (IL-2) receptor alpha and CD45RO antigen on T-lymphocytes cultured with measles virus antigens, compared with humoral immunity in measles vaccinees. Toyoda M, et al. **Vaccine** 1999 Mar 17; 17(11–12):1369–75
Expression of interleukin-2 receptor alpha and CD45RO antigen on T lymphocytes cultured with rubella virus antigen, compared with humoral immunity in rubella vaccinees. Toyoda M, et al. **Vaccine** 1999 Apr 9; 17(15–16):2051–8
[RU486 reverses dexamethasone-mediated suppression of IL-2 receptor expressions in lymphocytes of rat spleen] Liang F, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):50–2 (Eng. Abstr.) **(Chi)**

BLOOD

Cells and cytokines in pollinosis. Carlos AG, et al. **Allerg Immunol (Paris)** 1998 Sep;30(7):204–6
Serum levels of soluble intercellular adhesion molecule-1, vascular cell adhesion molecule-1, and interleukin-2 receptor in patients with vernal keratoconjunctivitis and allergic conjunctivitis. Uchio E, et al. **Allergy** 1999 Feb; 54(2):135–41
Soluble interleukin-2 receptor levels in hepatocellular cancer: a more sensitive marker than alfa fetoprotein [see comments] Izzo F, et al. **Ann Surg Oncol** 1999 Mar; 6(2):178–85. Comment in: Ann Surg Oncol 1999 Mar;6(2):133–4.
Hope for a cure through earlier detection of hepatocellular cancer [editorial; comment] Sitzmann JV. **Ann Surg Oncol** 1999 Mar;6(2):133–4. Comment on: Ann Surg Oncol 1999 Mar;6(2):178–85.
Prognostic relevance of soluble interleukin-2 receptors in patients with ovarian tumors. Gebauer G, et al. **Anticancer Res** 1999 Jul–Aug;19(4A):2509–11
Reflex sympathetic dystrophy: is the immune system involved? Ribbers GM, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1549–52
Serum and intracellular detection of cytokines in patients undergoing chronic hemodialysis. Roccatello D, et al. **Artif Organs** 1992 Apr;16(2):131–40
Idiopathic hypereosinophilic syndrome associated with elevated plasma levels of interleukin-10 and soluble interleukin-2 receptor [letter] Kanbe N, et al. **Br J Dermatol** 1998 Nov;139(5):916–8
Soluble interleukin 2 receptor levels and cervical neoplasia: results from a population-based case-control study in Costa Rica. Ung A, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar;8(3):249–53
Prognostic significance of soluble interleukin-2 receptor-alpha in adenocarcinoma of the pancreas. Gansauge F, et al. **Cancer Lett** 1998 Dec 25;134(2):193–9
Soluble intercellular adhesion molecule-1 (ICAM-1), CD4, CD8 and interleukin-2 receptor in patients with Behçet's disease and Vogt-Koyanagi-Harada's disease. Uchio E, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):179–84
Serum IL-6, TNFalpha, p55 srTNFalpha, p75srTNFalpha, srIL-2alpha levels and disease activity in systemic lupus erythematosus. Davas EM, et al. **Clin Rheumatol** 1999; 18(1):17–22
Serum interleukin-2 receptor for the early diagnosis of rheumatoid arthritis. Suenaga Y, et al. **Clin Rheumatol** 1998; 17(4):311–7
Serum soluble interleukin-2 receptor levels before and during interferon treatment in patients with chronic hepatitis B virus infection. Sawayama Y, et al. **Dig Dis Sci** 1999 Jan; 44(1):163–9
Detection of cytokines and cytomegalovirus DNA in serum as test for congenital infection. Numazaki K, et al. **Early Hum Dev** 1998 Aug 28;52(1):43–8
Increased serum soluble IL-2 receptor levels following interferon therapy in patients with chronic hepatitis C. Sugimura T, et al. **Hepatogastroenterology** 1999 May–Jun; 46(27):1827–30
Cell surface markers and circulating cytokines in graft versus host disease. Chang DM, et al. **Immunol Invest** 1999 Jan; 28(1):77–86
Individual variations in lymphocyte-responses to glucocorticoids in patients with bronchial asthma: comparison of potencies for five glucocorticoids. Hirano T, et al. **Immunopharmacology** 1998 Jul;40(1):57–66
Serum levels of soluble interleukin-2 receptor at acute asthma exacerbation: relationship with severity of exacerbation and bronchodilator response. Kim JT, et al. **Int Arch Allergy Immunol** 1998 Dec;117(4):263–9
A case of primary cardiac lymphoma: utility of serum soluble interleukin-2 receptor for noninvasive diagnosis. Makishima H, et al. **Int J Cardiol** 1998 Aug;65(3):291–3
A progressive postoperative increase in the serum level of soluble receptors for interleukin-2 is an indicator of a poor prognosis in patients with gastric cancer. Maeta M, et al. **Int J Mol Med** 1998 Jan;1(1):113–6
Soluble interleukin-2 receptor and soluble CD8 antigen levels in serum from patients with solid tumors. Orditura M, et al. **Int J Mol Med** 1998 Jul;2(1):75–9
Elevated serum level of soluble interleukin-2 receptor in heatstroke [letter] Hammami MM, et al. **Intensive Care Med** 1998 Sep;24(9):988
Alterations of T-lymphocyte subsets, soluble IL-2 receptor, and IgE in peripheral blood of children with acute asthma attacks. Shi HZ, et al. **J Allergy Clin Immunol** 1999 Mar; 103(3 Pt 1):388–94
The levels of plasma interleukin-2 and soluble interleukin-2R in Behçet's disease: a marker of disease activity. Alpsoy E, et al. **J Dermatol** 1998 Aug;25(8):513–6
Levels of soluble interleukin-2 receptor in the sera and skin tissue fluids of patients with vitiligo. Caixia T, et al. **J Dermatol Sci** 1999 Sep;21(1):59–62
Serum concentration of the soluble interleukin-2 receptor in vitiligo patients. Yeo UC, et al. **J Dermatol Sci** 1999 Apr;19(3):182–8
Effects of hemoperfusion with polymyxin B-immobilized fibre on serum neopterin and soluble interleukin-2 receptor concentrations in patients with septic shock. Nakamura T, et al. **J Infect** 1998 Nov;37(3):241–7
The significance of soluble interleukin-2 receptor in monitoring disease relapse in patients with nasopharyngeal cancer. Wu LJ, et al. **Jpn J Clin Oncol** 1998 Dec; 28(12):729–32
Correlation and prognostic value of serum soluble ICAM-1, beta-2 microglobulin, and IL-2alphaR levels in non-Hodgkin's lymphoma. Pérez-Encinas M, et al. **Leuk Lymphoma** 1999 May;33(5–6):551–8
Soluble interleukin 2 receptor (sIL2R) in monitoring advanced lung cancer during chemotherapy. Brunetti G, et al. **Lung Cancer** 1999 Jan;23(1):1–9
Time-course analysis of CD25 and HLA-DR expression on lymphocytes in interferon-beta 1b-treated multiple sclerosis patients. Ferrarini AM, et al. **Mult Scler** 1998 Jun; 4(3):174–7
Serum levels of soluble interleukin-2 receptor in patients with primary nephrotic syndrome [letter] Ayli MD, et al. **Nephron** 1998 Nov;80(3):349–50
Serum level of a soluble receptor for interleukin-2 as a prognostic factor in patients with gastric cancer. Saito H, et al. **Oncology** 1999 Apr;56(3):253–8
Increased serum concentration of circulating soluble receptor for interleukin-2 and its effect as a prognostic indicator in cachectic patients with gastric and colorectal cancer. Shibata M, et al. **Oncology** 1999;56(1):54–8
Serum levels of soluble IL-2 receptor alpha, IL-6 and IL-1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97–106
Factors confounding studies of circulating soluble interleukin-2 receptor levels in schizophrenia [letter; comment] Pollmächer T, et al. **Schizophr Res** 1998 Sep 7;33(1–2):123–4. Comment on: Schizophr Res 1998 Feb 9;29(3):263–7.

Levels of serum-soluble receptor for interleukin-2 in patients with colorectal cancer. Saito H, et al. **Surg Today** 1998; 28(10):1115-7

Serum levels of soluble interleukin-2 receptor in patients with various renal diseases. Sugimoto H, et al. **Tohoku J Exp Med** 1998 Apr;184(4):311-6

Significance of IL-2, IL-2R, IL-6, and TNF-alpha as a diagnostic test of acute rejection after renal transplantation. Cho WH, et al. **Transplant Proc** 1998 Nov;30(7):2967-9

[Immunological features of steroid-resistant asthma] Sun Y, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Feb;20(1):12-5 (Eng. Abstr.) **(Chi)**

[The significance of sIL-2R detection in various hepatic diseases] Xuan SY, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Apr; 18(2):92-4 (Eng. Abstr.) **(Chi)**

[Serum soluble interleukin-2 receptor in patients with pulmonary mycobacterial diseases] Tada A, et al. **Kekkaku** 1999 Jun;74(6):499-505 (Eng. Abstr.) **(Jpn)**

[The level of soluble forms of interleukin-2 receptor and adhesive molecules ICAM-1 and VCAM-1 in platelets of multiple sclerosis patients] Bilińska M, et al. **Pol Merkuriusz Lek** 1999 Jan;6(31):23-6 (Eng. Abstr.) **(Pol)**

[The level of interleukins (IL-1 and IL-2) and of IL-2R+ cells in patients with acute and chronic pyelonephritis] Drannik GN, et al. **Lik Sprava** 1998 Jul-Aug;(5):83-6 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Solution structure of the 35-54 peptide fragment of the human interleukin-2 receptor beta-chain. Stassinopoulou CI, et al. **J Protein Chem** 1998 Aug;17(6):552-3

Functional cooperation of the interleukin-2 receptor beta chain and Jak1 in phosphatidylinositol 3-kinase recruitment and phosphorylation. Migone TS, et al. **Mol Cell Biol** 1998 Nov;18(11):6416-22

Solution assembly of the pseudo-high affinity and intermediate affinity interleukin-2 receptor complexes. Wu Z, et al. **Protein Sci** 1999 Mar;8(3):482-9

DRUG EFFECTS

Prevention of graft-versus-host disease (GVHD) by elimination of recipient-reactive donor T cells with recombinant toxins that target the interleukin 2 (IL-2) receptor. Harris DT, et al. **Bone Marrow Transplant** 1999 Jan;23(2):137-44

Factors confounding studies of circulating soluble interleukin-2 receptor levels in schizophrenia [letter; comment] Pollmächer T, et al. **Schizophr Res** 1998 Sep 7;33(1-2):123-4. Comment on: Schizophr Res 1998 Feb 9;29(3):263-7.

GENETICS

Canine lymphocyte expression of retrovirally transferred human common gamma chain. Whitwam T, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:387-90

RT-PCR analysis of immune-modulating factors in PBMCs from patients with cancer: reduced IL-2 and increased IL-2-receptor (p55) expression characterize gastroenteric neoplasms. Piancatelli D, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1187-91

Interleukin-15 (IL-15) induces NF-kappaB activation and IL-8 production in human neutrophils. McDonald PP, et al. **Blood** 1998 Dec 15;92(12):4828-35

Interferon-alpha activates multiple STAT proteins and upregulates proliferation-associated IL-2Ralpha, c-myc, and pim-1 genes in human T cells. Matikainen S, et al. **Blood** 1999 Mar 15;93(6):1980-91

Gender-specific exacerbation of murine lupus by gonadotropin-releasing hormone: potential role of G alpha(q/11). Jacobson JD, et al. **Endocrinology** 1999 Aug; 140(8):3429-37

Duration of STAT5 activation influences the response of interleukin-2 receptor alpha gene to different cytokines. Imbert V, et al. **Eur Cytokine Netw** 1999 Mar;10(1):71-8

Simulated microgravity inhibits the genetic expression of interleukin-2 and its receptor in mitogen-activated T lymphocytes. Walther I, et al. **FEBS Lett** 1998 Sep 25; 436(1):115-8

Characterization of an MDR1 retroviral bicistronic vector for correction of X-linked severe combined immunodeficiency. Kleiman SE, et al. **Gene Ther** 1998 May; 5(5):671-6

Mutations in the gene for the common gamma chain (gammac) in X-linked severe combined immunodeficiency. Fugmann SD, et al. **Hum Genet** 1998 Dec;103(6):730-1

Natural splicing of exon 2 of human interleukin-15 receptor alpha-chain mRNA results in a shortened form with a distinct pattern of expression. Dubois S, et al. **J Biol Chem** 1999 Sep 17;274(38):26978-84

Human peripheral blood mononuclear cells express gonadotropin-releasing hormone (GnRH), GnRH receptor, and interleukin-2 receptor gamma-chain messenger ribonucleic acids that are regulated by GnRH in vitro. Chen HF, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):743-50

The interleukin 2 receptor alpha chain/CD25 promoter is a target for nuclear factor of activated T cells. Schuh K, et al. **J Exp Med** 1998 Oct 5;188(7):1369-73

In vivo function of an interleukin 2 receptor beta chain (IL-2Rbeta)/IL-4Ralpha cytokine receptor chimera potentiates allergic airway disease. Youn J, et al. **J Exp Med** 1998 Nov 16;188(10):1803-16

IL-2 receptor-targeted cytolytic IL-2/Fc fusion protein treatment blocks diabetogenic autoimmunity in nonobese diabetic mice. Zheng XX, et al. **J Immunol** 1999 Oct 1; 163(7):4041-8

The significance of tetramerization in promoter recruitment by Stat5. John S, et al. **Mol Cell Biol** 1999 Mar;19(3):1910-8

Interleukin-2 (IL-2) regulates the accessibility of the IL-2-responsive enhancer in the IL-2 receptor alpha gene to transcription factors. Rusterholz C, et al. **Mol Cell Biol** 1999 Apr;19(4):2681-9

IMMUNOLOGY

Reduction in HTLV-I proviral load and spontaneous lymphoproliferation in HTLV-I-associated myelopathy/tropical spastic paraparesis patients treated with humanized anti-Tac. Lehky TJ, et al. **Ann Neurol** 1998 Dec;44(6):942-7

The murine anti-human common gamma chain monoclonal antibody CP.B8 blocks the second step in the formation of the intermediate affinity IL-2 receptor. Baker DP, et al. **Biochemistry** 1998 Oct 13;37(41):14337-49

Chemical modification to reduce renal uptake of disulfide-bonded variable region fragment of anti-Tac monoclonal antibody labeled with 99mTc. Kim IS, et al. **Bioconjug Chem** 1999 May-Jun;10(3):447-53

Depletion of alloreactive T cells by a specific anti-interleukin-2 receptor p55 chain immunotoxin does not impair in vitro antileukemia and antiviral activity. Montagna D, et al. **Blood** 1999 May 15;93(10):3550-7

The pharmacokinetic characteristics of glycolated humanized anti-Tac Fabs are determined by their isoelectric points. Kobayashi H, et al. **Cancer Res** 1999 Jan 15;59(2):422-30

Tumor rejection by in vivo administration of anti-CD25 (interleukin-2 receptor alpha) monoclonal antibody. Onizuka S, et al. **Cancer Res** 1999 Jul 1;59(13):3128-33

The use of antibodies against the IL-2 receptor in transplantation. Waldmann TA, et al. **Curr Opin Immunol** 1998 Oct;10(5):507-12 (66 ref.)

Murine IL-2 receptor beta chain blockade improves human leukocyte engraftment in SCID mice. Tournoy KG, et al. **Eur J Immunol** 1998 Oct;28(10):3221-30

Intrabody-mediated knockout of the high-affinity IL-2 receptor in primary human T cells using a bicistronic lentivirus vector. Richardson JH, et al. **Gene Ther** 1998 May;5(5):635-44

Failure of treatment with interleukin-2 receptor-specific monoclonal antibody in acute coxsackievirus B3 myocarditis in mice. Kishimoto C, et al. **Heart Vessels** 1997; 12(5):221-8

Interleukin-4 regulation of human monocyte and macrophage interleukin-10 and interleukin-12 production. Role of a functional interleukin-2 receptor gamma-chain. Bonder CS, et al. **Immunology** 1999 Apr;96(4):529-36

IL-4 inhibits human CD8 T cell expression of the common IL-2 receptor gamma chain. Vyas B, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):433-6

Immunologic self-tolerance maintained by CD25+CD4+ naturally anergic and suppressive T cells: induction of autoimmune disease by breaking their anergic/suppressive state. Takahashi T, et al. **Int Immunol** 1998 Dec; 10(12):1969-80

Involvement of IL-15 in the pathogenesis of human T lymphotropic virus type I-associated myelopathy/tropical spastic paraparesis: implications for therapy with a monoclonal antibody directed to the IL-2/15R beta receptor. Azimi N, et al. **J Immunol** 1999 Oct 1; 163(7):4064-72

An adoptive transfer model of allergic lung inflammation in mice is mediated by CD4+CD62LlowCD25+ T cells. Wise JT, et al. **J Immunol** 1999 May 1;162(9):5592-600

Measurement and biological correlates of antibody bioactivity during antibody immunotherapies. Hagg DS, et al. **J Immunol Methods** 1998 Oct 1;219(1-2):7-21

Immunosuppression for neural xenografts: a comparison of cyclosporin and anti-CD25 monoclonal antibody. Honey CR, et al. **J Neurosurg** 1999 Jul;91(1):109-13

Methods to avoid adverse effect of circulating antigen on biodistribution of 125I-labeled antiTac dsFv: preinjection of intact antibody versus clearance of antigen with adivin-biotin system. Kobayashi H, et al. **J Nucl Med** 1999 Aug;40(8):1381-91

Favorable effects of glycolate conjugation on the biodistribution of humanized antiTac Fab fragment. Kobayashi H, et al. **J Nucl Med** 1999 May;40(5):837-45

Changes in immune activation markers during pregnancy and postpartum. Burns DN, et al. **J Reprod Immunol** 1999 Mar; 42(2):147-65

Possible role of granulocyte colony-stimulating factor in increased serum soluble interleukin-2 receptor-alpha levels after allogeneic bone marrow transplantation. Kobayashi S, et al. **Leuk Lymphoma** 1999 May;33(5-6):559-66

Expression of interleukin-2 receptor, CD25, on CD4 lymphocytes in response to varicella-zoster virus antigen among patients with malignancies immunized with live attenuated varicella vaccine. Oitani K. **Pediatr Int** 1999 Feb;41(1):32-6

Kinetics of T cell receptor beta, gamma, and delta rearrangements during adult thymic development: T cell receptor rearrangements are present in CD44(+)CD25(+) Pro-T thymocytes. Capone M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12522-7

Prevention of islet graft destruction in diabetic mice and rats by temporary anti-IL-2 receptor therapy: comparison of different strategies. Kuttler B, et al. **Transplant Proc** 1998 Dec;30(8):4140-2

New usage paradigms in antibody therapy: safety of the new agents. Pescovitz MD. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1201-2 (27 ref.)

Immunosuppression through inhibition of interleukin-2/interleukin-2 receptor interaction. Soulillou JP. **Transplant Proc** 1999 Feb-Mar;31(1-2A):49S-51S (23 ref.)

Anti-CD25 therapy reveals the redundancy of the intragraft cytokine network after clinical heart transplantation. Baan CC, et al. **Transplantation** 1999 Mar 27;67(6):870-6

Cytomegalovirus infections after treatment with daclizumab, an anti IL-2 receptor antibody, for prevention of renal allograft rejection. Roche Study Group. Hengster P, et al. **Transplantation** 1999 Jul 27;68(2):310-3

Use of anti-CD25 monoclonal antibody in combination with rapamycin to eliminate cyclosporine treatment during the induction phase of immunosuppression. Hong JC, et al. **Transplantation** 1999 Sep 15;68(5):701-4

Increased MHC class II and CD25 expression on lymphocytes in the absence of persistent lymphocytosis in cattle experimentally infected with bovine leukemia virus. Isaacson JA, et al. **Vet Immunol Immunopathol** 1998 Jul 31;64(3):235-48

[The level of soluble forms of interleukin-2 receptor and adhesive molecules ICAM-1 and VCAM-1 in platelets of multiple sclerosis patients] Bilińska M, et al. **Pol Merkuriusz Lek** 1999 Jan;6(31):23-6 (Eng. Abstr.) **(Pol)**

METABOLISM

Jeg-3 human choriocarcinoma-induced immunosuppression: downregulation of interleukin-2, interleukin-2 receptor alpha-chain, and its Jak/Stat signaling pathway. Kilic M, et al. **Am J Reprod Immunol** 1999 Jan;41(1):61-9

Activation of NF-kappaB in Mycobacterium tuberculosis-induced interleukin-2 receptor expression in mononuclear phagocytes. Tchou-Wong KM, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1323-9

IL-15/IL-15R alpha intracellular trafficking in human cells and protection from apoptosis. Pereno R, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:236-45

Functional and physical association of a cell surface phospholipid and interleukin-2 receptor p55(alpha) subunits. Saragovi HU, et al. **Biochim Biophys Acta** 1998 Nov 11;1414(1-2):51-64

Kinetic analysis of high affinity forms of interleukin (IL)-13 receptors: suppression of IL-13 binding by IL-2 receptor gamma chain. Kuznetsov VA, et al. **Biophys J** 1999 Jul; 77(1):154-72

Wild-type p53-mediated down-modulation of interleukin 15 and interleukin 15 receptors in human rhabdomyosarcoma cells. De Giovanni C, et al. **Br J Cancer** 1998 Dec; 78(12):1541-6

Myeloid differentiation antigen and cytokine receptor expression on acute myelocytic leukaemia cells with t(16;21)(p11;q22): frequent expression of CD56 and interleukin-2 receptor alpha chain. Shikami M, et al. **Br J Haematol** 1999 Jun;105(3):711-9

Distinctions in lymphocyte responses to IL-2 and IL-15 reflect differential ligand binding interactions with the IL-2Rbeta chain and suggest differential roles for the IL-2Ralpha and IL-15Ralpha subunits. de Jong JL, et al. **Cytokine** 1998 Dec;10(12):920-30

Homogeneous time-resolved IL-2-IL-2R alpha assay using fluorescence resonance energy transfer. Stenroos K, et al. **Cytokine** 1998 Jul;10(7):495-9

Functional dissection of the cytoplasmic subregions of the IL-2 receptor betac chain in primary lymphocyte populations. Fujii H, et al. **EMBO J** 1998 Nov 16; 17(22):6551-7

Lack of correlation between HLA-DR and CD25 "activation" related antigens on CD16+ NK cells in HIV infection. Lucia MB, et al. **Eur J Histochem** 1997;41 Suppl 2:31-2

Biochemical analysis of interleukin-2 receptor beta chain phosphorylation by p56(lck). Delespine-Carmagnat M, et al. **FEBS Lett** 1999 Mar 26;447(2-3):241-6

Critical role of the membrane-proximal, proline-rich motif of the interleukin-2 receptor gammac chain in the Jak3-independent signal transduction. Tsujino S, et al. **Genes Cells** 1999 Jun;4(6):363-73

Decreased expression of the interleukin 2 receptor on CD8 recipient lymphocytes in intestinal grafts rendered tolerant by liver transplantation in rats. Sarnacki S, et al. **Gut** 1998 Dec;43(6):849-55

Role of interleukin (IL)-2 receptor beta-chain subdomains and Shc in p38 mitogen-activated protein (MAP) kinase and p54 MAP kinase (stress-activated protein Kinase/c-Jun N-terminal kinase) activation. IL-2-driven proliferation is independent of p38 and p54 MAP kinase activation. Hunt AE, et al. **J Biol Chem** 1999 Mar 12; 274(11):7591-7

Molecular characterization of the signal responsible for the targeting of the interleukin 2 receptor beta chain toward intracellular degradation. Subtil A, et al. **J Biol Chem** 1998 Nov 6;273(45):29424-9

IL-2R alpha on one cell can present IL-2 to IL-2R beta/gamma(c) on another cell to augment IL-2 signaling. Eicher DM, et al. **J Immunol** 1998 Nov 15;161(10):5430-7
Identification of autoimmune T cells among in vivo expanded CD25+ T cells in multiple sclerosis. Illés Z, et al. **J Immunol** 1999 Feb 1;162(3):1811-7
IL-7 enhances Ag-specific human T cell response by increasing expression of IL-2R alpha and gamma chains. Chou YK, et al. **J Neuroimmunol** 1999 Apr 1;96(1):101-11
Urokinase plasminogen activator colocalizes with CD25+ cells in atherosclerotic vessels. Falkenberg M, et al. **J Vasc Res** 1998 Sep-Oct;35(5):318-24
Differences in phosphorylation of the IL-2R associated JAK/STAT proteins between HTLV-I(+), IL-2-independent and IL-2-dependent cell lines and uncultured leukemic cells from patients with adult T-cell lymphoma/leukemia. Zhang Q, et al. **Leuk Res** 1999 Apr; 23(4):373-84
The triggering signal dictates the effect of docosahexaenoic acid on lymphocyte function in vitro. Jenski LJ, et al. **Lipids** 1998 Sep;33(9):869-78
Regulatory dysfunction of the interleukin-2 receptor during HIV infection and the impact of triple combination therapy. David D, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15; 95(19):11348-53
Daclizumab rapidly saturates interleukin-2 receptor-alpha (CD25) on lymph node lymphocytes in children. Savo AM, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1182-3
[Predictive value of IL-2R in renal tissue during acute renal allograft rejection] Yang J, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Feb;35(2):119-22 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Biology of the interleukin-2 receptor. Nelson BH, et al. **Adv Immunol** 1998;70:1-81 (442 ref.)
Downregulation of JAK3 protein levels in T lymphocytes by prostaglandin E2 and other cyclic adenosine monophosphate-elevating agents: impact on interleukin-2 receptor signaling pathway. Kolenko V, et al. **Blood** 1999 Apr 1;93(7):2308-18
Interleukin-2 receptor subunit expression and function on human peripheral T cells is not dependent on the anticoagulant [letter; comment] Vanham GL, et al. **Blood** 1998 Oct 15;92(8):2989-93. Comment on: Blood 1998 Jan 1;91(1):165-72.
An IL-2 receptor beta subdomain that controls Bcl-X(L) expression and cell survival. Ciprés A, et al. **Eur J Immunol** 1999 Apr;29(4):1158-67
Death deflected: IL-15 inhibits TNF-alpha-mediated apoptosis in fibroblasts by TRAF2 recruitment to the IL-15Ralpha chain. Bulfone-PauS S, et al. **FASEB J** 1999 Sep;13(12):1575-85
Role of interleukin-2 receptor expression on macrophages from Salmonella-infected mice. Matsui K. **FEMS Immunol Med Microbiol** 1999 May;24(1):97-103
IL-15 receptor maintains lymphoid homeostasis by supporting lymphocyte homing and proliferation. Lodolce JP, et al. **Immunity** 1998 Nov;9(5):669-76
CD40 signaling induces B cell responsiveness to multiple members of the gamma chain-common cytokine family. Griebel P, et al. **Int Immunol** 1999 Jul;11(7):1139-47
Activation and proliferation of CD8+ T cells in lymphoid tissues of HIV-1-infected individuals in the absence of the high-affinity IL-2 receptor. Brinchmann JE, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):332-8
The IL-2 receptor promotes proliferation, bcl-2 and bcl-x induction, but not cell viability through the adapter molecule Shc. Lord JD, et al. **J Immunol** 1998 Nov 1; 161(9):4627-33
Redirecting effector T cells through their IL-2 receptors. Lustgarten J, et al. **J Immunol** 1999 Jan 1;162(1):359-65
Differential substrate recognition capabilities of Janus family protein tyrosine kinases within the interleukin 2 receptor (IL2R) system: Jak3 as a potential molecular target for treatment of leukemias with a hyperactive Jak-Stat signaling machinery. Witthuhn BA, et al. **Leuk Lymphoma** 1999 Jan;32(3-4):289-97
Relationships betxween Fas expression, activation molecule CD25, and functional activity of tumor-associated lymphomonocytes from neoplastic effusions. Mantovani G, et al. **Oncol Rep** 1999 Jan-Feb;6(1):235-9
Inhibition of beta-catenin-mediated transactivation by cadherin derivatives. Sadot E, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15339-44
Attenuation of IL-2 receptor signaling by CD4-ligation requires polymerized cytoskeletal actin but not P56LCK. Goebel J, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):822-4

RECEPTORS, INTERLEUKIN-3

AGONISTS

Administration of daniplestim and granulocyte colony-stimulating factor for the mobilization of hematopoietic progenitor cells in nonhuman primates. Fleming WH, et al. **Biol Blood Marrow Transplant** 199: 5(1):8-14

BIOSYNTHESIS

Regulation of interleukin 3 receptor alpha chain (IL-3R alpha) on human monocytes by interleukin (IL)-4, IL-10, IL-13, and transforming growth factor beta (TGF-beta). Lévêque C, et al. **Cytokine** 1998 Jul;10(7):487-94

CHEMISTRY

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501

DRUG EFFECTS

Glucocorticoids inhibit proliferation and adhesion of the IL-3-dependent mast cell line, MC/9, to NIH/3T3 fibroblasts, with an accompanying decrease in IL-3 receptor expression. Sakai H, et al. **Arch Dermatol Res** 1999 Apr;291(4):224-31

GENETICS

Cloning and characterization of the human interleukin-3 (IL-3)/IL-5/ granulocyte-macrophage colony-stimulating factor receptor betac gene: regulation by Ets family members. van Dijk TB, et al. **Blood** 1998 Nov 15; 92(10):3636-46
Activating point mutations in the betaC chain of the GM-CSF, IL-3 and IL-5 receptors are not a major contributory factor in the pathogenesis of acute myeloid leukaemia. Freeburn RW, et al. **Br J Haematol** 1998 Oct; 103(1):66-71
A cell type-specific constitutive point mutant of the common beta-subunit of the human granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin (IL)-3, and IL-5 receptors requires the GM-CSF receptor alpha-subunit for activation. Jenkins BJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8669-77
A composite C/EBP binding site is essential for the activity of the promoter of the IL-3/IL-5/granulocyte-macrophage colony-stimulating factor receptor beta c gene. van Dijk TB, et al. **J Immunol** 1999 Sep 1;163(5):2674-80

METABOLISM

Identification of a 14-3-3 binding sequence in the common beta chain of the granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin-3 (IL-3), and IL-5 receptors that is serine-phosphorylated by GM-CSF. Stomski FC, et al. **Blood** 1999 Sep 15; 94(6):1933-42
Regulation of proliferation, differentiation and survival by the IL-3/IL-5/GM-CSF receptor family. de Groot RP, et al. **Cell Signal** 1998 Oct;10(9):619-28 (176 ref.)
Plasmacytoid monocytes express IL3-receptor alpha and differentiate into dendritic cells [letter] Facchetti F, et al. **Histopathology** 1999 Jul;35(1):88-9
Induction of cell shape changes through activation of the interleukin-3 common beta chain receptor by the RON receptor-type tyrosine kinase. Mera A, et al. **J Biol Chem** 1999 May 28;274(22):15766-74
The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501
Regulation and function of protein kinase B and MAP kinase activation by the IL-5/GM-CSF/IL-3 receptor. Dijkers PF, et al. **Oncogene** 1999 Jun 3;18(22):3334-42
Mechanism of activation of the GM-CSF, IL-3, and IL-5 family of receptors. Guthridge MA, et al. **Stem Cells** 1998; 16(5):301-13 (86 ref.)

PHYSIOLOGY

Signaling domains of the beta c chain of the GM-CSF/IL-3/IL-5 receptor. Okuda K, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:305-12; discussion 312-3 (20 ref.)
Activation of granulocyte-macrophage colony-stimulating factor and interleukin-3 receptor subunits in a multipotential hematopoietic progenitor cell line leads to differential effects on development. Evans CA, et al. **Blood** 1999 Sep 1;94(5):1504-14
Heterodimerization of the alpha and beta chains of the interleukin-3 (IL-3) receptor is necessary and sufficient for IL-3-induced mitogenesis. Orban PC, et al. **Blood** 1999 Sep 1;94(5):1614-22
Simultaneous antagonism of interleukin-5, granulocyte-macrophage colony-stimulating factor, and interleukin-3 stimulation of human eosinophils by targetting the common cytokine binding site of their receptors. Sun Q, et al. **Blood** 1999 Sep 15;94(6):1943-51

RECEPTORS, INTERLEUKIN-4

ANALYSIS

Pancreatic cancer cells express interleukin-13 and -4 receptors, and their growth is inhibited by Pseudomonas exotoxin coupled to interleukin-13 and -4. Kornmann M, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):125-31
Immunolocalisation of interleukin-4 and interleukin-4 receptor in placenta and fetal membranes in association with pre-term labour and pre-eclampsia. Henriques CU, et al. **Gynecol Obstet Invest** 1998;46(3):172-7
Detection of and discrimination between total and free human interleukin-4 and free soluble interleukin-4 receptor by ELISA. Jung T, et al. **J Immunol Methods** 1998 Aug 1; 217(1-2):41-50

ANTAGONISTS & INHIBITORS

Glucocorticoids inhibit IL-4 and mitogen-induced IL-4R alpha chain expression by different posttranscriptional mechanisms. Mozo L, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):968-76

BIOSYNTHESIS

Soluble human interleukin-4 receptor is produced by activated T cells under the control of metalloproteinases. Jung T, et al. **Int Arch Allergy Immunol** 1999 May; 119(1):23-30
Expression of the IL-4 receptor alpha-subunit is increased in bronchial biopsy specimens from atopic and nonatopic asthmatic subjects. Kotsimbos TC, et al. **J Allergy Clin Immunol** 1998 Nov;102(5):859-66
Glucocorticoids inhibit IL-4 and mitogen-induced IL-4R alpha chain expression by different posttranscriptional mechanisms. Mozo L, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):968-76

BLOOD

Increased levels of soluble interleukin-4 receptor in the sera of patients with visceral leishmaniasis. Sang DK, et al. **J Infect Dis** 1999 Mar;179(3):743-6

CHEMISTRY

Crystal structure of the interleukin-4/receptor alpha chain complex reveals a mosaic binding interface. Hage T, et al. **Cell** 1999 Apr 16;97(2):271-81
Crystals of a 1:1 complex between human interleukin-4 and the extracellular domain of its receptor alpha chain. Hage T, et al. **Eur J Biochem** 1998 Dec 1;258(2):831-6
Rational design of a GCN4-derived mimetic of interleukin-4. Domingues H, et al. **Nat Struct Biol** 1999 Jul;6(7):652-6

GENETICS

Human eosinophils constitutively express a functional interleukin-4 receptor: interleukin-4 -induced priming of chemotactic responses and induction of PI-3 kinase activity. Dubois GR, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):691-9
No association between atopy/asthma and the ILe50Val polymorphism of IL-4 receptor. Noguchi E, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):342-5
Association of interleukin-4 receptor and interleukin-4 promoter gene polymorphisms with systemic lupus erythematosus. Kanemitsu S, et al. **Arthritis Rheum** 1999 Jun;42(6):1298-300
Lack of association of atopy/asthma and the interleukin-4 receptor alpha gene in Japanese. Noguchi E, et al. **Clin Exp Allergy** 1999 Feb;29(2):228-33
Interleukin-4 and interleukin-4 receptor polymorphisms in minimal change nephropathy. Parry RG, et al. **Clin Sci (Colch)** 1999 Jun;96(6):665-8
The polymorphisms S503P and Q576R in the interleukin-4 receptor alpha gene are associated with atopy and influence the signal transduction. Kruse S, et al. **Immunology** 1999 Mar;96(3):365-71
In vivo function of an interleukin 2 receptor beta chain (IL-2Rbeta)/IL-4Ralpha cytokine receptor chimera potentiates allergic airway disease. Youn J, et al. **J Exp Med** 1998 Nov 16;188(10):1803-16
Schistosome-infected IL-4 receptor knockout (KO) mice, in contrast to IL-4 KO mice, fail to develop granulomatous pathology while maintaining the same lymphokine expression profile. Jankovic D, et al. **J Immunol** 1999 Jul 1;163(1):337-42
Cutting edge: dominant effect of Ile50Val variant of the human IL-4 receptor alpha-chain in IgE synthesis. Mitsuyasu H, et al. **J Immunol** 1999 Feb 1;162(3):1227-31
Differences between IL-4- and IL-4 receptor alpha-deficient mice in chronic leishmaniasis reveal a protective role for IL-13 receptor signaling. Mohrs M, et al. **J Immunol** 1999 Jun 15;162(12):7302-8
Cutting edge: effects of an allergy-associated mutation in the human IL-4R alpha (Q576R) on human IL-4-induced signal transduction. Wang HY, et al. **J Immunol** 1999 Apr 15;162(8):4385-9
[Atopy and interleukin-4 receptor] Izuhara K. **Rinsho Byori** 1999 Jun;47(6):525-30 (7 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Interleukin-4 receptor signalling mechanisms and their biological significance. Nelms K, et al. **Adv Exp Med Biol** 1998;452:37-43 (19 ref.)
Effects of recombinant human soluble interleukin-4 receptor on interleukin-4/staphylococcal enterotoxin B-stimulated peripheral mononuclear cells from patients with atopic eczema. Sperhake K, et al. **Br J Dermatol** 1998 Nov; 139(5):784-90
Enhancement of human IL-4 activity by soluble IL-4

receptors in vitro. Jung T, et al. **Eur J Immunol** 1999 Mar; 29(3):864–71

The gp200-MR6 molecule which is functionally associated with the IL-4 receptor modulates B cell phenotype and is a novel member of the human macrophage mannose receptor family. McKay PF, et al. **Eur J Immunol** 1998 Dec;28(12):4071–83

IL-4- and IL-4 receptor-deficient BALB/c mice reveal differences in susceptibility to Leishmania major parasite substrains. Noben-Trauth N, et al. **J Immunol** 1999 May 15;162(10):6132–40

ISOLATION & PURIFICATION

IL-4 induces mucin gene expression and goblet cell metaplasia in vitro and in vivo. Dabbagh K, et al. **J Immunol** 1999 May 15;162(10):6233–7

METABOLISM

Interleukin 4 receptors on human bronchial epithelial cells. An in vivo and in vitro analysis of expression and function. van der Velden VH, et al. **Cytokine** 1998 Oct;10(10):803–13

The interleukin-4 site-2 epitope determining binding of the common receptor gamma chain. Letzelter F, et al. **Eur J Biochem** 1998 Oct 1;257(1):11–20

Activation of STAT5 by IL-4 relies on Janus kinase function but not on receptor tyrosine phosphorylation, and can contribute to both cell proliferation and gene regulation. Friedrich K, et al. **Int Immunol** 1999 Aug;11(8):1283–94

The interleukin-4 receptor activates STAT5 by a mechanism that relies upon common gamma-chain. Lischke A, et al. **J Biol Chem** 1998 Nov 20;273(47):31222–9

Th2-induced airway mucus production is dependent on IL-4Ralpha, but not on eosinophils. Cohn L, et al. **J Immunol** 1999 May 15;162(10):6178–83

CD28 costimulation accelerates IL-4 receptor sensitivity and IL-4-mediated Th2 differentiation. Kubo M, et al. **J Immunol** 1999 Sep 1;163(5):2432–42

Regulation of the production of soluble IL-4 receptors in murine cutaneous leishmaniasis. The roles of IL-12 and IL-4. Fernandez-Botran R, et al. **J Leukoc Biol** 1999 Sep; 66(3):481–8

Binding of interleukin-13 and interleukin-4 to the interleukin (IL)-4/IL-13 receptor of human synovial fibroblasts. Lutz RA, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):181–90

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1998 Oct;108(10):1528–33

PHYSIOLOGY

The IL-4 receptor: signaling mechanisms and biologic functions. Nelms K, et al. **Annu Rev Immunol** 1999; 17:701–38 (183 ref.)

Interleukin 13 inhibits growth of human renal cell carcinoma cells independently of the p140 interleukin 4 receptor chain. Obiri NI, et al. **Clin Cancer Res** 1996 Oct;2(10):1743–9

Signal transduction via the interleukin-4 receptor and its correlation with atopy. Izuhara K, et al. **Int J Mol Med** 1999 Jan;3(1):3–10 (107 ref.)

Structure of and signal transduction through interleukin-4 and interleukin-13 receptors (review). Murata T, et al. **Int J Mol Med** 1998 Mar;1(3):551–7 (95 ref.)

Receptors and cytokines involved in allergic TH2 cell responses. de Vries JE, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 2):S492–6 (31 ref.)

Interleukin-4 receptor-directed cytotoxin therapy of AIDS-associated Kaposi's sarcoma tumors in xenograft model [see comments] Husain SR, et al. **Nat Med** 1999 Jul;5(7):817–22. Comment in: Nat Med 1999 Jul;5(7):738–9.

Interaction affinity between cytokine receptor components on the cell surface. Whitty A, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13165–70

T cell antigen receptor-mediated activation of the Ras/mitogen-activated protein kinase pathway controls interleukin 4 receptor function and type-2 helper T cell differentiation. Yamashita M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1024–9

THERAPEUTIC USE

Therapeutic protective effects of IL-12 combined with soluble IL-4 receptor against established infections of herpes simplex virus type 1 in thermally injured mice. Kobayashi H, et al. **J Immunol** 1999 Jun 15;162(12):7148–54

RECEPTORS, INTERLEUKIN-6

ANALYSIS

Soluble fractions of tumor necrosis factor-alpha, interleukin-6 and of their receptors in toxic epidermal necrolysis: a comparison with second-degree burns. Paquet P, et al. **Int J Mol Med** 1998 Feb;1(2):459–62

[Progression of multiple myeloma during treatment with recombinant G-CSF and absence of G-CSF and IL-6 cell surface receptors on malignant cells] Spička I, et al. **Cas Lek Cesk** 1998 Nov 2;137(21):660–3 (Eng. Abstr.) **(Cze)**

ANTAGONISTS & INHIBITORS

Blockage of interleukin-6 receptor ameliorates joint disease in murine collagen-induced arthritis. Takagi N, et al. **Arthritis Rheum** 1998 Dec;41(12):2117–21

IL-6 functions in cynomolgus monkeys blocked by a humanized antibody to human IL-6 receptor. Imazeki I, et al. **Int J Immunopharmacol** 1998 Jul;20(7):345–57

A new type of cytokine receptor antagonist directly targeting gp130. Renné C, et al. **J Biol Chem** 1998 Oct 16; 273(42):27213–9

Therapy of rheumatoid arthritis by blocking IL-6 signal transduction with a humanized anti-IL-6 receptor antibody. Yoshizaki K, et al. **Springer Semin Immunopathol** 1998;20(1-2):247–59 (71 ref.)

BIOSYNTHESIS

Generation and function of the soluble interleukin-6 receptor. Müllberg J, et al. **Biochem Soc Trans** 1999 Feb;27(2):211–9 (66 ref.)

IL-6 receptor (CD126/IL-6R) expression is increased on monocytes and B lymphocytes in HIV infection. van der Meijden M, et al. **Cell Immunol** 1998 Dec 15;190(2):156–66

Coexpression of IL-6 and soluble IL-6R causes nodular regenerative hyperplasia and adenomas of the liver. Maione D, et al. **EMBO J** 1998 Oct 1;17(19):5588–97

Shedding of the soluble IL-6 receptor is triggered by Ca2+ mobilization, while basal release is predominantly the product of differential mRNA splicing in THP-1 cells. Jones SA, et al. **Eur J Immunol** 1998 Nov;28(11):3514–22

Evaluation of the influence of N-nitrosodimethyloamine (NDMA) on the apoptosis of neutrophils of peripheral blood (PMN) and the expression of the IL-6R membrane receptor—in vitro research. Jablonski J, et al. **Immunol Invest** 1999 Mar-May;28(2-3):177–84

Generation of 'truncated' interleukin-6 receptor (IL-6R) mRNA by alternative splicing; a possible source of soluble IL-6R. Holub MC, et al. **Immunol Lett** 1999 May 3; 68(1):121–4

High-level production of alternatively spliced soluble interleukin-6 receptor in serum of patients with adult T-cell leukaemia/HTLV-I-associated myelopathy. Horiuchi S, et al. **Immunology** 1998 Nov;95(3):360–9

Regulated expression of gp130 and IL-6 receptor alpha chain in T cell maturation and activation. Betz UA, et al. **Int Immunol** 1998 Aug;10(8):1175–84

Immunoadhesins of interleukin-6 and the IL-6/soluble IL-6R fusion protein hyper-IL-6. Jostock T, et al. **J Immunol Methods** 1999 Mar 4;223(2):171–83

Expression of interleukin-6 and interleukin-6 receptors in human granulosa lutein cells. Keck C, et al. **Mol Hum Reprod** 1998 Nov;4(11):1071–6

Enhanced production of interleukin-6 (IL-6), oncostatin M and soluble IL-6 receptor by cultured peripheral blood mononuclear cells from patients with systemic sclerosis. Hasegawa M, et al. **Rheumatology (Oxford)** 1999 Jul; 38(7):612–7

Increased interleukin-6 levels, interleukin-6 receptor and gp130 expression in peripheral lymphocytes of patients with inflammatory bowel disease. Holub MC, et al. **Scand J Gastroenterol Suppl** 1998;228:47–50

[Interleukin-6 behaves as an autocrine growth stimulator for a human lung giant cell carcinoma cell line] Fu J, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Feb;26(1):5–7 (Eng. Abstr.) **(Chi)**

[Differential expression and response of growth factors in metastatic variants of human pulmonary giant cell carcinoma cell line] Zeng L, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Apr;26(2):93–5 (Eng. Abstr.) **(Chi)**

BLOOD

Interleukin 6 and its soluble receptor in periodontitis. Pietruska M, et al. **Arch Immunol Ther Exp (Warsz)** 1998; 46(5):305–9

Elevated serum interleukin-6 (IL-6) and IL-6 receptor concentrations in posttraumatic stress disorder following accidental man-made traumatic events. Maes M, et al. **Biol Psychiatry** 1999 Apr 1;45(7):833–9

Circulating IL-6-type cytokines and sIL-6R in patients with multiple myeloma. Wierzbowska A, et al. **Br J Haematol** 1999 May;105(2):412–9

The influence of age and gender on serum dehydroepiandrosterone sulphate (DHEA-S), IL-6, IL-6 soluble receptor (IL-6 sR) and transforming growth factor beta 1 (TGF-beta1) levels in normal healthy blood donors. Young DG, et al. **Clin Exp Immunol** 1999 Sep; 117(3):476–81

Relationship of serum levels of interleukin-6, soluble interleukin-6 receptor and tumour necrosis factor receptors to the acute-phase protein response in advanced pancreatic cancer. Barber MD, et al. **Clin Sci (Colch)** 1999 Jan; 96(1):83–7

Changes in sIL-6R and sTNF-Rs release by PMNs and the serum levels in breast cancer patients at different stages of treatment. Jablonska E. **Cytokine** 1998 Jul;10(7):540–3

Natural variability of circulating levels of cytokines and cytokine receptors in patients with heart failure: implications for clinical trials. Dibbs Z, et al. **J Am Coll Cardiol** 1999 Jun;33(7):1935–42

Plasma levels of the interleukin-6 cytokine family in persons with severe Plasmodium falciparum malaria. Wenisch C, et al. **J Infect Dis** 1999 Mar;179(3):747–50

Blocking interleukin-6 activity with chimeric anti-IL6 monoclonal antibodies in multiple myeloma: effects on soluble IL6 receptor and soluble gp130. Van Zaanen HC, et al. **Leuk Lymphoma** 1998 Nov;31(5-6):551–8

Serum levels of interleukin-6 type cytokines and soluble interleukin-6 receptor in patients with rheumatoid arthritis. Robak T, et al. **Mediators Inflamm** 1998;7(5):347–53

Interleukin-6 and its soluble receptor in serum and cerebrospinal fluid after cerebral trauma. Hans VH, et al. **Neuroreport** 1999 Feb 5;10(2):409–12

Serum levels of soluble IL-2 receptor alpha, IL-6 and IL-1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97–106

[Clinical significance of determining serum soluble IL-6 receptor concentration in plasma cell dyscrasias] Hou J, et al. **Chung Hua Nei Ko Tsa Chih** 1997;36(2):94–6 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Increased sensitivity of IL-6-deficient mice to carbon tetrachloride hepatotoxicity and protection with an IL-6 receptor-IL-6 chimera. Katz A, et al. **Cytokines Cell Mol Ther** 1998 Dec;4(4):221–7

A role for the immunoglobulin-like domain of the human IL-6 receptor. Intracellular protein transport and shedding. Vollmer P, et al. **Eur J Biochem** 1999 Jul;263(2):438–46

DEFICIENCY

Role of IL-6 and the soluble IL-6 receptor in inhibition of VCAM-1 gene expression. Oh JW, et al. **J Immunol** 1998 Nov 1;161(9):4992–9

GENETICS

Immunogene therapy of human melanoma. Phase I/II clinical trial. Mackiewicz A, et al. **Adv Exp Med Biol** 1998; 451:557–60

Dexamethasone enhances expression of membrane and soluble interleukin-6 receptors by prostate carcinoma cell lines. Mori S, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4403–8

The soluble interleukin-6 (IL-6) receptor/IL-6 fusion protein enhances in vitro maintenance and proliferation of human CD34(+)CD38(-/low) cells capable of repopulating severe combined immunodeficiency mice. Kollet O, et al. **Blood** 1999 Aug 1;94(3):923–31

Differential temporal expression of mRNAs for ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), interleukin-6 (IL-6), and their receptors (CNTFR alpha, LIFR beta, IL-6R alpha and gp130) in injured peripheral nerves. Ito Y, et al. **Brain Res** 1998 May 18; 793(1-2):321–7

Regulation of CCAAT/Enhancer binding protein, interleukin-6, interleukin-6 receptor, and gp130 expression during myocardial ischemia/reperfusion. Chandrasekar B, et al. **Circulation** 1999 Jan 26;99(3):427–33

Generation of 'truncated' interleukin-6 receptor (IL-6R) mRNA by alternative splicing; a possible source of soluble IL-6R. Holub MC, et al. **Immunol Lett** 1999 May 3; 68(1):121–4

A highly polymorphic CA repeat marker at the human interleukin 6 receptor (IL6R) locus. Tsukamoto K, et al. **J Hum Genet** 1998;43(4):289–90

IMMUNOLOGY

T-lymphocyte interleukin 6 receptor binding in patients with dementia of Alzheimer type. Bongioanni P, et al. **Arch Neurol** 1998 Oct;55(10):1305–8

Treatment of rheumatoid synovitis with anti-reshaping human interleukin-6 receptor monoclonal antibody: use of rheumatoid arthritis tissue implants in the SCID mouse model. Matsuno H, et al. **Arthritis Rheum** 1998 Nov; 41(11):2014–21

Effects of all-trans retinoic acid and antireceptor antibodies on growth and programmed cell death of human myeloma cells. Taetle R, et al. **Clin Cancer Res** 1996 Feb;2(2):253–9

[New therapeutic strategy for autoimmune diseases. 3) Treatment of autoimmune diseases by cytokine signal transduction inhibition] Nishimoto N, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1745–50 (20 ref.) **(Jpn)**

METABOLISM

T-lymphocyte interleukin 6 receptor binding in patients with dementia of Alzheimer type. Bongioanni P, et al. **Arch Neurol** 1998 Oct;55(10):1305–8

Interleukin-6 receptor shedding: a possible role for members of the ADAM family. Croucher PI, et al. **Biochem Soc Trans** 1999 Feb;27(2):224–8 (36 ref.)

Growth inhibition of a human myeloma cell line by all-trans retinoic acid is not mediated through downregulation of interleukin-6 receptors but through upregulation of p21(WAF1). Chen YH, et al. **Blood** 1999 Jul 1;94(1):251–9

CD130 rather than CD126 expression is associated with disease activity in multiple myeloma. Barillé S, et al. **Br J Haematol** 1999 Aug;106(2):532–5

Discriminant power of combined cerebrospinal fluid tau protein and of the soluble interleukin-6 receptor complex in the diagnosis of Alzheimer's disease. Hampel H, et al. **Brain Res** 1999 Mar 27;823(1-2):104–12

Soluble interleukin 6 (IL-6) receptor influences the

expression of the protooncogene junB and the production of fibrinogen in the HepG2 human hepatoma cell line and primary rat hepatocytes. Igaz P, et al. **Cytokine** 1998 Aug; 10(8):620–6

The expression of interleukin-6 (IL-6), IL-6 receptor, and gp130-kilodalton glycoprotein in the rat decidua and a decidual cell line: regulation by 17beta-estradiol and prolactin. Deb S, et al. **Endocrinology** 1999 Oct; 140(10):4442–50

Interleukin-6 receptor signaling. II. Bio-availability of interleukin-6 in serum. Gaillard J, et al. **Eur Cytokine Netw** 1999 Sep;10(3):337–44

Induction of myelin gene expression in Schwann cell cultures by an interleukin-6 receptor-interleukin-6 chimera. Haggiag S, et al. **FEBS Lett** 1999 Aug 27;457(2):200–4

The N-terminus of gp130 is critical for the formation of the high-affinity interleukin-6 receptor complex. Moritz RL, et al. **Growth Factors** 1999;16(4):265–78

Interleukin-6, hepatocyte growth factor, and their receptors in biliary epithelial cells during a type I ductular reaction in mice: interactions between the periductal inflammatory and stromal cells and the biliary epithelium. Liu Z, et al. **Hepatology** 1998 Nov;28(5):1260–8

Disulfide bond structure and N-glycosylation sites of the extracellular domain of the human interleukin-6 receptor. Cole AR, et al. **J Biol Chem** 1999 Mar 12;274(11):7207–15

A new type of cytokine receptor antagonist directly targeting gp130. Renné C, et al. **J Biol Chem** 1998 Oct 16; 273(42):27213–9

C-reactive protein: a physiological activator of interleukin 6 receptor shedding. Jones SA, et al. **J Exp Med** 1999 Feb 1;189(3):599–604

T-cell interleukin-6 receptor binding in patients with myasthenia gravis. Bongioanni P, et al. **J Neurol Sci** 1998 Jun 30;158(2):215–20

Human herpesvirus 8 interleukin-6 (vIL-6) signals through gp130 but has structural and receptor-binding properties distinct from those of human IL-6. Wan X, et al. **J Virol** 1999 Oct;73(10):8268–78

Polycythemia vera megakaryocytes but not megakaryocytes from normal controls and patients with smokers polyglobuly spontaneously express IL-6 and IL-6R and secrete IL-6. Wickenhauser C, et al. **Leukemia** 1999 Mar; 13(3):327–34

Is there any relationship between interleukin-6/interleukin-6 receptor modulation and endogenous interleukin-6 release in metastatic malignant melanoma patients treated by biochemotherapy? Mouawad R, et al. **Melanoma Res** 1999 Apr;9(2):181–8

Soluble IL-6 and TNF receptors release by polymorphonuclear and mononuclear cells in cancer patients. Jablonska E. **Neoplasma** 1999;46(1):35–9

Soluble interleukin-6 receptor, interleukin-10 and granulocyte colony-stimulating factor in acute pyelonephritis: relationship to markers of bacterial virulence and renal function. Jacobson SH, et al. **Nephron** 1998 Dec;80(4):401–7

Interleukin-6 and its soluble receptor in serum and cerebrospinal fluid after cerebral trauma. Hans VH, et al. **Neuroreport** 1999 Feb 5;10(2):409–12

Interleukin-6 and the soluble IL-6 receptor are decreased in cerebrospinal fluid of geriatric patients with major depression: no alteration of soluble gp130. Stübner S, et al. **Neurosci Lett** 1999 Jan 15;259(3):145–8

Interleukin 6 and its soluble receptor are elevated in aqueous humor of patients with uveitis. Petrinović-Doresić J, et al. **Ocul Immunol Inflamm** 1999 Jun;7(2):75–84

PHYSIOLOGY

Menstrual cycle-specific inhibition of the proliferation of endometrial stromal cells by interleukin 6 and its soluble receptor. Yoshioka H, et al. **Am J Obstet Gynecol** 1999 May;180(5):1088–94

The soluble form of interleukin-6 receptor modulates cell proliferation by acute myeloblastic leukemia blast cells. Säily M, et al. **Ann Hematol** 1999 Apr;78(4):173–9

Generation and function of the soluble interleukin-6 receptor. Müllberg J, et al. **Biochem Soc Trans** 1999 Feb;27(2):211–9 (66 ref.)

Interleukin-6 and soluble interleukin-6 receptor: direct stimulation of gp130 and hematopoiesis. Peters M, et al. **Blood** 1998 Nov 15;92(10):3495–504 (85 ref.)

Soluble interleukin-6 (IL-6) receptor with IL-6 stimulates megakaryopoiesis from human CD34(+) cells through glycoprotein (gp)130 signaling. Sui X, et al. **Blood** 1999 Apr 15;93(8):2525–32

Characterization of soluble gp130 released by melanoma cell lines: A polyvalent antagonist of cytokines from the interleukin 6 family. Montero-Julian FA, et al. **Clin Cancer Res** 1997 Aug;3(8):1443–51

Functional interaction of the gp80 and gp130 IL-6 receptors in human B cell malignancies. Tupitsyn N, et al. **Clin Lab Haematol** 1998 Dec;20(6):345–52

A possible role for soluble IL-6 receptor in the pathogenesis of systemic onset juvenile chronic arthritis. Keul R, et al. **Cytokine** 1998 Sep;10(9):729–34

Interleukin-6 receptor signaling. I. gp80 and gp130 receptor interaction in the absence of interleukin-6. Gaillard JP, et al. **Eur Cytokine Netw** 1999 Mar;10(1):43–8

Role of interleukin-6 and soluble IL-6 receptor in region-specific induction of astrocytic differentiation and neurotrophin expression. März P, et al. **Glia** 1999 May; 26(3):191–200

Soluble IL-6 receptor induces calcium flux and selectively modulates chemokine expression in human dermal fibroblasts. Spörri B, et al. **Int Immunol** 1999 Jul; 11(7):1053–8

Soluble IL-6 receptor potentiates the antagonistic activity of soluble gp130 on IL-6 responses. Müller-Newen G, et al. **J Immunol** 1998 Dec 1;161(11):6347–55

Role of IL-6 and the soluble IL-6 receptor in inhibition of VCAM-1 gene expression. Oh JW, et al. **J Immunol** 1998 Nov 1;161(9):4992–9

Interleukin-6 (IL-6) production by astrocytes: autocrine regulation by IL-6 and the soluble IL-6 receptor. Van Wagoner NJ, et al. **J Neurosci** 1999 Jul 1;19(13):5236–44

Dual signaling role of the protein tyrosine phosphatase SHP-2 in regulating expression of acute-phase plasma proteins by interleukin-6 cytokine receptors in hepatic cells. Kim H, et al. **Mol Cell Biol** 1999 Aug;19(8):5326–38

RECEPTORS, INTERLEUKIN-7

DEFICIENCY

Overexpression of Bcl-2 does not rescue impaired B lymphopoiesis in IL-7 receptor-deficient mice but can enhance survival of mature B cells. Maraskovsky E, et al. **Int Immunol** 1998 Sep;10(9):1367–75

GENETICS

Defective IL7R expression in T(-)B(+)NK(+) severe combined immunodeficiency. Puel A, et al. **Nat Genet** 1998 Dec;20(4):394–7

IMMUNOLOGY

Cell-fate decisions in early T cell development: regulation by cytokine receptors and the pre-TCR. Haks MC, et al. **Semin Immunol** 1999 Feb;11(1):23–37 (143 ref.)

METABOLISM

Interleukin 7 receptor control of T cell receptor gamma gene rearrangement: role of receptor-associated chains and locus accessibility. Durum SK, et al. **J Exp Med** 1998 Dec 21; 188(12):2233–41

PHYSIOLOGY

Induction of germline transcription in the TCRgamma locus by Stat5: implications for accessibility control by the IL-7 receptor. Ye SK, et al. **Immunity** 1999 Aug;11(2):213–23

IL-7 receptor alpha+ CD3(-) cells in the embryonic intestine induces the organizing center of Peyer's patches. Yoshida H, et al. **Int Immunol** 1999 May;11(5):643–55

RECEPTORS, INTERSTITIAL CELL-STIMULATING HORMONE see **RECEPTORS, LH**

RECEPTORS, INVERTEBRATE PEPTIDE

GENETICS

Several levels of EGF receptor signaling during photoreceptor specification in wild-type, Ellipse, and null mutant Drosophila. Lesokhin AM, et al. **Dev Biol** 1999 Jan 1;205(1):129–44

METABOLISM

Association of the sea urchin EGF-related peptide, EGIP-D, with fasciclin I-related ECM proteins from the sea urchin Anthocidaris crassispina. Hirate Y, et al. **Dev Growth Differ** 1999 Aug;41(4):483–94

Isoform-specific regulation of the CCAAT/enhancer-binding protein family of transcription factors by 3',5'-cyclic adenosine monophosphate in Sertoli cells. Grønning LM, et al. **Endocrinology** 1999 Feb; 140(2):835–43

PHYSIOLOGY

The role of star in the production of an activated ligand for the EGF receptor signaling pathway. Pickup AT, et al. **Dev Biol** 1999 Jan 15;205(2):254–9

Interaction between Drosophila EGF receptor and vnd determines three dorsoventral domains of the neuroectoderm. Yagi Y, et al. **Development** 1998 Sep; 125(18):3625–33

Vein expression is induced by the EGF receptor pathway to provide a positive feedback loop in patterning the Drosophila embryonic ventral ectoderm. Golembo M, et al. **Genes Dev** 1999 Jan 15;13(2):158–62

ovo/svb integrates Wingless and DER pathways to control epidermis differentiation [see comments] Payre F, et al. **Nature** 1999 Jul 15;400(6741):271–5. Comment in: Nature 1999 Jul 15;400(6741):213–5.

Invertebrate neurohormones and their receptors. Grimmelikhuijzen CJ, et al. **Results Probl Cell Differ** 1999; 26:339–62 (70 ref.)

RECEPTORS, KAINATE see **RECEPTORS, KAINIC ACID**

RECEPTORS, KAINIC ACID

AGONISTS

Pharmacology and toxicology of ATOA, an AMPA receptor antagonist and a partial agonist at GluR5 receptors. Wahl P, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10–11):1205–10

ANALYSIS

Characterization of neuronal migration disorders in neocortical structures: quantitative receptor autoradiography of ionotropic glutamate, GABA(A) and GABA(B) receptors. Zilles K, et al. **Eur J Neurosci** 1998 Oct;10(10):3095–106

Presence of a non-NMDA glutamate receptor subtype in the sympathetic nervous system of neonatal swine. Ruggiero DA, et al. **J Auton Nerv Syst** 1998 Nov 10; 73(2–3):101–8

Dendritic localization of Ca(2+)-permeable AMPA/kainate channels in hippocampal pyramidal neurons. Yin HZ, et al. **J Comp Neurol** 1999 Jun 28;409(2):250–60

ANTAGONISTS & INHIBITORS

Intrathecal co-administration of NMDA antagonist and NK-1 antagonist reduces MAC of isoflurane in rats. Ishizaki K, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):753–9

AMPA/kainate receptor antagonists as novel analgesic agents [editorial;comment] Brennan TJ. **Anesthesiology** 1998 Nov;89(5):1049–51. Comment on: Anesthesiology 1998 Nov;89(5):1060–7.

AMPA/kainate antagonist LY293558 reduces capsaicin-evoked hyperalgesia but not pain in normal skin in humans [see comments] Sang CN, et al. **Anesthesiology** 1998 Nov;89(5):1060–7. Comment in: Anesthesiology 1998 Nov;89(5):1049–51.

NS-257, a novel competitive AMPA receptor antagonist, interacts with kainate and NMDA receptors. Nijholt I, et al. **Brain Res** 1999 Mar 13;821(2):374–82

Inhibition of rat neuronal kainate receptors by cis-unsaturated fatty acids. Wilding TJ, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):331–9

Ethanol inhibition of synaptically evoked kainate responses in rat hippocampal CA3 pyramidal neurons. Weiner JL, et al. **Mol Pharmacol** 1999 Jul;56(1):85–90

Antagonism of neuronal kainate receptors by lanthanum and gadolinium. Huettner JE, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1239–47

Decahydroisoquinolines: novel competitive AMPA/kainate antagonists with neuroprotective effects in global cerebral ischaemia. O'Neill MJ, et al. **Neuropharmacology** 1998 Oct-Nov;37(10–11):1211–22

The kainate receptor antagonist 2S,4R-4-methylglutamate attenuates mechanical allodynia and thermal hyperalgesia in a rat model of nerve injury. Sutton JL, et al. **Neuroscience** 1999;91(1):283–92

BIOSYNTHESIS

Chronic ethanol upregulates NMDA and AMPA, but not kainate receptor subunit proteins in rat primary cortical cultures. Chandler LJ, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):363–70

Role of desensitization and subunit expression for kainate receptor-mediated neurotoxicity in murine neocortical cultures. Jensen JB, et al. **J Neurosci Res** 1999 Jan 15; 55(2):208–17

CHEMISTRY

Recent excitement in the ionotropic glutamate receptor field. Ziff EB. **Ann N Y Acad Sci** 1999 Apr 30;868:465–73 (61 ref.)

Differential distribution of ionotropic glutamate receptor subunits in the rat olfactory bulb. Montague AA, et al. **J Comp Neurol** 1999 Mar 8;405(2):233–46

Agonist-induced changes in substituted cysteine accessibility reveal dynamic extracellular structure of M3-M4 loop of glutamate receptor GluR6. Basiry SS, et al. **J Neurosci** 1999 Jan 15;19(2):644–52

Lectin-induced inhibition of desensitization of the kainate receptor GluR6 depends on the activation state and can be mediated by a single native or ectopic N-linked carbohydrate side chain. Everts I, et al. **J Neurosci** 1999 Feb 1;19(3):916–27

DRUG EFFECTS

Acute effects of ethanol on recombinant kainate receptors: lack of role of protein phosphorylation. Valenzuela CF, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1292–9

Effects of placing micro-implants of melatonin in striatum on oxidative stress and neuronal damage mediated by N-methyl-D-aspartate (NMDA) and non-NMDA receptors. Kim HJ, et al. **Arch Pharm Res** 1999 Feb; 22(1):35–43

Lectin-induced inhibition of desensitization of the kainate receptor GluR6 depends on the activation state and can be mediated by a single native or ectopic N-linked carbohydrate side chain. Everts I, et al. **J Neurosci** 1999 Feb 1;19(3):916–27

Role of desensitization and subunit expression for kainate

receptor-mediated neurotoxicity in murine neocortical cultures. Jensen JB, et al. **J Neurosci Res** 1999 Jan 15; 55(2):208–17

Acute effects of ethanol on kainate receptors with different subunit compositions. Valenzuela CF, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1199–206

Interference of S-alkyl derivatives of glutathione with brain ionotropic glutamate receptors. Jenei Z, et al. **Neurochem Res** 1998 Aug;23(8):1085–91

Neuropharmacology of AMPA and kainate receptors. Bleakman D, et al. **Neuropharmacology** 1998 Oct–Nov; 37(10–11):1187–204 (275 ref.)

Induction of LTD in the adult hippocampus by the synaptic activation of AMPA/kainate and metabotropic glutamate receptors. Kemp N, et al. **Neuropharmacology** 1999 Apr; 38(4):495–504

Activation and desensitization properties of native and recombinant kainate receptors. Paternain AV, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1249–59

Actions of kainate and AMPA selective glutamate receptor ligands on nociceptive processing in the spinal cord. Procter MJ, et al. **Neuropharmacology** 1998 Oct–Nov; 37(10–11):1287–97

LY339434, a GluR5 kainate receptor agonist. Small B, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1261–7

Pharmacological differentiation of kainate receptors on neonatal rat spinal motoneurones and dorsal roots [published erratum appears in Neuropharmacology 1999 Mar;38(3):463] Thomas NK, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1223–37

GENETICS

Identification of kainate-preferring glutamate receptor subunit GluR7 mRNA and protein in the rat median eminence. Eyigor O, et al. **Brain Res** 1998 Dec 14; 814(1–2):231–5

Q/R editing of the rat GluR5 and GluR6 kainate receptors in vivo and in vitro: evidence for independent developmental, pathological and cellular regulation. Bernard A, et al. **Eur J Neurosci** 1999 Feb;11(2):604–16

Investigation by ion channel domain transplantation of rat glutamate receptor subunits, orphan receptors and a putative NMDA receptor subunit. Villmann C, et al. **Eur J Neurosci** 1999 May;11(5):1765–78

Neuroadaptations in ionotropic and metabotropic glutamate receptor mRNA produced by cocaine treatment. Ghasemzadeh MB, et al. **J Neurochem** 1999 Jan; 72(1):157–65

Altered hippocampal kainate-receptor mRNA levels in temporal lobe epilepsy patients. Mathern GW, et al. **Neurobiol Dis** 1998 Sep;5(3):151–76

METABOLISM

Activation of N-methyl-D-aspartate receptors reverses desensitization of metabotropic glutamate receptor, mGluR5, in native and recombinant systems. Alagarsamy S, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:526–30

Activation of kainate receptors on rat sensory neurons evokes action potential firing and may modulate transmitter release. Lee CJ, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:546–9

Channel-opening mechanism of a kainate-activated glutamate receptor: kinetic investigations using a laser-pulse photolysis technique. Jayaraman V. **Biochemistry** 1998 Nov 24;37(47):16735–40

Neurosteroid modulation of recombinant ionotropic glutamate receptors. Yaghoubi N, et al. **Brain Res** 1998 Aug 24;803(1–2):153–60

Ca2+ permeability and joro spider toxin sensitivity of AMPA and kainate receptors on cerebellar granule cells. Savidge JR, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):131–8

Laminar and cellular distribution of AMPA, kainate, and NMDA receptor subunits in monkey sensory-motor cortex. Muñoz A, et al. **J Comp Neurol** 1999 May 17;407(4):472–90

Glutamate receptor 5/6/7-like and glutamate transporter-1-like immunoreactivity in the leech central nervous system. Thorogood MS, et al. **J Comp Neurol** 1999 Mar 15;405(3):334–44

Regional and laminar specificity of kainate-stimulated cobalt uptake in the rat hippocampal formation. Toomim CS, et al. **J Comp Neurol** 1998 Dec 14;402(2):141–54

Kainate receptor-mediated responses in the CA1 field of wild-type and GluR6-deficient mice. Bureau I, et al. **J Neurosci** 1999 Jan 15;19(2):653–63

High-affinity kainate-type ion channels in rat cerebellar granule cells. Pemberton KE, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):401–20

Distinct kainate receptor phenotypes in immature and mature mouse cerebellar granule cells [see comments] Smith TC, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):51–8. Comment in: J Physiol (Lond) 1999 May 15;517 (Pt 1):1.

Developing roles for kainate receptors in the cerebellum [comment] Swanson GT. **J Physiol (Lond)** 1999 May 15; 517 (Pt 1):1. Comment on: J Physiol (Lond) 1999 May 15;517 (Pt 1):51–8.

Heterogeneity of homomeric GluR5 kainate receptor desensitization expressed in HEK293 cells. Swanson GT, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):639–46

Sexual differences in the role of kainate receptors in controlling gonadotrophin secretion in prepubertal rats. Pinilla L, et al. **J Reprod Fertil** 1998 Jul;113(2):269–73

AMPA/kainate receptors permeable to divalent cations in amphibian central nervous system. Estabel J, et al. **Life Sci** 1999;64(8):607–16

Kainate receptors coupled to G(i)/G(o) proteins in the rat hippocampus. Cunha RA, et al. **Mol Pharmacol** 1999 Aug; 56(2):429–33

Kainate receptors mediate synaptic transmission between cones and 'Off' bipolar cells in a mammalian retina. DeVries SH, et al. **Nature** 1999 Jan 14;397(6715):157–60

Kainate-receptor-mediated sensory synaptic transmission in mammalian spinal cord. Li P, et al. **Nature** 1999 Jan 14; 397(6715):161–4

Interference of S-alkyl derivatives of glutathione with brain ionotropic glutamate receptors. Jenei Z, et al. **Neurochem Res** 1998 Aug;23(8):1085–91

SAP90 binds and clusters kainate receptors causing incomplete desensitization. Garcia EP, et al. **Neuron** 1998 Oct;21(4):727–39

The role of hydrophobic interactions in binding of polyamines to non NMDA receptor ion channels [published erratum appears in Neuropharmacology 1999 Mar;38(3):463] Cu C, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1381–91

Cultured motor neurons possess calcium-permeable AMPA/kainate receptors. Bar-Peled O, et al. **Neuroreport** 1999 Mar 17;10(4):855–9

Regional distribution of low affinity kainate receptors in brain of Macaca fascicularis determined by autoradiography using [3H](2S,4R)-4-methylglutamate. Carroll FY, et al. **Neurosci Lett** 1998 Oct 16;255(2):71–4

Presynaptic kainate receptors in the monkey striatum. Charara A, et al. **Neuroscience** 1999;91(4):1195–200

Synaptically released glutamate reduces gamma-aminobutyric acid (GABA)ergic inhibition in the hippocampus via kainate receptors. Min MY, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9932–7

A new protein folding screen: application to the ligand binding domains of a glutamate and kainate receptor and to lysozyme and carbonic anhydrase. Armstrong N, et al. **Protein Sci** 1999 Jul;8(7):1475–83

PHYSIOLOGY

Regulation of vasopressin release by ionotropic glutamate receptor agonists. Morsette DJ, et al. **Adv Exp Med Biol** 1998;449:129–30

Mild kainate toxicity produces selective motoneuron death with marked activation of CA(2+)-permeable AMPA/kainate receptors. Terro F, et al. **Brain Res** 1998 Nov 2;809(2):319–24

Ionotropic glutamate receptors in isolated horizontal cells of the rabbit retina. Blanco R, et al. **Eur J Neurosci** 1999 Mar;11(3):867–73

Kainate activation of horizontal, bipolar, amacrine, and ganglion cells in the rabbit retina. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):65–76

Current-source density analysis in the rat olfactory bulb: laminar distribution of kainate/AMPA- and NMDA-receptor-mediated currents. Aroniadou-Anderjaska V, et al. **J Neurophysiol** 1999 Jan; 81(1):15–28

Activity-dependent modulation of glutamate receptors by polyamines. Bowie D, et al. **J Neurosci** 1998 Oct 15; 18(20):8175–85

Heteromeric kainate receptors formed by the coassembly of GluR5, GluR6, and GluR7. Cui C, et al. **J Neurosci** 1999 Oct 1;19(19):8281–91

GluR5 kainate receptor activation in interneurons increases tonic inhibition of pyramidal cells [see comments] Cossart R, et al. **Nat Neurosci** 1998 Oct;1(6):470–8. Comment in: Nat Neurosci 1998 Oct;1(6):434–5.

Synaptic activation of kainate receptors on hippocampal interneurons [see comments] Frerking M, et al. **Nat Neurosci** 1998 Oct;1(6):479–86. Comment in: Nat Neurosci 1998 Oct;1(6):434–5.

Developmental and activity-dependent regulation of kainate receptors at thalamocortical synapses. Kidd FL, et al. **Nature** 1999 Aug 5;400(6744):569–73

Activation of AMPA, kainate, and metabotropic receptors at hippocampal mossy fiber synapses: role of glutamate diffusion. Min MY, et al. **Neuron** 1998 Sep;21(3):561–70

GluR5 kainate receptor mediated synaptic transmission in rat basolateral amygdala in vitro. Li H, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1279–86

Characterisation of kainate receptor mediated whole-cell currents in rat cultured cerebellar granule cells. Savidge JR, et al. **Neuropharmacology** 1999 Mar;38(3):375–82

The GluR5 subtype of kainate receptor regulates excitatory synaptic transmission in areas CA1 and CA3 of the rat hippocampus. Vignes M, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1269–77

A role for AMPA/kainate receptors in conditioned place preference induced by diazepam in the rat. Gray A, et al. **Neurosci Lett** 1999 Jun 25;268(3):127–30

Activation of gonadotropin-releasing hormone receptors induces a long-term enhancement of excitatory postsynaptic currents mediated by ionotropic glutamate receptors in the rat hippocampus. Yang SN, et al. **Neurosci Lett** 1999 Jan 22;260(1):33–6

A high-affinity presynaptic kainate-type glutamate receptor facilitates glutamate exocytosis from cerebral cortex nerve terminals (synaptosomes). Perkinton MS, et al. **Neuroscience** 1999;90(4):1281–92

Preferential Zn2+ influx through Ca2+-permeable AMPA/kainate channels triggers prolonged mitochondrial superoxide production. Sensi SL, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2414–9

Kainate receptors: subunits, synaptic localization and function. Chittajallu R, et al. **Trends Pharmacol Sci** 1999 Jan;20(1):26–35 (93 ref.)

RECEPTORS, KAPPA see **RECEPTORS, OPIOID, KAPPA**

RECEPTORS, KAPPA OPIOID see **RECEPTORS, OPIOID, KAPPA**

RECEPTORS, LAMININ

ANALYSIS

The 67 kDa laminin receptor as a prognostic factor in human cancer. Ménard S, et al. **Breast Cancer Res Treat** 1998; 52(1–3):137–45 (66 ref.)

BIOSYNTHESIS

Laminin receptor in lymph node negative breast carcinoma. Nadji M, et al. **Cancer** 1999 Jan 15;85(2):432–6

Expression of the Mr 67,000 laminin receptor is an adverse prognostic indicator in human thyroid cancer: an immunohistochemical study. Basolo F, et al. **Clin Cancer Res** 1996 Oct;2(10):1777–80

67-Kilodalton laminin receptor expression correlates with worse prognostic indicators in non-small cell lung carcinomas. Fontanini G, et al. **Clin Cancer Res** 1997 Feb; 3(2):227–31

Expression of the 67-kDa laminin receptor in acute myeloid leukemia cells mediates adhesion to laminin and is frequently associated with monocytic differentiation. Montuori N, et al. **Clin Cancer Res** 1999 Jun;5(6):1465–72

Expression of the 67-KD laminin-binding protein in human lymphomas [letter; comment] Suzuki H. **Hum Pathol** 1999 Mar;30(3):361–2. Comment on: Hum Pathol 1995 May;26(5):541–6.

Laminin receptors in differentiated thyroid tumors: restricted expression of the 67-kilodalton laminin receptor in follicular carcinoma cells. Montuori N, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2086–92

The relationship between 67KD laminin receptor expression and metastasis of hepatocellular carcinoma. Zheng S, et al. **J Tongji Med Univ** 1997;17(4):200–2, 224

CHEMISTRY

Neuronal receptors mediating responses to antibodyactivated laminin-1. Ivins JK, et al. **J Neurosci** 1998 Dec 1; 18(23):9703–15

GENETICS

The induction of apoptosis in HeLa cells by the loss of LBP-p40. Kaneda Y, et al. **Cell Death Differ** 1998 Jan; 5(1):20–8

IMMUNOLOGY

Neuronal receptors mediating responses to antibodyactivated laminin-1. Ivins JK, et al. **J Neurosci** 1998 Dec 1; 18(23):9703–15

Inhibition of experimental metastasis of human fibrosarcoma cells by anti-recombinant 37-kDa laminin binding protein antibody. Narumi K, et al. **Jpn J Cancer Res** 1999 Apr; 90(4):425–31

ISOLATION & PURIFICATION

Isolation of a laminin-binding protein from the protozoan parasite Leishmania donovani that may mediate cell adhesion. Ghosh A, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):551–8

METABOLISM

LBP-p40 binds DNA tightly through associations with histones H2A, H2B, and H4. Kinoshita K, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):277–82

Expression of the alpha7beta1 laminin receptor suppresses melanoma growth and metastatic potential. Ziober BL, et al. **Cell Growth Differ** 1999 Jul;10(7):479–90

Cell death by overload of the elastin-laminin receptor on human activated lymphocytes: protection by lactose and melibiose. Péterszegi G, et al. **Eur J Clin Invest** 1999 Feb; 29(2):166–72

The muscle-specific laminin receptor alpha7 beta1 integrin negatively regulates alpha5 beta1 fibronectin receptor function. Tomatis D, et al. **Exp Cell Res** 1999 Feb 1; 246(2):421–32

Effect of in vitro aging on the modulation of protein and fibronectin biosynthesis by the elastin-laminin receptor in human skin fibroblasts. Fodil-Bourahla I, et al. **Gerontology** 1999 Jan–Feb;45(1):23–30

Differential expression of laminin receptors in human hepatocellular carcinoma. Ozaki I, et al. **Gut** 1998 Dec; 43(6):837–42

Integrin laminin receptor profile of pulmonary squamous cell and adenocarcinomas. Patriarca C, et al. **Hum Pathol** 1998 Nov;29(11):1208–15

Epidermal growth factor and laminin receptors contribute

to migratory and invasive properties of gliomas. Tysnes BB, et al. **Invasion Metastasis** 1997;17(5):270–80

Effect of in vitro aging on the biosynthesis of glycosaminoglycans by human skin fibroblasts. Modulation by the elastin-laminin receptor. Fodil-Bourahla I, et al. **Mech Ageing Dev** 1999 Jan 15;106(3):241–60

Identification of a 21 kDa laminin-binding component of Candida albicans. Sakata N, et al. **Zentralbl Bakteriol** 1999 Apr;289(2):217–25

PHYSIOLOGY

Cell death induced in lymphocytes expressing the elastin-laminin receptor by excess agonists: necrosis and apoptosis. Péterszegi G, et al. **Biomed Pharmacother** 1998; 52(9):369–77 (33 ref.)

Diminution of 37-kDa laminin binding protein expression reduces tumour formation of murine lung cancer cells. Satoh K, et al. **Br J Cancer** 1999 Jun;80(8):1115–22

Mechanisms of aging of the extracellular matrix: role of the elastin-laminin receptor. Robert L. **Gerontology** 1998; 44(6):307–17 (68 ref.)

The 67-kDa laminin-binding protein is involved in shear stress-dependent endothelial nitric-oxide synthase expression. Gloe T, et al. **J Biol Chem** 1999 Jun 4; 274(23):15996–6002

alpha-Dystroglycan is a laminin receptor involved in extracellular matrix assembly on myotubes and muscle cell viability. Montanaro F, et al. **J Cell Biol** 1999 Jun 14; 145(6):1325–40

The nonintegrin laminin binding protein (p67 LBP) is expressed on a subset of activated human T lymphocytes and, together with the integrin very late activation antigen-6, mediates avid cellular adherence to laminin. Canfield SM, et al. **J Immunol** 1999 Sep 15;163(6):3430–40

Division of labor among the alpha6beta4 integrin, beta1 integrins, and an E3 laminin receptor to signal morphogenesis and beta-casein expression in mammary epithelial cells. Muschler J, et al. **Mol Biol Cell** 1999 Sep; 10(9):2817–28

Role of the elastin-laminin receptor in the cardiovascular system. Faury G. **Pathol Biol (Paris)** 1998 Sep;46(7):517–26 (84 ref.)

Role of the 37 kDa laminin receptor precursor in the life cycle of prions. Rieger R, et al. **Transfus Clin Biol** 1999 Feb;6(1):7–16 (65 ref.)

RECEPTORS, LDL

[CD36 as an oxidized LDL receptor] Nozaki S. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1306–11 (30 ref.) **(Jpn)**

ANALYSIS

Enhanced 3-hydroxy-3-methyl-glutaryl coenzyme A reductase activity in human colorectal cancer not expressing low density lipoprotein receptor. Caruso MG, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):451–4

Identification of megalin/gp330 as a receptor for lipoprotein(a) in vitro. Niemeier A, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):552–61

Identification of 130 kDa cell surface LDL-binding protein from smooth muscle cells as a partially processed T-cadherin precursor. Stambolsky DV, et al. **Biochim Biophys Acta** 1999 Jan 12;1416(1-2):155–60

Neuronal localization of a novel mosaic apolipoprotein E receptor, LR11, in rat and human brain. Motoi Y, et al. **Brain Res** 1999 Jul 3;833(2):209–15

Unconventional antigen retrieval for carbohydrate and protein antigens. Guhl B, et al. **Histochem Cell Biol** 1998 Dec;110(6):603–11

Differential expression of CD14, CD36 and the LDL receptor on human monocyte-derived macrophages. A novel cell culture system to study macrophage differentiation and heterogeneity. Wintergerst ES, et al. **Histochem Cell Biol** 1998 Sep;110(3):231–41

Immunophenotyping and LDL receptor activity analysis in monocytes/macrophages during low- and high-flux haemodialysis. Forster PB, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:49–51

BIOSYNTHESIS

The expression of the lectin-like oxidized low-density lipoprotein receptor (LOX-1) on human vascular smooth muscle cells and monocytes and its down-regulation by lovastatin. Draude G, et al. **Biochem Pharmacol** 1999 Feb 15;57(4):383–6

Expression of lectin-like oxidized low density lipoprotein receptor-1 in human and murine macrophages: upregulated expression by TNF-alpha. Moriwaki H, et al. **FEBS Lett** 1998 Nov 27;440(1-2):29–32

Coordinate up-regulation of low-density lipoprotein receptor and cyclo-oxygenase-2 gene expression in human colorectal cells and in colorectal adenocarcinoma biopsies. Lum DF, et al. **Int J Cancer** 1999 Oct 8;83(2):162–6

Induction of low density lipoprotein receptor (LDLR) transcription by oncostatin M is mediated by the extracellular signal-regulated kinase signaling pathway and the repeat 3 element of the LDLR promoter. Li C, et al. **J Biol Chem** 1999 Mar 5;274(10):6747–53

Improved detection of familial hypercholesterolemia by determining low density lipoprotein receptor expression in mitogen-induced proliferating lymphocytes. Chan PC, et al. **J Lipid Res** 1998 Nov;39(11):2261–70

BLOOD

Delayed chylomicron remnant clearance in subjects with heterozygous familial hypercholesterolaemia. Cabezas MC, et al. **J Intern Med** 1998 Oct;244(4):299–307

Effect of dietary cholesterol on low density lipoprotein-receptor, 3-hydroxy-3-methylglutaryl-CoA reductase, and low density lipoprotein receptor-related protein mRNA expression in healthy humans. Boucher P, et al. **Lipids** 1998 Dec;33(12):1177–86

CHEMISTRY

The VLDL receptor: an LDL receptor relative with eight ligand binding repeats, LR8. Nimpf J, et al. **Atherosclerosis** 1998 Dec;141(2):191–202 (103 ref.)

Characterization of the calcium site in two complement-like domains from the low-density lipoprotein receptor-related protein (LRP) and comparison with a repeat from the low-density lipoprotein receptor. Dolmer K, et al. **Biochemistry** 1998 Dec 1;37(48):17016–23

Structural independence of ligand-binding modules five and six of the LDL receptor. North CL, et al. **Biochemistry** 1999 Mar 30;38(13):3926–35

Expression and characterization of a very low density lipoprotein receptor variant lacking the O-linked sugar region generated by alternative splicing. Iijima H, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):747–55

A novel low-density lipoprotein receptor-related protein with type II membrane protein-like structure is abundant in heart. Tomita Y, et al. **J Biochem (Tokyo)** 1998 Oct; 124(4):784–9

NMR solution structure of complement-like repeat CR8 from the low density lipoprotein receptor-related protein. Huang W, et al. **J Biol Chem** 1999 May 14;274(20):14130–6

Bovine aortic endothelial cells express a variant of the very low density lipoprotein receptor that lacks the O-linked sugar domain. Magrané J, et al. **J Lipid Res** 1998 Nov; 39(11):2172–81

Structural characterization by computer experiments of the lipid-free LDL-receptor-binding domain of apolipoprotein E. Prévost M, et al. **Protein Eng** 1999 Jun;12(6):475–83

[Structure and function of a novel scavenger receptor expressed in human endothelial cells] Adachi H, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1282–6 (24 ref.) **(Jpn)**

DEFICIENCY

Agonist-specific impairment of coronary vascular function in genetically altered, hyperlipidemic mice. Lamping KG, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1023–9

Immunization of LDL receptor-deficient mice with homologous malondialdehyde-modified and native LDL reduces progression of atherosclerosis by mechanisms other than induction of high titers of antibodies to oxidative neoepitopes. Freigang S, et al. **Arterioscler Thromb Vasc Biol** 1998 Dec;18(12):1972–82

Hyperlipidemia and atherosclerotic lesion development in LDL receptor-deficient mice fed defined semipurified diets with and without cholate. Lichtman AH, et al. **Arterioscler Thromb Vasc Biol** 1999 Aug;19(8):1938–44

Western-type diets induce insulin resistance and hyperinsulinemia in LDL receptor-deficient mice but do not increase aortic atherosclerosis compared with normoinsulinemic mice in which similar plasma cholesterol levels are achieved by a fructose-rich diet. Merat S, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1223–30

Effect of probucol on serum lipids, atherosclerosis and toxicology in fat-fed LDL receptor deficient mice. Benson GM, et al. **Atherosclerosis** 1998 Dec;141(2):237–47

Low density lipoprotein (LDL)-mediated suppression of Lewis lung carcinoma in hypercholesterolemic LDL receptor-deficient mice. Trieu VN, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):377–81

Effect of cerivastatin sodium, a new inhibitor of HMG-CoA reductase, on plasma lipid levels, progression of atherosclerosis, and the lesional composition in the plaques of WHHL rabbits. Shiomi M, et al. **Br J Pharmacol** 1999 Feb;126(4):961–8

Correction of hypoalphalipoproteinemia in LDL receptor-deficient rabbits by lecithin:cholesterol acyltransferase. Brousseau ME, et al. **J Lipid Res** 1998 Aug; 39(8):1558–67

Protection against atherosclerosis by estrogen is independent of plasma cholesterol levels in LDL receptor-deficient mice. Marsh MM, et al. **J Lipid Res** 1999 May; 40(5):893–900

DRUG EFFECTS

Lovastatin decreases the receptor-mediated degradation of acetylated and oxidized LDLs in human blood monocytes during the early stage of differentiation into macrophages. Hrboticky N, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1267–75

GENETICS

The very low density lipoprotein (VLDL) receptor is a genetic susceptibility factor for Alzheimer disease in a European Caucasian population. Helbecque N, et al. **Alzheimer Dis Assoc Disord** 1998 Dec;12(4):368–71

A third major locus for autosomal dominant hypercholesterolemia maps to 1p34.1-p32. Varret M, et al. **Am J Hum Genet** 1999 May;64(5):1378–87

Risk of Alzheimer's disease is associated with a very low-density lipoprotein receptor genotype in Northern Ireland. McIlroy SP, et al. **Am J Med Genet** 1999 Apr 16;88(2):140–4

Ischemia-reperfusion induced microvascular responses in LDL-receptor -/- mice. Mori N, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1647–54

The StuI polymorphism on exon 8 of the low density lipoprotein (LDL) receptor gene: prevalence and impact on serum lipid levels in an Asian cohort. Choong ML, et al. **Ann Acad Med Singapore** 1998 Jul;27(4):503–6

Analysis of LDL receptor gene mutations in Italian patients with homozygous familial hypercholesterolemia. Bertolini S, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb; 19(2):408–18

Mutations in the low-density lipoprotein receptor gene in Chinese familial hypercholesterolemia patients. Mak YT, et al. **Arterioscler Thromb Vasc Biol** 1998 Oct;18(10):1600–5

Increased atherosclerosis in ApoE and LDL receptor gene knock-out mice as a result of human cholesteryl ester transfer protein transgene expression. Plump AS, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):1105–10

Dietary monounsaturated fatty acids promote aortic atherosclerosis in LDL receptor-null, human ApoB100-overexpressing transgenic mice. Rudel LL, et al. **Arterioscler Thromb Vasc Biol** 1998 Nov;18(11):1818–27

Characterization of a new form of inherited hypercholesterolemia: familial recessive hypercholesterolemia. Zuliani G, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):802–9

Fine mapping of low-density lipoprotein receptor gene by genetic linkage on chromosome 19p13.1-p13.3 and study of the founder effect of four French Canadian low-density lipoprotein receptor gene mutations. Couture P, et al. **Atherosclerosis** 1999 Mar;143(1):145–51

Contribution of receptor negative versus receptor defective mutations in the LDL-receptor gene to angiographically assessed coronary artery disease among young (25–49 years) versus middle-aged (50–64 years) men. Gaudet D, et al. **Atherosclerosis** 1999 Mar;143(1):153–61

The type of mutation in the low density lipoprotein receptor gene influences the cholesterol-lowering response of the HMG-CoA reductase inhibitor simvastatin in patients with heterozygous familial hypercholesterolaemia. Heath KE, et al. **Atherosclerosis** 1999 Mar;143(1):41–54

Mouse very low-density lipoprotein receptor (VLDLR): gene structure, tissue-specific expression and dietary and developmental regulation. Tiebel O, et al. **Atherosclerosis** 1999 Aug;145(2):239–51

Exon 4, and in particular codon 152 of the LDL receptor gene, is a hot spot for point mutations [letter] Vallvé JC, et al. **Atherosclerosis** 1998 Sep;140(1):191–2

Association of 1617 C --> T genetic variation in exon 11 of human low-density lipoprotein receptor and plasma lipid concentration. Wu JH, et al. **Atherosclerosis** 1999 Mar; 143(1):217–8

Molecular cloning and characterization of LR3, a novel LDL receptor family protein with mitogenic activity. Dong Y, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):784–90

HMG CoA reductase and LDL receptor genes are regulated differently by 15-ketosterols in Hep G2 cells. Kisseleva AF, et al. **Biochem Biophys Res Commun** 1999 Jun 16; 259(3):688–94

Structure and chromosomal assignment of the human lectin-like oxidized low-density-lipoprotein receptor-1 (LOX-1) gene. Aoyama T, et al. **Biochem J** 1999 Apr 1; 339 (Pt 1):177–84

Reversal of hyperlipidaemia in apolipoprotein C1 transgenic mice by adenovirus-mediated gene delivery of the low-density-lipoprotein receptor, but not by the very-low-density-lipoprotein receptor. Jong MC, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):281–7

Effect of increased afterload on cardiac lipoprotein lipase and VLDL receptor expression. Vaziri ND, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):577–84

A variant very low density lipoprotein receptor lacking 84 base pairs of O-linked sugar domain in the human brain myelin. Nakamura Y, et al. **Brain Res** 1998 May 18; 793(1-2):47–53

Expression of lectinlike oxidized low-density lipoprotein receptor-1 in human atherosclerotic lesions. Kataoka H, et al. **Circulation** 1999 Jun 22;99(24):3110–7

Long-distance PCR-based screening for large rearrangements of the LDL receptor gene in Korean patients with familial hypercholesterolemia. Kim SH, et al. **Clin Chem** 1999 Sep;45(9):1424–30

Three novel small deletion mutations of the LDL receptor gene in Korean patients with familial hypercholesterolemia. Chae JJ, et al. **Clin Genet** 1999 May;55(5):325–31

An individual with a healthy phenotype in spite of a pathogenic LDL receptor mutation (C240F). Ekström U, et al. **Clin Genet** 1999 May;55(5):332–9

Rapid detection of polymorphisms in exons 10, 11 and 12 of the low density lipoprotein receptor gene (LDLR) and their use in a clinical genetic diagnostic setting [letter] Heath KE, et al. **Clin Genet** 1999 Mar;55(3):212–4

Familial hypercholesterolemia: potential diagnostic value of

mutation screening in a pediatric population of South Africa. Kotze MJ, et al. **Clin Genet** 1998 Jul;54(1):74–8
Founder mutations in the LDL receptor gene contribute significantly to the familial hypercholesterolemia phenotype in the indigenous South African population of mixed ancestry. Loubser O, et al. **Clin Genet** 1999 May; 55(5):340–5
Mutation screening of the LDLR gene and ApoB gene in patients with a phenotype of familial hypercholesterolemia and normal values in a functional LDL receptor/apolipoprotein B assay. Nissen H, et al. **Clin Genet** 1998 Jul;54(1):79–82
Evaluation of a clinically applicable mutation screening technique for genetic diagnosis of familial hypercholesterolemia and familial defective apolipoprotein B. Nissen H, et al. **Clin Genet** 1998 Jun;53(6):433–9
LDL receptor gene expression in human mesangial cells under the influence of calcium channel blockers. Ruan XZ, et al. **Clin Nephrol** 1999 May;51(5):263–71
Genetics and molecular biology [editorial] Schneider WJ, et al. **Curr Opin Lipidol** 1999 Apr;10(2):85–7
Assignment of the human oxidized low-density lipoprotein receptor gene (OLR1) to chromosome 12p13.1-->p12.3, and identification of a polymorphic CA-repeat marker in the OLR1 gene. Li X, et al. **Cytogenet Cell Genet** 1998; 82(1–2):34–6
Flow cytometric assessment of LDL receptor activity in peripheral blood mononuclear cells compared to gene mutation detection in diagnosis of heterozygous familial hypercholesterolemia. Raungaard B, et al. **Cytometry** 1999 May 1;36(1):52–9
ACTH regulates LDL receptor and CLA-1 mRNA in the rat adrenal cortex. Heikkilä P, et al. **Endocr Res** 1998 Aug-Nov;24(3–4):591–3
Concerted regulation of low density lipoprotein receptor gene expression by follicle-stimulating hormone and insulin-like growth factor I in porcine granulosa cells: promoter activation, messenger ribonucleic acid stability, and sterol feedback. LaVoie HA, et al. **Endocrinology** 1999 Jan;140(1):178–86
Comparison of expression and regulation of the high-density lipoprotein receptor SR-BI and the low-density lipoprotein receptor in human adrenocortical carcinoma NCI-H295 cells. Martin G, et al. **Eur J Biochem** 1999 Apr; 261(2):481–91
Mutations in the low-density lipoprotein receptor gene in Swedish familial hypercholesterolaemia patients: clinical expression and treatment response. Ekström U, et al. **Eur J Clin Invest** 1998 Sep;28(9):740–7
New type of the internalization-defective low-density lipoprotein receptor owing to two-nucleotide deletion (2199delCA or 2201delCA) in Japanese patients with familial hypercholesterolaemia. Tashiro J, et al. **Eur J Clin Invest** 1998 Sep;28(9):712–9
Concentrations of the atherogenic Lp(a) are elevated in FH. Lingenhel A, et al. **Eur J Hum Genet** 1998 Jan;6(1):50–60
Enhanced plasma cholesterol lowering effect of retrovirus-mediated LDL receptor gene transfer to WHHL rabbit liver after improved surgical technique and stimulation of hepatocyte proliferation by combined partial liver resection and thymidine kinase--ganciclovir treatment. Pakkanen TM, et al. **Gene Ther** 1999 Jan; 6(1):34–41
A physical, transcript, and deletion map of chromosome region 12p12.3 flanked by ETV6 and CDKN1B: hypermethylation of the LRP6 CpG island in two leukemia patients with hemizygous del(12p). Baens M, et al. **Genomics** 1999 Feb 15;56(1):40–50
Molecular cloning of mouse Lrp7(Lr3) cDNA and chromosomal mapping of orthologous genes in mouse and human. Chen D, et al. **Genomics** 1999 Feb 1;55(3):314–21
The human gene encoding the lectin-type oxidized LDL receptor (OLR1) is a novel member of the natural killer gene complex with a unique expression profile. Yamanaka S, et al. **Genomics** 1998 Dec 1;54(2):191–9
Construction and in vitro functional evaluation of a low-density lipoprotein receptor/transferrin fusion protein as a therapeutic tool for familial hypercholesterolemia [see comments] Parise F, et al. **Hum Gene Ther** 1999 May 1; 10(7):1219–28. Comment in: Hum Gene Ther 1999 May 1;10(7):1043–4.
Identification of recurrent and novel mutations in the LDL receptor gene in Spanish patients with familial hypercholesterolemia. Mutations in brief no. 135. Online. Cenarro A, et al. **Hum Mutat** 1998;11(5):413
Identification of three mutations in the low-density lipoprotein receptor gene causing familial hypercholesterolemia among French Canadians. Couture P, et al. **Hum Mutat** 1998;Suppl 1:S226–31
Identification of recurrent and novel mutations in the LDL receptor gene in Japanese familial hypercholesterolemia. Mutation in brief no. 248. Online. Hattori H, et al. **Hum Mutat** 1999;14(1):87
A new informative Alw 26 I polymorphism in exon 10 of the human low density lipoprotein receptor gene. Application to prenatal diagnosis. Mutations in brief no. 145. Online. Kottler M, et al. **Hum Mutat** 1998;11(6):483
Identification of three new mutations of the low density lipoprotein receptor gene in Dutch familial hypercholesterolemic patients. Lombardi P, et al. **Hum Mutat** 1998;Suppl 1:S172–4
Possible common mutations in the low density lipoprotein receptor gene in Chinese. Mak YT, et al. **Hum Mutat** 1998; Suppl 1:S310–3
Rapid screening of the LDL receptor point mutation FH-Genoa/Palermo. Mutation in brief no. 238. Online. Marino G, et al. **Hum Mutat** 1999;13(5):412
A novel point mutation in a splice acceptor site of intron 1 of the human low density lipoprotein receptor gene which causes severe hypercholesterolemia: an unexpected absence of exon skipping. Mutations in brief no. 139. Online. Maruyama T, et al. **Hum Mutat** 1998;11(6):480–1
Mutant transcripts of the LDL receptor gene: mRNA structure and quantity. Rødningen OK, et al. **Hum Mutat** 1999;13(3):186–96
Two novel and two known low-density lipoprotein receptor gene mutations in German patients with familial hypercholesterolemia. Thiart R, et al. **Hum Mutat** 1998; Suppl 1:S232–3
Heterozygous familial hypercholesterolemia: a new point-mutation (1372del2) in the LDL-receptor gene which causes severe hypercholesterolemia. Widhalm K, et al. **Hum Mutat (Online)** 1999 Oct;14(4):357
Expression and characterization of a very low density lipoprotein receptor variant lacking the O-linked sugar region generated by alternative splicing. Iijima H, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):747–55
A new low density lipoprotein receptor related protein, LRP5, is expressed in hepatocytes and adrenal cortex, and recognizes apolipoprotein E. Kim DH, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1072–6
A novel low-density lipoprotein receptor-related protein with type II membrane protein-like structure is abundant in heart. Tomita Y, et al. **J Biochem (Tokyo)** 1998 Oct; 124(4):784–9
Decreased atherosclerosis in heterozygous low density lipoprotein receptor-deficient mice expressing the scavenger receptor BI transgene. Arai T, et al. **J Biol Chem** 1999 Jan 22;274(4):2366–71
Co-stimulation of promoter for low density lipoprotein receptor gene by sterol regulatory element-binding protein and Sp1 is specifically disrupted by the yin yang 1 protein. Bennett MK, et al. **J Biol Chem** 1999 May 7; 274(19):13025–32
Multiple involvement of clusterin in chicken ovarian follicle development. Binding to two oocyte-specific members of the low density lipoprotein receptor gene family. Mahon MG, et al. **J Biol Chem** 1999 Feb 12;274(7):4036–44
Genomic organization and regulation of expression of the lectin-like oxidized low-density lipoprotein receptor (LOX-1) gene. Nagase M, et al. **J Biol Chem** 1998 Dec 11;273(50):33702–7
One-way cross-talk between p38(MAPK) and p42/44(MAPK). Inhibition of p38(MAPK) induces low density lipoprotein receptor expression through activation of the p42/44(MAPK) cascade. Singh RP, et al. **J Biol Chem** 1999 Jul 9;274(28):19593–600
The low density lipoprotein receptor gene family. Differential expression of two alpha2-macroglobulin receptors in the brain. Stockinger W, et al. **J Biol Chem** 1998 Nov 27;273(48):32213–21
Molecular cloning of a lipolysis-stimulated remnant receptor expressed in the liver. Yen FT, et al. **J Biol Chem** 1999 May 7;274(19):13390–8
Upregulation of selective cholesteryl ester uptake pathway in mice with deletion of low-density lipoprotein receptor function. Azhar S, et al. **J Cell Physiol** 1999 Aug; 180(2):190–202
Fluorescence-based single-strand conformation polymorphism analysis of the low density lipoprotein receptor gene by capillary electrophoresis. Geisel J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):239–47
Disruption of LDL receptor gene in transgenic SREBP-1a mice unmasks hyperlipidemia resulting from production of lipid-rich VLDL. Horton JD, et al. **J Clin Invest** 1999 Apr;103(7):1067–76
Polymarker, HLA-DQA1, and D1S80 allele frequency data in Chamorro and Filipino populations from Guam. Budowle B, et al. **J Forensic Sci** 1998 Nov;43(6):1195–8
Five familial hypercholesterolemic kindreds in Japan with novel mutations of the LDL receptor gene. Hirayama T, et al. **J Hum Genet** 1998;43(4):250–4
Multiple processes are involved in the uptake of chylomicron remnants by mouse peritoneal macrophages. Fujioka Y, et al. **J Lipid Res** 1998 Dec;39(12):2339–49
Identification of a novel Arg-->Cys mutation in the LDL receptor that contributes to spontaneous hypercholesterolemia in pigs. Grunwald KA, et al. **J Lipid Res** 1999 Mar;40(3):475–85
Evidence for a third genetic locus causing familial hypercholesterolemia. A non-LDLR, non-APOB kindred. Haddad L, et al. **J Lipid Res** 1999 Jun;40(6):1113–22
Transcription factors CCAAT/enhancer-binding protein beta and nuclear factor-Y bind to discrete regulatory elements in the very low density lipoprotein receptor promoter. Kreuter R, et al. **J Lipid Res** 1999 Mar; 40(3):376–86
Sterol-independent, sterol response element-dependent, regulation of low density lipoprotein receptor gene expression. Makar RS, et al. **J Lipid Res** 1998 Aug; 39(8):1647–54
Compensated endocytosis of LDL by hamster cells co-expressing the two distinct mutant LDL receptors defective in endocytosis and ligand binding. Yoshida H, et al. **J Lipid Res** 1999 May;40(5):814–23
Clearance, promiscuity, and the megalin morality [comment] Luft FC. **J Mol Med** 1999 Mar;77(3):303–5. Comment on: J Mol Med 1999 Mar;77(3):306–15.
The low-density lipoprotein receptor gene family: multiple roles in lipid metabolism [see comments] Willnow TE. **J Mol Med** 1999 Mar;77(3):306–15 (75 ref.). Comment in: J Mol Med 1999 Mar;77(3):303–4.
The LDL receptor gene family, apolipoprotein B and cholesterol in embryonic development. Herz J, et al. **J Nutr** 1999 Feb;129(2S Suppl):473S–475S (21 ref.)
Effects of LY295427, a low-density lipoprotein (LDL) receptor up-regulator, on LDL receptor gene transcription and cholesterol metabolism in normal and hypercholesterolemic hamsters. Bensch WR, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):85–92
Familial hypercholesterolemia kindred in Utah with novel C54S mutations of the LDL receptor gene. Emi M, et al. **Jpn Heart J** 1998 Nov;39(6):785–9
Molecular genetic diagnosis of a family with hypercholesterolemia by a mismatched PCR-RFLP method for genotyping single base substitution of the LDL receptor gene. Yamaki E, et al. **Jpn Heart J** 1998 Sep; 39(5):681–6
Molecular epidemiology of familial hypercholesterolaemia. Defesche JC, et al. **Lancet** 1998 Nov 21;352(9141):1643–4
Impact of different low-density lipoprotein (LDL) receptor mutations on the ability of LDL to support lymphocyte proliferation. Martínez-Botas J, et al. **Metabolism** 1999 Jul; 48(7):834–9
Regulation of low density lipoprotein receptor mRNA levels by estradiol 17beta and chorionic gonadotropin in human placenta. Shanker YG, et al. **Mol Cell Biochem** 1998 Oct; 187(1–2):133–9
Two novel low-density lipoprotein receptor gene mutations (E397X and 347delGCC) in St. Petersburg familial hypercholesterolemia. Kh C, et al. **Mol Genet Metab** 1998 Dec;65(4):311–4
Possible involvement of very low density lipoproteins in steroidogenesis in the human ovary. Murata M, et al. **Mol Hum Reprod** 1998 Aug;4(8):797–801
Low density lipoprotein receptor related protein gene exon 3 polymorphism association with Alzheimer's disease in Chinese. Baum L, et al. **Neurosci Lett** 1998 May 8; 247(1):33–6
The polymorphism in exon 3 of the low density lipoprotein receptor-related protein gene is weakly associated with Alzheimer's disease. Beffert U, et al. **Neurosci Lett** 1999 Jan 4;259(1):29–32
[The sequence analysis of the 3' end of intron 15 from human LDL receptor gene and its application in the study of gene diagnosis for familial hypercholesterolaemia] Zhou TH, et al. **I Chuan Hsueh Pao** 1999;26(1):1–7 (Eng. Abstr.) **(Chi)**
[Direct detection of mutations in the LDL receptor gene in patients with familial hypercholesterolemia] Freiberger T, et al. **Cas Lek Cesk** 1998 Dec 14;137(24):750–2 (Eng. Abstr.) **(Cze)**
[Evaluation of a newly discovered LDL receptor mutation (exon 10, GAC>AAC, D271N, "FH Graz-1") in familial hypercholesterolemia-- a familystudy] de Campo A, et al. **Acta Med Austriaca** 1999;26(1):20–5 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Increased interleukin-1alpha and interleukin-1beta production by macrophages of low-density lipoprotein receptor knock-out mice stimulated with lipopolysaccharide is CD11c/CD18-receptor mediated. Netea MG, et al. **Immunology** 1998 Nov;95(3):466–72

METABOLISM

The LDL-receptor family. Lactoferrin and lipid metabolism. Huettinger M, et al. **Adv Exp Med Biol** 1998;443:107–11 (20 ref.)
Lipoprotein receptors in acute myelogenous leukemia: failure to detect increased low-density lipoprotein (LDL) receptor numbers in cell membranes despite increased cellular LDL degradation. Rudling M, et al. **Am J Pathol** 1998 Dec; 153(6):1923–35
Comparison of the LDL-receptor binding of VLDL and LDL from apoE4 and apoE3 homozygotes. Mamotte CD, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E553–7
Ligand specificity of LOX-1, a novel endothelial receptor for oxidized low density lipoprotein. Moriwaki H, et al. **Arterioscler Thromb Vasc Biol** 1998 Oct;18(10):1541–7
CD36, a novel receptor for oxidized low-density lipoproteins, is highly expressed on lipid-laden macrophages in human atherosclerotic aorta. Nakata A, et al. **Arterioscler Thromb Vasc Biol** 1999 May;19(5):1333–9
Identification of megalin/gp330 as a receptor for lipoprotein(a) in vitro. Niemeier A, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):552–61
39-kDa receptor-associated protein (RAP) facilitates secretion and ligand binding of extracellular region of very-low-density-lipoprotein receptor: implications for a distinct pathway from low-density-lipoprotein receptor. Sato A, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):377–83
Immunoreactivity of apolipoprotein B-100 and binding to LDL-receptor of phospholipase A2-treated low density lipoproteins. Korotaeva AA, et al. **Biochemistry (Mosc)**

1998 Dec;63(12):1430-7

Binding of apoB-containing lipoproteins from unfractionated human blood sera to immobilized LDL receptor. Yakushkin VV, et al. **Biochemistry (Mosc)** 1998 Oct; 63(10):1164-71

Receptors for oxidized low density lipoprotein. Steinbrecher UP. **Biochim Biophys Acta** 1999 Jan 4;1436(3):279-98 (168 ref.)

Effect of increased afterload on cardiac lipoprotein lipase and VLDL receptor expression. Vaziri ND, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):577-84

A minimal binding domain of the low density lipoprotein receptor family. Bajari TM, et al. **Biol Chem** 1998 Aug-Sep; 379(8-9):1053-62

Receptors of the low density lipoprotein (LDL) receptor family in man. Multiple functions of the large family members via interaction with complex ligands. Gliemann J. **Biol Chem** 1998 Aug-Sep;379(8-9):951-64 (128 ref.)

Receptor-associated protein (RAP): a specialized chaperone for endocytic receptors. Willnow TE. **Biol Chem** 1998 Aug-Sep;379(8-9):1025-31 (54 ref.)

Expression and cellular localization of low-density lipoprotein receptor-related protein/alpha 2-macroglobulin receptor in human glioblastoma in vivo. Yamamoto M, et al. **Brain Tumor Pathol** 1998;15(1):23-30

Lipoprotein receptors: signaling functions in the brain? Cooper JA, et al. **Cell** 1999 Jun 11;97(6):671-4 (20 ref.)

Upregulation of endothelial receptor for oxidized low-density lipoprotein (LOX-1) in cultured human coronary artery endothelial cells by angiotensin II type 1 receptor activation [see comments] Li DY, et al. **Circ Res** 1999 May 14;84(9):1043-9. Comment in: Circ Res 1999 May 14;84(9):1113-5.

Angiotensin II induces LOX-1, the human endothelial receptor for oxidized low-density lipoprotein. Morawietz H, et al. **Circulation** 1999 Aug 31;100(9):899-902

Low density lipoprotein binding induces asymmetric redistribution of the low density lipoprotein receptors in endothelial cells. Antohe F, et al. **Eur J Cell Biol** 1999 Jun;78(6):407-15

Paradoxical increase of LDL-R expression on the surface of lymphocytes from healthy old (>65a) SENIEUR protocol-compatible donors compared to healthy young (<35a) controls. Recheis H, et al. **Exp Gerontol** 1999 Apr; 34(2):289-91

Alpha macroglobulins and the low-density-lipoprotein-related protein/alpha-2-macroglobulin receptor in experimental renal fibrosis. van Goor H, et al. **Exp Nephrol** 1999 Jan-Feb;7(1):35-43

The role of O-linked sugars in determining the very low density lipoprotein receptor stability or release from the cell. Magrané J, et al. **FEBS Lett** 1999 May 14;451(1):56-62

A novel soluble chimera for the treatment of familial hypercholesterolemia [comment] Paillard F. **Hum Gene Ther** 1999 May 1;10(7):1093-4. Comment on: Hum Gene Ther 1999 May 1;10(7):1219-28.

Low density lipoprotein-receptor plays a major role in the binding of very low density lipoproteins and their remnants on HepG2 cells. Truong TQ, et al. **Int J Biochem Cell Biol** 1999 Jun;31(6):695-705

A new low density lipoprotein receptor related protein, LRP5, is expressed in hepatocytes and adrenal cortex, and recognizes apolipoprotein E. Kim DH, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1072-6

A novel low-density lipoprotein receptor-related protein with type II membrane protein-like structure is abundant in heart. Tomita Y, et al. **J Biochem (Tokyo)** 1998 Oct; 124(4):784-9

Analysis of a structural determinant in thrombin-protease nexin 1 complexes that mediates clearance by the low density lipoprotein receptor-related protein. Knauer MF, et al. **J Biol Chem** 1999 Jan 1;274(1):275-81

Soluble LDL minireceptors. Minimal structure requirements for recognition of minor group human rhinovirus. Marlovits TC, et al. **J Biol Chem** 1998 Dec 11; 273(50):33835-40

The low density lipoprotein receptor active conformation of apolipoprotein E. Helix organization in n-terminal domain-phospholipid disc particles. Raussens V, et al. **J Biol Chem** 1998 Oct 2;273(40):25825-30

Ligand binding properties of the very low density lipoprotein receptor. Absence of the third complement-type repeat encoded by exon 4 is associated with reduced binding of Mr 40,000 receptor-associated protein. Rettenberger PM, et al. **J Biol Chem** 1999 Mar 26;274(13):8973-80

The carboxyl-terminal domain of receptor-associated protein facilitates proper folding and trafficking of the very low density lipoprotein receptor by interaction with the three amino-terminal ligand-binding repeats of the receptor. Savonen R, et al. **J Biol Chem** 1999 Sep 3;274(36):25877-82

Upregulation of selective cholesteryl ester uptake pathway in mice with deletion of low-density lipoprotein receptor function. Azhar S, et al. **J Cell Physiol** 1999 Aug; 180(2):190-202

Truncated apo B-70.5-containing lipoproteins bind to megalin but not the LDL receptor. Chen Z, et al. **J Clin Invest** 1999 May 15;103(10):1419-30

Characterization of a novel cellular defect in patients with phenotypic homozygous familial hypercholesterolemia. Norman D, et al. **J Clin Invest** 1999 Sep;104(5):619-28

Lipoprotein clearance mechanisms in LDL receptor-deficient "Apo-B48-only" and "Apo-B100-only" mice. Véniant MM, et al. **J Clin Invest** 1998 Oct 15; 102(8):1559-68

An insect homolog of the vertebrate very low density lipoprotein receptor mediates endocytosis of lipophorins. Dantuma NP, et al. **J Lipid Res** 1999 May;40(5):973-8

Sterol-independent, sterol response element-dependent, regulation of low density lipoprotein receptor gene expression. Makar RS, et al. **J Lipid Res** 1998 Aug; 39(8):1647-54

Hepatic triglyceride lipase promotes low density lipoprotein receptor-mediated catabolism of very low density lipoproteins in vitro. Medh JD, et al. **J Lipid Res** 1999 Jul;40(7):1263-75

VLDL activation of plasminogen activator inhibitor-1 (PAI-1) expression: involvement of the VLDL receptor. Nilsson L, et al. **J Lipid Res** 1999 May;40(5):913-9

Compensated endocytosis of LDL by hamster cells co-expressing the two distinct mutant LDL receptors defective in endocytosis and ligand binding. Yoshida H, et al. **J Lipid Res** 1999 May;40(5):814-23

LDL receptor binds newly synthesized apoE in macrophages. A precursor pool for apoe secretion. Zhao Y, et al. **J Lipid Res** 1999 Jun;40(6):1029-35

Low density lipoprotein receptor as a candidate receptor for hepatitis C virus. Monazahian M, et al. **J Med Virol** 1999 Mar;57(3):223-9

alpha-tocopherol protects the peroxidative modification of LDL to be recognized by LDL receptors. Sakuma N, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct;44(5):697-703

Stable incorporation of a lipophilic daunorubicin prodrug into apolipoprotein E-exposing liposomes induces uptake of prodrug via low-density lipoprotein receptor in vivo. Versluis AJ, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):1-7

Very-low-density lipoprotein receptor fragment shed from HeLa cells inhibits human rhinovirus infection. Marlovits TC, et al. **J Virol** 1998 Dec;72(12):10246-50

Postprandial hypertriglyceridemia induced by saturated vs. monounsaturated fatty acids is related to reduced hepatic lipoprotein receptors binding in NZW rabbits. Harbis A, et al. **Lipids** 1999;34 Suppl:S125-6

U18666A inhibits intracellular cholesterol transport and neurotransmitter release in human neuroblastoma cells. Sparrow SM, et al. **Neurochem Res** 1999 Jan;24(1):69-77

Bacterial expression and purification of the Fab fragment of a monoclonal antibody specific for the low-density lipoprotein receptor-binding site of human apolipoprotein E. Raffaï R, et al. **Protein Expr Purif** 1999 Jun;16(1):84-90

Turnover of thrombomodulin at the cell surface occurs at a similar rate to receptors that are not actively internalized. Chu M, et al. **Thromb Haemost** 1998 Jul;80(1):119-27

[Effects of aerobic exercise on regulation of activities of hepatic low density lipoprotein receptor in hypercholesterolemic rats] Yan Y, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):18-20 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Effect of matrix metalloproteinase inhibition on progression of atherosclerosis and aneurysm in LDL receptor-deficient mice overexpressing MMP-3, MMP-12, and MMP-13 and on restenosis in rats after balloon injury. Prescott MF, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:179-90

The mammalian low-density lipoprotein receptor family. Hussain MM, et al. **Annu Rev Nutr** 1999;19:141-72 (206 ref.)

The VLDL receptor: an LDL receptor relative with eight ligand binding repeats, LR8. Nimpf J, et al. **Atherosclerosis** 1998 Dec;141(2):191-202 (103 ref.)

Oocyte growth in the chicken: receptors and more. Schneider WJ, et al. **Biol Chem** 1998 Aug-Sep;379(8-9):965-71 (32 ref.)

Low-density lipoprotein receptor-mediated delivery of a lipophilic daunorubicin derivative to B16 tumours in mice using apolipoprotein E-enriched liposomes. Versluis AJ, et al. **Br J Cancer** 1998 Dec;78(12):1607-14

Reeler/Disabled-like disruption of neuronal migration in knockout mice lacking the VLDL receptor and ApoE receptor 2. Trommsdorff M, et al. **Cell** 1999 Jun 11; 97(6):689-701

LOX-1, a possible clue to the missing link between hypertension and atherogenesis [comment] Kita T. **Circ Res** 1999 May 14;84(9):1113-5 (45 ref.). Comment on: Circ Res 1999 May 14;84(9):1043-9.

Genetics and molecular biology [editorial] Schneider WJ, et al. **Curr Opin Lipidol** 1999 Apr;10(2):85-7

A gp330/megalin-related protein is required in the major epidermis of Caenorhabditis elegans for completion of molting. Yochem J, et al. **Development** 1999 Feb; 126(3):597-606

Epidermal growth factor differentially regulates low density lipoprotein receptor-related protein gene expression in neoplastic and fetal human astrocytes. Hussaini IM, et al. **Glia** 1999 Jan;25(1):71-84

Surface aggregation patterns of LDL receptors near coated pits. I. The radially convective diffusion and generalized insertion mechanism. Solana-Arellano E, et al. **IMA J Math Appl Med Biol** 1998 Dec;15(4):351-66

A direct role for the macrophage low density lipoprotein receptor in atherosclerotic lesion formation. Linton MF, et al. **J Biol Chem** 1999 Jul 2;274(27):19204-10

Diet-induced diabetes activates an osteogenic gene regulatory program in the aortas of low density lipoprotein receptor-deficient mice. Towler DA, et al. **J Biol Chem** 1998 Nov 13;273(46):30427-34

The very low density lipoprotein receptor regulates urokinase receptor catabolism and breast cancer cell motility in vitro. Webb DJ, et al. **J Biol Chem** 1999 Mar 12;274(11):7412-20

Recombinant soluble low-density lipoprotein receptor fragment inhibits common cold infection. Marlovits TC, et al. **J Mol Recognit** 1998 Winter;11(1-6):49-51

Effects of n-3 and n-6 polyunsaturated fatty acids on 3-hydroxy-3-methylglutaryl-CoA reductase in liver and mammary glands of low density lipoprotein-receptor knockout mice. El-Sohemy A, et al. **Lipids** 1999;34 Suppl:S135

Receptors for oxidized low-density lipoprotein on elicited mouse peritoneal macrophages can recognize both the modified lipid moieties and the modified protein moieties: implications with respect to macrophage recognition of apoptotic cells. Bird DA, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6347-52

[Lipid metabolism in retinal pigment epithelium. Possible significance of lipoprotein receptors] Noske UM, et al. **Ophthalmologe** 1998 Dec;95(12):814-9 (Eng. Abstr.) **(Ger)**

[Structure and function of a novel scavenger receptor expressed in human endothelial cells] Adachi H, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1282-6 (24 ref.) **(Jpn)**

RECEPTORS, LECTIN see **RECEPTORS, MITOGEN**

RECEPTORS, LEUKOCYTE-ADHESION

see related
LEUKOCYTE-ADHESION DEFICIENCY SYNDROME

DEFICIENCY see LEUKOCYTE-ADHESION DEFICIENCY SYNDROME

DRUG EFFECTS

Differential influence of tyrosine residues of the common receptor beta subunit on multiple signals induced by human GM-CSF. Itoh T, et al. **J Allergy Clin Immunol** 1999 May; 103(5 Pt 2):S462-70

Nitric oxide synthase inhibitor augments post-ischemic leukocyte adhesion in the cerebral microcirculation in vivo. Hudetz AG, et al. **Neurol Res** 1999 Jun;21(4):378-84

IMMUNOLOGY

Acquired increase in leucocyte binding by intestinal microvascular endothelium in inflammatory bowel disease. Binion DG, et al. **Lancet** 1998 Nov 28;352(9142):1742-6

RECEPTORS, LEUKOTRIENE

Receptors for cysteinyl-leukotrienes in human cells. Nicosia S, et al. **Adv Exp Med Biol** 1999;447:165-70 (32 ref.)

Leukotriene receptors. Dahlén SE. **Clin Rev Allergy Immunol** 1999 Spring-Summer; 17(1-2):179-91 (82 ref.)

[Leukotriene receptors] Izumi T. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1084-9 (8 ref.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Leukotriene (LT)-receptor antagonist is more effective in asthmatic patients with a low baseline ratio of urinary LTE4 to 2,3-dinor-6-keto-prostaglandin (PG)F1alpha. Tanaka H, et al. **Allergy** 1999 May;54(5):489-94

A leukotriene receptor antagonist, ONO-1078, modulates drug sensitivity and leukotriene C4 efflux in lung cancer cells expressing multidrug resistance protein. Nakano R, et al. **Biochem Biophys Res Commun** 1998 Oct 9; 251(1):307-12

N-carbamoyl analogs of Zafirlukast: potent receptor antagonists of leukotriene D4. Brown MF, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2451-6

Development of 2,2-dimethylchromanol cysteinyl LT1 receptor antagonists. Chambers RJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3577-82

A series of non-quinoline cysLT1 receptor antagonists: SAR study on pyridyl analogs of Singulair. Guay D, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):453-8

Randomised, placebo controlled trial of effect of a leukotriene receptor antagonist, montelukast, on tapering inhaled corticosteroids in asthmatic patients. Löfdahl CG, et al. **BMJ** 1999 Jul 10;319(7202):87-90

Asthma treatment: antileukotriene drugs. O'Byrne PM. **Can Respir J** 1998 Jul-Aug;5 Suppl A:64A-70A (42 ref.)

Effects of cysteinyl-leukotriene receptor antagonist, thromboxane A2 receptor antagonist, and thromboxane A2 synthetase inhibitor on antigen-induced bronchoconstriction in patients with asthma. Obase Y, et al. **Chest** 1998 Oct;114(4):1028-32

Montelukast and zafirlukast in asthma. **Drug Ther Bull** 1998 Sep;36(9):65-8 (13 ref.)

RECEPTORS, LEUKOTRIENE

Binding of YM158, a new dual antagonist for leukotriene D4 and thromboxane A2 receptors, to guinea pig lung membranes. Arakida Y, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):229-33

In vitro pharmacologic profile of YM138, a new dual antagonist for LTD4 and TXA2 receptors. Arakida Y, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):633-9

Effects of lipid mediator antagonists on predominant mediator-controlled asthmatic reactions in passively sensitized guinea pigs. Arakida Y, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1285-91

Leukotrienes, leukotriene receptor antagonists and leukotriene synthesis inhibitors in asthma: an update. Part II: clinical studies with leukotriene receptor antagonists and leukotriene synthesis inhibitors in asthma. Devillier P, et al. **Pharmacol Res** 1999 Jul;40(1):15-29 (143 ref.)

Leukotrienes, leukotriene receptor antagonists and leukotriene synthesis inhibitors in asthma: an update. Part I: synthesis, receptors and role of leukotrienes in asthma. Devillier P, et al. **Pharmacol Res** 1999 Jul;40(1):3-13 (117 ref.)

Leukotriene antagonism in asthma and rhinitis. Lane SJ. **Respir Med** 1998 Jun;92(6):795-809 (150 ref.)

The effect of a cysteinyl leukotriene antagonist, ONO-1078 (pranlukast) on agonist- and antigen-induced nasal microvascular leakage in guinea pigs. Shirasaki H, et al. **Rhinology** 1998 Jun;36(2):62-5

Effect of the leukotriene receptor antagonist pranlukast on cellular infiltration in the bronchial mucosa of patients with asthma. Nakamura Y, et al. **Thorax** 1998 Oct;53(10):835-41

[Structure-activity relationship studies of chalcones as SRS-A receptor antagonists] He KQ, et al. **Yao Hsueh Hsueh Pao** 1996;31(11):878-80 (Eng. Abstr.) **(Chi)**

GENETICS

Identification, molecular cloning, expression, and characterization of a cysteinyl leukotriene receptor. Sarau HM, et al. **Mol Pharmacol** 1999 Sep;56(3):657-63

IMMUNOLOGY

Cysteinyl-leukotrienes and the human lung. Gorenne I, et al. **Adv Exp Med Biol** 1999;447:171-9 (42 ref.)

PHYSIOLOGY

Characterization of the human cysteinyl leukotriene CysLT1 receptor. Lynch KR, et al. **Nature** 1999 Jun 24; 399(6738):789-93

RECEPTORS, LEUKOTRIENE B4

ANTAGONISTS & INHIBITORS

Synthetic approaches to 2-(4-hydroxy-7-chromanyl)benzoic acids as antagonists of leukotriene B4. Chambers RJ, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1787-90

trans-3-Benzyl-4-hydroxy-7-chromanylbenzoic acid derivatives as antagonists of the leukotriene B4 (LTB4) receptor. Reiter LA, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1781-6

Investigation on a novel and specific leukotriene B4 receptor antagonist in the treatment of stable plaque psoriasis. Van Pelt JP, et al. **Br J Dermatol** 1998 Sep;139(3):396-402

Synergistic effects of pranlukast and leukotriene B4 receptor antagonist on antigen-induced pulmonary reaction. Sakurada T, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):153-9

The leukotriene B4 receptor antagonist ONO-4057 inhibits nephrotoxic serum nephritis in WKY rats. Suzuki S, et al. **J Am Soc Nephrol** 1999 Feb;10(2):264-70

Carboxy-substituted cinnamides: a novel series of potent, orally active LTB4 receptor antagonists. Greenspan PD, et al. **J Med Chem** 1999 Jan 14;42(1):164-72

Pharmacologic actions of the second-generation leukotriene B4 receptor antagonist LY293111: in vitro studies. Jackson WT, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):286-94

In vitro and in vivo pharmacological characterization of SB 201993, an eicosanoid-like LTB4 receptor antagonist with anti-inflammatory activity. Sarau HM, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul; 61(1):55-64

Antagonizing leukotriene B4 receptors delays cardiac allograft rejection in mice. Weringer EJ, et al. **Transplantation** 1999 Mar 27;67(6):808-15

GENETICS

Cloning and characterization of rat leukotriene B(4) receptor. Toda A, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):806-12

cDNA cloning and characterization of guinea-pig leukotriene B4 receptor. Masuda K, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):79-85

Leukotriene B4 receptor transgenic mice reveal novel protective roles for lipoxins and aspirin-triggered lipoxins in reperfusion. Chiang N, et al. **J Clin Invest** 1999 Aug; 104(3):309-16

IMMUNOLOGY

Modulation of LTB4 receptor in T-lymphocytes by lipoxin A4 (LXA4) and its role in delayed-type hypersensitivity. Lin KT, et al. **Adv Exp Med Biol** 1999;447:151-63

ISOLATION & PURIFICATION

Characterization of the leukotriene B4 receptor in porcine leukocytes. Separation and reconstitution with heterotrimeric GTP-binding proteins. Igarashi T, et al. **Eur J Biochem** 1999 Jan;259(1-2):419-25

METABOLISM

Cloning and characterization of rat leukotriene B(4) receptor. Toda A, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):806-12

cDNA cloning and characterization of guinea-pig leukotriene B4 receptor. Masuda K, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):79-85

Avian osteoclast cells are stimulated to resorb calcified matrices by and possess receptors for leukotriene B4. Flynn MA, et al. **Calcif Tissue Int** 1999 Feb;64(2):154-9

Leukotriene binding, signaling, and analysis of HIV coreceptor function in mouse and human leukotriene B4 receptor-transfected cells. Martin V, et al. **J Biol Chem** 1999 Mar 26;274(13):8597-603

[Studies on the characteristics of leukotriene B4 receptor with radio-ligand binding assay] Zhao N, et al. **Yao Hsueh Hsueh Pao** 1996;31(11):875-7 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Signalling through the leukotriene B4 receptor involves both alphai and alpha16, but not alphaq or alpha11 G-protein subunits. Gaudreau R, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):15-8

RECEPTORS, LH

Gonadotropin receptors. Hai MV, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):89-92 (24 ref.)

ANALYSIS

Fetal rat brains contain luteinizing hormone/human chorionic gonadotropin receptors. al-Hader AA, et al. **Early Pregnancy** 1997 Dec;3(4):323-9

BIOSYNTHESIS

[LH-CG receptor protein expression in epithelial ovarian cancer] Cui J, et al. **Chung Hua Fu Chan Ko Tsa Chih** 1997 Dec;32(12):742-5 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Lutropins appear to contact two independent sites in the extracellular domain of their receptors. Bernard MP, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):611-7

Structure-stabilizing effect of albumin on rat ovarian LH/hCG receptors. Kolena J, et al. **Biochim Biophys Acta** 1999 Jan 12;1416(1-2):208-16

Characterization of human chorionic gonadotropin in normal and abnormal pregnancies. Ho HH, et al. **Early Pregnancy** 1997 Sep;3(3):213-24

Characterization of human chorionic gonadotropin peptide variants with a radio-receptor assay using recombinant human luteinizing hormone/chorionic gonadotropin receptors. Ho HH, et al. **Early Pregnancy** 1997 Sep; 3(3):204-12

Characterization of a region of the lutropin receptor extracellular domain near transmembrane helix 1 that is important in ligand-mediated signaling. Alvarez CA, et al. **Endocrinology** 1999 Apr;140(4):1775-82

Structural and molecular studies of human chorionic gonadotropin and its receptor. Lustbader JW, et al. **Recent Prog Horm Res** 1998;53:395-424; discussion 424-5 (61 ref.)

GENETICS

The urinary bladder of a woman is a novel site of luteinizing hormone-human chorionic gonadotropin receptor gene expression. Tao YX, et al. **Am J Obstet Gynecol** 1998 Oct; 179(4):1026-31

The human luteinizing hormone receptor gene promoter: activation by Sp1 and Sp3 and inhibitory regulation. Geng Y, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):366-71

Comparative expression of luteinizing hormone and follicle-stimulating hormone receptors in ovarian follicles from high and low prolific sheep breeds. Abdennebi L, et al. **Biol Reprod** 1999 Apr;60(4):845-54

Expression of the steroidogenic acute regulatory protein and luteinizing hormone receptor and their regulation by tumor necrosis factor alpha in rat corpora lutea. Chen YJ, et al. **Biol Reprod** 1999 Feb;60(2):419-27

Regulation of luteinizing hormone receptor gene expression by insulin-like growth factor-I in an immortalized murine Leydig tumor cell line (BLT-1). Zhang FP, et al. **Biol Reprod** 1998 Nov;59(5):1116-23

Multiple elements and protein factors coordinate the basal and cyclic adenosine 3',5'-monophosphate-induced transcription of the lutropin receptor gene in rat granulosa cells. Chen S, et al. **Endocrinology** 1999 May;140(5):2100-9

Effect of prolactin on the expression of luteinizing hormone receptors during cell differentiation in cultured rat granulosa cells. Hirakawa T, et al. **Endocrinology** 1999 Aug; 140(8):3444-51

Inactivating mutations of the LH receptor gene: more than two different phenotypes [letter; comment] Toledo SP. **Eur J Endocrinol** 1999 Feb;140(2):186. Comment on: Eur J Endocrinol 1998 Aug;139(2):145-7.

Menstrual disorders and infertility caused by inactivating mutations of the luteinizing hormone receptor gene. Arnhold IJ, et al. **Fertil Steril** 1999 Apr;71(4):597-601 (32 ref.)

No mRNAs for the LH/hCG receptor in human endometrium? [letter] Rao CV. **Fertil Steril** 1999 Aug; 72(2):374-5

Messenger ribonucleic acid for the gonadal luteinizing hormone/human chorionic gonadotropin receptor is not present in human endometrium. Stewart EA, et al. **Fertil Steril** 1999 Feb;71(2):368-72

Genomic distribution and gonadal mRNA expression of two human luteinizing hormone receptor exon 1 sequences in random populations. Tsai-Morris CH, et al. **Hum Hered** 1999 Jan;49(1):48-51

Polymorphisms in the coding exons of the human luteinizing hormone receptor gene. Mutations in brief no. 124. Online. Wu SM, et al. **Hum Mutat** 1998;11(4):333-4

Mutations that induce constitutive activation and mutations that impair signal transduction modulate the basal and/or agonist-stimulated internalization of the Lutropin/Choriogonadotropin receptor. Min KS, et al. **J Biol Chem** 1998 Dec 25;273(52):34911-9

A limited repertoire of mutations of the luteinizing hormone (LH) receptor gene in familial and sporadic patients with male LH-independent precocious puberty. Kremer H, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1136-40

Evidences for an allelic variant of the human LC/CG receptor rather than a gene duplication: functional comparison of wild-type and variant receptors. Rodien P, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4431-4

Experimental cryptorchidism induces a change in the pattern of expression of LH receptor mRNA in rat testis after selective Leydig cell destruction by ethylene dimethane sulfonate. Tena-Sempere M, et al. **J Endocrinol** 1999 Apr; 161(1):131-41

Ontogeny of LH receptor gene expression in the pig reproductive tract. Derecka K, et al. **J Reprod Fertil** 1999 Mar;115(2):365-72

Analysis of the promoter of the luteinizing hormone/human chorionic gonadotropin receptor gene in neuroendocrine cells. Hu YL, et al. **Life Sci** 1998;63(24):2157-65

The unique exon 10 of the human luteinizing hormone receptor is necessary for expression of the receptor protein at the plasma membrane in the human luteinizing hormone receptor, but deleterious when inserted into the human follicle-stimulating hormone receptor. Zhang FP, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1-2):165-74

Certain activating mutations within helix 6 of the human luteinizing hormone receptor may be explained by alterations that allow transmembrane regions to activate Gs. Abell AN, et al. **Mol Endocrinol** 1998 Dec; 12(12):1857-69

Role of the rate of internalization of the agonist-receptor complex on the agonist-induced down-regulation of the lutropin/choriogonadotropin receptor. Nakamura K, et al. **Mol Endocrinol** 1999 Aug;13(8):1295-304

Inactivation of the luteinizing hormone/chorionic gonadotropin receptor by an insertional mutation in Leydig cell hypoplasia. Wu SM, et al. **Mol Endocrinol** 1998 Nov; 12(11):1651-60

A novel luteinizing hormone receptor mutation in a patient with familial male-limited precocious puberty: effect of the size of a critical amino acid on receptor activity. Wu SM, et al. **Mol Genet Metab** 1999 Jan;66(1):68-73

Functional evidence for divergent receptor activation mechanisms of luteotrophic and luteolytic events in the human corpus luteum. Ottander U, et al. **Mol Hum Reprod** 1999 May;5(5):391-5

Coordinated expression of splice variants for luteinizing hormone receptor messenger RNA during the development of bovine corpora lutea. Kawate N, et al. **Mol Reprod Dev** 1998 Sep;51(1):66-75

[Activating mutations of the gonadotrophin receptors] Beck-Peccoz P, et al. **Arch Pediatr** 1998;5 Suppl 4:380S-384S (17 ref.) (Eng. Abstr.) **(Fre)**

[A study on the role of the transmembrane V to VI regions of the human luteinizing hormone receptor in its constitutive activation] Kudo M. **Hokkaido Igaku Zasshi** 1999 Jan;74(1):53-65 (Eng. Abstr.) **(Jpn)**

[Constitutively activating mutations in the luteinizing hormone receptor gene in cases of male-limited precocious puberty] Yano K, et al. **Nippon Rinsho** 1998 Jul; 56(7):1843-7 (24 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

hCG: its pancreatic and duodenal receptors and in vivo electrolyte secretion in female rats. Panesar NS, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1430-6

Control of the expression of luteinizing hormone receptor by local factors in rat granulosa cells. Tsuchiya M, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):185-92

Intrinsically fluorescent luteinizing hormone receptor demonstrates hormone-driven aggregation. Horvat RD, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):382-5

Lutropins appear to contact two independent sites in the extracellular domain of their receptors. Bernard MP, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):611-7

Evidence that constitutively active luteinizing hormone/human chorionic gonadotropin receptors are rapidly internalized. Bradbury FA, et al. **Biochemistry** 1999 Jul 6;38(27):8703–12

Intrafollicular content of luteinizing hormone receptor, alpha-inhibin, and aromatase in relation to follicular growth, estrous cycle stage, and oocyte competence for in vitro maturation in the mare. Goudet G, et al. **Biol Reprod** 1999 May;60(5):1120–7

Characterization of a region of the lutropin receptor extracellular domain near transmembrane helix 1 that is important in ligand-mediated signaling. Alvarez CA, et al. **Endocrinology** 1999 Apr;140(4):1775–82

Identification of ionizable amino acid residues on the extracellular domain of the lutropin receptor involved in ligand binding. Bhowmick N, et al. **Endocrinology** 1999 Oct;140(10):4558–63

The alpha-subunit of human choriogonadotropin interacts with the exodomain of the luteinizing hormone/choriogonadotropin receptor. Hong S, et al. **Endocrinology** 1999 Jun;140(6):2486–93

Epidermal growth factor-induced heterologous desensitization of the luteinizing hormone/choriogonadotropin receptor in a cell-free membrane preparation is associated with the tyrosine phosphorylation of the epidermal growth factor receptor. Lamm ML, et al. **Endocrinology** 1999 Jan;140(1):29–36

Luteinizing hormone/choriogonadotropin receptor-mediated activation of heterotrimeric guanine nucleotide binding proteins in ovarian follicular membranes. Rajagopalan-Gupta RM, et al. **Endocrinology** 1998 Nov;139(11):4547–55

Critical relationship between glycosylation of recombinant lutropin receptor ectodomain and its secretion from baculovirus-infected insect cells. Pajot-Augy E, et al. **Eur J Biochem** 1999 Mar;260(3):635–48

beta-arrestin-dependent desensitization of luteinizing hormone/choriogonadotropin receptor is prevented by a synthetic peptide corresponding to the third intracellular loop of the receptor. Mukherjee S, et al. **J Biol Chem** 1999 May 7;274(19):12984–9

Evidence of sex reversal in the gonads of chicken embryos after oestrogen treatment as detected by expression of lutropin receptor. Akazome Y, et al. **J Reprod Fertil** 1999 Jan;115(1):9–14

Surface retention of an inactivating lutropin receptor mutant in exoloop 3. Bhowmick N, et al. **Mol Cell Biochem** 1998 Oct;187(1–2):221–7

Characterization of the translated products of the alternatively spliced luteinizing hormone receptor in the ovine ovary throughout the oestrous cycle. Bacich DJ, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):113–24

Endocytosis of lutropin by Leydig cells through a pathway distinct from the high-affinity receptor. Bozon V, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):33–42

Activating and inactivating mutations in LH receptors. Themmen AP, et al. **Mol Cell Endocrinol** 1998 Oct 25; 145(1–2):137–42 (28 ref.)

Certain activating mutations within helix 6 of the human luteinizing hormone receptor may be explained by alterations that allow transmembrane regions to activate Gs. Abell AN, et al. **Mol Endocrinol** 1998 Dec; 12(12):1857–69

The beta-subunit of human choriogonadotropin interacts with the exodomain of the luteinizing hormone/choriogonadotropin receptor and changes its interaction with the alpha-subunit. Hong SH, et al. **Mol Endocrinol** 1999 Aug;13(8):1285–94

Role of the rate of internalization of the agonist-receptor complex on the agonist-induced down-regulation of the lutropin/choriogonadotropin receptor. Nakamura K, et al. **Mol Endocrinol** 1999 Aug;13(8):1295–304

A direct role for arrestins in desensitization of the luteinizing hormone/choriogonadotropin receptor in porcine ovarian follicular membranes. Mukherjee S, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):493–8

PHYSIOLOGY

Roles of Gi and Gq/11 in mediating desensitization of the luteinizing hormone/choriogonadotropin receptor in porcine ovarian follicular membranes. Rajagopalan-Gupta RM, et al. **Endocrinology** 1999 Apr;140(4):1612–21

Induced luteolysis in the primate: rapid loss of luteinizing hormone receptors. Duncan WC, et al. **Hum Reprod** 1998 Sep;13(9):2532–40

Gene, interaction, signal generation, signal divergence and signal transduction of the LH/CG receptor. Ryu KS, et al. **Int J Gynaecol Obstet** 1998 Apr;60 Suppl 1:S9–20 (60 ref.)

Oestrogen-dependent expression of LH/hCG receptors in pig Fallopian tube and their role in relaxation of the oviduct. Gawronska B, et al. **J Reprod Fertil** 1999 Mar; 115(2):293–301

Role of the third intracellular loop for the activation of gonadotropin receptors. Schulz A, et al. **Mol Endocrinol** 1999 Feb;13(2):181–90

A dileucine-based motif in the C-terminal tail of the lutropin/choriogonadotropin receptor inhibits endocytosis of the agonist-receptor complex. Nakamura K, et al. **Mol Pharmacol** 1999 Oct;56(4):728–36

RECEPTORS, LHRH

see related
GONADORELIN
INHIBIN

AGONISTS

Prospective randomized study of the effect of "add-back" hormone replacement on vascular function during treatment with gonadotropin-releasing hormone agonists. Yim SF, et al. **Circulation** 1998 Oct 20;98(16):1631–5

Minidose GnRH-a for "poor responders." Cloning in place of data torturing? [editorial; comment] McDonough PG. **Fertil Steril** 1998 Oct;70(4):783–5. Comment on: Fertil Steril 1998 May;69(5):826–30. Comment on: Fertil Steril 1998 Oct;70(4):783.

Selective early elimination of luteal support in assisted reproduction cycles using a gonadotropin-releasing hormone agonist during ovarian stimulation. Stovall DW, et al. **Fertil Steril** 1998 Dec;70(6):1056–62

Minidose GnRH-2 for "poor responders." Cloning in place of data torturing? [letter; comment] [see comments] Tummon IS, et al. **Fertil Steril** 1998 Oct;70(4):783. Comment on: Fertil Steril 1998 May;69(5):826–30. Comment in: Fertil Steril 1998 Oct;70(4):783–5.

Normal pregnancy outcome after inadvertent exposure to long-acting gonadotrophin-releasing hormone agonist in early pregnancy. Taskin O, et al. **Hum Reprod** 1999 May; 14(5):1368–71

ANALYSIS

Antiidiotypic antibody to gonadotropin releasing hormone as probe for cell surface receptors. Karande AA, et al. **Biochem Mol Biol Int** 1998 Oct;46(3):449–59

Visualization of unoccupied and occupied gonadotropin-releasing hormone receptors in living cells. Lin X, et al. **Mol Cell Endocrinol** 1998 Nov 25; 146(1–2):27–37

ANTAGONISTS & INHIBITORS

Efficacy and safety of luteinizing hormone-releasing hormone antagonist cetrorelix in the treatment of symptomatic benign prostatic hyperplasia. Comaru-Schally AM, et al. **J Clin Endocrinol Metab** 1998 Nov; 83(11):3826–31

Discovery of a novel, potent, and orally active nonpeptide antagonist of the human luteinizing hormone-releasing hormone (LHRH) receptor. Cho N, et al. **J Med Chem** 1998 Oct 22;41(22):4190–5

BIOSYNTHESIS

Characterization of the human gonadotropin-releasing hormone receptor heterologously produced using the baculovirus/insect cell and the Semliki Forest virus systems. Marheineke K, et al. **Cell Mol Neurobiol** 1998 Oct; 18(5):509–24

Evidence for gonadotropin-releasing hormone receptor mRNA expression by estrogen in rat granulosa cells. Kogo H, et al. **Cell Tissue Res** 1999 Sep;297(3):459–65

Estradiol and gonadotropin-releasing hormone (GnRH) interact to increase GnRH receptor expression in ovariectomized ewes after hypothalamic-pituitary disconnection. Kirkpatrick BL, et al. **Endocrine** 1998 Jun; 8(3):225–9

mRNA expression of gonadotropin-releasing hormones (GnRHs) and GnRH receptor in goldfish. Yu KL, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):303–11

CHEMISTRY

Alanine-261 in intracellular loop III of the human gonadotropin-releasing hormone receptor is crucial for G-protein coupling and receptor internalization. Myburgh DB, et al. **Biochem J** 1998 May 1;331 (Pt 3):893–6

Mutations at the consensus phosphorylation sites in the third intracellular loop of the rat gonadotropin-releasing hormone receptor: effects on receptor ligand binding and signal transduction. Lin X, et al. **Biol Reprod** 1998 Dec; 59(6):1470–6

A single amino acid substitution in transmembrane helix VI results in overexpression of the human GnRH receptor. Myburgh DB, et al. **Eur J Endocrinol** 1998 Oct; 139(4):438–47

Mediation of cyclic AMP signaling by the first intracellular loop of the gonadotropin-releasing hormone receptor. Arora KK, et al. **J Biol Chem** 1998 Oct 2;273(40):25581–6

DRUG EFFECTS

Effects of alcohol on the human placental GnRH receptor system. Bramley TA, et al. **Mol Hum Reprod** 1999 Aug; 5(8):777–83

GENETICS

Effect of stress-like concentrations of cortisol on estradiol-dependent expression of gonadotropin-releasing hormone receptor in orchidectomized sheep. Adams TE, et al. **Biol Reprod** 1999 Jan;60(1):164–8

Ontogeny of the GNRH-, glutaminase- and glutamate decarboxylase-gene expression in the hypothalamus of female rats. Roth C, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):105–14

The GnRH receptor gene is preferentially expressed in functioning gonadotroph adenomas and displays a Mae III polymorphism site. Kottler ML, et al. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):115–23

Nucleotide sequence analyses predict that human pituitary and human placental gonadotropin-releasing hormone receptors have identical primary structures. Boyle TA, et al. **Endocrine** 1998 Dec;9(3):281–7

The gonadotropin-releasing hormone receptor gene promoter directs pituitary-specific oncogene expression in transgenic mice. Albarracin CT, et al. **Endocrinology** 1999 May;140(5):2415–21

Is gonadotrope expression of the gonadotropin releasing hormone receptor gene mediated by autocrine/paracrine stimulation of an activin response element? Duval DL, et al. **Endocrinology** 1999 Apr;140(4):1949–52

Regulation of lutenizing hormone secretion and subunit messenger ribonucleic acid expression by gonadal steroids in perifused pituitary cells from male monkeys and rats. Kawakami S, et al. **Endocrinology** 1999 Aug;140(8):3587–93

Transcriptional activation of gonadotropin-releasing hormone (GnRH) receptor gene by GnRH: involvement of multiple signal transduction pathways. Lin X, et al. **Endocrinology** 1999 Jan;140(1):358–64

Transcriptional regulation of the gonadotropin-releasing hormone receptor gene is mediated in part by a putative repressor element and by the cyclic adenosine 3',5'-monophosphate response element. Maya-Núñez G, et al. **Endocrinology** 1999 Aug;140(8):3452–8

Steroidogenic factor-1 interacts with a gonadotrope-specific element within the first exon of the human gonadotropin-releasing hormone receptor gene to mediate gonadotrope-specific expression. Ngan ES, et al. **Endocrinology** 1999 Jun;140(6):2452–62

The role of gonadotropin-releasing hormone in murine preimplantation embryonic development. Raga F, et al. **Endocrinology** 1999 Aug;140(8):3705–12

Regulation of gonadotropin-releasing hormone (GnRH) receptor gene expression in sheep: interaction of GnRH and estradiol. Turzillo AM, et al. **Endocrinology** 1998 Dec; 139(12):4890–4

Tissue-specific pattern of variant transcripts of the human gonadotropin-releasing hormone receptor gene. Kottler ML, et al. **Eur J Endocrinol** 1999 Jun;140(6):561–9

A single amino acid substitution in transmembrane helix VI results in overexpression of the human GnRH receptor. Myburgh DB, et al. **Eur J Endocrinol** 1998 Oct; 139(4):438–47

Mechanisms of age-related changes in gonadotropin-releasing hormone receptor messenger ribonucleic acid content in the anterior pituitary of male rats. Shinkai T, et al. **Exp Gerontol** 1999 Apr;34(2):267–73

Molecular analysis of the gonadotropin-releasing hormone receptor in patients with polycystic ovary syndrome. Cohen DP, et al. **Fertil Steril** 1999 Aug;72(2):360–3

Mapping of the bovine growth hormone-releasing hormone receptor (GHRH-R) gene to chromosome 4 by linkage analysis using a novel PCR-RFLP. Connor EE, et al. **J Anim Sci** 1999 Mar;77(3):793–4

Identification and characterization of the gonadotropin-releasing hormone response elements in the mouse gonadotropin-releasing hormone receptor gene. Norwitz ER, et al. **J Biol Chem** 1999 Jan 8;274(2):867–80

Resistance of hypogonadic patients with mutated GnRH receptor genes to pulsatile GnRH administration. Caron P, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):990–6

Human peripheral blood mononuclear cells express gonadotropin-releasing hormone (GnRH), GnRH receptor, and interleukin-2 receptor gamma-chain messenger ribonucleic acids that are regulated by GnRH in vitro. Chen HF, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):743–50

The same molecular defects of the gonadotropin-releasing hormone receptor determine a variable degree of hypogonadism in affected kindred. de Roux N, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):567–72

Fetal expression of GnRH and GnRH receptor genes in rat testis and ovary. Botté MC, et al. **J Endocrinol** 1998 Oct; 159(1):179–89

A novel human GnRH receptor homolog gene: abundant and wide tissue distribution of the antisense transcript. Millar R, et al. **J Endocrinol** 1999 Jul;162(1):117–26

Functional GHRH receptor carboxyl terminal isoforms in normal and dwarf (dw) rats. Zeitler P, et al. **J Mol Endocrinol** 1998 Dec;21(3):363–71

Negative regulation of gonadotropin-releasing hormone and gonadotropin-releasing hormone receptor gene expression by a gonadotrophin-releasing hormone agonist in the rat hypothalamus. Han YG, et al. **J Neuroendocrinol** 1999 Mar; 11(3):195–201

Noradrenergic neurotoxin suppresses gonadotropin-releasing hormone (GnRH) and GnRH receptor gene expression in ovariectomized and steroid-treated rats. Kang SS, et al. **J Neuroendocrinol** 1998 Dec;10(12):911–8

Regulation of ovine GnRH receptor gene expression by progesterone and oestradiol. Turzillo AM, et al. **J Reprod Fertil** 1998 Jul;113(2):251–6

Evidence for differential regulation of multiple transcripts of the gonadotropin releasing hormone receptor in the ovine pituitary gland; effect of estrogen. Cowley MA, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):141–9

RECEPTORS, LHRH

Multiple elements in the distal part of the 1.2 kb 5'-flanking region of the rat GnRH receptor gene regulate gonadotrope-specific expression conferred by proximal domain. Pincas H, et al. **Mol Cell Endocrinol** 1998 Sep 25; 144(1-2):95-108

Homologous regulation of the gonadotropin-releasing hormone receptor gene is partially mediated by protein kinase C activation of an activator protein-1 element. White BR, et al. **Mol Endocrinol** 1999 Apr;13(4):566-77

Detection of gonadotrophin releasing hormone and its receptor mRNA in human placental trophoblasts using in-situ reverse transcription-polymerase chain reaction. Wolfahrt S, et al. **Mol Hum Reprod** 1998 Oct; 4(10):999-1006

Two gonadotropin-releasing hormone receptor subtypes with distinct ligand selectivity and differential distribution in brain and pituitary in the goldfish (Carassius auratus). Illing N, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2; 96(5):2526-31

Expression of gonadotropin-releasing hormone receptor mRNA in the rat ventral prostate and dunning R3327 PAP adenocarcinoma before and after castration. Tieva A, et al. **Prostate** 1999 May;39(2):101-7

Expression of gonadotropin-releasing hormone (GnRH) and GnRH receptor mRNA in prostate cancer cells and effect of GnRH on the proliferation of prostate cancer cells. Bahk JY, et al. **Urol Res** 1998;26(4):259-64

[Genetic anomalies of the gonadotropic axis] de Roux N, et al. **Rev Prat** 1999 Jun 15;49(12):1277-82 (Eng. Abstr.) **(Fre)**

[Expression of hypothalamic hormone and hypothalamic hormone receptor genes in human pituitary and pituitary adenomas using in situ reverse transcription-polymerase chain reaction] Sanno N. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):405-8 **(Jpn)**

METABOLISM

Mutations at the consensus phosphorylation sites in the third intracellular loop of the rat gonadotropin-releasing hormone receptor: effects on receptor ligand binding and signal transduction. Lin X, et al. **Biol Reprod** 1998 Dec; 59(6):1470-6

Alterations in intracellular messengers mobilized by gonadotropin-releasing hormone in an experimental ovarian tumor. Chamson-Reig A, et al. **Endocrinology** 1999 Aug;140(8):3573-80

Simultaneous and independent visualization of the gonadotropin-releasing hormone receptor and its ligand: evidence for independent processing and recycling in living cells. Cornea A, et al. **Endocrinology** 1999 Sep; 140(9):4272-80

Role of protein kinase C in facilitation of luteinizing hormone (LH)-releasing hormone-induced LH surges by neuropeptide Y. Leupen SM, et al. **Endocrinology** 1999 Aug;140(8):3682-7

Identification of three putative GnRH receptor subtypes in vertebrates [comment] Troskie B, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):296-302. Comment on: Gen Comp Endocrinol 1998 Dec;112(3):415-25.

Functional GHRH receptor carboxyl terminal isoforms in normal and dwarf (dw) rats. Zeitler P, et al. **J Mol Endocrinol** 1998 Dec;21(3):363-71

Functional analysis of GnRH receptor ligand binding using biotinylated GnRH derivatives. Byrne B, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):11-9

Mechanisms mediating multiple physiological responses to gonadotropin-releasing hormone. Stanislaus D, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):1-10 (73 ref.)

Agonist-induced endocytosis and recycling of the gonadotropin-releasing hormone receptor: effect of beta-arrestin on internalization kinetics. Vrecl M, et al. **Mol Endocrinol** 1998 Dec;12(12):1818-29

Effects of alcohol on the human placental GnRH receptor system. Bramley TA, et al. **Mol Hum Reprod** 1999 Aug; 5(8):777-83

Delta opiate receptors account for the castration-induced unmasking of gonadotropin-releasing hormone binding sites in the rat pituitary. Leblanc P, et al. **Neuroendocrinology** 1998 Dec;68(6):386-94

Activation of gonadotropin-releasing hormone receptors induces a long-term enhancement of excitatory postsynaptic currents mediated by ionotropic glutamate receptors in the rat hippocampus. Yang SN, et al. **Neurosci Lett** 1999 Jan 22;260(1):33-6

Selective induction of apoptosis by the cytotoxic analog AN-207 in cells expressing recombinant receptor for luteinizing hormone-releasing hormone. Danila DC, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):669-73

PHYSIOLOGY

Mechanism of GnRH receptor signaling: from the membrane to the nucleus. Shacham S, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):79-88 (85 ref.)

Inhibition of growth and proliferation of EcRG293 cell line expressing high-affinity gonadotropin-releasing hormone (GnRH) receptor under the control of an inducible promoter by GnRH agonist (D-Lys6)GnRH and antagonist (Antide). Kakar SS. **Cancer Res** 1998 Oct 15; 58(20):4558-60

The role of protein kinases A and C pathways in the regulation of mitogen-activated protein kinase activation in response to gonadotropin-releasing hormone receptor activation. Han XB, et al. **Endocrinology** 1999 May; 140(5):2241-51

Characterization of an intrinsically fluorescent gonadotropin-releasing hormone receptor and effects of ligand binding on receptor lateral diffusion. Nelson S, et al. **Endocrinology** 1999 Feb;140(2):950-7

Is there a difference in the function of granulosa-luteal cells in patients undergoing in-vitro fertilization either with gonadotrophin-releasing hormone agonist or gonadotrophin-releasing hormone antagonist? Lin Y, et al. **Hum Reprod** 1999 Apr;14(4):885-8

Functional uncoupling between intracellular calcium dynamics and secretion in the alphaT3-1 gonadotropic cell line. Trueta C, et al. **J Cell Physiol** 1999 Jun;179(3):347-57

The lack of gonadotrophin-releasing hormone (GnRH) receptor desensitisation in alphaT3-1 cells is not due to GnRH receptor reserve or phosphatidylinositol 4,5-bis-phosphate pool size. Forrest-Owen W, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1-2):161-73

The tail of the gonadotrophin-releasing hormone receptor: desensitization at, and distal to, G protein-coupled receptors. McArdle CA, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):129-36 (63 ref.)

Activation of gonadotropin-releasing hormone receptors induces a long-term enhancement of excitatory postsynaptic currents mediated by ionotropic glutamate receptors in the rat hippocampus. Yang SN, et al. **Neurosci Lett** 1999 Jan 22;260(1):33-6

Coordinate regulation of gonadotropin-releasing hormone neuronal firing patterns by cytosolic calcium and store depletion. Van Goor F, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4101-6

RECEPTORS, LIPOPOLYSACCHARIDE see **ANTIGENS, CD14**

RECEPTORS, LIPOPROTEIN

[ApoE receptors] Yamamoto T. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1287-93 (24 ref.) **(Jpn)**

ANALYSIS

Neuronal localization of a novel mosaic apolipoprotein E receptor, LR11, in rat and human brain. Motoi Y, et al. **Brain Res** 1999 Jul 3;833(2):209-15

Antipeptide antibodies reveal interrelationships of MBP 200 and MBP 235: unique apoB-specific receptors for triglyceride-rich lipoproteins on human monocyte-macrophages. Bradley WA, et al. **J Lipid Res** 1999 Apr;40(4):744-52

Cellular assays for lipoprotein receptors. Acton S, et al. **Methods Mol Biol** 1998;110:253-66 (13 ref.)

BIOSYNTHESIS

Simultaneous induction of an HDL receptor protein (SR-BI) and the selective uptake of HDL-cholesteryl esters in a physiologically relevant steroidogenic cell model. Azhar S, et al. **J Lipid Res** 1998 Aug;39(8):1616-28

Polyunsaturated fatty acids up-regulate hepatic scavenger receptor B1 (SR-BI) expression and HDL cholesteryl ester uptake in the hamster. Spady DK, et al. **J Lipid Res** 1999 Aug;40(8):1384-94

CHEMISTRY

An extracellular beta-propeller module predicted in lipoprotein and scavenger receptors, tyrosine kinases, epidermal growth factor precursor, and extracellular matrix components. Springer TA. **J Mol Biol** 1998 Nov 6; 283(4):837-62

GENETICS

Lipopolysaccharide inhibits the expression of the scavenger receptor Cla-1 in human monocytes and macrophages. Buechler C, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):251-4

Mutations in the apolipoprotein (apo) B-100 receptor-binding region: detection of apo B-100 (Arg3500-->Trp) associated with two new haplotypes and evidence that apo B-100 (Glu3405-->Gln) diminishes receptor-mediated uptake of LDL. Fisher E, et al. **Clin Chem** 1999 Jul;45(7):1026-38

The cortical granule serine protease CGSP1 of the sea urchin, Strongylocentrotus purpuratus, is autocatalytic and contains a low-density lipoprotein receptor-like domain. Haley SA, et al. **Dev Biol** 1999 Jul 1;211(1):1-10

ACTH regulates LDL receptor and CLA-1 mRNA in the rat adrenal cortex. Heikkilä P, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):591-3

Expression and hormonal regulation of the high-density lipoprotein (HDL) receptor scavenger receptor class B type I messenger ribonucleic acid in the rat ovary. McLean MP, et al. **Endocrine** 1998 Dec;9(3):243-52

Expression in vitro of alternatively spliced variants of the messenger RNA for human apolipoprotein E receptor-2 identified in human tissues by ribonuclease protection assays. Sun XM, et al. **Eur J Biochem** 1999 May; 262(1):230-9

Inhibition by a coantioxidant of aortic lipoprotein lipid peroxidation and atherosclerosis in apolipoprotein E and low density lipoprotein receptor gene double knockout mice. Witting PK, et al. **FASEB J** 1999 Apr;13(6):667-75

A candidate high density lipoprotein (HDL) receptor, HB2, with possible multiple functions shows sequence homology with adhesion molecules. Kurata H, et al. **J Atheroscler Thromb** 1998;4(3):112-7 (26 ref.)

Evolution of the apolipoprotein E receptor 2 gene by exon loss. Kim HJ, et al. **J Biochem (Tokyo)** 1998 Aug; 124(2):451-6

Down-regulation of hepatic high-density lipoprotein receptor, SR-B1, in nephrotic syndrome. Liang K, et al. **Kidney Int** 1999 Aug;56(2):621-6

Hepatic HDL receptor, SR-B1 and Apo A-I expression in chronic renal failure. Vaziri ND, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1462-6

Expression and alternate splicing of apolipoprotein E receptor 2 in brain. Clatworthy AE, et al. **Neuroscience** 1999 Mar;90(3):903-11

METABOLISM

Receptor and non-receptor mediated uptake of chylomicron remnants by the liver. Havel RJ. **Atherosclerosis** 1998 Dec; 141 Suppl 1:S1-7

Conversion of chylomicrons into remnants. Hultin M, et al. **Atherosclerosis** 1998 Dec;141 Suppl 1:S25-9 (25 ref.)

Lipoprotein lipase compensates for the defective function of apo E variants in vitro by interacting with proteoglycans and lipoprotein receptors. Mann WA, et al. **Atherosclerosis** 1999 Jul;145(1):61-9

The selective pathway and a high-density lipoprotein receptor (SR-BI) in ovarian granulosa cells of the mouse. Reaven E, et al. **Biochim Biophys Acta** 1999 Jan 4; 1436(3):565-76

Effects of insulin deficiency on lipoproteins and their hepatic receptors in Rico rats. Milliat F, et al. **C R Acad Sci III** 1998 Dec;321(12):999-1006

Lipoprotein receptors: signaling functions in the brain? Cooper JA, et al. **Cell** 1999 Jun 11;97(6):671-4 (20 ref.)

Evidence for a potential role for HDL as an important source of cholesterol in human adrenocortical tumors via the CLA-1 pathway. Imachi H, et al. **Endocr J** 1999 Feb; 46(1):27-34

Steroidogenic factor-1 mediates cyclic 3',5'-adenosine monophosphate regulation of the high density lipoprotein receptor. Lopez D, et al. **Endocrinology** 1999 Jul; 140(7):3034-44

Uptake and fate of class B scavenger receptor ligands in HepG2 cells. Rhainds D, et al. **Eur J Biochem** 1999 Apr; 261(1):227-35

The efficient cellular uptake of high density lipoprotein lipids via scavenger receptor class B type I requires not only receptor-mediated surface binding but also receptor-specific lipid transfer mediated by its extracellular domain [published erratum appears in J Biol Chem 1998 Dec 25;273(52):35388] Gu X, et al. **J Biol Chem** 1998 Oct 9;273(41):26338-48

Scavenger receptor, class B, type I-dependent stimulation of cholesterol esterification by high density lipoproteins, low density lipoproteins, and nonlipoprotein cholesterol. Stangl H, et al. **J Biol Chem** 1998 Nov 20;273(47):31002-8

Interaction of cytosolic adaptor proteins with neuronal apolipoprotein E receptors and the amyloid precursor protein. Trommsdorff M, et al. **J Biol Chem** 1998 Dec 11; 273(50):33556-60

Remodeling of HDL by CETP in vivo and by CETP and hepatic lipase in vitro results in enhanced uptake of HDL CE by cells expressing scavenger receptor B-I. Collet X, et al. **J Lipid Res** 1999 Jul;40(7):1185-93

Hepatic lipase promotes the selective uptake of high density lipoprotein-cholesteryl esters via the scavenger receptor B1. Lambert G, et al. **J Lipid Res** 1999 Jul;40(7):1294-303

More data reported for HDL's role in heart disease [news] Husten L. **Lancet** 1998 Nov 14;352(9140):1603

CD36 LIMPII analogous-1, a human homolog of the rodent scavenger receptor B1, provides the cholesterol ester for steroidogenesis in adrenocortical cells. Imachi H, et al. **Metabolism** 1999 May;48(5):627-30

Expression and alternate splicing of apolipoprotein E receptor 2 in brain. Clatworthy AE, et al. **Neuroscience** 1999 Mar;90(3):903-11

Presence of CLA-1 and HDL binding sites on syncytiotrophoblast brush border and basal plasma membranes of human placenta. Lafond J, et al. **Placenta** 1999 Sep;20(7):583-90

Cubilin, the endocytic receptor for intrinsic factor-vitamin B(12) complex, mediates high-density lipoprotein holoparticle endocytosis. Hammad SM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10158-63

Receptor-mediated mechanisms of lipoprotein remnant catabolism. Chappell DA, et al. **Prog Lipid Res** 1998 Dec; 37(6):393-422 (262 ref.)

[Receptor endocytosis of polyenic acids: sensitivity and resistance to atherosclerosis (review of the literature)] Titov VN. **Klin Lab Diagn** 1999 Jan;(1):3-8 (40 ref.) **(Rus)**

PHYSIOLOGY

Identification of a receptor mediating absorption of dietary cholesterol in the intestine. Hauser H, et al. **Biochemistry** 1998 Dec 22;37(51):17843-50

Reeler/Disabled-like disruption of neuronal migration in

knockout mice lacking the VLDL receptor and ApoE receptor 2. Trommsdorff M, et al. **Cell** 1999 Jun 11; 97(6):689–701

A candidate high density lipoprotein (HDL) receptor, HB2, with possible multiple functions shows sequence homology with adhesion molecules. Kurata H, et al. **J Atheroscler Thromb** 1998;4(3):112–7 (26 ref.)

RECEPTORS, LOW DENSITY LIPOPROTEIN see **RECEPTORS, LDL**

RECEPTORS, LULIBERIN see **RECEPTORS, LHRH**

RECEPTORS, LUTEINIZING HORMONE see **RECEPTORS, LH**

RECEPTORS, LYMPHOCYTE HOMING

Cooperative activity of alpha4beta1 and alpha4beta7 integrins in mediating human B-cell lymphoma adhesion and chemotaxis on fibronectin through recognition of multiple synergizing binding sites within the central cell-binding domain. Yin Z, et al. **Blood** 1999 Feb 15;93(4):1221–30

Homing mechanisms of myeloma cells. Van Riet I. **Pathol Biol (Paris)** 1999 Feb;47(2):98–108 (76 ref.)

ANALYSIS

Chinese hamster ovary cells expressing alpha4beta1 integrin stimulate osteoclast formation in vitro. Akatsu T, et al. **J Bone Miner Res** 1998 Aug;13(8):1251–9

Peripheral lymph node addressins are expressed on skin endothelial cells. Lechleitner S, et al. **J Invest Dermatol** 1999 Sep;113(3):410–4

ANTAGONISTS & INHIBITORS

1,25-Dihydroxyvitamin D3 suppresses the expression of the VCAM-1 receptor, VLA-4 in human leukemic HL-60 cells. Kaneko A, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):371–6

Novel inhibitors of alpha 4 beta 1 integrin receptor interactions through library synthesis and screening. Souers AJ, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2297–302

Anti-inflammatory activity of c(ILDV-NH(CH2)5CO), a novel, selective, cyclic peptide inhibitor of VLA-4-mediated cell adhesion. Haworth D, et al. **Br J Pharmacol** 1999 Apr;126(8):1751–60

Very late antigen 4 (VLA4) antagonists as anti-inflammatory agents. Lin KC, et al. **Curr Opin Chem Biol** 1998 Aug; 2(4):453–7 (22 ref.)

Selective, tight-binding inhibitors of integrin alpha4beta1 that inhibit allergic airway responses. Lin Kc, et al. **J Med Chem** 1999 Mar 11;42(5):920–34

BIOSYNTHESIS

Modulation of VLA-4 and L-selectin expression on normal CD34+ cells during mobilization with G-CSF. Bellucci R, et al. **Bone Marrow Transplant** 1999 Jan;23(1):1–8

High affinity very late antigen-4 subsets expressed on T cells are mandatory for spontaneous adhesion strengthening but not for rolling on VCAM-1 in shear flow. Chen C, et al. **J Immunol** 1999 Jan 15;162(2):1084–95

Costimulation of CD28- T cells through CD3 and beta1-integrins induces a limited Th1 cytokine response. Saukkonen JJ, et al. **Scand J Immunol** 1999 Aug;50(2):145–9

BLOOD

Sickle cell acute chest syndrome: pathogenesis and rationale for treatment. Stuart MJ, et al. **Blood** 1999 Sep 1; 94(5):1555–60

Markers of lymphocyte homing distinguish CD4 T cell subsets that turn over in response to HIV-1 infection in humans. Hengel RL, et al. **J Immunol** 1999 Sep 15; 163(6):3539–48

Homing potentials of circulating antibody-secreting cells after administration of oral or parenteral protein or polysaccharide vaccine in humans. Kantele A, et al. **Vaccine** 1999 Jan 21;17(3):229–36

DEFICIENCY

High frequency of adhesion defects in B-lineage acute lymphoblastic leukemia. Geijtenbeek TB, et al. **Blood** 1999 Jul 15;94(2):754–64

GENETICS

Novel inhibitors of alpha 4 beta 1 integrin receptor interactions through library synthesis and screening. Souers AJ, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2297–302

Selective differences in the expression of the homing receptors of helper lymphocyte subsets. Burastero SE, et al. **Clin Immunol Immunopathol** 1998 Nov;89(2):110–6 (54 ref.)

Homing of transgenic gammadelta T cells into murine vaginal epithelium. Rakasz E, et al. **Int Immunol** 1998 Oct; 10(10):1509–17

IMMUNOLOGY

Involvement of alpha-4 integrins in allergic airway responses and mast cell degranulation in vivo. Hojo M, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1127–33

Use of a novel fibronectin receptor for liver infiltration by a mouse lymphoma cell line RL-male1. Gazi MH, et al. **Cancer Res** 1999 Mar 1;59(5):1115–9

Dual control by divalent cations and mitogenic cytokines of alpha 4 beta 1 and alpha 5 beta 1 integrin avidity expressed by human hemopoietic cells. Takamatsu Y, et al. **Cell Adhes Commun** 1998 Jul;5(5):349–66

Circulating CLA+ lymphocytes from children with atopic dermatitis contain an increased percentage of cells bearing staphylococcal-related T-cell receptor variable segments. Torres MJ, et al. **Clin Exp Allergy** 1998 Oct;28(10):1264–72

Anti VLA-4 monoclonal antibody inhibits eosinophil infiltration in allergic conjunctivitis model of guinea pig. Ebihara N, et al. **Curr Eye Res** 1999 Jul;19(1):20–5

Ligation of selectin L and integrin CD11b/CD18 (Mac-1) induces release of gelatinase B (MMP-9) from human neutrophils. Wize J, et al. **Inflamm Res** 1998 Aug; 47(8):325–7

Endothelial expression of VCAM-1 in experimental crescentic nephritis and effect of antibodies to very late antigen-4 or VCAM-1 on glomerular injury. Allen AR, et al. **J Immunol** 1999 May 1;162(9):5519–27

Evidence for superantigen involvement in skin homing of T cells in atopic dermatitis. Strickland I, et al. **J Invest Dermatol** 1999 Feb;112(2):249–53

Differential Th1 and Th2 cell regulation of murine cardiac allograft acceptance by blocking cell adhesion of ICAM-1/LFA-1 and VCAM-1/VLA-4. Suzuki J, et al. **Transpl Immunol** 1999 Mar;7(1):65–72

The 2C T-cell transgenic mouse: an in vivo model of allospecific cytotoxic T-cell activation and homing. Stegall MD, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):779

Homing mechanisms in the biology of multiple myeloma. Van Camp B, et al. **Verh K Acad Geneeskd Belg** 1998; 60(3):163–94 (117 ref.)

METABOLISM

Novel modified tripeptide inhibitors of alpha 4 beta 7 mediated lymphoid cell adhesion to MAdCAM-1. Shroff HN, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1601–6

Transfer of a protein binding epitope to a minimal designed peptide. Quan C, et al. **Biopolymers** 1998;47(4):265–75

Functional cooperation of cyclin C and c-Myc in mediating homotypic cell adhesion via very late antigen-4 activation and vascular cell adhesion molecule-1 induction. Liu ZJ, et al. **Blood** 1998 Dec 15;92(12):4700–11

VLA-4 is involved in the engraftment of the human pre-B acute lymphoblastic leukaemia cell line NALM-6 in SCID mice. Filshie R, et al. **Br J Haematol** 1998 Sep; 102(5):1292–300

Effect of the interaction between fibronectin and VLA-4 on the proliferation of human B cells, especially a novel human B-cell line, OPM-3. Yoshida H, et al. **Br J Haematol** 1998 Dec;103(3):804–12

Crystal structure of a heparin- and integrin-binding segment of human fibronectin. Sharma A, et al. **EMBO J** 1999 Mar 15;18(6):1468–79

Tenascin-C inhibits beta1 integrin-dependent T lymphocyte adhesion to fibronectin through the binding of its fnIII 1-5 repeats to fibronectin. Hauzenberger D, et al. **Eur J Immunol** 1999 May;29(5):1435–47

Interaction of Leishmania gp63 with cellular receptors for fibronectin. Brittingham A, et al. **Infect Immun** 1999 Sep; 67(9):4477–84

Co-ligation of alpha4beta1 integrin and TCR rescues human thymocytes from steroid-induced apoptosis. Zaitseva MB, et al. **Int Immunol** 1998 Oct;10(10):1551–61

Differential effects of antibodies to vascular cell adhesion molecule-1 and distinct epitopes of the alpha4 integrin in HgCl2-induced nephritis in Brown Norway rats. Escudero E, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1881–91

Multiple activation states of integrin alpha4beta1 detected through their different affinities for a small molecule ligand. Chen LL, et al. **J Biol Chem** 1999 May 7;274(19):13167–75

Rolipram inhibits staphylococcal enterotoxin B-mediated induction of the human skin-homing receptor on T lymphocytes. Santamaria LF, et al. **J Invest Dermatol** 1999 Jul;113(1):82–6

Fibronectin interaction with alpha4beta1 integrin prevents apoptosis in B cell chronic lymphocytic leukemia: correlation with Bcl-2 and Bax. de la Fuente MT, et al. **Leukemia** 1999 Feb;13(2):266–74

Expression of VLA-4 on peripheral mononuclear cells in patients on chronic haemodialysis with carpal tunnel syndrome. Ogino M, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3126–31

Inhibition of endothelial receptor expression and of T-cell ligand activity by mycophenolate mofetil. Blaheta RA, et al. **Transpl Immunol** 1998 Dec;6(4):251–9

[Cell cycle-dependent change of the adhesive character of CD34+ progenitor cells and their VLA-4 expression] Yamaguchi M, et al. **Rinsho Byori** 1999 May;47(5):439–46 (30 ref.) (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Alpha4beta1 and alpha5beta1 control cell migration on fibronectin by differentially regulating cell speed and motile cell phenotype. Chon JH, et al. **Ann Biomed Eng** 1998 Nov-Dec;26(6):1091–101

Modulation of integrin function in hematopoietic progenitor cells by CD43 engagement: possible involvement of protein tyrosine kinase and phospholipase C-gamma. Anzai N, et al. **Blood** 1999 May 15;93(10):3317–26

CrkL activates integrin-mediated hematopoietic cell adhesion through the guanine nucleotide exchange factor C3G. Arai A, et al. **Blood** 1999 Jun 1;93(11):3713–22

H-Ras is involved in the inside-out signaling pathway of interleukin-3-induced integrin activation. Shibayama H, et al. **Blood** 1999 Mar 1;93(5):1540–8

alpha4beta1 integrin-mediated adhesion of CD34+ cells from patients with chronic myeloid leukaemia: influence of IL-3. Schofield KP, et al. **Br J Haematol** 1999 Aug; 106(2):524–7

Blocking very late antigen-4 integrin decreases leukocyte entry and fatty streak formation in mice fed an atherogenic diet. Shih PT, et al. **Circ Res** 1999 Feb 19;84(3):345–51

Integrin mediated adhesion of mononuclear cells from patients with familial hypercholesterolemia. de Bont N, et al. **Eur J Clin Invest** 1999 Sep;29(9):749–57

The role of selectins in VLA-4 and CD18-independent neutrophil migration to joints of rats with adjuvant arthritis. Birner U, et al. **Eur J Immunol** 1999 Apr;29(4):1094–100

Regional specialization in the mucosal immune system: primed cells do not always home along the same track. Brandtzaeg P, et al. **Immunol Today** 1999 Jun;20(6):267–77 (111 ref.)

FTY720, a novel immunosuppressant, induces sequestration of circulating mature lymphocytes by acceleration of lymphocyte homing in rats, III. Increase in frequency of CD62L-positive T cells in Peyer's patches by FTY720-induced lymphocyte homing. Yanagawa Y, et al. **Immunology** 1998 Dec;95(4):591–4

Cooperative role for activated alpha4 beta1 integrin and chondroitin sulfate proteoglycans in cell adhesion to the heparin III domain of fibronectin. Identification of a novel heparin and cell binding sequence in repeat III5. Moyano JV, et al. **J Biol Chem** 1999 Jan 1;274(1):135–42

Nasal-associated lymphoid tissue: phenotypic and functional evidence for the primary role of peripheral node addressin in naive lymphocyte adhesion to high endothelial venules in a mucosal site. Csencsits KL, et al. **J Immunol** 1999 Aug 1;163(3):1382–9

Soluble VCAM-1 induces chemotaxis of Jurkat and synovial fluid T cells bearing high affinity very late antigen-4. Kitani A, et al. **J Immunol** 1998 Nov 1;161(9):4931–8

Blood monocyte migration to acute lung inflammation involves both CD11/CD18 and very late activation antigen-4-dependent and independent pathways. Li XC, et al. **J Immunol** 1998 Dec 1;161(11):6258–64

A novel mechanism of CD4 lymphocyte depletion involves effects of HIV on resting lymphocytes: induction of lymph node homing and apoptosis upon secondary signaling through homing receptors. Wang L, et al. **J Immunol** 1999 Jan 1;162(1):268–76

Interaction of very late antigen-4 with VCAM-1 supports transendothelial chemotaxis of monocytes by facilitating lateral migration. Weber C, et al. **J Immunol** 1998 Dec 15;161(12):6825–34

RECEPTORS, MACROPHAGE COLONY-STIMULATING FACTOR

ANALYSIS

Overexpression of epithelial macrophage colony-stimulating factor (CSF-1) and CSF-1 receptor: a poor prognostic factor in epithelial ovarian cancer, contrasted with a protective effect of stromal CSF-1. Chambers SK, et al. **Clin Cancer Res** 1997 Jun;3(6):999–1007

BIOSYNTHESIS

Expression pattern and neurotrophic role of the c-fms proto-oncogene M-CSF receptor in rodent Purkinje cells. Murase S, et al. **J Neurosci** 1998 Dec 15;18(24):10481–92

Evidence that downregulation of the M-CSF receptor is not dependent upon receptor kinase activity. Uden M, et al. **Oncogene** 1999 Jul 1;18(26):3846–51

GENETICS

Expression of colony stimulating factor-1 receptor (CSF-1R) by CNS neurons in mice. Wang Y, et al. **J Neurosci Res** 1999 Sep 1;57(5):616–32

Overexpression of macrophage colony-stimulating factor (CSF-1) and its receptor, c-fms, in normal ovarian granulosa cells leads to cell proliferation and tumorigenesis. Keshava N, et al. **J Soc Gynecol Investig** 1999 Jan-Feb; 6(1):41–9

Complementation of defective colony-stimulating factor 1 receptor signaling and mitogenesis by Raf and v-Src. Aziz N, et al. **Mol Cell Biol** 1999 Feb;19(2):1101–15

Cell specific transformation by c-fms activating loop mutations is attributable to constitutive receptor degradation. Morley GM, et al. **Oncogene** 1999 May 20; 18(20):3076–84

IMMUNOLOGY

Intraperitoneal administration of anti-c-fms monoclonal antibody prevents initial events of atherogenesis but does not reduce the size of advanced lesions in apolipoprotein E-deficient mice. Murayama T, et al. **Circulation** 1999 Apr

6;99(13):1740-6

METABOLISM

The low-molecular-weight phosphotyrosine protein phosphatase, when overexpressed, reduces the mitogenic response to macrophage colony-stimulating factor and tyrosine phosphorylation of its receptor. Rovida E, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):300-4

Diverse signaling pathways activated by growth factor receptors induce broadly overlapping, rather than independent, sets of genes [see comments] Fambrough D, et al. **Cell** 1999 Jun 11;97(6):727-41. Comment in: Cell 1999 Jun 11;97(6):675-8.

Mona, a novel hematopoietic-specific adaptor interacting with the macrophage colony-stimulating factor receptor, is implicated in monocyte/macrophage development. Bourette RP, et al. **EMBO J** 1998 Dec 15;17(24):7273-81

The Cbl protooncoprotein stimulates CSF-1 receptor multiubiquitination and endocytosis, and attenuates macrophage proliferation. Lee PS, et al. **EMBO J** 1999 Jul 1;18(13):3616-28

CSF-1 stimulated multiubiquitination of the CSF-1 receptor and of Cbl follows their tyrosine phosphorylation and association with other signaling proteins. Wang Y, et al. **J Cell Biochem** 1999 Jan 1;72(1):119-34

Effects of colony stimulating factor-1 on human extravillous trophoblast growth and invasion [see comments] Hamilton GS, et al. **J Endocrinol** 1998 Oct;159(1):69-77. Comment in: J Endocrinol 1999 Feb;160(2):319-20.

Epstein-Barr virus BARF1 protein is dispensable for B-cell transformation and inhibits alpha interferon secretion from mononuclear cells. Cohen JI, et al. **J Virol** 1999 Sep; 73(9):7627-32

Complementation of defective colony-stimulating factor 1 receptor signaling and mitogenesis by Raf and v-Src. Aziz N, et al. **Mol Cell Biol** 1999 Feb;19(2):1101-15

Cell specific transformation by c-fms activating loop mutations is attributable to constitutive receptor degradation. Morley GM, et al. **Oncogene** 1999 May 20; 18(20):3076-84

PHYSIOLOGY

The low-molecular-weight phosphotyrosine protein phosphatase, when overexpressed, reduces the mitogenic response to macrophage colony-stimulating factor and tyrosine phosphorylation of its receptor. Rovida E, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):300-4

The role of colony-stimulating factor 1 and its receptor in the etiopathogenesis of endometrial adenocarcinoma. Smith HO, et al. **Clin Cancer Res** 1995 Mar;1(3):313-25

Colony-stimulating factor-1 and its receptor do not have a role in the pathogenesis of uterine sarcomas. Anderson PS, et al. **Gynecol Oncol** 1999 Aug;74(2):202-7

Expression pattern and neurotrophic role of the c-fms proto-oncogene M-CSF receptor in rodent Purkinje cells. Murase S, et al. **J Neurosci** 1998 Dec 15;18(24):10481-92

The role of CSF-1 in normal and neoplastic breast physiology. Sapi E, et al. **Proc Soc Exp Biol Med** 1999 Jan;220(1):1-8 (79 ref.)

RECEPTORS, MANNOSE-6-PHOSPHATE see **RECEPTORS, INSULIN-LIKE-GROWTH-FACTOR II**

RECEPTORS, MENOTROPIN see **RECEPTORS, GONADOTROPIN**

RECEPTORS, METABOTROPIC GLUTAMATE

AGONISTS

Phospholipase C-independent group I metabotropic glutamate receptor-mediated inward current in mouse purkinje cells. Hirono M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):753-8

Synthesis and metabotropic glutamate receptor activity of a 2-aminobicyclo[3.2.0]heptane-2,5-dicarboxylic acid, a molecule possessing an extended glutamate conformation. Kozikowski AP, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):925-30

1-amino-APDC, a partial agonist of group II metabotropic glutamate receptors with neuroprotective properties. Kozikowski AP, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1721-6

Anticonvulsant and glutamate release-inhibiting properties of the highly potent metabotropic glutamate receptor agonist (2S,2'R, 3'R)-2-(2',3'-dicarboxycyclopropyl)glycine (DCG-IV). Attwell PJ, et al. **Brain Res** 1998 Sep 14;805(1-2):138-43

Phosphoinositide hydrolysis in vivo with group I metabotropic glutamate receptor agonists. Johnson MP, et al. **Brain Res** 1999 Mar 13;821(2):539-45

Depletion of dopamine in the nucleus accumbens prevents the generation of locomotion by metabotropic glutamate receptor activation. Meeker D, et al. **Brain Res** 1998 Nov 23;812(1-2):260-4

The effect of ACPD on the responses to NMDA and AMPA varies with layer in slices of rat visual cortex. Wang XF, et al. **Brain Res** 1998 Nov 23;812(1-2):186-92

Selective activation of group-II metabotropic glutamate receptors is protective against excitotoxic neuronal death. Battaglia G, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):271-4

The role of group II metabotropic glutamate receptors in hippocampal CA1 long-term potentiation in vitro. Behnisch T, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):159-65

(1S,3R)-ACPD, a metabotropic glutamate receptor agonist, enhances damage after global ischaemia. Henrich-Noack P, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):55-8

Metabotropic glutamate receptor agonist (1S,3R-ACPD) increased frontal cortex dopamine release in aged but not in young rats. Pintor A, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):139-42

Conformational changes of the smooth endoplasmic reticulum are facilitated by L-glutamate and its receptors in rat Purkinje cells. Banno T, et al. **J Comp Neurol** 1998 Dec 14;402(2):252-63

Agonist selectivity of mGluR1 and mGluR2 metabotropic receptors: a different environment but similar recognition of an extended glutamate conformation. Jullian N, et al. **J Med Chem** 1999 May 6;42(9):1546-55

Synthesis, pharmacological characterization, and molecular modeling of heterobicyclic amino acids related to (+)-2-aminobicyclo[3.1.0] hexane-2,6-dicarboxylic acid (LY354740): identification of two new potent, selective, and systemically active agonists for group II metabotropic glutamate receptors. Monn JA, et al. **J Med Chem** 1999 Mar 25;42(6):1027-40

Effect of the group II metabotropic glutamate agonist, 2R,4R-APDC, varies with age, layer, and visual experience in the visual cortex. Beaver CJ, et al. **J Neurophysiol** 1999 Jul;82(1):86-93

Effects of metabotropic glutamate receptor activation in auditory thalamus. Tennigkeit F, et al. **J Neurophysiol** 1999 Aug;82(2):718-29

Group II metabotropic glutamate receptor activation attenuates traumatic neuronal injury and improves neurological recovery after traumatic brain injury. Allen JW, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):112-20

The metabotropic glutamate 2/3 receptor agonists LY354740 and LY379268 selectively attenuate phencyclidine versus d-amphetamine motor behaviors in rats. Cartmell J, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):161-70

(R,S)-4-phosphonophenylglycine, a potent and selective group III metabotropic glutamate receptor agonist, is anticonvulsive and neuroprotective in vivo. Gasparini F, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1678-87

Metabotropic glutamate receptors in spatial and nonspatial learning in rats studied by means of agonist and antagonist application. Riedel G, et al. **Learn Mem** 1995 Sep-Oct; 2(5):243-65

LY354740, a group II metabotropic glutamate receptor agonist with potential antiparkinsonian properties in rats. Konieczny J, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):500-2

Potent, stereoselective, and brain region selective modulation of second messengers in the rat brain by (+)LY354740, a novel group II metabotropic glutamate receptor agonist. Schoepp DD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):175-80

Pharmacological characterization of an unusual mGluR-evoked neuronal hyperpolarization mediated by activation of GIRK channels. Dutar P, et al. **Neuropharmacology** 1999 Apr;38(4):467-75

Activation of mGluRII induces LTD via activation of protein kinase A and protein kinase C in the dentate gyrus of the hippocampus in vitro. Huang L, et al. **Neuropharmacology** 1999 Jan;38(1):73-83

Decreased sensitivity to Group III mGluR agonists in the lateral perforant path following kindling. Klapstein GJ, et al. **Neuropharmacology** 1999 Jul;38(7):927-33

Biochemical and electrophysiological studies on (S)-(+)-2-(3'-carboxybicyclo(1.1.1)pentyl)-glycine (CBPG), a novel mGlu5 receptor agonist endowed with mGlu1 receptor antagonist activity. Mannaioni G, et al. **Neuropharmacology** 1999 Jul;38(7):917-26

The selective mGlu2/3 receptor agonist LY354740 attenuates morphine-withdrawal-induced activation of locus coeruleus neurons and behavioral signs of morphine withdrawal. Vandergriff J, et al. **Neuropharmacology** 1999 Feb;38(2):217-22

Metabotropic glutamate receptor activation and blockade: their role in long-term potentiation, learning and neurotoxicity. Hölscher C, et al. **Neurosci Biobehav Rev** 1999;23(3):399-410 (125 ref.)

Effects of the selective metabotropic glutamate agonist LY354740 in a rat model of permanent ischaemia. Lam AG, et al. **Neurosci Lett** 1998 Sep 25;254(2):121-3

Protection against acute amphetamine-induced behavior by microinjection of a group II metabotropic glutamate receptor agonist into the dorsal striatum of rats. Mao L, et al. **Neurosci Lett** 1999 Jul 30;270(2):103-6

Activation of group I metabotropic glutamate receptors elicits pH changes in cultured rat cortical glia and neurons. Amos BJ, et al. **Neuroscience** 1998 Oct;86(4):1109-20

Metabotropic glutamate receptor agonists protect from oxygen-glucose deprivation- and colchicine-induced apoptosis in primary cultures of cerebellar granule cells. Kalda A, et al. **Neuroscience** 1999;92(1):7-14

Comparison of the effects of low and high concentrations of group I metabotropic receptor agonists on field potentials in the hippocampal CA1 region in vitro. Zahorodna A, et al. **Pol J Pharmacol** 1998 Jul-Oct; 50(4-5):291-8

Intracerebral administration of metabotropic glutamate receptor agonists disrupts prepulse inhibition of acoustic startle in Sprague-Dawley rats. Grauer SM, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):405-12

ANALYSIS

Interstitial glial cells of the gerbil pineal gland display immunoreactivity for the metabotropic glutamate receptors mGluR2/3 and mGluR5. Pabst H, et al. **Brain Res** 1999 Aug 14;838(1-2):60-8

Differential effects of electroconvulsive shock on the glutamate receptor mRNAs for NR2A, NR2B and mGluR5b. Watkins CJ, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):108-13

Immunohistochemical localization of the mGluR1beta metabotropic glutamate receptor in the adult rodent forebrain: evidence for a differential distribution of mGluR1 splice variants. Ferraguti F, et al. **J Comp Neurol** 1998 Oct 26;400(3):391-407

Heterogeneity of metabotropic glutamate receptors in autonomic cell groups of the medulla oblongata of the rat. Hay M, et al. **J Comp Neurol** 1999 Jan 25;403(4):486-501

Metabotropic glutamate receptors are associated with non-synaptic appendages of unipolar brush cells in rat cerebellar cortex and cochlear nuclear complex. Jaarsma D, et al. **J Neurocytol** 1998 Jun;27(5):303-27

Metabotropic glutamate receptor mGluR2/3 immunoreactivity in the mouse superior colliculus: co-localization with calbindin D28K. Kim MA, et al. **Neuroreport** 1999 Apr 26;10(6):1341-6

Functional expression of metabotropic glutamate receptor type 5 in rat pinealocytes. Yatsushiro S, et al. **Neuroreport** 1999 May 14;10(7):1599-603

Distribution of metabotropic glutamate receptors in the parabrachial and Kölliker-Fuse nuclei of the rat. Guthmann A, et al. **Neuroscience** 1999 Mar;89(3):873-81

ANTAGONISTS & INHIBITORS

Intrathecal metabotropic glutamate receptor antagonists do not decrease mechanical hyperalgesia in a rat model of postoperative pain. Zahn PK, et al. **Anesth Analg** 1998 Dec; 87(6):1354-9

Task-specific enhancement of short-term, but not long-term, memory by class I metabotropic glutamate receptor antagonist 1-aminoindan-1,5-dicarboxylic acid in rats. Christoffersen GR, et al. **Behav Brain Res** 1999 Jun; 101(2):215-26

(2S,4S)-amino-4-(2,2-diphenylethyl)pentanedioic acid selective group 2 metabotropic glutamate receptor antagonist. Escribano A, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):765-70

alpha-substituted quisqualic acid analogs: new metabotropic glutamate receptor group II selective antagonists. Kozikowski AP, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):447-52

Synthesis and biological evaluation of two analogues of (S)-alpha-methyl-3-carboxyphenylalanine. Ma D, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2447-50

[3H]LY341495, a highly potent, selective and novel radioligand for labeling Group II metabotropic glutamate receptors. Ornstein PL, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1919-22

Synthesis and preliminary evaluation of (S)-2-(4'-carboxycubyl)glycine, a new selective mGluR1 antagonist. Pellicciari R, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1569-74

Synthesis and biological activity of glutamic acid derivatives. Receveur JM, et al. **Bioorg Med Chem Lett** 1998 Jan 20; 8(2):127-32

Synthesis and metabotropic glutamate receptor antagonist activity of N1-substituted analogs of 2R,4R-4-aminopyrrolidine-2,4-dicarboxylic acid. Valli MJ, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):1985-90

Antagonist activity of alpha-substituted 4-carboxyphenylglycine analogues at group I metabotropic glutamate receptors expressed in CHO cells. Doherty AJ, et al. **Br J Pharmacol** 1999 Jan;126(1):205-10

Spermidine, a polyamine site agonist, attenuates working memory deficits caused by blockade of hippocampal muscarinic receptors and mGluRs in rats. Kishi A, et al. **Brain Res** 1998 May 18;793(1-2):311-4

Antagonists for group I mGluRs attenuate excitotoxic neuronal death in cortical cultures. Strasser U, et al. **Eur J Neurosci** 1998 Sep;10(9):2848-55

The role of group II metabotropic glutamate receptors in hippocampal CA1 long-term potentiation in vitro. Behnisch T, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):159-65

Induction of long-lasting depression by (+)-alpha-methyl-4-carboxyphenylglycine and other group II mGlu receptor ligands in the dentate gyrus of the hippocampus in vitro. Huang L, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):151-8

Presynaptic inhibitory action of the group II metabotropic glutamate receptor agonists, LY354740 and DCG-IV. Kilbride J, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):149-57

Asymmetric synthesis of some substituted-3-phenyl prolines. Micheli F, et al. **Farmaco** 1999 Jul 30;54(7):461-4

(2R,1'S,2'R,3'S)-2-(2'-Carboxy-3'-phenylcyclopropyl) glycine (PCCG-13), the first potent and selective competitive antagonist of phospholipase D-coupled metabotropic glutamate receptors: asymmetric synthesis and preliminary biological properties. Pellicciari R, et al. **J Med Chem** 1999 Jul 15;42(14):2716-20

Characterization of (2S,2'R,3'R)-2-(2',3'-[3H]-dicarboxycyclopropyl)glycine binding in rat brain. Mutel V, et al. **J Neurochem** 1998 Dec;71(6):2558-64

Group I mGluR activation causes voltage-dependent and -independent Ca2+ rises in hippocampal pyramidal cells. Bianchi R, et al. **J Neurophysiol** 1999 Jun;81(6):2903-13

Differential effects of metabotropic glutamate receptor antagonists on bursting activity in the amygdala. Keele NB, et al. **J Neurophysiol** 1999 May;81(5):2056-65

Group II metabotropic glutamate receptor activation attenuates traumatic neuronal injury and improves neurological recovery after traumatic brain injury. Allen JW, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):112-20

SIB-1757 and SIB-1893: selective, noncompetitive antagonists of metabotropic glutamate receptor type 5. Varney MA, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):170-81

Metabotropic glutamate receptors in spatial and nonspatial learning in rats studied by means of agonist and antagonist application. Riedel G, et al. **Learn Mem** 1995 Sep-Oct; 2(5):243-65

Antagonist pharmacology of metabotropic glutamate receptors coupled to phospholipase D activation in adult rat hippocampus: focus on (2R,1'S,2'R,3'S)-2-(2'-carboxy-3'-phenylcyclopropyl) glycine versus 3, 5-dihydroxyphenylglycine. Albani-Torregrossa S, et al. **Mol Pharmacol** 1999 Apr; 55(4):699-707

CPCCOEt, a noncompetitive metabotropic glutamate receptor 1 antagonist, inhibits receptor signaling without affecting glutamate binding. Litschig S, et al. **Mol Pharmacol** 1999 Mar;55(3):453-61

Calcium influx via ionotropic glutamate receptors causes long lasting inhibition of metabotropic glutamate receptor-coupled phosphoinositide hydrolysis. Facchinetti F, et al. **Neurochem Int** 1998 Sep;33(3):263-70

Comparative effect of L-CCG-I, DCG-IV and gamma-carboxy-L-glutamate on all cloned metabotropic glutamate receptor subtypes. Brabet I, et al. **Neuropharmacology** 1998 Aug;37(8):1043-51

The class I metabotropic glutamate receptor antagonist, AIDA, improves short-term and impairs long-term memory in a spatial task for rats. Christoffersen GR, et al. **Neuropharmacology** 1999 Jun;38(6):817-23

Reversible and non-competitive antagonist profile of CPCCOEt at the human type 1alpha metabotropic glutamate receptor. Hermans E, et al. **Neuropharmacology** 1998 Dec;37(12):1645-7

Biochemical and electrophysiological studies on (S)-(+)-2-(3'-carboxybicyclo(1.1.1)pentyl)-glycine (CBPG), a novel mGlu5 receptor agonist endowed with mGlu1 receptor antagonist activity. Mannaioni G, et al. **Neuropharmacology** 1999 Jul;38(7):917-26

Metabotropic glutamate receptor activation and blockade: their role in long-term potentiation, learning and neurotoxicity. Hölscher C, et al. **Neurosci Biobehav Rev** 1999;23(3):399-410 (125 ref.)

Effects of metabotropic glutamate receptor block on the synaptic transmission and plasticity in the rat medial vestibular nuclei. Grassi S, et al. **Neuroscience** 1998 Nov; 87(1):159-69

BIOSYNTHESIS

Expression of the human excitatory amino acid transporter 2 and metabotropic glutamate receptors 3 and 5 in the prefrontal cortex from normal individuals and patients with schizophrenia. Ohnuma T, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):207-17

Developmental expression of the group III metabotropic glutamate receptor mGluR4a in the medial nucleus of the trapezoid body of the rat. Elezgarai I, et al. **J Comp Neurol** 1999 Aug 30;411(3):431-40

Differential expression of group I metabotropic glutamate receptors in rat spinal cord somatic and autonomic motoneurons: possible implications for the pathogenesis of amyotrophic lateral sclerosis. Anneser JM, et al. **Neurobiol Dis** 1999 Apr;6(2):140-7

Sorting out receptor trafficking [comment] Trimmer JS. **Neuron** 1999 Mar;22(3):411-2. Comment on: Neuron 1999 Mar;22(3):525-36.

Dopamine D1 receptor modulation of glutamate receptor messenger RNA levels in the neocortex and neostriatum of unilaterally 6-hydroxydopamine-lesioned rats. Rodríguez-Puertas R, et al. **Neuroscience** 1999 Mar; 89(3):781-97

CHEMISTRY

Synthesis and metabotropic glutamate receptor activity of a 2-aminobicyclo[3.2.0]heptane-2,5-dicarboxylic acid, a molecule possessing an extended glutamate conformation. Kozikowski AP, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):925-30

Protein kinase Cbeta and delta selectively phosphorylate odorant and metabotropic glutamate receptors. Medler KF, et al. **Chem Senses** 1999 Jun;24(3):295-9

New perspectives for the development of selective metabotropic glutamate receptor ligands. Pin JP, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):277-94 (129 ref.)

Pharmacophore models of group I and group II metabotropic glutamate receptor agonists. Analysis of conformational, steric, and topological parameters affecting potency and selectivity. Costantino G, et al. **J Med Chem** 1999 Jul 29; 42(15):2816-27

Characterization of the dimerization of metabotropic glutamate receptors using an N-terminal truncation of mGluR1alpha. Robbins MJ, et al. **J Neurochem** 1999 Jun; 72(6):2539-47

DEFICIENCY

Immunohistological studies of metabotropic glutamate receptor subtype 6-deficient mice show no abnormality of retinal cell organization and ganglion cell maturation. Tagawa Y, et al. **J Neurosci** 1999 Apr 1;19(7):2568-79

Inositol-1,4,5-trisphosphate-mediated rescue of cerebellar long-term depression in subtype 1 metabotropic glutamate receptor mutant mouse. Daniel H, et al. **Neuroscience** 1999; 92(1):1-6

DRUG EFFECTS

Effects of varying the expression level of recombinant human mGlu1alpha receptors on the pharmacological properties of agonists and antagonists. Hermans E, et al. **Br J Pharmacol** 1999 Feb;126(4):873-82

Antagonism of the mGlu5 agonist 2-chloro-5-hydroxyphenylglycine by the novel selective mGlu5 antagonist 6-methyl-2-(phenylethynyl)-pyridine (MPEP) in the thalamus. Salt TE, et al. **Br J Pharmacol** 1999 Jul;127(5):1057-9

Metabotropic G-protein-coupled glutamate receptors as therapeutic targets. Pellicciari R, et al. **Curr Opin Chem Biol** 1999 Aug;3(4):433-40 (50 ref.)

Modulation of sensory inhibition in the ventrobasal thalamus via activation of group II metabotropic glutamate receptors by 2R,4R-aminopyrrolidine-2,4-dicarboxylate. Salt TE, et al. **Exp Brain Res** 1998 Jul;121(2):181-5

Metabotropic glutamate receptors and cell-type-specific vulnerability in the striatum: implication for ischemia and Huntington's disease. Calabresi P, et al. **Exp Neurol** 1999 Jul;158(1):97-108

N-acetylaspartylglutamate activates cyclic AMP-coupled metabotropic glutamate receptors in cerebellar astrocytes. Wroblewska B, et al. **Glia** 1998 Oct;24(2):172-9

Metabotropic glutamate receptor agonists reduce glutamate release from cultured astrocytes. Ye ZC, et al. **Glia** 1999 Feb 1;25(3):270-81

Glutamate receptors underlying excitatory synaptic transmission in the rat's lateral superior olive studied in vitro. Wu SH, et al. **Hear Res** 1998 Aug;122(1-2):47-59

Group I mGluR-mediated silent induction of long-lasting epileptiform discharges. Merlin LR. **J Neurophysiol** 1999 Aug;82(2):1078-81

Dual mechanism for presynaptic modulation by axonal metabotropic glutamate receptor at the mouse mossy fibre-CA3 synapse. Kamiya H, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):497-506

Beta-amyloid-induced apoptosis of cerebellar granule cells and cortical neurons: exacerbation by selective inhibition of group I metabotropic glutamate receptors. Allen JW, et al. **Neuropharmacology** 1999 Aug;38(8):1243-52

Induction of LTD in the adult hippocampus by the synaptic activation of AMPA/kainate and metabotropic glutamate receptors. Kemp N, et al. **Neuropharmacology** 1999 Apr; 38(4):495-504

Activation of metabotropic glutamate receptors enhances synaptic transmission at the Drosophila neuromuscular junction. Zhang D, et al. **Neuropharmacology** 1999 May; 38(5):645-57

Synaptic depression induced by pharmacological activation of metabotropic glutamate receptors in the perirhinal cortex in vitro. McCaffery B, et al. **Neuroscience** 1999;93(3):977-84

Potentiation of synaptic transmission by (S)-3,5-dihydroxy phenylglycine in the rat dentate gyrus in vitro: a role for voltage dependent calcium channels and protein kinase C. O'Leary DM, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):133-47

Open channel block of NMDA receptors by conformationally restricted analogs of milnacipran and their protective effect against NMDA-induced neurotoxicity. Noguchi T, et al. **Synapse** 1999 Feb; 31(2):87-96

GENETICS

Heterologous mammalian expression systems for investigating the properties of metabotropic glutamate receptors. Hermans E, et al. **Biochem Soc Trans** 1999 Feb; 27(2):164-70 (59 ref.)

Identification, cloning and analysis of expression of a new alternatively spliced form of the metabotropic glutamate receptor mGluR1 mRNA1. Soloviev MM, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):161-6

Distribution and developmental changes in metabotropic glutamate receptor messenger RNA expression in the rat lumbar spinal cord. Berthele A, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):39-53

Changes in mRNA levels for group I metabotropic glutamate receptors following in utero hypoxia-ischemia. Simonyi A, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):31-7

Expression of glutamate receptor subunit/subtype messenger RNAS for NMDAR1, GLuR1, GLuR2 and mGLuR5 by accumbal projection neurons. Lu XY, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):287-96

Cloning and functional expression of alternative spliced variants of the human metabotropic glutamate receptor 8. Malherbe P, et al. **Brain Res Mol Brain Res** 1999 Apr 20; 67(2):201-10

Origin of neuronal-like receptors in Metazoa: cloning of a metabotropic glutamate/GABA-like receptor from the marine sponge Geodia cydonium. Perovic S, et al. **Cell Tissue Res** 1999 May;296(2):395-404

Cloning and characterization of alternative mRNA forms for the rat metabotropic glutamate receptors mGluR7 and mGluR8. Corti C, et al. **Eur J Neurosci** 1998 Dec; 10(12):3629-41

Cell surface expression of the metabotropic glutamate receptor type 1alpha is regulated by the C-terminal tail. Ciruela F, et al. **FEBS Lett** 1999 Apr 1;448(1):91-4

Immunohistochemical localization of the mGluR1beta metabotropic glutamate receptor in the adult rodent forebrain: evidence for a differential distribution of mGluR1 splice variants. Ferraguti F, et al. **J Comp Neurol** 1998 Oct 26;400(3):391-407

Expression and signaling of group I metabotropic glutamate receptors in astrocytes and microglia. Biber K, et al. **J Neurochem** 1999 Apr;72(4):1671-80

Neuroadaptations in ionotropic and metabotropic glutamate receptor mRNA produced by cocaine treatment. Ghasemzadeh MB, et al. **J Neurochem** 1999 Jan; 72(1):157-65

Contribution of metabotropic glutamate receptor mGluR4 to L-2-[3H]amino-4-phosphonobutyrate binding in mouse brain. Thomsen C, et al. **J Neurochem** 1999 Feb; 72(2):835-40

Antisense ablation of type I metabotropic glutamate receptor mGluR1 inhibits spinal nociceptive transmission. Young MR, et al. **J Neurosci** 1998 Dec 1;18(23):10180-8

Decreased expression of the metabotropic glutamate receptor-4 gene is associated with neuronal apoptosis. Borodezt K, et al. **J Neurosci Res** 1998 Sep 1;53(5):531-41

Selective abolition of the NMDA component of long-term potentiation in mice lacking mGluR5. Jia Z, et al. **Learn Mem** 1998 Sep-Oct;5(4-5):331-43

Functional coupling of human metabotropic glutamate receptor hmGlu1d: comparison to splice variants hmGlu1a and -1b. Hiltscher R, et al. **Neuropharmacology** 1998 Jul; 37(7):827-37

Differential expression of group I metabotropic glutamate receptors (mGluRs) in the rat pheochromocytoma cell line PC12: role of nerve growth factor and ras. Kane MD, et al. **Neurosci Lett** 1998 Aug 7;252(1):1-4

Group I and II metabotropic glutamate receptor expression in cultured rat spinal cord astrocytes. Silva GA, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):117-20

Expression of metabotropic glutamate receptor 1 isoforms in the substantia nigra pars compacta of the rat. Kosinski CM, et al. **Neuroscience** 1998 Oct;86(3):783-98

METABOLISM

The up-regulation of metabotropic glutamate receptor 5 (mGluR5) in Down's syndrome brains. Oka A, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):275-8

Glutamate in the nucleus of the solitary tract activates both ionotropic and metabotropic glutamate receptors. Foley CM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1858-66

Activation of N-methyl-D-aspartate receptors reverses desensitization of metabotropic glutamate receptor, mGluR5, in native and recombinant systems. Alagarsamy S, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:526-30

Distribution of group III mGluRs in rat basal ganglia with subtype-specific antibodies. Bradley SR, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:531-4

Activation of PKC disrupts presynaptic inhibition by group II and group III metabotropic glutamate receptors and uncouples the receptor from GTP-binding proteins. Macek TA, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:554-7

Co-expression of metabotropic glutamate receptor type 1alpha with homer-1a/Vesl-1S increases the cell surface expression of the receptor. Ciruela F, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):795-803

Rapid internalization and surface expression of a functional, fluorescently tagged G-protein-coupled glutamate receptor. Doherty AJ, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):415-22

Heterologous mammalian expression systems for investigating the properties of metabotropic glutamate receptors. Hermans E, et al. **Biochem Soc Trans** 1999 Feb; 27(2):164-70 (59 ref.)

Mechanisms involved in the metabotropic glutamate receptor-enhancement of NMDA-mediated motoneurone responses in frog spinal cord. Holohean AM, et al. **Br J Pharmacol** 1999 Jan;126(1):333-41

Inhibition by inorganic ions of a sustained calcium signal evoked by activation of mGlu5 receptors in rat cortical neurons and glia. Prothero LS, et al. **Br J Pharmacol** 1998 Dec;125(7):1551-61

Metabotropic glutamate receptor modulation of excitotoxicity in the neostriatum: role of calcium channels. Colwell CS, et al. **Brain Res** 1999 Jul 3;833(2):234–41

Phosphoinositide hydrolysis in vivo with group I metabotropic glutamate receptor agonists. Johnson MP, et al. **Brain Res** 1999 Mar 13;821(2):539–45

Predominant expression of group-II metabotropic glutamate receptors in the goldfish brain. Poli A, et al. **Brain Res** 1999 Jul 10;834(1–2):142–5

Immunochemical localization of the metabotropic glutamate receptors in the rat heart. Gill SS, et al. **Brain Res Bull** 1999 Jan 15;48(2):143–6

Reversal of glutamate excitotoxicity by activation of PKC-associated metabotropic glutamate receptors in cerebellar granule cells relies on NR2C subunit expression. Pizzi M, et al. **Eur J Neurosci** 1999 Jul;11(7):2489–96

Competitive interaction of seven in absentia homolog-1A and Ca2+/calmodulin with the cytoplasmic tail of group 1 metabotropic glutamate receptors. Ishikawa K, et al. **Genes Cells** 1999 Jul;4(7):381–90

Extreme C terminus of G protein alpha-subunits contains a site that discriminates between Gi-coupled metabotropic glutamate receptors. Blahos J 2nd, et al. **J Biol Chem** 1998 Oct 2;273(40):25765–9

Ligand binding to the amino-terminal domain of the mGluR4 subtype of metabotropic glutamate receptor. Han G, et al. **J Biol Chem** 1999 Apr 9;274(15):10008–13

Immunohistochemical localization of subtype 4a metabotropic glutamate receptors in the rat and mouse basal ganglia. Bradley SR, et al. **J Comp Neurol** 1999 Apr 28;407(1):33–46

Localization of metabotropic glutamate receptors mGluR1alpha and mGluR2/3 in the cat retina. Cai W, et al. **J Comp Neurol** 1999 May 10;407(3):427–37

Metabotropic glutamate receptors in superficial laminae of the rat dorsal horn. Jia H, et al. **J Comp Neurol** 1999 Aug 9;410(4):627–42

Metabotropic glutamate receptor 2/3 immunoreactivity in the developing rat cerebellar cortex. Meguro R, et al. **J Comp Neurol** 1999 Jul 26;410(2):243–55

Cyclobutane quisqualic acid analogues as selective mGluR5a metabotropic glutamic acid receptor ligands. Littman L, et al. **J Med Chem** 1999 May 6;42(9):1639–47

Interactions of the C terminus of metabotropic glutamate receptor type 1alpha with rat brain proteins: evidence for a direct interaction with tubulin. Ciruela F, et al. **J Neurochem** 1999 Jan;72(1):346–54

Phosphorylation of serine-880 in GluR2 by protein kinase C prevents its C terminus from binding with glutamate receptor-interacting protein. Matsuda S, et al. **J Neurochem** 1999 Oct;73(4):1765–8

Characterization of the dimerization of metabotropic glutamate receptors using an N-terminal truncation of mGluR1alpha. Robbins MJ, et al. **J Neurochem** 1999 Jun; 72(6):2539–47

Group I metabotropic glutamate receptors mediate phospholipase D stimulation in rat cultured astrocytes. Servitja JM, et al. **J Neurochem** 1999 Apr;72(4):1441–7

Contribution of metabotropic glutamate receptor mGluR4 to L-2-[3H]amino-4-phosphonobutyrate binding in mouse brain. Thomsen C, et al. **J Neurochem** 1999 Feb; 72(2):835–40

Coexpression of multiple metabotropic glutamate receptors in axon terminals of single suprachiasmatic nucleus neurons. Chen G, et al. **J Neurophysiol** 1998 Oct;80(4):1932–8

Activation of metabotropic glutamate receptors modulates the voltage-gated sustained calcium current in a teleost horizontal cell. Linn CL, et al. **J Neurophysiol** 1999 Feb; 81(2):425–34

Group I metabotropic glutamate receptors at GABAergic synapses in monkeys. Hanson JE, et al. **J Neurosci** 1999 Aug 1;19(15):6488–96

Kindled seizures increase metabotropic glutamate receptor expression and function in the rat supraoptic nucleus. Al-Ghoul WM, et al. **J Neurosci Res** 1998 Nov 1; 54(3):412–23

Metabotrop glutamate receptor type 1a expressing unipolar brush cells in the cerebellar cortex of different species: a comparative quantitative study. Takács J, et al. **J Neurosci Res** 1999 Mar 15;55(6):733–48

A light and electron microscopic study of the metabotropic glutamate receptor mGluR1a in the normal and kainate-lesioned rat hippocampus. Ong WY, et al. **Mol Chem Neuropathol** 1998 Aug-Dec;35(1–3):173–86

Activation of NMDA receptors reverses desensitization of mGluR5 in native and recombinant systems. Alagarsamy S, et al. **Nat Neurosci** 1999 Mar;2(3):234–40

NMDA receptor-dependent and metabotropic glutamate receptor-dependent forms of long-term depression coexist in CA1 hippocampal pyramidal cells. Nicoll RA, et al. **Neurobiol Learn Mem** 1998 Jul-Sep;70(1–2):62–72

Localization of ionotropic and metabotropic glutamate receptors in distinct neuronal elements of the rat substantia nigra. Yung KK. **Neurochem Int** 1998 Oct;33(4):313–26

Stat3 participates in the metabotropic glutamate signaling pathway in Bergmann glial cells. Aguilera P, et al. **Neurochem Res** 1999 Aug;24(8):981–6

Expression of RGS2 alters the coupling of metabotropic glutamate receptor 1a to M-type K+ and N-type Ca2+ channels. Kammermeier PJ, et al. **Neuron** 1999 Apr; 22(4):819–29

Homer binds a novel proline-rich motif and links group 1 metabotropic glutamate receptors with IP3 receptors. Tu JC, et al. **Neuron** 1998 Oct;21(4):717–26

Coupling of mGluR/Homer and PSD-95 complexes by the Shank family of postsynaptic density proteins. Tu JC, et al. **Neuron** 1999 Jul;23(3):583–92

Homer regulates the association of group 1 metabotropic glutamate receptors with multivalent complexes of homer-related, synaptic proteins. Xiao B, et al. **Neuron** 1998 Oct;21(4):707–16

Metabotropic glutamate receptor in vasopressin, CRF and VIP hypothalamic neurones. Kocsis K, et al. **Neuroreport** 1998 Dec 21;9(18):4029–33

Metabotropic glutamate receptors 2 and 3 expressed by astrocytes in rat ventrobasal thalamus. Mineff E, et al. **Neurosci Lett** 1999 Jul 30;270(2):95–8

Pentylenetetrazol-induced seizures increase [3H]L-2-amino-4-phosphonobutyrate binding in discrete regions of the rat brain. Thomsen C. **Neurosci Lett** 1999 Apr 30;266(1):5–8

Expression of a foreign G-protein coupled receptor modulates the excitability of the peptidergic bag cell neurons of Aplysia. Whim MD, et al. **Neurosci Lett** 1998 Dec 24;258(3):143–6

Activation of group I metabotropic glutamate receptors elicits pH changes in cultured rat cortical glia and neurons. Amos BJ, et al. **Neuroscience** 1998 Oct;86(4):1109–20

Evidence of metabotropic glutamate receptor subtypes found on catfish horizontal and bipolar retinal neurons. Gafka AC, et al. **Neuroscience** 1999;90(4):1403–14

Long-term depression in hippocampal interneurons: joint requirement for pre- and postsynaptic events. Laezza F, et al. **Science** 1999 Aug 27;285(5432):1411–4

PHYSIOLOGY

Local glutamatergic and GABAergic synaptic circuits and metabotropic glutamate receptors in the hypothalamic paraventricular and supraoptic nuclei. Tasker JG, et al. **Adv Exp Med Biol** 1998;449:117–21

Cardiovascular response to group I metabotropic glutamate receptor activation in NTS. Foley CM, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1469–78

Metabotropic glutamate receptors depress vagal and aortic baroreceptor signal transmission in the NTS. Liu Z, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1682–94

Involvement of metabotropic glutamate receptors in taurine release in the adult and developing mouse hippocampus. Saransaari P, et al. **Amino Acids** 1999;16(2):165–79

Molecular and physiological evidence for glutamate (umami) taste transduction via a G protein-coupled receptor. Chaudhari N, et al. **Ann N Y Acad Sci** 1998 Nov 30; 855:398–406 (32 ref.)

Intrahippocampal infusions of a metabotropic glutamate receptor antagonist block the memory of context-specific but not tone-specific conditioned fear. Frohardt RJ, et al. **Behav Neurosci** 1999 Feb;113(1):222–7

Evidence that a novel metabotropic glutamate receptor mediates the induction of long-term potentiation at CA1 synapses in the hippocampus. Bortolotto ZA, et al. **Biochem Soc Trans** 1999 Feb;27(2):170–4

Non-NMDA glutamate receptors modulate capsaicin induced c-fos expression within trigeminal nucleus caudalis. Mitsikostas DD, et al. **Br J Pharmacol** 1999 Jun; 127(3):623–30

Role of glutamate receptor subtypes in the lamprey respiratory network. Bongianni F, et al. **Brain Res** 1999 May 1;826(2):298–302

Analysing metabotropic glutamate group III receptor mediated modulation of synaptic transmission in the amygdala-kindled dentate gyrus of the rat. Friedl M, et al. **Brain Res** 1999 Mar 6;821(1):117–23

Activation of metabotropic glutamate receptors is necessary for transneuronal regulation of ribosomes in chick auditory neurons. Hyson RL. **Brain Res** 1998 Nov 2;809(2):214–20

Priming of long-term potentiation by prior activation of group I and II metabotropic glutamate receptors in the rat dentate gyrus in vitro. O'Leary DM, et al. **Brain Res** 1998 Oct 26;809(1):91–6

Metabotropic glutamate receptors: electrophysiological properties and role in plasticity. Anwyl R. **Brain Res Brain Res Rev** 1999 Jan;29(1):83–120 (349 ref.)

Metabotropic glutamate receptors are involved in calcium-induced LTP of AMPA and NMDA receptor-mediated responses in the rat hippocampus. Yang SN, et al. **Brain Res Bull** 1998 Aug;46(6):505–12

Roles of metabotropic glutamate receptors in LTP and LTD in the hippocampus. Bortolotto ZA, et al. **Curr Opin Neurobiol** 1999 Jun;9(3):299–304 (64 ref.)

The metabotropic glutamate receptor mGlu5 controls the onset of developmental apoptosis in cultured cerebellar neurons. Copani A, et al. **Eur J Neurosci** 1998 Jun; 10(6):2173–84

Reduced function of L-AP4-sensitive metabotropic glutamate receptors in human epileptic sclerotic hippocampus. Dietrich D, et al. **Eur J Neurosci** 1999 Mar; 11(3):1109–13

Activation of the extracellular signal-regulated kinase 2 by metabotropic glutamate receptors. Ferraguti F, et al. **Eur J Neurosci** 1999 Jun;11(6):2073–2082

Endogenous activation of metabotropic glutamate receptors contributes to burst frequency regulation in the lamprey locomotor network. Krieger P, et al. **Eur J Neurosci** 1998 Nov;10(11):3333–42

mGluR7-like metabotropic glutamate receptors inhibit NMDA-mediated excitotoxicity in cultured mouse cerebellar granule neurons. Lafon-Cazal M, et al. **Eur J Neurosci** 1999 Feb;11(2):663–72

Potentiation of dopamine-induced cAMP formation by group I metabotropic glutamate receptors via protein kinase C in cultured striatal neurons. Paolillo M, et al. **Eur J Neurosci** 1998 Jun;10(6):1937–45

Group I mGlu receptor modulation of dopamine release in the rat striatum in vivo. Bruton RK, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):175–81

Type I and II metabotropic glutamate receptors regulate the outflow of [3H]D-aspartate and [14C]gamma-aminobutyric acid in rat solitary nucleus. Jones NM, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):43–51

Role of metabotropic glutamate receptors in the hypersusceptibility to pentylenetetrazole-induced seizure during diazepam withdrawal. Suzuki T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):163–8

Modulation of sensory inhibition in the ventrobasal thalamus via activation of group II metabotropic glutamate receptors by 2R,4R-aminopyrrolidine-2,4-dicarboxylate. Salt TE, et al. **Exp Brain Res** 1998 Jul;121(2):181–5

NMDA and non-NMDA receptor-mediated excitotoxicity are potentiated in cultured striatal neurons by prior chronic depolarization. Chen Q, et al. **Exp Neurol** 1999 Sep; 159(1):283–96

Metabotropic glutamate receptors prevent programmed cell death through the modulation of neuronal endonuclease activity and intracellular pH. Vincent AM, et al. **Exp Neurol** 1999 Jan;155(1):79–94

Activation of A(1) adenosine or mGlu3 metabotropic glutamate receptors enhances the release of nerve growth factor and S-100beta protein from cultured astrocytes. Ciccarelli R, et al. **Glia** 1999 Sep;27(3):275–81

Mature hippocampal astrocytes exhibit functional metabotropic and ionotropic glutamate receptors in situ. Shelton MK, et al. **Glia** 1999 Mar;26(1):1–11

The metabotropic glutamate receptors of the vestibular organs. Guth PS, et al. **Hear Res** 1998 Nov;125(1–2):154–62

Development of metabotropic glutamate receptors from trigeminal nuclei to barrel cortex in postnatal mouse. Muñoz A, et al. **J Comp Neurol** 1999 Jul 12;409(4):549–66

Evidence for NMDA and mGlu receptor-dependent long-term potentiation of mossy fiber-granule cell transmission in rat cerebellum. D'Angelo E, et al. **J Neurophysiol** 1999 Jan;81(1):277–87

Metabotropic glutamate receptor modulation of glutamate responses in the suprachiasmatic nucleus. Haak LL. **J Neurophysiol** 1999 Mar;81(3):1308–17

Role of metabotropic glutamate receptor subtype mGluR1 in brief nociception and central sensitization of primate STT cells. Neugebauer V, et al. **J Neurophysiol** 1999 Jul; 82(1):272–82

Group I metabotropic glutamate receptors mediate slow inhibition of calcium current in neocortical neurons. Sayer RJ. **J Neurophysiol** 1998 Oct;80(4):1981–8

Membrane potential and intracellular Ca2+ oscillations activated by mGluRs in hippocampal stratum oriens/alveus interneurons. Woodhall G, et al. **J Neurophysiol** 1999 Jan; 81(1):371–82

Neuronal discriminator formed by metabotropic gamma-aminobutyric acid receptors. Zhang J, et al. **J Neurophysiol** 1998 Dec;80(6):3365–8

Neuroprotection by glial metabotropic glutamate receptors is mediated by transforming growth factor-beta. Bruno V, et al. **J Neurosci** 1998 Dec 1;18(23):9594–600

Glutamate-triggered events inducing corticostriatal long-term depression. Calabresi P, et al. **J Neurosci** 1999 Jul 15;19(14):6102–10

Regulation of intrinsic and synaptic properties of neonatal rat trigeminal motoneurons by metabotropic glutamate receptors. Del Negro CA, et al. **J Neurosci** 1998 Nov 15; 18(22):9216–26

Distinct subtypes of metabotropic glutamate receptors mediate differential actions on excitability of spinal respiratory motoneurons. Dong XW, et al. **J Neurosci** 1999 Jul 1;19(13):5173–84

Metabotropic glutamate receptor subtype 7 ablation causes deficit in fear response and conditioned taste aversion. Masugi M, et al. **J Neurosci** 1999 Feb 1;19(3):955–63

The metabotropic receptor mGluR6 may signal through G(o), but not phosphodiesterase, in retinal bipolar cells. Nawy S. **J Neurosci** 1999 Apr 15;19(8):2938–44

Modulation of a slowly inactivating potassium current, I(D), by metabotropic glutamate receptor activation in cultured hippocampal pyramidal neurons. Wu RL, et al. **J Neurosci** 1999 Aug 15;19(16):6825–37

Role of group I metabotropic glutamate receptors in traumatic spinal cord white matter injury. Agrawal SK, et al. **J Neurotrauma** 1998 Nov;15(11):929–41

The regulation of dopamine transmission by metabotropic glutamate receptors. Hu G, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):412–6

Local facilitation of plateau potentials in dendrites of turtle motoneurones by synaptic activation of metabotropic receptors. Delgado-Lezama R, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):203–7

Requirement of rapid Ca2+ entry and synaptic activation of metabotropic glutamate receptors for the induction of long-term depression in adult rat hippocampus. Otani S, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):761–70

Metabotropic GABA receptors facilitate L-type and inhibit N-type calcium channels in single salamander retinal neurons. Shen W, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):711-8

A specific role for group I mGluRs in hippocampal LTP and hippocampus-dependent spatial learning. Balschun D, et al. **Learn Mem** 1999 Mar-Apr;6(2):138-52

Selective abolition of the NMDA component of long-term potentiation in mice lacking mGluR5. Jia Z, et al. **Learn Mem** 1998 Sep-Oct;5(4-5):331-43

Metabotropic glutamate receptors modulate serotonin release in the rat periaqueductal gray matter. Maione S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):411-7

Developmental regulation of group III metabotropic glutamate receptors modulating adenylate cyclase activity in the avian retina. Sampaio LF, et al. **Neurochem Int** 1998 Oct;33(4):367-74

Carnitine inhibits hydrolysis of inositol phospholipids induced by activation of metabotropic receptors. Llansola M, et al. **Neurochem Res** 1998 Dec;23(12):1533-7

Activation of AMPA, kainate, and metabotropic receptors at hippocampal mossy fiber synapses: role of glutamate diffusion. Min MY, et al. **Neuron** 1998 Sep;21(3):561-70

Switch from facilitation to inhibition of excitatory synaptic transmission by group I mGluR desensitization. Rodriguez-Moreno A, et al. **Neuron** 1998 Dec; 21(6):1477-86

Axon/dendrite targeting of metabotropic glutamate receptors by their cytoplasmic carboxy-terminal domains [see comments] Stowell JN, et al. **Neuron** 1999 Mar; 22(3):525-36. Comment in: Neuron 1999 Mar;22(3):411-2.

A simple method to transfer plasmid DNA into neuronal primary cultures: functional expression of the mGlu5 receptor in cerebellar granule cells. Ango F, et al. **Neuropharmacology** 1999 Jun;38(6):793-803

Neuroprotective activity of the potent and selective mGlu1a metabotropic glutamate receptor antagonist, (+)-2-methyl-4 carboxyphenylglycine (LY367385): comparison with LY357366, a broader spectrum antagonist with equal affinity for mGlu1a and mGlu5 receptors. Bruno V, et al. **Neuropharmacology** 1999 Feb;38(2):199-207

Adenosine A2A and group I metabotropic glutamate receptors synergistically modulate the binding characteristics of dopamine D2 receptors in the rat striatum. Ferré S, et al. **Neuropharmacology** 1999 Jan; 38(1):129-40

The potent mGlu receptor antagonist LY341495 identifies roles for both cloned and novel mGlu receptors in hippocampal synaptic plasticity. Fitzjohn SM, et al. **Neuropharmacology** 1998 Dec;37(12):1445-58

Design and models for estimating antagonist potency (pA2, Kd and IC50) following the detection of antagonism observed in the presence of intrinsic activity. Ghosh K, et al. **Neuropharmacology** 1999 Mar;38(3):361-73

Functional coupling of human metabotropic glutamate receptor hmGlu1d: comparison to splice variants hmGlu1a and -1b. Hiltscher R, et al. **Neuropharmacology** 1998 Jul; 37(7):827-37

Characterisation of mGluRs which modulate nociception in the PAG of the mouse. Maione S, et al. **Neuropharmacology** 1998 Dec;37(12):1475-83

Priming of group 2 metabotropic glutamate receptors facilitates induction of long-term depression in the dentate gyrus of freely moving rats. Manahan-Vaughan D. **Neuropharmacology** 1998 Dec;37(12):1459-64

Expression of heme oxygenase-1 mediated by non-NMDA and metabotropic receptors in glial cells: possible involvement of reactive oxygen species production and protein kinase C activation. Matsuoka Y, et al. **Neuropharmacology** 1999 Jun;38(6):825-34

Group I mGlu receptors potentiate synaptosomal [3H]glutamate release independently of exogenously applied arachidonic acid. Reid ME, et al. **Neuropharmacology** 1999 Apr;38(4):477-85

Protective effect of group I metabotropic glutamate receptor activation against hypoxic/hypoglycemic injury in rat hippocampal slices: timing and involvement of protein kinase C. Schröder UH, et al. **Neuropharmacology** 1999 Feb; 38(2):209-16

The metabotropic glutamate receptor 1 is not involved in the facilitation of glutamate release in cerebrocortical nerve terminals. Sistiaga A, et al. **Neuropharmacology** 1998 Dec; 37(12):1485-92

Regulation of synaptic transmission in the mossy fibre-granule cell pathway of rat cerebellum by metabotropic glutamate receptors. Vetter P, et al. **Neuropharmacology** 1999 Jun;38(6):805-15

The mGluR stimulating GFAP phosphorylation in immature hippocampal slices has some properties of a group II receptor. Kommers T, et al. **Neuroreport** 1999 Jul 13; 10(10):2119-23

Metabotropic glutamate receptors and the generation of locomotor activity: interactions with midbrain dopamine. Vezina P, et al. **Neurosci Biobehav Rev** 1999 Mar; 23(4):577-89 (135 ref.)

Arachidonic acid potentiates the duration of the metabotropic, protein kinase C-mediated, suppression of the inhibitory adenosine A1 receptor pathway in glutamatergic nerve terminals from rat cerebral cortex. Budd DC, et al. **Neurosci Lett** 1998 Mar 20;244(3):133-6

Group I metabotropic receptors down-regulate nitric oxide induced caspase-3 activity in rat hippocampal neurons. Maiese K, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):17-20

The role of nigrostriatal dopamine in metabotropic glutamate agonist-induced rotation. Kearney JA, et al. **Neuroscience** 1998 Dec;87(4):881-91

Subtype-specific involvement of metabotropic glutamate receptors in two forms of long-term potentiation in the dentate gyrus of freely moving rats. Manahan-Vaughan D, et al. **Neuroscience** 1998 Oct;86(3):709-21

Modulation of the intracellular calcium concentration in photoreceptor terminals by a presynaptic metabotropic glutamate receptor. Koulen P, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9909-14

Metabotropic glutamate receptors and neurodegeneration. Bruno V, et al. **Prog Brain Res** 1998;116:209-21 (98 ref.)

Group I metabotropic glutamate receptors: implications for brain diseases. Bordi F, et al. **Prog Neurobiol** 1999 Sep; 59(1):55-79 (340 ref.)

Glutamate-induced swelling of cultured astrocytes is mediated by metabotropic glutamate receptor. Yuan F, et al. **Sci China C Life Sci** 1996 Oct;39(5):517-22

Group I mGluRs modulate calcium currents in rat GP: functional implications. Stefani A, et al. **Synapse** 1998 Dec; 30(4):424-32

[Functional coupling between metabotropic glutamate receptors and G proteins in rat cerebral cortex] Nishi N. **Hokkaido Igaku Zasshi** 1999 Jul;74(4):289-300 (Eng. Abstr.) **(Jpn)**

[Metabotropic glutamate receptor: its ligands and function in the olfactory system] Hayashi Y. **Nippon Yakurigaku Zasshi** 1999 Feb;113(2):73-83 (38 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, N-METHYL-D-ASPARTATE

Delineation of the structural determinants of the N-methyl-D-aspartate receptor glycine binding site. Sandhu S, et al. **J Neurochem** 1999 Apr;72(4):1694-8

AGONISTS

Modulation of NMDA receptors by glycine--introduction to some basic aspects and recent developments. Parsons CG, et al. **Amino Acids** 1998;14(1-3):207-16 (87 ref.)

Comparison of various N-methyl-D-aspartate receptor antagonists in a model of short-term memory and on overt behaviour. Doyle KM, et al. **Behav Pharmacol** 1998 Dec; 9(8):671-81

Synthesis and pharmacology of N-alkylated derivatives of the excitotoxin ibotenic acid. Madsen U, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1563-8

Modulation of striatal quinolinate neurotoxicity by elevation of endogenous brain kynurenic acid. Harris CA, et al. **Br J Pharmacol** 1998 May;124(2):391-9

L-687,414, a low efficacy NMDA receptor glycine site partial agonist in vitro, does not prevent hippocampal LTP in vivo at plasma levels known to be neuroprotective. Priestley T, et al. **Br J Pharmacol** 1998 Aug;124(8):1767-73

Activation of NMDA receptors stimulates extracellular proteolysis of cell adhesion molecules in hippocampus. Hoffman KB, et al. **Brain Res** 1998 Nov 16;811(1-2):152-5

Spermidine, a polyamine site agonist, attenuates working memory deficits caused by blockade of hippocampal muscarinic receptors and mGluRs in rats. Kishi A, et al. **Brain Res** 1998 May 18;793(1-2):311-4

Resistance of gonadotropin-releasing hormone neurons to glutamatergic neurotoxicity. Ebling FJ, et al. **Brain Res Bull** 1998 Dec;47(6):575-84

Evidence for functional native NMDA receptors activated by glycine or D-serine alone in the absence of glutamatergic coagonist. Paudice P, et al. **Eur J Neurosci** 1998 Sep;10(9):2934-44

N-methyl-D-aspartate receptor agonists modulate homocysteine-induced developmental abnormalities. Rosenquist TH, et al. **FASEB J** 1999 Sep;13(12):1523-31

Malonate-induced generation of reactive oxygen species in rat striatum depends on dopamine release but not on NMDA receptor activation. Ferger B, et al. **J Neurochem** 1999 Sep;73(3):1329-32

Increase in external glutamate and NMDA receptor activation contribute to H2O2-induced neuronal apoptosis. Mailly F, et al. **J Neurochem** 1999 Sep;73(3):1181-8

Stimulatory and inhibitory properties of aminoglycoside antibiotics at N-methyl-D-aspartate receptors. Masuko T, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1026-33

Effects of D-cycloserine, a positive modulator of N-methyl-D-aspartate receptors, and ST 587, a putative alpha-1 adrenergic agonist, individually and in combination, on the non-delayed and delayed foraging behaviour of rats assessed in the radial arm maze. Pussinen R, et al. **J Psychopharmacol** 1999;13(2):171-9

In vivo effects of the NMDA receptor agonist tetrazolyl-glycine related to the function of small-diameter primary afferents. Lembeck F, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jul; 360(1):38-41

Early effects of intrastriatal injections of quinolinic acid on microtubule-associated protein-2 and neuropeptides in rat basal ganglia. Bordelon YM, et al. **Neuroscience** 1999; 93(3):843-53

NMDA-induced spinal hypersensitivity is reduced by naturally derived peptide analog [Ser1]histogranin. Hama AT, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):67-74

ANALYSIS

Localization of the N-methyl-D-aspartate R1 receptor in the pituitary gland of immature rainbow trout (Oncorhynchus mykiss). Holloway AC, et al. **Anat Histol Embryol** 1999 Jul;28(3):199-203

Cellular and subcellular localization of the 2B-subunit of the NMDA receptor in the adult rat telencephalon. Charton JP, et al. **Brain Res** 1999 Jan 23;816(2):609-17

NMDA receptor subunit NR1-immunoreactivity in the rat pons and brainstem and colocalization with Fos induced by nasal stimulation. Dutschmann M, et al. **Brain Res** 1998 Nov 2;809(2):221-30

Immunocytochemical localization of the NMDA-R2A receptor subunit in the cat retina. Goebel DJ, et al. **Brain Res** 1998 Oct 19;808(2):141-54

Measurement of NMDA receptor protein subunits in discrete hippocampal regions of kindled animals. Kraus JE, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):114-20

Differential effects of electroconvulsive shock on the glutamate receptor mRNAs for NR2A, NR2B and mGluR5b. Watkins CJ, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):108-13

Neuronal and glial localization of NR1 and NR2A/B subunits of the NMDA receptor in the human cerebral cortex. Conti F, et al. **Cereb Cortex** 1999 Mar;9(2):110-20

Subcellular and subsynaptic distribution of the NR1 subunit of the NMDA receptor in the neostriatum and globus pallidus of the rat: co-localization at synapses with the GluR2/3 subunit of the AMPA receptor. Bernard V, et al. **Eur J Neurosci** 1998 Dec;10(12):3721-36

Glutamate receptor subunits in the nucleus of the tractus solitarius and other regions of the medulla oblongata in the cat. Ambalavanar R, et al. **J Comp Neurol** 1998 Dec 7;402(1):75-92

Immunogold localization of AMPA and NMDA receptors in somatic sensory cortex of albino rat. Kharazia VN, et al. **J Comp Neurol** 1999 Sep 20;412(2):292-302

A novel two-site enzyme immunoassay reveals the regional distributions of and developmental changes in GluR1 and NMDAR1 protein contents in the rat brain. Ibaraki K, et al. **J Neurochem** 1999 Jul;73(1):408-17

In vitro evidence for increased facilitation of striatal acetylcholine release via pre- and postsynaptic NMDA receptors in hemiparkinsonian rats. Marti M, et al. **J Neurochem** 1999 Feb;72(2):875-8

Synaptic coexistence of AMPA and NMDA receptors in the rat hippocampus: a postembedding immunogold study. He Y, et al. **J Neurosci Res** 1998 Nov 15;54(4):444-9

Effect of spinal cord transection on N-methyl-D-aspartate receptors in the cord. Krenz NR, et al. **J Neurotrauma** 1998 Dec;15(12):1027-36

In vitro selection of peptides acting on NMDA receptors. Cwirla SE, et al. **Methods Mol Biol** 1999;128:131-41 (4 ref.)

Immunocytochemistry of NMDA receptors. Petralia RS, et al. **Methods Mol Biol** 1999;128:73-92 (59 ref.)

Detergent solubilization and immunoprecipitation of native NMDA receptors. Wenthold RJ, et al. **Methods Mol Biol** 1999;128:113-9 (11 ref.)

Redistribution of NMDA receptors in the cochlear nucleus following cochleotomy. Förster CR, et al. **Neuroreport** 1998 Oct 26;9(15):3531-5

Immunohistochemical localization of N-methyl-D-aspartate and alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate receptor subunits in the substantia nigra pars compacta of the rat. Albers DS, et al. **Neuroscience** 1999 Mar; 89(1):209-20

N-methyl-D-aspartate receptor 1 in the caudate-putamen nucleus: ultrastructural localization and co-expression with sorcin, a 22,000 mol. wt calcium binding protein. Gracy KN, et al. **Neuroscience** 1999 Apr;90(1):107-17

ANTAGONISTS & INHIBITORS

Intrathecal co-administration of NMDA antagonist and NK-1 antagonist reduces MAC of isoflurane in rats. Ishizaki K, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):753-9

The N-methyl-D-aspartate receptor channel blocker amantadine does not cause histopathological alterations in human brain tissue. Kornhuber J, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):85-90

Effects of N-methyl-D-aspartate receptor antagonists on reinforced and nonreinforced responding for ethanol in rats. Bienkowski P, et al. **Alcohol** 1999 Jun-Jul; 18(2-3):131-7

Differences in NMDA receptor antagonist-induced locomotor activity and [3H]MK-801 binding sites in short-sleep and long-sleep mice. Velardo MJ, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7):1509-15

GlycineB antagonists as potential therapeutic agents. Previous hopes and present reality. Danysz W, et al. **Amino Acids** 1998;14(1-3):235-9 (13 ref.)

Effects of glutamate antagonists on the activity of aromatic L-amino acid decarboxylase. Fisher A, et al. **Amino Acids** 1998;14(1-3):43-9

Effects of NMDA receptor antagonists on nociceptive responses in vivo: comparison of antagonists acting at the

glycine site with uncompetitive antagonists. McClean M, et al. **Amino Acids** 1998;14(1-3):217-21

Adenosine A2A receptors inhibit the conductance of NMDA receptor channels in rat neostriatal neurons. Nörenberg W, et al. **Amino Acids** 1998;14(1-3):33-9

Modulation of NMDA receptors by glycine--introduction to some basic aspects and recent developments. Parsons CG, et al. **Amino Acids** 1998;14(1-3):207-16 (87 ref.)

Antagonists of glutamate in the treatment of Parkinson's disease: from laboratory to the clinic. Starr MS. **Amino Acids** 1998;14(1-3):41-2

Role of excitatory amino acids in the ventral tegmental area for central actions of non-competitive NMDA-receptor antagonists and nicotine. Svensson TH, et al. **Amino Acids** 1998;14(1-3):51-6

Novel glycineB antagonists show neuroprotective activity in vivo. Wenk GL, et al. **Amino Acids** 1998;14(1-3):223-6

The preoperative administration of intravenous dextromethorphan reduces postoperative morphine consumption. Chia YY, et al. **Anesth Analg** 1999 Sep; 89(3):748-52

Propofol inhibits ketamine-induced c-fos expression in the rat posterior cingulate cortex. Nagata A, et al. **Anesth Analg** 1998 Dec;87(6):1416-20

Oral ketamine and transdermal nitroglycerin as analgesic adjuvants to oral morphine therapy for cancer pain management. Lauretti GR, et al. **Anesthesiology** 1999 Jun; 90(6):1528-33

The effect of naloxone on ketamine-induced effects on hyperalgesia and ketamine-induced side effects in humans. Mikkelsen S, et al. **Anesthesiology** 1999 Jun;90(6):1539-45

Influence of preemptive treatment with MK-801, an N-methyl-D-aspartate receptor antagonist, on development of neuropathic symptoms induced by spinal nerve ligation in the rat. Wei H, et al. **Anesthesiology** 1999 Jul;91(1):313-6

Protection by imidazol(ine) compounds of L-glutamate neurotoxicity through NMDA receptor blockade. DeGregorio-Rocasolano N, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:452

NMDA receptor antagonists enhance 5-HT2 receptor-mediated behavior, head-twitch response, in PCPA-treated mice. Kim HS, et al. **Arch Pharm Res** 1999 Apr;22(2):113-8

Effects of the competitive N-methyl-D-aspartate antagonist CGP 37849 and its ethylester CGP 39551 on N-methyl-D-aspartate-evoked whole-cell currents in cultured spinal neurones and on vestibular stimulation-induced seizures in EL mice. D'Hooge R, et al. **Arzneimittelforschung** 1998 Dec;48(12):1121-5

Effects of the competitive N-methyl-D-aspartate receptor antagonist, CPP, on the development and expression of conditioned hyperactivity and sensitization induced by cocaine. Druhan JP, et al. **Behav Brain Res** 1999 Jul; 102(1-2):195-210

NMDA receptor antagonists inhibit apomorphine-induced climbing behavior not only in intact mice but also in reserpine-treated mice. Kim HS, et al. **Behav Brain Res** 1999 Apr;100(1-2):135-42

Effects of systemic, intracerebral, or intrathecal administration of an N-methyl-D-aspartate receptor antagonist on associative morphine analgesic tolerance and hyperalgesia in rats. McNally GP, et al. **Behav Neurosci** 1998 Aug;112(4):966-78

Comparison of the amnestic effects of NMDA receptor antagonist MK-801 and nitric oxide synthase inhibitors: L-NAME and L-NOARG in goldfish. Xu X, et al. **Behav Neurosci** 1998 Aug;112(4):892-9

Evaluation of the reinforcing and discriminative stimulus properties of the low-affinity N-methyl-D-aspartate channel blocker memantine. Nicholson KL, et al. **Behav Pharmacol** 1998 May;9(3):231-43

The N-methyl-D-aspartate receptor blocker MK-801 prevents the facilitatory effects of naloxone and epinephrine on retention of inhibitory avoidance task in rats. Quevedo J, et al. **Behav Pharmacol** 1997 Oct;8(5):471-4

Opioid analgesics as noncompetitive N-methyl-D-aspartate (NMDA) antagonists. Ebert B, et al. **Biochem Pharmacol** 1998 Sep 1;56(5):553-9 (53 ref.)

Two-component blocking kinetics of open NMDA channels by organic cations. Sobolevsky AI. **Biochim Biophys Acta** 1999 Jan 12;1416(1-2):69-91

An alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) antagonist and an N-methyl-D-aspartate (NMDA) channel blocker synergistically impair spatial memory in rats. Li H, et al. **Biol Pharm Bull** 1998 Nov; 21(11):1228-30

5-Aminomethylquinoxaline-2,3-diones, Part III: Arylamide derivatives as highly potent and selective glycine-site NMDA receptor antagonists. Acklin P, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):493-8

5-Aminomethylquinoxaline-2,3-diones. Part II: N-aryl derivatives as novel NMDA/glycine and AMPA antagonists. Auberson YP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):71-4

Synthesis, biological activity, and absolute stereochemical assignment of NPS 1392: a potent and stereoselective NMDA receptor antagonist. Moe ST, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1915-20

Heteroatom-substitution as a strategy for increasing the potency of competitive NMDA antagonists. Ornstein PL, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):389-94

N-(2-(4-hydroxyphenyl)ethyl)-4-chlorocinnamide: a novel antagonist at the 1A/2B NMDA receptor subtype. Tamiz AP, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):199-200

Structure-activity relationship for a series of 2-substituted 1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indoles: potent subtype-selective inhibitors of N-methyl-D-aspartate (NMDA) receptors. Tamiz AP, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1619-24

Novel bisbenzamidines and bisbenzimidazolines as noncompetitive NMDA receptor antagonists. Tao B, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1299-304

Spermine and arcaine block and permeate N-methyl-D-aspartate receptor channels. Araneda RC, et al. **Biophys J** 1999 Jun;76(6):2899-911

Differential inhibitory effects of thiopental, thiamylal and phenobarbital on both voltage-gated calcium channels and NMDA receptors in rat hippocampal slices. Zhan RZ, et al. **Br J Anaesth** 1998 Dec;81(6):932-9

Direct inhibition of the N-methyl-D-aspartate receptor channel by dopamine and (+)-SKF38393. Castro NG, et al. **Br J Pharmacol** 1999 Apr;126(8):1847-55

The antinociceptive effect of combined systemic administration of morphine and the glycine/NMDA receptor antagonist, (+)-HA966 in a rat model of peripheral neuropathy [published erratum appears in Br J Pharmacol 1999 Apr;126(8):1881] Christensen D, et al. **Br J Pharmacol** 1998 Dec;125(8):1641-50

Protection by imidazol(ine) drugs and agmatine of glutamate-induced neurotoxicity in cultured cerebellar granule cells through blockade of NMDA receptor. Olmos G, et al. **Br J Pharmacol** 1999 Jul;127(6):1317-26

LU 73068, a new non-NMDA and glycine/NMDA receptor antagonist: pharmacological characterization and comparison with NBQX and L-701,324 in the kindling model of epilepsy. Potschka H, et al. **Br J Pharmacol** 1998 Nov;125(6):1258-66

Neuroprotective interaction effects of NMDA and AMPA receptor antagonists in an in vitro model of cerebral ischemia. Arias RL, et al. **Brain Res** 1999 Jan 23; 816(2):299-308

Reduction of voltage-dependent currents by ethanol contributes to inhibition of NMDA receptor-mediated excitatory synaptic transmission. Calton JL, et al. **Brain Res** 1999 Jan 16;816(1):142-8

The NMDA receptor antagonist CPP impairs conditioned taste aversion and insular cortex long-term potentiation in vivo. Escobar ML, et al. **Brain Res** 1998 Nov 23; 812(1-2):246-51

Evaluation of glycine site antagonists of the NMDA receptor in global cerebral ischaemia. Hicks CA, et al. **Brain Res** 1999 Feb 20;819(1-2):65-74

Effect of post-injury NMDA antagonist treatment on long-term Fos expression and hyperalgesia in a model of chronic neuropathic pain. Hudspith MJ, et al. **Brain Res** 1999 Mar 20;822(1-2):220-7

Effect of pre-emptive NMDA antagonist treatment on long-term Fos expression and hyperalgesia in a model of chronic neuropathic pain. Munglani R, et al. **Brain Res** 1999 Mar 20;822(1-2):210-9

NS-257, a novel competitive AMPA receptor antagonist, interacts with kainate and NMDA receptors. Nijholt I, et al. **Brain Res** 1999 Mar 13;821(2):374-82

Dopamine receptor sensitive effect of dizocilpine on feeding behaviour. Ninan I, et al. **Brain Res** 1998 Nov 23; 812(1-2):157-63

GABAA receptor stimulation blocks NMDA-induced bursting of dopaminergic neurons in vitro by decreasing input resistance. Paladini CA, et al. **Brain Res** 1999 Jun 19;832(1-2):145-51

Delay in meal termination follows blockade of N-methyl-D-aspartate receptors in the dorsal hindbrain. Treece BR, et al. **Brain Res** 1998 Nov 9;810(1-2):34-40

Periventricular anteroventral third ventricle lesions diminish the pressor response produced by systemic injection of the N-methyl-D-aspartate receptor antagonist MK-801. Whalen EJ, et al. **Brain Res** 1999 Jul 31;836(1-2):210-2

Segmental effect of NMDA block in the dorsal horn on the pressor reflex. Wilson LB, et al. **Brain Res** 1998 Oct 5; 807(1-2):222-7

Effect of dextromethorphan, a NMDA antagonist, on DNA repair in rat photochemical thrombotic cerebral ischemia. Yin KJ, et al. **Brain Res** 1999 Jan 2;815(1):29-35

Effects of oral administration of the competitive N-methyl-D-aspartate antagonist, CGP 40116, on passive avoidance, spatial learning, and neuromotor abilities in mice. Hauben U, et al. **Brain Res Bull** 1999 Feb; 48(3):333-41

Effects of N-methyl-D-aspartate antagonists on different measures of motion sickness in cats. Lucot JB. **Brain Res Bull** 1998 Nov 15;47(5):407-11

Anti-convulsant and adverse effects of the glycineB receptor ligands, D-cycloserine and L-701,324: comparison with competitive and non-competitive N-methyl-D-aspartate receptor antagonists. Wlaź P. **Brain Res Bull** 1998 Aug; 46(6):535-40

Inhibiting neuronal migration by blocking NMDA receptors in the embryonic rat cerebral cortex: a tissue culture study. Hirai K, et al. **Brain Res Dev Brain Res** 1999 Apr 12; 114(1):63-7

The NMDA antagonist, MK-801, alters L-DOPA-induced air-stepping in neonatal rats. McEwen ML, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):33-40

Potential involvement of tyrosine kinase pathway in the antagonist induced upregulation of the NMDA receptor NR2B subunit in cortical neurons. Kalluri HS, et al. **Brain Res Mol Brain Res** 1999 Mar 5;65(2):206-10

Partial blocking of NMDA receptors reduces plastic changes induced by short-lasting classical conditioning in the SI barrel cortex of adult mice. Jablonska B, et al. **Cereb Cortex** 1999 Apr-May;9(3):222-31

Ketamine-induced peripheral analgesia in rats. Bai L, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):377-9

Inhibitory effects of dextromethorphan on c-fos protein expression during focal cerebral ischemia in rats. Bao WL, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):418-20

Novel targets for therapeutic intervention against ischemic brain injury. Sun A, et al. **Clin Neuropharmacol** 1999 May-Jun;22(3):164-71 (66 ref.)

The glycine site on the NMDA receptor: structure-activity relationships and possible therapeutic applications. Dannhardt G, et al. **Curr Med Chem** 1998 Aug;5(4):253-63 (58 ref.)

Antagonists selective for NMDA receptors containing the NR2B subunit. Chenard BL, et al. **Curr Pharm Des** 1999 May;5(5):381-404 (113 ref.)

Treatment with the N-methyl-D-aspartate receptor antagonist dextromethorphan in severe bacterial meningitis: preliminary results [letter] Schmitt B, et al. **Eur J Pediatr** 1998 Oct;157(10):863-5

Prolongation of morphine analgesia by competitive NMDA receptor antagonist D-CPPene (SDZ EAA 494) in rats. Bespalov A, et al. **Eur J Pharmacol** 1998 Jun 26; 351(3):299-305

Locomotion elicited by MK801 in developing and adult rats: temporal, environmental, and gender effects. Frantz K, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):145-57

Competitive NMDA receptor antagonists disrupt prepulse inhibition without reduction of startle amplitude in a dopamine receptor-independent manner in mice. Furuya Y, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):133-40

Site-specific NMDA receptor antagonists produce differential effects on cocaine self-administration in rats. Hyytiä P, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):9-16

Effects of NMDA receptor antagonists on morphine tolerance: a c-Fos study in the lumbar spinal cord of the rat. Le Guen S, et al. **Eur J Pharmacol** 1999 May 28; 373(1):1-11

Ethanol-reinforced behaviour in the rat: effects of uncompetitive NMDA receptor antagonist, memantine. Piasecki J, et al. **Eur J Pharmacol** 1998 Aug 7; 354(2-3):135-43

Effects of the NMDA receptor antagonist D-CPPene on extracellular levels of dopamine and dopamine and serotonin metabolites in striatum of kindled and non-kindled rats. Potschka H, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):175-87

Low-affinity NMDA receptor channel blockers inhibit acquisition of intravenous morphine self-administration in naive mice. Semenova S, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):1-8

The adenosine A1 receptor agonist N6-cyclopentyladenosine blocks the disruptive effect of phencyclidine on prepulse inhibition of the acoustic startle response in the rat. Sills TL, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):325-9

Place conditioning of mice with the NMDA receptor antagonists, eliprodil and dizocilpine. Sukhotina I, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):103-10

N-Methyl-D-aspartate receptor blockade induces neuronal apoptosis in cortical culture. Hwang JY, et al. **Exp Neurol** 1999 Sep;159(1):124-30

Antiparkinsonian actions of blockade of NR2B-containing NMDA receptors in the reserpine-treated rat. Nash JE, et al. **Exp Neurol** 1999 Jan;155(1):42-8

Investigation on possible antioxidative properties of the NMDA-receptor antagonists ketamine, memantine, and amantadine in comparison to nicanartine in vitro. Lupp A, et al. **Exp Toxicol Pathol** 1998 Sep;50(4-6):501-6

Synthesis of 2-substituted-6,8-dichloro-3,4-dihydro-3-oxo-2H-1,4-benzothiazine-1,1-d ioxides and -1-oxides as glycine-NMDA receptor antagonists. Varano F, et al. **Farmaco** 1998 Dec 30;53(12):752-7

Blocking NMDA receptors prevents the oxidative stress induced by acute ammonia intoxication. Kosenko E, et al. **Free Radic Biol Med** 1999 Jun;26(11-12):1369-74

Effects of competitive NMDA receptor antagonists on excitatory amino acid-evoked currents in mouse spinal cord neurones. D'Hooge R, et al. **Fundam Clin Pharmacol** 1999; 13(1):67-74

Anticonvulsant action of a NMDA receptor antagonist CGP 40116 varies only quantitatively during ontogeny in rats. Haugvicová R, et al. **Fundam Clin Pharmacol** 1998; 12(5):521-5

NMDA agonists and antagonists as probes of glutamatergic dysfunction and pharmacotherapies in neuropsychiatric disorders. Krystal JH, et al. **Harv Rev Psychiatry** 1999 Sep-Oct;7(3):125-43 (214 ref.)

Delay-dependent impairment of a matching-to-place task with chronic and intrahippocampal infusion of the NMDA-antagonist D-AP5 [see comments] Steele RJ, et al. **Hippocampus** 1999;9(2):118-36. Comment in: Hippocampus 1999 ;9(2):100.

Effect of NMDA antagonists on the activity of glutaminase and aspartate aminotransferase in the developing rat

cerebellum. Moran J, et al. **Int J Dev Neurosci** 1999 Feb; 17(1):57–65

Synthesis of an N–methyl–D–aspartate receptor antagonist, ES–242–5, and its analogs. Tatsuta K, et al. **J Antibiot (Tokyo)** 1999 Apr;52(4):422–5

Absolute and atropisomeric structure of ES–242s, N–methyl–D–aspartate receptor antagonists [letter] Tatsuta K, et al. **J Antibiot (Tokyo)** 1999 Apr;52(4):433–6

Structure–activity studies of conantokins as human N–methyl–D–aspartate receptor modulators. Nielsen KJ, et al. **J Med Chem** 1999 Feb 11;42(3):415–26

Structure–activity relationship of N–(phenylalkyl)cinnamides as novel NR2B subtype–selective NMDA receptor antagonists. Tamiz AP, et al. **J Med Chem** 1999 Aug 26; 42(17):3412–20

Subtype–selective N–methyl–D–aspartate receptor antagonists: synthesis and biological evaluation of 1–(arylalkynyl)–4–benzylpiperidines. Wright JL, et al. **J Med Chem** 1999 Jul 1;42(13):2469–77

4–Hydroxy–1–[2–(4–hydroxyphenoxy)ethyl]–4–(4–methylbenzyl)piperidine: a novel, potent, and selective NR1/2B NMDA receptor antagonist. Zhou ZL, et al. **J Med Chem** 1999 Jul 29;42(15):2993–3000

Modulation of dopamine D2 receptor expression by an NMDA receptor antagonist in rat brain. Nair VD, et al. **J Mol Neurosci** 1998 Oct;11(2):121–6

Adaptations of NMDA and dopamine D2, but not of muscarinic receptors following 14 days administration of uncompetitive NMDA receptor antagonists. Hesselink MB, et al. **J Neural Transm** 1999;106(5–6):409–21

Modulation of striatal acetylcholine concentrations by NMDA and the competitive NMDA receptor–antagonist AP–5: an in vivo microdialysis study. Knauber J, et al. **J Neural Transm** 1999;106(1):35–45

Calcium influx through NMDA receptors, chronic receptor inhibition by ethanol and 2–amino–5–phosponopentanoic acid, and receptor protein expression. Chen X, et al. **J Neurochem** 1999 May;72(5):1969–80

Apoptotic cell death and caspase–3 activation induced by N–methyl–D–aspartate receptor antagonists and their prevention by insulin–like growth factor I. Takadera T, et al. **J Neurochem** 1999 Aug;73(2):548–56

Effect of NMDA receptor antagonist MK–801 on light–induced Fos expression in the suprachiasmatic nuclei and on melatonin production in the Syrian hamster. Vuillez P, et al. **J Neuroendocrinol** 1998 Sep;10(9):671–7

Neurotoxicity mediated by aberrant patterns of synaptic activity between rat hippocampal neurons in culture. McLeod JR Jr, et al. **J Neurophysiol** 1998 Nov; 80(5):2688–98

VDCCs and NMDARs underlie two forms of LTP in CA1 hippocampus in vivo. Morgan SL, et al. **J Neurophysiol** 1999 Aug;82(2):736–40

Multiple limbic regions mediate the disruption of prepulse inhibition produced in rats by the noncompetitive NMDA antagonist dizocilpine. Bakshi VP, et al. **J Neurosci** 1998 Oct 15;18(20):8394–401

In vitro neuroprotection against glutamate toxicity provided by novel non–competitive N–methyl–D–aspartate antagonists. Drian MJ, et al. **J Neurosci Res** 1999 Sep 15; 57(6):927–34

Induction of neuronal nitric oxide synthase by methylmercury in the cerebellum. Ikeda M, et al. **J Neurosci Res** 1999 Feb 1;55(3):352–6

Delayed treatment with YM90K, an AMPA receptor antagonist, protects against ischaemic damage after middle cerebral artery occlusion in rats. Kawasaki–Yatsugi S, et al. **J Pharm Pharmacol** 1998 Aug;50(8):891–8

In–vitro characterization of YM872, a selective, potent and highly water–soluble alpha–amino–3–hydroxy–5–methylisoxazole–4–propionate receptor antagonist. Kohara A, et al. **J Pharm Pharmacol** 1998 Jul;50(7):795–801

Disruption of prepulse inhibition and increases in locomotor activity by competitive N–methyl–D–aspartate receptor antagonists in rats. Bakshi VP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):643–52

N–Methyl–D–aspartate receptor antagonists and the development of tolerance to the discriminative stimulus effects of morphine in rats. Bespalov AY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):20–7

Differing effects of N–methyl–D–aspartate receptor subtype selective antagonists on dyskinesias in levodopa–treated 1–methyl–4–phenyl–tetrahydropyridine monkeys. Blanchet PJ, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1034–40

Magnesium–dependent inhibition of N–methyl–D–aspartate receptor–mediated synaptic transmission by ethanol. Calton JL, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1015–9

The role of probenecid–sensitive organic acid transport in the pharmacokinetics of N–methyl–D–aspartate receptor antagonists acting at the glycine(B)–site: microdialysis and maximum electroshock seizures studies. Hesselink MB, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):543–50

Differential effects of N–methyl–D–aspartate receptor blockade on eticlopride–induced immediate early gene expression in the medial and lateral striatum. Keefe KA, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1076–83

Subtype–selective antagonism of N–methyl–D–aspartate receptors by felbamate: insights into the mechanism of action. Kleckner NW, et al. **J Pharmacol Exp Ther** 1999 May;289(2):886–94

Topical opioids in mice: analgesia and reversal of tolerance by a topical N–methyl–D–aspartate antagonist. Kolesnikov Y, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):247–52

Chronic morphine treatment selectively augments metabotropic glutamate receptor–induced inhibition of N–methyl–D–aspartate receptor–mediated neurotransmission in nucleus accumbens. Martin G, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):30–5

Stimulatory and inhibitory properties of aminoglycoside antibiotics at N–methyl–D–aspartate receptors. Masuko T, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1026–33

CNQX but not NBQX prevents expression of amphetamine–induced place preference conditioning: a role for the glycine site of the NMDA receptor, but not AMPA receptors. Mead AN, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):9–15

Activity of putative cognition enhancers in kynurenate test performed with human neocortex slices. Pittaluga A, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):423–8

Factors that enhance ethanol inhibition of N–methyl–D–aspartate receptors in cerebellar granule cells. Popp RL, et al. **J Pharmacol Exp Ther** 1999 Jun; 289(3):1564–74

Potent antihyperalgesic activity without tolerance produced by glycine site antagonist of N–methyl–D–aspartate receptor GV196771A. Quartaroli M, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):158–69

Prolonged analgesic effect of ketamine, an N–methyl–D–aspartate receptor inhibitor, in patients with chronic pain. Rabben T, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1060–6

Neuroprotection (focal ischemia) and neurotoxicity (electroencephalographic) studies in rats with AHN649, a 3–amino analog of dextromethorphan and low–affinity N–methyl–D–aspartate antagonist. Tortella FC, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):399–408

Ethanol directly depresses AMPA and NMDA glutamate currents in spinal cord motor neurons independent of actions on GABAA or glycine receptors. Wang MY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):362–7

Agmatine selectively blocks the N–methyl–D–aspartate subclass of glutamate receptor channels in rat hippocampal neurons. Yang XC, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):544–9

Inspiration–promoting vagal reflex under NMDA receptor blockade in anaesthetized rabbits. Takano K, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):571–82

Modulation of motoneuron N–methyl–D–aspartate receptors by the inhibitory neurotransmitter glycine. Berger AJ, et al. **J Physiol Paris** 1999 Jan–Apr;93(1–2):23–7

NMDA receptor antagonism in the lateral/basolateral but not central nucleus of the amygdala prevents the induction of facilitated learning in response to stress. Shors TJ, et al. **Learn Mem** 1998 Jul–Aug;5(3):220–30

NMDA receptor antagonism produces antinociception which is partially mediated by brain opioids and dopamine. Forman LJ. **Life Sci** 1999;64(21):1877–87

NMDA receptor antagonists enhance 5–HT2 receptor–mediated behavior, head–twitch response, in mice. Kim HS, et al. **Life Sci** 1998;63(26):2305–11

Effects of the non–competitive NMDA receptor antagonist ifenprodil on the morphine–induced place preference in mice. Suzuki T, et al. **Life Sci** 1999;64(12):PL151–6

Phenylethanolamines inhibit NMDA receptors by enhancing proton inhibition. Mott DD, et al. **Nat Neurosci** 1998 Dec; 1(8):659–67

How does xenon produce anaesthesia? [letter] Franks NP, et al. **Nature** 1998 Nov 26;396(6709):324

Effects of NMDA receptor channel blockers, dizocilpine and memantine, on the development of opiate analgesic tolerance induced by repeated morphine exposures or social defeats in mice. Belozertseva IV, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):270–4

N–Methyl–D–aspartate receptor antagonist MK–801 and radical scavengers protect cholinergic nucleus basalis neurons against beta–amyloid neurotoxicity. Harkany T, et al. **Neurobiol Dis** 1999 Apr;6(2):109–21

Ethanol–induced inhibition of NMDA receptor channels. Wirkner K, et al. **Neurochem Int** 1999 Aug;35(2):153–62 (78 ref.)

Effect of N–methyl–D–aspartate receptor blockade on the control of cerebral O2 supply/consumption balance during hypoxia in newborn pigs. Williams JA, et al. **Neurochem Res** 1998 Sep;23(9):1139–45

Identification and mechanism of action of two histidine residues underlying high–affinity Zn2+ inhibition of the NMDA receptor. Choi YB, et al. **Neuron** 1999 May; 23(1):171–80

Selective NMDA NR2B antagonists induce antinociception without motor dysfunction: correlation with restricted localisation of NR2B subunit in dorsal horn. Boyce S, et al. **Neuropharmacology** 1999 May;38(5):611–23

WAY 100635, a 5–HT1A receptor antagonist, prevents the impairment of spatial learning caused by blockade of hippocampal NMDA receptors. Carli M, et al. **Neuropharmacology** 1999 Aug;38(8):1165–73

GlycineB antagonists and partial agonists in rodent models of Parkinson's disease—comparison with uncompetitive N–methyl–D–aspartate receptor antagonist. Karcz–Kubicha M, et al. **Neuropharmacology** 1999 Jan; 38(1):109–19

Reevaluation of ACEA 1021 as an antagonist at the strychnine–insensitive glycine site of the N–methyl–D–aspartate receptor. Lingenhöhl K, et al. **Neuropharmacology** 1998 Jun;37(6):729–37

Budipine is a low affinity, N–methyl–D–aspartate receptor antagonist: patch clamp studies in cultured striatal, hippocampal, cortical and superior colliculus neurones. Parsons CG, et al. **Neuropharmacology** 1998 Jun; 37(6):719–27

Amino–alkyl–cyclohexanes are novel uncompetitive NMDA receptor antagonists with strong voltage–dependency and fast blocking kinetics: in vitro and in vivo characterization. Parsons CG, et al. **Neuropharmacology** 1999 Jan; 38(1):85–108

Memantine is a clinically well tolerated N–methyl–D–aspartate (NMDA) receptor antagonist—a review of preclinical data. Parsons CG, et al. **Neuropharmacology** 1999 Jun;38(6):735–67 (379 ref.)

Blockade of NMDA channels in acutely isolated rat hippocampal neurons by the Na+/Ca2+ exchange inhibitor KB–R7943. Sobolevsky AI, et al. **Neuropharmacology** 1999 Aug;38(8):1235–42

Effects of modulation of NMDA neurotransmission on response rate and duration in a conflict procedure in rats. Wiley JL, et al. **Neuropharmacology** 1998 Dec; 37(12):1527–34

Sensitivity of the N–methyl–D–aspartate receptor channel to butyrophenones is dependent on the epsilon2 subunit. Yamakura T, et al. **Neuropharmacology** 1998 Jun; 37(6):709–17

A behavioral analysis of the spatial learning deficit induced by the NMDA receptor antagonist MK–801 (dizocilpine) in the rat. Ahlander M, et al. **Neuropsychopharmacology** 1999 Sep;21(3):414–26

Ketamine–induced NMDA receptor hypofunction as a model of memory impairment and psychosis. Newcomer JW, et al. **Neuropsychopharmacology** 1999 Feb;20(2):106–18

Does ketamine–mediated N–methyl–D–aspartate receptor antagonism cause schizophrenia–like oculomotor abnormalities? Radant AD, et al. **Neuropsychopharmacology** 1998 Nov;19(5):434–44

Excitatory actions of NMDA receptor antagonists in rat entorhinal cortex and cultured entorhinal cortical neurons. Väisänen J, et al. **Neuropsychopharmacology** 1999 Jul; 21(1):137–46

Blockade of NMDA receptors located at the dorsomedial prefrontal cortex impairs spatial working memory in rats. Aura J, et al. **Neuroreport** 1999 Feb 5;10(2):243–8

The putative cognitive enhancer KA–672.HCl is an uncompetitive voltage–dependent NMDA receptor antagonist. Lishko PV, et al. **Neuroreport** 1998 Dec 21; 9(18):4193–7

Are aminoglycoside antibiotics excitotoxic? Sha SH, et al. **Neuroreport** 1998 Dec 1;9(17):3893–5

Effect of 2–amino–5–phosphopentanoic acid (AP5), a glutamate NMDA receptor blocker, on neuron activity in the cat motor cortex during performance of a paw placement conditioned reflex. Maiorov VI, et al. **Neurosci Behav Physiol** 1998 Sep–Oct;28(5):567–76

The full expression of locomotor and motor hyperactivities induced by pressure requires both striatal dopaminergic and N–methyl–D–aspartate receptor activities in the rat. Darbin O, et al. **Neurosci Lett** 1999 Jun 4;267(3):149–52

D–2–amino–5–phosphonovalerate, and NMDA receptor antagonist, blocks induction of associative long–term potentiation of the flexion reflex in spinal cat. Durkovic RG, et al. **Neurosci Lett** 1998 Dec 4;257(3):162–4

Reduced prefrontal cortical dopamine, but not acetylcholine, release in vivo after repeated, intermittent phencyclidine administration to rats. Jentsch JD, et al. **Neurosci Lett** 1998 Dec 24;258(3):175–8

N–methyl–D–asparate receptor antagonists abolish the maintenance phase of self–sustaining status epilepticus in rat. Mazarati AM, et al. **Neurosci Lett** 1999 Apr 23; 265(3):187–90

Substantia nigra lesion suppresses the antagonistic effects of N–methyl–D–aspartate receptor antagonist (MK–801) on the autotomy in the rat. Tseng SH, et al. **Neurosci Lett** 1998 Oct 23;255(3):167–71

MK–801, a non–competitive NMDA receptor antagonist, prevents postischemic decrease of inositol 1,4,5–trisphosphate receptor mRNA expression in mongolian gerbil brain. Uhm CS, et al. **Neurosci Lett** 1998 Oct 16;255(2):111–4

Peripheral administration of an N–methyl–D–aspartate receptor antagonist (MK–801) changes dorsal horn neuronal responses in rats published erratum appears in Neurosci Lett 1999 Feb 5;260(3):210 Ushida T, et al. **Neurosci Lett** 1999 Jan 29;260(2):89–92

Neuronal nitric oxide synthase is permanently decreased in the cerebellum of rats subjected to chronic neonatal blockade of N–methyl–D–aspartate receptors. Virgili M, et al. **Neurosci Lett** 1998 Dec 11;258(1):1–4

Effects of ventrolateral medullary NMDA–receptor antagonism on biogenic amines and pressor response to muscle contraction. Asmundsson G, et al. **Neurosci Res** 1998 Sep;32(1):47–56

N–methyl–D–aspartate receptor blockade affects polysialylated neural cell adhesion molecule expression and synaptic density during striatal development. Butler AK, et al. **Neuroscience** 1999;89(4):1169–81

Neuroprotective concentrations of the N–methyl–D–aspartate open–channel blocker memantine

are effective without cytoplasmic vacuolation following post-ischemic administration and do not block maze learning or long-term potentiation. Chen HS, et al. **Neuroscience** 1998 Oct;86(4):1121-32

Transgenic mice over-expressing substance P exhibit allodynia and hyperalgesia which are reversed by substance P and N-methyl-D-aspartate receptor antagonists. McLeod AL, et al. **Neuroscience** 1999 Mar;89(3):891-9

N-methyl-D-aspartate receptor activation regulates refractoriness of status epilepticus to diazepam. Rice AC, et al. **Neuroscience** 1999;93(1):117-23

Protection of excitotoxic neuronal death by gluconate through blockade of N-methyl-D-aspartate receptors. Sakaguchi T, et al. **Neuroscience** 1999;92(2):677-84

Effects of N-methyl-D-aspartate (dizocilpine) and alpha-amino-3-hydroxy-4-isoxazolepropionate (LY215490) receptor antagonists on the voiding reflex induced by perineal stimulation in the neonatal rat. Yoshiyama M, et al. **Neuroscience** 1999;90(4):1415-20

Neurological deterioration as a potential alternative endpoint in human clinical trials of experimental pharmacological agents for treatment of severe traumatic brain injuries. Executive Committee of the International Selfotel Trial. Morris GF, et al. **Neurosurgery** 1998 Dec;43(6):1369-72; discussion 1372-4

Synergism between NMDA and domoic acid in a murine model of behavioural neurotoxicity. Tasker RA, et al. **Neurotoxicology** 1998 Aug-Oct;19(4-5):593-7

Redox manipulation of NMDA receptors in vivo: alteration of acute pain transmission and dynorphin-induced allodynia. Laughlin TM, et al. **Pain** 1999 Mar;80(1-2):37-43

Differential effects of N-methyl-D-aspartate receptor blockade on nociceptive somatic and visceral reflexes. Olivar T, et al. **Pain** 1999 Jan;79(1):67-73

The teratogenicity of N-methyl-D-aspartate (NMDA) receptor antagonists [letter; comment] [see comments] Brent RL. **Pediatr Res** 1998 Sep;44(3):415-7. Comment on: Pediatr Res 1998 Jan;43(1):1-7. Comment in: Pediatr Res 1999 Feb;45(2):286-7.

The teratogenicity of N-methyl-D-aspartate (NMDA) receptor antagonists [letter; comment] [see comments] Polifka JE, et al. **Pediatr Res** 1998 Sep;44(3):415; discussion 416-7. Comment on: Pediatr Res 1998 Jan;43(1):1-7. Comment in: Pediatr Res 1999 Feb;45(2):286-7.

Brain penetration and in vivo recovery of NMDA receptor antagonists amantadine and memantine: a quantitative microdialysis study. Hesselink MB, et al. **Pharm Res** 1999 May;16(5):637-42

Evidence for overlapping substrate specificity between large neutral amino acid (LNAA) and dipeptide (hPEPT1) transporters for PD 158473, an NMDA antagonist. Surendran N, et al. **Pharm Res** 1999 Mar;16(3):391-5

Parallel recovery of MK-801-induced spatial learning impairment and neuronal injury in male mice. Brosnan-Watters G, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):111-22

Analgesic synergism between AP5 (an NMDA receptor antagonist) and vaginocervical stimulation in the rat. Caba M, et al. **Pharmacol Biochem Behav** 1998 Sep;61(1):45-8

Lorazepam attenuates the behavioral effects of dizocilpine. Fahey JM, et al. **Pharmacol Biochem Behav** 1999 Jan; 62(1):103-10

Effects of dopaminergic agents and of an NMDA receptor antagonist on motor coordination in Lurcher mutant mice. Thullier F, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):213-9

ACEA-1328, an NMDA receptor antagonist, increases the potency of morphine and U50,488H in the tail flick test in mice. Lutfy K, et al. **Pharmacol Res** 1998 Dec; 38(6):453-60

Visceral afferent participation in delayed satiation following NMDA receptor blockade. Burns GA, et al. **Physiol Behav** 1998 Nov 15;65(2):361-6

Alterations in swim stress-induced analgesia and hypothermia following serotonergic or NMDA antagonists in the rostral ventromedial medulla of rats. Hopkins E, et al. **Physiol Behav** 1998 Jun 1;64(3):219-25

Blockade of N-methyl-D-aspartate receptor activation suppresses learning-induced synaptic elimination. Bock J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2485-90

The competitive NMDA receptor antagonist LY235959 modulates the progression of morphine tolerance in rats. Allen RM, et al. **Psychopharmacology (Berl)** 1999 Feb; 142(2):209-14

Differential effects of ketamine on gating of auditory evoked potentials and prepulse inhibition in rats. de Bruin NM, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):9-17

L-701,324, a selective antagonist at the glycine site of the NMDA receptor, counteracts haloperidol-induced muscle rigidity in rats. Konieczny J, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):235-43

Can the "state-dependency" hypothesis explain prevention of amphetamine sensitization in rats by NMDA receptor antagonists? Li Y, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):351-61

Behavioral effects of ketamine, an NMDA glutamatergic antagonist, in non-human primates. Shiigi Y, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):67-72

Superoxide dismutase activity and the effect of N-methyl-D-aspartate antagonists on lipid peroxidation in the early phase of cold injury. Kiriş T, et al. **Res Exp Med (Berl)** 1999 Apr;198(6):341-7

Blockade of NMDA receptors and apoptotic neurodegeneration in the developing brain. Ikonomidou C, et al. **Science** 1999 Jan 1;283(5398):70-4

Safety and tolerability of GV150526 (a glycine site antagonist at the N-methyl-D-aspartate receptor) in patients with acute stroke. Dyker AG, et al. **Stroke** 1999 May; 30(5):986-92

NMDA receptor blockade attenuates the haloperidol induction of Fos protein in the dorsal but not the ventral striatum. de Souza IE, et al. **Synapse** 1999 Jun 15; 32(4):243-53

Augmentation of locomotor activity by chronic phencyclidine is associated with an increase in striatal NMDA receptor function and an upregulation of the NR1 receptor subunit. Hanania T, et al. **Synapse** 1999 Mar 1; 31(3):229-39

Response to Dr. Rosenquist's comments pertaining to the paper by Andaloro et al. ('98) "Dextromethorphan and other N-methyl-D-aspartate receptor antagonists are teratogenic in the avian embryo model" and letters to the editor by Polifka JE and Shepard TH ('98) and Brent RL ('98) [letter] Brent RL, et al. **Teratology** 1999 Aug; 60(2):61-2

Lead inhibits the rat N-methyl-d-aspartate receptor channel by binding to a site distinct from the zinc allosteric site. Lasley SM, et al. **Toxicol Appl Pharmacol** 1999 Sep 15; 159(3):224-33

Does the noncompetitive NMDA receptor antagonist dizocilpine (MK801) really block behavioural sensitization associated with repeated drug administration? [see comments] Tzschentke TM, et al. **Trends Pharmacol Sci** 1998 Nov;19(11):447-51 (67 ref.). Comment in: Trends Pharmacol Sci 1999 May;20(5):187-8; discussion 189-90. Comment in: Trends Pharmacol Sci 1999 May;20(5):188-9; discussion 189-90.

Biochemical and morphological analysis of non-NMDA receptor mediated excitotoxicity in chick embryo retina. Chen Q, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):131-9

[The use of ketamine in an experimental model of generalized cerebral ischemia] Vasilev D, et al. **Khirurgiia (Sofiia)** 1998; 51(3):36-9 (Eng. Abstr.) **(Bul)**

[Glutamate receptor agonists and alcohol dependence. Preclinical findings] Spanagel R, et al. **Nervenarzt** 1999 May;70(5):479-81 **(Ger)**

[Neuroprotection in ischemia of the retina in an animal model] Lagrèze WA, et al. **Ophthalmologe** 1999 Jun; 96(6):370-4 (Eng. Abstr.) **(Ger)**

[Antagonists of ionotropic glutamate receptors as the object of research in psychopharmacology] Bespalov AIu, et al. **Usp Fiziol Nauk** 1999 Jan-Mar;30(1):39-53 (174 ref.) (Eng. Abstr.) **(Rus)**

[NMDA-receptor antagonists: new pharmacological agents to control the subjective and motivational effects of narcotics] Bespalov AIu, et al. **Vestn Ross Akad Med Nauk** 1998;(11):24-9 (Eng. Abstr.) **(Rus)**

BIOSYNTHESIS

Chronic ethanol upregulates NMDA and AMPA, but not kainate receptor subunit proteins in rat primary cortical cultures. Chandler LJ, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):363-70

Developmental plasticity of NR1 and NR2B subunit expression in the supraoptic nucleus of the rat hypothalamus. Currás MC, et al. **Brain Res Dev Brain Res** 1998 Jul 1;109(1):1-12

NMDAR-2A subunit protein expression is reduced in the hippocampus of rats exposed to Pb2+ during development. Nihei MK, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1-2):42-9

NMDA receptor subunits are modified transcriptionally and post-translationally in the brain of streptozotocin-diabetic rats. Di Luca M, et al. **Diabetologia** 1999 Jun;42(6):693-701

NMDA receptor NR1 and NR2A/B subunit expression in trigeminal neurons during early postnatal development. Turman JE Jr, et al. **J Comp Neurol** 1999 Jun 28; 409(2):237-49

Rapid, experience-dependent expression of synaptic NMDA receptors in visual cortex in vivo [see comments] Quinlan EM, et al. **Nat Neurosci** 1999 Apr;2(4):352-7. Comment in: Nat Neurosci 1999 Apr;2(4):297-9.

Brain derived neurotrophic factor induction of N-methyl-D-aspartate receptor subunit NR2A expression in cultured rat cortical neurons. Small DL, et al. **Neurosci Lett** 1998 Aug 21;252(3):211-4

[Changes of NMDA receptor gene expression in infection brain injury induced by Bordetella pertussis in rats] Chen X, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(1):11-4 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Synthesis and photochemistry of a photolabile precursor of N-methyl-D-aspartate (NMDA) that is photolyzed in the microsecond time region and is suitable for chemical kinetic investigations of the NMDA receptor. Gee KR, et al. **Biochemistry** 1999 Mar 9;38(10):3140-7

Unusual synthesis of new glycine antagonists via sequential aldol condensation-lactonization-elimination reaction. Giacobbe SA, et al. **Bioorg Med Chem Lett** 1998 Jul 7; 8(13):1689-92

Postnatal development of detergent-insoluble properties of NMDA and AMPA receptor subunits in the rat brain synaptic membrane. Park HT, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):83-7

Investigation by ion channel domain transplantation of rat glutamate receptor subunits, orphan receptors and a putative NMDA receptor subunit. Villmann C, et al. **Eur J Neurosci** 1999 May;11(5):1765-78

Biochemical evidence for the co-association of three N-methyl-D-aspartate (NMDA) R2 subunits in recombinant NMDA receptors. Hawkins LM, et al. **J Biol Chem** 1999 Sep 17;274(38):27211-8

N-methyl-D-aspartate receptor function observed by rate of ligand dialysis from proteoliposome solution. Casad R, et al. **J Biomol Struct Dyn** 1999 Feb;16(4):969-75

Zinc and ifenprodil allosterically inhibit two separate polyamine-sensitive sites at N-methyl-D-aspartate receptor complex. Berger ML, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1584-91

An allosteric interaction between the NMDA receptor polyamine and ifenprodil sites in rat cultured cortical neurones. Kew JN, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):17-28

Reactive affinity probes for the mapping of the glycine-binding site of the NMDA receptor NR1 subunit. Kreimeyer A, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):547-57

Ion-binding sites in NMDA receptors: classical approaches provide the numbers [news; comment] Mayer M. **Nat Neurosci** 1998 Oct;1(6):433-4. Comment on: Nat Neurosci 1998 Oct;1(6):451-61.

Structures of the M2 channel-lining segments from nicotinic acetylcholine and NMDA receptors by NMR spectroscopy. Opella SJ, et al. **Nat Struct Biol** 1999 Apr; 6(4):374-9

NMDA NR1 subunit mRNA and glutamate NMDA-sensitive binding are differentially affected in the striatum and pre-frontal cortex of Parkinson's disease patients. Meoni P, et al. **Neuropharmacology** 1999 May; 38(5):625-33

Sensitivity of the N-methyl-D-aspartate receptor channel to butyrophenones is dependent on the epsilon2 subunit. Yamakura T, et al. **Neuropharmacology** 1998 Jun; 37(6):709-17

CLASSIFICATION

Differing effects of N-methyl-D-aspartate receptor subtype selective antagonists on dyskinesias in levodopa-treated 1-methyl-4-phenyl-tetrahydropyridine monkeys. Blanchet PJ, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1034-40

Molecular determinants of NMDA receptor pharmacological diversity. Monaghan DT, et al. **Prog Brain Res** 1998; 116:171-90 (119 ref.)

DEFICIENCY

Mice with reduced NMDA receptor expression display behaviors related to schizophrenia. Mohn AR, et al. **Cell** 1999 Aug 20;98(4):427-36

Auditory pathway and auditory brainstem response in mice lacking NMDA receptor epsilon 1 and epsilon 4 subunits. Munemoto Y, et al. **Neurosci Lett** 1998 Jul 24;251(2):101-4

DRUG EFFECTS

Behavioural and morphological outcome of mild cortical contusion trauma of the rat brain: influence of NMDA-receptor blockade. Lewén A, et al. **Acta Neurochir (Wien)** 1999;141(2):193-202

Glycine derivatives of imidazolones as potential ligands of glycine binding site of NMDA receptors. Part 1. Kieć-Kononowicz K, et al. **Acta Pol Pharm** 1998 Sep-Oct; 55(5):381-8

Chronic ethanol exposure alters MK-801 binding sites in the cerebral cortex of the near-term fetal guinea pig. Chiu J, et al. **Alcohol** 1999 Apr;17(3):215-21

Effects of c-Src tyrosine kinase on ethanol sensitivity of recombinant NMDA receptors expressed in HEK 293 cells. Anders DL, et al. **Alcohol Clin Exp Res** 1999 Feb; 23(2):357-62

Effect of prenatal ethanol exposure on the developmental profile of the NMDA receptor subunits in rat forebrain and hippocampus. Hughes PD, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1255-61

Effects of placing micro-implants of melatonin in striatum on oxidative stress and neuronal damage mediated by N-methyl-D-aspartate (NMDA) and non-NMDA receptors. Kim HJ, et al. **Arch Pharm Res** 1999 Feb; 22(1):35-43

Cycloalkyl indole-2-carboxylates as useful tools for mapping the "north-eastern" region of the glycine binding site associated with the NMDA receptor. Micheli F, et al. **Arch Pharm (Weinheim)** 1999 Mar;332(3):73-80

Learning versus performance impairments following regional administration of MK-801 into nucleus accumbens and dorsomedial striatum. Cory-Slechta DA, et al. **Behav Brain Res** 1999 Jul;102(1-2):181-94

Under continuous dizocilpine infusion an N-methyl-D-aspartate receptor independent form of cocaine sensitization develops in rats. Gambarana C, et al. **Behav Pharmacol** 1998 Feb;9(1):61-8

Neuronal excitotoxicity: the role of mitochondria. Nicholls DG, et al. **Biofactors** 1998;8(3-4):287-99 (64 ref.)

D-serine and the therapeutic challenge posed by the

N-methyl-D-aspartate antagonist model of schizophrenia [editorial; comment] Krystal JH, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1075-6. Comment on: Biol Psychiatry 1998 Dec 1;44(11):1081-9.

Nicotine administration stimulates the in vivo N-methyl-D-aspartate receptor/nitric oxide/cyclic GMP pathway in rat hippocampus through glutamate release. Fedele E, et al. **Br J Pharmacol** 1998 Nov;125(5):1042-8

In vivo pathway of thermal hyperalgesia by intrathecal administration of alpha,beta-methylene ATP in mouse spinal cord: involvement of the glutamate-NMDA receptor system. Tsuda M, et al. **Br J Pharmacol** 1999 May; 127(2):449-56

Effect of ethanol on phosphorylation of the NMDAR2B subunit in mouse cortical neurons. Kalluri HS, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1-2):159-68

Involvement of hippocampal NMDA receptors in retention of shuttle avoidance conditioning in rats. Roesler R, et al. **Braz J Med Biol Res** 1998 Dec;31(12):1601-4

Effects of neurosteroids on spike-wave discharges in the genetic epileptic WAG/Rij rat. Budziszewska B, et al. **Epilepsy Res** 1999 Jan;33(1):23-9

The periaqueductal grey is a critical site in the neuronal network for audiogenic seizures: modulation by GABA(A), NMDA and opioid receptors. N'Gouemo P, et al. **Epilepsy Res** 1999 May;35(1):39-46

Ethanol sensitivity of NMDA receptor function in developing cerebellar granule neurons. Bhave SV, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):247-59

Sustained exposure to a glycine receptor partial agonist differentially alters NMDA receptor agonist and antagonist potencies in cultured spinal cord neurons. Lin Y, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):255-60

Trichloroethanol impairs NMDA receptor function in rat mesencephalic and cortical neurones. Scheibler P, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):R1-2

Antidepressants for the new millennium. Skolnick P. **Eur J Pharmacol** 1999 Jun 30;375(1-3):31-40 (72 ref.)

Sigma receptor ligands (+)-SKF10,047 and SA4503 improve dizocilpine-induced spatial memory deficits in rats. Zou LB, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):1-10

3-(2-Carbamoylvinyl)-4,5-dimethylpyrrole-2-carboxylic acids as ligands at the NMDA glycine-binding site: a study on the 2-carbamoylvinyl chain modification. Balsamini C, et al. **Farmaco** 1999 Jan-Feb;54(1-2):101-11

Glutamate receptors underlying excitatory synaptic transmission in the rat's lateral superior olive studied in vitro. Wu SH, et al. **Hear Res** 1998 Aug;122(1-2):47-59

Cyanide interaction with redox modulatory sites enhances NMDA receptor responses. Sun P, et al. **J Biochem Mol Toxicol** 1999;13(5):253-9

Glutamate acting at NMDA receptors stimulates embryonic cortical neuronal migration. Behar TN, et al. **J Neurosci** 1999 Jun 1;19(11):4449-61

Pregnenolone sulfate modulates NMDA receptors, inducing and potentiating acute excitotoxicity in isolated retina. Guarneri P, et al. **J Neurosci Res** 1998 Dec 15;54(6):787-97

Clozapine, but not haloperidol, prevents the functional hyperactivity of N-methyl-D-aspartate receptors in rat cortical neurons induced by subchronic administration of phencyclidine. Arvanov VL, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1000-6

Polyamine-like actions of aminoglycosides at recombinant N-methyl-D-aspartate receptors. Harvey SC, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):285-91

Opposite modulation of NMDA receptors by lysophospholipids and arachidonic acid: common features with mechanosensitivity. Casado M, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):317-30

Evidence that NMDA-dependent limbic neural plasticity in the right hemisphere mediates pharmacological stressor (FG-7142)-induced lasting increases in anxiety-like behavior. Study 1--Role of NMDA receptors in efferent transmission from the cat amygdala. Adamec RE. **J Psychopharmacol** 1998;12(2):122-8

Evidence that NMDA-dependent limbic neural plasticity in the right hemisphere mediates pharmacological stressor (FG-7142)-induced lasting increases in anxiety-like behavior. Study 2--The effects on behavior of block of NMDA receptors prior to injection of FG-7142. Adamec RE. **J Psychopharmacol** 1998;12(2):129-36

Excitatory amino acids and lead-induced neurotoxicity. Ma T, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:181-3

Effect of NMDA receptor ligands on mast cell histamine release, a reappraisal. Daeffler L, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):512-8

Chronic haloperidol and clozapine administration increases the number of cortical NMDA receptors in rats. Ossowska K, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):280-7

Aniracetam, 1-BCP and cyclothiazide differentially modulate the function of NMDA and AMPA receptors mediating enhancement of noradrenaline release in rat hippocampal slices. Pittaluga A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):272-9

Actions of butyrophenones and other antipsychotic agents at NMDA receptors: relationship with clinical effects and structural considerations. Shim SS, et al. **Neurochem Int** 1999 Feb;34(2):167-75

Effect of allopurinol on hypoxia-induced modification of the NMDA receptor in newborn piglets. Marro PJ, et al. **Neurochem Res** 1999 Oct;24(10):1301-6

Differential alcohol modulation of GABA(A) and NMDA receptors. Peoples RW, et al. **Neuroreport** 1999 Jan 18; 10(1):97-101

N-methyl-D-aspartate-evoked changes in the striatal extracellular levels of dopamine and its metabolites in vivo in rats with acute hepatic encephalopathy. Borkowska HD, et al. **Neurosci Lett** 1999 Jun 25;268(3):151-4

NMDA receptor-mediated inspiratory off-switching in pneumotaxic-disconnected cats. Haji A, et al. **Neurosci Res** 1998 Dec;32(4):323-31

Mg2+-dependent modification of the N-methyl-D-aspartate receptor following graded hypoxia in the cerebral cortex of newborn piglets. Fritz KI, et al. **Neuroscience** 1999;92(2):685-92

Glutamate-induced increase of extracellular glutamate through N-methyl-D-aspartate receptors in ethanol withdrawal. Rossetti ZL, et al. **Neuroscience** 1999; 93(3):1135-40

Mutation of structural determinants lining the N-methyl-D-aspartate receptor channel differentially affects phencyclidine block and spermine potentiation and block. Zheng X, et al. **Neuroscience** 1999;93(1):125-34

N-methyl-D-aspartate antagonists, glutamate release inhibitors, 4-aminopyridine at neuromuscular transmission. Koyuncuoğlu H, et al. **Pharmacol Res** 1998 Jun; 37(6):485-91

Manipulation of NMDA-receptor activity alters extinction of an instrumental response in rats. Port RL, et al. **Physiol Behav** 1998 Jun 1;64(3):391-3

Subunit- and site-specific pharmacology of the NMDA receptor channel. Yamakura T, et al. **Prog Neurobiol** 1999 Oct;59(3):279-98 (263 ref.)

Intra-striatal phencyclidine inhibits N-methyl-D-aspartic acid-stimulated increase in glutamate levels of freely moving rats. Yamamoto Y, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):161-74

Open channel block of NMDA receptors by conformationally restricted analogs of milnacipran and their protective effect against NMDA-induced neurotoxicity. Noguchi T, et al. **Synapse** 1999 Feb; 31(2):87-96

The role of the NMDA synapse in general anesthesia. Flohr H, et al. **Toxicol Lett** 1998 Nov 23;100-101:23-9 (35 ref.)

Effect of soman on N-methyl-D-aspartate-stimulated [3H]norepinephrine release from rat cortical slices. Tang HW, et al. **Toxicol Lett** 1998 Nov 12;99(3):169-73

[Prevention of recurrent alcoholism with acamprosate. Neurobiological principles and clinical results] Soyka M, et al. **Internist (Berl)** 1999 Mar;40(3):330-6 (27 ref.) **(Ger)**

GENETICS

Mice with genetically modified NMDA and AMPA receptors. Sprengel R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:494-501

Hippocampal N-methyl-D-aspartate receptor subunit mRNA levels in temporal lobe epilepsy patients. Mathern GW, et al. **Ann Neurol** 1999 Sep;46(3):343-58

Cloning of a brain N-methyl-D-aspartate- and D, L-epsilon-2-amino-4-propyl-5-phosphono-3-pentanoic acid (CGP 39653)-binding protein. Kumar KN, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):463-9

Expression of a functional N-methyl-D-aspartate-type glutamate receptor by bone marrow megakaryocytes. Genever PG, et al. **Blood** 1999 May 1;93(9):2876-83

Accurate quantification of the mRNA of NMDAR1 splice variants measured by competitive RT-PCR. Winkler A, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):69-81

Osmotic activation of the hypothalamo-neurohypophysial system reversibly downregulates the NMDA receptor subunit, NR2B, in the supraoptic nucleus of the hypothalamus. Currás-Collazo MC, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):187-96

NMDA receptor subunit gene expression in the rat brain: a quantitative analysis of endogenous mRNA levels of NR1Com, NR2A, NR2B, NR2C, NR2D and NR3A. Goebel DJ, et al. **Brain Res Mol Brain Res** 1999 Jun 8; 69(2):164-70

Expression of glutamate receptor subunit/subtype messenger RNAS for NMDAR1, GLuR1, GLuR2 and mGLuR5 by accumbal projection neurons. Lu XY, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):287-96

Expression of NMDA glutamate receptor subunit mRNAs in neurochemically identified projection and interneurons in the striatum of the rat. Standaert DG, et al. **Brain Res Mol Brain Res** 1999 Jan 22;64(1):11-23

NMDA receptor subunits in the postsynaptic density of rat brain: expression and phosphorylation by endogenous protein kinases. Suen PC, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):215-28

NMDA receptor type 2D gene as target for estrogen receptor in the brain. Watanabe T, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):375-9

Biphasic changes in the levels of N-methyl-D-aspartate receptor-2 subunits correlate with the induction and persistence of long-term potentiation. Williams JM, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):21-7

Expression of recombinant NMDA receptors in hippocampal neurons by adenoviral-mediated gene transfer. Yamada N, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1-2):169-80

Perinatal changes in hypothalamic N-methyl-D-aspartate receptors and their relationship to gonadotropin-releasing hormone neurons. Adams MM, et al. **Endocrinology** 1999 May;140(5):2288-96

Hippocampal AMPA and NMDA mRNA levels and subunit immunoreactivity in human temporal lobe epilepsy patients and a rodent model of chronic mesial limbic epilepsy. Mathern GW, et al. **Epilepsy Res** 1998 Sep;32(1-2):154-71

Molecular and pharmacological characterization of recombinant rat/mice N-methyl-D-aspartate receptor subtypes in the yeast Saccharomyces cerevisiae. Becker J, et al. **Eur J Biochem** 1998 Sep 1;256(2):427-35

Differential interaction of the tSXV motifs of the NR1 and NR2A NMDA receptor subunits with PSD-95 and SAP97. Bassand P, et al. **Eur J Neurosci** 1999 Jun;11(6):2031-43

Suppression of epileptogenesis by modification of N-methyl-D-aspartate receptor subunit composition. Bengzon J, et al. **Eur J Neurosci** 1999 Mar;11(3):916-22

Glutamate receptor phenotypes in the auditory brainstem and mid-brain of the developing rat. Caicedo A, et al. **Eur J Neurosci** 1999 Jan;11(1):51-74

Incorporation of a gephyrin-binding motif targets NMDA receptors to gephyrin-rich domains in HEK 293 cells. Kins S, et al. **Eur J Neurosci** 1999 Feb;11(2):740-4

Regulation of the murine NMDA-receptor-subunit NR2C promoter by Sp1 and fushi tarazu factor1 (FTZ-F1) homologues. Pieri I, et al. **Eur J Neurosci** 1999 Jun; 11(6):2083-92

Investigation by ion channel domain transplantation of rat glutamate receptor subunits, orphan receptors and a putative NMDA receptor subunit. Villmann C, et al. **Eur J Neurosci** 1999 May;11(5):1765-78

Gender-selective effects of ethanol dependence on NMDA receptor subunit expression in cerebral cortex, hippocampus and hypothalamus. Devaud LL, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):331-4

NMDA-R1 antisense oligonucleotide attenuates withdrawal signs from morphine. Zhu H, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):151-6

Region specific expression of NMDA receptor NR1 subunit mRNA in hypothalamus and pons following chronic morphine treatment. Zhu H, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):47-54

Identification of a long variant of mRNA encoding the NR3 subunit of the NMDA receptor: its regional distribution and developmental expression in the rat brain. Sun L, et al. **FEBS Lett** 1998 Dec 28;441(3):392-6

Modulation of arterial baroreflexes by antisense oligodeoxynucleotides to NMDAR1 receptors in the nucleus tractus solitarius. Dean C, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):109-15

Expression of N-methyl-D-aspartate receptors using vaccinia virus causes excitotoxic death in human kidney cells. García-Gallo M, et al. **J Cell Biochem** 1999 Jan 1; 72(1):135-44

Different expressions of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid and N-methyl-D-aspartate receptor subunit mRNAs between visceromotor and somatomotor neurons of the rat lumbosacral spinal cord. Shibata T, et al. **J Comp Neurol** 1999 Feb 8;404(2):172-82

Molecular biology of the apteronotus NMDA receptor NR1 subunit. Dunn RJ, et al. **J Exp Biol** 1999 May;202 (Pt 10):1319-26 (67 ref.)

Chronic administration of imipramine and citalopram alters the expression of NMDA receptor subunit mRNAs in mouse brain. A quantitative in situ hybridization study. Boyer PA, et al. **J Mol Neurosci** 1998 Jun;10(3):219-33

Developmental regulation of NMDA receptor 2B subunit mRNA and ifenprodil binding in the zebra finch anterior forebrain. Basham ME, et al. **J Neurobiol** 1999 May; 39(2):155-67

Weaver cerebellar granule neurons show altered expression of NMDA receptor subunits both in vivo and in vitro. Liesi P, et al. **J Neurobiol** 1999 Mar;38(4):441-54

Fyn tyrosine kinase reduces the ethanol inhibition of recombinant NR1/NR2A but not NR1/NR2B NMDA receptors expressed in HEK 293 cells. Anders DL, et al. **J Neurochem** 1999 Apr;72(4):1389-93

The human N-methyl-D-aspartate receptor 2C subunit: genomic analysis, distribution in human brain, and functional expression. Daggett LP, et al. **J Neurochem** 1998 Nov;71(5):1953-68

Expression of NMDAR1, GluR1, GluR7, and KA1 glutamate receptor mRNAs is decreased in frontal cortex of "neuroleptic-free" schizophrenics: evidence on reversible up-regulation by typical neuroleptics. Sokolov BP. **J Neurochem** 1998 Dec;71(6):2454-64

Suppression of NMDA receptor function using antisense DNA block ocular dominance plasticity while preserving visual responses. Roberts EB, et al. **J Neurophysiol** 1998 Sep;80(3):1021-32

NR2A subunit expression shortens NMDA receptor synaptic currents in developing neocortex. Flint AC, et al. **J Neurosci** 1997 Apr 1;17(7):2469-76

Axonal injury alters alternative splicing of the retinal NR1 receptor: the preferential expression of the NR1b isoforms is crucial for retinal ganglion cell survival. Kreutz MR, et al. **J Neurosci** 1998 Oct 15;18(20):8278-91

Attenuation of focal ischemic brain injury in mice deficient in the epsilon1 (NR2A) subunit of NMDA receptor.

Morikawa E, et al. **J Neurosci** 1998 Dec 1;18(23):9727-32
Alternative splicing of the C-terminal domain regulates cell surface expression of the NMDA receptor NR1 subunit. Okabe S, et al. **J Neurosci** 1999 Sep 15;19(18):7781-92
Comparative analysis of multiple receptor subunit mRNA in micropunches obtained from different brain regions using a competitive RT-PCR method. Durgam VR, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):33-40
Chronic phencyclidine increases NMDA receptor NR1 subunit mRNA in rat forebrain. Wang C, et al. **J Neurosci Res** 1999 Mar 15;55(6):762-9
Transient expression of functional NMDA receptors in mammalian cells. Chazot PL, et al. **Methods Mol Biol** 1999; 128:33-42 (21 ref.)
Expression of NMDA receptor channel subunit proteins using baculovirus and herpesvirus vectors. Kawamoto S, et al. **Methods Mol Biol** 1999;128:19-32 (40 ref.)
Isolation of receptor clones by expression screening in Xenopus oocytes. Nakamura F, et al. **Methods Mol Biol** 1999;128:1-18 (30 ref.)
Stable expression of human NMDA receptors in cultured mammalian cells. Varney MA, et al. **Methods Mol Biol** 1999;128:43-59 (15 ref.)
Expression of extracellular N-terminal domain of NMDA receptor in mammalian cells. Whitehorn EA, et al. **Methods Mol Biol** 1999;128:61-72 (10 ref.)
Changes in NMDAR2 subunit mRNA levels during pentobarbital tolerance/withdrawal in the rat brain: an in situ hybridization study. Jang CG, et al. **Neurochem Res** 1998 Nov;23(11):1371-7
Schizophrenia and N-methyl-D-aspartate receptors: evolutionary adaptations from malfunctioning molecules? Rison RA. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct;11(4):236-40 (40 ref.)
Regulation of ionotropic glutamate receptors in the rat brain in response to the atypical antipsychotic seroquel (quetiapine fumarate). Tascedda F, et al. **Neuropsychopharmacology** 1999 Aug;21(2):211-7
Differential distribution of N-methyl-D-aspartate receptor-2 subunit messenger RNA in the rat superior olivary complex. Sato K, et al. **Neuroscience** 1999 Mar;89(3):839-53
Mutation of structural determinants lining the N-methyl-D-aspartate receptor channel differentially affects phencyclidine block and spermine potentiation and block. Zheng X, et al. **Neuroscience** 1999;93(1):125-34
Behavioral genetics: subregion- and cell type-restricted gene knockout in mouse brain. Tsien JZ. **Pathol Biol (Paris)** 1998 Nov;46(9):699-700 **(Eng, Fre)**
Molecular determinants of NMDA receptor pharmacological diversity. Monaghan DT, et al. **Prog Brain Res** 1998; 116:171-90 (119 ref.)

METABOLISM

GlycineB recognition site of NMDA receptors and its antagonists. Danysz W, et al. **Amino Acids** 1998; 14(1-3):205-6
Role of glutamate in neurodegeneration of dopamine neurons in several animal models of parkinsonism. Sonsalla PK, et al. **Amino Acids** 1998;14(1-3):69-74 (13 ref.)
Activation of N-methyl-D-aspartate receptors reverses desensitization of metabotropic glutamate receptor, mGluR5, in native and recombinant systems. Alagarsamy S, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:526-30
Expression mechanisms underlying NMDA receptor-dependent long-term potentiation. Nicoll RA, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:515-25 (44 ref.)
Substituted indole-2-carboxylates as potent antagonists of the glycine binding site associated with the NMDA receptor. Micheli F, et al. **Arch Pharm (Weinheim)** 1999 Aug;332(8):271-8 (36 ref.)
5-Arylidene-3-aryl-pyrrolidine-2,4-diones with affinity to the N-methyl-D-aspartate (glycine site) receptor, Part I. Poschenrieder H, et al. **Arch Pharm (Weinheim)** 1998 Dec; 331(12):389-94
Synthesis, glycine/NMDA and AMPA binding activity of some new 2,5,6-trioxopyrazino[1,2,3-de]quinoxalines and of their restricted analogs 2,5-dioxo- and 4,5-dioxoimidazo[1,5,4-de]quinoxalines. Varano F, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):201-7
Expression and characterization of a glycine-binding fragment of the N-methyl-D-aspartate receptor subunit NR1. Miyazaki J, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):687-92
Modulation by L- and D-isoforms of amino acids of the L-glutamate response of N-methyl-D-aspartate receptors. Sakata K, et al. **Biochemistry** 1999 Aug 3;38(31):10099-106
Design, synthesis and structure-activity relationships of novel strychnine-insensitive glycine receptor ligands. Cordi A, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1409-14
Excellent acceleration of the Diels-Alder reaction by microwave irradiation for the synthesis of new fluorine-substituted ligands of NMDA receptor. Sasaki S, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):2983-6
Aromatic analogs of arcaine inhibit MK-801 binding to the NMDA receptor. Sharma TA, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3459-64
Human retina contains polyamine sensitive [3H]-ifenprodil binding sites: implications for neuroprotection? Sharif NA, et al. **Br J Ophthalmol** 1999 Feb;83(2):236-40
Lack of interaction between nitric oxide and the redox modulatory site of the NMDA receptor. Aizenman E, et al. **Br J Pharmacol** 1999 Jan;126(1):296-300
Direct inhibition of the N-methyl-D-aspartate receptor channel by dopamine and (+)-SKF38393. Castro NG, et al. **Br J Pharmacol** 1999 Apr;126(8):1847-55
NMDA receptor activation modulates evoked release of substance P from rat spinal cord. Malcangio M, et al. **Br J Pharmacol** 1998 Dec;125(8):1625-6
Binding of [3H]desglycinyl remacemide to rat brain membranes: association with the benzomorphan attachment site of the N-methyl-D-aspartic acid receptor channel. Ahmed MS, et al. **Brain Res** 1999 May 8;827(1-2):46-50
Reduction of voltage-dependent currents by ethanol contributes to inhibition of NMDA receptor-mediated excitatory synaptic transmission. Calton JL, et al. **Brain Res** 1999 Jan 16;816(1):142-8
Failure to down regulate NMDA receptors in the striatum and nucleus accumbens associated with neuroleptic-induced dyskinesia. Hamid EH, et al. **Brain Res** 1998 Jun 15;796(1-2):291-5
Chronic ethanol exposure and withdrawal influence NMDA receptor subunit and splice variant mRNA expression in the rat cerebral cortex. Hardy PA, et al. **Brain Res** 1999 Feb 20;819(1-2):33-9
Changes in 5-HT1A and NMDA binding sites by a single rapid transcranial magnetic stimulation procedure in rats. Kole MH, et al. **Brain Res** 1999 May 1;826(2):309-12
Contribution of the glycine site of NMDA receptors in rostral and intermediate-caudal parts of the striatum to the regulation of muscle tone in rats. Lorenc-Koci E, et al. **Brain Res** 1998 May 18;793(1-2):315-20
Effect of dopamine denervation and dopamine agonist administraion on serine phosphorylation of striatal NMDA receptor subunits. Oh JD, et al. **Brain Res** 1999 Mar 13; 821(2):433-42
Enhanced tyrosine phosphorylation of striatal NMDA receptor subunits: effect of dopaminergic denervation and L-DOPA administration [published erratum appears in Brain Res 1999 Feb 27;820(1-2):117] Oh JD, et al. **Brain Res** 1998 Nov 30;813(1):150-9
Aminoglycoside neurotoxicity involves NMDA receptor activation. Segal JA, et al. **Brain Res** 1999 Jan 9; 815(2):270-7
Potential involvement of tyrosine kinase pathway in the antagonist induced upregulation of the NMDA receptor NR2B subunit in cortical neurons. Kalluri HS, et al. **Brain Res Mol Brain Res** 1999 Mar 5;65(2):206-10
Brain-derived neurotrophic factor enhances association of protein tyrosine phosphatase PTP1D with the NMDA receptor subunit NR2B in the cortical postsynaptic density. Lin SY, et al. **Brain Res Mol Brain Res** 1999 Jun 18; 70(1):18-25
NMDA receptor subunits in the postsynaptic density of rat brain: expression and phosphorylation by endogenous protein kinases. Suen PC, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):215-28
Ablation of cerebellar Golgi cells disrupts synaptic integration involving GABA inhibition and NMDA receptor activation in motor coordination. Watanabe D, et al. **Cell** 1998 Oct 2;95(1):17-27
NMDA and non-NMDA receptors mediate responses in the primary gustatory nucleus in goldfish. Smeraski CA, et al. **Chem Senses** 1999 Feb;24(1):37-46
NMDA-receptor activity visualized with (S)-[N-methyl-11C]ketamine and positron emission tomography in patients with medial temporal lobe epilepsy. Kumlien E, et al. **Epilepsia** 1999 Jan;40(1):30-7
Glutamate receptor mechanisms in human epileptic dysplastic cortex. Babb TL, et al. **Epilepsy Res** 1998 Sep;32(1-2):24-33
CaMKII-dependent phosphorylation of NR2A and NR2B is decreased in animals characterized by hippocampal damage and impaired LTP. Caputi A, et al. **Eur J Neurosci** 1999 Jan;11(1):141-8
NMDA and AMPA receptors on neocortical neurons are differentially distributed. Dodt HU, et al. **Eur J Neurosci** 1998 Nov;10(11):3351-7
Incorporation of a gephyrin-binding motif targets NMDA receptors to gephyrin-rich domains in HEK 293 cells. Kins S, et al. **Eur J Neurosci** 1999 Feb;11(2):740-4
Substance P release in the dorsal horn assessed by receptor internalization: NMDA receptors counteract a tonic inhibition by GABA(B) receptors. Marvizón JC, et al. **Eur J Neurosci** 1999 Feb;11(2):417-26
Evidence for functional native NMDA receptors activated by glycine or D-serine alone in the absence of glutamatergic coagonist. Paudice P, et al. **Eur J Neurosci** 1998 Sep;10(9):2934-44
Reversal of glutamate excitotoxicity by activation of PKC-associated metabotropic glutamate receptors in cerebellar granule cells relies on NR2C subunit expression. Pizzi M, et al. **Eur J Neurosci** 1999 Jul;11(7):2489-96
[3H]MDL 105,519 binds with equal high affinity to both assembled and unassembled NR1 subunits of the NMDA receptor. Chazot PL, et al. **Eur J Pharmacol** 1998 Jul 17; 353(1):137-40
Development of an inducible NMDA receptor stable cell line with an intracellular Ca2+ reporter. Renard S, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):319-28
An adenosine analogue inhibits NMDA receptor-mediated responses in bipolar cells of the rat retina [letter] Costenla AR, et al. **Exp Eye Res** 1999 Mar;68(3):367-70
NK1, NMDA, 5HT1a, and 5HT2 receptor binding sites in the rat lumbar spinal cord: modulation following sciatic nerve crush. Croul S, et al. **Exp Neurol** 1998 Nov; 154(1):66-79
Glutamate receptor subunit GluR2 and NMDAR1 immunoreactivity in the retina of macaque monkeys with experimental glaucoma does not identify vulnerable neurons. Hof PR, et al. **Exp Neurol** 1998 Oct;153(2):234-41
AlphaCaMKII binding to the C-terminal tail of NMDA receptor subunit NR2A and its modulation by autophosphorylation. Gardoni F, et al. **FEBS Lett** 1999 Aug 13;456(3):394-8
Sexually dimorphic development and binding characteristics of NMDA receptors in the brain of the platyfish. Flynn KM, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):282-91
Repeated seizure-associated long-lasting changes of N-methyl-D-aspartate receptor properties in the developing rat brain. Doriat JF, et al. **Int J Dev Neurosci** 1999 Jul;17(4):369-76
Necrosis and apoptosis after retinal ischemia: involvement of NMDA-mediated excitotoxicity and p53. Joo CK, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):713-20
Emerging roles of Dlg-like PDZ proteins in the organization of the NMDA-type glutamatergic synapse. Nagano T, et al. **J Biochem (Tokyo)** 1998 Nov;124(5):869-75 (74 ref.)
Turnover analysis of glutamate receptors identifies a rapidly degraded pool of the N-methyl-D-aspartate receptor subunit, NR1, in cultured cerebellar granule cells. Huh KH, et al. **J Biol Chem** 1999 Jan 1;274(1):151-7
Synergistic activation of the N-methyl-D-aspartate receptor subunit 1 promoter by myocyte enhancer factor 2C and Sp1. Krainc D, et al. **J Biol Chem** 1998 Oct 2; 273(40):26218-24
Glutamate receptor signaling interplay modulates stress-sensitive mitogen-activated protein kinases and neuronal cell death. Mukherjee PK, et al. **J Biol Chem** 1999 Mar 5;274(10):6493-8
The effect of transient global ischemia on the interaction of Src and Fyn with the N-methyl-D-aspartate receptor and postsynaptic densities: possible involvement of Src homology 2 domains. Takagi N, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):880-8
Laminar and cellular distribution of AMPA, kainate, and NMDA receptor subunits in monkey sensory-motor cortex. Muñoz A, et al. **J Comp Neurol** 1999 May 17;407(4):472-90
Expression of NR2 receptor subunit in rat somatic sensory cortex: synaptic distribution and colocalization with NR1 and PSD-95. Valtschanoff JG, et al. **J Comp Neurol** 1999 Aug 9;410(4):599-611
Mu-opioid and NMDA-type glutamate receptors are often colocalized in spiny neurons within patches of the caudate-putamen nucleus. Wang H, et al. **J Comp Neurol** 1999 Sep 13;412(1):132-46
3-Hydroxyglutaric and glutaric acids are neurotoxic through NMDA receptors in vitro. Kölker S, et al. **J Inherit Metab Dis** 1999 May;22(3):259-62
4,5-Dihydro-1,2,4-triazolo[1,5-a]quinoxalin-4-ones: excitatory amino acid antagonists with combined glycine/NMDA and AMPA receptor affinity. Catarzi D, et al. **J Med Chem** 1999 Jul 1;42(13):2478-84
Prolonged inhibition of glutamate reuptake down-regulates NMDA receptor functions in cultured cerebellar granule cells. Cebers G, et al. **J Neurochem** 1999 May;72(5):2181-90
Calcium influx through NMDA receptors, chronic receptor inhibition by ethanol and 2-amino-5-phosponopentanoic acid, and receptor protein expression. Chen X, et al. **J Neurochem** 1999 May;72(5):1969-80
Insulin causes a transient tyrosine phosphorylation of NR2A and NR2B NMDA receptor subunits in rat hippocampus. Christie JM, et al. **J Neurochem** 1999 Apr;72(4):1523-8
The human N-methyl-D-aspartate receptor 2C subunit: genomic analysis, distribution in human brain, and functional expression. Daggett LP, et al. **J Neurochem** 1998 Nov;71(5):1953-68
Developmental regulation of tyrosine phosphorylation of the NR2D NMDA glutamate receptor subunit in rat central nervous system. Dunah AW, et al. **J Neurochem** 1998 Nov; 71(5):1926-34
Modulation of the mesolimbic dopamine system by glutamate: role of NMDA receptors. Kretschmer BD. **J Neurochem** 1999 Aug;73(2):839-48
A calcium/calmodulin-dependent nitric oxide synthase, NMDAR2/3 receptor subunits, and glutamate in the CNS of the cuttlefish Sepia officinalis: localization in specific neural pathways controlling the inking system. Palumbo A, et al. **J Neurochem** 1999 Sep;73(3):1254-63
Dynamic interaction between soluble tubulin and C-terminal domains of N-methyl-D-aspartate receptor subunits. van Rossum D, et al. **J Neurochem** 1999 Mar;72(3):962-73
Glycine uptake governs glycine site occupancy at NMDA receptors of excitatory synapses. Berger AJ, et al. **J Neurophysiol** 1998 Dec;80(6):3336-40
Functional and immunocytochemical identification of glutamate autoreceptors of an NMDA type in crayfish neuromuscular junction. Feinstein N, et al. **J Neurophysiol** 1998 Dec;80(6):2893-9
17beta-estradiol enhances NMDA receptor-mediated EPSPs and long-term potentiation. Foy MR, et al. **J Neurophysiol** 1999 Feb;81(2):925-9
Enhanced NR2A subunit expression and decreased NMDA receptor decay time at the onset of ocular dominance plasticity in the ferret. Roberts EB, et al. **J Neurophysiol** 1999 May;81(5):2587-91
Low resting potential and postnatal upregulation of NMDA receptors may cause Cajal-Retzius cell death. Mienville

JM, et al. **J Neurosci** 1999 Mar 1;19(5):1636-46

Chronic interleukin-6 alters NMDA receptor-mediated membrane responses and enhances neurotoxicity in developing CNS neurons. Qiu Z, et al. **J Neurosci** 1998 Dec 15;18(24):10445-56

A dopamine/D1 receptor/protein kinase A/dopamine- and cAMP-regulated phosphoprotein (Mr 32 kDa)/protein phosphatase-1 pathway regulates dephosphorylation of the NMDA receptor. Snyder GL, et al. **J Neurosci** 1998 Dec 15;18(24):10297-303

The incorporation of NMDA receptors with a distinct subunit composition at nascent hippocampal synapses in vitro. Tovar KR, et al. **J Neurosci** 1999 May 15; 19(10):4180-8

Selective coupling of mu-calpain activation with the NMDA receptor is independent of translocation and autolysis in primary cortical neurons. Hewitt KE, et al. **J Neurosci Res** 1998 Oct 15;54(2):223-32

Expression of glutamate receptors on cultured cerebral endothelial cells. Krizbai IA, et al. **J Neurosci Res** 1998 Dec 15;54(6):814-9

Zinc and ifenprodil allosterically inhibit two separate polyamine-sensitive sites at N-methyl-D-aspartate receptor complex. Berger ML, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1584-91

Differences in degree of trapping of low-affinity uncompetitive N-methyl-D-aspartic acid receptor antagonists with similar kinetics of block. Mealing GA, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):204-10

Characterization of the effects of polyamines on [125I]MK-801 binding to recombinant N-methyl-D-aspartate receptors. Sharma TA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1041-7

Fluorine-18 radiolabelling, biodistribution studies and preliminary PET evaluation of a new memantine derivative for imaging the NMDA receptor. Ametamey SM, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):129-41

Reactive affinity probes for the mapping of the glycine-binding site of the NMDA receptor NR1 subunit. Kreimeyer A, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):547-57

Blockade of NR2B-containing NMDA receptors prevents BDNF enhancement of glutamatergic transmission in hippocampal neurons. Crozier RA, et al. **Learn Mem** 1999 May-Jun;6(3):257-66

Higher seizure susceptibility and enhanced tyrosine phosphorylation of N-methyl-D-aspartate receptor subunit 2B in fyn transgenic mice. Kojima N, et al. **Learn Mem** 1998 Nov-Dec;5(6):429-45

Alterations in the expression of specific glutamate receptor subunits following hippocampal LTP in vivo. Thomas KL, et al. **Learn Mem** 1996 Sep-Oct;3(2-3):197-208

Aging of glutamate receptors: correlations between binding and spatial memory performance in mice. Magnusson KR. **Mech Ageing Dev** 1998 Sep 1;104(3):227-48

High-throughput functional detection of NMDA receptor activity. Cunningham MD, et al. **Methods Mol Biol** 1999; 128:179-88 (18 ref.)

Engineering the NMDA receptor channel lining. Ferrer-Montiel AV, et al. **Methods Mol Biol** 1999; 128:167-78 (25 ref.)

Redox sensitivity of NMDA receptors. Lipton SA. **Methods Mol Biol** 1999;128:121-30 (9 ref.)

The use of ligand binding in assays of NMDA receptor function. Reynolds IJ, et al. **Methods Mol Biol** 1999; 128:93-102 (25 ref.)

Calmodulin modification of NMDA receptors. Zhang S, et al. **Methods Mol Biol** 1999;128:103-11 (3 ref.)

Anticonvulsant activity of 4-urea-5,7-dichlorokynurenic acid derivatives that are antagonists at the NMDA-associated glycine binding site. Nichols AC, et al. **Mol Chem Neuropathol** 1998 Aug-Dec;35(1-3):1-12

A regulatory domain (R1-R2) in the amino terminus of the N-methyl-D-aspartate receptor: effects of spermine, protons, and ifenprodil, and structural similarity to bacterial leucine/isoleucine/valine binding protein. Masuko T, et al. **Mol Pharmacol** 1999 Jun;55(6):957-69

Regulation of N-methyl-D-aspartate receptor function by constitutively active protein kinase C. Xiong ZG, et al. **Mol Pharmacol** 1998 Dec;54(6):1055-63

Shakespeare in love--with NMDA receptors? [news] Lipton SA, et al. **Nat Med** 1999 Mar;5(3):270-1

Activation of NMDA receptors reverses desensitization of mGluR5 in native and recombinant systems. Alagarsamy S, et al. **Nat Neurosci** 1999 Mar;2(3):234-40

Binding sites for permeant ions in the channel of NMDA receptors and their effects on channel block [see comments] Antonov SM, et al. **Nat Neurosci** 1998 Oct;1(6):451-61. Comment in: Nat Neurosci 1998 Oct;1(6):433-4.

Casein kinase-II regulates NMDA channel function in hippocampal neurons. Lieberman DN, et al. **Nat Neurosci** 1999 Feb;2(2):125-32

Ion-binding sites in NMDA receptors: classical approaches provide the numbers [news; comment] Mayer M. **Nat Neurosci** 1998 Oct;1(6):433-4. Comment on: Nat Neurosci 1998 Oct;1(6):451-61.

Different modes of expression of AMPA and NMDA receptors in hippocampal synapses. Takumi Y, et al. **Nat Neurosci** 1999 Jul;2(7):618-24

Synaptic calcium transients in single spines indicate that NMDA receptors are not saturated [see comments] Mainen ZF, et al. **Nature** 1999 May 13;399(6732):151-5. Comment in: Nature 1999 May 13;399(6732):111-2.

Mesolimbic NMDA receptors are implicated in the expression of conditioned morphine reward. Popik P, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):288-94

NMDA receptor-dependent and metabotropic glutamate receptor-dependent forms of long-term depression coexist in CA1 hippocampal pyramidal cells. Nicoll RA, et al. **Neurobiol Learn Mem** 1998 Jul-Sep;70(1-2):62-72

Prolonged noxious stimulation increases periaqueductal gray NMDA mRNA expression: a hybridization study using two different rat models for nociception. Renno WM. **Neurobiology (Bp)** 1998;6(3):333-57

Complex polyamine effects on [3H]MDL 105,519 binding to the NMDA receptor glycine site. Sharma TA, et al. **Neurochem Int** 1998 Aug;33(2):155-9

Spermine inhibits [3H]glycine binding at the NMDA receptors from plexiform layers of chick retina. Calderón F, et al. **Neurochem Res** 1998 Nov;23(11):1363-9

Modification of [3H]MK801 binding to rat brain NMDA receptors after the administration of a convulsant drug and an adenosine analogue: a quantitative autoradiographic study. Giraldez L, et al. **Neurochem Res** 1998 Oct; 23(10):1327-36

Shank, a novel family of postsynaptic density proteins that binds to the NMDA receptor/PSD-95/GKAP complex and cortactin. Naisbitt S, et al. **Neuron** 1999 Jul; 23(3):569-82

[3H]CGP 61594, the first photoaffinity ligand for the glycine site of NMDA receptors. Benke D, et al. **Neuropharmacology** 1999 Feb;38(2):233-42

NMDA receptor diversity in the cerebellum: identification of subunits contributing to functional receptors. Cull-Candy SG, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10-11):1369-80

Assembly intracellular targeting and cell surface expression of the human N-methyl-D-aspartate receptor subunits NR1a and NR2A in transfected cells. McIlhinney RA, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1355-67

Reduction in the MK-801 binding sites of the NMDA sub-type of glutamate receptor in a mouse model of congenital hyperammonemia: prevention by acetyl-L-carnitine. Rao KV, et al. **Neuropharmacology** 1999 Mar;38(3):383-94

NR2B-containing NMDA receptors are up-regulated in temporal cortex in schizophrenia. Grimwood S, et al. **Neuroreport** 1999 Feb 25;10(3):461-5

Decreased calmodulin-NR1 co-assembly as a mechanism for focal epilepsy in cortical dysplasia. Mikuni N, et al. **Neuroreport** 1999 May 14;10(7):1609-12

Differential changes in the subcellular distribution of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate and N-methyl-D-aspartate receptors in neonate and adult rat cortex. Archibald K, et al. **Neurosci Lett** 1999 Jul 23; 270(1):49-52

Hypoxia induces c-Fos protein expression in NMDA but not AMPA glutamate receptor labeled neurons within the nucleus tractus solitarii of the conscious rat. Gozal D, et al. **Neurosci Lett** 1999 Mar 5;262(2):93-6

Sex-specific expression of N-methyl D-aspartate receptor (NMDAR) in the preoptic area of neonatal rats. Hsu C, et al. **Neurosci Lett** 1999 Mar 5;262(2):85-8

Concurrent activation of hippocampal glycine and polyamine sites of the N-methyl-D-aspartate receptor synergistically reverses working memory deficits in rats. Kishi A, et al. **Neurosci Lett** 1998 Dec 4;257(3):131-4

Spatiotemporal changes in hippocampal NMDA receptor binding as a consequence of trimethyltin neurotoxicity in the rat. Koczyk D, et al. **Neurosci Lett** 1998 Jul 17; 251(1):29-32

NMDAR2 upregulation precedes mossy fiber sprouting in kainate rat hippocampal epilepsy. Mikuni N, et al. **Neurosci Lett** 1998 Oct 9;255(1):25-8

Increased NR1-NR2A/B coassembly as a mechanism for rat chronic hippocampal epilepsy. Mikuni N, et al. **Neurosci Lett** 1999 Jun 4;267(3):165-8

Intracerebral administration of L-kynurenine decreases N-methyl-D-aspartate receptor-mediated production of cGMP in the cerebellum and hippocampus of unanaesthetized rats subjected to transcerebral microdialysis. Varnier G, et al. **Neurosci Lett** 1999 May 7;266(2):81-4

Decreased expression of N-methyl-D-aspartate (NMDA) receptors in rat dorsal root ganglion following complete Freund's adjuvant-induced inflammation: an immunocytochemical study for NMDA NR1 subunit. Wang H, et al. **Neurosci Lett** 1999 Apr 23;265(3):195-8

N-methyl-D-aspartate receptors are present in vagal afferents and their dendritic targets in the nucleus tractus solitarius. Aicher SA, et al. **Neuroscience** 1999;91(1):119-32

The human immunodeficiency virus-1 envelope protein gp120 binds through its V3 sequence to the glycine site of N-methyl-D-aspartate receptors mediating noradrenaline release in the hippocampus. Pattarini R, et al. **Neuroscience** 1998 Nov;87(1):147-57

Co-expression of TrkB and the N-methyl-D-aspartate receptor subunits NR1-C1, NR2A and NR2B in the rat visual cortex. Tongiorgi E, et al. **Neuroscience** 1999; 90(4):1361-9

Possible involvement of membrane phospholipids in inhibition by ferrous ions of [3H]MK-801 binding to the native N-methyl-D-aspartate channel in rat brain. Yoneda Y, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Feb;19(1):33-40

An improved synthesis of [11C]L-703,717 as a radioligand for the glycine site of the NMDA receptor. Haradahira T, et al. **Nucl Med Biol** 1999 Feb;26(2):245-7

The modulatory effect of spermine on the glutamate-NMDA receptor is regionally variable in normal human adult cerebral cortex. Mortensen M, et al. **Pharmacol Toxicol** 1999 Mar;84(3):135-42

Strychnine-insensitive glycine/NMDA sites are altered in two stress models of depression. Nowak G, et al. **Pol J Pharmacol** 1998 Jul-Oct;50(4-5):365-9

Activation of the genetically defined m1 muscarinic receptor potentiates N-methyl-D-aspartate (NMDA) receptor currents in hippocampal pyramidal cells. Marino MJ, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11465-70

The fyn art of N-methyl-D-aspartate receptor phosphorylation. Sala C, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):335-7

The subcellular distribution of nitric oxide synthase relative to the NR1 subunit of NMDA receptors in the cerebral cortex. Aoki C, et al. **Prog Brain Res** 1998;118:83-97 (40 ref.)

Redox modulation of the NMDA receptor by NO-related species. Lipton SA, et al. **Prog Brain Res** 1998;118:73-82 (46 ref.)

Modulation of LTP induction by NMDA receptor activation and nitric oxide release. Zorumski CF, et al. **Prog Brain Res** 1998;118:173-82 (58 ref.)

The partial NMDA agonist D-cycloserine stimulates LH secretion in healthy volunteers. van Berckel BN, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):190-7

Specific coupling of NMDA receptor activation to nitric oxide neurotoxicity by PSD-95 protein. Sattler R, et al. **Science** 1999 Jun 11;284(5421):1845-8

Dynamic control of CaMKII translocation and localization in hippocampal neurons by NMDA receptor stimulation. Shen K, et al. **Science** 1999 Apr 2;284(5411):162-6

Regulation of NMDA receptors by an associated phosphatase-kinase signaling complex. Westphal RS, et al. **Science** 1999 Jul 2;285(5424):93-6

NMDA receptor-mediated K+ efflux and neuronal apoptosis. Yu SP, et al. **Science** 1999 Apr 9;284(5412):336-9

Decreased hippocampal (CA3) NMDA receptors in schizophrenia. Dean B, et al. **Synapse** 1999 Apr;32(1):67-9

Enhancement of N-methyl-D-aspartate (NMDA) immunoreactivity in residual dendritic spines in the caudate-putamen nucleus after chronic haloperidol administration. Rodriguez JJ, et al. **Synapse** 1999 Sep 15; 33(4):289-303

NMDA receptor-dependent and -independent behavioural sensitization [letter; comment] Tagliamonte A, et al. **Trends Pharmacol Sci** 1999 May;20(5):187-8; discussion 189-90. Comment on: Trends Pharmacol Sci 1998 Nov;19(11):447-51.

NMDA receptors and behavioural sensitization: beyond dizocilpine [letter; comment] Wolf ME. **Trends Pharmacol Sci** 1999 May;20(5):188-9; discussion 189-90. Comment on: Trends Pharmacol Sci 1998 Nov;19(11):447-51.

Experience-dependent development of NMDAR1 subunit expression in the lateral geniculate nucleus. Fava MA, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):781-9

Pro- and antioxidative properties of cortical tissue preparations from human brain exhibiting NMDA-receptor characteristics. Elstner M, et al. **Z Naturforsch [C]** 1999 May-Jun;54(5-6):438-45

[Changes in gamma-amino-butyric acid and N-methyl-D-aspartic acid receptor-gated currents from freshly isolated hippocampal CA1 pyramidal neurons of hepatic encephalopathy rats] Zhang Z, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jun;77(6):439-42 (Eng. Abstr.) **(Chi)**

[Role of ionotropic NMDA receptors in hypoxic tolerance] Xie J, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):369 **(Chi)**

PHYSIOLOGY

Regulation of vasopressin release by ionotropic glutamate receptor agonists. Morsette DJ, et al. **Adv Exp Med Biol** 1998;449:129-30

Role of N-methyl-D-aspartate (NMDA) receptors in vasopressin and oxytocin responses to emotional stimuli. Yagi K, et al. **Adv Exp Med Biol** 1998;449:131-4

Non-NMDA and NMDA receptors in the synaptic pathway between area postrema and nucleus tractus solitarius. Aylwin ML, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1236-46

Non-NMDA and NMDA receptors transmit area postrema input to aortic baroreceptor neurons in NTS. Chen CY, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1695-706

A role for NMDA receptors in posthypoxic frequency decline in the rat [published erratum appears in Am J Physiol 1998 Sep;275(3 Pt 2): preceding R667] Coles SK, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1546-55

Lateral hypothalamic NMDA receptor subunits NR2A and/or NR2B mediate eating: immunochemical/behavioral evidence. Khan AM, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R880-91

Direct and indirect presynaptic control of dopamine release by excitatory amino acids. Chéramy A, et al.

Amino Acids 1998;14(1-3):63-8 (25 ref.)
Ligands of the NMDA receptor-associated glycine recognition site and motor behavior. Kretschmer BD. **Amino Acids** 1998;14(1-3):227-34 (36 ref.)
The role of NMDA receptors in the slow neuronal degeneration of Parkinson's disease. Loopuijt LD, et al. **Amino Acids** 1998;14(1-3):17-23 (41 ref.)
The role of striatal glutamate receptors in models of Parkinson's disease. Ossowska K, et al. **Amino Acids** 1998; 14(1-3):11-5
The role of the N-methyl-D-aspartic acid receptor in the relaxant effect of ketamine on tracheal smooth muscle. Sato T, et al. **Anesth Analg** 1998 Dec;87(6):1383-8
NMDA glutamatergic blockade of nucleus accumbens disrupts acquisition but not consolidation in a passive avoidance task. Gargiulo PA, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:717-22
NMDA receptor-mediated oscillatory properties: potential role in rhythm generation in the mammalian spinal cord. Schmidt BJ, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:189-202 (82 ref.)
Effects of 2-phenoxyethanol on N-methyl-D-aspartate (NMDA) receptor-mediated ion currents. Musshoff U, et al. **Arch Toxicol** 1999 Feb;73(1):55-9
Involvement of mechanisms dependent on NMDA receptors, nitric oxide and protein kinase A in the hippocampus but not in the caudate nucleus in memory. Quevedo J, et al. **Behav Pharmacol** 1997 Dec;8(8):713-7
Open channel block and alteration of N-methyl-D-aspartic acid receptor gating by an analog of phencyclidine. Dilmore JG, et al. **Biophys J** 1998 Oct;75(4):1801-16
Determining the activation time course of synaptic AMPA receptors from openings of colocalized NMDA receptors. Kleppe IC, et al. **Biophys J** 1999 Sep;77(3):1418-27
A role for presynaptic NMDA receptors in central sensitization in the spinal cord dorsal horn? [letter; comment] Hudspith M, et al. **Br J Anaesth** 1998 Aug; 81(2):294-5. Comment on: Br J Anaesth 1998 Mar;80(3):348-53.
NMDA receptor characterization and subunit expression in rat cultured mesencephalic neurones. Allgaier C, et al. **Br J Pharmacol** 1999 Jan;126(1):121-30
Rundown of somatodendritic N-methyl-D-aspartate (NMDA) receptor channels in rat hippocampal neurones: evidence for a role of the small GTPase RhoA. Nörenberg W, et al. **Br J Pharmacol** 1999 Jul;127(5):1060-3
Presynaptic inhibition preferentially reduces in NMDA receptor-mediated component of transmission in rat midbrain dopamine neurons. Wu YN, et al. **Br J Pharmacol** 1999 Jul;127(6):1422-30
Stimulation of the 5-HT1A receptor selectively suppresses NMDA receptor-mediated synaptic excitation in the rat visual cortex. Edagawa Y, et al. **Brain Res** 1999 May 8; 827(1-2):225-8
Modulation of the audiogenic seizure network by noradrenergic and glutamatergic receptors of the deep layers of superior colliculus. Faingold C, et al. **Brain Res** 1999 Mar 13;821(2):392-9
Resistance of the hippocampus in the lactating rat to N-methyl-D-aspartate (NMDA)-mediated excitation is not due to a nonfunctional receptor system. Grove KL, et al. **Brain Res** 1998 Dec 14;814(1-2):157-63
NMDA receptor-mediated changes of spontaneous activity patterns in thalamocortical slice cultures. Hentschke H, et al. **Brain Res** 1999 May 29;830(1):123-37
Differential inhibition by ferrous ions of [3H]MK-801 binding to native N-methyl-D-aspartate channel in neonatal and adult rat brains. Ogita K, et al. **Brain Res** 1999 Feb 13; 818(2):548-52
Role of NMDA glutamate receptors in regulating D2 dopamine-dependent Fos induction in the rat striatopallidal pathway. Pollack AE, et al. **Brain Res** 1999 Feb 13; 818(2):543-7
Time dependence and role of N-methyl-D-aspartate glutamate receptors in the priming of D2-mediated rotational behavior and striatal Fos expression in 6-hydroxydopamine lesioned rats. Pollack AE, et al. **Brain Res** 1999 May 8;827(1-2):160-8
Involvement of NMDA receptors and voltage-dependent calcium channels on augmentation of long-term potentiation in hippocampal CA1 area of morphine dependent rats. Pourmotabbed A, et al. **Brain Res** 1998 Aug 31;804(1):125-34
Lack of evidence for direct involvement of NMDA receptors or polyamines in blood-brain barrier injury after cerebral ischemia in rats. Preston E, et al. **Brain Res** 1998 Nov 30; 813(1):191-4
Activation of NMDA receptors protects against glutamate neurotoxicity in the retina: evidence for the involvement of neurotrophins. Rocha M, et al. **Brain Res** 1999 May 8;827(1-2):79-92
Metabotropic glutamate receptors are involved in calcium-induced LTP of AMPA and NMDA receptor-mediated responses in the rat hippocampus. Yang SN, et al. **Brain Res Bull** 1998 Aug;46(6):505-12
Experience-dependent changes in the importance of N-methyl-D-aspartate (NMDA) receptors for visual transmission in superior colliculus. Binns KE, et al. **Brain Res Dev Brain Res** 1998 Oct 1;110(2):241-8
Cation channel control of neurite morphology. Heng JE, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1-2):67-73
The taste of monosodium glutamate (MSG), L-aspartic acid, and N-methyl-D-aspartate (NMDA) in rats: are NMDA receptors involved in MSG taste? Stapleton JR, et al. **Chem Senses** 1999 Aug;24(4):449-57
Developmental aspects of NMDA receptor function. Vallano ML. **Crit Rev Neurobiol** 1998;12(3):177-204 (293 ref.)
Status epilepticus causes long-term NMDA receptor-dependent behavioral changes and cognitive deficits. Rice AC, et al. **Epilepsia** 1998 Nov;39(11):1148-57
Peripheral nerve insult induces NMDA receptor-mediated, delayed degeneration in spinal neurons. Azkue JJ, et al. **Eur J Neurosci** 1998 Jun;10(6):2204-6
Differential interaction of the tSXV motifs of the NR1 and NR2A NMDA receptor subunits with PSD-95 and SAP97. Bassand P, et al. **Eur J Neurosci** 1999 Jun;11(6):2031-43
Visual experience alters the molecular profile of NMDA-receptor-mediated sensory transmission. Binns KE, et al. **Eur J Neurosci** 1999 Mar;11(3):1101-4
Association between the low threshold calcium spike and activation of NMDA receptors in guinea-pig substantia nigra pars compacta neurons. Bon CL, et al. **Eur J Neurosci** 1998 Jun;10(6):2009-15
Calcium-dependent inactivation of the monosynaptic NMDA EPSCs in rat hippocampal neurons in culture. Medina I, et al. **Eur J Neurosci** 1999 Jul;11(7):2422-30
Survival and synaptogenesis of hippocampal neurons without NMDA receptor function in culture. Okabe S, et al. **Eur J Neurosci** 1998 Jun;10(6):2192-8
Properties of NMDA receptors in rat spinal cord motoneurons. Paleček JI, et al. **Eur J Neurosci** 1999 Mar; 11(3):827-36
Long-lasting substance-P-mediated modulation of NMDA-induced rhythmic activity in the lamprey locomotor network involves separate RNA- and protein-synthesis-dependent stages. Parker D, et al. **Eur J Neurosci** 1999 May;11(5):1515-22
Pathophysiological implications of the structural organization of the excitatory synapse. Cattabeni F, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):339-47 (72 ref.)
Tryptophan metabolism and brain function: focus on kynurenine and other indole metabolites. Moroni F. **Eur J Pharmacol** 1999 Jun 30;375(1-3):87-100 (183 ref.)
N-methyl-D-aspartate and dopamine receptor involvement in the modulation of locomotor activity and memory processes. Adriani W, et al. **Exp Brain Res** 1998 Nov; 123(1-2):52-9 (55 ref.)
Contribution of NMDA and non-NMDA receptors to synaptic transmission from the brachium of the inferior colliculus to the medial subdivision of the medial geniculate nucleus in the rabbit. Webber TJ, et al. **Exp Brain Res** 1999 Feb;124(3):295-303
NMDA and non-NMDA receptor-mediated excitotoxicity are potentiated in cultured striatal neurons by prior chronic depolarization. Chen Q, et al. **Exp Neurol** 1999 Sep; 159(1):283-96
Use-dependent exaggeration of brain injury: is glutamate involved? Humm JL, et al. **Exp Neurol** 1999 Jun; 157(2):349-58
NMDA receptor-independent LTP in basal versus apical dendrites of CA1 pyramidal cells in rat hippocampal slice. Cavus I, et al. **Hippocampus** 1998;8(4):373-9
Progress in spanning the molecular and behavioral mechanisms of hippocampal function [editorial; comment] Eichenbaum H. **Hippocampus** 1999;9(2):100. Comment on: Hippocampus 1999 ;9(2):118-36.
Alteration of NMDA receptor-mediated synaptic responses in CA1 area of the aged rat hippocampus: contribution of GABAergic and cholinergic deficits. Jouvenceau A, et al. **Hippocampus** 1998;8(6):627-37
N-methyl-D-aspartate (NMDA) receptor: friend or foe? Robichon R, et al. **Indian J Exp Biol** 1998 Oct; 36(10):947-59 (144 ref.)
Activation of NMDA and non-NMDA receptors in the caudal ventrolateral medulla dilates the airways. Solomon IC. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):169-74
Evidence that NMDA receptors mediate the responses of putative RVLM presympathetic neurons to vagal afferent stimulation in rats. Wang J, et al. **J Auton Nerv Syst** 1998 Nov 10;73(2-3):93-100
Modulation of the channel activity of the epsilon2/zeta1-subtype N-methyl D-aspartate receptor by PSD-95. Yamada Y, et al. **J Biol Chem** 1999 Mar 5; 274(10):6647-52
Postischemic enhancements of N-methyl-D-aspartic acid (NMDA) and non-NMDA receptor-mediated responses in hippocampal CA1 pyramidal neurons. Mitani A, et al. **J Cereb Blood Flow Metab** 1998 Oct;18(10):1088-98
Frequent colocalization of mu opioid and NMDA-type glutamate receptors at postsynaptic sites in periaqueductal gray neurons. Commons KG, et al. **J Comp Neurol** 1999 Jun 14;408(4):549-59
Pattern formation by retinal afferents in the ferret lateral geniculate nucleus: developmental segregation and the role of N-methyl-D-aspartate receptors. Hahm JO, et al. **J Comp Neurol** 1999 Aug 23;411(2):327-45
Different mechanisms of Ca2+ transport in NMDA and Ca2+-permeable AMPA glutamate receptor channels. Wollmuth LP, et al. **J Gen Physiol** 1998 Nov;112(5):623-36
N-methyl-D-aspartate receptor-mediated modulation of monoaminergic metabolites and amino acids in the chick forebrain: an in vivo microdialysis and electrophysiology study. Gruss M, et al. **J Neurobiol** 1999 Jul;40(1):116-35
Orchestration of neuronal migration by activity of ion channels, neurotransmitter receptors, and intracellular Ca2+ fluctuations. Komuro H, et al. **J Neurobiol** 1998 Oct; 37(1):110-30 (129 ref.)
NMDA receptor activity stabilizes presynaptic retinotectal axons and postsynaptic optic tectal cell dendrites in vivo. Rajan I, et al. **J Neurobiol** 1999 Feb 15;38(3):357-68
Subtype-specific enhancement of NMDA receptor currents by mutant huntingtin. Chen N, et al. **J Neurochem** 1999 May;72(5):1890-8
Insulin modulation of cloned mouse NMDA receptor currents in Xenopus oocytes. Liao GY, et al. **J Neurochem** 1999 Oct;73(4):1510-9
NMDA and non-NMDA ionotropic glutamate receptors modulate striatal acetylcholine release via pre- and postsynaptic mechanisms. Morari M, et al. **J Neurochem** 1998 Nov;71(5):2006-17
Inhibition of calcium-dependent NMDA receptor current rundown by calbindin-D28k. Price CJ, et al. **J Neurochem** 1999 Feb;72(2):634-42
Evidence that brain-derived neurotrophic factor neuroprotection is linked to its ability to reverse the NMDA-induced inactivation of protein kinase C in cortical neurons. Tremblay R, et al. **J Neurochem** 1999 Jan; 72(1):102-11
The bacterial endotoxin lipopolysaccharide causes rapid inappropriate excitation in rat cortex. Wang YS, et al. **J Neurochem** 1999 Feb;72(2):652-60
Glutamatergic induction of CREB phosphorylation and Fos expression in primary cultures of the suprachiasmatic hypothalamus in vitro is mediated by co-ordinate activity of NMDA and non-NMDA receptors. Schurov IL, et al. **J Neuroendocrinol** 1999 Jan;11(1):43-51
Current-source density analysis in the rat olfactory bulb: laminar distribution of kainate/AMPA- and NMDA-receptor-mediated currents. Aroniadou-Anderjaska V, et al. **J Neurophysiol** 1999 Jan; 81(1):15-28
NMDA receptor mechanisms contribute to neuroplasticity induced in caudalis nociceptive neurons by tooth pulp stimulation. Chiang CY, et al. **J Neurophysiol** 1998 Nov; 80(5):2621-31
Evidence for NMDA and mGlu receptor-dependent long-term potentiation of mossy fiber-granule cell transmission in rat cerebellum. D'Angelo E, et al. **J Neurophysiol** 1999 Jan;81(1):277-87
Blockade of GABAA receptors facilitates induction of NMDA receptor-independent long-term potentiation. Grover LM, et al. **J Neurophysiol** 1999 Jun;81(6):2814-22
NMDA-Induced intrinsic voltage oscillations depend on L-type calcium channels in spinal motoneurons of adult turtles. Guertin PA, et al. **J Neurophysiol** 1998 Dec; 80(6):3380-2
Differential roles of ionotropic glutamate receptors in canine medullary inspiratory neurons of the ventral respiratory group. Krolo M, et al. **J Neurophysiol** 1999 Jul;82(1):60-8
Endogenous pH shifts facilitate spreading depression by effect on NMDA receptors. Tong CK, et al. **J Neurophysiol** 1999 Apr;81(4):1988-91
Distinct populations of NMDA receptors at subcortical and cortical inputs to principal cells of the lateral amygdala. Weisskopf MG, et al. **J Neurophysiol** 1999 Feb;81(2):930-4
SI neuron response variability is stimulus tuned and NMDA receptor dependent. Whitsel BL, et al. **J Neurophysiol** 1999 Jun;81(6):2988-3006
Differential roles of NMDA and non-NMDA receptors in synaptic responses of neurons in nucleus tractus solitarii of the rat. Yen JC, et al. **J Neurophysiol** 1999 Jun; 81(6):3034-43
Nicotine selectively enhances NMDA receptor-mediated synaptic transmission during postnatal development in sensory neocortex. Aramakis VB, et al. **J Neurosci** 1998 Oct 15;18(20):8485-95
Subtype-dependence of NMDA receptor channel open probability. Chen N, et al. **J Neurosci** 1999 Aug 15; 19(16):6844-54
NMDA receptor-mediated control of presynaptic calcium and neurotransmitter release. Cochilla AJ, et al. **J Neurosci** 1999 Jan 1;19(1):193-205
NMDA receptor-mediated refinement of a transient retinotectal projection during development requires nitric oxide. Ernst AF, et al. **J Neurosci** 1999 Jan 1;19(1):229-35
Presynaptic effects of NMDA in cerebellar Purkinje cells and interneurons. Glitsch M, et al. **J Neurosci** 1999 Jan 15;19(2):511-9
Neurogenesis in the dentate gyrus of the adult tree shrew is regulated by psychosocial stress and NMDA receptor activation. Gould E, et al. **J Neurosci** 1997 Apr 1; 17(7):2492-8
Ischemic tolerance in murine cortical cell culture: critical role for NMDA receptors. Grabb MC, et al. **J Neurosci** 1999 Mar 1;19(5):1657-62
The role of nitric oxide and NMDA receptors in the development of motor neuron dendrites. Inglis FM, et al. **J Neurosci** 1998 Dec 15;18(24):10493-501
Rescue of cerebellar granule cells from death in weaver NR1 double mutants. Jensen P, et al. **J Neurosci** 1999 Sep 15; 19(18):7991-8
Interactions of calmodulin and alpha-actinin with the NR1 subunit modulate Ca2+-dependent inactivation of NMDA receptors. Krupp JJ, et al. **J Neurosci** 1999 Feb 15; 19(4):1165-78
Amygdalar NMDA receptors are critical for new fear

learning in previously fear-conditioned rats. Lee H, et al. **J Neurosci** 1998 Oct 15;18(20):8444-54

Protein kinase C modulation of recombinant NMDA receptor currents: roles for the C-terminal C1 exon and calcium ions. Logan SM, et al. **J Neurosci** 1999 Feb 1;19(3):974-86

Activation of NMDA receptors in the suprachiasmatic nucleus produces light-like phase shifts of the circadian clock in vivo. Mintz EM, et al. **J Neurosci** 1999 Jun 15; 19(12):5124-30

Odor-induced, activity-dependent transneuronal gene induction in vitro: mediation by NMDA receptors. Puche AC, et al. **J Neurosci** 1999 Feb 15;19(4):1359-70

Nuclear factor kappaB nuclear translocation upregulates c-Myc and p53 expression during NMDA receptor-mediated apoptosis in rat striatum. Qin ZH, et al. **J Neurosci** 1999 May 15;19(10):4023-33

Experience-dependent plasticity of adult rat S1 cortex requires local NMDA receptor activation. Rema V, et al. **J Neurosci** 1998 Dec 1;18(23):10196-206

Ca(2+)-permeable AMPA receptors and spontaneous presynaptic transmitter release at developing excitatory spinal synapses. Rohrbough J, et al. **J Neurosci** 1999 Oct 1;19(19):8528-41

Differences in the properties of ionotropic glutamate synaptic currents in oxytocin and vasopressin neuroendocrine neurons. Stern JE, et al. **J Neurosci** 1999 May 1; 19(9):3367-75

NMDA receptor-dependent nitric oxide and cGMP synthesis in brain hemispheres and cerebellum during reperfusion after transient forebrain ischemia in gerbils: effect of 7-Nitroindazole. Chalimoniuk M, et al. **J Neurosci Res** 1998 Dec 1;54(5):681-90

p53 expression and regulation by NMDA receptors in the developing rat brain. Poulaki V, et al. **J Neurosci Res** 1999 May 15;56(4):427-40

Evidence for a causative role of N-methyl-D-aspartate receptors in an in vitro model of alcohol withdrawal hyperexcitability. Thomas MP, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):87-97

An allosteric interaction between the NMDA receptor polyamine and ifenprodil sites in rat cultured cortical neurones. Kew JN, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):17-28

Multiple sites of action of neomycin, Mg2+ and spermine on the NMDA receptors of rat hippocampal CA1 pyramidal neurones. Lu WY, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):29-46

Interaction of memantine and amantadine with agonist-unbound NMDA-receptor channels in acutely isolated rat hippocampal neurons. Sobolevsky AI, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):47-60

Differential roles for NMDA and non-NMDA receptor subtypes in baroreceptor afferent integration in the nucleus of the solitary tract of the rat. Zhang J, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):733-45

Control of neuron outgrowth by NMDA receptors. Cuppini R, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):31-40

Involvement of NMDA and non-NMDA receptors in the neuronal responses of the primary motor cortex to input from the supplementary motor area and somatosensory cortex: studies of task-performing monkeys. Shima K, et al. **Jpn J Physiol** 1998 Aug;48(4):275-90

Functional integrity of NMDA-dependent LTP induction mechanisms across the lifespan of F-344 rats. Barnes CA, et al. **Learn Mem** 1996 Sep-Oct;3(2-3):124-37

Low-frequency stimulation erases LTP through an NMDA receptor-mediated activation of protein phosphatases. O'Dell TJ, et al. **Learn Mem** 1994 Jul-Aug;1(2):129-39

Differential expression of short-term potentiation by AMPA and NMDA receptors in dentate gyrus. Xie X, et al. **Learn Mem** 1996 Sep-Oct;3(2-3):115-23

NMDA receptor pharmacology and analysis of patch-clamp recordings. Wright JM, et al. **Methods Mol Biol** 1999; 128:143-53 (16 ref.)

Changes in NMDA receptor/nitric oxide signaling pathway in the brain with aging. Yamada K, et al. **Microsc Res Tech** 1998 Oct 1;43(1):68-74 (75 ref.)

Biochemical studies of the structure and function of the N-methyl-D-aspartate subtype of glutamate receptors. Dunah AW, et al. **Mol Neurobiol** 1999 Apr;19(2):151-79 (109 ref.)

Excessive cerebrocortical release of acetylcholine induced by NMDA antagonists is reduced by GABAergic and alpha2-adrenergic agonists. Kim SH, et al. **Mol Psychiatry** 1999 Jul;4(4):344-52

A pinch of salt for NMDA receptors [news] Salter MW. **Mol Psychiatry** 1999 May;4(3):209-11

NMDA receptors and nitric oxide synthase [news] Standaert DG. **Mol Psychiatry** 1999 Jan;4(1):13-4

Zinc, Src and NMDA receptors--a transmemb. ıe connection [news; comment] Ascher P. **Nat Neurosci** 1998 Jul;1(3):173-5. Comment on: Nat Neurosci 1998 Jul;1(3):185-91.

Experience-dependent development of NMDA receptor transmission [news; comment] Fox K, et al. **Nat Neurosci** 1999 Apr;2(4):297-9. Comment on: Nat Neurosci 1999 Apr;2(4):352-7.

A role for NMDA-receptor channels in working memory. Lisman JE, et al. **Nat Neurosci** 1998 Aug;1(4):273-5

G-protein-coupled receptors act via protein kinase C and Src to regulate NMDA receptors. Lu WY, et al. **Nat Neurosci** 1999 Apr;2(4):331-8

NMDA receptors amplify calcium influx into dendritic spines during associative pre- and postsynaptic activation [see comments] Schiller J, et al. **Nat Neurosci** 1998 Jun; 1(2):114-8. Comment in: Nat Neurosci 1998 Jun;1(2):93-9.

Tyrosine kinase potentiates NMDA receptor currents by reducing tonic zinc inhibition [see comments] Zheng F, et al. **Nat Neurosci** 1998 Jul;1(3):185-91. Comment in: Nat Neurosci 1998 Jul;1(3):173-5.

Young receptors make smart mice [news; comment] Bliss TV. **Nature** 1999 Sep 2;401(6748):25-7. Comment on: Nature 1999 Sep 2;401(6748):63-9.

Excitatory synapses. Neither too loud nor too quiet [news; comment] Kullmann DM. **Nature** 1999 May 13; 399(6732):111-2. Comment on: Nature 1999 May 13;399(6732):151-5.

Genetic enhancement of learning and memory in mice [see comments] Tang YP, et al. **Nature** 1999 Sep 2; 401(6748):63-9. Comment in: Nature 1999 Sep 2;401(6748):25-7.

Gain control of NMDA-receptor currents by intracellular sodium. Yu XM, et al. **Nature** 1998 Dec 3;396(6710):469-74

Integrated regulation of signal coding and plasticity by NMDA receptors at a central synapse. D'Angelo E, et al. **Neural Plast** 1998 Jul-Sep;6(3):8-16 (38 ref.)

Differential regulation of glutamate, aspartate and gamma-amino-butyrate release by N-methyl-D-aspartate receptors in rat striatum after partial and extensive lesions to the nigro-striatal dopamine pathway. Abarca J, et al. **Neurochem Int** 1999 Jul;35(1):19-33

NMDA and AMPA receptors evoke transmitter release from noradrenergic axon terminals in the rat spinal cord. Sundström E, et al. **Neurochem Res** 1998 Dec;23(12):1501-7

NMDA receptor-mediated calcium influx in cerebral cortical synaptosomes of the hypoxic guinea pig fetus. Zanelli SA, et al. **Neurochem Res** 1999 Mar;24(3):437-46

NMDAR channel segments forming the extracellular vestibule inferred from the accessibility of substituted cysteines. Beck C, et al. **Neuron** 1999 Mar;22(3):559-70

Single synaptic events evoke NMDA receptor-mediated release of calcium from internal stores in hippocampal dendritic spines. Emptage N, et al. **Neuron** 1999 Jan; 22(1):115-24

Functionally distinct NMDA receptors mediate horizontal connectivity within layer 4 of mouse barrel cortex. Fleidervish IA, et al. **Neuron** 1998 Nov;21(5):1055-65

Postsynaptically silent synapses in single neuron cultures [see comments] Gomperts SN, et al. **Neuron** 1998 Dec; 21(6):1443-51. Comment in: Neuron 1998 Dec;21(6):1226-7.

Control of recruitment and transcription-activating function of CBP determines gene regulation by NMDA receptors and L-type calcium channels. Hardingham GE, et al. **Neuron** 1999 Apr;22(4):789-98

Modulation by dopamine D1-like receptors of synaptic transmission and NMDA receptors in rat nucleus accumbens is attenuated by the protein kinase C inhibitor Ro 32-0432. Chergui K, et al. **Neuropharmacology** 1999 Feb;38(2):223-31

No change in NMDA receptor-mediated response rise-time during development: evidence against transmitter spillover. Haas K, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10-11):1393-8

Anticonvulsant effects of eliprodil alone or combined with the glycineB receptor antagonist L-701,324 or the competitive NMDA antagonist CGP 40116 in the amygdala kindling model in rats. Wlaź P, et al. **Neuropharmacology** 1999 Feb;38(2):243-51

Functional properties of ionotropic glutamate receptor channels in rat sacral dorsal commissural neurons. Xu TL, et al. **Neuropharmacology** 1999 May;38(5):659-70

The neuropsychopharmacology of phencyclidine: from NMDA receptor hypofunction to the dopamine hypothesis of schizophrenia. Jentsch JD, et al. **Neuropsychopharmacology** 1999 Mar;20(3):201-25 (250 ref.)

Evidence for regulation of vasopressin gene transcription by the NMDA receptor. Amaya F, et al. **Neuroreport** 1999 Jan 18;10(1):157-60

Enhanced acetylcholine release in striatum after chronic amphetamine is NMDA-dependent. Bickerdike MJ, et al. **Neuroreport** 1999 Jan 18;10(1):77-80

D-cycloserine, a partial NMDA receptor-associated glycine-B site agonist, enhances reversal learning, but a cholinesterase inhibitor and nicotine has no effect. Riekkinen P Jr, et al. **Neuroreport** 1998 Nov 16; 9(16):3647-51

A serotonin-1A receptor agonist and an N-methyl-D-aspartate receptor antagonist oppose each others effects in a genetic rat epilepsy model. Filakovszky J, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):89-92

Non-N-methyl-D-aspartate receptors may mediate the transmission of emetic signals between visceral vagal afferents and the solitary nucleus in dogs. Furukawa N, et al. **Neurosci Lett** 1998 Dec 11;258(1):53-6

L-type calcium channels but not N-methyl-D-aspartate receptor channels mediate rhythmic activity induced by cholinergic agonist in motoneurons from turtle spinal cord slices. Guertin PA, et al. **Neurosci Lett** 1999 Feb 12; 261(1-2):81-4

Potentiation of N-methyl-D-aspartate currents by isoproterenol in the acutely dissociated rat amygdalar neurons. Huang CC, et al. **Neurosci Lett** 1998 Aug 28; 253(1):9-12

Stereoselective neuroprotection by novel 2,3-benzodiazepine non-competitive AMPA antagonist against non-NMDA receptor-mediated excitotoxicity in primary rat hippocampal cultures. May PC, et al. **Neurosci Lett** 1999 Mar 12;262(3):219-21

N-methyl-D-asparate receptor antagonists abolish the maintenance phase of self-sustaining status epilepticus in rat. Mazarati AM, et al. **Neurosci Lett** 1999 Apr 23; 265(3):187-90

Phencyclidine-like discriminative stimulus effects of polyamine modulators of N-methyl-D-aspartate receptor activity in rats. Nicholson KL, et al. **Neurosci Lett** 1998 Aug 28;253(1):53-6

Chronic but not acute clomipramine alters the effect of NMDA receptor regulation of dopamine release in rat frontal cortex. Pallotta M, et al. **Neurosci Lett** 1999 Mar 12;262(3):187-90

Antiphospholipid antibodies bind to rat cerebellar granule cells: the role of N-methyl-D-aspartate receptors. Riccio A, et al. **Neurosci Lett** 1998 Nov 27;257(2):116-8

The role of N-methyl-D-aspartate receptor in the guinea pig inner ear after unilateral labyrinthectomy. Shimogori H, et al. **Neurosci Lett** 1998 Aug 7;252(1):61-4

NMDA receptor mediated Ca2+ responses in neurons differentiated from p53-/- immortalized Murine neural stem cells. Yamada K, et al. **Neurosci Lett** 1999 Apr 2; 264(1-3):165-7

Role of NMDA receptors in the propagation of excitation in rat visual cortex as studied by optical imaging. Fukuda M, et al. **Neurosci Res** 1998 May;31(1):9-21

Role of NMDA receptors in the emotional memory associated with neuroendocrine responses to conditioned fear stimuli in the rat. Yagi K, et al. **Neurosci Res** 1998 Mar;30(3):279-86

Activation of N-methyl-D-aspartate receptors evokes calcium spikes in the dendrites of rat hypothalamic paraventricular nucleus neurons. Bains JS, et al. **Neuroscience** 1999 Mar;90(3):885-91

Distinct expressions for synaptic potentiation induced by calcium through voltage-gated calcium and N-methyl-D-aspartate receptor channels in the hippocampal CA1 region. Chen HX, et al. **Neuroscience** 1998 Sep;86(2):415-22

Reduced Mg2+ blockade of synaptically activated N-methyl-D-aspartate receptor-channels in CA1 pyramidal neurons in kainic acid-lesioned rat hippocampus. Chen Y, et al. **Neuroscience** 1999;88(3):727-39

The effects of temperature and scopolamine on N-methyl-D-aspartate antagonist-induced neuronal necrosis in the rat. Colbourne F, et al. **Neuroscience** 1999 Apr;90(1):87-94

Blockade of N-methyl-D-aspartate receptors in the insular cortex disrupts taste aversion and spatial memory formation. Gutiérrez H, et al. **Neuroscience** 1999 Mar; 89(3):751-8

Excitatory amino acid responses in relay neurons of the rat lateral geniculate nucleus. Harata N, et al. **Neuroscience** 1999 Mar;89(1):109-25

Spreading depression induces expression of calcium-independent protein kinase C subspecies in ischaemia-sensitive cortical layers: regulation by N-methyl-D-aspartate receptors and glucocorticoids. Koponen S, et al. **Neuroscience** 1999;93(3):985-93

Activation of spinal N-methyl-D-aspartate or neurokinin receptors induces long-term potentiation of spinal C-fibre-evoked potentials. Liu XG, et al. **Neuroscience** 1998 Oct;86(4):1209-16

Enhancement of glutamate release uncovers spillover-mediated transmission by N-methyl-D-aspartate receptors in the rat hippocampus. Lozovaya NA, et al. **Neuroscience** 1999;91(4):1321-30

N-methyl-D-aspartate receptor activation regulates refractoriness of status epilepticus to diazepam. Rice AC, et al. **Neuroscience** 1999;93(1):117-23

Learning-induced plasticity of N-methyl-D-aspartate receptors is task and region specific. Roullet P, et al. **Neuroscience** 1999;89(4):1145-50

Trigeminovascular nociceptive transmission involves N-methyl-D-aspartate and non-N-methyl-D-aspartate glutamate receptors. Storer RJ, et al. **Neuroscience** 1999; 90(4):1371-6

Expression of N-methyl-D-aspartate receptor-dependent long-term potentiation in the neostriatal neurons in an in vitro slice after ethanol withdrawal of the rat. Yamamoto Y, et al. **Neuroscience** 1999;91(1):59-68

Opposite modulation of cortical N-methyl-D-aspartate receptor-mediated responses by low and high concentrations of dopamine. Zheng P, et al. **Neuroscience** 1999;91(2):527-35

Sex differences in opioid and N-methyl-D-aspartate mediated non-opioid biting fly exposure induced analgesia in deer mice. Kavaliers M, et al. **Pain** 1998 Aug; 77(2):163-71

The importance of the number of NMDA receptors in the development of supersensitivity or tolerance to and dependence on morphine. Koyuncuoglu H, et al. **Pharmacol Res** 1999 Apr;39(4):311-9

Glycine and N-methyl-D-aspartate receptors: physiological significance and possible therapeutic applications. Danysz W, et al. **Pharmacol Rev** 1998 Dec;50(4):597-664 (806 ref.)

The NMDA antagonist model for schizophrenia: promise and pitfalls. Abi-Saab WM, et al. **Pharmacopsychiatry** 1998 Jul;

31 Suppl 2:104–9 (50 ref.)

NMDA receptors mediate lasting increases in anxiety-like behavior produced by the stress of predator exposure—implications for anxiety associated with posttraumatic stress disorder. Adamec RE, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):723–37

Unilateral block of NMDA receptors in the amygdala prevents predator stress-induced lasting increases in anxiety-like behavior and unconditioned startle—effective hemisphere depends on the behavior. Adamec RE, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):739–51

Influence of long-lasting administration of neuroleptics on cortical NMDA receptors and phencyclidine-induced deficit in the sensorimotor gating in rats. Ossowska K, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):49–53 (41 ref.)

Glycine/NMDA receptor and seizure phenomena. Wlaź P. **Pol J Pharmacol** 1999 Jan–Feb;51(1):98–100 (25 ref.)

Modulation of N-methyl-D-aspartate receptor function by glycine transport. Bergeron R, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15730–4

Prolonged activation of the N-methyl-D-aspartate receptor-Ca2+ transduction pathway causes spontaneous recurrent epileptiform discharges in hippocampal neurons in culture. DeLorenzo RJ, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14482–7

Calcium/calmodulin-dependent protein kinase II is associated with the N-methyl-D-aspartate receptor. Leonard AS, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3239–44

Src, a molecular switch governing gain control of synaptic transmission mediated by N-methyl-D-aspartate receptors. Yu XM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6; 96(14):7697–704 (118 ref.)

Why is the role of nitric oxide in NMDA receptor function and dysfunction so controversial? Aizenman E, et al. **Prog Brain Res** 1998;118:53–71 (106 ref.)

Synaptic plasticity in ischemia: role of NMDA receptors. Crépel V, et al. **Prog Brain Res** 1998;116:273–85 (110 ref.)

Mechanisms involved in development of retinotectal connections: roles of Eph receptor tyrosine kinases, NMDA receptors and nitric oxide. Ernst AF, et al. **Prog Brain Res** 1998;118:115–31 (131 ref.)

Modulation of NMDA receptors. MacDonald JF, et al. **Prog Brain Res** 1998;116:191–208 (133 ref.)

The synaptic pharmacology underlying sensory processing in the superior colliculus. Binns KE. **Prog Neurobiol** 1999 Oct;59(2):129–59 (172 ref.)

Plasticity in the tectum of Xenopus laevis: binocular maps. Udin SB, et al. **Prog Neurobiol** 1999 Oct;59(2):81–106 (162 ref.)

Subunit- and site-specific pharmacology of the NMDA receptor channel. Yamakura T, et al. **Prog Neurobiol** 1999 Oct;59(3):279–98 (263 ref.)

The discriminative stimulus effects of ethanol are mediated by NMDA and GABA(A) receptors in specific limbic brain regions. Hodge CW, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1–2):95–107

N-methyl-D-aspartate-mediated bulbospinal respiratory drive is pH/P(CO2)-insensitive in turtle brainstem-spinal cord. Johnson SM, et al. **Respir Physiol** 1998 Sep; 113(3):201–12

New clues to how neurons strengthen their connections [news; comment] Barinaga M. **Science** 1999 Jun 11; 284(5421):1755–7. Comment on: Science 1999 Jun 11;284(5421):1805–11. Comment on: Science 1999 Jun 11;284(5421):1811–6.

Rapid dendritic morphogenesis in CA1 hippocampal dendrites induced by synaptic activity [see comments] Maletic-Savatic M, et al. **Science** 1999 Mar 19; 283(5409):1923–7. Comment in: Science 1999 Mar 19;283(5409):1860–1.

Rapid spine delivery and redistribution of AMPA receptors after synaptic NMDA receptor activation [see comments] Shi SH, et al. **Science** 1999 Jun 11;284(5421):1811–6. Comment in: Science 1999 Jun 11;284(5421):1755–7.

Dissecting dendrite dynamics [comment] Smith SJ. **Science** 1999 Mar 19;283(5409):1860–1. Comment on: Science 1999 Mar 19;283(5409):1923–6.

Potent sigma1-receptor ligand 4-phenyl-1-(4-phenylbutyl) piperidine modulates basal and N-methyl-D-aspartate-evoked nitric oxide production in vivo. Bhardwaj A, et al. **Stroke** 1998 Nov;29(11):2404–10; discussion 2411

Role of muscarinic receptors, G-proteins, and intracellular messengers in muscarinic modulation of NMDA receptor-mediated synaptic transmission. Aramakis VB, et al. **Synapse** 1999 Jun 15;32(4):262–75

Glutamatergic synaptic responses and long-term potentiation are impaired in the CA1 hippocampal area of calbindin D(28k)-deficient mice. Jouvenceau A, et al. **Synapse** 1999 Sep 1;33(3):172–80

Facilitated NMDA receptor-mediated synaptic plasticity in the hippocampal CA1 area of dystrophin-deficient mice. Vaillend C, et al. **Synapse** 1999 Jul;33(1):59–70

Opiate and N-methyl-D-aspartate receptors in form-deprivation myopia. Fischer AJ, et al. **Vis Neurosci** 1998 Nov–Dec;15(6):1089–96

[Ca2+ permeation through the ionotropic glutamate receptor] Ozawa S. **Tanpakushitsu Kakusan Koso** 1998 Sep; 43(12 Suppl):1589–95 (29 ref.) **(Jpn)**

[Reciprocal suppression of the AMPA and NMDA components of the excitatory postsynaptic potentials in the CA1 area of the rat hippocampus in vitro] Bazhenov AV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep–Oct; 48(5):885–93 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Afferents from rat temporal cortex synapse on lateral amygdala neurons that express NMDA and AMPA receptors. Farb CR, et al. **Synapse** 1999 Sep 1;33(3):218–29

RECEPTORS, MINERALOCORTICOID

ANALYSIS

11Beta-hydroxysteroid dehydrogenase type 2 and mineralocorticoid receptor in human fetal development. Hirasawa G, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1453–8

Characterization of mineralocorticoid and glucocorticoid receptors in pigs: comparison of Meishan and Large White breeds. Perreau V, et al. **Life Sci** 1999;64(17):1501–15

ANTAGONISTS & INHIBITORS

Comparative inhibition by hard and soft metal ions of steroid-binding capacity of renal mineralocorticoid receptor cross-linked to the 90-kDa heat-shock protein heterocomplex. Galigniana MD, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):585–92

Adrenocorticotrophin-induced hypertension: effects of mineralocorticoid and glucocorticoid receptor antagonism. Li M, et al. **J Hypertens** 1999 Mar;17(3):419–26

Evaluation of RU28318 and RU40555 as selective mineralocorticoid receptor and glucocorticoid receptor antagonists, respectively: receptor measures and functional studies. Kim PJ, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(3):213–22

Corticosterone is permissive to the anxiolytic effect that results from the blockade of hippocampal mineralocorticoid receptors. Bitran D, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):879–87

Mineralocorticoid receptor blockade inhibits aggressive behaviour in male rats. Haller J, et al. **Stress** 1998 Jul; 2(3):201–7

BIOSYNTHESIS

Chronic amitriptyline treatment induces hippocampal NGFI-A, glucocorticoid receptor and mineralocorticoid receptor mRNA expression in rats. Johansson IM, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):92–5

DEFICIENCY

Rescue of the mineralocorticoid receptor knock-out mouse. Bleich M, et al. **Pflugers Arch** 1999 Aug;438(3):245–54

DRUG EFFECTS

Downregulation of brain mineralocorticoid and glucocorticoid receptor by antisense oligodeoxynucleotide treatment fails to alter spatial navigation in rats. Engelmann M, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):17–26

GENETICS

Expression of 11beta-hydroxysteroid dehydrogenase, glucocorticoid receptor, and mineralocorticoid receptor genes in rat ovary. Tetsuka M, et al. **Biol Reprod** 1999 Feb;60(2):330–5

Cloning of glucocorticoid receptor and mineralocorticoid receptor cDNA and gene expression in the central nervous system of the tree shrew (Tupaia belangeri). Meyer U, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):243–53

Coexpression of mineralocorticoid receptors and 11beta-hydroxysteroid dehydrogenase 2 in human gastric mucosa. Kato K, et al. **J Clin Endocrinol Metab** 1999 Jul; 84(7):2568–73

METABOLISM

Photoaffinity labelling of the human mineralocorticoid receptor with steroids having a reactive group at position 3, 18 or 21. Fagart J, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):35–44

Induction of mineralocorticoid receptor by sodium butyrate in small intestinal (IEC6) and colonic (T84) epithelial cell lines. Fukushima K, et al. **Dig Dis Sci** 1999 Aug; 44(8):1571–8

Mineralocorticoid hormone receptor and the epithelial sodium channel in a human leukemic cell line. Mirshahi M, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):455–9

Defense of adrenocorticosteroid receptor expression in rat hippocampus: effects of stress and strain. Herman JP, et al. **Endocrinology** 1999 Sep;140(9):3981–91

Plasticity of hippocampal corticosteroid receptors during aging in the rat. Hassan AH, et al. **FASEB J** 1999 Jan; 13(1):115–22

11Beta-hydroxysteroid dehydrogenase, mineralocorticoid receptor, and thiazide-sensitive Na-Cl cotransporter expression by distal tubules [published erratum appears in J Am Soc Nephrol 1998 Nov;9(11):2179] Bostanjoglo M, et al. **J Am Soc Nephrol** 1998 Aug;9(8):1347–58

Valine 571 functions as a regional organizer in programming the glucocorticoid receptor for differential binding of glucocorticoids and mineralocorticoids. Lind U, et al. **J Biol Chem** 1999 Jun 25;274(26):18515–23

Selective binding of steroid hormone receptors to octamer transcription factors determines transcriptional synergism at the mouse mammary tumor virus promoter. Prefontaine GG, et al. **J Biol Chem** 1999 Sep 17;274(38):26713–9

Expression of type 2 11beta-hydroxysteroid dehydrogenase and corticosteroid hormone receptors in early human fetal life. Condon J, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4490–7

Regulation of corticosteroid receptors in patients with anorexia nervosa and Cushing's syndrome. Armanini D, et al. **J Endocrinol** 1998 Sep;158(3):435–9

Corticosterone treatment differentially affects adrenocorticoid receptors expression and binding in the hippocampus and spinal cord of the rat. Patacchioli FR, et al. **J Mol Neurosci** 1998 Aug;11(1):95–103

Tautomycin inhibits phosphatase-dependent transformation of the rat kidney mineralocorticoid receptor. Piwien-Pilipuk G, et al. **Mol Cell Endocrinol** 1998 Sep 25; 144(1–2):119–30

Modulation of human mineralocorticoid receptor function by protein kinase A. Massaad C, et al. **Mol Endocrinol** 1999 Jan;13(1):57–65

PHYSIOLOGY

Brain mineralocorticoid receptor control of blood pressure and kidney function in normotensive rats. Rahmouni K, et al. **Hypertension** 1999 May;33(5):1201–6

15-Hydroxyprostaglandin dehydrogenase: Cinderella meets Prince Serendip [editorial; comment] Funder JW. **J Clin Endocrinol Metab** 1999 Feb;84(2):393–4. Comment on: J Clin Endocrinol Metab 1999 Feb;84(2):395–400.

11Beta-hydroxysteroid dehydrogenase type 2 in human lung: possible regulator of mineralocorticoid action. Suzuki T, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4022–5

Strain differences in corticosteroid receptor efficiencies and regulation in Brown Norway and Fischer 344 rats. Marissal-Arvy N, et al. **J Neuroendocrinol** 1999 Apr; 11(4):267–73

Effects of mineralocorticoid receptor gene disruption on the components of the renin-angiotensin system in 8-day-old mice. Hubert C, et al. **Mol Endocrinol** 1999 Feb; 13(2):297–306

Mineralocorticoid receptor also modulates basal activity of hypothalamus-pituitary-adrenocortical system in humans. Deuschle M, et al. **Neuroendocrinology** 1998 Nov; 68(5):355–60

Mineralocorticoid receptors regulate bcl-2 and p53 mRNA expression in hippocampus. McCullers DL, et al. **Neuroreport** 1998 Sep 14;9(13):3085–9

RECEPTORS, MITOGEN

ANALYSIS

Maturation-related changes in distribution of lectin receptors in baboon (Papio anubis) spermatozoa during epididymal maturation. Mburu DN. **Arch Androl** 1999 May–Jun; 42(3):199–203

Studies of lectin receptors of rat microglia in culture: receptor distribution and internalization. Wu CH, et al. **Exp Brain Res** 1999 Jan;124(1):89–99

Expression of leptin and its receptor in the human stomach [letter] Mix H, et al. **Gastroenterology** 1999 Aug;117(2):509

BIOSYNTHESIS

Expression of soluble VEGF receptor 2 and characterization of its binding by surface plasmon resonance. Huang X, et al. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):643–8

APCs express DCIR, a novel C-type lectin surface receptor containing an immunoreceptor tyrosine-based inhibitory motif. Bates EE, et al. **J Immunol** 1999 Aug 15; 163(4):1973–83

CHEMISTRY

Discoidin domain receptors: structural relations and functional implications. Vogel W. **FASEB J** 1999;13 Suppl:S77–82 (49 ref.)

Structure of CD94 reveals a novel C-type lectin fold: implications for the NK cell-associated CD94/NKG2 receptors. Boyington JC, et al. **Immunity** 1999 Jan; 10(1):75–82

GENETICS

Cloning of murine NKG2A, B and C: second family of C-type lectin receptors on murine NK cells. Lohwasser S, et al. **Eur J Immunol** 1999 Mar;29(3):755–61

Linkage of the NKG2 and CD94 receptor genes to D12S77 in the human natural killer gene complex. Sobanov Y, et al. **Immunogenetics** 1999 Feb;49(2):99–105

Characterization of the Arabidopsis lecRK-a genes: members of a superfamily encoding putative receptors with an extracellular domain homologous to legume lectins. Hervé C, et al. **Plant Mol Biol** 1999 Mar;39(4):671–82

ISOLATION & PURIFICATION

Isolation of the receptor for Amaranthus leucocarpus lectin from murine peritoneal macrophages. Gorocica P, et al. **Glycoconj J** 1998 Aug;15(8):809–14

Interaction of Azospirillum lipoferum with wheat germ agglutinin stimulates nitrogen fixation. Karpati E, et al. **J Bacteriol** 1999 Jul;181(13):3949–55

METABOLISM

Developmental changes in the distribution of cecal lectin–binding sites of Balb–c mice. Doehrn S, et al. **Acta Anat (Basel)** 1992;145(4):296–301

Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia–reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087–96

Application of fluorescence resonance energy transfer techniques to the study of lectin–binding site distribution on Paramecium primaurelia (Protista, Ciliophora) cell surface. Locatelli D, et al. **Eur J Histochem** 1998; 42(3):205–12

Discoidin domain receptors: structural relations and functional implications. Vogel W. **FASEB J** 1999;13 Suppl:S77–82 (49 ref.)

Localization of lectin–binding sites on the surface of Trypanosoma cruzi grown in chemically defined conditions. Bourguignon SC, et al. **Histochem Cell Biol** 1998 Nov;110(5):527–34

Immunohistochemical analysis of EGF–R in gastric mucosa in portal hypertensive with cirrhosis. Yang Z. **J Tongji Med Univ** 1997;17(4):232–4

PHYSIOLOGY

Mechanotransduction in response to shear stress. Roles of receptor tyrosine kinases, integrins, and Shc. Chen KD, et al. **J Biol Chem** 1999 Jun 25;274(26):18393–400

RECEPTORS, MORPHINE see **RECEPTORS, OPIOID, MU**

RECEPTORS, MU see **RECEPTORS, OPIOID, MU**

RECEPTORS, MU OPIOID see **RECEPTORS, OPIOID, MU**

RECEPTORS, MUSCARINIC

Muscarinic receptors and control of airway smooth muscle. Fryer AD, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 3):S154–60 (63 ref.)

Stereoselective synthesis of a new muscarinic M3 receptor antagonist, J–104129. Mitsuya M, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2037–8

In vivo imaging of muscarinic cholinergic receptors in temporal lobe epilepsy with a new PET tracer: [76Br]4–bromodexetimide. Dupont S, et al. **J Nucl Med** 1999 Jun;40(6):935–41

Proceedings of the 8th International Symposium on Subtypes of Muscarinic Receptors. Danvers, Massachusetts, USA. August 25–29, 1998. **Life Sci** 1999;64(6–7):355–596

Sabcomeline (SB–202026), a functionally selective M1 receptor partial agonist, reverses delay–induced deficits in the T–maze. Hatcher JP, et al. **Psychopharmacology (Berl)** 1998 Aug;138(3–4):275–82

AGONISTS see MUSCARINIC AGONISTS

ANALYSIS

Small intensely fluorescent cells of the rat paracervical ganglion synthesize adrenaline, receive afferent innervation from postganglionic cholinergic neurones, and contain muscarinic receptors. Prud'homme MJ, et al. **Brain Res** 1999 Mar 6;821(1):141–9

Characterization of muscarinic receptors in the human melanoma cell line SK–Mel–28 via calcium mobilization. Noda S, et al. **Cancer Lett** 1998 Nov 13;133(1):107–14

A study of myocardial muscarinic receptors in streptozotocin–induced diabetic rats using iodine–123 N–methyl–4–iododexetimide. Mardon K, et al. **Eur J Nucl Med** 1999 Jul;26(7):743–9

The presence of a muscarinic receptor on canine erythrocyte membranes. Dalefield RR, et al. **Gen Pharmacol** 1999 Mar; 32(3):341–4

Neuronal and non–neuronal cell populations of the avian dorsal root ganglia express muscarinic acetylcholine receptors. Bernardini N, et al. **Int J Dev Neurosci** 1998 Aug;16(5):365–77

Location of muscarinic type 2 receptors within the synaptic circuitry of the cat visual thalamus. Carden WB, et al. **J Comp Neurol** 1999 Aug 2;410(3):431–43

Radioligand binding assay of M1–M5 muscarinic cholinergic receptor subtypes in human peripheral blood lymphocytes. Tayebati SK, et al. **J Neuroimmunol** 1999 Oct 29; 99(2):224–9

Reduction in choline acetyltransferase immunoreactivity but not muscarinic–m2 receptor immunoreactivity in the brainstem of SIDS infants. Mallard C, et al. **J Neuropathol Exp Neurol** 1999 Mar;58(3):255–64

Detection of muscarinic receptors in the human lung using PET. Visser TJ, et al. **J Nucl Med** 1999 Aug;40(8):1270–6

Muscarinic receptor subtypes involved in hippocampal circuits. Rouse ST, et al. **Life Sci** 1999;64(6–7):501–9 (43 ref.)

Muscarinic cholinergic receptors in human narcolepsy: a PET study. Sudo Y, et al. **Neurology** 1998 Nov; 51(5):1297–302

Muscarinic M2–receptors in rat thoracic dorsal root ganglia. Haberberger R, et al. **Neurosci Lett** 1999 May 14; 266(3):177–80

Muscarinic acetylcholine receptors in the hippocampus, neocortex and amygdala: a review of immunocytochemical localization in relation to learning and memory. van der Zee EA, et al. **Prog Neurobiol** 1999 Aug;58(5):409–71 (620 ref.)

ANTAGONISTS & INHIBITORS see MUSCARINIC ANTAGONISTS

BIOSYNTHESIS

Amygdala–kindled and electroconvulsive seizures alter hippocampal expression of the m1 and m3 muscarinic cholinergic receptor genes. Mingo NS, et al. **Brain Res** 1998 Nov 9;810(1–2):9–15

Differential expression of the muscarinic m2 acetylcholine receptor by small and large motoneurons of the rat spinal cord. Welton J, et al. **Brain Res** 1999 Jan 30;817(1–2):215–9

Functional muscarinic m3 receptor expressed in gastric cancer cells stimulates tyrosine phosphorylation and MAP kinase. Kodaira M, et al. **J Gastroenterol** 1999 Apr; 34(2):163–71

Differential effects of traumatic brain injury on vesicular acetylcholine transporter and M2 muscarinic receptor mRNA and protein in rat. Shao L, et al. **J Neurotrauma** 1999 Jul;16(7):555–66

Diversity of mRNA expression for muscarinic acetylcholine receptor subtypes and neuronal nicotinic acetylcholine receptor subunits in human mononuclear leukocytes and leukemic cell lines. Sato KZ, et al. **Neurosci Lett** 1999 Apr 30;266(1):17–20

Expression of the rat muscarinic receptor gene m3 in Dictyostelium discoideum. Voith G, et al. **Pharmazie** 1998 Oct;53(10):707–10

CHEMISTRY

The conformational switch in 7–transmembrane receptors: the muscarinic receptor paradigm. Hulme EC, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):247–60 (83 ref.)

Identification and molecular characterization of m3 muscarinic receptor dimers. Zeng FY, et al. **J Biol Chem** 1999 Jul 2;274(27):19487–97

Use of a disulfide cross–linking strategy to study muscarinic receptor structure and mechanisms of activation. Zeng FY, et al. **J Biol Chem** 1999 Jun 4;274(23):16629–40

Conserved extracellular cysteine pair in the M3 muscarinic acetylcholine receptor is essential for proper receptor cell surface localization but not for G protein coupling. Zeng FY, et al. **J Neurochem** 1999 Jun;72(6):2404–14

Scanning mutagenesis of transmembrane domain 3 of the M1 muscarinic acetylcholine receptor. Hulme EC, et al. **J Physiol Paris** 1998 Jun–Aug;92(3–4):269–74 (15 ref.)

Structure–function analysis of muscarinic acetylcholine receptors. Kostenis E, et al. **J Physiol Paris** 1998 Jun–Aug; 92(3–4):265–8 (22 ref.)

CLASSIFICATION

Distribution of muscarinic receptor subtypes in rat small intestine. Stadelmann AM, et al. **J Surg Res** 1998 Dec; 80(2):320–5

Affinities of brompheniramine, chlorpheniramine, and terfenadine at the five human muscarinic cholinergic receptor subtypes. Yasuda SU, et al. **Pharmacotherapy** 1999 Apr;19(4):447–51

Assignment of muscarinic receptor subtypes mediating G–protein modulation of Ca(2+) channels by using knockout mice. Shapiro MS, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10899–904

Characterization of muscarinic receptors in rat bronchial smooth muscle in vitro. Chiba Y, et al. **Res Commun Mol Pathol Pharmacol** 1998 Nov;102(2):205–8

DRUG EFFECTS

Participation of M1 receptors in NO pathway in cat ileum. Kortezova N, et al. **Acta Physiol Pharmacol Bulg** 1998; 23(1):1–4

Chronic ethanol exposure enhances signaling through muscarinic receptors expressed by cRNA injection in Xenopus oocytes: implications for mechanism of action. Hönemann CW, et al. **Alcohol Clin Exp Res** 1999 May; 23(5):791–8

Selectivity of oxomemazine for the M1 muscarinic receptors. Lee SW, et al. **Arch Pharm Res** 1994 Dec;17(6):443–51

Binding profiles of a series of 2–arylpropionic acid esters on cloned human muscarinic receptor subtypes (m1–m5) and their relationship to nootropic activity. Ghelardini C, et al. **Arzneimittelforschung** 1999 Jun;49(6):483–8

Muscarinic cholinergic receptor signal transduction as a potential target for the developmental neurotoxicity of ethanol. Costa LG, et al. **Biochem Pharmacol** 1999 Apr 1;57(7):721–6 (76 ref.)

Wild–type NM23–H1, but not its S120 mutants, suppresses desensitization of muscarinic potassium current. Otero AS, et al. **Biochim Biophys Acta** 1999 Mar 8;1449(2):157–68

Identification and characterization of m4 selective muscarinic antagonists. Augelli–Szafran CE, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):1991–6

Volatile anaesthetics have differential effects on recombinant m1 and m3 muscarinic acetylcholine receptor function. Nietgen GW, et al. **Br J Anaesth** 1998 Oct;81(4):569–77

Characterization of an atypical muscarinic cholinoceptor mediating contraction of the guinea–pig isolated uterus. Boxall DK, et al. **Br J Pharmacol** 1998 Aug;124(8):1615–22

Interaction of neuromuscular blocking drugs with recombinant human m1–m5 muscarinic receptors expressed in Chinese hamster ovary cells. Cembala TM, et al. **Br J Pharmacol** 1998 Nov;125(5):1088–94

Characterization of the muscarinic receptor in isolated uterus of sham operated and ovariectomized rats. Choppin A, et al. **Br J Pharmacol** 1999 Aug;127(7):1551–8

Effects of tachykinin NK1 receptor antagonists on vagal hyperreactivity and neuronal M2 muscarinic receptor function in antigen challenged guinea–pigs. Costello RW, et al. **Br J Pharmacol** 1998 May;124(2):267–76

The profile of sabcomeline (SB–202026), a functionally selective M1 receptor partial agonist, in the marmoset. Harries MH, et al. **Br J Pharmacol** 1998 May;124(2):409–15

Roles of threonine 192 and asparagine 382 in agonist and antagonist interactions with M1 muscarinic receptors. Huang XP, et al. **Br J Pharmacol** 1999 Feb;126(3):735–45

Subtype–selective inhibition of [methyl–3H]–N–methylscopolamine binding to muscarinic receptors by alpha–truxillic acid esters. Lysiková M, et al. **Br J Pharmacol** 1999 Jul;127(5):1240–6

Nitric oxide–dependent relaxation induced by M1 muscarinic receptor activation in the rat small intestine. Olgart C, et al. **Br J Pharmacol** 1999 May;127(1):309–13

Comparative pharmacology of recombinant human M3 and M5 muscarinic receptors expressed in CHO–K1 cells. Watson N, et al. **Br J Pharmacol** 1999 May;127(2):590–6

Functional comparison of muscarinic partial agonists at muscarinic receptor subtypes hM1, hM2, hM3, hM4 and hM5 using microphysiometry. Wood MD, et al. **Br J Pharmacol** 1999 Apr;126(7):1620–4

Occlusive responses to adenosine A1 receptor and muscarinic M2 receptor activation on hippocampal presynaptic terminals. Nikbakht MR, et al. **Brain Res** 1999 May 22; 829(1–2):193–6

Prevention of morphine–induced muscarinic (M2) receptor adaptation suppresses the expression of withdrawal symptoms. Zhang LC, et al. **Brain Res** 1998 Aug 24; 803(1–2):114–21

Synthesis and biological evaluation of 1,2,3,4–tetrahydroisoquinoline derivatives as potent and selective M2 muscarinic receptor antagonists. Watanabe T, et al. **Chem Pharm Bull (Tokyo)** 1999 May;47(5):672–7

Modulation by nicotine on muscarinic receptor–effector systems. Wang H. **Chung Kuo Yao Li Hsueh Pao** 1997 May; 18(3):193–7 (25 ref.)

Effects of carbaryl, permethrin, 4–nonylphenol, and copper on muscarinic cholinergic receptors in brain of surrogate and listed fish species. Jones SB, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Oct;120(3):405–14

M3/M1–Selective antimuscarinic tropinyl and piperidinyl esters. Xu R, et al. **Eur J Pharm Sci** 1999 Apr;8(1):39–47

Unexpected antipsychotic–like activity with the muscarinic receptor ligand (5R,6R)6–(3–propylthio–1,2,5–thiadiazol–4–yl)–1–azabicyclo[3.2.1]octane . Bymaster FP, et al. **Eur J Pharmacol** 1998 Sep 4;356(2–3):109–19

Characterization of the muscarinic receptor subtype mediating pilocarpine–induced tremulous jaw movements in rats. Mayorga AJ, et al. **Eur J Pharmacol** 1999 Jan 1; 364(1):7–11

Clozapine interaction with the M2 and M4 subtypes of muscarinic receptors. Michal P, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):119–25

Direct pharmacological comparison of the muscarinic receptors mediating relaxation and contraction in the rabbit thoracic aorta. Sawyer BD, et al. **Gen Pharmacol** 1999 Apr; 32(4):445–52

Muscarinic receptor subtype involvement in brain cholinergic stimulation by intracerebroventricular neostigmine in sinoaortic denervated rats. Taira CA. **Gen Pharmacol** 1998 Oct;31(4):583–8

Partial characterization of endogenous modulators of muscarinic acetylcholine receptors in human frontal cortex. Santos NE, et al. **Invest Clin** 1999 Jun;40(2):109–25

Pharmacologic study of muscarinic receptor subtypes and arteriolar dilations: a comparison of conducted and local responses. Rivers RJ. **J Cardiovasc Pharmacol** 1999 Mar; 33(3):388–93

1–(1,2,5–Thiadiazol–4–yl)–4–azatricyclo[2.2.1.0(2,6)]heptanes as new potent muscarinic M1 agonists: structure–activity relationship for 3–aryl–2–propyn–1–yloxy and 3–aryl–2–propyn–1–ylthio derivatives. Jeppesen L, et al. **J Med Chem** 1999 Jun 3;42(11):1999–2006

Lead generation using pharmacophore mapping and three–dimensional database searching: application to muscarinic M(3) receptor antagonists. Marriott DP, et al. **J Med Chem** 1999 Aug 26;42(17):3210–6

Nerve growth factor preserves a critical motor period in rat striatum. Wolansky MJ, et al. **J Neurobiol** 1999 Jan; 38(1):129–36

Determination of [35S]guanosine–5'–O–(3–thio)triphosphate binding mediated by cholinergic muscarinic receptors in membranes from Chinese hamster ovary cells and rat striatum using an anti–G protein scintillation proximity

assay. DeLapp NW, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):946–55

A simple method for estimation of agonist activity at receptor subtypes: comparison of native and cloned M3 muscarinic receptors in guinea pig ileum and transfected cells. Ehlert FJ, et al. **J Pharmacol Exp Ther** 1999 May;289(2):981–92

Development of muscarinic analgesics derived from epibatidine: role of the M4 receptor subtype [published erratum appears in J Pharmacol Exp Ther 1999 May;289(2):1184] Ellis JL, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1143–50

Characterization of prejunctional and postjunctional muscarinic receptors of the ascending reflex contraction in rat ileum. Kurjak M, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):893–900

Comparison of functional antagonism between isoproterenol and M2 muscarinic receptors in guinea pig ileum and trachea. Ostrom RS, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):969–76

Inhibition of beta(2)-adrenergic and muscarinic cholinergic receptor endocytosis after depletion of phosphatidylinositol bisphosphate. Sorensen SD, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):603–10

Muscarinic IPSPs in rat striatal cholinergic interneurones. Calabresi P, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):421–7

Heterologous expression and coupling of G protein-gated inwardly rectifying K+ channels in adult rat sympathetic neurons. Ruiz-Velasco V, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):761–73

Positive effects of allosteric modulators on the binding properties and the function of muscarinic acetylcholine receptors. Tuček S, et al. **J Physiol Paris** 1998 Jun–Aug; 92(3–4):241–3 (28 ref.)

Pre-clinical and clinical pharmacology of selective muscarinic M3 receptor antagonists. Wallis RM. **Life Sci** 1995;56(11–12):861–8

Effects of lithium, alone or associated with pilocarpine, on muscarinic and dopaminergic receptors and on phosphoinositide metabolism in rat hippocampus and striatum. Marinho MM, et al. **Neurochem Int** 1998 Oct; 33(4):299–306

Nitric oxide modulates muscarinic acetylcholine receptor binding in the cerebral cortex of gerbils. Gómez-Vargas M, et al. **Neurochem Res** 1999 May;24(5):629–35

Lesion of septal-hippocampal neurons with 192 IgG-saporin alters function of M1 muscarinic receptors. Potter PE, et al. **Neuropharmacology** 1999 Apr;38(4):579–86

Cholinergic excitation of dendrites in neocortical neurons. Mednikova YS, et al. **Neuroscience** 1998 Dec;87(4):783–96

Increased muscarinic receptor blockade by atropine in tracheal chains of ovalbumin-sensitized guinea pigs. Boskabady MH, et al. **Pharmacology** 1999 Jun;58(6):300–8

In vivo muscarinic cholinergic mediated effects of Lu 25–109, a M1 agonist and M2/M3 antagonist in vitro. Sánchez C, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):233–40

Antagonism by olanzapine of dopamine D1, serotonin2, muscarinic, histamine H1 and alpha 1-adrenergic receptors in vitro. Bymaster FP, et al. **Schizophr Res** 1999 May 4; 37(1):107–22

Comparative neurochemical effects of repeated methyl parathion or chlorpyrifos exposures in neonatal and adult rats. Liu J, et al. **Toxicol Appl Pharmacol** 1999 Jul 15; 158(2):186–96

Conformational transitions of the nicotinic acetylcholine receptor as a model for anesthetic actions on ligand-gated ion channels: single and sequential mixing stopped-flow fluorescence studies. Raines DE. **Toxicol Lett** 1998 Nov 23;100–101:163–8 (19 ref.)

Effects of a centipede venom fraction on insect nervous system, a native Xenopus oocyte receptor and on an expressed Drosophila muscarinic receptor. Stankiewicz M, et al. **Toxicon** 1999 Oct;37(10):1431–45

[Effects of propiverine hydrochloride (propiverine) on the muscarinic receptor binding affinity in guinea pig tissues and on salivation in conscious dogs] Nagao M, et al. **Nippon Yakurigaku Zasshi** 1999 Mar;113(3):157–66 (Eng. Abstr.) **(Jpn)**

[The antiparkinson activity of muscarinic antagonists depending on their selectivity for individual m-cholinoreceptor subtypes] Kosmachev AB, et al. **Eksp Klin Farmakol** 1998 Sep–Oct;61(5):3–5 (Eng. Abstr.) **(Rus)**

[Effect of prednisolone on the gastric juice basal secretion during blockade of M-cholinoreceptors by gastrozepin in rats] Trefilov AB. **Ross Fiziol Zh Im I M Sechenova** 1999 Feb;85(2):323–7 (Eng. Abstr.) **(Rus)**

GENETICS

Expression of mRNA encoding muscarinic receptor subtypes in neutrophils of patients with rheumatoid arthritis. Bany U, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:301–4

Double mutant cycle analysis of aspartate 69, 97, and 103 to asparagine mutants in the m2 muscarinic acetylcholine receptor. Vogel WK, et al. **Arch Biochem Biophys** 1999 Jan 15;361(2):283–94

Neuronal expression of the rat M1 muscarinic acetylcholine receptor gene is regulated by elements in the first exon. Wood IC, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):475–83

Effect of N-glycosylation on production of the rat m3 muscarinic acetylcholine receptor in baculovirus-infected insect cells. Behr J, et al. **Biochem Soc Trans** 1998 Nov; 26(4):704–9

Cytosolic phospholipase A2 (cPLA2) distribution in murine brain and functional studies indicate that cPLA2 does not participate in muscarinic receptor-mediated signaling in neurons. Lautens LL, et al. **Brain Res** 1998 Oct 26; 809(1):18–30

Amygdala-kindled and electroconvulsive seizures alter hippocampal expression of the m1 and m3 muscarinic cholinergic receptor genes. Mingo NS, et al. **Brain Res** 1998 Nov 9;810(1–2):9–15

Expression of muscarinic m2 receptor mRNA in dorsal root ganglia of neonatal rat. Tata AM, et al. **Brain Res** 1999 Apr 3;824(1):63–70

Antisense oligodeoxynucleotides against the muscarinic m2, but not m4, receptor supports its role as autoreceptors in the rat hippocampus. Kitaichi K, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):98–106

Tyrosines 905 and 915 of gp130 are required for maximum induction of m2 muscarinic acetylcholine receptor and VIP gene transcription by cytokines in neuronal cells. Rosoff ML, et al. **Cell Mol Neurobiol** 1999 Apr;19(2):289–96

Functional and molecular characterization of a muscarinic receptor type · and evidence for expression of choline-acetyltransferase and vesicular acetylcholine transporter in human granulosa-luteal cells. Fritz S, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1744–50

Identification and characterization of the rat M1 muscarinic receptor promoter. Klett CP, et al. **J Neurochem** 1999 Mar; 72(3):900–9

Cloning and expression of a G protein-linked acetylcholine receptor from Caenorhabditis elegans. Lee YS, et al. **J Neurochem** 1999 Jan;72(1):58–65

Functional characterization and potential applications for enhanced green fluorescent protein- and epitope-fused human M1 muscarinic receptors. Weill C, et al. **J Neurochem** 1999 Aug;73(2):791–801

Relative amounts of mRNA encoding four subtypes of muscarinic receptors (m2–m5) in human peripheral blood mononuclear cells. Bany U, et al. **J Neuroimmunol** 1999 Jun 1;97(1–2):191–5

Effect of continuous administration of a cholinergic agonist on [3H]4-DAMP binding and m3 mRNA expression in cultured human ciliary muscle cells. Zhang X, et al. **J Ocul Pharmacol Ther** 1999 Apr;15(2):153–63

Molecular cloning of m3 muscarinic acetylcholine receptor in rat iris. Furuta M, et al. **J Smooth Muscle Res** 1998 Jun;34(3):111–22

Repression and activation of muscarinic receptor genes. Buckley NJ, et al. **Life Sci** 1999;64(6–7):495–9 (25 ref.)

Molecular analysis of the regulation of muscarinic receptor expression and function. Hamilton SE, et al. **Life Sci** 1995; 56(11–12):939–43 (10 ref.)

Molecular analysis of the regulation of muscarinic receptor expression and function. Nadler LS, et al. **Life Sci** 1999; 64(6–7):375–9 (18 ref.)

Control elements of muscarinic receptor gene expression. Saffen D, et al. **Life Sci** 1999;64(6–7):479–86 (32 ref.)

Antisense 'knockdowns' of M1 receptors induces transient anterograde amnesia in mice. Ghelardini C, et al. **Neuropharmacology** 1999 Mar;38(3):339–48

Limited inhibition of 5-HT1A receptor expression in the rat brain by antisense RNA and oligodesoxynucleotides. Sari Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):191–5

Identification of genes regulated by muscarinic acetylcholine receptors: application of an improved and statistically comprehensive mRNA differential display technique. von der Kammer H, et al. **Nucleic Acids Res** 1999 May 15; 27(10):2211–8

IMMUNOLOGY

Screening of serum autoantibodies to cardiac beta1-adrenoceptors and M2-muscarinic acetylcholine receptors in 408 healthy subjects of varying ages. Liu HR, et al. **Autoimmunity** 1999;29(1):43–51

Activation of nitric oxide signaling through muscarinic receptors in submandibular glands by primary Sjögren syndrome antibodies. Pérez Leirós C, et al. **Clin Immunol** 1999 Feb;90(2):190–5

Cardiac M(2) muscarinic cholinoceptor activation by human chagasic autoantibodies: association with bradycardia. Goin JC, et al. **Heart** 1999 Sep;82(3):273–8

Relative amounts of mRNA encoding four subtypes of muscarinic receptors (m2–m5) in human peripheral blood mononuclear cells. Bany U, et al. **J Neuroimmunol** 1999 Jun 1;97(1–2):191–5

Radioligand binding assay of M1–M5 muscarinic cholinergic receptor subtypes in human peripheral blood lymphocytes. Tayebati SK, et al. **J Neuroimmunol** 1999 Oct 29; 99(2):224–9

Autoantibodies against M2 muscarinic receptors in patients with cardiomyopathy display non-desensitized agonist-like effects. Wallukat G, et al. **Life Sci** 1999;64(6–7):465–9

ISOLATION & PURIFICATION

Purification of recombinant M1 muscarinic acetylcholine receptor. Hulme EC, et al. **Biochem Soc Trans** 1998 Nov; 26(4):S361

METABOLISM

Chronic ethanol exposure enhances signaling through muscarinic receptors expressed by cRNA injection in Xenopus oocytes: implications for mechanism of action. Hönemann CW, et al. **Alcohol Clin Exp Res** 1999 May; 23(5):791–8

Muscarinic acetylcholine receptor (mAChR) inhibitor from snake venom: interaction with subtypes of human mAChR. Miyoshi S, et al. **Arch Biochem Biophys** 1999 Sep 1; 369(1):114–8

Differential coupling of G alpha q family of G-protein to muscarinic M1 receptor and neurokinin-2 receptor. Lee CH, et al. **Arch Pharm Res** 1998 Aug;21(4):423–8

Synthesis and potential muscarinic receptor binding and antioxidant properties of 3-(thiadiazolyl)pyridine 1-oxide compounds. Martinez A, et al. **Arch Pharm (Weinheim)** 1999 Jun;332(6):191–4

Millisecond analyses of Ca2+ initiation sites evoked by muscarinic receptor stimulation in exocrine acinar cells. Takemura H, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):656–60

Role of nitric oxide production through M2-cholinergic receptors in cultured rat ventricular myocytes. Yamamoto S, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):791–5

Muscarinic M3 and epidermal growth factor receptors activate mutually inhibitory signaling cascades in human neuroblastoma SH-SY5Y cells. Zhang L, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):774–7

Signalling pathway leading to an activation of mitogen-activated protein kinase by stimulating M3 muscarinic receptor. Kim JY, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):275–80

Agonist-induced desensitization and phosphorylation of m1-muscarinic receptors. Waugh MG, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):175–83

Regulation of extracellular-signal regulated kinase and c-Jun N-terminal kinase by G-protein-linked muscarinic acetylcholine receptors. Wylie PG, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):619–28

Characterization of the subtype selectivity of the allosteric modulator heptane-1,7-bis-(dimethyl-3'-phthalimidopropyl) ammonium bromide (C7/3-phth) at cloned muscarinic acetylcholine receptors. Christopoulos A, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):171–9

Competitive and allosteric interactions of 6-chloro-5,10-dihydro-5-[(1-methyl-4-piperidinyl) acetyl]-11H-di benzo[b,e][1, 4]diazepine-11-one hydrochloride (UH-AH 37) at muscarinic receptors, via distinct epitopes. Ellis J, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):181–6

Effects of 1H-[1,2,4]oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) and Nomega(6)-nitro-L-arginine methyl ester (NAME) on cyclic GMP levels during muscarinic activation of tracheal smooth muscle. Guerra de González L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):563–9

Discovery of a highly potent, functionally-selective muscarinic M1 agonist, WAY-132983 using rational drug design and receptor modelling. Sabb AL, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1895–900

Identification of side chains on 1,2,5-thiadiazole-azacycles optimal for muscarinic m1 receptor activation. Sauerberg P, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2897–902

Gbetagamma binding increases the open time of IKACh: kinetic evidence for multiple Gbetagamma binding sites. Nemec J, et al. **Biophys J** 1999 Jan;76(1 Pt 1):246–52

Evidence for nitric oxide mediated effects on islet hormone secretory phospholipase C signal transduction mechanisms. Akesson B, et al. **Biosci Rep** 1998 Aug;18(4):199–213

Inhibition of GTPase activity of Gi proteins and decreased agonist affinity at M2 muscarinic acetylcholine receptors by spermine and methoctramine. Daeffler L, et al. **Br J Pharmacol** 1999 Jun;127(4):1021–9

Inverse agonist activity of pirenzepine at M2 muscarinic acetylcholine receptors. Daeffler L, et al. **Br J Pharmacol** 1999 Mar;126(5):1246–52

Calcium channels involved in the inhibition of acetylcholine release by presynaptic muscarinic receptors in rat striatum. Dolezal V, et al. **Br J Pharmacol** 1999 Aug;127(7):1627–32

Modulation of chloride, potassium and bicarbonate transport by muscarinic receptors in a human adenocarcinoma cell line. Holliday ND, et al. **Br J Pharmacol** 1999 Jan; 126(1):269–79

Frequency dependence of muscarinic facilitation of transmitter release in urinary bladder strips from neurally intact or chronic spinal cord transected rats. Somogyi GT, et al. **Br J Pharmacol** 1998 Sep;125(2):241–6

Regulation of acetylcholine binding by ATP at the muscarinic M(1) receptor in intact CHO cells. Grant MK, et al. **Brain Res** 1999 Aug 21;839(1):94–9

Amnesic effects of the anticholinergic drugs, trihexyphenidyl and biperiden: differences in binding properties to the brain muscarinic receptor. Kimura Y, et al. **Brain Res** 1999 Jul 10;834(1–2):6–12

Increased density of M1 receptors in the hippocampus of juvenile rats chronically deprived of NGF. Rosati AM, et al. **Brain Res** 1999 Jan 9;815(2):185–91

Structural correlates for down-regulation of m1 and m2 muscarinic receptor subtypes. Malatynska E, et al. **Brain Res Bull** 1998 Oct;47(3):285–90

Arachidonic acid release in cell lines transfected with muscarinic receptors: a simple functional assay to determine response of agonists. Bymaster FP, et al. **Cell Signal** 1999 Jun;11(6):405–13

Muscarinic and nicotinic receptor-mediated Ca2+ dynamics in rat adrenal chromaffin cells during development. Oomori Y, et al. **Cell Tissue Res** 1998 Oct;294(1):109–23

Cholinergic neurons of the pelvic autonomic ganglia and uterus of the female rat: distribution of axons and presence of muscarinic receptors. Papka RE, et al. **Cell Tissue Res** 1999 May;296(2):293–305

Effects of chronic exercise on muscarinic receptor-mediated vasodilation in rats. Chen HI, et al. **Chin J Physiol** 1998 Sep 30;41(3):161–6

Stereoisomers of 3-(2,3-dihydrobenzofuran-2-yl)quinuclidine: preparation and muscarinic receptor affinities. Johansson G, et al. **Chirality** 1998;10(9):813–20

Modulation by nicotine on binding of cerebral muscarinic receptors with muscarinic agonist and antagonist. Wang H, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):497–9

Interaction of viral infections with muscarinic receptors. Jacoby DB, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:59–64 (41 ref.)

Activation of nitric oxide signaling through muscarinic receptors in submandibular glands by primary Sjögren syndrome antibodies. Pérez Leirós C, et al. **Clin Immunol** 1999 Feb;90(2):190–5

3-Dimensional anatomic relationship of serotonergic and muscarinic receptor binding in the pontine reticular formation of the human infant brainstem. Panigrahy A, et al. **Clin Neuropathol** 1998 Nov-Dec;17(6):318–25

Tyrosine kinase Pyk2 mediates G-protein-coupled receptor regulation of the Ewing sarcoma RNA-binding protein EWS. Felsch JS, et al. **Curr Biol** 1999 May 6;9(9):485–8

Human primary Sjögren's syndrome autoantibodies as mediators of nitric oxide release coupled to lacrimal gland muscarinic acetylcholine receptors. Bacman SR, et al. **Curr Eye Res** 1998 Dec;17(12):1135–42

Muscarinic receptor ligands and their therapeutic potential. Eglen RM, et al. **Curr Opin Chem Biol** 1999 Aug; 3(4):426–32 (43 ref.)

Receptor protein tyrosine phosphatase alpha participates in the m1 muscarinic acetylcholine receptor-dependent regulation of Kv1.2 channel activity. Tsai W, et al. **EMBO J** 1999 Jan 4;18(1):109–18

Muscarinic receptor loss and preservation of presynaptic cholinergic terminals in hippocampal sclerosis. Pennell PB, et al. **Epilepsia** 1999 Jan;40(1):38–46

Antagonist binding profile of the split chimeric muscarinic m2-trunc/m3-tail receptor. Barbier P, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):267–74

Use of a spreadsheet to quantitate the equilibrium binding of an allosteric modulator. Christopoulos A, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):103–11

Muscarinic regulation of Ca2+ signaling in mammalian atrial and ventricular myocardium. Endoh M. **Eur J Pharmacol** 1999 Jun 30;375(1-3):177–96 (104 ref.)

The role of protein kinase C alpha and epsilon isozymes in DNA synthesis induced by muscarinic receptors in a glial cell line. Guizzetti M, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):223–33

Muscarinic receptor subtypes in the porcine lung during postnatal development. Hislop AA, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):211–21

Muscarinic interactions of bisindolylmaleimide analogues. Lazareno S, et al. **Eur J Pharmacol** 1998 Nov 6; 360(2-3):281–4

Effects of extracellular acetylcholine on muscarinic receptor binding assessed by [125I]dexetimide and a simple probe. Sánchez-Roa PM, et al. **Eur J Pharmacol** 1998 Oct 9; 358(3):207–11

Differential regulation of muscarinic M1 and M3 receptors by a putative phosphorylation domain. Shockley MS, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):137–46

Distinct mechanisms for the endocytosis of muscarinic receptors and Gq/11. Sorensen SD, et al. **Eur J Pharmacol** 1999 May 21;372(3):325–8

Activation of transfected M1 or M3 muscarinic acetylcholine receptors induces cell-cell adhesion of Chinese hamster ovary cells expressing endogenous cadherins. Shafer SH, et al. **Exp Cell Res** 1999 Apr 10;248(1):148–59

Reduced high-affinity agonist binding at the M(1) muscarinic receptor in Alzheimer's disease brain: differential sensitivity to agonists and divalent cations. Ladner CJ, et al. **Exp Neurol** 1999 Aug;158(2):451–8

Alzheimer's disease: relationship between muscarinic cholinergic receptors, beta-amyloid and tau proteins. Pavia J, et al. **Fundam Clin Pharmacol** 1998;12(5):473–81 (99 ref.)

Subtypes of muscarinic receptors in rat duodenum: a comparison with rabbit vas deferens, rat atria, guinea-pig ileum and gallbladder by using imperialine. Akbulut H, et al. **Gen Pharmacol** 1999 Apr;32(4):505–11

Protein kinase C regulates NO-cGMP pathway in muscarinic receptor activation by HIV+-IgA. Sales ME, et al. **Int J Mol Med** 1999 Jun;3(6):633–7

Muscarinic acetylcholine receptor antagonists inhibit chick scleral chondrocytes. Lind GJ, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2217–31

Evidence for the presence of muscarinic M2 and M4 receptors in guinea-pig gallbladder smooth muscle. Oktay S, et al. **J Auton Pharmacol** 1998 Aug;18(4):195–204

Peripheral blood lymphocyte muscarinic cholinergic receptors in airway hyperresponsiveness: a marker of cholinergic dysfunction? Ricci A, et al. **J Auton Pharmacol** 1998 Aug;18(4):251–5

Activation of the mitogen-activated protein kinase pathway by a Gq/11-coupled muscarinic receptor is independent of receptor internalization. Budd DC, et al. **J Biol Chem** 1999 Apr 30;274(18):12355–60

A dominant-negative strategy for studying roles of G proteins in vivo. Gilchrist A, et al. **J Biol Chem** 1999 Mar 5;274(10):6610–6

Use of a sandwich enzyme-linked immunosorbent assay strategy to study mechanisms of G protein-coupled receptor assembly. Jakubik J, et al. **J Biol Chem** 1999 Jan 15;274(3):1349–58

The functional topography of transmembrane domain 3 of the M1 muscarinic acetylcholine receptor, revealed by scanning mutagenesis. Lu ZL, et al. **J Biol Chem** 1999 Mar 12;274(11):7309–15

Evidence for a functional interaction between integrins and G protein-activated inward rectifier K+ channels. McPhee JC, et al. **J Biol Chem** 1998 Dec 25; 273(52):34696–702

Receptor-independent activation of atrial muscarinic potassium channels in the absence of nucleotides. Otero AS, et al. **J Biol Chem** 1998 Oct 30;273(44):28868–72

M3 muscarinic acetylcholine receptors regulate cytoplasmic myosin by a process involving RhoA and requiring conventional protein kinase C isoforms. Strassheim D, et al. **J Biol Chem** 1999 Jun 25;274(26):18675–85

Regulation of muscarinic acetylcholine receptor sequestration and function by beta-arrestin. Vögler O, et al. **J Biol Chem** 1999 Apr 30;274(18):12333–8

Coupling of M2 muscarinic receptors to membrane ion channels via phosphoinositide 3-kinase gamma and atypical protein kinase C. Wang YX, et al. **J Biol Chem** 1999 May 14;274(20):13859–64

Use of a disulfide cross-linking strategy to study muscarinic receptor structure and mechanisms of activation. Zeng FY, et al. **J Biol Chem** 1999 Jun 4;274(23):16629–40

Acute exercise enhances receptor-mediated endothelium-dependent vasodilation by receptor upregulation. Cheng L, et al. **J Biomed Sci** 1999 Jan; 6(1):22–7

Activation of muscarinic receptors in porcine airway smooth muscle elicits a transient increase in phospholipase D activity. Mamoon AM, et al. **J Biomed Sci** 1999 Mar-Apr; 6(2):97–105

Human skin fibroblasts express m2, m4, and m5 subtypes of muscarinic acetylcholine receptors. Buchli R, et al. **J Cell Biochem** 1999 Aug 1;74(2):264–77

Muscarinic cholinergic receptor measurements with [18F]FP-TZTP: control and competition studies. Carson RE, et al. **J Cereb Blood Flow Metab** 1998 Oct; 18(10):1130–42

Functional and molecular characterization of a muscarinic receptor type and evidence for expression of choline-acetyltransferase and vesicular acetylcholine transporter in human granulosa-luteal cells. Fritz S, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1744–50

Muscarinic receptor subtypes in the lateral geniculate nucleus: a light and electron microscopic analysis. Plummer KL, et al. **J Comp Neurol** 1999 Feb 15;404(3):408–25

Functional muscarinic m3 receptor expressed in gastric cancer cells stimulates tyrosine phosphorylation and MAP kinase. Kodaira M, et al. **J Gastroenterol** 1999 Apr; 34(2):163–71

Allosteric interactions of quaternary strychnine and brucine derivatives with muscarinic acetylcholine receptors. Gharagozloo P, et al. **J Med Chem** 1999 Feb 11; 42(3):438–45

Bisquaternary ligands of the common allosteric site of M2 acetylcholine receptors: search for the minimum essential distances between the pharmacophoric elements. Nassif-Makki T, et al. **J Med Chem** 1999 Mar 11; 42(5):849–58

Choline modulates cardiac membrane repolarization by activating an M3 muscarinic receptor and its coupled K+ channel. Shi H, et al. **J Membr Biol** 1999 May 1; 169(1):55–64

Myocardial beta-adrenergic and muscarinic receptor density in cardiac pressure or volume overload. Guzzetti S, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2095–102

Regulation of intracellular free Mg2+ concentration in isolated rat hearts via beta-adrenergic and muscarinic receptors. Watanabe J, et al. **J Mol Cell Cardiol** 1998 Nov; 30(11):2307–18

In vivo competition studies of Z-(-,-)-[125I]IQNP against 3-quinuclidinyl 2-(5-bromothienyl)-2-thienylglycolate (BrQNT) demonstrating in vivo m2 muscarinic subtype selectivity for BrQNT. Cohen VI, et al. **J Mol Neurosci** 1998 Aug;11(1):1–9

Inhibition of antagonist and agonist binding to the human brain muscarinic receptor by arachidonic acid. Kjome JR, et al. **J Mol Neurosci** 1998 Jun;10(3):209–17

Triazolam-induced modulation of muscarinic acetylcholine receptor in living brain slices as revealed by a new positron-based imaging technique. Murata T, et al. **J Neural Transm** 1998;105(10-12):1117–27

Mitogen-activated protein kinase-dependent and protein kinase C-dependent pathways link the m1 muscarinic receptor to beta-amyloid precursor protein secretion. Haring R, et al. **J Neurochem** 1998 Nov;71(5):2094–103

Effect of G protein-coupled receptor kinase 2 on the sensitivity of M4 muscarinic acetylcholine receptors to agonist-induced internalization and desensitization in NG108-15 cells. Holroyd EW, et al. **J Neurochem** 1999 Sep;73(3):1236–45

Cloning and expression of a G protein-linked acetylcholine receptor from Caenorhabditis elegans. Lee YS, et al. **J Neurochem** 1999 Jan;72(1):58–65

Activation of the endothelin receptor inhibits the G protein-coupled inwardly rectifying potassium channel by a phospholipase A2-mediated mechanism. Rogalski SL, et al. **J Neurochem** 1999 Apr;72(4):1409–16

Conserved extracellular cysteine pair in the M3 muscarinic acetylcholine receptor is essential for proper receptor cell surface localization but not for G protein coupling. Zeng FY, et al. **J Neurochem** 1999 Jun;72(6):2404–14

Alterations of muscarinic acetylcholine receptor subtypes in diffuse lewy body disease: relation to Alzheimer's disease. Shiozaki K, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug; 67(2):209–13

Chronic cerebral hypoperfusion disrupts discriminative behavior in acquired-learning rats. Tanaka K, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):63–8

Ocular effects of antimuscarinic compounds: is clinical effect determined by binding affinity for muscarinic receptors or melanin pigment? German EJ, et al. **J Ocul Pharmacol Ther** 1999 Jun;15(3):257–69

Acute regulation of norepinephrine transport: I. protein kinase C-linked muscarinic receptors influence transport capacity and transporter density in SK-N-SH cells. Apparsundaram S, et al. **J Pharmacol Exp Ther** 1998 Nov; 287(2):733–43

G protein-linked receptors: pharmacological evidence for the formation of heterodimers. Maggio R, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):251–7

Selectivity profile of muscarinic toxin 3 in functional assays of cloned and native receptors. Olianas MC, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):164–70

Muscarinic M3 receptor inactivation reveals a pertussis toxin-sensitive contractile response in the guinea pig colon: evidence for M2/M3 receptor interactions. Sawyer GW, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):464–76

Quantitative autoradiography with short-lived positron emission tomography tracers: a study on muscarinic acetylcholine receptors with N-[(11)C]methyl-4-piperidylbenzilate. Sihver S, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):917–22

RhoA-sensitive trafficking of muscarinic acetylcholine receptors. Vögler O, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):36–42

Fluorescent muscarinic EGFP-hM1 chimeric receptors: design, ligand binding and functional properties. Weill C, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):423–36

Distribution of muscarinic receptor subtypes in rat small intestine. Stadelmann AM, et al. **J Surg Res** 1998 Dec; 80(2):320–5

Phase I clinical trials with WAL 2014, a new muscarinic agonist for the treatment of Alzheimer's disease. Adamus WS, et al. **Life Sci** 1995;56(11-12):883–90

Endocytosis and recycling of muscarinic receptors. Edwardson JM, et al. **Life Sci** 1999;64(6-7):487–94

Muscarinic cholinergic signaling in cardiac myocytes: dynamic targeting of M2AChR to sarcolemmal caveolae and eNOS activation. Feron O, et al. **Life Sci** 1999; 64(6-7):471-7 (24 ref.)

Differential alterations in muscarinic receptor subtypes in Alzheimer's disease: implications for cholinergic-based therapies. Flynn DD, et al. **Life Sci** 1995;56(11-12):869–76 (32 ref.)

Regulation of muscarinic receptor expression by changes in mRNA stability. Fraser CM, et al. **Life Sci** 1995; 56(11-12):899–906

Quinuclidin-2-ene-based muscarinic antagonists. Hacksell U, et al. **Life Sci** 1995;56(11-12):831–6

Diverse pre- and post-synaptic expression of m1-m4 muscarinic receptor proteins in neurons and afferents in the rat neostriatum. Hersch SM, et al. **Life Sci** 1995; 56(11-12):931–8

Multiple G-protein-coupled pathways inhibit N-type Ca channels of neurons. Hille B, et al. **Life Sci** 1995; 56(11-12):989–92 (34 ref.)

Kinetic and biophysical analysis of the m2 muscarinic receptor. Hirschberg BT, et al. **Life Sci** 1995; 56(11-12):907–13

Multiple mechanisms involving protein phosphorylation are linked to desensitization of muscarinic receptors. Hosey MM, et al. **Life Sci** 1995;56(11-12):951–5 (23 ref.)

Molecular events associated with the regulation of signaling by M2 muscarinic receptors. Hosey MM, et al. **Life Sci** 1999;64(6-7):363–8

The role of charge interactions in muscarinic agonist binding, and receptor-response coupling. Hulme EC, et al. **Life Sci** 1995;56(11-12):891–8

Molecular probes for muscarinic receptors: functionalized congeners of selective muscarinic antagonists. Jacobson KA, et al. **Life Sci** 1995;56(11-12):823–30 (29 ref.)

In vitro and in vivo evaluation of the subtype-selective muscarinic agonist PD 151832. Jaen J, et al. **Life Sci** 1995; 56(11-12):845–52

Using single photon emission tomography (SPECT) and positron emission tomography (PET) to trace the distribution of muscarinic acetylcholine receptor (MACHR) binding radioligands. Kiesewetter DO, et al.

Life Sci 1999;64(6-7):511-8 (17 ref.)
Prejunctional muscarinic receptors regulating neurotransmitter release in airways. Kilbinger H, et al. **Life Sci** 1995;56(11-12):981-7
Structure-function analysis of muscarinic receptors and their associated G proteins. Kostenis E, et al. **Life Sci** 1999; 64(6-7):355-62
Development of muscarinic receptors and regulation of secretory responsiveness in rodent sweat glands. Landis SC. **Life Sci** 1999;64(6-7):381-5 (35 ref.)
Allosteric effects of four stereoisomers of a fused indole ring system with 3H-N-methylscopolamine and acetylcholine at M1-M4 muscarinic receptors. Lazareno S, et al. **Life Sci** 1999;64(6-7):519-26
The design of novel methoctramine-related tetraamines as muscarinic receptor subtype selective antagonists. Melchiorre C, et al. **Life Sci** 1995;56(11-12):837-44
Affinity profiles of various muscarinic antagonists for cloned human muscarinic acetylcholine receptor (mAChR) subtypes and mAChRs in rat heart and submandibular gland. Moriya H, et al. **Life Sci** 1999;64(25):2351-8
Bimodal regulation of cyclic AMP by muscarinic receptors. Involvement of multiple G proteins and different forms of adenylyl cyclase. Onali P, et al. **Life Sci** 1995; 56(11-12):973-80
Acetylcholine muscarinic receptor regulation of the Ras/Raf/MAP kinase pathway. Qian NX, et al. **Life Sci** 1995;56(11-12):945-9
Muscarinic agonists as analgesics. Antinociceptive activity versus M1 activity: SAR of alkylthio-TZTP's and related 1,2,5-thiadiazole analogs. Sauerberg P, et al. **Life Sci** 1995; 56(11-12):807-14
Mutations of aspartate 103 in the Hm2 receptor and alterations in receptor binding properties of muscarinic agonists. Schwarz RD, et al. **Life Sci** 1995;56(11-12):923-9
Muscarinic receptor occupancy by biperiden in living human brain. Sudo Y, et al. **Life Sci** 1999;64(8):PL99-104
Muscarinic acetylcholine receptors: structural basis of ligand binding and G protein coupling. Wess J, et al. **Life Sci** 1995;56(11-12):915-22 (35 ref.)
Solubilized muscarinic acetylcholine receptors from the rat myocardium: pharmacological and hydrodynamic characterization. Berrie CP, et al. **Methods Mol Biol** 1999; 106:73-87 (9 ref.)
Subtype-selective positive cooperative interactions between brucine analogs and acetylcholine at muscarinic receptors: functional studies. Birdsall NJ, et al. **Mol Pharmacol** 1999 Apr;55(4):778-86
Cross talk between m3-muscarinic and beta(2)-adrenergic receptors at the level of receptor phosphorylation and desensitization. Budd DC, et al. **Mol Pharmacol** 1999 Oct; 56(4):813-23
Differential modulation of agonist potency and receptor coupling by mutations of Ser388Tyr and Thr389Pro at the junction of transmembrane domain VI and the third extracellular loop of human M(1) muscarinic acetylcholine receptors. Huang XP, et al. **Mol Pharmacol** 1999 Oct; 56(4):775-83
Effects of an agonist, allosteric modulator, and antagonist on guanosine-gamma-[35S]thiotriphosphate binding to liposomes with varying muscarinic receptor/Go protein stoichiometry. Jakubík J, et al. **Mol Pharmacol** 1998 Nov; 54(5):899-906
NOS: modulator, not mediator of cardiac performance [news] Hare JM, et al. **Nat Med** 1999 Mar;5(3):273-4
Muscarinic and beta-adrenergic regulation of heart rate, force of contraction and calcium current is preserved in mice lacking endothelial nitric oxide synthase. Vandecasteele G, et al. **Nat Med** 1999 Mar;5(3):331-4
Changes in behavior and muscarinic receptor density after neonatal and adult exposure to bioallethrin. Talts U, et al. **Neurobiol Aging** 1998 Nov-Dec;19(6):545-52
Differential expression of muscarinic subtype mRNAs after exposure to neurotoxic pesticides. Talts U, et al. **Neurobiol Aging** 1998 Nov-Dec;19(6):553-9
Nitric oxide modulates muscarinic acetylcholine receptor binding in the cerebral cortex of gerbils. Gómez-Vargas M, et al. **Neurochem Res** 1999 May;24(5):629-35
Early treatment with cyclosporin A ameliorates the reduction of muscarinic acetylcholine receptors in gerbil hippocampus after transient forebrain ischemia. Kondo Y, et al. **Neurochem Res** 1999 Jan;24(1):9-13
Mixed agonist-antagonist properties of clozapine at different human cloned muscarinic receptor subtypes expressed in Chinese hamster ovary cells. Olianas MC, et al. **Neuropsychopharmacology** 1999 Mar;20(3):263-70
Corticosterone modifies muscarinic receptor immunoreactivity in rat hippocampus. Douma BR, et al. **Neurosci Lett** 1999 Jun 11;268(1):41-4
Changes in binding to muscarinic and nicotinic cholinergic receptors in the chick telencephalon, following passive avoidance learning. Mezey S, et al. **Neurosci Lett** 1999 Jul 30;270(2):75-8
m2 muscarinic receptor immunolocalization in cholinergic cells of the monkey basal forebrain and striatum. Smiley JF, et al. **Neuroscience** 1999 Mar;90(3):803-14
Iodo-QNB cortical binding and brain perfusion: effects of a cholinergic basal forebrain lesion in the rat. Sorger D, et al. **Nucl Med Biol** 1999 Jan;26(1):9-16
Influence of acetylcholine on binding of 4-[125I]iododexetimide to muscarinic brain receptors. Weckesser M, et al. **Nucl Med Biol** 1998 Nov;25(8):777-80
Early withdrawal from repeated cocaine administration upregulates muscarinic and dopaminergic D2-like receptors in rat neostriatum. Sousa FC, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):15-20
Receptor binding profile of Otilonium bromide. Evangelista S, et al. **Pharmacol Res** 1998 Aug;38(2):111-7
Muscarinic receptor binding sites of the M4 subtype in porcine lung parenchyma. Chelala JL, et al. **Pharmacol Toxicol** 1998 Nov;83(5):200-7
Affinities of brompheniramine, chlorpheniramine, and terfenadine at the five human muscarinic cholinergic receptor subtypes. Yasuda SU, et al. **Pharmacotherapy** 1999 Apr;19(4):447-51
Ex-chiral pool synthesis and pharmacological aspects of 3-pyrrolidinylisoxazoles. Thomas C, et al. **Pharmazie** 1999 Apr;54(4):248-50
Activation of the genetically defined m1 muscarinic receptor potentiates N-methyl-D-aspartate (NMDA) receptor currents in hippocampal pyramidal cells. Marino MJ, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11465-70
Antagonist profile and molecular dynamic simulation of a Drosophila melanogaster muscarinic acetylcholine receptor. Reaper CM, et al. **Receptors Channels** 1998; 5(6):331-45
In vivo muscarinic binding of 3-(alkylthio)-3-thiadiazolyl tetrahydropyridines. Kiesewetter DO, et al. **Synapse** 1999 Jan;31(1):29-40
In vivo regulation of intraneuronal trafficking of G protein-coupled receptors for neurotransmitters. Bloch B, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):315-9 (44 ref.)
Prejunctional muscarinic receptors modulating acetylcholine release in rabbit detrusor smooth muscles. Inadome A, et al. **Urol Int** 1998;61(3):135-41
[Involvement of central and peripheral cholinergic structures in regulation of cerebral electric activity and cardiac function in rabbits during hypoxia] Akopian NS, et al. **Aviakosm Ekolog Med** 1999;33(1):28-31 (Eng. Abstr.) **(Rus)**
[Monoamine level, M-cholino-, and beta-adrenergic reception in the cranial cervical sympathetic ganglion during ontogenesis in desympathectomized rats] Markov VN, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):371-3 **(Rus)**
[Adrenergic structures, M-cholino-, and beta-adrenoreceptors in the thyroid tissue during postnatal ontogenesis of sympathectomized rats] Markov VN, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):340-3 **(Rus)**

PHYSIOLOGY

Trypanosoma cruzi antigens down-regulate T lymphocyte proliferation by muscarinic cholinergic receptor-dependent release of PGE2. Gorelik G, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(3):115-23
Endogenous muscarinic activity attenuates adrenergic inotropic effects in field stimulated atrial myocardium from children with congenital heart defects. Borthne K, et al. **Acta Physiol Scand** 1999 Jan;165(1):9-13
M2 muscarinic receptor contributes to contraction of the denervated rat urinary bladder. Braverman AS, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1654-60
In vivo and in vitro induction of c-fos in avian exocrine salt gland cells. Hildebrandt JP, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C951-7
Mechanism of prejunctional muscarinic receptor-mediated inhibition of neurogenic vasodilation in cerebral arteries. Liu J, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H194-204
Subtypes of muscarinic receptors regulating gallbladder cholinergic contractions. Parkman HP, et al. **Am J Physiol** 1999 May;276(5 Pt 1):G1243-50
Isoproterenol potentiates alpha-adrenergic and muscarinic receptor-mediated Ca2+ response in rat parotid cells. Tanimura A, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1282-7
The antiallodynic effects of intrathecal cholinesterase inhibitors in a rat model of neuropathic pain. Hwang JH, et al. **Anesthesiology** 1999 Feb;90(2):492-9
Intrathecal clonidine alleviates allodynia in neuropathic rats: interaction with spinal muscarinic and nicotinic receptors. Pan HL, et al. **Anesthesiology** 1999 Feb;90(2):509-14
Cholinergic, M1 receptors in the nucleus accumbens mediate behavioral depression. A possible downstream target for fluoxetine. Chau D, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:769-74
The ins and outs of caveolar signaling. m2 muscarinic cholinergic receptors and eNOS activation versus neuregulin and ErbB4 signaling in cardiac myocytes. Feron O, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:11-9 (39 ref.)
Membrane and receptor modifications of oxidative stress vulnerability in aging. Nutritional considerations. Joseph JA, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:268-76 (62 ref.)
Regulation of guanine nucleotide turnover on Gi/Go by agonist-stimulated and spontaneously active muscarinic receptors in cardiac membranes. Quist E, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):57-64
Strain-dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17-26
Muscarinic M2 receptor-mediated contraction in the guinea pig Taenia caeci: possible involvement of protein kinase C. Shen A, et al. **Biochem Pharmacol** 1998 Dec 1; 56(11):1529-37
Novel imidazole derivatives with subtype-selective antimuscarinic activity (2). Miyachi H, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2163-8
Differences between proximal and distal portions of the male rabbit posterior urethra in the physiological role of muscarinic cholinergic receptors. Nagahama K, et al. **Br J Pharmacol** 1998 Jul;124(6):1175-80
Inhibitory effects of aprindine on the delayed rectifier K+ current and the muscarinic acetylcholine receptor-operated K+ current in guinea-pig atrial cells. Ohmoto-Sekine Y, et al. **Br J Pharmacol** 1999 Feb;126(3):751-61
Functional cross-talk between endothelial muscarinic and alpha2-adrenergic receptors in rabbit cerebral arteries. Thorin E. **Br J Pharmacol** 1998 Nov;125(6):1188-93
Microtubule cytoskeleton involvement in muscarinic suppression of voltage-gated calcium channel current in guinea-pig ileal smooth muscle. Unno T, et al. **Br J Pharmacol** 1999 Aug;127(7):1703-11
Pilocarpine modulates the cellular electrical properties of mammalian hearts by activating a cardiac M3 receptor and a K+ current. Wang H, et al. **Br J Pharmacol** 1999 Apr; 126(8):1725-34
Excitatory effects of muscarine on septohippocampal neurons: involvement of M3 receptors. Liu W, et al. **Brain Res** 1998 Sep 14;805(1-2):220-33
Muscarinic M1 and M3 receptors are present and increase intracellular calcium in adult rat anterior pituitary gland. Pintér I, et al. **Brain Res Bull** 1999 Mar 1;48(4):449-56
Postnatal development of muscarinic autoreceptors in the rat brain: lateral and medial septal nuclei and the diagonal band of Broca. Disko U, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):1-8
Muscarinic receptor- and phorbol ester-stimulated phosphorylation of protein kinase C substrates in adult and neonatal cortical slices. Haas MS, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):89-98
Simultaneous intracoronary ultrasound and Doppler flow studies distinguish flow-mediated from receptor-mediated endothelial responses [see comments] Hollenberg SM, et al. **Catheter Cardiovasc Interv** 1999 Mar;46(3):282-8. Comment in: Catheter Cardiovasc Interv 1999 Mar;46(3):289-91.
Better tools for approaching endothelial function: intracoronary ultrasound imaging and flow [editorial; comment] Kern MJ. **Catheter Cardiovasc Interv** 1999 Mar; 46(3):289-91. Comment on: Catheter Cardiovasc Interv 1999 Mar;46(3):282-8.
Involvement of protein kinase C and protein kinase A in the muscarinic receptor signalling pathways mediating phospholipase C activation, arachidonic acid release and calcium mobilisation. May LG, et al. **Cell Signal** 1999 Mar; 11(3):179-87
Metabolic and functional effects of carbachol and ischaemic preconditioning in rat isolated heart. Pisarenko OI, et al. **Clin Exp Pharmacol Physiol** 1999 Jan;26(1):26-31
Muscarinic receptors mediate carbachol-induced inhibition of maximal electroshock seizures in the nucleus reticularis pontis oralis. Peterson SL, et al. **Epilepsia** 1999 Jan; 40(1):20-5
Pre- and post-synaptic muscarinic receptors in thin slices of rat adrenal gland. Barbara JG, et al. **Eur J Neurosci** 1998 Nov;10(11):3535-45
Blockade of M2-like muscarinic receptors enhances long-term potentiation at corticostriatal synapses. Calabresi P, et al. **Eur J Neurosci** 1998 Sep;10(9):3020-3
Endogenous ACh enhances striatal NMDA-responses via M1-like muscarinic receptors and PKC activation. Calabresi P, et al. **Eur J Neurosci** 1998 Sep;10(9):2887-95
Muscarinic receptors regulate two different calcium-dependent non-selective cation currents in rat prefrontal cortex. Haj-Dahmane S, et al. **Eur J Neurosci** 1999 Jun;11(6):1973-80
Muscarinic receptors in the failing human heart. Giessler C, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):197-202 (70 ref.)
Characterization of the muscarinic receptor subtype that mediates the contractile response of acetylcholine in the swine myometrium. Kitazawa T, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):325-34
Involvement of nicotinergic mechanisms in thyrotropin-releasing hormone-induced neurologic recovery after concussive head injury in the mouse. Lestage P, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):163-9
Identification of rat brain muscarinic M4 receptors coupled to cyclic AMP using the selective antagonist muscarinic toxin 3. Olianas MC, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2-3):235-42
Muscarinic cholinoceptor subtypes mediating tracheal smooth muscle contraction and inositol phosphate generation in guinea pig and rat. Preuss JM, et al. **Eur J Pharmacol** 1999 May 21;372(3):269-77
Effect of a novel PACAP-27 analogue on muscarinic airway responsiveness in guinea-pigs in vivo. Okazawa A, et al. **Eur Respir J** 1998 Nov;12(5):1062-6
Sympathetic sprouting: no evidence for muscarinic modulation of noradrenaline release in hippocampal slices of rats with fimbria-fornix lesions. Jackisch R, et al. **Exp Brain Res** 1999 Jan;124(1):17-24
Impaired glucose sensing by intrahepatic, muscarinic nerves for an insulin-stimulated hepatic glucose uptake in streptozotocin-diabetic rats. Stümpel F, et al.

FEBS Lett 1998 Oct 2;436(2):185–8
The cardiac acetylcholine-activated, inwardly rectifying K+-channel subunit GIRK1 gives rise to an inward current induced by free oxygen radicals. Jeglitsch G, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):253–9
Muscarinic receptor subtype involvement in brain cholinergic stimulation by intracerebroventricular neostigmine in sinoaortic denervated rats. Taira CA. **Gen Pharmacol** 1998 Oct;31(4):583–8
Sjögren autoantibodies modify neonatal cardiac function via M1 muscarinic acetylcholine receptor activation. Borda E, et al. **Int J Cardiol** 1999 Jul 1;70(1):23–32
Immunolocalization of muscarinic and VIP receptor subtypes and their role in stimulating goblet cell secretion. Ríos JD, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1102–11
Role of insulin in antigen-induced airway eosinophilia and neuronal M2 muscarinic receptor dysfunction. Belmonte KE, et al. **J Appl Physiol** 1998 Nov;85(5):1708–18
Presynaptic muscarinic M1 and M2 receptor modulation of auriculotemporal nerve transmission in the rat. Tobin G. **J Auton Nerv Syst** 1998 Aug 6;72(1):61–71
Characterization of the muscarinic receptor mediating contraction of the dog prostate. Fernández JL, et al. **J Auton Pharmacol** 1998 Aug;18(4):205–11
Desensitization of human muscarinic acetylcholine receptor m2 subtypes is caused by their sequestration/internalization. Tsuga H, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):863–8
Signaling mechanisms underlying muscarinic receptor-mediated increase in contraction rate in cultured heart cells. Colecraft HM, et al. **J Biol Chem** 1998 Nov 27;273(48):32158–66
Differential activity of the G protein beta5 gamma2 subunit at receptors and effectors. Lindorfer MA, et al. **J Biol Chem** 1998 Dec 18;273(51):34429–36
Muscarinic cholinergic receptors activate both inhibitory and stimulatory growth mechanisms in NIH3T3 cells. Nicke B, et al. **J Biol Chem** 1999 Jul 30;274(31):21701–6
A role for rho-kinase in rho-controlled phospholipase D stimulation by the m3 muscarinic acetylcholine receptor. Schmidt M, et al. **J Biol Chem** 1999 May 21; 274(21):14648–54
Muscarinic receptor activation of arachidonate-mediated Ca2+ entry in HEK293 cells is independent of phospholipase C. Shuttleworth TJ, et al. **J Biol Chem** 1998 Dec 4;273(49):32636–43
Muscarinic receptor stimulation with edrophonium hydrochloride does not elevate ventricular fibrillation thresholds in humans. Mitrani RD, et al. **J Cardiovasc Electrophysiol** 1999 Jun;10(6):809–16
A comparison of the binding characteristics of class I antiarrhythmic agents for human muscarinic m1–m3 receptors. Yamamoto N, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):53–9
Constitutive muscarinic receptors are involved in the growth and differentiation of friend erythroleukemia cells. Cellai C, et al. **J Cell Physiol** 1999 Mar;178(3):333–40
Functional acetylcholine muscarinic receptor subtypes in human brain microcirculation: identification and cellular localization. Elhusseiny A, et al. **J Cereb Blood Flow Metab** 1999 Jul;19(7):794–802
Galpha(i2), Galpha(i3)and Galpha(o) are all required for normal muscarinic inhibition of the cardiac calcium channels in nodal/atrial-like cultured cardiocytes. Ye C, et al. **J Mol Cell Cardiol** 1999 Sep;31(9):1771–81
Adaptations of NMDA and dopamine D2, but not of muscarinic receptors following 14 days administration of uncompetitive NMDA receptor antagonists. Hesselink MB, et al. **J Neural Transm** 1999;106(5–6):409–21
Site-specific dephosphorylation of tau of apolipoprotein E-deficient and control mice by M1 muscarinic agonist treatment. Genis I, et al. **J Neurochem** 1999 Jan; 72(1):206–13
Presynaptic kappa-opioid and muscarinic receptors inhibit the calcium-dependent component of evoked glutamate release from striatal synaptosomes. Rawls SM, et al. **J Neurochem** 1999 Sep;73(3):1058–65
Muscarinic receptors differentially modulate the persistent potassium current in striatal spiny projection neurons. Gabel LA, et al. **J Neurophysiol** 1999 Mar;81(3):1418–23
Ionic mechanism of the slow afterdepolarization induced by muscarinic receptor activation in rat prefrontal cortex. Haj-Dahmane S, et al. **J Neurophysiol** 1998 Sep; 80(3):1197–210
Subcellular redistribution of m2 muscarinic acetylcholine receptors in striatal interneurons in vivo after acute cholinergic stimulation. Bernard V, et al. **J Neurosci** 1998 Dec 1;18(23):10207–18
Cholinergic modulation of neostriatal output: a functional antagonism between different types of muscarinic receptors. Galarraga E, et al. **J Neurosci** 1999 May 1; 19(9):3629–38
Muscarinic control of cytoskeleton in perisynaptic glia. Georgiou J, et al. **J Neurosci** 1999 May 15;19(10):3836–46
Muscarinic receptor activity has multiple effects on the resting membrane potentials of CA1 hippocampal interneurons. McQuiston AR, et al. **J Neurosci** 1999 Jul 15;19(14):5693–702
Muscarinic receptor activity induces an afterdepolarization in a subpopulation of hippocampal CA1 interneurons. McQuiston AR, et al. **J Neurosci** 1999 Jul 15;19(14):5703–10
Biphasic, opposing modulation of cloned neuronal alpha1E Ca channels by distinct signaling pathways coupled to M2 muscarinic acetylcholine receptors. Meza U, et al. **J Neurosci** 1999 Aug 15;19(16):6806–17
Pharmacological analysis of the novel mode of interaction between xanomeline and the M1 muscarinic acetylcholine receptor. Christopoulos A, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1220–8
The role of ryanodine receptors in the cyclic ADP ribose modulation of the M-like current in rodent m1 muscarinic receptor-transformed NG108-15 cells. Bowden SE, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:23–34
Selective activation of heterologously expressed G protein-gated K+ channels by M2 muscarinic receptors in rat sympathetic neurones. Fernandez-Fernandez JM, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):631–7
Encoding properties induced by a persistent voltage-gated muscarinic sodium current in rabbit sympathetic neurones. Gola M, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):387–99
A characterization of muscarinic receptor-mediated intracellular Ca2+ mobilization in cultured rat hippocampal neurones. Irving AJ, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):747–59
Molecular mechanisms for the regulation of the expression and function of muscarinic acetylcholine receptors. Hamilton SE, et al. **J Physiol Paris** 1998 Jun-Aug; 92(3–4):275–8 (15 ref.)
Some cholinergic themes related to Alzheimer's disease: synaptology of the nucleus basalis, location of m2 receptors, interactions with amyloid metabolism, and perturbations of cortical plasticity. Mesulam MM. **J Physiol Paris** 1998 Jun-Aug;92(3–4):293–8 (56 ref.)
Muscarinic acetylcholine receptors activate the acetylcholinesterase gene promoter. Nitsch RM, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):257–64
Selective alkylation of rat urinary bladder muscarinic receptors with 4-DAMP mustard reveals a contractile function for the M2 muscarinic receptor. Braverman AS, et al. **J Recept Signal Transduct Res** 1999 Sep;19(5):819–33
A non-nitrergic smooth muscle relaxant factor released from rat urinary bladder by muscarinic receptor stimulation. Fovaeus M, et al. **J Urol** 1999 Feb;161(2):649–53
Function of M3 muscarinic receptors in the rat urinary bladder following partial outlet obstruction. Krichevsky VP, et al. **J Urol** 1999 May;161(5):1644–50
Propofol inhibits muscarinic acetylcholine receptor-mediated signal transduction in Xenopus Oocytes expressing the rat M1 receptor. Nagase Y, et al. **Jpn J Pharmacol** 1999 Mar; 79(3):319–25
Relationship between muscarinic autoinhibition and the inhibitory effect of morphine on acetylcholine release from myenteric plexus of guinea pig ileum. Nishiwaki H, et al. **Jpn J Pharmacol** 1998 Aug;77(4):271–8
Relationship between inhibitory effect of endogenous opioid via mu-receptors and muscarinic autoinhibition in acetylcholine release from myenteric plexus of guinea pig ileum. Nishiwaki H, et al. **Jpn J Pharmacol** 1998 Aug; 77(4):279–86
Positive inotropic, negative chronotropic, and coronary vasoconstrictor effects of acetylcholine in isolated rat hearts: role of muscarinic receptors, prostaglandins, protein kinase C, influx of extracellular ca2+, intracellular Ca2+ release, and endothelium. Ateş S, et al. **Jpn J Physiol** 1998 Dec;48(6):483–91
M2 receptors in genito-urinary smooth muscle pathology. Braverman A, et al. **Life Sci** 1999;64(6–7):429–36
Potential role of muscarinic receptors in schizophrenia. Bymaster FP, et al. **Life Sci** 1999;64(6–7):527–34
Contractile role of M2 and M3 muscarinic receptors in gastrointestinal smooth muscle [published erratum appears in Life Sci 1999;64(26):2535] Ehlert FJ, et al. **Life Sci** 1999; 64(6–7):387–94 (52 ref.)
Functional role of M2 muscarinic receptors in the guinea pig ileum. Ehlert FJ, et al. **Life Sci** 1999;56(11–12):965–71 (26 ref.)
Muscarinic-mediated analgesia. Eisenach JC. **Life Sci** 1999; 64(6–7):549–54 (29 ref.)
Effects of inflammatory cells on neuronal M2 muscarinic receptor function in the lung. Fryer AD, et al. **Life Sci** 1999;64(6–7):449–55 (49 ref.)
Muscarinic receptor subtypes modulating smooth muscle contractility in the urinary bladder. Hegde SS, et al. **Life Sci** 1999;64(6–7):419–28 (60 ref.)
Role of M2 muscarinic receptors in airway smooth muscle contraction. Hirshman CA, et al. **Life Sci** 1999; 64(6–7):443–8
M2 signaling in smooth muscle cells. Kotlikoff MI, et al. **Life Sci** 1999;64(6–7):437–42 (29 ref.)
SCH 57790: a novel M2 receptor selective antagonist. Lachowicz JE, et al. **Life Sci** 1999;64(6–7):535–9
Neuronal soma-dendritic and prejunctional M1–M4 receptors in gastrointestinal and genitourinary smooth muscle. Lambrecht G, et al. **Life Sci** 1999;64(6–7):403–10
The influence of the cellular context on receptor function: a necessary consideration for physiologic interpretations of receptor expression studies. Logsdon CD. **Life Sci** 1999; 64(6–7):369–74 (38 ref.)
Low frequency-dependent mechanism of the M2 receptor function on vagally mediated bronchoconstriction in rabbits in vivo. Matsumoto S. **Life Sci** 1999;65(1):103–12
Dual modulation of a potassium channel by the m1 muscarinic and beta2-adrenergic receptors. Peralta EG. **Life Sci** 1995;56(11–12):957–64
M3 muscarinic receptor activation of a delayed rectifier potassium current in canine atrial myocytes. Shi H, et al. **Life Sci** 1999;64(21):PL251–7
Function, signal transduction mechanisms and plasticity of presynaptic muscarinic receptors in the urinary bladder. Somogyi GT, et al. **Life Sci** 1999;64(6–7):411–8 (50 ref.)
Muscarinic-cholinoceptor mediated attenuation of phospholamban phosphorylation induced by inhibition of phosphodiesterase in ventricular cardiomyocytes: evidence against a cAMP-dependent effect. Gupta RC, et al. **Mol Cell Biochem** 1998 Oct;187(1–2):155–61
Identification and characterization of multiple subtypes of muscarinic acetylcholine receptors and their physiological functions in canine hearts. Shi H, et al. **Mol Pharmacol** 1999 Mar;55(3):497–507
G-protein-coupled receptors act via protein kinase C and Src to regulate NMDA receptors. Lu WY, et al. **Nat Neurosci** 1999 Apr;2(4):331–8
Regulation of M1 muscarinic receptor-mediated signaling in intact cells by exogenous, but not endogenously produced, nitric oxide. Parsons AM, et al. **Neurochem Res** 1999 Jan; 24(1):85–94
Activation of M1-like muscarinic receptors is required for the induction of corticostriatal LTP. Calabresi P, et al. **Neuropharmacology** 1999 Feb;38(2):323–6
Muscarinic acetylcholine receptor-mediated increase of angiotensin type 2 receptor mRNA in PC12 cells. Shibata K, et al. **Neuroreport** 1998 Dec 1;9(17):3783–9
Subcellular muscarinic enhancement of excitability and Ca2+-signals in CA1-dendrites in rat hippocampal slice. Egorov AV, et al. **Neurosci Lett** 1999 Feb 12; 261(1–2):77–80
Rapid eye movement sleep induction by vasoactive intestinal peptide infused into the oral pontine tegmentum of the rat may involve muscarinic receptors. Bourgin P, et al. **Neuroscience** 1999 Mar;89(1):291–302
Presynaptic muscarinic (M3) receptors reduce excitatory transmission in dopamine neurons of the rat mesencephalon. Grillner P, et al. **Neuroscience** 1999;91(2):557–65
Muscarinic facilitation of the occurrence of depolarization-induced suppression of inhibition in rat hippocampus. Martin LA, et al. **Neuroscience** 1999; 92(1):61–71
Activation of muscarinic M3-like receptors and beta-adrenoceptors, but not M2-like muscarinic receptors or alpha-adrenoceptors, directly modulates corticostriatal neurotransmission in vitro. Niittykoski M, et al. **Neuroscience** 1999 Apr;90(1):95–105
Rabbit P300-like potential depends on cortical muscarinic receptor activation. Wang YP, et al. **Neuroscience** 1999 Mar;89(2):423–7
Cellular mechanisms underlying two muscarinic receptor-mediated depolarizing responses in relay cells of the rat lateral geniculate nucleus. Zhu JJ, et al. **Neuroscience** 1998 Dec;87(4):767–81
Effects of muscarinic cholinergic receptor antagonists on postnatal eye growth of rhesus monkeys [see comments] Tigges M, et al. **Optom Vis Sci** 1999 Jun;76(6):397–407. Comment in: Optom Vis Sci 1999 Jun;76(6):341–2.
Two distinct pathways of muscarinic current responses in rabbit sino-atrial node myocytes. Accili EA, et al. **Pflugers Arch** 1998 Dec;437(1):164–7
Use of replication-deficient adenoviruses to study signal transduction pathways. Muscarinic responses in HSG and HT29 epithelial cell lines are mediated by G protein betagamma-subunits. Poronnik P, et al. **Pflugers Arch** 1999 Jun;438(1):79–85
Distinct functional muscarinic receptors in guinea-pig gallbladder, ileum and atria. Karaalp A, et al. **Pharmacol Res** 1999 May;39(5):389–95
Pronounced pharmacologic deficits in M2 muscarinic acetylcholine receptor knockout mice. Gomeza J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1692–7
Enhancement of D1 dopamine receptor-mediated locomotor stimulation in M(4) muscarinic acetylcholine receptor knockout mice. Gomeza J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10483–8
Role of muscarinic receptors, G-proteins, and intracellular messengers in muscarinic modulation of NMDA receptor-mediated synaptic transmission. Aramakis VB, et al. **Synapse** 1999 Jun 15;32(4):262–75
Pulmonary neuronal M2 muscarinic receptor function in asthma and animal models of hyperreactivity. Costello RW, et al. **Thorax** 1998 Jul;53(7):613–6 (78 ref.)
[The involvement of muscarinic M1 receptor in the regulation of action potentials in mouse isolated right atria] Kimura I, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:128P–132P (Eng. Abstr.) **(Jpn)**
[Dynamics of vagus nerve chronotropic effect during blockage of various M-cholinoreceptors] Osadchii OE, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):252–5 **(Rus)**
[The role of the muscarinic, adenosine and adrenoreceptors of the heart in the development of postischemic reperfusion ventricular fibrillation] Eliseev VV, et al. **Eksp Klin Farmakol** 1999 May-Jun;62(3):25–7 (Eng. Abstr.) **(Rus)**

RECEPTORS, MUSCIMOL see **RECEPTORS, GABA-A**

RECEPTORS, NARCOTIC see **RECEPTORS, OPIOID**

RECEPTORS, NERVE GROWTH FACTOR

DCC and netrins. Culotti JG, et al. **Curr Opin Cell Biol** 1998 Oct;10(5):609–13 (39 ref.)

Selective inhibition of kindling development by intraventricular administration of TrkB receptor body. Binder DK, et al. **J Neurosci** 1999 Feb 15;19(4):1424–36

AGONISTS

Effects of trkB and trkC neurotrophin receptor agonists on thermal nociception: a behavioral and electrophysiological study. Shu XQ, et al. **Pain** 1999 Apr;80(3):463–70

ANALYSIS

TrkA expression in mouse olfactory tract following axotomy of olfactory nerves. Miwa T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:79–82

Distribution of the low-affinity neurotrophin receptor (p75) in the developing trigeminal brainstem complex in the rat. Crockett DP, et al. **Anat Rec** 1999 Apr 1;254(4):549–65

Light and electron microscopic immunohistochemical observations of p75 nerve growth factor receptor-immunoreactive dermal nerves in prurigo nodularis. Liang Y, et al. **Arch Dermatol Res** 1999 Jan; 291(1):14–21

Persistence and atrophy of septal/diagonal band neurons expressing the p75 neurotrophin receptor in pilocarpine-induced chronic epilepsy in the rat. Correia L, et al. **Brain Res** 1998 Nov 2;809(2):288–93

Selective in vivo fluorescence labelling of cholinergic neurons containing p75(NTR) in the rat basal forebrain. Härtig W, et al. **Brain Res** 1998 Oct 19;808(2):155–65

An ultrastructural study of p75 neurotrophin receptor-immunoreactive fiber terminals in the reticular thalamic nucleus of young rats [published erratum appears in Brain Res 1998 Nov 16;811(1–2):177] Oda S, et al. **Brain Res** 1998 Aug 10;801(1–2):116–24

Quantification of a neurotrophin receptor from submilligram quantities of brain tissue using western blotting. Suneja SK, et al. **Brain Res Brain Res Protoc** 1998 Sep;3(1):88–93

Neurotrophin receptors in the geniculate ganglion. Cho TT, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):1–13

Trk-neurotrophin receptor-like immunoreactivity in the gut of teleost species. Lucini C, et al. **Cell Tissue Res** 1999 May;296(2):323–30

Neurotrophins and neurotrophin receptors in some neural crest-derived tumours (ganglioneuroma, phaeochromocytoma and paraganglioma). Pello JM, et al. **Histopathology** 1999 Mar;34(3):216–25

Neurotrophins and Trk receptors in human pancreatic ductal adenocarcinoma: expression patterns and effects on in vitro invasive behavior. Miknyoczki SJ, et al. **Int J Cancer** 1999 May 5;81(3):417–27

Correlation of overexpression of the low-affinity p75 neurotrophin receptor with augmented invasion and heparanase production in human malignant melanoma cells. Walch ET, et al. **Int J Cancer** 1999 Jul 2;82(1):112–20

Expression of the low affinity neurotrophin receptor, P75NGFR, in the rat forebrain, following unilateral bulbectomy. Turner CP, et al. **Int J Dev Neurosci** 1998 Oct;16(6):527–38

Pancreatic acinar AR42J cells express functional nerve growth factor receptors. Miralles F, et al. **J Endocrinol** 1999 Mar;160(3):433–42

TrkA glycosylation regulates receptor localization and activity. Watson FL, et al. **J Neurobiol** 1999 May; 39(2):323–36

Ultrastructural localization of full-length trkB immunoreactivity in rat hippocampus suggests multiple roles in modulating activity-dependent synaptic plasticity. Drake CT, et al. **J Neurosci** 1999 Sep 15;19(18):8009–26

Absence of the p75 neurotrophin receptor alters the pattern of sympathosensory sprouting in the trigeminal ganglia of mice overexpressing nerve growth factor. Walsh GS, et al. **J Neurosci** 1999 Jan 1;19(1):258–73

Expression of brain-derived neurotrophic factor protein in activated microglia of human immunodeficiency virus type 1 encephalitis. Soontornniyomkij V, et al. **Neuropathol Appl Neurobiol** 1998 Dec;24(6):453–60

TrkA expression in olfactory epithelium and bulb during development. Horikawa I, et al. **Neuroreport** 1999 Jul 13; 10(10):2205–8

192 IgG-saporin abolishes p75 neurotrophin receptor immunoreactivity in rat SCN. Moga MM. **Neuroreport** 1998 Oct 5;9(14):3197–200

Taste buds and neuronal markers in patients with chronic renal failure. Astbäck J, et al. **Perit Dial Int** 1999;19 Suppl 2:S315–23

ANTAGONISTS & INHIBITORS

Sustained in vivo regression of Dunning H rat prostate cancers treated with combinations of androgen ablation and Trk tyrosine kinase inhibitors, CEP-751 (KT-6587) or CEP-701 (KT-5555). George DJ, et al. **Cancer Res** 1999 May 15;59(10):2395–401

Gö 6976 is a potent inhibitor of neurotrophin-receptor intrinsic tyrosine kinase. Behrens MM, et al. **J Neurochem** 1999 Mar;72(3):919–24

Characterization of antiallodynic actions of ALE-0540, a novel nerve growth factor receptor antagonist, in the rat. Owolabi JB, et al. **J Pharmacol Exp Ther** 1999 Jun; 289(3):1271–6

TrkA antagonists decrease NGF-induced ChAT activity in vitro and modulate cholinergic synaptic number in vivo. Debeir T, et al. **J Physiol Paris** 1998 Jun–Aug; 92(3–4):205–8

The anti-p75 antibody, MC192, and brain-derived neurotrophic factor inhibit nerve growth factor-dependent neurite growth from adult sensory neurons. Kimpinski K, et al. **Neuroscience** 1999;93(1):253–63

A nerve growth factor mimetic TrkA antagonist causes withdrawal of cortical cholinergic boutons in the adult rat. Debeir T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):4067–72

BIOSYNTHESIS

Changes in CNTF receptor alpha expression in rat skeletal muscle during the recovery period after hindlimb suspension. Guillet C, et al. **Acta Physiol Scand** 1998 Jul; 163(3):273–8

Ciliary neurotrophic factor enhances the expression of NGF and p75 low-affinity NGF receptor in astrocytes. Semkova I, et al. **Brain Res** 1999 Aug 14;838(1–2):184–92

Neurotrophin receptor expression is induced in a subpopulation of trigeminal neurons that label by retrograde transport of NGF or fluoro-gold following tooth injury. Wheeler EF, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):23–38

Expression of neurotrophins, GDNF, and their receptors in rat thyroid tissue. Belluardo N, et al. **Cell Tissue Res** 1999 Mar;295(3):467–75

Expression of Trk receptors in the developing mouse trigeminal ganglion: in vivo evidence for NT-3 activation of TrkA and TrkB in addition to TrkC. Huang EJ, et al. **Development** 1999 May;126(10):2191–203

Long-term estrogen replacement coordinately decreases trkA and beta-PPT mRNA levels in dorsal root ganglion neurons. Liuzzi FJ, et al. **Exp Neurol** 1999 Feb;155(2):260–7

Neurogenin1 and neurogenin2 control two distinct waves of neurogenesis in developing dorsal root ganglia. Ma Q, et al. **Genes Dev** 1999 Jul 1;13(13):1717–28

Relative abilities of 4-1BB (CD137) and CD28 to co-stimulate the response of cytokine deflected Th1 and Th2 cells. Vinay DS, et al. **Immunobiology** 1999 Jun; 200(2):246–63

Expression of the low affinity neurotrophin receptor, P75NGFR, in the rat forebrain, following unilateral bulbectomy. Turner CP, et al. **Int J Dev Neurosci** 1998 Oct;16(6):527–38

Neurotrophins and their receptors in the tench retina during optic nerve regeneration. Caminos E, et al. **J Comp Neurol** 1999 Feb 15;404(3):321–31

Differential regulation of ciliary neurotrophic factor receptor-alpha expression in all major neuronal cell classes during development of the chick retina. Fuhrmann S, et al. **J Comp Neurol** 1998 Oct 19;400(2):244–54

Cutting edge: clonally restricted production of the neurotrophins brain-derived neurotrophic factor and neurotrophin-3 mRNA by human immune cells and Th1/Th2-polarized expression of their receptors. Besser M, et al. **J Immunol** 1999 Jun 1;162(11):6303–6

Distinct thyroid hormone-dependent expression of TrKB and p75NGFR in nonneuronal cells during the critical TH-dependent period of the cochlea. Knipper M, et al. **J Neurobiol** 1999 Feb 15;38(3):338–56

p75 neurotrophin receptor expression is induced in apoptotic neurons after seizure. Roux PP, et al. **J Neurosci** 1999 Aug 15;19(16):6887–96

Expression of gp145trkB in the early stage of Schwann cell tube formation. Shi D, et al. **J Orthop Sci** 1999;4(1):22–7

Expression of p75 neurotrophin receptor in the injured and regenerating rat retina. Hu B, et al. **Neuroreport** 1999 Apr 26;10(6):1293–7

Rabbit experimental sensory ataxic neuropathy: anti-GD1b antibody-mediated trkC downregulation of dorsal root ganglia neurons. Hitoshi S, et al. **Neurosci Lett** 1999 Feb 5;260(3):157–60

Re-expression of p75NTR by adult motor neurons after axotomy is triggered by retrograde transport of a positive signal from axons regrowing through damaged or denervated peripheral nerve tissue. Bussmann KA, et al. **Neuroscience** 1999;91(1):273–81

Expression of the naturally occurring truncated trkB neurotrophin receptor induces outgrowth of filopodia and processes in neuroblastoma cells. Haapasalo A, et al. **Oncogene** 1999 Feb 11;18(6):1285–96

CHEMISTRY

Biochemical and functional interactions between the neurotrophin receptors trk and p75NTR. Bibel M, et al. **EMBO J** 1999 Feb 1;18(3):616–22

Crystal structures of the neurotrophin-binding domain of TrkA, TrkB and TrkC. Ultsch MH, et al. **J Mol Biol** 1999 Jul 2;290(1):149–59

Crystal structure of nerve growth factor in complex with the ligand-binding domain of the TrkA receptor. Wiesmann C, et al. **Nature** 1999 Sep 9;401(6749):184–8

Effects of trkB and trkC neurotrophin receptor agonists on thermal nociception: a behavioral and electrophysiological study. Shu XQ, et al. **Pain** 1999 Apr;80(3):463–70

[Variability of neurotrophin receptor structures] Ninkina NN, et al. **Mol Biol (Mosk)** 1998 Nov–Dec;32(6):955–63 (100 ref.) **(Rus)**

DEFICIENCY

Mice lacking NT-3, and its receptor TrkC, exhibit profound deficiencies in CNS glial cells. Kahn MA, et al. **Glia** 1999 Apr;26(2):153–65

Nerve growth factor evokes hyperalgesia in mice lacking the low-affinity neurotrophin receptor p75. Bergmann I, et al. **Neurosci Lett** 1998 Oct 16;255(2):87–90

DRUG EFFECTS

Glucocorticoid regulation of motoneuronal parameters in rats with spinal cord injury. Gonzalez SL, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):597–611

Retinoic acid and neurotrophins collaborate to regulate neurogenesis in adult-derived neural stem cell cultures. Takahashi J, et al. **J Neurobiol** 1999 Jan;38(1):65–81

Direct activation of the high-affinity nerve growth factor receptor by a non-peptide symmetrical polyanion. Gill JS, et al. **Neuroscience** 1998 Dec;87(4):855–60

GENETICS

Frequent detection of TrkA expression in human neuroblastoma cell lines. Horii Y, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):644–6

Fast-sorting system for cells with high-copy-number expression vectors and its use for the modulation of CML cells. Kneidl C, et al. **Adv Exp Med Biol** 1998;451:473–9

High-efficiency retroviral vector-mediated gene transfer into human T lymphocytes. Li ZX, et al. **Adv Exp Med Biol** 1998;451:375–8

Congenital insensitivity to pain with anhidrosis: novel mutations in the TRKA (NTRK1) gene encoding a high-affinity receptor for nerve growth factor. Mardy S, et al. **Am J Hum Genet** 1999 Jun;64(6):1570–9

Congenital mesoblastic nephroma t(12;15) is associated with ETV6-NTRK3 gene fusion: cytogenetic and molecular relationship to congenital (infantile) fibrosarcoma. Rubin BP, et al. **Am J Pathol** 1998 Nov;153(5):1451–8

The mouse neurotrophin receptor trkB gene is transcribed from two different promoters. Barettino D, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):24–34

TrkB mutant lacking the amino-terminal half of the extracellular portion acts as a functional brain-derived neurotrophic factor receptor. Kojima S, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1–2):104–10

Fusion of ETV6 to neurotrophin-3 receptor TRKC in acute myeloid leukemia with t(12;15)(p13;q25). Eguchi M, et al. **Blood** 1999 Feb 15;93(4):1355–63

Expression of BDNF and trkB as a function of age and cognitive performance. Croll SD, et al. **Brain Res** 1998 Nov 23;812(1–2):200–8

Differential temporal expression of mRNAs for ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), interleukin-6 (IL-6), and their receptors (CNTFR alpha, LIFR beta, IL-6R alpha and gp130) in injured peripheral nerves. Ito Y, et al. **Brain Res** 1998 May 18; 793(1–2):321–7

Regional changes in the expression of neurotrophic factors and their receptors following acute traumatic brain injury in the adult rat brain. Oyesiku NM, et al. **Brain Res** 1999 Jul 3;833(2):161–72

Expression of neurotrophins and neurotrophin receptors in the cerebellum of mutant weaver and lurcher mice. Wüllner U, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):1–6

The neurotrophin receptors trkA, trkB and trkC are differentially regulated after excitotoxic lesion in rat striatum. Canals JM, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):242–8

Hippocampal neurotrophin and trk receptor mRNA levels are altered by local administration of nicotine, carbachol and pilocarpine. French SJ, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):124–36

BDNF, and full length and truncated TrkB expression in the hippocampus of the rat following kainic acid excitotoxic damage. Evidence of complex time-dependent and cell-specific responses. Goutan E, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):154–64

Expression of trkB mRNA is altered in rat hippocampus after experimental brain trauma. Hicks RR, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):264–8

Expression of p75(NTR), trkB and trkC in nonmanipulated and axotomized motoneurons of aged rats. Johnson H, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):21–34

Detection of p75 mRNA in developing marsupial CNS by cross-hybridization with rat oligonucleotide probes. Luque JM, et al. **Brain Res Mol Brain Res** 1999 Feb 19; 65(1):129–34

Highest trkB mRNA expression in the entorhinal cortex among hippocampal subregions in the adult rat: contrasting pattern with BDNF mRNA expression. Tokuyama W, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):206–15

Prognostic discrimination among neuroblastomas according to Ha-ras/trk A gene expression: a comparison of the profiles of neuroblastomas detected clinically and those detected through mass screening. Tanaka T, et al. **Cancer** 1998 Oct 15;83(8):1626–33

ETV6-NTRK3 gene fusions and trisomy 11 establish a histogenetic link between mesoblastic nephroma and

congenital fibrosarcoma. Knezevich SR, et al. **Cancer Res** 1998 Nov 15;58(22):5046–8

Expression of neurotrophin receptors trkB and trkC and their ligands in rat adrenal gland and the intermediolateral column of the spinal cord. Schober A, et al. **Cell Tissue Res** 1999 May;296(2):271–9

Identification of a new member of the tumor necrosis factor family and its receptor, a human ortholog of mouse GITR. Gurney AL, et al. **Curr Biol** 1999 Feb 25;9(4):215–8

Genetic evidence for cell death mediated by nerve growth factor and the neurotrophin receptor p75 in the developing mouse retina and spinal cord. Frade JM, et al. **Development** 1999 Feb;126(4):683–90

POU domain factor Brn-3a controls the differentiation and survival of trigeminal neurons by regulating Trk receptor expression. Huang EJ, et al. **Development** 1999 Jul; 126(13):2869–82

Effect of nerve growth factor treatment on p75NTR gene expression in lumbar dorsal root ganglia of streptozocin-induced diabetic rats. Delcroix JD, et al. **Diabetes** 1998 Nov;47(11):1779–85

Induction of an intronic enhancer of the human ciliary neurotrophic factor receptor (CNTFRalpha) gene by the TR3 orphan receptor. Mu XM, et al. **Endocrine** 1998 Aug; 9(1):27–32

Expression of TrkB and TrkC but not BDNF mRNA in neurochemically identified interneurons in rat visual cortex in vivo and in organotypic cultures. Gorba T, et al. **Eur J Neurosci** 1999 Apr;11(4):1179–90

The role of p75NTR in modulating neurotrophin survival effects in developing motoneurons. Wiese S, et al. **Eur J Neurosci** 1999 May;11(5):1668–76

Modulation of mRNA expression of the neurotrophins of the nerve-growth-factor family and their receptors in the septum and hippocampus of rats after transient postnatal thyroxine treatment. II. Effects on p75 and trk receptor expression. Roskoden T, et al. **Exp Brain Res** 1999 Aug; 127(3):307–13

Retroviral vector-mediated gene transfer into umbilical cord blood CD34brCD38-CD33- cells. Gentry T, et al. **Exp Hematol** 1999 Aug;27(8):1244–54

NTRK1 re-arrangement in papillary thyroid carcinomas of children after the Chernobyl reactor accident. Beimfohr C, et al. **Int J Cancer** 1999 Mar 15;80(6):842–7

The combined effects of trkB and trkC mutations on the innervation of the inner ear. Fritzsch B, et al. **Int J Dev Neurosci** 1998 Oct;16(6):493–505

Detection of DNA polymorphisms and point mutations of high-affinity nerve growth factor receptor (TrkA) in human neuroblastoma. Scaruffi P, et al. **Int J Oncol** 1999 May;14(5):935–8

The p75(NTR)-induced apoptotic program develops through a ceramide-caspase pathway negatively regulated by nitric oxide. Lièvremont JP, et al. **J Biol Chem** 1999 May 28; 274(22):15466–72

Mutation analysis reveals novel sequence variants in NTRK1 in sporadic human medullary thyroid carcinoma. Gimm O, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2784–7

Effects of aging and axotomy on the expression of neurotrophin receptors in primary sensory neurons. Bergman E, et al. **J Comp Neurol** 1999 Aug 2;410(3):368–86

Nerve growth factor receptor TrkA is expressed by horizontal and amacrine cells during chicken retinal development. Karlsson M, et al. **J Comp Neurol** 1998 Oct 26;400(3):408–16

Differential expression of TrkC catalytic and noncatalytic isoforms suggests that they act independently or in association. Menn B, et al. **J Comp Neurol** 1998 Nov 9; 401(1):47–64

Expression of trkB and trkC mRNAs by adult midbrain dopamine neurons: a double-label in situ hybridization study. Numan S, et al. **J Comp Neurol** 1999 Jan 18; 403(3):295–308

A novel point mutation affecting the tyrosine kinase domain of the TRKA gene in a family with congenital insensitivity to pain with anhidrosis. Yotsumoto S, et al. **J Invest Dermatol** 1999 May;112(5):810–4

A novel juxtamembrane deletion in rat TrkA blocks differentiative but not mitogenic cell signaling in response to nerve growth factor. Meakin SO, et al. **J Neurochem** 1998 Nov;71(5):1875–88

Stimulation of adenylyl cyclase and induction of brain-derived neurotrophic factor and TrkB mRNA by NKH477, a novel and potent forskolin derivative. Morinobu S, et al. **J Neurochem** 1999 May;72(5):2198–205

Differentiation and growth inhibition of glioma cells induced by transfer of trk A proto-oncogene. Kokunai T, et al. **J Neurooncol** 1999 Mar;42(1):23–34

TrkB isoforms with distinct neurotrophin specificities are expressed in predominantly nonoverlapping populations of avian dorsal root ganglion neurons. Boeshore KL, et al. **J Neurosci** 1999 Jun 15;19(12):4739–47

Endogenous FGF-2 is important for cholinergic sprouting in the denervated hippocampus. Fagan AM, et al. **J Neurosci** 1997 Apr 1;17(7):2499–511

Acetylcholinesterase gene expression in axotomized rat facial motoneurons is differentially regulated by neurotrophins: correlation with trkB and trkC mRNA levels and isoforms. Fernandes KJ, et al. **J Neurosci** 1998 Dec 1;18(23):9936–47

Enhanced neurotrophin-induced axon growth in myelinated portions of the CNS in mice lacking the p75 neurotrophin receptor. Walsh GS, et al. **J Neurosci** 1999 May 15; 19(10):4155–68

Lipopolysaccharide differentially regulates microglial trk receptor and neurotrophin expression. Elkabes S, et al. **J Neurosci Res** 1998 Oct 1;54(1):117–22

Differential effects of olanzapine on the gene expression of superoxide dismutase and the low affinity nerve growth factor receptor. Li XM, et al. **J Neurosci Res** 1999 Apr 1;56(1):72–5

Localization of mRNAs for trkB isoforms and p75 in rat retinal ganglion cells [published erratum appears in J Neurosci Res 1999 Jan 1;55(1):135] Suzuki A, et al. **J Neurosci Res** 1998 Oct 1;54(1):27–37

GFR alpha3, a component of the artemin receptor, is required for migration and survival of the superior cervical ganglion. Nishino J, et al. **Neuron** 1999 Aug;23(4):725–36

Glial cell line-derived neurotrophic factor and nerve growth factor receptor mRNAs are expressed in distinct subgroups of dorsal root ganglion neurons and are differentially regulated by peripheral axotomy in the rat. Kashiba H, et al. **Neurosci Lett** 1998 Aug 14;252(2):107–10

Reduced tyrosine kinase receptor C mRNA levels in the frontal cortex of patients with schizophrenia. Schramm M, et al. **Neurosci Lett** 1998 Nov 27;257(2):65–8

trkB messenger RNA expression in normal human brain and in the substantia nigra of parkinsonian patients: an in situ hybridization study. Benisty S, et al. **Neuroscience** 1998 Oct;86(3):813–26

A role for p75 receptor in neurotrophin-3 functioning during the development of limb proprioception. Fan G, et al. **Neuroscience** 1999 Apr;90(1):259–68

Correlated long-term increase of brain-derived neurotrophic factor and Trk B proteins in enlarged granule cells of mouse hippocampus after kainic acid injection. Inoue T, et al. **Neuroscience** 1998 Oct;86(3):723–8

Genomic characterization of the human trkC gene. Ichaso N, et al. **Oncogene** 1998 Oct 8;17(14):1871–5

Estrogen-inducible, sex-specific expression of brain-derived neurotrophic factor mRNA in a forebrain song control nucleus of the juvenile zebra finch. Dittrich F, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8241–6

Roles of trk family neurotrophin receptors in medullary thyroid carcinoma development and progression. McGregor LM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4540–5

Neurotrophins regulate agrin-induced postsynaptic differentiation. Wells DG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1112–7

Rearrangements of RET and NTRK1 tyrosine kinase receptors in papillary thyroid carcinomas. Pierotti MA, et al. **Recent Results Cancer Res** 1998;154:237–47 (47 ref.)

IMMUNOLOGY

NK1.1 cells express 4-1BB (CDw137) costimulatory molecule and are required for tumor immunity elicited by anti-4-1BB monoclonal antibodies. Melero I, et al. **Cell Immunol** 1998 Dec 15;190(2):167–72

Differential expression and costimulatory effect of 4-1BB (CD137) and CD28 molecules on cytokine-induced murine CD8(+) Tc1 and Tc2 cells. Vinay DS, et al. **Cell Immunol** 1999 Feb 25;192(1):63–71

Production of a monoclonal antibody directed against the high-affinity nerve growth factor receptor. Tagliabue E, et al. **Int J Biol Markers** 1999 Apr-Jun;14(2):68–72

Decreased CGRP, but preserved Trk A immunoreactivity in nerve fibres in inflamed human superficial temporal arteries. Saldanha G, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar;66(3):390–2

Role of 4-1BB in immune responses. Vinay DS, et al. **Semin Immunol** 1998 Dec;10(6):481–9 (43 ref.)

METABOLISM

Trk A, B, and C are commonly expressed in human astrocytes and astrocytic gliomas but not by human oligodendrocytes and oligodendroglioma. Wang Y, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):357–64

Expression of neurotrophins and their receptors in human bone marrow. Labouyrie E, et al. **Am J Pathol** 1999 Feb; 154(2):405–15

Development of full-length Trk B-immunoreactive structures in the hippocampal formation of the macaque monkey. Hayashi M, et al. **Anat Embryol (Berl)** 1999 Jun; 199(6):529–37

Enhanced downregulation of the p75 nerve growth factor receptor by cholesteryl and bis-cholesteryl antisense oligonucleotides. Epa WR, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):489–98

Homologue scanning mutagenesis of heregulin reveals receptor specific binding epitopes. Harris A, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):220–4

TrkB mutant lacking the amino-terminal half of the extracellular portion acts as a functional brain-derived neurotrophic factor receptor. Kojima S, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1-2):104–10

Mechanisms of apical protein sorting in polarized thyroid epithelial cells. Lipardi C, et al. **Biochimie** 1999 Apr; 81(4):347–53

Expression of nerve growth factor receptors in cutaneous inflammation. Bull HA, et al. **Br J Dermatol** 1998 Nov; 139(5):776–83

Change of expression of full-length and truncated TrkBs in the developing monkey central nervous system. Ohira K, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):21–9

Amyloid precursor protein modulates the interaction of nerve growth factor with p75 receptor and potentiates its activation of trkA phosphorylation. Akar CA, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):125–32

p75NTR: A study in contrasts [see comments] Barker PA. **Cell Death Differ** 1998 May;5(5):346–56 (140 ref.). Comment in: Cell Death Differ 1998 May;5(5):343–5.

Neurotrophins: the biological paradox of survival factors eliciting apoptosis [see comments] Casaccia-Bonnefil P, et al. **Cell Death Differ** 1998 May;5(5):357–64 (73 ref.). Comment in: Cell Death Differ 1998 May;5(5):343–5.

Life and death decisions: a biological role for the p75 neurotrophin receptor [editorial; comment] Miller FD, et al. **Cell Death Differ** 1998 May;5(5):343–5. Comment on: Cell Death Differ 1998 May;5(5):346–56. Comment on: Cell Death Differ 1998 May;5(5):357–64. Comment on: Cell Death Differ 1998 May;5(5):365–71.

Activation of Vav and Ras through the nerve growth factor and B cell receptors by different kinases. Melamed I, et al. **Cell Immunol** 1999 Feb 1;191(2):83–9

Increased expression of low-affinity NGF receptor in rat retinal Müller cells after ischemia and reperfusion. Tomita H, et al. **Cell Struct Funct** 1998 Aug;23(4):201–7

Nerve growth factor receptor signaling in proliferation of normal adult rat chromaffin cells. Powers JF, et al. **Cell Tissue Res** 1999 Jan;295(1):21–32

Biochemical and functional interactions between the neurotrophin receptors trk and p75NTR. Bibel M, et al. **EMBO J** 1999 Feb 1;18(3):616–22

A function-structure model for NGF-activated TRK. Cunningham ME, et al. **EMBO J** 1998 Dec 15; 17(24):7282–93

Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for rabies virus. Tuffereau C, et al. **EMBO J** 1998 Dec 15;17(24):7250–9

TrkA activation in the rat visual cortex by antirat trkA IgG prevents the effect of monocular deprivation. Pizzorusso T, et al. **Eur J Neurosci** 1999 Jan;11(1):204–12

Nerve growth factor (NGF) exerts its pro-apoptotic effect via the P75NTR receptor in a cell cycle-dependent manner. Bono F, et al. **FEBS Lett** 1999 Aug 20;457(1):93–7

Influence of endogenous GM1 ganglioside on TrkB activity, in cultured neurons. Pitto M, et al. **FEBS Lett** 1998 Nov 13;439(1-2):93–6

Localization of p75 neurotrophin receptor in the retina of the adult SD rat: an immunocytochemical study at light and electron microscopic levels. Hu B, et al. **Glia** 1998 Oct;24(2):187–97

The p75 neurotrophin receptor (p75NTR) alters tumor necrosis factor-mediated NF-kappaB activity under physiological conditions, but direct p75NTR-mediated NF-kappaB activation requires cell stress. Bhakar AL, et al. **J Biol Chem** 1999 Jul 23;274(30):21443–9

Caveolin interacts with Trk A and p75(NTR) and regulates neurotrophin signaling pathways. Bilderback TR, et al. **J Biol Chem** 1999 Jan 1;274(1):257–63

p75 neurotrophin receptor-mediated neuronal death is promoted by Bcl-2 and prevented by Bcl-xL. Coulson EJ, et al. **J Biol Chem** 1999 Jun 4;274(23):16387–91

Nerve growth factor (NGF)-induced calcium influx and intracellular calcium mobilization in 3T3 cells expressing NGF receptors. Jiang H, et al. **J Biol Chem** 1999 Sep 10; 274(37):26209–16

Association of the p75 neurotrophin receptor with TRAF6. Khursigara G, et al. **J Biol Chem** 1999 Jan 29; 274(5):2597–600

Putative O-glycosylation sites and a membrane anchor are necessary for apical delivery of the human neurotrophin receptor in Caco-2 cells. Monlauzeur L, et al. **J Biol Chem** 1998 Nov 13;273(46):30263–70

A TrkA-selective, fast internalizing nerve growth factor-antibody complex induces trophic but not neuritogenic signals. Saragovi HU, et al. **J Biol Chem** 1998 Dec 25;273(52):34933–40

Brain-derived neurotrophic factor induces rapid and transient release of glutamate through the non-exocytotic pathway from cortical neurons. Takei N, et al. **J Biol Chem** 1998 Oct 16;273(42):27620–4

The Csk homologous kinase associates with TrkA receptors and is involved in neurite outgrowth of PC12 cells. Yamashita H, et al. **J Biol Chem** 1999 May 21; 274(21):15059–65

p75NTR immunoreactivity in the rat dentate gyrus is mostly within presynaptic profiles but is also found in some astrocytic and postsynaptic profiles. Dougherty KD, et al. **J Comp Neurol** 1999 Apr 28;407(1):77–91

TrkA glycosylation regulates receptor localization and activity. Watson FL, et al. **J Neurobiol** 1999 May; 39(2):323–36

Extended ceramide exposure activates the trkA receptor by increasing receptor homodimer formation. MacPhee I, et al. **J Neurochem** 1999 Apr;72(4):1423–30

Activation of the high affinity nerve growth factor receptor by two polyanionic chemotherapeutic agents: role in drug induced neurotoxicity. Gill JS, et al. **J Neurooncol** 1998 Oct;40(1):19–27

Differentiation and growth inhibition of glioma cells induced by transfer of trk A proto-oncogene. Kokunai T, et al. **J Neurooncol** 1999 Mar;42(1):23–34

BDNF and full-length and truncated TrkB expression in Alzheimer disease. Implications in therapeutic strategies.

Ferrer I, et al. **J Neuropathol Exp Neurol** 1999 Jul; 58(7):729–39

Ciliary neurotrophic factor receptor alpha in spinal motoneurons is regulated by gonadal hormones. Forger NG, et al. **J Neurosci** 1998 Nov 1;18(21):8720–9

Functionally antagonistic interactions between the TrkA and p75 neurotrophin receptors regulate sympathetic neuron growth and target innervation. Kohn J, et al. **J Neurosci** 1999 Jul 1;19(13):5393–408

Subcellular localization of full-length and truncated Trk receptor isoforms in polarized neurons and epithelial cells. Kryl D, et al. **J Neurosci** 1999 Jul 15;19(14):5823–33

Differential regulation of neurotrophin and trk receptor mRNAs in catecholaminergic nuclei during chronic opiate treatment and withdrawal. Numan S, et al. **J Neurosci** 1998 Dec 15;18(24):10700–8

Chronic pain is associated with increased TrkA immunoreactivity in spinoreticular neurons. Pezet S, et al. **J Neurosci** 1999 Jul 1;19(13):5482–92

Regulation of neurotrophin receptor expression by retinoic acid in mouse sympathetic neuroblasts. Wyatt S, et al. **J Neurosci** 1999 Feb 1;19(3):1062–71

Selective regulation of trkC expression by NT3 in the developing peripheral nervous system. Wyatt S, et al. **J Neurosci** 1999 Aug 1;19(15):6559–70

Functional expression of TrkA receptors in hippocampal neurons. Aibel L, et al. **J Neurosci Res** 1998 Nov 1; 54(3):424–31

NT-3–mediated TrkC receptor activation promotes proliferation and cell survival of rodent progenitor oligodendrocyte cells in vitro and in vivo. Kumar S, et al. **J Neurosci Res** 1998 Dec 15;54(6):754–65

Beta-amyloid binds to p57NTR and activates NFkappaB in human neuroblastoma cells. Kuner P, et al. **J Neurosci Res** 1998 Dec 15;54(6):798–804

NGF induces apoptosis in a human neuroblastoma cell line expressing the neurotrophin receptor p75NTR. Kuner P, et al. **J Neurosci Res** 1998 Nov 15;54(4):465–74

Expression of p75NTR in a human prostate epithelial tumor cell line reduces nerve growth factor–induced cell growth by activation of programmed cell death. Pflug B, et al. **Mol Carcinog** 1998 Oct;23(2):106–14

The staurosporine-like compound L-753,000 (NB-506) potentiates the neurotrophic effects of neurotrophin-3 by acting selectively at the TrkA receptor. Pollack S, et al. **Mol Pharmacol** 1999 Jul;56(1):185–95

Depolarization and cAMP elevation rapidly recruit TrkB to the plasma membrane of CNS neurons. Meyer-Franke A, et al. **Neuron** 1998 Oct;21(4):681–93

GFR alpha3, a component of the artemin receptor, is required for migration and survival of the superior cervical ganglion. Nishino J, et al. **Neuron** 1999 Aug;23(4):725–36

Increased levels of TrkA in the regenerating retinal ganglion cells of fish. Vecino E, et al. **Neuroreport** 1998 Oct 26; 9(15):3409–13

Delayed loss of p75 neurotrophin receptor–immunoreactivity in the rat suprachiasmatic nucleus and intergeniculate leaflet after binocular enucleation. Moga MM. **Neurosci Lett** 1998 Sep 11;253(3):187–90

Compartmental expression of trkB receptor protein in the developing striatum. Costantini LC, et al. **Neuroscience** 1999 Mar;89(2):505–13

Ontogeny of neurotrophin receptor trkC expression in the rat forebrain and anterior hypothalamus with emphasis on the suprachiasmatic nucleus. Hassink GC, et al. **Neuroscience** 1999;92(2):705–12

trkA, trkB, and trkC messenger RNA expression by bulbospinal cells of the rat. King VR, et al. **Neuroscience** 1999;92(3):935–44

Long-term actions of vector-derived nerve growth factor or brain-derived neurotrophic factor on choline acetyltransferase and Trk receptor levels in the adult rat basal forebrain. Klein RL, et al. **Neuroscience** 1999 Mar; 90(3):815–21

Regulation of ciliary neurotrophic factor receptor alpha in sciatic motor neurons following axotomy. MacLennan AJ, et al. **Neuroscience** 1999;91(4):1401–13

Leukaemia inhibitory factor prevents loss of p75-nerve growth factor receptor immunoreactivity in medial septal neurons following fimbria-fornix lesions. Panni MK, et al. **Neuroscience** 1999;89(4):1113–21

The distribution of neurotrophin receptor TrkC-like immunoreactive fibers and varicosities in the rhesus monkey brain. Sandell JH, et al. **Neuroscience** 1998 Oct; 86(4):1181–94

Tyrosine kinase A, galanin and nitric oxide synthase within basal forebrain neurons in the rat. Sobreviela T, et al. **Neuroscience** 1998 Nov;87(2):447–61

Co-expression of TrkB and the N-methyl-D-aspartate receptor subunits NR1-C1, NR2A and NR2B in the rat visual cortex. Tongiorgi E, et al. **Neuroscience** 1999; 90(4):1361–9

Regulation of NGF responsiveness in human neuroblastoma. Bogenmann E, et al. **Oncogene** 1998 Nov 5;17(18):2367–76

Role of 4–1BB in immune responses. Vinay DS, et al. **Semin Immunol** 1998 Dec;10(6):481–9 (43 ref.)

p75 nerve growth factor receptor in the vesical urothelium of patients with neuropathic bladder: an immunohistochemical study. Vaidyanathan S, et al. **Spinal Cord** 1998 Aug;36(8):541–7

[Neurotrophic factors and spinal cord injury. A review] Liu W, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):19–21 (26 ref.) **(Chi)**

[Identification of signals and mechanisms of sorting of plasma membrane proteins in intestinal epithelial cells] Breuza L, et al. **J Soc Biol** 1999;193(2):131–4 (Eng. Abstr.) **(Fre)**

[Signal transduction of nerve growth factor (NGF) and its TrkA and p75NTR receptors] Niewiadomska G, et al. **Postepy Biochem** 1999;45(1):21–31 (79 ref.) **(Pol)**

PHYSIOLOGY

Efficient retroviral infection of human cells utilising an adenoviral vector expressing the ecotropic receptor. Scott-Taylor TH, et al. **Adv Exp Med Biol** 1998;451:423–30

TrkA receptors delay C6–2B glioma cell growth in rat striatum. Rabin SJ, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):273–6

Activation of neurotrophin-3 receptor TrkC induces apoptosis in medulloblastomas. Kim JY, et al. **Cancer Res** 1999 Feb 1;59(3):711–9

p75NTR and the concept of cellular dependence: seeing how the other half die [see comments] Bredesen DE, et al. **Cell Death Differ** 1998 May;5(5):365–71 (39 ref.). Comment in: Cell Death Differ 1998 May;5(5):343–5.

4–1BB costimulation promotes human T cell adhesion to fibronectin. Kim YJ, et al. **Cell Immunol** 1999 Feb 25; 192(1):13–23

Nerve growth factor (NGF) exerts its pro-apoptotic effect via the P75NTR receptor in a cell cycle–dependent manner. Bono F, et al. **FEBS Lett** 1999 Aug 20;457(1):93–7

Molecular basis of spontaneous regression of neuroblastoma: role of neurotrophic signals and genetic abnormalities. Nakagawara A. **Hum Cell** 1998 Sep;11(3):115–24 (46 ref.)

Neuronal life and death decisions functional antagonism between the Trk and p75 neurotrophin receptors. Majdan M, et al. **Int J Dev Neurosci** 1999 Jun;17(3):153–61 (87 ref.)

Trophic interactions between sensory nerves and their targets. Chen WP, et al. **J Biomed Sci** 1999 Mar–Apr; 6(2):79–85 (52 ref.)

p53 is essential for developmental neuron death as regulated by the TrkA and p75 neurotrophin receptors. Aloyz RS, et al. **J Cell Biol** 1998 Dec 14;143(6):1691–703

Central neuronal loss and behavioral impairment in mice lacking neurotrophin receptor p75. Peterson DA, et al. **J Comp Neurol** 1999 Feb 1;404(1):1–20

Role of the stress kinase pathway in signaling via the T cell costimulatory receptor 4–1BB. Cannons JL, et al. **J Immunol** 1999 Sep 15;163(6):2990–8

Retardation of hair follicle development by the deletion of TrkC, high-affinity neurotrophin-3 receptor [letter] Botchkareva NV, et al. **J Invest Dermatol** 1999 Sep; 113(3):425–7

Identification of CD137 as a potent monocyte survival factor. Langstein J, et al. **J Leukoc Biol** 1999 Jun;65(6):829–33

Neurotrophin binding to the p75 neurotrophin receptor is necessary but not sufficient to mediate NGF-effects on APP secretion in PC-12 cells. Rossner S, et al. **J Neural Transm Suppl** 1998;54:279–85

Nerve growth factor–induced growth of sympathetic axons into the optic tract of mature mice is enhanced by an absence of p75NTR expression. Hannila SS, et al. **J Neurobiol** 1999 Apr;39(1):51–66

A novel juxtamembrane deletion in rat TrkA blocks differentiative but not mitogenic cell signaling in response to nerve growth factor. Meakin SO, et al. **J Neurochem** 1998 Nov;71(5):1875–88

Ceramide signaling downstream of the p75 neurotrophin receptor mediates the effects of nerve growth factor on outgrowth of cultured hippocampal neurons. Brann AB, et al. **J Neurosci** 1999 Oct 1;19(19):8199–206

Evidence for a role of truncated trkC receptor isoforms in mouse development. Palko ME, et al. **J Neurosci** 1999 Jan 15;19(2):775–82

TrkB signaling modulates spine density and morphology independent of dendrite structure in cultured neonatal Purkinje cells. Shimada A, et al. **J Neurosci** 1998 Nov 1; 18(21):8559–70

Nerve growth factor signaling through p75 induces apoptosis in Schwann cells via a Bcl-2–independent pathway. Soilu-Hänninen M, et al. **J Neurosci** 1999 Jun 15; 19(12):4828–38

Characterization of an NGF-P-TrkA retrograde-signaling complex and age-dependent regulation of TrkA phosphorylation in sympathetic neurons. Tsui-Pierchala BA, et al. **J Neurosci** 1999 Oct 1;19(19):8207–18

Rapid nuclear responses to target-derived neurotrophins require retrograde transport of ligand-receptor complex. Watson FL, et al. **J Neurosci** 1999 Sep 15;19(18):7889–900

Insulin-like growth factor-II expression is down-regulated in TrkA-transfected SK-N-AS neuroblastoma cells. Kim CJ, et al. **Lab Invest** 1999 Aug;79(8):1007–13

Activity-dependent activation of TrkB neurotrophin receptors in the adult CNS. Aloyz R, et al. **Learn Mem** 1999 May–Jun;6(3):216–31

Determinants of BDNF-induced hippocampal synaptic plasticity: role of the Trk B receptor and the kinetics of neurotrophin delivery. Kang H, et al. **Learn Mem** 1996 Sep–Oct;3(2–3):188–96

p75 neurotrophin receptor as a modulator of survival and death decisions. Casaccia-Bonnefil P, et al. **Microsc Res Tech** 1999 May 15–Jun 1;45(4–5):217–24 (80 ref.)

Trks: signal transduction and intracellular pathways. Klesse LJ, et al. **Microsc Res Tech** 1999 May 15–Jun 1; 45(4–5):210–6 (73 ref.)

p75-mediated NF-kappaB activation enhances the survival response of developing sensory neurons to nerve growth factor. Hamanoue M, et al. **Mol Cell Neurosci** 1999 Jul; 14(1):28–40

The p75 neurotrophin receptor influences NT-3 responsiveness of sympathetic neurons in vivo. Brennan C, et al. **Nat Neurosci** 1999 Aug;2(8):699–705

Nerve growth factor acutely reduces chemical transmission by means of postsynaptic TrkA-like receptors in squid giant synapse. Moreno H, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14997–5002

Neurotrophin receptors in Alzheimer's disease. Salehi A, et al. **Prog Brain Res** 1998;117:71–89 (142 ref.)

The regulation of amyloid precursor protein metabolism by cholinergic mechanisms and neurotrophin receptor signaling. Rossner S, et al. **Prog Neurobiol** 1998 Dec; 56(5):541–69 (286 ref.)

Neurotrophins. Lederhaas G. **Reg Anesth Pain Med** 1999 May–Jun;24(3):250–1 (5 ref.)

Suicide-gene–transduced T-cells for the regulation of the graft-versus-leukemia effect. Bonini C, et al. **Vox Sang** 1998;74 Suppl 2:341–3 (7 ref.)

[Neuronal growth factors--neurotrophins (see comments)] Meyer M, et al. **Ugeskr Laeger** 1999 Apr 5;161(14):2063–70 (40 ref.) (Eng. Abstr.). Comment in: Ugeskr Laeger 1999 May 24;161(21):3112–3. **(Dan)**

RECEPTORS, NEU see **PROTO-ONCOGENE PROTEINS C-ERBB-2**

RECEPTORS, NEURAL see **RECEPTORS, SENSORY**

RECEPTORS, NEUROHUMOR see **RECEPTORS, NEUROTRANSMITTER**

RECEPTORS, NEUROKININ-1

AGONISTS

Characterization of central and peripheral effects of septide with the use of five tachykinin NK1 receptor antagonists in the rat. Cellier E, et al. **Br J Pharmacol** 1999 Jun; 127(3):717–28

Opioid activity of sendide, a tachykinin NK1 receptor antagonist. Sakurada T, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):261–6

Spinal actions of GR73632, a novel tachykinin NK1 receptor agonist. Sakurada C, et al. **Peptides** 1999;20(2):301–4

Characterization of tachykinin receptors mediating bronchomotor and vasodepressor responses to neuropeptide gamma and substance P in the anaesthetized rabbit. Yuan L, et al. **Pulm Pharmacol Ther** 1998 Feb; 11(1):31–9

ANALYSIS

Neurokinin-1 receptor expression in the mature dental pulp of rats. Fristad I, et al. **Arch Oral Biol** 1999 Feb;44(2):191–5

Occurrence and distribution of substance P receptors in the cerebral blood vessels of the rat. Shimizu T, et al. **Brain Res** 1999 Jun 5;830(2):372–8

Immunocytochemical localization of substance P neurokinin-1 receptors in rat gingival tissue. Kido MA, et al. **Cell Tissue Res** 1999 Aug;297(2):213–22

Immunocytochemical localization of substance P receptor in rat periaqueductal gray matter: a light and electron microscopic study. Barbaresi P. **J Comp Neurol** 1998 Sep 7;398(4):473–90

Cellular and subcellular distribution of substance P receptor immunoreactivity in the dorsal vagal complex of the rat and cat: a light and electron microscope study. Baude A, et al. **J Comp Neurol** 1998 Dec 14;402(2):181–96

Neurokinin-1 receptor localisation in guinea pig autonomic ganglia. Messenger JP, et al. **J Comp Neurol** 1999 Oct 4; 412(4):693–704

GABAergic neurons that contain neuropeptide Y selectively target cells with the neurokinin 1 receptor in laminae III and IV of the rat spinal cord. Polgár E, et al. **J Neurosci** 1999 Apr 1;19(7):2637–46

NK-1 receptor immunoreactivity in distinct morphological types of lamina I neurons of the primate spinal cord. Yu XH, et al. **J Neurosci** 1999 May 1;19(9):3545–55

The distribution of substance P receptor (NK1)-like immunoreactive neurons in the newborn and adult human spinal cord. Ding YQ, et al. **Neurosci Lett** 1999 May 7; 266(2):133–6

Smooth muscle cells are the site of neurokinin-1 receptor localization in the arterial supply of the rat sciatic nerve. Kummer W, et al. **Neurosci Lett** 1999 Jan 8;259(2):119–22

Localization of the neurokinin 1 (NK-1) receptor in the human antrum and duodenum. Smith VC, et al. **Neurosci Lett** 1998 Aug 28;253(1):49–52

Substance P receptor (NK1)–immunoreactive neurons projecting to the periaqueductal gray: distribution in the spinal trigeminal nucleus and the spinal cord of the rat. Li JL, et al. **Neurosci Res** 1998 Mar;30(3):219–25

ANTAGONISTS & INHIBITORS

Intrathecal co-administration of NMDA antagonist and NK-1 antagonist reduces MAC of isoflurane in rats.

Ishizaki K, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):753–9

A neurokinin-1 receptor antagonist reduced hypersalivation and gastric contractility related to emesis in dogs. Furukawa N, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1193–201

Serine derived NK1 antagonists. 1: The effect of modifications to the serine substituents. Elliott JM, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1845–50

Serine derived NK1 antagonists. 2: A pharmacophore model for arylsulfonamide binding. Elliott JM, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1851–6

Synthesis and NK1 receptor antagonistic activity of (+/-)-1-acyl-3-(3,4-dichlorophenyl)-3-[2-(spiro-substituted piperidin-1'-yl)ethyl]piperidines. Kubota H, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1541–6

High affinity phenylglycinol-based NK1 receptor antagonists. Owens AP, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):51–6

L-tryptophan urea amides as NK1/NK2 dual antagonists. Qi H, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2259–62

Synthesis and structure-activity relationships of CP-122,721, a second-generation NK-1 receptor antagonist. Rosen TJ, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):281–4

Antiemetic activity of the NK1 receptor antagonist GR205171 in the treatment of established postoperative nausea and vomiting after major gynaecological surgery. Diemunsch P, et al. **Br J Anaesth** 1999 Feb;82(2):274–6

Characterization of central and peripheral effects of septide with the use of five tachykinin NK1 receptor antagonists in the rat. Cellier E, et al. **Br J Pharmacol** 1999 Jun; 127(3):717–28

Effects of tachykinin NK1 receptor antagonists on vagal hyperreactivity and neuronal M2 muscarinic receptor function in antigen challenged guinea-pigs. Costello RW, et al. **Br J Pharmacol** 1998 May;124(2):267–76

Potent inhibition of both the acute and delayed emetic responses to cisplatin in piglets treated with GR205171, a novel highly selective tachykinin NK1 receptor antagonist. Grélot L, et al. **Br J Pharmacol** 1998 Aug; 124(8):1643–50

The site of the anti-emetic action of tachykinin NK1 receptor antagonists may exist in the medullary area adjacent to the semicompact part of the nucleus ambiguus. Fukuda H, et al. **Brain Res** 1999 Feb 13;818(2):439–49

A tachykinin NK1 receptor antagonist, CP-122,721-1, attenuates kainic acid-induced seizure activity. Zachrisson O, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):291–5

Inhibitory effects of tachykinin receptor antagonists on thermally induced inflammatory reactions in a rat model. Löfgren O, et al. **Burns** 1999 Mar;25(2):125–9

Spiro-substituted piperidines as neurokinin receptor antagonists. III. Synthesis of (+/-)-N-[2-(3,4-dichlorophenyl)-4-(spiro-substituted piperidin-1'-yl)butyl]-N-methylbenzamides and evaluation of NK1-NK2 dual antagonistic activities. Kubota H, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1538–44

Effect of SR-140333, a neurokinin-1 receptor antagonist, on airway reactivity to methacholine in sedated rats. Tian J, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):485–8

The substance P receptor antagonist CP-99,994 reduces acute postoperative pain. Dionne RA, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):562–8

SR140333, a substance P receptor antagonist, influences morphological and motor changes in rat experimental colitis. Di Sebastiano P, et al. **Dig Dis Sci** 1999 Feb; 44(2):439–44

Involvement of substance P in the anti-inflammatory effects of the peripherally selective kappa-opioid asimadoline and the NK1 antagonist GR205171. Binder W, et al. **Eur J Neurosci** 1999 Jun;11(6):2065–72

Tachykinin NK1 receptor antagonists enhance stress-induced c-fos in rat locus coeruleus. Hahn MK, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):155–60

GR205171 blocks apomorphine and amphetamine-induced conditioned taste aversions. McAllister KH, et al. **Eur J Pharmacol** 1998 Jul 24;353(2–3):141–8

Reinforcing effects of neurokinin substance P in the ventral pallidum: mediation by the tachykinin NK1 receptor. Nikolaus S, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):93–9

Correlation between binding characteristics and functional antagonism in human glioma cells by tachykinin NK1 receptor antagonists. Palma C, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):435–43

Inhibition of emesis by tachykinin NK1 receptor antagonists in Suncus murinus (house musk shrew). Rudd JA, et al. **Eur J Pharmacol** 1999 Feb 5;366(2–3):243–52

Opioid activity of sendide, a tachykinin NK1 receptor antagonist. Sakurada T, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):261–6

The effects of SDZ NKT 343, a potent NK1 receptor antagonist, on cutaneous responses of primate spinothalamic tract neurones sensitized by intradermal capsaicin injection. Rees H, et al. **Exp Brain Res** 1998 Aug; 121(3):355–8

The problem of delayed emesis after cancer chemotherapy: a possible new treatment. Hasler WL. **Gastroenterology** 1999 Sep;117(3):737–8

Effects of GR203040, an NK1 antagonist, on radiation- and cisplatin-induced tissue damage in the ferret. Alfieri AB, et al. **Gen Pharmacol** 1998 Nov;31(5):741–6

A substance P receptor antagonist (FK 888) modifies gut alterations induced by ionizing radiation. Esposito V, et al. **Int J Radiat Biol** 1998 Nov;74(5):625–32

Randomized phase II study of the neurokinin 1 receptor antagonist CJ-11,974 in the control of cisplatin-induced emesis. Hesketh PJ, et al. **J Clin Oncol** 1999 Jan; 17(1):338–43

Use of placebos in delayed-emesis studies [letter] Navari RM. **J Clin Oncol** 1999 May;17(5):1648–50

Structural optimization affording 2-(R)-(1-(R)-3,5-bis(trifluoromethyl)phenylethoxy)-3-(S)-(4-fluoro) phenyl-4- (3-oxo-1,2,4-triazol-5-yl)methylmorpholine, a potent, orally active, long-acting morpholine acetal human NK-1 receptor antagonist. Hale JJ, et al. **J Med Chem** 1998 Nov 5;41(23):4607–14

Axially chiral N-benzyl-N,7-dimethyl-5-phenyl-1,7-naphthyridine-6-carboxamide derivatives as tachykinin NK1 receptor antagonists: determination of the absolute stereochemical requirements. Ikeura Y, et al. **J Med Chem** 1998 Oct 22;41(22):4232–9

Axially chiral 1,7-naphthyridine-6-carboxamide derivatives as orally active tachykinin NK(1) receptor antagonists: synthesis, antagonistic activity, and effect on bladder functions. Natsugari H, et al. **J Med Chem** 1999 Sep 23; 42(19):3982–93

4,4-Disubstituted piperidine high-affinity NK1 antagonists: structure-activity relationships and in vivo activity. Stevenson GI, et al. **J Med Chem** 1998 Nov 5; 41(23):4623–35

Neurokinin type-1 receptor antagonist inhibits enhancement of T cell functions by substance P in normal and neuromanipulated capsaicin-treated rats. Santoni G, et al. **J Neuroimmunol** 1999 Jan 1;93(1-2):15–25

Prejunctional control of pH 6-induced bronchoconstriction by NK1, NK2, mu-opioid, alpha2-adrenoceptor and glucocorticoid receptors in guinea-pig isolated perfused lung. Auberson S, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):899–905

Reduction of cisplatin-induced emesis by a selective neurokinin-1-receptor antagonist. L-754,030 Antiemetic Trials Group [see comments] Navari RM, et al. **N Engl J Med** 1999 Jan 21;340(3):190–5. Comment in: N Engl J Med 1999 Jun 17;340(2):1926–8.

Prevention of cisplatin-induced emesis by a neurokinin-1-receptor antagonist [letter; comment] Roila F, et al. **N Engl J Med** 1999 Jun 17;340(24):1926–8. Comment on: N Engl J Med 1999 Jan 21;340(3):190–5.

Reversal of behavioural and electrophysiological correlates of experimental peripheral neuropathy by the NK1 receptor antagonist GR205171 in rats. Cumberbatch MJ, et al. **Neuropharmacology** 1998 Dec;37(12):1535–43

Inhibition of anaesthetic-induced emesis by a NK1 or 5-HT3 receptor antagonist in the house musk shrew, Suncus murinus. Gardner C, et al. **Neuropharmacology** 1998 Dec; 37(12):1643–4

The neurokinin-1 receptor antagonist WIN51,708 attenuates the anxiolytic-like effects of ventralpallidal substance P injection. Nikolaus S, et al. **Neuroreport** 1999 Aug 2; 10(11):2293–6

Chronic non-peptide neurokinin receptor antagonist treatment alters striatal tachykinin peptide and receptor gene expression in the rat. McCarson KE, et al. **Neurosci Lett** 1998 Jul 24;251(2):113–6

Anti-emetic effects of a novel NK-1 receptor antagonist HSP-117 in ferrets. Saito R, et al. **Neurosci Lett** 1998 Oct 2;254(3):169–72

Activity of tachykinin NK1 and bradykinin B2 receptor antagonists, and an opioid ligand at different stimulation parameters in neurogenic inflammation in the rat. Towler PK, et al. **Neurosci Lett** 1998 Nov 20;257(1):5–8

The tachykinin NK1 receptor antagonist GR205171 abolishes the retching activity of neurons comprising the central pattern generator for vomiting in dogs. Fukuda H, et al. **Neurosci Res** 1999 Jan;33(1):25–32

Selective neurokinin-1 receptor antagonists are anti-hyperalgesic in a model of neuropathic pain in the guinea-pig. Campbell EA, et al. **Neuroscience** 1998 Dec; 87(3):527–32

Transgenic mice over-expressing substance P exhibit allodynia and hyperalgesia which are reversed by substance P and N-methyl-D-aspartate receptor antagonists. McLeod AL, et al. **Neuroscience** 1999 Mar;89(3):891–9

The tachykinin NK-1 receptor antagonist, RP-67580, infused into the ventral tegmental area prevents stress-induced analgesia in the formalin test. Altier N, et al. **Physiol Behav** 1999 Jun;66(4):717–21

[Inhibitory effects of tachykinin receptor antagonists on leukotriene C4-induced cardiovascular responses in guinea pigs] Wu RY, et al. **Yao Hsueh Hsueh Pao** 1996; 31(12):906–10 (Eng. Abstr.) **(Chi)**

BIOSYNTHESIS

Functional neurokinin NK-1 receptor expression in rat peritoneal mast cells. Okada T, et al. **Inflamm Res** 1999 May;48(5):274–9

Substance P receptor-expressing neurons in the medullary and spinal dorsal horns projecting to the nucleus of the solitary tract in the rat. Guan ZL, et al. **Neurosci Res** 1998 Mar;30(3):213–8

Central and peripheral expression of neurokinin-1 and neurokinin-3 receptor and substance P-encoding messenger RNAs: peripheral regulation during formalin-induced inflammation and lack of neurokinin receptor expression in primary afferent sensory neurons. McCarson KE. **Neuroscience** 1999;93(1):361–70

Expression of neurokinin-1 receptors on cultured dorsal root ganglion neurons from the adult rat. Segond von Banchet G, et al. **Neuroscience** 1999 May;90(2):677–84

A quantitative study of neurons which express neurokinin-1 or somatostatin sst2a receptor in rat spinal dorsal horn. Todd AJ, et al. **Neuroscience** 1998 Jul;85(2):459–73

CHEMISTRY

Identification in the NK1 tachykinin receptor of a domain involved in recognition of neurokinin A and septide but not of substance P. Wijkhuisen A, et al. **FEBS Lett** 1999 Mar 26;447(2–3):155–9

Further delineation of the two binding sites (R*(n)) associated with tachykinin neurokinin-1 receptors using [3-Prolinomethionine(11)]SP analogues. Sagan S, et al. **J Biol Chem** 1999 Aug 20;274(34):23770–6

DRUG EFFECTS

Substance P activates responses correlated with tumour growth in human glioma cell lines bearing tachykinin NK1 receptors. Palma C, et al. **Br J Cancer** 1999 Jan; 79(2):236–43

Nociceptin-induced scratching, biting and licking in mice: involvement of spinal NK1 receptors. Sakurada T, et al. **Br J Pharmacol** 1999 Aug;127(7):1712–8

In vivo signal transduction of tetrodotoxin-sensitive nociceptive responses by substance P given into the planta of the mouse hind limb. Inoue M, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):555–61

Central injections of capsaicin cause antidiuresis mediated through neurokinin-1 receptors in rat hypothalamus and vasopressin release. Tsushima H, et al. **Jpn J Pharmacol** 1999 Feb;79(2):237–41

Evaluation of the role of neurolinins and urecholine hypersensitivity in an animal model of infravesical outflow obstruction. Dion SB, et al. **Urology** 1998 Nov;52(5):909–14

GENETICS

Impaired IL-1beta-induced neutrophil accumulation in tachykinin NK1 receptor knockout mice. Ahluwalia A, et al. **Br J Pharmacol** 1998 Jul;124(6):1013–5

Lack of induction of substance P gene expression by hypoxia and absence of neurokinin 1-receptor mRNAs in the rat carotid body. Gauda EB, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):100–8

Cyclic AMP regulates the expression of neurokinin1 receptors by neonatal rat spinal neurons in culture. Abrahams LG, et al. **J Neurochem** 1999 Jul;73(1):50–8

Spinal substance P receptor expression and internalization in acute, short-term, and long-term inflammatory pain states. Honor P, et al. **J Neurosci** 1999 Sep 1;19(17):7670–8

Substance P receptor (neurokinin-1)-expressing neurons in lamina I of the spinal cord encode for the intensity of noxious stimulation: a c-Fos study in rat. Doyle CA, et al. **Neuroscience** 1999 Mar;89(1):17–28

METABOLISM

Expression of substance P (NK1) receptor mRNA in human nose. Shirasaki H, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):717–22

Chronic activation of neurokinin-1 receptor induces pulmonary hypertension in rats. Chen LW, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1543–51

Involvement of tachykinin NK1 receptor in the development of allergen-induced airway hyperreactivity and airway inflammation in conscious, unrestrained guinea pigs. Schuiling M, et al. **Am J Respir Crit Care Med** 1999 Feb; 159(2):423–30

Tachykinin-induced responses via neurokinin-1 and -3 receptors in hamster submandibular ganglion neurones. Soejima T, et al. **Arch Oral Biol** 1999 Jun;44(6):455–63

Conformational probes for elucidating the nature of substance P binding to the NK1 receptor: initial efforts to map the Phe7-Phe8 region. Tong Y, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1679–82

Point mutation increases a form of the NK1 receptor with high affinity for neurokinin A and B and septide. Ciucci A, et al. **Br J Pharmacol** 1998 Sep;125(2):393–401

Two affinities for a single antagonist at the neuronal NK1 tachykinin receptor: evidence from quantitation of receptor endocytosis. Jenkinson KM, et al. **Br J Pharmacol** 1999 Jan;126(1):131–6

Altered respiratory response to substance P and reduced NK1 receptor binding in the nucleus of the solitary tract of aged rats. Mazzone SB, et al. **Brain Res** 1999 Apr 24; 826(1):139–42

Effects of systemic resiniferatoxin treatment on substance P mRNA in rat dorsal root ganglia and substance P receptor mRNA in the spinal dorsal horn. Szallasi A, et al. **Brain Res** 1999 Jan 9;815(2):177–84

Identification of the populations of enteric neurons that have NK1 tachykinin receptors in the guinea-pig small intestine. Lomax AE, et al. **Cell Tissue Res** 1998 Oct;294(1):27–33

Substance P binding in gastrointestinal tract of nondiabetic BB rat and changes in diabetic BB rat over time. Yu O, et al. **Dig Dis Sci** 1999 Apr;44(4):749–55

RECEPTORS, NEUROKININ-1

NK1, NMDA, 5HT1a, and 5HT2 receptor binding sites in the rat lumbar spinal cord: modulation following sciatic nerve crush. Croul S, et al. **Exp Neurol** 1998 Nov; 154(1):66–79

Identification in the NK1 tachykinin receptor of a domain involved in recognition of neurokinin A and septide but not of substance P. Wijkhuisen A, et al. **FEBS Lett** 1999 Mar 26;447(2–3):155–9

Activation of neurokinin 1 receptors on interstitial cells of Cajal of the guinea-pig small intestine by substance P. Lavin ST, et al. **Histochem Cell Biol** 1998 Sep; 110(3):263–71

CGRP activates renal pelvic substance P receptors by retarding substance P metabolism. Gontijo JR, et al. **Hypertension** 1999 Jan;33(1 Pt 2):493–8

Real-time visualization of the cellular redistribution of G protein-coupled receptor kinase 2 and beta-arrestin 2 during homologous desensitization of the substance P receptor. Barak LS, et al. **J Biol Chem** 1999 Mar 12; 274(11):7565–9

Substance P-induced trafficking of beta-arrestins. The role of beta-arrestins in endocytosis of the neurokinin-1 receptor. McConalogue K, et al. **J Biol Chem** 1999 Jun 4;274(23):16257–68

The cytoplasmic tails of protease-activated receptor-1 and substance P receptor specify sorting to lysosomes versus recycling. Trejo J, et al. **J Biol Chem** 1999 Jan 22; 274(4):2216–24

Distribution of SPR-like immunoreactivity in the medullary visceral zone of the rat and changes following acute myocardial ischemia induced by intravenous injection of vasopressin. Gao W, et al. **J Hirnforsch** 1998;39(2):129–35

The substance P receptor is necessary for a normal granulomatous response in murine schistosomiasis mansoni. Blum AM, et al. **J Immunol** 1999 May 15;162(10):6080–5

Spinal substance P receptor expression and internalization in acute, short-term, and long-term inflammatory pain states. Honor P, et al. **J Neurosci** 1999 Sep 1;19(17):7670–8

Binding of gold-protein ligand complexes to neurokinin receptors. visualization with the electron microscope on pig coronary artery and rat portal vein. Cathieni MM, et al. **J Vasc Res** 1999 Jan-Feb;36(1):59–67

Characterization of differences between rapid agonist-dependent phosphorylation and phorbol ester-mediated phosphorylation of human substance P receptor in intact cells. Roush ED, et al. **Mol Pharmacol** 1999 May;55(5):855–62

Neurokinin-1 receptor immunoreactivity in the nucleus of the solitary tract in the hamster. Davis BJ, et al. **Neuroreport** 1999 Apr 6;10(5):1003–6

N- and C-terminal substance P fragments: differential effects on striatal [3H]substance P binding and NK1 receptor internalization. Michael-Titus AT, et al. **Neuroreport** 1999 Jul 13;10(10):2209–13

Internalization of the neurokinin 1 receptor in rat myenteric neurons. Mann PT, et al. **Neuroscience** 1999;91(1):353–62

Quantitation of neurokinin 1 receptor internalization and recycling in guinea-pig myenteric neurons. Southwell BR, et al. **Neuroscience** 1998 Dec;87(4):925–31

Expression of substance P receptors in normal and psoriatic skin. Staniek V, et al. **Pathobiology** 1999;67(1):51–4

Signaling pathways via NK1 receptors and their desensitization in an AR42J cell line. Fukuhara S, et al. **Peptides** 1998;19(8):1349–57

Histamine-induced internalization of substance P receptors in myoepithelial cells of the guinea pig nasal glands. Shibano A, et al. **Peptides** 1998;19(8):1365–71

Termination of signaling by protease-activated receptor-1 is linked to lysosomal sorting. Trejo J, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13698–702

PHYSIOLOGY

Use of NK(1) knockout mice to analyze substance P-induced edema formation. Cao T, et al. **Am J Physiol** 1999 Aug; 277(2 Pt 2):R476–81

NK1-receptor activation prevents hydrocarbon-induced lung injury in mice. Robledo RF, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L229–38

Canine intrinsic cardiac neurons involved in cardiac regulation possess NK1, NK2, and NK3 receptors. Thompson GW, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1683–9

Nerve growth factor induces a neurokinin-1 receptor-mediated airway hyperresponsiveness in guinea pigs. de Vries A, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1541–4

Neurokinin-1 receptors are involved in behavioral responses to high-intensity heat stimuli and capsaicin-induced hyperalgesia in mice. Mansikka H, et al. **Anesthesiology** 1999 Jun;90(6):1643–9

Differential effects of neurokinin-1 receptor activation in subregions of the periaqueductal gray matter on conditional and unconditional fear behaviors in rats. Mongeau R, et al. **Behav Neurosci** 1998 Oct;112(5):1125–35

Cyclic pentapeptides of chiral sequence DLDDL as scaffold for antagonism of G-protein coupled receptors: synthesis, activity and conformational analysis by NMR and molecular dynamics of ITF 1565 a substance P inhibitor. Porcelli M, et al. **Biopolymers** 1999 Aug;50(2):211–9

Roles of neuronal NK1 and NK3 receptors in synaptic transmission during motility reflexes in the guinea-pig ileum. Johnson PJ, et al. **Br J Pharmacol** 1998 Aug; 124(7):1375–84

Neurokinin-1 receptors and spinal cord control of blood pressure in spontaneously hypertensive rats. Solomon SG, et al. **Brain Res** 1999 Jan 2;815(1):116–20

Role of tachykinin NK1 and NK2 receptors in allergen-induced early and late asthmatic reactions, airway hyperresponsiveness, and airway inflammation in conscious, unrestrained guinea pigs. Schuiling M, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:48–52

Tachykinins stimulate release of peptide hormones (glucagon-like peptide-1) and paracrine (somatostatin) and neurotransmitter (vasoactive intestinal polypeptide) from porcine ileum through NK-1 receptors. Schmidt PT, et al. **Dig Dis Sci** 1999 Jul;44(7):1273–81

Cells in laminae III and IV of the rat spinal cord which possess the neurokinin-1 receptor receive monosynaptic input from myelinated primary afferents. Naim MM, et al. **Eur J Neurosci** 1998 Sep;10(9):3012–9

Lack of evidence for tachykinin NK1 receptor-mediated neutrophil accumulation in the rat cutaneous microvasculature by thermal injury. Pintér E, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):91–8

The tachykinin NK1 receptor in the brain: pharmacology and putative functions. Saria A. **Eur J Pharmacol** 1999 Jun 30;375(1–3):51–60 (116 ref.)

Comparison of cardiorespiratory reflexes in NK1 receptor knockout, heterozygous and wild-type mice in vivo. Butcher JW, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2–3):89–95

Inhibition of calcium channels by neurokinin receptor and signal transduction in hamster submandibular ganglion cells. Yamada T, et al. **J Auton Nerv Syst** 1999 Apr 16; 76(1):1–8

Primary afferent fibers that contribute to increased substance P receptor internalization in the spinal cord after injury. Allen BJ, et al. **J Neurophysiol** 1999 Mar;81(3):1379–90

Evidence for tonic activation of NK-1 receptors during the second phase of the formalin test in the Rat. Henry JL, et al. **J Neurosci** 1999 Aug 1;19(15):6588–98

Involvement of spinal NK1 and opioids receptors in modulating the inhibitory effect of capsaicin on micturition reflex in the acute spinalized guinea pig. Palea S, et al. **J Urol** 1999 Mar;161(3):998–1005

Endothelium-dependent contraction induced by substance P in canine cerebral arteries: involvement of NK1 receptors and thromboxane A2. Shirahase H, et al. **Life Sci** 1999; 64(3):211–9

Selective neurokinin-1 receptor antagonists are anti-hyperalgesic in a model of neuropathic pain in the guinea-pig. Campbell EA, et al. **Neuroscience** 1998 Dec; 87(3):527–32

Activation of spinal N-methyl-D-aspartate or neurokinin receptors induces long-term potentiation of spinal C-fibre-evoked potentials. Liu XG, et al. **Neuroscience** 1998 Oct;86(4):1209–16

Preferential synaptic relationships between substance P-immunoreactive boutons and neurokinin 1 receptor sites in the rat spinal cord. McLeod AL, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15775–80

Substance P relaxes rat bronchial smooth muscle via epithelial prostanoid synthesis. Bodelsson M, et al. **Respiration** 1999;66(4):355–9

Action of substance P (neurokinin-1) receptor activation on rat neostriatal projection neurons. Galarraga E, et al. **Synapse** 1999 Jul;33(1):26–35

RECEPTORS, NEUROKININ-2

AGONISTS

Importance of the aromatic residue at position 6 of [Nle(10)]neurokinin A(4–10) for binding to the NK-2 receptor and receptor activation. Gembitsky DS, et al. **J Med Chem** 1999 Jul 29;42(15):3004–7

Characterization of tachykinin receptors mediating bronchomotor and vasodepressor responses to neuropeptide gamma and substance P in the anaesthetized rabbit. Yuan L, et al. **Pulm Pharmacol Ther** 1998 Feb; 11(1):31–9

ANALYSIS

Ectopic substance P-immunoreactive boutons are preferentially presynaptic to neurokinin-1 receptor immunoreactive dendrites in the spinal white matter of transgenic mice. McLeod AL, et al. **Brain Res** 1999 Jul 31;836(1–2):1–8

ANTAGONISTS & INHIBITORS

High affinity, selective neurokinin 2 and neurokinin 3 receptor antagonists from a common structural template. Harrison T, et al. **Bioorg Med Chem Lett** 1998 Jun 2; 8(11):1343–8

4-Alkylpiperidines related to SR-48968: potent antagonists of the neurokinin-2 (NK2) receptor. Jacobs RT, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1935–40

Neuronorm is a potent and water soluble neurokinin A receptor antagonist. Lombardi A, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1735–40

A novel super-potent neurokinin A receptor antagonist containing dehydroalanine. Lombardi A, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1153–6

L-tryptophan urea amides as NK1/NK2 dual antagonists. Qi H, et al. **Bioorg Med Chem Lett** 1998 Aug 18; 8(16):2259–62

Inhibitory effects of tachykinin receptor antagonists on thermally induced inflammatory reactions in a rat model. Löfgren O, et al. **Burns** 1999 Mar;25(2):125–9

Spiro-substituted piperidines as neurokinin receptor antagonists. III. Synthesis of (+/-)-N-[2-(3,4-dichlorophenyl)-4-(spiro-substituted piperidin-1'-yl)butyl]-N-methylbenzamides and evaluation of NK1-NK2 dual antagonistic activities. Kubota H, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1538–44

Recent advances in neurokinin receptor antagonists. Gao Z, et al. **Curr Med Chem** 1999 May;6(5):375–88 (63 ref.)

Pharmacokinetics of the bicyclic peptide tachykinin NK2 receptor antagonist MEN 11420 (nepadutant) in rats. Lippi A, et al. **Drug Metab Dispos** 1998 Nov;26(11):1077–81

Characterization of the antibronchoconstrictor activity of MEN 11420, a tachykinin NK2 receptor antagonist, in guinea-pigs. Tramontana M, et al. **Eur J Pharmacol** 1998 Jul 10;352(2–3):279–88

The effect of the NK2 tachykinin receptor antagonist SR 48968 (saredutant) on neurokinin A-induced bronchoconstriction in asthmatics. Van Schoor J, et al. **Eur Respir J** 1998 Jul;12(1):17–23

Prejunctional control of pH 6-induced bronchoconstriction by NK1, NK2, mu-opioid, alpha2-adrenoceptor and glucocorticoid receptors in guinea-pig isolated perfused lung. Auberson S, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):899–905

Relevance of aromatic residues in transmembrane segments V to VII for binding of peptide and nonpeptide antagonists to the human tachykinin NK(2) receptor. Renzetti AR, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):487–95

Tachykinin NK2 receptors in the hamster urinary bladder: in vitro and in vivo characterization. Tramontana M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):293–300

[Inhibitory effects of tachykinin receptor antagonists on leukotriene C4-induced cardiovascular responses in guinea pigs] Wu RY, et al. **Yao Hsueh Hsueh Pao** 1996; 31(12):906–10 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Structure-activity studies at the rat tachykinin NK2 receptor: effect of substitution at position 5 of neurokinin A. Comis A, et al. **J Pept Res** 1999 Mar;53(3):337–42

Relevance of aromatic residues in transmembrane segments V to VII for binding of peptide and nonpeptide antagonists to the human tachykinin NK(2) receptor. Renzetti AR, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):487–95

CLASSIFICATION

An investigation of tachykinin NK2 receptor subtypes in the rat. Matuszek MA, et al. **Eur J Pharmacol** 1998 Jul 3; 352(1):103–9

DRUG EFFECTS

beta(2)-adrenoceptor agonist-induced upregulation of tachykinin NK(2) receptor expression and function in airway smooth muscle. Katsunuma T, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):409–17

Evaluation of the role of neurolinins and urecholine hypersensitivity in an animal model of infravesical outflow obstruction. Dion SB, et al. **Urology** 1998 Nov;52(5):909–14

METABOLISM

beta(2)-adrenoceptor agonist-induced upregulation of tachykinin NK(2) receptor expression and function in airway smooth muscle. Katsunuma T, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):409–17

Differential coupling of G alpha q family of G-protein to muscarinic M1 receptor and neurokinin-2 receptor. Lee CH, et al. **Arch Pharm Res** 1998 Aug;21(4):423–8

Conserved polar residues in the transmembrane domain of the human tachykinin NK2 receptor: functional roles and structural implications. Donnelly D, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):55–61

NK-2 is the predominant tachykinin receptor subtype in the swine ureter. Jerde TJ, et al. **BJU Int** 1999 Feb;83(3):312–8

Importance of the aromatic residue at position 6 of [Nle(10)]neurokinin A(4–10) for binding to the NK-2 receptor and receptor activation. Gembitsky DS, et al. **J Med Chem** 1999 Jul 29;42(15):3004–7

Binding of gold-protein ligand complexes to neurokinin receptors. visualization with the electron microscope on pig coronary artery and rat portal vein. Cathieni MM, et al. **J Vasc Res** 1999 Jan-Feb;36(1):59–67

PHYSIOLOGY

Canine intrinsic cardiac neurons involved in cardiac regulation possess NK1, NK2, and NK3 receptors. Thompson GW, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1683–9

Defects of tyrosine289phenylalanine mutation on binding and functional properties of the human tachykinin NK2 receptor stably expressed in chinese hamster ovary cells. Renzetti AR, et al. **Biochem Pharmacol** 1999 Apr 15; 57(8):899–906

In vitro characterization of tachykinin NK2-receptors

modulating motor responses of human colonic muscle strips. Croci T, et al. **Br J Pharmacol** 1998 Jul;124(6):1321-7
Role of tachykinin NK2-receptor activation in the allergen-induced late asthmatic reaction, airway hyperreactivity and airway inflammatory cell influx in conscious, unrestrained guinea-pigs. Schuiling M, et al. **Br J Pharmacol** 1999 Jun;127(4):1030-8
Role of tachykinin NK1 and NK2 receptors in allergen-induced early and late asthmatic reactions, airway hyperresponsiveness, and airway inflammation in conscious, unrestrained guinea pigs. Schuiling M, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:48-52
NK2 receptors mediate tachykinin-induced contractions of rat uterus during the oestrous cycle. Moodley N, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):53-60
Rat gastrointestinal motor responses mediated via activation of neurokinin receptors. Chang FY, et al. **J Gastroenterol Hepatol** 1999 Jan;14(1):39-45
Serotonin unmasks functional NK-2 receptors in vagal sensory neurones of the guinea-pig. Moore KA, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):111-24
Independent coupling of the human tachykinin NK2 receptor to phospholipases C and A2 in transfected Chinese hamster ovary cells. Catalioto RM, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):395-403
Activation of spinal N-methyl-D-aspartate or neurokinin receptors induces long-term potentiation of spinal C-fibre-evoked potentials. Liu XG, et al. **Neuroscience** 1998 Oct;86(4):1209-16

RECEPTORS, NEUROKININ-3

AGONISTS

NK-3 receptors mediate enhancement of substance P release from capsaicin-sensitive spinal cord afferent terminals. Schmid G, et al. **Br J Pharmacol** 1998 Oct;125(4):621-6
Application of taste reactivity to study the mechanism of alcohol intake inhibition by the tachykinin aminosenktide. Polidori C, et al. **Peptides** 1998;19(9):1557-64
Mechanism of action for reduction of ethanol intake in rats by the tachykinin NK-3 receptor agonist aminosenktide. Ciccocioppo R, et al. **Pharmacol Biochem Behav** 1998 Dec; 61(4):459-64

ANTAGONISTS & INHIBITORS

High affinity, selective neurokinin 2 and neurokinin 3 receptor antagonists from a common structural template. Harrison T, et al. **Bioorg Med Chem Lett** 1998 Jun 2; 8(11):1343-8
Recent advances in neurokinin receptor antagonists. Gao Z, et al. **Curr Med Chem** 1999 May;6(5):375-88 (63 ref.)
Neurokinin 3 receptors in the gut: a new target for the treatment of visceral pain? [editorial; comment] Mayer EA, et al. **Gastroenterology** 1999 May;116(5):1250-2. Comment on: Gastroenterology 1999 May;116(5):1124-31.
Kinin B1 receptor antagonists containing alpha-methyl-L-phenylalanine: in vitro and in vivo antagonistic activities. Gobeil F Jr, et al. **Hypertension** 1999 Mar;33(3):823-9
Inflammatory and motor responses by tachykinins in the guinea-pig oesophageal sphincter. Conte B, et al. **J Auton Pharmacol** 1998 Oct;18(5):313-7
A new class of pseudopeptide antagonists of the kinin B1 receptor containing alkyl spacers. Galoppini C, et al. **J Med Chem** 1999 Feb 11;42(3):409-14
Discovery of a novel class of selective non-peptide antagonists for the human neurokinin-3 receptor. 2. Identification of (S)-N-(1-phenylpropyl)-3-hydroxy-2-phenylquinoline-4-carboxamide (SB 223412). Giardina GA, et al. **J Med Chem** 1999 Mar 25;42(6):1053-65
Effects of a tachykinin NK3 receptor antagonist, SR 142801, studied in isolated neonatal rat spinal cord. Guo JZ, et al. **Neuropeptides** 1998 Dec;32(6):537-42
A tachykinin NK3 receptor antagonist, SR 142801 (osanetant), prevents substance P-induced bronchial hyperreactivity in guinea-pigs. Daoui S, et al. **Pulm Pharmacol Ther** 1997 Oct-Dec;10(5-6):261-70
Blockade of neurokinin3 receptors antagonizes drug-induced population response and depolarization block of midbrain dopamine neurons in guinea pigs. Gueudet C, et al. **Synapse** 1999 Jul;33(1):71-9
[The effect of SR 142801, a blocker of tachykinin NK-3 receptors, on synaptic transmission in the rat caudal mesenteric ganglion] Pasichnichenko OM, et al. **Fiziol Zh** 1999;45(4):55-60 (Eng. Abstr.) **(Ukr)**

BIOSYNTHESIS

Central and peripheral expression of neurokinin-1 and neurokinin-3 receptor and substance P-encoding messenger RNAs: peripheral regulation during formalin-induced inflammation and lack of neurokinin receptor expression in primary afferent sensory neurons. McCarson KE. **Neuroscience** 1999;93(1):361-70

DRUG EFFECTS

Naloxone-induced changes in tachykinin NK3 receptor modulation of experimental anxiety in mice. Ribeiro SJ, et al. **Neurosci Lett** 1998 Dec 24;258(3):155-8

METABOLISM

Tachykinin-induced responses via neurokinin-1 and -3 receptors in hamster submandibular ganglion neurones. Soejima T, et al. **Arch Oral Biol** 1999 Jun;44(6):455-63
Mechanism of tachykinin NK3 receptor-mediated colonic ion transport in the guinea pig. Goldhill J, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):161-8
Neurokinin B receptor (NK3)-containing neurons in the paraventricular and supraoptic nuclei of the rat hypothalamus synthesize vasopressin and express Fos following intravenous injection of hypertonic saline. Ding YQ, et al. **Neuroscience** 1999;91(3):1077-85
Neurokinin-3 receptor distribution in rat and human brain: an immunohistochemical study. Mileusnic D, et al. **Neuroscience** 1999;89(4):1269-90

PHYSIOLOGY

Canine intrinsic cardiac neurons involved in cardiac regulation possess NK1, NK2, and NK3 receptors. Thompson GW, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1683-9
Roles of neuronal NK1 and NK3 receptors in synaptic transmission during motility reflexes in the guinea-pig ileum. Johnson PJ, et al. **Br J Pharmacol** 1998 Aug; 124(7):1375-84
Activation of the cloned human NK3 receptor in Chinese Hamster Ovary cells characterized by the cellular acidification response using the Cytosensor microphysiometer. Jordan RE, et al. **Br J Pharmacol** 1998 Oct;125(4):761-6
Central tachykinin NK3 receptors in the inhibitory action on the rat colonic propulsion of a new tachykinin, PG-KII. Broccardo M, et al. **Eur J Pharmacol** 1999 Jul 2; 376(1-2):67-71
Role of neurokinin 3 receptors on responses to colorectal distention in the rat: electrophysiological and behavioral studies [see comments] Julia V, et al. **Gastroenterology** 1999 May;116(5):1124-31. Comment in: Gastroenterology 1999 May;116(5):1250-2.
Rat gastrointestinal motor responses mediated via activation of neurokinin receptors. Chang FY, et al. **J Gastroenterol Hepatol** 1999 Jan;14(1):39-45
Activation of dopaminergic and cholinergic neurotransmission by tachykinin NK3 receptor stimulation: an in vivo microdialysis approach in guinea pig. Marco N, et al. **Neuropeptides** 1998 Oct;32(5):481-8
Spinal neurokin3 receptors facilitate the nociceptive flexor reflex via a pathway involving nitric oxide. Linden DR, et al. **Pain** 1999 Mar;80(1-2):301-8
Spinal neurokinin3 receptors mediate thermal but not mechanical hyperalgesia via nitric oxide. Linden DR, et al. **Pain** 1999 Mar;80(1-2):309-17

RECEPTORS, NEUROMEDIN B see **RECEPTORS, BOMBESIN**

RECEPTORS, NEUROPEPTIDE

AGONISTS

Galanin-based peptides, galparan and transportan, with receptor-dependent and independent activities. Pooga M, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:450-3
Pharmacological and biochemical characterization of a recombinant human galanin GALR1 receptor: agonist character of chimeric galanin peptides. Fitzgerald LW, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):448-56
Neuropeptides and nociception: recent advances and therapeutic implications. Dickinson T, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):346-8

ANALYSIS

Differential in vivo regulation of the pituitary growth hormone-releasing hormone (GHRH) receptor by GHRH in young and aged rats. Girard N, et al. **Endocrinology** 1999 Jun;140(6):2836-42
Expression of the galanin receptor subtype Gal-R2 mRNA in the rat hypothalamus. Mitchell V, et al. **J Chem Neuroanat** 1999 Jun;16(4):265-77
Galanin-R1 receptor in anterior and mid-hypothalamus: distribution and regulation. Landry M, et al. **J Comp Neurol** 1998 Sep 28;399(3):321-40
Bioassay for growth hormone releasing hormone (GHRH) using a recombinant receptor and cAMP-responsive reporter system. Frank-Heinrich JA, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):65-72
Galanin receptors in the hippocampus and entorhinal cortex of aged Fischer 344 male rats. Planas B, et al. **Neurobiol Aging** 1998 Sep-Oct;19(5):427-35
The human superior cervical ganglion: neuropeptides and peptide receptors. Tajti J, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):121-4

ANTAGONISTS & INHIBITORS

Erythromycin derivatives ABT 229 and GM 611 act on motilin receptors in the rabbit duodenum. Clark MJ, et al. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):242-5
Is there a future for neuropeptide receptor ligands in the treatment of anxiety disorders? Griebel G. **Pharmacol Ther** 1999 Apr;82(1):1-61 (375 ref.)
Neuropeptides and nociception: recent advances and therapeutic implications. Dickinson T, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):346-8

BIOSYNTHESIS

Distribution and characterization of the cell types expressing GALR2 mRNA in brain and pituitary gland. Depczynski B, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:120-8
Expression of galanin and the GALR1 galanin receptor subtype in the colon of children with paradoxical fecal incontinence. Engelis A, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:425-9
Effects of antimetabolites to glucose and fatty acids on galanin-1 receptor mRNA levels in the hypothalamic paraventricular and supraoptic nuclei. Gorbatyuk O, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:430-1
Galanin and galanin receptor expression in neuroblastoma. Tuechler C, et al. **Ann N Y Acad Sci** 1998 Dec 21; 863:438-41
Regulation of expression of galanin and galanin receptors in dorsal root ganglia and spinal cord after axotomy and inflammation. Zhang X, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:402-13 (50 ref.)
Cultured astrocytes express functional receptors for galanin. Priller J, et al. **Glia** 1998 Nov;24(3):323-8
Pathogenic Escherichia coli increase Cl- secretion from intestinal epithelia by upregulating galanin-1 receptor expression. Hecht G, et al. **J Clin Invest** 1999 Aug; 104(3):253-62
Functional expression of receptors for calcitonin gene-related peptide, calcitonin, and vasoactive intestinal peptide in the human thymus and thymomas from myasthenia gravis patients. Marie J, et al. **J Immunol** 1999 Feb 15; 162(4):2103-12
Retrovirus-mediated expression of the GalR1 galanin receptor: implication for efficient stable expression of functional G protein-coupled receptors. Wang S, et al. **J Recept Signal Transduct Res** 1998 Jul-Nov; 18(4-6):311-20

CHEMISTRY

A model of the receptors in the VIP receptor family. Tams JW, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:375-7
Identification of the motilide pharmacophores using quantitative structure activity relationships. Khiat A, et al. **J Pept Res** 1998 Oct;52(4):321-8
Cloning and characterization of the human galanin GALR2 receptor. Borowsky B, et al. **Peptides** 1998;19(10):1771-81
Receptor for motilin identified in the human gastrointestinal system. Feighner SD, et al. **Science** 1999 Jun 25; 284(5423):2184-8

DEFICIENCY

Narcolepsy: a key role for hypocretins (orexins) [comment] Siegel JM. **Cell** 1999 Aug 20;98(4):409-12 (20 ref.). Comment on: Cell 1999 Aug 6;98(3):365-76. Comment on: Cell 1999 Aug 20;98(4):437-51.
Selective lack of growth hormone (GH) response to the GH-releasing peptide hexarelin in patients with GH-releasing hormone receptor deficiency. Maheshwari HG, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):956-9

DRUG EFFECTS

Peptides and psychiatry, Part 1: How synthesis of neuropeptides differs from classical neurotransmitter synthesis. Stahl SM. **J Clin Psychiatry** 1999 Jan;60(1):5-6

GENETICS

Molecular biology and pharmacology of galanin receptors. Branchek T, et al. **Ann N Y Acad Sci** 1998 Dec 21; 863:94-107 (83 ref.)
Structural organization and chromosomal localization of three human galanin receptor genes. Iismaa TP, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:56-63
Mutagenesis study on human galanin receptor GalR1 reveals domains involved in ligand binding. Kask K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:78-85
Neuronal messengers and peptide receptors in the human sphenopalatine and otic ganglia. Uddman R, et al. **Brain Res** 1999 May 1;826(2):193-9
The sleep disorder canine narcolepsy is caused by a mutation in the hypocretin (orexin) receptor 2 gene [see comments] Lin L, et al. **Cell** 1999 Aug 6;98(3):365-76. Comment in: Cell 1999 Aug 20;98(4):409-12.
Human GALR1 galanin receptor (GALNR1). Map position 18q23. Crawford J, et al. **Chromosome Res** 1999;7(3):243
Hypothalamic growth hormone-releasing factor (GRF) regulates its own receptor gene expression in vivo in the rat pituitary. Ono M, et al. **Endocr J** 1998 Apr;45 Suppl:S85-8
Regulation of GH-releasing hormone receptors. Sato M, et al. **Endocr J** 1998 Apr;45 Suppl:S15-8
Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581-6
The rat growth hormone-releasing hormone receptor gene: structure, regulation, and generation of receptor isoforms with different signaling properties. Miller TL, et al.

Endocrinology 1999 Sep;140(9):4152–65

Regulation of growth hormone–releasing hormone receptor messenger ribonucleic acid expression by glucocorticoids in MtT–S cells and in the pituitary gland of fetal rats. Nogami H, et al. **Endocrinology** 1999 Jun;140(6):2763–70

Discovery of a receptor related to the galanin receptors. Lee DK, et al. **FEBS Lett** 1999 Mar 5;446(1):103–7

Distribution of orexin receptor mRNA in the rat brain [published erratum appears in FEBS Lett 1999 Jan 8;442(1):122] Trivedi P, et al. **FEBS Lett** 1998 Oct 30; 438(1–2):71–5

Applications of new genetic approaches to growth hormone–releasing hormone receptor defects. Phillips JA, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:45–9 (14 ref.)

Cloning and characterization of the 5'-flanking region of the human growth hormone–releasing hormone receptor gene. Iguchi G, et al. **J Biol Chem** 1999 Apr 23;274(17):12108–14

Phenotype and genetic analysis of a syndrome caused by an inactivating mutation in the growth hormone–releasing hormone receptor: Dwarfism of Sindh. Maheshwari HG, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4065–74

Familial dwarfism due to a novel mutation of the growth hormone–releasing hormone receptor gene. Salvatori R, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):917–23

Galanin–R1 receptor in anterior and mid–hypothalamus: distribution and regulation. Landry M, et al. **J Comp Neurol** 1998 Sep 28;399(3):321–40

Expression of the novel galanin receptor subtype GALR2 in the adult rat CNS: distinct distribution from GALR1. O'Donnell D, et al. **J Comp Neurol** 1999 Jul 5;409(3):469–81

Molecular characterization and expression of cloned human galanin receptors GALR2 and GALR3. Kolakowski LF Jr, et al. **J Neurochem** 1998 Dec;71(6):2239–51

The mouse GalR2 galanin receptor: genomic organization, cDNA cloning, and functional characterization. Pang L, et al. **J Neurochem** 1998 Dec;71(6):2252–9

Growth hormone–releasing hormone receptor (GHRH–R) and growth hormone secretagogue receptor (GHS–R) mRNA levels during postnatal development in male and female rats. Kamegai J, et al. **J Neuroendocrinol** 1999 Apr; 11(4):299–306

Significance of growth hormone–releasing hormone receptor mRNA in non–neoplastic pituitary and pituitary adenomas: a study by RT–PCR and in situ hybridization. Oka H, et al. **J Neurooncol** 1999 Feb;41(3):197–204

The lymnaea cardioexcitatory peptide (LyCEP) receptor: a G–protein–coupled receptor for a novel member of the RFamide neuropeptide family. Tensen CP, et al. **J Neurosci** 1998 Dec 1;18(23):9812–21

Identification and characterization of a receptor from goldfish specific for a teleost growth hormone–releasing hormone–like peptide. Chan KW, et al. **Neuroendocrinology** 1998 Jul;68(1):44–56

Narcolepsy and the hypocretin receptor 2 gene. Aldrich MS, et al. **Neuron** 1999 Aug;23(4):625–6

Effect of inhibition of glucose and fat metabolism on galanin–R1 receptor mRNA levels in the rat hypothalamic paraventricular and supraoptic nuclei. Gorbatyuk O, et al. **Neuroreport** 1998 Nov 16;9(16):3565–9

The human superior cervical ganglion: neuropeptides and peptide receptors. Tajti J, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):121–4

Cloning and characterization of the human galanin GALR2 receptor. Borowsky B, et al. **Peptides** 1998;19(10):1771–81

Effects of adrenalectomy and glucocorticoid receptor antagonist, RU38486, on pituitary growth hormone–releasing hormone receptor gene expression in rats. Ohyama T, et al. **Peptides** 1998;19(6):1063–7

Receptor for motilin identified in the human gastrointestinal system. Feighner SD, et al. **Science** 1999 Jun 25; 284(5423):2184–8

Narcolepsy genes wake up the sleep field. Takahashi JS. **Science** 1999 Sep 24;285(5436):2076–7

Multiple genes for neuropeptides and their receptors: co–evolution and physiology. Darlison MG, et al. **Trends Neurosci** 1999 Feb;22(2):81–8 (74 ref.)

METABOLISM

Galanin causes Cl– secretion in the human colon. Potential significance of inflammation–associated NF–kappa B activation on galanin–1 receptor expression and function. Benya RV, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:64–77

Molecular biology and pharmacology of galanin receptors. Branchek T, et al. **Ann N Y Acad Sci** 1998 Dec 21; 863:94–107 (83 ref.)

Mutagenesis study on human galanin receptor GalR1 reveals domains involved in ligand binding. Kask K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:78–85

Chemistry and molecular biology of galanin receptor ligands. Langel U, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:86–93 (44 ref.)

Membrane cholesterol modulates galanin–GalR2 interaction. Pang L, et al. **Biochemistry** 1999 Sep 14;38(37):12003–11

Fluorescent ligands for studying neuropeptide receptors by confocal microscopy. Beaudet A, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1479–89 (40 ref.)

An action of erythromycin in the intestine that is not mediated via motilin receptors. Furness JB, et al. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):100–4

Cellular localization of estrogen receptors on neurones in various regions of cultured rat CNS: coexistence with cholinergic and galanin receptors. Hösli E, et al. **Int J Dev Neurosci** 1999 Jul;17(4):317–30

Promiscuous coupling of receptors to Gq class alpha subunits and effector proteins in pancreatic and submandibular gland cells. Xu X, et al. **J Biol Chem** 1998 Oct 16;273(42):27275–9

Expression of the growth hormone secretagogue receptor in pituitary adenomas and other neuroendocrine tumors. Korbonits M, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3624–30

Molecular characterization and expression of cloned human galanin receptors GALR2 and GALR3. Kolakowski LF Jr, et al. **J Neurochem** 1998 Dec;71(6):2239–51

Molecular identification and coexpression of galanin and GalR–1 galanin receptor in the human ocular ciliary epithelium: differential modulation of their expression by the activation of alpha2– and beta2–adrenergic receptors in cultured ciliary epithelial cells. Ortego J, et al. **J Neurochem** 1998 Dec;71(6):2260–70

The mouse GalR2 galanin receptor: genomic organization, cDNA cloning, and functional characterization. Pang L, et al. **J Neurochem** 1998 Dec;71(6):2252–9

Cell penetrating PNA constructs regulate galanin receptor levels and modify pain transmission in vivo. Pooga M, et al. **Nat Biotechnol** 1998 Sep;16(9):857–61

Peptide nucleic acid smugglers [news] Prochiantz A. **Nat Biotechnol** 1998 Sep;16(9):819–20

Galanin–5–hydroxytryptamine interactions: electrophysiological, immunohistochemical and in situ hybridization studies on rat dorsal raphe neurons with a note on galanin R1 and R2 receptors. Xu ZQ, et al. **Neuroscience** 1998 Nov;87(1):79–94

Pharmacological studies of proctolin receptors on foregut and hindgut of Blaberus craniifer. Mazzocco–Manneval C, et al. **Peptides** 1998;19(10):1641–51

Is there really an NPY Y3 receptor? Lee CC, et al. **Regul Pept** 1998 Sep 25;75–76:71–8

Characterization of rabbit kidney and brain pancreatic polypeptide–binding neuropeptide Y receptors: differences with Y1 and Y2 sites in sensitivity to amiloride derivatives affecting sodium transport. Parker SL, et al. **Regul Pept** 1999 Jun 30;82(1–3):91–102

Higher proportions of type C than of types A and B natriuretic peptide receptors exist in the rat ciliary body. Moya FJ, et al. **Vision Res** 1998 Dec;38(24):3833–41

PHYSIOLOGY

Human colonic epithelial cells express galanin–1 receptors, which when activated cause Cl– secretion. Benya RV, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G64–72

Cloning and evaluation of the role of rat GALR–2, a novel subtype of galanin receptor, in the control of pain perception. Ahmad S, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:108–19

Gonadal steroid–dependent GAL–IR cells within the medial preoptic nucleus (MPN) and the stimulatory effects of GAL within the MPN on sexual behaviors. Bloch GJ, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:188–205 (88 ref.)

Galanin modulates 5–hydroxytryptamine functions. Focus on galanin and galanin fragment/5–hydroxytryptamine1A receptor interactions in the brain. Fuxe K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:274–90 (38 ref.)

Galanin–galanin receptor systems in the hypothalamic paraventricular and supraoptic nuclei. Some recent findings and future challenges. Gundlach AL, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:241–51 (52 ref.)

Galanin inhibits performance on rodent memory tasks. McDonald MP, et al. **Ann N Y Acad Sci** 1998 Dec 21; 863:305–22 (59 ref.)

Regulation of galanin in memory pathways. Miller MA. **Ann N Y Acad Sci** 1998 Dec 21;863:323–41 (89 ref.)

Galanin expression within the basal forebrain in Alzheimer's disease. Comments on therapeutic potential. Mufson EJ, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:291–304 (73 ref.)

Galanin in somatosensory function. Wiesenfeld–Hallin Z, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:383–9 (42 ref.)

Growth hormone inhibits its own secretion by acting on the hypothalamus through its receptors on neuropeptide Y neurons in the arcuate nucleus and somatostatin neurons in the periventricular nucleus. Minami S, et al. **Endocr J** 1998 Apr;45 Suppl:S19–26 (35 ref.)

Growth hormone–releasing peptide–2 (GHRP–2) does not act via the human growth hormone–releasing factor receptor in GC cells. Chen C, et al. **Endocrine** 1998 Aug; 9(1):71–7

Molecular and cell biology of the growth hormone–releasing hormone receptor. Gaylinn BD. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:37–44 (69 ref.)

Signal transduction of the growth hormone (GH) receptor, and GH–binding protein. Wojcik J, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:51–5 (41 ref.)

Signal transduction pathways in the mitogenic response to G protein–coupled neuropeptide receptor agonists. Rozengurt E. **J Cell Physiol** 1998 Dec;177(4):507–17 (129 ref.)

Peptides and psychiatry, Part 1: How synthesis of neuropeptides differs from classical neurotransmitter synthesis. Stahl SM. **J Clin Psychiatry** 1999 Jan;60(1):5–6

Central administration of Y5 receptor antisense decreases spontaneous food intake and attenuates feeding in response to exogenous neuropeptide Y. Tang–Christensen M, et al. **J Endocrinol** 1998 Nov;159(2):307–12

Functional expression of receptors for calcitonin gene–related peptide, calcitonin, and vasoactive intestinal peptide in the human thymus and thymomas from myasthenia gravis patients. Marie J, et al. **J Immunol** 1999 Feb 15; 162(4):2103–12

Galanin and galanin receptors. Iismaa TP, et al. **Results Probl Cell Differ** 1999;26:257–91 (210 ref.)

Molecular biology of the receptors for somatostatin and cortistatin. Kreienkamp HJ. **Results Probl Cell Differ** 1999; 26:215–37 (110 ref.)

RECEPTORS, NEUROPEPTIDE Y

AGONISTS

Influence of TASP–V, a novel neuropeptide Y (NPY) Y2 agonist, on nasal and bronchial responses evoked by histamine in anaesthetized pigs and in humans. Malis DD, et al. **Br J Pharmacol** 1999 Feb;126(4):989–96

The effect of intrathecal selective agonists of Y1 and Y2 neuropeptide Y receptors on the flexor reflex in normal and axotomized rats. Xu IS, et al. **Brain Res** 1999 Jul 3; 833(2):251–7

Inhibition of vagal vasodilatation by a selective neuropeptide Y Y2 receptor agonist in the bronchial circulation of anaesthetised dogs. Mahns DA, et al. **J Auton Nerv Syst** 1998 Nov 10;73(2–3):80–5

Stimulation of feeding in lean but not in obese Zucker rats by a selective neuropeptide Y Y5 receptor agonist. Wyss P, et al. **Neuroreport** 1998 Aug 3;9(11):2675–7

Neuropeptide Y suppresses epileptiform activity in rat frontal cortex and hippocampus in vitro via different NPY receptor subtypes. Bijak M. **Neurosci Lett** 1999 Jun 25; 268(3):115–8

ANALYSIS

Discrete distribution of the neuropeptide Y Y5 receptor gene in the human brain: an in situ hybridization study. Jacques D, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1–2):100–7

Bioassays for NPY receptors: old and new. Pheng LH, et al. **Regul Pept** 1998 Sep 25;75–76:79–87 (47 ref.)

ANTAGONISTS & INHIBITORS

Structure–activity relationships of a series of benzothiophene–derived NPY Y1 antagonists: optimization of the C–2 side chain. Britton TC, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):475–80

Structure–activity relationship of a series of diaminoalkyl substituted benzimidazole as neuropeptide Y Y1 receptor antagonists. Zarrinmayeh H, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):647–52

Structure–activity relationships of a series of 1–substituted–4–methylbenzimidazole neuropeptide Y–1 receptor antagonists. Zimmerman DM, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):473–6

Subtype selectivity of the novel nonpeptide neuropeptide Y Y1 receptor antagonist BIBO 3304 and its effect on feeding in rodents. Wieland HA, et al. **Br J Pharmacol** 1998 Oct; 125(3):549–55

The involvement of neuropeptide Y Y1 receptors in the blood pressure baroreflex: studies with BIBP 3226 and BIBO 3304. Capurro D, et al. **Eur J Pharmacol** 1999 Jul 9; 376(3):251–5

BIBP 3226 inhibition of nicotinic receptor mediated chromaffin cell secretion. Zhang P, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):121–5

D–myo inositol 1,2,6, triphosphate (alpha–trinositol, pp56): selective antagonist at neuropeptide Y (NPY) Y–receptors or selective inhibitor of phosphatidylinositol cell signaling? Bell D, et al. **Gen Pharmacol** 1998 Nov;31(5):689–96 (79 ref.)

1,3–Disubstituted benzazepines as novel, potent, selective neuropeptide Y Y1 receptor antagonists. Murakami Y, et al. **J Med Chem** 1999 Jul 15;42(14):2621–32

Hypothalamic NPY status during positive energy balance and the effects of the NPY antagonist, BW 1229U91, on the consumption of highly palatable energy–rich diet. Widdowson PS, et al. **Peptides** 1999;20(3):367–72

Neuropeptide Y Y1 receptor antagonist BIBP3226 produces conditioned place aversion in rats. Kask A, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):705–11

NPY Y1 antagonists: structure–activity relationships of arginine derivatives and hybrid compounds with arpromidine–like partial structures. Aiglstorfer I, et al. **Regul Pept** 1998 Sep 25;75–76:9–21

Anxiogenic–like effect of the NPY Y1 receptor antagonist BIBP3226 administered into the dorsal periaqueductal gray matter in rats. Kask A, et al. **Regul Pept** 1998 Sep 25; 75–76:255–62

The NPY Y1 receptor antagonist BIBP 3226 blocks NPY induced feeding via a non–specific mechanism. Morgan DG, et al. **Regul Pept** 1998 Sep 25;75–76:377–82

Neuropeptide Y Y1 receptor antisense oligodeoxynucleotides enhance food intake in energy–deprived rats. Schaffhauser AO, et al. **Regul Pept** 1998 Sep 25;75–76:417–23

Effect of BIBP3226 on inositol phosphate accumulation and cytosolic calcium level in control and NPY Y1 receptor expressing CHO–K1 cells. Vanderheyden PM, et al. **Regul Pept** 1998 Sep 25;75–76:191–9

BIOSYNTHESIS

Characterization of the neuropeptide Y5 receptor in the human hypothalamus: a lack of correlation between Y5 mRNA levels and binding sites. Statnick MA, et al. **Brain Res** 1998 Nov 9;810(1–2):16–26

Complementary and overlapping expression of Y1, Y2 and Y5 receptors in the developing and adult mouse nervous system. Naveilhan P, et al. **Neuroscience** 1998 Nov; 87(1):289–302

Trimethyltin–induced expression of neuropeptide Y Y2 receptors in rat dentate gyrus. Sadamatsu M, et al. **Neurotoxicol Teratol** 1998 Nov–Dec;20(6):607–10

CHEMISTRY

Molecular characterization of the human neuropeptide Y Y2–receptor. Ingenhoven N, et al. **Biochemistry** 1999 May 25;38(21):6897–902

Comparison of antibodies directed against receptor segments of NPY–receptors. Eckard CP, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):379–94

CLASSIFICATION

Central control of feeding behavior by neuropeptide Y. Zimanyi IA, et al. **Curr Pharm Des** 1998 Aug;4(4):349–66 (196 ref.)

NPY receptor subtypes involved in the contraction of the proximal colon of the rat. Félétou M, et al. **Regul Pept** 1998 Sep 25;75–76:221–9

Comparison of Y–receptor subtype expression in the rat hippocampus. Parker RM, et al. **Regul Pept** 1998 Sep 25; 75–76:109–15

Divalent cations influencing neuropeptide Y receptor subtype binding in rat hippocampus and cortex membranes as well as in recombinant cells. Wieland HA, et al. **Regul Pept** 1998 Sep 25;75–76:263–9

Emerging functions for neuropeptide Y5 receptors. Bischoff A, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):104–6

DRUG EFFECTS

Neuropeptide Y–induced contraction is mediated by neuropeptide Y Y2 and Y4 receptors in the rat colon. Pheng LH, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):85–91

Characterization of neuropeptide Y–induced feeding in mice: do Y1–Y6 receptor subtypes mediate feeding? Iyengar S, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1031–40

Neuropeptide Y suppresses epileptiform activity in rat frontal cortex and hippocampus in vitro via different NPY receptor subtypes. Bijak M. **Neurosci Lett** 1999 Jun 25; 268(3):115–8

NPY–induced feeding involves the action of a Y1–like receptor in rodents. Kanatani A, et al. **Regul Pept** 1998 Sep 25;75–76:409–15

HIV envelope protein gp120 induces neuropeptide Y receptor–mediated proliferation of vascular smooth muscle cells: relevance to AIDS cardiovascular pathogenesis. Kim J, et al. **Regul Pept** 1998 Sep 25;75–76:201–5

The pharmacology of neuropeptide Y (NPY) receptor–mediated feeding in rats characterizes better Y5 than Y1, but not Y2 or Y4 subtypes. Wyss P, et al. **Regul Pept** 1998 Sep 25;75–76:363–71

GENETICS

Leptin regulation of expression of neuropeptide Y and its receptor. Symeonides SN, et al. **Biochem Soc Trans** 1998 Aug;26(3):S203

Discrete distribution of the neuropeptide Y Y5 receptor gene in the human brain: an in situ hybridization study. Jacques D, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1–2):100–7

Distribution of neuropeptide Y receptor expression in the rat suprachiasmatic nucleus. Larsen PJ, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):69–76

Neuropeptide Y receptor subtype with unique properties cloned in the zebrafish: the zYa receptor. Starbäck P, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):242–52

Neuropeptide Y Y1 receptor polymorphism as a prognostic predictor in Japanese patients with IgA nephropathy. Ito H, et al. **Clin Nephrol** 1999 May;51(5):272–9

The murine Y1 receptor 5' upstream sequence directs cell–specific and developmentally regulated LacZ expression in transgenic mice CNS. Oberto A, et al. **Eur J Neurosci** 1998 Oct;10(10):3257–68

Regional distribution of Y–receptor subtype mRNAs in rat brain. Parker RM, et al. **Eur J Neurosci** 1999 Apr; 11(4):1431–48

Molecular cloning and characterization of an invertebrate homologue of a neuropeptide Y receptor. Tensen CP, et al. **Eur J Neurosci** 1998 Nov;10(11):3409–16

Expression of neuropeptide Y receptors mRNA and protein in human brain vessels and cerebromicrovascular cells in culture. Abounader R, et al. **J Cereb Blood Flow Metab** 1999 Feb;19(2):155–63

Extensive alternative splicing in the 5'–untranslated region of the rat and human neuropeptide Y Y5 receptor genes regulates receptor expression. Parker EM, et al. **J Neurochem** 1999 Sep;73(3):913–20

Cloning of a neuropeptide Y/peptide YY receptor from the Atlantic cod: the Yb receptor. Arvidsson AK, et al. **Regul Pept** 1998 Sep 25;75–76:39–43

Molecular biology and pharmacology of multiple NPY Y5 receptor species homologs. Borowsky B, et al. **Regul Pept** 1998 Sep 25;75–76:45–53

The cloned guinea pig pancreatic polypeptide receptor Y4 resembles more the human Y4 than does the rat Y4. Eriksson H, et al. **Regul Pept** 1998 Sep 25;75–76:29–37

Characterization and molecular cloning of vascular neuropeptide Y receptor subtypes in pig and dog. Malmström RE, et al. **Regul Pept** 1998 Sep 25;75–76:55–70

Comparison of Y–receptor subtype expression in the rat hippocampus. Parker RM, et al. **Regul Pept** 1998 Sep 25; 75–76:109–15

Neuropeptide Y Y1 receptor antisense oligodeoxynucleotides enhance food intake in energy–deprived rats. Schaffhauser AO, et al. **Regul Pept** 1998 Sep 25;75–76:417–23

Cloning and functional expression of the guinea pig neuropeptide Y Y2 receptor. Sharma P, et al. **Regul Pept** 1998 Sep 25;75–76:23–8

NPY upregulates genes containing cyclic AMP response element in human neuroblastoma cell lines bearing Y1 and Y2 receptors: involvement of CREB. Sheriff S, et al. **Regul Pept** 1998 Sep 25;75–76:309–18

Effect of BIBP3226 on inositol phosphate accumulation and cytosolic calcium level in control and NPY Y1 receptor expressing CHO–K1 cells. Vanderheyden PM, et al. **Regul Pept** 1998 Sep 25;75–76:191–9

Increased appetite augments hypothalamic NPY Y1 receptor gene expression: effects of anorexigenic ciliary neurotropic factor. Xu B, et al. **Regul Pept** 1998 Sep 25;75–76:391–5

IMMUNOLOGY

Comparison of antibodies directed against receptor segments of NPY–receptors. Eckard CP, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):379–94

METABOLISM

Hammerhead ribozymes that selectively cleave the NPY Y1, Y4, and Y5 receptor full–length RNA. Wieland HA, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):435–40

NPY receptor subtype in the rabbit isolated ileum. Félétou M, et al. **Br J Pharmacol** 1999 Jun;127(3):795–801

Heterogeneity of prejunctional NPY receptor–mediated inhibition of cardiac neurotransmission. Serone AP, et al. **Br J Pharmacol** 1999 May;127(1):99–108

Neuropeptide Y receptor subtype with unique properties cloned in the zebrafish: the zYa receptor. Starbäck P, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):242–52

The neuropeptide Y Y1 receptor is a somatic receptor on dorsal root ganglion neurons and a postsynaptic receptor on somatostatin dorsal horn neurons. Zhang X, et al. **Eur J Neurosci** 1999 Jul;11(7):2211–25

Altered neuropeptide Y Y1 responses in mesenteric arteries in rats with congestive heart failure. Bergdahl A, et al. **Eur J Pharmacol** 1998 Nov 6;360(2–3):165–73

Pharmacological profile of the rat intestinal crypt peptide YY receptor vs. the recombinant rat Y5 receptor. Goumain M, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):245–9

Expression of neuropeptide Y receptors mRNA and protein in human brain vessels and cerebromicrovascular cells in culture. Abounader R, et al. **J Cereb Blood Flow Metab** 1999 Feb;19(2):155–63

Species differences in the expression and distribution of the neuropeptide Y Y1, Y2, Y4, and Y5 receptors in rodents, guinea pig, and primates brains. Dumont Y, et al. **J Comp Neurol** 1998 Dec 21;402(3):372–84

Autoradiographic reevaluation of the binding properties of 125I–[Leu31,Pro34]peptide YY and 125I–peptide YY3–36 to neuropeptide Y receptor subtypes in rat forebrain. Gobbi M, et al. **J Neurochem** 1999 Apr;72(4):1663–70

Regulation of neuropeptide Y release by neuropeptide Y receptor ligands and calcium channel antagonists in hypothalamic slices. King PJ, et al. **J Neurochem** 1999 Aug; 73(2):641–6

Changes in neuropeptide Y receptors and pro–opiomelanocortin in the anorexia (anx/anx) mouse hypothalamus. Broberger C, et al. **J Neurosci** 1999 Aug 15;19(16):7130–9

[3H]–BIBP3226 and [3H]–NPY binding to intact SK–N–MC cells and CHO cells expressing the human Y1 receptor. Vanderheyden PM, et al. **J Recept Signal Transduct Res** 1998 Jul–Nov; 18(4–6):363–85

Normal feeding behavior, body weight and leptin response require the neuropeptide Y Y2 receptor. Naveilhan P, et al. **Nat Med** 1999 Oct;5(10):1188–93

Alterations in neuropeptide Y levels and Y1 binding sites in the Flinders Sensitive Line rats, a genetic animal model of depression. Caberlotto L, et al. **Neurosci Lett** 1999 Apr 23;265(3):191–4

On the relationship of neuropeptide Y Y1 receptor–immunoreactive neuronal structures to the neuropeptide Y–immunoreactive nerve terminal networks. A double immunolabelling analysis in the rat brain. Caberlotto L, et al. **Neuroscience** 1998 Oct;86(3):827–45

Alterations in neuropeptide Y, tyrosine hydroxylase, and Y–receptor subtype distribution following spinal nerve injury to rats. Marchand JE, et al. **Pain** 1999 Feb; 79(2–3):187–200

Molecular biology and pharmacology of multiple NPY Y5 receptor species homologs. Borowsky B, et al. **Regul Pept** 1998 Sep 25;75–76:45–53

Is there really an NPY Y3 receptor? Lee CC, et al. **Regul Pept** 1998 Sep 25;75–76:71–8

Neuropeptide Y receptors involved in calcium channel regulation in PC12 cells. McCullough LA, et al. **Regul Pept** 1998 Sep 25;75–76:101–7

Characterization and molecular cloning of vascular neuropeptide Y receptor subtypes in pig and dog. Malmström RE, et al. **Regul Pept** 1998 Sep 25;75–76:55–70

Neuropeptide Y Y1 and Y2 receptor–mediated stimulation of mitogen–activated protein kinase activity. Nie M, et al. **Regul Pept** 1998 Sep 25;75–76:207–13

Characterization of Y1, Y2 and Y5 subtypes of the neuropeptide Y (NPY) receptor in rabbit kidney. Sensitivity of ligand binding to guanine nucleotides and phospholipase C inhibitors. Parker SL, et al. **Regul Pept** 1998 Sep 25; 75–76:127–43

Divalent cations influencing neuropeptide Y receptor subtype binding in rat hippocampus and cortex membranes as well as in recombinant cells. Wieland HA, et al. **Regul Pept** 1998 Sep 25;75–76:263–9

PHYSIOLOGY

Influence of age, hyperglycemia, leptin, and NPY on islet blood flow in obese–hyperglycemic mice. Carlsson PO, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E594–601

Neuropeptide Y contributes to innervation–dependent increase in I(Ca, L) via ventricular Y2 receptors. Protas L, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H940–6

The effects of age on human venous responsiveness to neuropeptide Y. Lambert ML, et al. **Br J Clin Pharmacol** 1999 Jan;47(1):83–9

Evidence for involvement of neuropeptide Y receptors in the regulation of food intake: studies with Y1–selective antagonist BIBP3226. Kask A, et al. **Br J Pharmacol** 1998 Aug;124(7):1507–15

Receptors involved in nerve–mediated vasoconstriction in small arteries of the rat hepatic mesentery. Phillips JK, et al. **Br J Pharmacol** 1998 Aug;124(7):1403–12

Brain NPY Y1 receptors rapidly mediate the behavioral response to novelty and a compartment–specific modulation of granulocyte function in blood and spleen. von Hörsten S, et al. **Brain Res** 1998 Sep 28;806(2):282–6

Inhibition of glucose stimulated insulin secretion by neuropeptide Y is mediated via the Y1 receptor and inhibition of adenylyl cyclase in RIN 5AH rat insulinoma cells. Morgan DG, et al. **Diabetologia** 1998 Dec; 41(12):1482–91

Inhibition of neuropeptide Y (NPY)–induced feeding and c–Fos response in magnocellular paraventricular nucleus by a NPY receptor antagonist: a site of NPY action. Yokosuka M, et al. **Endocrinology** 1999 Oct; 140(10):4494–500

Amygdalar neuropeptide Y Y1 receptors mediate the anxiolytic–like actions of neuropeptide Y in the social interaction test. Sajdyk TJ, et al. **Eur J Pharmacol** 1999 Mar 5;368(2–3):143–7

Food intake in free–feeding and energy–deprived lean rats is mediated by the neuropeptide Y5 receptor. Criscione L, et al. **J Clin Invest** 1998 Dec 15;102(12):2136–45

Central administration of Y5 receptor antisense decreases spontaneous food intake and attenuates feeding in response to exogenous neuropeptide Y. Tang–Christensen M, et al. **J Endocrinol** 1998 Nov;159(2):307–12

Multiple neuropeptide Y receptors regulate K+ and Ca2+ channels in acutely isolated neurons from the rat arcuate nucleus. Sun L, et al. **J Neurophysiol** 1999 Mar; 81(3):1391–403

NPY Y1 receptors in the dorsal periaqueductal gray matter regulate anxiety in the social interaction test. Kask A, et al. **Neuroreport** 1998 Aug 24;9(12):2713–6

Feeding response to neuropeptide Y–related compounds in rats treated with Y5 receptor antisense or sense phosphothio–oligodeoxynucleotide. Flynn MC, et al. **Physiol Behav** 1999 Jul;66(5):881–4

Obesity and mild hyperinsulinemia found in neuropeptide Y–Y1 receptor–deficient mice. Kushi A, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15659–64

NPY receptor subtypes involved in the contraction of the proximal colon of the rat. Félétou M, et al. **Regul Pept** 1998 Sep 25;75–76:221–9

Suppression of sensory C fiber–mediated contractions by neuropeptide Y Y1 receptors in the guinea pig bronchi. Grundemar L. **Regul Pept** 1998 Sep 25;75–76:181–4

Characterisation of the neuropeptide Y receptor that mediates feeding in the rat: a role for the Y5 receptor? Haynes AC, et al. **Regul Pept** 1998 Sep 25;75–76:355–61

NPY–induced feeding involves the action of a Y1–like receptor in rodents. Kanatani A, et al. **Regul Pept** 1998 Sep 25;75–76:409–15

HIV envelope protein gp120 induces neuropeptide Y receptor–mediated proliferation of vascular smcoth muscle cells: relevance to AIDS cardiovascular pathogenesis. Kim J, et al. **Regul Pept** 1998 Sep 25;75–76:201–5

Characterization of NPY receptors mediating contraction in rat intramyocardial coronary arteries. Prieto D, et al. **Regul Pept** 1998 Sep 25;75–76:155–60

The pharmacology of neuropeptide Y (NPY) receptor–mediated feeding in rats characterizes better Y5 than Y1, but not Y2 or Y4 subtypes. Wyss P, et al. **Regul Pept** 1998 Sep 25;75–76:363–71

Mechanisms of vascular growth–promoting effects of neuropeptide Y: role of its inducible receptors. Zukowska–Grojec Z, et al. **Regul Pept** 1998 Sep 25;

RECEPTORS, NEUROPEPTIDE Y

75-76:231-8
Emerging functions for neuropeptide Y5 receptors. Bischoff A, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):104-6
Neuropeptide Y feeding receptors: are multiple subtypes involved? Inui A. **Trends Pharmacol Sci** 1999 Feb; 20(2):43-6 (47 ref.)

RECEPTORS, NEUROTENSIN

ANALYSIS

Characterization of high affinity neurotensin receptor NTR1 in HL-60 cells and its down regulation during granulocytic differentiation. Choi SY, et al. **Br J Pharmacol** 1999 Feb; 126(4):1050-6
Receptor autoradiographic evaluation of cholecystokinin, neurotensin, somatostatin and vasoactive intestinal peptide receptors in gastro-intestinal adenocarcinoma samples: where are they really located? Reubi JC, et al. **Int J Cancer** 1999 May 5;81(3):376-86
Neurotensin receptors in human neoplasms: high incidence in Ewing's sarcomas. Reubi JC, et al. **Int J Cancer** 1999 Jul 19;82(2):213-8
[3H]Neurotensin receptor densities in human postmortem brain tissue obtained from normal and schizophrenic persons. An autoradiographic study. Lahti RA, et al. **J Neural Transm** 1998;105(4-5):507-16
Correlative ultrastructural distribution of neurotensin receptor proteins and binding sites in the rat substantia nigra. Boudin H, et al. **J Neurosci** 1998 Oct 15; 18(20):8473-84

ANTAGONISTS & INHIBITORS

Neurotensin receptor-mediated inhibition of pancreatic cancer cell growth by the neurotensin antagonist SR 48692. Herzig MC, et al. **Anticancer Res** 1999 Jan-Feb; 19(1A):213-9
X-ray structural characterization of SR 142948, a novel potent synthetic neurotensin receptor antagonist. Quéré L, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):653-8
In vitro functional evidence of different neurotensin-receptors modulating the motor response of human colonic muscle strips. Croci T, et al. **Br J Pharmacol** 1999 Aug;127(8):1922-8
Pretreatment with SR48692 has different effects on central neurotensin-induced gastric mucosal defense and inhibition of gastric acid secretion in rats. Karinch AM, et al. **Brain Res** 1998 Nov 9;810(1-2):123-9
Blockade of neurotensin receptors suppresses the dopamine D1/D2 synergism on immediate early gene expression in the rat brain. Alonso R, et al. **Eur J Neurosci** 1999 Mar; 11(3):967-74
Characterization of neurotensin receptors in intestinal smooth muscle using a nonpeptide antagonist. Unno T, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):73-80
Neurotensin is an antagonist of the human neurotensin NT2 receptor expressed in Chinese hamster ovary cells. Vita N, et al. **Eur J Pharmacol** 1998 Nov 6;360(2-3):265-72
Neurotensin and a non-peptide neurotensin receptor antagonist control human colon cancer cell growth in cell culture and in cells xenografted into nude mice. Maoret JJ, et al. **Int J Cancer** 1999 Jan 29;80(3):448-54
A neurotensin receptor antagonist inhibits acute immobilization stress-induced cardiac mast cell degranulation, a corticotropin-releasing hormone-dependent process. Pang X, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):307-14
An antagonistic monoclonal antibody (B-N6) specific for the human neurotensin receptor-1. Ovigne JM, et al. **Neuropeptides** 1998 Jun;32(3):247-56
Role of endogenous neurotensin in the behavioral and neuroendocrine effects of cocaine. Betancur C, et al. **Neuropsychopharmacology** 1998 Oct;19(4):322-32

DRUG EFFECTS

Identification of the receptor subtype involved in the analgesic effect of neurotensin. Dubuc I, et al. **J Neurosci** 1999 Jan 1;19(1):503-10
Peptide nucleic acids targeted to the neurotensin receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression. Tyler BM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7053-8

GENETICS

Differential ontogenetic patterns of levocabastine-sensitive neurotensin NT2 receptors and of NT1 receptors in the rat brain revealed by in situ hybridization. Lépée-Lorgeoux I, et al. **Brain Res Dev Brain Res** 1999 Mar 12; 113(1-2):115-31
Expression of the 100-kDa neurotensin receptor sortilin during mouse embryonal development. Hermans-Borgmeyer I, et al. **Brain Res Mol Brain Res** 1999 Mar 5;65(2):216-9
Cloning and characterization of a human and murine T-cell orphan G-protein-coupled receptor similar to the growth hormone secretagogue and neurotensin receptors. Tan CP, et al. **Genomics** 1998 Sep 1;52(2):223-9
Peptide nucleic acids targeted to the neurotensin receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression. Tyler BM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7053-8

METABOLISM

Propeptide cleavage conditions sortilin/neurotensin receptor-3 for ligand binding. Munck Petersen C, et al. **EMBO J** 1999 Feb 1;18(3):595-604
Neurotensin is a proinflammatory neuropeptide in colonic inflammation. Castagliuolo I, et al. **J Clin Invest** 1999 Mar; 103(6):843-9
Widespread expression in adult rat forebrain of mRNA encoding high-affinity neurotensin receptor. Alexander MJ, et al. **J Comp Neurol** 1998 Dec 28;402(4):475-500
Pivotal role of an aspartate residue in sodium sensitivity and coupling to G proteins of neurotensin receptors. Martin S, et al. **Mol Pharmacol** 1999 Feb;55(2):210-5
Release-depletion and receptor-mediated neuronal internalization of endogenous neurotensin in the stellate ganglion of the cat. Zetina ME, et al. **Neuroscience** 1999; 92(2):655-64
Neurotensin receptors and dopamine transporters: effects of MPTP lesioning and chronic dopaminergic treatments in monkeys. Goulet M, et al. **Synapse** 1999 Jun 1;32(3):153-64

PHYSIOLOGY

Simultaneous activation of two different receptor systems by enkephalin/neurotensin conjugates having spacer chains of various lengths. Yano K, et al. **Eur J Pharm Sci** 1998 Dec;7(1):41-48
Neurotensin stimulation of mast cell secretion is receptor-mediated, pertussis-toxin sensitive and requires activation of phospholipase C. Barrocas AM, et al. **Immunopharmacology** 1999 Feb;41(2):131-7
Electrophysiological evidence for putative subtypes of neurotensin receptors in guinea-pig mesencephalic dopaminergic neurons. Nalivaiko E, et al. **Neuroscience** 1998 Oct;86(3):799-811
Mechanisms of regulation of neurotensin receptors. Hermans E, et al. **Pharmacol Ther** 1998 Aug;79(2):89-104 (153 ref.)
Neurotensin and neurotensin receptors. Vincent JP, et al. **Trends Pharmacol Sci** 1999 Jul;20(7):302-9 (67 ref.)

RECEPTORS, NEUROTRANSMITTER

[The biological mechanisms underlying alcohol dependence] Alling C. **Lakartidningen** 1999 Jul 14;96(28-29):3248-52 (63 ref.) (Eng. Abstr.) **(Swe)**

ANALYSIS

The number of glutamate transporter subtype molecules at glutamatergic synapses: chemical and stereological quantification in young adult rat brain. Lehre KP, et al. **J Neurosci** 1998 Nov 1;18(21):8751-7

BIOSYNTHESIS

Expression of the human excitatory amino acid transporter 2 and metabotropic glutamate receptors 3 and 5 in the prefrontal cortex from normal individuals and patients with schizophrenia. Ohnuma T, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):207-17
The expression of the glial glutamate transporter protein EAAT2 in motor neuron disease: an immunohistochemical study. Fray AE, et al. **Eur J Neurosci** 1998 Aug; 10(8):2481-9
Novel pluripotential neural progenitor lines exhibiting rapid controlled differentiation to neurotransmitter receptor-expressing neurons and glia. Jung M, et al. **Eur J Neurosci** 1998 Oct;10(10):3246-56

DRUG EFFECTS

G protein-coupled receptor (GPCR) trafficking in the central nervous system: relevance for drugs of abuse. Roth BL, et al. **Drug Alcohol Depend** 1998 Jun-Jul;51(1-2):73-85 (152 ref.)
Drug-activation of brain reward pathways. Wise RA. **Drug Alcohol Depend** 1998 Jun-Jul;51(1-2):13-22 (121 ref.)
Receptor pharmacology of neuroleptics: relation to clinical effects. Richelson E. **J Clin Psychiatry** 1999;60 Suppl 10:5-14 (69 ref.)
Multiple mechanisms of action: the pharmacological profile of budipine. Eltze M. **J Neural Transm Suppl** 1999; 56:83-105 (102 ref.)
Cell-specific alterations in synaptic properties of hippocampal CA1 interneurons after kainate treatment. Morin F, et al. **J Neurophysiol** 1998 Dec;80(6):2836-47
Open channel block of NMDA receptors by conformationally restricted analogs of milnacipran and their protective effect against NMDA-induced neurotoxicity. Noguchi T, et al. **Synapse** 1999 Feb; 31(2):87-96
Symposium overview: chemical modulation of neuroreceptors and channels via intracellular components. Narahashi T, et al. **Toxicol Sci** 1998 Sep;45(1):9-25
Primary structure of gamma-bungarotoxin, a new postsynaptic neurotoxin from venom of Bungarus multicinctus. Aird SD, et al. **Toxicon** 1999 Apr;37(4):609-25
Ethanol tolerance and synaptic plasticity. Chandler LJ, et al. **Trends Pharmacol Sci** 1998 Dec;19(12):491-5 (48 ref.)

GENETICS

Molecular cloning, differential expression, and chromosomal localization of human frizzled-1, frizzled-2, and frizzled-7. Sagara N, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):117-22
Changes in expression of neuronal and glial glutamate transporters in rat hippocampus following kainate-induced seizure activity. Simantov R, et al. **Brain Res Mol Brain Res** 1999 Feb 19;65(1):112-23
Identification and structural characterization of two genes encoding glutamate transporter homologues differently expressed in the nervous system of Drosophila melanogaster [published erratum appears in **FEBS Lett** 1999 Apr 23;449(2-3):293] Besson MT, et al. **FEBS Lett** 1999 Jan 25;443(2):97-104
Physical mapping of the G-protein coupled receptor 19 (GPR19) in the chromosome 12p12.3 region frequently rearranged in cancer cells. Montpetit A, et al. **Hum Genet** 1999 Jul-Aug;105(1-2):162-4
The EAAT2 (GLT-1) gene in motor neuron disease: absence of mutations in amyotrophic lateral sclerosis and a point mutation in patients with hereditary spastic paraplegia. Meyer T, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):594-6
Abnormal EAAT2 splicing in amyotrophic lateral sclerosis [news] Collier DA. **Mol Psychiatry** 1998 Jul;3(4):298
From neuronal inclusions to neurodegeneration: neuropathological investigation of a transgenic mouse model of Huntington's disease. Davies SW, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):981-9

METABOLISM

Autonomic regulation. i-NANC/e-NANC. Widdicombe JG. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 3):S171-5 (51 ref.)
Different nitric oxide synthase inhibitors cause rapid and differential alterations in the ligand-binding capacity of transmitter receptors in the rat cerebral cortex. Bidmon HJ, et al. **Anat Anz** 1999 Jul;181(4):345-51
GABA(B) receptor isoforms GBR1a and GBR1b, appear to be associated with pre- and post-synaptic elements respectively in rat and human cerebellum. Billinton A, et al. **Br J Pharmacol** 1999 Mar;126(6):1387-92
sFRP-2 is a target of the Wnt-4 signaling pathway in the developing metanephric kidney. Lescher B, et al. **Dev Dyn** 1998 Dec;213(4):440-51
Frizzled and Dfrizzled-2 function as redundant receptors for Wingless during Drosophila embryonic development. Bhanot P, et al. **Development** 1999 Sep;126(18):4175-86
The neuropeptide Y Y1 receptor is a somatic receptor on dorsal root ganglion neurons and a postsynaptic receptor on somatostatin dorsal horn neurons. Zhang X, et al. **Eur J Neurosci** 1999 Jul;11(7):2211-25
The pharmacological profile of L-glutamate transport in human NT2 neurones is consistent with excitatory amino acid transporter 2. Dunlop J, et al. **Eur J Pharmacol** 1998 Nov 6;360(2-3):249-56
Cultured insect mushroom body neurons express functional receptors for acetylcholine, GABA, glutamate, octopamine, and dopamine. Cayre M, et al. **J Neurophysiol** 1999 Jan;81(1):1-14
Neuronal acetylcholine receptors with alpha7 subunits are concentrated on somatic spines for synaptic signaling in embryonic chick ciliary ganglia. Shoop RD, et al. **J Neurosci** 1999 Jan 15;19(2):692-704
Interindividual differences in the levels of the glutamate transporters GLAST and GLT, but no clear correlation with Alzheimer's disease. Beckstrøm H, et al. **J Neurosci Res** 1999 Jan 15;55(2):218-29
Receptor-activated Ca2+ increases in vibrodissociated cortical astrocytes: a nonenzymatic method for acute isolation of astrocytes. Thorlin T, et al. **J Neurosci Res** 1998 Nov 1;54(3):390-401
The family of sodium-dependent glutamate transporters: a focus on the GLT-1/EAAT2 subtype. Robinson MB. **Neurochem Int** 1998 Dec;33(6):479-91 (140 ref.)
G protein alpha subunit G alpha z couples neurotransmitter receptors to ion channels in sympathetic neurons. Jeong SW, et al. **Neuron** 1998 Nov;21(5):1201-12
Receptor binding profile of Otilonium bromide. Evangelista S, et al. **Pharmacol Res** 1998 Aug;38(2):111-7
From neuronal inclusions to neurodegeneration: neuropathological investigation of a transgenic mouse model of Huntington's disease. Davies SW, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):981-9
Receptor binding activities of Schefflera triterpenoids and oligosaccharides. Zhu M, et al. **Planta Med** 1999 Mar; 65(2):99-103
Biochemical characterization of Wnt-frizzled interactions using a soluble, biologically active vertebrate Wnt protein. Hsieh JC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):3546-51
The in vivo effects of olanzapine and other antipsychotic agents on receptor occupancy and antagonism of dopamine D1, D2, D3, 5HT2A and muscarinic receptors. Zhang W, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):267-78
Special issues in quantitation of brain receptors and related markers by emission computed tomography. Links JM. **Q J Nucl Med** 1998 Sep;42(3):158-65 (56 ref.)
Changes in neurotransmitter receptors and neurobehavioral variables in rats co-exposed to lead and ethanol. Flora GJ, et al. **Toxicol Lett** 1999 Sep 20;109(1-2):43-9
[Molecular mechanism of the assembly of neurotransmitter receptors and cell adhesion molecules at postsynaptic

density] Hata Y. **Seikagaku** 1998 Dec;70(12):1414–8 (16 ref.) **(Jpn)**

PHYSIOLOGY

Molecular and Functional Diversity of Ion Channels and Receptors. Proceedings of a conference. New York City, New York, USA. May 14–17, 1998. **Ann N Y Acad Sci** 1999 Apr 30;868:1–774

Modulation of GABAA receptor-mediated inhibition by postsynaptic calcium in epileptic hippocampal neurons. Isokawa M. **Brain Res** 1998 Nov 9;810(1–2):241–50

Interactions between the presynaptic alpha2-autoreceptor and presynaptic inhibitory heteroreceptors on noradrenergic neurones. Schlicker E, et al. **Brain Res Bull** 1998 Sep 15;47(2):129–32 (45 ref.)

Neurotransmission in the medulla mediating insular cortical and lateral hypothalamic sympathetic responses. Butcher KS, et al. **Can J Physiol Pharmacol** 1998 Jul–Aug; 76(7–8):737–46

Influence of nasal fontanel receptors on the regulation of tracheobronchial vagal tone. Miličić D, et al. **Croat Med J** 1998 Dec;39(4):426–9

Pathophysiology of the neuroregulation of growth hormone secretion in experimental animals and the human. Giustina A, et al. **Endocr Rev** 1998 Dec;19(6):717–97 (1103 ref.)

Neurotransmitters and their receptors in the islets of Langerhans of the pancreas: what messages do acetylcholine, glutamate, and GABA transmit? Satin LS, et al. **Endocrine** 1998 Jun;8(3):213–23 (85 ref.)

Pathophysiological implications of the structural organization of the excitatory synapse. Cattabeni F, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):339–47 (72 ref.)

Neurotransmitter transporters: target for endocrine regulation. Figlewicz DP, et al. **Horm Metab Res** 1999 May;31(5):335–9 (58 ref.)

Inborn errors of neurotransmitter receptors. Surtees R. **J Inherit Metab Dis** 1999 Jun;22(4):374–80 (21 ref.)

Differential roles of NMDA and non-NMDA receptors in synaptic responses of neurons in nucleus tractus solitarii of the rat. Yen JC, et al. **J Neurophysiol** 1999 Jun; 81(6):3034–43

Stochastic model of central synapses: slow diffusion of transmitter interacting with spatially distributed receptors and transporters. Trommershäuser J, et al. **J Theor Biol** 1999 May 7;198(1):101–20

Convergent but temporally separated inputs to lateral amygdala neurons from the auditory thalamus and auditory cortex use different postsynaptic receptors: in vivo intracellular and extracellular recordings in fear conditioning pathways. Li XF, et al. **Learn Mem** 1996 Sep–Oct;3(2–3):229–42

Dally cooperates with Drosophila Frizzled 2 to transduce Wingless signalling [see comments] Lin X, et al. **Nature** 1999 Jul 15;400(6741):281–4. Comment in: Nature 1999 Jul 15;400(6741):213–5.

Activity and synaptic receptor targeting: the long view. Craig AM. **Neuron** 1998 Sep;21(3):459–62 (20 ref.)

Theoretical aspects of sensory substitution and of neurotransmission-related reorganization in spinal cord injury. Bach-y-Rita P. **Spinal Cord** 1999 Jul;37(7):465–74 (81 ref.)

Four new postsynaptic neurotoxins from Naja naja sputatrix venom: cDNA cloning, protein expression, and phylogenetic analysis. Afifiyan F, et al. **Toxicon** 1998 Dec; 36(12):1871–85

Pharmacology of pain processing systems. Schadrack J, et al. **Z Rheumatol** 1998;57 Suppl 2:1–4 (22 ref.)

[Transmitter dysfunction in patients with schizophrenia. Significance for cognitive functioning and treatment] Glenthøj BY, et al. **Ugeskr Laeger** 1999 Mar 8; 161(10):1391–8 (40 ref.) (Eng. Abstr.) **(Dan)**

RECEPTORS, NGF see **RECEPTORS, NERVE GROWTH FACTOR**

RECEPTORS, NICOTINIC

Physicochemical and immunological studies of the N-terminal domain of the Torpedo acetylcholine receptor alpha-subunit expressed in Escherichia coli. Alexeev T, et al. **Eur J Biochem** 1999 Jan;259(1–2):310–9

AGONISTS see **NICOTINIC AGONISTS**

ANALYSIS

Cecal ligation and puncture peritonitis model shows decreased nicotinic acetylcholine receptor numbers in rat muscle: immunopathologic mechanisms? [see comments] Tsukagoshi H, et al. **Anesthesiology** 1999 Aug;91(2):448–60 . Comment in: Anesthesiology 1999 Aug;91(2):337–9.

Regional distribution of subtypes of nicotinic receptors in human brain and effect of aging studied by (+/-)-[3H]epibatidine. Marutle A, et al. **Brain Res** 1998 Aug 10;801(1–2):143–9

Presence of nicotinic acetylcholine receptors in cat carotid body afferent system. Shirahata M, et al. **Brain Res** 1998 Dec 14;814(1–2):213–7

Cholinergic receptors in heart and brainstem of rats exposed to nicotine during development: implications for hypoxia tolerance and perinatal mortality. Slotkin TA, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):1–12

Fas and nicotinic acetylcholine receptor in human myasthenic thymus--immunohistochemical study. Kawanami S, et al. **Fukuoka Igaku Zasshi** 1999 Jun; 90(6):286–94

Human vascular endothelial cells express functional nicotinic acetylcholine receptors. Macklin KD, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):435–9

Targeting of acetylcholine receptor and 43 kDa rapsyn to the postsynaptic membrane in Torpedo marmorata electrocyte. Bignami F, et al. **J Physiol Paris** 1998 Jun–Aug;92(3–4):177–81

Immunohistochemical localization of nicotinic beta2 and alpha4 receptor subunits in normal human brain and individuals with Lewy body and Alzheimer's disease: preliminary observations. Sparks DL, et al. **Neurosci Lett** 1998 Nov 13;256(3):151–4

Synthesis of an I-123 analog of A-85380 and preliminary SPECT imaging of nicotinic receptors in baboon. Musachio JL, et al. **Nucl Med Biol** 1999 Feb;26(2):201–7

ANTAGONISTS & INHIBITORS see **NICOTINIC ANTAGONISTS**

BIOSYNTHESIS

Expression and spectroscopic analysis of soluble nicotinic acetylcholine receptor fragments derived from the extracellular domain of the alpha-subunit. Grant MA, et al. **Biochemistry** 1999 Aug 17;38(33):10730–42

Postnatal developmental regulation of neuronal nicotinic receptor subunit alpha 7 and multiple alpha 4 and beta 2 mRNA species in the rat. Shacka JJ, et al. **Brain Res Dev Brain Res** 1998 Jul 1;109(1):67–75

Up-regulation of cell-surface alpha4beta2 neuronal nicotinic receptors by lower temperature and expression of chimeric subunits. Cooper ST, et al. **J Biol Chem** 1999 Sep 17; 274(38):27145–52

Prenatal nicotine increases pulmonary alpha7 nicotinic receptor expression and alters fetal lung development in monkeys. Sekhon HS, et al. **J Clin Invest** 1999 Mar; 103(5):637–47

Determinants responsible for assembly of the nicotinic acetylcholine receptor. Keller SH, et al. **J Gen Physiol** 1999 Feb;113(2):171–6 (40 ref.)

Nicotine evokes cell death in embryonic rat brain during neurulation. Roy TS, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1136–44

Four pharmacologically distinct subtypes of alpha4beta2 nicotinic acetylcholine receptor expressed in Xenopus laevis oocytes. Zwart R, et al. **Mol Pharmacol** 1998 Dec; 54(6):1124–31

Subunit and region-specific decreases in nicotinic acetylcholine receptor mRNA in the aged rat brain. Ferrari R, et al. **Neurobiol Aging** 1999 Jan–Feb;20(1):37–46

Diversity of mRNA expression for muscarinic acetylcholine receptor subtypes and neuronal nicotinic acetylcholine receptor subunits in human mononuclear leukocytes and leukemic cell lines. Sato KZ, et al. **Neurosci Lett** 1999 Apr 30;266(1):17–20

CHEMISTRY

Time-resolved photolabeling of membrane proteins: application to the nicotinic acetylcholine receptor. Addona GH, et al. **Anal Biochem** 1999 Feb 1;267(1):135–40

Heteromeric complexes of alpha 5 and/or alpha 7 subunits. Effects of calcium and potential role in nicotine-induced presynaptic facilitation. Girod R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:578–90 (81 ref.)

Molecular diversity of neuronal nicotinic acetylcholine receptors. McGehee DS. **Ann N Y Acad Sci** 1999 Apr 30; 868:565–77 (79 ref.)

Electrostatics of ligand-gated ion channels. Adcock C, et al. **Biochem Soc Trans** 1998 Aug;26(3):S300

Solid state NMR studies of ligands bound to the nicotinic acetylcholine receptor. Williamson PT, et al. **Biochem Soc Trans** 1998 Aug;26(3):S297

Internal dynamics of the nicotinic acetylcholine receptor in reconstituted membranes. Baenziger JE, et al. **Biochemistry** 1999 Apr 20;38(16):4905–11

Probing the structure of the nicotinic acetylcholine receptor with the hydrophobic photoreactive probes [125I]TID-BE and [125I]TIDPC/16. Blanton MP, et al. **Biochemistry** 1998 Oct 13;37(41):14545–55

Inhibition of nicotinic acetylcholine receptor by philanthotoxin-343: kinetic investigations in the microsecond time region using a laser-pulse photolysis technique. Jayaraman V, et al. **Biochemistry** 1999 Aug 31; 38(35):11406–14

Eserine and other tertiary amine interactions with Torpedo acetylcholine receptor postsynaptic membrane vesicles. Kawai H, et al. **Biochemistry** 1999 Jan 5;38(1):134–41

Secondary structure of the exchange-resistant core from the nicotinic acetylcholine receptor probed directly by infrared spectroscopy and hydrogen/deuterium exchange. Méthot N, et al. **Biochemistry** 1998 Oct 20;37(42):14815–22

NMR solution conformation of an antitoxic analogue of alpha-conotoxin GI: identification of a common nicotinic acetylcholine receptor alpha 1-subunit binding surface for small ligands and alpha-conotoxins. Mok KH, et al. **Biochemistry** 1999 Sep 14;38(37):11895–904

Probing the agonist domain of the nicotinic acetylcholine receptor by cysteine scanning mutagenesis reveals residues in proximity to the alpha-bungarotoxin binding site. Spura A, et al. **Biochemistry** 1999 Apr 20;38(16):4912–21

Binding sites for exogenous and endogenous non-competitive inhibitors of the nicotinic acetylcholine receptor. Arias HR. **Biochim Biophys Acta** 1998 Aug 21;1376(2):173–220 (343 ref.)

Identifying the cholesterol binding domain in the nicotinic acetylcholine receptor with [125I]azido-cholesterol. Corbin J, et al. **Biochim Biophys Acta** 1998 Nov 11; 1414(1–2):65–74

Agonist binding and affinity state transitions in reconstituted nicotinic acetylcholine receptors revealed by single and sequential mixing stopped-flow fluorescence spectroscopies. Raines DE, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1–2):83–93

Improved secondary structure predictions for a nicotinic receptor subunit: incorporation of solvent accessibility and experimental data into a two-dimensional representation. Le Novère N, et al. **Biophys J** 1999 May;76(5):2329–45

Incorporation of the acetylcholine receptor dimer from Torpedo californica in a peptide supported lipid membrane investigated by surface plasmon and fluorescence spectroscopy. Schmidt EK, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):585–91

NMR spatial structure of alpha-conotoxin ImI reveals a common scaffold in snail and snake toxins recognizing neuronal nicotinic acetylcholine receptors. Maslennikov IV, et al. **FEBS Lett** 1999 Feb 12;444(2–3):275–80

Spatial structure of the M2 transmembrane segment of the nicotinic acetylcholine receptor alpha-subunit. Pashkov VS, et al. **FEBS Lett** 1999 Aug 20;457(1):117–21

Anatomy of the antigenic structure of a large membrane autoantigen, the muscle-type nicotinic acetylcholine receptor. Tzartos SJ, et al. **Immunol Rev** 1998 Jun; 163:89–120 (239 ref.)

The nicotinic alpha4 receptor subunit contributes to the lining of the ion channel pore when expressed with the 5-HT3 receptor subunit. Kriegler S, et al. **J Biol Chem** 1999 Feb 12;274(7):3934–6

Pairwise interactions between neuronal alpha7 acetylcholine receptors and alpha-conotoxin ImI. Quiram PA, et al. **J Biol Chem** 1999 Jul 9;274(28):19517–24

alpha-bungarotoxin receptors contain alpha7 subunits in two different disulfide-bonded conformations. Rakhilin S, et al. **J Cell Biol** 1999 Jul 12;146(1):203–18

Liquid chromatographic studies with immobilized neuronal nicotinic acetylcholine receptor stationary phases: effects of receptor subtypes, pH and ionic strength on drug-receptor interactions. Wainer IW, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 5;724(1):65–72

Molecular recognition in nicotinic acetylcholine receptors: the importance of pi-cation interactions. Schmitt JD, et al. **J Med Chem** 1999 Aug 12;42(16):3066–74

Nicotinic acetylcholine receptor at 4.6 A resolution: transverse tunnels in the channel wall. Miyazawa A, et al. **J Mol Biol** 1999 May 14;288(4):765–86

Allosteric modulation of neuronal nicotinic acetylcholine receptors. Buisson B, et al. **J Physiol Paris** 1998 Apr; 92(2):89–100 (122 ref.)

The role of subunit interfaces for the nicotinic acetylcholine receptor's allosterism. Hucho F, et al. **J Physiol Paris** 1998 Apr;92(2):85–8

Functional determinants by which snake and cone snail toxins block the alpha 7 neuronal nicotinic acetylcholine receptors. Servent D, et al. **J Physiol Paris** 1998 Apr; 92(2):107–11

Molecular dissection of subunit interfaces in the nicotinic acetylcholine receptor. Sine SM, et al. **J Physiol Paris** 1998 Apr;92(2):101–5

Toxins selective for subunit interfaces as probes of nicotinic acetylcholine receptor structure. Taylor P, et al. **J Physiol Paris** 1998 Apr;92(2):79–83 (21 ref.)

Blue native PAGE as a useful method for the analysis of the assembly of distinct combinations of nicotinic acetylcholine receptor subunits. Nicke A, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):493–507

Neuronal nicotinic receptor beta2 and beta4 subunits confer large differences in agonist binding affinity. Parker MJ, et al. **Mol Pharmacol** 1998 Dec;54(6):1132–9

A structure-based approach to nicotinic receptor pharmacology. Ryan SE, et al. **Mol Pharmacol** 1999 Feb; 55(2):348–55

Structures of the M2 channel-lining segments from nicotinic acetylcholine and NMDA receptors by NMR spectroscopy. Opella SJ, et al. **Nat Struct Biol** 1999 Apr; 6(4):374–9

Molecular basis of the charge selectivity of nicotinic acetylcholine receptor and related ligand-gated ion channels. Corringer PJ, et al. **Novartis Found Symp** 1999; 225:215–24; discussion 224–30 (26 ref.)

Anesthetic-induced structural changes in the nicotinic acetylcholine receptor. Ryan SE, et al. **Toxicol Lett** 1998 Nov 23;100–101:179–83

CLASSIFICATION

International Union of Pharmacology. XX. Current status of the nomenclature for nicotinic acetylcholine receptors and their subunits. Lukas RJ, et al. **Pharmacol Rev** 1999 Jun;51(2):397–401 (35 ref.)

RECEPTORS, NICOTINIC

DEFICIENCY

Increased neurodegeneration during ageing in mice lacking high-affinity nicotine receptors. Zoli M, et al. **EMBO J** 1999 Mar 1;18(5):1235–44

Neuronal nicotinic receptor deficits in Alzheimer patients with the Swedish amyloid precursor protein 670/671 mutation. Marutle A, et al. **J Neurochem** 1999 Mar; 72(3):1161–9

DRUG EFFECTS

Ethanol-nicotine interactions at alpha-bungarotoxin-insensitive nicotinic acetylcholine receptors in rat cortical neurons. Marszalec W, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):439–45

Action of ethanol on responses to nicotine from cerebellar interneurons and medial septal neurons: relationship to methyllycaconitine inhibition of nicotine responses. Yang X, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):983–90

Long-term tacrine treatment in three mild Alzheimer patients: effects on nicotinic receptors, cerebral blood flow, glucose metabolism, EEG, and cognitive abilities. Nordberg A, et al. **Alzheimer Dis Assoc Disord** 1998 Sep; 12(3):228–37

The effects of ketamine and propofol on neuronal nicotinic acetylcholine receptors and P2x purinoceptors in PC12 cells. Furuya R, et al. **Anesth Analg** 1999 Jan;88(1):174–80

Depressant and convulsant barbiturates both inhibit neuronal nicotinic acetylcholine receptors. Watanabe I, et al. **Anesth Analg** 1999 Jun;88(6):1406–11

Isoflurane increases the apparent agonist affinity of the nicotinic acetylcholine receptor [see comments] Raines DE, et al. **Anesthesiology** 1999 Jan;90(1):135–46. Comment in: Anesthesiology 1999 Jan;90(1):1–3.

The alkyl chain dependence of the effect of normal alcohols on agonist-induced nicotinic acetylcholine receptor desensitization kinetics. Raines DE, et al. **Anesthesiology** 1999 Jul;91(1):222–30

Physostigmine and atropine potentiate and inhibit neuronal alpha 4 beta 4 nicotinic receptors. Zwart R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:636–9

Antidepressants and smoking cessation [letter; comment] Gambassi G, et al. **Arch Intern Med** 1999 Jun 14; 159(11):1257–8. Comment on: Arch Intern Med 1998 Oct 12;158(18):2035–9.

Novel biotinylated phenylarsonous acids as bifunctional reagents for spatially close thiols: studies on reduced antibodies and the agonist binding site of reduced Torpedo nicotinic receptors. Moaddel R, et al. **Bioconjug Chem** 1999 Jul-Aug;10(4):629–37

Hybridized and isosteric analogues of N1-acetyl-N4-dimethyl-piperazinium iodide (ADMP) and N1-phenyl-N4-dimethyl-piperazinium iodide (DMPP) with central nicotinic action. Manetti D, et al. **Bioorg Med Chem** 1999 Mar;7(3):457–65

Differential blockade of rat alpha3beta4 and alpha7 neuronal nicotinic receptors by omega-conotoxin MVIIC, omega-conotoxin GVIA and diltiazem. Herrero CJ, et al. **Br J Pharmacol** 1999 Jul;127(6):1375–87

Minor structural changes in nicotinoid insecticides confer differential subtype selectivity for mammalian nicotinic acetylcholine receptors. Tomizawa M, et al. **Br J Pharmacol** 1999 May;127(1):115–22

Antagonist activities of mecamylamine and nicotine show reciprocal dependence on beta subunit sequence in the second transmembrane domain. Webster JC, et al. **Br J Pharmacol** 1999 Jul;127(6):1337–48

alpha-bungarotoxin- and methyllycaconitine-sensitive nicotinic receptors mediate fast synaptic transmission in interneurons of rat hippocampal slices. Alkondon M, et al. **Brain Res** 1998 Nov 9;810(1-2):257–63

Arachidonic acid induces a long-lasting facilitation of hippocampal synaptic transmission by modulating PKC activity and nicotinic ACh receptors. Nishizaki T, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):263–72

Determinants of phencyclidine potency on the nicotinic acetylcholine receptors from muscle and electric organ. Eterović VA, et al. **Cell Mol Neurobiol** 1999 Dec; 19(6):745–57

Modulation by nicotine on muscarinic receptor-effector systems. Wang H. **Chung Kuo Yao Li Hsueh Pao** 1997 May; 18(3):193–7 (25 ref.)

Physostigmine blocked nicotinic acetylcholine receptors in rat sympathetic ganglion neurons. Zheng JQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):508–11

Kinetic properties of nicotinic receptors in cultured rat sympathetic neurons from superior cervical ganglia. Zheng JQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul; 18(4):330–3

Investigation of endogenous neurotransmitters of guinea pig gallbladder using nicotinic agonist stimulation. Parkman HP, et al. **Dig Dis Sci** 1998 Oct;43(10):2237–43

The actions of muscle relaxants at nicotinic acetylcholine receptor isoforms. Garland CM, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):83–92

Block by 5-hydroxytryptamine and apomorphine of recombinant human neuronal nicotinic receptors. Nakazawa K, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):293–9

Effects of chronic treatment with (+)-nicotine on the stress-induced hypertension and downregulation of central nicotinic receptors in rats: comparative study with (-)-nicotine. Takita M, et al. **Gen Pharmacol** 1999 Jul; 33(1):29–33

Chimeric analysis of a neuronal nicotinic acetylcholine receptor reveals amino acids conferring sensitivity to alpha-bungarotoxin. Levandoski MM, et al. **J Biol Chem** 1999 Sep 10;274(37):26113–9

Antidepressants noncompetitively inhibit nicotinic acetylcholine receptor function. Fryer JD, et al. **J Neurochem** 1999 Mar;72(3):1117–24

Nicotinic acetylcholine receptor antagonistic activity of monoamine uptake blockers in rat hippocampal slices. Hennings EC, et al. **J Neurochem** 1999 Sep;73(3):1043–50

Developmental changes in the nicotinic responses of ciliary ganglion neurons. Blumenthal EM, et al. **J Neurophysiol** 1999 Jan;81(1):111–20

Mammalian nicotinic receptors with alpha7 subunits that slowly desensitize and rapidly recover from alpha-bungarotoxin blockade. Cuevas J, et al. **J Neurosci** 1998 Dec 15;18(24):10335–44

Calcitonin gene-related peptide rapidly downregulates nicotinic receptor function and slowly raises intracellular Ca2+ in rat chromaffin cells in vitro. Giniatullin R, et al. **J Neurosci** 1999 Apr 15;19(8):2945–53

Effects of ethanol on recombinant human neuronal nicotinic acetylcholine receptors expressed in Xenopus oocytes. Cardoso RA, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):774–80

(S)-(-)-Cotinine, the major brain metabolite of nicotine, stimulates nicotinic receptors to evoke [3H]dopamine release from rat striatal slices in a calcium-dependent manner. Dwoskin LP, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):905–11

Noncompetitive functional inhibition at diverse, human nicotinic acetylcholine receptor subtypes by bupropion, phencyclidine, and ibogaine. Fryer JD, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):88–92

Characterization of cembranoid interaction with the nicotinic acetylcholine receptor. Hann RM, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):253–60

Neomycin inhibits catecholamine secretion by blocking nicotinic acetylcholine receptors in bovine adrenal chromaffin cells. Kim KT, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):73–80

Pharmacological characterization of nicotinic receptor-stimulated GABA release from mouse brain synaptosomes. Lu Y, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):648–57

Waglerin-1 selectively blocks the epsilon form of the muscle nicotinic acetylcholine receptor. McArdle JJ, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):543–50

Two pharmacologically distinct components of nicotinic receptor-mediated rubidium efflux in mouse brain require the beta2 subunit. Marks MJ, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1090–103

Analysis of 3-(4-hydroxy, 2-Methoxybenzylidene)anabaseine selectivity and activity at human and rat alpha-7 nicotinic receptors. Meyer EM, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):918–25

Dependence of nicotinic acetylcholine receptor recovery from desensitization on the duration of agonist exposure. Reitstetter R, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):656–60

Nicotinic acetylcholine receptor agonist SIB-1508Y improves cognitive functioning in chronic low-dose MPTP-treated monkeys. Schneider JS, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):731–9

Characterization of interaction of 3,4,5-trimethoxybenzoic acid 8-(diethylamino)octyl ester with Torpedo californica nicotinic acetylcholine receptor and 5-hydroxytryptamine3 receptor. Sun H, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):129–35

Somatic and prejunctional nicotinic receptors in cultured rat sympathetic neurones show different agonist profiles. Kristufek D, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):739–56

Prejunctional effects of the nicotinic ACh receptor agonist dimethylphenylpiperazinium at the rat neuromuscular junction. Singh S, et al. **J Physiol (Lond)** 1998 Sep 1;511 (Pt 2):451–60

Benzophenone-type photoactivatable derivatives of alpha-neurotoxins and alpha-conotoxins in studies on Torpedo nicotinic acetylcholine receptor. Kasheverov I, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):559–71

Functional studies on blockade by neosurugatoxin of nicotinic receptors in nitroxidergic and sensory nerve terminals and intramural ganglionic cells. Ayajiki K, et al. **Jpn J Pharmacol** 1998 Oct;78(2):217–23

Ethanol modulation of nicotinic acetylcholine receptor currents in cultured cortical neurons. Aistrup GL, et al. **Mol Pharmacol** 1999 Jan;55(1):39–49

The steroid promegestone is a noncompetitive antagonist of the Torpedo nicotinic acetylcholine receptor that interacts with the lipid-protein interface. Blanton MP, et al. **Mol Pharmacol** 1999 Feb;55(2):269–78

Novel modulation of a nicotinic receptor channel mutant reveals that the open state is stabilized by ethanol. Forman SA, et al. **Mol Pharmacol** 1999 Jan;55(1):102–8

Neuronal nicotinic receptor beta2 and beta4 subunits confer large differences in agonist binding affinity. Parker MJ, et al. **Mol Pharmacol** 1998 Dec;54(6):1132–9

Epibatidine: high potency and broad spectrum activity on neuronal and neuromuscular nicotinic acetylcholine receptors. Lembeck F. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):378–85

Neuronal nicotinic acetylcholine receptors: a new target site of ethanol. Narahashi T, et al. **Neurochem Int** 1999 Aug; 35(2):131–41 (124 ref.)

Activation and inhibition of the human alpha7 nicotinic acetylcholine receptor by agonists. Briggs CA, et al. **Neuropharmacology** 1998 Sep;37(9):1095–102

Differential effects of physostigmine and organophosphates on nicotinic receptors in neuronal cells of different species. van den Beukel I, et al. **Neurotoxicology** 1998 Dec; 19(6):777–87

Nicotinic cholinergic receptors: potential targets for inflammatory pain relief. Lawand NB, et al. **Pain** 1999 Mar; 80(1-2):291–9

Non-ginsenoside nicotinic activity in ginseng species. Lewis R, et al. **Phytother Res** 1999 Feb;13(1):59–64

Enhancement of sustained attention performance by the nicotinic acetylcholine receptor agonist ABT-418 in intact but not basal forebrain-lesioned rats. McGaughy J, et al. **Psychopharmacology (Berl)** 1999 May;144(2):175–82

Effects of continuous oral nicotine administration on brain nicotinic receptors and responsiveness to nicotine in C57Bl/6 mice. Sparks JA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):145–53

Neuronal nicotinic receptors modulate synaptic function in the hippocampus and are sensitive to blockade by the convulsant strychnine and by the anti-Parkinson drug amantadine. Albuquerque EX, et al. **Toxicol Lett** 1998 Dec 28;102-103:211–8

Neuronal nicotinic acetylcholine receptor modulation by general anesthetics. Flood P, et al. **Toxicol Lett** 1998 Nov 23;100-101:149–53 (26 ref.)

Direct interactions of anesthetics and nonanesthetics with the nicotinic acetylcholine receptor pore. Forman SA. **Toxicol Lett** 1998 Nov 23;100-101:169–78 (26 ref.)

Evidence that nicotine acetylcholine receptors are not the main targets of cotinine toxicity. Riah O, et al. **Toxicol Lett** 1999 Sep 20;109(1-2):21–9

Anesthetic-induced structural changes in the nicotinic acetylcholine receptor. Ryan SE, et al. **Toxicol Lett** 1998 Nov 23;100-101:179–83

The NO synthase inhibitors L-Name and L-NMMA, but not L-arginine, block the mammalian nicotinic acetylcholine receptor channel. Scheller M, et al. **Toxicol Lett** 1998 Nov 23;100-101:109–13

How do snake curaremimetic toxins discriminate between nicotinic acetylcholine receptor subtypes. Servent D, et al. **Toxicol Lett** 1998 Dec 28;102-103:199–203

GENETICS

No evidence for linkage of the CHRNA7 gene region in Canadian schizophrenia families. Neves-Pereira M, et al. **Am J Med Genet** 1998 Sep 7;81(5):361–3

The role of beta 2-subunit-containing nicotinic acetylcholine receptors in the brain explored with a mutant mouse. Léna C, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:611–6

Nicotinic receptor subunit mRNA expression in dopaminergic neurons of the rat brain. Sgard F, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:633–5

Autosomal dominant nocturnal frontal lobe epilepsy in a Spanish family with a Ser252Phe mutation in the CHRNA4 gene. Sáenz A, et al. **Arch Neurol** 1999 Aug;56(8):1004–9

New functions for nicotinic acetylcholine receptors? Steinlein O. **Behav Brain Res** 1998 Sep;95(1):31–5 (42 ref.)

Structure of the agonist-binding sites of the Torpedo nicotinic acetylcholine receptor: affinity-labeling and mutational analyses identify gamma Tyr-111/delta Arg-113 as antagonist affinity determinants. Chiara DC, et al. **Biochemistry** 1999 May 18;38(20):6689–98

Properties of neuronal nicotinic acetylcholine receptor mutants from humans suffering from autosomal dominant nocturnal frontal lobe epilepsy. Bertrand S, et al. **Br J Pharmacol** 1998 Oct;125(4):751–60

Neuronal nicotinic acetylcholine receptors in rat trigeminal ganglia. Liu L, et al. **Brain Res** 1998 Nov 2;809(2):238–45

Inducible, heterologous expression of human alpha7-nicotinic acetylcholine receptors in a native nicotinic receptor-null human clonal line. Peng JH, et al. **Brain Res** 1999 Apr 17;825(1-2):172–9

Quantitation of nicotinic acetylcholine receptor subunits alpha 4 and beta 2 messenger RNA in postmortem human brain using a non-radioactive RT-PCR and CCD imaging system. Utsugisawa K, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):92–6

Regional distribution of nicotinic receptor subunit mRNAs in human brain: comparison between Alzheimer and normal brain. Hellström-Lindahl E, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):94–103

Developmental changes in nicotinic receptor mRNAs and responses to nicotine in the suprachiasmatic nucleus and other brain regions. O'Hara BF, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):71–82

Expression of the alpha3 nicotinic receptor subunit mRNA in aging and Alzheimer's disease. Terzano S, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):72–8

Mutated nicotinic receptors responsible for autosomal dominant nocturnal frontal lobe epilepsy are more sensitive to carbamazepine. Picard F, et al. **Epilepsia** 1999 Sep; 40(9):1198–209

Cells defective in sphingolipids biosynthesis express low amounts of muscle nicotinic acetylcholine receptor. Roccamo AM, et al. **Eur J Neurosci** 1999 May; 11(5):1615–23

Genomic organization and partial duplication of the human alpha7 neuronal nicotinic acetylcholine receptor gene (CHRNA7). Gault J, et al. **Genomics** 1998 Sep 1; 52(2):173–85

The structures of the human neuronal nicotinic acetylcholine receptor beta2- and alpha3-subunit genes (CHRNB2 and CHRNA3). Rempel N, et al. **Hum Genet** 1998 Dec; 103(6):645–53

A novel intragenetic PvuII marker in the human neuronal nicotinic acetylcholine receptor a4 subunit gene (CHRNA4). Mutation and polymorphism report no. 62. Online. Iwata H, et al. **Hum Mutat** 1999;14(1):93

Postnatal changes of nicotinic acetylcholine receptor alpha 2, alpha 3, alpha 4, alpha 7 and beta 2 subunits genes expression in rat brain. Zhang X, et al. **Int J Dev Neurosci** 1998 Oct;16(6):507–18

Multiple functional Sp1 domains in the minimal promoter region of the neuronal nicotinic receptor alpha5 subunit gene. Campos-Caro A, et al. **J Biol Chem** 1999 Feb 19; 274(8):4693–701

6-hydroxydopamine lesion of rat nigrostriatal dopaminergic neurons differentially affects nicotinic acetylcholine receptor subunit mRNA expression. Elliott KJ, et al. **J Mol Neurosci** 1998 Jun;10(3):251–60

Rapsyn variants in ciliary ganglia and their possible effects on clustering of nicotinic receptors. Conroy WG, et al. **J Neurochem** 1999 Oct;73(4):1399–408

Molecular characterization and imidacloprid selectivity of nicotinic acetylcholine receptor subunits from the peach-potato aphid Myzus persicae. Huang Y, et al. **J Neurochem** 1999 Jul;73(1):380–9

beta43': An enhancer displaying neural-restricted activity is located in the 3'-untranslated exon of the rat nicotinic acetylcholine receptor beta4 gene. McDonough J, et al. **J Neurosci** 1997 Apr 1;17(7):2273–83

Two mutations linked to nocturnal frontal lobe epilepsy cause use-dependent potentiation of the nicotinic ACh response. Figl A, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):655–70

On the transcriptional regulation of neuronal nAChR genes. Matter JM, et al. **J Physiol Paris** 1998 Jun-Aug; 92(3–4):245–8

Genomic organization and mapping of the human and mouse neuronal beta2-nicotinic acetylcholine receptor genes. Lueders KK, et al. **Mamm Genome** 1999 Sep;10(9):900–5

Mice lacking alpha-calcitonin gene-related peptide exhibit normal cardiovascular regulation and neuromuscular development. Lu JT, et al. **Mol Cell Neurosci** 1999 Aug; 14(2):99–120

The long internal loop of the alpha 3 subunit targets nAChRs to subdomains within individual synapses on neurons in vivo. Williams BM, et al. **Nat Neurosci** 1998 Nov; 1(7):557–62

Mutational analysis of the charge selectivity filter of the alpha7 nicotinic acetylcholine receptor. Corringer PJ, et al. **Neuron** 1999 Apr;22(4):831–43

Localization of mRNA for CHRNA7 in human fetal brain. Agulhon C, et al. **Neuroreport** 1999 Aug 2;10(11):2223–7

Nicotinic acetylcholine subunit mRNA expression in dopaminergic neurons of the rat substantia nigra and ventral tegmental area. Charpantier E, et al. **Neuroreport** 1998 Sep 14;9(13):3097–101

Expression of the nicotinic acetylcholine receptor alpha4 subunit mRNA in the rat cerebellar cortex. Nakayama H, et al. **Neurosci Lett** 1998 Nov 13;256(3):177–9

Changes with aging and ischemia in nicotinic acetylcholine receptor subunit alpha7 mRNA expression in postmortem human frontal cortex and putamen. Utsugisawa K, et al. **Neurosci Lett** 1999 Aug 6;270(3):145–8

Two functionally dependent acetylcholine subunits are encoded in a single Caenorhabditis elegans operon. Treinin M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15492–5

Megacystis, mydriasis, and ion channel defect in mice lacking the alpha3 neuronal nicotinic acetylcholine receptor. Xu W, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5746–51

An extensive and diverse gene family of nicotinic acetylcholine receptor alpha subunits in Caenorhabditis elegans. Mongan NP, et al. **Receptors Channels** 1998; 6(3):213–28

Neuronal nicotinic acetylcholine receptors: their properties and alterations in autosomal dominant nocturnal frontal lobe epilepsy. Bertrand D. **Rev Neurol (Paris)** 1999 Jul; 155(6–7):457–62 (30 ref.)

Gene defects in idiopathic epilepsy. Steinlein OK. **Rev Neurol (Paris)** 1999 Jul;155(6–7):450–3 (18 ref.)

IMMUNOLOGY

High affinity single-chain Fv antibody fragments protecting the human nicotinic acetylcholine receptor. Tsantili P, et al. **J Neuroimmunol** 1999 Feb 1;94(1–2):15–27

METABOLISM

Functional analysis of native and recombinant ion channels using a high-capacity nonradioactive rubidium efflux assay. Terstappen GC. **Anal Biochem** 1999 Aug 1;272(2):149–55

Development of a novel class of subtype-selective nicotinic receptor antagonist: pyridine-N-substituted nicotine analogs. Dwoskin LP, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:617–9

Desensitization of nicotinic receptors in the central nervous system. Fenster CP, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:620–3

Methyllycaconitine-, alpha-bungarotoxin-sensitive neuronal nicotinic receptor operates slow calcium signal in skeletal muscle end plate. Kimura I, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:624–7

Ultrastructural immunolocalization of the alpha 7 nAChR subunit in guinea pig medial prefrontal cortex. Lubin M, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:628–32

Nicotinic modulation of glutamate and GABA synaptic transmission of hippocampal neurons. Radcliffe KA, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:591–610

The long cytoplasmic loop of the alpha 3 subunit targets specific nAChR subtypes to synapses on neurons in vivo. Williams BM, et al. **Ann N Y Acad Sci** 1999 Apr 30; 868:640–4

Analyte-receptor binding kinetics for biosensor applications. An analysis of the influence of the fractal dimension on the binding rate coefficient. Sadana A. **Appl Biochem Biotechnol** 1998 May-Jun;73(2–3):89–112

Therapeutic potential of neuronal nicotinic acetylcholine receptor agonists as novel analgesics. Decker MW, et al. **Biochem Pharmacol** 1999 Sep 15;58(6):917–23 (58 ref.)

Chlorpromazine-induced inhibition of catecholamine secretion by a differential blockade of nicotinic receptors and L-type Ca2+ channels in rat pheochromocytoma cells. Lee IS, et al. **Biochem Pharmacol** 1999 Sep 15;58(6):1017–24

Tobacco-specific carcinogenic nitrosamines. Ligands for nicotinic acetylcholine receptors in human lung cancer cells. Schuller HM, et al. **Biochem Pharmacol** 1998 May 1;55(9):1377–84

Disclosure of discrete sites for phospholipid and sterols at the protein-lipid interface in native acetylcholine receptor-rich membrane. Antollini SS, et al. **Biochemistry** 1998 Nov 24;37(47):16653–62

Structure of the agonist-binding sites of the Torpedo nicotinic acetylcholine receptor: affinity-labeling and mutational analyses identify gamma Tyr-111/delta Arg-113 as antagonist affinity determinants. Chiara DC, et al. **Biochemistry** 1999 May 18;38(20):6689–98

On the mechanism of inhibition of the nicotinic acetylcholine receptor by the anticonvulsant MK-801 investigated by laser-pulse photolysis in the microsecond-to-millisecond time region. Grewer C, et al. **Biochemistry** 1999 Jun 15; 38(24):7837–46

Nicotinic acetylcholine receptor probed with a photoactivatable agonist: improved labeling specificity by addition of CeIV/glutathione. Extension to laser flash photolabeling. Grutter T, et al. **Biochemistry** 1999 Jun 8; 38(23):7476–84

Inhibition of nicotinic acetylcholine receptor by philanthotoxin-343: kinetic investigations in the microsecond time region using a laser-pulse photolysis technique. Jayaraman V, et al. **Biochemistry** 1999 Aug 31; 38(35):11406–14

Identification of phosphorylation sites on AChR delta-subunit associated with dispersal of AChR clusters on the surface of muscle cells. Nimnual AS, et al. **Biochemistry** 1998 Oct 20;37(42):14823–32

NMR solution structure of alpha-conotoxin ImI and comparison to other conotoxins specific for neuronal nicotinic acetylcholine receptors. Rogers JP, et al. **Biochemistry** 1999 Mar 30;38(13):3874–82

Agonist binding and affinity state transitions in reconstituted nicotinic acetylcholine receptors revealed by single and sequential mixing stopped-flow fluorescence spectroscopies. Raines DE, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1–2):83–93

Synthesis of a fluorine-18 labeled derivative of epibatidine for in vivo nicotinic acetylcholine receptor PET imaging. Dolci L, et al. **Bioorg Med Chem** 1999 Mar;7(3):467–79

3-(5-Alkylamino-4-isoxazolyl)-1,2,5,6-tetrahydropyridines: a novel class of central nicotinic receptor ligands. Olesen PH, et al. **Bioorg Med Chem** 1998 Sep;6(9):1623–9

Synthesis and structure-activity data of some new epibatidine analogues. Seerden JP, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2103–10

Structure-activity studies related to ABT-594, a potent nonopioid analgesic agent: effect of pyridine and azetidine ring substitutions on nicotinic acetylcholine receptor binding affinity and analgesic activity in mice. Holladay MW, et al. **Bioorg Med Chem Lett** 1998 Oct 6; 8(19):2797–802

Incorporation of the acetylcholine receptor dimer from Torpedo californica in a peptide supported lipid membrane investigated by surface plasmon and fluorescence spectroscopy. Schmidt EK, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):585–91

4-Oxystilbene compounds are selective ligands for neuronal nicotinic alphaBungarotoxin receptors. Gotti C, et al. **Br J Pharmacol** 1998 Jul;124(6):1197–206

Selective effects of a 4-oxystilbene derivative on wild and mutant neuronal chick alpha7 nicotinic receptor. Maggi L, et al. **Br J Pharmacol** 1999 Jan;126(1):285–95

Calcitonin gene-related peptide potentiates nicotinic acetylcholine receptor-operated slow Ca2+ mobilization at mouse muscle endplates. Salim SY, et al. **Br J Pharmacol** 1998 Sep;125(2):277–82

Effects of PKC and PKA phosphorylation on desensitization of nicotinic acetylcholine receptors. Nishizaki T, et al. **Brain Res** 1998 Nov 23;812(1–2):242–5

Nicotinic receptor binding sites in rat primary neuronal cells in culture: characterization and their regulation by chronic nicotine. Dávila-García MI, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1–2):14–23

Nicotinic receptors are regulated by protein kinase C activated via a nicotinic receptors-mediated signaling pathway. Nishizaki T, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):211–8

Muscarinic and nicotinic receptor-mediated Ca2+ dynamics in rat adrenal chromaffin cells during development. Oomori Y, et al. **Cell Tissue Res** 1998 Oct;294(1):109–23

Modulation of phosphatidylinositol turnover on central nicotinic receptors. Wang H, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):341–4

Expression of functional alpha7 nicotinic acetylcholine receptor during mammalian muscle development and denervation. Fischer U, et al. **Eur J Neurosci** 1999 Aug; 11(8):2856–64

Nicotinic receptors in the rat prefrontal cortex: increase in glutamate release and facilitation of mediodorsal thalamo-cortical transmission. Gioanni Y, et al. **Eur J Neurosci** 1999 Jan;11(1):18–30

Expression of nicotinic acetylcholine receptor subunits in the cerebral cortex in Alzheimer's disease: histotopographical correlation with amyloid plaques and hyperphosphorylated-tau protein. Wevers A, et al. **Eur J Neurosci** 1999 Jul;11(7):2551–65

An autoradiographic study of the distribution of binding sites for the novel alpha7-selective nicotinic radioligand [3H]-methyllycaconitine in the mouse brain. Whiteaker P, et al. **Eur J Neurosci** 1999 Aug;11(8):2689–96

Presence of functional neuronal nicotinic acetylcholine receptors in brainstem motoneurons of the rat. Zaninetti M, et al. **Eur J Neurosci** 1999 Aug;11(8):2737–48

Tacrine and physostigmine block nicotinic receptors in Xenopus oocytes injected with Torpedo electroplaque membranes. Canti C, et al. **Eur J Pharmacol** 1998 Dec 18; 363(2–3):197–202

Pharmacological characterization of nicotinic receptor-mediated acetylcholine release in rat brain--an in vivo microdialysis study. Tani Y, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):181–8

Infraterminal spreading and extrajunctional expression of nicotinic acetylcholine receptors in denervated rat skeletal muscle. Csillik B, et al. **Exp Brain Res** 1999 Apr; 125(4):426–34

Parabrachial origin of calcitonin gene-related peptide-immunoreactive axons innervating Meynert's basal nucleus. Knyihár-Csillik E, et al. **Exp Neurol** 1999 Jun; 157(2):268–76

Resistance to levamisole resolved at the single-channel level. Robertson AP, et al. **FASEB J** 1999 Apr;13(6):749–60

Neuronal nAChR stereoselectivity to non-natural epibatidine derivatives. Bertrand S, et al. **FEBS Lett** 1999 May 7; 450(3):273–9

Identification of a Torpedo homolog of Sam68 that interacts with the synapse organizing protein rapsyn. Fung ET, et al. **FEBS Lett** 1998 Oct 16;437(1–2):29–33

Minimal conformation of the alpha-conotoxin ImI for the alpha7 neuronal nicotinic acetylcholine receptor recognition: correlated CD, NMR and binding studies. Lamthanh H, et al. **FEBS Lett** 1999 Jul 9;454(3):293–8

Immunolocalization of alpha4 and alpha7 subunits of nicotinic receptor in rat cochlear nucleus. Yao W, et al. **Hear Res** 1999 Feb;128(1–2):97–102

Differential changes of nicotinic receptors in the rat brain following ibotenic acid and 192-IgG saporin lesions of the nucleus basalis magnocellularis. Bednar I, et al. **Int J Dev Neurosci** 1998 Nov-Dec;16(7–8):661–8

Phosphorylation and cytoskeletal anchoring of the acetylcholine receptor by Src class protein-tyrosine kinases. Activation by rapsyn. Mohamed AS, et al. **J Biol Chem** 1999 Jul 16;274(29):20529–39

Subunit interface selectivity of the alpha-neurotoxins for the nicotinic acetylcholine receptor. Osaka H, et al. **J Biol Chem** 1999 Apr 2;274(14):9581–6

Nicotinic acetylcholine receptors assembled from the alpha7 and beta3 subunits. Palma E, et al. **J Biol Chem** 1999 Jun 25;274(26):18335–40

Acetylcholine and epibatidine binding to muscle acetylcholine receptors distinguish between concerted and uncoupled models. Prince RJ, et al. **J Biol Chem** 1999 Jul 9;274(28):19623–9

Expression and renaturation of the N-terminal extracellular domain of torpedo nicotinic acetylcholine receptor alpha-subunit. Schrattenholz A, et al. **J Biol Chem** 1998 Dec 4;273(49):32393–9

A computational model of the nicotinic acetylcholine binding site. Gálvez-Ruano E, et al. **J Comput Aided Mol Des** 1999 Jan;13(1):57–68

Synthesis and nicotinic acetylcholine receptor in vivo binding properties of 2-fluoro-3-[2(S)-2-azetidinylmethoxy]pyridine: a new positron emission tomography ligand for nicotinic receptors. Doll F, et al. **J Med Chem** 1999 Jun 17; 42(12):2251–9

Lobeline: structure-affinity investigation of nicotinic acetylcholinergic receptor binding. Flammia D, et al.

J Med Chem 1999 Sep 9;42(18):3726–31

Synthesis and evaluation of N–[11C]methylated analogues of epibatidine as tracers for positron emission tomographic studies of nicotinic acetylcholine receptors. Horti AG, et al. **J Med Chem** 1998 Oct 22;41(22):4199–206

Novel and potent 6–chloro–3–pyridinyl ligands for the alpha4beta2 neuronal nicotinic acetylcholine receptor. Latli B, et al. **J Med Chem** 1999 Jun 17;42(12):2227–34

4–[[2–(1–Methyl–2–pyrrolidinyl)ethyl]thio]phenol hydrochloride (SIB–1553A): a novel cognitive enhancer with selectivity for neuronal nicotinic acetylcholine receptors. Vernier JM, et al. **J Med Chem** 1999 May 20; 42(10):1684–6

Correlation of nicotinic binding with neurochemical markers in Alzheimer's disease. Sabbagh MN, et al. **J Neural Transm** 1998;105(6–7):709–17

Alpha–conotoxin ImI inhibits the alpha–bungarotoxin–resistant nicotinic response in bovine adrenal chromaffin cells. Broxton NM, et al. **J Neurochem** 1999 Apr;72(4):1656–62

Neuronal nicotinic receptors in dementia with Lewy bodies and schizophrenia: alpha–bungarotoxin and nicotine binding in the thalamus. Court J, et al. **J Neurochem** 1999 Oct;73(4):1590–7

Molecular characterization and imidacloprid selectivity of nicotinic acetylcholine receptor subunits from the peach–potato aphid Myzus persicae. Huang Y, et al. **J Neurochem** 1999 Jul;73(1):380–9

Alpha4 but not alpha3 and alpha7 nicotinic acetylcholine receptor subunits are lost from the temporal cortex in Alzheimer's disease. Martin–Ruiz CM, et al. **J Neurochem** 1999 Oct;73(4):1635–40

Synthesis and characterization of binding of 5–[76Br]bromo–3–[[2(S)–azetidinyl]methoxy]pyridine, a novel nicotinic acetylcholine receptor ligand, in rat brain. Sihver W, et al. **J Neurochem** 1999 Sep;73(3):1264–72

Brainstem 3H–nicotine receptor binding in the sudden infant death syndrome. Nachmanoff DB, et al. **J Neuropathol Exp Neurol** 1998 Nov;57(11):1018–25

Light–induced calcium influx into retinal axons is regulated by presynaptic nicotinic acetylcholine receptor activity in vivo. Edwards JA, et al. **J Neurophysiol** 1999 Feb; 81(2):895–907

N–type voltage–dependent calcium channels mediate the nicotinic enhancement of GABA release in chick brain. Tredway TL, et al. **J Neurophysiol** 1999 Feb;81(2):447–54

Ultrastructural localization of the alpha4–subunit of the neuronal acetylcholine nicotinic receptor in the rat substantia nigra. Arroyo–Jim nez MM, et al. **J Neurosci** 1999 Aug 1;19(15):6475–87

Upregulation of surface alpha4beta2 nicotinic receptors is initiated by receptor desensitization after chronic exposure to nicotine. Fenster CP, et al. **J Neurosci** 1999 Jun 15; 19(12):4804–14

Long–term desensitization of nicotinic acetylcholine receptors is regulated via protein kinase A–mediated phosphorylation. Paradiso K, et al. **J Neurosci** 1998 Nov 15;18(22):9227–37

Pituitary adenylate cyclase–activating polypeptide activates a phospholipase C–dependent signal pathway in chick ciliary ganglion neurons that selectively inhibits alpha7–containing nicotinic receptors. Pardi D, et al. **J Neurosci** 1999 Aug 1;19(15):6327–37

Metabolic stabilization of muscle nicotinic acetylcholine receptor by rapsyn. Wang ZZ, et al. **J Neurosci** 1999 Mar 15;19(6):1998–2007

Imaging central nicotinic acetylcholine receptors in baboons with [18F]fluoro–A–85380. Valette H, et al. **J Nucl Med** 1999 Aug;40(8):1374–80

Local alpha–bungarotoxin–sensitive nicotinic receptors modulate hippocampal norepinephrine release by systemic nicotine. Fu Y, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):133–9

Nerve terminal nicotinic cholinergic receptors on excitatory motoneurons in the myenteric plexus of guinea pig intestine. Galligan JJ. **J Pharmacol Exp Ther** 1999 Oct;291(1):92–8

Increased nicotinic receptors in brains from smokers: membrane binding and autoradiography studies. Perry DC, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1545–52

Functional interactions between nicotinic and P2X channels in short–term cultures of guinea–pig submucosal neurons [see comments] Barajas–López C, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):671–83. Comment in: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):629.

Nicotinic acetylcholine currents of cultured Kkenyon cells from the mushroom bodies of the honey bee Aapis mellifera. Goldberg F, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):759–68

A re–examination of adult mouse nicotinic acetylcholine receptor channel activation kinetics. Salamone FN, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):315–30

Non–additive interaction between nicotinic cholinergic and P2X purine receptors in guinea–pig enteric neurons in culture [see comments] Zhou X, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):685–97. Comment in: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):629.

Allosteric modulation of neuronal nicotinic acetylcholine receptors. Buisson B, et al. **J Physiol Paris** 1998 Apr; 92(2):89–100 (122 ref.)

The role of subunit interfaces for the nicotinic acetylcholine receptor's allosterism. Hucho F, et al. **J Physiol Paris** 1998 Apr;92(2):85–8

Functional determinants by which snake and cone snail toxins block the alpha 7 neuronal nicotinic acetylcholine receptors. Servent D, et al. **J Physiol Paris** 1998 Apr; 92(2):107–11

Molecular dissection of subunit interfaces in the nicotinic acetylcholine receptor. Sine SM, et al. **J Physiol Paris** 1998 Apr;92(2):101–5

Toxins selective for subunit interfaces as probes of nicotinic acetylcholine receptor structure. Taylor P, et al. **J Physiol Paris** 1998 Apr;92(2):79–83 (21 ref.)

Characterization of ethyl (3–quinuclidinyl) acetate (EQA) as a ligand for acetylcholine receptors. Canney DJ, et al. **Life Sci** 1998;63(24):PL329–36

In vivo imaging of brain nicotinic acetylcholine receptors with 5–[123I]iodo–A–85380 using single photon emission computed tomography. Chefer SI, et al. **Life Sci** 1998; 63(25):PL355–60

Characterization of the nicotinic ligand 2–[18F]fluoro–3–[2(S)–2–azetidinylmethoxy]pyridine in vivo. Valette H, et al. **Life Sci** 1999;64(5):PL93–7

Developmental regulation of tyrosine phosphorylation of the nicotinic acetylcholine receptor in Torpedo electrocyte. Camus G, et al. **Mol Cell Neurosci** 1999 Jan;13(1):69–78

Regulation of alpha4beta2 nicotinic receptor desensitization by calcium and protein kinase C. Fenster CP, et al. **Mol Pharmacol** 1999 Mar;55(3):432–43

Identification of amino acids of the torpedo nicotinic acetylcholine receptor contributing to the binding site for the noncompetitive antagonist [(3)H]tetracaine. Gallagher MJ, et al. **Mol Pharmacol** 1999 Aug;56(2):300–7

Aminotriarylmethane dyes are high–affinity noncompetitive antagonists of the nicotinic acetylcholine receptor. Lurtz MM, et al. **Mol Pharmacol** 1999 Jan;55(1):159–67

Photoaffinity labeling the torpedo nicotinic acetylcholine receptor with [(3)H]tetracaine, a nondesensitizing noncompetitive antagonist. Middleton RE, et al. **Mol Pharmacol** 1999 Aug;56(2):290–9

The alpha9 nicotinic acetylcholine receptor shares pharmacological properties with type A gamma–aminobutyric acid, glycine, and type 3 serotonin receptors. Rothlin CV, et al. **Mol Pharmacol** 1999 Feb; 55(2):248–54

Functional alpha6–containing nicotinic receptors are present in chick retina. Vailati S, et al. **Mol Pharmacol** 1999 Jul; 56(1):11–9

Identification of a new amino acid residue capable of modulating agonist efficacy at the homomeric nicotinic acetylcholine receptor, alpha7. Vazquez RW, et al. **Mol Pharmacol** 1999 Jan;55(1):1–7

Activation and Ca2+ permeation of stably transfected alpha3/beta4 neuronal nicotinic acetylcholine receptor. Zhang J, et al. **Mol Pharmacol** 1999 Jun;55(6):970–81

Target–specific control of nicotinic receptor expression at developing interneuronal synapses in chick. Devay P, et al. **Nat Neurosci** 1999 Jun;2(6):528–34

The long internal loop of the alpha 3 subunit targets nAChRs to subdomains within individual synapses on neurons in vivo. Williams BM, et al. **Nat Neurosci** 1998 Nov; 1(7):557–62

Nicotinic receptors modulating ACh release in rat cortical synaptosomes: role of Ca2+ ions in their function and desensitization. Marchi M, et al. **Neurochem Int** 1999 Apr; 34(4):319–28

lynx1, an endogenous toxin–like modulator of nicotinic acetylcholine receptors in the mammalian CNS. Miwa JM, et al. **Neuron** 1999 May;23(1):105–14

Characterisation of the binding of [3H]methyllycaconitine: a new radioligand for labelling alpha 7–type neuronal nicotinic acetylcholine receptors. Davies AR, et al. **Neuropharmacology** 1999 May;38(5):679–90

Behavioral and biochemical manifestations of mecamylamine–precipitated nicotine withdrawal in the rat: role of nicotinic receptors in the ventral tegmental area. Hildebrand BE, et al. **Neuropsychopharmacology** 1999 Oct; 21(4):560–74

Endurance training increases acetylcholine receptor quantity at neuromuscular junctions of adult rat skeletal muscle. Desaulniers P, et al. **Neuroreport** 1998 Nov 16; 9(16):3549–52

Nicotine withdrawal in the rat: role of alpha7 nicotinic receptors in the ventral tegmental area. Nomikos GG, et al. **Neuroreport** 1999 Mar 17;10(4):697–702

Changes in binding to muscarinic and nicotinic cholinergic receptors in the chick telencephalon, following passive avoidance learning. Mezey S, et al. **Neurosci Lett** 1999 Jul 30;270(2):75–8

The correction of alpha7 nicotinic acetylcholine receptor concentration–response relationships in Xenopus oocytes. Papke RL, et al. **Neurosci Lett** 1998 Nov 13;256(3):163–6

Dopamine and nicotinic receptor binding and the levels of dopamine and homovanillic acid in human brain related to tobacco use. Court JA, et al. **Neuroscience** 1998 Nov; 87(1):63–78

Distributions of nicotinic acetylcholine receptor alpha7 and beta2 subunits on cultured hippocampal neurons. Zarei MM, et al. **Neuroscience** 1999;88(3):755–64

Comparative studies of epibatidine derivatives [18F]NFEP and [18F]N–methyl–NFEP: kinetics, nicotine effect, and toxicity. Ding YS, et al. **Nucl Med Biol** 1999 Jan; 26(1):139–48

In vitro and ex vivo autoradiographic studies of nicotinic acetylcholine receptors using [18F]fluoronochloroepibatidine in rodent and human brain. Gatley SJ, et al. **Nucl Med Biol** 1998 Jul;25(5):449–54

2–[18F]Fluoro–A–85380, an in vivo tracer for the nicotinic acetylcholine receptors. Horti AG, et al. **Nucl Med Biol** 1998 Oct;25(7):599–603

Radiosynthesis and preliminary evaluation of 5–[123/125I]iodo–3–(2(S)–azetidinylmethoxy)pyridine: a radioligand for nicotinic acetylcholine receptors. Horti AG, et al. **Nucl Med Biol** 1999 Feb;26(2):175–82

In vitro selection of RNA molecules that displace cocaine from the membrane–bound nicotinic acetylcholine receptor. Ulrich H, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14051–6

From ab initio quantum mechanics to molecular neurobiology: a cation–pi binding site in the nicotinic receptor. Zhong W, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12088–93

Nicotinic acetylcholine involvement in cognitive function in animals. Levin ED, et al. **Psychopharmacology (Berl)** 1998 Aug;138(3–4):217–30 (167 ref.)

[Involvement of central and peripheral cholinergic structures in regulation of cerebral electric activity and cardiac function in rabbits during hypoxia] Akopian NS, et al. **Aviakosm Ekolog Med** 1999;33(1):28–31 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Involvement of nicotinic acetylcholine receptors in the regulation of alcohol drinking in Wistar rats. Dyr W, et al. **Alcohol Alcohol** 1999 Jan–Feb;34(1):43–7

Intrathecal clonidine alleviates allodynia in neuropathic rats: interaction with spinal muscarinic and nicotinic receptors. Pan HL, et al. **Anesthesiology** 1999 Feb;90(2):509–14

Is there a functional response–overlap between 5–HT3 and nicotinic ion channel receptors? Gyermek L, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:255–7

New functions for nicotinic acetylcholine receptors? Steinlein O. **Behav Brain Res** 1998 Sep;95(1):31–5 (42 ref.)

Electrostatics of ligand–gated ion channels. Adcock C, et al. **Biochem Soc Trans** 1998 Aug;26(3):S300

Nicotinic acetylcholine receptor mediated modulation of evoked excitatory amino acid release in the nucleus tractus solitarius of the rat: evidence from in vivo microdialysis. Ashworth–Preece MA, et al. **Brain Res** 1998 Sep 28; 806(2):287–91

Alpha7 nicotinic receptor mediated protection against ethanol–induced cytotoxicity in PC12 cells. Li Y, et al. **Brain Res** 1999 Jan 16;816(1):225–8

Modulation of the neuronal nicotinic acetylcholine receptor–channel by the nootropic drug nefiracetam. Oyaizu M, et al. **Brain Res** 1999 Mar 20;822(1–2):72–9

Distinct phenotypes of mutant mice lacking agrin, MuSK, or rapsyn. Gautam M, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):171–8

Increased tyrosine phosphorylation and novel cis–acting element mediate activation of the fibroblast growth factor–2 (FGF–2) gene by nicotinic acetylcholine receptor. New mechanism for trans–synaptic regulation of cellular development and plasticity. Moffett J, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):293–305

Backbone mutations in transmembrane domains of a ligand–gated ion channel: implications for the mechanism of gating. England PM, et al. **Cell** 1999 Jan 8;96(1):89–98

Gender does not influence neuromuscular properties in dimorphic skeletal muscles of the toad. Lima–Landman MT, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Oct;121(2):119–26

Gain of function mutation of the alpha7 nicotinic receptor: distinct pharmacology of the human alpha7V274T variant. Briggs CA, et al. **Eur J Pharmacol** 1999 Feb 5; 366(2–3):301–8

Involvement of nicotinergic mechanisms in thyrotropin–releasing hormone–induced neurologic recovery after concussive head injury in the mouse. Lestage P, et al. **Eur J Pharmacol** 1998 Sep 18;357(2–3):163–9

Modulation of nicotinic acetylcholine receptor activity in submucous neurons by intracellular messengers. Glushakov AV, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):16–22

Cell–free expression and functional reconstitution of homo–oligomeric alpha7 nicotinic acetylcholine receptors into planar lipid bilayers. Lyford LK, et al. **J Biol Chem** 1999 Sep 3;274(36):25675–81

IL–1beta and IL–6 excite neurons and suppress nicotinic and noradrenergic neurotransmission in guinea pig enteric nervous system. Xia Y, et al. **J Clin Invest** 1999 May; 103(9):1309–16

Alteration in ion channel function of mouse nicotinic acetylcholine receptor by mutations in the M4 transmembrane domain. Tamamizu S, et al. **J Membr Biol** 1999 Jul 15;170(2):157–64

Protein synthesis blockade differentially affects the degradation of constitutive and nicotinic receptor–induced tyrosine hydroxylase protein level in isolated bovine chromaffin cells. Fernández E, et al. **J Neurochem** 1999 Jul;73(1):169–78

Modulation of dopamine transporter activity by nicotinic acetylcholine receptors and membrane depolarization in rat pheochromocytoma PC12 cells. Huang CL, et al. **J Neurochem** 1999 Jun;72(6):2437–44

Suppression of the nicotinic acetylcholine response in rat superior cervical ganglionic neurons by steroids. Uki M, et al. **J Neurochem** 1999 Feb;72(2):808–14

Nicotinic acetylcholine receptors containing alpha7 subunits are required for reliable synaptic transmission in situ. Chang KT, et al. **J Neurosci** 1999 May 15;19(10):3701–10

Nicotinic receptor assembly requires multiple regions throughout the gamma subunit. Eertmoed AL, et al. **J Neurosci** 1999 Aug 1;19(15):6298–308

Synaptic potentials mediated via alpha-bungarotoxin-sensitive nicotinic acetylcholine receptors in rat hippocampal interneurons. Frazier CJ, et al. **J Neurosci** 1998 Oct 15;18(20):8228–35

Nerve terminal currents induced by autoreception of acetylcholine release. Fu WM, et al. **J Neurosci** 1998 Dec 1;18(23):9954–61

Roles of rapsyn and agrin in interaction of postsynaptic proteins with acetylcholine receptors. Fuhrer C, et al. **J Neurosci** 1999 Aug 1;19(15):6405–16

Two distinct nicotinic receptors, one pharmacologically similar to the vertebrate alpha7-containing receptor, mediate Cl currents in aplysia neurons. Kehoe J, et al. **J Neurosci** 1998 Oct 15;18(20):8198–213

Fast excitatory synaptic transmission mediated by nicotinic acetylcholine receptors in Drosophila neurons. Lee D, et al. **J Neurosci** 1999 Jul 1;19(13):5311–21

alpha-conotoxin AuIB selectively blocks alpha3 beta4 nicotinic acetylcholine receptors and nicotine-evoked norepinephrine release. Luo S, et al. **J Neurosci** 1998 Nov 1;18(21):8571–9

Nicotinic receptor activation excites distinct subtypes of interneurons in the rat hippocampus. McQuiston AR, et al. **J Neurosci** 1999 Apr 15;19(8):2887–96

Fast excitatory nicotinic transmission in the chick lateral spiriform nucleus. Nong Y, et al. **J Neurosci** 1999 Sep 15; 19(18):7804–11

Spatiotemporal patterns of activity in an intact mammalian network with single-cell resolution: optical studies of nicotinic activity in an enteric plexus. Obaid AL, et al. **J Neurosci** 1999 Apr 15;19(8):3073–93

Selective excitation of subtypes of neocortical interneurons by nicotinic receptors. Porter JT, et al. **J Neurosci** 1999 Jul 1;19(13):5228–35

Metabolic stabilization of muscle nicotinic acetylcholine receptor by rapsyn. Wang ZZ, et al. **J Neurosci** 1999 Mar 15;19(6):1998–2007

Determinants of channel gating located in the N-terminal extracellular domain of nicotinic alpha7 receptor. Anand R, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):469–79

Pharmacological characterization of nicotine's interaction with cocaine and cocaine analogs. Damaj MI, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1229–36

Synaptic transmission at nicotinic acetylcholine receptors in rat hippocampal organotypic cultures and slices. Hefft S, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):769–76

Cross-talk between apparently independent receptors [comment] Searl TJ, et al. **J Physiol (Lond)** 1998 Dec 15; 513 (Pt 3):629–30. Comment on: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):671–83. Comment on: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):688–97.

Contribution of nicotinic receptors to the function of synapses in the central nervous system: the action of choline as a selective agonist of alpha 7 receptors. Albuquerque EX, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):309–16

The role of neuronal nicotinic acetylcholine receptors in antinociception: effects of ABT-594. Decker MW, et al. **J Physiol Paris** 1998 Jun-Aug;92(3–4):221–4 (17 ref.)

Allosteric nicotinic receptors, human pathologies. Léna C, et al. **J Physiol Paris** 1998 Apr;92(2):63–74 (112 ref.)

Alpha7 nicotinic receptor subunits are not necessary for hippocampal-dependent learning or sensorimotor gating: a behavioral characterization of Acra7-deficient mice. Paylor R, et al. **Learn Mem** 1998 Sep-Oct;5(4–5):302–16

Human and rodent bronchial epithelial cells express functional nicotinic acetylcholine receptors. Maus AD, et al. **Mol Pharmacol** 1998 Nov;54(5):779–88

Ligand binding and activation of rat nicotinic alpha4beta2 receptors stably expressed in HEK293 cells. Sabey K, et al. **Mol Pharmacol** 1999 Jan;55(1):58–66

Effects of fluoxetine on wild and mutant neuronal alpha 7 nicotinic receptors. Maggi L, et al. **Mol Psychiatry** 1998 Jul;3(4):350–5

Effects of SIB-1508Y, a novel neuronal nicotinic acetylcholine receptor agonist, on motor behavior in parkinsonian monkeys. Schneider JS, et al. **Mov Disord** 1998 Jul;13(4):637–42

Reduced antinociception in mice lacking neuronal nicotinic receptor subunits. Marubio LM, et al. **Nature** 1999 Apr 29;398(6730):805–10

Role of alpha9 nicotinic ACh receptor subunits in the development and function of cochlear efferent innervation. Vetter DE, et al. **Neuron** 1999 May;23(1):93–103

Effect of ventral tegmental 6-hydroxydopamine lesions on the locomotor stimulant action of nicotine in rats. Louis M, et al. **Neuropharmacology** 1998 Dec;37(12):1503–13

Alpha3beta4 subunit-containing nicotinic receptors dominate function in rat medial habenula neurons. Quick MW, et al. **Neuropharmacology** 1999 Jun;38(6):769–83

Methyllycaconitine-sensitive neuronal nicotinic receptor-operated slow Ca2+ signal by local application or perfusion of ACh at the mouse neuromuscular junction. Dezaki K, et al. **Neurosci Res** 1999 Jan;33(1):17–24

Postsynaptic nicotinic receptors on dopaminergic neurons in the substantia nigra pars compacta of the rat. Sorenson EM, et al. **Neuroscience** 1998 Dec;87(3):659–73

Effects of choline and other nicotinic agonists on the tectum of juvenile and adult Xenopus frogs: a patch-clamp study. Titmus MJ, et al. **Neuroscience** 1999;91(2):753–69

Desensitization reduces amplitudes of quantal end-plate currents after a single preceding end-plate current in mouse muscle. Dudel J, et al. **Pflugers Arch** 1999 Mar; 437(4):569–76

5-hydroxytryptamine blocks the fetal more potently than the adult mouse muscle acetylcholine receptor. Grassi F. **Pflugers Arch** 1999 May;437(6):903–9

Inhibition of the neuronal nicotinic receptor-mediated current by kappa opioid receptor agonists in PC12 cells. Oka K, et al. **Pflugers Arch** 1998 Nov;436(6):887–93

Activation of nicotinic receptor-induced postsynaptic responses to luteinizing hormone-releasing hormone in bullfrog sympathetic ganglia via a Na+-dependent mechanism. Cao YJ, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12689–94

Modulation of nicotinic acetylcholine receptors by strychnine. Garcia-Colunga J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4113–8

Unmasking the functions of the chromaffin cell alpha7 nicotinic receptor by using short pulses of acetylcholine and selective blockers. López MG, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14184–9

Manipulations of mu-opioid and nicotinic cholinergic receptors in the pontine tegmental region alter cocaine self-administration in rats. Corrigall WA, et al. **Psychopharmacology (Berl)** 1999 Aug;145(4):412–7

Neuronal nicotinic acetylcholine receptors: their properties and alterations in autosomal dominant nocturnal frontal lobe epilepsy. Bertrand D. **Rev Neurol (Paris)** 1999 Jul; 155(6–7):457–62 (30 ref.)

[Epibatidine. An old work principle rediscovered] Hecker T, et al. **Med Monatsschr Pharm** 1999 Aug;22(8):226–32 (41 ref.) **(Ger)**

[Desensitizing function of calcium mobilized by the postsynaptic neuronal-type nicotinic acetylcholine receptors at the neuromuscular junction] Kimura I, et al. **Yakugaku Zasshi** 1999 Jan;119(1):1–15 (55 ref.) (Eng. Abstr.) **(Jpn)**

[Cholinergic receptors in early (pre-nervous) sea urchin embryos] Buznikov GA, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):1038–48 (Eng. Abstr.) **(Rus)**

[Intracellular regulation of neuronal nicotinic cholinergic receptors] Voitenko SV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):985–93 (Eng. Abstr.) **(Rus)**

RECEPTORS, NK-2 see **RECEPTORS, NEUROKININ-2**

RECEPTORS, NK-3 see **RECEPTORS, NEUROKININ-3**

RECEPTORS, NMDA see **RECEPTORS, N-METHYL-D-ASPARTATE**

RECEPTORS, NOREPINEPHRINE see **RECEPTORS, ADRENERGIC**

RECEPTORS, ODORANT

Odorant-binding proteins of true bugs. Generic specificity, sexual dimorphism, and association with subsets of chemosensory sensilla. Dickens JC, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:306–10

Odorant-binding proteins: expression and function. Steinbrecht RA. **Ann N Y Acad Sci** 1998 Nov 30;855:323–32 (38 ref.)

BIOSYNTHESIS

A spatial map of olfactory receptor expression in the Drosophila antenna. Vosshall LB, et al. **Cell** 1999 Mar 5; 96(5):725–36

Decline and recovery of olfactory receptor expression following unilateral bulbectomy. Konzelmann S, et al. **Cell Tissue Res** 1998 Dec;294(3):421–30

Truncation releases olfactory receptors from the endoplasmic reticulum of heterologous cells. Gimelbrant AA, et al. **J Neurochem** 1999 Jun;72(6):2301–11

Optimization of the production of a honeybee odorant-binding protein by Pichia pastoris. Briand L, et al. **Protein Expr Purif** 1999 Apr;15(3):362–9

CHEMISTRY

Odorant-binding proteins: structural aspects. Pelosi P. **Ann N Y Acad Sci** 1998 Nov 30;855:281–93 (82 ref.)

Functional characterization of a new class of odorant-binding proteins in the moth Mamestra brassicae. Bohbot J, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):489–94

Porcine odorant-binding protein: structural stability and ligand affinities measured by fourier-transform infrared spectroscopy and fluorescence spectroscopy. Paolini S, et al. **Biochim Biophys Acta** 1999 Apr 12;1431(1):179–88

Protein kinase Cbeta and delta selectively phosphorylate odorant and metabotropic glutamate receptors. Medler KF, et al. **Chem Senses** 1999 Jun;24(3):295–9

Amino acid sequence, post-translational modifications, binding and labelling of porcine odorant-binding protein. Paolini S, et al. **Chem Senses** 1998 Dec;23(6):689–98

Olfactory Receptor Database: a database of the largest eukaryotic gene family. Skoufos E, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):343–5

The variable and conserved interfaces of modeled olfactory receptor proteins. Pilpel Y, et al. **Protein Sci** 1999 May; 8(5):969–77

GENETICS

Expression and functional analysis of olfactory receptors. Breer H, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:175–81

Genome dynamics, evolution, and protein modeling in the olfactory receptor gene superfamily. Sharon D, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:182–93 (29 ref.)

Molecular biology of odorant receptors in vertebrates. Mombaerts P. **Annu Rev Neurosci** 1999;22:487–509 (76 ref.)

Expression of olfactory receptors, G-proteins and AxCAMs during the development and maturation of olfactory sensory neurons in the mouse. Saito H, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):69–81

Identification of ligands for olfactory receptors by functional expression of a receptor library. Krautwurst D, et al. **Cell** 1998 Dec 23;95(7):917–26

Cloning, functional expression and characterization of a human olfactory receptor. Hatt H, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 May;45(3):285–91 (16 ref.)

Molecular cloning and bacterial expression of a general odorant-binding protein from the cabbage armyworm Mamestra brassicae. Maibèche-Coisne M, et al. **Eur J Biochem** 1998 Dec 1;258(2):768–74

On the origin of the olfactory receptor family: receptor genes of the jawless fish (Lampetra fluviatilis). Freitag J, et al. **Gene** 1999 Jan 21;226(2):165–74

Small subfamily of olfactory receptor genes: structural features, expression pattern and genomic organization. Strotmann J, et al. **Gene** 1999 Aug 20;236(2):281–91

Evolutionary analysis of putative olfactory receptor genes of medaka fish, Oryzias latipes. Sun H, et al. **Gene** 1999 Apr 29;231(1–2):137–45

LUSH odorant-binding protein mediates chemosensory responses to alcohols in Drosophila melanogaster. Kim MS, et al. **Genetics** 1998 Oct;150(2):711–21

A genomic region encompassing a cluster of olfactory receptor genes and a myosin light chain kinase (MYLK) gene is duplicated on human chromosome regions 3q13–q21 and 3p13. Brand-Arpon V, et al. **Genomics** 1999 Feb 15; 56(1):98–110

Organization and evolution of olfactory receptor genes on human chromosome 11. Buettner JA, et al. **Genomics** 1998 Oct 1;53(1):56–68

Identification of candidate Drosophila olfactory receptors from genomic DNA sequence. Gao Q, et al. **Genomics** 1999 Aug 15;60(1):31–9

Large multi-chromosomal duplications encompass many members of the olfactory receptor gene family in the human genome. Trask BJ, et al. **Hum Mol Genet** 1998 Dec; 7(13):2007–20

Cloning and characterization of a cDNA encoding a male-specific serum protein of the Mediterranean fruit fly, Ceratitis capitata, with sequence similarity to odourant-binding proteins. Thymianou S, et al. **Insect Mol Biol** 1998 Nov;7(4):345–53

A novel family of ancient vertebrate odorant receptors. Berghard A, et al. **J Neurobiol** 1998 Nov 15;37(3):383–92

Truncation releases olfactory receptors from the endoplasmic reticulum of heterologous cells. Gimelbrant AA, et al. **J Neurochem** 1999 Jun;72(6):2301–11

An olfactory sensory neuron line, odora, properly targets olfactory proteins and responds to odorants. Murrell JR, et al. **J Neurosci** 1999 Oct 1;19(19):8260–70

Olfactory neurons expressing closely linked and homologous odorant receptor genes tend to project their axons to neighboring glomeruli on the olfactory bulb. Tsuboi A, et al. **J Neurosci** 1999 Oct 1;19(19):8409–18

Expression and intracellular localisation of odorant receptors in mammalian cell lines using Semliki Forest virus vectors. Monastyrskaia K, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1–4):687–701

Functional identification of a goldfish odorant receptor. Speca DJ, et al. **Neuron** 1999 Jul;23(3):487–98

Odorant receptor gene expression in catfish taste tissue. Medler KF, et al. **Neuroreport** 1998 Dec 21;9(18):4103–7

Identification of olfactory receptor mRNA sequences from the rat olfactory bulb glomerular layer. Singer MS, et al. **Neuroreport** 1998 Nov 16;9(16):3745–8

Olfactory Receptor Database: a database of the largest eukaryotic gene family. Skoufos E, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):343–5

Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes [published erratum appears in Proc Natl Acad Sci U S A 1999 Jul 6;96(14):8307] Bulger M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5129–34

Identification of a novel G-protein coupled receptor expressed in distinct brain regions and a defined olfactory zone. Raming K, et al. **Receptors Channels** 1998;6(2):141–51

Fruit fly odor receptors found [news] Pennisi E. **Science** 1999 Feb 26;283(5406):1239

METABOLISM

Identification of ligands for olfactory receptors by functional

expression of a receptor library. Krautwurst D, et al. **Cell** 1998 Dec 23;95(7):917-26

Cloning, functional expression and characterization of a human olfactory receptor. Hatt H, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 May;45(3):285-91 (16 ref.)

Amino acid sequence, post-translational modifications, binding and labelling of porcine odorant-binding protein. Paolini S, et al. **Chem Senses** 1998 Dec;23(6):689-98

Lectin characterization of the olfactory system in brachiopterygian fish. Franceschini V, et al. **Int J Dev Neurosci** 1999 Feb;17(1):31-6

Expression and intracellular localisation of odorant receptors in mammalian cell lines using Semliki Forest virus vectors. Monastyrskaia K, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):687-701

PHYSIOLOGY

Responses of cockroach antennal lobe projection neurons to pulsatile olfactory stimuli. Lemon WC, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:517-20

Functional characterization of a new class of odorant-binding proteins in the moth Mamestra brassicae. Bohbot J, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):489-94

A piezoelectric biosensor as an olfactory receptor for odour detection: electronic nose. Wu TZ. **Biosens Bioelectron** 1999 Jan 1;14(1):9-18

Odorant concentration and receptor potential in olfactory sensory neurons. Lánský P, et al. **Biosystems** 1998 Sep-Dec; 48(1-3):131-8

Combinatorial receptor codes for odors. Malnic B, et al. **Cell** 1999 Mar 5;96(5):713-23

Development of the vertebrate main olfactory system. Lin DM, et al. **Curr Opin Neurobiol** 1999 Feb;9(1):74-8 (41 ref.)

Elements of the olfactory signaling pathways in insect antennae. Krieger J, et al. **Invert Neurosci** 1997 Sep-Dec; 3(2-3):137-44 (50 ref.)

Olfactory receptors, Golf alpha and adenylyl cyclase mRNA expressions in the rat heart during ontogenic development. Ferrand N, et al. **J Mol Cell Cardiol** 1999 May; 31(5):1137-42

Axons of olfactory receptor cells of transsexually grafted antennae induce development of sexually dimorphic glomeruli in Manduca sexta. Rössler W, et al. **J Neurobiol** 1999 Mar;38(4):521-41

An olfactory sensory neuron line, odora, properly targets olfactory proteins and responds to odorants. Murrell JR, et al. **J Neurosci** 1999 Oct 1;19(19):8260-70

Specificity and sensitivity of a human olfactory receptor functionally expressed in human embryonic kidney 293 cells and Xenopus Laevis oocytes. Wetzel CH, et al. **J Neurosci** 1999 Sep 1;19(17):7426-33

Functional identification and reconstitution of an odorant receptor in single olfactory neurons. Touhara K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4040-5

Mapping smells in the brain [news] Barinaga M. **Science** 1999 Jul 23;285(5427):508

Odor response properties of rat olfactory receptor neurons. Duchamp-Viret P, et al. **Science** 1999 Jun 25; 284(5423):2171-4

Characterizing complex chemosensors: information-theoretic analysis of olfactory systems. Alkasab TK, et al. **Trends Neurosci** 1999 Mar;22(3):102-8

RECEPTORS, OPIATE see **RECEPTORS, OPIOID**

RECEPTORS, OPIOID

Orphan receptors and the concept of reverse physiology: discovery of the novel neuropeptide orphanin FQ/nociceptin. Reinscheid RK, et al. **Results Probl Cell Differ** 1999;26:193-214

[Nociceptin and nociceptin receptor] Nishi M, et al. **Seikagaku** 1998 Jul;70(7):548-53 (13 ref.) **(Jpn)**

[Molecular mechanisms of opioidergic antinociception] Satoh M. **Tanpakushitsu Kakusan Koso** 1999 Jul;44(9):1360-8 (27 ref.) **(Jpn)**

ADMINISTRATION & DOSAGE

Supraspinal hyperalgesia and spinal analgesia by [Phe1psi(CH2-NH)Gly2]nociceptin-(1-13)-NH2 in rat. Wang YQ, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):R1-3

AGONISTS

Modulation of cocaine-induced motor activity in the rat by opioid receptor agonists. Waddell AB, et al. **Behav Pharmacol** 1998 Sep;9(5-6):397-407

Opioid agonist modulation of cytoplasmic free Ca2+ level in concanavalin A-stimulated mouse lymphocytes. Molotkovskaya IM, et al. **Biochemistry (Mosc)** 1999 May; 64(5):546-51

Pulsatile luteinizing hormone secretion in the ovariectomized, thyroidectomized red deer hind following treatment with dopaminergic and opioidergic agonists and antagonists. Anderson GM, et al. **Biol Reprod** 1998 Oct;59(4):960-8

Syntheses of potent Leu-enkephalin analogs possessing beta-hydroxy-alpha,alpha-disubstituted-alpha-amino acid and their characterization to opioid receptors. Horikawa M, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):2027-32

8-acenaphthen-1-yl-1-phenyl-1,3,8-triaza-spiro[4.5]decan-4-one derivatives as orphanin FQ receptor agonists. Wichmann J, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2343-8

Evidence that [Phe1 psi(CH2-NH)Gly2]nociceptin-(1-13)-NH2, a peripheral ORL-1 receptor antagonist, acts as an agonist in the rat spinal cord. Carpenter KJ, et al. **Br J Pharmacol** 1998 Nov; 125(5):949-51

GABA(B), opioid and alpha2 receptor inhibition of calcium channels in acutely-dissociated locus coeruleus neurones. Chieng B, et al. **Br J Pharmacol** 1999 Aug;127(7):1533-8

Effects of nociceptin and nocistatin on antidromic vasodilatation in hairless skin of the rat hindlimb in vivo. Häbler H, et al. **Br J Pharmacol** 1999 Aug;127(7):1719-27

Nociceptin-induced scratching, biting and licking in mice: involvement of spinal NK1 receptors. Sakurada T, et al. **Br J Pharmacol** 1999 Aug;127(7):1712-8

Nociceptin inhibits non-adrenergic non-cholinergic contraction in guinea-pig airway. Shah S, et al. **Br J Pharmacol** 1998 Oct;125(3):510-6

Nociceptin/orphanin FQ dilates pial arteries by K(ATP) and K(ca) channel activation. Armstead WM. **Brain Res** 1999 Jul 24;835(2):315-23

Orphanin FQ stimulates prolactin and growth hormone release in male and female rats. Bryant W, et al. **Brain Res** 1998 Oct 5;807(1-2):228-33

Inhibition of cardiovascular activity following microinjection of novel opioid-like neuropeptide nociceptin (orphanin FQ) into the rat rostral ventrolateral medulla. Chu X, et al. **Brain Res** 1999 May 22;829(1-2):134-42

Orphanin FQ, a novel neuropeptide with anti-stress-like activity. Griebel G, et al. **Brain Res** 1999 Jul 31; 836(1-2):221-4

Modulation of vestibular function by nociceptin/orphanin FQ: an in vivo and in vitro study. Sulaiman MR, et al. **Brain Res** 1999 May 15;828(1-2):74-82

Biotransformation of nociceptin/orphanin FQ by enzyme activity from morphine-naive and morphine-treated cell cultures. Vlaskovska M, et al. **Brain Res** 1999 Feb 13; 818(2):212-20

Effects of orphanin FQ on endomorphin-1 induced analgesia. Wang YQ, et al. **Brain Res** 1999 Jul 24;835(2):241-6

Antagonistic effect of orphanin FQ on opioid analgesia in rat. Zhu CB, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):10-4

[Phe1psi(CH2-NH)Gly2]nociceptin-(1-13)-NH2 acts as an agonist of the orphanin FQ/nociceptin receptor in vivo. Grisel JE, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):R1-3

Opioid receptor agonistic characteristics of mitragynine pseudoindoxyl in comparison with mitragynine derived from Thai medicinal plant Mitragyna speciosa. Yamamoto LT, et al. **Gen Pharmacol** 1999 Jul;33(1):73-81

Localization of orphanin FQ (nociceptin) peptide and messenger RNA in the central nervous system of the rat. Neal CR Jr, et al. **J Comp Neurol** 1999 Apr 19; 406(4):503-47

Comparison of cardiovascular responses to intra-hippocampal mu, delta and kappa opioid agonists in spontaneously hypertensive rats and isolation-induced hypertensive rats. Shen S, et al. **J Hypertens** 1999 Apr; 17(4):497-505

Requirement of receptor internalization for opioid stimulation of mitogen-activated protein kinase: biochemical and immunofluorescence confocal microscopic evidence. Ignatova EG, et al. **J Neurosci** 1999 Jan 1;19(1):56-63

Nociceptin/orphanin FQ: effects on thermoregulation in rats. Yakimova KS, et al. **Methods Find Exp Clin Pharmacol** 1999 Jun;21(5):345-52

Modulation of the induction of ornithine decarboxylase by some opioid receptor agonists in immune cells and cardiomyocytes. Pignatti C, et al. **Mol Cell Biochem** 1998 Aug;185(1-2):47-53

Agonistic effect of buprenorphine in a nociceptin/OFQ receptor-triggered reporter gene assay. Wnendt S, et al. **Mol Pharmacol** 1999 Aug;56(2):334-8

Tolerance develops to the inhibitory effect of orphanin FQ on morphine-induced antinociception in the rat. Lutfy K, et al. **Neuroreport** 1999 Jan 18;10(1):103-6

[Phe1phi(CH2-NH)Gly2]nociceptin-(1-13)-NH2 acts as a partial agonist at ORL1 receptor endogenously expressed in mouse N1E-115 neuroblastoma cells. Olianas MC, et al. **Neuroreport** 1999 Apr 6;10(5):1127-31

In vivo metabolism of nociceptin/orphanin FQ in rat hippocampus. Sandin J, et al. **Neuroreport** 1999 Jan 18; 10(1):71-6

Nociceptin/orphanin FQ. A new opioid, a new analgesic? Taylor F, et al. **Neuroreport** 1998 Aug 24;9(12):R65-70 (43 ref.)

Effect of salmon-calcitonin on the analgesic effect of selective mu, delta and kappa opioid agonists in mice. Goicoechea C, et al. **Neurosci Lett** 1999 Feb 26;262(1):25-8

Nociceptin/orphanin FQ binding increases in superficial laminae of the rat spinal cord during persistent peripheral inflammation. Jia Y, et al. **Neurosci Lett** 1998 Jun 26; 250(1):21-4

Strain-dependent effects of supraspinal orphanin FQ/nociceptin on thermal nociceptive sensitivity in mice. Mogil JS, et al. **Neurosci Lett** 1999 Feb 19;261(3):147-50

Orphanin FQ (nociceptin) modulates responses of trigeminal neurons evoked by excitatory amino acids and somatosensory stimuli, and blocks the substance P-induced facilitation of N-methyl-D-aspartate-evoked responses. Wang XM, et al. **Neuroscience** 1999;93(2):703-12

Modulation of cocaine-induced antinociception by opioid-receptor agonists. Waddell AB, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):247-53

Effect of nociceptin on alcohol intake in alcohol-preferring rats. Ciccocioppo R, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):220-4

Bremazocine reduces unrestricted free-choice ethanol self-administration in rats without affecting sucrose preference. Nestby P, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):309-17

[Inhibitory effects of three opioid receptor agonists on synaptic transmission] Yuan XR. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):278-80 (Eng. Abstr.) **(Chi)**

[Antagonistic effect of orphanin FQ on morphine analgesia in rat brain] Tian JH, et al. **Sheng Li Hsueh Pao** 1997 Jun; 49(3):333-8 (Eng. Abstr.) **(Chi)**

[Effects of opioid peptides on ischemic myocardial arrhythmias during laser irradiation and disturbed heart sympathetic innervation] Mikhailova SD, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):374-7 **(Rus)**

ANALYSIS

ORL-1 and mu opioid receptor antisera label different fibers in areas involved in pain processing. Monteillet-Agius G, et al. **J Comp Neurol** 1998 Sep 28;399(3):373-83

Opioid receptor-like (ORL1) receptor distribution in the rat central nervous system: comparison of ORL1 receptor mRNA expression with (125)I-[(14)Tyr]-orphanin FQ binding. Neal CR Jr, et al. **J Comp Neurol** 1999 Oct 4; 412(4):563-605

Characterization of nociceptin receptors in the periphery: in vitro and in vivo studies. Bigoni R, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):160-7

Positron emission tomography receptor studies in epilepsy. Duncan JS. **Rev Neurol (Paris)** 1999 Jul;155(6-7):482-8 (50 ref.)

[A molecular mechanism for supersensitization of adenylyl cyclase system in cloned opioid receptor-transfected cells following sustained opioid treatment] Nakagawa T, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:78P-82P (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

The opioid receptor antagonist nalmefene reduces responding maintained by ethanol presentation: preclinical studies in ethanol-preferring and outbred Wistar rats. June HL, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2174-85

Functional blockade of opioid analgesia by orphanin FQ/nociceptin. King M, et al. **Biochem Pharmacol** 1998 May 1;55(9):1537-40

Pulsatile luteinizing hormone secretion in the ovariectomized, thyroidectomized red deer hind following treatment with dopaminergic and opioidergic agonists and antagonists. Anderson GM, et al. **Biol Reprod** 1998 Oct;59(4):960-8

N-substituted octahydro-4a-(3-hydroxyphenyl)-10a-methyl-benzo[g]isoquinolines are opioid receptor pure antagonists. Thomas JB, et al. **Bioorg Med Chem Lett** 1998 Nov 17; 8(22):3149-52

Evidence that [Phe1 psi(CH2-NH)Gly2]nociceptin-(1-13)-NH2, a peripheral ORL-1 receptor antagonist, acts as an agonist in the rat spinal cord. Carpenter KJ, et al. **Br J Pharmacol** 1998 Nov; 125(5):949-51

Effects of opioid receptor antagonists on the effects of i.v. morphine on carrageenin evoked c-Fos expression in the superficial dorsal horn of the rat spinal cord. Catheline G, et al. **Brain Res** 1999 Apr 3;824(1):105-11

Antinociceptive effects of the ORL1 receptor agonist nociceptin/orphanin FQ in diabetic mice. Kamei J, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):109-16

Opioid blockade effect on insulin beta-cells secretory patterns in polycystic ovary syndrome. Oral glucose load versus intravenous glucagon bolus. Ciampelli M, et al. **Horm Res** 1998;49(6):263-8

N-Substituted 9beta-methyl-5-(3-hydroxyphenyl)morphans are opioid receptor pure antagonists. Thomas JB, et al. **J Med Chem** 1998 Oct 8;41(21):4143-9

Nepetalactone: a new opioid analgesic from Nepeta caesarea Boiss [published errata appear in J Pharm Pharmacol 1998 Oct;50(10):1204 and 1998 Dec;50(12):following 1434] Aydin S, et al. **J Pharm Pharmacol** 1998 Jul;50(7):813-7

Spinal blockade of opioid receptors prevents the analgesia produced by TENS in arthritic rats. Sluka KA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):840-6

Supersensitivity of spinal opioid receptors to antagonists in intrathecal butorphanol and morphine dependence. Wongchanapai W, et al. **Life Sci** 1998;63(24):2175-80

The stereoselective kappa-opioid receptor antagonist Mr 2266 does not exhibit stereoselectivity as an antagonist at the orphan opioid (ORL1) receptor. Bauer U, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):17-20

Orphanin FQ/nociceptin modulates glutamate- and kainic acid-induced currents in acutely isolated rat spinal dorsal horn neurons. Shu YS, et al. **Neuropeptides** 1998 Dec; 32(6):567-71

Nociceptin system plays a role in the memory retention:

involvement of naloxone benzoylhydrazone binding sites. Mamiya T, et al. **Neuroreport** 1999 Apr 26;10(6):1171–5

Differences in opioidergic inhibition of spinal reflexes and Fos expression evoked by mechanical and chemical noxious stimuli in the decerebrated rabbit. Bhandari RN, et al. **Neuroscience** 1999 Apr;90(1):177–89

Spinal section and opioid receptor blockade induce the appearance of Fos-like immunoreactivity in the spinal cord of the decerebrated rabbit. Bhandari RN, et al. **Neuroscience** 1999 Apr;90(1):191–9

Opioid receptor blockade promotes weight loss and improves the display of sexual behaviors in obese Zucker female rats. Marín-Bivens CL, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):515–20

Bremazocine reduces unrestricted free-choice ethanol self-administration in rats without affecting sucrose preference. Nestby P, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):309–17

[Opiatergic mechanisms of cardioprotective and anti-arrhythmic effects of adaptation] Lishmanov IuB, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):167–70 **(Rus)**

BIOSYNTHESIS

Expression of opioid receptors and ligands in pregnant mouse uterus and placenta. Zhu Y, et al. **Biol Reprod** 1998 Oct; 59(4):925–32

Comparison of the effects of [Phe1psi(CH2-NH)Gly2]nociceptin(1–13)NH2 in rat brain, rat vas deferens and CHO cells expressing recombinant human nociceptin receptors. Okawa H, et al. **Br J Pharmacol** 1999 May;127(1):123–30

Nociception activates Elk-1 and Sap1a following expression of the ORL1 receptor in Chinese hamster ovary cells. Bevan N, et al. **Neuroreport** 1998 Aug 24;9(12):2703–8

CHEMISTRY

Molecular modelling of the ORL1 receptor and its complex with nociceptin. Topham CM, et al. **Protein Eng** 1998 Dec; 11(12):1163–79

CLASSIFICATION

Opioid receptor selectivity of heroin given intracerebroventricularly differs in six strains of inbred mice. Rady JJ, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):438–45

DEFICIENCY

[Behavioral pharmacological characterization of mice lacking the nociceptin receptor] Noda Y, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Apr; 19(2):73–8 (13 ref.) (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Peripheral opioid receptors may mediate a portion of the aversive and depressant effect of EtOH: CPP and locomotor activity. Bedingfield JB, et al. **Alcohol** 1999 Jun-Jul;18(2-3):93–101

Experimental studies on the antitussive properties of the new xanthine derivative 1H-purine-2,6-dione, 3,7-dihydro-3-methyl-7[(5-methyl-1,2,4-oxadiazol-3-yl) methyl]. 3rd communication: examinations on opioid mechanisms and physical drug dependence. Kapui Z, et al. **Arzneimittelforschung** 1998 Dec;48(12):1147–55

Opioid deltorphin C analogues containing cis- or trans-2- or 3- or 4-aminocyclohexanecarboxylic acid residues. Marastoni M, et al. **Arzneimittelforschung** 1999 Jan; 49(1):6–12

The involvement of an opiate mechanism in the sensitized behavioral deficit induced by early chronic variable stress: influence of desipramine. Zurita A, et al. **Behav Brain Res** 1999 Apr;100(1-2):153–9

Interactions between cholecystokinin and opioids in the isolated guinea-pig ileum. Romanelli L, et al. **Br J Pharmacol** 1999 Jun;127(4):909–18

Further characterization of the ORL1 receptor-mediated inhibition of noradrenaline release in the mouse brain in vitro. Werthwein S, et al. **Br J Pharmacol** 1999 May; 127(1):300–8

Nociceptin receptors in the rat spinal cord during morphine tolerance. Gouardères C, et al. **Brain Res** 1999 Aug 14; 838(1-2):85–94

The effect of pentylenetetrazol kindling on synaptic mechanisms of interacting glutamatergic and opioid system in the hippocampus of rats. Schroeder H, et al. **Brain Res** 1998 Nov 16;811(1-2):40–6

Effects of mu, kappa, and delta opioid receptor agonists and antagonists on rat hypothalamic noradrenergic neurotransmission. Yilmaz B, et al. **Brain Res Bull** 1999 Mar 15;48(5):491–5

Effects of diethylstilbestrol on mouse hippocampal evoked potentials in vitro. SanMartin S, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):691–703

The neurobiology of opiate reinforcement. Shippenberg TS, et al. **Crit Rev Neurobiol** 1998;12(4):267–303 (240 ref.)

The periaqueductal grey is a critical site in the neuronal network for audiogenic seizures: modulation by GABA(A), NMDA and opioid receptors. N'Gouemo P, et al. **Epilepsy Res** 1999 May;35(1):39–46

Opioid activity of sendide, a tachykinin NK1 receptor antagonist. Sakurada T, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):261–6

Pharmacological properties of TRK-820 on cloned mu-, delta- and kappa-opioid receptors and nociceptin receptor. Seki T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):159–67

Interaction between the tetracyclic antidepressant mianserin HCl and opioid receptors. Schreiber S, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):297–302

Inhibition of calcium currents in rat colon sensory neurons by K- but not mu- or delta-opioids. Su X, et al. **J Neurophysiol** 1998 Dec;80(6):3112–9

Opioid receptor selectivity of heroin given intracerebroventricularly differs in six strains of inbred mice. Rady JJ, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):438–45

Delta opioid peptide [D-Ala2,D-leu5]enkephalin blocks the long-term loss of dopamine transporters induced by multiple administrations of methamphetamine: involvement of opioid receptors and reactive oxygen species. Tsao LI, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):322–31

ORL1 receptor-mediated inhibition by nociceptin of noradrenaline release from perivascular sympathetic nerve endings of the rat tail artery. Bucher B. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):682–5

Nociceptin inhibits noradrenaline release in the mouse brain cortex via presynaptic ORL1 receptors. Schlicker E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):418–22

Relative involvement of spinal opioid receptors in physical dependence on intrathecal butorphanol and morphine. Wongchanapai W, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):899–907

Neutrophil function and opioid receptor expression on leucocytes during chronic naltrexone treatment in humans. Caldiroli E, et al. **Pharmacol Res** 1999 Aug;40(2):153–8

Site-specific effects of the nonsteroidal anti-inflammatory drug lysine clonixinate on rat brain opioid receptors. Orti E, et al. **Pharmacology** 1999 Apr;58(4):190–9

Modulation of opioid analgesia, tolerance and dependence by Gs-coupled, GM1 ganglioside-regulated opioid receptor functions. Crain SM, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):358–65

[The use of opiate receptor ligands for correction of heart electrical instability] Lishmanov IuB, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):399–401 **(Rus)**

GENETICS

Effect of ethanol drinking on the gene expression of opioid receptors, enkephalinase, and angiotensin-converting enzyme in two inbred mice strains. Winkler A, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1262–71

Opioid receptor gene: cytokine response element and the effect of cytokines. Im HJ, et al. **Brain Res** 1999 May 22; 829(1-2):174–9

Stimulation of phospholipase C by the cloned mu, delta and kappa opioid receptors via chimeric G alpha(q) mutants. Joshi S, et al. **Eur J Neurosci** 1999 Feb;11(2):383–8

Distribution of prepro-nociceptin/orphanin FQ mRNA and its receptor mRNA in developing and adult mouse central nervous systems. Ikeda K, et al. **J Comp Neurol** 1998 Sep 14;399(1):139–51

Presence of opioid receptor-like (ORL1) receptor mRNA splice variants in peripheral sensory and sympathetic neuronal ganglia. Xie GX, et al. **Life Sci** 1999; 64(22):2029–37

Limbic seizures increase pronociceptin mRNA levels in the thalamic reticular nucleus. Bregola G, et al. **Neuroreport** 1999 Feb 25;10(3):541–6

Distribution of the nociceptin and nocistatin precursor transcript in the mouse central nervous system. Boom A, et al. **Neuroscience** 1999;91(3):991–1007

Targeted mutagenesis of the murine opioid system. Hayward MD, et al. **Results Probl Cell Differ** 1999;26:169–91 (100 ref.)

[The discovery of a novel opioid-receptor-like receptor and its endogenous ligand] Fang Y, et al. **Sheng Li Ko Hsueh Chin Chan** 1996 Jul;27(3):210–4 (12 ref.) (Eng. Abstr.) **(Chi)**

METABOLISM

Central pain after pontine infarction is associated with changes in opioid receptor binding: a PET study with 11C-diprenorphine. Willoch F, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):686–90

Chimeric G proteins allow a high-throughput signaling assay of Gi-coupled receptors. Coward P, et al. **Anal Biochem** 1999 Jun 1;270(2):242–8

Intraarticular and periarticular opioid binding in inflamed tissue in experimental canine arthritis. Keates HL, et al. **Anesth Analg** 1999 Aug;89(2):409–15

Heterologous expression of G-protein-coupled receptors: human opioid receptors under scrutiny. Stanasila L, et al. **Biochimie** 1998 May-Jun;80(5-6):563–71 (78 ref.)

Chemistry of opium alkaloids. Part 44: synthesis and opioid receptor binding profile of substituted ethenoisomorphinans and ethenomorphinans. Maat L, et al. **Bioorg Med Chem** 1999 Mar;7(3):529–41

NMR studies of the structure and dynamics of peptide E, an endogenous opioid peptide that binds with high affinity to multiple opioid receptor subtypes. Yan C, et al. **Biopolymers** 1999 Jan;49(1):55–70

Pharmacological characterization of the nociceptin receptor mediating hyperalgesia in the mouse tail withdrawal assay. Calò G, et al. **Br J Pharmacol** 1998 Sep;125(2):373–8

Nociceptin receptor binding in mouse forebrain membranes: thermodynamic characteristics and structure activity relationships. Varani K, et al. **Br J Pharmacol** 1998 Dec; 125(7):1485–90

Opiate receptor avidity is reduced in non-motor impaired MPTP-lesioned rhesus monkeys. Cohen RM, et al. **Brain Res** 1998 Sep 28;806(2):292–6

Interaction of the alpha-2 adrenergic- and opioid receptor with the cGMP system in the mouse cerebellum. Vulliemoz Y, et al. **Brain Res** 1998 Nov 30;813(1):26–31

Inducing placebo respiratory depressant responses in humans via opioid receptors. Benedetti F, et al. **Eur J Neurosci** 1999 Feb;11(2):625–31

Stimulation of phospholipase C by the cloned mu, delta and kappa opioid receptors via chimeric G alpha(q) mutants. Joshi S, et al. **Eur J Neurosci** 1999 Feb;11(2):383–8

Nociceptin receptor-mediated Ca2+ channel inhibition and its desensitization in NG108-15 cells. Morikawa H, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):247–52

Irreversible labelling of the opioid receptors by a melphalan-substituted [Met5]enkephalin-Arg-Phe derivative. Sartania N, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):241–9

The effect of nociceptin, an endogenous ligand for the ORL1 receptor, on rat colonic contraction and transit. Taniguchi H, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):265–71

Human neuroblastoma cell growth in tissue culture is regulated by opioid growth factor. McLaughlin PJ, et al. **Int J Oncol** 1999 Feb;14(2):373–80

Regulation of human head and neck squamous cell carcinoma growth in tissue culture by opioid growth factor. McLaughlin PJ, et al. **Int J Oncol** 1999 May;14(5):991–8

Tritiated-naloxone binding to brainstem opioid receptors in the sudden infant death syndrome. Kinney HC, et al. **J Auton Nerv Syst** 1998 Apr 30;69(2-3):156–63

Dissociation of functional roles of dynamin in receptor-mediated endocytosis and mitogenic signal transduction. Whistler JL, et al. **J Biol Chem** 1999 Aug 27;274(35):24575–8

Brain opioid receptor measurements by positron emission tomography in normal cycling women: relationship to luteinizing hormone pulsatility and gonadal steroid hormones. Smith YR, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4498–505

Molecular modeling study of the differential ligand-receptor interaction at the mu, delta and kappa opioid receptors. Filizola M, et al. **J Comput Aided Mol Des** 1999 Jul; 13(4):397–407

Opioid receptor ligands in human hepatic encephalopathy. Yurdaydin C, et al. **J Hepatol** 1998 Nov;29(5):796–801

Synthesis, opioid receptor binding, and biological activities of naltrexone-derived pyrido- and pyrimidomorphinans. Ananthan S, et al. **J Med Chem** 1999 Sep 9;42(18):3527–38

Pertussis toxin-insensitive signaling of the ORL1 receptor: coupling to Gz and G16 proteins. Chan JS, et al. **J Neurochem** 1998 Nov;71(5):2203–10

Dynorphin A1-13 causes elevation of serum levels of prolactin through an opioid receptor mechanism in humans: gender differences and implications for modulation of dopaminergic tone in the treatment of addictions. Kreek MJ, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):260–9

Delta opioid receptor down-regulation is independent of functional G protein yet is dependent on agonist efficacy. Remmers AE, et al. **J Pharmacol Exp Ther** 1998 Nov; 287(2):625–32

GalphaL1 (Galpha14) couples the opioid receptor-like1 receptor to stimulation of phospholipase C. Yung LY, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):232–8

Bremazocine recognizes the difference in four amino acid residues to discriminate between a nociceptin/orphanin FQ receptor and opioid receptors. Seki T, et al. **Jpn J Pharmacol** 1998 Aug;77(4):301–6

Opioid binding profiles of new hydrazone, oxime, carbazone and semicarbazone derivatives of 14-alkoxymorphinans. Monory K, et al. **Life Sci** 1999;64(22):2011–20

Opioid receptor contributes to ischemic preconditioning through protein kinase C activation in rabbits. Miki T, et al. **Mol Cell Biochem** 1998 Sep;186(1-2):3–12

Distinct mechanisms for activation of the opioid receptor-like 1 and kappa-opioid receptors by nociceptin and dynorphin A. Mollereau C, et al. **Mol Pharmacol** 1999 Feb;55(2):324–31

Modulatory role of lysophosphatidic acid on opioid receptor binding. Apaydin S, et al. **Neurobiology (Bp)** 1998; 6(4):421–7

Arachidonic acid modulation of [3H]naloxone specific binding to rat brain opioid receptors. Oktem HA, et al. **Neurobiology (Bp)** 1998;6(3):323–32

[Phe1phi(CH2-NH)Gly2]nociceptin-(1-13)-NH2 acts as a partial agonist at ORL1 receptor endogenously expressed in mouse N1E-115 neuroblastoma cells. Olianas MC, et al. **Neuroreport** 1999 Apr 6;10(5):1127–31

Effect of salmon-calcitonin on the analgesic effect of selective mu, delta and kappa opioid agonists in mice. Goicoechea C, et al. **Neurosci Lett** 1999 Feb 26;262(1):25–8

The effect of repeated administration of morphine, cocaine and ethanol on mu and delta opioid receptor density in the nucleus accumbens and striatum of the rat. Turchan J, et al. **Neuroscience** 1999;91(3):971–7

RECEPTORS, OPIOID

Opiate tolerance and dependence: receptors, G-proteins, and antiopiates. Harrison LM, et al. **Peptides** 1998;19(9):1603–30 (253 ref.)

Molecular modelling of the ORL1 receptor and its complex with nociceptin. Topham CM, et al. **Protein Eng** 1998 Dec; 11(12):1163–79

Nociceptin, a novel endogenous ligand for the ORL1 receptor, dilates isolated resistance arteries from the rat. Champion HC, et al. **Regul Pept** 1998 Nov 30;78(1–3):69–74

Distinct effect of intracerebroventricular and intrathecal injections of nociceptin/orphanin FQ in the rat formalin test. Wang JL, et al. **Regul Pept** 1999 Feb 5;79(2–3):159–63

Opiate receptor avidity is reduced bilaterally in rhesus monkeys unilaterally lesioned with MPTP. Cohen RM, et al. **Synapse** 1999 Sep 15;33(4):282–8

[Effect of corticotropin on formalin-evoked c-fos expression of spinal cord and receptors analysis in rat] Li HD, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):394–6 (Eng. Abstr.) **(Chi)**

[Binding of [3H] dihydroetorphine to opioid receptors in rat brain membrane] Wang DX, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):281–3 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

The renal actions of moxonidine are mediated by atrial natriuretic peptide and involve the opioid receptors. Mukaddam-Daher S, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:385–7

Opioid and cannabinoid receptor-mediated regulation of the increase in adrenocorticotropin hormone and corticosterone plasma concentrations induced by central administration of delta(9)-tetrahydrocannabinol in rats. Manzanares J, et al. **Brain Res** 1999 Aug 21;839(1):173–9

Independence of, and interactions between, cannabinoid and opioid signal transduction pathways in N18TG2 cells. Shapira M, et al. **Brain Res** 1998 Sep 21;806(1):26–35

Brain opioid receptor adaptation and expression after prenatal exposure to buprenorphine. Belcheva MM, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):35–42

Role of opioid ligands in the irritable bowel syndrome. Corazziari E. **Can J Gastroenterol** 1999 Mar;13 Suppl A:71A–75A (42 ref.)

Enkephalin receptors and receptor-mediated signal transduction in cultured human lymphocytes. Heagy W, et al. **Cell Immunol** 1999 Jan 10;191(1):34–48

Direct preconditioning of cardiac myocytes via opioid receptors and KATP channels. Liang BT, et al. **Circ Res** 1999 Jun 25;84(12):1396–400

Opioid receptor signalling mechanisms. Connor M, et al. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):493–9 (77 ref.)

Endogenous opioids and the first suckling episode in the rat. Petrov ES, et al. **Dev Psychobiol** 1998 Sep;33(2):175–83

Endogenous opioids: overview and current issues. Akil H, et al. **Drug Alcohol Depend** 1998 Jun–Jul;51(1–2):127–40 (150 ref.)

Simultaneous activation of two different receptor systems by enkephalin/neurotensin conjugates having spacer chains of various lengths. Yano K, et al. **Eur J Pharm Sci** 1998 Dec;7(1):41–48

Stereoselective mu- and delta-opioid receptor-related antinociception and binding with (+)-thebaine. Aceto MD, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):143–7

The nociceptin receptor-mediated inhibition of the rat rostral ventrolateral medulla neurons in vitro. Chu X, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):49–53

The involvement of opioidergic and noradrenergic mechanisms in nefopam antinociception. Gray AM, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):149–57

Different roles of mu-, delta- and kappa-opioid receptors in ethanol-associated place preference in rats exposed to conditioned fear stress. Matsuzawa S, et al. **Eur J Pharmacol** 1999 Feb 26;368(1):9–16

Cloning, expression and functional role of a nociceptin/orphanin FQ receptor in the porcine gastrointestinal tract. Osinski MA, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):281–9

Spinal mu-, delta- and kappa-opioid receptors mediate intense stimulation-elicited inhibition of a nociceptive reflex in the rat. Romita VV, et al. **Eur J Pharmacol** 1998 Sep 18;357(2–3):127–38

Modulation of emesis by fentanyl and opioid receptor antagonists in Suncus murinus (house musk shrew). Rudd JA, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):77–84

Participation of the opioid system in the regulation of prolactin secretion in androgenized rats: effect of ovarian steroids. Soaje M, et al. **Eur J Pharmacol** 1999 Apr 23; 371(1):43–9

Opioid inhibition of rat medial vestibular nucleus neurones in vitro and its dependence on age. Sulaiman MR, et al. **Exp Brain Res** 1998 Sep;122(2):196–202

Corticosterone response induced by intracerebroventricular administration of met-enkephalin and naloxone in rats under stress. Gądek-Michalska A, et al. **Folia Med Cracov** 1997;38(3–4):17–26

Measurement of changes in opioid receptor binding in vivo during trigeminal neuralgic pain using [11C] diprenorphine and positron emission tomography. Jones AK, et al. **J Cereb Blood Flow Metab** 1999 Jul;19(7):803–8

Age- and sex-related differences in opioid receptor densities in the songbird vocal control system. Gulledge CC, et al. **J Comp Neurol** 1999 Feb 22;404(4):505–14

Activation of phospholipase A2 by the nociceptin receptor expressed in Chinese hamster ovary cells. Fukuda K, et al. **J Neurochem** 1998 Nov;71(5):2186–92

Endogenous delta-opioid and ORL1 receptors couple to phosphorylation and activation of p38 MAPK in NG108-15 cells and this is regulated by protein kinase A and protein kinase C. Zhang Z, et al. **J Neurochem** 1999 Oct;73(4):1502–9

Postsynaptic mechanisms underlying responsiveness of amygdaloid neurons to nociceptin/orphanin FQ. Meis S, et al. **J Neurosci** 1998 Oct 15;18(20):8133–44

Regulation of opioid receptor activities. Law PY, et al. **J Pharmacol Exp Ther** 1999 May;289(2):607–24 (136 ref.)

Effect of phosducin on opioid receptor function. Schulz R, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):599–606

Involvement of spinal NK1 and opioids receptors in modulating the inhibitory effect of capsaicin on micturition reflex in the acute spinalized guinea pig. Palea S, et al. **J Urol** 1999 Mar;161(3):998–1005

Analgesic effect of the cannabinoid analogue nabilone is not mediated by opioid receptors [letter] Hamann W, et al. **Lancet** 1999 Feb 13;353(9152):560

Opioid receptor upregulation in mu-opioid receptor deficient CXBK and outbred Swiss Webster mice. Duttaroy A, et al. **Life Sci** 1999;65(2):113–23

Ligands for opioid and sigma-receptors improve cardiac electrical stability in rat models of post-infarction cardiosclerosis and stress. Lishmanov YuB, et al. **Life Sci** 1999;65(1):PL13–7

Roles of 5-HT3 and opioid receptors in the ethanol-induced place preference in rats exposed to conditioned fear stress. Matsuzawa S, et al. **Life Sci** 1999;64(21):PL241–9

Opioid involvement in behavior modifications of mice infected with the parasitic nematode, Nippostrongylus brasiliensis. Pryor SC, et al. **Life Sci** 1998;63(18):1619–28

Nociceptin receptor activation inhibits tachykinergic non adrenergic non cholinergic contraction of guinea pig isolated bronchus. Rizzi A, et al. **Life Sci** 1999; 64(13):PL157–63

Antipruritic effect of millimeter waves in mice: evidence for opioid involvement. Rojavin MA, et al. **Life Sci** 1998; 63(18):PL251–7

Spinal administration of selective opioid antagonists in amphibians: evidence for an opioid unireceptor. Stevens CW, et al. **Life Sci** 1999;64(10):PL125–30

Advances in Neurobehavioral Pharmacology (IV): Opioids, Antinociception and Stress. Proceedings of the 7th annual meeting of the Japanese Young Researchers' Society of Neurobehavioral Pharmacology. Osaka, Japan, March 22, 1998. **Methods Find Exp Clin Pharmacol** 1998 Sep; 20(7):553–640

Intrathecal administration of p-hydroxymercuribenzoate or phosphoramidon/bestatin-combined induces antinociceptive effects through different opioid mechanisms. Tan-No K, et al. **Neuropeptides** 1998 Oct; 32(5):411–5

Release of nociceptin-like substances from the rat spinal cord dorsal horn. Williams CA, et al. **Neurosci Lett** 1998 Mar 20;244(3):141–4

Endogenous drug-like factors. Mrozikiewicz A. **Pol J Pharmacol** 1998 Nov–Dec;50(6):393–7 (26 ref.)

Nociceptin/orphanin FQ: role in nociceptive information processing. Yamamoto T, et al. **Prog Neurobiol** 1999 Apr; 57(5):527–35 (89 ref.)

Involvement of the ventral tegmental area opiate receptors in self-stimulation elicited from the ventral pallidum. Panagis G, et al. **Psychopharmacology (Berl)** 1998 Oct; 139(3):222–9

Opioids: first lessons from knockout mice. Kieffer BL. **Trends Pharmacol Sci** 1999 Jan;20(1):19–26 (60 ref.)

Opiate and N-methyl-D-aspartate receptors in form-deprivation myopia. Fischer AJ, et al. **Vis Neurosci** 1998 Nov–Dec;15(6):1089–96

[The role of opioid receptors of arcuate nucleus in cytokine-induced hyperthermia] Zhao S, et al. **Chung Kuo Yiag Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):57–9 (Eng. Abstr.) **(Chi)**

[Cloning of prepronociceptin has led to the discovery of other biologically active peptides] Costentin J, et al. **C R Seances Soc Biol Fil** 1998;192(6):1099–109 (60 ref.) (Eng. Abstr.) **(Fre)**

[Pain control mechanism involving opioid receptors] Sato M. **Masui** 1998 Dec;47 Suppl:S211–7 (10 ref.) **(Jpn)**

[Behavioral pharmacological characterization of mice lacking the nociceptin receptor] Noda Y, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Apr; 19(2):73–8 (13 ref.) (Eng. Abstr.) **(Jpn)**

[The role of the endogenous opioid system in regulation of the nonspecific resistance of the myocardium to reperfusion injury in rats] Maslov LN, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May–Jun; 84(5–6):490–9 (Eng. Abstr.) **(Rus)**

RECEPTORS, OPIOID, DELTA

[Delta-opiate receptors and heart resistance to arrhythmogenic factors] Maslov LN, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Dec;84(12):1394–401 (Eng. Abstr.) **(Rus)**

AGONISTS

Dopamine-dependent behavioural stimulation by non-peptide delta opioids BW373U86 and SNC 80: 1. Locomotion, rearing and stereotypies in intact rats. Spina L, et al. **Behav Pharmacol** 1998 Feb;9(1):1–8

Differential G-protein activation by alkaloid and peptide opioid agonists in the human neuroblastoma cell line SK-N-BE. Allouche S, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):71–8

The LMC delta opioid recognition pharmacophore: comparison of SNC80 and oxymorphindole. Coop A, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):357–62

Design of a high affinity peptidomimetic opioid agonist from peptide pharmacophore models. Wang C, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2685–8

Electrophysiological studies on the postnatal development of the spinal antinociceptive effects of the delta opioid receptor agonist DPDPE in the rat. Rahman W, et al. **Br J Pharmacol** 1999 Mar;126(5):1115–22

Visualization of time-dependent redistribution of delta-opioid receptors in neuronal cells during prolonged agonist exposure. Ko JL, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):171–85

Rational drug design and synthesis of a highly selective nonpeptide delta-opioid agonist, (4aS*,12aR*)-4a-(3-hydroxyphenyl)-2-methyl-1,2,3,4,4a,5,12,12a-octahydropyrido[3,4-b]acridine (TAN-67). Nagase H, et al. **Chem Pharm Bull (Tokyo)** 1998 Nov;46(11):1695–702

Amino acids and peptides. LII. Design and synthesis of opioid mimetics containing a pyrazinone ring and examination of their opioid receptor binding activity. Okada Y, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1374–82

A molecular mechanism for the cleavage of a disulfide bond as the primary function of agonist binding to G-protein-coupled receptors based on theoretical calculations supported by experiments. Brandt W, et al. **Eur J Biochem** 1999 Apr;261(1):89–97

Effects of DPDPE (a specific delta-opioid receptor agonist) and naloxone on hypothalamic monoamine concentrations during the pre-ovulatory LH surge in the rat. Yilmaz B, et al. **Eur J Endocrinol** 1998 Nov;139(5):546–51

Mu- and delta-opioid receptor agonists inhibit DARPP-32 phosphorylation in distinct populations of striatal projection neurons. Lindskog M, et al. **Eur J Neurosci** 1999 Jun;11(6):2182–6

A uniform molecular model of delta opioid agonist and antagonist pharmacophore conformations. Brandt W. **J Comput Aided Mol Des** 1998 Nov;12(6):615–21

De novo design, synthesis, and biological activities of high-affinity and selective non-peptide agonists of the delta-opioid receptor. Liao S, et al. **J Med Chem** 1998 Nov 19;41(24):4767–76

Transport of the delta-opioid receptor agonist [D-penicillamine2,5] enkephalin across the blood–brain barrier involves transcytosis1. Egleton RD, et al. **J Pharm Sci** 1999 Apr;88(4):392–7

Discriminative stimulus effects of the nonpeptidic delta-opioid agonist SNC80 in rhesus monkeys. Brandt MR, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1157–64

Renal excretory responses produced by the delta opioid agonist, BW373U86, in conscious rats. Sezen SF, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):238–45

Delta-opioid ligands reverse alfentanil-induced respiratory depression but not antinociception. Su YF, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):815–23

Subtleties of structure-agonist versus antagonist relationships of opioid peptides and peptidomimetics. Schiller PW, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):573–88 (33 ref.)

Agonist-specific regulation of delta-opioid receptor trafficking by G protein-coupled receptor kinase and beta-arrestin. Zhang J, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):301–13

Immunomodulatory action of class mu-, delta- and kappa-opioid receptor agonists in mice. Kowalski J. **Neuropeptides** 1998 Aug;32(4):301–6

Further studies on the involvement of the arachidonic acid cascade in the acute dependence produced by mu, kappa and delta opioid agonists in isolated tissues. Capasso A. **Neuropharmacology** 1999 Jun;38(6):871–7

Gastric effects of methylnaltrexone on mu, kappa, and delta opioid agonists induced brainstem unitary responses. Yuan CS, et al. **Neuropharmacology** 1999 Mar;38(3):425–32

Respiratory depression after intravenous administration of delta-selective opioid peptide analogs. Szeto HH, et al. **Peptides** 1999;20(1):101–5

[The role of delta-opioid receptors in development of cardiac ischemic arrhythmia] Mikhailova SD, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):164–7 **(Rus)**

[Anxiolytic effect of dalargin on rat behavior in the Vogel conflict test and the raised cross-like labyrinth] Zozulia AA, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):211–4 **(Rus)**

ANALYSIS

Quantitative autoradiography of mu-,delta- and kappa1 opioid receptors in kappa-opioid receptor knockout mice. Slowe SJ, et al. **Brain Res** 1999 Feb 13;818(2):335–45

Quantification of delta-opioid receptors in human brain with N1'-([11C]methyl) naltrindole and positron emission tomography. Smith JS, et al. **J Cereb Blood Flow Metab** 1999 Sep;19(9):956–66

Expression of ZFOR1, a delta-opioid receptor, in the central

nervous system of the zebrafish (Danio rerio). Porteros A, et al. **J Comp Neurol** 1999 Sep 27;412(3):429–38
Opioid receptor subtype expression defines morphologically distinct classes of hippocampal interneurons. Svoboda KR, et al. **J Neurosci** 1999 Jan 1;19(1):85–95

ANTAGONISTS & INHIBITORS

Intracerebroventricular injection of mu- and delta-opiate receptor antagonists block 60 Hz magnetic field-induced decreases in cholinergic activity in the frontal cortex and hippocampus of the rat. Lai H, et al. **Bioelectromagnetics** 1998;19(7):432–7
Kinetic studies of the delta-opioid antagonist [3H]DPN induced receptor binding on suspensions of mouse splenocytes. Barsegov V. **Biophys Chem** 1999 Jan 11; 76(1):55–62
The delta1-opioid receptor antagonist, 7-(benzospiroindanyl)naltrexone [correction of 7-benzylspiroindanylnaltrexone], prolongs renal allograft survival in a rat model [published erratum appears in Eur J Pharmacol 1998 Dec 11;363(1):91] Linner KM, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):R3–5
The difference between methadone and morphine in regulation of delta-opioid receptors underlies the antagonistic effect of methadone on morphine-mediated cellular actions. Liu JG, et al. **Eur J Pharmacol** 1999 Jun 4;373(2–3):233–9
A uniform molecular model of delta opioid agonist and antagonist pharmacophore conformations. Brandt W. **J Comput Aided Mol Des** 1998 Nov;12(6):615–21
7-Arylidenenaltrexones as selective delta1 opioid receptor antagonists. Ohkawa S, et al. **J Med Chem** 1998 Oct 8; 41(21):4177–80
The opioid mu agonist/delta antagonist DIPP-NH(2)[Psi] produces a potent analgesic effect, no physical dependence, and less tolerance than morphine in rats. Schiller PW, et al. **J Med Chem** 1999 Sep 9;42(18):3520–6
Side chain methyl substitution in the delta-opioid receptor antagonist TIPP has an important effect on the activity profile. Tourwé D, et al. **J Med Chem** 1998 Dec 17; 41(26):5167–76
Subtleties of structure-agonist versus antagonist relationships of opioid peptides and peptidomimetics. Schiller PW, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):573–88 (33 ref.)
Effects of mu and delta opioid agonists and antagonists on affective vocal and reflexive pain responses during social stress in rats. Vivian JA, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):364–75

BIOSYNTHESIS

Weaning-induced development of delta-opioid receptors in rat brain: differential effects of guanine nucleotides and sodium upon ligand-receptor recognition. Kelly MD, et al. **Br J Pharmacol** 1998 Nov;125(5):979–86
Expression of delta, kappa and mu human opioid receptors in Escherichia coli and reconstitution of the high-affinity state for agonist with heterotrimeric G proteins. Stanasila L, et al. **Eur J Biochem** 1999 Mar;260(2):430–8
Delta-opioid receptor immunoreactivity on astrocytes is upregulated during mitosis. Thorlin T, et al. **Glia** 1999 Feb 15;25(4):370–8
Regulation of delta opioid receptor expression by anti-CD3-epsilon, PMA, and ionomycin in murine splenocytes and T cells. Li MD, et al. **J Leukoc Biol** 1999 May;65(5):707–14

CHEMISTRY

Synthesis of novel analogues of the delta opioid ligand SNC-80 using AlCl3-promoted aminolysis. Barn DR, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1329–34
Synthesis of novel analogues of the delta opioid ligand SNC-80 using REM resin. Cottney J, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1323–8
Molecular modeling of interaction between delta opioid receptor and 3-methylfentanylisothiocyanate. Rong SB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):219–24
Cyclic enkephalin analogs that are hybrids of DPDPE-related peptides and metenkephalin-Arg-Gly-Leu: prohormone analogs that retain good potency and selectivity for delta opioid receptors. Bartosz-Bechowski H, et al. **J Pept Res** 1999 Mar;53(3):329–36

DRUG EFFECTS

Stereoselective interaction of ketamine with recombinant mu, kappa, and delta opioid receptors expressed in Chinese hamster ovary cells. Hirota K, et al. **Anesthesiology** 1999 Jan;90(1):174–82
Differential knockdown of delta-opioid receptor subtypes in the rat brain by antisense oligodeoxynucleotides targeting mRNA. Negri L, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):203–11
Delta opioid-like discriminative stimulus effects of mu opioids in pigeons discriminating the delta opioid BW373U86 from saline. Picker MJ, et al. **Behav Pharmacol** 1998 Jul;9(4):319–28
Mu and delta opioid receptor analgesia, binding density, and mRNA levels in mice selectively bred for high and low analgesia. Kest B, et al. **Brain Res** 1999 Jan 23;816(2):381–9
Phosphorylation promotes the desensitization of the opioid-induced Ca2+ increase in NG108-15 cells. Song SL, et al. **Brain Res** 1999 Feb 13;818(2):316–25
Differential desensitization of human delta-opioid receptors by peptide and alkaloid agonists. Allouche S, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):235–40
Algogenic mediator-induced nociceptive response in diabetic mice. Kamei J, et al. **Eur J Pharmacol** 1999 Mar 26; 369(3):319–23
Methadone-induced desensitization of the delta-opioid receptor is mediated by uncoupling of receptor from G protein. Liu JG, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):301–8
Pharmacological properties of TRK-820 on cloned mu-, delta- and kappa-opioid receptors and nociceptin receptor. Seki T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):159–67
Inhibition of calcium currents in rat colon sensory neurons by K- but not mu- or delta-opioids. Su X, et al. **J Neurophysiol** 1998 Dec;80(6):3112–9
Heroin antinociception changed from mu to delta receptor in streptozotocin-treated mice. Rady JJ, et al. **Jpn J Pharmacol** 1998 Dec;78(4):443–54
Antinociceptive effects of isoleucine derivatives of deltorphin I and deltorphin II in rat spinal cord: a search for selectivity of delta receptor subtypes. Labuz D, et al. **Neuropeptides** 1998 Dec;32(6):511–7
Fentanyl increases dopamine release in rat nucleus accumbens: involvement of mesolimbic mu- and delta-2-opioid receptors. Yoshida Y, et al. **Neuroscience** 1999;92(4):1357–65
Opioid enhancement of the discriminative stimulus effects of cocaine: evidence for involvement of mu and delta opioid receptors. Rowlett JK, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):217–24

GENETICS

Gene expressions of opioid receptors and G-proteins in pineal glands. Chetsawang B, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):775–80
Cloning and characterization of a delta opioid receptor from zebrafish. Barrallo A, et al. **Biochem Soc Trans** 1998 Nov; 26(4):S360
Alteration in transcripting the gene encoding the delta-opioid receptor in rat brain is not underlying the development of tolerance to [D-Ala2,D-Leu5] enkephalin. Yeh GC, et al. **Chin J Physiol** 1998 Dec 31;41(4):217–21
Transcriptional regulation of mouse delta-opioid receptor gene. Liu HC, et al. **J Biol Chem** 1999 Aug 13; 274(33):23617–26
Mu- and delta-opioid receptor mRNAs are expressed in spinally projecting serotonergic and nonserotonergic neurons of the rostral ventromedial medulla. Wang H, et al. **J Comp Neurol** 1999 Feb 8;404(2):183–96
Delta opioid receptors expressed by stably transfected jurkat cells signal through the map kinase pathway in a ras-independent manner. Shahabi NA, et al. **J Neuroimmunol** 1999 Feb 1;94(1–2):48–57
Altered adenylyl cyclase responsiveness subsequent to point mutations of Asp 128 in the third transmembrane domain of the delta-opioid receptor. Cavalli A, et al. **Neuroscience** 1999;93(3):1025–31
Expression of mu, kappa, and delta opioid receptor messenger RNA in the human CNS: a 33P in situ hybridization study. Peckys D, et al. **Neuroscience** 1999;88(4):1093–135

IMMUNOLOGY

Monoclonal antibody to the delta opioid receptor acts as an agonist in dual regulation of adenylate cyclase in NG108-15 cells. Gomes I, et al. **FEBS Lett** 1999 Jul 30;456(1):126–30

METABOLISM

Kinetic studies of the delta-opioid antagonist [3H]DPN induced receptor binding on suspensions of mouse splenocytes. Barsegov V. **Biophys Chem** 1999 Jan 11; 76(1):55–62
Kinetic study of N-type calcium current modulation by delta-opioid receptor activation in the mammalian cell line NG108-15. Toselli M, et al. **Biophys J** 1999 May; 76(5):2560–74
Mu- and delta-opioid receptor densities in respiratory-related brainstem regions of neonatal swine. Laferrière A, et al. **Brain Res Dev Brain Res** 1999 Jan 11; 112(1):1–9
Region-specific up-regulation of opioid receptor binding in enkephalin knockout mice. Brady LS, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):193–7
Binding properties of C-truncated delta opioid receptors. Wang CH, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul; 18(4):337–40
A molecular mechanism for the cleavage of a disulfide bond as the primary function of agonist binding to G-protein-coupled receptors based on theoretical calculations supported by experiments. Brandt W, et al. **Eur J Biochem** 1999 Apr;261(1):89–97
Phosphorylation of adenylyl cyclase VI upon chronic delta-opioid receptor stimulation. Varga EV, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):R1–3
Constitutive activation of the delta opioid receptor by mutations in transmembrane domains III and VII. Befort K, et al. **J Biol Chem** 1999 Jun 25;274(26):18574–81
delta Opioid affinity and selectivity of 4-hydroxy-3-methoxyindolomorphinan analogues related to naltrindole. Coop A, et al. **J Med Chem** 1999 May 6; 42(9):1673–9
Presynaptic mu and delta opioid receptor modulation of GABAA IPSCs in the rat globus pallidus in vitro. Stanford IM, et al. **J Neurosci** 1999 Jun 15;19(12):4796–803
Subcellular distribution of delta-opioid receptors in the rat spinal cord: an approach using a three-dimensional reconstruction of confocal series of immunolabelled neurons. Mailly P, et al. **J Neurosci Methods** 1999 Feb 1; 87(1):17–24
Interaction between medullary and spinal delta1 and delta2 opioid receptors in the production of antinociception in the rat. Hurley RW, et al. **J Pharmacol Exp Ther** 1999 May;289(2):993–9
Agonist-specific regulation of delta-opioid receptor trafficking by G protein-coupled receptor kinase and beta-arrestin. Zhang J, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):301–13
Affinity profiles of novel delta-receptor selective benzofuran derivatives of non-peptide opioids. Spetea M, et al. **Neurochem Res** 1998 Sep;23(9):1211–6
Delta opiate receptors account for the castration-induced unmasking of gonadotropin-releasing hormone binding sites in the rat pituitary. Leblanc P, et al. **Neuroendocrinology** 1998 Dec;68(6):386–94
Attenuation of delta opioid receptor-mediated signaling by kainic acid in neural cells: involvement of protein kinase C and intracellular Ca2+. Ben LH, et al. **Neuropharmacology** 1999 Jul;38(7):991–8
Peripheral stimulation of CCK-B receptors by BC264 induces a hyperexploration, dependent on the delta opioid system in the nucleus accumbens of rat. Daugé V, et al. **Neuropharmacology** 1999 Jul;38(7):999–1007
Opioid receptors in the human cerebellum: evidence from [11C]diprenorphine PET, mRNA expression and autoradiography. Schadrack J, et al. **Neuroreport** 1999 Feb 25;10(3):619–24
Beta-endorphinergic innervation of mu and delta receptor containing neurons in the dorsal raphe nucleus. Wang QP, et al. **Neuroreport** 1998 Sep 14;9(13):3033–6
The negative influence of endogenous opioid receptor activity on the differentiation of the rat pheochromocytoma PC12 cells induced by nerve growth factor. Yeh GC, et al. **Neurosci Lett** 1998 Aug 7;252(1):25–8
Expression of mu-, kappa- and delta-opioid receptors in P19 mouse embryonal carcinoma cells. Chen HC, et al. **Neuroscience** 1999;92(3):1143–55
Opioid peptide receptor studies. 9. Identification of a novel non-mu- non-delta-like opioid peptide binding site in rat brain. Ni Q, et al. **Peptides** 1998;19(6):1079–90
Differential time-course decreases in nonselective, mu-, delta-, and kappa-opioid receptors after focal cerebral ischemia in mice. Boutin H, et al. **Stroke** 1999 Jun; 30(6):1271–7; discussion 1278
Delta(2)-opioid receptor mediation of morphine-induced CCK release in the frontal cortex of the freely moving rat. Becker C, et al. **Synapse** 1999 Oct;34(1):47–54
[Analgesic action of recombinant human interferon-alpha and its relation with opioid receptors] Zhu Q, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):372 **(Chi)**

PHYSIOLOGY

Modulation of volitional ethanol intake in the rat by central delta-opioid receptors. Franck J, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1185–9
Oral ethanol-reinforced responding in rhesus monkeys: effects of opioid antagonists selective for the mu-, kappa-, or delta-receptor. Williams KL, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1634–9
5-HT4 receptor agonists and delta-opioid receptor antagonists act synergistically to stimulate colonic propulsion. Foxx-Orenstein AE, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G979–83
Differences in delta opioid receptor antinociception, binding, and mRNA levels between BALB/c and CXBK mice. Kest B, et al. **Brain Res** 1998 Sep 14;805(1–2):131–7
Involvement of mu- and delta-opioid receptors in the ethanol-associated place preference in rats exposed to foot shock stress. Matsuzawa S, et al. **Brain Res** 1998 Aug 24; 803(1–2):169–77
Desensitization of delta-opioid-induced mobilization of Ca2+ stores in NG108-15 cells. Yoon SH, et al. **Brain Res** 1998 Aug 17;802(1–2):9–18
Time window for the contribution of the delta-opioid receptor to cardioprotection by ischemic preconditioning in the rat heart. Tsuchida A, et al. **Cardiovasc Drugs Ther** 1998 Sep;12(4):365–73
Opioid-induced second window of cardioprotection: potential role of mitochondrial KATP channels. Fryer RM, et al. **Circ Res** 1999 Apr 16;84(7):846–51
Stimulation of mu- and delta-opioid receptors enhances phosphoinositide metabolism in mouse spinal cord: evidence for subtypes of delta-receptors. Sánchez-Blázquez P, et al. **Eur J Neurosci** 1999 Jun; 11(6):2059–64
Involvement of delta-opioid receptors in the effects induced by endogenous enkephalins on learned helplessness model. Tejedor-Real P, et al. **Eur J Pharmacol** 1998 Jul 31; 354(1):1–7
Chimeric Galpha(q) mutants harboring the last five

RECEPTORS, OPIOID, DELTA

carboxy-terminal residues of Galpha(i2) or Galpha(o) are resistant to pertussis toxin-catalyzed ADP-ribosylation. Joshi SA, et al. **FEBS Lett** 1998 Dec 11;441(1):67-70

delta 1-Opioid receptor-mediated control of acetylcholine (ACh) release in human neocortex slices. Feuerstein TJ, et al. **Int J Dev Neurosci** 1998 Nov-Dec;16(7-8):795-802

Immunohistochemical localization of delta opioid receptors in peripheral tissues. Wenk HN, et al. **J Comp Neurol** 1999 Jun 14;408(4):567-79

Endogenous delta-opioid and ORL1 receptors couple to phosphorylation and activation of p38 MAPK in NG108-15 cells and this is regulated by protein kinase A and protein kinase C. Zhang Z, et al. **J Neurochem** 1999 Oct;73(4):1502-9

delta opioid receptor modulation of several voltage-dependent Ca(2+) currents in rat sensory neurons. Acosta CG, et al. **J Neurosci** 1999 Oct 1;19(19):8337-48

Effect of chronic social stress on delta-opioid receptor function in the rat. Pohorecky LA, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):196-206

Ligands for opioid and sigma-receptors improve cardiac electrical stability in rat models of post-infarction cardiosclerosis and stress. Lishmanov YuB, et al. **Life Sci** 1999;65(1):PL13-7

G-protein-coupled receptor heterodimerization modulates receptor function. Jordan BA, et al. **Nature** 1999 Jun 17; 399(6737):697-700

Opioid peptide pharmacology and immunocytochemistry in an animal model of self-sustaining status epilepticus. Mazarati A, et al. **Neuroscience** 1999 Mar;89(1):167-73

Opioid potentiation of N-type Ca2+ channel currents via pertussis-toxin-sensitive G proteins in NG108-15 cells. Morikawa H, et al. **Pflugers Arch** 1999 Aug;438(3):423-6

The delta-opioid receptor: molecular pharmacology, signal transduction, and the determination of drug efficacy. Quock RM, et al. **Pharmacol Rev** 1999 Sep;51(3):503-32 (280 ref.)

Localization of the delta-opioid receptor and dopamine transporter in the nucleus accumbens shell: implications for opiate and psychostimulant cross-sensitization. Svingos AL, et al. **Synapse** 1999 Oct;34(1):1-10

[Participation of mu- and delta-opioid receptors in the vagotropic activity of met-enkephalin] Osadchil OE, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):502-5 **(Rus)**

[The contribution of the mu- and delta-opiate receptors to the realization of the vagotropic action of met-enkephalin] Osadchil OE, et al. **Eksp Klin Farmakol** 1999 Jan-Feb; 62(1):24-7 (Eng. Abstr.) **(Rus)**

RECEPTORS, OPIOID, KAPPA

AGONISTS

Novel selective kappa-opioid ligands. Peeters OM, et al. **Acta Crystallogr C** 1999 Mar 15;55 (Pt 3):458-61

Effect of niravoline (RU51599), a kappa-opioid receptor agonist, on tumour-origin brain oedema. Takahashi H, et al. **Acta Neurochir (Wien)** 1999;141(7):771-8

Modulation of cocaine-induced sensitization by kappa-opioid receptor agonists. Role of the nucleus accumbens and medial prefrontal cortex. Chefer V, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:803-6

Characterization of the decrease of extracellular striatal dopamine induced by intrastriatal morphine administration. Piepponen TP, et al. **Br J Pharmacol** 1999 May; 127(1):268-74

Gender differences in kappa-opioid modulation of cocaine-induced behavior and NMDA-evoked dopamine release. Sershen H, et al. **Brain Res** 1998 Aug 10; 801(1-2):67-71

Establishment of kappa opioid receptor agonists pharmacophore with molecular modeling method. Liu DX, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):445-50

Depressor effect of kappa opioid agonist on hypertension induced by isolation in the rat. Shen S, et al. **Clin Exp Hypertens** 1999 Apr;21(3):275-97

Indirect dopamine agonists augment the locomotor activating effects of the kappa-opioid receptor agonist U-50,488 in preweanling rats. McDougall SA, et al. **Dev Psychobiol** 1999 Apr;34(3):183-93

Pharmacological stimuli decreasing nucleus accumbens dopamine can act as positive reinforcers but have a low addictive potential. Marinelli M, et al. **Eur J Neurosci** 1998 Oct;10(10):3269-75

The role of nitric oxide in the development of opioid withdrawal induced by naloxone after acute treatment with mu- and kappa-opioid receptor agonists. Capasso A, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):127-31

Effects of U-69,593, a kappa-opioid receptor agonist, on carrageenin-induced peripheral oedema and Fos expression in the rat spinal cord. Catheline G, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):287-96

Peripheral component in the enhanced antinociceptive effect of systemic U-69,593, a kappa-opioid receptor agonist in mononeuropathic rats. Catheline G, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):171-8

Differential antagonism of the rate-decreasing effects of kappa-opioid receptor agonists by naltrexone and norbinaltorphimine. Powell KR, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):21-8

The discriminative stimulus properties of U50,488 and morphine are not shared by fedotozine. Broqua P, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):261-6

The kappa agonist fedotozine relieves hypersensitivity to colonic distention in patients with irritable bowel syndrome. Delvaux M, et al. **Gastroenterology** 1999 Jan; 116(1):38-45

Kappa opioid receptor agonists differentially inhibit two classes of rat spinal neurons excited by colorectal distention. Ness TJ. **Gastroenterology** 1999 Aug; 117(2):388-94

The synthetic kappa-opioid agonist (-)U50,488 does not affect calcium transport into R1.1 mouse thymoma cell line. Martin-Kleiner I, et al. **Int J Immunopharmacol** 1999 Feb; 21(2):133-40

Erinacine E as a kappa opioid receptor agonist and its new analogs from a basidiomycete, Hericium ramosum. Saito T, et al. **J Antibiot (Tokyo)** 1998 Nov;51(11):983-90

Sodium channel-blocking properties of spiradoline, a kappa receptor agonist, are responsible for its antiarrhythmic action in the rat. Pugsley MK, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):863-74

Conformational analysis and automated receptor docking of selective arylacetamide-based kappa-opioid agonists. Subramanian G, et al. **J Med Chem** 1998 Nov 19; 41(24):4777-89

The kappa-opioid agonist, U-69593, decreases acute amphetamine-evoked behaviors and calcium-dependent dialysate levels of dopamine and glutamate in the ventral striatum. Gray AM, et al. **J Neurochem** 1999 Sep; 73(3):1066-74

The effect of dose on the characterization of aerodynamic particle-size distributions of beclomethasone dipropionate metered-dose inhalers. el-Araud KA, et al. **J Pharm Pharmacol** 1998 Oct;50(10):1081-5

Effects of rat brain kappa 1- and kappa 2-opioid receptors after chronic treatment with non-peptide kappa-agonists. McConnaughey MM, et al. **J Pharm Pharmacol** 1998 Oct; 50(10):1121-5

Comparison of two aquaretic drugs (niravoline and OPC-31260) in cirrhotic rats with ascites and water retention. Bosch-Marcé M, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):194-201

kappa- and mu-Opioid inhibition of N-type calcium currents is attenuated by 4beta-phorbol 12-myristate 13-acetate and protein kinase C in rat dorsal root ganglion neurons. King AP, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):312-20

Activation of peripheral kappa opioid receptors inhibits capsaicin-induced thermal nociception in rhesus monkeys. Ko MC, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):378-85

Peripheral effects of the kappa-opioid agonist EMD 61753 on pain and inflammation in rats and humans. Machelska H, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):354-61

Effects of GR-89696 and the novel peripherally selective OP2 agonists, EMD-61569 and EMD-61747, against focal cerebral ischemia in the rat. Barber A, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar;21(2):105-13

Roles of kappa-opioid receptor agonists in learning and memory impairment in animal models. Hiramatsu M, et al. **Methods Find Exp Clin Pharmacol** 1998 Sep;20(7):595-9 (34 ref.)

Diminution of contractile response by kappa-opioid receptor agonists in isolated rat ventricular cardiomyocytes is mediated via a pertussis toxin-sensitive G protein. Wenzlaff H, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):360-6

Immunomodulatory action of class mu-, delta- and kappa-opioid receptor agonists in mice. Kowalski J. **Neuropeptides** 1998 Aug;32(4):301-6

Further studies on the involvement of the arachidonic acid cascade in the acute dependence produced by mu, kappa and delta opioid agonists in isolated tissues. Capasso A. **Neuropharmacology** 1999 Jun;38(6):871-7

Selective depression of dorsal root-evoked high threshold synaptic excitation by the selective kappa opioid receptor agonist enadoline in the neonatal rat hemisected spinal cord in vitro. Faber ES, et al. **Neuropharmacology** 1998 Jun; 37(6):745-50

Gastric effects of methylnaltrexone on mu, kappa, and delta opioid agonists induced brainstem unitary responses. Yuan CS, et al. **Neuropharmacology** 1999 Mar;38(3):425-32

The kappa opioid agonist GR89,696 blocks hyperalgesia and allodynia in rat models of peripheral neuritis and neuropathy. Eliav E, et al. **Pain** 1999 Feb;79(2-3):255-64

Enadoline, a selective kappa-opioid receptor agonist shows potent antihyperalgesic and antiallodynic actions in a rat model of surgical pain. Field MJ, et al. **Pain** 1999 Mar; 80(1-2):383-9

Inhibition of the neuronal nicotinic receptor-mediated current by kappa opioid receptor agonists in PC12 cells. Oka K, et al. **Pflugers Arch** 1998 Nov;436(6):887-93

Sex differences in discriminative stimulus and diuretic effects of the kappa opioid agonist U69,593 in the rat. Craft RM, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):395-403

Effects of neonatal naltrindole treatment on antinociceptive and behavioral responses to mu and kappa agonists in rats. Fernández B, et al. **Pharmacol Biochem Behav** 1999 Jan; 62(1):145-9

U-50,488 and the kappa receptor: a personalized account covering the period 1973 to 1990. Szmuszkovicz J. **Prog Drug Res** 1999;52:167-95 (74 ref.)

Sensitization to the motor effects of contingent infusions of heroin but not of kappa agonist RU 51599. Marinelli M, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):281-5

Increased responsiveness of mesolimbic and mesostriatal dopamine neurons to cocaine following repeated administration of a selective kappa-opioid receptor agonist. Heidbreder CA, et al. **Synapse** 1998 Nov;30(3):255-62

[Effects of newly isolated opioid peptides on G-protein activation: usefulness of [35S] GTP gamma S binding study and its practical application] Narita M. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Aug; 18(4):107-16 (58 ref.) (Eng. Abstr.) **(Jpn)**

[Central kappa1-opioid receptors and arrhythmogenesis mechanism] Ugdyzhekova DS, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):57-9 **(Rus)**

ANALYSIS

Quantitative autoradiography of mu-,delta- and kappa1 opioid receptors in kappa-opioid receptor knockout mice. Slowe SJ, et al. **Brain Res** 1999 Feb 13;818(2):335-45

ANTAGONISTS & INHIBITORS

Differential effects of mu and kappa opioid antagonists on Fos-like immunoreactivity in extended amygdala. Carr KD, et al. **Brain Res** 1999 Mar 20;822(1-2):34-42

Effects of mu and kappa opioid receptor antagonists on glucoprivic induction of Fos immunoreactivity in the rat preoptic area and hypothalamus. Briski KP, et al. **Brain Res Bull** 1999 Jun;49(3):181-7

Kappa-opioid receptor blockade with nor-binaltorphimine modulates cocaine self-administration in drug-naive rats. Kuzmin AV, et al. **Eur J Pharmacol** 1998 Oct 9; 358(3):197-202

Kappa-opioid receptor antisense oligonucleotide injected into rat hippocampus causes hypertension. Wright RC, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):57-61

Mutational evidence for a common kappa antagonist binding pocket in the wild-type kappa and mutant mu[K303E] opioid receptors. Jones RM, et al. **J Med Chem** 1998 Dec 3;41(25):4911-4

Identification of an opioid kappa receptor subtype-selective N-substituent for (+)-(3R,4R)-dimethyl-4-(3-hydroxyphenyl)piperidine. Thomas JB, et al. **J Med Chem** 1998 Dec 17;41(26):5188-97

A novel acetylated analogue of dynorphin A-(1-11) amide as a kappa-opioid receptor antagonist [letter] Wan Q, et al. **J Med Chem** 1999 Aug 12;42(16):3011-3

The stereoselective kappa-opioid receptor antagonist Mr 2266 does not exhibit stereoselectivity as an antagonist at the orphan opioid (ORL1) receptor. Bauer U, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):17-20

Repeated treatment with the selective kappa opioid agonist U-69593 produces a marked depletion of dopamine D2 receptors. Izenwasser S, et al. **Synapse** 1998 Nov; 30(3):275-83

BIOSYNTHESIS

Expression of delta, kappa and mu human opioid receptors in Escherichia coli and reconstitution of the high-affinity state for agonist with heterotrimeric G proteins. Stanasila L, et al. **Eur J Biochem** 1999 Mar;260(2):430-8

Differential kappa-opioid receptor expression on mouse lymphocytes at varying stages of maturation and on mouse macrophages after selective elicitation. Ignatowski TA, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):863-70

CHEMISTRY

Establishment of kappa opioid receptor agonists pharmacophore with molecular modeling method. Liu DX, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):445-50

DRUG EFFECTS

Stereoselective interaction of ketamine with recombinant mu, kappa, and delta opioid receptors expressed in Chinese hamster ovary cells. Hirota K, et al. **Anesthesiology** 1999 Jan;90(1):174-82

Pharmacological properties of TRK-820 on cloned mu-, delta- and kappa-opioid receptors and nociceptin receptor. Seki T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):159-67

The kappa opioid receptor is associated with the perception of visceral pain. Black D, et al. **Gut** 1998 Sep;43(3):312-3

Opioid efficacy in a C6 glioma cell line stably expressing the human kappa opioid receptor. Remmers AE, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):827-33

kappa-Opioid receptor effects of butorphanol in rhesus monkeys. Vivian JA, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):259-65

Effects of kappa opioids in the inflamed rat colon. Sengupta JN, et al. **Pain** 1999 Feb;79(2-3):175-85

kappa-Opioid receptor-mediated antinociceptive effects of stereoisomers and derivatives of (+)-matrine in mice. Xiao P, et al. **Planta Med** 1999 Apr;65(3):230-3

Kappa opioid-mediated behavioral sensitization in the preweanling rat: relationship to Fos immunoreactivity. Collins RL, et al. **Psychopharmacology (Berl)** 1998 Jun; 137(3):282-91

GENETICS

Antisense mapping KOR-1: evidence for multiple kappa analgesic mechanisms. Pasternak KR, et al. **Brain Res** 1999

May 1;826(2):289–92
Promoter activity of mouse kappa opioid receptor gene in transgenic mouse. Hu X, et al.
Brain Res Mol Brain Res 1999 May 21;69(1):35–43
Acute intermittent morphine increases preprodynorphin and kappa opioid receptor mRNA levels in the rat brain. Wang XM, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1–2):184–7
Characterization of kappa-opioid receptor transcripts expressed by T cells and macrophages. Alicea C, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):55–62
Conditional expression and signaling of a specifically designed Gi-coupled receptor in transgenic mice [see comments] Redfern CH, et al. **Nat Biotechnol** 1999 Feb; 17(2):165–9. Comment in: Nat Biotechnol 1999 Feb;17(2):111. Comment in: Nat Biotechnol 1999 Feb;17(2):131–2.
Expression of mu, kappa, and delta opioid receptor messenger RNA in the human CNS: a 33P in situ hybridization study. Peckys D, et al. **Neuroscience** 1999;88(4):1093–135

IMMUNOLOGY

Characterization of kappa-opioid receptor transcripts expressed by T cells and macrophages. Alicea C, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):55–62

ISOLATION & PURIFICATION

Stimulus-dependent translocation of kappa opioid receptors to the plasma membrane. Shuster SJ, et al. **J Neurosci** 1999 Apr 1;19(7):2658–64

METABOLISM

D3 dopamine and kappa opioid receptor alterations in human brain of cocaine-overdose victims. Mash DC, et al.
Ann N Y Acad Sci 1999 Jun 29;877:507–22
Control of glutamate release by calcium channels and kappa-opioid receptors in rodent and primate striatum. Hill MP, et al. **Br J Pharmacol** 1999 May;127(1):275–83
Kappa-opioid receptor binding varies inversely with tumor grade in human gliomas. Pan EC, et al. **Cancer** 1998 Dec 15;83(12):2561–6
Kappa1-opioid binding sites are the dominant opioid binding sites in surgical specimens of human pheochromocytomas and in a human pheochromocytoma (KAT45) cell line. Kampa M, et al. **Eur J Pharmacol** 1999 Jan 8; 364(2–3):255–62
U50,488H-induced internalization of the human kappa opioid receptor involves a beta-arrestin- and dynamin-dependent mechanism. Kappa receptor internalization is not required for mitogen-activated protein kinase activation. Li JG, et al. **J Biol Chem** 1999 Apr 23;274(17):12087–94
Cross-talk between cardiac kappa-opioid and beta-adrenergic receptors in developing hypertensive rats. Yu XC, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):597–605
Effects of U50488 and bremazocine on [Ca2+]i and cAMP in naive and tolerant rat ventricular myocytes: evidence of kappa opioid receptor multiplicity in the heart. Zhang WM, et al. **J Mol Cell Cardiol** 1999 Feb;31(2):355–62
Identification of L-type calcium channels associated with kappa opioid receptors in human placenta. Cemerikic B, et al. **J Mol Neurosci** 1998 Jun;10(3):261–72
Cellular sites for dynorphin activation of kappa-opioid receptors in the rat nucleus accumbens shell. Svingos AL, et al. **J Neurosci** 1999 Mar 1;19(5):1804–13
Opioid efficacy in a C6 glioma cell line stably expressing the human kappa opioid receptor. Remmers AE, et al.
J Pharmacol Exp Ther 1999 Feb;288(2):827–33
Characterization of kappa1-opioid receptor binding in human insular cortex. Izenwasser S, et al. **Life Sci** 1999; 65(9):857–62
Distinct mechanisms for activation of the opioid receptor-like 1 and kappa-opioid receptors by nociceptin and dynorphin A. Mollereau C, et al. **Mol Pharmacol** 1999 Feb;55(2):324–31
Spinal kappa1 and kappa2 opioid binding sites in rats, guinea pigs, monkeys and humans. Caudle RM, et al.
Neuroreport 1998 Aug 3;9(11):2523–5
Opioid receptors in the human cerebellum: evidence from [11C]diprenorphine PET, mRNA expression and autoradiography. Schadrack J, et al. **Neuroreport** 1999 Feb 25;10(3):619–24
Expression of mu-, kappa- and delta-opioid receptors in P19 mouse embryonal carcinoma cells. Chen HC, et al.
Neuroscience 1999;92(3):1143–55
Serotonergic and GABAergic neurons in the medial rostral ventral medulla express kappa-opioid receptor immunoreactivity. Kalyuzhny AE, et al. **Neuroscience** 1999 Apr;90(1):229–34
Differential time-course decreases in nonselective, mu-, delta-, and kappa-opioid receptors after focal cerebral ischemia in mice. Boutin H, et al. **Stroke** 1999 Jun; 30(6):1271–7; discussion 1278

PHYSIOLOGY

Oral ethanol-reinforced responding in rhesus monkeys: effects of opioid antagonists selective for the mu-, kappa-, or delta-receptor. Williams KL, et al.
Alcohol Clin Exp Res 1998 Nov;22(8):1634–9
Activation of spinal opioid receptors contributes to hypotension after hemorrhage in conscious rats. Ang KK, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1552–8
Gender differences in kappa-opioid modulation of cocaine-induced behavior and NMDA-evoked dopamine release. Sershen H, et al. **Brain Res** 1998 Aug 10; 801(1–2):67–71
Cardioprotection of preconditioning by metabolic inhibition in the rat ventricular myocyte. Involvement of kappa-opioid receptor. Wu S, et al. **Circ Res** 1999 Jun 25; 84(12):1388–95
Chimeric Galpha(q) mutants harboring the last five carboxy-terminal residues of Galpha(i2) or Galpha(o) are resistant to pertussis toxin-catalyzed ADP-ribosylation. Joshi SA, et al. **FEBS Lett** 1998 Dec 11;441(1):67–70
Agonist-dependent desensitization of the kappa opioid receptor by G protein receptor kinase and beta-arrestin. Appleyard SM, et al. **J Biol Chem** 1999 Aug 20; 274(34):23802–7
Phospholipase C inhibitors attenuate arrhythmias induced by kappa-receptor stimulation in the isolated rat heart. Bian JS, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2103–10
Presynaptic kappa-opioid and muscarinic receptors inhibit the calcium-dependent component of evoked glutamate release from striatal synaptosomes. Rawls SM, et al.
J Neurochem 1999 Sep;73(3):1058–65
kappa-opioid regulation of neuronal activity in the rat supraoptic nucleus in vivo. Brown CH, et al.
J Neurosci 1998 Nov 15;18(22):9480–8
kappa-Opioid tolerance and dependence in cultures of dopaminergic midbrain neurons. Dalman FC, et al.
J Neurosci 1999 Jul 15;19(14):5750–7
Role of the kappa-opioid system in the attenuation of the morphine-induced place preference under chronic pain. Suzuki T, et al. **Life Sci** 1999;64(1):PL1–7
RASSLing with receptors [news; comment] Clackson T.
Nat Biotechnol 1999 Feb;17(2):131–2. Comment on: Nat Biotechnol 1999 Feb;17(2):165–9.
G-protein-coupled receptor heterodimerization modulates receptor function. Jordan BA, et al. **Nature** 1999 Jun 17; 399(6737):697–700
Opioid peptide pharmacology and immunocytochemistry in an animal model of self-sustaining status epilepticus. Mazarati A, et al. **Neuroscience** 1999 Mar;89(1):167–73
Hippocampal dynorphin B injections impair spatial learning in rats: a kappa-opioid receptor-mediated effect. Sandin J, et al. **Neuroscience** 1998 Jul;85(2):375–82
Sex differences in opioid and N-methyl-D-aspartate mediated non-opioid biting fly exposure induced analgesia in deer mice. Kavaliers M, et al. **Pain** 1998 Aug; 77(2):163–71

THERAPEUTIC USE

U69593, a kappa-opioid agonist, decreases cocaine self-administration and decreases cocaine-produced drug-seeking. Schenk S, et al.
Psychopharmacology (Berl) 1999 Jun;144(4):339–46

RECEPTORS, OPIOID, MU

Interaction models of 3-methylfentanyl derivatives with mu opioid receptors. Rong SB, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Mar;18(2):128–32
[The role of peripheral and central mu-opiate receptors in the modulation of adrenergic cardiac lesions during stress] Naryzhnaia NV, et al.
Ross Fiziol Zh Im I M Sechenova 1998 Aug;84(8):791–7 (Eng. Abstr.) **(Rus)**

AGONISTS

Cardiovascular effects of a mu-selective opioid agonist (tyrosine-D-arginine-phenylalanine-lysine-NH2) in fetal sheep: sites and mechanisms of action. Holsey YS, et al.
Am J Obstet Gynecol 1999 May;180(5):1127–30
Characterization of the antihyperalgesic action of a novel peripheral mu-opioid receptor agonist--loperamide. Nozaki-Taguchi N, et al. **Anesthesiology** 1999 Jan; 90(1):225–34
Opioid discrimination in humans: discriminative and subjective effects of progressively lower training dose. Preston KL, et al. **Behav Pharmacol** 1998 Nov;9(7):533–43
In vitro binding and signaling profile of the novel mu opioid receptor agonist endomorphin 2 in rat brain membranes. Spetea M, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):720–5
Design of a high affinity peptidomimetic opioid agonist from peptide pharmacophore models. Wang C, et al.
Bioorg Med Chem Lett 1998 Oct 6;8(19):2685–8
Absence of G-protein activation by mu-opioid receptor agonists in the spinal cord of mu-opioid receptor knockout mice. Narita M, et al. **Br J Pharmacol** 1999 Jan;126(2):451–6
Respiratory and cardiovascular effects of the mu-opioid receptor agonist [Lys7]dermorphin in awake rats. Negri L, et al. **Br J Pharmacol** 1998 May;124(2):345–55
Antibodies and antisense oligodeoxynucleotides to mu-opioid receptors, selectively block the effects of mu-opioid agonists on intestinal transit and permeability in mice. Pol O, et al. **Br J Pharmacol** 1999 May;127(2):397–404
Characterization of mechanical withdrawal responses and effects of mu-, delta- and kappa-opioid agonists in normal and mu-opioid receptor knockout mice. Fuchs PN, et al.
Brain Res 1999 Mar 13;821(2):480–6
Differential effects of neuropeptide Y and the mu-agonist DAMGO on 'palatability' vs. 'energy'. Giraudo SQ, et al.
Brain Res 1999 Jul 10;834(1–2):160–3
Association between the amygdala and nucleus of the solitary tract in mu-opioid induced feeding in the rat. Giraudo SQ, et al. **Brain Res** 1998 Aug 17;802(1–2):184–8
The NSAID dexketoprofen trometamol is as potent as mu-opioids in the depression of wind-up and spinal cord nociceptive reflexes in normal rats. Mazario J, et al.
Brain Res 1999 Jan 23;816(2):512–7
The effect of acute kainic acid treatment on mu-opioid receptors in rat brain. Ridd MJ, et al. **Brain Res** 1998 Dec 14;814(1–2):26–33
Growth inhibitory effects of a mu opioid on cultured cholinergic neurons from fetal rat ventral forebrain, brainstem, and spinal cord. Miller JH, et al.
Brain Res Dev Brain Res 1999 Apr 12;114(1):69–77
Amino acids and peptides. LII. Design and synthesis of opioid mimetics containing a pyrazinone ring and examination of their opioid receptor binding activity. Okada Y, et al.
Chem Pharm Bull (Tokyo) 1998 Sep;46(9):1374–82
Nonselective coupling of the human mu-opioid receptor to multiple inhibitory G-protein isoforms. Gaibelet G, et al.
Eur J Biochem 1999 Apr;261(2):517–23
Mu- and delta-opioid receptor agonists inhibit DARPP-32 phosphorylation in distinct populations of striatal projection neurons. Lindskog M, et al. **Eur J Neurosci** 1999 Jun;11(6):2182–6
The role of nitric oxide in the development of opioid withdrawal induced by naloxone after acute treatment with mu- and kappa-opioid receptor agonists. Capasso A, et al. **Eur J Pharmacol** 1998 Oct 23;359(2–3):127–31
Characterization of endomorphin-1 and -2 on [35S]GTPgammaS binding in the mouse spinal cord. Narita M, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):383–7
Modulation of acetylcholine release from parasympathetic nerves innervating guinea-pig and human trachea by endomorphin-1 and -2. Patel HJ, et al.
Eur J Pharmacol 1999 Jun 11;374(1):21–4
Benzocondensed derivatives as rigid analogues of the mu-opioid agonist 3(8)-cinnamyl-8(3)-propionyl-3,8-diazabicyclo[3.2.1]octanes: synthesis, modeling, and affinity. Cignarella G, et al. **Farmaco** 1998 Oct-Nov; 53(10–11):667–74
The absence of a direct correlation between the loss of [D-Ala2, MePhe4,Gly5-ol]Enkephalin inhibition of adenylyl cyclase activity and agonist-induced mu-opioid receptor phosphorylation. El Kouhen R, et al.
J Biol Chem 1999 Apr 2;274(14):9207–15
The opioid mu agonist/delta antagonist DIPP-NH(2)[Psi] produces a potent analgesic effect, no physical dependence, and less tolerance than morphine in rats. Schiller PW, et al. **J Med Chem** 1999 Sep 9;42(18):3520–6
Side chain methyl substitution in the delta-opioid receptor antagonist TIPP has an important effect on the activity profile. Tourwé D, et al. **J Med Chem** 1998 Dec 17; 41(26):5167–76
Role of protein kinase C (PKC) in agonist-induced mu-opioid receptor down-regulation: I. PKC translocation to the membrane of SH-SY5Y neuroblastoma cells is induced by mu-opioid agonists. Kramer HK, et al.
J Neurochem 1999 Feb;72(2):585–93
Role of protein kinase C (PKC) in agonist-induced mu-opioid receptor down-regulation: II. Activation and involvement of the alpha, epsilon, and zeta isoforms of PKC. Kramer HK, et al. **J Neurochem** 1999 Feb; 72(2):594–604
Relative potency of levo-alpha-acetylmethadol and methadone in humans under acute dosing conditions. Eissenberg T, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):936–45
kappa- and mu-Opioid inhibition of N-type calcium currents is attenuated by 4beta-phorbol 12-myristate 13-acetate and protein kinase C in rat dorsal root ganglion neurons. King AP, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):312–20
Subjective, psychomotor, and physiological effects of cumulative doses of opioid mu agonists in healthy volunteers. Walker DJ, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1454–64
mu-opioid receptor activation inhibits N- and P-type Ca2+ channel currents in magnocellular neurones of the rat supraoptic nucleus. Soldo BL, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):787–804
Relationship between inhibitory effect of endogenous opioid via mu-receptors and muscarinic autoinhibition in acetylcholine release from myenteric plexus of guinea pig ileum. Nishiwaki H, et al. **Jpn J Pharmacol** 1998 Aug; 77(4):279–86
Agonist induced homologous desensitization of mu-opioid receptors mediated by G protein-coupled receptor kinases is dependent on agonist efficacy. Kovoor A, et al.
Mol Pharmacol 1998 Oct;54(4):704–11
Immunomodulatory action of class mu-, delta- and kappa-opioid receptor agonists in mice. Kowalski J.
Neuropeptides 1998 Aug;32(4):301–6
Further studies on the involvement of the arachidonic acid cascade in the acute dependence produced by mu, kappa and delta opioid agonists in isolated tissues. Capasso A.
Neuropharmacology 1999 Jun;38(6):871–7
Endomorphin-1 potentiates HIV-1 expression in human brain cell cultures: implication of an atypical mu-opioid receptor. Peterson PK, et al. **Neuropharmacology** 1999 Feb; 38(2):273–8

Gastric effects of methylnaltrexone on mu, kappa, and delta opioid agonists induced brainstem unitary responses. Yuan CS, et al. **Neuropharmacology** 1999 Mar;38(3):425–32

Endomorphin–1 and endomorphin–2, endogenous ligands for the mu–opioid receptor, inhibit electrical activity of rat rostral ventrolateral medulla neurons in vitro. Chu XP, et al. **Neuroscience** 1999;93(2):681–6

The effect of fentanyl on c–fos expression in the trigeminal brainstem complex produced by pulpal heat stimulation in the ferret. Chattipakorn SC, et al. **Pain** 1999 Aug; 82(2):207–15

Interaction of agonist peptide [3H]Tyr–D–Ala–Phe–Phe–NH2 with mu–opioid receptor in rat brain and CHO–mu/1 cell line. Spetea M, et al. **Peptides** 1998;19(6):1091–8

Respiratory depression after intravenous administration of delta–selective opioid peptide analogs. Szeto HH, et al. **Peptides** 1999;20(1):101–5

Synthesis and pharmacological activity of thebaine–derived mu–opioid receptor agonists. Shafiee A, et al. **Pharm Acta Helv** 1999 Feb;73(5):251–4

Effects of neonatal naltrindole treatment on antinociceptive and behavioral responses to mu and kappa agonists in rats. Fernández B, et al. **Pharmacol Biochem Behav** 1999 Jan; 62(1):145–9

The mu opioid agonist DAMGO alters the intravenous self–administration of cocaine in rats: mechanisms in the ventral tegmental area. Corrigall WA, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):428–35

[Effects of newly isolated opioid peptides on G–protein activation: usefulness of [35S] GTP gamma S binding study and its practical application] Narita M. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Aug; 18(4):107–16 (58 ref.) (Eng. Abstr.) **(Jpn)**

[Modulating effect of mu–opioid receptor ligands on adrenergic mechanism of stressor heart damage pathogenesis] Lishmanov IuB, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):510–2 **(Rus)**

[The anti–arrhythmic activity of agonists of the peripheral mu–opiate receptors] Maslov LN, et al. **Eksp Klin Farmakol** 1999 May–Jun;62(3):28–31 (Eng. Abstr.) **(Rus)**

[mu–Opiate receptor activation and increase in heart resistance to ischemic and reperfusion injury] Lishmanov IuB, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov; 84(11):1223–30 (Eng. Abstr.) **(Rus)**

ANALYSIS

Quantitative autoradiography of mu–opioid receptors in the CNS of alcohol–naive alcohol–preferring P and –nonpreferring NP rats. McBride WJ, et al. **Alcohol** 1998 Nov;16(4):317–23

Localization of mu–opioid receptors on amygdaloid projection neurons in the parabrachial nucleus of the rat. Chamberlin NL, et al. **Brain Res** 1999 May 8; 827(1–2):198–204

Effects of fluoxetine administration on mu–opoid receptor immunostaining in the rat forebrain. de Gandarias JM, et al. **Brain Res** 1999 Jan 30;817(1–2):236–40

Pre– and postsynaptic distribution of cannabinoid and mu opioid receptors in rat spinal cord. Hohmann AG, et al. **Brain Res** 1999 Mar 20;822(1–2):17–25

Quantitative autoradiography of mu–,delta– and kappa1 opioid receptors in kappa–opioid receptor knockout mice. Slowe SJ, et al. **Brain Res** 1999 Feb 13;818(2):335–45

ORL–1 and mu opioid receptor antisera label different fibers in areas involved in pain processing. Monteillet–Agius G, et al. **J Comp Neurol** 1998 Sep 28;399(3):373–83

mu–Opioid receptors are localized to extrasynaptic plasma membranes of GABAergic neurons and their targets in the rat nucleus accumbens. Svingos AL, et al. **J Neurosci** 1997 Apr 1;17(7):2585–94

Opioid receptor subtype expression defines morphologically distinct classes of hippocampal interneurons. Svoboda KR, et al. **J Neurosci** 1999 Jan 1;19(1):85–95

Regulation of cannabinoid and mu opioid receptors in rat lumbar spinal cord following neonatal capsaicin treatment. Hohmann AG, et al. **Neurosci Lett** 1998 Aug 7;252(1):13–6

ANTAGONISTS & INHIBITORS

Effect of mu–selective opioid antagonists on MIP–1 beta and IL–1 beta–induced fever. Handler CM, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:270–3

Intracerebroventricular injection of mu– and delta–opiate receptor antagonists block 60 Hz magnetic field–induced decreases in cholinergic activity in the frontal cortex and hippocampus of the rat. Lai H, et al. **Bioelectromagnetics** 1998;19(7):432–7

Antibodies and antisense oligodeoxynucleotides to mu–opioid receptors, selectively block the effects of mu–opioid agonists on intestinal transit and permeability in mice. Pol O, et al. **Br J Pharmacol** 1999 May;127(2):397–404

Differential effects of mu and kappa opioid antagonists on Fos–like immunoreactivity in extended amygdala. Carr KD, et al. **Brain Res** 1999 Mar 20;822(1–2):34–42

Infusion of beta–FNA into the thalamus attenuates morphine–induced c–Fos induction in the rat caudate putamen. Frankel PS, et al. **Brain Res** 1999 Aug 14; 838(1–2):222–6

Association between the amygdala and nucleus of the solitary tract in mu–opioid induced feeding in the rat. Giraudo SQ, et al. **Brain Res** 1998 Aug 17;802(1–2):184–8

The effects of RB101, a mixed inhibitor of enkephalin–catabolizing enzymes, on carrageenin–induced spinal c–Fos expression are completely blocked by beta–funaltrexamine, a selective mu–opioid receptor antagonist. Le Guen S, et al. **Brain Res** 1999 Jul 10; 834(1–2):200–6

Effects of mu and kappa opioid receptor antagonists on glucoprivic induction of Fos immunoreactivity in the rat preoptic area and hypothalamus. Briski KP, et al. **Brain Res Bull** 1999 Jun;49(3):181–7

Nonselective coupling of the human mu–opioid receptor to multiple inhibitory G–protein isoforms. Gaibelet G, et al. **Eur J Biochem** 1999 Apr;261(2):517–23

The role of endogenous opioids in the luteinizing hormone surge in rats: studies with clocinnamox, a long–lasting opioid receptor antagonist. Lieberman PB, et al. **Eur J Pharmacol** 1998 Jul 3;352(1):73–9

Inactivation of the purified bovine mu opioid receptor by sulfhydryl reagents. Gioannini TL, et al. **Neurochem Res** 1999 Jan;24(1):37–42

The mu opioid irreversible antagonist beta–funaltrexamine differentiates the discriminative stimulus effects of opioids with high and low efficacy at the mu opioid receptor. Morgan D, et al. **Psychopharmacology (Berl)** 1998 Nov; 140(1):20–8

Effects of mu and delta opioid agonists and antagonists on affective vocal and reflexive pain responses during social stress in rats. Vivian JA, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):364–75

BIOSYNTHESIS

Mu–opioid receptor mRNA expression in proopiomelanocortin neurons of the rat arcuate nucleus. Bouret S, et al. **Brain Res Mol Brain Res** 1999 Jun 18; 70(1):155–8

Human mu–opioid receptor overexpressed in baculovirus system and its pharmacological characterizations. Wei Q, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):218–22

Expression of delta, kappa and mu human opioid receptors in Escherichia coli and reconstitution of the high–affinity state for agonist with heterotrimeric G proteins. Stanasila L, et al. **Eur J Biochem** 1999 Mar;260(2):430–8

Parameters influencing human mu opioid receptor over–expression in baculovirus–infected insect cells. Massotte D, et al. **J Biotechnol** 1999 Mar 26;69(1):39–45

CHEMISTRY

Molecular modeling of mu opioid receptor and receptor–ligand interaction. Rong SB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):317–22

Molecular modeling of mu opioid receptor and its interaction with ohmefentanyl. Tang Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):156–60

Conformational analysis of the endogenous mu–opioid agonist endomorphin–1 using NMR spectroscopy and molecular modeling. Podlogar BL, et al. **FEBS Lett** 1998 Nov 13;439(1–2):13–20

Functional role of the spatial proximity of Asp114(2.50) in TMH 2 and Asn332(7.49) in TMH 7 of the mu opioid receptor. Xu W, et al. **FEBS Lett** 1999 Mar 26; 447(2–3):318–24

Calmodulin binding to G protein–coupling domain of opioid receptors. Wang D, et al. **J Biol Chem** 1999 Jul 30; 274(31):22081–8

Membrane microviscosity modulates mu–opioid receptor conformational transitions and agonist efficacy. Emmerson PJ, et al. **J Neurochem** 1999 Jul;73(1):289–300

ASP147 in the third transmembrane helix of the rat mu opioid receptor forms ion–pairing with morphine and naltrexone. Li JG, et al. **Life Sci** 1999;65(2):175–85

DEFICIENCY

Opioid receptor upregulation in mu–opioid receptor deficient CXBK and outbred Swiss Webster mice. Duttaroy A, et al. **Life Sci** 1999;65(2):113–23

DRUG EFFECTS

Ethanol consumption by Fawn–Hooded rats following abstinence: effect of naltrexone and changes in mu–opioid receptor density. Cowen MS, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):1008–14

An examination of the interactions between the antinociceptive effects of morphine and various mu–opioids: the role of intrinsic efficacy and stimulus intensity. Morgan D, et al. **Anesth Analg** 1999 Feb; 88(2):407–13

Stereoselective interaction of ketamine with recombinant mu, kappa, and delta opioid receptors expressed in Chinese hamster ovary cells. Hirota K, et al. **Anesthesiology** 1999 Jan;90(1):174–82

Delta opioid–like discriminative stimulus effects of mu opioids in pigeons discriminating the delta opioid BW373U86 from saline. Picker MJ, et al. **Behav Pharmacol** 1998 Jul;9(4):319–28

Modifications of the 4,4'–residues and SAR studies of Biphalin, a highly potent opioid receptor active peptide. Li G, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):555–60

A high affinity, mu–opioid receptor–selective enkephalin analogue lacking an N–terminal tyrosine. Mosberg HI, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2681–4

C–alkylated spiro[benzofuran–3(2H),4'–1'–methyl–piperidine–7–ols] as potent opioids: a conformation–activity study. Tsai YC, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1813–8

Mu and delta opioid receptor analgesia, binding density, and mRNA levels in mice selectively bred for high and low analgesia. Kest B, et al. **Brain Res** 1999 Jan 23;816(2):381–9

No heroin or morphine 6beta–glucuronide analgesia in mu–opioid receptor knockout mice. Kitanaka N, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):R1–3

Pharmacological properties of TRK–820 on cloned mu–, delta– and kappa–opioid receptors and nociceptin receptor. Seki T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):159–67

Electrophysiological and behavioral effects of Tyr–D–Arg–Phe–Sar on locus coeruleus neurons of the rat. Yang YR, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):23–30

Prejunctional control of pH 6–induced bronchoconstriction by NK1, NK2, mu–opioid, alpha2–adrenoceptor and glucocorticoid receptors in guinea–pig isolated perfused lung. Auberson S, et al. **J Pharm Pharmacol** 1998 Aug; 50(8):899–905

Enhancement mu opioid antinociception by oral delta9–tetrahydrocannabinol: dose–response analysis and receptor identification. Cichewicz DL, et al. **J Pharmacol Exp Ther** 1999 May;289(2):859–67

Nitrocinnamoyl and chlorocinnamoyl derivatives of dihydrocodeinone: in vivo and in vitro characterization of mu–selective agonist and antagonist activity. McLaughlin JP, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):304–11

Sensitivity to the discriminative stimulus and antinociceptive effects of mu opioids: role of strain of rat, stimulus intensity, and intrinsic efficacy at the mu opioid receptor. Morgan D, et al. **J Pharmacol Exp Ther** 1999 May;289(2):965–75

Mechanism underlying increased neuronal activity in the rat ventrolateral periaqueductal grey by a mu–opioid. Chiou LC, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):551–9

Heroin antinociception changed from mu to delta receptor in streptozotocin–treated mice. Rady JJ, et al. **Jpn J Pharmacol** 1998 Dec;78(4):443–54

Endomorphin–1 and endomorphin–2 activate mu–opioid receptors in myenteric neurons of the guinea–pig small intestine. Tonini M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):686–9

Spinal cord ischemia reduces mu–opioid receptors in rats: correlation with morphine insensitivity. Yu W, et al. **Neuroreport** 1999 Jan 18;10(1):87–91

Antinociceptive tolerance to the mu–opioid agonist DAMGO is dose–dependently reduced by MK–801 in rats. Mao J, et al. **Neurosci Lett** 1998 Jul 10;250(3):193–6

Activation and internalization of the mu–opioid receptor by the newly discovered endogenous agonists, endomorphin–1 and endomorphin–2. McConalogue K, et al. **Neuroscience** 1999 Mar;90(3):1051–9

Fentanyl increases dopamine release in rat nucleus accumbens: involvement of mesolimbic mu– and delta–2–opioid receptors. Yoshida Y, et al. **Neuroscience** 1999;92(4):1357–65

Involvement of opioid mu1–receptors in opioid–induced acceleration of striatal and limbic dopaminergic transmission. Piepponen TP, et al. **Pharmacol Biochem Behav** 1999 Jun;63(2):245–52

Opioid enhancement of the discriminative stimulus effects of cocaine: evidence for involvement of mu and delta opioid receptors. Rowlett JK, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):217–24

Tolerance and cross–tolerance to the rate–suppressing effects of opioids in butorphanol–treated rats: influence of maintenance dose and relative efficacy at the mu receptor. Smith MA, et al. **Psychopharmacology (Berl)** 1998 Nov; 140(1):57–68

Antinociceptive effects of opioids following acute and chronic administration of butorphanol: influence of stimulus intensity and relative efficacy at the mu receptor. Smith MA, et al. **Psychopharmacology (Berl)** 1999 Apr; 143(3):261–9

GENETICS

Association of alcohol or other drug dependence with alleles of the mu opioid receptor gene (OPRM1). Kranzler HR, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1359–62

Human mu–opioid receptor variation and alcohol dependence. Sander T, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2108–10

Gene expressions of opioid receptors and G–proteins in pineal glands. Chetsawang B, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):775–80

Characterization of mechanical withdrawal responses and effects of mu–, delta– and kappa–opioid agonists in normal and mu–opioid receptor knockout mice. Fuchs PN, et al. **Brain Res** 1999 Mar 13;821(2):480–6

Acute "binge" cocaine increases mu–opioid receptor mRNA levels in areas of the rat mesolimbic mesocortical dopamine system. Yuferov V, et al. **Brain Res Bull** 1999 Jan 1; 48(1):109–12

Localization of promoter elements in the human mu–opioid receptor gene and regulation by DNA methylation. Andria ML, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):54–65

mu–Opioid receptor–knockout mice: the role of mu–opioid receptor in gastrointestinal transit. Roy S, et al.

Brain Res Mol Brain Res 1998 May;56(1-2):281-3
Differential regulation of mu-opioid receptor mRNA in the nucleus accumbens shell and core accompanying amphetamine behavioral sensitization. Vecchiola A, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):1-9
Pain sensitivity may be genetic [news] **J Am Dent Assoc** 1999 Sep;130(9):1276
Mouse mu opioid receptor gene expression. A 34-base pair cis-acting element inhibits transcription of the mu opioid receptor gene from the distal promoter. Choe Cy, et al. **J Biol Chem** 1998 Dec 25;273(52):34926-32
Transcriptional regulation of mouse mu-opioid receptor gene. Ko JL, et al. **J Biol Chem** 1998 Oct 16; 273(42):27678-85
Parameters influencing human mu opioid receptor over-expression in baculovirus-infected insect cells. Massotte D, et al. **J Biotechnol** 1999 Mar 26;69(1):39-45
Mu- and delta-opioid receptor mRNAs are expressed in spinally projecting serotonergic and nonserotonergic neurons of the rostral ventromedial medulla. Wang H, et al. **J Comp Neurol** 1999 Feb 8;404(2):183-96
Mutational evidence for a common kappa antagonist binding pocket in the wild-type kappa and mutant mu[K303E] opioid receptors. Jones RM, et al. **J Med Chem** 1998 Dec 3;41(25):4911-4
A conserved arginine in the distal third intracellular loop of the mu-opioid receptor is required for G protein activation. Wang HL. **J Neurochem** 1999 Mar; 72(3):1307-14
The porcine mu opioid receptor: molecular cloning and mRNA distribution in lymphoid tissues. Pampusch MS, et al. **J Neuroimmunol** 1998 Oct 1;90(2):192-8
Mu-opioid receptor expression in High Five insect cells is regulated by 5' untranslated region (5'UTR). Belke-Louis GF, et al. **Life Sci** 1999;64(11):913-21
Identification and characterization of three new alternatively spliced mu-opioid receptor isoforms. Pan YX, et al. **Mol Pharmacol** 1999 Aug;56(2):396-403
Retention of heroin and morphine-6 beta-glucuronide analgesia in a new line of mice lacking exon 1 of MOR-1. Schuller AG, et al. **Nat Neurosci** 1999 Feb;2(2):151-6
Chronic prenatal cocaine treatment down-regulates mu-opioid receptor mRNA expression in the brain of fetal Rhesus Macaque. Chai L, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):45-8
Expression of mu, kappa, and delta opioid receptor messenger RNA in the human CNS: a 33P in situ hybridization study. Peckys D, et al. **Neuroscience** 1999;88(4):1093-135
Mu receptor and Gi2alpha antisense attenuate [D-Met2]-FMRFamide antinociception in mice. Raffa RB, et al. **Peptides** 1998;19(7):1171-5
The mu opiate receptor as a candidate gene for pain: polymorphisms, variations in expression, nociception, and opiate responses. Uhl GR, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7752-5 (31 ref.)

IMMUNOLOGY

MU-opioid receptor-knockout mice: role of mu-opioid receptor in morphine mediated immune functions. Roy S, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):190-4
Isolation and characterization of natural human IgG with a morphine-like activity. Macé G, et al. **Eur J Immunol** 1999 Mar;29(3):997-1003
Involvement of mu-opioid receptors and alpha-adrenoceptors in the immunomodulatory effects of dihydroetorphine. Wu WR, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):79-85
Morphine-like activity of natural human IgG autoantibodies is because of binding to the first and third extracellular loops of the mu-opioid receptor. Macé G, et al. **J Biol Chem** 1999 Jul 16;274(29):20079-82

METABOLISM

Gender and age influences on human brain mu-opioid receptor binding measured by PET. Zubieta JK, et al. **Am J Psychiatry** 1999 Jun;156(6):842-8
Antisense oligodeoxynucleotide targeting distinct exons of the cloned mu-opioid receptor distinguish between endomorphin-1 and morphine supraspinal antinociception in mice. Sánchez-Blázquez P, et al. **Antisense Nucleic Acid Drug Dev** 1999 Jun;9(3):253-60
A high affinity, mu-opioid receptor-selective enkephalin analogue lacking an N-terminal tyrosine. Mosberg HI, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2681-4
The effect of chronic administration of nicotine on antinociception, opioid receptor binding and met-enkelphalin levels in rats. Wewers ME, et al. **Brain Res** 1999 Mar 20;822(1-2):107-13
Mu- and delta-opioid receptor densities in respiratory-related brainstem regions of neonatal swine. Laferrière A, et al. **Brain Res Dev Brain Res** 1999 Jan 11; 112(1):1-9
mu-Opioid receptor down-regulation and cAMP-dependent protein kinase phosphorylation in a mouse model of chronic morphine tolerance. Bernstein MA, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):237-42
Region-specific up-regulation of opioid receptor binding in enkephalin knockout mice. Brady LS, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1-2):193-7
Analgesic activity and selectivity for opioid receptors of enantiomers of ohmefentanyl. Jin WQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):421-4
Influence of Gz and Gi2 transducer proteins in the affinity of opioid agonists to micro receptors. Garzón J, et al. **Eur J Neurosci** 1998 Aug;10(8):2557-64
Apparent thermodynamic parameters of ligand binding to the cloned rat mu-opioid receptor. Li JG, et al. **Eur J Pharmacol** 1998 Aug 7;354(2-3):227-37
Visceral chemical nociception in mice lacking mu-opioid receptors: effects of morphine, SNC80 and U-50,488. Sora I, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):R3-5
3-Isobutyl-1-methylxanthine inhibits basal mu-opioid receptor phosphorylation and reverses acute morphine tolerance and dependence in mice. Wang Z, et al. **Eur J Pharmacol** 1999 Apr 23;371(1):1-9
Synthesis and mu-opioid receptor affinity of a new series of nitro substituted 3,8-diazabicyclo[3.2.1]octane derivatives. Barlocco D, et al. **Farmaco** 1998 Aug-Sep; 53(8-9):557-62
MAP kinase activation by mu opioid receptor involves phosphatidylinositol 3-kinase but not the cAMP/PKA pathway. Ai W, et al. **FEBS Lett** 1999 Jul 30;456(1):196-200
Palmitoylation of the rat mu opioid receptor. Chen C, et al. **FEBS Lett** 1998 Dec 11;441(1):148-52
Endomorphins fully activate a cloned human mu opioid receptor. Gong J, et al. **FEBS Lett** 1998 Nov 13; 439(1-2):152-6
Functional role of the spatial proximity of Asp114(2.50) in TMH 2 and Asn332(7.49) in TMH 7 of the mu opioid receptor. Xu W, et al. **FEBS Lett** 1999 Mar 26; 447(2-3):318-24
Mu opioid receptors in developing human spinal cord. Ray SB, et al. **J Anat** 1999 Jul;195 (Pt 1):11-8
Identification of serine 356 and serine 363 as the amino acids involved in etorphine-induced down-regulation of the mu-opioid receptor. Burd AL, et al. **J Biol Chem** 1998 Dec 18;273(51):34488-95
Calmodulin binding to G protein-coupling domain of opioid receptors. Wang D, et al. **J Biol Chem** 1999 Jul 30; 274(31):22081-8
Mu-opioid and NMDA-type glutamate receptors are often colocalized in spiny neurons within patches of the caudate-putamen nucleus. Wang H, et al. **J Comp Neurol** 1999 Sep 13;412(1):132-46
Mutational evidence for a common kappa antagonist binding pocket in the wild-type kappa and mutant mu[K303E] opioid receptors. Jones RM, et al. **J Med Chem** 1998 Dec 3;41(25):4911-4
Role of protein kinase C (PKC) in agonist-induced mu-opioid receptor down-regulation: II. Activation and involvement of the alpha, epsilon, and zeta isoforms of PKC. Kramer HK, et al. **J Neurochem** 1999 Feb; 72(2):594-604
Role of protein kinase C (PKC) in agonist-induced mu-opioid receptor down-regulation: I. PKC translocation to the membrane of SH-SY5Y neuroblastoma cells is induced by mu-opioid agonists. Kramer HK, et al. **J Neurochem** 1999 Feb;72(2):585-93
Presynaptic mu and delta opioid receptor modulation of GABAA IPSCs in the rat globus pallidus in vitro. Stanford IM, et al. **J Neurosci** 1999 Jun 15;19(12):4796-803
Endomorphin-1 and endomorphin-2 show differences in their activation of mu opioid receptor-regulated G proteins in supraspinal antinociception in mice. Sánchez-Blázquez P, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):12-8
Replacement of threonine 394 by alanine facilitates internalization and resensitization of the rat mu opioid receptor. Wolf R, et al. **Mol Pharmacol** 1999 Feb; 55(2):263-8
Long-lasting effects of chronic mu-opioid intake on the signal transmission via dopamine D1 receptors in the limbic forebrain of drug deprived rats. May T, et al. **Neuropharmacology** 1998 Aug;37(8):997-1006
Internalization of mu-opioid receptors in rat spinal cord slices. Marvizón JC, et al. **Neuroreport** 1999 Aug 2; 10(11):2329-34
Opioid receptors in the human cerebellum: evidence from [11C]diprenorphine PET, mRNA expression and autoradiography. Schadrack J, et al. **Neuroreport** 1999 Feb 25;10(3):619-24
Beta-endorphinergic innervation of mu and delta receptor containing neurons in the dorsal raphe nucleus. Wang QP, et al. **Neuroreport** 1998 Sep 14;9(13):3033-6
Activation of opioid mu-receptor by loperamide to lower plasma glucose in streptozotocin-induced diabetic rats. Liu IM, et al. **Neurosci Lett** 1999 Apr 23;265(3):183-6
Expression of mu-, kappa- and delta-opioid receptors in P19 mouse embryonal carcinoma cells. Chen HC, et al. **Neuroscience** 1999;92(3):1143-55
Mu-opioid agonist-induced activation of G-protein-coupled inwardly rectifying potassium current in rat periaqueductal gray neurons. Han SH, et al. **Neuroscience** 1999 Apr; 90(1):209-19
Activation and internalization of the mu-opioid receptor by the newly discovered endogenous agonists, endomorphin-1 and endomorphin-2. McConalogue K, et al. **Neuroscience** 1999 Mar;90(3):1051-9
Regulation of mu binding sites after chronic administration of antibodies directed against specific anti-opiate peptides. Goodman CB, et al. **Peptides** 1998;19(10):1703-9
Genetic alteration of phospholipase C beta3 expression modulates behavioral and cellular responses to mu opioids. Xie W, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10385-90
Rapid effects of estrogen to modulate G protein-coupled receptors via activation of protein kinase A and protein kinase C pathways. Kelly MJ, et al. **Steroids** 1999 Jan-Feb; 64(1-2):64-75
Differential time-course decreases in nonselective, mu-, delta-, and kappa-opioid receptors after focal cerebral ischemia in mice. Boutin H, et al. **Stroke** 1999 Jun; 30(6):1271-7; discussion 1278
Presence of mu-opioid receptors in targets of efferent projections from the central nucleus of the amygdala to the nucleus of the solitary tract. Pickel VM, et al. **Synapse** 1999 Aug;33(2):141-52
Opioid peptide receptor studies, 11: involvement of Tyr148, Trp318 and His319 of the rat mu-opioid receptor in binding of mu-selective ligands. Xu H, et al. **Synapse** 1999 Apr; 32(1):23-8
[Changes in densities of hypothalamic mu opioid receptor during cupric acete-induced preovulatory lh surge in rabbit] Yang SP, et al. **Sheng Li Hsueh Pao** 1997 Jun; 49(3):354-8 (Eng. Abstr.) **(Chi)**
[Comparison of changes in optical density of mu-opioid receptors in the brain of adult rats after prenatal and postnatal hypoxia] Kraczkowski JJ, et al. **Ginekol Pol** 1998 Dec;69(12):963-7 (Eng. Abstr.) **(Pol)**

PHYSIOLOGY

Oral ethanol-reinforced responding in rhesus monkeys: effects of opioid antagonists selective for the mu-, kappa-, or delta-receptor. Williams KL, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1634-9
Activation of spinal opioid receptors contributes to hypotension after hemorrhage in conscious rats. Ang KK, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1552-8
Mu-opioid receptor modulation of calcium channel current in periaqueductal grey neurons from C57B16/J mice and mutant mice lacking MOR-1. Connor M, et al. **Br J Pharmacol** 1999 Apr;126(7):1553-8
Involvement of mu- and delta-opioid receptors in the ethanol-associated place preference in rats exposed to foot shock stress. Matsuzawa S, et al. **Brain Res** 1998 Aug 24; 803(1-2):169-77
Time-dependent differences of repeated administration with Delta9-tetrahydrocannabinol in proenkephalin and cannabinoid receptor gene expression and G-protein activation by mu-opioid and CB1-cannabinoid receptors in the caudate-putamen. Corchero J, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):148-57
mu-Opioid receptor-knockout mice: the role of mu-opioid receptor in gastrointestinal transit. Roy S, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):281-3
MU-opioid receptor-knockout mice: role of mu-opioid receptor in morphine mediated immune functions. Roy S, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):190-4
Stimulation of mu- and delta-opioid receptors enhances phosphoinositide metabolism in mouse spinal cord: evidence for subtypes of delta-receptors. Sánchez-Blázquez P, et al. **Eur J Neurosci** 1999 Jun; 11(6):2059-64
Differential involvement of mu-opioid receptor subtypes in endomorphin-1- and -2-induced antinociception. Sakurada S, et al. **Eur J Pharmacol** 1999 May 7;372(1):25-30
Contribution of spinal mu1-opioid receptors to morphine-induced antinociception. Sato T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):183-7
Phosducin, beta-arrestin and opioid receptor migration. Schulz R, et al. **Eur J Pharmacol** 1999 Jun 30; 375(1-3):349-57
Chimeric Galpha(q) mutants harboring the last five carboxy-terminal residues of Galpha(i2) or Galpha(o) are resistant to pertussis toxin-catalyzed ADP-ribosylation. Joshi SA, et al. **FEBS Lett** 1998 Dec 11;441(1):67-70
Frequent colocalization of mu opioid and NMDA-type glutamate receptors at postsynaptic sites in periaqueductal gray neurons. Commons KG, et al. **J Comp Neurol** 1999 Jun 14;408(4):549-59
Involvement of mu-receptor in endogenous opioid peptide-mediated inhibition of acetylcholine release from the rat stomach. Yokotani K, et al. **Jpn J Pharmacol** 1998 Sep;78(1):93-5
Functional dissociation of mu opioid receptor signaling and endocytosis: implications for the biology of opiate tolerance and addiction [see comments] Whistler JL, et al. **Neuron** 1999 Aug;23(4):737-46. Comment in: Neuron 1999 Aug;23(4):629-31.
Endomorphin-1 and endomorphin-2, endogenous ligands for the mu-opioid receptor, inhibit electrical activity of rat rostral ventrolateral medulla neurons in vitro. Chu XP, et al. **Neuroscience** 1999;93(2):681-6
5-Hydroxytryptamine-induced excitatory postsynaptic currents in neocortical layer V pyramidal cells: suppression by mu-opiate receptor activation. Marek GJ, et al. **Neuroscience** 1998 Sep;86(2):485-97
Involvement of opioid mu1-receptors in opioid-induced acceleration of striatal and limbic dopaminergic transmission. Piepponen TP, et al. **Pharmacol Biochem Behav** 1999 Jun;63(2):245-52
Endogenous mu opioid systems and suckling in the neonatal rat. Petrov ES, et al. **Physiol Behav** 1998 Dec 1;65(3):591-9
beta-Endorphin blocks luteinizing hormone-releasing hormone release by inhibiting the nitricoxidergic pathway

RECEPTORS, OPIOID, MU

controlling its release. Faletti AG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1722–6

mu-opioid receptor variants and dopaminergic sensitivity in alcohol withdrawal. Smolka M, et al. **Psychoneuroendocrinology** 1999 Aug;24(6):629–38

Manipulations of mu-opioid and nicotinic cholinergic receptors in the pontine tegmental region alter cocaine self-administration in rats. Corrigall WA, et al. **Psychopharmacology (Berl)** 1999 Aug;145(4):412–7

Presence of IgG exhibiting a morphine-like activity in therapeutic intravenous immunoglobulins. Macé G, et al. **Transplant Proc** 1998 Dec;30(8):3949

[Participation of mu- and delta-opioid receptors in the vagotropic activity of met-enkephalin] Osadchil OE, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):502–5 **(Rus)**

[The contribution of the mu- and delta-opiate receptors to the realization of the vagotropic action of met-enkephalin] Osadchil OE, et al. **Eksp Klin Farmakol** 1999 Jan–Feb; 62(1):24–7 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Mmu and D2 receptor antisense oligonucleotides injected in nucleus accumbens suppress high alcohol intake in genetic drinking HEP rats. Myers RD, et al. **Alcohol** 1999 Jun-Jul;18(2–3):225–33

RECEPTORS, OPIOID, SIGMA see **RECEPTORS, SIGMA**

RECEPTORS, OXYTOCIN

ANALYSIS

Demonstration of functional oxytocin receptors in human breast Hs578T cells and their up-regulation through a protein kinase C-dependent pathway. Copland JA, et al. **Endocrinology** 1999 May;140(5):2258–67

Human vascular endothelial cells express oxytocin receptors. Thibonnier M, et al. **Endocrinology** 1999 Mar;140(3):1301–9

Endometrial oxytocin receptor and uterine prostaglandin secretion in mares during the oestrous cycle and early pregnancy. Starbuck GR, et al. **J Reprod Fertil** 1998 Jul; 113(2):173–9

ANTAGONISTS & INHIBITORS

Effect of oxytocin receptor and beta2-adrenoceptor blockade on myometrial oxytocin receptors in parturient rats. Engstrøm T, et al. **Biol Reprod** 1999 Feb;60(2):322–9

Oxytocin receptor antagonists. Update. Goodwin TM, et al. **Clin Perinatol** 1998 Dec;25(4):859–71, vi (49 ref.)

Development of high-performance liquid chromatography-tandem mass spectrometric methods for the determination of a new oxytocin receptor antagonist (L-368,899) extracted from human plasma and urine: a case of lack of specificity due to the presence of metabolites. Matuszewski BK, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1–2):195–208

Atosiban, an oxytocin receptor blocking agent: pharmacokinetics and inhibition of milk ejection in dairy cows. Wellnitz O, et al. **J Dairy Res** 1999 Feb;66(1):1–8

Cross-talk between peptide- and steroid-mediated signalling pathways: clinical implications. Kumar VL. **Natl Med J India** 1998 Jul-Aug;11(4):178–9

BIOSYNTHESIS

Expression and immunolocalization of the oxytocin receptor in human lactating and non-lactating mammary glands. Kimura T, et al. **Hum Reprod** 1998 Sep;13(9):2645–53

Oxytocin receptor mRNA expression in rat brain: implications for behavioral integration and reproductive success. Ostrowski NL. **Psychoneuroendocrinology** 1998 Nov;23(8):989–1004

CHEMISTRY

Identification of neurohypophysial hormone receptor domains involved in ligand binding and G protein coupling. Postina R, et al. **Adv Exp Med Biol** 1998;449:371–85 (27 ref.)

Structure/function studies on receptors for vasopressin and oxytocin. Wheatley M, et al. **Adv Exp Med Biol** 1998; 449:363–5

Functional architecture of vasopressin/oxytocin receptors. Hibert M, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1–4):589–96 (12 ref.)

DRUG EFFECTS

Localization and expression of oxytocin receptor and its messenger ribonucleic acid in peri-implantation phase human endometrium during control and clomiphene-treated cycles. Dawood MY, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):50–6

SK&F 105494, a V2-vasopressin receptor antagonist, blocks oxytocin receptors in porcine myometrium. Yu H, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):365–8

The behavioral effect of vasopressin in the ventral hippocampus is antagonized by an oxytocin receptor antagonist. Paban V, et al. **Eur J Pharmacol** 1998 Nov 20; 361(2–3):165–73

GENETICS

Transcriptional regulation of the oxytocin receptor gene. Bale TL, et al. **Adv Exp Med Biol** 1998;449:307–15

Identification of a constitutively active mutant of the human oxytocin receptor. Chini B, et al. **Adv Exp Med Biol** 1998; 449:367–9

The molecular basis of oxytocin and oxytocin receptor gene expression in reproductive tissues. Ivell R, et al. **Adv Exp Med Biol** 1998;449:297–306 (46 ref.)

Expression of the oxytocin receptor and oxytocin gene in human oocytes and preimplantation embryos. Stock S, et al. **Adv Exp Med Biol** 1998;449:323–4

Female reproduction in mice lacking the prostaglandin F receptor. Roles of prostaglandin and oxytocin receptors in parturition. Sugimoto Y, et al. **Adv Exp Med Biol** 1998; 449:317–21

Localization and expression of oxytocin receptor and its messenger ribonucleic acid in peri-implantation phase human endometrium during control and clomiphene-treated cycles. Dawood MY, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):50–6

Effect of labor induction on the expression of oxytocin receptor, cytochrome P450 aromatase, and estradiol receptor in the reproductive tract of the late-pregnant ewe. Leung ST, et al. **Biol Reprod** 1999 Apr;60(4):814–20

Increased expression of the rat myometrial oxytocin receptor messenger ribonucleic acid during labor requires both mechanical and hormonal signals. Ou CW, et al. **Biol Reprod** 1998 Nov;59(5):1055–61

Up-regulation of oxytocin receptor messenger ribonucleic acid and protein by estradiol in the cervix of ovariectomized rat. Umscheid CA, et al. **Biol Reprod** 1998 Nov;59(5):1131–8

Identification of a GABP alpha/beta binding site involved in the induction of oxytocin receptor gene expression in human breast cells, potentiation by c-Fos/c-Jun. Hoare S, et al. **Endocrinology** 1999 May;140(5):2268–79

Comparative distribution of vasopressin V1b and oxytocin receptor messenger ribonucleic acids in brain. Vaccari C, et al. **Endocrinology** 1998 Dec;139(12):5015–33

Localization of the human caveolin-3 gene to the D3S18/D3S4163/D3S4539 locus (3p25), in close proximity to the human oxytocin receptor gene. Identification of the caveolin-3 gene as a candidate for deletion in 3p-syndrome. Sotgia F, et al. **FEBS Lett** 1999 Jun 11;452(3):177–80

Expression of the oxytocin receptor in relation to steroid receptors in the uterus of a primate model, the marmoset monkey. Einspanier A, et al. **Hum Reprod Update** 1998 Sep-Oct;4(5):634–46

Bovine endometrial epithelial cells as a model system to study oxytocin receptor regulation. Horn S, et al. **Hum Reprod Update** 1998 Sep-Oct;4(5):605–14 (36 ref.)

Differential protein-DNA binding analysis identifies a novel enhancer element, US-1, involved in the upregulation of the oxytocin receptor gene in human myometrium at term. Kimura T, et al. **Mol Cell Endocrinol** 1999 Feb 25; 148(1–2):137–49

Activation mechanism of human oxytocin receptor: a combined study of experimental and computer-simulated mutagenesis. Fanelli F, et al. **Mol Pharmacol** 1999 Jul; 56(1):214–25

METABOLISM

Identification of neurohypophysial hormone receptor domains involved in ligand binding and G protein coupling. Postina R, et al. **Adv Exp Med Biol** 1998;449:371–85 (27 ref.)

Role of oxytocin in the initiation of term and preterm labor in rats: changes in oxytocin receptor density and plasma oxytocin concentration and the effect of an oxytocin antagonist, L-366,509. Kobayashi M, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):621–7

Effect of oxytocin receptor and beta2-adrenoceptor blockade on myometrial oxytocin receptors in parturient rats. Engstrøm T, et al. **Biol Reprod** 1999 Feb;60(2):322–9

Up-regulation of oxytocin receptor messenger ribonucleic acid and protein by estradiol in the cervix of ovariectomized rat. Umscheid CA, et al. **Biol Reprod** 1998 Nov;59(5):1131–8

Historadioautographic localisation of oxytocin and vasopressin binding sites in the central nervous system of the merione (Meriones shawi). Rabhi M, et al. **Brain Res Bull** 1999 Jan 15;48(2):147–63

Functional oxytocin receptors discovered in human osteoblasts. Copland JA, et al. **Endocrinology** 1999 Sep; 140(9):4371–4

Oxytocin receptor binding and uterotonic activity of carbetocin and its metabolites following enzymatic degradation. Engstrøm T, et al. **Eur J Pharmacol** 1998 Aug 21;355(2–3):203–10

Functional determination of oxytocin affinity in near-term pregnant rat myometrium: effect of chronic hypoxia. Rhee JW, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):9–14

The brain oxytocin receptor(s)? Verbalis JG. **Front Neuroendocrinol** 1999 Apr;20(2):146–56 (75 ref.)

Oxytocin and vasopressin receptors in human and uterine myomas during menstrual cycle and early pregnancy. Fuchs AR, et al. **Hum Reprod Update** 1998 Sep-Oct; 4(5):594–604

Bovine endometrial epithelial cells as a model system to study oxytocin receptor regulation. Horn S, et al. **Hum Reprod Update** 1998 Sep-Oct;4(5):605–14 (36 ref.)

Up-regulation of oxytocin receptors in non-pregnant rat myometrium by isoproterenol: effects of steroids. Engstrom T, et al. **J Endocrinol** 1999 Jun;161(3):403–11

Oxytocin receptor expression in human term and preterm gestational tissues prior to and following the onset of labour. Wathes DC, et al. **J Endocrinol** 1999 Apr; 161(1):143–51

Regulatory effect of steroid hormones and fetal tissues on expression of oxytocin receptor in the endometrium of late pregnant ewes. Leung ST, et al. **J Reprod Fertil** 1999 Mar; 115(2):243–50

PHYSIOLOGY

Antiproliferative effect of oxytocin through specific oxytocin receptors in human neuroblastoma and astrocytoma cell lines. Cassoni P, et al. **Adv Exp Med Biol** 1998;449:245–6

Molecular pharmacology of human vasopressin receptors. Thibonnier M, et al. **Adv Exp Med Biol** 1998;449:251–76

Structure/function studies on receptors for vasopressin and oxytocin. Wheatley M, et al. **Adv Exp Med Biol** 1998; 449:363–5

Progress in the development of oxytocin antagonists for use in preterm labor. Williams PD, et al. **Adv Exp Med Biol** 1998;449:473–9

Genomic and non-genomic mechanisms of oxytocin receptor regulation. Zingg HH, et al. **Adv Exp Med Biol** 1998; 449:287–95 (28 ref.)

Characterization of receptors mediating AVP- and OT-induced glucagon release from the rat pancreas. Yibchok-Anun S, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E56–62

Discovery of novel selective hypotensive vasopressin peptides that exhibit little or no functional interactions with known oxytocin/vasopressin receptors. Chan WY, et al. **Br J Pharmacol** 1998 Oct;125(4):803–11

Adrenal steroid regulation of central angiotensin II receptor subtypes and oxytocin receptors in rat brain. Shelat SG, et al. **Brain Res** 1998 Oct 5;807(1–2):135–46

Oxytocin receptor antagonists. Update. Goodwin TM, et al. **Clin Perinatol** 1998 Dec;25(4):859–71, vi (49 ref.)

Separate receptors mediate oxytocin and vasopressin stimulation of cAMP in rat inner medullary collecting duct cells. Wargent ET, et al. **Exp Physiol** 1999 Jan;84(1):17–25

Regulation of the human oxytocin receptor in the uterus: a molecular approach. Kimura T. **Hum Reprod Update** 1998 Sep-Oct;4(5):615–24

Desensitization of oxytocin receptors in human myometrium. Phaneuf S, et al. **Hum Reprod Update** 1998 Sep-Oct; 4(5):625–33

Signal transduction pathways of the human V1-vascular, V2-renal, V3-pituitary vasopressin and oxytocin receptors. Thibonnier M, et al. **Prog Brain Res** 1998;119:147–61 (67 ref.)

The oxytocin receptor. Kimura T, et al. **Results Probl Cell Differ** 1999;26:135–68 (160 ref.)

Neural oxytocinergic systems as genomic targets for hormones and as modulators of hormone-dependent behaviors. Pfaff DW, et al. **Results Probl Cell Differ** 1999; 26:91–105 (75 ref.)

Vasopressin receptors: structural functional relationships and role in neural and endocrine regulation. Schoots O, et al. **Results Probl Cell Differ** 1999;26:107–33 (90 ref.)

RECEPTORS, PAIN see **NOCICEPTORS**

RECEPTORS, PANCREOZYMIN see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, PARATHYROID HORMONE

AGONISTS

Comparison of rat and human parathyroid hormone 2 (PTH2) receptor activation: PTH is a low potency partial agonist at the rat PTH2 receptor. Hoare SR, et al. **Endocrinology** 1999 Oct;140(10):4419–25

Role of signal transduction in internalization of the G protein-coupled receptor for parathyroid hormone (PTH) and PTH-related protein. Huang Z, et al. **Endocrinology** 1999 Mar;140(3):1294–300

Conformational studies of a bicyclic, lactam-constrained parathyroid hormone-related protein-derived agonist. Schievano E, et al. **J Pept Sci** 1999 Jul;5(7):330–7

ANALYSIS

Expression of parathyroid hormone-related protein and the parathyroid hormone/parathyroid hormone-related protein receptor in rat thymic epithelial cells. Funk JL, et al. **J Anat** 1999 Feb;194 (Pt 2):255–64

ANTAGONISTS & INHIBITORS

Megalin antagonizes activation of the parathyroid hormone receptor. Hilpert J, et al. **J Biol Chem** 1999 Feb 26; 274(9):5620–5

Conformational studies of a potent Leu11,D-Trp12-containing lactam-bridged parathyroid hormone-related protein-derived antagonist. Maretto S, et al. **J Pept Res** 1998 Sep;52(3):241–8

BIOSYNTHESIS

Lymphoblastoid interferon-alpha downregulates parathyroid hormone (PTH)/PTH-related peptide (PTHrP) receptor expression in human osteoblastic cells (Saos-2). Tsuda-Futami E, et al. **Bone** 1998 Sep;23(3):205-11

Down-regulation of PTH/PTHrP receptor in the kidney of patients with renal impairment. Chen J, et al. **Chin Med J (Engl)** 1998 Jan;111(1):24-7

CHEMISTRY

Molecular characterization of the receptor-ligand complex for parathyroid hormone. Rölz C, et al. **Biochemistry** 1999 May 18;38(20):6397-405

Arginine 186 in the extracellular N-terminal region of the human parathyroid hormone 1 receptor is essential for contact with position 13 of the hormone. Adams AE, et al. **Mol Endocrinol** 1998 Nov;12(11):1673-83

Identification of phosphorylation sites in the G protein-coupled receptor for parathyroid hormone. Receptor phosphorylation is not required for agonist-induced internalization. Malecz N, et al. **Mol Endocrinol** 1998 Dec;12(12):1846-56

DEFICIENCY

Conditionally immortalized murine osteoblasts lacking the type 1 PTH/PTHrP receptor. Divieti P, et al. **J Bone Miner Res** 1998 Dec;13(12):1835-45

GENETICS

Characterization of an element within the rat parathyroid hormone/parathyroid hormone-related peptide receptor gene promoter that enhances expression in osteoblastic osteosarcoma 17/2.8 cells. Giannoukos G, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):336-40

Regulation of renal parathyroid hormone receptor expression by 1, 25-dihydroxyvitamin D3 and retinoic acid. Sneddon WB, et al. **Cell Physiol Biochem** 1998;8(5):261-77

Inactivating mutation in the human parathyroid hormone receptor type 1 gene in Blomstrand chondrodysplasia [see comments] Karaplis AC, et al. **Endocrinology** 1998 Dec; 139(12):5255-8. Comment in: Endocrinology 1998 Dec;139(12):4753-5.

Parathyroid hormone (PTH)/PTHrP receptor mutations in human chondrodysplasia [editorial; comment] Nissenson RA. **Endocrinology** 1998 Dec;139(12):4753-5 (21 ref.). Comment on: Endocrinology 1998 Dec;139(12):5255-8.

Reduced blood pressure and increased sensitivity of the vasculature to parathyroid hormone-related protein (PTHrP) in transgenic mice overexpressing the PTH/PTHrP receptor in vascular smooth muscle. Qian J, et al. **Endocrinology** 1999 Apr;140(4):1826-33

A novel parathyroid hormone (PTH)/PTH-related peptide receptor mutation in Jansen's metaphyseal chondrodysplasia. Schipani E, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3052-7

Vitamin D3 differentially regulates parathyroid hormone/parathyroid hormone-related peptide receptor expression in bone and cartilage. Amizuka N, et al. **J Clin Invest** 1999 Feb;103(3):373-81

Ablation of the PTHrP gene or the PTH/PTHrP receptor gene leads to distinct abnormalities in bone development. Lanske B, et al. **J Clin Invest** 1999 Aug;104(4):399-407

Parathyroid hormone-related protein (PTHrP) mRNA splicing and parathyroid hormone/PTHrP receptor mRNA expression in human placenta and fetal membranes. Curtis NE, et al. **J Mol Endocrinol** 1998 Oct;21(2):225-34

Renal expression of parathyroid hormone-related protein (PTHrP) and PTH/PTHrP receptor in a rat model of tubulointerstitial damage. Largo R, et al. **Kidney Int** 1999 Jan;55(1):82-90

Parathyroid receptor gene expression by epiphyseal growth plates in rickets and tibial dyschondroplasia. Ben-Bassat S, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):185-95

Cloning and characterization of kidney-specific promoter of human PTH/PTHrP receptor gene: absence of mutation in patients with pseudohypoparathyroidism type Ib. Fukumoto S, et al. **Mol Cell Endocrinol** 1998 Jun 25; 141(1-2):41-7

Phosphorylation-independent inhibition of parathyroid hormone receptor signaling by G protein-coupled receptor kinases. Dicker F, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5476-81

[Activating mutations of the parathyroid hormone and parathyroid hormone related peptide] David L. **Arch Pediatr** 1998;5 Suppl 4:385S-389S (22 ref.) (Eng. Abstr.) **(Fre)**

ISOLATION & PURIFICATION

Expression of PTHrP and the PTH/PTHrP receptor in purified alveolar epithelial cells, myoepithelial cells, and stromal fibroblasts derived from the lactating rat mammary gland. Wojcik SF, et al. **Exp Cell Res** 1999 May 1; 248(2):415-22

METABOLISM

Molecular characterization of the receptor-ligand complex for parathyroid hormone. Rölz C, et al. **Biochemistry** 1999 May 18;38(20):6397-405

Direct identification of two contact sites for parathyroid hormone (PTH) in the novel PTH-2 receptor using photoaffinity cross-linking. Behar V, et al. **Endocrinology** 1999 Sep;140(9):4251-61

Comparison of rat and human parathyroid hormone 2 (PTH2) receptor activation: PTH is a low potency partial agonist at the rat PTH2 receptor. Hoare SR, et al. **Endocrinology** 1999 Oct;140(10):4419-25

Insulin-like growth factor I suppresses parathyroid hormone (PTH)/PTH-related protein receptor expression via a mitogen-activated protein kinase pathway in UMR-106 osteoblast-like cells. Kawane T, et al. **Endocrinology** 1999 Feb;140(2):871-9

3',5'-Cyclic adenosine monophosphate activation in osteoblastic cells: effects on parathyroid hormone-1 receptors and osteoblastic differentiation in vitro. Koh AJ, et al. **Endocrinology** 1999 Jul;140(7):3154-62

Distribution of the parathyroid hormone 2 receptor in rat: immunolocalization reveals expression by several endocrine cells. Usdin TB, et al. **Endocrinology** 1999 Jul; 140(7):3363-71

A G protein-coupled receptor from zebrafish is activated by human parathyroid hormone and not by human or teleost parathyroid hormone-related peptide. Implications for the evolutionary conservation of calcium-regulating peptide hormones. Rubin DA, et al. **J Biol Chem** 1999 Aug 13;274(33):23035-42

Similar structures and shared switch mechanisms of the beta2-adrenoceptor and the parathyroid hormone receptor. Zn(II) bridges between helices III and VI block activation. Sheikh SP, et al. **J Biol Chem** 1999 Jun 11;274(24):17033-41

Interactions of PTH and PTHrP with the PTH/PTHrP receptor and with downstream signaling pathways: exceptions that provide the rules [editorial; comment] Goltzman D. **J Bone Miner Res** 1999 Feb;14(2):173-7 (44 ref.). Comment on: J Bone Miner Res 1999 Feb;14(2):163-72.

Development of a photoreactive parathyroid hormone antagonist to probe antagonist-receptor bimolecular interaction. Bisello A, et al. **J Pept Res** 1999 Aug; 54(2):120-8

Renal expression of parathyroid hormone-related protein (PTHrP) and PTH/PTHrP receptor in a rat model of tubulointerstitial damage. Largo R, et al. **Kidney Int** 1999 Jan;55(1):82-90

The (1-14) fragment of parathyroid hormone (PTH) activates intact and amino-terminally truncated PTH-1 receptors. Luck MD, et al. **Mol Endocrinol** 1999 May;13(5):670-80

Identification of phosphorylation sites in the G protein-coupled receptor for parathyroid hormone. Receptor phosphorylation is not required for agonist-induced internalization. Malecz N, et al. **Mol Endocrinol** 1998 Dec;12(12):1846-56

PHYSIOLOGY

Receptors for parathyroid hormone and parathyroid hormone-related peptide: exploration of their biological importance. Jüppner H. **Bone** 1999 Jul;25(1):87-90 (61 ref.)

Parathyroid hormone-related peptide (PTHrP) and parathyroid hormone (PTH)/PTHrP receptor. Lanske B, et al. **Crit Rev Eukaryot Gene Expr** 1998;8(3-4):297-320 (107 ref.)

Parathyroid hormone-related protein signaling is necessary for sexual dimorphism during embryonic mammary development. Dunbar ME, et al. **Development** 1999 Aug; 126(16):3485-93

The parathyroid hormone (PTH)/PTH-related peptide receptor mediates actions of both ligands in murine bone. Lanske B, et al. **Endocrinology** 1998 Dec;139(12):5194-204

Human osteoclast-like cells are formed from peripheral blood mononuclear cells in a coculture with SaOS-2 cells transfected with the parathyroid hormone (PTH)/PTH-related protein receptor gene. Matsuzaki K, et al. **Endocrinology** 1999 Feb;140(2):925-32

Regulation of phosphate transport in the renal tubule through parathyroid hormone receptor: unexpected pathways. Silve C, et al. **Exp Nephrol** 1998 Jul-Aug;6(4):282-7 (16 ref.)

Dual signaling and ligand selectivity of the human PTH/PTHrP receptor. Takasu H, et al. **J Bone Miner Res** 1999 Jan;14(1):11-20

Ablation of the PTHrP gene or the PTH/PTHrP receptor gene leads to distinct abnormalities in bone development. Lanske B, et al. **J Clin Invest** 1999 Aug;104(4):399-407

Measurement of agonist and antagonist ligand-binding parameters at the human parathyroid hormone type 1 receptor: evaluation of receptor states and modulation by guanine nucleotide. Hoare SR, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1323-33

Parathyroid hormone-related peptide (PTHrP) induces parietal endoderm formation exclusively via the type I PTH/PTHrP receptor. Verheijen MH, et al. **Mech Dev** 1999 Mar;81(1-2):151-61

The parathyroid hormone/parathyroid hormone-related peptide receptor coordinates endochondral bone development by directly controlling chondrocyte differentiation. Chung UI, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13030-5

RECEPTORS, PCP see **RECEPTORS, PHENCYCLIDINE**

RECEPTORS, PDGF see **RECEPTORS, PLATELET-DERIVED GROWTH FACTOR**

RECEPTORS, PEPTIDE

Vasoactive peptide receptors in the rat kidney. Garcia R, et al. **Biol Res** 1998;31(3):217-25 (88 ref.)

The 'chicken and egg' problem of co-evolution of peptides and their cognate receptors: which came first? Darlison MG, et al. **Results Probl Cell Differ** 1999;26:1-11 (33 ref.)

AGONISTS

Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast. Klein C, et al. **Nat Biotechnol** 1998 Dec;16(13):1334-7

Peptide G protein-coupled receptors meet at Erice. Bunnett NW, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):343-6

ANALYSIS

Radiolabelled somatostatin analogue(s) for peptide receptor scintigraphy and radionuclide therapy. Krenning EP, et al. **Ann Oncol** 1999;10 Suppl 2:S23-9

Müllerian-inhibiting substance type II receptor expression and function in purified rat Leydig cells. Lee MM, et al. **Endocrinology** 1999 Jun;140(6):2819-27

An amylin receptor is revealed following co-transfection of a calcitonin receptor with receptor activity modifying proteins-1 or -3. Muff R, et al. **Endocrinology** 1999 Jun; 140(6):2924-7

Localization of proteases and peptide receptors by confocal microscopy. Snyman CJ, et al. **Methods Enzymol** 1999; 307:368-94

Autoradiography of peptide receptors. Wharton J, et al. **Methods Mol Biol** 1999;106:99-118 (48 ref.)

ANTAGONISTS & INHIBITORS

Phe-D-Leu-Phe-D-Leu-Phe derivatives as formylpeptide receptor antagonists in human neutrophils: cellular and conformational aspects. Dalpiaz A, et al. **Biochim Biophys Acta** 1999 Jun 15;1432(1):27-39

Formylpeptide receptor antagonists: structure and activity. Dalpiaz A, et al. **Boll Chim Farm** 1999 Mar;138(3):44-8

Discovery of a novel superpotent and selective melanocortin-4 receptor antagonist (HS024): evaluation in vitro and in vivo. Kask A, et al. **Endocrinology** 1998 Dec; 139(12):5006-14

Agouti antagonism of melanocortin-4 receptor: greater effect with desacetyl-alpha-melanocyte-stimulating hormone (MSH) than with alpha-MSH. Mountjoy KG, et al. **Endocrinology** 1999 May;140(5):2167-72

Peptide G protein-coupled receptors meet at Erice. Bunnett NW, et al. **Trends Pharmacol Sci** 1998 Sep;19(9):343-6

BIOSYNTHESIS

Modulation of formyl peptide receptor expression by IL-10 in human monocytes and neutrophils. Thivierge M, et al. **J Immunol** 1999 Mar 15;162(6):3590-5

Effect of dietary insulin on the response of suckling mice enterocytes to Escherichia coli heat-stable enterotoxin. al-Majali A, et al. **Vet Res** 1998 Nov-Dec;29(6):527-36

BLOOD

Detection of cytokeratins 19/20 and guanylyl cyclase C in peripheral blood of colorectal cancer patients. Bustin SA, et al. **Br J Cancer** 1999 Apr;79(11-12):1813-20

CHEMISTRY

Assembly of G protein-coupled receptors from fragments: identification of functional receptors with discontinuities in each of the loops connecting transmembrane segments. Martin NP, et al. **Biochemistry** 1999 Jan 12;38(2):682-95

Human formyl peptide receptor function role of conserved and nonconserved charged residues. Lala A, et al. **Eur J Biochem** 1999 Sep;264(2):495-9

The molecular weights, mass distribution, chain composition, and structure of soluble fibrin degradation products released from a fibrin clot perfused with plasmin. Walker JB, et al. **J Biol Chem** 1999 Feb 19;274(8):5201-12

Topological mimicry and epitope duplication in the guanylyl cyclase C receptor. Nandi A, et al. **Protein Sci** 1998 Oct; 7(10):2175-83

DRUG EFFECTS

fMLP-OMe analogs substituted at the methionine residue: an insight into the receptor properties. Cavicchioni G, et al. **Arch Pharm (Weinheim)** 1998 Nov;331(11):368-70

N-formylpeptides induce two distinct concentration optima for mouse neutrophil chemotaxis by differential interaction with two N-formylpeptide receptor (FPR) subtypes. Molecular characterization of FPR2, a second mouse neutrophil FPR. Hartt JK, et al. **J Exp Med** 1999 Sep 6; 190(5):741-7

Black widow spider toxins: the present and the future. Grishin EV. **Toxicon** 1998 Nov;36(11):1693-701

GENETICS

Identification and functional analysis of novel human melanocortin-4 receptor variants. Gu W, et al. **Diabetes** 1999 Mar;48(3):635-9

Translocon-associated protein alpha transcripts are induced by granulocyte-macrophage colony-stimulating factor and exhibit complex alternative polyadenylation. Hirama T, et

al. **FEBS Lett** 1999 Jul 23;455(3):223-7
The latrophilin family: multiply spliced G protein-coupled receptors with differential tissue distribution. Matsushita H, et al. **FEBS Lett** 1999 Jan 29;443(3):348-52
Differential expansion of the N-formylpeptide receptor gene cluster in human and mouse. Gao JL, et al. **Genomics** 1998 Jul 15;51(2):270-6
Expression of inhibin/activin subunits and their receptors and binding proteins in human preimplantation embryos. He ZY, et al. **J Assist Reprod Genet** 1999 Feb;16(2):73-80
Coupled changes in translation and transcription during cobalamin-dependent regulation of btuB expression in Escherichia coli. Nou X, et al. **J Bacteriol** 1998 Dec; 180(24):6719-28
Sequence analysis of cDNA and genomic DNA, and mRNA expression of the medaka fish homolog of mammalian guanylyl cyclase C. Mantoku T, et al.
J Biochem (Tokyo) 1999 Mar;125(3):476-86
Steroidogenic factor-1 regulates transcription of the human anti-müllerian hormone receptor. Barbara PS, et al.
J Biol Chem 1998 Nov 6;273(45):29654-60
A syntaxin homolog encoded by VAM3 mediates down-regulation of a yeast G protein-coupled receptor. Stefan CJ, et al. **J Biol Chem** 1999 Jan 15;274(3):1835-41
Signal recognition particle receptor (SRPR) is downregulated in a rat model of cyclosporin A-induced gingival overgrowth. Marley JJ, et al.
J Periodontal Res 1999 May;34(4):188-96
Site-directed mutagenesis of streptococcal plasmin receptor protein (Plr) identifies the C-terminal Lys334 as essential for plasmin binding, but mutation of the plr gene does not reduce plasmin binding to group A streptococci. Winram SB, et al. **Microbiology** 1998 Aug;144 (Pt 8):2025-35
A signal recognition particle receptor gene from the early-diverging eukaryote, Giardia lamblia. Svärd SG, et al. **Mol Biochem Parasitol** 1999 Jan 25;98(2):253-64
Dominant-negative mutations in the G-protein-coupled alpha-factor receptor map to the extracellular ends of the transmembrane segments. Dosil M, et al. **Mol Cell Biol** 1998 Oct;18(10):5981-91
Identification of a polar region in transmembrane domain 6 that regulates the function of the G protein-coupled alpha-factor receptor. Dube P, et al. **Mol Cell Biol** 1998 Dec;18(12):7205-15
Dominant negative mutations in the alpha-factor receptor, a G protein-coupled receptor encoded by the STE2 gene of the yeast Saccharomyces cerevisiae. Leavitt LM, et al. **Mol Gen Genet** 1999 Jul;261(6):917-32
Melanocortin-4 receptor messenger RNA expression is up-regulated in the non-damaged striatum following unilateral hypoxic-ischaemic brain injury. Mountjoy KG, et al. **Neuroscience** 1999 Mar;89(1):183-90
Isolation and characterization of a human homologue of the latrophilin gene from a region of 1p31.1 implicated in breast cancer [published erratum appears in Oncogene 1999 Mar 25;18(12):2167] White GR, et al. **Oncogene** 1998 Dec 31; 17(26):3513-9
Combining mutations in the incoming and outgoing pheromone signal pathways causes a synergistic mating defect in Saccharomyces cerevisiae. Giot L, et al. **Yeast** 1999 Jun 30;15(9):765-80

IMMUNOLOGY

Chemoattractant receptor cross-desensitization. Ali H, et al. **J Biol Chem** 1999 Mar 5;274(10):6027-30 (52 ref.)
Receptor and non-receptor mediated formation of superoxide anion and hydrogen peroxide in neutrophils of intensive care patients. Manhart N, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):796-801

ISOLATION & PURIFICATION

Specific, high affinity relaxin-like factor receptors. Büllesbach EE, et al. **J Biol Chem** 1999 Aug 6; 274(32):22354-8
Purification and characterization of monomeric Escherichia coli vitamin B12 receptor with high affinity for colicin E3. Taylor R, et al. **J Biol Chem** 1998 Nov 20;273(47):31113-8

METABOLISM

Receptor-mediated endocytosis of cobalamin (vitamin B12). Seetharam B. **Annu Rev Nutr** 1999;19:173-95 (93 ref.)
A serpentine receptor-dependent, Gbeta- and Ca(2+) influx-independent pathway regulates mitogen-activated protein kinase ERK2 in Dictyostelium. Schenk PW, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):504-9
Phosphorylation of arylsulphatase A occurs through multiple interactions with the
UDP-N-acetylglucosamine-1-phosphotransferase
proximal and distal to its retrieval site by the KDEL receptor. Dittmer F, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):729-36
Multiple activation steps of the N-formyl peptide receptor. Prossnitz ER, et al. **Biochemistry** 1999 Feb 23;38(8):2240-7
Molecular interaction of Agouti protein and Agouti-related protein with human melanocortin receptors. Tota MR, et al. **Biochemistry** 1999 Jan 19;38(3):897-904
Study of intracellular localization and traffic of newly synthesized ceruloplasmin receptor in cultured human fibroblasts. Sasina LK, et al. **Biochemistry (Mosc)** 1998 Oct; 63(10):1172-7
Mutations affecting ligand specificity of the
G-protein-coupled receptor for the Saccharomyces cerevisiae tridecapeptide pheromone. Abel MG, et al.
Biochim Biophys Acta 1998 Nov 19;1448(1):12-26
Identification of specific relaxin-binding cells in the human female. Kohsaka T, et al. **Biol Reprod** 1998 Oct;59(4):991-9
Autoradiographic and immunological techniques to analyse kinin receptor distribution in rat and human tissues. Figueroa CD, et al. **Biol Res** 1998;31(3):175-87 (51 ref.)
Quantitative autoradiographic studies of relaxin binding in rat atria, uterus and cerebral cortex: characterization and effects of oestrogen treatment. Tan YY, et al.
Br J Pharmacol 1999 May;127(1):91-8
Vesicular tubular clusters between the ER and Golgi mediate concentration of soluble secretory proteins by exclusion from COPI-coated vesicles. Martinez-Menárguez JA, et al. **Cell** 1999 Jul 9;98(1):81-90
Hsp47 binds to the KDEL receptor and cell surface expression is modulated by cytoplasmic and endosomal pH. Sauk JJ, et al. **Connect Tissue Res** 1998;37(1-2):105-19
A head-activator binding protein is present in hydra in a soluble and a membrane-anchored form. Hampe W, et al.
Development , '99 Sep;126(18):4077-86
alpha-latrotoxin 'ction probed with recombinant toxin: receptors recruit alpha-latrotoxin but do not transduce an exocytotic signal. Ichtchenko K, et al. **EMBO J** 1998 Nov 2;17(21):6188-99
Hope, hypothesis, and the inhibin receptor. Does specific inhibin binding suggest there is a specific inhibin receptor? [editorial; comment] Woodruff TK. **Endocrinology** 1999 Jan;140(1):3-5 (16 ref.). Comment on: Endocrinology 1999 Jan;140(1):6-12.
The relevance of N-linked glycosylation to the binding of a ligand to guanylate cyclase C. Hasegawa M, et al.
Eur J Biochem 1999 Jul;263(2):338-46
Oligomeric complexes involved in translocation of proteins across the membrane of the endoplasmic reticulum. Wang L, et al. **FEBS Lett** 1999 Sep 3;457(3):316-22
Peptide-binding motifs of the mixed haplotype
Abetaz/Aalphad major histocompatibility complex class II molecule: a restriction element for auto-reactive T cells in (NZBxNZW)F1 mice. Mine M, et al. **Immunology** 1998 Dec;95(4):577-84
Sulfatide from the pig jejunum brush border epithelial cell surface is involved in binding of Escherichia coli enterotoxin b. Rousset E, et al. **Infect Immun** 1998 Dec; 66(12):5650-8
Identification of a receptor-binding region within domain 4 of the protective antigen component of anthrax toxin. Varughese M, et al. **Infect Immun** 1999 Apr;67(4):1860-5
The KDEL receptor regulates a GTPase-activating protein for ADP-ribosylation factor 1 by interacting with its non-catalytic domain. Aoe T, et al. **J Biol Chem** 1999 Jul 16;274(29):20545-9
RGS1 is expressed in monocytes and acts as a GTPase-activating protein for G-protein-coupled
chemoattractant receptors. Denecke B, et al.
J Biol Chem 1999 Sep 17;274(38):26860-8
A novel ubiquitously expressed alpha-latrotoxin receptor is a member of the CIRL family of G-protein-coupled receptors. Ichtchenko K, et al. **J Biol Chem** 1999 Feb 26; 274(9):5491-8
Structural requirements for alpha-latrotoxin binding and alpha-latrotoxin-stimulated secretion. A study with calcium-independent receptor of alpha-latrotoxin (CIRL) deletion mutants. Krasnoperov V, et al. **J Biol Chem** 1999 Feb 5;274(6):3590-6
A different intracellular distribution of a single reporter protein is determined at steady state by KKXX or KDEL retrieval signals. Lotti LV, et al. **J Biol Chem** 1999 Apr 9;274(15):10413-20
alpha-Latrotoxin receptor CIRL/latrophilin 1 (CL1) defines an unusual family of ubiquitous G-protein-linked receptors. G-protein coupling not required for triggering exocytosis. Sugita S, et al. **J Biol Chem** 1998 Dec 4;273(49):32715-24
The ribosome regulates the GTPase of the beta-subunit of the signal recognition particle receptor. Bacher G, et al.
J Cell Biol 1999 Aug 23;146(4):723-30
KDEL receptor (Erd2p)-mediated retrograde transport of the cholera toxin A subunit from the Golgi involves COPI, p23, and the COOH terminus of Erd2p. Majoul I, et al.
J Cell Biol 1998 Nov 2;143(3):601-12
The KDEL retrieval system is exploited by Pseudomonas exotoxin A, but not by Shiga-like toxin-1, during retrograde transport from the Golgi complex to the endoplasmic reticulum. Jackson ME, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):467-75
A seven-transmembrane, G protein-coupled receptor, FPRL1, mediates the chemotactic activity of serum amyloid A for human phagocytic cells. Su SB, et al.
J Exp Med 1999 Jan 18;189(2):395-402
Coreceptor usage of BOB/GPR15 and Bonzo/STRL33 by primary isolates of human immunodeficiency virus type 1. Pöhlmann S, et al. **J Gen Virol** 1999 May;80 (Pt 5):1241-51
Use of flow cytometry to measure the interaction between Escherichia coli heat-stable enterotoxin and its intestinal receptor in mice. Al-Majali AM, et al.
J Immunol Methods 1999 Jan 1;222(1-2):65-72
Impaired granulocyte formylpeptide-induced superoxide generation in chronically ill, malnourished, elderly patients. Cederholm T, et al. **J Intern Med** 1999 May;245(5):475-82
Structure-function analysis of the Saccharomyces cerevisiae tridecapeptide pheromone using alanine-scanned analogs. Abel MG, et al. **J Pept Res** 1998 Aug;52(2):95-106
The uncoupled state of the human formyl peptide receptor. Gilbert TL, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):327-40
Characterization of the interaction of Escherichia coli heat-stable enterotoxinn (STa) with its intestinal putative receptor in various age groups of mice, using flow cytometry and binding assays. Al-Majali AM, et al.
Lab Anim Sci 1999 Jun;49(3):254-9
Visualization of receptor-mediated endocytosis in yeast. Mulholland J, et al. **Mol Biol Cell** 1999 Mar;10(3):799-817
Receptor inhibition of pheromone signaling is mediated by the Ste4p Gbeta subunit. Kim J, et al. **Mol Cell Biol** 1999 Jan;19(1):441-9
Multiple amylin receptors arise from receptor
activity-modifying protein interaction with the calcitonin receptor gene product. Christopoulos G, et al.
Mol Pharmacol 1999 Jul;56(1):235-42
Site-directed disulfide bonding reveals an interaction site between energy-coupling protein TonB and BtuB, the outer membrane cobalamin transporter. Cadieux N, et al.
Proc Natl Acad Sci U S A 1999 Sep 14;96(19):10673-8
Expression and characterization of the extracellular domain of guanylyl cyclase C from a baculovirus and Sf21 insect cells. Hasegawa M, et al. **Protein Expr Purif** 1999 Apr; 15(3):271-81
Group A streptococcal isolate 64/14 expresses surface plasmin-binding structures in addition to Plr. D'Costa SS, et al. **Res Microbiol** 1997 Sep-Oct;148(7):559-72
Serpentine receptors and STAT activation: more than one way to twin a STAT. Williams JG.
Trends Biochem Sci 1999 Sep;24(9):333-4 (15 ref.)
[The proposed role of the ceruloplasmin receptor and Cu2+-transferring Menkes ATPase in copper metabolism in mammals] Puchkova LV, et al. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):287-90 **(Rus)**

PHYSIOLOGY

T20/DP178, an ectodomain peptide of human immunodeficiency virus type 1 gp41, is an activator of human phagocyte N-formyl peptide receptor. Su SB, et al. **Blood** 1999 Jun 1;93(11):3885-92
Nuclear shuttling of yeast scaffold Ste5 is required for its recruitment to the plasma membrane and activation of the mating MAPK cascade. Mahanty SK, et al. **Cell** 1999 Aug 20;98(4):501-12
Chloroplast precursor protein translocon. May T, et al.
FEBS Lett 1999 Jun 4;452(1-2):52-6 (53 ref.)
Non-serum-dependent chemotactic factors produced by Candida albicans stimulate chemotaxis by binding to the formyl peptide receptor on neutrophils and to an unknown receptor on macrophages. Edens HA, et al.
Infect Immun 1999 Mar;67(3):1063-71
Yops of Yersinia enterocolitica inhibit receptor-dependent superoxide anion production by human granulocytes. Visser LG, et al. **Infect Immun** 1999 Mar;67(3):1245-50
Melanocortin-4 receptor: a novel signalling pathway involved in body weight regulation. Fisher SL, et al.
Int J Obes Relat Metab Disord 1999 Feb;23 Suppl 1:54-8 (37 ref.)
Formyl peptide receptor signaling in HL-60 cells through sphingosine kinase. Alemany R, et al. **J Biol Chem** 1999 Feb 12;274(7):3994-9
Impaired antibacterial host defense in mice lacking the N-formylpeptide receptor. Gao JL, et al. **J Exp Med** 1999 Feb 15;189(4):657-62
N-formylpeptides induce two distinct concentration optima for mouse neutrophil chemotaxis by differential interaction with two N-formylpeptide receptor (FPR) subtypes. Molecular characterization of FPR2, a second mouse neutrophil FPR. Hartt JK, et al. **J Exp Med** 1999 Sep 6; 190(5):741-7
Presynaptic inhibition by concanavalin A: are
alpha-latrotoxin receptors involved in action
potential-dependent transmitter release? Boehm S, et al.
J Neurochem 1998 Dec;71(6):2421-30
Receptor-mediated transcytosis of cyclophilin B through the blood-brain barrier. Carpentier M, et al. **J Neurochem** 1999 Jul;73(1):260-70
Dynamics of a chemoattractant receptor in living neutrophils during chemotaxis. Servant G, et al. **Mol Biol Cell** 1999 Apr;10(4):1163-78
Functionally active catalytic domain is essential for guanylyl cyclase-linked receptor mediated inhibition of human aldosterone synthesis. Olson LJ, et al. **Mol Pharmacol** 1998 Nov;54(5):761-9
Neurexins are functional alpha-latrotoxin receptors. Sugita S, et al. **Neuron** 1999 Mar;22(3):489-96

RECEPTORS, PEPTIDE, INVERTEBRATE see
RECEPTORS, INVERTEBRATE PEPTIDE

RECEPTORS, PHENCYCLIDINE

METABOLISM

Effect of PCP and sigma ligands on both noradrenaline- and electrically-induced contractions and on
[3H]-noradrenaline uptake in rat vas deferens. Pubill D, et al. **J Auton Pharmacol** 1998 Aug;18(4):239-44

RECEPTORS, PHEROMONE see **CHEMORECEPTORS**

RECEPTORS, PITUITARY HORMONE

AGONISTS

The PACAP-type I receptor agonist maxadilan from sand fly saliva protects mice against lethal endotoxemia by a mechanism partially dependent on IL-10. Bozza M, et al. **Eur J Immunol** 1998 Oct;28(10):3120-7

Structure-function studies on the cyclic peptide MT-II, lactam derivative of alpha-melanotropin. Bednarek MA, et al. **Peptides** 1999;20(3):401-9

ANALYSIS

Light and electron microscopic studies of pituitary adenylate cyclase-activating peptide (PACAP)--immunoreactive neurons in the enteric nervous system of rat small and large intestine. Nagahama M, et al. **Anat Embryol (Berl)** 1998 Nov;198(5):341-52

Distribution and ultrastructural localization of PACAP receptors in the rat pancreatic islets. Muroi M, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:438-40

Distribution and ultrastructural localization of pituitary adenylate cyclase-activating polypeptide (PACAP) and its receptor in the rat retina. Seki T, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:408-11

Presynaptic localization of the PACAP-typeI-receptor in hippocampal and cerebellar mossy fibres. Otto C, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):163-74

PACAP and PACAP receptors in insulin producing tissues: localization and effects. Filipsson K, et al. **Regul Pept** 1998 Jun 30;74(2-3):167-75

ANTAGONISTS & INHIBITORS

Functional characterization of structural alterations in the sequence of the vasodilatory peptide maxadilan yields a pituitary adenylate cyclase-activating peptide type I receptor-specific antagonist. Moro O, et al. **J Biol Chem** 1999 Aug 13;274(33):23103-10

CHEMISTRY

Identification of binding domains of pituitary adenylate cyclase activating polypeptide (PACAP) for its type 1 receptor by photoaffinity labeling. Cao YJ, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:82-91

Importance of conserved cysteines in the extracellular loops of human PACAP/VIP1 receptor for ligand binding and stimulation of cAMP production. Knudsen SM, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:259-65

(D-(p-benzoylphenylalanine)13, tyrosine19)-melanin-concentrating hormone, a potent analogue for MCH receptor crosslinking. Drozdz R, et al. **J Pept Sci** 1999 May;5(5):234-42

CLASSIFICATION

A critical view of the methods for characterization of the VIP/PACAP receptor subclasses. Robberecht P, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:157-63 (35 ref.)

GENETICS

Cloning and functional characterization of the human VIP1/PACAP receptor promoter. Couvineau A, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:59-63

Induction of type I PACAP receptor expression by the new zinc finger protein Zac1 and p53. Hoffmann A, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:49-58 (29 ref.)

Developmental regulation of pituitary adenylate cyclase activating polypeptide (PACAP) and its receptor 1 in rat brain: function of PACAP as a neurotrophic factor. Lindholm D, et al. **Ann N Y Acad Sci** 1998 Dec 11; 865:189-96 (17 ref.)

Distribution and ultrastructural localization of PACAP receptors in the rat pancreatic islets. Muroi M, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:438-40

Cloning and functional characterization of PACAP-specific receptors in zebrafish. Wei Y, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:45-8

The pituitary adenylate cyclase activating polypeptide type 1 receptor (PAC1-R) is expressed on gastric ECL cells: evidence by immunocytochemistry and RT-PCR. Zeng N, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:147-56

Mesotocin receptor gene and protein expression in the prostate gland, but not testis, of the tammar wallaby, Macropus eugenii. Parry LJ, et al. **Biol Reprod** 1998 Nov; 59(5):1101-7

Circadian changes in PACAP type 1 (PAC1) receptor mRNA in the rat suprachiasmatic and supraoptic nuclei. Cagampang FR, et al. **Brain Res** 1998 Nov 30;813(1):218-22

Induction of the PAC1-R (PACAP-type I receptor) gene by p53 and Zac. Ciani E, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):290-4

Delayed up-regulation of Zac1 and PACAP type I receptor after transient focal cerebral ischemia in mice. Gillardon F, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1-2):207-10

Presynaptic localization of the PACAP-typeI-receptor in hippocampal and cerebellar mossy fibres. Otto C, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):163-74

The melanocyte stimulating hormone receptor polymorphism: association of the V92M and A294H alleles with basal cell carcinoma. Jones FI, et al. **Clin Chim Acta** 1999 Apr;282(1-2):125-34

A cloned frog vasoactive intestinal polypeptide/pituitary adenylate cyclase-activating polypeptide receptor exhibits pharmacological and tissue distribution characteristics of both VPAC1 and VPAC2 receptors in mammals. Alexandre D, et al. **Endocrinology** 1999 Mar;140(3):1285-93

Pituitary adenylate cyclase-activating polypeptide modulates gastric enterochromaffin-like cell proliferation in rats. Läuffer JM, et al. **Gastroenterology** 1999 Mar;116(3):623-35

Multiple splice variants of the pituitary adenylate cyclase-activating polypeptide type 1 receptor detected by RT-PCR in single rat pituitary cells. Bresson-Bépoldin L, et al. **J Mol Endocrinol** 1998 Oct;21(2):109-20

Axotomy-induced changes in pituitary adenylate cyclase activating polypeptide (PACAP) and PACAP receptor gene expression in the adult rat facial motor nucleus. Zhou X, et al. **J Neurosci Res** 1999 Sep 15;57(6):953-61

Cytochrome P450 CYP2D6 genotypes: association with hair colour, Breslow thickness and melanocyte stimulating hormone receptor alleles in patients with malignant melanoma. Strange RC, et al. **Pharmacogenetics** 1999 Jun; 9(3):269-76

Identification of pituitary adenylate cyclase activating polypeptide (PACAP) and PACAP type 1 receptor in human skin: expression of PACAP-38 is increased in patients with psoriasis. Steinhoff M, et al. **Regul Pept** 1999 Mar 17;80(1-2):49-55

Selective expression of vasoactive intestinal peptide (VIP)2/pituitary adenylate cyclase-activating polypeptide (PACAP)3 receptors in rabbit and guinea pig gastric and tenia coli smooth muscle cells. Teng B, et al. **Regul Pept** 1998 Oct 16;77(1-3):127-34

ISOLATION & PURIFICATION

The augmentation of pituitary adenylate cyclase-activating polypeptide (PACAP) in streptozotocin-induced diabetic rats. Tamakawa H, et al. **Peptides** 1998;19(9):1497-502

METABOLISM

Pituitary adenylate-cyclase-activating polypeptide (PACAP) binding sites and PACAP/vasoactive intestinal polypeptide receptor expression in human pituitary adenomas. Oka H, et al. **Am J Pathol** 1998 Dec;153(6):1787-96

Expression, pharmacological, and functional evidence for PACAP/VIP receptors in human lung. Busto R, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L42-8

alpha-MSH and its receptors in regulation of tumor necrosis factor-alpha production by human monocyte/macrophages. Taherzadeh S, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1289-94

Identification of binding domains of pituitary adenylate cyclase activating polypeptide (PACAP) for its type 1 receptor by photoaffinity labeling. Cao YJ, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:82-91

Pituitary adenylate cyclase-activating polypeptide receptors in the fetal human adrenal gland. Yon L, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:416-9

Modulation of melanocyte-stimulating hormone receptor expression on normal human melanocytes: evidence for a regulatory role of ultraviolet B, interleukin-1alpha, interleukin-1beta, endothelin-1 and tumour necrosis factor-alpha. Funasaka Y, et al. **Br J Dermatol** 1998 Aug; 139(2):216-24

Presence of PACAP and PACAP receptors in the human adrenal gland: possible role in fetal development. Breault L, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):961-2

Functional and molecular diversity of PACAP/VIP receptors in cortical neurons and type I astrocytes. Grimaldi M, et al. **Eur J Neurosci** 1999 Aug;11(8):2767-72

Interaction of lipophilic VIP derivatives with recombinant VIP1/PACAP and VIP2/PACAP receptors. Gourlet P, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):105-11

Characterization and localization of pituitary adenylate cyclase-activating polypeptide (PACAP) binding sites in the brain of the frog Rana ridibunda. Jeandel L, et al. **J Comp Neurol** 1999 Sep 20;412(2):218-28

Opposing mitogenic regulation by PACAP in sympathetic and cerebral cortical precursors correlates with differential expression of PACAP receptor (PAC1-R) isoforms. Lu N, et al. **J Neurosci Res** 1998 Sep 15;53(6):651-62

Synthesis and receptor binding analysis of thirteen oligomeric alpha-MSH analogs. Brandenburger Y, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):467-80

A combinatorial peptoid library for the identification of novel MSH and GRP/bombesin receptor ligands. Heizmann G, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):449-66

Synthesis and characterization of new radioligands for the mammalian melanin-concentrating hormone (MCH) receptor. Hintermann E, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):411-22

Regulation of pituitary adenylate cyclase activating polypeptide and its receptor type 1 after traumatic brain injury: comparison with brain-derived neurotrophic factor and the induction of neuronal cell death. Skoglösa Y, et al. **Neuroscience** 1999 Apr;90(1):235-47

Pituitary adenylate cyclase-activating polypeptide receptors during development: expression in the rat embryo at primitive streak stage. Zhou CJ, et al. **Neuroscience** 1999; 93(1):375-91

Design and characterization of alpha-melanotropin peptide analogs cyclized through rhenium and technetium metal coordination. Giblin MF, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12814-8

Structural motifs of pituitary adenylate cyclase-activating polypeptide (PACAP) defining PAC1-receptor selectivity. Schäfer H, et al. **Regul Pept** 1999 Feb 5;79(2-3):83-92

PHYSIOLOGY

The PACAP ligand/receptor system regulates cerebral cortical neurogenesis. Dicicco-Bloom E, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:274-89 (49 ref.)

Stimulatory transducing systems in pancreatic islet cells. Emami S, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:118-31 (78 ref.)

Pituitary adenylate cyclase activating peptide (PACAP) in the retinohypothalamic tract: a daytime regulator of the biological clock. Hannibal J, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:197-206

VIP1 and VIP2 receptors but not PVR1 mediate the effect of VIP/PACAP on cytokine production in T lymphocytes. Jiang X, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:397-407

Importance of conserved cysteines in the extracellular loops of human PACAP/VIP1 receptor for ligand binding and stimulation of cAMP production. Knudsen SM, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:259-65

Desensitization of the human vasoactive intestinal peptide receptor (hVIP2/PACAP R): evidence for agonist-induced receptor phosphorylation and internalization. McDonald TP, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:64-72

Rat aortic smooth-muscle cell proliferation is bidirectionally regulated in a cell cycle-dependent manner via PACAP/VIP type 2 receptor. Miyata A, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:73-81

VIP and breast cancer. Moody TW, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:290-6

Pituitary adenylate cyclase activating polypeptide induces degranulation of rat peritoneal mast cells via high-affinity PACAP receptor-independent activation of G proteins. Seebeck J, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:141-6

Maxadilan is a specific agonist and its deleted peptide (M65) is a specific antagonist for PACAP type 1 receptor. Uchida D, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:253-8

Role of VIP1/PACAP receptors in postoperative ileus in rats. De Winter BY, et al. **Br J Pharmacol** 1998 Jul; 124(6):1181-6

Attractin more interest in weight regulation [news] Walsh JH. **Gastroenterology** 1999 Aug;117(2):294

The role of VIP/PACAP receptor subtypes in spinal somatosensory processing in rats with an experimental peripheral mononeuropathy. Dickinson T, et al. **Neuropharmacology** 1999 Jan;38(1):167-80

RECEPTORS, PITUITARY HORMONE-REGULATING HORMONE

ANALYSIS

Differential in vivo regulation of the pituitary growth hormone-releasing hormone (GHRH) receptor by GHRH in young and aged rats. Girard N, et al. **Endocrinology** 1999 Jun;140(6):2836-42

Bioassay for growth hormone releasing hormone (GHRH) using a recombinant receptor and cAMP-responsive reporter system. Frank-Heinrich JA, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):65-72

DEFICIENCY

Selective lack of growth hormone (GH) response to the GH-releasing peptide hexarelin in patients with GH-releasing hormone receptor deficiency. Maheshwari HG, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):956-9

GENETICS

Hypothalamic growth hormone-releasing factor (GRF) regulates its own receptor gene expression in vivo in the rat pituitary. Ono M, et al. **Endocr J** 1998 Apr;45 Suppl:S85-8

Regulation of GH-releasing hormone receptors. Sato M, et al. **Endocr J** 1998 Apr;45 Suppl:S15-8

Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581-6

The rat growth hormone-releasing hormone receptor gene: structure, regulation, and generation of receptor isoforms with different signaling properties. Miller TL, et al. **Endocrinology** 1999 Sep;140(9):4152-65

Regulation of growth hormone-releasing hormone receptor messenger ribonucleic acid expression by glucocorticoids in MtT-S cells and in the pituitary gland of fetal rats. Nogami H, et al. **Endocrinology** 1999 Jun;140(6):2763-70

Applications of new genetic approaches to growth hormone-releasing hormone receptor defects. Phillips JA, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:45-9 (14 ref.)

Cloning and characterization of the 5'-flanking region of the human growth hormone-releasing hormone receptor gene. Iguchi G, et al. **J Biol Chem** 1999 Apr 23;274(17):12108-14

Phenotype and genetic analysis of a syndrome caused by an inactivating mutation in the growth hormone-releasing hormone receptor: Dwarfism of Sindh. Maheshwari HG, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4065-74

Familial dwarfism due to a novel mutation of the growth hormone-releasing hormone receptor gene. Salvatori R, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):917-23

Growth hormone-releasing hormone receptor (GHRH-R) and growth hormone secretagogue receptor (GHS-R) mRNA levels during postnatal development in male and female rats. Kamegai J, et al. **J Neuroendocrinol** 1999 Apr; 11(4):299-306

Significance of growth hormone-releasing hormone receptor mRNA in non-neoplastic pituitary and pituitary adenomas: a study by RT-PCR and in situ hybridization. Oka H, et al. **J Neurooncol** 1999 Feb;41(3):197-204

Identification and characterization of a receptor from goldfish specific for a teleost growth hormone-releasing hormone-like peptide. Chan KW, et al. **Neuroendocrinology** 1998 Jul;68(1):44-56

Effects of adrenalectomy and glucocorticoid receptor antagonist, RU38486, on pituitary growth hormone-releasing hormone receptor gene expression in rats. Ohyama T, et al. **Peptides** 1998;19(6):1063-7

METABOLISM

Expression of the growth hormone secretagogue receptor in pituitary adenomas and other neuroendocrine tumors. Korbonits M, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3624-30

PHYSIOLOGY

Growth hormone inhibits its own secretion by acting on the hypothalamus through its receptors on neuropeptide Y neurons in the arcuate nucleus and somatostatin neurons in the periventricular nucleus. Minami S, et al. **Endocr J** 1998 Apr;45 Suppl:S19-26 (35 ref.)

Growth hormone-releasing peptide-2 (GHRP-2) does not act via the human growth hormone-releasing factor receptor in GC cells. Chen C, et al. **Endocrine** 1998 Aug; 9(1):71-7

Molecular and cell biology of the growth hormone-releasing hormone receptor. Gaylinn BD. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:37-44 (69 ref.)

Signal transduction of the growth hormone (GH) receptor, and GH-binding protein. Wojcik J, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:51-5 (41 ref.)

RECEPTORS, PITUITARY HORMONE RELEASE INHIBITING HORMONES see **RECEPTORS, PITUITARY HORMONE-REGULATING HORMONE**

RECEPTORS, PITUITARY HORMONE-RELEASING HORMONE see **RECEPTORS, PITUITARY HORMONE-REGULATING HORMONE**

RECEPTORS, PLATELET-DERIVED GROWTH FACTOR

ANALYSIS

The immunohistochemical localization of phospholipase Cgamma and the epidermal growth-factor, platelet-derived growth-factor and fibroblast growth-factor receptors in the cells of the rat molar enamel organ during early amelogenesis. Tanikawa Y, et al. **Arch Oral Biol** 1999 Sep;44(9):771-80

Localization of platelet-derived growth factor beta receptor expression in the periepithelial stroma of human breast carcinoma. Bhardwaj B, et al. **Clin Cancer Res** 1996 Apr; 2(4):773-82

Expression of platelet-derived growth factor and its receptors in the developing and adult mouse kidney. Seifert RA, et al. **Kidney Int** 1998 Sep;54(3):731-46

Expression of oligodendrocyte progenitor cell antigens by gliomas: implications for the histogenesis of brain tumors. Shoshan Y, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10361-6

ANTAGONISTS & INHIBITORS

Synthesis and biological evaluation of aeroplysinin analogues: a new class of receptor tyrosine kinase inhibitors. Hinterding K, et al. **Bioorg Med Chem** 1998 Aug; 6(8):1153-62

A dual inhibitor of platelet-derived growth factor beta-receptor and Src kinase activity potently interferes with motogenic and mitogenic responses to PDGF in vascular smooth muscle cells. A novel candidate for prevention of vascular remodeling. Waltenberger J, et al. **Circ Res** 1999 Jul 9;85(1):12-22

PDGFbeta receptor blockade inhibits intimal hyperplasia in the baboon. Hart CE, et al. **Circulation** 1999 Feb 2; 99(4):564-9

Prevention of cardiac allograft arteriosclerosis by protein tyrosine kinase inhibitor selective for platelet-derived growth factor receptor. Sihvola R, et al. **Circulation** 1999 May 4;99(17):2295-301

Caveolin is an inhibitor of platelet-derived growth factor receptor signaling. Yamamoto M, et al. **Exp Cell Res** 1999 Mar 15;247(2):380-8

Beneficial effects of a novel inhibitor of platelet-derived growth factor receptor autophosphorylation in the rat with mesangial proliferative glomerulonephritis. Yagi M, et al. **Gen Pharmacol** 1998 Nov;31(5):765-73

Synthesis and tyrosine kinase inhibitory activity of a series of 2-amino-8H-pyrido[2,3-d]pyrimidines: identification of potent, selective platelet-derived growth factor receptor tyrosine kinase inhibitors. Boschelli DH, et al. **J Med Chem** 1998 Oct 22;41(22):4365-77

Structure-activity relationships for 1-phenylbenzimidazoles as selective ATP site inhibitors of the platelet-derived growth factor receptor. Palmer BD, et al. **J Med Chem** 1998 Dec 31;41(27):5457-65

Structure-activity relationships for 5-substituted 1-phenylbenzimidazoles as selective inhibitors of the platelet-derived growth factor receptor. Palmer BD, et al. **J Med Chem** 1999 Jul 1;42(13):2373-82

BIOSYNTHESIS

Chimera analysis reveals that fibroblasts and endothelial cells require platelet-derived growth factor receptorbeta expression for participation in reactive connective tissue formation in adults but not during development. Crosby JR, et al. **Am J Pathol** 1999 May;154(5):1315-21

Prostaglandin-E2 counteracts interleukin-1beta-stimulated upregulation of platelet-derived growth factor alpha-receptor on rat pulmonary myofibroblasts. Boyle JE, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):433-40

Increased expression of platelet-derived growth factor receptor alpha and beta and vascular endothelial growth factor in the skin of patients with chronic venous insufficiency. Peschen M, et al. **Arch Dermatol Res** 1998 Jun;290(6):291-7

Fibronectin stimulates transcription of the platelet-derived growth factor beta-receptor in cultured rat aortic smooth muscle cells. Tamura K, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):677-80

The immediate early gene products of human cytomegalovirus increase vascular smooth muscle cell migration, proliferation, and expression of PDGF beta-receptor. Zhou YF, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):608-13

Hematopoietic tissues, as a playground of receptor tyrosine kinases of the PDGF-receptor family. Yoshida H, et al. **Dev Comp Immunol** 1998 May-Jun;22(3):321-32 (56 ref.)

Neurofibrosarcoma-derived Schwann cells overexpress platelet-derived growth factor (PDGF) receptors and are induced to proliferate by PDGF BB. Badache A, et al. **J Cell Physiol** 1998 Nov;177(2):334-42

Expression of platelet-derived growth factor B-chain and platelet-derived growth factor beta-receptor in fibroblasts of scleroderma. Zheng XY, et al. **J Dermatol Sci** 1998 Nov; 18(2):90-7

In vivo proliferation of oligodendrocyte progenitors expressing PDGFalphaR during early remyelination. Redwine JM, et al. **J Neurobiol** 1998 Nov 15;37(3):413-28

[Study on platelet-derived growth factor mRNA and copper-zinc superoxide dismutase mRNA expression changes of aortic artery endothelium with restenosis after aortic artery dilatation treated with buyang huanwu decoction] Xie QJ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Oct; 17(10):611-3 (Eng. Abstr.) **(Chi)**

[Changes of PDGF-alpha and beta receptor gene expression in hypoxic rat pulmonary vessels] Huang Q, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec; 19(6):470-3 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Image correlation spectroscopy. II. Optimization for ultrasensitive detection of preexisting platelet-derived growth factor-beta receptor oligomers on intact cells. Wiseman PW, et al. **Biophys J** 1999 Feb;76(2):963-77

DRUG EFFECTS

Suppression of extracellular signals and cell proliferation by the black tea polyphenol, theaflavin-3,3'-digallate [published erratum appears in Carcinogenesis 1999 Jul;20(7):1383] Liang YC, et al. **Carcinogenesis** 1999 Apr; 20(4):733-6

Selective tyrosine kinase inhibitor for the platelet-derived growth factor receptor in vitro inhibits smooth muscle cell proliferation after reinjury of arterial intima in vivo. Myllärniemi M, et al. **Cardiovasc Drugs Ther** 1999 Apr; 13(2):159-68

PDGF-alpha receptor subunit expression down-regulated by IL-1beta in human periodontal ligament cells. Oates TW, et al. **J Dent Res** 1998 Oct;77(10):1791-8

GENETICS

TEL/PDGFbetaR induces hematologic malignancies in mice that respond to a specific tyrosine kinase inhibitor. Tomasson MH, et al. **Blood** 1999 Mar 1;93(5):1707-14

A high level of CCAAT-enhancer binding protein-delta expression is a major determinant for markedly elevated differential gene expression of the platelet-derived growth factor-alpha receptor in vascular smooth muscle cells of genetically hypertensive rats. Kitami Y, et al. **Circ Res** 1999 Jan 8-22;84(1):64-73

Diminished matrix metalloproteinase 2 (MMP-2) in ectomesenchyme-derived tissues of the Patch mutant mouse: regulation of MMP-2 by PDGF and effects on mesenchymal cell migration. Robbins JR, et al. **Dev Biol** 1999 Aug 15;212(2):255-63

Analysis of the Kit and Pdgfra genes in the patch-extended (Phe) mutation. Stephenson DA, et al. **Genet Res** 1998 Dec; 72(3):205-10

Heparan sulfate upregulates platelet-derived growth factor receptors on human lung fibroblasts. Malmström J, et al. **Glycobiology** 1998 Dec;8(12):1149-55

Transcriptional regulation of the platelet-derived growth factor alpha receptor gene via CCAAT/enhancer-binding protein-delta in vascular smooth muscle cells. Fukuoka T, et al. **J Biol Chem** 1999 Sep 3;274(36):25576-82

Mouse ATF-2 null mutants display features of a severe type of meconium aspiration syndrome. Maekawa T, et al. **J Biol Chem** 1999 Jun 18;274(25):17813-9

Transforming properties of the Huntingtin interacting protein 1/ platelet-derived growth factor beta receptor fusion protein. Ross TS, et al. **J Biol Chem** 1999 Aug 6; 274(32):22328-36

Platelet-derived growth factor-induced vasodilatation in mesenteric resistance arteries by nitric oxide: blunted response in spontaneous hypertension. Takase H, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):223-8

Molecular structure and function of rat platelet-derived growth factor beta-receptor gene promoter. Kitami Y, et al. **J Hypertens** 1998 Apr;16(4):437-45

Expression of platelet-derived growth factor B-chain and beta-receptor in hypoxic/ischemic encephalopathy of neonatal rats. Ohno M, et al. **Neuroscience** 1999 May; 90(2):643-51

Altered regulation of platelet-derived growth factor receptor-alpha gene-transcription in vitro by spina bifida-associated mutant Pax1 proteins. Joosten PH, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14459-63

Quantitative analysis of PDGFA, PDGFB, PDGF receptor beta and TGF-beta 1 mRNA in cardiac transplant biopsies. Egan MK, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):131-2

IMMUNOLOGY

Induction of the lung myofibroblast PDGF receptor system by urban ambient particles from Mexico City. Bonner JC, et al. **Am J Respir Cell Mol Biol** 1998 Oct;19(4):672-80

PDGFbeta receptor blockade inhibits intimal hyperplasia in the baboon. Hart CE, et al. **Circulation** 1999 Feb 2; 99(4):564-9

Better-surviving liver grafts by the injection of anti-CD2 antibody: the important roles of host CD8+ and CD2+CD28+ T cells in chronic graft rejection and beta type platelet-derived growth factor receptor (PDGFR-beta) expression on apoptotic liver grafts. Nakatsuji T. **Tohoku J Exp Med** 1999 Mar;187(3):215-25

METABOLISM

Specific inhibitors of platelet-derived growth factor or epidermal growth factor receptor tyrosine kinase reduce pulmonary fibrosis in rats. Rice AB, et al. **Am J Pathol** 1999 Jul;155(1):213-21

Differential expression of platelet-derived growth factor-alpha receptor by Thy-1(-) and Thy-1(+) lung fibroblasts. Hagood JS, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L218-24

JNK/SAPK activation by platelet-derived growth factor in A431 cells requires both the phospholipase C-gamma and the phosphatidylinositol 3-kinase signaling pathways of the receptor. Assefa Z, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):641-5

An aldose reductase inhibitor prevents the glucose-induced increase in PDGF-beta receptor in cultured rat aortic smooth muscle cells. Kasuya Y, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):853-8

Functional co-operation between the subunits in heterodimeric platelet-derived growth factor receptor complexes. Emaduddin M, et al. **Biochem J** 1999 Aug 1; 341 (Pt 3):523-8

Tyrosine phosphatase SHP-2 dephosphorylates the platelet-derived growth factor receptor but enhances its downstream signalling. Zhao R, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):35-9

Tyrosine kinase activity of purified recombinant cytoplasmic domain of platelet-derived growth factor beta-receptor (beta-PDGFR) and discovery of a novel inhibitor of receptor tyrosine kinases. Zaman GJ, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):57-64

Diverse signaling pathways activated by growth factor receptors induce broadly overlapping, rather than independent, sets of genes [see comments] Fambrough D, et al. **Cell** 1999 Jun 11;97(6):727-41. Comment in: Cell 1999 Jun 11;97(6):675-8.

Signaling networks--do all roads lead to the same genes? [comment] Pawson T, et al. **Cell** 1999 Jun 11;97(6):675-8 (21 ref.). Comment on: Cell 1999 Jun 11;97(6):727-41.

Effects of the indolocarbazole 3744W on the tyrosine kinase activity of the cytoplasmic domain of the platelet-derived growth factor beta-receptor. Uings IJ, et al. **Cell Signal** 1999 Feb;11(2):95-100

Restenosis following angioplasty in the swine coronary artery is inhibited by an orally active PDGF-receptor tyrosine kinase inhibitor, RPR101511A. Bilder G, et al. **Circulation** 1999 Jun 29;99(25):3292-9

Src-like adaptor protein (Slap) is a negative regulator of mitogenesis. Roche S, et al. **Curr Biol** 1998 Aug 27; 8(17):975-8

PDGF-A and PDGFR-alpha regulate tooth formation via autocrine mechanism during mandibular morphogenesis in vitro. Chai Y, et al. **Dev Dyn** 1998 Dec;213(4):500-11

Role of PDGF-B and PDGFR-beta in recruitment of vascular smooth muscle cells and pericytes during embryonic blood vessel formation in the mouse. Hellström M, et al. **Development** 1999 Jun;126(14):3047-55

A single amino acid substitution in a WW-like domain of diverse members of the PDGF receptor subfamily of tyrosine kinases causes constitutive receptor activation. Irusta PM, et al. **EMBO J** 1998 Dec 1;17(23):6912-23

Src family kinases are required for integrin but not PDGFR signal transduction. Klinghoffer RA, et al. **EMBO J** 1999 May 4;18(9):2459-71

Nitric oxide and superoxide inhibit platelet-derived growth factor receptor phosphotyrosine phosphatases. Callsen D, et al. **Free Radic Biol Med** 1999 Jun;26(11-12):1544-53

Anti-GM3 antibodies activate calcium inflow and inhibit platelet-derived growth factor beta receptors (PDGFbetar) in T51B rat liver epithelial cells. Golard A. **Glycobiology** 1998 Dec;8(12):1221-5

The effects of platelet-derived growth factor and receptor on normal and neoplastic human ovarian surface epithelium. Dabrow MB, et al. **Gynecol Oncol** 1998 Oct; 71(1):29-37

Platelet-derived growth factor plays a key role in proliferative vitreoretinopathy. Andrews A, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2683-9

Effect of PDGF, IL-1alpha, and BMP2/4 on corneal fibroblast chemotaxis: expression of the platelet-derived growth factor system in the cornea. Kim WJ, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1364-72

RP-1551s, a family of azaphilones produced by Penicillium sp., inhibit the binding of PDGF to the extracellular domain of its receptor. Toki S, et al. **J Antibiot (Tokyo)** 1999 Mar; 52(3):235-44

Serine phosphorylation of the ligand-activated beta-platelet-derived growth factor receptor by casein kinase I-gamma2 inhibits the receptor's autophosphorylating activity. Bioukar EB, et al. **J Biol Chem** 1999 Jul 23;274(30):21457-63

Cell surface retention sequence binding protein-1 interacts with the v-sis gene product and platelet-derived growth factor beta-type receptor in simian sarcoma virus-transformed cells. Boensch C, et al. **J Biol Chem** 1999 Apr 9;274(15):10582-9

Integrins enhance platelet-derived growth factor (PDGF)-dependent responses by altering the signal relay enzymes that are recruited to the PDGF beta receptor. DeMali KA, et al. **J Biol Chem** 1999 Jul 9;274(28):19551-8

Disruption of gap junctional communication by the platelet-derived growth factor is mediated via multiple signaling pathways. Hossain MZ, et al. **J Biol Chem** 1999 Apr 9;274(15):10489-96

Binding of a diphosphotyrosine-containing peptide that mimics activated platelet-derived growth factor receptor beta induces oligomerization of phosphatidylinositol 3-kinase. Layton MJ, et al. **J Biol Chem** 1998 Dec 11; 273(50):33379-85

Effect of transmembrane and kinase domain mutations on fibroblast growth factor receptor 3 chimera signaling in PC12 cells. A model for the control of receptor tyrosine kinase activation. Raffioni S, et al. **J Biol Chem** 1998 Dec 25;273(52):35250-9

Immunochemical localization of platelet-derived growth factor in placenta and its possible role in pre-eclampsia. Gurski MR, et al. **J Investig Med** 1999 Mar;47(3):128-33

Design of peptidomimetics that inhibit the association of phosphatidylinositol 3-kinase with platelet-derived growth factor-beta receptor and possess cellular activity. Eaton SR, et al. **J Med Chem** 1998 Oct 22;41(22):4329-42

Role of glutamine 17 of the bovine papillomavirus E5 protein in platelet-derived growth factor beta receptor activation and cell transformation. Klein O, et al. **J Virol** 1998 Nov; 72(11):8921-32

The bovine papillomavirus E5 protein requires a juxtamembrane negative charge for activation of the platelet-derived growth factor beta receptor and transformation of C127 cells. Klein O, et al. **J Virol** 1999 Apr;73(4):3264-72

Reduced receptor expression for platelet-derived growth factor and epidermal growth factor in dividing mouse lung epithelial cells. Rice PL, et al. **Mol Carcinog** 1999 Aug; 25(4):285-94

Physiological requirement for both SH2 domains for phospholipase C-gamma1 function and interaction with platelet-derived growth factor receptors. Ji QS, et al. **Mol Cell Biol** 1999 Jul;19(7):4961-70

Distinct mechanisms of activation of Stat1 and Stat3 by platelet-derived growth factor receptor in a cell-free system. Vignais ML, et al. **Mol Cell Biol** 1999 May; 19(5):3727-35

Increased mitogenicity of an alphabeta heterodimeric PDGF receptor complex correlates with lack of RasGAP binding. Ekman S, et al. **Oncogene** 1999 Apr 15;18(15):2481-8

SHP-2 binds to Tyr763 and Tyr1009 in the PDGF beta-receptor and mediates PDGF-induced activation of the Ras/MAP kinase pathway and chemotaxis. Rönnstrand L, et al. **Oncogene** 1999 Jun 24;18(25):3696-702

STAT activation by the PDGF receptor requires juxtamembrane phosphorylation sites but not Src tyrosine kinase activation. Sachsenmaier C, et al. **Oncogene** 1999 Jun 17;18(24):3583-92

APS, an adaptor protein containing PH and SH2 domains, is associated with the PDGF receptor and c-Cbl and inhibits PDGF-induced mitogenesis. Yokouchi M, et al. **Oncogene** 1999 Jan 21;18(3):759-67

Bovine papillomavirus E5 protein induces oligomerization and trans-phosphorylation of the platelet-derived growth factor beta receptor. Lai CC, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15241-6

Hyperbaric oxygen as a signal transducer: upregulation of platelet derived growth factor-beta receptor in the presence of HBO2 and PDGF. Bonomo SR, et al. **Undersea Hyperb Med** 1998 Winter;25(4):211-6

PHYSIOLOGY

Abnormal skeletogenesis occurs coincident with increased apoptosis in the Splotch (Sp2H) mutant: putative roles for Pax3 and PDGFRalpha in rib patterning. Dickman ED, et al. **Anat Rec** 1999 Jul 1;255(3):353-61

The role of alpha and beta platelet-derived growth factor receptor in the vascular response to injury in nonhuman primates. Giese NA, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):900-9

Platelet-derived growth factor (PDGF)-BB stimulates osteoclastic bone resorption directly: the role of receptor beta. Zhang Z, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):190-4

Functional proteomics analysis of signal transduction pathways of the platelet-derived growth factor beta receptor. Soskic V, et al. **Biochemistry** 1999 Feb 9; 38(6):1757-64

Inhibition of platelet-derived growth factor-mediated signal transduction and tumor growth by N-[4-(trifluoromethyl)-phenyl]5-methylisoxazole-4-carboxamide. Shawver LK, et al. **Clin Cancer Res** 1997 Jul;3(7):1167-77

Platelet-derived growth factor (PDGF) BB acts as a chemoattractant for human malignant mesothelioma cells via PDGF receptor beta-integrin alpha3beta1 interaction. Klominek J, et al. **Clin Exp Metastasis** 1998 Aug; 16(6):529-39

PDGF and TGF-beta induce cell shape changes in invertebrate immunocytes via specific cell surface receptors. Kletsas D, et al. **Eur J Cell Biol** 1998 Apr; 75(4):362-6

Late signals from the PDGF receptors leading to the activation of the p70S6-kinase are necessary for the transition from G1 to S phase in AKR-2B cells. Simm A, et al. **Exp Cell Res** 1998 Nov 1;244(2):379-93

Platelet-derived growth factor-induced activation of sphingosine kinase requires phosphorylation of the PDGF receptor tyrosine residue responsible for binding of PLCgamma. Olivera A, et al. **FASEB J** 1999 Sep; 13(12):1593-600

Regulation of platelet-derived growth factor signaling by activated p21Ras. Stice LL, et al. **Front Biosci** 1999 Jan 15;4:D72-86 (113 ref.)

Evidence for distinct signaling properties and biological responses induced by the PDGF receptor alpha and beta subtypes. Rosenkranz S, et al. **Growth Factors** 1999; 16(3):201-16 (120 ref.)

Cbl-mediated negative regulation of platelet-derived growth factor receptor-dependent cell proliferation. A critical role for Cbl tyrosine kinase-binding domain. Miyake S, et al. **J Biol Chem** 1999 Jun 4;274(23):16619-28

Overactivation of phospholipase C-gamma1 renders platelet-derived growth factor beta-receptor-expressing cells independent of the phosphatidylinositol 3-kinase pathway for chemotaxis. Rönnstrand L, et al. **J Biol Chem** 1999 Jul 30;274(31):22089-94

PDGF (alpha)-receptor is unresponsive to PDGF-AA in aortic smooth muscle cells from the NG2 knockout mouse. Grako KA, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):905-15

Platelet-derived growth factor beta receptor regulates interstitial fluid homeostasis through phosphatidylinositol-3' kinase signaling. Heuchel R, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11410-5

RECEPTORS, POLYMERIC IMMUNOGLOBULIN

BIOSYNTHESIS

Two stages of increased IgA transfer during lactation in the marsupial, trichosurus vulpecula (Brushtail possum). Adamski FM, et al. **J Immunol** 1999 May 15; 162(10):6009-15

CLASSIFICATION

Nomenclature of immunoglobulin A and other proteins of the mucosal immune system. IUIS/WHO Subcommittee on IgA Nomenclature. **Eur J Immunol** 1999 Mar; 29(3):1057-8

GENETICS

Expression of the polymeric immunoglobulin receptor and excretion of secretory IgA in the postischemic kidney. Rice JC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F666-73

Mapping of mouse polymeric immunoglobulin receptor (PIgR) gene using simple sequence length polymorphism markers. Sato T. **Genes Genet Syst** 1998 Aug;73(4):271-3

IL-4 and IFN-gamma increase steady state levels of polymeric Ig receptor mRNA in human airway and intestinal epithelial cells. Ackermann LW, et al. **J Immunol** 1999 May 1;162(9):5112-8

Cutting edge: coordinate regulation of IFN regulatory factor-1 and the polymeric Ig receptor by proinflammatory cytokines. Blanch VJ, et al. **J Immunol** 1999 Feb 1; 162(3):1232-5

Depression in the quantity of intestinal secretory IgA and in the expression of the polymeric immunoglobulin receptor in caloric deficiency of the weanling mouse. Ha CL, et al. **Lab Invest** 1998 Oct;78(10):1255-66

METABOLISM

In vitro transport of active alpha(1)-antitrypsin to the apical surface of epithelia by targeting the polymeric immunoglobulin receptor. Eckman EA, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):246-52

Lack of SC/pIgR-mediated epithelial transport of a human polymeric IgA devoid of J chain: in vitro and in vivo studies. Vaerman JP, et al. **Immunology** 1998 Sep;95(1):90-6

Interactions of the AP-1 Golgi adaptor with the polymeric immunoglobulin receptor and their possible role in mediating brefeldin A-sensitive basolateral targeting from the trans-Golgi network. Orzech E, et al. **J Biol Chem** 1999 Jan 22;274(4):2201-15

IL-4 and IFN-gamma increase steady state levels of polymeric Ig receptor mRNA in human airway and intestinal epithelial cells. Ackermann LW, et al. **J Immunol** 1999 May 1;162(9):5112-8

Fine specificity of ligand-binding domain 1 in the polymeric Ig receptor: importance of the CDR2-containing region for IgM interaction. Røe M, et al. **J Immunol** 1999 May 15;162(10):6046-52

Role of tyrosine phosphorylation in ligand-induced regulation of transcytosis of the polymeric Ig receptor. Luton F, et al. **Mol Biol Cell** 1998 Jul;9(7):1787-802

Transduction of basolateral-to-apical signals across epithelial cells: ligand-stimulated transcytosis of the polymeric immunoglobulin receptor requires two signals. Luton F, et al. **Mol Biol Cell** 1999 May;10(5):1409-27

Over-expression of the murine polymeric immunoglobulin receptor gene in the mammary gland of transgenic mice. de Groot N, et al. **Transgenic Res** 1999 Apr;8(2):125-35

PHYSIOLOGY

A human immunoglobulin (Ig)A calpha3 domain motif directs polymeric Ig receptor-mediated secretion. Hexham JM, et al. **J Exp Med** 1999 Feb 15;189(4):747-52

RECEPTORS, PRESYNAPTIC

AGONISTS

Mathematical analysis of the control of neurotransmitter release by presynaptic receptors as a supplement to experimental data. Feuerstein TJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):345-59 (23 ref.)

ANALYSIS

Ectopic substance P-immunoreactive boutons are preferentially presynaptic to neurokinin-1 receptor immunoreactive dendrites in the spinal white matter of transgenic mice. McLeod AL, et al. **Brain Res** 1999 Jul 31;836(1-2):1-8

Presynaptic markers of cholinergic function in the rat brain: relationship with age and cognitive status. Baxter MG, et al. **Neuroscience** 1999 Mar;89(3):771-9

ANTAGONISTS & INHIBITORS

Comparison of antagonist potencies at pre- and post-synaptic GABA(B) receptors at inhibitory synapses in the CA1 region of the rat hippocampus. Pozza MF, et al. **Br J Pharmacol** 1999 May;127(1):211-9

CHEMISTRY

Distinct structures and functions of related pre- and postsynaptic carbohydrates at the mammalian neuromuscular junction. Martin PT, et al. **Mol Cell Neurosci** 1999 Feb;13(2):105-18

Age-related cognitive deficits, impaired long-term potentiation and reduction in synaptic marker density in mice lacking the beta-amyloid precursor protein. Dawson GR, et al. **Neuroscience** 1999 Apr;90(1):1-13

DRUG EFFECTS

Potentiation of barbiturate-induced alterations in presynaptic noradrenergic function in rat frontal cortex by imidazol(in)e alpha2-adrenoceptor agonists. Dalley JW, et al. **Br J Pharmacol** 1998 Oct;125(3):441-6

Presynaptic and postsynaptic actions of halothane at

glutamatergic synapses in the mouse hippocampus. Kirson ED, et al. **Br J Pharmacol** 1998 Aug;124(8):1607–14

Kainate acts at presynaptic receptors to increase GABA release from hypothalamic neurons. Liu QS, et al. **J Neurophysiol** 1999 Aug;82(2):1059–62

Facilitation of the presynaptic calcium current at an auditory synapse in rat brainstem. Cuttle MF, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):723–9

Dual mechanism for presynaptic modulation by axonal metabotropic glutamate receptor at the mouse mossy fibre–CA3 synapse. Kamiya H, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):497–506

Presynaptic serotonergic inhibition of GABAergic synaptic transmission in mechanically dissociated rat basolateral amygdala neurons. Koyama S, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):525–38

Presynaptic inhibition by dopamine of a discrete component of GABA release in rat substantia nigra pars reticulata. Miyazaki T, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):805–17

Presynaptic effects of muscarine on ACh release at the frog neuromuscular junction. Slutsky I, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):769–82

Nociceptin inhibits noradrenaline release in the mouse brain cortex via presynaptic ORL1 receptors. Schlicker E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):418–22

Modulation of long-term potentiation induction in the hippocampus by N-methyl-D-aspartate-mediated presynaptic inhibition. Kato K, et al. **Neuroscience** 1999; 92(4):1261–72

GENETICS

PET imaging of the pre-synaptic dopamine uptake sites in rapid-onset dystonia-parkinsonism (RDP). Brashear A, et al. **Mov Disord** 1999 Jan;14(1):132–7

METABOLISM

GABA(B) receptor isoforms GBR1a and GBR1b, appear to be associated with pre- and post-synaptic elements respectively in rat and human cerebellum. Billinton A, et al. **Br J Pharmacol** 1999 Mar;126(6):1387–92

Calcium channels involved in the inhibition of acetylcholine release by presynaptic muscarinic receptors in rat striatum. Dolezal V, et al. **Br J Pharmacol** 1999 Aug;127(7):1627–32

Heterogeneity of prejunctional NPY receptor-mediated inhibition of cardiac neurotransmission. Serone AP, et al. **Br J Pharmacol** 1999 May;127(1):99–108

The effect of presynaptic catecholamine depletion on 6-hydroxymelatonin sulfate: a double blind study of alpha-methyl-para-tyrosine. Krahn LE, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):61–6

Presynaptic imidazoline receptors mediate inhibition of noradrenaline release from sympathetic nerves in rat blood vessels. Molderings GJ, et al. **Fundam Clin Pharmacol** 1998; 12(4):388–97

High presynaptic dopaminergic activity in children with Tourette's disorder. Ernst M, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jan;38(1):86–94

Light-induced calcium influx into retinal axons is regulated by presynaptic nicotinic acetylcholine receptor activity in vivo. Edwards JA, et al. **J Neurophysiol** 1999 Feb; 81(2):895–907

ATP stimulates sympathetic transmitter release via presynaptic P2X purinoceptors. Boehm S. **J Neurosci** 1999 Jan 15;19(2):737–46

Diverse pre- and post-synaptic expression of m1–m4 muscarinic receptor proteins in neurons and afferents in the rat neostriatum. Hersch SM, et al. **Life Sci** 1995; 56(11-12):931–8

Presynaptic kainate receptors in the monkey striatum. Charara A, et al. **Neuroscience** 1999;91(4):1195–200

Displacement of the binding of 5-HT(1A) receptor ligands to pre- and postsynaptic receptors by (-)pindolol. A comparative study in rodent, primate and human brain. Raurich A, et al. **Synapse** 1999 Oct;34(1):68–76

PHYSIOLOGY

Direct and indirect presynaptic control of dopamine release by excitatory amino acids. Chéramy A, et al. **Amino Acids** 1998;14(1-3):63–8 (25 ref.)

Modulation by presynaptic beta-adrenoceptors of noradrenaline release from sympathetic nerves in human dental pulp. Parker DA, et al. **Arch Oral Biol** 1998 Dec; 43(12):949–54

Effects of (–)-tertatolol, (–)-penbutolol and (+/–)-pindolol in combination with paroxetine on presynaptic 5-HT function: an in vivo microdialysis and electrophysiological study. Gartside SE, et al. **Br J Pharmacol** 1999 May; 127(1):145–52

Pre- and post-synaptic muscarinic receptors in thin slices of rat adrenal gland. Barbara JG, et al. **Eur J Neurosci** 1998 Nov;10(11):3535–45

NMDA receptor activity stabilizes presynaptic retinotectal axons and postsynaptic optic tectal cell dendrites in vivo. Rajan I, et al. **J Neurobiol** 1999 Feb 15;38(3):357–68

Presynaptic kappa-opioid and muscarinic receptors inhibit the calcium-dependent component of evoked glutamate release from striatal synaptosomes. Rawls SM, et al. **J Neurochem** 1999 Sep;73(3):1058–65

Tonic activation of presynaptic GABAB receptors in the opener neuromuscular junction of crayfish. Parnas I, et al. **J Neurophysiol** 1999 Mar;81(3):1184–91

Different subtypes of GABAB receptors are present at pre- and postsynaptic sites within the rat dorsolateral septal nucleus. Yamada K, et al. **J Neurophysiol** 1999 Jun; 81(6):2875–83

Presynaptic effects of NMDA in cerebellar Purkinje cells and interneurons. Glitsch M, et al. **J Neurosci** 1999 Jan 15;19(2):511–9

Presynaptic adrenergic facilitation of parasympathetic neurotransmission in sympathectomized rat smooth muscle. Krizsan-Agbas D, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):841–9

Two components of transmitter release from the chick ciliary presynaptic terminal and their regulation by protein kinase C. Yawo H. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):461–70

Activity-dependent enhancement of presynaptic facilitation provides a cellular mechanism for the temporal specificity of classical conditioning in Aplysia. Clark GA, et al. **Learn Mem** 1994 Nov-Dec;1(4):243–57

Input-specific induction of cerebellar long-term depression does not require presynaptic alteration. Linden DJ. **Learn Mem** 1994 Jul-Aug;1(2):121–8

Modulation of noradrenaline release from the sympathetic nerves of human right atrial appendages by presynaptic EP3- and DP-receptors. Molderings GJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):440–4

Effects of imidazoline receptor ligands on monoamine synthesis in the rat brain in vivo. Sastre-Coll A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jul; 360(1):50–62

Calcium changes induced by presynaptic 5-hydroxytryptamine-3 serotonin receptors on isolated terminals from various regions of the rat brain. Nayak SV, et al. **Neuroscience** 1999;91(1):107–17

Dynamic mechanical allodynia in humans is not mediated by a central presynaptic interaction of A beta-mechanoreceptive and nociceptive C-afferents. Wasner G, et al. **Pain** 1999 Feb;79(2-3):113–9

Dopamine modulates peripheral purinergic neurotransmission through multiple presynaptic receptors: tissue-dependent effects. El-Mas MM, et al. **Pharmacol Res** 1999 Jan; 39(1):11–9

RECEPTORS, PROGESTERONE

Steroid hormone receptors in breast cancer management. Osborne CK. **Breast Cancer Res Treat** 1998;51(3):227–38 (76 ref.)

AGONISTS

5-Benzylidene 1,2-dihydrochromeno[3,4-f]quinolines, a novel class of nonsteroidal human progesterone receptor agonists. Tegley CM, et al. **J Med Chem** 1998 Oct 22; 41(22):4354–9

5-Aryl-1,2,3,4-tetrahydrochromeno[3,4-f]quinolin-3-ones as a novel class of nonsteroidal progesterone receptor agonists: effect of A-ring modification. Zhi L, et al. **J Med Chem** 1999 Apr 22;42(8):1466–72

ANALYSIS

Immunohistochemical detection of estrogen and progesterone receptors in primary breast cancer. Chariyalertsak S, et al. **Asian Pac J Allergy Immunol** 1998 Dec;16(4):161–6

Immunolocalization of progesterone receptors in bovine placentomes throughout mid and late gestation and at parturition. Schuler G, et al. **Biol Reprod** 1999 Sep; 61(3):797–801

Absence of progesterone receptor associated with secondary breast cancer in postmenopausal women. Balleine RL, et al. **Br J Cancer** 1999 Mar;79(9-10):1564–71

Expression of intracellular progesterone receptors in rat brain during different reproductive states, and involvement in maternal behavior. Numan M, et al. **Brain Res** 1999 Jun 5;830(2):358–71

Estrogen receptor negative and progesterone receptor positive primary breast cancer: pathological characteristics and clinical outcome. Institut Curie Breast Cancer Study Group. Bernoux A, et al. **Breast Cancer Res Treat** 1998 Jun;49(3):219–25

Quantitation of progesterone receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):57–62

Comparison of immunohistochemical and biochemical measurement of steroid receptors in primary breast cancer: evaluation of discordant findings. Stierer M, et al. **Breast Cancer Res Treat** 1998 Jul;50(2):125–34

The stability of estrogen and progesterone receptor expression on breast carcinoma cells stored as PreservCyt suspensions and as ThinPrep slides. Tabbara SO, et al. **Cancer** 1998 Dec 25;84(6):355–60

Paraffin section immunocytochemistry and cytosol-based ligand-binding assays for ER and PR detection in breast cancer: the time has come for more objectivity. Goussard J. **Cancer Lett** 1998 Oct 23;132(1-2):61–6 (27 ref.)

Estrogen and progesterone receptors in normal and varicose saphenous veins. Mashiah A, et al. **Cardiovasc Surg** 1999 Apr;7(3):327–31

Expression of estrogen receptors and progesterone receptors in transitional cell carcinoma of bladder [letter] Shan Y, et al. **Chin Med J (Engl)** 1998 Feb;111(2):191–2

Relationship between hormone receptor concentration and tumor shrinkage in uterine myoma after treatment with a GnRHa. Wang PH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 May;62(5):294–9

Apoptosis in breast carcinomas detected with monoclonal antibody to single-stranded DNA: relation to bcl-2 expression, hormone receptors, and lymph node metastases. Frankfurt OS, et al. **Clin Cancer Res** 1997 Mar;3(3):465–71

Loss of heterozygosity at 11q22 correlates with low progesterone receptor content in epithelial ovarian cancer. Gabra H, et al. **Clin Cancer Res** 1995 Sep;1(9):945–53

Use of reverse transcription-polymerase chain reaction methodology to detect estrogen-regulated gene expression in small breast cancer specimens. Knowlden JM, et al. **Clin Cancer Res** 1997 Nov;3(11):2165–72

Immunohistochemical detection of oestrogen and progesterone receptors in salivary tumours. Jeannon JP, et al. **Clin Otolaryngol** 1999 Feb;24(1):52–4

Relationship between steroid receptors (as continuous variables) and response to adjuvant treatments in postmenopausal women with node-positive breast cancer. Coradini D, et al. **Int J Biol Markers** 1999 Apr-Jun; 14(2):60–7

Expression pattern of the AP-1 family in breast cancer: association of fosB expression with a well-differentiated, receptor-positive tumor phenotype. Bamberger AM, et al. **Int J Cancer** 1999 Oct 22;84(5):533–8

Expression of steroid receptors, Ki-67, and p53 in uterine leiomyosarcomas. Zhai YL, et al. **Int J Gynecol Pathol** 1999 Jan;18(1):20–8

Immune functions, clinical parameters and hormone receptor status in breast cancer patients. Shevde LA, et al. **J Cancer Res Clin Oncol** 1999;125(5):313–20

Colocalization of progesterone receptors A and B by dual immunofluorescent histochemistry in human endometrium during the menstrual cycle. Mote PA, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2963–71

Timing of breast cancer surgery within the menstrual cycle: tumor proliferative activity, receptor status and short-term clinical outcome. Mangia A, et al. **J Exp Clin Cancer Res** 1998 Sep;17(3):317–23

An immunohistochemical study of progesterone receptor in thyroidal Hürthle cells tumors. Zaccheroni V, et al. **J Exp Clin Cancer Res** 1998 Sep;17(3):291–8

Re: Multifactorial analysis of differences between sporadic breast cancers and cancers involving BRCA1 and BRCA2 mutations [letter; comment] Brown DL, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):90–1. Comment on: J Natl Cancer Inst 1998 Aug 5;90(15):1138–45.

Oestrogen and progesterone receptor immunoreactivity and c-fos expression in the ovine cervix. Zhao Y, et al. **J Reprod Fertil** 1999 Mar;115(2):287–92

Integration of estrogen and progesterone receptors with pathological and molecular prognostic factors in breast cancer patients. Gago FE, et al. **J Steroid Biochem Mol Biol** 1998 Dec;67(5-6):431–7

The association between c-fos and c-jun expression and estrogen and progesterone receptors is lost in human endometrial cancer. Salmi A, et al. **Tumour Biol** 1999 Jul-Aug;20(4):202–11

[The importance of steroid receptors for the prognosis and hormone treatment of breast cancer patients: a retrospective study in Southeastern Netherlands] Voogd AC, et al. **Ned Tijdschr Geneeskd** 1998 Aug 1; 142(31):1772–8 (Eng. Abstr.) **(Dut)**

[Steroid hormone receptor status and other immunohistochemical prognostic markers in benign and malignant diseases of the breast] Nizze H, et al. **Zentralbl Chir** 1998;123 Suppl 5:14–8 (46 ref.) (Eng. Abstr.) **(Ger)**

[Relationship of estrogen and progesterone receptors to the menstrual cycle and menopausal status at the time of breast surgery] Karbowski B, et al. **Zentralbl Gynakol** 1999; 121(8):367–74 (Eng. Abstr.) **(Ger)**

[The factors affecting the level of ovarian hormone receptors in breast tumors in women] Borisenkov MF, et al. **Ontogenez** 1999 Mar-Apr;30(2):130–3 (Eng. Abstr.) **(Rus)**

[Content of progesterone, glucocorticoid and glycyrrhizic acid receptors in normal and tumoral human breast tissue] Il'icheva TN, et al. **Vopr Onkol** 1998;44(4):390–4 (Eng. Abstr.) **(Rus)**

[Progesterone receptors in the prognosis after therapy of pre- and post-menopausal patients with squamous intraepithelial lesions and cancer of the uterine cervix] González Sánchez JL, et al. **Ginecol Obstet Mex** 1999 Feb;67:75–9 (Eng. Abstr.) **(Spa)**

ANTAGONISTS & INHIBITORS

Nonsteroidal progesterone receptor antagonists based on a conformationally-restricted subseries of 6-aryl-1,2-dihydro-2,2,4-trimethylquinolines. Hamann LG, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2731–6

The novel progesterone receptor antagonists RTI 3021-012 and RTI 3021-022 exhibit complex glucocorticoid receptor antagonist activities: implications for the development of dissociated antiprogestins. Wagner BL, et al. **Endocrinology** 1999 Mar;140(3):1449–58

Antiprogestin regulable gene switch for induction of gene expression in vivo. Wang Y, et al. **Methods Enzymol** 1999;

306:281–94

BIOSYNTHESIS

Differential regulation of specific genes in MCF-7 and the ICI 182780-resistant cell line MCF-7/182R-6. Jensen BL, et al. **Br J Cancer** 1999 Feb;79(3–4):386–92

Expression of oestrogen and progesterone receptors in gastric cancer: a flow cytometric study. Karat D, et al. **Br J Cancer** 1999 Jun;80(8):1271–4

Progesterone receptor A and B isoform expression in human osteoblasts. Mac Namara P, et al. **Calcif Tissue Int** 1998 Jul;63(1):39–46

Flow cytometric analysis of estrogen, progesterone receptor expression and DNA content in formalin-fixed, paraffin-embedded human breast tumors. Redkar AA, et al. **Cytometry** 1999 Apr 15;38(2):61–9

Murine progesterone receptor expression in proliferating mammary epithelial cells during normal pubertal development and adult estrous cycle. Association with eralpha and erbeta status. Zeps N, et al. **J Histochem Cytochem** 1999 Oct;47(10):1323–30

Neuronal signals are required for estrogen-mediated induction of progesterone receptor in cultured rat Schwann cells. Thi AD, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):201–11

Estrogenicity of bisphenol A in a human endometrial carcinoma cell line. Bergeron RM, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):179–87

Expression of progesterone receptor isoforms in corpora lutea of human subjects: correlation with serum oestrogen and progesterone concentrations. Misao R, et al. **Mol Hum Reprod** 1998 Nov;4(11):1045–52

Obesity affects expression of progesterone receptors and node metastasis of mammary carcinomas in postmenopausal women without a family history. Honda H, et al. **Pathol Int** 1999 Mar;49(3):198–202

CHEMISTRY

Synthesis and structure–activity relationships of new non-steroidal progesterone receptor ligands. Kurihara K, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1837–42

Agonist and antagonists induce homodimerization and mixed ligand heterodimerization of human progesterone receptors in vivo by a mammalian two-hybrid assay. Leonhardt SA, et al. **Mol Endocrinol** 1998 Dec;12(12):1914–30

DRUG EFFECTS

5-Alkyl 1,2-dihydrochromeno[3,4-f]quinolines: a novel class of nonsteroidal progesterone receptor modulators. Zhi L, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3365–70

Effect of interferon alpha-2a on hormone receptor status in patients with advanced breast cancer. Kornek G, et al. **Cancer Invest** 1999;17(3):189–94

Effects of tamoxifen on steroid hormone receptors and hormone concentration and the results of DNA analysis by flow cytometry in endometrial carcinoma. Nola M, et al. **Gynecol Oncol** 1999 Mar;72(3):331–6

Dual reporter systems in yeast and mammalian cells for assessing progesterone receptor modulators. Rudakoff B, et al. **J Cell Biochem** 1999 Apr 1;73(1):126–36

Hormonal regulation of oestrogen and progesterone receptors in cultured bovine endometrial cells. Xiao CW, et al. **J Reprod Fertil** 1999 Jan;115(1):101–9

The effect of intrauterine levonorgestrel use on the expression of c-JUN, oestrogen receptors, progesterone receptors and Ki-67 in human endometrium. Salmi A, et al. **Mol Hum Reprod** 1998 Dec;4(12):1110–5

GENETICS

Identification of various exon-deleted progesterone receptor mRNAs in human endometrium and ovarian endometriosis. Misao R, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):302–6

Mutual and intercompartmental regulation of estrogen receptor and progesterone receptor expression in the mouse uterus. Tibbetts TA, et al. **Biol Reprod** 1998 Nov; 59(5):1143–52

Altered expression of exon 6 deleted progesterone receptor variant mRNA between normal human breast and breast tumour tissues. Leygue E, et al. **Br J Cancer** 1999 May; 80(3–4):379–82

Variant estrogen and progesterone receptor messages in human vascular smooth muscle. Hodges YK, et al. **Circulation** 1999 May 25;99(20):2688–93

Methylation of estrogen and progesterone receptor gene 5' CpG islands correlates with lack of estrogen and progesterone receptor gene expression in breast tumors. Lapidus RG, et al. **Clin Cancer Res** 1996 May;2(5):805–10

Assignment of the horse progesterone receptor (PGR) and estrogen receptor (ESR1) genes to horse chromosomes 7 and 31, respectively, by in situ hybridization. Lear TL, et al. **Cytogenet Cell Genet** 1998;82(1–2):110–1

Steroid regulation of progesterone receptor expression in cultured rat gonadotropes. Turgeon JL, et al. **Endocrinology** 1999 May;140(5):2318–25

Effect of long-term castration and long-term androgen treatment on sexually dimorphic estrogen-inducible progesterone receptor mRNA levels in the ventromedial hypothalamus of whiptail lizards. Wennstrom KL, et al. **Horm Behav** 1998 Aug;34(1):11–6

Ligand-dependent regulation of plasmid-based transgene expression in vivo. Abruzzese RV, et al. **Hum Gene Ther** 1999 Jun 10;10(9):1499–507

The progesterone receptor (PGR) gene maps to porcine chromosome 9p13–p11 by a rodent-porcine somatic cell hybrid panel. Hu ZL, et al. **J Anim Sci** 1998 Oct; 76(10):2749–50

Coexpression of alternatively spliced estrogen and progesterone receptor transcripts in human breast cancer. Balleine RL, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1370–7

Isolation of a polymorphic CA repeat sequence at the human progesterone receptor (PGR) locus. Tsukamoto K, et al. **J Hum Genet** 1998;43(4):287–8

Inducible site-specific recombination in the brain. Kellendonk C, et al. **J Mol Biol** 1999 Jan 8;285(1):175–82

Hormonal regulation of progesterone receptor mRNA expression in the hypothalamus of whiptail lizards: regional and species differences. Godwin J, et al. **J Neurobiol** 1999 May;39(2):287–93

Induction of progestin receptors by estradiol in the forebrain of estrogen receptor-alpha gene-disrupted mice. Moffatt CA, et al. **J Neurosci** 1998 Nov 15;18(22):9556–63

Identification of sex hormone receptors in human and rabbit ligaments of the knee by reverse transcription-polymerase chain reaction: evidence that receptors are present in tissue from both male and female subjects. Sciore P, et al. **J Orthop Res** 1998 Sep;16(5):604–10

Two-step synergism between the progesterone receptor and the DNA-binding domain of nuclear factor 1 on MMTV minichromosomes. Di Croce L, et al. **Mol Cell** 1999 Jul; 4(1):45–54

Progesterone receptor in chicken bursa of Fabricius and thymus: evidence for expression in B-lymphocytes. Pasanen S, et al. **Mol Cell Endocrinol** 1998 Jun 25; 141(1–2):119–28

Hormone induction of progesterone receptor (PR) messenger ribonucleic acid and activation of PR promoter regions in ovarian granulosa cells: evidence for a role of cyclic adenosine 3',5'-monophosphate but not estradiol. Clemens JW, et al. **Mol Endocrinol** 1998 Aug;12(8):1201–14

Differential localization and activity of the A- and B-forms of the human progesterone receptor using green fluorescent protein chimeras. Lim CS, et al. **Mol Endocrinol** 1999 Mar; 13(3):366–75

Hormone-dependent interaction between the amino- and carboxyl-terminal domains of progesterone receptor in vitro and in vivo. Tetel MJ, et al. **Mol Endocrinol** 1999 Jun;13(6):910–24

Progesterone receptor expression in the human placenta. Shanker YG, et al. **Mol Hum Reprod** 1999 May;5(5):481–6

Progesterone receptor isoforms are differentially regulated by sex steroids in the rat forebrain. Camacho-Arroyo I, et al. **Neuroreport** 1998 Dec 21;9(18):3993–6

Disruption of estrogen signaling does not prevent progesterone action in the estrogen receptor alpha knockout mouse uterus. Curtis SW, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3646–51

Expression of human estrogen receptor-alpha and -beta, progesterone receptor, and androgen receptor mRNA in normal and malignant ovarian epithelial cells. Lau KM, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5722–7

METABOLISM

Progesterone receptor status is a significant prognostic variable of progression-free survival in advanced epithelial ovarian cancer. Hempling RE, et al. **Am J Clin Oncol** 1998 Oct;21(5):447–51

Estrogen and progesterone receptor contents in ThinPrep-processed fine-needle aspirates of breast. Leung SW, et al. **Am J Clin Pathol** 1999 Jul;112(1):50–6

Quantitative image analysis of estrogen and progesterone receptors as a prognostic tool for selecting breast cancer patients for therapy. Castagnetta LA, et al. **Anal Quant Cytol Histol** 1999 Feb;21(1):59–62

News and views of non-genomic progesterone receptors on spermatozoa. Blackmore PF. **Andrologia** 1998 Aug-Sep; 30(4–5):255–61 (69 ref.)

Interactions of 16alpha,17alpha-cyclohexane derivatives of progesterone with the progesterone receptor from rat uterus. Smirnov AN, et al. **Biochemistry (Mosc)** 1998 Sep; 63(9):1090–7

Investigation of the binding interactions of progesterone using muteins of the human progesterone receptor ligand binding domain designed on the basis of a three-dimensional protein model. Letz M, et al. **Biochim Biophys Acta** 1999 Jan 11;1429(2):391–400

Alcohol consumption and breast cancer oestrogen and progesterone receptor status. Enger SM, et al. **Br J Cancer** 1999 Mar;79(7–8):1308–14

Effect of photoperiod on neural estrogen and progestin receptor immunoreactivity in female Syrian hamsters. Mangels RA, et al. **Brain Res** 1998 Jun 15;796(1–2):63–74

Pattern of distribution of cells positive for estrogen receptor alpha and progesterone receptor in relation to proliferating cells in the mammary gland. Russo J, et al. **Breast Cancer Res Treat** 1999 Feb;53(3):217–27

Estrogen and progesterone receptor concentrations and prevalence of tumor hormonal phenotypes in older breast cancer patients. Ashba J, et al. **Cancer Detect Prev** 1999; 23(3):238–44

Nm-23, c-erbB-2, and progesterone receptor expression in invasive breast cancer: correlation with clinicopathologic parameters. Nakopoulou LL, et al. **Cancer Detect Prev** 1999;23(4):297–308

p53 overexpression and mutation in endometrial carcinoma: inverted relation with estrogen and progesterone receptor status. Niwa K, et al. **Cancer Detect Prev** 1999;23(2):147–54

Association of cytochrome P450 1B1 (CYP1B1) polymorphism with steroid receptor status in breast cancer [published erratum appears in Cancer Res 1999 Mar 15;59(6):1388] Bailey LR, et al. **Cancer Res** 1998 Nov 15; 58(22):5038–41

In breast cancer, amplification of the steroid receptor coactivator gene A1B1 is correlated with estrogen and progesterone receptor positivity. Bautista S, et al. **Clin Cancer Res** 1998 Dec;4(12):2925–9

Progestins inhibit the growth of MDA-MB-231 cells transfected with progesterone receptor complementary DNA. Lin VC, et al. **Clin Cancer Res** 1999 Feb; 5(2):395–403

Messenger RNA determination of estrogen receptor, progesterone receptor, pS2, and plasminogen activator inhibitor-1 by competitive reverse transcription-polymerase chain reaction in human breast cancer. Tong D, et al. **Clin Cancer Res** 1999 Jun; 5(6):1497–502

Aggressive angiomyxoma of the vulva: expression of estroprogestinic receptors and follow-up. De Salvia D, et al. **Clin Exp Obstet Gynecol** 1998;25(4):141–3

Immunocytochemical detection of estrogen and progesterone receptors in the rabbit submandibular gland. Camacho-Arroyo I, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):179–86

The kinase Eg2 is a component of the Xenopus oocyte progesterone-activated signaling pathway. Andrésson T, et al. **EMBO J** 1998 Oct 1;17(19):5627–37

Effect of CDRI-85/287 on uterine estradiol and progesterone receptor levels/morphometric measurements during preimplantation period in rat. Gupta S, et al. **Endocr Res** 1998 May;24(2):171–84

Pesticides interfere with the nongenomic action of a progestogen on meiotic maturation by binding to its plasma membrane receptor on fish oocytes. Das S, et al. **Endocrinology** 1999 Apr;140(4):1953–6

Effect of estrogen agonists and antagonists on induction of progesterone receptor in a rat hypothalamic cell line. Fitzpatrick SL, et al. **Endocrinology** 1999 Sep; 140(9):3928–37

Fluctuating estrogen and progesterone receptor expression in brainstem norepinephrine neurons through the rat estrous cycle. Haywood SA, et al. **Endocrinology** 1999 Jul; 140(7):3255–63

Stromal progesterone receptors mediate the inhibitory effects of progesterone on estrogen-induced uterine epithelial cell deoxyribonucleic acid synthesis. Kurita T, et al. **Endocrinology** 1998 Nov;139(11):4708–13

Is steroid receptor profile in contralateral breast cancer a marker of independence of the corresponding primary tumour? Coradini D, et al. **Eur J Cancer** 1998 May; 34(6):825–30

Estrogen and progesterone receptor manipulations in castrated rat uterus models and the clinical adaptation. Saygili U, et al. **Eur J Gynaecol Oncol** 1998;19(4):410–4

Progesterone receptors in gastric leiomyosarcoma [letter] Munoz E. **Eur J Surg** 1998 Oct;164(10):796 (5 ref.)

Endometrial estrogen and progesterone receptor and pinopode expression in stimulated cycles of oocyte donors. Develioglu OH, et al. **Fertil Steril** 1999 Jun;71(6):1040–7

Correlation between the growth of uterine leiomyomata and estrogen and progesterone receptor content in needle biopsy specimens. Ichimura T, et al. **Fertil Steril** 1998 Nov; 70(5):967–71

Prognostic significance of progesterone receptor immunohistochemistry for lymph node metastases in endometrial carcinoma. Iwai K, et al. **Gynecol Oncol** 1999 Mar;72(3):351–9

Sex and androgenic steroid receptor expression in hepatic adenomas. Cohen C, et al. **Hum Pathol** 1998 Dec; 29(12):1428–32

Matrix metalloproteinase-1 and -3 in breast cancer: correlation with progesterone receptors and other clinicopathologic features [see comments] Nakopoulou L, et al. **Hum Pathol** 1999 Apr;30(4):436–42. Comment in: Hum Pathol 1999 Apr;30(4):363–4.

Immunohistochemical localization of receptors for progesterone and oestradiol-17 beta in the implantation site of the rhesus monkey. Ghosh D, et al. **Hum Reprod** 1999 Feb;14(2):505–14

The cyclic pattern of the immunocytochemical expression of oestrogen and progesterone receptors in human myometrial and endometrial layers: characterization of the endometrial-subendometrial unit. Noe M, et al. **Hum Reprod** 1999 Jan;14(1):190–7

The assembly of progesterone receptor-hsp90 complexes using purified proteins. Kosano H, et al. **J Biol Chem** 1998 Dec 4;273(49):32973–9

Convergence of progesterone with growth factor and cytokine signaling in breast cancer. Progesterone receptors regulate signal transducers and activators of transcription expression and activity. Richer JK, et al. **J Biol Chem** 1998 Nov 20;273(47):31317–26

A transcriptional coactivator, steroid receptor coactivator-3,

selectively augments steroid receptor transcriptional activity. Suen CS, et al. **J Biol Chem** 1998 Oct 16; 273(42):27645–53

Only a small portion of the cytoplasmic progesterone receptor is associated with Hsp90 in vivo. Passinen S, et al. **J Cell Biochem** 1999 Sep 1;74(3):458–67

Apoptosis, proliferation, and sex hormone receptors in superficial parts of human endometrium at the end of the secretory phase. Dahmoun M, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1737–43

Sex steroid receptors in human myometrium and fibroids: changes during the menstrual cycle and gonadotropin-releasing hormone treatment. Englund K, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4092–6

Nitric oxide synthase in the guinea pig preoptic area and hypothalamus: distribution, effect of estrogen, and colocalization with progesterone receptor. Warembourg M, et al. **J Comp Neurol** 1999 May 3;407(2):207–27

Bovine ovarian non-genomic progesterone binding sites: presence in follicular and luteal cell membranes. Rae MT, et al. **J Endocrinol** 1998 Dec;159(3):413–27

Cyclic GMP may potentiate lordosis behaviour by progesterone receptor activation. Chu HP, et al. **J Neuroendocrinol** 1999 Feb;11(2):107–13

Metastatic lesions from prostate cancer do not express oestrogen and progesterone receptors [letter; comment] Castagnetta LA, et al. **J Pathol** 1998 Aug;185(4):435–7. Comment on: J Pathol 1997 Jul;182(3):356–61.

Progesterone receptor involvement in independent tumor growth in MPA-induced murine mammary adenocarcinomas. Montecchia MF, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1–2):11–21

Proliferative activity and steroid hormone receptor status in male breast carcinoma. Muñoz de Toro MM, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(4):333–9

Different populations of progesterone receptor–steroid complexes in binding to specific DNA sequences: effects of salts on kinetics and specificity. Plisov SY, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(3):251–66

Evidence for enhanced ubiquitin-mediated proteolysis of the chicken progesterone receptor by progesterone. Syvälä H, et al. **Life Sci** 1998;63(17):1505–12

Endometrial endothelial cells express estrogen and progesterone receptors and exhibit a tissue specific response to angiogenic growth factors. Iruela-Arispe ML, et al. **Microcirculation** 1999 Jun;6(2):127–40

Immunohistochemical evaluation of estrogen and progesterone receptors in paraffin-embedded, formalin-fixed endometrial tissues: comparison with enzyme immunoassay and immunohistochemical analysis of frozen tissue. Ravn V, et al. **Mod Pathol** 1998 Aug; 11(8):709–15

Stimulation of specific binding of [3H]-progesterone to bovine luteal cell-surface membranes: specificity of digitonin. Menzies GS, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):57–69

Hormone-dependent interaction between the amino- and carboxyl-terminal domains of progesterone receptor in vitro and in vivo. Tetel MJ, et al. **Mol Endocrinol** 1999 Jun;13(6):910–24

Mechanisms of progesterone receptor export from nuclei: role of nuclear localization signal, nuclear export signal, and ran guanosine triphosphate. Tyagi RK, et al. **Mol Endocrinol** 1998 Nov;12(11):1684–95

Progesterone receptor expression in the human placenta. Shanker YG, et al. **Mol Hum Reprod** 1999 May;5(5):481–6

Progesterone receptor subtype B is differentially regulated in human endometrial stroma. Wang H, et al. **Mol Hum Reprod** 1998 Apr;4(4):407–12

New iodinated progestins as potential ligands for progesterone receptor imaging in breast cancer. Part 2: In vivo pharmacological characterization. Rijks LJ, et al. **Nucl Med Biol** 1998 Nov;25(8):791–8

New iodinated progestins as potential ligands for progesterone receptor imaging in breast cancer. Part 1: Synthesis and in vitro pharmacological characterization. van den Bos JC, et al. **Nucl Med Biol** 1998 Nov;25(8):781–9

Steroid receptor coactivator-1 (SRC-1) enhances ligand-dependent and receptor-dependent cell-free transcription of chromatin. Liu Z, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9485–90

Nongenomic progesterone receptor on human spermatozoa: biochemical aspects and clinical implications. Baldi E, et al. **Steroids** 1999 Jan–Feb;64(1–2):143–8 (53 ref.)

Sex hormone-receptor-negative tumors have a higher proliferative activity than sex hormone-receptor-positive tumors in human adenocarcinomas of the gastrointestinal tract. Korenaga D, et al. **Surg Today** 1998;28(10):1007–14

pS2 in breast carcinoma: association with steroid hormone receptor status. Nikolić-Vukosavljević D, et al. **Tumori** 1998 Nov–Dec;84(6):691–4

[Binding affinity to steroid hormone receptors and antiproliferative action on MCF-7 cells of coumarin derivatives and isoflavonoids] Kirkiacharian S, et al. **Ann Pharm Fr** 1999 Jul;57(4):332–9 (Eng. Abstr.) **(Fre)**

[Prognostic significance of epidermal growth factor receptors in stage I–II breast cancer: results of a six-year follow-up] Gerstein ES, et al. **Vopr Onkol** 1998;44(4):383–9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Progesterone-induced acrosome reaction in stallion spermatozoa is mediated by a plasma membrane progesterone receptor. Cheng FP, et al. **Biol Reprod** 1998 Oct;59(4):733–42

Progesterone via its receptor antagonizes the pro-inflammatory activity of estrogen in the mouse uterus. Tibbetts TA, et al. **Biol Reprod** 1999 May;60(5):1158–65

Estrogen receptor-beta messenger RNA expression in human breast tumor biopsies: relationship to steroid receptor status and regulation by progestins. Dotzlaw H, et al. **Cancer Res** 1999 Feb 1;59(3):529–32

Murine mammary gland carcinogenesis is critically dependent on progesterone receptor function. Lydon JP, et al. **Cancer Res** 1999 Sep 1;59(17):4276–84

Promotion of estrogen-induced mammary gland carcinogenesis by androgen in the male Noble rat: probable mediation by steroid receptors. Liao DZ, et al. **Carcinogenesis** 1998 Dec;19(12):2173–80

Functionality of the progesterone receptor in ovarian cancer and its regulation by estrogen. Langdon SP, et al. **Clin Cancer Res** 1998 Sep;4(9):2245–51

Progesterone receptor regulates decidual prolactin expression in differentiating human endometrial stromal cells. Brosens JJ, et al. **Endocrinology** 1999 Oct;140(10):4809–20

Absence of gonadotropin surges and gonadotropin-releasing hormone self-priming in ovariectomized (OVX), estrogen (E2)-treated, progesterone receptor knockout (PRKO) mice. Chappell PE, et al. **Endocrinology** 1999 Aug; 140(8):3653–8

Trans-activation functions of the Sp-related nuclear factor, basic transcription element-binding protein, and progesterone receptor in endometrial epithelial cells. Simmen RC, et al. **Endocrinology** 1999 Jun;140(6):2517–25

Cervical ripening after treatment with prostaglandin E2 or antiprogestin (RU486). Possible mechanisms in relation to gonadal steroids. Stjernholm YM, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 May;84(1):83–8

Regulation of male sexual behavior by progesterone receptor, sexual experience, and androgen. Phelps SM, et al. **Horm Behav** 1998 Dec;34(3):294–302

The effect of a levonorgestrel-releasing intrauterine device on human endometrial oestrogen and progesterone receptors after one year of use. Zhu P, et al. **Hum Reprod** 1999 Apr;14(4):970–5

Expression of the oxytocin receptor in relation to steroid receptors in the uterus of a primate model, the marmoset monkey. Einspanier A, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):634–46

Endometrial oestrogen and progesterone receptors and their relationship to sonographic appearance of the endometrium. Ohno Y, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):560–4 (17 ref.)

Mechanism of action and clinical effects of antiprogestins on the non-pregnant uterus. Spitz IM, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):584–93 (71 ref.)

Acrosome reaction in dog sperm is induced by a membrane-localized progesterone receptor. Sirivaidyapong S, et al. **J Androl** 1999 Jul–Aug; 20(4):537–44

Mating-related stimulation induces phosphorylation of dopamine- and cyclic AMP-regulated phosphoprotein-32 in progestin receptor-containing areas in the female rat brain. Meredith JM, et al. **J Neurosci** 1998 Dec 1; 18(23):10189–95

Activation of the insulin-like growth factor binding protein-1 promoter by progesterone receptor in decidualized human endometrial stromal cells. Gao J, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):11–7

Definition of a negative modulation domain in the human progesterone receptor. Huse B, et al. **Mol Endocrinol** 1998 Sep;12(9):1334–42

[Molecular and clinical endocrinology of the endometrium] Bamberger AM, et al. **Pathologe** 1999 Jan;20(1):50–5 (Eng. Abstr.) **(Ger)**

RECEPTORS, PROGESTIN see **RECEPTORS, PROGESTERONE**

RECEPTORS, PROGLUMIDE see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, PROLACTIN

ANALYSIS

Prolactin receptor localization to the area postrema. Mangurian LP, et al. **Brain Res** 1999 Jul 31;836(1–2):218–20

ANTAGONISTS & INHIBITORS

Prolactin receptor antagonists. Kuo CB, et al. **Endocrine** 1998 Oct;9(2):121–31 (84 ref.)

BIOSYNTHESIS

Transduction pathways involved in rapid hormone receptor regulation in the mammary epithelium. Bolander FF Jr. **Am J Physiol** 1998 Oct;275(4 Pt 1):E553–7

[Effect of bromocriptin on prolactin receptor expression in liver cells after the common bile duct ligation] Orlova AN, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):52–5 **(Rus)**

BLOOD

Growth hormone (GH) and prolactin receptors in human peripheral blood mononuclear cells: relation with age and GH-binding protein. Bresson JL, et al. **Endocrinology** 1999 Jul;140(7):3203–9

CHEMISTRY

Crystallization of ovine placental lactogen in a 1:2 complex with the extracellular domain of the rat prolactin receptor. Christinger HW, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1408–11

DEFICIENCY

Immune system development and function in prolactin receptor-deficient mice. Bouchard B, et al. **J Immunol** 1999 Jul 15;163(2):576–82

DRUG EFFECTS

Retinoic acid modulates prolactin receptor expression and prolactin-induced STAT-5 activation in breast cancer cells in vitro. Widschwendter M, et al. **Br J Cancer** 1999 Jan; 79(2):204–10

Prolactin controls mammary gland development via direct and indirect mechanisms. Brisken C, et al. **Dev Biol** 1999 Jun 1;210(1):96–106

The 20-kilodalton (kDa) human growth hormone (hGH) differs from the 22-kDa hGH in the effect on the human prolactin receptor. Tsunekawa B, et al. **Endocrinology** 1999 Sep;140(9):3909–18

GENETICS

Genetic mapping of the chicken prolactin receptor gene: a candidate gene for the control of broodiness. Dunn IC, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S23–4

Mouse prolactin receptor gene: genomic organization reveals alternative promoter usage and generation of isoforms via alternative 3'-exon splicing. Ormandy CJ, et al. **DNA Cell Biol** 1998 Sep;17(9):761–70

Characterization of unique truncated prolactin receptor transcripts, corresponding to the intracellular domain, in the testis of the sexually mature chicken. Mao JN, et al. **Endocrinology** 1999 Mar;140(3):1165–74

Detection of prolactin receptor gene expression in the sheep pituitary gland and visualization of the specific translation of the signal in gonadotrophs. Tortonese DJ, et al. **Endocrinology** 1998 Dec;139(12):5215–23

Selective coupling of STAT factors to the mouse prolactin receptor. Mayr S, et al. **Eur J Biochem** 1998 Dec 1; 258(2):784–93

Cellular localization and evolution of prolactin receptor mRNA in ovine endometrium during pregnancy. Cassy S, et al. **FEBS Lett** 1999 Feb 19;445(1):207–11

In situ detection of prolactin receptor mRNA and apoptotic cell death in mouse uterine tissues with adenomyosis. Yamashita M, et al. **In Vivo** 1999 Jan–Feb;13(1):57–60

Regulation of prolactin receptor (PRLR) gene expression in insulin-producing cells. Prolactin and growth hormone activate one of the rat prlr gene promoters via STAT5a and STAT5b. Galsgaard ED, et al. **J Biol Chem** 1999 Jun 25;274(26):18686–92

Transcriptional regulation of the generic promoter III of the rat prolactin receptor gene by C/EBPbeta and Sp1. Hu ZZ, et al. **J Biol Chem** 1998 Oct 2;273(40):26225–35

Expression of prolactin and its receptor in the baboon uterus during the menstrual cycle and pregnancy. Frasor J, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3344–50

The human prolactin receptor gene structure and alternative promoter utilization: the generic promoter hPIII and a novel human promoter hP(N). Hu ZZ, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1153–6

Involvement of gonadal steroid hormone disturbance in altered prolactin receptor gene expression in the liver of diabetic mice. Yasui T, et al. **J Endocrinol** 1999 Apr; 161(1):33–40

Immune system development and function in prolactin receptor-deficient mice. Bouchard B, et al. **J Immunol** 1999 Jul 15;163(2):576–82

Alternative splicing of the prolactin receptor gene generates a 1.7 kb RNA transcript that is linked to prolactin function in the red deer testis. Jabbour HN, et al. **J Mol Endocrinol** 1998 Aug;21(1):51–9

Increased expression of both short and long forms of prolactin receptor mRNA in hypothalamic nuclei of lactating rats. Pi XJ, et al. **J Mol Endocrinol** 1999 Aug; 23(1):13–22

Prolactin induces an inward current through voltage-independent Ca2+ channels in Chinese hamster ovary cells stably expressing prolactin receptor. Ratovondrahona D, et al. **J Mol Endocrinol** 1998 Aug; 21(1):85–95

Prolactin receptor gene expression and foetal adipose tissue. Symonds ME, et al. **J Neuroendocrinol** 1998 Nov; 10(11):885–90

The prolactin receptor from the brushtail possum (Trichosurus vulpecula): cDNA cloning, expression and functional analysis. Demmer J. **Mol Cell Endocrinol** 1999 Feb 25;148(1–2):119–27

Prolactin receptors are expressed and hormonally regulated in rat Sertoli cells. Guillaumot P, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):163–8

METABOLISM

Prolactin receptor expression in the developing human prostate and in hyperplastic, dysplastic, and neoplastic lesions. Leav I, et al. **Am J Pathol** 1999 Mar;154(3):863–70

Human epidermal keratinocytes upregulate expression of the prolactin receptor after the onset of terminal differentiation, but do not respond to prolactin. Poumay Y, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):247–53

Ovarian steroids differentially regulate the expression of PRL-R in neuroendocrine dopaminergic neuron populations: a double label confocal microscopic study. Lerant A, et al. **Brain Res** 1998 Aug 17;802(1–2):141–54

Differential expression of prolactin receptor (PRLR) in normal and tumorous adrenal tissues: separation of cellular endocrine compartments by laser capture microdissection (LCM). Glasow A, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):857–62

The human growth hormone antagonist B2036 does not interact with the prolactin receptor. Goffin V, et al. **Endocrinology** 1999 Aug;140(8):3853–6

Prolactin receptor and insulin-like growth factor expression in wool follicles. Nixon AJ, et al. **Exp Dermatol** 1999 Aug; 8(4):355–7

Prolactin and prolactin receptors in the lacrimal gland. Wood RL, et al. **Exp Eye Res** 1999 Aug;69(2):213–26

Cytokine-inducible SH2 protein (CIS3) and JAK2 binding protein (JAB) abolish prolactin receptor-mediated STAT5 signaling. Helman D, et al. **FEBS Lett** 1998 Dec 18; 441(2):287–91

Activation of gene transcription by tilapia prolactin variants tiPRL188 and tiPRL177. Sohm F, et al. **FEBS Lett** 1998 Oct 30;438(1–2):119–23

Differential effects of prolactin and src/abl kinases on the nuclear translocation of STAT5B and STAT5A. Kazansky AV, et al. **J Biol Chem** 1999 Aug 6;274(32):22484–92

Biological properties of human prolactin analogs depend not only on global hormone affinity, but also on the relative affinities of both receptor binding sites. Kinet S, et al. **J Biol Chem** 1999 Sep 10;274(37):26033–43

Distinct cytoplasmic regions of the prolactin receptor are required for prolactin-induced calcium entry. Sorin B, et al. **J Biol Chem** 1998 Oct 23;273(43):28461–9

Changes in numbers of prolactin receptors during the cell cycle of Nb2 cells. Camarillo IG, et al. **J Endocrinol** 1998 Oct;159(1):R1–4

Regulation of mammary hormone receptor metabolism by a retroviral envelope protein. Bolander FF Jr. **J Mol Endocrinol** 1998 Oct;21(2):161–8

Increased prolactin receptor immunoreactivity in the hypothalamus of lactating rats. Pi XJ, et al. **J Neuroendocrinol** 1999 Sep;11(9):693–705

Regulation of prolactin receptor glycosylation and its role in receptor location. Bolander FF Jr. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):85–92

The prolactin receptor from the brushtail possum (Trichosurus vulpecula): cDNA cloning, expression and functional analysis. Demmer J. **Mol Cell Endocrinol** 1999 Feb 25;148(1–2):119–27

Prolactin receptors are expressed and hormonally regulated in rat Sertoli cells. Guillaumot P, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):163–8

Characterization and regulation of prolactin receptors in MA-10 Leydig cells. Weiss-Messer E, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):53–64

[Nuclear prolactin receptor manifestation in the rat hepatocytes and effect of prolactin] Orlova AN, et al. **Biull Eksp Biol Med** 1999 May;127(5):579–82 **(Rus)**

PHYSIOLOGY

Prolactin, growth hormone and the immune system in humans. Velkeniers B, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1102–8 (75 ref.)

Prolactin receptor signaling: shared components with the T-cell antigen receptor in Nb2 lymphoma cells. Krumenacker JS, et al. **Endocrine** 1998 Dec;9(3):313–20

Osteoblasts are a new target for prolactin: analysis of bone formation in prolactin receptor knockout mice. Clément-Lacroix P, et al. **Endocrinology** 1999 Jan; 140(1):96–105

Constitutive activation of the prolactin receptor results in the induction of growth factor-independent proliferation and constitutive activation of signaling molecules. Lee RC, et al. **J Biol Chem** 1999 Apr 9;274(15):10024–34

Prolactin and its receptor in human endometrium. Tseng L, et al. **Semin Reprod Endocrinol** 1999;17(1):23–7 (19 ref.)

RECEPTORS, PROSTAGLANDIN

[Current topics in the regulation of prostanoids--3. Prostanoid synthases and prostanoid receptors] Ohara M, et al. **Masui** 1999 Jan;48(1):42–7 (18 ref.) (Eng. Abstr.) **(Jpn)**

ANALYSIS

Regional variations in contractile responses to prostaglandins and prostanoid receptor messenger ribonucleic acid in pregnant baboon uterus. Smith GC, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1545–52

Quantitative autoradiographic visualization and pharmacology of FP-prostaglandin receptors in human eyes using the novel phosphor-imaging technology. Davis TL, et al. **J Ocul Pharmacol Ther** 1999 Aug;15(4):323–36

[3H]AL-5848 ([3H]9beta-(+)-Fluprostenol). Carboxylic acid of travoprost (AL-6221), a novel FP prostaglandin to study the pharmacology and autoradiographic localization of the FP receptor. Sharif NA, et al. **J Pharm Pharmacol** 1999 Jun;51(6):685–94

ANTAGONISTS & INHIBITORS

Involvement of nitric oxide and potassium channels in the reduction of basal tone produced by blockade of thromboxane A2/prostaglandin H2 receptors in aortic rings of hypertensive rats. DelliPizzi A, et al. **Clin Exp Hypertens** 1998 Nov;20(8):903–16

AL-8810: a novel prostaglandin F2 alpha analog with selective antagonist effects at the prostaglandin F2 alpha (FP) receptor. Griffin BW, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1278–84

BIOSYNTHESIS

Preservation of Gi coupling of a chimeric EP3/I-type prostaglandin (IP) receptor. Meyer-Kirchrath J, et al. **Biochem Pharmacol** 1999 Aug 1;58(3):471–6

Changes in expression of contractile FP and relaxatory EP2 receptors in pregnant rat myometrium during late gestation, at labor, and postpartum. Brodt-Eppley J, et al. **Biol Reprod** 1998 Oct;59(4):878–83

Expression of prostacyclin receptors in luteinizing hormone-releasing hormone immortalized neurons: role in the control of hormone secretion. Pimpinelli F, et al. **Endocrinology** 1999 Jan;140(1):171–7

Insulin-induced expression of prostacyclin receptors on platelets is mediated through ADP-ribosylation of Gi alpha protein. Kahn NN. **Life Sci** 1998;63(22):2031–8

Prostaglandin receptors in lower segment myometrium during gestation and labor. Brodt-Eppley J, et al. **Obstet Gynecol** 1999 Jan;93(1):89–93

CHEMISTRY

Identification of free radical formation and F2-isoprostanes in vivo by acute Cr(VI) poisoning. Kadiiska MB, et al. **Chem Res Toxicol** 1998 Dec;11(12):1516–20

[Structure and function of prostaglandin receptors] Ichikawa A. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1090–6 (33 ref.) **(Jpn)**

GENETICS

Genomic structure, 5' flanking sequences, and precise localization in 1P31.1 of the human prostaglandin F receptor gene. Betz R, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):413–6

Altered gene expression of prostacyclin synthase and prostacyclin receptor in the thoracic aorta of spontaneously hypertensive rats. Numaguchi Y, et al. **Cardiovasc Res** 1999 Mar;41(3):682–8

Regulation of prostaglandin F2alpha-receptor mRNA in human granulosa-luteal cells by human chorionic gonadotrophin and prostaglandin F2alpha. Väänänen JE, et al. **Endocrine** 1998 Jun;8(3):261–7

Regulation of prostaglandin F2 alpha and E receptor mRNA by prostaglandin F 2 alpha in ovine corpora lutea. Tsai SJ, et al. **J Reprod Fertil** 1998 Sep;114(1):69–75

Functional evidence for divergent receptor activation mechanisms of luteotrophic and luteolytic events in the human corpus luteum. Ottander U, et al. **Mol Hum Reprod** 1999 May;5(5):391–5

Differential expression of prostaglandin receptor mRNAs during adipose cell differentiation. Børglum JD, et al. **Prostaglandins Other Lipid Mediat** 1999 Jul;57(5–6):305–17

What knockout mice can tell us about parturition. Kimura T, et al. **Rev Reprod** 1999 May;4(2):73–80 (71 ref.)

METABOLISM

Prostanoid signaling, localization, and expression of IP receptors in rat thick ascending limb cells. Hébert RL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F904–14

Distribution of prostaglandin IP and EP receptor subtypes and isoforms in platelets and human umbilical artery smooth muscle cells [see comments] Paul BZ, et al. **Br J Haematol** 1998 Sep;102(5):1204–11. Comment in: Br J Haematol 1999 Feb;104(2):421–2.

Prostaglandin DP receptors positively coupled to adenylyl cyclase in embryonic bovine tracheal (EBTr) cells: pharmacological characterization using agonists and antagonists. Crider JY, et al. **Br J Pharmacol** 1999 May; 127(1):204–10

The effect of inhibitors of receptor internalization on the desensitization and resensitization of three Gs-coupled receptor responses. Mundell SJ, et al. **Br J Pharmacol** 1998 Dec;125(7):1594–600

A novel biological role for prostaglandin D2 is suggested by distribution studies of the rat DP prostanoid receptor. Wright DH, et al. **Eur J Pharmacol** 1999 Jul 14; 377(1):101–15

Possible role for ligand binding of histidine 81 in the second transmembrane domain of the rat prostaglandin F2alpha receptor. Rehwald M, et al. **FEBS Lett** 1999 Jan 29; 443(3):357–62

Expression of prostaglandin receptors EP4 and FP in human lens epithelial cells. Mukhopadhyay P, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):105–12

Differential expression of prostanoid receptors in hepatocytes, Kupffer cells, sinusoidal endothelial cells and stellate cells of rat liver. Fennekohl A, et al. **J Hepatol** 1999 Jan;30(1):38–47

A novel subtype of prostacyclin receptor in the central nervous system. Watanabe Y, et al. **J Neurochem** 1999 Jun; 72(6):2583–92

Modulation of norepinephrine release from sympathetic neurons of the rabbit aorta by prejunctional prostanoid receptors. Jensen TJ, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):7–11

Prostaglandin moieties that determine receptor binding specificity in the bovine corpus luteum. Anderson LE, et al. **J Reprod Fertil** 1999 May;116(1):133–41

Localization of the prostacyclin receptor in human kidney. Kömhoff M, et al. **Kidney Int** 1998 Dec;54(6):1899–908

Bovine iris-sphincter muscle lacks FP receptor binding sites. Bhattacherjee P, et al. **Ocul Immunol Inflamm** 1999 Mar; 7(1):39–50

Use of a semi-automated, robotic radioimmunoassay to measure cAMP generated by activation of DP-, EP2-, and IP-prostaglandin receptors in human ocular and other cell types. Crider JY, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jul; 59(1):77–82

PHYSIOLOGY

Female reproduction in mice lacking the prostaglandin F receptor. Roles of prostaglandin and oxytocin receptors in parturition. Sugimoto Y, et al. **Adv Exp Med Biol** 1998; 449:317–21

Prostanoid receptors involved in the relaxation of human bronchial preparations. Norel X, et al. **Br J Pharmacol** 1999 Feb;126(4):867–72

Prostanoid receptors involved in the relaxation of human pulmonary vessels. Walch L, et al. **Br J Pharmacol** 1999 Feb;126(4):859–66

Ovine prostaglandin F2alpha receptor: steroid influence on steady-state levels of luteal mRNA. Hoyer PB, et al. **Endocrine** 1999 Apr;10(2):105–11

Prostanoid DP receptor activation inhibits anti-IgE induced histamine release from rat peritoneal mast cells. Chan CL, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S29–30

Modulation of noradrenaline release from the sympathetic nerves of human right atrial appendages by presynaptic EP3- and DP-receptors. Molderings GJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):440–4

[Structure and function of prostaglandin receptors] Ichikawa A. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1090–6 (33 ref.) **(Jpn)**

RECEPTORS, PROSTAGLANDIN E

[Molecular biology of prostaglandin E receptors--expression of multi-function by PGE receptor subtypes and isoforms] Ichikawa A. **Nippon Rinsho** 1998 Jul;56(7):1813–8 (18 ref.) (Eng. Abstr.) **(Jpn)**

AGONISTS

Characterization of a prostanoid EP3-receptor in guinea-pig aorta: partial agonist action of the non-prostanoid ONO-AP-324. Jones RL, et al. **Br J Pharmacol** 1998 Nov; 125(6):1288–96

Effects of the prostanoid EP3-receptor agonists M&B 28767 and GR 63799X on infarct size caused by regional myocardial ischaemia in the anaesthetized rat. Zacharowski K, et al. **Br J Pharmacol** 1999 Feb;126(4):849–58

Reduction of myocardial injury by the EP3 receptor agonist TEI-3356. Role of protein kinase C and of K(ATP)-channels. Zacharowski K, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):33–9

ANALYSIS

Localization of functional prostaglandin E2 receptors EP3 and EP4 in the nuclear envelope. Bhattacharya M, et al. **J Biol Chem** 1999 May 28;274(22):15719–24

Prostaglandin E receptor subtypes in cultured rat microglia and their role in reducing lipopolysaccharide-induced interleukin-1beta production. Caggiano AO, et al. **J Neurochem** 1999 Feb;72(2):565–75

Immunocytochemical localization of prostaglandin EP3 receptor in the rat hypothalamus. Nakamura K, et al. **Neurosci Lett** 1999 Jan 29;260(2):117–20

ANTAGONISTS & INHIBITORS

PGE2 receptor subtype EP1 antagonist may inhibit central interleukin-1beta-induced fever in rats. Oka K, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1762–5

Important role of EP4, a subtype of prostaglandin (PG) E receptor, in osteoclast-like cell formation from mouse bone marrow cells induced by PGE2 [published erratum appears in J Endocrinol 1998 Dec;159(3):527] Ono K, et al. **J Endocrinol** 1998 Sep;158(3):R1–5

BIOSYNTHESIS

Characterization of the LPS-stimulated expression of EP2 and EP4 prostaglandin E receptors in mouse macrophage-like cell line, J774.1. Katsuyama M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):727–31

Preservation of Gi coupling of a chimeric EP3/I-type prostaglandin (IP) receptor. Meyer-Kirchrath J, et al. **Biochem Pharmacol** 1999 Aug 1;58(3):471-6

Changes in expression of contractile FP and relaxatory EP2 receptors in pregnant rat myometrium during late gestation, at labor, and postpartum. Brodt-Eppley J, et al. **Biol Reprod** 1998 Oct;59(4):878-83

CHEMISTRY

Identification of a region of the C-terminal domain involved in short-term desensitization of the prostaglandin EP4 receptor. Bastepe M, et al. **Br J Pharmacol** 1999 Jan; 126(1):365-71

A conserved threonine in the second extracellular loop of the human EP2 and EP4 receptors is required for ligand binding. Stillman BA, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):73-82

DRUG EFFECTS

Tumor necrosis factor-alpha upregulates the prostaglandin E2 EP1 receptor subtype and the cyclooxygenase-2 isoform in cultured amnion WISH cells. Spaziani EP, et al. **J Interferon Cytokine Res** 1998 Dec;18(12):1039-44

Prostaglandin E receptor subtypes involved in stimulation of gastroduodenal bicarbonate secretion in rats and mice. Takeuchi K, et al. **J Physiol Pharmacol** 1999 Jun; 50(2):155-67

GENETICS

Distribution, regulation and colocalization of the genes encoding the EP2- and EP4-PGE2 receptors in the rat brain and neuronal responses to systemic inflammation. Zhang J, et al. **Eur J Neurosci** 1999 Aug;11(8):2651-68

Prostaglandin E receptor subtypes in cultured rat microglia and their role in reducing lipopolysaccharide-induced interleukin-1beta production. Caggiano AO, et al. **J Neurochem** 1999 Feb;72(2):565-75

Prostaglandin E-prostanoid-3 receptor activation of cyclic AMP response element-mediated gene transcription. Audoly LP, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):140-8

Roles of prostaglandin E receptors in mesangial cells under high-glucose conditions. Ishibashi R, et al. **Kidney Int** 1999 Aug;56(2):589-600

Differential regulation of renal prostaglandin receptor mRNAs by dietary salt intake in the rat. Jensen BL, et al. **Kidney Int** 1999 Aug;56(2):528-37

Analysis of a porcine EP3-receptor: cloning, expression and signal transduction. Meyer-Kirchrath J, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):160-7

Abortive expansion of the cumulus and impaired fertility in mice lacking the prostaglandin E receptor subtype EP(2). Hizaki H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10501-6

Prostaglandin E2 receptor EP3alpha subtype: the role of N-glycosylation in ligand binding as revealed by site-directed mutagenesis. Huang C, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Oct; 59(4):265-71

Molecular cloning and characterization of the canine prostaglandin E receptor EP2 subtype. Hibbs TA, et al. **Prostaglandins Other Lipid Mediat** 1999 May; 57(2-3):133-47

METABOLISM

Long-term effects of prostaglandin E2 on the mineralization of a clonal osteoblastic cell line (MC3T3-E1). Kajii T, et al. **Arch Oral Biol** 1999 Mar;44(3):233-41

Selective activation of the prostanoid EP(3) receptor reduces myocardial infarct size in rodents. Zacharowski K, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep;19(9):2141-7

Signal transduction pathway regulating prostaglandin EP3 receptor-induced neurite retraction: requirement for two different tyrosine kinases. Aoki J, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):365-9

EP2 and EP4 receptor subtypes in human bone marrow stromal cells [letter; comment] Desplat V, et al. **Br J Haematol** 1999 Feb;104(2):421-2. Comment on: Br J Haematol 1998 Sep;102(5):1204-11.

Identification of a region of the C-terminal domain involved in short-term desensitization of the prostaglandin EP4 receptor. Bastepe M, et al. **Br J Pharmacol** 1999 Jan; 126(1):365-71

Prostanoid receptors of the EP3 subtype mediate inhibition of evoked [3H]acetylcholine release from isolated human bronchi. Reinheimer T, et al. **Br J Pharmacol** 1998 Sep; 125(2):271-6

Inhibitory prostanoid EP receptors in human non-pregnant myometrium. Hillock CJ, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):99-108

Flow after prostaglandin E1 is mediated by receptor-coupled adenylyl cyclase in human anterior segments. Dijkstra BG, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2622-6

Expression of prostaglandin receptors EP4 and FP in human lens epithelial cells. Mukhopadhyay P, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):105-12

Role of EP2 receptors and cAMP in prostaglandin E2 regulated expression of type I collagen alpha1, lysyl oxidase, and cyclooxygenase-1 genes in human embryo lung fibroblasts. Choung J, et al. **J Cell Biochem** 1998 Nov 1;71(2):254-63

Prostaglandin E-prostanoid-3 receptor activation of cyclic AMP response element-mediated gene transcription. Audoly LP, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):140-8

Roles of prostaglandin E receptors in mesangial cells under high-glucose conditions. Ishibashi R, et al. **Kidney Int** 1999 Aug;56(2):589-600

Regulation of renal function by prostaglandin E receptors. Breyer MD, et al. **Kidney Int Suppl** 1998 Sep;67:S88-94 (74 ref.)

Agonist-induced phosphorylation by G protein-coupled receptor kinases of the EP4 receptor carboxyl-terminal domain in an EP3/EP4 prostaglandin E(2) receptor hybrid. Neuschäfer-Rube F, et al. **Mol Pharmacol** 1999 Aug; 56(2):419-28

Modulation of the prostaglandin E receptor: a possible mechanism for infection-induced preterm labor. Spaziani EP, et al. **Obstet Gynecol** 1999 Jan;93(1):84-8

Bovine iris-sphincter muscle lacks FP receptor binding sites. Bhattacherjee P, et al. **Ocul Immunol Inflamm** 1999 Mar; 7(1):39-50

Nuclear localization of prostaglandin E2 receptors. Bhattacharya M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15792-7

Use of a semi-automated, robotic radioimmunoassay to measure cAMP generated by activation of DP-, EP2-, and IP-prostaglandin receptors in human ocular and other cell types. Crider JY, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jul; 59(1):77-82

PGE receptor characteristics on porcine luteal cells during the estrous cycle and early pregnancy. Feng SM, et al. **Prostaglandins Other Lipid Mediat** 1999 Jan;57(1):13-22

PHYSIOLOGY

Identification of specific EP receptors responsible for the hemodynamic effects of PGE2. Audoly LP, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H924-30

PGE2, via EP3 receptors, regulates brain nitric oxide synthase in the perinatal period. Dumont I, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1812-21

Urinary concentrating function in mice lacking EP3 receptors for prostaglandin E2. Fleming EF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F955-61

The anabolic effect of PGE2 in rat bone marrow cultures is mediated via the EP4 receptor subtype. Weinreb M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E376-83

Fever: links with an ancient receptor. Dinarello CA, et al. **Curr Biol** 1999 Feb 25;9(4):R147-50 (23 ref.)

Not a mouse stirring: deletion of the EP2 and love's labor's lost [comment] Austin S, et al. **J Clin Invest** 1999 Jun; 103(11):1481-2. Comment on: J Clin Invest 1999 Jun;103(11):1539-45.

Reproductive failure and reduced blood pressure in mice lacking the EP2 prostaglandin E2 receptor [see comments] Tilley SL, et al. **J Clin Invest** 1999 Jun;103(11):1539-45. Comment in: J Clin Invest 1999 Jun;103(11):1481-2.

Important role of EP4, a subtype of prostaglandin (PG) E receptor, in osteoclast-like cell formation from mouse bone marrow cells induced by PGE2 [published erratum appears in J Endocrinol 1998 Dec;159(3):527] Ono K, et al. **J Endocrinol** 1998 Sep;158(3):R1-5

Importance of the extracellular domain for prostaglandin EP(2) receptor function. Stillman BA, et al. **Mol Pharmacol** 1999 Sep;56(3):545-51

Salt-sensitive hypertension and reduced fertility in mice lacking the prostaglandin EP2 receptor. Kennedy CR, et al. **Nat Med** 1999 Feb;5(2):217-20

Modulation of noradrenaline release from the sympathetic nerves of human right atrial appendages by presynaptic EP3- and DP-receptors. Molderings GJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):440-4

EP3 receptors inhibit antidiuretic-hormone-dependent sodium transport across frog skin epithelium. Rytved KA, et al. **Pflugers Arch** 1999 Jan;437(2):213-8

Abortive expansion of the cumulus and impaired fertility in mice lacking the prostaglandin E receptor subtype EP(2). Hizaki H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10501-6

Potentiation of retinoic acid-induced differentiation of HL-60 cells by prostaglandin EP2 receptor. Ishiguro S, et al. **Prostaglandins Other Lipid Mediat** 1998 Jun; 56(2-3):145-53

[The role of prostaglandin E2 and its receptors in the regulation of osmotic permeability of the frog bladder epithelium] Lavrova EA, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov;84(11):1287-92 (Eng. Abstr.) **(Rus)**

RECEPTORS, PROTIRELIN see **RECEPTORS, THYROTROPIN-RELEASING HORMONE**

RECEPTORS, PULMONARY STRETCH see **PULMONARY STRETCH RECEPTORS**

RECEPTORS, PURINERGIC

AGONISTS

Purinoceptor activation of chloride transport in cystic fibrosis and CFTR-transfected pancreatic cell lines. O'Reilly CM, et al. **Br J Pharmacol** 1998 Aug;124(8):1597-606

Focal agonist stimulation results in spatially restricted Ca2+ release and capacitative Ca2+ entry in bovine vascular endothelial cells. Hüser J, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):101-9

ANTAGONISTS & INHIBITORS

Evidence that S-adenosyl-L-methionine diastereoisomers may reduce ischaemia-reperfusion injury by interacting with purinoceptors in isolated rat liver. Dunne JB, et al. **Br J Pharmacol** 1998 Sep;125(1):225-33

CHEMISTRY

Purinergic receptors in human blood platelets: chemical modification and cloning investigations. Puri RN, et al. **J Protein Chem** 1998 Jul;17(5):429-51 (167 ref.)

CLASSIFICATION

Multiple P2 receptor subtypes on platelets: a new interpretation of their function. Kunapuli SP. **Trends Pharmacol Sci** 1998 Oct;19(10):391-4 (56 ref.)

DRUG EFFECTS

Relaxant effect of 2-methyl-thio-adenosine diphosphate on rat thoracic aorta: effect of clopidogrel. Dol-Gleizes F, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):247-53

Adenosine and the nervous system: pharmacological data and therapeutic perspectives. Guieu R, et al. **Gen Pharmacol** 1998 Oct;31(4):553-61 (166 ref.)

Mediation of the vasoactive properties of diadenosine tetraphosphate via various purinoceptors. van der Giet M, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1939-43

GENETICS

Selective expression of purinoceptor cP2Y1 suggests a role for nucleotide signalling in development of the chick embryo. Meyer MP, et al. **Dev Dyn** 1999 Feb;214(2):152-8

METABOLISM

Are salivary glands cell lines in culture a good model for purinergic receptors in salivary glands? Carmel Z, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S63-6

ATP-induced inhibition of Na+, K+, Cl- cotransport in Madin-Darby canine kidney cells: lack of involvement of known purinoceptor-coupled signaling pathways. Gagnon F, et al. **J Membr Biol** 1999 Jan 15;167(2):193-204

Paradoxical cholinergic and purinergic vascular reactivity of rabbit thoracic aorta cold-stored in University of Wisconsin solution. Alexander B, et al. **J Pharm Pharmacol** 1999 May;51(5):623-30

PHYSIOLOGY

The trophic effects of purines and purinergic signaling in pathologic reactions of astrocytes. Rathbone MP, et al. **Alzheimer Dis Assoc Disord** 1998;12 Suppl 2:S36-45

Loading pyranine via purinergic receptors or hypotonic stress for measurement of cytosolic pH by imaging. Gan BS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1158-66

Differential control of renal vs. adrenal sympathetic nerve activity by NTS A2a and P2x purinoceptors. Scislo TJ, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2130-9

Receptors involved in nerve-mediated vasoconstriction in small arteries of the rat hepatic mesentery. Phillips JK, et al. **Br J Pharmacol** 1998 Aug;124(7):1403-12

Selective expression of purinoceptor cP2Y1 suggests a role for nucleotide signalling in development of the chick embryo. Meyer MP, et al. **Dev Dyn** 1999 Feb;214(2):152-8

Connections between P2 purinoceptors and capsaicin-sensitive afferents in the intestine and other tissues. Barthó L, et al. **Eur J Pharmacol** 1999 Jun 30; 375(1-3):203-10 (103 ref.)

Postnatal development of purinoceptors in rat visceral smooth muscle preparations. Hourani SM. **Gen Pharmacol** 1999 Jan;32(1):3-7 (47 ref.)

Purinoceptor-mediated calcium signaling in preglomerular smooth muscle cells. Inscho EW, et al. **Hypertension** 1999 Jan;33(1 Pt 2):195-200

Purinergic inhibition of glucose transport in cardiomyocytes. Fischer Y, et al. **J Biol Chem** 1999 Jan 8;274(2):755-61

Mediation of the vasoactive properties of diadenosine tetraphosphate via various purinoceptors. van der Giet M, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1939-43

Membrane-limited expression and regulation of Na+-H+ exchanger isoforms by P2 receptors in the rat submandibular gland duct. Lee MG, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):341-57

Extracellular purines and their receptors in immunoregulation. Review of recent advances. Sitkovsky MV. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):351-7 (12 ref.)

Dopamine modulates peripheral purinergic neurotransmission through multiple presynaptic receptors: tissue-dependent effects. El-Mas MM, et al. **Pharmacol Res** 1999 Jan;

39(1):11-9
Types of purinoceptors and phospholipase A2 involved in the activation of the platelet-activating factor-dependent transacetylase activity and arachidonate release by ATP in endothelial cells. Balestrieri ML, et al. **Prostaglandins Other Lipid Mediat** 1998 Aug; 56(5-6):363-75
[Roles of the cell surface purinergic receptors for extracellular adenosine and ATP in T-cell development and effector functions] Koshiba M. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(3):263-9 (29 ref.) **(Jpn)**
[Characterization of the facilitatory modulation of adrenergic neurotransmission via prejunctional purinoceptors in rabbit ear artery] Ishii-Nozawa R, et al. **Yakugaku Zasshi** 1999 Jun;119(6):417-28 (47 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, PURINERGIC P1

The protective role of adenosine in inducing nitric oxide synthesis in rat liver ischemia preconditioning is mediated by activation of adenosine A2 receptors. Peralta C, et al. **Hepatology** 1999 Jan;29(1):126-32

AGONISTS

An adenosine agonist and preconditioning shift the distribution of myocardial blood flow in conscious pigs. Huang CH, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H368-75
Species-dependent hemodynamic effects of adenosine A3-receptor agonists IB-MECA and Cl-IB-MECA. Lasley RD, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2076-84
Reduced anti-allodynic effect of the adenosine A1-receptor agonist R-phenylisopropyladenosine on repeated intrathecal administration and lack of cross-tolerance with morphine in a rat model of central pain. von Heijne M, et al. **Anesth Analg** 1998 Dec;87(6):1367-71
Adenosine A3 pretreatment before cardioplegic arrest attenuates postischemic cardiac dysfunction. Thourani VH, et al. **Ann Thorac Surg** 1999 Jun;67(6):1732-7
Activation of various subtypes of G-protein alpha subunits by partial agonists of the adenosine A1 receptor. Lorenzen A, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1287-93
Processing of adenosine receptor agonists in rat and human whole blood. Pavan B, et al. **Biochem Pharmacol** 1998 Dec 15;56(12):1625-32
An adenosine receptor agonist-induced modulation of TSH-dependent cell growth in FRTL-5 thyroid cells mediated by inhibitory G protein, Gi. Sho K, et al. **Biochimie** 1999 Apr;81(4):341-6
Functionalized congeners of 1,4-dihydropyridines as antagonist molecular probes for A3 adenosine receptors. Li AH, et al. **Bioconjug Chem** 1999 Jul-Aug;10(4):667-77
Diimidazo[1,2-c:4',5'-e]pyrimidines: adenosine agonist activity demonstrated by microphysiometry. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):691-4
Diimidazo[1,2-c:4',5'-e]pyrimidines: N6-N1 conformationally restricted adenosines. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):695-8
Adenosine receptor ligands with oxygenated N6-substituents. Hutchinson SA, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):933-6
N6-(5,6-epoxynorbornyl)adenosine analogs as A1 adenosine agonists. Wright DM, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3647-8
The efficacy of a novel adenosine agonist (WAG 994) in postoperative dental pain. Seymour RA, et al. **Br J Clin Pharmacol** 1999 Jun;47(6):675-80
Effects of dexamethasone on airway hyper-responsiveness to the adenosine A1 receptor agonist cyclo-pentyl adenosine in an allergic rabbit model. El-Hashim AZ, et al. **Br J Pharmacol** 1999 Mar;126(6):1513-21
Haemodynamic effects of a selective adenosine A2A receptor agonist, CGS 21680, in chronic heart failure in anaesthetized rats. Nekooeian AA, et al. **Br J Pharmacol** 1998 Oct;125(4):651-8
A comparison of an A1 adenosine receptor agonist (CVT-510) with diltiazem for slowing of AV nodal conduction in guinea-pig. Snowdy S, et al. **Br J Pharmacol** 1999 Jan;126(1):137-46
Suppression of macrophage inflammatory protein (MIP)-1alpha production and collagen-induced arthritis by adenosine receptor agonists. Szabó C, et al. **Br J Pharmacol** 1998 Sep;125(2):379-87
Agonists of A1 and A2A adenosine receptors attenuate methamphetamine-induced overflow of dopamine in rat striatum. Golembiowska K, et al. **Brain Res** 1998 Sep 28; 806(2):202-9
Adenosine A1 receptor activation inhibits LTP in sympathetic ganglia. Hogan YH, et al. **Brain Res** 1998 Oct 5;807(1-2):19-28
Occlusive responses to adenosine A1 receptor and muscarinic M2 receptor activation on hippocampal presynaptic terminals. Nikbakht MR, et al. **Brain Res** 1999 May 22; 829(1-2):193-6
Inhibitory action of CGS 21680 on cerebral cortical neurons is antagonized by bicuculline and picrotoxin-is GABA involved? Phillis JW. **Brain Res** 1998 Oct 5;807(1-2):193-8
Additive effects of late preconditioning produced by monophosphoryl lipid A and the early preconditioning mediated by adenosine receptors and KATP channel. Stambaugh K, et al. **Circulation** 1999 Jun 29;99(25):3300-7
New generic approach to the treatment of organophosphate poisoning: adenosine receptor mediated inhibition of ACh-release. van Helden HP, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:171-81
Effects of adenosine receptor agonists and antagonists on audiogenic seizure-sensible DBA/2 mice. De Sarro G, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):137-45
Modulation of ischemia-evoked release of excitatory and inhibitory amino acids by adenosine A1 receptor agonist. Goda H, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2-3):149-55
An agonist of adenosine A3 receptors decreases interleukin-12 and interferon-gamma production and prevents lethality in endotoxemic mice. Haskó G, et al. **Eur J Pharmacol** 1998 Oct 9;358(3):261-8
The adenosine A1 receptor agonist N6-cyclopentyladenosine blocks the disruptive effect of phencyclidine on prepulse inhibition of the acoustic startle response in the rat. Sills TL, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):325-9
Protection against ischemic damage by adenosine amine congener, a potent and selective adenosine A1 receptor agonist. Von Lubitz DK, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):313-7
Adenosine and cerebral ischemia: therapeutic future or death of a brave concept? [corrected and republished in Eur J Pharmacol 1999 Apr 23;371(1):85-102] Von Lubitz DK. **Eur J Pharmacol** 1999 Jan 15;365(1):9-25 (290 ref.)
Effects of adenosine receptor agents on the expression of morphine withdrawal in mice. Zarrindast MR, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):17-22
Regulation of K+ channel mRNA expression by stimulation of adenosine A2a-receptors in cultured rat microglia. Küst BM, et al. **Glia** 1999 Jan 15;25(2):120-30
The time course of cardioprotection induced by GR79236, a selective adenosine A1-receptor agonist, in myocardial ischaemia-reperfusion injury in the pig. Louttit JB, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):285-91
Cardiovascular pharmacology of the adenosine A1/A2-receptor agonist AMP 579: coronary hemodynamic and cardioprotective effects in the canine myocardium. McVey MJ, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):703-10
5'-N-substituted carboxamidoadenosines as agonists for adenosine receptors. de Zwart M, et al. **J Med Chem** 1999 Apr 22;42(8):1384-92
N-substituted adenosines as novel neuroprotective A(1) agonists with diminished hypotensive effects. Knutsen LJ, et al. **J Med Chem** 1999 Sep 9;42(18):3463-77
Synthesis, CoMFA analysis, and receptor docking of 3,5-diacyl-2, 4-dialkylpyridine derivatives as selective A3 adenosine receptor antagonists. Li AH, et al. **J Med Chem** 1999 Feb 25;42(4):706-21
Allosteric modulation of the adenosine A(1) receptor. Synthesis and biological evaluation of novel 2-amino-3-benzoylthiophenes as allosteric enhancers of agonist binding. van der Klein PA, et al. **J Med Chem** 1999 Sep 9;42(18):3629-35
N6,5'-Disubstituted adenosine derivatives as partial agonists for the human adenosine A3 receptor. van Tilburg EW, et al. **J Med Chem** 1999 Apr 22;42(8):1393-400
ATP-sensitive K+ channels mediate the delayed cardioprotective effect of adenosine A1 receptor activation. Baxter GF, et al. **J Mol Cell Cardiol** 1999 May;31(5):981-9
Intraspinal injection of adenosine agonists protect against L-NAME induced neuronal loss in the rat. Dora CD, et al. **J Neurotrauma** 1998 Jul;15(7):473-83
Multivariate quantitative structure-pharmacokinetic relationships (QSPKR) analysis of adenosine A1 receptor agonists in rat. Van der Graaf PH, et al. **J Pharm Sci** 1999 Mar;88(3):306-12
Adenosine A1 receptor-dependent and -independent effects of the allosteric enhancer PD 81,723. Musser B, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):446-54
Mechanism-based pharmacokinetic-pharmacodynamic modeling of antilipolytic effects of adenosine A(1) receptor agonists in rats: prediction of tissue-dependent efficacy in vivo. Van der Graaf PH, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):702-9
Metabolic and cardiovascular effects of the adenosine A1 receptor agonist N6-(p-sulfophenyl)adenosine in diabetic Zucker rats: influence of the disease on the selectivity of action. van Schaick EA, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):21-30
Inhibition by adenosine receptor agonists of synaptic transmission in rat periaqueductal grey neurons. Bagley EE, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):219-25
Effects of YT-146 [2-(1-octynyl) adenosine], an adenosine A2A receptor agonist, on cAMP production and noradrenaline release in PC12 cells. Ono T, et al. **Jpn J Pharmacol** 1998 Nov;78(3):269-77
Striatal A2A adenosine receptors differentially regulate spontaneous and K+-evoked glutamate release in vivo in young and aged rats. Corsi C, et al. **Neuroreport** 1999 Mar 17;10(4):687-91
N6-2-(4-aminophenyl)ethyladenosine (APNEA), a putative adenosine A3 receptor agonist, enhances methamphetamine-induced dopamine outflow in rat striatum. Golembiowska K, et al. **Pol J Pharmacol** 1998 Jul-Oct;50(4-5):299-305
Adenosinergic modulation of 3alpha-hydroxy-5alpha-pregnan-20-one induced catalepsy in mice. Mandhane SN, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):398-404
Adenosine A3 receptors: novel ligands and paradoxical effects. Jacobson KA. **Trends Pharmacol Sci** 1998 May; 19(5):184-91 (44 ref.)
Effects of adenosinergic agents on the vascular resistance and on the optic nerve response in the perfused cat eye. Kaelin-Lang A, et al. **Vision Res** 1999 Mar;39(6):1059-68

ANALYSIS

Preparation and primary evaluation of [11C]CSC as a possible tracer for mapping adenosine A2A receptors by PET. Márián T, et al. **Appl Radiat Isot** 1999 May;50(5):887-93
Evidence for A1 and A2B adenosine receptors in baby hamster kidney (BHK) cells. Mittal RA, et al. **Biofactors** 1999;10(1):25-33
Fluorescent probes for adenosine receptors: synthesis and biology of N6-dansylaminoalkyl-substituted NECA derivatives. Macchia M, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3223-8
Distribution of adenosine A1 receptors in primary visual cortex of developing and adult monkeys. Chaudhuri A, et al. **Exp Brain Res** 1998 Dec;123(3):351-4
Cellular localization of adenosine A1 receptors in rat forebrain: immunohistochemical analysis using adenosine A1 receptor-specific monoclonal antibody. Ochiishi T, et al. **J Comp Neurol** 1999 Aug 23;411(2):301-16
Immunohistochemical localization of adenosine A2A receptors in the rat central nervous system. Rosin DL, et al. **J Comp Neurol** 1998 Nov 16;401(2):163-86
High level of adenosine A1 receptor-like immunoreactivity in the CA2/CA3a region of the adult rat hippocampus. Ochiishi T, et al. **Neuroscience** 1999;93(3):955-67

ANTAGONISTS & INHIBITORS

Antiparkinsonian activity of adenosine A2A antagonists in experimental models. Kuwana Y, et al. **Adv Neurol** 1999; 80:121-3 (13 ref.)
Adenosine receptor antagonists and Parkinson's disease: actions of the A2A receptor in the striatum. Richardson PJ, et al. **Adv Neurol** 1999;80:111-9 (40 ref.)
Adenosine modulates corticotropin and cortisol release during hypoxia in fetal sheep. Chau A, et al. **Am J Obstet Gynecol** 1999 May;180(5):1272-7
Metabolic and cardiorespiratory responses to hypoxia in fetal sheep: adenosine receptor blockade. Chau A, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1805-11
4-Amino-6-benzylamino-1,2-dihydro-2-phenyl-1,2,4-triazolo [4,3-alpha]-quinoxalin-1-one: a new A2A adenosine receptor antagonist with high selectivity versus A1 receptors. Colotta V, et al. **Arch Pharm (Weinheim)** 1999 Feb;332(2):39-41
Inhibitory effect of KW-3902, an adenosine A(1) receptor antagonist, on p-aminohippurate transport in OK cells. Nagai J, et al. **Biochim Biophys Acta** 1999 Jul 15; 1419(2):164-72
Selective A1-adenosine receptor antagonists identified using yeast Saccharomyces cerevisiae functional assays. Campbell RM, et al. **Bioorg Med Chem Lett** 1999 Aug 16; 9(16):2413-8
Discovery of FR166124, a novel water-soluble pyrazolo-[1,5-a]pyridine adenosine A1 receptor antagonist. Kuroda S, et al. **Bioorg Med Chem Lett** 1999 Jul 19; 9(14):1979-84
Analysis of the atypical characteristics of adenosine receptors mediating negative inotropic and chronotropic responses of guinea-pig isolated atria and papillary muscles. Gardner NM, et al. **Br J Pharmacol** 1999 Aug;127(7):1619-26
Effects of A1-adenosine receptor antagonists on purinergic transmission in the guinea-pig vas deferens in vitro. Hardy TA, et al. **Br J Pharmacol** 1999 Apr;126(8):1761-8
Actions of adenosine A1 and A2 receptor antagonists on CFTR antibody-inhibited beta-adrenergic mucin secretion response. Pereira MM, et al. **Br J Pharmacol** 1998 Oct; 125(4):697-704
Hydroxylamine blocks adenosine A1 receptor-mediated inhibition of synaptic transmission in rat hippocampus. Fowler JC, et al. **Brain Res** 1999 Jan 9;815(2):414-8
The intrastratial injection of an adenosine A(2) receptor antagonist prevents frontal cortex EEG abnormalities in a rat model of Huntington's disease. Reggio R, et al. **Brain Res** 1999 Jun 12;831(1-2):315-8
Effects of propentofylline on adenosine receptor activity in Chinese hamster ovary cell lines transfected with human A1, A2A, or A2B receptors and a luciferase reporter gene. Borgland SL, et al. **Can J Physiol Pharmacol** 1998 Dec; 76(12):1132-8
Adenosine A1-receptor occupancy predicts A1-receptor antagonist effects of N-0861. Yasuda SU, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):536-41
Effects of adenosine receptor agonists and antagonists on audiogenic seizure-sensible DBA/2 mice. De Sarro G, et al. **Eur J Pharmacol** 1999 Apr 29;371(2-3):137-45
Discriminative effects of CGS 15943, a competitive adenosine receptor antagonist, have a dopamine component in monkeys. Holtzman SG. **Eur J Pharmacol** 1999 Jul 2; 376(1-2):7-15
Pyrazolopyridine derivatives act as competitive antagonists of brain adenosine A1 receptors: [35S]GTPgammaS binding studies. Ito H, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):309-15

Effects of adenosine receptor agents on the expression of morphine withdrawal in mice. Zarrindast MR, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):17–22

Tissue-specific effects of in vivo adenosine receptor blockade on glucose uptake in Zucker rats. Crist GH, et al. **FASEB J** 1998 Oct;12(13):1301–8

Natriuretic and diuretic actions of a highly selective adenosine A1 receptor antagonist. Wilcox CS, et al. **J Am Soc Nephrol** 1999 Apr;10(4):714–20

Molecular modeling studies of human A3 adenosine antagonists: structural homology and receptor docking. Moro S, et al. **J Chem Inf Comput Sci** 1998 Nov–Dec; 38(6):1239–48

Discovery of 6-oxo-3-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-1(6H)-pyridazinebutanoic acid (FK 838): a novel non-xanthine adenosine A1 receptor antagonist with potent diuretic activity. Akahane A, et al. **J Med Chem** 1999 Mar 11; 42(5):779–83

Chiral resolution and stereospecificity of 6-phenyl-4-phenylethynyl- 1,4-dihydropyridines as selective A(3) adenosine receptor antagonists. Jiang J, et al. **J Med Chem** 1999 Aug 12;42(16):3055–65

KMD-3213, a uroselective and long-acting alpha(1a)-adrenoceptor antagonist, tested in a novel rat model. Akiyama K, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):81–91

Caffeine, acting on adenosine A(1) receptors, prevents the extinction of cocaine-seeking behavior in mice. Kuzmin A, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):535–42

Adenosine A1 receptor-dependent and -independent effects of the allosteric enhancer PD 81,723. Musser B, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):446–54

Adenosine receptor antagonism affects regional resting vascular resistance during rat peritoneal sepsis. Motew SJ, et al. **J Surg Res** 1998 Dec;80(2):326–32

Effect of adenosinergic modulation on the anticonvulsant effect of phenobarbitone and carbamazepine. Malhotra J, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar; 21(2):79–83

Comparison of CGS 15943, ZM 241385 and SCH 58261 as antagonists at human adenosine receptors. Ongini E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):7–10

Adenosine receptor antagonism in the prevention of acute cyclosporine A-nephrotoxicity in normal, diabetic and hypertensive rats. Heyne N, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:23–4

Adenosine and dopamine receptor antagonist binding in the rat ventral and dorsal striatum: lack of changes after a neonatal bilateral lesion of the ventral hippocampus. Lillrank SM, et al. **Neurochem Int** 1999 Mar;34(3):235–44

Antiparkinsonian effect of a new selective adenosine A2A receptor antagonist in MPTP-treated monkeys. Grondin R, et al. **Neurology** 1999 May 12;52(8):1673–7

Blockade of adenosine A2A receptors by SCH 58261 results in neuroprotective effects in cerebral ischaemia in rats. Monopoli A, et al. **Neuroreport** 1998 Dec 1;9(17):3955–9

Adenosine A1 and A2A receptor antagonists stimulate motor activity: evidence for an increased effectiveness in aged rats. Popoli P, et al. **Neurosci Lett** 1998 Jul 31;251(3):201–4

Adenosine receptor antagonists inhibit the development of morphine sensitization in the C57BL/6 mouse. Weisberg SP, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):89–92

Cytoprotective role of antioxidant stress protein induced by adenosine A1 receptor antagonist in rat heart ischemic injury. Katori M, et al. **Transplant Proc** 1999 Feb–Mar; 31(1-2):1016–7

BIOSYNTHESIS

Cardiac myocytes rendered ischemia resistant by expressing the human adenosine A1 or A3 receptor. Dougherty C, et al. **FASEB J** 1998 Dec;12(15):1785–92

Expression of A2B adenosine receptors in human lymphocytes: their role in T cell activation. Mirabet M, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):491–502

IFN-gamma up-regulates the A2B adenosine receptor expression in macrophages: a mechanism of macrophage deactivation. Xaus J, et al. **J Immunol** 1999 Mar 15; 162(6):3607–14

Patterns of A2A extracellular adenosine receptor expression in different functional subsets of human peripheral T cells. Flow cytometry studies with anti-A2A receptor monoclonal antibodies. Koshiba M, et al. **Mol Pharmacol** 1999 Mar;55(3):614–24

Carbamazepine-induced upregulation of adenosine A1-receptors in astrocyte cultures affects coupling to the phosphoinositol signaling pathway. Biber K, et al. **Neuropsychopharmacology** 1999 Mar;20(3):271–8

Expression of adenosine A2a receptors gene in the olfactory bulb and spinal cord of rat and mouse. Kaelin-Lang A, et al. **Neurosci Lett** 1999 Feb 19;261(3):189–91

BLOOD

5-(N-ethylcarboxamido)adenosine desensitizes the A2b-adenosine receptor in lung circulation. Haynes J Jr, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1877–83

CHEMISTRY

Thermodynamics of full agonist, partial agonist, and antagonist binding to wild-type and mutant adenosine A1 receptors. Dalpiaz A, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1437–45

Molecular modeling studies of human A3 adenosine antagonists: structural homology and receptor docking. Moro S, et al. **J Chem Inf Comput Sci** 1998 Nov–Dec; 38(6):1239–48

Thermodynamic in vitro studies as a method to investigate the pharmacodynamic behavior of adenosine A1 receptor ligands. Dalpiaz A, et al. **Pharm Res** 1999 Jul;16(7):1054–8

CLASSIFICATION

Role of A2A receptor in the modulation of myocardial reperfusion damage. Cargnoni A, et al. **J Cardiovasc Pharmacol** 1999 Jun;33(6):883–93

DRUG EFFECTS

5-(N-ethylcarboxamido)adenosine desensitizes the A2b-adenosine receptor in lung circulation. Haynes J Jr, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1877–83

Involvement of P1 receptors in the effect of forskolin on cyclic AMP accumulation and export in PC12 cells. Florio C, et al. **Biochem Pharmacol** 1999 Feb 15;57(4):355–64

Effects of propentofylline on adenosine receptor activity in Chinese hamster ovary cell lines transfected with human A1, A2A, or A2B receptors and a luciferase reporter gene. Borgland SL, et al. **Can J Physiol Pharmacol** 1998 Dec; 76(12):1132–8

Regulation of the GTP-binding protein-based antilipolytic system of sheep adipocytes by growth hormone. Doris RA, et al. **J Endocrinol** 1998 Sep;158(3):295–303

Inhibition of fMLP-triggered respiratory burst of human monocytes by adenosine: involvement of A3 adenosine receptor. Broussas M, et al. **J Leukoc Biol** 1999 Sep; 66(3):495–501

Loss of myocardial protection from ischemic preconditioning following chronic exposure to R(-)-N6-(2-phenylisopropyl)adenosine is related to defect at the adenosine A1 receptor. Hashimi MW, et al. **Mol Cell Biochem** 1998 Sep;186(1-2):19–25

Receptors for purines and pyrimidines. Ralevic V, et al. **Pharmacol Rev** 1998 Sep;50(3):413–92 (1009 ref.)

Adenosine, blood pressure and NREM delta [letter; comment] Feinberg I, et al. **Sleep** 1999 Feb 1;22(1):7, 9. Comment on: Sleep 1997 Dec;20(12):1093–8.

GENETICS

A T1083C polymorphism in the human adenosine A2a receptor gene is not associated with essential hypertension. Soma M, et al. **Am J Hypertens** 1998 Dec;11(12):1492–4

Expression of both P1 and P2 purine receptor genes by human articular chondrocytes and profile of ligand-mediated prostaglandin E2 release. Koolpe M, et al. **Arthritis Rheum** 1999 Feb;42(2):258–67

A1 adenosine receptor of human and mouse adipose tissues: cloning, expression, and characterization. Tatsis-Kotsidis I, et al. **Biochem Pharmacol** 1999 Oct 15;58(8):1269–77

Characterization of the mouse A3 adenosine receptor gene: exon/intron organization and promoter activity. Zhao Z, et al. **Genomics** 1999 Apr 1;57(1):152–5

Effect of chronic salt loading on adenosine metabolism and receptor expression in renal cortex and medulla in rats. Zou AP, et al. **Hypertension** 1999 Jan;33(1 Pt 2):511–6

Stimulation of expression for the adenosine A2A receptor gene by hypoxia in PC12 cells. A potential role in cell protection. Kobayashi S, et al. **J Biol Chem** 1999 Jul 16; 274(29):20358–65

Characterization of the murine A1 adenosine receptor promoter, potent regulation by GATA-4 and Nkx2.5. Rivkees SA, et al. **J Biol Chem** 1999 May 14; 274(20):14204–9

Cellular distribution of adenosine A2A receptor mRNA in the primate striatum. Svenningsson P, et al. **J Comp Neurol** 1998 Sep 21;399(2):229–40

Dexamethasone stimulates human A1 adenosine receptor (A1AR) gene expression through multiple regulatory sites in promoter B. Ren H, et al. **Mol Pharmacol** 1999 Feb; 55(2):309–16

Expression of adenosine A2a receptors gene in the olfactory bulb and spinal cord of rat and mouse. Kaelin-Lang A, et al. **Neurosci Lett** 1999 Feb 19;261(3):189–91

IMMUNOLOGY

Expression of A2B adenosine receptors in human lymphocytes: their role in T cell activation. Mirabet M, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):491–502

ISOLATION & PURIFICATION

Purification of A1 adenosine receptor-G-protein complexes: effects of receptor down-regulation and phosphorylation on coupling. Gao Z, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):729–36

METABOLISM

Localization of adenosine A2A receptors in brain: therapeutic implications. Augood SJ. **Adv Neurol** 1999;80:105–9 (38 ref.)

Adenosine receptor subtypes in the heart: therapeutic opportunities and challenges [editorial; comment] Auchampach JA, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H1113–6 (31 ref.). Comment on: Am J Physiol 1999 Feb;276(2 Pt 2):H341–9.

Adenosine and its nucleotides activate wild-type and R117H CFTR through an A2B receptor-coupled pathway. Clancy JP, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C361–9

Maintenance of adenosine A1 receptor function during long-term anoxia in the turtle brain. Lutz PL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R633–6

Activation of adenosine A2 receptors enhances high K(+)-evoked taurine release from rat hippocampus: a microdialysis study. Hada J, et al. **Amino Acids** 1998; 15(1-2):43–52

Dysregulation of adenosine A1 receptor-mediated cytokine expression in peripheral blood mononuclear cells from multiple sclerosis patients. Mayne M, et al. **Ann Neurol** 1999 May;45(5):633–9

Protein kinase C-dependent activation of KATP channel enhances adenosine-induced cardioprotection. Liang BT. **Biochem J** 1998 Dec 1;336 (Pt 2):337–43

Thermodynamics of full agonist, partial agonist, and antagonist binding to wild-type and mutant adenosine A1 receptors. Dalpiaz A, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1437–45

Reciprocal interactions between adenosine A2A and dopamine D2 receptors in Chinese hamster ovary cells co-transfected with the two receptors. Kull B, et al. **Biochem Pharmacol** 1999 Sep 15;58(6):1035–45

Mechanisms of inhibitory effects of zinc and cadmium ions on agonist binding to adenosine A1 receptors in rat brain. Rosati AM, et al. **Biochem Pharmacol** 1999 Aug 15; 58(4):623–32

Changes of adenosine and its A(1) receptor in hypoxic preconditioning. Zhang WL, et al. **Biol Signals Recept** 1999 Jul-Oct;8(4-5):275–80

Diimidazo[1,2-c:4',5'-e]pyrimidines: adenosine agonist activity demonstrated by microphysiometry. Camp D, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):691–4

The synthesis of new adenosine A3 selective ligands containing bioisosteric isoxazoles. Mogensen JP, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1767–70

Characterization and tissue location of the neural adenosine receptor in the rat ileum. Coupar IM. **Br J Pharmacol** 1999 Mar;126(5):1269–75

Human adenosine A1 receptor and P2Y2-purinoceptor-mediated activation of the mitogen-activated protein kinase cascade in transfected CHO cells. Dickenson JM, et al. **Br J Pharmacol** 1998 Aug; 124(7):1491–9

Potentiation of adenosine A1 receptor-mediated inositol phospholipid hydrolysis by tyrosine kinase inhibitors in CHO cells. Dickenson JM, et al. **Br J Pharmacol** 1998 Nov; 125(5):1049–57

The effect of inhibitors of receptor internalization on the desensitization and resensitization of three Gs-coupled receptor responses. Mundell SJ, et al. **Br J Pharmacol** 1998 Dec;125(7):1594–600

Autoradiographic visualisation of axonal transport of adenosine A1 receptors along the rat vagus nerve and characterisation of adenosine A1 receptor binding in the dorsal vagal complex of hypertensive and normotensive rats. Krstew E, et al. **Brain Res** 1998 Aug 17;802(1-2):61–8

Epidermal growth factor (EGF)-induced up-regulation and agonist- and antagonist-induced desensitization and internalization of A1 adenosine receptors in a pituitary-derived cell line. Navarro A, et al. **Brain Res** 1999 Jan 16;816(1):47–57

Pharmacological characterization of adenosine A1 receptors and its functional role in brown trout (Salmo trutta) brain. Poli A, et al. **Brain Res** 1999 Aug 7;837(1-2):46–54

Selective activation of adenosine A3 receptors with N6-(3-chlorobenzyl)-5'-N-methylcarboxamidoadenosine (CB-MECA) provides cardioprotection via KATP channel activation. Tracey WR, et al. **Cardiovasc Res** 1998 Oct; 40(1):138–45

Caffeine alters A2A adenosine receptors and their function in human platelets. Varani K, et al. **Circulation** 1999 May 18;99(19):2499–502

Adenosine and preconditioning revisited. Miura T, et al. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):92–9 (85 ref.)

Differential effects of adenosine receptor subtypes on release and reuptake of hippocampal serotonin. Okada M, et al. **Eur J Neurosci** 1999 Jan;11(1):1–9

Involvement of G-protein betagamma subunits in coupling the adenosine A1 receptor to phospholipase C in transfected CHO cells. Dickenson JM, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):85–93

Adenosine kinase inhibitors attenuate opiate withdrawal via adenosine receptor activation. Kaplan GB, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):1–8

Presence of dinucleotide and ATP receptors in human cerebrocortical synaptic terminals. Pintor J, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):159–65

Contributions of adenosine receptor activation to the ocular actions of epinephrine. Crosson CE, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2054–61

Renal ischemia/reperfusion remotely improves myocardial energy metabolism during myocardial ischemia via adenosine receptors in rabbits: effects of "remote preconditioning". Takaoka A, et al. **J Am Coll Cardiol** 1999 Feb;33(2):556–64

Identification of the adenine binding site of the human A1 adenosine receptor. Rivkees SA, et al. **J Biol Chem** 1999

Feb 5;274(6):3617-21
Activation of mitogen-activated protein kinase by the A(2A)-adenosine receptor via a rap1-dependent and via a p21(ras)-dependent pathway. Seidel MG, et al. **J Biol Chem** 1999 Sep 3;274(36):25833-41
Upregulation of lysyl oxidase in vascular smooth muscle cells by cAMP: role for adenosine receptor activation. Ravid K, et al. **J Cell Biochem** 1999 Oct 1;75(1):177-85
A novel class of adenosine A3 receptor ligands. 2. Structure affinity profile of a series of isoquinoline and quinazoline compounds. van Muijlwijk-Koezen JE, et al. **J Med Chem** 1998 Oct 8;41(21):3994-4000
A novel class of adenosine A3 receptor ligands. 1. 3-(2-Pyridinyl)isoquinoline derivatives. van Muijlwijk-Koezen JE, et al. **J Med Chem** 1998 Oct 8; 41(21):3987-93
The PKC activator PMA preconditions rabbit heart in the presence of adenosine receptor blockade: is 5'-nucleotidase important? Iliodromitis EK, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2201-11
Interference of linoleic acid fraction in some receptor binding assays. Ingkaninan K, et al. **J Nat Prod** 1999 Jun; 62(6):912-4
Increase in the number, G protein coupling, and efficiency of facilitatory adenosine A2A receptors in the limbic cortex, but not striatum, of aged rats. Lopes LV, et al. **J Neurochem** 1999 Oct;73(4):1733-8
Time development and regional distribution of [3H]nitrobenzylthioinosine adenosine uptake site binding in the mouse brain after acute Pentylenetetrazol-induced seizures. Pagonopoulou O, et al. **J Neurosci Res** 1998 Aug 15;53(4):433-42
Multivariate quantitative structure-pharmacokinetic relationships (QSPKR) analysis of adenosine A1 receptor agonists in rat. Van der Graaf PH, et al. **J Pharm Sci** 1999 Mar;88(3):306-12
Role of adenosine A(1) receptors in modulating extracellular adenosine levels. Andresen BT, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):76-80
Adenosine A2a receptors increase arterial endothelial cell nitric oxide. Li Jm, et al. **J Surg Res** 1998 Dec;80(2):357-64
Involvement of adenosine receptor, potassium channel and protein kinase C in hypoxic preconditioning of isolated cardiomyocytes of adult rat. Nojiri M, et al. **Jpn J Pharmacol** 1999 May;80(1):15-23
Polydeoxyribonucleotides enhance the proliferation of human skin fibroblasts: involvement of A2 purinergic receptor subtypes. Thellung S, et al. **Life Sci** 1999; 64(18):1661-74
Role of p38 mitogen-activated protein kinase and extracellular signal-regulated protein kinase kinase in adenosine A2B receptor-mediated interleukin-8 production in human mast cells. Feoktistov I, et al. **Mol Pharmacol** 1999 Apr;55(4):726-34
Selective regulation of G protein-coupled receptor-mediated signaling by G protein-coupled receptor kinase 2 in FRTL-5 cells: analysis of thyrotropin, alpha(1B)-adrenergic, and A(1) adenosine receptor-mediated responses. Iacovelli L, et al. **Mol Pharmacol** 1999 Aug;56(2):316-24
Characterization of human A(2B) adenosine receptors: radioligand binding, western blotting, and coupling to G(q) in human embryonic kidney 293 cells and HMC-1 mast cells. Linden J, et al. **Mol Pharmacol** 1999 Oct;56(4):705-13
Differential modulation of the gamma-aminobutyric acid type C receptor by neuroactive steroids. Morris KD, et al. **Mol Pharmacol** 1999 Oct;56(4):752-9
G protein coupling of CGS 21680 binding sites in the rat hippocampus and cortex is different from that of adenosine A1 and striatal A2A receptors. Cunha RA, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):295-302
Ontogeny of adenosine receptors in the longitudinal muscle and muscularis mucosae of the rat distal colon. Peachey JA, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):140-6
A2a adenosine receptors: guanine nucleotide derivative regulation in porcine striatal membranes and digitonin soluble fraction. Costa B, et al. **Neurochem Int** 1998 Aug; 33(2):121-9
Early changes in adenosine A1 receptors in cerebral cortex slices submitted to in vitro ischemia. Siniscalchi A, et al. **Neurochem Int** 1999 Jun;34(6):517-22
Study of adenosine A2 receptors in membrane preparations from optic tectum of chicks. Tasca CI, et al. **Neurochem Res** 1999 Aug;24(8):1067-74
Involvement of adenosine A2A receptors in the induction of c-fos expression by clozapine and haloperidol. Pinna A, et al. **Neuropsychopharmacology** 1999 Jan;20(1):44-51
[3H]acetylcholine release from rat amacrine-like neurons is inhibited by adenosine A1 receptor activation. Santos PF, et al. **Neuroreport** 1998 Nov 16;9(16):3693-8
Synthesis and receptor affinity of polysubstituted adenosines. Vittori S, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):739-40
Adenosine receptor ligands: potential as therapeutic agents in asthma and COPD. Fozard JR, et al. **Pulm Pharmacol Ther** 1999;12(2):111-4 (45 ref.)
[Effects of acute repeated hypoxia on levels of adenosine and its A1 receptor in mouse brain] Zhang W, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 May; 13(2):114-7 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Adenosine receptor antagonists and Parkinson's disease: actions of the A2A receptor in the striatum. Richardson PJ, et al. **Adv Neurol** 1999;80:111-9 (40 ref.)
A1 adenosine receptor-mediated Ins(1,4,5)P3 generation in allergic rabbit airway smooth muscle. Abebe W, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L990-7
Activation of neuronal adenosine A1 receptors suppresses secretory reflexes in the guinea pig colon. Cooke HJ, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G451-62
A3 adenosine receptors regulate Cl- channels of nonpigmented ciliary epithelial cells. Mitchell CH, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C659-66
Adenosine A1 receptor-mediated antiadrenergic effects are modulated by A2a receptor activation in rat heart [see comments] Norton GR, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H341-9. Comment in: Am J Physiol 1999 Mar;276(3 Pt 2):H1113-6.
Selective A2A adenosine receptor activation reduces ischemia-reperfusion injury in rat kidney. Okusa MD, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F404-12
Renal ischemia preconditions myocardium: role of adenosine receptors and ATP-sensitive potassium channels. Pell TJ, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1542-7
Adenosine A(3)-receptor stimulation attenuates postischemic dysfunction through K(ATP) channels. Thourani VH, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H228-35
Inhibition of adenosine-1 receptor-mediated preglomerular vasoconstriction in AT1A receptor-deficient mice. Traynor T, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F922-7
Differential regulation of cardiac expression of IL-6 and TNF-alpha by A2- and A3-adenosine receptors. Wagner DR, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2141-7
Adenosine A2A receptors inhibit the conductance of NMDA receptor channels in rat neostriatal neurons. Nörenberg W, et al. **Amino Acids** 1998;14(1-3):33-9
Differences in the order of potency for agonists but not antagonists at human and rat adenosine A2A receptors. Kull B, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):65-75
Initiation of a process of differentiation by stable transfection of ob17 preadipocytes with the cDNA of human A1 adenosine receptor. Tatsis-Kotsidis I, et al. **Biochem Pharmacol** 1999 Jul 1;58(1):167-70
Nonselective effects of the putative phospholipase C inhibitor, U73122, on adenosine A1 receptor-mediated signal transduction events in Chinese hamster ovary cells. Walker EM, et al. **Biochem Pharmacol** 1998 Dec 1; 56(11):1455-62
Comparative analysis of the efficacy of A1 adenosine receptor activation of Gi/o alpha G proteins following coexpression of receptor and G protein and expression of A1 adenosine receptor-Gi/o alpha fusion proteins. Wise A, et al. **Biochemistry** 1999 Feb 23;38(8):2272-8
Adenosine A1 receptor-mediated excitation of nociceptive afferents innervating the normal and arthritic rat knee joint. Dowd E, et al. **Br J Pharmacol** 1998 Nov;125(6):1267-71
Adenosine A3 receptors on human eosinophils mediate inhibition of degranulation and superoxide anion release. Ezeamuzie CI, et al. **Br J Pharmacol** 1999 May; 127(1):188-94
A1 and A2 adenosine receptor modulation of contractility in the cauda epididymis of the guinea-pig. Haynes JM, et al. **Br J Pharmacol** 1998 Oct;125(3):570-6
A2B adenosine receptors mediate relaxation of the pig intravesical ureter: adenosine modulation of non adrenergic non cholinergic excitatory neurotransmission. Hernández M, et al. **Br J Pharmacol** 1999 Feb;126(4):969-78
Adenosine mediates relaxation of human small resistance-like coronary arteries via A2B receptors. Kemp BK, et al. **Br J Pharmacol** 1999 Apr;126(8):1796-800
Characterization of adenosine receptors evoking excitation of mesenteric afferents in the rat. Kirkup AJ, et al. **Br J Pharmacol** 1998 Nov;125(6):1352-60
Enhanced expression of G protein-coupled receptor kinase 2 selectively increases the sensitivity of A2A adenosine receptors to agonist-induced desensitization. Mundell SJ, et al. **Br J Pharmacol** 1998 Sep;125(2):347-56
Role of K+ channels in A2A adenosine receptor-mediated dilation of the pressurized renal arcuate artery. Prior HM, et al. **Br J Pharmacol** 1999 Jan;126(2):494-500
The role of A3 adenosine receptors in central regulation of arterial blood pressure. Stella L, et al. **Br J Pharmacol** 1998 Oct;125(3):437-40
Hydroxylamine blocks pre- but not postsynaptic adenosine A(1) receptor-mediated actions in rat hippocampus. Fowler JC, et al. **Brain Res** 1999 Aug 7;837(1-2):309-13
Inhibition of strychnine-allodynia is mediated by spinal adenosine A1- but not A2-receptors in the rat. Khandwala H, et al. **Brain Res** 1998 Oct 12;808(1):106-9
A comparison of the adenosine-mediated synaptic inhibition in the CA3 area of immature and adult rat hippocampus. Descombes S, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):51-9
Examination of adenosine receptor-mediated relaxation of the pig coronary artery. Lew MJ, et al. **Clin Exp Pharmacol Physiol** 1999 May-Jun;26(5-6):438-43
Medium- and long-term alterations of brain A1 and A2A adenosine receptor characteristics following repeated seizures in developing rats. Doriat JF, et al. **Epilepsy Res** 1999 Jul;35(3):219-28
Region-dependent difference in the sleep-promoting potency of an adenosine A2A receptor agonist. Satoh S, et al. **Eur J Neurosci** 1999 May;11(5):1587-97
Interaction between adenosine A1 and A2 receptor-mediated responses in the rat hippocampus in vitro. O'Kane EM, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):17-25
Adenosine A2A receptor interactions with receptors for other neurotransmitters and neuromodulators. Ribeiro JA. **Eur J Pharmacol** 1999 Jun 30;375(1-3):101-13 (136 ref.)
Role for adenosine A1 and A2 receptors in femoral vasodilatation induced by intra-arterial adenosine in rabbits. Sakai K, et al. **Eur J Pharmacol** 1998 Jul 24; 353(2-3):257-64
Involvement of adenosine A2A receptor in sleep promotion. Satoh S, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):155-62
Adenosine and cerebral ischemia: therapeutic future or death of a brave concept? [corrected and republished article originally printed in Eur J Pharmacol 1999 Jan 15;365(1):9-25] von Lubitz DK. **Eur J Pharmacol** 1999 Apr 23;371(1):85-102 (291 ref.)
Differing roles of adenosine receptor subtypes in retinal ischemia-reperfusion injury in the rat. Li B, et al. **Exp Eye Res** 1999 Jan;68(1):9-17
Emerging roles of purinergic signaling in gastrointestinal epithelial secretion and hepatobiliary function. Roman RM, et al. **Gastroenterology** 1999 Apr;116(4):964-79 (143 ref.)
Activation of A(1) adenosine or mGlu3 metabotropic glutamate receptors enhances the release of nerve growth factor and S-100beta protein from cultured astrocytes. Ciccarelli R, et al. **Glia** 1999 Sep;27(3):275-81
Potentiation of ATP calcium responses by A2B receptor stimulation and other signals coupled to Gs proteins in type-1 cerebellar astrocytes. Jiménez AI, et al. **Glia** 1999 Apr;26(2):119-28
A2B adenosine and P2Y2 receptors stimulate mitogen-activated protein kinase in human embryonic kidney-293 cells. cross-talk between cyclic AMP and protein kinase c pathways. Gao Z, et al. **J Biol Chem** 1999 Feb 26;274(9):5972-80
Neutrophil-derived 5'-adenosine monophosphate promotes endothelial barrier function via CD73-mediated conversion to adenosine and endothelial A2B receptor activation. Lennon PF, et al. **J Exp Med** 1998 Oct 19;188(8):1433-43
Purine metabolites suppress proliferation of human NK cells through a lineage-specific purine receptor. Miller JS, et al. **J Immunol** 1999 Jun 15;162(12):7376-82
Adenosine stimulates cone photoreceptor myoid elongation via an adenosine A2-like receptor. Rey HL, et al. **J Neurochem** 1999 Jun;72(6):2345-55
A1 adenosine receptors modulate respiratory activity of the neonatal mouse via the cAMP-mediated signaling pathway. Mironov SL, et al. **J Neurophysiol** 1999 Jan;81(1):247-55
Amplification of the cyclic AMP response to forskolin in pheochromocytoma PC12 cells through adenosine A(2A) purinoceptors. Florio C, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):817-24
Adenosine receptor subtypes and vasodilatation in rat skeletal muscle during systemic hypoxia: a role for A1 receptors. Bryan PT, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):151-62
Chronic hypoxia reduces adenosine A2A receptor-mediated inhibition of calcium current in rat PC12 cells via downregulation of protein kinase A. Kobayashi S, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):351-63
Glucose and glutamine gavage increase portal vein nitric oxide metabolite levels via adenosine A2b activation. Matheson PJ, et al. **J Surg Res** 1999 Jun 1;84(1):57-63
Adenosine responses in experimental vein bypass grafts. Davies MG, et al. **J Vasc Surg** 1998 Nov;28(5):929-38
Purinergic signalling: pathophysiological roles. Abbracchio MP, et al. **Jpn J Pharmacol** 1998 Oct;78(2):113-45 (300 ref.)
No participation of adenosine A1 receptor in acute nephrotoxicity by 4-pentenoic acid administration in dogs. Miura K, et al. **Jpn J Pharmacol** 1999 Jul;80(3):223-8
Control of rat glomerular microcirculation by juxtaglomerular adenosine A1 receptors. Kawabata M, et al. **Kidney Int Suppl** 1998 Sep;67:S228-30
The effects of ischemic preconditioning on resting coronary flow and reactive hyperemia: involvement of A1 adenosine receptors. Pagliaro P, et al. **Life Sci** 1999;64(12):1071-8
Sensitization by chronic diazepam treatment of A2A adenosine receptor-mediated relaxation in rat pulmonary artery. Ujfalusi A, et al. **Life Sci** 1999;64(2):PL19-25
Endogenous adenosine involved in the mediation of spinal antinociception produced by stimulating locus coeruleus. Zhao Y, et al. **Life Sci** 1999;65(5):PL67-74
Signaling via A2A adenosine receptor in four PC12 cell clones. Arslan G, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):28-32
Adenosine A2A and group I metabotropic glutamate receptors synergistically modulate the binding characteristics of dopamine D2 receptors in the rat striatum. Ferré S, et al. **Neuropharmacology** 1999 Jan; 38(1):129-40
Striatal A2A adenosine receptors differentially regulate spontaneous and K+-evoked glutamate release in vivo in young and aged rats. Corsi C, et al. **Neuroreport** 1999 Mar 17;10(4):687-91
Adenosine A2A receptors modify motor function in MPTP-treated common marmosets. Kanda T, et al. **Neuroreport** 1998 Aug 24;9(12):2857-60

RECEPTORS, PURINERGIC P1

Arachidonic acid potentiates the duration of the metabotropic, protein kinase C–mediated, suppression of the inhibitory adenosine A1 receptor pathway in glutamatergic nerve terminals from rat cerebral cortex. Budd DC, et al. **Neurosci Lett** 1998 Mar 20;244(3):133–6

Selective detection of adenosine A1 receptor–dependent G-protein activity in basal and stimulated conditions of rat brain [35S]guanosine 5'-(gamma-thio)triphosphate autoradiography. Laitinen JT. **Neuroscience** 1999; 90(4):1265–79

Molecular and behavioral effects mediated by Gs-coupled adenosine A2a, but not serotonin 5-Ht4 or 5-Ht6 receptors following antipsychotic administration. Ward RP, et al. **Neuroscience** 1999 Mar;89(3):927–38

Microelectrode measurements of the effects of basolateral adenosine in polarized human intestinal epithelial cells in culture. Bouritius H, et al. **Pflugers Arch** 1999 Mar; 437(4):589–95

Enhancement of haemopoietic spleen colony formation by drugs elevating extracellular adenosine: effects of repeated in vivo treatment. Hofer M, et al. **Physiol Res** 1997; 46(4):285–90

Roles for adenosine A1- and A2-receptors in the control of thyrotrophin and prolactin release from the anterior pituitary gland. Kumari M, et al. **Regul Pept** 1999 Jan 1; 79(1):41–6

Modulation of endogenous GABA release by an antagonistic adenosine A1/dopamineD1 receptor interaction in rat brain limbic regions but not basal ganglia. Mayfield RD, et al. **Synapse** 1999 Sep 15;33(4):274–81

Insight into adenosine receptor function using antisense and gene-knockout approaches. Nyce JW. **Trends Pharmacol Sci** 1999 Feb;20(2):79–83 (46 ref.)

[The role of the muscarinic, adenosine and adrenoreceptors of the heart in the development of postischemic reperfusion ventricular fibrillation] Eliseev VV, et al. **Eksp Klin Farmakol** 1999 May-Jun;62(3):25–7 (Eng. Abstr.) **(Rus)**

RECEPTORS, PURINERGIC P2

Pharmacological and molecular characterization of P2X receptors in rat pelvic ganglion neurons. Zhong Y, et al. **Br J Pharmacol** 1998 Oct;125(4):771–81

Synaptic corelease of ATP and GABA in cultured spinal neurons [see comments] Jo YH, et al. **Nat Neurosci** 1999 Mar;2(3):241–5. Comment in: Nat Neurosci 1999 Mar;2(3):199–200.

[Cardiovascular treatment potentials. P2 receptors important for future drugs] Erlinge D. **Lakartidningen** 1999 May 26; 96(21):2586–9 (21 ref.) (Eng. Abstr.) **(Swe)**

AGONISTS

Characterization of ATP and P2 agonists binding to the cardiac plasma membrane P1,P4-diadenosine 5'-tetraphosphate receptor. Blouse GE, et al. **Biochim Biophys Acta** 1998 Oct 15;1375(1–2):61–72

Study on the activation of phospholipases A2 by purinergic agonists in rat submandibular ductal cells. Kabré E, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):616–27

Regulation by P2 agonists of the intracellular calcium concentration in epithelial cells freshly isolated from rat trachea. Marino A, et al. **Biochim Biophys Acta** 1999 Aug 18;1439(3):395–405

Modulation of extracellular GABA levels in the retina by activation of glial P2X-purinoceptors. Neal MJ, et al. **Br J Pharmacol** 1998 May;124(2):317–22

Pharmacological characterization of recombinant human and rat P2X receptor subtypes. Bianchi BR, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):127–38

Comparison of the actions of ATP and UTP and P(2X1) receptors in smooth muscle of the rat tail artery. McLaren GJ, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):139–44

Tenidap enhances P2Z/P2X7 receptor signalling in macrophages. Sanz JM, et al. **Eur J Pharmacol** 1998 Aug 21;355(2–3):235–44

Effects of activation and blockade of P2x receptors in the ventrolateral medulla on arterial pressure and sympathetic activity. Horiuchi J, et al. **J Auton Nerv Syst** 1999 May 28;76(2–3):118–26

Activation by P2X7 agonists of two phospholipases A2 (PLA2) in ductal cells of rat submandibular gland. Coupling of the calcium-independent PLA2 with kallikrein secretion. Alzola E, et al. **J Biol Chem** 1998 Nov 13; 273(46):30208–17

Structural basis of agonist-induced desensitization and sequestration of the P2Y2 nucleotide receptor. Consequences of truncation of the C terminus. Garrad RC, et al. **J Biol Chem** 1998 Nov 6;273(45):29437–44

Characterization of "mini-nucleotides" as P2X receptor agonists in rat cardiomyocyte cultures. An integrated synthetic, biochemical, and theoretical study. Fischer B, et al. **J Med Chem** 1999 Jul 15;42(14):2685–96

2-thioether 5'-O-(1-thiotriphosphate)adenosine derivatives as new insulin secretagogues acting through P2Y-Receptors. Fischer B, et al. **J Med Chem** 1999 Sep 9;42(18):3636–46

Structure-activity relationships of bisphosphate nucleotide derivatives as P2Y1 receptor antagonists and partial agonists. Nandanan E, et al. **J Med Chem** 1999 May 6; 42(9):1625–38

Intraspinal injection of adenosine agonists protect against L-NAME induced neuronal loss in the rat. Dora CD, et al. **J Neurotrauma** 1998 Jul;15(7):473–83

Nucleotide stimulation of Cl(-) secretion in the pigmented rabbit conjunctiva. Hosoya K, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):53–9

A breath of fresh air for patients with lung disease? [news] Sansom C. **Mol Med Today** 1999 Jan;5(1):5

Agonist action of adenosine triphosphates at the human P2Y1 receptor. Palmer RK, et al. **Mol Pharmacol** 1998 Dec; 54(6):1118–23

ANALYSIS

Localization of ATP-gated P2X2 receptor immunoreactivity in the rat hypothalamus. Xiang Z, et al. **Brain Res** 1998 Dec 7;813(2):390–7

Expression of the P2X7-receptor subunit in neurons of the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):106–9

P2X receptors in the rat duodenal villus. Gröschel-Stewart U, et al. **Cell Tissue Res** 1999 Jul;297(1):111–7

Electron-immunocytochemical localization of P2X1 receptors in the rat cerebellum. Loesch A, et al. **Cell Tissue Res** 1998 Nov;294(2):253–60

Analysis of novel P2X subunit-specific antibodies in rat cardiac and smooth muscle. Worthington RA, et al. **Electrophoresis** 1999 Jul;20(10):2081–5

Localisation of P2X receptors in human salivary gland epithelial cells and human embryonic kidney cells by sodium dodecyl sulfate-polyacrylamide gel electrophoresis/Western blotting and immunofluorescence. Worthington RA, et al. **Electrophoresis** 1999 Jul; 20(10):2065–70

Identification and localisation of ATP P2X receptors in rat midbrain. Worthington RA, et al. **Electrophoresis** 1999 Jul; 20(10):2077–80

Immunocytochemical localization of the vanilloid receptor 1 (VR1): relationship to neuropeptides, the P2X3 purinoceptor and IB4 binding sites. Guo A, et al. **Eur J Neurosci** 1999 Mar;11(3):946–58

Evidence for P2X3 receptors in the developing rat brain. Kidd EJ, et al. **Neuroscience** 1998 Dec;87(3):533–9

ANTAGONISTS & INHIBITORS

The effects of ketamine and propofol on neuronal nicotinic acetylcholine receptors and P2x purinoceptors in PC12 cells. Furuya R, et al. **Anesth Analg** 1999 Jan;88(1):174–80

Benzoyl ATP is an antagonist of rat and human P2Y1 receptors and of platelet aggregation. Vigne P, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):94–7

Blockade of human P2X7 receptor function with a monoclonal antibody. Buell G, et al. **Blood** 1998 Nov 15; 92(10):3521–8

Effects of antagonists at the human recombinant P2X7 receptor. Chessell IP, et al. **Br J Pharmacol** 1998 Jul; 124(6):1314–20

2',3'-O-(2,4,6- trinitrophenyl) adenosine 5'-triphosphate (TNP-ATP)--a nanomolar affinity antagonist at rat mesenteric artery P2X receptor ion channels. Lewis CJ, et al. **Br J Pharmacol** 1998 Aug;124(7):1463–6

Modulation of extracellular GABA levels in the retina by activation of glial P2X-purinoceptors. Neal MJ, et al. **Br J Pharmacol** 1998 May;124(2):317–22

Inhibition of NMDA-gated ion channels by the P2 purinoceptor antagonists suramin and reactive blue 2 in mouse hippocampal neurones. Peoples RW, et al. **Br J Pharmacol** 1998 May;124(2):400–8

Impaired arterial baroreflex regulation of heart rate after blockade of P2-purinoceptors in the nucleus tractus solitarius. Scislo TJ, et al. **Brain Res Bull** 1998 Sep 1; 47(1):63–7

Pharmacological characterization of recombinant human and rat P2X receptor subtypes. Bianchi BR, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):127–38

On the suitability of adenosine 3'-phosphate 5'-phosphosulphate as a selective P2Y receptor antagonist in intact tissues [corrected and republished in Eur J Pharmacol 1998 Oct 16;359(1):95–101] Bültmann R, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):209–15

On the suitability of adenosine 3'-phosphate 5'-phosphosulphate as a selective P2Y receptor antagonist in intact tissues [corrected and republished article originally printed in Eur J Pharmacol 1998 Jun 19;351(2):209–15] Bültmann R, et al. **Eur J Pharmacol** 1998 Oct 16; 359(1):95–101

Fluorescence imaging of Na+ influx via P2X receptors in cochlear hair cells. Housley GD, et al. **Hear Res** 1998 May; 119(1–2):1–13

Pseudomonas aeruginosa quorum-sensing signal molecule N-(3-oxododecanoyl)-L-homoserine lactone inhibits expression of P2Y receptors in cystic fibrosis tracheal gland cells. Saleh A, et al. **Infect Immun** 1999 Oct;67(10):5076–82

Effects of activation and blockade of P2x receptors in the ventrolateral medulla on arterial pressure and sympathetic activity. Horiuchi J, et al. **J Auton Nerv Syst** 1999 May 28;76(2–3):118–26

Effects of suramin on electrical and mechanical activities in antrum smooth muscle of the guinea-pig stomach. Xue L, et al. **J Auton Pharmacol** 1998 Dec;18(6):325–31

Antagonists of the platelet P2T receptor: a novel approach to antithrombotic therapy. Ingall AH, et al. **J Med Chem** 1999 Jan 28;42(2):213–20

Structure-activity relationships of bisphosphate nucleotide derivatives as P2Y1 receptor antagonists and partial agonists. Nandanan E, et al. **J Med Chem** 1999 May 6; 42(9):1625–38

Pyridoxal 5'-phosphate is an ATP-receptor antagonist in freshly isolated rat cardiomyocytes. Wang X, et al. **J Mol Cell Cardiol** 1999 May;31(5):1063–72

Extracellular sodium regulates airway ciliary motility by inhibiting a P2X receptor. Ma W, et al. **Nature** 1999 Aug 26;400(6747):894–7

Concomitant blockade of P2X-receptors and ecto-nucleotidases by P2-receptor antagonists: functional consequences in rat vas deferens. Bültmann R, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr; 359(4):339–44

Antagonistic properties of the suramin analogue NF023 at heterologously expressed P2X receptors. Soto F, et al. **Neuropharmacology** 1999 Jan;38(1):141–9

Block and unblock by imipramine of cloned and mutated P2X2 receptor/channel expressed in Xenopus oocytes. Nakazawa K, et al. **Neurosci Lett** 1999 Apr 2;264(1–3):93–6

Effects of suramin on hippocampal apyrase activity and inhibitory avoidance learning of rats. Bonan CD, et al. **Pharmacol Biochem Behav** 1999 May;63(1):153–8

Clinical pharmacology of the adenosine diphosphate (ADP) receptor antagonist, clopidogrel. Schrör K. **Vasc Med** 1998; 3(3):247–51 (49 ref.)

BIOSYNTHESIS

Expression of P2Y receptors in cell lines derived from the human lung. Communi D, et al. **Br J Pharmacol** 1999 May; 127(2):562–8

Expression of the P2X7-receptor subunit in neurons of the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):106–9

Mouse dendritic cells express the P2X7 purinergic receptor: characterization and possible participation in antigen presentation. Mutini C, et al. **J Immunol** 1999 Aug 15; 163(4):1958–65

Co-expression of P2X1 and P2X5 receptor subunits reveals a novel ATP-gated ion channel. Torres GE, et al. **Mol Pharmacol** 1998 Dec;54(6):989–93

CHEMISTRY

Role of the extracellular loops of G protein-coupled receptors in ligand recognition: a molecular modeling study of the human P2Y1 receptor. Moro S, et al. **Biochemistry** 1999 Mar 23;38(12):3498–507

Neighboring glycine residues are essential for P2X2 receptor/channel function. Nakazawa K, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):R5–6

The role of amino acids in extracellular loops of the human P2Y1 receptor in surface expression and activation processes. Hoffmann C, et al. **J Biol Chem** 1999 May 21; 274(21):14639–47

Hetero-oligomeric assembly of P2X receptor subunits. Specificities exist with regard to possible partners. Torres GE, et al. **J Biol Chem** 1999 Mar 5;274(10):6653–9

Mouse dendritic cells express the P2X7 purinergic receptor: characterization and possible participation in antigen presentation. Mutini C, et al. **J Immunol** 1999 Aug 15; 163(4):1958–65

Pore dilation of neuronal P2X receptor channels. Virginio C, et al. **Nat Neurosci** 1999 Apr;2(4):315–21

CLASSIFICATION

P2 receptor subtypes in the cardiovascular system. Kunapuli SP, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):513–23 (181 ref.)

DEFICIENCY

Decreased platelet aggregation, increased bleeding time and resistance to thromboembolism in P2Y1-deficient mice. Fabre JE, et al. **Nat Med** 1999 Oct;5(10):1199–202

DRUG EFFECTS

P2 purinoceptor localization along rat nephron and evidence suggesting existence of subtypes P2Y1 and P2Y2. Cha SH, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1006–14

Functional and molecular evidence for P2X receptors in LLC-PK1 cells. Filipovic DM, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1070–7

UTP-preferring P2 receptor mediates inhibition of sodium transport in porcine thyroid epithelial cells. Bourke J, et al. **Br J Pharmacol** 1999 Aug;127(8):1787–92

Pharmacological characterization of ATP- and LPS-induced IL-1beta release in human monocytes. Grahames CB, et al. **Br J Pharmacol** 1999 Aug;127(8):1915–21

Analysis of the influence of nucleotidases on the apparent activity of exogenous ATP and ADP at P2Y1 receptors. Vigne P, et al. **Br J Pharmacol** 1998 Oct;125(4):675–80

Modulation of ATP-responses at recombinant rP2X4 receptors by extracellular pH and zinc. Wildman SS, et al. **Br J Pharmacol** 1999 Feb;126(3):762–8

5-Hydroxytryptamine inhibits P2X2 receptor channel pore mutants. Nakazawa K, et al. **Cell Mol Neurobiol** 1999 Oct; 19(5):665–9

Functional evidence for a novel suramin-insensitive pyrimidine receptor in rat small pulmonary arteries. Hartley SA, et al. **Circ Res** 1998 Nov 2;83(9):940–6

Pharmacological analysis of the double peaked vasoconstrictor responses to periarterial electric stimulation. Yang XP, et al. **J Auton Pharmacol** 1998 Dec; 18(6):343–7

Differential modulation by copper and zinc of P2X2 and P2X4 receptor function. Xiong K, et al. **J Neurophysiol** 1999 May;81(5):2088–94

Alcohol action on membrane ion channels gated by extracellular ATP (P2X receptors). Weight FF, et al. **Neurochem Int** 1999 Aug;35(2):143–52 (64 ref.)

Interaction between purinoceptor subtypes on hippocampal serotonergic transmission using in vivo microdialysis. Okada M, et al. **Neuropharmacology** 1999 May;38(5):707–15

Block and unblock by imipramine of cloned and mutated P2X2 receptor/channel expressed in Xenopus oocytes. Nakazawa K, et al. **Neurosci Lett** 1999 Apr 2;264(1–3):93–6

Luminal ATP induces K+ secretion via a P2Y2 receptor in rat distal colonic mucosa. Kerstan D, et al. **Pflugers Arch** 1998 Oct;436(5):712–6

ATP acting on P2Y receptors triggers calcium mobilization in primary cultures of rat neurohypophysial astrocytes (pituicytes). Troadec JD, et al. **Pflugers Arch** 1999 Apr; 437(5):745–53

Receptors for purines and pyrimidines. Ralevic V, et al. **Pharmacol Rev** 1998 Sep;50(3):413–92 (1009 ref.)

GENETICS

Expression of both P1 and P2 purine receptor genes by human articular chondrocytes and profile of ligand-mediated prostaglandin E2 release. Koolpe M, et al. **Arthritis Rheum** 1999 Feb;42(2):258–67

N-Linked glycosylation is essential for the functional expression of the recombinant P2X2 receptor. Torres GE, et al. **Biochemistry** 1998 Oct 20;37(42):14845–51

Frequent loss of expression or aberrant alternative splicing of P2XM, a p53-inducible gene, in soft-tissue tumours. Nawa G, et al. **Br J Cancer** 1999 Jun;80(8):1185–9

Human P2Y2 receptor polymorphism: identification and pharmacological characterization of two allelic variants. Janssens R, et al. **Br J Pharmacol** 1999 Jun;127(3):709–16

Gene expression of the P2X receptors in the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Aug 31; 59(2):269–72

Selective expression of purinoceptor cP2Y1 suggests a role for nucleotide signalling in development of the chick embryo. Meyer MP, et al. **Dev Dyn** 1999 Feb;214(2):152–8

Salivary gland nucleotide receptors: evidence for functional expression of both P2X and P2Y subtypes. Turner JT, et al. **Eur J Morphol** 1998 Aug;36 Suppl:170–5

Characterization of cultured dorsal root ganglion neuron P2X receptors. Grubb BD, et al. **Eur J Neurosci** 1999 Jan; 11(1):149–54

Immunocytochemical localization of the vanilloid receptor 1 (VR1): relationship to neuropeptides, the P2X3 purinoceptor and IB4 binding sites. Guo A, et al. **Eur J Neurosci** 1999 Mar;11(3):946–58

Cloning and functional characterisation of the mouse P2X7 receptor. Chessell IP, et al. **FEBS Lett** 1998 Nov 13; 439(1–2):26–30

Discovery of three novel orphan G-protein-coupled receptors. Marchese A, et al. **Genomics** 1999 Feb 15; 56(1):12–21

Novel variant of the P2X2 ATP receptor from the guinea pig organ of Corti. Parker MS, et al. **Hear Res** 1998 Jul; 121(1–2):62–70

Evidence for three additional P2X2 purinoceptor isoforms produced by alternative splicing in the adult rat vestibular end-organs. Troyanovskaya M, et al. **Hear Res** 1998 Dec; 126(1–2):201–9

Effect of loss of P2Y(2) receptor gene expression on nucleotide regulation of murine epithelial Cl(–) transport. Cressman VL, et al. **J Biol Chem** 1999 Sep 10; 274(37):26461–8

Nucleotide-regulated calcium signaling in lung fibroblasts and epithelial cells from normal and P2Y(2) receptor (–/–) mice. Homolya L, et al. **J Biol Chem** 1999 Sep 10; 274(37):26454–60

Distribution of the P2X2 receptor subunit of the ATP-gated ion channels in the rat central nervous system. Kanjhan R, et al. **J Comp Neurol** 1999 Apr 28;407(1):11–32

Cloning and characterization of the murine P2XM receptor gene. Nawa G, et al. **J Hum Genet** 1998;43(4):262–7

Expression of the P2X(2) receptor subunit of the ATP-gated ion channel in the cochlea: implications for sound transduction and auditory neurotransmission. Housley GD, et al. **J Neurosci** 1999 Oct 1;19(19):8377–88

Evidence that multiple P2X purinoceptors are functionally expressed in rat supraoptic neurones. Shibuya I, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):351–67

Increase in cardiac P2X1-and P2Y2-receptor mRNA levels in congestive heart failure. Hou M, et al. **Life Sci** 1999; 65(11):1195–206

The expression of P2X3 purinoreceptors in sensory neurons: effects of axotomy and glial-derived neurotrophic factor. Bradbury EJ, et al. **Mol Cell Neurosci** 1998 Nov; 12(4–5):256–68

Cloning and expression of a P2y purinoceptor from the adult bovine corpus callosum. Deng G, et al. **Neurobiol Dis** 1998 Oct;5(4):259–70

Gene structure and chromosomal localization of the human P2X7 receptor. Buell GN, et al. **Receptors Channels** 1998; 5(6):347–54

The P2Y1 receptor is normal in a patient presenting a severe deficiency of ADP-induced platelet aggregation. Léon C, et al. **Thromb Haemost** 1999 May;81(5):775–81

ISOLATION & PURIFICATION

Molecular cloning, functional characterization and possible cooperativity between the murine P2X4 and P2X4a receptors. Townsend-Nicholson A, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):246–54

METABOLISM

Focus on "multiple functional P2X and P2Y receptors in the luminal and basolateral membranes of pancreatic duct cells" [editorial; comment] Dubyak GR. **Am J Physiol** 1999 Aug; 277(2 Pt 1):C202–4 (21 ref.). Comment on: Am J Physiol 1999 Aug;277(2 Pt 1):C205–15.

Multiple functional P2X and P2Y receptors in the luminal and basolateral membranes of pancreatic duct cells [see comments] Luo X, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C205–15. Comment in: Am J Physiol 1999 Aug;277(2 Pt 1):C202–4.

Functional analysis of native and recombinant ion channels using a high-capacity nonradioactive rubidium efflux assay. Terstappen GC. **Anal Biochem** 1999 Aug 1;272(2):149–55

Functional and molecular diversity of purinergic ion channel receptors. MacKenzie AB, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:716–29 (97 ref.)

Expression of functional P2-purinergic receptors in primary cultures of human colorectal carcinoma cells. Höpfner M, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):811–7

MAPKK-dependent growth factor-induced upregulation of P2Y2 receptors in vascular smooth muscle cells. Hou M, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):648–52

Growth inhibition of HL-60 cells by extracellular ATP: concentration-dependent involvement of a P2 receptor and adenosine generation. Seetulsingh-Goorah SP, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):390–6

Identification of a site that modifies desensitization of P2X2 receptors. Zhou Z, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):541–5

Enhanced purinoceptor-mediated Ca2+ signalling in L-fibroblasts overexpressing type 1 inositol 1,4,5-trisphosphate receptors. Davis RJ, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):813–20

N-Linked glycosylation is essential for the functional expression of the recombinant P2X2 receptor. Torres GE, et al. **Biochemistry** 1998 Oct 20;37(42):14845–51

Characterization of ATP and P2 agonists binding to the cardiac plasma membrane P1,P4-diadenosine 5'-tetraphosphate receptor. Blouse GE, et al. **Biochim Biophys Acta** 1998 Oct 15;1375(1–2):61–72

P2 receptor-mediated signal transduction in Ehrlich ascites tumor cells. Pedersen SF, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1–2):94–106

PKCbetaI mediates the inhibition of P2Y receptor-induced inositol phosphate formation in endothelial cells. Chen BC, et al. **Br J Pharmacol** 1999 Aug;127(8):1908–14

Characterization of the P2 receptors on the human umbilical vein endothelial cell line ECV304. Conant AR, et al. **Br J Pharmacol** 1998 Sep;125(2):357–64

Pharmacological profile of a novel cyclic AMP-linked P2 receptor on undifferentiated HL-60 leukemia cells. Conigrave AD, et al. **Br J Pharmacol** 1998 Aug; 124(7):1580–5

Human adenosine A1 receptor and P2Y2-purinoceptor-mediated activation of the mitogen-activated protein kinase cascade in transfected CHO cells. Dickenson JM, et al. **Br J Pharmacol** 1998 Aug; 124(7):1491–9

Fading and rebound of P2X2 currents at millimolar ATP concentrations caused by low pH. Stoop R, et al. **Br J Pharmacol** 1998 Sep;125(2):235–7

Characterization of Ca2+ influx through recombinant P2X receptor in C6BU-1 cells. Ueno S, et al. **Br J Pharmacol** 1998 Aug;124(7):1484–90

P2 purinoceptors contribute to ATP-induced inhibition of L-type Ca2+ current in rabbit atrial myocytes. Yamamoto T, et al. **Cardiovasc Res** 1999 Jan;41(1):166–74

Calcium signalling through nucleotide receptor P2Y2 in cultured human vascular endothelium. Viana F, et al. **Cell Calcium** 1998 Aug;24(2):117–27

Extracellular uridine nucleotides initiate cytokine production by murine dendritic cells. Marriott I, et al. **Cell Immunol** 1999 Aug 1;195(2):147–56

Localisation of P2X5 and P2X7 receptors by immunohistochemistry in rat stratified squamous epithelia. Gröschel-Stewart U, et al. **Cell Tissue Res** 1999 Jun; 296(3):599–605

Ca2+ mobilization in bovine corneal endothelial cells by P2 purinergic receptors. Srinivas SP, et al. **Curr Eye Res** 1998 Oct;17(10):994–1004

Increase in expression of P2X1 receptors in the atria of patients suffering from dilated cardiomyopathy. Berry DA, et al. **Electrophoresis** 1999 Jul;20(10):2059–64

A peptide isolated from a random phage peptide library is a structural mimic to the P1, P4-diadenosine 5'-tetraphosphate binding site on its receptor. Hilderman RH, et al. **Eur J Biochem** 1998 Dec 1;258(2):396–401

P2X3 is expressed by DRG neurons that terminate in inner lamina II. Vulchanova L, et al. **Eur J Neurosci** 1998 Nov; 10(11):3470–8

Pharmacological and histochemical evidence for P2X receptors in human umbilical vessels. Bo X, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):59–65

Ligand specificity and ticlopidine effects distinguish three human platelet ADP receptors. Geiger J, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):235–46

Presence of dinucleotide and ATP receptors in human cerebrocortical synaptic terminals. Pintor J, et al. **Eur J Pharmacol** 1999 Feb 5;366(2–3):159–65

Selectivity of diadenosine polyphosphates for rat P2X receptor subunits. Wildman SS, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):119–23

Regulation of ocular mucin secretion by P2Y2 nucleotide receptors in rabbit and human conjunctiva. Jumblatt JE, et al. **Exp Eye Res** 1998 Sep;67(3):341–6

P2Z purinoreceptor ligation induces activation of caspases with distinct roles in apoptotic and necrotic alterations of cell death. Ferrari D, et al. **FEBS Lett** 1999 Mar 19; 447(1):71–5

P2Y receptor subtypes differentially couple to inwardly-rectifying potassium channels. Mosbacher J, et al. **FEBS Lett** 1998 Sep 25;436(1):104–10

Evidence for three additional P2X2 purinoceptor isoforms produced by alternative splicing in the adult rat vestibular end-organs. Troyanovskaya M, et al. **Hear Res** 1998 Dec; 126(1–2):201–9

P2X receptor immunoreactivity in the rat cochlea, vestibular ganglion and cochlear nucleus. Xiang Z, et al. **Hear Res** 1999 Feb;128(1–2):190–6

Expression profiles of P2-receptor isoforms P2Y1 and P2Y2 in the rat lens. Merriman-Smith R, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2791–6

Neurogenic vasoconstriction as affected by cholinergic and nitroxidergic nerves in dog ciliary and ophthalmic arteries. Toda M, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1753–60

P2X (purinergic) receptor distributions in rat blood vessels. Hansen MA, et al. **J Auton Nerv Syst** 1999 Feb 15; 75(2–3):147–55

Ecto-ATPase activity of alpha-sarcoglycan (adhalin). Betto R, et al. **J Biol Chem** 1999 Mar 19;274(12):7907–12

P2X7/P2Z purinoreceptor-mediated activation of transcription factor NFAT in microglial cells. Ferrari D, et al. **J Biol Chem** 1999 May 7;274(19):13205–10

Purinergic receptor modulation of lipopolysaccharide signaling and inducible nitric-oxide synthase expression in RAW 264.7 macrophages. Hu Y, et al. **J Biol Chem** 1998 Oct 16;273(42):27170–5

Functional and biochemical evidence for heteromeric ATP-gated channels composed of P2X1 and P2X5 subunits. Lê KT, et al. **J Biol Chem** 1999 May 28; 274(22):15415–9

Expression and trans-synaptic regulation of P2x4 and P2z receptors for extracellular ATP in parotid acinar cells. Effects of parasympathetic denervation. Tenneti L, et al. **J Biol Chem** 1998 Oct 9;273(41):26799–808

Identification of a domain involved in ATP-gated ionotropic receptor subunit assembly. Torres GE, et al. **J Biol Chem** 1999 Aug 6;274(32):22359–65

Inhibition of phospholipase A2-mediated arachidonic acid release by cyclic AMP defines a negative feedback loop for P2Y receptor activation in Madin-Darby canine kidney D1 cells. Xing M, et al. **J Biol Chem** 1999 Apr 9; 274(15):10035–8

Human primary fibroblasts in vitro express a purinergic P2X7 receptor coupled to ion fluxes, microvesicle formation and IL-6 release. Solini A, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):297–305

Single channel properties of P2X2 purinoceptors. Ding S, et al. **J Gen Physiol** 1999 May;113(5):695–720

ATP stimulates sympathetic transmitter release via presynaptic P2X purinoceptors. Boehm S. **J Neurosci** 1999 Jan 15;19(2):737–46

Functional interactions between nicotinic and P2X channels in short-term cultures of guinea-pig submucosal neurons [see comments] Barajas-López C, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):671–83. Comment in: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):629.

Confocal calcium imaging reveals an ionotropic P2 nucleotide receptor in the paranodal membrane of rat Schwann cells. Grafe P, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):377–83

Non-additive interaction between nicotinic cholinergic and P2X purine receptors in guinea-pig enteric neurons in culture [see comments] Zhou X, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):685–97. Comment in: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):629.

Expression of the human P2Y6 nucleotide receptor in normal placenta and gestational trophoblastic disease. Somers GR, et al. **Lab Invest** 1999 Feb;79(2):131–9

Expression of the P2Y6 purinergic receptor in human T cells infiltrating inflammatory bowel disease. Somers GR, et al. **Lab Invest** 1998 Nov;78(11):1375–83

Secretion of ATP-utilizing enzymes, nucleoside diphosphate kinase and ATPase, by Mycobacterium bovis BCG: sequestration of ATP from macrophage P2Z receptors? Zaborina O, et al. **Mol Microbiol** 1999 Mar;31(5):1333–43

ATPalphaS is a ligand for P2Y receptors in synaptosomal membranes: solubilzation of [35S]ATPalphaS binding proteins associated with G-proteins. Schäfer R, et al.

Neurochem Int 1999 Apr;34(4):303–17

ATP released by LPS increases nitric oxide production in raw 264.7 macrophage cell line via P2Z/P2X7 receptors. Sperlágh B, et al. **Neurochem Int** 1998 Sep;33(3):209–15

Localization of ATP-gated P2X2 and P2X3 receptor immunoreactive nerves in rat taste buds. Bo X, et al. **Neuroreport** 1999 Apr 6;10(5):1107–11

Distribution of P2X3 receptors in the rat trigeminal ganglion after inferior alveolar nerve injury. Eriksson J, et al. **Neurosci Lett** 1998 Sep 18;254(1):37–40

Localization of ATP-gated P2X receptor immunoreactivity in rat sensory and sympathetic ganglia. Xiang Z, et al. **Neurosci Lett** 1998 Nov 6;256(2):105–8

Stimulation of P2Y-purinoceptors on astrocytes results in immediate early gene expression and potentiation of neuropeptide action. Priller J, et al. **Neuroscience** 1998 Jul; 85(2):521–5

Are there functional P2X receptors on cell bodies in intact dorsal root ganglia of rats? Stebbing MJ, et al. **Neuroscience** 1998 Oct;86(4):1235–44

Immunocytochemical localization of P2X3 purinoceptors in sensory neurons in naive rats and following neuropathic injury. Novakovic SD, et al. **Pain** 1999 Mar;80(1–2):273–82

Luminal ATP induces K+ secretion via a P2Y2 receptor in rat distal colonic mucosa. Kerstan D, et al. **Pflugers Arch** 1998 Oct;436(5):712–6

Effects of P2 purinoceptor agonists on membrane potential and intracellular Ca2+ of human cardiac endothelial cells. Zünkler BJ, et al. **Pharmacol Toxicol** 1999 Jul;85(1):7–15

P2u receptor-mediated release of endothelium-derived relaxing factor/nitric oxide and endothelium-derived hyperpolarizing factor from cerebrovascular endothelium in rats. You J, et al. **Stroke** 1999 May;30(5):1125–33

Abnormal tyrosine phosphorylation linked to a defective interaction between ADP and its receptor on platelets. Lévy-Toledano S, et al. **Thromb Haemost** 1998 Sep; 80(3):463–8

PHYSIOLOGY

Desensitization of P2Y2 receptor-activated transepithelial anion secretion. Clarke LL, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 1):C777–87

P2Z/P2X7 receptor-dependent apoptosis of dendritic cells. Coutinho-Silva R, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1139–47

Rat gastroduodenal motility in vivo: involvement of NO and ATP in spontaneous motor activity. Glasgow I, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G889–96

P2 purinoceptor-mediated dilations in the rat middle cerebral artery after ischemia-reperfusion. Marrelli SP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H33–41

Extracellular ATP causes apoptosis and necrosis of cultured mesangial cells via P2Z/P2X7 receptors. Schulze-Lohoff E, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F962–71

Partial agonists and antagonists reveal a second permeability state of human lymphocyte P2Z/P2X7 channel. Wiley JS, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1224–31

Functional heterogeneity of endothelial P2 purinoceptors in the cerebrovascular tree of the rat. You J, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H893–900

Activation of the P2Z/P2X7 receptor in human lymphocytes produces a delayed permeability lesion: involvement of phospholipase D. Fernando KC, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):197–202

The P2Y1 receptor, necessary but not sufficient to support full ADP-induced platelet aggregation, is not the target of the drug clopidogrel. Hechler B, et al. **Br J Haematol** 1998 Dec;103(3):858–66

Cyclo-oxygenase-2 mediates P2Y receptor-induced reactive astrogliosis. Brambilla R, et al. **Br J Pharmacol** 1999 Feb; 126(3):563–7

P2X receptors in cochlear Deiters' cells. Chen C, et al. **Br J Pharmacol** 1998 May;124(2):337–44

Regulation of epidermal homeostasis through P2Y2 receptors. Dixon CJ, et al. **Br J Pharmacol** 1999 Aug; 127(7):1680–6

P2X receptor-mediated excitation of nociceptive afferents in the normal and arthritic rat knee joint. Dowd E, et al. **Br J Pharmacol** 1998 Sep;125(2):341–6

Dual coupling of heterologously-expressed rat P2Y6 nucleotide receptors to N-type Ca2+ and M-type K+ currents in rat sympathetic neurones. Filippov AK, et al. **Br J Pharmacol** 1999 Feb;126(4):1009–17

Identification and characterization of an endogenous P2X7 (P2Z) receptor in CHO-K1 cells. Michel AD, et al. **Br J Pharmacol** 1998 Nov;125(6):1194–201

P2Y receptor-mediated Ca2+ signalling in cultured rat aortic smooth muscle cells. Pediani JD, et al. **Br J Pharmacol** 1999 Apr;126(7):1660–6

Evidence for two different types of P2 receptors stimulating insulin secretion from pancreatic B cell. Petit P, et al. **Br J Pharmacol** 1998 Nov;125(6):1368–74

Evidence for two different P2X-receptors mediating vasoconstriction of Ap5A and Ap6A in the isolated perfused rat kidney. van der Giet M, et al. **Br J Pharmacol** 1999 Jul;127(6):1463–9

Involvement of P2 purinoceptors and the nitric oxide pathway in [3H]purine outflow evoked by short-term hypoxia and hypoglycemia in rat hippocampal slices. Jurányi Z, et al. **Brain Res** 1999 Mar 27;823(1–2):183–90

Purinergic receptor-induced changes in paracellular resistance across cultures of human cervical cells are mediated by two distinct cytosolic calcium-related mechanisms. Gorodeski GI, et al. **Cell Biochem Biophys** 1998;29(3):281–306

Cytolytic P2X purinoceptors. Di Virgilio F, et al. **Cell Death Differ** 1998 Mar;5(3):191–9 (103 ref.)

ATP-evoked Ca2+ transients and currents in murine thymocytes: possible role for P2X receptors in death by neglect. Freedman BD, et al. **Eur J Immunol** 1999 May; 29(5):1635–46

A purinergic component of the excitatory postsynaptic current mediated by P2X receptors in the CA1 neurons of the rat hippocampus. Pankratov Y, et al. **Eur J Neurosci** 1998 Dec;10(12):3898–902

Protein kinase C epsilon-dependent pathway of extracellular signal-regulated protein kinase activation by P2Y1 and P2Y2 purinoceptors that activate cytosolic phospholipase A2 in endothelial cells. Chen BC, et al. **Eur J Pharmacol** 1999 May 28;373(1):101–10

Heterologous desensitization of muscarinic receptors by P2Z purinoceptors in rat parotid acinar cells. Fukushi Y. **Eur J Pharmacol** 1999 Jan 1;364(1):55–64

Endothelial P2Y receptors induce hyperpolarisation of vascular smooth muscle by release of endothelium-derived hyperpolarising factor. Malmsjö M, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):169–73

ATP-induced, P2U purinoceptor-mediated constriction of isolated, perfused mesenteric beds of the rat. Ohara N, et al. **Eur J Pharmacol** 1998 Dec 18;363(2–3):157–60

No requirement of P2X1 purinoceptors for platelet aggregation. Takano S, et al. **Eur J Pharmacol** 1999 May 21;372(3):305–9

Expression and a role of functionally coupled P2Y receptors in human dendritic cells. Liu QH, et al. **FEBS Lett** 1999 Feb 26;445(2–3):402–8

Emerging roles of purinergic signaling in gastrointestinal epithelial secretion and hepatobiliary function. Roman RM, et al. **Gastroenterology** 1999 Apr;116(4):964–79 (143 ref.)

P2Z-Independent and P2Z receptor-mediated macrophage killing by Pseudomonas aeruginosa isolated from cystic fibrosis patients. Zaborina O, et al. **Infect Immun** 1999 Oct; 67(10):5231–42

Involvement of P2 purinoceptors in the regulation of DNA synthesis in the neural retina of chick embryo. Sugioka M, et al. **Int J Dev Neurosci** 1999 Apr;17(2):135–44

P2 purinoceptor saturation by adenosine triphosphate impairs renal autoregulation in dogs. Majid DS, et al. **J Am Soc Nephrol** 1999 Mar;10(3):492–8

A2B adenosine and P2Y2 receptors stimulate mitogen-activated protein kinase in human embryonic kidney-293 cells. cross-talk between cyclic AMP and protein kinase c pathways. Gao Z, et al. **J Biol Chem** 1999 Feb 26;274(9):5972–80

Extracellular ATP increases [Ca2+]i in primarily cultured pig coronary smooth muscle cells via a P2Y purinoceptor subtype. Seiler L, et al. **J Cardiovasc Pharmacol** 1999 May; 33(5):807–13

P2 receptor modulation of voltage-gated potassium currents in Brown adipocytes. Wilson SM, et al. **J Gen Physiol** 1999 Jan;113(1):125–38

Cutting edge: purinergic signaling regulates radical-mediated bacterial killing mechanisms in macrophages through a P2X7-independent mechanism. Sikora A, et al. **J Immunol** 1999 Jul 15;163(2):558–61

ATP-stimulated Ca2+ influx and phospholipase D activities of a rat brain-derived type-2 astrocyte cell line, RBA-2, are mediated through P2X7 receptors. Sun SH, et al. **J Neurochem** 1999 Jul;73(1):334–43

ATP P2x receptors and sensory synaptic transmission between primary afferent fibers and spinal dorsal horn neurons in rats. Li P, et al. **J Neurophysiol** 1998 Dec; 80(6):3356–60

A memory for extracellular Ca2+ by speeding recovery of P2X receptors from desensitization. Cook SP, et al. **J Neurosci** 1998 Nov 15;18(22):9238–44

Allosteric control of gating and kinetics at P2X(4) receptor channels. Khakh BS, et al. **J Neurosci** 1999 Sep 1; 19(17):7289–99

Mitogenic signaling by ATP/P2Y purinergic receptors in astrocytes: involvement of a calcium-independent protein kinase C, extracellular signal-regulated protein kinase pathway distinct from the phosphatidylinositol-specific phospholipase C/calcium pathway. Neary JT, et al. **J Neurosci** 1999 Jun 1;19(11):4211–20

Ca2+-permeable P2X receptor channels in cultured rat retinal ganglion cells. Taschenberger H, et al. **J Neurosci** 1999 May 1;19(9):3353–66

Ca2+ permeability and kinetics of glutamate receptors in rat medial habenula neurones: implications for purinergic transmission in this nucleus. Robertson SJ, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):539–49

Cross-talk between apparently independent receptors [comment] Searl TJ, et al. **J Physiol (Lond)** 1998 Dec 15; 513 (Pt 3):629–30. Comment on: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):671–83. Comment on: J Physiol (Lond) 1998 Dec 15;513 (Pt 3):688–97.

Central CO2 chemoreception: a mechanism involving P2 purinoceptors localized in the ventrolateral medulla of the anaesthetized rat. Thomas T, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):899–905

ATP-evoked increases in [Ca2+]i and peptide release from rat isolated neurohypophysial terminals via a P2X2 purinoceptor. Troadec JD, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):89–103

Stimulation of P2y purinoceptors induces, via nitric oxide production, endothelium-dependent relaxation of human isolated corpus cavernosum. Shalev M, et al. **J Urol** 1999 Mar;161(3):955–9

Purinergic signalling: pathophysiological roles. Abbracchio MP, et al. **Jpn J Pharmacol** 1998 Oct;78(2):113–45 (300 ref.)

ATP receptors for the protection of hippocampal functions. Inoue K. **Jpn J Pharmacol** 1998 Dec;78(4):405–10 (43 ref.)

Two types of relaxation-mediating P2 receptors in rat gastric circular muscle. Otsuguro K, et al. **Jpn J Pharmacol** 1998 Oct;78(2):209–15

Age-related changes in adenosine 5'-triphosphate-induced constriction of isolated, perfused mesenteric arteries of rats. Konishi C, et al. **Life Sci** 1999;64(15):1265–73

Properties of the novel ATP-gated ionotropic receptor composed of the P2X(1) and P2X(5) isoforms. Haines WR, et al. **Mol Pharmacol** 1999 Oct;56(4):720–7

Neuronal P2X transmitter-gated cation channels change their ion selectivity in seconds. Khakh BS, et al. **Nat Neurosci** 1999 Apr;2(4):322–30

Ionic effects on human recombinant P2X7 receptor function. Michel AD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):102–9

Extracellular ATP: a further modulator in neuroendocrine control of the thymus. Alves LA, et al. **Neuroimmunomodulation** 1999 Jan–Apr;6(1–2):81–9 (90 ref.)

P2X2 characteristics of the ATP receptor coupled to [Ca2+]i increases in cultured Purkinje neurons from neonatal rat cerebellum. García-Lecea M, et al. **Neuropharmacology** 1999 May;38(5):699–706

Cibacron blue allosterically modulates the rat P2X4 receptor. Miller KJ, et al. **Neuropharmacology** 1998 Dec; 37(12):1579–86

Evidence that P2X purinoceptors mediate the excitatory effects of alphabetamethylene-ADP in rat locus coeruleus neurones. Sansum AJ, et al. **Neuropharmacology** 1998 Jul; 37(7):875–85

Evidence that inhibitory motor neurons of the guinea-pig small intestine exhibit fast excitatory synaptic potentials mediated via P2X receptors. Johnson PJ, et al. **Neurosci Lett** 1999 May 14;266(3):169–72

P2Y and P2U receptors differentially release intracellular Ca2+ via the phospholipase c/inositol 1,4,5-triphosphate pathway in astrocytes from the dorsal spinal cord. Idestrup CP, et al. **Neuroscience** 1998 Oct;86(3):913–23

Long-term activation of capacitative Ca2+ entry in mouse microglial cells. Toescu EC, et al. **Neuroscience** 1998 Oct; 86(3):925–35

The functions of ATP receptors in the hippocampus. Inoue K. **Pharmacol Res** 1998 Nov;38(5):323–31 (78 ref.)

6-Benzylaminopurine: a plant derived cytokinin inducing positive inotropism by P2-purinoceptors. Froldi G, et al. **Planta Med** 1999 Apr;65(3):245–9

IL-1beta differentially regulates calcium wave propagation between primary human fetal astrocytes via pathways involving P2 receptors and gap junction channels. John GR, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28; 96(20):11613–8

Evidence for two distinct G-protein-coupled ADP receptors mediating platelet activation. Jantzen HM, et al. **Thromb Haemost** 1999 Jan;81(1):111–7

Metabotropic receptors for ATP and UTP: exploring the correspondence between native and recombinant nucleotide receptors. King BF, et al. **Trends Pharmacol Sci** 1998 Dec;19(12):506–14 (71 ref.)

[The role of ATP-receptor in controlling the urinary bladder and urethral function in rats] Otomo R, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Jul;90(7):681–7 (Eng. Abstr.) **(Jpn)**

[Signal transduction through ATP receptors in brain and the development of new drugs] Inoue K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:36P–40P (15 ref.) (Eng. Abstr.) **(Jpn)**

ULTRASTRUCTURE

Ultrastructural localization of P2X3 receptors in rat sensory neurons. Llewellyn-Smith IJ, et al. **Neuroreport** 1998 Aug 3;9(11):2545–50

RECEPTORS, PURINERGIC P1

AGONISTS

Induction of apoptosis in cardiac myocytes by an A3 adenosine receptor agonist. Shneyvays V, et al. **Exp Cell Res** 1998 Sep 15;243(2):383–97

RECEPTORS, RETINOIC ACID

AGONISTS

Greater synergism of retinoic acid receptor (RAR) agonists with vitamin D3 than that of retinoid X receptor (RXR) agonists with regard to growth inhibition and differentiation induction in monoblastic leukemia cells. Makishima M, et al. **Biochem Pharmacol** 1999 Mar 1; 57(5):521–9

The RARgamma selective agonist CD437 inhibits gastric cell

growth through the mechanism of apoptosis. Jiang SY, et al. **Cancer Lett** 1999 Apr 1;137(2):217–25

Structural basis for engineering of retinoic acid receptor isotype–selective agonists and antagonists. Géhin M, et al. **Chem Biol** 1999 Aug;6(8):519–29

Dicarba–closo–dodecaboranes as a pharmacophore. Novel potent retinoidal agonists. Endo Y, et al. **Chem Pharm Bull (Tokyo)** 1999 Apr;47(4):585–7

Dicarba–closo–dodecaboranes as a pharmacophore. Retinoidal antagonists and potential agonists. Iijima T, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):398–404

Initial clinical trial of the retinoid receptor pan agonist 9–cis retinoic acid. Miller VA, et al. **Clin Cancer Res** 1996 Mar; 2(3):471–5

The RXR agonist LG100268 causes hepatomegaly, improves glycaemic control and decreases cardiovascular risk and cachexia in diabetic mice suffering from pancreatic beta–cell dysfunction. Lenhard JM, et al. **Diabetologia** 1999 May;42(5):545–54

Synthesis of retinoid X receptor–specific ligands that are potent inducers of adipogenesis in 3T3–L1 cells. Canan Koch SS, et al. **J Med Chem** 1999 Feb 25;42(4):742–50

Retinoid X receptor (RXR) agonist–induced activation of dominant–negative RXR–retinoic acid receptor alpha403 heterodimers is developmentally regulated during myeloid differentiation. Johnson BS, et al. **Mol Cell Biol** 1999 May; 19(5):3372–82

ANALYSIS

CRBP I and CRABP I localisation during olfactory nerve development. Gustafson AL, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):121–6

Analysis of retinoic acid receptor beta expression in normal and malignant laryngeal mucosa by a sensitive and routine applicable reverse transcription–polymerase chain reaction enzyme–linked immunosorbent assay method. Castillo L, et al. **Clin Cancer Res** 1997 Nov;3(11):2137–42

Expression of retinoic acid receptor beta in human renal cell carcinomas correlates with sensitivity to the antiproliferative effects of 13–cis–retinoic acid. Hoffman AD, et al. **Clin Cancer Res** 1996 Jun;2(6):1077–82

Aberrant expression of retinoid receptors and lung carcinogenesis [editorial; comment] Lotan R. **J Natl Cancer Inst** 1999 Jun 16;91(12):989–91. Comment on: J Natl Cancer Inst 1999 Jun 16;91(12):1059–66.

Expression of retinoid receptor genes and proteins in non–small–cell lung cancer [see comments] Picard E, et al. **J Natl Cancer Inst** 1999 Jun 16;91(12):1059–66. Comment in: J Natl Cancer Inst 1999 Jun 16;91(12):989–91.

ANTAGONISTS & INHIBITORS

Synthesis and biological activity of high–affinity retinoic acid receptor antagonists. Johnson AT, et al. **Bioorg Med Chem** 1999 Jul;7(7):1321–38

High affinity retinoic acid receptor antagonists: analogs of AGN 193109. Johnson AT, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):573–6

A short and efficient synthesis of 4–[2,2–dimethyl–4(tol–4–yl)benzochrom–3–en–7–yl]benzoic acid – a potent retinoic acid receptor antagonist. Vuligonda V, et al. **Bioorg Med Chem Lett** 1999 Aug 16; 9(16):2289–90

A new class of potent RAR antagonists: dihydroanthracenyl, benzochromenyl and benzothiochromenyl retinoids. Vuligonda V, et al. **Bioorg Med Chem Lett** 1999 Mar 8; 9(5):743–8

Structural basis for engineering of retinoic acid receptor isotype–selective agonists and antagonists. Géhin M, et al. **Chem Biol** 1999 Aug;6(8):519–29

Dicarba–closo–dodecaboranes as a pharmacophore. Retinoidal antagonists and potential agonists. Iijima T, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):398–404

Differential responses of normal, premalignant, and malignant human bronchial epithelial cells to receptor–selective retinoids. Sun SY, et al. **Clin Cancer Res** 1999 Feb; 5(2):431–7

Identification of a novel class of retinoic acid receptor beta–selective retinoid antagonists and their inhibitory effects on AP–1 activity and retinoic acid–induced apoptosis in human breast cancer cells. Li Y, et al. **J Biol Chem** 1999 May 28;274(22):15360–6

BIOSYNTHESIS

Overexpression of wild–type retinoic acid receptor alpha (RARalpha) recapitulates retinoic acid–sensitive transformation of primary myeloid progenitors by acute promyelocytic leukemia RARalpha–fusion genes. Du C, et al. **Blood** 1999 Jul 15;94(2):793–802

Expression of nuclear retinoid receptors in normal, premalignant and malignant gastric tissues determined by in situ hybridization. Jiang SY, et al. **Br J Cancer** 1999 Apr;80(1–2):206–14

Overexpression of retinoic acid receptor beta in head and neck squamous cell carcinoma cells increases their sensitivity to retinoid–induced suppression of squamous differentiation by retinoids. Wan H, et al. **Cancer Res** 1999 Jul 15;59(14):3518–26

Expression and up–regulation of retinoic acid receptor–beta is associated with retinoid sensitivity and colony formation in esophageal cancer cell lines. Xu XC, et al. **Cancer Res** 1999 May 15;59(10):2477–83

Up–regulation of retinoic acid receptor beta expression in renal cancers in vivo correlates with response to 13–cis–retinoic acid and interferon–alpha–2a. Berg WJ, et al. **Clin Cancer Res** 1999 Jul;5(7):1671–5

Decreased expression of retinoic acid receptors, transforming growth factor beta, involucrin, and cornifin in cervical intraepithelial neoplasia. Xu XC, et al. **Clin Cancer Res** 1999 Jun;5(6):1503–8

Retinoid signaling is required for chondrocyte maturation and endochondral bone formation during limb skeletogenesis. Koyama E, et al. **Dev Biol** 1999 Apr 15; 208(2):375–91

Expression of retinoic acid receptor and retinoid X receptor subtypes in rat liver cells: implications for retinoid signalling in parenchymal, endothelial, Kupffer and stellate cells. Ulven SM, et al. **Eur J Cell Biol** 1998 Oct;77(2):111–6

Keratinocytes and dermal factors activate CRABP–I in melanocytes. Sanquer S, et al. **Exp Dermatol** 1998 Dec; 7(6):369–79

Role of retinoic acid receptor overexpression in sensitivity to fenretinide and tumorigenicity of human ovarian carcinoma cells. Pergolizzi R, et al. **Int J Cancer** 1999 May 31;81(5):829–34

Glucocorticoids increase retinoid–X receptor alpha (RXRalpha) expression and enhance thyroid hormone action in primary cultured rat hepatocytes. Yamaguchi S, et al. **J Mol Endocrinol** 1999 Feb;22(1):81–90

Lung cancer promotion by beta–carotene and tobacco smoke: relationship to suppression of retinoic acid receptor–beta and increased activator protein–1? [editorial; comment] Lotan R. **J Natl Cancer Inst** 1999 Jan 6;91(1):7–9. Comment on: J Natl Cancer Inst 1999 Jan 6;91(1):60–6.

CHEMISTRY

Kinetic and thermodynamic analysis of 9–cis–retinoic acid binding to retinoid X receptor alpha. Schimerlik MI, et al. **Biochemistry** 1999 May 25;38(21):6732–40

Millisecond to microsecond time scale dynamics of the retinoid X and retinoic acid receptor DNA–binding domains and dimeric complex formation. van Tilborg PJ, et al. **Biochemistry** 1999 Feb 16;38(7):1951–6

NMR study of the binding of all–trans–retinoic acid to type II human cellular retinoic acid binding protein. Wang l, et al. **Biochim Biophys Acta** 1999 Aug 17;1433(1–2):240–52

Unbinding of retinoic acid from its receptor studied by steered molecular dynamics. Kosztin D, et al. **Biophys J** 1999 Jan;76(1 Pt 1):188–97

Surface–enhanced Raman scattering and fluorescence spectroscopy reveal molecular interactions of all–trans retinoic acid and RAR gamma ligand–binding domain. Morjani H, et al. **Biospectroscopy** 1998;4(5):297–302

Probing the folding pathway of a beta–clam protein with single–tryptophan constructs. Clark PL, et al. **Fold Des** 1998;3(5):401–12

Arg278, but not Lys229 or Lys236, plays an important role in the binding of retinoic acid by retinoic acid receptor gamma. Zhang ZP, et al. **J Biol Chem** 1998 Dec 18; 273(51):34016–21

Microsecond time scale dynamics in the RXR DNA–binding domain from a combination of spin–echo and off–resonance rotating frame relaxation measurements. Mulder FA, et al. **J Biomol NMR** 1999 Mar;13(3):275–88

Effect of redox conditions on the DNA–binding efficiency of the retinoic acid receptor zinc–finger. Casadevall M, et al. **J Inorg Biochem** 1998 Sep;71(3–4):147–52

DNA–induced conformational changes are the basis for cooperative dimerization by the DNA binding domain of the retinoid X receptor. Holmbeck SMA, et al. **J Mol Biol** 1998 Dec 4;284(3):533–9

A novel role for helix 12 of retinoid X receptor in regulating repression. Zhang J, et al. **Mol Cell Biol** 1999 Sep; 19(9):6448–57

Evolutionary constraint networks in ligand–binding domains: an information–theoretic approach. Nagl SB, et al. **Pac Symp Biocomput** 1999;:90–101

Folding mechanism of three structurally similar beta–sheet proteins. Burns LL, et al. **Proteins** 1998 Oct 1;33(1):107–18

[Structure of the retinoic acid receptor and its functional analysis using a mutated receptor] Kakizuka A. **Nippon Rinsho** 1998 Jul;56(7):1711–6 (22 ref.) (Eng. Abstr.) **(Jpn)**

CLASSIFICATION

A new class of RAR subtype selective retinoids: correlation of pharmacological effects with receptor activity. Vuligonda V, et al. **Bioorg Med Chem** 1999 Feb;7(2):263–70

DRUG EFFECTS

Transcriptional repression of the human collagenase–1 (MMP–1) gene in MDA231 breast cancer cells by all–trans–retinoic acid requires distal regions of the promoter. Benbow U, et al. **Br J Cancer** 1999 Jan; 79(2):221–8

Adapalene 0.1% gel and adapalene 0.1% cream stimulate retinoic acid receptor mediated gene transcription without significant irritative effects in the skin of healthy human volunteers. Griffiths CE, et al. **Br J Dermatol** 1998 Oct; 139 Suppl 52:12–6

Retinoic acid–mediated growth inhibition of small cell lung cancer cells is associated with reduced myc and increased p27Kip1 expression. Weber E, et al. **Int J Cancer** 1999 Mar 15;80(6):935–43

Rational design of receptor–selective retinoids. Chandraratna RA. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 2):S124–8 (21 ref.)

Signal relay by retinoic acid receptors alpha and beta in the retinoic acid–induced expression of insulin–like growth factor–binding protein–3 in breast cancer cells. Shang Y, et al. **J Biol Chem** 1999 Jun 18;274(25):18005–10

Retinoid signaling and activator protein–1 expression in ferrets given beta–carotene supplements and exposed to tobacco smoke [see comments] Wang XD, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):60–6. Comment in: J Natl Cancer Inst 1999 Jan 6;91(1):7–9.

The independent and combined effects of RAR–, RXR–, and VDR–selective ligands on the growth of squamous cell carcinoma in vitro. Enepekides DJ, et al. **J Otolaryngol** 1999 Apr;28(2):83–9

Central hypothyroidism associated with retinoid X receptor–selective ligands. Sherman SI, et al. **N Engl J Med** 1999 Apr 8;340(14):1075–9

Retinoic acid, but not arsenic trioxide, degrades the PLZF/RARalpha fusion protein, without inducing terminal differentiation or apoptosis, in a RA–therapy resistant t(11;17)(q23;q21) APL patient. Koken MH, et al. **Oncogene** 1999 Jan 28;18(4):1113–8

[Adapalene—a new retinoid receptor agonist for the treatment of acne vulgaris] Petersen CS. **Ugeskr Laeger** 1998 Nov 9;160(46):6668–71 (22 ref.) **(Dan)**

GENETICS

Novel missense mutation (Leu466Arg) of the DAX1 gene in a patient with X–linked congenital adrenal hypoplasia. Abe S, et al. **Am J Med Genet** 1999 May 21;84(2):87–9

Inhibition of hSP–B promoter in respiratory epithelial cells by a dominant negative retinoic acid receptor. Ghaffari M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L398–404

Identification of sequence tagged sites in the Asian and African elephant. Burk NE, et al. **Anim Biotechnol** 1998; 9(2):155–60

Detection and characterization of a mutation in the porcine DAX1 gene. Parma P, et al. **Anim Genet** 1998 Oct; 29(5):401–2

Inclusion of a legume in a saturated fat–rich diet affects the cholesterol status but not the expression of triiodothyronine and retinoic acid receptors in rat liver. Bonilla S, et al. **Ann Nutr Metab** 1998;42(5):297–303

DNA methylation of retinoic acid receptor beta in breast cancer and possible therapeutic role of 5–aza–2'–deoxycytidine. Bovenzi V, et al. **Anticancer Drugs** 1999 Jun;10(5):471–6

Demethylation by 5–aza–2'–deoxycytidine of specific 5–methylcytosine sites in the promoter region of the retinoic acid receptor beta gene in human colon carcinoma cells. Côté S, et al. **Anticancer Drugs** 1998 Oct;9(9):743–50

Differential regulation of ligand–dependent and ligand–independent functions of the mouse retinoid X receptor beta by alternative splicing. Fujita A, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):625–30

Identification of retinoic acid receptor element in human cholesteryl ester transfer protein gene. Jeoung NH, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):411–5

Characterization of an inverted repeat with a zero spacer (IR0)–type retinoic acid response element from the mouse nuclear orphan receptor TR2–11 gene. Lee CH, et al. **Biochemistry** 1999 Jul 6;38(27):8820–5

Synthesis of retinoic acid by rat ovarian cells that express cellular retinoic acid–binding protein–II. Zheng WL, et al. **Biol Reprod** 1999 Jan;60(1):110–4

Deconstructing a disease: RARalpha, its fusion partners, and their roles in the pathogenesis of acute promyelocytic leukemia. Melnick A, et al. **Blood** 1999 May 15; 93(10):3167–215 (605 ref.)

Alterations of the retinoic acid receptor alpha (RAR alpha) gene in myeloid and lymphoid malignancies. Parrado A, et al. **Br J Haematol** 1999 Mar;104(4):738–41

Regulation of retinoid X receptor–gamma gene transcript levels in rat heart cells. Georgiades P, et al. **Cell Biol Int** 1998;22(6):457–63

Retinoid–induced apoptosis in normal and neoplastic tissues [see comments] Nagy L, et al. **Cell Death Differ** 1998 Jan; 5(1):11–9 (86 ref.). Comment in: Cell Death Differ 1998 Jan;5(1):1–3.

Deregulated expression of the retinoid X receptor alpha prevents muscle differentiation in P19 embryonal carcinoma cells. Pratt MA, et al. **Cell Growth Differ** 1998 Sep;9(9):713–22

DAX–1, an 'antitestis' gene. Goodfellow PN, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):857–63 (26 ref.)

Analysis of retinoic acid receptor beta expression in normal and malignant laryngeal mucosa by a sensitive and routine applicable reverse transcription–polymerase chain reaction enzyme–linked immunosorbent assay method. Castillo L, et al. **Clin Cancer Res** 1997 Nov;3(11):2137–42

Accumulation of p53 protein and retinoic acid receptor beta in retinoid chemoprevention. Shin DM, et al. **Clin Cancer Res** 1997 Jun;3(6):875–80

Novel DAX1 mutations in X–linked adrenal hypoplasia congenita and hypogonadotrophic hypogonadism. Bassett JH, et al. **Clin Endocrinol (Oxf)** 1999 Jan;50(1):69–75

Essential roles of retinoic acid signaling in interdigital apoptosis and control of BMP–7 expression in mouse autopods. Dupé V, et al. **Dev Biol** 1999 Apr 1;208(1):30–43

Initial retinoid requirement for early avian development coincides with retinoid receptor coexpression in the precardiac fields and induction of normal cardiovascular development. Kostetskii I, et al. **Dev Dyn** 1998 Oct; 213(2):188–98

Expression and function of a retinoic acid receptor in budding ascidians. Hisata K, et al. **Dev Genes Evol** 1998 Dec; 208(10):537–46

The RXRalpha ligand–dependent activation function 2 (AF–2) is important for mouse development. Mascrez B, et al. **Development** 1998 Dec;125(23):4691–707

Stromal cells mediate retinoid-dependent functions essential for renal development. Mendelsohn C, et al. **Development** 1999 Mar;126(6):1139–48

Vitamin D represses retinoic acid–dependent transactivation of the retinoic acid receptor–beta2 promoter: the AF–2 domain of the vitamin D receptor is required for transrepression. Jiménez–Lara AM, et al. **Endocrinology** 1999 Jun;140(6):2898–907

Targeted disruption of the Ahch (Dax–1) gene: knockout of old concepts. Kopp P. **Eur J Endocrinol** 1999 Apr; 140(4):291–2

Role of retinoids in the CNS: differential expression of retinoid binding proteins and receptors and evidence for presence of retinoic acid. Zetterström RH, et al. **Eur J Neurosci** 1999 Feb;11(2):407–16

Embryonal carcinoma cell lines stably transfected with mRARbeta2–lacZ: sensitive system for measuring levels of active retinoids. Sonneveld E, et al. **Exp Cell Res** 1999 Aug 1;250(2):284–97

Repression of transactivation of the retinoic acid receptor beta2 promoter in human breast cancer cells. Tsou HC, et al. **Exp Cell Res** 1998 Nov 25;245(1):221–7

The vitamin D receptor binds in a transcriptionally inactive form and without a defined polarity on a retinoic acid response element. Jimenez–Lara AM, et al. **FASEB J** 1999 Jun;13(9):1073–81

Isolation and characterisation of the retinoic acid receptor–alpha gene in the Japanese pufferfish, F. rubripes. Wentworth JM, et al. **Gene** 1999 Aug 20;236(2):315–23

Impaired extrapyramidal function caused by the targeted disruption of retinoid X receptor RXRgamma1 isoform. Saga Y, et al. **Genes Cells** 1999 Apr;4(4):219–28

The flow cytometric pattern of CD34, CD15 and CD13 expression in acute myeloblastic leukemia is highly characteristic of the presence of PML–RARalpha gene rearrangements. Orfao A, et al. **Haematologica** 1999 May; 84(5):405–12

The targeted disruption of both alleles of RARbeta(2) in F9 cells results in the loss of retinoic acid–associated growth arrest. Faria TN, et al. **J Biol Chem** 1999 Sep 17; 274(38):26783–8

Promoter architecture, cofactors, and orphan receptors contribute to cell–specific activation of the retinoic acid receptor beta2 promoter. Folkers GE, et al. **J Biol Chem** 1998 Nov 27;273(48):32200–12

Identification of a cDNA encoding a retinoid X receptor homologue from Schistosoma mansoni. Evidence for a role in female–specific gene expression. Freebern WJ, et al. **J Biol Chem** 1999 Feb 19;274(8):4577–85

A 5–kilobase pair promoter fragment of the murine epididymal retinoic acid–binding protein gene drives the tissue–specific, cell–specific, and androgen–regulated expression of a foreign gene in the epididymis of transgenic mice. Lareyre JJ, et al. **J Biol Chem** 1999 Mar 19; 274(12):8282–90

Human retinoic X receptor beta: complete genomic sequence and mutation search for ossification of posterior longitudinal ligament of the spine. Numasawa T, et al. **J Bone Miner Res** 1999 Apr;14(4):500–8

Clinical and functional effects of mutations in the DAX–1 gene in patients with adrenal hypoplasia congenita. Reutens AT, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):504–11

Regional pattern of retinoid X receptor–alpha gene expression in the central nervous system of the chicken embryo and its up–regulation by exposure to 9–cis retinoic acid. Hoover F, et al. **J Comp Neurol** 1998 Sep 7; 398(4):575–86

Myocardial retinoid X receptor, thyroid hormone receptor, and myosin heavy chain gene expression in the rat during adult aging [see comments] Long X, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jan;54(1):B23–7. Comment in: J Gerontol A Biol Sci Med Sci 1999 Jan;54(1):B28–9.

Keratinocyte–specific retinoid regulation of human cellular retinoic acid binding protein–II (hCRABPII) gene promoter requires an evolutionarily conserved DR1 retinoic acid–responsive element. Di W, et al. **J Invest Dermatol** 1998 Dec;111(6):1109–15

A microdeletion within DAX–1 in X–linked adrenal hypoplasia congenita and hypogonadotrophic hypogonadism. Wang J, et al. **J Investig Med** 1999 May; 47(5):232–5

A novel 3T3–L1 preadipocyte variant that expresses PPARgamma2 and RXRalpha but does not undergo differentiation. Baillie RA, et al. **J Lipid Res** 1998 Oct; 39(10):2048–53

Deletion mapping and X inactivation analysis of a non–specific mental retardation gene at Xp21.3–Xp22.11. Muroya K, et al. **J Med Genet** 1999 Mar;36(3):187–91

Auto–silencing by the retinoid X receptor. Kersten S, et al. **J Mol Biol** 1998 Nov 20;284(1):21–32

Aml1/ETO and Pml/RARA rearrangements in a case of AML–M2 acute myeloblastic leukemia with t(15;17). Varella–Garcia M, et al. **Leuk Lymphoma** 1999 Apr; 33(3–4):403–6

A unique carboxy–terminus truncation mutant of the retinoic acid receptor alpha gene associated with a variant marker chromosome in a retinoic acid resistant HL–60 subline. Brigati C, et al. **Leuk Res** 1999 Feb;23(2):105–13

Genomic structure of the human retinoic acid receptor–alpha1 gene. Hjalt TA, et al. **Mamm Genome** 1999 May;10(5):528–9

Gene targeting of retinoid receptors. Lohnes D. **Mol Biotechnol** 1999 Feb;11(1):67–84

The Wilms' tumor suppressor gene (wt1) product regulates Dax–1 gene expression during gonadal differentiation. Kim J, et al. **Mol Cell Biol** 1999 Mar;19(3):2289–99

Retinoid and androgen regulation of cell growth, epidermal growth factor and retinoic acid receptors in normal and carcinoma rat prostate cells. Richter F, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):29–38

Dax–1 as one of the target genes of Ad4BP/SF–1. Kawabe K, et al. **Mol Endocrinol** 1999 Aug;13(8):1267–84

Estrogen receptor beta activates the human retinoic acid receptor alpha–1 promoter in response to tamoxifen and other estrogen receptor antagonists, but not in response to estrogen. Zou A, et al. **Mol Endocrinol** 1999 Mar; 13(3):418–30

Differential expression of retinoid receptors in the adult mouse central nervous system. Krezel W, et al. **Neuroscience** 1999;89(4):1291–300

Gene expression of cellular retinoid–binding proteins: modulation by retinoic acid and dexamethasone in postnatal rat lung. Whitney D, et al. **Pediatr Res** 1999 Jan;45(1):2–7

Distinct leukemia phenotypes in transgenic mice and different corepressor interactions generated by promyelocytic leukemia variant fusion genes PLZF–RARalpha and NPM–RARalpha. Cheng GX, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6318–23

Retinoic acid X receptor in the diploblast, Tripedalia cystophora. Kostrouch Z, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13442–7

Retinoid X receptors are essential for early mouse development and placentogenesis. Wendling O, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):547–51

IMMUNOLOGY

Lack of T–cell–mediated recognition of the fusion region of the pml/RAR–alpha hybrid protein by lymphocytes of acute promyelocytic leukemia patients. Dermime S, et al. **Clin Cancer Res** 1996 Mar;2(3):593–600

ISOLATION & PURIFICATION

Versatile copurification procedure for rapid isolation of homogeneous RAR–RXR heterodimers. Iyer J, et al. **Protein Expr Purif** 1999 Jul;16(2):308–14

METABOLISM

Drug interaction of isotretinoin and protease inhibitors: support for the cellular retinoic acid–binding protein–1 theory of lipodystrophy? [letter] Padberg J, et al. **AIDS** 1999 Feb 4;13(2):284–5

9–cis–retinoic acid decreases the level of its cognate receptor, retinoid X receptor, through acceleration of the turnover. Nomura Y, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):729–33

Cleavage of RXRalpha by a lysosomal enzyme, cathepsin L–type protease. Nomura Y, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):388–94

Retinoic acid biosynthetic activity and retinoid receptors in the olfactory mucosa of adult mice. Zhang QY. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):346–51

Differential modulation of transcriptional activity of oestrogen receptors by direct protein–protein interactions with retinoid receptors. Song MR, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):711–7

Inhibition of apolipoprotein(a) synthesis in cynomolgus monkey hepatocytes by retinoids via involvement of the retinoic acid receptor. Neele DM, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):263–71

Kinetic and thermodynamic analysis of 9–cis–retinoic acid binding to retinoid X receptor alpha. Schimerlik MI, et al. **Biochemistry** 1999 May 25;38(21):6732–40

A new class of RAR subtype selective retinoids: correlation of pharmacological effects with receptor activity. Vuligonda V, et al. **Bioorg Med Chem** 1999 Feb;7(2):263–70

Stereoselective synthesis and receptor activity of conformationally defined retinoid X receptor selective ligands. Vuligonda V, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):589–94

Unbinding of retinoic acid from its receptor studied by steered molecular dynamics. Kosztin D, et al. **Biophys J** 1999 Jan;76(1 Pt 1):188–97

Surface–enhanced Raman scattering and fluorescence spectroscopy reveal molecular interactions of all–trans retinoic acid and RAR gamma ligand–binding domain. Morjani H, et al. **Biospectroscopy** 1998;4(5):297–302

Deconstructing a disease: RARalpha, its fusion partners, and their roles in the pathogenesis of acute promyelocytic leukemia. Melnick A, et al. **Blood** 1999 May 15; 93(10):3167–215 (605 ref.)

Physical interaction between retinoic acid receptor and Sp1: mechanism for induction of urokinase by retinoic acid. Suzuki Y, et al. **Blood** 1999 Jun 15;93(12):4264–76

Retinoid receptor–dependent and –independent effects of N–(4–hydroxyphenyl)retinamide in F9 embryonal carcinoma cells. Clifford JL, et al. **Cancer Res** 1999 Jan 1;59(1):14–8

Induction of a functional vitamin D receptor in all–trans–retinoic acid–induced monocytic differentiation of M2–type leukemic blast cells. Manfredini R, et al. **Cancer Res** 1999 Aug 1;59(15):3803–11

Estrogen receptor expression activates the transcriptional and growth–inhibitory response to retinoids without enhanced retinoic acid receptor alpha expression. Rosenauer A, et al. **Cancer Res** 1998 Nov 15;58(22):5110–6

Constitutive expression of cellular retinoic acid binding protein II and lack of correlation with sensitivity to all–trans retinoic acid in acute promyelocytic leukemia cells. Zhou DC, et al. **Cancer Res** 1998 Dec 15; 58(24):5770–6

Cell type and gene–specific activity of the retinoid inverse agonist AGN 193109: divergent effects from agonist at retinoic acid receptor gamma in human keratinocytes. Thacher SM, et al. **Cell Growth Differ** 1999 Apr; 10(4):255–62

Synergistic effects of retinoic acid and 8–chloro–adenosine 3',5'–cyclic monophosphate on the regulation of retinoic acid receptor beta and apoptosis: involvement of mitochondria. Srivastava RK, et al. **Clin Cancer Res** 1999 Jul;5(7):1892–904

Expression and function of a retinoic acid receptor in budding ascidians. Hisata K, et al. **Dev Genes Evol** 1998 Dec; 208(10):537–46

The RXRalpha ligand–dependent activation function 2 (AF–2) is important for mouse development. Mascrez B, et al. **Development** 1998 Dec;125(23):4691–707

Expression of retinoic acid receptor beta is associated with inhibition of keratinization in human head and neck squamous carcinoma cells. Zou CP, et al. **Differentiation** 1999 Jan;64(2):123–32

Ligand–free RAR can interact with the RNA polymerase II subunit hsRPB7 and repress transcription. Shen XQ, et al. **Endocrine** 1999 Jun;10(3):281–9

Quantification of thyroid hormone receptor isoforms, 9–cis retinoic acid receptor gamma, and nuclear receptor co–repressor by reverse–transcriptase PCR in maturing and adult skeletal muscles of rat. Schuler MJ, et al. **Eur J Biochem** 1998 Nov 1;257(3):607–14

Retinoid–binding proteins in the cerebellum and choroid plexus and their relationship to regionalized retinoic acid synthesis and degradation. Yamamoto M, et al. **Eur J Biochem** 1998 Oct 15;257(2):344–50

Retinoic acid induces apoptosis of human CD34+ hematopoietic progenitor cells: involvement of retinoic acid receptors and retinoid X receptors depends on lineage commitment of the hematopoietic progenitor cells. Josefsen D, et al. **Exp Hematol** 1999 Apr;27(4):642–53

Impaired extrapyramidal function caused by the targeted disruption of retinoid X receptor RXRgamma1 isoform. Saga Y, et al. **Genes Cells** 1999 Apr;4(4):219–28

Induction of retinoic acid receptor beta mediates growth inhibition in retinoid resistant human colon carcinoma cells. Nicke B, et al. **Gut** 1999 Jul;45(1):51–7

Reduced expression of retinoic acid receptor beta protein (RAR beta) in human papillary thyroid carcinoma: immunohistochemical and western blot study. Rochaix P, et al. **Histopathology** 1998 Oct;33(4):337–43

Hyperphosphorylation of the retinoid X receptor alpha by activated c–Jun NH2–terminal kinases. Adam–Stitah S, et al. **J Biol Chem** 1999 Jul 2;274(27):18932–41

Evidence for a novel cardiac–enriched retinoid X receptor partner. Cresci S, et al. **J Biol Chem** 1999 Sep 3; 274(36):25668–74

Identification of a novel DNA binding site for nuclear orphan receptor OR1. Feltkamp D, et al. **J Biol Chem** 1999 Apr 9;274(15):10421–9

Retinoid isomers differ in the ability to induce release of SMRT corepressor from retinoic acid receptor–alpha. Hong SH, et al. **J Biol Chem** 1999 Jan 29;274(5):2885–92

Functional interaction between Oct–1 and retinoid X receptor. Kakizawa T, et al. **J Biol Chem** 1999 Jul 2; 274(27):19103–8

Retinoids inhibit interleukin–12 production in macrophages through physical associations of retinoid X receptor and NFkappaB. Na SY, et al. **J Biol Chem** 1999 Mar 19; 274(12):7674–80

Bcl3, an IkappaB protein, as a novel transcription coactivator of the retinoid X receptor. Na SY, et al. **J Biol Chem** 1998 Nov 20;273(47):30933–8

Intracellular proteolytic cleavage of 9–cis–retinoic acid receptor alpha by cathepsin L–type protease is a potential mechanism for modulating thyroid hormone action. Nagaya T, et al. **J Biol Chem** 1998 Dec 11;273(50):33166–73

Retinoid–dependent recruitment of a histone H1 displacement activity by retinoic acid receptor. Nagpal S, et al. **J Biol Chem** 1999 Aug 6;274(32):22563–8

Role of GHF–1 in the regulation of the rat growth hormone gene promoter by thyroid hormone and retinoic acid receptors. Palomino T, et al. **J Biol Chem** 1998 Oct 16; 273(42):27541–7

Overexpressed activated retinoid X receptors can mediate growth inhibitory effects of retinoids in human carcinoma cells. Wan H, et al. **J Biol Chem** 1998 Oct 9;

273(41):26915–22
Components of the SMRT corepressor complex exhibit distinctive interactions with the POZ domain oncoproteins PLZF, PLZF–RARalpha, and BCL–6. Wong CW, et al. **J Biol Chem** 1998 Oct 16;273(42):27695–702
Arg278, but not Lys229 or Lys236, plays an important role in the binding of retinoic acid by retinoic acid receptor gamma. Zhang ZP, et al. **J Biol Chem** 1998 Dec 18; 273(51):34016–21
DNA bending is induced by binding of vitamin D receptor–retinoid X receptor heterodimers to vitamin D response elements. Kimmel–Jehan C, et al. **J Cell Biochem** 1999 Aug 1;74(2):220–8
Additional protein factors play a role in the formation of VDR/RXR complexes on vitamin D response elements. Zierold C, et al. **J Cell Biochem** 1998 Dec 15;71(4):515–23
Mitogen–activated protein kinase inhibits 1,25–dihydroxyvitamin D3–dependent signal transduction by phosphorylating human retinoid X receptor alpha. Solomon C, et al. **J Clin Invest** 1999 Jun;103(12):1729–35
Altered expression of retinoic acid (RA) receptor mRNAs in the fetal mouse secondary palate by all–trans and 13–cis RAs: implications for RA–induced teratogenesis. Naitoh H, et al. **J Craniofac Genet Dev Biol** 1998 Oct–Dec; 18(4):202–10
Effect of redox conditions on the DNA–binding efficiency of the retinoic acid receptor zinc–finger. Casadevall M, et al. **J Inorg Biochem** 1998 Sep;71(3–4):147–52
Synthesis, structure–activity relationships, and RARgamma–ligand interactions of nitrogen heteroarotinoids. Dhar A, et al. **J Med Chem** 1999 Sep 9;42(18):3602–14
Retinoic acid receptor: a simulation analysis of retinoic acid binding and the resulting conformational changes. Blondel A, et al. **J Mol Biol** 1999 Aug 6;291(1):101–15
Auto–silencing by the retinoid X receptor. Kersten S, et al. **J Mol Biol** 1998 Nov 20;284(1):21–32
Paucity of retinoic acid receptor alpha (RAR alpha) nuclear immunostaining in gliomas and inability of retinoic acid to influence neural cell adhesion molecule (NCAM) expression. Kleinschmidt–DeMasters BK, et al. **J Neurooncol** 1999 Jan;41(1):31–42
Retinoic acid and interferon signaling cross talk in normal and RA–resistant APL cells. Chelbi–Alix MK, et al. **Leukemia** 1999 Aug;13(8):1167–74 (107 ref.)
In acute promyelocytic leukemia NB4 cells, the synthetic retinoid CD437 induces contemporaneously apoptosis, a caspase–3–mediated degradation of PML/RARalpha protein and the PML retargeting on PML–nuclear bodies. Gianni M, et al. **Leukemia** 1999 May;13(5):739–49
Retinoids and their receptors in skeletal development. Underhill TM, et al. **Microsc Res Tech** 1998 Oct 15; 43(2):137–55 (239 ref.)
Retinoic acid receptor gamma1 (RARgamma1) levels control RARbeta2 expression in SK–N–BE2(c) neuroblastoma cells and regulate a differentiation–apoptosis switch. Ferrari N, et al. **Mol Cell Biol** 1998 Nov;18(11):6482–92
The nuclear orphan receptor CAR–retinoid X receptor heterodimer activates the phenobarbital–responsive enhancer module of the CYP2B gene. Honkakoski P, et al. **Mol Cell Biol** 1998 Oct;18(10):5652–8
Human TAF(II)55 interacts with the vitamin D(3) and thyroid hormone receptors and with derivatives of the retinoid X receptor that have altered transactivation properties. Lavigne AC, et al. **Mol Cell Biol** 1999 Aug; 19(8):5486–94
Inhibition of nuclear receptor signalling by poly(ADP–ribose) polymerase. Miyamoto T, et al. **Mol Cell Biol** 1999 Apr;19(4):2644–9
Allosteric regulation of the discriminative responsiveness of retinoic acid receptor to natural and synthetic ligands by retinoid X receptor and DNA. Mouchon A, et al. **Mol Cell Biol** 1999 Apr;19(4):3073–85
A novel role for helix 12 of retinoid X receptor in regulating repression. Zhang J, et al. **Mol Cell Biol** 1999 Sep; 19(9):6448–57
Tumor necrosis factor activates a nuclear inhibitor of vitamin D and retinoid–X receptors. Fernandez–Martin JL, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1–2):65–72
Conserved amino acids in the ligand–binding and tau(i) domains of the peroxisome proliferator–activated receptor alpha are necessary for heterodimerization with RXR. Gorla–Bajszczak A, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):37–47
Receptor–interacting protein 140 interacts with and inhibits transactivation by, peroxisome proliferator–activated receptor alpha and liver–X–receptor alpha. Miyata KS, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1–2):69–76
Ligand–independent coregulator recruitment by the triply activatable OR1/retinoid X receptor–alpha nuclear receptor heterodimer. Wiebel FF, et al. **Mol Endocrinol** 1999 Jul;13(7):1105–18
Protein–protein interaction domains and the heterodimerization of thyroid hormone receptor variant alpha2 with retinoid X receptors. Wu Y, et al. **Mol Endocrinol** 1998 Oct;12(10):1542–50
Induction of apoptosis by N–(4–hydroxyphenyl)retinamide and its association with reactive oxygen species, nuclear retinoic acid receptors, and apoptosis–related genes in human prostate carcinoma cells. Sun SY, et al. **Mol Pharmacol** 1999 Mar;55(3):403–10
Absence of thyroid hormone receptor beta–retinoid X receptor interactions in auditory function and in the pituitary–thyroid axis. Barros AC, et al. **Neuroreport** 1998 Sep 14;9(13):2933–7
Differential expression of retinoid receptors in the adult mouse central nervous system. Krezel W, et al. **Neuroscience** 1999;89(4):1291–300
Critical role of both retinoid nuclear receptors and retinoid–X–receptors in mediating growth inhibition of ovarian cancer cells by all–trans retinoic acid. Wu S, et al. **Oncogene** 1998 Dec 3;17(22):2839–49
Ligand–dependent activation of transcription in vitro by retinoic acid receptor alpha/retinoid X receptor alpha heterodimers that mimics transactivation by retinoids in vivo. Dilworth FJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1995–2000
Retinoic acid X receptor in the diploblast, Tripedalia cystophora. Kostrouch Z, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13442–7
Metabolism to a response pathway selective retinoid ligand during axial pattern formation. Pijnappel WW, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15424–9
Elevated retinoic acid receptor beta(4) protein in human breast tumor cells with nuclear and cytoplasmic localization. Sommer KM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8651–6
Anticoagulant effects of synthetic retinoids and activated vitamin D3. Koyama T, et al. **Semin Thromb Hemost** 1998; 24(3):217–26
Control of retinoid nuclear receptor function and expression. Niles RM. **Subcell Biochem** 1998;30:3–28 (156 ref.)
Multiple factors contribute to the toxicity of the aromatic retinoid TTNPB (Ro 13–7410): interactions with the retinoic acid receptors. Pignatello MA, et al. **Toxicol Appl Pharmacol** 1999 Sep 1;159(2):109–16

PHYSIOLOGY

Inhibition of hSP–B promoter in respiratory epithelial cells by a dominant negative retinoic acid receptor. Ghaffari M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L398–404
Activity of 9–cis–retinoic acid and receptor–selective retinoids in small cell lung cancer cell lines. Rosati R, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4071–5
Retinoic acid regulates arterial smooth muscle cell proliferation and phenotypic features in vivo and in vitro through an RARalpha–dependent signaling pathway. Neuville P, et al. **Arterioscler Thromb Vasc Biol** 1999 Jun; 19(6):1430–6
Retinoic acid receptor alpha mediates growth inhibition by retinoids in human colon carcinoma HT29 cells. Nicke B, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):572–7
Role of retinoid receptors in the regulation of mucin gene expression by retinoic acid in human tracheobronchial epithelial cells. Koo JS, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):351–7
Inhibition of activation–induced apoptosis of thymocytes by all–trans– and 9–cis–retinoic acid is mediated via retinoic acid receptor alpha. Szondy Z, et al. **Biochem J** 1998 May 1;331 (Pt 3):767–74
Mammalian sex determination: joining pieces of the genetic puzzle. Jiménez R, et al. **Bioessays** 1998 Sep;20(9):696–9 (24 ref.)
Effects of novel RAR– and RXR–selective retinoids on myeloid leukemic proliferation and differentiation in vitro. Shiohara M, et al. **Blood** 1999 Mar 15;93(6):2057–66
Oncoprotein v–Myb and retinoic acid receptor alpha are mutual antagonists. Zemanová K, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):239–50
Retinoic acid receptor alpha mediates growth inhibition by retinoids in rat pancreatic carcinoma DSL–6A/C1 cells. Brembeck FH, et al. **Br J Cancer** 1998 Nov;78(10):1288–95
Retinoids: present role and future potential. Evans TR, et al. **Br J Cancer** 1999 Apr;80(1–2):1–8 (120 ref.)
Retinoic acids regulate apoptosis of T lymphocytes through an interplay between RAR and RXR receptors [see comments] Szondy Z, et al. **Cell Death Differ** 1998 Jan; 5(1):4–10 (78 ref.). Comment in: Cell Death Differ 1998 Jan;5(1):1–3.
Increased cdc2 and cdk2 kinase activity by retinoid X receptor gamma–mediated transcriptional down–regulation of the cyclin–dependent kinase inhibitor p21Cip1/WAF1 correlates with terminal differentiation of squamous cell carcinoma lines. Crowe DL, et al. **Cell Growth Differ** 1998 Aug;9(8):619–27
Human retinoic acid (RA) 4–hydroxylase (CYP26) is highly specific for all–trans–RA and can be induced through RA receptors in human breast and colon carcinoma cells. Sonneveld E, et al. **Cell Growth Differ** 1998 Aug; 9(8):629–37
A molecular basis for retinoic acid–induced axial truncation. Iulianella A, et al. **Dev Biol** 1999 Jan 1;205(1):33–48
RARbeta mediates the response of Hoxd4 and Hoxb4 to exogenous retinoic acid. Folberg A, et al. **Dev Dyn** 1999 Jun;215(2):96–107
Overexpression of thyroid hormone receptor alpha 1 during zebrafish embryogenesis disrupts hindbrain patterning and implicates retinoic acid receptors in the control of hox gene expression. Essner JJ, et al. **Differentiation** 1999 Jul; 65(1):1–11
Identification of heparin–binding EGF–like growth factor as a target in intercellular regulation of epidermal basal cell growth by suprabasal retinoic acid receptors. Xiao JH, et al. **EMBO J** 1999 Mar 15;18(6):1539–48
Repression of the rat steroidogenic acute regulatory (StAR) protein gene by PGF2alpha is modulated by the negative transcription factor DAX–1. Sandhoff TW, et al. **Endocrine** 1999 Feb;10(1):83–91
A corepressor and chicken ovalbumin upstream promoter transcriptional factor proteins modulate peroxisome proliferator–activated receptor–gamma2/retinoid X receptor alpha–activated transcription from the murine lipoprotein lipase promoter. Robinson CE, et al. **Endocrinology** 1999 Apr;140(4):1586–93
Neutrophil maturation and the role of retinoic acid. Lawson ND, et al. **Exp Hematol** 1999 Sep;27(9):1355–67 (132 ref.)
Retinoids and mammalian development. Morriss–Kay GM, et al. **Int Rev Cytol** 1999;188:73–131 (235 ref.)
Distinct roles for cellular retinoic acid–binding proteins I and II in regulating signaling by retinoic acid. Dong D, et al. **J Biol Chem** 1999 Aug 20;274(34):23695–8
Regulation of AML2/CBFA3 in hematopoietic cells through the retinoic acid receptor alpha–dependent signaling pathway. Le XF, et al. **J Biol Chem** 1999 Jul 30; 274(31):21651–8
Dorsal and ventral rentinoic territories defined by retinoic acid synthesis, break–down and nuclear receptor expression. McCaffery P, et al. **Mech Dev** 1999 Jul; 85(1–2):203–14
Retinoids and their receptors in skeletal development. Underhill TM, et al. **Microsc Res Tech** 1998 Oct 15; 43(2):137–55 (239 ref.)
Retinoic acid receptor gamma1 (RARgamma1) levels control RARbeta2 expression in SK–N–BE2(c) neuroblastoma cells and regulate a differentiation–apoptosis switch. Ferrari N, et al. **Mol Cell Biol** 1998 Nov;18(11):6482–92
Retinoid X receptor and c–cerbA/thyroid hormone receptor regulate erythroid cell growth and differentiation. Bartuněk P, et al. **Mol Endocrinol** 1998 Sep;12(9):1269–79
Ligand–activated retinoic acid receptor inhibits AP–1 transactivation by disrupting c–Jun/c–Fos dimerization. Zhou XF, et al. **Mol Endocrinol** 1999 Feb;13(2):276–85
An essential role for retinoid receptors RARbeta and RXRgamma in long–term potentiation and depression. Chiang MY, et al. **Neuron** 1998 Dec;21(6):1353–61
Retinoid receptors in health and disease: co–regulators and the chromatin connection [see comments] Minucci S, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):215–25 (97 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165–7.
[Novel orphan receptor: ROR gamma expressed during adipocyte differentiation] Kurebayashi S, et al. **Nippon Rinsho** 1998 Jul;56(7):1729–33 (22 ref.) (Eng. Abstr.) **(Jpn)**
[Molecular mechanisms of fat–soluble vitamins: vitamin receptor knockout mice] Kato S. **Tanpakushitsu Kakusan Koso** 1998 Aug;43(10):1321–35 (74 ref.) **(Jpn)**
[Current concepts of the structure and functions of retinoid receptors] Uteshev DB, et al. **Eksp Klin Farmakol** 1998 Nov–Dec;61(6):65–72 (80 ref.) (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Anti–sunshine vitamin A [news; comment] Gilchrest B. **Nat Med** 1999 Apr;5(4):376–7. Comment on: Nat Med 1999 Apr;5(4):418–22.

ULTRASTRUCTURE

[Current concepts of the structure and functions of retinoid receptors] Uteshev DB, et al. **Eksp Klin Farmakol** 1998 Nov–Dec;61(6):65–72 (80 ref.) (Eng. Abstr.) **(Rus)**

RECEPTORS, SENSORY

ANATOMY & HISTOLOGY

Afferent and efferent connections of the dorsocentral telencephalon in an electrosensory teleost, Gymnotus carapo. Corrêa SA, et al. **Brain Behav Evol** 1998; 52(2):81–98
Morphology of intraepithelial corpuscular nerve endings in the nasal respiratory mucosa of the dog. Yamamoto Y, et al. **J Anat** 1998 Nov;193 (Pt 4):581–6
Neural mapping of direction and frequency in the cricket cercal sensory system. Paydar S, et al. **J Neurosci** 1999 Mar 1;19(5):1771–81

CHEMISTRY

Effect of syncytium structure of receptor systems on stochastic resonance induced by chaotic potential fluctuation. Kashimori Y, et al. **Biophys J** 1998 Oct; 75(4):1700–11
Putative mammalian taste receptors: a class of taste–specific GPCRs with distinct topographic selectivity. Hoon MA, et al. **Cell** 1999 Feb 19;96(4):541–51

CYTOLOGY

Distribution of sensory receptors in joints of the upper cervical column in the laboratory marsupial monodelphis domestica. Strasmann TJ, et al. **Anat Anz** 1999 Mar; 181(2):199–206
Selective expression of the NOS II isoform during mouse vestibulocochlear receptorgenesis. Arnhold S, et al. **Eur J Neurosci** 1999 Jun;11(6):2187–93

RECEPTORS, SENSORY

DRUG EFFECTS

Salt-sensitive hypertension induced by sensory denervation: introduction of a new model. Wang DH, et al. **Hypertension** 1998 Oct;32(4):649-53

Comparison of respiratory sensations induced by J receptor stimulation with lobeline in left handers & right handers. Jaju DS, et al. **Indian J Med Res** 1998 Dec;108:291-5

GROWTH & DEVELOPMENT

A developmental study using three antibodies (VOBM1, VOBM2, and VOM2): immunocytochemical and electron microscopical analysis of the luminal surface of the rat vomeronasal sensory epithelium. Yoshida-Matsuoka J, et al. **Anat Embryol (Berl)** 1998 Mar;199(3):215-24

METABOLISM

Isolation of mouse vomeronasal receptor genes and their co-localization with specific G-protein messenger RNAs. Saito H, et al. **Brain Res Mol Brain Res** 1998 Oct 1; 60(2):215-27

Positron emission tomography neuroreceptor imaging as a tool in drug discovery, research and development. Burns HD, et al. **Curr Opin Chem Biol** 1999 Aug;3(4):388-94 (32 ref.)

Neuroreceptor imaging: new developments in PET and SPECT imaging of neuroreceptor binding (including dopamine transporters, vesicle transporters and post synaptic receptor sites). Stoessl AJ, et al. **Curr Opin Neurol** 1998 Aug;11(4):327-33 (77 ref.)

PATHOLOGY

Focal sensory nerve abnormalities in patients with amyotrophic lateral sclerosis. Schulte-Mattler WJ, et al. **J Neurol Sci** 1999 Jan 15;162(2):189-93

PHYSIOLOGY

Amiloride-sensitive Na+ channels in pelvic uroepithelium involved in renal sensory receptor activation. Kopp UC, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1780-92

Identification and characterization of human fructose or glucose taste variants with hypogeusia for one monosaccharide but not for the other. Eylam S, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:170-4

Nerve dependency of developing and mature sensory receptor cells. Fritzsch B, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:14-27 (83 ref.)

Dietary fat preferences are inversely correlated with peripheral gustatory fatty acid sensitivity. Gilbertson TA, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:165-8

Taste preference in nonhuman primates to compounds sweet in man. Glaser D, et al. **Ann N Y Acad Sci** 1998 Nov 30; 855:169

The arginine taste receptor. Physiology, biochemistry, and immunohistochemistry. Grosvenor W, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:134-42

Noise analysis of the quinine-induced current in frog taste receptor cells. Tsunenari T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:148-9

Signal transduction in the vomeronasal organ of garter snakes: ligand-receptor binding-mediated protein phosphorylation. Liu J, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):320-30

Effect of syncytium structure of receptor systems on stochastic resonance induced by chaotic potential fluctuation. Kashimori Y, et al. **Biophys J** 1998 Oct; 75(4):1700-11

A comment on the sensitivity of fish to low electric fields [letter; comment] Petracchi D, et al. **Biophys J** 1998 Oct; 75(4):2117-8. Comment on: Biophys J 1997 Nov;73(5):2249-50.

Electroreceptor model of the weakly electric fish Gnathonemus petersii. I. The model and the origin of differences between A- and B-receptors. Shuai J, et al. **Biophys J** 1998 Oct;75(4):1712-26

Systemic anti-inflammatory effect induced by counter-irritation through a local release of somatostatin from nociceptors. Szolcsányi J, et al. **Br J Pharmacol** 1998 Oct;125(4):916-22

Remarkable capacity for perception of the direction of skin pull in man. Olausson H, et al. **Brain Res** 1998 Oct 12; 808(1):120-3

Putative mammalian taste receptors: a class of taste-specific GPCRs with distinct topographic selectivity. Hoon MA, et al. **Cell** 1999 Feb 19;96(4):541-51

Factors controlling hair-cell regeneration/repair in the inner ear. Staecker H, et al. **Curr Opin Neurobiol** 1998 Aug; 8(4):480-7 (52 ref.)

Orientation in the dark: brain circuits involved in the perception of electric signals in mormyrid electric fish. von der Emde G. **Eur J Morphol** 1999 Apr;37(2-3):200-5 (21 ref.)

Cough frequency and cough receptor sensitivity to citric acid challenge during a simulated ascent to extreme altitude. Mason NP, et al. **Eur Respir J** 1999 Mar;13(3):508-13

Morphologic representation of visual and antennal information in the ant brain. Gronenberg W, et al. **J Comp Neurol** 1999 Sep 20;412(2):229-40

Mechanosensory pegs constitute stridulatory files in grasshoppers. Hustert R, et al. **J Comp Neurol** 1999 Aug 2;410(3):444-56

Plasticity of feedback inputs in the apteronotid electrosensory system. Bastian J. **J Exp Biol** 1999 May;202 (Pt 10):1327-37 (41 ref.)

Electroreception in monotremes. Pettigrew JD. **J Exp Biol** 1999 May;202 (Pt 10):1447-54 (30 ref.)

Mechanisms for generating temporal filters in the electrosensory system. Rose GJ, et al. **J Exp Biol** 1999 May;202 (Pt 10):1281-9 (48 ref.)

Frequency-dependent PSP depression contributes to low-pass temporal filtering in Eigenmannia. Rose GJ, et al. **J Neurosci** 1999 Sep 1;19(17):7629-39

Association of somatic action potential shape with sensory receptive properties in guinea-pig dorsal root ganglion neurones. Djouhri L, et al. **J Physiol (Lond)** 1998 Dec 15; 513 (Pt 3):857-72

The J reflex [comment] Widdicombe JG. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):2. Comment on: J Physiol (Lond) 1998 Aug 15;511 (Pt 1):289-300.

Nasal sensory receptors responding to capsaicin, water and tactile stimuli in sevoflurane-anesthetized dogs. Kanamaru A, et al. **J Vet Med Sci** 1999 Jul;61(7):865-8

Adrenaline enhances odorant contrast by modulating signal encoding in olfactory receptor cells [see comments] Kawai F, et al. **Nat Neurosci** 1999 Feb;2(2):133-8. Comment in: Nat Neurosci 1999 Feb;2(2):106-8.

Receptor organ damage causes loss of cortical surround inhibition without topographic map plasticity. Rajan R. **Nat Neurosci** 1998 Jun;1(2):138-43

A novel family of divergent seven-transmembrane proteins: candidate odorant receptors in Drosophila [see comments] Clyne PJ, et al. **Neuron** 1999 Feb;22(2):327-38. Comment in: Neuron 1999 Feb;22(2):203-4.

The odor specificities of a subset of olfactory receptor neurons are governed by Acj6, a POU-domain transcription factor [see comments] Clyne PJ, et al. **Neuron** 1999 Feb;22(2):339-47. Comment in: Neuron 1999 Feb;22(2):203-4.

Drosophila odor receptors revealed [comment] Smith DP. **Neuron** 1999 Feb;22(2):203-4. Comment on: Neuron 1999 Feb;22(2):327-38. Comment on: Neuron 1999 Feb;22(2):339-47.

Extracellular protons activate K+ current in a subpopulation of frog taste receptor cells. Bobkov YV, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):25-8

Potentiation and suppression of the histamine response by raising and lowering the temperature in canine visceral polymodal receptors in vitro. Mizumura K, et al. **Neurosci Lett** 1999 Apr 30;266(1):9-12

Some related aspects of platypus electroreception: temporal integration behaviour, electroreceptive thresholds and directionality of the bill acting as an antenna. Fjällbrant TT, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29;353(1372):1211-9 (19 ref.)

The sensory world of the platypus. Pettigrew JD, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29; 353(1372):1199-210 (38 ref.)

Sensory receptors in monotremes. Proske U, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29; 353(1372):1187-98 (45 ref.)

Blocking taste receptor activation of gustducin inhibits gustatory responses to bitter compounds. Ming D, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9903-8

[An observation on the possible existance of some information transmission between sensory nerve endings of rat] Wang J, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):618-24 (Eng. Abstr.) **(Chi)**

[Sensory receptors on oral thickness sensation] Uchida M. **Kokubyo Gakkai Zasshi** 1999 Mar;66(1):1-7 (Eng. Abstr.) **(Jpn)**

[Molecular biology and molecular genetics in otorhinolaryngology— taste receptors and a molecular theory of signal transduction] Abe K. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Nov;101(11):1358-61 **(Jpn)**

[Muscular reception and a generalized description of body posture] Gurfinkel' VS, et al. **Fiziol Cheloveka** 1999 Jan-Feb;25(1):87-97 **(Rus)**

[Topography and cellular composition of sensory centers of the thoracic region of the cat spinal cord] Flegontova VV. **Morfologiia** 1999;115(3):62-4 (Eng. Abstr.) **(Rus)**

[The effect of the limitation of afferent inflow in early ontogeny on the evoked activity of projective neurons depends on the degree of the maturity of the sensory inputs] Sitnikova ElIu. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 May-Jun;49(3):505-10 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

A neural link to explain the "muscle hypothesis" of exercise intolerance in chronic heart failure. Piepoli M, et al. **Am Heart J** 1999 Jun;137(6):1050-6

Sensory recovery in noninnervated radial forearm free flaps in oral and oropharyngeal reconstruction. Lvoff G, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov; 124(11):1206-8

Facilitating survival and recovery by removing autogenic pathology from the clinical picture. Collins HW. **Med Hypotheses** 1998 Nov;51(5):417-9

Cough, cough receptors, and asthma in children. Chang AB. **Pediatr Pulmonol** 1999 Jul;28(1):59-70 (133 ref.)

Afferent receptors in the airways and cough. Widdicombe JG. **Respir Physiol** 1998 Oct;114(1):5-15 (57 ref.)

[Deterioration of sensory joint innervation as an enabling factor for development of arthrosis. An animal experiment study of the rat model] Machner A, et al. **Z Rheumatol** 1999 Jun;58(3):148-54 (Eng. Abstr.) **(Ger)**

RADIONUCLIDE IMAGING

Automatic segmentation of dynamic neuroreceptor single-photon emission tomography images using fuzzy clustering. Acton PD, et al. **Eur J Nucl Med** 1999 Jun; 26(6):581-90

ULTRASTRUCTURE

Sensory nerve endings in the anterior cruciate ligament (Lig. cruciatum anterius) of sheep. Halata Z, et al. **Anat Rec** 1999 Jan;254(1):13-21

Mechanosensory pegs constitute stridulatory files in grasshoppers. Hustert R, et al. **J Comp Neurol** 1999 Aug 2;410(3):444-56

RECEPTORS, SEROTONIN

Advances in Serotonin Receptor Research: Molecular Biology, Signal Transduction, and Therapeutics. Conference proceedings. San Francisco, California, USA. October 8-10, 1997. **Ann N Y Acad Sci** 1998 Dec 15; 861:1-297

Role of 5-HT1B, 5-HT2A and 5-HT2C receptors in the generalization of 5-HT receptor agonists to the ethanol cue in the rat. Maurel S, et al. **Behav Pharmacol** 1998 Jul; 9(4):337-43

Comparative desensitization of the human 5-HT2A and 5-HT2C receptors expressed in the human neuroblastoma cell line SH-SY5Y. Briddon SJ, et al. **Br J Pharmacol** 1998 Oct;125(4):727-34

SB-224289—a novel selective (human) 5-HT1B receptor antagonist with negative intrinsic activity. Selkirk JV, et al. **Br J Pharmacol** 1998 Sep;125(1):202-8

CNS drug discovery in the 21st century. From genomics to combinatorial chemistry and back. Paul S. **Br J Psychiatry Suppl** 1999;(37):23-5 (17 ref.)

Synergistic neurochemical and behavioral effects of fluoxetine and 5-HT1A receptor antagonists. Trillat AC, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):179-84

Temporal gradient of the discriminative stimulus properties of indorenate. Sánchez H, et al. **Proc West Pharmacol Soc** 1998;41:121-2

Antagonism of the relaxant 5-HT receptor in the dog basilar artery by the high-affinity 5-HT7 receptor ligand, LY215840. Terrón JA. **Proc West Pharmacol Soc** 1998; 41:129-30

ADMINISTRATION & DOSAGE

Is nitric oxide involved in 5-HT3 receptor-mediated neurogenic relaxation of guinea pig proximal colon? Sevcík J, et al. **Jpn J Pharmacol** 1998 Aug;77(4):265-70

AGONISTS see SEROTONIN AGONISTS

ANALYSIS

Serotonin 5-HT2 receptors in schizophrenia: a PET study using [18F]setoperone in neuroleptic-naive patients and normal subjects. Lewis R, et al. **Am J Psychiatry** 1999 Jan; 156(1):72-8

Functional chemical neuroanatomy of serotonergic neurons and their targets: antibody production and immunohistochemistry (IHC) for 5-HT, its precursor (5-HTP) and metabolite (5-HIAA), biosynthetic enzyme (TPH), transporter (SERT), and three receptors (5-HT2A, 5-ht5a, 5-HT7). Brownfield MS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:232-3

Biochemical localisation of the 5-HT2A (serotonin) receptor in rat skeletal muscle. Hajduch E, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):369-72

A study of platelet serotonin receptor in mania. Velayudhan A, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1059-62

Identification of a human 5-HT6 receptor variant produced by alternative splicing. Olsen MA, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):255-63

Autoradiographic studies of 5-HT1A-receptor-stimulated [35S]GTPgammaS-binding responses in the human and monkey brain. Dupuis DS, et al. **Eur J Neurosci** 1999 May; 11(5):1809-17

Cellular and subcellular distribution of the serotonin 5-HT2A receptor in the central nervous system of adult rat. Cornea-Hébert V, et al. **J Comp Neurol** 1999 Jun 28; 409(2):187-209

Localization of 5-HT1A receptors in the living human brain using [carbonyl-11C]WAY-100635: PET with anatomic standardization technique. Ito H, et al. **J Nucl Med** 1999 Jan;40(1):102-9

Parametric PET imaging of 5HT2A receptor distribution with 18F-setoperone in the normal human neocortex. Petit-Taboué MC, et al. **J Nucl Med** 1999 Jan;40(1):25-32

Serotonin2A receptor-like immunoreactivity in rat cerebellar Purkinje cells. Maeshima T, et al. **Neurosci Lett** 1998 Aug 7;252(1):72-4

Localization of 5-hydroxytryptamine1A and 5-hydroxytryptamine7 receptors in rabbit ocular and brain tissues. Chidlow G, et al. **Neuroscience** 1998 Dec; 87(3):675-89

Distribution and cellular localization of the serotonin type

2C receptor messenger RNA in human brain. Pasqualetti M, et al. **Neuroscience** 1999;92(2):601–11

Radiosynthesis of [11C]Lu 29–024: a potential radiotracer for 5HT2 receptors PET studies. Amokhtari M, et al. **Nucl Med Biol** 1998 Aug;25(6):517–22

Radiosynthesis and autoradiographic evaluation of [11C]NAD–299, a radioligand for visualization of the 5–HT1A receptor. Sandell J, et al. **Nucl Med Biol** 1999 Feb;26(2):159–64

Derivatives of WAY 100635 as potential imaging agents for 5–HT1A receptors: syntheses, radiosyntheses, and in vitro and in vivo evaluation. Wilson AA, et al. **Nucl Med Biol** 1998 Nov;25(8):769–76

Studies on the localization of 5–hydroxytryptamine and its receptors in human placenta. Huang WQ, et al. **Placenta** 1998 Nov;19(8):655–61

5–HT2a receptors in the rabbit retina: potential presynaptic modulators. Pootanakit K, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):221–30

[Receptors of monoamine in sympathetic preganglionic neurons of neonatal rat spinal cord in vitro] Cai SR, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):581–4 (Eng. Abstr.) **(Chi)**

ANTAGONISTS & INHIBITORS see SEROTONIN ANTAGONISTS

BIOSYNTHESIS

Efficient expression of neurotransmitter receptors in mammalian cells: use of inducible expression systems. Vanhoenacker P, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:236–7

Serotonin 1A receptor messenger RNA regulation in the hippocampus after acute stress. López JF, et al. **Biol Psychiatry** 1999 Apr 1;45(7):934–7

Selective expression of serotonin receptor transcripts in the mammalian cochlea and its subdivisions. Oh CK, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):135–40

The influence of gender and age on neonatal rat hypothalamic 5–HT1A and 5–HT2A receptors. Ferrari PF, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):775–84

Differential expression of serotonin 5–HT2 receptors during rat embryogenesis. Wu C, et al. **Dev Neurosci** 1999; 21(1):22–8

Multiple subtypes of serotonin receptors are expressed in rat sensory neurons in culture. Chen JJ, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1119–27

Endothelial expression of the 5–hydroxytryptamine1B antimigraine drug receptor in rat and human brain microvessels. Riad M, et al. **Neuroscience** 1998 Oct; 86(4):1031–5

Serotonin–2A receptor mRNA expression in rat retinal pigment epithelial cells. Nash M, et al. **Ophthalmic Res** 1999;31(1):1–4

Corticosterone regulation of serotonin transporter and 5–HT1A receptor expression in the aging brain. Maines LW, et al. **Synapse** 1999 Apr;32(1):58–66

Downregulation of 5–HT1A receptors in rat hypothalamus and dentate gyrus after "binge" pattern cocaine administration. Perret G, et al. **Synapse** 1998 Oct; 30(2):166–71

BLOOD

Effect of acute and chronic exercise on plasma amino acids and prolactin concentrations and on [3H]ketanserin binding to serotonin2A receptors on human platelets. Strüder HK, et al. **Eur J Appl Physiol** 1999 Mar;79(4):318–24

Altered [3H]imipramine and 5–HT2 but not [3H]paroxetine binding sites in platelets from depressed patients. Rosel P, et al. **J Affect Disord** 1999 Jan–Mar;52(1–3):225–33

No difference between platelet serotonin—5–HT(2A) receptors from children with and without ADHD. Pornnoppadol C, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):27–33

[Changes of 5–HT2A receptor binding on platelet of patients with CAD and the effects of exercise test] Yang L, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Oct; 19(5):337–41 (Eng. Abstr.) **(Chi)**

CHEMISTRY

A putative alpha–helical G beta gamma–coupling domain in the second intracellular loop of the 5–HT1A receptor. Albert PR, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:146–61 (72 ref.)

Residues in transmembrane regions III and VI contribute to the 5–ht6 receptor ligand binding site. Boess FG, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:242–3

A bioactive peptide from the transmembrane 5–intracellular loop 3 region of the human 5HT1a receptor. Hayataka K, et al. **Biochem Cell Biol** 1998;76(4):657–60

Study of ligand–receptor interactions by fluorescence correlation spectroscopy with different fluorophores: evidence that the homopentameric 5–hydroxytryptamine type 3As receptor binds only one ligand. Wohland T, et al. **Biochemistry** 1999 Jul 6;38(27):8671–81

1,2,3,4–tetrahydroisoquinoline derivatives: a new class of 5–HT1A receptor ligands. Mokrosz MJ, et al. **Bioorg Med Chem** 1999 Feb;7(2):287–95

Serotonin 5–HT1B and 5–HT1D receptors form homodimers when expressed alone and heterodimers when co–expressed. Xie Z, et al. **FEBS Lett** 1999 Jul 30; 456(1):63–7

The nicotinic alpha4 receptor subunit contributes to the lining of the ion channel pore when expressed with the 5–HT3 receptor subunit. Kriegler S, et al. **J Biol Chem** 1999 Feb 12;274(7):3934–6

Structure and function of the third intracellular loop of the 5–hydroxytryptamine2A receptor: the third intracellular loop is alpha–helical and binds purified arrestins. Gelber EI, et al. **J Neurochem** 1999 May;72(5):2206–14

Structure–function studies of the eighth hydrophobic domain of a serotonin receptor. Hurley JH, et al. **J Neurochem** 1999 Jan;72(1):413–21

Chimeric receptor analysis of the ketanserin binding site in the human 5–Hydroxytryptamine1D receptor: importance of the second extracellular loop and fifth transmembrane domain in antagonist binding. Wurch T, et al. **Mol Pharmacol** 1998 Dec;54(6):1088–96

Molecular modelling of the 5–hydroxytryptamine receptors. Wishart G, et al. **Receptors Channels** 1999;6(4):317–35 (127 ref.)

CLASSIFICATION

Impact of the human genome project on the principles for classification and nomenclature of 5–HT receptors. Hoyer D, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:230–1

SB–236057, a selective 5–HT1B receptor inverse agonist, blocks the 5–HT human terminal autoreceptor. Middlemiss DN, et al. **Eur J Pharmacol** 1999 Jun 30;375(1–3):359–65

Anticancer therapy–induced emesis: existence of an intestinal subtype of the 5–HT3 receptor? [letter] Brüss M, et al. **Gastroenterology** 1998 Dec;115(6):1606–7

The interaction of immunomodulatory muramyl dipeptide with peripheral 5–HT receptors: overview of the current state. Sevcík J, et al. **Int J Immunopharmacol** 1999 Mar; 21(3):227–32 (39 ref.)

DRUG EFFECTS

Profiles of 5–HT 1B/1D agonists in acute migraine with special reference to second generation agents. Deleu D, et al. **Acta Neurol Belg** 1999 Jun;99(2):85–95 (89 ref.)

NMSP binding to dopamine and serotonin receptors in MPTP–induced parkinsonism: relation to dopa therapy. Borbely K, et al. **Acta Neurol Scand** 1999 Jul;100(1):42–52

Mutation of putative phosphorylation sites in the 5–hydroxytryptamine3 receptor does not eliminate its modulation by ethanol. Machu TK, et al. **Alcohol Clin Exp Res** 1999 Jan;23(1):12–7

Pharmacological characterization of LB50016, N–(4–amino)butyl 3–phenylpyrrolidine derivative, as a new 5–HT1A receptor agonist. Lee CH, et al. **Arch Pharm Res** 1999 Apr;22(2):157–64

A search for new 5–HT1A/5–HT2A receptor ligands. In vitro and in vivo studies of 1–[omega–(4–aryl–1–piperazinyl)alkyl]indolin–2(1H)–ones. Mokrosz MJ, et al. **Arch Pharm (Weinheim)** 1998 Oct; 331(10):325–30

A neurotoxic lesion of serotonergic neurones using 5,7–dihydroxytryptamine does not disrupt latent inhibition in paradigms sensitive to low doses of amphetamine. De Oliveira Mora P, et al. **Behav Brain Res** 1999 Apr; 100(1–2):167–75

Potentiation of the time–dependent, antidepressant–induced changes in the agonistic behaviour of resident rats by the 5–HT1A receptor antagonist, WAY–100635. Mitchell PJ, et al. **Behav Pharmacol** 1997 Nov;8(6–7):585–606

Stimulation of serotonin (5–HT)1A receptors attenuates the locomotor, but not the discriminative, effects of amphetamine and cocaine in rats. Przegaliński E, et al. **Behav Pharmacol** 1997 Dec;8(8):699–706

Novel therapeutic approaches beyond the serotonin receptor. Duman RS. **Biol Psychiatry** 1998 Sep 1;44(5):324–35 (57 ref.)

The effects of serotonin3 receptor blockade on the psychobiological response to intravenous clomipramine in healthy human subjects. Leatherman ME, et al. **Biol Psychiatry** 1999 Jan 15;45(2):238–40

Enhancement of antipsychoticlike properties of raclopride in rats using the selective serotonin2A receptor antagonist MDL 100,907. Wadenberg ML, et al. **Biol Psychiatry** 1998 Sep 15;44(6):508–15

Design and synthesis of 2–[4–[4–(m–(ethylsulfonamido)–phenyl) piperazin–1–yl]butyl]–1,3–dioxoperhydropyrrolo[1,2–c]imidazole (EF–7412) using neural networks. A selective derivative with mixed 5–HT1A/D2 antagonist properties. López–Rodriguez ML, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1679–82

Butyrophenone analogues in the carbazole series: synthesis and determination of affinities at D2 and 5–HT2A receptors. Masaguer CF, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3571–6

Design and synthesis of new potent, silent 5–HT1A antagonists by covalent coupling of aminopropanol derivatives with selective serotonin reuptake inhibitors. Perez M, et al. **Bioorg Med Chem Lett** 1998 Dec 1; 8(23):3423–8

Phenylpiperazine derivatives with strong affinity for 5HT1A, D2A and D3 receptors. Terán C, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3567–70

The effects of moclobemide on the pharmacokinetics of the 5–HT1B/1D agonist rizatriptan in healthy volunteers. Van Haarst AD, et al. **Br J Clin Pharmacol** 1999 Aug; 48(2):190–6

Investigation of stretching behaviour induced by the selective 5–HT6 receptor antagonist, Ro 04–6790, in rats. Bentley JC, et al. **Br J Pharmacol** 1999 Apr;126(7):1537–42

The 5–HT4 receptor antagonist ML10375 inhibits the constitutive activity of human 5–HT4(c) receptor. Blondel O, et al. **Br J Pharmacol** 1998 Oct;125(4):595–7

RS–127445: a selective, high affinity, orally bioavailable 5–HT2B receptor antagonist. Bonhaus DW, et al. **Br J Pharmacol** 1999 Jul;127(5):1075–82

Investigation of the role of 5–HT1B and 5–HT1D receptors in the sumatriptan–induced constriction of porcine carotid arteriovenous anastomoses. De Vries P, et al. **Br J Pharmacol** 1999 May;127(2):405–12

G–protein activation at 5–HT1A receptors by the 5–ht1F ligand LY334370 in guinea–pig brain sections and recombinant cell lines. Dupuis DS, et al. **Br J Pharmacol** 1998 May;124(2):283–90

Studies on the role of serotonin receptor subtypes in the effect of sibutramine in various feeding paradigms in rats. Grignaschi G, et al. **Br J Pharmacol** 1999 Jul;127(5):1190–4

Citalopram–induced hypophagia is enhanced by blockade of 5–HT(1A) receptors: role of 5–HT(2C) receptors. Grignaschi G, et al. **Br J Pharmacol** 1998 Aug; 124(8):1781–7

Characterization of the 5–hydroxytryptamine receptors mediating contraction in the intestine of Suncus murinus. Javid FA, et al. **Br J Pharmacol** 1999 Aug;127(8):1867–75

Pharmacological characterization of a rat 5–hydroxytryptamine type3 receptor subunit (r5–HT3A(b)) expressed in Xenopus laevis oocytes. Mair ID, et al. **Br J Pharmacol** 1998 Aug;124(8):1667–74

Pharmacological diversity between native human 5–HT1B and 5–HT1D receptors sited on different neurons and involved in different functions. Marcoli M, et al. **Br J Pharmacol** 1999 Feb;126(3):607–12

Differential pharmacology between the guinea–pig and the gorilla 5–HT1D receptor as probed with isochromans (5–HT1D–selective ligands). Pregenzer JF, et al. **Br J Pharmacol** 1999 May;127(2):468–72

Pharmacological characterization of 5–HT4 receptors mediating relaxation of canine isolated rectum circular smooth muscle. Prins NH, et al. **Br J Pharmacol** 1999 Jul; 127(6):1431–7

The central action of the 5–HT2 receptor agonist 1–(2,5–dimethoxy–4–iodophenyl)–2–aminopropane (DOI) on cardiac inotropy and vascular resistance in the anaesthetized cat [published erratum appears in Br J Pharmacol 1999 Apr;126(7):1681–4] Ramage AG, et al. **Br J Pharmacol** 1998 Nov;125(6):1172–9

Attenuation of haloperidol–induced catalepsy by a 5–HT2C receptor antagonist. Reavill C, et al. **Br J Pharmacol** 1999 Feb;126(3):572–4

Electrophysiological examination of the effects of sustained flibanserin administration on serotonin receptors in rat brain. Rueter LE, et al. **Br J Pharmacol** 1999 Feb; 126(3):627–38

Calcitonin increases 5–HT1A binding site densities in the brain of adrenalectomized rats. Boujrad F, et al. **Brain Res** 1998 Nov 23;812(1–2):279–82

Lateralized effects of ethanol on aggression and serotonergic systems in Anolis carolinensis. Deckel AW, et al. **Brain Res** 1998 Oct 5;807(1–2):38–46

Serum protein binding of lerisetron, a novel specific 5HT3 antagonist, in patients with cancer. Calvo R, et al. **Cancer Chemother Pharmacol** 1998;42(5):418–22

Effect of 5–HT4 receptor stimulation on the pacemaker current I(f) in human isolated atrial myocytes [see comments] Pino R, et al. **Cardiovasc Res** 1998 Dec; 40(3):516–22. Comment in: Cardiovasc Res 1998 Dec;40(3):436–7.

Metal ion and guanine nucleotide modulations of agonist interaction in G–protein–coupled serotonin1A receptors from bovine hippocampus. Harikumar KG, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):535–53

Cardiovascular safety of 5HT1B/1D agonists—is there a cause for concern? Dahlöf CG, et al. **Cephalalgia** 1998 Oct; 18(8):539–45 (73 ref.)

Safety trial with the 5HT1B/1D agonist avitriptan (BMS–180048) in patients with migraine who have experienced pressure, tightness, and/or pain in the chest, neck, and/or throat following sumatriptan. Dahlöf CG, et al. **Cephalalgia** 1998 Oct;18(8):546–51

Vasoconstrictive properties of the 5HT1B/1D agonists: response to Dahlöf and Mathew [letter] Goldstein D. **Cephalalgia** 1999 Jun;19(5):536–7

Synthesis of the selective 5–hydroxytryptamine 4 (5–HT4) receptor agonist (+)–(S)–2–chloro–5–methoxy–4–[5–(2–piperidylmethyl)–1,2,4–oxadiazol–3–y l]aniline. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):120–2

Hemodynamic and coronary effects of intravenous eletriptan, a 5HT1B/1D–receptor agonist. Muir DF, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):85–90

New approaches to rapid onset antidepressants [published erratum appears in Curr Pharm Des 1999 Feb;5(2):139] Briner K, et al. **Curr Pharm Des** 1998 Aug;4(4):291–302 (144 ref.)

Indoleamine and the phenethylamine hallucinogens: mechanisms of psychotomimetic action. Marek GJ, et al. **Drug Alcohol Depend** 1998 Jun–Jul;51(1–2):189–98 (80 ref.)

The 5-HT1A receptor agonist Bay x 3702 inhibits apoptosis induced by serum deprivation in cultured neurons. Ahlemeyer B, et al. **Eur J Pharmacol** 1999 Apr 9; 370(2):211-6

Agonist and antagonist effects of histamine H3 receptor ligands on 5-HT3 receptor-mediated ion currents in NG108-15 cells. Allen MC. **Eur J Pharmacol** 1998 Nov 20;361(2-3):261-8

Inhibition of ligand-gated cation-selective channels by tamoxifen. Allen MC, et al. **Eur J Pharmacol** 1998 Aug 7;354(2-3):261-9

Evidence for different 5-HT1B/1D receptors mediating vasoconstriction of equine digital arteries and veins. Bailey SR, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):175-87

Pharmacological characterisation of a cloned dog 5-HT1B receptor cell line. Beer MS, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):117-21

5-hydroxytryptamine3 (5-HT3) receptor-mediated depolarisation of the rat isolated vagus nerve: modulation by trichloroethanol and related alcohols. Bentley KR, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):25-31

The 5-HT1A receptor antagonist p-MPPI blocks 5-HT1A autoreceptors and increases dorsal raphe unit activity in awake cats. Bjorvatn B, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):167-78

The effects of 5-HT1A, 5-HT1B and 5-HT1D receptor agonists on trigeminal nociceptive neurotransmission in anaesthetized rats. Cumberbatch MJ, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):43-6

The canine external carotid vasoconstrictor 5-HT1 receptor: blockade by 5-HT1B (SB224289), but not by 5-HT1D (BRL15572) receptor antagonists. De Vries P, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):69-72

Pharmacological aspects of experimental headache models in relation to acute antimigraine therapy. De Vries P, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):61-74 (176 ref.)

Discriminative stimulus properties of the 5-HT1A receptor agonist BAY x 3702 in the rat. De Vry J, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):1-8

Human 5-HT1B receptor stimulated inositol phospholipid hydrolysis in CHO cells: synergy with Gq-coupled receptors. Dickenson JM, et al. **Eur J Pharmacol** 1998 May 8;348(2-3):279-85

Characterisation of the contractile activity of eletriptan at the canine vascular 5-HT1B receptor. Gupta P, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):283-90

Partial agonism at serotonin 5-HT1B and dopamine D2L receptors using a luciferase reporter gene assay. Kemp DM, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):215-22

Blockade of accumbens 5-HT3 receptor down-regulation by ondansetron administered during continuous cocaine administration. King GR, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):79-87

Chronic alnespirone-induced desensitization of somatodendritic 5-HT1A autoreceptors in the rat dorsal raphe nucleus. Le Poul E, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):165-73

Neurochemical effects of the enantiomers of mirtazapine in normal rats. McGrath C, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):121-6

Cranial vascular effects of zolmitriptan, a centrally active 5-HT1B/1D receptor partial agonist for the acute treatment of migraine. MacLennan SJ, et al. **Eur J Pharmacol** 1998 Nov 20;361(2-3):191-7

Acute rise in corticosterone facilitates 5-HT(1A) receptor-mediated behavioural responses. Meijer OC, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):7-14

Both 5-HT1B and 5-HT1F receptors modulate c-fos expression within rat trigeminal nucleus caudalis. Mitsikostas DD, et al. **Eur J Pharmacol** 1999 Mar 26; 369(3):271-7

Identification of a domain affecting agonist potency of meta-chlorophenylbiguanide in 5-HT3 receptors. Mochizuki S, et al. **Eur J Pharmacol** 1999 Mar 12; 369(1):125-32

Agonist and antagonist actions of antipsychotic agents at 5-HT1A receptors: a [35S]GTPgammaS binding study. Newman-Tancredi A, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):245-56

5-HT2A receptor antagonists block MK-801-induced stereotypy and hyperlocomotion. Ninan I, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):111-6

GR46611 potentiates 5-HT1A receptor-mediated locomotor activity in the guinea pig. O'Neill MF, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):85-92

Neuroprotection against N-methyl-D-aspartate-induced excitotoxicity in rat magnocellular nucleus basalis by the 5-HT1A receptor agonist 8-OH-DPAT. Oosterink BJ, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):147-52

The cataleptogenic effects of the neuroleptic nemonapride are attenuated by its 5-HT1A receptor agonist properties. Prinssen EP, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):189-92

BMS-181885, a 5-HT1B/1D receptor ligand, in experimental models predictive of antimigraine activity and coronary side-effect potential. Saxena PR, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):329-39

The 5-HT1A receptor agonist BAY x 3702 prevents staurosporine-induced apoptosis. Suchanek B, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):95-101

A neuronal nitric oxide synthase inhibitor 7-nitroindazole reduces the 5-HT1A receptor against 8-OH-DPAT-elicited hyperphagia in rats. Sugimoto Y, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):1-5

In vivo intrinsic efficacy of the 5-HT1A receptor antagonists NAD-299, WAY-100,635 and (S)-(-)-UH-301 at rat brain monoamine receptors. Ahlenius S, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):15-9

Ergoline derivatives: receptor affinity and selectivity. Mantegani S, et al. **Farmaco** 1999 May 30;54(5):288-96 (15 ref.)

Quinolizidinyl derivatives of 2,3-dihydro-2-oxo-1H-benzimidazole-1-carboxylic acid and 1-homolupinanoyl benzimidazolones as ligands for 5-HT3 and 5-HT4 receptors. Sparatore A, et al. **Farmaco** 1999 Apr 30;54(4):248-54

The platelet intracellular calcium response to serotonin in subsyndromal depression. Berk M, et al. **Int Clin Psychopharmacol** 1998 May;13(3):107-10

Neuroendocrine and hypothermic effects of 5-HT1A receptor stimulation with ipsapirone in healthy men: a placebo-controlled study. Cleare AJ, et al. **Int Clin Psychopharmacol** 1998 Jan;13(1):23-32

Implications of brain imaging for the management of schizophrenia. Nyberg S, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S15-20 (52 ref.)

The interaction of immunomodulatory muramyl dipeptide with peripheral 5-HT receptors: overview of the current state. Sevcik J, et al. **Int J Immunopharmacol** 1999 Mar; 21(3):227-32 (39 ref.)

Mechanism of action of serotonin selective reuptake inhibitors. Serotonin receptors and pathways mediate therapeutic effects and side effects. Stahl SM. **J Affect Disord** 1998 Dec;51(3):215-35 (131 ref.)

Modulation of sympathetic nerve activity by microinjection of the 5-HT1A receptor agonist 8-OH-DPAT into the rostroventrolateral medulla. Bago M, et al. **J Auton Nerv Syst** 1999 May 28;76(2-3):127-34

Cardiovascular responses produced by microinjection of serotonin-receptor agonists into the paraventricular nucleus in conscious rats. Bell AA, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):175-80

Definition of a pharmacophore for partial agonists of serotonin 5-HT3 receptors. Daveu C, et al. **J Chem Inf Comput Sci** 1999 Mar-Apr;39(2):362-9

D2 and 5-HT2 receptor effects of antipsychotics: bridging basic and clinical findings using PET. Remington G, et al. **J Clin Psychiatry** 1999;60 Suppl 10:15-9 (50 ref.)

Administration of a 5HT3 receptor antagonist increases the intake of diets containing Eucalyptus secondary metabolites by marsupials. Lawler IR, et al. **J Comp Physiol [B]** 1998 Dec;168(8):611-8

5-Chloro-N-(4-methoxy-3-piperazin-1-yl-phenyl)-3-methyl-2-benzothiophenesulfon- amide (SB-271046): a potent, selective, and orally bioavailable 5-HT6 receptor antagonist. Bromidge SM, et al. **J Med Chem** 1999 Jan 28;42(2):202-5

Novel potent and selective central 5-HT3 receptor ligands provided with different intrinsic efficacy. 2. Molecular basis of the intrinsic efficacy of arylpiperazine derivatives at the central 5-HT3 receptors. Cappelli A, et al. **J Med Chem** 1999 May 6;42(9):1556-75

3-(Piperazinylpropyl)indoles: selective, orally bioavailable h5-HT1D receptor agonists as potential antimigraine agents. Chambers MS, et al. **J Med Chem** 1999 Feb 25; 42(4):691-705

Development of fluorine-18-labeled 5-HT1A antagonists. Lang L, et al. **J Med Chem** 1999 May 6;42(9):1576-86

Spiperone: influence of spiro ring substituents on 5-HT2A serotonin receptor binding. Metwally KA, et al. **J Med Chem** 1998 Dec 3;41(25):5084-93

Synthesis and serotonergic activity of substituted 2, N-benzylcarboxamido-5-(2-ethyl-1-dioxoimidazolidinyl) -N, N-dimethyltryptamine derivatives: novel antagonists for the vascular 5-HT(1B)-like receptor. Moloney GP, et al. **J Med Chem** 1999 Jul 15;42(14):2504-26

A novel (benzodifuranyl)aminoalkane with extremely potent activity at the 5-HT2A receptor. Parker MA, et al. **J Med Chem** 1998 Dec 17;41(26):5148-9

Cycloalkanecarboxylic esters derived from lysergol, dihydrolysergol-I, and elymoclavine as partial agonists and antagonists at rat 5-HT2A receptors: pharmacological evidence that the indolo[4,3-fg]quinoline system of the ergolines is responsible for high 5-HT2A receptor affinity. Pertz HH, et al. **J Med Chem** 1999 Feb 25;42(4):659-68

Synthesis and serotonergic activity of 3-[2-(pyrrolidin-1-yl)ethyl]indoles: potent agonists for the h5-HT1D receptor with high selectivity over the h5-HT1B receptor. Sternfeld F, et al. **J Med Chem** 1999 Feb 25;42(4):677-90

2,3-Dihydro-2-oxo-1H-benzimidazole-1-carboxamides with selective affinity for the 5-HT(4) receptor: synthesis and structure-affinity and structure-activity relationships of a new series of partial agonist and antagonist derivatives. Tapia I, et al. **J Med Chem** 1999 Jul 29;42(15):2870-80

Novel derivatives of 2-pyridinemethylamine as selective, potent, and orally active agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1999 May 6;42(9):1648-60

Design and synthesis of a series of 6-substituted-2-pyridinylmethylamine derivatives as novel, high-affinity, selective agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1998 Dec 3;41(25):5070-83

N-Methyl-5-tert-butyltryptamine: A novel, highly potent 5-HT1D receptor agonist. Xu YC, et al. **J Med Chem** 1999 Feb 11;42(3):526-31

Serotonin-induced activation of the network for locomotion in adult spinal rats. Feraboli-Lohnherr D, et al. **J Neurosci Res** 1999 Jan 1;55(1):87-98

Dietary excess of vitamin B-6 affects the concentrations of amino acids in the caudate nucleus and serum and the binding properties of serotonin receptors in the brain cortex of rats. Schaeffer MC, et al. **J Nutr** 1998 Oct; 128(10):1829-35

Competitive antagonism of the mouse 5-hydroxytryptamine3 receptor by bisindolylmaleimide I, a "selective" protein kinase C inhibitor. Coultrap SJ, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):76-82

Intestinal prokinesia by two esters of 4-amino-5-chloro-2-methoxybenzoic acid: involvement of 5-hydroxytryptamine-4 receptors and dissociation from cardiac effects in vivo. Crema F, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1045-52

Selective antiaggressive effects of alnespirone in resident-intruder test are mediated via 5-hydroxytryptamine1A receptors: A comparative pharmacological study with 8-hydroxy-2-dipropylaminotetralin, ipsapirone, buspirone, eltoprazine, and WAY-100635. de Boer SF, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1125-33

F 11356, a novel 5-hydroxytryptamine (5-HT) derivative with potent, selective, and unique high intrinsic activity at 5-HT1B/1D receptors in models relevant to migraine. John GW, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):83-95

F 11440, a potent, selective, high efficacy 5-HT1A receptor agonist with marked anxiolytic and antidepressant potential. Koek W, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):266-83

Electrophysiological comparison of 5-Hydroxytryptamine1A receptor antagonists on dorsal raphe cell firing. Martin LP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):820-6

S-16924, a novel, potential antipsychotic with marked serotonin1A agonist properties. IV. A drug discrimination comparison with clozapine. Millan MJ, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):427-36

Atypical neuroleptics enhance histamine turnover in brain via 5-Hydroxytryptamine2A receptor blockade. Morisset S, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):590-6

Sustained desensitization of hypothalamic 5-Hydroxytryptamine1A receptors after discontinuation of fluoxetine: inhibited neuroendocrine responses to 8-hydroxy-2-(Dipropylamino)Tetralin in the absence of changes in Gi/o/z proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):561-7

Daily injections of fluoxetine induce dose-dependent desensitization of hypothalamic 5-HT1A receptors: reductions in neuroendocrine responses to 8-OH-DPAT and in levels of Gz and Gi proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):98-106

Precontraction with elevated concentrations of extracellular potassium enables both 5-HT1B and 5-HT2A "silent" receptors in rabbit ear artery. Smith JR, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):354-60

Characterization of interaction of 3,4,5-trimethoxybenzoic acid 8-(diethylamino)octyl ester with Torpedo californica nicotinic acetylcholine receptor and 5-hydroxytryptamine3 receptor. Sun H, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):129-35

Anxiolytic 5-hydroxytryptamine1A agonists suppress firing activity of dorsal hippocampus CA1 pyramidal neurons through a postsynaptic mechanism: single-unit study in unanesthetized, unrestrained rats. Tada K, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):843-8

Apomorphine-induced upregulation of serotonin 5-HT2A receptors in male rats is independent from development of aggressive behaviour. Matto V, et al. **J Physiol Pharmacol** 1999 Jun;50(2):335-44

Effect of a long-term low tryptophan diet on the prolactin responses to the 5-HT1A and 5-HT2C agonists, 8-OH-DPAT and mCPP in the male rat. Franklin M, et al. **J Psychopharmacol** 1999;13(1):58-63

The 5-HT1A receptor agonist flesinoxan increases aversion in a model of panic-like anxiety in rats. Jenck F, et al. **J Psychopharmacol** 1999;13(2):166-70

5-HT1A receptor agonist (8-OH-DPAT) and 5-HT2 receptor agonist (DOI) disrupt the non-cognitive performance of rats in a working memory task. Ruotsalainen S, et al. **J Psychopharmacol** 1998;12(2):177-85

Comparison of effects of a range of 5-HT receptor modulators on consumption and preference for a sweetened ethanol solution in rats. Silvestre JS, et al. **J Psychopharmacol** 1998;12(2):168-76

Enhancement of serotonin 2C receptor mRNA expression by antidepressants possessing the receptor-blocking activity in the rat brain. Tohda M, et al. **Jpn J Pharmacol** 1998 Dec;78(4):515-7

123I-MSP and F[11C]MSP: new selective 5-HT2A receptor radiopharmaceuticals for in vivo studies of neuronal 5-HT2 serotonin receptors. Synthesis, in vitro binding study with unlabelled analogues and preliminary in vivo evaluation in mice. Samnick S, et al. **Life Sci** 1998;63(22):2001-13

L-NAME, a nitric oxide synthase inhibitor, modulates cholinergic antinociception. Jain NK, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):161-5

Cognitive implications for H3 and 5-HT3 receptor modulation of cortical cholinergic function: a parallel story. Passani MB, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):725–33 (96 ref.)

Suppression of mutagenic activity of a series of 5HT2c receptor agonists by the incorporation of a gem-dimethyl group: SAR using the Ames test and a DNA unwinding assay. Albertini S, et al. **Mutagenesis** 1998 Jul;13(4):397–403

Inhibition of 5-HT3 receptor cation channels by ifenprodil in excised patches of N1E-115 cells. Barann M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):145–52

Differences in agonist-independent activity of 5-Ht2A and 5-HT2c receptors revealed by heterologous expression. Grotewiel MS, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):21–7

Actions of roxindole at recombinant human dopamine D2, D3 and D4 and serotonin 5-HT1A, 5-HT1B and 5-HT1D receptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):447–53

Dimerization of 8-OH-DPAT increases activity at serotonin 5-HT1A receptors. Pauwels PJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):404–10

Specific interaction of 5-HT-moduline with human 5-HT1b as well as 5-HT1d receptors expressed in transfected cultured cells. Rousselle JC, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):279–86

5-HT1B receptors modulate release of [3H]dopamine from rat striatal synaptosomes. Sarhan H, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):40–7

5-HT3 receptors and the neural actions of alcohols: an increasingly exciting topic. Lovinger DM. **Neurochem Int** 1999 Aug;35(2):125–30 (52 ref.)

Differential effect of lithium on 5-HT1 receptor-linked system in regions of rat brain. Subhash MN, et al. **Neurochem Int** 1999 Oct;35(4):337–43

Clozapine's antipsychotic effects do not depend on blockade of 5-HT3 receptors. Squires RF, et al. **Neurochem Res** 1999 May;24(5):659–67

Prevention by 5-HT1A receptor agonists of restraint stress- and yohimbine-induced release of cholecystokinin in the frontal cortex of the freely moving rat. Becker C, et al. **Neuropharmacology** 1999 Apr;38(4):525–32

WAY 100635, a 5-HT1A receptor antagonist, prevents the impairment of spatial learning caused by blockade of hippocampal NMDA receptors. Carli M, et al. **Neuropharmacology** 1999 Aug;38(8):1165–73

Modification of 5-HT2 receptor mediated behaviour in the rat by oleamide and the role of cannabinoid receptors. Cheer JF, et al. **Neuropharmacology** 1999 Apr;38(4):533–41

Effects of venlafaxine on extracellular concentrations of 5-HT and noradrenaline in the rat frontal cortex: augmentation via 5-HT1A receptor antagonism. Dawson LA, et al. **Neuropharmacology** 1999 Aug;38(8):1153–63

SB 242084, a selective serotonin2C receptor antagonist, increases dopaminergic transmission in the mesolimbic system. Di Matteo V, et al. **Neuropharmacology** 1999 Aug; 38(8):1195–205

The antipsychotic drug risperidone interacts with auto- and hetero-receptors regulating serotonin output in the rat frontal cortex. Hertel P, et al. **Neuropharmacology** 1999 Aug;38(8):1175–84

Interaction of the anxiogenic agent, RS-30199, with 5-HT1A receptors: modulation of sexual activity in the male rat. Spedding M, et al. **Neuropharmacology** 1998 Jun; 37(6):769–80

Effect of ergotamine on serotonin-mediated responses in the rodent and human brain. Haddjeri N, et al. **Neuropsychopharmacology** 1998 Nov;19(5):365–80

Effect of chronic serotonin-2 receptor agonist or antagonist administration on serotonin-1A receptor sensitivity. Hensler JG, et al. **Neuropsychopharmacology** 1998 Nov; 19(5):354–64

Serotonin-2 receptors and human sleep: effect of a selective antagonist on EEG power spectra. Landolt HP, et al. **Neuropsychopharmacology** 1999 Sep;21(3):455–66

Effects of antidepressants on 5-HT7 receptor regulation in the rat hypothalamus. Mullins UL, et al. **Neuropsychopharmacology** 1999 Sep;21(3):352–67

M100907, a serotonin 5-HT2A receptor antagonist and putative antipsychotic, blocks dizocilpine-induced prepulse inhibition deficits in Sprague-Dawley and Wistar rats. Varty GB, et al. **Neuropsychopharmacology** 1999 Apr; 20(4):311–21

Tolerance to acute anxiolysis but no withdrawal anxiogenesis in mice treated chronically with 5-HT1A receptor antagonist, WAY 100635. Cao BJ, et al. **Neurosci Biobehav Rev** 1998;23(2):247–57

Ultrasonic vocalizations in rat pups: effects of serotonergic ligands. Olivier B, et al. **Neurosci Biobehav Rev** 1998; 23(2):215–27

Testosterone and its metabolites modulate 5HT1A and 5HT1B agonist effects on intermale aggression. Simon NG, et al. **Neurosci Biobehav Rev** 1998;23(2):325–36 (104 ref.)

Cholinergic and serotonergic alterations in the rat hippocampus following trimethyltin exposure and fetal neural transplantation. Roy A, et al. **Neurosci Lett** 1999 Jan 15;259(3):173–6

Limited inhibition of 5-HT1A receptor expression in the rat brain by antisense RNA and oligodesoxynucleotides. Sari Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):191–5

Prenatal administration of para-chlorophenylalanine results in suppression of serotonergic system and disturbance of swimming movements in newborn rats. Nakajima K, et al. **Neurosci Res** 1998 Jun;31(2):155–69

Blockade of 5-hydroxytryptamine (serotonin)-2 receptors alters interleukin-1-induced changes in rat sleep. Imeri L, et al. **Neuroscience** 1999;92(2):745–9

Serotonin2A receptor modulation of D1 dopamine receptor-mediated grooming behavior. Scalzitti JM, et al. **Pharmacol Biochem Behav** 1999 Jun;63(2):279–84

Pharmacological properties of a novel gastrointestinal prokinetic benzamide selective for human 5-HT4 receptor versus human 5-HT3 receptor. Nagakura Y, et al. **Pharmacol Res** 1999 May;39(5):375–82

Synthesis of 3-aryl-1-[(4-phenyl-1-piperazinyl)butyl]indazole derivatives and their affinity to 5-HT1A serotonin and dopamine D1 receptors. Andronati S, et al. **Pharmazie** 1999 Feb;54(2):99–101

Androgens and estrogens modulate 5-HT1A and 5-HT1B agonist effects on aggression. Cologer-Clifford A, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):823–8

Antidepressant-like properties of some serotonin receptor ligands and calcium channel antagonists measured with the forced swimming test in mice. Biala G. **Pol J Pharmacol** 1998 Mar-Apr;50(2):117–24

Serotonin in migraine: theories, animal models and emerging therapies. Johnson KW, et al. **Prog Drug Res** 1998; 51:219–44 (123 ref.)

Characteristics of agonist displacement of [3H]ketanserin binding to platelet 5-HT2A receptors: implications for psychiatric research. Gurguis GN, et al. **Psychiatry Res** 1998 Sep 21;80(3):227–38

Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9–28

Effect of atypical antipsychotic drugs on 5-HT2 receptors in the rat orbito-frontal cortex: an in vivo electrophysiological study. Bergqvist PB, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):89–96

Discriminative stimulus properties of mCPP: evidence for a 5-HT2C receptor mode of action. Gommans J, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):292–302

Behavioural profiles in the mouse defence test battery suggest anxiolytic potential of 5-HT(1A) receptor antagonists. Griebel G, et al. **Psychopharmacology (Berl)** 1999 May; 144(2):121–30

RU 24969, a 5-HT1A/1B agonist, elevates brain stimulation reward thresholds: an effect reversed by GR 127935, a 5-HT1B/1D antagonist. Harrison AA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):242–50

Effect of 5-HT2 receptor antagonists on a cranial nerve reflex in the rabbit: evidence for inverse agonism. Harvey JA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):162–8

Two selective 5-HT1A receptor antagonists, WAY-100 635 and NDL-249, stimulate locomotion in rats acclimatised to their environment and alter their behaviour: a behavioural analysis. Jackson DM, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):300–10

The effects of 5-HT1A receptor agonists, 5-HT1A receptor antagonists and their interaction on the fear-potentiated startle response. Joordens RJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):383–90

Withdrawal from continuous cocaine administration: time dependent changes in accumbens 5-HT3 receptor function and behavioral tolerance. King GR, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):352–9

Alcohol-heightened aggression in mice: attenuation by 5-HT1A receptor agonists. Miczek KA, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1-2):160–8

5-Hydroxytryptamine receptor function in humans is reduced by acute administration of hydrocortisone. Porter RJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):243–50

Reduced satiating effect of d-fenfluramine in serotonin 5-HT(2C) receptor mutant mice. Vickers SP, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):309–14

Granisetron, a 5-HT3 receptor antagonist, inhibited cisplatin-induced 5-hydroxytryptamine release in the isolated ileum of ferrets. Endo T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jun;100(3):243–53

Antagonism by olanzapine of dopamine D1, serotonin2, muscarinic, histamine H1 and alpha 1-adrenergic receptors in vitro. Bymaster FP, et al. **Schizophr Res** 1999 May 4; 37(1):107–22

Induction of burst firing in ventral tegmental area dopaminergic neurons by activation of serotonin (5-HT)1A receptors: WAY 100,635-reversible actions of the highly selective ligands, flesinoxan and S 15535. Lejeune F, et al. **Synapse** 1998 Oct;30(2):172–80

Agonist- and antagonist-induced plasticity of rat 5-HT1A receptor in hippocampal cell culture. Nishi M, et al. **Synapse** 1999 Mar 1;31(3):186–95

A potent 5-hydroxytryptamine receptor (5-HT2A) antagonist, DV-7028, delays arterial thrombosis development in rats. Pawlak D, et al. **Thromb Res** 1998 Jun 15;90(6):259–70

Serotonin receptors modulate rod signals: a neuropharmacological comparison of light- and dark-adapted retinas. Jin XT, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):891–902

[Neurotoxicity of the drug Ecstasy. Functional consequences of serotonergic hypoactivity] de Visme PG. **Ugeskr Laeger** 1998 Oct 12;160(42):6088–91 (40 ref.) (Eng. Abstr.) **(Dan)**

[The role of agonists of serotonin receptor 5HT1B/D in pathogenesis and treatment of migraine attacks] Stepień A. **Pol Merkuriusz Lek** 1999 Jun;6(36):341–3 (28 ref.) (Eng. Abstr.) **(Pol)**

[Effects of 5-HT1a serotonin receptor agonists on sex motivation in male mice] Amstislavskaia TG, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):224–6 **(Rus)**

[Disorder of the serotoninergic regulation of bone marrow cell proliferation under the action of a xenobiotic inducer of oxidative stress] Egorova AB, et al. **Eksp Klin Farmakol** 1998 Jul-Aug;61(4):34–7 (Eng. Abstr.) **(Rus)**

[Serotonin both stimulates and inhibits sexual behavior of rats. New possibilities to understand the effects and side-effects of serotonergic drugs] Larsson K, et al. **Lakartidningen** 1999 Jun 9;96(23):2854–6 (22 ref.) **(Swe)**

GENETICS

102T/C polymorphism of serotonin receptor type 2A gene is not associated with schizophrenia in either Chinese or British populations. He L, et al. **Am J Med Genet** 1999 Feb 5;88(1):95–8

Novel mutations in the promoter and coding region of the human 5-HT1A receptor gene and association analysis in schizophrenia. Kawanishi Y, et al. **Am J Med Genet** 1998 Sep 7;81(5):434–9

Allelic variants of dopamine receptor D4 (DRD4) and serotonin receptor 5HT2c (HTR2c) and temperament factors: replication tests. Kühn KU, et al. **Am J Med Genet** 1999 Apr 16;88(2):168–72

Chromosomal localization of the 5-HT1F receptor gene: no evidence for involvement in response to sumatriptan in migraine patients. Maassen VanDenBrink A, et al. **Am J Med Genet** 1998 Jun 5;77(5):415–20

Association analysis between a Cys23Ser substitution polymorphism of the human 5-HT2c receptor gene and neuronal hyperexcitability. Samochowiec J, et al. **Am J Med Genet** 1999 Apr 16;88(2):126–30

Association study of the 5-HT6 receptor gene in schizophrenia. Shinkai T, et al. **Am J Med Genet** 1999 Apr 16;88(2):120–2

Prediction of level of serotonin 2A receptor binding by serotonin receptor 2A genetic variation in postmortem brain samples from subjects who did or did not commit suicide. Turecki G, et al. **Am J Psychiatry** 1999 Sep; 156(9):1456–8

5-HT4 receptors: gene, transduction and effects on olfactory memory. Bockaert J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:1–15 (61 ref.)

Preferential expression of 5-HT1D over 5-HT1B receptors during murine embryonic development. Bolaños-Jiménez F, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:238–9

Molecular cloning of alternatively spliced human 5-HT3 receptor cDNAs. Brüss M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:234–5

Mouse 5-HT2B receptor-mediated serotonin trophic functions. Choi DS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:67–73 (20 ref.)

5-HT4 receptors: cloning and expression of new splice variants. Claeysen S, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:49–56 (25 ref.)

5-HT2B receptors are expressed by neuronal precursors in the enteric nervous system of fetal mice and promote neuronal differentiation. Fiorica-Howells E, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:246

Genetic variation in human 5-HT receptors: potential pathogenetic and pharmacological role. Göthert M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:26–30 (20 ref.)

Gs protein-coupled serotonin receptors: receptor isoforms and functional differences. Hamblin MW, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:31–7 (25 ref.)

Impact of the human genome project on the principles for classification and nomenclature of 5-HT receptors. Hoyer D, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:230–1

Identification and characterization of RNA editing events within the 5-HT2C receptor. Niswender CM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:38–48 (34 ref.)

Distribution of 5-HT2c and 5-ht5a receptor mRNA in human brain. Pasqualetti M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:245

Autoradiographic characterization, anatomical distribution, and developmental pattern of a new 5-HT site in human brain. Pazos A, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:262

Serotonin receptor variants in disease: new therapeutic opportunities? Peroutka SJ. **Ann N Y Acad Sci** 1998 Dec 15;861:16–25 (21 ref.)

5-HT receptors in rat jugular vein: information from RT-PCR and operational studies. Pulido-Rios TM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:260–1

5-HT receptor knockout mice: pharmacological tools or models of psychiatric disorders. Scearce-Levie K, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:701–15

Efficient expression of neurotransmitter receptors in

mammalian cells: use of inducible expression systems. Vanhoenacker P, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:236–7

Characterization of 5-HT- and ionomycin-stimulated changes in levels of intracellular calcium and PI hydrolysis in P11 cells. Wohlpart KL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:240–1

Regulation of levels of 5-HT2A receptor mRNA. Wohlpart KL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:128–35 (19 ref.)

Central distribution and function of 5-ht6 receptor subtype in the rat brain. Yoshioka M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:244

Linkage of antisocial alcoholism to the serotonin 5-HT1B receptor gene in 2 populations. Lappalainen J, et al. **Arch Gen Psychiatry** 1998 Nov;55(11):989–94

Oral operant ethanol self-administration in 5-HT1b knockout mice. Risinger FO, et al. **Behav Brain Res** 1999 Jul; 102(1-2):211–5

Selective genotyping for the role of 5-HT2A, 5-HT2C, and GABA alpha 6 receptors and the serotonin transporter in the level of response to alcohol: a pilot study. Schuckit MA, et al. **Biol Psychiatry** 1999 Mar 1;45(5):647–51

Serotonin 2A receptor mRNA levels in the neonatal dopamine-depleted rat striatum remain upregulated following suppression of serotonin hyperinnervation. Basura GJ, et al. **Brain Res Dev Brain Res** 1999 Aug 5; 116(1):111–7

Characterization of a cloned xenopus laevis serotonin 5-HT1A receptor expressed in the NIH-3T3 cell line. Cappellini C, et al. **Brain Res Mol Brain Res** 1999 Jan 8; 63(2):380–3

Early localization of mRNA coding for 5-HT1A receptors in human brain during development. del Olmo E, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):123–6

Ovarian steroid effects on serotonin 1A, 2A and 2C receptor mRNA in macaque hypothalamus. Gundlah C, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):325–39

Cultured astrocytes express messenger RNA for multiple serotonin receptor subtypes, without functional coupling of 5-HT1 receptor subtypes to adenylyl cyclase. Hirst WD, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):90–9

Antibodies against the extracellular domain of the 5-HT3 receptor label both native and recombinant receptors. Spier AD, et al. **Brain Res Mol Brain Res** 1999 Apr 20; 67(2):221–30

Testosterone as well as estrogen increases serotonin2A receptor mRNA and binding site densities in the male rat brain. Sumner BE, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):205–14

Serotonin receptor subtype gene expression in the hippocampus of aged rats following chronic amitriptyline treatment. Yau JL, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):282–7

Identification of mRNA for 5-HT1 and 5-HT2 receptor subtypes in human coronary arteries. Ishida T, et al. **Cardiovasc Res** 1999 Jan;41(1):267–74

Sheep 5HT2A receptors: partial cloning of the coding sequence and mRNA localization by in situ hybridization in the ewe hypothalamus. Pelletier J, et al. **Cell Tissue Res** 1999 Feb;295(2):231–9

Flesinoxan treatment reduces 5-HT1A receptor mRNA in the dentate gyrus independently of high plasma corticosterone levels. Sibug RM, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):207–14

Global increases in seizure susceptibility in mice lacking 5-HT2C receptors: a behavioral analysis. Applegate CD, et al. **Exp Neurol** 1998 Dec;154(2):522–30

Cloning, mRNA localization and evolutionary conservation of a human 5-HT7 receptor pseudogene. Olsen MA, et al. **Gene** 1999 Feb 4;227(1):63–9

Fine mapping of the human 5-HTR2a gene to chromosome 13q14 and identification of two highly polymorphic linked markers suitable for association studies in psychiatric disorders. Campbell DA, et al. **Genet Test** 1997-98; 1(4):297–9

No correlation between A(-1438)G polymorphism in 5-HT2A receptor gene promoter and the density of frontal cortical 5-HT2A receptors in schizophrenia. Kouzmenko AP, et al. **Hum Hered** 1999 Mar;49(2):103–5

No evidence for an involvement of alleles of polymorphisms in the serotonin1Dbeta and 7 receptor genes in obesity, underweight or anorexia nervosa. Hinney A, et al. **Int J Obes Relat Metab Disord** 1999 Jul;23(7):760–3

Assignment of porcine serotonin receptor subtype 2 alpha and endothelin-B receptor to chromosome 11 by linkage analysis. Sun HS, et al. **J Anim Sci** 1999 Mar;77(3):795–6

Serotonin-2C receptor pre-mRNA editing in rat brain and in vitro by splice site variants of the interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Jun 25; 274(26):18351–8

Multiple microvascular and astroglial 5-hydroxytryptamine receptor subtypes in human brain: molecular and pharmacologic characterization. Cohen Z, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):908–17

Identification of residues in transmembrane regions III and VI that contribute to the ligand binding site of the serotonin 5-HT6 receptor. Boess FG, et al. **J Neurochem** 1998 Nov; 71(5):2169–77

Differential membrane targeting and pharmacological characterization of chimeras of rat serotonin 5-HT1A and 5-HT1B receptors expressed in epithelial LLC-PK1 cells. Darmon M, et al. **J Neurochem** 1998 Dec;71(6):2294–303

Characterization of a novel serotonin receptor from Caenorhabditis elegans: cloning and expression of two splice variants. Hamdan FF, et al. **J Neurochem** 1999 Apr; 72(4):1372–83

Serotonin 5-HT2C receptor RNA editing alters receptor basal activity: implications for serotonergic signal transduction. Herrick-Davis K, et al. **J Neurochem** 1999 Oct;73(4):1711–7

Structure-function studies of the eighth hydrophobic domain of a serotonin receptor. Hurley JH, et al. **J Neurochem** 1999 Jan;72(1):413–21

TATA-driven transcriptional initiation and regulation of the rat serotonin 5-HT1A receptor gene. Storring JM, et al. **J Neurochem** 1999 Jun;72(6):2238–47

T102C polymorphism in the 5HT2A gene and schizophrenia: relation to phenotype and drug response variability [see comments] Joober R, et al. **J Psychiatry Neurosci** 1999 Mar;24(2):141–6. Comment in: J Psychiatry Neurosci 1999 Mar;24(2):139–40.

The human serotonin-7 receptor pseudogene: variation and chromosome location. Nam D, et al. **J Psychiatry Neurosci** 1998 Sep;23(4):214–6 (12 ref.)

5-HT2A gene promoter polymorphism and anorexia nervosa [letter; comment] Ziegler A, et al. **Lancet** 1999 Mar 13; 353(9156):929. Comment on: Lancet 1997 Aug 9;350(9075):412.

Alternative-splicing of serotonin receptor isoforms in the pharynx and muscle of the parasitic nematode, Ascaris suum. Huang X, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):95–106

Identification of a new polymorphism in the 3'-untranslated region of the human serotonin receptor 2C (5-HT2C) gene. Song HR, et al. **Mol Genet Metab** 1999 Mar;66(3):224–7

Assignment of the human serotonin 4 receptor gene (HTR4) to the long arm of chromosome 5 (5q31-q33). Cichon S, et al. **Mol Membr Biol** 1998 Apr-Jun;15(2):75–8

Humanization of mouse 5-hydroxytryptamine1B receptor gene by homologous recombination: in vitro and in vivo characterization. Bonaventure P, et al. **Mol Pharmacol** 1999 Jul;56(1):54–67

Novel brain-specific 5-HT4 receptor splice variants show marked constitutive activity: role of the C-terminal intracellular domain. Claeysen S, et al. **Mol Pharmacol** 1999 May;55(5):910–20

Association between seasonal affective disorder and the 5-HT2A promoter polymorphism, -1438G/A. Enoch MA, et al. **Mol Psychiatry** 1999 Jan;4(1):89–92

Association of a polymorphism of the 5HT2A receptor gene promoter region with alcohol dependence. Nakamura T, et al. **Mol Psychiatry** 1999 Jan;4(1):85–8

Leptin-independent hyperphagia and type 2 diabetes in mice with a mutated serotonin 5-HT2C receptor gene [see comments] Nonogaki K, et al. **Nat Med** 1998 Oct; 4(10):1152–6. Comment in: Nat Med 1998 Oct;4(10):1124–5.

Function and distribution of three rat 5-hydroxytryptamine7 (5-HT7) receptor isoforms produced by alternative splicing. Heidmann DE, et al. **Neuropharmacology** 1998 Dec;37(12):1621–32

Messenger RNA editing of the human serotonin 5-HT2C receptor. Fitzgerald LW, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):82S–90S

Relationship of psychopathology to the human serotonin1B genotype and receptor binding kinetics in postmortem brain tissue. Huang YY, et al. **Neuropsychopharmacology** 1999 Aug;21(2):238–46

Quantitation of 5HT2A receptor mRNA in human postmortem brain using competitive RT-PCR. Dwivedi Y, et al. **Neuroreport** 1998 Dec 1;9(17):3761–5

No evidence for association of serotonin-2A receptor variant (102T/C) with schizophrenia or clozapine response in a Chinese population. Lin CH, et al. **Neuroreport** 1999 Jan 18;10(1):57–60

Serotonin-6 receptor variant (C267T) and clinical response to clozapine. Yu YW, et al. **Neuroreport** 1999 Apr 26; 10(6):1231–3

Co-localization of 5-HT1B- and 5-HT1D receptor mRNA in serotonergic cell bodies in guinea pig dorsal raphé nucleus: a double labeling in situ hybridization histochemistry study. Bonaventure P, et al. **Neurosci Lett** 1998 Sep 25;254(2):113–6

Homologous regulation of 5-HT1A receptor mRNA in adult rat hippocampal dentate gyrus. Huang J, et al. **Neurosci Lett** 1999 Jul 23;270(1):5–8

Limited inhibition of 5-HT1A receptor expression in the rat brain by antisense RNA and oligodesoxynucleotides. Sari Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):191–5

5-Hydroxytryptamine2A receptor stimulation induces activator protein-1 and cyclic AMP-responsive element binding with cyclic AMP-responsive element-binding protein and Jun D as common components in cerebellar neurons. Chalecka-Franaszek E, et al. **Neuroscience** 1999; 88(3):885–98

Immunolabelling of the rat intestinal tract with antibodies specific to the long form of the 5-hydroxytryptamine3 receptor. Doucet E, et al. **Neuroscience** 1998 Dec; 87(3):691–707

Ovarian steroid regulation of serotonin-1A autoreceptor messenger RNA expression in the dorsal raphe of rhesus macaques. Pecins-Thompson M, et al. **Neuroscience** 1999 Mar;89(1):267–77

Chronic fluoxetine in tests of anxiety in rat lines selectively bred for differential 5-HT1A receptor function. File SE, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):695–701

Elevated anxiety and antidepressant-like responses in serotonin 5-HT1A receptor mutant mice [see comments] Heisler LK, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15049–54. Comment in: Proc Natl Acad Sci U S A 1998 Dec 22;96(26):15153–4.

No association between schizophrenia and serotonin receptor type 2A gene in Korea. Kim YK, et al. **Psychiatr Genet** 1999 Mar;9(1):47–9

Schizophrenia and the serotonin-2A receptor promoter polymorphism. Ohara K, et al. **Psychiatry Res** 1999 Feb 22;85(2):221–4

Mutation screening of the 5-hydroxytryptamine7 receptor gene among Finnish alcoholics and controls. Pesonen U, et al. **Psychiatry Res** 1998 Feb 27;77(3):139–45

No association between serotonin-2A receptor gene polymorphism and psychotic symptomatology of mood disorders. Serretti A, et al. **Psychiatry Res** 1999 Jun 30; 86(3):203–9

Genetic linkage to the serotonin transporter protein and 5HT2A receptor genes excluded in generalized social phobia. Stein MB, et al. **Psychiatry Res** 1998 Dec 14; 81(3):283–91

Allelic variation in the 5-HT2C receptor (HTR2C) and functional responses to the 5-HT2C receptor agonist, m-chlorophenylpiperazine [letter] Quested DJ, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):306–7

Meta-analysis of studies on genetic variation in 5-HT2A receptors and clozapine response. Arranz MJ, et al. **Schizophr Res** 1998 Jul 27;32(2):93–9

Effects of clozapine and haloperidol on 5-HT6 receptor mRNA levels in rat brain. Frederick JA, et al. **Schizophr Res** 1999 Jul 27;38(1):7–12

Molecular manipulations as tools for enhancing our understanding of 5-HT neurotransmission. Murphy DL, et al. **Trends Pharmacol Sci** 1999 Jun;20(6):246–52 (75 ref.)

IMMUNOLOGY

Antibodies against the extracellular domain of the 5-HT3 receptor label both native and recombinant receptors. Spier AD, et al. **Brain Res Mol Brain Res** 1999 Apr 20; 67(2):221–30

Production and characterization of an anti-serotonin 1A receptor antibody which detects functional 5-HT1A binding sites. Zhou FC, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):186–201

Immunoreactivity of sera to a peptide derived from the serotonin 5-HT1A receptor in a group of children with developmental disorders: possible role in non-autistic epilepsy. Verdot L, et al. **Int J Mol Med** 1998 Jan; 1(1):185–9

Development and characterisation of human 5-HT1B- or 5-HT1D-receptor specific antibodies as unique research tools. Smith D, et al. **J Neurosci Methods** 1998 Apr 30; 80(2):155–61

Serotonin2A receptor-like immunoreactivity in rat cerebellar Purkinje cells. Maeshima T, et al. **Neurosci Lett** 1998 Aug 7;252(1):72–4

Immunolabelling of the rat intestinal tract with antibodies specific to the long form of the 5-hydroxytryptamine3 receptor. Doucet E, et al. **Neuroscience** 1998 Dec; 87(3):691–707

METABOLISM

Clinical and theoretical implications of 5-HT2 and D2 receptor occupancy of clozapine, risperidone, and olanzapine in schizophrenia. Kapur S, et al. **Am J Psychiatry** 1999 Feb;156(2):286–93

Prefrontal cortex 5-HT2 receptors in depression: an [18F]setoperone PET imaging study. Meyer JH, et al. **Am J Psychiatry** 1999 Jul;156(7):1029–34

Suggested minimal effective dose of risperidone based on PET-measured D2 and 5-HT2A receptor occupancy in schizophrenic patients. Nyberg S, et al. **Am J Psychiatry** 1999 Jun;156(6):869–75

Expression of serotonin receptor 2c in rat type II pneumocytes. Wang D, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1175–80

A putative alpha-helical G beta gamma-coupling domain in the second intracellular loop of the 5-HT1A receptor. Albert PR, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:146–61 (72 ref.)

Agonist and antagonist binding to rabbit cortical 5-HT2A receptors: opposite effects of magnesium. Aloyo VJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:280

In vitro visualization of 5-HT receptors in rat brain using [35S]GTP gamma S binding. Beer MS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:265

Residues in transmembrane regions III and VI contribute to the 5-ht6 receptor ligand binding site. Boess FG, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:242–3

Absorption and brain penetration of a high affinity, highly selective 5-HT2C receptor antagonist, RS-102221. Bonhaus DW, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:269

Post-synaptic 5-HT1A and 5-HT2A receptors are increased in Parkinson's disease neocortex. Chen CP, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:288–9

High affinity of SDZ HTF-919 related molecules for calf and human caudate 5-HT4 receptors. Hoyer D, et al.

Ann N Y Acad Sci 1998 Dec 15;861:267–8

Okadaic acid antagonizes the inhibitory action of internal GTP–gamma–S on the calcium current of dorsal raphe neurons but not that of 5–HT1A receptor activation. Kelly JS, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:220–3

Parallel evaluation of 5–HT1A receptor localization and functionality: autoradiographic studies with [35S]–GTP gamma S and the novel, selective radioligand, [3H]–S 15535. Newman–Tancredi A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:263–4

Autoradiographic characterization, anatomical distribution, and developmental pattern of a new 5–HT site in human brain. Pazos A, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:262

[3H]5–HT binding to cloned human, dog, and rat 5–HT1D and 5–HT1B receptors. Stanton J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:266

Decrease in brain serotonin 2 receptor binding in patients with major depression following desipramine treatment: a positron emission tomography study with fluorine–18–labeled setoperone. Yatham LN, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):705–11

Increased serotonin receptor density and platelet GPIIb/IIIa activation among smokers. Markovitz JH, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):762–6

Characterization of serotonergic mechanisms involved in the behavioural inhibition induced by 5–hydroxytryptophan in a modified light–dark test in mice. Artaiz I, et al. **Behav Pharmacol** 1998 Mar;9(2):103–12

Dopamine D4–like binding sites labeled by [3H]nemonapride include substantial serotonin 5–HT2A receptors in primate cerebral cortex. Noda–Saita K, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):367–70

Endogenous serotonin–2A and –2C receptors in Balb/c–3T3 cells revealed in serotonin–free medium: desensitization and down–regulation by serotonin. Saucier C, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1347–57

5–HT(2A/2C) receptor agonist–induced increase in urinary isatin excretion in rats: reversal by both diazepam and dexamethasone. Tozawa Y, et al. **Biochem Pharmacol** 1999 Oct 15;58(8):1329–34

Ligand binding to the serotonin 5HT3 receptor studied with a novel fluorescent ligand. Tairi AP, et al. **Biochemistry** 1998 Nov 10;37(45):15850–64

Study of ligand–receptor interactions by fluorescence correlation spectroscopy with different fluorophores: evidence that the homopentameric 5–hydroxytryptamine type 3As receptor binds only one ligand. Wohland T, et al. **Biochemistry** 1999 Jul 6;38(27):8671–81

Possible involvement of descending serotonergic systems in antinociception by centrally administered elcatonin in mice. Nakamoto H, et al. **Biol Pharm Bull** 1999 Jul;22(7):691–7

The cortical serotonin2 receptors studied with positron–emission tomography and [18F]–setoperone during depressive illness and antidepressant treatment with clomipramine. Attar–Lévy D, et al. **Biol Psychiatry** 1999 Jan 15;45(2):180–6

5–(Sulfonyl)oxy–tryptamines and ethylamino side chain restricted derivatives. Structure–affinity relationships for h5–HT1B and h5–HT1D receptors. Barf T, et al. **Bioorg Med Chem** 1998 Sep;6(9):1469–79

Structural analogues of 5–OMe–BPAT: synthesis and interactions with dopamine D2, D3, and serotonin 5–HT1A receptors. Homan EJ, et al. **Bioorg Med Chem** 1999 Jun; 7(6):1111–21

2–aminotetralin–derived substituted benzamides with mixed dopamine D2, D3, and serotonin 5–HT1A receptor binding properties: a novel class of potential atypical antipsychotic agents. Homan EJ, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2111–26

N–substituted–3–arylpyrrolidines: potent and selective ligands at serotonin 1A receptor. Ahn KH, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1379–84

Synthesis of N–(1–ethyl–4–methylhexahydro–1,4–diazepin–6–yl) nicotinamides and their affinities for 5–HT3 and dopamine D2 receptors. Hirokawa Y, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1551–4

A novel series of N–(hexahydro–1,4–diazepin–6–yl) and N–(hexahydroazepin– 3–yl)benzamides with high affinity for 5–HT3 and dopamine D2 receptors. Hirokawa Y, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):619–24

1–[omega–(4–arylpiperazin–1–yl)alkyl]–3–diphenylmethylene–2,5– pyrrolidinediones as 5–HT1A receptor ligands: study of the steric requirements of the terminal amide fragment on 5–HT1A affinity/selectivity. López–Rodríguez ML, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):581–6

Synthesis of new (benzimidazolyl)piperazines with affinity for the 5–HT1A receptor via Pd(0) amination of bromobenzimidazoles. López–Rodríguez ML, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2339–42

Serotonergic ergoline derivatives. Mantegani S, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1117–22

Azepinoindole derivatives with high affinity for brain dopamine and serotonin receptors. Maryanoff BE, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):983–8

Dimerization of sumatriptan as an efficient way to design a potent, centrally and orally active 5–HT1B agonist. Perez M, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):675–80

Dimers of 5HT1 ligands preferentially bind to 5HT1B/1D receptor subtypes. Perez M, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1407–12

Functional characteristics of a series of N4–substituted 1–(2,3–dihydro–1,4–benzodioxin–5–yl)piperazines as 5–HT1A receptor ligands. Structure–activity relationships. van Steen BJ, et al. **Bioorg Med Chem Lett** 1998 Sep 22; 8(18):2457–62

Comparison of the vasoconstrictor effects of rizatriptan and sumatriptan in human isolated cranial arteries: immunohistological demonstration of the involvement of 5–HT1B–receptors. Longmore J, et al. **Br J Clin Pharmacol** 1998 Dec;46(6):577–82

Pindolol–insensitive [3H]–5–hydroxytryptamine binding in the rat hypothalamus; identity with 5–hydroxytryptamine7 receptors. Clemett DA, et al. **Br J Pharmacol** 1999 May; 127(1):236–42

Modulation of the vagal bradycardia evoked by stimulation of upper airway receptors by central 5–HT1 receptors in anaesthetized rabbits. Dando SB, et al. **Br J Pharmacol** 1998 Sep;125(2):409–17

[3H]–Mesulergine labels 5–HT7 sites in rat brain and guinea–pig ileum but not rat jejunum. Hemedah M, et al. **Br J Pharmacol** 1999 Jan;126(1):179–88

Functional coupling of a recombinant human 5–HT5A receptor to G–proteins in HEK–293 cells. Hurley PT, et al. **Br J Pharmacol** 1998 Jul;124(6):1238–44

Functional characterisation of the human cloned 5–HT7 receptor (long form); antagonist profile of SB–258719. Thomas DR, et al. **Br J Pharmacol** 1998 Jul;124(6):1300–6

Endogenous angiotensin II and the reflex response to stimulation of cardiopulmonary serotonin 5HT3 receptors. Veelken R, et al. **Br J Pharmacol** 1998 Dec;125(8):1761–7

Functional effects of the muscarinic receptor agonist, xanomeline, at 5–HT1 and 5–HT2 receptors. Watson J, et al. **Br J Pharmacol** 1998 Dec;125(7):1413–20

5–HT2A receptor blockade in patients with schizophrenia treated with risperidone or clozapine. A SPET study using the novel 5–HT2A ligand 123I–5–I–R–91150. Travis MJ, et al. **Br J Psychiatry** 1998 Sep;173:236–41

Chronic repetitive transcranial magnetic stimulation alters beta–adrenergic and 5–HT2 receptor characteristics in rat brain. Ben–Shachar D, et al. **Brain Res** 1999 Jan 16; 816(1):78–83

Selective increases in serotonin 5–HT1B/1D and 5–HT2A/2C binding sites in adult rat basal ganglia following lesions of serotonergic neurons. Compan V, et al. **Brain Res** 1998 May 18;793(1–2):103–11

Differential interaction between 5–HT3 receptors and GABAergic neurons inhibiting acetylcholine release in rat entorhinal cortex slices. Díez–Ariza M, et al. **Brain Res** 1998 Aug 10;801(1–2):228–32

Comparison of the effects of aging on 5–HT7 and 5–HT1A receptors in discrete regions of the circadian timing system in hamsters. Duncan MJ, et al. **Brain Res** 1999 May 22; 829(1–2):39–45

Changes in 5–HT1A and NMDA binding sites by a single rapid transcranial magnetic stimulation procedure in rats. Kole MH, et al. **Brain Res** 1999 May 1;826(2):309–12

Reduced binding of [18F]altanserin to serotonin type 2A receptors in aging: persistence of effect after partial volume correction. Meltzer CC, et al. **Brain Res** 1998 Nov 30; 813(1):167–71

Modulation of serotonin 5–HT3 receptor expression in injured adult rat spinal cord motoneurons. Rende M, et al. **Brain Res** 1999 Mar 27;823(1–2):234–40

Modulation of 5–hydroxytryptamine release in hippocampal slices of rats: effects of fimbria–fornix lesions on 5–HT1B–autoreceptor and alpha2–heteroreceptor function. Jackisch R, et al. **Brain Res Bull** 1999 Jan 1;48(1):49–59

Distribution of the 5–HT5A serotonin receptor mRNA in the human brain. Pasqualetti M, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):1–8

5–hydroxytryptamine1A receptor–mediated effects on adenylate cyclase and nitric oxide synthase activities in rat ventral prostate. Carmena MJ, et al. **Cell Signal** 1998 Sep; 10(8):583–7

Serotonin stimulation of calcium mobilisation in human platelets: choice of units of measurement, effects of age and tobacco use, and correlation with serotonin2A receptor density. Fowler CJ, et al. **Clin Chim Acta** 1999 Sep; 287(1–2):1–18

The 5–HT2 receptor antagonist sarpogrelate reduces urinary and plasma levels of thromboxane A2 and urinary albumin excretion in non–insulin–dependent diabetes mellitus patients. Ogawa S, et al. **Clin Exp Pharmacol Physiol** 1999 May–Jun;26(5–6):461–4

3–Dimensional anatomic relationship of serotonergic and muscarinic receptor binding in the pontine reticular formation of the human infant brainstem. Panigraphy A, et al. **Clin Neuropathol** 1998 Nov–Dec;17(6):318–25

Bioisosteric approach in the design of new dopaminergic/serotonergic ligands. Soskić V, et al. **Curr Med Chem** 1998 Dec;5(6):493–512 (102 ref.)

Ontogeny of 5–HT4 receptors in the human adrenal gland. Contesse V, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):933–4

Pharmacological profile of serotonergic receptors in the adrenal gland. Delarue C, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):687–94

5HT1A–receptors and behaviour under chronic stress: selective counteraction by testosterone. Flügge G, et al. **Eur J Neurosci** 1998 Aug;10(8):2685–93

123I–5–I–R91150, a new single–photon emission tomography ligand for 5–HT2A receptors: influence of age and gender in healthy subjects. Baeken C, et al. **Eur J Nucl Med** 1998 Dec;25(12):1617–22

Pharmacological characterisation of a cloned dog 5–HT1B receptor cell line. Beer MS, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):117–21

Autoradiographic analysis of 5–HT2A binding sites in the brain of Sardinian alcohol–preferring and nonpreferring rats. Ciccocioppo R, et al. **Eur J Pharmacol** 1999 May 28; 373(1):13–9

The human 5–ht5A receptor couples to Gi/Go proteins and inhibits adenylate cyclase in HEK 293 cells. Francken BJ, et al. **Eur J Pharmacol** 1998 Nov 20;361(2–3):299–309

Effect of antipsychotic drugs on extracellular serotonin levels in rat medial prefrontal cortex and nucleus accumbens. Ichikawa J, et al. **Eur J Pharmacol** 1998 Jun 19; 351(2):163–71

Receptor binding characteristics of [3H]NAD–299, a new selective 5–HT1A receptor antagonist. Jerning E, et al. **Eur J Pharmacol** 1998 Nov 6;360(2–3):219–25

5–HT1A receptor antagonists neither potentiate nor inhibit the effects of fluoxetine and befloxatone in the forced swim test in rats. Moser PC, et al. **Eur J Pharmacol** 1999 May 14;372(2):127–34

Characterisation of the 5–HT receptor binding profile of eletriptan and kinetics of [3H]eletriptan binding at human 5–HT1B and 5–HT1D receptors. Napier C, et al. **Eur J Pharmacol** 1999 Mar 5;368(2–3):259–68

Head and whole–body jerking in guinea pigs are differentially modulated by 5–HT1A, 5–HT1B/1D and 5–HT2A receptor antagonists. Nielsen CK. **Eur J Pharmacol** 1998 Nov 20;361(2–3):185–90

Acetylsalicylic acid potentiates the antinociceptive effect of morphine in the rat: involvement of the central serotonergic system. Sandrini M, et al. **Eur J Pharmacol** 1998 Aug 21; 355(2–3):133–40

Regional difference in correlation of 5–HT4 receptor distribution with cholinergic transmission in the guinea pig stomach. Takada K, et al. **Eur J Pharmacol** 1999 Jun 25; 374(3):489–94

Human 5–HT1F receptor–stimulated [35S]GTPgammaS binding: correlation with inhibition of guinea pig dural plasma protein extravasation. Wainscott DB, et al. **Eur J Pharmacol** 1998 Jul 3;352(1):117–24

Effects of the non–selective 5–HT receptor agonist, 5–carboxamidotryptamine, on plasma glucose levels in rats. Yamada J, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):81–6

Antagonism of the 5–HT1A receptor stimulus in a conditioned taste aversion procedure. Berendsen HH, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):345–9

NK1, NMDA, 5HT1a, and 5HT2 receptor binding sites in the rat lumbar spinal cord: modulation following sciatic nerve crush. Croul S, et al. **Exp Neurol** 1998 Nov; 154(1):66–79

Activated astrocytes display increased 5–HT2a receptor expression in pathological states. Wu C, et al. **Exp Neurol** 1999 Aug;158(2):529–33

Modulation of agonist and antagonist interactions in serotonin 1A receptors by alcohols. Harikumar KG, et al. **FEBS Lett** 1998 Oct 30;438(1–2):96–100

Differential discrimination of G–protein coupling of serotonin(1A) receptors from bovine hippocampus by an agonist and an antagonist. Harikumar KG, et al. **FEBS Lett** 1999 Sep 3;457(3):389–92

Serotonin 5–HT1B and 5–HT1D receptors form homodimers when expressed alone and heterodimers when co–expressed. Xie Z, et al. **FEBS Lett** 1999 Jul 30; 456(1):63–7

Binding affinity of sarpogrelate to 5–HT(2A) receptor ligand recognition sites in rat renal cortical and mesangial cells in culture. Nishio H, et al. **Gen Pharmacol** 1999 Jul; 33(1):51–7

Pharmacological characteristics and regulation of 5–HT receptor–stimulated phosphoinositide hydrolysis in the rat spinal cord. Toscano E, et al. **Gen Pharmacol** 1999 Mar; 32(3):351–8

Serotonin, serotonergic receptors, selective serotonin reuptake inhibitors and sexual behaviour. Olivier B, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S9–14 (27 ref.)

Plasticity of 5–hydroxytryptamine(1B) receptors during postnatal development in the rat visual cortex. Ruiz G, et al. **Int J Dev Neurosci** 1999 Jul;17(4):305–15

Altered [3H]imipramine and 5–HT2 but not [3H]paroxetine binding sites in platelets from depressed patients. Rosel P, et al. **J Affect Disord** 1999 Jan–Mar;52(1–3):225–33

Two amino acids within the alpha4 helix of Galphai1 mediate coupling with 5–hydroxytryptamine1B receptors. Bae H, et al. **J Biol Chem** 1999 May 21;274(21):14963–71

Serotonin 5–HT1A receptor–mediated Erk activation requires calcium/calmodulin–dependent receptor endocytosis. Della Rocca GJ, et al. **J Biol Chem** 1999 Feb 19;274(8):4749–53

Stimulation of cAMP synthesis by Gi–coupled receptors upon ablation of distinct Galphai protein expression. Gi subtype specificity of the 5–HT1A receptor. Liu YF, et al. **J Biol Chem** 1999 Jun 4;274(23):16444–50

RNA editing of the human serotonin 5–hydroxytryptamine 2C receptor silences constitutive activity. Niswender CM, et al. **J Biol Chem** 1999 Apr 2;274(14):9472–8

Structural features of the ligand–binding domain of the serotonin 5HT3 receptor. Yan D, et al. **J Biol Chem** 1999 Feb 26;274(9):5537–41

Multiple microvascular and astroglial 5-hydroxytryptamine receptor subtypes in human brain: molecular and pharmacologic characterization. Cohen Z, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):908–17

Positron emission tomographic analysis of dose-dependent MDL 100,907 binding to 5-hydroxytryptamine-2A receptors in the human brain. Andrée B, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):317–23

Autoradiographic study of alpha1- and alpha2-noradrenergic and serotonin1A receptors in the spinal cord of normal and chronically transected cats. Giroux N, et al. **J Comp Neurol** 1999 Apr 12;406(3):402–14

Distribution of neurons expressing immunoreactivity for the 5HT3 receptor subtype in the rat brain and spinal cord. Morales M, et al. **J Comp Neurol** 1998 Dec 21; 402(3):385–401

N-Substituted (2,3-dihydro-1,4-benzodioxin-2-yl)methylamine derivatives as D(2) antagonists/5-HT(1A) partial agonists with potential as atypical antipsychotic agents. Birch AM, et al. **J Med Chem** 1999 Aug 26;42(17):3342–55

Effect of modifications of the alkylpiperazine moiety of trazodone on 5HT2A and alpha1 receptor binding affinity. Giannangeli M, et al. **J Med Chem** 1999 Feb 11; 42(3):336–45

Tetrahydrobenzindoles: selective antagonists of the 5-HT7 receptor. Kikuchi C, et al. **J Med Chem** 1999 Feb 25; 42(4):533–5

Synthesis and structure-activity relationships of a new model of arylpiperazines. 4. 1-[omega-(4-Arylpiperazin-1-yl)alkyl]-3-(diphenylmethylene) - 2, 5-pyrrolidinediones and -3-(9H-fluoren-9-ylidene)-2, 5-pyrrolidinediones: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodríguez ML, et al. **J Med Chem** 1999 Jan 14;42(1):36–49

1-aryl-4-[(5-methoxy-1,2,3,4-tetrahydronaphthalen-1-yl)alkyl]piperazines and their analogues: influence of the stereochemistry of the tetrahydronaphthalen-1-yl nucleus on 5-HT1A receptor affinity and selectivity versus alpha1 and D2 receptors. 5. Perrone R, et al. **J Med Chem** 1999 Feb 11;42(3):490–6

Conformationally constrained butyrophenones with mixed dopaminergic (D(2)) and serotoninergic (5-HT(2A), 5-HT(2C)) affinities: synthesis, pharmacology, 3D-QSAR, and molecular modeling of (aminoalkyl)benzo- and -thienocycloalkanones as putative atypical antipsychotics. Raviña E, et al. **J Med Chem** 1999 Jul 29;42(15):2774–97

Synthesis and serotonin receptor affinities of a series of trans-2-(indol-3-yl)cyclopropylamine derivatives. Vangveravong S, et al. **J Med Chem** 1998 Dec 3; 41(25):4995–5001

Fluorination of 3-(3-(piperidin-1-yl)propyl)indoles and 3-(3-(piperazin-1-yl)propyl)indoles gives selective human 5-HT1D receptor ligands with improved pharmacokinetic profiles. van Niel MB, et al. **J Med Chem** 1999 Jun 17; 42(12):2087–104

Effects of antipsychotic drugs on dopamine and serotonin contents and metabolites, dopamine and serotonin transporters, and serotonin1A receptors. Ase AR, et al. **J Neural Transm** 1999;106(1):75–105

Identification of residues in transmembrane regions III and VI that contribute to the ligand binding site of the serotonin 5-HT6 receptor. Boess FG, et al. **J Neurochem** 1998 Nov; 71(5):2169–77

Differential regulation of somatodendritic serotonin 5-HT1A receptors by 2-week treatments with the selective agonists alnespirone (S-20499) and 8-hydroxy-2-(Di-n-propylamino)tetralin: microdialysis and autoradiographic studies in rat brain. Casanovas JM, et al. **J Neurochem** 1999 Jan;72(1):262–72

Changes in serotonin2A and GABA(A) receptors in schizophrenia: studies on the human dorsolateral prefrontal cortex. Dean B, et al. **J Neurochem** 1999 Apr;72(4):1593–9

High-affinity agonist binding correlates with efficacy (intrinsic activity) at the human serotonin 5-HT2A and 5-HT2C receptors: evidence favoring the ternary complex and two-state models of agonist action. Fitzgerald LW, et al. **J Neurochem** 1999 May;72(5):2127–34

Structure and function of the third intracellular loop of the 5-hydroxytryptamine2A receptor: the third intracellular loop is alpha-helical and binds purified arrestins. Gelber EI, et al. **J Neurochem** 1999 May;72(5):2206–14

Differential coupling of serotonin 5-HT1A and 5-HT1B receptors to activation of ERK2 and inhibition of adenylyl cyclase in transfected CHO cells. Mendez J, et al. **J Neurochem** 1999 Jul;73(1):162–8

Serotonin 5-HT7 receptors binding to rat hypothalamic membranes [letter; comment] Mennini T, et al. **J Neurochem** 1999 Feb;72(2):883–4. Comment on: J Neurochem 1998 Sep;71(3):1271–9.

5HT1A-receptor binding in the brain of cyclic and ovariectomized female rats. Flügge G, et al. **J Neuroendocrinol** 1999 Apr;11(4):243–9

Regional changes in 5-HT1A but not in 5-HT2A receptors in mouse brain after Semliki Forest virus infection: radioligand binding and autoradiographic studies. Mehta S, et al. **J Neurovirol** 1998 Dec;4(6):606–18

Quantitative analyses of carbonyl-carbon-11-WAY-100635 binding to central 5-hydroxytryptamine-1A receptors in man. Farde L, et al. **J Nucl Med** 1998 Nov;39(11):1965–71

Functional characterization of the recombinant human 5-hydroxytryptamine7(a) receptor isoform coupled to adenylate cyclase stimulation. Adham N, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):508–14

Long-term sequential determination of behavioral ontogeny of 5-HT1A and 5-HT2 receptor functions in the rat. Darmani NA, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):247–53

Pindolol, a putative 5-hydroxytryptamine(1A) antagonist, does not reverse the inhibition of serotonergic neuronal activity induced by fluoxetine in awake cats: comparison to WAY-100635. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):220–8

Characterization of (S)-des-4-amino-3-[125I]iodozacopride ([125I]DAIZAC), a selective high-affinity radioligand for 5-hydroxytryptamine3 receptors. Hewlett WA, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):221–31

Propulsion in guinea pig colon induced by 5-hydroxytryptamine (HT) via 5-HT4 and 5-HT3 receptors. Jin JG, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):93–7

Antagonism of 5-hydroxytryptamine(4) receptors attenuates hyperactivity induced by cocaine: putative role for 5-hydroxytryptamine(4) receptors in the nucleus accumbens shell. McMahon LR, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):300–7

Full and partial 5-HT1A receptor agonists disrupt learning and performance in rats. Winsauer PJ, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):335–47

Inward currents in neurons from newborn guinea pig intestine: mediation by 5-hydroxytryptamine type 3 receptors. Zhai J, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):374–82

Synaptic activation and properties of 5-hydroxytryptamine(3) receptors in myenteric neurons of guinea pig intestine. Zhou X, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):803–10

Characterization of 5-HT1A receptor functional coupling in cells expressing the human 5-HT1A receptor as assessed with the cytosensor microphysiometer. Dunlop J, et al. **J Pharmacol Toxicol Methods** 1998 Jul;40(1):47–55

Serotonin and learned helplessness: a regional study of 5-HT1A, 5-HT2A receptors and the serotonin transport site in rat brain. Wu J, et al. **J Psychiatr Res** 1999 Jan-Feb; 33(1):17–22

Fluorescence techniques for fundamental and applied studies of membrane protein receptors: the 5-HT3 serotonin receptor. Hovius R, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):533–45

Comparative study of [3H]ramosetron and [3H]granisetron binding in the cloned human 5-hydroxytryptamine3 receptors. Akuzawa S, et al. **Jpn J Pharmacol** 1998 Nov; 78(3):381–4

Selective 5-hydroxytryptamine3 (5-HT3) receptor blocking activity of KB-R6933, a novel benzimidazole derivative. Ozaki A, et al. **Jpn J Pharmacol** 1999 May;80(1):25–32

Effect of the 5-hydroxytryptamine3 (5-HT3)-receptor antagonist KB-R6933 on experimental diarrhea models. Ozaki A, et al. **Jpn J Pharmacol** 1999 May;80(1):93–6

Ability of mosapride to bind to 5-HT4 receptor in the human stomach. Sakurai-Yamashita Y, et al. **Jpn J Pharmacol** 1999 Apr;79(4):493–6

Serotonin-4 receptor antagonists reverse cocaine-induced cardiac arrhythmia. Ohuoha DC, et al. **Life Sci** 1998; 63(19):1673–8

Alpha2 adrenergic and high affinity serotonergic receptor changes in the brain stem of streptozotocin-induced diabetic rats. Padayatti PS, et al. **Life Sci** 1999;65(4):403–14

In vivo biodistribution of a radiotracer for imaging serotonin-1A receptor sites with PET:[11C]LY274601. Suehiro M, et al. **Life Sci** 1998;63(17):1533–42

Age-related changes in septal serotonergic, GABAergic and glutamatergic facilitation of retention in SAMP8 mice. Flood JF, et al. **Mech Ageing Dev** 1998 Sep 15; 105(1-2):173–88

Nitrogen-containing heteroalicycles with serotonin receptor binding affinity: development of gastroprokinetic and antiemetic agents. Kato S, et al. **Med Res Rev** 1999 Jan; 19(1):25–73 (141 ref.)

Radioligand binding to solubilized 5-HT3 receptors. Fletcher S, et al. **Methods Mol Biol** 1999;106:49–71 (29 ref.)

Decreased serotonin2A receptors in Brodmann's area 9 from schizophrenic subjects. A pathological or pharmacological phenomenon? Dean B, et al. **Mol Chem Neuropathol** 1998 Jun-Aug;34(2-3):133–45

Receptor selectivity of the cloned opossum G protein-coupled receptor kinase 2 (GRK2) in intact opossum kidney cells: role in desensitization of endogenous alpha2C-adrenergic but not serotonin 1B receptors. Lembo PM, et al. **Mol Endocrinol** 1999 Jan;13(1):138–47

Functional antagonism of gonadal steroids at the 5-hydroxytryptamine type 3 receptor. Wetzel CH, et al. **Mol Endocrinol** 1998 Sep;12(9):1441–51

Novel actions of inverse agonists on 5-HT2C receptor systems. Berg KA, et al. **Mol Pharmacol** 1999 May; 55(5):863–72

Pharmacological and molecular characterization of 5-hydroxytryptamine(7) receptors in the rat adrenal gland. Contesse V, et al. **Mol Pharmacol** 1999 Sep;56(3):552–61

Molecular determinants of (+)-tubocurarine binding at recombinant 5-hydroxytryptamine3A receptor subunits. Hope AG, et al. **Mol Pharmacol** 1999 Jun;55(6):1037–43

Regulation of G protein activation and effector modulation by fusion proteins between the human 5-hydroxytryptamine(1A) receptor and the alpha subunit of G(i1): differences in receptor-constitutive activity imparted by single amino acid substitutions in G(i1)alpha. Kellett E, et al. **Mol Pharmacol** 1999 Oct;56(4):684–92

The alpha9 nicotinic acetylcholine receptor shares pharmacological properties with type A gamma-aminobutyric acid, glycine, and type 3 serotonin receptors. Rothlin CV, et al. **Mol Pharmacol** 1999 Feb; 55(2):248–54

Chimeric receptor analysis of the ketanserin binding site in the human 5-Hydroxytryptamine1D receptor: importance of the second extracellular loop and fifth transmembrane domain in antagonist binding. Wurch T, et al. **Mol Pharmacol** 1998 Dec;54(6):1088–96

In vivo control of 5-hydroxytryptamine release by terminal autoreceptors in rat brain areas differentially innervated by the dorsal and median raphe nuclei. Hervás I, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):315–22

Activation of recombinant h 5-HT1B and h 5-HT1D receptors stably expressed in C6 glioma cells produces increases in Ca2+-dependent K+ current. Le Grand B, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):608–15

Pharmacological characterisation of 5-HT receptors positively coupled to adenylyl cyclase in the rat hippocampus. Markstein R, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):454–9

Comparisons of hallucinogenic phenylisopropylamine binding affinities at cloned human 5-HT2A, -HT(2B) and 5-HT2C receptors. Nelson DL, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan;359(1):1–6

Actions of alpha2 adrenoceptor ligands at alpha2A and 5-HT1A receptors: the antagonist, atipamezole, and the agonist, dexmedetomidine, are highly selective for alpha2A adrenoceptors. Newman-Tancredi A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):197–206

Synergism between 5-HT1B/1D and 5-HT1A receptor antagonists on turnover and release of 5-HT in guinea-pig brain in vivo. Stenfors C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):110–6

Receptor-coupled regulation of K+ channel N-type inactivation. Velasco I, et al. **Neurobiology (Bp)** 1998; 6(1):23–32

No change in the density of the serotonin1A receptor, the serotonin4 receptor or the serotonin transporter in the dorsolateral prefrontal cortex from subjects with schizophrenia. Dean B, et al. **Neurochem Int** 1999 Feb; 34(2):109–15

Acetaminophen-induced antinociception via central 5-HT(2A) receptors. Srikiatkhachorn A, et al. **Neurochem Int** 1999 Jun;34(6):491–8

Effects of chronic administration of interferon alpha A/D on serotonergic receptors in rat brain. Abe S, et al. **Neurochem Res** 1999 Mar;24(3):359–63

In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats. Chaki S, et al. **Neuropharmacology** 1999 Aug;38(8):1185–94

Effects of PNU-109,291, a selective 5-HT1D receptor agonist, on electrically induced dural plasma extravasation and capsaicin-evoked c-fos immunoreactivity within trigeminal nucleus caudalis. Cutrer FM, et al. **Neuropharmacology** 1999 Jul;38(7):1043–53

Modulation of 5-HT1A receptor signalling by point-mutation of cysteine351 in the rat Galpha(o) protein. Dupuis DS, et al. **Neuropharmacology** 1999 Jul; 38(7):1035–41

Function and distribution of three rat 5-hydroxytryptamine7 (5-HT7) receptor isoforms produced by alternative splicing. Heidmann DE, et al. **Neuropharmacology** 1998 Dec;37(12):1621–32

[3H]MDL 100,907 labels 5-HT2A serotonin receptors selectively in primate brain. López-Giménez JF, et al. **Neuropharmacology** 1998 Sep;37(9):1147–58

Bidirectional allosteric modulation of strychnine-sensitive glycine receptors by tropeines and 5-HT3 serotonin receptor ligands. Maksay G. **Neuropharmacology** 1998 Dec; 37(12):1633–41

Selective labelling of 5-HT7 receptor recognition sites in rat brain using [3H]5-carboxamidotryptamine. Stowe RL, et al. **Neuropharmacology** 1998 Dec;37(12):1611–9

Upregulation of the platelet Serotonin2A receptor and low blood serotonin in suicidal psychiatric patients. Rao ML, et al. **Neuropsychobiology** 1998;38(2):84–9

5-HT2 receptor regulation of extracellular GABA levels in the prefrontal cortex. Abi-Saab WM, et al. **Neuropsychopharmacology** 1999 Jan;20(1):92–6

Ionotropic glutamate receptor modulation of 5-HT6 and 5-HT7 mRNA expression in rat brain. Healy DJ, et al. **Neuropsychopharmacology** 1999 Sep;21(3):341–51

Relationship of psychopathology to the human serotonin1B genotype and receptor binding kinetics in postmortem brain tissue. Huang YY, et al. **Neuropsychopharmacology** 1999 Aug;21(2):238–46

Interactions of the novel antipsychotic aripiprazole (OPC-14597) with dopamine and serotonin receptor subtypes. Lawler CP, et al. **Neuropsychopharmacology** 1999 Jun;20(6):612–27

Effects of the 5-HT2C/2B antagonist SB 206553 on hyperactivity induced by cocaine. McCreary AC, et al. **Neuropsychopharmacology** 1999 Jun;20(6):556–64

5-HT1B receptors: a novel target for lithium. Possible involvement in mood disorders. Massot O, et al. **Neuropsychopharmacology** 1999 Oct;21(4):530–41

On the relationship of 5-hydroxytryptamine neurons to 5-hydroxytryptamine 2A receptor-immunoreactive neuronal processes in the brain stem of rats. A double immunolabelling analysis. Jansson A, et al. **Neuroreport** 1998 Aug 3;9(11):2505–11

5-HT1A receptor hypersensitivity in migraine is suggested by the m-chlorophenylpiperazine test. Leone M, et al. **Neuroreport** 1998 Aug 3;9(11):2605–8

Relationship between central and peripheral serotonin 5-HT2A receptors: a positron emission tomography study in healthy individuals. Cho R, et al. **Neurosci Lett** 1999 Feb 19;261(3):139–42

Autoradiographic localization of the [3H]-(S)-zacopride labelled 5-HT3 receptor in porcine brain. Fletcher S, et al. **Neurosci Lett** 1999 Jul 9;269(2):91–4

Adaptive changes of serotonin 5-HT2A receptors in mice lacking the serotonin transporter. Rioux A, et al. **Neurosci Lett** 1999 Mar 5;262(2):113–6

Differential effects of stress on presynaptic and postsynaptic 5-hydroxytryptamine-1A receptors in the rat brain: an in vitro electrophysiological study. Laaris N, et al. **Neuroscience** 1999;91(3):947–58

Anxiogenic-like effects and reduced stereological counting of immunolabelled 5-hydroxytryptamine6 receptors in rat nucleus accumbens by antisense oligonucleotides. Otano A, et al. **Neuroscience** 1999;92(3):1001–9

Cellular and subcellular localization of 5-hydroxytryptamine1B receptors in the rat central nervous system: immunocytochemical, autoradiographic and lesion studies. Sari Y, et al. **Neuroscience** 1999; 88(3):899–915

Clozapine and other 5-hydroxytryptamine-2A receptor antagonists alter the subcellular distribution of 5-hydroxytryptamine-2A receptors in vitro and in vivo. Willins DL, et al. **Neuroscience** 1999;91(2):599–606

Animal models for studying serotonin (5-HT) receptor subtypes: relationship to 5-HT system pathologies. Ogren SO, et al. **Nucl Med Biol** 1998 Nov;25(8):747–9

Modified ligand binding to the naturally occurring Cys-124 variant of the human serotonin 5-HT1B receptor. Brüss M, et al. **Pharmacogenetics** 1999 Feb;9(1):95–102

CCK(A) and 5-HT3 receptors interact in anorectic responses to amino acid deficiency. Aja SM, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):487–91

Agonist properties of N,N-dimethyltryptamine at serotonin 5-HT2A and 5-HT2C receptors. Smith RL, et al. **Pharmacol Biochem Behav** 1998 Nov;61(3):323–30

Limited access to ethanol in genetic drinking rats is suppressed while feeding is enhanced by the mixed 5-HT1A agonist/5-HT2A antagonist FG5938. West MW, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):823–8

5-Hydroxytryptamine2-family receptors (5-hydroxytryptamine2A, 5-hydroxytryptamine2B, 5-hydroxytryptamine2C): where structure meets function. Roth BL, et al. **Pharmacol Ther** 1998 Sep;79(3):231–57 (258 ref.)

1,4-Benzoxazin-3(4H)-one derivatives and related compounds as 5-HT1A and 5-HT2A receptor ligands; the effect of the terminal amide fragment on the 5-HT1A/5-HT2A affinity and functional activity. Mokrosz MJ, et al. **Pol J Pharmacol** 1998 Jul–Oct; 50(4–5):333–40

Effect of linking bridge modifications on the 5-HT1A receptor activity of some 4-(omega-benzotriazol-1-yl)alkyl-1-(2-methoxy-phenyl) piperazines. Paluchowska MH, et al. **Pol J Pharmacol** 1998 Jul–Oct;50(4–5):341–7

Promiscuous coassembly of serotonin 5-HT3 and nicotinic alpha4 receptor subunits into Ca(2+)-permeable ion channels. van Hooft JA, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11456–61

Serotonin-induced inhibition of locomotor rhythm of the rat isolated spinal cord is mediated by the 5-HT1 receptor class. Beato M, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 7;265(1410):2073–80

Pindolol binding to 5-HT1A receptors in the human brain confirmed with positron emission tomography. Andrée B, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):303–5

Comparative effects of novel 5-HT1A receptor ligands, LY293284, LY315712 and LY297996, on plus-maze anxiety in mice. Cao BJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):185–94

Activation of 5-HT1B receptors in the nucleus accumbens reduces amphetamine-induced enhancement of responding for conditioned reward. Fletcher PJ, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):165–74

Brain 5-HT2A receptor occupancy of deramciclane in humans after a single oral administration--a positron emission tomography study. Kanerva H, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):76–81

The effects of single dose nefazodone and paroxetine upon 5-HT2A binding potential in humans using [18F]-setoperone PET. Meyer JH, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):279–81

Evidence of the activity of lithium on 5-HT1B receptors in the mouse forced swimming test: comparison with carbamazepine and sodium valproate. Redrobe JP, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):370–7

Mechanism of tolerance development to 2,5-dimethoxy-4-iodoamphetamine in rats: down-regulation of the 5-HT2A, but not 5-HT2C, receptor. Smith RL, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):248–54

Na(+)-dependent metabolic coupling upon 5-HT1B receptor activation by sumatriptan and related agonists. Pauwels PJ. **Receptors Channels** 1998;5(6):367–73

Cocaine-induced alterations in the density of monoaminergic receptors in the embryonic guinea pig cerebral wall. Lidow MS, et al. **Synapse** 1999 Jun 1;32(3):225–37

Indirect evidence for an association of 5-HT(1B) binding sites with retinal and geniculate axon terminals in the rat suprachiasmatic nucleus. Manrique C, et al. **Synapse** 1999 Sep 15;33(4):314–23

Displacement of the binding of 5-HT(1A) receptor ligands to pre- and postsynaptic receptors by (-)pindolol. A comparative study in rodent, primate and human brain. Raurich A, et al. **Synapse** 1999 Oct;34(1):68–76

Test-retest variability of serotonin 5-HT2A receptor binding measured with positron emission tomography and [18F]altanserin in the human brain. Smith GS, et al. **Synapse** 1998 Dec;30(4):380–92

PHYSIOLOGY

Use of serotonin (5-HT) and opiate-based drugs in the pharmacotherapy of alcohol dependence: an overview of the preclinical data. Lê AD, et al. **Alcohol Alcohol Suppl** 1996 Mar;1:27–32 (51 ref.)

Cholecystokinin and serotonin receptors in the regulation of fat-induced satiety in rats. Burton-Freeman B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R429–34

Role of nitric oxide in fasting gastric fundus tone and in 5-HT1 receptor-mediated relaxation of gastric fundus. Coulie B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G373–7

5-HT4 receptor agonists and delta-opioid receptor antagonists act synergistically to stimulate colonic propulsion. Foxx-Orenstein AE, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G979–83

Serotonin 5-HT2A receptor induces TGF-beta1 expression in mesangial cells via ERK: proliferative and fibrotic signals. Grewal JS, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F922–30

Multiple receptor subtypes mediate the effects of serotonin on rat subfornical organ neurons. Scrogin KE, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2035–42

Activation of hypothalamic serotonin receptors reduced intake of dietary fat and protein but not carbohydrate. Smith BK, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R802–11

Regulation of membrane excitability in the central nervous system by serotonin receptor subtypes. Andrade R. **Ann N Y Acad Sci** 1998 Dec 15;861:190–203 (81 ref.)

Inhibition by propofol of 5-HT3 receptors in excised patches of NIE-115 cells. Barann M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:278–9

Pleiotropic behavior of 5-HT2A and 5-HT2C receptor agonists. Berg KA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:104–10 (13 ref.)

Interactions between effectors linked to serotonin receptors. Berg KA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:111–20 (24 ref.)

Role of somatodendritic 5-HT autoreceptors in modulating 5-HT neurotransmission. Blier P, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:204–16 (51 ref.)

5-HT4 receptors: gene, transduction and effects on olfactory memory. Bockaert J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:1–15 (61 ref.)

Comparison of native 5-HT3 receptors purified from various neuroblastoma-derived cell lines and bovine brain with recombinant 5-HT3-AL receptors purified after expression in HEK293 cells. Boess FG, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:276–7

Mouse 5-HT2B receptor-mediated serotonin trophic functions. Choi DS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:67–73 (20 ref.)

5-HT4 receptors: cloning and expression of new splice variants. Claeysen S, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:49–56 (25 ref.)

5-HT1B receptor modulation of prepulse inhibition: recent findings in wild-type and 5-HT1B knockout mice. Dulawa SC, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:79–84 (23 ref.)

Creation of a constitutively activated state of the 5-HT2A receptor by site-directed mutagenesis: revelation of inverse agonist activity of antagonists. Egan C, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:136–9

Serotonin transporter function in vivo: assessment by chronoamperometry. Frazer A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:217–29 (48 ref.)

Galanin modulates 5-hydroxytryptamine functions. Focus on galanin and galanin fragment/5-hydroxytryptamine1A receptor interactions in the brain. Fuxe K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:274–90 (38 ref.)

The selective 5-HT1B receptor inverse agonist SB-224289, potently blocks terminal 5-HT autoreceptor function both in vitro and in vivo. Gaster LM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:270–1

Functional properties of 5-HT-moduline in the immune system: a model for central nervous system investigation. Grimaldi B, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:249–50

Is there a functional response-overlap between 5-HT3 and nicotinic ion channel receptors? Gyermek L, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:255–7

Gs protein-coupled serotonin receptors: receptor isoforms and functional differences. Hamblin MW, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:31–7 (25 ref.)

Epilepsy and obesity in serotonin 5-HT2C receptor mutant mice. Heisler LK, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:74–8 (30 ref.)

Pharmacological characterization of the constitutively activated state of the serotonin 5-HT2C receptor. Herrick-Davis K, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:140–5

Calcium influx through voltage-gated calcium channels regulates 5-HT3 receptor channel desensitization in NG108-15 cells. Jones S, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:253–4

Signaling pathways and targets of the 5-HT2B receptor in the 1C11 serotonergic cell line. Kellermann O, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:248

The 5-HT2B receptor controls the overall 5-HT transport system in the 1C11 serotonergic cell line. Launay JM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:247

Operational studies of synergistic interactions with 5-HT1B/1D receptors. Martin GR, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:251–2

Molecular, cellular and physiological characteristics of 5-HT-moduline, a novel endogenous modulator of 5-HT1B receptor subtype. Massot O, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:174–82 (17 ref.)

Involvement of 5-HT1A receptors in the consolidation of learning in cognitively impaired rats. Meneses A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:286–7

Serotonin 5-HT2A receptor activation inhibits cytokine-stimulated inducible nitric oxide synthase in C6 glioma cells. Miller KJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:169–73

Modulation of a 5-HT1A receptor-mediated behavioral response by the neuropeptide galanin. Misane I, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:442–4

Pharmacological characterization of the "silent" 5-HT1B-like receptors of rabbit ear artery. Movahedi H, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:258

The putative 5-ht6 receptor: localization and function. Sleight AJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:91–6 (20 ref.)

Consequences of 5-HT re-uptake blockade on postsynaptic 5-HT1A receptor activation: an electrophysiological and neurochemical study in guinea pig dorsal raphe and hippocampus. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:272–3

5-HT1A agonist activity of pindolol: reversal of the inhibitory effects on cell firing in the dorsal raphe nucleus but not in the hippocampus by WAY-100,635. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:274–5

Inducible knockout strategies to probe the functions of 5-HT receptors. Stark KL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:57–66

Evidence for the putative 5-HT7 receptor mediating direct relaxation to 5-hydroxytryptamine in canine cerebral blood vessels. Terrón JA. **Ann N Y Acad Sci** 1998 Dec 15;861:283

Oleamide-induced modulation of 5-hydroxytryptamine receptor-mediated signaling. Thomas EA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:183–9

Methiothepin but not methysergide antagonizes TRH effects at the dorsal vagal complex. Varanasi S, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:292–3

Pharmacological profile of the prejunctional 5-HT1 receptors mediating inhibition of sympathetic vasopressor outflow in the pithed rat. Villalón CM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:281–2

Putative 5-ht5 receptors: localization in the mouse CNS and lack of effect in the inhibition of dural protein extravasation. Waeber C, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:85–90

Activation of the mitogen-activated protein kinase pathway via the 5-HT2A receptor. Watts SW. **Ann N Y Acad Sci** 1998 Dec 15;861:162–8 (20 ref.)

Serotonergic antagonist effects on trafficking of serotonin 5-HT2A receptors in vitro and in vivo. Willins DL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:121–7

Characterization of the "silent" 5-HT1B receptors of rabbit iliac artery. Yildiz O, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:259

Serotonin 1A receptors, melatonin, and the proportional control thermostat in patients with winter depression. Schwartz PJ, et al. **Arch Gen Psychiatry** 1998 Oct; 55(10):897–903

NMDA receptor antagonists enhance 5-HT2 receptor-mediated behavior, head-twitch response, in PCPA-treated mice. Kim HS, et al. **Arch Pharm Res** 1999 Apr;22(2):113–8

Anxiety, motor activation, and maternal-infant interactions in 5HT1B knockout mice. Brunner D, et al. **Behav Neurosci** 1999 Jun;113(3):587–601

The molecular biology of serotonin receptors: therapeutic implications for the interface of mood and psychosis. Kroeze WK, et al. **Biol Psychiatry** 1998 Dec 1; 44(11):1128–42 (162 ref.)

Hypothalamic serotonin in control of eating behavior, meal

size, and body weight. Leibowitz SF, et al. **Biol Psychiatry** 1998 Nov 1;44(9):851–64 (166 ref.)

Novel strategies to probe the functions of serotonin receptors. Stark KL, et al. **Biol Psychiatry** 1998 Aug 1;44(3):163–8 (35 ref.)

Involvement of 5-HT6 receptors in nigro-striatal function in rodents. Bourson A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1562–6

Effects of (–)-tertatolol, (–)-penbutolol and (+/–)-pindolol in combination with paroxetine on presynaptic 5-HT function: an in vivo microdialysis and electrophysiological study. Gartside SE, et al. **Br J Pharmacol** 1999 May; 127(1):145–52

Involvement of 5-HT1B receptors in collar-induced hypersensitivity to 5-hydroxytryptamine of the rabbit carotid artery. Geerts IS, et al. **Br J Pharmacol** 1999 Jul; 127(6):1327–36

Role of the medial prefrontal cortex in 5-HT1A receptor-induced inhibition of 5-HT neuronal activity in the rat. Hajós M, et al. **Br J Pharmacol** 1999 Apr; 126(8):1741–50

Influence of the endothelium, nitric oxide and serotonergic receptors on coronary vasomotor responses evoked by ergonovine in conscious dogs. Karila-Cohen D, et al. **Br J Pharmacol** 1999 Jun;127(4):1039–47

Modulation of afferent-evoked neurotransmission by 5-HT3 receptors in young rat dorsal horn neurones in vitro: a putative mechanism of 5-HT3 induced anti-nociception. Khasabov SG, et al. **Br J Pharmacol** 1999 Jun;127(4):843–52

Functional characterization and m-RNA expression of 5-HT receptors mediating contraction in human umbilical artery. Lovren F, et al. **Br J Pharmacol** 1999 Jul;127(5):1247–55

Analysis of the 5-HT1A receptor involvement in passive avoidance in the rat. Misane I, et al. **Br J Pharmacol** 1998 Oct;125(3):499–509

5-hydroxytryptamine receptors mediating vasoconstriction and vasodilation in perinatal and adult rabbit small pulmonary arteries. Morecroft I, et al. **Br J Pharmacol** 1998 Sep;125(1):69–78

Potentiating action of MKC-242, a selective 5-HT1A receptor agonist, on the photic entrainment of the circadian activity rhythm in hamsters. Moriya T, et al. **Br J Pharmacol** 1998 Nov;125(6):1281–7

The central action of the 5-HT2 receptor agonist 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI) on cardiac inotropy and vascular resistance in the anaesthetized cat [published erratum appears in Br J Pharmacol 1999 Apr;126(7):1681–4] Ramage AG, et al. **Br J Pharmacol** 1998 Nov;125(6):1172–9

The recombinant 5-HT1A receptor: G protein coupling and signalling pathways. Raymond JR, et al. **Br J Pharmacol** 1999 Aug;127(8):1751–64 (160 ref.)

Diurnal variation in 5-HT1B autoreceptor function in the anterior hypothalamus in vivo: effect of chronic antidepressant drug treatment. Sayer TJ, et al. **Br J Pharmacol** 1999 Apr;126(8):1777–84

Pharmacological evidence for the 5-HT7 receptor mediating smooth muscle relaxation in canine cerebral arteries. Terrón JA, et al. **Br J Pharmacol** 1999 Jun;127(3):609–16

5-HT1B receptor-mediated contractions in human temporal artery: evidence from selective antagonists and 5-HT receptor mRNA expression. Verheggen R, et al. **Br J Pharmacol** 1998 Aug;124(7):1345–54

Serotonin, via 5-HT2A receptors, increases EPSCs in layer V pyramidal cells of prefrontal cortex by an asynchronous mode of glutamate release. Aghajanian GK, et al. **Brain Res** 1999 Apr 17;825(1-2):161–71

Stimulation of the 5-HT1A receptor selectively suppresses NMDA receptor-mediated synaptic excitation in the rat visual cortex. Edagawa Y, et al. **Brain Res** 1999 May 8; 827(1-2):225–8

Serotonergic involvement in stress-induced ACTH release. Jørgensen H, et al. **Brain Res** 1998 Nov 16;811(1-2):10–20

Crucial role of the 5-HT2C receptor, but not of the 5-HT2A receptor, in the down regulation of stimulated dopamine release produced by pressure exposure in freely moving rats. Kriem B, et al. **Brain Res** 1998 Jun 15;796(1-2):143–9

Functional integration among 5-hydroxytryptamine receptor families in the control of female rat sexual behavior. Maswood N, et al. **Brain Res** 1998 Aug 17;802(1-2):98–103

Modification of sexual behavior of Long-Evans male rats by drugs acting on the 5-HT1A receptor. Rehman J, et al. **Brain Res** 1999 Mar 13;821(2):414–25

5-HT4 receptor involvement in the serotonin-enhanced dopamine efflux from the substantia nigra of the freely moving rat: a microdialysis study. Thorré K, et al. **Brain Res** 1998 Jun 15;796(1-2):117–24

Serotonin receptor subtypes that depolarize guinea pig inferior mesenteric ganglion neurons. Wang L, et al. **Brain Res** 1999 Aug 21;839(1):23–34

5-HT2C receptor involvement in female rat lordosis behavior. Wolf A, et al. **Brain Res** 1999 Apr 17; 825(1-2):146–51

Electrophysiological characterization of 5-HT receptors on rat petrosal neurons in dissociated cell culture. Zhong H, et al. **Brain Res** 1999 Jan 23;816(2):544–53

Synaptogenesis in the postnatal rat fascia dentata is influenced by 5-HT1a receptor activation. Faber KM, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):245–52

Magnitude of 5-HT1B and 5-HT1A receptor activation in guinea-pig and rat brain: evidence from sumatriptan dimer-mediated [35S]GTPgammaS binding responses. Dupuis DS, et al. **Brain Res Mol Brain Res** 1999 Apr 6; 67(1):107–23

Acute p-chloroamphetamine increases striatal preprotachykinin mRNA: role of the serotonin 2A/2C receptor. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):190–3

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125–34

5-HT4 receptors: long-term blockade of K+ channels and effects on olfactory memory. Bockaert J, et al. **C R Acad Sci III** 1998 Feb-Mar;321(2-3):217–21 (33 ref.)

Tetraethylammonium and 4-aminopyridine enhancement of 5-HT3 receptor-mediated contraction of guinea pig ileum in vitro. Yuan YM, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):451–5

Serotonin 5-HT2A receptors: molecular biology and mechanisms of regulation. Roth BL, et al. **Crit Rev Neurobiol** 1998;12(4):319–38 (212 ref.)

Serotonin receptor physiology: relation to emesis. Hasler WL. **Dig Dis Sci** 1999 Aug;44(8 Suppl):108S–113S (59 ref.)

Serotonin depresses excitatory synaptic transmission and depolarization-evoked Ca2+ influx in rat basolateral amygdala via 5-HT1A receptors. Cheng LL, et al. **Eur J Neurosci** 1998 Jun;10(6):2163–72

Pre- or post-training injection of buspirone impaired retention in the inhibitory avoidance task: involvement of amygdala 5-HT1A receptors. Liang KC. **Eur J Neurosci** 1999 May;11(5):1491–500

5-hydroxytryptamine3 (5-HT3) receptor-mediated depolarisation of the rat isolated vagus nerve: modulation by trichloroethanol and related alcohols. Bentley KR, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):25–31

The antimigraine agent alniditan selectively constricts porcine carotid arteriovenous anastomoses via 5-HT1B/1D receptors. De Vries P, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):193–201

Effect of fluoxetine on extracellular 5-hydroxytryptamine in rat brain. Role of 5-HT autoreceptors. Hervás I, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):9–18

5-HT2A receptor or alpha1-adrenoceptor activation induces excitatory postsynaptic currents in layer V pyramidal cells of the medial prefrontal cortex. Marek GJ, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):197–206

5-HT receptor ligands differentially affect operant oral self-administration of ethanol in the rat. Maurel S, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):217–23

Characterisation of 5-HT receptors in human coronary arteries by molecular and pharmacological techniques. Nilsson T, et al. **Eur J Pharmacol** 1999 May 7;372(1):49–56

5-HT3 receptors are not involved in conditioned taste aversions induced by 5-hydroxytryptamine, ipecacuanha or cisplatin. Rudd JA, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):143–9

Studies on the role of 5-HT2C and 5-HT2B receptors in regulating generalised seizure threshold in rodents. Upton N, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):33–40

p-Chloroamphetamine, a serotonin-releasing drug, elicited in rats a hyperglycemia mediated by the 5-HT1A and 5-HT2B/2C receptors. Yamada J, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):185–90

Evidence for 5-HT1A receptor control of pineal melatonin concentrations in the rat. Nathan PJ, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):183–6

N-ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline studies on the role of 5-HT1A and 5-HT2 receptors in mediating foot-shock-induced ultrasonic vocalisation in adult rats. Sánchez C, et al. **Eur Neuropsychopharmacol** 1999 Jun; 9(4):287–94

Intracolonic glycerol induces abdominal contractions in rats: role of 5-HT3 receptors. Botella A, et al. **Fundam Clin Pharmacol** 1998;12(6):619–23

Characterization of 5-hydroxytryptamine receptors mediating circular smooth muscle contraction in the human umbilical artery. Karlsson C, et al. **Gynecol Obstet Invest** 1999;47(2):102–7

5-HT4 receptors in isolated human corpus cavernosum? Hayes ES, et al. **Int J Impot Res** 1999 Aug;11(4):219–25

Role of endothelial factors in the specific response of mouse tumour-feeding arterioles to stimulation of 5-HT1 receptors. Laemmel E, et al. **Int J Radiat Biol** 1999 Mar; 75(3):365–71

Functional evaluation of 5-hydroxytryptamine receptor activity in rat resistance vessels. Potenza MA, et al. **J Auton Pharmacol** 1998 Apr;18(2):75–81

Differential addressing of 5-HT1A and 5-HT1B receptors in epithelial cells and neurons. Ghavami A, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):967–76

Brain serotonin neurotransmission: an overview and update with an emphasis on serotonin subsystem heterogeneity, multiple receptors, interactions with other neurotransmitter systems, and consequent implications for understanding the actions of serotonergic drugs. Murphy DL, et al. **J Clin Psychiatry** 1998;59 Suppl 15:4–12 (118 ref.)

The silent and selective 5-HT1A antagonist, WAY 100635, produces via an indirect mechanism, a 5-HT2A receptor-mediated behaviour in mice during the day but not at night. Short communication. Darmani NA. **J Neural Transm** 1998;105(6-7):635–43

Rodent data and general hypothesis: antipsychotic action exerted through 5-Ht2A receptor antagonism is dependent on increased serotonergic tone. Martin P, et al. **J Neural Transm** 1998;105(4-5):365–96

Agonist stimulation of the serotonin1A receptor causes suppression of anoxia-induced apoptosis via mitogen-activated protein kinase in neuronal HN2-5 cells. Adayev T, et al. **J Neurochem** 1999 Apr;72(4):1489–96

Role of serotonin(2A) and serotonin(2B/2C) receptor subtypes in the control of accumbal and striatal dopamine release elicited in vivo by dorsal raphe nucleus electrical stimulation. De Deurwaerdère P, et al. **J Neurochem** 1999 Sep;73(3):1033–42

Serotonin 5-HT2C receptor RNA editing alters receptor basal activity: implications for serotonergic signal transduction. Herrick-Davis K, et al. **J Neurochem** 1999 Oct;73(4):1711–7

Identification and role of serotonin 5-HT1A and 5-HT1B receptors in primary cultures of rat embryonic rostral raphe nucleus neurons. Héry F, et al. **J Neurochem** 1999 May; 72(5):1791–801

The endogenous lipid oleamide activates serotonin 5-HT7 neurons in mouse thalamus and hypothalamus. Thomas EA, et al. **J Neurochem** 1999 Jun;72(6):2370–8

Serotonergic 5-HT2A receptors important for the oestradiol-induced surge of luteinising hormone-releasing hormone in the rat. Fink G, et al. **J Neuroendocrinol** 1999 Jan;11(1):63–9

5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53–60

Serotonin reduces polysynaptic inhibition via 5-HT1A receptors in the superficial entorhinal cortex. Schmitz D, et al. **J Neurophysiol** 1998 Sep;80(3):1116–21

Key role of 5-HT1B receptors in the regulation of paradoxical sleep as evidenced in 5-HT1B knock-out mice. Boutrel B, et al. **J Neurosci** 1999 Apr 15;19(8):3204–12

Long-term antidepressant treatments result in a tonic activation of forebrain 5-HT1A receptors. Haddjeri N, et al. **J Neurosci** 1998 Dec 1;18(23):10150–6

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213–24

5-HT1B receptor knock-out mice exhibit increased exploratory activity and enhanced spatial memory performance in the Morris water maze. Malleret G, et al. **J Neurosci** 1999 Jul 15;19(14):6157–68

Serotonin1B receptor stimulation enhances cocaine reinforcement. Parsons LH, et al. **J Neurosci** 1998 Dec 1;18(23):10078–89

5-HT1B receptor-mediated presynaptic inhibition of retinal input to the suprachiasmatic nucleus. Pickard GE, et al. **J Neurosci** 1999 May 15;19(10):4034–45

G-proteins are involved in 5-HT receptor-mediated modulation of N- and P/Q- but not T-type Ca2+ channels. Sun QQ, et al. **J Neurosci** 1999 Feb 1;19(3):890–9

Cross-modulation of synaptic plasticity by beta-adrenergic and 5-HT1A receptors in the rat basolateral amygdala. Wang SJ, et al. **J Neurosci** 1999 Jan 15;19(2):570–7

Extracellular single-unit recordings of piriform cortex neurons in rats: influence of different types of anesthesia and characterization of neurons by pharmacological manipulation of serotonin receptors. Bloms-Funke P, et al. **J Neurosci Res** 1999 Mar 1;55(5):608–19

Regulation of striatal dopamine release through 5-HT1 and 5-HT2 receptors. Ng NK, et al. **J Neurosci Res** 1999 Mar 1;55(5):600–7

5-Hydroxytryptamine(1A) receptor activation enhances norepinephrine release from nerves in the rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1195–201

5-Hydroxytryptamine(1F) receptors do not participate in vasoconstriction: lack of vasoconstriction to LY344864, a selective serotonin(1F) receptor agonist in rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):935–9

Pharmacological studies of the acute and chronic effects of (+)-3, 4-methylenedioxymethamphetamine on locomotor activity: role of 5-hydroxytryptamine(1A) and 5-hydroxytryptamine(1B/1D) receptors. McCreary AC, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):965–73

Sustained desensitization of hypothalamic 5-Hydroxytryptamine1A receptors after discontinuation of fluoxetine: inhibited neuroendocrine responses to 8-hydroxy-2-(Dipropylamino)Tetralin in the absence of changes in Gi/o/z proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):561–7

Effect of several 5-hydroxytryptamine(1A) receptor ligands on the micturition reflex in rats: comparison with WAY 100635. Testa R, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1258–69

Ca2+ influx through voltage-gated Ca2+ channels regulates 5-HT3 receptor channel desensitization in rat glioma x mouse neuroblastoma hybrid NG108-15 cells. Jones S, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):361–70

Developmental pharmacodynamics: implications for child and adolescent psychopharmacology. Carrey N, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):274–6 (16 ref.)

Mutagenesis of the human 5-HT1B receptor: differences from the closely related 5-HT1A receptor and the role of residue F331 in signal transduction. Gränäs C, et al. **J Recept Signal Transduct Res** 1998 Jul-Nov;

18(4–6):225–41

Serotonin receptor subtypes involved in modulation of electrical acupuncture. Takagi J, et al. **Jpn J Pharmacol** 1998 Dec;78(4):511–4

Regional and functional differences of 5-hydroxytryptamine-receptor subtypes in guinea pig stomach. Takemura K, et al. **Jpn J Pharmacol** 1999 Jan; 79(1):41–9

Nitric oxide is produced via 5-HT1B and 5-HT2B receptor activation in human coronary artery endothelial cells. Ishida T, et al. **Kobe J Med Sci** 1998 Apr;44(2):51–63

NMDA receptor antagonists enhance 5-HT2 receptor-mediated behavior, head-twitch response, in mice. Kim HS, et al. **Life Sci** 1998;63(26):2305–11

Nitric oxide synthase inhibitors enhance 5-HT2 receptor-mediated behavior, the head-twitch response in mice. Kim HS, et al. **Life Sci** 1999;64(26):2463–70

Roles of 5-HT3 and opioid receptors in the ethanol-induced place preference in rats exposed to conditioned fear stress. Matsuzawa S, et al. **Life Sci** 1999;64(21):PL241–9

The hormonal response to a d-fenfluramine challenge in trained and sedentary men. Strachan AT, et al. **Med Sci Sports Exerc** 1999 Apr;31(4):547–53

The 5-HT3B subunit is a major determinant of serotonin-receptor function. Davies PA, et al. **Nature** 1999 Jan 28;397(6717):359–63

Changes in systemic and regional haemodynamics during 5-HT7 receptor-mediated depressor responses in rats. De Vries P, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Apr;359(4):331–8

Synergism between 5-HT1B/1D and 5-HT1A receptor antagonists on turnover and release of 5-HT in guinea-pig brain in vivo. Stenfors C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):110–6

Native 5-HT1B receptors expressed in OK cells display dual coupling to elevation of intracellular calcium concentrations and inhibition of adenylate cyclase. Zgombick JM, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):503–8

Regulation of glial Na+/K+-ATPase by serotonin: identification of participating receptors. Peña-Rangel MT, et al. **Neurochem Res** 1999 May;24(5):643–9

Serotonin stimulates migrating myoelectric complex via 5-HT3-receptors dependent on cholinergic pathways in rat small intestine. Lördal M, et al. **Neurogastroenterol Motil** 1999 Feb;11(1):1–10

Increased exploratory activity and altered response to LSD in mice lacking the 5-HT(5A) receptor. Grailhe R, et al. **Neuron** 1999 Mar;22(3):581–91

A review of central 5-HT receptors and their function. Barnes NM, et al. **Neuropharmacology** 1999 Aug; 38(8):1083–152 (650 ref.)

Discriminative stimulus properties of the novel serotonin (5-HT)2C receptor agonist, RO 60-0175: a pharmacological analysis. Dekeyne A, et al. **Neuropharmacology** 1999 Mar;38(3):415–23

Inhibition of anaesthetic-induced emesis by a NK1 or 5-HT3 receptor antagonist in the house musk shrew, Suncus murinus. Gardner C, et al. **Neuropharmacology** 1998 Dec; 37(12):1643–4

Serotonin (5-HT)2A receptor activation enhances dialysate levels of dopamine and noradrenaline, but not 5-HT, in the frontal cortex of freely-moving rats. Gobert A, et al. **Neuropharmacology** 1999 Feb;38(2):315–7

Influence of 5-HT1A receptors on central noradrenergic activity: microdialysis studies using (+/-)-MDL 73005EF and its enantiomers. Hajós-Korcsok E, et al. **Neuropharmacology** 1999 Feb;38(2):299–306

Anxiolytic-like actions of BW 723C86 in the rat Vogel conflict test are 5-HT2B receptor mediated. Kennett GA, et al. **Neuropharmacology** 1998 Dec;37(12):1603–10

Serotonin (5-HT)2C receptors tonically inhibit dopamine (DA) and noradrenaline (NA), but not 5-HT, release in the frontal cortex in vivo. Millan MJ, et al. **Neuropharmacology** 1998 Jul;37(7):953–5

Serotonin and hallucinogens. Aghajanian GK, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):16S–23S (49 ref.)

Agonist-directed signaling of serotonin 5-HT2C receptors: differences between serotonin and lysergic acid diethylamide (LSD). Backstrom JR, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):77S–81S (25 ref.)

Serotonin and drug-induced therapeutic responses in major depression, obsessive-compulsive and panic disorders. Blier P, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):91S–98S (58 ref.)

Serotonin and stress. Chaouloff F, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):28S–32S (37 ref.)

Acute and chronic role of 5-HT3 neuronal system on behavioral and neuroendocrine changes induced by intravenous cholecystokinin tetrapeptide administration in humans. Dépôt M, et al. **Neuropsychopharmacology** 1999 Feb;20(2):177–87

Modulation of dialysate levels of dopamine, noradrenaline, and serotonin (5-HT) in the frontal cortex of freely-moving rats by (-)-pindolol alone and in association with 5-HT reuptake inhibitors: comparative roles of beta-adrenergic, 5-HT1A, and 5-HT1B receptors. Gobert A, et al. **Neuropsychopharmacology** 1999 Aug;21(2):268–84

Serotonin and hippocampal neurogenesis. Gould E. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):46S–51S (64 ref.)

Antibodies and antisense oligonucleotide for probing the distribution and putative functions of central 5-HT6 receptors. Hamon M, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):68S–76S

Effect of chronic serotonin-2 receptor agonist or antagonist administration on serotonin-1A receptor sensitivity. Hensler JG, et al. **Neuropsychopharmacology** 1998 Nov; 19(5):354–64

5-HT1A receptor function in normal subjects on clinical doses of fluoxetine: blunted temperature and hormone responses to ipsapirone challenge. Lerer B, et al. **Neuropsychopharmacology** 1999 Jun;20(6):628–39

Neuroendocrine evidence for age-related decline in central serotonergic function [letter] Lerer B, et al. **Neuropsychopharmacology** 1999 Aug;21(2):321–2

Role of the serotonergic system in the pathogenesis of major depression and suicidal behavior. Mann JJ. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):99S–105S (65 ref.)

Inverse agonists and serotonergic transmission: from recombinant, human serotonin (5-HT)1B receptors to G-protein coupling and function in corticolimbic structures in vivo. Millan MJ, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):61S–67S (37 ref.)

Altered emotional states in knockout mice lacking 5-HT1A or 5-HT1B receptors. Zhuang X, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):52S–60S (67 ref.)

Postsynaptic 5-HT1A receptors control 5-HT release in the rat medial prefrontal cortex. Casanovas JM, et al. **Neuroreport** 1999 May 14;10(7):1441–5

Contrasting effects of chronic paroxetine on 5-HT1A control of dorsal raphe cell firing and 5-HT release. Davidson C, et al. **Neuroreport** 1998 Aug 3;9(11):2535–8

5-HT4 receptor modulation of acetylcholine outflow in guinea pig brain slices. Siniscalchi A, et al. **Neuroreport** 1999 Feb 25;10(3):547–51

A serotonin-1A receptor agonist and an N-methyl-D-aspartate receptor antagonist oppose each others effects in a genetic rat epilepsy model. Filakovszky J, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):89–92

Enhancement of cortical and hippocampal cholinergic neurotransmission through 5-HT1A receptor-mediated pathways by BAY x 3702 in freely moving rats. Koyama T, et al. **Neurosci Lett** 1999 Apr 9;265(1):33–6

Serotonin depolarizes hippocampal interneurones in the rat stratum oriens by interaction with 5HT2 receptors. Lee K, et al. **Neurosci Lett** 1999 Jul 23;270(1):56–8

Serotonin receptor activation enhances neurite outgrowth of thalamic neurones in rodents. Lotto B, et al. **Neurosci Lett** 1999 Jul 9;269(2):87–90

5-HT4 receptor antagonism potentiates inhibition of intestinal allodynia by 5-HT3 receptor antagonism in conscious rats. Smith MI, et al. **Neurosci Lett** 1999 Aug 13;271(1):61–4

Role of 5-HT2A receptors in the stress-induced down-regulation of brain-derived neurotrophic factor expression in rat hippocampus. Vaidya VA, et al. **Neurosci Lett** 1999 Feb 26;262(1):1–4

5-HT1A receptors mediate inhibition of ethanol-induced ascorbic acid release in rat striatum studied by microdialysis. Wu CF, et al. **Neurosci Lett** 1998 Jul 3; 250(2):95–8

Inhibitory effects of 5-hydroxytryptamine microinjection into thalamic nucleus submedius on rat tail flick reflex are mediated by 5-HT2 receptors. Xiao DQ, et al. **Neurosci Lett** 1999 Jan 29;260(2):85–8

5-Hydroxytryptamine2C receptors on spinal neurons controlling penile erection in the rat. Bancila M, et al. **Neuroscience** 1999;92(4):1523–37

Selective blockade of serotonin-2C/2B receptors enhances mesolimbic and mesostriatal dopaminergic function: a combined in vivo electrophysiological and microdialysis study. Di Giovanni G, et al. **Neuroscience** 1999; 91(2):587–97

Serotonin-2 receptor stimulation normalizes striatal preprotachykinin messenger RNA in an animal model of Parkinson's disease. Gresch PJ, et al. **Neuroscience** 1999; 93(3):831–41

Endogenous serotonin inhibits epileptiform activity in rat hippocampal CA1 neurons via 5-hydroxytryptamine1A receptor activation. Lu KT, et al. **Neuroscience** 1998 Oct; 86(3):729–37

Calcium changes induced by presynaptic 5-hydroxytryptamine-3 serotonin receptors on isolated terminals from various regions of the rat brain. Nayak SV, et al. **Neuroscience** 1999;91(1):107–17

Anxiogenic-like effects and reduced stereological counting of immunolabelled 5-hydroxytryptamine6 receptors in rat nucleus accumbens by antisense oligonucleotides. Otano A, et al. **Neuroscience** 1999;92(3):1001–9

Molecular and behavioral effects mediated by Gs-coupled adenosine A2a, but not serotonin 5-Ht4 or 5-Ht6 receptors following antipsychotic administration. Ward RP, et al. **Neuroscience** 1999 Mar;89(3):927–38

Effect of ondansetron, a 5-HT3 receptor antagonist, on the dynamic association between bulimic behaviors and pain thresholds. Faris PL, et al. **Pain** 1998 Sep;77(3):297–303

5-HT2A receptor subtype is involved in the thermal hyperalgesic mechanism of serotonin in the periphery. Tokunaga A, et al. **Pain** 1998 Jun;76(3):349–55

Chronic fluoxetine in tests of anxiety in rat lines selectively bred for differential 5-HT1A receptor function. File SE, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):695–701

Chronic stress effects on sexual behavior in male and female rats: mediation by 5-HT2A receptors. Gorzalka BB, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):405–12

5-HT2A and 5-HT2C/5-HT1B receptors are differentially involved in alcohol preference and consummatory behavior in cAA rats. Maurel S, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):89–96

Interactive modulation by dopamine and serotonin neurons of receptor sensitivity of the alternate neurochemical system. Kostrzewa RM, et al. **Pol J Pharmacol** 1999 Jan-Feb;51(1):39–47 (84 ref.)

Serotonin receptor knockouts: a moody subject [comment] Julius D. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15153–4 (17 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14476–81. Comment on: Proc Natl Acad Sci U S A 1998 Dec 8;95(25):15049–54.

Serotonin receptor 1A knockout: an animal model of anxiety-related disorder [see comments] Ramboz S, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14476–81. Comment in: Proc Natl Acad Sci U S A 1998 Dec 22;95(26):15153–4.

Perturbed dentate gyrus function in serotonin 5-HT2C receptor mutant mice. Tecott LH, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15026–31

Modulation of the discriminative stimulus properties of indorenate by 5-HT receptors. Miranda F, et al. **Proc West Pharmacol Soc** 1998;41:59–60

Involvement of the 5-HT7 receptor in craniovascular vasodilatation: potential impact in migraine. Terrón JA. **Proc West Pharmacol Soc** 1998;41:247–51 (78 ref.)

The 5-HT1A receptor and its ligands: structure and function. Olivier B, et al. **Prog Drug Res** 1999;52:103–65 (285 ref.)

Bradykinin and phorbol ester but not 5-HT2B receptor activation stimulate phospholipase D activity in the rat stomach fundus. Cox DA, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):697–704

Further investigations of the serotonergic properties of the ibogaine-induced discriminative stimulus. Helsley S, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb; 23(2):317–26

Involvement of 5-HT3 receptors in the prolactin release induced by immobilization stress in rats. Nonaka KO. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):497–503

Selectivity of action of typical and atypical anti-psychotic drugs as antagonists of the behavioral effects of 1-[2,5-dimethoxy-4-iodophenyl]-2-aminopropane (DOI). Wettstein JG, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):533–44

Differential effects of neonatal handling on anxiety, corticosterone response to stress, and hippocampal glucocorticoid and serotonin (5-HT)2A receptors in Lewis rats. Durand M, et al. **Psychoneuroendocrinology** 1998 May; 23(4):323–35

5-HT3 receptor over-expression decreases ethanol self administration in transgenic mice. Engel SR, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):243–8

5-HT3 receptor over-expression enhances ethanol sensitivity in mice. Engel SR, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):411–5

Evidence for a functional interaction between 5-HT1A and 5-HT2 receptors in rats. Krebs-Thomson K, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):69–74

Effects of adrenalectomy on 8-OH-DPAT induced hypothermia in mice. McAllister-Williams RH, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):73–7

5-HT2C receptors are involved in the discriminative stimulus effects of citalopram in rats. Millan MJ, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):432–4

The relationship of the platelet 5-HT-induced calcium response to clinical symptoms in eating disorders. Okamoto Y, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):289–94

Clomipramine enhances the cortisol response to 5-HTP: implications for the therapeutic role of 5-HT2 receptors. Sargent PA, et al. **Psychopharmacology (Berl)** 1998 Nov; 140(1):120–2

Locomotor response to MDMA is attenuated in knockout mice lacking the 5-HT1B receptor. Scearce-Levie K, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):154–61

Zolmitriptan-induced growth hormone release in humans: mediation by 5-HT1D receptors? Whale R, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):223–6

Changes in sleep and wakefulness following 5-HT1A ligands given systemically and locally in different brain regions. Bjorvatn B, et al. **Rev Neurosci** 1998;9(4):265–73 (97 ref.)

Testing the genetics of behavior in mice [letter] Hen R. **Science** 1999 Sep 24;285(5436):2068–9; discussion 2069–70

Inhibition of hippocampal 5-HT synthesis by fluoxetine and paroxetine: evidence for the involvement of both 5-HT1A and 5-HT1B/D autoreceptors. Barton CL, et al. **Synapse** 1999 Jan;31(1):13–9

RU 24969, a 5-HT1B/1A receptor agonist, potentiates cocaine-induced increases in nucleus accumbens dopamine. Parsons LH, et al. **Synapse** 1999 May;32(2):132–5

RECEPTORS, SEROTONIN

Paracrine neurotransmission in the CNS: involvement of 5-HT. Bunin MA, et al. **Trends Neurosci** 1999 Sep; 22(9):377-82 (50 ref.)

Cardiovascular response to intravenous administration of 5-hydroxytryptamine after type-2 receptor blockade, by metrenperone, in healthy calves. Linden A, et al. **Vet J** 1999 Jan;157(1):31-7

[Homozygote mice deficient in serotonin 5-HT1B receptor and antidepressant effect of selective serotonin reuptake inhibitors] Trillat AC, et al. **C R Seances Soc Biol Fil** 1998; 192(6):1139-47 (Eng. Abstr.) **(Fre)**

[The role of agonists of serotonin receptor 5HT1B/D in pathogenesis and treatment of migraine attacks] Stępień A. **Pol Merkuriusz Lek** 1999 Jun;6(36):341-3 (28 ref.) (Eng. Abstr.) **(Pol)**

[The participation of the 5-HT1 and 5-HT2 subtypes of the serotonin receptors in the formation of the frequency component in the EEG of non-narcotized rats] Vorob'ev VV, et al. **Eksp Klin Farmakol** 1999 Jan-Feb;62(1):15-8 (Eng. Abstr.) **(Rus)**

RECEPTORS, SIGMA

AGONISTS

Highly selective sigma receptor ligands elevate inositol 1,4,5-trisphosphate production in rat cardiac myocytes. Novakova M, et al. **Eur J Pharmacol** 1998 Jul 24; 353(2-3):315-27

Electrophysiological effects of E-5842, a sigma1 receptor ligand and potential atypical antipsychotic, on A9 and A10 dopamine neurons. Sánchez-Arroyos R, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):31-7

Possible involvement of a sigma receptor subtype in the neck dystonia in rats. Nakazawa M, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):123-6

Characterization of the sigma ligand panamesine, a potential antipsychotic, by immune response in patients with schizophrenia and by sleep-EEG changes in normal controls. Frieboes RM, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):107-10

Acute and chronic administration of the selective sigma1 receptor agonist SA4503 significantly alters the activity of midbrain dopamine neurons in rats: An in vivo electrophysiological study. Minabe Y, et al. **Synapse** 1999 Aug;33(2):129-40

ANALYSIS

Targeting sigma receptor-binding benzamides as in vivo diagnostic and therapeutic agents for human prostate tumors. John CS, et al. **Cancer Res** 1999 Sep 15; 59(18):4578-83

ANTAGONISTS & INHIBITORS

Beneficial effects of acute and repeated administrations of sigma receptor agonists on behavioral despair in mice exposed to tail suspension. Ukai M, et al. **Pharmacol Biochem Behav** 1998 Nov;61(3):247-52

DRUG EFFECTS

Pregnancy reduces brain sigma receptor function. Bergeron R, et al. **Br J Pharmacol** 1999 Aug;127(8):1769-76

The attenuation of learning impairments induced after exposure to CO or trimethyltin in mice by sigma (sigma) receptor ligands involves both sigma1 and sigma2 sites. Maurice T, et al. **Br J Pharmacol** 1999 May;127(2):335-42

Biphasic modulatory action of the selective sigma receptor ligand SR 31742A on N-methyl-D-aspartate-induced neuronal responses in the frontal cortex. Liang X, et al. **Brain Res** 1998 Oct 5;807(1-2):208-13

Relationship between modulation of the cerebellorubrospinal system in the in vitro turtle brain and changes in motor behavior in rats: effects of novel sigma ligands. Matsumoto RR, et al. **Brain Res Bull** 1999 Mar 15;48(5):497-508

Novel sigma receptor ligands attenuate the locomotor stimulatory effects of cocaine. McCracken KA, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):35-8

Sigma receptor ligands (+)-SKF10,047 and SA4503 improve dizocilpine-induced spatial memory deficits in rats. Zou LB, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):1-10

Effects of sigma receptor ligands on conditioned fear stress. Kamei H, et al. **Methods Find Exp Clin Pharmacol** 1998 Sep;20(7):613-8 (24 ref.)

Reduction of 4-cyclohexyl-1-[(1R)-1,2-diphenylethyl]-piperazine-induced memory impairment of passive avoidance performance by sigma 1 receptor agonists in mice. Matsuno K, et al. **Methods Find Exp Clin Pharmacol** 1998 Sep; 20(7):575-80

Eliprodil stimulates CNS myelination: new prospects for multiple sclerosis? Demerens C, et al. **Neurology** 1999 Jan 15;52(2):346-50

Neuroleptics with differential affinities at dopamine D2 receptors and sigma receptors affect differently the N-methyl-D-aspartate-induced increase in intracellular calcium concentration: involvement of protein kinase. Hayashi T, et al. **Synapse** 1999 Jan;31(1):20-8

GENETICS

Amino acid residues in the transmembrane domain of the type 1 sigma receptor critical for ligand binding. Yamamoto H, et al. **FEBS Lett** 1999 Feb 19;445(1):19-22

Association between polymorphisms in the type 1 sigma receptor gene and schizophrenia. Ishiguro H, et al. **Neurosci Lett** 1998 Nov 20;257(1):45-8

METABOLISM

The sigma-ligand (+)-pentazocine depresses M current and enhances calcium conductances in frog melanotrophs. Soriani O, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E73-80

sigma Receptor ligand-induced up-regulation of the H(+)/peptide transporter PEPT1 in the human intestinal cell line Caco-2. Fujita T, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):242-6

Putative sigma(3) sites in mammalian brain have histamine H(1) receptor properties: evidence from ligand binding and distribution studies with the novel H(1) radioligand [(3)H]-(-)-trans-1-phenyl-3-aminotetralin. Booth RG, et al. **Brain Res** 1999 Aug 7;837(1-2):95-105

Binding of dimemorfan to sigma-1 receptor and its anticonvulsant and locomotor effects in mice, compared with dextromethorphan and dextrorphan. Chou YC, et al. **Brain Res** 1999 Mar 13;821(2):516-9

Antiproliferative effects of SR31747A in animal cell lines are mediated by inhibition of cholesterol biosynthesis at the sterol isomerase step. Labit-Le Bouteiller C, et al. **Eur J Biochem** 1998 Sep 1;256(2):342-9

The effect of E-5842, a sigma receptor ligand and potential atypical antipsychotic, on Fos expression in rat forebrain. Guitart X, et al. **Eur J Pharmacol** 1998 Dec 18; 363(2-3):127-30

Binding of [3H]U-101958 to sigma1 receptor-like sites in human cerebellum and neuroblastoma cells. Helmeste DM, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):205-9

Amino acid residues in the transmembrane domain of the type 1 sigma receptor critical for ligand binding. Yamamoto H, et al. **FEBS Lett** 1999 Feb 19;445(1):19-22

Quinclinic acid and sigma receptor ligand: effect on pyramidal neurons of the CA1 sector of dorsal hippocampus following peripheral administration in rats. Beskid M, et al. **Folia Neuropathol** 1998;36(2):94-100

Effect of PCP and sigma ligands on both noradrenaline- and electrically-induced contractions and on [3H]-noradrenaline uptake in rat vas deferens. Pubill D, et al. **J Auton Pharmacol** 1998 Aug;18(4):239-44

Sigma receptor photolabeling and sigma receptor-mediated modulation of potassium channels in tumor cells. Wilke RA, et al. **J Biol Chem** 1999 Jun 25;274(26):18387-92

Ultrasensitive determination of NE-100, a novel sigma ligand, in human plasma by liquid chromatography and electrospray ionization tandem mass spectrometry combined with a column-switching technique. Yamaguchi J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 25; 730(1):61-70

N-[omega-(Tetralin-1-yl)alkyl] derivatives of 3,3-dimethylpiperidine are highly potent and selective sigma1 or sigma2 ligands. Berardi F, et al. **J Med Chem** 1998 Oct 8;41(21):3940-7

Design, synthesis, structure-activity relationships, and biological characterization of novel arylalkoxyphenylalkylamine sigma ligands as potential antipsychotic drugs. Nakazato A, et al. **J Med Chem** 1999 Mar 25;42(6):1076-87

Characterization of novel N,N'-disubstituted piperazines as sigma receptor ligands. Zhang Y, et al. **J Med Chem** 1998 Dec 3;41(25):4950-7

Sigma1 recognition sites in rabbit iris-ciliary body: topical sigma1-site agonists lower intraocular pressure. Bucolo C, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1362-9

Molecular and ligand-binding characterization of the sigma-receptor in the Jurkat human T lymphocyte cell line. Ganapathy ME, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):251-60

Modulation of amphetamine-stimulated [3H]dopamine release from rat pheochromocytoma (PC12) cells by sigma type 2 receptors. Weatherspoon JK, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):278-84

The analgesic tropane analogue (+/-)-SM 21 has a high affinity for sigma2 receptors. Mach RH, et al. **Life Sci** 1999; 64(10):PL131-7

Increased binding to sigma sites of N-[1'(2-piperidinyl)ethyl)-4-[I-125]-iodobenzamide (I-125-PAB) with onset of tumor cell proliferation. Zamora PO, et al. **Life Sci** 1998;63(18):1611-8

Sigma (sigma1) receptor mediated anti-depressant-like effects of neurosteroids in the Porsolt forced swim test. Reddy DS, et al. **Neuroreport** 1998 Sep 14;9(13):3069-73

Synthesis, in vitro pharmacologic characterization, and preclinical evaluation of N-[2-(1'-piperidinyl)ethyl]-3-[125I]iodo-4-methoxybenzamide (P[125I]MBA) for imaging breast cancer. John CS, et al. **Nucl Med Biol** 1999 May; 26(4):377-82

In vitro and in vivo characterisation of [3H]ANSTO-14 binding to the sigma 1 binding sites. Nguyen VH, et al. **Nucl Med Biol** 1999 Feb;26(2):209-15

Effect of local intracerebral administration of EMD 57445, a selective sigma receptor ligand, on the locomotor activity of the rat. Skuza G, et al. **Pol J Pharmacol** 1998 Nov-Dec; 50(6):399-406

Occupancy of striatal D(2)-like dopamine receptors after treatment with the sigma ligand EMD 57445, a putative atypical antipsychotic. Gründer G, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):81-6

Pharmacological profile of MS-377, a novel antipsychotic agent with selective affinity for sigma receptors. Takahashi S, et al. **Psychopharmacology (Berl)** 1999 Aug; 145(3):295-302

PHYSIOLOGY

Modulation of steroidal levels by adrenalectomy/castration and inhibition of neurosteroid synthesis enzymes affect sigma1 receptor-mediated behaviour in mice. Phan VL, et al. **Eur J Neurosci** 1999 Jul;11(7):2385-96

Involvement of sigma receptors in the modulation of the glutamatergic/NMDA neurotransmission in the dopaminergic systems. Gronier B, et al. **Eur J Pharmacol** 1999 Mar 5;368(2-3):183-96

Two novel sigma receptor ligands, BD1047 and LR172, attenuate cocaine-induced toxicity and locomotor activity. McCracken KA, et al. **Eur J Pharmacol** 1999 Apr 16; 370(3):225-32

A-Current down-modulated by sigma receptor in frog pituitary melanotrope cells through a G protein-dependent pathway. Soriani O, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):321-8

K+ channel modulation in rodent neurohypophysial nerve terminals by sigma receptors and not by dopamine receptors. Wilke RA, et al. **J Physiol (Lond)** 1999 Jun 1; 517 (Pt 2):391-406

Sigma1 receptor subtype does not interact with stereotyped behaviors in rats. Kobayashi T, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):381-4

Efficacy and safety of the sigma receptor ligand EMD 57445 (panamesine) in patients with schizophrenia: an open clinical trial. Huber MT, et al. **Pharmacopsychiatry** 1999 Mar;32(2):68-72

Intracellular sigma1 receptor modulates phospholipase C and protein kinase C activities in the brainstem. Morin-Surun MP, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6; 96(14):8196-9

Potent sigma1-receptor ligand 4-phenyl-1-(4-phenylbutyl) piperidine modulates basal and N-methyl-D-aspartate-evoked nitric oxide production in vivo. Bhardwaj A, et al. **Stroke** 1998 Nov;29(11):2404-10; discussion 2411

RECEPTORS, SIGMA OPIOID see **RECEPTORS, SIGMA**

RECEPTORS, SINCALIDE see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, SOMATOMEDIN

BLOOD

Serum insulin-like growth factors and insulin-like growth factor-binding proteins: clinical implications. Rosen CJ. **Clin Chem** 1999 Aug;45(8 Pt 2):1384-90 (75 ref.)

CHEMISTRY

A third fibronectin-type-III domain in the insulin-family receptors [letter] Mulhern TD, et al. **Trends Biochem Sci** 1998 Dec;23(12):465-6

DRUG EFFECTS

Enhanced proliferation of human fibroblasts, in the presence of dexamethasone, is accompanied by changes in p21Waf1/Cip1/Sdi1 and the insulin-like growth factor type 1 receptor. Li S, et al. **J Cell Physiol** 1998 Dec; 177(3):396-401

GENETICS

Regulation of insulin-like growth factor I receptor promoter activity by wild-type and mutant versions of the WT1 tumor suppressor. Tajinda K, et al. **Endocrinology** 1999 Oct; 140(10):4713-24

Gene expression of insulin-like growth factor-I, its receptor and binding proteins in retina under hypoxic conditions. Averbukh E, et al. **Metabolism** 1998 Nov;47(11):1331-6

METABOLISM

Overexpression of insulin-like growth factor-1 (IGF-I) receptor and the invasiveness of cultured keloid fibroblasts. Yoshimoto H, et al. **Am J Pathol** 1999 Mar;154(3):883-9

Elevated insulin-like growth factor-I and transforming growth factor-beta 1 and their receptors in patients with idiopathic hypertrophic obstructive cardiomyopathy. A possible mechanism. Li G, et al. **Circulation** 1998 Nov 10; 98(19 Suppl):II144-9; discussion II149-50

Structure of the IGF-binding domain of the insulin-like growth factor-binding protein-5 (IGFBP-5): implications for IGF and IGF-I receptor interactions. Kalus W, et al. **EMBO J** 1998 Nov 16;17(22):6558-72

Expression of the insulin-like growth factors and their receptors in adenocarcinoma of the colon. Freier S, et al. **Gut** 1999 May;44(5):704-8

The rate of internalization of the mannose 6-phosphate/insulin-like growth factor II receptor is enhanced by multivalent ligand binding. York SJ, et al. **J Biol Chem** 1999 Jan 8;274(2):1164-71

Impact of neonatal kainate treatment on hippocampal

insulin-like growth factor receptors. Doré S, et al. **Neuroscience** 1999;91(3):1035-43

PHYSIOLOGY

The role of the IGF-I receptor in the growth and transformation of mammalian cells. Baserga R, et al. **Cell Prolif** 1994 Feb;27(2):63-71 (48 ref.)

Prolonged activation of ERK2 by epidermal growth factor and other growth factors requires a functional insulin-like growth factor 1 receptor. Swantek JL, et al. **Endocrinology** 1999 Jul;140(7):3163-9

The soluble type 2 insulin-like growth factor (IGF-II) receptor reduces organ size by IGF-II-mediated and IGF-II-independent mechanisms. Zaina S, et al. **J Biol Chem** 1998 Oct 30;273(44):28610-6

RECEPTORS, SOMATOMEDIN C see **RECEPTORS, INSULIN-LIKE-GROWTH FACTOR I**

RECEPTORS, SOMATOSTATIN

see related
SOMATOSTATIN

The Biological and Clinical Relevance of the Somatostatin Receptor. Proceedings of a conference. New Haven, Connecticut, USA. November 24, 1996. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):471-585

[Gammagraphy of somatostatin receptors in an ACTH secreting thymic carcinoid] Banzo J, et al. **Rev Esp Med Nucl** 1999;18(2):99-103 (Eng. Abstr.) **(Spa)**

AGONISTS

Nonpeptidyl somatostatin agonists demonstrate that sst2 and sst5 inhibit stimulated growth hormone secretion from rat anterior pituitary cells. Parmar RM, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):276-80

Fates of endocytosed somatostatin sst2 receptors and associated agonists. Koenig JA, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):291-8

Somatostatin displayed on filamentous phage as a receptor-specific agonist. Rousch M, et al. **Br J Pharmacol** 1998 Sep;125(1):5-16

Differential agonist activity of somatostatin and L-362855 at human recombinant sst4 receptors. Smalley KS, et al. **Br J Pharmacol** 1998 Oct;125(4):833-41

Agonist-dependent up-regulation of human somatostatin receptor type 1 requires molecular signals in the cytoplasmic C-tail. Hukovic N, et al. **J Biol Chem** 1999 Aug 27;274(35):24550-8

Nonpeptide somatostatin agonists with sst4 selectivity: synthesis and structure-activity relationships of thioureas. Liu S, et al. **J Med Chem** 1998 Nov 19;41(24):4693-705

Agonist-independent internalization and activity of a C-terminally truncated somatostatin receptor subtype 2 (delta349). Schwartkop CP, et al. **J Neurochem** 1999 Mar; 72(3):1275-82

Rapid identification of subtype-selective agonists of the somatostatin receptor through combinatorial chemistry [published erratum appears in Science 1998 Nov 27;282(5394):1646] Rohrer SP, et al. **Science** 1998 Oct 23; 282(5389):737-40

ANALYSIS

Somatostatin receptor imaging and therapy of pancreatic endocrine tumors. van Eijck CH, et al. **Ann Oncol** 1999; 10 Suppl 4:177-81 (48 ref.)

Somatostatin receptor scintigraphy and endoscopic ultrasonography for occult carcinoid tumor [letter; comment] Volpe C, et al. **Arch Surg** 1999 May;134(5):575-6 . Comment on: Arch Surg 1998 Oct;133(10):1117-9.

Expression of somatostatin receptors in peritumoral veins of human tumors. Denzler B, et al. **Cancer** 1999 Jan 1; 85(1):188-98

Differential distribution of somatostatin sst2 receptor splice variants in rat gastric mucosa. Schindler M, et al. **Cell Tissue Res** 1999 Jul;297(1):163-8

The utility of a somatostatin-type receptor binding peptide radiopharmaceutical (P829) in the evaluation of solitary pulmonary nodules. Blum JE, et al. **Chest** 1999 Jan; 115(1):224-32

Imaging of somatostatin receptors by indium-111-pentetreotide correlates with quantitative determination of somatostatin receptor type 2 gene expression in neuroblastoma tumors. Briganti V, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2385-91

Somatostatin receptor scintigraphy for early detection of regional and distant metastases of medullary carcinoma of the thyroid. Krausz Y, et al. **Clin Nucl Med** 1999 Apr; 24(4):256-60

Somatostatin receptor scintigraphy and somatostatin therapy in the evaluation and treatment of malignant thymoma. Lin K, et al. **Clin Nucl Med** 1999 Jan;24(1):24-8

Colocalization of somatostatin receptor sst5 and insulin in rat pancreatic beta-cells. Mitra SW, et al. **Endocrinology** 1999 Aug;140(8):3790-6

Immunohistochemical localization of somatostatin receptor sst2A in sarcoid granulomas. ten Bokum AM, et al. **Eur J Clin Invest** 1999 Jul;29(7):630-6

Immunocytochemical localization of somatostatin receptor sst2A in the rat spinal cord and dorsal root ganglia. Schulz S, et al. **Eur J Neurosci** 1998 Dec;10(12):3700-8

Metabolic and receptor imaging of metastatic medullary thyroid cancer: does anti-CEA and somatostatin-receptor scintigraphy allow for prognostic predictions? [letter; comment] Behr TM, et al. **Eur J Nucl Med** 1999 Jan; 26(1):70-1. Comment on: Eur J Nucl Med 1998 Sep;25(9):1277-83.

Biokinetics and dosimetry in patients administered with (111)In-DOTA-Tyr(3)-octreotide: implications for internal radiotherapy with (90)Y-DOTATOC. Cremonesi M, et al. **Eur J Nucl Med** 1999 Aug;26(8):877-86

Somatostatin receptor imaging in patients with sarcoidosis. Kwekkeboom DJ, et al. **Eur J Nucl Med** 1998 Sep; 25(9):1284-92

Somatostatin receptor scintigraphy to predict the clinical evolution and therapeutic response of thyroid-associated ophthalmopathy. Nocaudie M, et al. **Eur J Nucl Med** 1999 May;26(5):511-7

Receptor autoradiographic evaluation of cholecystokinin, neurotensin, somatostatin and vasoactive intestinal peptide receptors in gastro-intestinal adenocarcinoma samples: where are they really located? Reubi JC, et al. **Int J Cancer** 1999 May 5;81(3):376-86

Neuroblastoma detected by somatostatin receptor scintigraphy in a case of opsoclonus-myoclonus-ataxia syndrome. Posada JC, et al. **J Child Neurol** 1998 Jul; 13(7):345-6

Immunohistochemical detection of somatostatin receptor subtypes sst1 and sst2A in human somatostatin receptor positive tumors. Hofland LJ, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):775-80

Immunohistochemical detection of somatostatin sst2a receptors in the lymphatic, smooth muscular, and peripheral nervous systems of the human gastrointestinal tract: facts and artifacts. Reubi JC, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2942-50

Usefulness of somatostatin receptor scintigraphy in patients with occult ectopic adrenocorticotropin syndrome [see comments] Tabarin A, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1193-202. Comment in: J Clin Endocrinol Metab 1999 Apr;84(4):1184-5.

Immunohistochemical localization of the somatostatin receptor subtype 2 (sst2) in the central nervous system of the golden hamster (Mesocricetus auratus). Helboe L, et al. **J Comp Neurol** 1999 Mar 8;405(2):247-61

Receptor imaging in the diagnosis and treatment of pituitary tumors. Kwekkeboom DJ, et al. **J Endocrinol Invest** 1999 Jan;22(1):80-8 (63 ref.)

Somatostatin receptor expression in primary gastric versus nongastric extranodal B-cell lymphoma of mucosa-associated lymphoid tissue type. Raderer M, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):716-8

Somatostatin receptor scintigraphy in pituitary adenomas: a somatostatin receptor density index can predict hormonal and tumoral efficacy of octreotide in vivo. Duet M, et al. **J Nucl Med** 1999 Aug;40(8):1252-6

Specificity of somatostatin receptor scintigraphy: a prospective study and effects of false-positive localizations on management in patients with gastrinomas [see comments] Gibril F, et al. **J Nucl Med** 1999 Apr; 40(4):539-53. Comment in: J Nucl Med 1999 Apr;40(4):554-5.

Clinical value of 24-hour delayed imaging in somatostatin receptor scintigraphy for meningioma. Klutmann S, et al. **J Nucl Med** 1999 Aug;40(8):1246-51

Somatostatin receptor scintigraphy in postsurgical follow-up examinations of meningioma. Klutmann S, et al. **J Nucl Med** 1998 Nov;39(11):1913-7

Factor analysis of dynamic series (FADS) in somatostatin receptor imaging. Kolesnikov-Gauthier H, et al. **J Nucl Med** 1999 Jan;40(1):33-9

Somatostatin receptor scintigraphy in small-cell lung cancer [letter; comment] Moretti JL, et al. **J Nucl Med** 1998 Dec; 39(12):2195-6. Comment on: J Nucl Med 1998 Feb;39(2):224-7.

What is a false-positive somatostatin receptor scintigraphy? [letter; comment] Reubi JC. **J Nucl Med** 1998 Dec; 39(12):2193-4. Comment on: J Nucl Med 1997 Dec;38(12):1979-81.

Making the best of imperfect tumor-localizing radiopharmaceuticals [editorial; comment] Shapiro B, et al. **J Nucl Med** 1999 Apr;40(4):554-5. Comment on: J Nucl Med 1999 Apr;40(4):539-53.

Effect of intragastric ammonia on gastrin-, somatostatin-and somatostatin receptor subtype 2 positive-cells in rat antral mucosa. Iyo T, et al. **Life Sci** 1999;64(26):2497-504

In vivo inaccessibility of somatostatin receptors to 111In-pentreotide in primary renal cell carcinoma. Montravers F, et al. **Nucl Med Commun** 1998 Oct; 19(10):953-61

Somatostatin receptor scintigraphy of a patient with a giant invasive prolactinoma. Meyer P, et al. **Nuklearmedizin** 1999;38(2):66-7

Use of somatostatin receptor scintigraphy to image extrahepatic metastases of neuroendocrine tumors. Frilling A, et al. **Surgery** 1998 Dec;124(6):1000-4

Noninvasive imaging of insulinomas and gastrinomas with endoscopic ultrasonography and somatostatin receptor scintigraphy. Proye C, et al. **Surgery** 1998 Dec; 124(6):1134-43; discussion 1143-4

Prospective study of the utility of somatostatin-receptor scintigraphy in the evaluation of patients with multiple endocrine neoplasia type 1. Yim JH, et al. **Surgery** 1998 Dec;124(6):1037-42

The relevance of somatostatin receptors in thyroid neoplasia. Ahlman H, et al. **Yale J Biol Med** 1997 Sep-Dec; 70(5-6):523-33

The current status of somatostatin receptors in malignant melanoma. Fletcher WS, et al. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):561-3

Comparative analysis of diagnostic techniques for localization of gastrointestinal neuroendocrine tumors. Gibril F, et al. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):509-22

Definition of the role of somatostatin receptor scintigraphy in gastrointestinal neuroendocrine tumor localization. Jensen RT, et al. **Yale J Biol Med** 1997 Sep-Dec; 70(5-6):481-500

The biology and clinical relevance of somatostatin receptor scintigraphy in adrenal tumor management. Kennedy JW, et al. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):565-75 (33 ref.)

Somatostatin receptor scintigraphy of malignant lymphoma--current status. Serafini AN. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):555-9 (20 ref.)

[Imaging of somatostatin receptors in gastroenteropancreatic neuroendocrine tumors] Mure A, et al. **Gastroenterol Clin Biol** 1998 Oct;22(10):809-18 (71 ref.) **(Fre)**

[Intraoperative isotope-controlled probe localization after somatostatin receptor scintigraphy of occult neuroendocrine tumors] Runkel N, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1034-7 (Eng. Abstr.) **(Ger)**

[Somatostatin receptor status in non-medullary thyroid carcinoma] Görges R, et al. **Nuklearmedizin** 1999; 38(1):15-23 (Eng. Abstr.) **(Ger)**

ANTAGONISTS & INHIBITORS

Examination of somatostatin involvement in the inhibitory action of GIP, GLP-1, amylin and adrenomedullin on gastric acid release using a new SRIF antagonist analogue. Rossowski WJ, et al. **Br J Pharmacol** 1998 Nov; 125(5):1081-7

Locoregional regulatory peptide receptor targeting with the diffusible somatostatin analogue 90Y-labeled DOTA0-D-Phe1-Tyr3-octreotide (DOTATOC): a pilot study in human gliomas. Merlo A, et al. **Clin Cancer Res** 1999 May;5(5):1025-33

Highly potent cyclic disulfide antagonists of somatostatin. Hocart SJ, et al. **J Med Chem** 1999 Jun 3;42(11):1863-71

Urethane-induced somatostatin mediated inhibition of gastric acid: reversal by the somatostatin 2 receptor antagonist, PRL-2903. Kawakubo K, et al. **Life Sci** 1999; 65(10):PL115-20

BIOSYNTHESIS

Activation of adenylate cyclase by human recombinant sst5 receptors expressed in CHO-K1 cells and involvement of Galphas proteins. Carruthers AM, et al. **Br J Pharmacol** 1999 Mar;126(5):1221-9

Differential regulation of somatostatin receptor type 2 (sst 2) expression in AR4-2J tumor cells implanted into mice during octreotide treatment. Froidevaux S, et al. **Cancer Res** 1999 Aug 1;59(15):3652-7

Differential regulation of somatostatin receptor types 1-5 in rat aorta after angioplasty. Khare S, et al. **FASEB J** 1999 Feb;13(2):387-94

Transient expression of somatostatin sst2 receptors in rat cerebellar nuclei during development. Bucharles C, et al. **J Chem Neuroanat** 1999 May;16(3):223-9

A quantitative study of neurons which express neurokinin-1 or somatostatin sst2a receptor in rat spinal dorsal horn. Todd AJ, et al. **Neuroscience** 1998 Jul;85(2):459-73

sst5 somatostatin receptor mRNA induction by mitogenic activation of human T-lymphocytes. Ghamrawy CE, et al. **Peptides** 1999;20(3):305-11

CHEMISTRY

Rat somatostatin receptor subtype 4 can be made sensitive to agonist-induced internalization by mutation of a single threonine (residue 331). Kreienkamp HJ, et al. **DNA Cell Biol** 1998 Oct;17(10):869-78

CLASSIFICATION

Immunocytochemical detection of somatostatin receptors sst1, sst2A, sst2B, and sst3 in paraffin-embedded breast cancer tissue using subtype-specific antibodies. Schulz S, et al. **Clin Cancer Res** 1998 Sep;4(9):2047-52

DRUG EFFECTS

Effect of nitric oxide on the somatostatinergic system in the rat exocrine pancreas. Rodriguez-Martín E, et al. **Biochim Biophys Acta** 1999 May 6;1450(1):61-7

Differential effects of somatostatin and angiopeptin on cell proliferation. Alderton F, et al. **Br J Pharmacol** 1998 May; 124(2):323-30

2-pyridylthioureas: novel nonpeptide somatostatin agonists with SST4 selectivity. Liu S, et al. **Curr Pharm Des** 1999 Apr;5(4):255-63 (59 ref.)

Human circular colonic smooth muscle cells possess active somatostatin receptors. Corleto VD, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):505-9

RECEPTORS, SOMATOSTATIN

GENETICS

Involvement of a Pit-1 binding site in the regulation of the rat somatostatin receptor 1 gene expression. Baumeister H, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:390–2

Molecular cloning and functional characterization of a rat somatostatin sst2(b) receptor splice variant. Schindler M, et al. **Br J Pharmacol** 1998 Sep;125(1):209–17

Receptors and effects of the inhibitory neuropeptide somatostatin in microglial cells. Feindt J, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):228–33

Molecular analysis of the somatostatin receptor subtype 2 in human glioma cells. Held-Feindt J, et al. **Brain Res Mol Brain Res** 1999 Jan 22;64(1):101–7

Imaging of somatostatin receptors by indium-111-pentetreotide correlates with quantitative determination of somatostatin receptor type 2 gene expression in neuroblastoma tumors. Briganti V, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2385–91

In vivo localization of [(111)In]-DTPA-D-Phe1-octreotide to human ovarian tumor xenografts induced to express the somatostatin receptor subtype 2 using an adenoviral vector. Rogers BE, et al. **Clin Cancer Res** 1999 Feb;5(2):383–93

Quantitation of somatostatin receptor type 2 gene expression in neuroblastoma cell lines and primary tumors using competitive reverse transcription-polymerase chain reaction. Sestini R, et al. **Clin Cancer Res** 1996 Oct; 2(10):1757–65

Colocalization of somatostatin receptor sst5 and insulin in rat pancreatic beta-cells. Mitra SW, et al. **Endocrinology** 1999 Aug;140(8):3790–6

No loss of sst receptors gene expression in advanced stages of colorectal cancer. Vuaroqueaux V, et al. **Eur J Endocrinol** 1999 Apr;140(4):362–6

Characterization of the 5'-flanking promoter region of the rat somatostatin receptor subtype 3 gene. Glos M, et al. **FEBS Lett** 1998 Nov 27;440(1-2):33–7

Identification of a functional 3',5'-cyclic adenosine monophosphate response element within the second promoter of the mouse somatostatin receptor type 2 gene. Wöltje M, et al. **FEBS Lett** 1998 Nov 27;440(1-2):107–10

Somatostatin receptor gene transfer induces bystander effects [see comments] Paillard F. **Hum Gene Ther** 1999 Apr 10; 10(6):857–9. Comment in: Hum Gene Ther 1999 Apr 10;10(6):995–1008.

Gene therapy for pancreatic carcinoma: local and distant antitumor effects after somatostatin receptor sst2 gene transfer [see comments] Rochaix P, et al. **Hum Gene Ther** 1999 Apr 10;10(6):995–1008. Comment in: Hum Gene Ther 1999 Apr 10;10(6):857–9.

Expression of somatostatin receptor genes and acetylcholine receptor development in rat skeletal muscle during postnatal development. Peng M, et al. **Int J Mol Med** 1998 May;1(5):841–8

Impact of gsp oncogene on the expression of genes coding for Gsalpha, Pit-1, Gi2alpha, and somatostatin receptor 2 in human somatotroph adenomas: involvement in octreotide sensitivity. Barlier A, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2759–65

Quantitative and functional expression of somatostatin receptor subtypes in human prolactinomas. Jaquet P, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3268–76

Somatostatin receptor subtype expression in cells of the rat immune system during adjuvant arthritis. ten Bokum AM, et al. **J Endocrinol** 1999 Apr;161(1):167–75

Sexually dimorphic expression of sst1 and sst2 somatostatin receptor subtypes in the arcuate nucleus and anterior pituitary of adult rats. Zhang WH, et al. **J Neuroendocrinol** 1999 Feb;11(2):129–36

Activation of somatostatin receptor II expression by transcription factors MIBP1 and SEF-2 in the murine brain. Dörflinger U, et al. **Mol Cell Biol** 1999 May; 19(5):3736–47

Preferential expression of sst2A over sst2B somatostatin receptor splice variant in rat brain and pituitary. Sarret P, et al. **Neuroendocrinology** 1998 Jul;68(1):37–43

Expression and coupling of somatostatin receptors in rat adrenal (PC12) and pituitary (GC) cell lines. Traina G, et al. **Neurosci Lett** 1998 Aug 14;252(2):131–4

Immunohistochemical localization of the somatostatin sst2(b) receptor splice variant in the rat central nervous system. Schindler M, et al. **Neuroscience** 1999 Mar;90(3):859–74

High expression of somatostatin receptor subtype 2 (sst2) in medulloblastoma: implications for diagnosis and therapy. Frühwald MC, et al. **Pediatr Res** 1999 May;45(5 Pt 1):697–708

IMMUNOLOGY

Selection-dominant and nonaccessible epitopes on cell-surface receptors revealed by cell-panning with a large phage antibody library. Hoogenboom HR, et al. **Eur J Biochem** 1999 Mar;260(3):774–84

METABOLISM

In vivo cellular distribution and endocytosis of the somatostatin receptor-ligand complex. Lukinius A, et al. **Acta Oncol** 1999;38(3):383–7

Expression of somatostatin receptor subtypes on guinea pig gastric and colonic smooth muscle cells. Corleto VD, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):G235–44

Expression of somatostatin messenger RNA and receptor in cultured brain tumor cells. Hirota N, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3295–7

Structural basis for the binding specificity of a SSTR1-selective analog of somatostatin. Chen L, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):689–94

Isolation and identification of melanin-concentrating hormone as the endogenous ligand of the SLC-1 receptor. Shimomura Y, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):622–6

The pivotal role of phosphoinositide-3 kinase in the human somatostatin sst(4) receptor-mediated stimulation of p44/p42 mitogen-activated protein kinase and extracellular acidification. Smalley KS, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):239–43

Fates of endocytosed somatostatin sst2 receptors and associated agonists. Koenig JA, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):291–8

Direct synthesis of [DOTA-DPhe1]-octreotide and [DOTA-DPhe1,Tyr3]-octreotide (SMT487): two conjugates for systemic delivery of radiotherapeutical nuclides to somatostatin receptor positive tumors in man. Albert R, et al. **Bioorg Med Chem Lett** 1998 May 19; 8(10):1207–10

The solid phase synthesis of a series of tri-substituted hydantoin ligands for the somatostatin SST5 receptor. Sciciński JJ, et al. **Bioorg Med Chem Lett** 1998 Dec 15; 8(24):3609–14

Expression of somatostatin receptors in oncocytic (Hürthle cell) neoplasia of the thyroid. Tisell LE, et al. **Br J Cancer** 1999 Mar;79(9-10):1579–82

Distribution of somatostatin receptor subtypes in rat lumbar spinal cord examined with gold-labelled somatostatin and anti-receptor antibodies. Segond von Banchet G, et al. **Brain Res** 1999 Jan 16;816(1):254–7

Identification of distinct signalling pathways for somatostatin receptors SSTR1 and SSTR2 as revealed by microphysiometry. Chen L, et al. **Cell Signal** 1999 Jul; 11(7):499–505

Subtype-selective expression of the five somatostatin receptors (hSSTR1-5) in human pancreatic islet cells: a quantitative double-label immunohistochemical analysis. Kumar U, et al. **Diabetes** 1999 Jan;48(1):77–85

In vitro characterization of somatostatin receptors in the human thymus and effects of somatostatin and octreotide on cultured thymic epithelial cells. Ferone D, et al. **Endocrinology** 1999 Jan;140(1):373–80

Pituitary somatostatin receptor (sst)1–5 expression during rat development: age-dependent expression of sst2. Reed DK, et al. **Endocrinology** 1999 Oct;140(10):4739–44

SSTR2A is the dominant somatostatin receptor subtype expressed by inflammatory cells, is widely expressed and directly regulates T cell IFN-gamma release. Elliott DE, et al. **Eur J Immunol** 1999 Aug;29(8):2454–63

Comparison of somatostatin receptor imaging, computed tomography and ultrasound in the clinical management of neuroendocrine gastro-entero-pancreatic tumours. Chiti A, et al. **Eur J Nucl Med** 1998 Oct;25(10):1396–403

Uptake kinetics of the somatostatin receptor ligand [86Y]DOTA-DPhe1- Tyr3-octreotide ([86Y]SMT487) using positron emission tomography in non-human primates and calculation of radiation doses of the 90Y-labelled analogue. Rösch F, et al. **Eur J Nucl Med** 1999 Apr;26(4):358–66

[125I][Tyr3]octreotide labels human somatostatin sst2 and sst5 receptors. Siehler S, et al. **Eur J Pharmacol** 1998 May 8;348(2-3):311–20

Human normal dermal fibroblasts express somatostatin receptors. Gaudillère A, et al. **Exp Dermatol** 1999 Aug; 8(4):267–73

Identification of melanin concentrating hormone (MCH) as the natural ligand for the orphan somatostatin-like receptor 1 (SLC-1). Bächner D, et al. **FEBS Lett** 1999 Sep 3; 457(3):522–4

Somatostatin and its receptor family. Patel YC. **Front Neuroendocrinol** 1999 Jul;20(3):157–98 (233 ref.)

Immunohistochemical localization of somatostatin receptor subtypes sst1 and sst2 in the rat retina. Helboe L, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2376–82

Somatostatin receptor desensitization in NG108-15 cells. A consequence of receptor sequestration. Beaumont V, et al. **J Biol Chem** 1998 Dec 11;273(50):33174–83

Activated G protein-coupled receptor induces tyrosine phosphorylation of STAT3 and agonist-selective serine phosphorylation via sustained stimulation of mitogen-activated protein kinase. Resultant effects on cell proliferation. Sellers LA, et al. **J Biol Chem** 1999 Jun 4; 274(23):16423–30

Agonist-dependent interaction of the rat somatostatin receptor subtype 2 with cortactin-binding protein 1. Zitzer H, et al. **J Biol Chem** 1999 Jun 25;274(26):18153–6

Immunohistochemical localization of somatostatin receptor sst2A in human pancreatic islets. Reubi JC, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3746–9

Immunohistochemical distribution of the somatostatin receptor subtype 5 in the adult rat brain: predominant expression in the basal forebrain. Stroh T, et al. **J Comp Neurol** 1999 Sep 13;412(1):69–82

Scintigraphic imaging of pituitary adenomas: an in vivo evaluation of somatostatin receptors. Oppizzi G, et al. **J Endocrinol Invest** 1998 Sep;21(8):512–9

Immunoelectronmicroscopic analysis of the ligand-induced internalization of the somatostatin receptor subtype 2 in cultured human glioma cells. Krisch B, et al. **J Histochem Cytochem** 1998 Nov;46(11):1233–42

Expression of human somatostatin receptor subtype 3 in pancreatic cancer in vitro and in vivo. Raderer M, et al. **J Natl Cancer Inst** 1998 Nov 4;90(21):1666–8

Agonist-independent internalization and activity of a C-terminally truncated somatostatin receptor subtype 2 (delta349). Schwartkop CP, et al. **J Neurochem** 1999 Mar; 72(3):1275–82

Structural and compositional determinants of cortistatin activity. Criado JR, et al. **J Neurosci Res** 1999 Jun 15; 56(6):611–9

Synthesis and binding potencies of cyclic hexapeptide analogs of somatostatin incorporating acidic and basic peptoid residues. Tran TA, et al. **J Pept Res** 1999 Feb;53(2):134–45

A microplate binding assay for the somatostatin type-2 receptor (SSTR2). Froidevaux S, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):167–80

Immunohistochemical localization of somatostatin receptor sst2A in human rheumatoid synovium. ten Bokum AM, et al. **J Rheumatol** 1999 Mar;26(3):532–5

Somatostatin activation of mitogen-activated protein kinase via somatostatin receptor 1 (SSTR1). Florio T, et al. **Mol Endocrinol** 1999 Jan;13(1):24–37

C-terminal region of human somatostatin receptor 5 is required for induction of Rb and G1 cell cycle arrest. Sharma K, et al. **Mol Endocrinol** 1999 Jan;13(1):82–90

Melanin-concentrating hormone is the cognate ligand for the orphan G-protein-coupled receptor SLC-1. Chambers J, et al. **Nature** 1999 Jul 15;400(6741):261–5

Molecular characterization of the melanin-concentrating-hormone receptor. Saito Y, et al. **Nature** 1999 Jul 15;400(6741):265–9

Characterisation of the fish sst3 receptor, a member of the SRIF1 receptor family: atypical pharmacological features. Siehler S, et al. **Neuropharmacology** 1999 Mar;38(3):449–62

Differential distribution of alternatively spliced somatostatin receptor 2 isoforms (sst2A and sst2B) in rat spinal cord. Schulz S, et al. **Neurosci Lett** 1998 Nov 20;257(1):37–40

Expression and coupling of somatostatin receptors in rat adrenal (PC12) and pituitary (GC) cell lines. Traina G, et al. **Neurosci Lett** 1998 Aug 14;252(2):131–4

Selective targeting of somatostatin receptor 3 to neuronal cilia. Händel M, et al. **Neuroscience** 1999 Mar;89(3):909–26

Cortistatin affects glutamate sensitivity in mouse hypothalamic neurons through activation of sst2 somatostatin receptor subtype. Vasilaki A, et al. **Neuroscience** 1999 Jan;88(2):359–64

Growth inhibitory effects of somatostatin on human leukemia cell lines mediated by somatostatin receptor subtype 1. Ishihara S, et al. **Peptides** 1999;20(3):313–8

Preparation and chromatographic purification of 125I-[Tyr0]-somatostatin-14 for the use in radioimmunoassay and receptor-binding experiments. Rissler K, et al. **Prep Biochem Biotechnol** 1998 Aug; 28(3):219–33

Internalization of [DOTA degrees,125I-Tyr3]Octreotide by somatostatin receptor-positive cells in vitro and in vivo: implications for somatostatin receptor-targeted radio-guided surgery. Hofland LJ, et al. **Proc Assoc Am Physicians** 1999 Jan-Feb;111(1):63–9

Somatostatin receptor scintigraphy before and after treatment with somatostatin analogues in patients with thyroid eye disease. Krassas GE, et al. **Thyroid** 1999 Jan;9(1):47–52

Evaluation of indium-111 pentetreotide somatostatin receptor scintigraphy to detect recurrent thyroid carcinoma in patients with negative radioiodine scintigraphy. Valli N, et al. **Thyroid** 1999 Jun;9(6):583–9

The biology and clinical relevance of somatostatin receptor scintigraphy in adrenal tumor management. Kennedy JW, et al. **Yale J Biol Med** 1997 Sep-Dec;70(5-6):565–75 (33 ref.)

Distribution of somatostatin receptors in normal and neoplastic human tissues: recent advances and potential relevance. Reubi JC, et al. **Yale J Biol Med** 1997 Sep-Dec; 70(5-6):471–9 (27 ref.)

PHYSIOLOGY

Somatostatin receptors present knowledge and future directions. Schonbrunn A. **Ann Oncol** 1999;10 Suppl 2:S17–21 (18 ref.)

Rat somatostatin sst2(a) and sst2(b) receptor isoforms mediate opposite effects on cell proliferation. Alderton F, et al. **Br J Pharmacol** 1998 Dec;125(8):1630–3

Rat somatostatin receptor subtype 4 can be made sensitive to agonist-induced internalization by mutation of a single threonine (residue 331). Kreienkamp HJ, et al. **DNA Cell Biol** 1998 Oct;17(10):869–78

sst2 somatostatin receptor mediates cell cycle arrest and induction of p27(Kip1). Evidence for the role of SHP-1. Pagès P, et al. **J Biol Chem** 1999 May 21;274(21):15186–93

Prolonged activation of extracellular signal-regulated kinase by a protein kinase C-dependent and N17Ras-insensitive mechanism mediates the proliferative response of G(i/o)-coupled somatostatin sst(4) receptors. Sellers LA. **J Biol Chem** 1999 Aug 20;274(34):24280–8

Somatostatin-dependent adenylyl cyclase activity in nonactivated and mitogen-activated human T cells: evidence for uncoupling of sst3 receptor from adenylyl cyclase. Giannetti N, et al. **J Cell Biochem** 1999 Feb 1; 72(2):221–31

Molecular biology of the receptors for somatostatin and cortistatin. Kreienkamp HJ. **Results Probl Cell Differ** 1999;

26:215–37 (110 ref.)
Human somatostatin receptor mediated antiproliferative action evokes subtype selective cytotoxic and cytostatic signaling. Srikant CB. **Yale J Biol Med** 1997 Sep–Dec; 70(5–6):541–8

RECEPTORS, SOMATOTROPIN

AGONISTS

Ruminant placental lactogens act as antagonists to homologous growth hormone receptors and as agonists to human or rabbit growth hormone receptors. Herman A, et al. **J Biol Chem** 1999 Mar 19;274(12):7631–9

ANALYSIS

Up-regulation of growth hormone receptor immunoreactivity in human melanoma. Lincoln DT, et al. **Anticancer Res** 1999 May–Jun;19(3A):1919–31

ANTAGONISTS & INHIBITORS

Characterization of an antagonist monoclonal antibody, GHBP116, specific for human growth hormone receptors. Takagi K, et al. **Biol Pharm Bull** 1999 Jul;22(7):734–7
Inhibitory effect of a growth hormone receptor antagonist (G120K–PEG) on renal enlargement, glomerular hypertrophy, and urinary albumin excretion in experimental diabetes in mice. Flyvbjerg A, et al. **Diabetes** 1999 Feb;48(2):377–82
Ruminant placental lactogens act as antagonists to homologous growth hormone receptors and as agonists to human or rabbit growth hormone receptors. Herman A, et al. **J Biol Chem** 1999 Mar 19;274(12):7631–9
Growth hormone (GH) receptor blockade with a PEG-modified GH (B2036-PEG) lowers serum insulin-like growth factor-I but does not acutely stimulate serum GH. Thorner MO, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2098–103
Effects of estradiol and exogenous insulin-like growth factor I (IGF-I) on the IGF-I axis during growth hormone inhibition and antagonism. Wilson ME. **J Clin Endocrinol Metab** 1998 Nov;83(11):4013–21
Growth hormone receptor expression and function in meningiomas: effect of a specific receptor antagonist. Friend KE, et al. **J Neurosurg** 1999 Jul;91(1):93–9

BIOSYNTHESIS

Developmental changes in the expression of the growth hormone receptor messenger ribonucleic acid and protein in the bovine ovary. Kölle S, et al. **Biol Reprod** 1998 Oct; 59(4):836–42
Growth hormone (GH) receptor and IGF-I receptor messenger RNA expression in peripheral lymphocytes from patients with GH deficiency and acromegaly. Fukuda I, et al. **Endocr J** 1998 Apr;45 Suppl:S109–12
Expression of growth hormone receptor in human prostatic carcinoma and hyperplasia. Kölle S, et al. **Int J Oncol** 1999 May;14(5):911–6
Differential regulation of IGF-I, its receptor and GH receptor mRNAs in the right ventricle and caval vein in volume-loaded genetically hypertensive and normotensive rats. Wickman A, et al. **J Endocrinol** 1999 May; 161(2):263–71
Evolutionary divergence of the truncated growth hormone receptor isoform in its ability to generate a soluble growth hormone binding protein [published erratum appears in Mol Cell Endocrinol 1998 Jun 25; 141(1–2):195] Dastot F, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):79–84
Possible protective role of growth hormone in hypoxia–ischemia in neonatal rats. Gustafson K, et al. **Pediatr Res** 1999 Mar;45(3):318–23

BLOOD

Growth hormone (GH) and prolactin receptors in human peripheral blood mononuclear cells: relation with age and GH-binding protein. Bresson JL, et al. **Endocrinology** 1999 Jul;140(7):3203–9

CHEMISTRY

Identification of novel sites in the ovine growth hormone receptor involved in binding hormone and conferring species specificity. Allan GJ, et al. **Eur J Biochem** 1999 Apr;261(2):555–62

DEFICIENCY

Natural history of growth hormone receptor deficiency. Rosenbloom AL, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):153–6; discussion 157 (19 ref.)
Paresis of facial and abducens nerves in a patient with growth-hormone receptor deficiency treated with insulin-like growth factor I' [letter] Vesterhus P. **Dev Med Child Neurol** 1999 Apr;41(4):285
IGF-I deficiency due to GH receptor deficiency. Rosenbloom AL. **Horm Metab Res** 1999 Feb–Mar; 31(2–3):161–71 (72 ref.)
Patients with Laron syndrome have Osteopenia/Osteoporosis [letter; comment] Laron Z, et al. **J Bone Miner Res** 1999 Jan;14(1):156–7. Comment on: J Bone Miner Res 1998 Mar;13(3):415–21.
A comment on normal intelligence in growth hormone receptor deficiency [letter; comment] Laron Z, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4528–9. Comment on: J Clin Endocrinol Metab 1998 Jun;83(6):1953–8.

DRUG EFFECTS

Glucose and amino acids interact with hormones to control expression of insulin-like growth factor-I and growth hormone receptor mRNA in cultured pig hepatocytes. Brameld JM, et al. **J Nutr** 1999 Jul;129(7):1298–306

GENETICS

New growth hormone receptor exon 9 mutation causes genetic short stature. Ayling RM, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):168–72; discussion 173
Serum levels of insulin-like growth factor binding proteins in Ecuadorean children with growth hormone insensitivity. Burren CP, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):185–91; discussion 192
Signal transduction defects in growth hormone insensitivity. Clayton PE, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):174–8; discussion 179 (18 ref.)
Natural history of growth hormone receptor deficiency. Rosenbloom AL, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):153–6; discussion 157 (19 ref.)
Growth hormone insensitivity: our current understanding and future directions. Rosenfeld RG. **Acta Paediatr Suppl** 1999 Feb;88(428):209–10
Truncated growth hormone receptor isoforms. Ross RJ. **Acta Paediatr Suppl** 1999 Feb;88(428):164–6; discussion 167 (10 ref.)
Partial growth hormone insensitivity—idiopathic short stature is not always idiopathic. Saenger P. **Acta Paediatr Suppl** 1999 Feb;88(428):194–8 (20 ref.)
Short-term increments of insulin-like growth factor I (IGF-I) and IGF-binding protein-3 predict the growth response to growth hormone (GH) therapy in GH-sensitive children. Schwarze CP, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):200–8
Effects of insulin-like growth factor I treatment on statural growth, body composition and phenotype of children with growth hormone insensitivity syndrome. GHIS Collaborative Group. Underwood LE, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):182–4
Relationship between phenotype and genotype in growth hormone insensitivity syndrome. Woods KA, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):158–62; discussion 163 (13 ref.)
Polymorphism in exon 10 of the bovine GHR gene detected by PCR-DGGE. Ge W, et al. **Anim Genet** 1999 Apr; 30(2):167–8
Two-allelic DGGE polymorphism detected in the promoter region of the bovine GHR gene. Ge W, et al. **Anim Genet** 1999 Feb;30(1):71
RFLPs at the porcine growth hormone receptor (GHR) gene: evidence of an insertion/deletion. Nielsen VH, et al. **Anim Genet** 1998 Oct;29(5):400–1
Analysis of a 762-bp proximal leptin promoter to drive and control regulation of transgene expression of growth hormone receptor in mice. Chen XL, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):187–92
Cloning and expression of pigeon growth hormone receptor cDNA in COS-7 monkey kidney cells. Ohkubo T, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):449–55
Tissue-specific regulation of growth hormone receptor and growth hormone binding protein gene expression during pregnancy and lactation in the rat. Sakaguchi K, et al. **Endocr J** 1998 Apr;45 Suppl:S105–7
Alternative processing of growth hormone receptor transcripts. Edens A, et al. **Endocr Rev** 1998 Oct; 19(5):559–82 (131 ref.)
Pituitary and testicular function in growth hormone receptor gene knockout mice. Chandrashekar V, et al. **Endocrinology** 1999 Mar;140(3):1082–8
Reduced growth hormone receptor (GHR) messenger ribonucleic acid in liver of periparturient cattle is caused by a specific down-regulation of GHR 1A that is associated with decreased insulin-like growth factor I. Kobayashi Y, et al. **Endocrinology** 1999 Sep;140(9):3947–54
Activation of the adult mode of ovine growth hormone receptor gene expression by cortisol during late fetal development. Li J, et al. **FASEB J** 1999 Mar;13(3):545–52
Hepatic expression of growth hormone receptor/binding protein and insulin-like growth factor I genes in uremic rats. Influence of nutritional deficit. Martinez V, et al. **Growth Horm IGF Res** 1999 Feb;9(1):61–8
Defects of the growth hormone receptor and their clinical implications. Savage MO, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:57–61 (21 ref.)
Isolation and characterization of a novel promoter for the bovine growth hormone receptor gene. Jiang H, et al. **J Biol Chem** 1999 Mar 19;274(12):7893–900
Growth hormone receptor mutations in children with idiopathic short stature. Sanchez JE, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4079–83
Reduced growth hormone receptor messenger ribonucleic acid in an aged man with chronic malnutrition and growth hormone resistance. Shuto Y, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2320–3
Four contiguous amino acid substitutions, identified in patients with Laron syndrome, differently affect the binding affinity and intracellular trafficking of the growth hormone receptor. Wojcik J, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4481–9
A missense mutation in the GHR gene of Cornell sex-linked dwarf chickens does not abolish serum GH binding. Hull KL, et al. **J Endocrinol** 1999 Jun;161(3):495–501
Markers within the regulatory region of the growth hormone receptor gene and their association with milk-related traits in Holsteins. Aggrey SE, et al. **J Hered** 1999 Jan–Feb; 90(1):148–51
The D152H mutation found in growth hormone insensitivity syndrome impairs expression and function of human growth hormone receptor but is silent in rat receptor. Esposito N, et al. **J Mol Endocrinol** 1998 Aug;21(1):61–72
Transcriptional upregulation of hepatic GH receptor and GH-binding protein expression during pregnancy in the mouse. Ilkbahar YN, et al. **J Mol Endocrinol** 1999 Aug; 23(1):85–96
Structure and expression of the mouse growth hormone receptor/growth hormone binding protein gene. Moffat JG, et al. **J Mol Endocrinol** 1999 Aug;23(1):33–44
The baboon: a model for the study of primate growth hormone receptor gene expression during development. Zogopoulos G, et al. **J Mol Endocrinol** 1999 Aug; 23(1):67–75
Serum leptin in obese patients with Laron syndrome before and during IGF-I treatment. Laron Z, et al. **J Pediatr Endocrinol Metab** 1998 Sep–Oct;11(5):653–6
Regulation of human growth hormone receptor gene transcription by triiodothyronine (T3). Mullis PE, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):17–25
Developmental regulation of insulin-like growth factor-I and growth hormone receptor gene expression. Shoba L, et al. **Mol Cell Endocrinol** 1999 Jun 25;152(1–2):125–36
Growth hormone-dependent regulation of pituitary GH secretagogue receptor (GHS-R) mRNA levels in the spontaneous dwarf Rat. Kamegai J, et al. **Neuroendocrinology** 1998 Nov;68(5):312–8
[Phenotype-genotype relations in growth hormone insensitivity] Savage MO, et al. **Arch Pediatr** 1998;5 Suppl 4:364S–370S (Eng. Abstr.) **(Fre)**
[GH receptor gene mutations and growth failure] Kaji H. **Nippon Rinsho** 1998 Jul;56(7):1830–5 (20 ref.) (Eng. Abstr.) **(Jpn)**
[Induction of synthesis specific for females of variants growth hormone receptor mRNA in liver of male rats] Babasian SA, et al. **Mol Biol (Mosk)** 1998 Sep–Oct;32(5):830–1 **(Rus)**

IMMUNOLOGY

Characterization of an antagonist monoclonal antibody, GHBP116, specific for human growth hormone receptors. Takagi K, et al. **Biol Pharm Bull** 1999 Jul;22(7):734–7

METABOLISM

GH insensitivity induced by endotoxin injection is associated with decreased liver GH receptors. Defalque D, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E565–72
Expression of growth hormone receptor in the bovine mammary gland during prenatal development. Knabel M, et al. **Anat Embryol (Berl)** 1998 Aug;198(2):163–9
Growth hormone-dependent tyrosine phosphorylation of a GH receptor-associated high molecular WEIGHT protein immunologically related to JAK2. Jiang J, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):774–9
Growth hormone binding affinity for its receptor surpasses the requirements for cellular activity. Pearce KH Jr, et al. **Biochemistry** 1999 Jan 5;38(1):81–9
Expression of growth hormone receptors by lymphocyte subpopulations in the human tonsil. Thellin O, et al. **Dev Immunol** 1998;6(3–4):295–304
Identification of a novel ubiquitin conjugation motif, required for ligand-induced internalization of the growth hormone receptor. Govers R, et al. **EMBO J** 1999 Jan 4;18(1):28–36
The human growth hormone (GH) receptor and its truncated isoform: sulfhydryl group inactivation in the study of receptor internalization and GH-binding protein generation. Amit T, et al. **Endocrinology** 1999 Jan; 140(1):266–72
Growth hormone (GH) and 17beta-estradiol regulation of the expression of mouse GH receptor and GH-binding protein in cultured mouse hepatocytes. Contreras B, et al. **Endocrinology** 1999 Oct;140(10):4725–31
The human growth hormone antagonist B2036 does not interact with the prolactin receptor. Goffin V, et al. **Endocrinology** 1999 Aug;140(8):3853–6
Expression of growth hormone and insulin-like growth factor in the immune system of children. Yang Y, et al. **Horm Metab Res** 1999 Jun;31(6):380–4
Insulin inhibits growth hormone signaling via the growth hormone receptor/JAK2/STAT5B pathway. Ji S, et al. **J Biol Chem** 1999 May 7;274(19):13434–42
Receptor-mediated internalization is critical for the inhibition of the expression of growth hormone by somatostatin in the pituitary cell line AtT-20. Sarret P, et al. **J Biol Chem** 1999 Jul 2;274(27):19294–300
Growth hormone (GH) receptor blockade with a PEG-modified GH (B2036-PEG) lowers serum insulin-like growth factor-I but does not acutely stimulate

RECEPTORS, SOMATOTROPIN

serum GH. Thorner MO, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2098-103

Four contiguous amino acid substitutions, identified in patients with Laron syndrome, differently affect the binding affinity and intracellular trafficking of the growth hormone receptor. Wojcik J, et al.
J Clin Endocrinol Metab 1998 Dec;83(12):4481-9

Differential expression of the growth hormone receptor and growth hormone-binding protein in epithelia and stroma of the mouse mammary gland at various physiological stages. Ilkbahar YN, et al. **J Endocrinol** 1999 Apr; 161(1):77-87

Fetal rat lung epithelium has a functional growth hormone receptor coupled to tyrosine kinase activity and insulin-like growth factor binding protein-2 production. Batchelor DC, et al. **J Mol Endocrinol** 1998 Aug;21(1):73-84

Growth hormone receptor expression and function in meningiomas: effect of a specific receptor antagonist. Friend KE, et al. **J Neurosurg** 1999 Jul;91(1):93-9

Insulin-like growth factor 1 and growth hormone binding protein in depression: a preliminary communication. Franz B, et al. **J Psychiatr Res** 1999 Mar-Apr;33(2):121-7

Growth hormone receptors in ovary and liver during gametogenesis in female rainbow trout (Oncorhynchus mykiss). Gomez JM, et al. **J Reprod Fertil** 1999 Mar; 115(2):275-85

Biochemistry and pharmacology of rabbit cardiac growth hormone (GH) receptors. Haro LS, et al.
Mol Cell Endocrinol 1999 Jun 25;152(1-2):179-87

PHYSIOLOGY

Cytokines in endocrine function. Silva CM, et al.
Adv Protein Chem 1998;52:199-221 (72 ref.)

The role of growth hormone and insulin-like growth factors in the immune system. van Buul-Offers SC, et al.
Cell Mol Life Sci 1998 Oct;54(10):1083-94 (160 ref.)

Prolactin, growth hormone and the immune system in humans. Velkeniers B, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1102-8 (75 ref.)

Deficits in female reproductive function in GH-R-KO mice; role of IGF-I. Danilovich N, et al. **Endocrinology** 1999 Jun;140(6):2637-40

Studies with a growth hormone antagonist and dual-fluorescent confocal microscopy demonstrate that the full-length human growth hormone receptor, but not the truncated isoform, is very rapidly internalized independent of Jak2-Stat5 signaling. Maamra M, et al. **J Biol Chem** 1999 May 21;274(21):14791-8

Functional characterization of truncated growth hormone (GH) receptor-(1-277) causing partial GH insensitivity syndrome with high GH-binding protein. Iida K, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1011-6

Growth hormone receptor and regulation of gene expression in fetal lymphoid cells. Chen HT, et al.
Mol Cell Endocrinol 1998 Feb;137(1):21-9

Signaling via JAK tyrosine kinases: growth hormone receptor as a model system. Carter-Su C, et al.
Recent Prog Horm Res 1998;53:61-82; discussion 82-3 (78 ref.)

RECEPTORS, SOMATOTROPIN RELEASE INHIBITING HORMONE see **RECEPTORS, SOMATOSTATIN**

RECEPTORS, SRS-A see **RECEPTORS, LEUKOTRIENE**

RECEPTORS, STEM CELL FACTOR see **PROTO-ONCOGENE PROTEINS C-KIT**

RECEPTORS, STEROID

ANALYSIS

A constitutive nuclear localization signal from the second zinc-finger of orphan nuclear receptor TR2. Yu Z, et al.
J Endocrinol 1998 Oct;159(1):53-60

Sex hormone receptor status of the dental pulp and lesions of pulpal origin. Whitaker SB, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 Feb;87(2):233-7

ANTAGONISTS & INHIBITORS

Tamoxifen resistant breast cancer: coregulators determine the direction of transcription by antagonist-occupied steroid receptors. Takimoto GS, et al.
J Steroid Biochem Mol Biol 1999 Apr-Jun;69(1-6):45-50 (28 ref.)

BIOSYNTHESIS

Abnormal expression of sex steroid receptors and cell cycle-related molecules in adenocarcinoma in situ of the uterine cervix. Lu X, et al. **Int J Gynecol Pathol** 1999 Apr; 18(2):109-14

CHEMISTRY

GST-Induced dimerization of DNA-binding domains alters characteristics of their interaction with DNA. Niedziela-Majka A, et al. **Protein Expr Purif** 1998 Nov; 14(2):208-20

DEFICIENCY

Mice deficient in the steroid receptor co-activator 1 (SRC-1) are resistant to thyroid hormone. Weiss RE, et al.
EMBO J 1999 Apr 1;18(7):1900-4

DRUG EFFECTS

Induction of TR4 orphan receptor by retinoic acid in human HaCaT keratinocytes. Inui S, et al. **J Invest Dermatol** 1999 Apr;112(4):426-31

Environmental xenobiotics and the antihormones cyproterone acetate and spironolactone use the nuclear hormone pregnenolone X receptor to activate the CYP3A23 hormone response element. Schuetz EG, et al. **Mol Pharmacol** 1998 Dec;54(6):1113-7

Effects of repeated fluoxetine on anxiety-related behaviours, central serotonergic systems, and the corticotropic axis axis in SHR and WKY rats. Durand M, et al.
Neuropharmacology 1999 Jun;38(6):893-907

GENETICS

Specific chromosomal aberrations and amplification of the AIB1 nuclear receptor coactivator gene in pancreatic carcinomas. Ghadimi BM, et al. **Am J Pathol** 1999 Feb; 154(2):525-36

Rat pregnane X receptor: molecular cloning, tissue distribution, and xenobiotic regulation. Zhang H, et al.
Arch Biochem Biophys 1999 Aug 1;368(1):14-22

Cloning and tissue expression of two putative steroid membrane receptors. Gerdes D, et al. **Biol Chem** 1998 Jul; 379(7):907-11

Identification of a gene encoding a human oxysterol-binding protein-homologue: a potential general molecular marker for blood dissemination of solid tumors. Fournier MV, et al. **Cancer Res** 1999 Aug 1;59(15):3748-53

Expression of the steroid receptor RNA activator in human breast tumors. Leygue E, et al. **Cancer Res** 1999 Sep 1; 59(17):4190-3

The one-to-four rule and paralogues of sex-determining genes. Ohno S. **Cell Mol Life Sci** 1999 Jun;55(6-7):824-30 (19 ref.)

The RXR homolog ultraspiracle is an essential component of the Drosophila ecdysone receptor. Hall BL, et al.
Development 1998 Dec;125(23):4709-17

Palmitate and oleate induce the immediate-early response genes c-fos and nur-77 in the pancreatic beta-cell line INS-1. Roche E, et al. **Diabetes** 1999 Oct;48(10):2007-14

Gonadotropin and steroid regulation of steroid receptor and aryl hydrocarbon receptor messenger ribonucleic acid in macaque granulosa cells during the periovulatory interval. Chaffin CL, et al. **Endocrinology** 1999 Oct;140(10):4753-60

Cloning of a shrimp (Metapanaeus ensis) cDNA encoding a nuclear receptor superfamily member: an insect homologue of E75 gene. Chan SM. **FEBS Lett** 1998 Oct 9;436(3):395-400

Steroid receptor mRNA levels in human corpus luteum. Misao R, et al. **Horm Res** 1998 Sep;50(3):155-9

Chinese hamster ovary cells overexpressing the oxysterol binding protein (OSBP) display enhanced synthesis of sphingomyelin in response to 25-hydroxycholesterol. Lagace TA, et al. **J Lipid Res** 1999 Jan;40(1):109-16

Thyroid hormone direct repeat 4 response element is a positive regulatory element for the human TR2 orphan receptor, a member of steroid receptor superfamily. Chang C, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):195-200

Activation of a delayed-early gene encoding MHR3 by the ecdysone receptor heterodimer EcR-B1-USP-1 but not by EcR-B1-USP-2. Lan Q, et al. **Mol Cell Biol** 1999 Jul; 19(7):4897-906

Steroid receptor isoforms: exception or rule? Keightley MC.
Mol Cell Endocrinol 1998 Feb;137(1):1-5 (51 ref.)

Studies on two ecdysone receptor isoforms of the spruce budworm, Choristoneura fumiferana. Perera SC, et al.
Mol Cell Endocrinol 1999 Jun 25;152(1-2):73-84

Cloning and characterization of an ecdysone receptor cDNA from Locusta migratoria. Saleh DS, et al.
Mol Cell Endocrinol 1998 Aug 25;143(1-2):91-9

Transcript titers of ecdysteroid receptor components vary between tissues and stages during Drosophila development. Kim SJ, et al. **Mol Cells** 1999 Feb 28;9(1):61-6

Creation of ecdysone receptor chimeras in plants for controlled regulation of gene expression. Martinez A, et al. **Mol Gen Genet** 1999 Apr;261(3):546-52

IMMUNOLOGY

Production and characterization of monoclonal antibodies to the steroid receptor coactivator AIB1. Azorsa DO, et al. **Hybridoma** 1999 Jun;18(3):281-7

ISOLATION & PURIFICATION

SXR, a novel steroid and xenobiotic-sensing nuclear receptor. Blumberg B, et al. **Genes Dev** 1998 Oct 15; 12(20):3195-205

Solubilization and pharmacological characterization of a glucocorticoid membrane receptor from an amphibian brain. Evans SJ, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):1-8

Segregation of steroid receptor coactivator-1 from steroid receptors in mammary epithelium. Shim WS, et al.
Proc Natl Acad Sci U S A 1999 Jan 5;96(1):208-13

METABOLISM

H19 overexpression in breast adenocarcinoma stromal cells is associated with tumor values and steroid receptor status but independent of p53 and Ki-67 expression. Adriaenssens E, et al. **Am J Pathol** 1998 Nov;153(5):1597-607

Steroid receptor concentrations as a prognostic factor in atypical endometrial hyperplasia. Lindahl B, et al.
Anticancer Res 1998 Sep-Oct;18(5B):3793-5

Rat pregnane X receptor: molecular cloning, tissue distribution, and xenobiotic regulation. Zhang H, et al.
Arch Biochem Biophys 1999 Aug 1;368(1):14-22

DNA-binding properties of the ecdysteroid receptor-complex (EcR/USP) of the epithelial cell line from Chironomus tentans. Elke C, et al.
Arch Insect Biochem Physiol 1999;41(3):124-33

Evidence for the presence of a functional pregnane X receptor response element in the CYP3A7 promoter gene. Pascussi JM, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):377-81

Cholesterol regulates oxysterol binding protein (OSBP) phosphorylation and Golgi localization in Chinese hamster ovary cells: correlation with stimulation of sphingomyelin synthesis by 25-hydroxycholesterol. Storey MK, et al.
Biochem J 1998 Nov 15;336 (Pt 1):247-56

Classification of breast tumors by grade and steroid receptor status using pattern recognition analysis of infrared spectra. Jackson M, et al. **Cancer Detect Prev** 1999;23(3):245-53

Reappraisal of the role of heat shock proteins as regulators of steroid receptor activity. Ylikomi T, et al.
Crit Rev Biochem Mol Biol 1998;33(6):437-66 (196 ref.)

Steroid hormones: Interactions with membrane-bound receptors. Chen HC, et al. **Curr Biol** 1999 Jul 1; 9(13):R478-81

Pharmacological characterization of central and peripheral type I and type II adrenal steroid receptors in the prairie vole, a glucocorticoid-resistant rodent. Hastings NB, et al. **Endocrinology** 1999 Oct;140(10):4459-69

The orphan nuclear receptor COUP-TFII is required for angiogenesis and heart development. Pereira FA, et al.
Genes Dev 1999 Apr 15;13(8):1037-49

Profile of the ecdysteroid hormone and its receptor in the salivary gland of the adult female tick, Amblyomma hebraeum. Mao H, et al. **Insect Biochem Mol Biol** 1999 Jan;29(1):33-42

DNA binding properties of the ecdysteroid receptor in the salivary gland of the female ixodid tick, Amblyomma hebraeum. Mao H, et al. **Insect Biochem Mol Biol** 1998 Dec;28(12):947-57

Differential effects of sphingomyelin hydrolysis and cholesterol transport on oxysterol-binding protein phosphorylation and Golgi localization. Ridgway ND, et al. **J Biol Chem** 1998 Nov 20;273(47):31621-8

DNA binding and transactivation characteristics of the mosquito ecdysone receptor-Ultraspiracle complex. Wang SF, et al. **J Biol Chem** 1998 Oct 16;273(42):27531-40

Characterization of 11beta-hydroxysteroid dehydrogenase activity and corticosteroid receptor expression in human osteosarcoma cell lines. Bland R, et al. **J Endocrinol** 1999 Jun;161(3):455-64

Chinese hamster ovary cells overexpressing the oxysterol binding protein (OSBP) display enhanced synthesis of sphingomyelin in response to 25-hydroxycholesterol. Lagace TA, et al. **J Lipid Res** 1999 Jan;40(1):109-16

Solubilization and pharmacological characterization of a glucocorticoid membrane receptor from an amphibian brain. Evans SJ, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):1-8

EcR interacts with corepressors and harbours an autonomous silencing domain functional in both Drosophila and vertebrate cells. Thormeyer D, et al.
J Steroid Biochem Mol Biol 1999 Feb;68(3-4):163-9

The Angelman syndrome-associated protein, E6-AP, is a coactivator for the nuclear hormone receptor superfamily. Nawaz Z, et al. **Mol Cell Biol** 1999 Feb;19(2):1182-9

Interaction of the putative androgen receptor-specific coactivator ARA70/ELE1alpha with multiple steroid receptors and identification of an internally deleted ELE1beta isoform. Alen P, et al. **Mol Endocrinol** 1999 Jan; 13(1):117-28

New screening methods for chemicals with hormonal activities using interaction of nuclear hormone receptor with coactivator. Nishikawa J, et al.
Toxicol Appl Pharmacol 1999 Jan 1;154(1):76-83

Immunohistochemical study of hormone receptor and hormone-regulated protein expression in phyllodes tumour: comparison with fibroadenoma. Umekita Y, et al.
Virchows Arch 1998 Oct;433(4):311-4

Coregulatory proteins in nuclear hormone receptor action. Edwards DP. **Vitam Horm** 1999;55:165-218 (217 ref.)

[Binding affinity to steroid hormone receptors and antiproliferative action on MCF-7 cells of coumarin derivatives and isoflavonoids] Kirkiacharian S, et al.
Ann Pharm Fr 1999 Jul;57(4):332-9 (Eng. Abstr.) **(Fre)**

[Sex steroid hormones and their receptors in pancreatic neoplasms] Kushlinskii NE, et al. **Biull Eksp Biol Med** 1998 Aug;126(8):197-200 **(Rus)**

PHYSIOLOGY

P450 gene induction by structurally diverse xenochemicals: central role of nuclear receptors CAR, PXR, and PPAR. Waxman DJ. **Arch Biochem Biophys** 1999 Sep 1;

369(1):11–23 (128 ref.)
A steroid receptor coactivator, SRA, functions as an RNA and is present in an SRC-1 complex. Lanz RB, et al. **Cell** 1999 Apr 2;97(1):17–27
Regulation of steroid receptor subcellular trafficking. DeFranco DB. **Cell Biochem Biophys** 1999;30(1):1–24 (96 ref.)
Coactivation and corepression in transcriptional regulation by steroid/nuclear hormone receptors. Chen JD, et al. **Crit Rev Eukaryot Gene Expr** 1998;8(2):169–90 (130 ref.)
The ecdysone receptor and ultraspiracle regulate the timing and progression of ovarian morphogenesis during Drosophila metamorphosis. Hodin J, et al. **Dev Genes Evol** 1998 Aug;208(6):304–17
Investigation of steroid receptor function in the budding yeast Saccharomyces cerevisiae. McEwan IJ. **FEMS Microbiol Lett** 1999 Jul 1;176(1):1–9 (35 ref.)
Regulation of gill cytosolic corticosteroid receptors in juvenile Atlantic salmon: interaction effects of growth hormone with prolactin and triiodothyronine. Shrimpton JM, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):262–74
Endometrial steroid receptors during decidualization in rhesus monkey (Macaca mulatta); their modulation by anti-oestrogen CDRI-85/287. Dwivedi A, et al. **Hum Reprod** 1999 Apr;14(4):1090–5
Differential regulation of direct repeat 3 vitamin D3 and direct repeat 4 thyroid hormone signaling pathways by the human TR4 orphan receptor. Lee YF, et al. **J Biol Chem** 1999 Jun 4;274(23):16198–205
Steroid receptors at the nexus of transcriptional regulation. Barrett TJ, et al. **J Cell Biochem Suppl** 1998;30–31:185–93 (40 ref.)
Symposium: Steroid Hormone Receptor and Nutrient Interactions: Implications for Cancer Prevention. Introduction. Belury MA. **J Nutr** 1999 Feb;129(2S Suppl):569S–570S (4 ref.)
The hsp56 immunophilin component of steroid receptor heterocomplexes: could this be the elusive nuclear localization signal-binding protein? Pratt WB, et al. **J Steroid Biochem Mol Biol** 1993 Sep;46(3):269–79 (74 ref.)
Interactions in the transcriptional regulation exerted by Stat5 and by members of the steroid hormone receptor family. Stoecklin E, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1–6):195–204
SMRTER, a Drosophila nuclear receptor coregulator, reveals that EcR-mediated repression is critical for development. Tsai CC, et al. **Mol Cell** 1999 Aug; 4(2):175–86
Coactivators and corepressors as mediators of nuclear receptor function: an update. Jenster G. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):1–7 (68 ref.)
E75 expression in mosquito ovary and fat body suggests reiterative use of ecdysone-regulated hierarchies in development and reproduction. Pierceall WE, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):73–89
Corticosteroids in the brain. Cellular and molecular actions. Joëls M, et al. **Mol Neurobiol** 1998 Winter;17(1–3):87–108 (139 ref.)
Ligand and subfield specificity of corticoid-induced neuronal loss in the rat hippocampal formation. Sousa N, et al. **Neuroscience** 1999;89(4):1079–87
Membrane-initiated steroid actions and the proteins that mediate them. Watson CS, et al. **Proc Soc Exp Biol Med** 1999 Jan;220(1):9–19 (176 ref.)
Chronic intermittent stress does not differentially alter brain corticosteroid receptor densities in rats prenatally exposed to ethanol. Kim CK, et al. **Psychoneuroendocrinology** 1999 Aug;24(6):585–611
Orphan nuclear receptors: shifting endocrinology into reverse. Kliewer SA, et al. **Science** 1999 Apr 30; 284(5415):757–60 (37 ref.)
Serotonin and carbachol induced suppression of synaptic responses in rat CA1 hippocampal area: effects of corticosteroid receptor activation in vivo. Karten YJ, et al. **Stress** 1998 Jul;2(3):183–200
[Role of sex steroids and their receptors in the pathophysiology of hepatocellular carcinoma] Clavière C, et al. **Gastroenterol Clin Biol** 1998 Jan;22(1):73–86 (166 ref.) **(Fre)**
[Transcriptional control by steroid receptor] Kato S. **Nippon Rinsho** 1998 Jul;56(7):1699–704 (20 ref.) (Eng. Abstr.) **(Jpn)**
[Functional analysis of nuclear hormone receptors] Nagaya T, et al. **Nippon Rinsho** 1998 Jul;56(7):1688–92 (12 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, STRETCH see **MECHANORECEPTORS**

RECEPTORS, STRETCH, ARTERIAL see **PRESSORECEPTORS**

RECEPTORS, STRETCH, MUSCLE see **MUSCLE SPINDLES**

RECEPTORS, STRETCH, PULMONARY see **PULMONARY STRETCH RECEPTORS**

RECEPTORS, STRETCH, VASCULAR see **PRESSORECEPTORS**

RECEPTORS, SUBSTANCE K see **RECEPTORS, NEUROKININ-2**

RECEPTORS, SUBSTANCE P see **RECEPTORS, NEUROKININ-1**

RECEPTORS, SYNAPTIC see **RECEPTORS, NEUROTRANSMITTER**

RECEPTORS, T-CELL GROWTH FACTOR see **RECEPTORS, INTERLEUKIN-2**

RECEPTORS, TACHYKININ

Inflammatory and motor responses by tachykinins in the guinea-pig oesophageal sphincter. Conte B, et al. **J Auton Pharmacol** 1998 Oct;18(5):313–7

AGONISTS

Natural agonist enhancing bis-His zinc-site in transmembrane segment V of the tachykinin NK3 receptor. Rosenkilde MM, et al. **FEBS Lett** 1998 Nov 13;439(1–2):35–40

ANALYSIS

Effect of post-mortem delay on density of tachykinin receptors in rat peripheral tissues. Dias LS, et al. **Peptides** 1998;19(8):1359–64

ANTAGONISTS & INHIBITORS

Combined NK1 and NK2 tachykinin receptor antagonists: synthesis and structure-activity relationships of novel oxazolidine analogues. Nishi T, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):875–80
Effects of tachykinin NK1 receptor antagonists on vagal hyperreactivity and neuronal M2 muscarinic receptor function in antigen challenged guinea-pigs. Costello RW, et al. **Br J Pharmacol** 1998 May;124(2):267–76
The tachykinin NK1 receptor antagonist GR205171 prevents vagal stimulation-induced retching but not neuronal transmission from emetic vagal afferents to solitary nucleus neurons in dogs. Fukuda H, et al. **Brain Res** 1998 Aug 17;802(1–2):221–31
Effect of tachykinin receptor antagonists in experimental neuropathic pain. Coudoré-Civiale MA, et al. **Eur J Pharmacol** 1998 Nov 20;361(2–3):175–84
Effect of MEN 11467, a new tachykinin NK1 receptor antagonist, in acute rectocolitis induced by acetic acid in guinea-pigs. Cutrufo C, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):277–83
Acetylcholine and tachykinin receptor antagonists attenuate wood smoke-induced bronchoconstriction in guinea pigs. Hsu TH, et al. **Eur J Pharmacol** 1998 Nov 6; 360(2–3):175–83
A method to measure dual NK1/NK2-antagonist activity in dogs. Sherwood JE, et al. **J Pharmacol Toxicol Methods** 1998 Mar;39(2):97–101
Antimuscarinic, calcium channel blocker and tachykinin NK2 receptor antagonist actions of otilonium bromide in the circular muscle of guinea-pig colon. Santicioli P, et al. **Naunyn Schmiedebergs Ar's Pharmacol** 1999 May; 359(5):420–7

CHEMISTRY

Natural agonist enhancing bis-His zinc-site in transmembrane segment V of the tachykinin NK3 receptor. Rosenkilde MM, et al. **FEBS Lett** 1998 Nov 13;439(1–2):35–40

DRUG EFFECTS

Respiratory action of capsaicin microinjected into the nucleus of the solitary tract: involvement of vanilloid and tachykinin receptors. Mazzone SB, et al. **Br J Pharmacol** 1999 May;127(2):473–81
Different tachykinin receptors mediate chloride secretion in the distal colon through activation of submucosal neurones. Frieling T, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):71–9
Tachykinin receptors are involved in the "local efferent" motor response to capsaicin in the guinea-pig small intestine and oesophagus. Barthó L, et al. **Neuroscience** 1999 Apr;90(1):221–8

GENETICS

Tachykinin receptor and neutral endopeptidase gene expression in the rat uterus: characterization and regulation in response to ovarian steroid treatment. Pinto FM, et al. **Endocrinology** 1999 Jun;140(6):2526–32

IMMUNOLOGY

Involvement of tachykinin receptors in sensitisation to cow's milk proteins in guinea pigs. Gay J, et al. **Gut** 1999 Apr; 44(4):497–503

METABOLISM

Immunolocalization of a tachykinin-receptor-like protein in the central nervous system of Locusta migratoria migratorioides and neobellieria bullata. Veelaert D, et al. **J Comp Neurol** 1999 May 10;407(3):415–26
Smoke-induced airway hyperresponsiveness to inhaled wood smoke in guinea pigs: tachykininergic and cholinergic mechanisms. Hsu TH, et al. **Life Sci** 1998;63(17):1513–24
In vivo regulation of intraneuronal trafficking of G protein-coupled receptors for neurotransmitters. Bloch B, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):315–9 (44 ref.)

PHYSIOLOGY

Functional characterisation of tachykinin receptors mediating ion transport in porcine jejunum. Thorbøll JE, et al. **Eur J Pharmacol** 1998 Oct 23;359(2–3):271–9
Nociceptin receptor activation inhibits tachykinergic non adrenergic non cholinergic contraction of guinea pig isolated bronchus. Rizzi A, et al. **Life Sci** 1999; 64(13):PL157–63
Tachykinin receptors on human monocytes: their involvement in rheumatoid arthritis. Brunelleschi S, et al. **Neuropeptides** 1998 Jun;32(3):215–23

THERAPEUTIC USE

Effects of tachykinin NK1 or PAF receptor blockade on the lung injury induced by scorpion venom in rats. Matos IM, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):293–300

RECEPTORS, TETRAGASTRIN see **RECEPTORS, CHOLECYSTOKININ**

RECEPTORS, TGF-ALPHA see **RECEPTORS, EPIDERMAL GROWTH FACTOR-UROGASTRONE**

RECEPTORS, TGF-BETA see **RECEPTORS, TRANSFORMING GROWTH FACTOR BETA**

RECEPTORS, THROMBIN

Evaluation of proteinase-activated receptor-1 (PAR1) agonists and antagonists using a cultured cell receptor desensitization assay: activation of PAR2 by PAR1-targeted ligands. Kawabata A, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):358–70

AGONISTS

Combination of fosinopril and pravastatin decreases platelet response to thrombin receptor agonist in monkeys. Hale LP, et al. **Arterioscler Thromb Vasc Biol** 1998 Oct; 18(10):1643–6
Thrombopoietin acts synergistically on Ca(2+) mobilization in platelets caused by ADP or thrombin receptor agonist peptide. Eilers M, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):230–8
Thrombopoietin potentiates agonist-stimulated activation of p38 mitogen-activated protein kinase in human platelets. Ezumi Y, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):58–63
Modulation of mast cell activity by a peptide agonist of the thrombin receptor: role of nitric oxide. Strukova SM, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):658–64
Design and synthesis of thrombin receptor-derived nonpeptide mimetics utilizing a piperazine scaffold. Alexopoulos K, et al. **Bioorg Med Chem** 1999 Jun; 7(6):1033–41
Heterocycle-peptide hybrid compounds. Aminotriazole-containing agonists of the thrombin receptor (PAR-1). McComsey DF, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1423–8

ANTAGONISTS & INHIBITORS

Structure-activity relationships of pyrroloquinazolines as thrombin receptor antagonists. Ahn HS, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2073–8
Photoactivatable peptides based on BMS-197525: a potent antagonist of the human thrombin receptor (PAR-1). Elliott JT, et al. **Bioorg Med Chem Lett** 1999 Jan 18; 9(2):279–84
A novel molecular design of thrombin receptor antagonist. Fujita T, et al. **Bioorg Med Chem Lett** 1999 May 17; 9(10):1351–6
Thrombin receptor (PAR-1) antagonists. Heterocycle-based peptidomimetics of the SFLLR agonist motif. Hoekstra WJ, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1649–54
Therapeutic inhibition of thrombin activities, receptors, and production. Harker LA. **Hematol Oncol Clin North Am** 1998 Dec;12(6):1211–30 (86 ref.)

BIOSYNTHESIS

Increased expression of protease activated receptor-2 (PAR-2) in balloon-injured rat carotid artery. Damiano BP, et al. **Thromb Haemost** 1999 May;81(5):808–14

CHEMISTRY

A comparative SAR study of thrombin receptor derived non peptide mimetics: importance of phenyl/guanidino proximity for activity. Alexopoulos K, et al. **Amino Acids** 1998;15(3):211–20
Macrocyclic hexapeptide analogues of the thrombin receptor (PAR-1) activation motif SFLLRN [published erratum appears in Bioorg Med Chem Lett 1999 May 17;9(10):1475] McComsey DF, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):255–60
Binding conformers searching method for ligands according to the structures of their receptors and its application to thrombin inhibitors. Jiang HL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jan;18(1):36–44
Proteinase-activated receptor 2 (PAR(2)): development of

a ligand-binding assay correlating with activation of PAR(2) by PAR(1)- and PAR(2)-derived peptide ligands. Al-Ani B, et al. **J Pharmacol Exp Ther** 1999 Aug; 290(2):753-60

Protease-activated receptors: PAR4 and counting: how long is the course? Hollenberg MD. **Trends Pharmacol Sci** 1999 Jul;20(7):271-3

GENETICS

Shutoff and agonist-triggered internalization of protease-activated receptor 1 can be separated by mutation of putative phosphorylation sites in the cytoplasmic tail. Hammes SR, et al. **Biochemistry** 1999 Jul 20;38(29):9308-16

Plasmin desensitization of the PAR1 thrombin receptor: kinetics, sites of truncation, and implications for thrombolytic therapy. Kuliopulos A, et al. **Biochemistry** 1999 Apr 6;38(14):4572-85

Polymorphisms of platelet membrane glycoprotein Ib associated with arterial thrombotic disease. Gonzalez-Conejero R, et al. **Blood** 1998 Oct 15; 92(8):2771-6

Differential regulation of protease activated receptor-1 and tissue plasminogen activator expression by shear stress in vascular smooth muscle cells. Papadaki M, et al. **Circ Res** 1998 Nov 16;83(10):1027-34

Thrombin induces proteinase-activated receptor-1 gene expression in endothelial cells via activation of Gi-linked Ras/mitogen-activated protein kinase pathway. Ellis CA, et al. **J Biol Chem** 1999 May 7;274(19):13718-27

Modulation of osteoblast-like cell behavior by activation of protease-activated receptor-1. Abraham LA, et al. **J Bone Miner Res** 1999 Aug;14(8):1320-9

Proteolytically activated receptor-3. A member of an emerging gene family of protease receptors expressed on vascular endothelial cells and platelets. Cupit LD, et al. **Trends Cardiovasc Med** 1999 Jan-Feb;9(1-2):42-8 (39 ref.)

METABOLISM

Time course of recovery of endothelial cell surface thrombin receptor (PAR-1) expression. Ellis CA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C38-45

Dual coupling of the alpha-thrombin receptor to signal-transduction pathways involving phosphatidylinositol and phosphatidylcholine metabolism. Cheng J, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):97-104

A trypsin-like platelet protease propagates protease-activated receptor-1 cleavage and platelet activation. Ofosu FA, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):283-5

Proteinase-activated receptors: a growing family of heptahelical receptors for thrombin, trypsin and tryptase. Déry O, et al. **Biochem Soc Trans** 1999 Feb;27(2):246-54 (50 ref.)

Shutoff and agonist-triggered internalization of protease-activated receptor 1 can be separated by mutation of putative phosphorylation sites in the cytoplasmic tail. Hammes SR, et al. **Biochemistry** 1999 Jul 20;38(29):9308-16

Plasmin desensitization of the PAR1 thrombin receptor: kinetics, sites of truncation, and implications for thrombolytic therapy. Kuliopulos A, et al. **Biochemistry** 1999 Apr 6;38(14):4572-85

PAR1 activation initiates integrin engagement and outside-in signalling in megakaryoblastic CHRF-288 cells. Cichowski K, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):265-76

Protease-activated receptor-2 turnover stimulated independently of receptor activation in porcine coronary endothelial cells. Hamilton JR, et al. **Br J Pharmacol** 1999 Jun;127(3):617-22

Endothelium-dependent and -independent responses to protease-activated receptor-2 (PAR-2) activation in mouse isolated renal arteries. Moffatt JD, et al. **Br J Pharmacol** 1998 Oct;125(4):591-4

Presence of the proteinase-activated receptor-2 (PAR-2) in human brain tumor cells--trypsin- and SLIGRL-induced calcium response in primary cultured meningiomas. Kaufmann R, et al. **Cancer Lett** 1999 May 3;139(1):109-13

Protease-activated receptor-2 involvement in hypotension in normal and endotoxemic rats in vivo. Cicala C, et al. **Circulation** 1999 May 18;99(19):2590-7

Acceleration of Ca2+ ionophore-induced arachidonic acid liberation by thrombin without the proteolytic action toward the receptor in human platelets. Akiba S, et al. **Eur J Biochem** 1999 Feb;259(3):643-50

Thrombomodulin, a receptor for the serine protease thrombin, is decreased in primary tumors and metastases but increased in ascitic fluids of patients with advanced ovarian cancer FIGO IIIc. Wilhelm S, et al. **Int J Oncol** 1998 Oct;13(4):645-51

Interaction mode of the phe-phenyl group of thrombin receptor-tethered ligand SFLLRNP in receptor activation. Nose T, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):354-8

Trafficking of proteinase-activated receptor-2 and beta-arrestin-1 tagged with green fluorescent protein. beta-Arrestin-dependent endocytosis of a proteinase receptor. Déry O, et al. **J Biol Chem** 1999 Jun 25; 274(26):18524-35

Nitric oxide inhibits thrombin receptor-activating peptide-induced phosphoinositide 3-kinase activity in human platelets. Pigazzi A, et al. **J Biol Chem** 1999 May 14;274(20):14368-75

Separate signals for agonist-independent and agonist-triggered trafficking of protease-activated receptor 1. Shapiro MJ, et al. **J Biol Chem** 1998 Oct 30; 273(44):29009-14

The cytoplasmic tails of protease-activated receptor-1 and substance P receptor specify sorting to lysosomes versus recycling. Trejo J, et al. **J Biol Chem** 1999 Jan 22; 274(4):2216-24

Protease-activated receptors 1 and 4 mediate activation of human platelets by thrombin. Kahn ML, et al. **J Clin Invest** 1999 Mar;103(6):879-87

Trypsin activates pancreatic duct epithelial cell ion channels through proteinase-activated receptor-2. Nguyen TD, et al. **J Clin Invest** 1999 Jan;103(2):261-9

The thrombin receptor elevates intracellular calcium in adult rat ventricular myocytes. Jiang T, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2193-9

Investigation of PAR-1-type thrombin receptors in rat glioma C6 cells with a novel monoclonal anti-PAR-1 antibody (Mab COR7-6H9). Kaufmann R, et al. **J Neurocytol** 1998 Sep;27(9):661-6

Activation of the protease-activated thrombin receptor (PAR)-1 induces motoneuron degeneration in the developing avian embryo. Turgeon VL, et al. **J Neuropathol Exp Neurol** 1999 May;58(5):499-504

Proteinase-activated receptor 2 (PAR(2)): development of a ligand-binding assay correlating with activation of PAR(2) by PAR(1)- and PAR(2)-derived peptide ligands. Al-Ani B, et al. **J Pharmacol Exp Ther** 1999 Aug; 290(2):753-60

A protective role for protease-activated receptors in the airways. Cocks TM, et al. **Nature** 1999 Mar 11; 398(6723):156-60

Termination of signaling by protease-activated receptor-1 is linked to lysosomal sorting. Trejo J, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13698-702

PHYSIOLOGY

alpha-Thrombin stimulates contraction of human bronchial rings by activation of protease-activated receptors. Hauck RW, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L22-9

Analysis of a Ca2+-activated K+ channel that mediates hyperpolarization via the thrombin receptor pathway. Sullivan R, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1342-8

Thrombin receptor mediated signals induce expressions of interleukin 6 and granulocyte colony stimulating factor via NF-kappa B activation in synovial fibroblasts. Shin H, et al. **Ann Rheum Dis** 1999 Jan;58(1):55-60

Protease-activated receptor-1 can mediate responses to SFLLRN in thrombin-desensitized cells: evidence for a novel mechanism for preventing or terminating signaling by PAR1's tethered ligand. Hammes SR, et al. **Biochemistry** 1999 Feb 23;38(8):2486-93

Protease-activated receptor 1 (PAR-1) is required and rate-limiting for thrombin-enhanced experimental pulmonary metastasis. Nierodzik ML, et al. **Blood** 1998 Nov 15;92(10):3694-700

Role of thrombin receptor in breast cancer invasiveness. Henrikson KP, et al. **Br J Cancer** 1999 Feb;79(3-4):401-6

Endothelial protease-activated receptor-2 induces tissue factor expression and von Willebrand factor release. Langer F, et al. **Br J Haematol** 1999 May;105(2):542-50

Evidence for proteinase-activated receptor-2 (PAR-2)-mediated mitogenesis in coronary artery smooth muscle cells. Bretschneider E, et al. **Br J Pharmacol** 1999 Apr;126(8):1735-40

Enhancement of vascular permeability by specific activation of protease-activated receptor-1 in rat hindpaw: a protective role of endogenous and exogenous nitric oxide. Kawabata A, et al. **Br J Pharmacol** 1999 Apr; 126(8):1856-62

Endothelium-dependent contractile actions of proteinase-activated receptor-2-activating peptides in human umbilical vein: release of a contracting factor via a novel receptor. Saifeddine M, et al. **Br J Pharmacol** 1998 Dec;125(7):1445-54

Pro- and anti-inflammatory actions of thrombin: a distinct role for proteinase-activated receptor-1 (PAR1). Vergnolle N, et al. **Br J Pharmacol** 1999 Mar;126(5):1262-8

Characterization of the inflammatory response to proteinase-activated receptor-2 (PAR2)-activating peptides in the rat paw. Vergnolle N, et al. **Br J Pharmacol** 1999 Jul;127(5):1083-90

Thrombin and trypsin receptors: the same mechanism of signalling on cellular surfaces. Olejar T, et al. **Bratisl Lek Listy** 1999 Feb;100(2):75-9 (35 ref.)

Proteinase-activated receptor-2 in human skin: tissue distribution and activation of keratinocytes by mast cell tryptase. Steinhoff M, et al. **Exp Dermatol** 1999 Aug; 8(4):282-94

Protease-activated receptors mediate apamin-sensitive relaxation of mouse and guinea pig gastrointestinal smooth muscle. Cocks TM, et al. **Gastroenterology** 1999 Mar; 116(3):586-92

Proteinase-activated receptor-2-mediated signaling and inhibition of DNA synthesis in human pancreatic cancer cells. Kaufmann R, et al. **Int J Pancreatol** 1998 Oct; 24(2):97-102

The carboxyl tail of protease-activated receptor-1 is required for chemotaxis. Correlation of signal termination and directional migration. Sambrano GR, et al. **J Biol Chem** 1999 Jul 16;274(29):20178-84

Thrombin receptor activation inhibits monocyte spreading by induction of ET(B) receptor-coupled nitric oxide release. Srivastava KD, et al. **J Immunol** 1998 Nov 1; 161(9):5039-44

The thrombin receptor mediates functional activity-dependent neuromuscular synapse reduction via protein kinase C activation in vitro. Jia M, et al. **J Neurobiol** 1999 Feb 15;38(3):369-81

PAR 1-type thrombin receptors are involved in thrombin-induced calcium signaling in human meningioma cells. Kaufmann R, et al. **J Neurooncol** 1999 Apr; 42(2):131-6

Cardiovascular responses mediated by protease-activated receptor-2 (PAR-2) and thrombin receptor (PAR-1) are distinguished in mice deficient in PAR-2 or PAR-1. Damiano BP, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):671-8

Thrombin and mast cell tryptase regulate guinea-pig myenteric neurons through proteinase-activated receptors-1 and -2. Corvera CU, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):741-56

Co-existence of two types of [Ca2+]i-inducing protease-activated receptors (PAR-1 and PAR-2) in rat astrocytes and C6 glioma cells [published erratum appears in Neuroscience 1999 Jan;88(1):337] Ubl JJ, et al. **Neuroscience** 1998 Sep;86(2):597-609

Protease-activated receptor 1 is the primary mediator of thrombin-stimulated platelet procoagulant activity. Andersen H, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11189-93

How the protease thrombin talks to cells. Coughlin SR. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11023-7 (66 ref.)

Evidence for selective effects of chronic hypertension on cerebral artery vasodilatation to protease-activated receptor-2 activation. Sobey CG, et al. **Stroke** 1999 Sep; 30(9):1933-40; discussion 1941

Stimulation of proteinase activated receptor-2 causes endothelial cells to promote blood coagulation in vitro. Alm AK, et al. **Thromb Haemost** 1999 Jun;81(6):984-8

Thrombin receptor occupancy modulates aggregation efficiency and platelet surface expression of vWF and thrombospondin at low thrombin concentrations. Kasirer-Friede A, et al. **Thromb Haemost** 1999 Jun; 81(6):967-75

RECEPTORS, THROMBOSPONDIN see **ANTIGENS, CD36**

RECEPTORS, THROMBOXANE

ANALYSIS

Detection of thromboxane A2 receptor mRNA in the nasal mucosa of patients with allergic rhinitis. Maesako K, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:61-4

Thromboxane receptors in human kidney tissues. Brown GP, et al. **Prostaglandins Other Lipid Mediat** 1999 Jun; 57(4):179-88

ANTAGONISTS & INHIBITORS

The effect of ramatroban (BAY u 3405), a thromboxane A2 receptor antagonist, on nasal cavity volume and minimum cross-sectional area and nasal mucosal hemodynamics after nasal mucosal allergen challenge in patients with perennial allergic rhinitis. Terada N, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;537:32-7

Synthesis and biological evaluation of new tetrahydronaphthalene derivatives as thromboxane receptor antagonists. Cimetière B, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1375-80

New tetrahydronaphthalene derivatives as combined thromboxane receptor antagonists and thromboxane synthase inhibitors. Cimetière B, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1381-6

Thromboxane modulating agents. 4. Design and synthesis of 3-(2-[[(4-chlorophenyl)sulfonyl]-amino]ethyl) benzenepropanoic acid derivatives as potent thromboxane receptor antagonists. Dack KN, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2061-6

Development of dual-acting agents for thromboxane receptor antagonism and thromboxane synthase inhibition. 2. Design, synthesis, and evaluation of a novel series of phenyl oxazole derivatives. Takeuchi K, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):1943-8

Effects of cysteinyl-leukotriene receptor antagonist, thromboxane A2 receptor antagonist, and thromboxane A2 synthetase inhibitor on antigen-induced bronchoconstriction in patients with asthma. Obase Y, et al. **Chest** 1998 Oct;114(4):1028-32

Inhibitory effects of ONO-3708 and S-145 on shape change and aggregation of rabbit platelets induced by STA2. Li BY, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul; 17(4):345-8

Involvement of nitric oxide and potassium channels in the reduction of basal tone produced by blockade of thromboxane A2/prostaglandin H2 receptors in aortic rings of hypertensive rats. DelliPizzi A, et al. **Clin Exp Hypertens** 1998 Nov;20(8):903-16

Inhibition of platelet-vessel wall interactions by thromboxane receptor antagonism in a human in vitro system: potentiation of antiplatelet effects of aspirin. Escolar G,

et al. **Eur J Clin Invest** 1998 Jul;28(7):562–8
Binding of YM158, a new dual antagonist for leukotriene D4 and thromboxane A2 receptors, to guinea pig lung membranes. Arakida Y, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):229–33
Antiplatelet effect of Z–335, a new orally active and long–lasting thromboxane receptor antagonist. Tanaka T, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):53–60
Four–dimensional quantitative structure–activity relationship analysis of a series of interphenylene 7–oxabicycloheptane oxazole thromboxane A2 receptor antagonists. Albuquerque MG, et al. **J Chem Inf Comput Sci** 1998 Sep–Oct;38(5):925–38
Guanidine derivatives as combined thromboxane A2 receptor antagonists and synthase inhibitors. Soyka R, et al. **J Med Chem** 1999 Apr 8;42(7):1235–49
Development of dual–acting agents for thromboxane receptor antagonism and thromboxane synthase inhibition. 3. Synthesis and biological activities of oxazolecarboxamide–substituted omega–phenyl–omega–(3–pyridyl)alkenoic acid derivatives and related compounds. Takeuchi K, et al. **J Med Chem** 1998 Dec 31;41(27):5362–74
BM 144: an original thromboxane A2 receptor antagonist derived from torasemide. Dogné JM, et al. **J Pharm Belg** 1999 Mar–Apr;54(2):57–8
Thromboxane A2 receptor antagonism in man and rat by a sulphonylcyanoguanidine (BM–144) and a sulphonylurea (BM–500). Masereel B, et al. **J Pharm Pharmacol** 1999 Jun; 51(6):695–701
In vitro pharmacologic profile of YM158, a new dual antagonist for LTD4 and TXA2 receptors. Arakida Y, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):633–9
Effects of lipid mediator antagonists on predominant mediator–controlled asthmatic reactions in passively sensitized guinea pigs. Arakida Y, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1285–91
AA–2414, an antioxidant and thromboxane receptor blocker, completely inhibits peroxide–induced vasoconstriction in the human placenta. Walsh SW, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):220–6
Effects of ridogrel, a thromboxane synthase inhibitor and receptor antagonist, on blood pressure in the spontaneously hypertensive rat. Quest DW, et al. **Jpn J Pharmacol** 1998 Dec;78(4):479–86
A new thromboxane receptor antagonist, Z–335, ameliorates experimental thrombosis without prolonging the rat tail bleeding time. Tanaka T, et al. **Thromb Res** 1998 Sep 1; 91(5):229–35

BIOSYNTHESIS

Expression and tissue distribution of the mRNAs encoding the human thromboxane A2 receptor (TP) alpha and beta isoforms. Miggin SM, et al. **Biochim Biophys Acta** 1998 Nov 27;1425(3):543–59

CLASSIFICATION

Pharmacological antagonism of Anchietia salutaris extracts on the contraction induced by prostaglandin D2 and U46619 in guinea–pig lung parenchymal strips. Gambero A, et al. **J Pharm Pharmacol** 1998 Nov;50(11):1287–92

DRUG EFFECTS

Interspecies differences in thromboxane A2 receptors are distinguished by glibenclamide. Kemp BK, et al. **Eur J Pharmacol** 1998 Aug 7;354(2–3):173–8
Agonist and antagonist activities of the leukotriene analogue BAY u9773 in guinea pig lung parenchyma. Wikström Jonsson E, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2–3):203–11

GENETICS

Structure and expression of the murine thromboxane A2 receptor gene. Bâtshake B, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):391–7

ISOLATION & PURIFICATION

Assessment of cellular localization of the thromboxane A2 receptor by immunocytochemistry. Blackman SC, et al. **Methods Mol Biol** 1999;120:145–71

METABOLISM

Thromboxane A2 receptor linked with the Ca2+ pathway in rat colonic crypt cells. Ikari A, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):708–12
Coupling of thromboxane A2 receptor isoforms to Galpha13: effects on ligand binding and signalling. Becker KP, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):288–96
Identification of Galpha13 as one of the G–proteins that couple to human platelet thromboxane A2 receptors. Djellas Y, et al. **J Biol Chem** 1999 May 14;274(20):14325–30
Phosphorylation of the thromboxane receptor alpha, the predominant isoform expressed in human platelets. Habib A, et al. **J Biol Chem** 1999 Jan 29;274(5):2645–51
Internalization of the TXA2 receptor alpha and beta isoforms. Role of the differentially spliced cooh terminus in agonist–promoted receptor internalization. Parent JL, et al. **J Biol Chem** 1999 Mar 26;274(13):8941–8
Role of C–terminal serines in desensitization and phosphorylation of the mouse thromboxane receptor. Spurney RF. **J Biol Chem** 1998 Oct 23;273(43):28496–503
Differential signaling by the thromboxane receptor isoforms via the novel GTP–binding protein, Gh. Vezza R, et al. **J Biol Chem** 1999 Apr 30;274(18):12774–9
Differential expression of prostanoid receptors in hepatocytes, Kupffer cells, sinusoidal endothelial cells and stellate cells of rat liver. Fennekohl A, et al. **J Hepatol** 1999 Jan;30(1):38–47
Changes in glomerular thromboxane A2 receptor expression and ligand binding following immune injury. Bresnahan BA, et al. **Kidney Int** 1999 Jan;55(1):139–47
Acute cholestasis–induced renal failure: effects of antioxidants and ligands for the thromboxane A2 receptor. Holt S, et al. **Kidney Int** 1999 Jan;55(1):271–7

PHYSIOLOGY

Thromboxane A2–induced phosphatidylcholine hydrolysis in porcine vascular smooth muscle cells. Nakahata N, et al. **Eur J Pharmacol** 1999 Jun 11;374(1):157–60
Thromboxanes: synthase and receptors. Shen RF, et al. **J Biomed Sci** 1998;5(3):153–72 (206 ref.)
Coagulation defects and altered hemodynamic responses in mice lacking receptors for thromboxane A2. Thomas DW, et al. **J Clin Invest** 1998 Dec 1;102(11):1994–2001
Role of the thromboxane A2 receptor in the vasoactive response to ischemia–reperfusion injury. Mazolewski PJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1393–6
[Thromboxane A2 receptor–mediated signal transduction in glial cells] Nakahata N, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:113P–117P (Eng. Abstr.) **(Jpn)**

RECEPTORS, THROMBOXANE A2 see **RECEPTORS, THROMBOXANE**

RECEPTORS, THYROID HORMONE

see related
THYROID HORMONE RESISTANCE SYNDROME

ANALYSIS

A constitutive nuclear localization signal from the second zinc–finger of orphan nuclear receptor TR2. Yu Z, et al. **J Endocrinol** 1998 Oct;159(1):53–60
Multiple isoforms of thyroid hormone receptor: an analysis of their relative contribution in mediating thyroid hormone action. Murata Y. **Nagoya J Med Sci** 1998 Oct; 61(3–4):103–15 (55 ref.)

ANTAGONISTS & INHIBITORS

An efficient substitution reaction for the preparation of thyroid hormone analogues. Yoshihara HA, et al. **Bioorg Med Chem** 1998 Aug;6(8):1179–83

BIOSYNTHESIS

Differential expression of thyroid hormone receptor isoforms by thyroid hormone and lithium in rat GH3 and B103 cells. Hahn CG, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1004–12
Expression of the vitamin D receptor, of estrogen and thyroid hormone receptor alpha– and beta–isoforms, and of the androgen receptor in cultures of native mouse bone marrow and of stromal/osteoblastic cells. Gruber R, et al. **Bone** 1999 May;24(5):465–73
Expression of thyroid hormone receptor isoforms in rat growth plate cartilage in vivo. Ballock Rt, et al. **J Bone Miner Res** 1999 Sep;14(9):1550–6
Thyroid hormone receptor isoforms are sequentially expressed in oligodendrocyte lineage cells during rat cerebral development. Carré JL, et al. **J Neurosci Res** 1998 Dec 1;54(5):584–94
Expression of mutant thyroid hormone nuclear receptors in human hepatocellular carcinoma cells. Lin KH, et al. **Mol Carcinog** 1999 Sep;26(1):53–61

CHEMISTRY

Protein–protein interaction domains and the heterodimerization of thyroid hormone receptor variant alpha2 with retinoid X receptors. Wu Y, et al. **Mol Endocrinol** 1998 Oct;12(10):1542–50

DEFICIENCY

Cardiovascular phenotype and temperature control in mice lacking thyroid hormone receptor–beta or both alpha1 and beta. Johansson C, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2006–12
Thyroid hormone action on liver, heart, and energy expenditure in thyroid hormone receptor beta–deficient mice. Weiss RE, et al. **Endocrinology** 1998 Dec; 139(12):4945–52

DRUG EFFECTS

Thyroid hormone alpha1 and beta1 receptor mRNA are downregulated by amiodarone in mouse myocardium. Shahrara S, et al. **J Cardiovasc Pharmacol** 1999 Aug; 34(2):261–7

GENETICS

Prenatal ethanol exposure selectively reduces the mRNA encoding alpha–1 thyroid hormone receptor in fetal rat brain. Scott HC, et al. **Alcohol Clin Exp Res** 1998 Dec; 22(9):2111–7
Upregulation of thyroid hormone receptor beta 1 and beta 2 messenger RNA in the myocardium of dogs with dilated cardiomyopathy or chronic valvular disease. Shahrara S, et al. **Am J Vet Res** 1999 Jul;60(7):848–52
Inclusion of a legume in a saturated fat–rich diet affects the cholesterol status but not the expression of triiodothyronine and retinoic acid receptors in rat liver. Bonilla S, et al. **Ann Nutr Metab** 1998;42(5):297–303
Characterization of an inverted repeat with a zero spacer (IR0)–type retinoic acid response element from the mouse nuclear orphan receptor TR2–11 gene. Lee CH, et al. **Biochemistry** 1999 Jul 6;38(27):8820–5
Differential expression of thyroid hormone receptor isoforms by thyroid hormone and lithium in rat GH3 and B103 cells. Hahn CG, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1004–12
Overexpression of thyroid hormone receptor alpha 1 during zebrafish embryogenesis disrupts hindbrain patterning and implicates retinoic acid receptors in the control of hox gene expression. Essner JJ, et al. **Differentiation** 1999 Jul; 65(1):1–11
Molecular basis of resistance to thyroid hormone (RTH). Nagaya T, et al. **Endocr J** 1998 Dec;45(6):709–18 (62 ref.)
Transient expression of c–erbAbeta1 messenger ribonucleic acid and beta1 thyroid hormone receptor early in adipogenesis of Ob 17 cells. Dace A, et al. **Endocrinology** 1999 Jul;140(7):2983–90
Altered cardiac phenotype in transgenic mice carrying the delta337 threonine thyroid hormone receptor beta mutant derived from the S family. Gloss B, et al. **Endocrinology** 1999 Feb;140(2):897–902
Effects of contractile activity and hypothyroidism on nuclear hormone receptor mRNA isoforms in rat skeletal muscle. Schuler MJ, et al. **Eur J Biochem** 1999 Sep;264(3):982–8
Effect of mutations in the beta1–thyroid hormone receptor on the inhibition of T3 binding by desethylamiodarone. van Beeren HC, et al. **FEBS Lett** 1999 Apr 30;450(1–2):35–8
Ski is a component of the histone deacetylase complex required for transcriptional repression by Mad and thyroid hormone receptor. Nomura T, et al. **Genes Dev** 1999 Feb 15;13(4):412–23
Posttranscriptional regulation of oligodendroglial thyroid hormone (T3) receptor beta 1 by T3. Baas D, et al. **Int J Dev Neurosci** 1998 Oct;16(6):461–7
Defective release of corepressor by hinge mutants of the thyroid hormone receptor found in patients with resistance to thyroid hormone. Safer JD, et al. **J Biol Chem** 1998 Nov 13;273(46):30175–82
Thyroid receptor alpha1 and alpha2 mutations in nonfunctioning pituitary tumors. McCabe CJ, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):649–53
The thyroid hormone receptor–beta gene mutation R383H is associated with isolated central resistance to thyroid hormone. Safer JD, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3099–109
Myocardial retinoid X receptor, thyroid hormone receptor, and myosin heavy chain gene expression in the rat during adult aging [see comments] Long X, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jan;54(1):B23–7. Comment in: J Gerontol A Biol Sci Med Sci 1999 Jan;54(1):B28–9.
Hyperactivity and learning deficits in transgenic mice bearing a human mutant thyroid hormone beta1 receptor gene. McDonald MP, et al. **Learn Mem** 1998 Sep–Oct; 5(4–5):289–301
Expression of mutant thyroid hormone nuclear receptors in human hepatocellular carcinoma cells. Lin KH, et al. **Mol Carcinog** 1999 Sep;26(1):53–61
Thyroid hormone direct repeat 4 response element is a positive regulatory element for the human TR2 orphan receptor, a member of steroid receptor superfamily. Chang C, et al. **Mol Cell Biochem** 1998 Dec;189(1–2):195–200
Alien, a highly conserved protein with characteristics of a corepressor for members of the nuclear hormone receptor superfamily. Dressel U, et al. **Mol Cell Biol** 1999 May; 19(5):3383–94
Dominant negative activity of thyroid hormone receptor variant alpha2 and interaction with nuclear corepressors. Burgos–Trinidad M, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):107–14
A novel natural mutation in the thyroid hormone receptor defines a dual functional domain that exchanges nuclear receptor corepressors and coactivators. Tagami T, et al. **Mol Endocrinol** 1998 Dec;12(12):1888–902
The adenovirus E1A protein is a potent coactivator for thyroid hormone receptors. Wahlström GM, et al. **Mol Endocrinol** 1999 Jul;13(7):1119–29
Activation of the thyroid hormone receptor alpha gene promoter by the orphan nuclear receptor ERR alpha. Vanacker JM, et al. **Oncogene** 1998 Nov 12;17(19):2429–35
Tissue–specific differential repression of gene expression by a dominant negative mutant of thyroid hormone beta1 receptor. Bhat MK, et al. **Thyroid** 1999 Apr;9(4):411–8
Association between an R338L mutation in the thyroid hormone receptor–beta gene and thyrotoxic features in two unrelated kindreds with resistance to thyroid hormone. Menzaghi C, et al. **Thyroid** 1999 Jan;9(1):1–6
A novel resistance to thyroid hormone associated with a new mutation (T329N) in the thyroid hormone receptor beta gene. Sarkissian G, et al. **Thyroid** 1999 Feb;9(2):165–71

[Thyroid hormone receptors and the disorders] Nagaya T, et al. **Nippon Rinsho** 1998 Jul;56(7):1861-5 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Pathogenesis of disorder due to thyroid hormone receptor mutation] Nagaya T, et al. **Rinsho Byori** 1998 Oct; 46(10):1017-22 (12 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

DNA binding affinity of hTRbeta1 mutants as heterodimers with traps from different tissues. Takeda T, et al. **Biochimie** 1999 Apr;81(4):297-308

Thyroid hormone receptor is a negative regulator in p53-mediated signaling pathways. Barrera-Hernandez G, et al. **DNA Cell Biol** 1998 Sep;17(9):743-50

Transient expression of c-erbAbeta1 messenger ribonucleic acid and beta1 thyroid hormone receptor early in adipogenesis of Ob 17 cells. Dace A, et al. **Endocrinology** 1999 Jul;140(7):2983-90

Potential mechanisms of thyroid disruption in humans: interaction of organochlorine compounds with thyroid receptor, transthyretin, and thyroid-binding globulin. Cheek AO, et al. **Environ Health Perspect** 1999 Apr; 107(4):273-8

Quantification of thyroid hormone receptor isoforms, 9-cis retinoic acid receptor gamma, and nuclear receptor co-repressor by reverse-transcriptase PCR in maturing and adult skeletal muscles of rat. Schuler MJ, et al. **Eur J Biochem** 1998 Nov 1;257(3):607-14

Physiological regulation of hypothalamic TRH transcription in vivo is T3 receptor isoform specific. Guissouma H, et al. **FASEB J** 1998 Dec;12(15):1755-64

AP-1 and T3RE cis elements operate as a functional unit in the transcriptional control of the human malic enzyme gene. González-Manchón C, et al. **Gene** 1999 Jan 8; 226(1):111-9

Human trabecular meshwork cells as a thyroid hormone target tissue: presence of functional thyroid hormone receptors. Duncan KG, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar;237(3):231-40

Role of GHF-1 in the regulation of the rat growth hormone gene promoter by thyroid hormone and retinoic acid receptors. Palomino T, et al. **J Biol Chem** 1998 Oct 16; 273(42):27541-7

Mechanisms that mediate negative regulation of the thyroid-stimulating hormone alpha gene by the thyroid hormone receptor. Tagami T, et al. **J Biol Chem** 1999 Aug 6;274(32):22345-53

Hormone-induced translocation of thyroid hormone receptors in living cells visualized using a receptor green fluorescent protein chimera. Zhu XG, et al. **J Biol Chem** 1998 Oct 16;273(42):27058-63

Expression of multiple thyroid hormone receptor isoforms in rat femoral and vertebral bone and in bone marrow osteogenic cultures. Milne M, et al. **J Cell Biochem** 1999 Sep 15;74(4):684-93

Characterization of TSH-positive cells in foetal rat pars tuberalis that fail to express Pit-1 factor and thyroid hormone beta2 receptors. Sakai T, et al. **J Neuroendocrinol** 1999 Mar;11(3):187-93

Identification of DNA binding sites for the V-erbA oncoprotein, the viral homolog to thyroid hormone receptor alpha. Harbers M, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(3):181-91

Lithium administration affects gene expression of thyroid hormone receptors in rat brain. Hahn CG, et al. **Life Sci** 1999;64(20):1793-802

Identity between TRAP and SMCC complexes indicates novel pathways for the function of nuclear receptors and diverse mammalian activators. Ito M, et al. **Mol Cell** 1999 Mar;3(3):361-70

Identification of the histamine H1 receptor gene as a differentially repressed target of the human TR2 orphan receptor. Lee HJ, et al. **Mol Cell Biochem** 1999 Apr; 194(1-2):199-207

Human TAF(II)55 interacts with the vitamin D(3) and thyroid hormone receptors and with derivatives of the retinoid X receptor that have altered transactivation properties. Lavigne AC, et al. **Mol Cell Biol** 1999 Aug; 19(8):5486-94

Cloning and characterization of mouse RIP140, a corepressor for nuclear orphan receptor TR2. Lee CH, et al. **Mol Cell Biol** 1998 Nov;18(11):6745-55

Inhibition of nuclear receptor signalling by poly(ADP-ribose) polymerase. Miyamoto T, et al. **Mol Cell Biol** 1999 Apr;19(4):2644-9

Regulation of the mdm2 oncogene by thyroid hormone receptor. Qi JS, et al. **Mol Cell Biol** 1999 Jan;19(1):864-72

Dominant negative activity of thyroid hormone receptor variant alpha2 and interaction with nuclear corepressors. Burgos-Trinidad M, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):107-14

CBP-dependent and independent enhancing activity of steroid receptor coactivator-1 in thyroid hormone receptor-mediated transactivation. Ikeda M, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1-2):103-12

Signaling by tyrosine kinases negatively regulates the interaction between transcription factors and SMRT (silencing mediator of retinoic acid and thyroid hormone receptor) corepressor. Hong SH, et al. **Mol Endocrinol** 1998 Aug;12(8):1161-71

Thyroid hormone receptor does not heterodimerize with the vitamin D receptor but represses vitamin D receptor-mediated transactivation. Raval-Pandya M, et al. **Mol Endocrinol** 1998 Sep;12(9):1367-79

The adenovirus E1A protein is a potent coactivator for thyroid hormone receptors. Wahlström GM, et al. **Mol Endocrinol** 1999 Jul;13(7):1119-29

Protein-protein interaction domains and the heterodimerization of thyroid hormone receptor variant alpha2 with retinoid X receptors. Wu Y, et al. **Mol Endocrinol** 1998 Oct;12(10):1542-50

Identification of mouse TRAP100: a transcriptional coregulatory factor for thyroid hormone and vitamin D receptors. Zhang J, et al. **Mol Endocrinol** 1999 Jul; 13(7):1130-40

Absence of thyroid hormone receptor beta-retinoid X receptor interactions in auditory function and in the pituitary-thyroid axis. Barros AC, et al. **Neuroreport** 1998 Sep 14;9(13):2933-7

Thyroid hormone receptor occupancy and biological effects of 3,5,3,-L-triiodothyronine (T3) in GH4C1 rat pituitary tumour cells. Filipcik P, et al. **Physiol Res** 1998;47(1):41-6

Thyroid hormone, T3-dependent phosphorylation and translocation of Trip230 from the Golgi complex to the nucleus. Chen Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4443-8

Thyroid hormone receptor-associated proteins and general positive cofactors mediate thyroid hormone receptor function in the absence of the TATA box-binding protein-associated factors of TFIID. Fondell JD, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1959-64

In vivo transcription factor recruitment during thyroid hormone receptor-mediated activation. Kim MK, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10092-7

Thyroid hormone receptor coactivators and corepressors. Koenig RJ. **Thyroid** 1998 Aug;8(8):703-13 (105 ref.)

PHYSIOLOGY

Molecular and structural biology of thyroid hormone receptors. Apriletti JW, et al. **Clin Exp Pharmacol Physiol Suppl** 1998 Nov;25:S2-11 (45 ref.)

Thyroid hormone receptor is a negative regulator in p53-mediated signaling pathways. Barrera-Hernandez G, et al. **DNA Cell Biol** 1998 Sep;17(9):743-50

Different functions for the thyroid hormone receptors TRalpha and TRbeta in the control of thyroid hormone production and post-natal development. Gauthier K, et al. **EMBO J** 1999 Feb 1;18(3):623-31

Steroidogenic factor-1 regulates the rate of proliferation of normal and neoplastic rat ovarian surface epithelial cells in vitro. Nash DM, et al. **Endocrinology** 1998 Nov; 139(11):4663-71

Involvement of T3Ralpha- and beta-receptor subtypes in mediation of T3 functions during postnatal murine intestinal development. Plateroti M, et al. **Gastroenterology** 1999 Jun; 116(6):1367-78

Mice devoid of all known thyroid hormone receptors are viable but exhibit disorders of the pituitary-thyroid axis, growth, and bone maturation. Göthe S, et al. **Genes Dev** 1999 May 15;13(10):1329-41

Recent advances in understanding thyroid hormone receptor coregulators. Lee H, et al. **J Biomed Sci** 1999 Mar-Apr; 6(2):71-8 (54 ref.)

Divergent roles for thyroid hormone receptor beta isoforms in the endocrine axis and auditory system. Abel ED, et al. **J Clin Invest** 1999 Aug;104(3):291-300

Role of thyroid hormones and their receptors in peripheral nerve regeneration. Barakat-Walter I. **J Neurobiol** 1999 Sep 15;40(4):541-59 (113 ref.)

Local activation and inactivation of thyroid hormones: the deiodinase family. Köhrle J. **Mol Cell Endocrinol** 1999 May 25;151(1-2):103-19 (152 ref.)

Retinoid X receptor and c-cerbA/thyroid hormone receptor regulate erythroid cell growth and differentiation. Bartuněk P, et al. **Mol Endocrinol** 1998 Sep;12(9):1269-79

A novel natural mutation in the thyroid hormone receptor defines a dual functional domain that exchanges nuclear receptor corepressors and coactivators. Tagami T, et al. **Mol Endocrinol** 1998 Dec;12(12):1888-902

Thyroid hormone receptor beta-dependent expression of a potassium conductance in inner hair cells at the onset of hearing. Rüsch A, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15758-62

Mechanisms of thyroid hormone action: insights from X-ray crystallographic and functional studies. Ribeiro RC, et al. **Recent Prog Horm Res** 1998;53:351-92; discussion 392-4 (190 ref.)

Differential regulation of the human thyrotropin alpha-subunit promoter by thyroid hormone receptors alpha1 and beta1. McCabe CJ, et al. **Thyroid** 1998 Jul; 8(7):601-8

Thyroid hormone regulation of Xenopus laevis metamorphosis: functions of thyroid hormone receptors and roles of extracellular matrix remodeling. Shi YB, et al. **Wound Repair Regen** 1998 Jul-Aug;6(4):314-22 (63 ref.)

[Structure-function relationship of thyroid hormone receptor and analysis of its physiological role by gene targeting] Mitsuhashi T. **Nippon Rinsho** 1998 Jul;56(7):1705-10 (20 ref.) (Eng. Abstr.) **(Jpn)**

RECEPTORS, THYROID STIMULATING HORMONE see **RECEPTORS, THYROTROPIN**

RECEPTORS, THYROLIBERIN see **RECEPTORS, THYROTROPIN-RELEASING HORMONE**

RECEPTORS, THYROTROPIN

ANALYSIS

Analysis of carbohydrate residues on recombinant human thyrotropin receptor. Oda Y, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2119-25

Direct binding of thyrotropin receptor autoantibody to in vitro translated thyrotropin receptor: a comparison to radioreceptor assay and thyroid stimulating bioassay. Morgenthaler NG, et al. **Thyroid** 1999 May;9(5):466-75

ANTAGONISTS & INHIBITORS

Epitope heterogeneity of thyrotropin receptor-blocking antibodies in Graves' patients as detected with wild-type versus chimeric thyrotropin receptors. Grasso YZ, et al. **Thyroid** 1999 Jun;9(6):531-7

BIOSYNTHESIS

Production of bioactive amino-terminal domain of the thyrotropin receptor via insertion in the plasma membrane by a glycosylphosphatidylinositol anchor. Costagliola S, et al. **FEBS Lett** 1998 Oct 9;436(3):427-33

BLOOD

Polyethylene glycol increases the detection of anti-thyrotropin receptor antibodies by a radioreceptor assay. Watanabe Y, et al. **Clin Chem** 1999 Mar;45(3):407-9

Thyroid stimulating immunoglobulin (TSI) in Graves' disease. Ochi Y, et al. **Endocr J** 1998 Dec;45(6):701-8 (35 ref.)

Appearance of anti TSH-receptor antibodies and clinical Graves' disease after radioiodine therapy for hyperfunctioning thyroid adenoma. Regalbuto C, et al. **J Endocrinol Invest** 1999 Feb;22(2):147-50

Thyrotropin receptor antibodies in black South African patients with Graves' disease and their response to medical therapy. Zouvanis M, et al. **J Endocrinol Invest** 1998 Dec; 21(11):771-4

Amiodarone-induced thyrotoxicosis associated with thyrotropin receptor antibody. Sato K, et al. **Thyroid** 1998 Dec;8(12):1123-6

Development of primary hypothyroidism with the appearance of blocking-type antibody to thyrotropin receptor in Graves' disease in late pregnancy. Ueta Y, et al. **Thyroid** 1999 Feb;9(2):179-82

Postoperative changes in thyrotropin-binding inhibitory immunoglobulin level in patients with Graves' disease: is subtotal thyroidectomy a suitable therapeutic option for patients of childbearing age with Graves' disease? Sugino K, et al. **World J Surg** 1999 Jul;23(7):727-31

[TSH receptor autoantibody: its historical background and interpretation of the data on TSAb, TSBAb and TBII] Saito J, et al. **Nippon Rinsho** 1999 Aug;57(8):1829-33 (25 ref.) **(Jpn)**

CHEMISTRY

On the functional importance of thyrotropin receptor intramolecular cleavage. Chazenbalk GD, et al. **Endocrinology** 1999 Oct;140(10):4516-20

The shed thyrotropin receptor is primarily a carboxyl terminal truncated form of the A subunit, not the entire A subunit. Tanaka K, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):113-9

GENETICS

TSH receptor gene mutations and familial gestational hyperthyroidism. Asteria C. **Eur J Endocrinol** 1999 Aug; 141(2):93-4

The TSH receptor mutation database. Trültzsch B, et al. **Eur J Endocrinol** 1999 Jun;140(6):VII

Thyroid hyperfunctioning adenomas with and without Gsp/TSH receptor mutations show similar clinical features. Arturi F, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(3):234-6

Pathogenesis of toxic thyroid adenomas and nodules: relevance of activating mutations in the TSH-receptor and Gs-alpha gene, the possible role of iodine deficiency and secondary and TSH-independent molecular mechanisms. Derwahl M, et al. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 4:S6-9 (41 ref.)

Autosomal dominant nonautoimmune hyperthyroidism. Clinical features-diagnosis-therapy. Führer D, et al. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 4:S10-5 (25 ref.)

Activation of the cAMP cascade in thyroid autonomy. Paschke R. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 4:S4-5

Long-term follow-Up of an infant with thyrotoxicosis due to germline mutation of the TSH receptor gene (Met453Thr). Lavard L, et al. **Horm Res** 1999;51(1):43-6

Germline polymorphism of codon 727 of human thyroid-stimulating hormone receptor is associated with toxic multinodular goiter. Gabriel EM, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3328-35

A germline mutation of the thyrotropin receptor gene associated with thyrotoxicosis and mitral valve prolapse

in a Chinese family. Khoo DH, et al.
J Clin Endocrinol Metab 1999 Apr;84(4):1459–62
Comment on thyrotropin receptor gene and mitral valve prolapse [letter] Koshiyama H, et al.
J Clin Endocrinol Metab 1999 Sep;84(9):3404–5
TSH receptor mutation database [letter] Nebel IT, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2263
Differentiation of human orbital preadipocyte fibroblasts induces expression of functional thyrotropin receptor. Valyasevi RW, et al. **J Clin Endocrinol Metab** 1999 Jul; 84(7):2557–62
Genetic analysis of the TSH receptor gene in differentiated human thyroid carcinomas. Cetani F, et al.
J Endocrinol Invest 1999 Apr;22(4):273–8
Demonstration of thyrotropin receptor mRNA in orbital fat and eye muscle tissues from patients with Graves' ophthalmopathy by in situ hybridization. Wu SL, et al.
J Endocrinol Invest 1999 Apr;22(4):289–95
Thyroid stimulating hormone-receptor overexpression in brain of patients with Down syndrome and Alzheimer's disease. Labudova O, et al. **Life Sci** 1999;64(12):1037–44
Analysis of differentiation-induced expression mechanisms of thyrotropin receptor gene in adipocytes. Shimura H, et al. **Mol Endocrinol** 1998 Oct;12(10):1473–86
Regulation of the rat thyrotropin receptor gene by the methylation-sensitive transcription factor GA-binding protein. Yokomori N, et al. **Mol Endocrinol** 1998 Aug; 12(8):1241–9
Familial gestational hyperthyroidism caused by a mutant thyrotropin receptor hypersensitive to human chorionic gonadotropin. Rodien P, et al. **N Engl J Med** 1998 Dec 17;339(25):1823–6
Contrasting effects of activating mutations of GalphaS and the thyrotropin receptor on proliferation and differentiation of thyroid follicular cells. Ludgate M, et al. **Oncogene** 1999 Aug 26;18(34):4798–807
Effect of primary congenital hypothyroidism upon expression of genes mediating murine brain glucose uptake. Khan JY, et al. **Pediatr Res** 1999 May;45(5 Pt 1):718–25
Lack of association between polymorphism of the thyrotropin receptor gene and Graves' disease in United Kingdom and Hong Kong Chinese patients: case control and family-based studies. Allahabadia A, et al. **Thyroid** 1998 Sep;8(9):777–80
The extracellular thyrotropin receptor domain is not a major candidate for mutations in toxic thyroid nodules. Führer D, et al. **Thyroid** 1998 Nov;8(11):997–1001
Variable phenotype associated with Ser505Asn-activating thyrotropin-receptor germline mutation. Führer D, et al.
Thyroid 1999 Aug;9(8):757–61
A Val 677 activating mutation of the thyrotropin receptor in a Hürthle cell thyroid carcinoma associated with thyrotoxicosis. Russo D, et al. **Thyroid** 1999 Jan;9(1):13–7
Analysis of mutations in exon 1 of the human thyrotropin receptor gene: high frequency of the D36H and P52T polymorphic variants. Simanainen J, et al. **Thyroid** 1999 Jan;9(1):7–11
Expression of thyroid-related genes in human thymus. Spitzweg C, et al. **Thyroid** 1999 Feb;9(2):133–41
Screening of thyrotropin receptor mutations by fine-needle aspiration biopsy in autonomous functioning thyroid nodules in multinodular goiters. Tassi V, et al. **Thyroid** 1999 Apr;9(4):353–7
Activating thyrotropin receptor mutations in histologically heterogeneous hyperfunctioning nodules of multinodular goiter. Tonacchera M, et al. **Thyroid** 1998 Jul;8(7):559–64
The thyrotropin receptor mutation database [editorial] Trülzsch B, et al. **Thyroid** 1999 Jun;9(6):521–2
Non-autoimmune hyper- and hypothyroidism due to mutations in the thyrotropin receptor gene. Vassart G.
Z Arztl Fortbild Qualitatssich 1999 Apr;93 Suppl 1:23–4 (11 ref.)
[Activating mutations of the TSH receptor: a synthesis highlighting certain pediatric aspects] Polak M.
Arch Pediatr 1998;5 Suppl 4:375S–379S (32 ref.) (Eng. Abstr.) **(Fre)**
[Mutations in TSH receptors: pathogenetic significance and clinical relevance] Führer D, et al.
Dtsch Med Wochenschr 1999 May 28;124(21):662–9 (48 ref.) **(Ger)**
[Mutations in the thyrotropin receptor gene in the pathogenesis of toxic thyroid adenomas, toxic goiter nodules and autosomal dominant hyperthyroidism] Derwahl M. **Z Arztl Fortbild Qualitatssich** 1999 Apr;93 Suppl 1:25–8 (35 ref.) (Eng. Abstr.) **(Ger)**
[Disorders caused by mutations of the thyrotropin receptor] Kosugi S. **Nippon Rinsho** 1998 Jul;56(7):1856–60 (21 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Glycosylated ectodomain of the human thyrotropin receptor induces antibodies capable of reacting with multiple blocking antibody epitopes. Seetharamaiah GS, et al.
Autoimmunity 1999;29(1):21–31
Signaling pathways involved in thyroid hyperfunction and growth in Graves' disease. Di Cerbo A, et al.
Biochimie 1999 May;81(5):415–24 (118 ref.)
The effect of thyrotropin receptor antibodies on the proliferation of FRTL-5 cells and the expression of protooncogene c-fos mRNA. Fang P, et al.
Chin Med J (Engl) 1998 May;111(5):412–5
Detection of thyroid stimulating (TSAB)- and thyrotropin stimulation blocking (TSBAB) antibodies with CHO cell lines expressing different TSH-receptor numbers. Wallaschofski H, et al. **Clin Endocrinol (Oxf)** 1999 Mar; 50(3):365–72
Characterization of recombinant monoclonal antithyrotropin receptor antibodies (TSHRAbs) derived from lymphocytes of patients with Graves' disease: epitope and binding study of two stimulatory TSHRAbs. Akamizu T, et al.
Endocrinology 1999 Apr;140(4):1594–601
Regulation and transfer of a murine model of thyrotropin receptor antibody mediated Graves' disease. Kita M, et al. **Endocrinology** 1999 Mar;140(3):1392–8
Guidelines for TSH-receptor antibody measurements in pregnancy: results of an evidence-based symposium organized by the European Thyroid Association. Laurberg P, et al. **Eur J Endocrinol** 1998 Dec;139(6):584–6
A mouse monoclonal antibody to a thyrotropin receptor ectodomain variant provides insight into the exquisite antigenic conformational requirement, epitopes and in vivo concentration of human autoantibodies. Chazenbalk GD, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):702–10
Second generation assay for thyrotropin receptor antibodies has superior diagnostic sensitivity for Graves' disease. Costagliola S, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):90–7
Graves' immunoglobulins activate phospholipase A2 by recognizing specific epitopes on thyrotropin receptor. Di Cerbo A, et al. **J Clin Endocrinol Metab** 1999 Sep; 84(9):3283–92
Serum levels of thyroid-stimulating hormone receptor antibodies during IFN-alpha2a treatment of chronic hepatitis C [published erratum appears in J Interferon Cytokine Res 1999 Apr;19(4):428] Wada M, et al.
J Interferon Cytokine Res 1999 Jan;19(1):85–8
Polyethylene glycol augments thyroid cAMP responses by fragments from protease-digested TSAb or TSBAb-IgG. Yamashiro K, et al. **Life Sci** 1999;64(13):1109–16
Identification of an important thyrotrophin binding site on the human thyrotrophin receptor using monoclonal antibodies. Shepherd PS, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):197–206
Immunization with the "immunogenic peptide" of TSH receptor induces oligoclonal antibodies with various biological activities. Sugawa H, et al. **Peptides** 1998; 19(8):1303–7
Transplacental passage of anti-thyroid auto-antibodies in a pregnant woman with auto-immune thyroid disease. Radetti G, et al. **Prenat Diagn** 1999 May;19(5):468–71
Development and characterization of monoclonal antibodies specific for the murine thyrotropin receptor. Davies TF, et al. **Thyroid** 1998 Aug;8(8):693–701
Amiodarone-induced thyrotoxicosis associated with thyrotropin receptor antibody. Sato K, et al. **Thyroid** 1998 Dec;8(12):1123–6
[Hyperthyroidism in a premature infant due to transplacental passage of maternal thyrotropin receptor antibodies] Rink T, et al. **Nuklearmedizin** 1999;38(5):156–9 (Eng. Abstr.) **(Ger)**
[TSH receptor antibodies in the recurrent goiter after surgical treatment of Graves-Basedow disease] Janowska J, et al.
Pol Merkuriusz Lek 1998 May;4(23):257–8 (Eng. Abstr.) **(Pol)**

ISOLATION & PURIFICATION

Expression of the functional extracellular domain of human thyrotropin receptor using a vaccinia virus system: its purification and analysis of autoantibody binding. Lee MH, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1391–7
Isolation of radiochemically pure 125I-labeled human thyrotropin receptor and its use for the detection of pathological autoantibodies in sera from Graves' patients. Minich WB, et al. **J Endocrinol** 1999 Feb;160(2):239–45

METABOLISM

Thyroid disease mediated by molecular defects in cell surface and nuclear receptors. Bodenner DL, et al. **Am J Med** 1998 Dec;105(6):524–38 (80 ref.)
A conserved tyrosine residue (Y601) in transmembrane domain 5 of the human thyrotropin receptor serves as a molecular switch to determine G-protein coupling. Biebermann H, et al. **FASEB J** 1998 Nov;12(14):1461–71
Sequential cleavage and excision of a segment of the thyrotropin receptor ectodomain. de Bernard S, et al.
J Biol Chem 1999 Jan 1;274(1):101–7
Role of asparagine-linked oligosaccharides in protein folding, membrane targeting, and thyrotropin and autoantibody binding of the human thyrotropin receptor. Nagayama Y, et al. **J Biol Chem** 1998 Dec 11;273(50):33423–8
Thyrotropin receptor cleavage at site 1 involves two discontinuous segments at each end of the unique 50-amino acid insertion. Tanaka K, et al. **J Biol Chem** 1999 Jan 22; 274(4):2093–6
Post-translational processing of the natural human thyrotropin receptor: demonstration of more than two cleavage sites. Graves P, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2177–81
Different bioactivities of human thyrotropin receptors with different signal peptides. Park JY, et al.
Mol Cell Endocrinol 1999 Jan 25;147(1–2):133–42
Identification of an important thyrotrophin binding site on the human thyrotrophin receptor using monoclonal antibodies. Shepherd PS, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):197–206
The shed thyrotropin receptor is primarily a carboxyl terminal truncated form of the A subunit, not the entire A subunit. Tanaka K, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):113–9
Analysis of differentiation-induced expression mechanisms of thyrotropin receptor gene in adipocytes. Shimura H, et al. **Mol Endocrinol** 1998 Oct;12(10):1473–86
Selective regulation of G protein-coupled receptor-mediated signaling by G protein-coupled receptor kinase 2 in FRTL-5 cells: analysis of thyrotropin, alpha(1B)-adrenergic, and A(1) adenosine receptor-mediated responses. Iacovelli L, et al.
Mol Pharmacol 1999 Aug;56(2):316–24
Variable phenotype associated with Ser505Asn-activating thyrotropin-receptor germline mutation. Führer D, et al.
Thyroid 1999 Aug;9(8):757–61
Effects of cytokines on expression of thyrotropin receptor mRNA in rat preadipocytes. Haraguchi K, et al.
Thyroid 1998 Aug;8(8):687–92
Expression of thyrotropin receptor on clonal osteoblast-like rat osteosarcoma cells. Inoue M, et al. **Thyroid** 1998 Nov; 8(11):1059–64
Structural analysis of the thyrotropin receptor in four patients with congenital hypothyroidism due to thyroid hypoplasia. Nogueira CR, et al. **Thyroid** 1999 Jun;9(6):523–9

PHYSIOLOGY

On the functional importance of thyrotropin receptor intramolecular cleavage. Chazenbalk GD, et al.
Endocrinology 1999 Oct;140(10):4516–20
Thyrotropin receptor: a role for thyroid tumourigenesis? Russo D, et al. **Forum (Genova)** 1999 Apr-Jun;9(2):166–75 (75 ref.)

RECEPTORS, THYROTROPIN-RELEASING HORMONE

[TRH receptor] Yamada M, et al. **Nippon Rinsho** 1998 Jul; 56(7):1931–7 (45 ref.) (Eng. Abstr.) **(Jpn)**

ANALYSIS

Receptors for thyrotropin-releasing hormone on rat lactotropes and thyrotropes. Yu R, et al. **Thyroid** 1998 Oct; 8(10):887–94

ANTAGONISTS & INHIBITORS

Inverse agonist abolishes desensitization of a constitutively active mutant of thyrotropin-releasing hormone receptor: role of cellular calcium and protein kinase C. Grimberg H, et al. **Br J Pharmacol** 1999 Mar;126(5):1097–106
Overexpression of the G protein G11alpha prevents desensitization of Ca2+ response to thyrotropin-releasing hormone. Novotný J, et al. **Life Sci** 1999;65(9):889–900

CHEMISTRY

A hydrophobic cluster between transmembrane helices 5 and 6 constrains the thyrotropin-releasing hormone receptor in an inactive conformation. Colson AO, et al.
Mol Pharmacol 1998 Dec;54(6):968–78

GENETICS

Transcription of the human thyrotropin-releasing hormone receptor gene-analysis of basal promoter elements and glucocorticoid response elements. Høvring PI, et al.
Biochem Biophys Res Commun 1999 Apr 21;257(3):829–34
Cloning of thyrotropin-releasing hormone precursor and receptor in rat thymus, adrenal gland, and testis. Montagne JJ, et al. **Endocrinology** 1999 Mar;140(3):1054–9
Cloning and characterization of a cDNA encoding a novel subtype of rat thyrotropin-releasing hormone receptor. Cao J, et al. **J Biol Chem** 1998 Nov 27;273(48):32281–7
Signal transduction and hormone-dependent internalization of the thyrotropin-releasing hormone receptor in cells lacking Gq and G11. Yu R, et al. **J Biol Chem** 1999 May 28;274(22):15745–50
Effects of pilocarpine- and kainate-induced seizures on thyrotropin-releasing hormone biosynthesis and receptors in the rat brain. Jaworska-Feil L, et al.
J Neural Transm 1999;106(5–6):395–407
Structural and functional organization of the gene encoding the human thyrotropin-releasing hormone receptor. Matre V, et al. **J Neurochem** 1999 Jan;72(1):40–50
[Expression of a novel transcript for the TRH receptor in human pituitary adenomas] Yamada M, et al.
Nippon Rinsho 1999 Mar;57(3):737–45 (20 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

The thyrotropin (TSH) receptor: interaction with TSH and autoantibodies [published erratum appears in Endocr Rev 1999 Feb;20(1):100] Rapoport B, et al. **Endocr Rev** 1998 Dec;19(6):673–716 (396 ref.)

METABOLISM

Visualization of distinct patterns of subcellular redistribution

of the thyrotropin-releasing hormone receptor-1 and gqalpha /G11alpha induced by agonist stimulation. Drmota T, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):529-38
The thyrotropin-releasing hormone-receptor complex and G11alpha are both internalised into clathrin-coated vesicles. Petrou C, et al. **Cell Signal** 1998 Sep;10(8):553-9
The thyrotropin (TSH) receptor: interaction with TSH and autoantibodies [published erratum appears in Endocr Rev 1999 Feb;20(1):100] Rapoport B, et al. **Endocr Rev** 1998 Dec;19(6):673-716 (396 ref.)
Expression analysis of the thyrotropin-releasing hormone receptor (TRHR) in the immune system using agonist anti-TRHR monoclonal antibodies. Mellado M, et al. **FEBS Lett** 1999 May 28;451(3):308-14
Visualization of agonist-induced association and trafficking of green fluorescent protein-tagged forms of both beta-arrestin-1 and the thyrotropin-releasing hormone receptor-1. Groarke DA, et al. **J Biol Chem** 1999 Aug 13;274(33):23263-9
Diversity of thyrotropin-releasing hormone receptors in the pituitary and discrete brain regions of rats. Asai H, et al. **Jpn J Pharmacol** 1999 Mar;79(3):313-7
Effects of pentylenetetrazole-induced kindling on thyrotropin-releasing hormone biosynthesis and receptors in rat brain. Jaworska-Feil L, et al. **Neuroscience** 1999 May; 90(2):695-704
Thyrotropin releasing hormone (TRH), the TRH-receptor and the TRH-degrading ectoenzyme; three elements of a peptidergic signalling system. Bauer K, et al. **Results Probl Cell Differ** 1999;26:13-42 (140 ref.)
Intraluminal thyrotropin-releasing hormone affects gastric somatostatin and acid secretion through its specific receptor in rats. Nishio Y, et al. **Scand J Gastroenterol** 1999 Mar; 34(3):270-5

PHYSIOLOGY

Rat TRH receptor type 2 exhibits higher basal signaling activity than TRH receptor type 1. Wang W, et al. **Endocrinology** 1999 Oct;140(10):4916-9

RECEPTORS, THYROXINE see **RECEPTORS, THYROID HORMONE**

RECEPTORS, TRANSFERRIN

see related
CARRIER PROTEINS

ANALYSIS

Immunohistochemical analysis of transferrin receptor: regional and cellular distribution in the hypotransferrinemic (hpx) mouse brain. Dickinson TK, et al. **Brain Res** 1998 Aug 10;801(1-2):171-81
Mechanism involved in gallium-67 (Ga-67) uptake by human lymphoid cell lines. Nejmeddine F, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Dec;44(8):1215-20
Dried plasma spot measurements of ferritin and transferrin receptor for assessing iron status. Flowers CH, et al. **Clin Chem** 1999 Oct;45(10):1826-32
Targeting of transferrin receptors in nude mice bearing A431 and LS174T xenografts with [18F]holo-transferrin: permeability and receptor dependence. Aloj L, et al. **J Nucl Med** 1999 Sep;40(9):1547-55
Targeting of ultrasmall superparamagnetic iron oxide (USPIO) particles to tumor cells in vivo by using transferrin receptor pathways. Kresse M, et al. **Magn Reson Med** 1998 Aug;40(2):236-42

BIOSYNTHESIS

Transferrin in normal and neoplastic endocervical tissues: distribution and receptor expression. Farley J, et al. **Anal Quant Cytol Histol** 1998 Aug;20(4):238-49
Coxiella burnetii infection increases transferrin receptors on J774A. 1 cells. Howe D, et al. **Infect Immun** 1999 Jul; 67(7):3236-41
Commitment of neutrophilic differentiation and proliferation of HL-60 cells coincides with expression of transferrin receptor. Effect of granulocyte colony stimulating factor on differentiation and proliferation. Kanayasu-Toyoda T, et al. **J Biol Chem** 1999 Sep 3;274(36):25471-80
Expression of the neuronal transferrin receptor is age dependent and susceptible to iron deficiency. Moos T, et al. **J Comp Neurol** 1998 Aug 31;398(3):420-30
Coincident increase in periportal expression of iron proteins in the iron-loaded rat liver. Basclain KA, et al. **J Gastroenterol Hepatol** 1999 Jul;14(7):659-68
[Effects of iron deficiency on expression of transferrin receptor in human lymphocytes] Guan J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jan;31(1):34-6 (Eng. Abstr.) **(Chi)**

BLOOD

Serum transferrin receptor: a specific marker of iron deficiency in pregnancy [published erratum appears in Am J Clin Nutr 1999 Apr;69(4):743] Akesson A, et al. **Am J Clin Nutr** 1998 Dec;68(6):1241-6
Higher concentrations of serum transferrin receptor in children than in adults. Virtanen MA, et al. **Am J Clin Nutr** 1999 Feb;69(2):256-60
Serum transferrin receptor as a marker of erythropoiesis suppression in patients on chronic transfusion. Tancabelic J, et al. **Am J Hematol** 1999 Feb;60(2):121-5
Reduced soluble transferrin receptor concentrations in acute malaria in Vanuatu. Williams TN, et al. **Am J Trop Med Hyg** 1999 May;60(5):875-8
Serum transferrin receptors in detection of iron deficiency in pregnancy. Rusia U, et al. **Ann Hematol** 1999 Aug; 78(8):358-63
Serum transferrin receptor and transferrin receptor-ferritin index identify healthy subjects with subclinical iron deficits. Suominen P, et al. **Blood** 1998 Oct 15;92(8):2934-9
Alpha thalassaemia is associated with increased soluble transferrin receptor levels. Rees DC, et al. **Br J Haematol** 1998 Nov;103(2):365-9
Is serum transferrin receptor a sensitive marker of iron repletion in patients with iron-deficiency anemia and hemodialysis patients? Hou CC, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Apr; 62(4):189-94
Change in transferrin receptor concentrations with age. Choi JW, et al. **Clin Chem** 1999 Sep;45(9):1562-3
Automated immunoturbidimetric method for measuring serum transferrin receptor. Suominen P, et al. **Clin Chem** 1999 Aug;45(8 Pt 1):1302-5
Serum soluble transferrin receptor and the prediction of marrow aspirate iron results in a heterogeneous group of patients. Means RT Jr, et al. **Clin Lab Haematol** 1999 Jun; 21(3):161-7
Serum soluble transferrin receptor in the diagnosis of iron deficiency in chronic liver disease. Nagral A, et al. **Clin Lab Haematol** 1999 Apr;21(2):93-7
Regulation of iron metabolism in the acute-phase response: interferon gamma and tumour necrosis factor alpha induce hypoferraemia, ferritin production and a decrease in circulating transferrin receptors in cancer patients. Feelders RA, et al. **Eur J Clin Invest** 1998 Jul;28(7):520-7
Disparity of serum transferrin receptor measurements among different assay methods. Yeung GS, et al. **Eur J Clin Nutr** 1998 Nov;52(11):801-4
The value of serum soluble transferrin receptor (sTfR) determination in hematological malignancies. Takubo T, et al. **Haematologia (Budap)** 1998;29(3):259-60
The usefulness of the serum transferrin receptor in detecting iron deficiency in the anemia of chronic disorders. Junca J, et al. **Haematologica** 1998 Aug;83(8):676-80
The role of serum transferrin receptor in the diagnosis of iron deficiency. Remacha AF, et al. **Haematologica** 1998 Nov;83(11):963-6
The importance of serum transferrin receptor level in the diagnosis of functional iron deficiency due to recombinant human erythropoietin treatment in haemodialysis patients. Tonbul HZ, et al. **Int Urol Nephrol** 1998;30(5):645-51
Erythroid marrow activity and hemoglobin H levels in hemoglobin H disease. Papassotiriou I, et al. **J Pediatr Hematol Oncol** 1998 Nov-Dec;20(6):539-44
Lack of difference in iron status assessed by soluble transferrin receptor between children with cerebral malaria and those with non-cerebral malaria. Kivibidila S, et al. **J Trop Pediatr** 1999 Jun;45(3):166-7
Haemopoietic, thrombopoietic, and vascular endothelial growth factor in space [letter] [see comments] Gunga HC, et al. **Lancet** 1999 Feb 6;353(9151):470. Comment in: Lancet 1999 May 1;353(9163):1529.
Serum transferrin receptor level in the diagnosis of iron deficiency due to erythropoietin treatment [letter] Zeki Tonbul H, et al. **Nephron** 1998 Oct;80(2):241
The serum transferrin receptor concentration in seven fetuses with hemolytic disease. Kivivuori SM, et al. **Pediatr Hematol Oncol** 1999 Jan-Feb;16(1):55-60
Evaluation of kits for measurement of the soluble transferrin receptor. Akesson A, et al. **Scand J Clin Lab Invest** 1999 Apr;59(2):77-81
Evaluation of an ELISA test for determination of the serum transferrin receptor. Demonstration of discordance between results obtained with two methods. Virtanen M, et al. **Scand J Clin Lab Invest** 1998 Nov;58(7):561-7
Evaluation of iron status of Finnish blood donors using serum transferrin receptor. Punnonen K, et al. **Transfus Med** 1999 Jun;9(2):131-4
[Clinical application of soluble transferrin receptor] Kougo H. **Rinsho Ketsueki** 1999 May;40(5):359-61 (15 ref.) **(Jpn)**

CHEMISTRY

Interaction kinetics of tetramethylrhodamine transferrin with human transferrin receptor studied by fluorescence correlation spectroscopy. Schüler J, et al. **Biochemistry** 1999 Jun 29;38(26):8402-8
Diffusion of transferrin receptor clusters. Srivastava M, et al. **Biophys Chem** 1998 Dec 14;75(3):201-11
Thermally induced aggregation of human transferrin receptor studied by light-scattering techniques. Schüler J, et al. **Biophys J** 1999 Aug;77(2):1117-25
Structure, function and clinical significance of transferrin receptors. Feelders RA, et al. **Clin Chem Lab Med** 1999 Jan;37(1):1-10 (93 ref.)

DRUG EFFECTS

3'-Azido-3'-deoxythymidine reduces the rate of transferrin receptor endocytosis in K562 cells. D'Alessandro AM, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):232-41

GENETICS

Transferrin receptor mutation analysis in hereditary hemochromatosis patients. Tsuchihashi Z, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):317-21
Interaction between haemochromatosis and transferrin receptor genes in different neoplastic disorders. Beckman LE, et al. **Carcinogenesis** 1999 Jul;20(7):1231-3
New DNA polymorphisms define ethnically distinct haplotypes in the human transferrin receptor gene. Van Landeghem GF, et al. **Hum Hered** 1998 Sep-Oct; 48(5):245-50
Ehrlichia chaffeensis and E. sennetsu, but not the human granulocytic ehrlichiosis agent, colocalize with transferrin receptor and up-regulate transferrin receptor mRNA by activating iron-responsive protein 1. Barnewall RE, et al. **Infect Immun** 1999 May;67(5):2258-65
Molecular cloning of transferrin receptor 2. A new member of the transferrin receptor-like family. Kawabata H, et al. **J Biol Chem** 1999 Jul 23;274(30):20826-32
Identification of a hypoxia response element in the transferrin receptor gene. Lok CN, et al. **J Biol Chem** 1999 Aug 20; 274(34):24147-52
Characterization of the translation-dependent step during iron-regulated decay of transferrin receptor mRNA. Posch M, et al. **J Biol Chem** 1999 Jun 4;274(23):16611-8
Transferrin receptor induction by hypoxia. HIF-1-mediated transcriptional activation and cell-specific post-transcriptional regulation. Tacchini L, et al. **J Biol Chem** 1999 Aug 20;274(34):24142-6
Interaction between haemochromatosis and transferrin receptor genes in multiple myeloma [letter] Van Landeghem GF, et al. **Lancet** 1998 Oct 17;352(9136):1285-6
Transcription of 'inactive' expression sites in African trypanosomes leads to expression of multiple transferrin receptor RNAs in bloodstream forms. Ansorge I, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):81-94
Transferrin receptor is necessary for development of erythrocytes and the nervous system. Levy JE, et al. **Nat Genet** 1999 Apr;21(4):396-9
Increased expression of transferrin receptors and iron in amoeboid microglial cells in postnatal rats following an exposure to hypoxia. Kaur C, et al. **Neurosci Lett** 1999 Mar 12;262(3):183-6
Time-course and localization of transferrin receptor expression in the substantia nigra of 6-hydroxydopamine-induced parkinsonian rats. He Y, et al. **Neuroscience** 1999;91(2):579-85

IMMUNOLOGY

Phase Ia trial of murine immunoglobulin A antitransferrin receptor antibody 42/6. Brooks D, et al. **Clin Cancer Res** 1995 Nov;1(11):1259-65
Effects of all-trans retinoic acid and antireceptor antibodies on growth and programmed cell death of human myeloma cells. Taetle R, et al. **Clin Cancer Res** 1996 Feb;2(2):253-9
Pharmacokinetics and blood-brain barrier transport of an anti-transferrin receptor monoclonal antibody (OX26) in rats after chronic treatment with the antibody. Wu D, et al. **Drug Metab Dispos** 1998 Sep;26(9):937-9
A human transferrin-binding protein of Staphylococcus aureus is immunogenic in vivo and has an epitope in common with human transferrin receptor. Lim Y, et al. **FEMS Microbiol Lett** 1998 Sep 15;166(2):225-30
Immunization with recombinant transferrin binding protein B enhances clearance of nontypeable Haemophilus influenzae from the rat lung. Webb DC, et al. **Infect Immun** 1999 May;67(5):2138-44
Analysis of the immunological responses to transferrin and lactoferrin receptor proteins from Moraxella catarrhalis. Yu RH, et al. **Infect Immun** 1999 Aug;67(8):3793-9
Cellular delivery of hammerhead ribozymes conjugated to a transferrin receptor antibody. Hudson AJ, et al. **Int J Pharm** 1999 May 10;182(1):49-58
[The erythroblast antigen: a membrane protein bound to the erythroid form of the transferrin receptor?] Fuxon VI, et al. **Ontogenez** 1999 May-Jun;30(3):165-75 (85 ref.) (Eng. Abstr.) **(Rus)**

METABOLISM

Evidence for the existence of a surface receptor for ferriclactoferrin and ferrictransferrin associated with the plasma membrane of the protozoan parasite Leishmania donovani. Britigan BE, et al. **Adv Exp Med Biol** 1998; 443:135-40
A conserved RGD (Arg-Gly-Asp) motif in the transferrin receptor is required for binding to transferrin. Dubljevic V, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):11-4
Diffusion of transferrin receptor clusters. Srivastava M, et al. **Biophys Chem** 1998 Dec 14;75(3):201-11
Transferrin receptor on peripheral blood lymphocytes in iron deficiency anaemia. Kinik ST, et al. **Br J Haematol** 1999 Mar;104(3):494-8
Modulation of surface transferrin receptors in lymphoid cells de novo infected with human immunodeficiency virus type-1. Savarino A, et al. **Cell Biochem Funct** 1999 Mar; 17(1):47-55
Structure, function and clinical significance of transferrin receptors. Feelders RA, et al. **Clin Chem Lab Med** 1999 Jan;37(1):1-10 (93 ref.)
Quantitative analysis of P-glycoprotein, bcl-2 and transferrin receptor allows the stratification of acute myeloid leukemia

patients within different prognostic risk classes. Del Poeta G, et al. **Eur J Histochem** 1997;41 Suppl 2:11-2
Ehrlichia chaffeensis and E. sennetsu, but not the human granulocytic ehrlichiosis agent, colocalize with transferrin receptor and up-regulate transferrin receptor mRNA by activating iron-responsive protein 1. Barnewall RE, et al. **Infect Immun** 1999 May;67(5):2258-65
Differential transferrin receptor density in human colorectal cancer: A potential probe for diagnosis and therapy. Prost AC, et al. **Int J Oncol** 1998 Oct;13(4):871-5
Increased expression of transferrin receptor on membrane of erythroblasts in strenuously exercised rats. Qian ZM, et al. **J Appl Physiol** 1999 Aug;87(2):523-9
Insulin regulation of protein traffic in rat adipose cells. Kandror KV. **J Biol Chem** 1999 Sep 3;274(36):25210-7
Overexpression of proteins containing tyrosine- or leucine-based sorting signals affects transferrin receptor trafficking. Nordeng TW, et al. **J Biol Chem** 1999 Jul 23; 274(30):21139-48
Sorting mechanisms regulating membrane protein traffic in the apical transcytotic pathway of polarized MDCK cells. Gibson A, et al. **J Cell Biol** 1998 Oct 5;143(1):81-94
Chloramphenicol-induced mitochondrial dysfunction is associated with decreased transferrin receptor expression and ferritin synthesis in K562 cells and is unrelated to IRE-IRP interactions. Leiter LM, et al. **J Cell Physiol** 1999 Sep;180(3):334-44
Production and characterization of fusion proteins containing transferrin and nerve growth factor. Park E, et al. **J Drug Target** 1998;6(1):53-64
Inhibition of interleukin-2 production and downregulation of IL-2 and transferrin receptors on rat splenic lymphocytes following PAG morphine administration: a role in natural killer and T cell suppression. Gomez-Flores R, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):625-30
The transferrin receptor binding site on HFE, the class I MHC-related protein mutated in hereditary hemochromatosis. Lebrón JA, et al. **J Mol Biol** 1999 Jun 18;289(4):1109-18
67Ga scintigraphy in B-cell non-Hodgkin's lymphoma: correlation of 67Ga uptake with histology and transferrin receptor expression. Nejmeddine F, et al. **J Nucl Med** 1999 Jan;40(1):40-5
Characterization of transferrin receptor in an immortalized cell line of rat brain endothelial cells, RBE4. Huwyler J, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul; 19(1-4):729-39
A dynamic model of the meningococcal transferrin receptor. Boulton IC, et al. **J Theor Biol** 1999 Jun 21;198(4):497-505
Peptides derived from the human transferrin receptor stimulate endosomal acidification via a Gi-type protein [see comments] Codina J, et al. **Kidney Int** 1999 Jun; 55(6):2376-82. Comment in: Kidney Int 1999 Jun;55(6):2524-5.
Discrimination between apo and iron-loaded forms of transferrin by transferrin binding protein B and its N-terminal subfragment. Retzer MD, et al. **Microb Pathog** 1998 Oct;25(4):175-80
Interaction of the hemochromatosis gene product HFE with transferrin receptor modulates cellular iron metabolism. Eisenstein RS. **Nutr Rev** 1998 Dec;56(12):356-8 (15 ref.)
Transferrin receptor is negatively modulated by the hemochromatosis protein HFE: implications for cellular iron homeostasis. Salter-Cid L, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5434-9
Acute cholesterol depletion inhibits clathrin-coated pit budding. Subtil A, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6775-80
Association of HFE protein with transferrin receptor in crypt enterocytes of human duodenum. Waheed A, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1579-84
Iron overload: molecular clues to its cause. Kühn LC. **Trends Biochem Sci** 1999 May;24(5):164-6 (24 ref.)

PHYSIOLOGY

Extraction of cholesterol with methyl-beta-cyclodextrin perturbs formation of clathrin-coated endocytic vesicles. Rodal SK, et al. **Mol Biol Cell** 1999 Apr;10(4):961-74
Beta 2-adrenergic receptor endocytic pathway is controlled by a saturable mechanism distinct from that of transferrin receptor. Marullo S, et al. **Receptors Channels** 1999; 6(4):255-69
[The transferrin receptor: its role in iron metabolism and its diagnosis utility] Vernet M. **Ann Biol Clin (Paris)** 1999 Jan-Feb;57(1):9-18 (49 ref.) (Eng. Abstr.) **(Fre)**

ULTRASTRUCTURE

Structural model of phospholipid-reconstituted human transferrin receptor derived by electron microscopy. Fuchs H, et al. **Structure** 1998 Oct 15;6(10):1235-43

RECEPTORS, TRANSFORMING-GROWTH FACTOR ALPHA see **RECEPTORS, EPIDERMAL GROWTH FACTOR-UROGASTRONE**

RECEPTORS, TRANSFORMING GROWTH FACTOR BETA

ANALYSIS

Reduced transforming growth factor-beta type II receptor (TGF-beta RII) expression in adenocarcinoma of the lung. Kim WS, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):301-6
Transforming growth factor beta receptors and p27kip in thyroid carcinoma. Muro-Cacho CA, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):76-81
Loss of expression of transforming growth factor beta type I and type II receptors correlates with tumor grade in human prostate cancer tissues. Kim IY, et al. **Clin Cancer Res** 1996 Aug;2(8):1255-61
Reduced levels of transforming growth factor beta receptor type II in human prostate cancer: an immunohistochemical study. Williams RH, et al. **Clin Cancer Res** 1996 Apr; 2(4):635-40
Transforming growth factor betas and their receptors in human liver cirrhosis. Baer HU, et al. **Eur J Gastroenterol Hepatol** 1998 Dec;10(12):1031-9
Immunohistochemical localization of TGF-beta type II receptor and TGF-beta3 during palatogenesis in vivo and in vitro. Cui XM, et al. **Int J Dev Biol** 1998 Sep; 42(6):817-20
[Relationship between the expression of transforming growth factor beta type I receptor (T beta R I) and prognosis of hepatocellular carcinoma (HCC)] Liu H, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar;7(1):20-1 (Eng. Abstr.) **(Chi)**

ANTAGONISTS & INHIBITORS

The type II transforming growth factor (TGF)-beta receptor-interacting protein TRIP-1 acts as a modulator of the TGF-beta response. Choy L, et al. **J Biol Chem** 1998 Nov 20;273(47):31455-62

BIOSYNTHESIS

Transforming growth factor-betas and their signaling receptors are coexpressed in Crohn's disease. di Mola FF, et al. **Ann Surg** 1999 Jan;229(1):67-75
Transforming growth factor-beta-induced upregulation of transforming growth factor-beta receptor expression in pancreatic regeneration. Menke A, et al. **Biochim Biophys Acta** 1999 Mar 8;1449(2):178-85
Beta transforming growth factors (TGFbeta) at the porcine conceptus-maternal interface. Part II: uterine TGFbeta bioactivity and expression of immunoreactive TGFbetas (TGFbeta1, TGFbeta2, and TGFbeta3) and their receptors (type I and type II). Gupta A, et al. **Biol Reprod** 1998 Oct; 59(4):911-7
Expression and distribution of transforming growth factor-beta isoforms and their signaling receptors in growing human bone. Horner A, et al. **Bone** 1998 Aug; 23(2):95-102
Down-regulation of TGF-beta receptors in human colorectal cancer: implications for cancer development. Matsushita M, et al. **Br J Cancer** 1999 Apr;80(1-2):194-205
Restoration of transforming growth factor beta signaling pathway in human prostate cancer cells suppresses tumorigenicity via induction of caspase-1-mediated apoptosis. Guo Y, et al. **Cancer Res** 1999 Mar 15; 59(6):1366-71
Expression of transforming growth factor beta type II receptors in head and neck squamous cell carcinoma. Muro-Cacho CA, et al. **Clin Cancer Res** 1999 Jun; 5(6):1243-8
Expression of transforming growth factor (TGF)-beta1, TGF-beta2, and TGF-beta3 and of type I and II TGF-beta receptors during the development of the human fetal ovary. Schilling B, et al. **Fertil Steril** 1999 Jul;72(1):147-53
Expression of transforming growth factor beta1 and its receptors in normal human urothelium and human transitional cell carcinomas. Izadifar V, et al. **Hum Pathol** 1999 Apr;30(4):372-7
TGF-beta-1 up-regulates cyclin D1 expression in COLO-357 cells, whereas suppression of cyclin D1 levels is associated with down-regulation of the type I TGF-beta receptor. Kornmann M, et al. **Int J Cancer** 1999 Oct 8; 83(2):247-54
Expression and secretion of TGF-beta isoforms and expression of TGF-beta-receptors I, II and III in normal and neoplastic human breast. Chakravarthy D, et al. **Int J Oncol** 1999 Jul;15(1):187-94
Expression of TGF-beta related Smad proteins in human epithelial skin tumors. Lange D, et al. **Int J Oncol** 1999 Jun;14(6):1049-56
Temporal and spatial expressions of transforming growth factor-betas and their receptors in epiphyseal growth plate. Matsunaga S, et al. **Int J Oncol** 1999 Jun;14(6):1063-7
Expression of types I, II, and III TGF-beta receptors in human glomerulonephritis. Yamamoto T, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2253-61
Transforming growth factor-beta induces formation of a dithiothreitol-resistant type I/Type II receptor complex in live cells. Wells RG, et al. **J Biol Chem** 1999 Feb 26; 274(9):5716-22
Expression of transforming growth factor-beta receptors types II and III within various cells in the rat periodontium. Gao J, et al. **J Periodontal Res** 1999 Feb;34(2):113-22
Absence of expression of transforming growth factor-beta type II receptor is associated with an aggressive growth pattern in a murine renal carcinoma cell line, Renca. Kundu SD, et al. **J Urol** 1998 Nov;160(5):1883-8
Expression of transforming growth factor-beta complex in arteriovenous malformations. Malik G, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38 Suppl:161-4
Early castration-induced upregulation of transforming growth factor beta1 and its receptors is associated with tumor cell apoptosis and a major decline in serum prostate-specific antigen in prostate cancer patients. Wikström P, et al. **Prostate** 1999 Mar 1;38(4):268-77
Transforming growth factor-beta type II receptor confers tumor suppressor activity in murine renal carcinoma (Renca) cells. Engel JD, et al. **Urology** 1999 Jul; 54(1):164-70

CHEMISTRY

Crystal structure of the cytoplasmic domain of the type I TGF beta receptor in complex with FKBP12. Huse M, et al. **Cell** 1999 Feb 5;96(3):425-36
Mapping of putative binding sites on the ectodomain of the type II TGF-beta receptor by scanning-deletion mutagenesis and knowledge-based modeling. Guimond A, et al. **FEBS Lett** 1999 Jul 30;456(1):79-84
Heteromeric and homomeric transforming growth factor-beta receptors show distinct signaling and endocytic responses in epithelial cells. Doré JJ Jr, et al. **J Biol Chem** 1998 Nov 27;273(48):31770-7

DRUG EFFECTS

Ligand-induced downregulation of receptors for TGF-beta in human osteoblast-like cells from adult donors. Gebken J, et al. **J Endocrinol** 1999 Jun;161(3):503-10

GENETICS

Brachydactyly type B: clinical description, genetic mapping to chromosome 9q, and evidence for a shared ancestral mutation. Gong Y, et al. **Am J Hum Genet** 1999 Feb; 64(2):570-7
The clinicopathological features of gastric carcinomas with microsatellite instability may be mediated by mutations of different "target genes": a study of the TGFbeta RII, IGFII R, and BAX genes. Oliveira C, et al. **Am J Pathol** 1998 Oct;153(4):1211-9 (44 ref.)
Cloning and characterization of a naturally occurring soluble form of TGF-beta type I receptor. Choi ME. **Am J Physiol** 1999 Jan;276(1 Pt 2):F88-95
Immunolocalization of transforming growth factor-beta s and type I and type II receptors in rat articular cartilage. Fukumura K, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4189-93
Analysis of microsatellite instability, TGF-beta type II receptor gene mutations and hMSH2 and hMLH1 allele losses in pancreaticobiliary maljunction-associated biliary tract tumors. Nagai M, et al. **Anticancer Res** 1999 May-Jun; 19(3A):1765-8
Two divergent signaling pathways for TGF-beta separated by a mutation of its type II receptor gene. Lu SL, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):385-90
Microsatellite instability, Epstein-Barr virus, mutation of type II transforming growth factor beta receptor and BAX in gastric carcinomas in Hong Kong Chinese. Leung SY, et al. **Br J Cancer** 1999 Feb;79(3-4):582-8
Analyses of microsatellite instability and the transforming growth factor-beta receptor type II gene mutation in sporadic breast cancer and their correlation with clinicopathological features. Tomita S, et al. **Breast Cancer Res Treat** 1999 Jan;53(1):33-9
The S387Y mutations of the transforming growth factor-beta receptor type I gene is uncommon in metastases of breast cancer and other common types of adenocarcinoma. Anbazhagan R, et al. **Cancer Res** 1999 Jul 15;59(14):3363-4
Transforming growth factor beta type I receptor kinase mutant associated with metastatic breast cancer. Chen T, et al. **Cancer Res** 1998 Nov 1;58(21):4805-10
Genetic alterations of the transforming growth factor beta receptor genes in pancreatic and biliary adenocarcinomas. Goggins M, et al. **Cancer Res** 1998 Dec 1;58(23):5329-32
Mutational inactivation of transforming growth factor beta receptor type II in microsatellite stable colon cancers. Grady WM, et al. **Cancer Res** 1999 Jan 15;59(2):320-4
Mutational analysis of the transforming growth factor beta receptor type II gene in human ovarian carcinoma. Lynch MA, et al. **Cancer Res** 1998 Oct 1;58(19):4227-32
Analysis of transforming growth factor (TGF)-alpha/epidermal growth factor receptor, hepatocyte growth Factor/c-met,TGF-beta receptor type II, and p53 expression in human hepatocellular carcinomas. Kiss A, et al. **Clin Cancer Res** 1997 Jul;3(7):1059-66
Ectopic expression of the transforming growth factor beta type II receptor disrupts mesoderm organisation during mouse gastrulation. Zwijsen A, et al. **Dev Dyn** 1999 Feb; 214(2):141-51
Specificity of TGFbeta signaling is conferred by distinct type I receptors and their associated SMAD proteins in Caenorhabditis elegans. Krishna S, et al. **Development** 1999 Jan;126(2):251-60
Does mutation of transforming growth factor-beta type II receptor gene play an important role in colorectal polyps? Togo G, et al. **Dig Dis Sci** 1999 Sep;44(9):1803-9
A regulatory role of fibroblast growth factor in the expression of decorin, biglycan, betaglycan and syndecan in osteoblasts from patients with Crouzon's syndrome. Bodo M, et al. **Eur J Cell Biol** 1999 May;78(5):323-30
Multiple TGF-beta receptor related genes in sponge and ancient gene duplications before the parazoan-eumetazoan

split. Suga H, et al. **FEBS Lett** 1999 Jun 25;453(3):346–50

Transforming growth factor beta and tumor-suppressing pathways: it doesn't matter how you get there, as long as you get there. Bresalier RS. **Gastroenterology** 1999 Aug; 117(2):500–2

Gene therapy for hepatic fibrosis–bringing treatment into the new millennium. Rockey DC. **Hepatology** 1999 Sep; 30(3):816–8

Role of transforming growth factor beta type II receptor in hepatic fibrosis: studies of human chronic hepatitis C and experimental fibrosis in rats [see comments] Roulot D, et al. **Hepatology** 1999 Jun;29(6):1730–8. Comment in: Hepatology 1999 Jun;29(6):1909–10.

Expression of transforming growth factor–beta1 and transforming growth factor–beta Type–II receptor mRNA in papillary thyroid carcinoma. Matoba H, et al. **Horm Metab Res** 1998 Oct;30(10):624–8

Novel cis element for tissue–specific transcription of rat platelet–derived growth factor beta–receptor gene. Takata Y, et al. **Hypertension** 1999 Jan;33(1 Pt 2):298–302

Microsatellite alterations and p53, TGFbetaRII, IGFIIR and BAX mutations in sporadic non–small–cell lung cancer. Caligo MA, et al. **Int J Cancer** 1998 Nov 23;78(5):606–9

Structural alterations of transforming growth factor–beta receptor genes in human cervical carcinoma. Chen T, et al. **Int J Cancer** 1999 Jul 2;82(1):43–51

Frequent aberration of the transforming growth factor–beta receptor II gene in cell lines but no apparent mutation in pre–invasive and invasive carcinomas of the uterine cervix. Chu TY, et al. **Int J Cancer** 1999 Feb 9;80(4):506–10

Gene mutation of transforming growth factor beta1 type II receptor in hepatocellular carcinoma. Furuta K, et al. **Int J Cancer** 1999 Jun 11;81(6):851–3

Expression of transforming–growth–factor (TGF)–beta receptors and Smad proteins in glioblastoma cell lines with distinct responses to TGF–beta1. Piek E, et al. **Int J Cancer** 1999 Mar 1;80(5):756–63

Concurrent and distinct transcription and translation of transforming growth factor–beta type I and type II receptors in rodent embryogenesis. Mariano JM, et al. **Int J Dev Biol** 1998 Nov;42(8):1125–36

Mutation analysis of transforming growth factor beta type II receptor, Smad2, and Smad4 in hepatocellular carcinoma. Kawate S, et al. **Int J Oncol** 1999 Jan; 14(1):127–31

Expression of alternatively spliced growth factor receptor isoforms in the human trabecular meshwork. Wordinger RJ, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):242–7

Transcriptional activation of transforming growth factor beta1 and its receptors by the Kruppel–like factor Zf9/core promoter–binding protein and Sp1. Potential mechanisms for autocrine fibrogenesis in response to injury. Kim Y, et al. **J Biol Chem** 1998 Dec 11;273(50):33750–8

Losses of heterozygosity on chromosomes 17p and 9p/18q may play important roles in early and advanced phases of gallbladder carcinogenesis. Hidaka E, et al. **J Cancer Res Clin Oncol** 1999 Aug–Sep;125(8–9):439–43

Suppression of transforming growth factor–beta isoforms, TGF–beta receptor type II, and myofibroblast differentiation in cultured human corneal and limbal fibroblasts by amniotic membrane matrix. Tseng SC, et al. **J Cell Physiol** 1999 Jun;179(3):325–35

Mutational analysis of activin/transforming growth factor–beta type I and type II receptor kinases in human pituitary tumors. D'Abronzo FH, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1716–21

The expression of TGF–beta receptors in human atherosclerosis: evidence for acquired resistance to apoptosis due to receptor imbalance. McCaffrey TA, et al. **J Mol Cell Cardiol** 1999 Sep;31(9):1627–42

Differential regulation of transforming growth factor receptors by angiotensin II and transforming growth factor–beta1 in vascular smooth muscle. Siegert A, et al. **J Mol Med** 1999 May;77(5):437–45

Immunomodulatory effects of interferon–beta–1b in vivo: induction of the expression of transforming growth factor–beta1 and its receptor type II. Ossege LM, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):73–81

Expression of transforming growth factor (TGF)–beta1, –beta2, and –beta3 isoforms and TGF–beta type I and type II receptors in multiple sclerosis lesions and human adult astrocyte cultures. De Groot CJ, et al. **J Neuropathol Exp Neurol** 1999 Feb;58(2):174–87

Developmental regulation of the serotonergic transmitter phenotype in rostral and caudal raphe neurons by transforming growth factor–betas. Galter D, et al. **J Neurosci Res** 1999 Jun 1;56(5):531–8

Mutational analyses of multiple target genes in histologically heterogeneous gastric cancer with microsatellite instability. Wang Y, et al. **Jpn J Cancer Res** 1998 Dec;89(12):1284–91

Gene therapy by transforming growth factor–beta receptor–IgG Fc chimera suppressed extracellular matrix accumulation in experimental glomerulonephritis [see comments] Isaka Y, et al. **Kidney Int** 1999 Feb;55(2):465–75 . Comment in: Kidney Int 1999 Feb;55(2):740–1.

TGF–beta receptor expression and binding in rat mesangial cells: modulation by glucose and cyclic mechanical strain. Riser BL, et al. **Kidney Int** 1999 Aug;56(2):428–39

The TGF–beta type II receptor in chronic myeloid leukemia: analysis of microsatellite regions and gene expression. Rooke HM, et al. **Leukemia** 1999 Apr;13(4):535–41

Abrogation of betaglycan attenuates TGF–beta–mediated inhibition of embryonic murine lung branching morphogenesis in culture. P2ao J, et al. **Mech Dev** 1998 Jul;75(1–2):67–79

Transforming growth factor–beta and multidrug resistance in chronic lymphocytic leukemia. Friedenberg WR, et al. **Med Oncol** 1999 Jul;16(2):110–8

Repression of the gene encoding the TGF–beta type II receptor is a major target of the EWS–FLI1 oncoprotein. Hahm KB, et al. **Nat Genet** 1999 Oct;23(2):222–7

Microsatellite instability in European hepatocellular carcinoma. Salvucci M, et al. **Oncogene** 1999 Jan 7; 18(1):181–7

Truncation of the TGF–beta type II receptor gene results in insensitivity to TGF–beta in human gastric cancer cells. Yang HK, et al. **Oncogene** 1999 Apr 1;18(13):2213–9

Ligand induced upregulation of the type II transforming growth factor (TGF–beta) receptor enhances TGF–beta responsiveness in COLO–357 cells. Kleeff J, et al. **Pancreas** 1999 May;18(4):364–70

Human pulmonary acinar aplasia: reduction of transforming growth factor–beta ligands and receptors. Chen MF, et al. **Pediatr Res** 1999 Jul;46(1):61–70

Transforming growth factor beta stimulation of colorectal cancer cell lines: type II receptor bypass and changes in adhesion molecule expression. Ilyas M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3087–91

Alterations of transforming growth factor beta1 (TGF–beta1) and TGFbeta receptor expressions with progression in Dunning rat prostatic adenocarcinoma sublines. Wikström P, et al. **Urol Res** 1999 Jun;27(3):185–93

[Genetic alterations in human malignant tumor] Tomita S, et al. **Rinsho Byori** 1999 Jan;47(1):20–6 (Eng. Abstr.) **(Jpn)**

[Damage to the transforming growth factor TGF–beta type II receptor gene and microsatellite instability in carcinoma cells of the gastrointestinal tract] Vostriukhina OA, et al. **Vopr Onkol** 1998;44(6):667–71 (Eng. Abstr.) **(Rus)**

METABOLISM

Expression of transforming growth factor–beta superfamily receptors in rat eyes. Obata H, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):151–6

Cloning and characterization of a naturally occurring soluble form of TGF–beta type I receptor. Choi ME. **Am J Physiol** 1999 Jan;276(1 Pt 2):F88–95

Transforming growth factor betas and their signaling receptors in human hepatocellular carcinoma. Abou–Shady M, et al. **Am J Surg** 1999 Mar;177(3):209–15

Transforming growth factor–beta expression in human testicular neoplasms. Cardillo MR, et al. **Anal Quant Cytol Histol** 1998 Dec;20(6):461–9

Expression of high–affinity receptors for TGF–beta during rat cranial suture fusion. Mehrara BJ, et al. **Ann Plast Surg** 1999 May;42(5):502–8

Transforming growth factor beta receptors in verrucous and squamous cell carcinoma. Anderson M, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug;125(8):849–54

Transforming growth factor beta receptor expression in hyperstimulated human granulosa cells and cleavage potential of the zygotes. Roy SK, et al. **Biol Reprod** 1998 Dec;59(6):1311–6

Inactivation of the transforming growth factor beta type II receptor in human small cell lung cancer cell lines. Hougaard S, et al. **Br J Cancer** 1999 Mar;79(7–8):1005–11

Altered expression of transforming growth factor–beta ligands and receptors in primary and recurrent ovarian carcinoma. Bristow RE, et al. **Cancer** 1999 Feb 1; 85(3):658–68

SARA, a FYVE domain protein that recruits Smad2 to the TGFbeta receptor. Tsukazaki T, et al. **Cell** 1998 Dec 11; 95(6):779–91

Differential responsiveness to autocrine and exogenous transforming growth factor (TGF) beta1 in cells with nonfunctional TGF–beta receptor type III. Deng X, et al. **Cell Growth Differ** 1999 Jan;10(1):11–8

Soluble transforming growth factor–beta type II receptor inhibits negative remodeling, fibroblast transdifferentiation, and intimal lesion formation but not endothelial growth. Smith JD, et al. **Circ Res** 1999 May 28;84(10):1212–22

Distinct patterns of transforming growth factor–beta isoform and receptor expression in human atherosclerotic lesions. Colocalization implicates TGF–beta in fibrofatty lesion development. Bobik A, et al. **Circulation** 1999 Jun 8; 99(22):2883–91

Elevated insulin–like growth factor–I and transforming growth factor–beta 1 and their receptors in patients with idiopathic hypertrophic obstructive cardiomyopathy. A possible mechanism. Li G, et al. **Circulation** 1998 Nov 10; 98(19 Suppl):II144–9; discussion II149–50

Expression of transforming growth factor beta and transforming growth factor beta receptors on AIDS–associated Kaposi's sarcoma. Ciernik IF, et al. **Clin Cancer Res** 1995 Oct;1(10):1119–24

Differential expression and regulation of TGF–beta1, TGF–beta2, TGF–beta3, TGF–betaRI, TGF–betaRII and TGF–betaRIII in cultured human corneal, limbal, and conjunctival fibroblasts. Li DQ, et al. **Curr Eye Res** 1999 Aug;19(2):154–61

Glucose–mediated regulation of transforming growth factor–beta (TGF–beta) and TGF–beta receptors in human retinal endothelial cells. Pascal MM, et al. **Curr Eye Res** 1999 Aug;19(2):162–70

Synergistic signaling by two BMP ligands through the SAX and TKV receptors controls wing growth and patterning in Drosophila. Haerry TE, et al. **Development** 1998 Oct; 125(20):3977–87

Expression of transforming growth factor–beta1, activin A, and their receptors in thyroid follicle cells: negative regulation of thyrocyte growth and function. Franzén A, et al. **Endocrinology** 1999 Sep;140(9):4300–10

Ectodomain cleavage and shedding of the type III transforming growth factor–beta receptor in lung membranes effect of temperature, ligand binding and membrane solubilization. Philip A, et al. **Eur J Biochem** 1999 May;261(3):618–28

Mapping of putative binding sites on the ectodomain of the type II TGF–beta receptor by scanning–deletion mutagenesis and knowledge–based modeling. Guimond A, et al. **FEBS Lett** 1999 Jul 30;456(1):79–84

Transforming growth factor beta 1 and its receptor types I and II. Comparison in human normal prostate, benign prostatic hyperplasia, and prostatic carcinoma. Royuela M, et al. **Growth Factors** 1998;16(2):101–10

Expression of type I and II receptors for transforming growth factor beta in the adult rat testis. Olaso R, et al. **Histochem Cell Biol** 1998 Dec;110(6):613–8

Improved recovery of active radiolabeled TGFbeta1 by TGFbeta receptor type III affinity chromatography [letter] Nakano K, et al. **In Vitro Cell Dev Biol Anim** 1999 May; 35(5):241–3

A vitamin D analog regulates mesangial cell smooth muscle phenotypes in a transforming growth factor–beta type II receptor–mediated manner. Abe H, et al. **J Biol Chem** 1999 Jul 23;274(30):20874–8

Smad1 recognition and activation by the ALK1 group of transforming growth factor–beta family receptors. Chen YG, et al. **J Biol Chem** 1999 Feb 5;274(6):3672–7

Identification of STRAP, a novel WD domain protein in transforming growth factor–beta signaling. Datta PK, et al. **J Biol Chem** 1998 Dec 25;273(52):34671–4

Interactions of high affinity insulin–like growth factor–binding proteins with the type V transforming growth factor–beta receptor in mink lung epithelial cells. Leal SM, et al. **J Biol Chem** 1999 Mar 5;274(10):6711–7

The mannose 6–phosphate/insulin–like growth factor–II receptor is a substrate of type V transforming growth factor–beta receptor. Liu Q, et al. **J Biol Chem** 1999 Jul 9;274(28):20002–10

Functional interactions of transforming growth factor beta–activated kinase 1 with IkappaB kinases to stimulate NF–kappaB activation. Sakurai H, et al. **J Biol Chem** 1999 Apr 9;274(15):10641–8

Control of type II transforming growth factor–beta receptor expression by integrin ligation. Wang D, et al. **J Biol Chem** 1999 Apr 30;274(18):12840–7

Angiotensin II stimulates expression of transforming growth factor beta receptor type II in cultured mouse proximal tubular cells. Wolf G, et al. **J Mol Med** 1999 Jul; 77(7):556–64

The ontogeny of TGF–beta1, –beta2, –beta3, and TGF–beta receptor–II expression in the pancreas: implications for regulation of growth and differentiation. Crisera CA, et al. **J Pediatr Surg** 1999 May;34(5):689–93; discussion 693–4

Expression of transforming growth factor–beta superfamily receptors in developing rat eyes. Yamada H, et al. **Jpn J Ophthalmol** 1999 Jul–Aug;43(4):290–4

TGF–beta receptor expression and binding in rat mesangial cells: modulation by glucose and cyclic mechanical strain. Riser BL, et al. **Kidney Int** 1999 Aug;56(2):428–39

TGF–beta1 in Aplysia: role in long–term changes in the excitability of sensory neurons and distribution of TbetaR–II–like immunoreactivity. Chin J, et al. **Learn Mem** 1999 May–Jun;6(3):317–30

TGF–beta activity and expression of its receptors in B–cell chronic lymphocytic leukemia. Lagneaux L, et al. **Leuk Lymphoma** 1998 Sep;31(1–2):99–106 (25 ref.)

High value of the radiobiological parameter Dq correlates to expression of the transforming growth factor beta type II receptor in a panel of small cell lung cancer cell lines. Hougaard S, et al. **Lung Cancer** 1998 Apr;20(1):65–9

TGF–beta 1 and IGF–1 expression in atrophic post–menopausal endometrium. Loverro G, et al. **Maturitas** 1999 Jan 4;31(2):179–84

XTrR–I is a TGFbeta receptor and overexpression of truncated form of the receptor inhibits axis formation and dorsalising activity. Mahony D, et al. **Mech Dev** 1998 Jul; 75(1–2):95–105

Transforming growth factor beta–1 and beta–2 and type II receptor functional regulation of ALVA–101 human prostate cancer cells. Meikle AW, et al. **Metabolism** 1999 Sep;48(9):1075–81

Physical and functional interactions between type I transforming growth factor beta receptors and Balpha, a WD–40 repeat subunit of phosphatase 2A. Griswold–Prenner I, et al. **Mol Cell Biol** 1998 Nov; 18(11):6595–604

Transforming growth factor–beta (TGF–beta) type I and type II receptors are both required for TGF–beta–mediated extracellular matrix production in lung fibroblasts. Zhao Y. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):91–7

TGF–beta receptors–I and –II immunoexpression in Alzheimer's disease: a comparison with aging and progressive supranuclear palsy. Lippa CF, et al. **Neurobiol Aging** 1998 Nov–Dec;19(6):527–33

Functional association of TGF-beta receptor II with cyclin B. Liu JH, et al. **Oncogene** 1999 Jan 7;18(1):269-75
Transformation of intestinal epithelial cells by chronic TGF-beta1 treatment results in downregulation of the type II TGF-beta receptor and induction of cyclooxygenase-2. Sheng H, et al. **Oncogene** 1999 Jan 28;18(4):855-67
Alterations of transforming growth factor beta1 (TGF-beta1) and TGFbeta receptor expressions with progression in Dunning rat prostatic adenocarcinoma sublines. Wikström P, et al. **Urol Res** 1999 Jun;27(3):185-93
The loss of expression of transforming growth factor-beta receptors correlates with the histopathologic tumor grade in bladder transitional cell carcinoma patients. Lee DH, et al. **Yonsei Med J** 1999 Apr;40(2):118-23

PHYSIOLOGY

Blocking transforming growth factor beta signaling in transgenic epidermis accelerates chemical carcinogenesis: a mechanism associated with increased angiogenesis. Go C, et al. **Cancer Res** 1999 Jun 15;59(12):2861-8
Spatially restricted activation of the SAX receptor by SCW modulates DPP/TKV signaling in Drosophila dorsal-ventral patterning. Neul JL, et al. **Cell** 1998 Nov 13;95(4):483-94
Interpretation of a BMP activity gradient in Drosophila embryos depends on synergistic signaling by two type I receptors, SAX and TKV. Nguyen M, et al. **Cell** 1998 Nov 13;95(4):495-506
Ectopic expression of the transforming growth factor beta type II receptor disrupts mesoderm organisation during mouse gastrulation. Zwijsen A, et al. **Dev Dyn** 1999 Feb; 214(2):141-51
Transforming growth factor-beta signalling in extraembryonic mesoderm is required for yolk sac vasculogenesis in mice. Goumans MJ, et al. **Development** 1999 Aug;126(16):3473-83
PDGF and TGF-beta induce cell shape changes in invertebrate immunocytes via specific cell surface receptors. Kletsas D, et al. **Eur J Cell Biol** 1998 Apr; 75(4):362-6
TGF-beta and its receptor complex in leukemic B-cell precursors. Buske C, et al. **Exp Hematol** 1998 Nov; 26(12):1155-61
The Ski oncoprotein interacts with the Smad proteins to repress TGFbeta signaling. Luo K, et al. **Genes Dev** 1999 Sep 1;13(17):2196-206
Overexpression of transforming growth factor beta-type II receptor reduces tumorigenicity and metastastic potential of K-ras-transformed thyroid cells. Turco A, et al. **Int J Cancer** 1999 Jan 5;80(1):85-91
Heteromeric and homomeric transforming growth factor-beta receptors show distinct signaling and endocytic responses in epithelial cells. Doré JJ Jr, et al. **J Biol Chem** 1998 Nov 27;273(48):31770-7
Role of endoglin in cellular responses to transforming growth factor-beta. A comparative study with betaglycan. Letamendia A, et al. **J Biol Chem** 1998 Dec 4; 273(49):33011-9
A pivotal role for the transmembrane domain in transforming growth factor-beta receptor activation. Zhu HJ, et al. **J Biol Chem** 1999 Apr 23;274(17):11773-81
Overexpression of a kinase-deficient transforming growth factor-beta type II receptor in mouse mammary stroma results in increased epithelial branching. Joseph H, et al. **Mol Biol Cell** 1999 Apr;10(4):1221-34
Lack of responsiveness to TGF-beta1 in a thyroid carcinoma cell line with functional type I and type II TGF-beta receptors and Smad proteins, suggests a novel mechanism for TGF-beta insensitivity in carcinoma cells. Heldin NE, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):79-90
Blockade of type beta transforming growth factor signaling prevents liver fibrosis and dysfunction in the rat. Qi Z, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2345-9
Requirement of type III TGF-beta receptor for endocardial cell transformation in the heart. Brown CB, et al. **Science** 1999 Mar 26;283(5410):2080-2
Possible involvement of transforming growth factor-beta 1 and transforming growth factor-beta receptor type II during luteinization in the marmoset ovary. Wehrenberg U, et al. **Tissue Cell** 1998 Jun;30(3):360-7
[Receptors and signal transduction for the TGF-beta related factors] Miyazono K. **Nippon Ronen Igakkai Zasshi** 1999 Mar;36(3):162-6 (27 ref.) **(Jpn)**

THERAPEUTIC USE

Tumorigenicity of mouse thymoma is suppressed by soluble type II transforming growth factor beta receptor therapy. Won J, et al. **Cancer Res** 1999 Mar 15;59(6):1273-7
Reduction of bleomycin induced lung fibrosis by transforming growth factor beta soluble receptor in hamsters. Wang Q, et al. **Thorax** 1999 Sep;54(9):805-12

RECEPTORS, TRH see **RECEPTORS, THYROTROPIN-RELEASING HORMONE**

RECEPTORS, TRIIODOTHYRONINE see **RECEPTORS, THYROID HORMONE**

RECEPTORS, TRYPTAMINE see **RECEPTORS, SEROTONIN**

RECEPTORS, TUMOR NECROSIS FACTOR

Autoimmune skin rashes associated with etanercept for rheumatoid arthritis [letter] Brion PH, et al. **Ann Intern Med** 1999 Oct 19;131(8):634
Isolation and analysis of components of CD95 (APO-1/Fas) death-inducing signaling complex. Scaffidi C, et al. **Methods** 1999 Apr;17(4):287-91
Structure of the murine TRAF1 gene. Dunn IF, et al. **Mol Immunol** 1999 Jun;36(9):611-7
[Fas system in the study of neoplasms] Li H, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jan;35(1):59-62 (25 ref.) **(Chi)**

ADMINISTRATION & DOSAGE

Restoration of E2F expression rescues vascular endothelial cells from tumor necrosis factor-alpha-induced apoptosis. Spyridopoulos I, et al. **Circulation** 1998 Dec 22-29; 98(25):2883-90
Phase I trial of interleukin 2 in combination with the soluble tumor necrosis factor receptor p75 IgG chimera. Trehu EG, et al. **Clin Cancer Res** 1996 Aug;2(8):1341-51

AGONISTS

Cell death patterns of the rat spermatogonial cell progeny induced by sertoli cell geometric changes and Fas (CD95) agonist. Tres LL, et al. **Dev Dyn** 1999 Apr;214(4):361-71
Transmembrane tumor necrosis factor (TNF)-alpha inhibits adipocyte differentiation by selectively activating TNF receptor 1. Xu H, et al. **J Biol Chem** 1999 Sep 10; 274(37):26287-95

ANALYSIS

Elevated soluble tumor necrosis factor receptor levels in seasonal allergic rhinitis patients. Kato M, et al. **Allergy** 1999 Mar;54(3):278-82
Expression of tumour necrosis factor receptors (CD120a and CD120b) on bronchoalveolar cells. Gaede KI, et al. **Cytokine** 1999 Aug;11(8):611-6
Fas ligand and Fas receptor are coexpressed in normal human esophageal epithelium: a potential mechanism of apoptotic epithelial turnover. Bennett MW, et al. **Dis Esophagus** 1999; 12(2):90-8
Interleukins and their antagonists but not TNF and its receptors are released in post-ERP pancreatitis. Messmann H, et al. **Eur J Gastroenterol Hepatol** 1998 Jul;10(7):611-7
Expression of three members of the TNF-R family of receptors (4-1BB, lymphotoxin-beta receptor, and Fas) in human lung. Boussaud V, et al. **Eur Respir J** 1998 Oct; 12(4):926-31
Soluble fractions of tumor necrosis factor-alpha, interleukin-6 and of their receptors in toxic epidermal necrolysis: a comparison with second-degree burns. Paquet P, et al. **Int J Mol Med** 1998 Feb;1(2):459-62
The soluble 60-kDa tumour necrosis factor receptor: no difference found between patients with relapsing-remitting multiple sclerosis and controls: increasing levels are associated with the recovery from Guillain-Barré syndrome. Patzold T, et al. **J Neurol** 1998 Dec; 245(12):803-8

ANTAGONISTS & INHIBITORS

Inhibition of tumor necrosis factor-alpha (TNF-alpha)/TNF-alpha receptor binding by structural analogues of suramin. Mancini F, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):851-9
Safety and efficacy of a soluble P75 tumor necrosis factor receptor (Enbrel, etanercept) in patients with advanced heart failure [see comments] Deswal A, et al. **Circulation** 1999 Jun 29;99(25):3224-6. Comment in: Circulation 1999 Jun 29;99(25):3213-4.
Inhibition of herpes simplex virus gD and lymphotoxin-alpha binding to HveA by peptide antagonists. Sarrias MR, et al. **J Virol** 1999 Jul;73(7):5681-7
Resistance to human cytomegalovirus infection may be influenced by genetic polymorphisms of the tumour necrosis factor-alpha and interleukin-1 receptor antagonist genes. Hurme M, et al. **Scand J Infect Dis** 1998;30(5):447-9

BIOSYNTHESIS

Reduction in neutrophil cell surface expression of tumor necrosis factor receptors but not Fas after transmigration: implications for the regulation of neutrophil apoptosis. Seely AJ, et al. **Arch Surg** 1998 Dec;133(12):1305-10
Transforming growth factor-beta1 increases mRNA levels of osteoclastogenesis inhibitory factor in osteoblastic/stromal cells and inhibits the survival of murine osteoclast-like cells. Murakami T, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):747-52
The Fanconi anemia group C gene product modulates apoptotic responses to tumor necrosis factor-alpha and Fas ligand but does not suppress expression of receptors of the tumor necrosis factor receptor superfamily. Koh PS, et al. **Exp Hematol** 1999 Jan;27(1):1-8
Role of T-helper type 2 cytokines in down-modulation of fas mRNA and receptor on the surface of activated CD4(+) T cells: molecular basis for the persistence of the allergic immune response. Spinozzi F, et al. **FASEB J** 1998 Dec;12(15):1747-53
Tumor necrosis factor inhibitor ameliorates murine intestinal graft-versus-host disease. Brown GR, et al. **Gastroenterology** 1999 Mar;116(3):593-601
Induction of apoptosis in CD34+ cells by sera from patients with aplastic anemia. Liu H, et al. **Hiroshima J Med Sci** 1999 Jun;48(2):57-63
Relative abilities of 4-1BB (CD137) and CD28 to co-stimulate the response of cytokine deflected Th1 and Th2 cells. Vinay DS, et al. **Immunobiology** 1999 Jun; 200(2):246-63
Transforming growth factor-beta stimulates the production of osteoprotegerin/osteoclastogenesis inhibitory factor by bone marrow stromal cells. Takai H, et al. **J Biol Chem** 1998 Oct 16;273(42):27091-6
Expression of osteoprotegerin (osteoclastogenesis inhibitory factor) in cultures of human dental mesenchymal cells and epithelial cells. Sakata M, et al. **J Bone Miner Res** 1999 Sep;14(9):1486-92
Vaccinia virus strains Lister, USSR and Evans express soluble and cell-surface tumour necrosis factor receptors. Alcami A, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):949-59
Increased TNF-alpha-induced apoptosis in lymphocytes from aged humans: changes in TNF-alpha receptor expression and activation of caspases. Aggarwal S, et al. **J Immunol** 1999 Feb 15;162(4):2154-61
IFN-gamma mediates a novel antiviral activity through dynamic modulation of TRAIL and TRAIL receptor expression. Sedger LM, et al. **J Immunol** 1999 Jul 15; 163(2):920-6
OPG/FDCR-1, a TNF receptor family member, is expressed in lymphoid cells and is up-regulated by ligating CD40. Yun TJ, et al. **J Immunol** 1998 Dec 1;161(11):6113-21
Suppression of Fas receptor and negative correlation of Fas ligand with differentiation and apoptosis in oral squamous cell carcinoma. Loro LL, et al. **J Oral Pathol Med** 1999 Feb;28(2):82-7
Preferential expression of tumor necrosis factor receptor 55 (TNF-R55) on human articular chondrocytes: selective transcriptional upregulation of TNF-R75 by proinflammatory cytokines interleukin 1beta, tumor necrosis factor-alpha, and basis fibroblast growth factor. Alsalameh S, et al. **J Rheumatol** 1999 Mar;26(3):645-53
A 63 kDa tumor necrosis factor inhibitor released from a human monocytic leukemia cell line, THP-1. Aso H, et al. **Microbiol Immunol** 1999;43(1):53-9
[The relationship between tumor necrosis factor and glomerular mesangial cells] Liu Z, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug;26(4):203-6 (Eng. Abstr.) **(Chi)**

BLOOD

Serum levels of soluble TNF alpha receptor type I and the severity of systemic sclerosis [see comments] Majewski S, et al. **Acta Derm Venereol** 1999 May;79(3):207-10. Comment in: Acta Derm Venereol 1999 May;79(3):177.
Presence of plasma endotoxin is correlated with tumour necrosis factor receptor levels and disease activity in alcoholic cirrhosis. Hanck C, et al. **Alcohol Alcohol** 1998 Nov-Dec;33(6):606-8
Maternal second trimester serum tumor necrosis factor-alpha-soluble receptor p55 (sTNFp55) and subsequent risk of preeclampsia. Williams MA, et al. **Am J Epidemiol** 1999 Feb 15;149(4):323-9
Serum levels of soluble tumor necrosis factor receptors and effects of interferon therapy in patients with chronic hepatitis C virus infection [see comments] Itoh Y, et al. **Am J Gastroenterol** 1999 May;94(5):1332-40. Comment in: Am J Gastroenterol 1999 May;94(5):1132-5.
Titer of tumor necrosis factor receptor: can it be a predictor of the development of deep vein thrombosis and pulmonary embolism? [letter; comment] Hirose H. **Angiology** 1999 Jan; 50(1):85-6. Comment on: Angiology 1998 Jul;49(7):537-41.
Plasma concentration of cytokine antagonists in patients with infection following liver resection. Kimura F, et al. **Br J Surg** 1998 Dec;85(12):1631-5
Plasma tumor necrosis factor-alpha, its soluble receptors and interleukin-1beta levels in critically burned patients. Zhang B, et al. **Burns** 1998 Nov;24(7):599-603
Soluble tumour necrosis factor (TNF)-receptor levels in serum as markers of anti-viral host reactivity. Bartholdy C, et al. **Clin Exp Immunol** 1999 May;116(2):299-306
Kinetics of serum soluble tumour necrosis factor receptor (TNF-R) type-I and type-II after a single interferon-alpha (IFN-alpha) injection in chronic hepatitis C. Fabris C, et al. **Clin Exp Immunol** 1999 Sep;117(3):556-60
Evidence for control of tumour necrosis factor-alpha (TNF-alpha) activity by TNF receptors in patients with proliferative diabetic retinopathy. Limb GA, et al. **Clin Exp Immunol** 1999 Mar;115(3):409-14
Imbalances in serum proinflammatory cytokines and their soluble receptors: a putative role in the progression of idiopathic IgA nephropathy (IgAN) and Henoch-Schönlein purpura nephritis, and a potential target of immunoglobulin therapy? Rostoker G, et al. **Clin Exp Immunol** 1998 Dec;114(3):468-76
Serum IL-6, TNFalpha, p55 srTNFalpha, p75srTNFalpha, srIL-2alpha levels and disease activity in systemic lupus erythematosus. Davas EM, et al. **Clin Rheumatol** 1999; 18(1):17-22
Relationship of serum levels of interleukin-6, soluble interleukin-6 receptor and tumour necrosis factor receptors to the acute-phase protein response in advanced pancreatic

cancer. Barber MD, et al. **Clin Sci (Colch)** 1999 Jan; 96(1):83–7

Differential expression of tumor necrosis factor receptor subtypes on leukocytes in systemic inflammatory response syndrome [see comments] Hübl W, et al. **Crit Care Med** 1999 Feb;27(2):319–24. Comment in: Crit Care Med 1999 Feb;27(2):240–1.

Tumor necrosis factor receptor expression on inflammatory cells in sepsis [editorial; comment] Opal SM. **Crit Care Med** 1999 Feb;27(2):240–1 (10 ref.). Comment on: Crit Care Med 1999 Feb;27(2):319–24.

Changes in sIL-6R and sTNF-Rs release by PMNs and the serum levels in breast cancer patients at different stages of treatment. Jablonska E. **Cytokine** 1998 Jul;10(7):540–3

Plasma levels of the soluble fraction of tumor necrosis factor receptor 2 and insulin resistance. Fernández-Real JM, et al. **Diabetes** 1998 Nov;47(11):1757–62

Insulin response to intravenous glucose correlates with plasma levels of the tumor necrosis factor receptor-1 [letter; comment] Fernández-Real JM, et al. **Diabetes Care** 1999 May;22(5):868–70. Comment on: Diabetes Care 1998 Oct;21(10):1778–9.

Increased serum concentrations of soluble tumor necrosis factor receptors p55 and p75 in early onset neonatal sepsis. Doellner H, et al. **Early Hum Dev** 1998 Oct;52(3):251–61

The tumor necrosis factor family and and correlation with disease activity and response to treatment in hairy cell leukemia. Barak V, et al. **Eur J Haematol** 1999 Feb; 62(2):71–5

Hemoglobin levels correlate with serum soluble CD23 and TNF-Rs concentrations in patients with rheumatoid arthritis. Vaiopoulos G, et al. **Haematologia (Budap)** 1998; 29(2):89–99

Increased serum levels of soluble tumor necrosis factor a-receptors in patients undergoing partial liver resection. Schroder J, et al. **Hepatogastroenterology** 1998 Sep–Oct; 45(23):1807–12

Soluble tumor necrosis factor receptor type II (sTNFRII) in HIV-infected patients: relationship with the plasma level of HIV-1 RNA. Hober D, et al. **Immunol Lett** 1999 Apr 1;67(2):91–4

Soluble tumor necrosis factor alpha receptors in sera from leprosy patients. Munk ME, et al. **Infect Immun** 1999 Jan; 67(1):423–5

Circadian rhythm of the soluble p75 tumor necrosis factor (sTNF-R75) receptor in humans--a possible explanation for the circadian kinetics of TNR-alpha effects. Liebmann PM, et al. **Int Immunol** 1998 Sep;10(9):1393–6

Plasma concentrations of soluble TNF-alpha receptors in obese subjects. Hauner H, et al. **Int J Obes Relat Metab Disord** 1998 Dec;22(12):1239–43

Elevated blood levels of soluble tumor necrosis factor receptors in nasopharyngeal carcinoma: correlation with humoral immune response to lytic replication of Epstein-Barr virus. Feng P, et al. **Int J Oncol** 1999 Jul; 15(1):167–72

Natural variability of circulating levels of cytokines and cytokine receptors in patients with heart failure: implications for clinical trials. Dibbs Z, et al. **J Am Coll Cardiol** 1999 Jun;33(7):1935–42

Plasma concentrations of tumor necrosis factor-alpha (TNF-alpha) and soluble TNF receptors in patients with anorexia nervosa. Nakai Y, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1226–8

Soluble tumor necrosis factor receptors in chronic hepatitis C: a correlation with histological fibrosis and activity. Zylberberg H, et al. **J Hepatol** 1999 Feb;30(2):185–91

Enhanced expression and shedding of tumor necrosis factor (TNF) receptors from mononuclear leukocytes in human heart failure. Nozaki N, et al. **J Mol Cell Cardiol** 1998 Oct; 30(10):2003–12

Plasma tumor necrosis factor-alpha soluble receptor p55 (sTNFp55) concentrations in eclamptic, preeclamptic and normotensive pregnant Zimbabwean women. Williams MA, et al. **J Reprod Immunol** 1998 Nov;40(2):159–73

Antiarthritic activity of soluble tumor necrosis factor receptor type I forms in adjuvant arthritis: correlation of plasma levels with efficacy. McComb J, et al. **J Rheumatol** 1999 Jun;26(6):1347–51

Increased pro-inflammatory cytokines (TNF-alpha and IL-6) and anti-inflammatory compounds (sTNFRp55 and sTNFRp75) in Brazilian patients during exanthematic dengue fever. Pinto LM, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):387–94

A mechanism of TNFR type II (75 kDa) "shedding" in macrophages. Coyne CP, et al. **Shock** 1999 Jan;11(1):19–28

Increased serum concentrations of soluble tumor necrosis factor receptor I in noncachectic and cachectic patients with advanced gastric and colorectal cancer. Shibata M, et al. **Surg Today** 1998;28(9):884–8

CHEMISTRY

USAN Council. List No.418. New names. Etanercept. **Clin Pharmacol Ther** 1999 Aug;66(2):209

The mouse tumor necrosis factor receptor 2 gene: genomic structure and characterization of the two transcripts. Hurlé B, et al. **Genomics** 1998 Aug 15;52(1):79–89

Main-chain signal assignment for the PDZ2 domain from human protein tyrosine phosphatase hPTP1E and its complex with a C-terminal peptide from the Fas receptor. Ekiel I, et al. **J Biomol NMR** 1998 Oct;12(3):455–6

Cutting edge: a novel viral TNF receptor superfamily member in virulent strains of human cytomegalovirus. Benedict CA, et al. **J Immunol** 1999 Jun 15;162(12):6967–70

[Therapy of refractory chronic polyarthritis with tumor necrosis factor alpha receptor fusion protein (TNFR55-IgG1)--long term follow-up of 80 personal cases] Sander O, et al. **Z Rheumatol** 1998 Oct;57(5):307–11 (Eng. Abstr.) **(Ger)**

[Therapy of refractory chronic polyarthritis with tumor necrosis factor alpha receptor fusion proteins (TNFR55-IgG1)--results of double-blind placebo-controlled studies over 3 months] van de Putte LB, et al. **Z Rheumatol** 1998 Oct;57(5):302–6 (Eng. Abstr.) **(Ger)**

DEFICIENCY

Cutaneous barrier repair and pathophysiology following barrier disruption in IL-1 and TNF type I receptor deficient mice. Man MQ, et al. **Exp Dermatol** 1999 Aug; 8(4):261–6

Exacerbation of damage and altered NF-kappaB activation in mice lacking tumor necrosis factor receptors after traumatic brain injury. Sullivan PG, et al. **J Neurosci** 1999 Aug 1;19(15):6248–56

Hepatic cytochrome P-450 expression in tumor necrosis factor-alpha receptor (p55/p75) knockout mice after endotoxin administration. Warren GW, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):945–50

Trophoblastic cell lines generated from tumour necrosis factor receptor-deficient mice reveal specific functions for the two tumour necrosis factor receptors. Rasmussen CA, et al. **Placenta** 1999 Mar-Apr;20(2-3):213–22

DRUG EFFECTS

Interferon-gamma and tumor necrosis factor-alpha induce synergistic cytolytic effects in ovarian cancer cell lines-roles of the TR60 and TR80 tumor necrosis factor receptors. Kost ER, et al. **Gynecol Oncol** 1999 Mar; 72(3):392–401

GENETICS

TNF-alpha receptor knockout mice are protected from the fibroproliferative effects of inhaled asbestos fibers. Liu JY, et al. **Am J Pathol** 1998 Dec;153(6):1839–47

Upregulation of the p75 but not the p55 TNF-alpha receptor mRNA after silica and bleomycin exposure and protection from lung injury in double receptor knockout mice. Ortiz LA, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):825–33

Cloning and expression of porcine recombinant soluble tumor necrosis factor receptor 1. Maroushek Boury N, et al. **Am J Vet Res** 1998 Oct;59(10):1317–22

Apoptotic molecules in pancreatic carcinoma cell lines. Ringel B, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:175–8

Gene transfer of cytokine inhibitors into human synovial fibroblasts in the SCID mouse model. Müller-Ladner U, et al. **Arthritis Rheum** 1999 Mar;42(3):490–7

Identification of rat OX40 ligand by molecular cloning. Akiba H, et al. **Biochem Biophys Res Commun** 1998 Oct 9; 251(1):131–6

Expression of TRAIL and its receptors in human brain tumors [published erratum appears in Biochem Biophys Res Commun 1999 May 27;259(1):230] Frank S, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):454–9

Regulation of CD95 (Apo-1/Fas) ligand and receptor expression in human embryonal carcinoma cells by interferon gamma and all-trans retinoic acid. Müschen M, et al. **Biol Chem** 1998 Aug-Sep;379(8–9):1083–91

Genomic organization and mutation analyses of the DR5/TRAIL receptor 2 gene in colorectal carcinomas. Arai T, et al. **Cancer Lett** 1998 Nov 27;133(2):197–204

Molecular cloning and functional analysis of the mouse homologue of the KILLER/DR5 tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) death receptor. Wu GS, et al. **Cancer Res** 1999 Jun 15; 59(12):2770–5

Germline mutations in the extracellular domains of the 55 kDa TNF receptor, TNFR1, define a family of dominantly inherited autoinflammatory syndromes. McDermott MF, et al. **Cell** 1999 Apr 2;97(1):133–44

Identification of a new member of the tumor necrosis factor family and its receptor, a human ortholog of mouse GITR. Gurney AL, et al. **Curr Biol** 1999 Feb 25;9(4):215–8

Expression pattern of tumour necrosis factor receptors in subcutaneous and omental human adipose tissue: role of obesity and non-insulin-dependent diabetes mellitus. Hube F, et al. **Eur J Clin Invest** 1999 Aug;29(8):672–8

Prevention of collagen-induced arthritis by gene delivery of soluble p75 tumour necrosis factor receptor. Mageed RA, et al. **Gene Ther** 1998 Dec;5(12):1584–92

The mouse tumor necrosis factor receptor 2 gene: genomic structure and characterization of the two transcripts. Hurlé B, et al. **Genomics** 1998 Aug 15;52(1):79–89

Gene targeting in the analysis of mammalian apoptosis and TNF receptor superfamily signaling. Yeh WC, et al. **Immunol Rev** 1999 Jun;169:283–302 (183 ref.)

Fatal granuloma necrosis without exacerbated mycobacterial growth in tumor necrosis factor receptor p55 gene-deficient mice intravenously infected with Mycobacterium avium. Ehlers S, et al. **Infect Immun** 1999 Jul;67(7):3571–9

Heterogeneous expression of tumor necrosis factor-alpha receptors I and II on human peripheral eosinophils. Matsuyama G, et al. **Int Arch Allergy Immunol** 1998 Sep; 117 Suppl 1:28–33

TRAIL death pathway expression and induction in thyroid follicular cells. Bretz JD, et al. **J Biol Chem** 1999 Aug 13;274(33):23627–32

Identification of a novel activation-inducible protein of the tumor necrosis factor receptor superfamily and its ligand. Kwon B, et al. **J Biol Chem** 1999 Mar 5;274(10):6056–61

The human tumor necrosis factor (TNF) receptor-associated factor 1 gene (TRAF1) is up-regulated by cytokines of the TNF ligand family and modulates TNF-induced activation of NF-kappaB and c-Jun N-terminal kinase. Schwenzer R, et al. **J Biol Chem** 1999 Jul 2; 274(27):19368–74

Regulation of T cell activation in vitro and in vivo by targeting the OX40-OX40 ligand interaction: amelioration of ongoing inflammatory bowel disease with an OX40-IgG fusion protein, but not with an OX40 ligand-IgG fusion protein. Higgins LM, et al. **J Immunol** 1999 Jan 1; 162(1):486–93

Enhanced expression and shedding of tumor necrosis factor (TNF) receptors from mononuclear leukocytes in human heart failure. Nozaki N, et al. **J Mol Cell Cardiol** 1998 Oct; 30(10):2003–12

Identification of a TRAF (TNF receptor-associated factor) gene in Caenorhabditis elegans. Wajant H, et al. **J Mol Evol** 1998 Dec;47(6):656–62

Temporal kinetics and cellular phenotype of TNF p55/p75 receptors in experimental allergic encephalomyelitis. Kahn MA, et al. **J Neuroimmunol** 1999 Mar 1;95(1–2):19–34

Immunomodulatory effects of interferon-beta-1b in vivo: induction of the expression of transforming growth factor-beta1 and its receptor type II. Ossege LM, et al. **J Neuroimmunol** 1998 Nov 2;91(1–2):73–81

The clinical spectrum in a large kindred with autoimmune lymphoproliferative syndrome caused by a Fas mutation that impairs lymphocyte apoptosis. Infante AJ, et al. **J Pediatr** 1998 Nov;133(5):629–33

Physical mapping of the autoimmune disease susceptibility locus, Bphs: co-localization with a cluster of genes from the TNF receptor superfamily on mouse chromosome 6. Meeker ND, et al. **Mamm Genome** 1999 Sep;10(9):858–63

Achieving antisense inhibition by oligodeoxynucleotides containing N(7)-modified 2'-deoxyguanosine using tumor necrosis factor receptor type 1. Ojwang JO, et al. **Methods** 1999 Jul;18(3):244–51

Role of TNF receptor 1 in protein turnover during cancer cachexia using gene knockout mice. Llovera M, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1–2):183–9

The murine p75 TNF receptor promoter region: DNA sequence and characterization of a cis-acting silencer. Kissonerghis M, et al. **Mol Immunol** 1999 Feb;36(2):125–34

Involvement of a novel Tnf receptor homologue in hair follicle induction [see comments] Headon DJ, et al. **Nat Genet** 1999 Aug;22(4):370–4. Comment in: Nat Genet 1999 Aug;22(4):315–6.

A polymorphism that affects OCT-1 binding to the TNF promoter region is associated with severe malaria [see comments] Knight JC, et al. **Nat Genet** 1999 Jun; 22(2):145–50. Comment in: Nat Genet 1999 Jun;22(2):120–1.

Genetic variants in the tumor necrosis factor receptor 1 gene in patients with MS. Weinshenker BG, et al. **Neurology** 1999 Apr 22;52(7):1500–3

The antiapoptotic decoy receptor TRID/TRAIL-R3 is a p53-regulated DNA damage-inducible gene that is overexpressed in primary tumors of the gastrointestinal tract. Sheikh MS, et al. **Oncogene** 1999 Jul 15;18(28):4153–9

Retroviral vectors preloaded with a viral receptor-ligand bridge protein are targeted to specific cell types. Boerger AL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9867–72

Tumor necrosis factor receptor family members in the immune system [see comments] Gravestein LA, et al. **Semin Immunol** 1998 Dec;10(6):423–34 (148 ref.). Comment in: Semin Immunol 1998 Dec;10(6):417–22.

Altered levels of mRNA of apoptosis-mediating genes after mid-term mechanical ventricular support in dilative cardiomyopathy--first results of the Halle Assist Induced Recovery Study (HAIR). Milting H, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):48–50

Association of tumor necrosis factor receptor 2 (TNFR2) polymorphism with susceptibility to systemic lupus erythematosus. Komata T, et al. **Tissue Antigens** 1999 Jun; 53(6):527–33

IMMUNOLOGY

Effects of the tyrosine kinase inhibitor AG957 and an Anti-Fas receptor antibody on CD34(+) chronic myelogenous leukemia progenitor cells. Carlo-Stella C, et al. **Blood** 1999 Jun 1;93(11):3973–82

NK1.1 cells express 4-1BB (CDw137) costimulatory molecule and are required for tumor immunity elicited by anti-4-1BB monoclonal antibodies. Melero I, et al. **Cell Immunol** 1998 Dec 15;190(2):167–72

Differential expression and costimulatory effect of 4-1BB (CD137) and CD28 molecules on cytokine-induced murine CD8(+) Tc1 and Tc2 cells. Vinay DS, et al. **Cell Immunol** 1999 Feb 25;192(1):63–71

Resistance to Fas (APO-1/CD95)-mediated apoptosis and expression of Fas ligand in esophageal cancer: the Fas counterattack. O'Connell J, et al. **Dis Esophagus** 1999; 12(2):83–9 (51 ref.)

CD4 T cell traffic control: in vivo evidence that ligation of OX40 on CD4 T cells by OX40-ligand expressed on dendritic cells leads to the accumulation of CD4 T cells in B follicles. Brocker T, et al. **Eur J Immunol** 1999 May; 29(5):1610-6

Severity of symptoms and demyelination in MOG-induced EAE depends on TNFR1. Eugster HP, et al. **Eur J Immunol** 1999 Feb;29(2):626-32

The resistance against Listeria monocytogenes and the formation of germinal centers depend on a functional death domain of the 55 kDa tumor necrosis factor receptor. Plitz T, et al. **Eur J Immunol** 1999 Feb;29(2):581-91

Signalling by CD95 and TNF receptors: not only life and death. Magnusson C, et al. **Immunol Cell Biol** 1999 Feb; 77(1):41-6 (79 ref.)

On the role of tumor necrosis factor and receptors in models of multiorgan failure, rheumatoid arthritis, multiple sclerosis and inflammatory bowel disease. Kollias G, et al. **Immunol Rev** 1999 Jun;169:175-94 (198 ref.)

Tumor necrosis factor alpha receptor 1 is important for survival from Streptococcus pneumoniae infections. O'Brien DP, et al. **Infect Immun** 1999 Feb;67(2):595-601

OX40-Mediated cosignal enhances the maturation of naive human CD4+ T cells into high IL-4-producing effectors. Delespesse G, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):384-6

A critical role of the p75 tumor necrosis factor receptor (p75TNF-R) in organ inflammation independent of TNF, lymphotoxin alpha, or the p55TNF-R. Douni E, et al. **J Exp Med** 1998 Oct 5;188(7):1343-52

Ox-40 ligand: a potent costimulatory molecule for sustaining primary CD4 T cell responses. Gramaglia I, et al. **J Immunol** 1998 Dec 15;161(12):6510-7

In vitro inhibition of binding of tumor necrosis factor (TNF)-alpha by monoclonal antibody to TNF receptor on glioma cell and monocyte. Tanaka S, et al. **Neurol Med Chir (Tokyo)** 1998 Dec;38(12):812-7; discussion 817-8

Tumor necrosis factor receptor family members in the immune system [see comments] Gravestein LA, et al. **Semin Immunol** 1998 Dec;10(6):423-34 (148 ref.). Comment in: Semin Immunol 1998 Dec;10(6):417-22.

CD27 and (TNFR) relatives in the immune system: their role in health and disease [editorial; comment] Loenen WA. **Semin Immunol** 1998 Dec;10(6):417-22. Comment on: Semin Immunol 1998 Dec;10(6):423-34.

Role of 4-1BB in immune responses. Vinay DS, et al. **Semin Immunol** 1998 Dec;10(6):481-9 (43 ref.)

CD40 and its crucial role as a member of the TNFR family. Vogel LA, et al. **Semin Immunol** 1998 Dec;10(6):435-42

ISOLATION & PURIFICATION

Purification and quantitation of tumor necrosis factor receptor immunoadhesin using a combination of immunoaffinity and reversed-phase chromatography. Battersby JE, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 14;728(1):21-33

TRAIL (Apo-2L) and TRAIL receptors in human placentas: implications for immune privilege. Phillips TA, et al. **J Immunol** 1999 May 15;162(10):6053-9

Fas receptor up-regulation and membrane localization concurrent with apoptosis in idiopathic esophageal ulceration: toward a better understanding of esophageal injury in AIDS. Houghton J, et al. **J Infect Dis** 1999 Jul; 180(1):211-5

METABOLISM

Hydrogen peroxide enhances shedding of type I soluble tumor necrosis factor receptor from pulmonary epithelial cells. Hino T, et al. **Am J Respir Cell Mol Biol** 1999 Jan; 20(1):122-8

Upregulation of the p75 but not the p55 TNF-alpha receptor mRNA after silica and bleomycin exposure and protection from lung injury in double receptor knockout mice. Ortiz LA, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):825-33

Diagnosis of pulmonary embolism by use of urinary TNF alpha and its soluble TNF receptor I. Taheri SA, et al. **Angiology** 1999 Sep;50(9):703-6

Significance of Fas and retinoblastoma protein expression during the progression of Barrett's metaplasia to adenocarcinoma. Coppola D, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):298-304

Tumor necrosis factor receptor and Fas signaling mechanisms. Wallach D, et al. **Annu Rev Immunol** 1999; 17:331-67 (225 ref.)

Inhibition of tumor necrosis factor-alpha (TNF-alpha)/TNF-alpha receptor binding by structural analogues of suramin. Mancini F, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):851-9

High-affinity interactions of tumor necrosis factor receptor-associated factors (TRAFs) and CD40 require TRAF trimerization and CD40 multimerization. Pullen SS, et al. **Biochemistry** 1999 Aug 3;38(31):10168-77

Tumor necrosis factor-induced cytotoxicity is not related to rates of mitochondrial morphological abnormalities or autophagy-changes that can be mediated by TNFR-I or TNFR-II. Prins JB, et al. **Biosci Rep** 1998 Dec;18(6):329-40

Altered release of tumor necrosis factor and its soluble receptor in non-Hodgkin's lymphoma patients. Rathore VB, et al. **Cancer Detect Prev** 1999;23(3):226-31

Relation of TNF-related apoptosis-inducing ligand (TRAIL) receptor and FLICE-inhibitory protein expression to TRAIL-induced apoptosis of melanoma. Zhang XD, et al. **Cancer Res** 1999 Jun 1;59(11):2747-53

Expression of the lymphotoxin beta receptor on follicular stromal cells in human lymphoid tissues. Murphy M, et al. **Cell Death Differ** 1998 Jun;5(6):497-505

TNF-related ligands and their receptors. Orlinick JR, et al. **Cell Signal** 1998 Sep;10(8):543-51 (129 ref.)

Binding of tumour necrosis factor-alpha (TNF-alpha) to TNF-RI induces caspase(s)-dependent apoptosis in human cholangiocarcinoma cell lines. Utaisincharoen P, et al. **Clin Exp Immunol** 1999 Apr;116(1):41-7

Apoptosis: Silencing the death receptors. Tschopp J, et al. **Curr Biol** 1999 May 20;9(10):R381-4 (14 ref.)

Functions of newly identified members of the tumor necrosis factor receptor/ligand superfamilies in lymphocytes. Kwon B, et al. **Curr Opin Immunol** 1999 Jun;11(3):340-5 (33 ref.)

Identification of TNF-alpha binding peptides from a D-amino acid hexapeptide library that specifically inhibit TNF-alpha binding to recombinant p55 receptor. Kruszynski M, et al. **Cytokine** 1999 Jan;11(1):37-44

Animal pharmacokinetics of the tumor necrosis factor receptor-immunoglobulin fusion protein lenercept and their extrapolation to humans. Richter WF, et al. **Drug Metab Dispos** 1999 Jan;27(1):21-5

LMP1 signal transduction differs substantially from TNF receptor 1 signaling in the molecular functions of TRADD and TRAF2. Kieser A, et al. **EMBO J** 1999 May 4; 18(9):2511-21

Functional analysis of tumor necrosis factor (TNF) receptors in TNF-alpha-mediated insulin resistance in genetic obesity. Uysal KT, et al. **Endocrinology** 1998 Dec; 139(12):4832-8

TGF-beta downmodulates cytokine-induced monocyte chemoattractant protein (MCP)-1 expression in human endothelial cells. A putative role for TGF-beta in the modulation of TNF receptor expression. Weiss JM, et al. **Endothelium** 1999;6(4):291-302

Activation of caspases by death receptors. Bantel H, et al. **Eur Cytokine Netw** 1998 Dec;9(4):681-4 (7 ref.)

Tumor necrosis factor-alpha and its soluble receptors in plasma and cerebrospinal fluid of multiple sclerosis patients treated with methylprednisolone. Franciotta D, et al. **Eur Cytokine Netw** 1999 Sep;10(3):431-6

The TNF-alpha system in heart failure and after heart transplantation: plasma protein levels, mRNA expression, soluble receptors and plasma buffer capacity. van Riemsdijk-van Overbeeke IC, et al. **Eur Heart J** 1999 Jun; 20(11):833-40

Increased expression of apoptosis signalling receptors by alveolar macrophages in sarcoidosis. Dai H, et al. **Eur Respir J** 1999 Jun;13(6):1451-4

Cutaneous barrier repair and pathophysiology following barrier disruption in IL-1 and TNF type I receptor deficient mice. Man MQ, et al. **Exp Dermatol** 1999 Aug; 8(4):261-6

Tumor necrosis factor p55 receptor (TNF-RI) mediates the in vitro inhibition of hepatic erythropoietin production. Jelkmann W, et al. **Exp Hematol** 1999 Feb;27(2):224-8

Expression of TNF and the necessity of TNF receptors in bleomycin-induced lung injury in mice. Ortiz LA, et al. **Exp Lung Res** 1998 Nov-Dec;24(6):721-43

Changes of phospholipase D activity in TNF-alpha and anti-Fas/Apo1 monoclonal antibody induced apoptosis in HL-60 and A20 cells. Kang JH, et al. **Exp Mol Med** 1998 Mar 31;30(1):21-7

Receptor activator of NF-kappaB recruits multiple TRAF family adaptors and activates c-Jun N-terminal kinase. Kim HH, et al. **FEBS Lett** 1999 Jan 29;443(3):297-302

Secretion imbalance between tumour necrosis factor and its inhibitor in inflammatory bowel disease. Noguchi M, et al. **Gut** 1998 Aug;43(2):203-9

Maturation and apoptosis of primary human acute myeloblastic leukemia cells are determined by TNF-alpha exclusively through CD120A stimulation. Santini V, et al. **Haematologica** 1999 Apr;84(4):291-7

Shedding of tumour necrosis factor receptors from purified villous term trophoblasts and cytotrophoblastic BeWo cells. Knöfler M, et al. **Hum Reprod** 1998 Aug;13(8):2308-16

Osteoprotegerin ligand: a common link between osteoclastogenesis, lymph node formation and lymphocyte development. Kong YY, et al. **Immunol Cell Biol** 1999 Apr; 77(2):188-93 (45 ref.)

Increased levels of soluble tumor necrosis factor receptors in atherosclerosis: no clear relationship with levels of tumor necrosis factor. Blann AD, et al. **Inflammation** 1998 Oct; 22(5):483-91

Heterogeneous expression of tumor necrosis factor-alpha receptors I and II on human peripheral eosinophils. Matsuyama G, et al. **Int Arch Allergy Immunol** 1998 Sep; 117 Suppl 1:28-33

Signalling by proteolysis: death receptors induce apoptosis. Muzio M. **Int J Clin Lab Res** 1998;28(3):141-7 (53 ref.)

c-E10 is a caspase-recruiting domain-containing protein that interacts with components of death receptors signaling pathway and activates nuclear factor-kappaB. Costanzo A, et al. **J Biol Chem** 1999 Jul 16;274(29):20127-32

Activation of NF-kappaB by RANK requires tumor necrosis factor receptor-associated factor (TRAF) 6 and NF-kappaB-inducing kinase. Identification of a novel TRAF6 interaction motif. Darnay BG, et al. **J Biol Chem** 1999 Mar 19;274(12):7724-31

The involvement of multiple tumor necrosis factor receptor (TNFR)-associated factors in the signaling mechanisms of receptor activator of NF-kappaB, a member of the TNFR superfamily. Galibert L, et al. **J Biol Chem** 1998 Dec 18; 273(51):34120-7

Herpesvirus entry mediator ligand (HVEM-L), a novel ligand for HVEM/TR2, stimulates proliferation of T cells and inhibits HT29 cell growth. Harrop JA, et al. **J Biol Chem** 1998 Oct 16;273(42):27548-56

Association of the p75 neurotrophin receptor with TRAF6. Khursigara G, et al. **J Biol Chem** 1999 Jan 29; 274(5):2597-600

Differential requirements for tumor necrosis factor receptor-associated factor family proteins in CD40-mediated induction of NF-kappaB and Jun N-terminal kinase activation. Leo E, et al. **J Biol Chem** 1999 Aug 6;274(32):22414-22

The ubiquitin-homology protein, DAP-1, associates with tumor necrosis factor receptor (p60) death domain and induces apoptosis. Liou ML, et al. **J Biol Chem** 1999 Apr 9;274(15):10145-53

Apoptosis-inducing agents cause rapid shedding of tumor necrosis factor receptor 1 (TNFR1). A nonpharmacological explanation for inhibition of TNF-mediated activation. Madge LA, et al. **J Biol Chem** 1999 May 7;274(19):13643-9

Fas ligand-independent, FADD-mediated activation of the Fas death pathway by anticancer drugs. Micheau O, et al. **J Biol Chem** 1999 Mar 19;274(12):7987-92

CD40 signaling through tumor necrosis factor receptor-associated factors (TRAFs). Binding site specificity and activation of downstream pathways by distinct TRAFs. Pullen SS, et al. **J Biol Chem** 1999 May 14;274(20):14246-54

Inhibition of receptor internalization by monodansylcadaverine selectively blocks p55 tumor necrosis factor receptor death domain signaling. Schütze S, et al. **J Biol Chem** 1999 Apr 9;274(15):10203-12

CLAP, a novel caspase recruitment domain-containing protein in the tumor necrosis factor receptor pathway, regulates NF-kappaB activation and apoptosis. Srinivasula SM, et al. **J Biol Chem** 1999 Jun 18;274(25):17946-54

The TRAF family of signal transducers mediates NF-kappaB activation by the TRANCE receptor. Wong BR, et al. **J Biol Chem** 1998 Oct 23;273(43):28355-9

The cytoplasmic domain of the lymphotoxin-beta receptor mediates cell death in HeLa cells. Wu MY, et al. **J Biol Chem** 1999 Apr 23;274(17):11868-73

A newly identified member of tumor necrosis factor receptor superfamily (TR6) suppresses LIGHT-mediated apoptosis. Yu KY, et al. **J Biol Chem** 1999 May 14;274(20):13733-6

A chimeric form of osteoprotegerin inhibits hypercalcemia and bone resorption induced by IL-1beta, TNF-alpha, PTH, PTHrP, and 1, 25(OH)2D3. Morony S, et al. **J Bone Miner Res** 1999 Sep;14(9):1478-85

Mature follicular dendritic cell networks depend on expression of lymphotoxin beta receptor by radioresistant stromal cells and of lymphotoxin beta and tumor necrosis factor by B cells. Endres R, et al. **J Exp Med** 1999 Jan 4;189(1):159-68

Identification of Grb2 as a novel binding partner of tumor necrosis factor (TNF) receptor I. Hildt E, et al. **J Exp Med** 1999 Jan 7;189(11):1707-14

TNF-induced haptoglobin release from human neutrophils: pivotal role of the TNF p55 receptor. Berkova N, et al. **J Immunol** 1999 May 15;162(10):6226-32

TNF recruits TRADD to the plasma membrane but not the trans-Golgi network, the principal subcellular location of TNF-R1. Jones SJ, et al. **J Immunol** 1999 Jan 15; 162(2):1042-8

Signaling through the lymphotoxin-beta receptor stimulates HIV-1 replication alone and in cooperation with soluble or membrane-bound TNF-alpha. Marshall WL, et al. **J Immunol** 1999 May 15;162(10):6016-23

Blocking OX-40/OX-40 ligand interaction in vitro and in vivo leads to decreased T cell function and amelioration of experimental allergic encephalomyelitis. Weinberg AD, et al. **J Immunol** 1999 Feb 1;162(3):1818-26

TNF receptor p55 plays a pivotal role in murine keratinocyte apoptosis induced by ultraviolet B irradiation. Zhuang L, et al. **J Immunol** 1999 Feb 1;162(3):1440-7

The role of TNFalpha and TNF receptors in obesity and insulin resistance. Hotamisligil GS. **J Intern Med** 1999 Jun; 245(6):621-5 (37 ref.)

Suppressed alloantigen presentation, increased TNF-alpha, IL-1, IL-1Ra, IL-10, and modulation of TNF-R in UV-irradiated human skin. Barr RM, et al. **J Invest Dermatol** 1999 May;112(5):692-8

T-cell tumor necrosis factor-alpha receptor binding in myasthenic patients. Bongioanni P, et al. **J Neuroimmunol** 1999 Jan 1;93(1-2):203-7

Soluble tumor necrosis factor receptor levels in familial Mediterranean fever [letter] Dror Y, et al. **J Rheumatol** 1998 Dec;25(12):2481-2

Hepatitis C virus core protein enhances NF-kappaB signal pathway triggering by lymphotoxin-beta receptor ligand and tumor necrosis factor alpha. You LR, et al. **J Virol** 1999 Feb;73(2):1672-81

Inhibition of mitogen-activated kinase signaling sensitizes HeLa cells to Fas receptor-mediated apoptosis. Holmström TH, et al. **Mol Cell Biol** 1999 Sep;19(9):5991-6002

Inhibitory effects of TNF alpha on mouse tumor Leydig cells: possible role of ceramide in the mechanism of action.

Budnik LT, et al. **Mol Cell Endocrinol** 1999 Apr 25; 150(1-2):39-46

Structural basis for self-association and receptor recognition of human TRAF2. Park YC, et al. **Nature** 1999 Apr 8; 398(6727):533-8

Genomic amplification of a decoy receptor for Fas ligand in lung and colon cancer. Pitti RM, et al. **Nature** 1998 Dec 17;396(6712):699-703

Soluble IL-6 and TNF receptors release by polymorphonuclear and mononuclear cells in cancer patients. Jablonska E. **Neoplasma** 1999;46(1):35-9

Immunolocalization of tumor necrosis factor-alpha and its receptors in inflammatory myopathies. De Bleecker JL, et al. **Neuromuscul Disord** 1999 Jun;9(4):239-46

Does "death receptor" signaling play a role in tumorigenesis and cancer therapy? Villunger A, et al. **Oncol Res** 1998; 10(11-12):541-50 (189 ref.)

Herpes simplex virus thymidine kinase/ganciclovir-induced apoptosis involves ligand-independent death receptor aggregation and activation of caspases. Beltinger C, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8699-704

Retroviral vectors preloaded with a viral receptor-ligand bridge protein are targeted to specific cell types. Boerger AL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9867-72

Multiple sclerosis: expression of molecules of the tumor necrosis factor ligand and receptor families in relationship to the demyelinated plaque. Raine CS, et al. **Rev Neurol (Paris)** 1998 Sep;154(8-9):577-85

Distribution of TNF-alpha, TNF-R55 and TNF-R75 in the rheumatoid synovial membrane: TNF receptors are localized preferentially in the lining layer; TNF-alpha is distributed mainly in the vicinity of TNF receptors in the deeper layers. Alsalameh S, et al. **Scand J Immunol** 1999 Mar;49(3):278-85

Prevention of constitutive TNF receptor 1 signaling by silencer of death domains [published erratum appears in Science 1999 Mar 19;283(5409):1852] Jiang Y, et al. **Science** 1999 Jan 22;283(5401):543-6

Role of 4-1BB in immune responses. Vinay DS, et al. **Semin Immunol** 1998 Dec;10(6):481-9 (43 ref.)

Recombinant tumor necrosis factor receptor p75 fusion protein (TNFR:Fc) alters endotoxin-induced activation of the kinin, fibrinolytic, and coagulation systems in normal humans. DeLa Cadena RA, et al. **Thromb Haemost** 1998 Jul;80(1):114-8

[Molecular mechanisms of apoptosis induced by activation of membrane receptors from the TNF-R superfamily] Grzelakowska-Sztabert B. **Postepy Biochem** 1998; 44(1):8-21 (162 ref.) **(Pol)**

PHYSIOLOGY

Impairment of TNF-receptor-1 signaling but not fas signaling diminishes T-cell apoptosis in myelin oligodendrocyte glycoprotein peptide-induced chronic demyelinating autoimmune encephalomyelitis in mice. Bachmann R, et al. **Am J Pathol** 1999 May;154(5):1417-22

Interferon-gamma receptor-mediated but not tumor necrosis factor receptor type 1- or type 2-mediated signaling is crucial for the activation of cerebral blood vessel endothelial cells and microglia in murine Toxoplasma encephalitis. Deckert-Schlüter M, et al. **Am J Pathol** 1999 May;154(5):1549-61

TNF-binding protein ameliorates inhibition of skeletal muscle protein synthesis during sepsis. Cooney R, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E611-9

Role of the type 1 TNF receptor in lung inflammation after inhalation of endotoxin or Pseudomonas aeruginosa. Skerrett SJ, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L715-27

Use of recombinant human soluble TNF receptor in anorectic tumor-bearing rats. Torelli GF, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R850-5

Soluble tumor necrosis factor (TNF) receptors p55 and p75 and interleukin-10 downregulate TNF-alpha activity during the lung response to silica particles in NMRI mice. Huaux F, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):137-45

Fas-mediated activation of phospholipase D is coupled to the stimulation of phosphatidylcholine-specific phospholipase C in A20 cells. Han JS, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):233-9

RANK is the essential signaling receptor for osteoclast differentiation factor in osteoclastogenesis. Nakagawa N, et al. **Biochem Biophys Res Commun** 1998 Dec 18; 253(2):395-400

Tumour necrosis factor induced autophagy and mitochondrial morphological abnormalities are mediated by TNFR-I and/or TNFR-II and do not invariably lead to cell death. Prins J, et al. **Biochem Soc Trans** 1998 Nov; 26(4):S314

Expression of the 75 kDA TNF receptor and its role in contact-mediated neuronal cell death. Sipe KJ, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):111-21

4-1BB costimulation promotes human T cell adhesion to fibronectin. Kim YJ, et al. **Cell Immunol** 1999 Feb 25; 192(1):13-23

Signal transduction by tumor necrosis factor: the Parker B. Francis Lectureship. Goeddel DV. **Chest** 1999 Jul;116(1 Suppl):69S-73S (37 ref.)

Apoptosis control by death and decoy receptors. Ashkenazi A, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):255-60 (66 ref.)

TRAIL: a molecule with multiple receptors and control mechanisms. Griffith TS, et al. **Curr Opin Immunol** 1998 Oct;10(5):559-63 (25 ref.)

TNF receptor associated factors in cytokine signaling. Wajant H, et al. **Cytokine Growth Factor Rev** 1999 Mar; 10(1):15-26 (114 ref.)

Induction of cell death by tumour necrosis factor (TNF) receptor 2, CD40 and CD30: a role for TNF-R1 activation by endogenous membrane-anchored TNF. Grell M, et al. **EMBO J** 1999 Jun 1;18(11):3034-43

Modulation of osteoclast differentiation and function by the new members of the tumor necrosis factor receptor and ligand families. Suda T, et al. **Endocr Rev** 1999 Jun; 20(3):345-57 (83 ref.)

Minimal tumor necrosis factor receptor binding protein: optimum biological activity of a truncated p55 soluble tumor necrosis factor receptor-IgG fusion protein. Corcoran AE, et al. **Eur Cytokine Netw** 1998 Sep; 9(3):255-62

The CD40 TRAF family member interacting motif carries the information to rescue WEHI 231 cells from anti-IGM-induced growth arrest [published erratum appears in Eur J Immunol 1999 May;29(5):1751] Hornung M, et al. **Eur J Immunol** 1998 Nov;28(11):3812-23

Both TNF receptors are required for direct TNF-mediated cytotoxicity in microvascular endothelial cells. Lucas R, et al. **Eur J Immunol** 1998 Nov;28(11):3577-86

TNF-induced enterocyte apoptosis in mice is mediated by the TNF receptor 1 and does not require p53. Piguet PF, et al. **Eur J Immunol** 1998 Nov;28(11):3499-505

TWEAK can induce cell death via endogenous TNF and TNF receptor 1. Schneider P, et al. **Eur J Immunol** 1999 Jun;29(6):1785-92

Interferon-gamma rescues TNF-alpha-induced apoptosis mediated by up-regulation of TNFR2 on EoL-1 cells. Horie T, et al. **Exp Hematol** 1999 Mar;27(3):512-9

Activation of p42/p44 mitogen-activated protein kinases (MAPK) and p38 MAPK by tumor necrosis factor (TNF) is mediated through the death domain of the 55-kDa TNF receptor. Boone E, et al. **FEBS Lett** 1998 Dec 18; 441(2):275-80

Regulation of tumour necrosis factor (TNF) induced apoptosis by soluble TNF receptors in Helicobacter pylori infection [see comments] Shibata J, et al. **Gut** 1999 Jul; 45(1):24-31. Comment in: Gut 1999 Jul;45(1):5-7.

Primary ovarian cancer cultures are resistant to Fas-mediated apoptosis. Baldwin RL, et al. **Gynecol Oncol** 1999 Aug; 74(2):265-71

Nitric oxide sensitizes ovarian tumor cells to Fas-induced apoptosis. Garbán HJ, et al. **Gynecol Oncol** 1999 May; 73(2):257-64

Death receptors in liver biology and pathobiology. Faubion WA, et al. **Hepatology** 1999 Jan;29(1):1-4 (48 ref.)

Analysis of liver regeneration in mice lacking type 1 or type 2 tumor necrosis factor receptor: requirement for type 1 but not type 2 receptor [comment] Yamada Y, et al. **Hepatology** 1998 Oct;28(4):959-70. Comment on: Hepatology 1998 Oct;28(4):906-13.

IL-1 and TNF receptor-deficient mice show decreased inflammation in an immune complex model of uveitis. Brito BE, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2583-9

The role of Fas and related death receptors in autoimmune and other disease states. Siegel RM, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):729-38 (101 ref.)

Tumor necrosis factor-alpha mediates both apoptotic cell death and cell proliferation in a human hematopoietic cell line dependent on mitotic activity and receptor subtype expression. Baxter GT, et al. **J Biol Chem** 1999 Apr 2; 274(14):9539-47

The involvement of multiple tumor necrosis factor receptor (TNFR)-associated factors in the signaling mechanisms of receptor activator of NF-kappaB, a member of the TNFR superfamily. Galibert L, et al. **J Biol Chem** 1998 Dec 18; 273(51):34120-7

Interleukin-4 down-regulates both forms of tumor necrosis factor receptor and receptor-mediated apoptosis, NF-kappaB, AP-1, and c-Jun N-terminal kinase. Comparison with interleukin-13. Manna SK, et al. **J Biol Chem** 1998 Dec 11;273(50):33333-41

Distinct caspase cascades are initiated in receptor-mediated and chemical-induced apoptosis. Sun XM, et al. **J Biol Chem** 1999 Feb 19;274(8):5053-60

TL1, a novel tumor necrosis factor-like cytokine, induces apoptosis in endothelial cells. Involvement of activation of stress protein kinases (stress-activated protein kinase and p38 mitogen-activated protein kinase) and caspase-3-like protease. Yue TL, et al. **J Biol Chem** 1999 Jan 15; 274(3):1479-86

Ischemic and excitotoxic brain injury is enhanced in mice lacking the p55 tumor necrosis factor receptor. Gary DS, et al. **J Cereb Blood Flow Metab** 1998 Dec;18(12):1283-7

Apoptosis mediated by Fas but not tumor necrosis factor receptor 1 prevents chronic disease in mice infected with murine cytomegalovirus. Fleck M, et al. **J Clin Invest** 1998 Oct 1;102(7):1431-43

Supraoptimal peptide-major histocompatibility complex causes a decrease in bcl-2 levels and allows tumor necrosis factor alpha receptor II-mediated apoptosis of cytotoxic T lymphocytes. Alexander-Miller MA, et al. **J Exp Med** 1998 Oct 19;188(8):1391-9

TRANCE, a tumor necrosis factor family member critical for CD40 ligand-independent T helper cell activation [see comments] Bachmann MF, et al. **J Exp Med** 1999 Apr 5;189(7):1025-31. Comment in: J Exp Med 1999 Apr 5;189(7):1017-20.

TRANCE-RANK, a new signal pathway involved in lymphocyte development and T cell activation [comment] Green EA, et al. **J Exp Med** 1999 Apr 5;189(7):1017-20. Comment on: J Exp Med 1999 Apr 5;189(7):1025-31.

BAFF, a novel ligand of the tumor necrosis factor family, stimulates B cell growth. Schneider P, et al. **J Exp Med** 1999 Jun 7;189(11):1747-56

CD28-independent costimulation of T cells by OX40 ligand and CD70 on activated B cells. Akiba H, et al. **J Immunol** 1999 Jun 15;162(12):7058-66

Inhibition of Th1 polarization by soluble TNF receptor is dependent on antigen-presenting cell-derived IL-12. Becher B, et al. **J Immunol** 1999 Jan 15;162(2):684-8

Role of the stress kinase pathway in signaling via the T cell costimulatory receptor 4-1BB. Cannons JL, et al. **J Immunol** 1999 Sep 15;163(6):2990-8

TNF-alpha regulates corneal Langerhans cell migration. Dekaris I, et al. **J Immunol** 1999 Apr 1;162(7):4235-9

Role of the 75-kDa TNF receptor in TNF-induced activation of neutrophil respiratory burst. Dri P, et al. **J Immunol** 1999 Jan 1;162(1):460-6

Functional analysis of TRAIL receptors using monoclonal antibodies. Griffith TS, et al. **J Immunol** 1999 Mar 1; 162(5):2597-605

Adenovirus-induced liver pathology is mediated through TNF receptors I and II but is independent of TNF or lymphotoxin. Hayder H, et al. **J Immunol** 1999 Aug 1; 163(3):1516-20

Cutting edge: contrasting roles of TNF receptor-associated factor 2 (TRAF2) and TRAF3 in CD40-activated B lymphocyte differentiation. Hostager BS, et al. **J Immunol** 1999 Jun 1;162(11):6307-11

TNF-alpha-induced growth suppression of CD34+ myeloid leukemic cell lines signals through TNF receptor type I and is associated with NF-kappa B activation. Hu X, et al. **J Immunol** 1999 Sep 15;163(6):3106-15

TNF receptor-associated factor-2 is involved in both IL-1 beta and TNF-alpha signaling cascades leading to NF-kappa B activation and IL-8 expression in human intestinal epithelial cells. Jobin C, et al. **J Immunol** 1999 Apr 15;162(8):4447-54

TNF receptor 1-dependent beta cell toxicity as an effector pathway in autoimmune diabetes. Kägi D, et al. **J Immunol** 1999 Apr 15;162(8):4598-605

TNF receptor p55 is required for elimination of inflammatory cells following control of intracellular pathogens. Kanaly ST, et al. **J Immunol** 1999 Oct 1;163(7):3883-9

Intracellular signaling of gp34, the OX40 ligand: induction of c-jun and c-fos mRNA expression through gp34 upon binding of its receptor, OX40. Matsumura Y, et al. **J Immunol** 1999 Sep 15;163(6):3007-11

Implication of TNF receptor-I-mediated extracellular signal-regulated kinases 1 and 2 (ERK1/2) activation in growth of AIDS-associated Kaposi's sarcoma cells: a possible role of a novel death domain protein MADD in TNF-alpha-induced ERK1/2 activation in Kaposi's sarcoma cells. Murakami-Mori K, et al. **J Immunol** 1999 Mar 15;162(6):3672-9

CD95 (Fas/Apo-1) as a receptor governing astrocyte apoptotic or inflammatory responses: a key role in brain inflammation? Saas P, et al. **J Immunol** 1999 Feb 15; 162(4):2326-33

TNF-mediated activation of the stress-activated protein kinase pathway: TNF receptor-associated factor 2 recruits and activates germinal center kinase related. Shi CS, et al. **J Immunol** 1999 Sep 15;163(6):3279-85

Role of T cells and germinal center formation in the generation of immune responses to the thymus-independent carbohydrate dextran B512. Sverremark E, et al. **J Immunol** 1998 Nov 1;161(9):4646-51

Death domain receptors and their role in cell demise. Singh A, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):439-50 (129 ref.)

To die or not to die--the quest of the TRAIL receptors. Degli-Esposti M. **J Leukoc Biol** 1999 May;65(5):535-42 (59 ref.)

Identification of CD137 as a potent monocyte survival factor. Langstein J, et al. **J Leukoc Biol** 1999 Jun;65(6):829-33

TNF and IL-6 mediate MIP-1alpha expression in bleomycin-induced lung injury. Smith RE, et al. **J Leukoc Biol** 1998 Oct;64(4):528-36

TNF binding protein prevents hyperlactatemia and inactivation of PDH complex in skeletal muscle during sepsis. Vary TC, et al. **J Surg Res** 1998 Nov;80(1):44-51

Role of TNF receptor 1 in protein turnover during cancer cachexia using gene knockout mice. Llovera M, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1-2):183-9

Tumor necrosis factor receptors encoded by poxviruses. Cunnion KM. **Mol Genet Metab** 1999 Aug;67(4):278-82 (48 ref.)

Modulation of life and death by the TNF receptor superfamily. Baker SJ, et al. **Oncogene** 1998 Dec 24; 17(25):3261-70 (69 ref.)

PED/PEA-15: an anti-apoptotic molecule that regulates FAS/TNFR1-induced apoptosis. Condorelli G, et al. **Oncogene** 1999 Aug 5;18(31):4409-15

Trophoblastic cell lines generated from tumour necrosis

factor receptor-deficient mice reveal specific functions for the two tumour necrosis factor receptors. Rasmussen CA, et al. **Placenta** 1999 Mar-Apr;20(2-3):213-22

Tumor necrosis factor receptor family member RANK mediates osteoclast differentiation and activation induced by osteoprotegerin ligand. Hsu H, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3540-5

Two differently regulated nuclear factor kappaB activation pathways triggered by the cytoplasmic tail of CD40. Tsukamoto N, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1234-9

The death receptors. Peter ME, et al. **Results Probl Cell Differ** 1999;23:25-63 (280 ref.)

Deficiencies of IL-4 or TNF-alpha receptor-1 do not diminish graft arteriosclerosis in cardiac allografts. Nagano H, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):152

RADIATION EFFECTS

Ultraviolet-irradiation-induced apoptosis is mediated via ligand independent activation of tumor necrosis factor receptor 1. Sheikh MS, et al. **Oncogene** 1998 Nov 19; 17(20):2555-63

THERAPEUTIC USE

Etanercept marketed for moderate, severe rheumatoid arthritis [news] **Am J Health Syst Pharm** 1998 Dec 15; 55(24):2593

Impact of immunomodulating therapy on morbidity in patients with severe sepsis. Pittet D, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):852-7

Etanercept therapy in rheumatoid arthritis. A randomized, controlled trial. Moreland LW, et al. **Ann Intern Med** 1999 Mar 16;130(6):478-86

Tumor necrosis factor receptor p55 controls the severity of arthritis in experimental Yersinia enterocolitica infection. Zhao YX, et al. **Arthritis Rheum** 1999 Aug;42(8):1662-72

Osteoclastogenesis inhibitory factor exhibits hypocalcemic effects in normal mice and in hypercalcemic nude mice carrying tumors associated with humoral hypercalcemia of malignancy. Akatsu T, et al. **Bone** 1998 Dec;23(6):495-8

Tumor necrosis factor inhibitors for rheumatoid arthritis. Jones RE, et al. **Bull Rheum Dis** 1999;48(3):1-4 (16 ref.)

Safety and efficacy of a soluble P75 tumor necrosis factor receptor (Enbrel, etanercept) in patients with advanced heart failure [see comments] Deswal A, et al. **Circulation** 1999 Jun 29;99(25):3224-6. Comment in: Circulation 1999 Jun 29;99(25):3213-4.

TNF-alpha and heart failure. The difference between proof of principle and hypothesis testing [editorial; comment] Francis GS. **Circulation** 1999 Jun 29;99(25):3213-4. Comment on: Circulation 1999 Jun 29;99(25):3224-6.

Etanercept, a novel drug for the treatment of patients with severe, active rheumatoid arthritis. Goldenberg MM. **Clin Ther** 1999 Jan;21(1):75-87; discussion 1-2 (50 ref.)

Etanercept: a review of its use in rheumatoid arthritis. Jarvis B, et al. **Drugs** 1999 Jun;57(6):945-66 (115 ref.)

Etanercept: a new option in the management of RA. Lovell CM. **J Am Pharm Assoc (Wash)** 1999 May-Jun;39(3):412-4

Antiarthritic activity of soluble tumor necrosis factor receptor type I forms in adjuvant arthritis: correlation of plasma levels with efficacy. McComb J, et al. **J Rheumatol** 1999 Jun;26(6):1347-51

Inhibitors of tumor necrosis factor for rheumatoid arthritis. Moreland LW. **J Rheumatol** 1999 May;26 Suppl 57:7-15 (20 ref.)

Etanercept in rheumatoid arthritis [letter; comment] Cook DA, et al. **N Engl J Med** 1999 Jun 24;340(25):2000; discussion 2001. Comment on: N Engl J Med 1999 Jan 28;340(4):253-9.

Etanercept in rheumatoid arthritis [letter; comment] Escalante A, et al. **N Engl J Med** 1999 Jun 24;340(25):2000; discussion 2001. Comment on: N Engl J Med 1999 Jan 28;340(4):253-9. Comment on: N Engl J Med 1999 Jan 28;340(4):310-2.

Etanercept in rheumatoid arthritis [letter; comment] Ferraccioli GF, et al. **N Engl J Med** 1999 Jun 24; 340(25):2000-1. Comment on: N Engl J Med 1999 Jan 28;340(4):253-9.

Anticytokine therapy--a new era in the treatment of rheumatoid arthritis? [editorial; comment] [see comments] O'Dell JR. **N Engl J Med** 1999 Jan 28;340(4):310-2. Comment on: N Engl J Med 1999 Jan 28;340(4):253-9. Comment in: N Engl J Med 1999 Jun 24;340(25):2000; discussion 2001.

A trial of etanercept, a recombinant tumor necrosis factor receptor:Fc fusion protein, in patients with rheumatoid arthritis receiving methotrexate [see comments] Weinblatt ME, et al. **N Engl J Med** 1999 Jan 28;340(4):253-9. Comment in: N Engl J Med 1999 Jan 28;340(4):310-2. Comment in: N Engl J Med 1999 Jun 24;340(25):2000; discussion 2001. Comment in: N Engl J Med 1999 Jun 24;340(25):2000-1.

TNF neutralization in MS: results of a randomized, placebo-controlled multicenter study. The Lenercept Multiple Sclerosis Study Group and The University of British Columbia MS/MRI Analysis Group [see comments] **Neurology** 1999 Aug 11;53(3):457-65. Comment in: Neurology 1999 Aug 11;53(3):444-5.

Anti-TNF alpha therapy is useful in rheumatoid arthritis and Crohn's disease: analysis of the mechanism of action predicts utility in other diseases. Feldman M, et al. **Transplant Proc** 1998 Dec;30(8):4126-7 (9 ref.)

Recombinant human tumor necrosis factor receptor Fc fusion protein therapy in kidney transplant recipients undergoing OKT3 induction therapy. Novak EJ, et al. **Transplantation** 1998 Dec 27;66(12):1732-5

Treatment advances in rheumatoid arthritis. Arriola ER, et al. **West J Med** 1999 May;170(5):278-81 (16 ref.)

RECEPTORS, UROGASTRONE see **RECEPTORS, EPIDERMAL GROWTH FACTOR-UROGASTRONE**

RECEPTORS, V1 see **RECEPTORS, VASOPRESSIN**

RECEPTORS, V2 see **RECEPTORS, VASOPRESSIN**

RECEPTORS, VASOACTIVE INTESTINAL PEPTIDE

AGONISTS

Influence of selective VIP receptor agonists in the rat gastric fundus. Robberecht P, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):77-80

99mTc-labeled vasoactive intestinal peptide receptor agonist: functional studies. Pallela VR, et al. **J Nucl Med** 1999 Feb; 40(2):352-60

ANALYSIS

Immunohistochemical detection of vasoactive intestinal polypeptide (VIP) and the VIP receptor in the rat inner ear. Kitanishi T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:52-6

Autoradiographic visualization of the receptor subclasses for vasoactive intestinal polypeptide (VIP) in rat brain. Vertongen P, et al. **Ann N Y Acad Sci** 1998 Dec 11; 865:412-5

Receptor autoradiographic evaluation of cholecystokinin, neurotensin, somatostatin and vasoactive intestinal peptide receptors in gastro-intestinal adenocarcinoma samples: where are they really located? Reubi JC, et al. **Int J Cancer** 1999 May 5;81(3):376-86

BIOSYNTHESIS

Functional expression of rat VPAC1 receptor in Saccharomyces cerevisiae. Hansen MK, et al. **Receptors Channels** 1999;6(4):271-81

CHEMISTRY

Construction of chimeras between human VIP1 and secretin receptors: identification of receptor domains involved in selectivity towards VIP, secretin, and PACAP. Du K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:386-9

Importance of conserved cysteines in the extracellular loops of human PACAP/VIP1 receptor for ligand binding and stimulation of cAMP production. Knudsen SM, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:259-65

A model of the receptors in the VIP receptor family. Tams JW, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:375-7

Structure of the human VIPR2 gene for vasoactive intestinal peptide receptor type 2. Lutz EM, et al. **FEBS Lett** 1999 Sep 17;458(2):197-203

CLASSIFICATION

A critical view of the methods for characterization of the VIP/PACAP receptor subclasses. Robberecht P, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:157-63 (35 ref.)

DRUG EFFECTS

Retinoic acid down-regulates the expression of the vasoactive intestinal polypeptide receptor type-1 in human breast carcinoma cell lines. Madsen B, et al. **Cancer Res** 1998 Nov 1;58(21):4845-50

A cloned frog vasoactive intestinal polypeptide/pituitary adenylate cyclase-activating polypeptide receptor exhibits pharmacological and tissue distribution characteristics of both VPAC1 and VPAC2 receptors in mammals. Alexandre D, et al. **Endocrinology** 1999 Mar;140(3):1285-93

GENETICS

Cloning and functional characterization of the human VIP1/PACAP receptor promoter. Couvineau A, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:59-63

The human vasoactive intestinal Peptide/Pituitary adenylate cyclase activating peptide receptor 1 (VPAC1): constitutive activation by mutations at threonine 343. Gaudin P, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):15-20

Temporal profiles of vasoactive intestinal polypeptide precursor mRNA and its receptor mRNA in the rat suprachiasmatic nucleus. Shinohara K, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):262-7

A cloned frog vasoactive intestinal polypeptide/pituitary adenylate cyclase-activating polypeptide receptor exhibits pharmacological and tissue distribution characteristics of both VPAC1 and VPAC2 receptors in mammals. Alexandre D, et al. **Endocrinology** 1999 Mar;140(3):1285-93

Structure of the human VIPR2 gene for vasoactive intestinal peptide receptor type 2. Lutz EM, et al. **FEBS Lett** 1999 Sep 17;458(2):197-203

Pituitary adenylate cyclase-activating polypeptide modulates gastric enterochromaffin-like cell proliferation in rats. Läuffer JM, et al. **Gastroenterology** 1999 Mar;116(3):623-35

Genomic organization and chromosomal location of the mouse vasoactive intestinal polypeptide 1 (VPAC1) receptor. Hashimoto H, et al. **Genomics** 1999 May 15; 58(1):90-3

Presence of mRNA for vasoactive intestinal polypeptide (VIP) and its receptor in the rat inner ear. Kitano H, et al. **Hear Res** 1998 Jul;121(1-2):109-11

Vasoactive intestinal peptide (VIP) and VIP receptors: gene expression and growth modulation in medulloblastoma and other central primitive neuroectodermal tumors of childhood. Frühwald MC, et al. **Int J Cancer** 1999 Apr 12;81(2):165-73

Molecular mapping of epitopes involved in ligand activation of the human receptor for the neuropeptide, VIP, based on hybrids with the human secretin receptor. Olde B, et al. **J Mol Neurosci** 1998 Oct;11(2):127-34

Selective expression of vasoactive intestinal peptide (VIP)2/pituitary adenylate cyclase-activating polypeptide (PACAP)3 receptors in rabbit and guinea pig gastric and tenia coli smooth muscle cells. Teng B, et al. **Regul Pept** 1998 Oct 16;77(1-3):127-34

ISOLATION & PURIFICATION

The augmentation of pituitary adenylate cyclase-activating polypeptide (PACAP) in streptozotocin-induced diabetic rats. Tamakawa H, et al. **Peptides** 1998;19(9):1497-502

METABOLISM

Effects of chronic ethanol ingestion on the vasoactive intestinal peptide receptor-effector system from rat seminal vesicle membranes. Juarranz MG, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):318-23

Pituitary adenylate-cyclase-activating polypeptide (PACAP) binding sites and PACAP/vasoactive intestinal polypeptide receptor expression in human pituitary adenomas. Oka H, et al. **Am J Pathol** 1998 Dec;153(6):1787-96

Expression, pharmacological, and functional evidence for PACAP/VIP receptors in human lung. Busto R, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L42-8

Construction of chimeras between human VIP1 and secretin receptors: identification of receptor domains involved in selectivity towards VIP, secretin, and PACAP. Du K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:386-9

Analogues of VIP, helodermin, and PACAP discriminate between rat and human VIP1 and VIP2 receptors. Gourlet P, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:247-52

Site-directed mutagenesis of human VIP1 versus VIP2 receptors. Nicole P, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:378-81

The human vasoactive intestinal Peptide/Pituitary adenylate cyclase activating peptide receptor 1 (VPAC1): constitutive activation by mutations at threonine 343. Gaudin P, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):15-20

Functional and molecular diversity of PACAP/VIP receptors in cortical neurons and type I astrocytes. Grimaldi M, et al. **Eur J Neurosci** 1999 Aug;11(8):2767-72

Interaction of lipophilic VIP derivatives with recombinant VIP1/PACAP and VIP2/PACAP receptors. Gourlet P, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):105-11

Human adrenocortical NCI-H295 cells express VIP receptors. Steroidogenic effect of vasoactive intestinal peptide (VIP). Haidan A, et al. **Peptides** 1998;19(9):1511-7

Functional characterization of a receptor for vasoactive-intestinal-peptide-related peptides in cultured dermal melanophores from Xenopus laevis. Marotti LA Jr, et al. **Pigment Cell Res** 1999 Apr;12(2):89-97

Vasoactive intestinal polypeptide receptor VPAC(1) subtype is predominant in rat prostate membranes. Juarranz MG, et al. **Prostate** 1999 Sep 15;41(1):1-6

PHYSIOLOGY

Stimulatory transducing systems in pancreatic islet cells. Emami S, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:118-31 (78 ref.)

Constitutive activation of the human VIP1 receptor. Gaudin P, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:382-5

VIP1 and VIP2 receptors but not PVR1 mediate the effect of VIP/PACAP on cytokine production in T lymphocytes. Jiang X, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:397-407

Importance of conserved cysteines in the extracellular loops of human PACAP/VIP1 receptor for ligand binding and stimulation of cAMP production. Knudsen SM, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:259-65

Desensitization of the human vasoactive intestinal peptide receptor (hVIP2/PACAP R): evidence for agonist-induced receptor phosphorylation and internalization. McDonald TP, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:64-72

Rat aortic smooth-muscle cell proliferation is bidirectionally regulated in a cell cycle-dependent manner via PACAP/VIP type 2 receptor. Miyata A, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:73-81

VIP and breast cancer. Moody TW, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:290-6

Role of VIP1/PACAP receptors in postoperative ileus in rats. De Winter BY, et al. **Br J Pharmacol** 1998 Jul; 124(6):1181-6

RECEPTORS, VASOACTIVE INTESTINAL PEPTIDE

Immunolocalization of muscarinic and VIP receptor subtypes and their role in stimulating goblet cell secretion. Ríos JD, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1102–11

Vasoactive intestinal peptide in thymus: synthesis, receptors and biological actions. Delgado M, et al. **Neuroimmunomodulation** 1999 Jan–Apr;6(1–2):97–107 (81 ref.)

The role of VIP/PACAP receptor subtypes in spinal somatosensory processing in rats with an experimental peripheral mononeuropathy. Dickinson T, et al. **Neuropharmacology** 1999 Jan;38(1):167–80

Pharmacologically distinct vasoactive intestinal peptide binding sites: CNS localization and role in embryonic growth. Hill JM, et al. **Neuroscience** 1999;93(2):783–91

RADIATION EFFECTS

Binding sites for VIP in the reorganizing mucosa of the irradiated bowel. Höckerfelt U, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:344–52

RECEPTORS, VASOPRESSIN

Endogenous vasopressin does not mediate hypoxia-induced anapyrexia in rats. Steiner AA, et al. **J Appl Physiol** 1999 Feb;86(2):469–73

Identification of a novel dual angiotensin II/vasopressin receptor. Ruiz-Opazo N. **Nephrologie** 1998;19(7):417–20 (24 ref.)

Thematic review series II: vasopressin: genes, receptors, water channels, and antagonists. Introduction. Schrier RW. **Proc Assoc Am Physicians** 1998 Sep–Oct;110(5):379

AGONISTS

Treatment of intraoperative refractory hypotension with terlipressin in patients chronically treated with an antagonist of the renin-angiotensin system. Eyraud D, et al. **Anesth Analg** 1999 May;88(5):980–4

Restoration of the uricosuric effect of probenecid after triglycylvasopressine administration in a gouty patient. Decaux G, et al. **Clin Nephrol** 1998 Oct;50(4):262–5

Molecular modeling of the human vasopressin V2 receptor/agonist complex. Czaplewski C, et al. **J Comput Aided Mol Des** 1998 May;12(3):275–87

ANALYSIS

Expression of mRNAs encoding hormone receptors in the endolymphatic sac of the rat. Furuta H, et al. **Acta Otolaryngol (Stockh)** 1999 Jan;119(1):53–7

Human vascular endothelial cells express oxytocin receptors. Thibonnier M, et al. **Endocrinology** 1999 Mar;140(3):1301–9

Visualization of cell surface vasopressin V1a receptors in rat hepatocytes with a fluorescent linear antagonist. Tran D, et al. **J Histochem Cytochem** 1999 Mar;47(3):401–10

Arginine vasotocin receptor in the vagina of the oviduct of the hen. Takahashi T, et al. **Poult Sci** 1998 Nov; 77(11):1699–703

ANTAGONISTS & INHIBITORS

Molecular modelling of the vasopressin V2 receptor/antagonist interactions. Czaplewski C, et al. **Acta Biochim Pol** 1998;45(1):19–26

Safety, tolerability, and pharmacokinetics of SR 49059, a V1a vasopressin receptor antagonist, after repeated oral administration in healthy volunteers. Brouard R, et al. **Adv Exp Med Biol** 1998;449:455–65

Effects of chronic AVP V2R blockade in congestive heart failure in sheep. Comparison with chronic ACE inhibition. Naitoh M, et al. **Adv Exp Med Biol** 1998;449:445–6

Differential modulation of lateral septal vasopressin receptor blockade in spatial learning, social recognition, and anxiety-related behaviors in rats. Everts HG, et al. **Behav Brain Res** 1999 Feb 15;99(1):7–16

Novel vasopressin V2 receptor-selective antagonists, pyrrolo[2,1-a]quinoxaline and pyrrolo[2,1-c][1,4]benzodiazepine derivatives. Ohtake Y, et al. **Bioorg Med Chem** 1999 Jun;7(6):1247–54

4,10-dihydro-5H-thieno[3,2-c][1]benzazepine derivatives and 9,10-dihydro-4H-thieno[2,3-c][1]benzazepine derivatives as orally active arginine vasopressin receptor antagonists. Aranapakam V, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1733–6

5-fluoro-2-methyl-N-[5-(5H-pyrrolo[2,1-c][1,4]benzodiazepine-10(11H)-yl carbonyl)-2-pyridinyl]benzamide (CL-385004) and analogs as orally active arginine vasopressin receptor antagonists. Aranapakam V, et al. **Bioorg Med Chem Lett** 1999 Jul 5; 9(13):1737–40

Lack of effect of a selective vasopressin V1A receptor antagonist SR 49,059, on potentiation by vasopressin of adrenoceptor-mediated pressor responses in the rat mesenteric arterial bed. Heinemann A, et al. **Br J Pharmacol** 1998 Nov;125(6):1120–7

Brain vasopressin is involved in stress-induced suppression of immune function in the rat. Shibasaki T, et al. **Brain Res** 1998 Oct 12;808(1):84–92

Ventilatory and metabolic effects of hypercapnia in conscious rats: AVP V1 receptor block. Walker JK, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):361–6

Nonpeptide arginine vasopressin antagonists for both V1A and V2 receptors: synthesis and pharmacological properties of 4'-[5-(substituted methylidene)-2,3,4,5-tetrahydro-1H-1-benzoazepine-1-carbonyl]benzanilide and 4'-[5-(substituted methyl)-2,3-dihydro-1H-1-benzoazepine-1-carbonyl]benzanilide derivatives. Matsuhisa A, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):329–39

Nonpeptide arginine vasopressin antagonists for both V1A and V2 receptors: synthesis and pharmacological properties of 2-phenyl-4'-(2,3,4,5-tetrahydro-1H-1,5-benzodiazepine-1-carbonyl) benzanilide derivatives. Matsuhisa A, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1566–79

Synthesis and characterization of orally active nonpeptide vasopressin V2 receptor antagonists. Ohkawa T, et al. **Chem Pharm Bull (Tokyo)** 1999 Apr;47(4):501–10

In vivo and in vitro effects of AVP and V1a receptor antagonist on Cushing's syndrome due to ACTH-independent bilateral macronodular adrenocortical hyperplasia. Daidoh H, et al. **Clin Endocrinol (Oxf)** 1998 Sep;49(3):403–9

Protective effect of a vasopressin-1 selective antagonist, OPC-21268, against ethanol-induced damage of the rat gastric wall. Sugimoto I, et al. **Dig Dis Sci** 1999 Mar; 44(3):503–9

Oxytocin and vasopressin constrict rat isolated uterine resistance arteries by activating vasopressin V1A receptors. Chen YL, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):45–51

Vasopressin receptor antagonist OPC-31260 prevents cerebral oedema after subarachnoid haemorrhage. László FA, et al. **Eur J Pharmacol** 1999 Jan 8;364(2–3):115–22

Agonist and antagonist-dependent internalization of the human vasopressin V2 receptor. Pfeiffer R, et al. **Exp Cell Res** 1998 Oct 10;244(1):327–39

Nonpeptide vasopressin antagonists: a new group of hormone blockers entering the scene. Mayinger B, et al. **Exp Clin Endocrinol Diabetes** 1999;107(3):157–65 (90 ref.)

Effect of vasopressin antagonism on structure and mechanics of small arteries and vascular expression of endothelin-1 in deoxycorticosterone acetate salt hypertensive rats. Intengan HD, et al. **Hypertension** 1998 Oct;32(4):770–7

Docking of linear peptide antagonists into the human V(1a) vasopressin receptor. Identification of binding domains by photoaffinity labeling. Phalipou S, et al. **J Biol Chem** 1999 Aug 13;274(33):23316–27

Arginine vasopressin V1-receptor antagonism in an ovine model of acute myocardial infarction. Charles CJ, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):777–82

Visualization of cell surface vasopressin V1a receptors in rat hepatocytes with a fluorescent linear antagonist. Tran D, et al. **J Histochem Cytochem** 1999 Mar;47(3):401–10

Fluorescent pseudo-peptide linear vasopressin antagonists: design, synthesis, and applications. Durroux T, et al. **J Med Chem** 1999 Apr 8;42(7):1312–9

Comparison of two aquaretic drugs (niravoline and OPC-31260) in cirrhotic rats with ascites and water retention. Bosch-Marcé M, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):194–201

OPC-41061, a highly potent human vasopressin V2-receptor antagonist: pharmacological profile and aquaretic effect by single and multiple oral dosing in rats. Yamamura Y, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):860–7

The effect of vasopressin V1- and V2-receptor antagonists on hemodynamics in early and late phase after myocardial infarction in rats. Fujita H, et al. **Jpn J Pharmacol** 1998 Oct;78(2):229–32

Effects of exogenous [Arg8]-vasopressin on borderline-hypertensive Hiroshima rats. Teranishi Y, et al. **Jpn J Pharmacol** 1999 Feb;79(2):251–5

Intracerebroventricular injection of arginine-vasopressin V1 receptor antagonist attenuates the surge of luteinizing hormone and prolactin secretion in proestrous rats. Funabashi T, et al. **Neurosci Lett** 1999 Jan 22;260(1):37–40

Treatment of brain edema with a nonpeptide arginine vasopressin V1 receptor antagonist OPC-21268 in rats. Bemana I, et al. **Neurosurgery** 1999 Jan;44(1):148–54; discussion 154–5

Mitigation of the somnolence of insulin-induced hypoglycemia by a vasopressin V1 receptor antagonist in the rhesus monkey. Chen MD, et al. **Psychoneuroendocrinology** 1998 Jul;23(5):497–503

Effects of vasopressin-mastoparan chimeric peptides on insulin release and G-protein activity. Hällbrink M, et al. **Regul Pept** 1999 Jun 30;82(1–3):45–51

BIOSYNTHESIS

The V1a and V1b, but not V2, vasopressin receptor genes are expressed in the supraoptic nucleus of the rat hypothalamus, and the transcripts are essentially colocalized in the vasopressinergic magnocellular neurons. Hurbin A, et al. **Endocrinology** 1998 Nov;139(11):4701–7

AVP-induced mitogenic responses of Chinese hamster ovary cells expressing human V1A or V1B receptors. Tahara A, et al. **Pflugers Arch** 1999 Jan;437(2):219–26

CHEMISTRY

Mapping peptide antagonist binding sites of the human V1a and V2 vasopressin receptors. Mouillac B, et al. **Adv Exp Med Biol** 1998;449:359–61

Identification of neurohypophysial hormone receptor domains involved in ligand binding and G protein coupling. Postina R, et al. **Adv Exp Med Biol** 1998;449:371–85 (27 ref.)

Molecular aspects of vasopressin receptor function. Schöneberg T, et al. **Adv Exp Med Biol** 1998;449:347–58

Structure/function studies on receptors for vasopressin and oxytocin. Wheatley M, et al. **Adv Exp Med Biol** 1998; 449:363–5

O-Glycosylation of the V2 vasopressin receptor. Sadeghi H, et al. **Glycobiology** 1999 Jul;9(7):731–7

Identification of residues responsible for the selective binding of peptide antagonists and agonists in the V2 vasopressin receptor. Cotte N, et al. **J Biol Chem** 1998 Nov 6; 273(45):29462–8

Molecular modeling of the human vasopressin V2 receptor/agonist complex. Czaplewski C, et al. **J Comput Aided Mol Des** 1998 May;12(3):275–87

Molecular dynamics of a vasopressin V2 receptor in a phospholipid bilayer membrane. Czaplewski C, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul;19(1–4):355–67

Functional architecture of vasopressin/oxytocin receptors. Hibert M, et al. **J Recept Signal Transduct Res** 1999 Jan–Jul; 19(1–4):589–96 (12 ref.)

DRUG EFFECTS

Effects of the vasopressin V1 agonist [Phe2,Ile3,Orn8]] vasopressin on regional kidney perfusion and renal excretory function in anesthetized rabbits. Evans RG, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):571–81

Vasopressin dilates the rat carotid artery by stimulating V1 receptors. Rutschmann B, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):637–41

Mechanism of arginine vasopressin suppression of ovine fetal lung fluid secretion: lack of V2-receptor effect. Albuquerque CA, et al. **J Matern Fetal Med** 1998 Jul–Aug; 7(4):177–82

GENETICS

Functional study of two V2 vasopressin mutant receptors related to NDI. P322S and P322H. Morin D, et al. **Adv Exp Med Biol** 1998;449:391–3

All three vasopressin receptor sub-types are expressed by small-cell carcinoma. North WG, et al. **Adv Exp Med Biol** 1998;449:335–8

Molecular pharmacology of human vasopressin receptors. Thibonnier M, et al. **Adv Exp Med Biol** 1998;449:251–76

Mutations in the vasopressin V2 receptor and aquaporin-2 genes in twelve families with congenital nephrogenic diabetes insipidus. Vargas-Poussou R, et al. **Adv Exp Med Biol** 1998;449:387–90

Nephrogenic diabetes insipidus. Bichet DG. **Am J Med** 1998 Nov;105(5):431–42 (79 ref.)

Vasopressin type-2 receptor and aquaporin-2 water channel mutants in nephrogenic diabetes insipidus. Deen PM, et al. **Am J Med Sci** 1998 Nov;316(5):300–9 (78 ref.)

Truncated V2 vasopressin receptors as negative regulators of wild-type V2 receptor function. Zhu X, et al. **Biochemistry** 1998 Nov 10;37(45):15773–84

Up-regulation of vasopressin V(1a) receptor mRNA in rat facial motoneurons following axotomy. Chritin M, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):210–8

Overexpression of vasopressin (V3) and corticotrophin-releasing hormone receptor genes in corticotroph tumours. de Keyzer Y, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):475–82

The V1a and V1b, but not V2, vasopressin receptor genes are expressed in the supraoptic nucleus of the rat hypothalamus, and the transcripts are essentially colocalized in the vasopressinergic magnocellular neurons. Hurbin A, et al. **Endocrinology** 1998 Nov;139(11):4701–7

Comparative distribution of vasopressin V1b and oxytocin receptor messenger ribonucleic acids in brain. Vaccari C, et al. **Endocrinology** 1998 Dec;139(12):5015–33

The D136A mutation of the V2 vasopressin receptor induces a constitutive activity which permits discrimination between antagonists with partial agonist and inverse agonist activities. Morin D, et al. **FEBS Lett** 1998 Dec 28; 441(3):470–5

Ectopic ACTH Cushing's syndrome: V3 vasopressin receptor but not CRH receptor gene expression in a pulmonary carcinoid tumor. Chabot V, et al. **Horm Res** 1998;50(4):226–31

Molecular analyses of the vasopressin type 2 receptor and aquaporin-2 genes in Brazilian kindreds with nephrogenic diabetes insipidus. Rocha JL, et al. **Hum Mutat** 1999; 14(3):233–9

Compound deletion of the rhoGAP C1 and V2 vasopressin receptor genes in a patient with nephrogenic diabetes insipidus. Schöneberg T, et al. **Hum Mutat** 1999; 14(2):163–74

Mutational analyses of AVPR2 gene in three Japanese families with X-linked nephrogenic diabetes insipidus: two recurrent mutations, R137H and deltaV278, caused by the hypermutability at CpG dinucleotides. Shoji Y, et al. **Hum Mutat** 1998;Suppl 1:S278–83 (27 ref.)

Functional studies of twelve mutant V2 vasopressin receptors related to nephrogenic diabetes insipidus: molecular basis of a mild clinical phenotype. Ala Y, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1861–72

Gene and cDNA cloning and characterization of the mouse V3/V1b pituitary vasopressin receptor. Ventura MA, et al. **J Mol Endocrinol** 1999 Jun;22(3):251–60

Polarized expression of the vasopressin V2 receptor in

Madin-Darby canine kidney cells. Andersen-Beckh B, et al. **Kidney Int** 1999 Aug;56(2):517-27
AVPR2 variants and V2 vasopressin receptor function in nephrogenic diabetes insipidus. Wildin RS, et al. **Kidney Int** 1998 Dec;54(6):1909-22
An ideal husband in the wild(e)? Sharp D. **Lancet** 1999 Aug 28;354(9180):700
Administration of oxytocin affects vasopressin V2 receptor and aquaporin-2 gene expression in the rat. Terashima Y, et al. **Life Sci** 1999;64(16):1447-53
Regulation of inner ear fluid in the rat by vasopressin. Kitano H, et al. **Neuroreport** 1999 Apr 26;10(6):1205-7
beta2-adrenergic but not vasopressin V2 receptor mRNAs are expressed in the stria vascularis of the rat inner ear. de Minteguiaga C, et al. **Pflugers Arch** 1998 Nov; 436(6):940-7
Vasopressin receptor mutations causing nephrogenic diabetes insipidus. Bichet DG, et al. **Proc Assoc Am Physicians** 1998 Sep-Oct;110(5):387-94 (57 ref.)
Mutations of the DRY motif that preserve beta 2-adrenoceptor coupling. Seibold A, et al. **Receptors Channels** 1998;5(6):375-85
Nephrogenic diabetes insipidus. Knoers NV, et al. **Semin Nephrol** 1999 Jul;19(4):344-52 (62 ref.)
[Quantitative analysis of mRNA level by PCR method using single basemutated template as inner standard] Lu LM, et al. **Sheng Li Hsueh Pao** 1997 Apr;49(2):235-40 (Eng. Abstr.) **(Chi)**
[Vasopressin type 2 receptor mutations in congenital diabetes insipidus] Tsukaguchi H, et al. **Nippon Rinsho** 1998 Jul; 56(7):1848-55 (21 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

VPA-985, a nonpeptide orally active and selective vasopressin V2 receptor antagonist. Chan PS, et al. **Adv Exp Med Biol** 1998;449:439-43 (14 ref.)
Mapping peptide antagonist binding sites of the human V1a and V2 vasopressin receptors. Mouillac B, et al. **Adv Exp Med Biol** 1998;449:359-61
Identification of neurohypophysial hormone receptor domains involved in ligand binding and G protein coupling. Postina R, et al. **Adv Exp Med Biol** 1998;449:371-85 (27 ref.)
Oxytocin and vasopressin 1a receptor gene expression in the cycling or pregnant human uterus. Helmer H, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1572-8
VACM-1 receptor is specifically expressed in rabbit vascular endothelium and renal collecting tubule. Burnatowska-Hledin M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F199-209
Role of central AT1 and V1 receptors in cardiovascular adaptation to hemorrhage in SD and renin TGR rats. Paczwa P, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1918-26
Promiscuity and fidelity in receptor-G-protein coupling: cell cycle-dependent coupling of the vasopressin V1 receptor. Kalkbrenner F, et al. **Biochem Soc Trans** 1999 Feb; 27(2):158-63 (38 ref.)
Pharmacological characterization of the human vasopressin receptor subtypes stably expressed in Chinese hamster ovary cells. Tahara A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1463-70
Historadioautographic localisation of oxytocin and vasopressin binding sites in the central nervous system of the merione (Meriones shawi). Rabhi M, et al. **Brain Res Bull** 1999 Jan 15;48(2):147-63
Oxytocin receptor binding and uterotonic activity of carbetocin and its metabolites following enzymatic degradation. Engstrøm T, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):203-10
Effects of prolyl endopeptidase inhibitors and neuropeptides on delayed neuronal death in rats. Shishido Y, et al. **Eur J Pharmacol** 1999 May 14;372(2):135-42
Comparison of vasopressin binding sites in human uterine and vascular smooth muscle cells. Tahara A, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):137-42
Agonist and antagonist-dependent internalization of the human vasopressin V2 receptor. Pfeiffer R, et al. **Exp Cell Res** 1998 Oct 10;244(1):327-39
Polarized cell surface expression of the green fluorescent protein-tagged vasopressin V2 receptor in Madin Darby canine kidney cells. Schülein R, et al. **FEBS Lett** 1998 Dec 18;441(2):170-6
O-Glycosylation of the V2 vasopressin receptor. Sadeghi H, et al. **Glycobiology** 1999 Jul;9(7):731-7
Oxytocin and vasopressin receptors in human and uterine myomas during menstrual cycle and early pregnancy. Fuchs AR, et al. **Hum Reprod Update** 1998 Sep-Oct; 4(5):594-604
Molecular basis of V2 vasopressin receptor/Gs coupling selectivity. Erlenbach I, et al. **J Biol Chem** 1998 Oct 9; 273(41):26549-58
From vasopressin receptor to water channel: intracellular traffic, constraint and by-pass. Laycock JF, et al. **J Endocrinol** 1998 Dec;159(3):361-72 (77 ref.)
Beta1-adrenergic receptors but not beta2-adrenergic or vasopressin receptors regulate K+ secretion in vestibular dark cells of the inner ear. Wangemann P, et al. **J Membr Biol** 1999 Jul 1;170(1):67-77
Localization of vasopressin (V1a) receptor binding and mRNA in the rhesus monkey brain. Young LJ, et al. **J Neuroendocrinol** 1999 Apr;11(4):291-7
Phosphorylation and recycling kinetics of G protein-coupled receptors. Innamorati G, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):315-26
Effects of arginine vasopressin and oxytocin on glucagon release from clonal alpha-cell line In-R1-G9: involvement of V1b receptors. Yibchok-anun S, et al. **Life Sci** 1998; 63(21):1871-8
Characterization of vasopressin receptor in rat lung. Tahara A, et al. **Neuropeptides** 1998 Jun;32(3):281-6
Steroid hormone regulation of vasopressinergic neurotransmission in the central nervous system. Watters JJ, et al. **Prog Brain Res** 1998;119:247-61 (60 ref.)

PHYSIOLOGY

Evidence for an involvement of vasopressin in mechanism of primary dysmenorrhea and effect of the non-peptide vasopressin V1a receptor antagonist, SR 49059, on the uterus of non-pregnant women. Akerlund M, et al. **Adv Exp Med Biol** 1998;449:467-72
Vasopressin action in the mammalian cerebral cortex. Brinton RD, et al. **Adv Exp Med Biol** 1998;449:211-3
Discovery of novel selective hypotensive vasopressin peptides. A new vasodilating vasopressin receptor? Chan WY, et al. **Adv Exp Med Biol** 1998;449:451-3
Vasopressin regulates adrenal functions by acting through different vasopressin receptor subtypes. Grazzini E, et al. **Adv Exp Med Biol** 1998;449:325-34 (26 ref.)
Vasopressin receptors. A historical survey. Jard S. **Adv Exp Med Biol** 1998;449:1-13 (96 ref.)
Vasopressin's depolarizing action on neonatal rat spinal lateral horn neurons may involve multiple conductances. Kolaj M, et al. **Adv Exp Med Biol** 1998;449:201-10
Processing and ligand-induced modifications of the V2 vasopressin receptor. Sadeghi HM, et al. **Adv Exp Med Biol** 1998;449:339-46
Molecular aspects of vasopressin receptor function. Schöneberg T, et al. **Adv Exp Med Biol** 1998;449:347-58
Nonpeptide antagonists for vasopressin receptors. Pharmacology of SR 121463A, a new potent and highly selective V2 receptor antagonist. Serradeil-Le Gal C. **Adv Exp Med Biol** 1998;449:427-38 (36 ref.)
Molecular pharmacology of human vasopressin receptors. Thibonnier M, et al. **Adv Exp Med Biol** 1998;449:251-76
Structure/function studies on receptors for vasopressin and oxytocin. Wheatley M, et al. **Adv Exp Med Biol** 1998; 449:363-5
V2-receptor-mediated relaxation of human renal arteries in response to desmopressin. Medina P, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):188-93
Effects of long-term vasopressin receptor stimulation on medullary blood flow and arterial pressure. Cowley AW Jr, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1420-4
AVP V1 receptor-mediated decrease in Cl- efflux and increase in dark cell number in choroid plexus epithelium. Johanson CE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C82-90
Mechanism of vasopressin natriuresis in the dog: role of vasopressin receptors and prostaglandins. Kompanowska-Jezierska E, et al. **Am J Physiol** 1998 Jun; 274(6 Pt 2):R1619-25
Vasopressin V2 receptor enhances gain of baroreflex in conscious spontaneously hypertensive rats. Sampey DB, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R872-9
Characterization of receptors mediating AVP- and OT-induced glucagon release from the rat pancreas. Yibchok-Anun S, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E56-62
Discovery of novel selective hypotensive vasopressin peptides that exhibit little or no functional interactions with known oxytocin/vasopressin receptors. Chan WY, et al. **Br J Pharmacol** 1998 Oct;125(4):803-11
Characterization of receptors mediating contraction of the rat isolated small mesenteric artery and aorta to arginine vasopressin and oxytocin. Stam WB, et al. **Br J Pharmacol** 1998 Oct;125(4):865-73
Role of angiotensin II and vasopressin receptors within the supraoptic nucleus in water and sodium intake induced by the injection of angiotensin II into the medial septal area. Antunes VR, et al. **Braz J Med Biol Res** 1998 Dec; 31(12):1597-600
Vasopressin receptors modulate the pharmacological phenotypes of Cushing's syndrome. Arnaldi G, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):807-16
Vasopressin receptors involved in adrenergic neurotransmission in the circular muscle of the human vas deferens. Medina P, et al. **Eur J Pharmacol** 1998 Aug 14; 355(1):41-9
Separate receptors mediate oxytocin and vasopressin stimulation of cAMP in rat inner medullary collecting duct cells. Wargent ET, et al. **Exp Physiol** 1999 Jan;84(1):17-25
Species differences in paternal behavior and aggression in peromyscus and their associations with vasopressin immunoreactivity and receptors. Bester-Meredith JK, et al. **Horm Behav** 1999 Aug;36(1):25-38
Vasopressin receptors in human adrenal medulla and pheochromocytoma. Grazzini E, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2195-203
V1a- and V2-type vasopressin receptors mediate vasopressin-induced Ca2+ responses in isolated rat supraoptic neurones. Gouzénes L, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):771-9
AVPR2 variants and V2 vasopressin receptor function in nephrogenic diabetes insipidus. Wildin RS, et al. **Kidney Int** 1998 Dec;54(6):1909-22
Increased affiliative response to vasopressin in mice expressing the V1a receptor from a monogamous vole. Young LJ, et al. **Nature** 1999 Aug 19;400(6746):766-8
Vasopressin acting at V1-type receptors produces membrane depolarization in neonatal rat spinal lateral column neurons. Kolaj M, et al. **Prog Brain Res** 1998;119:275-84 (63 ref.)
Signal transduction pathways of the human V1-vascular, V2-renal, V3-pituitary vasopressin and oxytocin receptors. Thibonnier M, et al. **Prog Brain Res** 1998;119:147-61 (67 ref.)
Vasopressin receptors: structural functional relationships and role in neural and endocrine regulation. Schoots O, et al. **Results Probl Cell Differ** 1999;26:107-33 (90 ref.)

THERAPEUTIC USE

Cardiovascular and renal effects of conivaptan hydrochloride (YM087), a vasopressin V1A and V2 receptor antagonist, in dogs with pacing-induced congestive heart failure. Yatsu T, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):239-46

RECEPTORS, VERY LATE ANTIGEN

ANALYSIS

Tetraspanin CD9 is associated with very late-acting integrins in human vascular smooth muscle cells and modulates collagen matrix reorganization. Scherberich A, et al. **Arterioscler Thromb Vasc Biol** 1998 Nov;18(11):1691-7

ANTAGONISTS & INHIBITORS

1,25-Dihydroxyvitamin D3 suppresses the expression of the VCAM-1 receptor, VLA-4 in human leukemic HL-60 cells. Kaneko A, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):371-6

BIOSYNTHESIS

High affinity very late antigen-4 subsets expressed on T cells are mandatory for spontaneous adhesion strengthening but not for rolling on VCAM-1 in shear flow. Chen C, et al. **J Immunol** 1999 Jan 15;162(2):1084-95

DRUG EFFECTS

Upregulated expression of VLA proteins and CD29 in peripheral blood lymphocytes of chronic alcoholics without ethanol-related diseases. Sacanella E, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):371-5

METABOLISM

Expression of the VLA family of integrins in coeliac intestinal mucosa. Ladinser B, et al. **Acta Paediatr** 1998 Nov; 87(11):1125-30
Increase in expression of adhesion molecule receptors on T helper cells during antipsychotic treatment and relationship to blood-brain barrier permeability in schizophrenia. Müller N, et al. **Am J Psychiatry** 1999 Apr;156(4):634-6

PHYSIOLOGY

Role of very late adhesion integrins in mediating repair of human airway epithelial cell monolayers after mechanical injury. White SR, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):787-96

RECEPTORS, VIP see **RECEPTORS, VASOACTIVE INTESTINAL PEPTIDE**

RECEPTORS, VIRUS

Viral receptors and vector purification: new approaches for generating clinical-grade reagents. Summerford C, et al. **Nat Med** 1999 May;5(5):587-8

ANALYSIS

Modification of the genetic program of human alveolar macrophages by adenovirus vectors in vitro is feasible but inefficient, limited in part by the low level of expression of the coxsackie/adenovirus receptor. Kaner RJ, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):361-70

ANTAGONISTS & INHIBITORS

Inhibition of herpes simplex virus gD and lymphotoxin-alpha binding to HveA by peptide antagonists. Sarrias MR, et al. **J Virol** 1999 Jul;73(7):5681-7

BIOSYNTHESIS

Granulocyte colony-stimulating factor mobilized peripheral blood stem cells enter into G1 of the cell cycle and express higher levels of amphotropic retrovirus receptor mRNA. Horwitz ME, et al. **Exp Hematol** 1999 Jul;27(7):1160-7
Expression of the coxsackievirus and adenovirus receptor in cultured human umbilical vein endothelial cells: regulation in response to cell density. Carson SD, et al. **J Virol** 1999 Aug;73(8):7077-9

CHEMISTRY

Transmembrane signaling across the ligand-gated FhuA receptor: crystal structures of free and ferrichrome-bound

states reveal allosteric changes. Locher KP, et al. **Cell** 1998 Dec 11;95(6):771–8

Crystal structure of two CD46 domains reveals an extended measles virus–binding surface. Casasnovas JM, et al. **EMBO J** 1999 Jun 1;18(11):2911–22

The structure and function of a foot-and-mouth disease virus–oligosaccharide receptor complex. Fry EE, et al. **EMBO J** 1999 Feb 1;18(3):543–54

A putative host cell receptor for tick-borne encephalitis virus identified by anti-idiotypic antibodies and virus affinoblotting. Kopecky J, et al. **Intervirology** 1999; 42(1):9–16

An 8-A projected structure of FhuA, A "ligand-gated" channel of the Escherichia coli outer membrane. Lambert O, et al. **J Struct Biol** 1999 Jun 15;126(2):145–55

Sequence analysis and expression of the attachment and fusion proteins of canine distemper virus wild-type strain A75/17. Cherpillod P, et al. **J Virol** 1999 Mar;73(3):2263–9

Structure and function of a ganglioside receptor for porcine rotavirus. Rolsma MD, et al. **J Virol** 1998 Nov; 72(11):9079–91

The beta-barrel domain of FhuADelta5–160 is sufficient for TonB-dependent FhuA activities of Escherichia coli. Braun M, et al. **Mol Microbiol** 1999 Sep;33(5):1037–49

Active transport by customized beta-barrels [news; comment] Postle K. **Nat Struct Biol** 1999 Jan;6(1):3–6. Comment on: Nat Struct Biol 1999 Jan;6(1):56–63.

Cloning and characterization of a cell surface receptor for xenotropic and polytropic murine leukemia viruses [see comments] Tailor CS, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):927–32. Comment in: Proc Natl Acad Sci U S A 1999 Feb 2;96(3):802–4.

Pumping iron through cell membranes [comment] Braun V. **Science** 1998 Dec 18;282(5397):2202–3. Comment on: Science 1998 Dec 18;282(5397):2215–20.

Siderophore-mediated iron transport: crystal structure of FhuA with bound lipopolysaccharide [see comments] Ferguson AD, et al. **Science** 1998 Dec 18;282(5397):2215–20 . Comment in: Science 1998 Dec 18;282(5397):2202–3.

The structure of the two amino-terminal domains of human intercellular adhesion molecule-1 suggests how it functions as a rhinovirus receptor. Bella J, et al. **Virus Res** 1999 Aug; 62(2):107–17

Changes in H3 influenza A virus receptor specificity during replication in humans. Ryan-Poirier K, et al. **Virus Res** 1998 Aug;56(2):169–76

CLASSIFICATION

A putative cell surface receptor for anemia-inducing feline leukemia virus subgroup C is a member of a transporter superfamily. Tailor CS, et al. **J Virol** 1999 Aug;73(8):6500–5

GENETICS

Up-regulation of amphotrophic retroviral receptor expression in human peripheral blood CD34+ cells. Kaubisch A, et al. **Am J Hematol** 1999 Aug;61(4):243–53

Differential expression, abundance, and regulation of Na+-phosphate cotransporter genes in murine kidney. Tenenhouse HS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):F527–34

Amphotropic retrovirus transduction of hematopoietic stem cells. Orlic D, et al. **Ann N Y Acad Sci** 1999 Apr 30; 872:115–23; discussion 123–4

Retrovirus receptor PiT-1 of the Felis catus. Rudra-Ganguly N, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):407–13

In vivo expression of transcripts encoding the Glvr-1 phosphate transporter/retrovirus receptor during bone development. Palmer G, et al. **Bone** 1999 Jan;24(1):1–7

Heterozygous defect in HIV-1 coreceptor CCR5 and chemokine production. Yang JY, et al. **Cytokine** 1999 Jan; 11(1):1–7

Characterization of the human Glvr-1 phosphate transporter/retrovirus receptor gene and promoter region. Palmer G, et al. **Gene** 1999 Jan 8;226(1):25–33

Adenovirus facilitated infection of human cells with ecotropic retrovirus. Scott-Taylor TH, et al. **Gene Ther** 1998 May;5(5):621–9

An integrated somatic cell hybrid, YAC, and BAC map of the Rmc1 region of mouse chromosome 1. Hunter K, et al. **Genomics** 1999 Jun 15;58(3):318–22

A novel strategy of cell targeting based on tissue-specific expression of the ecotropic retrovirus receptor gene. Igarashi T, et al. **Hum Gene Ther** 1998 Dec 10;9(18):2691–8

RNA levels of human retrovirus receptors Pit1 and Pit2 do not correlate with infectibility by three retroviral vector pseudotypes. Uckert W, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2619–27

Identification and characterization of the cis-acting elements of the human CD155 gene core promoter. Solecki D, et al. **J Biol Chem** 1999 Jan 15;274(3):1791–800

Evidence for zanamivir resistance in an immunocompromised child infected with influenza B virus. Gubareva LV, et al. **J Infect Dis** 1998 Nov;178(5):1257–62

Poliovirus and its cellular receptor: a molecular genetic dissection of a virus/receptor affinity interaction. Solecki D, et al. **J Mol Recognit** 1998 Winter;11(1–6):2–9 (53 ref.)

Characterization of mouse lines transgenic with the human poliovirus receptor gene. Deatly AM, et al. **Microb Pathog** 1998 Jul;25(1):43–54

A cluster of charged and aromatic residues in the C-terminal portion of maltoporin participates in sugar binding and uptake. Charbit A, et al. **Mol Gen Genet** 1998 Nov; 260(2–3):185–92

In vivo and in vitro studies of major surface loop deletion mutants of the Escherichia coli K-12 maltoporin: contribution to maltose and maltooligosaccharide transport and binding. Andersen C, et al. **Mol Microbiol** 1999 May; 32(4):851–67

Protein-mediated DNA transfer into liposomes. Lambert O, et al. **Mol Microbiol** 1998 Nov;30(4):761–5

A system for the propagation of adenoviral vectors with genetically modified receptor specificities. Douglas JT, et al. **Nat Biotechnol** 1999 May;17(5):470–5

Receptors for polytropic and xenotropic mouse leukaemia viruses encoded by a single gene at Rmc1. Yang YL, et al. **Nat Genet** 1999 Feb;21(2):216–9

A bacteriophage encoding a pathogenicity island, a type-IV pilus and a phage receptor in cholera bacteria [see comments] Karaolis DK, et al. **Nature** 1999 May 27; 399(6734):375–9. Comment in: Nature 1999 May 27;399(6734):312–3.

Retroviral vectors preloaded with a viral receptor-ligand bridge protein are targeted to specific cell types. Boerger AL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9867–72

IMMUNOLOGY

Interactions of LIRs, a family of immunoreceptors expressed in myeloid and lymphoid cells, with viral and cellular MHC class I antigens. Borges L, et al. **Curr Top Microbiol Immunol** 1999;244:123–36 (49 ref.)

Induction of inhibitory antibodies to the CCR5 chemokine receptor and their complementary role in preventing SIV infection in macaques. Lehner T, et al. **Eur J Immunol** 1999 Aug;29(8):2427–35

Human cytomegalovirus, MHC class I and inhibitory signalling receptors: more questions than answers. Cosman D, et al. **Immunol Rev** 1999 Apr;168:177–85 (71 ref.)

Immunogenicity of viral B-cell epitopes inserted into two surface loops of the Escherichia coli K12 LamB protein and expressed in an attenuated aroA strain of Salmonella typhimurium. Wang J, et al. **Vaccine** 1999 Jan;17(1):1–12

Simian retrovirus receptor and neutralization mechanism by antibodies to the envelope glycoprotein. Anderson DE, et al. **Viral Immunol** 1999;12(1):47–56

ISOLATION & PURIFICATION

Putative dengue virus receptors from mosquito cells. Muñoz ML, et al. **FEMS Microbiol Lett** 1998 Nov 15;168(2):251–8

Production and characterization of a soluble, active form of Tva, the subgroup A avian sarcoma and leukosis virus receptor. Balliet JW, et al. **J Virol** 1999 Apr;73(4):3054–61

METABOLISM

Receptor homologue scanning functions in the maintenance of MHV-A59 persistence in vitro. Chen W, et al. **Adv Exp Med Biol** 1998;440:743–50

Interactions of enterotropic mouse hepatitis viruses with Bgp2 receptor proteins. Compton SR. **Adv Exp Med Biol** 1998;440:25–31

Virus-receptor interactions and interspecies transfer of a mouse hepatitis virus. Hensley LE, et al. **Adv Exp Med Biol** 1998;440:33–41

Human biliary glycoproteins function as receptors for interspecies transfer of mouse hepatitis virus. Hensley LE, et al. **Adv Exp Med Biol** 1998;440:43–52

Differential receptor-functionality of the two distinct receptor proteins for mouse hepatitis virus. Ohtsuka N, et al. **Adv Exp Med Biol** 1998;440:77–80

Mouse hepatitis virus receptor levels influence virus-induced cytopathology. Rao PV, et al. **Adv Exp Med Biol** 1998; 440:549–55

Isolation and characterization of murine coronavirus mutants resistant to neutralization by soluble receptors. Saeki K, et al. **Adv Exp Med Biol** 1998;440:11–6

Feline aminopeptidase N is a receptor for all group I coronaviruses. Tresnan DB, et al. **Adv Exp Med Biol** 1998; 440:69–75

Neutralization of MHV-A59 by soluble recombinant receptor glycoproteins. Zelus BD, et al. **Adv Exp Med Biol** 1998;440:3–9

Enhanced bioaccumulation of heavy metal ions by bacterial cells due to surface display of short metal binding peptides. Kotrba P, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):1092–8

FhuA, an Escherichia coli outer membrane protein with a dual function of transporter and channel which mediates the transport of phage DNA. Bonhivers M, et al. **Biochimie** 1998 May-Jun;80(5–6):363–9 (38 ref.)

A wild-type Japanese measles virus strain inducing predominant early down-regulation of CD46. Sakata H, et al. **Biol Pharm Bull** 1998 Nov;21(11):1121–7

Transmembrane signaling across the ligand-gated FhuA receptor: crystal structures of free and ferrichrome-bound states reveal allosteric changes. Locher KP, et al. **Cell** 1998 Dec 11;95(6):771–8

Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for rabies virus. Tuffereau C, et al. **EMBO J** 1998 Dec 15;17(24):7250–9

Inactivation in vitro of the Escherichia coli outer membrane protein FhuA by a phage T5-encoded lipoprotein. Pedruzzi I, et al. **FEMS Microbiol Lett** 1998 Nov 1;168(1):119–25

The presence of human coxsackievirus and adenovirus receptor is associated with efficient adenovirus-mediated transgene expression in human melanoma cell cultures. Hemmi S, et al. **Hum Gene Ther** 1998 Nov 1;9(16):2363–73

Expression of the primary coxsackie and adenovirus receptor is downregulated during skeletal muscle maturation and limits the efficacy of adenovirus-mediated gene delivery to muscle cells. Nalbantoglu J, et al. **Hum Gene Ther** 1999 Apr 10;10(6):1009–19

Response to "Polarity influences the efficiency of recombinant adenoassociated virus infection in differentiated airway epithelia" [letter] Whiteway AJ, et al. **Hum Gene Ther** 1999 Jun 10;10(9):1553–7

Antibodies against human IFN-alpha and -beta recognized the immunosuppressive domain of HIV-1 gp41 and inhibit gp41-binding to the putative cellular receptor protein p45. Chen YH, et al. **Immunol Lett** 1999 Aug 3;69(2):253–7

Simian virus 40 infection via MHC class I molecules and caveolae. Norkin LC. **Immunol Rev** 1999 Apr;168:13–22 (55 ref.)

The downregulation of CD4 and MHC-I by primate lentiviruses: a paradigm for the modulation of cell surface receptors. Piguet V, et al. **Immunol Rev** 1999 Apr;168:51–63 (112 ref.)

Adhesion of Escherichia coli to HeLa cells mediated by Trypanosoma cruzi surface glycoprotein-derived peptides inserted in the outer membrane protein LamB. Pereira CM, et al. **Infect Immun** 1999 Sep;67(9):4908–11

Effect of mutations at the residues R25, D27, P69, and N70 of B95a-MCP on receptor activities for the measles viruses Nagahata wild-type strain and CAM vaccine strain. Murakami Y, et al. **Int J Mol Med** 1999 Jan;3(1):25–32

Herpesvirus entry mediator ligand (HVEM-L), a novel ligand for HVEM/TR2, stimulates proliferation of T cells and inhibits HT29 cell growth. Harrop JA, et al. **J Biol Chem** 1998 Oct 16;273(42):27548–56

Up-regulation of the Pit-2 phosphate transporter/retrovirus receptor by protein kinase C epsilon. Jobbagy Z, et al. **J Biol Chem** 1999 Mar 12;274(11):7067–71

Determination of the affinity and kinetic constants for the interaction between the human virus echovirus 11 and its cellular receptor, CD55. Lea SM, et al. **J Biol Chem** 1998 Nov 13;273(46):30443–7

Soluble LDL minireceptors. Minimal structure requirements for recognition of minor group human rhinovirus. Marlovits TC, et al. **J Biol Chem** 1998 Dec 11; 273(50):33835–40

A soluble form of the avian hepatitis B virus receptor. Biochemical characterization and functional analysis of the receptor ligand complex. Urban S, et al. **J Biol Chem** 1999 Feb 26;274(9):5707–15

Basolateral localization of fiber receptors limits adenovirus infection from the apical surface of airway epithelia. Walters RW, et al. **J Biol Chem** 1999 Apr 9; 274(15):10219–26

A newly identified member of tumor necrosis factor receptor superfamily (TR6) suppresses LIGHT-mediated apoptosis. Yu KY, et al. **J Biol Chem** 1999 May 14;274(20):13733–6

CAR-dependent and CAR-independent pathways of adenovirus vector-mediated gene transfer and expression in human fibroblasts. Hidaka C, et al. **J Clin Invest** 1999 Feb;103(4):579–87

Molecular determinants of adenovirus serotype 5 fibre binding to its cellular receptor CAR. Santis G, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1519–27

Low density lipoprotein receptor as a candidate receptor for hepatitis C virus. Monazahian M, et al. **J Med Virol** 1999 Mar;57(3):223–9

Interaction of poliovirus with its receptor affords a high level of infectivity to the virion in poliovirus infections mediated by the Fc receptor. Arita M, et al. **J Virol** 1999 Feb; 73(2):1066–74

Discrimination between sialic acid-containing receptors and pseudoreceptors regulates polyomavirus spread in the mouse. Bauer PH, et al. **J Virol** 1999 Jul;73(7):5826–32

Fish rhabdovirus cell entry is mediated by fibronectin. Bearzotti M, et al. **J Virol** 1999 Sep;73(9):7703–9

Gibbon ape leukemia virus receptor functions of type III phosphate transporters from CHOK1 cells are disrupted by two distinct mechanisms. Chaudry GJ, et al. **J Virol** 1999 Apr;73(4):2916–20

Substitutions in the receptor-binding domain of the avian sarcoma and leukosis virus envelope uncouple receptor-triggered structural rearrangements in the surface and transmembrane subunits. Damico R, et al. **J Virol** 1999 Apr;73(4):3087–94

Identification of a receptor-binding pocket on the envelope protein of friend murine leukemia virus. Davey RA, et al. **J Virol** 1999 May;73(5):3758–63

Identification of a linear heparin binding domain for human respiratory syncytial virus attachment glycoprotein G. Feldman SA, et al. **J Virol** 1999 Aug;73(8):6610–7

Measles virus spread by cell-cell contacts: uncoupling of contact-mediated receptor (CD46) downregulation from virus uptake. Firsching R, et al. **J Virol** 1999 Jul; 73(7):5265–73

Coxsackievirus and adenovirus receptor amino-terminal immunoglobulin V-related domain binds adenovirus type 2 and fiber knob from adenovirus type 12. Freimuth P, et al. **J Virol** 1999 Feb;73(2):1392–8

Cellular entry of hantaviruses which cause hemorrhagic fever with renal syndrome is mediated by beta3 integrins.

Gavrilovskaya IN, et al. **J Virol** 1999 May;73(5):3951-9
Coreceptor specificity of temporal variants of simian immunodeficiency virus Mne. Kimata JT, et al. **J Virol** 1999 Feb;73(2):1655-60
The furin protease cleavage recognition sequence of Sindbis virus PE2 can mediate virion attachment to cell surface heparan sulfate. Klimstra WB, et al. **J Virol** 1999 Aug; 73(8):6299-306
The first immunoglobulin-like domain of HveC is sufficient to bind herpes simplex virus gD with full affinity, while the third domain is involved in oligomerization of HveC. Krummenacher C, et al. **J Virol** 1999 Oct;73(10):8127-37
Receptor-mediated Moloney murine leukemia virus entry can occur independently of the clathrin-coated-pit-mediated endocytic pathway. Lee S, et al. **J Virol** 1999 Jul;73(7):5994-6005
Amphotropic murine leukemia virus entry is determined by specific combinations of residues from receptor loops 2 and 4. Lundorf MD, et al. **J Virol** 1999 Apr;73(4):3169-75
Receptor-mediated interference mechanism responsible for resistance to polytropic leukemia viruses in Mus castaneus. Lyu MS, et al. **J Virol** 1999 May;73(5):3733-6
Simultaneous infection with retroviruses pseudotyped with different envelope proteins bypasses viral receptor interference associated with colocalization of gp70 and target cells on fibronectin CH-296. MacNeill EC, et al. **J Virol** 1999 May;73(5):3960-7
Very-low-density lipoprotein receptor fragment shed from HeLa cells inhibits human rhinovirus infection. Marlovits TC, et al. **J Virol** 1998 Dec;72(12):10246-50
Modulation of phosphate uptake and amphotropic murine leukemia virus entry by posttranslational modifications of PIT-2. Rodrigues P, et al. **J Virol** 1999 May;73(5):3789-99
Picornavirus receptor down-regulation by plasminogen activator inhibitor type 2. Shafren DR, et al. **J Virol** 1999 Sep;73(9):7193-8
The murine homolog (Mph) of human herpesvirus entry protein B (HveB) mediates entry of pseudorabies virus but not herpes simplex virus types 1 and 2. Shukla D, et al. **J Virol** 1999 May;73(5):4493-7
A sodium-dependent neutral-amino-acid transporter mediates infections of feline and baboon endogenous retroviruses and simian type D retroviruses. Tailor CS, et al. **J Virol** 1999 May;73(5):4470-4
Contribution of virus-receptor interaction to distinct viral proliferation of neuropathogenic and nonneuropathogenic murine leukemia viruses in rat glial cells. Takase-Yoden S, et al. **J Virol** 1999 May;73(5):4461-4
Failure To cleave murine leukemia virus envelope protein does not preclude its incorporation in virions and productive virus-receptor interaction. Zavorotinskaya T, et al. **J Virol** 1999 Jul;73(7):5621-9
A cluster of charged and aromatic residues in the C-terminal portion of maltoporin participates in sugar binding and uptake. Charbit A, et al. **Mol Gen Genet** 1998 Nov; 260(2-3):185-92
The beta-barrel domain of FhuADelta5-160 is sufficient for TonB-dependent FhuA activities of Escherichia coli. Braun M, et al. **Mol Microbiol** 1999 Sep;33(5):1037-49
Human fibroblast growth factor receptor 1 is a co-receptor for infection by adeno-associated virus 2 [see comments] Qing K, et al. **Nat Med** 1999 Jan;5(1):71-7. Comment in: Nat Med 1999 May;5(5):467-8.
Adeno-associated virus 2 co-receptors? [letter; comment] Qiu J, et al. **Nat Med** 1999 May;5(5):467-8. Comment on: Nat Med 1999 Jan;5(1):71-7. Comment on: Nat Med 1999 Jan;5(1):78-82.
AlphaVbeta5 integrin: a co-receptor for adeno-associated virus type 2 infection [see comments] Summerford C, et al. **Nat Med** 1999 Jan;5(1):78-82. Comment in: Nat Med 1999 May;5(5):467-8.
A complex of influenza hemagglutinin with a neutralizing antibody that binds outside the virus receptor binding site. Fleury D, et al. **Nat Struct Biol** 1999 Jun;6(6):530-4
Active transport by customized beta-barrels [news; comment] Postle K. **Nat Struct Biol** 1999 Jan;6(1):3-6. Comment on: Nat Struct Biol 1999 Jan;6(1):56-63.
Retroviral vectors preloaded with a viral receptor-ligand bridge protein are targeted to specific cell types. Boerger AL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9867-72
Cloning of the J gene of bacteriophage lambda, expression and solubilization of the J protein: first in vitro studies on the interactions between J and LamB, its cell surface receptor. Wang J, et al. **Res Microbiol** 1998 Oct; 149(9):611-24
Pumping iron through cell membranes [comment] Braun V. **Science** 1998 Dec 18;282(5397):2202-3. Comment on: Science 1998 Dec 18;282(5397):2215-20.
Identification of alpha-dystroglycan as a receptor for lymphocytic choriomeningitis virus and Lassa fever virus [see comments] Cao W, et al. **Science** 1998 Dec 11; 282(5396):2079-81. Comment in: Science 1998 Dec 11;282(5396):1999-2000.
Recognition and receptors in virus transmission by arthropods. van den Heuvel JF, et al. **Trends Microbiol** 1999 Feb;7(2):71-6 (59 ref.)
Immunization with a plasmid encoding a modified hepatitis B surface antigen carrying the receptor binding site for hepatocytes. Hui J, et al. **Vaccine** 1999 Mar 26; 17(13-14):1711-8
Poliomyelitis in intraspinally inoculated poliovirus receptor transgenic mice. Deatly AM, et al. **Virology** 1999 Mar 15; 255(2):221-7
Chemokine and orphan receptors in HIV-2 and SIV tropism and pathogenesis. Edinger AL, et al. **Virology** 1999 Aug 1;260(2):211-21 (129 ref.)
Use of GPR1, GPR15, and STRL33 as coreceptors by diverse human immunodeficiency virus type 1 and simian immunodeficiency virus envelope proteins. Edinger AL, et al. **Virology** 1998 Sep 30;249(2):367-78
Functional characterization of the HveA homolog specified by African green monkey kidney cells with a herpes simplex virus expressing the green fluorescence protein. Foster TP, et al. **Virology** 1999 Jun 5;258(2):365-74
Effects of egg-adaptation on the receptor-binding properties of human influenza A and B viruses. Gambaryan AS, et al. **Virology** 1999 Jun 5;258(2):232-9
Host cell receptor binding by baculovirus GP64 and kinetics of virion entry. Hefferon KL, et al. **Virology** 1999 Jun 5; 258(2):455-68
Use of site-specific mutagenesis and monoclonal antibodies to map regions of CD46 that interact with measles virus H protein. Hsu EC, et al. **Virology** 1999 Jun 5;258(2):314-26
Membrane fusion by surrogate receptor-bound influenza haemagglutinin. Millar BM, et al. **Virology** 1999 May 10; 257(2):415-23
Multiple pathways for establishment of poliovirus infection. Arita M, et al. **Virus Res** 1999 Aug;62(2):97-105
The structure of the two amino-terminal domains of human intercellular adhesion molecule-1 suggests how it functions as a rhinovirus receptor. Bella J, et al. **Virus Res** 1999 Aug; 62(2):107-17
Stable attachment for herpes simplex virus penetration into human cells requires glycoprotein D in the virion and cell receptors that are missing for entry-defective porcine cells. Pérez A, et al. **Virus Res** 1998 Nov;58(1-2):21-34

PHYSIOLOGY

Role of mouse hepatitis virus-A59 receptor Bgp1a expression in virus-induced pathogenesis. Godfraind C, et al. **Adv Exp Med Biol** 1998;440:569-74
Molecular analysis of the coronavirus-receptor function of aminopeptidase N. Kolb AF, et al. **Adv Exp Med Biol** 1998; 440:61-7
Efficient retroviral infection of human cells utilising an adenoviral vector expressing the ecotropic receptor. Scott-Taylor TH, et al. **Adv Exp Med Biol** 1998;451:423-30
P450 gene induction by structurally diverse xenochemicals: central role of nuclear receptors CAR, PXR, and PPAR. Waxman DJ. **Arch Biochem Biophys** 1999 Sep 1; 369(1):11-23 (128 ref.)
Virus-specific cell receptors are necessary, but not sufficient, to confer cell susceptibility to African swine fever virus. Carrascosa AL, et al. **Arch Virol** 1999;144(7):1309-21
Adenovirus cellular receptor site recirculation of HeLa cells upon receptor-mediated endocytosis is not low pH-dependent. Everitt E, et al. **Arch Virol** 1999; 144(4):787-95
Some characteristics of a cellular receptor for virulent infectious bursal disease virus by using flow cytometry. Ogawa M, et al. **Arch Virol** 1998;143(12):2327-41
Efficient gene delivery to quiescent interleukin-2 (IL-2)-dependent cells by murine leukemia virus-derived vectors harboring IL-2 chimeric envelope glycoproteins. Maurice M, et al. **Blood** 1999 Jul 15;94(2):401-10
Loss of adenoviral receptor expression in human bladder cancer cells: a potential impact on the efficacy of gene therapy. Li Y, et al. **Cancer Res** 1999 Jan 15;59(2):325-30
Molecular mechanisms of poliovirus persistence: key role of capsid determinants during the establishment phase. Pelletier I, et al. **Cell Mol Life Sci** 1998 Dec; 54(12):1385-402 (107 ref.)
Entry of porcine reproductive and respiratory syndrome virus into porcine alveolar macrophages via receptor-mediated endocytosis. Nauwynck HJ, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):297-305
Integrin alpha(v)beta3 (vitronectin receptor) is a candidate receptor for the virulent echovirus 9 strain Barty. Nelsen-Salz B, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2311-3
Enterovirus receptors and virus replication in human leukocytes. Vuorinen T, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):921-7
Poliovirus and its cellular receptor: a molecular genetic dissection of a virus/receptor affinity interaction. Solecki D, et al. **J Mol Recognit** 1998 Winter;11(1-6):2-9 (53 ref.)
Receptor (CD46)- and replication-mediated interleukin-6 induction by measles virus in human astrocytoma cells. Ghali M, et al. **J Neurovirol** 1998 Oct;4(5):521-30
Persistent infection promotes cross-species transmissibility of mouse hepatitis virus. Baric RS, et al. **J Virol** 1999 Jan; 73(1):638-49
The ectodomain of a novel member of the immunoglobulin subfamily related to the poliovirus receptor has the attributes of a bona fide receptor for herpes simplex virus types 1 and 2 in human cells. Cocchi F, et al. **J Virol** 1998 Dec;72(12):9992-10002
Differential cell tropism of feline immunodeficiency virus molecular clones in vivo. Dean GA, et al. **J Virol** 1999 Apr;73(4):2596-603
Role of variable regions A and B in receptor binding domain of amphotropic murine leukemia virus envelope protein. Han JY, et al. **J Virol** 1998 Nov;72(11):9101-8
Vaccinia virus envelope D8L protein binds to cell surface chondroitin sulfate and mediates the adsorption of intracellular mature virions to cells. Hsiao JC, et al. **J Virol** 1999 Oct;73(10):8750-61
Efficient transduction by an amphotropic retrovirus vector is dependent on high-level expression of the cell surface virus receptor. Kurre P, et al. **J Virol** 1999 Jan; 73(1):495-500
Receptor binding sites and antigenic epitopes on the fiber knob of human adenovirus serotype 3. Liebermann H, et al. **J Virol** 1998 Nov;72(11):9121-30
Analysis of receptor usage by ecotropic murine retroviruses, using green fluorescent protein-tagged cationic amino acid transporters. Masuda M, et al. **J Virol** 1999 Oct; 73(10):8623-9
Infection of Chinese hamster ovary cells by pseudorabies virus. Nixdorf R, et al. **J Virol** 1999 Oct;73(10):8019-26
Cell surface expression of biologically active influenza C virus HEF glycoprotein expressed from cDNA. Pekosz A, et al. **J Virol** 1999 Oct;73(10):8808-12
Initial binding of murine leukemia virus particles to cells does not require specific Env-receptor interaction. Pizzato M, et al. **J Virol** 1999 Oct;73(10):8599-611
Structure and function of a ganglioside receptor for porcine rotavirus. Rolsma MD, et al. **J Virol** 1998 Nov; 72(11):9079-91
Viral cell entry induced by cross-linked decay-accelerating factor. Shafren DR. **J Virol** 1998 Nov;72(11):9407-12
Simian sarcoma-associated virus fails to infect Chinese hamster cells despite the presence of functional gibbon ape leukemia virus receptors. Ting YT, et al. **J Virol** 1998 Dec; 72(12):9453-8
Carboxypeptidase D is an avian hepatitis B virus receptor. Tong S, et al. **J Virol** 1999 Oct;73(10):8696-702
PrM- and cell-binding domains of the dengue virus E protein. Wang S, et al. **J Virol** 1999 Mar;73(3):2547-51
Coxsackievirus and adenovirus receptor cytoplasmic and transmembrane domains are not essential for coxsackievirus and adenovirus infection. Wang X, et al. **J Virol** 1999 Mar; 73(3):2559-62
Will multiple coreceptors need to be targeted by inhibitors of human immunodeficiency virus type 1 entry? Zhang YJ, et al. **J Virol** 1999 Apr;73(4):3443-8
Retrovirus receptor mRNA expression correlates with gene transfer efficiency in pluripotent hematopoietic stem cells. Orlic D, et al. **Leukemia** 1999 Apr;13 Suppl 1:S52-4
The role of the chemokine receptor CXCR4 in infection with feline immunodeficiency virus. Willett BJ, et al. **Mol Membr Biol** 1999 Jan-Mar;16(1):67-72 (47 ref.)
A human cell-surface receptor for xenotropic and polytropic murine leukemia viruses: possible role in G protein-coupled signal transduction. Battini JL, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1385-90
The V domain of herpesvirus Ig-like receptor (HIgR) contains a major functional region in herpes simplex virus-1 entry into cells and interacts physically with the viral glycoprotein D. Cocchi F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15700-5
Adenoviral-mediated gene transfer in lymphocytes. Leon RP, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):13159-64
Xenotropism: the elusive viral receptor finally uncovered [comment] Levy JA. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):802-4 (35 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Feb 2;96(3):927-32.
The RD114/simian type D retrovirus receptor is a neutral amino acid transporter. Rasko JE, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2129-34
Cloning and characterization of a cell surface receptor for xenotropic and polytropic murine leukemia viruses [see comments] Tailor CS, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):927-32. Comment in: Proc Natl Acad Sci U S A 1999 Feb 2;96(3):802-4.
Chemokine receptors and their crucial role in human immunodeficiency virus infection: major breakthroughs in HIV research. Kristiansen TB, et al. **Scand J Immunol** 1998 Oct;48(4):339-46 (80 ref.)
Murine leukemia virus recombinants that use phosphate transporters for cell entry induce similar spongiform encephalomyelopathies in newborn mice. M nk C, et al. **Virology** 1998 Dec 20;252(2):318-23
Expression of the alpha6 integrin confers papillomavirus binding upon receptor-negative B-cells. McMillan NA, et al. **Virology** 1999 Sep 1;261(2):271-9

ULTRASTRUCTURE

The structure and function of a foot-and-mouth disease virus-oligosaccharide receptor complex. Fry EE, et al. **EMBO J** 1999 Feb 1;18(3):543-54
Structure of adenovirus complexed with its internalization receptor, alphavbeta5 integrin. Chiu CY, et al. **J Virol** 1999 Aug;73(8):6759-68
Capsid structure of simian cytomegalovirus from cryoelectron microscopy: evidence for tegument attachment sites [published erratum appears in J Virol 1999 May;73(5):4530] Trus BL, et al. **J Virol** 1999 Mar; 73(3):2181-92

RECEPTORS, VITAMIN D see **RECEPTORS, CALCITRIOL**

RECEPTORS, VITRONECTIN

Two-step spreading mode of human glioma cells on fibrin monomer: interaction of alpha(v)beta3 with the substratum followed by interaction of alpha5beta1 with endogenous cellular fibronectin secreted in the extracellular matrix. Yang W, et al. **Thromb Res** 1999 Mar 15;93(6):279–90

ANALYSIS

Renal cell carcinoma: immunohistological investigation of expression of the integrin alpha v beta 3. Wechsel HW, et al. **Anticancer Res** 1999 Mar–Apr;19(2C):1529–32

Rat osteoclast precursors in vivo express a vitronectin receptor and a chloride–bicarbonate exchanger. Weinreb M, et al. **Connect Tissue Res** 1998;37(3–4):177–82

ANTAGONISTS & INHIBITORS

Design, synthesis and biological evaluation of nonpeptide integrin antagonists. Nicolaou KC, et al.
Bioorg Med Chem 1998 Aug;6(8):1185–208

Orally bioavailable nonpeptide vitronectin receptor antagonists containing 2-aminopyridine arginine mimetics. Keenan RM, et al. **Bioorg Med Chem Lett** 1999 Jul 5; 9(13):1801–6

Discovery of an imidazopyridine–containing 1,4–benzodiazepine nonpeptide vitronectin receptor (alpha v beta 3) antagonist with efficacy in a restenosis model. Keenan RM, et al. **Bioorg Med Chem Lett** 1998 Nov 17; 8(22):3171–6

Benzimidazole derivatives as arginine mimetics in 1,4–benzodiazepine nonpeptide vitronectin receptor (alpha v beta 3) antagonists. Keenan RM, et al.
Bioorg Med Chem Lett 1998 Nov 17;8(22):3165–70

Orally bioavailable nonpeptide vitronectin receptor antagonists with efficacy in an osteoporosis model. Miller WH, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1807–12

Rapid synthesis of RGD mimetics with isoxazoline scaffolds on solid phase: identification of alphavbeta3 antagonists lead compounds. Rockwell AL, et al.
Bioorg Med Chem Lett 1999 Apr 5;9(7):937–42

Accutin, a new disintegrin, inhibits angiogenesis in vitro and in vivo by acting as integrin alphavbeta3 antagonist and inducing apoptosis. Yeh CH, et al. **Blood** 1998 Nov 1; 92(9):3268–76

Reduced intimal thickening following alpha(v)beta3 blockade is associated with smooth muscle cell apoptosis. van der Zee R, et al. **Cell Adhes Commun** 1998;6(5):371–9

Synthetic alphaVbeta3 antagonists inhibit insulin–like growth factor–I–stimulated smooth muscle cell migration and replication. Clemmons DR, et al. **Endocrinology** 1999 Oct; 140(10):4616–21

Alphavbeta3 integrin binding affinity and specificity of SM256 in various species. Mousa SA, et al.
J Cardiovasc Pharmacol 1999 Apr;33(4):641–6

Decreased angiogenesis and arthritic disease in rabbits treated with an alphavbeta3 antagonist [see comments] Storgard CM, et al. **J Clin Invest** 1999 Jan;103(1):47–54. Comment in: J Clin Invest 1999 Jan;103(1):3–4.

Blocking ligand occupancy of the alphaVbeta3 integrin inhibits insulin–like growth factor I signaling in vascular smooth muscle cells. Zheng B, et al.
Proc Natl Acad Sci U S A 1998 Sep 15;95(19):11217–22

BIOSYNTHESIS

Integrin expression in normal and out–of–phase endometria. Creus M, et al. **Hum Reprod** 1998 Dec;13(12):3460–8

Integrins and endometriosis: fact or artefact? [letter; comment] Lessey BA, et al. **Hum Reprod** 1998 Dec; 13(12):3578–80. Comment on: Hum Reprod 1998 Apr;13(4):1030–5.

Overexpression of protein kinase C–alpha in MCF–7 breast cancer cells results in differential regulation and expression of alphavbeta3 and alphavbeta5. Carey I, et al.
Int J Oncol 1999 Jul;15(1):127–36

Aggregation of mononucleated precursors triggers cell surface expression of alphavbeta3 integrin, essential to formation of osteoclast–like multinucleated cells. Boissy P, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2563–74

Activated microvessels express vascular endothelial growth factor and integrin alpha(v)beta3 during focal cerebral ischemia. Abumiya T, et al. **J Cereb Blood Flow Metab** 1999 Sep;19(9):1038–50

Inflammatory cytokines synergize with the HIV–1 Tat protein to promote angiogenesis and Kaposi's sarcoma via induction of basic fibroblast growth factor and the alpha v beta 3 integrin. Barillari G, et al. **J Immunol** 1999 Aug 15;163(4):1929–35

The relations of major platelet receptor expression during myocardial infarction. Monitoring efficacy of GPIIb/IIIa inhibitors by measuring P–selectin? [letter] Serebruany VL, et al. **Thromb Haemost** 1999 Feb;81(2):314–6

BLOOD

Beta3 integrin—a promiscuous integrin involved in vascular pathology. Veinot JP, et al. **Can J Cardiol** 1999 Jul; 15(7):762–70

CHEMISTRY

Covalent immobilization of recombinant human alphavbeta3 integrin on a solid support with retention of functionality. Greenberg Z, et al. **Anal Biochem** 1999 Jan 1;266(1):153–64

Mapping the integrin alpha V beta 3–ligand interface by photoaffinity cross–linking. Bitan G, et al. **Biochemistry** 1999 Mar 16;38(11):3414–20

DRUG EFFECTS

Potential non–glycoprotein IIb/IIIa effects of abciximab. Coller BS. **Am Heart J** 1999 Jul;138(1 Pt 2):S1–5 (50 ref.)

An interaction between penton base and alpha v integrins plays a minimal role in adenovirus–mediated gene transfer to hepatocytes in vitro and in vivo. Hautala T, et al.
Gene Ther 1998 Sep;5(9):1259–64

GENETICS

Adenoviral gene transfer of beta3 integrin subunit induces conversion from radial to vertical growth phase in primary human melanoma [see comments] Hsu MY, et al.
Am J Pathol 1998 Nov;153(5):1435–42. Comment in: Am J Pathol 1998 Nov;153(5):1347–51.

Role of the alpha–subunit 326GRV sequence in the surface expression of fibrinogen and vitronectin receptors. Ferrer M, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1239–46

Adenoviral transduction efficiency partly correlates with expression levels of integrin alphavbeta5, but not alphavbeta3 in human gastric carcinoma cells. Tatebe S, et al. **Int J Mol Med** 1998 Jul;2(1):61–4

Granulocyte macrophage–colony stimulating factor reciprocally regulates alphav–associated integrins on murine osteoclast precursors. Inoue M, et al.
Mol Endocrinol 1998 Dec;12(12):1955–62

IMMUNOLOGY

A series of function blocking antibodies against the alpha v beta 3 integrin bind allosteric to the ligand binding site and induce ligand dissociation. Lin EC, et al.
Cell Adhes Commun 1998;6(6):451–64

Vitaxin, a humanized monoclonal antibody to the vitronectin receptor (alphavbeta3), reduces neointimal hyperplasia and total vessel area after balloon injury in hypercholesterolemic rabbits. Coleman KR, et al.
Circ Res 1999 Jun 11;84(11):1268–76

METABOLISM

Covalent immobilization of recombinant human alphavbeta3 integrin on a solid support with retention of functionality. Greenberg Z, et al. **Anal Biochem** 1999 Jan 1;266(1):153–64

Specific binding of integrin alpha v beta 3 to the fibrinogen gamma and alpha E chain C–terminal domains. Yokoyama K, et al. **Biochemistry** 1999 May 4;38(18):5872–7

Construction of a family of biphenyl combinatorial libraries: structure–activity studies utilizing libraries of mixtures. Neustadt BR, et al. **Bioorg Med Chem Lett** 1998 Sep 8; 8(17):2395–8

Previous uptake of apoptotic neutrophils or ligation of integrin receptors downmodulates the ability of macrophages to ingest apoptotic neutrophils. Erwig LP, et al. **Blood** 1999 Feb 15;93(4):1406–12

Urinary excretion of the vitronectin receptor (integrin alpha V beta 3) in patients with Fabry disease. Utsumi K, et al.
Clin Chim Acta 1999 Jan;279(1–2):55–68

The p16(INK4a) tumour suppressor protein inhibits alphavbeta3 integrin–mediated cell spreading on vitronectin by blocking PKC–dependent localization of alphavbeta3 to focal contacts. Fåhraeus R, et al.
EMBO J 1999 Apr 15;18(8):2106–18

Surface densities of ephrin–B1 determine EphB1–coupled activation of cell attachment through alphavbeta3 and alpha5beta1 integrins. Huynh–Do U, et al. **EMBO J** 1999 Apr 15;18(8):2165–73

Role of alphavbeta3 integrin in the activation of vascular endothelial growth factor receptor–2. Soldi R, et al.
EMBO J 1999 Feb 15;18(4):882–92

Integrin alpha(v)beta(3)–mediated activation of apoptosis. Brassard DL, et al. **Exp Cell Res** 1999 Aug 25;251(1):33–45

Cytokines modulate integrin alpha(v)beta(3)–mediated human endothelial cell adhesion and calcium signaling. Yeh CH, et al. **Exp Cell Res** 1999 Aug 25;251(1):57–66

Cell matrix adhesions and localization of the vitronectin receptor in MCF–7 human mammary carcinoma cells. DePasquale JA. **Histochem Cell Biol** 1998 Nov; 110(5):485–94

Alteration of cytoskeletal structure, integrin distribution, and migratory activity by phagocytic challenge in cells from an ocular tissue—the trabecular meshwork. Zhou L, et al.
In Vitro Cell Dev Biol Anim 1999 Mar;35(3):144–9

Differential expression of alphav integrins in K1735 melanoma cells. Li X, et al. **Invasion Metastasis** 1998; 18(1):1–14

Fluid shear stress activation of IkappaB kinase is integrin–dependent. Bhullar IS, et al. **J Biol Chem** 1998 Nov 13;273(46):30544–9

The thrombospondin receptor integrin–associated protein (CD47) functionally couples to heterotrimeric Gi. Frazier WA, et al. **J Biol Chem** 1999 Mar 26;274(13):8554–60

Microfibril–associated glycoprotein–2 specifically interacts with a range of bovine and human cell types via alphaVbeta3 integrin. Gibson MA, et al. **J Biol Chem** 1999 May 7;274(19):13060–5

Del1 induces integrin signaling and angiogenesis by ligation of alphaVbeta3. Penta K, et al. **J Biol Chem** 1999 Apr 16; 274(16):11101–9

Cooperation between thrombospondin–1 type 1 repeat peptides and alpha(v)beta(3) integrin ligands to promote melanoma cell spreading and focal adhesion kinase phosphorylation. Sipes JM, et al. **J Biol Chem** 1999 Aug 6;274(32):22755–62

Alphavbeta3 integrin binding affinity and specificity of SM256 in various species. Mousa SA, et al.
J Cardiovasc Pharmacol 1999 Apr;33(4):641–6

A molecular mechanism of integrin crosstalk: alphavbeta3 suppression of calcium/calmodulin–dependent protein kinase II regulates alpha5beta1 function. Blystone SD, et al. **J Cell Biol** 1999 May 17;145(4):889–97

Activation of alphaVbeta3 on vascular cells controls recognition of prothrombin. Byzova TV, et al.
J Cell Biol 1998 Dec 28;143(7):2081–92

Role of cholesterol in formation and function of a signaling complex involving alphavbeta3, integrin–associated protein (CD47), and heterotrimeric G proteins. Green JM, et al.
J Cell Biol 1999 Aug 9;146(3):673–82

The vitronectin receptor and its associated CD47 molecule mediates proinflammatory cytokine synthesis in human monocytes by interaction with soluble CD23. Hermann P, et al. **J Cell Biol** 1999 Feb 22;144(4):767–75

The vitronectin receptor associates with clathrin–coated membrane domains via the cytoplasmic domain of its beta5 subunit. De Deyne PG, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2729–40

Interaction of metargidin (ADAM–15) with alphavbeta3 and alpha5beta1 integrins on different haemopoietic cells. Nath D, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):579–87

Evidence for alphavbeta3 and alphavbeta5 integrin–like vitronectin (VN) receptors in Candida albicans and their involvement in yeast cell adhesion to VN. Spreghini E, et al. **J Infect Dis** 1999 Jul;180(1):156–66

Cellular entry of hantaviruses which cause hemorrhagic fever with renal syndrome is mediated by beta3 integrins. Gavrilovskaya IN, et al. **J Virol** 1999 May;73(5):3951–9

Fisp12/mouse connective tissue growth factor mediates endothelial cell adhesion and migration through integrin alphavbeta3, promotes endothelial cell survival, and induces angiogenesis in vivo. Babic AM, et al.
Mol Cell Biol 1999 Apr;19(4):2958–66

A natural variant of the cysteine protease virulence factor of group A Streptococcus with an arginine–glycine–aspartic acid (RGD) motif preferentially binds human integrins alphavbeta3 and alphaIIbbeta3. Stockbauer KE, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):242–7

T–cell receptor Valpha gene expression of infiltrating T cells in pancreatic cancer. Müller–Ostermeyer F, et al.
Scand J Gastroenterol 1998 Aug;33(8):872–9

PHYSIOLOGY

Role of the beta3 integrin subunit in human primary melanoma progression: multifunctional activities associated with alpha(v)beta3 integrin expression [comment] Seftor RE. **Am J Pathol** 1998 Nov;153(5):1347–51 (78 ref.). Comment on: Am J Pathol 1998 Nov;153(5):1435–42.

Neutrophils sense flow–generated stress and direct their migration through alphaVbeta3–integrin. Rainger GE, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H858–64

The Tat protein of human immunodeficiency virus type–1 promotes vascular cell growth and locomotion by engaging the alpha5beta1 and alphavbeta3 integrins and by mobilizing sequestered basic fibroblast growth factor. Barillari G, et al. **Blood** 1999 Jul 15;94(2):663–72

Ligation of CD31 (PECAM–1) on endothelial cells increases adhesive function of alphavbeta3 integrin and enhances beta1 integrin–mediated adhesion of eosinophils to endothelial cells. Chiba R, et al. **Blood** 1999 Aug 15; 94(4):1319–29

A mutation in the extracellular cysteine–rich repeat region of the beta3 subunit activates integrins alphaIIbbeta3 and alphaVbeta3. Kashiwagi H, et al. **Blood** 1999 Apr 15; 93(8):2559–68

Integrin alpha(v)beta3 promotes M21 melanoma growth in human skin by regulating tumor cell survival. Petitclerc E, et al. **Cancer Res** 1999 Jun 1;59(11):2724–30

Identification of CD47/integrin–associated protein and alpha(v)beta3 as two receptors for the alpha3(IV) chain of type IV collagen on tumor cells. Shahan TA, et al.
Cancer Res 1999 Sep 15;59(18):4584–90

Prostatic carcinoma cell migration via alpha(v)beta3 integrin is modulated by a focal adhesion kinase pathway. Zheng DQ, et al. **Cancer Res** 1999 Apr 1;59(7):1655–64

Reduced intimal thickening following alpha(v)beta3 blockade is associated with smooth muscle cell apoptosis. van der Zee R, et al. **Cell Adhes Commun** 1998;6(5):371–9

The vitronectin receptor plays a role in the adhesion of human cytotrophoblast cells to endothelial cells. Thirkill TL, et al. **Endothelium** 1999;6(4):277–90

Migration properties of the human ovarian adenocarcinoma cell line IGROV1: importance of alpha(v)beta3 integrins and vitronectin. Carreiras F, et al. **Int J Cancer** 1999 Jan 18;80(2):285–94

Mechanisms and consequences of affinity modulation of integrin alpha(V)beta(3) detected with a novel patch–engineered monovalent ligand. Pampori N, et al.
J Biol Chem 1999 Jul 30;274(31):21609–16

Modulation of calcium current in arteriolar smooth muscle by alphav beta3 and alpha5 beta1 integrin ligands. Wu X,

et al. **J Cell Biol** 1998 Oct 5;143(1):241-52
Aggregation of mononucleated precursors triggers cell surface expression of alphavbeta3 integrin, essential to formation of osteoclast-like multinucleated cells. Boissy P, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2563-74
Macrophage and retinal pigment epithelium phagocytosis: apoptotic cells and photoreceptors compete for alphavbeta3 and alphavbeta5 integrins, and protein kinase C regulates alphavbeta5 binding and cytoskeletal linkage. Finnemann SC, et al. **J Exp Med** 1999 Sep 20;190(6):861-74
Integrin alpha(v)beta3 (vitronectin receptor) is a candidate receptor for the virulent echovirus 9 strain Barty. Nelsen-Salz B, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2311-3
CD36 is required for phagocytosis of apoptotic cells by human macrophages that use either a phosphatidylserine receptor or the vitronectin receptor (alpha v beta 3). Fadok VA, et al. **J Immunol** 1998 Dec 1;161(11):6250-7
Structural analysis of the sixth immunoglobulin-like domain of mouse neural cell adhesion molecule L1 and its interactions with alpha(v)beta3, alpha(IIb)beta3, and alpha5beta1 integrins. Blaess S, et al. **J Neurochem** 1998 Dec;71(6):2615-25
Beta3 integrin activation improves alphavbeta3-mediated retraction of fibrin matrices. Corbett SA, et al. **J Surg Res** 1999 May 1;83(1):27-31
Use of the 10-day-old chick embryo model for studying angiogenesis. Brooks PC, et al. **Methods Mol Biol** 1999; 129:257-69
A cell-based adhesion assay for the characterization of integrin alpha v beta 3 antagonists. Wu JM, et al. **Methods Mol Biol** 1999;129:211-7
Synergy between an antiangiogenic integrin alphav antagonist and an antibody-cytokine fusion protein eradicates spontaneous tumor metastases. Lode HN, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1591-6
Role of integrin alpha(v)beta3 in vascular biology. Byzova TV, et al. **Thromb Haemost** 1998 Nov;80(5):726-34 (138 ref.)

RECEPTORS, VLA see **RECEPTORS, VERY LATE ANTIGEN**

RECEPTORS, VLA-5 see **RECEPTORS, FIBRONECTIN**

RECEPTOSOMES see **ENDOSOMES**

RECIPES see **COOKERY**

RECKLINGHAUSEN'S DISEASE OF BONE see **OSTEITIS FIBROSA CYSTICA**

RECKLINGHAUSEN'S DISEASE OF NERVE see **NEUROFIBROMATOSIS 1**

RECOGNITION see **MEMORY**

RECOMBINANT DNA see **DNA, RECOMBINANT**

RECOMBINANT DNA VACCINES see **VACCINES, DNA**

RECOMBINANT ERYTHROPOIETIN see **ERYTHROPOIETIN, RECOMBINANT**

RECOMBINANT FUSION PROTEINS

see related
IMMUNOTOXINS

High level expression and secretion of Fc-X fusion proteins in mammalian cells. Lo KM, et al. **Protein Eng** 1998 Jun; 11(6):495-500

ADMINISTRATION & DOSAGE

A novel concept in mucosal adjuvanticity: the CTA1-DD adjuvant is a B cell-targeted fusion protein that incorporates the enzymatically active cholera toxin A1 subunit. Agren L, et al. **Immunol Cell Biol** 1998 Jun; 76(3):280-7 (47 ref.)
Cardiac allograft tolerance induced by intra-arterial infusion of recombinant adenoviral CTLA4Ig. Yang Z, et al. **Transplantation** 1999 Jun 27;67(12):1517-23

ANALYSIS

P-glycoprotein subcellular localization and cell morphotype in MDR1 gene-transfected human osteosarcoma cells. Maraldi NM, et al. **Biol Cell** 1999 Jan;91(1):17-28
Use of Staphylococcus aureus protein-A sub-domains as a tag for the sensitive detection of recombinant fusion proteins. Gosink MM, et al. **Biotechniques** 1998 Sep; 25(3):374-6, 378
Mass spectrometric analysis of the electroeluates of fluorescent proteins after preparative electrophoresis in the automated HPGE-1000 apparatus. Yarmola E, et al. **Electrophoresis** 1999 Mar;20(3):445-51
Green fluorescent protein expressed by a recombinant vaccinia virus permits early detection of infected cells by flow cytometry. Domínguez J, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):115-21
Efficient detection and selection of immature rhesus monkey and human CD34+ hematopoietic cells expressing the enhanced green fluorescent protein (EGFP). Bierhuizen MF, et al. **Leukemia** 1999 Apr;13(4):605-13
GFP fusions to a microtubule motor protein to visualize meiotic and mitotic spindle dynamics in Drosophila. Endow SA. **Methods Cell Biol** 1999;58:153-63 (21 ref.)
Real-time optical monitoring of ligand-mediated internalization of alpha1b-adrenoceptor with green fluorescent protein. Awaji T, et al. **Mol Endocrinol** 1998 Aug;12(8):1099-111
Visualizing protein-protein interactions in the nucleus of the living cell. Day RN, et al. **Mol Endocrinol** 1999 Apr; 13(4):517-26 (63 ref.)
Detection of brain tumor invasion and micrometastasis in vivo by expression of enhanced green fluorescent protein. MacDonald TJ, et al. **Neurosurgery** 1998 Dec; 43(6):1437-42; discussion 1442-3
Rapid characterization of green fluorescent protein fusion proteins on the molecular and cellular level by fluorescence correlation microscopy. Brock R, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10123-8

BIOSYNTHESIS

Analysis of the role of the gene bipA, encoding the major endoplasmic reticulum chaperone protein in the secretion of homologous and heterologous proteins in black Aspergilli. Punt PJ, et al. **Appl Microbiol Biotechnol** 1998 Oct;50(4):447-54
Cloning and expression of yellowtail ascites virus segment A. Sato H, et al. **Arch Virol** 1999;144(7):1405-13
High efficient expression of the functional ligand binding site of the inositol 1,4,5-triphosphate receptor in Escherichia coli. Yoshikawa F, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):792-7
Expression and purification of the first nucleotide-binding domain and linker region of human multidrug resistance gene product: comparison of fusions to glutathione S-transferase, thioredoxin and maltose-binding protein. Wang C, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):77-81
N-Linked glycosylation is essential for the functional expression of the recombinant P2X2 receptor. Torres GE, et al. **Biochemistry** 1998 Oct 20;37(42):14845-51
Thioredoxin reductase-thioredoxin fusion enzyme from Mycobacterium leprae: comparison with the separately expressed thioredoxin reductase. Wang PF, et al. **Biochemistry** 1998 Nov 17;37(46):16378-89
Comparative analysis of the efficacy of A1 adenosine receptor activation of Gi/o alpha G proteins following coexpression of receptor and G protein and expression of A1 adenosine receptor-Gi/o alpha fusion proteins. Wise A, et al. **Biochemistry** 1999 Feb 23;38(8):2272-8
Engineering and biochemical characterization of the rat microsomal cytochrome P4501A1 fused to ferredoxin and ferredoxin-NADP(+) reductase from plant chloroplasts. Lacour T, et al. **Biochim Biophys Acta** 1999 Aug 17; 1433(1-2):87-102
Production and characterization of a bivalent single chain Fv/alkaline phosphatase conjugate specific for the hemocyanin of the scorpion Androctonus australis. Mousli M, et al. **Biochim Biophys Acta** 1998 Oct 23;1425(2):348-60
Monitoring GFP-operon fusion protein expression during high cell density cultivation of Escherichia coli using an on-line optical sensor. DeLisa MP, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):54-64
Prostate-specific antigen (PSA) promoter-driven androgen-inducible expression of sodium iodide symporter in prostate cancer cell lines. Spitzweg C, et al. **Cancer Res** 1999 May 1;59(9):2136-41
Characterization of the human gonadotropin-releasing hormone receptor heterologously produced using the baculovirus/insect cell and the Semliki Forest virus systems. Marheineke K, et al. **Cell Mol Neurobiol** 1998 Oct; 18(5):509-24
Totally in vitro protein selection using mRNA-protein fusions and ribosome display. Roberts RW. **Curr Opin Chem Biol** 1999 Jun;3(3):268-73 (39 ref.)
Dynamics of in vivo protein aggregation: building inclusion bodies in recombinant bacteria. Carrió MM, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):9-15
RAG2:GFP knockin mice reveal novel aspects of RAG2 expression in primary and peripheral lymphoid tissues. Monroe RJ, et al. **Immunity** 1999 Aug;11(2):201-12
Surface expression of a protective recombinant pertussis toxin S1 subunit fragment in Streptococcus gordonii. Lee SF, et al. **Infect Immun** 1999 Mar;67(3):1511-6
Expression of Chlamydia psittaci- and human immunodeficiency virus-derived antigens on the cell surface of Lactobacillus fermentum BR11 as fusions to bspA. Turner MS, et al. **Infect Immun** 1999 Oct; 67(10):5486-9
A recombinant prodrug type approach for triggered delivery of streptokinase. Wang H, et al. **J Controlled Release** 1999 May 1;59(1):119-22
Production and characterization of fusion proteins containing transferrin and nerve growth factor. Park E, et al. **J Drug Target** 1998;6(1):53-64
Human dendritic cells very efficiently present a heterologous antigen expressed on the surface of recombinant gram-positive bacteria to CD4+ T lymphocytes. Corinti S, et al. **J Immunol** 1999 Sep 15;163(6):3029-36
General expression vectors for production of hydrophobically tagged immunogens for direct iscom incorporation. Andersson C, et al. **J Immunol Methods** 1999 Jan 1;222(1-2):171-82
Production of secreted, soluble human two-domain CD4 protein in Escherichia coli. Osburne MS, et al. **J Immunol Methods** 1999 Apr 22;224(1-2):19-24
Prokaryotic gene fusion expression systems and their use in structural and functional studies of proteins. Sheibani N. **Prep Biochem Biotechnol** 1999 Feb;29(1):77-90 (24 ref.)
Defective vaccinia virus as a biologically safe tool for the overproduction of recombinant human secretory proteins. Himly M, et al. **Protein Expr Purif** 1998 Dec;14(3):317-26
Development of a recombinant growth factor and fusion protein: lessons from GM-CSF. Schuh JC, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):72-7 (55 ref.)
Prokaryotic expression and characterization of human AP DNA endonuclease. Oh SH, et al. **Yonsei Med J** 1999 Feb; 40(1):61-8
[Secretory expression of salmon calcitonin in Streptomyces lividans] Hong B, et al. **I Chuan Hsueh Pao** 1998; 25(4):287-93 (Eng. Abstr.) **(Chi)**

CHEMICAL SYNTHESIS

Circular permutation of granulocyte colony-stimulating factor. Feng Y, et al. **Biochemistry** 1999 Apr 6; 38(14):4553-63
Circular permutation of the granulocyte colony-stimulating factor receptor agonist domain of myelopoietin. McWherter CA, et al. **Biochemistry** 1999 Apr 6; 38(14):4564-71
A single-chain IL-12 IgG3 antibody fusion protein retains antibody specificity and IL-12 bioactivity and demonstrates antitumor activity. Peng LS, et al. **J Immunol** 1999 Jul 1;163(1):250-8

CHEMISTRY

Crystallization and preliminary X-ray diffraction studies of the 51 kDa protein of the mosquito-larvicidal binary toxin from Bacillus sphaericus. Chiou C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 May;55(5):1083-5
Crystallization of an intact GST-estrogen receptor hormone binding domain fusion protein. Lally JM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):423-6
Structure of type III antifreeze protein at 277 K. Ye Q, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):700-2
Evaluation of the roles of the conserved residues of aldehyde dehydrogenase. Hurley TD, et al. **Adv Exp Med Biol** 1999; 463:45-52
Spontaneous alpha-N-6-phosphogluconoylation of a "His tag" in Escherichia coli: the cause of extra mass of 258 or 178 Da in fusion proteins. Geoghegan KF, et al. **Anal Biochem** 1999 Feb 1;267(1):169-84
Intrinsically fluorescent luteinizing hormone receptor demonstrates hormone-driven aggregation. Horvat RD, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):382-5
Mass spectrometric determination of a novel modification of the N-terminus of histidine-tagged proteins expressed in bacteria. Yan Z, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):271-82
Electrostatic channeling of oxaloacetate in a fusion protein of porcine citrate synthase and porcine mitochondrial malate dehydrogenase. Shatalin K, et al. **Biochemistry** 1999 Jan 19;38(3):881-9
Tyrosine, phenylalanine, and disulfide contributions to the circular dichroism of proteins: circular dichroism spectra of wild-type and mutant bovine pancreatic trypsin inhibitor. Sreerama N, et al. **Biochemistry** 1999 Aug 17; 38(33):10814-22
Substitution studies of the second divalent metal cation requirement of protein tyrosine kinase CSK. Sun G, et al. **Biochemistry** 1999 Apr 27;38(17):5659-65
A pre-steady-state kinetic analysis of substrate binding to human recombinant deoxycytidine kinase: a model for nucleoside kinase action. Turk B, et al. **Biochemistry** 1999 Jun 29;38(26):8555-61
Characterization of plasminogen activator inhibitor 1 mutants containing the P13 to P10 region of ovalbumin or antithrombin III: evidence that the P13 residue contributes significantly to the active to substrate transition. Gils A, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):291-7
Pharmacokinetics and stability of the ch14.18-interleukin-2 fusion protein in mice. Kendra K, et al. **Cancer Immunol Immunother** 1999 Aug;48(5):219-29
Tethering a type IB topoisomerase to a DNA site by enzyme fusion to a heterologous site-selective DNA-binding protein domain. Beretta GL, et al. **Cancer Res** 1999 Aug 1;59(15):3689-97
Evidence for functional conservation of a mammalian homologue of the light-responsive plant protein COP1. Wang H, et al. **Curr Biol** 1999 Jul 1;9(13):711-4
A system for stable indirect immobilization of multimeric recombinant proteins. Grob P, et al. **Immunotechnology** 1998 Oct;4(2):155-63
Designing recombinant spider silk proteins to control assembly. Winkler S, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):265-70
The N-terminal sequence affects distant helix interactions in hemoglobin. Implications for mutant proteins from studies on recombinant hemoglobin felix. Dumoulin A, et al. **J Biol Chem** 1998 Dec 25;273(52):35032-8
Structure-antibacterial, antitumor and hemolytic activity relationships of cecropin A-magainin 2 and cecropin A-melittin hybrid peptides. Shin SY, et al. **J Pept Res** 1999

Jan;53(1):82-90
Properties of soluble fusions between mammalian aspartic proteinases and bacterial maltose-binding protein. Sachdev D, et al. **J Protein Chem** 1999 Jan;18(1):127-36
Preliminary crystallographic study of glutathione S-transferase fused with the nuclear matrix targeting signal of the transcription factor AML-1/CBF-alpha2. Tang L, et al. **J Struct Biol** 1998 Sep;123(1):83-5
The paramyxovirus fusion protein forms an extremely stable core trimer: structural parallels to influenza virus haemagglutinin and HIV-1 gp41. Lamb RA, et al. **Mol Membr Biol** 1999 Jan-Mar;16(1):11-9
Chemical ligation of folded recombinant proteins: segmental isotopic labeling of domains for NMR studies. Xu R, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):388-93
Stepwise transplantation of an active site loop between heat-labile enterotoxins LT-IIb and LT-I and characterization of the obtained hybrid toxins. Feil IK, et al. **Protein Eng** 1998 Nov;11(11):1103-9
Protein expression. Folding to green. Peters R, et al. **Science** 1999 Aug 20;285(5431):1229
GPCR-Galpha fusion proteins: molecular analysis of receptor-G-protein coupling. Seifert R, et al. **Trends Pharmacol Sci** 1999 Sep;20(9):383-9

DRUG EFFECTS

Positive and negative discrimination of estrogen receptor agonists and antagonists using site-specific DNA recombinase fusion proteins. Logie C, et al. **Mol Endocrinol** 1998 Aug;12(8):1120-32

GENETICS

Six putative IQ motifs of the recombinant chicken intestinal brush border myosin I are involved in calmodulin binding. Khoroshev MI, et al. **Arch Biochem Biophys** 1999 Jan 1; 361(1):94-100
Co-expression of glutathione S-transferase with methionine aminopeptidase: a system of producing enriched N-terminal processed proteins in Escherichia coli. Hwang DD, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):335-42
Thioredoxin fusion/HIV-1 protease coexpression system for production of soluble human IL6 in E. coli cytoplasm. Han BG, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):839-46
Dynamic mobility of genetically expressed fusion protein between cytochrome P4501A1 and NADPH-cytochrome P450 reductase in yeast microsomes. Yamada M, et al. **Biochemistry** 1999 Jul 20;38(29):9465-70
Hydrophobilization of esterase by genetic combination with polyproline or polytyrosine at the carboxyl terminal [published erratum appears in Biochim Biophys Acta 1999 Feb 10;1430(1):155] Kwon OH, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):239-46
Use of Staphylococcus aureus protein-A sub-domains as a tag for the sensitive detection of recombinant fusion proteins. Gosink MM, et al. **Biotechniques** 1998 Sep; 25(3):374-6, 378
Shuttle-vector system for Saccharomyces cerevisiae designed to produce C-terminal-Myc-tagged fusion proteins. Iha H, et al. **Biotechniques** 1998 Dec;25(6):936-8
Overexpression of human DNA topoisomerase II alpha by fusion to enhanced green fluorescent protein. Mo YY, et al. **Biotechniques** 1998 Dec;25(6):1052-7
Recombinant Bombyx mori nucleopolyhedrovirus harboring green fluorescent protein. Sehgal D, et al. **Biotechniques** 1998 Dec;25(6):997-1000, 1002, 1004 passim
Enhanced secretion of human granulocyte colony-stimulating factor directed by a novel hybrid fusion peptide from recombinant Saccharomyces cerevisiae at high cell concentration. Bae CS, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):600-9
Tolerance of Escherichia coli beta-galactosidase C-terminus to different-sized fusions. Corchero JL, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):644-9
Monitoring GFP-operon fusion protein expression during high cell density cultivation of Escherichia coli using an on-line optical sensor. DeLisa MP, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):54-64
An anti-CD30 single-chain Fv selected by phage display and fused to Pseudomonas exotoxin A (Ki-4(scFv)-ETA') is a potent immunotoxin against a Hodgkin-derived cell line. Klimka A, et al. **Br J Cancer** 1999 Jun;80(8):1214-22
Mutant analysis of Prevotella sp. plaA-lacZ fusion protein expression in Escherichia coli: support for an essential role of the stem-loop. Manch-Citron JN, et al. **Can J Microbiol** 1999 Feb;45(2):153-61
Detection of PAX3-FKHR and PAX7-FKHR fusion transcripts in rhabdomyosarcoma by reverse transcriptase-polymerase chain reaction using paraffin-embedded tissue. Chen BF, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Feb;62(2):86-91
Expression of hirudin fusion proteins in mammalian cells: a strategy for prevention of intravascular thrombosis. Riesbeck K, et al. **Circulation** 1998 Dec 15;98(24):2744-52
Dynamic redistribution of STAT1 protein in IFN signaling visualized by GFP fusion proteins. Köster M, et al. **Eur J Biochem** 1999 Feb;260(1):137-44
Protein LA, a novel hybrid protein with unique single-chain Fv antibody- and Fab-binding properties. Svensson HG, et al. **Eur J Biochem** 1998 Dec 1;258(2):890-6
Protein targeting in the analysis of learning and memory: a potential alternative to gene targeting. Gerlai R, et al. **Exp Brain Res** 1998 Nov;123(1-2):24-35
Cys-scanning mutagenesis: a novel approach to structure function relationships in polytopic membrane proteins. Frillingos S, et al. **FASEB J** 1998 Oct;12(13):1281-99 (117 ref.)
A new series of pET-derived vectors for high efficiency expression of Pseudomonas exotoxin-based fusion proteins. Matthey B, et al. **Gene** 1999 Mar 18;229(1-2):145-53
Assembly of functionally active Drosophila origin recognition complex from recombinant proteins. Chesnokov I, et al. **Genes Dev** 1999 May 15;13(10):1289-96
Amphotropic retroviral vectors displaying hepatocyte growth factor-envelope fusion proteins improve transduction efficiency of primary hepatocytes. Nguyen TH, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2469-79
Construction and in vitro functional evaluation of a low-density lipoprotein receptor/transferrin fusion protein as a therapeutic tool for familial hypercholesterolemia [see comments] Parise F, et al. **Hum Gene Ther** 1999 May 1; 10(7):1219-28. Comment in: Hum Gene Ther 1999 May 1;10(7):1043-4.
Detection of protein truncating mutations in exons 1-14 of the APC gene using an in vivo fusion protein assay. Mutations in brief no. 214. Online. Andreutti-Zaugg C, et al. **Hum Mutat** 1999;13(2):170-1
Membrane topology of the staphylococcal tetracycline efflux protein Tet(K) determined by antibacterial resistance gene fusion. Hirata T, et al. **J Biochem (Tokyo)** 1998 Dec 1; 124(6):1206-11
Nonvectorial surface transport, endocytosis via a Di-leucine-based motif, and bidirectional transcytosis of chimera encoding the cytosolic tail of rat FcRn expressed in Madin-Darby canine kidney cells. Stefaner I, et al. **J Biol Chem** 1999 Mar 26;274(13):8998-9005
An erythropoietin fusion protein comprised of identical repeating domains exhibits enhanced biological properties. Sytkowski AJ, et al. **J Biol Chem** 1999 Aug 27; 274(35):24773-8
Expression of foreign antigens on the surface of Escherichia coli by fusion to the outer membrane protein traT. Chang HJ, et al. **J Biomed Sci** 1999 Jan;6(1):64-70
Trafficking of androgen receptor mutants fused to green fluorescent protein: a new investigation of partial androgen insensitivity syndrome. Georget V, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3597-603
Identification of a novel major histocompatibility complex class II-restricted tumor antigen resulting from a chromosomal rearrangement recognized by CD4(+) T cells. Wang RF, et al. **J Exp Med** 1999 May 17; 189(10):1659-68
Sequence requirements for incorporation of human immunodeficiency virus gag-beta-galactosidase fusion proteins into virus-like particles. Wang CT, et al. **J Med Virol** 1999 Oct;59(2):180-8
Aberrant recruitment of the nuclear receptor corepressor-histone deacetylase complex by the acute myeloid leukemia fusion partner ETO. Gelmetti V, et al. **Mol Cell Biol** 1998 Dec;18(12):7185-91
Distinct responses of a recA::luxCDABE Escherichia coli strain to direct and indirect DNA damaging agents. Min J, et al. **Mutat Res** 1999 Jun 25;442(2):61-8
A plant-based cholera toxin B subunit-insulin fusion protein protects against the development of autoimmune diabetes. Arakawa T, et al. **Nat Biotechnol** 1998 Oct;16(10):934-8
Identification, characterization and expression of Toxocara canis nematode polyprotein allergen TBA-1. Yahiro S, et al. **Parasite Immunol** 1998 Aug;20(8):351-7
Use of ubiquitin fusions to augment protein expression in transgenic plants. Hondred D, et al. **Plant Physiol** 1999 Feb;119(2):713-24
Effect of adenovirus-mediated gene transfer with CTLA4-Ig gene in organ transplantation. Hayashi S, et al. **Transplant Proc** 1999 Aug;31(5):1944-5
Transcript mapping and transregulatory behavior of varicella-zoster virus gene 21, a latency-associated gene. Xia D, et al. **Virology** 1999 Jun 5;258(2):304-13

IMMUNOLOGY

Inhibition of HIV type 1 infection with a RANTES-IgG3 fusion protein. Challita-Eid PM, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1617-24
CD8+ lymphocyte antiviral activity in monkeys immunized with SIV recombinant poxvirus vaccines: potential role in vaccine efficacy. Leno M, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):461-70
Vaccination with an ovalbumin/interleukin-4 fusion DNA efficiently induces Th2 cell-mediated immune responses in an ovalbumin-specific manner. Lim YS, et al. **Arch Pharm Res** 1998 Oct;21(5):537-42
Epitope mapping of monoclonal antibodies against 4-aminobenzoate hydroxylase from Agaricus bisporus. Tsuji H, et al. **Biochim Biophys Acta** 1998 Nov 27; 1425(3):628-31
A milk clotting assay for antibody using a fusion protein between protein A and pepsinogen C. Aoki T, et al. **Biol Pharm Bull** 1999 Mar;22(3):317-9
Lack of T-cell-mediated recognition of the fusion region of the pml/RAR-alpha hybrid protein by lymphocytes of acute promyelocytic leukemia patients. Dermime S, et al. **Clin Cancer Res** 1996 Mar;2(3):593-600
Multicenter validation of recombinant, natural and synthetic antigens used in a single multiparameter assay for the detection of specific anti-nuclear autoantibodies in connective tissue disorders. Meheus L, et al. **Clin Exp Rheumatol** 1999 Mar-Apr;17(2):205-14
A novel concept in mucosal adjuvanticity: the CTA1-DD adjuvant is a B cell-targeted fusion protein that incorporates the enzymatically active cholera toxin A1 subunit. Agren L, et al. **Immunol Cell Biol** 1998 Jun; 76(3):280-7 (47 ref.)
Humoral and cellular immune responses in mice immunized with recombinant Mycobacterium bovis Bacillus Calmette-Guérin producing a pertussis toxin-tetanus toxin hybrid protein. Abomoelak B, et al. **Infect Immun** 1999 Oct;67(10):5100-5
Safety and immunogenicity of a Pseudomonas aeruginosa hybrid outer membrane protein F-I vaccine in human volunteers. Mansouri E, et al. **Infect Immun** 1999 Mar; 67(3):1461-70
Protection against Mycobacterium avium by DNA vaccines expressing mycobacterial antigens as fusion proteins with green fluorescent protein. Velaz-Faircloth M, et al. **Infect Immun** 1999 Aug;67(8):4243-50
Targeting of functional antibody-CD59 fusion proteins to a cell surface. Zhang HF, et al. **J Clin Invest** 1999 Jan; 103(1):55-61
Use of a novel hepatitis C virus (HCV) major-epitope chimeric polypeptide for diagnosis of HCV infection. Chien DY, et al. **J Clin Microbiol** 1999 May;37(5):1393-7
Serodiagnosis of Epstein-Barr virus infection by using recombinant viral capsid antigen fragments and autologous gene fusion. Hinderer W, et al. **J Clin Microbiol** 1999 Oct; 37(10):3239-44
Adjuvanticity of the cholera toxin A1-based gene fusion protein, CTA1-DD, is critically dependent on the ADP-ribosyltransferase and Ig-binding activity. Agren LC, et al. **J Immunol** 1999 Feb 15;162(4):2432-40
Epitope-specific antibody and suppression of autoantibody responses against a hybrid self protein. Lohnas GL, et al. **J Immunol** 1998 Dec 15;161(12):6518-25
A single-chain IL-12 IgG3 antibody fusion protein retains antibody specificity and IL-12 bioactivity and demonstrates antitumor activity. Peng LS, et al. **J Immunol** 1999 Jul 1;163(1):250-8
Covalent linkage to beta2-microglobulin enhances the MHC stability and antigenicity of suboptimal CTL epitopes. Uger RA, et al. **J Immunol** 1999 May 15;162(10):6024-8
Antitumor response elicited by a superantigen-transmembrane sequence fusion protein anchored onto tumor cells. Wahlsten JL, et al. **J Immunol** 1998 Dec 15;161(12):6761-7
IL-2 receptor-targeted cytolytic IL-2/Fc fusion protein treatment blocks diabetogenic autoimmunity in nonobese diabetic mice. Zheng XX, et al. **J Immunol** 1999 Oct 1; 163(7):4041-8
A yeast surface display system for the discovery of ligands that trigger cell activation. Cho BK, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):179-88
Recombinant single-chain Fv antibody fragment-alkaline phosphatase conjugate for one-step immunodetection in molecular hybridization. Muller BH, et al. **J Immunol Methods** 1999 Jul 30;227(1-2):177-85
An IgG3-IL-2 fusion protein recognizing a murine B cell lymphoma exhibits effective tumor imaging and antitumor activity. Penichet ML, et al. **J Interferon Cytokine Res** 1998 Aug;18(8):597-607
Immunological properties of recombinant proteins of the transmission blocking vaccine candidate, Pfs48/45, of the human malaria parasite Plasmodium falciparum produced in Escherichia coli. Milek RL, et al. **Parasite Immunol** 1998 Aug;20(8):377-85
A recombinant hybrid outer membrane protein for vaccination against Pseudomonas aeruginosa. Knapp B, et al. **Vaccine** 1999 Mar 26;17(13-14):1663-6
Immunogenicity of recombinant BCG producing the GRA1 antigen from Toxoplasma gondii. Supply P, et al. **Vaccine** 1999 Feb 26;17(7-8):705-14
Recombinant fusion protein and DNA vaccines against foot and mouth disease virus infection in guinea pig and swine. Huang H, et al. **Viral Immunol** 1999;12(1):1-8

ISOLATION & PURIFICATION

Crystallization of ccdB. Dao-Thi MH, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):975-81
Limitations for purification of murine interleukin-18 when expressed as a fusion protein containing the FLAG peptide. Elhofy A, et al. **Biotechniques** 1998 Sep;25(3):426-33
Purification of Ig-fusion proteins from medium containing Ig. Sakurai T, et al. **Biotechniques** 1998 Sep;25(3):382-5
Genetic engineering of protein-peptide fusions for control of protein partitioning in thermoseparating aqueous two-phase systems. Berggren K, et al. **Biotechnol Bioeng** 1999 Jan 20;62(2):135-44
Purification of recombinant proteins based on the interaction between a phenothiazine-derivatized column and a calmodulin fusion tail. Schauer-Vukasinovic V, et al. **Biotechnol Prog** 1999 May-Jun;15(3):513-6
A strategy for the isolation of catalytic activities from repertoires of enzymes displayed on phage. Demartis S, et al. **J Mol Biol** 1999 Feb 19;286(2):617-33
Utilizing the C-terminal cleavage activity of a protein splicing element to purify recombinant proteins in a single chromatographic step. Chong S, et al.

Nucleic Acids Res 1998 Nov 15;26(22):5109–15

The extracellular domain of the human erythropoietin receptor: expression as a fusion protein in Escherichia coli, purification, and biological properties. Ahaded A, et al. **Prep Biochem Biotechnol** 1999 May;29(2):163–76

Protein purification with C-terminal fusion of maltose binding protein. Hennig L, et al. **Protein Expr Purif** 1998 Dec;14(3):367–70

High-level expression of eukaryotic polypeptides from bacterial chromosomes. Olson P, et al. **Protein Expr Purif** 1998 Nov;14(2):160–6

Green fluorescent protein purification by organic extraction. Yakhnin AV, et al. **Protein Expr Purif** 1998 Dec; 14(3):382–6

METABOLISM

Recombinant simian immunodeficiency virus expressing green fluorescent protein identifies infected cells in rhesus monkeys. Alexander L, et al. **AIDS Res Hum Retroviruses** 1999 Jan 1;15(1):11–21

Transgene expression and repression in transgenic rats bearing the phosphoenolpyruvate carboxykinase–simian virus 40 T antigen or the phosphoenolpyruvate carboxykinase–transforming growth factor–alpha constructs. Haas MJ, et al. **Am J Pathol** 1999 Jul; 155(1):183–92

Spontaneous alpha–N–6–phosphogluconoylation of a "His tag" in Escherichia coli: the cause of extra mass of 258 or 178 Da in fusion proteins. Geoghegan KF, et al. **Anal Biochem** 1999 Feb 1;267(1):169–84

Six putative IQ motifs of the recombinant chicken intestinal brush border myosin I are involved in calmodulin binding. Khoroshev MI, et al. **Arch Biochem Biophys** 1999 Jan 1; 361(1):94–100

Reporter expression persists 1 year after adeno–associated virus–mediated gene transfer to the optic nerve. Guy J, et al. **Arch Ophthalmol** 1999 Jul;117(7):929–37

Appropriately spaced nuclear localizing signals are necessary for efficient nuclear import of nonnuclear proteins. Borgeld HJ, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):278–83

Rapid selection of tetracycline–controlled inducible cell lines using a green fluorescent–transactivator fusion protein. Callus BA, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):874–8

Intrinsically fluorescent luteinizing hormone receptor demonstrates hormone–driven aggregation. Horvat RD, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):382–5

Electrostatic interaction between cytochrome P450 and NADPH–P450 reductase: comparison of mixed and fused systems consisting of rat cytochrome P450 1A1 and yeast NADPH–P450 reductase. Kondo S, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):273–8

Atypical processing of amyloid precursor fusion protein by proteolytic activity in Pichia pastoris. Markaryan A, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):263–8

Stable expression of a recombinant sodium–dependent, pyrimidine–selective nucleoside transporter (CNT1) in a transport–deficient mouse leukemia cell line. Crawford CR, et al. **Biochem Cell Biol** 1998;76(5):843–51

Simultaneous visualization of the translocation of protein kinase Calpha–green fluorescent protein hybrids and intracellular calcium concentrations. Almholt K, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):211–8

Stable expression of protective protein/cathepsin A–green fluorescent protein fusion genes in a fibroblastic cell line from a galactosialidosis patient. Model system for revealing the intracellular transport of normal and mutated lysosomal enzymes. Naganawa Y, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):467–74

Cyclophilin–D binding proteins. Crompton M, et al. **Biochem Soc Trans** 1998 Nov;26(4):S330

Circular permutation of granulocyte colony–stimulating factor. Feng Y, et al. **Biochemistry** 1999 Apr 6; 38(14):4553–63

The functional role of positively charged amino acid side chains in alpha–bungarotoxin revealed by site–directed mutagenesis of a His–tagged recombinant alpha–bungarotoxin. Rosenthal JA, et al. **Biochemistry** 1999 Jun 15;38(24):7847–55

N–Linked glycosylation is essential for the functional expression of the recombinant P2X2 receptor. Torres GE, et al. **Biochemistry** 1998 Oct 20;37(42):14845–51

A pre–steady–state kinetic analysis of substrate binding to human recombinant deoxycytidine kinase: a model for nucleoside kinase action. Turk B, et al. **Biochemistry** 1999 Jun 29;38(26):8555–61

Hydrophobilization of esterase by genetic combination with polyproline or polytyrosine at the carboxyl terminal [published erratum appears in Biochim Biophys Acta 1999 Feb 10;1430(1):155] Kwon OH, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):239–46

Tolerance of Escherichia coli beta–galactosidase C–terminus to different–sized fusions. Corchero JL, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):644–9

Improved immobilization of fusion proteins via cellulose–binding domains. Linder M, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):642–7

Expression of reciprocal fusion transcripts of the HMGIC and LPP genes in parosteal lipoma. Petit MM, et al. **Cancer Genet Cytogenet** 1998 Oct 1;106(1):18–23

Improving the efficacy of antibody–interleukin 2 fusion proteins by reducing their interaction with Fc receptors. Gillies SD, et al. **Cancer Res** 1999 May 1;59(9):2159–66

The nuclear distribution of Polycomb during Drosophila melanogaster development shown with a GFP fusion protein. Dietzel S, et al. **Chromosoma** 1999 May; 108(2):83–94

Animal pharmacokinetics of the tumor necrosis factor receptor–immunoglobulin fusion protein lenercept and their extrapolation to humans. Richter WF, et al. **Drug Metab Dispos** 1999 Jan;27(1):21–5

Interferon gamma regulates a unique set of proteins in fresh human bladder transitional cell carcinomas. Aboagye–Mathiesen G, et al. **Electrophoresis** 1999 Feb; 20(2):344–8

Determinants of the fidelity of processing glucoamylase–lysozyme fusions by Aspergillus niger. Spencer JA, et al. **Eur J Biochem** 1998 Nov 15; 258(1):107–12

Design of generic biosensors based on green fluorescent proteins with allosteric sites by directed evolution. Doi N, et al. **FEBS Lett** 1999 Jun 25;453(3):305–7

Recombinant human uncoupling protein–3 increases thermogenesis in yeast cells. Hinz W, et al. **FEBS Lett** 1999 Apr 1;448(1):57–61

Dynamic re–distribution of protein kinase D (PKD) as revealed by a GFP–PKD fusion protein: dissociation from PKD activation. Matthews S, et al. **FEBS Lett** 1999 Sep 3;457(3):515–21

Differential sensitivities of primary and secondary T cell responses to antigen structure. Nayak BP. **FEBS Lett** 1999 Jan 25;443(2):159–62

A fusion protein of interleukin–11 and soluble interleukin–11 receptor acts as a superagonist on cells expressing gp130 [published erratum appears in FEBS Lett 1999 Jul 2;454(1–2):172] Pflanz S, et al. **FEBS Lett** 1999 Apr 30; 450(1–2):117–22

Loss of activation of Gs but not Gi following expression of an alpha2A–adrenoceptor–Gi1alpha fusion protein. Sautel M, et al. **FEBS Lett** 1998 Sep 25;436(1):46–50

Intercellular trafficking of VP22–GFP fusion proteins. Elliott G, et al. **Gene Ther** 1999 Jan;6(1):149–51

Intercellular trafficking of VP22–GFP fusion proteins is not observed in cultured mammalian cells. Fang B, et al. **Gene Ther** 1998 Oct;5(10):1420–4

Incorporation of 15N from ammonium into the N–linked oligosaccharides of an immunoadhesin glycoprotein expressed in Chinese hamster ovary cells. Gawlitzek M, et al. **Glycobiology** 1999 Feb;9(2):125–31

Enhanced function conferred on low–abundance chemoreceptor Trg by a methyltransferase–docking site. Feng X, et al. **J Bacteriol** 1999 May;181(10):3164–71

Detection of blotted antigen using a fusion protein between protein A and pepsinogen C. Aoki T, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):572–7

Visualization of agonist–induced association and trafficking of green fluorescent protein–tagged forms of both beta–arrestin–1 and the thyrotropin–releasing hormone receptor–1. Groarke DA, et al. **J Biol Chem** 1999 Aug 13;274(33):23263–9

Mechanisms for GroEL/GroES–mediated folding of a large 86–kDa fusion polypeptide in vitro. Huang YS, et al. **J Biol Chem** 1999 Apr 9;274(15):10405–12

A multisubunit complex of outer and inner mitochondrial membrane protein translocases stabilized in vivo by translocation intermediates. Schülke N, et al. **J Biol Chem** 1999 Aug 6;274(32):22847–54

A sphingolipid desaturase from higher plants. Identification of a new cytochrome b5 fusion protein. Sperling P, et al. **J Biol Chem** 1998 Oct 30;273(44):28590–6

Expression of foreign antigens on the surface of Escherichia coli by fusion to the outer membrane protein traT. Chang HJ, et al. **J Biomed Sci** 1999 Jan;6(1):64–70

Disruption of dynamic cell surface architecture of NIH3T3 fibroblasts by the N–terminal domains of moesin and ezrin: in vivo imaging with GFP fusion proteins. Amieva MR, et al. **J Cell Sci** 1999 Jan;112 (Pt 1):111–25

Trafficking of androgen receptor mutants fused to green fluorescent protein: a new investigation of partial androgen insensitivity syndrome. Georget V, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3597–603

Adjuvanticity of the cholera toxin A1–based gene fusion protein, CTA1–DD, is critically dependent on the ADP–ribosyltransferase and Ig–binding activity. Agren LC, et al. **J Immunol** 1999 Feb 15;162(4):2432–40

Divergence of binding, signaling, and biological responses to recombinant human hybrid IFN. Hu R, et al. **J Immunol** 1999 Jul 15;163(2):854–60

Activity of foreign proteins targeted within the bacteriophage T4 head and prohead: implications for packaged DNA structure. Mullaney JM, et al. **J Mol Biol** 1998 Nov 13; 283(5):913–29

Dynamic interaction between soluble tubulin and C–terminal domains of N–methyl–D–aspartate receptor subunits. van Rossum D, et al. **J Neurochem** 1999 Mar;72(3):962–73

The assembly and migration of SeqA–Gfp fusion in living cells of Escherichia coli. Onogi T, et al. **Mol Microbiol** 1999 Mar;31(6):1775–82

Nuclear translocation of GAPDH–GFP fusion protein during apoptosis. Shashidharan P, et al. **Neuroreport** 1999 Apr 6;10(5):1149–53

Accumulation of a fusion protein containing 2S albumin induces novel vesicles in vegetative cells of Arabidopsis. Hayashi M, et al. **Plant Cell Physiol** 1999 Mar;40(3):263–72

Characterization of a functional hyaluronan–binding domain from the human CD44 molecule expressed in Escherichia coli. Banerji S, et al. **Protein Expr Purif** 1998 Dec; 14(3):371–81

In vivo protein transduction: delivery of a biologically active protein into the mouse [see comments] Schwarze SR, et al. **Science** 1999 Sep 3;285(5433):1569–72. Comment in: Science 1999 Sep 3;285(5433):1466–7.

Introducing proteins into the body's cells [news; comment] Strauss E. **Science** 1999 Sep 3;285(5433):1466–7. Comment on: Science 1999 Sep 3;285(5433):1569–72.

Pseudorabies virus early protein 0 trans–activates the TATA–associated promoter by stimulating the transcription initiation. Ho TY, et al. **Virus Res** 1999 May; 61(1):77–86

PHARMACOKINETICS

Localization of an organic anion transporter–GFP fusion construct (rROAT1–GFP) in intact proximal tubules. Sweet DH, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F864–73

Pharmacokinetics and stability of the ch14.18–interleukin–2 fusion protein in mice. Kendra K, et al. **Cancer Immunol Immunother** 1999 Aug;48(5):219–29

Pharmacokinetic and immunogenic behavior of three recombinant human GM–CSF–EPO hybrid proteins in cynomolgus monkeys. Coscarella A, et al. **Mol Biotechnol** 1998 Oct;10(2):115–22

PHARMACOLOGY

Antiproliferative and GH–inhibitory activity of chimeric peptides consisting of GHRP–6 and somatostatin. Dasgupta P, et al. **Biochem Biophys Res Commun** 1999 Jun 7; 259(2):379–84

Pretreatment with a monoclonal antibody/interleukin–2 fusion protein directed against DNA enhances the delivery of therapeutic molecules to solid tumors. Hornick JL, et al. **Clin Cancer Res** 1999 Jan;5(1):51–60

Protection of corneal allografts by CTLA4–Ig. Gebhardt BM, et al. **Cornea** 1999 May;18(3):314–20

A minigene of neural agrin encoding the laminin–binding and acetylcholine receptor–aggregating domains is sufficient to induce postsynaptic differentiation in muscle fibres. Meier T, et al. **Eur J Neurosci** 1998 Oct; 10(10):3141–52

Enhanced antitumour effect of liposomal daunorubicin using antibody–phospholipase C conjugates or fusion protein. Carter G, et al. **Int J Oncol** 1998 Oct;13(4):819–25

Production and characterization of fusion proteins containing transferrin and nerve growth factor. Park E, et al. **J Drug Target** 1998;6(1):53–64

The IL–6/sIL–6R fusion protein hyper–IL–6 promotes neurite outgrowth and neuron survival in cultured enteric neurons. Schäfer KH, et al. **J Interferon Cytokine Res** 1999 May;19(5):527–32

Inhibition of tumor necrosis factor alpha by an adenovirus–encoded soluble fusion protein extends transgene expression in the liver and lung. Peng Y, et al. **J Virol** 1999 Jun;73(6):5098–109

Cloning and cytotoxicity of fusion proteins of EGF and angiogenin. Yoon JM, et al. **Life Sci** 1999;64(16):1435–45

Recombinant tumor necrosis factor receptor p75 fusion protein (TNFR:Fc) alters endotoxin–induced activation of the kinin, fibrinolytic, and coagulation systems in normal humans. DeLa Cadena RA, et al. **Thromb Haemost** 1998 Jul;80(1):114–8

Development of a recombinant growth factor and fusion protein: lessons from GM–CSF. Schuh JC, et al. **Toxicol Pathol** 1999 Jan–Feb;27(1):72–7 (55 ref.)

[Antidiphtheria activity of epidermal growth factor precursor fragment] Sergienko VI, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):92–4 **(Rus)**

PHYSIOLOGY

Evaluation of the roles of the conserved residues of aldehyde dehydrogenase. Hurley TD, et al. **Adv Exp Med Biol** 1999; 463:45–52

SECRETION

Enhanced secretion of hydrophobic peptide fused lysozyme by the introduction of N–glycosylation signal and the disruption of calnexin gene in Saccharomyces cerevisiae. Arima H, et al. **FEBS Lett** 1998 Nov 27;440(1–2):89–92

Prepro–leaders lacking N–linked glycosylation for secretory expression in the yeast Saccharomyces cerevisiae. Kjeldsen T, et al. **Protein Expr Purif** 1998 Dec;14(3):309–16

SPEX, a system for the expression of recombinant proteins from gram–positive bacterial vectors. Myscofski DM, et al. **Protein Expr Purif** 1998 Dec;14(3):409–17

THERAPEUTIC USE

Targeting cytokines to tumors to induce active antitumor immune responses by recombinant fusion proteins. Xiang J. **Hum Antibodies** 1999;9(1):23–36 (125 ref.)

Antigen–specific cytotoxicity and cell number of adoptively transferred T cells are efficiently maintained in vivo by re–stimulation with an antigen/interleukin–2 fusion protein. Kang BY, et al. **Int J Cancer** 1999 Aug 12;82(4):569–73

Diphtheria toxin fused to granulocyte–macrophage

colony-stimulating factor and Ara-C exert synergistic toxicity against human AML HL-60 cells. Kim CN, et al. **Leuk Res** 1999 Jun;23(6):527-38

Actions of intrathecal diphtheria toxin-substance P fusion protein on models of persistent pain. Benoliel R, et al. **Pain** 1999 Feb;79(2-3):243-53

Recombinant human tumor necrosis factor receptor Fc fusion protein therapy in kidney transplant recipients undergoing OKT3 induction therapy. Novak EJ, et al. **Transplantation** 1998 Dec 27;66(12):1732-5

Novel diagnostic and therapeutic strategies with genetically engineered human antibodies. Ouwehand WH, et al. **Vox Sang** 1998;74 Suppl 2:223-32 (53 ref.)

[Therapy of refractory chronic polyarthritis with tumor necrosis factor alpha receptor fusion protein (TNFR55-IgG1)--long term follow-up of 80 personal cases] Sander O, et al. **Z Rheumatol** 1998 Oct;57(5):307-11 (Eng. Abstr.) **(Ger)**

[Therapy of refractory chronic polyarthritis with tumor necrosis factor alpha receptor fusion proteins (TNFR55-IgG1)--results of double-blind placebo-controlled studies over 3 months] van de Putte LB, et al. **Z Rheumatol** 1998 Oct;57(5):302-6 (Eng. Abstr.) **(Ger)**

TOXICITY

Induction of apoptosis in multidrug-resistant and radiation-resistant acute myeloid leukemia cells by a recombinant fusion toxin directed against the human granulocyte macrophage colony-stimulating factor receptor. Perentesis JP, et al. **Clin Cancer Res** 1997 Mar; 3(3):347-55

A toxic fusion protein accumulating between the mitochondrial membranes inhibits protein assembly in vivo. Beilharz T, et al. **J Biol Chem** 1998 Dec 25; 273(52):35268-72

Generation of neuronal intranuclear inclusions by polyglutamine-GFP: analysis of inclusion clearance and toxicity as a function of polyglutamine length. Moulder KL, et al. **J Neurosci** 1999 Jan 15;19(2):705-15

ULTRASTRUCTURE

Rapid characterization of green fluorescent protein fusion proteins on the molecular and cellular level by fluorescence correlation microscopy. Brock R, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10123-8

RECOMBINANT G-CSF see **GRANULOCYTE COLONY STIMULATING FACTOR, RECOMBINANT**

RECOMBINANT GM-CSF see **GRANULOCYTE MACROPHAGE COLONY-STIMULATING FACTORS, RECOMBINANT**

RECOMBINANT GRANULOCYTE COLONY STIMULATING FACTOR see **GRANULOCYTE COLONY STIMULATING FACTOR, RECOMBINANT**

RECOMBINANT GRANULOCYTE-MACROPHAGE COLONY-STIMULATING FACTORS see **GRANULOCYTE MACROPHAGE COLONY-STIMULATING FACTORS, RECOMBINANT**

RECOMBINANT INTERFERON ALFA-2A see **INTERFERON ALFA-2A**

RECOMBINANT INTERFERON ALFA-2B see **INTERFERON ALFA-2B**

RECOMBINANT INTERFERON ALFA-2C see **INTERFERON ALFA, RECOMBINANT**

RECOMBINANT INTERFERON-GAMMA see **INTERFERON-GAMMA, RECOMBINANT**

RECOMBINANT-METHIONYL HUMAN GRANULOCYTE COLONY-STIMULATING F see **FILGRASTIM**

RECOMBINANT PITUITARY GROWTH HORMONES see **SOMATOTROPINS, RECOMBINANT**

RECOMBINANT PROTEINS

Recombinant allergens: the future of the diagnosis and treatment of atopic allergy. Kraft D, et al. **Allergy** 1998; 53(45 Suppl):62-6

Emerging applications of recombinant human granulocyte-macrophage colony-stimulating factor. Armitage JO. **Blood** 1998 Dec 15;92(12):4491-508 (187 ref.)

Grass pollen allergens: new developments [editorial; comment] Wissenbach M, et al. **Clin Exp Allergy** 1998 Jul; 28(7):784-7. Comment on: Clin Exp Allergy 1998 Jul;28(7):799-807.

Negotiating the maze of biotech "tool patents". Mascarenhas D. **Nat Biotechnol** 1998 Dec;16(13):1371-2

ADMINISTRATION & DOSAGE

A randomized trial of recombinant human interleukin-11 following autologous bone marrow transplantation with peripheral blood progenitor cell support in patients with breast cancer. Vredenburgh JJ, et al. **Biol Blood Marrow Transplant** 1998;4(3):134-41

Enhancement of in vitro effectiveness for hydrodynamic thrombectomy devices. Simultaneous high-pressure rt-PA application. Müller-Hülsbeck S, et al. **Invest Radiol** 1999 Aug;34(8):536-42

Differential antitumor effects of administration of recombinant IL-18 or recombinant IL-12 are mediated primarily by Fas-Fas ligand- and perforin-induced tumor apoptosis, respectively. Hashimoto W, et al. **J Immunol** 1999 Jul 15;163(2):583-9

A randomized prospective study of the conversion from cyclosporine to microemulsion form cyclosporine in stable renal transplant patients. Jirasiritham S, et al. **Transplant Proc** 1998 Nov;30(7):3524-5

The in vivo delivery of heterologous proteins by microencapsulated recombinant cells. Chang PL, et al. **Trends Biotechnol** 1999 Feb;17(2):78-83 (41 ref.)

Intranasal immunization with recombinant gD2 reduces disease severity and mortality following genital challenge with herpes simplex virus type 2 in guinea pigs. O'Hagan D, et al. **Vaccine** 1999 May 4;17(18):2229-36

ADVERSE EFFECTS

Genetically modified food: a danger or a benefit for atopics? Ebner C. **Curr Probl Dermatol** 1999;28:81-7 (11 ref.)

The safety of treatment with recombinant human erythropoietin in clinical use: a review of controlled studies. Sowade B, et al. **Int J Mol Med** 1998 Feb;1(2):303-14 (96 ref.)

ANALYSIS

An optical biosensor for monitoring recombinant proteins in process media. Disley DM, et al. **Biosens Bioelectron** 1999 May 31;14(5):481-93

Bioassays and biological stability. Wright JF. **Dev Biol Stand** 1999;97:73-80

Electrophoretic methods for process monitoring and the quality assessment of recombinant glycoproteins. Taverna M, et al. **Electrophoresis** 1998 Nov;19(15):2572-94 (186 ref.)

Evaluation of recombinant factor VIII (Kogenate) stability for continuous infusion using a minipump infusion device. Hurst D, et al. **Haemophilia** 1998 Nov;4(6):785-9

ANTAGONISTS & INHIBITORS

Engineered recombinant factor VII Q217 variants with altered inhibitor specificities. Chang YJ, et al. **Biochemistry** 1999 Aug 24;38(34):10940-8

Reduction of human recombinant type II phospholipase A2 and prostaglandin F2 alpha release by microtubule depolymerizing agents. Munns MJ, et al. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):230-5

Improved reliability of the rapid microtiter plate assay using recombinant enzyme in predicting CYP2D6 inhibition in human liver microsomes. Favreau LV, et al. **Drug Metab Dispos** 1999 Apr;27(4):436-9

BIOSYNTHESIS

Expression, purification and crystallization of recombinant human TRAIL. Cha SS, et al. **Acta Crystallogr D Biol Crystallogr** 1999 May;55(5):1101-4

Overproduction, purification, crystallization and preliminary x-ray diffraction studies of the human spliceosomal protein U5-15kD. Reuter K, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):888-90

Lactogenic immunity in transgenic mice producing recombinant antibodies neutralizing coronavirus. Castilla J, et al. **Adv Exp Med Biol** 1998;440:675-86

Expression, purification and DNA-cleavage activity of recombinant 68-kDa human topoisomerase I-target for antitumor drugs. Bronstein IB, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):317-27

A sandwiched-culture technique for evaluation of heterologous protein production in a filamentous fungus. Asgeirsdóttir SA, et al. **Appl Environ Microbiol** 1999 May; 65(5):2250-2

Protein synthesis inhibitors and ethanol selectively enhance heterologous expression of P450s and related proteins in Escherichia coli. Kusano K, et al. **Arch Biochem Biophys** 1999 Jul 1;367(1):129-36

Physicochemical and functional comparison of Xenopus laevis nucleoplasmin obtained from oocytes and from overexpression in bacteria. Saperas N, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):135-41

Overproduction of the Bradyrhizobium japonicum c-type cytochrome subunits of the cbb3 oxidase in Escherichia coli. Arslan E, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):744-7

Expression of a recombinant Fab antibody fragment against cruzipain, the major cysteine proteinase of Trypanosoma cruzi. Kaplan D, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):53-8

Extractive cultivation of recombinant Escherichia coli using aqueous two phase systems for production and separation of extracellular xylanase. Kulkarni N, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):274-8

Structural and functional properties of human hemoglobins reassembled after synthesis in Escherichia coli. Hui HL, et al. **Biochemistry** 1999 Jan 19;38(3):1040-9

Adaptation of BTI-TN5B1-4 (high five) insect cells for large-scale production in a stirred bioreactor. Savary AC, et al. **Biotechniques** 1999 Sep;27(3):448-50

Recombinant polyketide synthesis in Streptomyces: engineering of improved host strains. Ziermann R, et al. **Biotechniques** 1999 Jan;26(1):106-10

Optimising fed-batch production of recombinant proteins using the baculovirus expression vector system. Chan LC, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):178-88

Plasmid maintenance in Escherichia coli recombinant cultures is dramatically, steadily, and specifically influenced by features of the encoded proteins. Corchero JL, et al. **Biotechnol Bioeng** 1998 Jun 20;58(6):625-32

Serum-free production of recombinant proteins and adenoviral vectors by 293SF-3F6 cells. Côté J, et al. **Biotechnol Bioeng** 1998 Sep 5;59(5):567-75

Optimized release of recombinant proteins by ultrasonication of E. coli cells. Feliu JX, et al. **Biotechnol Bioeng** 1998 Jun 5;58(5):536-40

Quantitating secretion rates of individual cells: design of secretion assays. Frykman S, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):214-26

Processing of transgenic corn seed and its effect on the recovery of recombinant beta-glucuronidase. Kusnadi AR, et al. **Biotechnol Bioeng** 1998 Oct 5;60(1):44-52

Enhanced TGFbeta1 maturation in high five cells coinfected with recombinant baculovirus encoding the convertase furin/pace: improved technology for the production of recombinant proproteins in insect cells. Laprise MH, et al. **Biotechnol Bioeng** 1998 Apr 5;58(1):85-91

High-density perfusion culture of insect cells with a biosep ultrasonic filter. Zhang J, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):351-9

Effects of long-term passaging of BTI-Tn5B1-4 insect cells on growth and recombinant protein production. Donaldson MS, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):543-7

Production of alpha-amylase in fed-batch cultures of vgb+ and vgb- recombinant Escherichia coli: some observations. Enayati N, et al. **Biotechnol Prog** 1999 Jul-Aug;15(4):640-5

Improvement of heterologous protein productivity by controlling postinduction specific growth rate in recombinant Escherichia coli under control of the PL promoter. Lim HK, et al. **Biotechnol Prog** 1998 Jul-Aug; 14(4):548-53

Production and characterization of an anti-(MUC1 mucin) recombinant diabody. Denton G, et al. **Cancer Immunol Immunother** 1999 Apr;48(1):29-38

Production of new/modified proteins in transgenic plants. Herbers K, et al. **Curr Opin Biotechnol** 1999 Apr; 10(2):163-8 (50 ref.)

Plant-based production of xenogenic proteins. Hood EE, et al. **Curr Opin Biotechnol** 1999 Aug;10(4):382-6 (25 ref.)

Recent advances in producing and selecting functional proteins by using cell-free translation. Jermutus L, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):534-48 (120 ref.)

Advances in refolding of proteins produced in E. coli. Lilie H, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):497-501 (39 ref.)

Large-scale transient expression in mammalian cells for recombinant protein production. Wurm F, et al. **Curr Opin Biotechnol** 1999 Apr;10(2):156-9 (39 ref.)

Transgenic plants for therapeutic proteins: linking upstream and downstream strategies. Cramer CL, et al. **Curr Top Microbiol Immunol** 1999;240:95-118 (80 ref.)

Plant viral vectors based on tobamoviruses. Yusibov V, et al. **Curr Top Microbiol Immunol** 1999;240:81-94 (60 ref.)

Rat interleukin 6: expression in recombinant Escherichia coli, purification and development of a novel ELISA. Rees GS, et al. **Cytokine** 1999 Feb;11(2):95-103

In situ subcellular localization of epitope-tagged human and rabbit carboxylesterases. Potter PM, et al. **Cytometry** 1998 Jul 1;32(3):223-32

Off-line quantitative monitoring of plasmid copy number in bacterial fermentation by capillary electrophoresis. Breuer S, et al. **Electrophoresis** 1998 Oct;19(14):2474-8

High level accumulation of single-chain variable fragments in the cytosol of transgenic Petunia hybrida. De Jaeger G, et al. **Eur J Biochem** 1999 Jan;259(1-2):426-34

A recombinant ribosome-inactivating protein from the plant Phytolacca dioica L. produced from a synthetic gene. Del Vecchio Blanco F, et al. **FEBS Lett** 1998 Oct 23; 437(3):241-5

Cell-free production and stable-isotope labeling of milligram quantities of proteins. Kigawa T, et al. **FEBS Lett** 1999 Jan 8;442(1):15-9

N-acetylcysteine increases the biosynthesis of recombinant EPO in apoptotic Chinese hamster ovary cells. Chang KH, et al. **Free Radic Res** 1999 Feb;30(2):85-91

Numerical techniques and mathematical modelling for C1857-controlled gene expression and cell growth in recombinant E. coli. Cubarsi R, et al. **IMA J Math Appl Med Biol** 1998 Sep;15(3):257-78

Expression of biologically active recombinant porcine GM-CSF by baculovirus gene expression system. Inumaru S, et al. **Immunol Cell Biol** 1998 Jun;76(3):195-201

Recombinant expression and localization of Schistosoma mansoni cathepsin L1 support its role in the degradation of host hemoglobin. Brady CP, et al. **Infect Immun** 1999 Jan;67(1):368-74

Recombinant Staphylococcus strains as live vectors for the induction of neutralizing anti-diphtheria toxin antisera. Fromen-Romano C, et al. **Infect Immun** 1999 Oct;

67(10):5007–11
Characterization of recombinant human type IX collagen. Association of alpha chains into homotrimeric and heterotrimeric molecules. Pihlajamaa T, et al. **J Biol Chem** 1999 Aug 6;274(32):22464–8
Enhancing recombinant protein yields in Escherichia coli using the T7 system under the control of heat inducible lambda PL promoter. Gupta JC, et al. **J Biotechnol** 1999 Feb 19;68(2–3):125–34
Construction of an efficient Bacillus subtilis system for extracellular production of heterologous proteins. Lam KH, et al. **J Biotechnol** 1998 Aug 27;63(3):167–77
Production of recombinant subunit vaccines: protein immunogens, live delivery systems and nucleic acid vaccines. Liljeqvist S, et al. **J Biotechnol** 1999 Jul 30; 73(1):1–33 (365 ref.)
Rapid analysis of the expression of heterologous proteins in Escherichia coli using pyrolysis mass spectrometry and Fourier transform infrared spectroscopy with chemometrics: application to alpha 2–interferon production. McGovern AC, et al. **J Biotechnol** 1999 Jul 2;72(3):157–67
Changes during subclone development and ageing of human antibody–producing recombinant CHO cells. Strutzenberger K, et al. **J Biotechnol** 1999 Apr 15; 69(2–3):215–26
Modeling and optimization of alpha–amylase production in a recombinant yeast fed–batch culture taking account of the cell cycle population distribution. Uchiyama K, et al. **J Biotechnol** 1999 May 28;71(1–3):133–41
Vaccinia virus strains Lister, USSR and Evans express soluble and cell–surface tumour necrosis factor receptors. Alcamí A, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):949–59
Generation of recombinant fragments of CD11b expressing the functional beta–glucan–binding lectin site of CR3 (CD11b/CD18). Xia Y, et al. **J Immunol** 1999 Jun 15; 162(12):7285–93
Characterization of C–terminal histidine–tagged human recombinant lecithin:cholesterol acyltransferase. Chisholm JW, et al. **J Lipid Res** 1999 Aug;40(8):1512–9
Retrovirus–mediated expression of the GalR1 galanin receptor: implication for efficient stable expression of functional G protein–coupled receptors. Wang S, et al. **J Recept Signal Transduct Res** 1998 Jul–Nov; 18(4–6):311–20
Interferons enhance HLA–G mRNA and protein in transfected mouse fibroblasts. Chu W, et al. **J Reprod Immunol** 1999 Jan;42(1):1–15
Use of a retroviral vector for expression of a foreign gene. Miller BW, et al. **Methods Mol Biol** 1999;120:1–9
Physiological consequences of expression of the Na+/H+ antiporter sod2 in Escherichia coli. Dibrov P, et al. **Mol Cell Biochem** 1998 Jun;183(1–2):125–32
The arcelin–5 gene of Phaseolus vulgaris directs high seed–specific expression in transgenic Phaseolus acutifolius and Arabidopsis plants. Goossens A, et al. **Plant Physiol** 1999 Aug;120(4):1095–104
Transient expression of a tumor–specific single–chain fragment and a chimeric antibody in tobacco leaves. Vaquero C, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11128–33
Application of fed–batch fermentation to the preparation of isotopically labeled or selenomethionyl–labeled proteins. Studts JM, et al. **Protein Expr Purif** 1999 Jun;16(1):109–19
The next generation of antibodies: production of recombinant antibodies or fragments derived thereof. de Geus B. **Res Immunol** 1998 Jul–Aug;149(6):587–9 (5 ref.)
Production of antibodies in transgenic plants. Larrick JW, et al. **Res Immunol** 1998 Jul–Aug;149(6):603–8 (40 ref.)
In vitro production of recombinant antibody fragments in Pichia pastoris. Pennell CA, et al. **Res Immunol** 1998 Jul–Aug;149(6):599–603
Production of recombinant antibodies in the milk of transgenic animals. Young MW, et al. **Res Immunol** 1998 Jul–Aug;149(6):609–10 (4 ref.)
New ways to glean medicines from plants [news] Gura T. **Science** 1999 Aug 27;285(5432):1347, 1349
Toting up the early harvest of transgenic plants [news] Moffat AS. **Science** 1998 Dec 18;282(5397):2176–8
Development of a recombinant growth factor and fusion protein: lessons from GM–CSF. Schuh JC, et al. **Toxicol Pathol** 1999 Jan–Feb;27(1):72–7 (55 ref.)
Biopharmaceutical production in transgenic livestock. Rudolph NS. **Trends Biotechnol** 1999 Sep;17(9):367–74 (79 ref.)
The biotechnological potential and design of novel carotenoids by gene combination in Escherichia coli. Sandmann G, et al. **Trends Biotechnol** 1999 Jun;17(6):233–7 (42 ref.)
High–yield secretion of recombinant gelatins by Pichia pastoris. Werten MW, et al. **Yeast** 1999 Aug;15(11):1087–96
[Expression of HBsAg by using various eukaryotic expression vectors] Gu B, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Jun;7(2):98–100 (Eng. Abstr.) **(Chi)**
[Expression of chimeric single–chain antibody with specificity for HBsAg in E. coli] Pan H, et al. **I Chuan Hsueh Pao** 1999;26(1):87–91 (Eng. Abstr.) **(Chi)**
[Gene cloning and expression of mouse type I soluble interleukin 1 receptor in insect cells] Zhang ZP, et al. **I Chuan Hsueh Pao** 1999;26(1):8–14 (Eng. Abstr.) **(Chi)**
[Thermostable alkaline phosphatase from Thermus sp. FD3041: cloning of the gene and expression in Escherichia coli] Yuan YZ, et al. **I Chuan Hsueh Pao** 1998;25(4):375–80 (Eng. Abstr.) **(Jpn)**

BLOOD

Whole blood clot lysis in newborns and adults after adding different concentrations of recombinant tissue plasminogen activator (Rt–PA). Trusen B, et al. **Semin Thromb Hemost** 1998;24(6):599–604

CEREBROSPINAL FLUID

Renal, central nervous system and pancreatic overexpression of recombinant soluble Crry in transgenic mice. A novel means of protection from complement–mediated injury. Alexander JJ, et al. **Immunopharmacology** 1999 May; 42(1–3):245–54

CHEMICAL SYNTHESIS

Nonaggregating mutant of recombinant human hexokinase I exhibits wild–type kinetics and rod–like conformations in solution. Aleshin AE, et al. **Biochemistry** 1999 Jun 29; 38(26):8359–66
The effects of an engineered cation site on the structure, activity, and EPR properties of cytochrome c peroxidase. Bonagura CA, et al. **Biochemistry** 1999 Apr 27; 38(17):5538–45
Preparation of ISCOMs with urea solubilised recombinant FMDV protein [letter] Bayry J, et al. **Vaccine** 1999 May 14;17(19):2333–4

CHEMISTRY

Expression, purification and crystallization of recombinant human TRAIL. Cha SS, et al. **Acta Crystallogr D Biol Crystallogr** 1999 May;55(5):1101–4
Crystallization of recombinant Leishmania major pteridine reductase 1 (PTR1). Gourley DG, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Sep;55 (Pt 9):1608–10
Crystallization and preliminary X–ray diffraction data of the complex of recombinant tick anticoagulant peptide (rTAP) and bovine factor Xa. Wei A, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):862–4
Covalent immobilization of recombinant human alphavbeta3 integrin on a solid support with retention of functionality. Greenberg Z, et al. **Anal Biochem** 1999 Jan 1;266(1):153–64
Recombinant rat fibroblast growth factor–16: structure and biological activity. Danilenko DM, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):34–46
Unique properties of purified, Escherichia coli–expressed constitutive cytochrome P4504A5. Hosny G, et al. **Arch Biochem Biophys** 1999 Jun 15;366(2):199–206
Identification of Asp95 as the site of succinimide formation in recombinant human glial cell line–derived neurotrophic factor. Hui JO, et al. **Arch Biochem Biophys** 1998 Oct 15; 358(2):377–84
Physicochemical and functional comparison of Xenopus laevis nucleoplasmin obtained from oocytes and from overexpression in bacteria. Saperas N, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):135–41
Characterization of free alpha– and beta–chains of recombinant macrophage–stimulating protein. Yoshikawa W, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):356–60
Synthesis of the quinoline–linked triazolopyrimidine analogues and their interactions with the recombinant tobacco acetolactate synthase. Namgoong SK, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):797–801
Identification and characterization of a recombinant metallothionein protein from a marine alga, Fucus vesiculosus. Morris CA, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):553–60
X–ray crystallography and mass spectroscopy reveal that the N–lobe of human transferrin expressed in Pichia pastoris is folded correctly but is glycosylated on serine–32. Bewley MC, et al. **Biochemistry** 1999 Feb 23;38(8):2535–41
Familial prion disease mutation alters the secondary structure of recombinant mouse prion protein: implications for the mechanism of prion formation. Cappai R, et al. **Biochemistry** 1999 Mar 16;38(11):3280–4
Guanidine–induced denaturation of beta–glycosidase from Sulfolobus solfataricus expressed in Escherichia coli. Catanzano F, et al. **Biochemistry** 1998 Oct 13; 37(41):14484–90
Regulatory properties of recombinant tropomyosins containing 5–hydroxytryptophan: Ca2+–binding to troponin results in a conformational change in a region of tropomyosin outside the troponin binding site. Farah CS, et al. **Biochemistry** 1999 Aug 10;38(32):10543–51
Raman and CD spectroscopy of recombinant 68–kDa DNA human topoisomerase I and its complex with suicide DNA–substrate. Fleury F, et al. **Biochemistry** 1998 Oct 13;37(41):14630–42
Structural and functional properties of human hemoglobins reassembled after synthesis in Escherichia coli. Hui HL, et al. **Biochemistry** 1999 Jan 19;38(3):1040–9
Redox reactivity of animal apoferritins and apoheteropolymers assembled from recombinant heavy and light human chain ferritins. Johnson JL, et al. **Biochemistry** 1999 Mar 30;38(13):4089–96
A biochemical and biophysical characterization of recombinant mutants of fetal hemoglobin and their interaction with sickle cell hemoglobin. Larson SC, et al. **Biochemistry** 1999 Jul 20;38(29):9549–55
The tyrosyl free radical of recombinant ribonucleotide reductase from Mycobacterium tuberculosis is located in a rigid hydrophobic pocket. Liu A, et al. **Biochemistry** 1998 Nov 17;37(46):16369–77
Solution structure of Syrian hamster prion protein rPrP(90–231). Liu H, et al. **Biochemistry** 1999 Apr 27; 38(17):5362–77
Atomic mutations at the single tryptophan residue of human recombinant annexin V: effects on structure, stability, and activity. Minks C, et al. **Biochemistry** 1999 Aug 17; 38(33):10649–59
Recombinant kringle IV–10 modules of human apolipoprotein(a): structure, ligand binding modes, and biological relevance. Mochalkin I, et al. **Biochemistry** 1999 Feb 16;38(7):1990–8
Minimization of recombinant human Flt3 ligand aggregation at the Tm plateau: a matter of thermal reversibility. Remmele RL Jr, et al. **Biochemistry** 1999 Apr 20; 38(16):5241–7
Porcine recombinant dihydropyrimidine dehydrogenase: comparison of the spectroscopic and catalytic properties of the wild–type and C671A mutant enzymes. Rosenbaum K, et al. **Biochemistry** 1998 Dec 15;37(50):17598–609
Biochemical, biophysical, and pharmacological characterization of bacterially expressed human agouti–related protein. Rosenfeld RD, et al. **Biochemistry** 1998 Nov 17;37(46):16041–52
Myrothecium verrucaria bilirubin oxidase and its mutants for potential copper ligands. Shimizu A, et al. **Biochemistry** 1999 Mar 9;38(10):3034–42
Characterization and crystallization of soluble human Fc gamma receptor II (CD32) isoforms produced in insect cells. Sondermann P, et al. **Biochemistry** 1999 Jun 29; 38(26):8469–77
NMR mapping of the recombinant mouse major urinary protein I binding site occupied by the pheromone 2–sec–butyl–4,5–dihydrothiazole. Zidek L, et al. **Biochemistry** 1999 Aug 3;38(31):9850–61
Synthesis and characterization of photoreactive insulin–like growth factor I derivatives for receptor analysis. Fabry M. **Bioconjug Chem** 1999 Mar–Apr;10(2):200–5
Covalent immobilization of proteins onto (Maleic anhydride–alt–methyl vinyl ether) copolymers: enhanced immobilization of recombinant proteins. Ladavière C, et al. **Bioconjug Chem** 1998 Nov–Dec;9(6):655–61
The recombinant thermosome from the hyperthermophilic archaeon Methanopyrus kandleri: in vitro analysis of its chaperone activity. Minuth T, et al. **Biol Chem** 1999 Jan; 380(1):55–62
Purification and characterization of recombinant human granulocyte colony–stimulating factor (rhG–CSF) derivatives: KW–2228 and other derivatives. Yamasaki M, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1528–34
Advances in refolding of proteins produced in E. coli. Lilie H, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):497–501 (39 ref.)
Scythe: a novel reaper–binding apoptotic regulator. Thress K, et al. **EMBO J** 1998 Nov 2;17(21):6135–43
Refolding of recombinant alpha and beta subunits of the Rhodospirillum rubrum F(0)F(1) ATP synthase into functional monomers that reconstitute an active alpha(1)beta(1)–dimer. Du Z, et al. **Eur J Biochem** 1999 Jul;263(2):430–7
Biochemical characterization and crystal structure of a recombinant hen avidin and its acidic mutant expressed in Escherichia coli. Nardone E, et al. **Eur J Biochem** 1998 Sep 1;256(2):453–60
Biochemical and structural characterization of recombinant copper–metallothionein from Saccharomyces cerevisiae. Sayers Z, et al. **Eur J Biochem** 1999 Jun;262(3):858–65
Characterization of a truncated recombinant form of human membrane type 3 matrix metalloproteinase. Shimada T, et al. **Eur J Biochem** 1999 Jun;262(3):907–14
Natural hepatocyte growth factor (HGF) from human serum and a bound form of recombinant HGF with heparan sulfate are indistinguishable in their physicochemical properties. Yano K, et al. **Int J Biol Macromol** 1998 Oct; 23(3):227–35
A genetically modified recombinant tumor necrosis factor–alpha conjugated to the distal terminals of liposomal surface grafted polyethyleneglycol chains. Savva M, et al. **Int J Pharm** 1999 Jul 5;184(1):45–51
Secondary structure composition and pH–dependent conformational changes of soluble recombinant HLA–DM. Busch R, et al. **J Biol Chem** 1998 Oct 16;273(42):27557–64
Inclusion body purification and protein refolding using microfiltration and size exclusion chromatography. Batas B, et al. **J Biotechnol** 1999 Feb 19;68(2–3):149–58
Aggregation of recombinant hepatitis B surface antigen in Pichia pastoris. Tleugabulova D, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1–2):209–19
Recombinant human thyroid peroxidase expressed in insect cells is soluble at high concentrations and forms diffracting crystals. Hendry E, et al. **J Endocrinol** 1999 Mar; 160(3):R13–5
Effect of the extra n–terminal methionine residue on the stability and folding of recombinant alpha–lactalbumin expressed in Escherichia coli. Chaudhuri TK, et al.

J Mol Biol 1999 Jan 22;285(3):1179–94

Determining subunit dissociation constants in natural and recombinant proteins. Manning LR, et al. **Methods Enzymol** 1999;306:113–29

Effects of the length of a glycine linker connecting the N–and C–termini of a circularly permuted dihydrofolate reductase. Iwakura M, et al. **Protein Eng** 1998 Aug;11(8):707–13

Physico–chemical characterization of human von Ebner gland protein expressed in Escherichia coli: implications for its physiological role. Creuzenet C, et al. **Protein Expr Purif** 1998 Nov;14(2):254–60

Purification and characterization of Chromatium vinosum GroEL and GroES proteins overexpressed in Escherichia coli cells lacking the endogenous groESL operon. Dionisi HM, et al. **Protein Expr Purif** 1998 Nov;14(2):275–82

Overexpression of PNGase at from baculovirus–infected insect cells. Ftouhi Paquin N, et al. **Protein Expr Purif** 1998 Nov;14(2):302–8

Purification and activation of recombinant p38 isoforms alpha, beta, gamma, and delta. Keesler GA, et al. **Protein Expr Purif** 1998 Nov;14(2):221–8

Purification of recombinant Rous sarcoma virus integrase possessing physical and catalytic properties similar to virion–derived integrase. McCord M, et al. **Protein Expr Purif** 1998 Nov;14(2):167–77

Purification and characterization of pyruvate kinase from Schizosaccharomyces pombe: evidence for an unusual quaternary structure. Nairn J, et al. **Protein Expr Purif** 1998 Nov;14(2):247–53

Removal of N–terminal polyhistidine tags from recombinant proteins using engineered aminopeptidases. Pedersen J, et al. **Protein Expr Purif** 1999 Apr;15(3):389–400

Production and purification of a recombinant human hsp60 epitope using the cellulose–binding domain in Escherichia coli. Shpigel E, et al. **Protein Expr Purif** 1998 Nov; 14(2):185–91

Overexpression in Escherichia coli and characterization of the chloroplast triosephosphate isomerase from spinach. Tang GL, et al. **Protein Expr Purif** 1999 Aug;16(3):432–9

Characterization of recombinant human cathepsin B expressed at high levels in baculovirus. Steed PM, et al. **Protein Sci** 1998 Sep;7(9):2033–7

Patch engineering: a general approach for creating proteins that have new binding activities. Smith G. **Trends Biochem Sci** 1998 Dec;23(12):457–60 (41 ref.)

DIAGNOSTIC USE

[Diagnostic and therapeutic value of synthetic or recombinant allergens] Spertini F. **Rev Med Suisse Romande** 1999 Mar;119(3):235–9 (22 ref.) (Eng. Abstr.) **(Fre)**

DRUG EFFECTS

Benzodiazepine modulation of recombinant alpha1beta3gamma2 GABA(A) receptor function efficacy determination using the Cytosensor microphysiometer. Smith AJ, et al. **Eur J Pharmacol** 1998 Oct 23; 359(2–3):261–9

Activation and desensitization properties of native and recombinant kainate receptors. Paternain AV, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1249–59

GENETICS

pUCP–Nco and pUCP–Nde: Escherichia–Pseudomonas shuttle vectors for recombinant protein expression in Pseudomonas. Cronin CN, et al. **Anal Biochem** 1999 Jul 15;272(1):112–5

BirA enzyme: production and application in the study of membrane receptor–ligand interactions by site–specific biotinylation. O'callaghan CA, et al. **Anal Biochem** 1999 Jan 1;266(1):9–15

A sandwiched–culture technique for evaluation of heterologous protein production in a filamentous fungus. Asgeirsdóttir SA, et al. **Appl Environ Microbiol** 1999 May; 65(5):2250–2

Evaluation of bottlenecks in the late stages of protein secretion in Bacillus subtilis. Bolhuis A, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2934–41

Development of a bicistronic vector driven by the human polypeptide chain elongation factor 1alpha promoter for creation of stable mammalian cell lines that express very high levels of recombinant proteins. Hobbs S, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):368–72

Nonaggregating mutant of recombinant human hexokinase I exhibits wild–type kinetics and rod–like conformations in solution. Aleshin AE, et al. **Biochemistry** 1999 Jun 29; 38(26):8359–66

Engineered recombinant factor VII Q217 variants with altered inhibitor specificities. Chang YJ, et al. **Biochemistry** 1999 Aug 24;38(34):10940–8

Molecular cloning and expression of a novel human cDNA related to the diazepam binding inhibitor. Suk K, et al. **Biochim Biophys Acta** 1999 May 31;1454(1):126–31

Heterologous expression of G–protein–coupled receptors: human opioid receptors under scrutiny. Stanasila L, et al. **Biochimie** 1998 May–Jun;80(5–6):563–71 (78 ref.)

The expression of recombinant genes from bacteriophage lambda strong promoters triggers the SOS response in Escherichia coli. Aris A, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):551–9

Chinese hamster ovary cells with constitutively expressed sialidase antisense RNA produce recombinant DNase in batch culture with increased sialic acid. Ferrari J, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):589–95

Use of cell wall–less bacteria (L–forms) for efficient expression and secretion of heterologous gene products. Gumpert J, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):506–9 (19 ref.)

Plant–based production of xenogenic proteins. Hood EE, et al. **Curr Opin Biotechnol** 1999 Aug;10(4):382–6 (25 ref.)

Engineering N–glycosylation pathways in the baculovirus–insect cell system. Jarvis DL, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):528–33 (57 ref.)

Recent advances in producing and selecting functional proteins by using cell–free translation. Jermutus L, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):534–48 (120 ref.)

Expression of heterologous proteins in stable insect cell culture. Pfeifer TA. **Curr Opin Biotechnol** 1998 Oct; 9(5):518–21

Expression of a recombinant branched chain alpha–oxo acid dehydrogenase complex E2 (BCOADC–E2) in insect cells and its immunoreactivity to autoimmune sera. Lee SM, et al. **Exp Mol Med** 1998 Jun 30;30(2):65–71

Functional characterization of Kunitz domains in hepatocyte growth factor activator inhibitor type 2. Qin L, et al. **FEBS Lett** 1998 Sep 25;436(1):111–4

Expression of bovine leukemia virus ENV glycoprotein in insect cells by recombinant baculovirus. Russo S, et al. **FEBS Lett** 1998 Sep 25;436(1):11–6

Recombinant human acid alpha–glucosidase: high level production in mouse milk, biochemical characteristics, correction of enzyme deficiency in GSDII KO mice. Bijvoet AG, et al. **Hum Mol Genet** 1998 Oct;7(11):1815–24

Expression and characterization of bovine mitochondrial methionyl–tRNA transformylase. Takeuchi N, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1069–71

DANCE, a novel secreted RGD protein expressed in developing, atherosclerotic, and balloon–injured arteries. Nakamura T, et al. **J Biol Chem** 1999 Aug 6; 274(32):22476–83

Heterologous gene expression in avian cells: potential as a producer of recombinant proteins. Lee S, et al. **J Biomed Sci** 1999 Jan;6(1):8–17

Expression of recombinant human acid sphingomyelinase in insect Sf21 cells: purification, processing and enzymatic characterization. Bartelsen O, et al. **J Biotechnol** 1998 Jul 30;63(1):29–40

Construction of an efficient Bacillus subtilis system for extracellular production of heterologous proteins. Lam KH, et al. **J Biotechnol** 1998 Aug 27;63(3):167–77

Analyses of cDNA and recombinant protein for a potent vasoactive protein in saliva of a blood–feeding black fly, Simulium vittatum. Cupp MS, et al. **J Exp Biol** 1998 May; 201 (Pt 10):1553–61

The prosequence of thermolysin acts as an intramolecular chaperone when expressed in trans with the mature sequence in Escherichia coli. Marie–Claire C, et al. **J Mol Biol** 1999 Feb 5;285(5):1911–5

Expression of murine coronavirus recombinant papain–like proteinase: efficient cleavage is dependent on the lengths of both the substrate and the proteinase polypeptides. Teng H, et al. **J Virol** 1999 Apr;73(4):2658–66

Dual–colour FISH analysis to characterize a marker chromosome in cytochrome P450 2B1 recombinant V79 Chinese hamster cells. Simi S, et al. **Mutagenesis** 1999 Jan; 14(1):57–61

Production of recombinant proteins in plant root exudates [see comments] Borisjuk NV, et al. **Nat Biotechnol** 1999 May;17(5):466–9. Comment in: Nat Biotechnol 1999 May;17(5):427.

Engineering a regulatable enzyme for homogeneous immunoassays. Legendre D, et al. **Nat Biotechnol** 1999 Jan; 17(1):67–72

Microsatellite instability in Drosophila spellchecker1 (MutS homolog) mutants. Flores C, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2964–9

Converting trypsin to elastase: substitution of the S1 site and adjacent loops reconstitutes esterase specificity but not amidase activity. Hung SH, et al. **Protein Eng** 1998 Aug; 11(8):669–73

Effects of the length of a glycine linker connecting the N–and C–termini of a circularly permuted dihydrofolate reductase. Iwakura M, et al. **Protein Eng** 1998 Aug;11(8):707–13

Overexpression in Escherichia coli, purification, and characterization of recombinant 60S ribosomal acidic proteins from Saccharomyces cerevisiae. Tchórzewski M, et al. **Protein Expr Purif** 1999 Feb;15(1):40–7

Development of recombinant ovalbumin–luteinizing hormone releasing hormone as a potential sterilization vaccine. Zhang Y, et al. **Vaccine** 1999 Apr 23; 17(17):2185–91

IMMUNOLOGY

Characterization and binding of intracellular antibody fragments to the hepatitis C virus core protein. Heintges T, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):410–8

Protection of baculovirus–vectors against complement–mediated inactivation by recombinant soluble complement receptor type 1. Hofmann C, et al. **Biol Chem** 1999 Mar;380(3):393–5

The use of allele–specific recombinant Fc gamma receptor IIIb antigens for the detection of granulocyte antibodies. Bux J, et al. **Blood** 1999 Jan 1;93(1):357–62

Comparison of simian virus 40 large T antigen recombinant protein and DNA immunization in the induction of protective immunity from experimental pulmonary metastasis. Watts AM, et al. **Cancer Immunol Immunother** 1999 Feb;47(6):343–51

Skin–test reactivity and isotype–specific immune responses to recombinant Asp f 3, a major allergen of Aspergillus fumigatus. Hemmann S, et al. **Clin Exp Allergy** 1998 Jul; 28(7):860–7

Mutant derivatives of the main respiratory allergen of cow are less allergenic than the intact molecule. Kauppinen J, et al. **Clin Exp Allergy** 1999 Jul;29(7):989–96

The recombinant allergen–based concept of component–resolved diagnostics and immunotherapy (CRD and CRIT). Valenta R, et al. **Clin Exp Allergy** 1999 Jul;29(7):896–904 (68 ref.)

Recombinant IA–2 expressed in E. coli can be used for the routine detection of autoantibodies in Type–I diabetes. Morgenthaler NG, et al. **Horm Metab Res** 1998 Sep; 30(9):559–64

Recombinant human monoclonal Fab fragments against rotavirus from phage display combinatorial libraries. Itoh K, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):123–9

An enzyme linked immunoassay using recombinant antigens for differentiation of primary from secondary or past CMV infections in pregnancy. Daiminger A, et al. **J Clin Virol** 1998 Aug 20;11(2):93–102

Therapy of murine tumors with recombinant Bordetella pertussis adenylate cyclase carrying a cytotoxic T cell epitope. Fayolle C, et al. **J Immunol** 1999 Apr 1; 162(7):4157–62

[Effects of anti–rhTNF alpha monoclonal antibody on oxygen extraction in endotoxemic rabbits] Wu XY, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):445–51 (Eng. Abstr.) **(Chi)**

ISOLATION & PURIFICATION

Unique properties of purified, Escherichia coli–expressed constitutive cytochrome P4504A5. Hosny G, et al. **Arch Biochem Biophys** 1999 Jun 15;366(2):199–206

Characterization and crystallization of soluble human Fc gamma receptor II (CD32) isoforms produced in insect cells. Sondermann P, et al. **Biochemistry** 1999 Jun 29; 38(26):8469–77

Secretory expression and characterization of insulin in Pichia pastoris. Kjeldsen T, et al. **Biotechnol Appl Biochem** 1999 Feb;29 (Pt 1):79–86

Chemical treatment of Escherichia coli. II. Direct extraction of recombinant protein from cytoplasmic inclusion bodies in intact cells. Falconer RJ, et al. **Biotechnol Bioeng** 1998 Feb 20;57(4):381–6

Chemical treatment of Escherichia coli: 3. Selective extraction of a recombinant protein from cytoplasmic inclusion bodies in intact cells. Falconer RJ, et al. **Biotechnol Bioeng** 1999 Feb 20;62(4):455–60

Optimized release of recombinant proteins by ultrasonication of E. coli cells. Feliu JX, et al. **Biotechnol Bioeng** 1998 Jun 5;58(5):536–40

A simple, two–component buffer enhances use of chromatofocusing for processing of therapeutic proteins. Logan KA, et al. **Biotechnol Bioeng** 1999 Jan 20; 62(2):208–15

Aqueous two–phase systems containing urea: influence on phase separation and stabilization of protein conformation by phase components. Rämsch C, et al. **Biotechnol Prog** 1999 May–Jun;15(3):493–9

Rat interleukin 6: expression in recombinant Escherichia coli, purification and development of a novel ELISA. Rees GS, et al. **Cytokine** 1999 Feb;11(2):95–103

Establishment of criteria for determining comparability of "well–characterized" proteins. Cavagnaro JA. **Dev Biol Stand** 1998;96:79–81

Chromatography of recombinant proteins. O'Connor JV. **Dev Biol Stand** 1999;97:39–47

A chicken homolog of mammalian interleukin–1 beta: cDNA cloning and purification of active recombinant protein. Weining KC, et al. **Eur J Biochem** 1998 Dec 15; 258(3):994–1000

An attempt to transform class characteristics within the alcohol dehydrogenase family. Hedberg JJ, et al. **FEBS Lett** 1998 Sep 25;436(1):67–70

An inducible expression system permitting the efficient purification of a recombinant antigen from Mycobacterium smegmatis. Triccas JA, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):151–6

Production of large quantities of isotopically labeled protein in Pichia pastoris by fermentation. Wood MJ, et al. **J Biomol NMR** 1999 Feb;13(2):149–59

Cation–exchange displacement chromatography for the purification of recombinant protein therapeutics from variants. Barnthouse KA, et al. **J Biotechnol** 1998 Dec 11; 66(2–3):125–36

Three–step purification of lipopolysaccharide–free, polyhistidine–tagged recombinant antigens of Mycobacterium tuberculosis. Colangeli R, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):223–35

Purification and characterization of two recombinant human granulocyte colony–stimulating factor glycoforms. Pharmacokinetic and activity studies of single–dose administration in mice. Rotondaro L, et al. **Mol Biotechnol** 1999 Apr;11(2):117–28

Isolation of human anti-branched chain alpha-oxo acid dehydrogenase-E2 recombinant antibodies by Ig repertoire cloning in idiopathic dilated cardiomyopathy. Lee S, et al. **Mol Cells** 1999 Feb 28;9(1):25-30

Foam fractionation as a method to separate endotoxin from recombinant biotechnology products. Poxon SW, et al. **PDA J Pharm Sci Technol** 1999 Jan-Feb;53(1):23-6

Production of a soluble and functional recombinant streptavidin in Escherichia coli. Gallizia A, et al. **Protein Expr Purif** 1998 Nov;14(2):192-6

Methods of preparation of recombinant cytokine proteins. Klyushnichenko VE, et al. **Protein Expr Purif** 1998 Nov; 14(2):261-6

Application of fed-batch fermentation to the preparation of isotopically labeled or selenomethionyl-labeled proteins. Studts JM, et al. **Protein Expr Purif** 1999 Jun;16(1):109-19

Overexpression in Escherichia coli, purification, and characterization of recombinant 60S ribosomal acidic proteins from Saccharomyces cerevisiae. Tchórzewski M, et al. **Protein Expr Purif** 1999 Feb;15(1):40-7

Enhanced high-level expression of soluble 1-aminocyclopropane-1-carboxylase synthase and rapid purification by expanded-bed adsorption. Zhou H, et al. **Protein Expr Purif** 1998 Nov;14(2):178-84

METABOLISM

Tissue factor activity is increased in human endothelial cells cultured under elevated static pressure. Silverman MD, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C233-42

Site-specific, enzymatic biotinylation of recombinant proteins in Spodoptera frugiperda cells using biotin acceptor peptides. Duffy S, et al. **Anal Biochem** 1998 Sep 10; 262(2):122-8

BirA enzyme: production and application in the study of membrane receptor-ligand interactions by site-specific biotinylation. O'callaghan CA, et al. **Anal Biochem** 1999 Jan 1;266(1):9-15

Evaluation of bottlenecks in the late stages of protein secretion in Bacillus subtilis. Bolhuis A, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2934-41

Identification of Asp95 as the site of succinimide formation in recombinant human glial cell line-derived neurotrophic factor. Hui JO, et al. **Arch Biochem Biophys** 1998 Oct 15; 358(2):377-84

Effects of additives on the stability of recombinant human factor XIII during freeze-drying and storage in the dried solid. Kreilgaard L, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):121-34

Chemical modification and site-directed mutagenesis of methionine residues in recombinant human granulocyte colony-stimulating factor: effect on stability and biological activity. Lu HS, et al. **Arch Biochem Biophys** 1999 Feb 1;362(1):1-11

A bacterial signal peptidase enhances processing of a recombinant single chain antibody fragment in insect cells. Ailor E, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):444-50

The cysteine residues of recombinant human gastric lipase. Canaan S, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):851-4

Aberrant metabolic sialylation of recombinant proteins expressed in Chinese hamster ovary cells in high productivity cultures. Santell L, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):132-7

Interaction of mammalian neprilysin with binding protein and calnexin in Schizosaccharomyces pombe. Beaulieu H, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):813-9

The effects of an engineered cation site on the structure, activity, and EPR properties of cytochrome c peroxidase. Bonagura CA, et al. **Biochemistry** 1999 Apr 27; 38(17):5538-45

A refined kinetic analysis of plasminogen activation by recombinant bovine tissue-type plasminogen activator indicates two interconvertible activator forms. Johnsen LB, et al. **Biochemistry** 1998 Sep 8;37(36):12631-9

A biochemical and biophysical characterization of recombinant mutants of fetal hemoglobin and their interaction with sickle cell hemoglobin. Larson SC, et al. **Biochemistry** 1999 Jul 20;38(29):9549-55

Kinetic studies on the removal of iron and aluminum from recombinant and site-directed mutant N-lobe half transferrins. Li Y, et al. **Biochemistry** 1998 Oct 6; 37(40):14157-66

Atomic mutations at the single tryptophan residue of human recombinant annexin V: effects on structure, stability, and activity. Minks C, et al. **Biochemistry** 1999 Aug 17; 38(33):10649-59

Interaction of the soluble recombinant PsaD subunit of spinach photosystem I with ferredoxin I. Pandini V, et al. **Biochemistry** 1999 Aug 17;38(33):10707-13

Regulation of nitric oxide-responsive recombinant soluble guanylyl cyclase by calcium. Parkinson SJ, et al. **Biochemistry** 1999 May 18;38(20):6441-8

Spectral and kinetic studies of the oxidation of monosubstituted phenols and anilines by recombinant Synechocystis catalase-peroxidase compound I. Regelsberger G, et al. **Biochemistry** 1999 Aug 10; 38(32):10480-8

Minimization of recombinant human Flt3 ligand aggregation at the Tm plateau: a matter of thermal reversibility. Remmele RL Jr, et al. **Biochemistry** 1999 Apr 20; 38(16):5241-7

Binding kinetics of engineered mutants provide insight about the pathway for entering and exiting the intestinal fatty acid binding protein. Richieri GV, et al. **Biochemistry** 1999 May 4;38(18):5888-95

Porcine recombinant dihydropyrimidine dehydrogenase: comparison of the spectroscopic and catalytic properties of the wild-type and C671A mutant enzymes. Rosenbaum K, et al. **Biochemistry** 1998 Dec 15;37(50):17598-609

Iron release is reduced by mutations of lysines 206 and 296 in recombinant N-terminal half-transferrin. Steinlein LM, et al. **Biochemistry** 1998 Sep 29;37(39):13696-703

Heterologous expression of G-protein-coupled receptors: human opioid receptors under scrutiny. Stanasila L, et al. **Biochimie** 1998 May-Jun;80(5-6):563-71 (78 ref.)

Ammonium ion and glucosamine dependent increases of oligosaccharide complexity in recombinant glycoproteins secreted from cultivated BHK-21 cells. Gawlitzek M, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):518-28

Cytogenetic analysis of chimeric antibody-producing CHO cells in the course of dihydrofolate reductase-mediated gene amplification and their stability in the absence of selective pressure. Kim SJ, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):741-9

Characterization of bacteriophage lambda Q- mutant for stable and efficient production of recombinant protein in Escherichia coli system. Lin CS, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):529-35

Stabilization of a proteolytically sensitive cytoplasmic recombinant protein during transition to downstream processing. Rozkov A, et al. **Biotechnol Bioeng** 1999 Mar 20;62(6):730-8

Neurosteroid modulation of recombinant ionotropic glutamate receptors. Yaghoubi N, et al. **Brain Res** 1998 Aug 24;803(1-2):153-60

Reduction of human recombinant type II phospholipase A2 and prostaglandin F2 alpha release by microtubule depolymerizing agents. Munns MJ, et al. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):230-5

Engineering N-glycosylation pathways in the baculovirus-insect cell system. Jarvis DL, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):528-33 (57 ref.)

A fluorescent assay amenable to measuring production of beta-D-glucuronides produced from recombinant UDP-glycosyl transferase enzymes. Trubetskoy OV, et al. **Drug Metab Dispos** 1999 May;27(5):555-7

The in vitro synthesized and processed human insulin receptor precursor binds insulin. Tsuda S, et al. **FEBS Lett** 1999 Aug 20;457(1):13-7

Inhibition of HIV-1 rgp120 binding to CD4+ T cells by monoclonal antibodies directed against the gp120 C1 or C4 region. Kröpelin M, et al. **Immunol Lett** 1998 Aug; 63(1):19-25

Expression and characterization of bovine mitochondrial methionyl-tRNA transformylase. Takeuchi N, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1069-71

Cyclic GMP-dependent protein kinase activates cloned BKCa channels expressed in mammalian cells by direct phosphorylation at serine 1072. Fukao M, et al. **J Biol Chem** 1999 Apr 16;274(16):10927-35

Organization of HIV-1 pol is critical for Pol polyprotein processing. Chang YY, et al. **J Biomed Sci** 1999 Sep-Oct; 6(5):333-41

Preparation, characterization and application of Aspergillus sp. xylanase immobilized on Eudragit S-100. Gawande PV, et al. **J Biotechnol** 1998 Dec 11;66(2-3):165-75

Characterization of stress and protein turnover from protein overexpression in fed-batch E. coli cultures. Ramirez DM, et al. **J Biotechnol** 1999 May 28;71(1-3):39-58

Treatment of mammalian cells with the endoplasmic reticulum-proliferator compactin strongly induces recombinant and endogenous xenobiotic metabolizing enzymes and 3-hydroxy-3-methylglutaryl-CoA reductase in vitro. McLaughlin L, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):515-23

Application of a recombinant Fab fragment from a phage display library for sensitive detection of a target antigen by an inhibition ELISA system. Itoh K, et al. **J Immunol Methods** 1999 Feb 1;223(1):107-14

Use of yeast sec6 mutant for purification of vesicles containing recombinant membrane proteins. Coury LA, et al. **Methods Enzymol** 1999;306:169-86

Use of Pichia pastoris for expression of recombinant proteins. Rosenfeld SA. **Methods Enzymol** 1999;306:154-69

The antiepileptic drug AWD 131-138 stimulates different recombinant isoforms of the rat GABA(A) receptor through the benzodiazepine binding site. Sigel E, et al. **Neurosci Lett** 1998 Apr 3;245(2):85-8

Calorimetric study of mutant human lysozymes with partially introduced Ca2+ binding sites and its efficient refolding system from inclusion bodies. Koshiba T, et al. **Protein Eng** 1998 Aug;11(8):683-90

Rational design of Rhizopus oryzae lipase with modified stereoselectivity toward triradylglycerols. Scheib H, et al. **Protein Eng** 1998 Aug;11(8):675-82

Overexpression in Escherichia coli and characterization of the chloroplast triosephosphate isomerase from spinach. Tang GL, et al. **Protein Expr Purif** 1999 Aug;16(3):432-9

Patch engineering: a general approach for creating proteins that have new binding activities. Smith G. **Trends Biochem Sci** 1998 Dec;23(12):457-60 (41 ref.)

PHARMACOKINETICS

Pharmacokinetics and leukocyte responses of recombinant human interleukin-10. Radwanski E, et al. **Pharm Res** 1998 Dec;15(12):1895-901

Pharmacokinetics of a recombinant amino terminal fragment of bactericidal/permeability increasing protein (rBPI21) after liver surgery in rats and humans. Wiezer MJ, et al. **Shock** 1998 Sep;10(3):161-6; discussion 167-8

PHARMACOLOGY

Recombinant human interleukin-11 is unlikely to stimulate the growth of the most common solid tumors. Soda H, et al. **Anticancer Drugs** 1999 Jan;10(1):97-101

Biochemical, biophysical, and pharmacological characterization of bacterially expressed human agouti-related protein. Rosenfeld RD, et al. **Biochemistry** 1998 Nov 17;37(46):16041-52

Effects of single intravenous doses of recombinant human interleukin-10 on subsets of circulating leukocytes in humans. Huhn RD, et al. **Immunopharmacology** 1999 Feb; 41(2):109-17

Endogenous mouse interleukin-10 is up-regulated by exogenously administered recombinant human interleukin-10, but does not contribute to the efficacy of the human protein in mouse models of endotoxemia. Smith SR, et al. **Immunopharmacology** 1999 Feb;41(2):119-30

rC5a directs the in vitro migration of human memory and naive tonsillar B lymphocytes: implications for B cell trafficking in secondary lymphoid tissues. Ottonello L, et al. **J Immunol** 1999 Jun 1;162(11):6510-7

LeIF: a recombinant Leishmania protein that induces an IL-12-mediated Th1 cytokine profile. Skeiky YA, et al. **J Immunol** 1998 Dec 1;161(11):6171-9

Immunosuppressive activities of recombinant glycosylation-inhibiting factor mutants. Tomura T, et al. **J Immunol** 1999 Jan 1;162(1):195-202

Pharmacological characterisation of the recombinant human CRF binding protein using a simple assay. Ardati A, et al. **J Neurosci Methods** 1998 Mar 13;80(1):99-105

Molecular effects of recombinant human interleukin-11 in the HLA-B27 rat model of inflammatory bowel disease. Peterson RL, et al. **Lab Invest** 1998 Dec;78(12):1503-12

Ionic effects on human recombinant P2X7 receptor function. Michel AD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):102-9

The effect of recombinant human thyrotropin (rhTSH) on thyroid function in mice and rats. Colzani RM, et al. **Thyroid** 1998 Sep;8(9):797-801

Preclinical safety evaluation of rhuMAbVEGF, an antiangiogenic humanized monoclonal antibody. Ryan AM, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):78-86 (75 ref.)

Development of a recombinant growth factor and fusion protein: lessons from GM-CSF. Schuh JC, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):72-7 (55 ref.)

[In vitro stimulation of HTC hepatoma cell growth by recombinant human augmenter of liver regeneration (ALR)] Yang XM, et al. **Sheng Li Hsueh Pao** 1997 Oct; 49(5):557-61 (Eng. Abstr.) **(Chi)**

SECRETION

Secretory expression and characterization of insulin in Pichia pastoris. Kjeldsen T, et al. **Biotechnol Appl Biochem** 1999 Feb;29 (Pt 1):79-86

Overexpression of a cytosolic chaperone to improve solubility and secretion of a recombinant IgG protein in insect cells. Ailor E, et al. **Biotechnol Bioeng** 1998 Apr 20-May 5;58(2-3):196-203

Secretory production of recombinant protein by a high cell density culture of a protease negative mutant Escherichia coli strain. Park SJ, et al. **Biotechnol Prog** 1999 Mar-Apr; 15(2):164-7

A novel method for quantitative analysis of recombinant secreted proteins using two-dimensional electrophoresis. Nygaard SC, et al. **Electrophoresis** 1998 Aug; 19(11):1989-97

DANCE, a novel secreted RGD protein expressed in developing, atherosclerotic, and balloon-injured arteries. Nakamura T, et al. **J Biol Chem** 1999 Aug 6; 274(32):22476-83

STANDARDS

Evaluation of potency for well characterized biotechnology proteins. Finbloom DS. **Dev Biol Stand** 1998;96:63-4

Future prospects for artificial blood. Chang TM. **Trends Biotechnol** 1999 Feb;17(2):61-7 (89 ref.)

THERAPEUTIC USE

Low- versus high-dose recombinant urokinase for the treatment of chronic saphenous vein graft occlusion. Teirstein PS, et al. **Am J Cardiol** 1999 Jun 15;83(12):1623-8

Treatment of irradiation-induced mucositis with growth factors (rhGM-CSF) in patients with head and neck cancer. Wagner W, et al. **Anticancer Res** 1999 Jan-Feb; 19(1B):799-803

Recombinant apolipoproteins for the treatment of vascular diseases. Sirtori CR, et al. **Atherosclerosis** 1999 Jan; 142(1):29-40 (159 ref.)

Recombinant proteins for genetic disease. Russell CS, et al. **Clin Genet** 1999 Jun;55(6):389-94 (34 ref.)

RECOMBINANT PROTEINS

Aggressive administration of recombinant oncotoxin AR209 (anti-ErbB-2) in athymic nude mice implanted with orthotopic human non-small cell lung tumours. Skrepnik N, et al. **Eur J Cancer** 1998 Sep;34(10):1628-33

Recombinant luteinizing hormone in ovarian hyperstimulation after stimulation failure in normogonadotropic women. Laml T, et al. **Gynecol Endocrinol** 1999 Apr;13(2):98-103

A phase I/II study of recombinant human interleukin-12 in patients with chronic hepatitis C. Zeuzem S, et al. **Hepatology** 1999 Apr;29(4):1280-7

What are the clinical benefits of recombinant gonadotrophins? Clinical efficacy of recombinant gonadotrophins. Balen AH, et al. **Hum Reprod** 1999 Jun; 14(6):1411-7 (59 ref.)

What are the clinical benefits of recombinant gonadotrophins? Recombinant follicle stimulating hormone. Bergh C. **Hum Reprod** 1999 Jun;14(6):1418-20 (13 ref.)

Genetic engineering of recombinant hypoallergenic oligomers of the major birch pollen allergen, Bet v 1: candidates for specific immunotherapy. Vrtala S, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):218-9

Recombinant galectin-1 and its genetic delivery suppress collagen-induced arthritis via T cell apoptosis. Rabinovich GA, et al. **J Exp Med** 1999 Aug 2;190(3):385-98

Recombinant hirudin for extended aortic surgery in patients with heparin-induced thrombocytopenia. Bauer M, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):191-2

Life on the bio-pharm: therapeutic proteins from transgenic organisms. Cambridge Healthtech Institute's Transgenic Production of Human Therapeutics. Waltham, MA, USA, 29-30 June 1998. Tian XC, et al. **Mol Med Today** 1998 Oct;4(10):424-5

Recombinant human nerve growth factor in the treatment of diabetic polyneuropathy [letter] Riggs JE. **Neurology** 1999 Apr 22;52(7):1517-8

Long-term experience with growth hormone treatment in children with chronic renal failure. Schaefer F, et al. **Perit Dial Int** 1999;19 Suppl 2:S467-72 (35 ref.)

Quick correction of hemostasis in two patients with fulminant liver failure undergoing liver transplantation by recombinant activated factor VII. Kalicinski P, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):378-9

Preclinical evaluation of recombinant von Willebrand factor in a canine model of von Willebrand disease. Schwarz HP, et al. **Wien Klin Wochenschr** 1999 Mar 12;111(5):181-91

[Diagnostic and therapeutic value of synthetic or recombinant allergens] Spertini F. **Rev Med Suisse Romande** 1999 Mar;119(3):235-9 (22 ref.) (Eng. Abstr.) **(Fre)**

[Treatment of chronic polyarthritis with a human recombinant interleukin 1 receptor antagonist] Rau R, et al. **Z Rheumatol** 1998 Oct;57(5):312-9 **(Ger)**

[Results of treatment of acute myocardial infarction with thrombolytic therapy. Experiences in 437 patients in the coronary care unit of the National Institute of Cardiology "Ignacio Chavez"] Juárez Herrera U, et al. **Arch Inst Cardiol Mex** 1998 Sep-Oct;68(5):411-20 (Eng. Abstr.) **(Spa)**

TOXICITY

Cytotoxicity induced by recombinant human tumor necrosis factor-alpha dependent on the types of its receptors on canine cells. Aoki M, et al. **J Vet Med Sci** 1998 Aug; 60(8):889-95

Preclinical safety evaluation of rhuMAbVEGF, an antiangiogenic humanized monoclonal antibody. Ryan AM, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):78-86 (75 ref.)

RECOMBINANT SOMATOTROPINS see **SOMATOTROPINS, RECOMBINANT**

RECOMBINATION-ACTIVATING GENES-1 see **GENES, RAG-1**

RECOMBINATION, GENETIC

see related
REASSORTANT VIRUSES

RNA recombination in brome mosaic virus, a model plus strand RNA virus. Figlerowicz M, et al. **Acta Biochim Pol** 1998;45(4):847-68 (113 ref.)

A tool for enhancing site-specific gene integration in mammalian cells. Nahon E, et al. **Adv Exp Med Biol** 1998; 451:411-4

Genetic exchange in the trypanosomatidae. Gibson W, et al. **Adv Parasitol** 1999;43:1-46 (150 ref.)

HIV-1 genetic subtype A/B recombinant strain causing an explosive epidemic in injecting drug users in Kaliningrad. Liitsola K, et al. **AIDS** 1998 Oct 1;12(14):1907-19

HIV type 1 gag D/env G recombinants in Russia. Bobkov A, et al. **AIDS Res Hum Retroviruses** 1998 Nov 20; 14(17):1597-9

Molecular analysis of the full-length genome of HIV type 1 subtype I: evidence of A/G/I recombination. Nasioulas G, et al. **AIDS Res Hum Retroviruses** 1999 May 20; 15(8):745-58

A novel subtype A/G/J recombinant full-length HIV type 1 genome from Burkina Faso. Oelrichs RB, et al. **AIDS Res Hum Retroviruses** 1998 Nov 1;14(16):1495-500

Allele dose analysis in recombinant inbred strains: a tool for multiple phenotype analysis with implications for quantitative trait loci mapping. Markel PD, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):605-10

Mice and the role of unequal recombination in gene-family evolution. Schimenti JC. **Am J Hum Genet** 1999 Jan; 64(1):40-5 (42 ref.)

Familial complex chromosome rearrangement giving rise to balanced and unbalanced recombination products. Zahed L, et al. **Am J Med Genet** 1998 Aug 27;79(1):30-4

Protein binding to meiotic recombination hotspots in mouse testis. Gotoh H, et al. **Ann N Y Acad Sci** 1999 May 18; 870:351-3

Immunoglobulin switch recombination may occur by a DNA end-joining mechanism. Kenter A, et al. **Ann N Y Acad Sci** 1999 May 18;870:206-17

Homologous recombination and sex as a strategy against selfish genes attacking the genome. Kobayashi I. **Ann N Y Acad Sci** 1999 May 18;870:354-6

Palindromic DNA and genome stability. Further studies. Lewis S, et al. **Ann N Y Acad Sci** 1999 May 18;870:45-57

Transgenic and mutational analyses of meiotic recombination in mice. Pittman DL, et al. **Ann N Y Acad Sci** 1999 May 18;870:220-2

Genome system architecture and natural genetic engineering in evolution. Shapiro JA. **Ann N Y Acad Sci** 1999 May 18;870:23-35 (88 ref.)

Recombination and recombination-dependent DNA replication in bacteriophage T4. Mosig G. **Annu Rev Genet** 1998;32:379-413 (117 ref.)

Transposons as gene haulers. Mahillon J. **APMIS Suppl** 1998; 84:29-36 (10 ref.)

The potential of integrons and connected programmed rearrangements for mediating horizontal gene transfer. Sundström L. **APMIS Suppl** 1998;84:37-42 (50 ref.)

Gene therapy in the central nervous system: the use of recombinant retroviruses. Suhr ST, et al. **Arch Neurol** 1999 Mar;56(3):287-92 (11 ref.)

Recombination of baculovirus DNA following lipofection of insect larvae. Hajós JP, et al. **Arch Virol** 1998; 143(10):2045-50

Spontaneous BHV1 recombinants in which the gI/gE/US9 region is replaced by a duplication/inversion of the US1.5/US2 region. Rijsewijk FA, et al. **Arch Virol** 1999; 144(8):1527-37

Recombination of nonreplicative RNA precursors of Sindbis virus in infected cells overexpressing murine-inducible nitric oxide synthase. Herrmann A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):524-31

Conserved and hybrid meta-cleavage operons from PAH-degrading Burkholderia RP007. Laurie AD, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):308-14

A novel mutant loxP containing part of long terminal repeat of HIV-1 in spacer region: presentation of possible target site for antiviral strategy using site-specific recombinase. Lee Y, et al. **Biochem Biophys Res Commun** 1998 Dec 30; 253(3):588-93

Biochemical interactions within a ternary complex of the bacteriophage T4 recombination proteins uvsY and gp32 bound to single-stranded DNA. Sweezy MA, et al. **Biochemistry** 1999 Jan 19;38(3):936-44

The role of homologous recombination processes in the repair of severe forms of DNA damage in mammalian cells. Thacker J. **Biochimie** 1999 Jan-Feb;81(1-2):77-85 (95 ref.)

The contribution of homologous recombination in preserving genome integrity in mammalian cells. Thompson LH, et al. **Biochimie** 1999 Jan-Feb;81(1-2):87-105 (249 ref.)

Horizontal gene transfer: pitfalls and promises. Gogarten JP, et al. **Biol Bull** 1999 Jun;196(3):359-61; discussion 361-2 (22 ref.)

Proto-oncogenes, unlike 'harmless' genes, tend to be dispersed in the human genome: selection against out-of-register recombination? [editorial] Ahmed S, et al. **Biol Chem** 1999 Jan;380(1):3-5 (12 ref.)

Prospects for the precise engineering of plant genomes by homologous recombination. Mengiste T, et al. **Biol Chem** 1999 Jul-Aug;380(7-8):749-58 (140 ref.)

PCR-based strategy for genotyping mice and ES cells harboring loxP sites. Mantamadiotis T, et al. **Biotechniques** 1998 Dec;25(6):968-70, 972

General method for plasmid construction using homologous recombination. Raymond CK, et al. **Biotechniques** 1999 Jan; 26(1):134-8, 140-1

Time course of SDS-alkaline lysis of recombinant bacterial cells for plasmid release. Ciccolini LA, et al. **Biotechnol Bioeng** 1998 Dec 20;60(6):768-70

Recombination breakpoints in the human beta-globin gene cluster. Smith RA, et al. **Blood** 1998 Dec 1;92(11):4415-21

Double strand break rejoining by the Ku-dependent mechanism of non-homologous end-joining. Jeggo P, et al. **C R Acad Sci III** 1999 Feb-Mar;322(2-3):109-12

Correspondence re: J. Benítez et al., A region of allelic imbalance in 1q31-32 in primary breast cancer coincides with a recombination hot spot. Cancer Res., 57: 4217-4220, 1997 [letter] Kraus JA, et al. **Cancer Res** 1998 Oct 1; 58(19):4480

hSNF5/INI1 inactivation is mainly associated with homozygous deletions and mitotic recombinations in rhabdoid tumors. Rousseau-Merck MF, et al. **Cancer Res** 1999 Jul 1;59(13):3152-6

Homologous recombination between p53 and its pseudogene in a radiation-induced mouse tumor. Tanooka H, et al. **Cancer Res** 1998 Dec 15;58(24):5649-51

Architecture of the gamma delta resolvase synaptosome: oriented heterodimers identity interactions essential for synapsis and recombination. Murley LL, et al. **Cell** 1998 Nov 13;95(4):553-62

Complex formation and functional versatility of Mre11 of budding yeast in recombination. Usui T, et al. **Cell** 1998 Nov 25;95(5):705-16

Replacement by homologous recombination of the minK gene with lacZ reveals restriction of minK expression to the mouse cardiac conduction system. Kupershmidt S, et al. **Circ Res** 1999 Feb 5;84(2):146-52

Horizontal genetic exchange, evolution, and spread of antibiotic resistance in bacteria. Maiden MC. **Clin Infect Dis** 1998 Aug;27 Suppl 1:S12-20 (56 ref.)

RPD3 (REC3) mutations affect mitotic recombination in Saccharomyces cerevisiae. Dora EG, et al. **Curr Genet** 1999 Mar;35(2):68-76

Genetic analysis in fungi using restriction-enzyme-mediated integration. Riggle PJ, et al. **Curr Opin Microbiol** 1998 Aug; 1(4):395-9 (38 ref.)

Genetic recombination in plants. Schnable PS, et al. **Curr Opin Plant Biol** 1998 Apr;1(2):123-9 (69 ref.)

Structure and mechanism in site-specific recombination. Gopaul DN, et al. **Curr Opin Struct Biol** 1999 Feb; 9(1):14-20 (43 ref.)

Reciprocal chromosome painting shows that genomic rearrangement between rat and mouse proceeds ten times faster than between humans and cats. Stanyon R, et al. **Cytogenet Cell Genet** 1999;84(3-4):150-5

Z/AP, a double reporter for cre-mediated recombination. Lobe CG, et al. **Dev Biol** 1999 Apr 15;208(2):281-92

SV40 in adenovirus vaccines and adenovirus-SV40 recombinants. Lewis AM Jr. **Dev Biol Stand** 1998;94:207-16 (17 ref.)

A novel plasmid recombination mechanism of the marine cyanobacterium Synechococcus sp. PCC7002. Akiyama H, et al. **DNA Res** 1998 Dec 31;5(6):327-34

Characterization of a Caenorhabditis elegans recA-like gene Ce-rdh-1 involved in meiotic recombination. Takanami T, et al. **DNA Res** 1998 Dec 31;5(6):373-7

Human minisatellites, repeat DNA instability and meiotic recombination. Jeffreys AJ, et al. **Electrophoresis** 1999 Jun; 20(8):1665-75 (38 ref.)

The essential role of yeast topoisomerase III in meiosis depends on recombination. Gangloff S, et al. **EMBO J** 1999 Mar 15;18(6):1701-11

Wild-type Flp recombinase cleaves DNA in trans. Lee J, et al. **EMBO J** 1999 Feb 1;18(3):784-91

An SMC-like protein is required for efficient homologous recombination in Arabidopsis. Mengiste T, et al. **EMBO J** 1999 Aug 16;18(16):4505-12

DNA binding of Xrcc4 protein is associated with V(D)J recombination but not with stimulation of DNA ligase IV activity. Modesti M, et al. **EMBO J** 1999 Apr 1; 18(7):2008-18

Host proteins can stimulate Tn7 transposition: a novel role for the ribosomal protein L29 and the acyl carrier protein. Sharpe PL, et al. **EMBO J** 1998 Oct 1;17(19):5822-31

X-ray structure of aminopeptidase A from Escherichia coli and a model for the nucleoprotein complex in Xer site-specific recombination. Sträter N, et al. **EMBO J** 1999 Aug 16;18(16):4513-22

Homologous nonallelic recombinations between the iduronate-sulfatase gene and pseudogene cause various intragenic deletions and inversions in patients with mucopolysaccharidosis type II. Bunge S, et al. **Eur J Hum Genet** 1998 Sep-Oct;6(5):492-500

Direct estimation of the recombination frequency between the RB1 gene and two closely linked microsatellites using sperm typing. Girardet A, et al. **Eur J Hum Genet** 1999 Feb-Mar;7(2):239-42

Genetic forma recombination in permutation flowshop problems. Cotta C, et al. **Evol Comput** 1998 Spring; 6(1):25-44

Empirical investigation of multiparent recombination operators in evolution strategies. Eiben AE, et al. **Evol Comput** 1997 Fall;5(3):347-65

Algebraic theory of recombination spaces. Stadler PF, et al. **Evol Comput** 1997 Fall;5(3):241-75

An unequal crossover between the RCCX modules of the human MHC leading to the presence of a CYP21B gene and a tenascin TNXB/TNXA-RP2 recombinant between C4A and C4B genes in a patient with juvenile rheumatoid arthritis. Rupert KL, et al. **Exp Clin Immunogenet** 1999; 16(2):81-97

Homologous recombination based gene therapy. Lai LW, et al. **Exp Nephrol** 1999 Jan-Feb;7(1):11-4 (15 ref.)

Alzheimer's disease and down syndrome: from meiosis to dementia. Petronis A. **Exp Neurol** 1999 Aug;158(2):403-13 (113 ref.)

Production of an immunoenzymatic tracer combining a scFv and the acetylcholinesterase of Bungarus fasciatus by genetic recombination. Choumet V, et al. **FEBS Lett** 1999 Jul 16;455(1-2):18-22

An efficient gene replacement and deletion system for an extreme thermophile, Thermus thermophilus. Tamakoshi M, et al. **FEMS Microbiol Lett** 1999 Apr 15;173(2):431-7

DNA strand exchange proteins: a biochemical and physical comparison. Bianco PR, et al. **Front Biosci** 1998 Jun 17; 3:D570-603 (307 ref.)

Insertion of a foreign gene into the beta-casein locus by Cre-mediated site-specific recombination. Kolb AF, et al.

Gene 1999 Feb 4;227(1):21-31

Mycobacteriophage D29 integrase-mediated recombination: specificity of mycobacteriophage integration. Peña CE, et al. **Gene** 1998 Dec 28;225(1-2):143-51

Recombinogenic targeting: a new approach to genomic analysis--a review. Shashikant CS, et al. **Gene** 1998 Nov 26;223(1-2):9-20 (83 ref.)

Recombination in phage lambda: one geneticist's historical perspective. Stahl FW. **Gene** 1998 Nov 26;223(1-2):95-102 (77 ref.)

Cre/loxP-mediated in vivo excision of large segments from yeast genome and their amplification based on the 2microm plasmid-derived system. Yoon YG, et al. **Gene** 1998 Nov 26;223(1-2):67-76

Selectable in-vivo recombination to increase antibody library size--an improved phage display vector system. Zahra DG, et al. **Gene** 1999 Feb 4;227(1):49-54

Mutational analysis on structure-function relationship of a holliday junction specific endonuclease RuvC. Ichiyanagi K, et al. **Genes Cells** 1998 Sep;3(9):575-86

Escherichia coli HU protein suppresses DNA-gyrase-mediated illegitimate recombination and SOS induction. Shanado Y, et al. **Genes Cells** 1998 Aug; 3(8):511-20

The RecBC enzyme loads RecA protein onto ssDNA asymmetrically and independently of chi, resulting in constitutive recombination activation. Churchill JJ, et al. **Genes Dev** 1999 Apr 1;13(7):901-11

Yeast telomeres exert a position effect on recombination between internal tracts of yeast telomeric DNA. Stavenhagen JB, et al. **Genes Dev** 1998 Oct 1; 12(19):3044-58

On the evolution of recombination and meiosis. Gessler DD, et al. **Genet Res** 1999 Apr;73(2):119-31

Inferring the fitness effects of DNA mutations from polymorphism and divergence data: statistical power to detect directional selection under stationarity and free recombination. Akashi H. **Genetics** 1999 Jan;151(1):221-38

Recombination and selection at Brassica self-incompatibility loci. Awadalla P, et al. **Genetics** 1999 May;152(1):413-25

Intrachromosomal recombination between well-separated, homologous sequences in mammalian cells. Baker MD, et al. **Genetics** 1999 Jun;152(2):685-97

Evidence for negative interference: clustering of crossovers close to the am locus in Neurospora crassa among am recombinants. Bowring FJ, et al. **Genetics** 1999 Jul; 152(3):965-9

The role of the mismatch repair machinery in regulating mitotic and meiotic recombination between diverged sequences in yeast. Chen W, et al. **Genetics** 1999 Apr; 151(4):1299-313

Natural selection on synonymous sites is correlated with gene length and recombination in Drosophila. Comeron JM, et al. **Genetics** 1999 Jan;151(1):239-49

Efficient homologous and illegitimate recombination in the opportunistic yeast pathogen Candida glabrata. Cormack BP, et al. **Genetics** 1999 Mar;151(3):979-87

Interchromosomal recombination in Zea mays. Hu W, et al. **Genetics** 1998 Nov;150(3):1229-37

A candidate recombination modifier gene for Zea mays L. Ji Y, et al. **Genetics** 1999 Feb;151(2):821-30

Coordination of the initiation of recombination and the reductional division in meiosis in Saccharomyces cerevisiae. Jiao K, et al. **Genetics** 1999 May;152(1):117-28

Homeologous plastid DNA transformation in tobacco is mediated by multiple recombination events. Kavanagh TA, et al. **Genetics** 1999 Jul;152(3):1111-22

Maximal stimulation of meiotic recombination by a yeast transcription factor requires the transcription activation domain and a DNA-binding domain. Kirkpatrick DT, et al. **Genetics** 1999 May;152(1):101-15

Positive correlation between recombination rates and levels of genetic variation in natural populations of sea beet (Beta vulgaris subsp. maritima). Kraft T, et al. **Genetics** 1998 Nov; 150(3):1239-44

Novel mutations in the RAD3 and SSL1 genes perturb genome stability by stimulating recombination between short repeats in Saccharomyces cerevisiae. Maines S, et al. **Genetics** 1998 Nov;150(3):963-76

DNA variability and recombination rates at X-linked loci in humans. Nachman MW, et al. **Genetics** 1998 Nov; 150(3):1133-41

Escherichia coli mutM suppresses illegitimate recombination induced by oxidative stress. Onda M, et al. **Genetics** 1999 Feb;151(2):439-46

Double-strand break-induced recombination between ectopic homologous sequences in somatic plant cells. Puchta H. **Genetics** 1999 Jul;152(3):1173-81

Tandem repeat recombination induced by replication fork defects in Escherichia coli requires a novel factor, RadC. Saveson CJ, et al. **Genetics** 1999 May;152(1):5-13

CYS3, a hotspot of meiotic recombination in Saccharomyces cerevisiae. Effects of heterozygosity and mismatch repair functions on gene conversion and recombination intermediates. Vedel M, et al. **Genetics** 1999 Apr; 151(4):1245-59

The ancestry of a sample of sequences subject to recombination. Wiuf C, et al. **Genetics** 1999 Mar; 151(3):1217-28

Equal frequencies of recombination nodules in both sexes of the pigeon suggest a basic difference with eutherian mammals. Pigozzi MI, et al. **Genome** 1999 Apr;42(2):315-21

Nonhomologous recombination between the cytochrome b558 heavy chain gene (CYBB) and LINE-1 causes an X-linked chronic granulomatous disease. Kumatori A, et al. **Genomics** 1998 Oct 15;53(2):123-8

Fine-mapping of a region of variation in recombination rate on BTA23 to the D23S22-D23S23 interval using sperm typing and meiotic breakpoint analysis. Park C, et al. **Genomics** 1999 Jul 15;59(2):143-9

Genetic and physical analyses of the centromeric and pericentromeric regions of human chromosome 5: recombination across 5cen. Puechberty J, et al. **Genomics** 1999 Mar 15;56(3):274-87

Induction of anti-tumor immunity elicited by tumor cells expressing a murine LFA-3 analog via a recombinant vaccinia virus [published erratum appears in Hum Gene Ther 1999 May 1;10(7):1260] Lorenz MG, et al. **Hum Gene Ther** 1999 Mar 1;10(4):623-31

Efficient construction of a recombinant adenovirus vector by an improved in vitro ligation method. Mizuguchi H, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2577-83

Two independent molecular pathways for recombinant adeno-associated virus genome conversion occur after UV-C and E4orf6 augmentation of transduction. Sanlioglu S, et al. **Hum Gene Ther** 1999 Mar 1;10(4):591-602

A deletion/insertion leading to the generation of a direct repeat as a result of slipped mispairing and intragenic recombination in the factor VIII gene. Tavassoli K, et al. **Hum Genet** 1999 May;104(5):435-7

RAG reexpression and DNA recombination at T cell receptor loci in peripheral CD4+ T cells. McMahan CJ, et al. **Immunity** 1998 Nov;9(5):637-47

Apparent trans-chromosomal antibody class switch in mice bearing an Igh(a) mu-chain transgene on an Igh(b) genetic background. Willers J, et al. **Immunobiology** 1999 Feb; 200(1):150-64

Development of intra-natural killer complex (NKC) recombinant and congenic mouse strains for mapping and functional analysis of NK cell regulatory loci. Scalzo AA, et al. **Immunogenetics** 1999 Mar;49(3):238-41

Evidence for recombination as a mechanism for KIR diversification. Shilling HG, et al. **Immunogenetics** 1998 Nov-Dec;48(6):413-6

Ancestral and recombinant 16-locus HLA haplotypes in the Hutterites. Weitkamp LR, et al. **Immunogenetics** 1999 Jun; 49(6):491-7

Evolution of the mammalian MHC: natural selection, recombination, and convergent evolution. Yeager M, et al. **Immunol Rev** 1999 Feb;167:45-58 (77 ref.)

Transcriptional enhancers and the evolution of the IgH locus. Magor BG, et al. **Immunol Today** 1999 Jan;20(1):13-7 (35 ref.)

Inactivation of the gbpA gene of Streptococcus mutans alters structural and functional aspects of plaque biofilm which are compensated by recombination of the gtfB and gtfC genes. Hazlett KR, et al. **Infect Immun** 1999 Aug; 67(8):3909-14

Identification of a new variable sequence in the P1 cytadhesin gene of Mycoplasma pneumoniae: evidence for the generation of antigenic variation by DNA recombination between repetitive sequences. Kenri T, et al. **Infect Immun** 1999 Sep;67(9):4557-62

Resurgent Vibrio cholerae O139: rearrangement of cholera toxin genetic elements and amplification of rrn operon. Khetawat G, et al. **Infect Immun** 1999 Jan;67(1):148-54

Deletion of porA by recombination between clusters of repetitive extragenic palindromic sequences in Neisseria meningitidis. van der Ende A, et al. **Infect Immun** 1999 Jun;67(6):2928-34

The autolysin-encoding gene (lytA) of Streptococcus pneumoniae displays restricted allelic variation despite localized recombination events with genes of pneumococcal bacteriophage encoding cell wall lytic enzymes. Whatmore AM, et al. **Infect Immun** 1999 Sep; 67(9):4551-6

An extrachromosomal switch recombination substrate reveals kinetics and substrate requirements of switch recombination in primary murine B cells. Petry K, et al. **Int Immunol** 1999 May;11(5):753-63

An expressed neo(r) cassette provides required functions of the 1gamma2b exon for class switching. Seidl KJ, et al. **Int Immunol** 1998 Nov;10(11):1683-92

Autosomal dominant Charcot-Marie-Tooth disease type 1A and hereditary neuropathy with liability to pressure palsies: detection of the recombination in Slovene patients and exclusion of the potentially recessive Thr118Met PMP22 point mutation. Leonardis L, et al. **Int J Mol Med** 1998 Feb;1(2):495-501

Bacteriophage T4 gp2 interferes with cell viability and with bacteriophage lambda Red recombination. Appasani K, et al. **J Bacteriol** 1999 Feb;181(4):1352-5

Transduction-like gene transfer in the methanogen Methanococcus voltae. Bertani G. **J Bacteriol** 1999 May; 181(10):2992-3002

Site-specific recombination of bacteriophage P22 does not require integration host factor. Cho EH, et al. **J Bacteriol** 1999 Jul;181(14):4245-9

Point mutations in the integron integrase IntI1 that affect recombination and/or substrate recognition. Gravel A, et al. **J Bacteriol** 1998 Oct;180(20):5437-42

Insertion mutations in pilE differentially alter gonococcal pilin antigenic variation. Howell-Adams B, et al. **J Bacteriol** 1999 Oct;181(19):6133-41

Genetic transfer of large DNA inserts to designated loci of the Bacillus subtilis 168 genome. Itaya M. **J Bacteriol** 1999 Feb;181(3):1045-8

Interactions of the integrase protein of the conjugative transposon Tn916 with its specific DNA binding sites. Jia Y, et al. **J Bacteriol** 1999 Oct;181(19):6114-23

Cloning and sequence analysis of a new cellulase gene encoding CelK, a major cellulosome component of Clostridium thermocellum: evidence for gene duplication and recombination. Kataeva I, et al. **J Bacteriol** 1999 Sep; 181(17):5288-95

Site-specific recombination of temperate Myxococcus xanthus phage Mx8: genetic elements required for integration. Magrini V, et al. **J Bacteriol** 1999 Jul; 181(13):4050-61

Site-specific recombination of temperate Myxococcus xanthus phage Mx8: regulation of integrase activity by reversible, covalent modification. Magrini V, et al. **J Bacteriol** 1999 Jul;181(13):4062-70

Role of genomic rearrangements in producing new ribotypes of Salmonella typhi. Ng I, et al. **J Bacteriol** 1999 Jun; 181(11):3536-41

Roles of RuvC and RecG in phage lambda red-mediated recombination. Poteete AR, et al. **J Bacteriol** 1999 Sep; 181(17):5402-8

The ripX locus of Bacillus subtilis encodes a site-specific recombinase involved in proper chromosome partitioning. Sciochetti SA, et al. **J Bacteriol** 1999 Oct;181(19):6053-62

recD sbcB sbcD mutants are deficient in recombinational repair of UV lesions by RecBC. Seigneur M, et al. **J Bacteriol** 1999 Oct;181(19):6220-1

Identification of site-specific recombination genes int and xis of the Rhizobium temperate phage 16-3. Semsey S, et al. **J Bacteriol** 1999 Jul;181(14):4185-92

A family of telomere-associated autonomously replicating sequences and their functions in targeted recombination in Hansenula polymorpha DL-1. Sohn JH, et al. **J Bacteriol** 1999 Feb;181(3):1005-13

Sister chromatid exchange frequencies in Escherichia coli analyzed by recombination at the dif resolvase site. Steiner WW, et al. **J Bacteriol** 1998 Dec;180(23):6269-75

Inhibition of homologous recombination by the plasmid MucA'B complex. Venderbure C, et al. **J Bacteriol** 1999 Feb;181(4):1249-55

Illegitimate recombination induced by overproduction of DnaB helicase in Escherichia coli. Yamashita T, et al. **J Bacteriol** 1999 Aug;181(15):4549-53

Radiation-induced assembly of Rad51 and Rad52 recombination complex requires ATM and c-Abl. Chen G, et al. **J Biol Chem** 1999 Apr 30;274(18):12748-52

G4 DNA binding by LR1 and its subunits, nucleolin and hnRNP D, A role for G-G pairing in immunoglobulin switch recombination. Dempsey LA, et al. **J Biol Chem** 1999 Jan 8;274(2):1066-71

The prokaryotic beta-recombinase catalyzes site-specific recombination in mammalian cells. Diaz V, et al. **J Biol Chem** 1999 Mar 5;274(10):6634-40

Xer site-specific recombination. DNA strand rejoining by recombinase XerC. Grainge I, et al. **J Biol Chem** 1999 Mar 5;274(10):6763-9

Genetic instabilities in (CTG.CAG) repeats occur by recombination. Jakupciak JP, et al. **J Biol Chem** 1999 Aug 13;274(33):23468-79

Mutational analysis of the Mu transposase. Contributions of two distinct regions of domain II to recombination. Krementsova E, et al. **J Biol Chem** 1998 Nov 20; 273(47):31358-65

RAG1 and RAG2 cooperate in specific binding to the recombination signal sequence in vitro. Mo X, et al. **J Biol Chem** 1999 Mar 12;274(11):7025-31

Human exonuclease 1 functionally complements its yeast homologues in DNA recombination, RNA primer removal, and mutation avoidance. Qiu J, et al. **J Biol Chem** 1999 Jun 18;274(25):17893-900

The human RAD54 recombinational DNA repair protein is a double-stranded DNA-dependent ATPase. Swagemakers SM, et al. **J Biol Chem** 1998 Oct 23; 273(43):28292-7

Substrate specificity of the SpCCE1 holliday junction resolvase of Schizosaccharomyces pombe. Whitby MC, et al. **J Biol Chem** 1998 Dec 25;273(52):35063-73

Flp ribonuclease activities. Mechanistic similarities and contrasts to site-specific DNA recombination. Xu CJ, et al. **J Biol Chem** 1998 Nov 13;273(46):30591-8

The nature of human immunodeficiency virus type 1 strand transfers. Yu H, et al. **J Biol Chem** 1998 Oct 23; 273(43):28384-91

Historical recombinant sites in extended HLA haplotypes. D'Alfonso S, et al. **J Biol Regul Homeost Agents** 1999 Jan-Mar;13(1):8-13

Production of O-acetylated and sulfated chitooligosaccharides by recombinant Escherichia coli strains harboring different combinations of nod genes. Samain E, et al. **J Biotechnol** 1999 Jun 11;72(1-2):33-47

Bouquet formation in budding yeast: initiation of recombination is not required for meiotic telomere clustering. Trelles-Sticken E, et al. **J Cell Sci** 1999 Mar; 112 (Pt 5):651-8

Omenn syndrome: a disorder of Rag1 and Rag2 genes. Villa A, et al. **J Clin Immunol** 1999 Mar;19(2):87-97 (70 ref.)

Nucleotide pool imbalance and adenosine deaminase deficiency induce alterations of N-region insertions during

V(D)J recombination. Gangi-Peterson L, et al. **J Clin Invest** 1999 Mar;103(6):833–41

Processing of switch transcripts is required for targeting of antibody class switch recombination. Hein K, et al. **J Exp Med** 1998 Dec 21;188(12):2369–74

Recombination in RNA viruses and in virus-resistant transgenic plants. Aaziz R, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1339–46 (85 ref.)

Multiple genetic reassortment of avian and human influenza A viruses in European pigs, resulting in the emergence of an H1N2 virus of novel genotype. Brown IH, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2947–55

Variation within the glycoprotein B gene of human cytomegalovirus is due to homologous recombination. Haberland M, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1495–500

'Primer alignment-and-extension': a novel mechanism of viral RNA recombination responsible for the rescue of inactivated poliovirus cDNA clones. Pierangeli A, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):1889–97

Development of porcine adenovirus-3 as an expression vector. Reddy PS, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):563–70

An inducible cell model for studies of V(D)J recombinational control. Sikes ML, et al. **J Immunol Methods** 1999 Apr 22;224(1–2):25–9

The molecular epidemiology and evolution of Epstein-Barr virus: sequence variation and genetic recombination in the latent membrane protein-1 gene. Walling DM, et al. **J Infect Dis** 1999 Apr;179(4):763–74

The RAD51 protein supports homologous recombination by an exchange mechanism in mammalian cells. Arnaudeau C, et al. **J Mol Biol** 1999 Jun 25;289(5):1231–8

Mechanism of DNA gyrase-mediated illegitimate recombination: characterization of Escherichia coli gyrA mutations that confer hyper-recombination phenotype. Ashizawa Y, et al. **J Mol Biol** 1999 Jun 11;289(3):447–58

Topology of Xer recombination on catenanes produced by lambda integrase. Bath J, et al. **J Mol Biol** 1999 Jun 18; 289(4):873–83

A synthetic holliday junction is sandwiched between two tetrameric Mycobacterium leprae RuvA structures in solution: new insights from neutron scattering contrast variation and modelling. Chamberlain D, et al. **J Mol Biol** 1998 Nov 27;284(2):385–400

Alterations in the directionality of lambda site-specific recombination catalyzed by mutant integrases in vivo. Christ N, et al. **J Mol Biol** 1999 May 21;288(5):825–36

The topological mechanism of phage lambda integrase. Crisona NJ, et al. **J Mol Biol** 1999 Jun 18;289(4):747–75

Saturation mutagenesis of the E. coli RecA loop L2 homologous DNA pairing region reveals residues essential for recombination and recombinational repair. Hörtnagel K, et al. **J Mol Biol** 1999 Mar 5;286(4):1097–106

DNA-sequence asymmetry directs the alignment of recombination sites in the FLP synaptic complex. Huffman KE, et al. **J Mol Biol** 1999 Feb 12;286(1):1–13

Duplex opening by primosome protein PriA for replisome assembly on a recombination intermediate. Jones JM, et al. **J Mol Biol** 1999 Jun 11;289(3):503–16

Inducible site-specific recombination in the brain. Kellendonk C, et al. **J Mol Biol** 1999 Jan 8;285(1):175–82

Topological selectivity of a hybrid site-specific recombination system with elements from Tn3 res/resolvase and bacteriophage P1 loxP/Cre. Kilbride E, et al. **J Mol Biol** 1999 Jun 25;289(5):1219–30

Inversion/dimerization of plasmids mediated by inverted repeats. Lyu YL, et al. **J Mol Biol** 1999 Jan 29; 285(4):1485–501

Expansion of DNA repeats in Escherichia coli: effects of recombination and replication functions. Morag AS, et al. **J Mol Biol** 1999 May 28;289(1):21–7

Palindromic sequences and A+T-rich DNA elements promote illegitimate recombination in Nicotiana tabacum. Müller AE, et al. **J Mol Biol** 1999 Aug 6;291(1):29–46

Recombination during reverse transcription: an evaluation of the role of the nucleocapsid protein. Negroni M, et al. **J Mol Biol** 1999 Feb 12;286(1):15–31

Shope fibroma virus DNA topoisomerase catalyses holliday junction resolution and hairpin formation in vitro. Palaniyar N, et al. **J Mol Biol** 1999 Mar 19;287(1):9–20

Comparative kinetic analysis of FLP and cre recombinases: mathematical models for DNA binding and recombination. Ringrose L, et al. **J Mol Biol** 1998 Nov 27;284(2):363–84

The simultaneous binding of two double-stranded DNA molecules by Escherichia coli RecA protein. Zaitsev EN, et al. **J Mol Biol** 1999 Mar 19;287(1):21–31

Nonhomologous RNA recombination in bovine viral diarrhea virus: molecular characterization of a variety of subgenomic RNAs isolated during an outbreak of fatal mucosal disease. Becher P, et al. **J Virol** 1999 Jul; 73(7):5646–53

Mutations in the N terminus of the brome mosaic virus polymerase affect genetic RNA-RNA recombination. Figlerowicz M, et al. **J Virol** 1998 Nov;72(11):9192–200

Recombinant herpes simplex virus type 1 engineered for targeted binding to erythropoietin receptor-bearing cells. Laquerre S, et al. **J Virol** 1998 Dec;72(12):9683–97

Targeted recombination within the spike gene of murine coronavirus mouse hepatitis virus-A59: Q159 is a determinant of hepatotropism. Leparc-Goffart I, et al. **J Virol** 1998 Dec;72(12):9628–36

Full-length human immunodeficiency virus type 1 genomes from subtype C-infected seroconverters in India, with evidence of intersubtype recombination. Lole KS, et al. **J Virol** 1999 Jan;73(1):152–60

Comparative genomics of Streptococcus thermophilus phage species supports a modular evolution theory. Lucchini S, et al. **J Virol** 1999 Oct;73(10):8647–56

Reassortment and insertion-deletion are strategies for the evolution of influenza B viruses in nature. McCullers JA, et al. **J Virol** 1999 Sep;73(9):7343–8

Comparison of genetic variability at multiple loci across the genomes of the major subtypes of Kaposi's sarcoma-associated herpesvirus reveals evidence for recombination and for two distinct types of open reading frame K15 alleles at the right-hand end. Poole LJ, et al. **J Virol** 1999 Aug;73(8):6646–60

Evidence of recombination among enteroviruses. Santti J, et al. **J Virol** 1999 Oct;73(10):8741–9

Recombination in Tula hantavirus evolution: analysis of genetic lineages from Slovakia. Sibold C, et al. **J Virol** 1999 Jan;73(1):667–75

Human immunodeficiency virus type 1 intergroup (M/O) recombination in cameroon. Takehisa J, et al. **J Virol** 1999 Aug;73(8):6810–20

Drastic fitness loss in human immunodeficiency virus type 1 upon serial bottleneck events. Yuste E, et al. **J Virol** 1999 Apr;73(4):2745–51

Recombination between two identical sequences within the same retroviral RNA molecule. Zhang J, et al. **J Virol** 1999 Jul;73(7):5912–7

Minimizing DNA recombination during long RT-PCR. Fang G, et al. **J Virol Methods** 1998 Dec;76(1–2):139–48

Rapid and efficient recovery of Sendai virus from cDNA: factors influencing recombinant virus rescue. Leyrer S, et al. **J Virol Methods** 1998 Nov;75(1):47–58

An efficient way to introduce unique restriction endonuclease sites into a baculovirus genome. Yang S, et al. **J Virol Methods** 1998 Dec;76(1–2):51–8

A novel expression system based on host-range expansion of baculovirus. Zhu Y, et al. **J Virol Methods** 1998 Dec; 76(1–2):101–8

Isolation and characterisation of recombination events involving immunoglobulin heavy chain switch regions in multiple myeloma using long distance vectorette PCR (LDV-PCR). Proffitt J, et al. **Leukemia** 1999 Jul; 13(7):1100–7

Replication error frequencies in primary hepatocellular carcinoma: a comparison of solitary primary versus multiple primary cancers. Takagi K, et al. **Liver** 1998 Aug; 18(4):272–6

Deletion in the beige gene of the beige rat owing to recombination between LINE1s. Mori M, et al. **Mamm Genome** 1999 Jul;10(7):692–5

Genotyping new BXD recombinant inbred mouse strains and comparison of BXD and consensus maps. Taylor BA, et al. **Mamm Genome** 1999 Apr;10(4):335–48

Asymmetric DDE (D35E)-like sequences in the RAG proteins: implications for V(D)J recombination and retroviral pathogenesis. Dreyfus DH, et al. **Med Hypotheses** 1999 Jun;52(6):545–9 (32 ref.)

Detection of minimal residual disease by PCR in childhood T-cell acute lymphoblastic leukemia with TAL1 gene rearrangement: a preliminary report. Kikuchi A, et al. **Med Pediatr Oncol** 1999 Feb;32(2):148

Selection, recombination and history in a parasitic flatworm (Echinococcus) inferred from nucleotide sequences. Haag KL, et al. **Mem Inst Oswaldo Cruz** 1998 Sep-Oct; 93(5):695–702

Isolation of selected chromatin fragments from yeast by site-specific recombination in vivo. Ansari A, et al. **Methods** 1999 Feb;17(2):104–11

Analysis of mammalian cis-regulatory DNA elements by homologous recombination. Fiering S, et al. **Methods Enzymol** 1999;306:42–66 (81 ref.)

Cre recombinase mediated alterations of the mouse genome using embryonic stem cells. Hadjantonakis AK, et al. **Methods Mol Biol** 1999;97:101–22 (42 ref.)

Physical monitoring of HO-induced homologous recombination. Holmes A, et al. **Methods Mol Biol** 1999; 113:403–15

Homologous recombination in Mycobacterium smegmatis. Screening methods for detection of gene replacement. Husson RN. **Methods Mol Biol** 1998;101:199–206

Gene replacement in Mycobacterium intracellulare. Marklund BI, et al. **Methods Mol Biol** 1998;101:217–24

Use of gene targeting to study recombination in mammalian DNA repair mutants. Nairn RS, et al. **Methods Mol Biol** 1999;113:499–517

Gene replacement in Mycobacterium bovis BCG. Norman E. **Methods Mol Biol** 1998;101:225–33

Use of I-Sce I to induce DNA double-strand breaks in Nicotiana. Puchta H. **Methods Mol Biol** 1999;113:447–51

Interspecies recombination between enterococci: genetic and phenotypic diversity of vancomycin-resistant transconjugants. McAshan SK, et al. **Microb Drug Resist** 1999 Summer;5(2):101–12

rDNA spacer rearrangements and concerted evolution [comment] Gürtler V, et al. **Microbiology** 1999 Jan;145 (Pt 1):2–3. Comment on: Microbiology 1995 May;141 (Pt 5):1255–65. Comment on: Microbiology 1996 Jan;142 (Pt 1):3–16. Comment on: Microbiology 1998 May;144 (Pt 5):1213–21.

Enhanced gene replacement in mycobacteria. Hinds J, et al. **Microbiology** 1999 Mar;145 (Pt 3):519–27

Intra-cluster recombination and var transcription switches in the antigenic variation of Plasmodium falciparum. Deitsch KW, et al. **Mol Biochem Parasitol** 1999 Jun 25; 101(1–2):107–16

A Plasmodium falciparum apical membrane antigen-1 (AMA-1) gene apparently generated by intragenic recombination. Eisen DP, et al. **Mol Biochem Parasitol** 1999 May 25;100(2):243–6

Phylogenetic evidence for recombination in dengue virus. Holmes EC, et al. **Mol Biol Evol** 1999 Mar;16(3):405–9

The influence of recombination on the population structure and evolution of the human pathogen Neisseria meningitidis. Holmes EC, et al. **Mol Biol Evol** 1999 Jun; 16(6):741–9

Accumulation of recombinant chromosomes and low fidelity of transmission of chromosome X DNA markers in gamma-ray-induced lymphomas lacking p53. Koide N, et al. **Mol Carcinog** 1999 Jan;24(1):57–63

Intermolecular V(D)J recombination is prohibited specifically at the joining step. Han JO, et al. **Mol Cell** 1999 Mar;3(3):331–8

RecQ helicase and topoisomerase III comprise a novel DNA strand passage function: a conserved mechanism for control of DNA recombination. Harmon FG, et al. **Mol Cell** 1999 May;3(5):611–20

Disruption of the Pfg27 locus by homologous recombination leads to loss of the sexual phenotype in P. falciparum. Lobo CA, et al. **Mol Cell** 1999 Jun;3(6):793–8

Poly(ADP-ribose) polymerase: a guardian of the genome that facilitates DNA repair by protecting against DNA recombination. Chatterjee S, et al. **Mol Cell Biochem** 1999 Mar;193(1–2):23–30

A RAG1 and RAG2 tetramer complex is active in cleavage in V(D)J recombination. Bailin T, et al. **Mol Cell Biol** 1999 Jul;19(7):4664–71

Use of a recombination reporter insert to define meiotic recombination domains on chromosome III of Saccharomyces cerevisiae. Borde V, et al. **Mol Cell Biol** 1999 Jul;19(7):4832–42

cDNA of the yeast retrotransposon Ty5 preferentially recombines with substrates in silent chromatin. Ke N, et al. **Mol Cell Biol** 1999 Jan;19(1):484–94

Subtle mutagenesis by ends-in recombination in malaria parasites. Nunes A, et al. **Mol Cell Biol** 1999 Apr; 19(4):2895–902

DNA hairpin opening mediated by the RAG1 and RAG2 proteins. Shockett PE, et al. **Mol Cell Biol** 1999 Jun; 19(6):4159–66

Regulation of V(D)J recombination by transcriptional promoters. Sikes ML, et al. **Mol Cell Biol** 1999 Apr; 19(4):2773–81

Roles of the "dispensable" portions of RAG-1 and RAG-2 in V(D)J recombination. Steen SB, et al. **Mol Cell Biol** 1999 Apr;19(4):3010–7

Overlapping specificities of base excision repair, nucleotide excision repair, recombination, and translesion synthesis pathways for DNA base damage in Saccharomyces cerevisiae. Swanson RL, et al. **Mol Cell Biol** 1999 Apr; 19(4):2929–35

Recombination between chloroplast genomes of Trachystoma ballii and Brassica juncea following protoplast fusion. Baldev A, et al. **Mol Gen Genet** 1998 Nov;260(4):357–61

Intrachromosomal recombination between direct repeats in Penicillium chrysogenum: gene conversion and deletion events. Casqueiro J, et al. **Mol Gen Genet** 1999 Jul; 261(6):994–1000

A targeted kappa immunoglobulin gene containing a deletion of the nuclear matrix association region exhibits spontaneous hyper-recombination in pre-B cells. Hale MA, et al. **Mol Immunol** 1998 Jul;35(10):609–20

Efficient generation of recombinant adenoviral vectors by Cre-lox recombination in vitro. Aoki K, et al. **Mol Med** 1999 Apr;5(4):224–31

Recombination and clonal groupings within Helicobacter pylori from different geographical regions. Achtman M, et al. **Mol Microbiol** 1999 May;32(3):459–70

DNA restriction dependent on two recognition sites: activities of the SfiI restriction-modification system in Escherichia coli. Bilcock DT, et al. **Mol Microbiol** 1999 Feb;31(4):1243–54

Binding of the purified integron DNA integrase IntI1 to integron- and cassette-associated recombination sites. Collis CM, et al. **Mol Microbiol** 1998 Jul;29(2):477–90

Investigation of mycobacterial recA function: protein introns in the RecA of pathogenic mycobacteria do not affect competency for homologous recombination. Frischkorn K, et al. **Mol Microbiol** 1998 Sep;29(5):1203–14

Molecular switches--the ON and OFF of bacterial phase variation. Henderson IR, et al. **Mol Microbiol** 1999 Sep; 33(5):919–32 (76 ref.)

Emergence of recombinant strains of Helicobacter pylori during human infection. Kersulyte D, et al. **Mol Microbiol** 1999 Jan;31(1):31–43

Starvation-induced Mucts62-mediated coding sequence fusion: a role for ClpXP, Lon, RpoS and Crp. Lamrani S, et al. **Mol Microbiol** 1999 Apr;32(2):327–43

Differential roles of homologous recombination pathways in Neisseria gonorrhoeae pilin antigenic variation, DNA transformation and DNA repair. Mehr IJ, et al.

Mol Microbiol 1998 Nov;30(4):697–710
Sequential gene disruption in Candida albicans by FLP-mediated site-specific recombination. Morschhäuser J, et al. **Mol Microbiol** 1999 May;32(3):547–56
C-terminal interactions between the XerC and XerD site-specific recombinases. Spiers AJ, et al. **Mol Microbiol** 1999 Jun;32(5):1031–42
Analysis of random recombination between human MDR1 and mouse mdr1a cDNA in a pHaMDR-dihydrofolate reductase bicistronic expression system. Shoshani T, et al. **Mol Pharmacol** 1998 Oct;54(4):623–30
Restoration of wild-type virus by double recombination of tombusvirus mutants with a host transgene. Borja M, et al. **Mol Plant Microbe Interact** 1999 Feb;12(2):153–62
Use of bovine satellite sequences to increase transgene integration by homologous recombination in bovine embryos. Rieth A, et al. **Mol Reprod Dev** 1999 May; 53(1):1–7
SOS induction by gamma-radiation in Escherichia coli strains defective in repair and/or recombination mechanisms. Breña-Valle M, et al. **Mutagenesis** 1998 Nov;13(6):637–41
Somatic hypermutation and the three R's: repair, replication and recombination. Harris RS, et al. **Mutat Res** 1999 Mar; 436(2):157–78 (166 ref.)
Recent advances in DNA repair and recombination. Iwanejko LA, et al. **Mutat Res** 1998 Sep 11;408(3):227–36
Analysis of intrachromosomal homologous recombination in mammalian cell, using tandem repeat sequences. Lambert S, et al. **Mutat Res** 1999 Apr 9;433(3):159–68 (72 ref.)
RecBC and RecF recombination pathways and the induced precise excision of Tn10 in Escherichia coli. Nagel R, et al. **Mutat Res** 1999 Mar 10;433(2):99–107
Inversion due to intrachromosomal recombination produced by carcinogens in a transgenic mouse model. Sykes PJ, et al. **Mutat Res** 1999 Jun 1;427(1):1–9
The C-terminal domain of p53 catalyzes DNA-renaturation and strand exchange toward annealing between intact ssDNAs and toward eliminating damaged ssDNA from duplex formation through preferential recognition of damaged DNA by a duocarmycin. Yokote H, et al. **Mutat Res** 1998 Dec 14;409(3):147–62
Transformation of Aspergillus awamori by Agrobacterium tumefaciens-mediated homologous recombination. Gouka RJ, et al. **Nat Biotechnol** 1999 Jun;17(6):598–601
Gross chromosomal rearrangements in Saccharomyces cerevisiae replication and recombination defective mutants. Chen C, et al. **Nat Genet** 1999 Sep;23(1):81–5
Engineering chromosomes in mice through targeted meiotic recombination (TAMERE). Hérault Y, et al. **Nat Genet** 1998 Dec;20(4):381–4
The Kudos of non-homologous end-joining [news; comment] Lustig AJ. **Nat Genet** 1999 Oct;23(2):130–1. Comment on: Nat Genet 1999 Oct;23(2):194–8.
The shuffling of a mortal coil [news] Rothstein R, et al. **Nat Genet** 1999 May;22(1):4–6
A new logic for DNA engineering using recombination in Escherichia coli. Zhang Y, et al. **Nat Genet** 1998 Oct; 20(2):123–8
Late embryonic lethality and impaired V(D)J recombination in mice lacking DNA ligase IV. Frank KM, et al. **Nature** 1998 Nov 12;396(6707):173–7
DNA repair. Gatekeepers of recombination [news; comment] Haber JE. **Nature** 1999 Apr 22;398(6729):665, 667. Comment on: Nature 1999 Apr 22;398(6729):728–31.
Mammalian XRCC2 promotes the repair of DNA double-strand breaks by homologous recombination. Johnson RD, et al. **Nature** 1999 Sep 23;401(6751):397–9
Evidence for lateral gene transfer between Archaea and bacteria from genome sequence of Thermotoga maritima. Nelson KE, et al. **Nature** 1999 May 27;399(6734):323–9
Evolutionary genetics. No sex please, we're fungi [news] Sanders IR. **Nature** 1999 Jun 24;399(6738):737–9
Conserved sequence preference in DNA binding among recombination proteins: an effect of ssDNA secondary structure. Biet E, et al. **Nucleic Acids Res** 1999 Jan 15; 27(2):596–600
The geometry of a synaptic intermediate in a pathway of bacteriophage lambda site-specific recombination. Cassell G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1145–51
Interaction of human rad51 recombination protein with single-stranded DNA binding protein, RPA. Golub EI, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5388–93
DNA complexes obtained with the integron integrase IntI1 at the attI1 site. Gravel A, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4347–55
Gene replacement with linear DNA in electroporated wild-type Escherichia coli. El Karoui M, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1296–9
The role of components of recombination signal sequences in immunoglobulin gene segment usage: a V81x model. Larijani M, et al. **Nucleic Acids Res** 1999 Jun 1; 27(11):2304–9
Palindromy is eliminated through a structure-specific recombination process in rodent cells. Lewis SM. **Nucleic Acids Res** 1999 Jun 15;27(12):2521–8
Random mutagenesis by recombinational capture of PCR products in Bacillus subtilis and Acinetobacter calcoaceticus. Melnikov A, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1056–62
Rapid modification of bacterial artificial chromosomes by ET-recombination. Muyrers JP, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1555–7
Catalytic and binding mutants of the junction-resolving enzyme endonuclease I of bacteriophage t7: role of acidic residues. Parkinson MJ, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):682–9
Human DNA topoisomerase I-mediated cleavage and recombination of duck hepatitis B virus DNA in vitro. Pourquier P, et al. **Nucleic Acids Res** 1999 Apr 15; 27(8):1919–25
Homologous recombination is required for the viability of rad27 mutants. Symington LS. **Nucleic Acids Res** 1998 Dec 15;26(24):5589–95
Transplacement mutagenesis: a novel in situ mutagenesis system using phage-plasmid recombination. Unger MW, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1480–4
A general model for site-specific recombination by the integrase family recombinases. Voziyanov Y, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):930–41
Interaction of the resolving enzyme YDC2 with the four-way DNA junction. White MF, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5609–16
Mutant p53 proteins stimulate spontaneous and radiation-induced intrachromosomal homologous recombination independently of the alteration of the transactivation activity and of the G1 checkpoint. Saintigny Y, et al. **Oncogene** 1999 Jun 17;18(24):3553–63
Three-dimensional microscopy of the Rad51 recombination protein during meiotic prophase. Franklin AE, et al. **Plant Cell** 1999 May;11(5):809–24
Intragenic recombination and diversifying selection contribute to the evolution of downy mildew resistance at the RPP8 locus of Arabidopsis. McDowell JM, et al. **Plant Cell** 1998 Nov;10(11):1861–74
Epstein-Barr virus plasmid model system for analyzing recombination in human cells. Phillips JE, et al. **Plasmid** 1999 May;41(3):198–206
Chimerism in humans after intragenic recombination at the haptoglobin locus during early embryogenesis. Asakawa J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10314–9
Formation of coding joints in V(D)J recombination-inducible severe combined immune deficient pre-B cell lines. Chang Y, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):191–6
Chromatin remodeling directly activates V(D)J recombination. Cherry SR, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10788–93
High recombination rate in natural populations of Plasmodium falciparum. Conway DJ, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4506–11
Disruption of gene mg218 of Mycoplasma genitalium through homologous recombination leads to an adherence-deficient phenotype. Dhandayuthapani S, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5227–32
Mitotic recombination map of 13cen-13q14 derived from an investigation of loss of heterozygosity in retinoblastomas. Hagstrom SA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2952–7
Recombination and transcription of the endogenous Ig heavy chain locus is effected by the Ig heavy chain intronic enhancer core region in the absence of the matrix attachment regions. Sakai E, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1526–31
Mitotic recombination produces the majority of recessive fibroblast variants in heterozygous mice. Shao C, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9230–5
lambda Rap protein is a structure-specific endonuclease involved in phage recombination. Sharples GJ, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13507–12
Free recombination within Helicobacter pylori. Suerbaum S, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12619–24
Mutation, recombination, and incipient speciation of bacteria in the laboratory. Vulić M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7348–51
Widespread intra-serotype recombination in natural populations of dengue virus. Worobey M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7352–7
Evidence for mitochondrial DNA recombination in a human population of island Melanesia. Hagelberg E, et al. **Proc R Soc Lond B Biol Sci** 1999 Mar 7;266(1418):485–92
Recombinational DNA repair in bacteria and the RecA protein. Cox MM. **Prog Nucleic Acid Res Mol Biol** 1999; 63:311–66 (342 ref.)
Control of meiotic recombination in Schizosaccharomyces pombe. Fox ME, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:345–78 (132 ref.)
PriA: at the crossroads of DNA replication and recombination. Marians KJ. **Prog Nucleic Acid Res Mol Biol** 1999;63:39–67 (89 ref.)
Mitochondrial recombination? [letter; comment] Arctander P. **Science** 1999 Jun 25;284(5423):2090–1. Comment on: Science 1999 Mar 5;283(5407):1435, 1437–8.
Phylogenetic classification and the universal tree. Doolittle WF. **Science** 1999 Jun 25;284(5423):2124–9 (43 ref.)
Exon shuffling in retrospect [comment] Eickbush T. **Science** 1999 Mar 5;283(5407):1465;1467. Comment on: Science 1999 Mar 5;283(5407):1530–4.
Mix and match in the tree of life. Lake JA, et al. **Science** 1999 Mar 26;283(5410):2027–8
Mitochondrial recombination? (continued) [letter; comment] Merriweather DA, et al. **Science** 1999 Aug 6;285(5429):837 . Comment on: Science 1999 Mar 5;283(5407):1435, 1437–8.
Exon shuffling by L1 retrotransposition [see comments] Moran JV, et al. **Science** 1999 Mar 5;283(5407):1530–4. Comment in: Science 1999 Mar 5;283(5407):1465;1467.
Two modes of survival of fission yeast without telomerase. Nakamura TM, et al. **Science** 1998 Oct 16;282(5388):493–6
Plant genotoxicity. Peters R, et al. **Science** 1998 Dec 18; 282(5397):2214
Targeted recombination at the Chinese hamster APRT locus using insertion versus replacement vectors. Adair GM, et al. **Somat Cell Mol Genet** 1998 Mar;24(2):91–105
Recombination hotspot activity of hypervariable minisatellite DNA requires minisatellite DNA binding proteins. Wahls WP, et al. **Somat Cell Mol Genet** 1998 Jan;24(1):41–51
DNA recombination: the replication connection. Haber JE. **Trends Biochem Sci** 1999 Jul;24(7):271–5 (50 ref.)
Selfishness and death: raison d'être of restriction, recombination and mitochondria. Kobayashi I. **Trends Genet** 1998 Sep;14(9):368–74 (34 ref.)
Getting a handle on RNA virus recombination. Miller WA, et al. **Trends Microbiol** 1998 Nov;6(11):421–3 (16 ref.)
Evolution of Helicobacter pylori: the role of recombination. Suerbaum S, et al. **Trends Microbiol** 1999 May;7(5):182–4 (21 ref.)
Molecular characterization of human immunodeficiency virus (HIV)-1 and -2 in individuals from guinea-bissau with single or dual infections: predominance of a distinct HIV-1 subtype A/G recombinant in West Africa. Andersson S, et al. **Virology** 1999 Sep 30;262(2):312–20
Transmission of human immunodeficiency type 1 viruses with intersubtype recombinant long terminal repeat sequences. Blackard JT, et al. **Virology** 1999 Feb 15;254(2):220–5
High-frequency homologous genetic recombination of an arterivirus, lactate dehydrogenase-elevating virus, in mice and evolution of neuropathogenic variants. Li K, et al. **Virology** 1999 May 25;258(1):73–83
Subtype G and multiple forms of A/G intersubtype recombinant human immunodeficiency virus type 1 in Nigeria. McCutchan FE, et al. **Virology** 1999 Feb 15; 254(2):226–34
In vitro characterization of late steps of RNA recombination in turnip crinkle virus. I. Role of motif1-hairpin structure. Nagy PD, et al. **Virology** 1998 Sep 30;249(2):379–92
In vitro characterization of late steps of RNA recombination in turnip crinkle virus.II. The role of the priming stem and flanking sequences. Nagy PD, et al. **Virology** 1998 Sep 30; 249(2):393–405
Mapping sequences active in homologous RNA recombination in brome mosaic virus: prediction of recombination hot spots. Nagy PD, et al. **Virology** 1999 Feb 1;254(1):92–104
Vaccinia virus DNA polymerase promotes DNA pairing and strand-transfer reactions. Willer DO, et al. **Virology** 1999 May 10;257(2):511–23
A defective RNA associated with bamboo mosaic virus and the possible common mechanisms for RNA recombination in potexviruses. Yeh TY, et al. **Virus Genes** 1999; 18(2):121–8
Conversion of US3-encoded protein kinase gene from pseudorabies virus in a diploid gene located within inverted repeats by genetic recombination between the viral genome isomers. Fernández A, et al. **Virus Res** 1999 Jun; 61(2):125–35
The E116 isolate of Dutch pea early-browning virus is a recombinant virus. Swanson MM, et al. **Virus Res** 1999 Mar;60(1):87–94
Recombination between North American strains of porcine reproductive and respiratory syndrome virus. Yuan S, et al. **Virus Res** 1999 May;61(1):87–98
Specific negative effects resulting from elevated levels of the recombinational repair protein Rad54p in Saccharomyces cerevisiae. Clever B, et al. **Yeast** 1999 Jun 30;15(9):721–40
A 2-microm DNA-based marker recycling system for multiple gene disruption in the yeast Saccharomyces cerevisiae. Storici F, et al. **Yeast** 1999 Mar 15;15(4):271–83
[A new universal gene replacement method for generating a desired mutant mouse] Itoh K. **Fukuoka Igaku Zasshi** 1999 Mar;90(3):100–9 (Eng. Abstr.) **(Jpn)**
[Regulation of gene expression in cultured rabbit corneal stromal cells with recombinant adenovirus using the Cre/loxP system] Herai T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul;103(7):512–8 (Eng. Abstr.) **(Jpn)**
[Structural biology of RecA and RuvABC proteins involved in homologous DNA recombination] Iwasaki H, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):495–505 (46 ref.) **(Jpn)**
[Preference of RecA-filament to the DNA sequences correlates with genetic code] Ponomarenko MP, et al. **Dokl Akad Nauk** 1998 Nov;363(1):122–5 **(Rus)**
[Eukaryotic DNA topoisomerase and in vitro recombination between circular supercoiled plasmid DNA's in an in vitro system] Glazkov MV, et al. **Genetika** 1998 Jul; 34(7):1017–20 (Eng. Abstr.) **(Rus)**
[Further genetic study of tandem duplication formation in the region of the deo operon in the process of Escherichia coli K-12 conjugational recombination] Sukhodolets VV. **Genetika** 1998 Oct;34(10):1338–44 (Eng. Abstr.) **(Rus)**
[The comparative growth characteristics of variants of a recombinant Escherichia coli strain and of the representatives of aboriginal microflora in aqueous microecosystems under selective and nonselective conditions] Kargatova TV, et al. **Izv Akad Nauk Ser Biol** 1999 Mar-Apr;(2):152–7 (Eng.

Abstr.) **(Rus)**
[Genetic transformation of plants, recombination processes, and gene expression regulation in transgenic plants] Kurochkina SD, et al. **Mol Gen Mikrobiol Virusol** 1998; (4):3–12 (131 ref.) (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Acute effects of ethanol on recombinant kainate receptors: lack of role of protein phosphorylation. Valenzuela CF, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1292–9
Modification of gene activity in mouse embryos in utero by a tamoxifen-inducible form of Cre recombinase. Danielian PS, et al. **Curr Biol** 1998 Dec 3;8(24):1323–6
Effect of Salmonella assay negative and positive carcinogens on intrachromosomal recombination in S-phase arrested yeast cells. Galli A, et al. **Mutat Res** 1998 Nov 9; 419(1–3):53–68
Brominated flame retardants induce intragenic recombination in mammalian cells. Helleday T, et al. **Mutat Res** 1999 Feb 19;439(2):137–47
Bleomycin enhances random integration of transfected DNA into a human genome. Nakayama C, et al. **Mutat Res** 1998 Oct 21;409(1):1–10

GENETICS

Ethanol-induced conditioned taste aversion in BXD recombinant inbred mice. Risinger FO, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1234–44
Chromosome breakage in the Prader-Willi and Angelman syndromes involves recombination between large, transcribed repeats at proximal and distal breakpoints. Amos-Landgraf JM, et al. **Am J Hum Genet** 1999 Aug; 65(2):370–86
Immunoglobulin class switch recombination: will genetics provide new clues to mechanism? Maizels N. **Am J Hum Genet** 1999 May;64(5):1270–5 (42 ref.)
New faces of an old pathogen: emergence and spread of multidrug-resistant Streptococcus pneumoniae. Tomasz A. **Am J Med** 1999 Jul 26;107(1A):55S–62S (38 ref.)
BRCA2 is required for ionizing radiation-induced assembly of Rad51 complex in vivo. Yuan SS, et al. **Cancer Res** 1999 Aug 1;59(15):3547–51
Evolutionary changes in the structures of the cox2 and atp6 loci in the mitochondrial genome of soybean involving recombination across small interspersed sequences. Kato S, et al. **Curr Genet** 1998 Oct;34(4):303–12
Amphimeric mitochondrial genomes of petite mutants of yeast. III. Generation by linking two secondary-structure-dependent illegitimate recombination events. Rayko E, et al. **Curr Genet** 1999 Feb;35(1):14–22
Mutants of Tn3 resolvase which do not require accessory binding sites for recombination activity. Arnold PH, et al. **EMBO J** 1999 Mar 1;18(5):1407–14
Distinct roles of two separable in vitro activities of yeast Mre11 in mitotic and meiotic recombination. Furuse M, et al. **EMBO J** 1998 Nov 2;17(21):6412–25
Concerted evolution of the tandem array encoding primate U2 snRNA (the RNU2 locus) is accompanied by dramatic remodeling of the junctions with flanking chromosomal sequences. Pavelitz T, et al. **EMBO J** 1999 Jul 1; 18(13):3783–92
Homologous recombination and non-homologous end-joining pathways of DNA double-strand break repair have overlapping roles in the maintenance of chromosomal integrity in vertebrate cells. Takata M, et al. **EMBO J** 1998 Sep 15;17(18):5497–508
An ATP-ADP switch in MuB controls progression of the Mu transposition pathway. Yamauchi M, et al. **EMBO J** 1998 Sep 15;17(18):5509–18
Dual and recombinant infections: an integral part of the HIV-1 epidemic in Brazil. Ramos A, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):65–74
A novel property of the RecA nucleoprotein filament: activation of double- stranded DNA for strand exchange in trans. Mazin AV, et al. **Genes Dev** 1999 Aug 1; 13(15):2005–16
Method for constructing confidently ordered linkage maps. Broman KW, et al. **Genet Epidemiol** 1999;16(4):337–43
A new recombinational DNA repair gene from Schizosaccharomyces pombe with homology to Escherichia coli RecA. Khasanov FK, et al. **Genetics** 1999 Aug;152(4):1557–72
Mechanism and control of interspecies recombination in Escherichia coli. I. Mismatch repair, methylation, recombination and replication functions. Stambuk S, et al. **Genetics** 1998 Oct;150(2):533–42
Rescue of targeted regions of mammalian chromosomes by in vivo recombination in yeast. Kouprina N, et al. **Genome Res** 1998 Jun;8(6):666–72
Construction of human chromosome 16- and 5-specific circular YAC/BAC libraries by in vivo recombination in yeast (TAR cloning). Kouprina N, et al. **Genomics** 1998 Oct 1;53(1):21–8
A cytoplasmic dynein heavy chain is required for oscillatory nuclear movement of meiotic prophase and efficient meiotic recombination in fission yeast. Yamamoto A, et al. **J Cell Biol** 1999 Jun 14;145(6):1233–49
Generation and use of recombinant reporter viruses for study of herpes simplex virus infections in vivo. Bloom DC, et al. **Methods** 1998 Sep;16(1):117–25
Analysis of factors influencing kinetics of herpes simplex virus transcription utilizing recombinant virus. Wagner EK, et al. **Methods** 1998 Sep;16(1):105–16
Multiple pathways of recombination induced by double-strand breaks in Saccharomyces cerevisiae. Pâques F, et al. **Microbiol Mol Biol Rev** 1999 Jun;63(2):349–404 (575 ref.)
Electrotransformation and natural transformation of Streptococcus pneumoniae: requirement of DNA processing for recombination. Lefrançois J, et al. **Microbiology** 1998 Nov;144 (Pt 11):3061–8
Evidence that immunoglobulin VH-DJ recombination does not require germ line transcription of the recombining variable gene segment. Angelin-Duclos C, et al. **Mol Cell Biol** 1998 Nov;18(11):6253–64
Mismatch repair proteins regulate heteroduplex formation during mitotic recombination in yeast. Chen W, et al. **Mol Cell Biol** 1998 Nov;18(11):6525–37
Detection of RAG protein-V(D)J recombination signal interactions near the site of DNA cleavage by UV cross-linking. Eastman QM, et al. **Mol Cell Biol** 1999 May; 19(5):3788–97
Schizosaccharomyces pombe retrotransposon Tf2 mobilizes primarily through homologous cDNA recombination. Hoff EF, et al. **Mol Cell Biol** 1998 Nov;18(11):6839–52
Regulation of the Mts1-Mts2-dependent ade6-M26 meiotic recombination hot spot and developmental decisions by the Spc1 mitogen-activated protein kinase of fission yeast. Kon N, et al. **Mol Cell Biol** 1998 Dec;18(12):7575–83
Rec8p, a meiotic recombination and sister chromatid cohesion phosphoprotein of the Rad21p family conserved from fission yeast to humans. Parisi S, et al. **Mol Cell Biol** 1999 May;19(5):3515–28
Targeted inactivation of mouse RAD52 reduces homologous recombination but not resistance to ionizing radiation. Rijkers T, et al. **Mol Cell Biol** 1998 Nov;18(11):6423–9
The Saccharomyces cerevisiae hyperrecombination mutant hpr1Delta is synthetically lethal with two conditional alleles of the acetyl coenzyme A carboxylase gene and causes a defect in nuclear export of polyadenylated RNA. Schneiter R, et al. **Mol Cell Biol** 1999 May;19(5):3415–22
The C terminus of Ku80 activates the DNA-dependent protein kinase catalytic subunit. Singleton BK, et al. **Mol Cell Biol** 1999 May;19(5):3267–77
Failure of hairpin-ended and nicked DNA To activate DNA-dependent protein kinase: implications for V(D)J recombination. Smider V, et al. **Mol Cell Biol** 1998 Nov; 18(11):6853–8
The RAG-HMG1 complex enforces the 12/23 rule of V(D)J recombination specifically at the double-hairpin formation step. West RB, et al. **Mol Cell Biol** 1998 Nov; 18(11):6408–15
Homologous recombination, but not DNA repair, is reduced in vertebrate cells deficient in RAD52. Yamaguchi-Iwai Y, et al. **Mol Cell Biol** 1998 Nov;18(11):6430–5
Expression of Saccharomyces cerevisiae MATa and MAT alpha enhances the HO endonuclease-stimulation of chromosomal rearrangements directed by his3 recombinational substrates. Fasullo M, et al. **Mutat Res** 1999 Jan 26;433(1):33–44
Cell division transforms mutagenic lesions into deletion-recombinagenic lesions in yeast cells. Galli A, et al. **Mutat Res** 1999 Aug 11;429(1):13–26
RecG helicase activity at three- and four-strand DNA structures. McGlynn P, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3049–56
Allelic association under map error and recombinational heterogeneity: a tale of two sites. Lonjou C, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11366–70
Base pair switching by interconversion of sugar puckers in DNA extended by proteins of RecA-family: a model for homology search in homologous genetic recombination. Nishinaka T, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11071–6
The time to the ancestor along sequences with recombination. Griffiths RC. **Theor Popul Biol** 1999 Apr;55(2):137–44
Recombination as a point process along sequences. Wiuf C, et al. **Theor Popul Biol** 1999 Jun;55(3):248–59

IMMUNOLOGY

Control of V(D)J recombinational accessibility of the D beta 1 gene segment at the TCR beta locus by a germline promoter. Whitehurst CE, et al. **Immunity** 1999 Mar; 10(3):313–22
Recombination within the human MHC. Carrington M. **Immunol Rev** 1999 Feb;167:245–56 (106 ref.)
Molecular clock and recombination in primate Mhc genes. Satta Y, et al. **Immunol Rev** 1999 Feb;167:367–79 (79 ref.)
Positive and negative regulation of V(D)J recombination by the E2A proteins. Bain G, et al. **J Exp Med** 1999 Jan 18; 189(2):289–300
Cutting edge: homologous recombination of the MHC class I K region defines new MHC-linked diabetogenic susceptibility gene(s) in nonobese diabetic mice. Hattori M, et al. **J Immunol** 1999 Aug 15;163(4):1721–4
Decreased frequency of rearrangement due to the synergistic effect of nucleotide changes in the heptamer and nonamer of the recombination signal sequence of the V kappa gene A2b, which is associated with increased susceptibility of Navajos to Haemophilus influenzae type b disease. Nadel B, et al. **J Immunol** 1998 Dec 1;161(11):6068–73
Induction of genital immunity by DNA priming and intranasal booster immunization with a replication-defective adenoviral recombinant. Xiang ZQ, et al. **J Immunol** 1999 Jun 1;162(11):6716–23
A rapid and safe plasmid isolation method for efficient engineering of recombinant lactobacilli expressing immunogenic or tolerogenic epitopes for oral administration. Maassen CB. **J Immunol Methods** 1999 Feb 1;223(1):131–6
The effect of pre-existing adenovirus-specific immunity on immune responses induced by recombinant adenovirus expressing glycoprotein D of bovine herpesvirus type 1. Papp Z, et al. **Vaccine** 1999 Feb 26;17(7–8):933–43
Recombinant feline leukemia virus (FeLV) variants establish a limited infection with altered cell tropism in specific-pathogen-free cats in the absence of FeLV subgroup A helper virus. Bechtel MK, et al. **Vet Pathol** 1999 Mar;36(2):91–9

PHYSIOLOGY

RuvAB acts at arrested replication forks. Seigneur M, et al. **Cell** 1998 Oct 30;95(3):419–30
Regulation of homologous recombination: Chi inactivates RecBCD enzyme by disassembly of the three subunits. Taylor AF, et al. **Genes Dev** 1999 Apr 1;13(7):890–900
Toxic mutations in the recA gene of E. coli prevent proper chromosome segregation. Campbell MJ, et al. **J Mol Biol** 1999 Feb 19;286(2):417–35
On the in vivo function of the RecA ATPase. Campbell MJ, et al. **J Mol Biol** 1999 Feb 19;286(2):437–45
Infection with a recombinant vaccinia virus encoding myelin proteolipid protein causes suppression of chronic relapsing-remitting experimental allergic encephalomyelitis. Wang LY, et al. **J Neuroimmunol** 1999 May 3;96(2):148–57
Homology search and choice of homologous partner during mitotic recombination. Inbar O, et al. **Mol Cell Biol** 1999 Jun;19(6):4134–42

RADIATION EFFECTS

Leukemia patient-derived lymphoblastoid cell lines exhibit increased induction of leukemia-associated transcripts following high-dose irradiation. Spencer A, et al. **Exp Hematol** 1999 Sep;27(9):1397–401
UV stimulation of chromosomal marker exchange in Sulfolobus acidocaldarius: implications for DNA repair, conjugation and homologous recombination at extremely high temperatures. Schmidt KJ, et al. **Genetics** 1999 Aug; 152(4):1407–15
Variations in the frequency of T-cell receptor beta/gamma-interlocus recombination in long-term cultures of non-irradiated and X- and gamma-irradiated human lymphocytes. Meydan D, et al. **Int J Radiat Biol** 1998 Dec;74(6):697–703
Radiation-induced recombination is dependent on Ku80. Stevens CW, et al. **Radiat Res** 1999 Apr;151(4):408–13

RECOMMENDED DIETARY ALLOWANCES see **NUTRITION POLICY**

RECONSTRUCTIVE SURGICAL PROCEDURES

see related

SURGERY, PLASTIC

Clinical and neurophysiological abnormalities before and after reconstruction of the anterior cruciate ligament of the knee. Valeriani M, et al. **Acta Neurol Scand** 1999 May; 99(5):303–7
Aesthetics and function in lip reconstruction. Peled IJ. **Aesthetic Plast Surg** 1999 Jul-Aug;23(4):275–8
Meniscal reconstruction. Part II: Outcome, potential complications, and future directions. Maitra RS, et al. **Am J Orthop** 1999 May;28(5):280–6 (85 ref.)
Meniscal reconstruction. Part I: indications, techniques, and graft considerations. Maitra RS, et al. **Am J Orthop** 1999 Apr;28(4):213–8 contd (0 ref.)
The effect of exercise and rehabilitation on anterior-posterior knee displacements after anterior cruciate ligament autograft reconstruction. Barber-Westin SD, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):84–93
Functional knee brace effects during walking in patients with anterior cruciate ligament reconstruction. DeVita P, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):778–84
Biomechanical performance of Bankart repairs in a human cadaveric shoulder model. Mohammed KD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):831–5
Predictors of patient satisfaction in an outpatient plastic surgery clinic. Chung KC, et al. **Ann Plast Surg** 1999 Jan; 42(1):56–60
Cosmetic sequelae after conservative treatment for breast cancer: classification and results of surgical correction. Clough KB, et al. **Ann Plast Surg** 1998 Nov;41(5):471–81
35 mm film vs. digital photography for patient documentation: is it time to change? [published erratum appears in Ann Plast Surg 1999 Mar;42(3):345] DeLange GS, et al. **Ann Plast Surg** 1999 Jan;42(1):15–9; discussion 19–20
Reconstruction of lateral skull base oncological defects: the role of free tissue transfer. Disa JJ, et al. **Ann Plast Surg** 1998 Dec;41(6):633–9
Elliptical punch to repair incomplete cleft earlobes [letter] Elejabeitia J, et al. **Ann Plast Surg** 1998 Nov;41(5):569–70

Bipedicled submental island flap for upper lip reconstruction. Kitazawa T, et al. **Ann Plast Surg** 1999 Jan;42(1):83–6
Malignant fibrous histiocytoma of the hand: multimodal therapy and extensor tendon reconstruction. Lohman R, et al. **Ann Plast Surg** 1998 Nov;41(5):544–9
Re: Aesthetic labia minora reduction [letter; comment] Maas SM, et al. **Ann Plast Surg** 1998 Dec;41(6):685–6. Comment on: Ann Plast Surg 1998 Mar;40(3):287–90.
Prevention of unfavorable scars using early pulse dye laser treatments: a preliminary report. McCraw JB, et al. **Ann Plast Surg** 1999 Jan;42(1):7–14
Phallic construction in a 65–year–old male pseudohermaphrodite. Masel JL, et al. **Ann Plast Surg** 1999 Sep;43(3):302–5
The use of tissue expanders in staged abdominal wall reconstruction. Paletta CE, et al. **Ann Plast Surg** 1999 Mar; 42(3):259–65
The present status of endoscopy. Poindexter BD, et al. **Ann Plast Surg** 1998 Dec;41(6):679–83 (52 ref.)
Free flap reconstruction of the foot. Rainer C, et al. **Ann Plast Surg** 1999 Jun;42(6):595–606; discussion 606–7
Upper lip flap for restoration of nasal lining in full–thickness nasal defects [letter] Wagner JD. **Ann Plast Surg** 1999 Jan; 42(1):109–10
As originally published in 1992: Chest wall stabilization with synthetic reabsorbable material. Updated in 1999. Puma F, et al. **Ann Thorac Surg** 1999 Jun;67(6):1823–4
Split pectoralis major muscle flap reconstruction after clavicular–manubrial resection. Zehr KJ, et al. **Ann Thorac Surg** 1999 May;67(5):1507–8
Allogenic preserved costal cartilage in reconstructive surgery. Komender J, et al. **Ann Transplant** 1997;2(1):49–51
Reconstructive treatment of sclerosing osteomyelitis of the entire femur of 30 years' duration with avoidance of segmental resection. Bettin D, et al. **Arch Orthop Trauma Surg** 1999;119(3–4):228–31
Pitfalls in laryngotracheal reconstruction. Choi SS, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jun;125(6):650–3
Clinical experience in end–to–side venous anastomoses with a microvascular anastomotic coupling device in head and neck reconstruction. DeLacure MD, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug;125(8):869–72
A modified technique for tibial interference screw fixation of hamstring anterior cruciate ligament grafts. Bellemans J, et al. **Arthroscopy** 1999 Sep;15(6):669–71
Three cases of patella fracture in 1,320 anterior cruciate ligament reconstructions with bone–patellar tendon–bone autograft. Viola R, et al. **Arthroscopy** 1999 Jan–Feb; 15(1):93–7
Stereolithography and the manufacture of customized implants in facial reconstruction: a flapless surgical technique [letter] Peckitt NS. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):481
Complications of long operations: a prospective study of morbidity associated with prolonged operative time (> 6 h). Fogarty BJ, et al. **Br J Plast Surg** 1999 Jan;52(1):33–6
Consenting and consulting for cosmetic surgery. Ward CM. **Br J Plast Surg** 1998 Oct;51(7):547–50
Total ear reconstruction in post burn deformity. Bhandari PS. **Burns** 1998 Nov;24(7):661–70
Deep electrical burns of the calvarium: early or delayed reconstruction? Norkus T, et al. **Burns** 1998 Sep; 24(6):569–72
Hemispherectomy complications in the light of craniocerebral disproportion: review of the literature and rationale for a filling–reduction cranioplasty. Sorano V, et al. **Childs Nerv Syst** 1998 Sep;14(9):440–7 (63 ref.)
Salvaging the failed pharyngoplasty: intervention outcome. Witt PD, et al. **Cleft Palate Craniofac J** 1998 Sep; 35(5):447–53
Behavior of radial forearm skin flaps transplanted into the oral cavity. Badran D, et al. **Clin Anat** 1998;11(6):379–89
Proceedings of the International Society of Limb Salvage meeting. New York, USA. September 10–12, 1997. **Clin Orthop** 1999 Jan;(358):1–148
Plastic surgical problems in the neonatal intensive care unit. Friedman J. **Clin Plast Surg** 1998 Oct;25(4):599–617
Algorithms for the treatment of cleft lip and palate. Stal S, et al. **Clin Plast Surg** 1998 Oct;25(4):493–507, vii
Modified purse–string closure for reconstruction of moderate/large surgical defects of the face. Ciatti S, et al. **Dermatol Surg** 1999 Mar;25(3):215–9; discussion 219–20
Injectable hyaluronic acid gel for soft tissue augmentation. A clinical and histological study. Duranti F, et al. **Dermatol Surg** 1998 Dec;24(12):1317–25
Acute excisional wounds treated with a tissue–engineered skin (Apligraf). Eaglstein WH, et al. **Dermatol Surg** 1999 Mar;25(3):195–201
Cutaneous vascular proliferation following ultrapulse CO2 laser resurfacing. Rostan EF, et al. **Dermatol Surg** 1998 Dec;24(12):1406–8
Limb salvage experience in a multidisciplinary diabetic foot unit. Holstein PE, et al. **Diabetes Care** 1999 Mar;22 Suppl 2:B97–103
Pudendal neuropathy is predictive of failure following anterior overlapping sphincteroplasty. Gilliland R, et al. **Dis Colon Rectum** 1998 Dec;41(12):1516–22 (46 ref.)
Is bowel confinement necessary after anorectal reconstructive surgery? A prospective, randomized, surgeon–blinded trial. Nessim A, et al. **Dis Colon Rectum** 1999 Jan;42(1):16–23
Tracheal resection and reconstruction: a review of 82 patients. Sharpe DA, et al. **Eur J Cardiothorac Surg** 1996; 10(12):1040–5; discussion 1045–6 (23 ref.)
M–plasty in the treatment of carcinomas located on the interglabellar region. Camacho FM, et al. **Eur J Dermatol** 1998 Dec;8(8):548–50
A comparison of skin storage methods for oculoplastic surgery. Baldeschi L, et al. **Eye** 1998;12 (Pt 4):714–6
Microvascular reconstruction of the traumatized thumb. Shin AY, et al. **Hand Clin** 1999 May;15(2):347–71 (86 ref.)
The management of bone defects of the forearm after trauma. Stevanovic M, et al. **Hand Clin** 1999 May;15(2):299–318 (31 ref.)
Treatment of composite tissue loss following hand and forearm trauma. Tomaino MM. **Hand Clin** 1999 May; 15(2):319–33, ix (31 ref.)
Facial nerve reconstruction and facial reanimation following oncologic surgery. Cheney ML, et al. **Head Neck** 1999 May;21(3):276–84
Free composite myo–osseous flap with serratus anterior and rib: indications in head and neck reconstruction [letter; comment] Ioannides C. **Head Neck** 1998 Oct;20(7):660–1. Comment on: Head Neck 1998 Mar;20(2):106–12.
Complications of the myocutaneous platysma flap in intraoral reconstruction. Verschuur HP, et al. **Head Neck** 1998 Oct; 20(7):623–9
Permanent implantation of expanded polytetrafluoroethylene is safe for pelvic surgery. United States Expanded Polytetrafluoroethylene Reproductive Surgery Study Group. Hurst BS. **Hum Reprod** 1999 Apr;14(4):925–7
Laparoscopically assisted full thickness skin graft for reconstruction in congenital agenesis of vagina and uterine cervix. Lee CL, et al. **Hum Reprod** 1999 Apr;14(4):928–30
Conditioned patellar tendon–tap reflexes in patients with ACL reconstruction. Tsuruike M, et al. **Int J Sports Med** 1999 May;20(4):263–6
Renal transplantation into augmented bladders. Yamazaki Y, et al. **Int J Urol** 1998 Sep;5(5):423–7
Microsurgical free tissue transfer: a valuable reconstructive procedure--review of 75 cases. Musharafieh RS, et al. **Int Surg** 1999 Apr–Jun;84(2):129–34
The use of small intestine in bladder reconstruction. Kashif KM, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1998; 9(5):275–80 (29 ref.)
Long–term follow–up and evaluation of autoaugmentation cystoplasty (detrusorotomy) in an animal model. Taneli C, et al. **Int Urol Nephrol** 1999;31(1):55–9
The birhombic transposition flap for soft tissue reconstruction. Johnson TM, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):232–6
Revision anterior cruciate ligament reconstruction surgery. Getelman MH, et al. **J Am Acad Orthop Surg** 1999 May–Jun;7(3):189–98 (30 ref.)
Use of allografts in knee reconstruction: I. Basic science aspects and current status. Shelton WR, et al. **J Am Acad Orthop Surg** 1998 May–Jun;6(3):165–8 (15 ref.)
Use of allografts in knee reconstruction: II. Surgical considerations. Shelton WR, et al. **J Am Acad Orthop Surg** 1998 May–Jun;6(3):169–75 (29 ref.)
BoneSource hydroxyapatite cement: a novel biomaterial for craniofacial skeletal tissue engineering and reconstruction. Friedman CD, et al. **J Biomed Mater Res** 1998 Winter; 43(4):428–32 (13 ref.)
Hamstring tendon grafts for reconstruction of the anterior cruciate ligament: biomechanical evaluation of the use of multiple strands and tensioning techniques. Hamner DL, et al. **J Bone Joint Surg Am** 1999 Apr;81(4):549–57
Geometry of laparoscopic suturing and knotting techniques. Frede T, et al. **J Endourol** 1999 Apr;13(3):191–8
Age as a risk factor in cervicofacial reconstruction. Pompei S, et al. **J Exp Clin Cancer Res** 1999 Jun;18(2):209–12
Fingertip reconstruction with flaps and nail bed grafts. Brown RE, et al. **J Hand Surg [Am]** 1999 Mar;24(2):345–51
Upper extremity salvage using the tensor fascia lata flap: report of two cases. Smith AA, et al. **J Hand Surg [Am]** 1999 Mar;24(2):352–8
Osteocutaneous radial forearm flap for hand reconstruction. Yajima H, et al. **J Hand Surg [Am]** 1999 May;24(3):594–603
Distal thumb reconstruction using a mini wrap–around flap from the great toe. Adani R, et al. **J Hand Surg [Br]** 1999 Aug;24(4):437–42
Ring avulsion injuries managed with homodigital and heterodigital Venous Island Conduit (VIC) flaps. Behan FC, et al. **J Hand Surg [Br]** 1998 Aug;23(4):465–71
Reconstruction of fingertip amputations by partial composite toe transfer with short vascular pedicle. Dautel G, et al. **J Hand Surg [Br]** 1998 Aug;23(4):457–64
The combined use of a pedicled Scarpa's fascia flap and a groin flap for simultaneous coverage of dorsal and palmar finger defects. Koncilia HF, et al. **J Hand Surg [Br]** 1997 Oct;22(5):620–2
Reconstruction of large palmar defects of the hand using free flaps. Ninkovic MM, et al. **J Hand Surg [Br]** 1997 Oct;22(5):623–30
Microsurgical reconstruction of partial thumb defects. Woo SH, et al. **J Hand Surg [Br]** 1999 Apr;24(2):161–9
Reconstructive techniques currently used following resection of hypopharyngeal carcinoma. Ayshford CA, et al. **J Laryngol Otol** 1999 Feb;113(2):145–8
Reconstruction of the temporomandibular joint using calvarial bone after a failed Teflon–Proplast implant. Lee JJ, et al. **J Oral Maxillofac Surg** 1999 Apr;57(4):457–61 (14 ref.)
Stress fracture of the tibia: an unusual complication of reconstructive surgery of the mandible. Westesson PL, et al. **J Oral Maxillofac Surg** 1999 Jan;57(1):70–4 (21 ref.)
Prospective study of changes in impairments and disabilities after anterior cruciate ligament reconstruction. Risberg MA, et al. **J Orthop Sports Phys Ther** 1999 Jul;29(7):400–12
Long–term results of multiple muscle transfer to reconstruct shoulder function in patients with birth palsy: eleven–year follow–up. Suenaga N, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):669–71
Posterior sagittal anorectoplasty is superior to sacroperineal–sacroabdominoperineal pull–through: a long–term follow–up study in boys with high anorectal anomalies. Rintala RJ, et al. **J Pediatr Surg** 1999 Feb; 34(2):334–7
Chest reconstruction in asphyxiating thoracic dystrophy. Sharoni E, et al. **J Pediatr Surg** 1998 Oct;33(10):1578–81
Facial plastic surgery: new solutions for "old" problems. Costa LE. **J S C Med Assoc** 1998 Dec;94(12):553–6
Functional and magnetic resonance imaging evaluation after single–tendon rotator cuff reconstruction. Knudsen HB, et al. **J Shoulder Elbow Surg** 1999 May–Jun;8(3):242–6
Relationship between magnitude of resection, complication, and prosthetic survival after prosthetic knee reconstructions for distal femoral tumors. Kawai A, et al. **J Surg Oncol** 1999 Feb;70(2):109–15
Quality of life following surgery for vertebral metastases from breast cancer. Okuyama T, et al. **J Surg Oncol** 1999 Jan; 70(1):60–3
Early and long–term results of prosthetic chest wall reconstruction. Deschamps C, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):588–91; discussion 591–2
Autologous engineered cartilage rods for penile reconstruction. Yoo JJ, et al. **J Urol** 1999 Sep;162(3 Pt 2):1119–21
Results of reconstruction in major pelvic and extremity venous injuries. Zamir G, et al. **J Vasc Surg** 1998 Nov; 28(5):901–8
Operation Smile volunteers travel far to transform lives [news] Phillips DF. **JAMA** 1999 Feb 17;281(7):597–8
Single stage reconstruction of the amputated penis using a microsurgical radial forearm flap transfer. Rashid M, et al. **JPMA J Pak Med Assoc** 1998 Mar;48(3):82–5
A large maxillofacial prosthesis for total mandibular defect: a case report [published erratum appears in Jpn J Clin Oncol 1999 Jul;29(7):370] Ota Y, et al. **Jpn J Clin Oncol** 1999 May;29(5):256–60
Aortic valve replacement after retrosternal gastric tube reconstruction for esophageal cancer. Matsuda H, et al. **Jpn J Thorac Cardiovasc Surg** 1999 May;47(5):234–6
Bone tunnel enlargement after anterior cruciate ligament reconstruction: fact or fiction? Höher J, et al. **Knee Surg Sports Traumatol Arthrosc** 1998;6(4):231–40 (41 ref.)
Effects of atropine and scopolamine on bradycardia and emetic symptoms in otoplasty. Honkavaara P, et al. **Laryngoscope** 1999 Jan;109(1):108–12
A retrospective comparison of the morbidity and cost of different reconstructive strategies in oral and oropharyngeal carcinoma. Smeele LE, et al. **Laryngoscope** 1999 May;109(5):800–4
The Romanian Society for Reconstructive Microsurgery. Abstracts. **Microsurgery** 1998;18(3):213–28
Hellenic Society for Reconstructive Microsurgery 1997. Abstracts. **Microsurgery** 1998;18(3):197–212
Reconstruction of mandible with fibula free flap. Celebioglu S, et al. **Microsurgery** 1998;18(3):156–9
Three–dimensional reconstruction of types IV and V midfacial defects by free rectus abdominis myocutaneous (RAM) flap. Güler MM, et al. **Microsurgery** 1998; 18(3):148–51
Calf augmentation using free TRAM flap. Hui KC, et al. **Microsurgery** 1999;19(5):227–31
Venous free flaps for reconstruction of skin defects of the hand. Kantarci U, et al. **Microsurgery** 1998;18(3):166–9
Reconstruction of soft tissue and bone defects in lower extremity with free flaps. Kaplan I, et al. **Microsurgery** 1998;18(3):176–81
Measurement of blood flow and oxygen tension in adjacent tissues in pedicled and free flap head and neck reconstruction. Nabawi A, et al. **Microsurgery** 1999; 19(5):254–7
Reconstruction of foot defects due to mine explosion using muscle flaps. Selmanpakoglu N, et al. **Microsurgery** 1998; 18(3):182–8
Upper extremity salvage procedure with flow–through free flap transfer taken from the amputated part. Yavuz M, et al. **Microsurgery** 1998;18(3):163–5
Vascularised bone graft applications in upper extremity problems. Yücetürk A, et al. **Microsurgery** 1998;18(3):160–2
Enlargement of bone tunnels after anterior cruciate ligament reconstruction. Nakayama Y, et al. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):377–81
Symptoms after total gastrectomy on food intake, body composition, bone metabolism, and quality of life in gastric cancer patients--is reconstruction with a reservoir worthwhile? Liedman B. **Nutrition** 1999 Sep;15(9):677–82 (94 ref.)
Surgical management of vaginal agenesis. Templeman CL, et al. **Obstet Gynecol Surv** 1999 Sep;54(9):583–91 (41 ref.)
Multilayer amniotic membrane transplantation for

reconstruction of deep corneal ulcers. Kruse FE, et al. **Ophthalmology** 1999 Aug;106(8):1504–10; discussion 1511

Microtia repair: creation of a functional postauricular sulcus. Eavey RD. **Otolaryngol Head Neck Surg** 1999 Jun; 120(6):789–93

Temporal augmentation with a layered expanded polytetrafluoroethylene implant. Fedok FG, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):929–33

Calvarial bone graft harvest in children. Frodel JL. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):78–81

Surgical options in columellar reconstruction. Smith V, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):947–51

Acute reconstruction of massive cervicofacial necrotizing fasciitis with Estlander and free scapular/parascapular flaps. Whetzel TP, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):101–4

Brachial plexus birth injuries: anaesthesia for surgical nerve reconstruction and preoperative myelography and computed tomographic myelography. Hazama A, et al. **Paediatr Anaesth** 1999;9(5):403–7

Evaluation of effect and distribution of heparin administered in vascular reconstructive surgery. Ohkado A, et al. **Panminerva Med** 1999 Mar;41(1):18–21

Cumulative index, 1994 through 1998. **Plast Reconstr Surg** 1999 Feb;103(2 Suppl):S1–183

Repair of cleft earlobe using double opposing Z-plasty [letter] Agarwal R. **Plast Reconstr Surg** 1998 Oct; 102(5):1759–60

Prophylactic antibiotics in plastic and reconstructive surgery. Baran CN, et al. **Plast Reconstr Surg** 1999 May; 103(6):1561–6

Modified Antia-Buch repair for full-thickness upper pole auricular defects. Bialostocki A, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1476–9

Commissure-based buccal mucosal flap [letter; comment] Botti G. **Plast Reconstr Surg** 1999 Apr;103(5):1536–7. Comment on: Plast Reconstr Surg 1998 Apr;101(5):1223–7.

Evaluation of bone height in osseous free flap mandible reconstruction: an indirect measure of bone mass. Disa JJ, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1371–7

Microvascular great toenail transfer after conventional thumb reconstruction. Foucher G, et al. **Plast Reconstr Surg** 1999 Feb;103(2):570–6

Versatility and reliability of combined flaps of the subscapular system. Germann G, et al. **Plast Reconstr Surg** 1999 Apr; 103(5):1386–99

Upper eyelid orbicularis oculi flap with tarsoconjunctival island for reconstruction of full-thickness lower lid defects [letter] Goldstein MH. **Plast Reconstr Surg** 1999 Oct; 104(5):1574

Analysis and treatment of severe trigonocephaly. Havlik RJ, et al. **Plast Reconstr Surg** 1999 Feb;103(2):381–90

Should improved mastectomy and reconstruction alter the primary management of breast cancer? [editorial] Jensen JA. **Plast Reconstr Surg** 1999 Apr;103(4):1308–10

A novel surgical method of repair for Stahl's ear: a case report and review of current treatment modalities. Kaplan HM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):566–9

A method that preserves circulation during preparation of the pectoralis major myocutaneous flap in head and neck reconstruction. Kiyokawa K, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2336–45

Flow-through thin latissimus dorsi perforator flap for repair of soft-tissue defects in the legs. Koshima I, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1483–90

The role of the plastic surgeon in the management of surgical infection. Lineaweaver WC, et al. **Plast Reconstr Surg** 1999 May;103(6):1553–60

Tongue reconstruction: outcomes with the rectus abdominis flap. Lyos AT, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):442–7; discussion 448–9

Laparoscopic rectosigmoid colpopoiesis: does it benefit our transsexual patients? Maas SM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):518–24

Facial reconstruction with local and distant tissue: the interface of aesthetic and reconstructive surgery. Menick FJ. **Plast Reconstr Surg** 1998 Oct;102(5):1424–33

A new extended external oblique musculocutaneous flap for reconstruction of large chest-wall defects. Moschella F, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1378–85

Surgical reconstruction of the contracted eye socket and orbitozygomatic hypoplasia in a one-stage operation. Mu X, et al. **Plast Reconstr Surg** 1999 Feb;103(2):487–93

Prefabricated free jejunal transfer: a new reconstructive technique for high pharyngeal defects. Nakatsuka T, et al. **Plast Reconstr Surg** 1999 Feb;103(2):458–64

Prospective anthropometric analysis of sagittal orbital-globe relationship following fronto-orbital advancement in childhood. Pai L, et al. **Plast Reconstr Surg** 1999 Apr; 103(5):1341–6

Operation smile and its help in the development of plastic and reconstructive surgery in Russia [letter] Pshenisnov KP, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1569–70

Artificial leech technique [letter] Robinson C. **Plast Reconstr Surg** 1998 Oct;102(5):1787–8

Bone face reconstruction with polymethylmethacrylate [letter] Rodriguez NL, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1765–6

A simplified algorithm for the use of Z-plasty. Rohrich RJ, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1513–7; quiz 1518

Completing the cosmetic surgery cycle: it takes a village. Rohrich RJ. **Plast Reconstr Surg** 1999 Feb;103(2):585–7

Sensation recovery on innervated radial forearm flap for hemiglossectomy reconstruction by using different recipient nerves. Santamaria E, et al. **Plast Reconstr Surg** 1999 Feb;103(2):450–7

Functional outcome after soft-tissue reconstruction for limb salvage after sarcoma surgery. Serletti JM, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1576–83; discussion 1584–5

Chest wall reconstruction for sternal wound infection after internal mammary and gastroepiploic coronary artery bypass [letter] Shabat S, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1771–2

Operating room glasses [letter; comment] Ship AG. **Plast Reconstr Surg** 1998 Oct;102(5):1788. Comment on: Plast Reconstr Surg 1998 Mar;101(3):860.

Transdermal photopolymerized adhesive for seroma prevention. Silverman RP, et al. **Plast Reconstr Surg** 1999 Feb;103(2):531–5

Factors associated with complications in microvascular reconstruction of head and neck defects. Singh B, et al. **Plast Reconstr Surg** 1999 Feb;103(2):403–11

Reconstruction of disruption of the abdominal wall in burn patients. Still JM, et al. **Plast Reconstr Surg** 1999 Apr; 103(5):1468–72

Reliability of the proximal skin paddle of the osteocutaneous free fibula flap: a prospective clinical study. Winters HA, et al. **Plast Reconstr Surg** 1999 Mar;103(3):846–9

Classification of the first web space free flap of the foot and its applications in reconstruction of the hand. Woo SH, et al. **Plast Reconstr Surg** 1999 Feb;103(2):508–17

Obliteration of the frontal sinus--state of the art and reflections on new materials. Weber R, et al. **Rhinology** 1999 Mar;37(1):1–15 (149 ref.)

Some basic factors essential to autogeneic nonvascularized onlay bone grafting to the craniofacial skeleton. Gordh M, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):129–46 (134 ref.)

Guidelines in the management of traumatic scars and surgical incisions. Beatty RL, et al. **Semin Ophthalmol** 1998 Sep; 13(3):171–6 (8 ref.)

Chest wall resection and reconstruction. Graeber GM. **Semin Thorac Cardiovasc Surg** 1999 Jul;11(3):251–63

Breast cancer invasion into the chest wall with resection and reconstruction. Seyfer AE. **Semin Thorac Cardiovasc Surg** 1999 Jul;11(3):285–92

Reconstructive hand surgery [clinical conference] Ejeskär A, et al. **Spinal Cord** 1999 Jul;37(7):475–9

Reconstruction following total gastrectomy: a review and summary of the randomized prospective clinical trials. Espat NJ, et al. **Surg Oncol** 1998 Jul-Aug;7(1-2):65–9 (12 ref.)

Reconstructive rectal surgery. Wheeler JM, et al. **Surg Oncol** 1998 Jul-Aug;7(1–2):13–23 (112 ref.)

Buccal mucosal graft for hypospadias repairs. Payne CE, et al. **Tech Urol** 1998 Dec;4(4):173–6

An alternative approach to bladder autoaugmentation. Surer I, et al. **Tech Urol** 1999 Jun;5(2):100–3

Gastrocystoplasty in a woman with radiation-induced ureteral obstruction and low-compliance bladder. Yashi M, et al. **Urol Int** 1998 Oct;61(1):55–7

Guiding spontaneous tissue regeneration for urethral reconstruction: long-term studies in the rabbit. Italiano G, et al. **Urol Res** 1998;26(4):281–4

Venous bypass and valve reconstruction: long-term efficacy. Eklof BG, et al. **Vasc Med** 1998;3(2):157–64 (43 ref.)

Pancreatogastrostomy as reconstruction for pancreatoduodenectomy: review. Mason GR. **World J Surg** 1999 Mar;23(3):221–6

Genital skin loss: unified reconstructive approach to a heterogeneous entity. Wessells H. **World J Urol** 1999 Apr; 17(2):107–14 (21 ref.)

[Invasive thymoma growing into the pericardium, lung and pleura--the importance of thymectomy with resection and reconstruction of the adjacent structures] Kütev N, et al. **Khirurgiia (Sofiia)** 1998;51(4):60–1 **(Bul)**

[Simultaneous total ear reconstruction and hearing rehabilitation] Leng T. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):5–8 (Eng. Abstr.) **(Chi)**

[Clinical research of nipple-areola preserved mastectomy and one-stage breast reconstruction with rectus abdominis musculocutaneous flaps] Zuo W, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jul;77(7):491–3 (Eng. Abstr.) **(Chi)**

[Endoscopic reconstruction of 192 patients with traumatic urethral stenosis] Chen Z, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):209–11 (Eng. Abstr.) **(Chi)**

[Application of MEDPOR surgical implant in the craniofacial reconstruction] Qian Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):71–3 (Eng. Abstr.) **(Chi)**

[Adipose tissue transplantation and plastic surgery: review of basic research] Wang D, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):61–3 (12 ref.) **(Chi)**

[Uses of artificial implants in the repair and reconstruction of craniomaxillofacial area] Zou L, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):193–5 (20 ref.) **(Chi)**

[Reconstruction of the hypopharyngeal and cervical esophagus using flap of epiglottis] Hong Y, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Oct; 11(10):446–8 (Eng. Abstr.) **(Chi)**

[The usage of allograft nasal septal cartilage in partial laryngectomy] Huang Z, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Oct; 11(10):449–50 (Eng. Abstr.) **(Chi)**

[Anterior cruciate ligament prosthesis. Analysis of a failure] De Smedt M. **Acta Orthop Belg** 1998 Dec;64(4):422–33 (Eng. Abstr.) **(Fre)**

[Proceedings of the XLIII National Congress of the French Society of Plastic, Reconstructive and Aesthetic Surgery. Paris, France, October 21–23, 1998] **Ann Chir Plast Esthet** 1998 Aug;43(4):299–489 **(Fre)**

[Microsurgery and the 22nd congress of GAM (Group of Advancement of Microsurgery). Proceedings. Paris, France, April 30-May 1, 1999] **Ann Chir Plast Esthet** 1999 Apr;44(2):115–61 **(Fre)**

[Under the epidermis, the dermis, or how to interpret skin cultures?] Echinard C. **Ann Chir Plast Esthet** 1998 Apr; 43(2):197–205 (35 ref.) (Eng. Abstr.) **(Fre)**

[Esthetic reconstruction of the superior hemilip using the Abbé technique modified by Burget. Apropos of 5 cases (see comments)] Gounot N, et al. **Ann Chir Plast Esthet** 1998 Oct;43(5):534–40 (Eng. Abstr.) . Comment in: Ann Chir Plast Esthet 1999 Feb;44(1):104–5. **(Fre)**

[Unusual facial clefts] Stricker M, et al. **Ann Chir Plast Esthet** 1997 Oct;42(5):401–41 (153 ref.) (Eng. Abstr.) **(Fre)**

[Reconstruction of bladder exstrophy: retrospective study of 57 patients with evaluation of criteria in favor of the acquisition of continence] Lottmann H, et al. **Ann Urol (Paris)** 1998;32(4):233–9 (Eng. Abstr.) **(Fre)**

[Update on reconstructive surgery in cancer] Bertrand P, et al. **Bull Cancer** 1999 Jan;86(1):65–9 (18 ref.) **(Fre)**

[Midface reconstruction with free flaps] Germain MA, et al. **Chirurgie** 1999 Jun;124(3):272–82 (Eng. Abstr.) **(Fre)**

[Utilization of a pedicled labial flap, single or double face, for the management of post-obstetric urethral damage] Falandry L, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 May;28(2):151–61 (Eng. Abstr.) **(Fre)**

[Creation of a neovagina using ultrasonography-assisted laparoscopy (modified Vecchietti technique] Giacalone PL, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Sep; 27(5):514–6 (Eng. Abstr.) **(Fre)**

[Echo-doppler surveillance of revascularization of the legs in asymptomatic postoperative patients. Why? With what rhythm? How much time? How?] Mellière D, et al. **J Mal Vasc** 1999 Jun;24(3):233–8 (20 ref.) (Eng. Abstr.) **(Fre)**

[The myocutaneous flap of the nasal transverse muscle] Germain MA, et al. **Morphologie** 1999 Mar;83(260):15–8 (Eng. Abstr.) **(Fre)**

[Esthetic problems in surgery of external male genitalia. Proceedings of the 10th Lombardo-Piemontese-Valdostano Andrology meeting. Aosta, 1998] **Arch Ital Urol Androl** 1998 Dec;70(5):211–66 **(Ita)**

[A mitral valve reconstruction of infective endocarditis with brain abscess and intracranial mycotic aneurysm] Nakaya M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul; 46(7):647–50 (Eng. Abstr.) **(Jpn)**

[Superior vena cava reconstruction combined with resection of mediastinal-pulmonary malignant tumors] Hosokawa Y, et al. **Kyobu Geka** 1999 Jan;52(1):25–9 (Eng. Abstr.) **(Jpn)**

[Resection and reconstruction of the great vessels for lung cancer and mediastinal tumor] Kawahara K, et al. **Kyobu Geka** 1999 Jan;52(1):8–13 (Eng. Abstr.) **(Jpn)**

[Pulmonary vein reconstruction for lung carcinoma] Narita K, et al. **Kyobu Geka** 1999 Jan;52(1):30–4 (Eng. Abstr.) **(Jpn)**

[Surgical strategy for invasive pulmonary and mediastinal tumors requiring superior vena cava reconstruction] Okada M, et al. **Kyobu Geka** 1999 Jan;52(1):14–8 (Eng. Abstr.) **(Jpn)**

[Combined resection of the descending aorta under a simple temporary bypass for advanced lung cancer invading the aorta] Sasamoto S, et al. **Kyobu Geka** 1999 Jan;52(1):41–4 (Eng. Abstr.) **(Jpn)**

[Surgical treatment of lung cancer with combined resection of the aorta or superior vena cava] Tagawa T, et al. **Kyobu Geka** 1999 Jan;52(1):35–40 (Eng. Abstr.) **(Jpn)**

[Reconstruction of great vessel for patients with advanced lung cancer or malignant mediastinal tumor] Tanaka H, et al. **Kyobu Geka** 1999 Jan;52(1):19–24 (Eng. Abstr.) **(Jpn)**

[Extended resection of the great vessels for primary lung cancer and mediastinal tumor] Watanabe S, et al. **Kyobu Geka** 1999 Jan;52(1):4–7 (Eng. Abstr.) **(Jpn)**

[Patient-controlled sedation in a patient with respiratory dysfunction for reconstructive surgery of submandibular fracture under local anesthesia] Tokumine J, et al. **Masui** 1999 Mar;48(3):286–8 (Eng. Abstr.) **(Jpn)**

[Surgical treatment of differentiated thyroid cancer with tracheal invasion] Ebihara M, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Dec;101(12):1406–11 (Eng. Abstr.) **(Jpn)**

[Microsurgical reconstruction of the head and neck: experience of 63 free flaps] Costa H, et al. **Acta Med Port** 1998 Oct;11(10):855–70 (Eng. Abstr.) **(Por)**

Surgical treatment of diabetic osteoarthropathy, complicated by pyogenic process in the feet] Gostishchev VK, et al. **Khirurgiia (Mosk)** 1999;(8):40–4 (Eng. Abstr.) **(Rus)**

[Reconstructive surgery in injuries of major arteries and veins] Lemenev VL, et al. **Khirurgiia (Mosk)** 1998;(10):12–4 (Eng. Abstr.) **(Rus)**

[Medico-social expert evaluation and rehabilitation of patients after reconstructive surgery for atherosclerosis of the leg vessels] Epikhina TP. **Probl Sotsialnoi Gig Istor Med** 1998 Jul–Aug;(4):38–40 (Eng. Abstr.) **(Rus)**

[Type UUKM-4d carbonic carbon and porous titanium in plastic repair of bone defects: experimental studies] Iakimenko DV, et al. **Probl Tuberk** 1999;(3):48–50 (Eng. Abstr.) **(Rus)**

[Treatment policy for children with complicated osteoarticular tuberculosis] Kovalenko KN, et al. **Probl Tuberk** 1998;(5):32–4 (Eng. Abstr.) **(Rus)**

[Treatment and prevention of cicatricial strictures and fistulas of biliary ducts] Movchun AA, et al. **Vestn Ross Akad Med Nauk** 1998;(6):39–45 (Eng. Abstr.) **(Rus)**

[Intradural anesthesia with a 27-gauge Sprotte needle for arthroscopic knee surgery in ambulatory patients under 40 years of age] Garcia F, et al. **Rev Esp Anestesiol Reanim** 1998 Aug–Sep;45(7):263–7 (Eng. Abstr.) **(Spa)**

[Effect of a 3-in-1 block in arthroscopic knee surgery. Comparative study with subarachnoid block] Sala-Blanch X, et al. **Rev Esp Anestesiol Reanim** 1998 Aug–Sep; 45(7):275–9 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Postabdominoplasty hypertension: augmentation in the pressure systems? [letter] Dickerman RD, et al. **Ann Plast Surg** 1999 May;42(5):572–4

Selection of materials for orbital floor reconstruction [see comments] Chowdhury K, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1398–401 (16 ref.). Comment in: Arch Otolaryngol Head Neck Surg 1998 Dec;124(12):1402. Comment in: Arch Otolaryngol Head Neck Surg 1998 Dec;124(12):1402–3.

Tibial and pretibial cyst formation after anterior cruciate ligament reconstruction with bioabsorbable interference screw fixation. Martinek V, et al. **Arthroscopy** 1999 Apr; 15(3):317–20

Failure of clinical methods in assessing graft integrity after anterior cruciate ligament reconstruction: an arthroscopic evaluation. Passler JM, et al. **Arthroscopy** 1999 Jan–Feb; 15(1):27–34

Adult respiratory distress syndrome after microvascular free tissue reconstruction in head and neck malignancy. Logan SW, et al. **Br J Oral Maxillofac Surg** 1998 Oct;36(5):371–4

Hypersomnia following uvulopalatopharyngoplasty for snoring. Smith RP, et al. **Eur Respir J** 1999 Jul;14(1):239–41

Loss of extension after reconstruction of the anterior cruciate ligament. Petsche TS, et al. **J Am Acad Orthop Surg** 1999 Mar–Apr;7(2):119–27 (31 ref.)

Expanded polytetrafluoroethylene threads for lip augmentation induce foreign body granulomatous reaction. Hubmer MG, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1277–9

Preoperative intra-articular morphine and bupivacaine for pain control after outpatient arthroscopic anterior cruciate ligament reconstruction. Tetzlaff JE, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):220–4

Anterior cruciate ligament reconstruction and the long-term incidence of gonarthrosis. Gillquist J, et al. **Sports Med** 1999 Mar;27(3):143–56 (132 ref.)

[Treatment of pyogenic complications after reconstructive surgery on blood vessels with use of synthetic prosthesis] Mikhailov IP, et al. **Khirurgiia (Mosk)** 1998;(10):54–7 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Is there a borderline between reconstructive and aesthetic surgery? Tvrdek M, et al. **Acta Chir Plast** 1998;40(4):91–5

ECONOMICS

Pricing strategy for aesthetic surgery: economic analysis of a resident clinic's change in fees. Krieger LM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):695–700

A review of selection criteria used by medical scheme advisers to approve or deny procedures with a cosmetic component [see comments] Rothberg AD, et al. **S Afr Med J** 1998 Oct;88(10):1334–7. Comment in: S Afr Med J 1999 Mar;89(3):212, 214.

HISTORY

History of oral mucosa. Filipas D, et al. **Eur Urol** 1998 Sep; 34(3):165–8

Masters of ophthalmic plastic and reconstructive surgery: Rocko Michael Fasanella, a reminiscence. The Archives Committee of the American Society of Ophthalmic Plastic and Reconstructive Surgery. Karesh JW, et al. **Ophthal Plast Reconstr Surg** 1998 Sep;14(5):303–4

[Period of professor V.I. Razumovskii's work in Saratov] Nushtaev IA. **Khirurgiia (Mosk)** 1999;(2):70–1 **(Rus)**

INSTRUMENTATION

Vacuum-assisted closure in the treatment of degloving injuries. Meara JG, et al. **Ann Plast Surg** 1999 Jun; 42(6):589–94

Tripled semitendinosus-cancellous bone anterior cruciate ligament reconstruction with bioscrew fixation. Barber FA. **Arthroscopy** 1999 May;15(4):360–7

Initial fixation strength of modified patellar tendon grafts for anatomic fixation in anterior cruciate ligament reconstruction. Hoffmann RF, et al. **Arthroscopy** 1999 May; 15(4):392–9

The ligament augmentation device: an historical perspective. Kumar K, et al. **Arthroscopy** 1999 May;15(4):422–32 (49 ref.)

Formula to calculate the length of the tibial tunnel with endoscopic ACL reconstruction to avoid graft-tunnel mismatch [letter; comment] Kurzweil PR. **Arthroscopy** 1999 Jan–Feb;15(1):115–7. Comment on: Arthroscopy 1998 Jan–Feb;14(1):9–14.

Serial magnetic resonance imaging evaluation of a bioabsorbable interference screw and the adjacent bone. Lajtai G, et al. **Arthroscopy** 1999 Jul–Aug;15(5):481–8

Bioabsorbable interference screws for graft fixation in anterior cruciate ligament reconstruction. McGuire DA, et al. **Arthroscopy** 1999 Jul–Aug;15(5):463–73

Magnetic resonance imaging of bioabsorbale polylactic acid interference screws during the first 2 years after anterior cruciate ligament reconstruction. Warden WH, et al. **Arthroscopy** 1999 Jul–Aug;15(5):474–80

Intravenous catheter as a wire sleeve during forefoot reconstruction. Jarrett GJ, et al. **Foot Ankle Int** 1999 Jun; 20(6):397

Custom-made cast titanium implants produced with CAD/CAM for the reconstruction of cranium defects [letter] Heuser L, et al. **Int J Oral Maxillofac Surg** 1999 Aug;28(4):314–5

The use of titanium mandibular reconstruction plates in patients with oral cancer. Spencer KR, et al. **Int J Oral Maxillofac Surg** 1999 Aug;28(4):288–90

An evaluation of the support provided by common internal orbital reconstruction materials. Haug RH, et al. **J Oral Maxillofac Surg** 1999 May;57(5):564–70

Modified tendon stripper for obtaining palmaris longus tendon graft. Aköz T, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1258–9

Complications and toxicities of implantable biomaterials for facial aesthetic and reconstructive surgery [letter; comment] Homsy CA. **Plast Reconstr Surg** 1998 Oct; 102(5):1766–8. Comment on: Plast Reconstr Surg 1997 Oct;100(5):1336–53.

A simple negative suction drain for ear reconstruction. Park DH, et al. **Plast Reconstr Surg** 1999 Mar;103(3):972–5

Traumatic earlobe cleft repair by using a Desmarres clamp [letter] Samper A, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):739–40

Biomechanical analysis of anterior versus circumferential spinal reconstruction for various anatomic stages of tumor lesions. Kanayama M, et al. **Spine** 1999 Mar 1;24(5):445–50

Cosmetic osteoplastic craniotomy with a chisel and hammer. Nishi S, et al. **Surg Neurol** 1999 May;51(5):571–4

[A new computer-aided surgical approach for reconstruction of the orbit] Marmulla R, et al. **Klin Monatsbl Augenheilkd** 1998 Nov;213(5):301–5 (Eng. Abstr.) **(Ger)**

[Transport-fixator for reconstructive surgery of the extensor apparatus of the knee joint] Walz M, et al. **Unfallchirurg** 1999 Mar;102(3):197–205 (Eng. Abstr.) **(Ger)**

[Endoscopical reconstruction of traumatic urethral disruption with ureteral resectoscope: a case report] Inoue T, et al. **Hinyokika Kiyo** 1998 Sep;44(9):671–3 (Eng. Abstr.) **(Jpn)**

[Plastic filling of bleeding duodenal ulcers in the course of truncal vagotomy with pyloroplasty according Finney] Evtikhov RM, et al. **Khirurgiia (Mosk)** 1999;(4):22–4 (Eng. Abstr.) **(Rus)**

METHODS

Intraparietal retrorectus tension-free prosthetic mesh: a simple and effective method of repair of complex ventral hernias via a modified Stoppa technique. Surgical technique. Sakorafas GH, et al. **Acta Chir Belg** 1999 May–Jun;99(3):109–12 (12 ref.)

The lateral tongue flap: a salvage option for reconstruction of buccal recurrences. Cunha-Gomes D, et al. **Acta Chir Plast** 1999;41(1):7–10

Surgical treatment of pigmented melanocytic nevi depending upon their size and location. Kruk-Jeromin J, et al. **Acta Chir Plast** 1999;41(1):20–4

Revascularization of a free nerve graft wrapped in omentum. Smahel J, et al. **Acta Chir Plast** 1999;41(1):11–4

Phalloplasty using a lateral groin flap in female-to-male transsexuals. Zieliński T. **Acta Chir Plast** 1999;41(1):15–9

Syndactyly release: results of the Flatt technique. De Smet L, et al. **Acta Orthop Belg** 1998 Sep;64(3):301–5

Analysis of the best site on the stapes footplate for ossicular chain reconstruction. Asai M, et al. **Acta Otolaryngol** 1999; 119(3):356–61

Lip augmentation with AlloDerm acellular allogenic dermal graft and fat autograft: A comparison with autologous fat injection alone. Castor SA, et al. **Aesthetic Plast Surg** 1999 May–Jun;23(3):218–23

Aesthetic male facial skeletal surgery. Celik M, et al. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):81–5

Direct K-wire fixation technique during endoscopic brow lift. Chasan PE, et al. **Aesthetic Plast Surg** 1998 Sep–Oct; 22(5):338–40

Neoomphaloplasty: An old and new technique. Franco T, et al. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):151–4

Midiabdominoplasty: indications and technique. Ribeiro L, et al. **Aesthetic Plast Surg** 1998 Sep–Oct;22(5):313–7

In favor of the subcutaneous forehead lift using the anterior hairline incision. Ullmann Y, et al. **Aesthetic Plast Surg** 1998 Sep–Oct;22(5):332–7

Technical refinements of infracture for the zygomatic body and arch reduction. Yang DB, et al. **Aesthetic Plast Surg** 1998 Sep–Oct;22(5):380–90

Helical advancement with a posterior auricular pull-through flap: A technique for reconstruction of combined helical and scaphal defects. Zenn MR. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):131–3

ACL reconstruction using an abnormally thick autogenous patellar tendon graft. Shelbourne KD, et al. **Am J Knee Surg** 1999 Spring;12(2):79–81

Biomechanics of a less invasive procedure for reconstruction of the ulnar collateral ligament of the elbow. Hechtman KS, et al. **Am J Sports Med** 1998 Sep–Oct;26(5):620–4

Five-year results of single-incision arthroscopic anterior cruciate ligament reconstruction with patellar tendon autograft [letter; comment] Holt M. **Am J Sports Med** 1999 May–Jun;27(3):390. Comment on: Am J Sports Med 1998 Mar–Apr;26(2):181–8.

Articular cartilage lesions of the knee. Mandelbaum BR, et al. **Am J Sports Med** 1998 Nov–Dec;26(6):853–61 (53 ref.)

The effect of knee bracing after anterior cruciate ligament reconstruction. A prospective, randomized study with two years' follow-up. Risberg MA, et al. **Am J Sports Med** 1999 Jan–Feb;27(1):76–83

Treatment of chronic thoracic duct fistula with the sternocleidomastoid muscle flap. Wechselberger G, et al. **Am J Surg** 1998 Nov;176(5):471

Autotransplantation of the trachea: experimental evaluation of a reconstructive technique for extended hemilaryngectomy defects. Delaere PR, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):143–6

Augmentation of facial soft-tissue defects with Alloderm dermal graft. Achauer BM, et al. **Ann Plast Surg** 1998 Nov; 41(5):503–7

Endoscopic subcutaneous surgery: a new surgical approach. Kronowitz SJ. **Ann Plast Surg** 1999 Apr;42(4):357–64

Repair of unilateral cleft lip: a comparison of five techniques. Lazarus DD, et al. **Ann Plast Surg** 1998 Dec;41(6):587–94

A comparative study of the surgical treatment of axillary osmidrosis by instrument, manual, and combined subcutaneous shaving procedures. Park DH, et al. **Ann Plast Surg** 1998 Nov;41(5):488–97

Flexor tendon lengthening in zone II injuries. Stahl S, et al. **Ann Plast Surg** 1999 Sep;43(3):265–7

Reconstructive surgery for ischemic-type lesions at the bile duct bifurcation after liver transplantation. Schlitt HJ, et al. **Ann Surg** 1999 Jan;229(1):137–45

Tracheal reconstructions. Srikrishna SV, et al. **Ann Thorac Cardiovasc Surg** 1998 Dec;4(6):321–4

On the timing of soft-tissue reconstruction for open fractures of the lower leg. Hertel R, et al. **Arch Orthop Trauma Surg** 1999;119(1–2):7–12

Combined injuries of the medial collateral ligament and the anterior cruciate ligament.Early ACL reconstruction versus late ACL reconstruction. Petersen W, et al. **Arch Orthop Trauma Surg** 1999;119(5–6):258–62

Lower reconstruction and restoration of oral competence with dynamic palmaris longus vascularized sling [letter] Atiyeh BA, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec;124(12):1390–2

Considerations for free-flap reconstruction of the hard palate. Futran ND, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jun;125(6):665–9

Bone grafting for defects of the orbital floor [comment] Kellman RM. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1402. Comment on: Arch Otolaryngol Head Neck Surg 1998 Dec;124(12):1398–401.

Surgery of traumatic defects of the orbital floor [comment] Mathog RH. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1402–3. Comment on: Arch Otolaryngol Head Neck Surg 1998 Dec;124(12):1398–1401.

The subcutaneous pedicle flap in melolabial reconstruction. Rustad TJ, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct;124(10):1163–6

Compartment pressure monitoring during anterior cruciate ligament reconstruction. Amendola A, et al. **Arthroscopy** 1999 Sep;15(6):607–12

Structural properties of sutures used in anchoring multistranded hamstrings in anterior cruciate ligament reconstruction: a biomechanical study. Becker R, et al. **Arthroscopy** 1999 Apr;15(3):297–300

The relationship between the intercondylar roof and the tibial plateau with the knee in extension: relevance for tibial tunnel placement in anterior cruciate ligament reconstruction. Buzzi R, et al. **Arthroscopy** 1999 Sep; 15(6):625–31

The HAKI technique of femoral interference screw insertion. Ha KI, et al. **Arthroscopy** 1999 Jan–Feb;15(1):110–4

Avoiding graft-tunnel mismatch in endoscopic anterior

cruciate ligament reconstruction: a new technique. Hartman GP, et al. **Arthroscopy** 1999 Apr;15(3):338–40

Comparison of endoscopic and two-incision techniques for reconstructing a torn anterior cruciate ligament using hamstring tendons. Howell SM, et al. **Arthroscopy** 1999 Sep;15(6):594–606

The long-term effects of tibial drill hole position on the outcome of anterior cruciate ligament reconstruction. Ikeda H, et al. **Arthroscopy** 1999 Apr;15(3):287–91

Patella fracture and proximal patellar tendon rupture following arthroscopic anterior cruciate ligament reconstruction. Miller MD, et al. **Arthroscopy** 1999 Sep; 15(6):640–3

Two-bundle reconstruction of the anterior cruciate ligament using semitendinosus tendon with endobuttons: operative technique and preliminary results. Muneta T, et al. **Arthroscopy** 1999 Sep;15(6):618–24

Arthroscopic knot typing techniques. Nottage WM, et al. **Arthroscopy** 1999 Jul–Aug;15(5):515–21 (12 ref.)

The possibilities of using the patellar tendon in the treatment of anterior cruciate ligament tears in children. Robert H, et al. **Arthroscopy** 1999 Jan–Feb;15(1):73–6

Contributions of femoral fixation methods to the stiffness of anterior cruciate ligament replacements at implantation. To JT, et al. **Arthroscopy** 1999 May;15(4):379–87

Successful reconstruction of left main bronchus following traumatic rupture. Chen Q, et al. **Aust N Z J Surg** 1999 Jun;69(6):463–5

Inferior vena caval resection with autogenous peritoneo-fascial patch graft caval repair: a new technique. Chin PT, et al. **Aust N Z J Surg** 1999 May;69(5):391–2

A modification of isolated Roux loop reconstruction after pancreaticoduodenectomy. Toogood GJ, et al. **Aust N Z J Surg** 1999 May;69(5):363–4

Surgical methods of restoring the prepuce: a critical review. Brandes SB, et al. **BJU Int** 1999 Jan;83 Suppl 1:109–13 (10 ref.)

Changing practice in anterior urethroplasty. Greenwell TJ, et al. **BJU Int** 1999 Apr;83(6):631–5

Point of Technique. Rectal division in bladder and vaginal reconstruction: adaptation of the Bianchi procedure. Guys JM, et al. **BJU Int** 1999 Apr;83(6):714–6

A modified corporoplasty for treating congenital penile curvature and reducing the incidence of palpable indurations. Popken G, et al. **BJU Int** 1999 Jan;83(1):71–5

Horseshoe kidney with hydronephrosis secondary to ureteric stenosis: construction of a ureter from the renal pelvis. Al-Shamsi A, et al. **BJU Int** 1999 Jan;83(1):146–7

Tubularization of the incised urethral plate (Snodgrass procedure) for primary hypospadias surgery. Sugarman ID, et al. **BJU Int** 1999 Jan;83(1):88–90

T2 tongue: reconstruction of the surgical defect. Brown JS. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):194–9

Non-free osteoplasty of the mandible in maxillofacial gunshot wounds: mandibular reconstruction by compression-osteodistraction. Shvyrkov MB, et al. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):261–7

Umbilicosculpture: a concept revisited [published erratum appears in Br J Plast Surg 1999 Jan;52(1):78] Choudhary S, et al. **Br J Plast Surg** 1998 Oct;51(7):538–41

The use of blood as a marker on the lips: an aid to reconstruction [letter] Cobley TD, et al. **Br J Plast Surg** 1999 Apr;52(3):240–1

Long-term outcome of neurovascular palmar advancement flaps for distal thumb injuries. Foucher G, et al. **Br J Plast Surg** 1999 Jan;52(1):64–8

The partial gluteus maximus musculocutaneous turnover flap. An alternative concept for simultaneous reconstruction of combined defects of the posterior perineum/sacrum and the posterior vaginal wall. Germann G, et al. **Br J Plast Surg** 1998 Dec;51(8):620–3

Case report. Reconstruction of damaged forehead with bilateral fasciocutaneous temporal V-Y-advancement island flaps. Gruber S, et al. **Br J Plast Surg** 1999 Jan; 52(1):74–5

The use of otherwise redundant skin to provide nasal lining in the reconstruction of full-thickness alar defects by nasolabial flap repair. Hosaka Y, et al. **Br J Plast Surg** 1999 Jan;52(1):29–32

A functional variant of lower lip reconstruction. Jemec B, et al. **Br J Plast Surg** 1999 Apr;52(3):232–5

Facial contour reconstruction in localised lipodystrophy using free radial forearm adipofascial flaps. Koshy CE, et al. **Br J Plast Surg** 1998 Oct;51(7):499–502

Primary repair of an incomplete unilateral cleft lip: avoiding an elongated lip and achieving a straight suture line. Nakajima T, et al. **Br J Plast Surg** 1998 Oct;51(7):511–6

Endoscopically assisted gracilis harvest for use as a free and pedicled flap. Ramakrishnan V, et al. **Br J Plast Surg** 1998 Dec;51(8):580–3

Reconstruction of an extensive scalp defect [letter; comment] Richards M. **Br J Plast Surg** 1998 Dec;51(8):649. Comment on: Br J Plast Surg 1998 Apr;51(3):250–4.

Reconstruction of the great toe in a child using the Y-V pedicle elongation technique for a medial plantar flap. Salon A, et al. **Br J Plast Surg** 1999 Mar;52(2):146–8

The digital second opinion [letter] Southern S, et al. **Br J Plast Surg** 1998 Dec;51(8):649–50

Malignant tumours of the maxillary complex: an 18-year review. Stavrianos SD, et al. **Br J Plast Surg** 1998 Dec; 51(8):584–8

An investigation into the role of waterproofing in a two-stage hypospadias repair. Telfer JR, et al. **Br J Plast Surg** 1998 Oct;51(7):542–6

Superiority of end-to-side anastomosis with the internal jugular vein: the experience of 80 cases in head and neck microsurgical reconstruction. Yamamoto Y, et al. **Br J Plast Surg** 1999 Mar;52(2):88–91

Prospective randomized trial of end-to-end versus side-to-side biliary reconstruction after orthotopic liver transplantation. Davidson BR, et al. **Br J Surg** 1999 Apr; 86(4):447–52

Reintervention and mortality after infrainguinal reconstructive surgery for leg ischaemia. Dawson I, et al. **Br J Surg** 1999 Jan;86(1):38–44

Randomized comparison of prevertebral and retrosternal gastric tube reconstruction after resection of oesophageal carcinoma. van Lanschot JJ, et al. **Br J Surg** 1999 Jan; 86(1):102–8

Anatomical correction of the exstrophy-epispadias complex: analysis of 34 patients. Nicholls G, et al. **Br J Urol** 1998 Dec;82(6):865–9

Two different surgical techniques for reduction cranioplasty. Erdinçler P, et al. **Childs Nerv Syst** 1998 Aug;14(8):372–7

Palatoplasty: Furlow's double reversing Z-plasty versus intravelar veloplasty. Gunther E, et al. **Cleft Palate Craniofac J** 1998 Nov;35(6):546–9

Reconstruction of the shoulder joint using an acetabular allograft. A report of two cases [published erratum appears in Clin Orthop 1999 Jul;(364):283] Lee FY, et al. **Clin Orthop** 1998 Dec;(357):116–21

Use of extendable total femoral replacements in children with malignant bone tumors. Schindler OS, et al. **Clin Orthop** 1998 Dec;(357):157–70

Reconstruction of chronic rupture of the extensor mechanism after patellectomy. Wascher DC, et al. **Clin Orthop** 1998 Dec;(357):135–40

Surgery of the eyelids. Brady KM, et al. **Clin Plast Surg** 1998 Oct;25(4):579–86, ix (20 ref.)

Suspension sutures aid facial reconstruction. Robinson JK. **Dermatol Surg** 1999 Mar;25(3):189–93; discussion 193–4

Scintigraphic assessment of double tract reconstruction after total gastrectomy. Fujiwara Y, et al. **Dig Surg** 1998; 15(5):404–9

Use of a jejunal pouch with ileal interposition in salvage surgery after restorative proctocolectomy. Dehni N, et al. **Dis Colon Rectum** 1998 Dec;41(12):1587–9

Anal sphincter reconstruction by dynamic graciloplasty after abdominoperineal resection for cancer. Rouanet P, et al. **Dis Colon Rectum** 1999 Apr;42(4):451–6

Total anorectal and partial vaginal reconstruction with dynamic graciloplasty and colonic vaginoplasty after extended abdominoperineal resection: report of a case. Rullier E, et al. **Dis Colon Rectum** 1999 Aug;42(8):1097–101

Ureteric injuries in Enugu, Nigeria [see comments] Aghaji AE, et al. **East Afr Med J** 1999 Apr;76(4):184–8. Comment in: East Afr Med J 1999 Apr;76(4):181–3.

Carotid artery resection and reconstruction in patients with squamous cell carcinomas of the neck. Iván L, et al. **Eur Arch Otorhinolaryngol** 1999;256(3):145–7

Primary reconstructive surgery with a sliding flap for carcinoma of the Bartholin gland. Larson B, et al. **Eur J Gynaecol Oncol** 1998;19(5):464–5

Neovagina with cultured allogenic epidermal sheets. Carranza-Lira S, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jan;82(1):77–9

Feminizing genital reconstruction, sigmoid vaginal replacement and anorectoplasty as a one-stage procedure for anorectal atresia associated with ambiguous genitalia. Glüer S, et al. **Eur J Pediatr Surg** 1999 Apr;9(2):121–3

Adenoid cystic carcinoma of Bartholin's gland: what is the optimal approach? Anaf V, et al. **Eur J Surg Oncol** 1999 Aug;25(4):406–9 (19 ref.)

Transosseous transposition of a pedicled rectus abdominis flap to cover hip wounds. Ross DA, et al. **Eur J Surg Oncol** 1998 Dec;24(6):610–1

Two-step portal bypass to reconstruct an invaded superior mesenteric vein in pancreatic cancer. Shiraishi M, et al. **Hepatogastroenterology** 1998 May–Jun;45(21):882–4

The submental island flap for reconstruction of facial defects. Prabhune KA, et al. **Indian J Cancer** 1998 Jun;35(2):88–93

Finger flaps: using the modified neurovascular Tranquilli-Leali flap. O'Connor D, et al. **Injury** 1998 Sep; 29(7):564–6

Reconstruction of the penis after severe injury. Pei GX, et al. **Injury** 1998 Jun;29(5):329–34

The Vecchietti procedure for surgical treatment of vaginal agenesis: comparison of laparoscopy and laparotomy. Borruto F, et al. **Int J Gynaecol Obstet** 1999 Feb; 64(2):153–8

Platysma myocutaneous flap for intraoral reconstruction: an option in the compromised patient. Berenholz L, et al. **Int J Oral Maxillofac Surg** 1999 Aug;28(4):285–7 (11 ref.)

Techniques for improving ear definition in microtia reconstruction. Leach JL Jr, et al. **Int J Pediatr Otorhinolaryngol** 1999 Apr 25;48(1):39–46

Soft tissue cover for the exposed knee prosthesis. Fayomi O, et al. **Int Orthop** 1999;23(1):51–2

Anorectal reconstruction--restoring continence after abdominoperineal excision of the anorectum [see comments] Eccersley AJ, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):549–54 (45 ref.) . Comment in: Ital J Gastroenterol Hepatol 1999 Apr;31(3):267–8.

Anorectal reconstruction after abdominoperineal excision: a state-of-the-art alternative to a conventional colostomy [letter; comment] Violi V, et al. **Ital J Gastroenterol Hepatol** 1999 Apr;31(3):267–8 (9 ref.) . Comment on: Ital J Gastroenterol Hepatol 1998 Oct;30(5):549–54.

Surgical pearl: Use of a sponge bolster instead of a tie-over bolster as a less invasive method of securing full-thickness skin grafts. Egan CA, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1000–1

Spectrum of cartilage grafting in cutaneous reconstructive surgery. Otley CC, et al. **J Am Acad Dermatol** 1998 Dec; 39(6):982–92 (23 ref.)

The use of antibiotic-impregnated cement in infected reconstructions after resection for bone tumours. Donati D, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1045–50

Single-step fronto-orbital resection and reconstruction with individual resection template and corresponding titanium implant: a new method of computer-aided surgery. Eufinger H, et al. **J Craniomaxillofac Surg** 1998 Dec; 26(6):373–8

Reconstruction for large defects of the scalp and cranium. Ioannides C, et al. **J Craniomaxillofac Surg** 1999 Jun; 27(3):145–52

Cranioplasty with split lateral skull plate segments for reconstruction of skull defects. Kiyokawa K, et al. **J Craniomaxillofac Surg** 1998 Dec;26(6):379–85

Distraction osteogenesis of a fibula free flap used for mandibular reconstruction: preliminary report. Siciliano S, et al. **J Craniomaxillofac Surg** 1998 Dec;26(6):386–90 (20 ref.)

Comparison of two techniques of dermal graft harvest for temporomandibular joint reconstruction. Beck BW, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):930–4; discussion 934–5

Securing a genioplasty segment with a fixed mandibular implant. David HT, et al. **J Oral Maxillofac Surg** 1999 Apr;57(4):473–4

Delayed repair of skin cancer defects. Escobar V, et al. **J Oral Maxillofac Surg** 1999 Mar;57(3):271–9; discussion 279–80

Comparison of the late results of mandibular reconstruction using nonvascularized or vascularized grafts and dental implants. Schliephake H, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):944–50; discussion 950–1

Anatomical reconstruction of the patellar tendon: a new technique with hamstring tendons and iliotibial tract. Fukui N, et al. **J Orthop Trauma** 1999 Jun–Jul;13(5):375–9

Effective step-by-step technique for the surgical treatment of protruding ears. Ducic Y, et al. **J Otolaryngol** 1999 Apr; 28(2):59–64

Reconstructive surgery in children after meningococcal purpura fulminans. Huang DB, et al. **J Pediatr Surg** 1999 Apr;34(4):595–601

The soft tissue management of children's open tibial fractures. Stewart KJ, et al. **J R Coll Surg Edinb** 1999 Feb;44(1):24–30

Primary repair of dog bites to the face: 40 cases [see comments] Javaid M, et al. **J R Soc Med** 1998 Aug; 91(8):414–6. Comment in: J R Soc Med 1999 Jan;92(1):52.

Quadriceps femoris muscle flap: largest muscle flap model in the rat. Dogan T, et al. **J Reconstr Microsurg** 1999 Aug; 15(6):433–7

Z-plasty closure of the donor defect of the radial forearm free flap. Hui KC, et al. **J Reconstr Microsurg** 1999 Jan; 15(1):19–21 (10 ref.)

Use of the free medialis pedis flap in orofacial reconstruction: report of two cases. Ishikura N, et al. **J Reconstr Microsurg** 1999 Apr;15(3):153–7

Bilateral radial forearm free flaps for oral-cavity reconstruction. Kirn DS, et al. **J Reconstr Microsurg** 1998 Nov;14(8):551–3

Free combined anterolateral thigh flap and vascularized fibula for wide, through-and-through oromandibular defects. Koshima I, et al. **J Reconstr Microsurg** 1998 Nov; 14(8):529–34

Dorsolateral toe flap as a neurovascular graft carrier in finger reconstruction. Macionis V. **J Reconstr Microsurg** 1999 Jul; 15(5):343–6

Sensate myocutaneous latissimus dorsi flap. Schultes G, et al. **J Reconstr Microsurg** 1998 Nov;14(8):541–3

Reconstruction of intractable ulcer of the knee joint in Werner's syndrome with free latissimus dorsi myocutaneous flap. Taniguchi Y, et al. **J Reconstr Microsurg** 1998 Nov;14(8):555–8

Microsurgical reconstruction of the through-and-through defect in head and neck cancer: is it worth it? Thoma A, et al. **J Reconstr Microsurg** 1999 Aug;15(6):401–8

Radial forearm free-flap reconstruction following radiotherapy and total laryngectomy. Yamamoto Y, et al. **J Reconstr Microsurg** 1999 Jan;15(1):15–8

Superficial ulnar artery: embryology, case report, and clinical significance in reconstructive microsurgery. Yuksel M, et al. **J Reconstr Microsurg** 1999 Aug;15(6):415–20

Reconstruction of the pelvic floor using absorbable mesh with a bioresorbable membrane (Seprafilm) after abdominoperineal rectal excision. Kusunoki M, et al. **J Surg Oncol** 1999 Apr;70(4):261–2

Reconstruction after larynx-preserving extensive tracheal resection with axillofemoral bypass grafting and free skin flap implantation. Matsubara T, et al. **J Surg Oncol** 1999 May;71(1):63–5

Repair after radical groin dissection. Zografos GC, et al.

J Surg Oncol 1999 Jun;71(2):117–9
Laparoscopic assisted reconstructive surgery. Hedican SP, et al. **J Urol** 1999 Jan;161(1):267–70
Reconstructive renal surgery using a water jet. Penchev RD, et al. **J Urol** 1999 Sep;162(3 Pt 1):772–4
Multi-bracket appliance in management of mandibular reconstruction with vascularized bone graft. Takushima A, et al. **Jpn J Clin Oncol** 1999 Mar;29(3):119–26
New left main trunk reconstruction technique using a flap of the main pulmonary arterial wall. Hirotani T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul;46(7):599–602
Arthroscopic anterior cruciate ligament reconstruction with bone-patellar tendon-bone allograft or autograft. A prospective study with an average follow up of 4 years. Kleipool AE, et al. **Knee Surg Sports Traumatol Arthrosc** 1998;6(4):224–30
Reconstruction of anterior cruciate ligament using the doubled tendon graft technique: an experimental study in rabbits. Papachristou G, et al. **Knee Surg Sports Traumatol Arthrosc** 1998;6(4):246–52
Anterior cruciate ligament reconstruction with alternative tibial tunnel: early results after accelerated weight-bearing. Sauter AJ, et al. **Knee Surg Sports Traumatol Arthrosc** 1998; 6(4):220–3
Gastric substitute after total gastrectomy—clinical relevance for reconstruction techniques. Schwarz A, et al. **Langenbecks Arch Surg** 1998 Dec;383(6):485–91
Stretched radial forearm flap for reconstruction of the laryngopharynx: an alternative conservation procedure for radiation-failure carcinoma of the pyriform sinus. Hamoir M, et al. **Laryngoscope** 1999 Aug;109(8):1339–43
Double cartilage block ossiculoplasty in chronic ear surgery. Harvey SA, et al. **Laryngoscope** 1999 Jun;109(6):911–4
Lateral thigh free flap for head and neck reconstruction. Hayden RE, et al. **Laryngoscope** 1999 Sep;109(9):1490–4
Effects of hemimandibulectomy on quality of life. Wilson KM, et al. **Laryngoscope** 1998 Oct;108(10):1574–7
Reconstructing the human face by using the tissue-integrated prosthesis. Tolman DE, et al. **Mayo Clin Proc** 1998 Dec; 73(12):1171–5
Technical experiences with a microsurgical model of lymphatic reconstruction after intestinal transplantation in rats. Kellersmann R, et al. **Microsurgery** 1999;19(2):108–12
Double free-flap reconstruction of massive defects involving the lip, chin, and mandible. Kuzon WM Jr, et al. **Microsurgery** 1998;18(6):372–8
Implant reconstruction of the jaws and craniofacial skeleton. Alberto PL. **Mt Sinai J Med** 1998 Oct–Nov;65(5–6):316–21 (12 ref.)
Perirectal graciloplasty: a novel surgical technique for the treatment of the neurogenic rectum and rectal inertia. Shafik A. **Neurogastroenterol Motil** 1998 Aug;10(4):289–93
Cervical vertebral and subclavian artery reconstructions. Steiger HJ. **Neurol Med Chir (Tokyo)** 1998;38 Suppl:289–93
Reduction cranioplasty for macrocephaly. Two case reports. Takahashi Y, et al. **Neurol Med Chir (Tokyo)** 1999 Jun; 39(6):459–62
Frontal periosteum as an exposed orbital implant cover. Massry GG, et al. **Ophthal Plast Reconstr Surg** 1999 Mar; 15(2):79–82
Clinical use of a new axial chondro-mucosal flap in wide full-thickness eyelid reconstructions. Scuderi N, et al. **Ophthalmic Surg Lasers** 1999 Feb;30(2):91–7
Benefits of stereolithography in orbital reconstruction. Holck DE, et al. **Ophthalmology** 1999 Jun;106(6):1214–8
Mutilating injuries to the hand: early amputation or repair and reconstruction. Arellano AO, et al. **Orthopedics** 1999 Jul;22(7):683–4 (18 ref.)
Middle ear reconstructive techniques. Chole RA, et al. **Otolaryngol Clin North Am** 1999 Jun;32(3):489–503 (33 ref.)
Flexible approach to tympanomastoidectomy. Kimberley BP, et al. **Otolaryngol Clin North Am** 1999 Jun;32(3):585–95 (3 ref.)
Ossiculoplasty. McGee M, et al. **Otolaryngol Clin North Am** 1999 Jun;32(3):471–88 (28 ref.)
Canalplasty. Parisier SC, et al. **Otolaryngol Clin North Am** 1999 Jun;32(3):457–69 (14 ref.)
Benefits of routine maxillectomy and orbital reconstruction with the rectus abdominis free flap. Browne JD, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):203–9
Posterior sagittal transanorectal approach in patients with ambiguous genitalia: report of eight cases. Braz A. **Pediatr Surg Int** 1999;15(2):108–10
Tracheal ring-graft reinforcement in lieu of tracheostomy for tracheomalacia. Cacciaguerra S, et al. **Pediatr Surg Int** 1998 Oct;13(8):556–9
Outcome of scalp donor sites in 450 consecutive pediatric burn patients. Barret JP, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1139–42
Prevention and treatment of wide scar and alopecia in the scalp: wedge excision and double relaxation suture. Burm JS, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1143–9
Applications of endoscopic surgery in pediatric patients. Burstein FD, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1446–51
The clinical outcome of abdominoplasty performed under conscious sedation: increased use of fentanyl correlated with longer stay in outpatient unit. Byun MY, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1260–6
Treatment of late ulceration in free muscle flaps to the foot. Caffee HH. **Plast Reconstr Surg** 1999 Apr;103(4):1247–9
Tissue-engineered nipple reconstruction. Cao YL, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2293–8
The blood supply of the reverse temporalis muscle flap: anatomic study and clinical implications. Chen CT, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1181–8
Free fibula osteoseptocutaneous-pedicled pectoralis major myocutaneous flap combination in reconstruction of extensive composite mandibular defects. Chen HC, et al. **Plast Reconstr Surg** 1999 Mar;103(3):839–45
Bakamjian island flap for patch esophagoplasty of the cervical esophagus. Chen YB, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1176–80
Cleft lip scar camouflage using dermal micrografts. Chen YR, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1250–3
Free groin flap revisited. Cooper TM, et al. **Plast Reconstr Surg** 1999 Mar;103(3):918–24
Barium swallows after free jejunal transfer: should they be performed routinely? Cordeiro PG, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1167–75
Reconstruction of total maxillectomy defects with preservation of the orbital contents. Cordeiro PG, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1874–84; discussion 1885–7
Reconstruction of the mandible with osseous free flaps: a 10-year experience with 150 consecutive patients. Cordeiro PG, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1314–20
Primary reconstruction of complex midfacial defects with combined lip-switch procedures and free flaps. Cordeiro PG, et al. **Plast Reconstr Surg** 1999 Jun;103(7):1850–6
Is "predetermined design" different from "high lateral tension abdominoplasty?" [letter; comment] Coşkunfirat K, et al. **Plast Reconstr Surg** 1999 Jan;103(1):330–1. Comment on: Plast Reconstr Surg 1998 Jan;101(1):215–21.
A virtual reality system for bone fragment positioning in multisegment craniofacial surgical procedures. Cutting C, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2436–43
Galeal pedicle flap of the occipital region for pharynx reconstruction: anatomic and clinical considerations. de Magalhães RP, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2124–8
Microsurgical reconstruction in recurrent oral cancer: use of a second free flap in the same patient. Demirkan F, et al. **Plast Reconstr Surg** 1999 Mar;103(3):829–38
The distally based forearm island flap in hand reconstruction [letter] Doğan T, et al. **Plast Reconstr Surg** 1999 Oct; 104(5):1581–2
The bipolar lengthening technique: a modified partial toe transfer for thumb reconstruction. Foucher G, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1981–7
The anatomic tip graft for nasal augmentation. Gruber RP, et al. **Plast Reconstr Surg** 1999 May;103(6):1744–53; discussion 1754–8
Dermal autografts for fascial repair after TRAM flap harvest. Hein KD, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2287–92
Tulip flap for reconstruction of the central tubercle in cleft lip patients [letter; comment] Hirano A. **Plast Reconstr Surg** 1998 Dec;102(7):2511–2. Comment on: Plast Reconstr Surg 1998 Apr;101(5):1345–8;discussion 1349–50.
A simple technique for mucosal irregularities of the lip [letter; comment] Hoffman S. **Plast Reconstr Surg** 1999 Jan; 103(1):328. Comment on: Plast Reconstr Surg 1998 Apr;101(4):1146–7.
Functional alveolar ridge reconstruction with prefabricated iliac crest free flap and osseointegrated implants after hemimaxillectomy. Igawa HH, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2420–4
The calcaneal subtendinous space for passage of the pedicle in free-flap reconstruction of lateral ankle defects [letter; comment] Isenberg JS. **Plast Reconstr Surg** 1998 Oct; 102(5):1783. Comment on: Plast Reconstr Surg 1998 Feb;101(2):442–4.
Treatment of the nasal hump with preservation of the cartilaginous framework. Ishida J, et al. **Plast Reconstr Surg** 1999 May;103(6):1729–33; discussion 1734–5
Functional reconstruction after a total maxillectomy using a fibula osteocutaneous flap with osseointegrated implants. Kazaoka Y, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1244–6
Reconstruction of soft-tissue defects using serratus anterior adipofascial free flap. Kim Y, et al. **Plast Reconstr Surg** 1999 Mar;103(3):925–9
Anterolateral thigh flap for abdominal wall reconstruction. Kimata Y, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1191–7
Comparison of innervated and noninnervated free flaps in oral reconstruction. Kimata Y, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1307–13
Free vascularized appendix transfer for reconstruction of penile urethras with severe fibrosis. Koshima I, et al. **Plast Reconstr Surg** 1999 Mar;103(3):964–9
Experience with the rectus abdominis myocutaneous flap with vascularized hard tissue for immediate orbitofacial reconstruction. Kyutoku S, et al. **Plast Reconstr Surg** 1999 Feb;103(2):395–402
Lower back coverage with endoscopically harvested pedicled greater omental flap. Lantieri LA, et al. **Plast Reconstr Surg** 1999 Mar;103(3):960–3
Total face reconstruction: skin graft versus free flap [letter; comment] Latifoğlu O, et al. **Plast Reconstr Surg** 1999 Mar; 103(3):1076–8. Comment on: Plast Reconstr Surg 1997 May;99(6):1566–75.
Orbital floor and infraorbital rim reconstruction after total maxillectomy using a vascularized calvarial bone flap. Lee HB, et al. **Plast Reconstr Surg** 1999 Sep;104(3):646–53
Surgical reconstruction of the contracted orbit. Lee YH, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1129–36; discussion 1137–8
Primary and secondary orbit surgery: the transconjunctival approach. Lorenz HP, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1124–8
Successful reconstruction of refractory posttraumatic skull base defects with free radial forearm flap. Lorenzini M, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2097–9
Management of sternal and abdominal wounds in a pediatric heart transplant patient. Low DW, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2100–7
Reconstruction of a severe chest and abdominal wall electrical burn injury in a pediatric patient. MacKinnon C, et al. **Plast Reconstr Surg** 1999 May;103(6):1775–7; quiz 1778 (16 ref.)
Scalp autografts and hair transfer to the face in the burned child. MacLennan SE, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):1865–8
Subunit principles in midface fractures: the importance of sagittal buttresses, soft-tissue reductions, and sequencing treatment of segmental fractures. Manson PN, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1287–306; quiz 1307 (57 ref.)
Cross-lip vermilion "tri-tailed" flap to correct the "whistling lip" deformity [letter] Margulis A, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1086–7
Lower eyelid reconstruction with a cheek flap supported by fascia lata. Matsumoto K, et al. **Plast Reconstr Surg** 1999 May;103(6):1650–4
A simple method for tunneling a nerve graft during facial reanimation [letter] Naasan A, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2508–9
A new method of reconstruction for pectus excavatum that preserves blood supply and costal cartilage. Nakajima H, et al. **Plast Reconstr Surg** 1999 May;103(6):1661–6
Total mandibular and lower lip reconstruction with a prefabricated osteocutaneous free flap. Orringer JS, et al. **Plast Reconstr Surg** 1999 Sep;104(3):793–7
Closure of centrally located defects of the ear [letter; comment] Osberg PE. **Plast Reconstr Surg** 1999 Jan; 103(1):328. Comment on: Plast Reconstr Surg 1998 Feb;101(2):538–9.
An analysis of 123 temporoparietal fascial flaps: anatomic and clinical considerations in total auricular reconstruction. Park C, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1295–306
Reconstruction of defects involving the upper one-third of the auricle [letter; comment] Peled IJ. **Plast Reconstr Surg** 1999 Apr;103(4):1327–8. Comment on: Plast Reconstr Surg 1998 Sep;102(4):988–92.
The retraction of the oral opening in burned patients [letter] Planas J, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1082–6
Simplified fixation for endoscopic brow lifts: self-tapping, drill-free posts [letter; comment] Pozner JN. **Plast Reconstr Surg** 1999 Apr;103(4):1326. Comment on: Plast Reconstr Surg 1997 Nov;100(6):1575–82; discussion 1583–4.
Adiposubcutaneous flap for reconstruction of first web space depression in ulnar paralysis in leprosy patients [letter] Prakash V, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2519–21
We have missed the essential step of treatment for plantar ulcers in leprosy patients for too long [letter] Prakash V, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2521
Flap prefabrication in the head and neck: a 10-year experience. Pribaz JJ, et al. **Plast Reconstr Surg** 1999 Mar; 103(3):808–20
Neuromucosal prelaminated flaps for reconstruction of intraoral lining defects after radical tumor resection. Rath T, et al. **Plast Reconstr Surg** 1999 Mar;103(3):821–8
Functional hemitongue reconstruction with the microvascular ulnar forearm flap. Salibian AH, et al. **Plast Reconstr Surg** 1999 Sep;104(3):654–60
Reconstruction of a large abdominal wall defect using combined free tensor fasciae latae musculocutaneous flap and anterolateral thigh flap. Sasaki K, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2244–52
Salvage reconstruction of an extensive facial deformity due to congenital giant hairy nevus. Siebert JW, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2414–9
A new principle for unilateral complete cleft lip repair, the lateral columellar flap method. Song R, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1848–52; discussion 1853–4
Cranioplasty with neovascularized autogenous calvarial bone. Tsukagoshi T, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2114–8
Tensor fasciae latae in abdominal wall reconstruction [letter; comment] Wechselberger G, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2515. Comment on: Plast Reconstr Surg 1998 Mar;101(3):713–8.
Free transverse colon transplantation for functional reconstruction of intra-oral lining: a clinical and histologic study. Wei FC, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2346–51
Management of secondary soft-tissue deficits following microsurgical head and neck reconstruction by means of another free flap. Wei FC, et al. **Plast Reconstr Surg** 1999

Apr;103(4):1158–66
Double free flaps in reconstruction of extensive composite mandibular defects in head and neck cancer. Wei FC, et al. **Plast Reconstr Surg** 1999 Jan;103(1):39–47
Foot and ankle reconstruction using the radial forearm flap: a review of 25 cases. Weinzweig N, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1999–2005
Paranasal implants for correction of midface concavity. Yaremchuk MJ, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1676–84; discussion 1685
Bipedicle strap flaps in reconstruction of longitudinal dorsal skin defects of the digits. Yii NW, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1205–11
The distally based superficial sural artery island flap: clinical experiences and modifications. Yilmaz M, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2358–67
A simple technique for reconstruction of the umbilicus, using two twisted flaps. Yotsuyanagi T, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2444–6
Functional reconstruction using a depressor anguli oris musculocutaneous flap for large lower lip defects, especially for elderly patients. Yotsuyanagi T, et al. **Plast Reconstr Surg** 1999 Mar;103(3):850–6
Reconstruction of a three-dimensional structure using cartilage regenerated from the perichondrium of rabbits. Yotsuyanagi T, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1120–3
Sequential transfer of free flap to two defects. Yousif NJ, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2431–5
Reconstruction of the neck with two rotation-advancement platysma myocutaneous flaps. Zimman OA. **Plast Reconstr Surg** 1999 May;103(6):1712–4
Preoperative intra-articular morphine and bupivacaine for pain control after outpatient arthroscopic anterior cruciate ligament reconstruction. Tetzlaff JE, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):220–4
The groin flap revisited--what the textbooks do not tell. Van Wingerden JJ. **S Afr J Surg** 1999 Feb;37(1):21–3
Reconstruction of eyelid defects: a prefabricated multilayer sandwich graft. Lauritzen C, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):99–104
One-stage reconstruction of defects in the hypopharyngeal region with free flaps. Ninković M, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):31–9
Free peroneal skin flap for oropharyngeal reconstruction. Saito H, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar;33(1):41–5
Recent advances in soft tissue augmentation. Krauss MC. **Semin Cutan Med Surg** 1999 Jun;18(2):119–28 (71 ref.)
A comparison of graft implantation techniques for hair transplantation. Whitworth JM, et al. **Semin Cutan Med Surg** 1999 Jun;18(2):177–83 (7 ref.)
Preoperative and postoperative skin care with laser resurfacing. Hrabovsky SL. **Semin Ophthalmol** 1998 Sep; 13(3):115–22 (32 ref.)
Reconstructive approaches in soft tissue sarcoma. Langstein HN, et al. **Semin Surg Oncol** 1999 Jul–Aug;17(1):52–65 (27 ref.)
Reconstruction after multilevel corpectomy in the cervical spine. A sagittal plane biomechanical study. Kirkpatrick JS, et al. **Spine** 1999 Jun 15;24(12):1186–90; discussion 1191
A technique for rigid fixation of methyl methacrylate cranioplasty: the vault-locking method. Gibbons KJ, et al. **Surg Neurol** 1999 Sep;52(3):310–4; discussion 314–5
Less invasive reconstruction of the temporalis muscle for pterional craniotomy: modified procedures. Miyazawa T. **Surg Neurol** 1998 Oct;50(4):347–51; discussion 351
A case of central carcinoma of the mandible arising from a recurrent odontogenic keratocyst: delineation of surgical margins and reconstruction with bilateral rectus abdominis myocutaneous free flaps. Ota Y, et al. **Tokai J Exp Clin Med** 1998 Oct;23(4):157–65
Future perspectives in reconstructive surgery using tissue engineering. Atala A. **Urol Clin North Am** 1999 Feb; 26(1):157–65, ix–x (53 ref.)
Upper ureteral reconstructive surgery. Borhan A, et al. **Urol Clin North Am** 1999 Feb;26(1):175–81, x (35 ref.)
Reconstructive surgery for trauma of the upper urinary tract. Brandes SB, et al. **Urol Clin North Am** 1999 Feb; 26(1):183–99, x (52 ref.)
Complex renal reconstruction. Bretan PN Jr, et al. **Urol Clin North Am** 1999 Feb;26(1):201–17, x (33 ref.)
Vaginal reconstruction. Hensle TW, et al. **Urol Clin North Am** 1999 Feb;26(1):39–47, vii (39 ref.)
Penile reconstruction, phallic construction, and urethral reconstruction. Jordan GH. **Urol Clin North Am** 1999 Feb; 26(1):1–13, vii
Lower ureteral reconstruction. Koo HP, et al. **Urol Clin North Am** 1999 Feb;26(1):167–73, x (29 ref.)
Reconstructive surgery for trauma of the lower urinary tract. Morey AF, et al. **Urol Clin North Am** 1999 Feb;26(1):49–60, viii (36 ref.)
Bladder augmentation. Options, outcomes, future. Rink RC. **Urol Clin North Am** 1999 Feb;26(1):111–23, viii–ix
[One stage repair and reconstruction for severe deep burns with compound tissue defects of upper limb] Wang N, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):23–5 (Eng. Abstr.) **(Chi)**
[Reconstruction of the floor of mouth with facial artery musculocutaneous flap] Yang M, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):68–70 (Eng. Abstr.) **(Chi)**
[Improvement of technigue in restoration of stability of thoracolumbal spine] Zhang G, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):157–60 (Eng. Abstr.) **(Chi)**
[One-stage reconstruction with the pectoralis major myocutaneous flap for the pharyngectomy] Yang H, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Jul; 11(7):291–3 (Eng. Abstr.) **(Chi)**
[Plastic surgery of the thoracic wall as a method of thoracic wall reconstruction after complete surgical wound disintegration after sternotomy] Hájek T, et al. **Rozhl Chir** 1998 Dec;77(12):535–8 (Eng. Abstr.) **(Cze)**
[Results of bat ear surgery over a period of ten years] Sorribes MM, et al. **Ugeskr Laeger** 1999 Feb 22;161(8):1103–7 (Eng. Abstr.) **(Dan)**
[Correction of hypospadias. What is new in the past 10 years?] Valla JS, et al. **Ann Chir** 1998;52(10):1043–8 **(Fre)**
[Aplasia of the skull without scalp anomalies. A case report] Arnaud E, et al. **Ann Chir Plast Esthet** 1998 Jun; 43(3):275–81 (Eng. Abstr.) **(Fre)**
[Craniosynostosis and faciocraniosynostosis] Arnaud E, et al. **Ann Chir Plast Esthet** 1997 Oct;42(5):443–80 (69 ref.) (Eng. Abstr.) **(Fre)**
[Gunshot injuries and their reconstruction. What is new in 1998? (editorial)] Cariou JL. **Ann Chir Plast Esthet** 1998 Apr;43(2):107–8 **(Fre)**
[The use of an inferior dermo-glandular flap in Thorek's technique, based on a series of 21 cases] Neuprez A, et al. **Ann Chir Plast Esthet** 1999 Jun;44(3):231–7 (Eng. Abstr.) **(Fre)**
[Maxillo-mandibular + + disharmonies] Raphaël B, et al. **Ann Chir Plast Esthet** 1997 Oct;42(5):481–514 (53 ref.) (Eng. Abstr.) **(Fre)**
[Evaluation of a two-stage surgical strategy for the treatment of skin carcinomas. Retrospective study of 367 cases] Revol M, et al. **Ann Chir Plast Esthet** 1999 Jun;44(3):246–50; discussion 251–2 (Eng. Abstr.) **(Fre)**
[Value of the latissimus dorsi flap in sternal reconstruction. Report of a case of mycetoma operated in Dakar] Sankale-Diouf AA, et al. **Ann Chir Plast Esthet** 1999 Jun; 44(3):274–5 **(Fre)**
[Gunshot injuries of the face. Analysis of 165 cases and reevaluation of the primary treatment (published erratum appears in Ann Chir Plast Esthet 1998 Jun;43(3):286] Siberchicot F, et al. **Ann Chir Plast Esthet** 1998 Apr; 43(2):132–40 (Eng. Abstr.) **(Fre)**
[Chest wall tumors. Report of 17 cases] Divisi D, et al. **Rev Mal Respir** 1999 Jun;16(3):369–78 (Eng. Abstr.) **(Fre)**
[A new computer-aided surgical approach for reconstruction of the orbit] Marmulla R, et al. **Klin Monatsbl Augenheilkd** 1998 Nov;213(5):301–5 (Eng. Abstr.) **(Ger)**
[Partial loss of the auricle: multiphase reconstruction and complete preservation of the helix] Hyckel P, et al. **Mund Kiefer Gesichtschir** 1999 May;3(3):131–3 (Eng. Abstr.) **(Ger)**
[Surgical management of soft tissue sarcomas: principles of resection and reconstructive plastic procedures] Steinau HU, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19; 87(34):1061–5 (17 ref.) (Eng. Abstr.) **(Ger)**
[Transport-fixator for reconstructive surgery of the extensor apparatus of the knee joint] Walz M, et al. **Unfallchirurg** 1999 Mar;102(3):197–205 (Eng. Abstr.) **(Ger)**
[Intestinal reconstruction after a Hartmann intervention: a high-risk procedure?] Chiarugi M, et al. **Ann Ital Chir** 1998 Nov–Dec;69(6):789–93; discussion 793–4 (Eng. Abstr.) **(Ita)**
[The hyoid bone in reconstructive laryngeal and cervical surgery] Croce A, et al. **Ann Ital Chir** 1999 Mar–Apr; 70(2):239–45 (Eng. Abstr.) **(Ita)**
[Laryngotracheal resection and reconstruction by Grillo's technic for postintubation stenosis] Zannini P, et al. **Minerva Chir** 1999 Mar;54(3):107–16 (Eng. Abstr.) **(Ita)**
[The importance of the correct restoration of the transverse dimension in midfacial fractures] Becelli R, et al. **Minerva Stomatol** 1998 Sep;47(9):443–6 (Eng. Abstr.) **(Ita)**
[A 13-year-old male with a funnel chest treated by sternal elevation] Nomori H, et al. **Kyobu Geka** 1998 Sep; 51(10):835–8 (Eng. Abstr.) **(Jpn)**
[Simultaneous reconstruction of pharyngoesophagus and phonetic shunt following laryngopharyngoesophagectomy] Matsuura K, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):208–17 (Eng. Abstr.) **(Jpn)**
[Surgery of malignant tumors affecting the skull base] Saito K, et al. **No Shinkei Geka** 1999 Jun;27(6):505–14 (21 ref.) **(Jpn)**
[Reconstructive surgery of the lower lip with esthetic-functional recovery: report of 2 cases] Nassif Filho AC, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):256–60 (Eng. Abstr.) **(Por)**
[Method of surgical treatment of inguinal hernia] Archvadze VSh. **Khirurgiia (Mosk)** 1999;(7):55 **(Rus)**
[Extramucosal rectal strictures and and methods of their elimination] Stepanov EA, et al. **Khirurgiia (Mosk)** 1998; (7):55–6 **(Rus)**
[Possibilities for reconstructive-rehabilitational surgery in chronic ischemia of the lower extremities] Sander SV, et al. **Klin Khir** 1999;(5):53–4 **(Rus)**
[Efficiency of plastic surgery for osteoarticular tuberculosis by using revascularization of osseous tissue bed and graft] Serdobintsev MS, et al. **Probl Tuberk** 1999;(3):30–3 (Eng. Abstr.) **(Rus)**
[A method of preparing a transplant for eliminating defects and deformities in the supporting facial tissues] Shalumov AS, et al. **Stomatologiia (Mosk)** 1998;77(5):26–9 (Eng. Abstr.) **(Rus)**
[A topographic anatomical validation of the choice of the approach in reconstructive operations on the extracranial portion of the internal carotid artery] Fomin NF, et al. **Vestn Khir Im I I Grek** 1998;157(5):83–6 (Eng. Abstr.) **(Rus)**
[The current possibilities for plastic repair with axial skin flaps on the lower extremity] Kichemasov SKh, et al. **Vestn Khir Im I I Grek** 1998;157(5):91–6 (Eng. Abstr.) **(Rus)**
[Efficacy and indications for YAG laser optico-reconstructive surgery on the anterior eye segment in children] Arestova NN, et al. **Vestn Oftalmol** 1998 Nov–Dec;114(6):25–9 (9 ref.) (Eng. Abstr.) **(Rus)**
[Principles of uncomplicated epi- and epimesotympanitis treatment] Melan'in VD, et al. **Vestn Otorinolaringol** 1999; (4):8–10 (3 ref.) (Eng. Abstr.) **(Rus)**
[Fallo-urethroplasty after amputation of the penis for malignant disease] Mikhailichenko VV, et al. **Vopr Onkol** 1998;44(6):739–40 **(Rus)**
[Plastic repair of a defect in the base of the skull with soft tissues from the orbit after the removal of an extensive esthesioneuroepithelioma] Belov AI, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr–Jun; (2):25–7 (24 ref.) (Eng. Abstr.) **(Rus)**
[The use of the temporal muscle for closing postoperative wounds] Belov AI, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct–Dec; (4):51–4 (22 ref.) (Eng. Abstr.) **(Rus)**
[The reverse auricular flap. A new flap] Bakhach J, et al. **Ann Chir Plast Esthet** 1999 Jun;44(3):253–61 (Eng. Abstr.) **(Spa)**
[Vaginal reconstruction in girls and young adults] Hensle TW, et al. **Arch Esp Urol** 1998 Jul–Aug;51(6):527–36 (24 ref.) (Eng. Abstr.) **(Spa)**
[Overcoming pitfalls: vesical substitution in women with bladder cancer(editorial)] Martínez-Sagarra JM. **Arch Esp Urol** 1998 Sep;51(7):641–3 (13 ref.) **(Spa)**

MORTALITY

Norwood reconstruction [letter; comment] [see comments] Adderley RJ. **CMAJ** 1999 Feb 9;160(3):313. Comment on: CMAJ 1998 Nov 17;159(10):1285–7. Comment in: CMAJ 1999 May 18;160(10):1433.

NURSING

Microvascular reconstruction of the head and neck after tumor ablation. Johnson PJ, et al. **AORN J** 1999 Jul; 70(1):30–3

PSYCHOLOGY

A longitudinal comparison of the psychological impact on mothers of neonatal and 3 month repair of cleft lip. Slade P, et al. **Br J Plast Surg** 1999 Jan;52(1):1–5
Psychological adjustment of children awaiting limb reconstruction treatment. Bond JM, et al. **Child Care Health Dev** 1999 Jul;25(4):313–21

REHABILITATION

Predictive factors for functional recovery after free tissue transfer oromandibular reconstruction. Wagner JD, et al. **Am J Surg** 1998 Nov;176(5):430–5
The effect of immediate weightbearing after anterior cruciate ligament reconstruction. Tyler TF, et al. **Clin Orthop** 1998 Dec;(357):141–8
[Repair and functional reconstruction of war wounds of limbs] Li Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):233–5 (Eng. Abstr.) **(Chi)**
[Repair of bone defect of distal end of radius and its functional restoration] Zhang M, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):229–30 (Eng. Abstr.) **(Chi)**

STATISTICS & NUMERICAL DATA

Plastic surgery waiting list--the numbers game fact or fiction? McGregor JC. **Scott Med J** 1998 Oct;43(5):141–3

TRENDS

Sir Harold Gillies Memorial Lecture. Aesthetic plastic surgery and the future plastic surgeon. Nicolle FV. **Br J Plast Surg** 1998 Sep;51(6):419–24
Plastic surgery. Kuzon WM Jr. **J Am Coll Surg** 1999 Feb; 188(2):171–7 (57 ref.)
Advanced techniques in liposuction. Johnson DS, et al. **Semin Cutan Med Surg** 1999 Jun;18(2):139–48 (26 ref.)
[Ten years of reconstructive surgery in China (editorial)] Zhang DS. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):1–2 **(Chi)**
[Preliminary evaluation of the results of thumb replantation

in the material of Plastic Surgery Clinic CMKP in Warsaw in 1983–1996] Molski M, et al.
Chir Narzadow Ruchu Ortop Pol 1999;64(3):243–9 (Eng. Abstr.) **(Pol)**

UTILIZATION

Incidence of operative procedures on cleft lip and palate patients. Mackay D, et al. **Ann Plast Surg** 1999 Apr; 42(4):445–8

VETERINARY

Microvascular free tissue transfer: results in 57 consecutive cases. Fowler JD, et al. **Vet Surg** 1998 Sep–Oct; 27(5):406–12

RECORD LINKAGE, MEDICAL see **MEDICAL RECORD LINKAGE**

RECORDS

Road accident statistics: discrepancies between police and hospital data in a French island. Aptel I, et al.
Accid Anal Prev 1999 Jan–Mar;31(1–2):101–8
Evaluation of a patient file folder to improve the dissemination of written information materials for cancer patients. Whelan TJ, et al. **Cancer** 1998 Oct 15;83(8):1620–5
Effect of missing data on the estimate of average daily feed intake of growing pigs. Eissen JJ, et al. **J Anim Sci** 1999 Jun;77(6):1372–8
Recommendations for recording and calculating the incidence of selected clinical diseases of dairy cattle. Kelton DF, et al. **J Dairy Sci** 1998 Sep;81(9):2502–9
Effects of information technology on dairy farms in The Netherlands: an empirical analysis of milk production records. Van Asseldonk MA, et al. **J Dairy Sci** 1998 Oct; 81(10):2752–9
Major incidents in Britain over the past 28 years: the case for the centralised reporting of major incidents. Carley S, et al. **J Epidemiol Community Health** 1998 Jun;52(6):392–8

LEGISLATION & JURISPRUDENCE

Bristol doctor refused access to confidential GMC notes [news] Dyer C. **BMJ** 1999 Feb 6;318(7180):348

STANDARDS

Cost impact of Pharm.D. candidates' drug therapy recommendations. Brockmiller H, et al.
Am J Health Syst Pharm 1999 May 1;56(9):882–4
It will take more than notebooks to stop fraud [letter; comment] [see comments] Angelides K, et al. **Nature** 1998 Dec 3;396(6710):404. Comment on: Nature 1998 Oct 22;395(6704):727. Comment in: Nature 1999 Jan 14;397(6715):101.
Poisonous plant vouchers. Wagstaff DJ, et al.
Vet Hum Toxicol 1999 Jun;41(3):162–4

STATISTICS & NUMERICAL DATA

Identifying crash involvement among older drivers: agreement between self–report and state records. McGwin G Jr, et al. **Accid Anal Prev** 1998 Nov;30(6):781–91
Evaluation of the completeness of cancer case ascertainment in the Seoul male cohort study: application of the capture–recapture method. Kim DS, et al. **J Epidemiol** 1999 Jun;9(3):146–54 (16 ref.)

RECORDS CONTROL see **FORMS AND RECORDS CONTROL**

RECOVERY OF FUNCTION

see related
CONVALESCENCE
REHABILITATION

EEG bispectral index monitoring in sevoflurane or propofol anaesthesia: analysis of direct costs and immediate recovery. Yli–Hankala A, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):545–9
Case report. Recovery of shoulder movement in patients with complete axillary nerve palsy. Palmer SH, et al.
Ann R Coll Surg Engl 1998 Nov;80(6):413–5
Recoverability of renal function after relief of chronic partial upper urinary tract obstruction. Shokeir AA, et al.
BJU Int 1999 Jan;83(1):11–7 (43 ref.)
Recovery from mild head injury. Bernstein DM.
Brain Inj 1999 Mar;13(3):151–72 (121 ref.)
Recovery as a psychological construct. Corrigan PW, et al.
Community Ment Health J 1999 Jun;35(3):231–9
Does train–of–four monitoring reduce recovery time after neuromuscular blockade? [letter; comment] de Lemos J, et al. **Crit Care Med** 1998 Nov;26(11):1920. Comment on: Crit Care Med 1997 Apr;25(4):575–83.
Factors affecting recovery of mastoid aeration after ear surgery. Tanabe M, et al. **Eur Arch Otorhinolaryngol** 1999; 256(5):220–3
Functional recovery and vitamin E level following sciatic nerve crush injury in normal and diabetic rats. Al Moutaery K, et al. **Int J Neurosci** 1998 Dec;96(3–4):245–54
The fine structure of the recovering auditory detection threshold [letter] Nizami L, et al. **J Acoust Soc Am** 1999 Aug;106(2):1187–90
Quality of life following liver transplantation: physical and functional recovery. Gelling L. **J Adv Nurs** 1998 Oct; 28(4):779–85
Old duties and new: recovered memories and the question of third–party liability. Behnke SH.
J Am Acad Psychiatry Law 1999;27(2):279–300
The psychology of men and women recovering from coronary artery bypass surgery. Con AH, et al.
J Cardiopulm Rehabil 1999 May–Jun;19(3):152–61
WAIS–R prediction equations in patients with traumatic brain injury. Axelrod BN, et al.
J Clin Exp Neuropsychol 1999 Jun;21(3):368–74
The effect of legal representation on functional recovery of the hand in injured workers following carpal tunnel release. Braun RM, et al. **J Hand Surg [Am]** 1999 Jan;24(1):53–8
Differential effects of harassment on cardiovascular and salivary cortisol stress reactivity and recovery in women and men. Earle TL, et al. **J Psychosom Res** 1999 Feb; 46(2):125–41
Facilitating survival and recovery by removing autogenic pathology from the clinical picture. Collins HW.
Med Hypotheses 1998 Nov;51(5):417–9
Regionalized sensorimotor plasticity after hemispherectomy fMRI evaluation. Graveline CJ, et al. **Pediatr Neurol** 1998 Nov;19(5):337–42
Reliability of scores on the Stroke Rehabilitation Assessment of Movement (STREAM) measure. Daley K, et al.
Phys Ther 1999 Jan;79(1):8–19; quiz 20–3
Objective factors affecting overall subjective evaluation of recovery after anterior cruciate ligament reconstruction. Muneta T, et al. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 1):283–9
Treated and untreated recovery from alcohol misuse: environmental influences and perceived reasons for change. Blomqvist J. **Subst Use Misuse** 1999 Aug;34(10):1371–406
[Falls incurred by the elderly resulting in injury: pathogenesis and rehabilitation] Rietz S, et al. **Rehabilitation (Stuttg)** 1999 Feb;38(1):16–9 (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Intracisternal antisense oligonucleotide to growth associated protein–43 blocks the recovery–promoting effects of basic fibroblast growth factor after focal stroke. Kawamata T, et al. **Exp Neurol** 1999 Jul;158(1):89–96
Functional recovery after central infusion of alpha–melanocyte–stimulating hormone in rats with spinal cord contusion injury. Lankhorst AJ, et al.
J Neurotrauma 1999 Apr;16(4):323–31
Local application of collagen containing brain–derived neurotrophic factor decreases the loss of function after spinal cord injury in the adult rat. Houweling DA, et al.
Neurosci Lett 1998 Jul 31;251(3):193–6
The role of piracetam in the treatment of acute and chronic aphasia. Huber W. **Pharmacopsychiatry** 1999 Mar;32 Suppl 1:38–43 (46 ref.)
Piracetam in the treatment of acute stroke. Orgogozo JM.
Pharmacopsychiatry 1999 Mar;32 Suppl 1:25–32

PHYSIOLOGY

Molecular mechanisms of vestibular compensation in the central vestibular system––review. Kitahara T, et al.
Acta Otolaryngol Suppl (Stockh) 1998;539:19–27 (59 ref.)
ST–segment elevation during dobutamine stress testing predicts functional recovery after acute myocardial infarction. Piérard LA, et al. **Am Heart J** 1999 Mar; 137(3):500–11
Early low–dose dobutamine echocardiography predicts late functional recovery after thrombolyzed acute myocardial infarction. Samad BA, et al. **Am Heart J** 1999 Mar; 137(3):489–93
Synaptic plasticity and the organization of behaviour after early and late brain injury. Kolb B. **Can J Exp Psychol** 1999 Mar;53(1):62–76 (63 ref.)
Regional differences in the recovery course of tachycardia–induced changes of atrial electrophysiological properties. Lee SH, et al. **Circulation** 1999 Mar 9; 99(9):1255–64
Imaging recovery from stroke. Weiller C. **Exp Brain Res** 1998 Nov;123(1–2):13–7 (51 ref.)
The acute period of recovery from traumatic brain injury: posttraumatic amnesia or posttraumatic confusional state? Stuss DT, et al. **J Neurosurg** 1999 Apr;90(4):635–43
Residual perceptual distortion in 'recovered' hemispatial neglect. Harvey M, et al. **Neuropsychologia** 1999 Jun; 37(6):745–50
Blink reflex excitability recovery curves in patients with dysfunctions after facial nerve palsy. Nakamura K, et al.
ORL J Otorhinolaryngol Relat Spec 1999 Jan–Feb; 61(1):10–5
[Comparison of knee and functional outcomes of patients lost to follow–up with patients remaining in a prospective total knee arthroplasty study] König A, et al.
Z Orthop Ihre Grenzgeb 1999 Jan–Feb;137(1):57–60 (Eng. Abstr.) **(Ger)**

RECOVERY PERIOD, ANESTHESIA see **ANESTHESIA RECOVERY PERIOD**

RECOVERY ROOM

Airway problems in the recovery room [letter] Vaughan RS, et al. **Anaesthesia** 1999 Sep;54(9):912
Advanced pulse oximeter signal processing technology compared to simple averaging. II. Effect on frequency of alarms in the postanesthesia care unit. Rheineck–Leyssius AT, et al. **J Clin Anesth** 1999 May;11(3):196–200
Factors influencing stay in the postanesthesia care unit: a prospective analysis. Seago JA, et al. **J Clin Anesth** 1998 Nov;10(7):579–87
Pulse oximetry: an added criterion for discharge from the post–operative care unit. Magboul MM, et al.
Middle East J Anesthesiol 1998 Oct;14(6):417–24
[Bacteria isolated from protected bronchopulmonary samples: variation as a function of the previous length of stay in the recovery room] Bert F, et al. **Pathol Biol (Paris)** 1998 Jun;46(6):380–4 (Eng. Abstr.) **(Fre)**

LEGISLATION & JURISPRUDENCE

[Legal protection for expectant mothers and personnel exposed to inhalation anesthetics in recovery room and surgical intensive care units. Gesundheitswesen 60 (1998) 586:91 (letter; comment)] Heese B. **Gesundheitswesen** 1999 Mar;61(3):155–6. Comment on: Gesundheitswesen 1998 Oct;60(10):586–91. **(Ger)**

ORGANIZATION & ADMINISTRATION

Patient flow in the Post Anesthesia Care Unit: an observational study. Tessler MJ, et al. **Can J Anaesth** 1999 Apr;46(4):348–51
[Anesthesiology without recovery room care (letter)] Rabanal Llevot JM, et al. **Rev Esp Anestesiol Reanim** 1998 Dec;45(10):442 **(Spa)**

STATISTICS & NUMERICAL DATA

[Explanatory factors for length of stay in the postoperative intensive care unit] Lehmann M, et al.
Ann Fr Anesth Reanim 1997;16(4):343–9 (Eng. Abstr.) **(Fre)**

RECOVERY ROOM NURSING see **POSTANESTHESIA NURSING**

RECREATION

Outdoor wandering parks for persons with dementia: a survey of characteristics and use. Cohen–Mansfield J, et al. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13(2):109–17
Predictors of injury among adult recreational in–line skaters: a multicity study. Seldes RM, et al.
Am J Public Health 1999 Feb;89(2):238–41
Use of a handheld, battery–operated chemistry analyzer for evaluation of heat–related symptoms in the backcountry of Grand Canyon National Park: a brief report. Backer HD, et al. **Ann Emerg Med** 1999 Apr;33(4):418–22
Out of sight, out of mind? Licensed clubs in remote aboriginal communities. d'Abbs PH. **Aust N Z J Public Health** 1998 Oct;22(6):679–84
Does the fly matter? the CRACKPOT study in evidence based trout fishing. The Collaborative Randomised and Controlled Kennet Piscatorial Options Trail (CRACKPOT) Investigators [see comments] Britton BJ, et al. **BMJ** 1998 Dec 19–26;317(7174):1678–80. Comment in: BMJ 1999 May 15;318(7194):1356.
Population based study of social and productive activities as predictors of survival among elderly Americans. Glass TA, et al. **BMJ** 1999 Aug 21;319(7208):478–83
Sport and active recreation injuries in Australia: evidence from emergency department presentations. Finch C, et al.
Br J Sports Med 1998 Sep;32(3):220–5
Recreational–outdoor burns: the impact and severity––a retrospective review of 107 patients. Phillips BJ, et al.
Burns 1998 Sep;24(6):559–61
Serious waterborne and wilderness infections. Greenberg SB.
Crit Care Clin 1999 Apr;15(2):387–414 (205 ref.)
A case of bullous frostbite following recreational snowmobiling. Nissen ER, et al. **Cutis** 1999 Jan;63(1):21–3
American Indians, hunting and fishing rates, risk, and the Idaho National Engineering and Environmental Laboratory. Burger J. **Environ Res** 1999 May;80(4):317–29
Angler's fishing line sinker causing rupture of globe and medial wall fracture [letter] Malhotra R, et al. **Eye** 1999 Apr;13 (Pt 2):260–2
Stress reduction for fun and profit [editorial] Lutter LD.
Foot Ankle Int 1999 Jan;20(1):1–2
Recreational physical activity and the risk of osteoarthritis of the hip in elderly women. Lane NE, et al.
J Rheumatol 1999 Apr;26(4):849–54
Dispositional and situational goal orientations as discriminators among recreational and competitive league athletes. Ryska TA, et al. **J Soc Psychol** 1999 Jun; 139(3):335–42
Brown–Séquard at a theme park. Bateman DE, et al.
Lancet 1998 Dec 12;352(9144):1902
Comparison of four habitual physical activity questionnaires in girls aged 7–15 yr. Koo MM, et al.
Med Sci Sports Exerc 1999 Mar;31(3):421–7
Playground safety––United States, 1998–1999.
MMWR Morb Mortal Wkly Rep 1999 Apr 30; 48(16):329–32
[The family, spare–time activities and environmental health risks] Cabut C. **J Pharm Belg** 1999 Mar–Apr;54(2):33–7 (2 ref.) **(Fre)**

RECREATIONAL DRUGS

RECREATIONAL DRUGS see **STREET DRUGS**

RECRUDESCENCE see **RECURRENCE**

RECRUITMENT (NEUROLOGY)

Recruitment of low threshold motor-units in the trapezius muscle in different static arm positions. Kadefors R, et al. **Ergonomics** 1999 Feb;42(2):359-75

The effects of epimysial electrode location on phrenic nerve recruitment and the relation between tidal volume and interpulse interval. Schmit BD, et al. **IEEE Trans Rehabil Eng** 1999 Jun;7(2):150-8

Force generation performance and motor unit recruitment strategy in muscles of contralateral limbs. Bernardi M, et al. **J Electromyogr Kinesiol** 1999 Apr;9(2):121-30

Orderly recruitment among motoneurons supplying different muscles. Cope TC, et al. **J Physiol Paris** 1999 Jan-Apr; 93(1-2):81-5 (26 ref.)

Control of recruitment and transcription-activating function of CBP determines gene regulation by NMDA receptors and L-type calcium channels. Hardingham GE, et al. **Neuron** 1999 Apr;22(4):789-98

PHYSIOLOGY

Differential recruitment of hypothalamic neuroendocrine and ventrolateral medulla catecholamine cells by non-hypotensive and hypotensive hemorrhages. Buller KM, et al. **Brain Res** 1999 Jul 10;834(1-2):42-54

Initial motor unit recruitment in patients with spastic hemiplegia. Frascarelli M, et al. **Electromyogr Clin Neurophysiol** 1998 Jul-Aug;38(5):267-71

Modeling the effects of electric fields on nerve fibers: influence of tissue electrical properties. Grill WM Jr. **IEEE Trans Biomed Eng** 1999 Aug;46(8):918-28

Laparoscopic placement of electrodes for diaphragm pacing using stimulation to locate the phrenic nerve motor points. Schmit BD, et al. **IEEE Trans Rehabil Eng** 1998 Dec; 6(4):382-90

Force feedback control of motor unit recruitment in isometric muscle. Baratta RV, et al. **J Biomech** 1998 May; 31(5):469-78

Recruitment order among motoneurons from different motor nuclei. Sokoloff AJ, et al. **J Neurophysiol** 1999 May; 81(5):2485-92

Discharge properties and recruitment of human diaphragmatic motor units during voluntary inspiratory tasks. Butler JE, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):907-20

Recruitment of long-lasting and protein kinase A-dependent long-term potentiation in the CA1 region of hippocampus requires repeated tetanization. Huang YY, et al. **Learn Mem** 1994 May-Jun;1(1):74-82

Force-current relationships in intraneural stimulation: role of extraneural medium and motor fibre clustering. Frieswijk TA, et al. **Med Biol Eng Comput** 1998 Jul;36(4):422-30

Impaired recruitment of the hippocampus during conscious recollection in schizophrenia [see comments] Heckers S, et al. **Nat Neurosci** 1998 Aug;1(4):318-23. Comment in: Nat Neurosci 1998 Aug;1(4):266-7.

Compensatory recruitment of neural resources during overt rehearsal of word lists in Alzheimer's disease. Woodard JL, et al. **Neuropsychology** 1998 Oct;12(4):491-504

RECRUITMENT DETECTION (AUDIOLOGY)

STATISTICS & NUMERICAL DATA

Topodiagnostic assessment of occupational noise-induced hearing loss using distortion-product otoacoustic emissions compared to the short increment sensitivity index test. Oeken J. **Eur Arch Otorhinolaryngol** 1999;256(3):115-21

RECRUITMENT, LOUDNESS

Measurements of loudness growth in 1/2-octave bands for children and adults with normal hearing. Ellis MR, et al. **Am J Audiol** 1999 Jun;8(1):40-6

Effect of signal duration on categorical loudness scaling in normal and in hearing-impaired listeners. Garnier S, et al. **Audiology** 1999 Jul-Aug;38(4):196-201

DIAGNOSIS

Disturbances of loudness perception. Phillips DP, et al. **J Am Acad Audiol** 1998 Oct;9(5):371-9; quiz 399 (76 ref.)

An efficient, adaptive method of measuring loudness growth functions. Keidser G, et al. **Scand Audiol** 1999;28(1):3-14

RECTAL DISEASES

Condyloma acuminata: a fatal disease? Rhea WG Jr, et al. **Am Surg** 1998 Nov;64(11):1082-7 (39 ref.)

Solitary rectal ulcer syndrome. Vaizey CJ, et al. **Br J Surg** 1998 Dec;85(12):1617-23 (89 ref.)

Anorectal miscellany: pilonidal disease, anal cancer, Bowen's and Paget's diseases, foreign bodies, and hidradenitis suppurativa. Billingham RP. **Prim Care** 1999 Mar; 26(1):171-7 (29 ref.)

[The solitary rectal ulcer today. A review of the literature] Nincheri Kunz M, et al. **Minerva Chir** 1998 Nov; 53(11):919-34 (99 ref.) (Eng. Abstr.) **(Ita)**

CHEMICALLY INDUCED

Solitary rectal ulcer induced by excessive use of analgesic suppositories containing paracetamol, caffeine, and codeine. Naumann MG, et al. **Am J Gastroenterol** 1998 Dec; 93(12):2573-6

Role of the double-contrast barium enema in rectal stenosis due to suppositories containing paracetamol and acetylsalicylic acid. Tannouri F, et al. **Eur Radiol** 1998; 8(7):1217-20

COMPLICATIONS

Solitary rectal ulcer syndrome and rectal cancer [letter; comment] Mönkemüller KE. **Am J Gastroenterol** 1999 May;94(5):1417. Comment on: Am J Gastroenterol 1998 Nov;93(11):2235-8.

Anorectal disease in HIV-infected patients. Yuhan R, et al. **Dis Colon Rectum** 1998 Nov;41(11):1367-70

Fatal Clostridium sordellii ischio-rectal abscess with septicaemia complicating ultrasound-guided transrectal prostate biopsy. Borer A, et al. **J Infect** 1999 Mar; 38(2):128-9

[Acquired deficiency of von Willebrand factor (wWF) associated with intestinal angiodysplasia. An unusual clinical case] Lioniello M, et al. **Minerva Chir** 1999 Jun; 54(6):455-9 (Eng. Abstr.) **(Ita)**

[Retroperitoneal fibrosis caused by barium: complication of rectal perforation during double contrast enema of the colon. Report of a case] Rollandi GA, et al. **Radiol Med (Torino)** 1999 Jun;97(6):539-42 **(Ita)**

[Crohn's disease-related horseshoe ischiorectal abscess: report of a case] Yasuda N, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Mar;96(3):314-6 **(Jpn)**

[Colorectal diseases in AIDS patients and endoscopic findings] Averbach M, et al. **Arq Gastroenterol** 1998 Apr-Jun;35(2):104-9 (Eng. Abstr.) **(Por)**

[Rectal hemorrhage as a first sign of renal cell adenocarcinoma] Ramírez Fabián M, et al. **Actas Urol Esp** 1998 Jul-Aug;22(7):599-601 (Eng. Abstr.) **(Spa)**

[Psoas abscess with mediastinal extension secondary to rectal perforation (letter; comment)] Jiménez Almonacid P, et al. **Rev Esp Enferm Dig** 1999 Feb;91(2):149-50 (6 ref.). Comment on: Rev Esp Enferm Dig 1995 Nov;87(11):830-1. **(Spa)**

CONGENITAL

Pediatric rectal and perineal problems. Hendren WH. **Pediatr Clin North Am** 1998 Dec;45(6):1353-72 (23 ref.)

A case of incomplete Currarino triad with malignant transformation. Tander B, et al. **Pediatr Surg Int** 1999 Jul; 15(5-6):409-10

Rectal duplication cyst. Bal S, et al. **Trop Gastroenterol** 1999 Jan-Mar;20(1):54-5

DIAGNOSIS

Rectal examination in paediatric surgical practice [see comments] Jesudason EC, et al. **Br J Surg** 1999 Mar; 86(3):376-8. Comment in: Br J Surg 1999 Aug;86(8):1095.

Rectal examination in paediatric surgical practice [letter; comment] Youngson GG, et al. **Br J Surg** 1999 Aug; 86(8):1095. Comment on: Br J Surg 1999 Mar;86(3):376-8.

Solitary rectal ulcer syndrome (SRUS) masquerading as a carcinomatous stricture [letter] Lokuhetty D, et al. **Ceylon Med J** 1998 Dec;43(4):241-2

MR imaging of complex tail-gut cysts. Moulopoulos LA, et al. **Clin Radiol** 1999 Feb;54(2):118-22

Intussusception in infants: an emergency in diagnosis and treatment. Roeyen G, et al. **Eur J Emerg Med** 1999 Mar; 6(1):73-6

Referral for anorectal function evaluation: therapeutic implications and reassurance. Felt-Bersma RJ, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):289-94

US and CT findings of rectal amebian abscess. Gülek B, et al. **Eur Radiol** 1999;9(4):719-20

American Gastroenterological Association medical position statement on anorectal testing techniques. American Gastroenterological Association. Barnett JL, et al. **Gastroenterology** 1999 Mar;116(3):732-60 (239 ref.)

AGA technical review on anorectal testing techniques. Diamant NE, et al. **Gastroenterology** 1999 Mar; 116(3):735-60 (239 ref.)

Perirectal cystic paragonimiasis: endorectal coil MRI. Kim MJ, et al. **J Comput Assist Tomogr** 1999 Jan-Feb;23(1):94-5

Endoluminal MR imaging of anorectal diseases. Stoker J, et al. **J Magn Reson Imaging** 1999 May;9(5):631-4

Solitary rectal ulcer syndrome: two case reports. Akaraviputh T, et al. **J Med Assoc Thai** 1999 Jun; 82(6):623-7

Imaging studies of the pelvic floor. Weidner AC, et al. **Obstet Gynecol Clin North Am** 1998 Dec;25(4):825-48, vii

Amyloidosis of the rectum mimicking collagenous colitis. García-González R, et al. **Pathol Res Pract** 1998; 194(10):731-5

Pediatric rectal and perineal problems. Hendren WH. **Pediatr Clin North Am** 1998 Dec;45(6):1353-72 (23 ref.)

Approach to the patient. Parsons DP, et al. **Prim Care** 1999 Mar;26(1):15-34 (6 ref.)

A survey of hospital practices related to pelvic and rectal examinations of psychiatric inpatients. Varner RV, et al. **Psychiatr Serv** 1999 Jun;50(6):825-7

Endoluminal MR imaging of the rectum and anus: technique, applications, and pitfalls. Stoker J, et al. **Radiographics** 1999 Mar-Apr;19(2):383-98 (20 ref.)

Endoluminal MR imaging of disease of the anus and rectum. Stoker J, et al. **Semin Ultrasound CT MR** 1999 Feb; 20(1):47-55 (36 ref.)

Rectal duplication cyst with a large perineal hernia presenting as recurrent perineal abscesses. Connaughton JC, et al. **Surgery** 1998 Nov;124(5):926-8

Rectal duplication cyst. Bal S, et al. **Trop Gastroenterol** 1999 Jan-Mar;20(1):54-5

[A case of tailgut cyst] Ito F, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Feb;96(2):154-9 (22 ref.) **(Jpn)**

[Colorectal diseases in AIDS patients and endoscopic findings] Averbach M, et al. **Arq Gastroenterol** 1998 Apr-Jun;35(2):104-9 (Eng. Abstr.) **(Por)**

[Severe hematochezia in a 76-year-old woman] Cordero Torres JA, et al. **Rev Clin Esp** 1998 Sep;198(9):625-6 **(Spa)**

DRUG THERAPY

The gonadotropin-releasing hormone agonist leuprolide acetate induces apoptosis and suppresses cell proliferative activity in rectovaginal endometriosis. Mizutani T, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):750-1

Botulin toxin in the treatment of nonrelaxing puborectalis syndrome. Shafik A, et al. **Dig Surg** 1998;15(4):347-51

Topical nitroglycerin for levator spasm [letter] Hyman N, et al. **Dis Colon Rectum** 1999 Mar;42(3):427

[Pharmacotherapy in proctology. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] **Hautarzt** 1998 Oct;48 Suppl 1:S98-100 **(Ger)**

EPIDEMIOLOGY

From the Centers for Disease Control and Prevention. Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994-1997. **JAMA** 1999 Feb 24;281(8):696-7

Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994-1997. **MMWR Morb Mortal Wkly Rep** 1999 Jan 29;48(3):45-8

ETIOLOGY

Quality of life in patients undergoing treatment for chronic radiation-induced rectal bleeding [letter; comment] Guest M, et al. **Br J Surg** 1999 Jan;86(1):135-6. Comment on: Br J Surg 1998 Sep;85(9):1251-4.

Major rectal perforations caused by enema: is surgery mandatory? Madhala O, et al. **Dig Surg** 1998;15(3):270-2

Massive gastrointestinal bleeding from colonic varices in a patient with portal hypertension. Naef M, et al. **Dig Surg** 1998;15(6):709-12

Posterior hernia of the rectum after coccygectomy. García FJ, et al. **Eur J Surg** 1998 Oct;164(10):793-4 (3 ref.)

Normal tissue complication probabilities correlated with late effects in the rectum after prostate conformal radiotherapy. Dale E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):385-91

Systemic lupus erythematosus with a giant rectal ulcer and perforation. Teramoto J, et al. **Intern Med** 1999 Aug; 38(8):643-9

Rectal ulcers: a rare gastrointestinal manifestation of systemic lupus erythematosus. Amit G, et al. **J Clin Gastroenterol** 1999 Sep;29(2):200-2

Spontaneous perforation of the rectum with possible stercoral etiology: report of a case and review of the literature. Tokunaga Y, et al. **Surg Today** 1998;28(9):937-9 (11 ref.)

[Subacute intestinal obstruction due to bladder distension] Ghebontni L, et al. **J Radiol** 1998 Sep;79(9):880-2 (Eng. Abstr.) **(Fre)**

[A strangulated perineal hernia. A rare case of intestinal obstruction] Sciacca P, et al. **Minerva Chir** 1998 Sep; 53(9):739-41 (5 ref.) (Eng. Abstr.) **(Ita)**

[Anorectal diseases in HIV-positive patients. A prospective study] Sánchez Valdez G, et al. **Rev Gastroenterol Mex** 1998 Apr-Jun;63(2):89-92 (Eng. Abstr.) **(Spa)**

HISTORY

A Treatise on the malformation, injuries, and diseases of the rectum and anus: America's first textbook on colorectal surgery. Rutkow IM. **Arch Surg** 1999 Mar;134(3):332

MICROBIOLOGY

Clinical features of Chlamydia trachomatis rectal infection by serovar among homosexually active men. Boisvert JF, et al. **Sex Transm Dis** 1999 Aug;26(7):392-8

PATHOLOGY

Juvenile polyp--a premalignant lesion? Cleary K. **Adv Anat Pathol** 1998 Mar;5(2):95-8 (1 ref.)

Fifteen years later: colonoscopic retroflexion revisited [see comments] Cutler AF, et al. **Am J Gastroenterol** 1999 Jun; 94(6):1537-8. Comment in: Am J Gastroenterol 1999

Jun;94(6):1429–30.
Solitary rectal ulcer syndrome accompanied by submucosal invasive carcinoma [see comments] Tsuchida K, et al. **Am J Gastroenterol** 1998 Nov;93(11):2235–8. Comment in: Am J Gastroenterol 1999 May;94(5):1417.
Retrorectal cystic harmatoma (tailgut cyst) in an infant: case report. Rafindadi AH, et al. **East Afr Med J** 1998 Dec; 75(12):726–7
Anorectal pathology in AIDS. Brar HS, et al. **Gastrointest Endosc Clin N Am** 1998 Oct;8(4):913–31 (36 ref.)
Altered contractile proteins and neural innervation in idiopathic megarectum and megacolon. Gattuso JM, et al. **Histopathology** 1998 Jul;33(1):34–8
[Embryologic hypotheses of prostatic ectopy: apropos of a case] Colombel M, et al. **Prog Urol** 1998 Sep;8(4):573–7 (28 ref.) (Eng. Abstr.) **(Fre)**
[Two cases of anorectal Crohn's disease with characteristic appearances of anus] Funayama Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Nov;95(11):1274–6 **(Jpn)**

PHYSIOPATHOLOGY

The effects of biofeedback on rectal sensation and distal colonic motility in patients with disorders of rectal evacuation: evidence of an inhibitory rectocolonic reflex in humans? Mollen RM, et al. **Am J Gastroenterol** 1999 Mar;94(3):751–6
Internal anal sphincter: advances and insights [see comments] Sangwan YP, et al. **Dis Colon Rectum** 1998 Oct; 41(10):1297–311 (163 ref.). Comment in: Dis Colon Rectum 1999 Jun;42(6):823–4.

RADIOGRAPHY

Association of compartment defects in pelvic floor dysfunction. Maglinte DD, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):439–44
Role of the double-contrast barium enema in rectal stenosis due to suppositories containing paracetamol and acetylsalicylic acid. Tannouri F, et al. **Eur Radiol** 1998; 8(7):1217–20
Evacuation proctography: a prospective study of diagnostic and therapeutic effects. Harvey CJ, et al. **Radiology** 1999 Apr;211(1):223–7
[Ovarian teratoma prolapsed into the rectum (letter)] Chehab F, et al. **Ann Chir** 1998;52(1):101 **(Fre)**

REHABILITATION

Quality of life in patients with benign anorectal disorders [letter; comment] Guest M, et al. **Br J Surg** 1999 Jun; 86(6):843. Comment on: Br J Surg 1998 Dec;85(12):1716–9.

SURGERY

Effect of preoperative abstinence on poor postoperative outcome in alcohol misusers: randomised controlled trial. Tonnesen H, et al. **BMJ** 1999 May 15;318(7194):1311–6
How to do it in surgery: transanal endoscopic microsurgery. van Dalen RM, et al. **Br J Hosp Med** 1998 Nov 19–Dec 9;58(10):498–500 (13 ref.)
Uterine rupture following laparoscopic resection of rectovaginal endometriosis: a new risk factor? Van De Putte I, et al. **Br J Obstet Gynaecol** 1999 Jun;106(6):608–9
Quality of life in patients with benign anorectal disorders [see comments] Sailer M, et al. **Br J Surg** 1998 Dec; 85(12):1716–9. Comment in: Br J Surg 1999 Jun;86(6):843.
Laparoscopically assisted colorectal surgery in the elderly. Stewart BT, et al. **Br J Surg** 1999 Jul;86(7):938–41
Long-term clinical outcome of surgery for solitary rectal ulcer syndrome [letter; comment] Thomson WH. **Br J Surg** 1999 Feb;86(2):281–2. Comment on: Br J Surg 1998 Sep;85(9):1246–50.
Salvage of large bowel anastomotic leaks. Watson AJ, et al. **Br J Surg** 1999 Apr;86(4):499–500
Treatment of external anorectal mucosal prolapse with circular stapler: an easy and effective new surgical technique. Altomare DF, et al. **Dis Colon Rectum** 1999 Aug;42(8):1102–5
Treatment of enterocele by obliteration of the pelvic inlet. Gosselink MJ, et al. **Dis Colon Rectum** 1999 Jul;42(7):940–4
Incidence of fistulas after drainage of acute anorectal abscesses. Hämäläinen KP, et al. **Dis Colon Rectum** 1998 Nov;41(11):1357–61; discussion 1361–2
Lloyd-Davies position with Trendelenburg--a disaster waiting to happen? Horgan AF, et al. **Dis Colon Rectum** 1999 Jul;42(7):916–9; discussion 919–20
Management of iatrogenic rectourethral fistula. Nyam DC, et al. **Dis Colon Rectum** 1999 Aug;42(8):994–7; discussion 997–9
Urinary retention after anorectal operations [letter; comment] Pescatori M. **Dis Colon Rectum** 1999 Jul;42(7):964. Comment on: Dis Colon Rectum 1998 Jun;41(6):696–704.
Internal anal sphincter: advances and insights [see comments] Sangwan YP, et al. **Dis Colon Rectum** 1998 Oct; 41(10):1297–311 (163 ref.). Comment in: Dis Colon Rectum 1999 Jun;42(6):823–4.
Advanced age--indication or contraindication for laparoscopic colorectal surgery? Schwandner O, et al. **Dis Colon Rectum** 1999 Mar;42(3):356–62
Surgical treatment of anoperineal Crohn's disease: can abdominoperineal resection be predicted? Régimbeau JM, et al. **J Am Coll Surg** 1999 Aug;189(2):171–6
Laparoscopic/endoscopic repair of rectal stricture. Kozol RA, et al. **J Gastrointest Surg** 1998 Sep–Oct;2(5):426–9
Neonatal rectovaginal tear during cesarean section. Lickstein DA, et al. **J Pediatr Surg** 1998 Aug;33(8):1315–6
Laparoscopically assisted surgery for colonic perforation with peritonitis--a case report. Fine A. **J Soc Laparoendosc Surg** 1998 Apr–Jun;2(2):189–90
Laparoscopic colectomy for benign colorectal disease is associated with a significant reduction in disability as compared with laparotomy. Chen HH, et al. **Surg Endosc** 1998 Dec;12(12):1397–400
Laparoscopic colorectal anastomosis: risk of postoperative leakage. Results of a multicenter study. Laparoscopic Colorectal Surgery Study Group (LCSSG). Köckerling F, et al. **Surg Endosc** 1999 Jul;13(7):639–44
Core temperature changes during open and laparoscopic colorectal surgery. Luck AJ, et al. **Surg Endosc** 1999 May; 13(5):480–3
The role of conversion in laparoscopic colorectal surgery: Do predictive factors exist? Schwandner O, et al. **Surg Endosc** 1999 Feb;13(2):151–6
Laparoscopic surgery assisted by a transvaginal approach. Taniguchi E, et al. **Surg Laparosc Endosc** 1999 Jan;9(1):53–6
Arteriovenous malformation of the rectum: report of a case. Hayakawa H, et al. **Surg Today** 1998;28(11):1182–7 (29 ref.)
Per anal suturing of a bleeding ulcer to achieve successful hemostasis of massive hemorrhage associated with ulcerative colitis: report of two cases. Yokoyama T, et al. **Surg Today** 1998;28(11):1179–81
Sigmoidofiberscopic incision plus balloon dilatation for anastomotic cicatricial stricture after anterior resection of the rectum. Hagiwara A, et al. **World J Surg** 1999 Jul; 23(7):717–20
[The diagnosis and surgical treatment in rectal endometriosis] Liu F, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Mar; 35(3):170–2 (Eng. Abstr.) **(Chi)**
[Solitary rectal ulcer] Hladik P, et al. **Rozhl Chir** 1998 Dec; 77(12):564–6 (Eng. Abstr.) **(Cze)**
[Early postoperative nutrition after elective colonic surgery] Brönnimann S, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1094–5 **(Ger)**
[Laparoscopic colorectal resection--a routine procedure?] Köhler L, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1529–31 (Eng. Abstr.) **(Ger)**
[Laparoscopic colorectal resections: indications, surgical technique and outcome in 410 prospective cases] Lorenz EP, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1532–4 (Eng. Abstr.) **(Ger)**
[Surgical rectal obstruction--change in treatment over the last 10 years] Zlatarski G, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1389–92 (Eng. Abstr.) **(Ger)**
[Rectal carcinoma. Optimizing the procedures in an emergency] Hildebrandt U. **Zentralbl Chir** 1999; 124(5):446–50 (27 ref.) (Eng. Abstr.) **(Ger)**
[The single-stage surgery of colorectal neoplastic occlusion. The experience of 133 cases] Gullino D, et al. **Minerva Chir** 1999 Jan–Feb;54(1–2):37–47 (Eng. Abstr.) **(Ita)**
[Laparoscopic colorectal surgery. The first experiences from the Central Hospital of Akershus] Glomsaker T, et al. **Tidsskr Nor Laegeforen** 1998 Nov 20;118(28):4378–81 (Eng. Abstr.) **(Nor)**
[Extramucosal rectal strictures and and methods of their elimination] Stepanov EA, et al. **Khirurgiia (Mosk)** 1998; (7):55–6 **(Rus)**
[Long-term results of the treatment in complicated forms of acute paraproctitis] Stavitskii VV. **Klin Khir** 1998; (12):28–9 (Eng. Abstr.) **(Rus)**
[Radical resective surgery for the management of rectosigmoidal endometriosis. Clinical case] Bannura G, et al. **Rev Med Chil** 1998 Nov;126(11):1372–6 (Eng. Abstr.) **(Spa)**

THERAPY

Identification of patients likely to benefit from biofeedback for outlet obstruction constipation. McKee RF, et al. **Br J Surg** 1999 Mar;86(3):355–9
Treatment of rectal hemorrhage by coil embolization. Dobson CC, et al. **Cardiovasc Intervent Radiol** 1999 Mar–Apr;22(2):143–6
Diagnostic, pharmacological, surgical and behavioural developments in benign anorectal disease. Kamm MA. **Eur J Surg Suppl** 1998;(582):119–23 (22 ref.)
American Gastroenterological Association medical position statement on anorectal testing techniques. American Gastroenterological Association. Barnett JL, et al. **Gastroenterology** 1999 Mar;116(3):732–60 (239 ref.)
AGA technical review on anorectal testing techniques. Diamant NE, et al. **Gastroenterology** 1999 Mar; 116(3):735–60 (239 ref.)
Bleeding stercoral ulcer with visible vessels: effective endoscopic injection therapy without electrocoagulation [letter; comment] Matsushita M, et al. **Gastrointest Endosc** 1998 Nov;48(5):559. Comment on: Gastrointest Endosc 1997 Oct;46(4):369–70.
Endoscopic management of rectal Dieulafoy-like lesions: a case series and review of literature. Meister TE, et al. **Gastrointest Endosc** 1998 Sep;48(3):302–5 (25 ref.)
Use of endoscopic band ligation in the treatment of ongoing rectal bleeding. Vandervoort J, et al. **Gastrointest Endosc** 1999 Mar;49(3 Pt 1):392–4
Anal warts, sexually transmitted diseases, and anorectal conditions associated with human immunodeficiency virus. El-Attar SM, et al. **Prim Care** 1999 Mar;26(1):81–100 (32 ref.)
Anorectal abscess and fistula. Hyman N. **Prim Care** 1999 Mar;26(1):69–80 (32 ref.)
Acute colorectal obstruction: stent placement for palliative treatment--results of a multicenter study. de Gregorio MA, et al. **Radiology** 1998 Oct;209(1):117–20
Acute colorectal obstruction: treatment with self-expandable metallic stents before scheduled surgery--results of a multicenter study. Mainar A, et al. **Radiology** 1999 Jan; 210(1):65–9
Magnetic stimulation: a novel method for inducing evacuation of the neuropathic rectum and urinary bladder in a canine model. Shafik A. **Urology** 1999 Aug; 54(2):368–72
[Condylomata acuminata of the anorectal region. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] **Hautarzt** 1998 Oct;48 Suppl 1:S104–6 **(Ger)**
[The endoscopic placement of self-expanding metal prostheses as palliative treatment in colorectal stenosis of tumor origin] Carneros JA, et al. **Gastroenterol Hepatol** 1999 Apr;22(4):167–70 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Retrorectal cystic hamartoma: diagnosis using endorectal ultrasound. Scullion DA, et al. **Clin Radiol** 1999 May; 54(5):338–9
Results and role of rectal endoscopic ultrasonography for patients with deep pelvic endometriosis. Chapron C, et al. **Hum Reprod** 1998 Aug;13(8):2266–70

RECTAL FISTULA

An approach to perirectal disease in inflammatory bowel disease. Cohen Z. **Inflamm Bowel Dis** 1999 Aug; 5(3):228–30; discussion 234

COMPLICATIONS

Cancer in chronic perianal fistulas of Crohn's disease [letter; comment] Vernava AM 3rd. **Dis Colon Rectum** 1999 Feb; 42(2):282–3. Comment on: Dis Colon Rectum 1998 Aug;41(8):992–6.
Preoperative enzymo-histochemical diagnosis of dysganglionoses associated with anorectal malformations (ARM) with recto-vestibular and recto-perineal fistula. Martucciello G, et al. **Eur J Pediatr Surg** 1999 Apr; 9(2):96–100
Pyloric atresia associated with epidermolysis bullosa, malrotation, and high anorectal malformation with recto-urethral fistula: a report of successful management. Agarwala S, et al. **Pediatr Surg Int** 1999;15(3–4):264–5
Neonatal benign sacrococcygeal teratoma with N-type rectobulbar fistula. Henry PY, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):127–8
Perineal-mound defects. Sharma AK, et al. **Pediatr Surg Int** 1999;15(3–4):227–9 (6 ref.)
[Peritonitis following transrectal biopsy of the prostate] da Silva E, et al. **Arch Esp Urol** 1999 Mar;52(2):167–8 (Eng. Abstr.) **(Spa)**

CONGENITAL

Congenital H-type anourethral fistula with severe urethral hypoplasia: case report and review of the literature. Al-Bassam A, et al. **J Pediatr Surg** 1998 Oct;33(10):1550–3
[Rare anorectal malformations. Intermediate-type anal agenesis with a rectocutaneous fistula] Ghandour HM, et al. **Minerva Chir** 1998 Nov;53(11):935–8 (10 ref.) (Eng. Abstr.) **(Ita)**
[Unusual anorectal anomalies. A clinical contribution] Ghandour HM, et al. **Minerva Pediatr** 1998 May; 50(5):179–85 (Eng. Abstr.) **(Ita)**

DIAGNOSIS

Prospective comparison of endosonography, magnetic resonance imaging and surgical findings in anorectal fistula and abscess complicating Crohn's disease [see comments] Orsoni P, et al. **Br J Surg** 1999 Mar;86(3):360–4. Comment in: Br J Surg 1999 Aug;86(8):1093–4.
Prospective comparison of endosonography, magnetic resonance imaging and surgical findings in anorectal fistula and abscess complicating Crohn's disease [letter; comment] Zbar AP, et al. **Br J Surg** 1999 Aug;86(8):1093–4. Comment on: Br J Surg 1999 Mar;86(3):3609–4.
Imaging in coloproctology. Bartram CI. **Clin Radiol** 1999 Jul;54(7):413–4
Endoanal MRI of perianal fistulas: the optimal imaging planes. Stoker J, et al. **Eur Radiol** 1998;8(7):1212–6
MRI scanning in perianal Crohn's disease: an important diagnostic adjunct. Borley NR, et al. **Inflamm Bowel Dis** 1999 Aug;5(3):231–3; discussion 234
A simple technique to identify the relationship of primary fistulous tract to anal sphincters. Jesudason SR, et al. **Trop Gastroenterol** 1998 Jul–Sep;19(3):125

RECTAL FISTULA

[Rare anorectal malformations. Intermediate-type anal agenesis with a rectocutaneous fistula] Ghandour HM, et al. **Minerva Chir** 1998 Nov;53(11):935–8 (10 ref.) (Eng. Abstr.) **(Ita)**

DRUG THERAPY

Cyclosporine for rectoperineal fistula in a human immunodeficiency virus-infected child. Caselli D, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar;28(3):333–5

ETIOLOGY

Incidence of fistulas after drainage of acute anorectal abscesses. Hämäläinen KP, et al. **Dis Colon Rectum** 1998 Nov;41(11):1357–61; discussion 1361–2

Carcinoma arising in anorectal fistulas of Crohn's disease [letter; comment] Kulaylat MN, et al. **Dis Colon Rectum** 1999 Jun;42(6):826–8. Comment on: Dis Colon Rectum 1998 Aug;41(8):992–6.

Anterior sacral meningocele associated with a rectal fistula. Case report and review of the literature. Fitzpatrick MO, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):124–7 (26 ref.)

Laparoscopic ileocecal resection for Crohn's disease associated with intestinal stenosis and ileorectal fistula. Watanabe M, et al. **Surg Today** 1999;29(5):446–8

[Peritonitis following transrectal biopsy of the prostate] da Silva E, et al. **Arch Esp Urol** 1999 Mar;52(2):167–8 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Does HIV status influence the anatomy of anal fistulas? Manookian CM, et al. **Dis Colon Rectum** 1998 Dec; 41(12):1529–33

RADIOGRAPHY

In the X-ray file. Harrison JR. **Inflamm Bowel Dis** 1999 Aug; 5(3):182

SURGERY

Fibrin glue in perianal fistulas--a pilot study. Aitola P, et al. **Ann Chir Gynaecol** 1999;88(2):136–8

Labial fat pad grafts (modified Martius graft) in complex perianal fistulas [see comments] Pinedo G, et al. **Ann R Coll Surg Engl** 1998 Nov;80(6):410–2. Comment in: Ann R Coll Surg Engl 1999 Mar;81(2):143.

Anocutaneous advancement flap closure of high anal fistulas. Jun SH, et al. **Br J Surg** 1999 Apr;86(4):490–2

Rectovesical fistula treated by covered self-expanding prosthesis: report of a case. Fernandez Lobato R, et al. **Dis Colon Rectum** 1999 Jun;42(6):812–5

Management of acquired rectourinary fistulas: outcome according to cause. Muñoz M, et al. **Dis Colon Rectum** 1998 Oct;41(10):1230–8

Transposition of the rectus abdominis muscle for complicated pouch and rectal fistulas. Tran KT, et al. **Dis Colon Rectum** 1999 Apr;42(4):486–9

Fibrin glue application in the treatment of recurrent anorectal fistulas. Venkatesh KS, et al. **Dis Colon Rectum** 1999 Sep; 42(9):1136–9

Management of congenital and acquired H-type anorectal fistulae in girls by anterior sagittal anorectovaginoplasty. Kulshrestha S, et al. **J Pediatr Surg** 1998 Aug;33(8):1224–8

Perianal abscess and fistula-in-ano in infants [letter; comment] Laberge JM. **J Pediatr Surg** 1998 Dec; 33(12):1848. Comment on: J Pediatr Surg 1998 May;33(5):711–3.

Posterior sagittal anorectoplasty is superior to sacroperineal-sacroabdominoperineal pull-through: a long-term follow-up study in boys with high anorectal anomalies. Rintala RJ, et al. **J Pediatr Surg** 1999 Feb; 34(2):334–7

Rectovestibular fistula with absent vagina: a unique anorectal malformation. Canning DA. **J Urol** 1999 Jul;162(1):277–8

Rectourinary fistula repair using the Latzko technique. Noldus J, et al. **J Urol** 1999 May;161(5):1518–20

Perineal subcutaneous dartos pedicled flap as a new technique for repairing urethrorectal fistula. Youssef AH, et al. **J Urol** 1999 May;161(5):1498–500

The role of magnetic resonance imaging in the preoperative assessment of anorectal anomalies. Aslam A, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):71–3

Anorectal abscess and fistula. Hyman N. **Prim Care** 1999 Mar;26(1):69–80 (32 ref.)

A simple technique to identify the relationship of primary fistulous tract to anal sphincters. Jesudason SR, et al. **Trop Gastroenterol** 1998 Jul–Sep;19(3):125

[Urethrorectal fistula. Report of 11 cases] Benchekroun A, et al. **Ann Urol (Paris)** 1999;33(2):93–6 (Eng. Abstr.) **(Fre)**

[Treatment of anal fistula] Puy-Montbrun T. **Gastroenterol Clin Biol** 1998 Jun;22(5 Suppl):B142–7 (38 ref.) **(Fre)**

[Treatment of urethro-rectal fistulas. Apropos of 5 cases] Nouri M, et al. **Prog Urol** 1999 Feb;9(1):137–41 (Eng. Abstr.) **(Fre)**

[Management of primary non-classifiable anal fistulas] Köhler A, et al. **Chirurg** 1999 May;70(5):578–81 (Eng. Abstr.) **(Ger)**

[Therapy planning and surgical indications for Crohn-associated anal fistulas] Schmidt WU, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:998–1001 (Eng. Abstr.) **(Ger)**

[Stepwise concept for treatment of complex anal fistulas] Sailer M, et al. **Zentralbl Chir** 1998;123(7):840–5; discussion 846 (Eng. Abstr.) **(Ger)**

[Unusual anorectal anomalies. A clinical contribution] Ghandour HM, et al. **Minerva Pediatr** 1998 May; 50(5):179–85 (Eng. Abstr.) **(Ita)**

THERAPY

Tube loop (seton) drainage treatment of recurrent extrasphincteric perianal fistulae. Balogh G. **Am J Surg** 1999 Feb;177(2):147–9

Repair of fistulas-in-ano using autologous fibrin tissue adhesive. Cintron JR, et al. **Dis Colon Rectum** 1999 May; 42(5):607–13

[Therapy of Crohn disease in internal medicine: postoperative recurrence and fistulas] Volk-Zeiher BA, et al. **Schweiz Rundsch Med Prax** 1998 Nov 26;87(48):1657–60 (18 ref.) (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Endosonographic criteria for an internal opening of fistula-in-ano. Cho DY. **Dis Colon Rectum** 1999 Apr; 42(4):515–8

Use of endoanal ultrasound in patients with rectovaginal fistulas. Yee LF, et al. **Dis Colon Rectum** 1999 Aug; 42(8):1057–64

VETERINARY

Urethrorectal fistula in a horse. Cruz AM, et al. **Can Vet J** 1999 Feb;40(2):122–4

[Perianal fistula] van Sluijs FJ. **Tijdschr Diergeneeskd** 1999 Feb 15;124(4):120–2 **(Dut)**

[Perianal fistula] van Sluijs FJ. **Tijdschr Diergeneeskd** 1998 Dec 15;123(24):748–9 **(Dut)**

RECTAL GLAND see **SALT GLAND**

RECTAL NEOPLASMS

A case of chordoma in association with rectal carcinoma. Bozbora A, et al. **Acta Chir Belg** 1999 Feb;99(1):41–3

Dietary factors in human colorectal cancer. Lipkin M, et al. **Annu Rev Nutr** 1999;19:545–86 (330 ref.)

When death is no longer the enemy. McCutcheon S. **CMAJ** 1999 Jul 27;161(2):176

Malignant fibrous histiocytoma of the rectum. Singh DR, et al. **Eur J Surg Oncol** 1999 Aug;25(4):447–8

1st International Symposium. Rectal Cancer: Recent Advances in Diagnosis and Treatment. Germany, October 1–3, 1998. Abstracts. **Int J Colorectal Dis** 1998;13(4):173–93

[Retrorectal tumors] Ayala M, et al. **Rev Gastroenterol Mex** 1998 Oct–Dec;63(4):217–9 (Eng. Abstr.) **(Spa)**

BLOOD

Serum YKL-40 and colorectal cancer. Cintin C, et al. **Br J Cancer** 1999 Mar;79(9–10):1494–9

In colorectal carcinoma patients, serum vitamin D levels vary according to stage of the carcinoma. Niv Y, et al. **Cancer** 1999 Aug 1;86(3):391–7

Elevated serum levels of transforming growth factor-beta1 in patients with colorectal carcinoma: its association with tumor progression and its significant decrease after curative surgical resection [see comments] Shim KS, et al. **Cancer** 1999 Feb 1;85(3):554–61. Comment in: Cancer 1999 Feb 1;85(3):517–9.

Utility of routine postoperative laboratory studies in patients undergoing potentially curative resection for adenocarcinoma of the colon and rectum. Skenderis BS 2nd, et al. **Cancer Invest** 1999;17(2):102–9

Decrease in serum levels of vitamin A and zeaxanthin in patients with colorectal polyp. Rumi G Jr, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):305–8

Relation of serum total cholesterol, serum triglycerides and fasting plasma glucose to colorectal carcinoma in situ. Yamada K, et al. **Int J Epidemiol** 1998 Oct;27(5):794–8

Case report: a preterm infant with an extradural myxopapillary ependymoma component of a teratoma and high levels of alpha-fetoprotein. Hany MA, et al. **Pediatr Hematol Oncol** 1998 Sep–Oct;15(5):437–41

[The use of laser spectroscopy of the blood plasma for selecting rectal cancer patients with a colostomy for the performance of a restorative operation] Bilenko AA. **Klin Khir** 1998;(11):19–21 (Eng. Abstr.) **(Rus)**

BLOOD SUPPLY

Prospective study of intratumoral microvessel density, p53 expression and survival in colorectal cancer. Vermeulen PB, et al. **Br J Cancer** 1999 Jan;79(2):316–22

CHEMISTRY

p53 immunohistochemical staining predicts residual disease after chemoradiation in patients with high-risk rectal cancer. Spitz FR, et al. **Clin Cancer Res** 1997 Oct; 3(10):1685–90

p53 status: an indicator for the effect of preoperative radiotherapy of rectal cancer. Adell G, et al. **Radiother Oncol** 1999 May;51(2):169–74

CLASSIFICATION

[Risk of malignant degeneration of preoperatively-classified benign large sessile rectal polyps. A comparison with adenoma size] Mörschel M, et al. **Zentralbl Chir** 1999; 124(3):226–9 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Solitary rectal ulcer syndrome and rectal cancer [letter; comment] Mönkemüller KE. **Am J Gastroenterol** 1999 May;94(5):1417. Comment on: Am J Gastroenterol 1998 Nov;93(11):2235–8.

Splenic metastasis from a rectal tumour: an unusual presentation. Achuthan R, et al. **Ann R Coll Surg Engl** 1999 Mar;81(2):139 (4 ref.)

Adenocarcinoma within a rectal duplication cyst: case report and literature review. Michael D, et al. **Ann R Coll Surg Engl** 1999 May;81(3):205–6 (5 ref.)

p53 gene mutations in rectal cancer associated with schistosomiasis japonica in Chinese patients. Zhang R, et al. **Cancer Lett** 1998 Sep 25;131(2):215–21

Embolization--an optional treatment for intractable hemorrhage from a malignant rectovaginal fistula: report of a case. Dushnitsky T, et al. **Dis Colon Rectum** 1999 Feb; 42(2):271–3

Regression of rectal stenosis secondary to neoplasm in an HIV1-positive patient with gancyclovir antiviral therapy: report of a case. Sobhani I, et al. **Dis Colon Rectum** 1998 Nov;41(11):1454–7

Bowel gas explosion during argon plasma coagulation. Zinsser E, et al. **Endoscopy** 1999 May;31(4):S26

Myositis and malignancy: is there a true association? Brown H, et al. **Hosp Med** 1999 Jan;60(1):51–3 (10 ref.)

Rectal cancer and inflammatory bowel disease: natural history and implications for radiation therapy. Green S, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):835–40

Rectal leiomyosarcoma in a young male with a history of Wilms' tumor [letter] Sebastián JJ, et al. **J Clin Gastroenterol** 1998 Dec;27(4):370

An unusual cause of rectal bleeding in a patient with cystic fibrosis. Treepongkaruna S, et al. **J Gastroenterol Hepatol** 1999 Mar;14(3):281–4

Trichomonas tenax empyema in an immunocompromised patient with advanced cancer. Shiota T, et al. **Parasite** 1998 Dec;5(4):375–7

[Intestinal ganglioneuromatosis--a rare cause of chronic diarrhea] Behrendt N, et al. **Ugeskr Laeger** 1998 Nov 30; 160(49):7139–40 (Eng. Abstr.) **(Dan)**

[Cavernous hemangioma of the rectum--a rare cause of peranal hemorrhage] Freudenberg S, et al. **Chirurg** 1998 Jul;69(7):780–2 (Eng. Abstr.) **(Ger)**

[A case of Cowden's disease associated with rectal carcinoid] Kitazoe K, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Nov;95(11):1244–8 **(Jpn)**

DIAGNOSIS

Metastatic brain adenocarcinoma masquerading as recurrent haemangioblastoma. Rosenthal G, et al. **Acta Neurochir (Wien)** 1998;140(11):1207–8

Polymyositis as a paraneoplastic manifestation of rectal adenocarcinoma [letter] Pautas E, et al. **Am J Med** 1999 Jan;106(1):122–3

Predictors of recurrence after local excision [editorial; comment] Beart RW Jr. **Ann Surg Oncol** 1999 Jan–Feb; 6(1):2. Comment on: Ann Surg Oncol 1999 Jan–Feb;6(1):26–32.

Predictors of recurrence after local excision and postoperative chemoradiation therapy of adenocarcinoma of the rectum [see comments] Bouvet M, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):26–32. Comment in: Ann Surg Oncol 1999 Jan–Feb;6(1):2.

Secretory villous adenomas that cause depletion syndrome. Older J, et al. **Arch Intern Med** 1999 Apr 26;159(8):879–80

Preoperative magnetic resonance staging of rectal cancer with an endorectal coil and dynamic gadolinium enhancement. Drew PJ, et al. **Br J Surg** 1999 Feb; 86(2):250–4

Preoperative staging of rectal carcinoma. Heriot AG, et al. **Br J Surg** 1999 Jan;86(1):17–28 (151 ref.)

Colorectal cancer screening. ACS guidelines [news] **CA Cancer J Clin** 1999 Jan–Feb;49(1):4

Solitary rectal ulcer syndrome (SRUS) masquerading as a carcinomatous stricture [letter] Lokuhetty D, et al. **Ceylon Med J** 1998 Dec;43(4):241–2

Colorectal follow-up planning modified on the basis of our personal experience. Li Destri G, et al. **Dig Surg** 1998; 15(1):64–8

Diffuse cavernous haemangioma of the rectum. Tanaka N, et al. **Eur J Surg** 1999 Mar;165(3):280–3 (18 ref.)

Colorectal surveillance for neoplasia: an overview. Bond JH. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S35–40 (28 ref.)

Results of EUS in detecting perirectal lymph node metastases of rectal cancer: the pathologist makes the difference. Spinelli P, et al. **Gastrointest Endosc** 1999 Jun;49(6):754–8

Interval cancers in a randomized controlled trial of screening for colorectal cancer using a faecal occult blood test. Moss SM, et al. **Int J Epidemiol** 1999 Jun;28(3):386–90

An unusual location of cloacogenic carcinoma. Indinnimeo M, et al. **Int Surg** 1998 Oct–Dec;83(4):343–6

Investigation of polymyositis-dermatomyositis in older people should include rectal examination [letter] Pautas E, et al. **J Am Geriatr Soc** 1998 Dec;46(12):1584

Rectal leiomyosarcoma in a young male with a history of Wilms' tumor [letter] Sebastián JJ, et al. **J Clin Gastroenterol** 1998 Dec;27(4):370

Rectal carcinoid tumor associated with the Peutz-Jeghers syndrome. Wada K, et al. **J Gastroenterol** 1998 Oct; 33(5):743–6

Rectal cancer in an 11-year-old girl with hyperplastic polyposis. Keljo DJ, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar;28(3):327–32

Rectal imaging and cancer. Vining DJ. **Semin Surg Oncol** 1998 Sep;15(2):72–7 (40 ref.)

Multiple primary carcinomas of the gastrointestinal tract. Naaeder SB, et al. **West Afr J Med** 1998 Oct-Dec; 17(4):284–5

[Rectal malignant stromal tumor (leiomyosarcoma): echoendoscopic, computed tomographic aspects and anatomopathologic correlations] Dufresne AC, et al. **J Radiol** 1999 Mar;80(3):303–5 (Eng. Abstr.) **(Fre)**

[A large testis disclosing a tumor of the colon (letter)] Le Caë A, et al. **Presse Med** 1998 May 2-9;27(17):807 **(Fre)**

[Cavernous hemangioma of the rectum--a rare differential per anal hemorrhage diagnosis] Kroesen AJ, et al. **Z Gastroenterol** 1999 Mar;37(3):229–34 (Eng. Abstr.) **(Ger)**

[Clinical-morphological comparative studies in rectal cancer] Pavlenko SG, et al. **Klin Khir** 1998;(5):44 **(Rus)**

[A pathognomic symptom of a tumor of the rectosigmoid colon in acute intestinal obstruction] Semeniuk IuS, et al. **Klin Khir** 1998;(9–10):93 **(Ukr)**

DRUG THERAPY

Experience with 5-fluoro-uracil and levamisole in the management of advanced rectal carcinoma. Ajao OG, et al. **Afr J Med Med Sci** 1996 Sep;25(3):239–41

Postoperative radiation and concomitant bolus fluorouracil with or without additional chemotherapy with fluorouracil and high-dose leucovorin in patients with high-risk rectal cancer: a randomized phase III study conducted by the Hellenic Cooperative Oncology Group. Fountzilas G, et al. **Ann Oncol** 1999 Jun;10(6):671–6

Postoperative adjuvant chemotherapy with 1-hexylcarbamoyl-5-fluorouracil in patients with colorectal cancer and at a high risk for recurrence. Maehara Y, et al. **Anticancer Res** 1998 Nov-Dec;18(6B):4629–34

Individual 5FU-dose adaptation schedule using bimonthly pharmacokinetically modulated LV5FU2 regimen: a feasibility study in patients with advanced colorectal cancer. Ychou M, et al. **Anticancer Res** 1999 May-Jun; 19(3B):2229–35

5-fluorouracil and levofolinic acid with or without recombinant interferon-2b in patients with advanced colorectal carcinoma: a randomized multicenter study with stratification for tumor burden and liver involvement by the Southern Italy Oncology Group. Colucci G, et al. **Cancer** 1999 Feb 1;85(3):535–45

Phase I study of 5-fluorouracil administered by protracted venous infusion, leucovorin, and pelvic radiation therapy. Martenson JA, et al. **Cancer** 1999 Aug 15;86(4):710–4

Schedule-selective biochemical modulation of 5-fluorouracil: a phase II study in advanced colorectal cancer. Sobrero AF, et al. **Clin Cancer Res** 1995 Sep;1(9):955–60

Anal submucosal injection: a novel modality for the treatment of advanced rectal cancer. Shafik A, et al. **Eur J Surg Oncol** 1999 Feb;25(1):76–81

Efficacy of octreotide in the regression of a metastatic carcinoid tumour despite negative imaging with In-111-pentetreotide (Octreoscan). Hillman N, et al. **Exp Clin Endocrinol Diabetes** 1998;106(3):226–30

Regression of MALT lymphoma of the rectum after anti-H. pylori therapy in a patient negative for H. pylori [letter] Inoue F, et al. **Gastroenterology** 1999 Aug;117(2):514–5

Effects of pharmacokinetic modulating chemotherapy using oral UFT and continuous venous 5FU infusion on the prognosis of irradiated rectal carcinomas with p53 overexpression. Kusunoki M, et al. **Int J Oncol** 1998 Oct; 13(4):653–7

Tumor downstaging and sphincter preservation with preoperative chemoradiation in locally advanced rectal cancer: the M. D. Anderson Cancer Center experience. Janjan NA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1027–38

Preoperative radiation with concurrent 5-fluorouracil continuous infusion for locally advanced unresectable rectal cancer. Videtic GM, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):319–24

Pharmacokinetics of mitomycin C in pelvic stopflow infusion and hypoxic pelvic perfusion with and without hemofiltration: a pilot study of patients with recurrent unresectable rectal cancer. Guadagni S, et al. **J Clin Pharmacol** 1998 Oct;38(10):936–44

Adjuvant therapy with oral fluoropyrimidines as main chemotherapeutic agents after curative resection for colorectal cancer: individual patient data meta-analysis of randomized trials. Sakamoto J, et al. **Jpn J Clin Oncol** 1999 Feb;29(2):78–86

Colorectal cancer [letter; comment] Maghfoor I. **Lancet** 1999 Mar 20;353(9157):1013. Comment on: Lancet 1999 Jan 30;353(9150):391–9.

Colorectal cancer [letter; comment] Waters JS, et al. **Lancet** 1999 Mar 20;353(9157):1012–3. Comment on: Lancet 1999 Jan 30;353(9150):391–9.

Preoperative UFT and calcium folinate and radiotherapy in rectal cancer. Hoff PM, et al. **Oncology (Huntingt)** 1999 Jul;13(7 Suppl 3):129–31

UFT plus calcium folinate plus radiotherapy for recurrent rectal cancer. Hoffmann W, et al. **Oncology (Huntingt)** 1999 Jul;13(7 Suppl 3):125–6

Prognostic implications of response to preoperative infusional chemoradiation in locally advanced rectal cancer. Janjan NA, et al. **Radiother Oncol** 1999 May;51(2):153–60

Chemoradiation for rectal cancer: current methods. Barrett MW. **Semin Surg Oncol** 1998 Sep;15(2):114–9 (25 ref.)

Induction therapy for rectal carcinoma. Busse PM, et al. **Semin Surg Oncol** 1998 Sep;15(2):120–5 (37 ref.)

The effectiveness of chemotherapy with cisplatin and 5-fluorouracil for recurrent small cell neuroendocrine carcinoma of the rectum: report of a case. Okuyama T, et al. **Surg Today** 1999;29(2):165–9

Integrated treatment with doxifluridine and radiotherapy in recurrent or primary unresectable rectal cancer. A feasibility study. Di Bartolomeo M, et al. **Tumori** 1999 May-Jun;85(3):211–3

[Palliative chemotherapy in colorectal cancer--can we afford it? (editorial)] Kronborg O. **Ugeskr Laeger** 1999 Jun 21; 161(25):3815 **(Dan)**

[Systemic palliative chemotherapy with 5-fluorouracil and leucovorin in disseminated colorectal cancer] Wiboltt K, et al. **Ugeskr Laeger** 1999 Jun 21;161(25):3827–32 (36 ref.) (Eng. Abstr.) **(Dan)**

[Assessment of the quality of life during adjuvant chemotherapy of colorectal cancer] Bellemare S, et al. **Ann Chir** 1998;52(8):711–5 (Eng. Abstr.) **(Fre)**

[Clinical benefits of stabilization after second-line chemotherapy in patients with metastatic colorectal cancer] Henry-Launois B, et al. **Bull Cancer** 1999 Feb; 86(2):195–201 (Eng. Abstr.) **(Fre)**

[Adjuvant radiochemotherapy with 5-FU and folinic acid in Dukes stage B and C rectum carcinoma: an interim analysis] Hagmüller E, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1397–9 (Eng. Abstr.) **(Ger)**

[An addendum to the article by C. Rödel, W. Hohenberger, R. Sauer. Adjuvant and neoadjuvant radiochemotherapy of rectal carcinoma. Strahlenther Onkol 1998; 174: 497–504 (Nr. 10) (comment)] Rödel C, et al. **Strahlenther Onkol** 1999 Mar;175(3):133. Comment on: Strahlenther Onkol 1998 Oct;174(10):497–504. **(Ger)**

[Recommendations on contents of medical reports in rectal carcinoma: III: Radiotherapy report and final report of chemotherapy. Orientation aids in interdisciplinary patient management] Engel J, et al. **Zentralbl Chir** 1998; 123(12):1436–8 **(Ger)**

[A case of rectal cancer with lymph node metastasis (N4) successfully treated with low-dose cisplatin and UFT] Futagami F, et al. **Gan To Kagaku Ryoho** 1999 Sep; 26(10):1491–4 (Eng. Abstr.) **(Jpn)**

[Clinical evaluation of S-1, a new anticancer agent, in patients with advanced gastrointestinal cancer. S-1 Cooperative Gastrointestinal Study Group] Maehara Y, et al. **Gan To Kagaku Ryoho** 1999 Mar;26(4):476–85 (Eng. Abstr.) **(Jpn)**

[Combination of 5'-DFUR and MMC for recurrent rectal cancer with pulmonary metastasis] Ohtani Y, et al. **Gan To Kagaku Ryoho** 1999 Jun;26(7):979–82 (Eng. Abstr.) **(Jpn)**

[A case of local recurrence of rectal cancer responding to local intraarterial infusion therapy] Otani S, et al. **Gan To Kagaku Ryoho** 1999 Aug;26(9):1355–7 (Eng. Abstr.) **(Jpn)**

[Progress in the treatment of colorectal cancer] Sasaki T, et al. **Gan To Kagaku Ryoho** 1999 Jun;26 Suppl 1:129–38 (56 ref.) (Eng. Abstr.) **(Jpn)**

[Low-dose CPT-11 against a recurrent rectal cancer--a case report] Takahashi Y, et al. **Gan To Kagaku Ryoho** 1999 Jul;26(8):1193–6 (Eng. Abstr.) **(Jpn)**

[Treatment with cytostatic agents should be considered in colorectal cancer. It improves prognosis and quality of life] Larsson PA. **Lakartidningen** 1999 May 12;96(19):2314–6 (15 ref.) **(Swe)**

ECONOMICS

Economic impact of surveillance. Ransohoff DF. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S67–71

ENZYMOLOGY

Decrease in hepatic cytochrome P450 after interleukin-2 immunotherapy. Elkahwaji J, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):951–4

CPT-11 converting carboxylesterase and topoisomerase activities in tumour and normal colon and liver tissues. Guichard S, et al. **Br J Cancer** 1999 May;80(3–4):364–70

Familial adenomatous polyposis is associated with a marked decrease in alkaline sphingomyelinase activity: a key factor to the unrestrained cell proliferation? Hertervig E, et al. **Br J Cancer** 1999 Sep;81(2):232–6

Glutathione S-transferase T1 and M1 genotypes in normal mucosa, transitional mucosa and colorectal adenocarcinoma. Zhang H, et al. **Int J Cancer** 1999 Apr 20;84(2):135–8

EPIDEMIOLOGY

Adenosquamous carcinoma of the colon, rectum, and anus: epidemiology, distribution, and survival characteristics. Cagir B, et al. **Dis Colon Rectum** 1999 Feb;42(2):258–63

Foods as risk factors for colorectal cancer: a case-control study in Burgundy (France). Boutron-Ruault MC, et al. **Eur J Cancer Prev** 1999 Jul;8(3):229–35

Country comparisons provide evidence of links between specific circulatory disease and gastric, rectal, prostate and breast cancers. Moore MA, et al. **Eur J Cancer Prev** 1999 Apr;8(2):151–7

Height, weight and gastrointestinal cancer: a follow-up study in Norway. Robsahm TE, et al. **Eur J Cancer Prev** 1999 Apr;8(2):105–13

Cigarette smoking and risk of cancers of the colon and rectum: a case-control study from Italy. Tavani A, et al. **Eur J Epidemiol** 1998 Oct;14(7):675–81

Local recurrence in patients with rectal cancer diagnosed between 1988 and 1992: a population-based study in the west Netherlands. Kapiteijn E, et al. **Eur J Surg Oncol** 1998 Dec;24(6):528–35

Epidemiology of digestive tract cancers in India. V. Large and small bowel. Mohandas KM, et al. **Indian J Gastroenterol** 1999 Jul-Sep;18(3):118–21 (30 ref.)

Iron intake, body iron stores and colorectal cancer risk in women: a nested case-control study. Kato I, et al. **Int J Cancer** 1999 Mar 1;80(5):693–8

Physical activity, water intake and risk of colorectal cancer in Taiwan: a hospital-based case-control study. Tang R, et al. **Int J Cancer** 1999 Aug 12;82(4):484–9

Experience of 1446 rectal cancer patients in Korea and analysis of prognostic factors. Park YJ, et al. **Int J Colorectal Dis** 1999 Apr;14(2):101–6

The association of calcium and vitamin D, and colon and rectal cancer in Wisconsin women. Marcus PM, et al. **Int J Epidemiol** 1998 Oct;27(5):788–93

Interval cancers in a randomized controlled trial of screening for colorectal cancer using a faecal occult blood test. Moss SM, et al. **Int J Epidemiol** 1999 Jun;28(3):386–90

Education, socioeconomic status and risk of cancer of the colon and rectum. Tavani A, et al. **Int J Epidemiol** 1999 Jun;28(3):380–5

Epidemiology of cancer of the large bowel--the 12-year experience of a specialized registry in northern Italy [see comments] Ponz de Leon M, et al. **Ital J Gastroenterol Hepatol** 1999 Jan-Feb;31(1):10–8. Comment in: Ital J Gastroenterol Hepatol 1999 Jan-Feb;31(1):19–22.

Cancer statistics digest. Rectal cancer incidence in Japan [news] Ajiki W, et al. **Jpn J Clin Oncol** 1999 Aug;29(8):408

ETIOLOGY

Rectal cancer after sulindac therapy for a sporadic adenomatous colonic polyp. Matsuhashi N, et al. **Am J Gastroenterol** 1998 Nov;93(11):2261–6

Food groups and colorectal cancer risk. Levi F, et al. **Br J Cancer** 1999 Mar;79(7–8):1283–7

Independent and joint effects of family history and lifestyle on colorectal cancer risk: implications for prevention. Le Marchand L, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jan;8(1):45–51

Colorectal adenomatous and hyperplastic polyps: smoking and N-acetyltransferase 2 polymorphisms. Potter JD, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jan;8(1):69–75

Carcinoma arising in anorectal fistulas of Crohn's disease [letter; comment] Kulaylat MN, et al. **Dis Colon Rectum** 1999 Jun;42(6):826–8. Comment on: Dis Colon Rectum 1998 Aug;41(8):992–6.

The influence of reproductive and hormonal factors on the risk of colon and rectal cancer in women. Talamini R, et al. **Eur J Cancer** 1998 Jun;34(7):1070–6

WHO consensus statement on the role of nutrition in colorectal cancer. Scheppach W, et al. **Eur J Cancer Prev** 1999 Feb;8(1):57–62 (45 ref.)

Rectal carcinoid tumor associated with the Peutz-Jeghers syndrome. Wada K, et al. **J Gastroenterol** 1998 Oct; 33(5):743–6

GENETICS

Mucosa-associated lymphoid tissue (MALT) lymphoma of the rectum with chromosomal translocation of the t(11;18)(q21;q21) and an additional aberration of trisomy 3. Hosaka S, et al. **Am J Gastroenterol** 1999 Jul;94(7):1951–4

K-ras and p53 mutations and overexpressions as prognostic factors in female rectal carcinoma. Hirvikoski P, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):685–91

Loss of heterozygosity at 18q21 is indicative of recurrence and therefore poor prognosis in a subset of colorectal cancers. Jernvall P, et al. **Br J Cancer** 1999 Feb; 79(5–6):903–8

Validation and simplification of Bethesda guidelines for identifying apparently sporadic forms of colorectal carcinoma with microsatellite instability. Cravo ML, et al. **Cancer** 1999 Feb 15;85(4):779–85

DNA mismatch repair deficiency in curatively resected sextuple primary cancers in different organs: a molecular case report. Yakushiji H, et al. **Cancer Lett** 1999 Jul 19; 142(1):17–22

p53 gene mutations in rectal cancer associated with schistosomiasis japonica in Chinese patients. Zhang R, et al. **Cancer Lett** 1998 Sep 25;131(2):215–21

Does mutation of transforming growth factor-beta type II receptor gene play an important role in colorectal polyps?

Togo G, et al. **Dig Dis Sci** 1999 Sep;44(9):1803–9

Different prognostic effect of postoperative chemoradiation therapy on diploid and nondiploid high–risk rectal cancers. Tang R, et al. **Dis Colon Rectum** 1998 Dec;41(12):1494–9

Microsatellite instability: impact on cancer progression in proximal and distal colorectal cancers [see comments] Jernvall P, et al. **Eur J Cancer** 1999 Feb;35(2):197–201. Comment in: Eur J Cancer 1999 Feb;35(2):171–2.

Microsatellite instability: impact on cancer progression in proximal and distal colorectal cancers [editorial; comment] Smyrk TC, et al. **Eur J Cancer** 1999 Feb;35(2):171–2. Comment on: Eur J Cancer 1999 Feb;35(2):197–201.

Reappraisal of K-ras and p53 gene mutations in the recurrence of Dukes' B2 rectal cancer after curative resection. Liang JT, et al. **Hepatogastroenterology** 1999 Mar–Apr;46(26):830–7

Pathology of the malignant colorectal polyp [letter; comment] Kang GH. **Hum Pathol** 1998 Oct;29(10):1173–4 . Comment on: Hum Pathol 1998 Jan;29(1):15–26.

Rectal cancer in a 13–year–old boy without a detectable germline mutation in FAP and HNPCC genes. Kashiwagi H, et al. **J Gastroenterol** 1999 Jun;34(3):341–4

Cumulative incidence of colorectal and extracolonic cancers in MLH1 and MSH2 mutation carriers of hereditary nonpolyposis colorectal cancer. Lin KM, et al. **J Gastrointest Surg** 1998 Jan–Feb;2(1):67–71

No difference in stem cell somatic mutation between the background mucosa of right– and left–sided sporadic colorectal carcinomas. Campbell F, et al. **J Pathol** 1998 Sep;186(1):31–5

L–myc genotypes in Hong Kong Chinese colorectal carcinoma patients. Ko JM, et al. **Oncol Rep** 1999 Mar–Apr; 6(2):441–4

Fibrinogen Matsumoto III: a variant with gamma275 Arg––>Cys (CGC––>TGC)–comparison of fibrin polymerization properties with those of Matsumoto I (gamma364 Asp––>His) and Matsumoto II (gamma308 Asn––>Lys). Terasawa F, et al. **Thromb Haemost** 1999 May;81(5):763–6

[A cytogenic study on colorectal carcinoma] Wang B, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug; 26(4):218–21 (Eng. Abstr.) **(Chi)**

[A comparative study on p53 gene mutation in primary human Dukes C colon cancer with that in matched lymph node metastasis] Zhang J, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Apr;26(2):85–8 (Eng. Abstr.) **(Chi)**

[Analysis of genetic disorders of cancer of the rectum: differences in relation to cancer of the colon] Rebischung C, et al. **Gastroenterol Clin Biol** 1998 Aug–Sep; 22(8–9):679–87 (Eng. Abstr.) **(Fre)**

[The application of molecular technics in the management of colorectal cancer] Laurent–Puig P, et al. **J Chir (Paris)** 1997 Dec;134(7–8):279–82 (21 ref.) (Eng. Abstr.) **(Fre)**

[Rectal carcinomas in HNPCC] Möslein G, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1467–9 (Eng. Abstr.) **(Ger)**

HISTORY

"Multiple primary carcinomas of the large intestine"–50 years later. Levin B. **Cancer** 1998 Dec 15;83(12):2425–6

IMMUNOLOGY

Reduced incidence of rectal cancer, compared to gastric and colonic cancer, in a population of 73,076 men and women chronically immunosuppressed. Stewart T, et al. **Clin Cancer Res** 1997 Jan;3(1):51–5

METABOLISM

Motilin–producing liver and bone metastases evidenced 14 years after resection of a rectal polyp. Weynand B, et al. **Am J Surg Pathol** 1999 Jul;23(7):838–43

The effect of preoperative radiation therapy on glucose utilization and cell kinetics in patients with primary rectal carcinoma. Schiepers C, et al. **Cancer** 1999 Feb 15; 85(4):803–11

Predictive value of nuclear beta–catenin expression for the occurrence of distant metastases in rectal cancer. Günther K, et al. **Dis Colon Rectum** 1998 Oct;41(10):1256–61

beta–catenin expression in primary and metastatic colorectal carcinoma. Hugh TJ, et al. **Int J Cancer** 1999 Aug 12; 82(4):504–11

[Expression of protein p53 in the adenoma–colorectal carcinoma sequence] Gafà R, et al. **Pathologica** 1998 Aug; 90(4):351–6 (Eng. Abstr.) **(Ita)**

[Establishment of alpha–fetoprotein producing human rectal cancer cell line (RKK–YK) and its features] Kokuba Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Jul; 96(7):809–16 (Eng. Abstr.) **(Jpn)**

MORTALITY

Improved survival and reduction in local failure rates after preoperative radiotherapy: evidence for the generalizability of the results of Swedish Rectal Cancer Trial. Dahlberg M, et al. **Ann Surg** 1999 Apr;229(4):493–7

Hospital volume can serve as a surrogate for surgeon volume for achieving excellent outcomes in colorectal resection. Harmon JW, et al. **Ann Surg** 1999 Sep;230(3):404–11; discussion 411–3

Laparoscopic resection does not adversely affect early survival curves in patients undergoing surgery for colorectal adenocarcinoma. Poulin EC, et al. **Ann Surg** 1999 Apr;229(4):487–92

Serum YKL–40 and colorectal cancer. Cintin C, et al. **Br J Cancer** 1999 Mar;79(9–10):1494–9

Influence of stage at diagnosis on survival differences for rectal cancer in three European populations. Monnet E, et al. **Br J Cancer** 1999 Oct;81(3):463–8

Signet–ring cell carcinoma of the colon and rectum: a matched control study. Nissan A, et al. **Dis Colon Rectum** 1999 Sep;42(9):1176–80

Rectal cancer mortality and total hardness levels in Taiwan's drinking water. Yang CY, et al. **Environ Res** 1999 May; 80(4):311–6

Survival of colorectal cancer patients in Europe during the period 1978–1989. EUROCARE Working Group. Gatta G, et al. **Eur J Cancer** 1998 Dec;34(14 Spec No):2176–83

Cross–country comparisons of colon and rectal cancer mortality suggest the existence of differences in risk factors in eastern and western Europe. Moore MA, et al. **Eur J Cancer Prev** 1999 Feb;8(1):67–71

Long–term results of radical surgery for rectal cancer: multivariate analysis of prognostic factors influencing survival and local recurrence. Jatzko GR, et al. **Eur J Surg Oncol** 1999 Jun;25(3):284–91

Survival after rectal cancer: differences between hospital catchment areas. A nationwide study in Sweden. Blomqvist P, et al. **Gut** 1999 Jul;45(1):39–44

[Rectal resection for cancer in Lower–Normandy. Loco–regional recurrences and survival. Results of a regional survey (1988–1993)] Desoubeaux N, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1):40–6 (Eng. Abstr.) **(Fre)**

[Recurrence and survival in cancer of the rectum: does it depend on the surgeon?] Wind P, et al. **Gastroenterol Clin Biol** 1999 Mar;23(3):417–8 **(Fre)**

PATHOLOGY

Histologic features associated with lymph node metastasis in stage T1 and superficial T2 rectal adenocarcinomas in abdominoperineal resection specimens. Identifying a subset of patients for whom treatment with adjuvant therapy or completion abdominoperineal resection should be considered after local excision. Goldstein NS, et al. **Am J Clin Pathol** 1999 Jan;111(1):51–8

Spread, mechanism, and routes of a cutaneous metastasis, or simply put––how did it get from the rectum to the skin of the thigh? [letter; comment] Resnik KS. **Am J Dermatopathol** 1999 Apr;21(2):208–9. Comment on: Am J Dermatopathol 1997 Oct;19(5):528–32. Comment on: Am J Dermatopathol 1998 Jun;20(3):314–5.

Solitary rectal ulcer syndrome accompanied by submucosal invasive carcinoma [see comments] Tsuchida K, et al. **Am J Gastroenterol** 1998 Nov;93(11):2235–8. Comment in: Am J Gastroenterol 1999 May;94(5):1417.

Stromal tumors of the anorectum: a clinicopathologic study of 22 cases. Tworek JA, et al. **Am J Surg Pathol** 1999 Aug; 23(8):946–54

Multiple rectal carcinoids: a case report. Winburn GB. **Am Surg** 1998 Dec;64(12):1200–3

Measurement of gut diamine oxidase activity. Diamine oxidase as a new biologic marker of colorectal proliferation? Raithel M, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:262–6

Lymphangiosis as a predictor of outcome in patients with primary diffusely infiltrative adenocarcinoma of the colon and rectum. Tang R, et al. **Arch Surg** 1999 Feb; 134(2):157–60

Rectal adenocarcinoma: assessment of tumour involvement of the lateral resection margin by MRI of resected specimen. Blomqvist L, et al. **Br J Radiol** 1999 Jan; 72(853):18–23

Intraoperative lymphatic mapping and the sentinel node concept in colorectal carcinoma. Joosten JJ, et al. **Br J Surg** 1999 Apr;86(4):482–6

Staging of rectosigmoid neoplasia with colonoscopic endoluminal ultrasonography. Norton SA, et al. **Br J Surg** 1999 Jul;86(7):942–6

Alcohol consumption enhances liver metastasis in colorectal carcinoma patients. Maeda M, et al. **Cancer** 1998 Oct 15; 83(8):1483–8

Markedly elevated cell turnover is characteristic of small, deeply invasive carcinomas of the colorectum. Takahashi H, et al. **Cancer** 1999 Feb 15;85(4):796–802

Lymphovascular and neural invasion in low–lying rectal carcinoma. Moreira LF, et al. **Cancer Detect Prev** 1999; 23(2):123–8

The dynamics of early intestinal tumour proliferation: to be or not to be. Shibata D. **Cancer Surv** 1998;32:181–200 (56 ref.)

Induction of apoptotic cell death in human colorectal carcinoma cell lines by a cyclooxygenase–2 (COX–2)–selective nonsteroidal anti–inflammatory drug: independence from COX–2 protein expression. Elder DJ, et al. **Clin Cancer Res** 1997 Oct;3(10):1679–83

Telomerase and telomere length in the development and progression of premalignant lesions to colorectal cancer. Engelhardt M, et al. **Clin Cancer Res** 1997 Nov; 3(11):1931–41

Diffuse cavernous hemangioma of the rectum and sigmoid colon. Demircan O, et al. **Dig Surg** 1998;15(6):713–5

Establishment and characterization of a human rectal neuroendocrine carcinoma xenograft into nude mice. Tanaka N, et al. **Digestion** 1999 Mar–Apr;60(2):117–24

All patients with small intramural rectal cancers are at risk for lymph node metastasis. Blumberg D, et al. **Dis Colon Rectum** 1999 Jul;42(7):881–5

Small–cell carcinoma of the rectum: report of two cases. Cebrian J, et al. **Dis Colon Rectum** 1999 Feb;42(2):274–7 (22 ref.)

Predictive value of nuclear beta–catenin expression for the occurrence of distant metastases in rectal cancer. Günther K, et al. **Dis Colon Rectum** 1998 Oct;41(10):1256–61

Comparative study of transrectal ultrasonography, pelvic computerized tomography, and magnetic resonance imaging in preoperative staging of rectal cancer. Kim NK, et al. **Dis Colon Rectum** 1999 Jun;42(6):770–5

Adenosquamous carcinoma of the rectum showing endocrine–cell differentiation: report of a case. Kono T, et al. **Dis Colon Rectum** 1999 Aug;42(8):1089–92 (8 ref.)

Signet–ring cell carcinoma of the colon and rectum: a matched control study. Nissan A, et al. **Dis Colon Rectum** 1999 Sep;42(9):1176–80

Are lymph node micrometastases of any clinical significance in Dukes Stages A and B colorectal cancer? Oberg A, et al. **Dis Colon Rectum** 1998 Oct;41(10):1244–9

An unusual case of breast metastasis from an anorectal melanoma. Lee JF, et al. **Eur J Surg Oncol** 1999 Aug; 25(4):441–2

Evaluation of spiral CT in staging of colon and rectum carcinoma. Hundt W, et al. **Eur Radiol** 1999;9(1):78–84

Molecular staging of colorectal cancer: a step forward. Liefers GJ, et al. **Gastroenterology** 1999 Mar;116(3):769–70

Small, depressed lesions of the large bowel: a normal finding at endoscopy. Martin JP, et al. **Gut** 1999 Jul;45(1):147

A case of clitoral metastasis without skin involvement from rectal cancer. Kobayashi F, et al. **Gynecol Oncol** 1999 Jul; 74(1):138–40

A case of solitary metastatic pancreatic cancer from rectal carcinoma: a case report. Inagaki H, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2413–7

A rare case of primary malignant mesothelioma originating from the rectovaginal tissue. Shimoyama S, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1593–7

Monoclonal plasma and Mott cells in a rectal adenoma [letter] Brink T, et al. **Histopathology** 1999 Jan;34(1):81–2

Benign intramucosal melanocytic proliferation a marker for primary malignant melanoma of rectum. Jayalekshmy PS, et al. **Indian J Pathol Microbiol** 1998 Oct;41(4):489–90

Diminutive cancers of the colon and rectum: comparison between flat and polypoid cancers. Leong AF, et al. **Int J Colorectal Dis** 1998;13(4):151–3

Prognostic implications of downstaging following preoperative radiation therapy for operable T3–T4 rectal cancer. Kaminsky–Forrett MC, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):935–41

Inflammatory myoglandular polyp [letter] Harada N, et al. **J Clin Gastroenterol** 1999 Jul;29(1):104–5

Anorectal melanoma metastatic to the breast. Ozgüroglu M, et al. **J Clin Gastroenterol** 1999 Sep;29(2):197–9

Adenocarcinoma arising within a tailgut cyst: clinicopathological description and follow up of an unusual case. Graadt van Roggen JF, et al. **J Clin Pathol** 1999 Apr;52(4):310–2

Thyroid metastasis from rectal carcinoma coexisting with Hashimoto's thyroiditis: gray–scale and power Doppler sonographic findings. Takashima S, et al. **J Clin Ultrasound** 1998 Sep;26(7):361–5

Semi–quantitative procedure for telomeric repeat amplification protocol (TRAP) assay in colorectal carcinomas. Fujita M, et al. **J Exp Clin Cancer Res** 1999 Mar;18(1):119–24

Risk of cancer in ulcerative colitis. Ekbom A. **J Gastrointest Surg** 1998 Jul–Aug;2(4):312–3 (14 ref.)

Biology of colorectal cancer in ulcerative colitis. Lashner BA, et al. **J Gastrointest Surg** 1998 Jul–Aug;2(4):307–11 (65 ref.)

Pathologic features of initial adenomas as predictors for metachronous adenomas of the rectum. Yang G, et al. **J Natl Cancer Inst** 1998 Nov 4;90(21):1661–5

Clinical quiz. An inflammatory cloacogenic polyp (ICP). Sood M, et al. **J Pediatr Gastroenterol Nutr** 1998 Nov; 27(5):523, 529

Inguinal lymph node metastases from rectal adenocarcinoma. Luna–Pérez P, et al. **J Surg Oncol** 1999 Mar;70(3):177–80

Outcome of local excision for locally invasive rectal carcinomas with special reference to histological features at the invasive margin. Masaki T, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):621–5

Histologic and immunohistochemical analysis of early submucosal invasive carcinoma of the colon and rectum. Kurisu Y, et al. **Pathol Int** 1999 Jul;49(7):608–16

Rectal adenocarcinoid with lymph node metastasis. Yagihashi N, et al. **Pathol Int** 1999 Jun;49(6):563–5

Rectal carcinoma: thin–section MR imaging for staging in 28 patients. Brown G, et al. **Radiology** 1999 Apr; 211(1):215–22

Disseminated intravascular coagulation. Gobel BH. **Semin Oncol Nurs** 1999 Aug;15(3):174–82 (40 ref.)

Prognostic markers in rectal carcinoma. Jessup JM, et al. **Semin Surg Oncol** 1998 Sep;15(2):131–40 (83 ref.)

Value and limits of endorectal ultrasonography for preoperative staging of rectal carcinoma. Massari M, et

al. **Surg Laparosc Endosc** 1998 Dec;8(6):438–44

A solitary fibrous tumor in the perianal region with a 13-year follow-up: report of a case. Yoshida R, et al. **Surg Today** 1999;29(7):642–5

Pathology of rectal adenocarcinoma following preoperative adjuvant radiotherapy and chemotherapy. Allen DC, et al. **Ulster Med J** 1999 May;68(1):17–21

[Apoptosis and expression of its regulating genes in adenoma and adenocarcinoma of large intestine] Sun B, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Jun;26(3):137–40 (Eng. Abstr.) **(Chi)**

[Quality assurance and quality development of the patho-anatomical specimens of resected colorectal carcinoma] Holck S, et al. **Ugeskr Laeger** 1999 Aug 2; 161(31):4406–9 **(Dan)**

[General review of the value of hepatic MRI in the diagnosis and preoperative staging of liver metastasis from colon and rectum cancer] Borson O, et al. **Ann Chir** 1999; 53(5):397–405 (Eng. Abstr.) **(Fre)**

[Serous papillary cystadenocarcinoma of the recto-vaginal septum: a rare primary localization] Leteurtre E, et al. **Ann Pathol** 1999 Mar;19(1):42–5 (Eng. Abstr.) **(Fre)**

[Treatment of peritoneal carcinosis of colorectal origin] Dubé P, et al. **J Chir (Paris)** 1997 Nov;134(5–6):233–6 (50 ref.) **(Fre)**

[Surgical treatment of pulmonary metastasis of colorectal cancer. Prognostic survival factors] Baron O, et al. **Presse Med** 1998 May 16;27(18):885–8 (38 ref.) (Eng. Abstr.) **(Fre)**

[Rectal carcinoma. Optimizing therapy by knowledge of anatomy with special reference to the mesorectum] Konerding MA, et al. **Zentralbl Chir** 1999;124(5):413–7 (15 ref.) (Eng. Abstr.) **(Ger)**

[Histopathologic examination of rectal carcinoma] Wolf HK, et al. **Zentralbl Chir** 1999;124(5):408–12 (35 ref.) (Eng. Abstr.) **(Ger)**

[A case of rectal cancer with lymph node metastasis (N4) successfully treated with low-dose cisplatin and UFT] Futagami F, et al. **Gan To Kagaku Ryoho** 1999 Sep; 26(10):1491–4 (Eng. Abstr.) **(Jpn)**

[A case of prostatic ductal adenocarcinoma with endometrioid features, associated with rectal invasion and multiple liver metastases] Fujino A. **Nippon Hinyokika Gakkai Zasshi** 1998 Sep;89(9):792–5 (Eng. Abstr.) **(Jpn)**

[Establishment of alpha-fetoprotein producing human rectal cancer cell line (RKK-YK) and its features] Kokuba Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Jul; 96(7):809–16 (Eng. Abstr.) **(Jpn)**

[Cronkhite-Canada syndrome] Muñoz C, et al. **Gastroenterol Hepatol** 1998 Oct;21(8):401–3 (Eng. Abstr.) **(Spa)**

[Quality control of 135 histopathological reports of colo-rectal carcinoma] Reyes E, et al. **Rev Invest Clin** 1998 May-Jun;50(3):233–8 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

An evaluation of intelligent prognostic systems for colorectal cancer. Anand SS, et al. **Artif Intell Med** 1999 Feb; 15(2):193–214

Physical activity and risk of cancers of the colon and rectum: an Italian case-control study. Tavani A, et al. **Br J Cancer** 1999 Apr;79(11–12):1912–6

PREVENTION & CONTROL

Colorectal cancer prevention by non-steroidal anti-inflammatory drugs: effects of dosage and timing [see comments] Collet JP, et al. **Br J Cancer** 1999 Sep;81(1):62–8 . Comment in: Br J Cancer 1999 Sep;81(1):1–2.

Colorectal cancer screening [news] **CA Cancer J Clin** 1999 Jan-Feb;49(1):2

Role of endoscopy in the prevention of digestive cancer: application to colorectal cancer. Lambert R. **Endoscopy** 1998 Sep;30(7):628–40 (47 ref.)

Have you been checked? [editorial] Heilman RS. **Radiographics** 1999 May-Jun;19(3):654

RADIOGRAPHY

Role of computed tomography in diagnosis of diffuse cavernous hemangioma of the rectum [letter; comment] Sharma S, et al. **Am J Gastroenterol** 1999 Jul;94(7):1986–7 . Comment on: Am J Gastroenterol 1998 Aug;93(8):1357–9.

Diffuse cavernous hemangioma of the rectosigmoid colon: imaging findings. Djouhri H, et al. **J Comput Assist Tomogr** 1998 Nov-Dec;22(6):851–5

[Emergency admission of a 56 year-old man for occlusive syndrome (clinical conference)] Dousset B. **J Chir (Paris)** 1999 Jun;136(2):97–103 **(Fre)**

[Anorectal Hodgkin disease in an HIV-infected patient (letter)] Márquez-Moreno AJ, et al. **Med Clin (Barc)** 1999 May 1;112(15):598–9 **(Spa)**

RADIONUCLIDE IMAGING

Primary colorectal cancers detected with PET. Yasuda S, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):638–40

Preoperative and intraoperative radioimmunodetection of cancer pretargeted by biotinylated monoclonal antibodies. Di Carlo V, et al. **Semin Surg Oncol** 1998 Dec;15(4):235–8

Novel clinical approaches in monoclonal antibody-based management in colorectal cancer patients: radioimmunoguided surgery and antigen augmentation. Roselli M, et al. **Semin Surg Oncol** 1998 Dec;15(4):254–62 (49 ref.)

[Clinical value of positron emission tomography in the detection and staging of recurrent colorectal cancer] Hustinx R, et al. **Gastroenterol Clin Biol** 1999 Mar; 23(3):323–9 (Eng. Abstr.) **(Fre)**

RADIOTHERAPY

Radiation therapy for anorectal melanoma--a report of three cases. Bujko K, et al. **Acta Oncol** 1998;37(5):497–9

Perioperative radiotherapy in rectal cancer. Glimelius B, et al. **Acta Oncol** 1999;38(1):23–32 (68 ref.)

Radiotherapy in rectal cancer [editorial; comment] Tveit KM. **Acta Oncol** 1999;38(1):5–6 (10 ref.). Comment on: Acta Oncol 1999 ;38(1):7–21. Comment on: Acta Oncol 1999 ;38(1):23–32.

Differential effect of radiation on endothelial cell function in rectal cancer and normal rectum. Richter KK, et al. **Am J Surg** 1998 Dec;176(6):642–7

Biological effects of preoperative radiotherapy on metastatic lymph nodes from rectal cancer. Ibi I, et al. **Am Surg** 1999 May;65(5):427–30

Long-term follow-up of patients with rectal cancer managed by local excision with and without adjuvant irradiation. Chakravarti A, et al. **Ann Surg** 1999 Jul;230(1):49–54

Immediate reconstruction of the perineal wound with gracilis muscle flaps following abdominoperineal resection and intraoperative radiation therapy for recurrent carcinoma of the rectum [see comments] Shibata D, et al. . **Ann Surg Oncol** 1999 Jan-Feb;6(1):33–7. Comment in: Ann Surg Oncol 1999 Jan-Feb;6(1):3.

Preoperative radiation therapy for patients with T2-T3 carcinoma of the middle-to-lower rectum. Bozzetti F, et al. **Cancer** 1999 Aug 1;86(3):398–404

Phase I study of 5-fluorouracil administered by protracted venous infusion, leucovorin, and pelvic radiation therapy. Martenson JA, et al. **Cancer** 1999 Aug 15;86(4):710–4

Influence of p53 status on prognosis in preoperatively irradiated rectal carcinoma. Nehls O, et al. **Cancer** 1999 Jun 15;85(12):2541–8

The effect of preoperative radiation therapy on glucose utilization and cell kinetics in patients with primary rectal carcinoma. Schiepers C, et al. **Cancer** 1999 Feb 15; 85(4):803–11

Surgical treatment of locally advanced rectal cancer. Options and strategies. Aleksic M, et al. **Dig Surg** 1998;15(4):342–6

Selection criteria for treatment of rectal cancer with combined external and endocavitary radiation. Birnbaum EH, et al. **Dis Colon Rectum** 1999 Jun;42(6):727–33; discussion 733–5

Intraoperative irradiation after surgery for locally recurrent rectal cancer. Hashiguchi Y, et al. **Dis Colon Rectum** 1999 Jul;42(7):886–93; discussion 893–5

Effect of radiation therapy on the potential doubling time of tumours in colorectal cancers. Michel P, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):309–14

Total mesorectal excision (TME) with or without preoperative radiotherapy in the treatment of primary rectal cancer. Prospective randomised trial with standard operative and histopathological techniques. Dutch ColoRectal Cancer Group. Kapiteijn E, et al. **Eur J Surg** 1999 May;165(5):410–20

Results of external beam radiotherapy alone for incompletely resected carcinoma of rectosigmoid or rectum: Peter MacCallum Cancer Institute experience 1981–1990. Guiney MJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1; 43(3):531–6

High dose rate intraoperative radiation therapy (HDR-IORT) as part of the management strategy for locally advanced primary and recurrent rectal cancer. Harrison LB, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):325–30

Tumor downstaging and sphincter preservation with preoperative chemoradiation in locally advanced rectal cancer: the M. D. Anderson Cancer Center experience. Janjan NA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):1027–38

Prognostic implications of downstaging following preoperative radiation therapy for operable T3-T4 rectal cancer. Kaminsky-Forrett MC, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):935–41

Intraoperative electron beam radiation therapy for locally recurrent rectal carcinoma. Mannaerts GH, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):297–308

125Iodine brachytherapy for colorectal adenocarcinoma recurrent in the pelvis and paraortics. Martinez-Monge R, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):545–50

The incidence and clinical consequences of treatment-related bowel injury. Miller AR, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):817–25

Pelvic insufficiency fractures in patients with pelvic irradiation. Moreno A, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):61–6

Five fractions of preoperative radiotherapy for selected cases of rectal carcinoma: long-term tumor control and tolerance to treatment. Myerson RJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):537–43

Rapid growth of microscopic rectal cancer as a determinant of response to preoperative radiation therapy. Suwinski R, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):943–51 (56 ref.)

Preoperative radiation with concurrent 5-fluorouracil continuous infusion for locally advanced unresectable rectal cancer. Videtic GM, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):319–24

Conservative management of rectal cancer with local excision and postoperative adjuvant therapy. Wagman R, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):841–6

The long-term effect on PSA values of incidental prostatic irradiation in patients with pelvic malignancies other than prostate cancer. Zietman AL, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):715–8

Decision analysis as an aid to determining the management of early low rectal cancer for the individual patient. Temple LK, et al. **J Clin Oncol** 1999 Jan;17(1):312–8

Using static MLC fields to replace partial transmission cerrobend blocks in treatment planning of rectal carcinoma cases. Ma L, et al. **Med Dosim** 1998 Winter;23(4):264–6

Endoluminal radiotherapy for rectal tumors. Tanum G, et al. **Oncology** 1998 Nov-Dec;55(6):521–4

Preoperative UFT and calcium folinate and radiotherapy in rectal cancer. Hoff PM, et al. **Oncology (Huntingt)** 1999 Jul;13(7 Suppl 3):129–31

UFT plus calcium folinate plus radiotherapy for recurrent rectal cancer. Hoffmann W, et al. **Oncology (Huntingt)** 1999 Jul;13(7 Suppl 3):125–6

p53 status: an indicator for the effect of preoperative radiotherapy of rectal cancer. Adell G, et al. **Radiother Oncol** 1999 May;51(2):169–74

Moderate dose intraoperative and external beam radiotherapy for locally recurrent rectal carcinoma. Eble MJ, et al. **Radiother Oncol** 1998 Nov;49(2):169–74

Prognostic implications of response to preoperative infusional chemoradiation in locally advanced rectal cancer. Janjan NA, et al. **Radiother Oncol** 1999 May;51(2):153–60

Radiotherapy and local control in rectal cancer. Valentini V, et al. **Rays** 1998 Jul-Sep;23(3):580–5 **(Eng, Ita)**

Specialised surgery and preoperative radiotherapy improve outcome in rectal cancer. Madden MV, et al. **S Afr Med J** 1999 Feb;89(2):135–6

Chemoradiation for rectal cancer: current methods. Barrett MW. **Semin Surg Oncol** 1998 Sep;15(2):114–9 (25 ref.)

Induction therapy for rectal carcinoma. Busse PM, et al. **Semin Surg Oncol** 1998 Sep;15(2):120–5 (37 ref.)

Transanal endoscopic microsurgical excision of irradiated and nonirradiated rectal cancer. A 5-year experience. Lezoche E, et al. **Surg Laparosc Endosc** 1998 Aug; 8(4):249–56

Integrated treatment with doxifluridine and radiotherapy in recurrent or primary unresectable rectal cancer. A feasibility study. Di Bartolomeo M, et al. **Tumori** 1999 May-Jun;85(3):211–3

[Effect of acupoint irradiation with Q-wave millimeter microwave on peripheral white blood cells in post-operational treatment with chemotherapy in stomach and colorectal cancer patients] Wu JG, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 May; 17(5):286–8 (Eng. Abstr.) **(Chi)**

[Radiotherapy of cancer of the anal canal. 15 years experience at the Lyon civil hospices and brief review of the literature] Gérard JP, et al. **Ann Chir** 1998;52(1):17–23 (24 ref.) (Eng. Abstr.) **(Fre)**

[Adjuvant chemoradiotherapy of cancers of the rectum] Bosset JF, et al. **Cancer Radiother** 1998 Dec;2(6):703–7 (40 ref.) (Eng. Abstr.) **(Fre)**

[Chemoradiotherapy in treatment of cancer of the anal canal] Gérard JP. **Cancer Radiother** 1998 Dec;2(6):708–12 (35 ref.) (Eng. Abstr.) **(Fre)**

[Locoregional recurrence of adenocarcinomas of the rectum treated with irradiation combined with or without excision surgery] Touboul E, et al. **Cancer Radiother** 1999 Jan-Feb; 3(1):39–50 (Eng. Abstr.) **(Fre)**

[Oncologic and functional results of resections with direct delayed coloanal anastomosis in previously irradiated cancers of the lower rectum] Baulieux J, et al. **Chirurgie** 1999 Jun;124(3):240–50; discussion 251 (Eng. Abstr.) **(Fre)**

[Perineal anaerobic necrotizing cellulite after preoperative radiotherapy for rectal cancer (letter)] Lederman E, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):360–1 **(Fre)**

[Preoperative radiotherapy of cancer of the rectum. What if Europe is right?] Gérard JP, et al. **Rev Prat** 1999 Feb 1;49(3):237–9 **(Fre)**

[Brief preoperative radiotherapy in surgical therapy of rectal carcinoma. Long-term results of a prospective randomized study] Petersen S, et al. **Chirurg** 1998 Jul;69(7):759–65 (Eng. Abstr.) **(Ger)**

[Prognostic factors in combined radiochemotherapy of the anal canal carcinoma] Schneider I, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1426–8 (Eng. Abstr.) **(Ger)**

[Phase II study on preoperative radio-chemo-thermotherapy in locally advanced rectal carcinoma] Rau B, et al. **Strahlenther Onkol** 1998 Nov;174(11):556–65 (Eng. Abstr.) **(Ger)**

[An addendum to the article by C. Rödel, W. Hohenberger, R. Sauer. Adjuvant and neoadjuvant radiochemotherapy of rectal carcinoma. Strahlenther Onkol 1998; 174: 497–504 (Nr. 10) (comment)] Rödel C, et al. **Strahlenther Onkol** 1999 Mar;175(3):133. Comment on: Strahlenther Onkol 1998 Oct;174(10):497–504. **(Ger)**

[Recommendations on contents of medical reports in rectal carcinoma: III: Radiotherapy report and final report of

chemotherapy. Orientation aids in interdisciplinary patient management] Engel J, et al. **Zentralbl Chir** 1998; 123(12):1436–8 **(Ger)**

[Rectal carcinoma. Optimizing treatment by neoadjuvant and adjuvant therapy?] Fasolini F. **Zentralbl Chir** 1999; 124(5):441–5 (31 ref.) (Eng. Abstr.) **(Ger)**

[Results of preoperative high-dose-rate intraluminal brachytherapy for resectable rectal cancer] Kamikonya N, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):503–8 (Eng. Abstr.) **(Jpn)**

[Reactive restructuring of smooth muscle tissue in response to large fraction irradiation of rectal cancer] Zashikhin AL, et al. **Arkh Patol** 1999 Jan–Feb;61(1):26–30 (Eng. Abstr.) **(Rus)**

[Adjuvant radiotherapy in the combined treatment of rectal cancer] Barsukov IuA, et al. **Vopr Onkol** 1998;44(5):515–7 (Eng. Abstr.) **(Rus)**

[Radiotherapy of local recurrence of rectal carcinoma] Radošević-Jelić Lj, et al. **Vojnosanit Pregl** 1998 Nov–Dec; 55(6):595–9 (Eng. Abstr.) **(Scc)**

REHABILITATION

Functional results of colonic J-pouch anastomosis for rectal cancer. Araki Y, et al. **Surg Today** 1999;29(7):597–600

SECONDARY

Endorectal ultrasonography for the assessment of rectal wall invasion in intrapelvic tumor: a preliminary report. Shirahama T, et al. **Int J Urol** 1999 Jun;6(6):293–7

Large bowel mucosal metastases from breast cancer. van Halteren HK, et al. **J Clin Oncol** 1998 Nov;16(11):3711–3

SURGERY

Perioperative radiotherapy in rectal cancer. Glimelius B, et al. **Acta Oncol** 1999;38(1):23–32 (68 ref.)

Mesorectal excision for rectal carcinoma: the new standard? Beart RW Jr. **Adv Surg** 1999;32:193–203 (50 ref.)

The role of surgery and chemoradiation therapy for cancer of the rectum. Paty PB, et al. **Adv Surg** 1999;32:205–23 (111 ref.)

Effects of endorectal ultrasonography in the surgical management of rectal adenomas and carcinomas. Lee P, et al. **Am J Surg** 1999 May;177(5):388–91

Recurrence and survival after surgical management of rectal cancer. Ross A, et al. **Am J Surg** 1999 May;177(5):392–5

Outcome analysis of external coloanal anastomosis. Velez JP, et al. **Am J Surg** 1999 Jun;177(6):467–71

Colovaginal anastomosis: a unique complication of end-to-end anastomosis stapler use in low anterior resection. Cuenca RE, et al. **Am Surg** 1998 Nov; 64(11):1023–6

Biological effects of preoperative radiotherapy on metastatic lymph nodes from rectal cancer. Ibi I, et al. **Am Surg** 1999 May;65(5):427–30

Local excision and chemoradiation for low rectal T1 and T2 cancers is an effective treatment. Le Voyer TE, et al. **Am Surg** 1999 Jul;65(7):625–30; discussion 630–1

Surgical resection of villous adenomas of the rectum. Winburn GB. **Am Surg** 1998 Dec;64(12):1170–3

Functional outcome after coloanal anastomosis with J-colonic pouch for rectal cancer. Santoro GA, et al. **Ann Ital Chir** 1998 Jul–Aug;69(4):485–9

Long-term follow-up of patients with rectal cancer managed by local excision with and without adjuvant irradiation. Chakravarti A, et al. **Ann Surg** 1999 Jul;230(1):49–54

Improved survival and reduction in local failure rates after preoperative radiotherapy: evidence for the generalizability of the results of Swedish Rectal Cancer Trial. Dahlberg M, et al. **Ann Surg** 1999 Apr;229(4):493–7

Surgeon-related factors and outcome in rectal cancer [letter; comment] Halasz NA. **Ann Surg** 1999 Mar;229(3):443–4. Comment on: Ann Surg 1998 Feb;227(2):157–67. Comment on: Ann Surg 1998 Feb;227(2):168–9.

Hospital volume can serve as a surrogate for surgeon volume for achieving excellent outcomes in colorectal resection. Harmon JW, et al. **Ann Surg** 1999 Sep;230(3):404–11; discussion 411–3

Laparoscopic resection does not adversely affect early survival curves in patients undergoing surgery for colorectal adenocarcinoma. Poulin EC, et al. **Ann Surg** 1999 Apr;229(4):487–92

Surgeon-related factors and outcome in rectal cancer [letter; comment] Renehan A, et al. **Ann Surg** 1999 Mar; 229(3):442–3; discussion 443–4. Comment on: Ann Surg 1998 Feb;227(2):157–67.

Surgeon-related factors and outcome in rectal cancer [letter; comment] Schiowitz MF. **Ann Surg** 1999 Mar;229(3):442; discussion 443–4. Comment on: Ann Surg 1998 Feb;227(2):157–67.

New success with management of recurrent rectal cancer—a reason to follow patients [editorial; comment] Beart RW Jr. **Ann Surg Oncol** 1999 Mar;6(2):131–2. Comment on: Ann Surg Oncol 1999 Mar;6(2):171–7.

Myocutaneous pedicle flaps after abdomino-perineal resection for recurrent rectal cancer [editorial; comment] Ota DM. **Ann Surg Oncol** 1999 Jan–Feb;6(1):3. Comment on: Ann Surg Oncol 1999 Jan–Feb;6(1):33–7.

Surgical salvage of recurrent rectal carcinoma after curative resection: a 10-year experience [see comments] Salo JC, et al. **Ann Surg Oncol** 1999 Mar;6(2):171–7. Comment in: Ann Surg Oncol 1999 Mar;6(2):131–2.

Immediate reconstruction of the perineal wound with gracilis muscle flaps following abdominoperineal resection and intraoperative radiation therapy for recurrent carcinoma of the rectum [see comments] Shibata D, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):33–7. Comment in: Ann Surg Oncol 1999 Jan–Feb;6(1):3.

Postoperative adjuvant chemotherapy with 1-hexylcarbamoyl-5-fluorouracil in patients with colorectal cancer and at a high risk for recurrence. Maehara Y, et al. **Anticancer Res** 1998 Nov–Dec;18(6B):4629–34

Prognostic factors in ambulatory patients with inoperable locoregionally recurrent rectal cancer following curative surgery. Pergolizzi S, et al. **Anticancer Res** 1999 Mar–Apr; 19(2B):1383–90

Proctectomy and coloanal anastomosis for rectal cancer. Read TE, et al. **Arch Surg** 1999 Jun;134(6):670–7 (23 ref.)

Senna vs polyethylene glycol for mechanical preparation the evening before elective colonic or rectal resection: a multicenter controlled trial. French Association for Surgical Research. Valverde A, et al. **Arch Surg** 1999 May; 134(5):514–9

Local excision of rectal carcinoma. Varma MG, et al. **Arch Surg** 1999 Aug;134(8):863–7; discussion 867–8

Pre-operative chemoradiotherapy and total mesorectal excision surgery of rectal cancer: towards the eradication of pelvic failures? Bosset JF, et al. **Aust N Z J Surg** 1999 Sep;69(9):622–4 (32 ref.)

Basingstoke: comment [letter] Church JM. **Aust N Z J Surg** 1999 Sep;69(9):678

Food for thought: Basingstoke revisited again: a gourmand's delight or food poisoning?: Comment [letter; comment] Enker WE. **Aust N Z J Surg** 1999 Feb;69(2):151–2; discussion 152–3. Comment on: Aust N Z J Surg 1999 Feb;69(2):85–6.

Basingstoke replies again: comment [letter; comment] Heald RJ. **Aust N Z J Surg** 1999 Feb;69(2):150. Comment on: Aust N Z J Surg 1999 Feb;69(2):85–6.

Food for thought: Basingstoke revisited again [see comments] Isbister WH. **Aust N Z J Surg** 1999 Feb;69(2):85–6. Comment in: Aust N Z J Surg 1999 Feb;69(2):150. Comment in: Aust N Z J Surg 1999 Feb;69(2):151–2; discussion 152–3.

Evaluation of a follow-up programme after curative resection for colorectal cancer. Howell JD, et al. **Br J Cancer** 1999 Jan;79(2):308–10

The seven surgeons of King's: a fable by AEsop [letter] Amy JJ. **Br J Obstet Gynaecol** 1999 May;106(5):511

The seven surgeons of King's: a fable by Aesop [see comments] Rennie J, et al. **Br J Obstet Gynaecol** 1998 Dec; 105(12):1241. Comment in: Br J Obstet Gynaecol 1999 Aug;106(8):876.

The partial gluteus maximus musculocutaneous turnover flap. An alternative concept for simultaneous reconstruction of combined defects of the posterior perineum/sacrum and the posterior vaginal wall. Germann G, et al. **Br J Plast Surg** 1998 Dec;51(8):620–3

Changing strategy for rectal cancer is associated with improved outcome. Dahlberg M, et al. **Br J Surg** 1999 Mar;86(3):379–84

Critical lower limb ischaemia following excision of the rectum. Khaira HS, et al. **Cardiovasc Surg** 1998 Aug; 6(4):424–6

Pelvic exenteration for advanced primary rectal cancer in male patients. Verschueren RC, et al. **Clin Oncol (R Coll Radiol)** 1998;10(5):318–21

Surgical treatment of locally advanced rectal cancer. Options and strategies. Aleksic M, et al. **Dig Surg** 1998;15(4):342–6

Colorectal carcinoma: is lymphadenectomy useful? Curti G, et al. **Dig Surg** 1998;15(3):193–208 (167 ref.)

The safety of hot biopsy forceps in the removal of small colonic polyps. Mann NS, et al. **Digestion** 1999 Jan–Feb; 60(1):74–6

Peritoneal mucinous carcinomatosis after laparoscopic-assisted anterior resection for early rectal cancer: report of a case. Chew DK, et al. **Dis Colon Rectum** 1999 Mar;42(3):424–6

Misconceptions about the colonic J-pouch: what the accumulating data show. Dennett ER, et al. **Dis Colon Rectum** 1999 Jun;42(6):804–11 (47 ref.)

Laparoscopic vs. open abdominoperineal resection for cancer. Fleshman JW, et al. **Dis Colon Rectum** 1999 Jul; 42(7):930–9

Continent perineal colostomy after abdominoperineal resection: outcome after 63 cases. Gamagami RA, et al. **Dis Colon Rectum** 1999 May;42(5):626–30; discussion 630–1

Impact of surgeon's technique on outcome after treatment of rectal carcinoma. Hermanek P. **Dis Colon Rectum** 1999 May;42(5):559–62

Examination of nodal metastases by a clearing method supports pelvic plexus preservation in rectal cancer surgery. Hida J, et al. **Dis Colon Rectum** 1999 Apr; 42(4):510–4

Rectal washout eliminates exfoliated malignant cells. Jenner DC, et al. **Dis Colon Rectum** 1998 Nov;41(11):1432–4

Influence of erythropoietin on transfusion requirements in patients receiving preoperative chemoradiotherapy for rectal cancer. Levine EA, et al. **Dis Colon Rectum** 1999 Aug;42(8):1065–9; discussion 1069–71

Use of the Harmonic Scalpel in open abdominoperineal surgery for rectal carcinoma. Maruta F, et al. **Dis Colon Rectum** 1999 Apr;42(4):540–2

Revised technique for retrieving small polyps from the colon and rectum after snare polypectomy. Massick DD, et al. **Dis Colon Rectum** 1999 Apr;42(4):543

Original technique for small colorectal tumor localization during laparoscopic surgery. Montorsi M, et al. **Dis Colon Rectum** 1999 Jun;42(6):819–22

Morbidities of adjuvant chemotherapy and radiotherapy for resectable rectal cancer: an overview. Ooi BS, et al. **Dis Colon Rectum** 1999 Mar;42(3):403–18 (92 ref.)

Quality of life after surgery for rectal cancer: do we still need a permanent colostomy? Renner K, et al. **Dis Colon Rectum** 1999 Sep;42(9):1160–7

Anal sphincter reconstruction by dynamic graciloplasty after abdominoperineal resection for cancer. Rouanet P, et al. **Dis Colon Rectum** 1999 Apr;42(4):451–6

Total anorectal and partial vaginal reconstruction with dynamic graciloplasty and colonic vaginoplasty after extended abdominoperineal resection: report of a case. Rullier E, et al. **Dis Colon Rectum** 1999 Aug;42(8):1097–101

Intersphincteric resection with excision of internal anal sphincter for conservative treatment of very low rectal cancer. Rullier E, et al. **Dis Colon Rectum** 1999 Sep; 42(9):1168–75

Anorectal function after anterior resection with side-to-side anastomosis for carcinoma of the rectum. Tsunoda A, et al. **Dis Colon Rectum** 1999 Jan;42(1):77–81

Preoperative anal sphincter high pressure zone, maximum tolerable volume, and anal mucosal electrosensitivity predict early postoperative defecatory function after low anterior resection for rectal cancer. Yamana T, et al. **Dis Colon Rectum** 1999 Sep;42(9):1145–51

Abdominosacral resection of recurrent rectal cancer in the sacrum. Zacherl J, et al. **Dis Colon Rectum** 1999 Aug; 42(8):1035–9; discussion 1039–40

Endoscopic resection of laterally spreading tumours of the large intestine using a distal attachment. Yoshikane H, et al. **Endoscopy** 1999 Aug;31(6):426–30

Increased autologous blood donation in rectal cancer by recombinant human erythropoietin (rhEPO) [see comments] Rau B, et al. **Eur J Cancer** 1998 Jun;34(7):992–8 . Comment in: Eur J Cancer 1998 Jun;34(7):956–7.

Total mesorectal excision (TME) with or without preoperative radiotherapy in the treatment of primary rectal cancer. Prospective randomised trial with standard operative and histopathological techniques. Dutch ColoRectal Cancer Group. Kapiteijn E, et al. **Eur J Surg** 1999 May;165(5):410–20

Reduction "by half". The need for standardised surgical technique in studies of radiotherapy for rectal cancer [editorial] Wiggers T, et al. **Eur J Surg** 1999 May; 165(5):407–9

Transanal electrovaporisation of rectal tumours. Yol S, et al. **Eur J Surg** 1999 Jul;165(7):686–9

Improved survival and local control after total mesorectal excision or D3 lymphadenectomy in the treatment of primary rectal cancer: an international analysis of 1411 patients. Havenga K, et al. **Eur J Surg Oncol** 1999 Aug; 25(4):368–74

Long-term results of radical surgery for rectal cancer: multivariate analysis of prognostic factors influencing survival and local recurrence. Jatzko GR, et al. **Eur J Surg Oncol** 1999 Jun;25(3):284–91

Multimodal therapy in rectal cancer. Link KH, et al. **Gan To Kagaku Ryoho** 1998 Dec;25(14):2167–92 (120 ref.)

Surgeon-related factors and outcome in rectal cancer. Soybel DI. **Gastroenterology** 1999 Jan;116(1):220–1

"Band-snare" resection of small rectal carcinoid tumors. Berkelhammer C, et al. **Gastrointest Endosc** 1999 Oct; 50(4):582–5

A new endoscopic mucosal resection procedure using an insulation-tipped electrosurgical knife for rectal flat lesions: report of two cases. Gotoda T, et al. **Gastrointest Endosc** 1999 Oct;50(4):560–3

Endoscopic removal of rectal leiomyoma: case report. Ishiguro A, et al. **Gastrointest Endosc** 1999 Sep;50(3):433–6

Survival after rectal cancer: differences between hospital catchment areas. A nationwide study in Sweden. Blomqvist P, et al. **Gut** 1999 Jul;45(1):39–44

Risk factor assessment of endoscopically removed malignant colorectal polyps. Netzer P, et al. **Gut** 1998 Nov; 43(5):669–74

Local excision of rectal cancer for cure: should we always regard rigid pathologic criteria? Benoist S, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1546–51

Anterior luxtasphincteric stapled rectumresection. Danis J. **Hepatogastroenterology** 1998 May–Jun;45(21):771–2

Neurophysiological basis of sympathetic nerve-preserving surgery for lower rectal cancer—a canine model. Liang JT, et al. **Hepatogastroenterology** 1998 Nov–Dec; 45(24):2206–14

Observations on surgical anatomy for rectal cancer surgery. Nano M, et al. **Hepatogastroenterology** 1998 May–Jun; 45(21):717–26

Glutaraldehyde-fixed heterologous pericardium for vena cava grafting following hepatectomy. Ohwada S, et al. **Hepatogastroenterology** 1999 Mar–Apr;46(26):855–8

A minimally invasive approach to rectal cancer—sacrolaparoscopic approach. Watanabe Y, et al. **Hepatogastroenterology** 1999 Mar–Apr;46(26):909–13

Serial evaluation of anorectal function following low anterior resection of the rectum. Lee SJ, et al. **Int J Colorectal Dis** 1998;13(5–6):241–6

Conservative management of rectal cancer with local

excision and postoperative adjuvant therapy. Wagman R, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):841–6

Anorectal reconstruction--restoring continence after abdominoperineal excision of the anorectum [see comments] Eccersley AJ, et al.
Ital J Gastroenterol Hepatol 1998 Oct;30(5):549–54 (45 ref.) . Comment in: Ital J Gastroenterol Hepatol 1999 Apr;31(3):267–8.

Decision analysis as an aid to determining the management of early low rectal cancer for the individual patient. Temple LK, et al. **J Clin Oncol** 1999 Jan;17(1):312–8

Local recurrence following rectal resection for cancer [see comments] Eu KW, et al. **J R Coll Surg Edinb** 1998 Dec; 43(6):393–6. Comment in: J R Coll Surg Edinb 1999 Jun;44(3):205–6.

Synchronous and metachronous gastric adenocarcinoma: case report and literature review. Gnanalingham KK, et al. **J R Coll Surg Edinb** 1999 Feb;44(1):61–2 (15 ref.)

Local recurrence following rectal resection for cancer [letter; comment] Ngan S, et al. **J R Coll Surg Edinb** 1999 Jun; 44(3):205–6. Comment on: J R Coll Surg Edinb 1998 Dec;43(6):393–6.

Anterior resection with total mesorectal excision [published erratum appears in J R Coll Surg Edinb 1999 Apr;44(2):136] [see comments] Steele RJ. **J R Coll Surg Edinb** 1999 Feb; 44(1):40–5. Comment in: J R Coll Surg Edinb 1999 Apr;44(2):135–6. Comment in: J R Coll Surg Edinb 1999 Apr;44(2):136.

Laparoscopic surgery for anorectal malignancies other than carcinoma. Agachan F, et al. **J Soc Laparoendosc Surg** 1998 Jul–Sep;2(3):239–42

Local excision of rectal carcinoma: a safe alternative for more advanced tumors? Graham RA, et al. **J Surg Oncol** 1999 Apr;70(4):235–8

Reconstruction of the pelvic floor using absorbable mesh with a bioresorbable membrane (Seprafilm) after abdominoperineal rectal excision. Kusunoki M, et al.
J Surg Oncol 1999 Apr;70(4):261–2

Avoidance of rectovaginal fistula as a complication after low anterior resection for rectal cancer using a double-stapling technique. Nakagoe T, et al. **J Surg Oncol** 1999 Jul; 71(3):196–7

Sexual dysfunction after surgery for rectal cancer. Banerjee AK. **Lancet** 1999 Jun 5;353(9168):1900–2

Colorectal cancer [letter; comment] [see comments] Hinson FL, et al. **Lancet** 1999 Mar 20;353(9157):1012. Comment on: Lancet 1999 Jan 30;353(9150):391–9. Comment in: Lancet 1999 May 15;353(9165):1714.

A plea for preservation of the pelvic autonomic nerves [letter] Maas K, et al. **Lancet** 1999 Aug 28;354(9180):772–3

Randomised trials are not unethical [letter; comment] Vaidya JS, et al. **Lancet** 1999 May 15;353(9165):1714. Comment on: Lancet 1999 Mar 20;353(9157):1012.

Actual standards and controversies on operative technique and lymph-node dissection in colorectal cancer. Bruch HP, et al. **Langenbecks Arch Surg** 1999 Apr;384(2):167–75 (89 ref.)

Multivisceral resection of advanced colorectal carcinoma. Gebhardt C, et al. **Langenbecks Arch Surg** 1999 Apr; 384(2):194–9

Mesorectal lymph node dissection: is it beneficial? Hohenberger W, et al. **Langenbecks Arch Surg** 1998 Dec; 383(6):402–8 (54 ref.)

Sphincter preserving techniques: from anterior resection to coloanal anastomosis. Kasperk R, et al.
Langenbecks Arch Surg 1998 Dec;383(6):397–401

Radical resection with autonomic nerve preservation and lymph node dissection techniques in lower rectal cancer surgery and its results: the impact of lateral lymph node dissection. Mori T, et al. **Langenbecks Arch Surg** 1998 Dec; 383(6):409–15

Follow-up after transanal endoscopic microsurgery or transanal excision of large benign rectal polyps. Mörschel M, et al. **Langenbecks Arch Surg** 1998 Oct;383(5):320–4

Local control after curative surgery for cancer of the extraperitoneal rectum. Twenty years of experience. Secco GB, et al. **Oncology** 1999 Apr;56(3):193–7

Specialised surgery and preoperative radiotherapy improve outcome in rectal cancer. Madden MV, et al.
S Afr Med J 1999 Feb;89(2):135–6

Total pelvic exenteration for advanced rectal cancer. Mukherjee A. **S D J Med** 1999 May;52(5):153–6

Preoperative and intraoperative radioimmunodetection of cancer pretargeted by biotinylated monoclonal antibodies. Di Carlo V, et al. **Semin Surg Oncol** 1998 Dec;15(4):235–8

Total mesorectal excision in the treatment of rectal cancer: a view from the USA. Goldberg S, et al.
Semin Surg Oncol 1998 Sep;15(2):87–90 (17 ref.)

Embryology and anatomy of the rectum. Heald RJ, et al. **Semin Surg Oncol** 1998 Sep;15(2):66–71 (9 ref.)

Transanal treatment of rectal cancer: ablative methods and open resection. Kim DG, et al. **Semin Surg Oncol** 1998 Sep;15(2):101–13 (65 ref.)

Novel clinical approaches in monoclonal antibody-based management in colorectal cancer patients: radioimmunoguided surgery and antigen augmentation. Roselli M, et al. **Semin Surg Oncol** 1998 Dec;15(4):254–62 (49 ref.)

Anastomotic integrity and function: role of the colonic J-pouch. Wexner SD, et al. **Semin Surg Oncol** 1998 Sep; 15(2):91–100 (98 ref.)

Mesorectal excision for rectal cancer: a view from Europe. Wiig JN, et al. **Semin Surg Oncol** 1998 Sep;15(2):78–86 (104 ref.)

Transanal endoscopic microsurgery for T1 rectal cancer in patients with synchronous colorectal cancer. Ikeda Y, et al. **Surg Endosc** 1999 Jul;13(7):710–2

Transanal endoscopic microsurgical excision of irradiated and nonirradiated rectal cancer. A 5-year experience. Lezoche E, et al. **Surg Laparosc Endosc** 1998 Aug; 8(4):249–56

Reconstructive rectal surgery. Wheeler JM, et al.
Surg Oncol 1998 Jul–Aug;7(1–2):13–23 (112 ref.)

High ligation of the inferior mesenteric artery with hypogastric nerve preservation in rectal cancer surgery. Hida J, et al. **Surg Today** 1999;29(5):482–3

Successful transvaginal repair of a rectovaginal fistula developing after double-stapled anastomosis in low anterior resection: report of four cases. Nakagoe T, et al.
Surg Today 1999;29(5):443–5

Early local recurrence of rectal cancer showing extremely rapid growth after curative surgery: report of a case. Yamamura T, et al. **Surg Today** 1998;28(11):1175–8

Endosurgical treatment of synchronous rectal cancer and abdominal aortic aneurysm, without laparotomy. Herald JA, et al. **Surgery** 1998 Nov;124(5):932–3

Total mesorectal excision is not necessary for cancers of the upper rectum. Lopez-Kostner F, et al. **Surgery** 1998 Oct; 124(4):612–7; discussion 617–8

Pathology of rectal adenocarcinoma following preoperative adjuvant radiotherapy and chemotherapy. Allen DC, et al. **Ulster Med J** 1999 May;68(1):17–21

Prognostic factors in 2230 Korean colorectal cancer patients: analysis of consecutively operated cases. Park YJ, et al. **World J Surg** 1999 Jul;23(7):721–6

Prospective evaluation of selective defunctioning stoma for low anterior resection with total mesorectal excision. Poon RT, et al. **World J Surg** 1999 May;23(5):463–7; discussion 467–8

Rectal cancer surgery in a district general hospital: controlled follow-up study. Schütz G, et al. **World J Surg** 1999 May; 23(5):509–13

Laparoscopic surgery of the colon and rectum. Tomita H, et al. **World J Surg** 1999 Apr;23(4):397–405 (116 ref.)

[Sphincter-preserving operations in the treatment of carcinoma of the middle and lower third of the rectum] Dimitrov A, et al. **Khirurgiia (Sofiia)** 1998;51(4):44–50 (0 ref.) (Eng. Abstr.) **(Bul)**

[Evaluation of the results of treatment of cancer of the large intestine based on our clinical data] Lazarkiewicz B, et al. **Acta Medica (Hradec Kralove) Suppl** 1997;40(2):75–9 (Eng. Abstr.) **(Cze)**

[Problems with continence after deep pelvic anastomoses in rectal carcinoma] Michek J, et al.
Acta Medica (Hradec Kralove) Suppl 1997;40(2):87–90 (Eng. Abstr.) **(Cze)**

[Carcinoma of the rectum--stapling--pitfalls and complications] Sustáček J, et al. **Bratisl Lek Listy** 1998 Dec; 99(12):674–5 **(Cze)**

[Transanal endoscopic microsurgery: a good choice for local resection of rectal tumors (see comments)] Doornebosch PG, et al. **Ned Tijdschr Geneeskd** 1998 Nov 21; 142(47):2577–81 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):121. Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):121–2. **(Dut)**

[Transanal endoscopic microsurgery: a good possibility for local resection of rectal tumors (letter; comment)] Haeseker B. **Ned Tijdschr Geneeskd** 1999 Jan 9;143(2):121. Comment on: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2577–81. **(Dut)**

[Transanal endoscopic microsurgery: a good possibility for local resection of rectal tumors (letter; comment)] Meijer S, et al. **Ned Tijdschr Geneeskd** 1999 Jan 9;143(2):121–2. Comment on: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2577–81. **(Dut)**

[Rectal cancer: influence of the surgeon and the quality of surgery on long-term carcinologic results (editorial)] Hohenberger W. **Ann Chir** 1998;52(9):881–4 **(Fre)**

[Preoperative treatment of resectable rectal cancer] Lasser P. **Ann Chir** 1998;52(10):989–92; discussion 993–8 **(Fre)**

[Indications and results of mucosal proctectomy with colo-anal anastomosis in villous disease of the rectum] Petit T, et al. **Ann Chir** 1999;53(6):482–6 (Eng. Abstr.) **(Fre)**

[Anorectal reconstruction by coloperineal anastomosis and dynamic double graciloplasty after abdomino-perineal resection] Rullier E, et al. **Ann Chir** 1998;52(9):905–12 (Eng. Abstr.) **(Fre)**

[Total excision of the mesorectum and preservation of the genitourinary innervation in surgery of rectal cancer] Tiret E, et al. **Ann Chir** 1999;53(6):507–14 (16 ref.) (Eng. Abstr.) **(Fre)**

[Update on reconstructive surgery in cancer] Bertrand P, et al. **Bull Cancer** 1999 Jan;86(1):65–9 (18 ref.) **(Fre)**

[Locoregional recurrence of adenocarcinomas of the rectum treated with irradiation combined with or without excision surgery] Touboul E, et al. **Cancer Radiother** 1999 Jan–Feb; 3(1):39–50 (Eng. Abstr.) **(Fre)**

[Oncologic and functional results of resections with direct delayed coloanal anastomosis in previously irradiated cancers of the lower rectum] Baulieux J, et al.
Chirurgie 1999 Jun;124(3):240–50; discussion 251 (Eng. Abstr.) **(Fre)**

[Survival of the patient operated for cancer of the rectum as a function of the experience of the surgeon] Huguier M. **Chirurgie** 1998 Jun;123(3):318–9 **(Fre)**

[Total pelvic exenteration and rectal cancer. Apropos of 20 cases] Lasser P, et al. **Chirurgie** 1999 Jun;124(3):252–7 (Eng. Abstr.) **(Fre)**

[Rectal resection for cancer in Lower-Normandy. Loco-regional recurrences and survival. Results of a regional survey (1988–1993)] Desoubeaux N, et al.
Gastroenterol Clin Biol 1999 Jan;23(1):40–6 (Eng. Abstr.) **(Fre)**

[What is the role of endo-rectal echography in monitoring of patients operated on for rectal cancer? (editorial)] Giovannini M. **Gastroenterol Clin Biol** 1998 Mar; 22(3):266–8 (31 ref.) **(Fre)**

[Perineal anaerobic necrotizing cellulite after preoperative radiotherapy for rectal cancer (letter)] Lederman E, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):360–1 **(Fre)**

[Which recommendations for surveillance of patients after colonic or rectal tumor surgery?] Rougier P, et al.
Gastroenterol Clin Biol 1998 Nov;22(11):981–3 **(Fre)**

[Recurrence and survival in cancer of the rectum: does it depend on the surgeon?] Wind P, et al.
Gastroenterol Clin Biol 1999 Mar;23(3):417–8 **(Fre)**

[Therapeutic choices for cancer of the rectum: discussion and update of the consensus conference] de Calan L, et al. **J Chir (Paris)** 1998 May;135(2):51–6 (44 ref.) (Eng. Abstr.) **(Fre)**

[Emergency admission of a 56 year-old man for occlusive syndrome (clinical conference)] Dousset B.
J Chir (Paris) 1999 Jun;136(2):97–103 **(Fre)**

[What is new in the surgical treatment of rectal cancer?] Dousset B, et al. **J Chir (Paris)** 1999 Mar;136(1):35–40 (45 ref.) (Eng. Abstr.) **(Fre)**

[Endoscopic monitoring after excision of colorectal cancer] Faivre J. **J Chir (Paris)** 1997 Dec;134(7–8):283–5 (Eng. Abstr.) **(Fre)**

[Is it necessary to monitor patients surgically treated for colorectal cancer?] Millat B, et al. **J Chir (Paris)** 1998 Oct; 135(4):177–81 (Eng. Abstr.) **(Fre)**

[Proctectomy and colo-anal anastomosis, with J-reservoir, for cancer] Penna C. **J Chir (Paris)** 1999 Mar;136(1):29–33 **(Fre)**

[Standards, options and recommendations for the management of patients with primary adenocarcinoma of the rectum. National Federation of Centers for the Fight against Cancer] **Presse Med** 1999 Sep 4;28(25):1367–74 **(Fre)**

[Apropos of the standards, options and recommendations for the management of primary adenocarcinoma of the rectum. Conversation with Y. Bécouarn] Bécouarn Y.
Presse Med 1999 Sep 4;28(25):1374–7 **(Fre)**

[A new anal retractor for hand-sutured colo-anal anastomoses] Demartines N, et al. **Chirurg** 1998 Dec; 69(12):1376–7 (Eng. Abstr.) **(Ger)**

[Erythema necrolyticum migrans after rectal adenocarcinoma] Konstantinow A, et al. **Hautarzt** 1998 Jul; 49(7):591–5 (Eng. Abstr.) **(Ger)**

[Indications for restorative rectal resection in carcinoma--complete vs. partial and local resection] Farthmann EH, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:454–8 (20 ref.) (Eng. Abstr.) **(Ger)**

[Anterior rectum resection and abdominoperineal rectum excision: guidelines for decision making] Fleischer GM, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:331–6 (Eng. Abstr.) **(Ger)**

[Beta-catenin expression and its significance for metastasis in curatively operated rectum carcinoma] Günther K, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1380–2 (Eng. Abstr.) **(Ger)**

[Extended resection of locally advanced primary and recurrent rectal carcinomas by interdisciplinary cooperation of various surgical specialties] Jürgens C, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:338–41 (Eng. Abstr.) **(Ger)**

[Functional and oncological results of sphincter preserving rectal resection] Kolbert GW, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:462–6 (Eng. Abstr.) **(Ger)**

[Rectal resection within the scope of multi-visceral interdisciplinary resection in the pelvis] Kruschewski M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:251–4 (Eng. Abstr.) **(Ger)**

[Significance and value for the surgeon--the role of surgical examination. Endosonography within the scope of colon and rectal surgery] Lippert H.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:271–3 (Eng. Abstr.) **(Ger)**

[Early postoperative complications after different methods of intestinal reconstruction in deep anterior rectum resection--a prospective study] Peters A, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1393–6 (Eng. Abstr.) **(Ger)**

[Results of interdisciplinary sacrum resection in sacral recurrence of rectal carcinoma] Teleky B, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1400–3 (Eng. Abstr.) **(Ger)**

[Control of function before and after sphincter-preserving rectal resection] Thiede A, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:459–61 (Eng. Abstr.) **(Ger)**

[Surgical rectal obstruction--change in treatment over the last 10 years] Zlatarski G, et al.

Langenbecks Arch Chir Suppl Kongressbd 1998;115:1389–92 (Eng. Abstr.) **(Ger)**

[Transanal endoscopic microsurgery--experiences at the Zurich University Hospital] Spalinger R, et al. **Schweiz Rundsch Med Prax** 1998 Aug 12;87(33):1014–8 (Eng. Abstr.) **(Ger)**

[Laparoscopic rectum surgery in carcinoma] Bärlehner E, et al. **Zentralbl Chir** 1998;123(10):1164–8 (Eng. Abstr.) **(Ger)**

[Rectum carcinoma. Optimizing therapy by deep resection or excision] Bruch HP, et al. **Zentralbl Chir** 1999; 124(5):422–7 (Eng. Abstr.) **(Ger)**

[Recommendations on contents of medical reports in rectal carcinoma: I: Surgical report and pathology findings. Orientating aids in interdisciplinary management] Engel J, et al. **Zentralbl Chir** 1998;123(10):1201–4 **(Ger)**

[Recommendations on the contents of medical reports in rectal carcinoma: II: Physician's letter. Orienting guides in the interdisciplinary patient care process] Engel J, et al. **Zentralbl Chir** 1998;123(11):1322–4 **(Ger)**

[Laparoscopic colostomy--experiences with inoperable ovarian and rectum carcinomas and rectovaginal fistulas] Hallfeldt KK, et al. **Zentralbl Chir** 1998;123(9):1040–2 (Eng. Abstr.) **(Ger)**

[Rectal carcinoma. Optimizing therapy by local excision] Heintz A, et al. **Zentralbl Chir** 1999;124(5):436–40 (Eng. Abstr.) **(Ger)**

[Rectal carcinoma. Optimizing the procedures in an emergency] Hildebrandt U. **Zentralbl Chir** 1999; 124(5):446–50 (27 ref.) (Eng. Abstr.) **(Ger)**

[Rectal carcinoma. Optimizing therapy by partial or total mesorectum removal] Maurer CA, et al. **Zentralbl Chir** 1999;124(5):428–35 (62 ref.) (Eng. Abstr.) **(Ger)**

[Conservative surgery in the treatment of rectal tumors. Our experience, 1986–1997] Cerroni M, et al. **Ann Ital Chir** 1999 May–Jun;70(3):435–40; discussion 440–1 (Eng. Abstr.) **(Ita)**

[Perineal recurrence of rectal cancer after abdomino–perineal resection] Karakè I, et al. **Minerva Chir** 1998 Oct; 53(10):831–5 (Eng. Abstr.) **(Ita)**

[Phantom rectum after Miles' operation] Saviano M, et al. **Minerva Chir** 1998 Dec;53(12):1027–33 (Eng. Abstr.) **(Ita)**

[Recent management of metastatic colorectal cancer] Kato T, et al. **Gan To Kagaku Ryoho** 1998 Oct;25(12):1865–72 (40 ref.) (Eng. Abstr.) **(Jpn)**

[Villous and tubulovillous adenomas of the colon and rectum. Results in 30 patients] Nahas SC, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Jul–Aug; 53(4):162–8 (Eng. Abstr.) **(Por)**

[Pelvic evisceration in locally advanced cancer of rectum with the ingrowth into urinary bladder] Odariuk TS, et al. **Khirurgiia (Mosk)** 1999;(7):58–63 (73 ref.) **(Rus)**

[Abdomino–anal resection of rectum with hemi–resection of anal canal] Bondar' GV, et al. **Klin Khir** 1998;(6):17–8 (3 ref.) (Eng. Abstr.) **(Rus)**

[Pelvic evisceration (exenteration) for rectal cancer] Timofeev IuM, et al. **Vopr Onkol** 1999;45(3):229–32 (31 ref.) **(Rus)**

[Surgical treatment of carcinoma of the colon and rectum 1964–1995] Pećanac R, et al. **Vojnosanit Pregl** 1998 Sep–Oct;55(5 Suppl):17–21 **(Scc)**

[Abdominosacral resection for locoregional recurrence rectal cancer] Meneu JC, et al. **Rev Esp Enferm Dig** 1999 May; 91(5):374–9 (30 ref.) (Eng. Abstr.) **(Spa)**

[Treatment of anastomotic leakage following low anterior resection for rectal adenocarcinoma] Luna–Pérez P, et al. **Rev Invest Clin** 1999 Jan–Feb;51(1):23–9 (Eng. Abstr.) **(Spa)**

[Preservation of the anal sphincter in low rectal lesions] Arthur KE, et al. **Rev Med Panama** 1997 Jan;22(1):57–69 (15 ref.) (Eng. Abstr.) **(Spa)**

THERAPY

Treatment of rectal cancer [letter; comment] Wilking N. **Acta Oncol** 1998;37(5):495–6. Comment on: Acta Oncol 1998;37(3):253–8.

Recent advances in the treatment and outcome of locally advanced rectal cancer. Vauthey JN, et al. **Ann Surg** 1999 May;229(5):745–52; discussion 752–4

Adjuvant therapy for rectal cancer can no longer be ignored [letter] Barton MB, et al. **Aust N Z J Surg** 1999 Sep; 69(9):619–21 (24 ref.)

The National Cancer Data Base report on patterns of care for adenocarcinoma of the rectum, 1985–95. Jessup JM, et al. **Cancer** 1998 Dec 1;83(11):2408–18

Rural physicians' understanding of the state–of–the–art in breast, colon and rectum cancer treatment. Hatzell TA, et al. **Cancer Causes Control** 1999 Aug;10(4):261–7

Adjuvant combined modality therapy for rectal cancer. Minsky BD. **Cancer Treat Res** 1998;98:153–71 (73 ref.)

Use of preoperative ultrasound staging for treatment of rectal cancer. Adams DR, et al. **Dis Colon Rectum** 1999 Feb; 42(2):159–66

Major 20th–century advancements in the management of rectal cancer. Ruo L, et al. **Dis Colon Rectum** 1999 May; 42(5):563–78 (136 ref.)

Prognostic factors in stage T3N0 rectal cancer: do all patients require postoperative pelvic irradiation and chemotherapy? Willett CG, et al. **Dis Colon Rectum** 1999 Feb;42(2):167–73

Comparative evaluation of the complex treatment of rectal cancer patients (chemotherapy and X–ray therapy, Ukrain monotherapy). Bondar GV, et al. **Drugs Exp Clin Res** 1998; 24(5–6):221–6

Is there a standard adjuvant treatment for rectal cancer? Tveit KM, et al. **Eur J Cancer** 1998 Nov;34(12):1827–35 (65 ref.)

Local recurrence in patients with rectal cancer diagnosed between 1988 and 1992: a population–based study in the west Netherlands. Kapiteijn E, et al. **Eur J Surg Oncol** 1998 Dec;24(6):528–35

Self–expandable metallic stents in the palliation of rectosigmoidal carcinoma: a follow–up study. Tack J, et al. **Gastrointest Endosc** 1998 Sep;48(3):267–71

Long–term survivor with liver metastases from rectal cancer treated by hepatectomy after hepatic arterial infusion chemotherapy. Hanazaki K, et al. **Hepatogastroenterology** 1998 May–Jun;45(21):816–20

Hyperthermia for treatment of rectal cancer: evaluation for induction of multidrug resistance gene (mdr1) expression. Stein U, et al. **Int J Cancer** 1999 Jan 5;80(1):5–12

The prediction of the prognosis for rectal carcinoma down–staged by pre–operative radiotherapy by transrectal ultrasonography. Yanagi H, et al. **Int Surg** 1998 Apr–Jun; 83(2):161–6

Active specific immunotherapy for metastatic colorectal carcinoma: phase I study of an allogeneic cell vaccine plus low–dose interleukin–1 alpha. Woodlock TJ, et al. **J Immunother** 1999 May;22(3):251–9

Outcome of treatment of rectal cancer. Rojvachiranonda N, et al. **J Med Assoc Thai** 1998 Nov;81(11):844–51

Quality of life research in patients with rectal cancer: traditional approaches versus a problem–solving oriented perspective. Koller M, et al. **Langenbecks Arch Surg** 1998 Dec;383(6):427–36 (59 ref.)

Adjuvant radiochemotherapy--what is the patients benefit? Link KH, et al. **Langenbecks Arch Surg** 1998 Dec; 383(6):416–26 (92 ref.)

Adjuvant postoperative combined–modality therapy for rectal cancer. Minsky BD. **Oncology (Huntingt)** 1999 Jul; 13(7 Suppl 3):132–5 (33 ref.)

A dying man asking for a dignified end. Tate P, et al. **Practitioner** 1998 Jul;242(1588):505–8, 510, 515 (0 ref.)

Preoperative treatment of rectal cancer with radiation, chemotherapy and hyperthermia: analysis of treatment efficacy and heat–shock response. Rau B, et al. **Radiat Res** 1999 Apr;151(4):479–88

Foreword: advances in rectal cancer treatment: setting the scene. Fielding LP. **Semin Surg Oncol** 1998 Sep;15(2):63–5

[Curative treatment of rectal cancer] Nordlinger B, et al. **Chirurgie** 1998 Nov;123(5):500–6 (45 ref.) (Eng. Abstr.) **(Fre)**

[Therapeutic approach of French practitioners to rectal cancer] Arnaud S, et al. **Gastroenterol Clin Biol** 1998 May; 22(5):500–8 (Eng. Abstr.) **(Fre)**

[Comparative diagnosis of locally advanced rectal carcinoma after preoperative therapy] Barth C, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1404–7 (Eng. Abstr.) **(Ger)**

[Characteristics of anal carcinoma with therapeutic consequences] Hohenberger P, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:363–8 (13 ref.) (Eng. Abstr.) **(Ger)**

[Adjuvant and neoadjuvant therapy of rectal carcinoma. The current status (see comments)] Rödel C, et al. **Strahlenther Onkol** 1998 Oct;174(10):497–504 (41 ref.) (Eng. Abstr.). Comment in: Strahlenther Onkol 1999 Mar;175(3):133. **(Ger)**

[Thermo–chemotherapy using low–dose CPT–11 in a patient with local recurrence of rectal cancer] Nishida Y, et al. **Gan To Kagaku Ryoho** 1999 Mar;26(4):549–52 (Eng. Abstr.) **(Jpn)**

[Successful combination chemotherapy for a case of small cell carcinoma of the rectum with multiple liver metastasis] Sakamoto Y, et al. **Gan To Kagaku Ryoho** 1999 Mar; 26(4):543–7 (Eng. Abstr.) **(Jpn)**

[Up–to–date approach to the treatment of rectal cancer] Pokrovskii GA, et al. **Khirurgiia (Mosk)** 1998;(9):54–61 (5 ref.) (Eng. Abstr.) **(Rus)**

[Results of application of endolymphatic polychemotherapy and local supra–high frequency hyperthermia in comprehensive treatment of rectal cancer] Kolesnik EA. **Klin Khir** 1998;(8):32–3 (Eng. Abstr.) **(Rus)**

[Combined radiotherapy and surgery is best against rectal cancer] Påhlman L, et al. **Lakartidningen** 1998 Sep 23; 95(39):4216–20 (30 ref.) (Eng. Abstr.) **(Swe)**

ULTRASONOGRAPHY

Water enema transvaginal ultrasound for local staging of stenotic rectal carcinoma. Scialpi M, et al. **Abdom Imaging** 1999 Mar–Apr;24(2):132–6

Effects of endorectal ultrasonography in the surgical management of rectal adenomas and carcinomas. Lee P, et al. **Am J Surg** 1999 May;177(5):388–91

Use of preoperative ultrasound staging for treatment of rectal cancer. Adams DR, et al. **Dis Colon Rectum** 1999 Feb; 42(2):159–66

Benefits of endorectal ultrasound for management of smooth–muscle tumor of the rectum: report of three cases. Hsieh JS, et al. **Dis Colon Rectum** 1999 Aug;42(8):1085–8

Indications for endoscopic ultrasonography in colorectal lesions. Catalano MF. **Endoscopy** 1998 Aug;30 Suppl 1:A79–84 (51 ref.)

The accuracy of transrectal ultrasound in predicting the pathological stage of low–lying rectal cancer after preoperative chemoradiation therapy. Barbaro B, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1043–7

Endorectal ultrasonography for the assessment of rectal wall invasion in intrapelvic tumor: a preliminary report. Shirahama T, et al. **Int J Urol** 1999 Jun;6(6):293–7

The value of endoscopic ultrasonography in preoperative evaluation of rectal cancer. Nishimori H, et al. **Int Surg** 1998 Apr–Jun;83(2):157–60

The prediction of the prognosis for rectal carcinoma down–staged by pre–operative radiotherapy by transrectal ultrasonography. Yanagi H, et al. **Int Surg** 1998 Apr–Jun; 83(2):161–6

Staging of rectal cancer after polypectomy: usefulness of endorectal US. Kruskal JB, et al. **Radiology** 1999 Apr; 211(1):31–5

Localization of the peritoneal reflection in the pelvis by endorectal ultrasound. Gerdes B, et al. **Surg Endosc** 1998 Dec;12(12):1401–4

Value and limits of endorectal ultrasonography for preoperative staging of rectal carcinoma. Massari M, et al. **Surg Laparosc Endosc** 1998 Dec;8(6):438–44

[Endosonographic staging of rectal tumors in a surgical department] Chromý M, et al. **Rozhl Chir** 1998 Dec; 77(12):559–63 (Eng. Abstr.) **(Cze)**

[Rectal leiomyosarcoma. 4 new cases] Cailliez–Tomasi JP, et al. **Gastroenterol Clin Biol** 1999 Apr;23(4):523–7 (Eng. Abstr.) **(Fre)**

[What is the role of endo–rectal echography in monitoring of patients operated on for rectal cancer? (editorial)] Giovannini M. **Gastroenterol Clin Biol** 1998 Mar; 22(3):266–8 (31 ref.) **(Fre)**

[Images in medicine. Rectal cancer: endoscopic–ultrasonic evaluation of the loco–regional extension of the disease] Roseau G. **Presse Med** 1998 Apr 4;27(13):641 **(Fre)**

[Rectal carcinoma--optimizing therapy by improved preoperative staging? Is endosonography required?] Maier A, et al. **Zentralbl Chir** 1999;124(5):418–21 (21 ref.) (Eng. Abstr.) **(Ger)**

[Endorectal echotomography in assessing the spread of rectal cancer] Bilenko AA, et al. **Lik Sprava** 1998 Oct–Nov; (7):101–4 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Prognostic value of nuclear morphometry in colorectal cancer. Fernández–López F, et al. **Dis Colon Rectum** 1999 Mar;42(3):386–92

VETERINARY

Rectal ganglioneuroma in a dog [published erratum appears in J Am Anim Hosp Assoc 1999 May–Jun;35(3):181] Reimer ME, et al. **J Am Anim Hosp Assoc** 1999 Mar–Apr; 35(2):107–10

Intestinal multinodular A lambda–amyloid deposition associated with extramedullary plasmacytoma in three dogs: clinicopathological and immunohistochemical studies. Ramos–Vara JA, et al. **J Comp Pathol** 1998 Oct; 119(3):239–49

Intestinal extramedullary plasmacytoma associated with amyloid deposition in three dogs: an ultrastructural and immunoelectron microscopic study. Ramos–Vara JA, et al. **Ultrastruct Pathol** 1998 Sep–Oct;22(5):393–400

VIROLOGY

[Sexually transmitted infection as a cause of anal cancer] Frisch M, et al. **Ugeskr Laeger** 1998 Nov 30; 160(49):7109–17 (Eng. Abstr.) **(Dan)**

RECTAL PROLAPSE

Rectal prolapse in pediatrics. Siafakas C, et al. **Clin Pediatr (Phila)** 1999 Feb;38(2):63–72 (61 ref.)

Rectal prolapse and fecal incontinence. Nagle D. **Prim Care** 1999 Mar;26(1):101–11 (40 ref.)

COMPLICATIONS

Uterovaginal prolapse associated with rectal prolapse. Kriplani A, et al. **Aust N Z J Obstet Gynaecol** 1998 Aug; 38(3):325–6

DIAGNOSIS

Pelvic floor descent: dynamic MR imaging using a half–Fourier RARE sequence. Gufler H, et al. **J Magn Reson Imaging** 1999 Mar;9(3):378–83

Pelvic floor descent in females: comparative study of colpocystodefecography and dynamic fast MR imaging. Vanbeckevoort D, et al. **J Magn Reson Imaging** 1999 Mar; 9(3):373–7

[Importance of defecography in the evaluation of genital prolapses] Jamet F, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Feb;28(1):17–23 (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Pathophysiology and treatment of anterior rectal mucosal prolapse syndrome. Tsiaoussis J, et al. **Br J Surg** 1998 Dec; 85(12):1699–702

ETIOLOGY

Defecography: does parity play a role in the development of rectal prolapse? Karasick S, et al. **Eur Radiol** 1999; 9(3):450–3

Sigmoid colon cancer presenting as complete rectal prolapse: report of a case. Yamazaki T, et al. **Surg Today** 1999; 29(3):266–7

[Total rectal prolapse in adults: report of 26 cases in the Ivory Coast] Kouadio K, et al. **Med Trop (Mars)** 1998;58(2):165–7 (Eng. Abstr.) **(Fre)**

HISTORY

One hundred years of rectal prolapse surgery. Madoff RD, et al. **Dis Colon Rectum** 1999 Apr;42(4):441–50

PHYSIOPATHOLOGY

Colonic motility is abnormal before surgery for rectal prolapse. Brown AJ, et al. **Br J Surg** 1999 Feb;86(2):263–6

Rectal adaptation to distension in patients with overt rectal prolapse. Siproudhis L, et al. **Br J Surg** 1998 Nov; 85(11):1527–32

Pathophysiology of anorectal dysfunction. Toglia MR. **Obstet Gynecol Clin North Am** 1998 Dec;25(4):771–81, vi (63 ref.)

Anorectal function in patients with complete rectal prolapse. Differences between continent and incontinent individuals. Roig JV, et al. **Rev Esp Enferm Dig** 1998 Nov; 90(11):794–805 **(Eng, Spa)**

RADIOGRAPHY

Defecography: does parity play a role in the development of rectal prolapse? Karasick S, et al. **Eur Radiol** 1999; 9(3):450–3

[Defecography in rectal wall prolapse conditions] Salzano A, et al. **Radiol Med (Torino)** 1999 Jun;97(6):486–90 (Eng. Abstr.) **(Ita)**

SURGERY

Uterovaginal prolapse associated with rectal prolapse. Kriplani A, et al. **Aust N Z J Obstet Gynaecol** 1998 Aug; 38(3):325–6

How to do it in surgery: laparoscopic rectopexy. van Dalen RM, et al. **Br J Hosp Med** 1998 Dec 10;58(11):587–8 (10 ref.)

Pouch perineal rectosigmoidectomy gives better functional results than conventional rectosigmoidectomy in elderly patients with rectal prolapse. Yoshioka K, et al. **Br J Surg** 1998 Nov;85(11):1525–6

Functional results of operative treatment of rectal prolapse over an 11-year period: emphasis on transabdominal approach. Aitola PT, et al. **Dis Colon Rectum** 1999 May; 42(5):655–60

Laparoscopic surgery for rectal prolapse and outlet obstruction. Bruch HP, et al. **Dis Colon Rectum** 1999 Sep; 42(9):1189–94; discussion 1194–5

Complete rectal prolapse: evolution of management and results. Kim DS, et al. **Dis Colon Rectum** 1999 Apr; 42(4):460–6; discussion 466–9

Preoperative electrophysiologic assessment cannot predict continence after rectopexy. Schultz I, et al. **Dis Colon Rectum** 1998 Nov;41(11):1392–8

Selection criteria for internal rectal prolapse repair by Delorme's transrectal excision. Sielezneff I, et al. **Dis Colon Rectum** 1999 Mar;42(3):367–73

Delorme's operation and sphincteroplasty for rectal prolapse and fecal incontinence. Pescatori M, et al. **Int J Colorectal Dis** 1998;13(5–6):223–7

Surgical treatment of rectal prolapse. A retrospective analysis of 94 cases. Yakut M, et al. **Int Surg** 1998 Jan–Mar; 83(1):53–5

Surgical treatment of complete rectal prolapse: results of abdominal and perineal approaches. Boccasanta P, et al. **J Laparoendosc Adv Surg Tech A** 1999 Jun;9(3):235–8

Transsacral rectopexy for complete rectal prolapse. Araki Y, et al. **Kurume Med J** 1998;45(3):235–8

Management of colorectal-anal dysfunction. Ludwig KA. **Obstet Gynecol Clin North Am** 1998 Dec;25(4):923–44, viii (59 ref.)

Management of rectal prolapse in children: Ekehorn's rectosacropexy. Sander S, et al. **Pediatr Surg Int** 1999; 15(2):111–4

Laparoscopic rectopexy according to Wells. Himpens J, et al. **Surg Endosc** 1999 Feb;13(2):139–41

Successful treatment of rectal prolapse by laparoscopic suture rectopexy. Kessler H, et al. **Surg Endosc** 1999 Sep; 13(9):858–61

Resection rectopexy for rectal prolapse. The laparoscopic approach. Xynos E, et al. **Surg Endosc** 1999 Sep;13(9):862–4

Comparison of laparoscopic rectopexy with open technique in the treatment of complete rectal prolapse: clinical and functional results. Boccasanta P, et al. **Surg Laparosc Endosc** 1998 Dec;8(6):460–5

Transsacral rectopexy for recurrent complete rectal prolapse. Araki Y, et al. **Surg Today** 1999;29(9):970–2

Coloanal anastomosis using a circular stapling device following perineal rectosigmoidectomy for rectal prolapse. Hida J, et al. **Surg Today** 1999;29(1):93–4

The effectiveness of perineal rectosigmoidectomy for the treatment of rectal prolapse in elderly and high-risk patients. Takesue Y, et al. **Surg Today** 1999;29(3):290–3

[Treatment of complete rectal prolapse with rectopexy to the pelvic floor with prosthesis and sigmoid resection. Anatomoclinical results of a prospective study] Lechaux JP, et al. **Chirurgie** 1998 Sep;123(4):351–7 (Eng. Abstr.) **(Fre)**

[Therapeutic approaches to rectal prolapse] Siproudhis L. **Gastroenterol Clin Biol** 1998 Jun;22(5 Suppl):B134–41 (69 ref.) **(Fre)**

[Laparoscopic rectopexy: our experience in the treatment of complete rectal prolapse] Caronia FP, et al. **G Chir** 1999 Jun–Jul;20(6–7):311–3 (Eng. Abstr.) **(Ita)**

[Laparoscopic +proctopexy] Giordano P, et al. **Minerva Chir** 1998 Jul–Aug;53(7–8):675–9 (Eng. Abstr.) **(Ita)**

VETERINARY

Rectal prolapse associated with urinary bladder neoplasia in a cat. Barrand KR. **J Small Anim Pract** 1999 May; 40(5):222–3

RECTAL SURGERY (SPECIALTY) see **COLORECTAL SURGERY**

RECTOCELE

DIAGNOSIS

[Genital prolapse. Diagnosis] Jacob D, et al. **Rev Prat** 1998 May 15;48(10):1103–7 (0 ref.) **(Fre)**

NURSING

Listening and referring [letter] Miller KM. **Nurse Pract** 1999 May;24(5):20

PATHOLOGY

Structural anatomy of the posterior pelvic compartment as it relates to rectocele. DeLancey JO. **Am J Obstet Gynecol** 1999 Apr;180(4):815–23

Relationship between anatomic and symptomatic long-term results after rectocele repair for impaired defecation. Van Laarhoven CJ, et al. **Dis Colon Rectum** 1999 Feb; 42(2):204–10; discussion 210–1

PHYSIOPATHOLOGY

Posterior vaginal prolapse and bowel function. Weber AM, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1446–9; discussion 1449–50

Relationship between anatomic and symptomatic long-term results after rectocele repair for impaired defecation. Van Laarhoven CJ, et al. **Dis Colon Rectum** 1999 Feb; 42(2):204–10; discussion 210–1

The anatomic and functional variability of rectoceles in women. Kenton K, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(2):96–9

RADIOGRAPHY

The anatomic and functional variability of rectoceles in women. Kenton K, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(2):96–9

SURGERY

An anatomic and functional assessment of the discrete defect rectocele repair. Cundiff GW, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1451–6; discussion 1456–7

Relationship between anatomic and symptomatic long-term results after rectocele repair for impaired defecation. Van Laarhoven CJ, et al. **Dis Colon Rectum** 1999 Feb; 42(2):204–10; discussion 210–1

Laparoscopic surgery for enterocele, vaginal apex prolapse and rectocele. Paraiso MF, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(4):223–9

[Results of transperineal levator-plasty in treatment of symptomatic rectocele] Ommer A, et al. **Chirurg** 1998 Sep; 69(9):966–72 (Eng. Abstr.) **(Ger)**

RECTOCOLITIS see **PROCTOCOLITIS**

RECTOCOLITIS, HEMORRHAGIC see **COLITIS, ULCERATIVE**

RECTOCOLITIS, ULCERATIVE see **COLITIS, ULCERATIVE**

RECTOSIGMOIDITIS see **PROCTOCOLITIS**

RECTOVAGINAL FISTULA

COMPLICATIONS

Embolization--an optional treatment for intractable hemorrhage from a malignant rectovaginal fistula: report of a case. Dushnitsky T, et al. **Dis Colon Rectum** 1999 Feb; 42(2):271–3

ETIOLOGY

Lymphogranuloma venereum presenting as a rectovaginal fistula. Lynch CM, et al. **Infect Dis Obstet Gynecol** 1999; 7(4):199–201

[An observation of recto-intestinal-vaginal and vesico-vaginal fistula in a patient with metachronous cancer of the uterus after combined radiotherapy] Semikoz NG. **Klin Khir** 1998;(5):49–50 **(Rus)**

PATHOLOGY

Caudal regression syndrome: MR appearance. Hirano H, et al. **Comput Med Imaging Graph** 1998 Jan–Feb;22(1):73–6

PREVENTION & CONTROL

Avoidance of rectovaginal fistula as a complication after low anterior resection for rectal cancer using a double-stapling technique. Nakagoe T, et al. **J Surg Oncol** 1999 Jul; 71(3):196–7

SURGERY

The Noble-Mengert-Fish operation-revisited: a composite approach for persistent rectovaginal fistulas and complex perineal defects [published erratum appears in Am J Obstet Gynecol 1999 Jan;180(1 Pt 1):257] Veronikis DK, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1411–6; discussion 1416–7

Five-layer repair of rectovaginal fistula using a vaginal approach. A case report. Haylen BT, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):131–3

Use of a unilateral pudendal thigh flap in the treatment of complex rectovaginal fistula. Cardon A, et al. **Br J Surg** 1999 May;86(5):645–6

Colonoscopy-assisted colostomy--an alternative to laparotomy: report of two cases. Mukherjee A, et al. **Dis Colon Rectum** 1998 Nov;41(11):1458–60

Transposition of the rectus abdominis muscle for complicated pouch and rectal fistulas. Tran KT, et al. **Dis Colon Rectum** 1999 Apr;42(4):486–9

Neonatal rectovaginal tear during cesarean section. Lickstein DA, et al. **J Pediatr Surg** 1998 Aug;33(8):1315–6

Rectovaginoplasty for vaginal atresia with anorectal malformation. Digray NC, et al. **J Urol** 1999 Aug; 162(2):514–5

Anal transposition without colostomy: functional results and complications. Demirbilek S, et al. **Pediatr Surg Int** 1999; 15(3–4):221–3

Successful transvaginal repair of a rectovaginal fistula developing after double-stapled anastomosis in low anterior resection: report of four cases. Nakagoe T, et al. **Surg Today** 1999;29(5):443–5

Gracilis repair for a case of radiation induced rectovaginal fistulae. Kaman L, et al. **Trop Gastroenterol** 1999 Apr–Jun; 20(2):92–3

[Rectovaginal fistulas in patients with Crohn disease--therapy and prognosis] Herzog L, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1002–3 (Eng. Abstr.) **(Ger)**

[Laparoscopic colostomy--experiences with inoperable ovarian and rectum carcinomas and rectovaginal fistulas] Hallfeldt KK, et al. **Zentralbl Chir** 1998;123(9):1040–2 (Eng. Abstr.) **(Ger)**

[The endorectal repair of rectovaginal fistulae] Milito G, et al. **Minerva Chir** 1999 Mar;54(3):191–4 (Eng. Abstr.) **(Ita)**

THERAPY

Management of gastrointestinal fistulas with n-2-butyl-cyanoacrylate. Billi P, et al. **Endoscopy** 1998 Aug;30(6):S69

RECTUM

consider also terms at PROCT-

Comparison of body temperatures taken at different sites and the reliability of axillary temperature in screening for fever. Osinusi K, et al. **Afr J Med Med Sci** 1997 Sep–Dec; 26(3–4):163–6

Management of anorectal foreign bodies: a cause of obscure anal pain. Ooi BS, et al. **Aust N Z J Surg** 1998 Dec; 68(12):852–5

An analysis of digital rectal examination and serum-prostate-specific antigen in the early detection of prostate cancer in general practice. Brett TD. **Fam Pract** 1998 Dec;15(6):529–33

An unusual foreign body in the rectum. Bastos I, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1587–8

Evaluating the effect of rectal distension and rectal movement on prostate gland position using cine MRI. Padhani AR, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):525–33

Rectal "oven mitt": the importance of considering a serious underlying injury. Losanoff JE, et al. **J Emerg Med** 1999 Jan–Feb;17(1):31–3

Lest we abandon digital rectal examination as a screening test for prostate cancer [editorial; comment] Basler JW, et al. **J Natl Cancer Inst** 1998 Dec 2;90(23):1761–3. Comment on: J Natl Cancer Inst 1998 Dec 2;90(23):1817–23.

Physical activity, body mass index, and prostaglandin E2 levels in rectal mucosa. Martínez ME, et al. **J Natl Cancer Inst** 1999 Jun 2;91(11):950–3

Evaluation of the digital rectal examination as a screening test for prostate cancer. Rotterdam section of the European Randomized Study of Screening for Prostate Cancer [see

comments] Schröder FH, et al. **J Natl Cancer Inst** 1998 Dec 2;90(23):1817–23. Comment in: J Natl Cancer Inst 1998 Dec 2;90(23):1761–3.

Removing rectal foreign bodies: is the ventouse gender specific? [letter] Mackinnon RP. **Med J Aust** 1998 Dec 7–21;169(11–12):670–1

Transrectal versus transvaginal abscess drainage: survey of patient tolerance and effect on activities of daily living. Hovsepian DM, et al. **Radiology** 1999 Jul;212(1):159–63

Bladder and rectal doses from external-beam boosts after gynecologic brachytherapy. Ting JY, et al. **Radiology** 1998 Dec;209(3):825–30

Ectopic pregnancy involving the rectum. Ogunniyi SO, et al. **Trop Doct** 1998 Oct;28(4):239–40

[2 unusual cases of bezoars of the intestine] Subbotin VM, et al. **Vestn Khir Im I I Grek** 1999;158(3):79–80 **(Rus)**

[What is your diagnosis? A child that limps] Alfonso Diego J, et al. **An Esp Pediatr** 1999 Mar;50(3):299–300 **(Spa)**

ABNORMALITIES

Transanal MR imaging after repair of anorectal anomalies in children: appearances in pull-through versus posterior sagittal reconstructions. deSouza NM, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):723–8

Further evidence of autosomal dominant inheritance of the nonsyndromal anorectal malformations [letter; comment] Robb L, et al. **Am J Med Genet** 1998 Oct 12;79(5):400. Comment on: Am J Med Genet 1997 Aug 22;71(3):280–2.

Adenocarcinoma within a rectal duplication cyst: case report and literature review. Michael D, et al. **Ann R Coll Surg Engl** 1999 May;81(3):205–6 (5 ref.)

Accessory perineal scrotum associated with anorectal malformation. Ozcan C, et al. **BJU Int** 1999 Apr; 83(6):729–30 (5 ref.)

Tc-99m pertechnetate scintigraphy to diagnose rectal duplication. Tepmongkol S, et al. **Clin Nucl Med** 1999 Apr; 24(4):289

Rectal duplication in an adult: unusual cause of a buttock mass. Report of a case. Monek O, et al. **Dis Colon Rectum** 1999 Jun;42(6):816–8

Posterior sagittal anorectoplasty in adults: secondary repair for persistent incontinence in patients with anorectal malformations. Simmang CL, et al. **Dis Colon Rectum** 1999 Aug;42(8):1022–7

Perinatal findings in a male fetus with congenital megacystis and anorectal malformations. Chen CP, et al. **Fetal Diagn Ther** 1998 Nov–Dec;13(6):348–51

Exclusion of the Sonic Hedgehog gene as responsible for Currarino syndrome and anorectal malformations with sacral hypodevelopment. Seri M, et al. **Hum Genet** 1999 Jan;104(1):108–10

Neurogenic bladder in infants born with anorectal malformations: comparison with spinal and urologic status. De Filippo RE, et al. **J Pediatr Surg** 1999 May;34(5):825–7; discussion 828

Analysis of 1,992 patients with anorectal malformations over the past two decades in Japan. Steering Committee of Japanese Study Group of Anorectal Anomalies. Endo M, et al. **J Pediatr Surg** 1999 Mar;34(3):435–41

Continence in patients who undergo posterior rectal flap anorectoplasty. Montalvo-Marin A, et al. **J Pediatr Surg** 1998 Dec;33(12):1760–4

Acute scrotum due to edidymo-orchitis associated with vasal anomalies in children with anorectal malformations. Oğuzkurt P, et al. **J Pediatr Surg** 1998 Dec;33(12):1834–6

Pediatric rectal and perineal problems. Hendren WH. **Pediatr Clin North Am** 1998 Dec;45(6):1353–72 (23 ref.)

The role of magnetic resonance imaging in the preoperative assessment of anorectal anomalies. Aslam A, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):71–3

Congenital pouch colon in females. Chadha R, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):336–42

[The use of anorectal manometry in the postoperative assessment of continence in congenital anorectal malformations in childhood] Mladenov A. **Khirurgiia (Sofiia)** 1998;51(1):51–9 (15 ref.) (Eng. Abstr.) **(Bul)**

ANATOMY & HISTOLOGY

Lateral ligaments of the rectum: an anatomical study. Jones OM, et al. **Br J Surg** 1999 Apr;86(4):487–9

A histological study of Denonvilliers' fascia and its relationship to the neurovascular bundle. Kourambas J, et al. **Br J Urol** 1998 Sep;82(3):408–10

Observations on surgical anatomy for rectal cancer surgery. Nano M, et al. **Hepatogastroenterology** 1998 May–Jun; 45(21):717–26

Embryology and anatomy of the rectum. Heald RJ, et al. **Semin Surg Oncol** 1998 Sep;15(2):66–71 (9 ref.)

BLOOD SUPPLY

Subacute ischaemic proctitis: a rare condition requiring extensive rectal surgery. Detry R, et al. **Acta Chir Belg** 1999 Feb;99(1):36–8

Relationship of portal pressure and colorectal vasculopathy in patients with cirrhosis. Sugano S, et al. **Dig Dis Sci** 1999 Jan;44(1):149–54

Endoscopic ligation for bleeding rectal varices in a child with primary extrahepatic portal hypertension. Uno Y, et al. **Endoscopy** 1998 Nov;30(9):S107–8

Endosonographic, endoscopic, and histologic evaluation of alterations in the rectal venous system in patients with portal hypertension. Dhiman RK, et al. **Gastrointest Endosc** 1999 Feb;49(2):218–27

Laser Doppler measurement of rectal mucosal blood flow. Emmanuel AV, et al. **Gut** 1999 Jul;45(1):64–9

Comparison of esophageal, rectal, axillary, bladder, tympanic, and pulmonary artery temperatures in children. Robinson JL, et al. **J Pediatr** 1998 Oct;133(4):553–6

CHEMISTRY

Simple method for the determination of 5-aminosalicylic and N-acetyl-5-aminosalicylic acid in rectal tissue biopsies. Hussain FN, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25;716(1–2):257–66

Human rectal endocrine cells and aging. Sandström O, et al. **Mech Ageing Dev** 1999 May 17;108(3):219–26

CYTOLOGY

Regional and transmural density of interstitial cells of Cajal in human colon and rectum. Hagger R, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1309–16

DRUG EFFECTS

Effects of cholinergic agents on anorectal physiology. Siproudhis L, et al. **Aliment Pharmacol Ther** 1998 Aug; 12(8):747–54

Pharmacological characterization of 5-HT4 receptors mediating relaxation of canine isolated rectum circular smooth muscle. Prins NH, et al. **Br J Pharmacol** 1999 Jul; 127(6):1431–7

Effects of milk and milk products on rectal mucosal cell proliferation in humans. Karagas MR, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Sep;7(9):757–66

Octreotide acts on anorectal physiology: a dynamic study in healthy subjects. Siproudhis L, et al. **Clin Pharmacol Ther** 1998 Oct;64(4):424–32

Central modulation of rectal distension-induced blood pressure changes by alosetron, a 5-HT3 receptor antagonist. Miura M, et al. **Dig Dis Sci** 1999 Jan;44(1):20–4

Influence of trimebutine on inflammation- and stress-induced hyperalgesia to rectal distension in rats. Lacheze C, et al. **J Pharm Pharmacol** 1998 Aug;50(8):921–8

EMBRYOLOGY

Apoptosis fenestrates chick cloacal membrane and occluded rectal cord and may have a minor role in removal of pharyngeal membranes. Miller SA, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:268–71

Further study of the urorectal septum in staged human embryos. Kromer P. **Folia Morphol (Warsz)** 1999; 58(1):53–63

Fetal defaecation: is it a normal physiological process? Kimble RM, et al. **J Paediatr Child Health** 1999 Apr; 35(2):116–9 (49 ref.)

Embryology and anatomy of the rectum. Heald RJ, et al. **Semin Surg Oncol** 1998 Sep;15(2):66–71 (9 ref.)

ENZYMOLOGY

Decreased HER-2 tyrosine kinase expression in rectal mucosa of FAP patients following low-dose sulindac chemoprevention. Winde G, et al. **Cancer Lett** 1998 Dec 25;134(2):201–7

Distribution of NADPH diaphorase-positive neurons in the enteric nervous system of the rabbit intestine. Junquera C, et al. **Neurochem Res** 1998 Oct;23(10):1233–40

IMMUNOLOGY

Characterization of cytokine expression in the rectal mucosa of ulcerative colitis: correlation with disease activity. Inoue S, et al. **Am J Gastroenterol** 1999 Sep;94(9):2441–6

Studies in vivo of omega-gliadins in gluten sensitivity (coeliac sprue disease). Ensari A, et al. **Clin Sci (Colch)** 1998 Oct;95(4):419–24

Homing of mononuclear cells from iliac lymph nodes to the genital and rectal mucosa in non-human primates. Mitchell EA, et al. **Eur J Immunol** 1998 Oct;28(10):3066–74

Specific-antibody-secreting cells in the rectums and genital tracts of nonhuman primates following vaccination. Eriksson K, et al. **Infect Immun** 1998 Dec;66(12):5889–96

Intranasal immunization with plasmid DNA-lipid complexes elicits mucosal immunity in the female genital and rectal tracts. Klavinskis LS, et al. **J Immunol** 1999 Jan 1; 162(1):254–62

INJURIES

Injury of the rectum during vaginal surgery. Hoffman MS, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):274–7

Extraperitoneal rectal perforation due to retroflexion fiberoptic proctoscopy. Chu Q, et al. **Am Surg** 1999 Jan; 65(1):81–5

Rectal trauma: management based on anatomic distinctions. McGrath V, et al. **Am Surg** 1998 Dec;64(12):1136–41

Endoscopic perforation of the rectum presenting initially as a change in voice. Kirkpatrick AW, et al. **Can J Surg** 1999 Aug;42(4):305–6

Hydronephrosis: a rare late complication of barium enema. Harries SR, et al. **Clin Radiol** 1999 Mar;54(3):187–8

Rectal injury caused by a personal watercraft accident: report of a case. Parsons DP, et al. **Dis Colon Rectum** 1999 Jul; 42(7):959–60

Rectal wall perforation and prostatic necrosis due to malposition of a transurethral bladder catheter. Colle I, et al. **Gastrointest Endosc** 1999 Jul;50(1):82

Genital injuries in sexually abused young girls. Jain K, et al. **Indian Pediatr** 1998 Dec;35(12):1218–20

Saline enemas--a potential hazard in newborns [letter] Singh Y, et al. **Indian Pediatr** 1998 Aug;35(8):799–800

Spontaneous delivery through the rectovaginal septum and perineal body: an unusual complication of persistent occiput posterior position. Stern R, et al. **J Matern Fetal Med** 1998 Jul-Aug;7(4):194–6

Low-velocity gunshot injuries of the spine with abdominal viscus trauma. Kumar A, et al. **J Orthop Trauma** 1998 Sep-Oct;12(7):514–7

Impalement and anorectal injuries in childhood: a retrospective study of 12 cases. Beiler HA, et al. **J Pediatr Surg** 1998 Aug;33(8):1287–91 (11 ref.)

Neonatal rectovaginal tear during cesarean section. Lickstein DA, et al. **J Pediatr Surg** 1998 Aug;33(8):1315–6

The role of presacral drainage in the management of penetrating rectal injuries. Gonzalez RP, et al. **J Trauma** 1998 Oct;45(4):656–61

Hydrostatic rectal injury of a jet ski passenger: case report and discussion. Morrison DM, et al. **J Trauma** 1998 Oct; 45(4):816–8 (11 ref.)

Rectal blowout by personal watercraft water jet: case report and review of literature. Philpott JM, et al. **J Trauma** 1999 Aug;47(2):385–8 (48 ref.)

Pediatric male rectal and genital trauma: accidental and nonaccidental injuries [letter; comment] Ludwig S. **Pediatr Emerg Care** 1998 Dec;14(6):452–3. Comment on: Pediatr Emerg Care 1998 Apr;14(2):95–8.

Surgical management of rectal and jejunal tears associated with dystocia in a cow. Tyler JW, et al. **Vet Rec** 1998 Sep 5;143(10):280–1

[Traumatic lesions of the anorectum] Roche B, et al. **Swiss Surg** 1998;(5):249–52 (26 ref.) (Eng. Abstr.) **(Fre)**

[Rectal lesions in children. Clinico-therapeutic considerations of 12 cases] Sabetay C, et al. **Chirurgia (Bucur)** 1998 Sep-Oct;93(5):343–7 (Eng. Abstr.) **(Rum)**

[Rectal injury during radical surgery of bladder and/or prostate] Castiñeiras Fernández J, et al. **Actas Urol Esp** 1998 Jul-Aug;22(7):571–4 (Eng. Abstr.) **(Spa)**

[A case of the rare location of a rectal rupture in fractures of the pelvic bones] Tomusiak TL, et al. **Klin Khir** 1998; (9–10):102 **(Ukr)**

INNERVATION

Visceral algesia in irritable bowel syndrome, fibromyalgia, and sphincter of oddi dysfunction, type III. Chun A, et al. **Dig Dis Sci** 1999 Mar;44(3):631–6

What is the normal aganglionic segment of anorectum in adults? Ricciardi R, et al. **Dis Colon Rectum** 1999 Mar; 42(3):380–2

Functional and morphological examination of ganglionic and aganglionic distal gut from the lethal spotted mouse. Sandgren K, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):234–9

Neurophysiological basis of sympathetic nerve-preserving surgery for lower rectal cancer--a canine model. Liang JT, et al. **Hepatogastroenterology** 1998 Nov-Dec; 45(24):2206–14

Altered contractile proteins and neural innervation in idiopathic megarectum and megacolon. Gattuso JM, et al. **Histopathology** 1998 Jul;33(1):34–8

The recto-anal inhibitory reflex: abnormal response in diabetics suggests an intrinsic neuroenteropathy. Deen KI, et al. **J Gastroenterol Hepatol** 1998 Nov;13(11):1107–10

A study of the origin of the electric activity of the rectum: is it neurogenic or myogenic? Shafik A. **Spinal Cord** 1998 Aug;36(8):548–53

High ligation of the inferior mesenteric artery with hypogastric nerve preservation in rectal cancer surgery. Hida J, et al. **Surg Today** 1999;29(5):482–3

METABOLISM

Rectal absorption of [Bis (acetato) ammine dichloro (cyclohexylamine) platinum(IV)] (BMS-182751), a new anti-tumor agent, in rats. Tanaka M, et al. **Biol Pharm Bull** 1999 May;22(5):521–6

Enhanced rectal absorption of amphotericin B lyophilized with glycyrrhizinate in rabbits. Tanaka M, et al. **Biol Pharm Bull** 1998 Aug;21(8):853–7

Effects of very low dose daily, long-term aspirin therapy on gastric, duodenal, and rectal prostaglandin levels and on mucosal injury in healthy humans. Cryer B, et al. **Gastroenterology** 1999 Jul;117(1):17–25

Increased expression of proliferative Ki-67 nuclear antigen is correlated with dysplastic colorectal epithelium in ulcerative colitis. Sjöqvist U, et al. **Int J Colorectal Dis** 1999 Apr;14(2):107–13

Two domains of rat galectin-4 bind to distinct structures of the intercellular borders of colorectal epithelia. Wasano K, et al. **J Histochem Cytochem** 1999 Jan;47(1):75–82

Increased nitric oxide in infective gastroenteritis. Herulf M, et al. **J Infect Dis** 1999 Aug;180(2):542–5

MICROBIOLOGY

Prevalence of Gardnerella vaginalis in prepubertal males. Wahl NG, et al. **Arch Pediatr Adolesc Med** 1998 Nov; 152(11):1095–9

High turnover rate of Escherichia coli strains in the intestinal flora of infants in Pakistan. Adlerberth I, et al. **Epidemiol Infect** 1998 Dec;121(3):587–98

P fimbriae and other adhesins enhance intestinal persistence of Escherichia coli in early infancy. Adlerberth I, et al. **Epidemiol Infect** 1998 Dec;121(3):599–608

Utility of serial rectal swab cultures for detection of ceftazidime- and imipenem-resistant gram-negative bacilli from patients in the intensive care unit. Arbo MD, et al. **Eur J Clin Microbiol Infect Dis** 1998 Oct;17(10):727–30

Effect of delayed inoculation of selective media in antenatal detection of group B streptococci. Crisp BJ, et al. **Obstet Gynecol** 1998 Dec;92(6):923–5

Association of fungal colonization and invasive disease in very low birth weight infants. Huang YC, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):819–22

Clinical features of Chlamydia trachomatis rectal infection by serovar among homosexually active men. Boisvert JF, et al. **Sex Transm Dis** 1999 Aug;26(7):392–8

PATHOLOGY

Disparate surgical margin lengths of colorectal resection specimens between in vivo and in vitro measurements. The effects of surgical resection and formalin fixation on organ shrinkage. Goldstein NS, et al. **Am J Clin Pathol** 1999 Mar; 111(3):349–51

Histopathologic studies of colorectal postendoscopic resection sites: "skipping electrothermal injury" associated with endoscopic resection procedures. Matsukuma S, et al. **Am J Surg Pathol** 1999 Apr;23(4):459–64

Rectal biopsy in the investigation of constipation. Ghosh A, et al. **Arch Dis Child** 1998 Sep;79(3):266–8

Sessile polypoid gastric heterotopia of rectum: a report of 2 cases and review of the literature. Srinivasan R, et al. **Arch Pathol Lab Med** 1999 Mar;123(3):222–4 (16 ref.)

Dietary determinants of colorectal proliferation in the normal mucosa of subjects with previous colon adenomas. Caderni G, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar; 8(3):219–25

Expandable metallic stent treatment for malignant colorectal strictures. Mishima K, et al. **Cardiovasc Intervent Radiol** 1999 Mar–Apr;22(2):155–8

Histologic comparison of hereditary nonpolyposis colorectal cancer associated with MSH2 and MLH1 and colorectal cancer from the general population. Shashidharan M, et al. **Dis Colon Rectum** 1999 Jun;42(6):722–6

Regression of rectal stenosis secondary to neoplasm in an HIV1-positive patient with gancyclovir antiviral therapy: report of a case. Sobhani I, et al. **Dis Colon Rectum** 1998 Nov;41(11):1454–7

Endosonographic, endoscopic, and histologic evaluation of alterations in the rectal venous system in patients with portal hypertension. Dhiman RK, et al. **Gastrointest Endosc** 1999 Feb;49(2):218–27

Evaluation of the colorectal wall in normal subjects and patients with ulcerative colitis using an ultrasonic catheter probe [see comments] Tsuga K, et al. **Gastrointest Endosc** 1998 Nov;48(5):477–84. Comment in: Gastrointest Endosc 1998 Nov;48(5):542–5.

Rectal biopsy for diagnosis of intestinal neuronal dysplasia in children: a prospective multicentre study on interobserver variation and clinical outcome. Koletzko S, et al. **Gut** 1999 Jun;44(6):853–61

Small, depressed lesions of the large bowel: a normal finding at endoscopy. Martin JP, et al. **Gut** 1999 Jul;45(1):147

Non-evidence of estrogen receptors in the rectal mucosa. Rizk DE, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1998;9(3):136–9

Time trends in distal colorectal cancer subsite location related to age and how it affects choice of screening modality. Nelson RL, et al. **J Surg Oncol** 1998 Dec;69(4):235–8

Rectum and sigmoid colon necrosis due to cholesterol embolization after implantation of an aortic stent-graft. Jaeger HJ, et al. **J Vasc Interv Radiol** 1999 Jun;10(6):751–5

Rectal stricture in an ostrich (Struthio camelus). Berridge BR, et al. **J Zoo Wildl Med** 1998 Sep;29(3):341–3

Outcome of local excision for locally invasive rectal carcinomas with special reference to histological features at the invasive margin. Masaki T, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):621–5

NADPH-diaphorase histochemical staining of suction rectal biopsies in the diagnosis of Hirschsprung's disease and allied disorders. Miyazaki E, et al. **Pediatr Surg Int** 1998 Sep; 13(7):464–7

Qualitative and quantitative analysis of synapses in Hirschsprung's disease. Wiedenmann B, et al. **Pediatr Surg Int** 1998 Sep;13(7):468–73

Metastatic Crohn's disease presenting as chronic perivulvar and perirectal ulcerations in an adolescent patient. Schrodt BJ, et al. **Pediatrics** 1999 Feb;103(2):500–2

[Acute anorectal lesions after a hot-water enema (letter)] Kalinsky E, et al. **Gastroenterol Clin Biol** 1998 Apr; 22(4):473–4 **(Fre)**

[Excluded rectum during Crohn's diseases: what is the risk of dysplasia?] Leteurtre E, et al. **Gastroenterol Clin Biol** 1999 Apr;23(4):477–82 (Eng. Abstr.) **(Fre)**

["Delorme" thickening of the rectal wall, a misleading ultrasound image] Roseau G. **Presse Med** 1998 Jul 4–11; 27(24):1255 **(Fre)**

[Rectal carcinoma. Optimizing therapy by knowledge of anatomy with special reference to the mesorectum] Konerding MA, et al. **Zentralbl Chir** 1999;124(5):413–7 (15 ref.) (Eng. Abstr.) **(Ger)**

[Cisapride in idiopathic megacolon-megarectum (letter)] Fernández-Fernández FJ, et al. **Rev Clin Esp** 1999 Apr; 199(4):256–7 **(Spa)**

PHYSIOLOGY

Manometric tests of anorectal function in healthy adu!ts. Rao SS, et al. **Am J Gastroenterol** 1999 Mar;94(3):773–83

The effect of morphine on responses of ventrolateral orbital cortex (VLO) neurons to colorectal distension in the rat. Yang S, et al. **Brain Res** 1998 Oct 12;808(1):101–5

The effect of morphine on responses of nucleus ventroposterolateralis neurons to colorectal distension in the rat. Yang SW, et al. **Brain Res Bull** 1999 Apr; 48(6):609–14

The effect of hyperglycaemia on cerebral potentials evoked by rapid rectal distension in healthy humans. Russo A, et al. **Eur J Clin Invest** 1999 Jun;29(6):512–8

Nonadrenergic, noncholinergic relaxation mediated by nitric oxide with concomitant change in Ca2+ level in rectal circular muscle of rats. Takeuchi T, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):67–74

Rectal temperature time of death nomogram: sudden change of ambient temperature. Althaus L, et al. **Forensic Sci Int** 1999 Jan 25;99(3):171–8

Role of rectosigmoid junction in fecal continence: an experimental study. Shafik A, et al. **Front Biosci** 1999 Oct 1;4:B9–13

American Gastroenterological Association medical position statement on anorectal testing techniques. American Gastroenterological Association. Barnett JL, et al. **Gastroenterology** 1999 Mar;116(3):732–60 (239 ref.)

AGA technical review on anorectal testing techniques. Diamant NE, et al. **Gastroenterology** 1999 Mar; 116(3):735–60 (239 ref.)

Role of neurokinin 3 receptors on responses to colorectal distention in the rat: electrophysiological and behavioral studies [see comments] Julia V, et al. **Gastroenterology** 1999 May;116(5):1124–31. Comment in: Gastroenterology 1999 May;116(5):1250–2.

Kappa opioid receptor agonists differentially inhibit two classes of rat spinal neurons excited by colorectal distention. Ness TJ. **Gastroenterology** 1999 Aug; 117(2):388–94

The cortical topography of human anorectal musculature. Turnbull GK, et al. **Gastroenterology** 1999 Jul;117(1):32–9

Relationship of rectal & hippocampal temperature profiles to seizure activity in rats prone & resistant to hot water induced epilepsy. Ullal GR, et al. **Indian J Med Res** 1998 Dec;108:279–84

Cardiac nociception induced rectal response: relation with haemodynamic changes. Koley J, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):259–65

Increased bioavailability of propranolol in rats by retaining thermally gelling liquid suppositories in the rectum. Ryu JM, et al. **J Controlled Release** 1999 May 20;59(2):163–72

A comparison of rectal and subcutaneous body temperature measurement in the common marmoset. Cilia J, et al. **J Pharmacol Toxicol Methods** 1998 Jul;40(1):21–6

A study of the effect of distension of the rectosigmoid junction on the rectum and anal canal with evidence of a rectosigmoid-rectal reflex. Shafik A. **J Surg Res** 1999 Mar;82(1):73–7

Comparison of tympanic membrane and rectal temperatures of anesthetized fallow deer (Dama dama). Drew ML. **J Zoo Wildl Med** 1998 Sep;29(3):338–40

Inter- and intraindividual reproducibility of anorectal manometry. Freys SM, et al. **Langenbecks Arch Surg** 1998 Oct;383(5):325–9

Influence of age on rectal tone and sensitivity to distension in healthy subjects. Lagier E, et al. **Neurogastroenterol Motil** 1999 Apr;11(2):101–7

Increased tone of the rectal wall in response to feeding persists in patients with cauda equina syndrome. Leroi AM, et al. **Neurogastroenterol Motil** 1999 Jun;11(3):243–5

The effect of vesical filling and voiding on the anorectal function with evidence of a 'vesico-anorectal reflex'. Shafik A. **Neurogastroenterol Motil** 1999 Apr;11(2):119–24

5-HT4 receptor antagonism potentiates inhibition of intestinal allodynia by 5-HT3 receptor antagonism in conscious rats. Smith MI, et al. **Neurosci Lett** 1999 Aug 13;271(1):61–4

Pelvic bioelectrical impedance measurements to detect rectal filling. Ratani RS, et al. **Physiol Meas** 1998 Nov; 19(4):527–34

Anorectal function in patients with complete rectal prolapse. Differences between continent and incontinent individuals. Roig JV, et al. **Rev Esp Enferm Dig** 1998 Nov; 90(11):794–805 **(Eng, Spa)**

Clinical significance and application of anorectal physiology. Lestár B, et al. **Scand J Gastroenterol Suppl** 1998;228:68–72 (26 ref.)

[Effect of temperature on drug release and drug absorption in mixed type diclofenac sodium suppositories] Iwata M, et al. **Yakugaku Zasshi** 1999 Feb;119(2):170–7 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Urinary and anorectal function evaluation in Parkinson's disease. Stocchi F, et al. **Adv Neurol** 1999;80:347–51

The effects of biofeedback on rectal sensation and distal colonic motility in patients with disorders of rectal evacuation: evidence of an inhibitory rectocolonic reflex in humans? Mollen RM, et al. **Am J Gastroenterol** 1999 Mar;94(3):751–6

A comparative study of esophageal and anorectal motility in myotonic dystrophy. Lecointe-Besancon I, et al. **Dig Dis Sci** 1999 Jun;44(6):1090–9

Anorectal function after anterior resection with side-to-side anastomosis for carcinoma of the rectum. Tsunoda A, et al. **Dis Colon Rectum** 1999 Jan;42(1):77–81

Anorectal manometry during the neonatal period: its specificity in the diagnosis of Hirschsprung's disease. Emir H, et al. **Eur J Pediatr Surg** 1999 Apr;9(2):101–3

Functional and morphological examination of ganglionic and aganglionic distal gut from the lethal spotted mouse. Sandgren K, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):234–9

Is rectal pain sensitivity a biological marker for irritable bowel syndrome: psychological influences on pain perception. Whitehead WE, et al. **Gastroenterology** 1998 Nov;115(5):1263–71 (83 ref.)

Subtypes of constipation predominant irritable bowel syndrome based on rectal perception. Harraf F, et al. **Gut** 1998 Sep;43(3):388–94

Perception of and adaptation to rectal isobaric distension in patients with faecal incontinence. Siproudhis L, et al. **Gut** 1999 May;44(5):687–92

Serial evaluation of anorectal function following low anterior resection of the rectum. Lee SJ, et al. **Int J Colorectal Dis** 1998;13(5–6):241–6

Anorectal pressure gradient and rectal compliance in fecal incontinence. Rasmussen OO, et al. **Int J Colorectal Dis** 1998;13(4):157–9

Influence of trimebutine on inflammation- and stress-induced hyperalgesia to rectal distension in rats. Lacheze C, et al. **J Pharm Pharmacol** 1998 Aug;50(8):921–8

Anorectal functions in patients with spinal cord injury. Greving I, et al. **Neurogastroenterol Motil** 1998 Dec; 10(6):509–15

Abdominal symptoms are not related to anorectal function in the irritable bowel syndrome. Ragnarsson G, et al. **Scand J Gastroenterol** 1999 Mar;34(3):250–8

[The use of anorectal manometry in the postoperative assessment of continence in congenital anorectal malformations in childhood] Mladenov A. **Khirurgiia (Sofiia)** 1998;51(1):51–9 (15 ref.) (Eng. Abstr.) **(Bul)**

[Phantom rectum after Miles' operation] Saviano M, et al. **Minerva Chir** 1998 Dec;53(12):1027–33 (Eng. Abstr.) **(Ita)**

RADIATION EFFECTS

Differential effect of radiation on endothelial cell function in rectal cancer and normal rectum. Richter KK, et al. **Am J Surg** 1998 Dec;176(6):642–7

Normal tissue complication probabilities correlated with late effects in the rectum after prostate conformal radiotherapy. Dale E, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 15; 43(2):385–91

Rectal dosimetric analysis following prostate brachytherapy. Merrick GS, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):1021–7

A new rectal model for dosimetry applications. Mardirossian G, et al. **J Nucl Med** 1999 Sep;40(9):1524–31

Computed axial tomography tandem and ovoids (CATTO) dosimetry: three-dimensional assessment of bladder and rectal doses. Gebara WJ, et al. **Radiat Oncol Investig** 1998; 6(6):268–75

[Significance of a rectal balloon as internal immobilization device in conformal radiotherapy of prostatic carcinoma] Gerstner N, et al. **Strahlenther Onkol** 1999 May; 175(5):232–8 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Female pelvic organ prolapse: diagnostic contribution of dynamic cystoproctography and comparison with physical examination. Kelvin FM, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):31–7

Bladder and rectum volume estimations using CT and stereology. Mazonakis M, et al. **Comput Med Imaging Graph** 1998 May–Jun;22(3):195–201

Measurement of the anorectal angle by defecography for the diagnosis of fecal incontinence. Piloni V, et al. **Int J Colorectal Dis** 1999 Apr;14(2):131–5

Defecographic study of rectal evacuation in constipated patients and control subjects. Karlbom U, et al. **Radiology** 1999 Jan;210(1):103–8

[Acute lower abdominal pain in constipation] Wiesli P, et al. **Schweiz Rundsch Med Prax** 1999 Jan 7;88(1–2):27–8 **(Ger)**

SURGERY

Low and ultra-low rectal resection: results and prospectives. Soliani P, et al. **Acta Biomed Ateneo Parmense** 1996; 67(3–4):117–29

Concentrations of trovafloxacin in colonic tissue and peritoneal fluid after intravenous infusion of the prodrug alatrofloxacin in patients undergoing colorectal surgery. Melnik G, et al. **Am J Surg** 1998 Dec;176(6A Suppl):14S–17S

Double-blind comparison of single-dose alatrofloxacin and cefotetan as prophylaxis of infection following elective

colorectal surgery. Trovafloxacin Surgical Group. Milsom JW, et al. **Am J Surg** 1998 Dec;176(6A Suppl):46S–52S

Rectal trauma: management based on anatomic distinctions. McGrath V, et al. **Am Surg** 1998 Dec;64(12):1136–41

Colon and rectal anastomoses do not require routine drainage: a systematic review and meta-analysis. Urbach DR, et al. **Ann Surg** 1999 Feb;229(2):174–80

Immediate reconstruction of the perineal wound with gracilis muscle flaps following abdominoperineal resection and intraoperative radiation therapy for recurrent carcinoma of the rectum [see comments] Shibata D, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):33–7. Comment in: Ann Surg Oncol 1999 Jan–Feb;6(1):3.

Pre-operative chemoradiotherapy and total mesorectal excision surgery of rectal cancer: towards the eradication of pelvic failures? Bosset JF, et al. **Aust N Z J Surg** 1999 Sep;69(9):622–4 (32 ref.)

Basingstoke: comment [letter] Church JM. **Aust N Z J Surg** 1999 Sep;69(9):678

Food for thought: Basingstoke revisited again: a gourmand's delight or food poisoning?: Comment [letter; comment] Enker WE. **Aust N Z J Surg** 1999 Feb;69(2):151–2; discussion 152–3. Comment on: Aust N Z J Surg 1999 Feb;69(2):85–6.

Basingstoke replies again: comment [letter; comment] Heald RJ. **Aust N Z J Surg** 1999 Feb;69(2):150. Comment on: Aust N Z J Surg 1999 Feb;69(2):85–6.

Food for thought: Basingstoke revisited again [see comments] Isbister WH. **Aust N Z J Surg** 1999 Feb;69(2):85–6. Comment in: Aust N Z J Surg 1999 Feb;69(2):150. Comment in: Aust N Z J Surg 1999 Feb;69(2):151–2; discussion 152–3.

Check the stapler before use. Polglase AL, et al. **Aust N Z J Surg** 1999 May;69(5):402–3

Smoking and alcohol abuse are major risk factors for anastomotic leakage in colorectal surgery. Sørensen LT, et al. **Br J Surg** 1999 Jul;86(7):927–31

Pouch perineal rectosigmoidectomy gives better functional results than conventional rectosigmoidectomy in elderly patients with rectal prolapse. Yoshioka K, et al. **Br J Surg** 1998 Nov;85(11):1525–6

Long-term results after 75 anastomoses in the upper extraperitoneal rectum with the biofragmentable anastomosis ring. Debus ES, et al. **Dig Surg** 1999;16(1):55–9

Management of large rectal wall defects with open pedicle grafts of small intestine. An experimental study. Demetriades C, et al. **Dig Surg** 1998;15(6):693–6

Incidence of small-bowel obstruction and adhesiolysis after open colorectal and general surgery [published erratum appears in Dis Colon Rectum 1999 May;42(5):578] Beck DE, et al. **Dis Colon Rectum** 1999 Feb;42(2):241–8

Surgery for obstructed defecation: deja vu all over again? [letter; comment] Berman IR. **Dis Colon Rectum** 1999 Jul; 42(7):964–5. Comment on: Dis Colon Rectum 1999 Jan;42(1):82–8.

Randomized, controlled trial of low molecular weight heparin vs. no deep vein thrombosis prophylaxis for major colon and rectal surgery in Asian patients. Ho YH, et al. **Dis Colon Rectum** 1999 Feb;42(2):196–202; discussion 202–3

Anal pressures impaired by stapler insertion during colorectal anastomosis: a randomized, controlled trial. Ho YH, et al. **Dis Colon Rectum** 1999 Jan;42(1):89–95

Impact of a colon and rectal surgeon on a general surgery residency training program. Hyman NH. **Dis Colon Rectum** 1999 Feb;42(2):249–51

Single-layer continuous colon and rectal anastomosis using monofilament absorbable suture (Maxon): study of 500 cases. Law WL, et al. **Dis Colon Rectum** 1999 Jun; 42(6):736–40

Is bowel confinement necessary after anorectal reconstructive surgery? A prospective, randomized, surgeon-blinded trial. Nessim A, et al. **Dis Colon Rectum** 1999 Jan;42(1):16–23

Use of the greater omentum in colorectal surgery. O'Leary DP. **Dis Colon Rectum** 1999 Apr;42(4):533–9 (82 ref.)

Total anorectal and partial vaginal reconstruction with dynamic graciloplasty and colonic vaginoplasty after extended abdominoperineal resection: report of a case. Rullier E, et al. **Dis Colon Rectum** 1999 Aug;42(8):1097–101

Abdominal rectovaginopexy: modified technique to treat constipation [see comments] Silvis R, et al. **Dis Colon Rectum** 1999 Jan;42(1):82–8. Comment in: Dis Colon Rectum 1999 Jul;42(7):964–5.

Posterior sagittal anorectoplasty in adults: secondary repair for persistent incontinence in patients with anorectal malformations. Simmang CL, et al. **Dis Colon Rectum** 1999 Aug;42(8):1022–7

Functional outcome of conversion of ileorectal anastomosis to ileal pouch-anal anastomosis in patients with familial adenomatous polyposis and ulcerative colitis. Soravia C, et al. **Dis Colon Rectum** 1999 Jul;42(7):903–8

Anorectal function after anterior resection with side-to-side anastomosis for carcinoma of the rectum. Tsunoda A, et al. **Dis Colon Rectum** 1999 Jan;42(1):77–81

Total mesorectal excision (TME) with or without preoperative radiotherapy in the treatment of primary rectal cancer. Prospective randomised trial with standard operative and histopathological techniques. Dutch ColoRectal Cancer Group. Kapiteijn E, et al. **Eur J Surg** 1999 May;165(5):410–20

Whole gut transit is prolonged after Ripstein rectopexy. Schultz I, et al. **Eur J Surg** 1999 Mar;165(3):242–7

Colorectal resection in the elderly by J.J. Arenal, C. Benito, M.P. Concejo and E. Ortega (Eur J Surg 1999; 165: 593–597): invited commentary. Wexner SD. **Eur J Surg** 1999 Jul;165(7):716–8

Laparoscopic colorectal surgery in progress. Sjödahl R, et al. **Eur J Surg Suppl** 1998;(582):124–7

Surgeon-related factors and outcome in rectal cancer. Soybel DI. **Gastroenterology** 1999 Jan;116(1):220–1

Anterior luxtasphincteric stapled rectumresection. Danis J. **Hepatogastroenterology** 1998 May–Jun;45(21):771–2

Crohn's colitis: the fate of the rectum. Geoghegan JG, et al. **Int J Colorectal Dis** 1998;13(5–6):256–9

Serial evaluation of anorectal function following low anterior resection of the rectum. Lee SJ, et al. **Int J Colorectal Dis** 1998;13(5–6):241–6

Anorectal reconstruction--restoring continence after abdominoperineal excision of the anorectum [see comments] Eccersley AJ, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):549–54 (45 ref.) . Comment in: Ital J Gastroenterol Hepatol 1999 Apr;31(3):267–8.

Continence in patients who undergo posterior rectal flap anorectoplasty. Montalvo-Marin A, et al. **J Pediatr Surg** 1998 Dec;33(12):1760–4

Extra-anal mucosectomy: laparascopic-assisted endorectal pull-through using a prolapsing technique. Morikawa Y, et al. **J Pediatr Surg** 1998 Nov;33(11):1679–81

Effects of anal invasive treatment and incontinence on mental health and psychosocial functioning of adolescents with Hirshsprung's disease and low anorectal anomalies [letter; comment] Peña A, et al. **J Pediatr Surg** 1998 Nov; 33(11):1732. Comment on: J Pediatr Surg 1998 Mar;33(3):468–75.

Anterior resection with total mesorectal excision [letter; comment] Hrisha J. **J R Coll Surg Edinb** 1999 Apr;44(2):136 . Comment on: J R Coll Surg Edinb 1999 Feb;44(1):40–5.

Anterior resection with total mesorectal excision [letter; comment] Kutiyanawala M, et al. **J R Coll Surg Edinb** 1999 Apr;44(2):135–6. Comment on: J R Coll Surg Edinb 1999 Feb;44(1):40–5.

Anterior resection with total mesorectal excision [published erratum appears in J R Coll Surg Edinb 1999 Apr;44(2):136] [see comments] Steele RJ. **J R Coll Surg Edinb** 1999 Feb; 44(1):40–5. Comment in: J R Coll Surg Edinb 1999 Apr;44(2):135–6. Comment in: J R Coll Surg Edinb 1999 Apr;44(2):136.

Anterior resection with total mesorectal excision [letter; comment] Williams E, et al. **J R Coll Surg Edinb** 1999 Apr;44(2):136. Comment on: J R Coll Surg Edinb 1999 Feb;44(1):40–5.

Facilitating intracorporeal colorectal anastomoses. Bergamaschi R, et al. **J Soc Laparoendosc Surg** 1998 Jan–Mar;2(1):47–9

Local excision of rectal carcinoma: a safe alternative for more advanced tumors? Graham RA, et al. **J Surg Oncol** 1999 Apr;70(4):235–8

Reconstruction of the pelvic floor using absorbable mesh with a bioresorbable membrane (Seprafilm) after abdominoperineal rectal excision. Kusunoki M, et al. **J Surg Oncol** 1999 Apr;70(4):261–2

Which technique, circular stapled anastomosis or double stapling anastomosis, provides the optimal size and shape of rectal anastomotic opening? Sadahiro S, et al. **J Surg Res** 1999 Sep;86(1):162–6

Rectosigmoid urinary diversion: the functional significance of creating an intussuscepted colorectal valve. Shoma AM, et al. **J Urol** 1999 Feb;161(2):415–7

The experiences of rectosigmoid pouch as a continent urinary diversion after radical cystectomy. Chiang PH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Mar; 14(3):132–8

Transsacral rectopexy for complete rectal prolapse. Araki Y, et al. **Kurume Med J** 1998;45(3):235–8

Perirectal graciloplasty: a novel surgical technique for the treatment of the neurogenic rectum and rectal inertia. Shafik A. **Neurogastroenterol Motil** 1998 Aug;10(4):289–93

Nasogastric tubes and dietary advancement after laparoscopic and open colorectal surgery. Sands DR, et al. **Nutrition** 1999 May;15(5):347–50 (34 ref.)

Posterior sagittal transanorectal approach in patients with ambiguous genitalia: report of eight cases. Braz A. **Pediatr Surg Int** 1999;15(2):108–10

Laparoscopic rectosigmoid colpopoiesis: does it benefit our transsexual patients? Maas SM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):518–24

Treatment of severe actinic rectitis. Rossi BM, et al. **Rev Paul Med** 1998 Jan–Feb;116(1):1629–33

Neonatal Soave endorectal pull-through for Hirschsprung's disease. Sidler D, et al. **S Afr J Surg** 1999 May;37(2):47–9; discussion 49–50

Successful treatment of rectal prolapse by laparoscopic suture rectopexy. Kessler H, et al. **Surg Endosc** 1999 Sep; 13(9):858–61

Resection rectopexy for rectal prolapse. The laparoscopic approach. Xynos E, et al. **Surg Endosc** 1999 Sep;13(9):862–4

Transsacral rectopexy for recurrent complete rectal prolapse. Araki Y, et al. **Surg Today** 1999;29(9):970–2

A laparoscopic pull-through operation for Hirschsprung's disease: report of two infant cases. Hirose R, et al. **Surg Today** 1999;29(4):371–4

The effectiveness of perineal rectosigmoidectomy for the treatment of rectal prolapse in elderly and high-risk patients. Takesue Y, et al. **Surg Today** 1999;29(3):290–3

Optimal duration of urinary drainage after rectal resection: a randomized controlled trial. Benoist S, et al. **Surgery** 1999 Feb;125(2):135–41

Total mesorectal excision is not necessary for cancers of the upper rectum. Lopez-Kostner F, et al. **Surgery** 1998 Oct; 124(4):612–7; discussion 617–8

Is prophylactic pelvic drainage useful after elective rectal or anal anastomosis? A multicenter controlled randomized trial. French Association for Surgical Research. Merad F, et al. **Surgery** 1999 May;125(5):529–35

Sigmoidofiberscopic incision plus balloon dilatation for anastomotic cicatricial stricture after anterior resection of the rectum. Hagiwara A, et al. **World J Surg** 1999 Jul; 23(7):717–20

Laparoscopic surgery of the colon and rectum. Tomita H, et al. **World J Surg** 1999 Apr;23(4):397–405 (116 ref.)

[Sphincter-preserving operations in the treatment of carcinoma of the middle and lower third of the rectum] Dimitrov A, et al. **Khirurgiia (Sofiia)** 1998;51(4):44–50 (0 ref.) (Eng. Abstr.) **(Bul)**

[Trans-sphincteric resection of the rectum] Kopecký J, et al. **Acta Medica (Hradec Kralove) Suppl** 1997;40(2):91–2 (Eng. Abstr.) **(Cze)**

[A preventive ostomy in low rectal resections] Cermák J, et al. **Rozhl Chir** 1999 Jan;78(1):31–3 (Eng. Abstr.) **(Cze)**

[Long-term results of ileo-rectal anastomosis in familial polyposis] Sváb J, et al. **Rozhl Chir** 1999 Apr;78(4):150–3 (Eng. Abstr.) **(Cze)**

[Transanal endoscopic microsurgery: a good choice for local resection of rectal tumors (see comments)] Doornebosch PG, et al. **Ned Tijdschr Geneeskd** 1998 Nov 21; 142(47):2577–81 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):121. Comment in: Ned Tijdschr Geneeskd 1999 Jan 9;143(2):121–2. **(Dut)**

[Surgical treatment of constipation] Hiltunen KM, et al. **Duodecim** 1995;111(20):1955–9 (17 ref.) **(Fin)**

[Modifications of the Deloyers procedure in order to perform a cecal-rectal anastomosis without torsion of the vascular pedicle] Perrier G, et al. **Ann Chir** 1999;53(3):254 **(Fre)**

[Indications and results of mucosal proctectomy with colo-anal anastomosis in villous disease of the rectum] Petit T, et al. **Ann Chir** 1999;53(6):482–6 (Eng. Abstr.) **(Fre)**

[Anorectal reconstruction by coloperineal anastomosis and dynamic double graciloplasty after abdomino-perineal resection] Rullier E, et al. **Ann Chir** 1998;52(9):905–12 (Eng. Abstr.) **(Fre)**

[Total excision of the mesorectum and preservation of the genitourinary innervation in surgery of rectal cancer] Tiret E, et al. **Ann Chir** 1999;53(6):507–14 (16 ref.) (Eng. Abstr.) **(Fre)**

[What is the role of endo-rectal echography in monitoring of patients operated on for rectal cancer? (editorial)] Giovannini M. **Gastroenterol Clin Biol** 1998 Mar; 22(3):266–8 (31 ref.) **(Fre)**

[Proctectomy and colo-anal anastomosis, with J-reservoir, for cancer] Penna C. **J Chir (Paris)** 1999 Mar;136(1):29–33 **(Fre)**

[Megacolon and megarectum in adults. Abdominal proctectomy with colo-anal anastomosis] Glarner A, et al. **Schweiz Med Wochenschr** 1998 Nov 7;128(45):1755–62 (Eng. Abstr.) **(Ger)**

[Rectal carcinoma. Optimizing therapy by local excision] Heintz A, et al. **Zentralbl Chir** 1999;124(5):436–40 (Eng. Abstr.) **(Ger)**

[Rectal carcinoma. Optimizing therapy by partial or total mesorectum removal] Maurer CA, et al. **Zentralbl Chir** 1999;124(5):428–35 (62 ref.) (Eng. Abstr.) **(Ger)**

[Colorectal reconversion after Hartmann procedure. Apropos of 26 cases] Bisogno ML, et al. **Ann Ital Chir** 1998 May–Jun;69(3):341–5 (Eng. Abstr.) **(Ita)**

[Laparoscopic rectopexy: our experience in the treatment of complete rectal prolapse] Caronia FP, et al. **G Chir** 1999 Jun–Jul;20(6–7):311–3 (Eng. Abstr.) **(Ita)**

[The endorectal repair of rectovaginal fistulae] Milito G, et al. **Minerva Chir** 1999 Mar;54(3):191–4 (Eng. Abstr.) **(Ita)**

[Phantom rectum after Miles' operation] Saviano M, et al. **Minerva Chir** 1998 Dec;53(12):1027–33 (Eng. Abstr.) **(Ita)**

[Augmentation ileocystoplasty as a treatment of vesicoureteral injury following rectal amputation: a case report] Kinebuchi Y, et al. **Hinyokika Kiyo** 1999 May; 45(5):363–6 (Eng. Abstr.) **(Jpn)**

[Rectal lesions in children. Clinico-therapeutic considerations of 12 cases] Sabetay C, et al. **Chirurgia (Bucur)** 1998 Sep–Oct;93(5):343–7 (Eng. Abstr.) **(Rum)**

[Extramucosal rectal strictures and and methods of their elimination] Stepanov EA, et al. **Khirurgiia (Mosk)** 1998; (7):55–6 **(Rus)**

[A method for the downward repositioning of an ellipsoid flap of the mucosa of the distal rectum] Stavitskii VV. **Klin Khir** 1998;(9–10):82–3 **(Rus)**

[The functional results of abdomino-anal resection of the rectum with the formation of a reservoir from the large intestine] Maistrenko NA, et al. **Vestn Khir Im I I Grek** 1998;157(5):87–90 (Eng. Abstr.) **(Rus)**

[Complications of low rectal anastomoses after mechanical suturing] Bober J, et al. **Bratisl Lek Listy** 1998 Dec; 99(12):693–5 **(Slo)**

TRANSPLANTATION

Point of Technique. Rectal division in bladder and vaginal reconstruction: adaptation of the Bianchi procedure. Guys JM, et al. **BJU Int** 1999 Apr;83(6):714–6

ULTRASONOGRAPHY

EUS and EUS-guided fine-needle aspiration for the diagnosis of rectal linitis plastica secondary to prostate carcinoma. Bhutani MS. **Gastrointest Endosc** 1999 Jul; 50(1):117–9 (13 ref.)

Evaluation of the colorectal wall in normal subjects and patients with ulcerative colitis using an ultrasonic catheter probe [see comments] Tsuga K, et al. **Gastrointest Endosc** 1998 Nov;48(5):477–84. Comment in: Gastrointest Endosc 1998 Nov;48(5):542–5.

[What is the role of endo-rectal echography in monitoring of patients operated on for rectal cancer? (editorial)] Giovannini M. **Gastroenterol Clin Biol** 1998 Mar; 22(3):266–8 (31 ref.) **(Fre)**

["Delorme" thickening of the rectal wall, a misleading ultrasound image] Roseau G. **Presse Med** 1998 Jul 4–11; 27(24):1255 **(Fre)**

[Endorectal echotomography in assessing the spread of rectal cancer] Bilenko AA, et al. **Lik Sprava** 1998 Oct-Nov; (7):101–4 (Eng. Abstr.) **(Rus)**

VIROLOGY

The importance of local mucosal HIV-specific CD8(+) cytotoxic T lymphocytes for resistance to mucosal viral transmission in mice and enhancement of resistance by local administration of IL-12. Belyakov IM, et al. **J Clin Invest** 1998 Dec 15;102(12):2072–81

Rectal transmission of human immunodeficiency virus type 1 to chimpanzees. Fultz PN, et al. **J Infect Dis** 1999 May; 179 Suppl 3:S418–21

Dissemination of SIV after rectal infection preferentially involves paracolic germinal centers. Couëdel-Courteille A, et al. **Virology** 1999 Aug 1;260(2):277–94

RECTUS ABDOMINIS

Rectus sheath haematoma in elderly patients: a diagnostic challenge. Bene J, et al. **Age Ageing** 1998 Jul;27(4):512–4

CHEMISTRY

Low myometrial glycogen content compared with rectus muscle in term pregnant women before labor. Steingrimsdóttir T, et al. **Gynecol Obstet Invest** 1999; 47(3):166–71

INNERVATION

Transneuronal tracing of neural pathways controlling an abdominal muscle, rectus abdominis, in the ferret. Billig I, et al. **Brain Res** 1999 Feb 27;820(1–2):31–44

Abducens internuclear and ascending tract of deiters inputs to medial rectus motoneurons in the cat oculomotor nucleus: synaptic organization. Nguyen LT, et al. **J Comp Neurol** 1999 Mar 8;405(2):141–59

PATHOLOGY

Rectus sheath hematoma/abscess following acute peritoneal dialysis [letter] Thiruventhiran T, et al. **Perit Dial Int** 1999 Jan-Feb;19(1):88

RADIONUCLIDE IMAGING

Rectus abdominis rhabdomyolysis after sit ups: unexpected detection by bone scan. Kao PF, et al. **Br J Sports Med** 1998 Sep;32(3):253–4

F-18 FDG gastric and anterior abdominal muscle uptake secondary to nausea and vomiting. Abdel-Dayem HM, et al. **Clin Nucl Med** 1998 Nov;23(11):769–70

The hot rectus abdominis muscle sign. Sabnis EV, et al. **Clin Nucl Med** 1999 Jan;24(1):66–7

SURGERY

Intraparietal retrorectus tension-free prosthetic mesh: a simple and effective method of repair of complex ventral hernias via a modified Stoppa technique. Surgical technique. Sakorafas GH, et al. **Acta Chir Belg** 1999 May-Jun;99(3):109–12 (12 ref.)

Nonfreeing of the lower leaf of the rectus sheath at caesarean section: a randomized controlled trial. Oguz S, et al. **Aust N Z J Obstet Gynaecol** 1998 Aug;38(3):317–8

Transposition of the rectus abdominis muscle for complicated pouch and rectal fistulas. Tran KT, et al. **Dis Colon Rectum** 1999 Apr;42(4):486–9

Transosseous transposition of a pedicled rectus abdominis flap to cover hip wounds. Ross DA, et al. **Eur J Surg Oncol** 1998 Dec;24(6):610–1

Rectus abdominis muscle graft post-talectomy: a new approach. Rutowicz DM, et al. **J Foot Ankle Surg** 1998 Jul-Aug;37(4):345–9

TRANSPLANTATION

Donor-site morbidity of the segmental rectus abdominis muscle flap. Geishauser M, et al. **Br J Plast Surg** 1998 Dec;51(8):603–7

Reconstruction of posterior mandibular defects with soft tissue using the rectus abdominis free flap. Kroll SS, et al. **Br J Plast Surg** 1998 Oct;51(7):503–7

Dermal autografts for fascial repair after TRAM flap harvest. Hein KD, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2287–92

Initial experience with breast reconstruction using the transverse rectus abdominis myocutaneous flap: a study of 45 patients. Andrews E, et al. **Ulster Med J** 1999 May; 68(1):22–6

Use of a vertical rectus abdominis myocutaneous flap in bilateral groin dissection for recurrent carcinoma of the penis. Brierly RD, et al. **Urol Int** 1998;61(4):243–6

[Rectus abdominis free flap breast reconstruction. A series of 23 cases] Cumbo P, et al. **Ann Chir Plast Esthet** 1997 Apr;42(2):147–55 (Eng. Abstr.) **(Fre)**

[Functional evaluation of the abdominal wall after raising a rectus abdominis myocutaneous flap] Fitoussi A, et al. **Ann Chir Plast Esthet** 1997 Apr;42(2):138–46 (Eng. Abstr.) **(Fre)**

[Preservation of the muscle in the use of rectus abdominis free flap in breast reconstruction: from TRAM to DIEP (Deep inferior epigastric perforator) flap. Technical notes and results] Lantieri L, et al. **Ann Chir Plast Esthet** 1997 Apr;42(2):156–9 (Eng. Abstr.) **(Fre)**

RECURRENCE

see related
NEOPLASM RECURRENCE, LOCAL

Recurrence and care seeking after acute back pain: results of a long-term follow-up study. North Carolina Back Pain Project. Carey TS, et al. **Med Care** 1999 Feb;37(2):157–64

RECURRENT LARYNGEAL NERVE

Bilateral recurrent nerve paralysis associated with multinodular substernal goiter: a case report. Souza JW, et al. **Am Surg** 1999 May;65(5):456–9 (10 ref.)

Use of a disposable electrode for recurrent laryngeal nerve monitoring. Srinivasan V, et al. **J Laryngol Otol** 1998 Jun; 112(6):561–4

ABNORMALITIES

The anomaly of nonrecurrent laryngeal nerve: identification and management. Cannon CR. **Otolaryngol Head Neck Surg** 1999 May;120(5):769–71

ANATOMY & HISTOLOGY

Asymmetry of the laryngeal reflex responses to superior laryngeal nerve stimulation unrelated to the length of the recurrent nerves in the porcine model. Roubeau B, et al. **Acta Otolaryngol (Stockh)** 1998 Nov;118(6):882–6

Recurrent and superior laryngeal nerves: a new look with implications for the esophageal surgeon. Liebermann-Meffert DM, et al. **Ann Thorac Surg** 1999 Jan; 67(1):217–23

Suspensory ligament of Berry: its relationship to recurrent laryngeal nerve and anatomic examination of 24 autopsies. Sasou S, et al. **Head Neck** 1998 Dec;20(8):695–8

Zuckerkandl's tuberculum [letter; comment] Leow CK. **J Am Coll Surg** 1999 Mar;188(3):334–6. Comment on: J Am Coll Surg 1998 Sep;187(3):333–6.

The posterior thyroplasty window: anatomical considerations. Maragos NE. **Laryngoscope** 1999 Aug; 109(8):1228–31

INJURIES

The recurrent laryngeal nerve related to thyroid surgery. Sturniolo G, et al. **Am J Surg** 1999 Jun;177(6):485–8

Recurrent laryngeal nerve injury caused by a laryngeal mask airway. Lowinger D, et al. **Anaesth Intensive Care** 1999 Apr;27(2):202–5 (26 ref.)

Effect of training on the incidence of nerve damage in thyroid surgery. Lamadé W, et al. **Br J Surg** 1999 Mar;86(3):388–91

Thyroid surgery and the recurrent laryngeal nerve. Wheeler MH. **Br J Surg** 1999 Mar;86(3):291–2

Intraoperative electromyographic assessment of recurrent laryngeal nerve stress and pharyngeal injury during anterior cervical spine surgery with Caspar instrumentation. Jellish WS, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):170–4

[Experimental study on delayed reinnervation of laryngeal adductor and abductor] Wen W, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):141–4 (Eng. Abstr.) **(Chi)**

[Intraoperative monitoring of the recurrent laryngeal nerve in thyroid operations] Brandner R, et al. **Biomed Tech (Berl)** 1998;43 Suppl:142–3 **(Ger)**

[Recurrent laryngeal nerve paralysis after thyroid gland operations. Etiology and consequences] Thermann M, et al. **Chirurg** 1998 Sep;69(9):951–6 (Eng. Abstr.) **(Ger)**

[Intraoperative neuromonitoring of the recurrent laryngeal nerve--routine use in thyroid gland surgery] Kienast A, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1058–60 (Eng. Abstr.) **(Ger)**

[Continuous monitoring of the recurrent laryngeal nerve] Lamadé W, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1055–7 (Eng. Abstr.) **(Ger)**

[Results of two-stage thyroidectomy in differentiated thyroid gland carcinoma] Rau HM, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1061–2 (Eng. Abstr.) **(Ger)**

[Selective (= morphology and function dependent) surgery of nodular struma: relationship to risk of recurrent laryngeal nerve paralysis by dissection and manipulation of the nerve] Wahl RA, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1051–4 (Eng. Abstr.) **(Ger)**

[Interactive computer-assisted learning program for diagnosis and therapy of recurrent laryngeal nerve paralysis] Stehle A, et al. **Laryngorhinootologie** 1998 Dec; 77(12):695–9 (Eng. Abstr.) **(Ger)**

[Prevention of N. recurrens paresis after thyroidectomy--a meta-analysis] Schilling MK, et al. **Ther Umsch** 1999 Jul; 56(7):396–9 (Eng. Abstr.) **(Ger)**

[Identifying the recurrent laryngeal nerve by intraoperative neuromonitoring] Kunath M, et al. **Zentralbl Chir** 1999; 124(7):641–5 (Eng. Abstr.) **(Ger)**

[Postoperative recurrent laryngeal nerve palsy following a transesophageal echocardiography] Sakai T, et al. **Masui** 1999 Jun;48(6):656–7 (Eng. Abstr.) **(Jpn)**

PATHOLOGY

Atrophy of the posterior cricoarytenoid muscle as an indicator of recurrent laryngeal nerve palsy. Romo LV, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):467–71

Invasion of the recurrent laryngeal nerve by adenoid cystic carcinoma. An unusual cause of true vocal fold paralysis. Hogg RP, et al. **J Laryngol Otol** 1999 Mar;113(3):260–2

Histologic study of the recurrent laryngeal nerve in spasmodic dysphonia. Kosaki H, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):129–33

PHYSIOLOGY

Exit jet particle velocity in the in vivo canine laryngeal model with variable nerve stimulation. Bielamowicz S, et al. **J Voice** 1999 Jun;13(2):153–60

Evidence for recurrent laryngeal nerve contribution in motor innervation of the human cricopharyngeal muscle. Brok HA, et al. **Laryngoscope** 1999 May;109(5):705–8

PHYSIOPATHOLOGY

Aspiration in unilateral recurrent laryngeal nerve paralysis after surgery. Buchholz DW, et al. **Dysphagia** 1999 Summer;14(3):186

Transcutaneous PCO2 monitoring in the evaluation of hyperventilation of patients with recurrent nerve paralysis. Miyazaki H, et al. **Eur Arch Otorhinolaryngol** 1999;256 Suppl 1:S47–50

RADIOGRAPHY

The anomaly of nonrecurrent laryngeal nerve: identification and management. Cannon CR. **Otolaryngol Head Neck Surg** 1999 May;120(5):769–71

SURGERY

Selective laryngeal adductor denervation-reinnervation: a new surgical treatment for adductor spasmodic dysphonia. Berke GS, et al. **Ann Otol Rhinol Laryngol** 1999 Mar; 108(3):227–31

Hypoglossal nerve transfer for laryngeal reinnervation: a preliminary study. Paniello RC, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):239–44

The role of ansa-to-recurrent-laryngeal nerve anastomosis in operations for thyroid cancer. Miyauchi A, et al. **Eur J Surg** 1998 Dec;164(12):927–33

Zuckerkandl's tuberculum in thyroid surgery [letter; comment] Gemsenjäger EW, et al. **J Am Coll Surg** 1999 Mar;188(3):336–7. Comment on: J Am Coll Surg 1998 Sep;187(3):333–6.

[Experimental study on delayed reinnervation of laryngeal adductor and abductor] Wen W, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):141–4 (Eng. Abstr.) **(Chi)**

[Reimbursement in double-sided partial thyroid resection and additional bilateral neurolysis] Wienke A. **HNO** 1999 Apr; 47(4):297–9 **(Ger)**

[Prevention of N. recurrens paresis after thyroidectomy--a meta-analysis] Schilling MK, et al. **Ther Umsch** 1999 Jul; 56(7):396–9 (Eng. Abstr.) **(Ger)**

RECYCLING see **CONSERVATION OF NATURAL RESOURCES**

RECYCLING, EQUIPMENT see **EQUIPMENT REUSE**

RED BLOOD CELL COUNT see **ERYTHROCYTE COUNT**

RED BLOOD CELL MEMBRANE SIALOGLYCOPROTEIN see **GLYCOPHORIN**

RED BLOOD CELL TRANSFUSION see **ERYTHROCYTE TRANSFUSION**

RED BLOOD CELLS see **ERYTHROCYTES**

RED BUGS see **TROMBICULID MITES**

RED-CELL APLASIA, PURE

CHEMICALLY INDUCED

Acute pure red cell aplasia associated with allopurinol therapy. Lin YW, et al. **Am J Hematol** 1999 Jul; 61(3):209–11

[Erythroblastopenia secondary to zidovudine (letter)] Bani-Sadr F, et al. **Rev Med Interne** 1998 Jul;19(7):518–9 **(Fre)**

COMPLICATIONS

Pure red cell aplasia associated to clonal CD8+ T-cell large granular lymphocytosis: dependence on cyclosporin A therapy. Coutinho J, et al. **Acta Haematol** 1998; 100(4):207–10

Pure red cell aplasia responsive to interferon-alpha in a patient with hepatitis C virus infection. Davidovitz Y, et al. **Acta Haematol** 1998;100(4):213–5

Remission of pure-red-cell aplasia associated with operative cure of lung cancer [letter] Tauchi T, et al. **Am J Hematol** 1999 Jun;61(2):157–8

Multicentric Castleman's disease associated with renal amyloidosis and pure red cell aplasia. Hattori K, et al. **Ann Hematol** 1998 Oct;77(4):179–81 (15 ref.)

Successful treatment of acquired myelofibrosis with pure red cell aplasia by cyclosporine [letter] Nemoto Y, et al. **Br J Haematol** 1999 Feb;104(2):422–4

Pure red cell aplasia in autoimmune polyglandular syndrome with T lymphocytosis [letter] Grossi A, et al. **Haematologica** 1998 Nov;83(11):1043–5

Pure red cell aplasia and myasthenia gravis with thymoma: a case report and review of the literature. Mizobuchi S, et al. **Jpn J Clin Oncol** 1998 Nov;28(11):696–701 (37 ref.)

[The 5q- syndrome associated with marked erythroid hypoplasia and Coombs test positive hemolysis] Ohno T, et al. **Rinsho Ketsueki** 1999 Jun;40(6):499–504 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Pure red cell aplasia as presentation of systemic lupus erythematosus: antibodies to erythropoietin. Linardaki GD, et al. **Scand J Rheumatol** 1999;28(3):189–91

[The value of urine sediment cytomorphology in the ambulatory differential diagnosis of hematuria] Obroniecka I, et al. **Pol Merkuriusz Lek** 1998 Nov;5(29):285–7 (Eng. Abstr.) **(Pol)**

[Five cases of acquired pure red cell aplasia] Rzepecki P, et al. **Wiad Lek** 1998;51(5–6):298–302 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Pure red cell aplasia responsive to interferon-alpha in a patient with hepatitis C virus infection. Davidovitz Y, et al. **Acta Haematol** 1998;100(4):213–5

Selective effect of cyclosporine monotherapy for pure red cell aplasia not associated with granular lymphocyte-proliferative disorders. Yamada O, et al. **Br J Haematol** 1999 Aug;106(2):371–6

ETIOLOGY

Severe hepatitis and pure red cell aplasia in adult Still's disease: good response to immunosuppressive therapy. Janssen HL, et al. **Dig Dis Sci** 1999 Aug;44(8):1639–42

Tuberculosis pure red cell aplasia [letter] Dutta S, et al. **Int J Tuberc Lung Dis** 1999 Apr;3(4):361–2

Association of pure red cell aplasia with T large granular lymphocyte leukaemia. Kwong YL, et al. **J Clin Pathol** 1998 Sep;51(9):672–5

[Invasive thymoma associated with pure red cell aplasia and liver metastasis: a case report] Ishiwa N, et al. **Kyobu Geka** 1999 May;52(5):426–9 (Eng. Abstr.) **(Jpn)**

[A case of pure red cell aplasia with hypogammaglobulinemia appearing after thymo-thymectomy] Kokubo M, et al. **Kyobu Geka** 1999 Jun;52(6):505–7 (Eng. Abstr.) **(Jpn)**

[Human parvovirus B19-induced aplastic crisis in a patient treated with fibrin sealant] Hino M, et al. **Rinsho Ketsueki** 1999 Feb;40(2):145–9 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Prolonged erythroid aplasia after major ABO-mismatched transplantation for chronic myelogenous leukemia. Benjamin RJ, et al. **Biol Blood Marrow Transplant** 1998; 4(3):151–6

Th1/Th2 balance alteration in the clinical course of a patient with pure red cell aplasia and thymoma. Fujisao S, et al. **Br J Haematol** 1998 Nov;103(2):308–10

Th1/Th2 lymphocyte subsets in pure red cell aplasia [letter; comment] Sivakumaran M. **Br J Haematol** 1999 May; 105(2):569–70. Comment on: Br J Haematol 1998 Nov;103(2):569–70.

Pure red-cell aplasia associated with clonal expansion of granular lymphocytes expressing killer-cell inhibitory receptors [see comments] Handgretinger R, et al. **N Engl J Med** 1999 Jan 28;340(4):278–84. Comment in: N Engl J Med 1999 Jan 28;340(4):314–5. Comment in: N Engl J Med 1999 Jun 24;340(25):2004; discussion 2005. Comment in: N Engl J Med 1999 Jun 24;340(25):2004–5.

Pure red-cell aplasia [letter; comment] Nathan DG, et al. **N Engl J Med** 1999 Jun 24;340(25):2004; discussion 2005 . Comment on: N Engl J Med 1999 Jan 28;340(4):278–84.

Does a low level of expression of HLA molecules engender autoimmunity? [editorial; comment] Raulet DH. **N Engl J Med** 1999 Jan 28;340(4):314–5. Comment on: N Engl J Med 1999 Jan 28;340(4):278–84.

Pure red-cell aplasia [letter; comment] Zimmer J, et al. **N Engl J Med** 1999 Jun 24;340(25):2004–5. Comment on: N Engl J Med 1999 Jan 28;340(4):278–84.

PATHOLOGY

[Myelodysplastic syndrome accompanied by i(17) (q10) anomaly following pure red cell aplasia and transient myeloproliferative stage] Yokohama A, et al. **Rinsho Ketsueki** 1999 Jan;40(1):34–9 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Aplastic anemia and pure red cell aplasia. Dessypris EN. **Curr Opin Hematol** 1994 Mar;1(2):157–61 (47 ref.)

Pure red cell aplasia evolving through the hyperfibrotic myelodysplastic syndrome to the acute myeloid leukemia: some pathogenetic aspects. Suvajdzic N, et al. **Hematol Cell Ther** 1999 Feb;41(1):27–9

THERAPY

Successful treatment of refractory acquired pure red cell aplasia (PRCA) by allogeneic bone marrow transplantation. Müller BU, et al. **Bone Marrow Transplant** 1999 Jun; 23(11):1205–7

CD34+-enriched donor lymphocyte infusions in a case of pure red cell aplasia and late graft failure after major ABO-incompatible bone marrow transplantation. Selleri C, et al. **Bone Marrow Transplant** 1998 Sep;22(6):605–7

Donor lymphocyte infusion as therapy for pure red cell aplasia following bone marrow transplantation [letter] Bavaro P, et al. **Br J Haematol** 1999 Mar;104(4):930–1

Successfully treated sulphasalazine-induced fulminant hepatic failure, thrombocytopenia and erythroid hypoplasia with intravenous immunoglobulin. Huang JL, et al. **Clin Rheumatol** 1998;17(4):349–52

Refractory pure red cell aplasia associated with B-CLL: successful treatment with a combination of fludarabine, cyclosporin A and erythropoietin [letter] Shimoni A, et al. **Leukemia** 1999 Jan;13(1):142–3

Treatment of aregeneratoric anemia following an ABO-incompatible allogeneic peripheral blood stem cell transplantation: a case report. Ustün C, et al. **Ther Apher** 1999 Aug;3(3):275–7

[Five cases of acquired pure red cell aplasia] Rzepecki P, et al. **Wiad Lek** 1998;51(5–6):298–302 (Eng. Abstr.) **(Pol)**

VETERINARY

Pure red cell aplasia in cats: 9 cases (1989–1997). Stokol T, et al. **J Am Vet Med Assoc** 1999 Jan 1;214(1):75–9

[Cyclosporin A therapy in a cat with pure red cell aplasia] Mischke R. **Berl Munch Tierarztl Wochenschr** 1998 Nov-Dec;111(11–12):432–7 (Eng. Abstr.) **(Ger)**

VIROLOGY

Chronic pure red cell aplasia caused by parvovirus B19 in AIDS: use of intravenous immunoglobulin--a report of eight patients. Koduri PR, et al. **Am J Hematol** 1999 May; 61(1):16–20

Persistent parvovirus B19 related anemia of seven years' duration in an HIV-infected patient: complete remission associated with highly active antiretroviral therapy. Mylonakis E, et al. **Am J Hematol** 1999 Feb;60(2):164–6

Parvovirus B19-associated transient pure red cell aplasia with lymphadenopathy: a case report. Sadahira Y, et al. **Pathol Int** 1998 Oct;48(10):829–33

RED CELL GHOST see **ERYTHROCYTE MEMBRANE**

RED CELL INDICES see **ERYTHROCYTE INDICES**

RED CELL MASS see **ERYTHROCYTE VOLUME**

RED CELL SUBSTITUTES see **BLOOD SUBSTITUTES**

RED CROSS

Who gets hurt by all these weapons? Non-combatants outside formal conflicts [editorial] Smith C. **BMJ** 1999 Aug 14; 319(7207):395

New image network system and its informational background at Yamada Red Cross Hospital. Kinosada Y, et al. **Comput Methods Programs Biomed** 1998 Aug-Sep; 57(1–2):55–61

Gen-Probe, Chiron and US Red Cross to investigate new technology to provide an extra layer of safety to the blood supply. **Front Med Biol Eng** 1999;9(1):96–8

Organizational changes in Canada. Décary F. **Vox Sang** 1998; 74 Suppl 2:527–9 (3 ref.)

HISTORY

Nursing pride: Clara Barton in the Spanish-American War. Frantz AK. **Am J Nurs** 1998 Oct;98(10):39–41

[Medals and decorations of the Russian Red Cross] Gribanov ZD. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):49–51 **(Rus)**

RED DYE NO. 2 see **AMARANTH**

RED MARROW see **BONE MARROW**

RED MITES see **TROMBICULID MITES**

RED NUCLEUS

Rubral tremor associated with cavernous angioma of the midbrain. Leung GK, et al. **Mov Disord** 1999 Jan; 14(1):191–3

ANATOMY & HISTOLOGY

Afferents to the red nucleus in the lizard Podarcis hispanica: putative pathways for visuomotor integration. Martinez-Marcos A, et al. **J Comp Neurol** 1999 Aug 16; 411(1):35–55

CYTOLOGY

The retinal projections to the ventral and dorsal divisions of the medial terminal nucleus and mesencephalic reticular formation in the Japanese monkey (Macaca fuscata): a reinvestigation with cholera toxin B subunit as an anterograde tracer. Nakagawa S, et al. **Brain Res** 1998 Nov 2;809(2):198–203

Types of neurons in the nucleus ruber of the European bison. Klüver-Barrea and Golgi studies. Szteyn S, et al. **Folia Morphol (Warsz)** 1998;57(4):315–9

Development of functional topography in the corticorubral projection: An in vivo assessment using synaptic potentials recorded from fetal and newborn cats. Song WJ, et al. **J Neurosci** 1998 Nov 15;18(22):9354–64

METABOLISM

Clusterin upregulation following rubrospinal tract lesion in the adult rat. Liu L, et al. **Exp Neurol** 1999 May; 157(1):69–76

PATHOLOGY

Hereditary dentatorubral-pallidoluysian atrophy: detection of widespread ubiquitinated neuronal and glial intranuclear inclusions in the brain. Hayashi Y, et al. **Acta Neuropathol (Berl)** 1998 Dec;96(6):547–52

Dentatorubropallidoluysian atrophy: clinicopathological study of dementia and involvement of the nucleus basalis of Meynert in seven autopsy cases. Tsuchiya K, et al. **Acta Neuropathol (Berl)** 1998 Nov;96(5):502–8

Dentato-rubral tract involvement in adult-onset adrenoleukodystrophy [letter; comment] Ochi K, et al. **AJNR Am J Neuroradiol** 1998 Nov-Dec;19(10):1904. Comment on: AJNR Am J Neuroradiol 1995 Jun-Jul;16(6):1227–37.

Clusterin upregulation following rubrospinal tract lesion in the adult rat. Liu L, et al. **Exp Neurol** 1999 May; 157(1):69–76

Intranuclear neuronal inclusions in DRPLA [letter; comment] Becher MW, et al. **Mov Disord** 1998 Sep; 13(5):852–3. Comment on: Mov Disord 1997 Jul;12(4):519–30.

[Genetic analysis including predictive DNA testing in a Japanese family with dentatorubral-pallidoluysian atrophy] Nishio H, et al. **No To Hattatsu** 1998 Nov;30(6):512–6 (Eng. Abstr.) **(Jpn)**

[A case of juvenile type dentatorubral-pallidoluysian atrophy (DRPLA) with psychomotor retardation since infancy] Wada Y, et al. **No To Hattatsu** 1998 Nov;30(6):543–8 (Eng. Abstr.) **(Jpn)**

[A case of late adult-onset dentatorubral-pallidoluysian atrophy (DRPLA) successfully treated with V-P shunt operation] Fujita N, et al. **Rinsho Shinkeigaku** 1998 Jun; 38(6):516–9 (Eng. Abstr.) **(Jpn)**

[Dentatorubral-pallidoluysian atrophy (DRPLA: differential diagnosis of progressive myoclonus epilepsy] Naito H. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):163–5 (13 ref.) **(Jpn)**

[Dentatorubral-pallidoluysian atrophy (DRPLA: Naito-Oyanagi disease)] Tsuji S. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):275–9 (17 ref.) **(Jpn)**

[Dentatorubral-pallidoluysian atrophy (DRPLA: differential diagnosis of chorea)] Tsuji S. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):101–3 (10 ref.) **(Jpn)**

PHYSIOLOGY

6-hydroxydopamine lesion in the A8 cell group of cats produces a short-lasting decreased accuracy in goal-directed forepaw-movements. Arts MP, et al. **Behav Brain Res** 1999 Aug;103(1):13–21

Effects of cortical stimulation on red nucleus neurons in the guinea pig. Aicardi G, et al. **Boll Soc Ital Biol Sper** 1997 May-Jun;73(5–6):101–6

Red nucleus stimulation inhibits within the inferior olive. Horn KM, et al. **J Neurophysiol** 1998 Dec;80(6):3127–36

Effects of red nucleus microstimulation on the locomotor pattern and timing in the intact cat: a comparison with the motor cortex. Rho MJ, et al. **J Neurophysiol** 1999 May; 81(5):2297–315

Transplants of fibroblasts genetically modified to express BDNF promote regeneration of adult rat rubrospinal axons and recovery of forelimb function. Liu Y, et al. **J Neurosci** 1999 Jun 1;19(11):4370–87

The effects of reversible inactivation of the red nucleus on learning-related and auditory-evoked unit activity in the pontine nuclei of classically conditioned rabbits. Cartford MC, et al. **Learn Mem** 1997 Mar–Apr;3(6):519–31

Electrical stimulation of the lower midbrain around retrorubral field decreases temperatures of brown fat and rectum in anesthetized Wistar rats. Hashimoto M, et al. **Neurosci Lett** 1998 May 1;246(3):129–32

Food-taking in the cat investigated with transection of the rubro- and corticospinal tracts. Perfiliev S, et al. **Neurosci Res** 1998 Oct;32(2):181–4

Neuronal activity in rat red nucleus during forelimb reach-to-grasp movements. Jarratt H, et al. **Neuroscience** 1999 Jan;88(2):629–42

Construction of a reach-to-grasp. Gibson AR, et al. **Novartis Found Symp** 1998;218:233–45; discussion 245–51 (39 ref.)

Reciprocal connections between the red nucleus and the trigeminal nuclei: a retrograde and anterograde tracing study. Godefroy JN, et al. **Physiol Res** 1998;47(6):489–500

PHYSIOPATHOLOGY

Induction of microglial reaction and expression of nitric oxide synthase I in the nucleus dorsalis and red nucleus following lower thoracic spinal cord hemisection. Xu M, et al. **Brain Res** 1998 Oct 12;808(1):23–30

RED PEPPER see **CAPSICUM**

RED TIDE see **DINOFLAGELLIDA**

REDOX see **OXIDATION-REDUCTION**

REDUCED GRAVITY see **HYPOGRAVITY**

REDUCING AGENTS

Excess nucleoside triphosphates (or zinc) allow recovery of alkaline phosphatase activity following refolding under reducing conditions. Ghosh N, et al. **Biochemistry** 1998 Nov 3;37(44):15542–7

PHARMACOLOGY

Redox agents regulate ion channel activity in vacuoles from higher plant cells. Carpaneto A, et al. **FEBS Lett** 1999 Jan 15;442(2–3):129–32

Identification of two mannoproteins released from cell walls of a Saccharomyces cerevisiae mnn1 mnn9 double mutant by reducing agents. Moukadiri I, et al. **J Bacteriol** 1999 Aug;181(16):4741–5

Modulation of recombinant human cardiac L-type Ca2+ channel alpha1C subunits by redox agents and hypoxia. Fearon IM, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):629–37

Reducing compounds initiate the TRP2-catalyzed conversion of L-dopachrome to DHICA [letter] Rosengren E, et al. **Melanoma Res** 1998 Oct;8(5):469–70

The microaerophilic nature of Treponema pallidum: enhanced survival and incorporation of tritiated adenine under microaerobic conditions in the presence or absence of reducing compounds. Cover WH, et al. **Sex Transm Dis** 1982 Jan–Mar;9(1):1–8

[In vitro study of regulation of rat liver xanthine oxidase activity by antioxidant reducing agents] Sumbaev VV, et al. **Ukr Biokhim Zh** 1998 Nov–Dec;70(6):47–52 (Eng. Abstr.) **(Rus)**

REDUCTANTS see **REDUCING AGENTS**

REDUCTASES see **OXIDOREDUCTASES**

REED-STERNBERG CELLS

see related
HODGKIN DISEASE

Identification of common germinal-center B-cell precursors in two patients with both Hodgkin's disease and non-Hodgkin's lymphoma [see comments] Bräuninger A, et al. **N Engl J Med** 1999 Apr 22;340(16):1239–47. Comment in: N Engl J Med 1999 Apr 22;340(16):1280–2.

Precursors of Hodgkin's disease and B-cell lymphomas [editorial; comment] Manis JP. **N Engl J Med** 1999 Apr 22;340(16):1280–2. Comment on: N Engl J Med 1999 Apr 22;340(16):1239–47.

CHEMISTRY

Genetic analysis of sorted Hodgkin and Reed-Sternberg cells using comparative genomic hybridization. Ohshima K, et al. **Int J Cancer** 1999 Jul 19;82(2):250–5

CLASSIFICATION

Reed-Sternberg cell genome expression supports a B-cell lineage. Cossman J, et al. **Blood** 1999 Jul 15;94(2):411–6

CYTOLOGY

Clonality and germinal centre B-cell derivation of Hodgkin/Reed-Sternberg cells in Hodgkin's disease. Küppers R, et al. **Ann Oncol** 1998;9 Suppl 5:S17–20 (36 ref.)

DRUG EFFECTS

Molecular basis of targeted chemotherapy: novel concepts with special reference to the treatment of Hodgkin's disease. Grunicke HH. **Ann Oncol** 1998;9 Suppl 5:S125–8 (29 ref.)

IMMUNOLOGY

Monoclonal IgH gene rearrangement in microdissected nodules from nodular sclerosis Hodgkin disease. Izban KF, et al. **Am J Clin Pathol** 1998 Nov;110(5):599–606

The many faces of Hodgkin's disease around the world: what have we learned from its pathology? Harris NL. **Ann Oncol** 1998;9 Suppl 5:S45–56 (112 ref.)

Immune escape mechanisms in Hodgkin's disease. Poppema S, et al. **Ann Oncol** 1998;9 Suppl 5:S21–4 (44 ref.)

Generation of cells with Hodgkin's and Reed-Sternberg phenotype through downregulation of CD99 (Mic2). Kim SH, et al. **Blood** 1998 Dec 1;92(11):4287–95

An anti-CD30 single-chain Fv selected by phage display and fused to Pseudomonas exotoxin A (Ki-4(scFv)-ETA') is a potent immunotoxin against a Hodgkin-derived cell line. Klimka A, et al. **Br J Cancer** 1999 Jun;80(8):1214–22

Interleukin 13 is secreted by and stimulates the growth of Hodgkin and Reed-Sternberg cells. Kapp U, et al. **J Exp Med** 1999 Jun 21;189(12):1939–46

Hodgkin's disease: immunoglobulin heavy and light chain gene rearrangements revealed in single Hodgkin/Reed-Sternberg cells. Deng F, et al. **Mol Pathol** 1999 Feb;52(1):37–41

Clonality of Reed-Sternberg cells in Hodgkin's disease [letter; comment] Hummel M, et al. **N Engl J Med** 1999 Feb 4;340(5):394–5. Comment on: N Engl J Med 1995 Oct 5;333(14):901–6.

METABOLISM

High expression of the CC chemokine TARC in Reed-Sternberg cells. A possible explanation for the characteristic T-cell infiltratein Hodgkin's lymphoma. van den Berg A, et al. **Am J Pathol** 1999 Jun;154(6):1685–91

Tumor necrosis factor receptor-associated factor 1 is overexpressed in Reed-Sternberg cells of Hodgkin's disease and Epstein-Barr virus-transformed lymphoid cells. Dürkop H, et al. **Blood** 1999 Jan 15;93(2):617–23

Antiapoptotic marker Bcl-X(L), expression on Reed-Sternberg cells of Hodgkin's disease using a novel monoclonal marker, YTH-2H12. Chu WS, et al. **Hum Pathol** 1999 Sep;30(9):1065–70

Clonal loss of heterozygosity in microdissected Hodgkin and Reed-Sternberg cells. Hasse U, et al. **J Natl Cancer Inst** 1999 Sep 15;91(18):1581–3

Molecular mechanisms of constitutive NF-kappaB/Rel activation in Hodgkin/Reed-Sternberg cells. Krappmann D, et al. **Oncogene** 1999 Jan 28;18(4):943–53

Expressions of cyclin E, A, and B1 in Hodgkin and Reed-Sternberg cells: not suppressed by cyclin-dependent kinase inhibitor p21 expression. Ohshima K, et al. **Pathol Int** 1999 Jun;49(6):506–12

CD95 ligand is expressed in Reed-Sternberg cells of Hodgkin's disease. Sakuma I, et al. **Pathol Int** 1999 Feb; 49(2):103–9

PATHOLOGY

Specific skin lesions occurring in a patient with Hodgkin's lymphoma. Pagliaro JA, et al. **Australas J Dermatol** 1999 Feb;40(1):41–3

Human immunodeficiency virus-associated Hodgkin's disease derives from post-germinal center B cells. Carbone A, et al. **Blood** 1999 Apr 1;93(7):2319–26

Hodgkin/Reed-Sternberg cells induce fibroblasts to secrete eotaxin, a potent chemoattractant for T cells and eosinophils. Jundt F, et al. **Blood** 1999 Sep 15;94(6):2065–71

Generation of cells with Hodgkin's and Reed-Sternberg phenotype through downregulation of CD99 (Mic2). Kim SH, et al. **Blood** 1998 Dec 1;92(11):4287–95

Mutation of the p53 gene is not a typical feature of Hodgkin and Reed-Sternberg cells in Hodgkin's disease. Montesinos-Rongen M, et al. **Blood** 1999 Sep 1; 94(5):1755–60

Detection of clonal Hodgkin and Reed-Sternberg cells with identical somatically mutated and rearranged VH genes in different biopsies in relapsed Hodgkin's disease. Vockerodt M, et al. **Blood** 1998 Oct 15;92(8):2899–907

Detection of a Hodgkin/Reed-Sternberg cell specific immunoglobulin gene rearrangement in the serum DNA of a patient with Hodgkin's disease. Kornacker M, et al. **Br J Haematol** 1999 Aug;106(2):528–31

Hodgkin's disease: biology and origin of Hodgkin and Reed-Sternberg cells. Stein HS, et al. **Cancer Treat Rev** 1999 Jun;25(3):161–8 (45 ref.)

Identifying the precursors of Hodgkin and Reed-Sternberg cells in Hodgkin's disease: role of the germinal center in B-cell lymphomagenesis. Küppers R. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S74–9 (47 ref.)

Unilateral proptosis in an immunocompetent man as the initial clinical manifestation of systemic Hodgkin disease. Klapper SR, et al. **Ophthalmology** 1999 Feb;106(2):338–41

PHYSIOLOGY

Molecular cloning of a gene on chromosome 19q12 coding for a novel intracellular protein: analysis of expression in human and mouse tissues and in human tumor cells, particularly Reed-Sternberg cells in Hodgkin disease. Van Leuven F, et al. **Genomics** 1998 Dec 15;54(3):511–20

REELER MICE see **MICE, NEUROLOGIC MUTANTS**

REFERENCE BOOKS

see related
TEXTBOOKS

Terminologia anatomica: new terminology for the new anatomist. Whitmore I. **Anat Rec** 1999 Apr 15;257(2):50–3

An old friend turns 100 [editorial] Parmley WW. **J Am Coll Cardiol** 1999 Aug;34(2):606

Handling of drug-related inquiries by hospital nurses. Ab Rahman AF, et al. **J Clin Pharm Ther** 1998 Apr; 23(2):127–31

Medical reference databases used by Army primary care physicians in field environments. Harris MD, et al. **Mil Med** 1998 Nov;163(11):750–3

[A quality reference manual for radiology (see comments)] de Chambine S, et al. **J Radiol** 1999 Aug;80(8):825–34 (Eng. Abstr.). Comment in: J Radiol 1999 Aug;80(8):823–4. **(Fre)**

REFERENCE BOOKS, MEDICAL

Drug interaction inconsistency in Drug Information Handbook [letter] Jolley MR, et al. **Am J Health Syst Pharm** 1998 Nov 15;55(22):2418–9

The National Meningococcal Reference Laboratory [editorial] Cafferkey M. **Ir Med J** 1998 Dec;91(6):196–7

Descriptions of Reiter's disease in Mexican medical texts since 1578. Aceves-Avila FJ, et al. **J Rheumatol** 1998 Oct; 25(10):2033–4

Finding and applying evidence during clinical rounds: the "evidence cart" [see comments] Sackett DL, et al. **JAMA** 1998 Oct 21;280(15):1336–8. Comment in: JAMA 1998 Oct 21;280(15):1363. Comment in: JAMA 1999 Apr 7;281(13):1171–2.

Free research-based reference guide to drug abuse terms: two recent trends in Texas [letter] Johnson J, et al. **South Med J** 1999 Apr;92(4):441–2

REFERENCE RANGES see **REFERENCE VALUES**

REFERENCE STANDARDS

Reference standardization and analytical performance of a liquid homogeneous high-density lipoprotein cholesterol method compared with chemical precipitation method. Halloran P, et al. **Arch Pathol Lab Med** 1999 Apr; 123(4):317–26

Direct comparison of GAPDH, beta-actin, cyclophilin, and 28S rRNA as internal standards for quantifying RNA levels under hypoxia. Zhong H, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):523–6

The application of preirradiation combustion and neutron activation analysis technique for the determination of iodine in food and environmental reference materials. Norman BR, et al. **Biol Trace Elem Res** 1998 Sep;63(3):221–9

Standardization of SI units in the BJU [letter; comment] Bijl W. **Br J Urol** 1998 Dec;82(6):933. Comment on: Br J Urol 1998 May;81 Suppl 3:1–16.

Current status and future needs for biological and environmental reference materials certified for methylmercury compounds. Horvat M. **Chemosphere** 1999 Sep;39(7):1167–79

Metrological support of the Institute for Reference Materials and Measurements (IRMM) to clinical chemistry [editorial] Schimmel H, et al. **Clin Chem Lab Med** 1999 May; 37(5):485–6

Preparation of enzyme calibration materials. Férard G, et al. **Clin Chim Acta** 1998 Dec;278(2):151–62

Estimating the linear analytic range. Lipman HB, et al. **Clin Chim Acta** 1999 Apr;282(1–2):15–34

The polar average reference effect: a bias in estimating the head surface integral in EEG recording. Junghöfer M, et al. **Clin Neurophysiol** 1999 Jun;110(6):1149–55

Normative ranges by curve fitting to raw data. Yaar I. **Clin Neurophysiol** 1999 Mar;110(3):556–63

Twenty-four hour ambulatory blood pressure monitoring: what is the reference? [comment] Rascher W. **J Hum Hypertens** 1998 Nov;12(11):733–4. Comment on: J Hum Hypertens 1998 Nov;12(11):755–60.

Reference database of the main physiological parameters in Sprague-Dawley rats from 6 to 32 months. Alemán CL, et al. **Lab Anim** 1998 Oct;32(4):457–66

Norms for the Mini-Mental State Examination in a healthy population. Grigoletto F, et al. **Neurology** 1999 Jul 22; 53(2):315–20

[Standard chemicals and their use--various materials and enzymes] Kuwa K. **Rinsho Byori** 1999 Feb;Suppl 109:44–62 (24 ref.) **(Jpn)**

REFERENCE VALUES

REFERENCE VALUES

Are the preanalytical factors underestimated in clinical studies? [letter] Dugué B, et al. **Clin Chem Lab Med** 1998 Oct;36(10):811

Commutability and traceability: their repercussions on analytical bias and inaccuracy. Ricós C, et al. **Clin Chim Acta** 1999 Feb;280(1-2):135-45

An Italian national multicenter study for the definition of reference ranges for normal values of peripheral blood lymphocyte subsets in healthy adults. Santagostino A, et al. **Haematologica** 1999 Jun;84(6):499-504

REFERRAL AND CONSULTATION

Quality assurance and clinical utility in radiology: a study of abdominal ultrasound. Geitung JT, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S349-50

Referral patterns and motivation for anti-reflux surgery of patients suffering from gastroesophageal reflux disease. Bálint A, et al. **Acta Chir Hung** 1998;37(3-4):211-8

Patterns of comorbidity in relation to functioning (GAF) among general hospital psychiatric referrals. European Consultation-Liaison Workgroup. Alaja R, et al. **Acta Psychiatr Scand** 1999 Feb;99(2):135-40

Plain radiography of the lumbosacral spine. An audit of referrals from general practitioners. Espeland A, et al. **Acta Radiol** 1999 Jan;40(1):52-9

Persistence of substance use-related hospital utilization among psychiatric consultation patients. Alaja R, et al. **Alcohol Alcohol** 1999 May-Jun;34(3):346-8

Heart murmurs in pediatric patients: when do you refer? McConnell ME, et al. **Am Fam Physician** 1999 Aug; 60(2):558-65 (06 ref.)

Early referral for intentional rescue PTCA after initiation of thrombolytic therapy in patients admitted to a community hospital because of a large acute myocardial infarction. Oude Ophuis TJ, et al. **Am Heart J** 1999 May; 137(5):846-53

Consultation before thrombolytic therapy in acute myocardial infarction. Second National Registry of Myocardial Infarction (NRMI 2) Investigators. Al-Mubarak N, et al. **Am J Cardiol** 1999 Jan 1;83(1):89-93, A8

Ethnic disparities in patient recall of physician recommendations of diagnostic and treatment procedures for coronary disease [published erratum appears in Am J Epidemiol 1999 Mar 1;149(5):489] Sanderson BK, et al. **Am J Epidemiol** 1998 Oct 15;148(8):741-9

Consultant strategies for the gastroenterologist. Clearfield HR. **Am J Gastroenterol** 1999 Jun;94(6):1453-6 (9 ref.)

Psychiatric consultation in the nursing home. A survey of six states. Reichman WE, et al. **Am J Geriatr Psychiatry** 1998 Fall;6(4):320-7

When to refer [editorial] Gould JS. **Am J Orthop** 1998 Sep; 27(9):596, 598

Is stapedectomy ever ethical? Never say "ever" [letter; comment] Gauthier MG. **Am J Otol** 1999 Jan;20(1):138; discussion 141. Comment on: Am J Otol 1998 Sep;19(5):541-3; discussion 544-5.

Randomized controlled trial of physician-directed versus respiratory therapy consult service-directed respiratory care to adult non-ICU inpatients. Stoller JK, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1068-75

A survey on the intended purposes and perceived utility of preoperative cardiology consultations. Katz RI, et al. **Anesth Analg** 1998 Oct;87(4):830-6

To refer or consult, to ask or not--those are the questions [editorial; comment] Gross GN. **Ann Allergy Asthma Immunol** 1999 Sep;83(3):175-6. Comment on: Ann Allergy Asthma Immunol 1999 Sep;83(3):203-6.

The medical consultant's role in caring for patients with hip fracture [letter; comment] Zaveri KG. **Ann Intern Med** 1999 Jan 5;130(1):76-7. Comment on: Ann Intern Med 1998 Jun 15;128(12 Pt 1):1010-20.

Fire your dermatopathologist! LeBoit PE. **Arch Dermatol** 1999 Feb;135(2):137-8

Interview strategies commonly used by pediatricians. Mendelsohn JS, et al. **Arch Pediatr Adolesc Med** 1999 Feb; 153(2):154-7

From consultation-liaison psychiatry to psychosocial advocacy: maintaining psychiatry's scope. Smith GC. **Aust N Z J Psychiatry** 1998 Dec;32(6):753-61; discussion 762-6 (75 ref.)

Appropriateness of referral to urologists: can it be defined for symptoms of benign prostatic obstruction and used as a quality measure? [letter] Rane A. **BJU Int** 1999 Jul; 84(1):187

Referral to intensive care units should not be limited to consultants [letter] Danbury CM. **BMJ** 1999 Aug 21; 319(7208):520

Fast track consult [letter; comment] Appiah-Anane S. **Br Dent J** 1999 Jun 12;186(11):543. Comment on: Br Dent J 1999 Apr 10;186(7):334-7.

Patient care project [letter] Parker JK. **Br Dent J** 1999 Feb 13;186(3):105-6

Dental receptionist referrals [letter] Tham DC. **Br Dent J** 1998 Nov 28;185(10):502

Improving the letters we write: an exploration of doctor-doctor communication in cancer care. McConnell D, et al. **Br J Cancer** 1999 May;80(3-4):427-37

An audit of primary surgical treatment for women with ovarian cancer referred to a cancer centre. Sengupta PS, et al. **Br J Cancer** 1999 May;80(3-4):444-7

'Nurse only' protocols and product licence [letter] Reynolds Z. **Br J Fam Plann** 1999 Jan;24(4):173

Referral for prostatism: a 'performance indicator' for the gate between primary and secondary care? [letter] Elwyn GJ, et al. **Br J Gen Pract** 1998 Aug;48(433):1528

Should GPs have direct access to imaging for children with urinary tract infections? An observational study. Polmear AF, et al. **Br J Gen Pract** 1999 Feb;49(439):115-7

GP referrals to adult psychological services: a research agenda for promoting needs-led practice through the involvement of mental health clinicians. Ross H, et al. **Br J Med Psychol** 1999 Mar;72 (Pt 1):75-91 (87 ref.)

The seven surgeons of King's: a fable by Aesop [see comments] Rennie J, et al. **Br J Obstet Gynaecol** 1998 Dec; 105(12):1241. Comment in: Br J Obstet Gynaecol 1999 Aug;106(8):876.

Re: Planning the consultant workforce in oral & maxillofacial surgery [letter] Hardee P, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):245-6

Consenting and consulting for cosmetic surgery. Ward CM. **Br J Plast Surg** 1998 Oct;51(7):547-50

The anaesthesia consult clinic: does it matter which anaesthetist sees the patient? Down MP, et al. **Can J Anaesth** 1998 Aug;45(8):802-8

A cardiovascular risk factor reduction clinic. Wilson TW, et al. **Can J Cardiol** 1999 Aug;15(8):887-91 **(Eng, Fre)**

Adoptee overrepresentation among clinic-referred boys with gender identity disorder. Zucker KJ, et al. **Can J Psychiatry** 1998 Dec;43(10):1040-3

Maximizing use of a surgical clinic for referrals of patients having back problems. Mayman D, et al. **Can J Surg** 1999 Apr;42(2):117-9

Parental health attitudes, illnesses and supports and the referral of children to medical specialists. Gulhati A, et al. **Child Care Health Dev** 1998 Jul;24(4):295-313

Starting young: improving the health and developmental outcomes of infants and toddlers in the child welfare system. Silver J, et al. **Child Welfare** 1999 Jan-Feb; 78(1):148-65

Analysis of referral initiatives, severity of illness and return to care of older women with cervical cancer. Hsu WC, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Mar; 62(3):159-66

Subacute care: which patients benefit? Mistry PR, et al. **Cleve Clin J Med** 1999 Jul-Aug;66(7):443-6 (12 ref.)

Second opinions in oncology: nuisance or opportunity? [letter; comment] el-Sharkawi AM. **Clin Oncol (R Coll Radiol)** 1998;10(4):276. Comment on: Clin Oncol (R Coll Radiol) 1997;9(6):418-20.

Doctor-patient relationship. The consultation. Martello J, et al. **Clin Plast Surg** 1999 Jan;26(1):53-5, vi

Elevated levels of serum creatinine: recommendations for management and referral. Mendelssohn DC, et al. **CMAJ** 1999 Aug 24;161(4):413-7

Winnipeg software designed to give FPs easy access to specialists' advice. Stewart J. **CMAJ** 1998 Nov 3; 159(9):1161-2

A model-based context assessment approach for the informatics nurse specialist consultant. Snyder-Halpern R. **Comput Nurs** 1999 Sep-Oct;17(5):221-8; quiz 229-31

A review of a psychiatry-nephrology liaison service. North C, et al. **Eur Child Adolesc Psychiatry** 1998 Dec;7(4):235-45

Referral for anorectal function evaluation: therapeutic implications and reassurance. Felt-Bersma RJ, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):289-94

Combining qualitative interviews with video-recorded consultations: gaining insight into GPs' decision-making. Coleman T, et al. **Fam Pract** 1999 Apr;16(2):173-8

The assessment of genetic risk of breast cancer: a set of GP guidelines. de Bock GH, et al. **Fam Pract** 1999 Feb; 16(1):71-7

The GP's role in the management of chronic lower back pain [letter] Marshall M, et al. **Fam Pract** 1998 Aug; 15(4):375

How well do GPs and hospital consultants work together? A survey of the professional relationship. Marshall MN. **Fam Pract** 1999 Feb;16(1):33-8

Pathways from symptoms to medical care: a descriptive study of symptom development and obstacles to early diagnosis in brain tumour patients. Salander P, et al. **Fam Pract** 1999 Apr;16(2):143-8

Use of open access in GI endoscopy at an academic medical center. Charles RJ, et al. **Gastrointest Endosc** 1999 Oct; 50(4):480-5

Re: Geriatric consultation and liaison service [letter] Baldwin RC. **Int J Geriatr Psychiatry** 1998 Nov;13(11):820-1

The day hospital debate--a contribution. Collier EH, et al. **Int J Geriatr Psychiatry** 1999 Jul;14(7):587-91

Elderly people with alcohol-related problems: where do they go? Mulinga JD. **Int J Geriatr Psychiatry** 1999 Jul; 14(7):564-6

Changing referral patterns to ensure earlier identification of dysfluent pre-schoolers. Christie E, et al. **Int J Lang Commun Disord** 1998;33 Suppl:352-7

What is "obesity"--an analysis of referral letters to an obesity unit. Linné Y, et al. **Int J Obes Relat Metab Disord** 1998 Dec;22(12):1231-3

Failure to diagnose depression in patients referred for psychotherapy. Macaskill ND, et al. **Int J Soc Psychiatry** 1999 Summer;45(2):140-7

Open access gastroscopy--3 year experience of a new service. Heaney A, et al. **Ir J Med Sci** 1998 Jul-Sep; 167(3):136-7

The 3 R's of school consultation. Bostic JQ, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):339-41

Somatization in pediatric primary care: association with psychopathology, functional impairment, and use of services. Campo JV, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Sep; 38(9):1093-101

Follow-up and evaluation of skin cancer screening in British Columbia. Engelberg D, et al. **J Am Acad Dermatol** 1999 Jul;41(1):37-42

Changing treatment regimens for HIV infection: impact on referral patterns and training needs of family physicians [see comments] Brandon W. **J Am Board Fam Pract** 1999 Mar-Apr;12(2):115-9. Comment in: J Am Board Fam Pract 1999 Mar-Apr;12(2):178-80.

Referring adult patients for orthodontic treatment. Buttke TM, et al. **J Am Dent Assoc** 1999 Jan;130(1):73-9

Disagrees with comments on specialty designations [letter; comment] Mattise AW. **J Am Vet Med Assoc** 1999 Jul 15; 215(2):186. Comment on: J Am Vet Med Assoc 1999 May 15;214(10):1447, 1457.

Women and cardiac rehabilitation: referral and compliance patterns. Halm M, et al. **J Cardiovasc Nurs** 1999 Apr; 13(3):83-92

Effect of early referral to an endocrinologist on efficiency and cost of evaluation and development of treatment plan in patients with thyroid nodules. Ortiz R, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3803-7

Use of an E-mail curbside consultation service by family physicians. Bergus GR, et al. **J Fam Pract** 1998 Nov; 47(5):357-60

Transient discontinuity of care. Others seeing what we have missed [editorial] Tandeter HB, et al. **J Fam Pract** 1998 Dec;47(6):423-4

A case of managed care. Zimmerman JL. **J Fam Pract** 1999 Apr;48(4):311-2

Promoting primary care-subspecialist interaction through curbside consultations [letter; comment] Schulte M, et al. **J Gen Intern Med** 1999 Mar;14(3):207. Comment on: J Gen Intern Med 1998 Jul;13(7):435-8. Comment on: J Gen Intern Med 1998 Jul;13(7):497-8.

Analysis and impact of infectious disease consultations in a general hospital. Schlesinger Y, et al. **J Hosp Infect** 1998 Sep;40(1):39-46

Report from the front lines: rural Medicaid primary care providers as gatekeepers of rural health service networks. Butcher AH, et al. **J La State Med Soc** 1998 Aug; 150(8):372-83

Systems consultation and Head Start: an alternative to traditional family therapy. McDowell T. **J Marital Fam Ther** 1999 Apr;25(2):155-68

A keyword search system for medical doctors to introduce their patients to specialists. Hanada E, et al. **J Med Syst** 1999 Feb;23(1):73-6

504 referrals: an underutilized resource for students with special health care needs [editorial] Betz CL. **J Pediatr Nurs** 1998 Dec;13(6):329

Difference in outcome of twins between early and delayed referrals. Minakami H, et al. **J Perinat Med** 1998; 26(4):302-7

Factor-based prototypes of the Millon Adolescent Clinical Inventory in adolescents referred for residential treatment. Romm S, et al. **J Pers Assess** 1999 Feb;72(1):125-43

Health anxiety and characteristics of self-initiated general practitioner consultations. Conroy RM, et al. **J Psychosom Res** 1999 Jan;46(1):45-50

Detection and treatment of psychiatric illness in a general medical ward: a modified cost-benefit analysis [see comments] Gater RA, et al. **J Psychosom Res** 1998 Nov; 45(5):437-48. Comment in: J Psychosom Res 1998 Nov;45(5):433-6.

The lesson of Icarus [letter; comment] Levenson JL. **J Psychosom Res** 1998 Nov;45(5):433-6. Comment on: J Psychosom Res 1998 Nov;45(5):437-48.

Reducing waiting times in lung cancer. Deegan PC, et al. **J R Coll Physicians Lond** 1998 Jul-Aug;32(4):339-43

Computer-generated correspondence for patients attending an open-access chest pain clinic. Ray S, et al. **J R Coll Physicians Lond** 1998 Sep-Oct;32(5):420-1

Prospective evaluation of the potential role of teleradiology in acute interhospital trauma referrals. Kirkpatrick AW, et al. **J Trauma** 1999 Jun;46(6):1017-23

Travel health: perceptions and practices of travel consultants. Ivatts SL, et al. **J Travel Med** 1999 Jun;6(2):76-80

Factors influencing outcome in consultations for chronic pelvic pain. Selfe SA, et al. **J Womens Health** 1998 Oct; 7(8):1041-8

Curbside consultation and malpractice policies [letter; comment] Block MB. **JAMA** 1999 Mar 10;281(10):899. Comment on: JAMA 1998 Sep 9;280(10):905-9.

The origin, content, and workload of e-mail consultations [see comments] Borowitz SM, et al. **JAMA** 1998 Oct 21; 280(15):1321-4. Comment in: JAMA 1998 Oct 21;280(15):1361-2.

Responses to unsolicited patient e-mail requests for medical advice on the World Wide Web [see comments] Eysenbach G, et al. **JAMA** 1998 Oct 21;280(15):1333-5. Comment in: JAMA 1998 Oct 21;280(15):1361-2. Comment in: JAMA

1999 Aug 25;282(8):730–1.

Exploring the ethics of clinical role conflicts [letter; comment] Suchman AL. **JAMA** 1999 Jul 14;282(2):132–3 . Comment on: JAMA 1999 Jan 20;281(3):268–74.

Delay in diagnosis in breast cancer [letter; comment] Bentzen SM, et al. **Lancet** 1999 Jun 19;353(9170):2155–6. Comment on: Lancet 1999 Apr 3;353(9159):1112–3. Comment on: Lancet 1999 Apr 3;353(9159):1119–26. Comment on: Lancet 1999 Apr 3;353(9159):1132–5.

Concordancing: use of language-based research in medical communication. Skelton JR, et al. **Lancet** 1999 Jan 9; 353(9147):108–11

Evaluation of consultation-based rehabilitation for hospitalized cancer patients with functional impairment [see comments] Sabers SR, et al. **Mayo Clin Proc** 1999 Sep; 74(9):855–61. Comment in: Mayo Clin Proc 1999 Sep;74(9):939–40.

Recent medical evidence for torture and human rights abuse in Sierra Leone: a report for the Medical Foundation for the Care of Victims of Torture. Lawson M. **Med Confl Surviv** 1999 Jul–Sep;15(3):255–70

Why didn't our doctor tell us about hospice sooner? Martin EW. **Med Health R I** 1999 Feb;82(2):74–5

Lessons learned from an Internet GP information system. Briggs JS, et al. **Med Inform (Lond)** 1998 Jul–Sep; 23(3):245–52

Cardiology 7. Stable angina pectoris: treatment and referral options. McTaggart D. **Med J Aust** 1999 Jul 5;171(1):43–9 (18 ref.)

Design and development of a computer-based clinical referral system for use within a physician hospital organization. Sittig DF, et al. **Medinfo** 1998;9 Pt 1:98–102

Comparing the severity of obstructive sleep apnea in patients referred by urban and rural physicians. McCall WV, et al. **N C Med J** 1998 Nov–Dec;59(6):358–61

Nursing home placement is related to dementia progression: experience from a clinical trial. Alzheimer's Disease Cooperative Study. Knopman DS, et al. **Neurology** 1999 Mar 10;52(4):714–8

Listening and referring [letter] Miller KM. **Nurse Pract** 1999 May;24(5):20

Diagnosis and referral of Wilms' tumor. Pye S. **Nurse Pract** 1999 May;24(5):121–2, 127 (6 ref.)

Sudden hearing loss and the need for immediate referral [letter] Grossan M. **Otolaryngol Head Neck Surg** 1999 Jul; 121(1):166–7

Consultation with the specialist. Thrombocytopenia. Murphy S, et al. **Pediatr Rev** 1999 Feb;20(2):64–8; quiz 69 (5 ref.)

Ethical considerations in prenatal surgical consultation [see comments] Caniano DA, et al. **Pediatr Surg Int** 1999 Jul; 15(5–6):303–9 (21 ref.). Comment in: Pediatr Surg Int 1999 Jul;15(5–6):301–2.

Follow-up experience in pediatric liver transplantation in an academic, non-transplant-based gastroenterology group. Kessler B, et al. **Pediatr Transplant** 1999 Feb; 3(1):45–8

Pre end-stage renal disease care: opportunities and challenges [editorial] Mendelssohn DC. **Perit Dial Int** 1999 Mar–Apr; 19(2):113–4

New times, old words, new meanings [editorial] Goldwyn RM. **Plast Reconstr Surg** 1999 Apr;103(4):1312

"Dr. Yes, Dr. No, Dr. I'll Say Anything You Want Me To Say" [letter] Wendt JR. **Plast Reconstr Surg** 1999 Apr; 103(5):1544

Diabetes education makes a difference [letter] Warshaw H. **Postgrad Med** 1998 Oct;104(4):26

Consultation among physicians: conflict or complimentary purposes? [editorial] Abdallat AM. **Postgrad Med J** 1998 Sep;74(875):513–4

A patient with a complaint against a practice partner. Clarke E, et al. **Practitioner** 1999 Jun;243(1599):443, 446, 448–52

When should you refer in suspected endometriosis? [editorial] Hart R, et al. **Practitioner** 1998 Feb;242(1583):69

Breast disease: refer or a reassure? Saunders C, et al. **Practitioner** 1998 Mar;242(1584):216–9 (2 ref.)

Redefining the psychiatric referral [editorial] White E. **Practitioner** 1998 Jan;242(1582):5

Attitudes of AA contact persons toward group participation by persons with a mental illness. Meissen G, et al. **Psychiatr Serv** 1999 Aug;50(8):1079–81

Which patients talk about stressful life events and social problems to the general practitioner? Del Piccolo L, et al. **Psychol Med** 1998 Nov;28(6):1289–99

Teachers' personalities and students' behavior in referrals for special education. Hill RB, et al. **Psychol Rep** 1999 Apr; 84(2):491–3

Panic disorder patients and their medical care. Barsky AJ, et al. **Psychosomatics** 1999 Jan–Feb;40(1):50–6

Use of herbal medicines among C-L populations [letter; comment] Goldman LS. **Psychosomatics** 1998 Sep–Oct; 39(5):482. Comment on: Psychosomatics 1998 Jan–Feb;39(1):3–13.

An annotated bibliography for ethics training in consultation-liaison psychiatry. Preisman RC, et al. **Psychosomatics** 1999 Sep–Oct;40(5):369–79

The Delirium Rating Scale. Its use in consultation-liaison research. Trzepacz PT. **Psychosomatics** 1999 May–Jun; 40(3):193–204 (35 ref.)

Pharmacy approach to a case of acute diarrhoea with dehydration in Antalya, Turkey. Aktekin M, et al. **Public Health** 1998 Sep;112(5):323–6

Clinical importance of reinterpretation of body CT scans obtained elsewhere in patients referred for care at a tertiary cancer center. Gollub MJ, et al. **Radiology** 1999 Jan; 210(1):109–12

CT reinterpretation [letter] White TJ Jr. **Radiology** 1999 Aug; 212(2):601–2

Early intervention: it's the right thing to do! Mayo J. **S D J Med** 1999 Apr;52(4):127

Significant others of suicide attempters: their views at the time of the acute psychiatric consultation. Magne-Ingvar U, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb; 34(2):73–9

The referral process and urban health care in sub-Saharan Africa: the case of Lusaka, Zambia. Atkinson S, et al. **Soc Sci Med** 1999 Jul;49(1):27–38

Referral patterns for the evaluation of non-palpable breast abnormalities. Geller BM, et al. **South Med J** 1999 Sep; 92(9):886–92

Consultations for cervical smears in general practice: a missed opportunity for smoking cessation advice? [letter] Hobbs M, et al. **Tob Control** 1998 Summer;7(2):193–4

Obstetric care in southern Tanzania: does it reach those in need? Jahn A, et al. **Trop Med Int Health** 1998 Nov; 3(11):926–32

How patients use the web for second opinions. Patrick K. **West J Med** 1999 Jun;170(6):332–3 (5 ref.)

Assessment of satisfaction with the communication process during consultation of cancer patients with potentially curable disease, cancer patients on palliative care, and HIV-positive patients. Petrasch S, et al. **Wien Med Wochenschr** 1998;148(21):491–9

Deaths from cholera [letter; comment] Morley DC. **World Health Forum** 1998;19(4):430. Comment on: World Health Forum 1998;19(2):158.

[Psychiatric service in Denmark] Aagaard J, et al. **Ugeskr Laeger** 1999 Mar 8;161(10):1398–402 (Eng. Abstr.) **(Dan)**

[The young child with fever of unknown origin: diagnosis and management (letter)] Berger MY, et al. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1064; discussion 1064–5 **(Dut)**

[Sedation by non-anesthesiologists should be centralized for considerations of safety (comment)] Lycklama à Nijeholt-Hamstra EW, et al. **Ned Tijdschr Geneeskd** 1999 May 22;143(21):1077–9 (8 ref.) (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 May 22;143(21):1098–102. **(Dut)**

[First consultation with specialists for a child presenting with forelimb unilateral agenesis. Group for the Study and Research of Limb Agenesis (GERAM)] Bérard C, et al. **Arch Pediatr** 1998 Feb;5(2):190–3 (Eng. Abstr.) **(Fre)**

[The exam request seen by the radiologist, the report seen by the clinician] Dacher JN, et al. **J Radiol** 1999 Aug; 80(8):855–8 (Eng. Abstr.) **(Fre)**

[Approach to severe functional deficiencies: evaluating the efficacy of a special multidisciplinary consultation] Lapierre F, et al. **Neurochirurgie** 1998 Nov;44(4):287–91 (Eng. Abstr.) **(Fre)**

[Value of multidisciplinary consultation in diagnosis and survival of Marfan syndrome] Chevallier B, et al. **Presse Med** 1998 Sep 26;27(28):1424–6 (Eng. Abstr.) **(Fre)**

[Acute myocardial infarction. Experiences of the referral network of the Beaujon and Bichat hospitals (with the collaboration of the Emergency Medical and Resuscitation Service of Beaujon)] Logeart D, et al. **Presse Med** 1998 May 2–9;27(17):795–9 (Eng. Abstr.) **(Fre)**

[The psychosomatic dimension in internal medicine: from a practical attitude to a joint consultation (editorial)] Rousset H. **Rev Med Interne** 1998 Dec;19(12):865–6 **(Fre)**

[Concerning some important sexual problems] Van Cauwenberge JR. **Rev Med Liege** 1999 May;54(5):477–80 (Eng. Abstr.) **(Fre)**

[Diabetic retinopathy. When should patients be referred to ophthalmologists for evaluation?] Ducrey N. **Rev Med Suisse Romande** 1998 Nov;118(11):933–5 (7 ref.) **(Fre)**

[Violence our medical trauma in specialized multidisciplinary consultation] Albrecht E, et al. **Schweiz Rundsch Med Prax** 1999 Feb 11;88(7):280–4 (4 ref.) (Eng. Abstr.) **(Fre)**

[The evaluation of HepatoConsult, a hepatological expert system--the initial results and trends] Buscher HP, et al. **Dtsch Med Wochenschr** 1999 Aug 27;124(34–35):989–92 (Eng. Abstr.) **(Ger)**

[Physician referral versus self-referral for initial outpatient cardiological examination] Wagdi P, et al. **Dtsch Med Wochenschr** 1998 Nov 13;123(46):1367–71 (Eng. Abstr.) **(Ger)**

[Child and adolescent psychiatric services in the canton of Zurich: a comparison of outpatients, day clinic, and inpatient referral populations] von Aster M, et al. **Prax Kinderpsychol Kinderpsychiatr** 1998 Nov;47(9):668–82 (Eng. Abstr.) **(Ger)**

[Consultation psychiatry in a university clinic--from the viewpoint of psychoanalytic supervision work] Hoffmann K, et al. **Psychiatr Prax** 1998 Nov;25(6):279–83 (Eng. Abstr.) **(Ger)**

[Psychotherapy consultation service in a trauma hospital] Rossmanith S. **Wien Med Wochenschr** 1998; 148(15–16):370–3 (Eng. Abstr.) **(Ger)**

[Quality assurance regarding cooperation between general practitioners and psychiatric services] Spiessl H, et al. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):129–33 (Eng. Abstr.) **(Ger)**

[Urgent, unscheduled self-referrals by ambulatory patients] Vinker S, et al. **Harefuah** 1998 Aug;135(3–4):92–5, 168 (Eng. Abstr.) **(Heb)**

[Drug consultation for patients who present with symptoms like dementia] Ishiguro T, et al. **Gan To Kagaku Ryoho** 1998 Dec;25 Suppl 4:565–8 (Eng. Abstr.) **(Jpn)**

[Consultation service for efficacious usage of laboratory tests based on logical reasoning and evidence] Ishida H, et al. **Rinsho Byori** 1998 Oct;46(10):978–86 (Eng. Abstr.) **(Jpn)**

[Why medical consultation is needed in the clinical laboratory] Kawai T. **Rinsho Byori** 1998 Oct;46(10):972–7 (Eng. Abstr.) **(Jpn)**

[The perspective of a medical technologist] Ohsawa S. **Rinsho Byori** 1998 Oct;46(10):999–1002 (Eng. Abstr.) **(Jpn)**

[Consultation on laboratory information--from the perspectives of clinical pathologists and medical technologists] Shimetani N. **Rinsho Byori** 1998 Oct; 46(10):987–93 (Eng. Abstr.) **(Jpn)**

[Internet in consultation--headed for trouble?] Hjortdal P. **Nord Med** 1998 Dec;113(10):367–9 **(Nor)**

[Radiography of the lumbosacral spine--do the referrals conform to clinical recommendations?] Espeland A, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2219–23 (Eng. Abstr.) **(Nor)**

[Testing of a standard referral form in Sør-Trøndelag] Førre S, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2201–3 (Eng. Abstr.) **(Nor)**

[Communication between general practitioners and hospital interns at emergency admissions] Frihagen F, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2168–72 (Eng. Abstr.) **(Nor)**

["The consultation lab"--training clinical communication] Larsen JH, et al. **Tidsskr Nor Laegeforen** 1999 Jan 10; 119(1):52–5 (18 ref.) (Eng. Abstr.) **(Nor)**

[Sexualization in therapeutic relations] Sudmann T. **Tidsskr Nor Laegeforen** 1999 Jan 20;119(2):249–51 **(Nor)**

[Cooperation of a general practitioner and cardiological services] Usenko VI, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):41 **(Rus)**

[Experience in delivering ambulatory gynecological care at a consultative diagnostic center] Kartashov VT, et al. **Voen Med Zh** 1999 Jul;320(7):38–40, 96 (Eng. Abstr.) **(Rus)**

[Predictors of behavioural disorders and consultation-liaison psychiatry in patients with HIV disorders] Ochoa E, et al. **Actas Esp Psiquiatr** 1999 Mar–Apr;27(2):97–102 (Eng. Abstr.) **(Spa)**

[Demand of microbiological diagnosis by pediatricians from the Salamanca area] Mirón Canelo JA, et al. **An Esp Pediatr** 1999 May;50(5):463–6 (Eng. Abstr.) **(Spa)**

[Clinical and epidemiological analysis of 1,451 pediatric surgery consultations in a third level hospital referred from the primary health care sector] Vázquez Rueda F, et al. **An Esp Pediatr** 1998 Aug;49(2):129–34 (Eng. Abstr.) **(Spa)**

[Community-acquired pneumonia referred for hospital management. Its epidemiology and the diagnostic and therapeutic approaches] Carretero Gracia JA, et al. **Arch Bronconeumol** 1999 Jan;35(1):27–32 (Eng. Abstr.) **(Spa)**

[Counselling and the prescription of physical activity and their relation to the mountains] Drobnic Martínez F, et al. **Arch Bronconeumol** 1999 May;35 Suppl 3:45–8 **(Spa)**

[Study of referrals from primary care to mental health: What coincidence does exist between the reasons for the referral and the diagnosis of the specialist] García-Testal A, et al. **Aten Primaria** 1998 Sep 15;22(4):233–8 (Eng. Abstr.) **(Spa)**

[Why is an early referral to a consult with a nephrologist necessary for patients with diabetic nephropathy? (letter)] Gómez Campderá FJ, et al. **Aten Primaria** 1999 May 15; 23(8):503–4 **(Spa)**

[Is therapy with local infiltrations feasible in primary care consultations? (see comments)] Magaña Loarte JE, et al. **Aten Primaria** 1999 Jan;23(1):4–7 (Eng. Abstr.). Comment in: Aten Primaria 1999 Jun 30;24(2):118–9. **(Spa)**

[Therapeutic consultation: clinical pharmacology, knowledge update, and treatment individualization (editorial)] Arnau JM, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):417–8 **(Spa)**

[The usefulness of a nursing extra-hospital monographic consultation in the treatment of smoking habit (letter)] Ribas J, et al. **Med Clin (Barc)** 1999 Feb 6;112(4):157–8 **(Spa)**

[Analysis of the neurologic consultations in an oncologic hospital: contributions of neuro-oncology] Porta-Etessam J, et al. **Neurologia** 1999 Jun–Jul;14(6):266–74 (Eng. Abstr.) **(Spa)**

[Study of consultation in an Internal Medicine Department] Díaz Peromingo JA, et al. **Rev Clin Esp** 1999 Feb; 199(2):66–72 (Eng. Abstr.) **(Spa)**

[Polite expressions in requests for neurophysiological studies (letter)] Abad-Alegría F. **Rev Neurol** 1998 Nov; 27(159):875–6 **(Spa)**

[The referral of hospitalized patients with cerebrovascular pathology. Where, when and why. A cross-sectional multicenter study of the referral of patients with ischemia

and predisposing factors] Marta J, et al. **Rev Neurol** 1998 Sep;27(157):500–4 (Eng. Abstr.) **(Spa)**

[Experiences from a center for asylum-seeking persons: consultation is necessary to be able to cope] Ekblad S, et al. **Lakartidningen** 1999 Jun 2;96(22):2746–7 **(Swe)**

[Apropos of unsolicited medical intervention....] Kaltenbrunner H. **Lakartidningen** 1999 May 26;96(21):2640 **(Swe)**

[Better communication between primary health care providers and hospital physicians. The Danish health care consultation model] Eliasson G, et al. **Nord Med** 1998 Oct; 113(8):272–4 (Eng. Abstr.) **(Swe)**

CLASSIFICATION

The "pecking order" of new patients [editorial] Field LM. **Dermatol Surg** 1999 Jan;25(1):72

ECONOMICS

The cost-effectiveness of routine pathology consultation in knee arthroscopy. Kirkley A, et al. **Arthroscopy** 1998 Oct; 14(7):690–5

Are alternative funding plans a good idea? [letter; comment] Jacka MJ, et al. **CMAJ** 1999 Sep 7;161(5):485–6. Comment on: CMAJ 1999 Jun 15;160(12):1710–4.

Follow-up consultation billing and documentation. Kunkel EJ, et al. **Gen Hosp Psychiatry** 1999 May-Jun;21(3):197–208

Provider choice and use of mental health care: implications for gatekeeper models. Holmes AM, et al. **Health Serv Res** 1998 Dec;33(5 Pt 1):1263–84

Ethics by the numbers: monitoring physicians' integrity in managed care. Alexander E, et al. **J Clin Ethics** 1998 Fall; 9(3):297–305

Bioethics as commodity: does the exchange of money alter the nature of an ethics consultation? Elliott C. **J Nurs Adm** 1998 Oct;28(10):8, 12

Doctor discontent [letter; comment] Etter HS. **N Engl J Med** 1999 Feb 25;340(8):650; discussion 652–3. Comment on: N Engl J Med 1998 Nov 19;339(21):1516–21.

Effect of incentives on the use of indicated services in managed care. Pantilat SZ, et al. **West J Med** 1999 Mar; 170(3):137–42

[Departmental consulting pharmacists. Implementation cost for the Ulm Study] **Anaesthesist** 1999 Aug;48(8):571 **(Ger)**

[Check-up studies at an internal medicine polyclinic: reasons, diagnostic tests, results and therapeutic consequences] Osterwalder P, et al. **Schweiz Rundsch Med Prax** 1998 Dec 10;87(50):1735–40 (Eng. Abstr.) **(Ger)**

[Diagnostic costs of various symptoms and disease pictures] Tar BA, et al. **Schweiz Rundsch Med Prax** 1998 Dec 10; 87(50):1741–8 (Eng. Abstr.) **(Ger)**

HISTORY

"A deep fund of hatred and resentment": clinical encounters in eighteenth-century England. Payne LS. **Trans Stud Coll Physicians Phila** 1998 Dec;20:51–64

LEGISLATION & JURISPRUDENCE

The duty to disclose. Berlin L. **AJR Am J Roentgenol** 1998 Dec;171(6):1463–7

Reasonable care [letter; comment] Hajdu SI. **Am J Clin Pathol** 1999 Mar;111(3):426–7. Comment on: Am J Clin Pathol 1998 Jun;109(6):662–8.

Are you making illegal referrals? [news] Miller JN. **Binocul Vis Strabismus Q** 1999 Spring;14(1):61

Euthanasia consultants or facilitators? [editorial; comment] Hendin H. **Med J Aust** 1999 Apr 19;170(8):351–2. Comment on: Med J Aust 1999 Apr 19;170(8):360–3.

Competency evaluations on the consultation-liaison service. Some overt and covert aspects. Umapathy C, et al. **Psychosomatics** 1999 Jan-Feb;40(1):28–33

[Responsibility of the radiologist in bone radiology (editorial)] Freyschmidt J. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):1–4 **(Ger)**

[Legal malpractice-related aspects of consultation] Freyschmidt JC. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):4–6 **(Ger)**

[Rights and responsibilities of the radiologist in determining indications and applying radiologic procedures] Schunk K. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):7–15 (29 ref.) (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

Evaluation of two strategies for complying with state-mandated lead screening in the emergency department. Naussau-Suffolk Lead Committee, Naussau-Suffolk Lead Center. Orava S, et al. **Acad Emerg Med** 1999 Aug;6(8):849–51

Home health care [see comments] Montauk SL. **Am Fam Physician** 1998 Nov 1;58(7):1608–14 (9 ref.). Comment in: Am Fam Physician 1999 Jul;60(1):53–4.

Orthopedists are physicians, not surgical technicians [editorial] McGinty JB. **Am J Knee Surg** 1998 Summer; 11(3):149

Linking community-based blood pressure measurement to clinical care: a randomized controlled trial of outreach and tracking by community health workers. Krieger J, et al. **Am J Public Health** 1999 Jun;89(6):856–61

Defining the role of the consultant psychiatrist in a public mental health service [see comments] Boyce P, et al. **Aust N Z J Psychiatry** 1998 Oct;32(5):603–11; discussion 616. Comment in: Aust N Z J Psychiatry 1998 Oct;32(5):612–5.

Comment: 'devining' the role of the consultant psychiatrist in a public mental health service [see comments] Rosen A. **Aust N Z J Psychiatry** 1998 Oct;32(5):612–5. Comment in: Aust N Z J Psychiatry 1998 Oct;32(5):603–11; discussion 616.

Mental health consultant to law enforcement: Secret Service development of a Mental Health Liaison Program. Coggins MH, et al. **Behav Sci Law** 1998 Autumn;16(4):407–22

Barriers to referral in patients with angina: qualitative study. Gardner K, et al. **BMJ** 1999 Aug 14;319(7207):418–21

Direct referral day case oral surgery for dental practitioners: a pilot investigation [see comments] Renton T, et al. **Br Dent J** 1999 Apr 10;186(7):334–7. Comment in: Br Dent J 1999 Jun 12;186(11):543.

Consultation to pediatricians [letter] Pohl RL. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1129–30

A randomized clinical trial of outpatient comprehensive geriatric assessment coupled with an intervention to increase adherence to recommendations [see comments] Reuben DB, et al. **J Am Geriatr Soc** 1999 Mar;47(3):269–76 . Comment in: J Am Geriatr Soc 1999 Mar;47(3):371–2.

Principles of generalist-specialist relationships. Pearson SD. **J Gen Intern Med** 1999 Jan;14 Suppl 1:S13–20 (30 ref.)

The scope for the involvement of patients in their consultations with health professionals: rights, responsibilities and preferences of patients. Buetow S. **J Med Ethics** 1998 Aug;24(4):243–7 (53 ref.)

Legally blind veterans—the link between appropriate referral and the ability to cope. Miller HL Jr. **J Miss State Med Assoc** 1999 Feb;40(2):48–50

Triage of back pain by physiotherapists in orthopaedic clinics [letter; comment] Heyes-Moore GH. **J R Soc Med** 1998 Oct;91(10):560. Comment on: J R Soc Med 1998 Jul;91(7):377–9.

Post-take ward round in the department of medicine for the elderly [letter; comment] Jolobe OM. **J R Soc Med** 1998 Nov;91(11):612. Comment on: J R Soc Med 1998 Sep;91(9):471–4.

Primary care physicians should be coordinators, not gatekeepers. Bodenheimer T, et al. **JAMA** 1999 Jun 2; 281(21):2045–9

The arterial organ in cardiovascular disease: ADAPT (arterial disease assessment, prevention, and treatment) clinic. O'Brien E, et al. **Lancet** 1998 Nov 21; 352(9141):1700–2

Intelligent agent for collaborative diagnosis. Mulvihill C, et al. **Medinfo** 1998;9 Pt 1:232–6

Using web technology and Java mobile software agents to manage outside referrals. Murphy SN, et al. **Proc AMIA Symp** 1998;:101–5

Defending telepsychiatry [letter; comment] Szeftel R. **Psychiatr Serv** 1999 Feb;50(2):267–8. Comment on: Psychiatr Serv 1998 Oct;49(10):1287–90.

Haematuria clinic—a preliminary audit and considerations for a one-stop assessment centre. Tan PK, et al. **Singapore Med J** 1998 Nov;39(11):501–3

[The development consultation for children in whom the physician suspects a developmental disorder: early experiences in Maastricht] van der Linden-Kuiper L, et al. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1027–9 (Eng. Abstr.) **(Dut)**

[Hospitalization in the prison milieu. Postpenal consultations] Niveau G. **Rev Med Suisse Romande** 1999 Aug; 119(8):666–9 **(Fre)**

[Organization of patient intake at private dental institutions] Miniaev VA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):35–8 (Eng. Abstr.) **(Rus)**

STANDARDS

Continuity of care from acute to ambulatory care setting. Dvorak SR, et al. **Am J Health Syst Pharm** 1998 Dec 1; 55(23):2500–4

Evaluating consultation-liaison in general practice [letter; comment] Meadows G. **Aust N Z J Psychiatry** 1998 Oct; 32(5):728–30. Comment on: Aust N Z J Psychiatry 1997 Oct;31(5):714–25; discussion 726–7.

'Appropriateness of referral to urologists': can it be defined for symptoms of benign prostatic obstruction and used as a quality measure? Elwyn G, et al. **BJU Int** 1999 Feb; 83(3):238–42 (19 ref.)

Safety and effectiveness of nurse telephone consultation in out of hours primary care: randomised controlled trial. The South Wiltshire Out of Hours Project (SWOOP) Group [see comments] Lattimer V, et al. **BMJ** 1998 Oct 17; 317(7165):1054–9. Comment in: BMJ 1998 Oct 17;317(7165):1026–7. Comment in: BMJ 1999 Apr 24;318(7191):1137. Comment in: BMJ 1999 Apr 24;318(7191):1137–8.

Amendments to maintaining standards [letter] Bridgman AM. **Br Dent J** 1999 Jan 9;186(1):8–9

The identification of agreed criteria for referral following the dental inspection of children in the school setting [see comments] Milsom K, et al. **Br Dent J** 1999 Jan 9; 186(1):37–40. Comment in: Br Dent J 1999 Mar 27;186(6):263.

Appraisal of a standardised periodontal referral proforma. Snoad RJ, et al. **Br Dent J** 1999 Jul 10;187(1):42–6

Clinical audit of the process of referral to genitourinary medicine of patients found to be chlamydia positive in a family planning service. Tobin JM, et al. **Br J Fam Plann** 1999 Jan;24(4):160–3

A qualitative assessment of the referral system at district level in Zimbabwe: implications on efficiency and effective delivery of health services. Hongoro C, et al. **Cent Afr J Med** 1998 Apr;44(4):93–7

Referral for 'prostatism': developing a 'performance indicator' for the threshold between primary and secondary care? Elwyn GJ, et al. **Fam Pract** 1999 Apr;16(2):140–2

The evaluation of a consultation service for delivery of substance abuse services in a hospital setting. Barker SB, et al. **J Addict Dis** 1999;18(1):73–82

A labyrinth of connections: when the patient generates an analytic community. Hantman JG. **J Am Acad Psychoanal** 1999 Spring;27(1):73–89

Prevalence, predictors, and consequences of late nephrology referral at a tertiary care center. Arora P, et al. **J Am Soc Nephrol** 1999 Jun;10(6):1281–6

Moving the conversation forward. Aulisio MP, et al. **J Clin Ethics** 1999 Spring;10(1):49–56 (8 ref.)

Ethics consultants: could they do better? Howe EG. **J Clin Ethics** 1999 Spring;10(1):13–25 (23 ref.)

The application of the Task Force report in rural and frontier settings. Moss AH. **J Clin Ethics** 1999 Spring;10(1):42–8 (11 ref.)

Clinical ethics consultations: some reflections on the report of the SHHV-SBC. Pellegrino ED. **J Clin Ethics** 1999 Spring;10(1):5–12 (4 ref.)

Beyond case consultation: an expanded model for organizational ethics. Pentz RD. **J Clin Ethics** 1999 Spring; 10(1):34–41 (31 ref.)

The Task Force report: comprehensible forest or unknown beetles? Ross JW. **J Clin Ethics** 1999 Spring;10(1):26–33

Etiquette of medical consultations. Phaosavasdi S, et al. **J Med Assoc Thai** 1998 Oct;81(10):819–20

Commentary: recurrent headaches: making what works available to those who need it [comment] McGrath PJ. **J Pediatr Psychol** 1999 Apr;24(2):111–2. Comment on: J Pediatr Psychol 1999 Apr;24(2):91–109.

New report rejects accrediting of those who provide ethics consultation services [news] Phillips DF. **JAMA** 1999 Jun 2;281(21):1976

Medical implications of employee assistance programmes. Lloyd GG, et al. **Occup Med (Lond)** 1999 Apr;49(3):193–5

The importance that community pharmacists in Malta place on the introduction of pharmaceutical care. Cordina M, et al. **Pharm World Sci** 1999 Apr;21(2):69–73

Guidelines for prescribing psychiatrists in consultative, collaborative, and supervisory relationships. Sederer LI, et al. **Psychiatr Serv** 1998 Sep;49(9):1197–202

[Summary of the guideline 'Hearing impairement' from the Dutch College of General Practitioners. The Dutch College of General Practitioners (see comments)] Eekhof JA, et al. **Ned Tijdschr Geneeskd** 1998 Aug 8;142(32):1813–6 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Aug 8;142(32):1804–5. Comment in: Ned Tijdschr Geneeskd 1998 Aug 8;142(32):1806–7. Comment in: Ned Tijdschr Geneeskd 1998 Aug 8;142(32):1816–9. Comment in: Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2696. **(Dut)**

[Benign prostatic hyperplasia; recommendations for transmural care. Working Group, Dutch College of General Practitioners and Netherlands College of Urologists (see comments)] Klomp ML, et al. **Ned Tijdschr Geneeskd** 1998 Nov 21;142(47):2563–8 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2556–7. Comment in: Ned Tijdschr Geneeskd 1999 Feb 6;143(6):327. **(Dut)**

[Benign prostate hyperplasia; shared care reduces care load (comment)] Lycklama à Nijeholt AA. **Ned Tijdschr Geneeskd** 1998 Nov 21;142(47):2556–7 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2563–8. **(Dut)**

[Quality assurance of psychiatric consultations in somatic hospitals] Bille H, et al. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4213–5 (Eng. Abstr.) **(Nor)**

[Poor quality of referrals to the overweight-unit] Rössner S, et al. **Lakartidningen** 1999 Jan 27;96(4):364–5 **(Swe)**

STATISTICS & NUMERICAL DATA

Panorama of orbital space-occupying lesions. The 24-year experience of a referral centre. Seregard S, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):91–8

Pathways to mental health care among South African adolescents: analysis of referrals to an adolescent psychiatric unit. Berard RM, et al. **Adolescence** 1998 Summer;33(130):405–13

Referral patterns to a University-based cardiac rehabilitation program. Bittner V, et al. **Am J Cardiol** 1999 Jan 15; 83(2):252–5, A5

Delayed referral of black, Hispanic, and older patients with chronic renal failure. Ifudu O, et al. **Am J Kidney Dis** 1999 Apr;33(4):728–33

Response of consultants to the emergency department: a preliminary report. Vosk A. **Ann Emerg Med** 1998 Nov; 32(5):574–7

Prevalence and patterns of physician referral to clergy and pastoral care providers. Daaleman TP, et al. **Arch Fam Med** 1998 Nov-Dec;7(6):548–53

The pediatric primary-specialty care interface: how pediatricians refer children and adolescents to specialty care. Forrest CB, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):705–14

Evaluation of head injury in a pediatric emergency department: pretrauma and posttrauma system. Lavelle JM, et al. **Arch Pediatr Adolesc Med** 1998 Dec;152(12):1220–4

Decreasing length of stay after total joint arthroplasty: effect on referrals to rehabilitation units. Forrest GP, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):192–4

Factors involved in the diagnosis of oral squamous cell carcinoma in Malaysia. Khoo SP, et al. **Asia Pac J Public Health** 1998;10(1):49–51

Safety and effectiveness of nurse telephone consultation in out of hours primary care. Tolerance limits were too wide [letter; comment] Blackmore K, et al. **BMJ** 1999 Apr 24; 318(7191):1137–8. Comment on: BMJ 1998 Oct 17;317(7165):1054–9.

Effect on hospital attendance rates of giving patients a copy of their referral letter: randomised controlled trial. Hamilton W, et al. **BMJ** 1999 May 22;318(7195):1392–5

Safety and effectiveness of nurse telephone consultation in out of hours primary care. Two interventions were combined as one [letter; comment] Tanna V. **BMJ** 1999 Apr 24;318(7191):1137. Comment on: BMJ 1998 Oct 17;317(7165):1054–9.

Deprivation and emergency admissions for cancers. Social factors affect patterns of referral for breast cancer [letter; comment] Twelves CJ, et al. **BMJ** 1999 Jan 30; 318(7179):326. Comment on: BMJ 1998 Jul 25;317(7153):245–52.

Dual provision or duplication? A survey of family planning provision. Singleton CD, et al. **Br J Fam Plann** 1999 Jul; 25(2):41–4

Relationship between new and return consultations and workload in general practice [see comments] Bain J. **Br J Gen Pract** 1998 Dec;48(437):1855. Comment in: Br J Gen Pract 1999 Feb;49(439):146.

Relationship between practice counselling and referral to outpatient psychiatry and clinical psychology. Cape J, et al. **Br J Gen Pract** 1998 Aug;48(433):1477–80

The relationship between census-derived socio-economic variables and general practice consultation rates in three town centre practices. Carlisle R, et al. **Br J Gen Pract** 1998 Oct;48(435):1675–8

GP frequent consulters: their prevalence, natural history, and contribution to rising workload. Gill D, et al. **Br J Gen Pract** 1998 Dec;48(437):1856–7

Referral and diagnosis of common rheumatic diseases by primary care physicians. Gamez-Nava JI, et al. **Br J Rheumatol** 1998 Nov;37(11):1215–9

Access to an outpatient cardiology consultation in southwestern Ontario. Massel D. **Can J Cardiol** 1999 Aug; 15(8):879–83 **(Eng, Fre)**

Cardiac neoplasms at the Canadian Reference Centre for Cancer Pathology. Veinot JP, et al. **Can J Cardiol** 1999 Mar;15(3):311–9

The impact of primary mental health care in a prison system in Brazil. Taborda JG, et al. **Can J Psychiatry** 1999 Mar; 44(2):180–2

Cardiac disease distribution among patients referred for echocardiography in Harare, Zimbabwe. Hakim JG, et al. **Cent Afr J Med** 1998 Jun;44(6):140–4

Consultations at central hospitals: reasons and outcome of referrals from urban clinics in Bulawayo, Zimbabwe. Tshimanga M, et al. **Cent Afr J Med** 1998 May;44(5):121–5

Timing of referral for lung transplantation for cystic fibrosis: overemphasis on FEV1 may adversely affect overall survival. Doershuk CF, et al. **Chest** 1999 Mar;115(3):782–7

Psychiatric diagnosis among referred patients in Ghana. Turkson SN. **East Afr Med J** 1998 Jun;75(6):336–8

Referral patterns of family physicians may allow population-based incidence studies of childhood epilepsy. Nixon Speechley K, et al. **Epilepsia** 1999 Feb;40(2):225–31

Coercive and voluntary referrals: how ethnic minority adults get into mental health treatment. Takeuchi DT, et al. **Ethn Health** 1998 Aug;3(3):149–58

The National Breast Referral Guidelines have cut down inappropriate referrals in the under 50s. Cochrane RA, et al. **Eur J Surg Oncol** 1999 Jun;25(3):251–4

Breast problems in general practice: a time for re-assessment [editorial; comment] Fentiman IS. **Fam Pract** 1999 Aug; 16(4):333–4. Comment on: Fam Pract 1999 Aug;16(4):360–5.

Outreach clinics in Israel: a common but unregulated phenomenon. Nakar S, et al. **Fam Pract** 1999 Apr; 16(2):149–51

Saturday night fever? Reasons for referral from health centres to hospitals during weekends in Finland. Vehviläinen AT, et al. **Fam Pract** 1998 Dec;15(6):507–12

Who brings patients to the psychiatric emergency room? Psychosocial and psychiatric correlates. Dhossche DM, et al. **Gen Hosp Psychiatry** 1998 Jul;20(4):235–40

Sources of referral information: a marketing analysis of physician behavior. Powers TL, et al. **Health Care Manage Rev** 1998 Summer;23(3):76–86

General practitioners' referral thresholds and choices of referral destination: an experimental study. Earwicker SC, et al. **Health Econ** 1998 Dec;7(8):711–22

Referral rates and waiting lists: some empirical evidence. Goddard JA, et al. **Health Econ** 1998 Sep;7(6):545–9

Linking injection drug users to medical services: role of street outreach referrals. Greenberg JB, et al. **Health Soc Work** 1998 Nov;23(4):298–309

The characteristics of Indian subcontinent origin elders newly referred to a psychogeriatric service. Odutoye K, et al. **Int J Geriatr Psychiatry** 1999 Jun;14(6):446–53

Analysis of surgical referral patterns for endosseous dental implants. Meraw SJ, et al. **Int J Oral Maxillofac Implants** 1999 Mar–Apr;14(2):265–70

British Hyperbaric Association carbon monoxide database, 1993–96. Hamilton-Farrell MR. **J Accid Emerg Med** 1999 Mar;16(2):98–103

Doctor's assistants--do we need them? Law H, et al. **J Accid Emerg Med** 1999 Mar;16(2):114–6

Mental health service use among young children receiving pediatric primary care. Lavigne JV, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1175–83

The gatekeeper model is inefficient for the delivery of dermatologic services. Feldman SR, et al. **J Am Acad Dermatol** 1999 Mar;40(3):426–32

Pediatric admissions by family physicians and pediatricians in a semirural environment: implications for residency training. Bertolino JG, et al. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):128–32

Variation in periodontal referral in 2 regions in the UK. Linden GJ, et al. **J Clin Periodontol** 1999 Sep;26(9):590–5

Variation in periodontal referral by general dental practitioners. Linden GJ. **J Clin Periodontol** 1998 Aug; 25(8):655–61

Depression in the community: physician and patient perspective. Tylee A. **J Clin Psychiatry** 1999;60 Suppl 7:12–6; discussion 17–8 (53 ref.)

Linking clients from HIV antibody counseling and testing to prevention services. Marx R, et al. **J Community Health** 1999 Jun;24(3):201–14

Should hepatic resections be performed at high-volume referral centers? Choti MA, et al. **J Gastrointest Surg** 1998 Jan–Feb;2(1):11–20

Methods for analyzing referral patterns. Cowen ME, et al. **J Gen Intern Med** 1999 Aug;14(8):474–80

Effect of ambulatory utilization review on referrals from generalists to specialists. Grimm CT, et al. **J Gen Intern Med** 1998 Nov;13(11):778–80

The influence of gatekeeping and utilization review on patient satisfaction [see comments] Kerr EA, et al. **J Gen Intern Med** 1999 May;14(5):287–96. Comment in: J Gen Intern Med 1999 May;14(5):320–1.

Self-referral for screening mammography. Suter LG, et al. **J Gen Intern Med** 1998 Oct;13(10):710–3

Paediatricians: referral rates and speech pathology waiting lists. Keating D, et al. **J Paediatr Child Health** 1998 Oct; 34(5):451–5

Who needs a general physician? [see comments] Connor H. **J R Coll Physicians Lond** 1998 Nov-Dec;32(6):548–51. Comment in: J R Coll Physicians Lond 1999 Mar-Apr;33(2):191.

Unexpected deaths and referrals to intensive care of patients on general wards. Are some cases potentially avoidable? McGloin H, et al. **J R Coll Physicians Lond** 1999 May-Jun; 33(3):255–9

Assessment of an itinerant medical evaluation program for school dysfunction. Sandler AD. **J Sch Health** 1999 Apr; 69(4):140–4

Impact of screening MR angiography on referrals for percutaneous intervention in renovascular disease. Harvey RT, et al. **J Vasc Interv Radiol** 1999 May;10(5):559–64

Delays in stroke referrals [letter] Johnston F, et al. **Lancet** 1999 Jul 3;354(9172):47–8

Delay in diagnosis in breast cancer [letter; comment] Patel R, et al. **Lancet** 1999 Jun 19;353(9170):2154–5. Comment on: Lancet 1999 Apr 3;353(9159):1132–5.

Effect on survival of delays in referral of patients with breast-cancer symptoms: a retrospective analysis [see comments] Sainsbury R, et al. **Lancet** 1999 Apr 3; 353(9159):1132–5. Comment in: Lancet 1999 Apr 3;353(9159):1112–3. Comment in: Lancet 1999 Jun 19;353(9170):2154; discussion 2155. Comment in: Lancet 1999 Jun 19;353(9170):2154–5. Comment in: Lancet 1999 Jun 19;353(9170):2155–6.

Mental health attrition from Air Force basic military training. Cigrang JA, et al. **Mil Med** 1998 Dec;163(12):834–8

Race, sex, and physicians' referrals for cardiac catheterization [letter; comment] Davidoff F. **N Engl J Med** 1999 Jul 22; 341(4):285–7. Comment on: N Engl J Med 1999 Feb 25;340(8):618–26.

Race, sex, and physicians' referrals for cardiac catheterization [letter; comment] Helft G, et al. **N Engl J Med** 1999 Jul 22;341(4):285; discussion 286–7. Comment on: N Engl J Med 1999 Feb 25;340(8):618–26.

Misunderstandings about the effects of race and sex on physicians' referrals for cardiac catheterization [comment] Schwartz LM, et al. **N Engl J Med** 1999 Jul 22; 341(4):279–83; discussion 286–7. Comment on: N Engl J Med 1999 Feb 25;340(8):618–26.

Low-risk cardiac catheterization in a community hospital. Gruber T, et al. **N J Med** 1999 Sep;96(9):37–40

Do referring doctors and rheumatologists agree? [letter] Doube A. **N Z Med J** 1999 Aug 13;112(1093):304

Haemodialysis for end-stage renal disease in Southern India--a perspective from a tertiary referral care centre [news] Rao M, et al. **Nephrol Dial Transplant** 1998 Oct; 13(10):2494–500

Quality assurance of second opinion pathology in gynecologic oncology. Selman AE, et al. **Obstet Gynecol** 1999 Aug;94(2):302–6

Referral patterns, lesion prevalence, and patient care parameters in a clinical oral pathology practice. Haberland CM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):583–8

Neurologic consultations in children with systemic cancer. Antunes NL, et al. **Pediatr Neurol** 1999 Feb;20(2):121–4

Gatekeeping and referral of children and adolescents to specialty care. Forrest CB, et al. **Pediatrics** 1999 Jul;104(1 Pt 1):28–34

The referral pattern of end-stage renal disease patients and the initiation of dialysis: a European perspective. Van Biesen W, et al. **Perit Dial Int** 1999;19 Suppl 2:S273–5

Factors affecting engagement of dual diagnosis patients in outpatient treatment. Bogenschutz MP, et al. **Psychiatr Serv** 1998 Oct;49(10):1350–2

Improving access to family support organizations: a member survey of the AMI-Quebec Alliance for the Mentally Ill. Looper K, et al. **Psychiatr Serv** 1998 Nov;49(11):1491–2

General medical care for psychiatric patients. Tanielian TL, et al. **Psychiatr Serv** 1999 May;50(5):637

Attention-deficit/hyperactivity disorder: relations between prevalence rate and school district size, diagnostic method, and referral process. Daley CE, et al. **Psychol Rep** 1998 Oct;83(2):593–4

Physicians as gatekeepers: will they contribute to restrict disability benefits? Claussen B. **Scand J Prim Health Care** 1998 Dec;16(4):199–203

Dyspepsia in general practice in Denmark. A 1-year analysis of consulters in general practice. Meineche-Schmidt V, et al. **Scand J Prim Health Care** 1998 Dec;16(4):216–21

Discrepancies between the assessed urgency and the actual time taken to obtain a consultation with an internist. Vehviläinen AT, et al. **Scand J Prim Health Care** 1998 Jun;16(2):81–4

Patient referral outcome in gonorrhoea and chlamydial infections. van Duynhoven YT, et al. **Sex Transm Infect** 1998 Oct;74(5):323–30

Consultation length and case mix in a general practice clinic. Voo YO. **Singapore Med J** 1999 Jan;40(1):13–7

Mental disorders and referrals to mental health specialists by general practitioners. Sørgaard KW, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Mar;34(3):128–35

South Florida survey on the relationship between academic medical centers and community physicians. Baumann LS, et al. **South Med J** 1999 Jul;92(7):673–6

[Elderly patients during an ambulatory neurological consultation] Regli F, et al. **Rev Med Suisse Romande** 1998 Nov;118(11):963–8 **(Fre)**

[The evaluation of HepatoConsult, a hepatological expert system--the initial results and trends] Buscher HP, et al. **Dtsch Med Wochenschr** 1999 Aug 27;124(34–35):989–92 (Eng. Abstr.) **(Ger)**

[Utilization of general (monitoring) practices based on environmental medicine problems] Dunkelberg S, et al. **Gesundheitswesen** 1998 Dec;60(12):742–8 (Eng. Abstr.) **(Ger)**

[Interval between initial symptoms and first treatment in patients with head-neck tumors] Koscielny S, et al. **HNO** 1999 Jun;47(6):551–5 (Eng. Abstr.) **(Ger)**

[Analysis of referral diagnoses of patients with normal coronary angiogram] Kirchgatterer A, et al. **Wien Klin Wochenschr** 1999 Jun 4;111(11):434–8 (Eng. Abstr.) **(Ger)**

[Guidelines for headaches and dizziness for general physicians: analysis of their impact on visit frequency to outpatient neurological ambulatory services] de Toledo M, et al. **Neurologia** 1999 Mar;14(3):102–6 (Eng. Abstr.) **(Spa)**

TRENDS

Rereading the tea leaves [editorial] Joel LA. **Am J Nurs** 1998 Nov;98(11):7

Early referral, diagnosis, and treatment of rheumatoid arthritis: evidence for changing medical practice. Irvine S, et al. **Ann Rheum Dis** 1999 Aug;58(8):510–3

Changes in the referral pattern of child patients from the GDS to the CDS following the introduction of capitation in October 1990. General Dental Services. Community Dental Services. Cooke L, et al. **Br Dent J** 1998 Dec 12–26; 185(11–12):586–90

Cytopathology in the 21st century: a medical consultation or a laboratory test? [letter] Shane JJ. **Cancer** 1999 Feb 25;87(1):43–4

Why a Dermatologic Consultation?[Editorial] Perry HO. **Cutis** 1999 Jun;63(6):316

The changing pattern of glaucoma referrals by optometrists. Vernon SA. **Eye** 1998;12 (Pt 5):854–7

Changes in referral to speech and language therapy. Enderby P, et al. **Int J Lang Commun Disord** 1998;33 Suppl:16–20

Referral patterns between primary care and genitourinary medicine. Champion JK, et al. **Int J STD AIDS** 1999 Feb; 10(2):121–3

Changes in referral practice, workload, and operative mortality after establishment of an endovascular abdominal aortic aneurysm program. Boyle JR, et al. **J Endovasc Surg** 1998 Aug;5(3):201–5

REFERRAL AND CONSULTATION

UTILIZATION

Patient presentation at medical practices with dental problems: an analysis of the 1996 General Practice Morbidity Database for Wales. Anderson R, et al. **Br Dent J** 1999 Mar 27;186(6):297–300

The presentation and management of female breast symptoms in general practice in Sheffield [see comments] Newton P, et al. **Fam Pract** 1999 Aug;16(4):360–5. Comment in: Fam Pract 1999 Aug;16(4):333–4.

Who gets second opinions? Wagner TH, et al. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):137–45

Referral rates and waiting lists: some empirical evidence. Goddard JA, et al. **Health Econ** 1998 Sep;7(6):545–9

Variations in primary care physician referral rates. Franks P, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):323–9

Medicare physician referral patterns. Shea D, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):331–48

Referrals for depression by primary care physicians. A pilot study. Little DN, et al. **J Fam Pract** 1998 Nov;47(5):375–7

Reasons for outpatient referrals from generalists to specialists [see comments] Donohoe MT, et al. **J Gen Intern Med** 1999 May;14(5):281–6. Comment in: J Gen Intern Med 1999 May;14(5):320–1.

The good (gatekeeper), the bad (gatekeeper), and the ugly (situation) [editorial; comment] Laine C, et al. **J Gen Intern Med** 1999 May;14(5):320–1 (17 ref.). Comment on: J Gen Intern Med 1999 May;14(5):281–6. Comment on: J Gen Intern Med 1999 May;14(5):287–96.

Psychological services utilization: relationship to severity of behaviour problems in intellectual disability services. Jacobson JW. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):307–15

Healthcare utilization and referral patterns in the initial management of new-onset, uncomplicated, low back workers' compensation disability claims. Tacci JA, et al. **J Occup Environ Med** 1998 Nov;40(11):958–63

A 12-month profile of community paediatric consultations in the Barwon region [see comments] Hewson PH, et al. **J Paediatr Child Health** 1999 Feb;35(1):16–22. Comment in: J Paediatr Child Health 1999 Feb;35(1):4–5.

Resolving the gatekeeper conundrum: what patients value in primary care and referrals to specialists. Grumbach K, et al. **JAMA** 1999 Jul 21;282(3):261–6

Consultants in cases of intended euthanasia or assisted suicide in The Netherlands [see comments] Onwuteaka-Philipsen BD, et al. **Med J Aust** 1999 Apr 19;170(8):360–3. Comment in: Med J Aust 1999 Apr 19;170(8):351–2.

The effect of a teledermatology program on rural referral patterns to dermatologists and the management of skin disease. Perednia DA, et al. **Medinfo** 1998;9 Pt 1:290–3

Out-of-hours utilization in primary and secondary care. A favourable experience in a Finnish health centre. Toivanen A, et al. **Scand J Prim Health Care** 1998 Jun;16(2):72–5

Variation in referring newborns to special care in Finland. Hemminki E, et al. **Scand J Public Health** 1999 Jun; 27(2):124–7

Drinking problems load health centre hospitals in Finland. Vehviläinen AT, et al. **Scand J Public Health** 1999 Jun; 27(2):143–7

HMO physicians' use of referrals. Bachman KH, et al. **Soc Sci Med** 1999 Feb;48(4):547–57

[Neurologic consultation practice in a general hospital of a rural area] Welter FL, et al. **Nervenarzt** 1998 Oct; 69(10):879–85 (Eng. Abstr.) **(Ger)**

[Active laboratory consultation for the clinical supporting system in the general hospital] Kuwajima M. **Rinsho Byori** 1998 Oct;46(10):994–8 (Eng. Abstr.) **(Jpn)**

[The rate of consultation for dental care by middle-aged and elderly subjects] Borisova EN, et al. **Stomatologiia (Mosk)** 1999;78(3):58–60 (Eng. Abstr.) **(Rus)**

[The pediatric prescription according to its origin and the motive for the consultation in a basic rural health area] Pérez MT, et al. **Aten Primaria** 1999 May 31;23(9):515–9 (Eng. Abstr.) **(Spa)**

REFETOFF SYNDROME see **THYROID HORMONE RESISTANCE SYNDROME**

REFLEX

Childbirth preparation through hypnosis: the hypnoreflexogenous protocol. Schauble PG, et al. **Am J Clin Hypn** 1998 Apr;40(4):273–83

Laryngopharyngeal sensory discrimination testing and the laryngeal adductor reflex. Aviv JE, et al. **Ann Otol Rhinol Laryngol** 1999 Aug;108(8):725–30

Surgical stress attenuates reflex heart rate response to hypotension. Kohno N, et al. **Can J Anaesth** 1998 Aug; 45(8):746–52

Clinical significance of cough as a defense mechanism or a symptom in elderly patients with aspiration and diffuse aspiration bronchiolitis [letter; comment] Teramoto S, et al. **Chest** 1999 Feb;115(2):602–3. Comment on: Chest 1998 Aug;114(2 Suppl Managing):133S–181S.

How the neonatal rat gets to the nipple. II. Changes during development. Eilam D, et al. **Dev Psychobiol** 1999 Apr; 34(3):217–26

Temporal changes in airway protective reflexes elicited by an endotracheal tube in surgical patients anaesthetized with sevoflurane. Hasegawa R, et al. **Eur J Anaesthesiol** 1999 Feb;16(2):98–102

Recognition of a gastroesophageal reflex in dogs and its role in lower esophageal sphincter competence. Shafik A. **Eur Surg Res** 1998;30(5):352–8

Arterial baroreflex control of the sinus node during dobutamine exercise stress testing. van de Borne P, et al. **Hypertension** 1999 Apr;33(4):987–91

System identification of tendon reflex dynamics. Zhang LQ, et al. **IEEE Trans Rehabil Eng** 1999 Jun;7(2):193–203

The somatosensory system of the neck and its effects on the central nervous system. Bolton PS. **J Manipulative Physiol Ther** 1998 Oct;21(8):553–63 (84 ref.)

A comparison of newborns' NBAS reflex responses using total and individual scores. Neonatal Behavioral Assessment Scale. Pressler JL, et al. **J Nurs Meas** 1998 Winter;6(2):123–36

Esophageal stents may interfere with the swallowing reflex: an illustrative case history. Lee A, et al. **J Pain Symptom Manage** 1998 Oct;16(4):254–8

Shock after blast wave injury is caused by a vagally mediated reflex. Irwin RJ, et al. **J Trauma** 1999 Jul;47(1):105–10

"Skin–CNS–bladder" reflex pathway for micturition after spinal cord injury and its underlying mechanisms. Xiao CG, et al. **J Urol** 1999 Sep;162(3 Pt 1):936–42

Fractioned reflex and reaction time in children with developmental coordination disorder. Raynor AJ. **Motor Control** 1998 Apr;2(2):114–24

Effects of changes in ambient temperature on the Hering–Breüer reflex of the conscious newborn rat. Merazzi D, et al. **Pediatr Res** 1999 Mar;45(3):370–6

Why the prone position is a risk factor for sudden infant death syndrome. Jeffery HE, et al. **Pediatrics** 1999 Aug; 104(2 Pt 1):263–9

Golden tapetal-like fundus reflex and posterior hyaloid in a patient with x-linked juvenile retinoschisis. Miyake Y, et al. **Retina** 1999;19(1):84–6

[Two cases in which the presence of ciliospinal response led to indecisiveness in the evaluation of brain death] Ikeda H, et al. **No To Shinkei** 1999 Feb;51(2):161–6 (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

The influence of the concentration of volatile anesthetics on the stapedius reflex determined intraoperatively during cochlear implantation in children. Makhdoum MJ, et al. **Am J Otol** 1998 Sep;19(5):598–603

Effect of capsaicin on the micturition reflex in normal and chronic spinal cord–injured cats. Cheng CL, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R786–94

Reflex pressor response to arterial phenylbiguanide: role of abdominal sympathetic visceral afferents. Fu LW, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2025–35

Chronic central infusion of ANG II potentiates cardiac sympathetic afferent reflex in dogs. Ma R, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H15–22

Effects of NMDA receptor antagonists on nociceptive responses in vivo: comparison of antagonists acting at the glycine site with uncompetitive antagonists. McClean M, et al. **Amino Acids** 1998;14(1–3):217–21

Acetazolamide and amiloride inhibit pentobarbital-induced facilitation of nocifensive reflexes. Archer DP, et al. **Anesthesiology** 1999 Apr;90(4):1158–64

Skin vasomotor reflex as a measure of depth of anesthesia [letter; comment] Ezri T, et al. **Anesthesiology** 1998 Nov; 89(5):1281–2. Comment on: Anesthesiology 1998 Feb;88(2):297–304.

Specific actions of halothane, isoflurane, and desflurane on sympathetic activity and A delta and C somatosympathetic reflexes recorded in renal nerves in dogs. Pac-Soo CK, et al. **Anesthesiology** 1999 Aug;91(2):470–8

Sex differences in morphine-induced ventilatory depression reside within the peripheral chemoreflex loop. Sarton E, et al. **Anesthesiology** 1999 May;90(5):1329–38

Effect of intravenous substance P on laryngeal adductor activity in young dogs. Bauman NM, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):112–8

Propofol, bradycardia and the Bezold-Jarisch reflex in rabbits. Ma D, et al. **Br J Anaesth** 1999 Mar;82(3):412–7

The inhibitory effect of nociceptin on the micturition reflex in anaesthetized rats. Giuliani S, et al. **Br J Pharmacol** 1998 Aug;124(7):1566–72

The NSAID dexketoprofen trometamol is as potent as mu-opioids in the depression of wind-up and spinal cord nociceptive reflexes in normal rats. Mazario J, et al. **Brain Res** 1999 Jan 23;816(2):512–7

Modification of the effect of diazepam on the propofol-induced loss of the righting reflex in mice by diabetes. Ohsawa M, et al. **Brain Res** 1999 Jul 3; 833(2):282–5

The effect of intrathecal selective agonists of Y1 and Y2 neuropeptide Y receptors on the flexor reflex in normal and axotomized rats. Xu IS, et al. **Brain Res** 1999 Jul 3; 833(2):251–7

Effect of interleukin-1beta on the ascending and descending reflex in rat small intestine. Hahn A, et al. **Eur J Pharmacol** 1998 Oct 23;359(2–3):201–9

Effects of moguisteine on the cough reflex induced by afferent electrical stimulation of the superior laryngeal nerve in guinea pigs. Ishii R, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):207–12

Peripherally administered insulin-like growth factor-I preserves hindlimb reflex and spinal cord noradrenergic circuitry following a central nervous system lesion in rats. Pulford BE, et al. **Exp Neurol** 1999 Sep;159(1):114–23

The effect of paracetamol on peritoneal reflex after single and multiple grapefruit ingestion. Samojlik I, et al. **Exp Toxicol Pathol** 1999 Jul;51(4–5):418–20

Correlation between degree of inhibition of parasympathetic reflex vasodilation and MAC value for various inhalation anesthetics. Izumi H, et al. **Gen Pharmacol** 1999 Jun; 32(6):689–93

Central adrenomedullin augments the baroreceptor reflex in conscious rabbits. Matsumura K, et al. **Hypertension** 1999 Apr;33(4):992–7

Intracerebroventricular injection of capsaicin or substance P provokes the micturition reflex in the rat. Dib B, et al. **Int J Tissue React** 1998;20(4):109–14

Reflex control of cutaneous vasoconstrictor system is reset by exogenous female reproductive hormones. Charkoudian N, et al. **J Appl Physiol** 1999 Jul;87(1):381–5

Methacholine causes reflex bronchoconstriction. Wagner EM, et al. **J Appl Physiol** 1999 Jan;86(1):294–7

Effect of zafirlukast on cough reflex sensitivity in asthmatics. Dicpinigaitis PV, et al. **J Asthma** 1999 May;36(3):265–70

Dilatation of subcutaneous perforating blood vessels associated with capsaicin-induced cutaneous axon reflex: demonstration with subtraction thermography. Takahashi Y, et al. **J Auton Nerv Syst** 1999 Feb 15;75(2–3):87–92

Recovery of the vestibulocolic reflex after aminoglycoside ototoxicity in domestic chickens. Goode CT, et al. **J Neurophysiol** 1999 Mar;81(3):1025–35

Force of limb withdrawals elicited by graded noxious heat compared with other behavioral measures of carrageenan-induced hyperalgesia and allodynia. Tabo E, et al. **J Neurosci Methods** 1998 Jun 1;81(1–2):139–49

Effects of ZD6169, a K(ATP) channel opener, on the micturition reflex in the rat. Yu Y, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):825–31

Involvement of spinal NK1 and opioids receptors in modulating the inhibitory effect of capsaicin on micturition reflex in the acute spinalized guinea pig. Palea S, et al. **J Urol** 1999 Mar;161(3):998–1005

The posterior nasal nerve plays an important role on cardiopulmonary reflexes to nasal application of capsaicin, distilled water and l-menthol in anesthetized dogs. Kanamaru A, et al. **J Vet Med Sci** 1999 Jan;61(1):85–8

The effect of intrathecal neuropeptide Y on the flexor reflex in rats after carrageenan-induced inflammation. Xu IS, et al. **Neuropeptides** 1998 Oct;32(5):447–52

Reflex effects from leptin sensors in the white adipose tissue of the epididymis to the efferent activity of the sympathetic and vagus nerve in the rat. Niijima A. **Neurosci Lett** 1999 Mar 5;262(2):125–8

The non-competitive N-methyl-D-aspartate-antagonist memantine does not affect segmental mono- and polysynaptic reflexes in man. Schepelmann K, et al. **Neurosci Lett** 1998 Dec 4;257(3):159–61

The effects of morphine on supraspinal and propriospinal somatocardiac reflexes in anesthetized rats. Uchida S, et al. **Neurosci Lett** 1999 Jul 16;269(3):161–4

Inhibitory effects of 5-hydroxytryptamine microinjection into thalamic nucleus submedius on rat tail flick reflex are mediated by 5-HT2 receptors. Xiao DQ, et al. **Neurosci Lett** 1999 Jan 29;260(2):85–8

Comparative analysis of L-DOPA actions on nociceptive and non-nociceptive spinal reflex pathways in the cat. Schomburg ED, et al. **Neurosci Res** 1998 Aug;31(4):307–16

A capsaicin-receptor antagonist, capsazepine, reduces inflammation-induced hyperalgesic responses in the rat: evidence for an endogenous capsaicin-like substance. Kwak JY, et al. **Neuroscience** 1998 Sep;86(2):619–26

Modulation of cholinergic transmission in the neuronal network of the gill and siphon withdrawal reflex in Aplysia. Storozhuk M, et al. **Neuroscience** 1999 Apr;90(1):291–301

Effects of N-methyl-D-aspartate (dizocilpine) and alpha-amino-3-hydroxy-4-isoxazolepropionate (LY215490) receptor antagonists on the voiding reflex induced by perineal stimulation in the neonatal rat. Yoshiyama M, et al. **Neuroscience** 1999;90(4):1415–20

The photic sneeze reflex and ocular anesthesia. Wessels IF, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):208–11

Effect of intravenous calcitonin gene-related peptide antagonist on the laryngeal chemoreflex in piglets. Bauman NM, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):1–6

Nefopam strongly depresses the nociceptive flexion (R(III)) reflex in humans. Guirimand F, et al. **Pain** 1999 Mar; 80(1–2):399–404

Differential effects of N-methyl-D-aspartate receptor blockade on nociceptive somatic and visceral reflexes. Olivar T, et al. **Pain** 1999 Jan;79(1):67–73

The traditional Chinese medicine banxia houpo tang improves swallowing reflex. Iwasaki K, et al. **Phytomedicine** 1999 May;6(2):103–6

Central-amygdaloid carbachol suppressed nociceptive jaw opening reflex in freely moving rats. Ahn DK, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):685–95

Effect of 5-HT2 receptor antagonists on a cranial nerve reflex in the rabbit: evidence for inverse agonism. Harvey JA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):162–8

Chemoreflex thresholds to CO2 in decerebrate cats. Iscoe S, et al. **Respir Physiol** 1998 Jul;113(1):1–10

Effects of volatile anesthetics on vagal C-fiber activities and their reflexes in anesthetized dogs. Mutoh T, et al. **Respir Physiol** 1998 Jun;112(3):253–64

Enhancement of CNS activity by thiopentone: comparison of nocifensive reflexes with hippocampal EEG. Archer DP, et al. **Toxicol Lett** 1998 Nov 23;100-101:85-8

[Actions of drugs affecting the cough reflex] Nosálová G. **Bratisl Lek Listy** 1998 Oct;99(10):531-5 (Eng. Abstr.) **(Slo)**

IMMUNOLOGY

Neural hyperresponsiveness and nerve growth factor in allergic rhinitis. Sanico AM, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):154-8

PHYSIOLOGY

Nasonasal reflex mechanisms in anaesthetized dogs. Lacroix JS, et al. **Acta Otolaryngol (Stockh)** 1999 Mar;119(2):249-56

Asymmetry of the laryngeal reflex responses to superior laryngeal nerve stimulation unrelated to the length of the recurrent nerves in the porcine model. Roubeau B, et al. **Acta Otolaryngol (Stockh)** 1998 Nov;118(6):882-6

Convergence of nociceptive and non-nociceptive inputs onto spinal reflex pathways to the tibialis anterior muscle in humans. Ellrich J, et al. **Acta Physiol Scand** 1998 Aug; 163(4):391-401

Jaw reflexes in healthy old people. Kossioni AE, et al. **Age Ageing** 1998 Nov;27(6):689-95

Correlation between electromyographic reflex and MR imaging examinations of the trigeminal nerve. Majoie CB, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1119-25

Baroreflex and non-baroreflex modulation of vagal cardiac control after myocardial infarction. Grassi G, et al. **Am J Cardiol** 1999 Sep 1;84(5):525-9

The effects of biofeedback on rectal sensation and distal colonic motility in patients with disorders of rectal evacuation: evidence of an inhibitory rectocolonic reflex in humans? Mollen RM, et al. **Am J Gastroenterol** 1999 Mar;94(3):751-6

Role of the calices in urine flow with characterization of a caliceopelvic sphincter and reflex. Shafik A. **Am J Nephrol** 1998;18(6):478-84

Activation of GABAA but not GABAB receptors in the NTSblocked bradycardia of chemoreflex in awake rats. Callera JC, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1902-10

Naloxone reverses inhibitory effect of electroacupuncture on sympathetic cardiovascular reflex responses. Chao DM, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2127-34

Altered reflex control of cutaneous circulation by female sex steroids is independent of prostaglandins. Charkoudian N, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1634-40

Activation of neuronal adenosine A1 receptors suppresses secretory reflexes in the guinea pig colon. Cooke HJ, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G451-62

Basal pressure patterns and reflexive motor responses in the human ileocolonic junction. Dinning PG, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G331-40

Reflex vascular responses in the anesthetized dog to large rapid changes in carotid sinus pressure. Doe CP, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1169-77

Sympathoexcitatory neurotransmission of the chemoreflex in the NTS of awake rats. Haibara AS, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R69-80

Arterial chemoreflex in conscious normotensive and hypertensive adult rats. Hayward LF, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1215-22

Patterning of somatosympathetic reflexes. Kerman IA, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R716-24

Characterization and mechanisms of the pharyngoesophageal inhibitory reflex. Lang IM, et al. **Am J Physiol** 1998 Nov; 275(5 Pt 1):G1127-36

Does gender influence the strength and mechanisms of the muscle metaboreflex during dynamic exercise in dogs? Laprad SL, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1203-8

Glutamatergic projection to RVLM mediates suppression of reflex bradycardia by parabrachial nucleus. Len WB, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1482-92

Reduced NO enhances the central gain of cardiac sympathetic afferent reflex in dogs with heart failure. Ma R, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H19-26

Volume-evoked micturition reflex is mediated by the ventrolateral periaqueductal gray in anesthetized rats. Matsuura S, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2049-55

Muscle metaboreflex improves O2 delivery to ischemic active skeletal muscle. O'Leary DS, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):H1399-403

Ischemic muscle chemoreflex response elevates blood flow in nonischemic exercising human forearm muscle. Tschakovsky ME, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H635-42

Pressor reflex evoked by static muscle contraction: role of nitric oxide in the dorsal horn. Wilson LB, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1639-46

Cough reflex sensitivity in subjects with cervical spinal cord injury. Dicpinigaitis PV, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1660-2

The exercise pressor reflex and changes in radial arterial pressure and heart rate during walking in patients with arteriosclerosis obliterans. Baccelli G, et al. **Angiology** 1999 May;50(5):361-74

Moxonidine acting centrally inhibits airway reflex responses. Haxhiu MA, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:372-82

The stumbling correction reaction during fictive locomotion in the cat. McCrea D, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:502-4

Neuronal basis of afferent-evoked enhancement of locomotor activity. McCrea DA. **Ann N Y Acad Sci** 1998 Nov 16; 860:216-25 (38 ref.)

Effect of sleep state on the laryngeal chemoreflex in neonatal piglets. Cleland-Zamudio SS, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):309-13

Prolonged sympathetic reflex latency on skin nerves in sporadic cerebellar degeneration. Shindo K, et al. **Arch Neurol** 1999 Apr;56(4):462-6

Ligament-muscle reflex arc after anterior cruciate ligament reconstruction: electromyographic evaluation. Biedert RM, et al. **Arch Orthop Trauma Surg** 1998;118(1-2):81-4

Short-latency EMG potentials elicited by head taps in sternocleidomastoid muscles: a study on normal human subjects and patients with central or vestibular lesions. Iida M. **Auris Nasus Larynx** 1998 Dec;25(4):355-9

The optokinetic cervico reflex during simulated helicopter flight. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1166-73

Sexual behavior and wet dog shakes in the male rat: regulation by corticosterone. Gorzalka BB, et al. **Behav Brain Res** 1998 Dec;97(1-2):143-51

Role of acoustic striae in hearing: reflexive responses to elevated sound-sources. Sutherland DP, et al. **Behav Brain Res** 1998 Dec;97(1-2):1-12

A distributed control model for the air-righting reflex of a cat. Arabyan A, et al. **Biol Cybern** 1998 Nov; 79(5):393-401

Importance of the blood pressure-heart rate relationship. Folkow B, et al. **Blood Press** 1998 May;7(3):133-8 (30 ref.)

Trigeminal nerve ganglion stimulation-induced neurovascular reflexes in the anaesthetized cat: role of endothelin(B) receptors in carotid vasodilatation. Raval P, et al. **Br J Pharmacol** 1999 Jan;126(2):485-93

Impaired modulation of quadriceps tendon jerk reflex during spastic gait: differences between spinal and cerebral lesions. Faist M, et al. **Brain** 1999 Mar;122 (Pt 3):567-79

Abnormal development of biceps brachii phasic stretch reflex and persistence of short latency heteronymous reflexes from biceps to triceps brachii in spastic cerebral palsy. O'Sullivan MC, et al. **Brain** 1998 Dec;121 (Pt 12):2381-95

Moro reflex profile in high-risk infants at the first year of life [letter] Zafeiriou DI, et al. **Brain Dev** 1999 Apr; 21(3):216-7

Evidence for medullary projections of the intercostal nerve-elicited inspiratory termination. Anderson MK, et al. **Brain Res** 1999 Jun 12;831(1-2):306-10

Non-nociceptive capsaicin-sensitive nerve terminal stimulation allows for an original vasodilatory reflex in the human skin. Fromy B, et al. **Brain Res** 1998 Nov 16; 811(1-2):166-8

The effects of antidromic discharges on orthodromic firing of primary afferents in the cat. Gossard JP, et al. **Brain Res** 1999 Apr 17;825(1-2):132-45

Effects of chronic lesions of the anteroventral third ventricle region on baroreceptor reflex function in conscious rats. Lewis SJ, et al. **Brain Res** 1999 Jul 24;835(2):330-3

Reflexes elicited from cutaneous and mucosal trigeminal afferents in normal human subjects. Maisonobe T, et al. **Brain Res** 1998 Nov 9;810(1-2):220-8

Adaptive fusimotor reflex control in the decerebrate cat. Murphy PR. **Brain Res** 1999 Mar 6;821(1):38-49

Transcranial electrical stimulation (Limoge's currents) potentiates the inhibition of righting reflex induced by droperidol in rats. Robert C, et al. **Brain Res** 1999 Mar 20;822(1-2):132-41

The caudal subnucleus caudalis (medullary dorsal horn) acts as an interneuronal relay site in craniofacial nociceptive reflex activity. Tsai C. **Brain Res** 1999 May 1;826(2):293-7

Effects of food consistency on the modulatory mode of the digastric reflex during chewing in freely behaving rabbits. Yamamura K, et al. **Brain Res** 1998 Jun 15;796(1-2):257-64

Inhibitory effects of electrical stimulation of ventrolateral orbital cortex on the rat jaw-opening reflex. Zhang S, et al. **Brain Res** 1998 Dec 7;813(2):359-66

Differentiating condition-induced facilitation, inhibition and disinhibition in a complex series of reflexes in an electromyogram. van der Glas HW, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):291-301

Tapping into spinal circuits to restore motor function. Barbeau H, et al. **Brain Res Brain Res Rev** 1999 Jul; 30(1):27-51 (203 ref.)

Suppressive effect of vagal afferents on the activity of the trigeminal spinal neurons related to the jaw-opening reflex in rats: involvement of the endogenous opioid system. Takeda M, et al. **Brain Res Bull** 1998 Sep 1;47(1):49-56

Cough reflex in the night [letter] Wang HD, et al. **Chest** 1998 Nov;114(5):1496-7

Effect of atrial natriuretic peptide on muscle sympathetic activity and its reflex control in human heart failure. Abramson BL, et al. **Circulation** 1999 Apr 13;99(14):1810-5

Muscle metaboreflex contribution to sinus node regulation during static exercise: insights from spectral analysis of heart rate variability. Iellamo F, et al. **Circulation** 1999 Jul 6;100(1):27-32

Vagal cardiopulmonary reflexes after total cardiac deafferentation. Minisi AJ. **Circulation** 1998 Dec 8; 98(23):2615-20

Selective potentiation of peripheral chemoreflex sensitivity in obstructive sleep apnea. Narkiewicz K, et al. **Circulation** 1999 Mar 9;99(9):1183-9

Relation between perceived stimulus intensity and exteroceptive reflex responses in the human masseter muscles. Hansen PO, et al. **Clin Neurophysiol** 1999 Jul; 110(7):1290-6

Reproducibility of tendon jerk reflexes during a voluntary contraction. Uysal H, et al. **Clin Neurophysiol** 1999 Aug; 110(8):1481-7

The vestibulo-collic reflex. Bath AP, et al. **Clin Otolaryngol** 1998 Oct;23(5):462-6

Physiologic reflexes and their impact on resuscitation of the newborn. Halbower AC, et al. **Clin Perinatol** 1999 Sep; 26(3):621-7, vi (33 ref.)

Lateral biases in head turning and the Moro response in the human newborn: are they both vestibular in origin? Rönnqvist L, et al. **Dev Psychobiol** 1998 Dec;33(4):339-49

Effect of distension of the pharynx and esophagus on the stomach in dogs: experimental evidence for a pharyngoesophagogastric reflex. Shafik A. **Digestion** 1999 Jan-Feb;60(1):17-21

The plantar reflex in young healthy adults. Oluwole OS, et al. **East Afr Med J** 1998 Dec;75(12):715-7

Conditioning of the masseter inhibitory reflex by homotopically applied painful heat in humans. Andersen OK, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec; 109(6):508-14

Parasympathetic non-adrenergic, non-cholinergic mechanisms in salivary glands and their role in reflex secretion. Ekström J, et al. **Eur J Morphol** 1998 Aug;36 Suppl:208-12

Heart rate deceleration during the grasping reflex. Nagy E, et al. **Eur J Pediatr** 1999 Jul;158(7):576-7

Spinal mu-, delta- and kappa-opioid receptors mediate intense stimulation-elicited inhibition of a nociceptive reflex in the rat. Romita VV, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):127-38

Contribution of the supplementary motor area and anterior cingulate gyrus to pathological grasping phenomena. Hashimoto R, et al. **Eur Neurol** 1998 Oct;40(3):151-8

Inactivation of interposed nuclei in the cat: classically conditioned withdrawal reflexes, voluntary limb movements and the action primitive hypothesis. Bracha V, et al. **Exp Brain Res** 1999 May;126(1):77-92

Evidence suggesting that a transcortical reflex pathway contributes to cutaneous reflexes in the tibialis anterior muscle during walking in man. Christensen LO, et al. **Exp Brain Res** 1999 Jan;124(1):59-68

Flexor reflex afferents reset the step cycle during fictive locomotion in the cat. Schomburg ED, et al. **Exp Brain Res** 1998 Oct;122(3):339-50

Neuronal pathways for spinal reflexes activated by group I and group II muscle afferents in the spinal segment (Co1) innervating the tail in the low spinalized cat. Wada N, et al. **Exp Brain Res** 1999 Mar;125(2):129-38

Dorsal root potentials and dorsal root reflexes: a double-edged sword. Willis WD Jr. **Exp Brain Res** 1999 Feb;124(4):395-421 (312 ref.)

Differences in human antagonistic ankle dorsiflexor coactivation between legs; can they explain the moment deficit in the weaker plantarflexor leg? Maganaris CN, et al. **Exp Physiol** 1998 Nov;83(6):843-55

Effect of chronic and acute cigarette smoking on the pharyngo-upper oesophageal sphincter contractile reflex and reflexive pharyngeal swallow [see comments] Dua K, et al. **Gut** 1998 Oct;43(4):537-41. Comment in: Gut 1998 Oct;43(4):453.

Human obesity is characterized by a selective potentiation of central chemoreflex sensitivity. Narkiewicz K, et al. **Hypertension** 1999 May;33(5):1153-8

The ergoreflex in patients with chronic stable heart failure. Grieve DA, et al. **Int J Cardiol** 1999 Feb 28;68(2):157-64

Study of the effect of vesical filling and voiding on ureterovesical junctions and internal urethral meatus: the filling and meato-vesico-ureteral reflexes. Shafik A. **Int J Urol** 1998 Sep;5(5):449-53

Controlling the motor neuron. Trimarchi JR, et al. **Int Rev Neurobiol** 1999;43:241-64 (73 ref.)

Inspiratory and expiratory patterns of the pectoralis major muscle during pulmonary defensive reflexes. Bolser DC, et al. **J Appl Physiol** 1998 Nov;85(5):1786-92

Characteristics of the muscle mechanoreflex during quadriceps contractions in humans. Herr MD, et al. **J Appl Physiol** 1999 Feb;86(2):767-72

Larynx vs. esophagus as reflexogenic sites for acid-induced bronchoconstriction in dogs. Ishikawa T, et al. **J Appl Physiol** 1999 Apr;86(4):1226-30

Influence of volume dependency and timing of airway occlusions on the Hering-Breuer reflex in infants. Rabbette PS, et al. **J Appl Physiol** 1998 Dec;85(6):2033-9

Enhanced peripheral chemoreflex function in conscious rabbits with pacing-induced heart failure. Sun SY, et al. **J Appl Physiol** 1999 Apr;86(4):1264-72

Comparison of cardiorespiratory reflexes in NK1 receptor knockout, heterozygous and wild-type mice in vivo. Butcher JW, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2-3):89-95

Angiotensin II receptors within the nucleus of the solitary tract mediate the developmental attenuation of the baroreceptor vagal reflex in pre-weaned rats. Kasparov

S, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):160-8
Afferent signals from leptin sensors in the white adipose tissue of the epididymis, and their reflex effect in the rat. Niijima A. **J Auton Nerv Syst** 1998 Aug 27;73(1):19-25
Spatial extension of sudomotor axon reflex sweating in human skin. Riedl B, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2-3):83-8
Magnitude of skin vasomotor reflex represents the intensity of nociception under general anesthesia. Shimoda O, et al. **J Auton Nerv Syst** 1998 Jul 15;71(2-3):183-9
Ligamento-muscular protective reflex in the lumbar spine of the feline. Stubbs M, et al. **J Electromyogr Kinesiol** 1998 Aug;8(4):197-204
The recto-anal inhibitory reflex: abnormal response in diabetics suggests an intrinsic neuroenteropathy. Deen KI, et al. **J Gastroenterol Hepatol** 1998 Nov;13(11):1107-10
Cholecysto-sphincter inhibitory reflex: identification of a reflex and its role in bile flow in a canine model. Shafik A. **J Invest Surg** 1998 May-Jun;11(3):199-205
Reflex responses of bladder motility after stimulation of interspinous tissues in the anesthetized rat. Budgell BS, et al. **J Manipulative Physiol Ther** 1998 Nov-Dec;21(9):593-9
Disorders of proprioceptive responses in monkeys after cerebellar lesions: an analysis using the Denny-Brown Collection. Vilensky JA, et al. **J Neurol Sci** 1999 Mar 1; 163(2):111-8
Reciprocal interactions in the turtle hindlimb enlargement contribute to scratch rhythmogenesis. Currie SN, et al. **J Neurophysiol** 1999 Jun;81(6):2977-87
Reflex suppression in the anti-saccade task is dependent on prestimulus neural processes. Everling S, et al. **J Neurophysiol** 1998 Sep;80(3):1584-9
Neuropeptide-mediated facilitation and inhibition of sensory inputs and spinal cord reflexes in the lamprey. Ullström M, et al. **J Neurophysiol** 1999 Apr;81(4):1730-40
Jaw reflexes evoked by mechanical stimulation of teeth in humans. Yang J, et al. **J Neurophysiol** 1999 May; 81(5):2156-63
Presynaptic calcium/calmodulin-dependent protein kinase II regulates habituation of a simple reflex in adult Drosophila. Jin P, et al. **J Neurosci** 1998 Nov 1;18(21):8955-64
Neutralizing intraspinal nerve growth factor blocks autonomic dysreflexia caused by spinal cord injury. Krenz NR, et al. **J Neurosci** 1999 Sep 1;19(17):7405-14
Trigeminocardiac reflex during surgery in the cerebellopontine angle. Schaller B, et al. **J Neurosurg** 1999 Feb;90(2):215-20
Coronary artery spasm induced by trigeminal nerve stimulation and vagal reflex during intracranial operation. Kariya N, et al. **J Neurosurg Anesthesiol** 1999 Jul; 11(3):203-5
Trigeminocardiac reflex during temporomandibular joint arthroscopy: report of a case. Roberts RS, et al. **J Oral Maxillofac Surg** 1999 Jul;57(7):854-6
Bilateral variation of the masseteric myotatic reflex and the silent period in young humans. Kossioni AE, et al. **J Oral Rehabil** 1999 Feb;26(2):138-44
A multiparametric analysis of occlusal and periodontal jaw reflex characteristics in adult skeletal mandibular protrusion before and after orthognathic surgery. Suda S, et al. **J Oral Rehabil** 1999 Aug;26(8):686-90
The rise and fall of the plantar response in infancy. Gingold MK, et al. **J Pediatr** 1998 Oct;133(4):568-70
Characterization of prejunctional and postjunctional muscarinic receptors of the ascending reflex contraction in rat ileum. Kurjak M, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):893-900
Cutaneous reflexes of the human leg during passive movement. Brooke JD, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):619-28
Reflex inhibition of canine inspiratory intercostals by diaphragmatic tension receptors. De Troyer A, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):255-63
Prolonged enhancement of the micturition reflex in the cat by repetitive stimulation of bladder afferents. Jiang CH, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):599-605
Modulation of the thermoregulatory sweating response to mild hyperthermia during activation of the muscle metaboreflex in humans. Kondo N, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):591-8
The C fibre reflex of the cat urinary bladder. Mazières L, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):531-41
Reflex control of splanchnic blood volume in anaesthetized dogs. Noble BJ, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):263-72
Release of nitric oxide within the coeliac plexus is involved in the organization of a gastroduodenal inhibitory reflex in the rabbit. Quinson N, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:223-34
Nitric oxide modulates cholinergic reflex pathways to the longitudinal and circular muscle in the isolated guinea-pig distal colon. Smith TK, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):893-906
Inspiration-promoting vagal reflex under NMDA receptor blockade in anaesthetized rabbits. Takano K, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):571-82
Vestibulocollic reflexes evoked by short-duration galvanic stimulation in man. Watson SR, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):587-97
The J reflex [comment] Widdicombe JG. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):2. Comment on: J Physiol (Lond) 1998 Aug 15;511 (Pt 1):289-300.
Shoulder reaction time and muscle-firing patterns in response to an anterior translation force. Latimer HA, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):610-5
A study of the effect of distension of the rectosigmoid junction on the rectum and anal canal with evidence of a rectosigmoid-rectal reflex. Shafik A. **J Surg Res** 1999 Mar;82(1):73-7
Involvement of spinal NK1 and opioids receptors in modulating the inhibitory effect of capsaicin on micturition reflex in the acute spinalized guinea pig. Palea S, et al. **J Urol** 1999 Mar;161(3):998-1005
"Torso Rotation" experiments. 4: the role of vision and the cervico-ocular reflex in compensation for a deficient VOR. Bouyer LJ, et al. **J Vestib Res** 1999;9(2):89-101
Measurement of the lateral thoracic reflex latency in ponies. Hahn CN, et al. **J Vet Intern Med** 1998 Jul-Aug; 12(4):310-2
Role of interneurons in defensive withdrawal reflexes in Aplysia. Cleary LJ, et al. **Learn Mem** 1995 May-Aug; 2(3-4):133-51 (101 ref.)
Suppression of reflexive saccades in younger and older adults: age comparisons on an antisaccade task. Butler KM, et al. **Mem Cognit** 1999 Jul;27(4):584-91
Reflex activation patterns in relation to multidirectional ankle torque in decerebrate cats. Siegel SG, et al. **Motor Control** 1999 Apr;3(2):135-50
Reflex excitability of facial motoneurons at onset of muscle reinnervation after facial nerve palsy. Cossu G, et al. **Muscle Nerve** 1999 May;22(5):614-20
Reorganization of flexion reflexes in the upper extremity of hemiparetic subjects. Dewald JP, et al. **Muscle Nerve** 1999 Sep;22(9):1209-21
Multiple A waves in Guillain-Barré syndrome. Kornhuber ME, et al. **Muscle Nerve** 1999 Mar;22(3):394-9
Quantitative sudomotor axon reflex test (QSART): a new approach for testing distal sites. Riedel A, et al. **Muscle Nerve** 1999 Sep;22(9):1257-64
The effect of vesical filling and voiding on the anorectal function with evidence of a 'vesico-anorectal reflex'. Shafik A. **Neurogastroenterol Motil** 1999 Apr;11(2):119-24
Corneomandibular reflex in ALS. Okuda B, et al. **Neurology** 1999 May 12;52(8):1699-701
Facial reflex myoclonus induced by language: a neuropsychological and neurophysiological study. Bartolomei F, et al. **Neurophysiol Clin** 1999 Jun; 29(3):263-70
A neurophysiological approach to brainstem reflexes. Blink reflex. Esteban A. **Neurophysiol Clin** 1999 Feb;29(1):7-38 (162 ref.)
Morphine application to peripheral tissues modulates nociceptive jaw reflex. Bakke M, et al. **Neuroreport** 1998 Oct 5;9(14):3315-9
Short-term potentiation of carotid chemoreflex: an NMDAR-dependent neural integrator. Poon CS, et al. **Neuroreport** 1999 Aug 2;10(11):2261-5
Effects of limiting afferent flow in early postnatal ontogenesis on the development of defensive reflexes in adult rats. Kudryashova IV. **Neurosci Behav Physiol** 1998 Nov-Dec; 28(6):613-5
D-2-amino-5-phosphonovalerate, and NMDA receptor antagonist, blocks induction of associative long-term potentiation of the flexion reflex in spinal cat. Durkovic RG, et al. **Neurosci Lett** 1998 Dec 4;257(3):162-4
GABA(B) receptors in the nucleus tractus solitarii modulate the carotid chemoreceptor reflex in rats. Suzuki M, et al. **Neurosci Lett** 1999 Jan 22;260(1):21-4
Changes in reflex responses of the masseter and digastric muscles during sleep in freely behaving rabbits. Inoue M, et al. **Neurosci Res** 1999 May;34(1):37-44
Differences in opioidergic inhibition of spinal reflexes and Fos expression evoked by mechanical and chemical noxious stimuli in the decerebrated rabbit. Bhandari RN, et al. **Neuroscience** 1999 Apr;90(1):177-89
Neck input modifies the reference frame for coding labyrinthine signals in the cerebellar vermis: a cellular analysis. Manzoni D, et al. **Neuroscience** 1999; 93(3):1095-107
Paradoxical inhibition of nociceptive neurons in the dorsal horn of the rat spinal cord during a nociceptive hindlimb reflex. Morgan MM. **Neuroscience** 1999 Jan;88(2):489-98
Tonic adrenergic and serotonergic inhibition of a withdrawal reflex in rabbits subjected to different levels of surgical preparation. Ogilvie J, et al. **Neuroscience** 1999; 89(4):1247-58
Reflex response and convergence of pharyngoesophageal and peripheral chemoreceptors in the nucleus of the solitary tract. Paton JF, et al. **Neuroscience** 1999;93(1):143-54
Inhibition of styloglossus motoneurons during the palatally induced jaw-closing reflex. Tomioka S, et al. **Neuroscience** 1999;92(1):353-60
Antidromic discharges of dorsal root afferents and inhibition of the lumbar monosynaptic reflex in the neonatal rat. Vinay L, et al. **Neuroscience** 1999 Apr;90(1):165-76
Electrically-evoked inhibitory effects of the nucleus submedius on the jaw-opening reflex are mediated by ventrolateral orbital cortex and periaqueductal gray matter in the rat. Zhang S, et al. **Neuroscience** 1999;92(3):867-75
Modulation of the micturition reflex pathway by intravesical electrical stimulation: an experimental study in the rat. Jiang CH. **Neurourol Urodyn** 1998;17(5):543-53
Detrusor instability and low compliance may represent different levels of disturbance in peripheral feedback control of the micturition reflex. Papa Petros PE. **Neurourol Urodyn** 1999;18(2):81-91
Can short-latency vestibulospinal reflexes in lower leg muscles be elicited by tapping the head? Iida M, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 Jan-Feb;61(1):1-5
The involvement of bulbospinal pathways in fentanyl-induced inhibition of spinal withdrawal reflexes in the decerebrated rabbit. Clarke RW, et al. **Pain** 1998 Dec;78(3):197-207
Spinal neurokin3 receptors facilitate the nociceptive flexor reflex via a pathway involving nitric oxide. Linden DR, et al. **Pain** 1999 Mar;80(1-2):301-8
Involvement of trigeminal subnucleus caudalis (medullary dorsal horn) in craniofacial nociceptive reflex activity. Tsai CM, et al. **Pain** 1999 May;81(1-2):115-28
Modulation of exteroceptive suppression periods in human jaw-closing muscles by local and remote experimental muscle pain. Wang K, et al. **Pain** 1999 Sep;82(3):253-62
Elevation of metabolic rate by pyrogen administration does not affect the gain of respiratory peripheral chemoreflexes in unanesthetized kittens. Watanabe T, et al. **Pediatr Res** 1998 Sep;44(3):357-62
Haltere-mediated equilibrium reflexes of the fruit fly, Drosophila melanogaster. Dickinson MH. **Philos Trans R Soc Lond B Biol Sci** 1999 May 29; 354(1385):903-16
Effects of medullary midline lesions on cough and other airway reflexes in anaesthetized cats. Jakuš J, et al. **Physiol Res** 1998;47(3):203-13
What functions do reflexes serve during human locomotion? Zehr EP, et al. **Prog Neurobiol** 1999 Jun;58(2):185-205 (124 ref.)
Saccadic and attentional abnormalities in patients with schizophrenia. Maruff P, et al. **Psychol Med** 1998 Sep; 28(5):1091-100
Measuring central-chemoreflex sensitivity in man: rebreathing and steady-state methods compared. Mohan RM, et al. **Respir Physiol** 1999 Jan 1;115(1):23-33
Reflex interaction between the proximal urethra and the bladder. A clinical experimental study. Geirsson G, et al. **Scand J Urol Nephrol** 1999 Feb;33(1):24-6
The ligamento-muscular stabilizing system of the spine. Solomonow M, et al. **Spine** 1998 Dec 1;23(23):2552-62
Regional correspondence between the ventral portion of the lumbar intervertebral disc and the groin mediated by a spinal reflex. A possible basis of discogenic referred pain. Takahashi Y, et al. **Spine** 1998 Sep 1;23(17):1853-8; discussion 1859
Assessing the laryngeal cough reflex and the risk of developing pneumonia after stroke: an interhospital comparison. Addington WR, et al. **Stroke** 1999 Jun; 30(6):1203-7
A clinico-anatomic study of the auricular branch of the vagus nerve and Arnold's ear-cough reflex. Tekdemir I, et al. **Surg Radiol Anat** 1998;20(4):253-7
Stapedial reflex: a biological index found to be abnormal in clinical and subclinical hypothyroidism. Goulis DG, et al. **Thyroid** 1998 Jul;8(7):583-7
Evaluation of clinical indexes to predict fate of pelvic nerve dysfunction. Nagamatsu H, et al. **Urol Res** 1998; 26(5):319-24
Effect of renal pelvic and ureteral distension on the striated urethral sphincter with recognition of the "reno-vesico-sphincteric reflex". Shafik A. **Urol Res** 1998; 26(5):331-6
Demonstration of a "renogastric reflex" after rapid distension of renal pelvis and ureter in nonanesthetized patients. Shafik A. **Urology** 1999 Jan;53(1):38-43
Positive bladder cooling reflex in patients with bladder outlet obstruction due to benign prostatic hyperplasia. Gotoh M, et al. **World J Urol** 1999 Apr;17(2):126-30
[Dual sequence method for analysis of spontaneous baroreceptor sensitivity] Malberg H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:532-3 **(Ger)**
[Modeling of the baroreceptor reflex in a pulsatile model] Schulz S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:310-1 **(Ger)**
[Significance of esophagocardiac reflexes for inducing thoracic pain] Holtmann G, et al. **Herz** 1999 Apr; 24(2):154-7 (23 ref.) (Eng. Abstr.) **(Ger)**
[Dual sequence method for analysis of spontaneous baroreceptor reflex sensitivity in patients with dilated cardiomyopathy] Malberg H, et al. **Z Kardiol** 1999 May; 88(5):331-7 (Eng. Abstr.) **(Ger)**
[Study of mechanisms of action of amitriptyline and acupuncture using nociceptive flexor reflex in patients with chronic forms of headache] Amelin AV, et al. **Anesteziol Reanimatol** 1998 Sep-Oct;(5):19-21 (Eng. Abstr.) **(Rus)**
[Nociceptive reflex reactions of muscles of upper extremities in man] Gnezdilov AV, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):278-82 **(Rus)**
[Compensatory rehabilitation processes and instrumental reflexes in rats after neurotoxic lesions in the inferior olive] Fanardzhian VV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):719-27 (Eng. Abstr.) **(Rus)**
[Neuron reactions of brain structures suppressing motion during development of animal hypnosis in guinea pigs] Milelkovskii BIu, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May-Jun; 84(5-6):436-42 (Eng. Abstr.) **(Rus)**

[Prognostic value of the stapedius muscle and electroneurography in facial paralysis a frigore, or Bell's palsy] Pérez-Carro Ríos A, et al. **Acta Otorrinolaringol Esp** 1999 Apr;50(3):187-90 (Eng. Abstr.) **(Spa)**

[Nine primitive reflexes in patients with acquired immunodeficiency syndrome (AIDS). Results of a case-control study] Tremont-Lukats IW, et al. **Gac Med Mex** 1999 Mar-Apr;135(2):101-6 (Eng. Abstr.) **(Spa)**

RADIATION EFFECTS

Assessment of trigeminal small-fiber function: brain and reflex responses evoked by CO2-laser stimulation. Cruccu G, et al. **Muscle Nerve** 1999 Apr;22(4):508-16

REFLEX, ABDOMINAL

Induction and organization of Ca2+ waves by enteric neural reflexes [see comments] Stevens RJ, et al. **Nature** 1999 May 6;399(6731):62-6. Comment in: Nature 1999 May 6;399(6731):16-7.

DRUG EFFECTS

Intracolonic glycerol induces abdominal contractions in rats: role of 5-HT3 receptors. Botella A, et al. **Fundam Clin Pharmacol** 1998;12(6):619-23

PHYSIOLOGY

Sacral reflex latency correlated by age and sex. Pradal-Prat D, et al. **Electromyogr Clin Neurophysiol** 1998 Sep; 38(6):367-70

[Pheochromocytoma revealed by cerebral hematomas. Significance of the abolition of a cutaneous abdominal reflex ipsilateral to the adrenal tumor] Alla P, et al. **Rev Neurol (Paris)** 1998 Jan;154(1):55-7 (Eng. Abstr.) **(Fre)**

REFLEX, ABNORMAL

Spinal cord emergencies: false reassurance from reflexes. Glick TH, et al. **Acad Emerg Med** 1998 Oct;5(10):1041-3

Treatment of autonomic hyperreflexia in a quadriplegic patient by epidural anesthesia in the postoperative period. Murphy DB, et al. **Anesth Analg** 1999 Jul;89(1):148-9

Dissociated vertical divergence: a righting reflex gone wrong. Brodsky MC. **Arch Ophthalmol** 1999 Sep; 117(9):1216-22 (50 ref.)

The palmo-mental reflex in vibroacoustic disease. Martinho Pimenta AJ, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A100-6

Cutaneomuscular reflex responses recorded from the lower limb in children and adolescents with cerebral palsy. Gibbs J, et al. **Dev Med Child Neurol** 1999 Jul;41(7):456-64

Bezold-Jarisch-like reflex during radiofrequency ablation of the pulmonary vein tissues in patients with paroxysmal focal atrial fibrillation. Tsai CF, et al. **J Cardiovasc Electrophysiol** 1999 Jan;10(1):27-35

Blink reflex in trigeminal hypoesthesia caused by a pontine demyelinating lesion [letter] Almárcegui C, et al. **J Neurol** 1999 Feb;246(2):140-1

Intravesical atropine suppression of detrusor hyperreflexia in multiple sclerosis [letter] Deaney C, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):957-8

New method to measure central motor conduction time using transcranial magnetic stimulation and T-response. Ofuji A, et al. **J Neurol Sci** 1998 Sep 18;160(1):26-32

Absence of rectoanal inhibitory reflex in a child with multiple endocrine neoplasia type 2B. Shimotake T, et al. **J Pediatr Surg** 1998 Aug;33(8):1268-71

Ankle clonus and thiocyanate, linamarin, and inorganic sulphate excretion in school children in communities with Konzo, Mozambique. Cliff J, et al. **J Trop Pediatr** 1999 Jun;45(3):139-42

Clinical significance of plantar grasp response in infants. Futagi Y, et al. **Pediatr Neurol** 1999 Feb;20(2):111-5

[Spinal anesthesia and von Bezold-Jarisch reflex? (letter)] Amrouni K, et al. **Ann Fr Anesth Reanim** 1999 Apr; 18(4):468-9 **(Fre)**

DRUG EFFECTS

Interscalene regional anesthesia in the prevention of autonomic hyperreflexia in a quadriplegic patient undergoing shoulder surgery. Habibi A, et al. **Anesth Analg** 1999 Jan;88(1):98-9

Importance of pharmacological and physicochemical properties for tolerance of antimuscarinic drugs in the treatment of detrusor instability and detrusor hyperreflexia--chances for improvement of therapy. Schwantes U, et al. **Int J Clin Pharmacol Ther** 1999 May; 37(5):209-18 (79 ref.)

Intrathecal clonidine for refractory detrusor hyperreflexia in spinal cord injured patients: a preliminary report. Denys P, et al. **J Urol** 1998 Dec;160(6 Pt 1):2137-8

The effect of alpha-lipoic acid on the neurovascular reflex arc in patients with diabetic neuropathy assessed by capillary microscopy. Haak ES, et al. **Microvasc Res** 1999 Jul;58(1):28-34

Permissive role of brain allopregnanolone content in the regulation of pentobarbital-induced righting reflex loss. Matsumoto K, et al. **Neuropharmacology** 1999 Jul; 38(7):955-63

The endogenous cannabinoid anandamide, but not the CB2 ligand palmitoylethanolamide, prevents the viscero-visceral hyper-reflexia associated with inflammation of the rat urinary bladder. Jaggar SI, et al. **Neurosci Lett** 1998 Sep 4;253(2):123-6

Capsaicin and neurogenic detrusor hyperreflexia: a double-blind placebo-controlled study in 20 patients with spinal cord lesions. de Sèze M, et al. **Neurourol Urodyn** 1998;17(5):513-23

Dose-ranging study of tolterodine in patients with detrusor hyperreflexia. Van Kerrebroeck PE, et al. **Neurourol Urodyn** 1998;17(5):499-512

Intravesical capsaicin in patients with detrusor hyper-reflexia--a placebo-controlled cross-over study. Petersen T, et al. **Scand J Urol Nephrol** 1999 Apr; 33(2):104-10

Efficacy and safety of propiverine in SCI-patients suffering from detrusor hyperreflexia--a double-blind, placebo-controlled clinical trial. Stöhrer M, et al. **Spinal Cord** 1999 Mar;37(3):196-200

GENETICS

A novel behavioral method to detect motoneuron disease in Wobbler mice aged three to seven days old. Bose P, et al. **Brain Res** 1998 Dec 7;813(2):334-42

Novel GLRA1 missense mutation (P250T) in dominant hyperekplexia defines an intracellular determinant of glycine receptor channel gating. Saul B, et al. **J Neurosci** 1999 Feb 1;19(3):869-77

PHYSIOLOGY

Bereitschaftspotential in amyotrophic lateral sclerosis (ALS): lower amplitudes in patients with hyperreflexia (spasticity). Westphal KP, et al. **Acta Neurol Scand** 1998 Jul;98(1):15-21

Assessing the laryngeal cough reflex and the risk of developing pneumonia after stroke. Addington WR, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):150-4

Incomplete spinal cord injury: neuronal mechanisms of motor recovery and hyperreflexia. Little JW, et al. **Arch Phys Med Rehabil** 1999 May;80(5):587-99 (119 ref.)

Startle in Tourette's syndrome [letter; comment] Swerdlow NR. **Biol Psychiatry** 1998 Nov 1;44(9):935-6. Comment on: Biol Psychiatry 1997 Apr 1;41(7):796-803.

"Boosting" performance in disability sport. Webborn AD. **Br J Sports Med** 1999 Apr;33(2):74-5

Chronic variable stress induces supersensitivity of central alpha2-adrenoceptors which modulate the jaw-opening reflex in the rat. García-Vallejo P, et al. **Brain Res** 1998 Aug 10;801(1-2):72-7

Impaired swallowing reflex in patients with obstructive sleep apnea syndrome. Teramoto S, et al. **Chest** 1999 Jul; 116(1):17-21

Reflex control of sympathetic activity during simulated ventricular tachycardia in humans. Smith ML, et al. **Circulation** 1999 Aug 10;100(6):628-34

Delayed development of reflexes and hyperactive locomotion in the spontaneous mutant "waltzing" of the musk shrew, Suncus murinus. Matsuura A, et al. **Exp Anim** 1999 Jul; 48(3):191-7

Respiratory control during upper airway infection mechanism for prolonged reflex apnoea and sudden infant death with special reference to infant sleep position. Lindgren C. **FEMS Immunol Med Microbiol** 1999 Aug 1; 25(1-2):97-102 (45 ref.)

Cardiac sympathetic denervation in Ross syndrome demonstrated by MIBG-SPECT. Druschky K, et al. **J Auton Nerv Syst** 1999 May 28;76(2-3):184-7

Plantar response profile of high-risk infants at one year of life. Zafeiriou DI, et al. **J Child Neurol** 1999 Aug; 14(8):514-7

Vestibular hypersensitivity to clicks is characteristic of the Tullio phenomenon. Colebatch JG, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):670-8

Hyperreflexia in Guillain-Barré syndrome: relation with acute motor axonal neuropathy and anti-GM1 antibody. Kuwabara S, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):180-4

Oscillopsia: impaired vision during motion in the absence of the vestibulo-ocular reflex [editorial; comment] Leigh RJ. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):808. Comment on: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):828-35.

Oscillopsia: visual function during motion in the absence of vestibulo-ocular reflex [see comments] Morland AB, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):828-35. Comment in: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):808.

Hyperactive rhizopathy of the vagus nerve and microvascular decompression. Case report. Resnick DK, et al. **J Neurosurg** 1999 Mar;90(3):580-2

Alteration in rate modulation of reflexes to lumbar motoneurons after midthoracic spinal cord injury in the rat. I. Contusion injury. Thompson FJ, et al. **J Neurotrauma** 1998 Jul;15(7):495-508

Cremasteric reflexes of boys with descended, retractile, or undescended testes: an electrophysiological evaluation. Bingöl-Koloğlu M, et al. **J Pediatr Surg** 1999 Mar; 34(3):430-4

Malone antegrade continence enemas for autonomic dysreflexia secondary to neurogenic bowel. Teichman JM, et al. **J Spinal Cord Med** 1998 Jul;21(3):245-7

Hyperreflexia of the urinary bladder: possible role of the efferent function of the capsaicin sensitive primary afferents. Shaker HS, et al. **J Urol** 1998 Dec;160(6 Pt 1):2232-9

Neurophysiological evaluation of areflexia in Holmes-Adie syndrome. Martinelli P, et al. **Neurophysiol Clin** 1999 Jun; 29(3):255-62

Dose-ranging study of tolterodine in patients with detrusor hyperreflexia. Van Kerrebroeck PE, et al. **Neurourol Urodyn** 1998;17(5):499-512

Bladder afferent pathway and spinal cord injury: possible mechanisms inducing hyperreflexia of the urinary bladder. Yoshimura N. **Prog Neurobiol** 1999 Apr;57(6):583-606 (123 ref.)

Autonomic dysreflexia during urodynamics [see comments] Giannantoni A, et al. **Spinal Cord** 1998 Nov;36(11):756-60. Comment in: Spinal Cord 1999 Apr;37(4):308-9.

The pattern of reflex recovery during spinal shock. Ko HY, et al. **Spinal Cord** 1999 Jun;37(6):402-9

Pathophysiology of autonomic dysreflexia: long-term treatment with terazosin in adult and paediatric spinal cord injury patients manifesting recurrent dysreflexic episodes. Vaidyanathan S, et al. **Spinal Cord** 1998 Nov;36(11):761-70

[Pheochromocytoma revealed by cerebral hematomas. Significance of the abolition of a cutaneous abdominal reflex ipsilateral to the adrenal tumor] Alla P, et al. **Rev Neurol (Paris)** 1998 Jan;154(1):55-7 (Eng. Abstr.) **(Fre)**

[Development of an analytic standard for evaluating heart rate variability in cardiovascular autonomic neuropathy in diabetes: comparison of short-term spectral analysis with Ewing's standard battery of reflex tests as reference method] Howorka K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:568-9 **(Ger)**

[Nd:YAG laser treatment of the lower turbinates with contact in hyperreflexic and allergic rhinopathy] Olthoff A, et al. **Laryngorhinootologie** 1999 May;78(5):240-3 (Eng. Abstr.) **(Ger)**

[Detrusor myectomy (autoaugmentation) in the treatment of hyper-reflexive low compliance bladder] Stöhrer M, et al. **Urologe A** 1999 Jan;38(1):30-7 (Eng. Abstr.) **(Ger)**

REFLEX, ACOUSTIC

PHYSIOLOGY

High-frequency hearing and reflex latency in patients with pigment disorder. Ardiç FN, et al. **Am J Otolaryngol** 1998 Nov-Dec;19(6):365-9

The effects of amplitude modulation on acoustic reflex decay. Cook RD, et al. **Audiol Neurootol** 1999 Mar-Apr; 4(2):104-13

The relationship between the uncomfortable loudness level and the acoustic reflex threshold for pure tones in normally-hearing and impaired listeners--a meta-analysis. Olsen SO. **Audiology** 1999 Mar-Apr;38(2):61-8

Effect of probe frequency and gender on click-rate-induced facilitation of the acoustic reflex thresholds. Rawool VW. **Scand Audiol** 1998;27(3):173-7

The acoustic reflex for filtered broadband stimuli: a lesser contribution of the lower frequency neurons. Kawase T, et al. **Tohoku J Exp Med** 1998 Jun;185(2):131-7

[Stapedius reflex in cochlear implant] Laszig R. **HNO** 1998 Oct;46(10):884 **(Ger)**

REFLEX, BABINSKI

A baby with a Babinski reflex [letter; comment] Curless RG. **N Engl J Med** 1999 Jun 17;340(24):1929-30. Comment on: N Engl J Med 1999 Jan 21;340(3):196.

Images in clinical medicine. The Babinski sign [see comments] Neelon FA, et al. **N Engl J Med** 1999 Jan 21;340(3):196. Comment in: N Engl J Med 1999 Jun 17;340(24):1929-30.

The Babinski reflex hammer. Lanska DJ. **Neurology** 1999 Aug 11;53(3):655

[History of the reflex hammer] Lanska DJ, et al. **Tidsskr Nor Laegeforen** 1998 Dec 10;118(30):4666-8 (Eng. Abstr.) **(Nor)**

[Babinsky? Babinski (letter)] Orden AO. **Medicina (B Aires)** 1999;59(1):119 **(Spa)**

PHYSIOLOGY

Extensor toe sign and statistical methods [letter; comment] Lanska DJ. **J Child Neurol** 1999 May;14(5):337-40. Comment on: J Child Neurol 1998 May;13(5):216-20.

Extensor toe sign unresolved [letter; comment] Marcus JC. **J Child Neurol** 1999 May;14(5):337. Comment on: J Child Neurol 1998 May;13(5):216-20.

[Physical diagnosis--plantar reflex (see comments)] van Gijn J. **Ned Tijdschr Geneeskd** 1999 Jan 16;143(3):142-5 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 16;143(3):141-2. Comment in: Ned Tijdschr Geneeskd 1999 Mar 6;143(10):541. **(Dut)**

[Physical diagnosis--the plantar reflex (letter; comment)] Vervaet G. **Ned Tijdschr Geneeskd** 1999 Mar 6;143(10):541. Comment on: Ned Tijdschr Geneeskd 1999 Jan 16;143(3):142-5. **(Dut)**

[What does the Babinski sign have to offer 100 years after its description?] Barraquer-Bordas L. **Rev Neurol (Paris)** 1998 Jan;154(1):22-7 (39 ref.) (Eng. Abstr.) **(Fre)**

REFLEX, BARORECEPTOR

REFLEX, BARORECEPTOR see **BAROREFLEX**

REFLEX, BLINK see **BLINKING**

REFLEX, CONDITIONED see **CONDITIONING, CLASSICAL**

REFLEX, CORNEAL see **BLINKING**

REFLEX, MONOSYNAPTIC

DRUG EFFECTS

Differential effects of (R)- and (S)-8-hydroxy-2-(di-n-propylamino)tetralin on the monosynaptic spinal reflex in rats. Honda M, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):171-9

Neurotrophin modulation of the monosynaptic reflex after peripheral nerve transection. Mendell LM, et al. **J Neurosci** 1999 Apr 15;19(8):3162-70

The non-competitive N-methyl-D-aspartate-antagonist memantine does not affect segmental mono- and polysynaptic reflexes in man. Schepelmann K, et al. **Neurosci Lett** 1998 Dec 4;257(3):159-61

PHYSIOLOGY

Alteration in rate modulation of reflexes to lumbar motoneurons after midthoracic spinal cord injury in the rat. I. Contusion injury. Thompson FJ, et al. **J Neurotrauma** 1998 Jul;15(7):495-508

Monosynaptic Ia pathways at the cat shoulder. Caicoya AG, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):825-41

The role of capsaicin-sensitive muscle afferents in fatigue-induced modulation of the monosynaptic reflex in the rat. Pettorossi VE, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):599-607

REFLEX, OCULOCARDIAC

Trigeminovagal reflex during repair of a nasal fracture under general anesthesia. Locke MM, et al. **Anesth Analg** 1999 May;88(5):1183-4

Oculocardiac reflex during laser in situ keratomileusis. Paciuc M, et al. **J Cataract Refract Surg** 1998 Oct;24(10):1317-9

DRUG EFFECTS

Oculocardiac reflex--peribulbar block or opioid-relaxant anaesthesia [letter] Grover VK, et al. **Can J Anaesth** 1998 Jul;45(7):706

PHYSIOLOGY

Orbital trapdoor fracture and oculocardiac reflex [letter; comment] Sires BS. **Ophthal Plast Reconstr Surg** 1999 Jul; 15(4):301-2. Comment on: Ophthal Plast Reconstr Surg 1998 Nov;14(6):379-90.

Prediction of oculocardiac reflex in strabismus surgery using neural networks. Kim WO, et al. **Yonsei Med J** 1999 Jun; 40(3):244-7

REFLEX, ORBICULARIS OCULI see **BLINKING**

REFLEX, PHARYNGEAL see **GAGGING**

REFLEX, PSYCHOGALVANIC see **GALVANIC SKIN RESPONSE**

REFLEX, PUPILLARY

see related
ADIE'S SYNDROME

Dissociated vertical divergence: a righting reflex gone wrong. Brodsky MC. **Arch Ophthalmol** 1999 Sep; 117(9):1216-22 (50 ref.)

Age effects on pupil dilation among Alzheimer's patients [letter] Takagi A, et al. **J Am Geriatr Soc** 1999 Feb; 47(2):257-8

Pupillary responses evoked during verbal fluency tasks indicate semantic network dysfunction in schizophrenia. Granholm E, et al. **J Clin Exp Neuropsychol** 1998 Dec; 20(6):856-72

The pupil response of a teleost fish, Porichthys notatus: description and comparison to other species. Douglas RH, et al. **Vision Res** 1998 Sep;38(18):2697-710

[Two cases in which the presence of ciliospinal response led to indecisiveness in the evaluation of brain death] Ikeda H, et al. **No To Shinkei** 1999 Feb;51(2):161-6 (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Effect of lidocaine on photophobia [letter] Brierley L. **J Cataract Refract Surg** 1999 Sep;25(9):1177

The ciliospinal reflex in pentobarbital coma. Andrefsky JC, et al. **J Neurosurg** 1999 Apr;90(4):644-6

The effects of clonidine on the fear-inhibited light reflex. Bitsios P, et al. **J Psychopharmacol** 1998;12(2):137-45

Comparison of the effects of venlafaxine, paroxetine and desipramine on the pupillary light reflex in man. Bitsios P, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):286-92

PHYSIOLOGY

New indirect pathways subserving the pupillary light reflex: projections of the accessory oculomotor nuclei and the periaqueductal gray to the Edinger-Westphal nucleus and the thoracic spinal cord in rats. Klooster J, et al. **Anat Embryol (Berl)** 1998 Aug;198(2):123-32

Neural network mosaic model for pupillary responses to spatial stimuli. Sun W, et al. **Biol Cybern** 1998 Aug; 79(2):131-8

Differential pupillary constriction and awareness in the absence of striate cortex. Weiskrantz L, et al. **Brain** 1999 Aug;122 (Pt 8):1533-8

Modeling reflex asymmetries with implicit delay differential equations. Atay FM, et al. **Bull Math Biol** 1998 Nov; 60(6):999-1015

Pupillometric changes during gradual opiate detoxification correlate with changes in symptoms of opiate withdrawal as measured by the Weak Opiate Withdrawal Scale. Rosse RB, et al. **Clin Neuropharmacol** 1998 Sep-Oct;21(5):312-5

Lateral asymmetries of pupillary responses. Kim M, et al. **Cortex** 1998 Dec;34(5):753-62

The menace response and pupillary light reflex in neonatal foals. Enzerink E. **Equine Vet J** 1998 Nov;30(6):546-8

The effect of lesions to cortical areas V4 or AIT on pupillary responses to chromatic and achromatic stimuli in monkeys. Heywood CA, et al. **Exp Brain Res** 1998 Oct;122(4):475-80

Extent and duration of recovered pupillary light reflex following retinal ganglion cell axon regeneration through peripheral nerve grafts directed to the pretectum in adult rats. Whiteley SJO, et al. **Exp Neurol** 1998 Dec; 154(2):560-72

The influence of iris color on the pupillary light reflex. Bergamin O, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):567-70

Pupillary light reflexes in patients with Leber's hereditary optic neuropathy. Lüdtke H, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar;237(3):207-11

Changes in pupil reaction to light in melancholic patients. Fountoulakis K, et al. **Int J Psychophysiol** 1999 Jan; 31(2):121-8

Pseudo-Argyll Robertson pupil of patients with spinocerebellar ataxia type 1 (SCA1) [letter] Mabuchi K, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):612-3

Bilateral Horner's syndrome: detection and occurrence. Smith SA, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan; 66(1):48-51

Comparison of 24-2 and 30-2 perimetry in glaucomatous and nonglaucomatous optic neuropathies. Khoury JM, et al. **J Neuroophthalmol** 1999 Jun;19(2):100-8

Comparison of threshold visual perimetry and objective pupil perimetry in clinical patients. Yoshitomi T, et al. **J Neuroophthalmol** 1999 Jun;19(2):89-99

Cutaneous afferents producing a reflex pupil dilation in anesthetized rats. Shimura M, et al. **Neurosci Lett** 1999 Jan 4;259(1):17-20

A true neuronal consensual pupillary reflex in chicks. Li T, et al. **Vision Res** 1999 Mar;39(5):897-900

[Fourier analysis of pupil oscillations for measuring central activation in psychosomatic patients] Grünberger J, et al. **Wien Med Wochenschr** 1999;149(7):162-6 (Eng. Abstr.) **(Ger)**

REFLEX, STRETCH

Correlation of spasticity with hyperactive stretch reflexes and motor dysfunction in hemiplegia. Lin FM, et al. **Arch Phys Med Rehabil** 1999 May;80(5):526-30

Quantitative evaluation of the stretch reflex before and after hydro kinesy therapy in patients affected by spastic paresis. Pagliaro P, et al. **J Electromyogr Kinesiol** 1999 Apr; 9(2):141-8

DRUG EFFECTS

Segmental effect of NMDA block in the dorsal horn on the pressor reflex. Wilson LB, et al. **Brain Res** 1998 Oct 5; 807(1-2):222-7

PHYSIOLOGY

Long latency responses in pure sensory stroke due to thalamic infarction. Chen CC, et al. **Acta Neurol Scand** 1998 Jul; 98(1):41-8

Abnormal development of biceps brachii phasic stretch reflex and persistence of short latency heteronymous reflexes from biceps to triceps brachii in spastic cerebral palsy. O'Sullivan MC, et al. **Brain** 1998 Dec;121 (Pt 12):2381-95

The response of muscle spindle primary afferents to simultaneously presented sinusoidal and ramp-and-hold stretches. Schäfer SS, et al. **Brain Res** 1999 Feb 20; 819(1-2):89-107

Widespread short-latency stretch reflexes and their modulation during stumbling over obstacles. Schillings AM, et al. **Brain Res** 1999 Jan 23;816(2):480-6

Soleus long-latency stretch reflexes during walking in healthy and spastic humans. Sinkjaer T, et al. **Clin Neurophysiol** 1999 May;110(5):951-9

Continuum of reflex excitability in hemiplegia: influence of muscle length and muscular transformation after heel-cord lengthening and immobilization on the pathophysiology of spasticity and clonus. Lin JP, et al. **Dev Med Child Neurol** 1999 Aug;41(8):534-48

The aging effects on the EMG and mechanical responses of the human wrist flexor stretch reflexes. Lin FM, et al. **Electromyogr Clin Neurophysiol** 1998 Sep;38(6):323-31

Tonic stretch reflexes in older able-bodied people. Yeo W, et al. **Electromyogr Clin Neurophysiol** 1998 Jul-Aug; 38(5):273-8 (26 ref.)

Reduced stretch reflex sensitivity and muscle stiffness after long-lasting stretch-shortening cycle exercise in humans. Avela J, et al. **Eur J Appl Physiol** 1998 Oct;78(5):403-10

Changes in the excitability of soleus muscle short latency stretch reflexes during human hopping after 4 weeks of hopping training. Voigt M, et al. **Eur J Appl Physiol** 1998 Nov;78(6):522-32

Effects of dorsolateral spinal lesions on stretch reflex threshold and stiffness in awake cats. Taylor J, et al. **Eur J Neurosci** 1999 Jan;11(1):363-8

Modulation of the biceps femoris tendon jerk reflex during human locomotion. Faist M, et al. **Exp Brain Res** 1999 Apr;125(3):265-70

A simulation study of reflex instability in spasticity: origins of clonus. Hidler JM, et al. **IEEE Trans Rehabil Eng** 1999 Sep;7(3):327-40

Conditioned patellar tendon-tap reflexes in patients with ACL reconstruction. Tsuruike M, et al. **Int J Sports Med** 1999 May;20(4):263-6

Altered reflex sensitivity after repeated and prolonged passive muscle stretching. Avela J, et al. **J Appl Physiol** 1999 Apr;86(4):1283-91

Reduced reflex sensitivity persists several days after long-lasting stretch-shortening cycle exercise. Avela J, et al. **J Appl Physiol** 1999 Apr;86(4):1292-300

Plantar response profile of high-risk infants at one year of life. Zafeiriou DI, et al. **J Child Neurol** 1999 Aug; 14(8):514-7

Why do some Friedreich's ataxia patients retain tendon reflexes? A clinical, neurophysiological and molecular study. Coppola G, et al. **J Neurol** 1999 May;246(5):353-7

Modulation of stretch reflexes during imposed walking movements of the human ankle. Kearney RE, et al. **J Neurophysiol** 1999 Jun;81(6):2893-902

Damping in reflexively active and areflexive lengthening muscle evaluated with inertial loads. Lin DC, et al. **J Neurophysiol** 1998 Dec;80(6):3369-72

Receptor mechanisms underlying heterogenic reflexes among the triceps surae muscles of the cat. Nichols TR. **J Neurophysiol** 1999 Feb;81(2):467-78

Alteration in rate modulation of reflexes to lumbar motoneurons after midthoracic spinal cord injury in the rat. I. Contusion injury. Thompson FJ, et al. **J Neurotrauma** 1998 Jul;15(7):495-508

The study of jaw reflexes evoked by electrical stimulation of the lip: the importance of stimulus intensity and polarity. Okdeh AM, et al. **J Oral Rehabil** 1999 Jun;26(6):479-87

Masticatory muscle responses associated with unloading of biting force during food crushing. Yoshida K. **J Oral Rehabil** 1998 Nov;25(11):830-7

Early onset cerebellar ataxia and preservation of tendon reflexes: clinical phenotypes associated with GAA trinucleotide repeat expanded and non-expanded genotypes. De Castro M, et al. **J Peripher Nerv Syst** 1999; 4(1):58-62

Muscle history, fusimotor activity and the human stretch reflex. Gregory JE, et al. **J Physiol (Lond)** 1998 Dec 15; 513 (Pt 3):927-34

Evidence that a transcortical pathway contributes to stretch reflexes in the tibialis anterior muscle in man. Petersen N, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):267-76

The stretch reflex and H-reflex of the human soleus muscle during walking. Andersen JB, et al. **Motor Control** 1999 Apr;3(2):151-7

Overview of human tremor physiology. Hallett M. **Mov Disord** 1998;13 Suppl 3:43-8 (19 ref.)

Early-onset cerebellar ataxia (EOCA) with retained reflexes: reduced cerebellar benzodiazepine-receptor binding, progressive metabolic and cognitive impairment. Mielke R, et al. **Mov Disord** 1998 Jul;13(4):739-45

Physiology and anatomy of possible oscillators in the central nervous system. Rothwell JC. **Mov Disord** 1998;13 Suppl 3:24-8 (11 ref.)

Significance of passively induced stretch reflexes on achilles tendon force enhancement. Nicol C, et al. **Muscle Nerve** 1998 Nov;21(11):1546-8

[Physical diagnostics--tendon reflexes] Stam J. **Ned Tijdschr Geneeskd** 1999 Apr 17;143(16):848-51 (9 ref.) (Eng. Abstr.) **(Dut)**

[The characteristics of the bioelectrical excitation of the muscles of the lower extremities during the evocation of knee-jerk reflexes in patients with lumbar osteochondrosis] Nazarenko VG, et al. **Lik Sprava** 1999 Jan-Feb;(1):92-4 (Eng. Abstr.) **(Rus)**

REFLEX SYMPATHETIC DYSTROPHY

Frozen shoulder--an algoneurodystrophic process? Müller LP, et al. **Acta Orthop Belg** 1998 Dec;64(4):434-40

Reflex sympathetic dystrophy: facts and hypotheses. Kurvers HA. **Vasc Med** 1998;3(3):207-14 (79 ref.)

BLOOD

Reflex sympathetic dystrophy: is the immune system involved? Ribbers GM, et al. **Arch Phys Med Rehabil** 1998

Dec;79(12):1549–52

COMPLICATIONS

Syringomyelia and complex regional pain syndrome as complications of multiple sclerosis. Das A, et al. **Arch Neurol** 1999 Aug;56(8):1021–4

Osteoarthritis and risk of falls, rates of bone loss, and osteoporotic fractures. Study of Osteoporotic Fractures Research Group. Arden NK, et al. **Arthritis Rheum** 1999 Jul;42(7):1378–85

Sympathetic nervous system and pain: a clinical reappraisal. Blumberg H, et al. **Behav Brain Sci** 1997 Sep;20(3):426–34; discussion 435–513

Leuconychia in reflex sympathetic dystrophy: a chance association? [letter] Vanhooteghem O, et al. **Br J Dermatol** 1998 Aug;139(2):355–6

Algodystrophy and its association with Dupuytren's disease. Livingstone JA, et al. **J Hand Surg [Br]** 1999 Apr; 24(2):199–202

Reflex sympathetic dystrophy in a 12-year-old twin with comorbid conversion disorder in both twins. Jaworowski S, et al. **J Paediatr Child Health** 1998 Dec;34(6):581–3

[Severe algoneurodystrophy of the right foot associated with prostatic cancer] Chefchaouni MC, et al. **J Urol (Paris)** 1996;102(5–6):243–5 (Eng. Abstr.) **(Fre)**

[Femoral neck fracture complicating algodystrophy in pregnancy] Brocq O, et al. **Presse Med** 1999 Jun 19; 28(22):1165–6 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

What is reflex sympathetic dystrophy? Driessens M, et al. **Acta Orthop Belg** 1999 Jun;65(2):202–17 (41 ref.)

"Reflex sympathetic dystrophy" [editorial; comment] Catchlove R. **Can J Anaesth** 1998 Sep;45(9):829–30. Comment on: Can J Anaesth 1998 Sep;45(9):831–8. **(Eng, Fre)**

Complex regional pain syndrome I (CRPS I): prospective study and laboratory evaluation. Sandroni P, et al. **Clin J Pain** 1998 Dec;14(4):282–9

Reflex sympathetic dystrophy in pregnancy: nine cases and a review of the literature. Poncelet C, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Sep;86(1):55–63 (33 ref.)

Reflex sympathetic dystrophy in children. Cimaz R, et al. **J Child Neurol** 1999 Jun;14(6):363–7

Assessment of peripheral sympathetic nervous function for diagnosing early post-traumatic complex regional pain syndrome type I. Schürmann M, et al. **Pain** 1999 Mar; 80(1–2):149–59

[MRI symptomology in reflex sympathetic dystrophy of the foot] Darbois H, et al. **J Radiol** 1999 Aug;80(8):849–54 (Eng. Abstr.) **(Fre)**

[Complex regional pain syndrome. Clinical and autonomic disorders during acute and chronic illness stages] Birklein F, et al. **Nervenarzt** 1999 Apr;70(4):335–41 (Eng. Abstr.) **(Ger)**

[Pregnancy-induced algodystrophy] Perka C, et al. **Z Rheumatol** 1998 Dec;57(6):399–408 (74 ref.) (Eng. Abstr.) **(Ger)**

[Advances in the treatment of algodystrophy] Dzik A. **Pol Merkuriusz Lek** 1998 Sep;5(27):183–4 (10 ref.) (Eng. Abstr.) **(Pol)**

[Diagnosis of reflex sympathetic dystrophy] Bruscas C, et al. **An Med Interna** 1999 Jun;16(6):308–14 (66 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Results of the treatment of posttraumatic reflex sympathetic dystrophy of the upper extremity with regional intravenous blocks of methylprednisolone and lidocaine. Zyluk A. **Acta Orthop Belg** 1998 Dec;64(4):452–6

Interrupting the sympathetic outflow in causalgia and reflex sympathetic dystrophy. Terminology is outdated–1994 taxonomy should be used [letter; comment] Allan L. **BMJ** 1998 Sep 12;317(7160):752. Comment on: BMJ 1998 Mar 14;316(7134):792–3.

Interrupting the sympathetic outflow in causalgia and reflex sympathetic dystrophy. Intravenous regional guanethidine blockage is a safe and effective treatment [letter; comment] Lamacraft G, et al. **BMJ** 1998 Sep 12;317(7160):752–3. Comment on: BMJ 1998 Mar 14;316(7134):792–3.

Interrupting the sympathetic outflow in causalgia and reflex sympathetic dystrophy. Stellate ganglion blockage: clinics take precautions, but few follow guidelines [letter; comment] Titley G, et al. **BMJ** 1998 Sep 12;317(7160):753 . Comment on: BMJ 1998 Mar 14;316(7134):792–3.

Subcutaneous infusion of lidocaine provides effective pain relief for CRPS patients. Linchitz RM, et al. **Clin J Pain** 1999 Mar;15(1):67–72

Analysis of peak magnitude and duration of analgesia produced by local anesthetics injected into sympathetic ganglia of complex regional pain syndrome patients. Price DD, et al. **Clin J Pain** 1998 Sep;14(3):216–26

Low dose gabapentin for shoulder-hand syndrome induced by phenobarbital: a three-month study. Rovetta G, et al. **Drugs Exp Clin Res** 1999;25(4):185–91

Pooled results from 2 trials evaluating biphosphonates in reflex sympathetic dystrophy [letter] Maillefert JF, et al. **J Rheumatol** 1999 Aug;26(8):1856–7

EPIDEMIOLOGY

The nocebo effect: do no harm. Kasdan ML, et al. **J South Orthop Assoc** 1999 Summer;8(2):108–13

Epidemiology of complex regional pain syndrome: a retrospective chart review of 134 patients. Allen G, et al. **Pain** 1999 Apr;80(3):539–44

ETIOLOGY

Reflex sympathetic dystrophy [letter] Thompson EN. **Can J Anaesth** 1999 Jul;46(7):710

Central nervous system abnormalities in complex regional pain syndrome (CRPS): clinical and quantitative evidence of medullary dysfunction. Thimineur M, et al. **Clin J Pain** 1998 Sep;14(3):256–67

Reflex sympathetic dystrophy precipitated by brachial plexitis. de Carvalho M. **Electromyogr Clin Neurophysiol** 1998 Dec;38(8):459–61

Reflex sympathetic dystrophy associated with extraforaminal disc herniation at the L5–S1 level. Condon F, et al. **J Spinal Disord** 1998 Oct;11(5):448–51

Reflex sympathetic dystrophy syndrome in renal transplant patients. A mysterious and misdiagnosed entity [editorial] Torregrosa JV, et al. **Nephrol Dial Transplant** 1999 Jun; 14(6):1364–5

A case of sympathetically maintained pain. Ibrahim AE, et al. **Postgrad Med J** 1999 Jul;75(885):433–4

Reflex sympathetic dystrophy of the lower limbs after kidney transplantation. Grandtnerová B, et al. **Transpl Int** 1998;11 Suppl 1:S331–3

[Scintigraphic diagnosis of algoneurodystrophia] Blocklet D, et al. **Rev Med Brux** 1999 Jun;20(3):A165–6 **(Fre)**

[Reflex sympathetic dystrophy (Sudeck's disease). An unavoidable complication of distal radius fracture?] Hansis M. **Zentralbl Chir** 1999;124(6):479–82 (Eng. Abstr.) **(Ger)**

[The three-staged evolution of the post-traumatic algodystrophy] Zyluk A. **Chir Narzadow Ruchu Ortop Pol** 1998;63(5):479–86 (Eng. Abstr.) **(Pol)**

[The results of the treatment of post-traumatic reflex sympathetic dystrophy within upper extremity] Zyluk A. **Chir Narzadow Ruchu Ortop Pol** 1999;64(2):117–25 (Eng. Abstr.) **(Pol)**

[Shoulder-hand syndrome in patients after stroke] Zyluk A, et al. **Neurol Neurochir Pol** 1999 Jan–Feb;33(1):131–42 (18 ref.) (Eng. Abstr.) **(Pol)**

[Shoulder-hand syndrome after stroke: a case report] Zyluk A, et al. **Neurol Neurochir Pol** 1999 Jan–Feb;33(1):187–93 (Eng. Abstr.) **(Pol)**

[Takayasu arteritis and the algodystrophic syndrome] Rybár I, et al. **Bratisl Lek Listy** 1998 Aug–Sep;99(8–9):483–5 (Eng. Abstr.) **(Slo)**

[The reflex sympathetic dystrophy syndrome of the lower extremities in patients after kidney transplantation—another complication of cyclosporin A therapy?] Grandtnerová B, et al. **Vnitr Lek** 1998 Feb;44(2):93–7 (Eng. Abstr.) **(Slo)**

IMMUNOLOGY

Reflex sympathetic dystrophy: is the immune system involved? Ribbers GM, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1549–52

METABOLISM

Role of neuropeptides in pathogenesis of reflex sympathetic dystrophy. Blair SJ, et al. **Acta Orthop Belg** 1998 Dec; 64(4):448–51

Bone atrophy in complex regional pain syndrome patients measured by microdensitometry [see comments] Otake T, et al. **Can J Anaesth** 1998 Sep;45(9):831–8. Comment in: Can J Anaesth 1998 Sep;45(9):829–30.

Butorphanol pharmacokinetics in a CRPS patient [letter] Wu-Pong S, et al. **J Pain Symptom Manage** 1999 Jan; 17(1):1–2

PATHOLOGY

Reflex sympathetic dystrophy in children: review of a clinical series and description of the particularities in children. Barbier O, et al. **Acta Orthop Belg** 1999 Mar;65(1):91–7

PHYSIOPATHOLOGY

Neurogenic inflammation and reflex sympathetic dystrophy (in vivo and in vitro assessment in an experimental model). Daemen M, et al. **Acta Orthop Belg** 1998 Dec;64(4):441–7

Increased soft-tissue blood flow in patients with reflex sympathetic dystrophy of the lower extremity revealed by power Doppler sonography. Nazarian LN, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1245–50

Experimental pressure pain in patients with complex regional pain syndrome, Type I (reflex sympathetic dystrophy). Vatine JJ, et al. **Am J Phys Med Rehabil** 1998 Sep–Oct; 77(5):382–7

Explaining reflex sympathetic dystrophy [editorial; comment] Schwartzman RJ. **Arch Neurol** 1999 May;56(5):521–2. Comment on: Arch Neurol 1999 May;56(5):613–20.

Vascular abnormalities in acute reflex sympathetic dystrophy (CRPS I): complete inhibition of sympathetic nerve activity with recovery [see comments] Wasner G, et al. **Arch Neurol** 1999 May;56(5):613–20. Comment in: Arch Neurol 1999 May;56(5):521–2.

Central nervous system abnormalities in complex regional pain syndrome (CRPS): clinical and quantitative evidence of medullary dysfunction. Thimineur M, et al. **Clin J Pain** 1998 Sep;14(3):256–67

Relationship between impairments, disability and handicap in reflex sympathetic dystrophy patients: a long-term follow-up study. Geertzen JH, et al. **Clin Rehabil** 1998 Oct; 12(5):402–12

Causalgia and reflex sympathetic dystrophy: does the sympathetic nervous system contribute to the generation of pain? Baron R, et al. **Muscle Nerve** 1999 Jun;22(6):678–95 (179 ref.)

Hemisensory impairment in patients with complex regional pain syndrome. Rommel O, et al. **Pain** 1999 Mar; 80(1–2):95–101

A case of reflex sympathetic dystrophy (complex regional pain syndrome, type I) resolved by cerebral contusion. Shibata M, et al. **Pain** 1999 Feb;79(2–3):313–5

Patterns of hyperalgesia in complex regional pain syndrome. Sieweke N, et al. **Pain** 1999 Mar;80(1–2):171–7

PSYCHOLOGY

Psychological aspects. A series of 104 posttraumatic cases of reflex sympathetic dystrophy. Rauïs AL. **Acta Orthop Belg** 1999 Mar;65(1):86–90

Personality assessment of patients with complex regional pain syndrome type I [see comments] Monti DA, et al. **Clin J Pain** 1998 Dec;14(4):295–302. Comment in: Clin J Pain 1998 Dec;14(4):277–9.

RADIOGRAPHY

[The three-staged evolution of the post-traumatic algodystrophy] Zyluk A. **Chir Narzadow Ruchu Ortop Pol** 1998;63(5):479–86 (Eng. Abstr.) **(Pol)**

RADIONUCLIDE IMAGING

Three-phase bone scan and dynamic vascular scintigraphy in algoneurodystrophy of the upper extremity. Schiepers C, et al. **Acta Orthop Belg** 1998 Sep;64(3):322–7

Autonomic regulation of lymphatic flow in the lower extremity demonstrated on lymphoscintigraphy in patients with reflex sympathetic dystrophy. Howarth D, et al. **Clin Nucl Med** 1999 Jun;24(6):383–7

The usefulness of quantitative evaluation of three-phase scintigraphy in the diagnosis of post-traumatic reflex sympathetic dystrophy. Zyluk A. **J Hand Surg [Br]** 1999 Feb;24(1):16–21

Quantitative evaluation of three-phase bone scintigraphy before and after the treatment of post-traumatic reflex sympathetic dystrophy. Zyluk A, et al. **Nucl Med Commun** 1999 Apr;20(4):327–33

[Prognostic aspects of scintigraphy and MRI during the first 6 months of reflex sympathetic dystrophy of the distal lower limb: a preliminary prospective study of 4 cases] Zufferey P, et al. **J Radiol** 1999 Apr;80(4):373–7 (Eng. Abstr.) **(Fre)**

[Scintigraphic diagnosis of algoneurodystrophia] Blocklet D, et al. **Rev Med Brux** 1999 Jun;20(3):A165–6 **(Fre)**

REHABILITATION

Cost-effectiveness analysis of adjuvant physical or occupational therapy for patients with reflex sympathetic dystrophy. Severens JL, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1038–43

[Sudeck disease--pathology, clinical aspects and therapy] Schulz RH, et al. **Sportverletz Sportschaden** 1998 Jun; 12(2):79–85 (28 ref.) (Eng. Abstr.) **(Ger)**

THERAPY

Clinical experience using intrathecal (IT) bupivacaine infusion in three patients with complex regional pain syndrome type I (CRPS-I). Lundborg C, et al. **Acta Anaesthesiol Scand** 1999 Jul;43(6):667–78

Repeated lumbar sympathetic blockade for complex regional pain syndromes type I--a case report. Wu CT, et al. **Acta Anaesthesiol Sin** 1998 Sep;36(3):155–8

Sympathetic nerve blocks in refractory sympathetic dystrophy syndrome. Hennart D, et al. **Acta Orthop Belg** 1999 Mar;65(1):83–5

Acupuncture in the treatment of posttraumatic pain syndrome. Korpan MI, et al. **Acta Orthop Belg** 1999 Jun; 65(2):197–201

Clinical criteria and treatment of segmental versus upper extremity reflex sympathetic dystrophy. Soucacos PN, et al. **Acta Orthop Belg** 1998 Sep;64(3):314–21

The reasons for poor response to treatment of posttraumatic reflex sympathetic dystrophy. Zyluk A. **Acta Orthop Belg** 1998 Sep;64(3):309–13

Effects of qigong on late-stage complex regional pain syndrome. Wu WH, et al. **Altern Ther Health Med** 1999 Jan;5(1):45–54

Management of reflex sympathetic dystrophy. Viel E, et al. **Ann Med Interne (Paris)** 1999 Apr;150(3):205–10 (55 ref.)

Reflex sympathetic dystrophy in children. Cimaz R, et al. **J Child Neurol** 1999 Jun;14(6):363–7

Electrical spinal cord stimulation in reflex sympathetic dystrophy: retrospective analysis of 23 patients. Kemler MA, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):79–83

60 cases of shoulder-arm syndrome treated by

electroacupuncture at Bingfeng (SI 12). Liu H, et al. **J Tradit Chin Med** 1998 Dec;18(4):256–8

Quantitative evaluation of three-phase bone scintigraphy before and after the treatment of post-traumatic reflex sympathetic dystrophy. Zyluk A, et al. **Nucl Med Commun** 1999 Apr;20(4):327–33

Comments on Kingery, PAIN, 73 (1997) 123–139. Controlled randomized trials failed to demonstrate that sympathetic blocks (SB) are more effective than placebo for relieving complex regional pain syndromes (CRPS) [letter; comment] Bonicalzi V, et al. **Pain** 1999 Feb;79(2–3):317–9. Comment on: Pain 1997 Nov;73(2):123–39.

[Algodystrophic syndrome of the temporo-mandibular joint: a clinical experience] de Filippis C, et al. **Acta Otorhinolaryngol Ital** 1998 Apr;18(2):111–5 (Eng. Abstr.) **(Ita)**

[The results of the treatment of post-traumatic reflex sympathetic dystrophy within upper extremity] Zyluk A. **Chir Narzadow Ruchu Ortop Pol** 1999;64(2):117–25 (Eng. Abstr.) **(Pol)**

[Advances in the treatment of algodystrophy] Dzik A. **Pol Merkuriusz Lek** 1998 Sep;5(27):183–4 (10 ref.) (Eng. Abstr.) **(Pol)**

VETERINARY

Reflex sympathetic dystrophy in a dog. LaBarre A, et al. **J Am Anim Hosp Assoc** 1999 May–Jun;35(3):229–31

REFLEX, TENDON see **REFLEX, STRETCH**

REFLEX THERAPY see **REFLEXOTHERAPY**

REFLEX, VESTIBULO-OCULAR

A new vestibulo-ocular reflex recording system designed for routine vestibular clinical use. Funabiki K, et al. **Acta Otolaryngol** 1999;119(4):413–9

The Contributions of the Vestibular System to Oculo-Motor, Skeleto-Motor and Perceptual Functions. Proceedings of a symposium in honour of Ottavio Pompeiano and Victor Wilson. Freiburg, Germany, September 9–11, 1998. Abstracts. **Arch Ital Biol** 1999 Jan;137 Suppl:1–108

Vestibular function in children with the CHARGE association. Wiener-Vacher SR, et al. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):342–7

Chronic recording of the vestibulo-ocular reflex in the restrained rat using a permanently implanted scleral search coil. Quinn KJ, et al. **J Neurosci Methods** 1998 Apr 30; 80(2):201–8

Recovery of vestibulo-ocular reflex-function in subjects with an acute unilateral peripheral vestibular deficit. Allum JH, et al. **J Vestib Res** 1999;9(2):135–44

A signal analysis method for retinal image velocity computation of vestibular-ocular reflex eye movement investigations. Juhola M. **Medinfo** 1998;9 Pt 2:1247–9

Dual adaptation and adaptive generalization of the human vestibulo-ocular reflex. Welch RB, et al. **Percept Psychophys** 1998 Nov;60(8):1415–25

Deficient cancellation of the vestibular ocular reflex in schizophrenia. Warren S, et al. **Schizophr Res** 1998 Nov 30;34(3):187–93

DRUG EFFECTS

Modulation of vestibular function by nociceptin/orphanin FQ: an in vivo and in vitro study. Sulaiman MR, et al. **Brain Res** 1999 May 15;828(1–2):74–82

PHYSIOLOGY

Increased transmission by direct vestibulo-ocular reflex pathways after peripheral vestibular damage: a preliminary report. Broussard DM, et al. **Acta Otolaryngol (Stockh)** 1999 Jan;119(1):58–61

Passive sustained turning of the head induces asymmetric gain of the vestibulo-ocular reflex in healthy subjects. Padoan S, et al. **Acta Otolaryngol (Stockh)** 1998 Nov; 118(6):778–82

Effects of static orientation upon human optokinetic afternystagmus. Wall C 3rd, et al. **Acta Otolaryngol (Stockh)** 1999 Jan;119(1):16–23

Three-dimensional analysis of pressure nystagmus in labyrinthine fistulae. Yagi T, et al. **Acta Otolaryngol (Stockh)** 1999 Mar;119(2):150–3

Pseudorandom rotational stimuli of the vestibulo-ocular reflex in humans: normal values of the transfer function. Bouveresse A, et al. **Acta Otorhinolaryngol Belg** 1998; 52(3):207–14

Functional organization of primate translational vestibulo-ocular reflexes and effects of unilateral labyrinthectomy. Angelaki DE, et al. **Ann N Y Acad Sci** 1999 May 28;871:136–47

Measuring the otolith-ocular response by means of unilateral radial acceleration. Clarke AH, et al. **Ann N Y Acad Sci** 1999 May 28;871:387–91

VOR gain modulation in the monkey due to convergence of otolith and semicircular canal afferences during eccentric sinusoidal rotation. Fuhry L, et al. **Ann N Y Acad Sci** 1999 May 28;871:398–401

Phase adaptation of the linear vestibulo-ocular reflex. Hegemann S, et al. **Ann N Y Acad Sci** 1999 May 28; 871:414–6

Inertial processing of vestibulo-ocular signals. Hess BJ, et al. **Ann N Y Acad Sci** 1999 May 28;871:148–61

Vestibulo- and reticulospinal control of the extensor half-center in locomotion. Leblond H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:563–5

Horizontal linear vestibulo-ocular reflex testing in patients with peripheral vestibular disorders. Lempert T, et al. **Ann N Y Acad Sci** 1999 May 28;871:232–47

Signal processing related to the vestibulo-ocular reflex during combined angular rotation and linear translation of the head. McCrea RA, et al. **Ann N Y Acad Sci** 1999 May 28;871:65–80

Characteristics of the VOR in response to linear acceleration. Paige GD, et al. **Ann N Y Acad Sci** 1999 May 28;871:123–35 (49 ref.)

Control of spatial orientation of the angular vestibulo-ocular reflex by the nodulus and uvula of the vestibulocerebellum. Sheliga BM, et al. **Ann N Y Acad Sci** 1999 May 28; 871:94–122

Otolith ocular reflex function of the tangential nucleus in teleost fish. Suwa H, et al. **Ann N Y Acad Sci** 1999 May 28;871:1–14

Vestibulo-ocular reflex pathways in internuclear ophthalmoplegia. Cremer PD, et al. **Ann Neurol** 1999 Apr; 45(4):529–33

Autosomal dominant non-syndromal low-frequency sensorineural hearing impairment linked to chromosome 4p16 (DFNA14): statistical analysis of hearing threshold in relation to age and evaluation of vestibulo-ocular functions. Kunst H, et al. **Audiology** 1999 May–Jun; 38(3):165–73 (32 ref.)

A linear canal-otolith interaction model to describe the human vestibulo-ocular reflex. Crane BT, et al. **Biol Cybern** 1999 Aug;81(2):109–18

Characteristics of slow and fast phases of the optocollic reflex (OCR) in head free pigeons (Columba livia): influence of flight behaviour. Gioanni H, et al. **Eur J Neurosci** 1999 Jan;11(1):155–66

Neuronal correlates of vestibulo-ocular reflex adaptation in the alert guinea-pig. Serafin M, et al. **Eur J Neurosci** 1999 May;11(5):1827–30

Unilateral vestibular deafferentation produces no long-term effects on human active eye-head coordination. Black RA, et al. **Exp Brain Res** 1998 Oct;122(3):362–6

The dynamics of the vestibulo-ocular reflex after peripheral vestibular damage. I. Frequency-dependent asymmetry. Broussard DM, et al. **Exp Brain Res** 1999 Apr; 125(3):353–64

The dynamics of the vestibulo-ocular reflex after peripheral vestibular damage. II. Comparison with dynamics after optically induced learning. Broussard DM, et al. **Exp Brain Res** 1999 Apr;125(3):365–74

Horizontal vestibulo-ocular reflex and head stability in response to torso perturbations during visual search. Crane BT, et al. **Exp Brain Res** 1999 Apr;125(3):335–43

Latency of voluntary cancellation of the human vestibulo-ocular reflex during transient yaw rotation. Crane BT, et al. **Exp Brain Res** 1999 Jul;127(1):67–74

Off-center yaw rotation: effect of naso-occipital linear acceleration on the nystagmus response of normal human subjects and patients after unilateral vestibular loss. Curthoys IS, et al. **Exp Brain Res** 1998 Dec;123(4):425–38

High acceleration impulsive rotations reveal severe long-term deficits of the horizontal vestibulo-ocular reflex in the guinea pig. Gilchrist DP, et al. **Exp Brain Res** 1998 Dec;123(3):242–54

Nystagmus induced by circular head shaking in normal human subjects. Haslwanter T, et al. **Exp Brain Res** 1999 Jan;124(1):25–32

Visual-vestibular interaction during transparent optokinetic stimulation in the rabbit. Mathoera AL, et al. **Exp Brain Res** 1999 Mar;125(1):87–96

Eye-head coordination in labyrinthine-defective humans. Maurer C, et al. **Exp Brain Res** 1998 Oct;122(3):260–74

Neck muscle activity after unilateral labyrinthectomy in the alert guinea pig. Ris L, et al. **Exp Brain Res** 1999 Jan; 124(2):159–65

Eye movements during combined pursuit, optokinetic and vestibular stimulation in macaque monkey. Schweigart G, et al. **Exp Brain Res** 1999 Jul;127(1):54–66

Adaptive plasticity in the naso-occipital linear vestibulo-ocular reflex. Seidman SH, et al. **Exp Brain Res** 1999 Apr;125(4):485–94

Vestibular caloric responses and behavioral state in the fetal sheep. Abrams RM, et al. **Int J Pediatr Otorhinolaryngol** 1998 Sep 15;45(1):59–68

Analysis and modeling of frequency-specific habituation of the goldfish vestibulo-ocular reflex. Dow ER, et al. **J Comput Neurosci** 1999 Jul–Aug;7(1):55–70

Stimulus dependence of the development of the zebrafish (Danio rerio) vestibular system. Moorman SJ, et al. **J Neurobiol** 1999 Feb 5;38(2):247–58

Oscillopsia: impaired vision during motion in the absence of the vestibulo-ocular reflex [editorial; comment] Leigh RJ. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):808. Comment on: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):828–35.

Oscillopsia: visual function during motion in the absence of vestibulo-ocular reflex [see comments] Morland AB, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):828–35. Comment in: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):808.

Effects of viewing distance on the responses of horizontal canal-related secondary vestibular neurons during angular head rotation. Chen-Huang C, et al. **J Neurophysiol** 1999 May;81(5):2517–37

Effects of viewing distance on the responses of vestibular neurons to combined angular and linear vestibular stimulation. Chen-Huang C, et al. **J Neurophysiol** 1999 May;81(5):2538–57

Human horizontal vestibulo-ocular reflex initiation: effects of acceleration, target distance, and unilateral deafferentation. Crane BT, et al. **J Neurophysiol** 1998 Sep; 80(3):1151–66

Enhancement of the vestibulo-ocular reflex by prior eye movements. Das VE, et al. **J Neurophysiol** 1999 Jun; 81(6):2884–92

Human vestibuloocular reflex and its interactions with vision and fixation distance during linear and angular head movement. Paige GD, et al. **J Neurophysiol** 1998 Nov; 80(5):2391–404

Neural control of rotational kinematics within realistic vestibulooocular coordinate systems. Smith MA, et al. **J Neurophysiol** 1998 Nov;80(5):2295–315

Vertical eye position-dependence of the human vestibulooocular reflex during passive and active yaw head rotations. Thurtell MJ, et al. **J Neurophysiol** 1999 May; 81(5):2415–28

Effects of tilt of the gravito-inertial acceleration vector on the angular vestibulooocular reflex during centrifugation. Wearne S, et al. **J Neurophysiol** 1999 May;81(5):2175–90

Dynamics and kinematics of the angular vestibulo-ocular reflex in monkey: effects of canal plugging. Yakushin SB, et al. **J Neurophysiol** 1998 Dec;80(6):3077–99

Computation of inertial motion: neural strategies to resolve ambiguous otolith information. Angelaki DE, et al. **J Neurosci** 1999 Jan 1;19(1):316–27

Neural learning rules for the vestibulo-ocular reflex. Raymond JL, et al. **J Neurosci** 1998 Nov 1;18(21):9112–29

Subjective visual vertical in patients with benign paroxysmal positional vertigo. Gall RM, et al. **J Otolaryngol** 1999 Jun; 28(3):162–5

Head impulses reveal loss of individual semicircular canal function. Aw ST, et al. **J Vestib Res** 1999;9(3):173–80

"Torso Rotation" experiments. 4: the role of vision and the cervico-ocular reflex in compensation for a deficient VOR. Bouyer LJ, et al. **J Vestib Res** 1999;9(2):89–101

Yaw and pitch visual-vestibular interaction in weightlessness. Clément G, et al. **J Vestib Res** 1999;9(3):207–20

Effects of body orientation and rotation axis on pitch visual-vestibular interaction. Clément G, et al. **J Vestib Res** 1999;9(1):1–11

Spatial orientation of the angular vestibulo-ocular reflex. Cohen B, et al. **J Vestib Res** 1999;9(3):163–72 (49 ref.)

Somatosensory cuing of head-only rotational testing. Furman JM, et al. **J Vestib Res** 1999;9(3):189–95

Head-only rotational testing in the elderly. Furmen JM, et al. **J Vestib Res** 1998 Sep–Oct;8(5):355–61

Contribution of the otoliths to the human torsional vestibulo-ocular reflex. Groen E, et al. **J Vestib Res** 1999; 9(1):27–36

Comparison of two head autorotation tests. Hirvonen TP, et al. **J Vestib Res** 1999;9(2):119–25

Multiple subclasses of purkinje cells in the primate floccular complex provide similar signals to guide learning in the vestibulo-ocular reflex. Raymond JL, et al. **Learn Mem** 1997 Mar–Apr;3(6):503–18

A neural correlate for vestibulo-ocular reflex suppression during voluntary eye-head gaze shifts. Roy JE, et al. **Nat Neurosci** 1998 Sep;1(5):404–10

Non-commutativity in the brain. Tweed DB, et al. **Nature** 1999 May 20;399(6733):261–3

Abolished tilt suppression of the vestibulo-ocular reflex caused by a selective uvulo-nodular lesion. Wiest G, et al. **Neurology** 1999 Jan 15;52(2):417–9

Low intensity galvanic vestibulo-ocular reflex in normal subjects. Quarck G, et al. **Neurophysiol Clin** 1998 Nov; 28(5):413–22

Vestibulo-ocular dysfunction induced by cortical damage in man: a case report. Ventre-Dominey J, et al. **Neuropsychologia** 1999 Jun;37(6):715–21

Three-dimensional modeling of static vestibulo-ocular brain stem syndromes. Glasauer S, et al. **Neuroreport** 1998 Dec 1;9(17):3841–5

Variable otolith contribution to the galvanically induced vestibulo-ocular reflex. Kleine JF, et al. **Neuroreport** 1999 Apr 6;10(5):1143–8

Light-dependent suppression of the vestibulo-ocular reflex during development. Sebastian C, et al. **Neuroreport** 1999 Jan 18;10(1):171–6

The minimum duration of microgravity experience during space flight which affects the development of the roll induced vestibulo-ocular reflex in an amphibian (Xenopus laevis). Sebastian C, et al. **Neurosci Lett** 1998 Sep 11; 253(3):171–4

Adaptive modifications of post-saccadic smooth pursuit eye movements and their interaction with saccades and the vestibulo-ocular reflex in the primate. Nagao S, et al. **Neurosci Res** 1998 Oct;32(2):157–69

Latency of cross-axis vestibulo-ocular reflex induced by pursuit training in monkeys. Sato T, et al. **Neurosci Res** 1999 Jan;33(1):65–70

Ultrastructure of vestibular commissural neurons related to velocity storage in the monkey. Holstein GR, et al. **Neuroscience** 1999;93(1):155–70

The ultrastructure of GABA-immunoreactive vestibular commissural neurons related to velocity storage in the monkey. Holstein GR, et al. **Neuroscience** 1999; 93(1):171-81

[Orientational evaluation of otolith function by eye counter-rolling in patients with various kinds of vertigo] Maurer J, et al. **Laryngorhinootologie** 1999 Apr;78(4):210-6 (Eng. Abstr.) **(Ger)**

[Influence of age on vestibulo-ocular reflex (VOR)] Ezawa S. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Jan;102(1):73-82 (Eng. Abstr.) **(Jpn)**

[Early saturated form of slow phase eye velocity in optokinetic nystagmus in dizzy patients] Yokota J. **No To Shinkei** 1998 Oct;50(10):923-30 (Eng. Abstr.) **(Jpn)**

[Vestibulo-visual interaction in peripheral lesion of vestibular organ] Orendorz-Frączkowska K, et al. **Otolaryngol Pol** 1999;53(2):195-200 (Eng. Abstr.) **(Pol)**

[Normal vertical vestibulo-ocular reflexes in man] Skliut IA, et al. **Aviakosm Ekolog Med** 1999;33(3):38-41 (Eng. Abstr.) **(Rus)**

[The study of vertical vestibulo-ocular reflexes] Skliut IA, et al. **Aviakosm Ekolog Med** 1999;33(2):64-7 (Eng. Abstr.) **(Rus)**

[Technique of registering active sagittal head movements in the process of studying vertical vestibuloocular reflexes] Skliut IA, et al. **Aviakosm Ekolog Med** 1999;33(1):59-61 (Eng. Abstr.) **(Rus)**

[Interaction of the angular and linear components of the horizontal vestibulo-ocular reflex in the pigeon] Stolbkov IuK, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov; 84(11):1252-63 (Eng. Abstr.) **(Rus)**

[The role of cervical proprioceptive afferentation in compensatory mechanisms of vestibular dysfunction. 1. Passive cervico-ocular reflex in unilateral labyrinthine lesion] Skliut IA, et al. **Vestn Otorinolaringol** 1999;(2):34-8 (Eng. Abstr.) **(Rus)**

[The role of cervical proprioceptive afferentation in the mechanisms of vestibular dysfunction compensation. 2. The passive vestibulo-ocular reflex in bilateral labyrinth lesion] Skliut IA, et al. **Vestn Otorinolaringol** 1999;(3):35-7 (Eng. Abstr.) **(Rus)**

REFLEXOLOGY see **MASSAGE**

REFLEXOTHERAPY

Reflex therapy in dermatology. Stüttgen G. **Clin Dermatol** 1999 Jan-Feb;17(1):77-91

Incidental spina bifida occulta in functional enuresis observed during laser reflexo therapy. Kalra V, et al. **J Child Neurol** 1999 Aug;14(8):541-3

[Acupuncture and Vojta therapy in infantile cerebral palsy--a comparison of the effects] Stockert K. **Wien Med Wochenschr** 1998;148(19):434-8 (6 ref.) (Eng. Abstr.) **(Ger)**

[The use of acupuncture reflex therapy in the combined treatment of osteoarthrosis patients] Zherebkin VV. **Lik Sprava** 1998 Dec;(8):149-51 (Eng. Abstr.) **(Rus)**

[The effect of reflexotherapy on the hemostatic system of patients with glomerulonephritis] Holub TI. **Lik Sprava** 1999 Apr-May;(3):157-61 (Eng. Abstr.) **(Ukr)**

HISTORY

Raymond L Nimmo and the evolution of trigger point therapy, 1929-1986 [letter] Chaitow L. **J Manipulative Physiol Ther** 1998 Oct;21(8):575

[The forerunner of reflex therapy: Georg Prochaska (1749-1820)] Kiss L. **Orv Hetil** 1999 Feb 21;140(8):419-22 **(Hun)**

METHODS

[Experience in the use of a method of intracutaneous oxygen and zonal reflexotherapy in the practical treatment and rehabilitation of persons who suffered as a consequence of the accident at the Chernobyl Atomic Electric Power Station] Babitskii EL, et al. **Lik Sprava** 1999 Apr-May; (3):155-7 **(Rus)**

[The use of reflexotherapy in the initial forms of cerebrovascular insufficiency in persons who suffered as a consequence of the accident at the Chernobyl Atomic Electric Power Station] Shcherbatyi AA, et al. **Lik Sprava** 1999 Apr-May;(3):151-5 (Eng. Abstr.) **(Ukr)**

REFRACTION, OCULAR

Optic nerve head topography [letter; comment] Iester M. **Acta Ophthalmol Scand** 1999 Apr;77(2):243-4. Comment on: Acta Ophthalmol Scand 1998 Apr;76(2):170-5.

Effect of astigmatic keratotomy on spherical equivalent: results of the Astigmatism Reduction Clinical Trial. Faktorovich EG, et al. **Am J Ophthalmol** 1999 Mar; 127(3):260-9

Refractive changes after pediatric intraocular lens implantation [letter; comment] Ruben JB. **Am J Ophthalmol** 1999 Aug;128(2):260-1. Comment on: Am J Ophthalmol 1998 Dec;126(6):772-81.

Intra-ocular lens power calculation following corneal refractive surgery. Loughnan M, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):343-5

Intraocular lenses in children: changes in axial length, corneal curvature, and refraction. Flitcroft DI, et al. **Br J Ophthalmol** 1999 Mar;83(3):265-9

Immediate postoperative objective refraction as an indication to final refraction in phacoemulsification surgery [letter] Tu KL, et al. **Br J Ophthalmol** 1998 Jul;82(7):842

Superior cervical ganglionectomy in monkeys: effects on refraction and intraocular pressure [letter] Hubbard WC, et al. **Exp Eye Res** 1999 May;68(5):637-9

Regular and irregular refractive powers of the front and back surfaces of the cornea. Oshika T, et al. **Exp Eye Res** 1998 Oct;67(4):443-7

Changes in corneal wavefront aberrations with aging. Oshika T, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1351-5

Visual acuity screening versus noncycloplegic autorefraction screening for astigmatism in Native American preschool children. Miller JM, et al. **J Aapos** 1999 Jun;3(3):160-5

Ophthalmologic outcome after third cranial nerve palsy or paresis in childhood. Mudgil AV, et al. **J Aapos** 1999 Feb; 3(1):2-8

Axial, instantaneous, and refractive formulas in computerized videokeratography of normal corneas. Bafna S, et al. **J Cataract Refract Surg** 1998 Sep;24(9):1184-90

Visual, refractive, and subjective outcomes after photorefractive keratectomy for myopia of 6 to 10 diopters using the Nidek laser. Hadden OB, et al. **J Cataract Refract Surg** 1999 Jul;25(7):936-42

Refractive astigmatism after oblique clear corneal phacoemulsification cataract incision. Jacobs BJ, et al. **J Cataract Refract Surg** 1999 Jul;25(7):949-52

Intraocular lens calculator for childhood cataract. McClatchey SK. **J Cataract Refract Surg** 1998 Aug; 24(8):1125-9

Comparison of objective and subjective refraction before and after laser in situ keratomileusis. Salchow DJ, et al. **J Cataract Refract Surg** 1999 Jun;25(6):827-35

Comparison of contact lens overrefraction and standard keratometry for measuring corneal curvature in eyes with lenticular opacity. Zeh WG, et al. **J Cataract Refract Surg** 1999 Jul;25(7):898-903

Spectrally resolved white-light interferometry for measurement of ocular dispersion. Hammer DX, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Sep;16(9):2092-102

Videokeratography, keratometry, and refraction after penetrating keratoplasty. Borderie VM, et al. **J Refract Surg** 1999 Jan-Feb;15(1):32-7

Fully automated refraction in laser refractive surgery using the Nidek COS-2000. Chayet AS, et al. **J Refract Surg** 1999 Mar-Apr;15(2 Suppl):S257-8

Corneal topography and postoperative refraction after cataract phacoemulsification following radial keratotomy. Bardocci A, et al. **Ophthalmic Surg Lasers** 1999 Feb; 30(2):155-9

Total internal reflection of laser light in eyes filled with silicone oil. Bartov E, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):17-23

Corneal refractive and endothelial changes following THC:YAG (holmium) laser sclerostomy. Trible JR, et al. **Ophthalmic Surg Lasers** 1998 Sep;29(9):733-7

Refractive results of post penetrating keratoplasty photorefractive keratectomy. Yoshida K, et al. **Ophthalmic Surg Lasers** 1999 May;30(5):354-9

Comparing predictability between eyes after bilateral laser in situ keratomileusis: a theoretical analysis of simultaneous versus sequential procedures. Chiang PK, et al. **Ophthalmology** 1999 Sep;106(9):1684-91

Refractive error consequences of reversed-optic AMO SI-40NB intraocular lens. Halpern BL, et al. **Ophthalmology** 1999 May;106(5):901-3

Underestimation of intraocular lens power for cataract surgery after myopic photorefractive keratectomy. Seitz B, et al. **Ophthalmology** 1999 Apr;106(4):693-702

The repeatability of automated and clinician refraction. Bullimore MA, et al. **Optom Vis Sci** 1998 Aug;75(8):617-22

Repeatability of refraction and corrected visual acuity in keratoconus. The CLEK Study Group. Collaborative Longitudinal Evaluation of Keratoconus. Davis LJ, et al. **Optom Vis Sci** 1998 Dec;75(12):887-96

Is refraction in early infancy a predictor of myopia at the age of 7 to 8 years? The relationship between cycloplegic refraction at 11 weeks and the manifest refraction at age 7 to 8 years in Chinese children. Edwards MH, et al. **Optom Vis Sci** 1999 May;76(5):272-4

A 2-year longitudinal study of myopia progression and optical component changes among Hong Kong schoolchildren. Lam CS, et al. **Optom Vis Sci** 1999 Jun; 76(6):370-80

Epidemiologic study of ocular refraction among schoolchildren in Taiwan in 1995. Lin LL, et al. **Optom Vis Sci** 1999 May;76(5):275-81

Role of genetic factors in the etiology of juvenile-onset myopia based on a longitudinal study of refractive error. Pacella R, et al. **Optom Vis Sci** 1999 Jun;76(6):381-6

The refractive development of untreated eyes of rhesus monkeys varies according to the treatment received by their fellow eyes. Bradley DV, et al. **Vision Res** 1999 May; 39(10):1749-57

[Diurnal variations of refraction and keratometry after intracorneal rings] Baikoff G, et al. **J Fr Ophtalmol** 1999 Mar;22(2):169-75 (Eng. Abstr.) **(Fre)**

[Phacoemulsification for visual refraction on the clear lens. Apropos of 33 severely myopic eyes] Chastang P, et al. **J Fr Ophtalmol** 1998 Oct;21(8):560-6 (Eng. Abstr.) **(Fre)**

[Predictability of intraocular lens power calculation in the treatment of cataracts in children] Lesueur L, et al. **J Fr Ophtalmol** 1999 Mar;22(2):209-12 (Eng. Abstr.) **(Fre)**

[Scale for evaluating desirable ametropia or eumetropia] Mehel E, et al. **J Fr Ophtalmol** 1998 Apr;21(4):271-5 (Eng. Abstr.) **(Fre)**

[Construction of a model eye for simulation of Purkinje reflections for determining the radii of curvature and the position of the crystalline lens] Kirschkamp T, et al. **Biomed Tech (Berl)** 1998 Nov;43(11):318-25 (Eng. Abstr.) **(Ger)**

[Intraocular lens calculation and ultrasound biometry: immersion and contact procedures] Hoffmann PC, et al. **Klin Monatsbl Augenheilkd** 1998 Sep;213(3):161-5 (Eng. Abstr.) **(Ger)**

[Actually we and our patients should see much better! (editorial)] Seiler T. **Klin Monatsbl Augenheilkd** 1998 Sep; 213(3):125 **(Ger)**

[Prediction of postoperative refraction using intraoperative retinoscopy] Iwami S, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul;103(7):551-5 (Eng. Abstr.) **(Jpn)**

[Accuracy of intraocular power calculation formulas] Kijima T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jun;103(6):470-6 (Eng. Abstr.) **(Jpn)**

[Automatic refractometry, reliability of the determination of type and degree of refraction anomalies] Kovačić Z, et al. **Lijec Vjesn** 1998 Jun;120(6):162-4 (Eng. Abstr.) **(Scr)**

DRUG EFFECTS

The comparison of cyclopentolate and atropine in patients with refractive accommodative esotropia by means of retinoscopy, autorefractometry and biometric lens thickness. Celebi S, et al. **Acta Ophthalmol Scand** 1999 Aug; 77(4):426-9

Pupillographic, tonographic and refractive parameter changes after topical instillation of Brimonidine tartrate 0.2% in healthy subjects. Brogliatti B, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):34-5

Cycloplegia in African-American children. Kleinstein RN, et al. **Optom Vis Sci** 1999 Feb;76(2):102-7

PHYSIOLOGY

Refractive changes in the elderly. Bengtsson B, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):37-9

Longitudinal changes in visual acuity and visual ability in a cohort followed from the age of 70 to 88 years. Bergman B, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):286-92

Refractive changes among Norwegian university students--a three-year longitudinal study. Kinge B, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):302-5

Partial coherence interferometry: a novel approach to biometry in cataract surgery. Drexler W, et al. **Am J Ophthalmol** 1998 Oct;126(4):524-34

Experimental implantation of posterior chamber prototype intraocular lenses for the feline eye. Gilger BC, et al. **Am J Vet Res** 1998 Oct;59(10):1339-43

Screening for refractive errors in children: accuracy of the hand held refractor Retinomax to screen for astigmatism. Cordonnier M, et al. **Br J Ophthalmol** 1999 Feb; 83(2):157-61

The development and maintenance of emmetropia. Brown NP, et al. **Eye** 1999;13 (Pt 1):83-92 (106 ref.)

Retinoscopy [letter; comment] Mutti DO, et al. **J Am Optom Assoc** 1998 Oct;69(10):620-4. Comment on: J Am Optom Assoc 1996 Oct;67(10):610-8.

Refractive status in children after long-term follow up of cataract surgery with intraocular lens implantation. Spierer A, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jan-Feb; 36(1):25-9

A generalization of Prentice's law for lenses with arbitrary refracting surfaces. Gómez-Pedrero JA, et al. **Ophthalmic Physiol Opt** 1998 Nov;18(6):514-20

A study of the accuracy of corneal reflection pupillometers. Obstfeld H, et al. **Ophthalmic Physiol Opt** 1998 Nov; 18(6):527-31

Afocal magnification does not influence chick eye development. Curry TA, et al. **Optom Vis Sci** 1999 May; 76(5):316-9

Effect of accommodative adaptation on static and dynamic accommodation in emmetropia and late-onset myopia. Jiang BC, et al. **Optom Vis Sci** 1999 May;76(5):295-302

Modeling human eye aberrations and their compensation for high-resolution retinal imaging. Zhu L, et al. **Optom Vis Sci** 1998 Nov;75(11):827-39 (37 ref.)

Normal development of refractive state and ocular component dimensions in the marmoset (Callithrix jacchus). Graham B, et al. **Vision Res** 1999 Jan;39(2):177-87

The growing eye: an autofocus system that works on very poor images. Schaeffel F, et al. **Vision Res** 1999 May; 39(9):1585-9

[The significance of computer video-keratography in refractory surgery of the cornea] Gierek-Ciaciura S, et al. **Klin Oczna** 1999;101(1):33-6 (Eng. Abstr.) **(Pol)**

REFRACTIVE ERRORS

[Practical technical measurement problems in determining optical image errors of the human eye with a video-aberroscope] Mierdel P, et al. **Biomed Tech (Berl)**

1998;43 Suppl:60–1 **(Ger)**

CHEMICALLY INDUCED

Irreversible corneal decompensation in patients treated with topical dorzolamide. Konowal A, et al. **Am J Ophthalmol** 1999 Apr;127(4):403–6

COMPLICATIONS

Adie syndrome: evidence for refractive error and accomodative asymmetry as the cause of amblyopia. Firth AY. **Am J Ophthalmol** 1999 Jul;128(1):118–9

DIAGNOSIS

Results of school eye screening of 5.4 million children in India--a five-year follow-up study. Limburg H, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):310–4

Prevalence and predictors of undercorrected refractive errors in the Victorian population. Liou HL, et al. **Am J Ophthalmol** 1999 May;127(5):590–6

Measurement of the validity of a preschool vision screening program. Robinson B, et al. **Am J Public Health** 1999 Feb; 89(2):193–8

Comparison of contact lens overrefraction and standard keratometry for measuring corneal curvature in eyes with lenticular opacity. Zeh WG, et al. **J Cataract Refract Surg** 1999 Jul;25(7):898–903

Pediatric photoscreening for strabismus and refractive errors in a high-risk population. Simons BD, et al. **Ophthalmology** 1999 Jun;106(6):1073–80

Off-axis monochromatic aberrations estimated from double pass measurements in the human eye. Guirao A, et al. **Vision Res** 1999 Jan;39(2):207–17

[Reasons for return of patients for consultation after prescription for corrective glasses] Mwanza JC, et al. **Bull Soc Belge Ophtalmol** 1998;270:79–83 (Eng. Abstr.) **(Fre)**

[Screening for amblyopia, strabismus and refractive abnormalities in 1,030 kindergarten children] Käsmann-Kellner B, et al. **Klin Monatsbl Augenheilkd** 1998 Sep;213(3):166–73 (Eng. Abstr.) **(Ger)**

[Predicted versus actual postoperative refractive error after simultaneous vitrectomy and cataract surgery] Suzuki Y, et al. **Nippon Ganka Gakkai Zasshi** 1999 Apr;103(4):318–21 (Eng. Abstr.) **(Jpn)**

[Should not we correct some of Donder's assumptions? (letter)] Rozenblium IuZ. **Vestn Oftalmol** 1999 Jan–Feb; 115(1):37–8 **(Rus)**

[Refraction and poor vision in preschool children] Mladenović T, et al. **Vojnosanit Pregl** 1998 Sep–Oct;55(5 Suppl):49–52 **(Scc)**

[Automatic refractometry, reliability of the determination of type and degree of refraction anomalies] Kovačić Z, et al. **Lijec Vjesn** 1998 Jun;120(6):162–4 (Eng. Abstr.) **(Scr)**

DRUG THERAPY

Visual acuity after cycloplegia in children: implications for atropine penalization. Wallace DK. **J Aapos** 1999 Aug; 3(4):241–4

EPIDEMIOLOGY

Prevalence and predictors of undercorrected refractive errors in the Victorian population. Liou HL, et al. **Am J Ophthalmol** 1999 May;127(5):590–6

Ophthalmological long-term follow up of preterm infants: a population based, prospective study of the refraction and its development. Holmström M, et al. **Br J Ophthalmol** 1998 Nov;82(11):1265–71

An epidemiologic investigation of unexpected refractive errors following cataract surgery [letter; comment] Freeland WJ. **Can J Ophthalmol** 1998 Aug;33(5):290. Comment on: Can J Ophthalmol 1998 Jun;33(4):210–5.

Changes in refractive error over a 5-year interval in the Beaver Dam Eye Study. Lee KE, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1645–9

Vision screening of abused and neglected children by the UCLA Mobile Eye Clinic. Yoo R, et al. **J Am Optom Assoc** 1999 Jul;70(7):461–9

Refractive errors in an older population: the Blue Mountains Eye Study. Attebo K, et al. **Ophthalmology** 1999 Jun; 106(6):1066–72

[An analysis of the prevalence of clinical refraction (based on data from the reciprocal dispensary care of students at the I. M. Sechenov Moscow Medical Academy)] Sherstneva LV, et al. **Vestn Oftalmol** 1998 Sep–Oct; 114(5):55–6 (Eng. Abstr.) **(Rus)**

ETIOLOGY

Refractive changes associated with scleral buckling and division in retinopathy of prematurity. Chow DR, et al. **Arch Ophthalmol** 1998 Nov;116(11):1446–8

Changes in axial length after retinal detachment surgery. Malukiewicz-Wiśniewska G, et al. **Eur J Ophthalmol** 1999 Apr–Jun;9(2):115–9

The effect of continuous light on refractive error and the ocular components of the rat. Mutti DO, et al. **Exp Eye Res** 1998 Dec;67(6):631–6

Bilateral microcornea and unilateral macrophthalmia resulting in incorrect intraocular lens selection. Brannan SO, et al. **J Cataract Refract Surg** 1999 Jul;25(7):1016–8

Refractive changes after IOL implantation [letter] Gills JP, et al. **J Cataract Refract Surg** 1999 Jun;25(6):731–2

Refractive error consequences of reversed-optic AMO SI-40NB intraocular lens. Halpern BL, et al. **Ophthalmology** 1999 May;106(5):901–3

The effects of spectacle wear in infancy on eye growth and refractive error in the marmoset (Callithrix jacchus). Graham B, et al. **Vision Res** 1999 Jan;39(2):189–206

[The impact of different incisions on visual acuity and corneal refractivity in cataract surgery] Deng C, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):195–7 (Eng. Abstr.) **(Chi)**

GENETICS

Comparative corneal topography and refractive variables in monozygotic and dizygotic twins. Valluri S, et al. **Am J Ophthalmol** 1999 Feb;127(2):158–63

Chronic open-angle glaucoma and associated ophthalmic findings in monozygotic twins and their spouses in Iceland. Gottfredsdottir MS, et al. **J Glaucoma** 1999 Apr;8(2):134–9

PATHOLOGY

Corneal topographic changes after extraocular muscle surgery. Hainsworth DP, et al. **J Aapos** 1999 Apr;3(2):80–6

Fundus magnification produced during direct ophthalmoscopy of the corrected eye. Chung KM. **Optom Vis Sci** 1999 Feb;76(2):121–6

PHYSIOPATHOLOGY

Model of human refractive error development. Hung GK, et al. **Curr Eye Res** 1999 Jul;19(1):41–52

Refractive errors in children with cerebral palsy, psychomotor retardation, and other non-cerebral palsy neuromotor disabilities. Sobrado P, et al. **Dev Med Child Neurol** 1999 Jun;41(6):396–403

Tonic accommodation, age, and refractive error in children. Zadnik K, et al. **Invest Ophthalmol Vis Sci** 1999 May; 40(6):1050–60

Evaluation of relationships among refractive and topographic parameters. Budak K, et al. **J Cataract Refract Surg** 1999 Jun;25(6):814–20

Observations on the optical effects of a cataract. Campbell C. **J Cataract Refract Surg** 1999 Jul;25(7):995–1003 (3 ref.)

Quality of vision in refractive surgery. Barraquer Lecture 1997. Pallikaris IG. **J Refract Surg** 1998 Sep–Oct; 14(5):549–8

Imposed retinal image size changes--do they provide a cue to the sign of lens-induced defocus in chick? Schmid KL, et al. **Optom Vis Sci** 1999 May;76(5):320–5

PSYCHOLOGY

[Scale for evaluating desirable ametropia or eumetropia] Mehel E, et al. **J Fr Ophtalmol** 1998 Apr;21(4):271–5 (Eng. Abstr.) **(Fre)**

REHABILITATION

Contact lenses after LASIK. Szczotka LB, et al. **J Am Optom Assoc** 1998 Dec;69(12):775–84 (27 ref.)

SURGERY

Magnification changes in specular microscopy after corneal refractive surgery. Isager P, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):391–3

Flap complications of lamellar refractive surgery [editorial; comment] Gimbel HV. **Am J Ophthalmol** 1999 Feb; 127(2):202–4 (6 ref.). Comment on: Am J Ophthalmol 1999 Feb;127(2):129–36.

Recent advances in refractive surgery. Yu EY, et al. **CMAJ** 1999 May 4;160(9):1329–37

Incorporating new refractive surgical procedures into clinical practice [editorial; comment] Koch DD. **J Cataract Refract Surg** 1999 Aug;25(8):1029–30. Comment on: J Cataract Refract Surg 1999 Aug;25(8):1048–55. Comment on: J Cataract Refract Surg 1999 Aug;25(8):1056–61. Comment on: J Cataract Refract Surg 1999 Aug;25(8):1062–8.

Corneal sensation after cataract and refractive surgery. Kohlhaas M. **J Cataract Refract Surg** 1998 Oct; 24(10):1399–409 (48 ref.)

Importance of reporting the complications of refractive surgery [editorial; comment] Kohnen T. **J Cataract Refract Surg** 1999 Jan;25(1):1. Comment on: J Cataract Refract Surg 1999 Jan;25(1):2–6. Comment on: J Cataract Refract Surg 1999 Jan;25(1):137–9.

New enhancement procedures to optimize cataract and refractive surgery [editorial; comment] Kohnen T. **J Cataract Refract Surg** 1999 Sep;25(9):1175. Comment on: J Cataract Refract Surg 1999 Sep;25(9):1184–7. Comment on: J Cataract Refract Surg 1999 Sep;25(9):1191–7. Comment on: J Cataract Refract Surg 1999 Sep;25(9):1205–8.

Refining visual quality assessment in refractive surgery [editorial] Lawless MA. **J Cataract Refract Surg** 1999 Aug; 25(8):1031–2

Laser in situ keratomileusis to correct postkeratoplasty refractive errors [letter] Leung AT, et al. **J Cataract Refract Surg** 1999 Aug;25(8):1034–6

Comparison of objective and subjective refraction before and after laser in situ keratomileusis. Salchow DJ, et al. **J Cataract Refract Surg** 1999 Jun;25(6):827–35

Ethical concerns [letter] Seiler T. **J Cataract Refract Surg** 1999 Feb;25(2):156

Refractive lensectomy to correct ametropia. Vicary D, et al. **J Cataract Refract Surg** 1999 Jul;25(7):943–8

Role of clearance and treatment zones in contrast sensitivity: significance in refractive surgery. Wachler BS, et al. **J Cataract Refract Surg** 1999 Jan;25(1):16–23

Excimer laser refractive surgery in the pediatric population. Haw WW, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jul–Aug;36(4):173–7; quiz 206–7 (13 ref.)

Refractive results of radial keratotomy after 10 years. Charpentier DY, et al. **J Refract Surg** 1998 Nov–Dec; 14(6):646–8

In perspective: eye tracking and autonomous laser radar [comment] Krueger RR. **J Refract Surg** 1999 Mar–Apr; 15(2):145–9 (4 ref.). Comment on: J Refract Surg 1999 Mar–Apr;15(2):137–44.

Could apoptosis change the way we do PRK? [editorial; comment] Krueger RR. **J Refract Surg** 1998 Sep–Oct; 14(5):494–6 (10 ref.). Comment on: J Refract Surg 1998 Sep–Oct;14(5):526–33.

Lamellar refractive surgery with scanned intrastromal picosecond and femtosecond laser pulses in animal eyes. Kurtz RM, et al. **J Refract Surg** 1998 Sep–Oct;14(5):541–8

Waterjet microkeratome--to set the record straight [letter; comment] Lipshitz I, et al. **J Refract Surg** 1998 Nov–Dec; 14(6):667–9. Comment on: J Refract Surg 1998 May–Jun;14(3):280–1. Comment on: J Refract Surg 1998 May–Jun;14(3):338–45.

Quality of vision in refractive surgery. Barraquer Lecture 1997. Pallikaris IG. **J Refract Surg** 1998 Sep–Oct; 14(5):549–8

Options for refractive surgery in 1998 [letter] Probst LE. **J Refract Surg** 1998 Sep–Oct;14(5):491–3

Barraquer lecture 1998. Why should refractive surgeons be looking beyond the cornea? Werblin TP. **J Refract Surg** 1999 May–Jun;15(3):357–76 (90 ref.)

Current trends in cataract and refractive surgery in Japan: 1997 survey. Oshika T, et al. **Jpn J Ophthalmol** 1999 Mar–Apr;43(2):139–47

Excimer laser refractive surgery [editorial] Snibson GR, et al. **Med J Aust** 1998 Sep 21;169(6):298–9

LASIK for the correction of residual refractive errors from previous surgical procedures. Güell JL, et al. **Ophthalmic Surg Lasers** 1999 May;30(5):341–9

Reproducibility of corneal flap thickness in LASIK. Jacobs BJ, et al. **Ophthalmic Surg Lasers** 1999 May;30(5):350–3

LASIK complications [letter; comment] Gulani AC. **Ophthalmology** 1999 Aug;106(8):1457–8. Comment on: Ophthalmology 1998 Oct;105(10):1839–47; discussion 1847–8.

LASIK complications [letter; comment] Lam DS, et al. **Ophthalmology** 1999 Aug;106(8):1455–7. Comment on: Ophthalmology 1998 Oct;105(10):1839–47; discussion 1847–8.

Advances in refractive surgery. New options expand the scope of corrective procedures. Chaudhry IM, et al. **Postgrad Med** 1999 Sep;106(3):129–31, 135–7 (10 ref.)

Excimer laser ophthalmic surgery: evaluation of a new technology. Infeld DA, et al. **Postgrad Med J** 1998 Sep; 74(875):524–8 (32 ref.)

Corneal stromal wound healing in refractive surgery: the role of myofibroblasts. Jester JV, et al. **Prog Retin Eye Res** 1999 May;18(3):311–56 (111 ref.)

[Excimer laser photorefactive keratectomy retreatment following photokeratectomy under-correction] Orssaud C, et al. **J Fr Ophtalmol** 1999 Jun–Jul;22(6):651–5 (Eng. Abstr.) **(Fre)**

[Professional responsibility in refractive surgery] Saragoussi JJ. **J Fr Ophtalmol** 1999 Jun–Jul;22(6):676–8 **(Fre)**

[Refractive surgery: current indications] Othenin-Girard P. **Rev Med Suisse Romande** 1998 Nov;118(11):955–8 **(Fre)**

THERAPY

Phakic refractive lens [letter] Hoffer KJ. **CLAO J** 1998 Oct; 24(4):198

Omafilcon A (Proclear) soft contact lenses in a dry eye population. Lemp MA, et al. **CLAO J** 1999 Jan;25(1):40–7

Efficacy of treatment modalities in refractive amblyopia. Krumholtz I, et al. **J Am Optom Assoc** 1999 Jun; 70(6):399–404

Fundus magnification produced during direct ophthalmoscopy of the corrected eye. Chung KM. **Optom Vis Sci** 1999 Feb;76(2):121–6

REFRACTIVE INDEX see **REFRACTOMETRY**

REFRACTOMETRY

Novel integrated optical sensor based on a grating coupler triplet. Wiki M, et al. **Biosens Bioelectron** 1998 Nov 15; 13(11):1181–5

A prism is a useful tool in the treatment of vertical diplopia. Roodhooft J, et al. **Bull Soc Belge Ophtalmol** 1998; 268:215–22

INSTRUMENTATION

Study of the behavior of biological molecules in a thin gap by refractive index and force measurements with an automatic surface force apparatus. Gauthier-Manuel B, et

al. **Biochimie** 1998 May-Jun;80(5-6):391-9
Measurement of urine relative density using refractometer and reagent strips. Dorizzi RM, et al. **Clin Chem Lab Med** 1998 Dec;36(12):925-8

METHODS

Study of the behavior of biological molecules in a thin gap by refractive index and force measurements with an automatic surface force apparatus. Gauthier-Manuel B, et al. **Biochimie** 1998 May-Jun;80(5-6):391-9
On-line monitoring of the intravascular volume during haemodialysis by continuous refractometry. Kuhlmann U, et al. **Int J Artif Organs** 1999;22(4):205-9
Scattering properties of Bagolini lenses and their effects on spatial vision. Cheng D, et al. **Ophthalmic Physiol Opt** 1998 Sep;18(5):438-45

REFRACTORY ANEMIA see **ANEMIA, REFRACTORY**

REFRACTORY ANEMIA WITH EXCESS OF BLASTS see **ANEMIA, REFRACTORY, WITH EXCESS OF BLASTS**

REFRACTORY PERIOD, NEUROLOGIC

Importance of refractoriness heterogeneity in the enhanced vulnerability to atrial fibrillation induction caused by tachycardia-induced atrial electrical remodeling. Fareh S, et al. **Circulation** 1998 Nov 17;98(20):2202-9
The role of atrial electrical remodeling in the progression of focal atrial ectopy to persistent atrial fibrillation. Hobbs WJ, et al. **J Cardiovasc Electrophysiol** 1999 Jun; 10(6):866-70

DRUG EFFECTS

Disproportional response between refractory period and blood flow to alpha 1- and beta-adrenoceptor blockade in canine ischemic myocardium. Usui K, et al. **Cardiovasc Drugs Ther** 1998 Dec;12(6):561-71
Effects of quinidine, verapamil, nifedipine and ouabain on hysteresis in atrial refractoriness in the conscious dog: an approach to ionic mechanisms. Boucher M, et al. **Gen Pharmacol** 1999 Jan;32(1):47-50
Effects of paroxetine hydrochloride, a selective serotonin reuptake inhibitor, on refractory vasovagal syncope: a randomized, double-blind, placebo-controlled study. Di Girolamo E, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1227-30
Electrophysiologic and blood-flow responses in the endocardium and epicardium to disopyramide and MS-551 during myocardial ischemia in the dog. Tanabe T, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):275-86
Discordant prolongation of the refractory period and repolarization time by a class III agent, E4031, in the healing phase of myocardial infarction. Takatsuki S, et al. **Jpn Heart J** 1998 Sep;39(5):687-97
[Effects of propafenone on electrophysiologic changes caused by alteration of left ventricular afterload in anesthetized rabbits] Qiu HY, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):532-4 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Voluntary eyelid contraction modifies the blink reflex recovery cycle. Sommer M, et al. **Acta Neurol Scand** 1998 Jul;98(1):29-35
Pudendal nerve motor latency correlation by age and sex. Pradal-Prat D, et al. **Electromyogr Clin Neurophysiol** 1998 Dec;38(8):491-6
A stochastic model of the electrically stimulated auditory nerve: pulse-train response. Bruce IC, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):630-7
Decrement of the N1 auditory event-related potential with stimulus repetition: habituation vs. refractoriness. Budd TW, et al. **Int J Psychophysiol** 1998 Dec;31(1):51-68
Atrial dispersion of refractoriness. Brachmann J, et al. **J Cardiovasc Electrophysiol** 1998 Aug;9(8 Suppl):S35-9 (14 ref.)
Refractory periods observed by intrinsic signal and fluorescent dye imaging. Cannestra AF, et al. **J Neurophysiol** 1998 Sep;80(3):1522-32
Role of the dispersion of refractoriness on cardiac reentries. Seigneuric RG, et al. **Math Biosci** 1999 Mar 15; 157(1-2):253-67
Coping with refractory epilepsy. Krakow K, et al. **Seizure** 1999 Apr;8(2):111-5
Effects of valproate and other antiepileptic drugs on brain glutamate, glutamine, and GABA in patients with refractory complex partial seizures. Petroff OA, et al. **Seizure** 1999 Apr;8(2):120-7

REFRACTORY PERIOD, PSYCHOLOGICAL

PHYSIOLOGY

Modulation of the attentional blink by on-line response selection: evidence from speeded and unspeeded task1 decisions. Jolicoeur P. **Mem Cognit** 1998 Sep;26(5):1014-32

REFRIGERATION

see related
HYPOTHERMIA, INDUCED

Relationships between 4-hydroxy-2-nonenal, 2-thiobarbituric acid reactive substances and n-6 polyunsaturated fatty acids in refrigerated and frozen pork. Sakai T, et al. **Biosci Biotechnol Biochem** 1998 Oct; 62(10):2028-9
Does refrigeration of urine alter culture results in hospitalized patients with neurogenic bladders? Horton JA 3rd, et al. **J Spinal Cord Med** 1998 Oct;21(4):342-7
Stability of serum TSH concentration after non refrigerated storage. Koliakos G, et al. **Panminerva Med** 1999 Jun; 41(2):99-101
[Condensation water drainage of cooling systems in cold storage rooms--a problem of hygiene] Lubbe R. **Gesundheitswesen** 1999 Jul;61(7):360-4 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

What happens in freezing bodies? Experimental study of histological tissue change caused by freezing injuries. Schäfer AT, et al. **Forensic Sci Int** 1999 Jun 28; 102(2-3):149-58

METHODS

A novel conception for liver preservation at a temperature just above freezing point. Yoshida K, et al. **J Surg Res** 1999 Feb;81(2):216-23

VETERINARY

The effect of previous cold storage on the subsequent recovery of infective third stage nematode larvae from sheep faeces. McKenna PB. **Vet Parasitol** 1998 Dec 31; 80(2):167-72

REFSUM DISEASE

ENZYMOLOGY

Molecular basis of Refsum disease: identification of new mutations in the phytanoyl-CoA hydroxylase cDNA. Jansen GA, et al. **J Inherit Metab Dis** 1998 Jun;21(3):288-91
Immunophilins, Refsum disease, and lupus nephritis: the peroxisomal enzyme phytanoyl-COA alpha-hydroxylase is a new FKBP-associated protein. Chambraud B, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2104-9

METABOLISM

Refsum disease diagnostic marker phytanic acid alters the physical state of membrane proteins of liver mitochondria. Schönfeld P, et al. **FEBS Lett** 1999 Aug 27;457(2):179-83
Transport of phytanic acid on lipoproteins in Refsum disease. Wierzbicki AS, et al. **J Inherit Metab Dis** 1999 Feb; 22(1):29-36

PATHOLOGY

Refsum's disease. A unique case. Jaffe DF, et al. **J Am Podiatr Med Assoc** 1998 Aug;88(8):406-9

REFSUM DISEASE, INFANTILE see **PEROXISOMAL DISORDERS**

REFSUM'S DISEASE see **REFSUM DISEASE**

REFSUM'S SYNDROME see **REFSUM DISEASE**

REFUGEES

Letter from Macedonia. Lightfine M. **Am J Nurs** 1999 Aug; 99(8):22-3
Experiences of work among refugees. Pedersen N. **Ann Trop Paediatr** 1998 Sep;18 Suppl:S9-14 (0 ref.)
Long term displacement raises new health needs [news] Anderson P. **BMJ** 1999 Apr 17;318(7190):1029
Meeting the healthcare needs of refugees and asylum seekers [letter] Barr D, et al. **BMJ** 1999 May 8;318(7193):1291
Immunisation and counselling for Kosovar refugee children [news] Ciment J. **BMJ** 1999 May 15;318(7194):1310
Kosovo refugees spared epidemics so far [news] Ciment J. **BMJ** 1999 Apr 17;318(7190):1028
Meeting health needs of asylum seekers. White paper will make access to health care more difficult [letter; comment] Hogan H. **BMJ** 1999 Mar 6;318(7184):671. Comment on: BMJ 1998 Nov 21;317(7170):1444-6.
Refugees and primary care: tackling the inequalities [see comments] Jones D, et al. **BMJ** 1998 Nov 21; 317(7170):1444-6 (25 ref.). Comment in: BMJ 1999 Mar 6;318(7184):671.
Meeting health needs of asylum seekers. Practical approaches can make care easier [letter; comment] Matthews P. **BMJ** 1999 Mar 6;318(7184):671. Comment on: BMJ 1998 Nov 21;317(7170):1444-6.
Call for international community to protect children in Kosovo. Shamsian N. **BMJ** 1999 Apr 24;318(7191):1097
Colombia: the winner takes all [see comments] Veeken H. **BMJ** 1998 Dec 12;317(7173):1649-50. Comment in: BMJ 1999 Jun 5;318(7197):1557.
European union considers new plan to help refugees [news] Watson R. **BMJ** 1999 May 29;318(7196):1439
Refugee doctors can do valuable work in European host countries [letter] Wenzel T. **BMJ** 1999 Jan 16;318(7177):196
Cost-effectiveness of oral cholera vaccine in a stable refugee population at risk for epidemic cholera and in a population with endemic cholera. Murray J, et al. **Bull World Health Organ** 1998;76(4):343-52
Infected MD calls for tougher medical screening of newcomers to Canada. Sibbald B. **CMAJ** 1999 Apr 20; 160(8):1201
Pro-longed exile and potential integration processes in Croatia. Sujoldžić A. **Coll Antropol** 1999 Jun;23(1):273-85
Communicable disease hazards facing refugees from Kosovo. **Commun Dis Rep CDR Wkly** 1999 Apr 23;9(17):147, 150
Health status of refugees from former Yugoslavia: descriptive study of the refugees in the Netherlands. van den Heuevel WJ. **Croat Med J** 1998 Sep;39(3):356-60
Aid and violence, with special reference to Sierra Leone. Keen D. **Disasters** 1998 Dec;22(4):318-27 (33 ref.)
Women, health and humanitarian aid in conflict. Palmer CA, et al. **Disasters** 1998 Sep;22(3):236-49
In defence of humanitarianism. Stockton N. **Disasters** 1998 Dec;22(4):352-60 (9 ref.)
Measles in Vietnamese refugee children in Hong Kong. Taylor WR. **Epidemiol Infect** 1999 Jun;122(3):441-6
The effect of soap distribution on diarrhoea: Nyamithuthu Refugee Camp. Peterson EA, et al. **Int J Epidemiol** 1998 Jun;27(3):520-4
The psychological effects of the war in Afghanistan on young Afghan refugees from different ethnic backgrounds. Mghir R, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):29-36; discussion 36-40
Tuberculosis control in refugees--policy and practices. Gushulak BD. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S87-93
Tuberculosis in refugees and displaced persons. Houston S. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S94-7
Longitudinal incidence of tuberculosis in South-East Asian refugees after re-settlement. MacIntyre CR, et al. **Int J Tuberc Lung Dis** 1999 Apr;3(4):287-93
High prevalence of HBV infection markers in refugees from eastern countries [letter] Skliros EA, et al. **Ital J Gastroenterol Hepatol** 1999 Jan-Feb;31(1):84-5
Emergency contraception among refugees and the displaced. Goodyear L, et al. **J Am Med Womens Assoc** 1998;53(5 Suppl 2):266-70
From the Centers for Disease Control and Prevention. Health status of and intervention for US-bound Kosovar refugees--Fort Dix, New Jersey, May-July 1999. **JAMA** 1999 Sep 22-29;282(12):1122-3
Volunteers help Kosovar refugees in camps [news] Friedrich MJ. **JAMA** 1999 Aug 4;282(5):420-1
Addressing mental health needs of Balkan refugees [news] Friedrich MJ. **JAMA** 1999 Aug 4;282(5):422-3
War and health: from Solferino to Kosovo--the evolving role of physicians [editorial; comment] Iacopino V, et al. **JAMA** 1999 Aug 4;282(5):479-81. Comment on: JAMA 1999 Aug 4;282(5):433-9. Comment on: JAMA 1999 Aug 4;282(5):455-62.
Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia [see comments] Mollica RF, et al. **JAMA** 1999 Aug 4;282(5):433-9. Comment in: JAMA 1999 Aug 4;282(5):479-81.
Kosovo's refugees: from crisis to catastrophe [editorial] **Lancet** 1999 Apr 10;353(9160):1199
Caring for ethnic Albanians in Macedonia's refugee camps. Agovino T. **Lancet** 1999 May 15;353(9165):1701-3
Health-care provision for asylum seekers and refugees in the UK [letter] Hargreaves S, et al. **Lancet** 1999 May 1; 353(9163):1497-8
Seeking asylum in the UK after torture in Sierra Leone [letter] Lawson MH. **Lancet** 1999 Apr 17;353(9161):1365-6
Coeliac disease in Saharawi children in Algerian refugee camps [letter; comment] Lionetti P, et al. **Lancet** 1999 Apr 3;353(9159):1189-90. Comment on: Lancet 1999 Jan 2;353(9146):37.
Physicians for Human Rights raise concerns for ethnic Albanians in refugee camps and those left inside Kosovo. Palmer C. **Lancet** 1999 Jun 12;353(9169):2065-6
Registration of refugee and asylum-seeking doctors [letter; comment] Scott F. **Lancet** 1998 Nov 7;352(9139):1556. Comment on: Lancet 1998 Aug 22;352(9128):647-8.
Refugees, returnees and rehabilitation. Mehic-Basara N, et al. **Med Arh** 1999;53(1):39-41
Refugee and immigrant health care. Walker PF, et al. **Med Clin North Am** 1999 Jul;83(4):1103-20, viii (53 ref.)
Ethnicity, forced migration and psychosocial work in Croatia. Soroya B, et al. **Med Confl Surviv** 1998 Oct-Dec; 14(4):303-13
Health status of and intervention for U.S.-bound Kosovar refugees--Fort Dix, New Jersey, May-July 1999. **MMWR Morb Mortal Wkly Rep** 1999 Aug 27; 48(33):729-32
Vaccination campaign for Kosovar Albanian refugee children--former Yugoslav Republic of Macedonia, April-May, 1999. **MMWR Morb Mortal Wkly Rep** 1999 Sep 17;48(36):799-803
International nephrological assistance to Kosovo refugees. European Branch of the Task Force. Lameire N. **Nephrol Dial Transplant** 1999 Aug;14(8):1845
Tuberculosis in South-East Asian refugees after resettlement--can prevention be improved by better policy

and practice? MacIntyre CR, et al. **Prev Med** 1998 Nov-Dec;27(6):815-20

Use of public mental health services by Russian refugees. Chow JC, et al. **Psychiatr Serv** 1999 Jul;50(7):936-40

Body mass index and distribution of body fat in female Bosnian refugees--a study in primary health care. Sundquist J, et al. **Public Health** 1999 Mar;113(2):89-93

Assessment of nutritional status, cognitive development, and mother-child interaction in Central American refugee children. Laude M. **Rev Panam Salud Publica** 1999 Sep; 6(3):164-71

Planning reproductive health in conflict: a conceptual framework. Busza J, et al. **Soc Sci Med** 1999 Jul; 49(2):155-71

Understanding and responding to the health and mental health needs of Asian refugees. Dhooper SS, et al. **Soc Work Health Care** 1998;27(4):65-82

Medical aid in crisis areas. Pelly M. **Trans Med Soc Lond** 1996-97;113:38-41

Health care in refugee camps [editorial] Luxemburger C, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):129-30

Travelling with "excess baggage": health problems of refugee women in Western Australia. Allotey P. **Women Health** 1998;28(1):63-81 (31 ref.)

Help for women refugees. Miserez CB. **World Health Forum** 1998;19(3):320-3

[Equal access to health care for immigrants and refugees? (editorial)] Dyhr L. **Ugeskr Laeger** 1999 Aug 2;161(31):4371 **(Dan)**

[Definition and evaluation of therapeutic food for severely malnourished children in situations of humanitarian emergencies] Desjeux JF, et al. **Bull Acad Natl Med** 1998; 182(8):1679-90; discussion 1691-5 (Eng. Abstr.) **(Fre)**

[Access to health services: difficulties encountered by refugees residing on Ile-de-France. Charity and full-coverage health care: two divergent concepts?] Delbecchi G, et al. **Presse Med** 1999 Jun 5;28(20):1075-9 (Eng. Abstr.) **(Fre)**

[Certificates for disability insurance and for refugees: similarities] Bierens de Haan D. **Rev Med Suisse Romande** 1999 Apr;119(4):281-2 **(Fre)**

[Ciprofloxacin in the treatment of dysentery caused by type 1 Shigella dysenteriae during an epidemic in Rwandan refugees in Goma in 1994] Laureillard D, et al. **Sante** 1998 Jul-Aug;8(4):303-5 (Eng. Abstr.) **(Fre)**

[Health situation of refugee children in Münster] Gardemann J, et al. **Gesundheitswesen** 1998 Nov;60(11):686-93 (53 ref.) (Eng. Abstr.) **(Ger)**

[Perspectives in public health care for refugees in Germany] Herrmann M. **Gesundheitswesen** 1999 Jun;61(6):312-8 (39 ref.) (Eng. Abstr.) **(Ger)**

[Hymenolepis nana. 45-year-old refugee from the Kosovo region with epigastric pain and detection of Hymenolepis nana and Blastocystis hominis in the stool] Camli C, et al. **Schweiz Rundsch Med Prax** 1999 May 6;88(19):877-9 **(Ger)**

[Infectious diseases in refugees from Kosovo] Aavitsland P. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2153 **(Nor)**

[Refugee or immigrant children in hospital] Olsen B. **Tidsskr Nor Laegeforen** 1998 Sep 30;118(23):3585-8 (Eng. Abstr.) **(Nor)**

[Proceedings of the conference on Progress of the Presidential Programme "Russia's Children" and its related federal special programs "The Children of the North" and "The Children from Families of Refugees and Forced Migrants" on the section of prevention of parasitic diseases] **Med Parazitol (Mosk)** 1998 Jul-Sep;(3):3-64 **(Rus)**

[The federal targetted programs Children of the North and Children of Refugee Families and of Forced Migrants. Their structure and tasks] Onishchenko GG, et al. **Med Parazitol (Mosk)** 1998 Jul-Sep;(3):3-6 **(Rus)**

[The parasitological situation among refugee children in Nizhegorod Province] Plenkina LV, et al. **Med Parazitol (Mosk)** 1998 Jul-Sep;(3):41-3 **(Rus)**

[Socio-demographic aspects of the problems of refugees in the North] Bannikova RV, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May-Jun;(3):30-4 (Eng. Abstr.) **(Rus)**

[Bodily evidence can reveal torture. 5-year experience of torture documentation] Edston E. **Lakartidningen** 1999 Feb 10;96(6):628-31 (Eng. Abstr.) **(Swe)**

HISTORY

Refuge and rescue. Jewish nurse refugees and the International Council of Nurses, 1947-1965. Brush BL. **Nurs Hist Rev** 1999;7:113-25

LEGISLATION & JURISPRUDENCE

Infected MD calls for tougher medical screening of newcomers to Canada. Sibbald B. **CMAJ** 1999 Apr 20; 160(8):1201

UK Government's immigration proposals disregard human rights. Gill PS, et al. **Lancet** 1998 Oct 31;352(9138):1468

Noncitizens and the Supplemental Security Income program. Parrott TM, et al. **Soc Secur Bull** 1998;61(4):3-31 (0 ref.)

PSYCHOLOGY

Testimony psychotherapy in Bosnian refugees: a pilot study. Weine SM, et al. **Am J Psychiatry** 1998 Dec;155(12):1720-6

Behavior problems and traumatic events of unaccompanied refugee minors. Sourander A. **Child Abuse Negl** 1998 Jul; 22(7):719-27

The mental health and adjustment of immigrant and refugee children. Guarnaccia PJ, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Jul;7(3):537-53, viii-ix (52 ref.)

Multiple forms of stress in refugee and immigrant children. Sack WH. **Child Adolesc Psychiatr Clin N Am** 1998 Jan; 7(1):153-67, ix-x (54 ref.)

Trauma and reconstruction in a large group of refugees. Gregurek R, et al. **Coll Antropol** 1999 Jun;23(1):299-308

Between myth and madness: the premigration dream of leaving among young Somali refugees. Rousseau C, et al. **Cult Med Psychiatry** 1998 Dec;22(4):385-411

Stories of growing up amid violence by refugee children of war and children of battered women living in Canada. Berman H. **Image J Nurs Sch** 1999;31(1):57-63

The psychological effect of the war in Afghanistan on young Afghan refugees from different ethnic backgrounds. Raskin A, et al. **Int J Soc Psychiatry** 1999 Summer;45(2):148-9

Mental health and social adjustment in young refugee children 3 1/2 years after their arrival in Sweden. Almqvist K, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun; 38(6):723-30

Case series: PTSD symptoms in adolescent survivors of "ethnic cleansing." Results from a 1-year follow-up study. Becker DF, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):775-81

The psychological impact of war and the refugee situation on South Sudanese children in refugee camps in Northern Uganda: an exploratory study. Paardekooper B, et al. **J Child Psychol Psychiatry** 1999 May;40(4):529-36

Traumatic experiences, posttraumatic stress disorder, and dissociative symptoms in a group of refugees from former Yugoslavia. Favaro A, et al. **J Nerv Ment Dis** 1999 May; 187(5):306-8

A cross-cultural study of reactivation of posttraumatic stress disorder symptoms: American and Cambodian psychophysiological response to viewing traumatic video scenes. Kinzie JD, et al. **J Nerv Ment Dis** 1998 Nov; 186(11):670-6

The psychosocial effects of torture, mass human rights violations, and refugee trauma: toward an integrated conceptual framework. Silove D. **J Nerv Ment Dis** 1999 Apr;187(4):200-7 (68 ref.)

The effects of exposure to community violence on Khmer refugee adolescents. Berthold SM. **J Trauma Stress** 1999 Jul;12(3):455-71

Comparing perceived self-efficacy among adolescent Bosnian and Croatian refugees with and without posttraumatic stress disorder. Ferren PM. **J Trauma Stress** 1999 Jul;12(3):405-20

Responses to civilian war experiences: predictors of psychological functioning and coping. Michultka D, et al. **J Trauma Stress** 1998 Jul;11(3):571-7

Pathways from war trauma to posttraumatic stress symptoms among Tamil asylum seekers, refugees, and immigrants. Steel Z, et al. **J Trauma Stress** 1999 Jul;12(3):421-35

Screening for posttraumatic stress disorder symptoms among Bosnian refugees. Thulesius H, et al. **J Trauma Stress** 1999 Jan;12(1):167-74

Mental health of refugees from Kosovo [letter; comment] Black ME, et al. **Lancet** 1999 Jul 10;354(9173):165-6. Comment on: Lancet 1999 May 8;353(9164):1616-7.

Mental health care for refugees from Kosovo: the experience of Médecins Sans Frontières [see comments] de Jong K, et al. **Lancet** 1999 May 8;353(9164):1616-7. Comment in: Lancet 1999 Jul 10;354(9173):165-6.

Turning victims into victors. el-Hai J. **Minn Med** 1999 Jul; 82(7):14-9

The crisis in Kosovo. The psychology of displacement. Vjecha M, et al. **Minn Med** 1999 Jul;82(7):10-2

Post-traumatic stress disorder in Asian refugees. Ton-That N. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S377-9

Trauma and resilience during war: a look at the children and humanitarian aid workers of Bosnia. Berk JH. **Psychoanal Rev** 1998 Aug;85(4):640-58

Resilience in unaccompanied minors from the north of Somalia. Rousseau C, et al. **Psychoanal Rev** 1998 Aug; 85(4):615-37

[Psychiatric disturbances in asylum seekers and refugees: originating from psychological trauma? (letter; comment)] Harmanny-Wiersma F. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1289; discussion 1289-90. Comment on: Ned Tijdschr Geneeskd 1998 Mar 21;142(12):617-20. **(Dut)**

[Psychiatric disturbances in asylum seekers and refugees: is psychological trauma the cause? (letter; comment)] Hondius AJ, et al. **Ned Tijdschr Geneeskd** 1998 May 30; 142(22):1288-9. Comment on: Ned Tijdschr Geneeskd 1998 Mar 21;142(12):617-20. **(Dut)**

[Psychiatric symptoms in refugees reported to the Psychiatric Center De Vonk] Kleijn WC, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1724-8 (Eng. Abstr.) **(Dut)**

[Two case reports with drawings] Bierens de Haan D. **Rev Med Suisse Romande** 1998 Dec;118(12):1027-30 **(Fre)**

[Migration and pain. Need for epidemiologic research] Moser J. **Rev Med Suisse Romande** 1999 Apr;119(4):265-7 (11 ref.) **(Fre)**

[Experiences from a center for asylum-seeking persons: consultation is necessary to be able to cope] Ekblad S, et al. **Lakartidningen** 1999 Jun 2;96(22):2746-7 **(Swe)**

[Better knowledge of transcultural psychiatry and migration medicine is required (letter)] Johansson LM. **Lakartidningen** 1999 Feb 10;96(6):579 **(Swe)**

[Management of PTSD among Bosnia refugees. Competent personnel when it comes to language and culture--an important resource] Omérov M, et al. **Lakartidningen** 1999 May 26;96(21):2621-2 **(Swe)**

STATISTICS & NUMERICAL DATA

Specificity of notification for tuberculosis among screened refugees in NSW. Bai J, et al. **Aust N Z J Public Health** 1999 Aug;23(4):410-3

UN responding slowly to Kosovo refugee crisis [news] Ciment BJ. **BMJ** 1999 Apr 10;318(7189):961

The disease problems of Kosovan refugees in Albania. **Commun Dis Rep CDR Wkly** 1999 Apr 30;9(18):155

Oral health among Liberian refugees in Ghana. Mickenautsch S, et al. **East Afr Med J** 1999 Apr;76(4):206-11

Morbidity and mortality amongst southern Sudanese in Koboko refugee camps, Arua District, Uganda. Orach CG. **East Afr Med J** 1999 Apr;76(4):195-9

Prevalence of visual impairment and eye diseases in Afghan refugees in Pakistan. Awan HR, et al. **East Mediterr Health J** 1998 Dec;4(3):560-6

Recent medical evidence for torture and human rights abuse in Sierra Leone: a report for the Medical Foundation for the Care of Victims of Torture. Lawson M. **Med Confl Surviv** 1999 Jul-Sep;15(3):255-70

Smoking and lipid cardiovascular risk factors in Vietnamese refugees in Australia. Bermingham M, et al. **Prev Med** 1999 Apr;28(4):378-85

High frequency of gastrointestinal parasites in refugees and asylum seekers upon arrival in Sweden. Benzeguir AK, et al. **Scand J Infect Dis** 1999;31(1):79-82

Review of social epidemiologic research on migrants' health: findings, methodological cautions, and theoretical perspectives. Friis R, et al. **Scand J Soc Med** 1998 Sep; 26(3):173-80 (58 ref.)

Noncitizens and the Supplemental Security Income program. Parrott TM, et al. **Soc Secur Bull** 1998;61(4):3-31 (0 ref.)

An outbreak of cutaneous leishmaniasis in an Afghan refugee settlement in north-west Pakistan. Rowland M, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr;93(2):133-6

[Malacologic-schistosomal study of the refugee camps on the Plain of Ruzizi in the Democratic Republic of the Congo] Baluku B, et al. **Med Trop (Mars)** 1999;59(1):39-42 (Eng. Abstr.) **(Fre)**

[The results of the performance by the E. I. Martsinovskii Institute of Medical Parasitology and Tropical Medicine of the missions of the federal targetted programs Children of the North and Children of Refugee Families and of Forced Migrants in 1994-1997] Sergiev VP, et al. **Med Parazitol (Mosk)** 1998 Jul-Sep;(3):9-15 **(Rus)**

REFUSAL OF TREATMENT see **TREATMENT REFUSAL**

REFUSAL TO TREAT

Reluctance amongst nurses and doctors to care for and treat patients with HIV/AIDS. McCann TV. **AIDS Care** 1999 Jun;11(3):355-9

Neighborhoods matter: a population-based study of provision of cardiopulmonary resuscitation. Iwashyna TJ, et al. **Ann Emerg Med** 1999 Oct;34(4 Pt 1):459-68

Discontinuation of ventilation after brain death. Policy should be balanced with concern for the family. Cranford RE. **BMJ** 1999 Jun 26;318(7200):1754-5

Blanket ban on treating transsexuals is ruled "unlawful" [news] Dyer C. **BMJ** 1999 Aug 7;319(7206):338

Withdrawing or withholding life prolonging treatment [editorial] Luttrell S. **BMJ** 1999 Jun 26;318(7200):1709-10

Backdoor euthanasia. Withholding food and fluids is justifiable only for terminally ill [letter; comment] Paul J. **BMJ** 1999 May 22;318(7195):1415. Comment on: BMJ 1999 Jan 16;318(7177):143.

Commentary: trials versus models in appraising screening programmes [comment] Royston G. **BMJ** 1999 Feb 6; 318(7180):360-1. Comment on: BMJ 1999 Feb 6;318(7180):356-60.

Withdrawing low risk women from cervical screening programmes: mathematical modelling study [see comments] Sherlaw-Johnson C, et al. **BMJ** 1999 Feb 6; 318(7180):356-60. Comment in: BMJ 1999 Feb 6;318(7180):360-1.

ABC of intensive care. Withdrawal of treatment. Winter B, et al. **BMJ** 1999 Jul 31;319(7205):306-8 (0 ref.)

BMA calls for extra safeguards for life and death decisions [news] Woodman R. **BMJ** 1999 Jun 26;318(7200):1717

Menstruation requirements as a barrier to contraceptive access in Kenya. Stanback J, et al. **East Afr Med J** 1999 Mar;76(3):124-6

Need for evidenced-based admission policy for MRSA carriers [letter] Arai Y, et al. **J Am Geriatr Soc** 1999 Sep; 47(9):1162

Some AIDS-related policy issues and nursing students' willingness to provide AIDS care. Lal P, et al. **J Commun Dis** 1998 Mar;30(1):38-43

Advertisement-induced prescription drug requests: patients' anticipated reactions to a physician who refuses. Bell RA, et al. **J Fam Pract** 1999 Jun;48(6):446-52

Access denied: taking action for medically underserved children. Redlener I. **J Urban Health** 1998 Dec;

75(4):724–31 (2 ref.)
Discontinuing dialysis: patient's wishes and professional judgement. Lelie A, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):318–21
Is witholding a preventive therapy ethical? [letter] Bowers DF. **Pediatr Dent** 1999 Jul–Aug;21(4):230
Assessment of pediatric patients for general anesthesia: the child with an upper respiratory infection and the ex-premature infant. Steward DJ. **Semin Pediatr Surg** 1999 Feb;8(1):13–7

LEGISLATION & JURISPRUDENCE

Litigation, legislation, and ethics. Ethics case analysis: the ethics of terminating care because of financial delinquency. Chiodo G, et al. **Am J Orthod Dentofacial Orthop** 1999 Apr;115(4):471–2
Withdrawal of food supplement judged as misconduct [news] Dyer C. **BMJ** 1999 Apr 3;318(7188):895
Bioethics for clinicians: 16. Dealing with demands for inappropriate treatment [see comments] Weijer C, et al. **CMAJ** 1998 Oct 6;159(7):817–21 (39 ref.). Comment in: CMAJ 1999 Feb 9;160(3):309–10.
Cash up front [news] **Hastings Cent Rep** 1998 Jul–Aug; 28(4):47
Health care professionals and treatment of HIV-positive patients. Is there an affirmative duty to treat under common law, the Rehabilitation Act, or the Americans with Disabilities Act? White CC. **J Leg Med** 1999 Mar; 20(1):67–113 (309 ref.)
Disability discrimination in America: HIV/AIDS and other health conditions. Gostin LO, et al. **JAMA** 1999 Feb 24; 281(8):745–52
UK psychiatrists refuse to treat the untreatable [news] Ramsay S. **Lancet** 1999 Feb 20;353(9153):647
EMTALA. Emergency Medical Treatment and Active Labor Act. Lewis LM, et al. **Mo Med** 1999 Jul;96(7):240–1
Elective surgery and the patient with human immunodeficiency virus [editorial] Schipper AM. **Ophthal Plast Reconstr Surg** 1999 May;15(3):151–2
[The refusal of life-sustaining therapeutic measures in moribund patients] Rieger HJ. **Dtsch Med Wochenschr** 1999 Mar 5;124(9):267–70 **(Ger)**
[National health insurance refused high dose chemotherapy. "Death sentence" based on financial considerations?] Knauer RH. **Fortschr Med** 1998 Jul 20;116(20–21):48–9 **(Ger)**
[Withholding medical care as physical injury--refusal to treat from the viewpoint of the lawyer. Special aspects of therapy in children] Dierks C. **Z Arztl Fortbild Qualitatssich** 1998 Oct;92(8–9):560–2 (Eng. Abstr.) **(Ger)**
[Withholding medical care as a physical injury--homicide from the viewpoint of the physician] Falke KJ. **Z Arztl Fortbild Qualitatssich** 1998 Oct;92(8–9):555–9 (Eng. Abstr.) **(Ger)**
[Withholding medical care as a physical injury--refusal to treat from the viewpoint of the pediatrician. Special aspects of therapy in children] Helge H. **Z Arztl Fortbild Qualitatssich** 1998 Oct;92(8–9):559–60 **(Ger)**
[Withholding medical care as a physical injury--manslaughter and withdrawal of treatment] Ulsenheimer K. **Z Arztl Fortbild Qualitatssich** 1998 Oct; 92(8–9):548–54 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Factors associated with refusal to treat HIV-infected patients: the results of a national survey of dentists in Canada. McCarthy GM, et al. **Am J Public Health** 1999 Apr;89(4):541–5
Unwelcome customers? The epidemiology of removal from general practitioner lists in Sheffield. Munro J, et al. **Br J Gen Pract** 1998 Dec;48(437):1837–9
Patient removals from general practitioner lists in Northern Ireland: 1987–1996 [see comments] O'Reilly D, et al. **Br J Gen Pract** 1998 Oct;48(435):1669–73. Comment in: Br J Gen Pract 1999 Feb;49(439):144.
Patient removals from GPs' lists [letter; comment] Stokes T, et al. **Br J Gen Pract** 1999 Feb;49(439):144. Comment on: Br J Gen Pract 1998 Oct;48(435):1669–73.

REFUSE DISPOSAL

Detection of Salmonella spp. and Listeria monocytogenes in suspended organic waste by nucleic acid extraction and PCR. Burtscher C, et al. **Appl Environ Microbiol** 1999 May; 65(5):2235–7
Use of phospholipid fatty acids and carbon source utilization patterns To track microbial community succession in developing compost. Carpenter-Boggs L, et al. **Appl Environ Microbiol** 1998 Oct;64(10):4062–4
Purification and characterization of three thermostable endochitinases of a noble Bacillus strain, MH-1, isolated from chitin-containing compost. Sakai K, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3397–402
Engineering polyphosphate metabolism in Escherichia coli: implications for bioremediation of inorganic contaminants. Keasling JD, et al. **Biotechnol Bioeng** 1998 Apr 20–May 5;58(2–3):231–9
Atmospheric impact assessment and monitoring of dioxin emissions of municipal solid waste incinerators in Portugal. Coutinho M, et al. **Chemosphere** 1998 Oct–Nov; 37(9–12):2119–26
Levels of dioxin-like compounds in sewage sludge determined with a bioassay based on EROD induction in chicken embryo liver cultures. Engwall M, et al. **Chemosphere** 1999 Apr;38(10):2327–43
PCDDs and PCDFs concentration in combustion gases and bottom ash from incineration of hospital wastes in Poland. Grochowalski A. **Chemosphere** 1998 Oct–Nov; 37(9–12):2279–91
Biodeterioration of cardboard-based liquid containers collected for fibre reuse. Koivula N, et al. **Chemosphere** 1999 Apr;38(8):1873–87
Relationships between dioxins in soil, air, ash, and emissions from a municipal solid waste incinerator emitting large amounts of dioxins. Lorber M, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2173–97
Distribution of Pb, V, Cr, Ni, Cd, Cu and Fe in particles formed from the combustion of waste oils. Nerin C, et al. **Chemosphere** 1999 Mar;38(7):1533–40
Leaching behavior of persistent organic pollutants (POPs) in shredder residues. Sakai S, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2047–54
Levels of PCDD/Fs in soil samples in the vicinity of a municipal solid waste incinerator. Schuhmacher M, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2127–37
Effect of liquid inhibitors on PCDD/F formation. Prediction of particle-phase PCDD/F concentrations using PLS modelling with gas-phase chlorophenol concentrations as independent variables. Tuppurainen K, et al. **Chemosphere** 1999 Apr;38(10):2205–17
Dioxin emission inventories and trends: the importance of large point sources. Webster T, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2105–18
The association of chromium in household dust with urinary chromium in residences adjacent to chromate production waste sites. Stern AH, et al. **Environ Health Perspect** 1998 Dec;106(12):833–9
Prognostic factors for mortality in nasopharyngeal cancer: accounting for time-dependence of relative risks. Rachet B, et al. **Int J Epidemiol** 1998 Oct;27(5):772–80
Thauera mechernichensis sp. nov., an aerobic denitrifier from a leachate treatment plant. Scholten E, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1045–51
Evaluation of nitrogen and organic matter balance in the feedlot as affected by level and source of dietary fiber. Bierman S, et al. **J Anim Sci** 1999 Jul;77(7):1645–53
Microbial disinfection capacity of municipal solid waste (MSW) composting. Déportes I, et al. **J Appl Microbiol** 1998 Aug;85(2):238–46
Determination of the effect of exposure to gasoline components on a high density polyethylene geomembrane using the comprehensive test system. Barrett WM Jr, et al. **J Hazard Mater** 1999 May 31;67(1):75–93
Factors influencing suspended solids concentrations in activated sludge settling tanks. Kim Y, et al. **J Hazard Mater** 1999 May 31;67(1):95–109
Notification of congenital anomalies [letter; comment] Duggal H, et al. **Lancet** 1998 Oct 31;352(9138):1477. Comment on: Lancet 1998 Aug 8;352(9126):423–7.
Mycological control and surveillance of biological waste and compost. Beffa T, et al. **Med Mycol** 1998;36 Suppl 1:137–45 (31 ref.)
Genotoxicity of the extracts from the compost of the organic and the total municipal garbage using three plant bioassays. Cabrera GL, et al. **Mutat Res** 1999 May 19;426(2):201–6
Small area study of mortality among people living near multiple sources of air pollution. Michelozzi P, et al. **Occup Environ Med** 1998 Sep;55(9):611–5
Enhanced mineralization of UL-14C-pentachlorophenol by mushroom composts. Semple KT, et al. **Res Microbiol** 1997 Dec;148(9):795–8
Exposure-response relationship between gastrointestinal problems among waste collectors and bioaerosol exposure. Ivens UI, et al. **Scand J Work Environ Health** 1999 Jun; 25(3):238–45
Long-term fate of organics in waste deposits and its effect on metal release. Bozkurt S, et al. **Sci Total Environ** 1999 Apr 5;228(2–3):135–52
Monitoring metals in the vicinity of a municipal waste incinerator: temporal variation in soils and vegetation. Meneses M, et al. **Sci Total Environ** 1999 Feb 9; 226(2–3):157–64
[Evaluation of parasitic risks for the population bordering on the Mbeubeuss public waste disposal, Dakar] Faye O, et al. **Dakar Med** 1998;43(1):90–4 (Eng. Abstr.) **(Fre)**
[Association between household solid waste disposal and health, Belo Horizonte (MG), Brasil] Catapreta CA, et al. **Rev Panam Salud Publica** 1999 Feb;5(2):88–96 (Eng. Abstr.) **(Por)**

ECONOMICS

Talking trash: the economic and environmental issues of landfills. Taylor D. **Environ Health Perspect** 1999 Aug; 107(8):A404–9

LEGISLATION & JURISPRUDENCE

Problems associated with the depopulation of tuberculosis-infected wapiti herds [letter; comment] Nation PN. **Can Vet J** 1999 Feb;40(2):88. Comment on: Can Vet J 1999 Feb;40(2):113–7.
Trading trash: why the U.S. won't sign on to the Basel convention. Schmidt CW. **Environ Health Perspect** 1999 Aug;107(8):A410–3
[Return of unused drugs to pharmacies] Gehler Mariacher G, et al. **Schweiz Rundsch Med Prax** 1998 Oct 21; 87(43):1441–3 (Eng. Abstr.) **(Ger)**

METHODS

Methanogenic population dynamics during start-up of anaerobic digesters treating municipal solid waste and biosolids. Griffin ME, et al. **Biotechnol Bioeng** 1998 Feb 5;57(3):342–55
Poultry carcase compost for application in the UK. Lawson MJ, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S10–1
Treatment of PCB-contaminated soil in a pilot-scale continuous decomposition system. Taniguchi S, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2315–26
Coming to grips with a slippery issue: human waste disposal in cold climates. Meyer-Rochow VB. **Int J Circumpolar Health** 1999 Jan;58(1):57–62 (33 ref.)
Evaluating peats for their capacities to remove odorous compounds from liquid swine manure using headspace "solid-phase microextraction". Rizzuti AM, et al. **J Environ Sci Health B** 1999 Jul;34(4):709–48
Behaviour of metals under the conditions of roasting MSW incinerator fly ash with chlorinating agents. Chan CC, et al. **J Hazard Mater** 1999 Jan 1;64(1):75–89
Immobilization of chromium–contaminated soil by means of microwave energy. Tai HS, et al. **J Hazard Mater** 1999 Mar 19;65(3):267–75
[Waste disposal risk in a biochemistry laboratory] Pouclet J, et al. **Ann Biol Clin (Paris)** 1998 Sep–Oct;56(5):603–5 **(Fre)**

STANDARDS

Applications of an acute assessment methodology used for combustion facilities. Chang HY. **Drug Chem Toxicol** 1999 Feb;22(1):25–39

REGENERATION

see related
WOUND HEALING

Effects of therapeutic ultrasound on the regeneration of skeletal myofibers after experimental muscle injury. Rantanen J, et al. **Am J Sports Med** 1999 Jan–Feb; 27(1):54–9
Defect repair after somite removal in avian embryos is not true regeneration. Jüngel-Waas K, et al. **Anat Embryol (Berl)** 1998 Oct;198(4):255–65
Effect of single and periodic contusion on the rat soleus muscle at different stages of regeneration. Minamoto VB, et al. **Anat Rec** 1999 Feb 1;254(2):281–7
Designing biomaterials to direct biological responses. Healy KE, et al. **Ann N Y Acad Sci** 1999 Jun 18;875:24–35 (31 ref.)
Extracellular signal-regulated kinase mediates renal regeneration in rats with myoglobinuric acute renal injury. Ishizuka S, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):88–92
Magnetic resonance imaging of regenerating and dystrophic mouse muscle. McIntosh LM, et al. **Biochem Cell Biol** 1998; 76(2–3):532–41 (61 ref.)
Transforming growth factor-beta-induced upregulation of transforming growth factor-beta receptor expression in pancreatic regeneration. Menke A, et al. **Biochim Biophys Acta** 1999 Mar 8;1449(2):178–85
Absence of muscle regeneration after implantation of a collagen matrix seeded with myoblasts. van Wachem PB, et al. **Biomaterials** 1999 Mar;20(5):419–26
Splenic "regeneration" after partial splenectomy for Gaucher disease: histological features. Freud E, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):309–16
Temporal variation in cellular proliferation during recornification of mouse tail skin. Wilson RP, et al. **Cell Prolif** 1998 Oct–Dec;31(5–6):191–201
Development of approaches to improve the healing following muscle contusion. Kasemkijwattana C, et al. **Cell Transplant** 1998 Nov–Dec;7(6):585–98
Cancer invasion and tissue remodeling: common themes in proteolytic matrix degradation. Johnsen M, et al. **Curr Opin Cell Biol** 1998 Oct;10(5):667–71 (44 ref.)
The transforming growth factor beta system in kidney disease and repair: recent progress and future directions. Basile DP. **Curr Opin Nephrol Hypertens** 1999 Jan;8(1):21–30 (135 ref.)
Expression of matrix metalloproteinases 2 and 9 in regenerating skeletal muscle: a study in experimentally injured and mdx muscles. Kherif S, et al. **Dev Biol** 1999 Jan 1;205(1):158–70
Molecular cloning of the Notophthalmus viridescens radical fringe cDNA and characterization of its expression during forelimb development and adult forelimb regeneration. Cadinouche MZ, et al. **Dev Dyn** 1999 Mar;214(3):259–68
Regulation of lens regeneration by fibroblast growth factor receptor 1. Del Rio-Tsonis K, et al. **Dev Dyn** 1998 Sep; 213(1):140–6
Epidermal expression of apolipoprotein E gene during fin and scale development and fin regeneration in zebrafish. Monnot MJ, et al. **Dev Dyn** 1999 Mar;214(3):207–15
Neurogenesis during caudal spinal cord regeneration in adult

newts. Benraiss A, et al. **Dev Genes Evol** 1999 Jun; 209(6):363–9

Cellular and molecular mechanisms of arm regeneration in crinoid echinoderms: the potential of arm explants. Candia Carnevali MD, et al. **Dev Genes Evol** 1998 Oct; 208(8):421–30

Hox C6 expression during development and regeneration of forelimbs in larval Notophthalmus viridescens. Khan PA, et al. **Dev Genes Evol** 1999 Jun;209(6):323–9

Lens formation by pigmented epithelial cell reaggregate from dorsal iris implanted into limb blastema in the adult newt. Ito M, et al. **Dev Growth Differ** 1999 Aug;41(4):429–40

Regeneration of isthmic tissue is the result of a specific and direct interaction between rhombomere 1 and midbrain. Irving C, et al. **Development** 1999 Sep;126(18):3981–9

The homeodomain protein IDX-1 increases after an early burst of proliferation during pancreatic regeneration. Sharma A, et al. **Diabetes** 1999 Mar;48(3):507–13

MyoD, myogenin, and desmin-nls-lacZ transgene emphasize the distinct patterns of satellite cell activation in growth and regeneration. Creuzet S, et al. **Exp Cell Res** 1998 Sep 15;243(2):241–53

Involvement of gicerin, a cell adhesion molecule, in development and regeneration of oviduct and metastasis of oviductal adenocarcinomas of the chicken. Tsukamoto Y, et al. **Exp Cell Res** 1999 Mar 15;247(2):329–38

Regeneration of adrenal cortical tissue after adrenal autotransplantation. Nabishah BM, et al. **Exp Clin Endocrinol Diabetes** 1998;106(5):419–24

Gastrointestinal mucosal regeneration: role of growth factors. Jones MK, et al. **Front Biosci** 1999 Mar 15;4:D303–9 (79 ref.)

Activin: a novel player in tissue repair processes. Hübner G, et al. **Histol Histopathol** 1999 Jan;14(1):295–304 (61 ref.)

Microglial cells during the lesion-regeneration of the lizard medial cortex. Nacher J, et al. **Histol Histopathol** 1999 Jan; 14(1):103–17

Radial glia and cell debris removal during lesion-regeneration of the lizard medial cortex. Nacher J, et al. **Histol Histopathol** 1999 Jan;14(1):89–101

Skeletal muscle regeneration mimicking rhabdomyosarcoma: a potential diagnostic pitfall. Guillou L, et al. **Histopathology** 1998 Aug;33(2):136–44

Regeneration following orthotopic transplantation of entire plantaris muscle in Sprague Dawley rats. Gill N, et al. **Indian J Exp Biol** 1998 Dec;36(12):1227–32

Molecular cloning of cDNA for p10, a novel protein that increases in the regenerating legs of Periplaneta americana (American cockroach). Kitabayashi AN, et al. **Insect Biochem Mol Biol** 1998 Oct;28(10):785–90

A homeobox gene of the orthodenticle family is involved in antero-posterior patterning of regenerating planarians. Stornaiuolo A, et al. **Int J Dev Biol** 1998 Nov;42(8):1153–8

Origin of acinar cell regeneration after atrophy of the rat parotid induced by duct obstruction. Takahashi S, et al. **Int J Exp Pathol** 1998 Oct;79(5):293–301

Biodegradable positively charged ion exchange beads: a novel biomaterial for enhancing soft tissue repair. Christoforou C, et al. **J Biomed Mater Res** 1998 Dec 5; 42(3):376–86

Evaluation of fibrocartilage regeneration and bone response at full-thickness cartilage defects in articulation with pyrolytic carbon or cobalt-chromium alloy hemiarthroplasties. Kawalec JS, et al. **J Biomed Mater Res** 1998 Sep 15;41(4):534–40

Cartilage reconstruction in head and neck surgery: comparison of resorbable polymer scaffolds for tissue engineering of human septal cartilage. Rotter N, et al. **J Biomed Mater Res** 1998 Dec 5;42(3):347–56

Intralenticular implant study in pigmented rabbits: opacity lensmeter assessment. Gwon A, et al. **J Cataract Refract Surg** 1999 Feb;25(2):268–77

Presence of oxytalan fibers in human regenerated periodontal ligament. Sculean A, et al. **J Clin Periodontol** 1999 May; 26(5):318–21

Development and regeneration of the electric organ. Zakon HH, et al. **J Exp Biol** 1999 May;202 (Pt 10):1427–34 (36 ref.)

Neurogenesis, cell death and regeneration in the adult gymnotiform brain. Zupanc GK. **J Exp Biol** 1999 May;202 (Pt 10):1435–46 (111 ref.)

Confocal laser scanning analysis of the association of fibulin-2 with fibrillin-1 and fibronectin define different stages of skin regeneration. Raghunath M, et al. **J Invest Dermatol** 1999 Jan;112(1):97–101

Absence of Malassez epithelial rests in the regenerated periodontal ligament. A pilot study in the monkey. Sculean A, et al. **J Periodontal Res** 1998 Jul;33(5):310–4

Regeneration of oxytalan fibres in different types of periodontal defects: a histological study in monkeys. Sculean A, et al. **J Periodontal Res** 1998 Nov;33(8):453–9

Meniscal regeneration in the long-term after total meniscectomy? Barker SL, et al. **J R Coll Surg Edinb** 1998 Dec;43(6):400–3

A regenerative change during muscle adaptation to denervation in rats. Yoshimura K, et al. **J Surg Res** 1999 Feb;81(2):139–46

Understanding bladder regeneration: smooth muscle ontogeny. Wu HY, et al. **J Urol** 1999 Sep;162(3 Pt 2):1101–5

Expression of tie1 and tie2 proteins during reendothelialization in balloon-injured rat carotid artery. Fujikawa K, et al. **J Vasc Res** 1999 Jul–Aug;36(4):272–81

Semitendinosus tendon regeneration after harvesting for ACL reconstruction. A prospective MRI study. Eriksson K, et al. **Knee Surg Sports Traumatol Arthrosc** 1999; 7(4):220–5

Articular cartilage regeneration of the knee joint after proximal tibial valgus osteotomy: a prospective study of different intra- and extra-articular operative techniques. Schultz W, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(1):29–36

Improved nerve regeneration with neutralization of transforming growth factor-beta1. Davison SP, et al. **Laryngoscope** 1999 Apr;109(4):631–5

Failure of the canine principal ascending epicardial lymphatic to regenerate after transection. Miller AJ, et al. **Lymphology** 1999 Mar;32(1):29–35

N,N-dicarboxymethyl chitosan as delivery agent for bone morphogenetic protein in the repair of articular cartilage. Mattioli-Belmonte M, et al. **Med Biol Eng Comput** 1999 Jan;37(1):130–4

Axolotl/newt. Maden M. **Methods Mol Biol** 1999;97:415–28 (30 ref.)

Muscle precursor cells injected into irradiated mdx mouse muscle persist after serial injury. Gross JG, et al. **Muscle Nerve** 1999 Feb;22(2):174–85

Use of cultured thymic tissues for the regeneration of the thymus. Jones GV, et al. **Neuroimmunomodulation** 1999 Jan–Apr;6(1–2):6–22 (132 ref.)

mRNA levels of myogenic regulatory factors in rat slow and fast muscles regenerating from notexin-induced necrosis. Mendler L, et al. **Neuromuscul Disord** 1998 Dec; 8(8):533–41

European Association for Studying Regeneration Conference. Koln, Germany, 1998. Abstracts. **Ontogenez** 1999 Mar–Apr;30(2):134–60

Distribution of cadmium and metallothionein in CdCl2-exposed rat kidney: relationship with apoptosis and regeneration. Tanimoto A, et al. **Pathol Int** 1999 Feb; 49(2):125–32

Bombesin-induced pancreatic regeneration in pigs is mediated by p46Shc/p52Shc and p42/p44 mitogen-activated protein kinase upregulation. Fiorucci S, et al. **Scand J Gastroenterol** 1998 Dec;33(12):1310–20

Meniscal regeneration or meniscal transplantation? Messner K. **Scand J Med Sci Sports** 1999 Jun;9(3):162–7 (47 ref.)

Regenerating synovial lining of the normal rabbit knee: a scanning electron microscopy study. Stein H, et al. **Scanning Microsc** 1996;10(2):371–83; discussion 383–4

Growing new organs. Mooney DJ, et al. **Sci Am** 1999 Apr; 280(4):60–5

Brain, heal thyself. Lowenstein DH, et al. **Science** 1999 Feb 19;283(5405):1126–7 (13 ref.)

The axolotl as an animal model for the comparison of 3-D ultrasound with plain film radiography. Kulbisky GP, et al. **Ultrasound Med Biol** 1999 Jul;25(6):969–75

Guiding spontaneous tissue regeneration for urethral reconstruction: long-term studies in the rabbit. Italiano G, et al. **Urol Res** 1998;26(4):281–4

Conceptual foundations of metamorphosis and regeneration: from historical links to common mechanisms. Dinsmore CE. **Wound Repair Regen** 1998 Jul–Aug;6(4):291–301

Regenerative biology and engineering: strategies for tissue restoration [see comments] Stocum DL. **Wound Repair Regen** 1998 Jul–Aug;6(4):276–90 (116 ref.) . Comment in: Wound Repair Regen 1998 Jul–Aug;6(4):273–5.

[Regeneration of costal cartilage by pectus excavatum and thoracic cage remodeling] Hu T, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):156–8 (Eng. Abstr.) **(Chi)**

[Regeneration following acute kidney damage] De Broe ME. **Verh K Acad Geneeskd Belg** 1998;60(4):359–83; discussion 383–4 (Eng. Abstr.) **(Dut)**

[Renewal and stability] Leblond CP. **C R Seances Soc Biol Fil** 1998;192(5):843–6 **(Fre)**

[Long-term healing of excimer laser ablated rabbit corneas] Nakayasu K, et al. **Nippon Ganka Gakkai Zasshi** 1999 Feb; 103(2):99–107 (Eng. Abstr.) **(Jpn)**

[The mechanisms of gastrointestinal mucosal injury and repair] Kobayashi K, et al. **Nippon Rinsho** 1998 Sep; 56(9):2215–22 (24 ref.) (Eng. Abstr.) **(Jpn)**

[Morphological equivalents of lymphocytic-epithelial interactions in kidney and liver regeneration] Babaeva AG, et al. **Arkh Patol** 1998 Sep–Oct;60(5):58–61 (Eng. Abstr.) **(Rus)**

[Plastic activity of muscle allotransplants, developing in the muscle bed, preliminarily irradiated with a helium-neon laser] Buliakova NV, et al. **Dokl Akad Nauk** 1998 Nov; 363(2):263–6 **(Rus)**

[Cellular and Molecular Aspects of Tissue Regeneration and Reconstruction. Moscow, June 2–4, 1998. Abstracts] **Ontogenez** 1998 Nov–Dec;29(6):465–80 **(Rus)**

[The observation of partial regeneration of the tip of tail in newborn rat pups in a liquid medium] Kovalev AV, et al. **Ontogenez** 1999 Jan–Feb;30(1):47–50 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Effects of anabolic/androgenic steroids on regenerating skeletal muscles in the rat. Ferry A, et al. **Acta Physiol Scand** 1999 Jun;166(2):105–10

Prior streptozotocin treatment does not inhibit pancreas regeneration after 90% pancreatectomy in rats. Finegood DT, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E822–7

Systemic administration of the NF-kappaB inhibitor curcumin stimulates muscle regeneration after traumatic injury. Thaloor D, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C320–9

Histological effects of vitamin A on the tail-amputated tadpoles of Polypedates maculatus with special reference to homeotic transformation. Das P, et al. **Cells Tissues Organs** 1999;164(2):90–101

Topical aminocaproic acid facilitates reepithelialization of persistent epithelial defects. Williams PB, et al. **Curr Eye Res** 1999 Feb;18(2):150–7

A substituted dextran enhances muscle fiber survival and regeneration in ischemic and denervated rat EDL muscle. Desgranges P, et al. **FASEB J** 1999 Apr;13(6):761–6

Myofibroblast proliferation, fibrosis, and defective pancreatic repair induced by cyclosporin in rats [see comments] Vaquero E, et al. **Gut** 1999 Aug;45(2):269–77. Comment in: Gut 1999 Aug;45(2):167–8.

Inhibition of choriocapillaris regeneration with genistein. Majji AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jun; 40(7):1477–86

RA regulation of keratin expression and myogenesis suggests different ways of regenerating muscle in adult amphibian limbs. Corcoran JP, et al. **J Cell Sci** 1999 May;112 (Pt 9):1385–94

Periodontal repair in dogs: effect of rhBMP-2 concentration on regeneration of alveolar bone and periodontal attachment. Wikesjö EM, et al. **J Clin Periodontol** 1999 Jun;26(6):392–400

Upregulation of cathepsin D expression in the dedifferentiating salamander limb regenerates and enhancement of its expression by retinoic acid. Ju BG, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):349–57

[Cytokine regulation of the cornea post-burn regeneration in an experiment] Gankovskaia LV, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):314–6 **(Rus)**

[Content of fibroblasts, macrophages, granulocytes and lymphocytes in the connective tissue regenerate of the skin in wound healing as affected by noradrenaline, acetylcholine, propranolol and atropine] Grabovoĭ AN. **Morfologiia** 1999;116(4):41–5 (Eng. Abstr.) **(Rus)**

[The action of potable mineral waters on reparative regeneration processes in the stomach] Korolev IuN. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov–Dec; (6):21–4 (Eng. Abstr.) **(Rus)**

GENETICS

Infarcted hearts of mice and men [editorial; comment] Weber KT. **Cardiovasc Res** 1999 Mar;41(3):506–8. Comment on: Cardiovasc Res 1999 Mar;41(3):586–93.

Molecular mechanisms of cell death and regeneration in acute ischemic renal injury. Padanilam BJ, et al. **Curr Opin Nephrol Hypertens** 1999 Jan;8(1):15–9 (30 ref.)

Lack of regulation in the heart forming region of avian embryos. Ehrman LA, et al. **Dev Biol** 1999 Mar 1; 207(1):163–75

Expression of genes of type I and type II collagen in the formation and development of the blastema of regenerating newt limb. Asahina K, et al. **Dev Dyn** 1999 Sep;216(1):59–71

Expression of Mmp-9 and related matrix metalloproteinase genes during axolotl limb regeneration. Yang EV, et al. **Dev Dyn** 1999 Sep;216(1):2–9

Platyhelminthes have a hox code differentially activated during regeneration, with genes closely related to those of spiralian protostomes. Bayascas JR, et al. **Dev Genes Evol** 1998 Oct;208(8):467–73

Two Nkx-3-related genes are expressed in the adult and regenerating central nervous system of the urodele Pleurodeles waltl. Nicolas S, et al. **Dev Genet** 1999; 24(3–4):319–28

Expression of five novel T-box genes and brachyury during embryogenesis, and in developing and regenerating limbs and tails of newts. Sone K, et al. **Dev Growth Differ** 1999 Jun;41(3):321–33

Lens regeneration in Xenopus is not a mere repeat of lens development, with respect to crystallin gene expression. Mizuno N, et al. **Differentiation** 1999 Mar;64(3):143–9

Regenerating gene protein may mediate gastric mucosal proliferation induced by hypergastrinemia in rats. Fukui H, et al. **Gastroenterology** 1998 Dec;115(6):1483–93

Identification of newt connective tissue growth factor as a target of retinoid regulation in limb blastemal cells. Cash DE, et al. **Gene** 1998 Nov 5;222(1):119–24

Expression of two even-skipped genes eve1 and evx2 during zebrafish fin morphogenesis and their regulation by retinoic acid. Brulfert A, et al. **Int J Dev Biol** 1998 Nov; 42(8):1117–24

Expression of Msx-2 during development, regeneration, and wound healing in axolotl limbs. Carlson MR, et al. **J Exp Zool** 1998 Dec 15;282(6):715–23

Sonic hedgehog (shh) expression in developing and regenerating axolotl limbs. Torok MA, et al. **J Exp Zool** 1999 Jul 1;284(2):197–206

Expression of the third component of complement, C3, in regenerating limb blastema cells of urodeles. Del Rio-Tsonis K, et al. **J Immunol** 1998 Dec 15; 161(12):6819–24

Expression of sarcoplasmic/endoplasmic reticulum Ca2+ ATPases in the rat extensor digitorum longus (EDL) muscle regenerating from notexin-induced necrosis. Mendler L, et al. **J Muscle Res Cell Motil** 1998 Oct;

19(7):777–85

Delivering tissue regeneration [news; comment] Saltzman WM. **Nat Biotechnol** 1999 Jun;17(6):534–5. Comment on: Nat Biotechnol 1999 Jun;17(6):551–4.

Isolation and expression of a Pax–6 gene in the regenerating and intact Planarian Dugesia(G)tigrina. Callaerts P, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):558–63

The use of planarians to dissect the molecular basis of metazoan regeneration. Alvarado AS, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):413–20 (39 ref.)

Isolation of genes involved in intestinal remodeling during anuran metamorphosis. Amano T. **Wound Repair Regen** 1998 Jul–Aug;6(4):302–13 (80 ref.)

Expression of sonic hedgehog gene in regenerating newt limbs. Imokawa Y, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):366–70 (22 ref.)

Joint cartilage regeneration by tissue engineering. Sittinger M, et al. **Z Rheumatol** 1999 Jun;58(3):130–5 (21 ref.)

[Homeobox genes: their structure and expression during development and regeneration] Znoĭko IIu, et al. **Izv Akad Nauk Ser Biol** 1999 Mar–Apr;(2):133–44 (103 ref.) (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Regeneration of autotransplanted splenic fragments: basic immunological and clinical relevance [editorial; comment] Pabst R. **Clin Exp Immunol** 1999 Sep;117(3):423–4 (29 ref.) . Comment on: Clin Exp Immunol 1999 Sep;117(3):596–604.

[Reparative processes and immunity] Babaeva AG. **Izv Akad Nauk Ser Biol** 1999 May–Jun;(3):261–9 (63 ref.) (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Expression of the sarco/endoplasmic reticulum Ca(2+)-transport ATPase protein isoforms during regeneration from notexin-induced necrosis of rat soleus muscle. Zádor E, et al. **Acta Histochem** 1998 Nov; 100(4):355–69

Quantitation of argyrophilic nucleolar organizer regions in regenerating muscle fibers in Duchenne and Becker muscular dystrophies and polymyositis. Tuccari G, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):247–52

Basilar papilla explants: a model to study hair cell regeneration–repair and protection. Frenz DA, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):651–9

Changes in myosin heavy chain profile of mature regenerated muscle with endurance training in rat. Bigard AX, et al. **Acta Physiol Scand** 1999 Feb;165(2):185–92

Neural regulation of myosin gene expression in regenerating skeletal muscle. Schiaffino S, et al. **Acta Physiol Scand** 1998 Jul;163(3):S11–5 (32 ref.)

The protective effect of brain–derived neurotrophic factor after gentamicin ototoxicity. Lopez I, et al. **Am J Otol** 1999 May;20(3):317–24

Changes in the glomerulosa cell phenotype during adrenal regeneration in rats. Engeland WC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1374–82

Fibroblasts stimulate acinar cell proliferation through IGF–I during regeneration from acute pancreatitis. Ludwig CU, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G193–8

Regeneration and myogenic cell proliferation correlate with taurine levels in dystrophin– and MyoD–deficient muscles. McIntosh LM, et al. **Anat Rec** 1998 Oct;252(2):311–24

Long–term regeneration of fast and slow murine skeletal muscles after induced injury by ACL myotoxin isolated from Agkistrodon contortrix laticinctus (broad–banded copperhead) venom. Salvini TF, et al. **Anat Rec** 1999 Apr 1;254(4):521–33

Increasing extracellular matrix production in regenerating cartilage with intermittent physiological pressure. Carver SE, et al. **Biotechnol Bioeng** 1999 Jan 20;62(2):166–74

Time course of the regenerative response in bupivacaine injured orbicularis oculi muscle. McLoon LK, et al. **Cell Tissue Res** 1998 Dec;294(3):439–47

Histological effects of vitamin A on the tail–amputated tadpoles of Polypedates maculatus with special reference to homeotic transformation. Das P, et al. **Cells Tissues Organs** 1999;164(2):90–101

Alteration of endothelium–dependent hyperpolarizations in porcine coronary arteries with regenerated endothelium [see comments] Thollon C, et al. **Circ Res** 1999 Mar 5; 84(4):371–7. Comment in: Circ Res 1999 Mar 5;84(4):484–8.

Effect of substance P, insulin–like growth factor–1 and vasoactive intestinal polypeptide on corneal re–epithelialization in galactosemic rats. McDermott AM, et al. **Curr Eye Res** 1998 Dec;17(12):1143–9

Factors controlling hair–cell regeneration/repair in the inner ear. Staecker H, et al. **Curr Opin Neurobiol** 1998 Aug; 8(4):480–7 (52 ref.)

The process of pharynx regeneration in planarians. Kobayashi C, et al. **Dev Biol** 1999 Jul 1;211(1):27–38

Expression of DjY1, a protein containing a cold shock domain and RG repeat motifs, is targeted to sites of regeneration in planarians. Salvetti A, et al. **Dev Biol** 1998 Sep 15;201(2):217–29

Heterogeneity among muscle precursor cells in adult skeletal muscles with differing regenerative capacities. Pavlath GK, et al. **Dev Dyn** 1998 Aug;212(4):495–508

The role of dorsoventral interaction in the onset of planarian regeneration. Kato K, et al. **Development** 1999 Feb; 126(5):1031–40

Lazarus rises: islet regeneration in the 21st century. Gottlieb PA. **Diabetes Metab Rev** 1998 Dec;14(4):330–1

Neogenesis of islet cells. Wilkin TJ. **Diabetes Metab Rev** 1998 Dec;14(4):331–3

The murine Cdx1 gene product localises to the proliferative compartment in the developing and regenerating intestinal epithelium. Subramanian V, et al. **Differentiation** 1998 Nov; 64(1):11–8

Regulation of p75kip2 and steroidogenic enzyme mRNA during adrenal regeneration. Fraticelli AI, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):975–6

Hindlimb suspension reduces muscle regeneration. Mozdziak PE, et al. **Eur J Appl Physiol** 1998 Jul;78(2):136–40

Regeneration processes in the kidney after acute injury: role of infiltrating cells. Ghielli M, et al. **Exp Nephrol** 1998 Nov–Dec;6(6):502–7 (26 ref.)

Successful myoblast transplantation in primates depends on appropriate cell delivery and induction of regeneration in the host muscle. Skuk D, et al. **Exp Neurol** 1999 Jan; 155(1):22–30

Distribution and time course of hair cell regeneration in the pigeon utricle. Dye BJ, et al. **Hear Res** 1999 Jul; 133(1–2):17–26

Evidence for loss and recovery of chick brainstem auditory neurons during gentamicin–induced cochlear damage and regeneration. Park DL, et al. **Hear Res** 1998 Dec; 126(1–2):84–98

Expression of tenascin–C and the integrin alpha 9 subunit in regeneration of rat nasal mucosa after chemical injury: involvement in migration and proliferation of epithelial cells. Yoshimura E, et al. **Histochem Cell Biol** 1999 Apr; 111(4):259–64

Nehushtan: the dry bones, Ezekiel, Prometheus, the breath, and the signals. Goihman–Yahr M. **Int J Dermatol** 1998 Aug;37(8):570–1

Regulation of Prox 1 during lens regeneration. Del Rio–Tsonis K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2039–45

Regeneration of new fibers in muscles of old rats reduces contraction–induced injury. Devor ST, et al. **J Appl Physiol** 1999 Aug;87(2):750–6

The healing and regeneration of articular cartilage. O'Driscoll SW. **J Bone Joint Surg Am** 1998 Dec; 80(12):1795–812 (255 ref.)

Enhancement of neutral phosphatase activity in the cytosol and nuclei of regenerating rat liver: role of endogenous regucalcin. Omura M, et al. **J Cell Biochem** 1999 Jun 1; 73(3):332–41

Hypoxia and cAMP stimulate vascular endothelial growth factor (VEGF) in human endometrial stromal cells: potential relevance to menstruation and endometrial regeneration. Popovici RM, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2245–8

Effect of allogeneic freeze–dried demineralized bone matrix on regeneration of alveolar bone and periodontal attachment in dogs. Caplanis N, et al. **J Clin Periodontol** 1998 Oct;25(10):801–6

Retinoic acid and thyroid hormone may function through similar and competitive pathways in regenerating axolotls. Crawford K, et al. **J Exp Zool** 1998 Dec 15;282(6):724–38

Nerve–independence of limb regeneration in larval Xenopus laevis is related to the presence of mitogenic factors in early limb tissues. Filoni S, et al. **J Exp Zool** 1999 Jul 1; 284(2):188–96

Activation of the skeletal alpha–actin promoter during muscle regeneration. Marsh DR, et al. **J Muscle Res Cell Motil** 1998 Nov;19(8):897–907

Immunocytochemical and morphological evidence for intracellular self–repair as an important contributor to mammalian hair cell recovery. Zheng JL, et al. **J Neurosci** 1999 Mar 15;19(6):2161–70

Capillaries with fenestrations around regenerating muscle fibers in the soleus muscle of the dystrophic (dy) mouse. Oki S, et al. **J Orthop Sci** 1998;3(1):67–70

Expression of catenins and E–cadherin during epithelial restitution in inflammatory bowel disease. Karayiannakis AJ, et al. **J Pathol** 1998 Aug;185(4):413–8

Expression of growth regulatory genes in a SCID mouse–human model of intestinal epithelial regeneration. Sattar A, et al. **J Pathol** 1999 Jan;187(2):229–36

Segmental small bowel allograft––ischemic injury and regeneration. Chan KL, et al. **J Pediatr Surg** 1998 Nov; 33(11):1703–6

Acceptance Program Guidelines. Products designed to regenerate periodontal tissues. Council on Scientific Affairs. American Dental Association. **J Periodontol** 1998 Sep;69(9):1081–4

Pancreatic regeneration after chronic ethanol feeding in rats. Rydzewska G, et al. **J Physiol Pharmacol** 1999 Jun; 50(2):227–41

Effect of cigarette smoke on endothelial regeneration in vivo and nitric oxide levels. Sarkar R, et al. **J Surg Res** 1999 Mar;82(1):43–7

Myocardial tissue engineering with autologous myoblast implantation. Dorfman J, et al. **J Thorac Cardiovasc Surg** 1998 Nov;116(5):744–51

Microvasculature, blood flow, and vasoreactivity in rabbit sinus mucosa after surgery. Forsgren K, et al. **Laryngoscope** 1999 Apr;109(4):562–8

A hypothesis for the etiology of interstitial cystitis based upon inhibition of bladder epithelial repair. Keay S, et al. **Med Hypotheses** 1998 Jul;51(1):79–83 (42 ref.)

Growth control in the ontogenetic and regenerating zebrafish fin. Johnson SL, et al. **Methods Cell Biol** 1999;59:301–11 (27 ref.)

Association of IGF–I and IGF–II with myofiber regeneration in vivo. Keller HL, et al. **Muscle Nerve** 1999 Mar; 22(3):347–54

Sodium withdrawal contractures in developing and regenerating rat extensor digitorum longus muscles. Louboutin JP, et al. **Muscle Nerve** 1998 Nov;21(11):1530–2

Higher content of insulin–like growth factor–I in dystrophic mdx mouse: potential role in the spontaneous regeneration through an electrophysiological investigation of muscle function. De Luca A, et al. **Neuromuscul Disord** 1999 Jan; 9(1):11–8

Blood borne macrophages are essential for the triggering of muscle regeneration following muscle transplant. Lescaudron L, et al. **Neuromuscul Disord** 1999 Mar; 9(2):72–80

Up–regulation of glial cell line–derived neurotrophic factor (GDNF) expression in regenerating muscle fibers in neuromuscular diseases. Suzuki H, et al. **Neurosci Lett** 1998 Dec 4;257(3):165–7

Reconstruction of a three–dimensional structure using cartilage regenerated from the perichondrium of rabbits. Yotsuyanagi T, et al. **Plast Reconstr Surg** 1999 Apr; 103(4):1120–3

Bladder acellular matrix graft: in vivo functional properties of the regenerated rat bladder. Piechota HJ, et al. **Urol Res** 1999 Jun;27(3):206–13

Regeneration of skeletal and cardiac muscle in mammals: do nonprimate models resemble human pathology? Borisov AB. **Wound Repair Regen** 1999 Jan–Feb;7(1):26–35 (88 ref.)

Stimulation of regeneration in mammals: pipe dream or realistic goal? Carlson BM. **Wound Repair Regen** 1998 Sep–Oct;6(5):425–33 (50 ref.)

Fibroblast growth factor receptors regulate the ability for hindlimb regeneration in Xenopus laevis. D'Jamoos CA, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):388–97

Pattern formation in dissociated limb bud mesenchyme in vitro and in vivo. Ide H, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):398–402 (12 ref.)

Retinoids as endogenous components of the regenerating limb and tail. Maden M. **Wound Repair Regen** 1998 Jul–Aug; 6(4):358–65 (53 ref.)

Role of hair papilla cells on induction and regeneration processes of hair follicles. Matsuzaki T, et al. **Wound Repair Regen** 1998 Nov–Dec;6(6):524–30 (46 ref.)

A target of thrombin activation promotes cell cycle re–entry by urodele muscle cells. Tanaka EM, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):371–81

Tissue reconstitution: metamorphosis, regeneration, and artificial tissues [editorial; comment] Yoshizato K. **Wound Repair Regen** 1998 Jul–Aug;6(4):273–5. Comment on: Wound Repair Regen 1998 Jul–Aug;6(4):276–90.

[Cartilage regeneration therapy by autologous cartilage cell transplants] Josimović–Alasević O, et al. **Dtsch Med Wochenschr** 1998 Nov 27;123(48):1463–4 **(Ger)**

[Regeneration of hyalin cartilage in the knee joint by treatment with autologous chondrocyte transplants––initial clinical results] Löhnert J. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1205–7 (Eng. Abstr.) **(Ger)**

[Regeneration of mouth mucosa in the buccal plane following graft procurement for reconstruction of bulbar urethral stenoses] Szulczewski DH, et al. **Mund Kiefer Gesichtschir** 1999 Jan;3(1):34–7 (Eng. Abstr.) **(Ger)**

[Tissue damage and regeneration after laser surgery using different scanning systems] Weibrich G, et al. **Mund Kiefer Gesichtschir** 1999 Jul;3(4):200–4 (Eng. Abstr.) **(Ger)**

[Factors involved in the regeneration of the gastrointestinal tract] Matsubara Y, et al. **Nippon Rinsho** 1998 Sep; 56(9):2253–7 (24 ref.) (Eng. Abstr.) **(Jpn)**

[Pathophysiology in muscle fiber necrosis and regeneration with a particular reference to regenerating process] Nonaka I. **Rinsho Shinkeigaku** 1998 Dec;38(12):997–1000 (10 ref.) (Eng. Abstr.) **(Jpn)**

[The differences in liver regenerative rate after partial hepatectomy in rats treated wtih selected immunosuppressants] Polak W, et al. **Pol Merkuriusz Lek** 1999 Feb;6(32):70–2 (Eng. Abstr.) **(Pol)**

[Experimental evaluation colonic anastomosis regeneration in various ages] Vlasov AP, et al. **Khirurgiia (Mosk)** 1999; (3):43–7 (Eng. Abstr.) **(Rus)**

[Mechanisms of hemopoiesis cytostatic damage and regeneration] Gol'dberg ED, et al. **Vestn Ross Akad Med Nauk** 1998;(10):6–10 (Eng. Abstr.) **(Rus)**

[Trefoil peptides, cellular repair and progression (editorial)] Soriano A. **Gastroenterol Hepatol** 1999 Apr;22(4):188–90 (19 ref.) **(Spa)**

RADIATION EFFECTS

GaAs (904–nm) laser radiation does not affect muscle regeneration in mouse skeletal muscle. Oliveira NM, et al. **Lasers Surg Med** 1999;25(1):13–21

[A comparative analysis of the action of red and infrared laser radiation and ultrasound on the regeneration of locally irradiated skeletal muscle and on immune system function

in the rat] Subkova SM, et al.
Vopr Kurortol Fizioter Lech Fiz Kult 1998 Nov-Dec; (6):11-6 (Eng. Abstr.) **(Rus)**

REGENERATION, GUIDED TISSUE see **GUIDED TISSUE REGENERATION**

REGIONAL BLOOD FLOW

Clinical application of basal regional cerebral blood flow fluctuation measurements by FMRI. Haughton V, et al. **Adv Exp Med Biol** 1998;454:583-90 (53 ref.)
Organ blood flow redistribution in response to hypoxemia in neonatal piglets. Dyess DL, et al. **J Invest Surg** 1998 Nov-Dec;11(6):381-92
Comparison between tail skin blood flow measurements by ultrasonic Doppler flowmetry and plethysmography during heating in anesthetized rats. Nakajima Y, et al. **Jpn J Physiol** 1999 Feb;49(1):121-4
Enhancement of fluid filtration across tumor vessels: implication for delivery of macromolecules. Netti PA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3137-42
Effect of US contrast agents on spectral velocities: in vitro evaluation. Melany ML, et al. **Radiology** 1999 May; 211(2):427-31

DRUG EFFECTS

Troglitazone, an insulin sensitizer, increases forearm blood flow in humans. Fujishima S, et al. **Am J Hypertens** 1998 Sep;11(9):1134-7
The effects of stroma-free and dextran-conjugated hemoglobin on hemodynamics and carotid blood flow in hemorrhaged guinea pigs. Caron A, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Jan; 27(1):49-64
Effects of intravenous administration of prostacyclin on regional blood circulation in awake rats. Raczka E, et al. **Br J Pharmacol** 1999 Mar;126(6):1325-32
Localized paclitaxel delivery. Dhanikula AB, et al. **Int J Pharm** 1999 Jun 25;183(2):85-100 (80 ref.)
Regional blood flow responses to acute ANG II infusion: effects of nitric oxide synthase inhibition. Symons JD, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):116-23
Vascular structure in the forearm and calf after 6 months of angiotensin converting enzyme inhibition in elderly hypertensive subjects with left ventricular hypertrophy. Marceau M, et al. **J Hypertens** 1998 May;16(5):673-9
Effects of glibenclamide on blood pressure and cardiovascular responsiveness in non-insulin dependent diabetes mellitus. Williams S, et al. **J Hypertens** 1998 May; 16(5):705-11
Effects of adrenergic and nitrergic blockade on theophylline-induced increase in peripheral blood flow in rat ear. Sanae F, et al. **Jpn J Pharmacol** 1998 Nov; 78(3):345-54
Regional hemodynamic responses to exogenous catecholamines and vasoactive peptides in conscious rats. Takemoto Y. **Jpn J Physiol** 1999 Apr;49(2):185-91
Effect of pituitary adenylate cyclase activating polypeptide 1-27 on ocular, cerebral and skin blood flow in humans. Dorner GT, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):657-62
The effect of VIP/PACAP family of peptides on pancreatic blood flow and secretion in conscious dogs. Ito O, et al. **Regul Pept** 1998 Nov 30;78(1-3):105-12

PHYSIOLOGY

Involvement of the human splanchnic circulation in pressor response induced by handgrip contraction. Waaler BA, et al. **Acta Physiol Scand** 1999 Jun;166(2):131-6
Blood mobilization from the liver of the anaesthetized dog. Noble BJ, et al. **Exp Physiol** 1998 Jul;83(4):513-22
Biologic model of bone transport distraction osteogenesis and vascular response. DeCoster TA, et al. **J Orthop Res** 1999 Mar;17(2):238-45
Real-time blood velocity measurements in human retinal vein using the laser speckle phenomenon. Nagahara M, et al. **Jpn J Ophthalmol** 1999 May-Jun;43(3):186-95
Deuterium NMR tissue perfusion measurements using the tracer uptake approach: I. Optimization of methods. Simpson NE, et al. **Magn Reson Med** 1999 Jul;42(1):42-52
Spontaneous pulsation of the retinal veins. Levine DN. **Microvasc Res** 1998 Nov;56(3):154-65

REGIONAL HEALTH PLANNING

Family planning funding through four federal-state programs, FY 1997. Gold RB, et al. **Fam Plann Perspect** 1999 Jul-Aug;31(4):176-81
Regional drug information service. Schwarz UI, et al. **Int J Clin Pharmacol Ther** 1999 Jun;37(6):263-8
Quality assurance and iron deficiency in Egypt. Abubaker WA, et al. **Int J Qual Health Care** 1999 Apr;11(2):163-8
Creating dialogue. The New Jersey experience. Dickson GL. **J Nurs Adm** 1999 Mar;29(3):8-10, 44
Strategically planning for the future of nursing in California. Fox S, et al. **J Nurs Adm** 1999 Feb;29(2):4-6, 13
Covered lives and seamless systems: nursing workforce development and integration in Arizona's managed-care environment. Roberts F, et al. **J Nurs Adm** 1998 Oct; 28(10):4-7
Minnesota Colleagues in Caring Collaborative. Rothchild M. **J Nurs Adm** 1998 Nov;28(11):5-9
Re-forming medical delivery systems: economic organization and dynamics of regional planning and managed competition. Perkins BB. **Soc Sci Med** 1999 Jan; 48(2):241-51
Clinical diagnosis of uncomplicated malaria in Sri Lanka. van der Hoek W, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):242-5
Health and well-being under one umbrella. Maranda MA, et al. **World Health Forum** 1998;19(3):239-45
[Examples and proposed solutions for methodological problems in hospital appropriateness assessment] Sangha O, et al. **Gesundheitswesen** 1999 Jun;61(6):287-91 (Eng. Abstr.) **(Ger)**
[Problems of regional medical service and training of medical personnel] Mavrina EA. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):33-5 (Eng. Abstr.) **(Rus)**

ECONOMICS

Cost implications of regionalizing open heart surgery units. Menke TJ, et al. **Inquiry** 1999 Spring;36(1):57-67
Linking measures of health gain to explicit priority setting by an area health service in Australia. Cromwell DA, et al. **Soc Sci Med** 1998 Dec;47(12):2067-74

LEGISLATION & JURISPRUDENCE

The conditions for state action in Florida's health-care market. Harkreader S, et al. **J Health Soc Behav** 1999 Jun; 40(2):159-74
Understanding and applying alternative dispute resolution methods in modern medical conflicts. Liang BA. **J Leg Med** 1998 Sep;19(3):397-430 (53 ref.)

METHODS

Introducing management principles into the supply and distribution of medicines in Tunisia. Garraoui A, et al. **Bull World Health Organ** 1999;77(6):525-9
Supplementing state and national health care workforce planning: a regional effort. Imm IE, et al. **J Allied Health** 1998 Spring;27(2):77-82

ORGANIZATION & ADMINISTRATION

Progress and outcomes of the colleagues in caring program. Phase one. Rapson MF, et al. **J Nurs Adm** 1999 Jul-Aug; 29(7-8):4-8
Factors influencing malaria endemicity in Yunnan Province, PR China (analysis of spatial pattern by GIS). Geographical Information System [see comments] Hu H, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):191-200. Comment in: Southeast Asian J Trop Med Public Health 1998 Jun;29(2):189-90.
Handling information in public health planning [editorial; comment] Kidson C. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):189-90. Comment on: Southeast Asian J Trop Med Public Health 1998 Jun;29(2):191-212. Comment on: Southeast Asian J Trop Med Public Health 1998 Jun;29(2):201-2.
International population movements and public health in the Mekong region: an overview of some issues concerning mapping [see comments] Stern A. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):201-12. Comment in: Southeast Asian J Trop Med Public Health 1998 Jun;29(2):189-90.
[Neonatology in the Maghreb region: cost] Khrouf N. **Arch Pediatr** 1999;6 Suppl 2:275s-277s **(Fre)**
[Regional implementation of guidelines as a lesson for cancer centers] Sauer H. **Z Arztl Fortbild Qualitatssich** 1999 Jan; 93(1):23-7 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

[Pediatric survey of perinatal care networks in France (letter)] Cornet B, et al. **Arch Pediatr** 1998 Aug;5(8):936-8 **(Fre)**

TRENDS

From appropriate care to evidence-based medicine. Balas EA. **Pediatr Ann** 1998 Sep;27(9):581-4
[Increasing organ donation by regionalization] Gubernatis G. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:191-6 (Eng. Abstr.) **(Ger)**
[Epidemiology of dementia and regional health care concepts for dementia patients and relatives] Wettstein A. **Ther Umsch** 1999 Feb;56(2):69-73 (Eng. Abstr.) **(Ger)**

REGIONAL HOSPITAL PLANNING see **HOSPITAL PLANNING**

REGIONAL HOSPITAL PLANNINGS see **HOSPITAL PLANNING**

REGIONAL MEDICAL PROGRAMS

Accredited fellowship training programs in gastroenterology. **Am J Gastroenterol** 1998 Dec;93(12):2610-23
Reflections on the Skamania Conference: an emergency physician's perspective. Hunt RC. **J Trauma** 1999 Sep;47(3 Suppl):S108
Trauma care regionalization: a process-outcome evaluation. Sampalis JS, et al. **J Trauma** 1999 Apr;46(4):565-79; discussion 579-81
The Vermont Oxford Network: evidence-based quality improvement for neonatology. Horbar JD. **Pediatrics** 1999 Jan;103(1 Suppl E):350-9 (49 ref.)
[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of a regional hospitalization agency director] Péricard B. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:220-3 **(Fre)**
[A feasibility study of an Internet site on health conferences and regional health programs] Laplace L, et al. **Sante Publique** 1999 Mar;11(1):57-62 (Eng. Abstr.) **(Fre)**
[Centralized care is the basis of care programs for hemophilia patients] Berntorp E, et al. **Lakartidningen** 1999 Apr 14; 96(15):1849-52 (Eng. Abstr.) **(Swe)**
[Reduced frequency of resistant pneumococci in Southern Sweden. Community based disease control projects to minimize antibiotic resistance] Ekdahl K, et al. **Lakartidningen** 1999 Jun 16;96(24):2962-5 (39 ref.) (Eng. Abstr.) **(Swe)**
[A national preventive program against burns in children is needed] Steinwall I, et al. **Lakartidningen** 1998 Sep 30; 95(40):4325-7 **(Swe)**

ECONOMICS

The cost of large-scale school health programmes which deliver anthelmintics to children in Ghana and Tanzania. The Partnership for Child Development. **Acta Trop** 1999 Jul 30;73(2):183-204
Effects of modification of the allocation system on ischemia duration and costs of heart transplantation. Transplantation Cooperation UNI-NRW. Petzold T, et al. **Thorac Cardiovasc Surg** 1999 Jun;47(3):153-6

HISTORY

Health developments in the eastern Mediterranean region over 50 years. Excerpts from the records. **East Mediterr Health J** 1998;4 Suppl:S31-57
A historical perspective of trauma system development in the United States. Mullins RJ. **J Trauma** 1999 Sep;47(3 Suppl):S8-14

LEGISLATION & JURISPRUDENCE

Dealing with "excluded providers": contracts that can bring trouble to physicians. Padgett PT. **J Ky Med Assoc** 1998 Nov;96(11):457-8 (8 ref.)
[Perinatal care: advantages and disadvantage of network functioning. Analysis and point-of-view of decision-makers. "Periconceptology decree, first year"] Frydman R. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:247-8 **(Fre)**

ORGANIZATION & ADMINISTRATION

Regionalization of infection prevention and control services in a publicly funded health care system. Wiens RM, et al. **Am J Infect Control** 1998 Aug;26(4):446-8 (5 ref.)
The selection and validation of indicators for monitoring progress towards self-sustainment in community-directed, ivermectin-treatment programmes for onchocerciasis control in Uganda. Katabarwa MN, et al. **Ann Trop Med Parasitol** 1998 Dec;92(8):859-68
A regionalised transport service, the way ahead? Rashid A, et al. **Arch Dis Child** 1999 May;80(5):488-92
Development of an Asia-Pacific regional network for public health. Loos GP. **Asia Pac J Public Health** 1995;8(3):201-4
The generation and implementation of the concept of health leadership development. Imam O. **East Mediterr Health J** 1998;4 Suppl:S125-9
Evolution of the basic minimum needs/basic development needs approach in the eastern Mediterranean region. Sulieman O. **East Mediterr Health J** 1998;4 Suppl:S104-10
Regionalization of health services in Canada: a critical perspective. Church J, et al. **Int J Health Serv** 1998; 28(3):467-86
The Center for Continence: a different concept for an old problem [letter] Gruenwald I, et al. **J Am Geriatr Soc** 1999 Jul;47(7):912-3
Methodological challenges to prospective study of an innovation: interregional nursing care management of cardiovascular patients. Aadalen SP. **J Eval Clin Pract** 1998 Aug;4(3):197-223
State-coordinated services for traumatic brain injury survivors: toward a model delivery system. Murrey GJ, et al. **J Head Trauma Rehabil** 1998 Dec;13(6):72-81
Toward the all-inclusive trauma system. Atweh NA. **J Trauma** 1999 Sep;47(3 Suppl):S109
Update on trauma system development in the United States. Bass RR, et al. **J Trauma** 1999 Sep;47(3 Suppl):S15-21
Community-based trauma system development: key barriers and facilitating factors. Bazzoli GJ. **J Trauma** 1999 Sep;47(3 Suppl):S22-4
Trauma system development: the critical need for regional needs assessments. Lowe DK. **J Trauma** 1999 Sep;47(3 Suppl):S106-7
Assessing the effectiveness and optimal structure of trauma systems: a consensus among experts. Mann NC. **J Trauma** 1999 Sep;47(3 Suppl):S69-74

Research recommendations and proposed action items to facilitate trauma system implementation and evaluation. Mann NC, et al. **J Trauma** 1999 Sep;47(3 Suppl):S75–8
Video address to the Skamania Trauma Symposium. Martinez R. **J Trauma** 1999 Sep;47(3 Suppl):S79–80
Dinner address: trauma care systems—what's the catch? Rosenberg ML, et al. **J Trauma** 1999 Sep;47(3 Suppl):S81–4
Consolidation of trauma programs in the era of large health care delivery networks. Trooskin SZ, et al. **J Trauma** 1999 Mar;46(3):488–93
The Northern New England Cardiovascular Disease Study Group: a regional collaborative effort for continuous quality improvement in cardiovascular disease. Malenka DJ, et al. **Jt Comm J Qual Improv** 1998 Oct;24(10):594–600
The regional medical examiner of the Office of the Armed Forces Medical Examiner: an introduction for the practicing military physician. Olivere JW, et al. **Mil Med** 1999 Apr;164(4):298–9
Palliative care in the University Hospital Lausanne: from consultations to an integrated regional program. Mazzocato C, et al. **Support Care Cancer** 1999 Jul;7(4):221–3 (3 ref.)
Partnership in public health. Adams T, et al. **World Health Forum** 1998;19(3):246–52
[Memisa and the development of a health care system in Benin] de Paepe FM. **Ned Tijdschr Geneeskd** 1999 Feb 13; 143(7):369–72 (Eng. Abstr.) **(Dut)**
[The main principles of the decrees on perinatal care (editorial) (see comments)] Dehan M. **Arch Pediatr** 1999 Jan;6(1):3–6. Comment in: Arch Pediatr 1999 Jul;6(7):799–800. **(Fre)**
[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of obstetricians of general hospital centers] Dauptain G, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:110–6 (13 ref.) **(Fre)**
[Networks in perinatology. The French experience] Dreyfus M. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:70–5 (13 ref.) **(Fre)**
[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of general hospital center directors. Reflections on the experiment undertaken at Clamecy] Faulconnier B. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:232–6 **(Fre)**
[Arguments in favor of a relation between the organization of perinatal care and the optimal management of prematurity and multiple pregnancies] Truffert P. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:85–93 (37 ref.) **(Fre)**

STANDARDS

Trauma care systems development, evaluation, and funding. American College of Emergency Physicians. **Ann Emerg Med** 1999 Aug;34(2):308
Comparing institutional trauma survival to a standard: current limitations and suggested alternatives. Clark DE. **J Trauma** 1999 Sep;47(3 Suppl):S92–8
Summary of the discussion: what have we learned about population-based investigations? [comment] Hedges JR. **J Trauma** 1999 Sep;47(3 Suppl):S67–8. Comment on: J Trauma 1999 Sep;47(3 Suppl):S59–66.
Use of panel study methods [comment] Hoyt DB. **J Trauma** 1999 Sep;47(3 Suppl):S42–3. Comment on: J Trauma 1999 Sep;47(3 Suppl):S34–41.
Systematic review of trauma system effectiveness based on registry comparisons [see comments] Jurkovich GJ, et al. **J Trauma** 1999 Sep;47(3 Suppl):S46–55 (28 ref.). Comment in: J Trauma 1999 Sep;47(3 Suppl):S56–8.
Review of evidence regarding trauma system effectiveness resulting from panel studies [see comments] MacKenzie EJ. **J Trauma** 1999 Sep;47(3 Suppl):S34–41. Comment in: J Trauma 1999 Sep;47(3 Suppl):S42–3.
Systematic review of published evidence regarding trauma system effectiveness. Mann NC, et al. **J Trauma** 1999 Sep; 47(3 Suppl):S25–33 (72 ref.)
Introduction to the Academic Symposium to Evaluate Evidence Regarding the Efficacy of Trauma Systems. Mullins RJ, et al. **J Trauma** 1999 Sep;47(3 Suppl):S3–7 (10 ref.)
Population-based research assessing the effectiveness of trauma systems [see comments] Mullins RJ, et al. **J Trauma** 1999 Sep;47(3 Suppl):S59–66 (32 ref.). Comment in: J Trauma 1999 Sep;47(3 Suppl):S67–8.
Summary of the discussion: trauma registry data and TRISS evidence [comment] Pollock DA. **J Trauma** 1999 Sep;47(3 Suppl):S56–8. Comment on: J Trauma 1999 Sep;47(3 Suppl):S46–55.

STATISTICS & NUMERICAL DATA

A method for estimating solid organ donor potential by organ procurement region. Christiansen CL, et al. **Am J Public Health** 1998 Nov;88(11):1645–50
Pediatric trauma systems: critical distinctions. Hulka F. **J Trauma** 1999 Sep;47(3 Suppl):S85–9 (28 ref.)

TRENDS

Toward a new millennium in pediatric trauma care. Cooper A. **J Trauma** 1999 Sep;47(3 Suppl):S90–1

REGIONAL PERFUSION see **PERFUSION, REGIONAL**

REGISTRARS, HOSPITAL see **MEDICAL STAFF, HOSPITAL**

REGISTRIES

First hospital-admission rate as an epidemiological indicator for patients with multiple sclerosis in Stockholm, 1984–1993. Jiang GX, et al. **Acta Neurol Scand** 1999 Jul; 100(1):64–8
Survival of cancer patients in Finland, 1955–1994 [editorial; comment] Coebergh JW. **Acta Oncol** 1999;38(5):531–3. Comment on: Acta Oncol 1999;38 Suppl 12:1–103.
Metastatic patterns, clinical outcome, and malignant phenotype in malignant cutaneous melanoma. Cohn-Cedermark G, et al. **Acta Oncol** 1999;38(5):549–57
Survival of cancer patients in Finland 1955–1994 [see comments] Dickman PW, et al. **Acta Oncol** 1999;38 Suppl 12:1–103. Comment in: Acta Oncol 1999;38(5):531–3. Comment in: Acta Oncol 1999;38(3):275–7.
Laterality of laryngeal cancer [letter] Virtaniemi JA, et al. **Acta Oncol** 1999;38(5):666
List of scientific publications from the Scandinavian Sarcoma Centers, 1992–1998. **Acta Orthop Scand Suppl** 1999 Jun; 285:83–97
The Scandinavian Sarcoma Group. Background, organization and the Central Register—the first 20 years. Alvegård TA, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:3–7
The Scandinavian Sarcoma Group Register. Bauer HC, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:41–4 (19 ref.)
Morphologic review of 1000 soft tissue sarcomas from the Scandinavian Sarcoma Group (SSG) Register. The peer-review committee experience. Meis-Kindblom JM, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:18–26
Local recurrence after surgery for soft tissue sarcoma. The Scandinavian Sarcoma Group experience. Trovik CS, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:45–6 (16 ref.)
The decade of the patient [editorial; comment] Akiskal HS. **Acta Psychiatr Scand** 1999 Sep;100(3):165–6. Comment on: Acta Psychiatr Scand 1999 Sep;100(3):176–85.
Incidence and predictors of target vessel revascularization following percutaneous transluminal coronary angioplasty: a report from the National Heart, Lung, and Blood Institute Percutaneous Transluminal Coronary Angioplasty Registry. Cannan CR, et al. **Am J Cardiol** 1999 Jul 15; 84(2):170–5
The Canadian Registry of Atrial Fibrillation: a noninterventional follow-up of patients after the first diagnosis of atrial fibrillation. Kerr CR, et al. **Am J Cardiol** 1998 Oct 16;82(8A):82N–85N
Toward an electronic death registration system in the United States: report of the Steering Committee to Reengineer the Death Registration Process. **Am J Forensic Med Pathol** 1998 Sep;19(3):234–41
Automated coding of injuries from autopsy reports. Riddick L, et al. **Am J Forensic Med Pathol** 1998 Sep;19(3):269–74
Anomalies in Down syndrome individuals in a large population-based registry. Torfs CP, et al. **Am J Med Genet** 1998 Jun 5;77(5):431–8
Providers' perceptions of an immunization registry. Christakis DA, et al. **Am J Prev Med** 1999 Aug; 17(2):147–50
Current trends in thromboangiitis obliterans (Buerger's disease) in women. Sasaki S, et al. **Am J Surg** 1999 Apr; 177(4):316–20
The pitfalls of establishing a statewide vascular registry: the South Carolina experience. Taylor SM, et al. **Am Surg** 1999 Jun;65(6):513–8; discussion 518–9
First report of the Port Access International Registry. Galloway AC, et al. **Ann Thorac Surg** 1999 Jan;67(1):51–6; discussion 57–8
Organ transplantation in Poland. A registry report. Lao M, et al. **Ann Transplant** 1996;1(1):9–14
Legislative aspects of organ and tissue donation in Belgium. Roels B, et al. **Ann Transplant** 1996;1(4):39–43
Immunization registries in the United States: implications for the practice of public health in a changing health care system. Wood D, et al. **Annu Rev Public Health** 1999; 20:231–55 (81 ref.)
Can routine information systems be used to monitor serious disability? Johnson A, et al. **Arch Dis Child** 1999 Jan; 80(1):63–6
Compiling a national register of babies born with anophthalmia/microphthalmia in England 1988–94. Busby A, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Nov; 79(3):F168–73
Epidemiology of cerebral palsy [letter; comment] Jessen C, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Mar; 80(2):F158. Comment on: Arch Dis Child Fetal Neonatal Ed 1998 Jul;79(1):F21–5.
Health effects of environmental contaminant exposure: an intrafile comparison of the Trichloroethylene Subregistry. Burg JR, et al. **Arch Environ Health** 1999 Jul-Aug; 54(4):231–41
Variability in annual Mini-Mental State Examination score in patients with probable Alzheimer disease: a clinical perspective of data from the Consortium to Establish a Registry for Alzheimer's Disease. Clark CM, et al. **Arch Neurol** 1999 Jul;56(7):857–62
Posterior cerebral artery territory infarcts in the New England Medical Center Posterior Circulation Registry. Yamamoto Y, et al. **Arch Neurol** 1999 Jul;56(7):824–32
Subacute sclerosing panencephalitis. Clinical aspects and prognosis. The Brazilian registry. Nunes ML, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2A):176–81
Extracorporeal life support 1997. Conrad SA, et al. **ASAIO J** 1998 Nov–Dec;44(6):848–52
Exploring the damaged ear. The NIDCD National Temporal Bone Registry. Goldbaum SM, et al. **ASHA** 1999 Jan–Feb; 41(1):29–33
Evaluation of linked cancer registry and hospital records of breast cancer. McGeechan K, et al. **Aust N Z J Public Health** 1998 Dec;22(7):765–70
National registry is also needed for neurological implants [letter; comment] Miles J. **BMJ** 1998 Dec 12; 317(7173):1658–9. Comment on: BMJ 1998 Jun 27;316(7149):1985.
Anomalies occur in registrations of fetal deaths in multiple pregnancies [letter] Pharoah PO. **BMJ** 1999 Jul 17; 319(7203):188
Confirmatory typing results of the National Polish Bone Marrow Donors Registry. Bogunia-Kubik K, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 4:S45–6
Hungarian Bone Marrow Donor Registry: present status and activity. Gyódi E, et al. **Bone Marrow Transplant** 1998 Dec; 22 Suppl 4:S38–40
An overview of the Czech Bone Marrow Donor Registry. Kupková L, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 4:S41–4
National Polish Blood/Marrow Transplant Registry–1984–1997. Pacuszko T, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 4:S84–5
Current use and outcome of blood and marrow transplantation in childhood according to the Italian Registry. Pession A, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 5:S25–7
Marrow donor registry and bone marrow transplantation from unrelated donors in Taiwan: initial experience of the Tzu Chi Taiwan Marrow Donor Registry (TCTMDR). Shaw CK, et al. **Bone Marrow Transplant** 1999 Apr; 23(7):727–30
Factors associated with attrition from a national bone marrow registry. Switzer GE, et al. **Bone Marrow Transplant** 1999 Aug;24(3):313–9
Bone Marrow Donors Worldwide and cord blood stem cell transplantation. van Rood JJ, et al. **Bone Marrow Transplant** 1998 Jul;22 Suppl 1:S19–21
Minimum dataset for head and neck cancer [letter; comment] Johnson NW. **Br Dent J** 1999 Apr 24;186(8):368–9. Comment on: Br Dent J 1999 Jan 23;186(2):50.
We need to talk about head and neck cancer datasets [editorial] [see comments] Monaghan N. **Br Dent J** 1999 Jan 23;186(2):50. Comment in: Br Dent J 1999 Apr 24;186(8):368–9.
Gallstones, cholecystectomy and risk of cancers of the liver, biliary tract and pancreas. Chow WH, et al. **Br J Cancer** 1999 Feb;79(3–4):640–4
Incidence of childhood CNS tumours [letter; comment] Morland BJ, et al. **Br J Cancer** 1999 Jun;80(8):1301. Comment on: Br J Cancer 1998 Oct;78(7):974–9.
Cancer risk in close relatives of women with early-onset breast cancer—a population-based incidence study. Olsen JH, et al. **Br J Cancer** 1999 Feb;79(3–4):673–9
Descriptive epidemiology of small intestinal malignancies: the German Cancer Registry experience. Stang A, et al. **Br J Cancer** 1999 Jul;80(9):1440–4
Patterns of care and survival for adolescents and young adults with acute leukaemia—a population-based study. Stiller CA, et al. **Br J Cancer** 1999 Feb;79(3–4):658–65
Do you CARE? A national register for cleft lip and palate patients. Craniofacial Anomalies Register [editorial] Hammond M, et al. **Br J Oral Maxillofac Surg** 1999 Apr; 37(2):81–6
Do you care? A national register for cleft lip and palate patients. Hammond M, et al. **Br J Orthod** 1999 Jun; 26(2):152–7
Do you CARE? A national register for cleft lip and palate patients. Hammond M, et al. **Br J Plast Surg** 1999 Jan; 52(1):12–7
Registers for patients with familial tumours: from controversial areas to common guidelines. Lips CJ. **Br J Surg** 1998 Oct;85(10):1316–8
Comprehensive computerized diabetes registry. Serving the Cree of Eeyou Istchee (eastern James Bay). Dannenbaum D, et al. **Can Fam Physician** 1999 Feb;45:364–70
The Canadian Epilepsy Database and Registry. McLachlan RS. **Can J Neurol Sci** 1998 Nov;25(4):S27–31
An analysis of the geographic variation in cancer incidence and its determinants in Ontario. Walter SD, et al. **Can J Public Health** 1999 Mar–Apr;90(2):104–8
Second primary cancers in patients with lung carcinoma. Levi F, et al. **Cancer** 1999 Jul 1;86(1):186–90
The effects of supplementation with alpha-tocopherol and beta-carotene on the incidence and mortality of carcinoma of the pancreas in a randomized, controlled trial. Rautalahti MT, et al. **Cancer** 1999 Jul 1;86(1):37–42
Ethical ramifications of alternative means of recruiting research participants from cancer registries. Sugarman J, et al. **Cancer** 1999 Aug 15;86(4):647–51
Thyroid carcinoma in children and adolescents in Ukraine after the Chernobyl nuclear accident: statistical data and clinicomorphologic characteristics. Tronko MD, et al. **Cancer** 1999 Jul 1;86(1):149–56
The incidence of gastric carcinoma in Asian migrants to the

United States and their descendants. Kamineni A, et al. **Cancer Causes Control** 1999 Feb;10(1):77–83

Leukemias and lymphomas: time trends in the UK, 1984–93. McNally RJ, et al. **Cancer Causes Control** 1999 Feb; 10(1):35–42

Familial risks in in situ cancers from the Family-Cancer Database. Hemminki K, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):865–8

Lymphangioleiomyomatosis Registry [letter] Sullivan EJ, et al. **Chest** 1999 Jan;115(1):301

The implementation of a new parallel child health record. Knowles R, et al. **Child Care Health Dev** 1999 Jul; 25(4):253–66

Design and results of the antiarrhythmics vs implantable defibrillators (AVID) registry. The AVID Investigators. Anderson JL, et al. **Circulation** 1999 Apr 6;99(13):1692–9

Stenting after optimal lesion debulking (sold) registry. Angiographic and clinical outcome. Moussa I, et al. **Circulation** 1998 Oct 20;98(16):1604–9

Development, implementation, and validation of the Canadian Intercollegiate Sport Injury Registry. Meeuwisse WH, et al. **Clin J Sport Med** 1998 Jul;8(3):164–77

UK National Transplant Database retransplantation in the UK and Republic of Ireland, 1987–1996. UKTSSA National Transplant Database. **Clin Transpl** 1997;:81–6

Report from the National Transplantation Pregnancy Registry (NTPR): outcomes of pregnancy after transplantation. Armenti VT, et al. **Clin Transpl** 1997; :101–12

The UNOS Scientific Renal Transplant Registry—ten years of kidney transplants. Cecka JM. **Clin Transpl** 1997;:1–14

Impact of new variables reported to the UNOS registry. Cho YW, et al. **Clin Transpl** 1997;:305–14

Look-up survival tables for renal transplantation. Gjertson DW. **Clin Transpl** 1997;:337–83

Pancreas transplants for United States (US) and non-US cases as reported to the International Pancreas Transplant Registry (IPTR) and to the United Network for Organ Sharing (UNOS). Gruessner AC, et al. **Clin Transpl** 1997; :45–59

The UNOS OPTN waiting list and donor registry. Harper AM, et al. **Clin Transpl** 1997;:61–80

Clinical aspects of sensitization. Katznelson S, et al. **Clin Transpl** 1997;:285–96

Worldwide thoracic organ transplantation: a report from the UNOS/ISHLT International Registry for thoracic organ transplantation. Keck BM, et al. **Clin Transpl** 1997;:29–43

Long-term patient and retransplantation-free survival by selected recipient and donor characteristics: an update from the Pitt-UNOS Liver Transplant Registry. Seaberg EC, et al. **Clin Transpl** 1997;:15–28

Reporting medical mistakes and misconduct [editorial; comment] Naylor CD. **CMAJ** 1999 May 4;160(9):1323–4 . Comment on: CMAJ 1999 May 4;160(9):1321–2.

Registers and follow-up methods of populations in a public health survey: the example of the village Glanlé in Ivory Coast. Gaimard M, et al. **Coll Antropol** 1998 Jun; 22(1):63–75

A comprehensive register for diabetic outpatients: experience with desktop computing from 1987–1996. Kelly W, et al. **Comput Methods Programs Biomed** 1998 May;56(2):205–10

Occupational skin diseases: reliability and utility of the data in the various registers; the course from notification to compensation and the costs. A case study from Denmark. Halkier-Sørensen L. **Contact Dermatitis** 1998 Aug; 39(2):71–8

The Danish National Hospital Register. A valuable source of data for modern health sciences. Andersen TF, et al. **Dan Med Bull** 1999 Jun;46(3):263–8

The Danish Prevention Register. A comprehensive health and socio-economic, individual based register. Roed AS, et al. **Dan Med Bull** 1999 Jun;46(3):269–72

Clinical diagnosis of dementia with Lewy bodies in a Japanese dementia registry. Imamura T, et al. **Dement Geriatr Cogn Disord** 1999 May-Jun;10(3):210–6

District diabetes registers: more trouble than they're worth? Elwyn GJ, et al. **Diabet Med** 1998 Nov;15 Suppl 3:S44–8 (33 ref.)

Low incidence of IDDM in children of Veracruz-Boca del Rio, Veracruz. Results of the first validated IDDM registry in Mexico [letter] Aude Rueda O, et al. **Diabetes Care** 1998 Aug;21(8):1372–3

Incidence, prevalence, and mortality of diabetes in a large population. A report from the Skaraborg Diabetes Registry. Berger B, et al. **Diabetes Care** 1999 May;22(5):773–8

Impact on a population-based registry of changing diagnostic thresholds for diabetes [letter] Brown J, et al. **Diabetes Care** 1998 Aug;21(8):1374–5

Excess maternal transmission of type 2 diabetes. The Northern California Kaiser Permanente Diabetes Registry. Karter AJ, et al. **Diabetes Care** 1999 Jun;22(6):938–43

Registration system for growth hormone (GH) treatment with standardized immunoreactive GH values in Japan. Tanaka T, et al. **Endocr J** 1998 Aug;45(4):459–65

Cancer and occupation in women: identifying associations using routinely collected national data. Carpenter L, et al. **Environ Health Perspect** 1999 May;107 Suppl 2:299–303 (12 ref.)

Occupational cancer research in the Nordic countries. Kjaerheim K. **Environ Health Perspect** 1999 May;107 Suppl 2:233–8 (113 ref.)

Assessing the sensitivity of STD surveillance in the Netherlands: an application of the capture—recapture method. Reintjes R, et al. **Epidemiol Infect** 1999 Feb; 122(1):97–102

Height, weight and gastrointestinal cancer: a follow-up study in Norway. Robsahm TE, et al. **Eur J Cancer Prev** 1999 Apr;8(2):105–13

Height, weight and cancer of the oesophagus and stomach: a follow-up study in Norway. Tretli S, et al. **Eur J Cancer Prev** 1999 Apr;8(2):115–22

The development of an international surgical registry: the ECSUR project. The European Cardiac Surgical Registry. Wyse RK, et al. **Eur J Cardiothorac Surg** 1999 Jul;16(1):2–8

Validation of stroke diagnosis in the National Hospital Discharge Register and the Register of Causes of Death in Finland. Leppälä JM, et al. **Eur J Epidemiol** 1999 Feb; 15(2):155–60

Estonian medical birth registry 1992–1994: association of risk factors with perinatal mortality. Karro H, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;80(2):151–6

Vascular registries as a method for research and quality development. **Eur J Surg Suppl** 1998;(581):9–16

Auditing surgical outcome. 10 Years with the Swedish Vascular Registry—Swedvasc. **Eur J Surg Suppl** 1998; (581):1–48

Auditing surgical outcome: ten years with the Swedish Vascular Registry—Swedvasc. The Steering Committee of Swedvasc. Bergqvist D, et al. **Eur J Surg Suppl** 1998; (581):3–8

Examples of studies performed within Swedvasc. Troëng T. **Eur J Surg Suppl** 1998;(581):33–6

Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry. Cuypers P, et al. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):507–16

Vascular and endovascular surgical activity in Denmark, Finland, Norway, Sweden and Northern Ireland. Paaske WP. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):537–8

The Barcelona Stroke Registry. Martí-Vilalta JL, et al. **Eur Neurol** 1999;41(3):135–42

Quality of life in elderly subjects with a diagnostic label of asthma from general practice registers. Dyer CA, et al. **Eur Respir J** 1999 Jul;14(1):39–45

Hereditary colorectal cancer in the general population: from cancer registration to molecular diagnosis. de Leon MP, et al. **Gut** 1999 Jul;45(1):32–8

WWW accessible system for national/regional registries of clinical results of cord blood transplants: a tool to facilitate cooperative clinical research. Fernández MN, et al. **Haematologica** 1998 Dec;83(12):1099–103

A special report: histocompatibility testing guidelines for hematopoietic stem cell transplantation using volunteer donors. Quality Assurance and Donor Registries Working Groups of the World Marrow Donor Association. Hurley CK, et al. **Hum Immunol** 1999 Apr;60(4):347–60

Recruitment and screening policies and procedures used to establish a paid donor oocyte registry. Lindheim SR, et al. **Hum Reprod** 1998 Jul;13(7):2020–4

Danish National In-Vitro Fertilization Registry 1994 and 1995: a controlled study of births, malformations and cytogenetic findings. Westergaard HB, et al. **Hum Reprod** 1999 Jul;14(7):1896–902

Nursing manpower development and strategic planning in Greece. Plati C, et al. **Image J Nurs Sch** 1998;30(4):329–33

Risk of preterm delivery, low birthweight and growth retardation following spontaneous abortion: a registry-based study in Denmark. Basso O, et al. **Int J Epidemiol** 1998 Aug;27(4):642–6

Estimation of injecting drug users in the City of Edinburgh, Scotland, and number infected with human immunodeficiency virus. Davies AG, et al. **Int J Epidemiol** 1999 Feb;28(1):117–21

Acute myocardial infarction case fatality, incidence and mortality rates in a population registry in Gerona, Spain, 1990–1992. REGICOR Investigators. Pérez G, et al. **Int J Epidemiol** 1998 Aug;27(4):599–604

Dementia care needs in an area population: case register data and morbidity survey estimates. Cooper B, et al. **Int J Geriatr Psychiatry** 1998 Aug;13(8):550–5

Registration and treatment of patients with smear-positive pulmonary tuberculosis [letter] Nyirenda T, et al. **Int J Tuberc Lung Dis** 1998 Nov;2(11):944–5

Registries and the prevention of colorectal cancer [comment] Young GP, et al. **Ital J Gastroenterol Hepatol** 1999 Jan-Feb;31(1):19–22 (35 ref.). Comment on: Ital J Gastroenterol Hepatol 1999 Jan-Feb;31(1):10–8.

British Hyperbaric Association carbon monoxide database, 1993–96. Hamilton-Farrell MR. **J Accid Emerg Med** 1999 Mar;16(2):98–103

Child protection register—time for change [letter] Nicol MF, et al. **J Accid Emerg Med** 1999 Jan;16(1):77–8

Diagnostic certainty of a voluntary bipolar disorder case registry. Cluss PA, et al. **J Affect Disord** 1999 Jan-Mar; 52(1–3):93–9

The effect of comorbid alcoholism on recurrence in affective disorder: a case register study. Kessing LV. **J Affect Disord** 1999 Apr;53(1):49–55

The American College of Allergy, Asthma, and Immunology Registry for Allergic, Asthmatic Pregnant Patients (RAAPP). Lipkowitz MA. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 2):S364–72

The Organization of Teratology Information Services (OTIS) Registry Study. Scialli AR. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 2):S373–6

The Pregnancy Registry program at Glaxo Wellcome Company. White AD, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 2):S362–3

Acute and nine-month clinical outcomes after "suboptimal" coronary stenting: results from the STent Anti-thrombotic Regimen Study (STARS) registry. Cutlip DE, et al. **J Am Coll Cardiol** 1999 Sep;34(3):698–706

CASS Registry long term surgical survival. Coronary Artery Surgery Study. Myers WO, et al. **J Am Coll Cardiol** 1999 Feb;33(2):488–98

Creating a clinical nutrition registry: prospects, problems, and preliminary results. Braunschweig CA. **J Am Diet Assoc** 1999 Apr;99(4):467–70

General practice registration networks in the Netherlands: a brief report. Hart HE, et al. **J Am Med Inform Assoc** 1999 Mar-Apr;6(2):173–5

Prevalency data regarding hip dysplasia in dogs needs clarification [news; comment] Smith GK. **J Am Vet Med Assoc** 1999 Jan 1;214(1):27–8. Comment on: J Am Vet Med Assoc 1998 Nov 1;213(9):1270–3.

Outcome of Charnley total hip replacement across a single health region in England: the results at five years from a regional hip register [see comments] Fender D, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):577–81. Comment in: J Bone Joint Surg Br 1999 Jul;81(4):565.

Report of the NATIONAL TRACS/ABA Burn Registry training and the TRACS sunrise symposium. McDonald-Smith GP. **J Burn Care Rehabil** 1999 Jul-0Aug; 20(4):326–7; discussion 325

BurnWare: National Tracs/ABA computer use in the burn center. A review of reviews. Miller SF. **J Burn Care Rehabil** 1999 Mar-Apr;20(2):179–81

The Pediatric Radiofrequency Ablation Registry's experience with Ebstein's anomaly. Pediatric Electrophysiology Society. Reich JD, et al. **J Cardiovasc Electrophysiol** 1998 Dec;9(12):1370–7

Appendectomy in Sweden 1989–1993 assessed by the Inpatient Registry. Blomqvist P, et al. **J Clin Epidemiol** 1998 Oct;51(10):859–65

A research registry: uses, development, and accuracy. Roos LL, et al. **J Clin Epidemiol** 1999 Jan;52(1):39–47

A follow-up comparison of study participants and refusers within a rural elderly population. Ganguli M, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M465–70

The Registry of the International Society of Heart and Lung Transplantation: Second Official Pediatric Report—1998. Boucek MM, et al. **J Heart Lung Transplant** 1998 Dec; 17(12):1141–60

Parochial burial registers: the case of Texas in the nineteenth century. Fliess KH, et al. **J Hist Med Allied Sci** 1999 Apr; 54(2):296–311

Louisiana Tumor Registry: new developments and activities. Chen VW, et al. **J La State Med Soc** 1999 Apr;151(4):214–7

The Louisiana Cancer and Lung Trust Fund Board. Whiting RS, et al. **J La State Med Soc** 1999 Apr;151(4):171–3

A state trauma registry as a tool for occupational injury surveillance. Forst LS, et al. **J Occup Environ Med** 1999 Jun;41(6):514–20

Evolution of a state occupational lead exposure registry: 1986–1996. Roche LM, et al. **J Occup Environ Med** 1998 Dec;40(12):1127–33

A local congenital anomalies register: monitoring preventive interventions. Richards ID, et al. **J Public Health Med** 1999 Mar;21(1):37–40

Hospital trauma registries linked with population-based data. Clark DE, et al. **J Trauma** 1999 Sep;47(3):448–54

Systematic review of trauma system effectiveness based on registry comparisons [see comments] Jurkovich GJ, et al. **J Trauma** 1999 Sep;47(3 Suppl):S46–55 (28 ref.). Comment in: J Trauma 1999 Sep;47(3 Suppl):S56–8.

Trauma registry databases: a comparison of data abstraction, interpretation, and entry at two level I trauma centers. Owen JL, et al. **J Trauma** 1999 Jun;46(6):1100–4

Summary of the discussion: trauma registry data and TRISS evidence [comment] Pollock DA. **J Trauma** 1999 Sep;47(3 Suppl):S56–8. Comment on: J Trauma 1999 Sep;47(3 Suppl):S46–55.

From the Centers for Disease Control and Prevention. HIV postexposure prophylaxis registry closing. **JAMA** 1999 Apr 7;281(13):1167

Confidential Spanish registry of HIV-infected individuals [news] Bosch X. **JAMA** 1999 Mar 17;281(11):977

Statistics on survival from Osaka Cancer Registry. Tsukuma H, et al. **Jpn J Cancer Res** 1998 Oct;89(10):inside front cover

Cancer incidence and incidence rates in Japan in 1992–93: estimates based on data from seven population-based cancer registries. The Research Group for Population-based Cancer Registration in Japan. **Jpn J Clin Oncol** 1998 Oct;28(10):641–7

Cancer incidence in Japan in 1991: estimates based on data from population-based cancer registries. The Research Group for Population-based Cancer Registration in Japan (5–3). **Jpn J Clin Oncol** 1998 Sep;28(9):574–7

Acute pulmonary embolism: clinical outcomes in the International Cooperative Pulmonary Embolism Registry (ICOPER) [see comments] Goldhaber SZ, et al. **Lancet** 1999 Apr 24;353(9162):1386–9. Comment in: Lancet 1999 Apr 24;353(9162):1375–6.

Biases in reporting of trials [letter; comment] Greenwood AN. **Lancet** 1999 Apr 10;353(9160):1277. Comment on:

Lancet 1999 Feb 6;353(9151):490–3.
Monitoring the health status and impact of treatment on Americans: the Medicare Beneficiary Health Status Registry. McBean AM, et al. **Med Care** 1999 Feb; 37(2):189–203
What have been the strategies for the registration, positioning and control of medical information for intramuscular artemether? Helenport JP, et al. **Med Trop (Mars)** 1998;58(3 Suppl):73–6 (22 ref.)
Positioning, labelling and control of medical information: artesunate strategy and Arsumax development story. Moneton P, et al. **Med Trop (Mars)** 1998;58(3 Suppl):70–2
Artemisinin and its derivatives: the regulatory and policy implications for African countries. Salako L. **Med Trop (Mars)** 1998;58(3 Suppl):82–4
Automatic prediction of trauma registry procedure codes from emergency room dictations. Hersh WR, et al. **Medinfo** 1998;9 Pt 1:665–9
Design and implementation of a multi-institution immunization registry. Jenders RA, et al. **Medinfo** 1998;9 Pt 1:45–9
A multifunctional system of the national genetic register. Kobrinsky B, et al. **Medinfo** 1998;9 Pt 1:121–5
Plug and play--fiction or reality? Schweiger R, et al. **Medinfo** 1998;9 Pt 2:999–1001
Reports of spouse abuse in the U.S. Army Central Registry (1989–1997). McCarroll JE, et al. **Mil Med** 1999 Feb; 164(2):77–84
The health status of Gulf War veterans: lessons learned from the Department of Veterans Affairs Health Registry. Murphy FM, et al. **Mil Med** 1999 May;164(5):327–31
Uniquely twins. el-Hai J. **Minn Med** 1999 Mar;82(3):22–8
HIV postexposure prophylaxis registry closing. **MMWR Morb Mortal Wkly Rep** 1999 Mar 12;48(9):194–5
The European Concerted Action NCL Clinical Case Registry. Williams RE, et al. **Mol Genet Metab** 1999 Apr; 66(4):407–8
The Danish Multiple Sclerosis Registry: a 50-year follow-up. Koch-Henriksen N. **Mult Scler** 1999 Aug;5(4):293–6
The UK Multiple Sclerosis database. Palace J, et al. **Mult Scler** 1999 Aug;5(4):297–8
Firearm-related injury surveillance. Langley J, et al. **N Z Med J** 1999 Aug 13;112(1093):285
Annual Report of the German Renal Registry 1998. QuaSi-Niere Task Group for Quality Assurance in Renal Replacement Therapy. Frei U, et al. **Nephrol Dial Transplant** 1999 May;14(5):1085–90
Audit of quality of hospital haemodialysis in Scotland. The Scottish Renal Registry [letter; comment] Junor BJ. **Nephrol Dial Transplant** 1998 Sep;13(9):2426–7. Comment on: Nephrol Dial Transplant 1997 Jan;12(1):29–32.
Vascular access for haemodialysis--an epidemiological study of the Catalan Renal Registry. Rodriguez JA, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1651–7
Migraine history and migraine-induced stroke in the Dijon stroke registry. Sochurkova D, et al. **Neuroepidemiology** 1999;18(2):85–91
Delayed postanoxic demyelination registry [letter; comment] Weinberger LM, et al. **Neurology** 1998 Oct;51(4):1235; discussion 1236. Comment on: Neurology 1997 Nov;49(5):1400–4.
Mortality in blind subjects. A population-based study on social security files from Baden-Württemberg. Krumpaszky HG, et al. **Ophthalmologica** 1999;213(1):48–53
Health registers as a feasible means of measuring health status in childhood--a 7-year follow-up of the 1987 Finnish birth cohort. Gissler M, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12(4):437–55
South Australian Scleroderma Register: analysis of deceased patients. Bond C, et al. **Pathology** 1998 Nov;30(4):386–90
Pediatric renal transplantation: a review of the UNOS data. United Network for Organ Sharing. Cecka JM, et al. **Pediatr Transplant** 1997 Aug;1(1):55–64
Renal transplantation in children from 1987–1996: the 1996 Annual Report of the North American Pediatric Renal Transplant Cooperative Study. Feld LG, et al. **Pediatr Transplant** 1997 Nov;1(2):146–62
Optimal disease prevention using vaccination depends on a system. Robbins A, et al. **Public Health** 1998 Nov-Dec; 113(6):533–4
Poison centers' perspective [letter; comment] Marcus S. **Public Health Rep** 1998 Sep-Oct;113(5):379–80. Comment on: Public Health Rep 1998 May-Jun;113(3):218–33.
Cross-matching TB and AIDS registries: TB patients with HIV co-infection, United States, 1993–1994. Moore M, et al. **Public Health Rep** 1999 May-Jun;114(3):269–77
Mammographer participation in a database research study. Burgess KA, et al. **Radiol Technol** 1999 May-Jun; 70(5):453–60
Evaluation of institutional cancer registries in Colombia. Cuervo LG, et al. **Rev Panam Salud Publica** 1999 Sep; 6(3):202–6
A pathology-based cancer registry for black South African children and adolescents--12-year data analysis. Lancaster EJ, et al. **S Afr Med J** 1999 Jan;89(1):66–8
Liver transplantation in the Nordic countries, 1982–1998: changes of indications and improving results [see comments] Bjøro K, et al. **Scand J Gastroenterol** 1999 Jul; 34(7):714–22. Comment in: Scand J Gastroenterol 1999 Jul;34(7):642–3.
Coding of occupation for the "young cohort" of the Danish twin register. A resource for future epidemiologic research. Hartvigsen J, et al. **Scand J Public Health** 1999 Jun; 27(2):148–51
Use of a historical register in social epidemiology: child mortality in Stockholm at the turn of the 19th century. Burström B, et al. **Scand J Soc Med** 1998 Sep;26(3):166–72
Psychiatric hospital care among children and adolescents in Finland: a nationwide register study. Sourander A, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb;34(2):105–10
Addressing birth in Gaza: using qualitative methods to improve vital registration. Lewando-Hundt G, et al. **Soc Sci Med** 1999 Mar;48(6):833–43
Three-year survival and recurrence after stroke in Malmö, Sweden: an analysis of stroke registry data. Elneihoum AM, et al. **Stroke** 1998 Oct;29(10):2114–7
Stroke incidence and case fatality in southern Greece: the Arcadia stroke registry. Vemmos KN, et al. **Stroke** 1999 Feb;30(2):363–70
Hernia registers and specialization. Nilsson E, et al. **Surg Clin North Am** 1998 Dec;78(6):1141–55, ix
Improvement of drug exposure data in a registration of congenital anomalies. Pilot-study: pharmacist and mother as sources for drug exposure data during pregnancy. EuroMAP Group. Europen Medicine and Pregnancy Group. De Jong van den Berg LT, et al. **Teratology** 1999 Jul;60(1):33–6
Smoking during pregnancy and Poland sequence: results of a population-based registry and a case-control registry. Martinez-Frías ML, et al. **Teratology** 1999 Jan;59(1):35–8
A study of the experience of Spanish Heart Transplant Groups. Almenar L, et al. **Transplant Proc** 1999 Sep; 31(6):2531–3
Hemopoietic progenitor cell transplantation in Catalonia, 1988–1997. Amado ML, et al. **Transplant Proc** 1999 Sep; 31(6):2577–8
Estimating the potential effects of donor registries using a simple analytical model. Beasley C, et al. **Transplant Proc** 1999 May;31(3):1701–2
Risk of tumor transmission in transplantation from donors with primary brain tumors: an Australian and New Zealand registry report. Chui AK, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1266–7
Posttransplant malignancies. Penn I. **Transplant Proc** 1999 Feb-Mar;31(1-2):1260–2
Heart transplantation in Catalonia, 1984–1997. Salas T, et al. **Transplant Proc** 1999 Sep;31(6):2535–6
Latin American Organ Transplant Registry. Santiago Delpin EA, et al. **Transplant Proc** 1999 Sep;31(6):2232–4
Report from the International Pancreas Transplant Registry—1998. Sutherland DE, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):597–601
Renal transplantation in Catalonia, 1984–1997. Catalan Committee of the Registry of Renal Patients. Vela E, et al. **Transplant Proc** 1999 Sep;31(6):2354–7
Intestinal transplantation: 1997 report of the international registry. Intestinal Transplant Registry. Grant D. **Transplantation** 1999 Apr 15;67(7):1061–4
Twin registers in Europe: an overview. Boomsma DI. **Twin Res** 1998 May;1(1):34–51
The East Flanders Prospective Twin Survey (Belgium): a population-based register. Loos R, et al. **Twin Res** 1998 Dec;1(4):167–75
Similarity of social security numbers among twins: data from the Virginia Twin Registry. Page WF, et al. **Twin Res** 1998 Sep;1(3):150–3
CHILD profile: an immunization registry and more--a new approach to tracking and surveillance. Children's Health, Immunization, Linkages and Development. Baker BJ. **Vaccine** 1998 Nov;16(18):v–vi
Wisconsin donor registry proposal. **WMJ** 1998 Nov; 97(10):24–8, 45
[An approach to use cancer registration to assess cancer risks by occupation and industry] Wang QS, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Dec; 18(6):331–3 (Eng. Abstr.) **(Chi)**
[Guidelines on registration of diagnoses and surgical interventions] Jørgensen P. **Ugeskr Laeger** 1999 May 24; 161(21):3109 **(Dan)**
[The Organ Donation Law: changes in the procurement of organs and tissues for transplantation (see comments)] van der Vliet JA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 26; 142(52):2830–2 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Dec 26;142(52):2838–43. Comment in: Ned Tijdschr Geneeskd 1998 Dec 26;142(52):2865–9. **(Dut)**
[A registry for European biologists: why create it? (editorial)] Sachs C. **Ann Biol Clin (Paris)** 1998 May-Jun;56(3):252–3 **(Fre)**
[Survival and prognostic factors of germ cell tumors of the testis in the departments of Bas-Rhin, Isère, and Somme] Rahmani Z, et al. **Ann Urol (Paris)** 1999;33(2):116–28 (Eng. Abstr.) **(Fre)**
[Secondary prevention of coronary disease in France. Result of the EUROASPIRE study: the Lille register of ischemic cardiopathies] Montaye M, et al. **Arch Mal Coeur Vaiss** 1998 Oct;91(10):1211–20 (30 ref.) (Eng. Abstr.) **(Fre)**
[Open cancer registries and the Internet: status of websites in 1998] Pitard A, et al. **Bull Cancer** 1998 Oct; 85(10):899–901 **(Fre)**
[Creation of a viral hepatitis B and C in the Côte-d'Or department. Methodology and initial results] Minello A, et al. **Gastroenterol Clin Biol** 1998 Oct;22(10):766–71 (Eng. Abstr.) **(Fre)**
[Screening, prediction and prevention of type I diabetes. Role of the Belgian Diabetes Registry] Dorchy H. **Rev Med Brux** 1999 Feb;20(1):15–20 (17 ref.) (Eng. Abstr.) **(Fre)**
[Chronic obliterative arterial disease of the lower limbs in the coronary patient: prevalence and prognostic incidence. The Monica Toulouse register] Léger P, et al. **Rev Med Interne** 1999 May;20(5):404–7 (Eng. Abstr.) **(Fre)**
[A database for thyroid diseases: evaluation with special reference to potential consequences of a nuclear power plant accident] Rabenhorst G, et al. **Pathologe** 1998 Sep; 19(5):361–7 (Eng. Abstr.) **(Ger)**
[Register study for treatment of brain metastases of malignant testicular tumors] Hartmann JT, et al. **Urologe A** 1998 Jul; 37(4):426–7 **(Ger)**
[Quality assurance in endoprosthetics (letter; comment)] Willert HG. **Z Orthop Ihre Grenzgeb** 1998 Nov-Dec; 136(6):574. Comment on: Z Orthop Ihre Grenzgeb 1998 Mar-Apr;136(2):95–6. **(Ger)**
[Registration of breast cancer and mammographic screening in Romagna] **Epidemiol Prev** 1998 Apr-Jun;22(2):94–102 (Eng. Abstr.) **(Ita)**
[Italian Cystic Fibrosis Registry: 10 years of activity] Bossi A, et al. **Epidemiol Prev** 1999 Jan-Mar;23(1):5–16 (Eng. Abstr.) **(Ita)**
[A thorough study of mesothelioma cases. The role of the National Health Service statistics (letter)] Merler E, et al. **Epidemiol Prev** 1998 Apr-Jun;22(2):65–6 **(Ita)**
[Detection mode of leprosy and its disability grading in Khulna City, Bangladesh] Ishida Y, et al. **Nihon Hansenbyo Gakkai Zasshi** 1998 Nov;67(3):391–400 (Eng. Abstr.) **(Jpn)**
[Cancer reports and cancer incidence from regional cancer registries in Japan] Hanai A, et al. **Nippon Koshu Eisei Zasshi** 1999 May;46(5):412–9 **(Jpn)**
[Progress of the stroke registry system by public health centers, and factors associated with its advancement] Murakami S, et al. **Nippon Koshu Eisei Zasshi** 1999 May; 46(5):402–11 (Eng. Abstr.) **(Jpn)**
[Validation of causes of death by age] Håheim LL. **Tidsskr Nor Laegeforen** 1999 Feb 28;119(6):826–30 (Eng. Abstr.) **(Nor)**
[A coronary disease registry. The fundamental basis for its control] Rocha E. **Rev Port Cardiol** 1999 Jul-Aug; 18(7-8):715–27 (Eng. Abstr.) **(Por)**
[Current approaches to the registering and prevention of hospital infections] Volgin AR, et al. **Voen Med Zh** 1999 Mar;320(3):52–5, 96 (Eng. Abstr.) **(Rus)**
[Pediatric trauma registry: analysis of 1200 cases] Navascués del Río JA, et al. **Cir Pediatr** 1998 Oct;11(4):151–60 (Eng. Abstr.) **(Spa)**
[Incidence of idiopathic and secondary Parkinson disease in Navarre. Population-based case registry] Viñes JJ, et al. **Neurologia** 1999 Jan;14(1):16–22 (Eng. Abstr.) **(Spa)**
[Artificial nutrition in the home. Annual information 1996.Group NADYA-SENPE] Gómez Candela C, et al. **Nutr Hosp** 1999 Jul-Aug;14(4):145–52 (Eng. Abstr.) **(Spa)**
[Malignant hyperthermia: difficulty in diagnosing susceptibility in Spain (letter)] Montes A, et al. **Rev Esp Anestesiol Reanim** 1999 Mar;46(3):130–2 **(Spa)**
[The characteristics, management and prognosis of the acute myocardial infarct patient in the Valencian Community in 1995: the results of the PRIMVAC Registry (The Registry Project of Acute Myocardial Infarct in Valencia, Alicante and Castellón). As representatives of the PRIMVAC investigators] Cabadés A, et al. **Rev Esp Cardiol** 1999 Feb; 52(2):123–33 (Eng. Abstr.) **(Spa)**
[Registry of activities of the Section of Hemodynamics and Interventional Cardiology in 1997] Soriano J, et al. **Rev Esp Cardiol** 1998 Dec;51(12):927–38 (Eng. Abstr.) **(Spa)**
[Validation of disease registries for compulsory declaration of meningococcal infections using the capture-recapture method] Pañella Noguera H, et al. **Rev Esp Salud Publica** 1998 Sep-Oct;72(5):455–7 **(Spa)**
[The Spanish Registry of Primary Immunodeficiencies. REDIP-1998] Milà J, et al. **Sangre (Barc)** 1999 Apr; 44(2):163–7 **(Spa)**
[Health data and quality registries can learn from each other] Allebeck P. **Lakartidningen** 1999 Sep 1;96(35):3632–4 **(Swe)**
[Second-generation registry a new resource in cancer research] Hemminki K, et al. **Lakartidningen** 1999 Sep 1; 96(35):3674, 3677–8 **(Swe)**
[Are quality registries such as Riks-Stroke beneficial? (letter; comment)] Marklund SE, et al. **Lakartidningen** 1999 Sep 8;96(36):3756–9. Comment on: Lakartidningen 1999 Jun 2;96(22):2696. **(Swe)**
[National registries for shoulder and elbow arthroplasties are established] Rahme H, et al. **Lakartidningen** 1999 Jul 28; 96(30–31):3338 **(Swe)**
[Health care registries a community asset. Centralized registries of health care data can save life and improve quality of life] Rosén M, et al. **Lakartidningen** 1999 Sep 1;96(35):3668–73 (Eng. Abstr.) **(Swe)**
[Quality registries are a gold-mine of information that should be better used. Knowledge of improvement is acquired by means of special projects] Sachs MA, et al. **Lakartidningen** 1999 May 19;96(20):2438–40 (16 ref.) **(Swe)**
[Stroke unit care saves lives. The Swedish national quality

assessment registry of stroke care is the first of its kind in the world] Stegmayr B, et al. **Lakartidningen** 1999 Jun 2;96(22):2719–24, 2726 (Eng. Abstr.) **(Swe)**

STANDARDS

Recommendations for reporting of tumors of the adrenal cortex and medulla. Association of Directors of Anatomic and Surgical Pathology. **Am J Clin Pathol** 1999 Oct; 112(4):451–5

Evaluation of a population roster as a source of population controls: the Massachusetts Resident Lists. Bohlke K, et al. **Am J Epidemiol** 1999 Aug 15;150(4):354–8

Chip dilemma [letter] Watt GC. **Aust Vet J** 1998 Dec; 76(12):836

Canadian Consensus Conference on a National Immunization Records System. **Can Commun Dis Rep** 1998 Sep 1; 24(17):137–40 (0 ref.) **(Eng, Fre)**

Introduction: the EUROCARE II Study. Berrino F, et al. **Eur J Cancer** 1998 Dec;34(14 Spec No):2139–53

Comparability of colorectal cancer survival data in three European population-based registries. Monnet E, et al. **Eur J Cancer Prev** 1998 Apr;7(2):127–34

A comparison of the national registry of myocardial infarction 2 with the cooperative cardiovascular project. Every NR, et al. **J Am Coll Cardiol** 1999 Jun;33(7):1886–94

International intraocular lens registry. Holladay JT. **J Cataract Refract Surg** 1999 Jan;25(1):128–36

Developing a national addiction treatment information system. An introduction to the Drug Evaluation Network System. Carise D, et al. **J Subst Abuse Treat** 1999 Jul–Sep; 17(1–2):67–77

[Riks-Stroke with data on stroke shows the benefit of quality registries. Regional initiatives can make it even better (see comments)] Wahlgren NG. **Lakartidningen** 1999 Jun 2; 96(22):2696. Comment in: Lakartidningen 1999 Sep 8;96(36):3756–9. **(Swe)**

STATISTICS & NUMERICAL DATA

Mortality and causes of mortality among cataract-extracted patients. A 10-year follow-up. Knudsen EB, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):99–102

Gender and cataract surgery in Sweden 1992–1997. A retrospective observational study based on the Swedish National Cataract Register. Lundström M, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):204–8

Readministration of abciximab: interim report of the ReoPro readministration registry. Tcheng JE, et al. **Am Heart J** 1999 Jul;138(1 Pt 2):S33–8

Reproductive characteristics and the age at inception of the perimenopause in a British National Cohort. Hardy R, et al. **Am J Epidemiol** 1999 Apr 1;149(7):612–20

Comparison of active and cancer registry-based follow-up for breast cancer in a prospective cohort study. Kato I, et al. **Am J Epidemiol** 1999 Feb 15;149(4):372–8

Comparison of methods for classifying Hispanic ethnicity in a population-based cancer registry. Stewart SL, et al. **Am J Epidemiol** 1999 Jun 1;149(11):1063–71

Capture–recapture models including covariate effects. Tilling K, et al. **Am J Epidemiol** 1999 Feb 15;149(4):392–400

Birth defects surveillance: assessing the "gold standard". Honein MA, et al. **Am J Public Health** 1999 Aug; 89(8):1238–40

Prevalence of chronic fatigue and chemical sensitivities in Gulf Registry Veterans [see comments] Kipen HM, et al. **Arch Environ Health** 1999 Sep–Oct;54(5):313–8. Comment in: Arch Environ Health 1999 Sep–Oct;54(5):309–11.

Initial results from the national registry for juvenile-onset recurrent respiratory papillomatosis. RRP Task Force. Armstrong LR, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jul;125(7):743–8

Some patients with colorectal cancer may have been missed by Northern Ireland registry [letter] Comber H. **BMJ** 1999 Aug 7;319(7206):385

Feasibility of finding an unrelated bone marrow donor on international registries for New Zealand patients. Velickovic ZM, et al. **Bone Marrow Transplant** 1999 Feb; 23(3):291–4

Cardiac neoplasms at the Canadian Reference Centre for Cancer Pathology. Veinot JP, et al. **Can J Cardiol** 1999 Mar;15(3):311–9

The National Cancer Data Base report on carcinoma of the gallbladder, 1989–1995. Donohue JH, et al. **Cancer** 1998 Dec 15;83(12):2618–28

Epithelial ovarian carcinoma in the reproductive age group. Duska LR, et al. **Cancer** 1999 Jun 15;85(12):2623–9

A National Cancer Data Base report on 53,856 cases of thyroid carcinoma treated in the U.S., 1985–1995 [see commetns] Hundahl SA, et al. **Cancer** 1998 Dec 15; 83(12):2638–48

Regional diversity and breadth of the National Cancer Data Base. Menck HR, et al. **Cancer** 1998 Dec 15;83(12):2649–58

Characteristics of pregnancy and birth and malignancy in the offspring (Sweden). Mogren I, et al. **Cancer Causes Control** 1999 Feb;10(1):85–94

Candidemia at selected Canadian sites: results from the Fungal Disease Registry, 1992–1994. Fungal Disease Registry of the Canadian Infectious Disease Society. Yamamura DL, et al. **CMAJ** 1999 Feb 23;160(4):493–9

The transmyocardial laser revascularization international registry report. Burns SM, et al. **Eur Heart J** 1999 Jan; 20(1):31–7

The UK National Barrett's Oesophagus Registry: a study between two centres. Caygill CP, et al. **Eur J Cancer Prev** 1998 Apr;7(2):161–4

European registry comparisons provide evidence of shared risk factors for renal, colon and gallbladder cancer development. Moore MA, et al. **Eur J Cancer Prev** 1999 Apr;8(2):137–46

MIDCAB characteristics and results: the CardioThoracic Systems (CTS) registry. Holubkov R, et al. **Eur J Cardiothorac Surg** 1998 Oct;14 Suppl 1:S25–30

Auditing surgical outcome. The Swedish experience. **Eur J Surg Suppl** 1998;(581):17–32

The Swedish Retinal Detachment Register. I. A database for epidemiological and clinical studies. Algvere PV, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):137–44

Statistical methods for the analysis of cancer survival data. Black RJ, et al. **IARC Sci Publ** 1998;(145):3–7 (7 ref.)

Interpretation of population-based cancer survival data. Black RJ, et al. **IARC Sci Publ** 1998;(145):13–7 (11 ref.)

Survival from cervical cancer in Barshi registry, rural India. Jayant K, et al. **IARC Sci Publ** 1998;(145):69–77

Database on cancer survival from developing countries. Swaminathan R, et al. **IARC Sci Publ** 1998;(145):19–25

A modified method for the epidemiological analysis of registry data on infants with multiple malformations. Källén KB, et al. **Int J Epidemiol** 1999 Aug;28(4):701–10

Completeness of HIV reporting in Louisiana, USA [letter; comment] Klevens RM, et al. **Int J Epidemiol** 1998 Dec; 27(6):1105. Comment on: Int J Epidemiol 1997 Dec;26(6):1352–8.

The effect of recall on estimation of incidence rates for injury in Ghana. Mock C, et al. **Int J Epidemiol** 1999 Aug; 28(4):750–5

Classification differences and maternal mortality: a European study. MOMS Group. MOthers' Mortality and Severe morbidity. Salanave B, et al. **Int J Epidemiol** 1999 Feb; 28(1):64–9

Mortality statistics in immigrant research: method for adjusting underestimation of mortality. Weitoft GR, et al. **Int J Epidemiol** 1999 Aug;28(4):756–63

Epidemiology of cancer of the large bowel--the 12-year experience of a specialized registry in northern Italy [see comments] Ponz de Leon M, et al. **Ital J Gastroenterol Hepatol** 1999 Jan–Feb;31(1):10–8. Comment in: Ital J Gastroenterol Hepatol 1999 Jan–Feb;31(1):19–22.

Pancreatic cancer: a report of treatment and survival trends for 100,313 patients diagnosed from 1985–1995, using the National Cancer Database [see comments] Sener SF, et al. **J Am Coll Surg** 1999 Jul;189(1):1–7. Comment in: J Am Coll Surg 1999 Jul;189(1):129–30.

The Registry of the International Society for Heart and Lung Transplantation: sixteenth official report--1999. Hosenpud JD, et al. **J Heart Lung Transplant** 1999 Jul;18(7):611–26

Determinants of waiting time for heart transplants in the United States. Kauffman HM, et al. **J Heart Lung Transplant** 1999 May;18(5):414–9

The limits of epidemiology [editorial; comment] Doll R. **J Radiol Prot** 1999 Mar;19(1):1–2. Comment on: J Radiol Prot 1999 Mar;19(1):3–26.

Occupational radiation exposure and mortality: second analysis of the National Registry for Radiation Workers [see comments] Muirhead CR, et al. **J Radiol Prot** 1999 Mar;19(1):3–26. Comment in: J Radiol Prot 1999 Mar;19(1):1–2.

Hypertension as cause of end-stage renal disease: lessons from international registries. Valderrábano F, et al. **Kidney Int Suppl** 1998 Dec;68:S60–6 (3 ref.)

The National Marrow Donor Program. Walker T. **Minn Med** 1999 Jun;82(6):26–8

Births and deaths: preliminary data for July 1997–June 1998. Smith BL, et al. **Natl Vital Stat Rep** 1999 Jul 29;47(22):1–32

Special report of Brain Tumor Registry of Japan (1969–1990). **Neurol Med Chir (Tokyo)** 1999 Jan;39(1):59–107

Laterality, gender and age differences in estimated frequency and actual registration of people with congenital upper limb absences. Fraser CM. **Prosthet Orthot Int** 1998 Dec; 22(3):224–9

The goals and limitations of Israel's psychiatric case register. Lichtenberg P, et al. **Psychiatr Serv** 1999 Aug;50(8):1043–8

An algorithm to match registries with minimal disclosure of individual identities. Subramanyan GS, et al. **Public Health Rep** 1999 Jan–Feb;114(1):91–3

Usefulness of a national registry of alpha-1-antitrypsin deficiency. The Spanish experience. Miravitlles M, et al. **Respir Med** 1998 Oct;92(10):1181–7

Computing data about patients with cleft lip and palate. Becker M, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):203–8

Reporting delay and corrected incidence of multiple sclerosis. Esbjerg S, et al. **Stat Med** 1999 Jul 15;18(13):1691–706

A test to detect replication in HIV serological data labelled by birth date based on the number of matching pairs in a sample. Greenhalgh D, et al. **Stat Med** 1999 Jul 15; 18(13):1641–56

Identification of incident stroke in Norway: hospital discharge data compared with a population-based stroke register. Ellekjaer H, et al. **Stroke** 1999 Jan;30(1):56–60

The influence of medical and legal authorities on deaths facilitated by physicians. Phillips DP, et al. **Suicide Life Threat Behav** 1999 Spring;29(1):48–57

Asian transplant registry. Ota K. **Transplant Proc** 1999 Feb–Mar;31(1–2):205–9

Latin American Transplant Registry VIIIth Report: 1998. Santiago-Delpín EA, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):214–6

[Differences in incidence of (violent) traumatic events in the national registration systems, population surveys and studies from family practice; a review of literature] Mol SS, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19; 143(25):1308–14 (29 ref.) (Eng. Abstr.) **(Dut)**

[A balance of clinical trials in gene therapy] Favrot MC, et al. **Bull Cancer** 1999 Jan;86(1):115–21 **(Fre)**

[1997 FIVNAT general balance] Bachelot A, et al. **Contracept Fertil Sex** 1998 Jul–Aug;26(7–8):463–5 (Eng. Abstr.) **(Fre)**

FIVNAT. Influence of attempt rank in in vitro fertilization] de Mouzon J, et al. **Contracept Fertil Sex** 1998 Jul–Aug; 26(7–8):466–72 (Eng. Abstr.) **(Fre)**

[Lymphomas and leukemias in population-related cancer registries in Germany (published erratum appears in Gesundheitswesen 1999 Jun;61(6):298)] Lehnert M, et al. **Gesundheitswesen** 1999 Apr;61(4):161–7 (Eng. Abstr.) **(Ger)**

[10 years Swiss bone marrow donor registry] Widmer-Kühnlein E, et al. **Schweiz Med Wochenschr** 1998 Oct 17;128(42):1602–4 (Eng. Abstr.) **(Ger)**

[Detection of abnormalities in Magdeburg according to the Mainz model] Rösch C, et al. **Z Geburtshilfe Neonatol** 1998 Sep;202(5):197–202 (Eng. Abstr.) **(Ger)**

[Activity of the Istituto Superiore di Sanitá regarding medically assisted reproduction] Meli P, et al. **Ann Ist Super Sanita** 1998;34(2):221–6 (Eng. Abstr.) **(Ita)**

[The Malignant Mesothelioma Registry of the Province of Brescia] Barbieri PG, et al. **Epidemiol Prev** 1999 Apr–Jun; 23(2):90–7 **(Ita)**

[Index for evaluating completeness of registration in population-based cancer registries and estimation of registration rate at the Osaka Cancer Registry between 1966 and 1992 using this index] Ajiki W, et al. **Nippon Koshu Eisei Zasshi** 1998 Oct;45(10):1011–7 (Eng. Abstr.) **(Jpn)**

[Analysis of stage IV stomach cancer diagnostic and treatment results in permanently followed-up group of population] Luk'ianov VM, et al. **Khirurgiia (Mosk)** 1999; (3):22–4 (Eng. Abstr.) **(Rus)**

[Results of polyresistant tuberculosis treatment: data of the Santarishkes Republican tuberculous hospital] Mishkinis K, et al. **Probl Tuberk** 1999;(1):30–1 (Eng. Abstr.) **(Rus)**

[Results of the histopathologic registration of neoplasms in Mexico 1995] Macías-Martínez CG, et al. **Gac Med Mex** 1998 May–Jun;134(3):337–42 **(Spa)**

[Discrepancies in the number of deaths from an acute reaction to psychoactive substances recorded in Spain (see comments)] Brugal MT, et al. **Gac Sanit** 1999 Mar–Apr; 13(2):82–7 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar–Apr;13(2):79–81. **(Spa)**

[Clinical and care implications of the 10-year application of a cerebrovascular diseases register. Descriptive analysis of the last 1000 patients and comparative with the first 1000 patients] Arboix A, et al. **Med Clin (Barc)** 1998 Sep 19; 111(8):286–9 (Eng. Abstr.) **(Spa)**

[The National Heart Transplant Registry. The 9th Official Report (1984–1997). The Spanish Heart Transplant Groups. The Section of Heart Transplantation of the Spanish Society of Cardiology] Almenar Bonet L. **Rev Esp Cardiol** 1999 Mar;52(3):153–8 (Eng. Abstr.) **(Spa)**

[The National Registry of Cardiac Tumors (the 1996–1997 report)] Garcia Gallego F, et al. **Rev Esp Cardiol** 1999 Jan; 52(1):13–20 (Eng. Abstr.) **(Spa)**

REGRESSION (PSYCHOLOGY)

Psychopathology and primitive mental states. Caper R. **Int J Psychoanal** 1998 Jun;79 (Pt 3):539–51

'Dreams that turn over a page'. Integration dreams with paradoxical regressive content. Quinodoz JM. **Int J Psychoanal** 1999 Apr;80 (Pt 2):225–38

Rethinking the role of regressive experience in psychoanalytic supervision [see comments] Sarnat JE. **J Am Acad Psychoanal** 1998 Winter;26(4):529–43. Comment in: J Am Acad Psychoanal 1998 Winter;26(4):545–52.

Mutual regression: altered states in the psychoanalytic situation [see comments] Aron L, et al. **J Am Psychoanal Assoc** 1998;46(2):389–412. Comment in: J Am Psychoanal Assoc 1998 ;46(2):357–60.

Confirming false memories: social construction of "useful" meanings. Fourie DP. **Percept Mot Skills** 1998 Oct; 87(2):536–8

[Cyclical vomiting as the leading symptom of regression] Millner MM, et al. **Prax Kinderpsychol Kinderpsychiatr** 1998 Jul–Aug;47(6):406–15 (Eng. Abstr.) **(Ger)**

REGRESSION ANALYSIS

Underestimation of risk associations due to regression dilution in long-term follow-up of prospective studies. Clarke R, et al. **Am J Epidemiol** 1999 Aug 15;150(4):341–53

A test of transmission/disequilibrium for quantitative traits in pedigree data, by multiple regression. George V, et al.

Am J Hum Genet 1999 Jul;65(1):236–45
Characterizing the variability of system kernel and input estimates. Verotta D. **Ann Biomed Eng** 1998 Sep–Oct; 26(5):870–82
Prediction equation for glomerular filtration rate [letter] Ando Y, et al. **Ann Intern Med** 1999 Oct 19;131(8):629–30; discussion 630
Prediction equation for glomerular filtration rate [letter] Goldwasser P. **Ann Intern Med** 1999 Oct 19;131(8):629; discussion 630
A more accurate method to estimate glomerular filtration rate from serum creatinine: a new prediction equation. Modification of Diet in Renal Disease Study Group. Levey AS, et al. **Ann Intern Med** 1999 Mar 16;130(6):461–70
Prediction equation for glomerular filtration rate [letter] Matz R. **Ann Intern Med** 1999 Oct 19;131(8):629; discussion 630
Drinking and flying: a structural model. Maxwell E, et al. **Aviat Space Environ Med** 1999 Feb;70(2):117–23
Determining the power of multiple regression analyses both with and without repeated measures. Bakeman R, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):150–4
A more flexible regression-to-the-mean model with possible stratification. Chen S, et al. **Biometrics** 1998 Sep; 54(3):939–47
Nonparametric regression estimates with censored data: local linear smoothers and their applications. Kim HT, et al. **Biometrics** 1998 Dec;54(4):1434–44
Assessing the sensitivity of regression results to unmeasured confounders in observational studies. Lin DY, et al. **Biometrics** 1998 Sep;54(3):948–63
Mathematical coupling in medical research: lessons from studies of oxygen kinetics [editorial] [published erratum appears in Br J Anaesth 1998 Dec;81(6):1001] [see comments] Walsh TS, et al. **Br J Anaesth** 1998 Aug; 81(2):118–20. Comment in: Br J Anaesth 1999 Jan;82(1):147–9.
Necessary sample size for method comparison studies based on regression analysis. Linnet K. **Clin Chem** 1999 Jun;45(6 Pt 1):882–94
Multiple regression analysis of interference effects from a hemoglobin-based oxygen carrier solution. Kazmierczak SC, et al. **Clin Chem Lab Med** 1999 Apr;37(4):453–64
Residual analysis in random regressions using SAS and S-PLUS. Mazumdar S, et al. **Comput Methods Programs Biomed** 1999 Mar;58(3):281–2
A comparative study for stepwise correlated binary regression. Sohn SY. **Comput Methods Programs Biomed** 1999 Jun;59(3):181–6
New equations to estimate basal metabolic rate in children aged 10–15 years. Henry CJ, et al. **Eur J Clin Nutr** 1999 Feb;53(2):134–42
Regression diagnostics for the class A regressive model with quantitative phenotypes. Wang HM, et al. **Genet Epidemiol** 1999;17(3):174–87
On the use of linear regression and maximum likelihood for QTL mapping in half-sib designs. Baret PV, et al. **Genet Res** 1998 Oct;72(2):149–58
In vivo high-frequency ultrasonic characterization of human dermis. Guittet C, et al. **IEEE Trans Biomed Eng** 1999 Jun; 46(6):740–6
Regression spline models and model calibration in the identification of protein storage conditions. O'Connell M, et al. **J Biopharm Stat** 1998 Jul;8(3):417–30
Regression analysis of multiple protein structures. Wu TD, et al. **J Comput Biol** 1998 Fall;5(3):585–95
The use of covariance functions and random regressions for genetic evaluation of milk production based on test day records. van der Werf JH, et al. **J Dairy Sci** 1998 Dec; 81(12):3300–8
Studying seasonality by using sine and cosine functions in regression analysis. Stolwijk AM, et al. **J Epidemiol Community Health** 1999 Apr;53(4):235–8
Identifying efficiently and economically operated hospitals: the prospects and pitfalls of applying frontier regression techniques. Chirikos TN. **J Health Polit Policy Law** 1998 Dec;23(6):879–904 (16 ref.)
Beyond the case series: using regression analysis in modern veterinary medicine [editorial; comment] Morley PS, et al. **J Vet Intern Med** 1999 Mar–Apr;13(2):79–80. Comment on: J Vet Intern Med 1999 Mar–Apr;13(2):81–8.
A study of interval censoring in parametric regression models. Lindsey JK. **Lifetime Data Anal** 1998;4(4):329–54
Semiparametric efficient estimation in the generalized odds-rate class of regression models for right-censored time-to-event data. Scharfstein DO, et al. **Lifetime Data Anal** 1998;4(4):355–91
Application of random effects models and other methods to the analysis of multidimensional quality of life data in an AIDS clinical trial. Wu AW, et al. **Med Care** 1999 Mar; 37(3):249–58
A Bayesian approach to a general regression model for ROC curves. Hellmich M, et al. **Med Decis Making** 1998 Oct–Dec;18(4):436–43
Boosting regression estimators. Avnimelech R, et al. **Neural Comput** 1999 Feb 15;11(2):499–520
Computing minimum description length for robust linear regression model selection. Qian G. **Pac Symp Biocomput** 1999;:314–25
Two-dimensional autoregressive analysis of carotid artery blood flow waveform in children with isolated atrial septal defect. Kojo M, et al. **Pediatr Int** 1999 Jun;41(3):292–8
The application of Poisson random-effects regression models to the analyses of adolescents' current level of smoking. Siddiqui O, et al. **Prev Med** 1999 Aug;29(2):92–101
Using a tobit regression model to analyse risk factors for foot-pad dermatitis in commercially grown broilers. Ekstrand C, et al. **Prev Vet Med** 1998 Dec 1;37(1–4):219–28
Regression models for multiple outcomes in large epidemiologic studies. Bull SB. **Stat Med** 1998 Oct 15; 17(19):2179–97
Case-control isotonic regression for investigation of elevation in risk around a point source. Diggle P, et al. **Stat Med** 1999 Jul 15;18(13):1605–13
Regression models: calculating the confidence interval of effects in the presence of interactions. Figueiras A, et al. **Stat Med** 1998 Sep 30;17(18):2099–105
Exact simultaneous confidence bands for a collection of univariate polynomials in regression analysis. Kosorok MR, et al. **Stat Med** 1999 Mar 15;18(5):613–20
The minimum sum of absolute errors regression: a robust alternative to the least squares regression. Narula SC, et al. **Stat Med** 1999 Jun 15;18(11):1401–17
Time-variant spectral analysis of LDF signals on the basis of multivariate autoregressive modelling. Arnold M, et al. **Technol Health Care** 1999;7(2–3):103–12
[Epidemiologic and statistical interaction models and consequences for regression analysis] Stronegger WJ, et al. **Soz Praventivmed** 1998;43(6):312–21 (Eng. Abstr.) **(Ger)**
[Regression analysis in the assessment of the state of the immune system] Shchegoleva LS, et al. **Klin Lab Diagn** 1999 Mar;(3):13–5 (Eng. Abstr.) **(Rus)**
[Omission of variables in regression models with high multi-colinearity (letter; comment)] Llorca J. **Gac Sanit** 1999 May–Jun;13(3):243–4. Comment on: Gac Sanit 1998 Nov–Dec;12(6):281–3. **(Spa)**
[A criterion for omitting superfluous variables in regression models (letter) (see comments)] Sáez M, et al. **Gac Sanit** 1998 Nov–Dec;12(6):281–3. Comment in: Gac Sanit 1999 May–Jun;13(3):243–4. **(Spa)**

REGRESSION DIAGNOSTICS see **REGRESSION ANALYSIS**

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REGULATORY SEQUENCES, NUCLEIC ACID

A novel Sp1-related cis element involved in intestinal alkaline phosphatase gene transcription. Kim JH, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G800–7
Characterization of the 5'-flanking region of the murine polymeric IgA receptor gene. Martin MG, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G778–88
Cis-regulatory elements controlling basal and inducible VIP gene transcription. Hahm SH, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:10–26 (48 ref.)
Cis-acting elements in the 5'-flanking DNA of the malic enzyme gene regulate tissue-specific T3-responsiveness in chick embryo fibroblasts. Chung SS, et al. **Arch Biochem Biophys** 1999 Apr 1;364(1):1–12
Med8, a subunit of the mediator CTD complex of RNA polymerase II, directly binds to regulatory elements of SUC2 and HXK2 genes. Chaves RS, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):345–50
Characterization and chromosomal mapping of the human gene for SFT, a stimulator of Fe transport. Gutierrez JA, et al. **Biochem Biophys Res Commun** 1998 Dec 30; 253(3):739–42
Structural and functional characterization of the 5'-flanking region of the rat and human cytochrome P450 2E1 genes: identification of a polymorphic repeat in the human gene. Hu Y, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):286–93
Up-regulation of the human gamma-glutamylcysteine synthetase regulatory subunit gene involves binding of Nrf-2 to an electrophile responsive element. Moinova HR, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):661–8
The 5'-flanking sequence and regulatory elements of the cystatin S gene. Shaw PA, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):705–11
Tooth-specific expression conferred by the regulatory sequences of rat dentin sialoprotein gene in transgenic mice. Yamazaki H, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):433–40
Functional characterization of transcriptional regulatory elements in the upstream region and intron 1 of the human S6 ribosomal protein gene. Antoine M, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):327–35
Positive and negative regulatory elements in the upstream region of the rat Cu/Zn-superoxide dismutase gene. Chang MS, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):335–41
Negative regulation of MDR1 promoter activity in MCF-7, but not in multidrug resistant MCF-7/Adr, cells by cross-coupled NF-kappa B/p65 and c-Fos transcription factors and their interaction with the CAAT region. Ogretmen B, et al. **Biochemistry** 1999 Feb 16;38(7):2189–99
Promoter recognition by Escherichia coli RNA polymerase: effects of the UP element on open complex formation and promoter clearance. Strainic MG Jr, et al. **Biochemistry** 1998 Dec 22;37(51):18074–80
The PecT repressor interacts with regulatory regions of pectate lyase genes in Erwinia chrysanthemi. Castillo A, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):148–60
Identification of a cis-acting regulatory sequence responsible for the repression of brnQ in Salmonella typhimurium. Ohnishi K, et al. **Biochim Biophys Acta** 1999 May 14; 1445(2):196–206
Characterisation of inducible DNase I hypersensitive sites flanking the human interleukin-5 gene. Valentine JE, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):218–29
Inverse PCR-generated internally deleted constructs for direct characterization of promoter regulatory regions. Kaluz S, et al. **Biotechniques** 1999 Mar;26(3):446–50
Human integrin beta3 gene expression: evidence for a megakaryocytic cell-specific cis-acting element. Jin Y, et al. **Blood** 1998 Oct 15;92(8):2777–90
The 5'flanking region of the human granzyme H gene directs expression to T/natural killer cell progenitors and lymphokine-activated killer cells in transgenic mice. MacIvor DM, et al. **Blood** 1999 Feb 1;93(3):963–73
The activity of the CCAAT-box binding factor NF-Y is modulated through the regulated expression of its A subunit during monocyte to macrophage differentiation: regulation of tissue-specific genes through a ubiquitous transcription factor. Marziali G, et al. **Blood** 1999 Jan 15;93(2):519–26
Positive and negative cis-acting elements are required for hematopoietic expression of zebrafish GATA-1. Meng A, et al. **Blood** 1999 Jan 15;93(2):500–8
Correct function of the locus control region may require passage through a nonerythroid cellular environment. Vassilopoulos G, et al. **Blood** 1999 Jan 15;93(2):703–12
Identification of upstream regulatory elements that repress expression of adult beta-like globin genes in a primitive erythroid environment. Ebb D, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):356–69
Tissue-specific enhancement and restriction of galanin gene expression in transgenic mice by 5' flanking sequences. Rökaeus A, et al. **Brain Res Mol Brain Res** 1998 Oct 1; 60(2):150–9
Transformation blocks differentiation-induced inhibition of serum response factor interactions with serum response elements. Ding W, et al. **Cancer Res** 1999 Aug 1; 59(15):3795–802
The human p53 negative regulatory domain mediates inhibition of reporter gene transactivation in yeast lacking thioredoxin reductase. Merrill GF, et al. **Cancer Res** 1999 Jul 1;59(13):3175–9
The 5'-flanking cis-acting elements of the human epsilon-globin gene associates with the nuclear matrix and binds to the nuclear matrix proteins. Yan ZJ, et al. **Cell Res** 1998 Sep;8(3):209–18
TATA-less mouse vitronectin gene promoter: characterization of the transcriptional regulatory elements and a nuclear protein binding site on the promoter. Miyamoto Y, et al. **Cell Struct Funct** 1998 Feb;23(1):23–32
Directional gene silencing induced by a complex subtelomeric satellite from Drosophila. Kurenova E, et al. **Chromosoma** 1998 Nov;107(5):311–20
Regulation of SRF activity by Rho family GTPases. Treisman R, et al. **Cold Spring Harb Symp Quant Biol** 1998; 63:643–51 (44 ref.)
ETS sites in the promoters of the matrix metalloproteinases collagenase (MMP-1) and stromelysin (MMP-3) are auxiliary elements that regulate basal and phorbol-induced

transcription. White LA, et al. **Connect Tissue Res** 1997; 36(4):321–35

Regulatory elements and expression profiles. Bucher P. **Curr Opin Struct Biol** 1999 Jun;9(3):400–7 (61 ref.)

Isolation of the first piscine transforming growth factor beta gene: analysis reveals tissue specific expression and a potential regulatory sequence in rainbow trout (Oncorhynchus mykiss). Hardie LJ, et al. **Cytokine** 1998 Aug;10(8):555–63

Dissection of cis-regulatory elements of the Drosophila gene Serrate. Bachmann A, et al. **Dev Genes Evol** 1998 Aug; 208(6):346–51

Distal upstream tyrosinase S/MAR-containing sequence has regulatory properties specific to subsets of melanocytes. Porter SD, et al. **Dev Genet** 1999;25(1):40–8

Proximal cis-regulatory elements of sea urchin arylsulfatase gene. Koike H, et al. **Dev Growth Differ** 1998 Oct; 40(5):537–44

Functional organization of DNA elements regulating SM30alpha, a spicule matrix gene of sea urchin embryos. Yamasu K, et al. **Dev Growth Differ** 1999 Feb;41(1):81–91

Transducing positional information to the Hox genes: critical interaction of cdx gene products with position-sensitive regulatory elements. Charité J, et al. **Development** 1998 Nov;125(22):4349–58

Cis-regulatory elements of the mitotic regulator, string/Cdc25. Lehman DA, et al. **Development** 1999 May; 126(9):1793–803

A GATA-dependent nkx-2.5 regulatory element activates early cardiac gene expression in transgenic mice. Searcy RD, et al. **Development** 1998 Nov;125(22):4461–70

Different sequence requirements for expression in erythroid and megakaryocytic cells within a regulatory element upstream of the GATA-1 gene. Vyas P, et al. **Development** 1999 Jun;126(12):2799–811

Characterization of the transvection mediating region of the abdominal-B locus in Drosophila. Zhou J, et al. **Development** 1999 Jun;126(14):3057–65

Role of canonical glucocorticoid responsive elements in modulating expression of genes regulated by the arylhydrocarbon receptor. Linder MW, et al. **Drug Metab Rev** 1999 Feb;31(1):247–71 (41 ref.)

Synergism between a half-site and an imperfect estrogen-responsive element, and cooperation with COUP-TFI are required for estrogen receptor (ER) to achieve a maximal estrogen-stimulation of rainbow trout ER gene. Petit FG, et al. **Eur J Biochem** 1999 Jan; 259(1-2):385–95

Genomic structure of the regulatory region of the voltage-gated calcium channel alpha 1D. Kim HL, et al. **Exp Mol Med** 1998 Dec 31;30(4):246–51

A novel downstream positive regulatory element mediating transcription of the human high mobility group (HMG) I-C gene. Chau K, et al. **FEBS Lett** 1999 Sep 3; 457(3):429–36

Identification of human GC-box-binding zinc finger protein, a new Krüppel-like zinc finger protein, by the yeast one-hybrid screening with a GC-rich target sequence. Lisowsky T, et al. **FEBS Lett** 1999 Jun 25;453(3):369–74

The leader sequence of the Escherichia coli lysC gene is involved in the regulation of LysC synthesis. Patte JC, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):165–70

Transcriptional regulatory sequences within the first intron of the chicken apolipoproteinAI (apoAI) gene. Bhattacharyya N, et al. **Gene** 1999 Jul 8;234(2):371–80

Regulatory implications of protein assemblies at the gamma origin of plasmid R6K – a review. Filutowicz M, et al. **Gene** 1998 Nov 26;223(1-2):195–204 (90 ref.)

AP-1 and T3RE cis elements operate as a functional unit in the transcriptional control of the human malic enzyme gene. González-Manchón C, et al. **Gene** 1999 Jan 8; 226(1):111–9

Identification of an attenuating region in the bovine follicle-stimulating hormone beta subunit mRNA that decreases its expression in E. coli. Samaddar M, et al. **Gene** 1999 Mar 4;228(1-2):253–60

Molecular cloning and characterization of the mouse Ecm1 gene and its 5' regulatory sequences. Smits P, et al. **Gene** 1999 Jan 21;226(2):253–61

Design of a muscle cell-specific expression vector utilising human vascular smooth muscle alpha-actin regulatory elements. Keogh MC, et al. **Gene Ther** 1999 Apr; 6(4):616–28

Hierarchical and co-operative binding of OmpR to a fusion construct containing the ompC and ompF upstream regulatory sequences of Escherichia coli. Bergstrom LC, et al. **Genes Cells** 1998 Dec;3(12):777–88

Asymmetric and node-specific nodal expression patterns are controlled by two distinct cis-acting regulatory elements. Norris DP, et al. **Genes Dev** 1999 Jun 15;13(12):1575–88

The P-Ph protein-mediated repression of yellow expression depends on different cis- and trans-factors in Drosophila melanogaster. Biryukova I, et al. **Genetics** 1999 Aug; 152(4):1641–52

Overexpression Beadex mutations and loss-of-function heldup-a mutations in Drosophila affect the 3' regulatory and coding components, respectively, of the Dlmo gene. Shoresh M, et al. **Genetics** 1998 Sep;150(1):283–99

Predicting gene regulatory elements in silico on a genomic scale. Brzma A, et al. **Genome Res** 1998 Nov;8(11):1202–15

Cis-acting modifiers of expanded CAG/CTG triplet repeat expandability: associations with flanking GC content and proximity to CpG islands. Brock GJ, et al. **Hum Mol Genet** 1999 Jun;8(6):1061–7

Transcriptional regulation of the rat renin gene by regulatory elements in intron I. Voigtländer T, et al. **Hypertension** 1999 Jan;33(1 Pt 2):303–11

Hypomethylation of the proximal and intronic regulatory regions of the IFN-gamma gene is not essential for its transcription by naive CD4+ T cells cultured with IL-4. Kiyomasu T, et al. **Immunol Lett** 1999 Aug 3;69(2):239–45

A transgenic strategy for analyzing the regulatory regions of the human prostate-specific antigen gene: potential applications for the treatment of prostate cancer (Review). Willis RA, et al. **Int J Mol Med** 1998 Feb;1(2):379–86 (59 ref.)

Rat seminal-vesicle secretory protein SVS II binds DNA with a preference for the 5' regulatory region of secretory protein SVS IV gene: co-isolation with components of the nuclear matrix. Horton MJ, et al. **J Androl** 1999 Mar-Apr; 20(2):267–79

Characterization of a TPA-response element in the 5'-flanking region of the androgen receptor gene. Kumar MV, et al. **J Androl** 1998 Sep-Oct;19(5):595–602

Phylogenetic analysis of L4-mediated autogenous control of the S10 ribosomal protein operon. Allen T, et al. **J Bacteriol** 1999 Oct;181(19):6124–32

cis- and trans-acting elements involved in regulation of aniA, the gene encoding the major anaerobically induced outer membrane protein in Neisseria gonorrhoeae. Householder TC, et al. **J Bacteriol** 1999 Jan;181(2):541–51

cis-Acting elements responsible for low-temperature-inducible expression of the gene coding for the thermolabile isocitrate dehydrogenase isozyme of a psychrophilic bacterium, Vibrio sp. strain ABE-1. Sahara T, et al. **J Bacteriol** 1999 Apr;181(8):2602–11

An upstream sequence element required for NucC-dependent expression of the Serratia marcescens extracellular nuclease. Winslow RH, et al. **J Bacteriol** 1998 Nov; 180(22):6064–7

Functional characterization of the bovine conglutinin promoter: presence of a novel element for transcriptional regulation of a C-type mammalian lectin containing a collagen-like domain. Kawasaki N, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1188–97

Chicken ornithine transcarbamylase gene, structure, regulation, and chromosomal assignment: repetitive sequence motif in intron 3 regulates this enzyme activity. Shimogiri T, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):962–71

A silencer element in the regulatory region of glutamine synthetase controls cell type-specific repression of gene induction by glucocorticoids. Avisar N, et al. **J Biol Chem** 1999 Apr 16;274(16):11399–407

Identification of cis-regulating elements and trans-acting factors regulating the expression of the gene encoding the small subunit of ribonucleotide reductase in Dictyostelium discoideum. Bonfils C, et al. **J Biol Chem** 1999 Jul 16; 274(29):20384–90

Mouse mu opioid receptor gene expression. A 34-base pair cis-acting element inhibits transcription of the mu opioid receptor gene from the distal promoter. Choe Cy, et al. **J Biol Chem** 1998 Dec 25;273(52):34926–32

Characterization of the regulatory domains of the human skn-1a/Epoc-1/Oct-11 POU transcription factor. Hildesheim J, et al. **J Biol Chem** 1999 Sep 10; 274(37):26399–406

Characterization of the murine fatty acid transport protein gene and its insulin response sequence. Hui TY, et al. **J Biol Chem** 1998 Oct 16;273(42):27420–9

Identification of a compound origin of replication at the HMR-E locus in Saccharomyces cerevisiae. Hurst ST, et al. **J Biol Chem** 1999 Feb 12;274(7):4155–9

Transcriptional regulation of the human carboxyl ester lipase gene in exocrine pancreas. Evidence for a unique tissue-specific enhancer. Lidberg U, et al. **J Biol Chem** 1998 Nov 20;273(47):31417–26

A regulatory element of the human keratin 18 gene with AP-1-dependent promoter activity. Rhodes K, et al. **J Biol Chem** 1998 Oct 9;273(41):26534–42

Regulatory domain of human heat shock transcription factor-2 is not regulated by hemin or heat shock. Zhu Z, et al. **J Cell Biochem** 1999 Apr 1;73(1):56–69

Nuclear factor of activated T cells and AP-1 are insufficient for IL-2 promoter activation: requirement for CD28 up-regulation of RE/AP. Shapiro VS, et al. **J Immunol** 1998 Dec 15;161(12):6455–8

Three-dimensional folding of an RNA hairpin required for packaging HIV-1. Pappalardo L, et al. **J Mol Biol** 1998 Oct 2;282(4):801–18

NF-Y histone fold alpha1 helices help impart CCAAT specificity. Zemzoumi K, et al. **J Mol Biol** 1999 Feb 19; 286(2):327–37

Analysis of cis-acting sequences from the myelin oligodendrocyte glycoprotein promoter. Jaquet V, et al. **J Neurochem** 1999 Jul;73(1):120–8

On the relationship between genomic regulatory element organization and gene regulatory dynamics. Wolf DM, et al. **J Theor Biol** 1998 Nov 21;195(2):167–86

Translational control of nuclear lamin B1 mRNA during oogenesis and early development of Xenopus. Ralle T, et al. **Mech Dev** 1999 Jun;84(1-2):89–101

Use of the Gal4-UAS technique for targeted gene expression in the zebrafish. Scheer N, et al. **Mech Dev** 1999 Feb; 80(2):153–8

Structure and evolution of a pair-rule interaction element: runt regulatory sequences in D. melanogaster and D. virilis. Wolff C, et al. **Mech Dev** 1999 Jan;80(1):87–99

Determination of positive and negative regulatory elements. Hirsch E, et al. **Methods Mol Biol** 1999;129:189–208

Regulatory sequences and a novel gene in the msp (GP63) gene cluster of Leishmania chagasi. McCoy JJ, et al. **Mol Biochem Parasitol** 1998 Sep 15;95(2):251–65

An upstream regulatory element containing two nine basepair repeats regulates expression of the Entamoeba histolytica hgl5 lectin gene. Schaenman JM, et al. **Mol Biochem Parasitol** 1998 Aug 1;94(2):309–13

High sequence turnover in the regulatory regions of the developmental gene hunchback in insects. Hancock JM, et al. **Mol Biol Evol** 1999 Feb;16(2):253–65

Differential regulation of c-fos expression in estrogen-induced hamster renal tumors compared with kidney not due to creation of an estrogen-response element by point mutation in the gene's flanking sequence. Sarabia SF, et al. **Mol Carcinog** 1999 Apr;24(4):255–62

Flanking regulatory sequences of the Tetrahymena R deletion element determine the boundaries of DNA rearrangement. Chalker DL, et al. **Mol Cell Biol** 1999 Aug; 19(8):5631–41

A novel 14-base-pair regulatory element is essential for in vivo expression of murine beta4-galactosyltransferase-I in late pachytene spermatocytes and round spermatids. Charron M, et al. **Mol Cell Biol** 1999 Aug;19(8):5823–32

Parental allele-specific chromatin configuration in a boundary-imprinting-control element upstream of the mouse H19 gene. Khosla S, et al. **Mol Cell Biol** 1999 Apr; 19(4):2556–66

Interleukin-2 (IL-2) regulates the accessibility of the IL-2-responsive enhancer in the IL-2 receptor alpha gene to transcription factors. Rusterholz C, et al. **Mol Cell Biol** 1999 Apr;19(4):2681–9

Regulation of V(D)J recombination by transcriptional promoters. Sikes ML, et al. **Mol Cell Biol** 1999 Apr; 19(4):2773–81

Characterization of the regulatory regions of the human aromatase (P450arom) gene involved in placenta-specific expression. Kamat A, et al. **Mol Endocrinol** 1998 Nov; 12(11):1764–77

Molecular characterization of a stably transformed Bombyx mori cell line: identification of alternative transcriptional initiation sites of the A3 cytoplasmic actin gene. Fatyol K, et al. **Mol Gen Genet** 1998 Oct;260(1):1–8

Evidence of multiple transcription initiation and termination sites within the rDNA intergenic spacer and rRNA readthrough transcription in the urochordate Herdmania curvata. Degnan BM, et al. **Mol Mar Biol Biotechnol** 1998 Dec;7(4):294–302

In vivo analysis of DNase I hypersensitive sites in the human CFTR gene. Moulin DS, et al. **Mol Med** 1999 Apr; 5(4):211–23

The 5' region of cnf1 harbours a translational regulatory mechanism for CNF1 synthesis and encodes the cell-binding domain of the toxin. Fabbri A, et al. **Mol Microbiol** 1999 Jul;33(1):108–18

Participation of IHF and a distant UP element in the stimulation of the phage lambda PL promoter [see comments] Giladi H, et al. **Mol Microbiol** 1998 Oct; 30(2):443–51. Comment in: Mol Microbiol 1998 Oct;30(2):431–41.

Finding DNA regulatory motifs within unaligned noncoding sequences clustered by whole-genome mRNA quantitation [see comments] Roth FP, et al. **Nat Biotechnol** 1998 Oct; 16(10):939–45. Comment in: Nat Biotechnol 1998 Oct;16(10):907–8.

Anti-Xistentialism [news; comment] Heard E, et al. **Nat Genet** 1999 Apr;21(4):343–4. Comment on: Nat Genet 1999 Apr;21(4):400–4.

Study of the association between the serotonin transporter gene regulatory region polymorphism and personality traits in a Japanese population. Kumakiri C, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):205–7

The -491 A/T polymorphism in the regulatory region of the apolipoprotein E gene and early-onset Alzheimer's disease. Roks G, et al. **Neurosci Lett** 1998 Dec 18; 258(2):65–8

HvrBase: compilation of mtDNA control region sequences from primates. Burckhardt F, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):138–42

The t(2;3)(q21;q27) translocation in non-Hodgkin's lymphoma displays BCL6 mutations in the 5' regulatory region and chromosomal breakpoints distant from the gene. Chen W, et al. **Oncogene** 1998 Oct 1;17(13):1717–22

Differential effects of the widely expressed dMax splice variant of Max on E-box vs initiator element-mediated regulation by c-Myc. FitzGerald MJ, et al. **Oncogene** 1999 Apr 15;18(15):2489–98

Tissue-specific alternative splicing in the human INK4a/ARF cell cycle regulatory locus. Robertson KD, et al. **Oncogene** 1999 Jul 1;18(26):3810–20

Tax protein of HTLV-1 inhibits CBP/p300-mediated transcription by interfering with recruitment of CBP/p300 onto DNA element of E-box or p53 binding site. Suzuki T, et al. **Oncogene** 1999 Jul 15;18(28):4137–43

Identification of positive and negative regulator elements for the tissue inhibitor of metalloproteinase 1 gene. Wang M, et al. **Oncol Res** 1998;10(4):219–33

A 13-bp cis-regulatory element in the LTR promoter of the tobacco retrotransposon Ttol is involved in responsiveness to tissue culture, wounding, methyl jasmonate and fungal elicitors. Takeda S, et al. **Plant J** 1999 May;18(4):383-93

A 42 bp fragment of the pmas1' promoter containing an ocs-like element confers a developmental, wound- and chemically inducible expression pattern. Guevara-García A, et al. **Plant Mol Biol** 1998 Nov;38(5):743-53

Upstream and downstream sequence elements determine the specificity of the rice tungro bacilliform virus promoter and influence RNA production after transcription initiation. Klöti A, et al. **Plant Mol Biol** 1999 May;40(2):249-66

A strong constitutive positive element is essential for the ammonium-regulated expression of a soybean gene encoding cytosolic glutamine synthetase. Tercé-Laforgue T, et al. **Plant Mol Biol** 1999 Feb;39(3):551-64

A 500-bp region, approximately 40 kb upstream of the human CYP19 (aromatase) gene, mediates placenta-specific expression in transgenic mice. Kamat A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4575-80

Structure of tau exon 10 splicing regulatory element RNA and destabilization by mutations of frontotemporal dementia and parkinsonism linked to chromosome 17. Varani L, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6; 96(14):8229-34

Further characterization of the 5'-flanking promoter region of the human beta1-adrenergic receptor gene. Okawa Y, et al. **Psychiatry Clin Neurosci** 1998 Aug;52(4):453-8

Domains and boundaries in chromosomes. Gerasimova TI, et al. **Results Probl Cell Differ** 1999;25:229-49 (70 ref.)

cis-acting RNA elements required for replication of bovine viral diarrhea virus-hepatitis C virus 5' nontranslated region chimeras. Frolov I, et al. **RNA** 1998 Nov; 4(11):1418-35

A new approach for studying gene regulation by distant DNA elements in transgenic mice. Nielsen LB, et al. **Scand J Clin Lab Invest Suppl** 1999;229:33-9 (17 ref.)

Genetic mechanisms of age regulation of human blood coagulation factor IX. Kurachi S, et al. **Science** 1999 Jul 30;285(5428):739-43

Coordinate regulation of RAG1 and RAG2 by cell type-specific DNA elements 5' of RAG2. Yu W, et al. **Science** 1999 Aug 13;285(5430):1080-4

A potential imprint control element: identification of a conserved 42 bp sequence upstream of H19. Frevel MA, et al. **Trends Genet** 1999 Jun;15(6):216-8

Characterisation of regulatory sequences at the Epstein-Barr virus BamHI W promoter. Bell A, et al. **Virology** 1998 Dec 5;252(1):149-61

Distinct export pathway utilized by the hepatitis B virus posttranscriptional regulatory element. Zang WQ, et al. **Virology** 1999 Jul 5;259(2):299-304

[Insulator can suppress the nonisolated enhancer activity] Golovnin AK, et al. **Dokl Akad Nauk** 1999 May; 366(3):420-4 **(Rus)**

DRUG EFFECTS

Alpha,beta-unsaturated aldehydes increase glutathione S-transferase mRNA and protein: correlation with activation of the antioxidant response element. Tjalkens RB, et al. **Arch Biochem Biophys** 1998 Nov 1;359(1):42-50

Analysis of the TPA regulatory element in the genomic poly(ADP-ribose) synthetase gene in human leukemia U937 cells. Nie J, et al. **Biochemistry** 1998 Oct 6; 37(40):14181-8

Transcriptional regulation of the beta-casein gene by cytokines: cross-talk between STAT5 and other signaling molecules. Chida D, et al. **Mol Endocrinol** 1998 Nov; 12(11):1792-806

GENETICS

Isolation of human CYP4F2 genomic DNA and its 5' end regulatory region structure. Jin HJ. **Arch Pharm Res** 1998 Feb;21(1):35-40

Characterization of genomic regions directing the cell-specific expression of the mouse aldose reductase gene. Li H, et al. **Biochem Biophys Res Commun** 1999 Feb 24; 255(3):759-64

A novel polymorphism in the MCP-1 gene regulatory region that influences MCP-1 expression. Rovin BH, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):344-8

CHOP/GADD153 and methionyl-tRNA synthetase (MetRS) genes overlap in a conserved region that controls mRNA stability. Ubeda M, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):31-8

Interindividual differences in hepatic expression of CYP3A4: relationship to genetic polymorphism in the 5'-upstream regulatory region. Westlind A, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):201-5

Systematic genomic screening and analysis of mRNA in untranslated regions and mRNA precursors: combining experimental and computational approaches. Dandekar T, et al. **Bioinformatics** 1998;14(3):271-8

Transcription regulatory region analysis using signal detection and fuzzy clustering. Pickert L, et al. **Bioinformatics** 1998;14(3):244-51

The murine Hoxb1 3' RAIDR5 enhancer contains multiple regulatory elements. Thompson JR, et al. **Cell Growth Differ** 1998 Dec;9(12):969-81

A bifunctional regulatory element of the human ApoA-I gene responsive to a distal enhancer. Jones DR, et al. **DNA Cell Biol** 1999 Feb;18(2):107-19

Multiple promoter elements including a novel repressor site modulate expression of the chick ovalbumin gene. Sensenbaugh KR, et al. **DNA Cell Biol** 1999 Feb; 18(2):147-56

Cytoplasmic proteins interact with a translational control element in the protein-coding region of proopiomelanocortin mRNA. Spencer CM, et al. **DNA Cell Biol** 1999 Jan;18(1):39-49

Criss-crossed interactions between the enhancer and the att sites of phage Mu during DNA transposition. Jiang H, et al. **EMBO J** 1999 Jul 1;18(13):3845-55

A role for a replicator dominance mechanism in silencing. Palacios DeBeer MA, et al. **EMBO J** 1999 Jul 1; 18(13):3808-19

Regulation of DNA replication by iterons: an interaction between the ori2 and incC regions mediated by RepE-bound iterons inhibits DNA replication of mini-F plasmid in Escherichia coli. Uga H, et al. **EMBO J** 1999 Jul 1;18(13):3856-67

An intrinsic curvature towards the minor groove in the cAMP-responsive element DNA found by combined NMR and molecular modelling studies. Chaoui M, et al. **Eur J Biochem** 1999 Feb;259(3):877-86

Two short sequences have positive effects on the human p27Kip1 gene transcription. Ito E, et al. **Gene** 1999 Mar 4;228(1-2):93-100

Analysis of the 5' regulatory region of the human Norrie's disease gene: evidence that a non-translated CT dinucleotide repeat in exon one has a role in controlling expression. Kenyon JR, et al. **Gene** 1999 Feb 18; 227(2):181-8

Characterization of the lung Krüppel-like transcription factor gene and upstream regulatory elements. Schrick JJ, et al. **Gene** 1999 Aug 5;236(1):185-95

Functional interactions of Prp8 with both splice sites at the spliceosomal catalytic center. Siatecka M, et al. **Genes Dev** 1999 Aug 1;13(15):1983-93

Identification of putative programmed -1 ribosomal frameshift signals in large DNA databases [see comments] Hammell AB, et al. **Genome Res** 1999 May;9(5):417-27. Comment in: Genome Res 1999 May;9(5):393-4.

Exercise attenuates nuclear protein binding to gene regulatory sequences of hepatic fatty acid synthase. Fiebig R, et al. **J Appl Physiol** 1999 Sep;87(3):1009-15

In vitro selection of integration host factor binding sites. Goodman SD, et al. **J Bacteriol** 1999 May;181(10):3246-55

Multiple interactions of the transcription factor YY1 with human histone H4 gene regulatory elements. Last TJ, et al. **J Cell Biochem** 1999 Mar 15;72(4):507-16

Markers within the regulatory region of the growth hormone receptor gene and their association with milk-related traits in Holsteins. Aggrey SE, et al. **J Hered** 1999 Jan-Feb; 90(1):148-51

A three-way junction and constituent stem-loops as the stimulator for programmed -1 frameshifting in bacterial insertion sequence IS911. Rettberg CC, et al. **J Mol Biol** 1999 Mar 12;286(5):1365-78

Human mesotheliomas contain the simian virus-40 regulatory region and large tumor antigen DNA sequences. Pass HI, et al. **J Thorac Cardiovasc Surg** 1998 Nov;116(5):854-9

Identification of a class of chromatin boundary elements. Cuvier O, et al. **Mol Cell Biol** 1998 Dec;18(12):7478-86

Conservation of read-through transcription of the Drosophila serendipity genes during evolution is gratuitous. Ibnsouda S, et al. **Mol Gen Genet** 1998 Sep;259(5):484-90

A novel positive regulatory element that enhances hamster CYP2A8 gene expression mediated by xenobiotic responsive element. Kurose K, et al. **Mol Pharmacol** 1999 Feb;55(2):279-87

Dexamethasone stimulates human A1 adenosine receptor (A1AR) gene expression through multiple regulatory sites in promoter B. Ren H, et al. **Mol Pharmacol** 1999 Feb; 55(2):309-16

Absence of association between Alzheimer disease and the -491 regulatory region polymorphism of APOE. Song YQ, et al. **Neurosci Lett** 1998 Jul 10;250(3):189-92

Plant cis-acting regulatory DNA elements (PLACE) database: 1999. Higo K, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):297-300

A subtelomeric DNA sequence is required for correct processing of the macronuclear DNA sequences during macronuclear development in the hypotrichous ciliate Stylonychia lemnae. Jönsson F, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2832-41

Transcription Regulatory Regions Database (TRRD):its status in 1999. Kolchanov NA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):303-6

Structural equivalence in the transcribed spacers of pre-rRNA transcripts in Schizosaccharomyces pombe. Lalev AI, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3071-8

A dimer of the lymphoid protein RAG1 recognizes the recombination signal sequence and the complex stably incorporates the high mobility group protein HMG2. Rodgers KK, et al. **Nucleic Acids Res** 1999 Jul 15; 27(14):2938-46

PlantCARE, a plant cis-acting regulatory element database. Rombauts S, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):295-6

A bipartite sequence element associated with matrix/scaffold attachment regions. van Drunen CM, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2924-30

Conserved cis- and trans-acting determinants for replication initiation and regulation of replication fork movement in tetrahymenid species. Yue M, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4635-44

Interaction between composite elements in the napA promoter: both the B-box ABA-responsive complex and the RY/G complex are necessary for seed-specific expression. Ezcurra I, et al. **Plant Mol Biol** 1999 Jul; 40(4):699-709

Missense and silent tau gene mutations cause frontotemporal dementia with parkinsonism-chromosome 17 type, by affecting multiple alternative RNA splicing regulatory elements. D'Souza I, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5598-603

Features of the autonomous function of the translational enhancer domain of satellite tobacco necrosis virus. Meulewaeter F, et al. **RNA** 1998 Nov;4(11):1347-56

A three-generation family presenting five cases of homozygosity for the 20210 G to A prothrombin variant [letter] Morange PE, et al. **Thromb Haemost** 1998 Nov; 80(5):859-60

Factor V Leiden and prothrombin gene G 20210 A variant in children with ischemic stroke. Zenz W, et al. **Thromb Haemost** 1998 Nov;80(5):763-6

Functional analysis of a transrepressor domain in the hepatitis C virus core protein. Ray RB, et al. **Virus Res** 1999 Feb; 59(2):211-7

Transient mRNA responses in chemostat cultures as a method of defining putative regulatory elements: application to genes involved in Saccharomyces cerevisiae acetyl-coenzyme A metabolism. van den Berg MA, et al. **Yeast** 1998 Sep 15;14(12):1089-104

[Anatomy of the eukaryotic gene] Acevedo S. **Sangre (Barc)** 1998 Oct;43(5):447-50 (19 ref.) **(Spa)**

IMMUNOLOGY

Enhancer-blocking activity within the DNase I hypersensitive site 2 to 6 region between the TCR alpha and Dad1 genes. Zhong XP, et al. **J Immunol** 1999 Jul 1;163(1):295-300

PHYSIOLOGY

Nuclease-resistant external guide sequence-induced cleavage of target RNA by human ribonuclease P. Ma MY, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):415-26

Multiple cis-acting regulatory regions are required for restricted spatio-temporal Hoxa5 gene expression. Larochelle C, et al. **Dev Dyn** 1999 Feb;214(2):127-40

The Escherichia coli OxyS regulatory RNA represses fhlA translation by blocking ribosome binding. Altuvia S, et al. **EMBO J** 1998 Oct 15;17(20):6069-75

c-jun N-terminal kinase is involved in AUUUA-mediated interleukin-3 mRNA turnover in mast cells. Ming XF, et al. **EMBO J** 1998 Oct 15;17(20):6039-48

The OxyS regulatory RNA represses rpoS translation and binds the Hfq (HF-I) protein. Zhang A, et al. **EMBO J** 1998 Oct 15;17(20):6061-8

The distal regulatory region of the human involucrin promoter is required for expression in epidermis. Crish JF, et al. **J Biol Chem** 1998 Nov 13;273(46):30460-5

The transcription factor Sp3 interacts with promoter elements of the lens specific MIP gene. Kim S, et al. **Mol Vis** 1999 Jul 15;5:12

REGULON

Lethality of a heat- and phosphate-catalyzed glucose by-product to Escherichia coli O157:H7 and partial protection conferred by the rpoS regulon. Byrd JJ, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2396-401

Quantitative model for Gal4p-mediated expression of the galactose/melibiose regulon in Saccharomyces cerevisiae. Venkatesh KV, et al. **Biotechnol Prog** 1999 Jan-Feb; 15(1):51-7

Regulation in the rpoS regulon of Escherichia coli. Loewen PC, et al. **Can J Microbiol** 1998 Aug;44(8):707-17 (113 ref.)

pH-dependent activation of the alternative transcriptional factor sigmaB in Bacillus subtilis. Kovács T, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):323-8

Nucleotide sequence of the streptococcin A-FF22 lantibiotic regulon: model for production of the lantibiotic SA-FF22 by strains of Streptococcus pyogenes. McLaughlin RE, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):171-7

Differential transcription of the tcpPH operon confers biotype-specific control of the Vibrio cholerae ToxR virulence regulon. Murley YM, et al. **Infect Immun** 1999 Oct;67(10):5117-23

PhoP-PhoQ-regulated loci are required for enhanced bile resistance in Salmonella spp. van Velkinburgh JC, et al. **Infect Immun** 1999 Apr;67(4):1614-22

Modulation of expression of the ToxR regulon in Vibrio cholerae by a member of the two-component family of response regulators. Wong SM, et al. **Infect Immun** 1998 Dec;66(12):5854-61

Mutational analysis of the phoD promoter in Bacillus subtilis: implications for PhoP binding and promoter activation of Pho regulon promoters. Eder S, et al. **J Bacteriol** 1999 Apr;181(7):2017-25

H-NS and StpA proteins stimulate expression of the maltose regulon in Escherichia coli. Johansson J, et al. **J Bacteriol** 1998 Dec;180(23):6117-25

Wound-released chemical signals may elicit multiple responses from an Agrobacterium tumefaciens strain containing an octopine-type Ti plasmid. Kalogeraki VS, et al. **J Bacteriol** 1998 Nov;180(21):5660-7

In vivo transcription of the Escherichia coli oxyR regulon as a function of growth phase and in response to oxidative stress. Michán C, et al. **J Bacteriol** 1999 May;181(9):2759-64

NAD-dependent DNA-binding activity of the bifunctional NadR regulator of Salmonella typhimurium. Penfound T, et al. **J Bacteriol** 1999 Jan;181(2):648-55

S-methylmethionine metabolism in Escherichia coli. Thanbichler M, et al. **J Bacteriol** 1999 Jan;181(2):662-5

Yap1 and Skn7 control two specialized oxidative stress response regulons in yeast. Lee J, et al. **J Biol Chem** 1999 Jun 4;274(23):16040-6

Analysis of interactions between CytR and CRP at CytR-regulated promoters. Senear DF, et al. **Methods Enzymol** 1998;295:403-24

Analysis of the effect exerted by extracellular pH on the maltose regulon in Escherichia coli K-12. Alonzo S, et al. **Microbiology** 1998 Dec;144 (Pt 12):3317-25

The heat shock response in yeast: differential regulations and contributions of the Msn2p/Msn4p and Hsf1p regulons. Boy-Marcotte E, et al. **Mol Microbiol** 1999 Jul; 33(2):274-83

Bacillus subtilis contains multiple Fur homologues: identification of the iron uptake (Fur) and peroxide regulon (PerR) repressors. Bsat N, et al. **Mol Microbiol** 1998 Jul; 29(1):189-98

Competence regulons, genomics and streptococci [letter] Claverys JP, et al. **Mol Microbiol** 1998 Aug;29(4):1126-7

The role of the trehalose system in regulating the maltose regulon of Escherichia coli. Decker K, et al. **Mol Microbiol** 1999 May;32(4):777-88

The ClpB ATPase of Streptomyces albus G belongs to the HspR heat shock regulon. Grandvalet C, et al. **Mol Microbiol** 1999 Jan;31(2):521-32

The S box regulon: a new global transcription termination control system for methionine and cysteine biosynthesis genes in gram-positive bacteria. Grundy FJ, et al. **Mol Microbiol** 1998 Nov;30(4):737-49

Identification of target promoters for the Bacillus subtilis extracytoplasmic function sigma factor, sigma W. Huang X, et al. **Mol Microbiol** 1999 Jan;31(1):361-71

The Per regulon of enteropathogenic Escherichia coli : identification of a regulatory cascade and a novel transcriptional activator, the locus of enterocyte effacement (LEE)-encoded regulator (Ler). Mellies JL, et al. **Mol Microbiol** 1999 Jul;33(2):296-306

Hierarchical gene regulatory systems arising from fortuitous gene associations: controlling quorum sensing by the opine regulon in Agrobacterium. Piper KR, et al. **Mol Microbiol** 1999 Jun;32(5):1077-89

The cytoplasmic kinase domain of PhoR is sufficient for the low phosphate-inducible expression of pho regulon genes in Bacillus subtilis. Shi L, et al. **Mol Microbiol** 1999 Jan; 31(1):211-22

Nitroreductase A is regulated as a member of the soxRS regulon of Escherichia coli. Liochev SI, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3537-9

Identification of a competence regulon in Streptococcus pneumoniae by genomic analysis. Håvarstein LS. **Trends Microbiol** 1998 Aug;6(8):297-9; discussion 299-300 (14 ref.)

[A test system based on the lux-regulon from Vibrio fischeri for studying the functional activity of mutant forms of Escherichia coli lon-proteinase] Manukhov IV, et al. **Bioorg Khim** 1999 May;25(5):365-8 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Induction of the soxRS regulon of Escherichia coli by superoxide. Liochev SI, et al. **J Biol Chem** 1999 Apr 2; 274(14):9479-81

GENETICS

Genetics of nitrogen regulation in Methanococcus maripaludis. Kessler PS, et al. **Genetics** 1999 Aug; 152(4):1343-51

Molecular characterization of the PmrA regulon. Wösten MM, et al. **J Biol Chem** 1999 Sep 17;274(38):27185-90

Identification and transcriptional analysis of new members of the sigmaB regulon in Bacillus subtilis. Petersohn A, et al. **Microbiology** 1999 Apr;145 (Pt 4):869-80

Non-specific, general and multiple stress resistance of growth-restricted Bacillus subtilis cells by the expression of the sigmaB regulon. Hecker M, et al. **Mol Microbiol** 1998 Sep;29(5):1129-36 (55 ref.)

RegulonDB (version 2.0): a database on transcriptional regulation in Escherichia coli. Salgado H, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):59-60

[The vir regulon--a new epidemiological marker for Streptococcus pyogenes] Shundi L. **Bacteriol Virusol Parazitol Epidemiol** 1998 Jul-Sep; 43(3):195-8 (26 ref.) **(Rum)**

PHYSIOLOGY

Analysis of the expression and function of the sigmaB-dependent general stress regulon of Bacillus subtilis during slow growth. Schweder T, et al. **Arch Microbiol** 1999 May-Jun;171(6):439-43

Bacterial senescence: stasis results in increased and differential oxidation of cytoplasmic proteins leading to developmental induction of the heat shock regulon. Dukan S, et al. **Genes Dev** 1998 Nov 1;12(21):3431-41

REGURGITATION, GASTRIC see **GASTROESOPHAGEAL REFLUX**

REHABILITATION

see related
DISABILITY EVALUATION
EARLY INTERVENTION (EDUCATION)
HALFWAY HOUSES
RECOVERY OF FUNCTION

Measuring quality of life: methodological issues. Dijkers M. **Am J Phys Med Rehabil** 1999 May-Jun;78(3):286-300 (98 ref.)

Facilitating patient learning during medical rehabilitation: a research agenda. Fuhrer MJ, et al. **Am J Phys Med Rehabil** 1998 Nov-Dec;77(6):557-61

The National Center for Medical Rehabilitation Research: beyond infancy, looking toward maturity. Fuhrer MJ. **Am J Phys Med Rehabil** 1998 Sep-Oct;77(5):437-43

Randomized clinical trials in medical rehabilitation research. Tate DG, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct; 78(5):486-99 (67 ref.)

Use of sequential medical trials in rehabilitation research. Tooth L. **Am J Phys Med Rehabil** 1999 Jan-Feb; 78(1):87-97 (18 ref.)

American Congress of Rehabilitation Medicine 75th anniversary. **Arch Phys Med Rehabil** 1998 Dec;79(12 Suppl 2):1-36

Goals and goal setting in rehabilitation research [editorial; comment] Basford JR. **Arch Phys Med Rehabil** 1999 May; 80(5):479-80. Comment on: Arch Phys Med Rehabil 1999 May;80(5):481-4.

The grant portfolio of the National Center for Medical Rehabilitation Research: the first five years [see comments] Deitz J, et al. **Arch Phys Med Rehabil** 1999 May;80(5):481-4 . Comment in: Arch Phys Med Rehabil 1999 May;80(5):479-80.

Measuring outcomes in children's rehabilitation: a decision protocol. Law M, et al. **Arch Phys Med Rehabil** 1999 Jun; 80(6):629-36

Rehabilitation staff perceptions of characteristics of geriatric rehabilitation patients. Nicholas JJ, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1277-84

Academy presidential address. No organization is an island unto itself. Smith BS. **Arch Phys Med Rehabil** 1999 Mar; 80(3):241-2

Enabling America: a report from the Institute of Medicine on rehabilitation science and engineering. Whyte J. **Arch Phys Med Rehabil** 1998 Nov;79(11):1477-80

Rural health professionals' satisfaction with a rehabilitation mobile outreach program. Wilson KG, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):332-8

Disability 1986 and beyond: 11 years on. Marks LJ. **Br J Hosp Med** 1998 Nov 19-Dec 9;58(10):489-92 (21 ref.)

The pain medicine and primary care community rehabilitation model: monitored care for pain disorders in multiple settings [editorial] Gallagher RM. **Clin J Pain** 1999 Mar;15(1):1-3

Techniques for measurement and assessment of mobility in rehabilitation: a theoretical approach. Bussmann JB, et al. **Clin Rehabil** 1998 Dec;12(6):455-64 (69 ref.)

Quality of life and the ICIDH: towards an integrated conceptual model for rehabilitation outcomes research [see comments] Post MW, et al. **Clin Rehabil** 1999 Feb; 13(1):5-15. Comment in: Clin Rehabil 1999 Feb;13(1):2-4.

What is special about a specialist in rehabilitation? [editorial; comment] Wade DT. **Clin Rehabil** 1999 Feb;13(1):2-4. Comment on: Clin Rehabil 1999 Feb;13(1):5-15.

Evidence relating to goal planning in rehabilitation [editorial] Wade DT. **Clin Rehabil** 1998 Aug;12(4):273-5

Outcome measurement and rehabilitation [editorial] Wade DT. **Clin Rehabil** 1999 Apr;13(2):93-5

A framework for considering rehabilitation interventions [editorial] Wade DT. **Clin Rehabil** 1998 Oct;12(5):363-8

What does a home mean and when does it cease to be a home? Home as a setting for rehabilitation and care. Tamm M. **Disabil Rehabil** 1999 Feb;21(2):49-55 (33 ref.)

Approaches to psychosocial rehabilitation. Campo DD, et al. **Harv Rev Psychiatry** 1997 Mar-Apr;4(6):328-33

Collaboration in community based rehabilitation agencies. Boyce W, et al. **Int J Rehabil Res** 1998 Mar;21(1):1-11

Habilitation and management of auditory processing disorders: overview of selected procedures. Musiek F. **J Am Acad Audiol** 1999 Jun;10(6):329-42 (32 ref.)

Enthusiasm in rehabilitation in the era of managed care. Banja JD. **J Head Trauma Rehabil** 1998 Apr;13(2):91-6

Rehabilitation research and development progress reports 1997. **J Rehabil Res Dev** 1998 Jul;35:1-357

Functional status and its uses in rehabilitation medicine. Eastwood EA. **Mt Sinai J Med** 1999 May;66(3):179-87 (23 ref.)

Geriatrics and rehabilitation medicine: common interests, common goals. Frieden RA. **Mt Sinai J Med** 1999 May; 66(3):145-51

Community-Based Rehabilitation [editorial] Jacobs NA. **Prosthet Orthot Int** 1998 Dec;22(3):177

Psychoendocrine concomitants in patients following a new design of a geriatric day-care unit. Lökk J. **Psychother Psychosom** 1998;67(6):323-7

The use of PC based VR in clinical medicine: the VREPAR projects. Riva G, et al. **Technol Health Care** 1999;7(4):261-9 (58 ref.)

[Progress in the study on health preserving and recovery by integrated traditional and Western medicine] Zhou WQ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar;17(3):131-5 (Eng. Abstr.) **(Chi)**

[Freiburg/Bad Säckingen Scientific Rehabilitation Research Group] Bengel J, et al. **Rehabilitation (Stuttg)** 1998 Nov; 37 Suppl 2:S78-83 (Eng. Abstr.) **(Ger)**

[7th European Regional Conference of International Rehabilitation with Assembly and Panel Meetings 1998 from 29 November to 4 December 1998 in Jerusalem] Schmollinger M, et al. **Rehabilitation (Stuttg)** 1999 May; 38(2):141-4 **(Ger)**

[Rehabilitation, regional political exercise (letter; comment)] Arnesen AR. **Tidsskr Nor Laegeforen** 1998 Oct 10; 118(24):3833. Comment on: Tidsskr Nor Laegeforen 1998 Aug 20;118(19):2937. **(Nor)**

[Rehabilitation as a practice in district policy (letter; comment)] Dyrnes OJ. **Tidsskr Nor Laegeforen** 1998 Nov 30;118(29):4562. Comment on: Tidsskr Nor Laegeforen 1998 aug 20;118(19):2937. **(Nor)**

[Research and practical conference on "The Modern Technologies in Rehabilitation Medicine] Burtsev VI, et al. **Klin Med (Mosk)** 1999;77(2):57-60 **(Rus)**

ECONOMICS

Case-mix in rehabilitation: alternative ways of achieving the same goals [editorial; comment] Wade DT. **Clin Rehabil** 1999 Jun;13(3):183-5 (5 ref.). Comment on: Clin Rehabil 1999 Jun;13(3):253-65.

Socioeconomic inequalities and disability pension in middle-aged men. Månsson NO, et al. **Int J Epidemiol** 1998 Dec;27(6):1019-25

[1,4 billions crowns to 1 881 projects renew rehabilitation and habilitation] Wallgrund G, et al. **Lakartidningen** 1999 Apr 14;96(15):1823 **(Swe)**

EDUCATION

Evidence-based medicine in physiatry: the experience of one department's faculty and trainees. DeLisa JA, et al. **Am J Phys Med Rehabil** 1999 May-Jun;78(3):228-32

Ten years on and more: establishing programmes of rehabilitation education: the New Zealand case. Gregory RJ. **Disabil Rehabil** 1998 Oct;20(10):385-90 (12 ref.)

[University research and education in rehabilitation technology: inducing ISO 9001 conformity and initial experiences with a certified quality management system] Howorka K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:570-1 **(Ger)**

HISTORY

Physical medicine and rehabilitation at the Mount Sinai medical center during the 20th century. Ragnarsson KT. **Mt Sinai J Med** 1999 May;66(3):139-44

INSTRUMENTATION

Measuring first ray mobility with a new device. Glasoe WM, et al. **Arch Phys Med Rehabil** 1999 Jan;80(1):122-4

Development of an advanced mechanised gait trainer, controlling movement of the centre of mass, for restoring gait in non-ambulant subjects. Hesse S, et al. **Biomed Tech (Berl)** 1999 Jul-Aug;44(7-8):194-201

Efficacy outcome and sex difference in learning of hypermedia programming skills. Tam SF. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):855-8

LEGISLATION & JURISPRUDENCE

[The object and goals of rehabilitation. Rehabilitation in health insurance under law] Erbe M. **Dtsch Med Wochenschr** 1999 May 21;124(20):643-4 **(Ger)**

[Public health structural reform and health insurance--corner stones of the German Society of Rehabilitation of Handicapped Persons] **Rehabilitation (Stuttg)** 1999 May; 38(2):127-30 **(Ger)**

["Supporting the rights of the handicapped"--memorandum by the German Society of Rehabilitation of Handicapped Persons] **Rehabilitation (Stuttg)** 1999 May;38(2):131-2 **(Ger)**

[Recommendations of the German Society of Rehabilitation of Handicapped for establishing a qualified ambulatory community rehabilitation] **Rehabilitation (Stuttg)** 1999 May; 38(2):133-5 **(Ger)**

[Expert assessment of rehabilitation for social medicine legal experts--a discussion contribution to quality assurance. From the Quality Management Study Group of the German Society of Social Medicine and Prevention] Berg A, et al. **Rehabilitation (Stuttg)** 1999 May;38(2):107-26 **(Ger)**

[Rehabilitation management as a new benefit of mandatory automobile driver and accident insurance (editorial)] Budel M. **Versicherungsmedizin** 1999 Jun 1;51(2):57-8 **(Ger)**

[The individual program for the rehabilitation of the disabled (in place of a review)] Semenov BN. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan-Feb;(1):36 **(Rus)**

METHODS

Gait analysis in rehabilitation medicine: a brief report. Cooper RA, et al. **Am J Phys Med Rehabil** 1999 May–Jun; 78(3):278–80

Neural network applications in physical medicine and rehabilitation. Ohno–Machado L, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):392–8 (38 ref.)

The elixir of laughter [letter; comment] Basmajian JV. **Arch Phys Med Rehabil** 1999 May;80(5):608. Comment on: Arch Phys Med Rehabil 1998 Dec;79(12):1597.

The elixir of laughter in rehabilitation [see comments] Basmajian JV. **Arch Phys Med Rehabil** 1998 Dec; 79(12):1597. Comment in: Arch Phys Med Rehabil 1999 May;80(5):608.

Quality of life: theory and methodology in rehabilitation. Tam SF. **Int J Rehabil Res** 1998 Dec;21(4):365–74

Functional reach improvement in normal older women after Alexander Technique instruction. Dennis RJ. **J Gerontol A Biol Sci Med Sci** 1999 Jan;54(1):M8–11

Exercise in the rehabilitation of breast cancer survivors. Pinto BM, et al. **Psychooncology** 1999 May–Jun;8(3):191–206 (89 ref.)

NURSING

Rehabilitation, chronic illness and disability: the missing elements in nurse education. Nolan M, et al. **J Adv Nurs** 1999 Apr;29(4):958–66 (52 ref.)

ORGANIZATION & ADMINISTRATION

Are stroke patients discharged sooner if in–patient rehabilitation services are provided seven v six days per week? Ruff RM, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):143–6

Failure to adhere to rehabilitation principles––painful lessons learned: a commentary. Teasell RW, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):166–8

The International Rehabilitation Medicine Association (IRMA): news and views [news] Jones D. **Disabil Rehabil** 1998 Nov;20(11):431–3

State–coordinated services for traumatic brain injury survivors: toward a model delivery system. Murrey GJ, et al. **J Head Trauma Rehabil** 1998 Dec;13(6):72–81

Homecare online: a new twist on house calls. Kiel JM. **MD Comput** 1999 Jul–Aug;16(4):21–2

[The organization of rehabilitation. Rehabilitation in statutory health insurance] Erbe M. **Dtsch Med Wochenschr** 1999 Apr 23;124(16):508–9 **(Ger)**

[Early rehabilitation in the hospital––time for structural changes] Fuhrmann R, et al. **Rehabilitation (Stuttg)** 1999 May;38(2):65–71 (Eng. Abstr.) **(Ger)**

[The diagnostic report as an aid for determination of referral to inpatient rehabilitation] Petermann F, et al. **Rehabilitation (Stuttg)** 1999 Feb;38(1):1–6 (Eng. Abstr.) **(Ger)**

[The rationalization of the management of the patient rehabilitation process at a sanatorium based on computer technology] Borisov VA. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Mar–Apr; (2):35–9 **(Rus)**

[The shaping of individual rehabilitation programs as the direction in the work of sociomedical expertise bureaus] Guseva NK, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan–Feb;(1):33–6 **(Rus)**

PSYCHOLOGY

The elixir of laughter in rehabilitation [see comments] Basmajian JV. **Arch Phys Med Rehabil** 1998 Dec; 79(12):1597. Comment in: Arch Phys Med Rehabil 1999 May;80(5):608.

The elixir of laughter [letter; comment] Basmajian JV. **Arch Phys Med Rehabil** 1999 May;80(5):608. Comment on: Arch Phys Med Rehabil 1998 Dec;79(12):1597.

Oncology Rehabilitation Program at the Ottawa Regional Cancer Centre: program description. Segal R, et al. **CMAJ** 1999 Aug 10;161(3):282–5

The attitudes of community based rehabilitation workers towards people with disabilities in south India. Paterson J, et al. **Int J Rehabil Res** 1999 Jun;22(2):85–91

[Personality and rehabilitation in young adults with renal replacement therapy] Naumann EG, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Mar;48(3):155–62 (Eng. Abstr.) **(Ger)**

STANDARDS

Changes in services for students with learning disabilities in U.S. and Canadian medical schools, 1991 to 1997. Faigel HC. **Acad Med** 1998 Dec;73(12):1290–3

[Standards and guidelines for cardiac rehabilitation. Working Group on Cardiac Rehabilitation of the European Society for Cardiology] Ceci V, et al. **Cardiologia** 1999 Jun; 44(6):579–84 **(Ita)**

[New possibilities to measure the quality of rehabilitation. Quality criteria and standards are established] Bjerre I, et al. **Lakartidningen** 1999 Apr 14;96(15):1833–6 **(Swe)**

STATISTICS & NUMERICAL DATA

Uniform Data System for Medical Rehabilitation: report of first admissions for 1997. Fiedler RC, et al. **Am J Phys Med Rehabil** 1998 Sep–Oct;77(5):444–50

Uniform Data System for Medical Rehabilitation: report of first admissions to subacute rehabilitation for 1995, 1996 and 1997. Iwanenko W, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):384–8

Using IRT variable maps to enrich understanding of rehabilitation data. Coster W, et al. **J Outcome Meas** 1999; 3(2):123–33

[Proposed design for a randomized effectiveness study in social medicine] Michel E. **Gesundheitswesen** 1998 Aug–Sep;60(8–9):482–5 (Eng. Abstr.) **(Ger)**

TRENDS

ACRM presidential address. In the clothing of challenge. American Congress of Rehabilitation Medicine [published erratum appears in Arch Phys Med Rehabil 1999 Apr;80(4):474] Cole TM. **Arch Phys Med Rehabil** 1999 Feb; 80(2):127–9

The 31st Walter J. Zeiter Lecture. Issues and challenges for physiatry in the coming decade. DeLisa JA. **Arch Phys Med Rehabil** 1999 Jan;80(1):1–12 (101 ref.)

Justifying neurorehabilitation: a few steps forward [editorial; comment] Aisen ML. **Neurology** 1999 Jan 1;52(1):8–10. Comment on: Neurology 1999 Jan 1;52(1):57–62.

[Determinations in the applications for a medical rehabilitation––screening of blue color workers in the statutory pension insurance in Schleswig–Holstein] Zimmermann M, et al. **Gesundheitswesen** 1999 Jun; 61(6):292–8 (Eng. Abstr.) **(Ger)**

[Dermatologic rehabilitation––chances in crisis (editorial)] Buslau M. **Hautarzt** 1999 Jan;50(1):2–4 (Eng. Abstr.) **(Ger)**

[The "rehabilitation sciences" promotional emphasis––a promotional program and its implementation] Buschmann–Steinhage R, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S71–7 (Eng. Abstr.) **(Ger)**

[The North German Group for Rehabilitation Research] Deck R, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S92–6 **(Ger)**

[Introduction of the Bavarian Scientific Rehabilitation Group] Faller H, et al. **Rehabilitation (Stuttg)** 1998 Nov; 37 Suppl 2:S97–103 (Eng. Abstr.) **(Ger)**

[North Rhine–Westphalia Scientific Rehabilitation Group––"future strategies for rehabilitation"] Fischer J, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S104–10 (Eng. Abstr.) **(Ger)**

[Ulm Scientific Rehabilitation Research Group––"building blocks in rehabilitation"] Jacobi E, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S111–6 (Eng. Abstr.) **(Ger)**

[Current status and progress in scientific rehabilitation research] Koch U, et al. **Rehabilitation (Stuttg)** 1998 Nov; 37 Suppl 2:S66–70 (Eng. Abstr.) **(Ger)**

[Lower Saxony/Bremen Scientific Rehabilitation Research Group] Petermann F, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S117–21 (Eng. Abstr.) **(Ger)**

[Saxony–Anhalt/Necklenburg–Vorpommern Scientific Rehabilitation Research Groups] Slesina W, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S122–7 (Eng. Abstr.) **(Ger)**

[Definition of rehabilitation––relevant concepts. Fundamental improvement of the process quality] Moorahrend U. **Unfallchirurg** 1999 Mar;102(3):225–6 **(Ger)**

[The rehabilitation of older people] Meier–Baumgartner HP. **Versicherungsmedizin** 1999 Mar 1;51(1):24–9 (24 ref.) (Eng. Abstr.) **(Ger)**

[Quality management in medical rehabilitation] Jäckel WH, et al. **Z Rheumatol** 1998 Oct;57(5):345–50 (Eng. Abstr.) **(Ger)**

[The outlook for the use of the natural therapeutic resources of northern Tomsk Province for the rehabilitation of children and women (the Children of the North Federal Targetted Program)] Kapilevich LV, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 May–Jun; (3):41–3 **(Rus)**

[The concept and methodology of the development of health–improving (recuperative) medicine] Piskunov VA. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Mar–Apr; (2):39–41 **(Rus)**

REHABILITATION CENTERS

Discharge disposition from model spinal cord injury care system rehabilitation programs. DeVivo MJ. **Arch Phys Med Rehabil** 1999 Jul;80(7):785–90

More than a sympathetic ear? A report on the first year of a writer in residence in a unit for young, physically disabled people. Chesson R, et al. **Clin Rehabil** 1999 Aug; 13(4):310–21

Measuring outcome in community–based rehabilitation services for people who have suffered traumatic brain injury: the Community Outcome Scale. Stilwell P, et al. **Clin Rehabil** 1998 Dec;12(6):521–31

Oncology Rehabilitation Program at the Ottawa Regional Cancer Centre: program description. Segal R, et al. **CMAJ** 1999 Aug 10;161(3):282–5

Interdisciplinary pilot project in a rehabilitation setting. Cox PD, et al. **J Allied Health** 1999 Spring;28(1):25–9

Dynamics of functional recovery from stroke in specialist settings [letter] Patel M, et al. **J Am Geriatr Soc** 1999 Feb; 47(2):260–1

Turning victims into victors. el–Hai J. **Minn Med** 1999 Jul; 82(7):14–9

Active back school: prophylactic management for low back pain. A randomized, controlled, 1–year follow–up study. Lønn JH, et al. **Spine** 1999 May 1;24(9):865–71

[Virkersund Spa. Changes in patient admission and therapeutic outcome over the last 15 years] Nilsen KH. **Tidsskr Nor Laegeforen** 1999 Jun 30;119(17):2465–8 (Eng. Abstr.) **(Nor)**

ECONOMICS

Economic consequences of early inpatient discharge to community–based rehabilitation for stroke in an inner–London teaching hospital. Beech R, et al. **Stroke** 1999 Apr;30(4):729–35

[Impact of hospital infection on medical expenditures in a continuing care and rehabilitation service at a geriatric hospital] Le Gonidec P, et al. **Pathol Biol (Paris)** 1998 Jun; 46(6):398–402 (Eng. Abstr.) **(Fre)**

MANPOWER

Assessing needs for interdisciplinary team training in children's rehabilitation: a pilot study. De Moor J, et al. **Int J Rehabil Res** 1999 Jun;22(2):93–100

[The manual lifting of patients: the results of an assessment of exposure to the specific risk and of a clinical study in a rehabilitative institute] Fortuna R, et al. **Med Lav** 1999 Mar–Apr;90(2):317–29 (Eng. Abstr.) **(Ita)**

ORGANIZATION & ADMINISTRATION

Dangers of inpatient rehabilitation industry consolidation [letter; comment] Batavia AI. **Health Aff (Millwood)** 1998 Sep–Oct;17(5):256–7. Comment on: Health Aff (Millwood) 1998 May–Jun;17(3):209–15.

Development of a burn rehabilitation unit: impact on burn center length of stay and functional outcome. DeSanti L, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):414–9

Young people with spina bifida: transfer from paediatric to adult health care. Sawyer SM, et al. **J Paediatr Child Health** 1998 Oct;34(5):414–7

Congenital muscular dystrophy. Care of children and families. Eeg–Olofsson KE. **Scand J Rehabil Med Suppl** 1999;39:53–7 (20 ref.)

[Integration of stroke unit and rehabilitation in a single clinic––a new model? (editorial; comment)] Busse O. **Nervenarzt** 1999 Feb;70(2):87–8. Comment on: Nervenarzt 1999 Feb;70(2):149–54. **(Ger)**

[Stroke treatment with stroke unit and rehabilitation by a team. A model for a staged management (see comments)] von Reutern GM, et al. **Nervenarzt** 1999 Feb;70(2):149–54 (Eng. Abstr.). Comment in: Nervenarzt 1999 Feb;70(2):87–8. **(Ger)**

[The quality of integration and care in workshops for the handicapped––The path to TQM in the workshops of the Gemeinschaftswerks fu"r Be– hinderte GmbH, Landstuhl] Ruprecht B, et al. **Rehabilitation (Stuttg)** 1999 Feb; 38(1):7–15 (Eng. Abstr.) **(Ger)**

STANDARDS

Using quality function deployment to capture the voice of the customer and translate it into the voice of the provider. Chaplin E, et al. **Jt Comm J Qual Improv** 1999 Jun; 25(6):300–15

Stroke survival after discharge from an acute–care hospital. Lai SM, et al. **Neuroepidemiology** 1999;18(4):210–7

STATISTICS & NUMERICAL DATA

Uniform Data System for Medical Rehabilitation: report of first admissions to subacute rehabilitation for 1995, 1996 and 1997. Iwanenko W, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):384–8

Weaning from mechanical ventilation in a general rehabilitation center: a commentary. Merveille OC, et al. **Am J Phys Med Rehabil** 1999 Jan–Feb;78(1):85–6

Hypothyroidism: its incidence and prevalence in adults older than 55 years of age in an acute rehabilitation unit. Cristian A, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):468–9

TRENDS

[Cooperation between the family physician, rheumatologist, hospital and rehabilitation clinic. Contribution of regional cooperative rheumatic disease centers for total quality management] Hülsemann JL. **Z Rheumatol** 1998 Dec; 57(6):424–7 (Eng. Abstr.) **(Ger)**

UTILIZATION

Decreasing length of stay after total joint arthroplasty: effect on referrals to rehabilitation units. Forrest GP, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):192–4

Stroke rehabilitation: clinical predictors of resource utilization. Harvey RL, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1349–55

Cardiac rehabilitation: socially deprived patients are less likely to attend but patients ineligible for thrombolysis are less likely to be invited. Melville MR, et al. **Heart** 1999 Sep;82(3):373–7

REHABILITATION CENTERS, DRUG see **SUBSTANCE ABUSE TREATMENT CENTERS**

REHABILITATION NURSING

EDUCATION

Effect of a physiotherapist-led training programme on attitudes of nurses caring for patients after stroke. Forster A, et al. **Clin Rehabil** 1999 Apr;13(2):113–22

STANDARDS

The Northwick Park Dependency Score (NPDS): a measure of nursing dependency in rehabilitation. Turner-Stokes L, et al. **Clin Rehabil** 1998 Aug;12(4):304–18

STATISTICS & NUMERICAL DATA

The Northwick Park Dependency Score (NPDS): a measure of nursing dependency in rehabilitation. Turner-Stokes L, et al. **Clin Rehabil** 1998 Aug;12(4):304–18

REHABILITATION OF HEARING IMPAIRED

Do we know the real need for hearing rehabilitation at the population level? Hearing impairments in the 5- to 75-year-old cross-sectional Finnish population. Uimonen S, et al. **Br J Audiol** 1999 Feb;33(1):53–9

Comparing the performance of the Widex SENSO digital hearing aid with analog hearing aids. Valente M, et al. **J Am Acad Audiol** 1998 Oct;9(5):342–60

More on 'the invisible disability' [letter; comment] Sigmund S. **Postgrad Med** 1998 Nov;104(5):49–50. Comment on: Postgrad Med 1998 Sep;104(3):81–3, 87–90.

Self-reported need of information, counselling and education: needs and interests of re-applicants. Dahl B, et al. **Scand Audiol** 1998;27(3):143–51

Aural rehabilitation in the elderly: supply of hearing aids related to measured need and self-assessed hearing problems. Karlsson AK, et al. **Scand Audiol** 1998; 27(3):153–60

Audiology in an ecological perspective--development of a conceptual framework. Borg E. **Scand Audiol Suppl** 1998; 49:132–9

Hearing impairment, emotions and audiological rehabilitation: a sociological perspective. Danermark BD. **Scand Audiol Suppl** 1998;49:125–31 (32 ref.)

Reflections on evaluative research in audiological rehabilitation. Gagné JP. **Scand Audiol Suppl** 1998;49:69–79 (41 ref.)

[Guidelines/algorithms of the German Society of Otorhinolaryngology, Head and Neck Surgery. Guideline: hearing aid management. German Society of Otorhinolaryngology, Head and Neck Surgery] Ganzer U. **Laryngorhinootologie** 1999 Apr;78(4):224–6 **(Ger)**

[Promotion and therapy of children with hearing loss (hearing aids)--statement of the DVfR Study Committee of Hearing, Voice and Speech Disorders] Salz W. **Rehabilitation (Stuttg)** 1999 May;38(2):136–40 **(Ger)**

[20-year-long professional experience of the Regional Center of Education of the Deaf and Hearing Aids] Pekarskil SI, et al. **Vestn Otorinolaringol** 1998;(5):61–2 **(Rus)**

LEGISLATION & JURISPRUDENCE

[Promotion and therapy of children with hearing loss (hearing aids)--statement of the DVfR Study Committee of Hearing, Voice and Speech Disorders] Salz W. **Rehabilitation (Stuttg)** 1999 May;38(2):136–40 **(Ger)**

METHODS

Hearing loss in working life--some aspects of audiological rehabilitation. Backenroth GA, et al. **Int J Rehabil Res** 1998 Sep;21(3):331–3

Decreased use of hearing aids following training in hearing tactics. Andersson G. **Percept Mot Skills** 1998 Oct; 87(2):703–6

REHABILITATION OUTCOME see **TREATMENT OUTCOME**

REHABILITATION, VOCATIONAL

see related
EMPLOYMENT
SHELTERED WORKSHOPS

Assisting persons living with HIV/AIDS to return to work: programmatic steps for AIDS service organizations. Brooks RA, et al. **AIDS Educ Prev** 1999 Jun;11(3):212–23

A randomized clinical trial of supported employment for inner-city patients with severe mental disorders. Drake RE, et al. **Arch Gen Psychiatry** 1999 Jul;56(7):627–33

Measures of executive functioning as predictors of functional ability and social integration in a rehabilitation sample. Hanks RA, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):1030–7

Mild traumatic brain injury from motor vehicle accidents: factors associated with return to work. Ruffolo CF, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):392–8

Purposeful activity for people with enduring mental health problems: reflections from a case study. Mitchell D. **Arch Psychiatr Nurs** 1998 Oct;12(5):282–7 (26 ref.)

Prediction of community integration and vocational outcome 2–5 years after traumatic brain injury rehabilitation in Australia. Fleming J, et al. **Brain Inj** 1999 Jun;13(6):417–31

Occupational asthma: a longitudinal study on the clinical and socioeconomic outcome after diagnosis. Moscato G, et al. **Chest** 1999 Jan;115(1):249–56

Work and social support: a comparison of consumers who have achieved stability in ACT and clubhouse programs. Stein LI, et al. **Community Ment Health J** 1999 Apr; 35(2):193–204

The effect of vocational rehabilitation on later sick leave. Selander J, et al. **Disabil Rehabil** 1999 Apr;21(4):175–80

Vocational rehabilitation of people with traumatic brain injury. Hunstiger T, et al. **Hawaii Med J** 1998 Sep; 57(9):618–20, 622–3

Does the Americans with Disabilities Act accommodate depressed workers? Croghan TW, et al. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):249–53

Predictors of early retirement and rehabilitation for use in a screening to detect workers in need of rehabilitation. Biefang S, et al. **Int J Rehabil Res** 1998 Mar;21(1):13–27

Employment outcomes following spinal cord injury. Engel S, et al. **Int J Rehabil Res** 1998 Jun;21(2):223–9

Integration into work of unemployed new immigrant women from single parent families. Taler Y. **Int J Rehabil Res** 1998 Jun;21(2):195–209

Enhancing work outcome for three persons with traumatic brain injury. Target P, et al. **Int J Rehabil Res** 1998 Mar; 21(1):41–50

Integration of unemployed persons with disabilities into the labour market in Slovenia. Uršič C. **Int J Rehabil Res** 1998 Dec;21(4):415–8

Neuropsychological impairments, vocational outcomes, and financial costs for individuals with traumatic brain injury receiving state vocational rehabilitation services. Johnstone B, et al. **J Head Trauma Rehabil** 1999 Jun;14(3):220–32

The functional consequences of memory impairments on initial work performance in people with schizophrenia. Bryson G, et al. **J Nerv Ment Dis** 1998 Oct;186(10):610–5

Time perspective of female prisoners related to success in a training program. Chubick JD, et al. **Percept Mot Skills** 1999 Apr;88(2):648–50

Employment outcomes for clients with severe mental illness in a PACT model replication. Program for Assertive Community Treatment. Becker RE, et al. **Psychiatr Serv** 1999 Jan;50(1):104–6

Personality and psychosocial dysfunction in schizophrenia: the association of extraversion and neuroticism to deficits in work performance. Lysaker PH, et al. **Psychiatry Res** 1998 Jul 27;80(1):61–8

Has increased focus on vocational rehabilitation led to an increase in young employees' return to work after work-related disorders? Ahlgren C, et al. **Scand J Public Health** 1999 Sep;27(3):220–7

The impact of work-related rehabilitation on the quality of life of patients with schizophrenia. Holzner B, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):624–31

[Rehabilitation and the socio-occupational reintegration of workers who have had a myocardial infarct: a pilot study] Dumont S, et al. **Can J Cardiol** 1999 Apr;15(4):453–61 (Eng. Abstr.) **(Fre)**

[Backache--multimodal therapy stops pain career. Severity of the illness does not determine return to work. Pain therapy series, 1: Occupational prognosis in chronic backache] Friebe H. **Fortschr Med** 1998 Oct 20; 116(29):60–1 **(Ger)**

[Outcome of a four-week ambulatory cardiac rehabilitation (phase II) on cardiovascular risk factors, physical fitness and occupational reintegration in patients after myocardial infarct, dilatation treatment and heart operation] Gysan DB, et al. **Herz** 1999 Apr;24 Suppl 1:44–56 (Eng. Abstr.) **(Ger)**

[Rehabilitation with the "Ennepetal model"] Karoff M. **Herz** 1999 Apr;24 Suppl 1:67–72 (Eng. Abstr.) **(Ger)**

[Effectiveness of secondary preventive programs for patients with asthma and rhinitis in the baking industry] Grieshaber R, et al. **Pneumologie** 1998 Nov;52(11):656–65 (Eng. Abstr.) **(Ger)**

[Effectiveness of secondary prevention programs for asthma and rhinitis in the baking industry. Pneumology 52 (1998) 656–65 (letter)] Nowak D. **Pneumologie** 1999 Jul; 53(7):M45–6 **(Ger)**

[What are the goals of psychiatric rehabilitation, and which have been accomplished?] Priebe S. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S36–40 (17 ref.) **(Ger)**

[Occupational rehabilitation of former drug addicts--experiences of the Isney Stephanuswerk] Eckstein B. **Rehabilitation (Stuttg)** 1998 Nov;37(4):205–9 (Eng. Abstr.) **(Ger)**

[Rehabilitation for psychiatric and handicapped patients."Haus Schütz" study of experiences and follow-up of rehabilitation of psychiatric and handicapped patient care 1992–1995] Gobes K. **Rehabilitation (Stuttg)** 1998 Nov; 37(4):192–8 (Eng. Abstr.) **(Ger)**

[Comment on J. Scheibe and H. W. Minne: On work capacity assessment of patients with osteoporosis (letter)] Breckner J. **Versicherungsmedizin** 1998 Oct 1;50(5):195–6 **(Ger)**

[Mathematical model for prognostication of work capacity recovery in patients with myocardial infarct] Rusiak IG, et al. **Med Tekh** 1999 Jul-Aug;(4):6–10 (Eng. Abstr.) **(Rus)**

[Development of a system for medico-social rehabilitation of industrial workers] Preobrzhenskaia VS, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Sep–Oct;(5):3–6 **(Rus)**

ECONOMICS

Contingent valuation as a method for measuring the effects of rehabilitation. Lindholm C, et al. **Int J Rehabil Res** 1998 Mar;21(1):87–91

[Occupational reintegration of mentally disabled in the labor market] Lüpkes HA. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S16–20 **(Ger)**

[Significance of work for mentally ill people in social relationships. Sociological commentary on vocational rehabilitation] von Kardorff E. **Psychiatr Prax** 1999 Apr; 26 Suppl 1:S25–9 **(Ger)**

METHODS

Promoting enjoyment and self-belief through work rehabilitation. Mitchell D. **Arch Psychiatr Nurs** 1998 Dec; 12(6):344–50

Mentoring in the context of a training programme for young unemployed adults with physical disability. Cullen LA, et al. **Int J Rehabil Res** 1998 Dec;21(4):389–91

Sustaining and improving working capacity--programme description and two years follow-up. Danner R, et al. **Int J Rehabil Res** 1999 Mar;22(1):33–8

Work dysfunction and addiction. Common roots. Comerford AW. **J Subst Abuse Treat** 1999 Apr;16(3):247–53 (64 ref.)

Return to work after surgery for lumbar disc herniation. A rehabilitation-oriented approach in insurance medicine. Donceel P, et al. **Spine** 1999 May 1;24(9):872–6

[Psychiatric vocational therapy--concepts, practice and scientifically-based results] Reker T. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S12–5 (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

Promoting enjoyment and self-belief through work rehabilitation. Mitchell D. **Arch Psychiatr Nurs** 1998 Dec; 12(6):344–50

A model for diagnostics in neurological rehabilitation: an answer to 'the biopsychosocial disease consequence model in rehabilitation' of Talo et al [comment] Faby S. **Int J Rehabil Res** 1998 Jun;21(2):113–26. Comment on: Int J Rehabil Res 1996 Jun;19(2):93–109.

[Faces of work in the psychiatry, yesterday-today-tomorrow] Dörner K. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S3–6 **(Ger)**

STANDARDS

Consumers as mental health providers: first-person accounts of benefits and limitations. Mowbray CT, et al. **J Behav Health Serv Res** 1998 Nov;25(4):397–411

Relation between indicators for quality of occupational rehabilitation of employees with low back pain. van der Weide WE, et al. **Occup Environ Med** 1999 Jul;56(7):488–93

Mental health consumers as peer interviewers. Lecomte T, et al. **Psychiatr Serv** 1999 May;50(5):693–5

[Vocational rehabilitation of mentally ill or mentally disabled persons from a functional perspective. Task Force 'Mental Disabilities', German Society for the Rehabilitation of the Disabled] **Rehabilitation (Stuttg)** 1999 Feb;38(1):44–6 **(Ger)**

STATISTICS & NUMERICAL DATA

[Back pain in industry: prevalence, correlation with work conditions and requests for reassignment by employees] Wanek V, et al. **Gesundheitswesen** 1998 Aug-Sep; 60(8–9):513–22 (Eng. Abstr.) **(Ger)**

TRENDS

Word from Washington. Croser MD. **Ment Retard** 1999 Feb; 37(1):52–61

[Occupational status of Saxony social psychiatry service clients as a result of the reunification of Germany] Kallert TW, et al. **Psychiatr Prax** 1999 May;26(3):133–8 (Eng. Abstr.) **(Ger)**

["Out of the picture"--self-evaluation of the occupational status of chronic schizophrenic patients in united Germany] Riedel SG, et al. **Psychiatr Prax** 1998 Nov;25(6):286–90 (Eng. Abstr.) **(Ger)**

[30 years rehabilitation preparatory courses and their role in the future exemplified by the Hamburg vocational promotion center] Bützer B. **Rehabilitation (Stuttg)** 1998 Nov;37(4):210–5 (Eng. Abstr.) **(Ger)**

REHYDRATION see **FLUID THERAPY**

REHYDRATION, ORAL see **FLUID THERAPY**

REHYDRATION SOLUTIONS

Rehydration of moderately dehydrated children with transient glucose intolerance using rice oral rehydration solution. Yurdakök K, et al. **Acta Paediatr** 1999 Jan; 88(1):34–7

Crystalloids vs. colloids in fluid resuscitation: a systematic review [see comments] Choi PT, et al. **Crit Care Med** 1999 Jan;27(1):200–10. Comment in: Crit Care Med 1999 Jan;27(1):34–5.

Experience in running a Diarrhoeal Training cum Treatment Unit (DTTU) in a state teaching hospital in Calcutta. Sengupta B, et al. **J Indian Med Assoc** 1998 Apr; 96(4):104–5, 108

ADMINISTRATION & DOSAGE

Intravenous versus oral rehydration [letter; comment] Nagra IS. **Br J Sports Med** 1998 Sep;32(3):265. Comment on: Br J Sports Med 1998 Mar;32(1):77–81.

Subcutaneous fluid administration--better than the intravenous approach? Jain S, et al. **J Hosp Infect** 1999 Apr;41(4):269–72 (13 ref.)

Efficacy and safety of oral rehydration solution with reduced osmolarity in adults with cholera: a randomised double-blind clinical trial. CHOICE study group. Alam NH, et al. **Lancet** 1999 Jul 24;354(9175):296–9

Perioperative rehydration in ambulatory anesthesia for dentoalveolar surgery. Bennett J, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Sep;88(3):279–84

Fluid and electrolyte balance for adults (without a biochemical laboratory). Tovey F. **Trop Doct** 1999 Jan; 29(1):49–53 (0 ref.)

ADVERSE EFFECTS

Precipitation of refeeding-associated electrolyte abnormalities with intravenous hydration [letter] Duerksen DR, et al. **Am J Med** 1998 Nov;105(5):455–7

Precipitation of refeeding-associated electrolyte abnormalities with intravenous hydration [letter] Matz R. **Am J Med** 1999 Sep;107(3):302

Adverse effects of albumin--uncertain times [letter] Street AM, et al. **Med J Aust** 1999 Apr 19;170(8):398–9

CHEMISTRY

Plasma volume expansion with oral fluids in hypohydrated men at rest and during exercise. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Sep;69(9):837–44

PHARMACOKINETICS

Distribution of normal saline and 5% albumin infusions in septic patients [see comments] Ernest D, et al. **Crit Care Med** 1999 Jan;27(1):46–50. Comment in: Crit Care Med 1999 Jan;27(1):3.

Crystalloids, colloids, and fluid compartments [editorial; comment] Weil MH. **Crit Care Med** 1999 Jan;27(1):3. Comment on: Crit Care Med 1999 Jan;27(1):46–50.

STANDARDS

First do no harm: making oral rehydration solution safer in a cholera epidemic. Daniels NA, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):1051–5

THERAPEUTIC USE

Management of gastroenteritis in breast-fed children [letter; comment] Saenz RB. **Am Fam Physician** 1999 Apr 1; 59(7):1754, 1756. Comment on: Am Fam Physician 1998 Nov 15;58(8):1769–76.

Management of childhood diarrhea and use of oral rehydration salts in a suburban West African community. Sodemann M, et al. **Am J Trop Med Hyg** 1999 Jan; 60(1):167–71

Management of acute diarrhoea with low osmolarity oral rehydration solutions and Lactobacillus strain GG. Rautanen T, et al. **Arch Dis Child** 1998 Aug;79(2):157–60

Plasma volume expansion with oral fluids in hypohydrated men at rest and during exercise. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Sep;69(9):837–44

Sodium chloride-citrate beverages attenuate hypovolemia in men resting 12 h at 2800 m altitude. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Oct;69(10):936–43

Crystalloids, colloids and kids: a review of paediatric burns in intensive care. Cocks AJ, et al. **Burns** 1998 Dec; 24(8):717–24

The comparison of early fluid therapy in extensive flame burns between inhalation and noninhalation injuries. Dai NT, et al. **Burns** 1998 Nov;24(7):671–5

Crystalloid-colloid controversy revisited [editorial; comment] Astiz ME, et al. **Crit Care Med** 1999 Jan; 27(1):34–5. Comment on: Crit Care Med 1999 Jan;27(1):200–10.

A clinical comparative study between crystalloid and blood-based St Thomas' hospital cardioplegic solution. Ibrahim MF, et al. **Eur J Cardiothorac Surg** 1999 Jan; 15(1):75–83

Comparative study of rice-based oral rehydration salt solution versus glucose-based oral rehydration salt solution (WHO) in children with acute dehydrating diarrhoea. Sharma A, et al. **J Indian Med Assoc** 1998 Dec;96(12):367–8

Treatment of neonatal calf diarrhea with an oral electrolyte solution supplemented with psyllium mucilloid. Cebra ML, et al. **J Vet Intern Med** 1998 Nov-Dec;12(6):449–55

Are you overlooking oral rehydration therapy in childhood diarrhea? It's not just for use in developing countries. Endsley S, et al. **Postgrad Med** 1998 Oct;104(4):159–62, 165–6, 171

[A baobab solution for the prevention and treatment of acute dehydration in infantile diarrhea] Tal-Dia A, et al. **Dakar Med** 1997;42(1):68–73 (Eng. Abstr.) **(Fre)**

REICHEL'S SYNDROME see **CHONDROMATOSIS, SYNOVIAL**

REIMBURSEMENT, FEE-FOR-SERVICE see **FEE-FOR-SERVICE PLANS**

REIMBURSEMENT, HEALTH INSURANCE see **INSURANCE, HEALTH, REIMBURSEMENT**

REIMBURSEMENT, INCENTIVE

Physician financial incentives and feedback: failure to increase cancer screening in Medicaid managed care. Hillman AL, et al. **Am J Public Health** 1998 Nov; 88(11):1699–701

Nursing home performance under case-mix reimbursement: responding to heavy-care incentives and market changes. Davis MA, et al. **Health Serv Res** 1998 Oct;33(4 Pt 1):815–34

The effects of bonus payments on emergency service performance in Victoria [see comments] Cameron PA, et al. **Med J Aust** 1999 Sep 6;171(5):243–6. Comment in: Med J Aust 1999 Sep 6;171(5):231–2.

Financial incentives to change emergency service performance [editorial; comment] Jelinek GA, et al. **Med J Aust** 1999 Sep 6;171(5):231–2. Comment on: Med J Aust 1999 Sep 6;171(5):243–6.

The impact of financial incentives on quality of health care. Dudley RA, et al. **Milbank Q** 1998;76(4):649–86, 511 (71 ref.)

Doctor discontent [letter; comment] Etter HS. **N Engl J Med** 1999 Feb 25;340(8):650; discussion 652–3. Comment on: N Engl J Med 1998 Nov 19;339(21):1516–21.

Financial incentives influencing the integration of mental health care and primary care. Goldberg RJ. **Psychiatr Serv** 1999 Aug;50(8):1071–5

ORGANIZATION & ADMINISTRATION

Getting the incentives right for children. Glied S. **Health Serv Res** 1998 Oct;33(4 Pt 2):1143–60 (35 ref.)

Financial incentives: current realities and challenges for physicians. Gold M. **J Gen Intern Med** 1999 Jan;14 Suppl 1:S6–S12 (17 ref.)

The utility of decision support, clinical guidelines, and financial incentives as tools to achieve improved clinical performance. Goldfarb S. **Jt Comm J Qual Improv** 1999 Mar;25(3):137–44 (19 ref.)

STATISTICS & NUMERICAL DATA

Internal markets and health care efficiency: a multiple-output stochastic frontier analysis. Gerdtham UG, et al. **Health Econ** 1999 Mar;8(2):151–64

Primary care physicians' experience of financial incentives in managed-care systems [see comments] Grumbach K, et al. **N Engl J Med** 1998 Nov 19;339(21):1516–21. Comment in: N Engl J Med 1999 Feb 25;340(8):649; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):649–50; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):650; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):650–1; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):651; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):651–2; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):652; discussion 652–3. Comment in: N Engl J Med 1999 Feb 25;340(8):652–3.

REIMBURSEMENT MECHANISMS

Physician reimbursement issues in home health care [letter; comment] Ackermann RJ, et al. **Am Fam Physician** 1999 Jul;60(1):53–4. Comment on: Am Fam Physician 1998 Nov 1;58(7):1608–14.

Economic impact on physicians and hospitals of proposed changes in Medicare reimbursement for coronary interventions. Vaitkus PT. **Am Heart J** 1999 Feb; 137(2):258–63

Current health care environment [letter; comment] Ginsberg GH. **Ann Intern Med** 1999 Jan 19;130(2):164; discussion 165. Comment on: Ann Intern Med 1998 May 15;128(10):857–62.

Barriers to office-based screening sigmoidoscopy: does reimbursement cover costs? Lewis JD, et al. **Ann Intern Med** 1999 Mar 16;130(6):525–30

Reduction mammaplasty-the schnur sliding scale revisited [editorial; comment] Schnur PL. **Ann Plast Surg** 1999 Jan; 42(1):107–8. Comment on: Ann Plast Surg 1991 Sep;27(3):232–7.

Presidential speech. Why not quit? Meyers JF. **Arthroscopy** 1998 Sep;14(6):649–52

Blended payments. Will they work in general practice? Richards B. **Aust Fam Physician** 1999 Apr;28(4):391–2 (9 ref.)

Renumeration systems and GPs: can we adapt to future demands? Sturmberg JP. **Aust Fam Physician** 1999 Jul; 28(7):650

Secondary prevention in coronary heart disease. Payment for chronic disease management should include coronary heart disease [letter; comment] Bethell HJ. **BMJ** 1998 Dec 5;317(7172):1592. Comment on: BMJ 1998 May 9;316(7142):1430–4.

Hypertensive drug demand and reimbursement in public and private systems: a French-US comparison. Huttin C. **Cah Sociol Demogr Med** 1999 Jan-Mar;39(1):25–40

Clinic provision of contraceptive services to managed care enrollees. Frost JJ. **Fam Plann Perspect** 1998 Jul-Aug; 30(4):156–62

Tiptoeing through the mine fields of "money-back guarantees" [letter; comment] Santoro N. **Fertil Steril** 1999 May;71(5):971–3. Comment on: Fertil Steril 1998 Sep;70(3):414–5. Comment on: Fertil Steril 1998 Sep;70(3):416–21. Comment on: Fertil Steril 1998 Sep;70(3):422–4.

Bundled Medicare payment for acute and postacute care. Welch WP. **Health Aff (Millwood)** 1998 Nov-Dec; 17(6):69–81

Risk adjustment and the trade-off between efficiency and risk selection: an application of the theory of fair compensation. Schokkaert E, et al. **Health Econ** 1998 Aug; 7(5):465–80

Reimbursement to advanced practice nurses (APNs) through Medicare [see comments] Wong ST. **Image J Nurs Sch** 1999;31(2):167–73. Comment in: Image J Nurs Sch 1999 ;31(2):160.

Destructive procedures are the standard of care for treatment of actinic keratoses. Feldman SR, et al. **J Am Acad Dermatol** 1999 Jan;40(1):43–7

30th Bethesda Conference: The Future of Academic Cardiology. Task force 2: research. Borer JS, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1109–20

Direct reimbursement [letter] Zacal GF. **J Can Dent Assoc** 1999 Feb;65(2):79

Medicare GME reimbursement for hospital dental residency training: overview and reporting of survey results. Rutkauskas JS, et al. **J Dent Educ** 1998 Nov;62(11):929–33

General practice deprivation payments: are rural practices disadvantaged? O'Reilly D, et al. **J Epidemiol Community Health** 1998 Aug;52(8):530–1

From the Health Care Financing Administration. DeParle NA. **JAMA** 1999 Jun 16;281(23):2176

Mediators of patient trust [editorial; comment] Hillman AL. **JAMA** 1998 Nov 18;280(19):1703–4. Comment on: JAMA 1998 Nov 18;280(19):1708–14.

The relationship between method of physician payment and patient trust [see comments] Kao AC, et al. **JAMA** 1998 Nov 18;280(19):1708–14. Comment in: JAMA 1998 Nov 18;280(19):1703–4. Comment in: JAMA 1999 Apr 7;281(13):1173–4.

Method of physician payment and patient trust [letter; comment] McCarthy DB, et al. **JAMA** 1999 Apr 7; 281(13):1173–4. Comment on: JAMA 1998 Nov 18;280(19):1708–14.

What do consumers want and need to know in making health care choices? Lubalin JS, et al. **Med Care Res Rev** 1999; 56 Suppl 1:67–102; discussion 103–12 (93 ref.)

Preparing for capitation reimbursement. Straub JH. **Mo Med** 1998 Oct;95(10):561–3

The patient and public policy [letter; comment] Knopf M. **Pharos** 1999 Spring;62(2):40; discussion 41. Comment on: Pharos 1998 Fall;61(4):18–20; discussion 21–5.

The effect of reimbursement policies on the management of Medicare patients with refractory ovarian cancer. Bennett CL, et al. **Semin Oncol** 1999 Feb;26(1 Suppl 1):40–5

Telephones, telemedicine, and a technologically neutral coverage policy. Perednia DA, et al. **Telemed J** 1998 Summer;4(2):145–52

ECONOMICS

Can restrictions on reimbursement for anti-ulcer drugs decrease Medicaid pharmacy costs without increasing hospitalizations? Cromwell DM, et al. **Health Serv Res** 1999 Feb;33(6):1593–610

Practice patterns, case mix, Medicare payment policy, and dialysis facility costs [see comments] Hirth RA, et al. **Health Serv Res** 1999 Feb;33(6):1567–92. Comment in: Health Serv Res 1999 Feb;33(6):1563–6.

Report from the University Healthsystem Consortium. **Int J Technol Assess Health Care** 1999 Spring;15(2):437–8

Effect of a change in third party reimbursement rate on prescription gross margin. Ganther JM, et al. **J Am Pharm Assoc (Wash)** 1999 May-Jun;39(3):346–52

Medicaid reimbursement and timeliness of payment. Weber RD. **Mich Med** 1999 Jan;98(1):8–9 (0 ref.)

Medicare payment for advanced practice nurses: what are the research questions? [comment] Buerhaus PI. **Nurs Outlook** 1998 Jul-Aug;46(4):151–3. Comment on: Nurs Outlook 1998 Jan-Feb;46(1):40–1.

[Comment on the consensus report by medical staff on compensation for ambulatory and inpatient treatment] Hess R. **Chirurg** 1999 Feb;70(2):suppl 35–9 (0 ref.) **(Ger)**

[Reliable case figures for performance-correct compensation? On the problem of risk selection in relation to cost measures] Niechzial M, et al. **Chirurg** 1999 Feb;70(2):suppl 32–5 **(Ger)**

[Computer-assisted performance documentation. Effects in orthopedics and trauma surgery on budgets and reimbursement] Fritz J, et al. **Unfallchirurg** 1999 Feb; 102(2):92–7 (Eng. Abstr.) **(Ger)**

LEGISLATION & JURISPRUDENCE

Obtaining judicial review of a managed care plan's refusal to pay. Lynk MV. **J Natl Med Assoc** 1998 Dec; 90(12):749–51

From "incident to" to telehealth: new federal rules and regulations affect NPs [news] Sharp N. **Nurse Pract** 1998 Aug;23(8):68–9

Home health care cuts [letter] Bradberry A. **Tex Med** 1998

Oct;94(10):12–3
The big payback. Maldonado M. **Tex Med** 1999 Aug; 95(8):52–4
[Treatment exceeding the limit of mandated health insurance] Bruns W, et al. **Chirurg** 1998 Jul;69(7):suppl 217–21 **(Ger)**
[The duty of fee reduction according to Article 6 a GOA (Gebührenordnung für Arzte) and expenses reimbursement in the furnishing of inpatient services by established physicians. The judgement of the Federal High Court of 14 January 1998] Rieger HJ. **Dtsch Med Wochenschr** 1998 Dec 4;123(49):1497–8 **(Ger)**
[The "cost reimbursement" trial regulation in mandatory health insurance: results of a survey of participants] König HH, et al. **Gesundheitswesen** 1999 Jan;61(1):13–9 (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

Physicians' perceptions of the effect on clinical services of an alternative funding plan at an academic health sciences centre [see comments] Godwin M, et al. **CMAJ** 1999 Jun 15;160(12):1710–4. Comment in: CMAJ 1999 Sep 7;161(5):485–6.
Method of physician remuneration and rates of antibiotic prescription [see comments] Hutchinson JM, et al. **CMAJ** 1999 Apr 6;160(7):1013–7. Comment in: CMAJ 1999 Apr 6;160(7):1023–4.
Can the health care system buy better antibiotic prescribing behaviour? [editorial; comment] Levine MA, et al. **CMAJ** 1999 Apr 6;160(7):1023–4. Comment on: CMAJ 1999 Apr 6;160(7):1013–7.
An end to outpatient chemotherapy? Medicare takes aim at reimbursement [news] Roemer J. **J Natl Cancer Inst** 1999 Sep 1;91(17):1444–5
The Medicare Critical Access Hospital program: the first year. Reif SS, et al. **J Rural Health** 1999 Winter;15(1):61–6
Blended payment methods in physician organizations under managed care. Robinson JC. **JAMA** 1999 Oct 6; 282(13):1258–63

STANDARDS

Pharmacoeconomics and policy decisions: the Australian health care system. Henry D, et al. **Clin Ther** 1999 May; 21(5):909–15

TRENDS

Making Medicaid viable for the 21st century. May D. **Mich Med** 1999 Jan;98(1):14–5 (0 ref.)

REIMBURSEMENT, PROSPECTIVE see **PROSPECTIVE PAYMENT SYSTEM**

REIMPLANTATION see **REPLANTATION**

REIMPLANTATION, TOOTH see **TOOTH REPLANTATION**

REINDEER

Relationships between ESR-evaluated doses estimated from enamel and activity of radionuclides in bone and teeth of reindeer. Klevezal GA, et al. **Appl Radiat Isot** 1999 Mar; 50(3):567–72
Clinical challenge. Subcutaneous mass; dermoid cyst. Fitzgerald SD. **J Zoo Wildl Med** 1998 Sep;29(3):349–51

ANATOMY & HISTOLOGY

The hypoglossal nuclear complex in reindeer. Krakowska I. **Folia Morphol (Warsz)** 1998;57(3):205–12

BLOOD

Seasonal levels of metabolic hormones and substrates in male and female reindeer (Rangifer tarandus). Bubenik GA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):307–15

GENETICS

Microsatellites in reindeer, Rangifer tarandus, and their use in other cervids. Røed KH, et al. **Mol Ecol** 1998 Dec; 7(12):1773–6
Polyphyletic origin of the small-bodied, high-arctic subspecies of tundra reindeer (Rangifer tarandus). Gravlund P, et al. **Mol Phylogenet Evol** 1998 Oct; 10(2):151–9

METABOLISM

Radionuclides in the lichen–caribou–human food chain near uranium mining operations in northern Saskatchewan, Canada. Thomas PA, et al. **Environ Health Perspect** 1999 Jul;107(7):527–37

MICROBIOLOGY

Microbiological contamination of reindeer carcasses in different reindeer slaughterhouses. Vaarala AM, et al. **J Food Prot** 1999 Feb;62(2):152–5

PARASITOLOGY

Moxidectin as an endectocide in reindeer. Oksanen A, et al. **Acta Vet Scand** 1998;39(4):483–9
Evidence for continued transmission of parasitic nematodes in reindeer during the Arctic winter. Halvorsen O, et al. **Int J Parasitol** 1999 Apr;29(4):567–79
Predicting effects of naturally acquired abomasal nematode infections on growth rate and food intake in reindeer using serum pepsinogen levels. Arneberg P, et al. **J Parasitol** 1999 Apr;85(2):367–9
No interspecific covariation in intensities of macroparasites of reindeer, Rangifer tarandus (L.). Nilssen AC, et al. **Parasitology** 1998 Sep;117 (Pt 3):273–81
Parasites, biodiversity, and population dynamics in an ecosystem in the high arctic. Halvorsen O, et al. **Vet Parasitol** 1999 Aug 1;84(3–4):205–27

PHYSIOLOGY

Pregnancy status of reindeer calves (Rangifer tarandus tarandus) on two occasions during the winter season. Ween H, et al. **Acta Vet Scand** 1999;40(1):89–91
Annual serum PICP and ICTP and antler growth in female reindeer (Rangifer tarandus tarandus). Vierimaa H, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jan; 122(1):111–7
Predicting effects of naturally acquired abomasal nematode infections on growth rate and food intake in reindeer using serum pepsinogen levels. Arneberg P, et al. **J Parasitol** 1999 Apr;85(2):367–9
Role of oestradiol in the regulation of the seasonal antler cycle in female reindeer, Rangifer tarandus. Lincoln GA, et al. **J Reprod Fertil** 1999 Jan;115(1):167–74
[Reindeer choice of movement direction in the escape reaction] Baskin LM, et al. **Dokl Akad Nauk** 1998 Dec; 363(5):705–6 **(Rus)**
[Effect of acetazolamide on sodium and potassium absorption from the rumen of the reindeer Rangifer tarandus] Chalyshev AV. **Zh Evol Biokhim Fiziol** 1998 Nov–Dec; 34(6):732–6 **(Rus)**

REINFORCEMENT (PSYCHOLOGY)

Comparison of the frequency and enjoyability of pleasant events in cocaine abusers vs. non-abusers using a standardized behavioral inventory. Van Etten ML, et al. **Addiction** 1998 Nov;93(11):1669–80
Effects of N-methyl-D-aspartate receptor antagonists on reinforced and nonreinforced responding for ethanol in rats. Bienkowski P, et al. **Alcohol** 1999 Jun–Jul; 18(2–3):131–7
Food restriction and sex differences on concurrent, oral ethanol and water reinforcers in juvenile rhesus monkeys. Pakarinen ED, et al. **Alcohol** 1999 Jan;17(1):35–40
Alcohol reinforcement and neuropharmacological therapeutics. Lewis MJ. **Alcohol Alcohol Suppl** 1996 Mar; 1:17–25 (36 ref.)
Prediction of reinforcing responses to psychostimulants in humans by brain dopamine D2 receptor levels. Volkow ND, et al. **Am J Psychiatry** 1999 Sep;156(9):1440–3
Involvement of acetylcholine in the nucleus accumbens in cocaine reinforcement. Mark GP, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:792–5
Severe morbid onychophagia: the classification as self-mutilation and a proposed model of maintenance. Wells JH, et al. **Aust N Z J Psychiatry** 1998 Aug;32(4):534–45 (79 ref.)
Reinforcement enhances hippocampal acetylcholine release in rats: an in vivo microdialysis study. Iso H, et al. **Behav Brain Res** 1999 Jun;101(2):207–13
Mother rats bar-press for pups: effects of lesions of the mpoa and limbic sites on maternal behavior and operant responding for pup-reinforcement. Lee A, et al. **Behav Brain Res** 1999 Apr;100(1–2):15–31
Localization of brain reinforcement mechanisms: intracranial self-administration and intracranial place-conditioning studies. McBride WJ, et al. **Behav Brain Res** 1999 Jun; 101(2):129–52 (142 ref.)
Isolation-stress-induced facilitation of passive avoidance memory in the day-old chick. Johnston AN, et al. **Behav Neurosci** 1998 Aug;112(4):929–36
Reactivation treatment prevents the memory-impairing effects of scopolamine in preweanling rats. Sandstrom NJ, et al. **Behav Neurosci** 1998 Aug;112(4):909–19
Rhinal cortex ablations fail to disrupt reinforcer devaluation effects in rhesus monkeys (Macaca mulatta). Thornton JA, et al. **Behav Neurosci** 1998 Aug;112(4):1020–5
The effects of memantine on the subjective, reinforcing and cardiovascular effects of cocaine in humans. Collins ED, et al. **Behav Pharmacol** 1998 Nov;9(7):587–98
The effects of d-amphetamine on the reinforcing effects of food and fluid using a novel procedure combining self-administration and location preference. Evans SM, et al. **Behav Pharmacol** 1997 Oct;8(5):429–41
Multiple variable interval schedule behaviour in humans: effects of ethanol, mood, and reinforcer size on responding maintained by monetary reinforcement. Glautier S, et al. **Behav Pharmacol** 1998 Nov;9(7):619–30
Behavioral contingencies modulate alprazolam self-administration by humans. Haney M, et al. **Behav Pharmacol** 1997 Feb;8(1):82–90
Evaluation of the reinforcing and discriminative stimulus properties of the low-affinity N-methyl-D-aspartate channel blocker memantine. Nicholson KL, et al. **Behav Pharmacol** 1998 May;9(3):231–43
Evaluation of the reinforcing and discriminative stimulus effects of the N-methyl-D-aspartate competitive antagonist NPC 17742 in rhesus monkeys. Nicholson KL, et al. **Behav Pharmacol** 1997 Oct;8(5):396–407
Conditioned locomotor-activating and reinforcing effects of discrete stimuli paired with intraperitoneal cocaine. Panlilio LV, et al. **Behav Pharmacol** 1997 Dec;8(8):691–8
Prenatally malnourished female but not male rats show increased sensitivity to MK-801 in a differential reinforcement of low rates task. Tonkiss J, et al. **Behav Pharmacol** 1998 Feb;9(1):49–60
Neuronal spike activity in the nucleus accumbens of behaving rats during ethanol self-administration. Janak PH, et al. **Brain Res** 1999 Jan 30;817(1–2):172–84
Experimental anxiety and the reinforcing effects of ethanol in rats. Blatt SL, et al. **Braz J Med Biol Res** 1999 Apr; 32(4):457–61
Learning by neurones: role of attention, reinforcement and behaviour. Sara SJ. **C R Acad Sci III** 1998 Feb–Mar; 321(2–3):193–8
The neurobiology of opiate reinforcement. Shippenberg TS, et al. **Crit Rev Neurobiol** 1998;12(4):267–303 (240 ref.)
Odor preferences in neonatal and weanling rats. Amiri L, et al. **Dev Psychobiol** 1998 Sep;33(2):157–62
The ontogeny of maternal potentiation of the infant rats' isolation call. Hofer MA, et al. **Dev Psychobiol** 1998 Nov; 33(3):189–201
Ontogenetic adaptation and learning: a developmental constraint in learning for a thermal reinforcer. Hoffman CM, et al. **Dev Psychobiol** 1999 Mar;34(2):73–86
Inhibition of the expression of conditioned cardiac responses in the developing rat. Hunt PS, et al. **Dev Psychobiol** 1998 Nov;33(3):221–33
Contingent reinforcement sustains post-detoxification abstinence from multiple drugs: a preliminary study with methadone patients. Chutuape MA, et al. **Drug Alcohol Depend** 1999 Mar 1;54(1):69–81
Dopamine D2/D3 receptors modulate cocaine's reinforcing and discriminative stimulus effects in rhesus monkeys. Sinnott RS, et al. **Drug Alcohol Depend** 1999 Apr 1; 54(2):97–110
Orally delivered methadone as a reinforcer: Effects of the opioid antagonist naloxone. Wang NS, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1–2):79–84
Evaluation of the intravenous reinforcing effects of clonidine in baboons. Weerts EM, et al. **Drug Alcohol Depend** 1999 Feb 1;53(3):207–14
Evaluation of the reinforcing and discriminative stimulus effects of gamma-hydroxybutyrate in rhesus monkeys. Woolverton WL, et al. **Drug Alcohol Depend** 1999 Apr 1;54(2):137–43
Effects of lesions of the nucleus basalis magnocellularis on the acquisition of cocaine self-administration in rats. Robledo P, et al. **Eur J Neurosci** 1998 Jun;10(6):1946–55
Ethanol-reinforced behaviour in the rat: effects of naltrexone. Bienkowski P, et al. **Eur J Pharmacol** 1999 Jun 25; 374(3):321–7
The amphetamine-like reinforcing effect and mechanism of L-deprenyl on conditioned place preference in mice. Wu WR, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):1–6
Naloxone blocks reinforcement but not motivation in an operant runway model of heroin-seeking behavior. McFarland K, et al. **Exp Clin Psychopharmacol** 1998 Nov; 6(4):353–9
On the effects of noncontingent delivery of differing magnitudes of reinforcement. Carr JE, et al. **J Appl Behav Anal** 1998 Fall;31(3):313–21
Examination of ambiguous stimulus preferences with duration-based measures. DeLeon IG, et al. **J Appl Behav Anal** 1999 Spring;32(1):111–4
Effects of differential reinforcement on the generalization of a replacement mand in three children with severe language delays. Drasgow E, et al. **J Appl Behav Anal** 1998 Fall;31(3):357–74
Functional analysis and treatment of destructive behavior maintained by termination of "don't" (and symmetrical "do") requests. Fisher WW, et al. **J Appl Behav Anal** 1998 Fall; 31(3):339–56
Establishing discriminative control of responding using functional and alternative reinforcers during functional communication training. Fisher WW, et al. **J Appl Behav Anal** 1998 Winter;31(4):543–60
Combining stimulus fading, reinforcement, and extinction to treat food refusal. Freeman KA, et al. **J Appl Behav Anal** 1998 Winter;31(4):691–4
A comparison of presession and within-session reinforcement choice. Graff RB, et al. **J Appl Behav Anal** 1999 Summer; 32(2):161–73
Reinforcement of compliance with respiratory treatment in a child with cystic fibrosis. Hagopian LP, et al. **J Appl Behav Anal** 1999 Summer;32(2):233–6
An analysis of choice making in the assessment of young children with severe behavior problems. Harding JW, et al. **J Appl Behav Anal** 1999 Spring;32(1):63–82
Effects of reinforcement magnitude on spontaneous recovery. Lerman DC, et al. **J Appl Behav Anal** 1999 Summer; 32(2):197–200
DRO contingencies: an analysis of variable-momentary schedules. Lindberg JS, et al. **J Appl Behav Anal** 1999

Summer;32(2):123–35; quiz 135–6
Effects of warning stimuli for reinforcer withdrawal and task onset on self-injury. Mace AB, et al.
J Appl Behav Anal 1998 Winter;31(4):679–82
A comparison of noncontingent reinforcement and sensory extinction as treatments for self-injurious behavior. Roscoe EM, et al. **J Appl Behav Anal** 1998 Winter;31(4):635–46
False-positive maintenance of self-injurious behavior by access to tangible reinforcers. Shirley MJ, et al.
J Appl Behav Anal 1999 Summer;32(2):201–4
Reduction of unsafe eating in a patient with esophageal stricture. Shore BA, et al. **J Appl Behav Anal** 1999 Summer; 32(2):225–8
Animal models of psychopathology: the establishment, maintenance, attenuation, and persistence of head-banging by pigeons. Layng TV, et al.
J Behav Ther Exp Psychiatry 1999 Mar;30(1):45–61
Making sense of schizophrenic symptoms; delusional statements and behavior may be functional in purpose. Schock K, et al. **J Behav Ther Exp Psychiatry** 1998 Jun; 29(2):131–41
Sensitivity to reward frequency in boys with attention deficit hyperactivity disorder. Tripp G, et al.
J Clin Child Psychol 1999 Sep;28(3):366–75
Cyclic AMP phosphodiesterases are localized in regions of the mouse brain associated with reinforcement, movement, and affect. Cherry JA, et al. **J Comp Neurol** 1999 May 3;407(2):287–301
Evaluation and long-term treatment of aberrant behavior displayed by young children with disabilities. Wacker DP, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):260–6
Base rates versus sample accuracy: competition for control in human matching to sample. Goodie AS, et al.
J Exp Anal Behav 1999 Mar;71(2):155–69
Simple and conditional visual discrimination with wheel running as reinforcement in rats. Iversen IH.
J Exp Anal Behav 1998 Sep;70(2):103–21
Choice with delayed and probabilistic reinforcers: effects of prereinforcer and postreinforcer stimuli. Mazur JE.
J Exp Anal Behav 1998 Nov;70(3):253–65
Do parakeets exhibit derived stimulus control? Some thoughts on experimental control procedures. Saunders KJ, et al. **J Exp Anal Behav** 1998 Nov;70(3):321–4
Does the context of reinforcement affect resistance to change? Nevin JA, et al.
J Exp Psychol Anim Behav Process 1999 Apr;25(2):256–68
Blocked and overshadowed stimuli are weakened in their ability to serve as blockers and second-order reinforcers in Pavlovian fear conditioning. Rauhut AS, et al.
J Exp Psychol Anim Behav Process 1999 Jan;25(1):45–67
Associative changes in elements and compounds when the other is reinforced. Rescorla RA.
J Exp Psychol Anim Behav Process 1999 Apr;25(2):247–55
In vitro analog of operant conditioning in aplysia. I. Contingent reinforcement modifies the functional dynamics of an identified neuron. Nargeot R, et al. **J Neurosci** 1999 Mar 15;19(6):2247–60
Dissociation in effects of lesions of the nucleus accumbens core and shell on appetitive pavlovian approach behavior and the potentiation of conditioned reinforcement and locomotor activity by D-amphetamine. Parkinson JA, et al. **J Neurosci** 1999 Mar 15;19(6):2401–11
Changes in medial prefrontal cortical dopamine levels associated with response-contingent food reward: an electrochemical study in rat. Richardson NR, et al.
J Neurosci 1998 Nov 1;18(21):9130–8
Two modulatory inputs exert reciprocal reinforcing effects on synaptic input of premotor interneurons for withdrawal in terrestrial snails. Maksimova OA, et al. **Learn Mem** 1999 Mar-Apr;6(2):168–76
The nature of reinforcement in cerebellar learning. Thompson RF, et al. **Neurobiol Learn Mem** 1998 Jul-Sep; 70(1–2):150–76 (110 ref.)
A neural network model with dopamine-like reinforcement signal that learns a spatial delayed response task. Suri RE, et al. **Neuroscience** 1999;91(3):871–90
Using differential reinforcement to treat functional hypophonia in a paediatric rehabilitation patient. Amari A, et al. **Pediatr Rehabil** 1998 Apr-Jun;2(2):89–94
Primary and secondary reinforcers in performance of a 1.0-mile walk/jog by adolescents with moderate mental retardation. Taylor J, et al. **Percept Mot Skills** 1998 Dec; 87(3 Pt 2):1265–6
Intraaccumbens raclopride attenuates amphetamine-induced locomotion, but fails to prevent the response-reinstating properties of food reinforcement. Chausmer A, et al.
Pharmacol Biochem Behav 1999 Feb;62(2):299–305
The synergistic effects of combining cocaine and heroin ("speedball") using a progressive-ratio schedule of drug reinforcement. Duvauchelle CL, et al.
Pharmacol Biochem Behav 1998 Nov;61(3):297–302
Reinforcing effects of a combination of ethanol and methadone relative to each drug alone. Shelton KL, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):367–74
Evidence that oral and nutrient reinforcers differentially condition appetitive and consummatory responses to flavors. Myers KP, et al. **Physiol Behav** 1998 Jun 15; 64(4):493–500
Measuring reward with the conditioned place preference paradigm: a comprehensive review of drug effects, recent progress and new issues. Tzschentke TM.
Prog Neurobiol 1998 Dec;56(6):613–72 (700 ref.)
Acquisition, maintenance and reinstatement of intravenous cocaine self-administration under a second-order schedule of reinforcement in rats: effects of conditioned cues and continuous access to cocaine. Arroyo M, et al.
Psychopharmacology (Berl) 1998 Dec;140(3):331–44
Effects of dopamine receptor antagonists (D1 and D2) on the demand for smoked cocaine base in rhesus monkeys. Campbell UC, et al. **Psychopharmacology (Berl)** 1999 Jun; 144(4):381–8
Physical dependence increases the relative reinforcing effects of caffeine versus placebo. Garrett BE, et al.
Psychopharmacology (Berl) 1998 Oct;139(3):195–202
Evaluation of the reinforcing properties and phencyclidine-like discriminative stimulus effects of dextromethorphan and dextrorphan in rats and rhesus monkeys. Nicholson KL, et al.
Psychopharmacology (Berl) 1999 Sep 1;146(1):49–59
Naltrexone pretreatment decreases the reinforcing effectiveness of ethanol and saccharin but not PCP or food under concurrent progressive-ratio schedules in rhesus monkeys. Rodefer JS, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):436–46
Reinforcing and discriminative stimulus effects of the neuroactive steroids pregnanolone and Co 8-7071 in rhesus monkeys. Rowlett JK, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):205–12
Chronic caffeine exposure potentiates nicotine self-administration in rats. Shoaib M, et al.
Psychopharmacology (Berl) 1999 Mar;142(4):327–33
Quadazocine decreases responding reinforced by ethanol, sucrose, and phencyclidine fluid deliveries in rhesus monkeys: comparison to naltrexone's effects. Williams KL, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):316–22
Naltrexone reduces ethanol- and sucrose-reinforced responding in rhesus monkeys. Williams KL, et al.
Psychopharmacology (Berl) 1998 Sep;139(1–2):53–61
Reinforcement without awareness: I. Voice level. Lieberman DA, et al. **Q J Exp Psychol B** 1998 Nov;51(4):301–16
Reinforcement without awareness: II. Word class. Lieberman DA, et al. **Q J Exp Psychol B** 1998 Nov;51(4):317–35
On the establishing and reinforcing effects of termination of demands for destructive behavior maintained by positive and negative reinforcement. Piazza CC, et al.
Res Dev Disabil 1998 Sep-Oct;19(5):395–407
A brief method for conducting a negative-reinforcement assessment. Zarcone JR, et al. **Res Dev Disabil** 1999 Mar-Apr;20(2):107–24
Is the short-latency dopamine response too short to signal reward error? Redgrave P, et al. **Trends Neurosci** 1999 Apr; 22(4):146–51 (40 ref.)

REINFORCEMENT SCHEDULE

Altered reinforcement mechanisms in attention-deficit/hyperactivity disorder. Sagvolden T, et al. **Behav Brain Res** 1998 Jul;94(1):61–71
Using rapidly alternating multiple schedules to assess and treat aberrant behavior in natural settings. Zanolli K, et al. **Behav Modif** 1999 Jul;23(3):358–78
Reinforcement frequency, but not gender, determines sensitivity to discriminative stimulus effects of morphine. Craft RM, et al. **Behav Pharmacol** 1998 Jul;9(4):357–62
Multiple variable interval schedule behaviour in humans: effects of ethanol, mood, and reinforcer size on responding maintained by monetary reinforcement. Glautier S, et al. **Behav Pharmacol** 1998 Nov;9(7):619–30
Antidepressant-like effects of 5-hydroxytryptamine1A receptor agonists on operant responding under a response duration differentiation schedule. Kinney GG, et al.
Behav Pharmacol 1998 Jul;9(4):309–18
Effects of drugs on concurrent variable-interval variable-interval schedule performance. McMillan DE, et al. **Behav Pharmacol** 1998 Dec;9(8):663–70
Extinction after regular and irregular reward schedules in the infant rat: influence of age and training duration. Lilliquist MW, et al. **Dev Psychobiol** 1999 Jan;34(1):57–70
Solvay Award address. Drug abuse as an adjunctive behavior. Falk JL. **Drug Alcohol Depend** 1998 Oct 1; 52(2):91–8
Teaching elementary students with developmental disabilities to recruit teacher attention in a general education classroom: effects on teacher praise and academic productivity. Craft MA, et al. **J Appl Behav Anal** 1998 Fall;31(3):399–415
DRO contingencies: an analysis of variable-momentary schedules. Lindberg JS, et al. **J Appl Behav Anal** 1999 Summer;32(2):123–35; quiz 135–6
Fixed-time schedules attenuate extinction-induced phenomena in the treatment of severe aberrant behavior. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter; 31(4):529–42
Schedule of voucher delivery influences initiation of cocaine abstinence. Kirby KC, et al. **J Consult Clin Psychol** 1998 Oct;66(5):761–7
Broad beneficial effects of cocaine abstinence reinforcement among methadone patients. Silverman K, et al.
J Consult Clin Psychol 1998 Oct;66(5):811–24
Evaluation of quantitative theories of timing [comment] Church RM. **J Exp Anal Behav** 1999 Mar;71(2):253–6; discussion 293–301. Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Timing without a timer [comment] Donahoe JW, et al.
J Exp Anal Behav 1999 Mar;71(2):257–63; discussion 293–301. Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Can a decay process explain the timing of conditioned responses? [see comments] Gallistel CR.
J Exp Anal Behav 1999 Mar;71(2):264–71; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):215–51.
Multiple time scales is well named [comment] Gibbon J.
J Exp Anal Behav 1999 Mar;71(2):272–5; discussion 293–301 . Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Modeling modeling [comment] Killeen PR.
J Exp Anal Behav 1999 Mar;71(2):275–80; discussion 293–301. Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Ratio size and cocaine concentration effects on oral cocaine-reinforced behavior. Macenski MJ, et al.
J Exp Anal Behav 1998 Sep;70(2):185–201
The whirligig of time: Some thoughts on Staddon and Higa [comment] Marr J. **J Exp Anal Behav** 1999 Mar;71(2):281–4 . Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Time and memory: towards a pacemaker-free theory of interval timing [see comments] Staddon JE, et al.
J Exp Anal Behav 1999 Mar;71(2):215–51 (143 ref.). Comment in: J Exp Anal Behav 1999 Mar;71(2):253–6; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):257–63; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):264–71; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):272–5; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):275–80; discussion 293–301. Comment in: J Exp Anal Behav 1999 Mar;71(2):281–4. Comment in: J Exp Anal Behav 1999 Mar;71(2):284–88. Comment in: J Exp Anal Behav 1999 Mar;71(2):288–91.
Effects of step size and break-point criterion on progressive-ratio performance. Stafford D, et al.
J Exp Anal Behav 1998 Sep;70(2):123–38
Effects of variable-interval value and amount of training on stimulus generalization. Walker DJ, et al.
J Exp Anal Behav 1998 Sep;70(2):139–63
The role of the response-reinforcer relation in delay-of-reinforcement effects. Williams AM, et al.
J Exp Anal Behav 1999 Mar;71(2):187–94
Time without clocks [comment] Zeiler MD.
J Exp Anal Behav 1999 Mar;71(2):288–91. Comment on: J Exp Anal Behav 1999 Mar;71(2):215–51.
Control of operant response force. Slifkin AB, et al.
J Exp Psychol Anim Behav Process 1998 Oct;24(4):431–8
Effects of postnatal exposure of monkeys to a PCB mixture on spatial discrimination reversal and DRL performance. Rice DC. **Neurotoxicol Teratol** 1998 Jul-Aug;20(4):391–400
Effects of dopamine antagonists and accumbens dopamine depletions on time-constrained progressive-ratio performance. Aberman JE, et al.
Pharmacol Biochem Behav 1998 Dec;61(4):341–8
The behavior of spontaneously hypertensive and Wistar Kyoto rats under a paced fixed consecutive number schedule of reinforcement. Evenden J, et al.
Pharmacol Biochem Behav 1999 May;63(1):71–82
Reinforcement value of gustatory stimuli determined by progressive ratio performance. Reilly S.
Pharmacol Biochem Behav 1999 Jun;63(2):301–11
Avoidance of time-out from response-independent food presentation: effects of chlordiazepoxide and buspirone. van Haaren F, et al. **Pharmacol Biochem Behav** 1998 Oct; 61(2):207–14
Dysphoric mood and preference for immediate versus delayed monetary reinforcement. Gaynor ST, et al.
Psychol Rep 1999 Jun;84(3 Pt 2):1281–93
Behavioral effects of nicotine, amphetamine and cocaine under a fixed-interval schedule of food reinforcement in rats chronically exposed to caffeine. Jaszyna M, et al.
Psychopharmacology (Berl) 1998 Dec;140(3):257–71
Cocaine pharmacodynamics after intravenous and oral administration in rats: relation to pharmacokinetics. Ma F, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):323–32
Concurrent progressive-ratio schedules to compare reinforcing effectiveness of different phencyclidine (PCP) concentrations in rhesus monkeys. Rodefer JS, et al.
Psychopharmacology (Berl) 1999 May;144(2):163–74

REINFORCEMENT, SOCIAL

The social construction of cardiovascular reactivity. Christenfeld N, et al. **Ann Behav Med** 1998 Fall; 20(4):317–25 (53 ref.)
Psychosocial processes underlying the maintenance and persistence of depression: implications for understanding chronic depression. Lara ME, et al. **Clin Psychol Rev** 1999 Aug;19(5):553–70 (120 ref.)
Anxiety sensitivity and situation-specific drinking. Samoluk SB, et al. **J Anxiety Disord** 1998 Sep-Oct;12(5):407–19
Season's greetings: adults' social contacts at the holiday season. Fingerman KL, et al. **Psychol Aging** 1999 Jun; 14(2):192–205

REINFORCEMENT, VERBAL

Praise for intelligence can undermine children's motivation and performance. Mueller CM, et al.
J Pers Soc Psychol 1998 Jul;75(1):33–52
Use of self-operated auditory prompts by workers with

moderate mental retardation to transition independently through vocational tasks. Taber TA, et al. **Res Dev Disabil** 1998 Jul-Aug;19(4):327-45

REINFORCING FACTORS see **CAUSALITY**

REITER'S DISEASE

[Recent studies on reactive arthritis] Kobayashi S. **Nippon Naika Gakkai Zasshi** 1998 Jul 10;87(7):1388-94 (14 ref.) **(Jpn)**

COMPLICATIONS

Frequent association of chlamydial infection with Reiter's syndrome. Kousa M, et al. **Sex Transm Dis** 1978 Apr-Jun; 5(2):57-61

[Reiter's syndrome and human immunodeficiency virus infection] de Mello e Silva AC, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Jul-Aug; 53(4):202-4 (24 ref.) (Eng. Abstr.) **(Por)**

DIAGNOSIS

Reiter's syndrome. Diagnosis and clinical features. Amor B. **Rheum Dis Clin North Am** 1998 Nov;24(4):677-95, vii (63 ref.)

[Case for diagnosis. Reiter syndrome] Elbadir S, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):279-80 **(Fre)**

DRUG THERAPY

Acitretin and AIDS-related Reiter's disease. Blanche P. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):105-6

ETIOLOGY

Acitretin and AIDS-related Reiter's disease. Blanche P. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):105-6

[Outbreak of Reiter's syndrome caused by Ascaris lumbricoides (letter)] Carballada Rico C, et al. **Rev Clin Esp** 1998 Oct;198(10):714 **(Spa)**

HISTORY

Descriptions of Reiter's disease in Mexican medical texts since 1578. Aceves-Avila FJ, et al. **J Rheumatol** 1998 Oct; 25(10):2033-4

IMMUNOLOGY

HLA-B27 and the seronegative spondyloarthropathies. Reveille JD. **Am J Med Sci** 1998 Oct;316(4):239-49 (132 ref.)

PATHOLOGY

Penile erythematous eruption in a man with diabetes. Huff R, et al. **Arch Dermatol** 1999 Jul;135(7):845, 848

PHYSIOPATHOLOGY

Glycoaminoglycan (GAG) deficiency in protective barrier as an underlying, primary cause of ulcerative colitis, Crohn's disease interstitial cystitis and possibly Reiter's syndrome. Russell AL. **Med Hypotheses** 1999 Apr; 52(4):297-301

RADIONUCLIDE IMAGING

Whole-body and pinhole bone scintigraphic manifestations of Reiter's syndrome: distribution patterns and early and characteristic signs. Kim SH, et al. **Eur J Nucl Med** 1999 Feb;26(2):163-70

REJECTION (PSYCHOLOGY)

Disgust sensitivity, trait anxiety and anxiety disorders symptoms in normal children. Muris P, et al. **Behav Res Ther** 1999 Oct;37(10):953-61

Rejection sensitivity and children's interpersonal difficulties. Downey G, et al. **Child Dev** 1998 Aug;69(4):1074-91

Prevalence and characteristics of foal rejection in Arabian mares. Juarbe-Diaz SV, et al. **Equine Vet J** 1998 Sep; 30(5):424-8

Attributions and affective reactions of family members and course of schizophrenia. López SR, et al. **J Abnorm Psychol** 1999 May;108(2):307-14

How rejection of essences expresses despair. Tougas CT. **J Anal Psychol** 1999 Jul;44(3):309-29; discussion 331-6

Depersonalization in kindergarten teachers in relation to rejection of help by fellow teachers and emotional support from family. Cheuk WH, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):939-42

[Predictors for refusal behavior of the mother towards her unborn and newborn child--first results of a prospective study] Porsch U, et al. **Zentralbl Gynakol** 1999;121 Suppl 1:55-8 **(Ger)**

REJUVENATION

The role of cosmetic dentistry in restoring a youthful appearance. Morley J. **J Am Dent Assoc** 1999 Aug; 130(8):1166-72 (26 ref.)

REL GENES see **ONCOGENES**

RELAPSE see **RECURRENCE**

RELAPSING FEVER

[Relapsing fever] Ito A. **Ryoikibetsu Shokogun Shirizu** 1999; (24 Pt 2):297 (1 ref.) **(Jpn)**

DIAGNOSIS

Short report: Diagnosis of tick-borne relapsing fever by the quantitative buffy coat fluorescence method. Chatel G, et al. **Am J Trop Med Hyg** 1999 May;60(5):738-9

Tick-borne relapsing fever imported from West Africa: diagnosis by quantitative buffy coat analysis and in vitro culture of Borrelia crocidurae. van Dam AP, et al. **J Clin Microbiol** 1999 Jun;37(6):2027-30

[Recurrent fever and lymphocytic meningitis after a stay in Africa: should one pay attention to a "negative" blood sample? (letter)] Bellange A, et al. **Rev Med Interne** 1999 Jun;20(6):540-1 **(Fre)**

EPIDEMIOLOGY

Body lice as tools for diagnosis and surveillance of reemerging diseases. Roux V, et al. **J Clin Microbiol** 1999 Mar;37(3):596-9

METABOLISM

Variable major lipoprotein is a principal TNF-inducing factor of louse-borne relapsing fever. Vidal V, et al. **Nat Med** 1998 Dec;4(12):1416-20

MICROBIOLOGY

The plasminogen activation system enhances brain and heart invasion in murine relapsing fever borreliosis. Gebbia JA, et al. **J Clin Invest** 1999 Jan;103(1):81-7

Tick-borne relapsing fever in British Columbia, Canada: first isolation of Borrelia hermsii. Banerjee SN, et al. **J Clin Microbiol** 1998 Dec;36(12):3505-8

PREVENTION & CONTROL

Spraying tick-infested houses with lambda-cyhalothrin reduces the incidence of tick-borne relapsing fever in children under five years old [published erratum appears in Trans R Soc Trop Med Hyg 1998 Jul-Aug;92(4):450] Talbert A, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun; 92(3):251-3

VETERINARY

Identification of a novel strain of Borrelia hermsii in a previously undescribed northern California focus. Cleary M, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):883-7

RELATIVE BIOLOGICAL EFFECTIVENESS

Memorandum from the British Committee on Radiation Units and Measurements. RBE values for the retrospective calculation of risk to specific organs as a result of neutron irradiation. **Br J Radiol** 1998 Jun;71(846):669-71

RBE-LET relationships for cell inactivation and mutation induced by low energy protons in V79 cells: further results at the LNL facility. Belli M, et al. **Int J Radiat Biol** 1998 Oct;74(4):501-9

The assessment of RBE effects using the concept of biologically effective dose. Dale RG, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):639-45

Modeling late effects in hypofractionated stereotactic radiotherapy. Hoban PW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jan 1;43(1):199-210

Does the dose fractionation schedule influence local control of adjuvant radiotherapy for early stage breast cancer? Yamada Y, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):99-104 (42 ref.)

Response to the Letter to the Editor "Estimating RBEs at clinical doses from microdosimetric spectra" [Med. Phys. 25, 1055 (1998)] [letter; comment] Pihet P, et al. **Med Phys** 1999 May;26(5):848-52. Comment on: Med Phys 1998 Jun;25(6):1055-7.

Relative biological effectiveness of proton beams in clinical therapy. Gerweck LE, et al. **Radiother Oncol** 1999 Feb; 50(2):135-42 (32 ref.)

RELATIVE RISK see **RISK**

RELATIVE VALUE SCALES

Financing medical student education in departments of internal medicine. Glassock RJ, et al. **Am J Med** 1999 Mar; 106(3):269-72

Determining the real bottom line and true cost of surgical practice using relative value units [editorial] Ganzel TM, et al. **Am J Surg** 1998 Sep;176(3):230-2

Reality-based relative value scales. Mayberg MR. **Clin Neurosurg** 1999;45:1-5

Commentary. Responding to change [letter] Morris AH. **J Bone Joint Surg Am** 1999 Sep;81(9):1347-8

Rewarding teaching faculty with a reimbursement plan [see comments] Rouan GW, et al. **J Gen Intern Med** 1999 Jun; 14(6):327-32. Comment in: J Gen Intern Med 1999 Jun;14(6):386-7.

RBRVS (Medicare Resource-Based Relative Value Scale) revisited. Harris-Shapiro J. **J Health Care Finance** 1998 Winter;25(2):49-54 (0 ref.)

Comparison of work and time estimates by chiropractic physicians with those of medical and osteopathic providers. Hess JA, et al. **J Manipulative Physiol Ther** 1999 Jun; 22(5):280-91

How to value surgical services justly [editorial] Spaeth GL. **Ophthalmic Surg Lasers** 1999 Feb;30(2):85-90

Read this--it's important [letter] Beckett PR, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):577

RELATIVE-VALUE SCHEDULES see **RELATIVE VALUE SCALES**

RELAXATION

PHYSIOLOGY

Autonomic instability during relaxation in panic disorder. Roth WT, et al. **Psychiatry Res** 1998 Aug 17;80(2):155-64

[The dynamics of the rhythmic EEG components during relaxation in 9- to 10-year-old schoolchildren with different learning achievements] Gorev AS. **Fiziol Cheloveka** 1998 Nov-Dec;24(6):42-7 **(Rus)**

PSYCHOLOGY

Increased serum mitogenic activity for arterial smooth muscle cells associated with relaxation and low educational level in human subjects with high but not low hostility traits: implications for atherogenesis. Gutstein WH, et al. **J Psychosom Res** 1999 Jan;46(1):51-61

Stress, relaxation states, and creativity. Khasky AD, et al. **Percept Mot Skills** 1999 Apr;88(2):409-16

[Energy-saving, effective and elegant. Awareness through motion. Body perception and relaxation technic, no. 2: Hightened self-awareness through bodily and spiritual training] Wagner B. **Fortschr Med** 1999 Apr 30; 117(12):37-8 **(Ger)**

RELAXATION TECHNIQUES

The benefits of visualization. Hoffart MB, et al. **Am J Nurs** 1998 Dec;98(12):44-7

Sleep promotion in adults. Floyd JA. **Annu Rev Nurs Res** 1999;17:27-56 (100 ref.)

Comparison of biofeedback and relaxation in the treatment of pediatric headache and the influence of parent involvement on outcome. Kröner-Herwig B, et al. **Appl Psychophysiol Biofeedback** 1998 Sep;23(3):143-57

Relaxation training and levels of secretory IgA in breast milk [letter; comment] Friedman E. **Arch Pediatr Adolesc Med** 1999 Jun;153(6):654-5. Comment on: Arch Pediatr Adolesc Med 1998 Nov;152(11):1065-70.

Relaxation training and breast milk secretory IgA [see comments] O'Connor ME, et al. **Arch Pediatr Adolesc Med** 1998 Nov;152(11):1065-70. Comment in: Arch Pediatr Adolesc Med 1999 Jun;153(6):654-5.

Relaxation to assist sleep medication withdrawal. Lichstein KL, et al. **Behav Modif** 1999 Jul;23(3):379-402

Psychological, clinical and pathological effects of relaxation training and guided imagery during primary chemotherapy. Walker LG, et al. **Br J Cancer** 1999 Apr;80(1-2):262-8

Biofeedback-assisted relaxation training with brain injured patients in acute stages of recovery. Holland D, et al. **Brain Inj** 1999 Jan;13(1):53-7

Biofeedback-assisted relaxation training for young adolescents with tension-type headache: a controlled study. Bussone G, et al. **Cephalalgia** 1998 Sep;18(7):463-7

Reduction in ventilator response to CO2 with relaxation feedback during CO2 rebreathing in normal adults. Holliday JE, et al. **Chest** 1999 May;115(5):1285-92

Comparison of integrated group therapy and group relaxation training for fibromyalgia. Keel PJ, et al. **Clin J Pain** 1998 Sep;14(3):232-8

Autogenous training--an anxiolytic and a factor contributing to the improvement of the quality of life. Gruden V. **Coll Antropol** 1999 Jun;23(1):315-9

Relaxation effects in humans of underwater exercise of moderate intensity. Oda S, et al. **Eur J Appl Physiol** 1999 Sep;80(4):253-9

The effects of vibroacoustic music on symptom reduction. Patrick G. **IEEE Eng Med Biol Mag** 1999 Mar-Apr; 18(2):97-100

Effect of relaxation therapy on cardiac events after myocardial infarction: a 5-year follow-up study. van Dixhoorn JJ, et al. **J Cardiopulm Rehabil** 1999 May-Jun; 19(3):178-85

The effect of relaxation therapy on preterm labor outcomes. Janke J. **J Obstet Gynecol Neonatal Nurs** 1999 May-Jun; 28(3):255-63

Awareness/relaxation training and transcutaneous electrical neural stimulation in the treatment of bruxism. Treacy K. **J Oral Rehabil** 1999 Apr;26(4):280-7

Behavioral intervention for the treatment of rumination. Wagaman JR, et al. **J Pediatr Gastroenterol Nutr** 1998 Nov; 27(5):596-8

Pregnant women benefit from massage therapy. Field T, et al. **J Psychosom Obstet Gynaecol** 1999 Mar;20(1):31-8

Illness beliefs and treatment outcome in chronic fatigue syndrome. Deale A, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):77-83

Does psychological testing help to predict the response to

acupuncture or massage/relaxation therapy in patients presenting to a general neurology clinic with headache? Wylie KR, et al. **J Tradit Chin Med** 1997 Jun;17(2):130–9

Zero progress with hypochondriasis [see comments] Ben-Tovim DI, et al. **Lancet** 1998 Dec 5;352(9143):1798–9 . Comment in: Lancet 1999 Feb 20;353(9153):671–2; discussion 672–3. Comment in: Lancet 1999 Feb 20;353(9153):672–3.

Biofeedback and relaxation techniques improves running economy in sub-elite long distance runners. Caird SJ, et al. **Med Sci Sports Exerc** 1999 May;31(5):717–22

Simple relaxation techniques for patients with cancer and staff. Mytko JJ. **Oncol Nurs Forum** 1999 Jun;26(5):833

Relief of postoperative pain with jaw relaxation, music and their combination. Good M, et al. **Pain** 1999 May; 81(1–2):163–72

Effects of praying and a working memory task in participants trained in meditation and controls on the occurrence of spontaneous thoughts. Fabbro F, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):765–70

Rhythmical changes of the cutaneous blood flow in the forehead region under the condition of hypnoid relaxation. Mück-Weymann M, et al. **Vasa** 1998 Nov;27(4):220–3

[Investigations into synchronisation of heart rate and musical rhythm in a relaxation therapy in patients with cancer pain] Reinhardt U. **Forsch Komplementarmed** 1999 Jun; 6(3):135–41 (Eng. Abstr.) **(Ger)**

[Chinese meditation pattern. Qi Gong: to learn from tigers and bears. Series: relaxation technic 1. Centers of vital energy] Wagner B. **Fortschr Med** 1999 Mar 20;117(8):55 **(Ger)**

[Psychophysiology of pain] Kautzsch K. **Ther Umsch** 1999 Aug;56(8):431–4 (3 ref.) (Eng. Abstr.) **(Ger)**

[Reduction of forehead integrated EMG and integrated alpha wave through mechanical chair vibration using progressive relaxation by Mitani method] Li N, et al. **Shinrigaku Kenkyu** 1999 Jun;70(2):87–93 (Eng. Abstr.) **(Jpn)**

[The influence of 5-week relaxation therapy on arterial blood pressure in patients with borderline hypertension] Sharma VK, et al. **Pol Merkuriusz Lek** 1998 Jun;4(24):319–22 (Eng. Abstr.) **(Pol)**

[The influence of 5-week relaxation therapy on psychological state of patients with borderline hypertension] Sharma VK, et al. **Pol Merkuriusz Lek** 1998 Jun;4(24):323–5 (Eng. Abstr.) **(Pol)**

[The efficacy of psychorelaxation therapy in the rehabilitation of patients who have had an aortocoronary bypass operation] Pogosova GV, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Jul–Aug;(4):15–7 (Eng. Abstr.) **(Rus)**

[Free from stress by autogenic therapy. Relaxation technique yielding peace of mind and self-insight] Broms C. **Lakartidningen** 1999 Feb 10;96(6):588–92 (20 ref.) (Eng. Abstr.) **(Swe)**

EDUCATION

Computerised biofeedback games: a new method for teaching stress management and its use in irritable bowel syndrome. Leahy A, et al. **J R Coll Physicians Lond** 1998 Nov–Dec; 32(6):552–6

STANDARDS

Effects of distraction on children's pain and distress during medical procedures: a meta-analysis. Kleiber C, et al. **Nurs Res** 1999 Jan–Feb;48(1):44–9

RELAXATION THERAPY see **RELAXATION TECHNIQUES**

RELAXIN

ANALYSIS

Canine preprorelaxin: nucleic acid sequence and localization within the canine placenta. Klonisch T, et al. **Biol Reprod** 1999 Mar;60(3):551–7

Nucleic acid sequence of feline preprorelaxin and its localization within the feline placenta. Klonisch T, et al. **Biol Reprod** 1999 Feb;60(2):305–11

Time-resolved fluoroimmunoassay (TR-FIA) of porcine relaxin. Ogine T, et al. **Exp Clin Endocrinol Diabetes** 1999; 107(4):276–80

BLOOD

Plasma concentrations of immunoreactive relaxin activity and progesterone in the pregnant Asian elephant (Elephas maximus). Niemuller CA, et al. **Anim Reprod Sci** 1998 Oct; 53(1–4):119–31

Endocrine assays to predict preterm delivery. Jackson M, et al. **Clin Perinatol** 1998 Dec;25(4):837–57, vi (77 ref.)

CHEMISTRY

B-chain sequence and in situ hybridization of the rabbit placental relaxin-like gene product. Fields PA, et al. **Biol Reprod** 1999 Aug;61(2):527–32

GENETICS

Nucleic acid sequence of feline preprorelaxin and its localization within the feline placenta. Klonisch T, et al. **Biol Reprod** 1999 Feb;60(2):305–11

Canine preprorelaxin: nucleic acid sequence and localization within the canine placenta. Klonisch T, et al. **Biol Reprod** 1999 Mar;60(3):551–7

Mice without a functional relaxin gene are unable to deliver milk to their pups. Zhao L, et al. **Endocrinology** 1999 Jan; 140(1):445–53

Porcine relaxin, a 500 million-year-old hormone? the tunicate Ciona intestinalis has porcine relaxin. Georges D, et al. **FASEB J** 1999 Jul;13(10):1269–75

METABOLISM

Identification of specific relaxin-binding cells in the human female. Kohsaka T, et al. **Biol Reprod** 1998 Oct;59(4):991–9

Quantitative autoradiographic studies of relaxin binding in rat atria, uterus and cerebral cortex: characterization and effects of oestrogen treatment. Tan YY, et al. **Br J Pharmacol** 1999 May;127(1):91–8

Immunohistochemical evidence for the presence, localization and partial coexistence of insulin, insulin-like growth factor I and relaxin in the protochordate Ciona intestinalis. Reinecke M, et al. **Cell Tissue Res** 1999 Feb;295(2):331–8

Monoclonal antibodies specific for rat relaxin. X. Endogenous relaxin induces changes in the histological characteristics of the rat vagina during the second half of pregnancy. Zhao S, et al. **Endocrinology** 1998 Nov; 139(11):4726–34

Relaxin protein and gene expression in ovarian follicles of immature pigs. Ohleth KM, et al. **J Mol Endocrinol** 1998 Oct;21(2):179–87

Relaxin stimulates glycodelin mRNA and protein concentrations in human endometrial glandular epithelial cells. Tseng L, et al. **Mol Hum Reprod** 1999 Apr;5(4):372–5

On the mechanism of relaxin action: the involvement of adenylyl cyclase signalling system. Kuznetsova L, et al. **Regul Pept** 1999 Mar 17;80(1–2):33–9

PHARMACOLOGY

Effect of relaxin on tissue inhibitor of metalloproteinase-1 and -2 in the porcine uterus and cervix. Lenhart JA, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:565–6

The cardiovascular effects of porcine relaxin in Brattleboro rats. Parry LJ, et al. **Endocrine** 1998 Jun;8(3):317–22

Relaxin stimulates uterine edema via activation of estrogen receptors: blockade of its effects using ICI 182,780, a specific estrogen receptor antagonist. Pillai SB, et al. **Endocrinology** 1999 May;140(5):2426–9

Relaxin favors the development of activated human T cells into Th1-like effectors. Piccinni MP, et al. **Eur J Immunol** 1999 Jul;29(7):2241–7

Relaxin stimulates expression of vascular endothelial growth factor in normal human endometrial cells in vitro and is associated with menometrorrhagia in women. Unemori EN, et al. **Hum Reprod** 1999 Mar;14(3):800–6

Effects of relaxin, pregnancy and parturition on collagen metabolism in the rat pubic symphysis. Samuel CS, et al. **J Endocrinol** 1998 Oct;159(1):117–25

Regulation of urokinase- and tissue-type plasminogen activator by relaxin in the uterus and cervix of the prepubertal gilt. Wang-Lee JL, et al. **J Reprod Fertil** 1998 Sep;114(1):119–25

PHYSIOLOGY

Role of relaxin and estrogen in the control of eosinophilic invasion and collagen remodeling in rat cervical tissue at term. Luque EH, et al. **Biol Reprod** 1998 Oct;59(4):795–800

Relaxin up-regulates the nitric oxide biosynthetic pathway in the mouse uterus: involvement in the inhibition of myometrial contractility. Bani D, et al. **Endocrinology** 1999 Oct;140(10):4434–41

Relaxin is a potent renal vasodilator in conscious rats. Danielson LA, et al. **J Clin Invest** 1999 Feb;103(4):525–33

Solid-phase synthesis of ovine Leydig cell insulin-like peptide--a putative ovine relaxin? Dawson NF, et al. **J Pept Res** 1999 May;53(5):542–7

SECRETION

Antiporcine relaxin (antipRLX540) treatment decreases relaxin plasma concentration and disrupts delivery in late pregnant pigs. Cho SJ, et al. **Anim Reprod Sci** 1998 Oct 9;52(4):303–16

Relaxin in the marmoset monkey: secretion pattern in the ovarian cycle and early pregnancy. Einspanier A, et al. **Biol Reprod** 1999 Aug;61(2):512–20

Relaxin secretion and gene expression in porcine granulosa and theca cells are stimulated during in vitro luteinization. Ohleth KM, et al. **Biol Reprod** 1999 Feb;60(2):499–507

Relaxin secretion by human granulosa cell culture is predictive of in-vitro fertilization-embryo transfer success. Stewart DR, et al. **Hum Reprod** 1999 Feb;14(2):338–44

RELIABILITY AND VALIDITY see **REPRODUCIBILITY OF RESULTS**

RELIEF WORK

Wherever your calling takes you [editorial] McGill J. **Acad Emerg Med** 1998 Dec;5(12):1138–40

Prehospital triage and communication performance in small mass casualty incidents: a gauge for disaster preparedness. Johnson GA, et al. **Am J Emerg Med** 1999 Mar; 17(2):148–50

Letter from Macedonia. Lightfine M. **Am J Nurs** 1999 Aug; 99(8):22–3

Air disaster and posttraumatic stress disorder [letter; comment] Guerin EJ. **Am J Psychiatry** 1999 Aug; 156(8):1290–1. Comment on: Am J Psychiatry 1998 Jul;155(7):934–8.

The impact of political conflict on women: the case of Afghanistan [editorial] Wali S, et al. **Am J Public Health** 1999 Oct;89(10):1474–6

Experiences of work among refugees. Pedersen N. **Ann Trop Paediatr** 1998 Sep;18 Suppl:S9–14 (0 ref.)

Letters from Papua New Guinea. Helping in a natural disaster. Roberts-Thomson L. **Aust Fam Physician** 1999 Apr;28(4):394–6

Turkey surprised by extent of aid [news] Ciment J. **BMJ** 1999 Sep 4;319(7210):592

Selection, training, and support of relief workers: an occupational health issue. McCall M, et al. **BMJ** 1999 Jan 9;318(7176):113–6 (27 ref.)

Donations of useless medicines to Kosovo contributes to chaos [news] Saunders P. **BMJ** 1999 Jul 3;319(7201):11

Pharmaceutical donations by the USA: an assessment of relevance and time-to-expiry. Reich MR, et al. **Bull World Health Organ** 1999;77(8):675–80

Perceptions of indigenous workers following participation in a disaster relief project. Soliman HH, et al. **Community Ment Health J** 1998 Dec;34(6):557–68

Disaster mental health services: a personal perspective. Weeks SM. **J Psychosoc Nurs Ment Health Serv** 1999 Feb; 37(2):14–8

From the Centers for Disease Control and Prevention. Needs assessment following hurricane Georges--Dominican Republic, 1998. **JAMA** 1999 Mar 10;281(10):890–1

Volunteers help Kosovar refugees in camps [news] Friedrich MJ. **JAMA** 1999 Aug 4;282(5):420–1

Perceived effectiveness of international medical personnel working in Bosnia [letter] VanRooyen MJ, et al. **JAMA** 1999 Aug 4;282(5):428–9

Kosovo's refugees: from crisis to catastrophe [editorial] **Lancet** 1999 Apr 10;353(9160):1199

Thought for safety of aid workers in dangerous places [editorial] **Lancet** 1999 Aug 21;354(9179):609

WHO releases stricter guidelines on emergency drug donations [news] Ahmad K. **Lancet** 1999 Sep 11; 354(9182):928

Croatia and Bosnia: the imprints of war--II. Restoration. Horton R. **Lancet** 1999 Jun 26;353(9171):2223–8

Croatia and Bosnia: the imprints of war--I. Consequences. Horton R. **Lancet** 1999 Jun 19;353(9170):2139–44

Bakhsheesh culture contributes to Turkey's misery [news] Kandela P. **Lancet** 1999 Aug 28;354(9180):751

Disaster-medicine teams must tackle mental health [news] Larkin M. **Lancet** 1998 Nov 14;352(9140):1606

Privation and injustice in North Korea [letter] Swaan CM, et al. **Lancet** 1999 Feb 6;353(9151):503–4

Medical aid and human rights in Kosovo. Woodall J. **Lancet** 1998 Oct 31;352(9138):1467

The changing role of civilian surgeons in conflicts: a meta-analysis of epidemiological data. Morikawa M. **Med Confl Surviv** 1998 Jul–Sep;14(3):237–42

Stress and health during medical humanitarian assistance missions. Britt TW, et al. **Mil Med** 1999 Apr;164(4):275–9

Needs assessment following hurricane Georges--Dominican Republic, 1998. **MMWR Morb Mortal Wkly Rep** 1999 Feb 12;48(5):93–5

Food aid in emergencies: a case for wheat? Landman J. **Proc Nutr Soc** 1999 May;58(2):355–61 (53 ref.)

Help for women refugees. Miserez CB. **World Health Forum** 1998;19(3):320–3

[Complex catastrophies--the Rwanda crisis] Marschang A. **Chirurg** 1999 May;70(5):suppl 119–22 **(Ger)**

[Facts regarding the Eschede catastrophe] Oestern HJ, et al. **Unfallchirurg** 1998 Nov;101(11):813–6 (Eng. Abstr.) **(Ger)**

HISTORY

The public health nurse in tornado relief. MacMaster J. **Public Health Nurs** 1999 Feb;16(1):72–5

County drought relief: a public health nurse's problem. 1931 [classical article] Wharton AL. **Public Health Nurs** 1999 Aug;16(4):307–8

ORGANIZATION & ADMINISTRATION

Public health and complex emergencies: new issues, new conditions. Waldman R, et al. **Am J Public Health** 1999 Oct;89(10):1483–5

Health care in Ethiopia. Payne D. **Can Fam Physician** 1998 Oct;44:2069–73, 2075–6

Understanding the needs of children following large-scale disasters and the role of government. Flynn BW, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Jan;7(1):211–27, x (32 ref.)

US government natural disaster assistance: historical analysis and a proposal for the future. Barnett BJ. **Disasters** 1999 Jun;23(2):139–55 (55 ref.)

Normalising the crisis in Africa. Bradbury M. **Disasters** 1998 Dec;22(4):328–38 (21 ref.)

Community-based disaster management during the 1997 Red River Flood in Canada. Buckland J, et al. **Disasters** 1999

Jun;23(2):174–91
Humanitarianism, pluralism and ombudsmen: do the pieces fit? Christoplos I. **Disasters** 1999 Jun;23(2):125–38 (21 ref.)
Race, ethnicity and disasters in the United States: a review of the literature. Fothergill A, et al. **Disasters** 1999 Jun; 23(2):156–73 (69 ref.)
Waiting for peace: perspectives from action-oriented research on the humanitarian impasse in the Caucasus. Hansen G, et al. **Disasters** 1999 Sep;23(3):257–70 (0 ref.)
Rehabilitation in complex political emergencies: is rebuilding civil society the answer? Harvey P. **Disasters** 1998 Sep; 22(3):200–17
Humanitarian action in protracted crisis: an overview of the debates and dilemmas. Hendrickson D. **Disasters** 1998 Dec; 22(4):283–7
Depolarising the 'broadened' and 'back-to-basics' relief models. Jackson S, et al. **Disasters** 1999 Jun;23(2):93–114 (31 ref.)
Aid and violence, with special reference to Sierra Leone. Keen D. **Disasters** 1998 Dec;22(4):318–27 (33 ref.)
Proliferating principles; or how to sup with the devil without getting eaten. Leader N. **Disasters** 1998 Dec;22(4):288–308 (44 ref.)
The death of humanitarianism?: an anatomy of the attack. Macrae J. **Disasters** 1998 Dec;22(4):309–17 (13 ref.)
An ombudsman for humanitarian assistance? Mitchell J, et al. **Disasters** 1999 Jun;23(2):115–24
The European Community Humanitarian Office (ECHO): 1992–1999 and beyond. Mowjee T. **Disasters** 1998 Sep; 22(3):250–67
Landslides, risk and decision-making in Kinnaur District: bridging the gap between science and public opinion. Pilgrim NK. **Disasters** 1999 Mar;23(1):45–65
Military intervention and humanitarian action: trends and issues. Pugh M. **Disasters** 1998 Dec;22(4):339–51 (30 ref.)
In defence of humanitarianism. Stockton N. **Disasters** 1998 Dec;22(4):352–60 (9 ref.)
Impact of Hurricane Mitch on Central America. **Epidemiol Bull** 1998 Dec;19(4):1–13
Emergency contraception among refugees and the displaced. Goodyear L, et al. **J Am Med Womens Assoc** 1998;53(5 Suppl 2):266–70
To South Sudan with operation lifeline Sudan and UNICEF. Taylor-Robinson SD. **J R Coll Physicians Lond** 1999 May-Jun;33(3):276–9 (4 ref.)
The medical department in military operations other than war. Part II: Medical Civic Assistance Program in Southeast Asia. Baker MS, et al. **Mil Med** 1999 Sep; 164(9):619–25
The medical department in military operations other than war. Part I. Planning for deployment. Baker MS, et al. **Mil Med** 1999 Aug;164(8):572–9 (22 ref.)
Levels of medical support for United Nations peacekeeping operations. Seet B. **Mil Med** 1999 Jul;164(7):451–6 (24 ref.)
Physical therapy in a peacekeeping operation: Operation Joint Endeavor/Operation Joint Guard. Teyhen DS. **Mil Med** 1999 Aug;164(8):590–4
International medical readiness [letter] Waller SG, et al. **Mil Med** 1999 Aug;164(8):viii
The HCA "Battle-Lab" [letter; comment] Waller SG, et al. **Mil Med** 1999 Jul;164(7):V. Comment on: Mil Med 1999 May;164(5):319–21.
WJM interview with Dr. James Orbinski [interview by Miriam Shuchman] Orbinski J. **West J Med** 1999 Jun; 170(6):370–2
[Memisa: from medical missionary action into a medical relief organization] Kok PW. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2800–3 (Eng. Abstr.) **(Dut)**
[Memisa: surgical help in Cambodia] Swierstra JC. **Ned Tijdschr Geneeskd** 1999 Feb 27;143(9):477–81 (Eng. Abstr.) **(Dut)**
[Sudan, through the back door] Veeken H. **Ned Tijdschr Geneeskd** 1998 Aug 1;142(31):1781–5 (Eng. Abstr.) **(Dut)**
[The essential drugs program in Haiti] Benitez AJ. **Sante Publique** 1998 Dec;10(4):401–12 (Eng. Abstr.) **(Fre)**
[The procedures for the organization and management of comprehensive health and hygiene measures under extreme conditions] Mairapetian AKh. **Gig Sanit** 1999 Mar-Apr; (2):65–7 **(Rus)**

RELIGION

Women who are HIV infected: the role of religious activity in psychosocial adjustment. Biggar H, et al. **AIDS Care** 1999 Apr;11(2):195–9
Yes, religion and spirituality do matter in health [letter; comment] Hamilton J. **Altern Ther Health Med** 1999 Jul; 5(4):18. Comment on: Altern Ther Health Med 1999 May;5(3):16–8.
Jeff Levin, MPH, PhD. The power of love [interview by Bonnie Horrigan] Levin J. **Altern Ther Health Med** 1999 Jul;5(4):78–86
Religious and spiritual case reports on MEDLINE: a systematic analysis of records from 1980 to 1996. Lukoff D, et al. **Altern Ther Health Med** 1999 Jan;5(1):64–70 (68 ref.)
Effects of a prayer circle on a moribund premature infant. Springer SC, et al. **Altern Ther Health Med** 1999 Mar; 5(2):120, 115–8
When faith is used to justify abuse. Helping victims of domestic violence. Miles A. **Am J Nurs** 1999 May; 99(5):32–5
Religiosity as a protective factor in depressive disorder [letter; comment] Braam A, et al. **Am J Psychiatry** 1999 May;156(5):809; discussion 810. Comment on: Am J Psychiatry 1998 Apr;155(4):536–42.
Religiosity as a protective factor in depressive disorder [letter; comment] Miller L, et al. **Am J Psychiatry** 1999 May;156(5):808–9; discussion 809–10. Comment on: Am J Psychiatry 1998 Apr;155(4):536–42.
Fruit and vegetable consumption and prevention of cancer: the Black Churches United for Better Health project. Campbell MK, et al. **Am J Public Health** 1999 Sep; 89(9):1390–6
Religion and mortality among the community-dwelling elderly. Oman D, et al. **Am J Public Health** 1998 Oct; 88(10):1469–75
Images of God used by self-injurious burn patients. Grossoehme DH, et al. **Burns** 1999 Aug;25(5):443–8
Spiritual well-being and demands of illness in people with colorectal cancer. Fernsler JI, et al. **Cancer Nurs** 1999 Apr; 22(2):134–40; quiz 141–2
"Pray sign" and giant cell arteritis [letter] González-Gay MA, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):128–9
Religious sanctions and rates of suicide worldwide. Kelleher MJ, et al. **Crisis** 1998;19(2):78–86
Religious involvement and U.S. adult mortality. Hummer RA, et al. **Demography** 1999 May;36(2):273–85
Epilepsy and religious experiences: Voodoo possession. Carrazana E, et al. **Epilepsia** 1999 Feb;40(2):239–41
Neighborhood deterioration, religious coping, and changes in health during late life. Krause N. **Gerontologist** 1998 Dec; 38(6):653–64
The religion-health connection: evidence, theory, and future directions. Ellison CG, et al. **Health Educ Behav** 1998 Dec; 25(6):700–20 (109 ref.)
Religion's role in promoting health and reducing risk among American youth. Wallace JM Jr, et al. **Health Educ Behav** 1998 Dec;25(6):721–41
Religious faith in Mexican-American families dealing with chronic childhood illness. Rehm RS. **Image J Nurs Sch** 1999;31(1):33–8
The ethnic cultural and social aspects of incontinence--a pilot study. Chaliha C, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(3):166–70
Prayer in the lives of late adolescents. McKinney JP, et al. **J Adolesc** 1999 Apr;22(2):279–90
Spirituality, psychological well-being, and HIV symptoms for African Americans living with HIV disease. Coleman CL, et al. **J Assoc Nurses AIDS Care** 1999 Jan-Feb; 10(1):42–50
Does religious attendance prolong survival? A six-year follow-up study of 3,968 older adults. Koenig HG, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jul;54(7):M370–6
The relationship between religious activities and cigarette smoking in older adults. Koenig HG, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M426–34
Prayer in palliative care? [editorial] Roy DJ. **J Palliat Care** 1999 Summer;15(2):3–4
Angels and spirits in the world of illness. Rahman F. **Lancet** 1998 Oct 10;352(9135):1218–9
An exploratory study examining the influence of religion on attitudes towards organ donation among the Asian population in Luton, UK [news] [see comments] Randhawa G. **Nephrol Dial Transplant** 1998 Aug;13(8):1949–54. Comment in: Nephrol Dial Transplant 1999 Feb;14(2):521.
A stroke patient whose husband opposes treatment. Goodridge D, et al. **Practitioner** 1998 Dec; 242(1593):819–22, 824, 827 passim
Complaints against scientology doctors [news] van der Linde I. **S Afr Med J** 1999 May;89(5):507
Religion and science [letter] Fjerdinstad EJ. **Science** 1999 Jun 11;284(5421):1773
Primary socialization theory and a bio/psycho/social/spiritual practice model for substance use. Leukefeld CG, et al. **Subst Use Misuse** 1999 Jun; 34(7):983–91
Primary socialization theory. Developmental stages, spirituality, government institutions, sensation seeking, and theoretical implications. V. Oetting ER. **Subst Use Misuse** 1999 Jun;34(7):947–82
Smoking among religious professionals in Turkey [letter] Acik Y, et al. **Tob Control** 1998 Autumn;7(3):326–7
A religious upbringing reduces the influence of genetic factors on disinhibition: evidence for interaction between genotype and environment on personality. Boomsma DI, et al. **Twin Res** 1999 Jun;2(2):115–25
Intrinsic and extrinsic religiousness: genetic and environmental influences and personality correlates. Bouchard TJ Jr, et al. **Twin Res** 1999 Jun;2(2):88–98
Adolescent religiousness and its influence on substance use: preliminary findings from the Mid-Atlantic School Age Twin Study. D'Onofrio BM, et al. **Twin Res** 1999 Jun; 2(2):156–68
Transmission of religion and attitudes. Eaves L, et al. **Twin Res** 1999 Jun;2(2):59–61
Resiliency factors protecting against teenage alcohol use and smoking: influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. Heath AC, et al. **Twin Res** 1999 Jun; 2(2):145–55
Clarifying the relationship between religiosity and psychiatric illness: the impact of covariates and the specificity of buffering effects. Kendler KS, et al. **Twin Res** 1999 Jun; 2(2):137–44
Self-transcendence as a measure of spirituality in a sample of older Australian twins. Kirk KM, et al. **Twin Res** 1999 Jun;2(2):81–7
Frequency of church attendance in Australia and the United States: models of family resemblance. Kirk KM, et al. **Twin Res** 1999 Jun;2(2):99–107
Religion and depression: a review of the literature. McCullough ME, et al. **Twin Res** 1999 Jun;2(2):126–36 (86 ref.)
Religious attendance and frequency of alcohol use: same genes or same environments: a bivariate extended twin kinship model. Maes HH, et al. **Twin Res** 1999 Jun; 2(2):169–79
Individual differences in adolescent religiosity in Finland: familial effects are modified by sex and region of residence. Winter T, et al. **Twin Res** 1999 Jun;2(2):108–14

HISTORY

Holy anorexia and anorexia nervosa: society and concept of disease. Saraf M. **Pharos** 1998 Fall;61(4):2–4
Freud, Moses, and the religions of Egyptian antiquity: a journey through history. Rice E. **Psychoanal Rev** 1999 Apr; 86(2):223–43

PSYCHOLOGY see RELIGION AND PSYCHOLOGY

RELIGION AND MEDICINE

Caring for the Orthodox Jewish patient on the Sabbath [letter] Rose A. **Acad Emerg Med** 1999 Aug;6(8):865–6
Do entheogen-induced mystical experiences boost the immune system? Psychedelics, peak experiences, and wellness. Roberts TB. **Adv Mind Body Med** 1999 Spring; 15(2):139–47
Buddhism and medicine: reflections. Upton MP. **Adv Mind Body Med** 1999 Spring;15(2):138–9
Do religion and spirituality matter in health? A response to the recent article in The Lancet [see comments] Dossey L. **Altern Ther Health Med** 1999 May;5(3):16–8. Comment in: Altern Ther Health Med 1999 Jul;5(4):18.
Alzheimer dementia: the Judaeo-Biblical perspective on patient care and genetic predestination or neurocalvinism. Tendler MD. **Alzheimer Dis Assoc Disord** 1998;12 Suppl 3:S21–3
Risk of infectious disease transmission from a common communion cup [letter] Manangan LP, et al. **Am J Infect Control** 1998 Oct;26(5):538–9
Exorcisms used for treatment of urinary tract diseases in Greece during the Middle Ages and Renaissance. Diamandopoulos A. **Am J Nephrol** 1999;19(2):114–24
Jewish medicine and the University of Padua: contribution of the Padua graduate Toviah Cohen to nephrology. Massry SG, et al. **Am J Nephrol** 1999;19(2):213–21
Psychopharmacologic Calvinism [letter] Hierholzer R. **Am J Psychiatry** 1999 Jul;156(7):1121–2
When religion collides with medicine [clinical conference] Stotland NL. **Am J Psychiatry** 1999 Feb;156(2):304–7
Extended hemipelvectomy in a Jehovah's Witness with erythropoietin support. Meyers MO, et al. **Am Surg** 1998 Nov;64(11):1074–6
Early Islamic physicians and thorax. Batirel HF. **Ann Thorac Surg** 1999 Feb;67(2):578–80
Caring for the Islamic patient. McKennis AT. **AORN J** 1999 Jun;69(6):1187–96; quiz 1199–206 (18 ref.)
Spirituality in medical practice. Thomsen RJ. **Arch Dermatol** 1998 Nov;134(11):1443–6
Do patients want physicians to inquire about their spiritual or religious beliefs if they become gravely ill? Ehman JW, et al. **Arch Intern Med** 1999 Aug 9–23;159(15):1803–6
The view of Jehovah's Witnesses on blood substitutes. Bailey R, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1998 Nov;26(5–6):571–6 (8 ref.)
Spirituality and health. Hassed C. **Aust Fam Physician** 1999 Apr;28(4):387–8 (7 ref.)
Can faith make you whole? Wijesinha S. **Aust Fam Physician** 1999 Jul;28(7):735
Religion and neurobiology [letter; comment] Sher L. **Aust N Z J Psychiatry** 1998 Aug;32(4):591. Comment on: Aust N Z J Psychiatry 1997 Aug;31(4):604–6.
Religion and hypertension: testing alternative explanations among immigrants. Walsh A. **Behav Med** 1998 Fall; 24(3):122–30
Circumcision [letter] Green JS, et al. **BJU Int** 1999 Jul; 84(1):187
A circumcision service for religious reasons. Shah T, et al. **BJU Int** 1999 May;83(7):807–9
Perioperative care of a Jehovah's Witness with a leaking abdominal aortic aneurysm. Baker CE, et al. **Br J Anaesth** 1998 Aug;81(2):256–9
Hildegard of Bingen and the greening of medieval medicine. Sweet V. **Bull Hist Med** 1999 Fall;73(3):381–403
Ut Dicunt Medici: medical knowledge and theological debates in the second half of the thirteenth century. Ziegler J. **Bull Hist Med** 1999 Summer;73(2):208–37
Cutting bodies to harvest organs. Portmann J. **Camb Q Healthc Ethics** 1999 Summer;8(3):288–98
Spiritual perspectives and practices of family physicians with an expressed interest in spirituality. Craigie FC Jr, et al. **Fam Med** 1999 Sep;31(8):578–85

Screening Jews and genes: a consideration of the ethics of genetic screening within the Jewish community: challenges and responses. Levin M. **Genet Test** 1999;3(2):207–13

In God's garden. Creation and cloning in Jewish thought. Cohen JR. **Hastings Cent Rep** 1999 Jul–Aug;29(4):7–12

The reality behind suffering [letter] Dunne T. **Hastings Cent Rep** 1999 May–Jun;29(3):4–5

Justification by faith. Schneider CE. **Hastings Cent Rep** 1999 Jan–Feb;29(1):24–5

Public health and health education in faith communities. Chatters LM, et al. **Health Educ Behav** 1998 Dec; 25(6):689–99

Need religion and numbers [letter; comment] Fitzpatrick MA. **Image J Nurs Sch** 1999;31(1):8–9. Comment on: Image J Nurs Sch 1998;30(1):81–3.

Cannot separate spiritual from physical [letter] Flauta P. **Image J Nurs Sch** 1999;31(1):8

Nehushtan: the dry bones, Ezekiel, Prometheus, the breath, and the signals. Goihman-Yahr M. **Int J Dermatol** 1998 Aug;37(8):570–1

Saint Hildegard von Bingen (1098–1179): "the light of her people and of her time". Ramos-e-Silva M. **Int J Dermatol** 1999 Apr;38(4):315–20

A review of spirituality as applied to nursing. Narayanasamy A. **Int J Nurs Stud** 1999 Apr;36(2):117–25 (38 ref.)

Jewish mystical movements and the European ergot epidemics. Packer S. **Isr J Psychiatry Relat Sci** 1998; 35(3):227–39; discussion 240–1

Do you believe in God? [editorial] Parmley WW. **J Am Coll Cardiol** 1999 Feb;33(2):583

Health and human rights of adolescent girls in Afghanistan. Heisler M, et al. **J Am Med Womens Assoc** 1999 Summer; 54(3):155–7

GIFT–ICSI for the treatment of male-factor infertility for patients with religious objections to in vitro fertilization: a case report. Allan JA, et al. **J Assist Reprod Genet** 1999 Feb;16(2):108–9

Ulcerative colitis in the Kinneret sub district, Israel 1965–1994: incidence and prevalence in different subgroups. Shapira M, et al. **J Clin Gastroenterol** 1998 Sep; 27(2):134–7

Nutrition and hydration: moral and pastoral reflections. National Conference of Catholic Bishops Committee for Pro-life Activities. **J Contemp Health Law Policy** 1999 Spring;15(2):455–77 (47 ref.)

Spirituality and medicine [letter; comment] Anandarajah G. **J Fam Pract** 1999 May;48(5):389. Comment on: J Fam Pract 1999 Feb;48(2):96–7. Comment on: J Fam Pract 1999 Feb;48(2):98–104. Comment on: J Fam Pract 1999 Feb;48(2):105–9.

Spiritual and religious beliefs and practices of family physicians: a national survey [see comments] Daaleman TP, et al. **J Fam Pract** 1999 Feb;48(2):98–104. Comment in: J Fam Pract 1999 Feb;48(2):96–7. Comment in: J Fam Pract 1999 May;48(5):389. Comment in: J Fam Pract 1999 Jul;48(7):501–3.

Addressing spiritual concerns of patients: family physicians' attitudes and practices [see comments] Ellis MR, et al. **J Fam Pract** 1999 Feb;48(2):105–9. Comment in: J Fam Pract 1999 May;48(5):389. Comment in: J Fam Pract 1999 Jul;48(7):501–3.

Research on spirituality: dangerous and deceptive ground? [letter; comment] Payne FE. **J Fam Pract** 1999 Jul; 48(7):501–3. Comment on: J Fam Pract 1999 Feb;48(2):96–7. Comment on: J Fam Pract 1999 Feb;48(2):98–104. Comment on: J Fam Pract 1999 Feb;48(2):105–9.

Inclusive spirituality [editorial; comment] [see comments] Thomason CL, et al. **J Fam Pract** 1999 Feb;48(2):96–7. Comment on: J Fam Pract 1999 Feb;48(2):98–104. Comment in: J Fam Pract 1999 May;48(5):389. Comment in: J Fam Pract 1999 Jul;48(7):501–3.

Integrating Buddhism and HIV prevention in U.S. southeast Asian communities. Loue S, et al. **J Health Care Poor Underserved** 1999 Feb;10(1):100–21 (107 ref.)

Mormons and health: impact of Latter-day Saint Scriptures on health and health practices. Cornish JD. **J Med Assoc Ga** 1998 Nov;87(4):303–4

Eckankar: personal experiences with The Holy Spirit. Dennard D. **J Med Assoc Ga** 1998 Nov;87(4):294–5

Religious congregations as factors in health outcomes. Gunderson GR. **J Med Assoc Ga** 1998 Nov;87(4):296–8

The new focus on spirituality in medicine. McBride JL. **J Med Assoc Ga** 1998 Nov;87(4):281–4

Jehovah's witnesses and medicine: an overview of beliefs and issues in their care. Malak J. **J Med Assoc Ga** 1998 Nov; 87(4):322–7 (34 ref.)

At the intersection of clinical and business practices: a catholic perspective. Meaney ME. **J Med Assoc Ga** 1998 Nov;87(4):286–9

Sufi healing practices. Mohiuddin A. **J Med Assoc Ga** 1998 Nov;87(4):319–20

Hinduism and medical practice. Sinha PK. **J Med Assoc Ga** 1998 Nov;87(4):312–4

The observant Jewish physician. Tate JL. **J Med Assoc Ga** 1998 Nov;87(4):309–10

The evolution of an epidemiologist: a Unitarian-Universalist in public health. Tauxe RV. **J Med Assoc Ga** 1998 Nov; 87(4):305–8

Miracles: quirks of nature or the hand of God. Wilson JS Jr. **J Med Assoc Ga** 1998 Nov;87(4):291–3

Transfusion-free treatment of Jehovah's Witnesses: respecting the autonomous patient's rights [comment] Malyon D. **J Med Ethics** 1998 Oct;24(5):302–7. Comment on: J Med Ethics 1998 Oct;24(5):295–301.

Bioethics of the refusal of blood by Jehovah's Witnesses: Part 2. A novel approach based on rational non-interventional paternalism [see comments] Muramoto O. **J Med Ethics** 1998 Oct;24(5):295–301. Comment in: J Med Ethics 1998 Oct;24(5):302–7.

Medicine, ethics and religion: rational or irrational? Orr RD, et al. **J Med Ethics** 1998 Dec;24(6):385–7

Two worlds apart: religion and ethics. Savulescu J. **J Med Ethics** 1998 Dec;24(6):382–4

Search for the soul [letter; comment] Galaria I. **J Neurosurg** 1999 Apr;90(4):807. Comment on: J Neurosurg 1998 Nov;89(5):874–87.

Relief of breast engorgement for the Sabbath-observant Jewish woman. Chertok I. **J Obstet Gynecol Neonatal Nurs** 1999 Jul–Aug;28(4):365–9 (13 ref.)

Articulating the concept of palliative care: philosophical and theological perspectives. Janssens RM, et al. **J Palliat Care** 1999 Summer;15(2):38–44 (29 ref.)

Medical implications of controlled fasting [letter; comment] Sheikh A. **J R Soc Med** 1998 Aug;91(8):453. Comment on: J R Soc Med 1998 May;91(5):260–3.

Getting religion seen as help in being well [news] Mitka M. **JAMA** 1998 Dec 9;280(22):1896–7

Can an amulet cure leukemia? Rosner F. **JAMA** 1999 Jul 28;282(4):307

Health consequences of religious and philosophical exemptions from immunization laws: individual and societal risk of measles. Salmon DA, et al. **JAMA** 1999 Jul 7; 282(1):47–53

How do Jains get toxoplasma infection? [letter] Hall SM, et al. **Lancet** 1999 Aug 7;354(9177):486–7

Religion and medicine [letter; comment] Keonig HG. **Lancet** 1999 May 22;353(9166):1804. Comment on: Lancet 1999 Feb 20;353(9153):664–7.

Religion and medicine [letter; comment] Rabin BS. **Lancet** 1999 May 22;353(9166):1803–4. Comment on: Lancet 1999 Feb 20;353(9153):664–7.

Quintessence of dust. Richardson R. **Lancet** 1999 Jul 3; 354(9172):79

Religion and medicine [letter; comment] Roper TA. **Lancet** 1999 May 22;353(9166):1803. Comment on: Lancet 1999 Feb 20;353(9153):664–7.

Religion, spirituality, and medicine [see comments] Sloan RP, et al. **Lancet** 1999 Feb 20;353(9153):664–7 (39 ref.). Comment in: Lancet 1999 May 22;353(9166):1803. Comment in: Lancet 1999 May 22;353(9166):1803–4. Comment in: Lancet 1999 May 22;353(9166):1804.

Religion and medicine [letter; comment] Tucker JB. **Lancet** 1999 May 22;353(9166):1803. Comment on: Lancet 1999 Feb 20;353(9153):664–7.

James Hart of Northampton and the Calvinist critique of priest-physicians: an unpublished polemic of the early 1620s. Harley D. **Med Hist** 1998 Jul;42(3):362–86

Law, blood transfusions and Jehovah's Witnesses. Letsoalo JL. **Med Law** 1998;17(4):633–8

The holy society. Stein J. **Minn Med** 1998 Nov;81(11):12–3, 47

Complementary therapies and traditional Judaism. Rosner F. **Mt Sinai J Med** 1999 Mar;66(2):102–5

Sharing the pain: response of the churches in Papua New Guinea to the AIDS pandemic. Bouten M. **P N G Med J** 1996 Sep;39(3):220–4 (0 ref.)

Questions and reflections. Rifkin WD. **Pharos** 1999 Spring; 62(2):34–6

Skin commotion from repetitive devotion. Prayer callus. Mishriki YY. **Postgrad Med** 1999 Mar;105(3):153–4

The role of religious and spiritual beliefs in coping with malignant melanoma: an Israeli sample. Baider L, et al. **Psychooncology** 1999 Jan–Feb;8(1):27–35

Cancer experiences of African-American women as portrayed in popular mass magazines. Hoffman-Goetz L. **Psychooncology** 1999 Jan–Feb;8(1):36–45

The role of religious and spiritual beliefs in coping with malignant melanoma. Holland JC, et al. **Psychooncology** 1999 Jan–Feb;8(1):14–26

A brief spiritual beliefs inventory for use in quality of life research in life-threatening illness. Holland JC, et al. **Psychooncology** 1998 Nov–Dec;7(6):460–9

Religious reasons for discontinuation of immunosuppressive medications after renal transplant. Subach RA, et al. **Ren Fail** 1999 Mar;21(2):223–6

Two unconventional testimonies of urolithiasis in the 18th century on the 1600th anniversary of St. Liborius' death (397–1997) [see comments] Fatovic-Ferencic S, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):245–9. Comment in: Scand J Urol Nephrol 1998 Jul;32(4):250.

A few comments on the recipes against kidney stones in the Croatian prayerbook [editorial; comment] Tiselius HG. **Scand J Urol Nephrol** 1998 Jul;32(4):250. Comment on: Scand J Urol Nephrol 1998 Jul;32(4):245–9.

The effect of spiritual beliefs on outcome from illness. King M, et al. **Soc Sci Med** 1999 May;48(9):1291–9

Pediatricians' and social workers' knowledge and opinions of Florida's religious immunity laws. Hartog MA, et al. **South Med J** 1999 Apr;92(4):362–8

Use of hospital services, religious attendance, and religious affiliation. Koenig HG, et al. **South Med J** 1998 Oct; 91(10):925–32

The northeast Tennessee Spirituality and End of Life Issues Survey. Ginn DR, et al. **Tenn Med** 1998 Nov;91(11):425–30 (13 ref.)

Recent developments in medical care of Jehovah's Witnesses. Muramoto O. **West J Med** 1999 May;170(5):297–301 (22 ref.)

A memorable incident: when a shovel should be an agricultural implement. Tomlin PJ. **West J Med** 1999 May; 170(5):307

[The persecution of Jews during the time of the plague (1349–50) in southern Netherlands] Cluse CM. **Verh K Acad Geneeskd Belg** 1999;61(2):135–73 (Eng. Abstr.) **(Dut)**

[Eye witnesses and the flagellants in the year 1349] Jansen-Sieben R. **Verh K Acad Geneeskd Belg** 1999; 61(2):175–98 (Eng. Abstr.) **(Dut)**

[All around the deathbed of Lubbert ten Busch. The Modern Devotion and the plague in Deventer in 1398] Mertens T. **Verh K Acad Geneeskd Belg** 1999;61(2):231–48 (Eng. Abstr.) **(Dut)**

[To go along with life until death] Bertrand M. **Bull Acad Natl Med** 1999;183(5):935–43 (Eng. Abstr.) **(Fre)**

[Spiritual needs at the end of life] Boubakeur D. **Bull Acad Natl Med** 1999;183(5):929–33 (16 ref.) (Eng. Abstr.) **(Fre)**

[Life from beginning to end] Sitruk J. **Bull Acad Natl Med** 1999;183(5):945–9 (Eng. Abstr.) **(Fre)**

[Person, body, cadaver, and back] Carlino A. **Rev Med Suisse Romande** 1998 Dec;118(12):1035–41 **(Fre)**

["I'm afraid, but I can't let it show". On the journals (1933–1945) of the "1st degree mixed-race physician" Professor Dr. med. Max Flesch-Thebesius (1889–1983)] Kreft G. **Medizinhist J** 1998;33(3–4):323–47 **(Ger)**

[Johanna the probable--a pregnant pope?] Mehler N, et al. **Zentralbl Gynakol** 1999;121(2):79–81 **(Ger)**

[Medical-assisted reproduction and protection of the person] Compagnoni F. **Ann Ist Super Sanita** 1998;34(2):233–6 (Eng. Abstr.) **(Ita)**

[But God was not dead?] Fugelli P. **Tidsskr Nor Laegeforen** 1998 Dec 10;118(30):4762–3 **(Nor)**

[Belief] Kaldestad E. **Tidsskr Nor Laegeforen** 1999 Apr 10; 119(9):1309–12 (10 ref.) (Eng. Abstr.) **(Nor)**

[Magic and religion in medicine and otorhinolaryngology] Chumakov FI. **Vestn Otorinolaringol** 1999;(4):58–9 **(Rus)**

[Spiritual needs of severely ill patients are neglected in health care] Einhorn S. **Lakartidningen** 1999 May 12;96(19):2362–6 (20 ref.) (Eng. Abstr.) **(Swe)**

[Return of the goddesses of childbirth--"back to nature with a little assistance"] Högberg U. **Lakartidningen** 1999 Jan 6;96(1–2):61–7 **(Swe)**

[We don't want to rub the New Age philosophies the right way--on the contrary! (letter)] Jacobsson G, et al. **Lakartidningen** 1999 Feb 10;96(6):578–9 **(Swe)**

[Spiritual values can make the suffering meaningful and manageable. Existential questions are of current interest in palliative care] Strang P, et al. **Lakartidningen** 1999 Jun 16;96(24):2942–4 **(Swe)**

[From cave paintings to status portraits. Physicians in art] Vinnars E. **Lakartidningen** 1998 Dec 16;95(51–52):5911–5 **(Swe)**

RELIGION AND PSYCHOLOGY

Research on spirituality and Alcoholics Anonymous. Galanter M. **Alcohol Clin Exp Res** 1999 Apr;23(4):716–9 (32 ref.)

Taoists eat their words, too [letter] Cohen KS. **Altern Ther Health Med** 1999 Jan;5(1):18

Is religiousness a correlate of absorption? Implications for psychophysiology, coping, and morbidity. Levin JS, et al. **Altern Ther Health Med** 1998 Nov;4(6):72–6

A time to every purpose. Was her husband sending messages after his death? Baltz BM. **Am J Nurs** 1998 Nov;98(11):47

A critique of classical psychoanalytic theories of anti-Semitism: a commentary on M. Ostrow's myth and madness: the psychodynamics of anti-Semitism. Rosenman S. **Am J Psychoanal** 1998 Dec;58(4):417–33

Horney, Zen, and the real self. Westkott M. **Am J Psychoanal** 1998 Sep;58(3):287–301

Psychodynamic psychotherapy, religious beliefs, and self-disclosure. Tillman JG. **Am J Psychother** 1998 Summer;52(3):273–86

Faith-assisted cognitive therapy of obsessive-compulsive disorder. Gangdev PS. **Aust N Z J Psychiatry** 1998 Aug; 32(4):575–8

(You gotta have) faith. Korner A. **Aust N Z J Psychiatry** 1998 Aug;32(4):546–50

Religious--sociocultural psychotherapy in patients with anxiety and depression. Razali SM, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):867–72

Religion and neurobiology [letter; comment] Sher L. **Aust N Z J Psychiatry** 1998 Aug;32(4):591. Comment on: Aust N Z J Psychiatry 1997 Aug;31(4):604–6.

Religion and hypertension: testing alternative explanations among immigrants. Walsh A. **Behav Med** 1998 Fall; 24(3):122–30

Cross-cultural aspects of fears in African children and

adolescents. Ingman KA, et al. **Behav Res Ther** 1999 Apr; 37(4):337–45

Delusional ideation in religious and psychotic populations. Peters E, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):83–96

The mental health of Muslim mothers in extended families living in Britain: the impact of intergenerational disagreement on anxiety and depression. Sonuga-Barke EJ, et al. **Br J Clin Psychol** 1998 Nov;37 (Pt 4):399–408

Suicide and attempted suicide in Pakistan. Khan MM. **Crisis** 1998;19(4):172–6

Religious affiliation, religious involvement, and alcohol use in Korea. Park JY, et al. **Cult Divers Ment Health** 1998; 4(4):291–6

The psychologizing of Chinese healing practices in the United States. Barnes LL. **Cult Med Psychiatry** 1998 Dec; 22(4):413–43

Not just a time-out: change dynamics of prayer for religious couples in conflict situations. Butler MH, et al. **Fam Process** 1998 Winter;37(4):451–78 (70 ref.)

The place of material in a constructed world [comment] Gergen KJ. **Fam Process** 1998 Winter;37(4):415–9. Comment on: Fam Process 1998 Winter;37(4):393–413.

Social construction and materiality: the limits of indeterminacy in therapeutic settings [see comments] Lannamann JW. **Fam Process** 1998 Winter;37(4):393–413. Comment in: Fam Process 1998 Winter;37(4):415–9.

The place of the constructed in a materially responsive world. Lannamann JW. **Fam Process** 1998 Winter;37(4):421–3

The role of private prayer in psychological recovery among midlife and aged patients following cardiac surgery. Ai AL, et al. **Gerontologist** 1998 Oct;38(5):591–601

Does public and private religiosity have a moderating effect on depression? A bi-racial study of elders in the American South. Husaini BA, et al. **Int J Aging Hum Dev** 1999; 48(1):63–72

Continuity in the lives of elder catholic women religious. Melia SP. **Int J Aging Hum Dev** 1999;48(3):175–89

Regional suicide rates in the Netherlands: does religion still play a role? Neeleman J. **Int J Epidemiol** 1998 Jun; 27(3):466–72

Religious mania and criminal nonculpability. Religious and psychiatric reactions to a case of manslaughter in The Netherlands (1900). Belzen JA. **Int J Law Psychiatry** 1998 Fall;21(4):433–45

Explanations of mental health symptoms by the Bedouin-Arabs of the Negev. al-Krenawi A. **Int J Soc Psychiatry** 1999 Spring;45(1):56–64

Effects of religiosity and racial socialization on subjective stigmatization in African-American adolescents. Brega AG, et al. **J Adolesc** 1999 Apr;22(2):223–42

Psychology of religion and adolescents in the United States: past to present. Donelson E. **J Adolesc** 1999 Apr; 22(2):187–204 (158 ref.)

Religious development in adolescence. Elkind D. **J Adolesc** 1999 Apr;22(2):291–5

Some clinical applications of religious development in adolescence. Lovinger SL, et al. **J Adolesc** 1999 Apr; 22(2):269–77

Adolescents and religion: a view from the millenium [editorial] McKinney JP. **J Adolesc** 1999 Apr;22(2):185

Prayer in the lives of late adolescents. McKinney JP, et al. **J Adolesc** 1999 Apr;22(2):279–90

Religious involvement and adolescent psychosocial development. Markstrom CA. **J Adolesc** 1999 Apr; 22(2):205–21

Off-road religion? A narrative approach to fundamentalist and occult orientations of adolescents. Streib H. **J Adolesc** 1999 Apr;22(2):255–67

Religion, community service, and identity in American youth. Youniss J, et al. **J Adolesc** 1999 Apr;22(2):243–53 (23 ref.)

Cut from the right wood: spiritual and ethical pluralism in professional nursing practice. Cusveller B. **J Adv Nurs** 1998 Aug;28(2):266–73 (26 ref.)

Transcending the physical: spiritual aspects of pain in patients with HIV and/or cancer. Newshan G. **J Adv Nurs** 1998 Dec;28(6):1236–41 (38 ref.)

Divine space: contemplating the object behind a religious patient's spatial metaphor. Spero MH. **J Am Acad Psychoanal** 1998 Fall;26(3):457–85

Religious activity improves life satisfaction for some physicians and older patients. Ayele H, et al. **J Am Geriatr Soc** 1999 Apr;47(4):453–5

Authentic religious experience or insanity? Sanderson S, et al. **J Clin Psychol** 1999 May;55(5):607–16

Suicide, religion, and socioeconomic conditions. An ecological study in 26 countries, 1990. Neeleman J, et al. **J Epidemiol Community Health** 1999 Apr;53(4):204–10

Family, religion, and depressive symptoms in caregivers of disabled elderly. Zunzunegui MV, et al. **J Epidemiol Community Health** 1999 Jun;53(6):364–9

Medicine, ethics and religion: rational or irrational? Orr RD, et al. **J Med Ethics** 1998 Dec;24(6):385–7

Two worlds apart: religion and ethics. Savulescu J. **J Med Ethics** 1998 Dec;24(6):382–4

Religious experience was not correctly defined [letter; comment] Kozart M. **J Neuropsychiatry Clin Neurosci** 1998 Fall;10(4):475–6. Comment on: J Neuropsychiatry Clin Neurosci 1997 Summer;9(3):498–510.

When ideology hurts: effects of belief in the protestant ethic and feeling overweight on the psychological well-being of women. Quinn DM, et al. **J Pers Soc Psychol** 1999 Aug; 77(2):402–14

Religiosity is associated with affective and immune status in symptomatic HIV-infected gay men. Woods TE, et al. **J Psychosom Res** 1999 Feb;46(2):165–76

Religion and the psychotherapeutic relationship. Transferential and countertransferential dimensions. Abernethy AD, et al. **J Psychother Pract Res** 1998 Fall; 7(4):281–9

Spirituality in the lives of older women. Foley L, et al. **J Women Aging** 1998;10(2):85–91

Recommendations for integrating spirituality in mental health services. Fallot RD. **New Dir Ment Health Serv** 1998 Winter;(80):97–100

Assessment of spirituality and implications for service planning. Fallot RD. **New Dir Ment Health Serv** 1998 Winter;(80):13–23

The place of spirituality and religion in mental health services. Fallot RD. **New Dir Ment Health Serv** 1998 Winter;(80):3–12 (35 ref.)

Spiritual and religious dimensions of mental illness recovery narratives. Fallot RD. **New Dir Ment Health Serv** 1998 Winter;(80):35–44 (18 ref.)

Spiritual dimensions of a mind-body group for people with severe mental illness. Freeman DW, et al. **New Dir Ment Health Serv** 1998 Winter;(80):57–67

Religious-issues group therapy. Kehoe NC. **New Dir Ment Health Serv** 1998 Winter;(80):45–55

Research on religion and serious mental illness. Koenig HG, et al. **New Dir Ment Health Serv** 1998 Winter;(80):81–95 (60 ref.)

The faith community as a support for people with mental illness. Shifrin J. **New Dir Ment Health Serv** 1998 Winter; (80):69–80

Recoiling, regrouping, and recovering: first-person accounts of the role of spirituality in the course of serious mental illness. Sullivan WP. **New Dir Ment Health Serv** 1998 Winter;(80):25–33 (29 ref.)

Effects of praying and a working memory task in participants trained in meditation and controls on the occurrence of spontaneous thoughts. Fabbro F, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):765–70

A therapy group on spiritual issues for patients with chronic mental illness. Kehoe NC. **Psychiatr Serv** 1999 Aug; 50(8):1081–3

Relationship between maternal church attendance and adolescent mental health and social functioning. Varon SR, et al. **Psychiatr Serv** 1999 Jun;50(6):799–805

Mania as spiritual emergency. Whitney E. **Psychiatr Serv** 1998 Dec;49(12):1547–8

Taoistic cognitive psychotherapy for neurotic patients: a preliminary clinical trial. Xiao S, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S238–41

Archetype and interpretation. Burston D. **Psychoanal Rev** 1999 Feb;86(1):35–62

The spiritual variable in psychiatric research [editorial] King MB, et al. **Psychol Med** 1998 Nov;28(6):1259–62

Protestant Work Ethic as a moderator of mental and physical well-being. Gorgievski-Duijvesteijn M, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):1043–50

Zen and happiness. Lester D. **Psychol Rep** 1999 Apr;84(2):650

Change on psychological scales following Buddhist and Roman Catholic retreats. Tori CD. **Psychol Rep** 1999 Feb; 84(1):125–6

A brief spiritual beliefs inventory for use in quality of life research in life-threatening illness. Holland JC, et al. **Psychooncology** 1998 Nov-Dec;7(6):460–9

Religious and other predictors of psychosocial adjustment in cancer patients. Rifkin A, et al. **Psychosomatics** 1999 May-Jun;40(3):251–6

Differences in religiousness among black and white women with breast cancer. Bourjolly JN. **Soc Work Health Care** 1998;28(1):21–39

Review of the update of personality disorders [letter; comment] Smith GL 3rd. **South Med J** 1999 Jun; 92(6):639–40. Comment on: South Med J 1999 Jun;92(6):546–56.

Youth suicide: the knowledge and attitudes of Australian teachers and clergy. Leane W, et al. **Suicide Life Threat Behav** 1998 Summer;28(2):165–73

Heavy metal, religiosity, and suicide acceptability. Stack S. **Suicide Life Threat Behav** 1998 Winter;28(4):388–94

[Destructive cults: part curse, part blessing] Kraus D. **Prax Kinderpsychol Kinderpsychiatr** 1999 Mar; 48(3):192–201 (Eng. Abstr.) **(Ger)**

["Now tell me, what is your orientation to religion?"--Therapeutic attitude and management as an expression of religious faith] Schuierer E. **Wien Med Wochenschr** 1998;148(6):158–62 (17 ref.) (Eng. Abstr.) **(Ger)**

[Belief] Kaldestad E. **Tidsskr Nor Laegeforen** 1999 Apr 10; 119(9):1309–12 (10 ref.) (Eng. Abstr.) **(Nor)**

[Dream interpretation--a heritage from antiquity] Sjöstrand L. **Lakartidningen** 1998 Dec 16;95(51–52):5902–4 **(Swe)**

RELIGION AND SCIENCE

Religion and science [letter] Ayala FJ. **Science** 1999 Jun 11; 284(5421):1773

Religion and science [letter] Fjerdinstad EJ. **Science** 1999 Jun 11;284(5421):1773

Religion and science [letter] Goodenough UW. **Science** 1999 Jun 11;284(5421):1774

Subjecting belief to the scientific method [news] [see comments] Holden C. **Science** 1999 May 21; 284(5418):1257–9. Comment in: Science 1999 Jun 11;284(5421):1773.

Religion and science [letter] Stone E. **Science** 1999 Jun 11; 284(5421):1773

Religion and science [letter; comment] Weinberg S. **Science** 1999 Jun 11;284(5421):1773. Comment on: Science 1999 May 21;284(5418):1257–9.

Science and "truth" [letter; comment] Wójcik JF. **Science** 1999 Jul 30;285(5428):663. Comment on: Science 1999 Jun 25;284(5423):2087.

[From the Creationist Pierre-Joseph Van Beneden to his Darwinian son Edouard] Hamoir G. **Rev Med Liege** 1999 Jul;54(7):636–43 (Eng. Abstr.) **(Fre)**

RELIGION AND SEX

Introduction of the pill and its impact. Tyrer L. **Contraception** 1999 Jan;59(1 Suppl):11S–16S

Methods of semen collection not based on masturbation or surgical sperm retrieval. Gerris J. **Hum Reprod Update** 1999 May-Jun;5(3):211–5 (20 ref.)

Attitudes towards reproduction in Latin America. Teachings from the use of modern reproductive technologies. Zegers-Hochschild F. **Hum Reprod Update** 1999 Jan-Feb; 5(1):21–5 (5 ref.)

The politics of counter-rejection: gay christians and the church. Yip AK. **J Homosex** 1999;37(2):47–63 (52 ref.)

RELIGIOUS BELIEFS see **RELIGION**

RELIGIOUS ETHICS see **RELIGION**

RELIGIOUS HOSPITALS see **HOSPITALS, RELIGIOUS**

RELIGIOUS PHILOSOPHIES

Taoism: the way. Walker CA. **J Med Assoc Ga** 1998 Nov; 87(4):300–2

REMANTADINE see **RIMANTADINE**

REMEDIAL TEACHING

A case of extreme myopia enrolled at a school for the blind. Masanganise R. **Cent Afr J Med** 1998 May;44(5):136–8

Hawaii neuropsychology program gets results: the nuts and bolts of neurotraining. Craine J. **Hawaii Med J** 1998 Sep; 57(9):625–8

Collaboration in Glasgow's primary school language units. Fletcher M. **Int J Lang Commun Disord** 1998;33 Suppl:575–80

Phonemes, rhymes, and intelligence as predictors of children's responsiveness to remedial reading instruction: evidence from a longitudinal intervention study. Hatcher PJ, et al. **J Exp Child Psychol** 1999 Feb;72(2):130–53

A study of the efficacy of a comprehensive memory enhancement program in healthy elderly persons. Mohs RC, et al. **Psychiatry Res** 1998 Feb 27;77(3):183–95

Language learning impairment: integrating research and remediation. Tallal P, et al. **Scand J Psychol** 1998 Sep; 39(3):197–9

Interventions for neurocognitive deficits: editor's introduction [editorial] Green MF. **Schizophr Bull** 1999; 25(2):197–200

Studying the effectiveness of neurocognitive remediation in schizophrenia [letter] Jaeger J. **Schizophr Bull** 1999; 25(2):193–6

The effects of neurocognitive remediation on executive processing in patients with schizophrenia. Wykes T, et al. **Schizophr Bull** 1999;25(2):291–307

[The Marburg Parent-Child Spelling Trainer--follow up studies after 2 years] Schulte-Körne G, et al. **Z Kinder Jugendpsychiatr Psychother** 1998 Aug; 26(3):167–73 (Eng. Abstr.) **(Ger)**

REMINDER SYSTEMS

Use of chart reminders for physicians to promote discussion of advance directives in patients with AIDS. Walker NM, et al. **AIDS Care** 1999 Jun;11(3):345–53

Public health in managed care: a randomized controlled trial of the effectiveness of postcard reminders. Clayton AE, et al. **Am J Public Health** 1999 Aug;89(8):1235–7

Web-based health care agents; the case of reminders and todos, too (R2Do2). Silverman BG, et al. **Artif Intell Med** 1998 Nov;14(3):295–316

Evaluation of doctors' reminders in emergency departments to encourage cervical screening. Ward JE, et al. **Aust N Z J Public Health** 1999 Feb;23(1):95–8

Preventing failed appointments in general dental practice: a comparison of reminder methods. Reekie D, et al. **Br Dent J** 1998 Nov 14;185(9):472–4

Does telephone contact with a physician's office staff improve mammogram screening rates? Bodiya A, et al. **Fam Med** 1999 May;31(5):324–6

Call centers. No-show showdown [news] Serb C. **Hosp Health Netw** 1999 Sep;73(9):26

Repetition improves older and younger adult memory for automated appointment messages. Morrow D, et al. **Hum Factors** 1999 Jun;41(2):194–204

The impact of reminder letters on attendance for breast

cancer screening. Hayes C, et al. **Ir J Med Sci** 1999 Jan-Mar;168(1):29-32
Mailed reminders for area-wide influenza immunization: a randomized controlled trial. Smith DM, et al. **J Am Geriatr Soc** 1999 Jan;47(1):1-5
Measuring the effects of reminders for outpatient influenza immunizations at the point of clinical opportunity. Tang PC, et al. **J Am Med Inform Assoc** 1999 Mar-Apr; 6(2):115-21
Improving pneumococcal vaccine rates. Nurse protocols versus clinical reminders. Rhew DC, et al. **J Gen Intern Med** 1999 Jun;14(6):351-6
Early rescreen/recall in the UK National Health Service breast screening programme: epidemiological data. Ong GJ, et al. **J Med Screen** 1998;5(3):146-55
Improving uptake in non-attenders of breast screening: selective use of second appointment. Stead MJ, et al. **J Med Screen** 1998;5(2):69-72
Does reminder-recall augment the impact of voucher incentives on immunization rates among inner-city infants enrolled in WIC? Special Supplemental Program for Women, Infants, and Children. Hoekstra EJ, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):261-3
Increasing adherence to substance abuse aftercare group therapy. Lash SJ, et al. **J Subst Abuse Treat** 1999 Jan; 16(1):55-60
Improving vaccination coverage through accelerated measurement and feedback [letter; comment] Schlenker T, et al. **JAMA** 1998 Nov 4;280(17):1482-3. Comment on: JAMA 1997 Feb 26;277(8):631-5.
Pooch protease paunch [letter] Gill MJ, et al. **Lancet** 1999 Jun 12;353(9169):2078
Computer-supported identification and intervention for diabetic patients at risk for amputation. Khoury A, et al. **MD Comput** 1998 Sep-Oct;15(5):307-10
A randomized study of tracking with outreach and provider prompting to improve immunization coverage and primary care. Rodewald LE, et al. **Pediatrics** 1999 Jan;103(1):31-8
Long-term changes in compliance with clinical guidelines through computer-based reminders. Morgan MM, et al. **Proc AMIA Symp** 1998;:493-7
A computerized reminder for prophylaxis of deep vein thrombosis in surgical patients. Patterson R. **Proc AMIA Symp** 1998;:573-6
Development of a clinical event monitor for use with the Veterans Affairs Computerized Patient Record System and other data sources. Payne TH, et al. **Proc AMIA Symp** 1998;:145-9
Clinical event management using push technology—implementation and evaluation at two health care centers. Warner HR Jr, et al. **Proc AMIA Symp** 1998; :106-10

STANDARDS

Randomised controlled trial of the use of a modified postal reminder card on the uptake of measles vaccination. Hawe P, et al. **Arch Dis Child** 1998 Aug;79(2):136-40

TRENDS

Slippage in the NHS breast screening programme: an assessment of whether a three year screening round is being achieved. Faux AM, et al. **J Med Screen** 1998;5(2):88-91

UTILIZATION

Enhancing medication compliance for people with serious mental illness. Cramer JA, et al. **J Nerv Ment Dis** 1999 Jan;187(1):53-5

REMISSION INDUCTION

see related
DISEASE-FREE SURVIVAL

The increment of micronucleus frequency in cervical carcinoma during irradiation in vivo and its prognostic value for tumour radiocurability. Widel M, et al. **Br J Cancer** 1999 Jul;80(10):1599-607
Analysis of clinical AIDS-free interval after CD4+ cell counts fall below 200 x 10(6) L-1 in Japanese haemophiliacs infected with HIV-1. Tatsunami S, et al. **Haemophilia** 1998 Jan;4(1):41-6
The relationship between peripheral T cell reactivity to insulin, clinical remissions and cytokine production in type 1 (insulin-dependent) diabetes mellitus. Mayer A, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2419-24
Factors at onset predictive of lasting remission in pediatric patients with Graves' disease followed for at least three years. Mussa GC, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):537-41

METHODS

Thrombopoietin, interleukin-6, and P-selectin at diagnosis and during post-steroid recovery period of patients with autoimmune thrombocytopenic purpura. Haznedaroglu IC, et al. **Ann Hematol** 1998 Oct;77(4):165-70
Endogenous TNF induction therapy using rTNF-SAM2 in patients with pulmonary metastases from colorectal cancer. Yamasaki K, et al. **Anticancer Res** 1998 Sep-Oct; 18(5D):3931-6
Alpha-interferon as induction and maintenance therapy in hairy-cell leukemia: a long-term follow-up analysis [letter] Clavio M, et al. **Haematologica** 1999 May;84(5):466-8
Autologous blood stem cell transplantation for acute myeloblastic leukemia in first complete remission. Intensification therapy before transplantation does not prolong disease-free survival. de la Rubia J, et al. **Haematologica** 1999 Feb;84(2):125-32
Tumor regressions observed in patients with metastatic melanoma treated with an antigenic peptide encoded by gene MAGE-3 and presented by HLA-A1. Marchand M, et al. **Int J Cancer** 1999 Jan 18;80(2):219-30
Acute myeloblastic leukaemia in the elderly: biology, prognostic factors and treatment. Manoharan A. **Int J Hematol** 1998 Oct;68(3):235-43 (48 ref.)
Response-oriented individualized induction therapy with six drugs followed by four courses of intensive consolidation, 1 year maintenance and intensification therapy: the ALL90 study of the Japan Adult Leukemia Study Group [published erratum appears in Int J Hematol 1998 Dec;68(4):i-ii] Ueda T, et al. **Int J Hematol** 1998 Oct;68(3):279-89
A new tubulin polymerization inhibitor, auristatin PE, induces tumor regression in a human Waldenstrom's macroglobulinemia xenograft model. Mohammad RM, et al. **Int J Oncol** 1999 Aug;15(2):367-72
Remission of AIDS-associated progressive multifocal leukoencephalopathy after cidofovir therapy [letter] Brambilla AM, et al. **J Neurol** 1999 Aug;246(8):723-5
Extramedullary relapse after all-trans retinoic acid treatment in acute promyelocytic leukemia--the occurrence of retinoic acid syndrome is a risk factor. Ko BS, et al. **Leukemia** 1999 Sep;13(9):1406-8
Unexpected mortality from the use of E. coli L-asparaginase during remission induction therapy for childhood acute lymphoblastic leukemia: a report from the Taiwan Pediatric Oncology Group. Liang DC, et al. **Leukemia** 1999 Feb; 13(2):155-60
Negative immunomagnetic ex vivo purging combined with high-dose chemotherapy with peripheral blood progenitor cell autograft in follicular lymphoma patients: evidence for long-term clinical and molecular remissions. Tarella C, et al. **Leukemia** 1999 Sep;13(9):1456-62
Natural killer cells in relapsing-remitting MS: effect of treatment with interferon beta-1B. Kastrukoff LF, et al. **Neurology** 1999 Jan 15;52(2):351-9
Ataxia telangiectasia associated with B-cell lymphoma: the effect of a half-dose of the drugs administered according to the acute lymphoblastic leukemia standard risk protocol. Yamada Y, et al. **Pediatr Hematol Oncol** 1998 Sep-Oct; 15(5):425-9
Multiple sclerosis clinical trials: old and new challenges. Noseworthy JH. **Semin Neurol** 1998;18(3):377-88 (100 ref.)

REMISSION, SPONTANEOUS

see related
RECOVERY OF FUNCTION

REMISSION, SPONTANEOUS NEOPLASM see **NEOPLASM REGRESSION, SPONTANEOUS**

REMOTE CONSULTATION

Optimizing utilization of pediatric echocardiography and implications for telemedicine. Scholz TD, et al. **Am J Cardiol** 1999 Jun 15;83(12):1645-8
Emergency department-based telemedicine. Chi CH, et al. **Am J Emerg Med** 1999 Jul;17(4):408-11
Telecommunications and the dialysis patient. Winchester JF. **Am J Kidney Dis** 1999 Jul;34(1):XXXVI-XXXVIII
Pilot study of televideo psychiatric assessments in an underserviced community. Stevens A, et al. **Am J Psychiatry** 1999 May;156(5):783-5
Expert consultation for cervical carcinoma smears. Reliability of selected-field videomicroscopy. Ziol M, et al. **Anal Quant Cytol Histol** 1999 Feb;21(1):35-41
International telepsychiatry: a link between New Zealand and Australia [letter] Samuels A. **Aust N Z J Psychiatry** 1999 Apr;33(2):284-6
Evaluating NHS direct. Early findings raise questions about expanding the service [editorial] Florin D, et al. **BMJ** 1999 Jul 3;319(7201):5-6
Concerns and confidence of general practitioners in providing telephone consultations. Foster J, et al. **Br J Gen Pract** 1999 Feb;49(439):111-3
Fetal alcohol syndrome diagnosed by telelink in Manitoba [news] Square D. **CMAJ** 1999 Mar 9;160(5):627
Reasoning about tasks, activities and technology to support collaboration. Watts LA, et al. **Ergonomics** 1998 Nov; 41(11):1583-606
Assessment of the quality of neonatal echocardiographic images transmitted by ISDN telephone lines. Houston A, et al. **Heart** 1999 Aug;82(2):222-5
Cyber triage. Calls forwarded [news] Menduno M. **Hosp Health Netw** 1999 Jul;73(7):14
The significance of telemedicine in a rural emergency department. Stamford P, et al. **IEEE Eng Med Biol Mag** 1999 Jul-Aug;18(4):45-52
CleftNet (Scotland): a network for the treatment of cleft palate speech using EPG. Gibbon F, et al. **Int J Lang Commun Disord** 1998;33 Suppl:44-9
Shared care for diabetes: supporting communication between primary and secondary care. Branger PJ, et al. **Int J Med Inf** 1999 Feb-Mar;53(2-3):133-42
Collaborative problem-solving in telemedicine and evidence interpretation in a complex clinical case. Farand L, et al. **Int J Med Inf** 1998 Aug-Sep;51(2-3):153-67
Remote telemedical interpretation of neonatal echocardiograms: impact on clinical management in a primary care setting. Randolph GR, et al. **J Am Coll Cardiol** 1999 Jul;34(1):241-5
A methodologic issue for ophthalmic telemedicine: image quality and its effect on diagnostic accuracy and confidence. Briggs R, et al. **J Am Optom Assoc** 1998 Sep; 69(9):601-5
Telephone analysis: out of sight, but not out of mind. Zalusky S. **J Am Psychoanal Assoc** 1998;46(4):1221-42
The successful use of telemedicine in acute variceal hemorrhage [letter] Ahmed A, et al. **J Clin Gastroenterol** 1999 Sep;29(2):212-3
Directory assistance for telephone care: a toll-free way to improve the quality of communication between patients, providers, and investigators [editorial; comment] Wasson JH. **J Gen Intern Med** 1998 Sep;13(9):646-7. Comment on: J Gen Intern Med 1998 Sep;13(9):579-85. Comment on: J Gen Intern Med 1998 Sep;13(9):621-3.
Telemedicine consultations in oral and maxillofacial surgery. Rollert MK, et al. **J Oral Maxillofac Surg** 1999 Feb; 57(2):136-8
A cyberclinic in rheumatology. Pal B, et al. **J R Coll Physicians Lond** 1999 Mar-Apr;33(2):161-2
Interactive television and the NHS [letter; comment] Harrison R, et al. **J R Soc Med** 1999 Jan;92(1):52-3. Comment on: J R Soc Med 1998 Oct;91(10):510-2.
Evaluation of telemedical support to a free-standing minor accident and treatment service. Tachakra S, et al. **J Telemed Telecare** 1998;4(3):140-5
Telehealth: bringing health care to the point of living [editorial; comment] Brennan PF. **Med Care** 1999 Feb; 37(2):115-6. Comment on: Med Care 1999 Feb;37(2):117-25.
The effectiveness of videophones in home healthcare for the elderly [see comments] Nakamura K, et al. **Med Care** 1999 Feb;37(2):117-25. Comment in: Med Care 1999 Feb;37(2):115-6.
Are medical mailing lists reliable sources of professional advice? Hernández-Borges A, et al. **Med Inform (Lond)** 1998 Jul-Sep;23(3):231-6
Focusing on resistance development in a case based teleconsultation system for antibiotics therapy advice. Gierl L, et al. **Medinfo** 1998;9 Pt 1:549-53
Web based 3-D medical image visualization on the PC. Kim N, et al. **Medinfo** 1998;9 Pt 2:1105-10
The effect of a teledermatology program on rural referral patterns to dermatologists and the management of skin disease. Perednia DA, et al. **Medinfo** 1998;9 Pt 1:290-3
The effect of a neonatal telecardiology system on respiratory therapy in very low birthweight infants. Rendina MC, et al. **Medinfo** 1998;9 Pt 1:298-301
Standards to support development of terminological systems for healthcare telematics. Rossi Mori A, et al. **Methods Inf Med** 1998 Nov;37(4-5):551-63
Telemedicine beyond the technology. Zanol KE, et al. **Mo Med** 1999 Mar;96(3):88-91
1999: the road ahead for NPs [see comments] Sharp N. **Nurse Pract** 1999 Feb;24(2):120, 123-4. Comment in: Nurse Pract 1999 Aug;24(8):12-3.
Telemedicine in pediatric transport: a feasibility study. Kofos D, et al. **Pediatrics** 1998 Nov;102(5):E58
Digital images in the diagnosis of wound healing problems. Roth AC, et al. **Plast Reconstr Surg** 1999 Feb;103(2):483-6
Remote clinical assessment for acute trauma: an initial experience. Aucar JA, et al. **Proc AMIA Symp** 1998; :396-400
Diagnostic quality of low resolution images for tele-woundcare. Roth AC, et al. **Proc AMIA Symp** 1998; :917-20
Low-bandwidth telemedicine for remote orthotic assessment. Lemaire ED, et al. **Prosthet Orthot Int** 1998 Aug; 22(2):155-67
Telepsychiatry [letter; comment] Smith HA. **Psychiatr Serv** 1998 Nov;49(11):1494-5. Comment on: Psychiatr Serv 1998 Jul;49(7):963-4.
Consulting with radiologists outside the hospital by using Java. Lee SK, et al. **Radiographics** 1999 Jul-Aug; 19(4):1069-75
Diagnostic accuracy with US: remote radiologists' versus on-site radiologists' interpretations. Rosen MP, et al. **Radiology** 1999 Mar;210(3):733-6
Use of the Internet for long-term clinical follow-up. Aucar JA, et al. **Telemed J** 1998 Winter;4(4):371-4
Accuracy of orthognathic evaluation using telemedicine technology. Baur DA, et al. **Telemed J** 1998 Summer; 4(2):153-60
Patient satisfaction with telemedicine consultation in primary care: comparison of ratings of medical and mental health applications. Callahan EJ, et al. **Telemed J** 1998 Winter; 4(4):363-9
Use of videophones and low-cost standard telephone lines to provide a social presence in telepsychiatry. Cukor P, et al. **Telemed J** 1998 Winter;4(4):313-21
Telemedicine in laryngology. Furukawa M, et al. **Telemed J** 1998 Winter;4(4):329-33
Concepts of telemedicine consultation [editorial] Merrell RC. **Telemed J** 1998 Winter;4(4):277-8
Effectiveness of telemedicine in the outpatient pulmonary

REMOTE CONSULTATION

clinic. Pacht ER, et al. **Telemed J** 1998 Winter;4(4):287–92
Effect of telemedicine on health outcomes in 87 infants requiring neonatal intensive care. Rendina MC, et al. **Telemed J** 1998 Winter;4(4):345–51
Telekid Care: bringing health care into schools. Whitten P, et al. **Telemed J** 1998 Winter;4(4):335–43
Primary-care delivery for sickle cell patients in rural Georgia using telemedicine. Woods K, et al. **Telemed J** 1998 Winter; 4(4):353–61
[Internet in consultation--headed for trouble?] Hjortdal P. **Nord Med** 1998 Dec;113(10):367–9 **(Nor)**
[Telepathology in Mid-Norway (see comments)] Haugen OA, et al. **Tidsskr Nor Laegeforen** 1999 Jan 30;119(3):355–8 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 Apr 10;119(9):1335. **(Nor)**

ECONOMICS

Computerized pediatric telephone triage and advice programs at children's hospitals: operating and financial characteristics. Melzer SM, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):858–63
Application of a low cost telemedicine link to the diagnosis of neonatal congenital heart defects by remote consultation. Mulholland HC, et al. **Heart** 1999 Aug;82(2):217–21
Rural telepsychiatry is economically unsupportable: the Concorde crashes in a cornfield [see comments] Werner A, et al. **Psychiatr Serv** 1998 Oct;49(10):1287–90. Comment in: Psychiatr Serv 1999 Feb;50(2):266; discussion 267–8. Comment in: Psychiatr Serv 1999 Feb;50(2):266–7; discussion 267–8. Comment in: Psychiatr Serv 1999 Feb;50(2):267–8.
Cost issues surrounding the use of computerized telemedicine for obstetric ultrasonography [see comments] Malone FD, et al. **Ultrasound Obstet Gynecol** 1998 Aug;12(2):120–4. Comment in: Ultrasound Obstet Gynecol 1998 Aug;12(2):84–5.

INSTRUMENTATION

The diagnostic interview schedule for deaf patients on interactive video: a preliminary investigation. Steinberg AG, et al. **Am J Psychiatry** 1998 Nov;155(11):1603–4
Instrumentation available for remote diagnosis and consultation in eye care. Pickard JA. **Int J Circumpolar Health** 1998;57 Suppl 1:694–6
Three-dimensional ultrasonographic telepresence. Macedonia CR, et al. **J Telemed Telecare** 1998;4(4):224–30
Clinical consultations using store-and-forward telemedicine technology [see comments] Houston MS, et al. **Mayo Clin Proc** 1999 Aug;74(8):764–9. Comment in: Mayo Clin Proc 1999 Aug;74(8):841–3.
[Telecardiology--a service performance option for the physician] Bolz A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:212–3 **(Ger)**
[Teleconsultation] Feussner H, et al. **Chirurg** 1998 Nov; 69(11):1129–33 (Eng. Abstr.) **(Ger)**
[Teleconference and telesurgery] Schlag PM, et al. **Chirurg** 1998 Nov;69(11):1134–40 (Eng. Abstr.) **(Ger)**
[Telecommunication in trauma surgery. Communication networks of hospitals in East Bavaria] Stieglitz SP, et al. **Chirurg** 1998 Nov;69(11):1123–8 (Eng. Abstr.) **(Ger)**
[Consultation per video-conferencing with regional hospitals: the MEDKOM project of the Hannover Medical University] Link H, et al. **Zentralbl Gynakol** 1999; 121(1):23–4 (Eng. Abstr.) **(Ger)**
[Construction of an image transmission system for tele-mentoring during endoscopic surgery] Ohashi S, et al. **Nippon Geka Gakkai Zasshi** 1998 Sep;99(9):612 **(Jpn)**

LEGISLATION & JURISPRUDENCE

Apropos telemedicine. Leung D. **Can Vet J** 1999 May; 40(5):318–20
[Legal questions in telemedicine] Geis I. **Zentralbl Gynakol** 1998;120(8):413–7 (Eng. Abstr.) **(Ger)**

METHODS

Telemedicine in paediatric cardiology. Casey FA. **Arch Dis Child** 1999 Jun;80(6):497–9
The digital second opinion [letter] Southern S, et al. **Br J Plast Surg** 1998 Dec;51(8):649–50
A web-based approach for electrocardiogram monitoring in the home. Magrabi F, et al. **Int J Med Inf** 1999 May; 54(2):145–53
The decision support system for telemedicine based on multiple expertise. Terziyan V, et al. **Int J Med Inf** 1998 Apr;49(2):217–29
Dental screenings using telehealth technology: a pilot study. Patterson S, et al. **J Can Dent Assoc** 1998 Dec; 64(11):806–10
An evaluation of a computer assisted telephone interview for screening for mental disorders among primary care patients. Leon AC, et al. **J Nerv Ment Dis** 1999 May; 187(5):308–11
Web-based telemicroscopy. Hadida-Hassan M, et al. **J Struct Biol** 1999 Apr-May;125(2-3):235–45 (29 ref.)
JavaScope: A Web-based TEM control interface. Kisseberth N, et al. **J Struct Biol** 1999 Apr-May;125(2-3):229–34
A prospective study of teleconferencing for orthopaedic consultations. Aarnio P, et al. **J Telemed Telecare** 1999; 5(1):62–6
Telepsychiatry in South Australia. Hawker F, et al. **J Telemed Telecare** 1998;4(4):187–94 (15 ref.)
Patient reactions to specialist telemedicine consultations--a sociological approach. Holtan A. **J Telemed Telecare** 1998; 4(4):206–13
Telepsychiatric treatment of a schoolchild. Rendon M. **J Telemed Telecare** 1998;4(3):179–82
Trauma debriefing by telemedicine. Yellowlees P. **J Telemed Telecare** 1998;4(4):239–40
British Army establishes telemedicine unit in Bosnia [news] Ritchie C. **Lancet** 1998 Jul 4;352(9121):46
Clinical consultations using store-and-forward telemedicine technology [see comments] Houston MS, et al. **Mayo Clin Proc** 1999 Aug;74(8):764–9. Comment in: Mayo Clin Proc 1999 Aug;74(8):841–3.
Telemedicine consultations in congenital heart disease: assessment of advanced technical capabilities [see comments] Julsrud PR, et al. **Mayo Clin Proc** 1999 Aug; 74(8):758–63. Comment in: Mayo Clin Proc 1999 Aug;74(8):841–3.
Teleconsultation in otolaryngology: live versus store and forward consultations. Sclafani AP, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):62–72
A remote second-look teleconsultation protocol on breast cytopathology. da Silva VD. **Pathologica** 1998 Dec; 90(6):824–5

ORGANIZATION & ADMINISTRATION

Telemedicine in the care of the end-stage renal disease patient. Moncrief JW. **Adv Ren Replace Ther** 1998 Oct; 5(4):286–91
Internet and World Wide Web technologies for medical data management and remote access to clinical expertise. Sargsyan AE, et al. **Aviat Space Environ Med** 1999 Feb; 70(2):185–90
Is Internet-based disease management on the way? OReilly M. **CMAJ** 1999 Apr 6;160(7):1039
Telemedicine. What happens in remote consultation. Watts LA, et al. **Int J Technol Assess Health Care** 1999 Winter; 15(1):220–35
Nurse and patient reactions to a developmental home telecare system. Whitten P, et al. **J Telemed Telecare** 1998; 4(3):152–60
Teleconsultation: the death of distance [news] Sharp N. **Nurse Pract** 1998 Oct;23(10):84, 87–8
Design and development of a multimedia database for emergency telemedicine. Pavlopoulos S, et al. **Technol Health Care** 1998 Sep;6(2-3):101–10

STANDARDS

Comparing mind-body wellness interventions for older adults with chronic illness: classroom versus home instruction. Rybarczyk B, et al. **Behav Med** 1999 Winter;24(4):181–90
Participant satisfaction and comfort with multidisciplinary pediatric telemedicine consultations. Dick PT, et al. **J Pediatr Surg** 1999 Jan;34(1):137–41; discussion 141–2
Evaluation of cyberdocs [letter] Eysenbach G, et al. **Lancet** 1998 Nov 7;352(9139):1526
Telemedicine diagnosis of eye disorders by direct ophthalmoscopy. A pilot study. Marcus DM, et al. **Ophthalmology** 1998 Oct;105(10):1907–14
Training for rural prehospital providers: a retrospective analysis from Montana. Pullum JD, et al. **Prehosp Emerg Care** 1999 Jul-Sep;3(3):231–8

STATISTICS & NUMERICAL DATA

Can patients predict which consultations can be dealt with by telephone? [published erratum appears in Br J Gen Pract 1998 Dec;48(437):1874] Stevenson M, et al. **Br J Gen Pract** 1998 Nov;48(436):1771–2
Telephone nursing interventions in ambulatory care. Huber DL, et al. **J Nurs Adm** 1999 Mar;29(3):38–44

TRENDS

Virtual doctors on the horizon in Seattle [news] Ferry J. **Lancet** 1999 Sep 11;354(9182):926
[Teleconsultation in surgery--basic conditions and future significance] Weissauer W, et al. **Chirurg** 1998 Oct; 69(10):suppl 311–3 **(Ger)**
[Telecommunication in routine surgical practice] Balanou P, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:900–3 (Eng. Abstr.) **(Ger)**
[Utility of PC-based videoconference systems in surgery] Gnann W, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:904–7 (Eng. Abstr.) **(Ger)**
[Telesurgery--experiences from the USA] Stelzner M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:897–9 (Eng. Abstr.) **(Ger)**

UTILIZATION

Provision of telephone advice from accident and emergency departments: a national survey. Crouch R, et al. **J Accid Emerg Med** 1999 Mar;16(2):112–3

REMOTE OPERATIONS (ROBOTICS) see **ROBOTICS**

REMOXIPRIDE

PHARMACOKINETICS

Single dose pharmacodynamics of thioridazine and remoxipride in healthy younger and older volunteers. Swift CG, et al. **J Psychopharmacol** 1999;13(2):159–65

PHARMACOLOGY

Acute toluene induces biphasic changes in rat spontaneous locomotor activity which are blocked by remoxipride. Riegel AC, et al. **Pharmacol Biochem Behav** 1999 Mar; 62(3):399–402

THERAPEUTIC USE

The treatment of negative symptoms: a clinical and methodological study. Lapierre YD, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):101–12

TOXICITY

Induction of apoptosis by remoxipride metabolites in HL60 and CD34+/CD19- human bone marrow progenitor cells: potential relevance to remoxipride-induced aplastic anemia. McGuinness SM, et al. **Chem Biol Interact** 1999 Aug 1;121(3):253–65

RENAISSANCE MEDICINE see **HISTORY OF MEDICINE, MEDIEVAL**

RENAL AGENTS

ADMINISTRATION & DOSAGE

Management of renal colic with intranasal desmopressin spray. Constantinides C, et al. **Acta Urol Belg** 1998 Dec; 66(4):1–3
Oral desmopressin for nocturnal polyuria in elderly subjects: a double-blind, placebo-controlled randomized exploratory study. Asplund R, et al. **BJU Int** 1999 Apr; 83(6):591–5
Low-dose desmopressin in the treatment of nocturnal urinary incontinence in the exstrophy-epispadias complex. Caione P, et al. **BJU Int** 1999 Aug;84(3):329–34
Desmopressin for the treatment of nocturnal polyuria in the elderly: a dose titration study. Asplund R, et al. **Br J Urol** 1998 Nov;82(5):642–6
Long-term treatment with desmopressin in children with primary monosymptomatic nocturnal enuresis: an open multicentre study. Swedish Enuresis Trial (SWEET) Group. Hjälmås K, et al. **Br J Urol** 1998 Nov;82(5):704–9
Administration of desmopressin in brain-dead donors and renal function in kidney recipients. Guesde R, et al. **Lancet** 1998 Oct 10;352(9135):1178–81
Italian multicentre open trial on DDAVP spray in nocturnal enuresis. Chiozza ML, et al. **Scand J Urol Nephrol** 1999 Feb;33(1):42–8
[Successful conservative therapy of hepatorenal syndrome with vasopressin-1-receptor antagonist ornipressin] Gülberg V, et al. **Z Gastroenterol** 1998 Dec;36(12):1053–8 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Hyponatremic seizure in a child using desmopressin for nocturnal enuresis [letter; comment] Schwartz ID. **Arch Pediatr Adolesc Med** 1998 Oct;152(10):1037–8. Comment on: Arch Pediatr Adolesc Med 1998 Mar;152(3):290–2.
Hyponatraemic convulsion secondary to desmopressin treatment for primary enuresis. Apakama DC, et al. **J Accid Emerg Med** 1999 May;16(3):229–30

ANTAGONISTS & INHIBITORS

Effect of selective angiotensin antagonists on the antidiuresis produced by angiotensin-(1-7) in water-loaded rats. Baracho NC, et al. **Braz J Med Biol Res** 1998 Sep; 31(9):1221–7

BLOOD

Improved extraction procedure and RIA for determination of arginine8-vasopressin in plasma: role of premeasurement sample treatment and reference values in children. Kluge M, et al. **Clin Chem** 1999 Jan;45(1):98–103

DIAGNOSTIC USE

Desmopressin augments pituitary-adrenal responsivity to corticotropin-releasing hormone in subjects with chronic fatigue syndrome and in healthy volunteers. Scott LV, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1447–54

METABOLISM

Stability and perfusion studies of Desmopressin (dDAVP) and prodrugs in the rat jejunum. Lepist EI, et al. **Exp Toxicol Pathol** 1999 Jul;51(4–5):363–8

PHARMACOKINETICS

Pharmacokinetics and antidiuretic effect of a new vasopressin analogue (F992) in overhydrated male volunteers. Callréus T, et al. **Eur J Clin Pharmacol** 1999 Jun;55(4):293–8

Changes in gastrointestinal motility influence the absorption of desmopressin. Callréus T, et al. **Eur J Clin Pharmacol** 1999 Jun;55(4):305–9

Pharmacokinetics and antidiuretic effect of intravenous administration of desmopressin in orally overhydrated male volunteers. Callréus T, et al. **Pharmacol Toxicol** 1998 Dec; 83(6):259–62

PHARMACOLOGY

V2-receptor-mediated relaxation of human renal arteries in response to desmopressin. Medina P, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):188–93

Maternal 1-deamino-8-D-arginine-vasopressin-induced sequential decreases in plasma sodium concentration: ovine fetal renal responses. Roberts TJ, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):82–90

Arginine vasopressin-mediated stimulation of nitric oxide within the rat renal medulla. Park F, et al. **Hypertension** 1998 Nov;32(5):896–901

Mechanism of arginine vasopressin suppression of ovine fetal lung fluid secretion: lack of V2-receptor effect. Albuquerque CA, et al. **J Matern Fetal Med** 1998 Jul–Aug; 7(4):177–82

Roles of vasopressin and hypertonicity in basolateral Na/K/2Cl cotransporter expression in rat kidney inner medullary collecting duct cells. Anzai N, et al. **Jpn J Physiol** 1999 Apr;49(2):201–6

Effects of arginine vasopressin and oxytocin on glucagon release from clonal alpha-cell line In-R1-G9: involvement of V1b receptors. Yibchok-anun S, et al. **Life Sci** 1998; 63(21):1871–8

No effect of probenecid on the renal excretion mechanism of a new carbapenem, DA-1131, in dogs. Kim SH, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jul;101(1):85–92

Evaluation of the effects of desmopressin in acute ureteral obstruction. Moro U, et al. **Urol Int** 1999;62(1):8–11

[Vasopressin: cellular and molecular aspects of its antidiuretic effect] Ivanova LN. **Vestn Ross Akad Med Nauk** 1999; (3):40–5 (74 ref.) (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Urinary protein excretion and serum tumor necrosis factor in diabetic patients with advanced renal failure: effects of pentoxifylline administration. Navarro JF, et al. **Am J Kidney Dis** 1999 Mar;33(3):458–63

Plasma vasopressin and response to treatment in primary nocturnal enuresis. Devitt H, et al. **Arch Dis Child** 1999 May;80(5):448–51

Effect of DDAVP on nocturnal enuresis in a patient with nephrogenic diabetes insipidus. Jonat S, et al. **Arch Dis Child** 1999 Jul;81(1):57–9

Desmopressin in the treatment of nocturnal polyuria in the male. Cannon A, et al. **BJU Int** 1999 Jul;84(1):20–4

The efficacy of DDAVP is related to the circadian rhythm of urine output in patients with persisting nocturnal enuresis. Hunsballe JM, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):793–801

Restoration of the uricosuric effect of probenecid after triglycylvasopressine administration in a gouty patient. Decaux G, et al. **Clin Nephrol** 1998 Oct;50(4):262–5

Pregnant woman with transient diabetes insipidus resistant to 1-desamino-8-D-arginine vasopressin. Jin-no Y, et al. **Endocr J** 1998 Oct;45(5):693–6

Cardiovascular and renal effects of conivaptan hydrochloride (YM087), a vasopressin V1A and V2 receptor antagonist, in dogs with pacing-induced congestive heart failure. Yatsu T, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):239–46

Sensitized cells come of age: a new era in renal immunology with important therapeutic implications [editorial; comment] Couser WG. **J Am Soc Nephrol** 1999 Mar; 10(3):664–5 (21 ref.). Comment on: J Am Soc Nephrol 1999 Mar;10(3):499–506.

Low-dose vasopressin restores diuresis both in patients with hepatorenal syndrome and in anuric patients with end-stage heart failure. Eisenman A, et al. **J Intern Med** 1999 Aug; 246(2):183–90

Desmopressin in the treatment of daytime urinary frequency in patients with multiple sclerosis. Hoverd PA, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):778–80

Treatment of primary nocturnal enuresis persisting into adulthood. Vandersteen DR, et al. **J Urol** 1999 Jan; 161(1):90–2

Rhythm of life and vicissitudes of old age [see comments] Lye M. **Lancet** 1999 May 1;353(9163):1461–2. Comment in: Lancet 1999 Jul 24;354(9175):339.

A controlled trial of desmopressin and behavioral therapy for nocturnal enuresis. Kahan E, et al. **Medicine (Baltimore)** 1998 Nov;77(6):384–8

Desmopressin (DDAVP) in bleeding disorders of childhood. Sutor AH. **Semin Thromb Hemost** 1998;24(6):555–66 (114 ref.)

Desmopressin versus indomethacin treatment in primary nocturnal enuresis and the role of prostaglandins. Sener F, et al. **Urology** 1998 Nov;52(5):878–81

[Treatment of diabetes insipidus with Minirin. Switch from nasal to oral administration] Czernichow P. **Ann Endocrinol (Paris)** 1998 Dec;59(5):407–9 (Eng. Abstr.) **(Fre)**

[Treatment of isolated nocturnal enuresis: alarm or desmopressin?] Faraj G, et al. **Arch Pediatr** 1999 Mar; 6(3):271–4 (Eng. Abstr.) **(Fre)**

RENAL ARTERY

Small hepatocellular carcinoma supplied by the right renal capsular artery. A case report. Baba Y, et al. **Acta Radiol** 1999 Jul;40(4):449–50

Vascular and interventional case of the day. Arteriovenous fistula in a transplanted kidney. Antonacci VP, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):830, 834–5

Embolization of vascular lesions in renal transplants [letter; comment] Dorffner R. **AJR Am J Roentgenol** 1999 Aug; 173(2):498–9. Comment on: AJR Am J Roentgenol 1998 Dec;171(6):1617–8.

Embolization of a pseudoaneurysm in the transplanted kidney [see comments] Miyazaki T, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1617–8. Comment in: AJR Am J Roentgenol 1999 Aug;173(2):498–9.

Multifocal renal cancer associated with renal artery aneurysm and a unique genetic change. Subramonian K, et al. **Br J Urol** 1998 Nov;82(5):761–2

Intraarterial ethanol for the management of iatrogenic renal artery pseudoaneurysm. Singh B, et al. **Cathet Cardiovasc Diagn** 1998 Dec;45(4):442–4

No-touch technique for reducing aortic wall trauma during renal artery stenting. Feldman RL, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):245–8

The effects of crossing porcine renal artery ostia with various endovascular stents. Birch PC, et al. **Eur J Vasc Endovasc Surg** 1999 Mar;17(3):185–90

Ischemic nephropathy: an important cause of renal disease in the elderly. Buckalew VM Jr. **Geriatr Nephrol Urol** 1998; 8(3):155–9 (16 ref.)

Percutaneous transluminal renal angioplasty in aortoarteritis. Deyu Z, et al. **Int J Cardiol** 1998 Oct 1;66 Suppl 1:S205–11

Renal cell carcinoma with renal artery aneurysm. Ichiyanagi O, et al. **Int Urol Nephrol** 1998;30(4):385–90

Renal thrombotic microangiopathy associated with anticardiolipin antibodies in hepatitis C-positive renal allograft recipients. Baid S, et al. **J Am Soc Nephrol** 1999 Jan;10(1):146–53

Increased severity of multifocal renal arterial fibromuscular dysplasia in smokers. Bofinger A, et al. **J Hum Hypertens** 1999 Aug;13(8):517–20

Renal artery aneurysms and hypertension. Lebel M, et al. **J Hum Hypertens** 1998 Nov;12(11):765–6

Renal artery thrombosis secondary to ureteral obstruction. Bruno D, et al. **J Urol** 1999 Sep;162(3 Pt 1):786–7

Live donor nephrectomy in patients with fibromuscular dysplasia of the renal arteries. Indudhara R, et al. **J Urol** 1999 Sep;162(3 Pt 1):678–81

The role of intraoperative heparin in cyclosporine treated cadaveric renal transplant recipients. Mohan P, et al. **J Urol** 1999 Sep;162(3 Pt 1):682–4

Angioplasty through the side of a renal artery stent [letter] Robertson IR, et al. **J Vasc Interv Radiol** 1998 Nov-Dec; 9(6):1030–2

Excessive oral amphetamine use as a possible cause of renal and splanchnic arterial aneurysms: a report of two cases. Welling TH, et al. **J Vasc Surg** 1998 Oct;28(4):727–31

Diabetes and renal cholesterol emboli [letter; comment] Kashyap AS, et al. **Lancet** 1998 Nov 21;352(9141):1711. Comment on: Lancet 1998 Sep 19;352(9132):956.

Salvage of a renal graft by percutaneous transluminal angioplasty of the occluding transplant artery. Halvorsen CE, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2231–3

Late renal transplant arterial thrombosis in a patient with systemic lupus erythematosus and antiphospholipid syndrome. Karassa FB, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):472–4

Vasculitis look-alikes: variants of renal atheroembolic disease [letter] Kumar A, et al. **Nephrol Dial Transplant** 1999 Aug; 14(8):2053

Severe renal arterio-arteriolosclerosis after cocaine use. van der Woude FJ, et al. **Nephrol Dial Transplant** 1999 Feb; 14(2):434–5

Percutaneous transluminal renal angioplasty of arterial divarication: application of kissing balloon technique. Tamura S, et al. **Radiat Med** 1998 Sep-Oct;16(5):387–9 (6 ref.)

Outcome and cost comparison of percutaneous transluminal renal angioplasty, renal arterial stent placement, and renal arterial bypass grafting. Xue F, et al. **Radiology** 1999 Aug; 212(2):378–84

The role of arterial embolization in renal cell carcinoma. Kalman D, et al. **Scand J Urol Nephrol** 1999 Jun; 33(3):162–70 (64 ref.)

Endovascular management of the juxtarenal aortic aneurysm: can uncovered stents safely cross the renal arteries? Malina M, et al. **Semin Vasc Surg** 1999 Sep;12(3):182–91

[Giant aneurysm of the renal artery. Case report] Cugnasca M, et al. **Minerva Chir** 1998 Dec;53(12):1055–7 (Eng. Abstr.) **(Ita)**

[A case of subclinical IgA nephropathy and cyclosporin associated arteriolopathy diagnosed by non-episode biopsy of graft kidney after renal transplantation] Namba Y, et al. **Hinyokika Kiyo** 1999 May;45(5):349–53 (Eng. Abstr.) **(Jpn)**

[Angioscopy associated with renal transplantation] Burgos Revilla FJ, et al. **Actas Urol Esp** 1998 Sep;22(8):666–70 (Eng. Abstr.) **(Spa)**

[Local thrombolysis in renal artery embolism] Gutiérrez Macias A, et al. **An Med Interna** 1999 May;16(5):253–5 (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Azygos continuation of the inferior vena cava: sonographic demonstration of the renal artery ventral to the azygos vein as a clue to diagnosis. Geley TE, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1659–62

Laparoscopic living donor nephrectomy and multiple renal arteries. Kuo PC, et al. **Am J Surg** 1998 Dec;176(6):559–63

Bilateral accessory renal arteries associated with some anomalies of the ovarian arteries: a case study. Singh G, et al. **Clin Anat** 1998;11(6):417–20

Ureterovascular hydronephrosis in children: is pyeloplasty always necessary? Pesce C, et al. **Eur Urol** 1999;36(1):71–4

Non-traumatic renal arteriopelvic fistula. Shinojima H, et al. **Int J Urol** 1999 May;6(5):260–3

Endovascular repair of abdominal aortic aneurysms in patients with congenital renal vascular anomalies. Kaplan DB, et al. **J Vasc Surg** 1999 Sep;30(3):407–15

Positive captopril renography in a transplanted kidney with arteriovenous fistula. Mousa D, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3248–9

Arteriovenous fistula from right renal artery to inferior vena cava. Beningfield S. **S Afr Med J** 1999 Mar;89(3):2[illegible] 50

A variation and ureterovascular hydronephrosis [comment] Aydinlioğlu A, et al. **Scand J Urol Nephrol** 1999 Apr; 33(2):119–20. Comment on: Scand J Urol Nephrol 1998 Apr;32(2):150–2.

Idiopathic renal arteriovenous fistula demonstrating a huge aneurysm with a high risk of rupture: report of a case. Nawa S, et al. **Surg Today** 1998;28(12):1300–3

Microsurgical reconstruction of multiple arteries in renal transplantation. Han D, et al. **Transplant Proc** 1998 Nov; 30(7):3004–5

Angiographic embolization in patients with renal allograft arteriovenous fistula. Shimmura H, et al. **Transplant Proc** 1998 Nov;30(7):2990–2

Asymptomatic intrarenal arteriovenous fistula accompanying severe renal vein dilatation detected 30 years after percutaneous renal biopsy. Okamura T, et al. **Urol Int** 1998; 61(4):261–2

Images in clinical urology. Arteriovenous fistula of the kidney: imaging with three-dimensional computed tomography angiography. Horton KM, et al. **Urology** 1999 Mar;53(3):621–3

[Congenital cyanotic heart disease and peripheral neurogenic tumor] Diez L, et al. **Rev Esp Med Nucl** 1999;18(1):43–6 (Eng. Abstr.) **(Spa)**

ANATOMY & HISTOLOGY

Studies on the vasa vasorum of the human renal artery. Kurzidim MH, et al. **Anat Anz** 1999 Mar;181(2):223–7

An unusual course of the right renal artery associated with an anomalous inferior vena cava. Ozan H. **Anat Anz** 1998 Dec;180(6):569–72

Failed endopyelotomy: low expression of TGF beta regardless of the presence or absence of crossing vessels. Jabbour ME, et al. **J Endourol** 1999 May;13(4):295–8

Gadolinium-enhanced breathhold three-dimensional time-of-flight renal MR angiography in the evaluation of potential renal donors. Nelson HA, et al. **J Vasc Interv Radiol** 1999 Feb;10(2 Pt 1):175–81

Optimization of contrast dosage for gadolinium-enhanced 3D MRA of the pulmonary and renal arteries. Hany TF, et al. **Magn Reson Imaging** 1998 Oct;16(8):901–6

Perfusion of the rat ovary: application of pulsed arterial spin labeling MRI. Tempel C, et al. **Magn Reson Med** 1999 Jan; 41(1):113–23

Comparison of CT angiography with MR angiography in the living renal donor. Toki K, et al. **Transplant Proc** 1998 Nov;30(7):2998–3000

CHEMISTRY

Ultrastructural localization of nitric oxide synthase and endothelin in the renal and mesenteric arteries of the golden hamster: differences during and after arousal from hibernation. Saitongdee P, et al. **Endothelium** 1999; 6(3):197–207

DRUG EFFECTS

Histamine release and contrast media-induced renal vasoconstriction. Drescher P, et al. **Acad Radiol** 1998 Nov; 5(11):785–9

Abnormal renal vasodilation to an amino acid infusion in congestive heart failure: normalization by enalapril. Juncos LI, et al. **Am J Kidney Dis** 1999 Jan;33(1):43–51

The relaxation induced by nicotine in the rat isolated renal artery. Emre S, et al. **Gen Pharmacol** 1999 Jul;33(1):23–7

Biophysical signals underlying myogenic responses in rat interlobular artery. Takenaka T, et al. **Hypertension** 1998 Dec;32(6):1060–5

Prevention of contrast medium-induced renal vasospasm by phosphodiesterase inhibition. Drescher P, et al. **Invest Radiol** 1998 Dec;33(12):858–62

AT1 receptor inhibition blunts angiotensin II-stimulated nitric oxide release in renal arteries. Thorup C, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S220–4

Renal afferent and efferent arteriolar dilation by nilvadipine: studies in the isolated perfused hydronephrotic kidney. Ozawa Y, et al. **J Cardiovasc Pharmacol** 1999 Feb; 33(2):243–7

NH2-terminal fragments of the 130 kDa subunit of myosin

phosphatase increase the Ca2+ sensitivity of porcine renal artery. Zhou Y, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):55–65

Relaxing effect of insulin in renal arteries from diabetic rats. Torffvit O, et al. **Regul Pept** 1999 Feb 5;79(2–3):147–52

INJURIES

Direct percutaneous transrenal embolization for renal artery injury following percutaneous nephrostomy. Cowan NC, et al. **Br J Radiol** 1998 Nov;71(851):1199–201

Treatment of a urinoma and a post-traumatic pseudoaneurysm using selective arterial embolization. Pinto IT, et al. **Cardiovasc Intervent Radiol** 1998 Nov–Dec; 21(6):506–8

A rare complication of renal biopsy in a child with membranoproliferative glomerulonephritis. Ozdemir S, et al. **Int Urol Nephrol** 1998;30(6):689–92

Treatment of posttraumatic dissection of the renal artery with endoprosthesis in a 15-year-old girl. Paul JL, et al. **J Trauma** 1999 Jul;47(1):169–72

Wallstent placement in a renal artery after blunt abdominal trauma. Villas PA, et al. **J Trauma** 1999 Jun;46(6):1137–9

Emergency aortorenal revascularization during salvage retroperitoneal lymph node dissection. Kapoor A, et al. **J Urol** 1999 Oct;162(4):1377–8

Transcatheter embolization of biopsy-related vascular injury in the transplant kidney: immediate and long-term outcome. Perini S, et al. **J Vasc Interv Radiol** 1998 Nov–Dec;9(6):1011–9

Traumatic renal artery thrombosis. Muñoz D, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):296–8

Computed tomography three-dimensional reconstruction in the diagnosis of traumatic renal artery thrombosis. Haas CA, et al. **Urology** 1999 Sep;54(3):559–60

INNERVATION

Resonance in the renal vasculature evoked by activation of the sympathetic nerves. Malpas SC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1311–9

Electron-immunocytochemical studies of perivascular nerves of mesenteric and renal arteries of golden hamsters during and after arousal from hibernation. Saitongdee P, et al. **J Anat** 1999 Jul;195 (Pt 1):121–30

METABOLISM

The exogenously added small subunit of smooth muscle myosin phosphatase increases the Ca2+ sensitivity of the contractile apparatus in the permeabilized porcine renal artery. Zhou Y, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):158–63

Application of high-performance liquid chromatography of plasma fatty acids as their phenacyl esters to evaluate splanchnic and renal fatty acid balance in vivo. Zaitseva I, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1–2):15–22

MICROBIOLOGY

"True" mycotic aneurysm of a renal artery allograft. Potti A, et al. **Am J Kidney Dis** 1998 Jan;31(1):E3

PATHOLOGY

Contrast-enhanced MR angiography in the assessment of arteriovenous fistula after renal transplant biopsy. Bagga H, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1509–11 (7 ref.)

Renal MR angiography at 1.0 T: three-dimensional (3D) phase-contrast techniques versus gadolinium-enhanced 3D fast low-angle shot breath-hold imaging. Hahn U, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1501–8

MR angiography versus color Doppler sonography in the evaluation of renal vessels and the inferior vena cava in abdominal masses of pediatric patients. Pfluger T, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):103–8

Renal artery clipping attenuates the progression of adriamycin nephropathy. Balbi AL, et al. **Am J Hypertens** 1998 Sep;11(9):1124–8

Renovasculopathies of hypertension in Hispanic residents of Dallas, Texas. Tracy RE, et al. **Arch Med Res** 1999 Jan–Feb;30(1):40–8

A human arterial organ culture model of postangioplasty restenosis: results up to 56 days after ballooning. Voisard R, et al. **Atherosclerosis** 1999 May;144(1):123–34

Significance of medial hypertrophy of blood vessels in IgA nephritis [letter] Woo KT, et al. **Clin Nephrol** 1999 Feb; 51(2):132

Magnetic resonance angiography of renal arterial stenosis. Grist TM. **Coron Artery Dis** 1999 May;10(3):151–6 (46 ref.)

Renal anatomic changes on magnetic resonance imaging and gadolinium-enhanced magnetic resonance angiography after renal revascularization. Original investigation. Carlos RC, et al. **Invest Radiol** 1998 Sep;33(9):660–9

Contrast-enhanced magnetic resonance angiography of the renal arteries. Original investigation. Hany TF, et al. **Invest Radiol** 1998 Sep;33(9):653–9

Arterial-phase three-dimensional gadolinium magnetic resonance angiography of the renal arteries. Strategies for timing and contrast media injection: original investigation. Schoenberg SO, et al. **Invest Radiol** 1998 Sep;33(9):506–14

Insertion/deletion angiotensin converting enzyme gene polymorphism affects the microvascular structure of the kidney in patients with nondiabetic renal disease. Teranishi M, et al. **J Hypertens** 1999 Mar;17(3):351–6

Contrast-enhanced 3D MRA with centric ordering in k space: a preliminary clinical experience in imaging the abdominal aorta and renal and peripheral arterial vasculature [letter] Riederer SJ. **J Magn Reson Imaging** 1998 Nov–Dec;8(6):1355

SCVIR Annual Meeting Film Panel Session: case 3. Segmental arterial mediolysis (SAM) resulting in spontaneous dissections of the middle colic and left renal arteries and occlusion of the SMA. Society of Cardiovascular & Interventional Radiology. LaBerge JM, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):509–13

Gd-enhanced 3D phase-contrast MR angiography and dynamic perfusion imaging in the diagnosis of renal artery stenosis. Miller S, et al. **Magn Reson Imaging** 1998 Nov; 16(9):1005–12

71-year-old woman with palpitations and dyspnea on exertion. Thomé SD, et al. **Mayo Clin Proc** 1998 Nov; 73(11):1109–12

Atraumatic loss of a kidney in a patient with alpha1-antitrypsin deficiency. Randers E, et al. **Nephron** 1998 Sep;80(1):71–5

Single-dose breath-hold gadolinium-enhanced three-dimensional MR angiography of the renal arteries. Lee VS, et al. **Radiology** 1999 Apr;211(1):69–78

Renal arteries: optimization of three-dimensional gadolinium-enhanced MR angiography with bolus-timing-independent fast multiphase acquisition in a single breath hold [see comments] Schoenberg SO, et al. **Radiology** 1999 Jun;211(3):667–79. Comment in: Radiology 1999 Jun;211(3):605–7.

Lipoprotein(a) deposition is associated with the development of transplant renal arteriosclerosis in humans. Han YS, et al. **Transplant Proc** 1998 Nov;30(7):3017–20

MRI is superior to angiography for evaluation of living-related simultaneous pancreas and kidney donors. Kandaswamy R, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):604–5

[Magnetic resonance tomography and angiography in the assessment of the status of the kidneys and renal arteries in patients with renovascular hypertension] Sergienko IV, et al. **Vestn Rentgenol Radiol** 1998 Jul–Aug;(4):50–9 (101 ref.) **(Rus)**

PHYSIOLOGY

V2-receptor-mediated relaxation of human renal arteries in response to desmopressin. Medina P, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):188–93

Renal vasoconstriction induced by oxidized LDL is inhibited by scavengers of reactive oxygen species and L-arginine. Rahman MM, et al. **Clin Nephrol** 1999 Feb;51(2):98–107

Renal artery vasomotion: in vivo assessment in the pig with intravascular Doppler. Beregi JP, et al. **Fundam Clin Pharmacol** 1998;12(6):613–8

Effect of meal induced splanchnic arterial vasodilatation on renal arterial haemodynamics in normal subjects and patients with cirrhosis. Iwao T, et al. **Gut** 1998 Dec; 43(6):843–8

Postnatal change of renal artery blood flow velocity and its relationship with urine volume in very low birth weight infants during the first month of life. Kusuda S, et al. **J Perinat Med** 1999;27(2):107–11

Enhanced vasoconstrictor responses in renal and femoral arteries of the golden hamster during hibernation. Karoon P, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):927–38

Mechanosensitive cation channels mediate afferent arteriolar myogenic constriction in the isolated rat kidney. Takenaka T, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):245–53

Functional MR imaging of the porcine kidney: physiologic changes of prolonged pneumoperitoneum. McDougall EM, et al. **J Soc Laparoendosc Surg** 1997 Jan–Mar;1(1):29–35

Experimental kidney transplantation in pigs from non-heart-beating donors: evaluation of renal artery flow. Alcoberro J, et al. **Transplant Proc** 1999 Sep;31(6):2348–9

[Intrarenal doppler flow analysis in patients with kidney transplantation and stable transplant function] Restrepo-Schäfer IK, et al. **Ultraschall Med** 1999 Jun; 20(3):87–92 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

The acute effects of oxygen and carbon dioxide on renal vascular resistance in patients with an acute exacerbation of COPD. Sharkey RA, et al. **Chest** 1999 Jun; 115(6):1588–92

Stenosis of the main artery supplying an organ: effect of end-organ vascular compliance on the poststenotic peak systolic velocity. Bude RO, et al. **J Ultrasound Med** 1999 Sep;18(9):603–13

[Acute arterial hypertension caused by dissecting aneurysm of the renal artery] Godon P, et al. **Presse Med** 1998 Apr 4;27(13):612–5 (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

US, CT, and MR evaluation of accessory renal arteries and proximal renal arterial branches. Halpern EJ, et al. **Acad Radiol** 1999 May;6(5):299–304

Fibromuscular dysplasia of the renal arteries: comparison of helical CT angiography and arteriography. Beregi JP, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):27–34

Carbon dioxide angiography of the transplanted kidney: technical considerations and imaging findings. Moresco KP, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1271–6

Detection of accessory renal arteries with virtual vascular endoscopy of the aorta. Neri E, et al. **Cardiovasc Intervent Radiol** 1999 Jan;22(1):1–6

Skin manifestations, multiple aneurysms, and carotid-cavernous fistula in Ehlers-Danlos syndrome type IV. Koh JH, et al. **Circulation** 1999 Sep 28;100(13):e57–8

Utility of CT angiography for evaluation of living kidney donors. Slakey DP, et al. **Clin Transplant** 1999 Feb;13(1 Pt 2):104–7

First results of computerised tomographic angiography using electron beam tomography. Lehmann KJ, et al. **Eur Radiol** 1999;9(4):625–9

Is there still a place for angiography in the management of renal mass lesions? Roy C, et al. **Eur Radiol** 1999; 9(2):329–35 (23 ref.)

Spiral CT angiography of renal arteries: comparison with angiography. Wittenberg G, et al. **Eur Radiol** 1999; 9(3):546–51

Endovascular Doppler guide wire in renal arteries. Correlation with angiography in 20 patients. Privat C, et al. **Invest Radiol** 1999 Aug;34(8):530–5

Helical computerized tomography arteriography for evaluation of live renal donors undergoing laparoscopic nephrectomy. Del Pizzo JJ, et al. **J Urol** 1999 Jul; 162(1):31–4

Use of spiral computerized tomography in lieu of angiography for preoperative assessment of living renal donors. Kaynan AM, et al. **J Urol** 1999 Jun;161(6):1769–75

Prevalence of angiographic atherosclerotic renal artery disease and its relationship to the anatomical extent of peripheral vascular atherosclerosis. Metcalfe W, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):105–8

Detection of paraumbilical or splenorenal shunts by intra-arterial-DSA in bleeding varices: another risk factor? Nakamura R, et al. **Radiat Med** 1998 Sep–Oct;16(5):341–5

Three-dimensional CT angiography: renal applications. Smith PA, et al. **Semin Ultrasound CT MR** 1998 Oct; 19(5):413–24 (30 ref.)

Computed tomography three-dimensional reconstruction in the diagnosis of traumatic renal artery thrombosis. Haas CA, et al. **Urology** 1999 Sep;54(3):559–60

Images in clinical urology. Arteriovenous fistula of the kidney: imaging with three-dimensional computed tomography angiography. Horton KM, et al. **Urology** 1999 Mar;53(3):621–3

[Spontaneous splenic and renal rupture in polyarteritis nodosa] Siebels M, et al. **Aktuelle Radiol** 1998 Sep; 8(5):236–8 (Eng. Abstr.) **(Ger)**

[Real-time MRI with radial k-radial scanning technique for control of angiographic interventions] Bücker A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):542–6 (Eng. Abstr.) **(Ger)**

[Aneurysm rupture of the ileocolic artery, multiple aneurysms, renal arteriovenous fistula and fatal aortic rupture in Ehlers-Danlos syndrome, subtype IV] Heiss U, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):608–10 **(Ger)**

[Magnetic resonance tomography and angiography in the assessment of the status of the kidneys and renal arteries in patients with renovascular hypertension] Sergienko IV, et al. **Vestn Rentgenol Radiol** 1998 Jul–Aug;(4):50–9 (101 ref.) **(Rus)**

RADIONUCLIDE IMAGING

Prediction of response to revascularization in patients with renal artery stenosis by Tc-99m-ethylenedicysteine captopril scintigraphy. Uğur O, et al. **Ann Nucl Med** 1999 Apr;13(2):77–81

Tc-99m DMSA renal scan in polyarteritis nodosa with bilateral intraparenchymal renal artery aneurysms. Basoglu T, et al. **Clin Nucl Med** 1999 Mar;24(3):201–2

The diagnosis of segmental transplant renal artery stenosis by captopril renography. Mousa D, et al. **Clin Nucl Med** 1999 Jul;24(7):504–6

SURGERY

Autotransplantation and stent implantation for bilateral renal artery fibromuscular dysplasia. Kyoraku Y, et al. **Hypertens Res** 1999 Jul;22(2):141–3

Renal artery reconstruction in transplant kidney. Case report. Sert S, et al. **Int Urol Nephrol** 1998;30(5):639–43

Renal auto-transplantation with interposed PTFE arterial graft: not necessarily a cure for loin pain/haematuria syndrome. Blacklock AR, et al. **J R Coll Surg Edinb** 1999 Apr;44(2):134

Treatment of posttraumatic dissection of the renal artery with endoprosthesis in a 15-year-old girl. Paul JL, et al. **J Trauma** 1999 Jul;47(1):169–72

Wallstent placement in a renal artery after blunt abdominal trauma. Villas PA, et al. **J Trauma** 1999 Jun;46(6):1137–9

Use of a cadaveric donor aorta for vascular replacement in kidney transplantation. Flechner SM, et al. **J Urol** 1999 Mar;161(3):909–10

Emergency aortorenal revascularization during salvage retroperitoneal lymph node dissection. Kapoor A, et al. **J Urol** 1999 Oct;162(4):1377–8

Treatment of acute aortorenal bypass graft thrombosis by means of primary stent placement and adjunctive

thrombolysis. Morris CS, et al. **J Vasc Interv Radiol** 1998 Nov-Dec;9(6):961-3

Running repairs: renal artery dissection following extreme exertion. Thomas MC, et al. **Nephrol Dial Transplant** 1999 May;14(5):1258-9

Stenting of the peripheral, renal and supraaortic arteries and the aorta. Mahler F, et al. **Schweiz Med Wochenschr** 1999 Mar 13;129(10):399-409 (59 ref.)

Microsurgical reconstruction of multiple arteries in renal transplantation. Han D, et al. **Transplant Proc** 1998 Nov; 30(7):3004-5

Ex vivo reno-vascular reconstruction in living kidney transplantation. Kawase T, et al. **Transplant Proc** 1998 Nov; 30(7):2993-4

Vascular reconstruction in urology. Sorcini A, et al. **Urol Clin North Am** 1999 Feb;26(1):219-34, x-xi (31 ref.)

[Surgical treatment of symptomatic arterial hypertension] Nikonenko AS, et al. **Klin Khir** 1998;(7):12-4 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Successful revascularization for acute renal allograft thrombosis after 32 hours of ischaemia. Juvenois A, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):199-201

ULTRASONOGRAPHY

US, CT, and MR evaluation of accessory renal arteries and proximal renal arterial branches. Halpern EJ, et al. **Acad Radiol** 1999 May;6(5):299-304

Power Doppler imaging: evaluation of vascular complications after renal transplantation. Claudon M, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):41-6

Azygos continuation of the inferior vena cava: sonographic demonstration of the renal artery ventral to the azygos vein as a clue to diagnosis. Geley TE, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1659-62

MR angiography versus color Doppler sonography in the evaluation of renal vessels and the inferior vena cava in abdominal masses of pediatric patients. Pfluger T, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):103-8

Renal artery rupture secondary to pretransplantation Candida contamination of the graft in two different recipients. Calviño J, et al. **Am J Kidney Dis** 1999 Jan;33(1):E3

Intravascular ultrasound evidence for coarctation causing symptomatic renal artery stenosis. Leertouwer TC, et al. **Circulation** 1999 Jun 15;99(23):2976-8

The role of power Doppler sonography in the prenatal evaluation of fetal renal vasculature. Sakarya ME, et al. **Clin Imaging** 1999 Jan-Feb;23(1):32-4

Acute obstruction of the renal collecting system: the intrarenal resistive index is a useful yet time-dependent parameter for diagnosis. Opdenakker L, et al. **Eur Radiol** 1998;8(8):1429-32

Importance of the renal resistive index in children suffering from vesicoureteral reflux. Radmayr C, et al. **Eur Urol** 1999;36(1):75-9

Pyelocaliectasis and intrarenal artery doppler indices in uncomplicated pregnancies. Kara SA, et al. **Gynecol Obstet Invest** 1999;48(1):18-21

Endovascular Doppler guide wire in renal arteries. Correlation with angiography in 20 patients. Privat C, et al. **Invest Radiol** 1999 Aug;34(8):530-5

Utility of the resistance index ratio in differentiating obstructive from nonobstructive hydronephrosis in children. Lim GY, et al. **J Clin Ultrasound** 1999 May; 27(4):187-93

In-vitro validation, with histology, of intravascular ultrasound in renal arteries. Leertouwer TC, et al. **J Hypertens** 1999 Feb;17(2):271-7

Color Doppler sonographic determination of renal blood flow in healthy children. Scholbach T. **J Ultrasound Med** 1999 Aug;18(8):559-64

Acute angulation of the left renal artery imitating renal artery stenosis in a patient with neurofibromatosis type 1. Vrentzos G, et al. **Nephrol Dial Transplant** 1999 Jul; 14(7):1767-70

Intravascular ultrasound imaging of atherosclerotic renal arteries: comparison between in vitro and in vivo studies. Yasuda G, et al. **Nephrol Dial Transplant** 1998 Jul; 13(7):1690-5

Crossing vessels at the ureteropelvic junction: detection with contrast-enhanced color Doppler imaging. Frauscher F, et al. **Radiology** 1999 Mar;210(3):727-31

Use of a newly developed ultrasound contrast medium for color Doppler evaluation in kidney transplantation. Ferraresso M, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1354-6

A validation study on the intraobserver and interobserver reproducibility of renal artery duplex ultrasound. Baumgartner I, et al. **Ultrasound Med Biol** 1999 Feb; 25(2):225-31

Evaluation of renal hemodynamics in awake and isoflurane-anesthetized cats with pulsed-wave Doppler and quantitative renal scintigraphy. Mitchell SK, et al. **Vet Radiol Ultrasound** 1998 Sep-Oct;39(5):451-8

[Intrarenal doppler flow analysis in patients with kidney transplantation and stable transplant function] Restrepo-Schäfer IK, et al. **Ultraschall Med** 1999 Jun; 20(3):87-92 (Eng. Abstr.) **(Ger)**

RENAL ARTERY OBSTRUCTION

see related
HYPERTENSION, RENOVASCULAR

Ischemic renal disease. Ismail N, et al. **J Med Liban** 1998 Jan-Feb;46(1):29-35 (50 ref.)

BLOOD

[Levels of 1,25-dihydroxyvitamin D3 concentration in renal venous blood serum of patients with renovascular hypertension caused by unilateral renal artery stenosis] Kiersztejn M, et al. **Pol Arch Med Wewn** 1998 Apr; 99(4):281-6 (Eng. Abstr.) **(Pol)**

CHEMICALLY INDUCED

Taking precautions with angiotensin converting enzyme inhibitors. Clinically significant deterioration in renal function occurs rarely [letter] Chowdhury TA. **BMJ** 1999 Jan 23;318(7178):258

Taking precautions with angiotensin converting enzyme inhibitors. Funding for large scale screening is not available [letter; comment] Ferris M. **BMJ** 1999 Jan 23;318(7178):258 . Comment on: BMJ 1998 Jun 27;316(7149):1921.

Taking precautions with angiotensin converting enzyme inhibitors. Angiotensin converting enzyme inhibitors are not proved to cause loss of renal mass [letter; comment] Louden JD, et al. **BMJ** 1999 Jan 23;318(7178):257. Comment on: BMJ 1998 Jun 27;316(7149):1921.

Taking precautions with angiotensin converting enzyme inhibitors. Screening for unilateral renal artery stenosis cannot be justified [letter; comment] Murdoch DR. **BMJ** 1999 Jan 23;318(7178):257-8. Comment on: BMJ 1998 Jun 27;316(7149):1921.

CLASSIFICATION

A fuzzy classification system to predict renal artery restenosis after angioplasty. Cherrak I, et al. **Proc AMIA Symp** 1998; :582-6

COMPLICATIONS

Unilateral focal segmental glomerulosclerosis with contralateral sparing on the side of renal artery stenosis. Johnston RJ, et al. **AJR Am J Roentgenol** 1999 Jan; 172(1):35-7

Acute oliguric renal failure associated with unilateral renal embolism: a successful treatment with iloprost. Levin M, et al. **Am J Nephrol** 1998;18(5):444-7

Pathogenesis of acute renal failure: new aspects. Bock HA. **Contrib Nephrol** 1998;124:43-55; discussion 55-63 (92 ref.)

Effect of YM435, a dopamine DA1 receptor agonist, in a canine model of ischemic acute renal failure. Yatsu T, et al. **Gen Pharmacol** 1998 Nov;31(5):803-7

Hyponatremic-hypertensive syndrome with renal ischemia: an underrecognized disorder. Agarwal M, et al. **Hypertension** 1999 Apr;33(4):1020-4

Pathogenesis of ischemia reperfusion injury of the kidney after transient renal arterial clamping in rats. Yu DS, et al. **J Formos Med Assoc** 1998 Sep;97(9):606-13

Secondary hypertension in the elderly. Januszewicz W, et al. **J Hum Hypertens** 1998 Sep;12(9):603-6 (30 ref.)

Hypertensive vascular crisis secondary to chronic total renal artery occlusion. Scarpelli PT, et al. **J Nephrol** 1998 Nov-Dec;11(6):325-9

Neurovascular decompression of the left ventrolateral medulla as a treatment of hypertension in a patient with renal artery stenosis [see comments] Anding K, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3253-7. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1398.

Extra-adrenal functional paraganglioma (phaeochromocytoma) associated with renal-artery stenosis in a pregnant woman. Del Giudice A, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2920-3

'Flash pulmonary oedema' in a patient 24 years after aorto-renal vein graft. Farmer CK, et al. **Nephrol Dial Transplant** 1999 May;14(5):1310-2

Cholesterol embolism associated with macroscopic renal infarction. Ramos R, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):962-5

Acute renal failure due to bilateral renal artery thrombosis associated with primary antiphospholipid syndrome. Ryšavá R, et al. **Nephrol Dial Transplant** 1998 Oct; 13(10):2645-7

Antiphospholipid antibody syndrome and posttransplant renal thrombosis. Vaidya S, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):230-3

[Antiphospholipid syndrome and vascular disease] Linhartová K, et al. **Cas Lek Cesk** 1999 Apr 26;138(9):276-9 (Eng. Abstr.) **(Cze)**

[Percutaneous revascularization of renal artery stenosis. Balloon angioplasty vs. stent implantation] Blum U, et al. **Radiologe** 1999 Feb;39(2):135-43 (42 ref.) (Eng. Abstr.) **(Ger)**

[Kidney revascularization and function recovery in patients in dialysis] Bracco A, et al. **Medicina (B Aires)** 1998; 58(6):747-54 (754 ref.) (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Using gadolinium-enhanced three-dimensional MR angiography to assess arterial inflow stenosis after kidney transplantation. Ferreiros J, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):751-7

Evaluating patients with renal failure for renal artery stenosis with gadolinium-enhanced magnetic resonance angiography. Ghantous VE, et al. **Am J Kidney Dis** 1999 Jan;33(1):36-42

Screening for renal artery stenosis: hypertension and more... Tuttle KR. **Am J Kidney Dis** 1998 Nov;32(5):842-5; discussion 845-7

Prediction rule for renal artery stenosis [letter; comment] Bloch M, et al. **Ann Intern Med** 1999 Aug 3;131(3):227; discussion 228. Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

Prediction rule for renal artery stenosis [letter; comment] Fine EJ, et al. **Ann Intern Med** 1999 Aug 3;131(3):227-8 . Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

A clinical prediction rule for renal artery stenosis [see comments] Krijnen P, et al. **Ann Intern Med** 1998 Nov 1;129(9):705-11. Comment in: Ann Intern Med 1998 Nov 1;129(9):738-40. Comment in: Ann Intern Med 1999 Aug 3;131(3):227; discussion 228. Comment in: Ann Intern Med 1999 Aug 3;131(3):227-8. Comment in: Ann Intern Med 1999 Aug 3;131(3):228.

Prediction rule for renal artery stenosis [letter; comment] Neggers SJ, et al. **Ann Intern Med** 1998 Aug 3;131(3):228 . Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

Prediction rule for renal artery stenosis [letter; comment] Rajput V, et al. **Ann Intern Med** 1999 Aug 3;131(3):228. Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

Screening for renal artery stenosis: are scans more accurate than clinical criteria? [editorial; comment] Wilcox CS. **Ann Intern Med** 1998 Nov 1;129(9):738-40. Comment on: Ann Intern Med 1998 Nov 1;129(9):705-11.

Renal artery stenosis: changes in intrarenal Doppler waveform following percutaneous transluminal angioplasty. Stuhrmann M, et al. **Cardiovasc Intervent Radiol** 1998 Sep-Oct;21(5):380-5

Magnetic resonance angiography of renal arterial stenosis. Grist TM. **Coron Artery Dis** 1999 May;10(3):151-6 (46 ref.)

Comparison of digital subtraction angiography with gadolinium-enhanced magnetic resonance angiography in the diagnosis of renal artery stenosis. Thornton J, et al. **Eur Radiol** 1999;9(5):930-4

Imaging and stenting for renal artery stenosis. Dowling RJ, et al. **Hosp Med** 1999 May;60(5):329-36 (49 ref.)

Renal anatomic changes on magnetic resonance imaging and gadolinium-enhanced magnetic resonance angiography after renal revascularization. Original investigation. Carlos RC, et al. **Invest Radiol** 1998 Sep;33(9):660-9

Contrast-enhanced magnetic resonance angiography of the renal arteries. Original investigation. Hany TF, et al. **Invest Radiol** 1998 Sep;33(9):653-9

First-pass renal perfusion imaging using MS-325, an albumin-targeted MRI contrast agent. Prasad PV, et al. **Invest Radiol** 1999 Sep;34(9):566-71

Atherosclerotic renal artery stenosis: is it worth diagnosing? Eardley KS, et al. **J Hum Hypertens** 1999 Apr;13(4):217-20 (33 ref.)

Ischemic nephropathy: diagnosis and treatment. Zuccalà A, et al. **J Nephrol** 1998 Nov-Dec;11(6):318-24 (69 ref.)

Impact of screening MR angiography on referrals for percutaneous intervention in renovascular disease. Harvey RT, et al. **J Vasc Interv Radiol** 1999 May;10(5):559-64

Gd-enhanced 3D phase-contrast MR angiography and dynamic perfusion imaging in the diagnosis of renal artery stenosis. Miller S, et al. **Magn Reson Imaging** 1998 Nov; 16(9):1005-12

Is diagnosis and treatment of renovascular stenosis cost efficient? [letter; comment] Caskey FJ, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1603-4. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2761-7.

Magnetic resonance angiography--the procedure of choice to diagnose renal artery stenosis? [editorial] Olbricht CJ, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1620-2 (30 ref.)

Combined morphologic and functional assessment of renal artery stenosis using gadolinium enhanced magnetic resonance imaging [editorial] Schoenberg SO, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2738-42

Acute angulation of the left renal artery imitating renal artery stenosis in a patient with neurofibromatosis type 1. Vrentzos G, et al. **Nephrol Dial Transplant** 1999 Jul; 14(7):1767-70

Renal artery stenosis: evaluation with conventional angiography versus gadolinium-enhanced MR angiography. Gilfeather M, et al. **Radiology** 1999 Feb; 210(2):367-72

[Three patients with a kidney infarct] Koek GH, et al. **Ned Tijdschr Geneeskd** 1998 Nov 7;142(45):2473-6 (Eng. Abstr.) **(Dut)**

[Malignant hypertension in a young man with renal artery occlusion diagnosed with magnetic resonance angiography] Postma CT, et al. **Ned Tijdschr Geneeskd** 1999 May 22; 143(21):1102-5 (Eng. Abstr.) **(Dut)**

-Radiologic case of the month. Arterial hypertension and ureteral notching- Mourani C, et al. **Arch Pediatr** 1998 Mar;5(3):319-20 **(Fre)**

[Diagnosis of renal artery stenosis in 1.0 T using 3D phase contrast magnetic resonance angiography and dynamic contrast medium perfusion] Miller S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):163-7 (Eng. Abstr.) **(Ger)**

[Arterial hypertension and rapidly progressing renal failure]

Gabutti L, et al. **Ther Umsch** 1999 Jan;56(1):55–60 (Eng. Abstr.) **(Ger)**

[Renal artery stenosis in pediatric age. Clinical and instrumental observations of two patients] Greco F, et al. **Minerva Pediatr** 1998 May;50(5):187–92 (Eng. Abstr.) **(Ita)**

[A case of migraine attack followed by abdominal pain] Nordskar M, et al. **Tidsskr Nor Laegeforen** 1999 Jun 20; 119(16):2363–6 **(Nor)**

DRUG THERAPY

Blood pressure, antihypertensive medication, and atherosclerotic renal artery stenosis. Tullis MJ, et al. **Am J Kidney Dis** 1999 Apr;33(4):675–81

Treatment of renovascular disease and of renovascular hypertension. Bernini G, et al. **J Nephrol** 1998 Nov–Dec; 11(6):311–7 (35 ref.)

Endovascular treatment of renal artery thrombosis caused by umbilical artery catheterization. Greenberg R, et al. **J Vasc Surg** 1998 Nov;28(5):949–53

Renal artery stenosis after kidney transplantation: diagnostic and therapeutic approach. Rengel M, et al. **Kidney Int Suppl** 1998 Dec;68:S99–106

Improvement of myointimal hyperplasia in a patient with transplant renal artery stenosis by oral PGI2. Yagi T, et al. **Transplant Proc** 1998 Nov;30(7):3043–4

EPIDEMIOLOGY

Prevalence of angiographic atherosclerotic renal artery disease and its relationship to the anatomical extent of peripheral vascular atherosclerosis. Metcalfe W, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):105–8

[Frequency of stenosis of renal the artery in 676 renal transplantations] Lopes JA, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):210–3 (Eng. Abstr.) **(Por)**

ETIOLOGY

Nephropathy and hypertension as manifestations in a 13-y-old girl with primary antiphospholipid syndrome. Ohtomo Y, et al. **Acta Paediatr** 1998 Aug;87(8):903–7 (44 ref.)

Intravascular ultrasound evidence for coarctation causing symptomatic renal artery stenosis. Leertouwer TC, et al. **Circulation** 1999 Jun 15;99(23):2976–8

Peripheral vascular disease and renal transplant artery stenosis: a reappraisal of transplant renovascular disease. Becker BN, et al. **Clin Transplant** 1999 Aug;13(4):349–55

Hypertension in the transplanted patient. Zeier M, et al. **Contrib Nephrol** 1998;124:146–57; discussion 158–65 (86 ref.)

Noninvasive evaluation of a novel swine model of renal artery stenosis. Lerman LO, et al. **J Am Soc Nephrol** 1999 Jul;10(7):1455–65

Troubleshooting maldeployed aortic endografts [comment] Kopchok G, et al. **J Endovasc Surg** 1998 Aug;5(3):266–8 (2 ref.). Comment on: J Endovasc Surg 1998 Aug;5(3):261–5.

Transplant renal artery stenosis: potential role of ischemia/reperfusion injury and long-term outcome following angioplasty. Halimi JM, et al. **J Urol** 1999 Jan; 161(1):28–32

Risk of morbidity from renovascular disease in elderly patients with congestive cardiac failure [comment] [see comments] MacDowall P, et al. **Lancet** 1998 Jul 4; 352(9121):13–6. Comment on: Lancet 1998 Jul 4;352(9121):3–4. Comment in: Lancet 1998 Aug 23;352(9128):656.

Arterial stenting and balloon angioplasty in ostial atherosclerotic renovascular disease: a randomised trial. van de Ven PJ, et al. **Lancet** 1999 Jan 23;353(9149):282–6

Successful handling by stent implantation of postoperative renal graft artery stenosis and dissection. Peregrin JH, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):1004–6

Improvement of myointimal hyperplasia in a patient with transplant renal artery stenosis by oral PGI2. Yagi T, et al. **Transplant Proc** 1998 Nov;30(7):3043–4

[Transluminal treatment of abdominal aortic aneurysms. Might one obstruct the renal arteries?] Desgranges P, et al. **J Mal Vasc** 1998 Dec;23(5):385–6 (9 ref.) (Eng. Abstr.) **(Fre)**

[Fibromuscular dysplasia of the renal arteries] Fiquet-Kempf B, et al. **Nephrologie** 1999;20(1):13–8 (29 ref.) (Eng. Abstr.) **(Fre)**

[Arterial hypertension due to compression of the renal artery, revealing ovarian cancer] Jan F, et al. **Presse Med** 1999 Apr 24;28(16):841–4 (Eng. Abstr.) **(Fre)**

[Frequency of stenosis of renal the artery in 676 renal transplantations] Lopes JA, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):210–3 (Eng. Abstr.) **(Por)**

[Systemic fibromuscular dysplasia. Supra aortic and renal artery involvement] Bravo M, et al. **Rev Med Chil** 1999 Feb;127(2):206–10 (Eng. Abstr.) **(Spa)**

[Pheochromocytoma and von Recklinghausen neurofibromatosis: postpartum crisis and renal artery thrombosis] Lam J, et al. **Rev Med Chil** 1998 Nov; 126(11):1367–71 (Eng. Abstr.) **(Spa)**

MORTALITY

Atheroembolic renal disease: effect on morbidity and survival after revascularization for atherosclerotic renal artery stenosis. Krishnamurthi V, et al. **J Urol** 1999 Apr; 161(4):1093–6

PATHOLOGY

Progression of renal artery stenosis in patients undergoing cardiac catheterization. Crowley JJ, et al. **Am Heart J** 1998 Nov;136(5):913–8

The intrarenal vascular lesions associated with primary antiphospholipid syndrome. Nochy D, et al. **J Am Soc Nephrol** 1999 Mar;10(3):507–18

PHYSIOPATHOLOGY

Blood pressure, antihypertensive medication, and atherosclerotic renal artery stenosis. Tullis MJ, et al. **Am J Kidney Dis** 1999 Apr;33(4):675–81

Noninvasive evaluation of a novel swine model of renal artery stenosis. Lerman LO, et al. **J Am Soc Nephrol** 1999 Jul;10(7):1455–65

Adenosine-induced renal vasodilatation is prolonged in renal artery stenosis. Wierema TK, et al. **J Hypertens** 1998 Dec; 16(12 Pt 2):2109–12

Adrenal-renal portal circulation contributes to decrease in renal blood flow after renal artery stenosis in rats. Zięcina R, et al. **J Physiol Pharmacol** 1998 Dec;49(4):553–60

Stenosis of the main artery supplying an organ: effect of end-organ vascular compliance on the poststenotic peak systolic velocity. Bude RO, et al. **J Ultrasound Med** 1999 Sep;18(9):603–13

RADIOGRAPHY

Gross hematuria of uncommon origin: the nutcracker syndrome. Russo D, et al. **Am J Kidney Dis** 1998 Sep; 32(3):E3

Digital aortography showing extensive aneurysmal aortoiliac disease and severe proximal renal artery stenosis in a patient with a history of acute myocardial infarction. Missouris CG, et al. **J Hum Hypertens** 1999 Apr;13(4):283–4

Special exhibit for the SCVIR Annual Meeting Film Panel Session: diagnosis and discussion of cases 5–8. Society of Cardiovascular & Interventional Radiology. Case 8. Bilateral renal artery stenoses involving the main right renal artery and the bifurcation of the main left renal artery. LaBerge JM, et al. **J Vasc Interv Radiol** 1999 May; 10(5):653, 666–70

Assessing kidneys that may be fragile. Bakris GL. **Postgrad Med** 1998 Nov;104(5):31

Renal artery stenosis: CT angiography--comparison of real-time volume-rendering and maximum intensity projection algorithms. Johnson PT, et al. **Radiology** 1999 May;211(2):337–43

Renal insufficiency: usefulness of gadodiamide-enhanced renal angiography to supplement CO2-enhanced renal angiography for diagnosis and percutaneous treatment. Spinosa DJ, et al. **Radiology** 1999 Mar;210(3):663–72

Traumatic renal artery thrombosis. Muñoz D, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):296–8

[An arterial compression syndrome due to the ligamentum arcuatum mediale of the diaphragm] Rietzler B, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):76–8 (8 ref.) **(Ger)**

RADIONUCLIDE IMAGING

Prediction of response to revascularization in patients with renal artery stenosis by Tc-99m-ethylenedicysteine captopril scintigraphy. Uğur O, et al. **Ann Nucl Med** 1999 Apr;13(2):77–81

A case of renal artery stenosis after transplantation: can losartan be more accurate than captopril renography? Fuster D, et al. **Clin Nucl Med** 1998 Nov;23(11):731–4

The diagnosis of segmental transplant renal artery stenosis by captopril renography. Mousa D, et al. **Clin Nucl Med** 1999 Jul;24(7):504–6

Value of captopril renal scintigraphy in hypertensive patients with renal failure. Fernandez P, et al. **J Nucl Med** 1999 Mar;40(3):412–7

Hypotensive response to captopril: a potential pitfall of scintigraphic assessment for renal artery stenosis. Stavropoulos SW, et al. **J Nucl Med** 1999 Mar;40(3):406–11

Enalapril plus frusemide MAG3 scintigraphy in hypertensive patients with atherosclerosis and moderate renal insufficiency. Caglar M, et al. **Nucl Med Commun** 1998 Dec;19(12):1135–40

Quantitative residual cortical activity measurement: appropriate test for diagnosis of renal artery stenosis? Gezici A, et al. **Urol Int** 1999;62(1):1–7

SURGERY

Prevention of recurrent pulmonary edema in patients with bilateral renovascular disease through renal artery stent placement. Bloch MJ, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):1–7

Treatment of renal artery stenosis by invasive procedures [letter; comment] Sekkarie M. **Am J Kidney Dis** 1999 Mar; 33(3):613–4. Comment on: Am J Kidney Dis 1998 Oct;32(4):611–22.

Stents in the treatment of renal artery stenosis: long-term follow-up. Henry M, et al. **J Endovasc Surg** 1999 Feb; 6(1):42–51

Renal artery stenosis: clinical picture, frequency, and management [letter; comment] Brothers T. **J S C Med Assoc** 1998 Oct;94(10):450; discussion 450–1. Comment on: J S C Med Assoc 1998 Jul;94(7):306–9.

Atheroembolic renal disease: effect on morbidity and survival after revascularization for atherosclerotic renal artery stenosis. Krishnamurthi V, et al. **J Urol** 1999 Apr; 161(4):1093–6

Chronic renal artery occlusion: nephrectomy versus revascularization. Oskin TC, et al. **J Vasc Surg** 1999 Jan; 29(1):140–9

Surgery after failed percutaneous renal artery angioplasty. Wong JM, et al. **J Vasc Surg** 1999 Sep;30(3):468–82

Arterial stenting and balloon angioplasty in ostial atherosclerotic renovascular disease: a randomised trial. van de Ven PJ, et al. **Lancet** 1999 Jan 23;353(9149):282–6

'Flash pulmonary oedema' in a patient 24 years after aorto-renal vein graft. Farmer CK, et al. **Nephrol Dial Transplant** 1999 May;14(5):1310–2

Preservation of renal function by percutaneous transluminal angioplasty in ischaemic renal disease. Paulsen D, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1454–61

Successful handling by stent implantation of postoperative renal graft artery stenosis and dissection. Peregrin JH, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):1004–6

Fibromuscular dysplasia of the allograft renal artery with early post-operative dissection: successful treatment with intravascular stent insertion. Verove C, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1571–3

Management of renovascular disease: a review of renal artery stenting in ten studies. Isles CG, et al. **QJM** 1999 Mar; 92(3):159–67 (39 ref.)

Vascular reconstruction in urology. Sorcini A, et al. **Urol Clin North Am** 1999 Feb;26(1):219–34, x-xi (31 ref.)

[Treatment of renal artery stenosis with intra-arterial stents] Postma CT, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26; 142(39):2132–7 (22 ref.) (Eng. Abstr.) **(Dut)**

[Surgical treatment of renal artery lesions in children] Lacombe M. **Chirurgie** 1999 Jun;124(3):264–71 (Eng. Abstr.) **(Fre)**

[Extracorporeal surgery of the renal artery] Lacombe M. **Chirurgie** 1998 Feb;123(1):54–60 (Eng. Abstr.) **(Fre)**

[Kidney revascularization and function recovery in patients in dialysis] Bracco A, et al. **Medicina (B Aires)** 1998; 58(6):747–54 (754 ref.) (Eng. Abstr.) **(Spa)**

THERAPY

Percutaneous transluminal renal artery angioplasty using the coaxial technique. Ten years of experience from 591 procedures in 419 patients. Kløw NE, et al. **Acta Radiol** 1998 Nov;39(6):594–603

Interventional radiology in the treatment of renal artery stenosis. Lovaria A, et al. **Ann Urol (Paris)** 1999; 33(3):146–55

Renal artery stenosis: changes in intrarenal Doppler waveform following percutaneous transluminal angioplasty. Stuhrmann M, et al. **Cardiovasc Intervent Radiol** 1998 Sep–Oct;21(5):380–5

Abciximab combined with angioplasty in a patient with renal artery stent subacute thrombosis. Berkompas DC. **Cathet Cardiovasc Diagn** 1998 Nov;45(3):272–4

Ostial renal artery stent placement for atherosclerotic renal artery stenosis in patients with coronary artery disease [see comments] Gross CM, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):1–8. Comment in: Cathet Cardiovasc Diagn 1998 Sep;45(1):9–10.

Stenting of a renal artery bifurcation stenosis. Ho DS, et al. **Cathet Cardiovasc Diagn** 1998 Dec;45(4):445–9

Open renal arteries are better than closed renal arteries [editorial; comment] White CJ. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):9–10. Comment on: Cathet Cardiovasc Diagn 1998 Sep;45(1):1–8.

Balloon rupture during stent implantation: A novel technique of salvage with a new manual power injector. Akhtar S, et al. **Catheter Cardiovasc Interv** 1999 Sep;48(1):74–7

Optimizing the benefits of renal artery stenting [editorial; comment] Bittl JA. **Catheter Cardiovasc Interv** 1999 Jun; 47(2):173–4. Comment on: Catheter Cardiovasc Interv 1999 Jun;47(2):167–72.

Clinical predictors of improved long-term blood pressure control after successful stenting of hypertensive patients with obstructive renal artery atherosclerosis [see comments] Rocha-Singh KJ, et al. **Catheter Cardiovasc Interv** 1999 Jun;47(2):167–72. Comment in: Catheter Cardiovasc Interv 1999 Jun;47(2):173–4.

Endovascular stents for renal artery revascularization. Tuttle KR, et al. **Curr Opin Nephrol Hypertens** 1998 Nov; 7(6):695–701 (49 ref.)

Renal artery stent placement: indications, techniques and clinical results. White CJ, et al. **Indian Heart J** 1998 Oct; 50 Suppl 1:153–60 (43 ref.)

Percutaneous transluminal renal angioplasty in aortoarteritis. Deyu Z, et al. **Int J Cardiol** 1998 Oct 1;66 Suppl 1:S205–11

The Dutch Renal Artery Stenosis Intervention Cooperative (DRASTIC) Study: rationale, design and inclusion data. van Jaarsveld B, et al. **J Hypertens Suppl** 1998 Oct; 16(6):S21–7

Carbon dioxide digital subtraction angiography for renal artery stent placement. Caridi JG, et al. **J Vasc Interv Radiol** 1999 May;10(5):635–40

Stent placement for treatment of renal artery stenosis guided by intravascular ultrasound. Leertouwer TC, et al. **J Vasc Interv Radiol** 1998 Nov–Dec;9(6):945–52

Stents for atherosclerotic renovascular disease. Rees CR. **J Vasc Interv Radiol** 1999 Jun;10(6):689–705 (86 ref.)

Angioplasty through the side of a renal artery stent [letter] Robertson IR, et al. **J Vasc Interv Radiol** 1998 Nov–Dec; 9(6):1030–2

Renal artery stenosis treated with stent deployment: indications, technique, and outcome for 108 patients. Rodriguez–Lopez JA, et al. **J Vasc Surg** 1999 Apr; 29(4):617–24

Successful revascularization for acute renal allograft thrombosis after 32 hours of ischaemia. Juvenois A, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):199–201

Systemic thrombolysis for bilateral atherosclerotic renal artery occlusion resulting in prolonged recovery of renal function. Louden JD, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2924–6

Management of the patient with atherosclerotic renal artery stenosis. New information from randomized trials [editorial] Plouin PF, et al. **Nephrol Dial Transplant** 1999 Jul; 14(7):1623–6 (13 ref.)

Diagnosis and treatment of renovascular stenosis––a cost–benefit analysis [see comments] Radermacher J, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2761–7. Comment in: Nephrol Dial Transplant 1999 Jun;14(6):1603–4.

Renovascular disease in diabetes mellitus: treatment by percutaneous transluminal renal angioplasty. Zuccalà A, et al. **Nephrol Dial Transplant** 1998;13 Suppl 8:26–9

Discrepancy of clinical and angiographic results in the follow–up of percutaneous transluminal renal angioplasty (PTRA). Oertle M, et al. **Vasa** 1998 Aug;27(3):154–7

[Percutaneous renal angioplasty. Experience of the Radiodiagnostic Service of the Hotel–Dieu of France] Atallah N, et al. **J Med Liban** 1998 Sep–Oct;46(5):244–50 (Eng. Abstr.) **(Fre)**

ULTRASONOGRAPHY

Using Doppler sonography to reveal renal artery stenosis: an evaluation of optimal imaging parameters. House MK, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):761–5

Diagnosis of renovascular disease by extra– and intrarenal Doppler parameters. Malatino LS, et al. **Angiology** 1998 Sep;49(9):707–21

Prospective study of atherosclerotic disease progression in the renal artery. Caps MT, et al. **Circulation** 1998 Dec 22–29;98(25):2866–72

Intravascular ultrasound evidence for coarctation causing symptomatic renal artery stenosis. Leertouwer TC, et al. **Circulation** 1999 Jun 15;99(23):2976–8

Diagnosis of renal artery stenosis and renovascular hypertension. Karasch T, et al. **Eur J Ultrasound** 1998 Jul; 7 Suppl 3:S27–39 (60 ref.)

Effect of angiotensin converting enzyme inhibition on the Doppler waveform in dogs with renal artery stenosis. Gottlieb RH, et al. **J Ultrasound Med** 1999 Jul;18(7):481–7

Renal artery stenosis after kidney transplantation: diagnostic and therapeutic approach. Rengel M, et al. **Kidney Int Suppl** 1998 Dec;68:S99–106

Renal vascular Doppler imaging: clinical benefits of power mode. Hélénon O, et al. **Radiographics** 1998 Nov–Dec; 18(6):1441–54; discussion 1455–7

Stenosis of the main artery supplying an organ: effect of end–organ vascular resistance on the poststenotic peak systolic velocity in an in vitro hydraulic model at Doppler US. Bude RO, et al. **Radiology** 1999 Jul;212(1):79–87

[Visualization of renal arteries and value of color–coded duplex sonography in renal artery stenoses using an ultrasound signal enhancing agent (published erratum appears in Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Dec;169(6):681–2)] Hortling N, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Oct;169(4):397–401 (Eng. Abstr.) **(Ger)**

[Vascular complications in pediatric renal transplant: echographic diagnosis] del Valle Sanz Y, et al. **An Esp Pediatr** 1999 Mar;50(3):263–8 (Eng. Abstr.) **(Spa)**

RENAL ARTERY STENOSIS see **RENAL ARTERY OBSTRUCTION**

RENAL BLOOD FLOW see **RENAL CIRCULATION**

RENAL CALCULI see **KIDNEY CALCULI**

RENAL CIRCULATION

Hypoxic renal tissue damage by endothelin–mediated arterial vasoconstriction during radioangiography in man. Klause N, et al. **Adv Exp Med Biol** 1998;454:225–34

Color Doppler sonography in early renal transplantation follow–up: resistive index measurements versus power Doppler sonography. Trillaud H, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1611–5

PAH extraction and estimation of plasma flow in human postischemic acute renal failure. Corrigan G, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F312–8

Role of nitric oxide in intrarenal hemodynamics in experimental diabetes mellitus in rats. Pflueger AC, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R725–33

Expression of bone morphogenetic protein–7 mRNA in normal and ischemic adult rat kidney. Simon M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F382–9

The distribution of renin in the segments of the renal arterial tree in cats: an immunohistochemical and ultrastructural study. Taugner F, et al. **Anat Histol Embryol** 1999 Mar; 28(1):45–8

New sequential synchronized driving system of intraaortic balloon pumping and left ventricular assist device: influence on endocardial viability ratio and renal blood flow in their combination. Nagasaka F, et al. **Artif Organs** 1992 Apr; 16(2):216–8

Long–term glycaemic control directly correlates with glomerular filtration rate in early Type 1 diabetes mellitus before the onset of microalbuminuria. Soper CP, et al. **Diabet Med** 1998 Dec;15(12):1010–4

Functional renal perfusion imaging with colour mapping: is it a useful adjunct to spiral CT of in the assessment of abdominal aortic aneurysm (AAA)? Blomley MJ, et al. **Eur J Radiol** 1999 Jun;30(3):214–20

Importance of the renal resistive index in children suffering from vesicoureteral reflux. Radmayr C, et al. **Eur Urol** 1999;36(1):75–9

Renal artery vasomotion: in vivo assessment in the pig with intravascular Doppler. Beregi JP, et al. **Fundam Clin Pharmacol** 1998;12(6):613–8

Role of nitric oxide in the evolution of renal ischemia in two–kidney, one–clip renovascular hypertension. Nakamoto H, et al. **Hypertens Res** 1998 Dec;21(4):267–77

Angiotensin II type 1 receptor antisense gene therapy prevents altered renal vascular calcium homeostasis in hypertension. Gelband CH, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):360–5

Agonist–induced calcium regulation in freshly isolated renal microvascular smooth muscle cells. Inscho EW, et al. **J Am Soc Nephrol** 1997 Apr;8(4):569–79

Effect of transcatheter arterial chemoembolization on kidney hemodynamics and function in patients with cirrhosis and hepatocellular carcinoma. Nakano R, et al. **J Hepatol** 1999 Aug;31(2):340–6

The absence of a triphasic renovascular response by the multicalyceal kidney of the primate in reaction to acute, complete, unilateral, ureteric obstruction. Evans JP, et al. **J Med Primatol** 1998 Oct;27(5):223–33

Expression of CD27 and ischemia/reperfusion–induced expression of its ligand Siva in rat kidneys. Padanilam BJ, et al. **Kidney Int** 1998 Dec;54(6):1967–75

Bleeding after renal biopsy resulting from a persisting left cardinal vein. Meola M, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):185–6

In vivo microvascular clearance of albumin in renal and extrarenal tissues in puromycin aminonucleoside (PAN) induced nephrotic syndrome. Oqvist BW, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):1898–903

Renal haemodynamic responses to a chicken or beef meal in normal individuals [letter; comment] Zitta S, et al. **Nephrol Dial Transplant** 1999 Mar;14(3):794–5. Comment on: Nephrol Dial Transplant 1998 Sep;13(9):2261–4.

Renal perfusion and nephronal structure [letter] Futrakul P, et al. **Nephron** 1999;82(1):79–80

Life–threatening hematuria from an arteriovenous fistula complicating an open renal biopsy. Tarif N, et al. **Nephron** 1998 Sep;80(1):66–70 (30 ref.)

Color Doppler energy––a new technique to study tissue perfusion in renal transplants. Hoyer PF, et al. **Pediatr Nephrol** 1999 Sep;13(7):559–63

Noninvasive measurement of renal hemodynamic functions with gadolinium–enhanced MR imaging [letter; comment] Katzberg RW. **Radiology** 1999 Jan;210(1):287–8. Comment on: Radiology 1998 Mar;206(3):791–8.

Protective effect of exogenous nitric oxide on the renal function and inflammatory response in a model of ischemia–reperfusion. Garcia–Criado FJ, et al. **Transplantation** 1998 Oct 27;66(8):982–90

[Effects of the double chamber intra–aortic balloon pumping on the renal circulation] Lu S, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr; 19(2):140–4 (Eng. Abstr.) **(Chi)**

[Changes of renal blood flow during organ–associated foot reflexology measured by color Doppler sonography] Sudmeier I, et al. **Forsch Komplementarmed** 1999 Jun; 6(3):129–34 (Eng. Abstr.) **(Ger)**

[Evaluation of blood flow in transplanted kidney by flow profile] Nagano T, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Mar;90(3):470–4 (Eng. Abstr.) **(Jpn)**

[Renal microcirculation] Tamaki T, et al. **Nippon Yakurigaku Zasshi** 1999 Apr;113(4):261–7 (22 ref.) (Eng. Abstr.) **(Jpn)**

[Effective renal plasma flow with I–131–hipuran: evaluation of a method with four extractions] Roca M, et al. **Rev Esp Med Nucl** 1998;17(4):265–71 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Calcium response to adenosine and ATP in rabbit afferent arterioles. Gutiérrez AM, et al. **Acta Physiol Scand** 1999 Jul;166(3):175–81

Hypoperfusion in the renal outer medulla after injection of contrast media in rats. Liss P, et al. **Acta Radiol** 1999 Sep; 40(5):521–7

Lovastatin reduces renal vascular reactivity in spontaneously hypertensive rats. Jiang J, et al. **Am J Hypertens** 1998 Oct; 11(10):1222–31

Dexamethasone increases eNOS gene expression and prevents renal vasoconstriction induced by cyclosporin. Bobadilla NA, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F464–71

Human renal and systemic hemodynamic, natriuretic, and neurohumoral responses to different doses of L–NAME. Broere A, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F870–7

Inhibition of prostaglandin and nitric oxide synthesis prevents cortisol–induced renal vasodilatation in sheep. de Matteo R, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1125–31

Hemodilution mediates changes in renal hemodynamics after acute volume expansion in rats. Franchini KG. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1670–6

Enhanced renal vascular responsiveness to angiotensin II in hypertensive ren–2 transgenic rats. Jacinto SM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F315–22

Renal and hemodynamic effects of losartan in conscious dogs during controlled mechanical ventilation. Krebs MO, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F425–32

Kinin influences on renal regional blood flow responses to angiotensin–converting enzyme inhibition in dogs. Omoro SA, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F271–7

Calcium recruitment in renal vasculature: NE effects on blood flow and cytosolic calcium concentration. Salomonsson M, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F700–10

Effects of norepinephrine on the renal vasculature in normal and endotoxemic dogs. Bellomo R, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1186–92

Diclofenac does not decrease renal blood flow or glomerular filtration in elderly patients undergoing orthopedic surgery. Fredman B, et al. **Anesth Analg** 1999 Jan;88(1):149–54

Cyclosporin neurotoxicity after chemotherapy. Case had features of thrombotic thrombocytopenic purpura and haemolytic uraemic syndrome [letter] Pratt G, et al. **BMJ** 1999 Jul 3;319(7201):54; discussion 54–5

Renal hemodynamic effects in patients with moderate to severe heart failure during chronic treatment with trandolapril. van der Ent M, et al. **Cardiovasc Drugs Ther** 1998 Sep;12(4):395–403

Kinins modulate the sodium–dependent autoregulation of renal medullary blood flow. Nafz B, et al. **Cardiovasc Res** 1998 Dec;40(3):573–9

Amplification by atrial natriuretic peptide of the haemodynamic and renal responses to an acute volumic stress in the rat. Caron N, et al. **Clin Exp Pharmacol Physiol** 1999 Apr;26(4):315–22

Pharmacokinetics and pharmacodynamics of SB 209670, an endothelin receptor antagonist: effects on the regulation of renal vascular tone. Freed MI, et al. **Clin Pharmacol Ther** 1999 May;65(5):473–82

Renal hemodynamic effects of nabumetone, sulindac, and placebo in patients with osteoarthritis. Cangiano JL, et al. **Clin Ther** 1999 Mar;21(3):503–12

Diltiazem modulates cyclosporin A induced renal hemodynamic effects but not its effect on plasma endothelin–1. Asberg A, et al. **Clin Transplant** 1998 Oct; 12(5):363–70

Preventing renal failure in critically ill patients [editorial; comment] Aurora RN, et al. **Crit Care Med** 1999 Sep; 27(9):2044–5. Comment on: Crit Care Med 1999 Sep;27(9):1832–7.

Effects of halothane on renal hemodynamics and interstitial nitric oxide in rabbits. Nishiyama A, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):299–306

Acute effects of the oral administration of midodrine, an alpha–adrenergic agonist, on renal hemodynamics and renal function in cirrhotic patients with ascites. Angeli P, et al. **Hepatology** 1998 Oct;28(4):937–43

Afferent arteriolar vasodilation to the sulfonimide analog of 11, 12–epoxyeicosatrienoic acid involves protein kinase A. Imig JD, et al. **Hypertension** 1999 Jan;33(1 Pt 2):408–13

Effects of vasodilatory beta–adrenoceptor antagonists on endothelium–derived nitric oxide release in rat kidney. Kakoki M, et al. **Hypertension** 1999 Jan;33(1 Pt 2):467–71

Role of aldosterone in renal vascular injury in stroke–prone hypertensive rats. Rocha R, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):232–7

NaCl–induced renal vasoconstriction in salt–sensitive African Americans: antipressor and hemodynamic effects of potassium bicarbonate. Schmidlin O, et al. **Hypertension** 1999 Feb;33(2):633–9

Local renal medullary L–NAME infusion enhances the effect of long–term angiotensin II treatment. Szentiványi M Jr, et al. **Hypertension** 1999 Jan;33(1 Pt 2):440–5

Chronic effects of lovastatin and bezafibrate on cortical and medullary hemodynamics in deoxycorticosterone acetate–salt hypertensive mice. Gross V, et al. **J Am Soc Nephrol** 1999 Jul;10(7):1430–9

Angiotensin II and long–term arterial pressure regulation: the overriding dominance of the kidney. Hall JE, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S258–65 (33 ref.)

Acute and chronic renal effects of recombinant human TGF–beta2 in the rat. Kelly FJ, et al. **J Am Soc Nephrol** 1999 Jun;10(6):1264–73

Effects of the angiotensin II antagonist valsartan on blood pressure, proteinuria, and renal hemodynamics in patients with chronic renal failure and hypertension. Plum J, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2223–34

Beneficial effect of serotonin 5–HT2–receptor antagonism on renal blood flow autoregulation in cyclosporin–treated rats. Verbeke M, et al. **J Am Soc Nephrol** 1999 Jan;10(1):28–34

Renal responses to AT1 blockade in angiotensin II–induced hypertensive rats. Wang CT, et al. **J Am Soc Nephrol** 1997

Apr;8(4):535–42
Cyclooxygenase inhibition potentiates the renal vascular response to endothelin-1 in humans. Ahlborg G, et al. **J Appl Physiol** 1998 Nov;85(5):1661–6
Differential effect of a selective cyclooxygenase-2 inhibitor versus indomethacin on renal blood flow in conscious volume-depleted dogs. Black SC, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):686–94
Effects of BQ-123 on systemic and renal hemodynamic responses to endothelin-1 in the rat split hydronephrotic kidney. Cavarape A, et al. **J Hypertens** 1998 Oct; 16(10):1449–58
Renal haemodynamic effects of endothelin-1 and the ETA/ETB antagonist TAK-044 in anaesthetized rabbits. Evans RG, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1897–905
High salt intake potentiates the renal vascular and glomerular damage caused by low doses of angiotensin II in uni-nephrectomized rats. Hirawa N, et al. **J Hypertens** 1999 Jul;17(7):923–32
The role of nitric oxide in angiotensin II-induced renal vasoconstriction in renovascular hypertension. Sánchez-Mendoza A, et al. **J Hypertens** 1998 May; 16(5):697–703
Adenosine-induced renal vasodilatation is prolonged in renal artery stenosis. Wierema TK, et al. **J Hypertens** 1998 Dec; 16(12 Pt 2):2109–12
Regional hemodynamic effects of dopamine in the sick preterm neonate [see comments] Seri I, et al. **J Pediatr** 1998 Dec;133(6):728–34. Comment in: J Pediatr 1998 Dec;133(6):719–20. Comment in: J Pediatr 1999 Jul;135(1)135–6.
Angiotensin II-induced renal vasoconstriction in genetic hypertension. Jackson EK, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):329–34
Effects of rolipram and cilostamide on renal functions and cyclic AMP release in anesthetized dogs. Tanahashi M, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1533–8
The effects of angiotensin II on blood perfusion in the rat renal papilla. Walker LL, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:273–8
Effects of prostaglandin E1, dobutamine and placebo on hemodynamic, renal and neurohumoral variables in patients with advanced heart failure. Wimmer A, et al. **Jpn Heart J** 1999 May;40(3):321–34
Renal hemodynamic effects of L-arginine and sodium nitroprusside in heart transplant recipients. Koller-Strametz J, et al. **Kidney Int** 1999 May;55(5):1871–7
Management of the cadaveric donor of a renal transplant: more than optimizing renal perfusion? [editorial; comment] Lu CY. **Kidney Int** 1999 Aug;56(2):756–7. Comment on: Kidney Int 1999 Aug;56(2):738–46.
Effect of L-arginine on adrenal and renal blood flows during hemorrhage in cats. Benyó Z, et al. **Kidney Int Suppl** 1998 Sep;67:S221–3
Renovascular parathyroid hormone-related protein in spontaneously hypertensive rats: dilator or trophic factor? Fiaschi-Taesch N, et al. **Kidney Int Suppl** 1998 Sep; 67:S207–10
Preventive strategies in endothelin-induced renal failure. Hermann M, et al. **Kidney Int Suppl** 1998 Sep;67:S202–4
Influence of ketanserin on experimental loss of renal blood flow autoregulation. Verbeke M, et al. **Kidney Int Suppl** 1998 Sep;67:S238–41 (25 ref.)
Dopamine D3 receptor activation modulates renal function in anesthetized rats. Luippold G, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Dec; 358(6):690–3
Intravenous iron treatment of renal anemia in children on hemodialysis. Tenbrock K, et al. **Pediatr Nephrol** 1999 Sep; 13(7):580–2
Splanchnic and renal blood flow after cardiopulmonary resuscitation with epinephrine and vasopressin in pigs. Prengel AW, et al. **Resuscitation** 1998 Jul;38(1):19–24
Management of nephrotoxic drugs. Alsina J. **Transplant Proc** 1999 Feb-Mar;31(1-2):1117–9 (36 ref.)
Mechanisms of cyclosporine-induced nephrotoxicity. Ishikawa A, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1127–8
[Renal hemodynamic interactions of nitric oxide and angiotensin II] Nakanishi K, et al. **Nippon Jinzo Gakkai Shi** 1998 Nov;40(8):567–72 (Eng. Abstr.) **(Jpn)**
[Effects of amrinone on renal blood flow and cardiac function, in comparison with those of milrinone and olprinone, in anesthetized dog] Fujishima K, et al. **Nippon Yakurigaku Zasshi** 1998 Dec;112(6):371–80 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Expression of the polymeric immunoglobulin receptor and excretion of secretory IgA in the postischemic kidney. Rice JC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F666–73

PHYSIOLOGY

Acute effects of transjugular intrahepatic portosystemic stent-shunt (TIPSS) procedure on renal blood flow and cardiopulmonary hemodynamics in cirrhosis. Stanley AJ, et al. **Am J Gastroenterol** 1998 Dec;93(12):2463–8
Renal perfusion pressure is an important determinant of sodium and calcium excretion in DOC-salt hypertension. Brands MW, et al. **Am J Hypertens** 1998 Oct; 11(10):1199–207
Lovastatin reduces renal vascular reactivity in spontaneously hypertensive rats. Jiang J, et al. **Am J Hypertens** 1998 Oct; 11(10):1222–31
Modulation of renal blood flow by endogenous endothelin-1 in conscious rabbits with left ventricular dysfunction. Muders F, et al. **Am J Hypertens** 1999 Aug;12(8 Pt 1):835–8
Effects on regional renal blood flow when unclipping a two-kidney, one-clip hypertensive Wistar rat during renal nerve stimulation. Rudenstam J, et al. **Am J Hypertens** 1999 Jun;12(6):620–7
Activation of Na+, H+ exchanger produces vasoconstriction of renal resistance vessels. Tepel M, et al. **Am J Hypertens** 1998 Oct;11(10):1214–21
Responses of mesenteric and renal blood flow dynamics to acute denervation in anesthetized rats. Abu-Amarah I, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1543–52
A serum-free in vitro model of renal microvessel development. Antes LM, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1150–60
Extracellular matrix-related genes in kidney after ischemic injury: potential role for TGF-beta in repair. Basile DP, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F894–903
Contribution of endothelin to renal vascular tone and autoregulation in the conscious dog. Berthold H, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F417–24
Bradykinin may be involved in neuropeptide Y-induced diuresis, natriuresis, and calciuresis. Bischoff A, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):F502–9
Dexamethasone increases eNOS gene expression and prevents renal vasoconstriction induced by cyclosporin. Bobadilla NA, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F464–71
Endothelin mediates renal vasodilation and hyperfiltration during pregnancy in chronically instrumented conscious rats. Conrad KP, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F767–76
Renal medullary interstitial infusion of norepinephrine in anesthetized rabbits: methodological considerations. Correia AG, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R112–22
Effects of long-term vasopressin receptor stimulation on medullary blood flow and arterial pressure. Cowley AW Jr, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1420–4
Renal hemodynamic effects of activation of specific renal sympathetic nerve fiber groups. DiBona GF, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R539–49
Ultrastructural model for size selectivity in glomerular filtration. Edwards A, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F892–902
Hemodilution mediates changes in renal hemodynamics after acute volume expansion in rats. Franchini KG. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1670–6
Neuronal cell bodies in paraventricular nucleus affect renal hemodynamics and excretion via the renal nerves. Haselton JR, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1334–42
Suppressed impact of nitric oxide on renal arteriolar function in rats with chronic heart failure. Ikenaga H, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F79–87
Tonic and phasic influences of nitric oxide on renal blood flow autoregulation in conscious dogs. Just A, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F442–9
Developmental expression of aquaporin 1 in the rat renal vasculature. Kim J, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F498–509
Resonance in the renal vasculature evoked by activation of the sympathetic nerves. Malpas SC, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1311–9
Increased expression of glomerular AT1 receptors in rats with myocardial infarction. Mento PF, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1247–53
Renal arteriolar Na+/Ca2+ exchange in salt-sensitive hypertension. Nelson LD, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):F567–73
Adenosine-induced renal vasoconstriction in diabetes mellitus rats: role of nitric oxide. Pflueger AC, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F340–6
c-Fos induction in spinal cord neurons after renal arterial or venous occlusion. Rosas-Arellano MP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R120–7
Inhibition of adenosine-1 receptor-mediated preglomerular vasoconstriction in AT1A receptor-deficient mice. Traynor T, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F922–7
Role of nitric oxide in the early renal hemodynamic response after unilateral nephrectomy. Valdivielso JM, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1718–23
Impaired autoregulation of renal blood flow in the fawn-hooded rat. Van Dokkum RP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R189–96
Altered renal hemodynamics and impaired myogenic responses in the fawn-hooded rat. van Dokkum RP, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R855–63
Contribution of cytochrome P-450 4A1 and 4A2 to vascular 20-hydroxyeicosatetraenoic acid synthesis in rat kidneys. Wang MH, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F246–53
AV3V lesions attenuate the cardiovascular responses produced by blood-borne excitatory amino acid analogs. Whalen EJ, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1409–15
Endothelin mediates renal vascular memory of a transient rise in perfusion pressure due to NOS inhibition. Zhang XZ, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F629–34
Role of renal medullary adenosine in the control of blood flow and sodium excretion. Zou AP, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R790–8
Vascular endothelin-1 gene expression and synthesis and effect on renal type I collagen synthesis and nephroangiosclerosis during nitric oxide synthase inhibition in rats. Tharaux PL, et al. **Circulation** 1999 Apr 27; 99(16):2185–91
Kidney denervation combined with elimination of adrenal-renal portal circulation prevents the development of hypertension in spontaneously hypertensive rats. Abramczyk P, et al. **Clin Exp Pharmacol Physiol** 1999 Jan; 26(1):32–4
Acute interactions between endothelin and nitric oxide in the control of renal haemodynamics. Baylis C. **Clin Exp Pharmacol Physiol** 1999 Mar;26(3):253–7 (59 ref.)
Acute effects of hypoxaemia, hyperoxaemia and hypercapnia on renal blood flow in normal and renal transplant subjects. Sharkey RA, et al. **Eur Respir J** 1998 Sep;12(3):653–7
Splenorenal shunt with underlying cirrhosis of the liver. Berg CL, et al. **Gastroenterology** 1999 Jul;117(1):6, 289
Hepatosplanchnic haemodynamics and renal blood flow and function in rats with liver failure. Javlé P, et al. **Gut** 1998 Aug;43(2):272–9
Differential expression of renal nitric oxide synthase isoforms during pregnancy in rats. Alexander BT, et al. **Hypertension** 1999 Jan;33(1 Pt 2):435–9
Hyperglycemia and angiotensin-mediated control of the renal circulation in healthy humans. Osei SY, et al. **Hypertension** 1999 Jan;33(1 Pt 2):559–64
Roles of AT1 and AT2 receptors in the hypertensive Ren-2 gene transgenic rat kidney. Zhuo J, et al. **Hypertension** 1999 Jan;33(1 Pt 2):347–53
Decreased abundance of collecting duct aquaporins in post-ischemic renal failure in rats. Fernández-Llama P, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1658–68
P2 purinoceptor saturation by adenosine triphosphate impairs renal autoregulation in dogs. Majid DS, et al. **J Am Soc Nephrol** 1999 Mar;10(3):492–8
Late consequences of acute ischemic injury to a solitary kidney. Pagtalunan ME, et al. **J Am Soc Nephrol** 1999 Feb; 10(2):366–73
Renal hemodynamic responses to dynamic exercise in rabbits. Mueller PJ, et al. **J Appl Physiol** 1998 Nov;85(5):1605–14
Bradykinin B2-receptors mediate the pressor and renal hemodynamic effects of intravenous bradykinin in conscious rats. Hoagland KM, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):7–15
Modelling of the dynamic relationship between arterial pressure, renal sympathetic nerve activity and renal blood flow in conscious rabbits. Berger CS, et al. **J Exp Biol** 1998 Dec;201 (Pt 24):3425–30
Angiotensin I-to-II conversion in the human renal vascular bed. Danser AH, et al. **J Hyperteas** 1998 Dec;16(12 Pt 2):2051–6
Renal perfusion and disease progression. Sensirivatana R, et al. **J Med Assoc Thai** 1999 May;82(5):496–505 (63 ref.)
Pressor and renal vasoconstrictor responses to acute systemic nitric oxide synthesis inhibition are independent of the sympathetic nervous system and angiotensin II. Baylis C, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):693–8
Adrenal-renal portal circulation contributes to decrease in renal blood flow after renal artery stenosis in rats. Zięcina R, et al. **J Physiol Pharmacol** 1998 Dec;49(4):553–60
Color Doppler sonographic determination of renal blood flow in healthy children. Scholbach T. **J Ultrasound Med** 1999 Aug;18(8):559–64
Effects of SWL on glomerular filtration rate and renal plasma flow in uninephrectomized minipigs. Clayman RV. **J Urol** 1998 Nov;160(5):1950–1
Short- and long-term effects of fish oil on proteinuria, morphology and renal hemodynamics in the Milan normotensive rat model of spontaneous glomerulosclerosis. Eberhard OK, et al. **Kidney Blood Press Res** 1999; 22(3):128–34
Nitric oxide-dependent renal vasodilatation is not altered in rat with rHuEpo-induced hypertension. Migliori M, et al. **Kidney Blood Press Res** 1999;22(3):140–5
Renal hemodynamics in radiocontrast medium-induced renal dysfunction: A role for dopamine-1 receptors. Bakris GL, et al. **Kidney Int** 1999 Jul;56(1):206–10
Reduced tolerance to acute renal ischemia in mice with a targeted disruption of the osteopontin gene. Noiri E, et al. **Kidney Int** 1999 Jul;56(1):74–82
Renovascular adaptive changes in chronic hypoxic polycythemia. Thron CD, et al. **Kidney Int** 1998 Dec; 54(6):2014–20
Potent antihypertrophic effect of the bradykinin B2 receptor system on the renal vasculature. Tsuchida S, et al. **Kidney Int** 1999 Aug;56(2):509–16
Shear stress and the endothelium. Ballermann BJ, et al. **Kidney Int Suppl** 1998 Sep;67:S100–8 (91 ref.)
Role of angiotensin in renal vascular development. Gomez RA. **Kidney Int Suppl** 1998 Sep;67:S12–6 (35 ref.)
Characteristics of isolated perfused juxtaglomerular apparatus. Ito S. **Kidney Int Suppl** 1998 Sep;67:S46–8 (12 ref.)
Control of rat glomerular microcirculation by juxtaglomerular adenosine A1 receptors. Kawabata M, et

al. **Kidney Int Suppl** 1998 Sep;67:S228–30

The K(ATP) channel opener nicorandil: effect on renal hemodynamics in spontaneously hypertensive and Wistar Kyoto rats. Kawata T, et al. **Kidney Int Suppl** 1998 Sep; 67:S231–3

Insulin-like growth factor-I restores microvascular autoregulation in experimental chronic renal failure. Lin JJ, et al. **Kidney Int Suppl** 1998 Sep;67:S195–8

Heterogeneous activation mechanisms in the renal microvasculature. Navar LG, et al. **Kidney Int Suppl** 1998 Sep;67:S17–21 (30 ref.)

Action of angiotensin receptor subtypes on the renal tubules and vasculature: implications for volume homeostasis and atherosclerosis. Zitnay C, et al.
Miner Electrolyte Metab 1998;24(6):362–70 (93 ref.)

Involvement of platelet-activating factor in the modulation of vascular tone in the isolated perfused rabbit kidney. Cailleaux S, et al.
Naunyn Schmiedebergs Arch Pharmacol 1999 Jun; 359(6):505–11

Neovascularization at the vascular pole region in diabetic glomerulopathy. Osterby R, et al.
Nephrol Dial Transplant 1999 Feb;14(2):348–52

Increased renal resistive index in patients with essential hypertension: a marker of target organ damage. Pontremoli R, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):360–5

Renal haemodynamic responses to a chicken or beef meal in normal individuals [see comments] Simon AH, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2261–4. Comment in: Nephrol Dial Transplant 1999 Mar;14(3):794–5.

A model of the pressure examination inside a cyst in human polycystic kidney in vitro [letter] Chodorowski Z, et al. **Nephron** 1999 Jan;81(1):121–2

Renal ischemia-reperfusion injury: contribution of nitric oxide and renal blood flow. Mashiach E, et al. **Nephron** 1998 Dec;80(4):458–67

Peripheral blood flow response to step-wise increase of arterial pressure in conscious rats. Iriuchijima J.
Tohoku J Exp Med 1998 Jul;185(3):199–207

Transplantation of adult-sized kidneys into infants induces major blood flow changes. Salvatierra O Jr, et al.
Transplant Proc 1999 Feb–Mar;31(1–2):236–7

Apoptosis in ischemia/reperfusion injury of human renal allografts. Burns AT, et al. **Transplantation** 1998 Oct 15; 66(7):872–6

Ablating the ischemia-reperfusion injury in non-heart-beating donor kidneys. Hernandez A, et al.
Transplantation 1999 Jan 27;67(2):200–6

[Intrarenal doppler flow analysis in patients with kidney transplantation and stable transplant function] Restrepo-Schäfer IK, et al. **Ultraschall Med** 1999 Jun; 20(3):87–92 (Eng. Abstr.) **(Ger)**

[Microcirculation of kidney and skin during left ventricular assisted circulation--comparative studies of pulsatile and nonpulsatile assists] Sezai A, et al.
Jpn J Thorac Cardiovasc Surg 1998 Dec;46(12):1239–46 (Eng. Abstr.) **(Jpn)**

[How does body posture affect the blood flow in the parenchymatous organs? II. The kidneys] Minvaleev RS, et al. **Fiziol Cheloveka** 1999 Mar–Apr;25(2):92–8 **(Rus)**

RENAL CORTICAL NECROSIS see **KIDNEY CORTEX NECROSIS**

RENAL DIALYSIS, HOME see **HEMODIALYSIS, HOME**

RENAL DIALYSIS UNITS, HOSPITAL see **HEMODIALYSIS UNITS, HOSPITAL**

RENAL DISEASE, END-STAGE see **KIDNEY FAILURE, CHRONIC**

RENAL FAILURE see **KIDNEY FAILURE**

RENAL FAILURE, ACUTE see **KIDNEY FAILURE, ACUTE**

RENAL FAILURE, CHRONIC see **KIDNEY FAILURE, CHRONIC**

RENAL FAILURE, END-STAGE see **KIDNEY FAILURE, CHRONIC**

RENAL INSUFFICIENCY see **KIDNEY FAILURE**

RENAL INSUFFICIENCY, ACUTE see **KIDNEY FAILURE, ACUTE**

RENAL INSUFFICIENCY, CHRONIC see **KIDNEY FAILURE, CHRONIC**

RENAL OSTEODYSTROPHY

New insights related to aging and renal osteodystrophy. Hruska KA. **Geriatr Nephrol Urol** 1999;9(1):49–56 (41 ref.)

Renal bone disease in peritoneal dialysis. Cunningham J.
Perit Dial Int 1999;19 Suppl 2:S397–401

BLOOD

Insulin-like growth factor 1 and 2 serum concentrations in dialysis patients with secondary hyperparathyroidism and adynamic bone disease. Weinreich T, et al.
Clin Nephrol 1999 Jan;51(1):27–33

The calcimimetic NPS R-568 decreases plasma PTH in rats with mild and severe renal or dietary secondary hyperparathyroidism. Fox J, et al. **Endocrine** 1999 Apr; 10(2):97–103

Serum interleukin-6 in renal osteodystrophy: relationship with serum PTH and bone remodeling markers. Montalbán C, et al. **Horm Metab Res** 1999 Jan;31(1):14–7

CLASSIFICATION

[Histological typing of renal osteodystrophy (editorial)] Zhu J. **Chung Hua Nei Ko Tsa Chih** 1997 Nov;36(11):723–4 **(Chi)**

COMPLICATIONS

Risk factors for vertebral fractures in renal osteodystrophy. Atsumi K, et al. **Am J Kidney Dis** 1999 Feb;33(2):287–93

Racial differences in bone mineral density and bone loss among end-stage renal disease patients. Stehman-Breen CO, et al. **Am J Kidney Dis** 1999 May;33(5):941–6

[Advances of clinical diagnosis of osteodystrophy complicated by chronic renal failure] Nowak Z.
Pol Merkuriusz Lek 1998 Nov;5(29):313–6 (30 ref.) (Eng. Abstr.) **(Pol)**

DIAGNOSIS

Staining for histologic diagnosis of aluminum osteopathy--application of confocal laser scanning microscopy to observation for offminum in bones from aluminum-treated, subtotally nephrectomized rats. Teraki Y, et al. **Kaibogaku Zasshi** 1998 Aug;73(4):317–28

Bone markers in the diagnosis of low turnover osteodystrophy in haemodialysis patients. Coen G, et al.
Nephrol Dial Transplant 1998 Sep;13(9):2294–302

Renal osteodystrophy with leontiasis ossea deformity. Reidy JM, et al. **Otolaryngol Head Neck Surg** 1998 Nov; 119(5):525–7

[Renal osteopathy (ROP)] Schulz W. **Internist (Berl)** 1999 Jan;40(1):70–82 (37 ref.) **(Ger)**

[Advances of clinical diagnosis of osteodystrophy complicated by chronic renal failure] Nowak Z.
Pol Merkuriusz Lek 1998 Nov;5(29):313–6 (30 ref.) (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Prevention of renal osteodystrophy in predialysis patients. Sanchez CP, et al. **Am J Med Sci** 1999 Jun;317(6):398–404 (59 ref.)

Regression of massive tumoral calcinosis of the ischium in a dialysis patient after treatment with reduced calcium dialysate and i.v. administration. Apostolou T, et al.
Clin Nephrol 1998 Oct;50(4):247–51

Calcitriol, lanthanum carbonate, and other new phosphate binders in the management of renal osteodystrophy. Hutchison AJ. **Perit Dial Int** 1999;19 Suppl 2:S408–12

[Do alpha-calcidol or calcitriol modify kidney function?] Lange H. **Dtsch Med Wochenschr** 1999 Jul 16; 124(28–29):881–2 **(Ger)**

ETHNOLOGY

Renal osteodystrophy in pre-dialysis patients: ethnic difference? Shin SK, et al. **Perit Dial Int** 1999;19 Suppl 2:S402–7

ETIOLOGY

Relative hypoparathyroidism and adynamic bone disease. Mucsi I, et al. **Am J Med Sci** 1999 Jun;317(6):405–9 (44 ref.)

Update on renal osteodystrophy: pathogenesis and clinical management. Sakhaee K, et al. **Am J Med Sci** 1999 Apr; 317(4):251–60 (66 ref.)

Hypokinetic azotemic osteodystrophy [clinical conference] Cannata-Andia JB. **Kidney Int** 1998 Sep;54(3):1000–16

New concepts in renal osteodystrophy. Hruska K.
Nephrol Dial Transplant 1998 Nov;13(11):2755–60

International Meeting on Osteodystrophy and Renal Transplantation Barcelona, Spain, 4–5 December, 1997. Torregrosa JV, et al. **Nephrol Dial Transplant** 1998 Oct; 13(10):2697–8

The spectrum of bone disease in 200 chronic hemodialysis patients: a correlation between clinical, biochemical and histological findings. Duarte ME, et al. **Rev Paul Med** 1998 Sep–Oct;116(5):1790–7

METABOLISM

Introduction to renal osteodystrophy: calcium metabolism in health and uremia. Kurokawa K, et al.
Am J Med Sci 1999 Jun;317(6):355–7 (33 ref.)

Investigations of bone turnover in renal osteopathy. M ller A, et al. **Eur J Med Res** 1999 Feb 25;4(2):78–84

Bone markers in the diagnosis of low turnover osteodystrophy in haemodialysis patients. Coen G, et al.
Nephrol Dial Transplant 1998 Sep;13(9):2294–302

PATHOLOGY

Correlations between bone histopathology and serum biochemistry in uremic patients on chronic hemodialysis. Canavese C, et al. **Int J Artif Organs** 1998 Aug;21(8):443–50

PHYSIOPATHOLOGY

What considerations should we give to adynamic bone disease? [editorial] Couttenye MM, et al.
Int J Artif Organs 1998 Nov;21(11):687–92

PREVENTION & CONTROL

Clinical course after total parathyroidectomy without autotransplantation in patients with end-stage renal failure. Stracke S, et al. **Am J Kidney Dis** 1999 Feb;33(2):304–11

Prevention of renal osteodystrophy in predialysis patients. Sanchez CP, et al. **Am J Med Sci** 1999 Jun;317(6):398–404 (59 ref.)

Prevention of renal osteodystrophy in peritoneal dialysis. Weinreich T. **Kidney Int** 1998 Dec;54(6):2226–33 (64 ref.)

Vitamin D3 withdrawal in hemodialysis patients with adynamic bone disease [letter] Kondo M, et al. **Nephron** 1998 Sep;80(1):89

RADIOGRAPHY

Microfocal radiography in the diagnosis of childhood renal osteodystrophy. Demircin G, et al. **Acta Paediatr Jpn** 1998 Oct;40(5):461–5

Clinical significance of erosive azotemic osteodystrophy: a prospective masked study. Falbo SE, et al.
Skeletal Radiol 1999 Feb;28(2):86–9

[Assessment of geometric, biomechanical, and osteodensitometric properties of the ultradistal radius with peripheral quantitative computerized tomography in uremic patients with severe hyperparathyroidism] Di Leo C, et al. **Radiol Med (Torino)** 1999 Apr;97(4):229–35 (Eng. Abstr.) **(Ita)**

RADIONUCLIDE IMAGING

Bone scan appearance of renal osteodystrophy in diabetic chronic renal failure patients. So Y, et al. **Radiat Med** 1998 Nov–Dec;16(6):417–21

THERAPY

Update on renal osteodystrophy: pathogenesis and clinical management. Sakhaee K, et al. **Am J Med Sci** 1999 Apr; 317(4):251–60 (66 ref.)

The care of patients undergoing hemodialysis [letter; comment] Fournier A, et al. **N Engl J Med** 1999 Mar 4; 340(9):736; discussion 736–7. Comment on: N Engl J Med 1998 Oct 8;339(15):1054–62.

VETERINARY

Rat hypoplastic kidney (hpk/hpk) induces renal anemia, hyperparathyroidism, and osteodystrophy at the end stage of renal failure. Suzuki H, et al. **J Vet Med Sci** 1998 Oct; 60(10):1051–8

RENAL PAPILLITIS, NECROTIZING see **KIDNEY PAPILLARY NECROSIS**

RENAL PLASMA FLOW

Prospective validation of single plasma sample 99mTc-ethylenedicysteine clearance in adults. Kabasakal L, et al. **J Nucl Med** 1999 Mar;40(3):429–31

Dynamic SPECT evaluation of renal plasma flow using technetium-99m MAG3 in kidney transplant patients. Akahira H, et al. **J Nucl Med Technol** 1999 Mar;27(1):32–7

DRUG EFFECTS

The effects of fenoldopam, a selective dopamine receptor agonist, on systemic and renal hemodynamics in normotensive subjects [see comments] Mathur VS, et al. **Crit Care Med** 1999 Sep;27(9):1832–7. Comment in: Crit Care Med 1999 Sep;27(9):2044–5.

Renal and haemodynamic effects of amlodipine and nifedipine in hypertensive renal transplant recipients. Venkat-Raman G, et al. **Nephrol Dial Transplant** 1998 Oct; 13(10):2612–6

PHYSIOLOGY

Hyperfiltration in patients with type I diabetes mellitus: a prevalence study. Cotroneo P, et al. **Clin Nephrol** 1998 Oct; 50(4):214–7

RENAL PLASMA FLOW, EFFECTIVE

I-131 orthoiodohippurate assessment of renal function after heart transplantation. Kurtek RW, et al. **Clin Nucl Med** 1999 Feb;24(2):117–9

Modification of measurement of effective renal plasma flow from blood pool clearance curve of I-123-orthoiodohippurate using single blood sampling. Akutsu T, et al. **Radiat Med** 1998 Jul–Aug;16(4):245–50

Technetium-99m-EC and other potential new agents in renal nuclear medicine. Moran JK. **Semin Nucl Med** 1999 Apr; 29(2):91–101 (38 ref.)

PHYSIOLOGY

Measurement of glomerular filtration rate and effective renal plasma flow in the conscious beagle dog by single intravenous bolus of iohexol and p-aminohippuric acid. Laroute V, et al. **J Pharmacol Toxicol Methods** 1999 Feb;

41(1):17-25

RENAL REPLACEMENT THERAPY

see related
KIDNEY
KIDNEY DISEASES

III. Treatment modalities for ESRD patients. **Am J Kidney Dis** 1999 Aug;34(2 Suppl 1):S51-62 (48 ref.)

Management of heparin-induced thrombocytopenia during continuous renal replacement therapy. Davenport A. **Am J Kidney Dis** 1998 Oct;32(4):E3

Timely initiation of dialysis [letter] Williams PF. **Am J Kidney Dis** 1999 Sep;34(3):594-5

Serum concentrations and clearances of folic acid and pyridoxal-5-phosphate during venovenous continuous renal replacement therapy. Fortin MC, et al. **Intensive Care Med** 1999 Jun;25(6):594-8

Prevalence of and factors associated with suboptimal care before initiation of dialysis in the United States. Obrador GT, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1793-800

Can renal replacement be deferred by a supplemented very low protein diet? Walser M, et al. **J Am Soc Nephrol** 1999 Jan;10(1):110-6

Literature review. **J Ren Nutr** 1999 Jul;9(3):163-6

Long-term outcome of dialysis patients in the United States with coronary revascularization procedures. Herzog CA, et al. **Kidney Int** 1999 Jul;56(1):324-32

Dialysis and protein malnutrition [letter] Walser M. **Kidney Int** 1999 Jul;56(1):353

Early dialysis in heart insufficiency of patients with chronic renal failure. Iorio L, et al. **Miner Electrolyte Metab** 1999 Jan-Apr;25(1-2):43-6

Past, present and future of end-stage renal disease therapy in the United States. Uribarri J. **Mt Sinai J Med** 1999 Jan; 66(1):14-9 (39 ref.)

Dosage adjustment of fluconazole during continuous renal replacement therapy (CAVH, CVVH, CAVHD, CVVHD). Pittrow L, et al. **Mycoses** 1999 Apr;42(1-2):17-9 (9 ref.)

Advances in Nephrology and Dialysis. Proceedings of the 29th San Carlo Course. Milan, Italy, December 7-10, 1997. **Nephrol Dial Transplant** 1999;14 Suppl 3:1-105

Urea rebound and effectively delivered dialysis dose. Alloatti S, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:25-30 (49 ref.)

The Normal Haematocrit Trial in dialysis patients with cardiac disease [letter] Besarab A, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):2043-4

Renal replacement therapy quantification in acute renal failure. Clark WR, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:86-90 (43 ref.)

Behaviour of beta2-microglobulin removal with different dialysis schedules. David S, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:49-54

Benefits of more frequent dialysis: lower TAC at the same Kt/V. Depner TA. **Nephrol Dial Transplant** 1998;13 Suppl 6:20-4 (15 ref.)

Sodium transport with different dialysis ultrafiltration schedules using a bio-feedback module (BFB). Di Giulio S, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:39-42

Behaviour of acid-base control with different dialysis schedules. Feriani M. **Nephrol Dial Transplant** 1998;13 Suppl 6:62-5 (21 ref.)

Annual Report of the German Renal Registry 1998. QuaSi-Niere Task Group for Quality Assurance in Renal Replacement Therapy. Frei U, et al. **Nephrol Dial Transplant** 1999 May;14(5):1085-90

Consequences of more physiological flow distribution models on the Kt/V concept. Haraldsson B, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:15-9

Serum C-reactive protein (CRP) and risk of death in chronic dialysis patients. Iseki K, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):1956-60

The effect of age, diabetes, and other comorbidity on the survival of patients on dialysis: a systematic quantitative overview of the literature. Johnson JG, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2156-64

Discontinuing dialysis: patient's wishes and professional judgement. Lelie A, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):318-21

Integrated diet and dialysis programme. Locatelli F, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:132-8 (23 ref.)

The Normal Haematocrit Trial in dialysis patients with cardiac disease: are we any the less confused about target haemoglobin? Macdougall IC, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3030-3 (18 ref.)

Dialysis in the elderly, to treat or not to treat? Mallick N, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):37-9

Factors influencing dialysis outcome: the dialysis dose in perspective. Mallick NP, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:152-7 (38 ref.)

Short-term outcome of diabetic patients in renal replacement therapy. Romagnoli GF, et al. **Nephrol Dial Transplant** 1998;13 Suppl 8:30-4

The haemodialysis system: basic mechanisms of water and solute transport in extracorporeal renal replacement therapies. Ronco C, et al. **Nephrol Dial Transplant** 1998; 13 Suppl 6:3-9 (9 ref.)

Ultrafiltration behaviour with different dialysis schedules. Santoro A, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:55-61 (26 ref.)

Calcified plaque is common in the carotid and femoral arteries of dialysis patients without clinical vascular disease. Savage T, et al. **Nephrol Dial Transplant** 1998 Aug; 13(8):2004-12

The dilemma of renal replacement therapy in patients over 80 years of age. Dialysis should not be withheld. Schaefer K, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):35-6

Infection control of hepatitis C in Dutch dialysis centres [news] Schneeberger PM, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3037-40

Clinical aspects of renal transplantation for patients on dialysis for 10 years or more. Haruguchi H, et al. **Transplant Proc** 1998 Nov;30(7):3083-5

[Indications for extra-renal dialysis in terminal chronic renal failure. National Agency for Medical Development and Evaluation. September 1996 (comment)] **Presse Med** 1998 Nov 21;27(36):1847-52 (0 ref.). Comment on: Presse Med 1998 Nov 21;27(36):1853-5. **(Fre)**

[Apropos of consensus on indications for extrarenal dialysis in chronic renal failure (interview by M. Herida) (see comments)] Dobrie G, et al. **Presse Med** 1998 Nov 21; 27(36):1853-5. Comment in: Presse Med 1998 Nov 21;27(36):1847-52. **(Fre)**

[Long-term management of dialysis patients. I. Hypertension and anemia] Schäffer J, et al. **Internist (Berl)** 1999 Jan; 40(1):55-63 (49 ref.) **(Ger)**

[Critical appraisal of treatments in emergency settings] Takahashi H, et al. **Nippon Geka Gakkai Zasshi** 1999 Jul; 100(7):449-54 (32 ref.) (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Cooling effect of continuous renal replacement therapy in critically ill patients. Yagi N, et al. **Am J Kidney Dis** 1998 Dec;32(6):1023-30

Long-term evolution of cardiomyopathy in dialysis patients [letter] Ertürk S. **Kidney Int** 1999 Jul;56(1):349; discussion 350-1

Long-term evolution of cardiomyopathy in dialysis patients [letter; comment] Strózekci P, et al. **Kidney Int** 1999 Jul; 56(1):349-50; discussion 350-1. Comment on: Kidney Int 1998 Nov;54(5):1720-5.

Long-term evolution of cardiomyopathy in dialysis patients [letter; comment] Töz H, et al. **Kidney Int** 1999 Jul; 56(1):350-1. Comment on: Kidney Int 1998 Nov;54(5):1720-5.

Magnesium and phosphorus [letter; comment] Davenport A. **Lancet** 1998 Oct 31;352(9138):1475-6. Comment on: Lancet 1998 Aug 1;352(9125):391-6.

Bone histomorphometrical analysis in patients on long-term dialysis treatment for more than ten years. Ubara Y. **Osaka City Med J** 1998 Dec;44(2):133-53

Renal transplantation for recipients with metastatic calcifications. Takeuchi I, et al. **Transplant Proc** 1998 Nov; 30(7):3045-6

ECONOMICS

X. The economic cost of ESRD and Medicare spending for alternative modalities of treatment. **Am J Kidney Dis** 1999 Aug;34(2 Suppl 1):S124-39

A hundred billion dollars a year on dialysis. How to calculate and what to compare [editorial] Klefter R, et al. **Int J Artif Organs** 1998 Jun;21(6):319-20

HISTORY

Kolff's contributions provoked the birth of ethics in nephrology. Friedman EA. **Artif Organs** 1998 Nov; 22(11):940-4

INSTRUMENTATION

[Biocompatibility of renal replacement therapy] Schiffl H, et al. **Internist (Berl)** 1999 Jan;40(1):37-48 (98 ref.) **(Ger)**

METHODS

Cell therapy and tissue engineering for renal replacement therapy. Humes HD. **Am J Kidney Dis** 1998 Dec; 32(6):xlii-xliv (11 ref.)

End-stage renal disease (ESRD) and vascular access grafting: a critical review. Szycher M. **J Biomater Appl** 1999 Apr; 13(4):297-350 (125 ref.)

Renaissance of the batch method? [editorial; comment] Fassbinder W. **Nephrol Dial Transplant** 1998 Dec; 13(12):3010-2. Comment on: Nephrol Dial Transplant 1998 Dec;13(12):3118-25.

The current place of urea kinetic modelling with respect to different dialysis modalities. Gotch FA. **Nephrol Dial Transplant** 1998;13 Suppl 6:10-4 (10 ref.)

Continuous versus intermittent renal replacement therapy in the treatment of acute renal failure. Ronco C, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:79-85 (36 ref.)

The use of treatment modality specific analysis according to Selwood in epidemiological studies. Vela E, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):412-5

Delayed renal function and allograft survival: does the type of post transplant dialysis influence outcome? [letter] Weight SC, et al. **Nephrol Dial Transplant** 1998 Sep; 13(9):2427-8

Renal replacement therapy in the elderly. Rodger RS, et al. **Scott Med J** 1997 Oct;42(5):143-4

Current and future modalities for functional renal replacement. Amiel GE, et al. **Urol Clin North Am** 1999 Feb;26(1):235-46, xi (131 ref.)

[Indications for and selection of dialysis methods in acute and chronic renal failure including continuous methods] Samtleben W, et al. **Internist (Berl)** 1999 Jan;40(1):3-12 (28 ref.) **(Ger)**

MORTALITY

VI. Causes of death in ESRD. **Am J Kidney Dis** 1999 Aug; 34(2 Suppl 1):S87-94

PSYCHOLOGY

Psychological aspects of end-stage renal disease: an emerging context for behavioral medicine research. Christensen AJ. **Ann Behav Med** 1998 Fall;19(4):323-4

Psychological and social problems of dialysis. Maiorca R, et al. **Nephrol Dial Transplant** 1998;13 Suppl 7:89-95

[Personality and rehabilitation in young adults with renal replacement therapy] Naumann EG, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Mar;48(3):155-62 (Eng. Abstr.) **(Ger)**

STANDARDS

The role of the health care team in the implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative: a case study. Callahan MB, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):42-51 (34 ref.)

Forum of the End-Stage Renal Disease Networks' role in implementing the National Kidney Foundation-Dialysis Outcomes Quality Initiative Clinical Practice Guidelines. Diamond LH, et al. **Adv Ren Replace Ther** 1999 Jan; 6(1):28-35

An overview of the National Kidney Foundation-Dialysis Outcomes Quality Initiative Implementation. Eknoyan G, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):3-6 (14 ref.)

Implementation of the Dialysis Outcomes Quality Initiative Vascular Access Guidelines. Kovalik EC, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):14-7

The role of providers in implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative: Fresenius Medical Care North America perspective. Lazarus JM, et al. **Adv Ren Replace Ther** 1999 Jan; 6(1):59-66

The importance of performance evaluation in implementation of the Dialysis Outcomes Quality Initiative Guidelines. Steinberg EP. **Adv Ren Replace Ther** 1999 Jan;6(1):36-41

The role of patients in the implementation of the National Kidney Foundation-Dialysis Outcomes Quality Initiative. Swartz MD, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):52-8

The cost of implementing the Dialysis Outcomes Quality Initiative Clinical Practice Guidelines. Wish J, et al. **Adv Ren Replace Ther** 1999 Jan;6(1):67-74 (34 ref.)

Use of in vitro models of haemofiltration and haemodiafiltration to estimate dosage regimens for critically ill patients prescribed cefpirome. Phillips GJ, et al. **J Clin Pharm Ther** 1998 Oct;23(5):353-9

STATISTICS & NUMERICAL DATA

XIII. Analytical methods in ESRD. **Am J Kidney Dis** 1999 Aug;34(2 Suppl 1):S152-76

End-stage renal disease in Canada: prevalence projections to 2005 [see comments] Schaubel DE, et al. **CMAJ** 1999 Jun 1;160(11):1557-63. Comment in: CMAJ 1999 Jun 1;160(11):1589-90. Comment in: CMAJ 1999 Sep 7;161(5):489.

Report of the annual statistical survey of the Japanese Society for Dialysis Therapy in 1996. Shinzato T, et al. **Kidney Int** 1999 Feb;55(2):700-12

Renal replacement therapy in the elderly. Rodger RS, et al. **Scott Med J** 1997 Oct;42(5):143-4

UTILIZATION

Late referral of end-stage renal failure. Ellis PA, et al. **QJM** 1998 Nov;91(11):727-32

The provision of renal replacement therapy for adults in England and Wales: recent trends and future directions. Roderick PJ, et al. **QJM** 1998 Aug;91(8):581-7

RENAL TRANSPLANTATION see **KIDNEY TRANSPLANTATION**

RENAL TUBULAR ACIDOSIS, TYPE IV see **HYPOALDOSTERONISM**

RENAL TUBULAR TRANSPORT, INBORN ERRORS

GENETICS

Molecular genetics and clinical phenotype in heritable disorders of tubular Na+ transport. Hildebrandt F. **Kidney Blood Press Res** 1998;21(2-4):217-21 (50 ref.)

Inherited tubular transport disorders. Dell KM, et al. **Semin Nephrol** 1999 Jul;19(4):364-73 (75 ref.)

PHYSIOPATHOLOGY

Molecular pathophysiology of inborn renal Na+ transport defects. Greger R. **Kidney Blood Press Res** 1998; 21(2-4):222-5 (30 ref.)

RENAL VEINS

Vascular and interventional case of the day. Arteriovenous fistula in a transplanted kidney. Antonacci VP, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):830, 834–5

Successful treatment of acute inferior vena cava and unilateral renal vein thrombosis by local infusion of recombinant tissue plasminogen activator. Lam KK, et al. **Am J Kidney Dis** 1998 Dec;32(6):1075–9 (27 ref.)

An unusual case of renal vein thrombosis in a man taking sumatriptan. Crook TJ, et al. **BJU Int** 1999 Jun;83(9):1075

Successful selective thrombolysis of a spontaneous transplant renal vein thrombosis. Lee G, et al. **BJU Int** 1999 May; 83(7):869–70

Recurrent renal vein thrombosis involving both kidneys in a patient presenting with systemic lupus erythematosus. Rebollo AC, et al. **Clin Nucl Med** 1998 Oct;23(10):711–2

Renal vein thrombosis. Ghekiere J, et al. **J Belge Radiol** 1998 Oct;81(5):240

Intravascular capillary hemangioma presenting as a solid renal mass. Hull GW 3rd, et al. **J Urol** 1999 Sep;162(3 Pt 1):784–5

The role of intraoperative heparin in cyclosporine treated cadaveric renal transplant recipients. Mohan P, et al. **J Urol** 1999 Sep;162(3 Pt 1):682–4

Renal vein thrombosis, diagnosis and treatment [letter] Hussein M, et al. **Nephrol Dial Transplant** 1999 Jan; 14(1):245–7

Selective thrombolysis in a newborn with bilateral renal venous and cerebral thrombosis and heterozygous APC resistance. Klinge J, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3205–7

Inferior vena cava filter placement for prevention of pulmonary tumor emboli of renal cancer with renal vein or vena caval tumor thrombus: prophylactic usage prior to transcatheter arterial embolization. Hirota S, et al. **Radiat Med** 1998 Sep–Oct;16(5):335–9

Expandable metallic stent placement for nutcracker phenomenon. Segawa N, et al. **Urology** 1999 Mar; 53(3):631–3

[Adrenal hematoma may mask renal vein thrombosis (letter)] Mourani C, et al. **Arch Pediatr** 1998 Jan;5(1):92 **(Fre)**

ABNORMALITIES

Partial nephrectomy and caval thrombectomy for renal cell carcinoma in a solitary kidney with an accessory renal vein. Pruthi RS, et al. **BJU Int** 1999 Jan;83(1):142–3

Retroaortic left renal vein with renal vein hypertension causing hematuria. Gibo M, et al. **Clin Imaging** 1998 Nov–Dec;22(6):422–4

An interesting case of shunting. McCrory C, et al. **J Cardiothorac Vasc Anesth** 1998 Oct;12(5):565–6

Congenital splenorenal venous shunt detected by prenatal ultrasonography. Ji EK, et al. **J Ultrasound Med** 1999 Jun; 18(6):437–9

Orthostatic proteinuria as a result of venous compression (nutcracker phenomenon)—a hypothesis testable with modern imaging techniques. Ekim M, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):826–7

Bleeding after renal biopsy resulting from a persisting left cardinal vein. Meola M, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):185–6

3D Ultrasound imaging—a useful non-invasive tool to detect AV fistulas in transplanted kidneys. Mohaupt MG, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):940–3

Positive captopril renography in a transplanted kidney with arteriovenous fistula. Mousa D, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3248–9

Left renal vein variations. Satyapal KS, et al. **Surg Radiol Anat** 1999;21(1):77–81 (47 ref.)

Idiopathic renal arteriovenous fistula demonstrating a huge aneurysm with a high risk of rupture: report of a case. Nawa S, et al. **Surg Today** 1998;28(12):1300–3

Angiographic embolization in patients with renal allograft arteriovenous fistula. Shimmura H, et al. **Transplant Proc** 1998 Nov;30(7):2990–2

Asymptomatic intrarenal arteriovenous fistula accompanying severe renal vein dilatation detected 30 years after percutaneous renal biopsy. Okamura T, et al. **Urol Int** 1998; 61(4):261–2

Images in clinical urology. Arteriovenous fistula of the kidney: imaging with three-dimensional computed tomography angiography. Horton KM, et al. **Urology** 1999 Mar;53(3):621–3

Anomalies of the inferior vena cava and renal veins: embryologic and surgical considerations. Mathews R, et al. **Urology** 1999 May;53(5):873–80 (51 ref.)

ANATOMY & HISTOLOGY

Failed endopyelotomy: low expression of TGF beta regardless of the presence or absence of crossing vessels. Jabbour ME, et al. **J Endourol** 1999 May;13(4):295–8

[The lumbar vein at L2 and the reno-azygo-lumbar arch: anatomic and radiologic studies] Plaisant O, et al. **Morphologie** 1999 Mar;83(260):75–81 (Eng. Abstr.) **(Fre)**

INJURIES

A rare complication of renal biopsy in a child with membranoproliferative glomerulonephritis. Ozdemir S, et al. **Int Urol Nephrol** 1998;30(6):689–92

Complex inferior vena cava and renal vein reconstruction after abdominal gunshot injury. Oldhafer KJ, et al. **J Trauma** 1999 Apr;46(4):721–3

Transcatheter embolization of biopsy-related vascular injury in the transplant kidney: immediate and long-term outcome. Perini S, et al. **J Vasc Interv Radiol** 1998 Nov–Dec;9(6):1011–9

METABOLISM

The return of glomerular-filtered albumin to the rat renal vein. Eppel GA, et al. **Kidney Int** 1999 May;55(5):1861–70

PATHOLOGY

Contrast-enhanced MR angiography in the assessment of arteriovenous fistula after renal transplant biopsy. Bagga H, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1509–11 (7 ref.)

MR angiography versus color Doppler sonography in the evaluation of renal vessels and the inferior vena cava in abdominal masses of pediatric patients. Pfluger T, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):103–8

Magnetic resonance angiography in nutcracker phenomenon [letter] Kaneko K, et al. **Clin Nephrol** 1999 Apr; 51(4):259–60 (6 ref.)

MR imaging of renal vein occlusion in dogs. Sari A, et al. **Invest Radiol** 1999 Aug;34(8):523–9

71-year-old woman with palpitations and dyspnea on exertion. Thomé SD, et al. **Mayo Clin Proc** 1998 Nov; 73(11):1109–12

PHYSIOPATHOLOGY

Renocaval pressure gradient indicating left renal venous hypertension [letter] Takebayashi S. **Am J Kidney Dis** 1999 Jan;33(1):224

RADIOGRAPHY

A spontaneous portosystemic shunt from the left gastric vein to the left renal vein caused by portal hypertension. Dick E, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):502–3

Aorta—left renal vein fistula: an unusual complication of an abdominal aortic aneurysm. Madhavan P, et al. **Eur J Vasc Endovasc Surg** 1999 Jan;17(1):87–8

Left renal vein compression syndrome. Beets-Tan RG, et al. **J Belge Radiol** 1998 Oct;81(5):233

Helical computerized tomography arteriography for evaluation of live renal donors undergoing laparoscopic nephrectomy. Del Pizzo JJ, et al. **J Urol** 1999 Jul; 162(1):31–4

Images in clinical urology. Arteriovenous fistula of the kidney: imaging with three-dimensional computed tomography angiography. Horton KM, et al. **Urology** 1999 Mar;53(3):621–3

[Aneurysm rupture of the ileocolic artery, multiple aneurysms, renal arteriovenous fistula and fatal aortic rupture in Ehlers–Danlos syndrome, subtype IV] Heiss U, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):608–10 **(Ger)**

[Angiomyolipoma of the kidney with tumor thrombus of the renal vein and inferior vena cava] Hünerbein R, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):605–7 **(Ger)**

[Nutcracker phenomenon treated with left renal vein transposition: a case report] Ohki T, et al. **Hinyokika Kiyo** 1999 Mar;45(3):183–6 (17 ref.) (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE IMAGING

Tc-99m MAG3 scintigraphy in a newborn with acute renal vein thrombosis. Izquierdo V, et al. **Clin Nucl Med** 1999 Apr;24(4):287–8

SURGERY

Surgical technique for inferior mesenteric vein to renal vein shunt in portal hypertension. Deshmukh N, et al. **Am J Surg** 1999 Jul;178(1):55–6

Complex inferior vena cava and renal vein reconstruction after abdominal gunshot injury. Oldhafer KJ, et al. **J Trauma** 1999 Apr;46(4):721–3

[Nutcracker phenomenon treated with left renal vein transposition: a case report] Ohki T, et al. **Hinyokika Kiyo** 1999 Mar;45(3):183–6 (17 ref.) (Eng. Abstr.) **(Jpn)**

TRANSPLANTATION

Hepatic vein reconstruction at inferior vena cava confluence using left renal vein graft. Ohwada S, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1833–6

ULTRASONOGRAPHY

Power Doppler imaging: evaluation of vascular complications after renal transplantation. Claudon M, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):41–6

MR angiography versus color Doppler sonography in the evaluation of renal vessels and the inferior vena cava in abdominal masses of pediatric patients. Pfluger T, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):103–8

Diagnosis of the nutcracker syndrome with color Doppler sonography: correlation with flow patterns on retrograde left renal venography. Takebayashi S, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):39–43

The role of power Doppler sonography in the prenatal evaluation of fetal renal vasculature. Sakarya ME, et al. **Clin Imaging** 1999 Jan–Feb;23(1):32–4

3D Ultrasound imaging—a useful non-invasive tool to detect AV fistulas in transplanted kidneys. Mohaupt MG, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):940–3

Renal vascular Doppler imaging: clinical benefits of power mode. Hélénon O, et al. **Radiographics** 1998 Nov–Dec; 18(6):1441–54; discussion 1455–7

Crossing vessels at the ureteropelvic junction: detection with contrast-enhanced color Doppler imaging. Frauscher F, et al. **Radiology** 1999 Mar;210(3):727–31

RENIN

ANALYSIS

The distribution of renin in the segments of the renal arterial tree in cats: an immunohistochemical and ultrastructural study. Taugner F, et al. **Anat Histol Embryol** 1999 Mar; 28(1):45–8

Renin-like immunoreactivity in uterus and placenta from normotensive and hypertensive pregnancies. Hanssens M, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Dec; 81(2):177–84

Human spiral artery renin-angiotensin system. Morgan T, et al. **Hypertension** 1998 Oct;32(4):683–7

[A juxtaglomerular cell tumor. Analysis of immunohistochemistry, electron microscopy and in situ hybridization] Hashimoto Y, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Nov;89(11):907–10 (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Novel small renin inhibitors containing 4,5- or 3,5-dihydroxy-2-substituted-6-phenylhexanamide replacements at the P2-P3 sites. Jung GL, et al. **Bioorg Med Chem** 1998 Dec;6(12):2317–36

Discovery of non-peptidic P2-P3 butanediamide renin inhibitors with high oral efficacy. Simoneau B, et al. **Bioorg Med Chem** 1999 Mar;7(3):489–508

Piperidine-renin inhibitors compounds with improved physicochemical properties. Güller R, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1403–8

Substituted piperidines—highly potent renin inhibitors due to induced fit adaptation of the active site. Vieira E, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1397–402

Renin inhibition by substituted piperidines: a novel paradigm for the inhibition of monomeric aspartic proteinases? Oefner C, et al. **Chem Biol** 1999 Mar;6(3):127–31

Pharmacologic interruption of the renin-angiotensin system and the kidney: differential responses to angiotensin-converting enzyme and renin inhibition. Hollenberg NK. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S239–42 (28 ref.)

Interaction between surface active drug (FK906:rennin inhibitor) and cyclodextrins in aqueous solution. Kitamura S, et al. **J Pharm Sci** 1999 Mar;88(3):327–30

Renin inhibitors. Rosenberg SH, et al. **Pharm Biotechnol** 1998;11:7–28 (51 ref.)

New renin inhibitors with hydrophilic C-terminus. Paruszewski R, et al. **Pharmazie** 1999 Feb;54(2):102–6

BIOSYNTHESIS

Distinct renin isoforms generated by tissue-specific transcription initiation and alternative splicing. Lee-Kirsch MA, et al. **Circ Res** 1999 Feb 5;84(2):240–6

Kidney is the only source of human plasma renin in 45-kb human renin transgenic mice. Yan Y, et al. **Circ Res** 1998 Dec 14–28;83(12):1279–88

Homeostasis in mice with genetically decreased angiotensinogen is primarily by an increased number of renin-producing cells. Kim HS, et al. **J Biol Chem** 1999 May 14;274(20):14210–7

Interleukin-1 inhibits renin gene expression in As4.1 cells but not in native juxtaglomerular cells. Jensen BL, et al. **Pflugers Arch** 1998 Oct;436(5):673–8

BLOOD

Amlodipine therapy in congestive heart failure: hemodynamic and neurohormonal effects at rest and after treadmill exercise. Krombach RS, et al. **Am J Cardiol** 1999 Aug 19;84(4A):3L–15L

Renin system analysis: a rational method for the diagnosis and treatment of the individual patient with hypertension. Blumenfeld JD, et al. **Am J Hypertens** 1998 Jul;11(7):894–6

Erythropoietin deficiency in hyporeninemia. Donnelly S, et al. **Am J Kidney Dis** 1999 May;33(5):947–53

A case of renal juxtaglomerular cell tumor: usefulness of segmental sampling to prove autonomic secretion of the tumor. Koriyama N, et al. **Am J Med Sci** 1999 Sep; 318(3):194–7

Serum total renin, an independent marker of the activity and severity of retinopathy in patients with IDDM. Mäkimattila S, et al. **Br J Ophthalmol** 1998 Aug;82(8):939–44

Improved immunoradiometric assay for plasma renin. Deinum J, et al. **Clin Chem** 1999 Jun;45(6 Pt 1):847–54

Measurement of plasma renin activity with use of HPLC–electrospray–tandem mass spectrometry. Fredline VF, et al. **Clin Chem** 1999 May;45(5):659–64

How does treatment influence endocrine mechanisms in acute severe heart failure? Effects on cardiac natriuretic peptides, the renin system, neuropeptide Y and catecholamines. Missouris CG, et al. **Clin Sci (Colch)** 1998 Jun;94(6):591–9

Effect of subcutaneous administration of octreotide on endogenous vasoactive systems and renal function in cirrhotic patients with ascites. Sàbat M, et al. **Dig Dis Sci** 1998 Oct;43(10):2184–9

Renin and hemodynamic responses to exercise in borderline hypertensives. Headley SA, et al. **Ethn Dis** 1998 Autumn; 8(3):312–8

Two-year time course and significance of neurohumoral activation in the Survival and Ventricular Enlargement (SAVE) Study [see comments] Vantrimpont P, et al. **Eur Heart J** 1998 Oct;19(10):1552–63. Comment in: Eur Heart J 1998 Oct;19(10):1423–4.

Renin-aldosterone in elderly patients with hyperkalaemia under anaesthesia. Kudoh A, et al. **Eur J Anaesthesiol** 1999 Apr;16(4):231–5

Serum total renin levels after ovarian electrocautery in women with polycystic ovary syndrome. Anttila L, et al. **Gynecol Endocrinol** 1998 Oct;12(5):327–31

Plasma leptin levels strongly correlate with plasma renin activity in patients with essential hypertension. Uçkaya G, et al. **Horm Metab Res** 1999 Jul;31(7):435–8

Appropriate regulation of renin and blood pressure in 45-kb human renin/human angiotensinogen transgenic mice. Catanzaro DF, et al. **Hypertension** 1999 Jan;33(1 Pt 2):318–22

Effects of acute ACE inhibition on pulsatile renin and aldosterone secretion and their synchrony. Fliser D, et al. **Hypertension** 1998 Nov;32(5):929–34

Rat renal and plasma prorenin are activated in vitro by different mechanisms. Vincent PA, et al. **Hypertension** 1999 Sep;34(3):520–4

Roles of AT1 and AT2 receptors in the hypertensive Ren-2 gene transgenic rat kidney. Zhuo J, et al. **Hypertension** 1999 Jan;33(1 Pt 2):347–53

The level of plasma neuroendocrine activity and the concentration of digoxin in the serum of patients with mild chronic heart failure. Jablecka A, et al. **Int J Clin Pharmacol Res** 1998;18(4):171–8

Effectiveness of 1,25-dihydroxyvitamin D supplementation on blood pressure reduction in a pseudohypoparathyroidism patient with high renin activity. Kimura Y, et al. **Intern Med** 1999 Jan;38(1):31–5

Adenosine causes the release of active renin and angiotensin II in the coronary circulation of patients with essential hypertension. Virdis A, et al. **J Am Coll Cardiol** 1999 May; 33(6):1677–84

Effects of candesartan on the renin system in conscious rats. Wagner C, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S169–71

Acute hypoxic pulmonary vasoconstriction in conscious dogs decreases renin and is unaffected by losartan. Krebs MO, et al. **J Appl Physiol** 1999 Jun;86(6):1914–9

The effect of distension of the uterus on plasma renin activity (PRA) in anaesthetized pigs. Vacca G, et al. **J Auton Nerv Syst** 1998 Nov 10;73(2–3):163–9

Renin-aldosterone system and atrial natriuretic peptide during anesthesia in orthopedic patients over 80 years of age. Kudoh A, et al. **J Clin Anesth** 1999 Mar;11(2):101–7

The relationship of prorenin values to microvascular complications in patients with insulin-dependent diabetes mellitus. Davies L, et al. **J Diabetes Complications** 1999 Jan–Feb;13(1):45–51

Adrenal cancer with hypertension but low plasma renin and aldosterone. Cheng WY, et al. **J Formos Med Assoc** 1999 Jan;98(1):73–5

High and non-suppressible plasma renin activity in a patient with aldosterone producing adenoma: pathophysiologic and diagnostic implications. Shyong Tai E, et al. **J Hum Hypertens** 1999 Jan;13(1):75–8

Angiotensinogen (M235T) and angiotensin-converting enzyme (I/D) polymorphisms in association with plasma renin and prorenin levels. Danser AH, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1879–83

The circulating renin-angiotensin system during treatment with metoprolol or captopril in patients with heart failure due to non-ischaemic dilated cardiomyopathy. Jansson K, et al. **J Intern Med** 1999 May;245(5):435–43

Inhibition of phosphodiesterase III with milrinone increases renin secretion in human subjects. Chiu YJ, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):16–9

Renin profiling to predict response to antihypertensive therapy [letter; comment] Blaufox MD, et al. **JAMA** 1999 Mar 3;281(9):793–4. Comment on: JAMA 1998 Oct 7;280(13):1168–72.

Plasma renin and prorenin and renin gene variation in patients with insulin-dependent diabetes mellitus and nephropathy. Deinum J, et al. **Nephrol Dial Transplant** 1999 Aug; 14(8):1904–11

Role of the peripheral renin profile in predicting blood pressure control after bilateral nephrectomy in renal-transplanted patients. Teixeira MC, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2092–7

Hypokalemia, hyperreninemia and osteoporosis in a patient ingesting large amounts of cider vinegar [letter] Lhotta K, et al. **Nephron** 1998 Oct;80(2):242–3

Effects on plasma angiotensin-converting enzyme activity and circulating renin of lisinopril and enalapril alone and in combination with propranolol in healthy volunteers. Hansen EF, et al. **Pharmacol Toxicol** 1999 Mar;84(3):110–4

Plasma catecholamines and renin activity in wrestlers following vigorous swimming. Vigaš M, et al. **Physiol Res** 1998;47(3):191–5

Prediction of pre-eclampsia with maternal mid-trimester total renin, inhibin A, AFP and free beta-hCG levels. Räty R, et al. **Prenat Diagn** 1999 Feb;19(2):122–7

Response of serum total renin to ramipril and metoprolol in hypertensive patients. Matinlauri IH, et al. **Scand J Clin Lab Invest** 1998 Dec;58(8):655–60

Renin-producing adrenal tumor: report of a case. Kawai M, et al. **Surg Today** 1998;28(9):974–8 (26 ref.)

[The effect of reduced sodium intake on blood pressure, body weight, renin, aldosterone, catecholamines, cholesterol and triglycerides. A meta-analysis] Graudal NA, et al. **Ugeskr Laeger** 1999 Apr 26;161(17):2526–30 (Eng. Abstr.) **(Dan)**

[Assessment of active renin instead of plasma renin activity in the renin captopril test] Smoszna J, et al. **Pol Merkuriusz Lek** 1998 Nov;5(29):269–70 (Eng. Abstr.) **(Pol)**

[Role of renin-angiotensin-aldosterone system in pathogenesis of arterial hypertension in chronic renal failure] Lifshits NL, et al. **Ter Arkh** 1999;71(6):64–7 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Probing epitopes on human prorenin during its proteolytic and non-proteolytic activation. Deinum J, et al. **Biochim Biophys Acta** 1998 Nov 10;1388(2):386–96

Effects of substitution of Val for Leu11 of ovine angiotensinogen on renin activity. Inui Y, et al. **Biosci Biotechnol Biochem** 1998 Nov;62(11):2267–9

Tyrosine-83 of human renin contributes to biphasic pH dependence of the renin-angiotensinogen reaction. Nasir UM, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1143–5

DRUG EFFECTS

Caffeine increases renal renin secretion in a rat model of genetic heart failure. Tofovic SP, et al. **J Cardiovasc Pharmacol** 1999 Mar;33(3):440–50

L-threo-3,4-dihydroxyphenylserine enhances the orthostatic responses of plasma renin activity and angiotensin II in multiple system atrophy. Yoshizawa T, et al. **J Neurol** 1999 Mar;246(3):193–7

GENETICS

Early expression of all components of the renin-angiotensin system in human development. Corvol P, et al. **Adv Nephrol Necker Hosp** 1998;28:195–212

Will angiotensin converting enzyme genotype, receptor mutation identification, and other miracles of molecular biology permit reduction of NNT? Materson BJ. **Am J Hypertens** 1998 Aug;11(8 Pt 2):138S–142S (40 ref.)

Enhanced renal vascular responsiveness to angiotensin II in hypertensive ren-2 transgenic rats. Jacinto SM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F315–22

Urinary excretion of nitric oxide, cyclic GMP, and catecholamines during rest and activity period in transgenic hypertensive rats. Globig S, et al. **Chronobiol Int** 1999 May; 16(3):305–14

Development of inverse circadian blood pressure pattern in transgenic hypertensive TGR(mREN2)27 rats. Witte K, et al. **Chronobiol Int** 1999 May;16(3):293–303

An alternative transcript of the rat renin gene can result in a truncated prorenin that is transported into adrenal mitochondria. Clausmeyer S, et al. **Circ Res** 1999 Feb 19; 84(3):337–44

The brain renin-angiotensin system contributes to the hypertension in mice containing both the human renin and human angiotensinogen transgenes. Davisson RL, et al. **Circ Res** 1998 Nov 16;83(10):1047–58

Species-specific differences in positive and negative regulatory elements in the renin gene enhancer. Shi Q, et al. **Circ Res** 1999 Sep 17;85(6):479–88

Transcription factor decoy to study the molecular mechanism of negative regulation of renin gene expression in the liver in vivo. Tomita S, et al. **Circ Res** 1999 May 14; 84(9):1059–66

Altered nuclear protein binding to the first intron of the renin gene of the spontaneously hypertensive rat. Yu H, et al. **Clin Exp Hypertens** 1998 Nov;20(8):817–32

Under control of the Ren-1c promoter, locally produced transforming growth factor-beta1 induces accumulation of glomerular extracellular matrix in transgenic mice. Wogensen L, et al. **Diabetes** 1999 Jan;48(1):182–92

Transcription of the prorenin gene in normal and diseased breast. Tahmasebi M, et al. **Eur J Cancer** 1998 Oct; 34(11):1777–82

Gene/longevity association studies at four autosomal loci (REN, THO, PARP, SOD2). De Benedictis G, et al. **Eur J Hum Genet** 1998 Nov-Dec;6(6):534–41

An MboI two-allele polymorphism may implicate the human renin gene in primary hypertension. Frossard PM, et al. **Hypertens Res** 1998 Sep;21(3):221–5

Human renin mRNA stability is increased in response to cAMP in Calu-6 cells. Sinn PL, et al. **Hypertension** 1999 Mar;33(3):900–5

Transcriptional regulation of the rat renin gene by regulatory elements in intron I. Voigtländer T, et al. **Hypertension** 1999 Jan;33(1 Pt 2):303–11

Pressure-natriuresis and -diuresis in transgenic rats harboring both human renin and human angiotensinogen genes. Dehmel B, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2212–22

Angiotensin-converting enzyme inhibition and AT1 receptor blockade modify the pressure-natriuresis relationship by additive mechanisms in rats with human renin and angiotensinogen genes. Mervaala E, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1669–80

Quantitative trait loci for blood pressure exist near the IGF-1, the Liddle syndrome, the angiotensin II-receptor gene and the renin loci in man. Nagy Z, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1709–16

Expression and localization of the renin-angiotensin system in the rat pancreas. Leung PS, et al. **J Endocrinol** 1999 Jan;160(1):13–9

Dissection of silencer elements in first intron controlling the human renin gene. Germain S, et al. **J Hypertens** 1999 Jul; 17(7):899–905

Kinetic determinants of plasma ACE and renin activity in young normotensive twins. Rossi GP, et al. **J Hypertens** 1999 May;17(5):647–55

Increased pressor function of central vasopressinergic system in hypertensive renin transgenic rats. Szczepańska-Sadowska E, et al. **J Hypertens** 1998 Oct; 16(10):1505–14

Cosegregation of spontaneously hypertensive rat renin gene with elevated blood pressure in an F2 generation. Yu H, et al. **J Hypertens** 1998 Aug;16(8):1141–7

Regulation of human renin gene promoter activity: a new negative regulatory region determines the responsiveness to TNF alpha. Chen LS, et al. **Kidney Int** 1998 Dec; 54(6):2045–55

Abnormal regulation of proximal tubule renin mRNA in the Dahl/Rapp salt-sensitive rat. Tank JE, et al. **Kidney Int** 1998 Nov;54(5):1608–16

Effects of hypoxia on renin secretion and renal renin gene expression. Krämer BK, et al. **Kidney Int Suppl** 1998 Sep; 67:S155–8

Plasma renin and prorenin and renin gene variation in patients with insulin-dependent diabetes mellitus and nephropathy. Deinum J, et al. **Nephrol Dial Transplant** 1999 Aug; 14(8):1904–11

Interleukin-1 inhibits renin gene expression in As4.1 cells but not in native juxtaglomerular cells. Jensen BL, et al. **Pflugers Arch** 1998 Oct;436(5):673–8

[Molecular structure of renin-angiotensin-aldosterone system] Zelechowski M, et al. **Pol Merkuriusz Lek** 1999 Apr;6(34):202–4 (30 ref.) (Eng. Abstr.) **(Pol)**

HISTORY

The ups and downs of the renin-angiotensin-aldosterone system since Tigerstedt's first discovery of renin. Vallotton MB. **Endocr Res** 1998 Aug-Nov;24(3–4):781–8 (12 ref.)

A memorial to Robert Tiegerstedt: the centennial of renin discovery. Inagami T. **Hypertension** 1998 Dec;32(6):953–7 (44 ref.)

METABOLISM

Pathological expression of renin and angiotensin II in the renal tubule after subtotal nephrectomy. Implications for the pathogenesis of tubulointerstitial fibrosis. Gilbert RE, et al. **Am J Pathol** 1999 Aug;155(2):429–40

Active renin and angiotensinogen in cardiac interstitial fluid after myocardial infarction. Hirsch AT, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1818–26

Transmural pressure inhibits prorenin processing in juxtaglomerular cell. Ichihara A, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R220–8

Role of central AT1 and V1 receptors in cardiovascular adaptation to hemorrhage in SD and renin TGR rats. Paczwa P, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1918–26

Pressure-dependent renin release: effects of sodium intake and changes of total body sodium. Seeliger E, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R548–55

Renin in exocrine glands of different mouse strains. Kon Y, et al. **Anat Histol Embryol** 1999 Aug;28(4):239–42

Hormonal changes during a 20-week confinement. Maillet A, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1045–51

Effects of glycosylation of the residue at position 14 in ovine angiotensinogen on the human renin reaction. Inui Y, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1612–4

Non-proteolytic activation of human prorenin by anti-prorenin prosegment (pf#1: 1P-15P) antiserum. Suzuki F, et al. **Biosci Biotechnol Biochem** 1999 Mar; 63(3):550–4

An alternative transcript of the rat renin gene can result in a truncated prorenin that is transported into adrenal mitochondria. Clausmeyer S, et al. **Circ Res** 1999 Feb 19; 84(3):337–44

In vivo enzymatic assay reveals catalytic activity of the human renin precursor in tissues. Methot D, et al. **Circ Res** 1999 May 14;84(9):1067–72

Endothelial dysfunction in the aorta of transgenic rats harboring the mouse Ren-2 gene. Arnet UA, et al. **Endothelium** 1999;6(3):175–84

Salivary gland tissue kallikrein family and processing of growth factor precursors and proenzymes. Hosoi K, et al. **Eur J Morphol** 1998 Aug;36 Suppl:82–5

Prorenin processing by cathepsin B in vitro and in transfected cells. Jutras I, et al. **FEBS Lett** 1999 Jan 22;443(1):48–52

Angiotensinogen cleavage by renin: importance of a structurally constrained N-terminus. Streatfeild-James RM, et al. **FEBS Lett** 1998 Oct 2;436(2):267-70

Gonadotropins induce higher active renin levels in the follicular fluid of normal and hyperstimulated cycles. Loret de Mola JR, et al. **Gynecol Endocrinol** 1999 Jun; 13(3):155-60

Blood pressure and vasoactive hormones in mild preeclampsia and normal pregnancy. Kaaja RJ, et al. **Hypertens Pregnancy** 1999;18(2):173-87

Effects of human prorenin in rats transgenic for human angiotensinogen. Müller DN, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):312-7

Cyclooxygenase-2 inhibition decreases renin content and lowers blood pressure in a model of renovascular hypertension. Wang JL, et al. **Hypertension** 1999 Jul; 34(1):96-101

Low-renin and nonmodulating essential hypertension [editorial; comment] Warnock DG. **Hypertension** 1999 Sep; 34(3):395-7. Comment on: Hypertension 1999 Sep;34(3):388-94.

Uptake and proteolytic activation of prorenin by cultured human endothelial cells. Admiraal PJ, et al. **J Hypertens** 1999 May;17(5):621-9

Intrauterine growth restriction is associated with persistent juxtamedullary expression of renin in the fetal kidney. Kingdom JC, et al. **Kidney Int** 1999 Feb;55(2):424-9

Control of the renal renin system by local factors. Wagner C, et al. **Kidney Int Suppl** 1998 Sep;67:S78-83 (61 ref.)

Ontogeny of renal renin in congenital hypothyroid rats. Montiel M, et al. **Life Sci** 1999;65(3):263-9

Sulfonylureas stimulate renin secretion from the perfused kidney of the rat. Ochi H, et al. **Nephron** 1999 Jan; 81(1):67-71

Lack of neurohumoral response to pneumoperitoneum for laparoscopic cholecystectomy. Odeberg S, et al. **Surg Endosc** 1998 Oct;12(10):1217-23

[Evidence of a renin receptor on human mesangial cells: effects on PAI1 and cGMP] Nguyen G, et al. **Nephrologie** 1998;19(7):411-6 (8 ref.) (Eng. Abstr.) **(Fre)**

[Assessment of active renin instead of plasma renin activity in the renin captopril test] Smoszna J, et al. **Pol Merkuriusz Lek** 1998 Nov;5(29):269-70 (Eng. Abstr.) **(Pol)**

[Molecular structure of renin-angiotensin-aldosterone system] Zelechowski M, et al. **Pol Merkuriusz Lek** 1999 Apr;6(34):202-4 (30 ref.) (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

Identical hemodynamic and hormonal responses to 14-day infusions of renin or angiotensin II in conscious rats. Hu L, et al. **J Hypertens** 1998 Sep;16(9):1285-98

PHYSIOLOGY

Renin system analysis defines the special value of combination antihypertensive therapy using an antirenin agent (CEI) with a long-acting calcium channel blocker (CCB). Laragh JH. **Am J Hypertens** 1998 Oct; 11(10):170S-174S (42 ref.)

Cardiovascular, endocrine, and body fluid-electrolyte responses to salt loading in mRen-2 transgenic rats. Li P, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1130-7

Expression of angiotensinogen in the uterus induced by coagulating gland renin in mice. Kon Y, et al. **Anat Histol Embryol** 1999 May;28(2):119-24

Kidney is the only source of human plasma renin in 45-kb human renin transgenic mice. Yan Y, et al. **Circ Res** 1998 Dec 14-28;83(12):1279-88

Renin-angiotensin systems and reproduction. Vinson GP, et al. **Gynecol Endocrinol** 1999 Feb;13(1):56-70 (195 ref.)

Hypertension-induced end-organ damage : A new transgenic approach to an old problem. Luft FC, et al. **Hypertension** 1999 Jan;33(1 Pt 2):212-8 (76 ref.)

Monocyte infiltration and adhesion molecules in a rat model of high human renin hypertension. Mervaala EM, et al. **Hypertension** 1999 Jan;33(1 Pt 2):389-95

Effects of human prorenin in rats transgenic for human angiotensinogen. Müller DN, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):312-7

Increased bradykinin and "normal" angiotensin peptide levels in diabetic Sprague-Dawley and transgenic (mRen-2)27 rats. Campbell DJ, et al. **Kidney Int** 1999 Jul;56(1):211-21

Effects of mineralocorticoid receptor gene disruption on the components of the renin-angiotensin system in 8-day-old mice. Hubert C, et al. **Mol Endocrinol** 1999 Feb; 13(2):297-306

[The role of neurohormonal mechanisms in the etiopathogenesis of essential hypertension] Zyśko D, et al. **Pol Merkuriusz Lek** 1998 Sep;5(27):157-61 (29 ref.) (Eng. Abstr.) **(Pol)**

SECRETION

MR findings of renin-secreting tumor: a case report. Wang JH, et al. **Abdom Imaging** 1998 Sep-Oct;23(5):533-5

Isolated superfused juxtaglomerular cells from rat kidney: a model for study of renin secretion. Albinus M, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F991-7

Role of nitric oxide in the control of renin secretion. Kurtz A, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F849-62 (159 ref.)

Inhibitory effect of calyculin A, a Ser/Thr protein phosphatase type I inhibitor, on renin secretion. Park CS, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):F664-70

Regulation of renal renin release. Wagner C, et al. **Curr Opin Nephrol Hypertens** 1998 Jul;7(4):437-41 (59 ref.)

Sodium excretion and renin secretion after continuous versus pulsatile infusion of oxytocin in rats. Sjöquist M, et al. **Endocrinology** 1999 Jun;140(6):2814-8

Tubular morphogenesis and mesenchymal interactions affect renin expression and secretion in SIMS mouse submandibular cells. Laoide BM, et al. **Exp Cell Res** 1999 Apr 10;248(1):172-85

Angiotensin II type 1 receptor expression in two cases of juxtaglomerular cell tumor: correlation to negative feedback of renin secretion by angiotensin II. Tanabe A, et al. **Horm Metab Res** 1999 Jul;31(7):429-34

Regulation of renin secretion by angiotensin II-AT1 receptors. Kurtz A, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S162-8 (77 ref.)

Role of cGMP-kinase II in the control of renin secretion and renin expression. Wagner C, et al. **J Clin Invest** 1998 Oct 15;102(8):1576-82

Cellular control of renin secretion. Kurtz A, et al. **J Exp Biol** 1999 Feb;202 (Pt 3):219-25 (59 ref.)

Pharmacological evidence for a KATP channel in renin-secreting cells from rat kidney. Russ U, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):781-90

Effects of hypoxia on renin secretion and renal renin gene expression. Krämer BK, et al. **Kidney Int Suppl** 1998 Sep; 67:S155-8

Role of sympathetic nerves in the differential effects of T-type and L-type calcium channel blockers on renin secretion and renin gene expression. Hinder M, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:44-5

Renin secretion from permeabilized juxtaglomerular cells requires a permeant cation. Jensen BL, et al. **Pflugers Arch** 1999 Feb;437(3):449-54

Effects of bile duct ligation and captopril on salt appetite and renin-aldosterone axis in rats. Lane JR, et al. **Physiol Behav** 1999 May;66(3):419-25

[Tissue concentration and secretion of renin in human placental villi during early pregnancy] Chen ZK, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):463-6 (Eng. Abstr.) **(Chi)**

[Renin-secreting tumor detected by MRI] Rossier S, et al. **J Radiol** 1998 Aug;79(8):761-3 (Eng. Abstr.) **(Fre)**

RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM see **RENIN-ANGIOTENSIN SYSTEM**

RENIN-ANGIOTENSIN SYSTEM

see related
ANGIOTENSIN-CONVERTING ENZYME INHIBITORS

Central vasopressin is modulated by chronic blockade of the renin-angiotensin system in experimental left ventricular hypertrophy. Muders F, et al. **Am J Hypertens** 1999 Mar; 12(3):311-4

Association between activation of the renin-angiotensin system and secondary erythrocytosis in patients with chronic obstructive pulmonary disease. Vlahakos DV, et al. **Am J Med** 1999 Feb;106(2):158-64

Vasoactive peptide receptors in the rat kidney. Garcia R, et al. **Biol Res** 1998;31(3):217-25 (88 ref.)

The renin-angiotensin system in swine during hypovolaemic shock combined with low-flow ischaemia of the sigmoid colon. Yilmaz EN, et al. **Cardiovasc Surg** 1999 Aug; 7(5):539-44

Left ventricular filling profiles and angiotensin system activity in elite baseball players. Lai ZY, et al. **Int J Cardiol** 1998 Dec 1;67(2):155-60

Examining the renin-angiotensin system one hundred years after its discovery. Bernstein KE. **Nephrologie** 1998; 19(7):391-5 (33 ref.)

Angiotensin-(1-7): a bioactive fragment of the renin-angiotensin system. Ferrario CM, et al. **Regul Pept** 1998 Nov 30;78(1-3):13-8 (67 ref.)

[Renin-angiotensin-aldosterone system inhibition: pharmacologic rationale and evaluations of drug combinations] Andréjak M, et al. **Therapie** 1998 May-Jun; 53(3):291-300 (60 ref.) (Eng. Abstr.) **(Fre)**

[Renin-angiotensin-aldosterone system and heart failure: therapeutic aspects] Castaigne A, et al. **Therapie** 1998 May-Jun;53(3):285-9 (13 ref.) (Eng. Abstr.) **(Fre)**

[Interaction between the sympathetic and renin-angiotensin system] K-Laflamme A, et al. **Therapie** 1998 May-Jun; 53(3):245-52 (55 ref.) (Eng. Abstr.) **(Fre)**

DRUG EFFECTS

Angiotensin-II receptor antagonists: their place in therapy. Kirk JK. **Am Fam Physician** 1999 Jun;59(11):3140-8 (42 ref.)

Overview of angiotensin II-receptor antagonists. Pitt B, et al. **Am J Cardiol** 1998 Nov 19;82(10A):47S-49S (12 ref.)

Beta-adrenergic receptor blockade as a therapeutic approach for suppressing the renin-angiotensin-aldosterone system in normotensive and hypertensive subjects. Blumenfeld JD, et al. **Am J Hypertens** 1999 May;12(5):451-9

The state and responsiveness of the renin-angiotensin-aldosterone system in patients with type II diabetes mellitus. Price DA, et al. **Am J Hypertens** 1999 Apr;12(4 Pt 1):348-55

Insulin-like growth factor-1 induces Mdm2 and down-regulates p53, attenuating the myocyte renin-angiotensin system and stretch-mediated apoptosis. Leri A, et al. **Am J Pathol** 1999 Feb;154(2):567-80

Regulation of brain renin-angiotensin system by benzamil-blockable sodium channels. Nishimura M, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1416-24

High fructose-fed rats: a model of glomerulosclerosis involving the renin-angiotensin system and renal gelatinases. Zaoui P, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:716-9

Comparison between angiotensin receptor antagonism and converting enzyme inhibition in heart failure. Differential acute effects according to the renin-angiotensin system activation. Su J, et al. **Basic Res Cardiol** 1999 Apr; 94(2):128-35

Effects of ACE inhibition on cyclosporine A-induced hypertension and nephrotoxicity in spontaneously hypertensive rats on a high-sodium diet. Mervaala E, et al. **Blood Press** 1999;8(1):49-56

Relationship between the circulating and vascular renin-angiotensin system and the vasodilating effect of captopril in human hypertension. Virdis A, et al. **Blood Press** 1999;8(2):85-93

Differential effects of isoproterenol on the activity of angiotensin-converting enzyme in the rat heart and aorta. Busatto VC, et al. **Braz J Med Biol Res** 1999 Mar; 32(3):355-60

Effect of chronic captopril treatment on circulating and tissue renin-angiotensin system in SHR rats. Hu WY, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):507-12

Proliferation of aortic smooth muscle cells and renin-angiotensin system in SHR rats. Wang XY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):136-40

Evidence for a causal role of the renin-angiotensin system in nitrate tolerance. Kurz S, et al. **Circulation** 1999 Jun 22;99(24):3181-7

Regression of left ventricular hypertrophy in patients with hypertension: blockade of the renin-angiotensin-aldosterone system [editorial; comment] Pitt B. **Circulation** 1998 Nov 10;98(19):1987-9 (20 ref.). Comment on: Circulation 1998 Nov 10;98(19):2037-42.

Inverse relationship between aldosterone and large artery compliance in chronically treated heart failure patients [see comments] Duprez DA, et al. **Eur Heart J** 1998 Sep; 19(9):1371-6. Comment in: Eur Heart J 1998 Sep;19(9):1273.

Effect of ACE inhibition on myocardial ischaemia. Ferrari R. **Eur Heart J** 1998 Sep;19 Suppl J:J30-5 (40 ref.)

Effects of renin-angiotensin system blockade and dietary salt intake on left ventricular hypertrophy in Dahl salt-sensitive rats. Sugimoto K, et al. **Hypertens Res** 1998 Sep;21(3):163-8

Inhibition of the renin-angiotensin system upregulates cyclooxygenase-2 expression in the macula densa. Wolf K, et al. **Hypertension** 1999 Sep;34(3):503-7

Reversal of cardiac fibrosis in deoxycorticosterone acetate-salt hypertensive rats by inhibition of the renin-angiotensin system. Brown L, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S143-8

Pharmacologic interruption of the renin-angiotensin system and the kidney: differential responses to angiotensin-converting enzyme and renin inhibition. Hollenberg NK. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S239-42 (28 ref.)

AT1 receptor blockade in experimental myocardial ischemia/reperfusion. Jalowy A, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S129-36 (66 ref.)

Role of angiotensin II in the renal effects induced by nitric oxide and prostaglandin synthesis inhibition. Llinás MT, et al. **J Am Soc Nephrol** 1997 Apr;8(4):543-50

Endothelial permeability of the afferent arteriole and its changes as the result of alteration in the activity of the renin-angiotensin system. Rosivall L, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S172-7

Effects of candesartan on the renin system in conscious rats. Wagner C, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S169-71

Angiotensin II and sympathoactivation in heart failure. Goldsmith SR. **J Card Fail** 1999 Jun;5(2):139-45 (49 ref.)

Effects of fetal and neonatal renin-angiotensin system blockade in Lyon hypertensive rats. Florin M, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):549-53

Mediation of humoral catecholamine secretion by the renin-angiotensin system in hypotensive rainbow trout (Oncorhynchus mykiss). Bernier NJ, et al. **J Endocrinol** 1999 Mar;160(3):351-63

Calcium modulation of the renin-aldosterone axis. Porter L, et al. **J Endocrinol Invest** 1999 Feb;22(2):115-21

Renal angiotensin II receptor regulation and renin-angiotensin system inhibition in one-kidney, one clip hypertensive rats. Amiri F, et al. **J Hypertens** 1999 Feb; 17(2):279-86

The effects of different types and doses of oestrogen replacement therapy on clinic and ambulatory blood pressure and the renin-angiotensin system in normotensive postmenopausal women. Harvey PJ, et al. **J Hypertens** 1999 Mar;17(3):405-11

Short-term modulation of the renin-angiotensin system does not alter plasma adrenomedullin concentration in humans. Kita T, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2057-62

Angiotensin II receptor blockade and end-organ protection: pharmacological rationale and evidence. Unger T, et al.

J Hypertens Suppl 1998 Sep;16(7):S3-9 (55 ref.)
Renal response to captopril reflects state of local renin system in healthy humans. Fisher ND, et al. **Kidney Int** 1999 Aug; 56(2):635-41
Renin-angiotensin blockade lowers MCP-1 expression in diabetic rats. Kato S, et al. **Kidney Int** 1999 Sep; 56(3):1037-48
Antagonism of the renin-angiotensin system, hypertrophy and gene expression in cardiac myocytes. Lijnen P, et al. **Methods Find Exp Clin Pharmacol** 1999 Jun;21(5):363-74 (113 ref.)
Long-term reduction of renal interstitial hydrostatic pressure after neonatal renin-angiotensin system inhibition in the rat. Nilsson AB, et al. **Nephrol Dial Transplant** 1998 Dec; 13(12):3065-73
Central administration of a nitric oxide synthase inhibitor causes pressor responses via the sympathetic nervous system and the renin-angiotensin system in Wistar rats. Moriguchi S, et al. **Neurosci Lett** 1998 Apr 3;245(2):109-12
[Effect of puerarin on plasma endothelin, renin activity and angiotensin II in patients with acute myocardial infarction] Li SM, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1997 Jun; 17(6):339-41 (Eng. Abstr.) **(Chi)**

GENETICS

Influence of gene polymorphisms of the renin-angiotensin system on clinical outcome in heart failure among the Chinese. Sanderson JE, et al. **Am Heart J** 1999 Apr;137(4 Pt 1):653-7
Angiotensinogen M235T polymorphism is associated with plasma angiotensinogen and cardiovascular disease. Winkelmann BR, et al. **Am Heart J** 1999 Apr;137(4 Pt 1):698-705
Gene targeting in physiological investigations: studies of the renin-angiotensin system. Coffman TM. **Am J Physiol** 1998 Jun;274(6 Pt 2):F999-1005 (59 ref.)
The genotype interactions of methylenetetrahydrofolate reductase and renin-angiotensin system genes are associated with myocardial infarction. Fernández-Arcás N, et al. **Atherosclerosis** 1999 Aug;145(2):293-300
Enhanced angiotensin II stimulates renal disorders in transgenic Tsukuba hypertensive mice. Kai T, et al.
Blood Press 1998 Jul;7(4):247-50
Overexpression of insulin-like growth factor-1 attenuates the myocyte renin-angiotensin system in transgenic mice. Leri A, et al. **Circ Res** 1999 Apr 16;84(7):752-62
Variants of renin-angiotensin system genes and echocardiographic left ventricular mass. Kauma H, et al. **Eur Heart J** 1998 Jul;19(7):1109-17
Genotype-phenotype relationships for the renin-angiotensin-aldosterone system in a normal population. Paillard F, et al. **Hypertension** 1999 Sep; 34(3):423-9
Renin-angiotensin system component gene polymorphism in Japanese bronchial asthma patients. Nakahama H, et al. **J Asthma** 1999;36(2):187-93
Genetic variability in the renin-angiotensin system: prevalence of alleles and genotypes. Staessen JA, et al. **J Cardiovasc Risk** 1997 Oct-Dec;4(5-6):401-22 (267 ref.)
Co-expression of renin-angiotensin system genes in human adipose tissue. Engeli S, et al. **J Hypertens** 1999 Apr; 17(4):555-60
Renin-angiotensin system and fibronectin gene expression in Dahl Iwai salt-sensitive and salt-resistant rats. Tamura K, et al. **J Hypertens** 1999 Jan;17(1):81-9
Gene polymorphism of the renin-angiotensin system and progression of diabetic nephropathy. Orisio S.
J Nephrol 1999 Jan-Feb;12(1):9-17 (104 ref.)
Genetic polymorphisms of the renin-angiotensin system and the outcome of focal segmental glomerulosclerosis in children. Frishberg Y, et al. **Kidney Int** 1998 Dec; 54(6):1843-9
Antagonism of the renin-angiotensin system, hypertrophy and gene expression in cardiac myocytes. Lijnen P, et al. **Methods Find Exp Clin Pharmacol** 1999 Jun;21(5):363-74 (113 ref.)
Molecular variants of the renin-angiotensin system components in the Slovak population. Krizanová O, et al. **Physiol Res** 1997;46(5):357-61
The TGR(mRen2)27 transgenic rat model of hypertension. Engler S, et al. **Regul Pept** 1998 Oct 16;77(1-3):3-8 (53 ref.)
The renin-angiotensin system in hybrid NG108-15 cells. Renin gene is from mouse neuroblastoma, angiotensinogen and angiotensin-converting enzyme genes are of rat glioma origin. Laflamme L, et al. **Regul Pept** 1998 Oct 16; 77(1-3):9-15
Renin-angiotensin genes in renal development and the occurrence and progression of renal diseases. Hohenfellner K, et al. **Semin Nephrol** 1999 Mar;19(2):148-54 (50 ref.)
Cardiorenal destiny: the role of genes and environmental factors. Ingelfinger JR, et al. **Semin Nephrol** 1999 Mar; 19(2):201-10 (87 ref.)
[The relationship between genetic polymorphisms and disease, illustrated by the renin-angiotensin-aldosterone system and cardiovascular disease] Spiering W, et al.
Ned Tijdschr Geneeskd 1998 Jun 20;142(25):1445-50 (39 ref.) (Eng. Abstr.) **(Dut)**
[Experimental genetic modifications in the renin-angiotensin and kallikrein-kinin systems: significance for understanding cardiovascular regulation and study of genetic determinism of human diseases] Meneton P, et al. **Nephrologie** 1998; 19(7):385-9 (20 ref.) (Eng. Abstr.) **(Fre)**
[Polymorphism of the renin-angiotensin-aldosterone system: molecular and epidemiogenetic aspects] Soubrier F.
Nephrologie 1998;19(7):377-84 (67 ref.) (Eng. Abstr.) **(Fre)**
[Genetic polymorphisms in the renin-angiotensin system] Jeunemaitre X. **Therapie** 1998 May-Jun;53(3):271-7 (50 ref.) (Eng. Abstr.) **(Fre)**
[Angiotensin and arteriosclerosis: an approach from transgenic and knockout mice] Fukamizu A.
Nippon Rinsho 1999 May;57(5):1176-81 (13 ref.) (Eng. Abstr.) **(Jpn)**
[Genetic polymorphisms of the renin-angiotensin system and essential hypertension] Fernández-Llama P, et al.
Med Clin (Barc) 1999 May 1;112(15):561-4 (35 ref.) (Eng. Abstr.) **(Spa)**
[Mineralocorticoid hypertension. A new form of secondary hypertension? (editorial)] Román O. **Rev Med Chil** 1999 May;127(5):511-3 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Angiotensin II plays a pathogenic role in immune-mediated renal injury in mice. Hisada Y, et al. **J Clin Invest** 1999 Mar;103(5):627-35

PHYSIOLOGY

Interaction between the renin-angiotensin system and insulin-like growth factor I in aorto-caval fistula-induced cardiac hypertrophy in rats. Wåhlander H, et al.
Acta Physiol Scand 1999 Feb;165(2):143-54
Pharmacology of eprosartan, an angiotensin II receptor antagonist: exploring hypotheses from clinical data. Brooks DP, et al. **Am Heart J** 1999 Sep;138(3 Pt 2):246-51 (53 ref.)
The pathophysiology of hypertension: the importance of angiotensin II in cardiovascular remodeling. Gibbons GH. **Am J Hypertens** 1998 Nov;11(11 Pt 2):177S-181S (25 ref.)
The renin-angiotensin system and blood pressure: differences between blacks and whites. He J, et al.
Am J Hypertens 1999 Jun;12(6):555-62
Gene targeting in physiological investigations: studies of the renin-angiotensin system. Coffman TM. **Am J Physiol** 1998 Jun;274(6 Pt 2):F999-1005 (59 ref.)
Role of central catecholaminergic pathways in the actions of endogenous ANG II on sympathetic reflexes. Gaudet EA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1174-84
Hypertrophic response to hemodynamic overload: role of load vs. renin-angiotensin system activation. Koide M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H350-8
Brain renin-angiotensin system and sympathetic hyperactivity in rats after myocardial infarction. Zhang W, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1608-15
Cardiac remodelling by fibrous tissue: role of local factors and circulating hormones. Sun Y, et al. **Ann Med** 1998 Aug; 30 Suppl 1:3-8 (52 ref.)
Role of the renal nerves and angiotensin II in the renal function curve. Golin R, et al. **Arch Ital Biol** 1999 Aug; 137(4):289-97
Interactions between the renin-angiotensin system (RAS) and the sympathetic system. Dendorfer A, et al.
Basic Res Cardiol 1998;93 Suppl 2:24-9
The renin-angiotensin system in the vessel wall. Müller DN, et al. **Basic Res Cardiol** 1998;93 Suppl 2:7-14
Hypertension and the renin-angiotensin system--evidence from genetic and transgenic studies. Rothermund L, et al. **Basic Res Cardiol** 1998;93 Suppl 2:1-6 (32 ref.)
Intrauterine programming of hypertension: the role of the renin-angiotensin system. Langley-Evans SC, et al.
Biochem Soc Trans 1999 Feb;27(2):88-93 (49 ref.)
The renin-angiotensin system in essential hypertension: associations with cardiovascular risk. Allikmets K, et al. **Blood Press** 1999;8(2):70-8 (111 ref.)
Effects of aortic ligation on the renin angiotensin system in hydronephrotic mice. Zhang DY, et al. **Blood Press** 1999; 8(2):122-7
Transgenic animal models for the functional analysis of vasoactive peptides. Bader M. **Braz J Med Biol Res** 1998 Sep;31(9):1171-83 (126 ref.)
Bi-directional actions of estrogen on the renin-angiotensin system. Brosnihan KB, et al. **Braz J Med Biol Res** 1999 Apr;32(4):373-81 (72 ref.)
Differential effects of isoproterenol on the activity of angiotensin-converting enzyme in the rat heart and aorta. Busatto VC, et al. **Braz J Med Biol Res** 1999 Mar; 32(3):355-60
Antihypertensive effects of angiotensin-(1-7). Chappell MC, et al. **Braz J Med Biol Res** 1998 Sep;31(9):1205-12 (51 ref.)
Estrogen, natriuretic peptides and the renin-angiotensin system. Kuroski de Bold ML. **Cardiovasc Res** 1999 Mar; 41(3):524-31 (102 ref.)
Modulation and function of extrarenal angiotensin receptors. Wang DH, et al. **Cell Biochem Biophys** 1999;31(1):1-17 (121 ref.)
The involvement of the renin-angiotensin system in the regulation of cell proliferation in the rat endometrium. Pawlikowski M, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):506-10
The brain renin-angiotensin system contributes to the hypertension in mice containing both the human renin and human angiotensinogen transgenes. Davisson RL, et al.
Circ Res 1998 Nov 16;83(10):1047-58
The cardiac renin-angiotensin system: conceptual, or a regulator of cardiac function? Dostal DE, et al.
Circ Res 1999 Oct 1;85(7):643-50 (94 ref.)
Mechanical stretch and angiotensin II differentially upregulate the renin-angiotensin system in cardiac myocytes In vitro. Malhotra R, et al. **Circ Res** 1999 Jul 23;85(2):137-46
Evidence for a causal role of the renin-angiotensin system in nitrate tolerance. Kurz S, et al. **Circulation** 1999 Jun 22;99(24):3181-7
Angiotensin II induces vascular cell adhesion molecule-1 expression in rat vasculature: A potential link between the renin-angiotensin system and atherosclerosis. Tummala PE, et al. **Circulation** 1999 Sep 14;100(11):1223-9
Increased NADH-oxidase-mediated superoxide production in the early stages of atherosclerosis: evidence for involvement of the renin-angiotensin system. Warnholtz A, et al. **Circulation** 1999 Apr 20;99(15):2027-33
Renin-angiotensin system stimulates cardiac and renal disorders in Tsukuba hypertensive mice. Kai T, et al.
Clin Exp Pharmacol Physiol 1999 Mar;26(3):206-11
Angiotensin hypertension. Blaine EH, et al.
Clin Exp Pharmacol Physiol Suppl 1998 Nov;25:S16-20
Origins of zonation: the adrenocortical model of tissue development and differentiation. Vinson GP, et al.
Clin Exp Pharmacol Physiol Suppl 1998 Nov;25:S91-6
The renin-angiotensin system and the development of the kidney and adrenal in sheep. Wintour EM, et al.
Clin Exp Pharmacol Physiol Suppl 1998 Nov;25:S97-100 (39 ref.)
Regulation of 11beta-hydroxysteroid dehydrogenase type 2 by diuretics and the renin-angiotensin-aldosterone axis. Ricketts ML, et al. **Clin Sci (Colch)** 1999 Jun;96(6):669-75
The ups and downs of the renin-angiotensin-aldosterone system since Tigerstedt's first discovery of renin. Vallotton MB. **Endocr Res** 1998 Aug-Nov;24(3-4):781-8 (12 ref.)
Adrenocortical zonation and the adrenal renin-angiotensin system. Vinson GP, et al. **Endocr Res** 1998 Aug-Nov; 24(3-4):677-86
Losartan and angiotensin II inhibit aldosterone production in anephric rats via different actions on the intraadrenal renin-angiotensin system. Peters J, et al. **Endocrinology** 1999 Feb;140(2):675-82
Fibrinolytic balance, the renin-angiotensin system and atherosclerotic disease. Vaughan DE. **Eur Heart J** 1998 Jul;19 Suppl G:G9-12 (21 ref.)
AT1-receptor blockers in hypertension and heart failure: clinical experience and future directions. Willenheimer R, et al. **Eur Heart J** 1999 Jul;20(14):997-1008 (105 ref.)
Local renin-angiotensin system and mitogen-activated protein kinase activation in rat aorta. Kubo T, et al.
Eur J Pharmacol 1999 Jan 15;365(1):103-10
A local renin--angiotensin system in the bone marrow: hypothesis and clues [letter; comment] Haznedaroglu IC. **Exp Hematol** 1999 Jan;27(1):186-7. Comment on: Exp Hematol 1998 Oct;26(11):1018-9. Comment on: Exp Hematol 1998 Oct;26(11):1020-1.
The best model of a cat is a cat, especially the same cat [letter; comment] Vasku A, et al. **Exp Hematol** 1999 Jan; 27(1):187-8. Comment on: Exp Hematol 1998 Oct;26(11):1018-9. Comment on: Exp Hematol 1998 Oct;26(11):1020-1.
Teleost-type angiotensin is present in Australian lungfish, Neoceratodus forsteri. Joss JM, et al.
Gen Comp Endocrinol 1999 May;114(2):206-12
Renin-angiotensin systems and reproduction. Vinson GP, et al. **Gynecol Endocrinol** 1999 Feb;13(1):56-70 (195 ref.)
High intensity training and the heart. Montgomery H, et al. **Hosp Med** 1999 Mar;60(3):187-91 (29 ref.)
Stimulation of the renin-angiotensin system by endothelin subtype A receptor blockade in conscious dogs. Berthold H, et al. **Hypertension** 1999 Jun;33(6):1420-4
Effect of activation and inhibition of the renin-angiotensin system on plasma PAI-1. Brown NJ, et al.
Hypertension 1998 Dec;32(6):965-71
Early onset salt-sensitive hypertension in bradykinin B(2) receptor null mice. Cervenka L, et al. **Hypertension** 1999 Aug;34(2):176-80
Renin activity and blood pressure in response to chronic episodic hypoxia. Fletcher EC, et al. **Hypertension** 1999 Aug;34(2):309-14
Importance of the renin system in determining blood pressure fall with salt restriction in black and white hypertensives. He FJ, et al. **Hypertension** 1998 Nov;32(5):820-4
Local renin-angiotensin system is involved in K+-induced aldosterone secretion from human adrenocortical NCI-H295 cells. Hilbers U, et al. **Hypertension** 1999 Apr; 33(4):1025-30
Long-term inhibition of renin-angiotensin system sustains memory function in aged Dahl rats. Hirawa N, et al.
Hypertension 1999 Sep;34(3):496-502
Brain renin-angiotensin system and ouabain-induced sympathetic hyperactivity and hypertension in Wistar rats. Huang BS, et al. **Hypertension** 1999 Jul;34(1):107-12
A memorial to Robert Tiegerstedt: the centennial of renin discovery. Inagami T. **Hypertension** 1998 Dec;32(6):953-7 (44 ref.)
Human spiral artery renin-angiotensin system. Morgan T, et al. **Hypertension** 1998 Oct;32(4):683-7
Activation of the brain angiotensin system by in vivo human angiotensin-converting enzyme gene transfer in rats.

Nakamura S, et al. **Hypertension** 1999 Aug;34(2):302–8
Renal characteristics and effect of angiotensin suppression in oral contraceptive users. Ribstein J, et al. **Hypertension** 1999 Jan;33(1):90–5
Angiotensin-(1–7) is a modulator of the human renin–angiotensin system. Roks AJ, et al. **Hypertension** 1999 Aug;34(2):296–301
The renin–angiotensin system and vascular fibrinolytic balance. Agirbasli M, et al. **Int J Clin Pract Suppl** 1998 May;94:20–5 (35 ref.)
Evidence for a local renin angiotensin system in primary cultured human preadipocytes. Schling P, et al. **Int J Obes Relat Metab Disord** 1999 Apr;23(4):336–41
What have we learned from gene targeting studies for the renin angiotensin system of the kidney? Nishimura H, et al. **Intern Med** 1999 Apr;38(4):315–23 (66 ref.)
Circadian activity of the endogenous fibrinolytic system in stable coronary artery disease: effects of beta-adrenoreceptor blockers and angiotensin-converting enzyme inhibitors. Sayer JW, et al. **J Am Coll Cardiol** 1998 Dec;32(7):1962–8
Pressure–natriuresis and –diuresis in transgenic rats harboring both human renin and human angiotensinogen genes. Dehmel B, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2212–22
Novel angiotensin peptides regulate blood pressure, endothelial function, and natriuresis. Ferrario CM, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1716–22 (73 ref.)
Angiotensin II and long-term arterial pressure regulation: the overriding dominance of the kidney. Hall JE, et al. **J Am Soc Nephrol** 1999 Apr;10 Suppl 12:S258–65 (33 ref.)
Impact of hyperglycemia on the renin angiotensin system in early human type 1 diabetes mellitus. Miller JA. **J Am Soc Nephrol** 1999 Aug;10(8):1778–85
Renin-angiotensin system dependence of renal hemodynamics in mice. Traynor TR, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S184–8
Homeostasis in mice with genetically decreased angiotensinogen is primarily by an increased number of renin-producing cells. Kim HS, et al. **J Biol Chem** 1999 May 14;274(20):14210–7
A role for the renin-angiotensin system in the evolution of cardiac memory. Ricard P, et al. **J Cardiovasc Electrophysiol** 1999 Apr;10(4):545–51
The renin-angiotensin system and its receptors. Stroth U, et al. **J Cardiovasc Pharmacol** 1999;33 Suppl 1:S21–8; discussion S41–3 (115 ref.)
Endogenous angiotensin II and bradykinin delay and attenuate the hypotension after N-type calcium channel blockade in conscious rabbits. Whorlow SL, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):951–61
Human adipose tissue expresses angiotensinogen and enzymes required for its conversion to angiotensin II. Karlsson C, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3925–9
Reduced angiotensinogen expression attenuates renal interstitial fibrosis in obstructive nephropathy in mice. Fern RJ, et al. **J Clin Invest** 1999 Jan;103(1):39–46
Role of cGMP-kinase II in the control of renin secretion and renin expression. Wagner C, et al. **J Clin Invest** 1998 Oct 15;102(8):1576–82
Local renin-angiotensin system contributes to hyperthyroidism-induced cardiac hypertrophy. Kobori H, et al. **J Endocrinol** 1999 Jan;160(1):43–7
Expression and localization of the renin-angiotensin system in the rat pancreas. Leung PS, et al. **J Endocrinol** 1999 Jan;160(1):13–9
The tissue renin-angiotensin system in human pancreas. Tahmasebi M, et al. **J Endocrinol** 1999 May;161(2):317–22
Calcium modulation of the renin-aldosterone axis. Porter L, et al. **J Endocrinol Invest** 1999 Feb;22(2):115–21
Renin-angiotensin system in elasmobranch fish: A review. Hazon N, et al. **J Exp Zool** 1999 Oct 1;284(5):526–34 (72 ref.)
Effects of transplantation on the renin angiotensin system (RAS). Farge D, et al. **J Hum Hypertens** 1998 Dec; 12(12):827–32 (47 ref.)
Short-term modulation of the renin–angiotensin system does not alter plasma adrenomedullin concentration in humans. Kita T, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):2057–62
Upregulation of renin–angiotensin system during differentiation of monocytes to macrophages. Okamura A, et al. **J Hypertens** 1999 Apr;17(4):537–45
Renin–angiotensin system, hypertrophy and gene expression in cardiac myocytes. Lijnen P, et al. **J Mol Cell Cardiol** 1999 May;31(5):949–70 (156 ref.)
Buffering of blood pressure variability by the renin–angiotensin system in the conscious dog. Just A, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):583–93
Role of the renin-angiotensin system in disorders of the urinary tract. Brock JW 3rd, et al. **J Urol** 1998 Nov; 160(5):1812–9 (85 ref.)
Short-term and long-term inhibition of endogenous atrial natriuretic peptide in dogs with early-stage heart failure. Fukai D, et al. **Jpn Circ J** 1998 Aug;62(8):604–10
Inhibitory effects of a subdepressor dose of L-158,809, an angiotensin II type 1 receptor antagonist, on cardiac hypertrophy and nephropathy via the activated human renin–angiotensin system in double transgenic mice with hypertension. Kai T, et al. **Jpn Circ J** 1998 Aug; 62(8):599–603
Differential actions of angiotensin-(1-7) in the kidney. Chappell MC, et al. **Kidney Int Suppl** 1998 Dec;68:S3–6 (26 ref.)
Control of the renal renin system by local factors. Wagner C, et al. **Kidney Int Suppl** 1998 Sep;67:S78–83 (61 ref.)
Renin–angiotensin–aldosterone system in primary hyperparathyroidism before and after surgery. Bernini G, et al. **Metabolism** 1999 Mar;48(3):298–300
Antagonism of the renin–angiotensin–aldosterone system and collagen metabolism in cardiac fibroblasts. Lijnen P, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):215–27 (134 ref.)
Physiologic actions and molecular expression of the renin–angiotensin system in the diabetic rat. Anderson S. **Miner Electrolyte Metab** 1998;24(6):406–11 (45 ref.)
Renin–angiotensin–aldosterone–kinin system influences on diabetic vascular disease and cardiomyopathy. Flack JM, et al. **Miner Electrolyte Metab** 1998;24(6):412–22 (106 ref.)
The renin–angiotensin system in diabetic nephropathy: the endothelial connection. Rabelink TJ, et al. **Miner Electrolyte Metab** 1998;24(6):381–8 (123 ref.)
Impact of salt intake on blood pressure and proteinuria in diabetes: importance of the renin–angiotensin system. Weir MR. **Miner Electrolyte Metab** 1998;24(6):438–45 (56 ref.)
Interaction of the renal amylin and renin–angiotensin systems in animal models of diabetes and hypertension. Wookey PJ, et al. **Miner Electrolyte Metab** 1998;24(6):389–99 (113 ref.)
Effects of mineralocorticoid receptor gene disruption on the components of the renin–angiotensin system in 8-day-old mice. Hubert C, et al. **Mol Endocrinol** 1999 Feb; 13(2):297–306
Design of angiotensin converting enzyme inhibitors. Cushman DW, et al. **Nat Med** 1999 Oct;5(10):1110–3
The relative roles of circulating and tissue renin–angiotensin systems [editorial] Ardaillou R, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):283–6 (31 ref.)
Interaction of the autonomic nervous and the renin–angiotensin system in heart and kidney. Rump LC, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:38–9
Brain renin angiotensin system (RAS) in stress-induced analgesia and impaired retention. Raghavendra V, et al. **Peptides** 1999;20(3):335–42
Plasma catecholamines and renin activity in wrestlers following vigorous swimming. Vigaś M, et al. **Physiol Res** 1998;47(3):191–5
The localization and expression of the renin–angiotensin system in the human placenta throughout pregnancy. Cooper AC, et al. **Placenta** 1999 Jul–Aug;20(5–6):467–74
Angiotensin and aldosterone. Lumbers ER. **Regul Pept** 1999 Apr 30;80(3):91–100 (48 ref.)
[Combined blockade of the renin–angiotensin system] Azizi M, et al. **Arch Mal Coeur Vaiss** 1999 Jun;92(6):735–9 (Eng. Abstr.) **(Fre)**
[Are the antagonists of angiotensin II AT1 receptors protectors of the kidney?] Deray G. **Arch Mal Coeur Vaiss** 1999 Jul;92(7):903–7 (26 ref.) (Eng. Abstr.) **(Fre)**
[Physiopathology of the renin–angiotensin system in the kidney. Proceedings of a meeting. Le Coudray Montceaux, 27–28 March 1998] **Nephrologie** 1998;19(7):375–462 **(Fre)**
[Interactions between the renin–angiotensin system, nitric oxide and endothelin] Dussaule JC, et al. **Nephrologie** 1998; 19(7):437–41 (51 ref.) (Eng. Abstr.) **(Fre)**
[The "Dieter Klaus Price for Hypertension Research 199". Central angiotensin II is important for blood pressure regulation] Böhm M, et al. **Fortschr Med** 1999 Mar 20; 117(8):47–8 **(Ger)**
[Pathophysiology of the renin–angiotensin system] Noda K, et al. **Nippon Rinsho** 1999 May;57(5):1009–14 (22 ref.) (Eng. Abstr.) **(Jpn)**
[Renin–angiotensin–aldosterone system in the reproductive system] Tanaka M, et al. **Nippon Rinsho** 1999 May; 57(5):1060–4 (20 ref.) (Eng. Abstr.) **(Jpn)**
[Vascular endothelial cells and renin–angiotensin system] Rakugi H, et al. **Rinsho Byori** 1998 Nov;46(11):1135–41 (27 ref.) (Eng. Abstr.) **(Jpn)**
[Renal renin–angiotensin system in homeostatic water–electrolyte regulation] Lis GJ. **Przegl Lek** 1999; 56(2):164–8 (30 ref.) (Eng. Abstr.) **(Pol)**
[Relations between blood insulin concentration, renin–angiotensin–aldosterone system and clinical picture of hypertension] Didenko VA, et al. **Ter Arkh** 1999; 71(1):26–31 (Eng. Abstr.) **(Rus)**
[Role of renin–angiotensin–aldosterone system in pathogenesis of arterial hypertension in chronic renal failure] Lifshits NL, et al. **Ter Arkh** 1999;71(6):64–7 (Eng. Abstr.) **(Rus)**
[Content of components of the renin–angiotensin–aldosterone system of blood plasma of healthy children in the early neonatal period] Voloshin AN, et al. **Ukr Biokhim Zh** 1998 Jul–Aug;70(4):84–8 (Eng. Abstr.) **(Rus)**

RENIN-SUBSTRATE see **ANGIOTENSINOGEN**

RENNIN see **CHYMOSIN**

RENOGRAPHY see **RADIOISOTOPE RENOGRAPHY**

REOPERATION

Accuracy of AJCC staging for breast cancer patients undergoing re-excision for positive margins. American Joint Committee on Cancer. Brenin DR, et al. **Ann Surg Oncol** 1998 Dec;5(8):719–23
Second-look endoscopic sinus surgery [letter; comment] Ramadan HH. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1389. Comment on: Arch Otolaryngol Head Neck Surg 1998 Apr;124(4):425–8.
Retransplantation and the "noncompliant" patient. Seiden DJ, et al. **Camb Q Healthc Ethics** 1999 Summer;8(3):375–81
Revision tibiotalocalcaneal arthrodesis after a failed intramedullary rod: a technique tip. Mudgal CS, et al. **Foot Ankle Int** 1999 Mar;20(3):210–1
A model to predict survival following liver retransplantation. Rosen HR, et al. **Hepatology** 1999 Feb;29(2):365–70
Complications requiring reoperation following pancreatectomy. Cunningham JD, et al. **Int J Pancreatol** 1998 Aug;24(1):23–9
Immediate reoperation for perioperative stroke after 2250 carotid endarterectomies: differences between intraoperative and early postoperative stroke. Radak D, et al. **J Vasc Surg** 1999 Aug;30(2):245–51
Extra-anatomical bypass with EPTFE graft for residual pulmonary artery stenosis in Tetralogy of Fallot. Yamashita C, et al. **Kobe J Med Sci** 1998 Dec;44(5–6):265–70
Prevention of epidural fibrosis in a prospective series of 100 primary lumbo-sacral discectomy patients: follow-up and assessment at re-operation. Brotchi J, et al. **Neurol Res** 1999;21 Suppl 1:S47–50
Inhibition of epidural fibrosis with ADCON-L: effect on clinical outcome one year following re-operation for recurrent lumbar radiculopathy. Porchet F, et al. **Neurol Res** 1999;21 Suppl 1:S51–60
Late orthotopic liver retransplant: indications and survival. Liver Transplant Spanish Group. Clemente G, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):511–4
Influence of renal function upon the outcome of liver retransplanted patients: results of a multivariate analysis. Parés D, et al. **Transplant Proc** 1999 Sep;31(6):2485–6
Impact of donor liver microvesicular steatosis on the outcome of liver retransplantation. Yoong KF, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):550–1
[Causes of need for reoperation following surgery for varicose veins in Denmark (see comments)] Kofoed SC, et al. **Ugeskr Laeger** 1999 Feb 8;161(6):779–83 (Eng. Abstr.) . Comment in: Ugeskr Laeger 1999 May 3;161(18):2688–9. Comment in: Ugeskr Laeger 1999 Jun 7;161(23):3478–9. **(Dan)**
[Study and analysis of a population of multi-operated strabismus] Paris V. **Bull Soc Belge Ophtalmol** 1998; 268:173–8 (Eng. Abstr.) **(Fre)**
[Reoperation for recurrent cholangitis due to a defect in the hepatico–jejunal anastomosis] Meziat–Burdin A, et al. **Gastroenterol Clin Biol** 1999 Apr;23(4):518–22 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Removal of orthopedic implants in children: morbidity and postoperative radiologic changes. Lovell ME, et al. **J Pediatr Orthop B** 1999 Apr;8(2):144–6
[Possibilities of avoiding an intra-femoral increase in pressure during hip revision surgery] Porsch M, et al. **Biomed Tech (Berl)** 1999 May;44(5):142–5 (Eng. Abstr.) **(Ger)**

ECONOMICS

The economics of preventing revisions in total hip replacement. Persson U, et al. **Acta Orthop Scand** 1999 Apr; 70(2):163–9

METHODS

Acetabular revision with allograft bone. 103 revisions with 3 reconstruction alternatives, followed for 0.3–13 years. Böhm P, et al. **Acta Orthop Scand** 1999 Jun;70(3):240–9
Talcum powder in revision surgery for olecranon bursitis. Good outcome in 11 patients. Goldwirth M, et al. **Acta Orthop Scand** 1999 Jun;70(3):286–7
Revision of unicompartmental knee arthroplasty: outcome in 1,135 cases from the Swedish Knee Arthroplasty study. Lewold S, et al. **Acta Orthop Scand** 1998 Oct;69(5):469–74
Cemented modular intramedullary nail in failed knee arthroplasty--a report of 2 cases. Sundgren K. **Acta Orthop Scand** 1999 Jun;70(3):305–7
Management of late extrusions of cochlear implants. Parkins CW, et al. **Am J Otol** 1998 Nov;19(6):768–73
Treatment of periprosthetic fractures in association with total hip arthroplasty--a retrospective comparison between revision stem and plate fixation. Jukkala-Partio K, et al. **Ann Chir Gynaecol** 1998;87(3):229–35
Femoral bone reconstruction in revision total hip replacement. Kligman M, et al. **Bull Hosp Jt Dis** 1998; 57(3):136–8
Extension to the sacrum of previous adolescent scoliosis fusions in adult life. Kostuik JP, et al. **Clin Orthop** 1999 Jul;(364):53–60
Parallel twin blade technique for scar revision. Kumar N, et al. **Injury** 1999 Apr;30(3):224–5
Surgical treatment of recurrent trigeminal neuralgia. Schmieder K, et al. **Minim Invasive Neurosurg** 1999 Mar; 42(1):47–50
Treatment of symptomatic glenoid loosening following unconstrained shoulder arthroplasty. Hawkins RJ, et al. **Orthopedics** 1999 Feb;22(2):229–34
Revision total hip arthroplasty in patients with avascular necrosis. Wei SY, et al. **Orthopedics** 1999 Aug;22(8):747–57

REOPERATION

Surgical modification of the difficult mastoid cavity. Dornhoffer JL. **Otolaryngol Head Neck Surg** 1999 Mar; 120(3):361–7

[Role of Cahuzac's operation in clubfoot varus equina revision surgery] Laville JM, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Nov; 84(7):638–45 (Eng. Abstr.) **(Fre)**

[Possibilities of avoiding an intra-femoral increase in pressure during hip revision surgery] Porsch M, et al. **Biomed Tech (Berl)** 1999 May;44(5):142–5 (Eng. Abstr.) **(Ger)**

MORTALITY

A simple model to estimate survival after retransplantation of the liver. Markmann JF, et al. **Transplantation** 1999 Feb 15;67(3):422–30

STATISTICS & NUMERICAL DATA

Revision of unicompartmental knee arthroplasty: outcome in 1,135 cases from the Swedish Knee Arthroplasty study. Lewold S, et al. **Acta Orthop Scand** 1998 Oct;69(5):469–74

Methods of repair and risk for reoperation in Swedish hernia surgery from 1992 to 1996. Nilsson E, et al. **Br J Surg** 1998 Dec;85(12):1686–91

UK National Transplant Database retransplantation in the UK and Republic of Ireland, 1987–1996. UKTSSA National Transplant Database. **Clin Transpl** 1997;:81–6

Examples of studies performed within Swedvasc. Troëng T. **Eur J Surg Suppl** 1998;(581):33–6

PTCA of degenerated vein grafts: experience of two periods (1992–93 and 1996–97) in 780 patients. Reifart N, et al. **Indian Heart J** 1998 Oct;50 Suppl 1:62–6

Pulmonary retransplantation. Novick RJ, et al. **Semin Thorac Cardiovasc Surg** 1998 Jul;10(3):227–36

Liver retransplantation. Kumar N, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):541–2

UTILIZATION

Rates of revision knee replacement in Ontario, Canada. Coyte PC, et al. **J Bone Joint Surg Am** 1999 Jun;81(6):773–82

REOVIRIDAE

[Cytoplasmic polyhedrosis virus and polyhedrin] Mori H, et al. **Uirusu** 1998 Jun;48(1):81–8 (42 ref.) **(Jpn)**

CHEMISTRY

A low-resolution structure of rice dwarf virus determined by ab initio phasing. Naitow H, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):77–84

The 42K protein of rice dwarf virus is a post-translational cleavage product of the 46K outer capsid protein. Mao ZJ, et al. **Arch Virol** 1998;143(9):1831–8

In vivo and in vitro phosphorylation of rice dwarf phytoreovirus Pns12 cytoplasmic nonstructural protein. Suzuki N, et al. **Arch Virol** 1999;144(7):1371–80

The C-terminal region of the P3 structural protein of rice dwarf phytoreovirus is important for P3–P3 interaction. Uyeda S, et al. **Arch Virol** 1999;144(8):1653–7

Two concentric protein shell structure with spikes of silkworm Bombyx mori cytoplasmic polyhedrosis virus revealed by small-angle neutron scattering using the contrast variation method. Tomita M, et al. **J Biochem (Tokyo)** 1999 May;125(5):916–22

Computational sequence analysis of mammalian reovirus proteins. Bisaillon M, et al. **Virus Genes** 1999;18(1):13–37

CLASSIFICATION

Identification of grass carp haemorrhage virus as a new genogroup of aquareovirus. Rangel AA, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2399–402

GENETICS

A comparison of six cypovirus isolates by cross-hybridisation of their dsRNA genome segments. Mertens PP, et al. **Arch Virol** 1999;144(3):561–76

Rice ragged stunt oryzavirus genome segment S4 could encode an RNA dependent RNA polymerase and a second protein of unknown function. Upadhyaya NM, et al. **Arch Virol** 1998;143(9):1815–22

Molecular characterization and expression of the S3 gene of muscovy duck reovirus strain 89026. Le Gall-Reculé G, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):195–203

Molecular characterization of Fiji disease fijivirus genome segment 9. Soo HM, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3155–61

Reovirus type 3 clone 9 increases interleukin-1alpha level in the brain of neonatal, but not adult, mice. Derrien M, et al. **Virology** 1999 Apr 25;257(1):35–44

Computational sequence analysis of mammalian reovirus proteins. Bisaillon M, et al. **Virus Genes** 1999;18(1):13–37

GROWTH & DEVELOPMENT

Lipofectin increases the specific activity of cypovirus particles for cultured insect cells. Hill CL, et al. **J Virol Methods** 1999 Mar;78(1–2):177–89

ISOLATION & PURIFICATION

Reovirus serology in broiler parents and their progeny and its correlation with performance. De Herdt P, et al. **Avian Dis** 1999 Apr–Jun;43(2):271–8

Preliminary characterization of a reovirus isolated from golden ide Leuciscus idus melanotus. Neukirch M, et al. **Dis Aquat Organ** 1999 Feb 26;35(3):159–64

Reovirus isolation and RNA extraction. Uyeda I, et al. **Methods Mol Biol** 1998;81:65–75

PATHOGENICITY

Characterization of two avian reoviruses that exhibit strain-specific quantitative differences in their syncytium-inducing and pathogenic capabilities. Duncan R, et al. **Virology** 1998 Oct 25;250(2):263–72

No role for pepstatin-A-sensitive acidic proteinases in reovirus infections of L or MDCK cells. Kothandaraman S, et al. **Virology** 1998 Nov 25;251(2):264–72

PHYSIOLOGY

In vitro recoating of reovirus cores with baculovirus-expressed outer-capsid proteins mu1 and sigma3. Chandran K, et al. **J Virol** 1999 May;73(5):3941–50

Reovirus-induced apoptosis is preceded by increased cellular calpain activity and is blocked by calpain inhibitors. Debiasi RL, et al. **J Virol** 1999 Jan;73(1):695–701

The reovirus mutant tsA279 L2 gene is associated with generation of a spikeless core particle: implications for capsid assembly. Hazelton PR, et al. **J Virol** 1999 Mar; 73(3):2298–308

Reovirus virion-like particles obtained by recoating infectious subvirion particles with baculovirus-expressed sigma3 protein: an approach for analyzing sigma3 functions during virus entry. Jané-Valbuena J, et al. **J Virol** 1999 Apr;73(4):2963–73

The P2 protein of rice dwarf phytoreovirus is required for adsorption of the virus to cells of the insect vector. Omura T, et al. **J Virol** 1998 Nov;72(11):9370–3

Absence of superinfection exclusion during asynchronous reovirus infections of mouse, monkey, and human cell lines. Keirstead ND, et al. **Virus Res** 1998 Apr;54(2):225–35

ULTRASTRUCTURE

A low-resolution structure of rice dwarf virus determined by ab initio phasing. Naitow H, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):77–84

Structure of double-shelled rice dwarf virus. Lu G, et al. **J Virol** 1998 Nov;72(11):8541–9

Visualization of protein-RNA interactions in cytoplasmic polyhedrosis virus. Zhang H, et al. **J Virol** 1999 Feb; 73(2):1624–9

The structure of a cypovirus and the functional organization of dsRNA viruses. Hill CL, et al. **Nat Struct Biol** 1999 Jun;6(6):565–8

REOVIRIDAE INFECTIONS

COMPLICATIONS

Immunologic and histologic observations in reovirus-induced otitis media in the mouse. Meek RB 3rd, et al. **Ann Otol Rhinol Laryngol** 1999 Jan;108(1):31–8

Interferon-gamma plays a role in pancreatic islet-cell destruction of reovirus type 2-induced diabetes-like syndrome in DBA/1 suckling mice. Hayashi T, et al. **Int J Exp Pathol** 1998 Oct;79(5):313–20

ENZYMOLOGY

A glycosyl hydrolase activity of mammalian reovirus sigma1 protein can contribute to viral infection through a mucus layer. Bisaillon M, et al. **J Mol Biol** 1999 Feb 26; 286(3):759–73

IMMUNOLOGY

Immunologic and histologic observations in reovirus-induced otitis media in the mouse. Meek RB 3rd, et al. **Ann Otol Rhinol Laryngol** 1999 Jan;108(1):31–8

METABOLISM

Reovirus type 3 clone 9 increases interleukin-1alpha level in the brain of neonatal, but not adult, mice. Derrien M, et al. **Virology** 1999 Apr 25;257(1):35–44

PREVENTION & CONTROL

Optimal induction of upper respiratory tract immunity to reovirus 1/L by combined upper and lower respiratory tract inoculation. Thompson AH, et al. **Vaccine** 1999 Mar 17;17(11–12):1404–15

VETERINARY

Experimental infection of calves with epizootic hemorrhagic disease virus. Abdy MJ, et al. **Am J Vet Res** 1999 May; 60(5):621–6

Kangaroo blindness and some other new viral diseases in Australia [comment] Hooper P. **Aust Vet J** 1999 Aug; 77(8):514–5. Comment on: Aust Vet J 1999 Aug;77(8):522–8. Comment on: Aust Vet J 1999 Aug;77(8):529–36.

Epidemic of blindness in kangaroos--evidence of a viral aetiology [see comments] Hooper PT, et al. **Aust Vet J** 1999 Aug;77(8):529–36. Comment in: Aust Vet J 1999 Aug;77(8):514–5.

Experimental reproduction of viral chorioretinitis in kangaroos [see comments] Reddacliff L, et al. **Aust Vet J** 1999 Aug;77(8):522–8. Comment in: Aust Vet J 1999 Aug;77(8):514–5.

Reovirus serology in broiler parents and their progeny and its correlation with performance. De Herdt P, et al. **Avian Dis** 1999 Apr–Jun;43(2):271–8

Preliminary characterization of a reovirus isolated from golden ide Leuciscus idus melanotus. Neukirch M, et al. **Dis Aquat Organ** 1999 Feb 26;35(3):159–64

Preliminary description of a polymerase chain reaction test for bluetongue and epizootic hemorrhagic disease viral RNA in bovine semen. Wilson WC. **J Vet Diagn Invest** 1999 Jul;11(4):377–9

Detection of avian reovirus RNA and comparison of a portion of genome segment S3 by polymerase chain reaction and restriction enzyme fragment length polymorphism. Lee LH, et al. **Res Vet Sci** 1998 Jul–Aug; 65(1):11–5

VIROLOGY

Role of interleukin-2 in pancreatic islet-cell destruction in reovirus type 2-infected DBA/1 suckling mice. Hayashi T, et al. **J Comp Pathol** 1999 Apr;120(3):313–20

Reovirus virion-like particles obtained by recoating infectious subvirion particles with baculovirus-expressed sigma3 protein: an approach for analyzing sigma3 functions during virus entry. Jané-Valbuena J, et al. **J Virol** 1999 Apr;73(4):2963–73

REOVIRUS INFECTIONS see **REOVIRIDAE INFECTIONS**

REOVIRUS 1 see **ORTHOREOVIRUS**

REOVIRUS 2 see **ORTHOREOVIRUS**

REOVIRUS 3

GENETICS

Reovirus growth in cell culture does not require the full complement of viral proteins: identification of a sigma1s-null mutant. Rodgers SE, et al. **J Virol** 1998 Nov; 72(11):8597–604

Mammalian reovirus L3 gene sequences and evidence for a distinct amino-terminal region of the lambda1 protein. Harrison SJ, et al. **Virology** 1999 May 25;258(1):54–64

GROWTH & DEVELOPMENT

Reovirus growth in cell culture does not require the full complement of viral proteins: identification of a sigma1s-null mutant. Rodgers SE, et al. **J Virol** 1998 Nov; 72(11):8597–604

PHYSIOLOGY

Production of reovirus type-1 and type-3 from Vero cells grown on solid and macroporous microcarriers. Berry JM, et al. **Biotechnol Bioeng** 1999 Jan 5;62(1):12–9

Reovirus therapy of tumors with activated Ras pathway [see comments] Coffey MC, et al. **Science** 1998 Nov 13; 282(5392):1332–4. Comment in: Science 1998 Nov 13;282(5392):1244–6.

REOVIRUSES, AQUATIC see **REOVIRIDAE**

REPEAT CESAREAN SECTION see **CESAREAN SECTION, REPEAT**

REPERFUSION

Effect of ischemia-reperfusion on xanthine oxidase activity in fetal rat brain capillaries. Wakatsuki A, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):731–5

Hepatic ischemia/reperfusion in rats induces iNOS gene transcription by activation of NF-kappaB. Hur GM, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):917–22

Effect of graft reperfusion on haemodynamics and gas exchange during liver transplantation. Walsh TS, et al. **Br J Anaesth** 1998 Sep;81(3):311–6

Changes in IP3R1 and SERCA2b mRNA levels in the gerbil brain after chronic ethanol administration and transient cerebral ischemia-reperfusion. Xia J, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):22–8

Effect of alpha-tocopherol pretreatment on high energy metabolites in rabbit skeletal muscle after ischemia-reperfusion. Punz A, et al. **Clin Nutr** 1998 Apr; 17(2):85–7

Diving seals, ischemia-reperfusion and oxygen radicals. Elsner R, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Apr; 119(4):975–80

Ischaemia and reperfusion during open abdominal aortic aneurysm surgery induce extensive thrombin generation and activity. Holmberg A, et al. **Eur J Vasc Endovasc Surg** 1999 Jul;18(1):11–6

Tissue at risk of infarction rescued by early reperfusion: a positron emission tomography study in systemic recombinant tissue plasminogen activator thrombolysis of acute stroke. Heiss WD, et al.
J Cereb Blood Flow Metab 1998 Dec;18(12):1298–307

Postischemic enhancements of N-methyl-D-aspartic acid (NMDA) and non-NMDA receptor-mediated responses in hippocampal CA1 pyramidal neurons. Mitani A, et al.
J Cereb Blood Flow Metab 1998 Oct;18(10):1088–98

Early postischemic dantrolene-induced amelioration of poly(ADP-ribose) polymerase-related bioenergetic failure in neonatal rat brain slices. Tasker RC, et al.
J Cereb Blood Flow Metab 1998 Dec;18(12):1346–56

Reperfusion-induced oxidative stress in diabetes: cellular and enzymatic sources. Salas A, et al. **J Leukoc Biol** 1999 Jul; 66(1):59–66

Regional perfusion of the brain during neonatal aortic arch reconstruction. Pigula FA, et al.
J Thorac Cardiovasc Surg 1999 May;117(5):1023–4

Activation of cPLA2, PKC, and ERKs in the rat cerebral cortex during ischemia/reperfusion. Saluja I, et al.
Neurochem Res 1999 May;24(5):669–77

Increased intracellular Ca2+ concentration in the hippocampal CA1 area during global ischemia and reperfusion in the rat: a possible cause of delayed neuronal death. Nakamura T, et al. **Neuroscience** 1999 Jan; 88(1):57–67

Role of nitric oxide during the initial phase of reperfusion after retinal ischemia in the rat. Hangai M, et al.
Ophthalmic Res 1999;31(1):16–23

Leucocyte filtration during cardiopulmonary reperfusion in coronary artery bypass surgery. Baksaas ST, et al.
Perfusion 1999 Mar;14(2):107–17

Retrograde cerebral perfusion: clinical and experimental aspects. Wong CH, et al. **Perfusion** 1999 Jul;14(4):247–56 (82 ref.)

Decompressive craniectomy, reperfusion, or a combination for early treatment of acute "malignant" cerebral hemispheric stroke in rats? Potential mechanisms studied by MRI. Engelhorn T, et al. **Stroke** 1999 Jul;30(7):1456–63

Matrix metalloproteinases and TIMPs are associated with blood-brain barrier opening after reperfusion in rat brain. Rosenberg GA, et al. **Stroke** 1998 Oct;29(10):2189–95

Lipid peroxidation after cold storage and normothermic reperfusion: the effect of trimetazidine. Hauet T, et al.
Transpl Int 1998;11 Suppl 1:S408–9

Changes in serum potassium during reperfusion in liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep; 31(6):2382–3

Effect of reperfusion on right ventriculoarterial coupling in liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep;31(6):2384–5

Free jejunal graft autotransplantation should be revascularized within 3 hours. Hikida S, et al.
Transplant Proc 1998 Nov;30(7):3446–8

Improvement of post-reperfusional energy status by supplement of lipid emulsion in liver transplantation. Ishikawa T, et al. **Transplant Proc** 1998 Nov;30(7):3696

Effect of treatment with tranexamic acid on complement activation and ischemia reperfusion in liver transplantation in pigs. Nwose PE, et al. **Transplant Proc** 1999 Sep; 31(6):2431–2

Role of UW solution and sodium nitroprusside in reperfusion of liver xenografts from guinea-pig to rat. Miki T, et al.
Xenotransplantation 1999 May;6(2):117–22

ADVERSE EFFECTS

Rapid reperfusion causes stress failure in ischemic rat lungs. Pierre AF, et al. **J Thorac Cardiovasc Surg** 1998 Dec; 116(6):932–42

Retrograde cerebral perfusion: experimental approach to brain oedema. Oshikiri N, et al. **Perfusion** 1999 Jul; 14(4):257–62

The influence of intestinal ischemia and reperfusion on bidirectional intestinal barrier permeability, cellular membrane integrity, proteinase inhibitors, and cell death in rats. Sun Z, et al. **Shock** 1998 Sep;10(3):203–12

Impairment of pancreatic microcirculation in the early reperfusion period during simultaneous pancreas-kidney transplantation. Benz S, et al. **Transpl Int** 1998;11 Suppl 1:S433–5

METHODS

Controlled perfusion protects lung grafts during a transient early increase in permeability [letter; comment] Rooney SJ, et al. **Ann Thorac Surg** 1998 Dec;66(6):2155. Comment on: Ann Thorac Surg 1998 Jan;65(1):187–92.

Prevention of ischemic damage using controlled limb reperfusion. Allen BS, et al. **J Card Surg** 1998 May; 13(3):224–7

Intermittent reperfusion fails to prevent posttourniquet neurapraxia. Mohler LR, et al. **J Hand Surg [Am]** 1999 Jul;24(4):687–93

Ischemic preconditioning versus intermittent reperfusion to improve blood flow to a vascular isolated skeletal muscle flap of rats. Wang WZ, et al. **J Trauma** 1998 Nov; 45(5):953–9

Strategy for prevention of myonephropathic metabolic syndrome (MNMS): comparison of cooling and perfusion. Oue H, et al. **Kobe J Med Sci** 1999 Feb;45(1):13–25

Continuous assessment of perfusion by tagging including volume and water extraction (CAPTIVE): a steady-state contrast agent technique for measuring blood flow, relative blood volume fraction, and the water extraction fraction. Zaharchuk G, et al. **Magn Reson Med** 1998 Nov; 40(5):666–78

Evaluation of purine nucleoside phosphorylase in rinsing effluent of porcine liver grafts before reperfusion. Mehrabi A, et al. **Transplant Proc** 1998 Nov;30(7):3711–3

Protective effects of lidocaine in hepatic ischemia/reperfusion injury in vitro. Tomori H, et al.
Transplant Proc 1998 Nov;30(7):3740–2

[Controlled reperfusion of ischemic extremity musculature to prevent free radical induced lesions] Luther B, et al.
Zentralbl Chir 1999;124(4):336–43 (Eng. Abstr.) **(Ger)**

[Gradual postischemic reoxygenation as protection against spinal cord ischemia in an experiment] Radoňak J, et al.
Rozhl Chir 1999 Mar;78(3):105–8 (Eng. Abstr.) **(Slo)**

[Biphasic graft preservation for lung transplantation] Gámez García P, et al. **Arch Bronconeumol** 1998 Oct;34(9):417–20 (Eng. Abstr.) **(Spa)**

REPERFUSION INJURY

Ischaemia-reperfusion injury of the liver: treatment in theory and in practice. Tredger JM. **Biofactors** 1998;8(1-2):161–4 (25 ref.)

Early postischemic hyperperfusion: pathophysiologic insights from positron emission tomography. Marchal G, et al.
J Cereb Blood Flow Metab 1999 May;19(5):467–82 (93 ref.)

Ruptured abdominal aortic aneurysm, a "two-hit" ischemia/reperfusion injury: evidence from an analysis of oxidative products. Lindsay TF, et al. **J Vasc Surg** 1999 Aug;30(2):219–28

Alteration of phosphoinositide degradation by cytosolic and membrane-bound phospholipases after forebrain ischemia-reperfusion in gerbil: effects of amyloid beta peptide. Strosznajder J, et al. **Neurochem Res** 1999 Oct; 24(10):1277–84

The effect of reperfusion on neuroprotection using an inhibitor of poly(ADP-ribose) polymerase. Takahashi K, et al. **Neuroreport** 1999 Jul 13;10(10):2017–22

Exocrine, but not endocrine, tissue is susceptible to microvascular ischemia/reperfusion injury following pancreas transplantation in the rat. Vollmar B, et al.
Transpl Int 1999;12(1):50–5

Preservation injury to the small bowel allograft: jejunum vs ileum. Chan KL, et al. **Transplant Proc** 1998 Nov; 30(7):3452–4

Postischemic reperfusion injury and allograft arteriosclerosis. Fellström B, et al. **Transplant Proc** 1998 Dec;30(8):4278–80 (36 ref.)

Why is a liver with steatosis susceptible to cold ischemic injury? Fukumori T, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):548–9

Mitochondrial defect in endothelial cold ischemia/reperfusion injury. Gnaiger E, et al.
Transplant Proc 1999 Feb-Mar;31(1-2):994–5

Rewarming injury of the graft liver in orthotopic liver transplantation. Hayashi M, et al. **Transplant Proc** 1998 Nov;30(7):3692–3

Correlation between nitric oxide and endothelin after prolonged warm ischemia-reperfusion injury in pig livers. Isobe M, et al. **Transplant Proc** 1998 Nov;30(7):3750–3

The nature of ischemia/reperfusion injury. Massberg S, et al. **Transplant Proc** 1998 Dec;30(8):4217–23 (82 ref.)

Effects of leukocyte depleted blood on renal reperfusion injury in a porcine model. Nunley DC, et al.
Transplant Proc 1999 Feb-Mar;31(1-2):1051

Delayed kidney function risk score: donor factors versus ischemia/reperfusion injury. Rowinski W, et al.
Transplant Proc 1999 Aug;31(5):2077–8

Does H2O2-mediated oxidative stress reproduce mitochondrial cold preservation/reoxygenation injury in endothelial cells? Stadlmann S, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):993

Ischemia reperfusion injury and chronic allograft rejection. Szabo A, et al. **Transplant Proc** 1998 Dec;30(8):4281–4 (59 ref.)

Establishment of a swine model for auxiliary partial orthotopic liver transplantation. Taniguchi H, et al.
Transplant Proc 1998 Nov;30(7):3232–6

Ischemia and reperfusion injury in transplantation. Torras J, et al. **Transplant Proc** 1999 Sep;31(6):2217–8

Contribution of donor age and ischemic injury in chronic renal allograft dysfunction. Tullius SG, et al.
Transplant Proc 1999 Feb-Mar;31(1-2):1298–9

BLOOD

Bradykinin prevents postischemic leukocyte adhesion and emigration and attenuates microvascular barrier disruption. Shigematsu S, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H161–71

Warm blood cardioplegia reduces the fall in the intracellular concentration of taurine in the ischaemic/reperfused heart of patients undergoing aortic valve surgery. Ascione R, et al. **Amino Acids** 1998;15(4):339–50

Blood lipid profile in ischaemia reperfusion injury. Sieunarine K, et al. **Aust N Z J Surg** 1999 Mar;69(3):224–8

Elevated plasma atrial natriuretic peptide levels after occlusion of the thoracic aorta [see comments] Berkenstadt H, et al. **Chest** 1999 Jan;115(1):130–4. Comment in: Chest 1999 Jan;115(1):7–8.

Small bowel ischaemia-reperfusion increases plasma concentrations of oxidised proteins in rats. Abu-Zidan FM, et al. **Eur J Surg** 1999 Apr;165(4):383–9

Liver ischemia modifies the concentration of plasmatic catecholamines after reperfusion in the rat. Zonta F, et al. **Eur Surg Res** 1999;31(3):221–9

Arterial ketone body ratio and adenosine triphosphate concentration in hepatic ischemia and reperfusion. Hanazaki K, et al. **Hepatogastroenterology** 1998 Sep-Oct; 45(23):1816–20

Indocyanine green clearance reflects reperfusion injury following liver transplantation and is an early predictor of graft function. Plevris JN, et al. **J Hepatol** 1999 Jan; 30(1):142–8

IL-6 knock-out mice exhibit resistance to splanchnic artery occlusion shock. Cuzzocrea S, et al. **J Leukoc Biol** 1999 Sep;66(3):471–80

Release of the cerebral protein s-100 into blood after reperfusion during cardiac operations in infants: is there a relation to oxygen radical-induced lipid peroxidation? Abdul-Khaliq H, et al. **J Thorac Cardiovasc Surg** 1999 May; 117(5):1027–8

Serum S-100 protein levels after pediatric cardiac surgery: a possible new marker for postperfusion cerebral injury [letter; comment] Abdul-Khaliq H, et al.
J Thorac Cardiovasc Surg 1999 Apr;117(4):843–4. Comment on: J Thorac Cardiovasc Surg 1998 Aug;116(2):281–5.

Plasma levels of 5-HT and 5-HIAA increased after intestinal ischemia/reperfusion in rats. Teramoto Y, et al.
Jpn J Physiol 1998 Oct;48(5):333–9

Plasma von Willebrand factor and intestinal ischaemia-reperfusion injury in rats. Abu-Zidan FM, et al. **Thromb Res** 1999 Jun 15;94(6):353–8

Plasma redox imbalance during reperfusion and early posttransplantation cholestasis parameters in human liver transplantation. Serrano E, et al. **Transplant Proc** 1999 Sep; 31(6):2378–9

COMPLICATIONS

Reperfusion-induced changes in capillary perfusion and filtration: effects of hypercholesterolemia. Harris NR.
Am J Physiol 1999 Aug;277(2 Pt 2):H669–75

Reperfusion injury delays healing of intestinal anastomosis in a rat. Kuzu MA, et al. **Am J Surg** 1998 Oct;176(4):348–51

The biomechanics of leg ulceration. Chant A.
Ann R Coll Surg Engl 1999 Mar;81(2):80–5

Oxidative damage in fetal rat brain induced by ischemia and subsequent reperfusion. Relation to arachidonic acid peroxidation. Wakatsuki A, et al. **Biol Neonate** 1999 Aug; 76(2):84–91

Intravital laser confocal microscopy of pulmonary edema resulting from intestinal ischemia-reperfusion injury in the rat [see comments] Mitsuoka H, et al. **Crit Care Med** 1999 Sep;27(9):1862–8. Comment in: Crit Care Med 1999 Sep;27(9):2046–7.

Genetic vulnerability of cortical neurons isolated from stroke-prone spontaneously hypertensive rats in hypoxia and oxygen reperfusion. Tagami M, et al.
Hypertens Res 1999 Mar;22(1):23–9

Life-threatening reperfusion injury in skeletal muscle: a simple technique to control critical hyperkalemia. Utoh J, et al. **J Cardiovasc Surg (Torino)** 1998 Oct;39(5):651–4

Physiologic basis of pulmonary edema during intestinal reperfusion. Iglesias JL, et al. **J Surg Res** 1998 Dec; 80(2):156–63

Enhanced pulmonary expression of CXC chemokines during hepatic ischemia/reperfusion-induced lung injury in mice. Yoshidome H, et al. **J Surg Res** 1999 Jan;81(1):33–7

Selective type III phosphodiesterase inhibition prevents elevated compartment pressure after ischemia/reperfusion injury. Hakaim AG, et al. **J Trauma** 1999 May;46(5):869–72

Cardiac arrest caused by reperfusion injury after lumbar paraspinal compartment syndrome. Sava J, et al.
J Trauma 1999 Jan;46(1):196–7

Transplant renal artery stenosis: potential role of ischemia/reperfusion injury and long-term outcome following angioplasty. Halimi JM, et al. **J Urol** 1999 Jan; 161(1):28–32

Horizontal cells of the rat retina are resistant to degenerative processes induced by ischemia-reperfusion. Chun MH, et al. **Neurosci Lett** 1999 Jan 29;260(2):125–8

Inflammatory responses in the cerebral cortex after ischemia in the P7 neonatal Rat. Benjelloun N, et al. **Stroke** 1999 Sep;30(9):1916–23; discussion 1923–4

Postischemic reperfusion injury and allograft dysfunction: is allograft rejection the result of a fateful confusion by the immune system of danger and benefit? Land W.
Transplant Proc 1999 Feb-Mar;31(1-2):332–6 (20 ref.)

DIAGNOSIS

Circulating natriuretic peptides: a biologic marker of tissue injury? [editorial; comment] Rubinstein I, et al. **Chest** 1999 Jan;115(1):7–8. Comment on: Chest 1999 Jan;115(1):130–4.

A novel approach to monitor tissue perfusion: bladder mucosal PCO2, PO2, and pHi during ischemia and reperfusion. Lang JD Jr, et al. **J Crit Care** 1999 Jun; 14(2):93–8

Evaluation of serum uric acid changes in different forms of hepatic vascular inflow occlusion in human liver surgeries. Kogure K, et al. **Life Sci** 1999;64(5):305–13

Serum D-lactate levels as a predictor of intestinal

ischemia-reperfusion injury. Günel E, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):59-61

Reperfusion in a gerbil model of forebrain ischemia using serial magnetic resonance FAIR perfusion imaging. Pell GS, et al. **Stroke** 1999 Jun;30(6):1263-70

Bile endothelin-1 as a sensitive indicator of ischemia reperfusion injury. Miyaguni T, et al. **Transplant Proc** 1998 Nov;30(7):3769-71

DRUG THERAPY

Protective effect of the endothelin antagonist Bosentan against ischemic skeletal muscle necrosis. Hvaal K, et al. **Acta Orthop Scand** 1999 Jun;70(3):293-7

PR-39, a proline/arginine-rich antimicrobial peptide, prevents postischemic microvascular dysfunction. Korthuis RJ, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1007-13

Effects of low-dose Beraprost sodium, a stable prostaglandin I2 analogue, on reperfusion injury to rabbit lungs. Jiang XW, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1669-75

Effects of VEGF administration following ischemia on survival of the gracilis muscle flap in the rat. Kryger Z, et al. **Ann Plast Surg** 1999 Aug;43(2):172-8

Effect of the platelet-activating factor antagonist RP 59227 (Tulopafant) on myocardial ischemia/reperfusion injury and neutrophil function. Auchampach JA, et al. **Basic Res Cardiol** 1998 Oct;93(5):361-71

Influence of the antioxidant quercetin in vivo on the level of nitric oxide determined by electron paramagnetic resonance in rat brain during global ischemia and reperfusion. Shutenko Z, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):199-208

Induced hypertension treatment to improve cerebral ischemic injury after transient forebrain ischemia. Hosomi N, et al. **Brain Res** 1999 Jul 24;835(2):188-96

L-arginine treatment in ischemia/reperfusion injury. Huk I, et al. **Cas Lek Cesk** 1998 Aug 24;137(16):496-9

Effects of nimodipine on acute cerebral ischemia and reperfusion injury of rats. He MX, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):309-10

Tauroursodeoxycholic acid protects cholestasis in rat reperfused livers: its roles in hepatic calcium mobilization. Ono T, et al. **Dig Dis Sci** 1998 Oct;43(10):2201-10

The effect of ATP-MgCl2 on lipid peroxidation in ischemic and reperfused rabbit kidney. Mocan H, et al. **Eur J Pediatr Surg** 1999 Feb;9(1):42-6

Exogenous surfactant improves survival and surfactant function in ischaemia-reperfusion injury in minipigs. Hohlfeld JM, et al. **Eur Respir J** 1999 May;13(5):1037-43

Normothermic liver ischemia and antioxidant treatment during hepatic resections. Cerwenka H, et al. **Free Radic Res** 1999 Jun;30(6):463-9

Oral administration of (-)catechin protects against ischemia-reperfusion-induced neuronal death in the gerbil. Inanami O, et al. **Free Radic Res** 1998 Oct;29(4):359-65

Antioxidant treatment during liver resection for alleviation of ischemia-reperfusion injury. Cerwenka H, et al. **Hepatogastroenterology** 1998 May-Jun;45(21):777-82

The beneficial effect of 2'-deoxycoformycin in renal ischemia-reperfusion is mediated both by preservation of tissue ATP and inhibition of lipid peroxidation. Bor MV, et al. **Int J Clin Lab Res** 1999;29(2):75-9

Inhaled nitric oxide (NO) for the treatment of early allograft failure after lung transplantation. Munich Lung Transplant Group. Kemming GI, et al. **Intensive Care Med** 1998 Nov; 24(11):1173-80

Reduction of myocardial infarct size after ischemia and reperfusion by the glycosaminoglycan pentosan polysulfate. Tanhehco EJ, et al. **J Cardiovasc Pharmacol** 1999 Jul; 34(1):153-61

Blockade of the mitochondrial permeability transition pore diminishes infarct size in the rat after transient middle cerebral artery occlusion. Matsumoto S, et al. **J Cereb Blood Flow Metab** 1999 Jul;19(7):736-41

The role of allopurinol in digital replantation. Waikakul S, et al. **J Hand Surg [Br]** 1999 Jun;24(3):325-7

Treatment of intestinal reperfusion injury using antioxidative agents. Günel E, et al. **J Pediatr Surg** 1998 Oct; 33(10):1536-9

Prostacyclin analogue (OP-2507) attenuates hepatic microcirculatory derangement, energy depletion, and lipid peroxidation in a rat model of reperfusion injury. Chen HM, et al. **J Surg Res** 1998 Dec;80(2):333-8

Improvement of normothermic rat liver ischemia/reperfusion by muramyl dipeptide. Cursio R, et al. **J Surg Res** 1998 Dec;80(2):339-44

Trimetazidine reverses deleterious effects of ischemia-reperfusion in the isolated perfused pig kidney model. Hauet T, et al. **Nephron** 1998 Nov;80(3):296-304

Experimental model of cardiovascular post-resuscitation syndrome--no effect of platelet activating factor antagonism. Gedeborg R, et al. **Resuscitation** 1998 Oct-Nov;39(1-2):115-23

Changes in oxidative stress in the rat brain during post-cardiac arrest reperfusion, and the effect of treatment with the free radical scavenger idebenone. Grieb P, et al. **Resuscitation** 1998 Oct-Nov;39(1-2):107-13

Effects of immunomodulation with interferon-gamma on hepatic ischemia-reperfusion injury. Langdale LA, et al. **Shock** 1999 May;11(5):356-61

Differential effects of heparin on the early and late phases of hepatic ischemia and reperfusion injury in the pig. Liu W, et al. **Shock** 1999 Aug;12(2):134-8

Lisofylline ameliorates intestinal mucosal barrier dysfunction caused by ischemia and ischemia/reperfusion. Wattanasirichaigoon S, et al. **Shock** 1999 Apr;11(4):269-75

Phenylephrine treatment of the postreperfusion syndrome in liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep;31(6):2373-4

Effects of FR167653 on pulmonary ischemia-reperfusion injury: administration timing. Takeyoshi I, et al. **Transplant Proc** 1999 Aug;31(5):1935-6

The nitric oxide donor sodium nitroprusside is protective in ischemia/reperfusion injury of the pancreas. Benz S, et al. **Transplantation** 1998 Oct 27;66(8):994-9

Complement inhibition by soluble complement receptor type 1 improves microcirculation after rat liver transplantation. Lehmann TG, et al. **Transplantation** 1998 Sep 27; 66(6):717-22

Attenuation of microvascular reperfusion injury in rat pancreas transplantation by L-arginine. Vollmar B, et al. **Transplantation** 1999 Apr 15;67(7):950-5

[Experimental studying of the possible pharmacological defense of muscular flap tissues from ischemic and reperfusion injury during its free transplantation] Galich SP, et al. **Klin Khir** 1999;(1):35-8 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Determination of intestinal alpha-glutathione S-transferase after ischemia-reperfusion injury. Braun F, et al. **Acta Gastroenterol Belg** 1999 Apr-Jun;62(2):229-33

Antioxidant role of endogenous coenzyme Q against the ischemia and reperfusion-induced lipid peroxidation in fetal rat brain. Tsukahara Y, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):669-74

Ischemia-reperfusion rapidly increases COX-2 expression in piglet cerebral arteries. Domoki F, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1207-14

Eukaryotic initiation factor 2alpha kinase and phosphatase activity during postischemic brain reperfusion. DeGracia DJ, et al. **Exp Neurol** 1999 Feb;155(2):221-7

Use of brain slices in the study of pathogenic role of inducible nitric oxide synthase in cerebral ischemia-reperfusion. De Alba J, et al. **Gen Pharmacol** 1999 May;32(5):577-81

Roles of constitutive nitric oxide synthase in postischemic rat retina. Hangai M, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):450-8

Apoptotic retinal neuronal death by ischemia-reperfusion is executed by two distinct caspase family proteases. Katai N, et al. **Invest Ophthalmol Vis Sci** 1999 Oct; 40(11):2697-705

Decrease in mucosal alkaline phosphatase: a potential marker of intestinal reperfusion injury. Sisley AC, et al. **J Lab Clin Med** 1999 Apr;133(4):335-41

Serum cytosolic beta-glucosidase elevation and early ischemic injury to guinea pig small intestine. Morris S, et al. **Surgery** 1999 Feb;125(2):202-10

ETIOLOGY

Prolonged continuous or intermittent vascular inflow occlusion during hemihepatectomy in pigs. van Wagensveld BA, et al. **Ann Surg** 1999 Mar;229(3):376-84

Complement activation and regulator expression after anoxic injury of human endothelial cells. Väkevä A, et al. **APMIS** 1998 Dec;106(12):1149-56

Biphasic role for nitric oxide in experimental renal warm ischaemia-reperfusion injury. Weight SC, et al. **Br J Surg** 1999 Aug;86(8):1039-46

Ischemia and reperfusion injury. The ultimate pathophysiologic paradox. Hammerman C, et al. **Clin Perinatol** 1998 Sep;25(3):757-77 (96 ref.)

Inhaled nitric oxide (NO) for the treatment of early allograft failure after lung transplantation. Munich Lung Transplant Group. Kemming GI, et al. **Intensive Care Med** 1998 Nov; 24(11):1173-80

Pathogenesis of ischemia reperfusion injury of the kidney after transient renal arterial clamping in rats. Yu DS, et al. **J Formos Med Assoc** 1998 Sep;97(9):606-13

Endothelin-1 increases susceptibility of isolated rat hearts to ischemia/reperfusion injury by reducing coronary flow. de Groot MC, et al. **J Mol Cell Cardiol** 1998 Dec; 30(12):2657-68

Participation of nitric oxide in the mucosal injury of rat intestine induced by ischemia-reperfusion. Takada K, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):403-7

Review article: the role of tumor necrosis factor in renal ischemia-reperfusion injury. Donnahoo KK, et al. **J Urol** 1999 Jul;162(1):196-203 (96 ref.)

Ischemia-reperfusion: mechanisms of microvascular dysfunction and the influence of risk factors for cardiovascular disease. Granger DN. **Microcirculation** 1999 Sep;6(3):167-78 (63 ref.)

Role of cytokines and cytokine-producing cells in reperfusion injury to the liver. Lichtman SN, et al. **Semin Liver Dis** 1999;19(2):171-87 (244 ref.)

Preventive measures of back muscle injury after posterior lumbar spine surgery in rats. Kawaguchi Y, et al. **Spine** 1998 Nov 1;23(21):2282-7; discussion 2288

Intestinal ischemia-reperfusion injury is mediated by the membrane attack complex. Austen WG Jr, et al. **Surgery** 1999 Aug;126(2):343-8

Involvement of endogenous interleukin-10 and tumor necrosis factor-alpha in renal ischemia-reperfusion injury. Daemen MA, et al. **Transplantation** 1999 Mar 27; 67(6):792-800

Contribution of endothelin-1 to microcirculatory impairment in total hepatic ischemia and reperfusion injury. Mitsuoka H, et al. **Transplantation** 1999 Feb 27;67(4):514-20

[Ischemia-reperfusion of the colon following clamping of the abdominal aorta] Scorza R, et al. **Minerva Cardioangiol** 1999 Apr;47(4):127-33 (Eng. Abstr.) **(Ita)**

GENETICS

P- and E-selectin-deficient mice are susceptible to cerebral ischemia-reperfusion injury. Soriano SG, et al. **Brain Res** 1999 Jul 24;835(2):360-4

Immunohistochemical detection of oxidative DNA damage induced by ischemia-reperfusion insults in gerbil hippocampus in vivo. Won MH, et al. **Brain Res** 1999 Jul 31;836(1-2):70-8

Ischemia and reperfusion impair the gene expression of endogenous basic fibroblast growth factor (bFGF) in rat skeletal muscles. Fu X, et al. **J Surg Res** 1998 Nov; 80(1):88-93

Endothelin up-regulation and localization following renal ischemia and reperfusion. Wilhelm SM, et al. **Kidney Int** 1999 Mar;55(3):1011-8

Mice deficient in Mac-1 (CD11b/CD18) are less susceptible to cerebral ischemia/reperfusion injury. Soriano SG, et al. **Stroke** 1999 Jan;30(1):134-9

[The expression of hsp70 and BCL-2 genes in hippocampus of the rats exposed to cerebral ischemia and reperfusion] Lu D, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):224-7 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Rapid intestinal ischaemia-reperfusion injury is suppressed in genetically mast cell-deficient Ws/Ws rats. Andoh A, et al. **Clin Exp Immunol** 1999 Apr;116(1):90-3

Anti-inflammatory effects of U74389F in a rat model of intestinal ischemia/reperfusion injury [see comments] Stojadinovic A, et al. **Crit Care Med** 1999 Apr;27(4):764-70 . Comment in: Crit Care Med 1999 Apr;27(4):684-5.

Intestinal reperfusion injury is mediated by IgM and complement. Williams JP, et al. **J Appl Physiol** 1999 Mar; 86(3):938-42

Ischemia/reperfusion-induced IFN-gamma up-regulation: involvement of IL-12 and IL-18. Daemen MA, et al. **J Immunol** 1999 May 1;162(9):5506-10

Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417-23

CD18-mediated neutrophil recruitment contributes to the pathogenesis of reperfused but not nonreperfused stroke. Prestigiacomo CJ, et al. **Stroke** 1999 May;30(5):1110-7

Endothelial cell adhesion molecules in inflammation and postischemic reperfusion injury. Beekhuizen H, et al. **Transplant Proc** 1998 Dec;30(8):4251-6 (65 ref.)

Ischemia-reperfusion injury in experimental models of organ transplantation. Chandraker A. **Transplant Proc** 1999 Aug; 31(5):2073

Postischemic reperfusion injury and cytokines. Land W. **Transplant Proc** 1998 Dec;30(8):4237-8 (14 ref.)

Possible role of postischemic reperfusion injury as initiator of allorecognition/alloactivation [comment] Land W. **Transplant Proc** 1998 Dec;30(8):4269. Comment on: Transplant Proc 1998 Dec;30(8):4270-4.

Upregulation of major histocompatibility complex-expression under ischemic conditions in experimental models. Shackleton CR. **Transplant Proc** 1998 Dec;30(8):4264-6 (6 ref.)

Exploitation of the continuum between early ischemia/reperfusion injury and host alloresponsiveness: indefinite kidney allograft survival by treatment with a soluble P-selectin ligand and low-dose cyclosporine in combination. Kusaka M, et al. **Transplantation** 1999 May 15;67(9):1255-61

METABOLISM

Kinetics of inflammatory parameters after intestinal ischemia reperfusion injury. Braun F, et al. **Acta Gastroenterol Belg** 1999 Apr-Jun;62(2):226-8

Role of endotoxin in intestinal reperfusion-induced expression of E-selectin. Bauer P, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G479-84

Early kidney TNF-alpha expression mediates neutrophil infiltration and injury after renal ischemia-reperfusion. Donnahoo KK, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R922-9

NO modulates P-selectin and ICAM-1 mRNA expression and hemodynamic alterations in hepatic I/R. Liu P, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2191-8

Microvascular transport is associated with TNF plasma levels and protein synthesis in postischemic muscle. Takenaka H, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H1914-9

Alveolar epithelial fluid transport capacity in reperfusion lung injury after lung transplantation. Ware LB, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):980-8

Intestinal cytokine response after gut ischemia: role of gut barrier failure. Grotz MR, et al. **Ann Surg** 1999 Apr; 229(4):478-86

Hypercholesterolemia enhances oxidant production in

mesenteric venules exposed to Ischemia/Reperfusion. Kurose I, et al. **Arterioscler Thromb Vasc Biol** 1998 Oct; 18(10):1583–8

Elevation of reactive oxygen species following ischemia–reperfusion in mouse cochlea observed in vivo. Ohlemiller KK, et al. **Audiol Neurootol** 1999 Sep–Oct; 4(5):219–28

Time course of superoxide generation in reperfusion after arterial ischaemia and venous congestion. Nakamura K, et al. **Br J Plast Surg** 1998 Dec;51(8):633–6

Endogenous renal nitric oxide metabolism following experimental infrarenal aortic cross-clamp–induced ischaemia–reperfusion injury. Pararajasingam R, et al. **Br J Surg** 1999 Jun;86(6):795–9

Nitric oxide generation is increased in experimental renal warm ischaemia–reperfusion injury. Weight SC, et al. **Br J Surg** 1998 Dec;85(12):1663–8

Complement depletion does not reduce brain injury in a rabbit model of thromboembolic stroke. Lew SM, et al. **Brain Res Bull** 1999 Feb;48(3):325–31

Nuclear factor–kappa B activation during cerebral reperfusion: effect of attenuation with N–acetylcysteine treatment. Carroll JE, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):186–91

Reoxygenation injury of human brain capillary endothelial cells. Nagashima T, et al. **Cell Mol Neurobiol** 1999 Feb; 19(1):151–61 (66 ref.)

Increased expression of low–affinity NGF receptor in rat retinal Müller cells after ischemia and reperfusion. Tomita H, et al. **Cell Struct Funct** 1998 Aug;23(4):201–7

Activation of endothelial NADPH oxidase as the source of a reactive oxygen species in lung ischemia. Fisher AB, et al. **Chest** 1999 Jul;116(1 Suppl):25S–26S

Effects of dl–3–n–butylphthalide on production of TXB2 and 6–keto–PGF1 alpha in rat brain during focal cerebral ischemia and reperfusion. Chong ZZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):505–8

Melatonin decreases production of hydroxyl radical during cerebral ischemia–reperfusion. Li XJ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):394–6

Effect of anisodine on acute forebrain ischemia–reperfusion damage in rats. Xu W, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):161–3

Role of P–selectin expression in hepatic ischemia and reperfusion injury. Singh I, et al. **Clin Transplant** 1999 Feb; 13(1 Pt 2):76–82

Fasting augments lipid peroxidation during reperfusion after ischemia in the perfused rat liver [see comments] Tanigawa K, et al. **Crit Care Med** 1999 Feb;27(2):401–6. Comment in: Crit Care Med 1999 Feb;27(2):259–61.

Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia–reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087–96

Effect of ischemia–reperfusion on heat shock protein 70 and 90 gene expression in rat liver: relation to nutritional status. Gasbarrini A, et al. **Dig Dis Sci** 1998 Dec;43(12):2601–5

Superoxide: a major factor for stress protein induction in reoxygenation injury in the intestinal cell line Caco–2. Gebhardt BR, et al. **Digestion** 1999;60(3):238–45

Endothelial prostacyclin (PGI–2) production of human and porcine valve allografts related to ischemic history. Biberthaler P, et al. **Eur J Cardiothorac Surg** 1998 Nov; 14(5):503–7

Does soluble intercellular adhesion molecule–1 (ICAM–1) affect neutrophil activation and adhesion following ischaemia–reperfusion? Spark JI, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):115–20

Superoxide anion production during reperfusion is reduced by an antineutrophil antibody after prolonged cerebral ischemia. Fabian RH, et al. **Free Radic Biol Med** 1999 Feb; 26(3–4):355–61

Lipid peroxidation in the reperfusion injury of the liver. Poli G, et al. **Free Radic Res** 1998 Jun;28(6):547–51 (15 ref.)

Suppression of cytokine production by thromboxane A2 inhibitor in liver ischemia. Sugawara Y, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1781–6

Xanthine oxidase inhibition attenuates kupffer cell production of neutrophil chemoattractant following ischemia–reperfusion in rat liver. Matsumura F, et al. **Hepatology** 1998 Dec;28(6):1578–87

The protective role of adenosine in inducing nitric oxide synthesis in rat liver ischemia preconditioning is mediated by activation of adenosine A2 receptors. Peralta C, et al. **Hepatology** 1999 Jan;29(1):126–32

Ischemia/reperfusion injury in the liver of BALB/c mice activates AP–1 and nuclear factor kappaB independently of IkappaB degradation. Zwacka RM, et al. **Hepatology** 1998 Oct;28(4):1022–30

GFAP, S–100 and vimentin proteins in rat after cerebral post–ischemic reperfusion. Martinez G, et al. **Int J Dev Neurosci** 1998 Oct;16(6):519–26

Arachidonate transport through the blood–retina and blood–brain barrier of the rat after reperfusion of varying duration following complete cerebral ischemia. Stroszajder J, et al. **Int J Dev Neurosci** 1998 Apr; 16(2):103–13

Invited editorial on "tumor necrosis factor–alpha in ischemia and reperfusion injury in rat lungs". Al–Mehdi AB, et al. **J Appl Physiol** 1998 Dec;85(6):2003–4 (16 ref.)

Differential activation of some transcription factors during rat liver ischemia, reperfusion, and heat shock. Tacchini L, et al. **J Cell Physiol** 1999 Aug;180(2):255–62

Dynamics of nitrotyrosine formation and decay in rat brain during focal ischemia–reperfusion. Takizawa S, et al. **J Cereb Blood Flow Metab** 1999 Jun;19(6):667–72

Leukotriene B4 receptor transgenic mice reveal novel protective roles for lipoxins and aspirin–triggered lipoxins in reperfusion. Chiang N, et al. **J Clin Invest** 1999 Aug; 104(3):309–16

A novel approach to monitor tissue perfusion: bladder mucosal PCO2, PO2, and pHi during ischemia and reperfusion. Lang JD Jr, et al. **J Crit Care** 1999 Jun; 14(2):93–8

Role of endogenous nitric oxide in ischaemia–reperfusion injury of rat gastric mucosa. Iwata F, et al. **J Gastroenterol Hepatol** 1998 Oct;13(10):997–1001

The many aspects of endothelins in ischemia–reperfusion injury: emergence of a key mediator. Battistini B, et al. **J Invest Surg** 1998 Sep–Oct;11(5):297–313 (151 ref.)

Cytokines and the microcirculation in ischemia and reperfusion. Frangogiannis NG, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2567–76 (48 ref.)

Binding of the stress protein alpha B–crystallin to cardiac myofibrils correlates with the degree of myocardial damage during ischemia/reperfusion in vivo. Golenhofen N, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):569–80

A combined analysis of regional energy metabolism and immunohistochemical ischemic damage in the gerbil brain. Ueda H, et al. **J Neurochem** 1999 Mar;72(3):1232–42

Changes in expression of the DNA repair protein complex DNA–dependent protein kinase after ischemia and reperfusion. Shackelford DA, et al. **J Neurosci** 1999 Jun 15;19(12):4727–38

Ischemic preconditioning of skeletal muscle improves tissue oxygenation during reperfusion. Attkiss KJ, et al. **J Reconstr Microsurg** 1999 Apr;15(3):223–8

Time course of post–ischemic superoxide generation in venous effluent from reperfused rabbit hindlimbs. Yokoyama K, et al. **J Reconstr Microsurg** 1999 Apr; 15(3):215–21

Hindlimb ischemia–reperfusion increases complement deposition and glycolysis. Wong MS, et al. **J Surg Res** 1999 Jul;85(1):130–5

Effect of radix Salviae miltiorrhizae on extracellular adenosine and evaluation of its protective efficacy in ischemic reperfusion rat––microdialysis, HPLC and histopathologic studies. Kuang P, et al. **J Tradit Chin Med** 1997 Jun;17(2):140–7

ET–1 gene expression of rat brain during ischemia and reperfusion and the protective effect of radix Salviae miltiorrhizae. Wu W, et al. **J Tradit Chin Med** 1997 Mar; 17(1):59–64

Direct detection of nitric oxide in rat urinary bladder during ischemia–reperfusion. Saito M, et al. **J Urol** 1999 Oct; 162(4):1490–5

Expression of CD27 and ischemia/reperfusion–induced expression of its ligand Siva in rat kidneys. Padanilam BJ, et al. **Kidney Int** 1998 Dec;54(6):1967–75

Differences in osteopontin up–regulation between proximal and distal tubules after renal ischemia/reperfusion. Persy VP, et al. **Kidney Int** 1999 Aug;56(2):601–11

Endothelin up–regulation and localization following renal ischemia and reperfusion. Wilhelm SM, et al. **Kidney Int** 1999 Mar;55(3):1011–8

Involvement of endothelin/nitric oxide balance in hepatic ischemia/reperfusion injury. Scommotau S, et al. **Langenbecks Arch Surg** 1999 Feb;384(1):65–70

Effect of aging on intestinal ischemia and reperfusion injury. Shah PC, et al. **Mech Ageing Dev** 1999 Feb 1;107(1):37–50

Activation of epidermal growth factor receptor in the early phase after renal ischemia–reperfusion in rat. Yano T, et al. **Nephron** 1999 Feb;81(2):230–3

Distribution of plasma membrane Ca2+ pump (PMCA) isoforms in the gerbil brain: effect of ischemia–reperfusion injury. Lehotský J, et al. **Neurochem Int** 1999 Sep; 35(3):221–7

Phospholipid composition in spinal cord regions after ischemia/reperfusion. Lukácová N, et al. **Neurochem Res** 1998 Aug;23(8):1069–77

MK–801, a non–competitive NMDA receptor antagonist, prevents postischemic decrease of inositol 1,4,5–trisphosphate receptor mRNA expression in mongolian gerbil brain. Uhm CS, et al. **Neurosci Lett** 1998 Oct 16;255(2):111–4

Nitric oxide synthase–independent generation of nitric oxide in rat skeletal muscle ischemia–reperfusion injury. Lepore DA, et al. **Nitric Oxide** 1999;3(1):75–84

Effects of free radical production and scavengers on occlusion–reperfusion induced arrhythmias. Demiryürek AT, et al. **Pharmacol Res** 1998 Dec;38(6):433–9

Role of reperfusion with polyelectrolyte solution and BN 52021 in hemorrhagic shock–induced changes in rat lungs. Makarewicz–Płońska M, et al. **Pol J Pharmacol** 1999 Mar–Apr;51(2):137–42

Cyclosporin A does not affect cardiolipin biosynthesis during ischemia–reperfusion injury in the heart. Ross TK, et al. **Proc West Pharmacol Soc** 1998;41:17–9

Role of endogenous endothelin peptides in intestinal ischemia–reperfusion injury in rats. Anadol AZ, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Oct; 59(4):279–83

Nitric oxide and endothelin relationship in intestinal ischemia/reperfusion injury. Durakbasa CU, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Dec; 59(6):379–83

Enhancement of tissue factor following ischemic–reperfusion injury in rats. Watanabe T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Nov; 102(2):157–62

The effects of thromboxane synthase inhibition on reperfusion injury and endothelin–1,2 levels in allograft kidney transplantation in rats. Büyükgebiz O, et al. **Res Exp Med (Berl)** 1999 Apr;198(6):289–98

Effect of coenzyme Q10 on superoxide production in rats with reperfusion injuries. Yokoyama K, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar;33(1):1–5

Tumor necrosis factor up–regulates intercellular adhesion molecule 1, which is important in the neutrophil–dependent lung and liver injury associated with hepatic ischemia and reperfusion in the rat. Colletti LM, et al. **Shock** 1998 Sep; 10(3):182–91

Ischemia–reperfusion directly increases pulmonary endothelial permeability in vitro. van Griensven M, et al. **Shock** 1999 Apr;11(4):259–63

Poor recovery of mitochondrial redox state in CA1 after transient forebrain ischemia in gerbils. Shiino A, et al. **Stroke** 1998 Nov;29(11):2421–4; discussion 2425

Neuroprotective FK506 does not alter in vivo nitric oxide production during ischemia and early reperfusion in rats. Toung TJ, et al. **Stroke** 1999 Jun;30(6):1279–85

Glutamine and transforming growth factor–alpha stimulate extracellular regulated kinases and enhance recovery of villous surface area in porcine ischemic–injured intestine. Blikslager AT, et al. **Surgery** 1999 Feb;125(2):186–94

Administration of nerve growth factor, brain–derived neurotrophic factor and insulin–like growth factor–II protects phosphate–activated glutaminase in the ischemic and reperfused rat retinas. Tomita H, et al. **Tohoku J Exp Med** 1999 Mar;187(3):227–36

Intramucosal pH and intestinal mucosal damage in ischemia–reperfusion injury. Iwanami K, et al. **Transpl Int** 1998;11(6):401–7

Induction of immediate early genes and apoptosis after ischemia/reperfusion in fatty liver rats. Tsuchiya T, et al. **Transplant Proc** 1998 Nov;30(7):2919–22

Expression of tissue factor in renal ischemic–reperfusion injury of the rat. Ushigome H, et al. **Transplant Proc** 1998 Nov;30(7):3764–5

The role of tissue factor in ischemic reperfusion injury: (ii). The expression of tissue factor of the liver in hepatic injury. Yoshimura N, et al. **Transplant Proc** 1998 Nov;30(7):3766–8

Background and prognostic implications of perireperfusion tissue injuries in human liver transplants: a panel histochemical study. Kiuchi T, et al. **Transplantation** 1998 Sep 27;66(6):737–47

Expression of tissue factor in hepatic ischemic–reperfusion injury of the rat. Kobayashi Y, et al. **Transplantation** 1998 Sep 27;66(6):708–16

The effect of tissue factor pathway inhibitor on hepatic ischemic reperfusion injury of the rat. Yoshimura N, et al. **Transplantation** 1999 Jan 15;67(1):45–53

[Protection mechanism of huanshaodan decoction in the brain] Zuo PP, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jul; 17(7):420–2 (Eng. Abstr.) **(Chi)**

[Role of endogenous Fe2+ in peroxidation of rat liver after ischemia hypoxia and reoxygenation] Liu Z. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):355, 365 **(Chi)**

[The study of ICAM–1 expression after brain ischemia–reperfusion injury in rats] Zhang L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):1–4 (Eng. Abstr.) **(Chi)**

[Activation of L–Arg: no pathway in canine brain by the damage from complete cerebral ischemia–reperfusion] Cheng Z, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(3):192–4 (Eng. Abstr.) **(Chi)**

[Role of cytosolic calcium balance on cell injury in cultured bovine aortic endothelial cells during hypoxia and reoxygenation] Chen LH, et al. **Sheng Li Hsueh Pao** 1997 Jun;49(3):249–54 (Eng. Abstr.) **(Chi)**

[Changes in phospholipids after repeated induced sublethal spinal cord ischemia in rabbits] Lukáčová N, et al. **Bratisl Lek Listy** 1998 Jul;99(7):359–63 (Eng. Abstr.) **(Slo)**

[The effect of ischemia and ischemia–reperfusion on ion transport systems] Račay P, et al. **Bratisl Lek Listy** 1998 Jul;99(7):386–94 (Eng. Abstr.) **(Slo)**

[Neurochemical changes associated with ischemic–reperfusion injury of the CNS] Račay P, et al. **Bratisl Lek Listy** 1998 Jul;99(7):376–85 (165 ref.) (Eng. Abstr.) **(Slo)**

MORTALITY

Cardiogenic shock: a failure in reperfusion. Time for a strategic change? [editorial; comment] Serruys PW, et al. **Eur Heart J** 1999 Jan;20(2):88–9 (10 ref.). Comment on: Eur Heart J 1999 Jan;20(2):128–35.

PATHOLOGY

Apoptosis: only the good die young? [editorial; comment] Cairns CB. **Acad Emerg Med** 1998 Oct;5(10):948–50. Comment on: Acad Emerg Med 1998 Oct;5(10):1019–29.

Apoptosis: on the verge of clinical relevance [editorial;

comment] Gentile NT. **Acad Emerg Med** 1998 Oct; 5(10):946–8. Comment on: Acad Emerg Med 1998 Oct;5(10):1019–29.

Effect of ascorbic acid on infarct size in experimental focal cerebral ischaemia and reperfusion in a primate model. Henry PT, et al. **Acta Neurochir (Wien)** 1998;140(9):977–80

Blood–brain barrier damage in reperfusion following ischemia in the hippocampus of the Mongolian gerbil brain. Shinnou M, et al. **Acta Neurol Scand** 1998 Dec;98(6):406–11

Protective effect of anisodamine on reperfusion injury of skeletal muscles in rabbit. Wei X, et al. **Acta Orthop Scand** 1998 Dec;69(6):633–7

Physiological and morphological effects of perfusing isolated rat kidneys with hyperosmolal mannitol solutions. Lindström KE, et al. **Acta Physiol Scand** 1999 Jul; 166(3):231–8

Bcl-2 inhibits ischemia–reperfusion–induced apoptosis in the intestinal epithelium of transgenic mice. Coopersmith CM, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G677–86

Ultrastructural alterations in intraalveolar surfactant subtypes after experimental ischemia and reperfusion. Ochs M, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):718–24

Investigation of metabolism and perfusion in arterialized venous replantation: experimental study in rabbits. Yilmaz M, et al. **Ann Plast Surg** 1999 Jul;43(1):67–73

Pulmonary artery occlusion and reperfusion causes microvascular constriction in the rabbit lung. Miller DL, et al. **Ann Thorac Surg** 1999 Feb;67(2):323–8

Effect of postischaemic hypothermia on the mitochondrial damage induced by ischaemia and reperfusion in the gerbil. Canevari L, et al. **Brain Res** 1999 Jan 30;817(1–2):241–5

Heightened resistance of the neonatal brain to ischemia–reperfusion involves a lack of mitochondrial damage in the nerve terminal. Keelan J, et al. **Brain Res** 1999 Mar 6;821(1):124–33

Reactive nitrogen and oxygen radicals formed during hepatic ischemia–reperfusion kill weakly metastatic colorectal cancer cells. Jessup JM, et al. **Cancer Res** 1999 Apr 15; 59(8):1825–9

Endothelial damage due to ischemia and reperfusion is prevented with SIN–1 [corrected and republished in Cardiovasc Surg 1998 Oct;6(5):527–32] Johnson D, et al. **Cardiovasc Surg** 1998 Aug;6(4):367–72

Endothelial damage due to ischemia and reperfusion is prevented with SIN–1 [corrected and republished article originally printed in Cardiovasc Surg 1998 Aug;6(4):367–72] Johnson D, et al. **Cardiovasc Surg** 1998 Oct;6(5):527–32

Pretreatment with polynitroxyl albumin (PNA) inhibits ischemia–reperfusion induced leukocyte–endothelial cell adhesion. Russell J, et al. **Free Radic Biol Med** 1998 Jul 15;25(2):153–9

Calpain mediates ischemic injury of the liver through modulation of apoptosis and necrosis. Kohli V, et al. **Gastroenterology** 1999 Jan;116(1):168–78

The effect of alpha–tocopherol and pentoxyfilline on ischemia–reperfusion induced liver injury in rats. Vardareli E, et al. **Hepatogastroenterology** 1998 Sep–Oct; 45(23):1505–8

Ischemia–reperfusion injury in rat fatty liver: role of nutritional status. Caraceni P, et al. **Hepatology** 1999 Apr; 29(4):1139–46

A possible role for p16INK4 in neuronal cell death after retinal ischemia–reperfusion injury. Kuroiwa S, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):528–33

Apoptosis and caspases after ischemia–reperfusion injury in rat retina. Lam TT, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):967–75

Retinal ischemia–reperfusion injury attenuated by blocking of adhesion molecules of vascular endothelium. Tsujikawa A, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1183–90

Stereological estimation of the volume weighted mean volumes of alveoli and acinar pathways in the rat lung to characterise alterations after ischaemia/reperfusion. Fehrenbach A, et al. **J Anat** 1999 Jan;194 (Pt 1):127–35

Calpain inhibitor–1 reduces infarct size and DNA fragmentation of myocardium in ischemic/reperfused rat heart. Iwamoto H, et al. **J Cardiovasc Pharmacol** 1999 Apr; 33(4):580–6

Selection of a C5a receptor antagonist from phage libraries attenuating the inflammatory response in immune complex disease and ischemia/reperfusion injury. Heller T, et al. **J Immunol** 1999 Jul 15;163(2):985–94

Segmental small bowel allograft––ischemic injury and regeneration. Chan KL, et al. **J Pediatr Surg** 1998 Nov; 33(11):1703–6

Reperfusion injury in livers due to gentle in situ organ manipulation during harvest involves hypoxia and free radicals. Schemmer P, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):235–40

Inhibition of neutrophil proteinases by recombinant serpin Lex032 reduces capillary no–reflow in ischemia/reperfusion–induced acute pancreatitis. von Dobschuetz E, et al. **J Pharmacol Exp Ther** 1999 Aug; 290(2):782–8

Effect of specific neutrophil elastase inhibitor on ischemia/reperfusion injury in rat liver transplantation. Soejima Y, et al. **J Surg Res** 1999 Sep;86(1):150–4

Interstitial cellular and matrix restoration of cardiac valves after cryopreservation. Messier RH Jr, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):36–49

Rapid reperfusion causes stress failure in ischemic rat lungs. Pierre AF, et al. **J Thorac Cardiovasc Surg** 1998 Dec; 116(6):932–42

Leukocyte sequestration in pulmonary microvessels and lung injury following systemic complement activation in rabbits. Kuhnle GE, et al. **J Vasc Res** 1999 Jul–Aug;36(4):289–98

Horizontal cells of the rat retina are resistant to degenerative processes induced by ischemia–reperfusion. Chun MH, et al. **Neurosci Lett** 1999 Jan 29;260(2):125–8

Mechanisms of cell death in hypoxia/reoxygenation injury. Saikumar P, et al. **Oncogene** 1998 Dec 24;17(25):3341–9 (70 ref.)

Effects of L–NAME and L–arginine on ischemia–reperfusion injury in rat skeletal muscle. Meldrum DG, et al. **Plast Reconstr Surg** 1999 Mar;103(3):935–40

Impact of ischemia–reperfusion injury on dimensional changes of hepatic microvessels. Kondo T, et al. **Res Exp Med (Berl)** 1998 Aug;198(2):63–72

Glutamine and transforming growth factor–alpha stimulate extracellular regulated kinases and enhance recovery of villous surface area in porcine ischemic–injured intestine. Blikslager AT, et al. **Surgery** 1999 Feb;125(2):186–94

Effects of a phosphate buffered extracellular (Ep4) solution in preservation and reperfusion injury in the canine liver. Kawashima Y, et al. **Tohoku J Exp Med** 1999 Feb; 187(2):99–110

Evaluation of parenchymal and nonparenchymal cell injury after different conditions of storage and reperfusion. Abdennebi HB, et al. **Transpl Int** 1998;11(5):365–72

Protective mechanism of preconditioning hypoxia attenuates apoptosis formation during renal ischemia/reperfusion phase. Chien CT, et al. **Transplant Proc** 1999 Aug; 31(5):2012–3

Modulation of Kupffer cell activity by muramyl dipeptide ameliorates normothermic liver ischemia/reperfusion in rats. Cursio R, et al. **Transplant Proc** 1999 Aug;31(5):2146–7

Comparative study of intramucosal pH in histologic damage from small bowel ischemia–reperfusion injury. Iwanami K, et al. **Transplant Proc** 1998 Nov;30(7):3467–8

Hepatocellular injury early after reperfusion is correlated with liver microcirculation and predicts outcome after transplantation. Maksan SM, et al. **Transplant Proc** 1998 Nov;30(7):3716–7

Perfusion and cold injury play an important role in liver preservation. Yuxin C, et al. **Transplant Proc** 1998 Nov; 30(7):3688–91

Background and prognostic implications of perireperfusion tissue injuries in human liver transplants: a panel histochemical study. Kiuchi T, et al. **Transplantation** 1998 Sep 27;66(6):737–47

The effect of tissue factor pathway inhibitor on hepatic ischemic reperfusion injury of the rat. Yoshimura N, et al. **Transplantation** 1999 Jan 15;67(1):45–53

Effect of ischemia and reperfusion on neutrophil accumulation in equine microvascular tissue flaps. Scott WM, et al. **Vet Surg** 1999 May–Jun;28(3):180–7

[Vascular wall modifications after disruption of the circulation leading to cerebral ischemia] Sercombe R. **Ann Fr Anesth Reanim** 1999 May;18(5):583–7 (28 ref.) (Eng. Abstr.) **(Fre)**

[Apoptotic changes after pressure–induced ischemia–reperfusion injury in the rat retina] Nishiyama Y, et al. **Nippon Ganka Gakkai Zasshi** 1998 Jul; 102(7):417–24 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Pentoxifylline reduces injury of the brain in transient ischaemia. Sirin BH, et al. **Acta Cardiol** 1998;53(2):89–95

Local and systemic consequences of severe ischemia and reperfusion of the skeletal muscle. Physiopathology and prevention. Defraigne JO, et al. **Acta Chir Belg** 1998 Aug; 98(4):176–86 (62 ref.)

The pathophysiology of the acute compartment syndrome. Tollens T, et al. **Acta Chir Belg** 1998 Aug;98(4):171–5 (11 ref.)

Effects of mannitol and glycerol on cerebral energy metabolism in gerbils. Tsuda Y, et al. **Acta Neurol Scand** 1998 Jul;98(1):36–40

Physiological and morphological effects of perfusing isolated rat kidneys with hyperosmolal mannitol solutions. Lindström KE, et al. **Acta Physiol Scand** 1999 Jul; 166(3):231–8

Roles for C–X–C chemokines and C5a in lung injury after hindlimb ischemia–reperfusion. Bless NM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L57–63

Reperfusion–induced changes in capillary perfusion and filtration: effects of hypercholesterolemia. Harris NR. **Am J Physiol** 1999 Aug;277(2 Pt 2):H669–75

Time course of endothelial–neutrophil interaction in splanchnic artery ischemia–reperfusion. Hayward R, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2080–6

Segmental microvascular permeability in ischemia–reperfusion injury in rat lung. Khimenko PL, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L958–60

Inhaled NO impacts vascular but not extravascular compartments in postischemic peripheral organs. Kubes P, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H676–82

Attenuation of renal ischemia–reperfusion injury in inducible nitric oxide synthase knockout mice. Ling H, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F383–90

P2 purinoceptor–mediated dilations in the rat middle cerebral artery after ischemia–reperfusion. Marrelli SP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H33–41

Selective A2A adenosine receptor activation reduces ischemia–reperfusion injury in rat kidney. Okusa MD, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F404–12

Ischemia–reperfusion lung injury in rabbits: mechanisms of injury and protection. Sakuma T, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L137–45

L–selectin and ICAM–1 mediate reperfusion injury and neutrophil adhesion in the warm ischemic mouse liver. Yadav SS, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1341–52

Influence of deflated and anaerobic conditions during cold storage on rat lungs. Fukuse T, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):621–7

Pulmonary ischemia/reperfusion injury: a quantitative study of structure and function in isolated heart–lungs of the rat. Fehrenbach H, et al. **Anat Rec** 1999 May 1;255(1):84–9

The role of mast cell degranulation in ischaemia–reperfusion–induced mucosal injury in the small intestine. Boros M, et al. **Ann Acad Med Singapore** 1999 Jan;28(1):79–84

Reduced neutrophil infiltration protects against lung reperfusion injury after transplantation. Ross SD, et al. **Ann Thorac Surg** 1999 May;67(5):1428–33; discussion 1434

New model of renal warm ischaemia–reperfusion injury for comparative functional, morphological and pathophysiological studies. Weight SC, et al. **Br J Surg** 1998 Dec;85(12):1669–73

Preferential injury of oligodendroblasts by a short hypoxic–ischemic insult. Jelinski SE, et al. **Brain Res** 1999 Jan 2;815(1):150–3

Apoptotic DNA fragmentation and upregulation of Bax induced by transient ischemia of the rat retina. Kaneda K, et al. **Brain Res** 1999 Jan 2;815(1):11–20

Tumor necrosis factor alpha expression produces increased blood–brain barrier permeability following temporary focal cerebral ischemia in mice. Yang GY, et al. **Brain Res Mol Brain Res** 1999 May 21;69(1):135–43

Activation of nuclear factor–kappaB in the rabbit spinal cord following ischemia and reperfusion. Zhang S, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):121–32

Hypothermia prevents biphasic glutamate release and corresponding neuronal degeneration after transient spinal cord ischemia in the rat. Ishikawa T, et al. **Cell Mol Neurobiol** 1999 Apr;19(2):199–208

Role for nitric oxide but not prostaglandins in acetylcholine–induced relaxation of rat cremaster third–order arterioles in 5–hour ischemia–reperfusion control rats. Borsch DM, et al. **Chin J Physiol** 1999 Mar 31;42(1):9–16

Effect of mild hypothermia on the changes of cerebral blood flow, brain blood barrier and neuronal injuries following reperfusion of focal cerebral ischemia in rats. Huang F, et al. **Chin Med J (Engl)** 1998 Apr;111(4):368–72

Ischemia and reperfusion injury. The ultimate pathophysiologic paradox. Hammerman C, et al. **Clin Perinatol** 1998 Sep;25(3):757–77 (96 ref.)

Endothelin mediated nitric oxide effects in ischemia––reperfusion associated with pancreas transplantation. Hotter G, et al. **Dig Dis Sci** 1998 Dec; 43(12):2627–33

Evaluation of regional liver function by gadolinium–EOB–DTPA–enhanced MR imaging. Shimizu J, et al. **Dig Dis Sci** 1999 Jul;44(7):1330–7

The role of mucosal mast cell degranulation and free–radical generation in intestinal ischaemia–reperfusion injury in rats. Kimura T, et al. **Eur J Gastroenterol Hepatol** 1998 Aug; 10(8):659–66

Recombinant human manganese superoxide dismutase attenuates early but not delayed skeletal muscle dysfunction following reperfusion injury. Bowler DJ, et al. **Eur J Vasc Endovasc Surg** 1999 Sep;18(3):216–21

Skeletal muscle tissue oxygen pressure distribution during early reperfusion after prolonged ischaemia. Gustafsson U, et al. **Eur J Vasc Endovasc Surg** 1999 Jan;17(1):41–6

Differing roles of adenosine receptor subtypes in retinal ischemia–reperfusion injury in the rat. Li B, et al. **Exp Eye Res** 1999 Jan;68(1):9–17

Involvement of free radicals in cerebral vascular reperfusion injury evaluated in a transient focal cerebral ischemia model of rat. Nakashima M, et al. **Free Radic Biol Med** 1999 Mar;26(5–6):722–9

Preconditioning prevents the negative inotropic action of phenylephrine in rat isolated stunned papillary muscle. Kocić I. **Gen Pharmacol** 1999 May;32(5):591–5

The role of adhesion molecules and nitric oxide in intestinal and hepatic ischemia/reperfusion. Kubes P. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1458–63 (48 ref.)

Role of microcirculation in hepatic ischemia/reperfusion injury. Menger MD, et al. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1452–7 (78 ref.)

Hepatoprotective effect of endogenous nitric oxide during ischemia–reperfusion in the rat. Cottart CH, et al. **Hepatology** 1999 Mar;29(3):809–13

P–Selectin mediates reperfusion injury through neutrophil and platelet sequestration in the warm ischemic mouse liver. Yadav SS, et al. **Hepatology** 1999 May;29(5):1494–502

Microvascular responses to ischemia/reperfusion in normotensive and hypertensive rats. Kurose I, et al. **Hypertension** 1999 Aug;34(2):212–6

Mast cell degranulation prior to ischemia decreases ischemia–reperfusion injury in the canine small intestine.

Boros M, et al. **Inflamm Res** 1999 Apr;48(4):193–8

Protective role of nitric oxide in ischemia and reperfusion injury of the liver. Shimamura T, et al. **J Am Coll Surg** 1999 Jan;188(1):43–52

A murine skeletal muscle ischemia–reperfusion injury model: differential pathology in BALB/c and DBA/2N mice. Carter WO, et al. **J Appl Physiol** 1998 Nov;85(5):1676–83

Tumor necrosis factor–alpha in ischemia and reperfusion injury in rat lungs. Khimenko PL, et al. **J Appl Physiol** 1998 Dec;85(6):2005–11

Mechanisms of ischemic preconditioning and clinical implications for multiorgan ischemic–reperfusion injury. Lee HT. **J Cardiothorac Vasc Anesth** 1999 Feb;13(1):78–91 (133 ref.)

Ischaemia–reperfusion injury. Implications for the hand surgeon. al–Qattan MM. **J Hand Surg [Br]** 1998 Oct; 23(5):570–3 (37 ref.)

Vascular function in the cadaver up to six hours after cardiac arrest. Bolys R, et al. **J Heart Lung Transplant** 1999 Jun; 18(6):582–6

Mechanisms of reperfusion injury after warm ischemia of the liver. Jaeschke H. **J Hepatobiliary Pancreat Surg** 1998; 5(4):402–8 (84 ref.)

Overexpression of SOD1 in transgenic rats protects vulnerable neurons against ischemic damage after global cerebral ischemia and reperfusion. Chan PH, et al. **J Neurosci** 1998 Oct 15;18(20):8292–9

Characterization of a recovery global cerebral ischemia model in the mouse. Sheng H, et al. **J Neurosci Methods** 1999 Apr 1;88(1):103–9

Myoelectric bowel activity in ischemia/reperfusion damage. Role of sensory neurons. Pawlik WW, et al. **J Physiol Pharmacol** 1998 Dec;49(4):543–51

Reperfusion injury of the liver: role of mitochondria and protection by glutathione ester. Grattagliano I, et al. **J Surg Res** 1999 Sep;86(1):2–8

Hepatic apoptotic activity following transient normothermic inflow occlusion and reperfusion in the swine model. Helling TS, et al. **J Surg Res** 1999 Sep;86(1):70–8

The role of ischemic preconditioning in the recruitment of rolling and adherent leukocytes in hepatic venules after ischemia/reperfusion. Sawaya DE Jr, et al. **J Surg Res** 1999 Jul;85(1):163–70

Protective effect of radix Salviae miltiorrhizae on apoptosis of neurons during focal cerebral ischemia and reperfusion injury. Wu W, et al. **J Tradit Chin Med** 1997 Sep; 17(3):220–5

The effect of hypoxia/reoxygenation on the cellular function of intestinal epithelial cells. Xu DZ, et al. **J Trauma** 1999 Feb;46(2):280–5

Attenuation of skeletal muscle ischemia/reperfusion injury by inhibition of tumor necrosis factor. Gaines GC, et al. **J Vasc Surg** 1999 Feb;29(2):370–6

Renal ischemia/reperfusion leads to macrophage–mediated increase in pulmonary vascular permeability. Kramer AA, et al. **Kidney Int** 1999 Jun;55(6):2362–7

Kupffer cell–dependent reperfusion injury in liver transplantation: new clinically relevant use of glycine. Thurman RG, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:185–90 (31 ref.)

An absolute requirement for P–selectin in ischemia/reperfusion–induced leukocyte recruitment in cremaster muscle. Kanwar S, et al. **Microcirculation** 1998; 5(4):281–7

Increased leukocyte–endothelial interaction in the mesenteric microcirculation following remote ischemia–reperfusion. Sobral do Rosário H, et al. **Microvasc Res** 1999 Mar; 57(2):199–202

Role of cellular energetics in ischemia–reperfusion and ischemic preconditioning of myocardium. Hassinen IE, et al. **Mol Cell Biochem** 1998 Jul;184(1–2):393–400

Biochemical consequences of electrical pacing in ischemic–reperfused isolated rat hearts. Samaja M, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):245–9

Induction of heat–shock protein 72 in rat skeletal muscle does not increase tolerance to ischemia–reperfusion injury. Lille S, et al. **Muscle Nerve** 1999 Mar;22(3):390–3

Renal ischemia–reperfusion injury: contribution of nitric oxide and renal blood flow. Mashiach E, et al. **Nephron** 1998 Dec;80(4):458–67

Neither L–NAME nor L–arginine changes extracellular glutamate elevation and anoxic depolarization during global ischemia and reperfusion in rat. Zhao H, et al. **Neuroreport** 1999 Feb 5;10(2):313–8

Reperfusion injury after focal cerebral ischemia: the role of inflammation and the therapeutic horizon. Jean WC, et al. **Neurosurgery** 1998 Dec;43(6):1382–96; discussion 1396–7 (201 ref.)

Relaxant effects of sodium nitroprusside and NONOates in goat middle cerebral artery: delayed impairment by global ischemia–reperfusion. Salom JB, et al. **Nitric Oxide** 1999; 3(1):85–93

Is heat shock protein a potential protective mechanism against ischemia–reperfusion injury? [letter; comment] Lille S, et al. **Plast Reconstr Surg** 1999 Jan;103(1):336–7. Comment on: Plast Reconstr Surg 1998 Mar;101(3):776–84.

Role of the thromboxane A2 receptor in the vasoactive response to ischemia–reperfusion injury. Mazolewski PJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1393–6

Effects of fiber type on ischemia–reperfusion injury in mouse skeletal muscle. Woitaske MD, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2052–63

E–selectin and L–selectin blockade in pure skin flaps exposed to ischaemia and reperfusion injury. Birk–Sørensen L, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):365–71

Microvascular pathophysiology of skeletal muscle ischemia–reperfusion. Durán WN, et al. **Semin Vasc Surg** 1998 Sep;11(3):203–14 (63 ref.)

Ischemia/reperfusion induces an increase in the hepatic portal vasoconstrictive response to endothelin–1. Garcia–Pagán JC, et al. **Shock** 1999 May;11(5):325–9

Suppressed endothelin–1 production by FK506 and cyclosporin A in ischemia/reperfusion of rat small intestine. Soda Y, et al. **Surgery** 1999 Jan;125(1):23–32

Intestinal ischemia–reperfusion leads to platelet dysfunction. Aydemir–Koksoy A, et al. **Thromb Res** 1999 Jun 15; 94(6):395–400

Effect of reperfusion on right ventriculoarterial coupling in liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep;31(6):2384–5

Influence of surgical technique on postreperfusion syndrome during liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep;31(6):2380–1

Histomorphological analysis of preservation injury as determinant of graft quality in clinical liver transplantation. Angelescu M, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1074–6

Gender influences cold preservation–reoxygenation injury in the liver. Colantoni A, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1052–3

High–energy phosphates, mitochondria, and reperfusion injury in isolated rat lungs. Hirata T, et al. **Transplant Proc** 1998 Nov;30(7):3377–9

Role of tissue factor in ischemic reperfusion injury: (I). Tissue factor levels of liver tissue and serum after hepatic injury in rats. Kobayashi Y, et al. **Transplant Proc** 1998 Nov; 30(7):3726–7

Mechanism and prevention of ischemia–reperfusion injury. Kurokawa T, et al. **Transplant Proc** 1999 Jun;31(4):1775–6 (5 ref.)

Postischemic reperfusion injury and adhesion molecules in nontransplant models. Land W. **Transplant Proc** 1998 Dec; 30(8):4249–50

Postischemic reperfusion injury and kidney transplantation. Prologue. Land W. **Transplant Proc** 1998 Dec;30(8):4210–3

Demonstration of nitric oxide generation during renal ischemia reperfusion injury using paramagnetic resonance spectroscopy. Lui SL, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1020–1

Diminished portal and total hepatic blood flows after liver graft revascularization predicts severity of ischemic lesion. Margarit C, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):444

Bile endothelin–1 as a sensitive indicator of ischemia reperfusion injury. Miyaguni T, et al. **Transplant Proc** 1998 Nov;30(7):3769–71

Role of tissue factor in ischemia–reperfusion injury: immunohistochemical assessment of tissue factor pathway inhibitor staining of the liver. Nakamura K, et al. **Transplant Proc** 1998 Nov;30(7):3737–9

Examination of TNF–alpha and heat shock protein gene expression in ischemic injured livers from fasted and nonfasted rats. Nishihara M, et al. **Transplant Proc** 1998 Nov;30(7):3697–9

Kupffer's cells modulate neutrophile activity by superoxide anion and tumor necrosis factor–delta in reperfusion injury of liver transplantation–mechanisms of radical generation and reperfusion injury after cold ischemia. Ohkohchi N, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1055–8 (18 ref.)

Effect of intraportal infusion of adenosine on hepatic blood flow and injury after ischemia and reperfusion of canine liver. Sakata C, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):509–10

Effect of lazaroid U–74389G on lung ischemia–reperfusion injury. Takeyoshi I, et al. **Transplant Proc** 1998 Nov; 30(7):3364–5

Analysis of intragraft adhesion molecules and their release in clinical liver transplantation: impact of reperfusion injury. Viebahn R, et al. **Transplant Proc** 1998 Dec; 30(8):4257–9

Apoptosis in ischemia/reperfusion injury of human renal allografts. Burns AT, et al. **Transplantation** 1998 Oct 15; 66(7):872–6

Reduction of post–ischemic lung reperfusion injury by fibrinolytic activity suppression. Edagawa M, et al. **Transplantation** 1999 Apr 15;67(7):944–9

Protective effect of exogenous nitric oxide on the renal function and inflammatory response in a model of ischemia–reperfusion. Garcia–Criado FJ, et al. **Transplantation** 1998 Oct 27;66(8):982–90

Endothelial cell and hepatocyte deaths occur by apoptosis after ischemia–reperfusion injury in the rat liver. Kohli V, et al. **Transplantation** 1999 Apr 27;67(8):1099–105

Endothelin receptor antagonist improves pulmonary hemodynamics during lung ischemia/reperfusion injury. Shennib H, et al. **Transplantation** 1998 Oct 15;66(7):917–37

The purine nucleoside adenosine in retinal ischemia–reperfusion injury. Ghiardi GJ, et al. **Vision Res** 1999 Jul;39(15):2519–35 (81 ref.)

[Progresses in the study of microcirculation in China, 1997] Jin H. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):938–9 (0 ref.) **(Chi)**

[Pathophysiology and clinical aspects of ischemia–reperfusion damage to skeletal muscles] Schellong SM, et al. **Vasa** 1998 Nov;27(4):207–15 (108 ref.) (Eng. Abstr.) **(Ger)**

[Intestinal ischemic reperfusion syndrome: pathophysiology, clinical significance, therapy] Schwarz B, et al. **Wien Klin Wochenschr** 1999 Jul 30;111(14):539–48 (115 ref.) (Eng. Abstr.) **(Ger)**

[Role of cytokines in hepatic ischemia and reperfusion injury] Suzuki S, et al. **Nippon Geka Gakkai Zasshi** 1999 May; 100(5):325–30 (21 ref.) (Eng. Abstr.) **(Jpn)**

[Interaction between neutrophils and endothelial cells following ischemia/reperfusion] Yamaguchi Y, et al. **Nippon Geka Gakkai Zasshi** 1999 May;100(5):319–24 (11 ref.) (Eng. Abstr.) **(Jpn)**

[Ischemia/reperfusion injury and organ failure] Yasuhara H, et al. **Nippon Geka Gakkai Zasshi** 1998 Aug;99(8):510–7 (38 ref.) (Eng. Abstr.) **(Jpn)**

[Ischemia–reperfusion liver injury] Turecký L. **Bratisl Lek Listy** 1999 Jan;100(1):36–40 (31 ref.) (Eng. Abstr.) **(Slo)**

PREVENTION & CONTROL

Local and systemic consequences of severe ischemia and reperfusion of the skeletal muscle. Physiopathology and prevention. Defraigne JO, et al. **Acta Chir Belg** 1998 Aug; 98(4):176–86 (62 ref.)

The effects of MK–801 and U–83836E on post–ischemic reperfusion injury in rat brain. Durmaz R, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(2):99–104

Antioxidant role of endogenous coenzyme Q against the ischemia and reperfusion–induced lipid peroxidation in fetal rat brain. Tsukahara Y, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):669–74

Reduced reperfusion injury in muscle. A comparison of the timing of EPC–K1 administration in rats. Hirose J, et al. **Acta Orthop Scand** 1999 Apr;70(2):207–11

Effect of vitamin E in gastric mucosal injury induced by ischaemia–reperfusion in nitric oxide–depleted rats. Naito Y, et al. **Aliment Pharmacol Ther** 1999 Apr;13(4):553–9

Role of gap junctions in inhibiting ischemia–reperfusion injury of rat gastric mucosa. Iwata F, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G883–8

Cyclosporin A increases hypoxia and free radical production in rat kidneys: prevention by dietary glycine. Zhong Z, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):F595–604

The role of glutamine in skeletal muscle ischemia/reperfusion injury in the rat hind limb model. Prem JT, et al. **Am J Surg** 1999 Aug;178(2):147–50

Isoflurane administration before ischemia and during reperfusion attenuates ischemia/reperfusion–induced injury of isolated rabbit lungs. Liu R, et al. **Anesth Analg** 1999 Sep;89(3):561–5

Salvage of free flaps after secondary venous ischemia by local delivery of heparin. Kirschner RE, et al. **Ann Plast Surg** 1999 May;42(5):521–7; discussion 527–8

Reduction of ischemia–reperfusion injury of the liver by in vivo adenovirus–mediated gene transfer of the antiapoptotic Bcl–2 gene. Bilbao G, et al. **Ann Surg** 1999 Aug;230(2):185–93

Lazaroid U74389G ameliorates ischemia–reperfusion injury in the rat lung transplant model. Kuwaki K, et al. **Ann Thorac Cardiovasc Surg** 1999 Feb;5(1):11–7

Efficacy of initial controlled perfusion pressure for ischemia–reperfusion injury in a 24–hour preserved lung. Sakamoto T, et al. **Ann Thorac Cardiovasc Surg** 1999 Feb; 5(1):21–6

Reduced ischemia–reperfusion injury with rolipram in rat cadaver lung donors: effect of cyclic adenosine monophosphate. Bleiweis MS, et al. **Ann Thorac Surg** 1999 Jan;67(1):194–9; discussion 199–200

Gene transfer of heat shock protein 70 protects lung grafts from ischemia–reperfusion injury. Hiratsuka M, et al. **Ann Thorac Surg** 1999 May;67(5):1421–7

Preservation with 8–bromo–cyclic GMP improves pulmonary function after prolonged ischemia. King RC, et al. **Ann Thorac Surg** 1998 Nov;66(5):1732–8

Reduced neutrophil infiltration protects against lung reperfusion injury after transplantation. Ross SD, et al. **Ann Thorac Surg** 1999 May;67(5):1428–33; discussion 1434

Nitroglycerine reduces neutrophil activation and acute damage in latissimus dorsi muscle grafts. Tang AT, et al. **Ann Thorac Surg** 1998 Dec;66(6):2015–21

Effect of sialyl Lewis(x) oligosaccharide on myocardial and cerebral injury in the pig. Tofukuji M, et al. **Ann Thorac Surg** 1999 Jan;67(1):112–9

Aprotinin–enhanced lung preservation solutions: is it worthwhile [letter; comment] Wittwer T, et al. **Ann Thorac Surg** 1999 May;67(5):1538–40. Comment on: Ann Thorac Surg 1998 Jul;66(1):225–30.

Protective effects of dietary cyanidin 3–O–beta–D–glucoside on liver ischemia–reperfusion injury in rats. Tsuda T, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):361–6

In vivo correlation of neutrophil receptor expression, ischemia–reperfusion injury, and selective 5–lipoxygenase inhibition in guinea pigs. Dolan R, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1377–80

Protective effect of Crataegus oxyacantha against reperfusion arrhythmias after global no–flow ischemia in the rat heart. al Makdessi S, et al. **Basic Res Cardiol** 1999 Apr;94(2):71–7

A simple experiment to study electromagnetic field effects: protection induced by short-term exposures to 60 Hz magnetic fields. DiCarlo AL, et al. **Bioelectromagnetics** 1998;19(8):498–500

Protective effect of exogenous coenzyme Q in rats subjected to partial hepatic ischemia and reperfusion. Genova ML, et al. **Biofactors** 1999;9(2–4):345–9

Antithrombin reduces ischemia/reperfusion injury of rat liver by increasing the hepatic level of prostacyclin. Harada N, et al. **Blood** 1999 Jan 1;93(1):157–64

Effects of inhibitors of the activity of poly (ADP-ribose) synthetase on the liver injury caused by ischaemia-reperfusion: a comparison with radical scavengers. Bowes J, et al. **Br J Pharmacol** 1998 Jul; 124(6):1254–60

Evidence that S-adenosyl-L-methionine diastereoisomers may reduce ischaemia-reperfusion injury by interacting with purinoceptors in isolated rat liver. Dunne JB, et al. **Br J Pharmacol** 1998 Sep;125(1):225–33

Ramipril-induced delayed myocardial protection against free radical injury involves bradykinin B2 receptor-NO pathway and protein synthesis. Jin ZQ, et al. **Br J Pharmacol** 1998 Oct;125(3):556–62

Dexamethasone treatment prior to reperfusion improves the survival of skin flaps subjected to secondary venous ischaemia. Willemart G, et al. **Br J Plast Surg** 1998 Dec; 51(8):624–8

Protective effect of preconditioning and adenosine pretreatment in experimental skeletal muscle reperfusion injury. Papanastasiou S, et al. **Br J Surg** 1999 Jul; 86(7):916–22

Amelioration of liver injury by ischaemic preconditioning. Yoshizumi T, et al. **Br J Surg** 1998 Dec;85(12):1636–40

Hypothermic neuroprotection of peripheral nerve of rats from ischaemia-reperfusion injury. Mitsui Y, et al. **Brain** 1999 Jan;122 (Pt 1):161–9

5-(N-Ethyl-N-isopropyl)-amiloride, an Na(+)-H(+) exchange inhibitor, protects gerbil hippocampal neurons from ischemic injury. Phillis JW, et al. **Brain Res** 1999 Aug 21;839(1):199–202

Ischaemic preconditioning: mechanisms and potential clinical applications. Hawaleshka A, et al. **Can J Anaesth** 1998 Jul; 45(7):670–82 (89 ref.)

Endothelial damage due to ischemia and reperfusion is prevented with SIN-1 [corrected and republished in Cardiovasc Surg 1998 Oct;6(5):527–32] Johnson D, et al. **Cardiovasc Surg** 1998 Aug;6(4):367–72

Endothelial damage due to ischemia and reperfusion is prevented with SIN-1 [corrected and republished article originally printed in Cardiovasc Surg 1998 Aug;6(4):367–72] Johnson D, et al. **Cardiovasc Surg** 1998 Oct;6(5):527–32

Reversal of ischemia/reperfusion lung injury by inhibition of polymorphonuclear leukocytes. Barnard JW, et al. **Chest** 1999 Jul;116(1 Suppl):33S–34S

Ischemia-reperfusion lung injury is prevented by apocynin, a novel inhibitor of leukocyte NADPH oxidase. Pearse DB, et al. **Chest** 1999 Jul;116(1 Suppl):55S–56S

Role of ischemic preconditioning on ischemia-reperfusion injury of the lung. Soncul H, et al. **Chest** 1999 Jun; 115(6):1672–7

Complement inhibition attenuates human lung transplant reperfusion injury: a multicenter trial. Zamora MR, et al. **Chest** 1999 Jul;116(1 Suppl):46S

The effects of fibroblast growth factors on ischemic kidney, liver and gut injuries. Fu X, et al. **Chin Med J (Engl)** 1998 May;111(5):398–403

Protective agents used as additives in University of Wisconsin solution to promote protection against ischaemia-reperfusion injury in rat lung. Chiang CH, et al. **Clin Sci (Colch)** 1998 Sep;95(3):369–76

Schemes against ischemia; solutions for reperfusion (injury)? [editorial; comment] Barie PS. **Crit Care Med** 1999 Apr; 27(4):684–5 (11 ref.). Comment on: Crit Care Med 1999 Apr;27(4):764–70.

Gabexate mesilate, a synthetic protease inhibitor, reduces ischemia/reperfusion injury of rat liver by inhibiting leukocyte activation [see comments] Harada N, et al. **Crit Care Med** 1999 Sep;27(9):1958–64. Comment in: Crit Care Med 1999 Sep;27(9):2062–3.

Selectin neutralization: does it make biological sense? [editorial; comment] Lin E, et al. **Crit Care Med** 1999 Sep; 27(9):2050–3. Comment on: Crit Care Med 1999 Sep;27(9):1900–7.

Anti-inflammatory effects of U74389F in a rat model of intestinal ischemia/reperfusion injury [see comments] Stojadinovic A, et al. **Crit Care Med** 1999 Apr;27(4):764–70 . Comment in: Crit Care Med 1999 Apr;27(4):684–5.

What's the buzz (on protease inhibitors)...tell me what's (mechanistically) happening [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Sep;27(9):2062–3. Comment on: Crit Care Med 1999 Sep;27(9):1958–64.

Efficiency of trimetazidine in renal dysfunction secondary to cold ischemia-reperfusion injury: a proposed addition to University of Wisconsin solution. Hauet T, et al. **Cryobiology** 1998 Nov;37(3):231–44

Cardioprotection of red wine: role of polyphenolic antioxidants. Das DK, et al. **Drugs Exp Clin Res** 1999; 25(2-3):115–20 (25 ref.)

Induction of iNOS gene expression by monophosphoryl lipid A: a pharmacological approach for myocardial adaptation to ischemia. Maulik N, et al. **Drugs Exp Clin Res** 1998; 24(3):117–24

Amelioration of lung reperfusion injury by L- and E- selectin blockade. Demertzis S, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):174–80

Donor and recipient treatment with the Lazaroid U-74006F do not improve post-transplant lung function in swine. Hillinger S, et al. **Eur J Cardiothorac Surg** 1999 Apr; 15(4):475–80

From the lab to the clinic: activation of an alpha-2 agonist pathway is neuroprotective in models of retinal and optic nerve injury. Wheeler LA, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9 Suppl 1:S17–21

Cerebral ischemia reperfusion-induced vasogenic brain edema formation in rats: effect of an intracellular histamine receptor antagonist. Németh L, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):216–9

Herbimycin-A attenuates ischaemia-reperfusion induced pulmonary neutrophil infiltration. Javadpour M, et al. **Eur J Vasc Endovasc Surg** 1998 Nov;16(5):377–82

Vitamin C reduces ischaemia-reperfusion-induced acute lung injury. Kearns SR, et al. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):533–6

Topically applied betaxolol attenuates NMDA-induced toxicity to ganglion cells and the effects of ischaemia to the retina. Osborne NN, et al. **Exp Eye Res** 1999 Sep; 69(3):331–42

Prevention of apoptosis reperfusion renal injury by calcium channel blockers. Toronyi E, et al. **Exp Toxicol Pathol** 1999 May;51(3):209–12

Antibodies against type II phospholipase A2 prevent renal injury due to ischemia and reperfusion in rats. Takasaki J, et al. **FEBS Lett** 1998 Dec 4;440(3):377–81

Involvement of free radicals in cerebral vascular reperfusion injury evaluated in a transient focal cerebral ischemia model of rat. Nakashima M, et al. **Free Radic Biol Med** 1999 Mar;26(5-6):722–9

Hepatocyte-specific distribution of catalase and its inhibitory effect on hepatic ischemia/reperfusion injury in mice. Yabe Y, et al. **Free Radic Res** 1999 Apr;30(4):265–74

Glutathione protects the rat liver against reperfusion injury after hypothermic preservation. Bilzer M, et al. **Gastroenterology** 1999 Jul;117(1):200–10

Endothelial protective effect of stobadine on ischaemia/reperfusion-induced injury. Sotniková R, et al. **Gen Physiol Biophys** 1998 Sep;17(3):253–64

Role of TGF-beta1 in platelet-mediated cardioprotection during ischemia-reperfusion in isolated rat hearts. Mehta JL, et al. **Growth Factors** 1999;16(3):179–90

The guanylate cyclase-coupled natriuretic peptide receptor: a new target for prevention of cold ischemia-reperfusion damage of the rat liver. Gerbes AL, et al. **Hepatology** 1998 Nov;28(5):1309–17

Dietary juniper berry oil minimizes hepatic reperfusion injury in the rat. Jones SM, et al. **Hepatology** 1998 Oct; 28(4):1042–50

Discontinuous total parenteral nutrition prevents postischemic mitochondrial dysfunction in rat liver. Morikawa N, et al. **Hepatology** 1998 Nov;28(5):1289–99

Interleukin-10 suppresses hepatic ischemia/reperfusion injury in mice: implications of a central role for nuclear factor kappaB. Yoshidome H, et al. **Hepatology** 1999 Jul; 30(1):203–8

Effect of alpha-tocopherol pretreatment on infarct size following 90 minutes of ischemia and 4 hours of reperfusion in dogs. Tripathi Y, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):241–7

Effect of superoxide dismutase and acidified sodium nitrite on infarct size following ischemia and reperfusion in dogs. Tripathi Y, et al. **Indian J Physiol Pharmacol** 1997 Jul; 41(3):248–56

Protection by vitamin B2 against oxidant-mediated acute lung injury. Seekamp A, et al. **Inflammation** 1999 Oct; 23(5):449–60

Attenuation by acetyl-L-carnitine of neurological damage and biochemical derangement following brain ischemia and reperfusion. Calvani M, et al. **Int J Tissue React** 1999; 21(1):1–6 (45 ref.)

Protecting the viability of hepatic allografts procured from non-heart-beating donors by blockade of endothelin and platelet activating factor in porcine liver transplantation. Fukunaga K, et al. **Int Surg** 1998 Jul-Sep;83(3):226–31

The use of the antioxidant tirilazad mesylate in human liver transplantation: is there a therapeutic benefit? Plöchl W, et al. **Intensive Care Med** 1999 Jun;25(6):616–9

Riluzole improves functional recovery after ischemia in the rat retina. Ettaiche M, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):729–36

Inhaled NO preadministration modulates local and remote ischemia-reperfusion organ injury in a rat model. Guery B, et al. **J Appl Physiol** 1999 Jul;87(1):47–53

Role of A2A receptor in the modulation of myocardial reperfusion damage. Cargnoni A, et al. **J Cardiovasc Pharmacol** 1999 Jun;33(6):883–93

The time course of cardioprotection induced by GR79236, a selective adenosine A1-receptor agonist, in myocardial ischaemia-reperfusion injury in the pig. Louttit JB, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):285–91

The angiotensin II AT1-receptor antagonist candesartan improves functional recovery and reduces the no-reflow area in reperfused ischemic rat hearts. Shimizu M, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):78–81

Inhibition of apoptosis induced by ischemia-reperfusion prevents inflammation. Daemen MA, et al. **J Clin Invest** 1999 Sep;104(5):541–9

Intraportal perfusion of prostaglandin E1 attenuates hepatic postischaemic microcirculatory impairments in rats. Iwata K, et al. **J Gastroenterol Hepatol** 1999 Jul;14(7):634–41

Prevention of rapid reperfusion-induced lung injury with prostaglandin E1 during the initial period of reperfusion. DeCampos KN, et al. **J Heart Lung Transplant** 1998 Nov; 17(11):1121–8

Heat shock pretreatment protects pulmonary isografts from subsequent ischemia-reperfusion injury. Hiratsuka M, et al. **J Heart Lung Transplant** 1998 Dec;17(12):1238–46

The effects of intraportal administration of prostaglandin E1 on liver ischemia and hepatectomy in rats. Hossain MA, et al. **J Hepatobiliary Pancreat Surg** 1998;5(4):437–44

Protective effect of prostaglandin E1 against ischemia/reperfusion-induced liver injury: results of a prospective, randomized study in cirrhotic patients undergoing subsegmentectomy. Sugawara Y, et al. **J Hepatol** 1998 Dec;29(6):969–76

Alpha-lipoic acid provides neuroprotection from ischemia-reperfusion injury of peripheral nerve. Mitsui Y, et al. **J Neurol Sci** 1999 Feb 1;163(1):11–6

NMDA receptor-dependent nitric oxide and cGMP synthesis in brain hemispheres and cerebellum during reperfusion after transient forebrain ischemia in gerbils: effect of 7-Nitroindazole. Chalimoniuk M, et al. **J Neurosci Res** 1998 Dec 1;54(5):681–90

Dietary vitamin E supplementation does not inhibit Candida albicans intestinal translocation in rats. Morandi MV, et al. **J Nutr Sci Vitaminol (Tokyo)** 1999 Apr;45(2):153–61

Amelioration of ischemia-reperfusion injury in rat intestine by pentoxifylline-mediated inhibition of xanthine oxidase. Hammerman C, et al. **J Pediatr Gastroenterol Nutr** 1999 Jul;29(1):69–74

Calcineurin inhibitors FK506 and SDZ ASM 981 alleviate the outcome of focal cerebral ischemic/reperfusion injury. Bochelen D, et al. **J Pharmacol Exp Ther** 1999 Feb; 288(2):653–9

Protective effect of FK409, a spontaneous nitric oxide releaser, on ischemic acute renal failure in rats. Matsumura Y, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1084–91

Ischemia/reperfusion-induced arrhythmias in the isolated rat heart: prevention by melatonin. Tan DX, et al. **J Pineal Res** 1998 Oct;25(3):184–91

Melatonin protects against ischemia and reperfusion-induced oxidative lipid and DNA damage in fetal rat brain. Wakatsuki A, et al. **J Pineal Res** 1999 Apr;26(3):147–52

Augmentation of cAMP improves muscle-flap survival and tissue inflammation in response to ischemia/reperfusion injury. Lille S, et al. **J Reconstr Microsurg** 1999 Jan; 15(1):37–45

Effects of hydroxyethyl-starch-bound deferoxamine on ischemia/reperfusion injury in chronic nerve compression. Marin PC, et al. **J Reconstr Microsurg** 1998 Oct; 14(7):485–90

Protective effect of vitamin E on ischaemia-reperfusion injury in ovarian grafts. Nugent D, et al. **J Reprod Fertil** 1998 Nov;114(2):341–6

Addition of a water-soluble alpha-tocopherol analogue to University of Wisconsin solution improves endothelial viability and decreases lung reperfusion injury. Baker CJ, et al. **J Surg Res** 1999 Sep;86(1):145–9

Effect of magnolol on in vitro mitochondrial lipid peroxidation and isolated cold-preserved warm-reperfused rat livers. Chiu JH, et al. **J Surg Res** 1999 Mar;82(1):11–6

Effects of tetrodotoxin and OKY-046 in renal ischemia reperfusion. Garvin PJ, et al. **J Surg Res** 1999 Aug; 85(2):273–8

Reperfusion injury of the liver: role of mitochondria and protection by glutathione ester. Grattagliano I, et al. **J Surg Res** 1999 Sep;86(1):2–8

Prevention of hepatic ischemia-reperfusion injury by SOD-DIVEMA conjugate. Kondo T, et al. **J Surg Res** 1999 Jul;85(1):26–36

Ischemia-reperfusion protects the rat small intestine against subsequent injury. Miner TJ, et al. **J Surg Res** 1999 Mar; 82(1):1–10

Protective effects of ulinastatin against ischemia-reperfusion injury. Okuhama Y, et al. **J Surg Res** 1999 Mar;82(1):34–42

The effect of neutrophil elastase inhibitor in hepatectomy with ischemia in dogs. Tomizawa N, et al. **J Surg Res** 1999 Feb;81(2):230–7

Sulfatide protects rat skin flaps against ischemia-reperfusion injury. Ueda K, et al. **J Surg Res** 1998 Dec;80(2):200–4

L-arginine inhibits ischemia-reperfusion lung injury in rabbits. Yoshida K, et al. **J Surg Res** 1999 Jul;85(1):9–16

A novel sialyl Lewis X analog attenuates cerebral injury after deep hypothermic circulatory arrest. Shin'oka T, et al. **J Thorac Cardiovasc Surg** 1999 Jun;117(6):1204–11

Ex vivo transfection of transforming growth factor-beta1 gene to pulmonary artery segments in lung grafts. Yano M, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):705–13

Ischemic preconditioning versus intermittent reperfusion to improve blood flow to a vascular isolated skeletal muscle flap of rats. Wang WZ, et al. **J Trauma** 1998 Nov; 45(5):953–9

The effect of mannitol versus dimethyl thiourea at attenuating ischemia/reperfusion-induced injury to skeletal muscle. Schlag MG, et al. **J Vasc Surg** 1999 Mar;29(3):511–21

Protection from renal ischemia-reperfusion injury by the 2-methylaminochroman U83836E. De Vecchi E, et al.

Kidney Int 1998 Sep;54(3):857–63

Strategy for prevention of myonephropathic metabolic syndrome (MNMS): comparison of cooling and perfusion. Oue H, et al. **Kobe J Med Sci** 1999 Feb;45(1):13–25

Effects of initial low flow reperfusion and surfactant administration on the viability of perfused cadaveric rat lungs. Nonaka M, et al. **Lung** 1999;177(1):37–43

Possible role of cardiac mast cells in norepinephrine-induced myocardial preconditioning. Parikh V, et al. **Methods Find Exp Clin Pharmacol** 1999 May;21(4):269–74

S-nitroso-N-acetylcysteine protects skeletal muscle against reperfusion injury. Liu K, et al. **Microsurgery** 1998; 18(5):299–305

Aprotinin in ischemia-reperfusion injury: flap survival and neutrophil response in a rat skin flap model. Stadelmann WK, et al. **Microsurgery** 1998;18(6):354–61; discussion 362–3

Effects of EGb 761 on fatty acid reincorporation during reperfusion following ischemia in the brain of the awake gerbil. Rabin O, et al. **Mol Chem Neuropathol** 1998 May; 34(1):79–101

Involvement of capsaicin-sensitive sensory nerves in early and delayed cardioprotection induced by a brief ischaemia of the small intestine. Tang ZL, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):243–7

Prevention of cold ischaemia-reperfusion injury by an endothelin receptor antagonist in experimental renal transplantation. Herrero I, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):872–80

Cardioprotective effect of enantiomers of cicletanine (BN50417, BN50418) in ischaemic/reperfused isolated working rat hearts: interaction with glibenclamide. Ferdinandy P, et al. **Pharmacol Res** 1999 Mar;39(3):225–31

Trimetazidine ameliorates the hepatic injury associated with ischaemia-reperfusion in rats. Settaf A, et al. **Pharmacol Res** 1999 Mar;39(3):211–6

Use of a nitric oxide precursor to protect pig myocutaneous flaps from ischemia-reperfusion injury. Cordeiro PG, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2040–8; discussion 2049–51

Effects of selective and non-selective endothelin antagonists on ischemia-reperfusion damage in the isolated perfused murine liver. Tanaka K, et al. **Res Commun Mol Pathol Pharmacol** 1999 Feb; 103(2):129–38

Antithrombin III prevents 60 min warm intestinal ischemia reperfusion injury in rats. Ozden A, et al. **Res Exp Med (Berl)** 1999 Mar;198(5):237–46

Failure of glutathione peroxidase to reduce transient ischemic injury in the rat hippocampal CA1 subfield. Yano T, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):91–8

Platelet activating factor antagonism in pure skin flaps exposed to ischaemia-reperfusion injury. Birk-Sørensen L, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):155–61

Experimental study of the protection of ischemic preconditioning to spinal cord ischemia. Fan T, et al. **Surg Neurol** 1999 Sep;52(3):299–305

The mechanism of hepatic graft protection against reperfusion injury by prostaglandin E1. Itasaka H, et al. **Surg Today** 1999;29(6):526–32

Preventive influence of inhaled nitric oxide on lung ischemia-reperfusion injury. Yamagishi H, et al. **Surg Today** 1999;29(9):897–901

Heat-shock protein-73 protects against small intestinal warm ischemia-reperfusion injury in the rat. Tsuruma T, et al. **Surgery** 1999 Apr;125(4):385–95

The effect of various doses of lazaroid U74389G on lung ischemia reperfusion injury. Kuwaki K, et al. **Thorac Cardiovasc Surg** 1999 Apr;47(2):67–72

Protective effects of ischemic preconditioning on lung ischemia reperfusion injury: an in-vivo rabbit study. Li G, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):38–41

Free radical scavengers to prevent reperfusion injury following experimental warm liver ischaemia. Is there a real physiological benefit? Chavez-Cartaya R, et al. **Transpl Int** 1999;12(3):213–21

Lipid peroxidation after cold storage and normothermic reperfusion: the effect of trimetazidine. Hauet T, et al. **Transpl Int** 1998;11 Suppl 1:S408–9

TNF-alpha and heat-shock protein gene expression in ischemic-injured liver from fasted and non-fasted rats. Role of donor fasting in the prevention of reperfusion injury following liver transplantation. Nishihara M, et al. **Transpl Int** 1998;11 Suppl 1:S417–20

Cytoprotective effect of trimetazidine on 60 minutes of intestinal ischemia-reperfusion injury in rats. Tetik C, et al. **Transpl Int** 1999;12(2):108–12

The efficacy of N-acetylcysteine as a hepatoprotective agent in liver transplantation. Thies JC, et al. **Transpl Int** 1998; 11 Suppl 1:S390–2

Decreasing the cold ischemia time. Abendroth D. **Transplant Proc** 1998 Dec;30(8):4288–90 (42 ref.)

Atropine prophylaxis of the postreperfusion syndrome in liver transplantation. Acosta F, et al. **Transplant Proc** 1999 Sep;31(6):2377

Effective protection against prolonged warm ischemia of rat kidney using a simple preservation solution. Ahmad N, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1031–2

Ulinastatin, a protease inhibitor, attenuates hepatic ischemia/reperfusion injury by downregulating TNF-alpha in the liver. Aihara T, et al. **Transplant Proc** 1998 Nov; 30(7):3732–4

Metabolism of the intestine with intermediate ischemia after intestinal ischemia-reperfusion injury: therapeutic effects of somatostatin. Ariceta J, et al. **Transplant Proc** 1999 Sep; 31(6):2572

Glycine rinse protects against liver injury during transplantation. Arora AS, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):505–6

Free radical scavengers to prevent reperfusion injury following warm liver ischemia. Chavez-Cartaya R, et al. **Transplant Proc** 1999 Sep;31(6):2439–40

Pyruvate inhibits the chronic damage which ensues after ischemia/reperfusion injury of kidneys. Cicalese L, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1033

Sodium salicylate protects hepatocytes but not endothelial cells during reperfusion after cold ischemia. De Maria N, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1059–60

Prevention by somatostatine and N-acetylcisteine of multiorgan failure mediated by oxidative stress after intestinal ischemia. Ferrer JV, et al. **Transplant Proc** 1999 Sep;31(6):2570–1

Effect of exogenous L-arginine for hepatic ischemia-reperfusion injury in an isolated rat liver in vitro. Higa T, et al. **Transplant Proc** 1998 Nov;30(7):3728–9

Free jejunal graft autotransplantation should be revascularized within 3 hours. Hikida S, et al. **Transplant Proc** 1998 Nov;30(7):3446–8

Lazaroid donor pretreatment does not improve lung allograft reperfusion injury in swine. Hillinger S, et al. **Transplant Proc** 1998 Nov;30(7):3382–4

Reduction of lung allograft ischemia/reperfusion injury by tetrahydrobiopterin coenzyme of NOS. Hillinger S, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):183–4

Inhibition of thromboxane A2 synthesis by OKY-046 attenuates ischemia and reperfusion injury of the liver. Iida J, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1061–2

Effect of lazaroid U-74389G on prolonged hepatic ischemia-reperfusion injury. Iwanami K, et al. **Transplant Proc** 1998 Nov;30(7):3703–4

Normothermic perfusion using diluted blood ameliorates ischemia-reperfusion injury on the canine liver. Kobayashi J, et al. **Transplant Proc** 1998 Nov;30(7):3761–2

Mechanism and prevention of ischemia-reperfusion injury. Kurokawa T, et al. **Transplant Proc** 1999 Jun;31(4):1775–6 (5 ref.)

Organ procurement policy: should we reduce cold ischemia times? Lange H, et al. **Transplant Proc** 1998 Dec; 30(8):4297–302

Protective effect of monoclonal antibodies to adhesion molecules on rat liver ischemia-reperfusion injury. Marubayashi S, et al. **Transplant Proc** 1999 Feb-Mar; 31(1–2):1054

Protective effect of nicaraven against prolonged cold kidney preservation and reperfusion injury. Masaki Y, et al. **Transplant Proc** 1998 Nov;30(7):3758–60

Characterization and modulation of preservation/reperfusion injury after small bowel transplantation. Mueller AR, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):579–81

S-adenosyl-L-methionine attenuates ischemia-reperfusion injury of steatotic livers. Nakano H, et al. **Transplant Proc** 1998 Nov;30(7):3735–6

N-acetylcysteine and anti-ICAM-1 monoclonal antibody reduce ischemia-reperfusion injury of the steatotic rat liver. Nakano H, et al. **Transplant Proc** 1998 Nov;30(7):3763

Reduction of reperfusion injury with prostacyclin I2 after liver transplantation. Neumann UP, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1029–30

Evidence of neutrophil involvement in the protective effects of urinary trypsin inhibitor against ischemia reperfusion in vitro. Okuhama Y, et al. **Transplant Proc** 1998 Nov; 30(7):3723–5

Effects of FR167653 on pulmonary ischemia-reperfusion injury in rats: a preliminary study. Otani Y, et al. **Transplant Proc** 1998 Nov;30(7):3368–9

FR167653 ameliorates pulmonary ischemia-reperfusion injury. Otani Y, et al. **Transplant Proc** 1999 Feb-Mar; 31(1–2):1010–1

SDZ RAD inhibits cold ischemia-induced vascular remodeling. Schuurman HJ, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1024–5

Nitric oxide enhancement attenuates ischemia and reperfusion injury of canine livers. Shimamura T, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1065–7

Pretreatment of small bowel isograft donors with cobalt-protoporphyrin decreases preservation injury. Squiers EC, et al. **Transplant Proc** 1999 Feb-Mar; 31(1–2):585–6

Efficacy of heat-shock proteins induced by severe fasting to protect rat livers preserved for 72 hours from cold ischemia/reperfusion injury. Takahashi Y, et al. **Transplant Proc** 1998 Nov;30(7):3700–2

FR167653 ameliorates pulmonary ischemia-reperfusion injury in dogs. Takeyoshi I, et al. **Transplant Proc** 1998 Nov;30(7):3342–3

Glutamine-induced heme oxygenase-1 protects intestines and hearts from warm ischemic injury. Tamaki T, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):1018–9

Protective effects of lidocaine in hepatic ischemia/reperfusion injury in vitro. Tomori H, et al. **Transplant Proc** 1998 Nov;30(7):3740–2

Induction of heat shock protein-73 reduces ischemia-reperfusion injury in rat small intestine. Tsuruma T, et al. **Transplant Proc** 1998 Nov;30(7):3449–51

Avoidance of postreperfusional endotoxemia and hepatic energy depression by intraoperative lipid infusion in porcine liver transplantation. Yagi T, et al. **Transplant Proc** 1999 Feb-Mar;31(1–2):447–50

Protection of sinusoidal endothelial cells against storage/reperfusion injury by prostaglandin E2 derived from Kupffer cells. Arai M, et al. **Transplantation** 1999 Aug 15;68(3):440–5

Possible tacrolimus action mechanisms in its protector effects on ischemia-reperfusion injury [letter] Garcia-Criado FJ, et al. **Transplantation** 1998 Oct 15;66(7):942–3

Ablating the ischemia-reperfusion injury in non-heart-beating donor kidneys. Hernandez A, et al. **Transplantation** 1999 Jan 27;67(2):200–6

Preconditioning of donor livers with prostaglandin I2 before retrieval decreases hepatocellular ischemia-reperfusion injury. Klein M, et al. **Transplantation** 1999 Apr 27; 67(8):1128–32

Do immunosuppressants directly affect neutrophils, resulting in protection of the liver against ischemia-reperfusion injury? [letter] Ohmori M, et al. **Transplantation** 1998 Oct 15;66(7):940–1

A comparison of the new preservation solution Celsior to Euro-Collins and University of Wisconsin solutions in lung reperfusion injury. Roberts RF, et al. **Transplantation** 1999 Jan 15;67(1):152–5

Calpain inhibition prevents sinusoidal endothelial cell apoptosis in the cold ischemic rat liver. Sindram D, et al. **Transplantation** 1999 Jul 15;68(1):136–40

Elimination of Kupffer cells and nafamostat mesilate rinse prevent reperfusion injury in liver grafts from agonal non-heart-beating donors. Tsukamoto S, et al. **Transplantation** 1999 Jun 15;67(11):1396–403

Memantine reduces alterations to the mammalian retina, in situ, induced by ischemia. Osborne NN. **Vis Neurosci** 1999 Jan–Feb;16(1):45–52

[Experimental study prevention of reperfusion injury of skeletal muscle by local hypothermia and its clinical application] An H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):52–5 (Eng. Abstr.) **(Chi)**

[Studies on the mechanism of protection of cultured neurous by ketamine anoxia/reoxygenation-induced injury] Pei L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 May;13(2):148–50 (Eng. Abstr.) **(Chi)**

[Effects of ischemic preconditioning on protection of canine donor lung] Luo W, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(3):195–8 (Eng. Abstr.) **(Chi)**

[Protection of superoxide dismutase on hypoxia-reoxygenation injury to endothelial cell] Dong JW, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):644–8 (Eng. Abstr.) **(Chi)**

[Understanding microcirculation deficits as the key to surgical planning in visceral surgery] Klar E. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:72–7 (14 ref.) (Eng. Abstr.) **(Ger)**

[Controlled reperfusion of ischemic extremity musculature to prevent free radical induced lesions] Luther B, et al. **Zentralbl Chir** 1999;124(4):336–43 (Eng. Abstr.) **(Ger)**

[Effects of long-term preoperative administration of low-dose erythromycin on warm ischemia-reperfusion pulmonary injury] Kaji M, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov;36(11):939–47 (Eng. Abstr.) **(Jpn)**

[Gradual postischemic reoxygenation as protection against spinal cord ischemia in an experiment] Radoňak J, et al. **Rozhl Chir** 1999 Mar;78(3):105–8 (Eng. Abstr.) **(Slo)**

[Epidural regional hypothermia for prevention of paraplegia in experimental aortic clamping] Radoňak J, et al. **Rozhl Chir** 1999 Mar;78(3):109–13 (Eng. Abstr.) **(Slo)**

RADIONUCLIDE IMAGING

Evaluation of asialoglycoprotein receptor imaging agent as a marker of hepatic ischemia-reperfusion injury and recovery. Toyama H, et al. **Ann Nucl Med** 1999 Jun; 13(3):155–60

SURGERY

Diminished portal and total hepatic blood flows after liver graft revascularization predicts severity of ischemic lesion. Margarit C, et al. **Transplant Proc** 1999 Feb-Mar; 31(1–2):444

THERAPY

Electroacupuncture reduces rat's neuronal ischemic injury and enhances the expression of basic fibroblast growth factor. Yang WO, et al. **Acupunct Electrother Res** 1999; 24(1):1–10

Partial liquid ventilation for acute allograft dysfunction after canine lung transplantation. Itano H, et al. **Ann Thorac Surg** 1999 Feb;67(2):332–9

Hypothermic neuroprotection of peripheral nerve of rats from ischemia-reperfusion injury: intraischemic vs. reperfusion hypothermia. Mitsui Y, et al. **Brain Res** 1999 May 8;827(1–2):63–9

Antiinflammatory effects of soluble complement receptor type 1 promote rapid recovery of ischemia/reperfusion injury in rat small intestine. Eror AT, et al.

REPERFUSION INJURY

Clin Immunol 1999 Feb;90(2):266–75

The effects of a neutrophil elastase inhibitor (ONO–5046.Na) and neutrophil depletion using a granulotrap (G–1) column on lung reperfusion injury in dogs. Tomizawa N, et al. **J Heart Lung Transplant** 1999 Jul;18(7):637–45

Improved functional recovery of ischemic rat hearts due to singlet oxygen scavengers histidine and carnosine. Lee JW, et al. **J Mol Cell Cardiol** 1999 Jan;31(1):113–21

Endogenous adenosine reduces the occurrence of ischemia–induced ventricular fibrillation in rat heart. Schreieck J, et al. **J Mol Cell Cardiol** 1999 Jan;31(1):123–34

Modulation of reperfusion injury after single lung transplantation by pentoxifylline, inositol polyanions, and sin–1. Clark SC, et al. **J Thorac Cardiovasc Surg** 1999 Mar; 117(3):556–64

Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417–23

Inhaled nitric oxide as a prophylactic treatment against reperfusion injury of the lung. Strüber M, et al. **Thorac Cardiovasc Surg** 1999 Jun;47(3):179–82

REPERFUSION INJURY, MYOCARDIAL see **MYOCARDIAL REPERFUSION INJURY**

REPERFUSION, MYOCARDIAL see **MYOCARDIAL REPERFUSION**

REPETITION STRAIN INJURY see **CUMULATIVE TRAUMA DISORDERS**

REPETITIVE REGION see **REPETITIVE SEQUENCES, NUCLEIC ACID**

REPETITIVE SEQUENCES, AMINO ACID

Variation at the MJD locus in the major psychoses. Saleem Q, et al. **Am J Med Genet** 1998 Sep 7;81(5):440–2

A novel human gene encoding an F–box/WD40 containing protein maps in the SHFM3 critical region on 10q24. Ianakiev P, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):64–70

Association of protein–tyrosine phosphatase PTP–BAS with the transcription–factor–inhibitory protein IkappaBalpha through interaction between the PDZ1 domain and ankyrin repeats. Maekawa K, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):179–84

Light chain 1 from the Chlamydomonas outer dynein arm is a leucine–rich repeat protein associated with the motor domain of the gamma heavy chain. Benashski SE, et al. **Biochemistry** 1999 Jun 1;38(22):7253–64

Characterization of the calcium site in two complement–like domains from the low–density lipoprotein receptor–related protein (LRP) and comparison with a repeat from the low–density lipoprotein receptor. Dolmer K, et al. **Biochemistry** 1998 Dec 1;37(48):17016–23

A complex family of highly heterogeneous and internally repetitive hyperactive antifreeze proteins from the beetle Tenebrio molitor. Liou YC, et al. **Biochemistry** 1999 Aug 31;38(35):11415–24

Chicken prion tandem repeats form a stable, protease–resistant domain. Marcotte EM, et al. **Biochemistry** 1999 Jan 12;38(2):667–76

Detecting periodic patterns in biological sequences. Coward E, et al. **Bioinformatics** 1998;14(6):498–507

Three complement–type repeats of the low–density lipoprotein receptor–related protein define a common binding site for RAP, PAI–1, and lactoferrin. Vash B, et al. **Blood** 1998 Nov 1;92(9):3277–85

Structure of the alpha–actinin rod: molecular basis for cross–linking of actin filaments. Djinović–Carugo K, et al. **Cell** 1999 Aug 20;98(4):537–46

Structures of two repeats of spectrin suggest models of flexibility. Grum VL, et al. **Cell** 1999 Aug 20;98(4):523–35

Nuclear inclusions in glutamine repeat disorders: are they pernicious, coincidental, or beneficial? [comment] Sisodia SS. **Cell** 1998 Oct 2;95(1):1–4. Comment on: Cell 1998 Oct 2;95(1):41–53.

Prion disease with octapeptide repeat insertion. Vital C, et al. **Clin Exp Pathol** 1999;47(3–4):153–9

Topological characteristics of helical repeat proteins. Groves MR, et al. **Curr Opin Struct Biol** 1999 Jun;9(3):383–9 (31 ref.)

Proteins with tandemly arranged repeats of a highly charged 16–amino–acid motif encoded by the Dhmst101 gene family are structural components of the outer sheath of the extremely elongated sperm tails of Drosophila hydei. Neesen J, et al. **Dev Growth Differ** 1999 Feb;41(1):93–9

Notchless encodes a novel WD40–repeat–containing protein that modulates Notch signaling activity. Royet J, et al. **EMBO J** 1998 Dec 15;17(24):7351–60

Incorporation of N–acetylgalactosamine into consecutive threonine residues in MUC2 tandem repeat by recombinant human N–acetyl–D–galactosamine transferase–T1, T2 and T3. Iida S, et al. **FEBS Lett** 1999 Apr 23;449(2–3):230–4

Isolation, sequencing and expression of RED, a novel human gene encoding an acidic–basic dipeptide repeat. Assier E, et al. **Gene** 1999 Apr 16;230(2):145–54

Cloning and expression analysis of a novel WD repeat gene, WDR3, mapping to 1p12–p13. Claudio JO, et al. **Genomics** 1999 Jul 1;59(1):85–9

Immune responses induced by gene gun or intramuscular injection of DNA vaccines that express immunogenic regions of the serine repeat antigen from Plasmodium falciparum. Belperron AA, et al. **Infect Immun** 1999 Oct; 67(10):5163–9

Cloning, expression, and sequencing of a cell surface antigen containing a leucine–rich repeat motif from Bacteroides forsythus ATCC 43037. Sharma A, et al. **Infect Immun** 1998 Dec;66(12):5703–10

Five homologous repeats of the protein G–related protein MIG cooperate in binding to goat immunoglobulin G. Vasi J, et al. **Infect Immun** 1999 Jan;67(1):413–6

A cluster of basic repeats in the dystrophin rod domain binds F–actin through an electrostatic interaction. Amann KJ, et al. **J Biol Chem** 1998 Oct 23;273(43):28419–23

Structure–function study of a heptad repeat positioned near the transmembrane domain of Sendai virus fusion protein which blocks virus–cell fusion. Ghosh JK, et al. **J Biol Chem** 1998 Oct 16;273(42):27182–90

The binding of calcium to the B–repeat segment of SdrD, a cell surface protein of Staphylococcus aureus. Josefsson E, et al. **J Biol Chem** 1998 Nov 20;273(47):31145–52

Novel allergen structures with tandem amino acid repeats derived from German and American cockroach. Pomés A, et al. **J Biol Chem** 1998 Nov 13;273(46):30801–7

Cooperation between thrombospondin–1 type 1 repeat peptides and alpha(v)beta(3) integrin ligands to promote melanoma cell spreading and focal adhesion kinase phosphorylation. Sipes JM, et al. **J Biol Chem** 1999 Aug 6;274(32):22755–62

Short elastin–like peptides exhibit the same temperature–induced structural transitions as elastin polymers: implications for protein engineering. Reiersen H, et al. **J Mol Biol** 1998;283(1):255–64

Single molecule force spectroscopy of spectrin repeats: low unfolding forces in helix bundles. Rief M, et al. **J Mol Biol** 1999 Feb 19;286(2):553–61

Inhibition of antigen presentation by the glycine/alanine repeat domain is not conserved in simian homologues of Epstein–Barr virus nuclear antigen 1. Blake NW, et al. **J Virol** 1999 Sep;73(9):7381–9

The C–terminal region but not the Arg–X–Pro repeat of Epstein–Barr virus protein EB2 is required for its effect on RNA splicing and transport. Buisson M, et al. **J Virol** 1999 May;73(5):4090–100

Trypanosoma brucei GPEET–PARP is phosphorylated on six out of seven threonine residues. Mehlert A, et al. **Mol Biochem Parasitol** 1999 Jan 25;98(2):291–6

Fibronectin regulates assembly of actin filaments and focal contacts in cultured cells via the heparin–binding site in repeat III13. Bloom L, et al. **Mol Biol Cell** 1999 May; 10(5):1521–36

Biased amino acid composition in repeat regions of Plasmodium antigens. Verra F, et al. **Mol Biol Evol** 1999 May;16(5):627–33

Characterization of two LGR genes homologous to gonadotropin and thyrotropin receptors with extracellular leucine–rich repeats and a G protein–coupled, seven–transmembrane region. Hsu SY, et al. **Mol Endocrinol** 1998 Dec;12(12):1830–45

Clathrin self–assembly is mediated by a tandemly repeated superhelix. Ybe JA, et al. **Nature** 1999 May 27; 399(6734):371–5

A novel candidate presenilin–1 interacting protein containing tetratricopeptide repeats. Prihar G, et al. **Neuroreport** 1999 May 14;10(7):1409–15

A novel repeat domain that is often associated with RING finger and B–box motifs. Slack FJ, et al. **Trends Biochem Sci** 1998 Dec;23(12):474–5

The WD repeat: a common architecture for diverse functions. Smith TF, et al. **Trends Biochem Sci** 1999 May;24(5):181–5 (40 ref.)

GENETICS

Growth retardation and neonatal lethality in mice with a homozygous deletion in the C–terminal domain of RNA polymerase II. Litingtung Y, et al. **Mol Gen Genet** 1999 Feb;261(1):100–5

Differential regulation of cellular target genes by p53 devoid of the PXXP motifs with impaired apoptotic activity. Zhu J, et al. **Oncogene** 1999 Mar 25;18(12):2149–55

Pathogenesis of neurodegenerative diseases associated with expanded glutamine repeats: new answers, new questions. Ross CA, et al. **Prog Brain Res** 1998;117:397–419 (160 ref.)

IMMUNOLOGY

Antibodies reactive with the N–terminal domain of Plasmodium falciparum serine repeat antigen inhibit cell proliferation by agglutinating merozoites and schizonts. Pang XL, et al. **Infect Immun** 1999 Apr;67(4):1821–7

PHYSIOLOGY

The development of cell processes induced by tau protein requires phosphorylation of serine 262 and 356 in the repeat domain and is inhibited by phosphorylation in the proline–rich domains. Biernat J, et al. **Mol Biol Cell** 1999 Mar;10(3):727–40

Oligopeptide–repeat expansions modulate 'protein–only' inheritance in yeast. Liu JJ, et al. **Nature** 1999 Aug 5; 400(6744):573–6

Roles of the ankyrin repeats and C–terminal region of the mouse notch1 intracellular region [published erratum appears in Nucleic Acids Res 1999 Mar 1;27(5):following 1407] Kurooka H, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5448–55

REPETITIVE SEQUENCES, DISPERSED see **INTERSPERSED REPETITIVE SEQUENCES**

REPETITIVE SEQUENCES, INTERSPERSED see **INTERSPERSED REPETITIVE SEQUENCES**

REPETITIVE SEQUENCES, NUCLEIC ACID

see related
MULTIGENE FAMILY

Genomic fingerprinting of Proteus species using repetitive sequence based PCR (rep–PCR). Serwecińska L, et al. **Acta Microbiol Pol** 1998;47(3):313–9

Repeat expansion–detection analysis of telomeric uninterrupted (TTAGGG)n arrays [letter] Sirugo G, et al. **Am J Hum Genet** 1998 Aug;63(2):648–51

Species–specific repeat units in the intergenic spacer of the ribosomal RNA cistron of Anopheles aquasalis Curry. Perera OP, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):673–8

A probe containing ancient repetitive elements detects a new marker (S0521) on porcine chromosome 6. Fontanesi L, et al. **Anim Genet** 1999 Feb;30(1):76–7

Modeling selection for adjustable genes based on simple sequence repeats. King DG. **Ann N Y Acad Sci** 1999 May 18;870:396–9

Mutagenesis patterns in a tRNA mutation marker gene altered to include repetitive sequence replicated in mutS E. coli. Levy DD, et al. **Ann N Y Acad Sci** 1999 May 18;870:392–5

Palindromic DNA and genome stability. Further studies. Lewis S, et al. **Ann N Y Acad Sci** 1999 May 18;870:45–57

Overexpression of four–repeat tau mRNA isoforms in progressive supranuclear palsy but not in Alzheimer's disease. Chambers CB, et al. **Ann Neurol** 1999 Sep; 46(3):325–32

Genome analysis of Marek's disease virus strain CVI–988: effect of cell culture passage on the inverted repeat regions. van Iddekinge BJ, et al. **Avian Dis** 1999 Apr–Jun; 43(2):182–8

Structural and functional characterization of the 5'–flanking region of the rat and human cytochrome P450 2E1 genes: identification of a polymorphic repeat in the human gene. Hu Y, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):286–93

Roles of an Ets motif and a novel CACGAC direct repeat in transcription of the murine dihydrolipoamide dehydrogenase (Dld) gene. Yang HS, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):667–75

Characterization of an inverted repeat with a zero spacer (IR0)–type retinoic acid response element from the mouse nuclear orphan receptor TR2–11 gene. Lee CH, et al. **Biochemistry** 1999 Jul 6;38(27):8820–5

(CTG)n repeats markedly inhibit differentiation of the C2C12 myoblast cell line: implications for congenital myotonic dystrophy. Bhagwati S, et al. **Biochim Biophys Acta** 1999 Feb 24;1453(2):221–9

Clone–specific high–frequency retrotransposition of a recombinant virus containing a VL30 promoter in SV40–transformed NIH3T3 cells. Tzavaras T, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):186–98

Detecting periodic patterns in biological sequences. Coward E, et al. **Bioinformatics** 1998;14(6):498–507

REPuter: fast computation of maximal repeats in complete genomes. Kurtz S, et al. **Bioinformatics** 1999 May; 15(5):426–7

A ribosomal orphon sequence from Xenopus laevis flanked by novel low copy number repetitive elements. Guimond A, et al. **Biol Chem** 1999 Feb;380(2):167–74

Diurnal regulation of a DNA binding protein to the period repeat sequence in the SCN nuclear extract of rat brain. Hamada T, et al. **Brain Res Mol Brain Res** 1999 Mar 5; 65(2):211–5

A novel type of non–coding RNA expressed in the rat brain. Komine Y, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1–2):1–13

Gene silencing: repeats that count. Selker EU. **Cell** 1999 Apr 16;97(2):157–60 (23 ref.)

Functional dissection of nebulette demonstrates actin binding of nebulin–like repeats and Z–line targeting of SH3 and linker domains. Moncman CL, et al. **Cell Motil Cytoskeleton** 1999;44(1):1–22

Characterization of sequences associated with position–effect variegation at pericentric sites in Drosophila heterochromatin. Cryderman DE, et al. **Chromosoma** 1998 Nov;107(5):277–85

The chromosomal organization of simple sequence repeats in wheat and rye genomes. Cuadrado A, et al. **Chromosoma** 1998 Dec;107(8):587–94

Evolution of the scrambled germline gene encoding alpha–telomere binding protein in three hypotrichous ciliates. Prescott JD, et al. **Chromosoma** 1998 Nov; 107(5):293–303

Chromosome painting of Y chromosomes and isolation of a Y chromosome–specific repetitive sequence in the dioecious plant Rumex acetosa. Shibata F, et al.

Chromosoma 1999 Aug;108(4):266–70
Repetitive DNA sequences in the common vole: cloning, characterization and chromosome localization of two novel complex repeats MS3 and MS4 from the genome of the East European vole Microtus rossiaemeridionalis. Elisaphenko EA, et al. **Chromosome Res** 1998 Aug; 6(5):351–60
Mapping of members of the low-copy-number repetitive DNA sequence family chAB4 within the p arms of human acrocentric chromosomes: characterization of Robertsonian translocations. Kehrer-Sawatzki H, et al. **Chromosome Res** 1998 Sep;6(6):429–35
Protein binding to simple repetitive sequences depends on DNA secondary structure(s). Mäueler W, et al. **Chromosome Res** 1999;7(3):163–6 (14 ref.)
A novel repetitive sequence, termed the JNK repeat family, located on an extra heterochromatic region of chromosome 2R of Japanese rye. Nagaki K, et al. **Chromosome Res** 1999; 7(2):95–101
AFLPs represent highly repetitive sequences in Asparagus officinalis L. Reamon-Büttner SM, et al. **Chromosome Res** 1999;7(4):297–304
Evaluation of the telomeric repeat amplification protocol (TRAP) assay for telomerase as a diagnostic modality in recurrent bladder cancer. Dalbagni G, et al. **Clin Cancer Res** 1997 Sep;3(9):1593–8
A complete set of repeat-depleted, PCR-amplifiable, human chromosome-specific painting probes. Bolzer A, et al. **Cytogenet Cell Genet** 1999;84(3–4):233–40
Evidence of a differential organization of chromatin containing terminal or interstitial (TTAGGG)n repeats by in situ digestion with nucleases. Fernández JL, et al. **Cytogenet Cell Genet** 1998;82(3–4):195–8
Differential destabilization of repetitive sequence hybrids in fluorescence in situ hybridization. Hozier JC, et al. **Cytogenet Cell Genet** 1998;83(1–2):60–3
Role of a 461-bp G-rich repetitive element in H19 transgene imprinting. Stadnick MP, et al. **Dev Genes Evol** 1999 Apr; 209(4):239–48
Simultaneous genetic typing from multiple short tandem repeat loci using a 96-capillary array electrophoresis system. Gao Q, et al. **Electrophoresis** 1999 Jun; 20(7):1518–26
Cohabitation of insulators and silencing elements in yeast subtelomeric regions. Fourel G, et al. **EMBO J** 1999 May 4;18(9):2522–37
Transcription through a simple DNA repeat blocks replication elongation. Krasilnikova MM, et al. **EMBO J** 1998 Sep 1;17(17):5095–102
Use of a repetitive mouse B2 element to identify transplanted mouse cells in mouse-chick chimeras. Bollag RJ, et al. **Exp Cell Res** 1999 Apr 10;248(1):75–8
Rapid prenatal diagnosis of trisomy 21 by polymerase chain reaction- associated analysis of small tandem repeats and S100B in chromosome 21. Yang YH, et al. **Fetal Diagn Ther** 1998 Nov-Dec;13(6):361–6
In vivo addition of telomeric repeats to foreign DNA generates extrachromosomal DNAs in the taxol-producing fungus Pestalotiopsis microspora. Long DM, et al. **Fungal Genet Biol** 1998 Aug;24(3):335–44
Relationship between the cagA 3' repeat region of Helicobacter pylori, gastric histology, and susceptibility to low pH. Yamaoka Y, et al. **Gastroenterology** 1999 Aug; 117(2):342–9
The region 3' to Calpha1 gene of human IG heavy chain displays a polymorphic duplicated sequence and encodes an RNA associated with polysomes. Frezza D, et al. **Gene** 1998 Sep 28;219(1–2):19–24
Identification of enhancer-like elements in the ribosomal intergenic spacer of Odontophrynus americanus 2n and 4n (Amphibia, Anura). Alvares LE, et al. **Genetica** 1998; 104(1):41–4
Localization of subtelomeric sequences of human chromosomes 1q, 11p, 13q, and 16q in the higher primates. Conte RA, et al. **Genetica** 1999;105(1):31–4
Dependence of the regulation of telomere length on the type of subtelomeric repeat in the yeast Saccharomyces cerevisiae. Craven RJ, et al. **Genetics** 1999 Aug; 152(4):1531–41
Organization and distribution of a Sau3A tandem repeated DNA sequence in Picea (Pinaceae) species. Brown GR, et al. **Genome** 1998 Aug;41(4):560–5
Families of repeated DNA in the oomycete Phytophthora infestans and their distribution within the genus. Judelson HS, et al. **Genome** 1998 Aug;41(4):605–15
Isolation and characterization of simple sequence repeat loci in the gray tree frog, Hyla chrysoscelis. Krenz JD, et al. **Genome** 1999 Aug;42(4):676–80
A pentamer-repeat-containing DNA sequence in Texas bluebonnet (Lupinus texensis Hook.) MacRae AF. **Genome** 1998 Aug;41(4):553–9
Arrays of repetitive DNA elements in the largest chromosomes of Toxoplasma gondii. Matrajt M, et al. **Genome** 1999 Apr;42(2):265–9
Cloning and genetic variability of a HindIII repetitive DNA in Acrossocheilus paradoxus (Cyprinidae). Wu WL, et al. **Genome** 1999 Aug;42(4):780–8
Elongated telomeres in scid mice. Hande P, et al. **Genomics** 1999 Mar 1;56(2):221–3
Reduction of telomeric repeats as a possible predictor for development of hepatocellular carcinoma: convenient evaluation by slot-blot analysis. Isokawa O, et al. **Hepatology** 1999 Aug;30(2):408–12
Development and polymorphism of simple sequence repeat DNA markers for Shorea curtisii and other Dipterocarpaceae species. Ujino T, et al. **Heredity** 1998 Oct;81 (Pt 4):422–8
Insertion of two independent enhancers in the long terminal repeat of a self-inactivating vector results in high-titer retroviral vectors with tissue-specific expression. Fassati A, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2459–68
The STR polymorphisms in intron 8 may provide information about the molecular evolution of RH haplotypes. Fujiwara H, et al. **Hum Genet** 1999 Apr;104(4):301–6
Loss of heterozygosity in polycystic kidney disease with a missense mutation in the repeated region of PKD1. Koptides M, et al. **Hum Genet** 1998 Dec;103(6):709–17
Repetitive exon 45/46-related sequences of human Ca2+ channel alpha1C subunit gene. Soldatov NM, et al. **Hum Hered** 1998 Sep-Oct;48(5):241–4
The ancestral gene for transcribed, low-copy repeats in the Prader-Willi/Angelman region encodes a large protein implicated in protein trafficking, which is deficient in mice with neuromuscular and spermiogenic abnormalities. Ji Y, et al. **Hum Mol Genet** 1999 Mar;8(3):533–42
Extremely complex repeat shuffling during germline mutation at human minisatellite B6.7. Tamaki K, et al. **Hum Mol Genet** 1999 May;8(5):879–88
Pseudoachondroplasia due to the substitution of the highly conserved Asp482 by Gly in the seventh calmodulin-like repeat of cartilage oligomeric matrix protein. Susic S, et al. **Hum Mutat** 1998;Suppl 1:S125–7
Sequence heterogeneity in a repetitive DNA element of Fasciola. Krämer F, et al. **Int J Parasitol** 1998 Dec; 28(12):1923–9
Compression of strings with approximate repeats. Allison L, et al. **Ismb** 1998;6:8–16
Slipped misalignment mechanisms of deletion formation: in vivo susceptibility to nucleases. Bzymek M, et al. **J Bacteriol** 1999 Jan;181(2):477–82
The mithramycin gene cluster of Streptomyces argillaceus contains a positive regulatory gene and two repeated DNA sequences that are located at both ends of the cluster. Lombó F, et al. **J Bacteriol** 1999 Jan;181(2):642–7
A family of telomere-associated autonomously replicating sequences and their functions in targeted recombination in Hansenula polymorpha DL-1. Sohn JH, et al. **J Bacteriol** 1999 Feb;181(3):1005–13
Tetratricopeptide repeat (TPR) motifs of p67(phox) participate in interaction with the small GTPase Rac and activation of the phagocyte NADPH oxidase. Koga H, et al. **J Biol Chem** 1999 Aug 27;274(35):25051–60
New 5'-(CGG)n-3' repeats in the human genome. Mangel L, et al. **J Biol Chem** 1998 Nov 13;273(46):30466–71
In vitro binding of H1 histone subtypes to nucleosomal organized mouse mammary tumor virus long terminal repeat promotor. Talasz H, et al. **J Biol Chem** 1998 Nov 27;273(48):32236–43
Molecular genotyping of Staphylococcus aureus strains: comparison of repetitive element sequence-based PCR with various typing methods and isolation of a novel epidemicity marker. van der Zee A, et al. **J Clin Microbiol** 1999 Feb;37(2):342–9
A comparative approach to physical and linkage mapping of genes on canine chromosomes using gene-associated simple sequence repeat polymorphisms illustrated by studies of dog chromosome 9. Werner P, et al. **J Hered** 1999 Jan-Feb;90(1):39–42 (21 ref.)
Inversion/dimerization of plasmids mediated by inverted repeats. Lyu YL, et al. **J Mol Biol** 1999 Jan 29; 285(4):1485–501
The long terminal repeat of an endogenous retrovirus induces alternative splicing and encodes an additional carboxy-terminal sequence in the human leptin receptor. Kapitonov VV, et al. **J Mol Evol** 1999 Feb;48(2):248–51
Characterization of repetitive DNA elements in Arabidopsis. Surzycki SA, et al. **J Mol Evol** 1999 Jun;48(6):684–91
A Japanese family with spinocerebellar ataxia type 6 which includes three individuals homozygous for an expanded CAG repeat in the SCA6/CACNL1A4 gene. Takiyama Y, et al. **J Neurol Sci** 1998 Jun 30;158(2):141–7
In vivo footprinting of the enhancer sequences in the upstream long terminal repeat of Moloney murine leukemia virus: differential binding of nuclear factors in different cell types. Granger SW, et al. **J Virol** 1998 Nov; 72(11):8961–70
RNA replication for the paramyxovirus simian virus 5 requires an internal repeated (CGNNNN) sequence motif. Murphy SK, et al. **J Virol** 1999 Jan;73(1):805–9
Single base discrimination of CENP-B repeats on mouse and human Chromosomes with PNA-FISH. Chen C, et al. **Mamm Genome** 1999 Jan;10(1):13–8
Characterization of a swine chromosome-specific centromeric higher-order repeat. Janzen MA, et al. **Mamm Genome** 1999 Jun;10(6):579–84
Isolation of 48 genetic markers appropriate for high throughput genotyping of inbred rat strains by B1 repetitive sequence-representational difference analysis. Ushijima T, et al. **Mamm Genome** 1998 Dec;9(12):1008–12
MuERVC: a new family of murine retrovirus-related repetitive sequences and its relationship to previously known families. Zhao Y, et al. **Mamm Genome** 1999 May; 10(5):477–81
Genetic applications of transposons and other repetitive elements in zebrafish. Ivics Z, et al. **Methods Cell Biol** 1999; 60:99–131 (110 ref.)
Rapid detection and simultaneous strain differentiation of Mycobacterium tuberculosis complex bacteria by spoligotyping. Molhuizen HO, et al. **Methods Mol Biol** 1998;101:381–94
New insertion sequences and a novel repeated sequence in the genome of Mycobacterium tuberculosis H37Rv. Gordon SV, et al. **Microbiology** 1999 Apr;145 (Pt 4):881–92
Three new members of the serine-aspartate repeat protein multigene family of Staphylococcus aureus. Josefsson E, et al. **Microbiology** 1998 Dec;144 (Pt 12):3387–95
Telomeric features of Theileria parva mitochondrial DNA derived from cycle sequence data of total genomic DNA. Shukla GC, et al. **Mol Biochem Parasitol** 1998 Sep 1; 95(1):159–63
Identification of darlin, a Dictyostelium protein with Armadillo-like repeats that binds to small GTPases and is important for the proper aggregation of developing cells. Vithalani KK, et al. **Mol Biol Cell** 1998 Nov;9(11):3095–106
Molecular evolution of the CMT1A-REP region: a human- and chimpanzee-specific repeat. Keller MP, et al. **Mol Biol Evol** 1999 Aug;16(8):1019–26
Cross-species amplification of soybean (Glycine max) simple sequence repeats (SSRs) within the genus and other legume genera: implications for the transferability of SSRs in plants. Peakall R, et al. **Mol Biol Evol** 1998 Oct; 15(10):1275–87
Analysis of long repeats in bacterial genomes reveals alternative evolutionary mechanisms in Bacillus subtilis and other competent prokaryotes. Rocha EP, et al. **Mol Biol Evol** 1999 Sep;16(9):1219–30
Genetic stability and DNA rearrangements associated with a 2 x 1.1-Kb perfect palindrome in Escherichia coli. Malagón F, et al. **Mol Gen Genet** 1998 Oct;259(6):639–44
Structure and function of repetitive sequence elements associated with a highly polymorphic domain of the Neisseria meningitidis PilQ protein. Tønjum T, et al. **Mol Microbiol** 1998 Jul;29(1):111–24
Elongation of (CTG)n repeats in myotonic dystrophy protein kinase gene in tumors associated with myotonic dystrophy patients. Jinnai K, et al. **Muscle Nerve** 1999 Sep; 22(9):1271–4
Detection and sizing of telomeric repeat DNA in situ. Serakinci N, et al. **Nat Biotechnol** 1999 Feb;17(2):200–1
Counting the repetitive kringle-IV repeats in the gene encoding human apolipoprotein(a) by fibre-FISH [letter] Erdel M, et al. **Nat Genet** 1999 Apr;21(4):357–8
Unconventional helical phasing of repetitive DNA motifs reveals their relative bending contributions. Dlakic M, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4274–9
Unstable retrovirus mutants with acquired transforming activity: rapid changes in the number of repeats of a specific junD polynucleotide segment. Ito T, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4868–73
Spectral and physical characterization of the inverted terminal repeat DNA structure from adenoassociated virus 2. Ren J, et al. **Nucleic Acids Res** 1999 May 1;27(9):1985–90
Transcription analysis of the telomeric repeat-specific retrotransposons TRAS1 and SART1 of the silkworm Bombyx mori. Takahashi H, et al. **Nucleic Acids Res** 1999 May 1;27(9):2015–21
Telomeric repeats on small polydisperse circular DNA (spcDNA) and genomic instability. Regev A, et al. **Oncogene** 1998 Dec 31;17(26):3455–61
Location of repetitive regions in sequences by optimizing a compression method. Delgrange O, et al. **Pac Symp Biocomput** 1999;:254–65
Time and memory efficient algorithm for extracting palindromic and repetitive subsequences in nucleic acid sequences. Tsunoda T, et al. **Pac Symp Biocomput** 1999; :202–13
The EMB 506 gene encodes a novel ankyrin repeat containing protein that is essential for the normal development of Arabidopsis embryos. Albert S, et al. **Plant J** 1999 Jan;17(2):169–79
A 13-bp cis-regulatory element in the LTR promoter of the tobacco retrotransposon Tto1 is involved in responsiveness to tissue culture, wounding, methyl jasmonate and fungal elicitors. Takeda S, et al. **Plant J** 1999 May;18(4):383–93
CORE-SINEs: eukaryotic short interspersed retroposing elements with common sequence motifs. Gilbert N, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2869–74
Identification of the endonuclease domain encoded by R2 and other site-specific, non-long terminal repeat retrotransposable elements. Yang J, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7847–52
Nonmethylated transposable elements and methylated genes in a chordate genome. Simmen MW, et al. **Science** 1999 Feb 19;283(5405):1164–7
A 189-bp repeat region within the human cytomegalovirus replication origin contains a sequence dispensable but irreplaceable with other sequences. Chen Z, et al. **Virology** 1999 Jun 5;258(2):240–8
Mapping of a mouse mammary tumor virus integration site by retroviral LTR--arbitrary polymerase chain reaction. Casper C, et al. **Virus Res** 1998 Apr;54(2):207–15
[Long terminal repeat of the human endogenous retrovirus HERV-K in the intron of the ZNF91 gene] Khil PP, et al. **Bioorg Khim** 1998 Feb;24(2):126–31 (Eng. Abstr.) **(Rus)**
[Characteristics of short repeating sequences of DNA from

the MSAT-160 family in the Microtus arvalis vole (Rodentia, Cricetidae)] Shevchenko AI, et al. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):603-8 **(Rus)**

[Polymorphism of B1-associated DNA fragments on various stages of ontogenesis of mice in tissues of different histogenesis] Aleksandrova SA, et al. **Tsitologiia** 1998; 40(7):613-7 (Eng. Abstr.) **(Rus)**

GENETICS

Chromosome breakage in the Prader-Willi and Angelman syndromes involves recombination between large, transcribed repeats at proximal and distal breakpoints. Amos-Landgraf JM, et al. **Am J Hum Genet** 1999 Aug; 65(2):370-86

Genetic basis of enterobacterial repetitive intergenic consensus (ERIC)-PCR fingerprint pattern in Sinorhizobium meliloti and identification of S. meliloti employing PCR primers derived from an ERIC-PCR fragment. Niemann S, et al. **Arch Microbiol** 1999 Jul; 172(1):22-30

Repetitive elements amplified during differential display. Steinebrunner I, et al. **Biotechniques** 1998 Sep;25(3):370-2, 374

ETV6-AML1 translocation breakpoints cluster near a purine/pyrimidine repeat region in the ETV6 gene. Thandla SP, et al. **Blood** 1999 Jan 1;93(1):293-9

Transgenic mice in the study of polyglutamine repeat expansion diseases. Bates GP, et al. **Brain Pathol** 1998 Oct; 8(4):699-714 (53 ref.)

Instability of the CAG repeat in immortalized fibroblast cell cultures from Huntington's disease transgenic mice. Manley K, et al. **Brain Res** 1999 Jul 17;835(1):74-9

Repetitive arrays containing a housekeeping gene have altered polytene chromosome morphology in Drosophila. Clark DV, et al. **Chromosoma** 1998 May;107(2):96-104

Characterization of a species-specific repetitive DNA from a highly endangered wild animal, Rhinoceros unicornis, and assessment of genetic polymorphism by microsatellite associated sequence amplification (MASA). Ali S, et al. **Gene** 1999 Mar 4;228(1-2):33-42

Similarity in oligonucleotide usage in introns and intergenic regions contributes to long-range correlation in the Caenorhabditis elegans genome. Frontali C, et al. **Gene** 1999 May 17;232(1):87-95

Germ cell-specific enhancer activity of a repeated element in a variable region of the mouse genome. Sage J, et al. **Gene** 1998 Oct 9;221(1):85-92

GEM, a cluster of repetitive sequences in the Drosophila subobscura genome. Vivas MV, et al. **Gene** 1999 Mar 18; 229(1-2):47-57

Infrequent frameshift mutations of polynucleotide repeats in multiple primary cancers affecting the esophagus and other organs. Iwaya T, et al. **Genes Chromosomes Cancer** 1998 Dec;23(4):317-22

Absence or low number of telomere repeats at junctions of dicentric chromosomes. Wan TS, et al. **Genes Chromosomes Cancer** 1999 Jan;24(1):83-6

Analysis of two cosmid clones from chromosome 4 of Drosophila melanogaster reveals two new genes amid an unusual arrangement of repeated sequences. Locke J, et al. **Genome Res** 1999 Feb;9(2):137-49

Multivariate analysis of factors influencing repeat expansion detection. Zander C, et al. **Genome Res** 1998 Oct; 8(10):1085-94

A direct repeat sequence at the Rasgrf1 locus and imprinted expression. Pearsall RS, et al. **Genomics** 1999 Jan 15; 55(2):194-201

Growth inhibition by a triple ribozyme targeted to repetitive B2 transcripts. Crone TM, et al. **Hepatology** 1999 Apr; 29(4):1114-23

Repetitive conundrums of centromere structure and function. Eichler EE. **Hum Mol Genet** 1999 Feb;8(2):151-5 (54 ref.)

IS1634, a novel insertion element creating long, variable-length direct repeats which is specific for Mycoplasma mycoides subsp. mycoides small-colony type. Vilei EM, et al. **J Bacteriol** 1999 Feb;181(4):1319-23

Typing of Listeria monocytogenes strains by repetitive element sequence-based PCR. Jersek B, et al. **J Clin Microbiol** 1999 Jan;37(1):103-9

Molecular fingerprinting of Porphyromonas gingivalis by PCR of repetitive extragenic palindromic (REP) sequences and comparison with other fingerprinting methods. Teanpaisan R, et al. **J Med Microbiol** 1999 Aug;48(8):741-9

Sequence conservation of repeat 3 region of the gene coding for the 15 kDa polyprotein within human and simian Loa loa. Toure FS, et al. **J Med Primatol** 1999 Apr;28(2):57-61

An extracellular beta-propeller module predicted in lipoprotein and scavenger receptors, tyrosine kinases, epidermal growth factor precursor, and extracellular matrix components. Springer TA. **J Mol Biol** 1998 Nov 6; 283(4):837-62

Variable and invariable DNA repeat characters revealed by taxonprint approach are useful for molecular systematics. Fedorov AN, et al. **J Mol Evol** 1999 Jan;48(1):69-76

Short inverted-repeat transposable elements in teleost fish and implications for a mechanism of their amplification. Izsvák Z, et al. **J Mol Evol** 1999 Jan;48(1):13-21

Molecular analysis of a de novo mutation for spinocerebellar ataxia type 6 and (CAG)n repeat units in normal elder controls. Shizuka M, et al. **J Neurol Sci** 1998 Nov 26; 161(1):85-7

Genomic instability in Schistosoma mansoni. Grevelding CG. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):207-16

A chromosome-specific dispersed gene family in Trypanosoma cruzi. Tran AN, et al. **Mol Biochem Parasitol** 1999 May 25;100(2):229-34

Embryo deadenylation element-dependent deadenylation is enhanced by a cis element containing AUU repeats. Audic Y, et al. **Mol Cell Biol** 1998 Dec;18(12):6879-84

Reverse transcription of a self-primed retrotransposon requires an RNA structure similar to the U5-IR stem-loop of retroviruses. Lin JH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6859-69

Position-dependent methylation and transcriptional silencing of transgenes in inverted T-DNA repeats: implications for posttranscriptional silencing of homologous host genes in plants. Stam M, et al. **Mol Cell Biol** 1998 Nov; 18(11):6165-77

Organization of the 1.9-kb repeat unit RCE1 in the centromeric region of rice chromosomes. Nonomura KI, et al. **Mol Gen Genet** 1999 Feb;261(1):1-10

Pentanucleotide repeat and size polymorphisms in the apolipoprotein(a) gene are associated with the lipoprotein(a) concentration in chronic hemodialysis patients. Tanaka M, et al. **Nephron** 1999;81(4):414-20

Molecular structure and chromosomal localization of major repetitive DNA families in the chickpea (Cicer arietinum L.) genome. Staginnus C, et al. **Plant Mol Biol** 1999 Mar; 39(5):1037-50

Exon repetition in mRNA. Frantz SA, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5400-5

Combined numerical analysis based on the molecular description of Mycobacterium tuberculosis by four repetitive sequence-based DNA typing systems. Sola C, et al. **Res Microbiol** 1998 May;149(5):349-60

Androgen receptor gene CAG repeat length varies in a race-specific fashion in men without prostate cancer. Sartor O, et al. **Urology** 1999 Feb;53(2):378-80

Analysis of the equalization of inverted repeats and neurovirulence using a pseudorabies virus mutant strain altered at the Ul/Ir junction. Boldogköi Z, et al. **Virus Genes** 1998;17(1):89-98

[The isolation and analysis of the highly repetitive DNA from the argali] Fedorova EV, et al. **Tsitol Genet** 1998 Sep-Oct; 32(5):67-74 (Eng. Abstr.) **(Rus)**

[A structural analysis of the BRS1 repeat from the genomic DNA of barley (Hordeum vulgare L.)] Urbanovich OIu, et al. **Tsitol Genet** 1998 Jul-Aug;32(4):43-9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

The role of short sequence repeats in epidemiologic typing. van Belkum A. **Curr Opin Microbiol** 1999 Jun;2(3):306-11 (63 ref.)

REPLACEMENT THERAPY, ESTROGEN see **ESTROGEN REPLACEMENT THERAPY**

REPLACEMENT THERAPY, HORMONE see **HORMONE REPLACEMENT THERAPY**

REPLANTATION

Penile replantation--a case report. Nejedlý A, et al. **Acta Chir Plast** 1998;40(3):65-7

Postoperative ramifications of total ear replantation. Finical SJ, et al. **Ann Plast Surg** 1998 Dec;41(6):667-70

Investigation of metabolism and perfusion in arterialized venous replantation: experimental study in rabbits. Yilmaz M, et al. **Ann Plast Surg** 1999 Jul;43(1):67-73

Leech-borne Serratia marcescens infection following complex hand injury. Pereira JA, et al. **Br J Plast Surg** 1998 Dec;51(8):640-1

Venous drainage through bone marrow after replantation: an experimental study. Tanaka K, et al. **Br J Plast Surg** 1998 Dec;51(8):629-32

Salmonella infection in total hip replacement--report of successful reimplantation and review of the literature. Chen CM, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Jul; 62(7):472-6 (13 ref.)

The use of 'pericardial hoods' for maintaining exact coronary artery geometry in the arterial switch operation with complex coronary anatomy. Parry AJ, et al. **Eur J Cardiothorac Surg** 1999 Feb;15(2):159-64; discussion 164-5

Spinal cord implantation of avulsed ventral roots in primates; correlation between restored motor function and morphology. Hallin RG, et al. **Exp Brain Res** 1999 Feb; 124(3):304-10

Replantation of the great toe: two case reports. Sakamoto K, et al. **Foot Ankle Int** 1998 Sep;19(9):638-40

Prognostic factors for major limb re-implantation at both immediate and long-term follow-up. Waikakul S, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1024-30

Upper-extremity self-amputation and replantation: 2 case reports and a review of the literature. Schlozman SC. **J Clin Psychiatry** 1998 Dec;59(12):681-6 (22 ref.)

Late occlusion of microvascular vein grafts in replantation. Morrison WA, et al. **J Hand Surg [Am]** 1998 Nov; 23(6):1106-11

Effect of hyperbaric oxygen therapy as a monitoring technique for digital replantation survival. Kiyoshige Y. **J Reconstr Microsurg** 1999 Jul;15(5):327-30

Replantation of the midfoot in a child--six-year follow-up with pedobarographic analysis. Park EH, et al. **J Reconstr Microsurg** 1999 Jul;15(5):337-41

Rat-tail replantation model. Wang H, et al. **J Reconstr Microsurg** 1999 Apr;15(3):203-6

Local recombinant tissue plasminogen activator (rt-PA) thrombolytic therapy in microvascular surgery. Atiyeh BS, et al. **Microsurgery** 1999;19(6):265-71

Partial necrosis of an amputated penis following replantation in a heavy smoker: a case report. Kayikcioglu A, et al. **Microsurgery** 1998;18(3):189-91

Avulsion injuries of the thumb: survival factors and functional results of replantation. Aziz W, et al. **Orthopedics** 1998 Oct;21(10):1113-7

Effects of dimethylthiourea, melatonin, and hyperbaric oxygen therapy on the survival of reimplanted rabbit auricular composite grafts. Lim AA, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):231-7

An unusual indication for replantation [letter] Akyürek M, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1783-4

Secondary expansion of a replanted scalp salvaged by an intrinsic arteriovenous shunt. Hallock GG. **Plast Reconstr Surg** 1999 Jun;103(7):1957-60

Local subcutaneous heparin as treatment for venous insufficiency in replanted digits. Iglesias M, et al. **Plast Reconstr Surg** 1999 May;103(6):1719-24

An unusual case of microvascular replantation of the scalp [letter] Libermanis O, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2273-4

Transpositional replantation of digits. Case reports. Schwabegger AH, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):243-9

[Experiment and clinical application of squeezing technique in venous crisis after replantation of finger] Chen H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):347-9 (Eng. Abstr.) **(Chi)**

[Macroreimplantation of the upper limb. Results in 24 cases] Houzé de L'Aulnoit S, et al. **Ann Chir Plast Esthet** 1998 Apr;43(2):175-81 (Eng. Abstr.) **(Fre)**

[Revision of infected total hip prostheses by ablation reimplantation of an uncemented prosthesis. 57 case reports] Lecuire F, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jul; 85(4):337-48 (Eng. Abstr.) **(Fre)**

[Preliminary evaluation of the results of thumb replantation in the material of Plastic Surgery Clinic CMKP in Warsaw in 1983-1996] Molski M, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):243-9 (Eng. Abstr.) **(Pol)**

[Heterotopic replantation of fingers after traumatic amputation] Milanov NO, et al. **Khirurgiia (Mosk)** 1999; (8):18-22 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Intravenous bolus infusion of heparin for circulatory insufficiency after finger replantation. Noguchi M, et al. **J Reconstr Microsurg** 1999 May;15(4):245-53

METHODS

Successful replantation of an avulsed middle finger. Cheng SL, et al. **Ann Plast Surg** 1998 Dec;41(6):662-6

Effect of hyperbaric oxygen on survival of the composite ear graft in rats. Zhang F, et al. **Ann Plast Surg** 1998 Nov; 41(5):530-4

Coronary reimplantation in aortic root replacement: a method to avoid tension. Westaby S, et al. **Ann Thorac Surg** 1999 Apr;67(4):1176-7

Re-implantation of autoclaved bone segments in musculoskeletal tumor surgery. Clinical experience in 9 patients followed for 1.1-8.4 years and review of the literature. Böhm P, et al. **Arch Orthop Trauma Surg** 1998; 118(1-2):57-65 (59 ref.)

Reconstruction of a large defect of the ear using a composite graft following a human bite injury. Godwin Y, et al. **Br J Plast Surg** 1999 Mar;52(2):152-4

Heel replantation. Macionis V. **Br J Plast Surg** 1998 Sep; 51(6):473-5

Extravesical seromuscular tunnel: a new technique of ureteroneocystostomy. Shokeir AA, et al. **Br J Urol** 1998 Nov;82(5):749-51

Revision knee arthroplasty with patella replacement versus bony shell. Barrack RL, et al. **Clin Orthop** 1998 Nov; (356):139-43

Patellar component resection in revision and reimplantation total knee arthroplasty. Pagnano MW, et al. **Clin Orthop** 1998 Nov;(356):134-8

Replantation of multi-level hand severances. Pei GX, et al. **Injury** 1998 Jun;29(5):357-61

Major replantation versus revision amputation and prosthetic fitting in the upper extremity: a late functional outcomes study. Graham B, et al. **J Hand Surg [Am]** 1998 Sep; 23(5):783-91

An aid to digit replantation: a new use for the Harris silicone tile. Estela C, et al. **J Hand Surg [Br]** 1999 Apr;24(2):251

Distal digital replantations and revascularizations. 237 digits in 192 patients. Patradul A, et al. **J Hand Surg [Br]** 1998 Oct;23(5):578-82

The role of allopurinol in digital replantation. Waikakul S, et al. **J Hand Surg [Br]** 1999 Jun;24(3):325-7

Surgical treatment of vesicoureteral reflux in infants under 3 months of age. Liu C, et al. **J Pediatr Surg** 1998 Nov;

33(11):1716–9
Single-vessel arteriovenous revascularization of the amputated ear. Zamboni WA, et al. **J Reconstr Microsurg** 1999 Jan;15(1):9–13
Reimplantation of anomalous left coronary artery on a beating heart. el-Oakley R, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):395–6
Preservation of intercostal arteries during thoracoabdominal aortic aneurysm surgery: a retrospective study. Ross SD, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):17–25
Successful replantation of an bitten-off lower lip: case report. Wong SS, et al. **J Trauma** 1999 Sep;47(3):602–4
Microvascular anastomosis with minimal suture and fibrin glue: experimental and clinical study. Han SK, et al. **Microsurgery** 1998;18(5):306–11
Complete ear replantation without venous anastomosis. Nath RK, et al. **Microsurgery** 1998;18(4):282–5
Replantation in children. Yildiz M, et al. **Microsurgery** 1998; 18(7):410–3
Rat tail replantation as a training model for microvascular procedures of digit replantation. Zhang F, et al. **Microsurgery** 1998;18(6):364–7
The role of minimal surgery with renal preservation in abnormal complete duplex systems. Calisti A, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):347–9
Ureterocystoplasty in a patient with a single kidney. Dewan PA, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):413–4
Microsurgical replantation of an ear in a child without venous repair. Concannon MJ, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2088–93; discussion 2094–6
Replantation of fingertip amputation by using the pocket principle in adults. Lee PK, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1428–35
Total face and scalp replantation. Thomas A, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2085–7
Laparoscopic end-to-end aortobifemoral bypass with reimplantation of the inferior mesenteric artery. An experimental study. Dion YM, et al. **Surg Endosc** 1999 May; 13(5):449–51
[Successful replantation of whole scalp avulsion with micro-vascular anastomosis. A case report] Long J, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):375–6 **(Chi)**
[Role of emergency reconstruction of fingers by the "reposition-flap" technique. Report of eight cases] Pelissier P, et al. **Ann Chir Plast Esthet** 1998 Apr;43(2):182–7; discussion 188 (Eng. Abstr.) **(Fre)**
[Hand replantation: long-term functional results (apropos of 8 cases)] Tropet Y, et al. **Chirurgie** 1998 Apr;123(2):189–94 (Eng. Abstr.) **(Fre)**
[Successful ear replantation without venous anastomosis by using leeches] Otto A, et al. **Handchir Mikrochir Plast Chir** 1999 Mar;31(2):98–101 (Eng. Abstr.) **(Ger)**
[Microsurgical replantation of the main segments of the extremities] Iunusov MIu, et al. **Klin Khir** 1998;(7):26–7 (Eng. Abstr.) **(Rus)**

REHABILITATION

Long-term effects of sensory reeducation following digital replantation and revascularization. Shieh SJ, et al. **Microsurgery** 1998;18(5):334–6

REPLANTATION, TOOTH see **TOOTH REPLANTATION**

REPLICA TECHNIQUES

Application of a platinum replica method to the study of the cytoskeleton of isolated hair cells, supporting cells and whole mounts of the organ of Corti. Leonova EV, et al. **Hear Res** 1999 Apr;130(1–2):137–54
Vertical Pt–C replication for TEM, a revolution in imaging non-periodic macromolecules, biological gels and low-density polymer networks. Ruben GC. **Micron** 1998 Oct;29(5):359–96 (93 ref.)
Gallium replication in aquatic and nonaquatic organism scanning electron microscopy. Adachi E. **Ultramicroscopy** 1999 Aug;80(1):51–8

REPLICATION ORIGIN

Replication conrol: choreographing replication origins. Diffley JF. **Curr Biol** 1998 Oct 22;8(21):R771–3 (10 ref.)
Multiple initiations in the c-myc replication origin independent of chromosomal location. Trivedi A, et al. **DNA Cell Biol** 1998 Oct;17(10):885–96
Identifying sites of replication initiation in yeast chromosomes: looking for origins in all the right places. van Brabant AJ, et al. **Electrophoresis** 1998 Jun; 19(8–9):1239–46
Distribution of minichromosomes in individual Escherichia coli cells: implications for replication control. Løbner-Olesen A. **EMBO J** 1999 Mar 15;18(6):1712–21
Recruitment and loading of the E1 initiator protein: an ATP-dependent process catalysed by a transcription factor. Sanders CM, et al. **EMBO J** 1998 Dec 1;17(23):7044–55
Association of RPA with chromosomal replication origins requires an Mcm protein, and is regulated by Rad53, and cyclin- and Dbf4-dependent kinases. Tanaka T, et al. **EMBO J** 1998 Sep 1;17(17):5182–91
The 25 kDa protein recognizing the rat curved region upstream of the origin of the L-strand replication is the rat homologue of the human mitochondrial transcription factor A. Pierro P, et al. **FEBS Lett** 1999 Sep 3; 457(3):307–10
Gene encoding a replication initiator protein and replication origin of conjugative plasmid pSA1.1 of Streptomyces cyaneus ATCC 14921. Yokoyama E, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):103–9
Regulatory implications of protein assemblies at the gamma origin of plasmid R6K – a review. Filutowicz M, et al. **Gene** 1998 Nov 26;223(1–2):195–204 (90 ref.)
Gene organization in the trxA/B-oriC region of the Streptomyces coelicolor chromosome and comparison with other eubacteria. Gal-Mor O, et al. **Gene** 1998 Sep 14; 217(1–2):83–90
Characterization of the functional replication origin of Mycobacterium tuberculosis. Qin MH, et al. **Gene** 1999 Jun 11;233(1–2):121–30
Skewed oligomers and origins of replication. Salzberg SL, et al. **Gene** 1998 Sep 14;217(1–2):57–67
Cell cycle dependent topological changes of chromosomal replication origins in Saccharomyces cerevisiae. Fujita M, et al. **Genes Cells** 1998 Nov;3(11):737–49
A role for the Cdc7 kinase regulatory subunit Dbf4p in the formation of initiation-competent origins of replication. Pasero P, et al. **Genes Dev** 1999 Aug 15;13(16):2159–76
Conservation of ARS elements and chromosomal DNA replication origins on chromosomes III of Saccharomyces cerevisiae and S. carlsbergensis. Yang C, et al. **Genetics** 1999 Jul;152(3):933–41
DnaA boxes are important elements in setting the initiation mass of Escherichia coli. Christensen BB, et al. **J Bacteriol** 1999 May;181(9):2683–8
Universal minicircle sequence-binding protein, a sequence-specific DNA-binding protein that recognizes the two replication origins of the kinetoplast DNA minicircle. Abu-Elneel K, et al. **J Biol Chem** 1999 May 7;274(19):13419–26
Identification of a compound origin of replication at the HMR-E locus in Saccharomyces cerevisiae. Hurst ST, et al. **J Biol Chem** 1999 Feb 12;274(7):4155–9
Phage phi29 terminal protein residues Asn80 and Tyr82 are recognition elements of the replication origins. Illana B, et al. **J Biol Chem** 1999 May 21;274(21):15073–9
Interaction of SeqA and Dam methylase on the hemimethylated origin of Escherichia coli chromosomal DNA replication. Kang S, et al. **J Biol Chem** 1999 Apr 23;274(17):11463–8
Human Hsp70 and Hsp40 chaperone proteins facilitate human papillomavirus-11 E1 protein binding to the origin and stimulate cell-free DNA replication. Liu JS, et al. **J Biol Chem** 1998 Nov 13;273(46):30704–12
DNA methylation at mammalian replication origins. Rein T, et al. **J Biol Chem** 1999 Sep 3;274(36):25792–800
Escherichia coli DnaA protein. The N-terminal domain and loading of DnaB helicase at the E. coli chromosomal origin. Sutton MD, et al. **J Biol Chem** 1998 Dec 18; 273(51):34255–62
Functional genomic mapping of an early-activated centromeric mammalian origin of DNA replication. Pelletier R, et al. **J Cell Biochem** 1999 Sep 15;74(4):562–75
Regulation of mammalian replication origin usage in Xenopus egg extract. Dimitrova DS, et al. **J Cell Sci** 1998 Oct;111 (Pt 19):2989–98
Nucleoskeleton and initiation of DNA replication in metazoan cells. Ortega JM, et al. **J Cell Sci** 1998 Dec 18; 111 (Pt 24):3663–73
Cis-acting elements in the lytic origin of DNA replication of Marek's disease virus type 1. Katsumata A, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3015–8
Initiation of DNA replication in a eukaryotic rolling-circle replicon: identification of multiple DNA-protein complexes at the geminivirus origin. Castellano MM, et al. **J Mol Biol** 1999 Jul 16;290(3):639–52
Analysis of DNA replication forks encountering a pyrimidine dimer in the template to the leading strand. Cordeiro-Stone M, et al. **J Mol Biol** 1999 Jun 25;289(5):1207–18
DNA replication errors produced by the replicative apparatus of Escherichia coli. Fujii S, et al. **J Mol Biol** 1999 Jun 18;289(4):835–50
Influence of a replication enhancer on the hierarchy of origin efficiencies within a cluster of DNA replication origins. Kim SM, et al. **J Mol Biol** 1999 May 21;288(5):867–82
Sequence requirements for the assembly of simian virus 40 T antigen and the T-antigen origin binding domain on the viral core origin of replication. Kim HY, et al. **J Virol** 1999 Sep;73(9):7543–55
Role of the ATP-binding domain of the human papillomavirus type 11 E1 helicase in E2-dependent binding to the origin. Titolo S, et al. **J Virol** 1999 Jul; 73(7):5282–93
Characterization of the oriI and oriII origins of replication in phage-plasmid P4. Tocchetti A, et al. **J Virol** 1999 Sep; 73(9):7308–16
Enhanced binding to origin DNA at low pH enables easy detection of polyomavirus large T antigen by gel mobility shift assay of unfixed complexes. Peng YC, et al. **J Virol Methods** 1999 Mar;78(1–2):13–9
Applications of oriP plasmids and their mode of replication. Mackey D, et al. **Methods Enzymol** 1999;306:308–28 (121 ref.)
Short DNA fragments without sequence similarity are initiation sites for replication in the chromosome of the yeast Yarrowia lipolytica. Vernis L, et al. **Mol Biol Cell** 1999 Mar;10(3):757–69
Evidence that protein binding specifies sites of DNA demethylation. Hsieh CL. **Mol Cell Biol** 1999 Jan; 19(1):46–56
Activity of the c-myc replicator at an ectopic chromosomal location. Malott M, et al. **Mol Cell Biol** 1999 Aug; 19(8):5685–95
Specification of regions of DNA replication initiation during embryogenesis in the 65-kilobase DNApolalpha-dE2F locus of Drosophila melanogaster. Sasaki T, et al. **Mol Cell Biol** 1999 Jan;19(1):547–55
Active role of a human genomic insert in replication of a yeast artificial chromosome. van Brabant AJ, et al. **Mol Cell Biol** 1999 Jun;19(6):4231–40
Activation of silent replication origins at autonomously replicating sequence elements near the HML locus in budding yeast. Vujcic M, et al. **Mol Cell Biol** 1999 Sep; 19(9):6098–109
In vivo definition of the functional origin of leading strand replication on the lactococcal plasmid pFX2. Grohmann E, et al. **Mol Gen Genet** 1998 Oct;260(1):38–47
Mobilisation of the streptococcal plasmid pMV158: interactions of MobM protein with its cognate oriT DNA region. Grohmann E, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):707–15
Conversion to bidirectional replication after unidirectional initiation from R1 plasmid origin integrated at oriC in Escherichia coli. Maisnier-Patin S, et al. **Mol Microbiol** 1998 Dec;30(5):1067–79
Physical mapping of an origin of bidirectional replication at the centre of the Borrelia burgdorferi linear chromosome. Picardeau M, et al. **Mol Microbiol** 1999 Apr; 32(2):437–45
Hemi-methylated oriC DNA binding activity found in non-specific acid phosphatase. Reshetnyak E, et al. **Mol Microbiol** 1999 Jan;31(1):167–75
Regulation of DNA-replication origins during cell-cycle progression. Shirahige K, et al. **Nature** 1998 Oct 8; 395(6702):618–21
Early activated replication origins within the cell cycle-regulated histone H4 genes in Physarum. Bénard M, et al. **Nucleic Acids Res** 1999 May 15;27(10):2091–8
The FIS protein fails to block the binding of DnaA protein to oriC, the Escherichia coli chromosomal origin. Margulies C, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5170–5
The central lysine in the P-loop motif of the Escherichia coli DnaA protein is essential for initiating DNA replication from the chromosomal origin, oriC, and the F factor origin, oriS, but is dispensable for initiation from the P1 plasmid origin, oriR. Skovgaard O, et al. **Plasmid** 1998 Sep;40(2):91–9
Localization of bacterial DNA polymerase: evidence for a factory model of replication [see comments] Lemon KP, et al. **Science** 1998 Nov 20;282(5393):1516–9. Comment in: Science 1998 Nov 20;282(5393):1430–1.
DNA replication. Bringing the mountain to Mohammed [comment] Losick R, et al. **Science** 1998 Nov 20; 282(5393):1430–1. Comment on: Science 1998 Nov 20;282(5393):1516–9.
A 189-bp repeat region within the human cytomegalovirus replication origin contains a sequence dispensable but irreplaceable with other sequences. Chen Z, et al. **Virology** 1999 Jun 5;258(2):240–8
A short noncoding viral DNA element showing characteristics of a replication origin confers bacteriophage resistance to Streptococcus thermophilus. Foley S, et al. **Virology** 1998 Oct 25;250(2):377–87
Posttranscriptional regulation of US11 in cells infected with a herpes simplex virus 1 recombinant lacking both 222-bp domains containing S-component origins of DNA synthesis. McCormick L, et al. **Virology** 1999 Jul 5; 259(2):286–98

DRUG EFFECTS

The 2.2 A structure of a permanganate-sensitive DNA site bound by the Epstein-Barr virus origin binding protein, EBNA1. Bochkarev A, et al. **J Mol Biol** 1998 Dec 18; 284(5):1273–8 (24 ref.)

GENETICS

Replication origins in metazoan chromosomes: fact or fiction? DePamphilis ML. **Bioessays** 1999 Jan;21(1):5–16 (97 ref.)
Replication origin region of the chromosome of alkaliphilic Bacillus halodurans C-125. Takami H, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1134–7
The regulation of replication origin activation. Donaldson AD, et al. **Curr Opin Genet Dev** 1999 Feb;9(1):62–8 (68 ref.)
A role for a replicator dominance mechanism in silencing. Palacios DeBeer MA, et al. **EMBO J** 1999 Jul 1; 18(13):3808–19
Regulation of DNA replication by iterons: an interaction between the ori2 and incC regions mediated by RepE-bound iterons inhibits DNA replication of mini-F plasmid in Escherichia coli. Uga H, et al. **EMBO J** 1999 Jul 1;18(13):3856–67
An enhanced EBNA1 variant with reduced IR3 domain for long-term episomal maintenance and transgene expression of oriP-based plasmids in human cells. Wendelburg BJ,

et al. **Gene Ther** 1998 Oct;5(10):1389–99
HMR-1 is an origin of replication and a silencer in Saccharomyces cerevisiae. Rivier DH, et al. **Genetics** 1999 Feb;151(2):521–9
Replication of R6K gamma origin in vitro: discrete start sites for DNA synthesis dependent on pi and its copy-up variants. Chen D, et al. **J Mol Biol** 1998 Oct 2; 282(4):775–87
Physical and genetic mapping of mammalian replication origins. Dijkwel PA, et al. **Methods** 1999 Jul;18(3):418–31
Genetic methods for characterizing the cis-acting components of yeast DNA replication origins. Huberman JA. **Methods** 1999 Jul;18(3):356–67
Replication regions from plant-pathogenic Pseudomonas syringae plasmids are similar to ColE2-related replicons. Gibbon MJ, et al. **Microbiology** 1999 Feb;145 (Pt 2):325–34
Distal sequences, but not ori-beta/OBR-1, are essential for initiation of DNA replication in the Chinese hamster DHFR origin. Kalejta RF, et al. **Mol Cell** 1998 Dec; 2(6):797–806
Multiple orientation-dependent, synergistically interacting, similar domains in the ribosomal DNA replication origin of the fission yeast, Schizosaccharomyces pombe. Kim SM, et al. **Mol Cell Biol** 1998 Dec;18(12):7294–303
An origin of bidirectional DNA replication is located within a CpG island at the 3' end of the chicken lysozyme gene. Phi-van L, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3009–17
Long range cooperative interactions regulate the initiation of replication in the Tetrahymena thermophila rDNA minichromosome. Reischmann KP, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3079–89
Initiation of DNA replication at the Chinese hamster origin oriGNAI3 relies on local sequences and/or chromatin structures, but not on transcription of the nearby GNAI3 gene. Toledo F, et al. **Nucleic Acids Res** 1999 Apr 1; 27(7):1600–8
The fission yeast homologue of Orc4p binds to replication origin DNA via multiple AT-hooks. Chuang RY, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2656–61
High-affinity binding of hemimethylated oriC by Escherichia coli membranes is mediated by a multiprotein system that includes SeqA and a newly identified factor, SeqB. Shakibai N, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15; 95(19):11117–21
Replication of the linear chromosomal DNA from the centrally located oriC of Streptomyces ambofaciens revealed by PFGE gene dosage analysis. Fischer G, et al. **Res Microbiol** 1998 Mar;149(3):203–10

PHYSIOLOGY

Initiation of DNA replication in eukaryotes: questioning the origin. Françon P, et al. **FEBS Lett** 1999 Jun 4; 452(1-2):87–91 (62 ref.)
The replication inhibition activity of the WT1 tumor suppressor protein resides in its N-terminal 298 amino acid region, and does not require specific binding of the protein to the replication origin sequence. Murthy N, et al. **Int J Oncol** 1998 Dec;13(6):1275–80
Identification and functional analysis of a putative non-hr origin of DNA replication from the Spodoptera littoralis type B multinucleocapsid nucleopolyhedrovirus. Huang J, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2263–74
Bacteriophage T4 initiates bidirectional DNA replication through a two-step process. Belanger KG, et al. **Mol Cell** 1998 Nov;2(5):693–701

RADIATION EFFECTS

Radiation down-regulates replication origin activity throughout the S phase in mammalian cells. Larner JM, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):803–9

REPLICATION UNIT see **REPLICON**

REPLICATIVE SENESCENCE see **CELL AGING**

REPLICON

Replication and transcription of HCV 229E replicons. p6 Thiel V, et al. **Adv Exp Med Biol** 1998;440:109–13
Characterization of the basic replicon of Rhodococcus plasmid pSOX and development of a Rhodococcus-Escherichia coli shuttle vector. Denis-Larose C, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4363–7
Effects of structural modifications upon the accumulation in planta of replicons derived from beet necrotic yellow vein virus RNA 3. Lauber E, et al. **Arch Virol** 1999; 144(6):1201–8
Snapshot of a large dynamic replicon in a halophilic archaeon: megaplasmid or minichromosome? Ng WV, et al. **Genome Res** 1998 Nov;8(11):1131–41
Three replicons of Rhizobium sp. Strain NGR234 harbor symbiotic gene sequences. Flores M, et al. **J Bacteriol** 1998 Nov;180(22):6052–3
Site-directed mutants of RTP of Bacillus subtilis and the mechanism of replication fork arrest. Duggin IG, et al. **J Mol Biol** 1999 Mar 12;286(5):1325–35
The evolution of diversity in replicator networks. Happel R, et al. **J Theor Biol** 1998 Dec 7;195(3):329–38
Selection of RNA replicons capable of persistent noncytopathic replication in mammalian cells. Frolov I, et al. **J Virol** 1999 May;73(5):3854–65
Regulated expression of a Sindbis virus replicon by herpesvirus promoters. Ivanova L, et al. **J Virol** 1999 Mar; 73(3):1998–2005
Cytopathogenic and noncytopathogenic RNA replicons of classical swine fever virus. Moser C, et al. **J Virol** 1999 Sep;73(9):7787–94
Functional coupling between replication and packaging of poliovirus replicon RNA. Nugent CI, et al. **J Virol** 1999 Jan;73(1):427–35
Characterization of the oriI and oriII origins of replication in phage-plasmid P4. Tocchetti A, et al. **J Virol** 1999 Sep; 73(9):7308–16
The partitioning activity of the RK2 central control region requires only incC, korB and KorB-binding site O(B)3 but other KorB-binding sites form destabilizing complexes in the absence of O(B)3. Williams DR, et al. **Microbiology** 1998 Dec;144 (Pt 12):3369–78
Analysis of the replication region of the cryptic plasmid pHE1 from the moderate halophile Halomonas elongata. Vargas C, et al. **Mol Gen Genet** 1999 Jun;261(4-5):851–61
Inhibition of a naturally occurring rolling-circle replicon in derivatives of the theta-replicating plasmid pIP501. Pujol C, et al. **Mol Microbiol** 1998 Aug;29(3):709–18
Analysis of the replication elements of the pMJ101 plasmid from the fish pathogen Vibrio ordalii. Bidinost C, et al. **Plasmid** 1999 Jul;42(1):20–30
Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line [see comments] Lohmann V, et al. **Science** 1999 Jul 2;285(5424):110–3. Comment in: Science 1999 Jul 2;285(5424):26–30.
Detection and quantitation of human respiratory syncytial virus (RSV) using minigenome cDNA and a Sindbis virus replicon: a prototype assay for negative-strand RNA viruses. Olivo PD, et al. **Virology** 1998 Nov 10; 251(1):198–205
Noncytopathic flavivirus replicon RNA-based system for expression and delivery of heterologous genes. Varnavski AN, et al. **Virology** 1999 Mar 15;255(2):366–75
[Is the replicon model applicable to higher eukaryotes?] de Recondo AM. **C R Acad Sci III** 1998 Dec;321(12):961–78 (32 ref.) (Eng. Abstr.) **(Fre)**
[Organization of DNA replication domains in S-phase nuclei of human cells] Solovjeva LV, et al. **Tsitologiia** 1998; 40(8-9):779–85 (Eng. Abstr.) **(Rus)**

GENETICS

Replication timing properties across the pseudoautosomal region boundary and cytogenetic band boundaries on human distal Xp. Bilyeu K, et al. **Chromosoma** 1998 May; 107(2):105–12
The plasmid replicon of EBV consists of multiple cis-acting elements that facilitate DNA synthesis by the cell and a viral maintenance element. Aiyar A, et al. **EMBO J** 1998 Nov 2;17(21):6394–403
Mechanism of DNA segregation in prokaryotes: ParM partitioning protein of plasmid R1 co-localizes with its replicon during the cell cycle. Jensen RB, et al. **EMBO J** 1999 Jul 15;18(14):4076–84
Replication mechanism and sequence analysis of the replicon of pAW63, a conjugative plasmid from Bacillus thuringiensis. Wilcks A, et al. **J Bacteriol** 1999 May; 181(10):3193–200
Spatial and temporal dynamics of DNA replication sites in mammalian cells. Ma H, et al. **J Cell Biol** 1998 Dec 14; 143(6):1415–25
Replication regions from plant-pathogenic Pseudomonas syringae plasmids are similar to ColE2-related replicons. Gibbon MJ, et al. **Microbiology** 1999 Feb;145 (Pt 2):325–34
pBLA8, from Brevibacterium linens, belongs to a gram-positive subfamily of ColE2-related plasmids. Leret V, et al. **Microbiology** 1998 Oct;144 (Pt 10):2827–36
Evidence that a single replication fork proceeds from early to late replicating domains in the IgH locus in a non-B cell line. Ermakova OV, et al. **Mol Cell** 1999 Mar; 3(3):321–30
Decreased number of simultaneously operating adjacent clusters of replicons in some human strains with and without X-irradiation. Barenfeld LS, et al. **Mutat Res** 1998 Sep 11;408(3):219–26
Use of a linear multicopy vector based on the mini-replicon of temperate coliphage N15 for cloning DNA with abnormal secondary structures. Ravin NV, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):e13
Characterization of a theta plasmid replicon with homology to all four large plasmids of Bacillus megaterium QM B1551. Stevenson DM, et al. **Plasmid** 1998 Nov; 40(3):175–89
An engineered closterovirus RNA replicon and analysis of heterologous terminal sequences for replication. Satyanarayana T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7433–8

IMMUNOLOGY

Poliovirus replicons encoding the B subunit of Helicobacter pylori urease elicit a Th1 associated immune response. Novak MJ, et al. **Vaccine** 1999 May 14;17(19):2384–91

PHYSIOLOGY

Molecular and functional analysis of pTAV320, a repABC-type replicon of the Paracoccus versutus composite plasmid pTAV1. Bartosik D, et al. **Microbiology** 1998 Nov;144 (Pt 11):3149–57

REPORTER GENES see **GENES, REPORTER**

REPRESSED MEMORY see **REPRESSION**

REPRESSION

Severe paroxysmal hypertension (pseudopheochromocytoma): understanding the cause and treatment. Mann SJ. **Arch Intern Med** 1999 Apr 12; 159(7):670–4 (14 ref.)
Thought suppression and psychopathology. Purdon C. **Behav Res Ther** 1999 Nov;37(11):1029–54 (84 ref.)
The effects of suppressing trauma-related thoughts on women with rape-related posttraumatic stress disorder. Shipherd JC, et al. **Behav Res Ther** 1999 Feb;37(2):99–112
The potential conflict between clinical and judicial decision making heuristics. Rassin E, et al. **Behav Sci Law** 1999; 17(2):237–48
Repressive and defensive coping styles predict resting plasma endorphin levels in the elderly. Kline JP, et al. **Biol Psychol** 1998 Nov;49(3):295–302
Recovered memories of childhood abuse. People with memories of abuse must be given reassurance [letter; comment] Birman CD. **BMJ** 1998 Oct 10;317(7164):1012; discussion 1013. Comment on: BMJ 1998 Feb 14;316(7130):488–9.
Recovered memories of childhood abuse. Some memories may be false, but some may be true [letter; comment] Brewin CR. **BMJ** 1998 Oct 10;317(7164):1012–3; discussion 1013. Comment on: BMJ 1998 Feb 14;316(7130):488–9.
Recovered memories of childhood abuse. There is no evidence that therapists implant memories [letter; comment] Crook L. **BMJ** 1998 Oct 10;317(7164):1013. Comment on: BMJ 1998 Feb 14;316(7130):488–9.
Recovered memories of childhood abuse. Author did not declare his affiliation [letter; comment] Hoult J. **BMJ** 1998 Oct 10;317(7164):1012; discussion 1013. Comment on: BMJ 1998 Feb 14;316(7130):488–9.
Recovered memories of childhood abuse. We must tell patients that they were not to blame [letter; comment] Ilsley JK. **BMJ** 1998 Oct 10;317(7164):1012; discussion 1013. Comment on: BMJ 1998 Feb 14;316(7130):488–9.
Repressive coping and self-reports of parenting. Myers LB, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):73–82
Recovered memories of childhood sexual abuse [letter; comment] Paul J. **Br J Psychiatry** 1998 Aug;173:178–9. Comment on: Br J Psychiatry 1998 Apr;172:296–307.
Recovered memories of childhood sexual abuse [letter; comment] Poole R, et al. **Br J Psychiatry** 1998 Aug; 173:179–80. Comment on: Br J Psychiatry 1998 Apr;172:296–307.
Recovered memories of childhood sexual abuse [letter; comment] Ryle A. **Br J Psychiatry** 1998 Aug;173:179. Comment on: Br J Psychiatry 1998 Apr;172:296–307.
Recovered memories of abuse and dissociative identity disorder [letter; comment] van der Hart O, et al. **Br J Psychiatry** 1998 Dec;173:537–8. Comment on: Br J Psychiatry 1998 Mar;172:210–5; discussion 216–7. Comment on: Br J Psychiatry 1998 Apr;172:296–307.
Memories of childhood sexual abuse: a survey of young adults. Epstein MA, et al. **Child Abuse Negl** 1998 Dec; 22(12):1217–38 (109 ref.)
Family of origin history, psychological distress, quality of childhood memory, and content of first and recovered childhood memories. Melchert TP. **Child Abuse Negl** 1998 Dec;22(12):1203–16
Traumatic amnesia, repression, and hippocampus injury due to emotional stress, corticosteroids and enkephalins. Joseph R. **Child Psychiatry Hum Dev** 1998 Winter;29(2):169–85 (128 ref.)
Recovered memories of trauma: phenomenology and cognitive mechanisms. Brewin CR, et al. **Clin Psychol Rev** 1998 Dec;18(8):949–70 (98 ref.)
Errors in autobiographical memory. Hyman IE Jr, et al. **Clin Psychol Rev** 1998 Dec;18(8):933–47 (42 ref.)
Memory, amnesia, and the issue of recovered memory: neurobiological aspects. Zola SM. **Clin Psychol Rev** 1998 Dec;18(8):915–32 (77 ref.)
"Recovered-memory" therapy: profession at a turning point. Feigon EA, et al. **Compr Psychiatry** 1998 Nov-Dec; 39(6):338–44
Repression: a mistaken impression? Loftus E, et al. **Dev Psychopathol** 1998 Fall;10(4):781–92 (61 ref.)
Amnestic state in a Holocaust survivor patient: psychogenic versus neurological basis. Durst R, et al. **Isr J Psychiatry Relat Sci** 1999;36(1):47–54
The relationship of repression to reality testing in adult women who report childhood sexual and physical abuse. Farber BA, et al. **J Am Acad Psychoanal** 1999 Summer; 27(2):205–20
Psychophysiologic assessment of women with posttraumatic stress disorder resulting from childhood sexual abuse. Orr SP, et al. **J Consult Clin Psychol** 1998 Dec;66(6):906–13
Memory strength affects reporting of misinformation. Marche TA. **J Exp Child Psychol** 1999 May;73(1):45–71
Age, testing at preferred or nonpreferred times (testing optimality), and false memory. Intons-Peterson MJ, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):23–40

1997 LeTourneau Award. Applying the "two schools of thought" doctrine to the repressed memory controversy. Kowalski M. **J Leg Med** 1998 Dec;19(4):503–47

False allegations of pregnancy resulting from incestuous rape and physician misconduct: proof positive. Jamieson MA, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):181–4

Barron's Ego Strength Scale and Welsh's Anxiety and Repression Scales: a comparison of the MMPI and MMPI-2. Sprock J, et al. **J Pers Assess** 1998 Jun; 70(3):506–13

The immunological effects of thought suppression. Petrie KJ, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1264–72

Brief research report: age factors affecting the believability of repressed memories of child sexual assault. Golding JM, et al. **Law Hum Behav** 1999 Apr;23(2):257–68

The nature of real, implanted, and fabricated memories for emotional childhood events: implications for the recovered memory debate. Porter S, et al. **Law Hum Behav** 1999 Oct; 23(5):517–37

False complaints of sexual assault: recovered memories of childhood sexual abuse. Boakes J. **Med Sci Law** 1999 Apr; 39(2):112–20 (9 ref.)

Norms for word lists that create false memories. Stadler MA, et al. **Mem Cognit** 1999 May;27(3):494–500

Repression at a distance by the global regulator KorB of promiscuous IncP plasmids. Jagura-Burdzy G, et al. **Mol Microbiol** 1999 May;32(3):519–32

Sexual abuse and recovered memories [letter; comment] Coney S. **N Z Med J** 1998 Oct 23;111(1076):415–6. Comment on: N Z Med J 1998 Jun 26;111(1068):225–8.

Repressed memories. When are they real? How are they false? Loftus EF, et al. **Psychiatr Clin North Am** 1999 Mar; 22(1):61–70 (29 ref.)

From courtroom to couch. Working with repressed memory and avoiding lawsuits. Scheflin AW, et al. **Psychiatr Clin North Am** 1998 Dec;21(4):847–67, vii (136 ref.)

Repressive/defensive coping, endogenous opioids and health: how a life so perfect can make you sick [see comments] Jamner LD, et al. **Psychiatry Res** 1999 Jan 18;85(1):17–31 . Comment in: Psychiatry Res 1999 Jan 18;85(1):7–15.

[Retrieved memories of traumatic events in the youth] Spinhoven P, et al. **Ned Tijdschr Geneeskd** 1999 May 29; 143(22):1136–40 (Eng. Abstr.) **(Dut)**

[Forgetting of word associations in relation to indicators of emotionality. A possibility for evaluating Freud's concept of repression?] Köhler T, et al. **Psychother Psychosom Med Psychol** 1999 Feb;49(2):64–7 (Eng. Abstr.) **(Ger)**

REPRESSION-SENSITIZATION

Shock sensitization of startle in rats: the role of contextual conditioning. Richardson R, et al. **Behav Neurosci** 1998 Oct;112(5):1136–41

Habituation and sensitization processes in depressive disorders. Miquel M, et al. **Psychopathology** 1999 Jan–Feb; 32(1):35–42

Habituation and sensitization as phenomena modeling learning processes in two groups of children: normally developing and mentally deficient in biofeedback research] Pecyna MB. **Pol Merkuriusz Lek** 1999 Feb;6(32):110–6 (Eng. Abstr.) **(Pol)**

REPRESSION-SENSITIZATION SCALES see **REPRESSION-SENSITIZATION**

REPRESSOR MOLECULES see **REPRESSOR PROTEINS**

REPRESSOR PROTEINS

The Polycomb-group gene eed is required for normal morphogenetic movements during gastrulation in the mouse embryo. Faust C, et al. **Development** 1998 Nov; 125(22):4495–506

In vivo transcription of the Escherichia coli oxyR regulon as a function of growth phase and in response to oxidative stress. Michán C, et al. **J Bacteriol** 1999 May;181(9):2759–64

Visualization of large-scale chromatin structure and dynamics using the lac operator/lac repressor reporter system. Belmont AS, et al. **Methods Cell Biol** 1999; 58:203–22 (29 ref.)

ANALYSIS

Loss of the TSC2 product tuberin in subependymal giant-cell tumors. Arai Y, et al. **Acta Neuropathol (Berl)** 1999 Sep; 98(3):233–9

Detection of SYT-SSX fusion transcripts in synovial sarcoma by reverse transcription-polymerase chain reaction using archival paraffin-embedded tissues. Tsuji S, et al. **Am J Pathol** 1998 Dec;153(6):1807–12

Dissecting the molecular details of prokaryotic transcriptional control by surface plasmon resonance: the methionine and arginine repressor proteins. Stockley PG, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):637–50

SSX and the synovial-sarcoma-specific chimaeric protein SYT-SSX co-localize with the human Polycomb group complex. Soulez M, et al. **Oncogene** 1999 Apr 29; 18(17):2739–46

BIOSYNTHESIS

Expression of transcriptional repressor protein mSin3A but not mSin3B is induced during neuronal apoptosis. Korhonen P, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):274–7

Identification of fur, aconitase, and other proteins expressed by Mycobacterium tuberculosis under conditions of low and high concentrations of iron by combined two-dimensional gel electrophoresis and mass spectrometry. Wong DK, et al. **Infect Immun** 1999 Jan; 67(1):327–36

Interferon consensus sequence-binding protein is constitutively expressed and differentially regulated in the ocular lens. Li W, et al. **J Biol Chem** 1999 Apr 2; 274(14):9686–91

Parathyroid hormone induces expression of the inducible cAMP early repressor in osteoblastic MC3T3-E1 cells and mouse calvariae. Tetradis S, et al. **J Bone Miner Res** 1998 Dec;13(12):1846–51

Regulation of IFN consensus sequence binding protein expression in murine macrophages. Kantakamalakul W, et al. **J Immunol** 1999 Jun 15;162(12):7417–25

Differential expression and distinct functions of IFN regulatory factor 4 and IFN consensus sequence binding protein in macrophages. Marecki S, et al. **J Immunol** 1999 Sep 1;163(5):2713–22

CD27/CD70 interaction augments IgE secretion by promoting the differentiation of memory B cells into plasma cells. Nagumo H, et al. **J Immunol** 1998 Dec 15; 161(12):6496–502

C/EBPalpha regulates generation of C/EBPbeta isoforms through activation of specific proteolytic cleavage. Welm AL, et al. **Mol Cell Biol** 1999 Mar;19(3):1695–704

Overproduction of the Opi1 repressor inhibits transcriptional activation of structural genes required for phospholipid biosynthesis in the yeast Saccharomyces cerevisiae. Wagner C, et al. **Yeast** 1999 Jul;15(10A):843–54

CHEMISTRY

Low-resolution structural characterization of the arginine repressor/activator from Bacillus subtilis: a combined X-ray crystallographic and electron microscopical approach [published erratum appears in Mutat Res 1998 Nov 12;409(2):707] Glykos NM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Mar 1;54 (Pt 2):215–25

Crystallization and preliminary X-ray analysis of the Tet-repressor/operator complex. Orth P, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):99–100

Purification and characterization of Cop, a protein involved in the copy number control of plasmid pE194. Kwak JH, et al. **Arch Pharm Res** 1998 Jun;21(3):291–7

Analysis of the consensus binding sequence and the DNA-binding domain of ZF5. Obata T, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):528–34

Spectroscopic and saturation magnetization properties of the manganese- and cobalt-substituted Fur (ferric uptake regulation) protein from Escherichia coli. Adrait A, et al. **Biochemistry** 1999 May 11;38(19):6248–60

The ferric uptake regulation (Fur) repressor is a zinc metalloprotein. Althaus EW, et al. **Biochemistry** 1999 May 18;38(20):6559–69

Thermodynamic analysis of unfolding and dissociation in lactose repressor protein. Barry JK, et al. **Biochemistry** 1999 May 18;38(20):6520–8

Substitutions at histidine 74 and aspartate 278 alter ligand binding and allostery in lactose repressor protein. Barry JK, et al. **Biochemistry** 1999 Mar 23;38(12):3579–90

Secondary structure and oligomerization behavior of equilibrium unfolding intermediates of the lambda cro repressor. Fabian H, et al. **Biochemistry** 1999 Apr 27; 38(17):5633–42

Mechanism of folding of the dimeric core domain of Escherichia coli trp repressor: a nearly diffusion-limited reaction leads to the formation of an on-pathway dimeric intermediate. Gloss LM, et al. **Biochemistry** 1998 Nov 10; 37(45):15990–9

The barriers in the bimolecular and unimolecular folding reactions of the dimeric core domain of Escherichia coli Trp repressor are dominated by enthalpic contributions. Gloss LM, et al. **Biochemistry** 1998 Nov 10;37(45):16000–10

Identification of the two zinc-bound cysteines in the ferric uptake regulation protein from Escherichia coli: chemical modification and mass spectrometry analysis. Gonzalez de Peredo A, et al. **Biochemistry** 1999 Jun 29;38(26):8582–9

NMR structure and functional studies of the Mu repressor DNA-binding domain. Ilangovan U, et al. **Biochemistry** 1999 Jun 29;38(26):8367–76

Escherichia coli purine repressor: key residues for the allosteric transition between active and inactive conformations and for interdomain signaling. Lu F, et al. **Biochemistry** 1998 Nov 10;37(45):15680–90

Contribution of a buried hydrogen bond to lambda repressor folding kinetics. Myers JK, et al. **Biochemistry** 1999 May 25;38(21):6761–8

The solution structure and dynamics of an Arc repressor mutant reveal premelting conformational changes related to DNA binding. Nooren IM, et al. **Biochemistry** 1999 May 11;38(19):6035–42

Tetracycline-chelated Mg2+ ion initiates helix unwinding in Tet repressor induction. Orth P, et al. **Biochemistry** 1999 Jan 5;38(1):191–8

Ligand-induced conformational changes in lactose repressor: a phosphorescence and ODMR study of single-tryptophan mutants. Ozarowski A, et al. **Biochemistry** 1999 May 25; 38(21):6715–22

Cooperative folding units of escherichia coli tryptophan repressor. Wallqvist A, et al. **Biophys J** 1999 Sep; 77(3):1619–26

Helix bending as a factor in protein/DNA recognition. Dickerson RE, et al. **Biopolymers** 1997;44(4):361–403

Repetitive use of a phosphate-binding module in DNA polymerase beta, Oct-1 POU domain and phage repressors. Yura K, et al. **Cell Mol Life Sci** 1999 Mar;55(3):472–86

Four dimers of lambda repressor bound to two suitably spaced pairs of lambda operators form octamers and DNA loops over large distances. Révet B, et al. **Curr Biol** 1999 Feb 11;9(3):151–4

The structure of plasmid-encoded transcriptional repressor CopG unliganded and bound to its operator. Gomis-Rüth FX, et al. **EMBO J** 1998 Dec 15;17(24):7404–15

Conformational changes necessary for gene regulation by Tet repressor assayed by reversible disulfide bond formation. Tiebel B, et al. **EMBO J** 1998 Sep 1;17(17):5112–9

A thermodynamic study of the 434-repressor N-terminal domain and of its covalently linked dimers. Ruiz-Sanz J, et al. **Eur J Biochem** 1999 Jul;263(1):246–53

PKC-dependent phosphorylation of the p97 repressor regulates the transcription of aldolase A L-type promoter. Costanzo P, et al. **FEBS Lett** 1999 Jul 2;454(1–2):61–6

Crystallization and preliminary X-ray diffraction studies of a replication initiator protein (RepE54) of the mini-F plasmid complexed with iteron DNA. Komori H, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):24–6

A short conserved motif is required for repressor domain function in the myeloid-specific transcription factor CCAAT/enhancer-binding protein epsilon. Angerer ND, et al. **J Biol Chem** 1999 Feb 12;274(7):4147–54

Molecular cloning and characterization of TIEG2 reveals a new subfamily of transforming growth factor-beta-inducible Sp1-like zinc finger-encoding genes involved in the regulation of cell growth. Cook T, et al. **J Biol Chem** 1998 Oct 2;273(40):25929–36

Solvent-exposed residues in the Tet repressor (TetR) four-helix bundle contribute to subunit recognition and dimer stability. Schnappinger D, et al. **J Biol Chem** 1999 Mar 5;274(10):6405–10

Repression of human fibroblast growth factor 2 by a novel transcription factor. Ueba T, et al. **J Biol Chem** 1999 Apr 9;274(15):10382–7

Intermolecular contacts between the lambda-Cro repressor and the operator DNA characterized by nuclear magnetic resonance spectroscopy. Tochio H, et al. **J Biomol Struct Dyn** 1999 Apr;16(5):989–1002

Pressure-jump studies of the folding/unfolding of trp repressor. Desai G, et al. **J Mol Biol** 1999 May 7; 288(3):461–75

Carboxyl-terminal domain dimer interface mutant 434 repressors have altered dimerization and DNA binding specificities. Donner AL, et al. **J Mol Biol** 1998 Nov 13; 283(5):931–46

Probing the physical basis for trp repressor-operator recognition. Grillo AO, et al. **J Mol Biol** 1999 Apr 2; 287(3):539–54

Dynamic DNA contacts observed in the NMR structure of winged helix protein-DNA complex. Jin C, et al. **J Mol Biol** 1999 Jun 18;289(4):683–90

Mutational analysis of the thermostable arginine repressor from Bacillus stearothermophilus: dissecting residues involved in DNA binding properties. Karaivanova IM, et al. **J Mol Biol** 1999 Aug 27;291(4):843–55

Conserved C-terminal region of global repressor KorA of broad-host-range plasmid RK2 is required for co-operativity between KorA and a second RK2 global regulator, KorB. Kostelidou K, et al. **J Mol Biol** 1999 Jun 4;289(2):211–21

Dimeric lac repressors exhibit phase-dependent co-operativity. Müller J, et al. **J Mol Biol** 1998 Dec 11; 284(4):851–7

Crystal structure of the tet repressor in complex with a novel tetracycline, 9-(N,N-dimethylglycylamido)-6-demethyl-6-deoxy-tetracycline. Orth P, et al. **J Mol Biol** 1999 Jan 15;285(2):455–61

Cooperative non-specific DNA binding by octamerizing lambda cI repressors: a site-specific thermodynamic analysis. Pray TR, et al. **J Mol Biol** 1998 Oct 9; 282(5):947–58

Domain motions accompanying Tet repressor induction defined by changes of interspin distances at selectively labeled sites. Tiebel B, et al. **J Mol Biol** 1999 Jul 2; 290(1):229–40

Kinetics and equilibrium studies of Tet repressor-operator interaction. Kędracka-Krok S, et al. **J Protein Chem** 1999 Jan;18(1):117–25

Fluorescence and phosphorescence study of Tet repressor-operator interaction. Kuszaj S, et al. **J Protein Chem** 1999 Feb;18(2):147–56

A LexA mutant repressor with a relaxed interdomain linker. Reinbolt J, et al. **J Protein Chem** 1998 Aug;17(6):518–9

Thermal melting properties of C-terminal domain mutants of bacteriophage lambda cI repressor. Merabet EK, et al. **Methods Enzymol** 1998;295:450–67

REPRESSOR PROTEINS

A role for Groucho tetramerization in transcriptional repression. Chen G, et al. **Mol Cell Biol** 1998 Dec; 18(12):7259–68

Btf, a novel death-promoting transcriptional repressor that interacts with Bcl-2-related proteins. Kasof GM, et al. **Mol Cell Biol** 1999 Jun;19(6):4390–404

Cloning and characterization of mouse RIP140, a corepressor for nuclear orphan receptor TR2. Lee CH, et al. **Mol Cell Biol** 1998 Nov;18(11):6745–55

Four hydrophobic amino acid residues in the C-terminal effector domain of the yeast Mig1p repressor are important for its in vivo activity. Ostling J, et al. **Mol Gen Genet** 1998 Nov;260(2–3):269–79

Dissection of a surface-exposed portion of the cAMP-CRP complex that mediates transcription activation and repression. Meibom KL, et al. **Mol Microbiol** 1999 May; 32(3):497–504

Shorter is better [letter; comment] El-Gewely MR. **Nat Biotechnol** 1999 Mar;17(3):210. Comment on: Nat Biotechnol 1999 Jan;17(1):58–61.

Structure of the arginine repressor from Bacillus stearothermophilus. Ni J, et al. **Nat Struct Biol** 1999 May; 6(5):427–32

The tetramerization domain of the Mnt repressor consists of two right-handed coiled coils. Nooren IM, et al. **Nat Struct Biol** 1999 Aug;6(8):755–9

Acceleration of the refolding of Arc repressor by nucleic acids and other polyanions. Rentzeperis D, et al. **Nat Struct Biol** 1999 Jun;6(6):569–73

Characterization of the DNA binding and bending HMG domain of the yeast hypoxic repressor Rox1. Deckert J, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3518–26

Crystal structure of the MATa1/MATalpha2 homeodomain heterodimer in complex with DNA containing an A-tract. Li T, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5707–18

A domain necessary for the transforming activity of SnoN is required for specific DNA binding, transcriptional repression and interaction with TAF(II)110. Cohen SB, et al. **Oncogene** 1998 Nov 12;17(19):2505–13

Empirical free energy calculations of phage 434 repressor- and cro-DNA complexes support the 'indirect readout' hypothesis of specificity. Brown LM, et al. **Pac Symp Biocomput** 1998;:339–48

Tolerance of Arc repressor to multiple-alanine substitutions. Brown BM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1983–8

Characterization of a manganese-dependent regulatory protein, TroR, from Treponema pallidum. Posey JE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10887–92

Origins of DNA-binding specificity: role of protein contacts with the DNA backbone. Schildbach JF, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):811–7

Spectroscopic study of Y210C lambda-repressor: implications for cooperative interaction. Deb S, et al. **Protein Eng** 1998 Jun;11(6):481–7

Amino acid changes in the repressor of bacteriophage lambda due to temperature-sensitive mutations in its cI gene and the structure of a highly temperature-sensitive mutant repressor. Jana NK, et al. **Protein Eng** 1999 Mar; 12(3):225–33

Probing the role of water in the tryptophan repressor-operator complex. Brown MP, et al. **Protein Sci** 1999 Jun;8(6):1276–85

Tolerance of a protein to multiple polar-to-hydrophobic surface substitutions. Cordes MH, et al. **Protein Sci** 1999 Feb;8(2):318–25

Crystal structure of the effector-binding domain of the trehalose-repressor of Escherichia coli, a member of the LacI family, in its complexes with inducer trehalose-6-phosphate and noninducer trehalose. Hars U, et al. **Protein Sci** 1998 Dec;7(12):2511–21

Folding propensities of synthetic peptide fragments covering the entire sequence of phage 434 Cro protein. Padmanabhan S, et al. **Protein Sci** 1999 Aug;8(8):1675–88

Evolution of a protein fold in vitro. Cordes MH, et al. **Science** 1999 Apr 9;284(5412):325–8

[Revisions of the cDNA and primary protein structure of human transcription factor GCF] Mao P. **Hokkaido Igaku Zasshi** 1999 Jul;74(4):315–30 (Eng. Abstr.) **(Jpn)**

CLASSIFICATION

A subfamily of MalT-related ATP-dependent regulators in the LuxR family. De Schrijver A, et al. **Microbiology** 1999 Jun;145 (Pt 6):1287–8

DRUG EFFECTS

Specific mutational spectrum of dimethylnitrosamine in the lacI transgene of Big Blue C57BL/6 mice. Wang X, et al. **Mutagenesis** 1998 Nov;13(6):625–30

DNA damage induced in vivo by 7-methoxy-2-nitronaphtho[2,1-b]-furan (R7000) in the lacI gene of Escherichia coli. Quillardet P, et al. **Mutat Res** 1998 Dec 3;422(2):237–45

GENETICS

Comprehensive mutation analysis of TSC1 and TSC2-and phenotypic correlations in 150 families with tuberous sclerosis. Jones AC, et al. **Am J Hum Genet** 1999 May; 64(5):1305–15 (47 ref.)

Novel TSC2 mutation in a patient with pulmonary tuberous sclerosis: lack of loss of heterozygosity in a lung cyst. Zhang H, et al. **Am J Med Genet** 1999 Feb 19;82(5):368–70

The putative regulator of catechol catabolism in Rhodococcus opacus 1CP--an IclR-type, not a LysR-type transcriptional regulator. Eulberg D, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1–3):71–82

Identification of two repressor elements in the mouse alpha 2(I) collagen promoter. Miao K, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):7–16

Characterization of tTA and its functional domain in tetracycline repressor-mediated gene repression system. Kim HJ, et al. **Arch Pharm Res** 1998 Jun;21(3):320–5

Identification and expression of a novel family of bHLH cDNAs related to Drosophila hairy and enhancer of split. Kokubo H, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):459–65

Novel cell lines for the analysis of preprotachykinin A gene expression identify a repressor domain 3' of the major transcriptional start site. Fiskerstrand CE, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):847–52

Characterization of the human proline/arginine-rich end leucine-rich repeat protein (PRELP) gene promoter and identification of a repressor element. Grover J, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):77–82

Identification and characterization of the SMT3 cDNA and gene encoding ubiquitin-like protein from Drosophila melanogaster. Huang HW, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):775–85

Transcriptional regulation of the CDK inhibitor p16INK4a gene by a novel pRb-associated repressor, RBAR1. Kaneko S, et al. **Biochem Mol Biol Int** 1999 Feb; 47(2):205–15

Ligand-induced conformational changes in lactose repressor: a phosphorescence and ODMR study of single-tryptophan mutants. Ozarowski A, et al. **Biochemistry** 1999 May 25; 38(21):6715–22

Repression of the human immunodeficiency virus type 1 promoter by the human KRAB domain results in inhibition of virus production. Herchenröder O, et al. **Biochim Biophys Acta** 1999 May 14;1445(2):216–23

Isolation of a novel gene, moc2, encoding a putative RNA helicase as a suppressor of sterile strains in Schizosaccharomyces pombe. Kawamukai M. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):93–101

The Streptomyces aureofaciens homologue of the sporulation gene whiH is dependent on rpoZ-encoded sigma factor. Kormanec J, et al. **Biochim Biophys Acta** 1999 Jan 18; 1444(1):80–4

Identification of a cis-acting regulatory sequence responsible for the repression of brnQ in Salmonella typhimurium. Ohnishi K, et al. **Biochim Biophys Acta** 1999 May 14; 1445(2):196–206

Knockout of REST/NRSF shows that the protein is a potent repressor of neuronally expressed genes in non-neural tissues. Jones FS, et al. **Bioessays** 1999 May;21(5):372–6 (26 ref.)

Enhanced expression of the yeast Ure2 protein in Escherichia coli: the effect of synonymous codon substitutions at a selected place in the gene. Komar AA, et al. **Biol Chem** 1998 Oct;379(10):1295–300

Inverse expression pattern of REST and synapsin I in human neuroblastoma cells. Lietz M, et al. **Biol Chem** 1998 Oct; 379(10):1301–4

Repression of major histocompatibility complex genes by a human trophoblast ribonucleic acid. Peyman JA. **Biol Reprod** 1999 Jan;60(1):23–31

Isolation of the creA gene from the cellulolytic fungus Humicola grisea and analysis of CreA binding sites upstream from the cellulase genes. Takashima S, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2364–70

Plasmid harboring lac repressor and tTA activator genes can regulate two inducible genes in mammalian cells. Chang TY, et al. **Biotechniques** 1999 Sep;27(3):466–9

Tamoxifen induces G:C-->T:A mutations in the cII gene in the liver of lambda/lacI transgenic rats but not at 5'-CpG-3' dinucleotide sequences as found in the lacI transgene. Davies R, et al. **Carcinogenesis** 1999 Jul; 20(7):1351–6

Molecular analysis of lacI mutants from transgenic fibroblasts exposed to 1,2-epoxybutene. Saranko CJ, et al. **Carcinogenesis** 1998 Nov;19(11):1879–87

Estrogen treatment enhances hereditary renal tumor development in Eker rats. Wolf DC, et al. **Carcinogenesis** 1998 Nov;19(11):2043–7

The TRA-1A sex determination protein of C. elegans regulates sexually dimorphic cell deaths by repressing the egl-1 cell death activator gene [see comments] Conradt B, et al. **Cell** 1999 Aug 6;98(3):317–27. Comment in: Cell 1999 Aug 6;98(3):277–80.

Sex, cell death, and the genome of C. elegans [comment] Hodgkin J. **Cell** 1999 Aug 6;98(3):277–80 (16 ref.). Comment on: Cell 1999 Aug 6;98(3):317–27.

gigas, a Drosophila homolog of tuberous sclerosis gene product-2, regulates the cell cycle. Ito N, et al. **Cell** 1999 Feb 19;96(4):529–39

Hedgehog controls limb development by regulating the activities of distinct transcriptional activator and repressor forms of Cubitus interruptus. Méthot N, et al. **Cell** 1999 Mar 19;96(6):819–31

Accumulation of p300 mediates transcriptional repression of simian virus 40 enhancer in undifferentiated F9 embryonal carcinoma cells. Ota M, et al. **Cell Growth Differ** 1998 Dec; 9(12):989–97

Genesis, a Winged Helix transcriptional repressor, has embryonic expression limited to the neural crest, and stimulates proliferation in vitro in a neural development model. Hromas R, et al. **Cell Tissue Res** 1999 Sep; 297(3):371–82

Detection of tamoxifen-DNA adducts on lacI genes using DNA polymerase stop assay. Cheng RH, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Jun;22(2):189–96

GC factor 2 represses platelet-derived growth factor A-chain gene transcription and is itself induced by arterial injury. Khachigian LM, et al. **Circ Res** 1999 Jun 11; 84(11):1258–67

Regulation of smooth muscle alpha-actin expression in vivo is dependent on CArG elements within the 5' and first intron promoter regions. Mack CP, et al. **Circ Res** 1999 Apr 16;84(7):852–61

Structure and chromosome mapping of the human small maf-genes MAFG and MAFK. Iwata T, et al. **Cytogenet Cell Genet** 1998;82(1–2):88–90

Quantitative variations in the level of MAPK activity control patterning of the embryonic termini in Drosophila. Ghiglione C, et al. **Dev Biol** 1999 Jan 1;205(1):181–93

Alternative splicing and embryonic expression of the Xenopus mad4 bHLH gene. Newman CS, et al. **Dev Dyn** 1999 Jun;215(2):170–8

The yan gene is highly conserved in Drosophila and its expression suggests a complex role throughout development. Price MD, et al. **Dev Genes Evol** 1999 Apr; 209(4):207–17

Of mites and zen: expression studies in a chelicerate arthropod confirm zen is a divergent Hox gene. Telford MJ, et al. **Dev Genes Evol** 1998 Dec;208(10):591–4

Genetic interactions and dosage effects of Polycomb group genes in mice. Bel S, et al. **Development** 1998 Sep; 125(18):3543–51

The control of cell fate in the embryonic visual system by atonal, tailless and EGFR signaling. Daniel A, et al. **Development** 1999 Jul;126(13):2945–54

Analysis of an even-skipped rescue transgene reveals both composite and discrete neuronal and early blastoderm enhancers, and multi-stripe positioning by gap gene repressor gradients. Fujioka M, et al. **Development** 1999 Jun;126(11):2527–38

Ectopic expression of individual E(spl) genes has differential effects on different cell fate decisions and underscores the biphasic requirement for notch activity in wing margin establishment in Drosophila. Ligoxygakis P, et al. **Development** 1999 May;126(10):2205–14

A cap 'n' collar protein isoform contains a selective Hox repressor function. McGinnis N, et al. **Development** 1998 Nov;125(22):4553–64

Hyperglycemia-induced embryonic dysmorphogenesis correlates with genomic DNA mutation frequency in vitro and in vivo. Lee AT, et al. **Diabetes** 1999 Feb;48(2):371–6

Characterization of a variant SYT-SSX1 synovial sarcoma fusion transcript. Safar A, et al. **Diagn Mol Pathol** 1998 Oct;7(5):283–7

Functional mammalian homologues of the Drosophila PEV-modifier Su(var)3-9 encode centromere-associated proteins which complex with the heterochromatin component M31. Aagaard L, et al. **EMBO J** 1999 Apr 1;18(7):1923–38

Novel mutants of NAB corepressors enhance activation by Egr transactivators. Svaren J, et al. **EMBO J** 1998 Oct 15;17(20):6010–9

A corepressor and chicken ovalbumin upstream promoter transcriptional factor proteins modulate peroxisome proliferator-activated receptor-gamma2/retinoid X receptor alpha-activated transcription from the murine lipoprotein lipase promoter. Robinson CE, et al. **Endocrinology** 1999 Apr;140(4):1586–93

Tuberous sclerosis-related gene expression in normal and dysplastic brain. Vinters HV, et al. **Epilepsy Res** 1998 Sep; 32(1–2):12–23 (51 ref.)

Sporulation-specific expression of the yeast DIT1/DIT2 promoter is controlled by a newly identified repressor element and the short form of Rim101p. Bogengruber E, et al. **Eur J Biochem** 1998 Dec 1;258(2):430–6

Novel translational repressor (NAT-1) expression is modified by thyroid state and age in brain and liver. Shah GN, et al. **Eur J Endocrinol** 1998 Dec;139(6):649–53

SZF1: a novel KRAB-zinc finger gene expressed in CD34+ stem/progenitor cells. Liu C, et al. **Exp Hematol** 1999 Feb; 27(2):313–25

Evolutionary divergence in the broad complex, tramtrack and bric à brac/poxviruses and zinc finger domain from the candidate tumor suppressor gene hypermethylated in cancer. Guerardel C, et al. **FEBS Lett** 1999 May 28; 451(3):253–6

Differential effects of retinoic acid isomers on the expression of nuclear receptor co-regulators in neuroblastoma. Lovat PE, et al. **FEBS Lett** 1999 Feb 26;445(2–3):415–9

Positive regulation of Bacillus subtilis sigD by C-terminal truncated LacR at translational level. Ogura M, et al. **FEBS Lett** 1999 Aug 20;457(1):112–6

Multiple regulatory elements control the expression of the yeast ACR1 gene. Redruello B, et al. **FEBS Lett** 1999 Feb 26;445(2–3):246–50

The glucose repressor CRE1 from Sclerotinia sclerotiorum is functionally related to CREA from Aspergillus nidulans but not to the Mig proteins from Saccharomyces cerevisiae.

Vautard G, et al. **FEBS Lett** 1999 Jun 18;453(1-2):54-8

The oxyR gene from Erwinia carotovora: cloning, sequence analysis and expression in Escherichia coli. Calcutt MJ, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):295-301

Characterization of the Acinetobacter baumannii Fur regulator: cloning and sequencing of the fur homolog gene. Daniel C, et al. **FEMS Microbiol Lett** 1999 Jan 1; 170(1):199-209

Is the fur gene of Rhizobium leguminosarum essential? de Luca NG, et al. **FEMS Microbiol Lett** 1998 Nov 15; 168(2):289-95

The PBP 5 synthesis repressor (psr) gene of Enterococcus hirae ATCC 9790 is substantially longer than previously reported. Massidda O, et al. **FEMS Microbiol Lett** 1998 Sep 15;166(2):355-60

Metabolic routing towards polyhydroxyalkanoic acid synthesis in recombinant Escherichia coli (fadR): inhibition of fatty acid beta-oxidation by acrylic acid. Qi Q, et al. **FEMS Microbiol Lett** 1998 Oct 1;167(1):89-94

Normal induction of the SOS response in Bacillus subtilis is prevented by the mutant repressor from phage phi 105cts23. Rubinstein CP, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):315-20

Using chromosomal lacIQ1 to control expression of genes on high-copy-number plasmids in Escherichia coli. Glascock CB, et al. **Gene** 1998 Nov 26;223(1-2):221-31

Genomic structure and sequence of a human homologue (NTHL1/NTH1) of Escherichia coli endonuclease III with those of the adjacent parts of TSC2 and SLC9A3R2 genes. Imai K, et al. **Gene** 1998 Nov 19;222(2):287-95

GalR-mediated repression and activation of hybrid lacUV5 promoter: differential contacts with RNA polymerase. Ryu S, et al. **Gene** 1998 Nov 26;223(1-2):235-45

Cloning, characterisation, and functional expression of the Mus musculus SKD1 gene in yeast demonstrates that the mouse SKD1 and the yeast VPS4 genes are orthologues and involved in intracellular protein trafficking. Scheuring S, et al. **Gene** 1999 Jun 24;234(1):149-59

Nuclear receptor co-repressor gene localizes to 17p11.2, a frequently deleted band in malignant disorders. Stacey MW, et al. **Genes Chromosomes Cancer** 1999 Jun; 25(2):191-3

Evidence for a putative telomerase repressor gene in the 3p14.2-p21.1 region. Tanaka H, et al. **Genes Chromosomes Cancer** 1998 Oct;23(2):123-33

Identification of a novel mechanism of regulation of Ah (dioxin) receptor function. Mimura J, et al. **Genes Dev** 1999 Jan 1;13(1):20-5

Ski is a component of the histone deacetylase complex required for transcriptional repression by Mad and thyroid hormone receptor. Nomura T, et al. **Genes Dev** 1999 Feb 15;13(4):412-23

GAGA mediates the enhancer blocking activity of the eve promoter in the Drosophila embryo. Ohtsuki S, et al. **Genes Dev** 1998 Nov 1;12(21):3325-30

PRDI-BF1/Blimp-1 repression is mediated by corepressors of the Groucho family of proteins. Ren B, et al. **Genes Dev** 1999 Jan 1;13(1):125-37

Expression and properties of wild-type and mutant forms of the Drosophila sex comb on midleg (SCM) repressor protein. Bornemann D, et al. **Genetics** 1998 Oct; 150(2):675-86

Selective sweep at the Drosophila melanogaster Suppressor of Hairless locus and its association with the In(2L)t inversion polymorphism. Depaulis F, et al. **Genetics** 1999 Jul;152(3):1017-24

The MSN1 and NHP6A genes suppress SWI6 defects in Saccharomyces cerevisiae. Sidorova J, et al. **Genetics** 1999 Jan;151(1):45-55

Extragenic suppressors of loss-of-function mutations in the aspergillus FlbA regulator of G-protein signaling domain protein. Yu JH, et al. **Genetics** 1999 Jan;151(1):97-105

Large-scale sequencing of two regions in human chromosome 7q22: analysis of 650 kb of genomic sequence around the EPO and CUTL1 loci reveals 17 genes. Glöckner G, et al. **Genome Res** 1998 Oct;8(10):1060-73

CBFA2T1, a gene rearranged in human leukemia, is a member of a multigene family. Calabi F, et al. **Genomics** 1998 Sep 15;52(3):332-41

Identification of SCML2, a second human gene homologous to the Drosophila sex comb on midleg (Scm): A new gene cluster on Xp22. Montini E, et al. **Genomics** 1999 May 15; 58(1):65-72

The human homologue (GFI1B) of the chicken GFI gene maps to chromosome 9q34.13-A locus frequently altered in hematopoietic diseases. Rödel B, et al. **Genomics** 1998 Dec 15;54(3):580-2

The murine Polycomb-group gene eed and its human orthologue: functional implications of evolutionary conservation. Schumacher A, et al. **Genomics** 1998 Nov 15;54(1):79-88

Id1, Id2, and Id3 gene expression in neural cells during development. Tzeng SF, et al. **Glia** 1998 Dec;24(4):372-81

Analysis of mec regulator genes in clinical methicillin-resistant Staphylococcus aureus isolates according to the production of coagulase, types of enterotoxin, and toxic shock syndrome toxin-1. Santo T, et al. **Hiroshima J Med Sci** 1999 Jun;48(2):49-56

Tetracycline repressor, tetR, rather than the tetR-mammalian cell transcription factor fusion derivatives, regulates inducible gene expression in mammalian cells. Yao F, et al. **Hum Gene Ther** 1998 Sep 1;9(13):1939-50

Exon scanning of the entire TSC2 gene for germline mutations in 40 unrelated patients with tuberous sclerosis. Beauchamp RL, et al. **Hum Mutat** 1998;12(6):408-16

Recurrent mutation 4882delTT in the GAP-related domain of the tuberous sclerosis TSC2 gene. Verhoef S, et al. **Hum Mutat** 1998;Suppl 1:S85-7

TetR is a positive regulator of the tetanus toxin gene in Clostridium tetani and is homologous to botR. Marvaud JC, et al. **Infect Immun** 1998 Dec;66(12):5698-702

Genetic characterization of wild-type and mutant fur genes of Bordetella avium. Murphy ER, et al. **Infect Immun** 1999 Jun;67(6):3160-5

Identification of a novel Rac3-interacting protein C1D. Haataja L, et al. **Int J Mol Med** 1998 Apr;1(4):665-70

Specific induction of hepatocellular adenomas by transplacental administration of ENU in the tsc2 gene mutant (Eker) rat. Fukuda T, et al. **Int J Oncol** 1998 Nov; 13(5):957-61

Stable expression of the Lactobacillus casei bacteriophage A2 repressor blocks phage propagation during milk fermentation. Alvarez MA, et al. **J Appl Microbiol** 1999 May;86(5):812-6

A homolog of CcpA mediates catabolite control in Listeria monocytogenes but not carbon source regulation of virulence genes. Behari J, et al. **J Bacteriol** 1998 Dec; 180(23):6316-24

RsaL, a novel repressor of virulence gene expression in Pseudomonas aeruginosa. de Kievit T, et al. **J Bacteriol** 1999 Apr;181(7):2175-84

The Enterococcus faecalis pyr operon is regulated by autogenous transcriptional attenuation at a single site in the 5' leader. Ghim SY, et al. **J Bacteriol** 1999 Feb; 181(4):1324-9

Spectra of spontaneous growth-dependent and adaptive mutations at ebgR. Hall BG. **J Bacteriol** 1999 Feb; 181(4):1149-55

Identification of a functional fur gene in Bradyrhizobium japonicum. Hamza I, et al. **J Bacteriol** 1999 Sep; 181(18):5843-6

Autogenous regulation of the Bacillus anthracis pag operon. Hoffmaster AR, et al. **J Bacteriol** 1999 Aug; 181(15):4485-92

Transcriptional organization and in vivo role of the Escherichia coli rsd gene, encoding the regulator of RNA polymerase sigma D. Jishage M, et al. **J Bacteriol** 1999 Jun;181(12):3768-76

Mutations in catabolite control protein CcpA separating growth effects from catabolite repression. Küster E, et al. **J Bacteriol** 1999 Jul;181(13):4125-8

Regulation of mga transcription in the group A streptococcus: specific binding of mga within its own promoter and evidence for a negative regulator. McIver KS, et al. **J Bacteriol** 1999 Sep;181(17):5373-83

Regulation of the sol locus genes for butanol and acetone formation in Clostridium acetobutylicum ATCC 824 by a putative transcriptional repressor. Nair RV, et al. **J Bacteriol** 1999 Jan;181(1):319-30

Molecular characterization and regulation of an operon encoding a system for transport of arginine and ornithine and the ArgR regulatory protein in Pseudomonas aeruginosa. Nishijyo T, et al. **J Bacteriol** 1998 Nov; 180(21):5559-66

Pseudomonas aeruginosa fur overlaps with a gene encoding a novel outer membrane lipoprotein, OmlA. Ochsner UA, et al. **J Bacteriol** 1999 Feb;181(4):1099-109

Cloning and characterization of the genes encoding a cytochrome P450 (PipA) involved in piperidine and pyrrolidine utilization and its regulatory protein (PipR) in Mycobacterium smegmatis mc2155. Poupin P, et al. **J Bacteriol** 1999 Jun;181(11):3419-26

A role for a highly conserved protein of unknown function in regulation of Bacillus subtilis purA by the purine repressor. Rappu P, et al. **J Bacteriol** 1999 Jun; 181(12):3810-5

Iron-responsive gene regulation in a campylobacter jejuni fur mutant. van Vliet AHM, et al. **J Bacteriol** 1998 Oct; 180(20):5291-8

Regulation of gene expression by glucose in Saccharomyces cerevisiae: a role for ADA2 and ADA3/NGG1. Wu M, et al. **J Bacteriol** 1999 Aug;181(16):4755-60

Identification and characterization of a DeoR-specific operator sequence essential for induction of dra-nupC-pdp operon expression in Bacillus subtilis. Zeng X, et al. **J Bacteriol** 1999 Mar;181(6):1719-27

OxyR and SoxRS regulation of fur. Zheng M, et al. **J Bacteriol** 1999 Aug;181(15):4639-43

Insulin-induced early growth response gene (Egr-1) mediates a short term repression of rat malic enzyme gene transcription. Barroso I, et al. **J Biol Chem** 1999 Jun 18; 274(25):17997-8004

The Saccharomyces cerevisiae TSC10/YBR265w gene encoding 3-ketosphinganine reductase is identified in a screen for temperature-sensitive suppressors of the Ca2+-sensitive csg2Delta mutant. Beeler T, et al. **J Biol Chem** 1998 Nov 13;273(46):30688-94

Characterization of the interaction between Fur and the iron transport promoter of the virulence plasmid in Vibrio anguillarum. Chai S, et al. **J Biol Chem** 1998 Dec 11; 273(50):33841-7

Cloning and expression of a novel dominant-negative-acting estrogen response element-binding protein in the heterogeneous nuclear ribonucleoprotein family. Chen H, et al. **J Biol Chem** 1998 Nov 20;273(47):31352-7

Identification of a surface of FNR overlapping activating region 1 that is required for repression of gene expression. Green J, et al. **J Biol Chem** 1999 Apr 9;274(15):10244-8

Cloning and characterization of a novel zinc finger transcriptional repressor. A direct role of the zinc finger motif in repression. He GP, et al. **J Biol Chem** 1999 May 21;274(21):14678-84

Purification of Mlc and analysis of its effects on the pts expression in Escherichia coli. Kim SY, et al. **J Biol Chem** 1999 Sep 3;274(36):25398-402

Defective release of corepressor by hinge mutants of the thyroid hormone receptor found in patients with resistance to thyroid hormone. Safer JD, et al. **J Biol Chem** 1998 Nov 13;273(46):30175-82

Transcriptional control of the pref-1 gene in 3T3-L1 adipocyte differentiation. Sequence requirement for differentiation-dependent suppression. Smas CM, et al. **J Biol Chem** 1998 Nov 27;273(48):31751-8

Transcriptional repression of pref-1 by glucocorticoids promotes 3T3-L1 adipocyte differentiation. Smas CM, et al. **J Biol Chem** 1999 Apr 30;274(18):12632-41

Repression of human fibroblast growth factor 2 by a novel transcription factor. Ueba T, et al. **J Biol Chem** 1999 Apr 9;274(15):10382-7

Regulation of a cell type-specific silencer in the human interleukin-3 gene promoter by the transcription factor YY1 and an AP2 sequence-recognizing factor. Ye J, et al. **J Biol Chem** 1999 Sep 17;274(38):26661-7

Investigation of the impact of MIG1 and MIG2 on the physiology of Saccharomyces cerevisiae. Klein CJ, et al. **J Biotechnol** 1999 Feb 19;68(2-3):197-212

Noninsulinoma pancreatogenous hypoglycemia: a novel syndrome of hyperinsulinemic hypoglycemia in adults independent of mutations in Kir6.2 and SUR1 genes. Service FJ, et al. **J Clin Endocrinol Metab** 1999 May; 84(5):1582-9

Tsc2(+/-) mice develop tumors in multiple sites that express gelsolin and are influenced by genetic background. Onda H, et al. **J Clin Invest** 1999 Sep;104(6):687-95

Development and use of a 293 cell line expressing lac repressor for the rescue of recombinant adenoviruses expressing high levels of rabies virus glycoprotein. Matthews DA, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):345-53

Dimerisation mutants of Lac repressor. I. A monomeric mutant, L251A, that binds Lac operator DNA as a dimer. Dong F, et al. **J Mol Biol** 1999 Jul 16;290(3):653-66

Long-range effects on dynamics in a temperature-sensitive mutant of trp repressor. Jin L, et al. **J Mol Biol** 1999 Jan 8;285(1):361-78

Mutational analysis of the thermostable arginine repressor from Bacillus stearothermophilus: dissecting residues involved in DNA binding properties. Karaivanova IM, et al. **J Mol Biol** 1999 Aug 27;291(4):843-55

Interaction of a repressor and its binding sites for regulation of the Bacillus subtilis iol divergon. Yoshida KI, et al. **J Mol Biol** 1999 Jan 22;285(3):917-29

Telomerase repressor sequences on chromosome 3 and induction of permanent growth arrest in human breast cancer cells [see comments] Cuthbert AP, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):37-45. Comment in: J Natl Cancer Inst 1999 Jan 6;91(1):4-6.

Toward identifying a cellular determinant of telomerase repression [editorial; comment] Shay JW. **J Natl Cancer Inst** 1999 Jan 6;91(1):4-6. Comment on: J Natl Cancer Inst 1999 Jan 6;91(1):37-45.

CCAAT displacement protein (CDP/cut) binds a negative regulatory element in the human tryptophan hydroxylase gene. Teerawatanasuk N, et al. **J Neurochem** 1999 Jan; 72(1):29-39

Dual colour fluorescence in situ hybridization to paraffin-embedded samples to deduce the presence of the der(X)t(X;18)(p11.2;q11.2) and involvement of either the SSX1 or SSX2 gene: a diagnostic and prognostic aid for synovial sarcoma. Lu YJ, et al. **J Pathol** 1999 Mar; 187(4):490-6

Suppression of gene expression by tethering KRAB domain to promoter of ER target genes. Ma ZQ, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1-6):155-63

Silencing of the Epstein-Barr virus latent membrane protein 1 gene by the Max-Mad1-mSin3A modulator of chromatin structure. Sjöblom-Hallén A, et al. **J Virol** 1999 Apr; 73(4):2983-93

Development of high-grade renal cell carcinomas in rats independently of somatic mutations in the Tsc2 and VHL tumor suppressor genes. Toyokuni S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):814-20

A Th1 response is essential for induction of crescentic glomerulonephritis in mice. Schatzmann U, et al. **Kidney Blood Press Res** 1999;22(3):135-9

The murine polycomb-group genes Ezh1 and Ezh2 map close to Hox gene clusters on mouse chromosomes 11 and 6. Laible G, et al. **Mamm Genome** 1999 Mar;10(3):311-4

Anteroposterior patterning and organogenesis of Xenopus laevis require a correct dose of germ cell nuclear factor (xGCNF). David R, et al. **Mech Dev** 1998 Dec; 79(1-2):137-52

The winged helix transcription factor Hfh2 is expressed in neural crest and spinal cord during mouse development. Labosky PA, et al. **Mech Dev** 1998 Aug;76(1-2):185-90

Two distinct subgroups of Group B Sox genes for transcriptional activators and repressors: their expression

during embryonic organogenesis of the chicken. Uchikawa M, et al. **Mech Dev** 1999 Jun;84(1-2):103-20

The hsp operons are repressed by the hrc37 of the hsp70 operon in Staphylococcus aureus. Kuroda M, et al. **Microbiol Immunol** 1999;43(1):19-27

Candida albicans SSD1 can suppress multiple mutations in Saccharomyces cerevisiae. Chen CY, et al. **Microbiology** 1998 Nov;144 (Pt 11):2941-50

Two-hybrid assay: construction of an Escherichia coli system to quantify homodimerization ability in vivo. Di Lallo G, et al. **Microbiology** 1999 Jun;145 (Pt 6):1485-90

Pleiotropic effects of the opi1 regulatory mutation of yeast: its effects on growth and on phospholipid and inositol metabolism. Jiranek V, et al. **Microbiology** 1998 Oct;144 (Pt 10):2739-48

The kdgRKAT operon of Bacillus subtilis: detection of the transcript and regulation by the kdgR and ccpA genes. Pujic P, et al. **Microbiology** 1998 Nov;144 (Pt 11):3111-8

The transcriptional regulator gene phrR in Sinorhizobium meliloti WSM419 is regulated by low pH and other stresses. Reeve WG, et al. **Microbiology** 1998 Dec;144 (Pt 12):3335-42

The expression of hamartin, the product of the TSC1 gene, in normal human tissues and in TSC1- and TSC2-linked angiomyolipomas. Plank TL, et al. **Mod Pathol** 1999 May; 12(5):539-45

A role for transcriptional repressors in targeting the yeast Swi/Snf complex. Dimova D, et al. **Mol Cell** 1999 Jul; 4(1):75-83

The rox1 and rox2 RNAs are essential components of the compensasome, which mediates dosage compensation in Drosophila. Franke A, et al. **Mol Cell** 1999 Jul;4(1):117-22

A novel human SRB/MED-containing cofactor complex, SMCC, involved in transcription regulation [published erratum appears in Mol Cell 1999 Apr;3(4):following 541] Gu W, et al. **Mol Cell** 1999 Jan;3(1):97-108

Allosteric regulation of even-skipped repression activity by phosphorylation. Li C, et al. **Mol Cell** 1999 Jan;3(1):77-86

A new member of the Sin3 family of corepressors is essential for cell viability and required for retroelement propagation in fission yeast. Dang VD, et al. **Mol Cell Biol** 1999 Mar; 19(3):2351-65

Point mutations in the WD40 domain of Eed block its interaction with Ezh2. Denisenko O, et al. **Mol Cell Biol** 1998 Oct;18(10):5634-42

Alien, a highly conserved protein with characteristics of a corepressor for members of the nuclear hormone receptor superfamily. Dressel U, et al. **Mol Cell Biol** 1999 May; 19(5):3383-94

Aberrant recruitment of the nuclear receptor corepressor-histone deacetylase complex by the acute myeloid leukemia fusion partner ETO. Gelmetti V, et al. **Mol Cell Biol** 1998 Dec;18(12):7185-91

The T-cell oncogenic protein HOX11 activates Aldh1 expression in NIH 3T3 cells but represses its expression in mouse spleen development. Greene WK, et al. **Mol Cell Biol** 1998 Dec;18(12):7030-7

ETO, a target of t(8;21) in acute leukemia, interacts with the N-CoR and mSin3 corepressors. Lutterbach B, et al. **Mol Cell Biol** 1998 Dec;18(12):7176-84

Elevated levels of a U4/U6.U5 snRNP-associated protein, Spp381p, rescue a mutant defective in spliceosome maturation. Lybarger S, et al. **Mol Cell Biol** 1999 Jan; 19(1):577-84

Corepressor required for adenovirus E1B 55,000-molecular-weight protein repression of basal transcription. Martin ME, et al. **Mol Cell Biol** 1999 May; 19(5):3403-14

Transcriptional repression by XPc1, a new Polycomb homolog in Xenopus laevis embryos, is independent of histone deacetylase. Strouboulis J, et al. **Mol Cell Biol** 1999 Jun;19(6):3958-68

No effect of expression of neuron-restrictive silencer factor (NRSF) protein on N-type Ca2+ channel alpha 1B gene promoter activity in NS20Y cells. Kim DS. **Mol Cells** 1998 Oct 31;8(5):600-5

Two separate NCoR (nuclear receptor corepressor) interaction domains mediate corepressor action on thyroid hormone response elements. Cohen RN, et al. **Mol Endocrinol** 1998 Oct;12(10):1567-81

The succinate/fumarate transporter Acr1p of Saccharomyces cerevisiae is part of the gluconeogenic pathway and its expression is regulated by Cat8p. Bojunga N, et al. **Mol Gen Genet** 1998 Dec;260(5):453-61

The Additional sex combs gene of Drosophila is required for activation and repression of homeotic loci, and interacts specifically with Polycomb and super sex combs. Milne TA, et al. **Mol Gen Genet** 1999 Jun;261(4-5):753-61

StgR, a new Streptomyces alboniger member of the LysR family of transcriptional regulators. Tercero JA, et al. **Mol Gen Genet** 1998 Sep;259(5):475-83

Mammalian Polycomb group genes are categorized as a new type of early response gene induced by B-cell receptor cross-linking. Hasegawa M, et al. **Mol Immunol** 1998 Jun; 35(9):559-63

Overexpression of the Helix-Loop-Helix protein Id2 blocks T cell development at multiple stages. Morrow MA, et al. **Mol Immunol** 1999 Jun;36(8):491-503

Pseudomonas aeruginosa AlgZ, a ribbon-helix-helix DNA-binding protein, is essential for alginate synthesis and algD transcriptional activation. Baynham PJ, et al. **Mol Microbiol** 1999 Sep;33(5):1069-80

Characterization of SprA, an AraC-like transcriptional regulator encoded within the Salmonella typhimurium pathogenicity island 1. Eichelberg K, et al. **Mol Microbiol** 1999 Jul;33(1):139-52

A genetic analysis of the function of LuxO, a two-component response regulator involved in quorum sensing in Vibrio harveyi. Freeman JA, et al. **Mol Microbiol** 1999 Jan; 31(2):665-77

Repression at a distance by the global regulator KorB of promiscuous IncP plasmids. Jagura-Burdzy G, et al. **Mol Microbiol** 1999 May;32(3):519-32

Role of HU and DNA supercoiling in transcription repression: specialized nucleoprotein repression complex at gal promoters in Escherichia coli. Lewis DE, et al. **Mol Microbiol** 1999 Jan;31(2):451-61

Autoactivation and environmental regulation of bfpT expression, the gene coding for the transcriptional activator of bfpA in enteropathogenic Escherichia coli. Martinez-Laguna Y, et al. **Mol Microbiol** 1999 Jul; 33(1):153-66

A developmentally regulated gene encoding a repressor-like protein is essential for sporulation in Streptomyces coelicolor A3(2). Ryding NJ, et al. **Mol Microbiol** 1998 Jul;29(1):343-57

The function of CreA, the carbon catabolite repressor of Aspergillus nidulans, is regulated at the transcriptional and post-transcriptional level. Strauss J, et al. **Mol Microbiol** 1999 Apr;32(1):169-78

Iron regulation and pathogenicity in Erwinia chrysanthemi 3937: role of the Fur repressor protein. Franza T, et al. **Mol Plant Microbe Interact** 1999 Feb;12(2):119-28

Role of DNA repair by (A)BC excinuclease and Ogt alkyltransferase in the final distribution of LacI-d mutations induced by N-butyl-N-nitrosourea in Escherichia coli. Ferrezuelo F, et al. **Mutagenesis** 1998 Sep;13(5):507-14

Mutation studies in lacI transgenic mice after exposure to radiation or cyclophosphamide. Hoyes KP, et al. **Mutagenesis** 1998 Nov;13(6):607-12

DNA adduct level induced by 2-amino-3,4-dimethylimidazo[4,5-f]-quinoline in Big Blue mice does not correlate with mutagenicity. Ochiai M, et al. **Mutagenesis** 1998 Jul;13(4):381-4

DNA sequence analysis of spontaneous lacI-d mutations in O6-alkylguanine-DNA alkyltransferase-proficient and -deficient Escherichia coli. Vidal A, et al. **Mutagenesis** 1998 Jul;13(4):367-73

Specific mutational spectrum of dimethylnitrosamine in the lacI transgene of Big Blue C57BL/6 mice. Wang X, et al. **Mutagenesis** 1998 Nov;13(6):625-30

Comparison of selectable and plaque assay systems to detect menadione- and UV-induced lacI mutations in mammalian cells. Andrew SE, et al. **Mutat Res** 1999 Jun 30; 427(2):89-97

Use of log-linear analysis to construct explanatory models for TDBP- and AFB1-induced mutation spectra in lacI transgenic animals. Brackley ME, et al. **Mutat Res** 1999 Mar 10;425(1):55-69

DNA damage induced in vivo by 7-methoxy-2-nitronaphtho[2,1-b]-furan (R7000) in the lacI gene of Escherichia coli. Quillardet P, et al. **Mutat Res** 1998 Dec 3;422(2):237-45

The presence of traces of iron and copper ions during gamma-irradiation does not result in clear mutational hot spots in the lacI gene. Wijker CA, et al. **Mutat Res** 1999 Aug 11;429(1):27-35

Influence of the UV-activated SOS response on the gamma-radiation-induced mutation spectrum in the lacI gene. Wijker CA, et al. **Mutat Res** 1998 Sep 11; 408(3):195-201

Methylation of CpG dinucleotides in the lacI gene of the Big Blue transgenic mouse. You YH, et al. **Mutat Res** 1998 Dec 3;420(1-3):55-65

Mosaic analysis with a repressible neurotechnique cell marker for studies of gene function in neuronal morphogenesis. Lee T, et al. **Neuron** 1999 Mar;22(3):451-61

Neuron-targeted gene transfer by adenovirus carrying neural-restrictive silencer element. Miyaguchi K, et al. **Neuroreport** 1999 Aug 2;10(11):2349-53

Isolation of altered specificity mutants of the single-chain 434 repressor that recognize asymmetric DNA sequences containing the TTAA and TTAC subsites. Simoncsits A, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3474-80

A KRAB-related domain and a novel transcription repression domain in proteins encoded by SSX genes that are disrupted in human sarcomas. Lim FL, et al. **Oncogene** 1998 Oct 15;17(15):2013-8

Refined mapping of the region of loss of heterozygosity on the long arm of chromosome 7 in human breast cancer defines the location of a second tumor suppressor gene at 7q22 in the region of the CUTL1 gene. Zeng WR, et al. **Oncogene** 1999 Mar 18;18(11):2015-21

FLOWERING LOCUS C encodes a novel MADS domain protein that acts as a repressor of flowering [see comments] Michaels SD, et al. **Plant Cell** 1999 May;11(5):949-56. Comment in: Plant Cell 1999 May;11(5):763-4.

Mutations in FIE, a WD polycomb group gene, allow endosperm development without fertilization. Ohad N, et al. **Plant Cell** 1999 Mar;11(3):407-16

The FLF MADS box gene: a repressor of flowering in Arabidopsis regulated by vernalization and methylation. Sheldon CC, et al. **Plant Cell** 1999 Mar;11(3):445-58

Replication and maintenance of lambda plasmids devoid of the Cro repressor autoregulatory loop in Escherichia coli. Herman-Antosiewicz A, et al. **Plasmid** 1998 Sep; 40(2):113-25

Persistence of an alternate chromatin structure at silenced loci in vitro. Ansari A, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):343-8

The Med1 subunit of the yeast mediator complex is involved in both transcriptional activation and repression [published erratum appears in Proc Natl Acad Sci U S A 1999 Mar 16;96(6):3330] Balciunas D, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):376-81

Transcription repression by Xenopus ET and its human ortholog TBX3, a gene involved in ulnar-mammary syndrome. He Ml, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10212-7

Decoding photoperiodic time through Per1 and ICER gene amplitude. Messager S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9938-43

Unique forms of human and mouse nuclear receptor corepressor SMRT. Ordentlich P, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2639-44

SMRTe, a silencing mediator for retinoid and thyroid hormone receptors-extended isoform that is more related to the nuclear receptor corepressor. Park EJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3519-24

Characterization of a manganese-dependent regulatory protein, TroR, from Treponema pallidum. Posey JE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10887-92

ZEB represses transcription through interaction with the corepressor CtBP. Postigo AA, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6683-8

Loss of function of the tuberous sclerosis 2 tumor suppressor gene results in embryonic lethality characterized by disrupted neuroepithelial growth and development. Rennebeck G, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15629-34

Inactivation of the cyclin-dependent kinase inhibitor p27 upon loss of the tuberous sclerosis complex gene-2 [see comments] Soucek T, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15653-8. Comment in: Proc Natl Acad Sci U S A 1998 Dec 22;95(26):15158-60.

Activation and repression of transcription by auxin-response factors. Ulmasov T, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5844-9

Groucho and dCtBP mediate separate pathways of transcriptional repression in the Drosophila embryo. Zhang H, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):535-40

Negative cross-talk between hematopoietic regulators: GATA proteins repress PU.1. Zhang P, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8705-10

TSC2 gene mutant (Eker) rat model of a Mendelian dominantly inherited cancer. Hino O, et al. **Prog Exp Tumor Res** 1999;35:95-108 (52 ref.)

Coordinate repression of a trio of neuron-specific splicing events by the splicing regulator PTB. Zhang L, et al. **RNA** 1999 Jan;5(1):117-30

Gene defect linked to Rett syndrome [news] Gura T. **Science** 1999 Oct 1;286(5437):27

Identification of a mating type-like locus in the asexual pathogenic yeast Candida albicans. Hull CM, et al. **Science** 1999 Aug 20;285(5431):1271-5

The maize rough sheath2 gene and leaf development programs in monocot and dicot plants. Tsiantis M, et al. **Science** 1999 Apr 2;284(5411):154-6

Two repressor elements inhibit expression of the von Willebrand factor gene promoter in vitro. Ardekani AM, et al. **Thromb Haemost** 1998 Sep;80(3):488-94

Human papillomavirus-induced carcinogenesis with p53 deficiency in mouse: novel lymphomagenesis in HPV16E6E7 transgenic mice mimicking p53 defect. Li Q, et al. **Virology** 1998 Dec 5;252(1):28-33

Deletion of SFI1, a novel suppressor of partial Ras-cAMP pathway deficiency in the yeast Saccharomyces cerevisiae, causes G(2) arrest. Ma P, et al. **Yeast** 1999 Aug; 15(11):1097-109

Overproduction of the Opi1 repressor inhibits transcriptional activation of structural genes required for phospholipid biosynthesis in the yeast Saccharomyces cerevisiae. Wagner C, et al. **Yeast** 1999 Jul;15(10A):843-54

[Demonstration of SYT-SSX11/2 fusion transcripts in synovial sarcomas using RT-PCR] Willeke F, et al. **Verh Dtsch Ges Pathol** 1998;82:215-9 (Eng. Abstr.) **(Ger)**

[Revisions of the cDNA and primary protein structure of human transcription factor GCF] Mao P. **Hokkaido Igaku Zasshi** 1999 Jul;74(4):315-30 (Eng. Abstr.) **(Jpn)**

[A test system based on the lux-regulon from Vibrio fischeri for studying the functional activity of mutant forms of Escherichia coli lon-proteinase] Manukhov IV, et al. **Bioorg Khim** 1999 May;25(5):365-8 (Eng. Abstr.) **(Rus)**

[Insulator can suppress the nonisolated enhancer activity] Golovnin AK, et al. **Dokl Akad Nauk** 1999 May; 366(3):420-4 **(Rus)**

[Role of additional binding sites for the CytR protein in the regulation of Escherichia coli udp gene expression] Domakova EV, et al. **Genetika** 1998 Aug;34(8):1063-72 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Affinities of mAbs to Tet repressor complexed with operator or tetracycline suggest conformational changes associated

with induction. Pook E, et al. **Eur J Biochem** 1998 Dec 15;258(3):915–22

Ovarian and breast cytotoxic T lymphocytes can recognize peptides from the amino enhancer of split protein of the Notch complex. Babcock B, et al. **Mol Immunol** 1998 Dec; 35(17):1121–33

Overexpression of the Helix–Loop–Helix protein Id2 blocks T cell development at multiple stages. Morrow MA, et al. **Mol Immunol** 1999 Jun;36(8):491–503

Differences in anti–CREG antibody formation between transplanted and nontransplanted renal patients. Fernández–Fresnedo G, et al. **Transplantation** 1999 Apr 27;67(8):1188–90

ISOLATION & PURIFICATION

Purification and ligand binding of EmrR, a regulator of a multidrug transporter. Brooun A, et al. **J Bacteriol** 1999 Aug;181(16):5131–3

Cloning and characterization of a novel zinc finger transcriptional repressor. A direct role of the zinc finger motif in repression. He GP, et al. **J Biol Chem** 1999 May 21;274(21):14678–84

Heparin elution of transcription factors from DNA–Sepharose columns. Gadgil H, et al. **J Chromatogr A** 1999 Jul 2;848(1–2):131–8

Comparative studies on chemically and enzymatically coupled DNA–Sepharose columns for purification of a lac repressor chimeric fusion protein. Robinson FD, et al. **J Chromatogr A** 1999 Jul 23;849(2):403–12

Purification and characterization of MerR, the regulator of the broad–spectrum mercury resistance genes in Streptomyces lividans 1326. Rother D, et al. **Mol Gen Genet** 1999 Aug;262(1):154–62

METABOLISM

Amino acid effects on translational repressor 4E–BP1 are mediated primarily by L–leucine in isolated adipocytes. Fox HL, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1232–8

RNA–binding properties of in vitro expressed histidine–tagged RB69 RegA translational repressor protein. Allen SV, et al. **Anal Biochem** 1999 Apr 10; 269(1):32–7

The dissociation rate of a winged helix protein–DNA complex is influenced by non–DNA contact residues. Shiyanova T, et al. **Arch Biochem Biophys** 1999 Feb 15; 362(2):356–62

MBP–1 physically associates with histone deacetylase for transcriptional repression. Ghosh AK, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):405–9

TLE, the human homolog of groucho, interacts with AML1 and acts as a repressor of AML1–induced transactivation. Imai Y, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):582–9

Transcriptional repressors are increased in pancreatic islets of type 2 diabetic rats. Inada A, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):712–8

ZF5, which is a Kruppel–type transcriptional repressor, requires the zinc finger domain for self–association. Numoto M, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):573–8

The interaction of the vitamin D receptor with nuclear receptor corepressors and coactivators. Tagami T, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):358–63

Smt3, a SUMO–1 homolog, is conjugated to Cdc3, a component of septin rings at the mother–bud neck in budding yeast. Takahashi Y, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):582–7

Cloning and characterization of GETS–1, a goldfish Ets family member that functions as a transcriptional repressor in muscle. Goldman D, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):267–75

Groucho/transducin–like enhancer of split (TLE) family members interact with the yeast transcriptional co–repressor SSN6 and mammalian SSN6–related proteins: implications for evolutionary conservation of transcription repression mechanisms. Grbavec D, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):13–7

Transcriptional autorepression of Msx1 gene is mediated by interactions of Msx1 protein with a multi–protein transcriptional complex containing TATA–binding protein, Sp1 and cAMP–response–element–binding protein–binding protein (CBP/p300). Shetty S, et al. **Biochem J** 1999 May 1;339 (Pt 3):751–8

Thermodynamic analysis of unfolding and dissociation in lactose repressor protein. Barry JK, et al. **Biochemistry** 1999 May 18;38(20):6520–8

Substitutions at histidine 74 and aspartate 278 alter ligand binding and allostery in lactose repressor protein. Barry JK, et al. **Biochemistry** 1999 Mar 23;38(12):3579–90

The methyl–CpG binding transcriptional repressor MeCP2 stably associates with nucleosomal DNA. Chandler SP, et al. **Biochemistry** 1999 Jun 1;38(22):7008–18

Escherichia coli purine repressor: key residues for the allosteric transition between active and inactive conformations and for interdomain signaling. Lu F, et al. **Biochemistry** 1998 Nov 10;37(45):15680–90

Contribution of a buried hydrogen bond to lambda repressor folding kinetics. Myers JK, et al. **Biochemistry** 1999 May 25;38(21):6761–8

Identification of a silencing element in the chicken lipoprotein lipase gene promoter: characterization of the silencer–binding protein and delineation of its target nucleotide sequence. Zhang W, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):390–404

Knockout of REST/NRSF shows that the protein is a potent repressor of neuronally expressed genes in non–neural tissues. Jones FS, et al. **Bioessays** 1999 May;21(5):372–6 (26 ref.)

DNA–binding requirements of the yeast protein Rap1p as selected in silico from ribosomal protein gene promoter sequences. Lascaris RF, et al. **Bioinformatics** 1999 Apr; 15(4):267–77

Electrostatic contributions to the binding free energy of the lambdacI repressor to DNA. Misra VK, et al. **Biophys J** 1998 Nov;75(5):2262–73

Co–localization of TSC1 and TSC2 gene products in tubers of patients with tuberous sclerosis. Johnson MW, et al. **Brain Pathol** 1999 Jan;9(1):45–54

Adjacent cooperation of proteins on DNA are not representative of long–distance interactions. Amouyal M, et al. **C R Acad Sci III** 1998 Nov;321(11):877–81

lin–35 and lin–53, two genes that antagonize a C. elegans Ras pathway, encode proteins similar to Rb and its binding protein RbAp48. Lu X, et al. **Cell** 1998 Dec 23;95(7):981–91

Stabilization of chromatin structure by PRC1, a Polycomb complex. Shao Z, et al. **Cell** 1999 Jul 9;98(1):37–46

Bovine papillomavirus E2 protein activates a complex growth–inhibitory program in p53–negative HT–3 cervical carcinoma cells that includes repression of cyclin A and cdc25A phosphatase genes and accumulation of hypophosphorylated retinoblastoma protein. Naeger LK, et al. **Cell Growth Differ** 1999 Jun;10(6):413–22

Transcription regulation by repressosome and by RNA polymerase contact. Adhya S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:1–9 (58 ref.)

In vivo functions of histone acetylation/deacetylation in Tup1p repression and Gcn5p activation. Edmondson DG, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:459–68

The Mad protein family links transcriptional repression to cell differentiation. McArthur GA, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:423–33 (100 ref.)

Gene regulation by the yeast Ssn6–Tup1 corepressor. Wahi M, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:447–57

The ras recruitment system, a novel approach to the study of protein–protein interactions. Broder YC, et al. **Curr Biol** 1998 Oct 8;8(20):1121–4

Genetic selection of short peptides that support protein oligomerization in vivo. Zhang Z, et al. **Curr Biol** 1999 Apr 22;9(8):417–20

Some repressors of bacterial transcription. Müller–Hill B. **Curr Opin Microbiol** 1998 Apr;1(2):145–51 (51 ref.)

Vertebrate homologs of Drosophila suppressor of fused interact with the gli family of transcriptional regulators. Pearse RV 2nd, et al. **Dev Biol** 1999 Aug 15;212(2):323–36

The transcription factors KNIRPS and KNIRPS RELATED control cell migration and branch morphogenesis during Drosophila tracheal development. Chen CK, et al. **Development** 1998 Dec;125(24):4959–68

Vertebrate tinman homologues XNkx2–3 and XNkx2–5 are required for heart formation in a functionally redundant manner. Fu Y, et al. **Development** 1998 Nov; 125(22):4439–49

Transcriptional repression by the Drosophila giant protein: cis element positioning provides an alternative means of interpreting an effector gradient. Hewitt GF, et al. **Development** 1999 Mar;126(6):1201–10

Goosecoid and mix.1 repress Brachyury expression and are required for head formation in Xenopus. Latinkic BV, et al. **Development** 1999 Apr;126(8):1769–79

Apontic binds the translational repressor Bruno and is implicated in regulation of oskar mRNA translation. Lie YS, et al. **Development** 1999 Mar;126(6):1129–38

XBF–2 is a transcriptional repressor that converts ectoderm into neural tissue. Mariani FV, et al. **Development** 1998 Dec;125(24):5019–31

Spatially regulated SpEts4 transcription factor activity along the sea urchin embryo animal–vegetal axis. Wei Z, et al. **Development** 1999 Apr;126(8):1729–37

Association of distinct yeast Not2 functional domains with components of Gcn5 histone acetylase and Ccr4 transcriptional regulatory complexes. Benson JD, et al. **EMBO J** 1998 Nov 16;17(22):6714–22

Net, a negative Ras–switchable TCF, contains a second inhibition domain, the CID, that mediates repression through interactions with CtBP and de–acetylation. Criqui–Filipe P, et al. **EMBO J** 1999 Jun 15; 18(12):3392–403

Thermoregulation of Shigella and Escherichia coli EIEC pathogenicity. A temperature–dependent structural transition of DNA modulates accessibility of virF promoter to transcriptional repressor H–NS. Falconi M, et al. **EMBO J** 1998 Dec 1;17(23):7033–43

RYBP, a new repressor protein that interacts with components of the mammalian Polycomb complex, and with the transcription factor YY1. Garcia E, et al. **EMBO J** 1999 Jun 15;18(12):3404–18

The Pax3–FKHR oncoprotein is unresponsive to the Pax3–associated repressor hDaxx. Hollenbach AD, et al. **EMBO J** 1999 Jul 1;18(13):3702–11

Repression by Ikaros and Aiolos is mediated through histone deacetylase complexes. Koipally J, et al. **EMBO J** 1999 Jun 1;18(11):3090–100

dCtBP mediates transcriptional repression by Knirps, Krüppel and Snail in the Drosophila embryo. Nibu Y, et al. **EMBO J** 1998 Dec 1;17(23):7009–20

Transcriptional regulation by the gamma5 subunit of a heterotrimeric G protein during adipogenesis. Park JG, et al. **EMBO J** 1999 Jul 15;18(14):4004–12

Srb/mediator proteins interact functionally and physically with transcriptional repressor Sfl1. Song W, et al. **EMBO J** 1998 Oct 1;17(19):5757–65

A trans–acting peptide activates the yeast a1 repressor by raising its DNA–binding affinity. Stark MR, et al. **EMBO J** 1999 Mar 15;18(6):1621–9

Functional dissection of Arabidopsis COP1 reveals specific roles of its three structural modules in light control of seedling development. Torii KU, et al. **EMBO J** 1998 Oct 1;17(19):5577–87

Cloning and characterization of mCtBP2, a co–repressor that associates with basic Krüppel–like factor and other mammalian transcriptional regulators. Turner J, et al. **EMBO J** 1998 Sep 1;17(17):5129–40

Regulation of DNA replication by iterons: an interaction between the ori2 and incC regions mediated by RepE–bound iterons inhibits DNA replication of mini–F plasmid in Escherichia coli. Uga H, et al. **EMBO J** 1999 Jul 1;18(13):3856–67

Interaction of PC4 with melted DNA inhibits transcription. Werten S, et al. **EMBO J** 1998 Sep 1;17(17):5103–11

Transcriptional repression due to high levels of Wingless signalling. Yu X, et al. **EMBO J** 1998 Dec 1;17(23):7021–32

Pref–1, SF–1 and adrenocortical zonation. Raza FS, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):977–81

Differential expression of an orphan receptor COUP–TFI and corepressors in adrenal tumors. Shibata H, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):881–5

Nuclear receptor coregulators: cellular and molecular biology. McKenna NJ, et al. **Endocr Rev** 1999 Jun; 20(3):321–44 (216 ref.)

Transcriptional regulation of the gonadotropin–releasing hormone receptor gene is mediated in part by a putative repressor element and by the cyclic adenosine 3',5'–monophosphate response element. Maya–Núñez G, et al. **Endocrinology** 1999 Aug;140(8):3452–8

Tumor necrosis factor–alpha and interferon–gamma suppress both gene expression and deoxyribonucleic acid–binding of TTF–2 in FRTL–5 cells. Miyazaki A, et al. **Endocrinology** 1999 Sep;140(9):4214–20

Transducin–like Enhancer of split 2, a mammalian homologue of Drosophila Groucho, acts as a transcriptional repressor, interacts with Hairy/Enhancer of split proteins, and is expressed during neuronal development. Grbavec D, et al. **Eur J Biochem** 1998 Dec 1;258(2):339–49

A novel human DNA–binding protein with sequence similarity to a subfamily of redox proteins which is able to repress RNA–polymerase–III–driven transcription of the Alu–family retroposons in vitro. Kropotov A, et al. **Eur J Biochem** 1999 Mar;260(2):336–46

Quantification of thyroid hormone receptor isoforms, 9–cis retinoic acid receptor gamma, and nuclear receptor co–repressor by reverse–transcriptase PCR in maturing and adult skeletal muscles of rat. Schuler MJ, et al. **Eur J Biochem** 1998 Nov 1;257(3):607–14

Requirement for cAMP–response element (CRE) binding protein/CRE modulator transcription factors in thyrotropin–induced proliferation of dog thyroid cells in primary culture. Uyttersprot N, et al. **Eur J Biochem** 1999 Jan;259(1–2):370–8

TOP mRNAs are translationally inhibited by a titratable repressor in both wheat germ extract and reticulocyte lysate. Biberman Y, et al. **FEBS Lett** 1999 Aug 13; 456(3):357–60

The Enterococcus hirae copper chaperone CopZ delivers copper(I) to the CopY repressor. Cobine P, et al. **FEBS Lett** 1999 Feb 19;445(1):27–30

Molecular cloning and characterization of human AOS1 and UBA2, components of the sentrin–activating enzyme complex. Gong L, et al. **FEBS Lett** 1999 Apr 1;448(1):185–9

The SNF1 kinase complex from Saccharomyces cerevisiae phosphorylates the transcriptional repressor protein Mig1p in vitro at four sites within or near regulatory domain 1. Smith FC, et al. **FEBS Lett** 1999 Jun 18;453(1–2):219–23

In vivo oxidation–reduction kinetics of OxyR, the transcriptional activator for an oxidative stress–inducible regulon in Escherichia coli. Tao K. **FEBS Lett** 1999 Aug 20;457(1):90–2

Analysis of the in vivo interaction between a basic repressor and an acidic activator. Wellhausen A, et al. **FEBS Lett** 1999 Jun 25;453(3):299–304

Metabolic routing towards polyhydroxyalkanoic acid synthesis in recombinant Escherichia coli (fadR): inhibition of fatty acid beta–oxidation by acrylic acid. Qi Q, et al. **FEMS Microbiol Lett** 1998 Oct 1;167(1):89–94

Repressor elements in the coding region of the human histone H4 gene interact with the transcription factor CDP/cut. Last TJ, et al. **Gene** 1998 Oct 23;221(2):267–77

GalR–mediated repression and activation of hybrid lacUV5 promoter: differential contacts with RNA polymerase. Ryu S, et al. **Gene** 1998 Nov 26;223(1–2):235–45

Site–directed mutagenesis of the A–factor receptor protein: Val–41 important for DNA–binding and Trp–119 important for ligand–binding. Sugiyama M, et al. **Gene** 1998 Nov 5;222(1):133–44

The G10BP–1 gene encoding a GC box binding protein, is

a target of Myc and Jun/Fos. Shirasuna K, et al. **Genes Cells** 1999 May;4(5):277–89

Negative regulation of the pts operon by Mlc: mechanism underlying glucose induction in Escherichia coli. Tanaka Y, et al. **Genes Cells** 1999 Jul;4(7):391–9

Transcriptional repression by the Caenorhabditis elegans germ-line protein PIE-1. Batchelder C, et al. **Genes Dev** 1999 Jan 15;13(2):202–12

The flagellar anti-sigma factor FlgM actively dissociates Salmonella typhimurium sigma28 RNA polymerase holoenzyme. Chadsey MS, et al. **Genes Dev** 1998 Oct 1; 12(19):3123–36

A functional interaction between the histone deacetylase Rpd3 and the corepressor groucho in Drosophila development. Chen G, et al. **Genes Dev** 1999 Sep 1; 13(17):2218–30

Periodic repression of Notch pathway genes governs the segmentation of Xenopus embryos. Jen WC, et al. **Genes Dev** 1999 Jun 1;13(11):1486–99

The anatomy of a hypoxic operator in Saccharomyces cerevisiae. Deckert J, et al. **Genetics** 1998 Dec; 150(4):1429–41

Numerical techniques and mathematical modelling for C1857-controlled gene expression and cell growth in recombinant E. coli. Cubarsi R, et al. **IMA J Math Appl Med Biol** 1998 Sep;15(3):257–78

PKR, apoptosis and cancer. Jagus R, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):123–38 (192 ref.)

Identification of a novel Rac3-interacting protein C1D. Haataja L, et al. **Int J Mol Med** 1998 Apr;1(4):665–70

Interferon-gamma signaling in human retinal pigment epithelial cells mediated by STAT1, ICSBP, and IRF-1 transcription factors. Li W, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):976–82

Transcriptional regulation of the Streptococcus mutans gal operon by the GalR repressor. Ajdić D, et al. **J Bacteriol** 1998 Nov;180(21):5727–32

Alteration of the repressor activity of MarR, the negative regulator of the Escherichia coli marRAB locus, by multiple chemicals in vitro. Alekshun MN, et al. **J Bacteriol** 1999 Aug;181(15):4669–72

Characterization of MarR superrepressor mutants. Alekshun MN, et al. **J Bacteriol** 1999 May;181(10):3303–6

Integration host factor and cyclic AMP receptor protein are required for TyrR-mediated activation of tpl in Citrobacter freundii. Bai Q, et al. **J Bacteriol** 1998 Dec;180(23):6173–86

A homolog of CcpA mediates catabolite control in Listeria monocytogenes but not carbon source regulation of virulence genes. Behari J, et al. **J Bacteriol** 1998 Dec; 180(23):6316–24

Purification and ligand binding of EmrR, a regulator of a multidrug transporter. Brooun A, et al. **J Bacteriol** 1999 Aug;181(16):5131–3

Interaction of Bacillus subtilis Fur (ferric uptake repressor) with the dhb operator in vitro and in vivo. Bsat N, et al. **J Bacteriol** 1999 Jul;181(14):4299–307

Identification of a zinc-specific metalloregulatory protein, Zur, controlling zinc transport operons in Bacillus subtilis. Gaballa A, et al. **J Bacteriol** 1998 Nov;180(22):5815–21

Superimposition of tyrR protein-mediated regulation on osmoresponsive transcription of Escherichia coli proU in vivo. Gowrishankar J, et al. **J Bacteriol** 1998 Dec; 180(24):6743–8

The major phase-variable outer membrane protein of Escherichia coli structurally resembles the immunoglobulin A1 protease class of exported protein and is regulated by a novel mechanism involving Dam and oxyR. Henderson IR, et al. **J Bacteriol** 1999 Apr;181(7):2132–41

Specific contacts between residues in the DNA-binding domain of the TyrR protein and bases in the operator of the tyrP gene of Escherichia coli. Hwang JS, et al. **J Bacteriol** 1999 Apr;181(8):2338–45

IncC of broad-host-range plasmid RK2 modulates KorB transcriptional repressor activity In vivo and operator binding in vitro. Jagura-Burdzy G, et al. **J Bacteriol** 1999 May;181(9):2807–15

kdgREcc negatively regulates genes for pectinases, cellulase, protease, HarpinEcc, and a global RNA regulator in Erwinia carotovora subsp. carotovora. Liu Y, et al. **J Bacteriol** 1999 Apr;181(8):2411–21

The ArgR regulatory protein, a helper to the anaerobic regulator ANR during transcriptional activation of the arcD promoter in Pseudomonas aeruginosa. Lu CD, et al. **J Bacteriol** 1999 Apr;181(8):2459–64

Role of ArgR in activation of the ast operon, encoding enzymes of the arginine succinyltransferase pathway in Salmonella typhimurium. Lu CD, et al. **J Bacteriol** 1999 Mar;181(6):1934–8

The arcABDC gene cluster, encoding the arginine deiminase pathway of Bacillus licheniformis, and its activation by the arginine repressor argR. Maghnouj A, et al. **J Bacteriol** 1998 Dec;180(24):6468–75

Regulation of the sol locus genes for butanol and acetone formation in Clostridium acetobutylicum ATCC 824 by a putative transcriptional repressor. Nair RV, et al. **J Bacteriol** 1999 Jan;181(1):319–30

Cyclic AMP receptor protein and TyrR are required for acid pH and anaerobic induction of hyaB and aniC in Salmonella typhimurium. Park KR, et al. **J Bacteriol** 1999 Jan; 181(2):689–94

NAD-dependent DNA-binding activity of the bifunctional NadR regulator of Salmonella typhimurium. Penfound T, et al. **J Bacteriol** 1999 Jan;181(2):648–55

Cra-dependent transcriptional activation of the icd gene of Escherichia coli. Prost JF, et al. **J Bacteriol** 1999 Feb; 181(3):893–8

The Escherichia coli NadR regulator is endowed with nicotinamide mononucleotide adenylyltransferase activity. Raffaelli N, et al. **J Bacteriol** 1999 Sep;181(17):5509–11

A role for a highly conserved protein of unknown function in regulation of Bacillus subtilis purA by the purine repressor. Rappu P, et al. **J Bacteriol** 1999 Jun; 181(12):3810–5

Repression of transcription initiation in bacteria. Rojo F. **J Bacteriol** 1999 May;181(10):2987–91 (68 ref.)

Involvement of the RNA polymerase alpha-subunit C-terminal domain in LuxR-dependent activation of the Vibrio fischeri luminescence genes. Stevens AM, et al. **J Bacteriol** 1999 Aug;181(15):4704–7

The Saccharomyces cerevisiae GATA factors Dal80p and Deh1p can form homo- and heterodimeric complexes. Svetlov VV, et al. **J Bacteriol** 1998 Nov;180(21):5682–8

The fur-regulated gene encoding the alternative sigma factor PvdS is required for iron-dependent expression of the LysR-type regulator ptxR in Pseudomonas aeruginosa. Vasil ML, et al. **J Bacteriol** 1998 Dec;180(24):6784–8

Demonstration that the TyrR protein and RNA polymerase complex formed at the divergent P3 promoter inhibits binding of RNA polymerase to the major promoter, P1, of the aroP gene of Escherichia coli. Wang P, et al. **J Bacteriol** 1998 Oct;180(20):5466–72

trans-acting factors affecting carbon catabolite repression of the hut operon in Bacillus subtilis. Zalieckas JM, et al. **J Bacteriol** 1999 May;181(9):2883–8

OxyR and SoxRS regulation of fur. Zheng M, et al. **J Bacteriol** 1999 Aug;181(15):4639–43

Crystallization and preliminary X-ray diffraction studies of a replication initiator protein (RepE54) of the mini-F plasmid complexed with iteron DNA. Komori H, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):24–6

Two novel Krüppel-associated box-containing zinc-finger proteins, KRAZ1 and KRAZ2, repress transcription through functional interaction with the corepressor KAP-1 (TIF1beta/KRIP-1). Agata Y, et al. **J Biol Chem** 1999 Jun 4;274(23):16412–22

RP58 associates with condensed chromatin and mediates a sequence-specific transcriptional repression. Aoki K, et al. **J Biol Chem** 1998 Oct 9;273(41):26698–704

Identification of a cytokine-induced repressor of interleukin-1 stimulated expression of stromelysin 1 (MMP-3). Borghaei RC, et al. **J Biol Chem** 1999 Jan 22; 274(4):2126–31

A nuclear matrix attachment region upstream of the T cell receptor beta gene enhancer binds Cux/CDP and SATB1 and modulates enhancer-dependent reporter gene expression but not endogenous gene expression. Chattopadhyay S, et al. **J Biol Chem** 1998 Nov 6; 273(45):29838–46

Nuclear factor I-mediated repression of the mouse mammary tumor virus promoter is abrogated by the coactivators p300/CBP and SRC-1. Chaudhry AZ, et al. **J Biol Chem** 1999 Mar 12;274(11):7072–81

The Tup1-Cyc8 protein complex can shift from a transcriptional co-repressor to a transcriptional co-activator. Conlan RS, et al. **J Biol Chem** 1999 Jan 1; 274(1):205–10

The transcription factor nuclear factor I mediates repression of the GLUT4 promoter by insulin. Cooke DW, et al. **J Biol Chem** 1999 Apr 30;274(18):12917–24

Caenorhabditis elegans EGL-1 disrupts the interaction of CED-9 with CED-4 and promotes CED-3 activation. del Peso L, et al. **J Biol Chem** 1998 Dec 11;273(50):33495–500

Fatty acyl-CoA binding domain of the transcription factor FadR. Characterization by deletion, affinity labeling, and isothermal titration calorimetry. DiRusso CC, et al. **J Biol Chem** 1998 Dec 11;273(50):33652–9

Identification of nuclear receptor corepressor as a peroxisome proliferator-activated receptor alpha interacting protein. Dowell P, et al. **J Biol Chem** 1999 May 28;274(22):15901–7

Evidence for repressional role of an inverted CCAAT box in cell cycle-dependent transcription of the human DNA topoisomerase IIalpha gene. Falck J, et al. **J Biol Chem** 1999 Jun 25;274(26):18753–8

Cloning of the murine beta5 integrin subunit promoter. Identification of a novel sequence mediating granulocyte-macrophage colony-stimulating factor-dependent repression of beta5 integrin gene transcription. Feng X, et al. **J Biol Chem** 1999 Jan 15; 274(3):1366–74

Role of multiple CytR binding sites on cooperativity, competition, and induction at the Escherichia coli udp promoter. Gavigan SA, et al. **J Biol Chem** 1999 Jun 4; 274(23):16010–9

An analysis of the binding of repressor protein ModE to modABCD (molybdate transport) operator/promoter DNA of Escherichia coli. Grunden AM, et al. **J Biol Chem** 1999 Aug 20;274(34):24308–15

The Aspergillus nidulans GATA factor SREA is involved in regulation of siderophore biosynthesis and control of iron uptake. Haas H, et al. **J Biol Chem** 1999 Feb 19; 274(8):4613–9

The Bacillus stearothermophilus mannitol regulator, MtlR, of the phosphotransferase system. A DNA-binding protein, regulated by HPr and iicbmtl-dependent phosphorylation. Henstra SA, et al. **J Biol Chem** 1999 Feb 19;274(8):4754–63

hFOG-2, a novel zinc finger protein, binds the co-repressor mCtBP2 and modulates GATA-mediated activation. Holmes M, et al. **J Biol Chem** 1999 Aug 13;274(33):23491–8

Retinoid isomers differ in the ability to induce release of SMRT corepressor from retinoic acid receptor-alpha. Hong SH, et al. **J Biol Chem** 1999 Jan 29;274(5):2885–92

Translational repression by human 4E-BP1 in yeast specifically requires human eIF4E as target. Hughes JM, et al. **J Biol Chem** 1999 Feb 5;274(6):3261–4

Transcriptional repression from the c-myc P2 promoter by the zinc finger protein ZF87/MAZ. Izzo MW, et al. **J Biol Chem** 1999 Jul 2;274(27):19498–506

Identification of three major sentrinization sites in PML. Kamitani T, et al. **J Biol Chem** 1998 Oct 9;273(41):26675–82

Purification of Mlc and analysis of its effects on the pts expression in Escherichia coli. Kim SY, et al. **J Biol Chem** 1999 Sep 3;274(36):25398–402

Sp3 and Sp4 can repress transcription by competing with Sp1 for the core cis-elements on the human ADH5/FDH minimal promoter. Kwon HS, et al. **J Biol Chem** 1999 Jan 1;274(1):20–8

Mxi1 is a repressor of the c-Myc promoter and reverses activation by USF. Lee TC, et al. **J Biol Chem** 1999 Jan 8;274(2):595–606

Binding of CtIP to the BRCT repeats of BRCA1 involved in the transcription regulation of p21 is disrupted upon DNA damage. Li S, et al. **J Biol Chem** 1999 Apr 16; 274(16):11334–8

Secondary structure mapping of an RNA ligand that has high affinity for the MetJ repressor protein and interference modification analysis of the protein-RNA complex. McGregor A, et al. **J Biol Chem** 1999 Jan 22;274(4):2255–62

The cellular inhibitor of the PKR protein kinase, P58(IPK), is an influenza virus-activated co-chaperone that modulates heat shock protein 70 activity. Melville MW, et al. **J Biol Chem** 1999 Feb 5;274(6):3797–803

MM-1, a novel c-Myc-associating protein that represses transcriptional activity of c-Myc. Mori K, et al. **J Biol Chem** 1998 Nov 6;273(45):29794–800

HEED, the product of the human homolog of the murine eed gene, binds to the matrix protein of HIV-1. Peytavi R, et al. **J Biol Chem** 1999 Jan 15;274(3):1635–45

Aerobic repression of the Rhodobacter capsulatus bchC promoter involves cooperative interactions between CrtJ bound to neighboring palindromes. Ponnampalam SN, et al. **J Biol Chem** 1998 Nov 13;273(46):30757–61

A novel MDMX transcript expressed in a variety of transformed cell lines encodes a truncated protein with potent p53 repressive activity. Rallapalli R, et al. **J Biol Chem** 1999 Mar 19;274(12):8299–308

The human WD repeat protein WAIT-1 specifically interacts with the cytoplasmic tails of beta7-integrins. Rietzler M, et al. **J Biol Chem** 1998 Oct 16;273(42):27459–66

Defective release of corepressor by hinge mutants of the thyroid hormone receptor found in patients with resistance to thyroid hormone. Safer JD, et al. **J Biol Chem** 1998 Nov 13;273(46):30175–82

Characterization and cloning of celR, a transcriptional regulator of cellulase genes from Thermomonospora fusca. Spiridonov NA, et al. **J Biol Chem** 1999 May 7; 274(19):13127–32

Biological activity and modular structure of RE-1-silencing transcription factor (REST), a repressor of neuronal genes. Thiel G, et al. **J Biol Chem** 1998 Oct 9;273(41):26891–9

Brain-derived neurotrophic factor expression in vivo is under the control of neuron-restrictive silencer element. Timmusk T, et al. **J Biol Chem** 1999 Jan 8;274(2):1078–84

Heterochromatin organization of a natural yeast telomere. Recruitment of Sir3p through interaction with histone H4 N terminus is required for the establishment of repressive structures. Venditti S, et al. **J Biol Chem** 1999 Jan 22; 274(4):1928–33

SIP1, a novel zinc finger/homeodomain repressor, interacts with Smad proteins and binds to 5'-CACCT sequences in candidate target genes. Verschueren K, et al. **J Biol Chem** 1999 Jul 16;274(29):20489–98

Identification of the single-stranded DNA binding surface of the transcriptional coactivator PC4 by NMR. Werten S, et al. **J Biol Chem** 1999 Feb 5;274(6):3693–9

Components of the SMRT corepressor complex exhibit distinctive interactions with the POZ domain oncoproteins PLZF, PLZF-RARalpha, and BCL-6. Wong CW, et al. **J Biol Chem** 1998 Oct 16;273(42):27695–702

Isolated operator binding and ligand response domains of the TyrR protein of Haemophilus influenzae associate to reconstitute functional repressor. Zhao S, et al. **J Biol Chem** 1999 Jan 15;274(3):1842–7

LuxR controls the expression of Vibrio fischeri luxCDABE clone in Escherichia coli in the absence of luxI gene. Ulitzur S. **J Biolumin Chemilumin** 1998 Nov-Dec; 13(6):365–9

Probing site-specific interactions in protein-DNA complexes using heteronuclear NMR spectroscopy and molecular modeling: binding of Cro repressor to OR3. Edwards CA, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):13–20

Investigation of the impact of MIG1 and MIG2 on the physiology of Saccharomyces cerevisiae. Klein CJ, et al. **J Biotechnol** 1999 Feb 19;68(2-3):197–212

Subclass-specific nuclear localization of a novel CD4 silencer binding factor. Kim WW, et al. **J Exp Med** 1999 Jul 19; 190(2):281–91

Sulfonylurea and K(+)-channel opener sensitivity of K(ATP) channels. Functional coupling of Kir6.2 and SUR1 subunits. Koster JC, et al. **J Gen Physiol** 1999 Aug; 114(2):203–13

Overlapping YY1- and aberrant SP1-binding sites proximal to the early promoter of human papillomavirus type 16. Dong XP, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2097–101

Differential regulation of 4E-BP1 and 4E-BP2, two repressors of translation initiation, during human myeloid cell differentiation. Grolleau A, et al. **J Immunol** 1999 Mar 15;162(6):3491–7

Lac and lambda repressors relieve silencing of the Escherichia coli bgl promoter. Activation by alteration of a repressing nucleoprotein complex. Caramel A, et al. **J Mol Biol** 1998 Dec 11;284(4):875–83

Carboxyl-terminal domain dimer interface mutant 434 repressors have altered dimerization and DNA binding specificities. Donner AL, et al. **J Mol Biol** 1998 Nov 13; 283(5):931–46

Binding of the fur (ferric uptake regulator) repressor of Escherichia coli to arrays of the GATAAT sequence. Escolar L, et al. **J Mol Biol** 1998 Oct 30;283(3):537–47

Phosphorylation of either crh or HPr mediates binding of CcpA to the bacillus subtilis xyn cre and catabolite repression of the xyn operon. Galinier A, et al. **J Mol Biol** 1999 Feb 19;286(2):307–14

The role of lysine 55 in determining the specificity of the purine repressor for its operators through minor groove interactions. Glasfeld A, et al. **J Mol Biol** 1999 Aug 13; 291(2):347–61

Probing the physical basis for trp repressor-operator recognition. Grillo AO, et al. **J Mol Biol** 1999 Apr 2; 287(3):539–54

Probing activation of the prokaryotic arginine transcriptional regulator using chimeric proteins. Holtham CA, et al. **J Mol Biol** 1999 Jun 18;289(4):707–27

Conserved C-terminal region of global repressor KorA of broad-host-range plasmid RK2 is required for co-operativity between KorA and a second RK2 global regulator, KorB. Kostelidou K, et al. **J Mol Biol** 1999 Jun 4;289(2):211–21

Binding of phage phi29 protein p4 to the early A2c promoter: recruitment of a repressor by the RNA polymerase. Monsalve M, et al. **J Mol Biol** 1998 Oct 30;283(3):559–69

Dimeric lac repressors exhibit phase-dependent co-operativity. Müller J, et al. **J Mol Biol** 1998 Dec 11; 284(4):851–7

Inhibition of Escherichia coli RNA polymerase by bacteriophage T7 gene 2 protein. Nechaev S, et al. **J Mol Biol** 1999 Jun 18;289(4):815–26

Cooperative non-specific DNA binding by octamerizing lambda cI repressors: a site-specific thermodynamic analysis. Pray TR, et al. **J Mol Biol** 1998 Oct 9; 282(5):947–58

Plasmid pIP501 encoded transcriptional repressor CopR binds to its target DNA as a dimer. Steinmetzer K, et al. **J Mol Biol** 1998 Oct 30;283(3):595–603

Protein-ligand interaction: grafting of the uridine-specific determinants from the CytR regulator of Salmonella typhimurium to Escherichia coli CytR. Thomsen LE, et al. **J Mol Biol** 1999 Apr 23;288(1):165–75

CCAAT displacement protein (CDP/cut) binds a negative regulatory element in the human tryptophan hydroxylase gene. Teerawatanasuk N, et al. **J Neurochem** 1999 Jan; 72(1):29–39

EcR interacts with corepressors and harbours an autonomous silencing domain functional in both Drosophila and vertebrate cells. Thormeyer D, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):163–9

CCAAT displacement protein binds to and negatively regulates human papillomavirus type 6 E6, E7, and E1 promoters. Ai W, et al. **J Virol** 1999 May;73(5):4220–9

Cooperative interaction of CI protein regulates lysogeny of Lactobacillus casei by bacteriophage A2. Garcia P, et al. **J Virol** 1999 May;73(5):3920–9

A novel YY1-independent silencer represses the activity of the human papillomavirus type 16 enhancer. O'Connor MJ, et al. **J Virol** 1998 Dec;72(12):10083–92

Epstein-Barr virus nuclear antigen 3C interacts with histone deacetylase to repress transcription. Radkov SA, et al. **J Virol** 1999 Jul;73(7):5688–97

Chromatin structure and analysis of mechanisms of activators and repressors. Simpson RT. **Methods** 1998 Aug; 15(4):283–94 (61 ref.)

Energetic methods to study bifunctional biotin operon repressor. Beckett D. **Methods Enzymol** 1998;295:424–50

Analysis of interactions between CytR and CRP at CytR-regulated promoters. Senear DF, et al. **Methods Enzymol** 1998;295:403–24

Using the Lac repressor system to identify interacting proteins. Stricker NL, et al. **Methods Enzymol** 1999; 303:451–68

Translational control by repressor proteins binding to the 5'UTR of mRNAs. Gray NK. **Methods Mol Biol** 1998; 77:379–97 (42 ref.)

Ssp1 promotes actin depolymerization and is involved in stress response and new end take-off control in fission yeast. Rupeš I, et al. **Mol Biol Cell** 1999 May; 10(5):1495–510

The conserved core of a human SIR2 homologue functions in yeast silencing. Sherman JM, et al. **Mol Biol Cell** 1999 Sep;10(9):3045–59

Coactivator TIF1beta interacts with transcription factor C/EBPbeta and glucocorticoid receptor to induce alpha1-acid glycoprotein gene expression. Chang CJ, et al. **Mol Cell Biol** 1998 Oct;18(10):5880–7

Point mutations in the WD40 domain of Eed block its interaction with Ezh2. Denisenko O, et al. **Mol Cell Biol** 1998 Oct;18(10):5634–42

Functional domains of c-myc promoter binding protein 1 involved in transcriptional repression and cell growth regulation. Ghosh AK, et al. **Mol Cell Biol** 1999 Apr; 19(4):2880–6

Transcriptional regulation of the AP-2alpha promoter by BTEB-1 and AP-2rep, a novel wt-1/egr-related zinc finger repressor. Imhof A, et al. **Mol Cell Biol** 1999 Jan; 19(1):194–204

A conserved motif in goosecoid mediates groucho-dependent repression in Drosophila embryos. Jiménez G, et al. **Mol Cell Biol** 1999 Mar;19(3):2080–7

Coactivator PC4 mediates AP-2 transcriptional activity and suppresses ras-induced transformation dependent on AP-2 transcriptional interference. Kannan P, et al. **Mol Cell Biol** 1999 Jan;19(1):899–908

Homeoproteins CDP and SATB1 interact: potential for tissue-specific regulation. Liu J, et al. **Mol Cell Biol** 1999 Jul;19(7):4918–26

Elevated levels of a U4/U6.U5 snRNP-associated protein, Spp381p, rescue a mutant defective in spliceosome maturation. Lybarger S, et al. **Mol Cell Biol** 1999 Jan; 19(1):577–84

Inhibition of nuclear receptor signalling by poly(ADP-ribose) polymerase. Miyamoto T, et al. **Mol Cell Biol** 1999 Apr;19(4):2644–9

Human SWI-SNF component BRG1 represses transcription of the c-fos gene. Murphy DJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2724–33

Nrg1 is a transcriptional repressor for glucose repression of STA1 gene expression in Saccharomyces cerevisiae. Park SH, et al. **Mol Cell Biol** 1999 Mar;19(3):2044–50

Human Cdc34 and Rad6B ubiquitin-conjugating enzymes target repressors of cyclic AMP-induced transcription for proteolysis. Pati D, et al. **Mol Cell Biol** 1999 Jul; 19(7):5001–13

Repressors and upstream repressing sequences of the stress-regulated ENA1 gene in Saccharomyces cerevisiae: bZIP protein Sko1p confers HOG-dependent osmotic regulation. Proft M, et al. **Mol Cell Biol** 1999 Jan; 19(1):537–46

RING1 interacts with multiple Polycomb-group proteins and displays tumorigenic activity. Satijn DP, et al. **Mol Cell Biol** 1999 Jan;19(1):57–68

C-Terminal binding protein is a transcriptional repressor that interacts with a specific class of vertebrate Polycomb proteins. Sewalt RG, et al. **Mol Cell Biol** 1999 Jan; 19(1):777–87

trans repression of the human metallothionein IIA gene promoter by PZ120, a novel 120-kilodalton zinc finger protein. Tang CM, et al. **Mol Cell Biol** 1999 Jan;19(1):680–9

Inhibition of double-stranded RNA- and tumor necrosis factor alpha-mediated apoptosis by tetratricopeptide repeat protein and cochaperone P58(IPK). Tang NM, et al. **Mol Cell Biol** 1999 Jul;19(7):4757–65

Cux/CDP homeoprotein is a component of NF-muNR and represses the immunoglobulin heavy chain intronic enhancer by antagonizing the bright transcription activator. Wang Z, et al. **Mol Cell Biol** 1999 Jan;19(1):284–95

Transcriptional silencing is defined by isoform- and heterodimer-specific interactions between nuclear hormone receptors and corepressors. Wong CW, et al. **Mol Cell Biol** 1998 Oct;18(10):5724–33

Interferon regulatory factor 2 represses the Epstein-Barr virus BamHI Q latency promoter in type III latency. Zhang L, et al. **Mol Cell Biol** 1999 Apr;19(4):3216–23

Identification of rCop-1, a new member of the CCN protein family, as a negative regulator for cell transformation. Zhang R, et al. **Mol Cell Biol** 1998 Oct;18(10):6131–41

Dominant negative activity of thyroid hormone receptor variant alpha2 and interaction with nuclear corepressors. Burgos-Trinidad M, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):107–14

The nuclear receptor corepressor N-CoR regulates differentiation: N-CoR directly interacts with MyoD. Bailey P, et al. **Mol Endocrinol** 1999 Jul;13(7):1155–68

Two separate NCoR (nuclear receptor corepressor) interaction domains mediate corepressor action on thyroid hormone response elements. Cohen RN, et al. **Mol Endocrinol** 1998 Oct;12(10):1567–81

Signaling by tyrosine kinases negatively regulates the interaction between transcription factors and SMRT (silencing mediator of retinoic acid and thyroid hormone receptor) corepressor. Hong SH, et al. **Mol Endocrinol** 1998 Aug;12(8):1161–71

Thyroid hormone receptor does not heterodimerize with the vitamin D receptor but represses vitamin D receptor-mediated transactivation. Raval-Pandya M, et al. **Mol Endocrinol** 1998 Sep;12(9):1367–79

A novel natural mutation in the thyroid hormone receptor defines a dual functional domain that exchanges nuclear receptor corepressors and coactivators. Tagami T, et al. **Mol Endocrinol** 1998 Dec;12(12):1888–902

Transrepression of c-jun gene expression by the glucocorticoid receptor requires both AP-1 sites in the c-jun promoter. Wei P, et al. **Mol Endocrinol** 1998 Sep; 12(9):1322–33

The succinate/fumarate transporter Acr1p of Saccharomyces cerevisiae is part of the gluconeogenic pathway and its expression is regulated by Cat8p. Bojunga N, et al. **Mol Gen Genet** 1998 Dec;260(5):453–61

Molecular analysis of the interaction between the Bacillus subtilis trehalose repressor TreR and the tre operator. Bürklen L, et al. **Mol Gen Genet** 1998 Oct;260(1):48–55

Glucose repression of the Kluyveromyces lactis invertase gene KlINV1 does not require Mig1p. Georis I, et al. **Mol Gen Genet** 1999 Jun;261(4–5):862–70

Four hydrophobic amino acid residues in the C-terminal effector domain of the yeast Mig1p repressor are important for its in vivo activity. Ostling J, et al. **Mol Gen Genet** 1998 Nov;260(2–3):269–79

Pseudomonas aeruginosa AlgZ, a ribbon-helix-helix DNA-binding protein, is essential for alginate synthesis and algD transcriptional activation. Baynham PJ, et al. **Mol Microbiol** 1999 Sep;33(5):1069–80

The Staphylococcal accessory regulator (sar) represses transcription of the Staphylococcus aureus collagen adhesin gene (cna) in an agr-independent manner. Blevins JS, et al. **Mol Microbiol** 1999 Jul;33(2):317–26

Bacillus subtilis contains multiple Fur homologues: identification of the iron uptake (Fur) and peroxide regulon (PerR) repressors. Bsat N, et al. **Mol Microbiol** 1998 Jul; 29(1):189–98

FadR, transcriptional co-ordination of metabolic expediency. Cronan JE Jr, et al. **Mol Microbiol** 1998 Aug;29(4):937–43 (30 ref.)

ClpE, a novel type of HSP100 ATPase, is part of the CtsR heat shock regulon of Bacillus subtilis. Derré I, et al. **Mol Microbiol** 1999 May;32(3):581–93

CtsR, a novel regulator of stress and heat shock response, controls clp and molecular chaperone gene expression in gram-positive bacteria. Derré I, et al. **Mol Microbiol** 1999 Jan;31(1):117–31

The ClpB ATPase of Streptomyces albus G belongs to the HspR heat shock regulon. Grandvalet C, et al. **Mol Microbiol** 1999 Jan;31(2):521–32

Repression at a distance by the global regulator KorB of promiscuous IncP plasmids. Jagura-Burdzy G, et al. **Mol Microbiol** 1999 May;32(3):519–32

A global repressor (Mlc) is involved in glucose induction of the ptsG gene encoding major glucose transporter in Escherichia coli. Kimata K, et al. **Mol Microbiol** 1998 Sep; 29(6):1509–19

Identification of a co-repressor binding site in catabolite control protein CcpA. Kraus A, et al. **Mol Microbiol** 1998 Dec;30(5):955–63

Characterization of a novel RNA regulator of Erwinia carotovora ssp. carotovora that controls production of extracellular enzymes and secondary metabolites. Liu Y, et al. **Mol Microbiol** 1998 Jul;29(1):219–34

Transcriptional activation of the glycolytic las operon and catabolite repression of the gal operon in Lactococcus lactis are mediated by the catabolite control protein CcpA. Luesink EJ, et al. **Mol Microbiol** 1998 Nov;30(4):789–98

Carbon catabolite repression of the Aspergillus nidulans xlnA gene. Orejas M, et al. **Mol Microbiol** 1999 Jan;31(1):177–84

Two AraC/XylS family members can independently counteract the effect of repressing sequences upstream of the hilA promoter. Schechter LM, et al. **Mol Microbiol** 1999 May;32(3):629–42

The function of CreA, the carbon catabolite repressor of Aspergillus nidulans, is regulated at the transcriptional and post-transcriptional level. Strauss J, et al. **Mol Microbiol** 1999 Apr;32(1):169–78

Iron regulation and pathogenicity in Erwinia chrysanthemi 3937: role of the Fur repressor protein. Franza T, et al. **Mol Plant Microbe Interact** 1999 Feb;12(2):119–28

Drosophila Tcf and Groucho interact to repress Wingless signalling activity. Cavallo RA, et al. **Nature** 1998 Oct 8; 395(6702):604–8

The Xenopus Wnt effector XTcf-3 interacts with Groucho-related transcriptional repressors. Roose J, et al. **Nature** 1998 Oct 8;395(6702):608–12

The repressor which binds the -75 GATA motif of the GPB promoter contains Ku70 as the DNA binding subunit. Camara-Clayette V, et al. **Nucleic Acids Res** 1999 Apr 1; 27(7):1656–63

The LAZ3(BCL-6) oncoprotein recruits a SMRT/mSIN3A/histone deacetylase containing complex to mediate transcriptional repression. Dhordain P, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4645–51

Binding of the glucose-dependent Mig1p repressor to the GAL1 and GAL4 promoters in vivo: regulationby glucose and chromatin structure. Frolova E, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1350–8

Recognition of exonic splicing enhancer sequences by the Drosophila splicing repressor RSF1. Labourier E, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2377–86

The Wilms' tumor suppressor gene (wt1) product represses different functional classes of transcriptional activation domains. Lee TH, et al. **Nucleic Acids Res** 1999 Jul 15; 27(14):2889–97

Evolutionary conserved mechanism of transcriptional repression by even-skipped. McKay LM, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3064–70

Isolation of altered specificity mutants of the single-chain 434 repressor that recognize asymmetric DNA sequences containing the TTAA and TTAC subsites. Simoncsits A,

et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3474–80

Activation and repression of p21(WAF1/CIP1) transcription by RB binding proteins. Gartel AL, et al. **Oncogene** 1998 Dec 31;17(26):3463–9

The BCL–6 POZ domain and other POZ domains interact with the co–repressors N–CoR and SMRT. Huynh KD, et al. **Oncogene** 1998 Nov 12;17(19):2473–84

RBP1 induces growth arrest by repression of E2F–dependent transcription. Lai A, et al. **Oncogene** 1999 Mar 25; 18(12):2091–100

The SV40 large T oncoprotein disrupts DNA–binding of the cell cycle–regulated transcriptional repressor CDF. Zwicker J, et al. **Oncogene** 1999 Mar 18;18(11):2023–5

Chromatin silencing and Arabidopsis development: A role for polycomb proteins. Preuss D. **Plant Cell** 1999 May; 11(5):765–8 (14 ref.)

Multiple photoreceptors mediate the light–induced reduction of GUS–COP1 from Arabidopsis hypocotyl nuclei. Osterlund MT, et al. **Plant J** 1998 Oct;16(2):201–8

Regulation of the OxyR transcription factor by hydrogen peroxide and the cellular thiol–disulfide status. Aslund F, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6161–5

Tolerance of Arc repressor to multiple–alanine substitutions. Brown BM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1983–8

CIR, a corepressor linking the DNA binding factor CBF1 to the histone deacetylase complex. Hsieh JJ, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):23–8

A mechanism for Rb/p130–mediated transcription repression involving recruitment of the CtBP corepressor. Meloni AR, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9574–9

SMRTe, a silencing mediator for retinoid and thyroid hormone receptors–extended isoform that is more related to the nuclear receptor corepressor. Park EJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3519–24

Origins of DNA–binding specificity: role of protein contacts with the DNA backbone. Schildbach JF, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):811–7

Modelling repressor proteins docking to DNA. Aloy P, et al. **Proteins** 1998 Dec 1;33(4):535–49

CreA modulates the XlnR–induced expression on xylose of Aspergillus niger genes involved in xylan degradation. de Vries RP, et al. **Res Microbiol** 1999 May;150(4):281–5

A role for H–NS in the regulation of the virF gene of Shigella and enteroinvasive Escherichia coli. Prosseda G, et al. **Res Microbiol** 1998 Jan;149(1):15–25

The first ATPase domain of the yeast 246–kDa protein is required for in vivo unwinding of the U4/U6 duplex. Kim DH, et al. **RNA** 1999 Jul;5(7):959–71

Transcriptional coregulators in development. Mannervik M, et al. **Science** 1999 Apr 23;284(5414):606–9 (56 ref.)

Thyroid hormone receptor coactivators and corepressors. Koenig RJ. **Thyroid** 1998 Aug;8(8):703–13 (105 ref.)

Distribution of Tsc2 protein in various normal rat tissues and renal tumours of Tsc2 mutant (Eker) rat detected by immunohistochemistry. Fukuda T, et al. **Virchows Arch** 1999 Apr;434(4):341–50

The gamma2 late glycoprotein K promoter of equine herpesvirus 1 is differentially regulated by the IE and EICP0 proteins. Kim SK, et al. **Virology** 1999 Apr 10; 256(2):173–9

Regulation of interleukin–1beta transcription by Epstein–Barr virus involves a number of latent proteins via their interaction with RBP. Krauer KG, et al. **Virology** 1998 Dec 20;252(2):418–30

Multiple regulatory proteins mediate repression and activation by interaction with the yeast Mig1 binding site. Wu J, et al. **Yeast** 1998 Aug;14(11):985–1000

[Computer analysis of regulatory signals in complete bacterial genomes. Participation of PurR binding] Mironov AA, et al. **Mol Biol (Mosk)** 1999 Jan–Feb;33(1):127–32 **(Rus)**

PHARMACOLOGY

Expression of hepatocyte growth factor–like protein is repressed by retinoic acid and enhanced by cyclic adenosine 3',5'–monophosphate response element–binding protein (CREB)–binding protein (CBP). Muraoka RS, et al. **Endocrinology** 1999 Jan;140(1):187–96

Interaction between the skeletal muscle type 1 Na+ channel promoter E–box and an upstream repressor element. Release of repression by myogenin. Kraner SD, et al. **J Biol Chem** 1999 Mar 19;274(12):8129–36

Gene activation by the AraC protein can be inhibited by DNA looping between AraC and a LexA repressor that interacts with AraC: possible applications as a two–hybrid system. Kornacker MG, et al. **Mol Microbiol** 1998 Nov; 30(3):615–24

PHYSIOLOGY

A transcriptional repressor of the tissue factor gene in endothelial cells. Holzmüller H, et al. **Arterioscler Thromb Vasc Biol** 1999 Jul;19(7):1804–11

Role of far upstream repressor elements controlling proto–Ha–ras gene transcription. Chakraborty AK, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):716–22

Transactivation of the ApoCIII promoter by ATF–2 and repression by members of the Jun family. Hadzopoulou–Cladaras M, et al. **Biochemistry** 1998 Oct 6;37(40):14078–87

Repression by the Mad(Mxi1)–Sin3 complex. Schreiber–Agus N, et al. **Bioessays** 1998 Oct;20(10):808–18 (86 ref.)

Ligand–induced differentiation of glucocorticoid receptor (GR) trans–repression and transactivation: preferential targetting of NF–kappaB and lack of I–kappaB involvement. Adcock IM, et al. **Br J Pharmacol** 1999 Jun; 127(4):1003–11

Renal carcinogenesis, hepatic hemangiomatosis, and embryonic lethality caused by a germ–line Tsc2 mutation in mice. Kobayashi T, et al. **Cancer Res** 1999 Mar 15; 59(6):1206–11

Hamartin, the product of the tuberous sclerosis 1 (TSC1) gene, interacts with tuberin and appears to be localized to cytoplasmic vesicles. Plank TL, et al. **Cancer Res** 1998 Nov 1;58(21):4766–70

CREB1 encodes a nuclear activator, a repressor, and a cytoplasmic modulator that form a regulatory unit critical for long–term facilitation. Bartsch D, et al. **Cell** 1998 Oct 16;95(2):211–23

A Smad transcriptional corepressor. Wotton D, et al. **Cell** 1999 Apr 2;97(1):29–39

NELF, a multisubunit complex containing RD, cooperates with DSIF to repress RNA polymerase II elongation. Yamaguchi Y, et al. **Cell** 1999 Apr 2;97(1):41–51

Active transcriptional repression by the Rb–E2F complex mediates G1 arrest triggered by p16INK4a, TGFbeta, and contact inhibition. Zhang HS, et al. **Cell** 1999 Apr 2; 97(1):53–61

The knirps and knirps–related genes organize development of the second wing vein in Drosophila. Lunde K, et al. **Development** 1998 Nov;125(21):4145–54

Evidence that the Dictyostelium Dd–STATa protein is a repressor that regulates commitment to stalk cell differentiation and is also required for efficient chemotaxis. Mohanty S, et al. **Development** 1999 Aug;126(15):3391–405

Activation of Pax6 depends on somitogenesis in the chick embryo cervical spinal cord. Pituello F, et al. **Development** 1999 Feb;126(3):587–96

Functional analysis of ZNF85 KRAB zinc finger protein, a member of the highly homologous ZNF91 family. Poncelet DA, et al. **DNA Cell Biol** 1998 Nov;17(11):931–43

Structure and functional analysis of a tilapia (Oreochromis mossambicus) growth hormone gene: activation and repression by pituitary transcription factor Pit–1. Sekkali B, et al. **DNA Cell Biol** 1999 Jun;18(6):489–502

The OxyS regulatory RNA represses rpoS translation and binds the Hfq (HF–I) protein. Zhang A, et al. **EMBO J** 1998 Oct 15;17(20):6061–8

Pax6 is implicated in murine pituitary endocrine function. Bentley CA, et al. **Endocrine** 1999 Apr;10(2):171–7

Transcriptional repression by the zinc finger protein REST is mediated by titratable nuclear factors. Leichter M, et al. **Eur J Neurosci** 1999 Jun;11(6):1937–46

GalR mutants defective in repressosome formation. Geanacopoulos M, et al. **Genes Dev** 1999 May 15; 13(10):1251–62

Development of neuroendocrine lineages requires the bHLH–PAS transcription factor SIM1. Michaud JL, et al. **Genes Dev** 1998 Oct 15;12(20):3264–75

Tramtrack69 is positively and autonomously required for Drosophila photoreceptor development. Lai ZC, et al. **Genetics** 1999 May;152(1):299–305

Characterization of three related glucose repressors and genes they regulate in Saccharomyces cerevisiae. Lutfiyya LL, et al. **Genetics** 1998 Dec;150(4):1377–91

Inhibition of transcription by the trimeric cyclin–dependent kinase 7 complex. Bochar DA, et al. **J Biol Chem** 1999 May 7;274(19):13162–6

The role of GATA, CArG, E–box, and a novel element in the regulation of cardiac expression of the Na+–Ca2+ exchanger gene. Cheng G, et al. **J Biol Chem** 1999 Apr 30;274(18):12819–26

Homeodomain–interacting protein kinases, a novel family of co–repressors for homeodomain transcription factors. Kim YH, et al. **J Biol Chem** 1998 Oct 2;273(40):25875–9

Transcriptional repression of the cystic fibrosis transmembrane conductance regulator gene, mediated by CCAAT displacement protein/cut homolog, is associated with histone deacetylation. Li S, et al. **J Biol Chem** 1999 Mar 19;274(12):7803–15

The interaction between the forkhead thyroid transcription factor TTF–2 and the constitutive factor CTF/NF–1 is required for efficient hormonal regulation of the thyroperoxidase gene transcription. Ortiz L, et al. **J Biol Chem** 1999 May 21;274(21):15213–21

M–Ras/R–Ras3, a transforming ras protein regulated by Sos1, GRF1, and p120 Ras GTPase–activating protein, interacts with the putative Ras effector AF6. Quilliam LA, et al. **J Biol Chem** 1999 Aug 20;274(34):23850–7

Viral ski inhibits retinoblastoma protein (Rb)–mediated transcriptional repression in a dominant negative fashion. Tokitou F, et al. **J Biol Chem** 1999 Feb 19;274(8):4485–8

Regulators and mediators of the p53 tumor suppressor. Cadwell C, et al. **J Cell Biochem Suppl** 1998;30–31:43–9 (41 ref.)

Induction of apoptosis by overexpression of the DNA–binding and DNA–PK–activating protein C1D. Rothbarth K, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2223–32

KRAB–independent suppression of neoplastic cell growth by the novel zinc finger transcription factor KS1. Gebelein B, et al. **J Clin Invest** 1998 Dec 1;102(11):1911–9

Regulation of apoptosis in myeloid cells by interferon consensus sequence–binding protein. Gabriele L, et al. **J Exp Med** 1999 Aug 2;190(3):411–22

Roles of IFN consensus sequence binding protein and PU.1 in regulating IL–18 gene expression. Kim YM, et al. **J Immunol** 1999 Aug 15;163(4):2000–7

Differential requirement of IFN consensus sequence binding protein for the production of IL–12 and induction of Th1–type cells in response to IFN–gamma. Wu CY, et al. **J Immunol** 1999 Jan 15;162(2):807–12

Fur and iron transport proteins in the Brazilian purpuric fever clone of Haemophilus influenzae biogroup aegyptius. Smoot LM, et al. **J Med Microbiol** 1999 Jul;48(7):629–36

Transiently transfected and stably integrated HIV–1 LTR responds differentially to the silencing activity of the Krüppel–associated box (KRAB) transcriptional repressor domain. Rossi C, et al. **J Med Virol** 1999 Jul;58(3):264–72

Long–range effects on dynamics in a temperature–sensitive mutant of trp repressor. Jin L, et al. **J Mol Biol** 1999 Jan 8;285(1):361–78

The sulphonylurea receptor SUR1 regulates ATP–sensitive mouse Kir6.2 K+ channels linked to the green fluorescent protein in human embryonic kidney cells (HEK 293). John SA, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):333–45

Modulation of Hedgehog target gene expression by the Fused serine–threonine kinase in wing imaginal discs. Alves G, et al. **Mech Dev** 1998 Nov;78(1–2):17–31

Mechanism of transcriptional repression of E2F by the retinoblastoma tumor suppressor protein. Ross JF, et al. **Mol Cell** 1999 Feb;3(2):195–205

GCD14p, a repressor of GCN4 translation, cooperates with Gcd10p and Lhp1p in the maturation of initiator methionyl–tRNA in Saccharomyces cerevisiae. Calvo O, et al. **Mol Cell Biol** 1999 Jun;19(6):4167–81

Histone deacetylase 1 can repress transcription by binding to Sp1. Doetzlhofer A, et al. **Mol Cell Biol** 1999 Aug; 19(8):5504–11

Btf, a novel death–promoting transcriptional repressor that interacts with Bcl–2–related proteins. Kasof GM, et al. **Mol Cell Biol** 1999 Jun;19(6):4390–404

Transcriptional elements involved in the repression of ribosomal protein synthesis. Li B, et al. **Mol Cell Biol** 1999 Aug;19(8):5393–404

KAP–1 corepressor protein interacts and colocalizes with heterochromatic and euchromatic HP1 proteins: a potential role for Krüppel–associated box–zinc finger proteins in heterochromatin–mediated gene silencing. Ryan RF, et al. **Mol Cell Biol** 1999 Jun;19(6):4366–78

Snf1 protein kinase regulates phosphorylation of the Mig1 repressor in Saccharomyces cerevisiae. Treitel MA, et al. **Mol Cell Biol** 1998 Nov;18(11):6273–80

Dorsal–mediated repression requires the formation of a multiprotein repression complex at the ventral silencer. Valentine SA, et al. **Mol Cell Biol** 1998 Nov;18(11):6584–94

HIV Tat represses transcription of the beta 2–microglobulin promoter. Carroll IR, et al. **Mol Immunol** 1998 Dec; 35(18):1171–8

Expression of the phosphotransferase system both mediates and is mediated by Mlc regulation in Escherichia coli. Plumbridge J. **Mol Microbiol** 1999 Jul;33(2):260–73

ZntR is an autoregulatory protein and negatively regulates the chromosomal zinc resistance operon znt of Staphylococcus aureus. Singh VK, et al. **Mol Microbiol** 1999 Jul;33(1):200–7

RLIM inhibits functional activity of LIM homeodomain transcription factors via recruitment of the histone deacetylase complex. Bach I, et al. **Nat Genet** 1999 Aug; 22(4):394–9

Should the master regulator Rest in peace? [news; comment] Brivanlou AH. **Nat Genet** 1998 Oct;20(2):109–10. Comment on: Nat Genet 1998 Oct;20(2):136–42.

NRSF/REST is required in vivo for repression of multiple neuronal target genes during embryogenesis [see comments] Chen ZF, et al. **Nat Genet** 1998 Oct;20(2):136–42. Comment in: Nat Genet 1998 Oct;20(2):109–10.

MBD2 is a transcriptional repressor belonging to the MeCP1 histone deacetylase complex [see comments] Ng HH, et al. **Nat Genet** 1999 Sep;23(1):58–61. Comment in: Nat Genet 1999 Sep;23(1):5–6.

The nuclear hormone receptor SEX–1 is an X–chromosome signal that determines nematode sex [see comments] Carmi I, et al. **Nature** 1998 Nov 12;396(6707):168–73. Comment in: Nature 1998 Nov 12;396(6707):115, 117.

DREAM is a Ca2+–regulated transcriptional repressor [see comments] Carrión AM, et al. **Nature** 1999 Mar 4; 398(6722):80–4. Comment in: Nature 1999 Mar 4;398(6722):29–30.

Cell signalling. DREAM on without calcium [news; comment] Mandel G, et al. **Nature** 1999 Mar 4; 398(6722):29–30. Comment on: Nature 1999 Mar 4;398(6722):80–4.

Developmental genetics. Too much sex is bad for males [news; comment] Swain A, et al. **Nature** 1998 Nov 12; 396(6707):115, 117. Comment on: Nature 1998 Nov 12;396(6707):168–73.

The orphan nuclear receptor, COUP–TF II, inhibits myogenesis by post–transcriptional regulation of MyoD function: COUP–TF II directly interacts with p300 and myoD. Bailey P, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5501–10

Tax protein of HTLV–1 inhibits CBP/p300–mediated transcription by interfering with recruitment of CBP/p300 onto DNA element of E–box or p53 binding site. Suzuki T, et al. **Oncogene** 1999 Jul 15;18(28):4137–43

Three distinct domains in TEL–AML1 are required for

transcriptional repression of the IL-3 promoter. Uchida H, et al. **Oncogene** 1999 Jan 28;18(4):1015-22

Transgenic tobacco plants expressing the Drosophila Polycomb (Pc) chromodomain show developmental alterations: possible role of Pc chromodomain proteins in chromatin-mediated gene regulation in plants. Ingram R, et al. **Plant Cell** 1999 Jun;11(6):1047-60

CoREST: a functional corepressor required for regulation of neural-specific gene expression. Andrés ME, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9873-8

A molecular sensor that allows a gut commensal to control its nutrient foundation in a competitive ecosystem. Hooper LV, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9833-8

Dosage compensation proteins targeted to X chromosomes by a determinant of hermaphrodite fate [see comments] Dawes HE, et al. **Science** 1999 Jun 11;284(5421):1800-4. Comment in: Science 1999 Jun 11;284(5421):1787-9.

Sex and repression [comment] Kuroda MI, et al. **Science** 1999 Jun 11;284(5421):1787-8. Comment on: Science 1999 Jun 11;284(5421):1800-4.

ROUGH SHEATH2: a Myb protein that represses knox homeobox genes in maize lateral organ primordia. Timmermans MC, et al. **Science** 1999 Apr 2; 284(5411):151-3

Cellular memory of transcriptional states by Polycomb-group proteins [see comments] Jacobs JJ, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):227-35 (90 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165-7.

Suppression mechanisms: themes from variations. Prelich G. **Trends Genet** 1999 Jul;15(7):261-6 (39 ref.)

Role of interferon and interferon regulatory factors in early protection against Venezuelan equine encephalitis virus infection. Grieder FB, et al. **Virology** 1999 Apr 25; 257(1):106-18

RADIATION EFFECTS

Mutation studies in lacI transgenic mice after exposure to radiation or cyclophosphamide. Hoyes KP, et al. **Mutagenesis** 1998 Nov;13(6):607-12

SECRETION

Autocrine secretion of TGF-beta 1 and TGF-beta 2 by pre-adipocytes and adipocytes: a potent negative regulator of adipocyte differentiation and proliferation of mammary carcinoma cells. Rahimi N, et al. **In Vitro Cell Dev Biol Anim** 1998 May;34(5):412-20

ULTRASTRUCTURE

Low-resolution structural characterization of the arginine repressor/activator from Bacillus subtilis: a combined X-ray crystallographic and electron microscopical approach [published erratum appears in Mutat Res 1998 Nov 12;409(2):707] Glykos NM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Mar 1;54 (Pt 2):215-25

Visualization of trp repressor and its complexes with DNA by atomic force microscopy. Margeat E, et al. **Biophys J** 1998 Dec;75(6):2712-20

REPRODUCIBILITY OF RESULTS

Post hoc subgroup analysis and the truth of a clinical trial [editorial; comment] Adams KF Jr. **Am Heart J** 1998 Nov; 136(5):753-8. Comment on: Am Heart J 1998 Nov;136(5):769-77.

Are the preanalytical factors underestimated in clinical studies? [letter] Dugué B, et al. **Clin Chem Lab Med** 1998 Oct;36(10):811

Biological variation in lipoprotein(a) [letter; comment] Nazir DJ, et al. **Clin Chem Lab Med** 1999 Jan;37(1):85. Comment on: Clin Chem Lab Med 1998 May;36(5):317-21.

Estimating imprecision profiles in biochemical analysis. Berweger CD, et al. **Clin Chim Acta** 1998 Oct;277(2):107-25

Computer-aided test selection and result validation-opportunities and pitfalls. McNair P, et al. **Clin Chim Acta** 1998 Dec;278(2):243-55

Mediawatch. Gristle for the mill. Harris RF. **Curr Biol** 1999 Apr 8;9(7):R232

Repeatability study of mechanomyography in submaximal isometric contractions using coefficient of variation and intraclass correlation coefficient. Akataki K, et al. **Electromyogr Clin Neurophysiol** 1999 Apr-May;39(3):161-6

Reliability and validity of the Family Eating and Activity Habits Questionnaire. Golan M, et al. **Eur J Clin Nutr** 1998 Oct;52(10):771-7

Comparison of various cosolvency models for calculating solute solubility in water-cosolvent mixtures. Jouyban-Gharamaleki A, et al. **Int J Pharm** 1999 Jan 15; 177(1):93-101 (35 ref.)

Sampling and external validity. Morgan GA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):1051-3

Evaluating the validity of a research study. Morgan GA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Apr; 38(4):480-5

A reliability study for evaluating information extraction from radiology reports [see comments] Hripcsak G, et al. **J Am Med Inform Assoc** 1999 Mar-Apr;6(2):143-50. Comment in: J Am Med Inform Assoc 1999 Mar-Apr;6(2):176-7.

A statistical evaluation of the Youden Matched-Pairs Procedure. McClure FD. **J AOAC Int** 1999 Mar-Apr; 82(2):375-83

Repeatability and reproducibility of germicide tests: a literature review. Tilt N, et al. **J AOAC Int** 1999 Mar-Apr; 82(2):384-9

Further considerations of null hypothesis testing. Clark CM. **J Clin Exp Neuropsychol** 1999 Apr;21(2):283-4

Reproducibility of ambulatory blood pressure monitoring in daily practice. van der Steen MS, et al. **J Hum Hypertens** 1999 May;13(5):303-8

Generalizability theory: a unified approach to assessing the dependability (reliability) of measurements in the health sciences. VanLeeuwen DM, et al. **J Outcome Meas** 1998; 2(4):302-25

RTS, a computer program for the experimental set-up and interpretation of ruggedness tests. Questier F, et al. **J Pharm Biomed Anal** 1998 Nov;18(3):287-303

Validation of the PASE in older adults with knee pain and physical disability. Martin KA, et al. **Med Sci Sports Exerc** 1999 May;31(5):627-33

Analysis of clustered data in receiver operating characteristic studies. Beam CA. **Stat Methods Med Res** 1998 Dec; 7(4):324-36 (30 ref.)

Sample size calculations in studies of test accuracy. Obuchowski NA. **Stat Methods Med Res** 1998 Dec; 7(4):371-92 (36 ref.)

[Practical conducting of blood pressure measuring. Important contributing factors and possibilities of errors] Tholl U. **Fortschr Med** 1999 Apr 10;117(10):26-8, 30-1 (Eng. Abstr.) **(Ger)**

[Cost effective planning of controlled trials with diagnostic instruments of limited reproducibility] Krummenauer F, et al. **Radiologe** 1999 Jun;39(6):489-93 (Eng. Abstr.) **(Ger)**

[Evaluation of the structures of agreement and disagreement in reliability studies] da Silva EF, et al. **Rev Saude Publica** 1998 Aug;32(4):383-93 (Eng. Abstr.) **(Por)**

REPRODUCTION

FIGO committee for the Ethical Aspects of Human Reproduction and Women's Health. **Acta Obstet Gynecol Scand** 1999 Aug;78(7):659-63

Deaths among women of reproductive age in Cape Verde: causes and avoidability. Wessel H, et al. **Acta Obstet Gynecol Scand** 1999 Mar;78(3):225-32

Identifying research priorities in reproductive health in Nigeria: report of a workshop. **Afr J Reprod Health** 1997 Mar;1(1):100

Africa faces reproductive crisis [editorial] Caldwell JC. **Afr J Reprod Health** 1997 Sep;1(2):10-4 **(Eng, Fre)**

Reproductive health in southern Africa: report of a WHO workshop. Hall P. **Afr J Reprod Health** 1997 Mar;1(1):97-9

Adolescent pregnancy and reproductive health in Transkei (rural South Africa). Makiwane MB. **Afr J Reprod Health** 1998 Apr;2(1):41-8

Economic development and reproductive health in Africa [editorial] Okonofua F. **Afr J Reprod Health** 1997 Sep; 1(2):6-9 **(Eng, Fre)**

Reproductive health issues in Africa [editorial] Rosenfield A. **Afr J Reprod Health** 1997 Mar;1(1):5-6

Launching the African Journal of Reproductive Health [editorial] Snow R, et al. **Afr J Reprod Health** 1997 Mar; 1(1):3-4

Sexual and reproductive health among primary and secondary school pupils in Mwanza, Tanzania: need for intervention. Matasha E, et al. **AIDS Care** 1998 Oct; 10(5):571-82

Reproductive risk factors for breast cancer in Hispanic and non-Hispanic white women: the New Mexico Women's Health Study. Gilliland FD, et al. **Am J Epidemiol** 1998 Oct 1;148(7):683-92

Women's Health: Occupation, Cancer and Reproduction. Reykjavik, Iceland, May 14-15, 1998. Conference proceedings. **Am J Ind Med** 1999 Jul;36(1):1-222

Women's Health: Occupation, Cancer, and Reproduction. A conference overview. Gunnarsdottir HK, et al. **Am J Ind Med** 1999 Jul;36(1):1-5

Women's reproductive health: some recent developments in occupational epidemiology. Lindbohm ML. **Am J Ind Med** 1999 Jul;36(1):18-24 (51 ref.)

A review of the effects of hazardous waste on reproductive health. Johnson BL. **Am J Obstet Gynecol** 1999 Jul; 181(1):S12-6 (20 ref.)

Life history of Eulemur fulvus rufus from 1988-1998 in southeastern Madagascar. Overdorff DJ, et al. **Am J Phys Anthropol** 1999 Mar;108(3):295-310

Reproductive termination in female Japanese monkeys: A comparative life history perspective. Pavelka MS, et al. **Am J Phys Anthropol** 1999 Aug;109(4):455-64

Mahale chimpanzees: grouping patterns and cycling females. Matsumoto-Oda A. **Am J Primatol** 1999;47(3):197-207

Reproductive biology of female titi monkeys (Callicebus moloch) in captivity. Valeggia CR, et al. **Am J Primatol** 1999;47(3):183-95

Involving men in reproductive health: the Young Men's Clinic. Armstrong B, et al. **Am J Public Health** 1999 Jun; 89(6):902-5

Cumulative indexes--volumes 26-50. **Anim Reprod Sci** 1998 Mar;50(3-4):153-294

Treatment of gilts with leukocytes from the sire does not improve reproductive performance. Ramsoondar JJ, et al. **Anim Reprod Sci** 1998 Dec 1;54(1):13-21

Reproductive phenotypes in the estrogen receptor-alpha knockout mouse. Couse JF, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):143-8 (51 ref.)

Intragonadal regulation of male and female reproduction. Hillier SG. **Ann Endocrinol (Paris)** 1999 Jul;60(2):111-7 (84 ref.)

Is the reduction of birth intervals an efficient reproductive strategy in traditional Morocco? Crognier E. **Ann Hum Biol** 1998 Sep-Oct;25(5):479-87

Society for the Study of Reproduction 31st annual meeting. College Station, Texas, USA. August 8-11, 1998. Abstracts. **Biol Reprod** 1998;58 Suppl 1:71-227

1998 Carl G. Hartman Award. **Biol Reprod** 1999 Feb; 60(2):223

1998 SSR Research Award. **Biol Reprod** 1999 Feb; 60(2):223-4

1998 Distinguished Service Award. **Biol Reprod** 1999 Feb; 60(2):225-6

Gonadotropin response to naloxone in the mare: effect of time of year and reproductive status. Davison LA, et al. **Biol Reprod** 1998 Nov;59(5):1195-9

Expression and hormonal regulation of the Sox4 gene in mouse female reproductive tissues. Hunt SM, et al. **Biol Reprod** 1999 Aug;61(2):476-81

Risk factors for breast cancer in nulliparous women. Fioretti F, et al. **Br J Cancer** 1999 Apr;79(11-12):1923-8

Reproductive factors related to the risk of colorectal cancer by subsite: a case-control analysis. Yoo KY, et al. **Br J Cancer** 1999 Apr;79(11-12):1901-6

Professional development in reproductive and sexual health--a pilot study from Suffolk, UK. Reader FC, et al. **Br J Fam Plann** 1999 Jan;24(4):135-40

Comparison of the reproductive system in turkeys with a high or low susceptibility to uterine prolapse. Buchanan S, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S19-20

Mammary gland development, reproductive history, and breast cancer risk. Chodosh LA, et al. **Cancer Res** 1999 Apr 1;59(7 Suppl):1765-1771s; discussion 1771s-1772s (85 ref.)

Normative reproductive indices for male and female adult Sprague-Dawley rats. Sokol RZ, et al. **Contraception** 1999 Mar;59(3):203-7

Bibliography. Current world literature. Reproductive endocrinology. **Curr Opin Obstet Gynecol** 1999 Jun; 11(3):313-34

Glycodelins: biological activity in reproduction and differentiation. Seppälä M. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):261-3 (15 ref.)

Credit programs for the poor and reproductive behavior in low-income countries: are the reported causal relationships the result of heterogeneity bias? Pitt MM, et al. **Demography** 1999 Feb;36(1):1-21

Deficits in female reproductive function in GH-R-KO mice; role of IGF-I. Danilovich N, et al. **Endocrinology** 1999 Jun;140(6):2637-40

Serum vitellogenin levels and reproductive impairment of male Japanese Medaka (Oryzias latipes) exposed to 4-tert-octylphenol. Gronen S, et al. **Environ Health Perspect** 1999 May;107(5):385-90

New NTP centers meet the need to know [news] Twombly R. **Environ Health Perspect** 1998 Oct;106(10):A480-3

Menstrual and reproductive risk factors for ischemic heart disease. Cooper GS, et al. **Epidemiology** 1999 May; 10(3):255-9

Scientific papers to be presented at the 47th annual meeting of the Pacific Coast Reproductive Society. Carlsbad, California, USA. April 14-18, 1999. Abstracts. **Fertil Steril** 1999 Apr;71(4 Suppl):1S-21S

Reproductive effects of in utero exposure to estrogen and progestin drugs. Hemminki E, et al. **Fertil Steril** 1999 Jun; 71(6):1092-8

Reproductive properties of heterozygous nu/+ mice. Boubelik M. **Folia Microbiol (Praha)** 1998;43(5):479-80

Steroid levels and reproductive cycle of the Galápagos tortoise, Geochelone nigra, living under seminatural conditions on Santa Cruz Island (Galápagos). Schramm BG, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):108-20

Poisson distribution of male mating success in laboratory populations of Drosophila melanogaster. Joshi A, et al. **Genet Res** 1999 Jun;73(3):239-49

European Society of Human Reproduction and Embryology 14th annual meeting. Goteborg, Sweden, 21-24 June 1998. Abstracts. **Hum Reprod** 1998 Jun;13:1-350

Blind hemivagina: long-term follow-up and reproductive performance in 42 cases. Haddad B, et al. **Hum Reprod** 1999 Aug;14(8):1962-4

Current status of reproductive behaviour in Africa. Bambra CS. **Hum Reprod Update** 1999 Jan-Feb;5(1):1-20 (158 ref.)

Mini symposium: the role of carbohydrates in reproduction. Introduction. Ivell R. **Hum Reprod Update** 1999 Jul-Aug; 5(4):277-9 (14 ref.)

Ageing and social rank effects on the reproductive system of free-ranging yellow baboons (Papio cynocephalus) at Mikumi National Park, Tanzania. Wasser SK, et al. **Hum Reprod Update** 1998 Jul-Aug;4(4):430-8 (40 ref.)

An elusive role for glycosylation in the structure and function of reproductive hormones. Willey KP. **Hum Reprod Update** 1999 Jul-Aug;5(4):330-55 (154 ref.)

Relationship between onset age of mammary tumour and reproduction in four strains of mice with different

mammary tumour potentials. Nagasawa H, et al. **In Vivo** 1998 May-Jun;12(3):345-9

Achieving and maintaining pregnancy after age 40. Corson SL. **Int J Fertil Womens Med** 1998 Sep-Oct;43(5):249-56 (15 ref.)

Ethics, justice and women's health. Cook RJ, et al. **Int J Gynaecol Obstet** 1999 Jan;64(1):81-5 (23 ref.)

FIGO Committee Report. FIGO Committee for the Ethical Aspects of Human Reproduction and Women's Health. International Federation of Gynecology and Obstetrics. Schenker JG, et al. **Int J Gynaecol Obstet** 1999 Mar; 64(3):317-22

One-eyed science: scientists, workplace reproductive hazards, and the right to work. Messing K. **Int J Health Serv** 1999;29(1):147-65

Reproductive health needs: comparing women at high, drug-related risk of HIV with a national sample. Armstrong KA, et al. **J Am Med Womens Assoc** 1999 Spring;54(2):65-70, 78

Reproductive violence screening in primary care: perspectives and experiences of patients and battered women. McNutt LA, et al. **J Am Med Womens Assoc** 1999 Spring;54(2):85-90

Within-farm variability in number of females mated per week during a one-year period and breeding herd productivity on swine farms. Koketsu Y, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):520-4

Estimation of lifetime productivity of female swine. Lucia T Jr, et al. **J Am Vet Med Assoc** 1999 Apr 1;214(7):1056-9

Prevalence of Tritrichomonas fetus in a bull population and effect on production in a large cow-calf enterprise. Rae DO, et al. **J Am Vet Med Assoc** 1999 Apr 1;214(7):1051-5

Effects of twinning on postpartum reproductive performance in cattle selected for twin births. Echternkamp SE, et al. **J Anim Sci** 1999 Jan;77(1):48-60

Reproductive, metabolic, and endocrine responses to feed restriction and GnRH treatment in primiparous, lactating sows. Mao J, et al. **J Anim Sci** 1999 Mar;77(3):724-35

Effects of induced hypothyroidism on weight gains, lactation, and reproductive performance of primiparous Brahman cows. Thrift TA, et al. **J Anim Sci** 1999 Jul;77(7):1844-50

Reproductive performance of bulls divergently selected on the basis of blood serum insulin-like growth factor I concentration. Yilmaz A, et al. **J Anim Sci** 1999 Apr; 77(4):835-9

Social cues attenuate photoresponsiveness of the male reproductive system in Siberian hamsters (Phodopus sungorus). Hegstrom CD, et al. **J Biol Rhythms** 1999 Feb; 14(1):54-61

International migration and biodemographical behaviour: a study of Italians in Belgium. Zavattaro M, et al. **J Biosoc Sci** 1997 Jul;29(3):345-54

Restoration of reproductive potential by lifestyle modification in obese polycystic ovary syndrome: role of insulin sensitivity and luteinizing hormone. Huber-Buchholz MM, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1470-4

Female reproductive aging is marked by decreased secretion of dimeric inhibin. Welt CK, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):105-11

Productive and reproductive performance in cattle infected with bovine leukosis virus. D'Angelino JL, et al. **J Dairy Res** 1998 Nov;65(4):693-5

Effect of supplemental dietary vitamin E and zinc on reproductive performance of dairy cows and heifers fed excess iron. Campbell MH, et al. **J Dairy Sci** 1998 Oct; 81(10):2693-9

Effect of additional cobalt, copper, manganese, and zinc on reproduction and milk yield of lactating dairy cows receiving bovine somatotropin. Campbell MH, et al. **J Dairy Sci** 1999 May;82(5):1019-25

The effects of accelerated growth rates and estrogen implants in prepubertal Holstein heifers on estimates of mammary development and subsequent reproduction and milk production. Lammers BP, et al. **J Dairy Sci** 1999 Aug; 82(8):1753-64

Effects of photointensity and photoperiod on milk yield and reproductive performance of Norwegian red cattle. Reksen O, et al. **J Dairy Sci** 1999 Apr;82(4):810-6

Reproductive performance of dairy cows in various programmed breeding systems including OvSynch and combinations of gonadotropin-releasing hormone and prostaglandin F2 alpha. Stevenson JS, et al. **J Dairy Sci** 1999 Mar;82(3):506-15

Oviductal sperm storage as a reproductive tactic of turtles. Gist DH, et al. **J Exp Zool** 1998 Nov-Dec 1; 282(4-5):526-34 (48 ref.)

Oviduct structure and function and reproductive modes in amphibians. Wake MH, et al. **J Exp Zool** 1998 Nov-Dec 1;282(4-5):477-506 (149 ref.)

Sexually transmitted diseases and reproductive health in women. Burst HV. **J Nurse Midwifery** 1998 Nov-Dec; 43(6):431-44 (71 ref.)

Short photoperiod affects reproductive function but not dehydroepiandrosterone concentrations in male deer mice (Peromyscus maniculatus). Kriegsfeld LJ, et al. **J Pineal Res** 1998 Sep;25(2):101-5

Proceedings of the Ares Serono Foundation Workshop on HIV-1 and Gametes. Siena, Italy, October 14-17, 1997. **J Reprod Immunol** 1998 Dec;41(1-2):1-377

Ethical guidelines on human reproduction and women's health. FIGO Committee for the Ethical Aspects of Human Reproduction and Women's Health. **J Reprod Med** 1999 May;44(5):482-6

Reproductive and occupational stereotypes of bodily curvaceousness and weight. Barber N. **J Soc Psychol** 1999 Apr;139(2):247-9

Causes of morbidity and mortality and their effect on reproductive success in double-crested cormorants from Saskatchewan. Kuiken T, et al. **J Wildl Dis** 1999 Apr; 35(2):331-46

Early childbearing patterns and women's labor force behavior in later life. Pienta A. **J Women Aging** 1999; 11(1):69-84

Reproduction and fertility. **J Womens Health** 1998 Aug; 7(6):768-77

Women's Health LiteratureWatch. **J Womens Health** 1999 Apr;8(3):421-8

Women's Health LiteratureWatch. **J Womens Health** 1998 Dec;7(10):1299-310

Comparative case-referent study of risk factors among hormone-related female cancers in Japan. Hirose K, et al. **Jpn J Cancer Res** 1999 Mar;90(3):255-61

Risk factors for breast cancer in Japan, with special attention to anthropometric measurements and reproductive history. Tung HT, et al. **Jpn J Clin Oncol** 1999 Mar;29(3):137-46

Diminished reproduction, failure to thrive, and altered immunologic function in a colony of T-cell receptor transgenic mice: possible role of Citrobacter rodentium. Maggio-Price L, et al. **Lab Anim Sci** 1998 Apr;48(2):145-55

No rustling at Roslin [letter; comment] Bulfield G. **Nature** 1998 Nov 12;396(6707):108. Comment on: Nature 1998 Aug 27;394(6696):821.

Human longevity at the cost of reproductive success [see comments] Westendorp RG, et al. **Nature** 1998 Dec 24-31; 396(6713):743-6. Comment in: Nature 1998 Dec 24-31;396(6713):719-20. Comment in: Nature 1999 Feb 18;397(6720):557-8. Comment in: Nature 1999 Jun 10;399(6736):522.

Management of migraine and epilepsy throughout the reproductive cycle. Edmeads J. **Neurology** 1999;53(4 Suppl 1):S1-2

Enzyme replacement therapy improves reproductive performance in mucopolysaccharidosis type VII mice but does not prevent postnatal losses. Soper BW, et al. **Pediatr Res** 1999 Feb;45(2):180-6

Strange tales of small men: homunculi in reproduction. Pinto-Correia C. **Perspect Biol Med** 1999 Winter; 42(2):225-44

Reproductive health. New perspectives on men's participation. Drennan M. **Popul Rep J** 1998 Oct;(46):1-35 (299 ref.)

Observations on ploidy of cells and on reproductive performance in parthenogenetic turkeys [see comments] Cassar G, et al. **Poult Sci** 1998 Oct;77(10):1457-62. Comment in: Poult Sci 1998 Oct;77(10):1463-8.

Early postmolt performance of laying hens fed a low-protein corn molt diet supplemented with corn gluten meal, feather meal, methionine, and lysine. Koelkebeck KW, et al. **Poult Sci** 1999 Aug;78(8):1132-7

Effects of body weight and feed allocation during sexual maturation in broiler breeder hens. 1. Growth and carcass characteristics. Renema RA, et al. **Poult Sci** 1999 May; 78(5):619-28

Ahemeral lighting of turkey breeder hens. 3. Temporary application and early age at lighting. Siopes TD, et al. **Poult Sci** 1999 Mar;78(3):387-91

Constraints on dairy cattle productivity at the smallholder level in the Philippines. Alejandrino AL, et al. **Prev Vet Med** 1999 Jan 27;38(2-3):167-78

Reproductive performance of farmed red deer (Cervus elaphus) in New Zealand: II. Risk factors for adult hind conception. Audigé LJ, et al. **Prev Vet Med** 1999 May 14; 40(1):33-51

Reproductive performance of farmed red deer (Cervus elaphus) in New Zealand: III. Risk factors for yearling hind conception. Audigé LJ, et al. **Prev Vet Med** 1999 May 14; 40(1):53-65

Effect of strategic feed supplementation on productive and reproductive performance in yak cows. Long RJ, et al. **Prev Vet Med** 1999 Jan 27;38(2-3):195-206

The effect of subclinical experimental Cowdria ruminantium infection on the health and reproductive performance of breeding ewes. Martinez TA, et al. **Prev Vet Med** 1999 Jul 20;41(2-3):89-103

Associations between use of electric cow-trainers and clinical diseases, reproductive performance and culling in Swedish dairy cattle. Oltenacu PA, et al. **Prev Vet Med** 1998 Dec 1;37(1-4):77-90

Long-term trend toward earlier breeding in an American bird: a response to global warming? Brown JL, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5565-9

Sexually transmitted chemical defense in a moth (Utetheisa ornatrix). González A, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5570-4

Intergenerational concepts of adolescent sexuality: implications for community-based reproductive health care with Haitian immigrants. DeSantis L, et al. **Public Health Nurs** 1999 Apr;16(2):102-13

Center to review evidence of chemical threats to human reproduction [news] **Public Health Rep** 1999 Mar-Apr; 114(2):103

Effect of the feeding level during rearing on performance of Large White gilts. Part 1: Growth, reproductive performance and feed intake during the first lactation. Le Cozler Y, et al. **Reprod Nutr Dev** 1998 Jul-Aug; 38(4):363-75

Embryo transfer and related technologies in sheep reproduction. Loi P, et al. **Reprod Nutr Dev** 1998 Nov-Dec; 38(6):615-28 (123 ref.)

Influence of Schistosoma mansoni infection on the reproductive capacity of albino mice. Mello RT, et al. **Rev Soc Bras Med Trop** 1998 Nov-Dec;31(6):579-80

Knowledge and perceptions of reproduction and contraception in an informal settlement in Gauteng [letter] Westaway MS, et al. **S Afr Med J** 1998 Oct;88(10):1280

Spatial and temporal trends in levels of trace metals and PCBs in the European badger Meles meles (L., 1758) in The Netherlands: implications for reproduction. Van den Brink NW, et al. **Sci Total Environ** 1998 Oct 15;222(1-2):107-18

Molecular origin of species [comment] Nei M, et al. **Science** 1998 Nov 20;282(5393):1428-9. Comment on: Science 1998 Nov 20;282(5393):1501-4.

Long-term genetic and reproductive effects of ionizing radiation and chemotherapeutic agents on cancer patients and their offspring. Byrne J. **Teratology** 1999 Apr; 59(4):210-5 (30 ref.)

Intrauterine effects of ultrasound: human epidemiology. Ziskin MC. **Teratology** 1999 Apr;59(4):252-60 (45 ref.)

Adverse reproductive outcomes in the transgenic Ah receptor-deficient mouse. Abbott BD, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):62-70

Ratite reproduction. Hicks-Alldredge K. **Vet Clin North Am Food Anim Pract** 1998 Nov; 14(3):437-53, vi (8 ref.)

The implications of affiliations between Catholic and non-Catholic health care organizations for availability of reproductive health services. Weisman CS, et al. **Womens Health Issues** 1999 May-Jun;9(3):121-34

Comparison of a conventional reproductive management programme based on rectal palpation and uterine treatment of endometritis with a strategic prostaglandin F2 alpha programme. Tenhagen BA, et al. **Zentralbl Veterinarmed A** 1999 Apr;46(3):167-76

[Ethical recommendations 1998. Committee of the International Federation of Gynecology and Obstetrics (FIGO) on the Ethical Aspects of Human Reproduction and Women's Health] **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jun;28(3):278-82 **(Fre)**

[Reproductive performance and milk production of Israeli-Holstein cows with different supplementation during the dry period] Francos G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun;112(5):161-5 (Eng. Abstr.) **(Ger)**

[Motherhood and fatherhood after liver transplantation] Raakow R, et al. **Dtsch Med Wochenschr** 1999 Jun 11; 124(23):715-20 (Eng. Abstr.) **(Ger)**

[Declaration and suggested plan of actions up to the year 2000 and in the 21st century on the protection of reproductive health of workers] **Med Tr Prom Ekol** 1999; (6):46-8 **(Rus)**

[International Conference on Medico-Ecological Problems of Reproductive Health of Workers (Moscow, December 9-10, 1998)] Fesenko MA, et al. **Med Tr Prom Ekol** 1999; (3):46-7 **(Rus)**

[Ecological aspects of reproductive health of women] Lineva OI, et al. **Med Tr Prom Ekol** 1999;(3):43-5 **(Rus)**

[Reproductive health and social guarantees] Sanotskiĭ IV. **Med Tr Prom Ekol** 1999;(3):6-9 (Eng. Abstr.) **(Rus)**

[Medical and ecologic aspects of problems associated with protection of workers' reproductive health in Russia] Sivochalova OV, et al. **Med Tr Prom Ekol** 1999;(3):1-6 (Eng. Abstr.) **(Rus)**

[Occupational factors and reproductive disorders] Tarasova LA, et al. **Med Tr Prom Ekol** 1999;(3):13-6 (Eng. Abstr.) **(Rus)**

[The morphofunctional characteristics of the testicular interstitial endocrinocytes in the red suslik (Citellus major Pallas) during a seasonal change in reproductive activity] Shevliuk NN. **Morfologiia** 1998;114(4):88-93 (Eng. Abstr.) **(Rus)**

[HRP/WHO: special program of research, development and research training in human reproduction, of the World Health Organization] Lavin P. **Rev Med Chil** 1998 Jul;126(7 Suppl):42-53 (Eng. Abstr.) **(Spa)**

[Reproductive health: integral part of human development] **Rev Panam Salud Publica** 1998 Sep;4(3):211-7 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Effects of melatonin, progestagens, and the ram on out-of-season reproduction in Swedish Landrace finewool sheep. Gates PJ, et al. **Acta Vet Scand** 1998;39(4):499-510

An overview of current in vivo test procedures to reproductive toxicology. Nunziata A. **Adv Exp Med Biol** 1998;444:171-83 (0 ref.)

Aflatoxin B1 and reproduction. I. Reproductive performance in female rats. Ibeh IN, et al. **Afr J Reprod Health** 1997 Sep;1(2):79-84

Aflatoxin B1 and reproduction. II. Gametoxicity in female rats. Ibeh IN, et al. **Afr J Reprod Health** 1997 Sep;1(2):85-9

Assessment of the U.S. Environmental Protection Agency methods for identification of hazards to developing organisms, Part I: The reproduction and fertility testing guidelines. Claudio L, et al. **Am J Ind Med** 1999 Jun;

35(6):543–53 (75 ref.)

Reproductive performance of two generations of female semidomesticated mink fed diets containing organic mercury contaminated freshwater fish. Dansereau M, et al. **Arch Environ Contam Toxicol** 1999 Feb;36(2):221–6

Lack of developmental and reproductive toxicity of 2,3,3',4,4'-pentachlorobiphenyl (PCB 105) in ring-necked pheasants. Hornung MW, et al. **Arch Environ Contam Toxicol** 1998 Nov;35(4):646–53

Subacute and reproductive effects in mink from exposure to Fusarium fujikuroi culture material (M–1214) containing known concentrations of moniliformin. Morgan MK, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):513–7

Reproductive actions of phytoestrogens. Whitten PL, et al. **Baillieres Clin Endocrinol Metab** 1998 Dec;12(4):667–90 (142 ref.)

Oxidative DNA damage by minor metabolites of toluene may lead to carcinogenesis and reproductive dysfunction. Murata M, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):478–83

Adverse reproductive and developmental effects in Xenopus from insufficient boron. Fort DJ, et al. **Biol Trace Elem Res** 1998 Winter;66(1–3):237–59

Antiestrogenic effects of low doses of 2,3,7,8–TCDD in offspring of female rats exposed throughout pregnancy and lactation. Faqi AS, et al. **Bull Environ Contam Toxicol** 1998 Oct;61(4):462–9

Differences in reproductive characteristics among field populations of Polycelis tenuis (Platyhelminthes) in a metal contaminated stream. Indeherberg MB, et al. **Bull Environ Contam Toxicol** 1999 Feb;62(2):130–7

Study of pearl dace (Margariscus margarita) inhabiting a stillwater pond contaminated with diesel fuel. Khan RA. **Bull Environ Contam Toxicol** 1999 May;62(5):638–45

The effects of environmental hormones on reproduction. Danzo BJ. **Cell Mol Life Sci** 1998 Nov;54(11):1249–64 (186 ref.)

Effects of in ovo exposure to 2,3,7,8–TCDD on F1 generation adult chickens (Gallus gallus). Alonso KR, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):1873–83

Reproductive effects of tris(4–chlorophenyl)methanol in the rat. Foster WG, et al. **Chemosphere** 1999 Aug;39(5):709–24

Neurodevelopmental, immunological and endocrinological indices of perinatal human exposure to PCBs and dioxins. Weisglas–Kuperus N. **Chemosphere** 1998 Oct–Nov; 37(9–12):1845–53 (55 ref.)

Effects of nickel chloride on reproduction of the rat and possible antagonistic role of selenium. Käkelä R, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 May;123(1):27–37

Study of alterations produced by cadmium and cadmium/lead administration during gestational and early lactation periods in the reproductive organs of the rat. Corpas I, et al. **Ecotoxicol Environ Saf** 1998 Oct;41(2):180–8

Toxic effects of cadmium on reproduction, development, and hatching in the freshwater snail Lymnaea stagnalis for water quality monitoring. Gomot A. **Ecotoxicol Environ Saf** 1998 Nov;41(3):288–97

Effects of polychlorinated biphenyls on liver ultrastructure, hepatic monooxygenases, and reproductive success in the barbel. Hugla JL, et al. **Ecotoxicol Environ Saf** 1999 Mar; 42(3):265–73

Effects of wood–related sterols on the reproduction, egg survival, and offspring of brown trout (Salmo trutta lacustris L.). Lehtinen KJ, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):40–9

Chronic toxicity of diethylenetriamine pentaacetic acid to crimson–spotted rainbowfish (Melanotaenia fluviatilis): effects on reproduction, condition, and ethoxyresorufin O–deethylase activity. van Dam RA, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):74–82

The stimulatory effect of leptin on the neuroendocrine reproductive axis of the monkey. Finn PD, et al. **Endocrinology** 1998 Nov;139(11):4652–62

Reproductive and morphological condition of wild mink (Mustela vison) and river otters (Lutra canadensis) in relation to chlorinated hydrocarbon contamination. Harding LE, et al. **Environ Health Perspect** 1999 Feb; 107(2):141–7

Re: the use of offspring sex ratios in the search for endocrine disruptors [letter; comment] James WH. **Environ Health Perspect** 1998 Oct;106(10):A472–3. Comment on: Environ Health Perspect 1998 Feb;106 Suppl 1:11–56.

Effect of diethylstilbestrol on reproductive function. Goldberg JM, et al. **Fertil Steril** 1999 Jul;72(1):1–7 (60 ref.)

Environmental toxicants and female reproduction [see comments] Sharara FI, et al. **Fertil Steril** 1998 Oct; 70(4):613–22 (100 ref.). Comment in: Fertil Steril 1999 Apr;71(4):775–6.

Evaluation of single–cell sources of docosahexaenoic acid and arachidonic acid: 3–month rat oral safety study with an in utero phase. Burns RA, et al. **Food Chem Toxicol** 1999 Jan;37(1):23–36

Reproductive effects of dietary soy in female Wistar rats. Gallo D, et al. **Food Chem Toxicol** 1999 May;37(5):493–502

Does polyglycerol polyricinoleate alter offspring sex ratios? [letter] James WH. **Food Chem Toxicol** 1999 Aug;37(8):919

Safety evaluation of phytosterol esters. Part 3. Two–generation reproduction study in rats with phytosterol esters—a novel functional food. Waalkens–Berendsen DH, et al. **Food Chem Toxicol** 1999 Jul;37(7):683–96

Comparative effects of the selective estrogen receptor modulators (–)–, (+)– and (+/–)–Z bisdehydrodoisynolic acids on metabolic and reproductive parameters in male and female rats. Banz WJ, et al. **Horm Metab Res** 1998 Dec;30(12):730–6

Effects on developmental landmarks and reproductive capability of 3,3',4,4'–tetrachlorobiphenyl and 3,3',4,4',5–pentachlorobiphenyl in offspring of rats exposed during pregnancy. Faqi AS, et al. **Hum Exp Toxicol** 1998 Jul;17(7):365–72

Occupational risk to male reproduction [editorial; comment] Bonde JP. **Int Arch Occup Environ Health** 1999 May; 72(3):133–4 (17 ref.). Comment on: Int Arch Occup Environ Health 1999 May;72(3):135–41.

Critical evaluation of medical, statistical, and occupational data sources in the Kola Peninsula of Russia pertinent to reproductive health studies. Odland JO, et al. **Int Arch Occup Environ Health** 1999 May;72(3):151–60

Gonadotropin–releasing hormone improves reproductive performance of dairy cows with slow involution of the reproductive tract. Foote RH, et al. **J Anim Sci** 1999 Jan; 77(1):12–6

Reproductive effects of feeding gossypol and vitamin E to bulls. Velasquez–Pereira J, et al. **J Anim Sci** 1998 Nov; 76(11):2894–904

Two–generation reproduction study of lewisite in rats. Sasser LB, et al. **J Appl Toxicol** 1999 Jul–Aug;19(4):229–35

In vivo studies on possible adverse effects on reproduction of the fungicide methyl thiophanate. Traina ME, et al. **J Appl Toxicol** 1998 Jul–Aug;18(4):241–8

Reproductive axis after discontinuation of gonadotropin–releasing hormone analog treatment of girls with precocious puberty: long term follow–up comparing girls with hypothalamic hamartoma to those with idiopathic precocious puberty. Feuillan PP, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):44–9

A dental implant: aluminium trioxide exhibited no effect on mouse reproductive and mutanogenic potential. Zelić O, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):892–6

Reproductive toxicity of occupational mercury. A review of the literature. Schuurs AH. **J Dent** 1999 May; 27(4):249–56 (101 ref.)

Reproductive toxicity potentials of Salvia fruticosa (Labiatae) in rats [published erratum appears in J Ethnopharmacol 1998 Dec;63(3):265] Al–Hamood MH, et al. **J Ethnopharmacol** 1998 May;61(1):67–74

Effects of an aqueous extract of Aloe buettneri, Justicia insularis, Hibiscus macranthus, Dicliptera verticillata on some physiological and biochemical parameters of reproduction in immature female rats. Telefo PB, et al. **J Ethnopharmacol** 1998 Dec;63(3):193–200

Flaxseed and its lignan precursor, secoisolariciresinol diglycoside, affect pregnancy outcome and reproductive development in rats. Tou JC, et al. **J Nutr** 1998 Nov; 128(11):1861–8

Endocrine and reproductive function in ewes exposed to the organochlorine pesticides lindane or pentachlorophenol. Beard AP, et al. **J Toxicol Environ Health** 1999 Jan 8; 56(1):23–46

Dose, timing, and duration of flaxseed exposure affect reproductive indices and sex hormone levels in rats. Tou JC, et al. **J Toxicol Environ Health** 1999 Apr 23; 56(8):555–70

Effects of lead on the male reproductive system in mice. Wadi SA, et al. **J Toxicol Environ Health** 1999 Apr 9; 56(7):513–21

An overview of recent studies on the potential of pulp–mill effluents to alter reproductive parameters in fish. Munkittrick KR, et al. **J Toxicol Environ Health B Crit Rev** 1998 Oct–Dec; 1(4):347–71 (92 ref.)

Precocious estrus and reproductive ability induced by PG 600 in prepuberal gilts. Iwamura S, et al. **J Vet Med Sci** 1999 Jan;61(1):7–11

The effects of cannabinoids on the regulation of reproduction. Wenger T, et al. **Life Sci** 1999;65(6–7):695–701 (22 ref.)

Reproductive physiology and treatment–related loss of sex hormone production. Sklar C. **Med Pediatr Oncol** 1999 Jul; 33(1):2–8 (63 ref.)

Modulation of the hypothalamo–pituitary–gonadal axis and the pineal gland by neurokinin A, neuropeptide K and neuropeptide gamma. Debeljuk L, et al. **Peptides** 1999; 20(2):285–99 (139 ref.)

Developmental toxicity study of D–tagatose in rats. Kruger CL, et al. **Regul Toxicol Pharmacol** 1999 Apr;29(2 Pt 2):S29–35

Developmental toxicity study of vegetable oil–derived stanol fatty acid esters. Slesinski RS, et al. **Regul Toxicol Pharmacol** 1999 Apr;29(2 Pt 1):227–33

Two–generation reproductive toxicity study of plant stanol esters in rats. Whittaker MH, et al. **Regul Toxicol Pharmacol** 1999 Apr;29(2 Pt 1):196–204

Molinate: rodent reproductive toxicity and its relevance to humans—a review. Wickramaratne GA, et al. **Regul Toxicol Pharmacol** 1998 Apr;27(2):112–8 (17 ref.)

The conduct of a two–generation reproductive toxicity study via dermal exposure in the Sprague–Dawley rat—a case study with KBR 3023 (a prospective insect repellent). Astroff AB, et al. **Reprod Toxicol** 1999 May–Jun; 13(3):223–32

Behavior and reproductive function of rat male offspring treated prenatally with 5–bromo–2'–deoxyuridine. Kuwagata M, et al. **Reprod Toxicol** 1998 Sep–Oct; 12(5):541–9

Male reproductive effects of solvent and fuel exposure during aircraft maintenance. Lemasters GK, et al. **Reprod Toxicol** 1999 May–Jun;13(3):155–66

Reproductive function in rats exposed neonatally to bisphenol A and estradiol benzoate. Nagao T, et al. **Reprod Toxicol** 1999 Jul–Aug;13(4):303–11

A strategy for assessing the effects of xenobiotics on fish reproduction. Kime DE. **Sci Total Environ** 1999 Jan 12; 225(1–2):3–11 (38 ref.)

Evaluation of the reproductive and developmental safety of cysteamine in the rat: effects on female reproduction and early embryonic development. Assadi FK, et al. **Teratology** 1998 Sep–Oct;58(3–4):88–95

90–day feeding and one–generation reproduction study in Crl:CD BR rats with 17 beta–estradiol. Biegel LB, et al. **Toxicol Sci** 1998 Aug;44(2):116–42

Effects of formalin on bacterial growth in mink feed, feed consumption and reproductive performance of adult mink, and growth of mink kits. Li KC, et al. **Vet Hum Toxicol** 1999 Aug;41(4):225–32

Calls on reproductive and developmental toxicants to a regional poison center. Luderer U, et al. **Vet Hum Toxicol** 1999 Feb;41(1):42–6

[Dioxins: current knowledge about health effects] Wissing M. **Rev Med Brux** 1998 Sep;19(4):A367–71 (24 ref.) (Eng. Abstr.) **(Fre)**

[Melatonin and reproduction in domestic farm animals] Chemineau P, et al. **Therapie** 1998 Sep–Oct;53(5):445–52 (52 ref.) (Eng. Abstr.) **(Fre)**

[Toxicology of reproduction: predictive value of experimental models. Round Table No 1 at Giens XIII] Guittin P, et al. **Therapie** 1998 Jul–Aug;53(4):355–63 (39 ref.) (Eng. Abstr.) **(Fre)**

[Use of trecrezan for increasing the reproduction ability of mammals and the viability of their offspring] Voronkov MG, et al. **Dokl Akad Nauk** 1999 Feb;364(5):703–7 **(Rus)**

[Experimental studies of the effects of polysulfide of natural gas and condensate on the reproductive function] Fateeva TA, et al. **Gig Sanit** 1998 Sep–Oct;(5):5–7 (Eng. Abstr.) **(Rus)**

[The effect of radiation, chemical and other factors on the reproductive function in the population of the Republic of Altay] Meshkov NA, et al. **Voen Med Zh** 1999 Jun; 320(6):13–7 **(Rus)**

GENETICS

Paraoxonase polymorphism and its effect on male reproductive outcomes among Chinese pesticide factory workers. Padungtod C, et al. **Am J Ind Med** 1999 Sep; 36(3):379–87

Mechanisms of action of major–histocompatibility–complex–linked genes affecting reproduction. Gill TJ 3rd. **Am J Reprod Immunol** 1999 Jan;41(1):23–33

Genetic mapping of the chicken prolactin receptor gene: a candidate gene for the control of broodiness. Dunn IC, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S23–4

Pleiotropic effects of a nuclear restorer–of–fertility locus on mitochondrial transcripts in male–fertile and S male–sterile maize. Wen L, et al. **Curr Genet** 1999 Jun;35(5):521–6

Normal reproductive and macrophage function in Pem homeobox gene–deficient mice. Pitman JL, et al. **Dev Biol** 1998 Oct 15;202(2):196–214

Effect of selection for development rate on reproductive onset in female mice. Ernst CA, et al. **Genet Res** 1999 Aug; 74(1):55–64

The male–sterility polymorphism of Silene vulgaris: analysis of genetic dat from two populations and comparison with Thymus vulgaris. Charlesworth D, et al. **Genetics** 1998 Nov;150(3):1267–82

Cystic fibrosis Delta F508 heterozygotes, smoking, and reproduction: studies of 9141 individuals from a general population sample. Dahl M, et al. **Genomics** 1998 May 15; 50(1):89–96

Manipulating the genome to study reproduction. Mice with 'humanized' zonae pellucidae. Castle PE, et al. **Hum Reprod** 1999 Aug;14(8):1927–39

Identification of quantitative trait loci affecting female reproductive traits in a multigeneration Meishan–White composite swine population. Rohrer GA, et al. **J Anim Sci** 1999 Jun;77(6):1385–91

Genetic parameters for sex–specific traits in beef cattle. Splan RK, et al. **J Anim Sci** 1998 Sep;76(9):2272–8

Genetic trends for milk yield of Jerseys and correlated changes in productive and reproductive performance. Roman RM, et al. **J Dairy Sci** 1999 Jan;82(1):196–204

"Goodbye Dolly?" The ethics of human cloning [letter; comment] Galton DJ, et al. **J Med Ethics** 1998 Aug; 24(4):279. Comment on: J Med Ethics 1997 Dec;23(6):353–60.

The ethics of human cloning [letter; comment] Robertson S. **J Med Ethics** 1998 Aug;24(4):282. Comment on: J Med Ethics 1997 Dec;23(6):353–60.

Molecular biology and reproduction. McDonough PG. **Keio J Med** 1999 Mar;48(1):12–21 (13 ref.)

A genomic scan of porcine reproductive traits reveals possible quantitative trait loci (QTLs) for number of corpora lutea. Wilkie PJ, et al. **Mamm Genome** 1999 Jun;

10(6):573–8
Genetic relationships between selection for growth and reproductive effectiveness. Barbato GF. **Poult Sci** 1999 Mar;78(3):444–52
Species realities and numbers in sexual vertebrates: perspectives from an asexually transmitted genome. Avise JC, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):992–5
Generation and reproductive phenotypes of mice lacking estrogen receptor beta. Krege JH, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15677–82
Genetic benefits enhance the reproductive success of polyandrous females. Newcomer SD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10236–41
An apparent excess of sex- and reproduction-related genes on the human X chromosome. Saifi GM, et al. **Proc R Soc Lond B Biol Sci** 1999 Jan 22;266(1415):203–9
Mitochondrial DNA in mammalian reproduction. Cummins J. **Rev Reprod** 1998 Sep;3(3):172–82 (111 ref.)
Evolution of mutualistic symbiosis without vertical transmission. Genkai-Kato M, et al. **Theor Popul Biol** 1999 Jun;55(3):309–23
Evolutionary dynamics of seed size and seedling competitive ability. Geritz SA, et al. **Theor Popul Biol** 1999 Jun; 55(3):324–43
Genetics and human reproduction. McLaren A. **Trends Genet** 1998 Oct;14(10):427–31 (37 ref.)
[Chromosomal abnormalities in male gametes] Szczygiel M, et al. **Ginekol Pol** 1997 Nov;68(11):549–53 (Eng. Abstr.) **(Pol)**
[Pleiotropic effect of the Black crystal mutation on reproductive indicators in the American mink (Mustela vison)] Kharlamova AV, et al. **Genetika** 1999 Jun; 35(6):765–70 (Eng. Abstr.) **(Rus)**
[Genetic-demographic characteristics of the rural population of the Republic of Tuva: reproductive indicators and the structure of Crow's indices] Kucher AN, et al. **Genetika** 1999 Jun;35(6):811–7 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Selected papers from the 1st meeting of the European Society for Reproductive and Developmental Immunology. Amsterdam, The Netherlands, June 26, 1997. **Am J Reprod Immunol** 1998 Sep;40(3):123–229
VII International Congress of Reproductive Immunology. New Delhi, India, October 27–30, 1998. Abstracts. **Am J Reprod Immunol** 1998 Oct;40(4):239–81
The Varna meeting resumes after 10 years [editorial] Coulam CB. **Am J Reprod Immunol** 1998 Aug;40(2):65–6
The role of antiphospholipid antibodies in reproduction: questions answered and raised at the 18th Annual Meeting of the American Society of Reproductive Immunology [editorial] Coulam CB. **Am J Reprod Immunol** 1999 Jan; 41(1):1–4
American Society for Reproductive Immunology report of the Committee for Establishing Criteria for Diagnosis of Reproductive Autoimmune Syndrome. Coulam CB, et al. **Am J Reprod Immunol** 1999 Feb;41(2):121–32
Mechanisms of action of major-histocompatibility-complex-linked genes affecting reproduction. Gill TJ 3rd. **Am J Reprod Immunol** 1999 Jan;41(1):23–33
Antiphospholipid antibodies and reproduction: the antiphospholipid antibody syndrome [see comments] Kutteh WH, et al. **Am J Reprod Immunol** 1999 Feb; 41(2):133–52 (207 ref.). Comment in: Am J Reprod Immunol 1999 Feb;41(2):113–6.
Human reproductive failure is not a clinical feature associated with beta(2) glycoprotein-I antibodies in anticardiolipin and lupus anticoagulant seronegative patients (the antiphospholipid/cofactor syndrome). Balasch J, et al. **Hum Reprod** 1999 Aug;14(8):1956–9
The immunology of reproduction: update 1998. Gupta SK. **Immunol Today** 1998 Oct;19(10):433–4
Effects of active immunization against growth-hormone releasing factor on puberty and reproductive development in gilts. Swanchara KW, et al. **J Anim Sci** 1999 Jul; 77(7):1807–14
13th Annual meeting of the Japanese Society for Immunology of Reproduction (JRSI). Kobe, Japan, 11–12 December 1998. Abstracts. **J Reprod Immunol** 1999 Mar; 42(2):S1–33
[Immunology of reproduction] Kulakov VI, et al. **Vestn Ross Akad Med Nauk** 1999;(4):44–8 (12 ref.) (Eng. Abstr.) **(Rus)**
[The mechanisms of the anti-infective protection of the female reproductive tract] Telesheva LF, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug; (4):85–90 (41 ref.) **(Rus)**

PHYSIOLOGY

Pituitary adrenocorticotrophic (ACTH) cells during reproductive cycle in a Vespertilionid bat, Scotophilus heathi. Singh UP, et al. **Acta Biol Hung** 1997;48(4):409–20
Telemetric registration of heart rate and blood pressure in the same unrestrained goats during pregnancy, lactation and the non-pregnant, non-lactating period. Hydbring E, et al. **Acta Physiol Scand** 1999 Feb;165(2):135–41
Trends in male reproductive health. Environmental aspects. Skakkebaek NE. **Adv Exp Med Biol** 1998;444:1–2; discussion 3–4
Female reproduction in mice lacking the prostaglandin F receptor. Roles of prostaglandin and oxytocin receptors in parturition. Sugimoto Y, et al. **Adv Exp Med Biol** 1998; 449:317–21
Reproductive hormones and aminoterminal propeptide of type III procollagen in serum as early markers of pelvic pain during late pregnancy. Kristiansson P, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):128–34
Stress and reproductive failure: an evolutionary approach with applications to premature labor. Wasser SK. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S272–4 (50 ref.)
Hormonal monitoring of age at sexual maturation in female Goeldi's monkeys (Callimico goeldii) in their family groups. Dettling A, et al. **Am J Primatol** 1999;48(1):77–83
Reproductive performance of farmed red deer (Cervus elaphus) in New Zealand. I. Descriptive data. Audigé L, et al. **Anim Reprod Sci** 1999 Mar 19;55(2):127–41
Utility of serum progesterone and prolactin analysis for assessing reproductive status in the Asian elephant (Elephas maximus). Carden M, et al. **Anim Reprod Sci** 1998 Oct; 53(1–4):133–42
Reproduction in foxes: current research and future challenges. Farstad W. **Anim Reprod Sci** 1998 Oct; 53(1–4):35–42 (49 ref.)
Effects of lactation, energetic deficit and remating interval on reproductive performance of primiparous rabbit does. Fortun-Lamothe L, et al. **Anim Reprod Sci** 1999 Apr 31; 55(3–4):289–98
Influence of lactation length and feed intake on reproductive performance and blood concentrations of glucose, insulin and luteinizing hormone in primiparous sows. Koketsu Y, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):153–63
Reproductive seasonality and maturation throughout the complete life-cycle in the mouflon ram (Ovis musimon). Lincoln GA. **Anim Reprod Sci** 1998 Oct;53(1–4):87–105
Endocrine and testicular changes in a short-day seasonally breeding bird, the emu (Dromaius novaehollandiae), in southwestern Australia. Malecki IA, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):143–55
Chemical signals in the reproduction of Asian (Elephas maximus) and African (Loxodonta africana) elephants. Rasmussen LE, et al. **Anim Reprod Sci** 1998 Oct; 53(1–4):19–34 (92 ref.)
Faecal progesterone metabolite analysis for non-invasive monitoring of reproductive function in the white rhinoceros (Ceratotherium simum). Schwarzenberger F, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):173–90
Effects of bull exposure on postpartum ovarian activity of dairy cows. Shipka MP, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):237–44
Neuroendocrine interactions between galanin, opioids, and neuropeptide Y in the control of reproduction and appetite. Kalra SP, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:236–40 (25 ref.)
The medial extended amygdala in male reproductive behavior. A node in the mammalian social behavior network. Newman SW. **Ann N Y Acad Sci** 1999 Jun 29; 877:242–57 (103 ref.)
Interactions between somatometric parameters and endogenous hormone levels as well as hormonal induced events in females. Kirchengast S. **Anthropol Anz** 1998 Sep; 56(3):251–65
Leptin's actions on the reproductive axis: perspectives and mechanisms. Cunningham MJ, et al. **Biol Reprod** 1999 Feb; 60(2):216–22 (123 ref.)
Physiological perspectives on leptin as a regulator of reproduction: role in timing puberty. Foster DL, et al. **Biol Reprod** 1999 Feb;60(2):205–15 (69 ref.)
In vitro nitric oxide effects on basal and gonadotropin-releasing hormone-induced gonadotropin secretion by pituitary gland of male crested newt (Triturus carnifex) during the annual reproductive cycle. Gobbetti A, et al. **Biol Reprod** 1999 May;60(5):1217–23
Effects of gonadotropin-releasing hormone pulse frequency modulation on the reproductive axis of photoinhibited male Siberian hamsters. Meredith JM, et al. **Biol Reprod** 1998 Oct;59(4):813–9
Effect of pelvic endometrial implants on overall reproductive functions of female rats. Pal AK, et al. **Biol Reprod** 1999 Apr;60(4):954–8
D1 and D2 dopamine receptor messenger ribonucleic acid in brain and pituitary during the reproductive cycle of the turkey hen. Schnell SA, et al. **Biol Reprod** 1999 Jun; 60(6):1378–83
Human endogenous retroviral sequences: possible roles in reproductive physiopathology. Taruscio D, et al. **Biol Reprod** 1998 Oct;59(4):713–24 (141 ref.)
Inbreeding and inbreeding depression on reproduction and production traits of White Leghorn lines selected for egg production traits. Sewalem A, et al. **Br Poult Sci** 1999 May; 40(2):203–8
Expression of intracellular progesterone receptors in rat brain during different reproductive states, and involvement in maternal behavior. Numan M, et al. **Brain Res** 1999 Jun 5;830(2):358–71
Leptin and reproduction: is it a critical link between adipose tissue, nutrition, and reproduction? Thong FS, et al. **Can J Appl Physiol** 1999 Aug;24(4):317–36 (101 ref.)
Correlations of plasma growth hormone with somatostatin, gonadal steroid hormones and thyroid hormones in rainbow trout during sexual recrudescence. Holloway AC, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jul; 123(3):251–60
Apolipoproteins and their electrophoretic pattern throughout the reproductive cycle in the green frog Rana esculenta. Paolucci M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):647–54
Fish as models for the neuroendocrine regulation of reproduction and growth. Blázquez M, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):345–64 (214 ref.)
Developmental effects on intersexual and intrasexual variation in growth and reproduction in a lizard with temperature-dependent sex determination. Crews D, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):229–41 (83 ref.)
Reproduction and love: strategies of the organism's cellular defense system? De Loof A, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):167–76 (33 ref.)
Photo-neuroendocrine control of seasonal cycles in body weight, pelage growth and reproduction: lessons from the HPD sheep model. Lincoln GA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):283–94 (78 ref.)
Identification of potential sites of cortisol actions on the reproductive axis in rainbow trout. Teitsma C, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):243–9 (33 ref.)
Everything you wanted to know about sex a perspective on the first symposium on Comparative Neuroendocrinology of Vertebrate Reproduction and Growth: Molecular, Cellular and Organismal Aspects. Trudeau VL. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):411–6
The brain as a new frontier for reproductive endocrinology [editorial] Genazzani AR, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):237–40
Vascular endothelial growth factor in reproductive biology. Lebovic DI, et al. **Curr Opin Obstet Gynecol** 1999 Jun; 11(3):255–60 (54 ref.)
Inhibins: paracrine and endocrine effects in female reproductive function. Petraglia F, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):241–7 (53 ref.)
Wise, winsome, or weird? Mechanisms of sperm storage in female animals. Neubaum DM, et al. **Curr Top Dev Biol** 1999;41:67–97 (156 ref.)
Normal reproductive and macrophage function in Pem homeobox gene-deficient mice. Pitman JL, et al. **Dev Biol** 1998 Oct 15;202(2):196–214
Effect of immunization against melatonin on prolactin concentrations and the timing of reproductive transitions in ewes. O'Callaghan D, et al. **Domest Anim Endocrinol** 1999 May;16(4):207–17
Changes in mediobasal hypothalamic gonadotropin-releasing hormone messenger ribonucleic acid levels induced by mating or ovariectomy in a reflex ovulator, the ferret. Bakker J, et al. **Endocrinology** 1999 Feb;140(2):595–602
Effect of the genetic background on the reproduction of leptin-deficient obese mice. Ewart-Toland A, et al. **Endocrinology** 1999 Feb;140(2):732–8
Normal suppression of the reproductive axis following stress in corticotropin-releasing hormone-deficient mice. Jeong KH, et al. **Endocrinology** 1999 Apr;140(4):1702–8
Differential effect of insulin-like growth factor I on in vitro gonadotropin (I and II) and growth hormone secretions in rainbow trout (Oncorhynchus mykiss) at different stages of the reproductive cycle. Weil C, et al. **Endocrinology** 1999 May;140(5):2054–62
A comparison of the reproductive physiology of largemouth bass, Micropterus salmoides, collected from the Escambia and Blackwater Rivers in Florida. Orlando EF, et al. **Environ Health Perspect** 1999 Mar;107(3):199–204
Inhibins, activins and follistatins: a review of complex regulators of the reproductive system. Renier MA, et al. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):129–35 (49 ref.)
Transcriptional regulation by cyclic AMP is essential for development, reproduction and survival: lessons from the transgenic mice. Groussin L, et al. **Eur J Endocrinol** 1998 Dec;139(6):571–2
Glutathione and glutathione-related enzymes in reproduction. A review. Knapen MF, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Feb;82(2):171–84 (136 ref.)
Normalization of reproductive function in germfree mice following bacterial contamination. Shimizu K, et al. **Exp Anim** 1998 Jul;47(3):151–8
Chemokines and human reproduction. García-Velasco JA, et al. **Fertil Steril** 1999 Jun;71(6):983–93 (101 ref.)
Mutations in human gonadotropin genes and their physiologic significance in puberty and reproduction. Layman LC. **Fertil Steril** 1999 Feb;71(2):201–18 (77 ref.)
Reproductive condition and behavior in relation to plasma levels of gonadal steroids in the spiny damselfish Acanthochromis polyacanthus. Pankhurst NW, et al. **Gen Comp Endocrinol** 1999 Jul;115(1):53–69
The effects of an "El Niño" southern oscillation event on reproduction in male and female blue-footed boobies, Sula nebouxii. Wingfield JC, et al. **Gen Comp Endocrinol** 1999 May;114(2):163–72
Is there a role for leptin in human reproduction? Macut D, et al. **Gynecol Endocrinol** 1998 Oct;12(5):321–6 (58 ref.)
Renin-angiotensin systems and reproduction. Vinson GP, et

al. **Gynecol Endocrinol** 1999 Feb;13(1):56–70 (195 ref.)
Cell adhesion and reproduction. An overview. Taga M, et al. **Horm Res** 1998;50 Suppl 2:2–6 (18 ref.)
Utero–ovarian interaction in the regulation of reproductive function. Alexander H, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):550–9 (35 ref.)
Leptin in human reproduction. Messinis IE, et al. **Hum Reprod Update** 1999 Jan–Feb;5(1):52–63 (111 ref.)
The role of reproductive factors and use of oral contraceptives in the aetiology of breast cancer in women aged 50 to 74 years. Magnusson CM, et al. **Int J Cancer** 1999 Jan 18;80(2):231–6
The check is in the male: male mosquitoes affect female physiology and behavior. Klowden MJ. **J Am Mosq Control Assoc** 1999 Jun;15(2):213–20 (92 ref.)
Reproductive aging in the Brown Norway rat is characterized by accelerated germ cell apoptosis and is not altered by luteinizing hormone replacement. Wang C, et al. **J Androl** 1999 Jul–Aug;20(4):509–18
Effect of prepubertal feeding regimen on reproductive development of gilts. Klindt J, et al. **J Anim Sci** 1999 Aug; 77(8):1968–76
The effect of the Hurnik–Morris (HM) system on sow reproduction, attrition, and longevity. Morris JR, et al. **J Anim Sci** 1998 Nov;76(11):2759–62
Influence of prepartum body condition score change on reproduction in multiparous beef cows calving in moderate body condition. Morrison DG, et al. **J Anim Sci** 1999 May; 77(5):1048–54
Duration of estrus in relation to reproduction results in pigs on commercial farms. Steverink DW, et al. **J Anim Sci** 1999 Apr;77(4):801–9
Effects of induced hypothyroidism or hyperthyroidism on growth and reproductive performance of Brahman heifers. Thrift TA, et al. **J Anim Sci** 1999 Jul;77(7):1833–43
Melatonin chimeras alter reproductive development and photorefractoriness in Siberian hamsters. Prendergast BJ, et al. **J Biol Rhythms** 1998 Dec;13(6):518–31
Clinical review 105: Stress and the reproductive cycle. Ferin M. **J Clin Endocrinol Metab** 1999 Jun;84(6):1768–74 (76 ref.)
Gonadotropin–releasing hormone neuronal system of the freshwater snails Helisoma trivolvis and Lymnaea stagnalis: possible involvement in reproduction. Young KG, et al. **J Comp Neurol** 1999 Feb 22;404(4):427–37
Energetics of offspring production: a comparison of a marsupial (Monodelphis domestica) and a eutherian (Mesocricetus auratus). Hsu MJ, et al. **J Comp Physiol [B]** 1999 Feb;169(1):67–76
Event–time analysis of reproductive traits of dairy heifers. Vargas B, et al. **J Dairy Sci** 1998 Nov;81(11):2881–9
Reproductive performance of dairy heifers after estrus synchronization and fixed–time artificial insemination. Xu ZZ, et al. **J Dairy Sci** 1999 May;82(5):910–7
Possible functions of oxytocin/vasopressin–superfamily peptides in annelids with special reference to reproduction and osmoregulation. Fujino Y, et al. **J Exp Zool** 1999 Sep 1;284(4):401–6
Plasma steroid hormone profiles and reproductive biology of the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **J Exp Zool** 1999 Oct 1;284(5):586–94
Reproductive endocrinology of female elasmobranchs: lessons from the little skate (Raja erinacea) and spiny dogfish (Squalus acanthias). Koob TJ, et al. **J Exp Zool** 1999 Oct 1;284(5):557–74 (67 ref.)
Alterations in serum steroid concentrations in the clearnose skate, Raja eglanteria: correlations with season and reproductive status. Rasmussen LE, et al. **J Exp Zool** 1999 Oct 1;284(5):575–85
Structure of the thyroid gland, serum thyroid hormones, and the reproductive cycle of the Atlantic stingray, Dasyatis sabina. Volkoff H, et al. **J Exp Zool** 1999 Oct 1; 284(5):505–16
Effect of Plasmodium yoelii nigeriensis (Haemosporidia: Plasmodiidae) on Anopheles stephensi (Diptera: Culicidae) vitellogenesis. Jahan N, et al. **J Med Entomol** 1998 Nov; 35(6):956–61
The first sexual lineage and the relevance of facultative sex [letter] Dacks J, et al. **J Mol Evol** 1999 Jun;48(6):779–83
Effects of continuous light, continuous darkness and pinealectomy on pineal–thyroid–gonadal axis of the female Indian palm squirrel, Funambulus pennanti. Shavali SS, et al. **J Neural Transm** 1998;105(4–5):407–13
Dietary copper influences reproductive efficiency of queens. Fascetti AJ, et al. **J Nutr** 1998 Dec;128(12 Suppl):2590S–2592S
The influence of dietary sources of zinc, copper and manganese on canine reproductive performance and hair mineral content. Kuhlman G, et al. **J Nutr** 1998 Dec;128(12 Suppl):2603S–2605S
Changes in properties and neurosteroid regulation of GABAergic synapses in the supraoptic nucleus during the mammalian female reproductive cycle [see comments] Brussaard AB, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):513–24. Comment in: J Physiol (Lond) 1999 Apr 15;516 (Pt 2):vi.
Circannual reproductive rhythm in the European hamster (Cricetus cricetus): demonstration of the existence of an annual phase of sensitivity to short photoperiod. Saboureau M, et al. **J Pineal Res** 1999 Jan;26(1):9–16
Association of seasonal reproductive patterns with changing food availability in an equatorial carnivore, the spotted hyaena (Crocuta crocuta). Holekamp KE, et al. **J Reprod Fertil** 1999 May;116(1):87–93
Oestrogen and progesterone receptor immunoreactivity and c–fos expression in the ovine cervix. Zhao Y, et al. **J Reprod Fertil** 1999 Mar;115(2):287–92
AIDS and reproductive health. Coggins C, et al. **J Reprod Immunol** 1998 Dec;41(1–2):3–15 (51 ref.)
Potential implications of chemokines in reproductive function: an attractive idea. Simón C, et al. **J Reprod Immunol** 1998 Jul;38(2):169–93 (134 ref.)
The effect of dietary protein on reproduction in the mare. V. Endocrine changes and conception during the early post partum period. van Niekerk FE, et al. **J S Afr Vet Assoc** 1998 Sep;69(3):81–8
On sex, mate selection and the red queen. Ochoa G, et al. **J Theor Biol** 1999 Jul 7;199(1):1–9
Risky business: sexual and asexual reproduction in variable environments. Robson AJ, et al. **J Theor Biol** 1999 Apr 21;197(4):541–56
Egg maturation in neotropical malaria vectors: one blood meal is usually enough. Lounibos LP, et al. **J Vector Ecol** 1998 Dec;23(2):195–201
Modeling adverse environmental impacts on the reproductive system. Sussman NB, et al. **J Womens Health** 1999 Mar; 8(2):217–26 (25 ref.)
Multiple sex pheromones and receptors of a mushroom–producing fungus elicit mating in yeast. Fowler TJ, et al. **Mol Biol Cell** 1999 Aug;10(8):2559–72
The role of sex steroids in the oxytocin hormone system. Ivell R, et al. **Mol Cell Endocrinol** 1999 May 25; 151(1–2):95–101 (56 ref.)
Male reproductive success in a promiscuous mammal: behavioural estimates compared with genetic paternity. Coltman DW, et al. **Mol Ecol** 1999 Jul;8(7):1199–209
Epilepsy in women: the science of why it is special. Morrell MJ. **Neurology** 1999;53(4 Suppl 1):S42–8 (46 ref.)
Age–related effects on reproductive function and sexual competition in the male prosimian primate, Microcebus murinus. Aujard F, et al. **Physiol Behav** 1998 Jun 15; 64(4):513–9
Sodium intake and reproduction in BALB/C mice. McBurnie MI, et al. **Physiol Behav** 1999 Jul;66(5):873–9
Food restriction neither improves nor exacerbates reproduction in obese female Zucker rats. Marín–Bivens CL, et al. **Physiol Behav** 1999 Jul;66(5):893–7
Energy intake during reproduction in captive common marmosets (Callithrix jacchus). Nievergelt CM, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):849–54
Organ mass dynamics in relation to yolk precursor production and egg formation in European starlings Sturnus vulgaris. Christians JK, et al. **Physiol Biochem Zool** 1999 Jul–Aug;72(4):455–61
Food intake, locomotor activity, and egg laying in zebra finches: contributions to reproductive energy demand? Williams TD, et al. **Physiol Biochem Zool** 1999 Jan–Feb; 72(1):19–27
Light intensity and age at first egg in pullets. Lewis PD, et al. **Poult Sci** 1999 Aug;78(8):1227–31
Effects of body weight and feed allocation during sexual maturation in broiler breeder hens. 2. Ovarian morphology and plasma hormone profiles. Renema RA, et al. **Poult Sci** 1999 May;78(5):629–39
Prostaglandin F concentration in serum of hens and cocks. Takahashi T, et al. **Poult Sci** 1999 Jun;78(6):906–8
The reproductive performance of sows after PRRS vaccination depends on stage of gestation. Dewey CE, et al. **Prev Vet Med** 1999 Jun 11;40(3–4):233–41
Leptin and reproduction. Hoggard N, et al. **Proc Nutr Soc** 1998 Aug;57(3):421–7 (38 ref.)
Maternal effort and male quality in the bank vole, Clethrionomys glareolus. Oksanen TA, et al. **Proc R Soc Lond B Biol Sci** 1999 Jul 22;266(1427):1495–9
The evolutionary antecedents to love. Crews D. **Psychoneuroendocrinology** 1998 Nov;23(8):751–64 (20 ref.)
Mood disorders and the reproductive cycle: affective disorders during the menopause and premenstrual dysphoric disorder. Haynes P, et al. **Psychopharmacol Bull** 1998;34(3):313–8 (57 ref.)
Hormone measures in reproductive endocrine–related mood disorders: diagnostic issues. Rubinow DR, et al. **Psychopharmacol Bull** 1998;34(3):289–90 (10 ref.)
The AT2 receptor: fact, fancy and fantasy. de Gasparo M, et al. **Regul Pept** 1999 May 31;81(1–3):11–24 (154 ref.)
Reproductive and productive performance in Chios ewes mated in spring or in autumn. Avdi M, et al. **Reprod Nutr Dev** 1998 Sep–Oct;38(5):551–8
Melatonin and the seasonal control of reproduction. Malpaux B, et al. **Reprod Nutr Dev** 1999 May–Jun;39(3):355–66 (75 ref.)
The oxytocin receptor. Kimura T, et al. **Results Probl Cell Differ** 1999;26:135–68 (160 ref.)
Discrete event versus continuous approach to reproduction in structured population dynamics. Kooi BW, et al. **Theor Popul Biol** 1999 Aug;56(1):91–105
Post–partum reproductive performance of Sanga cattle in smallholder peri–urban dairy herds in the Accra plains of Ghana. Obese FY, et al. **Trop Anim Health Prod** 1999 Jun; 31(3):181–90
The effects on reproductive performance in the short and medium term of the combined use of exogenous melatonin and progestagen pessaries in ewes with a short seasonal anoestrous period. Forcada F, et al. **Vet Res Commun** 1999 Jun;23(4):257–63
[The spermogram and the exigencies of quality] Clavert A, et al. **Ann Biol Clin (Paris)** 1999 May;57(3):334–6 (19 ref.) **(Fre)**
[Natural reproduction and assisted reproduction] Testart J. **Ann Biol Clin (Paris)** 1999 May;57(3):325–9 (28 ref.) **(Fre)**
[Melatonin and reproduction in domestic animals] Chemineau P, et al. **C R Seances Soc Biol Fil** 1998;192(4):669–82 (52 ref.) (Eng. Abstr.) **(Fre)**
[Metabolism–reproduction interactions in domestic animals] Monget P, et al. **Contracept Fertil Sex** 1998 Jul–Aug; 26(7–8):554–63 (Eng. Abstr.) **(Fre)**
[Leptin implications in reproduction endocrinology] Pralong FP. **Rev Med Suisse Romande** 1999 Jun;119(6):463–7 (12 ref.) **(Fre)**
[The effect of the photoperiod on steroid hormone secretion, on seasonal reproductive rhythms and on fertility in female silver foxes] Osadchuk LV. **Izv Akad Nauk Ser Biol** 1999 Mar–Apr;(2):191–200 (Eng. Abstr.) **(Rus)**
[Trends in female reproductive health and health of newborns in an industrial city] Iaroslavtsev AS. **Probl Sotsialnoi Gig Istor Med** 1998 Sep–Oct;(5):6–9 (Eng. Abstr.) **(Rus)**
[Recovered reproductive function in female patient with sever genital tuberculosis] Sotskaia OL. **Probl Tuberk** 1998; (5):19–21 (Eng. Abstr.) **(Rus)**
[Leptin and human reproduction] Macut D, et al. **Med Pregl** 1998 Sep–Oct;51(9–10):410–4 (55 ref.) (Eng. Abstr.) **(Scr)**
[Importance of free radicals during the reproduction cycle] Durán Reyes G, et al. **Ginecol Obstet Mex** 1998 Sep; 66:371–6 (26 ref.) (Eng. Abstr.) **(Spa)**

RADIATION EFFECTS

Reproductive aspects of cancer treatment: an update. Kovacs GT, et al. **Med J Aust** 1999 May 17;170(10):495–7 (19 ref.)
Reproductive physiology and treatment–related loss of sex hormone production. Sklar C. **Med Pediatr Oncol** 1999 Jul; 33(1):2–8 (63 ref.)
Proceedings of the 1997 annual meeting of the National Council for Radiation Protection (NCRP). The Pre– and Postconception Reproductive Effects of Exposures to Radiation. Crystal City, Virginia, USA. April 2–3, 1997. **Teratology** 1999 Apr;59(4):181–317
Utilization of developmental basic science principles in the evaluation of reproductive risks from pre– and postconception environmental radiation exposures. Brent RL. **Teratology** 1999 Apr;59(4):182–204 (125 ref.)
Reproductive and teratologic effects of low–frequency electromagnetic fields: a review of in vivo and in vitro studies using animal models. Brent RL. **Teratology** 1999 Apr;59(4):261–86 (170 ref.)
Effects of gestational exposure to a video display terminal–like magnetic field (20–kHz) on CBA/S mice. Huuskonen H, et al. **Teratology** 1998 Nov;58(5):190–6
Intrauterine effects of ultrasound: animal studies. Jensh RP, et al. **Teratology** 1999 Apr;59(4):240–51 (140 ref.)
Changing perspectives on the genetic doubling dose of ionizing radiation for humans, mice, and Drosophila. Neel JV. **Teratology** 1999 Apr;59(4):216–21 (35 ref.)
Intrauterine effects of electromagnetic fields––(low frequency, mid–frequency RF, and microwave): review of epidemiologic studies. Robert E. **Teratology** 1999 Apr; 59(4):292–8 (75 ref.)
Multigeneration reproductive toxicity assessment of 60–Hz magnetic fields using a continuous breeding protocol in rats. Ryan BM, et al. **Teratology** 1999 Mar;59(3):156–62
[The effect of radiation, chemical and other factors on the reproductive function in the population of the Republic of Altay] Meshkov NA, et al. **Voen Med Zh** 1999 Jun; 320(6):13–7 **(Rus)**

REPRODUCTION, ASEXUAL

see related
CLONING, ORGANISM

Ecological and genetic evidence for clonal reproduction in Gyrodactylus gasterostei Glaser, 1974. Harris PD. **Int J Parasitol** 1998 Oct;28(10):1595–607
Human reproductive cloning [letter; comment] Stone AB. **J R Soc Med** 1999 Apr;92(4):213. Comment on: J R Soc Med 1999 Jan;92(1):3–12.

GENETICS

Effects of somatic cloning [letter; comment] Morris JA. **Lancet** 1999 Jul 17;354(9174):255. Comment on: Lancet 1999 May 1;353(9163):1489–91.

PHYSIOLOGY

Cell adhesion in the process of asexual reproduction of tunicates. Kawamura K, et al. **Microsc Res Tech** 1999 Feb 15;44(4):269–78 (70 ref.)

REPRODUCTION TECHNIQUES

Management of long–standing unexplained infertility: A prospective study. Aboulghar MA, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):371–5
Aggressive perinatal care for high–order multiple gestations: Does good perinatal outcome justify aggressive assisted

reproductive techniques? Angel JL, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):253–9

ART success and in vivo sperm cell selection depend on the ultramorphological status of spermatozoa. Berkovitz A, et al. **Andrologia** 1999 Jan;31(1):1–8

Contribution of the assisted reproductive technologies to fertility in males suffering spinal cord injury. Taylor Z, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):84–7

The morality of assisted reproduction and genetic manipulation. Mori M. **Cad Saude Publica** 1999;15 Suppl 1:65–72

New technology and new challenges for assisted reproduction [clinical conference] Falcone T. **Cleve Clin J Med** 1999 Feb;66(2):78–82 (8 ref.)

Fertility in perimenopausal women. Cohen MA, et al. **Clin Obstet Gynecol** 1998 Dec;41(4):958–65 (32 ref.)

Endometriosis and assisted reproductive technologies. Dokras A, et al. **Clin Obstet Gynecol** 1999 Sep;42(3):687–98 (52 ref.)

Laser-assisted hatching in assisted reproduction. Montag M, et al. **Croat Med J** 1999 Sep;40(3):398–403

Freezing of oocytes. Porcu E. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):297–300 (44 ref.)

Assisted reproduction for testicular failure: management of germ cell maturation arrest. Tesarik J, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):283–8 (48 ref.)

Assisted reproductive technology in the United States: 1996 results generated from the American Society for Reproductive Medicine/Society for Assisted Reproductive Technology Registry. **Fertil Steril** 1999 May;71(5):798–807 (03 ref.)

Sexism and racism in preconceptive trait selection [editorial; comment] Berkowitz JM. **Fertil Steril** 1999 Mar;71(3):415–7 . Comment on: Fertil Steril 1999 Mar;71(3):418–9.

Programming ovulation in the menstrual cycle by a simple innovative approach: back to the future of assisted reproduction. de Ziegler D, et al. **Fertil Steril** 1999 Jul; 72(1):77–82

Impact of the "physician factor" on pregnancy rates in a large assisted reproductive technology program: do too many cooks spoil the broth? [see comments] Karande VC, et al. **Fertil Steril** 1999 Jun;71(6):1001–9. Comment in: Fertil Steril 1999 Jun;71(6):998–1000.

Increased prevalence of antithyroid antibodies identified in women with recurrent pregnancy loss but not in women undergoing assisted reproduction. Kutteh WH, et al. **Fertil Steril** 1999 May;71(5):843–8

Political correctness and the abridgment of reproductive choice [editorial; comment] Paulson RJ. **Fertil Steril** 1999 Mar;71(3):418–9. Comment on: Fertil Steril 1999 Mar;71(3):415–7.

Chromosomal aberrations in couples undergoing intracytoplasmic sperm injection: influence on implantation and ongoing pregnancy rates. Scholtes MC, et al. **Fertil Steril** 1998 Nov;70(5):933–7

Selective early elimination of luteal support in assisted reproduction cycles using a gonadotropin-releasing hormone agonist during ovarian stimulation. Stovall DW, et al. **Fertil Steril** 1998 Dec;70(6):1056–62

The heparin-glutathione test: an alternative to the hypo-osmotic swelling test to select viable sperm for intracytoplasmic sperm injection. Vendrell FJ, et al. **Fertil Steril** 1998 Dec;70(6):1156–61

Birth of healthy children after intracytoplasmic sperm injection in two couples with male Kartagener's syndrome. von Zumbusch A, et al. **Fertil Steril** 1998 Oct;70(4):643–6

Midazolam/ketamine sedative combination compared with fentanyl/propofol/isoflurane anaesthesia for oocyte retrieval. Ben-Shlomo I, et al. **Hum Reprod** 1999 Jul; 14(7):1757–9

Testicular sperm retrieval and cryopreservation prior to initiating ovarian stimulation as the first line approach in patients with non-obstructive azoospermia. Ben-Yosef D, et al. **Hum Reprod** 1999 Jul;14(7):1794–801

Sharing genetic origins information in donor assisted conception: views from licensed centres on HFEA donor information form (91) 4. Blyth E, et al. **Hum Reprod** 1998 Nov;13(11):3274–7

Sequential clomiphene citrate and human menopausal gonadotrophin with intrauterine insemination: the effect of patient age on clinical outcome. Brzechffa PR, et al. **Hum Reprod** 1998 Aug;13(8):2110–4

Comparative evaluation of two density gradient preparations for sperm separation for medically assisted conception. Chen MJ, et al. **Hum Reprod** 1999 Mar;14(3):759–64

Recombinant versus urinary follicle stimulating hormone for ovarian stimulation in assisted reproduction. Daya S, et al. **Hum Reprod** 1999 Sep;14(9):2207–15

Embryo cryopreservation and development: facts, questions and responsibility [comment] [see comments] Dulioust E, et al. **Hum Reprod** 1999 May;14(5):1141–5. Comment on: Hum Reprod 1998 Apr;13(4):783–5. Comment on: Hum Reprod 1998 Apr;13(4):786–7. Comment on: Hum Reprod 1998 Apr;13(4):787–8. Comment in: Hum Reprod 1999 Jun;14(6):1665.

Cumulative pregnancy and live birth rates in women with antiphospholipid antibodies undergoing assisted reproduction. Eldar-Geva T, et al. **Hum Reprod** 1999 Jun; 14(6):1461–6

Ovarian markers of implantation potential in assisted reproduction. Gregory L. **Hum Reprod** 1998 Dec;13 Suppl 4:117–32 (38 ref.)

Inhibin A and inhibin B reflect ovarian function in assisted reproduction but are less useful at predicting outcome. Hall JE, et al. **Hum Reprod** 1999 Feb;14(2):409–15

The contribution of subtle oocyte or sperm dysfunction affecting fertilization in endometriosis-associated or unexplained infertility: a controlled comparison with tubal infertility and use of donor spermatozoa. Hull MG, et al. **Hum Reprod** 1998 Jul;13(7):1825–30

The use of twinning rates as a reproductive health monitor in England and Wales 1988–1996 [letter; comment] James WH. **Hum Reprod** 1998 Dec;13(12):3577–8. Comment on: Hum Reprod 1995 Nov;10(11):3042–4. Comment on: Hum Reprod 1997 Mar;12(3):417–21.

Creutzfeldt-Jakob disease (CJD) and assisted reproductive technology (ART). Quantification of risks as part of informed consent. Kemmann E. **Hum Reprod** 1998 Jul; 13(7):1777 (3 ref.)

The management of genetic origins: secrecy and openness in donor assisted conception in Israel and elsewhere. Landau R. **Hum Reprod** 1998 Nov;13(11):3268–73 (30 ref.)

Testicular fine needle aspiration: the alternative method for sperm retrieval in non-obstructive azoospermia. Lewin A, et al. **Hum Reprod** 1999 Jul;14(7):1785–90

Lower risks of adverse outcome in twins conceived by artificial reproductive techniques compared with spontaneously conceived twins. Minakami H, et al. **Hum Reprod** 1998 Jul;13(7):2005–8

Do men undergoing sterilizing cancer treatments have a fertile future? Naysmith TE, et al. **Hum Reprod** 1998 Nov; 13(11):3250–5

Assisted reproduction for infertile patients with 9 + 0 immotile spermatozoa associated with autosomal dominant polycystic kidney disease [published erratum appears in Hum Reprod 1999 Jun;14(6):1166] Okada H, et al. **Hum Reprod** 1999 Jan;14(1):110–3

Measuring the welfare of the child: in search of the appropriate evaluation principle [comment] Pennings G. **Hum Reprod** 1999 May;14(5):1146–50. Comment on: Hum Reprod 1998 Sep;13(9):2339–42. Comment on: Hum Reprod 1998 Sep;13(9):2342–7. Comment on: Hum Reprod 1998 Sep;13(9):2347–9. Comment on: Hum Reprod 1998 Sep;13(9):2349–55.

Assisted reproduction for the treatment of azoospermia. Safran A, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:47–60 (54 ref.)

Psychosocial stress and treatment outcome following assisted reproductive technology. Sanders KA, et al. **Hum Reprod** 1999 Jun;14(6):1656–62

Successful pregnancy in an infertile patient with conservatively treated endometrial adenocarcinoma after transfer of embryos obtained by intracytoplasmic sperm injection. Shibahara H, et al. **Hum Reprod** 1999 Jul; 14(7):1908–11

Clinical efficacy of spermatid conception: analysis using a new spermatid classification scheme. Sousa M, et al. **Hum Reprod** 1999 May;14(5):1279–86

Ovarian volume may predict assisted reproductive outcomes better than follicle stimulating hormone concentration on day 3. Syrop CH, et al. **Hum Reprod** 1999 Jul;14(7):1752–6

Precision and method bias of two assays for oestradiol: consequences for decisions in assisted reproduction. Tummon I, et al. **Hum Reprod** 1999 May;14(5):1175–7

Viagra for temporary erectile dysfunction during treatments with assisted reproductive technologies. Tur-Kaspa I, et al. **Hum Reprod** 1999 Jul;14(7):1783–4

The application of co-culture in assisted reproduction: 10 years of experience with human embryos. Wiemer KE, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:226–38 (37 ref.)

Hyperactivated motility of human spermatozoa: a review of physiological function and application in assisted reproduction. Kay VJ, et al. **Hum Reprod Update** 1998 Nov-Dec;4(6):776–86 (128 ref.)

Some ethical and legal issues in assisted reproductive technology. Dickens BM, et al. **Int J Gynaecol Obstet** 1999 Jul;66(1):55–61

Iatrogenic multiple birth, multiple pregnancy and assisted reproductive technologies. Keith L, et al. **Int J Gynaecol Obstet** 1999 Jan;64(1):11–25 (48 ref.)

Evaluating technologies in reproductive health: case studies of a consumer protection approach. Silver LD, et al. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S75–83 (28 ref.)

Assessing reproductive technology. A commentary. Orleans M, et al. **Int J Technol Assess Health Care** 1999 Winter; 15(1):1–2

Coalition building and public opinion. New reproductive technologies and Canadian civil society. Roberts JH. **Int J Technol Assess Health Care** 1999 Winter;15(1):15–21

Infertility update: use of assisted reproductive technology. Yoshida TM. **J Am Pharm Assoc (Wash)** 1999 Jan-Feb; 39(1):65–72; quiz 103–4 (60 ref.)

GIFT-ICSI for the treatment of male-factor infertility for patients with religious objections to in vitro fertilization: a case report. Allan JA, et al. **J Assist Reprod Genet** 1999 Feb;16(2):108–9

Does assisted reproduction make an impact on the identity and self-image of infertile couples? Daniels KR. **J Assist Reprod Genet** 1999 Feb;16(2):57–9 (12 ref.)

Use of failed-fertilized oocytes for diagnostic zona binding purposes after sperm binding improvement with a modified medium. Henkel R, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):24–9

Does assisted reproduction make an impact on the identity and self-esteem of infertile women during the transition to parenthood? McMahon CA. **J Assist Reprod Genet** 1999 Feb;16(2):59–62 (19 ref.)

Optimizing pure line breeding strategies utilizing reproductive technologies. Meuwissen TH. **J Dairy Sci** 1998 Sep;81 Suppl 2:47–54 (41 ref.)

The commodification of human reproductive materials. Resnik DB. **J Med Ethics** 1998 Dec;24(6):388–93 (21 ref.)

Factors affecting pregnancy outcome resulting from assisted reproductive technology (ART). Zhou C, et al. **J Obstet Gynaecol Res** 1998 Oct;24(5):343–7

Preliminary observations about assisted reproduction in thalassaemia. Negri P, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:929–33

Re: Assisted reproductive technology for patients with congenital bilateral absence of vas deferens [letter] Amelar RD. **J Urol** 1999 Oct;162(4):1391

Assisted reproduction technology for patients with congenital bilateral absence of vas deferens [see comments] Okada H, et al. **J Urol** 1999 Apr;161(4):1157–62. Comment in: J Urol 1999 Apr;161(4):1166–7.

Reproductive medicine experts till an increasingly fertile field [news] Phillips DF. **JAMA** 1998 Dec 9;280(22):1893–5

Clinical results of the intracytoplasmic sperm injection (ICSI) at Baqai Institute of Reproduction and Developmental Sciences (BIRDS) [letter] Zafar S, et al. **JPMA J Pak Med Assoc** 1998 Nov;48(11):358

Non-random chromosome positioning in human sperm and sex chromosome anomalies following intracytoplasmic sperm injection [letter] Luetjens CM, et al. **Lancet** 1999 Apr 10;353(9160):1240

Posthumous conception and the need for consent [editorial] [see comments] Schiff AR. **Med J Aust** 1999 Jan 18; 170(2):53–4. Comment in: Med J Aust 1999 May 3;170(9):452–3.

Reproductive technologies 1998: options available for the cancer patient. Pfeifer SM, et al. **Med Pediatr Oncol** 1999 Jul;33(1):34–40 (31 ref.)

Genetic issues in assisted reproductive technology. Ahrens M, et al. **Minn Med** 1998 Oct;81(10):43–7 (15 ref.)

Move over, Mother Nature. Making babies with mother science. Feldman MK. **Minn Med** 1998 Oct;81(10):16–22

Infertility [editorial] Meyer CR. **Minn Med** 1998 Oct;81(10):2

Investigations into the molecular basis of human sperm–egg interactions: what's next? [comment] Benoff S. **Mol Hum Reprod** 1998 Oct;4(10):925–8 (85 ref.). Comment on: Mol Hum Reprod 1998 Jun;4(6):523–4. Comment on: Mol Hum Reprod 1998 Jun;4(6):524–5.

Gonadotrophin heterogeneity and biopotency: implications for assisted reproduction. Lambert A, et al. **Mol Hum Reprod** 1998 Jul;4(7):619–29 (116 ref.)

Zygotic splitting after assisted reproduction [letter] Blickstein I, et al. **N Engl J Med** 1999 Mar 4;340(9):738–9

Sex in an age of mechanical reproduction. Djerassi C. **Science** 1999 Jul 2;285(5424):53–4

Assisted reproductive techniques--promises and problems. Chew SC, et al. **Singapore Med J** 1999 Apr;40(4):303–9 (87 ref.)

Planned orphanhood. Landau R. **Soc Sci Med** 1999 Jul; 49(2):185–96

Commentary: multiple thoughts about multiple births. Jennings JC. **Tex Med** 1999 Apr;95(4):29

Clinical applications of Doppler and three-dimensional ultrasound in assisted reproductive technology [editorial] Tan SL. **Ultrasound Obstet Gynecol** 1999 Mar;13(3):153–6

Representations of reproductive technology in women's narratives of infertility. Kirkman M, et al. **Women Health** 1999;29(2):17–36

[The potentials for using cocultivation systems in assisted reproductive technologies] Todorov P, et al. **Akush Ginekol (Sofiia)** 1998;37(2):43–5 (29 ref.) **(Bul)**

[Treatment of infertility in nonobstructive azoospermia using the TESE method (testicular sperm extraction)--clinical results] Sobek A, et al. **Ceska Gynekol** 1998 Oct; 63(5):405–10 (Eng. Abstr.) **(Cze)**

[Treatment of infertility in non-obstructive azoospermia using the TESE (testicular sperm extraction) method--clinical study] Sobek A, et al. **Ceska Gynekol** 1998 Aug;63(4):287–91 (Eng. Abstr.) **(Cze)**

[Treatment of male infertility after oncologic therapy: preventive autologous sperm preservation versus testicular biopsy and oocyte fertilization with testicular spermatozoaj Sobek A, et al. **Ceska Gynekol** 1998 Jun;63(3):196–9 (Eng. Abstr.) **(Cze)**

[Cryopreservation of embryos after intracytoplasmic sperm injection (ICSI)] Teplá O, et al. **Ceska Gynekol** 1998 Jun; 63(3):214–7 **(Cze)**

[Natural reproduction and assisted reproduction] Testart J. **Ann Biol Clin (Paris)** 1999 May;57(3):325–9 (28 ref.) **(Fre)**

[Should infertility be treated in couples where one of the partners is HIV seropositive?] Auroux M. **Contracept Fertil Sex** 1999 Feb;27(2):118–20 **(Fre)**

[Should we apply assisted reproduction technology to women without limitations of age?] Frydman R, et al. **Contracept Fertil Sex** 1998 Jul-Aug;26(7–8):509–11 (Eng. Abstr.) **(Fre)**

[For or against infertility treatment in couples where one partner is HIV seropositive] Plachot M. **Contracept Fertil Sex** 1999 Feb;27(2):120–1 **(Fre)**

[Ethical developments in medically assisted fertility

(editorial)] Schoysman R, et al. **Contracept Fertil Sex** 1999 Jan;27(1):7–11 **(Fre)**

[Preimplantation genetic diagnosis] Reubinoff BE, et al. **Harefuah** 1998 Sep;135(5–6):202–8 (43 ref.) **(Heb)**

ADVERSE EFFECTS

Human assisted conception: a cautionary tale. Lessons from domestic animals. Leese HJ, et al. **Hum Reprod** 1998 Dec; 13 Suppl 4:184–202 (84 ref.)

Severe OHSS: An 'epidemic' caused by doctors. Roest J. **Hum Reprod** 1999 Sep;14(9):2183 (4 ref.)

Long-term effects on women of assisted reproduction. Shelley J, et al. **Int J Technol Assess Health Care** 1999 Winter;15(1):36–51 (78 ref.)

45,X/46,X,r(Y) karyotype transmitted by father to son after intracytoplasmic sperm injection for oligospermia. A case report. Bofinger MK, et al. **J Reprod Med** 1999 Jul; 44(7):645–8

Hydatidiform moles associated with multiple gestations after assisted reproduction: diagnosis by analysis of DNA fingerprint. Shozu M, et al. **Mol Hum Reprod** 1998 Sep; 4(9):877–80

[Genetic risks associated with treatment of marital infertility using intracytoplasmic sperm injection] Pilka L, et al. **Ceska Gynekol** 1998 Jun;63(3):249–51 **(Cze)**

ECONOMICS

Getting out of the corner [editorial; comment] Aronson DD. **Fertil Steril** 1998 Oct;70(4):623–4. Comment on: Fertil Steril 1996 Nov;66(5):693–6.

Why the NHS should fund infertility services [editorial] Byrne PA, et al. **Ulster Med J** 1999 May;68(1):2–3

LEGISLATION & JURISPRUDENCE

Law and ethics of gamete storage and informed consent as illustrated by the Diane Blood case, and an appraisal of international standards. Yap LB. **Br J Fam Plann** 1999 Jan; 24(4):164–7

"A fine conception—the experience of the Human Fertilisation and Embryology Authority (HFEA)". Speech to the 13th Congress of the European Association of Gynaecologists and Obstetricians (EAGO), Jerusalem, 11 May 1998. Deech R. **Eur J Obstet Gynecol Reprod Biol** 1999 Jul;85(1):3–5

Surveillance 1998 [editorial] Jones HW Jr, et al. **Fertil Steril** 1999 May;71(5):796–7

The fate of cryopreserved human embryos approaching their legal limit of storage within a West Australian in-vitro fertilization clinic. Darlington N, et al. **Hum Reprod** 1999 Sep;14(9):2343–4

Should the use of assisted reproduction techniques be deregulated? The UK experience: options for change. Johnson MH. **Hum Reprod** 1998 Jul;13(7):1769–76 (18 ref.)

The U.K. Human Fertilisation and Embryology Authority. How it has contributed to the evaluation of assisted reproduction technology. Doyle P. **Int J Technol Assess Health Care** 1999 Winter;15(1):3–10

The posthumous gift of life: the world according to Kane. Shuster E. **J Contemp Health Law Policy** 1999 Spring; 15(2):401–23 (91 ref.)

Informed consent issues in assisted reproduction. Reame N. **J Obstet Gynecol Neonatal Nurs** 1999 May–Jun;28(3):331–8 (31 ref.)

Information versus choice in infertility treatment [editorial] **Lancet** 1999 Jun 5;353(9168):1895

Legal issues in the treatment of infertility. Cady R. **MCN Am J Matern Child Nurs** 1999 Sep–Oct;24(5):264

Discrimination against the infertile. The Supreme Court speaks. Wolf SM. **Minn Med** 1998 Oct;81(10):49–52

[Assisted reproduction. Rules and laws. International comparisons] Cohen J, et al. **Contracept Fertil Sex** 1999 Apr;27(4):I–VII (9 ref.) **(Fre)**

NURSING

Culture, conceptive technology, and nursing. Sandelowski M. **Int J Nurs Stud** 1999 Feb;36(1):13–20 (56 ref.)

PSYCHOLOGY

Attitudes towards reproduction in Latin America. Teachings from the use of modern reproductive technologies. Zegers-Hochschild F. **Hum Reprod Update** 1999 Jan–Feb; 5(1):21–5 (5 ref.)

The management of embarrassment and sexuality in health care. Meerabeau L. **J Adv Nurs** 1999 Jun;29(6):1507–13 (55 ref.)

[Adoption and/or reproductive medicine] Steck B. **Ther Umsch** 1999 May;56(5):251–9 (45 ref.) (Eng. Abstr.) **(Ger)**

STANDARDS

Revised minimum standards for in vitro fertilization, gamete intrafallopian transfer, and related procedures. The American Society for Reproductive Medicine. **Fertil Steril** 1998 Oct;70(4 Suppl 2):1S–5S

Guidelines for gamete and embryo donation. The American Society for Reproductive Medicine. **Fertil Steril** 1998 Oct; 70(4 Suppl 3):1S–13S

International Federation of Fertility Societies International Conference. IFFS Surveillance 98. **Fertil Steril** 1999 May; 71(5 Suppl 2):1S–34S

Surveillance 1998 [editorial] Jones HW Jr, et al. **Fertil Steril** 1999 May;71(5):796–7

Appropriate technology: antenatal care. Lumbiganon P. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S91–5 (29 ref.)

Viral screening and assisted conception treatment—the Bourn Hall experience. Abusheikha N, et al. **J Assist Reprod Genet** 1999 Jul;16(6):337–9

Fertility technique regulation [letter; comment] DeBuono BA, et al. **Science** 1999 Jan 8;283(5399):178–9. Comment on: Science 1998 Jul 31;281(5377):651–2.

[New procreations in the origin of a new biology] David G. **C R Seances Soc Biol Fil** 1998;192(5):883–92 **(Fre)**

[Medical-assisted reproduction and protection of the person] Compagnoni F. **Ann Ist Super Sanita** 1998;34(2):233–6 (Eng. Abstr.) **(Ita)**

[For an ethics of medical-assisted reproduction] Forleo R, et al. **Ann Ist Super Sanita** 1998;34(2):209–11 (Eng. Abstr.) **(Ita)**

STATISTICS & NUMERICAL DATA

Statistically valid infertility research [editorial] Mastroianni L Jr. **Fertil Steril** 1999 Sep;72(3):398–400

[Study of the health status of subjects born with medical-assisted reproduction: the connexion between epidemiology and bioethics] Spagnolo A, et al. **Ann Ist Super Sanita** 1998;34(2):227–31 (Eng. Abstr.) **(Ita)**

TRENDS

The metamorphosis of fertility management: lessons from assisted reproductive technology [editorial] Hershlag A. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):271–3

Are we on the verge of a new era in ART? Felberbaum RE, et al. **Hum Reprod** 1998 Jul;13(7):1778–80 (31 ref.)

Is there a future for spermatid injections? Vanderzwalmen P, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:71–84 (48 ref.)

Future trend of assisted reproductive technology [editorial] Chakravarty BN. **J Indian Med Assoc** 1998 Jun; 96(6):169–70, 173

Perspectives of new reproductive and diagnostic techniques among biologists and physicians, social scientists and ethicists. van Balen F, et al. **J Psychosom Obstet Gynaecol** 1999 Jun;20(2):104–11

Recent advances in infertility treatment. Session DR, et al. **Minn Med** 1998 Oct;81(10):27–32 (17 ref.)

[New procreations in the origin of a new biology] David G. **C R Seances Soc Biol Fil** 1998;192(5):883–92 **(Fre)**

[Successful PMA. Review of the activities of the Center for Medically Assisted Procreation of University of Liege, 1985–1997] Dubois M, et al. **Rev Med Liege** 1999 May; 54(5):387–92 (Eng. Abstr.) **(Fre)**

[Cloning: reproductive medicine or breeding program?] Zülicke F. **Wien Med Wochenschr** 1998;148(20):474–7 (42 ref.) (Eng. Abstr.) **(Ger)**

UTILIZATION

Surveillance of assisted reproductive technology in the United States. An update. Meikle SF, et al. **Int J Technol Assess Health Care** 1999 Winter;15(1):11–4

[Activity of the Istituto Superiore di Sanitá regarding medically assisted reproduction] Meli P, et al. **Ann Ist Super Sanita** 1998;34(2):221–6 (Eng. Abstr.) **(Ita)**

VETERINARY

Short communication: an electronic probe versus milk progesterone as aids for reproductive management of small dairy herds. Scipioni RL, et al. **J Dairy Sci** 1999 Aug; 82(8):1742–5

Potential of assisted breeding techniques for the conservation of endangered mammalian species in captivity: a review. Bainbridge DR, et al. **Vet Rec** 1998 Aug 8;143(6):159–68 (137 ref.)

A method for endoscopic embryo collection and transfer in the rabbit. Besenfelder U, et al. **Zentralbl Veterinarmed A** 1998 Nov;45(9):577–9

REPRODUCTIVE HISTORY

How accurate is male recall of reproductive information? Coughlin MT, et al. **Am J Epidemiol** 1998 Oct 15; 148(8):806–9

Reproductive characteristics and the age at inception of the perimenopause in a British National Cohort. Hardy R, et al. **Am J Epidemiol** 1999 Apr 1;149(7):612–20

Adolescent reproductive events and subsequent breast cancer risk. Marcus PM, et al. **Am J Public Health** 1999 Aug; 89(8):1244–7

Predictive value of history and physical examination in patients with suspected ectopic pregnancy. Dart RG, et al. **Ann Emerg Med** 1999 Mar;33(3):283–90

Childbearing history associated with improved survival in choroidal melanoma. Egan KM, et al. **Arch Ophthalmol** 1999 Jul;117(7):939–42

Subsequent obstetric performance related to primary mode of delivery. Jolly J, et al. **Br J Obstet Gynaecol** 1999 Mar; 106(3):227–32

Childbearing and the risk of Hodgkin's disease. Lambe M, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Sep; 7(9):831–4

Reproductive factors of ovarian and endometrial cancer risk in a high fertility population in Mexico. Salazar-Martinez E, et al. **Cancer Res** 1999 Aug 1;59(15):3658–62

Obstetric history in women with surgically corrected adult urinary incontinence or pelvic organ prolapse. Carley ME, et al. **J Am Assoc Gynecol Laparosc** 1999 Feb;6(1):85–9

Reproductive factors and fatal hip fractures. A Norwegian prospective study of 63,000 women. Jacobsen BK, et al. **J Epidemiol Community Health** 1998 Oct;52(10):645–50

Longevity and the barren aristocrat [news; comment] Promislow DE. **Nature** 1998 Dec 24–31;396(6713):719–20 . Comment on: Nature 1998 Dec 24–31;396(6713):743–6.

The relationship between congenital cardiovascular malformations and spontaneous abortion in preceding pregnancy [letter; comment] Bianca S, et al. **Paediatr Perinat Epidemiol** 1999 Apr;13(2):236. Comment on: Paediatr Perinat Epidemiol 1998 Apr;12(2):128–35.

SEARCH international case-control study of childhood brain tumours: role of index pregnancy and birth, and mother's reproductive history. McCredie M, et al. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):325–41

A history of placental dysfunction and risk of placental abruption. Rasmussen S, et al. **Paediatr Perinat Epidemiol** 1999 Jan;13(1):9–21

Graphical trees: the simultaneous display of risk of fetal death by pregnancy history and maternal age. Whitley E. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):342–51

REPRODUCTIVE MEDICINE

see related

REPRODUCTION TECHNIQUES

The reproductive system after childhood cancer. Levitt GA, et al. **Br J Obstet Gynaecol** 1998 Sep;105(9):946–53 (65 ref.)

Improvement of surveillance programs for sexually transmitted infections and related conditions. Mårdh PA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):136–46 (26 ref.)

Medical students' attitudes toward abortion and other reproductive health services. Rosenblatt RA, et al. **Fam Med** 1999 Mar;31(3):195–9

Scientific papers to be presented at the 47th annual meeting of the Pacific Coast Reproductive Society. Carlsbad, California, USA. April 14–18, 1999. Abstracts. **Fertil Steril** 1999 Apr;71(4 Suppl):1S–21S

Legal aspects of clinical practice in reproductive medicine. Retrospective judgement of medical decisions: is the 'linear' model appropriate? Ben-Shlomo I, et al. **Hum Reprod** 1999 Aug;14(8):1925–6

The Internet, intranets and reproductive medicine. Jenkins JM. **Hum Reprod** 1999 Mar;14(3):586–9 (9 ref.)

The Reproductive Endocrine Associates of the Massachusetts General Hospital: fifteen years of integrated clinical practice and investigation. Seminara SB, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1912–8

Selling bits and pieces of humans to make babies: The gift of the magi revisited. Cohen CB. **J Med Philos** 1999 Jun; 24(3):288–306

Acupuncture and acupressure. Applications to women's reproductive health care. Beal MW. **J Nurse Midwifery** 1999 May–Jun;44(3):217–30 (57 ref.)

Methods and measures: emerging strategies in women's health research. Harlow SD, et al. **J Womens Health** 1999 Mar;8(2):139–47

Modeling adverse environmental impacts on the reproductive system. Sussman NB, et al. **J Womens Health** 1999 Mar; 8(2):217–26 (25 ref.)

[Bioethical aspects of reproductive medicine] Radzisław S, et al. **Ginekol Pol** 1998 Dec;69(12):833–40 (Eng. Abstr.) **(Pol)**

[Management and performance of human resources in reproductive health services] **Rev Panam Salud Publica** 1999 Feb;5(2):116–9 (Eng. Abstr.) **(Spa)**

[Reproductive health: integral part of human development] **Rev Panam Salud Publica** 1998 Sep;4(3):211–7 (Eng. Abstr.) **(Spa)**

ECONOMICS

"Ideas whose times have not come"? [letter] Chetkowski RJ. **Fertil Steril** 1999 Jul;72(1):183–4

HISTORY

[Desire for children—planned children. Attempt at a historical introduction to the medical problem] Ludwig H. **Ther Umsch** 1999 May;56(5):236–9 **(Ger)**

LEGISLATION & JURISPRUDENCE

Legal issues in reproductive health care for adolescents. English A, et al. **Adolesc Med** 1999 Jun;10(2):181–94, v (55 ref.)

Human rights and abortion laws. Cook RJ, et al. **Int J Gynaecol Obstet** 1999 Apr;65(1):81–7 (50 ref.)

Reproductive health and work: different experiences. Plante R, et al. **J Occup Environ Med** 1998 Nov;40(11):964–8

[Declaration and suggested plan of actions up to the year 2000 and in the 21st century on the protection of reproductive health of workers] **Med Tr Prom Ekol** 1999; (6):46–8 **(Rus)**

REPRODUCTIVE MEDICINE

METHODS

Evaluating technologies in reproductive health: case studies of a consumer protection approach. Silver LD, et al. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S75–83 (28 ref.)

In vitro reproductive toxicity of polychlorinated biphenyl congeners 153 and 126. Krogenaes AK, et al. **Reprod Toxicol** 1998 Nov–Dec;12(6):575–80

ORGANIZATION & ADMINISTRATION

Pakistan lags behind in reproductive health [news] Wallerstein C. **BMJ** 1998 Dec 5;317(7172):1546

IAMANEH and the new concept of reproductive health. International Association for Maternal and Neonatal Health. Pinotti JA, et al. **Int J Gynaecol Obstet** 1998 Dec; 63 Suppl 1:S3–12 (14 ref.)

When is research participatory? Reflections on a reproductive health project in Brazil. Díaz M, et al. **J Womens Health** 1999 Mar;8(2):175–84 (12 ref.)

STANDARDS

Limitations of current surveillance programs for sexually transmitted infections and allied conditions affecting reproductive health care. Mårdh PA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):147–54 (11 ref.)

Guidelines for gamete and embryo donation. The American Society for Reproductive Medicine. **Fertil Steril** 1998 Oct; 70(4 Suppl 3):1S–13S

The midwife and her functions by level of care. Segovia I. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S61–6 (10 ref.)

STATISTICS & NUMERICAL DATA

The nuclear industry family study: linkage of occupational exposures to reproduction and child health. Maconochie N, et al. **BMJ** 1999 May 29;318(7196):1453–4

TRENDS

Reactions to medical abortion among providers of surgical abortion: an early snapshot. Joffe C. **Fam Plann Perspect** 1999 Jan–Feb;31(1):35–8

Reproductive endocrinology: quo vadis? Scientific, social, ethical and economic challenges. Lunenfeld B, et al. **Gynecol Endocrinol** 1998 Dec;12(6):371–9 (24 ref.)

Future trend of assisted reproductive technology [editorial] Chakravarty BN. **J Indian Med Assoc** 1998 Jun; 96(6):169–70, 173

Reproductive medicine experts till an increasingly fertile field [news] Phillips DF. **JAMA** 1998 Dec 9;280(22):1893–5

Reproductive health in Southeast Asia. Bennett T. **Public Health Rep** 1999 Jul–Aug;114(4):374–6

REPTILASE

CHEMISTRY

Molecular modelling of batroxobin on kallikreins. Earps L, et al. **Biochem Soc Trans** 1998 Aug;26(3):S283

PHARMACOLOGY

Effect of batroxobin on spontaneous echo contrast and hemorheology in left atrial appendage in atrial fibrillation assessed by transesophageal echocardiograpy. Sakamoto S, et al. **Am J Cardiol** 1999 Oct 1;84(7):816–9

[The effect of batroxobin on coronary segmental resistance and coronary blood flow in acute myocardial ischemic dogs] Gao F, et al. **Yao Hsueh Hsueh Pao** 1996; 31(10):727–31 (Eng. Abstr.) **(Chi)**

STANDARDS

The Second British Standard for batroxobin (moojeni) [letter] Gaffney PJ, et al. **Thromb Haemost** 1998 Dec;80(6):1037–8

THERAPEUTIC USE

Prevention of postoperative pericardial adhesions with a defibrinogenating agent. Hioki M, et al. **Int Surg** 1998 Jan–Mar;83(1):11–4

[Comparison of defibrase and heparin in the prevention of thrombosis after coronary intervention] Xiang D, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Dec;36(12):799–801 (Eng. Abstr.) **(Chi)**

REPTILASE-DEF see **REPTILASE**

REPTILES

Reptiles as models of contaminant-induced endocrine disruption. Crain DA, et al. **Anim Reprod Sci** 1998 Oct; 53(1–4):77–86 (54 ref.)

The histidine-rich protamine from ostrich and tinamou sperm. A link between reptile and bird protamines. Ausió J, et al. **Biochemistry** 1999 Jan 5;38(1):180–4

Photoreceptors sensitive for various wave-lengths in the pineal complex and retina of reptiles immunocytochemical localization of opsins. Debreceni K, et al. **Neurobiology (Bp)** 1998;6(4):463–5

The evolution of dinosaurs. Sereno PC. **Science** 1999 Jun 25;284(5423):2137–47 (91 ref.)

ANATOMY & HISTOLOGY

Granin proteins (chromogranin A and secretogranin II C23–3 and C26–3) in the intestine of reptiles. Trandaburu T, et al. **Anat Anz** 1999 May;181(3):261–8

Morphological and functional aspects of reptilian ultimobranchial gland. Srivastav AK, et al. **Anat Histol Embryol** 1998 Dec;27(6):359–64

Morphological and histochemical variations of mucous and oxynticopeptic cells in the stomach of the seps, Chalcides chalcides. Ferri D, et al. **J Anat** 1999 Jan;194 (Pt 1):71–7

Epidermal glands in Squamata: microscopical examination of precloacal glands in Amphisbaena alba (Amphisbaenia, Amphisbaenidae). Jared C, et al. **J Morphol** 1999 Sep; 241(3):197–206

Exploring dinosaur neuropaleobiology: viewpoint computed tomography scanning and analysis of an Allosaurus fragilis endocast. Rogers SW. **Neuron** 1998 Oct;21(4):673–9

CLASSIFICATION

Beta-keratin specific immunological reactivity in feather-like structures of the cretaceous alvarezsaurid, Shuvuuia deserti. Schweitzer MH, et al. **J Exp Zool** 1999 Aug 15; 285(2):146–57

Phylogenetic analysis of reptilian hemoglobins: trees, rates, and divergences. Gorr TA, et al. **J Mol Evol** 1998 Oct; 47(4):471–85

C-mos, a nuclear marker useful for squamate phylogenetic analysis. Saint KM, et al. **Mol Phylogenet Evol** 1998 Oct; 10(2):259–63

A molecular phylogeny of reptiles [see comments] Hedges SB, et al. **Science** 1999 Feb 12;283(5404):998–1001. Comment in: Science 1999 Feb 12;283(5404):945–6.

GENETICS

MHC variation in birds and reptiles. Wittzell H, et al. **Genetica** 1998–99;104(3):301–9

Phylogenetic analysis of reptilian hemoglobins: trees, rates, and divergences. Gorr TA, et al. **J Mol Evol** 1998 Oct; 47(4):471–85

Identification and characterization of amelogenin genes in monotremes, reptiles, and amphibians. Toyosawa S, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13056–61

A molecular phylogeny of reptiles [see comments] Hedges SB, et al. **Science** 1999 Feb 12;283(5404):998–1001. Comment in: Science 1999 Feb 12;283(5404):945–6.

IMMUNOLOGY

MHC variation in birds and reptiles. Wittzell H, et al. **Genetica** 1998–99;104(3):301–9

METABOLISM

Energetics of free-ranging mammals, reptiles, and birds. Nagy KA, et al. **Annu Rev Nutr** 1999;19:247–77 (173 ref.)

The microsomal mixed function oxidase system of amphibians and reptiles: components, activities and induction. Ertl RP, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Nov;121(1–3):85–105 (108 ref.)

MICROBIOLOGY

Isolation of Basidiobolus ranarum from ectotherms in Antwerp zoo with special reference to characterization of the isolated strains. Feio CL, et al. **Mycoses** 1999; 42(4):291–6

PARASITOLOGY

Parasites of domestic and wild animals in South Africa. XXXV. Ixodid ticks and bot fly larvae in the Bontebok National Park. Horak IG, et al. **Onderstepoort J Vet Res** 1998 Sep;65(3):205–11

PHYSIOLOGY

Morphological and functional aspects of reptilian ultimobranchial gland. Srivastav AK, et al. **Anat Histol Embryol** 1998 Dec;27(6):359–64

Temperature-dependent sex determination and gonadal differentiation in reptiles. Pieau C, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):887–900 (92 ref.)

REQUEST FOR PROPOSAL see **COMPETITIVE BIDDING**

RESCUE WORK

see related
RELIEF WORK

Ptarmigan Peak rescue [letter] Nelson J. **Alaska Med** 1998 Jul–Sep;40(3):65, 71

Heat stress and flame protective clothing in mine rescue brigadesmen: inter- and intraindividual variation of strain. Kampmann B, et al. **Ann Occup Hyg** 1999 Jul;43(5):357–65

After Swissair 111, the helpers needed help. Robb N. **CMAJ** 1999 Feb 9;160(3):394

Emergency aid and rescue services in Turkey (ambulance services). Altintaş KH, et al. **Eur J Emerg Med** 1998 Mar; 5(1):19–22

Biological and nutritional consequences of work at high altitude in search and rescue dogs: the scientific expedition Chiens des Cimes-Licancabur 1996. Grandjean D, et al. **J Nutr** 1998 Dec;128(12 Suppl):2694S–2697S

Coping responses and posttraumatic stress symptomatology in urban fire service personnel. Beaton R, et al. **J Trauma Stress** 1999 Apr;12(2):293–308

More expanded scope: operational EMS [editorial; comment] Bogucki MS. **Prehosp Emerg Care** 1998 Oct–Dec; 2(4):330–3 (23 ref.). Comment on: Prehosp Emerg Care 1998 Oct–Dec;2(4):280–4.

Continuous core temperature monitoring of search and rescue divers during extreme conditions [see comments] White LJ, et al. **Prehosp Emerg Care** 1998 Oct–Dec;2(4):280–4. Comment in: Prehosp Emerg Care 1998 Oct–Dec;2(4):330–3.

Lifeguards' vigilance: effects of child-adult ratio and lifeguard positioning on scanning by lifeguards. Harrell WA. **Psychol Rep** 1999 Feb;84(1):193–7

Teaching emergency care skills. Donelan S. **Wilderness Environ Med** 1999 Summer;10(2):125–7

HISTORY

[The humane feat of Russian physicians: Messina, 1908] Redanskiĭ VG. **Voen Med Zh** 1998 Dec;319(12):58–64 **(Rus)**

METHODS

Evaluation of a new universal jettison mechanism for helicopter underwater escape. Brooks CJ, et al. **Aviat Space Environ Med** 1999 Aug;70(8):752–8

Disaster management knowledge attitude & practice of urban slum dwellers. Pratinidhi AK, et al. **Indian J Med Sci** 1998 Apr;52(4):155–8

A national survey of regional poison control centers' management of occupational exposure calls [published erratum appears in J Occup Environ Med 1999 May;41(5):404] Bresnitz EA, et al. **J Occup Environ Med** 1999 Feb;41(2):93–9

Rescue and salvage of casualties suffering from the crush syndrome after mass disasters. Better OS. **Mil Med** 1999 May;164(5):366–9 (24 ref.)

The Mt. Tyndall incident. Braude D, et al. **Prehosp Emerg Care** 1999 Apr–Jun;3(2):167–9

ORGANIZATION & ADMINISTRATION

British-Czech co-operation in a mass casualty incident, Sipovo. From aeromedical evacuation from Bosnia to discharge from Central Military Hospital, Prague. Vassallo DJ, et al. **J R Army Med Corps** 1999 Feb;145(1):7–12

Operation Shaddock--the Australian Defence Force response to the tsunami disaster in Papua New Guinea. Taylor PR, et al. **Med J Aust** 1998 Dec 7–21; 169(11–12):602–6

STATISTICS & NUMERICAL DATA

Longitudinal course and predictors of continuing distress following critical incident exposure in emergency services personnel. Marmar CR, et al. **J Nerv Ment Dis** 1999 Jan; 187(1):15–22

TRENDS

[Basic principles and foundations for further development of the rescue service and emergency medical care for the population of Germany] Ahnefeld FW. **Chirurg** 1998 Dec; 69(12):Suppl 366–9 **(Ger)**

RESEARCH

see related
DENTAL RESEARCH
INFORMATION SERVICES
NURSING RESEARCH
SYSTEMS ANALYSIS

Research fundamentals: II. Choosing and defining a research question. Kwiatkowski T, et al. **Acad Emerg Med** 1998 Nov; 5(11):1114–7

Informed consent: the most important protector [editorial; comment] Prentice ED. **Acad Emerg Med** 1999 Aug; 6(8):774–5. Comment on: Acad Emerg Med 1999 Aug;6(8):776–80.

Do patients with acute medical conditions have the capacity to give informed consent for emergency medicine research? [see comments] Smithline HA, et al. **Acad Emerg Med** 1999 Aug;6(8):776–80. Comment in: Acad Emerg Med 1999 Aug;6(8):772–4. Comment in: Acad Emerg Med 1999 Aug;6(8):774–5.

Research in the Veterans Health Administration: the report of the Research Realignment Advisory Committee. Rutherford GW, et al. **Acad Med** 1999 Jul;74(7):773–81

Academy of Radiology Research. Baum S. **Acad Radiol** 1998 Sep;5 Suppl 2:S419–20

Cost-effectiveness in radiology: perspective of the European Association of Radiology. Dalla Palma L. **Acad Radiol** 1998 Sep;5 Suppl 2:S421–2

Research in interventional MR imaging: where do we go from here? Silverman SG, et al. **Acad Radiol** 1999 Jun; 6(6):368–9

Directions for research in autoimmune thrombocytopenic purpura (ITP). Freedman J, et al. **Acta Paediatr Suppl** 1998 Jun;424:82–4

Can suicide research lead to suicide prevention? [editorial; comment] Mortensen PB. **Acta Psychiatr Scand** 1999 Jun;

99(6):397–8. Comment on: Acta Psychiatr Scand 1999 Jun;99(6):407–11. Comment on: Acta Psychiatr Scand 1999 Jun;99(6):412–8. Comment on: Acta Psychiatr Scand 1999 Jun;99(6):419–22. Comment on: Acta Psychiatr Scand 1999 Jun;99(6):423–31.

Mind and mindlessness in mind–body research. Dienstfrey H. **Adv Mind Body Med** 1999 Summer;15(3):229–33

Problem-solving for better health: literature as a resource. Akhigbe F. **Afr J Med Med Sci** 1997 Sep–Dec; 26(3–4):205–8 (21 ref.)

Identifying research priorities in reproductive health in Nigeria: report of a workshop. **Afr J Reprod Health** 1997 Mar;1(1):100

Launching the African Journal of Reproductive Health [editorial] Snow R, et al. **Afr J Reprod Health** 1997 Mar; 1(1):3–4

AIDS vaccine research in Asia: needs and opportunities. Report from a UNAIDS/WHO/NIID meeting Tokyo, 28–30 October 1998. **AIDS** 1999 Jul 30;13(11):UNAIDS 1–UNAIDS 13

Factors influencing attitudes within AIDS service organizations toward the use of research-based HIV prevention interventions. DiFranceisco W, et al. **AIDS Educ Prev** 1999 Feb;11(1):72–86

Voice of the victims—the key to consensus and support for alcoholism research. O'Neill JT. **Alcohol Alcohol Suppl** 1996 Mar;1:83–7

It all starts with an idea. Bartz C. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13 Suppl 1:S106–10

Clinical research: managing the issues. Lunik MC. **Am J Health Syst Pharm** 1999 Jan 15;56(2):170–1

Southern Society for Clinical Investigation Founders Medal recipient's address. Kokko JP. **Am J Med Sci** 1999 Sep; 318(3):132–4

Presentation of the Southern Society for Clinical Investigation Founders Medal to Dr. Juha Kokko. Tisher CC. **Am J Med Sci** 1999 Sep;318(3):130–1

Reaching out to third world researchers [letter] Sircar SS. **Am J Physiol** 1998 Jun;274(6 Pt 2):S103

Breathing freely: the need for asthma research on gene–environment interactions [editorial] Miller RL. **Am J Public Health** 1999 Jun;89(6):819–22 (41 ref.)

Awareness and motivation of Japanese donors of blood for research [letter] Nakayama T, et al. **Am J Public Health** 1999 Sep;89(9):1433–4

Making the connection: perspectives on tropical medicine research in the United States. James SL. **Am J Trop Med Hyg** 1998 Dec;59(6):847–51

The philosophical basis of the experimental method [editorial] Mack PO. **Ann Acad Med Singapore** 1999 Jan;28(1):1–2

Clinical science: prospects, payment and public policy. Raslavicus PA. **Ann Clin Lab Sci** 1999 Jul–Sep;29(3):213–8

Acting without asking: an ethical analysis of the Food and Drug Administration waiver of informed consent for emergency research. Adams JG, et al. **Ann Emerg Med** 1999 Feb;33(2):218–23

Initial experience using the Food and Drug administration guidelines for emergency research without consent. Kremers MS, et al. **Ann Emerg Med** 1999 Feb;33(2):224–9

Priorities for research in emergency medical services for children: results of a consensus conference [see comments] Seidel JS, et al. **Ann Emerg Med** 1999 Feb;33(2):206–10 (9 ref.). Comment in: Ann Emerg Med 1999 Feb;33(2):214–7.

Establishing research priorities in etiologic epidemiology [see comments] Kreiger N, et al. **Ann Epidemiol** 1999 Jan; 9(1):19–24. Comment in: Ann Epidemiol 1999 Jan;9(1):17–8.

More research is needed [editorial; comment] Maldonado G, et al. **Ann Epidemiol** 1999 Jan;9(1):17–8. Comment on: Ann Epidemiol 1999 Jan;9(1):19–24.

IRB review: necessary, nice, or needless? [editorial; comment] [see comments] Merz JF. **Ann Epidemiol** 1998 Nov;8(8):479–81. Comment on: Ann Epidemiol 1998 Nov;8(8):482–9. Comment in: Ann Epidemiol 1999 Jan;9(1):68–70.

Research priorities in hereditary hemochromatosis. Brittenham GM, et al. **Ann Intern Med** 1998 Dec 1; 129(11):993–6

The ethics of using Web technology to find research participants [letter; comment] Jones RB. **Ann Intern Med** 1999 Feb 2;130(3):245–6. Comment on: Ann Intern Med 1998 Jul 15;129(2):107–13. Comment on: Ann Intern Med 1998 Jul 15;129(2):138–40.

The ethics of clinical research [letter; comment] Misbin RI. **Ann Intern Med** 1999 Feb 2;130(3):241. Comment on: Ann Intern Med 1998 Feb 1;128(3):176–85.

Disclosure of researcher contributions: a study of original research articles in The Lancet. Yank V, et al. **Ann Intern Med** 1999 Apr 20;130(8):661–70

Research in low-income countries [editorial] Masera G, et al. **Ann Oncol** 1999 Feb;10(2):137–8

Using ethical analysis when there is no research. Beyea S, et al. **AORN J** 1999 Jun;69(6):1261–3

Using scientific principles when there is no research. Beyea SC, et al. **AORN J** 1999 May;69(5):1037–8

Consilience in medicine [editorial] Benitez-Bribiesca L. **Arch Med Res** 1999 Jan–Feb;30(1):1–2

Research and training on the newly dead [letter; comment] Zirkin HJ. **Arch Pathol Lab Med** 1998 Mar;122(3):213. Comment on: Arch Pathol Lab Med 1997 Oct;121(10):1029.

Life beyond eradication: veterinary viruses in basic science. Enquist LW. **Arch Virol Suppl** 1999;15:87–109 (67 ref.)

The virtuous cycle's implications of the health and medical research strategic review [editorial] Sainsbury P, et al. **Aust N Z J Public Health** 1999 Feb;23(1):3–5, 19

Continued lack of access to the world's scientific community of the CTS Mouse [editorial] Wilkin TJ. **Autoimmunity** 1998;28(3):123–4

Establishing and maintaining a low-cost zebrafish breeding and behavioral research facility. Bilotta J, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):178–84

Presenting psychology research on the Internet: obstacles and opportunities. Brezsnyak M. **Behav Res Methods Instrum Comput** 1999 May;31(2):281–6

Distinguishing interpretation from fact (DIFF): a computerized drill for methodology courses. Washburn DA. **Behav Res Methods Instrum Comput** 1999 Feb; 31(1):3–6

Wellcome Trust boosts pay to keep researchers in Britain [news] Bower H. **BMJ** 1999 Jun 26;318(7200):1718

People should participate in, not be subjects of, research [letter] [see comments] Boynton PM. **BMJ** 1998 Nov 28; 317(7171):1521. Comment in: BMJ 1999 Apr 24;318(7191):1141. Comment in: BMJ 1999 Apr 24;318(7191):1141–2.

Report calls for GP research in Scotland [news] Christie B. **BMJ** 1999 Jul 10;319(7202):76

North–South research partnerships: the ethics of carrying out research in developing countries. Edejer TT. **BMJ** 1999 Aug 14;319(7207):438–41 (35 ref.)

Moving the research agenda to where it matters [editorial] Kernick D, et al. **BMJ** 1999 Jul 24;319(7204):206–7

Ethical review of research [editorial] Gilbertson AA. **Br J Anaesth** 1999 Jan;82(1):6–7

Research on needle exchange: redefining the agenda. Hantman JA. **Bull N Y Acad Med** 1995 Winter; 72(2):397–412

When science and politics collide: the federal response to needle–exchange programs. Lurie P. **Bull N Y Acad Med** 1995 Winter;72(2):380–96

The principles of medical ethics and medical research. Harris J. **Cad Saude Publica** 1999;15 Suppl 1:7–13

Australian animal ethics committees: we have come a long way. Anderson WP, et al. **Camb Q Healthc Ethics** 1999 Winter;8(1):80–6

Bringing both sides together. Boyd K. **Camb Q Healthc Ethics** 1999 Winter;8(1):43–5

The ethics of animal research: what are the prospects for agreement? DeGrazia D. **Camb Q Healthc Ethics** 1999 Winter;8(1):23–34

From vilification to accommodation: making a common cause movement. Munro L. **Camb Q Healthc Ethics** 1999 Winter; 8(1):46–57

Painism: some moral rules for the civilized experimenter. Ryder RD. **Camb Q Healthc Ethics** 1999 Winter;8(1):35–42

The use of animals in biomedical research and teaching: searching for a common goal. Silverman J. **Camb Q Healthc Ethics** 1999 Winter;8(1):64–72

The role of an academic center in promoting common goals. Zurlo J, et al. **Camb Q Healthc Ethics** 1999 Winter; 8(1):58–63

The Canadian Institutes of Health Research: Canada's response to the health research challenges of the 21st century. Steele B. **Can J Cardiol** 1999 Jan;15(1):33–5, 38 **(Eng, Fre)**

"You are old, Father William..." [editorial] Jones N. **Can Respir J** 1999 Jan–Feb;6(1):13–8 **(Eng, Fre)**

Veterinary research and human health. Dohoo IR, et al. **Can Vet J** 1998 Sep;39(9):548–56 **(Eng, Fre)**

Oncology nursing research priorities: a Canadian perspective. Bakker DA, et al. **Cancer Nurs** 1998 Dec;21(6):394–401

Health services research in breast cancer: background paper for a Canadian Breast Cancer Research Initiative workshop [see comments] Goel V. **Cancer Prev Control** 1998 Aug; 2(4):173–8. Comment in: Cancer Prev Control 1998 Aug;2(4):162.

Translational research: walking the bridge between idea and cure—seventeenth Bruce F. Cain Memorial Award lecture. Chabner BA, et al. **Cancer Res** 1998 Oct 1;58(19):4211–6 (66 ref.)

Genetic research stimulates development of individual treatment. Kluft C. **Cardiologia** 1999 Feb;44(2):119–24 (25 ref.)

The ranking of Italy's publications in the biomedical field: an objective evaluation. Sperti G, et al. **Cardiologia** 1999 Jan;44(1):51–4

Translational research is hurting [editorial] Block AJ. **Chest** 1999 Feb;115(2):311

Research in developing countries [letter] Cicero R. **Chest** 1999 Aug;116(2):585

The connection between basic research and clinical practice. Blanca M, et al. **Clin Exp Allergy** 1998 Sep;28 Suppl 4:87–91 (24 ref.)

Procedure to protect confidentiality of familial data in community genetics and genomic research. Gaudet D, et al. **Clin Genet** 1999 Apr;55(4):259–64

The Canadian Society for Clinical Investigation: the membership speaks [editorial] Gray J. **Clin Invest Med** 1998 Dec;21(6):277–8

Mentoring the young clinician–scientist. Gray J. **Clin Invest Med** 1998 Dec;21(6):279–82

Interpreting research on prenatal substance exposure in the context of multiple confounding factors. LaGasse LL, et al. **Clin Perinatol** 1999 Mar;26(1):39–54, vi

Ultrasound-assisted lipoplasty. Basic science and clinical research. Kenkel JM, et al. **Clin Plast Surg** 1999 Apr; 26(2):221–34; vii (35 ref.)

Issues in research on short-term dynamic psychotherapy. Barber JP, et al. **Clin Psychol Rev** 1999 Sep;19(6):659–67

Does the CMA's privacy code go too far? Or far enough? [letter] Finkelstein MM. **CMAJ** 1999 Mar 23;160(6):781; discussion 782–4

E-biomed: scientific publishing's brave new world [editorial] Hoey J. **CMAJ** 1999 Jul 13;161(1):41–2

PHLS Ethics Committee annual report. **Commun Dis Rep CDR Wkly** 1998 Sep 11;8(37):325, 328

A comparison of consumer and provider preferences for research on homeless veterans. Cohen CI, et al. **Community Ment Health J** 1999 Jun;35(3):273–80

Object-oriented biomedical system modeling—the rationale. Hakman M, et al. **Comput Methods Programs Biomed** 1999 Apr;59(1):1–17

Using ARROWSMITH: a computer-assisted approach to formulating and assessing scientific hypotheses. Smalheiser NR, et al. **Comput Methods Programs Biomed** 1998 Nov; 57(3):149–53

Outpatients' knowledge about and attitude towards clinical research and randomized clinical trials. The INFO Trial Group. Kjaergaard LL, et al. **Dan Med Bull** 1998 Sep; 45(4):439–43

Advanced laboratory techniques at the Armed Forces Institute of Pathology applicable to diagnosis and research in dermatology. Skelton HG, et al. **Dermatol Clin** 1999 Jan; 17(1):125–34, ix (53 ref.)

Doing research in general practice: advice for the uninitiated. Pierce M. **Diabet Med** 1998 Nov;15 Suppl 3:S25–8 (7 ref.)

A holistic approach to environmental health research [editorial] Suk WA, et al. **Environ Health Perspect** 1999 Jul;107(7):A338–9

33rd Annual meeting of the European Society for Clinical Investigation. Milan, Italy, 8–10 April 1999. Abstracts. **Eur J Clin Invest** 1999 Apr;29 Suppl 1:3–100

Residents surveyed about the value of research [letter; comment] Costa AJ, et al. **Fam Med** 1998 Oct;30(9):618–9 . Comment on: Fam Med 1997 Jan;29(1):33–7.

Multi-disciplinary research can be more than parallel-disciplinary research: the case of GPs' use of magnetic resonance imaging. Hale JP, et al. **Fam Pract** 1999 Jun;16(3):301–4

Action research: a useful method of promoting change in primary care? Hampshire A, et al. **Fam Pract** 1999 Jun; 16(3):305–11

Published research in primary care: original papers in the US and UK, 1996. Jones R. **Fam Pract** 1998 Aug; 15(4):291–5

Applying research evidence to individuals in primary care: a study using non-rheumatic atrial fibrillation. Oswald N, et al. **Fam Pract** 1999 Aug;16(4):414–9

Research technologies: fulfilling the promise. Hogue Angeletti R, et al. **FASEB J** 1999 Apr;13(6):595–601

Correlates of protection: the crosstalk between immunology and medical microbiology [editorial] van Alphen L. **FEMS Immunol Med Microbiol** 1999 Jan;23(1):3–4

Statistically valid infertility research [editorial] Mastroianni L Jr. **Fertil Steril** 1999 Sep;72(3):398–400

Proceedings of the National Institutes of Health Workshop on Endoscopic Research Priorities. Bethesda, Maryland, USA. December 12–13, 1998. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S1–104

Career development in endoscopic research: current status and recommendations. Jensen DM. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S100–4

Endoscopic research and gastroenterology organizations: beyond definitions. Pasricha PJ. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S94–5

Genetic information must remain private to prevent discrimination, spur research. Slaughter LM. **Genet Test** 1998;2(1):17–35

Reply to Dr. Butler. The NIA Mission and beyond: context of aging-related social impact. Adelman RC. **Gerontologist** 1999 Aug;39(4):392–6

Is the National Institute on Aging mission out of balance? Butler RN. **Gerontologist** 1999 Aug;39(4):389–91

Stem cells [letter] Lebacqz K. **Hastings Cent Rep** 1999 Jul–Aug;29(4):4–5

What's in the dish? McGee G, et al. **Hastings Cent Rep** 1999 Mar–Apr;29(2):36–8

Federal science policy. Changing battle lines, new fronts. Silberner J. **Hastings Cent Rep** 1999 Jul–Aug;29(4):6

Foresight, insight, oversight. White GB. **Hastings Cent Rep** 1999 Mar–Apr;29(2):41–2

Mixed signals: public policy and the future of health care R&D. Weisbrod BA, et al. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):112–25

Seriously ill for medical research [letter] Flewett TH, et al. **Hosp Med** 1998 Nov;59(11):900

Scientific thinking in ophthalmology. Abraham C. **Indian J Ophthalmol** 1998 Jun;46(2):105–8 (47 ref.)

Aid to good medical writing. Krishna A. **Indian Pediatr** 1998 May;35(5):447–51

Infections in intraabdominal surgery. The EURESI Project. European Research Network on Surgical Infections. Holzheimer RG. **Infection** 1998 Sep–Oct;26(5):323–8

Experimental surgery in the research of artificial organs

[editorial] Giardino R, et al. **Int J Artif Organs** 1998 Sep; 21(9):506–8

The role of group support technology in developing the HEALNet research agenda. Goel V, et al. **Int J Med Inf** 1998 Aug–Sep;51(2–3):215–9

A case from South Korea: an occupational physician convicted of "interference with business". Kim R. **Int J Occup Environ Health** 1998 Jan–Mar;4(1):37–40

The conflict–prone nature of occupational health research and practice. Nemery B. **Int J Occup Environ Health** 1998 Jan–Mar;4(1):35–7 (12 ref.)

Mechanism–based screening: discovery of the next generation of anthelmintics depends upon more basic research. Geary TG, et al. **Int J Parasitol** 1999 Jan;29(1):105–12; discussion 113–4 (40 ref.)

Priorities for research in lung health. International Union Against Tuberculosis and Lung Disease (IUATLD), and the International Development Research Centre (IDRC). Paris. 9–11 December 1997. **Int J Tuberc Lung Dis** 1998 Dec;2(12):1046–8

Irish Endocrine Society 23rd annual meeting. Waterford Surgical October Club and Surgical Section Royal Academy of Medicine Joint Surgical Symposium. Medical Research Cooperation in Ireland, North and South. Abstracts. **Ir J Med Sci** 1998 Oct–Dec;167 Suppl 10:2–19

University of Limerick Biomedical Institute 2nd Annual Research Day. Biomedicine in the Aged. 25 June 1999. Abstracts. **Ir J Med Sci** 1999 Apr–Jun;168 Suppl 4:3–13

Bioethics body needed [letter] Feenan D. **Ir Med J** 1999 Mar; 92(2):284

30th Bethesda Conference: The Future of Academic Cardiology. Task force 2: research. Borer JS, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1109–20

Cause of death in clinical research: time for a reassessment? Lauer MS, et al. **J Am Coll Cardiol** 1999 Sep;34(3):618–20 (17 ref.)

Enhancing didactic education through participation in a clinical research project. Brehm BJ, et al. **J Am Diet Assoc** 1999 Sep;99(9):1090–3

Authorship: can you claim a byline? Klein CJ, et al. **J Am Diet Assoc** 1999 Jan;99(1):77–9

Federal role in nutrition education, research, and food assistance for women and their families. Mark S, et al. **J Am Diet Assoc** 1999 Jun;99(6):671–2

Broadening career opportunities in dietetics: employment in independent research. Peterson DA, et al. **J Am Diet Assoc** 1999 Jul;99(7):799–801

Science and practice: a case for medical informatics as a local science of design [see comments] Patel VL, et al. **J Am Med Inform Assoc** 1998 Nov–Dec;5(6):489–92. Comment in: J Am Med Inform Assoc 1998 Nov–Dec;5(6):583–4.

New veterinary college generates mixed opinions [letter; comment] Ames ER. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):324. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Anderson BC. **J Am Vet Med Assoc** 1999 Feb 1;214(3):324. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Cartee RE. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):328. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Creswell JA. **J Am Vet Med Assoc** 1999 Feb 1;214(3):326. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Johnston SD, et al. **J Am Vet Med Assoc** 1999 Feb 1;214(3):328–9. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

Is the new veterinary college a good model? [letter] [see comments] Marshak RR, et al. **J Am Vet Med Assoc** 1998 Dec 1;213(11):1554. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):324. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):324, 326. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):326. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):326, 328; discussion 329. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):328. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):328–9.

New veterinary college generates mixed opinions [letter; comment] Murtaugh RJ. **J Am Vet Med Assoc** 1999 Feb 1;214(3):324, 326. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Newman ME. **J Am Vet Med Assoc** 1999 Feb 1;214(3):326, 328; discussion 329. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

Livestock improvement: art, science, or industry? Harris DL. **J Anim Sci** 1998 Sep;76(9):2294–302 (34 ref.)

Animats: computer–simulated animals in behavioral research. Watts JM. **J Anim Sci** 1998 Oct;76(10):2596–604 (50 ref.)

Conversations with a cab driver [editorial] Rangaswamy L. **J Bone Joint Surg Am** 1998 Oct;80(10):1407–9

The 1999 ASCI Award. **J Clin Invest** 1999;104 Suppl:S11–3

Renewing the spirit [editorial] Weiss SJ. **J Clin Invest** 1999 Jan;103(1):1

Opportunities for international research collaborations: mechanisms for advancement. Cohen LK. **J Dent Educ** 1999 Mar;63(3):263–7

Efficacy, risk, and the determination of value: shared medical decision making in the age of information [editorial] Chatterton HT. **J Fam Pract** 1999 Jul;48(7):505–7

Mental health problems in primary care. A research agenda [see comments] Klinkman MS, et al. **J Fam Pract** 1998 Nov;47(5):379–84. Comment in: J Fam Pract 1998 Nov;47(5):341.

Priorities for agenda building: mental health and primary care [editorial; comment] Lebowitz BD. **J Fam Pract** 1998 Nov; 47(5):341. Comment on: J Fam Pract 1998 Nov;47(5):379–84.

A personal research odyssey. Medalie JH. **J Fam Pract** 1999 Jul;48(7):508–12

Research on spirituality: dangerous and deceptive ground? [letter; comment] Payne FE. **J Fam Pract** 1999 Jul; 48(7):501–3. Comment on: J Fam Pract 1999 Feb;48(2):96–7. Comment on: J Fam Pract 1999 Feb;48(2):98–104. Comment on: J Fam Pract 1999 Feb;48(2):105–9.

Papers by family physicians that have influenced the way I practice [editorial] Rodnick JE. **J Fam Pract** 1999 Apr; 48(4):257–8

Ugly stepchildren? [letter] Young R. **J Fam Pract** 1999 Mar; 48(3):230

Reaping the fruits of research: promoting health equity for all. Pinn VW. **J Health Care Poor Underserved** 1998 Aug; 9(3):213–6

The role of mandated research during dermatology residency training [letter] Kirsner RS, et al. **J Invest Dermatol** 1999 Mar;112(3):400–1

Midwestern regional meeting. Chicago, Illinois, USA. September 16–18, 1999. Abstracts. **J Investig Med** 1999 Aug;47(7):303S–328S

American Federation for Medical Research at Experimental Biology '99. Washington DC, USA. April 16–21, 1999. Abstracts. **J Investig Med** 1999 Apr;47(4):180A–216A

American Federation for Medical Research Southern Section and Western Section meetings, 1999. Eastern Society for Pediatric Research annual meeting, 1999. Abstracts. **J Investig Med** 1999 Feb;47(2):1S–194S

American Federation for Medical Research Midwestern Regional Meeting. Chicago, Illinois, USA. September 17–19, 1998. Abstracts. **J Investig Med** 1998 Sep; 46(7):247A–290A

The JIM interview. Daniel Porte, Jr, MD [interview] Porte D Jr. **J Investig Med** 1999 Mar;47(3):101–5

The physician–scientist: a new generation or the last? Rockey DC. **J Investig Med** 1999 Jan;47(1):25–30

Understanding and using confidence intervals in clinical research. Visintainer PF, et al. **J Matern Fetal Med** 1998 Jul–Aug;7(4):201–6 (18 ref.)

The role of futility judgments in improperly limiting the scope of clinical research [see comments] Harper W. **J Med Ethics** 1998 Oct;24(5):308–13. Comment in: J Med Ethics 1998 Oct;24(5):291–3.

Medical research needs lay involvement [editorial; comment] [see comments] Hope T. **J Med Ethics** 1998 Oct;24(5):291–2 . Comment on: J Med Ethics 1998 Oct;24(5):308–13. Comment in: J Med Ethics 1999 Feb;25(1):62.

Selecting subjects for participation in clinical research: one sphere of justice. Weijer C. **J Med Ethics** 1999 Feb; 25(1):31–6 (34 ref.)

Imperialism, research ethics and global health [letter; comment] Werner DL. **J Med Ethics** 1999 Feb;25(1):62. Comment on: J Med Ethics 1998 Aug;24(4):221–2.

Communicating science to the public: whose job is it anyway? [news] **J Natl Cancer Inst** 1998 Oct 21;90(20):1509–10

Bristol Award: Fidler honored for metastasis research [news] Bankhead C. **J Natl Cancer Inst** 1999 Apr 21;91(8):670–1

First European Breast Cancer Conference sets research agenda for years to come [news] Smeltz KJ. **J Natl Cancer Inst** 1998 Nov 4;90(21):1598–9

The Academy of Radiology Research: the imaging community's advocate for change [news] Williams J. **J Nucl Med** 1999 Jun;40(6):9N–10N, 22N

Molecular methodologies in nutrition research. Clarke SD, et al. **J Nutr** 1998 Nov;128(11):2036–7

Utility and importance of gene knockout animals for nutritional and metabolic research. Hui DY. **J Nutr** 1998 Nov;128(11):2052–7 (63 ref.)

The necessity for a progressing dialog between basic science and clinical research in obstetrics and gynecology. Graeff H. **J Obstet Gynaecol Res** 1998 Dec;24(6):427–32

Reflections of thrombosis research in Oklahoma City—1975 to the present. Green R. **J Okla State Med Assoc** 1999 Mar;92(3):131–9 (9 ref.)

Value of pharmaceutical sciences. Borchardt RT. **J Pharm Biomed Anal** 1998 Apr;16(8):1387–401

Culturally informed psychosomatic research [editorial] Devins GM. **J Psychosom Res** 1999 Jun;46(6):519–24

Local research ethics committee approval for a national study in Scotland. Ah–See KW, et al. **J R Coll Surg Edinb** 1998 Oct;43(5):303–5

Ethical issues in cloning and embryo research. Butler WJ, et al. **J S C Med Assoc** 1998 Sep;94(9):401–5

Informed consent in school health research: why, how, and making it easy. Ross JG, et al. **J Sch Health** 1999 May; 69(5):171–6 (14 ref.)

Gender representation in sleep research [letter] Driver H, et al. **J Sleep Res** 1999 Jun;8(2):157–9

Presidential Address. Academic program development. Brunicardi FC. **J Surg Res** 1999 May 1;83(1):1–6

Critical review: synthesis and recommendations for research, education, and policy [comment] Kivett VR. **J Women Aging** 1998;10(4):81–90 (17 ref.). Comment on: J Women Aging 1998 ;10(4):7–24. Comment on: J Women Aging 1998 ;10(4):25–39. Comment on: J Women Aging 1998 ;10(4):41–65. Comment on: J Women Aging 1998 ;10(4):67–80.

Primary care research and protection for human subjects [letter; comment] Beasley JW. **JAMA** 1999 May 12; 281(18):1697–8. Comment on: JAMA 1998 Dec 9;280(22):1951–8.

Association for patient–oriented research [news] Friedrich MJ. **JAMA** 1999 Jun 2;281(21):1977

Researchers urged to tell public how animal studies benefit human health [news] Lamberg L. **JAMA** 1999 Aug 18; 282(7):619–21

Protecting subjects of clinical research [news] Marwick C. **JAMA** 1999 Aug 11;282(6):516–7

Professional integrity in clinical research. Miller FG, et al. **JAMA** 1998 Oct 28;280(16):1449–54

The realities of resident research requirements [letter] Mylonakis E, et al. **JAMA** 1999 Jun 9;281(22):2089

Addressing the needs of basic and clinical research: analysis of graduates of the University of Pennsylvania MD–PhD program. Schwartz P, et al. **JAMA** 1999 Jan 6;281(1):96–7, 99

Bridging the worlds of medicine and science: an interview with Bert I. Shapiro, MD. Interviewed by Yvonne G. Lin. Shapiro BI. **JAMA** 1999 Jan 6;281(1):98–9

Research and the changing truths. Rana JS. **JPMA J Pak Med Assoc** 1998 Jul;48(7):227–8

From Yac–1, back to square one. Rashid A. **JPMA J Pak Med Assoc** 1998 Oct;48(10):317–8

Factors influencing library penetration of cancer research–associated journals in Japanese universities and research institutions [letter] Moore MA, et al. **Jpn J Cancer Res** 1999 Mar;90(3):361–4

Report of the twelfth International Symposium of the Foundation for Promotion of Cancer Research: Basic and Clinical Research in Breast Cancer. Abe K, et al. **Jpn J Clin Oncol** 1999 Aug;29(8):399–402

Research is long, life is short [editorial] Eguchi K. **Jpn J Clin Oncol** 1998 Dec;28(12):721–2

NIH E–biomed proposal: a welcome jolt [editorial] **Lancet** 1999 Jun 12;353(9169):1985

Male contraceptive research steps back into spotlight [news] Bonn D. **Lancet** 1999 Jan 23;353(9149):302

Scientific and research culture in Mexico [letter] Cuevas–Sosa A. **Lancet** 1999 Aug 21;354(9179):685

Human cloning [letter; comment] Obermann K. **Lancet** 1999 Mar 27;353(9158):1103. Comment on: Lancet 1999 Jan 9;353(9147):81.

Drug development output: what proportion for tropical diseases? [letter] Trouiller P, et al. **Lancet** 1999 Jul 10; 354(9173):164

Research–agenda setting in developing countries [letter; comment] Wolffers I, et al. **Lancet** 1999 Jun 26; 353(9171):2248–9. Comment on: Lancet 1999 Apr 3;353(9159):1190.

Leprosy: applying qualitative techniques to research and intervention. Ogden JA, et al. **Lepr Rev** 1999 Jun; 70(2):129–35

Law and ethics. Law and sociology of knowledge (court–compelled disclosure of research data). Mazur DJ. **Med Decis Making** 1999 Jan–Mar;19(1):107–8

Research in medical education: finding its place [editorial] Bligh J, et al. **Med Educ** 1999 Mar;33(3):162–3

Survey research methods. Calder J. **Med Educ** 1998 Nov; 32(6):638–52 (13 ref.)

Junior doctors' views about careers in academic medicine. Goldacre M, et al. **Med Educ** 1999 May;33(5):318–26

Research in medical education [letter] Oswald N. **Med Educ** 1999 Jun;33(6):470

In situ transmission electron microscopy employed for studies of effects of ion and electron irradiation on materials. Allen CW, et al. **Microsc Res Tech** 1998 Aug 15;42(4):255–9 (16 ref.)

Innovation and public accountability in clinical research. Melhado EM. **Milbank Q** 1999;77(1):111–72, v

The career structure in biomedical research: implications for training and trainees. The american society for cell biology survey on the state of the profession. Marincola E, et al. **Mol Biol Cell** 1998 Nov;9(11):3003–6

Medical education: catering for the carers as well as the innovators [letter] [see comments] Cox TM. **Mol Med Today** 1999 Mar;5(3):103–4. Comment in: Mol Med Today 1999 Mar;5(3):100.

Applications of telomerase research in the fight against cancer. McKenzie KE, et al. **Mol Med Today** 1999 Mar; 5(3):114–22 (65 ref.)

Ethics committees and qualitative health research in New Zealand. Gauld R, et al. **N Z Med J** 1999 Jun 11; 112(1089):195–7

Research & development. Basic science and pharmaceutical innovation. Drews J. **Nat Biotechnol** 1999 May;17(5):406

Arthritis drug discovery. Persidis A. **Nat Biotechnol** 1999 Jul;17(7):726–8

European biotechnology turns East. Sansom C. **Nat Biotechnol** 1999 May;17(5):437–9

Target–based discovery of crop protection chemicals. Ward E, et al. **Nat Biotechnol** 1999 Jul;17(7):618–9

A duty to publish [editorial; comment] [see comments] **Nat Med** 1998 Oct;4(10):1089. Comment on: Nat Med 1998

Oct;4(10):1095. Comment in: Nat Med 1999 Jan;5(1):2–3.
The Molecular Medicine Revolution [editorial] **Nat Med** 1998 Dec;4(12):1339–40
Italian changes are not surprising [letter] Benagiano G. **Nat Med** 1999 Sep;5(9):967
The sun sets on the CVI. Children's Vaccine Initiative [news] Birmingham K. **Nat Med** 1999 May;5(5):469–70
US public may gain access to research data [news] Dove A. **Nat Med** 1999 Jan;5(1):8
WMA to revise medical research guidelines. World Medical Association [news] Dove A. **Nat Med** 1999 Jun;5(6):598
India fast-tracks vaccine candidates [news] Jayaraman KS. **Nat Med** 1999 Sep;5(9):970
The importance of doing HIV research in developing countries. Morris L, et al. **Nat Med** 1998 Nov;4(11):1228–9
Report recommends ground testing for space research [news] Novak K. **Nat Med** 1998 Nov;4(11):1215
The Imperial Cancer Research Fund--cancer research for the future. Nurse P. **Nat Med** 1998 Nov;4(11):1224–7
Biomedical research--from numerators to denominators [letter; comment] Perry IJ. **Nat Med** 1999 Aug;5(8):853. Comment on: Nat Med 1999 May;5(5):477–8.
German professor resigns in protest at research obstruction [news] Simm M. **Nat Med** 1998 Oct;4(10):1099
National Cancer Center Research Institute: history, current status, and priorities. Terada M. **Nat Med** 1998 Nov; 4(11):1221–4
A methodology for applied medical research [letter] Narahari SR, et al. **Natl Med J India** 1999 Mar-Apr;12(2):90
Sharing research tools is a tradition worth defending [editorial] [see comments] **Nature** 1998 Nov 12;396(6707):97 . Comment in: Nature 1998 Dec 10;396(6711):509.
Business and pleasure can mix [editorial] **Nature** 1999 Apr 1;398(6726):353
'Sell the message of research', Europe's cell biologists urged [news] Abbott A. **Nature** 1999 May 13;399(6732):92
Embattled neuroscientist wins US support [news] Abbott A. **Nature** 1999 May 6;399(6731):5
Brazilian scientists team up for cancer genome project [news] Bonalume Neto R. **Nature** 1999 Apr 8;398(6727):450
Ethical failures block Los Angeles research [news] Dalton R. **Nature** 1999 Apr 8;398(6727):448
Strengthening biomedicine's roots. Dill KA. **Nature** 1999 Jul 22;400(6742):309–10
Scientists seek support from Mexican public [news] Garwin L. **Nature** 1999 Apr 1;398(6726 Suppl):A7–9
Start-up companies: out of the lab and into the marketplace. Horton B, et al. **Nature** 1999 May 13;399(6732):175–82
Keeping in touch with research. Horton B. **Nature** 1999 Sep 23;401(6751):410
Monkey dispute halts Indian drug tests [news] Jayaraman KS. **Nature** 1999 Jul 29;400(6743):393
US cancer body calls for ideas from all disciplines [news] Macilwain C. **Nature** 1998 Oct 22;395(6704):731
Automation 'could crack the big problems in science' [news] Macilwain C. **Nature** 1999 May 6;399(6731):9
Community split on Peronist reform effort [news] Macilwain C. **Nature** 1999 Apr 1;398(6726 Suppl):A14–5
Collapse of réal sharpens Brazil's contrasts [news] Macilwain C. **Nature** 1999 Apr 1;398(6726 Suppl):A16–8
Stability offers unique opportunity for research [news] Macilwain C. **Nature** 1999 Apr 1;398(6726 Suppl):A4–5
More foreign research students stay in US to cash in on boom [news] Macilwain C. **Nature** 1998 Dec 17;396(6712):605
UK life scientists seek wider Foresight role [news] Masood E. **Nature** 1999 Mar 25;398(6725):277
Biomedicine wins British budget top-up [news] Masood E. **Nature** 1998 Oct 29;395(6705):825
US concern grows over secrecy clauses [news] Nadis S. **Nature** 1999 Apr 1;398(6726):359
Women scientists unite to battle cowboy culture [news] Nadis S. **Nature** 1999 Apr 1;398(6726):361
Will biomedicine outgrow support? Perutz MF. **Nature** 1999 May 27;399(6734):299–301
Call for research and education to tackle 'environmental injustice' [news] Reichhardt T. **Nature** 1999 Mar 11; 398(6723):99
Japan bids to catch up on gene sequencing [news] Saegusa A. **Nature** 1999 May 13;399(6732):96
Japanese researcher faces US charges over data [news] Saegusa A. **Nature** 1999 Apr 8;398(6727):448
Hand over your clones or lose your reputation [letter] Tester M. **Nature** 1999 Apr 22;398(6729):657
NIH strives to keep resource sharing alive [news] Wadman M. **Nature** 1999 May 27;399(6734):291
Cancer body 'must do more for minorities' [news] Wadman M. **Nature** 1999 Jan 28;397(6717):283
Data explosion fuels search for drugs. Wickware P. **Nature** 1999 Aug 19;400(6746):799–800
Recent advances in GABA research. Kardos J. **Neurochem Int** 1999 May;34(5):353–8 (86 ref.)
A research programme for testing the biological homology concept. Wagner GP. **Novartis Found Symp** 1999; 222:125–34; discussion 134–40 (50 ref.)
Bioelectrical impedance analysis in nutritional research [editorial; comment] Han TS, et al. **Nutrition** 1998 Sep; 14(9):707–8. Comment on: Nutrition 1998 Sep;14(9):658–66.
The important role of medical researchers in Papua New Guinea [editorial] Siba PM. **P N G Med J** 1996 Dec; 39(4):271–3
The field of research in cardiology [letter; comment] Barón G, et al. **Pacing Clin Electrophysiol** 1998 Aug;21(8):1679–80 . Comment on: Pacing Clin Electrophysiol 1997 Nov;20(11):2746–54.
Your research: how to get it on paper and in print [see comments] Griscom NT. **Pediatr Radiol** 1999 Feb; 29(2):81–6 (12 ref.). Comment in: Pediatr Radiol 1999 Feb;29(2):79.
Research in pediatric radiology: preparing for our future. Strife JL, et al. **Pediatr Radiol** 1998 Aug;28(8):563–8 (13 ref.)
A medical research agenda for child maltreatment: negotiating the next steps. Theodore AD, et al. **Pediatrics** 1999 Jul;104(1 Pt 2):168–77
Research experiences and research-related coursework in the education of doctors of pharmacy. Murphy JE, et al. **Pharmacotherapy** 1999 Feb;19(2):213–20
Common goals: do physiotherapists in research share the same goals as clinicians? [editorial] Hodges P. **Physiother Res Int** 1998;3(1):v–vi
Clinical research in medical schools: seizing the opportunity. Meyer RE, et al. **Proc Assoc Am Physicians** 1998 Nov-Dec; 110(6):513–20 (18 ref.)
New understanding in obesity research. James WP, et al. **Proc Nutr Soc** 1999 May;58(2):385–93 (77 ref.)
The real final exam. Coffey DS. **Prostate** 1999 Jun 1; 39(4):323–5
Defining an international research agenda for quality of life in men with prostate cancer. Litwin MS, et al. **Prostate** 1999 Sep 15;41(1):58–67
Placebos in research [letter] Mago R, et al. **Psychiatr Serv** 1999 Apr;50(4):568
Research-related burnout among faculty in higher education. Singh SN, et al. **Psychol Rep** 1998 Oct;83(2):463–73
The diverse roles of citation indexes in scientific research. Garfield E. **Rev Invest Clin** 1998 Nov-Dec;50(6):497–504
Gender audit of health research--10 years of the South African Medical Journal. Hoosain M, et al. **S Afr Med J** 1998 Aug;88(8):982–5
More work needed on cannabis [news] Jones JS. **S Afr Med J** 1998 Aug;88(8):930
A life at the cutting edge: Walter Prozesky [interview by Jonathan Spencer Jones] Prozesky W. **S Afr Med J** 1998 Dec;88(12):1545–6
AIDS center shuttered [news] **Science** 1999 May 21; 284(5418):1245
Breakthrough of the year. The runners-up [news] **Science** 1998 Dec 18;282(5397):2157–61
AIDS in Spain [news] **Science** 1999 Apr 23;284(5414):567
Stem cells profile. A man in a hurry [news] Alper J. **Science** 1999 Mar 5;283(5407):1434–5
Interdisciplinary research at NIH [letter] Anderson JJ. **Science** 1999 Mar 26;283(5410):2018
Health care costs [letter; comment] Andreopoulos S. **Science** 1999 Feb 5;283(5403):792–4. Comment on: Science 1999 Jan 1;283(5398):36–7.
India creates novel brain research center [news] Bagla P. **Science** 1999 Oct 1;286(5437):25, 27
Animal welfare. New Indian rules disrupt research [news] Bagla P. **Science** 1999 Jul 9;285(5425):180–1
AIDS research. New czar aims to sharpen France's effort [news] Balter M. **Science** 1998 Dec 4;282(5395):1799
Animal experimentation rules in India [letter; comment] Basu SK, et al. **Science** 1998 Oct 16;282(5388):415. Comment on: Science 1998 Sep 18;281(5384):1777–8.
Physician-scientists at risk [letter; comment] [see comments] Cameron OG. **Science** 1999 Mar 5;283(5407):1456. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment in: Science 1999 Apr 2;284(5411):49.
Animal rights [letter; comment] Coalgate B, et al. **Science** 1999 Jan 15;283(5400):327. Comment on: Science 1998 Nov 20;282(5393):1417.
Research shutdown roils Los Angeles VA [news] Cohen J. **Science** 1999 Apr 2;284(5411):18–9,21
Animal rights: reaching the public [editorial] [see comments] Conn PM, et al. **Science** 1998 Nov 20;282(5393):1417. Comment in: Science 1999 Jan 15;283(5400):327. Comment in: Science 1999 Jan 15;283(5400):327–8. Comment in: Science 1999 Jan 15;283(5400):328. Comment in: Science 1999 Jan 15;283(5400):328–9. Comment in: Science 1999 Jan 15;283(5400):329. Comment in: Science 1999 Jan 29;283(5402):639. Comment in: Science 1999 Apr 2;284(5411):49–50.
Limits of scientific growth [letter] Csermely P. **Science** 1999 Jun 4;284(5420):1622–3
Animal rights [letter; comment] Davis LL. **Science** 1999 Jan 15;283(5400):327–8. Comment on: Science 1998 Nov 20;282(5393):1417.
Opponents criticize Iceland's database [news] [see comments] Enserink M. **Science** 1998 Oct 30;282(5390):859. Comment in: Science 1998 Dec 11;282(5396):1993. Comment in: Science 1999 Jan 22;283(5401):487.
Policy forum: health care delivery. Building populations genetics resources using the U.K. NHS. Fears R, et al. **Science** 1999 Apr 9;284(5412):267–8
Preparing graduate students in biology [letter; comment] Gale AJ. **Science** 1998 Oct 30;282(5390):881–2. Comment on: Science 1998 Jul 31;281(5377):645.
Genomics research and human subjects [editorial] [published erratum appears in Science 1998 Dec 4;282(5395):1827] [see comments] Greely HT. **Science** 1998 Oct 23;282(5389):625 . Comment in: Science 1998 Dec 11;282(5396):1993.
Young scientists in biomedical research [letter; comment] [see comments] Hume DA. **Science** 1999 Apr 2;284(5411):49. Comment on: Science 1999 Mar 5;283(5407):1455. Comment on: Science 1999 Mar 5;283(5407):1455–6. Comment on: Science 1999 Mar 5;283(5407):1456. Comment in: Science 1999 May 7;284(5416):915–6.
Assessing the decade of the brain [editorial] Jones EG, et al. **Science** 1999 Apr 30;284(5415):739
Smallpox vaccine [letter] Katz J. **Science** 1999 Sep 24; 285(5436):2067
European researchers grapple with animal rights [news] [see comments] Koenig R. **Science** 1999 Jun 4;284(5420):1604–6 . Comment in: Science 1999 Jul 16;285(5426):337.
Crystal-growing in space [letter; comment] McPherson A, et al. **Science** 1999 Mar 5;283(5407):1459. Comment on: Science 1998 Jul 24;281(5376):497–8.
Genomic nanotech centers open $200 million push by Harvard [news] Malakoff D. **Science** 1999 Jan 29; 283(5402):610–1
Ethicists back stem cell research, White House treads cautiously [news] Marshall E. **Science** 1999 Jul 23; 285(5427):502
Biomedical group lobbies NIH [news] Marshall E. **Science** 1999 Jul 23;285(5427):519
Panel proposes tighter rules for tissue studies [news] Marshall E. **Science** 1998 Dec 18;282(5397):2165–6
Britain urged to expand embryo studies [news] Marshall E. **Science** 1998 Dec 18;282(5397):2167–8
AIDS researchers blast NIH peer review plan [news] Marshall E. **Science** 1999 Sep 24;285(5436):2047
Stem cell research. NIH plans ethics review of proposals [news] Marshall E. **Science** 1999 Apr 16;284(5413):413,415
A threat to biomedical research [editorial] Martin JB. **Science** 1999 Sep 10;285(5434):1671
Who's balancing the federal research portfolio and how? Merrill SA, et al. **Science** 1999 Sep 10;285(5434):1679–80
Publishing controversial research [editorial; comment] Miller FJ, et al. **Science** 1998 Nov 6;282(5391):1045. Comment on: Science 1998 Nov 6;282(5391):1145–7.
Confronting the HIV pandemic [editorial] Nathanson N, et al. **Science** 1999 Jun 4;284(5420):1619
Effects of medical research on health care and economy [see comments] Pardes H, et al. **Science** 1999 Jan 1; 283(5398):36–7. Comment in: Science 1999 Feb 5;283(5403):792–4.
Physician-scientists: staying alive [letter; comment] Perpich JG. **Science** 1999 Apr 23;284(5414):591–2. Comment on: Science 1999 Jan 15;283(5400):331–2.
The physician-scientist template [letter; comment] [see comments] Rockey DC. **Science** 1999 May 7; 284(5416):915–6. Comment on: Science 1999 Apr 2;284(5411):49. Comment in: Science 1999 Jul 30;285(5428):665.
Aging in the third millennium. Schneider EL. **Science** 1999 Feb 5;283(5403):796–7
Complex systems. Exploring the systems of life [news] Service RF. **Science** 1999 Apr 2;284(5411):80–1,83
Smallpox: setting the research agenda [editorial] Shalala DE. **Science** 1999 Aug 13;285(5430):1011
Animal rights [letter; comment] Shannon TA. **Science** 1999 Jan 15;283(5400):329. Comment on: Science 1998 Nov 20;282(5393):1417.
Asking the right questions [letter; comment] Smith MA, et al. **Science** 1999 Jul 30;285(5428):665. Comment on: Science 1999 May 7;284(5416):915–6.
Physician-scientists at risk [letter; comment] [see comments] Sobieraj J. **Science** 1999 Mar 5;283(5407):1455. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment in: Science 1999 Apr 2;284(5411):49.
Tired old clichés? [letter] Soule HR. **Science** 1999 Apr 9; 284(5412):261
Animal rights [letter; comment] Staddon JE. **Science** 1999 Jan 15;283(5400):327. Comment on: Science 1998 Nov 20;282(5393):1417.
Disappearing physician-scientists [letter; comment] [see comments] Varki A. **Science** 1999 Feb 5;283(5403):791–2. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment in: Science 1999 Mar 5;283(5407):1455.
Fishing expeditions [letter; comment] Weinstein JN. **Science** 1998 Oct 23;282(5389):628–9. Comment on: Science 1997 Oct 24;278(5338):601–2.
Evidence-based paradigms and opinions in clinical management and cancer research. Browman GP. **Semin Oncol** 1999 Jun;26(3 Suppl 8):9–13
The academic global virtual concept in clinical cancer research and its application to breast cancer: The Breast Cancer International Research Group. Nabholtz JM, et al. **Semin Oncol** 1999 Jun;26(3 Suppl 8):4–8
Describing the "white" ethnic group and its composition in medical research. Aspinall PJ. **Soc Sci Med** 1998 Dec; 47(11):1797–808
Australia's role in training and research in tropical medicine. Leggat PA. **Southeast Asian J Trop Med Public Health** 1998 Jun;29(2):311–5 (22 ref.)
National Institutes of Health (USA): role in tropical medicine research. Western KA. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):316–8 (0 ref.)
A report from the Second International Forum for Primary Care Research on Low Back Pain. Reexamining priorities. Borkan JM, et al. **Spine** 1998 Sep 15;23(18):1992–6 (8 ref.)
Primary care research on low back pain. The state of the science. Cherkin DC. **Spine** 1998 Sep 15;23(18):1997–2002
Experiences of a biostatistician on a U.K. Research Ethics

Committee. Vail A. **Stat Med** 1998 Dec 30;17(24):2811–4
An opportunity for exploitation of research in biomedical engineering: the EC Life Sciences Demonstration Projects. Le Dour O, et al. **Technol Health Care** 1998 Nov; 6(4):237–43
The role of science in medicine. Nordin I. **Theor Med Bioeth** 1999 Jun;20(3):229–44 (18 ref.)
Ions in the fire: recent ion-channel research and approaches to pain therapy. Eglen RM, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):337–42 (45 ref.)
Research resources for aquaculture drug development and approval. Kahn LG. **Vet Hum Toxicol** 1998;40 Suppl 2:41–3
Veterinarians and research [letter; comment] Battison J, et al. **Vet Rec** 1998 Nov 7;143(19):540. Comment on: Vet Rec 1998 Oct 17;143(16):455–6.
Informing Maternal and Child Health (MCH) policy through research. Ashley D, et al. **West Indian Med J** 1998 Dec; 47 Suppl 4:16–9
Research interests of physicians in two practice-based primary care research networks. Croughan-Minihane MS, et al. **West J Med** 1999 Jan;170(1):19–24
Injury control research and wilderness medicine: a babe dangling in the woods [editorial; comment] Hargarten S. **Wilderness Environ Med** 1999 Spring;10(1):2. Comment on: Wilderness Environ Med 1999 Spring;10(1):3–5.
[Highlights of research and patient treatment 1998. From the scientific societies] **Ugeskr Laeger** 1999 Mar 15; 161(11):1603–15 **(Dan)**
[Research supervisors] Aakerlund LP. **Ugeskr Laeger** 1999 Jul 26;161(30):4297–8 **(Dan)**
[Tuberculosis research. How far have we advanced and where does it lead?] Andersen AB, et al. **Ugeskr Laeger** 1999 Jun 7;161(23):3435–9 **(Dan)**
[Good scientific practice] Andersen D. **Ugeskr Laeger** 1999 Feb 1;161(5):610–8 **(Dan)**
[Focusing on the molecular biology of aging] Bohr VA. **Ugeskr Laeger** 1999 Jun 21;161(25):3819–22 **(Dan)**
[Why research?] Christensen VB. **Ugeskr Laeger** 1999 May 17;161(20):2933–4 **(Dan)**
[A questionnaire study among 171 medical candidates enrolled in a PhD program. Three elements in the PhD education: supervision, research courses and international relations] Hauge EM, et al. **Ugeskr Laeger** 1998 Nov 2; 160(45):6520–5 (Eng. Abstr.) **(Dan)**
[Prevention and research on prevention seen from a perspective of health policy] Iversen L. **Ugeskr Laeger** 1998 Nov 16;160(47):6795–9 (11 ref.) **(Dan)**
[From an idea to a project] Jørgensen CK. **Ugeskr Laeger** 1999 Jun 21;161(25):3817–9 **(Dan)**
[From science to clinical practice. Risk assessment in relation to treatment and prevention] Lauritzen T, et al. **Ugeskr Laeger** 1999 Jun 14;161(24):3633–8 **(Dan)**
[An open letter to the Scientific Research Committee] Nerup J. **Ugeskr Laeger** 1999 Mar 1;161(9):1279; discussion 1279–80 **(Dan)**
[Psychiatric research (editorial)] Nordentoft M. **Ugeskr Laeger** 1999 Mar 8;161(10):1383 **(Dan)**
[International research: a comment (letter; comment)] Ottesen BS, et al. **Ugeskr Laeger** 1999 Mar 8;161(10):1431. Comment on: Ugeskr Laeger 1999 Jan 18;161(3):271. **(Dan)**
[Dias and overheads used in presentations] Praestegaard A. **Ugeskr Laeger** 1998 Nov 16;160(47):6829–32 **(Dan)**
[Publications] Skjaerbaek CB. **Ugeskr Laeger** 1999 Aug 16; 161(33):4644–6 (0 ref.) **(Dan)**
[How to optimize the research at universities?] Skou JC. **Ugeskr Laeger** 1999 Apr 5;161(14):2059–62 (Eng. Abstr.) **(Dan)**
[Animal experiments in medical research] Thorn NA, et al. **Ugeskr Laeger** 1999 Jul 26;161(30):4306–7 **(Dan)**
[Survey of 50 years of veterinary remedy provision in the Netherlands] van den Bos T. **Tijdschr Diergeneeskd** 1998 Dec 15;123(24):743–8 (31 ref.) (Eng. Abstr.) **(Dut)**
[Culture and scientific research. A binomial to preserve] Carosella ED. **C R Acad Sci III** 1999 Apr;322(4):269–70 **(Fre)**
[Cystic fibrosis: a complex disease and a paradigm for biomedical research] Tirouvanziam R. **J Soc Biol** 1999; 193(2):189–209 (180 ref.) (Eng. Abstr.) **(Fre)**
[Research using the human embryo. A timely question] Manuel C, et al. **Presse Med** 1999 Jul 3–10;28(24):1303–8 (Eng. Abstr.) **(Fre)**
[Ubu, adoptive father of orphan diseases (editorial)] Piette JC, et al. **Presse Med** 1999 Mar 27;28(12):635–6 **(Fre)**
[Acting on clinical trials. Experience of organizations for the fight against AIDS] Barbot J. **Rev Epidemiol Sante Publique** 1998 Sep;46(4):305–15 (37 ref.) (Eng. Abstr.) **(Fre)**
[Paradigms and pragmatism] Healy MJ. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):185–9 (16 ref.) **(Fre)**
[Clinical research centers: a great opportunity for internal medicine (editorial)] Azizi M, et al. **Rev Med Interne** 1998 Oct;19(10):697–9 **(Fre)**
[Migration and pain. Need for epidemiologic research] Moser J. **Rev Med Suisse Romande** 1999 Apr;119(4):265–7 (11 ref.) **(Fre)**
[Clinical research, evaluation of care and quality assurance] Girard F, et al. **Therapie** 1998 Nov-Dec;53(6):559–63 (Eng. Abstr.) **(Fre)**
[Medical treatment and research on humans: ethical fundamentals of physicians' concerns] Nagel E. **Chirurg** 1999 Apr;70(4):suppl 90–4 **(Ger)**
[Clinical research (3). Therapeutic studies] Labs R, et al. **Dtsch Med Wochenschr** 1999 May 21;124(20):A21–3 **(Ger)**
[Clinical research on human subjects. (2) Preclinical] Labs R, et al. **Dtsch Med Wochenschr** 1999 May 7;124(18):A15–7 **(Ger)**
[Recognizing, correctly reading and understanding scientific accounts: the art of selecting and interpreting medical publications] Stinner B, et al. **Dtsch Med Wochenschr** 1999 Jun 18;124(24):773–9 **(Ger)**
[Data search made easy. MEDLINE-Research: paying attention to currency of data. Series: Physician & Computer Literature Research, 3.] Reiss M, et al. **Fortschr Med** 1999 Apr 10;117(10):43–5 **(Ger)**
[Outstanding hypertension research] Rettig R. **Fortschr Med** 1999 Mar 20;117(8):45 **(Ger)**
[Clinical research--an indispensible link to basic science] Röher HD. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:921–5 **(Ger)**
[Remarks on the contribution of D. Sigmund. Cycloid psychosis and empirical-statistical research. Nervenarzt (1998) 69:228–37 (letter; comment)] Pfuhlmann B, et al. **Nervenarzt** 1999 Mar;70(3):288–9. Comment on: Nervenarzt 1998 Mar;69(3):228–37. **(Ger)**
[Trauma surgery 2020. Development in the past, definition of future topics and programs. II. Research in trauma surgery 1998] Gebhard F, et al. **Unfallchirurg** 1999 Jun; 102(6):505–11 (Eng. Abstr.) **(Ger)**
[Position of the Scientific Medical Council on the antitumor studies conducted in Hungary on the Newcastle disease virus] **Orv Hetil** 1998 Nov 29;139(48):2903–5 **(Hun)**
[Relationship between research and health policy: a Canadian perspective. A research program of the National Health Service] Berrino F. **Epidemiol Prev** 1998 Apr-Jun; 22(2):67–9 **(Ita)**
[Autopsy: overlap of teaching and medical research (editorial)] Giarelli L, et al. **Pathologica** 1998 Aug; 90(4):343–50 (14 ref.) **(Ita)**
[From preclinical research to clinical application--my personal research experiences] Yazaki Y. **Nippon Naika Gakkai Zasshi** 1999 Feb 20;88 Suppl:45–9 **(Jpn)**
[Cancer research in Scandinavia, a "falling star"? (editorial)] Kvinnsland S. **Nord Med** 1998 Oct;113(8):254 **(Nor)**
[Among murderers and Nobel Prize winners in Chicago] Christiansen E. **Tidsskr Nor Laegeforen** 1999 Mar 20; 119(8):1164 **(Nor)**
[Research publication, the faculties, the Tidsskrift] Jensen P, et al. **Tidsskr Nor Laegeforen** 1999 Feb 10;119(4):489 **(Nor)**
[Medical research on patients' experiences--structured questionnaires result in worthless answers] Kirkengen AL. **Tidsskr Nor Laegeforen** 1998 Sep 20;118(22):3449–52 (20 ref.) (Eng. Abstr.) **(Nor)**
[Children, health and research] Lie SO. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2800 **(Nor)**
[E-biomed--future dissemination of research?] Nylenna M. **Tidsskr Nor Laegeforen** 1999 Jun 20;119(16):2313 **(Nor)**
[Recruitment of students for medical research] Røttingen JA, et al. **Tidsskr Nor Laegeforen** 1998 Oct 30;118(26):4111–4 **(Nor)**
[Medical research at Norwegian universities. Recruitment crisis when it comes to basic fields (letter; comment)] Røttingen JA, et al. **Tidsskr Nor Laegeforen** 1998 Oct 30; 118(26):4123. Comment on: Tidsskr Nor Laegeforen 1998 Jun 10;118(15):2339–43. **(Nor)**
[Research combined with clinical practice--think if it were like that! (letter)] Ruud Hansen TW. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1509 **(Nor)**
[Children as medical research subjects] Ruyter KW, et al. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2833–7 (20 ref.) (Eng. Abstr.) **(Nor)**
[Use of the quality of life concept in medical research--useful or useless?] Wyller TB. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4247–51 (41 ref.) **(Nor)**
[The Sociedade Portuguesa de Cardiologia and medical research (editorial)] Correia JF. **Rev Port Cardiol** 1999 Jul-Aug;18(7–8):775–6 **(Por)**
[Main areas and results of research at the Institute of Biomedical Problems in 1963–1998 (editorial)] Gazenko OG, et al. **Aviakosm Ekolog Med** 1998;32(5):4–17 (Eng. Abstr.) **(Rus)**
[Ethic aspects of conducting physiological-hygienic and psychological studies on human subjects as applied to the activities in extreme environments] Genin AM, et al. **Aviakosm Ekolog Med** 1998;32(6):50–5 (4 ref.) (Eng. Abstr.) **(Rus)**
[Stable oxygen and carbon isotopes in biological studies] Nazarov NM. **Aviakosm Ekolog Med** 1999;33(1):3–10 (62 ref.) (Eng. Abstr.) **(Rus)**
[Modern approaches to the evaluation of medication effectiveness] Stakhovskaia LV. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(5):47–9 **(Rus)**
[Ethics of research and publication] Alcalá-Zamora J, et al. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:22–6 **(Spa)**
[Structure of a research article] Alvarez-Sala Walther JL. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:38–42 **(Spa)**
[A general outline of research. The scientific method. Identification of the problem and creation of hypotheses] Ancochea Bermúdez J. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:2–4 **(Spa)**
[Types of clinical research: the most important errors of design and interpretation] Gómez de la Cámara A. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:9–13 **(Spa)**
[Oral presentation of scientific research] Rodríguez de Castro F. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:43–6 **(Spa)**
[Discrimination in science (editorial)] Negrette A. **Invest Clin** 1999 Mar;40(1):3–7 **(Spa)**
[Biomedical research in Spain (II). Assessment of the Health Research Fund (FIS) through the research projects funded in 1988–1995 for research centers, colleges, and schools (see comments)] Espinosa de los Monteros J, et al. **Med Clin (Barc)** 1999 Feb 20;112(6):225–35. Comment in: Med Clin (Barc) 1999 Feb 20;112(6):218–9. **(Spa)**
[Biomedical research in Spain (I). An evaluation of the Fondo de Investigacion Sanitaria (FIS) through research projects financed in the 1988–1995 period in health-care institutions (hospitals)] Espinosa de los Monteros J, et al. **Med Clin (Barc)** 1999 Feb 13;112(5):182–97 **(Spa)**
[If I were president of the CONICET (editorial)] Adler E. **Medicina (B Aires)** 1999;59(1):105–6 **(Spa)**
[Interrelation between the journal Medicina (Buenos Aires) and the Argentine Societies of Clinical Investigation and Immunology] Pasqualini CD, et al. **Medicina (B Aires)** 1998;58(5 Pt 2):563–9 **(Spa)**
[Methodological aspects of clinical research (letter)] Sánchez Fernández J, et al. **Nutr Hosp** 1999 Jul-Aug;14(4):175–6 **(Spa)**
[Basic components in the development of research proposals in health sciences] Suárez Pérez EL, et al. **P R Health Sci J** 1999 Jun;18 Suppl A:i–iv, 1–49 (Eng. Abstr.) **(Spa)**
[The role of the biostatistician in biomedical research] Bangdiwala SI. **Rev Med Chil** 1999 Feb;127(2):223–8 (Eng. Abstr.) **(Spa)**
[Cardiovascular disease research (editorial)] Martínez Caro D. **Rev Med Univ Navarra** 1998 Oct-Dec;42(4):179–82 **(Spa)**
[Uniting basic and applied research (editorial)] Mato JM. **Rev Med Univ Navarra** 1999 Jan-Mar;43(1):7–9 **(Spa)**
[Gene therapy and hepatology: a priority research area at the University of Navarre (editorial)] Prieto J. **Rev Med Univ Navarra** 1998 Jan-Mar;42(1):3–6 **(Spa)**
[Teaching and research: increased fitness and competition. Reflections on a meeting (letter)] Giménez-Amaya JM. **Rev Neurol** 1999 Jan 16–31;28(2):216–7 **(Spa)**
[The borderline of medical research should be ethically scrutinized] Bake B, et al. **Lakartidningen** 1999 Apr 21; 96(16):2000–2 **(Swe)**
[What is the truth about sex distribution? (letter)] Berntsson C. **Lakartidningen** 1999 Mar 17;96(11):1292 **(Swe)**
["Respectability by association". Doubtful role of the tobacco committee] Boéthius G, et al. **Lakartidningen** 1999 Jun 30; 96(26–27):3149–50 **(Swe)**
[Are new medical techniques implemented too soon or too slowly? More then knowledge is required to change the practice] Carlsson P. **Lakartidningen** 1999 Jun 30; 96(26–27):3142–3 **(Swe)**
[Medicine's scientific ideals--a setback for reduction. Different explanatory models valid at different levels] Elzinga A. **Lakartidningen** 1999 Sep 1;96(35):3654–6 (Eng. Abstr.) **(Swe)**
[Second-generation registry a new resource in cancer research] Hemminki K, et al. **Lakartidningen** 1999 Sep 1; 96(35):3674, 3677–8 **(Swe)**
[Using qualitative methods in medical research can be misleading] Johansson E. **Lakartidningen** 1999 Apr 7; 96(14):1765–6 **(Swe)**
[A pseudo-debate that diverts the focus from important research (letter)] Jonasson U. **Lakartidningen** 1999 Jun 2; 96(22):2710 **(Swe)**
[Public health research is a medical issue! (letter)] Kelly KB. **Lakartidningen** 1999 Mar 17;96(11):1288–9 **(Swe)**
[A new series: scientific theory--an important research tool if correctly used] Krakau I, et al. **Lakartidningen** 1999 Sep 1;96(35):3628–9 **(Swe)**
[A harvest time for genomic research] Landegren U. **Lakartidningen** 1999 Aug 11;96(32–33):3426–8 (Eng. Abstr.) **(Swe)**
[30 years of successful mycobacteriology research. The AHRI in Addis Abeba--a unique research environment in a developing country] Miörner H, et al. **Lakartidningen** 1999 Feb 10;96(6):585–7 (Eng. Abstr.) **(Swe)**
[Health care within the research program of the EU for 1999–2002: age-related diseases and public health are prioritized] Olsson S. **Lakartidningen** 1999 Apr 28; 96(17):2108–10 **(Swe)**
[Animal models give quick answers. Problems appear if the scientific results are too early applied to humans] Orn P. **Lakartidningen** 1999 Jan 6;96(1–2):6–7 **(Swe)**
[Ethological and phenomenological perspectives are necessary in research of depression (letter)] Rutz W, et al. **Lakartidningen** 1999 Jun 30;96(26–27):3154 **(Swe)**
[Palliative medicine. A new research field with specific demands] Strang P. **Lakartidningen** 1999 Jan 6;96(1–2):26–9 (15 ref.) (Eng. Abstr.) **(Swe)**
[Support to research education in Nicaragua: no quick results--patience and long-range are the key words] Thörn A, et al. **Lakartidningen** 1999 Aug 25;96(34):3544–6 **(Swe)**

ECONOMICS

The changing landscape for clinical research [published erratum appears in Acad Med 1999 Sep;74(9):950] Heinig SJ, et al. **Acad Med** 1999 Jun;74(6):726–45 (42 ref.)

The need to invest in health services research [editorial; comment] Iverson D. **Cancer Prev Control** 1998 Aug; 2(4):162. Comment on: Cancer Prev Control 1998 Aug;2(4):173–8.

Proposed NIH budget increase too small to meet research needs [news] SoRelle R. **Circulation** 1999 May 25; 99(20):2604–5

Three new diseases listed for Japanese research on their treatment [news] **Front Med Biol Eng** 1999;9(1):93

Gay male, lesbian and bisexual health–related research funded by the National Institutes of Health between 1974 and 1992. Silvestre AJ. **J Homosex** 1999;37(1):81–94

The Euro: single currency brings little change to cancer research [news] Steimle S. **J Natl Cancer Inst** 1999 Jul 7;91(13):1105–6

An HIV vaccine: how long must we wait? [editorial] [see comments] **Lancet** 1998 Oct 24;352(9137):1323. Comment in: Lancet 1999 Jan 16;353(9148):241.

Health insurance–funded research. Friedman JH. **Med Health R I** 1998 Dec;81(12):385

Public advocacy and allocation of federal funds for biomedical research. Dresser R. **Milbank Q** 1999; 77(2):257–74, 175

The biotechnology industry's Y2K problem. Drake PF. **Nat Biotechnol** 1999 Feb;17 Suppl:BE38–9

Building a competitive functional genomics platform. Dyer MR, et al. **Nat Biotechnol** 1999 Feb;17 Suppl:BE18–9

A new model for bioentrepreneurship? Edgington SM. **Nat Biotechnol** 1999 Feb;17 Suppl:BE1

Biotechnology's future and the art of managing R&D. Mehta V. **Nat Biotechnol** 1999 Feb;17 Suppl:BE29–30

International biotechnology collaborations: points to consider. Stoiber W. **Nat Biotechnol** 1999 Feb;17 Suppl:BE22–3

Building a better biotech company. Turner L. **Nat Biotechnol** 1999 Feb;17 Suppl:BE5–6

Is research suffering at academic health centers? [news] Ault A. **Nat Med** 1999 May;5(5):472

Italy promises to increase focus on rare diseases [news] Ballmaier M. **Nat Med** 1999 May;5(5):472–3

Report calculates value for money of US vaccine R&D [news] Birmingham K. **Nat Med** 1999 May;5(5):469

British government backs biomedical research strengths [news] Birmingham K. **Nat Med** 1998 Dec;4(12):1345

Can research survive at MCPHU—the new Allegheny? [news] Birmingham K. **Nat Med** 1999 Feb;5(2):130–1

Grants will determine European malaria vaccine future [news] Birmingham K, et al. **Nat Med** 1999 Sep;5(9):969

The Wellcome Trust: leadership and partnership in biomedical research. Dexter M. **Nat Med** 1999 Aug; 5(8):861–4

Research trio to develop new vaccines [news] Dickson D. **Nat Med** 1998 Dec;4(12):1349

MRC to open new CJD research unit... [news] Dove A. **Nat Med** 1998 Dec;4(12):1347

The Medical Research Council of Canada: integrating research to Canada's health care system. Friesen HG. **Nat Med** 1998 Dec;4(12):1353–5

The South African Medical Research Council: Africanizing health research. Makgoba MW. **Nat Med** 1999 Apr; 5(4):367–70

Australian budget pleases most researchers [news] Rouse R. **Nat Med** 1999 Jun;5(6):598

German coalition overlooks biomedical science [news] Simm M. **Nat Med** 1998 Dec;4(12):1348–9

Japan reorganizes national biomedical research groups [news] Triendl R. **Nat Med** 1999 Apr;5(4):365

Putting a price on research reading [news] Butler D. **Nature** 1999 Sep 23;401(6751):311–2

Berkeley teams up with Novartis in $50m plant genomics deal [news] Macilwain C. **Nature** 1998 Nov 5;396(6706):5

Rising costs hold up drug discovery [letter; comment] [see comments] Miller HI. **Nature** 1998 Oct 29;395(6705):835. Comment on: Nature 1998 Sep 10;395(6698):104. Comment in: Nature 1999 Jan 21;397(6716):202.

Plight of US postdocs...in the US [letter; comment] Moore J. **Nature** 1998 Oct 1;395(6701):431. Comment on: Nature 1998 Sep 10;395(6698):101.

Community divides over push for bigger budget [news] [see comments] Malakoff D. **Science** 1999 May 28; 284(5419):1452–3. Comment in: Science 1999 Jul 16;285(5426):338–9.

Investment in research [editorial] Thompson JC. **Surg Today** 1998;28(10):995–6

Regulating the use of animals in research [news] **Vet Rec** 1999 Jan 9;144(2):30

[Innovation and creativity. High salaries going to German researchers (interview)] Schäfer M. **Anaesthesist** 1999 Aug; 48(8):558–9 **(Ger)**

[Conference on pharmacoeconomics and quality of life in dermatology—outcomes research in the clinic and in research. March 20–21,1998 in Freiburg, Bavaria] Klyscz T. **Hautarzt** 1999 Jun;50(6):446–7 **(Ger)**

[Designing and presenting a research project to a financing agency] Agustí García-Navarro A. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:31–3 **(Spa)**

EDUCATION

Emergency medicine resident research requirements and director characteristics. Blanda M, et al. **Acad Emerg Med** 1999 Apr;6(4):286–91

A national profile of resident research programs in emergency medicine. Levitt MA, et al. **Acad Emerg Med** 1999 Apr;6(4):348–51

Assessing research methodology training needs in emergency medicine. Supino PG, et al. **Acad Emerg Med** 1999 Apr; 6(4):280–5

A national profile of resident research experience. Terregino CA, et al. **Acad Emerg Med** 1999 Apr;6(4):351–6

Creating effective research compliance programs in academic institutions. Grant G, et al. **Acad Med** 1999 Sep; 74(9):951–71

New teaching tool for biostatistics [letter] Landry VL. **Acad Med** 1999 Feb;74(2):90

The importance of expanding current training in the responsible conduct of research. Mastroianni AC, et al. **Acad Med** 1998 Dec;73(12):1249–54

Research in radiology residency programs: a survey [see comments] McGuire CW, et al. **Acad Radiol** 1998 Oct; 5(10):698–700. Comment in: Acad Radiol 1998 Oct;5(10):663–4.

A method of teaching clinical research in a community hospital residency program. Chung R, et al. **Am J Surg** 1999 Jan;177(1):83–5

Radiology residents' research in Canada: status of infrastructure. Karlik SJ, et al. **Can Assoc Radiol J** 1998 Oct;49(5):314–9

The clinician investigator: An endangered species. Roy CC, et al. **Can J Gastroenterol** 1999 May;13(4):339–43 (18 ref.)

Research fellowships: a road less traveled [editorial] Rodnick JE. **Fam Med** 1999 Jun;31(6):438–9

The involvement of genome researchers in high school science education. Munn M, et al. **Genome Res** 1999 Jul; 9(7):597–607 (23 ref.)

The role of research in medical education. Yamamoto LG. **Hawaii Med J** 1999 Jan;58(1):25–6

Research skills acquisition by interns: a case study. Bansal RK. **Indian J Med Sci** 1998 Jan;52(1):8–15

International Training and Research in Central and Eastern Europe: The University of Iowa model. Cook TM, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):234–6

Collaborative research and research training through the "Family and Children of Ukraine" research program. Hryhorczuk DO, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):213–8

Innovation in international training in occupational and environmental health: challenging unspoken assumptions. Markowitz S, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):237–40

Is short-term training useful in international environmental and occupational health projects? Experience from the Balkans and Latin America. Petropoulos EA, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):223–33

Bahia–Carolina Program in Environmental and Occupational Health: A North–South partnership for workplace and environmental justice. Santana VS, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):218–22

Academic teaching and research: dermatology in Germany. Orfanos CE. **J Dermatol** 1998 Dec;25(12):831–5

Improving searching skills and evidence retrieval. Rosenberg WM, et al. **J R Coll Physicians Lond** 1998 Nov–Dec; 32(6):557–63

Reinventing the physician–scientist in the new era of health care [editorial] Huang AJ. **JAMA** 1999 Jan 6;281(1):94

The Department of Molecular Medicine at the University of Istanbul, Institute of Experimental Medical Research. Isbir T. **Mol Med** 1999 Feb;5(2):69–70

Industry calls for reform of UK research training [news] Dickson D. **Nat Med** 1998 Nov;4(11):1214

Development of a national course on research methodology for Canadian residents in obstetrics and gynecology. Reid RL, et al. **Obstet Gynecol** 1999 Feb;93(2):308–11

Veterinarians and research [letter] [see comments] Nicol M. **Vet Rec** 1998 Oct 17;143(16):455–6. Comment in: Vet Rec 1998 Nov 7;143(19):540.

[Our university clinics need research—so does our specialty! (editorial)] Haller U, et al. **Gynakol Geburtshilfliche Rundsch** 1998;38(3):117–8 (Eng. Abstr.) **(Ger)**

[Research in education programs] de Carvalho A, et al. **Acta Med Port** 1998 Jun;11(6):515–9 (Eng. Abstr.) **(Por)**

[Training of high-skilled researchers at the Saint–Petersburg Research Institute of Phtisiopulmonology in 1994–1998] Vinogradova TI. **Probl Tuberk** 1999;(3):50–2 (0 ref.) (Eng. Abstr.) **(Rus)**

[Medical education and research] Ricoy JR, et al. **Med Clin (Barc)** 1999 Feb 27;112(7):259–63 (42 ref.) **(Spa)**

HISTORY

The Scandinavian Sarcoma Group. Background, organization and the Central Register—the first 20 years. Alvegård TA, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:3–7

"The Queen has been dreadfully shocked": aspects of teaching experimental physiology using animals in Britain, 1876–1986. Tansey EM. **Am J Physiol** 1998 Jun;274(6 Pt 2):S18–33 (26 ref.)

The state of research into the mechanisms of appetites for energy (first published in French in 1956) [classical article] Le Magnen J, et al. **Appetite** 1999 Aug;33(1):2–7

An historical perspective on atherosclerosis research in Germany [editorial] Siegel G. **Atherosclerosis** 1999 May; 144(1):1–6 (45 ref.)

Recreating an environment for clinical discovery. Gutterman JU. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2594–7

Burnet Oration: living in the Burnet lineage. Doherty PC. **Immunol Cell Biol** 1999 Apr;77(2):167–76

The 100th monkey phenomenon and medical research [editorial] Kushner BJ. **J Aapos** 1999 Apr;3(2):65–6

The evolving relationship between the physician and the scientist in the 20th century. Bromley E. **JAMA** 1999 Jan 6;281(1):95, 99

Platypus research 1798–1998. Griffiths M. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29; 353(1372):1059–61 (19 ref.)

Defending the priority of 'remarkable researches': the discovery of fibrin ferment. Marcum JA. **Pubbl Stn Zool Napoli II** 1998;20(1):51–76

Credit for discoveries: citation data as a basis for history of science analysis. Lindahl BI, et al. **Theor Med Bioeth** 1998 Dec;19(6):609–20

A history of research on yeasts. 1: Work by chemists and biologists 1789–1850. Barnett JA. **Yeast** 1998 Dec; 14(16):1439–51

[50 years of clinical trials; a new direction in medicine] Van Gijn J. **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):1–3 (Eng. Abstr.) **(Dut)**

[The German Orthopedic History and Research Museum] Rauschmann MA, et al. **Z Orthop Ihre Grenzgeb** 1998 May–Jun;136(3):Oa8–11 **(Ger)**

[History of monozygotic twin research] Blickstein I. **Harefuah** 1998 Aug;135(3–4):140–1 **(Heb)**

[The common denominator of biomedical research and art at the beginning of 1900 (letter)] Ronchetto F. **Recenti Prog Med** 1998 Oct;89(10):534–5 **(Ita)**

[Celebrating the 70th birth anniversary of Evgenii Ivanovich Chazov: some facts from life] Loginov AS. **Ter Arkh** 1999; 71(6):8–10 **(Rus)**

[The Institute of Rheumatology is 40 years old: results and prospects] Nasonova VA, et al. **Vestn Ross Akad Med Nauk** 1998;(12):3–6 **(Rus)**

INSTRUMENTATION

Customs delays drive researchers to smuggling [news] Macilwain C. **Nature** 1999 Apr 1;398(6726 Suppl):A10

LEGISLATION & JURISPRUDENCE

Waived consent for emergency research. Fost N. **Am J Law Med** 1998;24(2–3):163–83 (144 ref.)

Research with children. Glantz LH. **Am J Law Med** 1998; 24(2–3):213–44 (332 ref.)

Foreword: law, medicine and socially responsible research. Holmes-Farley SR, et al. **Am J Law Med** 1998; 24(2–3):153–62

Do the dead have interests? Policy issues for research after life. Nelkin D, et al. **Am J Law Med** 1998;24(2–3):261–91 (288 ref.)

Turning pages, if not heads. Silberner J. **Hastings Cent Rep** 1999 Mar–Apr;29(2):6

FIGO statements and world experience. Schenker JG. **Hum Reprod** 1998 Aug;13(8):2047–9

The impact of requiring patient authorization for use of data in medical records research. Yawn BP, et al. **J Fam Pract** 1998 Nov;47(5):361–5

The new NIH and FDA medical research policies: targeting gender, promoting justice. Baird KL. **J Health Polit Policy Law** 1999 Jun;24(3):531–65 (35 ref.)

I think they're doing research on my patients, but I can't get anyone to listen. Jackson BS, et al. **J Nurs Adm** 1998 Oct;28(10):9–12

Probing informed consent in schizophrenia research [news] Stephenson J. **JAMA** 1999 Jun 23–30;281(24):2273–4

State funding and data disclosure [editorial] **Lancet** 1999 Mar 27;353(9158):1027

Planning and measuring basic research [news] Greenberg DS. **Lancet** 1999 Feb 27;353(9154):733

Finding a balance between the private and the public good [letter; comment] Blackledge DG. **Med J Aust** 1999 Jul 5;171(1):51–2. Comment on: Med J Aust 1999 Jan 4;170(1):9–10. Comment on: Med J Aust 1999 Jan 4;170(1):26–8.

We need a better system for multicentre research [letter; comment] Bruinsma FJ, et al. **Med J Aust** 1999 Jul 5; 171(1):52. Comment on: Med J Aust 1999 Jan 4;170(1):26–8.

New national guidelines for ethics committees are on the way [letter; comment] Chalmers D. **Med J Aust** 1999 Jul 5;171(1):53. Comment on: Med J Aust 1999 Jan 4;170(1):26–8.

Pilot program to reform the ethics committee system in NSW [letter; comment] Kelly FA, et al. **Med J Aust** 1999 Jul 5;171(1):52. Comment on: Med J Aust 1998 Feb 16;168(4):174–6. Comment on: Med J Aust 1999 Jan 4;170(1):26–8.

The protection of the person in medical research in Germany. Deutsch E. **Med Law** 1999;18(1):77–92

Medical research and informational privacy. Ploem MC. **Med Law** 1998;17(2):287–97

Method and ethics in advancing jury research. Robertshaw

P. **Med Sci Law** 1998 Oct;38(4):328–34
Regulating the genetic revolution. Caulfield T, et al. **Mol Med Today** 1999 May;5(5):198–200
Public access to data may be closer than you think. Eisenstein RI, et al. **Nat Biotechnol** 1999 Jun;17(6):604–5
Stem cell hearing stirs bioethics debate [news] Fox JL. **Nat Biotechnol** 1999 Jan;17(1):11
The state of grace [news] Nasto B. **Nat Biotechnol** 1999 Jan; 17(1):18
Italy moves towards a 'scientific parliament' [news] Ballmaier M. **Nat Med** 1998 Jul;4(7):751
Stem cell debate heats up as guidelines are prepared [news] Birmingham K, et al. **Nat Med** 1999 Apr;5(4):366
Scientists react to government indecision [news] Brown P. **Nat Med** 1999 Aug;5(8):855–6
British MRC reprimanded over clinical test record [news] Dickson D. **Nat Med** 1998 Jul;4(7):752
Advocates push for new NIH office [news] Novak K. **Nat Med** 1999 Sep;5(9):972
Ill-advised 'freedom' of scientific information [editorial] **Nature** 1999 Feb 11;397(6719):455
Xenotransplant caution continues [editorial] **Nature** 1999 Apr 15;398(6728):543
Towards the acceptance of embryo stem-cell therapies [editorial] **Nature** 1999 Jan 28;397(6717):279
Time to lift embryo research ban [editorial] **Nature** 1998 Nov 12;396(6707):97
'Don't try to change embryo research law' [news] Abbott A. **Nature** 1999 Mar 25;398(6725):275
Whose law for sharing research tools? [letter; comment] Balling R. **Nature** 1998 Dec 10;396(6711):509. Comment on: Nature 1998 Nov 12;396(6707):97.
Pressure grows for relaxation of French embryo research laws [news] Butler D. **Nature** 1998 Oct 8;395(6702):532–3
Tougher EU copyright rules come under fire [news] Butler D. **Nature** 1999 Feb 4;397(6718):379
...While Europe contemplates funding ban [news] Butler D. **Nature** 1998 Nov 12;396(6707):105
Breakthrough stirs US embryo debate... [news] Butler D. **Nature** 1998 Nov 12;396(6707):104
Personal computers spur drive to keep control over copyright [news] [see comments] Dalton R. **Nature** 1998 Nov 26; 396(6709):293. Comment in: Nature 1999 Jan 21;397(6716):201–2.
Researcher fights suspension over funds [news] Dalton R. **Nature** 1999 Jun 24;399(6738):723
Sensible precautions make good science...[letter] Howard CV, et al. **Nature** 1999 Sep 16;401(6750):207
Scientists fight for right to withhold data [news] Macilwain C. **Nature** 1999 Feb 11;397(6719):459
US researchers losing battle to hide their data from prying eyes [news] Macilwain C. **Nature** 1999 Jul 22;400(6742):297
Animals at the Salk [letter; comment] Pollard TD. **Nature** 1998 Oct 1;395(6701):431. Comment on: Nature 1998 Aug 20;394(6695):709.
Private deal puts Japanese researcher in hot water [news] Saegusa A. **Nature** 1998 Nov 19;396(6708):205
Canadian research councils publish joint code on ethics [news] Spurgeon D. **Nature** 1998 Oct 1;395(6701):420
White House cool on obtaining human embryonic stem cells [news] Wadman M. **Nature** 1999 Jul 22;400(6742):301
Congressman aims to punish cloning research [news] Wadman M. **Nature** 1999 Feb 18;397(6720):550
Protesters seek US ban on embryo stem-cell work...as Wisconsin researcher awaits go-ahead [news] Wadman M. **Nature** 1999 Jul 8;400(6740):96
Call for a lighter regulatory burden on NIH researchers [news] Wadman M. **Nature** 1999 Mar 18;398(6724):180
US Nobel winners back stem-cell research [news] Wadman M. **Nature** 1999 Mar 11;398(6723):94
Congress may block stem-cell research [news] Wadman M. **Nature** 1999 Feb 25;397(6721):639
Legal bid could extend US animal welfare law to cover lab rodents [news] Wadman M. **Nature** 1999 Jul 15; 400(6741):197–8
Stem cell research [editorial] Chuinard R. **Orthopedics** 1999 Mar;22(3):287
Research guidelines issued for persons with mental disorders and impaired capacity to make decisions [news] **Psychiatr Serv** 1999 Jan;50(1):128–9
Scientific leaders balk at broad data release [news] Agnew B. **Science** 1999 Jan 15;283(5400):307,309
Animal experimentation. India backs off on central control [news] Bagla P. **Science** 1998 Dec 11;282(5396):1967
A solution to concerns over public access to scientific data. Cohen LR, et al. **Science** 1999 Jul 23;285(5427):535–6
Freedom of information requests [letter; comment] Goldwater WH. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
Freedom of information requests [letter; comment] Gough M. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
New law could open up lab books [news] [see comments] Kaiser J. **Science** 1998 Nov 6;282(5391):1023. Comment in: Science 1998 Dec 4;282(5395):1823.
Plan for divulging raw data eases fears [news] Kaiser J. **Science** 1999 Feb 12;283(5404):914–5
Science over politics [letter] Lanza RP, et al. **Science** 1999 Mar 19;283(5409):1849–50
The Frist-Rockefeller scenario [letter; comment] Lubell MS. **Science** 1999 Jul 16;285(5426):338–9. Comment on: Science 1999 May 28;284(5419):1452–3.
Use of stem cells still legally murky, but hearing offers hope [news] Marshall E. **Science** 1998 Dec 11;282(5396):1962–3
[Clinical researchers and the pharmaceutic industry. The research contract is not an addendum] Cohen AF. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1345–9 (Eng. Abstr.) **(Dut)**
[Implementing the employment schedule act at a university clinic--"surgical research during illegal time periods"] Dohrmann P. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:799–801 (Eng. Abstr.) **(Ger)**

MANPOWER

Leadership is required for getting American minorities into research [editorial] Alderete JF. **Environ Health Perspect** 1998 Aug;106(8):A366–7
The orthopaedic surgeon scientist: an endangered species? [editorial] Hurwitz SR, et al. **J Orthop Res** 1999 Mar; 17(2):155–6
Trends in the early careers of life scientists. Committee on Dimensions, Causes, and Implications of Recent Trends in the Careers of Life Scientists. **Mol Biol Cell** 1998 Nov; 9(11):3007–15
Are physician scientists close to extinction? [news] Senior K. **Mol Med Today** 1999 May;5(5):192
Plight of US postdocs...in the US [letter; comment] Moore J. **Nature** 1998 Oct 1;395(6701):431. Comment on: Nature 1998 Sep 10;395(6698):101.
Disappearing physician-scientists [letter; comment] [see comments] Brinkley WR. **Science** 1999 Feb 5;283(5403):791. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment in: Science 1999 Mar 5;283(5407):1455.
Physician-scientists at risk [letter; comment] [see comments] Rockey D. **Science** 1999 Mar 5;283(5407):1455. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment on: Science 1999 Feb 5;283(5403):791. Comment on: Science 1999 Feb 5;283(5403):791–2. Comment in: Science 1999 Apr 2;284(5411):49.
Physician-scientists--endangered and essential [see comments] Rosenberg L. **Science** 1999 Jan 15; 283(5400):331–2. Comment in: Science 1999 Feb 5;283(5403):791. Comment in: Science 1999 Feb 5;283(5403):791–2. Comment in: Science 1999 Mar 5;283(5407):1455. Comment in: Science 1999 Mar 5;283(5407):1455–6. Comment in: Science 1999 Mar 5;283(5407):1456. Comment in: Science 1999 Apr 23;284(5414):591–2.

METHODS

Assessing research methodology training needs in emergency medicine. Supino PG, et al. **Acad Emerg Med** 1999 Apr; 6(4):280–5
Academic juggling [editorial] Syverud S. **Acad Emerg Med** 1999 Apr;6(4):254–5
Patient education and diabetes research: a failure! Going beyond the empirical approaches. Albano MG, et al. **Acta Diabetol** 1998 Dec;35(4):207–14 (21 ref.)
Qualitative and quantitative research. Is there a gap, or only verbal disagreement? [comment] Bergsjø P. **Acta Obstet Gynecol Scand** 1999 Aug;78(7):559–62. Comment on: Acta Obstet Gynecol Scand 1998 Jul;77(6):649–53.
Publishing the research report. Cupples SA. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun;13 Suppl 1:S123–30
An association for patient-oriented research. Hirsch J. **Ann Intern Med** 1999 Jun 15;130(12):1014–7
Making sense of the results of your research [see comments] Mant A. **Aust Fam Physician** 1998 Aug;27(8):699–701 (2 ref.). Comment in: Aust Fam Physician 1998 Nov;27(11):991. Comment in: Aust Fam Physician 1999 Apr;28(4):311.
Estimating and generalizing with clustered sampling in general practice. Sayer GP. **Aust Fam Physician** 1999 Jan; 28 Suppl 1:S32–4 (8 ref.)
Improving research quality and its use in service development. Emanuel J, et al. **Complement Ther Med** 1999 Mar;7(1):42–4
Research in sepsis and acute respiratory distress syndrome: are we changing course? [comment] Bernard GR. **Crit Care Med** 1999 Feb;27(2):434–6. Comment on: Crit Care Med 1999 Feb;27(2):427–30. Comment on: Crit Care Med 1999 Feb;27(2):431–3.
Biomarkers in environmental health research & practice. Links JM, et al. **Drug Chem Toxicol** 1999 Feb;22(1):1–14 (32 ref.)
Individual case studies in primary health care [editorial] Charlton BG. **Fam Pract** 1999 Feb;16(1):1–3
Translational research: what is it? Rustgi AK. **Gastroenterology** 1999 Jun;116(6):1285
Qualitative research methods in health technology assessment: a review of the literature. Murphy E, et al. **Health Technol Assess** 1998;2(16):iii–ix, 1–274 (785 ref.)
Clinicians' guide to research methods and statistics: series preface. Harmon RJ, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jan;38(1):99–100
Definition, purposes, and dimensions of research. Morgan GA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb; 38(2):217–9
Human cloning recommended for therapeutic research holds promise for treating Parkinson's and Alzheimer's diseases [news] **J Am Geriatr Soc** 1999 Mar;47(3):369
Using a single-subject design to assess the development of anxiety in humans [see comments] Lejuez CW, et al. **J Behav Ther Exp Psychiatry** 1999 Mar;30(1):15–20. Comment in: J Behav Ther Exp Psychiatry 1999 Mar;30(1):21–2; discussion 23–5.
Using item analysis to facilitate interpretation of empirical findings. Ruggiero KJ, et al. **J Behav Ther Exp Psychiatry** 1999 Mar;30(1):63–9
What can clinicians contribute to mutual challenges in medical statistics? Feinstein AR. **J Clin Epidemiol** 1999 Apr;52(4):365–9
Clinical research methods for the new millenium. Charlton BG. **J Eval Clin Pract** 1999 May;5(2):251–63
Orthographic analogies and phonological priming: a comment on Bowey, Vaughan, and Hansen (1998) [comment] [see comments] Goswami U. **J Exp Child Psychol** 1999 Mar;72(3):210–9. Comment on: J Exp Child Psychol 1998 Feb;68(2):108–33. Comment in: J Exp Child Psychol 1999 Mar;72(3):220–31.
Empirical medical ethics [editorial; comment] Hope T. **J Med Ethics** 1999 Jun;25(3):219–20. Comment on: J Med Ethics 1999 Jun;25(3):263–7. Comment on: J Med Ethics 1999 Jun;25(3):268–93. Comment on: J Med Ethics 1999 Jun;25(3):274–7.
The Association for Patient-Oriented Research (APOR): ameliorating the crisis in clinical investigation. Luft FC. **J Mol Med** 1999 Jun;77(6):456–8
When is research participatory? Reflections on a reproductive health project in Brazil. Diaz M, et al. **J Womens Health** 1999 Mar;8(2):175–84 (12 ref.)
Methods and measures: emerging strategies in women's health research. Harlow SD, et al. **J Womens Health** 1999 Mar;8(2):139–47
Absolute metabolite quantification by in vivo NMR spectroscopy: I. Introduction, objectives and activities of a concerted action in biomedical research. Podo F, et al. **Magn Reson Imaging** 1998 Nov;16(9):1085–92
ArchiMed: a medical information and retrieval system. Dorda W, et al. **Methods Inf Med** 1999 Mar;38(1):16–24
Laboratory firepower for infectious disease research [see comments] Layne SP, et al. **Nat Biotechnol** 1998 Sep; 16(9):825–9. Comment in: Nat Biotechnol 1998 Sep;16(9):793.
Delivering science to the public [editorial] **Nat Med** 1999 Apr;5(4):357
Science in neurosurgery: the importance of the scientific method [letter; comment] Kanat A. **Neurosurgery** 1998 Dec;43(6):1497. Comment on: Neurosurgery 1998 Apr;42(4):687–91.
A virtual laboratory notebook for simulation models. Winfield AJ. **Pac Symp Biocomput** 1998;:177–88
Physician Health Research Conference (Estes Park, Colorado--September 15–17, 1996): progress report one year later. Dilts S, et al. **Psychiatr Q** 1999 Summer; 70(2):93–106
A patient-derived disease activity score can substitute for a physician-derived disease activity score in clinical research. Houssien DA, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):48–52
Low-level chemical sensitivity: implications for research and social policy. Ashford NA. **Toxicol Ind Health** 1999 Apr-Jun;15(3–4):421–7 (27 ref.)
[The practice of systematic reviews. III. Evaluation of methodological quality of research studies] Assendelft WJ, et al. **Ned Tijdschr Geneeskd** 1999 Apr 3;143(14):714–9 (37 ref.) (Eng. Abstr.) **(Dut)**
[Roaming through methodology. VII. Reproducibility of measurements] de Vet HC, et al. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2040–3 (Eng. Abstr.) **(Dut)**
[Straying in the methodology. II. Bias introduced by questionnaires (see comments)] Pouwer F, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1556–8 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1554–5. **(Dut)**
[Straying in the methodology. I. Introduction (editorial; comment)] Rosendaal FR, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1554–5 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1556–8. **(Dut)**
[Methods for vascular exploration in man: microcirculation and veins] Carpentier PH. **Therapie** 1999 May-Jun; 54(3):369–74 (30 ref.) (Eng. Abstr.) **(Fre)**
[Paths of clinical research (editorial)] Sauerbruch T. **Dtsch Med Wochenschr** 1998 Nov 13;123(46):1365–6 **(Ger)**
[Philosophers, physicists and physicians in defense of the unity of the scientific method] Antiseri D. **Clin Ter** 1998 Nov-Dec;149(6):429–33 (Eng. Abstr.) **(Ita)**
[Evidence based cardiology--IV. Main research strategies and recommendation levels in cardiology] Avezum A. **Arq Bras Cardiol** 1998 Nov;71(5):649–52 **(Por)**

ORGANIZATION & ADMINISTRATION

Emergency medicine resident research requirements and director characteristics. Blanda M, et al. **Acad Emerg Med** 1999 Apr;6(4):286–91
Research utilization and interdisciplinary collaboration in emergency care. Hansen HE, et al. **Acad Emerg Med** 1999 Apr;6(4):271–9
A national profile of resident research programs in emergency medicine. Levitt MA, et al. **Acad Emerg Med** 1999 Apr;6(4):348–51

A national profile of resident research experience. Terregino CA, et al. **Acad Emerg Med** 1999 Apr;6(4):351–6
Streamlining the transfer of research tools. Eisenberg RS. **Acad Med** 1999 Jun;74(6):683–5
Competence in scientific inquiry and research. Abreu BC, et al. **Am J Occup Ther** 1998 Oct;52(9):751–9 (61 ref.)
The competent scholar. Mosey AC. **Am J Occup Ther** 1998 Oct;52(9):760–4
Research linkages between academia and public health practice. Building a prevention research agenda. Lane DS. **Am J Prev Med** 1999 Apr;16(3 Suppl):7–9 (7 ref.)
Using case research to enhance linkages between academia and public health practice. Liang AP, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):12–3 (11 ref.)
Moving from Zurich to Vienna--up or down? [editorial] Birnstiel ML. **Biol Chem** 1999 Feb;380(2):111–2
The IMP and European molecular biology: moving the centre eastwards. Institute of Molecular Pathology [editorial] Nasmyth K. **Biol Chem** 1999 Feb;380(2):113–4
Max, the Vienna Biocenter and other 'spin-off' [editorial] von Gabain A. **Biol Chem** 1999 Feb;380(2):115–6
Canadian Institutes of Health Research: should there be an institute for digestive sciences? Fedorak RN. **Can J Gastroenterol** 1999 Jun;13(5):367–9
Inventory management and reagent supply for automated chemistry. Kuzniar E. **Comb Chem High Throughput Screen** 1999 Aug;2(4):239–47
Efficient clinical research [editorial; comment] Neuhauser DB, et al. **Control Clin Trials** 1998 Oct;19(5):427–9. Comment on: Control Clin Trials 1998 Oct;19(5):419–26.
Croatian institute for brain research: bridging the gap from the decade of the brain to the next millenium. Judaš MM. **Croat Med J** 1998 Dec;39(4):383–5 (3 ref.)
Zorba the Greek scientist. Louis C. **Curr Biol** 1999 Feb 11; 9(3):R79
Research ethics in emergency medicine. Fish SS. **Emerg Med Clin North Am** 1999 May;17(2):461–74, xii (21 ref.)
Occupational cancer research in the Nordic countries. Kjaerheim K. **Environ Health Perspect** 1999 May;107 Suppl 2:233–8 (113 ref.)
Research fellowships: a road less traveled [editorial] Rodnick JE. **Fam Med** 1999 Jun;31(6):438–9
Research in developing countries: taking "benefit" seriously. Glantz LH, et al. **Hastings Cent Rep** 1998 Nov–Dec; 28(6):38–42 (18 ref.)
AIDS is ... reflections on the Australian research response to the HIV and AIDS epidemics. Smith AM. **Int J Health Serv** 1998;28(4):793–810
The John E. Fogarty International Center: Collaborative Projects in International Environmental and Occupational Health. Partnerships and progress. Breman JG, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):198–202
International Training and Research in Central and Eastern Europe: The University of Iowa model. Cook TM, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):234–6
The role of information dissemination in sustainability of international partnerships. Delclos GL, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):203–8 (14 ref.)
Approaches to addressing occupational and environmental health needs in Mexico. Froines JR, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):208–12
Collaborative research and research training through the "Family and Children of Ukraine" research program. Hryhorczuk DO, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):213–8
Innovation in international training in occupational and environmental health: challenging unspoken assumptions. Markowitz S, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):237–40
Is short-term training useful in international environmental and occupational health projects? Experience from the Balkans and Latin America. Petropoulos EA, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):223–33
Bahia–Carolina Program in Environmental and Occupational Health: A North–South partnership for workplace and environmental justice. Santana VS, et al. **Int J Occup Environ Health** 1999 Jul–Sep;5(3):218–22
Role of SAM in the promotion of research in adolescent health. Society for Adolescent Medicine. Cromer BA, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):143–7
Strategies to expand the definition of scholarship for the health professions. Angstadt CN, et al. **J Allied Health** 1998 Fall;27(3):157–61
Research productivity and activities of clinical laboratory science faculty: a follow-up study. Waller KV, et al. **J Allied Health** 1998 Fall;27(3):142–9
Student health research 101 [see comments] Gerald CT, et al. **J Am Coll Health** 1999 Sep;48(2):93–5. Comment in: J Am Coll Health 1999 Sep;48(2):51–4.
Vaccine-Associated Feline Sarcoma Task Force: a new model for problem solving in veterinary medicine. Starr RM. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1428–9
Infrastructures for research and training. Clarkson JJ. **J Dent Educ** 1999 Mar;63(3):257–62
Research, ethics and conflicts of interest. Little M. **J Med Ethics** 1999 Jun;25(3):259–62
Medical research needs lay involvement [letter; comment] Williamson C. **J Med Ethics** 1999 Feb;25(1):62. Comment on: J Med Ethics 1998 Oct;24(5):291–2.
Clinical research in aboriginal health [editorial] Torzillo PJ. **J Paediatr Child Health** 1999 Apr;35(2):123–4 (5 ref.)
Photovoice: a participatory action research strategy applied to women's health. Wang CC. **J Womens Health** 1999 Mar; 8(2):185–92
Clinical research: perceptions, reality, and proposed solutions. National Institutes of Health Director's Panel on Clinical Research [see comments] Nathan DG. **JAMA** 1998 Oct 28;280(16):1427–31. Comment in: JAMA 1998 Oct 28;280(16):1442–4.
The crisis in clinical research: endangering the half-century National Institutes of Health Consensus. Schechter AN. **JAMA** 1998 Oct 28;280(16):1440–2
Encouraging clinical research by physician scientists [comment] Shine KI. **JAMA** 1998 Oct 28;280(16):1442–4 . Comment on: JAMA 1998 Oct 28;280(16):1427–31.
Clinical research in surgery: questions but few answers. Beger HG, et al. **Langenbecks Arch Surg** 1998 Oct;383(5):300–5 (55 ref.)
Conceptional and structural conditions for successful clinical research. Troidl H. **Langenbecks Arch Surg** 1998 Oct; 383(5):306–16 (30 ref.)
The decision systems group: creating a framework for decision making. Greenes RA, et al. **MD Comput** 1999 Jul–Aug;16(4):23–7
Priorities for patient–centered research. Feussner JR. **Med Care** 1999 Sep;37(9):843–5 (11 ref.)
Contract research organizations. Their role in the development of clinical research. Harrison F. **Methods Find Exp Clin Pharmacol** 1998;20 Suppl A:21–2
Clinical research in primary health care. Pujol Ribó C. **Methods Find Exp Clin Pharmacol** 1998;20 Suppl A:23–6
Biomedical research: its mission within the French Military Medical Service. Binder P. **Mil Med** 1999 May; 164(5):341–5 (29 ref.)
Military women's research. Davis LJ, et al. **Mil Med** 1999 Jan;164(1):6–10
The American College of Physicians' Resident Abstract Competition: success of U.S. military trainees. Shorr AF, et al. **Mil Med** 1999 Mar;164(3):218–20
Busquin appointed European research commissioner [news] Birmingham K. **Nat Med** 1999 Oct;5(10):1096
Canada to specialize in aging research [news] Dove A. **Nat Med** 1998 Jul;4(7):754
The South African Medical Research Council: Africanizing health research. Makgoba MW. **Nat Med** 1999 Apr; 5(4):367–70
Skepticism surrounds Australia's biomedical research revolution [news] Rouse R. **Nat Med** 1998 Oct;4(10):1098
Japan considers the achievements and pitfalls of its five-year plan [news] Triendl R. **Nat Med** 1999 Jun;5(6):597
Japan reorganizes national biomedical research groups [news] Triendl R. **Nat Med** 1999 Apr;5(4):365
Protest in Paris [editorial] **Nature** 1998 Dec 17;396(6712):603
Berkeley teams up with Novartis in $50m plant genomics deal [news] Macilwain C. **Nature** 1998 Nov 5;396(6706):5
Development of a database management/analysis system for field research activities within a coordinated research project. Goodger WJ, et al. **Prev Vet Med** 1999 Jan 27; 38(2–3):85–100
More research needed to ensure environmental justice [news] **Public Health Rep** 1999 May–Jun;114(3):208
Medical schools in the new millenium. A reply. Pennington TH. **Scott Med J** 1998 Oct;43(5):131–2
Gender matters: an integrated model for understanding men's and women's health. Bird CE, et al. **Soc Sci Med** 1999 Mar;48(6):745–55 (51 ref.)
Careers perspective interview: Norka Ruiz Bravo. Ruiz Bravo N. **Trends Cell Biol** 1999 Jun;9(6):245
[The SGO Health Research Promotion Program. XIV. Final evaluation] van Rees-Wortelboer MM, et al. **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):41–5 (Eng. Abstr.) **(Dut)**
[The SGO Health Research Promotion Program. XIII. Evaluation of the section 'Addiction Research'] van Rees-Wortelboer MM. **Ned Tijdschr Geneeskd** 1999 Jan 2;143(1):38–41 (Eng. Abstr.) **(Dut)**
[Fundamental research and clinical research in medicine] Bron C, et al. **Rev Med Suisse Romande** 1999 Feb; 119(2):129–35 **(Fre)**
[Need to establish academic research organization for cancer clinical trial and clinical research system having clinical investigators and study coordinators, with special reference to promotion of medical and life science research policy] Shimoyama M. **Gan To Kagaku Ryoho** 1999 Jan;26(2 Suppl):235–46 (6 ref.) (Eng. Abstr.) **(Jpn)**
[Evaluation of research--reality and illusions] Sawicki W. **Postepy Hig Med Dosw** 1998;52(3):297–305 (11 ref.) (Eng. Abstr.) **(Pol)**
[Experience in organizing the scientific work in a military district hospital] Chuĭko VI, et al. **Voen Med Zh** 1998 Dec; 319(12):8–11 **(Rus)**
[The use of modern information technologies for enhancing efficiency in the management of scientific research in the Ministry of Public Health system] Kartysh AP, et al. **Lik Sprava** 1998 Aug;(6):168–73 **(Ukr)**
[The results of the scientific activities of the institutions under the jurisdiction of the Ministry of Public Health] Kartysh AP, et al. **Lik Sprava** 1998 Oct–Nov;(7):6–10 (Eng. Abstr.) **(Ukr)**

STANDARDS

Research fundamentals VI: misconduct in biomedical research. Biros MH, et al. **Acad Emerg Med** 1999 Aug; 6(8):840–8 (35 ref.)
The importance of expanding current training in the responsible conduct of research. Mastroianni AC, et al. **Acad Med** 1998 Dec;73(12):1249–54
An ethical analysis of the phenomenon of misconduct in research. Forsman B. **Acta Oncol** 1999;38(1):107–10
Misconduct in clinical research--the Scandinavian experience and actions for prevention. Riis P. **Acta Oncol** 1999;38(1):89–92 (12 ref.)
Research misconduct in clinical research--the American experience and response. Ryan KJ. **Acta Oncol** 1999; 38(1):93–7 (19 ref.)
Scientific work in third world countries [editorial; comment] Sartorius N. **Acta Psychiatr Scand** 1998 Nov;98(5):345–7. Comment on: Acta Psychiatr Scand 1998 Nov;98(5):406–13.
Psychosomatic research and the theory of science. Sivik T. **Adv Mind Body Med** 1999 Spring;15(2):148–53
Journal impact factors [letter; comment] Hoeffel C. **Allergy** 1998 Dec;53(12):1225. Comment on: Allergy 1997 Nov;52(11):1050–6.
The need for clinically relevant research [editorial] Hammond DC. **Am J Clin Hypn** 1998 Jul;41(1):2–9
When physicians are not physicians [letter; comment] Merrill JM. **Am J Med Sci** 1999 May;317(5):353. Comment on: Am J Med Sci 1999 Jan;317(1):1–4. Comment on: Am J Med Sci 1999 Jan;317(1):5–8.
Another Tuskegee? [comment] Weijer C. **Am J Trop Med Hyg** 1999 Jul;61(1 Suppl):1–3. Comment on: Am J Trop Med Hyg 1999 Jul;61(1 Suppl):4–19. Comment on: Am J Trop Med Hyg 1999 Jul;61(1 Suppl):20–35. Comment on: Am J Trop Med Hyg 1999 Jul;61(1 Suppl):36–43. Comment on: Am J Trop Med Hyg 1999 Jul;61(1 Suppl):44–8.
Retrospective soliloquy: rationalising practice through prospective audit [letter] van den Berg AA. **Anaesthesia** 1999 Jun;54(6):607
Impact factors: use and abuse in biomedical research. Coleman R. **Anat Rec** 1999 Apr 15;257(2):54–7 (13 ref.)
The National Bioethics Advisory Commission report: the response of the psychiatric research community is critical to restoring public trust [comment] Charney DS. **Arch Gen Psychiatry** 1999 Aug;56(8):699–700. Comment on: Arch Gen Psychiatry 1999 Aug;56(8):688–93.
Almost persuaded: reactions to Oldham et al [comment] Childress JF, et al. **Arch Gen Psychiatry** 1999 Aug; 56(8):697–8. Comment on: Arch Gen Psychiatry 1999 Aug;56(8):688–93.
Protecting vulnerable research subjects without unduly constraining neuropsychiatric research [comment] Miller FG, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):701–2; discussion 703–4. Comment on: Arch Gen Psychiatry 1999 Aug;56(8):688–93.
Addressing ethical issues in the psychiatric research literature [letter; comment] Miller FG, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):763–4. Comment on: Arch Gen Psychiatry 1997 May;54(5):401–7.
Protection of persons with mental disorders from research risk: a response to the report of the National Bioethics Advisory Commission [see comments] Oldham JM, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):688–93. Comment in: Arch Gen Psychiatry 1999 Aug;56(8):697–8. Comment in: Arch Gen Psychiatry 1999 Aug;56(8):699–700. Comment in: Arch Gen Psychiatry 1999 Aug;56(8):701–2; discussion 703–4.
Research and bread and butter medicine [editorial] Clearihan L. **Aust Fam Physician** 1999 Aug;28(8):769
Publish or perish. The debate from a global perspective [news] Jones R. **Aust Fam Physician** 1999 May;28(5):425–6
Science/industry: problematics of the European cooperative research in the biomaterials/biodevices area. Doddoli R. **Biomaterials** 1998 Aug;19(16):1433–9 (5 ref.)
Qualitative research--a rejoinder [letter; comment] Hudson L, et al. **Br J Psychiatry** 1998 Jul;173:88. Comment on: Br J Psychiatry 1998 Mar;172:197–9.
Refutation of an investigation commissioned by the Karolinska Institute 'regarding Ulf Lönn's research' [letter; comment] Lönn U. **Breast Cancer Res Treat** 1998 Sep; 51(2):189–90. Comment on: Breast Cancer Res Treat 1998 Sep;51(2):189.
The decision of the Karolinska Institute following an independent investigation of the research carried out by Associate Professor Ulf Lönn [letter; comment] [see comments] Nilsson B, et al. **Breast Cancer Res Treat** 1998 Sep;51(2):189. Comment on: Breast Cancer Res Treat 1992;23(3):191–200. Comment on: Breast Cancer Res Treat 1994;29(3):237–45. Comment on: Breast Cancer Res Treat 1994;30(2):147–52. Comment on: Breast Cancer Res Treat 1996;39(2):213–20. Comment in: Breast Cancer Res Treat 1998 Sep;51(2):189–90.
Who took the clinical out of clinical research?--Mouse versus man: seventh David A Karnofsky Memorial Lecture--1976. Freireich EJ. **Clin Cancer Res** 1997 Dec; 3(12 Pt 2):2711–22
Culturally competent research: an ethical perspective. Gil EF, et al. **Clin Psychol Rev** 1999 Jan;19(1):45–55 (27 ref.)
Bioethics for clinicians: 17. Conflict of interest in research, education and patient care [see comments] Lemmens T, et al. **CMAJ** 1998 Oct 20;159(8):960–5 (36 ref.). Comment in: CMAJ 1999 Mar 23;160(6):784.
Guidelines on the rights and duties in the storage and use

of research data. Danish Committee on Scientific Dishonesty. **Dan Med Bull** 1999 Feb;46(1):63–5
Guidelines for good scientific practice. Andersen D. **Dan Med Bull** 1999 Feb;46(1):60–1
Ethical overview of paediatric research and practice in Europe from the Ethical Working Group of the Confederation of European Specialists in Paediatrics (CESP). Chambers TL, et al. **Eur J Pediatr** 1999 Jul; 158(7):537–40
Support of the talus: a biomechanical investigation [letter; comment] Schoenhaus HD. **Foot Ankle Int** 1999 May; 20(5):342. Comment on: Foot Ankle Int 1998 Oct;19(10):674–82.
The new biotech world order. Cahill LS. **Hastings Cent Rep** 1999 Mar–Apr;29(2):45–8 (9 ref.)
Science in the courtroom. A new approach. Dresser R. **Hastings Cent Rep** 1999 May–Jun;29(3):26–7
Research with human embryonic stem cells: ethical considerations. By Geron Ethics Advisory Board. Mendiola MM, et al. **Hastings Cent Rep** 1999 Mar–Apr; 29(2):31–6 (26 ref.)
Rewriting the "points to consider": the ethical impact of guidance document language. King NM. **Hum Gene Ther** 1999 Jan 1;10(1):133–9
Maintaining client safety and scientific integrity in research with battered women. Lutz KF. **Image J Nurs Sch** 1999; 31(1):89–93 (40 ref.)
The ethics of informed consent among storyteller cultures. Casteel JK. **Int J Circumpolar Health** 1998;57 Suppl 1:41–2
Developing a Code of Research Ethics for research with a Native community in Canada: a report from the Kahnawake Schools Diabetes Prevention Project. Macaulay AC, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:38–40
Industry pressures on scientific investigators [letter] Legator MS. **Int J Occup Environ Health** 1998 Apr–Jun;4(2):133
Code of Research Ethics: position paper of the Society for Adolescent Medicine. **J Adolesc Health** 1999 Apr; 24(4):277–82; discussion 283
Alternative medicine, education and standards of publication and research [editorial; comment] Jobst KA, et al. **J Altern Complement Med** 1999 Jun;5(3):221–2. Comment on: J Altern Complement Med 1999 Feb;5(1):75–9. Comment on: J Altern Complement Med 1999 Apr;5(2):153–64.
Qigong and hypertension: a critique of research. Mayer M. **J Altern Complement Med** 1999 Aug;5(4):371–82 (90 ref.)
Evaluating the validity of a research study. Morgan GA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Apr; 38(4):480–5
Conflict of interest. McNutt K. **J Am Diet Assoc** 1999 Jan; 99(1):29–30
Conflict of interest: an important issue in nutrition research and communications [comment] Rock CL. **J Am Diet Assoc** 1999 Jan;99(1):31–2. Comment on: J Am Diet Assoc 1999 Jan;99(1):29–30.
Disciplinary introversion in colleges of veterinary medicine. Wilson RB. **J Am Vet Med Assoc** 1999 Jun 15; 214(12):1772–3
Institutional Review Board issues related to special populations. Ferraro FR, et al. **J Gen Psychol** 1998 Apr; 125(2):156–64
Culturally identifiable populations raise thorny issues for researchers [news] Castellucci L. **J Natl Cancer Inst** 1998 Oct 21;90(20):1508–9
Will Germany's good scientific practice guidelines prevent fraud? [news] Steimle S. **J Natl Cancer Inst** 1998 Nov 18; 90(22):1694–5
Academic medicine [letter] Jagoe T. **J R Coll Physicians Lond** 1999 May–Jun;33(3):284
A tutorial on conducting meta-analyses of clinical outcome research. Robey RR, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1227–41
Recommendations on stem cell research [news] Marwick C. **JAMA** 1999 Oct 6;282(13):1217
From the Food and Drug Administration. Nightingale SL. **JAMA** 1999 Jan 6;281(1):27
Maintaining vigilance over quality of EU research [editorial; comment] **Lancet** 1999 Apr 3;353(9159):1111. Comment on: Lancet 1999 Apr 3;353(9159):1192.
How can medical journals help prevent poor medical research? Some opportunities presented by electronic publishing [see comments] Chalmers I, et al. **Lancet** 1999 Feb 6;353(9151):490–3. Comment in: Lancet 1999 Feb 6;353(9151):428. Comment in: Lancet 1999 Apr 10;353(9160):1277.
When institutional review boards fail the system [news] Greenberg DS. **Lancet** 1999 May 22;353(9166):1773
Review of research protocols [comment] Roy LP. **Lancet** 1999 Feb 6;353(9151):428. Comment on: Lancet 1999 Feb 6;353(9151):490–3.
Inaccuracy and vested interests--two threats to etiologic research [letter; comment] Hoffmann W, et al. **Leukemia** 1999 Mar;13(3):495–7. Comment on: Leukemia 1998 Aug;12(8):1319–23.
The Bibbulung Gnarneep Project: practical implementation of guidelines on ethics in indigenous health research. Eades SJ, et al. **Med J Aust** 1999 May 3;170(9):433–6
Regional clinical research ethics committees. Tato F. **Methods Find Exp Clin Pharmacol** 1998;20 Suppl A:15–8
Ethical and human-rights issues in research on mental disorders that may affect decision-making capacity. Capron AM. **N Engl J Med** 1999 May 6;340(18):1430–4
Are research ethics bad for our mental health? Michels R. **N Engl J Med** 1999 May 6;340(18):1427–30
Industry calls for reform of UK research training [news] Dickson D. **Nat Med** 1998 Nov;4(11):1214
Organizing a public debate: ethical guidelines on biomedical research in humans [news] Pandya SK. **Natl Med J India** 1998 Nov–Dec;11(6):294–6
Pie in the sky [editorial] **Nature** 1998 Nov 19;396(6708):199
Surviving misconduct is one thing, accountability is another [editorial] [see comments] **Nature** 1998 Oct 22; 395(6704):727. Comment in: Nature 1998 Dec 3;396(6710):404. Comment in: Nature 1999 Jan 14;397(6715):101. Comment in: Nature 1999 Feb 4;397(6718):384.
A suitable case for treatment [editorial] **Nature** 1999 May 20;399(6733):183
Benchmarking international research. Adams J. **Nature** 1998 Dec 17;396(6712):615–8
Courage could win back confidence in science [letter] Daenke S. **Nature** 1999 Sep 23;401(6751):321
It's time to 'out' the selfish researchers [letter] Harris NC. **Nature** 1999 Mar 11;398(6723):102
Biochemistry panel dropped from UK quality review [news] Loder N. **Nature** 1999 Jan 21;397(6716):187
France losing genome race, says report...as government announces creation of genome research consortium [news] [published erratum appears in Nature 1999 Jul 29;400(6743):397] [see comments] McCabe H. **Nature** 1999 Jul 15;400(6741):199. Comment in: Nature 1999 Sep 2;401(6748):10.
Proposed restrictions relaxed on research on mentally disabled [news] Macilwain C. **Nature** 1998 Oct 22; 395(6704):731
Chile tries to bridge gap in scientific standards [news] Macilwain C. **Nature** 1999 Apr 1;398(6726 Suppl):A11–2
And can mean saying 'yes' to innovation [letter] Raffensperger C, et al. **Nature** 1999 Sep 16;401(6750):207–8
Higher status for 'research risks' office? [news] Wadman M. **Nature** 1999 Feb 18;397(6720):550
NIH ethics office clamps down on Duke...as basic scientists feel the pinch in LA [news] Wadman M. **Nature** 1999 May 20;399(6733):190
Narrowing the evidence–practice gap: strengthening the link between research and clinical practice [letter; comment] Miller D, et al. **Neurology** 1998 Oct;51(4):1234. Comment on: Neurology 1998 Feb;50(2):319–21.
Ethical requirements for occupational health research--compliance arrangements for a single company in relation to a recent major nuclear industry study. Kalman CJ. **Occup Med (Lond)** 1999 May;49(4):221–4
What constitutes a literature search? [editorial] Benjamin DR. **Pediatr Dev Pathol** 1998 Jul–Aug;1(4):259–60
American Pediatric Society/Society for Pediatric Research code of responsible conduct of research. Bernstein D. **Pediatr Res** 1999 May;45(5 Pt 1):613–4
Making progress: does clinical research lead to breakthroughs in basic biomedical sciences? Gershon ES. **Perspect Biol Med** 1998 Autumn;42(1):95–102 (14 ref.)
Quality assurance reviews: how they differ from peer reviews. Adams NH. **Qual Assur** 1998 Apr–Jun;6(2):75–85
Research on complementary medicine in rheumatic diseases: the need for better quality studies and reproduction of claimed positive results [editorial] van Haselen RA. **Rheumatology (Oxford)** 1999 May;38(5):387–90
Privacy in genetics research. Fuller BP, et al. **Science** 1999 Aug 27;285(5432):1359–61
University of Illinois. Chancellor quits after research shutdown [news] Holden C. **Science** 1999 Sep 24; 285(5436):2047
Tulane inquiry clears lead researcher [news; comment] Kaiser J. **Science** 1999 Jun 18;284(5422):1905. Comment on: Science 1999 Jun 18;284(5422):1932.
Tulane investigation completed [letter; comment] [see comments] LaRosa JC. **Science** 1999 Jun 18;284(5422):1932. Comment on: Science 1996 Jun 7;272(5267):1489–92. Comment on: Science 1997 Jul 25;277(5325):462–3. Comment in: Science 1999 Jun 18;284(5422):1905.
NIMH to screen studies for science and human risks [news] Marshall E. **Science** 1999 Jan 22;283(5401):464–5
Shutdown of research at Duke sends a message [news] Marshall E. **Science** 1999 May 21;284(5418):1246
NIH ethics office tapped for a promotion [news] Marshall E. **Science** 1999 Jun 11;284(5421):1749,1751
IRB review and consent in human tissue research. Merz JF, et al. **Science** 1999 Mar 12;283(5408):1647–8
Sweden considers more oversight of research [news] Rose J, et al. **Science** 1999 Mar 19;283(5409):1829
Ethical dilemmas and stem cell research [editorial] Shapiro HT. **Science** 1999 Sep 24;285(5436):2065
Consent (assent) for research with pediatric patients. Broome ME. **Semin Oncol Nurs** 1999 May;15(2):96–103 (23 ref.)
The ethical foundation of informed consent in clinical research. McCabe MS. **Semin Oncol Nurs** 1999 May; 15(2):76–80 (18 ref.)
National efforts to improve the informed consent process. Padberg RM, et al. **Semin Oncol Nurs** 1999 May; 15(2):138–44 (16 ref.)
Barriers to informed consent. Taylor HA. **Semin Oncol Nurs** 1999 May;15(2):89–95 (35 ref.)
Falsifying data is main problem in US research fraud review [news] Pownall M. **West J Med** 1999 Jun;170(6):377
Ethical considerations in research involving pregnant women. The American College of Obstetricians and Gynecologists [see comments] **Womens Health Issues** 1999 Jul–Aug;9(4):194–8. Comment in: Womens Health Issues 1999 Jul–Aug;9(4):199–201. Comment in: Womens Health Issues 1999 Jul–Aug;9(4):202–5. Comment in: Womens Health Issues 1999 Jul–Aug;9(4):206–7. Comment in: Womens Health Issues 1999 Jul–Aug;9(4):208–10.
Ethical considerations in research involving pregnant women [comment] Chervenak FA, et al. **Womens Health Issues** 1999 Jul–Aug;9(4):206–7. Comment on: Womens Health Issues 1999 Jul–Aug;9(4):194–8.
Two challenges for research ethics: innovative treatment and fetal therapy [comment] Gates E. **Womens Health Issues** 1999 Jul–Aug;9(4):208–10 (14 ref.). Comment on: Womens Health Issues 1999 Jul–Aug;9(4):194–8.
Why single out pregnant women? Comments on ACOG's recommendations for involving pregnant women in research [comment] Roche PA, et al. **Womens Health Issues** 1999 Jul–Aug;9(4):202–5. Comment on: Womens Health Issues 1999 Jul–Aug;9(4):194–8.
Ethical considerations? A commentary on ACOG committee opinion 213: "Ethical considerations in research involving pregnant women" [comment] Sharpe VA. **Womens Health Issues** 1999 Jul–Aug;9(4):199–201. Comment on: Womens Health Issues 1999 Jul–Aug;9(4):194–8.
[Quality of research--how to achieve it and how to measure it?] Rehfeld JF. **Ugeskr Laeger** 1999 Aug 23;161(34):4765–8 **(Dan)**
[The practice of systematic reviews. III. Evaluation of methodological quality of research studies] Assendelft WJ, et al. **Ned Tijdschr Geneeskd** 1999 Apr 3;143(14):714–9 (37 ref.) (Eng. Abstr.) **(Dut)**
[Clinical researchers and the pharmaceutical industry (editorial)] ten Cate JW. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1349–52 (Eng. Abstr.) **(Dut)**
[Reason, science, ethics and networks (editorial)] Cariou JL. **Ann Chir Plast Esthet** 1999 Jun;44(3):215–6 **(Fre)**
[Creation by the French Society for Anesthesia and Intensive Care for a committee on "scientific solidarity" (editorial; comment)] Boulard G. **Ann Fr Anesth Reanim** 1999 Jun; 18(6):623. Comment on: Ann Fr Anesth Reanim 1999 Jun;18(6):619–20. Comment on: Ann Fr Anesth Reanim 1999 Jun;18(6):621–2. **(Fre)**
[Microbiological standardization of laboratory animals] Nicklas W. **Berl Munch Tierarztl Wochenschr** 1999 Jun–Jul; 112(6–7):201–10 (23 ref.) (Eng. Abstr.) **(Ger)**
[Truth in medicine. 6th Fall Meeting of the corporate members of the German Society for Internal Medicine] **Dtsch Med Wochenschr** 1999 Feb 12;124(6):A19–24 **(Ger)**
[The impact factor as an assessment criterion of scientific achievements--the right to equal chances] Lehrl S. **Strahlenther Onkol** 1999 Apr;175(4):141–53 (61 ref.) (Eng. Abstr.) **(Ger)**
[Good manners code in scientific publications] **Wiad Lek** 1999;52(1–2):105–11 **(Pol)**
[The regulation of experiments on animals--ethics, legislation and alternatives] Kopaladze RA. **Usp Fiziol Nauk** 1998 Oct–Dec;29(4):74–92 (115 ref.) (Eng. Abstr.) **(Rus)**
[Evaluation activities a symptom of good health (editorial; comment)] Cami J. **Med Clin (Barc)** 1999 Feb 20; 112(6):218–9. Comment on: Med Clin (Barc) 1999 Feb 20;112(6):225–35. **(Spa)**
[The publication in biomedical journals of clinical trial protocols: a new way to improve research quality (editorial)] Bosch X. **Rev Esp Cardiol** 1999 May; 52(5):359–61 (29 ref.) **(Spa)**
[Good clinical practice] Mix H, et al. **Rev Med Chil** 1998 Aug;126(8):987–92 (Eng. Abstr.) **(Spa)**
[Neurosciences: an example of an interdisciplinary approach as an efficient strategy in the scientific investigation (letter)] Rosell A, et al. **Rev Neurol** 1998 Dec;27(160):1071–3 **(Spa)**

STATISTICS & NUMERICAL DATA

Surgical Infection Society--trials and tribulations: the importance of clinical trials. Dellinger EP. **Arch Surg** 1998 Nov;133(11):1192–7
Review of University of British Columbia Family Practice Resident Research Projects 1990–1997. Grzybowski S, et al. **Fam Med** 1999 May;31(5):353–7
Scholarship and research of allied health deans and directors. Waller KV, et al. **J Allied Health** 1999 Spring;28(1):1–7
A decade of doctoral research in nutrition. Keller HH, et al. **J Am Diet Assoc** 1999 Sep;99(9):1065–71
Nonselection and nonresponse bias in clinical research [see comments] Roush JK. **J Am Vet Med Assoc** 1998 Nov 1;213(9):1270–3 (21 ref.). Comment in: J Am Vet Med Assoc 1999 Jan 1;214(1):27–8.
Ethical issues in informed consent with substance abusers. McCrady BS, et al. **J Consult Clin Psychol** 1999 Apr; 67(2):186–93
Health related research in Bangladesh: MEDLINE based analysis. Rahman M, et al. **J Epidemiol** 1999 Aug;9(4):235–9
Productivity of SCI Korean medical papers: 1996–1997. Lee CS. **J Korean Med Sci** 1999 Aug;14(4):351–8 (20 ref.)
Geography of biomedical publications [letter] Rosselli D. **Lancet** 1999 Aug 7;354(9177):517
Geography of biomedical publications [letter] Takei N.

Lancet 1999 Aug 7;354(9177):516–7

Medical research in New South Wales 1993–1996 assessed by Medline publication capture. Favaloro EJ.
Med J Aust 1998 Dec 7–21;169(11–12):617–22

Geography of U.S. biomedical publications, 1990 to 1997 [letter] Thompson DF. **N Engl J Med** 1999 Mar 11; 340(10):817–8

Research productivity in the areas of child abuse and domestic violence. Gordon RA, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):887–98

Bibliometric methods for the evaluation of arthritis research. Lewison G, et al. **Rheumatology (Oxford)** 1999 Jan; 38(1):13–20 (28 ref.)

Sex biases in subject selection: a survey of articles published in American medical journals. Resnik DB.
Theor Med Bioeth 1999 Jun;20(3):245–60

[Principles of tests of hypotheses in statistics (letter)] Allaouchiche B, et al. **Ann Fr Anesth Reanim** 1999 Jun; 18(6):698–9 **(Fre)**

[The usefulness of statistical tests in publications (letter)] Roubergue A, et al. **Arch Pediatr** 1999 May;6(5):587–9 **(Fre)**

[Testing, estimating, "significance"—concepts and terminology of medical biometry] Koch A, et al.
Med Klin 1999 Jul 15;94(7):407–13 (4 ref.) (Eng. Abstr.) **(Ger)**

[Research documentation by Vienna medical faculty on the internet (letter)] Müllner M. **Wien Klin Wochenschr** 1998 Oct 2;110(18):655 **(Ger)**

[The results of a survey of cardiology service heads and of the regular members of the Sociedade Portuguesa de Cardiologia on research in cardiology] Reis RP, et al.
Rev Port Cardiol 1999 Jul–Aug;18(7–8):779–81 **(Por)**

[Scientific activity of the most productive Spanish research teams in pharmacology and pharmacy during the period 1986–1993 as covered by the Science Citation Index (SCI)] Bordons M, et al. **Med Clin (Barc)** 1998 Oct 24; 111(13):489–95 (Eng. Abstr.) **(Spa)**

[Sociopolitical issues in medical research] Gonzalo LM.
Rev Med Univ Navarra 1998 Apr–Jun;42(2):119–20 **(Spa)**

[A method of preparing the results of biomedical research for statistical processing] Herasymov IH, et al.
Fiziol Zh 1998;44(5–6):113–7 (Eng. Abstr.) **(Ukr)**

TRENDS

The changing landscape for clinical research [published erratum appears in Acad Med 1999 Sep;74(9):950] Heinig SJ, et al. **Acad Med** 1999 Jun;74(6):726–45 (42 ref.)

Forum on the future of academic medicine: session V—implications of basic and applied research for AMCs. Iglehart J. **Acad Med** 1998 Dec;73(12):1241–8

Scientists, senators, and "software": the keys to unlocking our future. Kelley RO. **Acad Med** 1999 Feb;74(2):101–7

Outlines of the 42 years adenovirus research in the Institute of Microbiology, Semmelweis Medical University. Nász I, et al. **Acta Microbiol Immunol Hung** 1998;45(3–4):265–8

Outlines of the immunological research in the Institute of Microbiology; Semmelweis Medical University. Szeri I, et al. **Acta Microbiol Immunol Hung** 1998;45(3–4):317–22

Recent progress in mycotoxin research. Varga J, et al.
Acta Microbiol Immunol Hung 1999;46(2–3):233–43 (65 ref.)

Trends in the content and methodology of Alzheimer caregiving research. Drebing CE.
Alzheimer Dis Assoc Disord 1999 Apr–Jun;13 Suppl 1:S93–100 (32 ref.)

Future cardiovascular end point studies: where will the research take us? [editorial] LaRosa JC. **Am J Cardiol** 1999 Aug 15;84(4):454–8 (42 ref.)

Clinical research: trends affecting the pharmaceutical industry and the pharmacy profession. Vlasses PH.
Am J Health Syst Pharm 1999 Jan 15;56(2):171–4

Survival of academic medicine in the 21st century—more than a Y2K problem. Mansbach CM 2nd.
Am J Med Sci 1999 Sep;318(3):125–9

Clinical trials in the past 25 years and clinical research in the next 25 years [editorial; comment] Straatsma BR.
Am J Ophthalmol 1999 Jan;127(1):72–4. Comment on: Am J Ophthalmol 1996 Dec;122(6):883–5. Comment on: Am J Ophthalmol 1998 Jan;125(1):90–3.

Breast cancer practice patterns at VA hospitals: implications for future research. Hynes DM, et al. **Cancer Treat Res** 1998;97:149–58 (28 ref.)

The future of clinical cancer research in the next millennium. Freireich EJ. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2563–70 (23 ref.)

Foundations of clinical cancer research: perspective for the 21st century. Hersh EM. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2551–3 (30 ref.)

An Update on Pediatric Rheumatology: from Basic Research to Clinical Applications. Genoa, December 4–5, 1997. Picco P, et al. **Clin Exp Rheumatol** 1998 Nov–Dec; 16(6):757–8

Trends in the UK contribution to the otolaryngological literature. Scarney A, et al. **Clin Otolaryngol** 1999 Feb; 24(1):26–30

Prescience. Brenner S. **Curr Biol** 1998 Dec 17–31;8(25):R899

Research advances in oral mucositis. Peterson DE.
Curr Opin Oncol 1999 Jul;11(4):261–6 (31 ref.)

Diabetes research and diabetes care. Where do we stand? Davidson MB. **Diabetes Care** 1998 Dec;21(12):2152–60

Diabetes: a strategic plan for the 21st century [interview] Kahn CR. **Diabetes Metab Res Rev** 1999 Mar–Apr; 15(2):152–5

The neurobiology of alcohol abuse and alcoholism: building knowledge, creating hope. Gordis E.
Drug Alcohol Depend 1998 Jun–Jul;51(1–2):9–11

Drug addiction research: moving toward the 21st century. Leshner AI. **Drug Alcohol Depend** 1998 Jun–Jul;51(1–2):5–7

Introduction: Epidemiologic research and prevention of occupational cancer in Europe. Boffetta P, et al.
Environ Health Perspect 1999 May;107 Suppl 2:229–31 (19 ref.)

Research management in the Great Lakes and St. Lawrence River basins: challenges and opportunities. De Rosa CT, et al. **Environ Res** 1999 Apr;80(3):274–9

Scientific research in biology, and the freedom of the researchers [editorial] Manfredi-Romanini MG.
Eur J Histochem 1999;43(1):5–6

National trends of research in neuroscience. Fava GA, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):349–52

Exploring the vision of family medicine: research, technology, and practice. Burns EA. **Fam Med** 1999 Jun; 31(6):382–3

Trends in health care R&D and technology innovation. Neumann PJ, et al. **Health Aff (Millwood)** 1998 Nov–Dec; 17(6):111–9

WHO meeting on the future role of leprosy training and/or research institutions, Addis Ababa, February 25–26, 1998. **Indian J Lepr** 1998 Oct–Dec;70(4):441–53

Recent achievements in dermatologic research as a challenge and prologue for the future. Jablonska S, et al.
Int J Dermatol 1999 Mar;38(3):176–8

The National Eye Institute outlines eye research goals.
J Am Optom Assoc 1999 May;70(5):317–36 (0 ref.)

The future of veterinary medicine [letter; comment] DiPietro JA. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1117. Comment on: J Am Vet Med Assoc 1998 Aug 1;213(3):347–50.

Assessing quality of life in clinical research: from where have we come and where are we going? Wood-Dauphinee S. **J Clin Epidemiol** 1999 Apr;52(4):355–63 (108 ref.)

Women's health research for the twenty-first century. Pinn VW. **J Dent Educ** 1999 Mar;63(3):223–30

Clinical research methods for the new millenium. Charlton BG. **J Eval Clin Pract** 1999 May;5(2):251–63

The J.I.M. interview. Kenneth I. Shine, MD [interview] Shine KI. **J Investig Med** 1999 Jan;47(1):11–6

The sexual revolution in science: what gender-based research is telling us. Thompson PM, et al. **J Investig Med** 1999 Mar;47(3):106–13 (40 ref.)

Quo vadis? The future of basic research in orthopedics in Japan [editorial] Hirotani H. **J Orthop Sci** 1999;4(1):1–4 (16 ref.)

Otolaryngology research in Canada [editorial] Blakley BW.
J Otolaryngol 1999 Jun;28(3):119–20

Collaborative research and development. Moncada S.
J R Soc Med 1998;91 Suppl 36:21–2

Highlights of 1998, Harbingers of 1999 [editorial] Healy BP.
J Womens Health 1999 Jan–Feb;8(1):1–2

New organization promotes patient-oriented research [news] Friedrich MJ. **JAMA** 1999 Feb 24;281(8):693

Practice-based research networks answer primary care questions. Nutting PA, et al. **JAMA** 1999 Feb 24; 281(8):686–8

Ensuring the survival of the clinician-scientist. Schrier RW.
Kidney Blood Press Res 1998;21(2–4):211–2

The contribution of avian models to our understanding of atherosclerosis and their promise for the future. St Clair RW. **Lab Anim Sci** 1998 Dec;48(6):565–8 (36 ref.)

Animal models of human disease for the 21st century. Vaitukaitis JL. **Lab Anim Sci** 1998 Dec;48(6):562–4

Could institutional clinical trials exist in Europe? EUTERP Pilot Study Group. European Trial of Estrogen/progestin Replacement treatment in Post-menopause [see comments] Cornu C, et al. **Lancet** 1999 Jan 2;353(9146):63–4. Comment in: Lancet 1999 Mar 13;353(9156):929–30. Comment in: Lancet 1999 Mar 13;353(9156):930.

Bias against European journals in medical publication Databases [letter] Nieminen P, et al. **Lancet** 1999 May 8; 353(9164):1592

Biotechnology's future and the art of managing R&D. Mehta V. **Nat Biotechnol** 1999 Feb;17 Suppl:BE29–30

Evolving vaccines [editorial] **Nat Med** 1999 Oct;5(10):1089

Clinical research is dead; long live clinical research [see comments] Bell JI. **Nat Med** 1999 May;5(5):477–8. Comment in: Nat Med 1999 Jul;5(7):714–5. Comment in: Nat Med 1999 Aug;5(8):853.

NCI defends research involving minority groups [news] Gottlieb S. **Nat Med** 1999 Mar;5(3):254

Clinical research, or classical clinical research? [letter; comment] Persson C. **Nat Med** 1999 Jul;5(7):714–5. Comment on: Nat Med 1999 May;5(5):477–8.

Japan considers the achievements and pitfalls of its five-year plan [news] Triendl R. **Nat Med** 1999 Jun;5(6):597

Our tax dollars at work [editorial] Bullimore MA.
Optom Vis Sci 1998 Aug;75(8):549

Growing pain: 10-year research trends in the study of chronic pain and headache. Norton PJ, et al. **Pain** 1999 Jan;79(1):59–65

Trends in early research careers of life scientists.
Physiologist 1998 Dec;41(6):385, 388–93

Research in medical sciences in Israel, 1994–97, an overview of institutions, investigators, and funding. Berns DS.
Public Health Rev 1998;26(3):271–92

Urinary biomarkers: recommendations of the Joint European/United States Workshop for future research. Finn WF, et al. **Ren Fail** 1999 May–Jul;21(3–4):445–51 (18 ref.)

Veterinary research—a continuing challenge for the schools [news] **Vet Rec** 1999 May 22;144(21):570–2

Wooldridge Memorial Lecture. Veterinary research: the need for a culture change [see comments] Ogilvie BM.
Vet Rec 1998 Nov 7;143(19):518–22. Comment in: Vet Rec 1999 Jan 30;144(5):129–30.

The productivity and impact of psychiatric research on development of mental health services in Nigeria. Adamson TA. **West Afr J Med** 1998 Oct–Dec;17(4):243–7

The promise of a multiple roles paradigm for women's health research [editorial] Repetti RL. **Womens Health** 1998 Winter;4(4):273–80 (32 ref.)

[Clinical researchers and the pharmaceutical industry (editorial)] ten Cate JW. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1349–52 (Eng. Abstr.) **(Dut)**

[Scientific and technological innovations in the search for new drugs] Hélène C. **C R Acad Sci III** 1999 Jul; 322(7):529–36 (15 ref.) **(Fre)**

[Progress achieved in the prevention and therapy of Alzheimer's disease] Stähelin HB.
Rev Med Suisse Romande 1999 Apr;119(4):319–22 (19 ref.) **(Fre)**

[Drug research in Germany—problems and chances—from the viewpoint of the drug industry] Weihrauch TR, et al.
Arzneimittelforschung 1998 Nov;48(11):1047–50 (Eng. Abstr.) **(Ger)**

[Future-oriented clinical research in Germany. The role of ethics committees (letter)] Clemens N.
Dtsch Med Wochenschr 1999 Aug 27;124(34–35):A17 **(Ger)**

[Future-oriented clinical research in Germany] Labs R, et al. **Dtsch Med Wochenschr** 1999 Apr 9;124(14):A18–21 **(Ger)**

[Future-oriented clinical research in Germany. The mistakes of the past (letter)] Schneemann M.
Dtsch Med Wochenschr 1999 Aug 27;124(34–35):A17 **(Ger)**

[Future-oriented clinical research. The structure of the Interdisciplinary Center for Clinical Research in Leipzig] Staehr C. **Dtsch Med Wochenschr** 1999 Sep 10; 124(36):A15–8 **(Ger)**

[Clinical research in Germany] Söling HD. **Med Klin** 1999 May 15;94(5):282–9 **(Ger)**

[Medicine and research: challenges for the doctor. Introductory lecture from the chairman of the 105th Congress of the German Society for Internal Medicine, Wiesbaden, 10 to 14 April 1999] V Diehl. **Med Klin** 1999 Apr 15;94(4):185–92 **(Ger)**

[Highlights and trends German Genome Product 1999 anniversity in Ulm: from the sick-bed to workbench or "from bench to bedside"] Schober O. **Nuklearmedizin** 1999; 38(5):51–60 **(Ger)**

[Clinical research today and its promotion by industry—advantages and risks] Creutzfeldt W.
Z Gastroenterol 1999 Jul;Suppl 2:4–11 **(Ger)**

RESEARCH, CLINICAL NURSING see **CLINICAL NURSING RESEARCH**

RESEARCH, DENTAL see **DENTAL RESEARCH**

RESEARCH DESIGN

Statistical methodology: VIII. Using confirmatory factor analysis (CFA) in emergency medicine research. Bryant FB, et al. **Acad Emerg Med** 1999 Jan;6(1):54–66

Research fundamentals: IV. Choosing a research design. Hall KN, et al. **Acad Emerg Med** 1999 Jan;6(1):67–74

Research fundamentals: V. The use of laboratory animal models in research. O'Neil BJ, et al. **Acad Emerg Med** 1999 Jan;6(1):75–82

Recent trends and controversies in industry-sponsored clinical trials. Reed CR, et al. **Acad Emerg Med** 1999 Aug; 6(8):833–9 (37 ref.)

Airway research [letter] Walls RM, et al.
Acad Emerg Med 1999 Aug;6(8):866–8

A physiologically-based pharmacokinetic (PBPK) model for alcohol facilitates rapid BrAC clamping. Ramchandani VA, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):617–23

National Cancer Institute's OCCAM partners with NCCAM to expand research on unconventional cancer treatments [news] Muscat M. **Altern Ther Health Med** 1999 Jul; 5(4):26–30

How widely is blind assessment used in scientific research? Sheldrake R. **Altern Ther Health Med** 1999 May;5(3):88–91

Quantitative research methods. Munro BH.
Alzheimer Dis Assoc Disord 1999 Apr–Jun;13 Suppl 1:S50–3

Post hoc subgroup analysis and the truth of a clinical trial [editorial; comment] Adams KF Jr. **Am Heart J** 1998 Nov; 136(5):753–8. Comment on: Am Heart J 1998 Nov;136(5):769–77.

Comparison of the effects of losartan and captopril on mortality in patients after acute myocardial infarction: the OPTIMAAL trial design. Optimal Therapy in Myocardial Infarction with the Angiotensin II Antagonist Losartan. Dickstein K, et al. **Am J Cardiol** 1999 Feb 15;83(4):477–81

Rationale and design of the Arterial Disease Multiple

Intervention Trial (ADMIT) pilot study. Egan DA, et al. **Am J Cardiol** 1999 Feb 15;83(4):569–75

Practicing participatory research in American Indian communities. Davis SM, et al. **Am J Clin Nutr** 1999 Apr; 69(4 Suppl):755S–759S (37 ref.)

Pathways: a culturally appropriate obesity-prevention program for American Indian schoolchildren. Davis SM, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):796S–802S

Multisite formative assessment for the Pathways study to prevent obesity in American Indian schoolchildren. Gittelsohn J, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):767S–772S

Physical activity assessment in American Indian schoolchildren in the Pathways study. Going SB, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):788S–795S

Improving study design [letter] Sandstead HH. **Am J Clin Nutr** 1999 Jul;70(1):110–1

The controversy of significance testing: misconceptions and alternatives. Glaser DN. **Am J Crit Care** 1999 Sep; 8(5):291–6 (43 ref.)

Components of variance and intraclass correlations for the design of community-based surveys and intervention studies: data from the Health Survey for England 1994. Gulliford MC, et al. **Am J Epidemiol** 1999 May 1; 149(9):876–83

Clinical research: business opportunities for pharmacy-based investigational drug services. Marnocha RM. **Am J Health Syst Pharm** 1999 Feb 1;56(3):249–52

Methods for detection of parent-of-origin effects in genetic studies of case-parents triads. Weinberg CR. **Am J Hum Genet** 1999 Jul;65(1):229–35

Number needed to treat: solid science or a path to pernicious rationing? Black HR, et al. **Am J Hypertens** 1998 Aug;11(8 Pt 2):128S–134S; discussion 135S–137S (30 ref.)

Genetic linkage study of panic: clinical methodology and description of pedigrees. Fyer AJ, et al. **Am J Med Genet** 1999 Apr 16;88(2):173–81

Tracing research methodology in occupational therapy. Custard C. **Am J Occup Ther** 1998 Sep;52(8):676–83

Clinical interpretation of "effect of rehabilitation tasks on organization of movement after stroke" [comment] Flinn NA. **Am J Occup Ther** 1999 Jul-Aug;53(4):345–7. Comment on: Am J Occup Ther 1999 Jul-Aug;53(4):333–44.

Randomized clinical trials in medical rehabilitation research. Tate DG, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct; 78(5):486–99 (67 ref.)

Use of sequential medical trials in rehabilitation research. Tooth L. **Am J Phys Med Rehabil** 1999 Jan-Feb; 78(1):87–97 (18 ref.)

Personality ratings of depressed outpatients [letter; comment] Reich J. **Am J Psychiatry** 1999 Jul;156(7):1124–5. Comment on: Am J Psychiatry 1998 Mar;155(3):437–8.

Assessing prenatal hepatitis B screening in Illinois with an inexpensive study design adaptable to other jurisdictions [see comments] Barr D, et al. **Am J Public Health** 1999 Jan;89(1):19–24. Comment in: Am J Public Health 1999 Jan;89(1):11–3.

Abandoning race as a variable in public health research [letter; comment] Buehler JW. **Am J Public Health** 1999 May;89(5):783; discussion 784. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.

"Whiting out" white privilege will not advance the study of how racism harms health [letter; comment] Krieger N, et al. **Am J Public Health** 1999 May;89(5):782–3; discussion 784–5. Comment on: Am J Public Health 1998 Sep;88(9):1297–8. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.

The use of race as a variable in public health research [letter; comment] Rabin R. **Am J Public Health** 1999 May; 89(5):783; discussion 784. Comment on: Am J Public Health 1998 Sep;88(9):1303–7.

Designs of reference families for the construction of genetic linkage maps. Da Y, et al. **Anim Biotechnol** 1998;9(3):205–28

Design and implementation of a patient education center for the Childhood Asthma Management Program. Childhood Asthma Management Program Research Group [see comments] **Ann Allergy Asthma Immunol** 1998 Dec; 81(6):571–81. Comment in: Ann Allergy Asthma Immunol 1998 Dec;81(6):519–21.

Strategy for evaluation and prevention of risk due to work in thermal environments. Malchaire J, et al. **Ann Occup Hyg** 1999 Jul;43(5):367–76 (15 ref.)

An emancipatory impulse: a feminist postmodern integrated turning point in nursing research. Glass N, et al. **ANS Adv Nurs Sci** 1998 Sep;21(1):43–52 (45 ref.)

Womanism: a methodologic framework for African American women. Taylor JY. **ANS Adv Nurs Sci** 1998 Sep; 21(1):53–64 (60 ref.)

Randomized trials and scientific methods [letter; comment] Wrone DA, et al. **Arch Dermatol** 1999 May;135(5):602. Comment on: Arch Dermatol 1998 Nov;134(11):1368–70.

Side to side comparison of topical treatment in atopic dermatitis. Ainley-Walker PF, et al. **Arch Dis Child** 1998 Aug;79(2):149–52

The objectives of medical research [letter; comment] Healy MJ. **Arch Dis Child Fetal Neonatal Ed** 1998 Sep;79(2):F159 . Comment on: Arch Dis Child Fetal Neonatal Ed 1998 Jan;78(1):F1–2.

Speed dependence of crutch force and oxygen uptake: implications for design of comparative trials on orthoses for people with paraplegia. IJzerman MJ, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1408–14

Analyzing estimates of automatic and conscious retrieval in between- and within-subjects designs. Horton KD, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):347–52

A hypertext-based tutorial with links to the Web for teaching statistics and research methods. Koch C, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):7–13

ABC of intensive care: outcome data and scoring systems. Gunning K, et al. **BMJ** 1999 Jul 24;319(7204):241–4 (0 ref.)

Fraud. Some aspects do not fall within remit of bodies examining fraud [letter; comment] Hillman H. **BMJ** 1998 Dec 5;317(7172):1591. Comment on: BMJ 1998 Jun 6;316(7146):1686–7. Comment on: BMJ 1998 Jun 6;316(7146):1726–8. Comment on: BMJ 1998 Jun 6;316(7146):1728–9. Comment on: BMJ 1998 Jun 6;316(7146):1729–31. Comment on: BMJ 1998 Jun 6;316(7146):1731–2. Comment on: BMJ 1998 Jun 6;316(7146):1733.

Randomised block design is more powerful than minimisation [letter; comment] [see comments] Ross N. **BMJ** 1999 Jan 23;318(7178):263–4. Comment on: BMJ 1998 Aug 8;317(7155):362–3. Comment in: BMJ 1999 May 22;318(7195):1420.

Evaluation of screening for nasopharyngeal carcinoma: trial design using Markov chain models. Chen HH, et al. **Br J Cancer** 1999 Apr;79(11-12):1894–900

Information from sports injury research [letter; comment] Gissane C. **Br J Sports Med** 1999 Apr;33(2):141–2. Comment on: Br J Sports Med 1998 Dec;32(4):297–8.

Influence of study design on reported mortality and morbidity rates after abdominal aortic aneurysm repair. Blankensteijn JD, et al. **Br J Surg** 1998 Dec;85(12):1624–30 (86 ref.)

Intentional ignorance: a history of blind assessment and placebo controls in medicine. Kaptchuk TJ. **Bull Hist Med** 1998 Fall;72(3):389–433

Sample size estimation for the sorcerer's apprentice. Guide for the uninitiated and intimidated. Ray JG, et al. **Can Fam Physician** 1999 Jul;45:1732–9

Methodological and clinical challenges in evaluating treatment outcome of substance-related disorders and comorbidity. el-Guebaly N, et al. **Can J Psychiatry** 1999 Apr;44(3):264–70

Thinking small: research designs appropriate for clinical practice. Streiner DL. **Can J Psychiatry** 1998 Sep; 43(7):737–41

Prenatal factors and adult mental and physical health [see comments] Susser EB, et al. **Can J Psychiatry** 1999 May; 44(4):326–34 (79 ref.). Comment in: Can J Psychiatry 1999 May;44(4):325.

Commentary on social research about young people with congenital conditions [editorial; comment] Alderson P. **Cardiol Young** 1998 Jul;8(3):287–9. Comment on: Cardiol Young 1998 Jul;8(3):303–9.

Ad libitum mixing in a taste memory task: methodological issues. Vanne M, et al. **Chem Senses** 1998 Aug;23(4):379–84

Using participatory research to help promote the physical and mental health of female social workers in child welfare. Gold N. **Child Welfare** 1998 Nov-Dec;77(6):701–24

Child mortality analysis project. Bartholomew S, et al. **Chronic Dis Can** 1998;19(3):131–2

Bone repair and enhancement clinical trial design. Spine applications. Boden SD. **Clin Orthop** 1998 Oct;(355 Suppl):S336–46 (48 ref.)

Proper design of clinical trials for the assessment of bone graft substitutes. Cornell CN. **Clin Orthop** 1998 Oct;(355 Suppl):S347–52 (18 ref.)

Population pharmacokinetics. A regulatory perspective. Sun H, et al. **Clin Pharmacokinet** 1999 Jul;37(1):41–58 (60 ref.)

Selective serotonin reuptake inhibitor utilization patterns: consistency across research designs. Hutchins DS, et al. **Clin Ther** 1998 Jul-Aug;20(4):797–805

Experiments carried out over the Web [editorial; comment] Mehler J. **Cognition** 1999 Jul 30;71(3):187–9. Comment on: Cognition 1999 Jul 30;71(3):191–229.

A study of infectious intestinal disease in England: plan and methods of data collection [see comments] Sethi D, et al. **Commun Dis Public Health** 1999 Jun;2(2):101–7. Comment in: Commun Dis Public Health 1999 Jun;2(2):78–9.

The Childhood Asthma Management Program (CAMP): design, rationale, and methods. Childhood Asthma Management Program Research Group. **Control Clin Trials** 1999 Feb;20(1):91–120

A randomized design for repeated binary outcomes used to evaluate continued effectiveness of a breast cancer control intervention strategy. Gimotty PA, et al. **Control Clin Trials** 1999 Jun;20(3):280–93

A design alternative for two-stage, phase II, multicenter cancer clinical trials. Herndon JE 2nd. **Control Clin Trials** 1998 Oct;19(5):440–50

Prophylactic coronary artery revascularization for elective vascular surgery: study design. Veterans Affairs Cooperative Study Group on Coronary Artery Revascularization Prophylaxis for Elective Vascular Surgery. McFalls EO, et al. **Control Clin Trials** 1999 Jun; 20(3):297–308

Design of the PID Evaluation and Clinical Health (PEACH) Study. Ness RB, et al. **Control Clin Trials** 1998 Oct; 19(5):499–514

Ethics and practice: alternative designs for phase III randomized clinical trials. Palmer CR, et al. **Control Clin Trials** 1999 Apr;20(2):172–86

Sample size and design considerations for phase II clinical trials with correlated observations. Sargent DJ, et al. **Control Clin Trials** 1999 Jun;20(3):242–52

Behavioral and pharmacologic interventions: the Raynaud's Treatment Study. Thompson B, et al. **Control Clin Trials** 1999 Feb;20(1):52–63

Clinical trials in acute respiratory distress syndrome: what is ARDS? [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1657–8 (13 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1478–85.

Immunoglobulins in anergic patients: choice of patients, identification of dependent variables, and importance of study [editorial; comment] Christou NV. **Crit Care Med** 1999 Jul;27(7):1387–8. Comment on: Crit Care Med 1999 Jul;27(7):1281–7.

Inhaled nitric oxide [letter; comment] Cuthbertson BH, et al. **Crit Care Med** 1999 Apr;27(4):848–9. Comment on: Crit Care Med 1998 Jan;26(1):1–2. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

Nitric oxide: how varied standards of ventilation affect study outcome [letter; comment] Papadakos PJ. **Crit Care Med** 1999 Apr;27(4):847–8. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

Inhaled nitric oxide in ARDS: is the question closed? [letter; comment] Preiser JC, et al. **Crit Care Med** 1999 Apr; 27(4):846–7. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

The Diabetes Prevention Program. Design and methods for a clinical trial in the prevention of type 2 diabetes [see comments] **Diabetes Care** 1999 Apr;22(4):623–34. Comment in: Diabetes Care 1999 Apr;22(4):543–5.

Selection bias and the use of controls with malformations in case-control studies of birth defects. Lieff S, et al. **Epidemiology** 1999 May;10(3):238–41

Practical experience with the design and analysis of a three-armed equivalence study. Lange S, et al. **Eur J Clin Pharmacol** 1998 Sep;54(7):535–40

Individual case studies in primary health care [editorial] Charlton BG. **Fam Pract** 1999 Feb;16(1):1–3

A review of research in the United Kingdom to evaluate the implementation of clinical guidelines in general practice. Dowie R. **Fam Pract** 1998 Oct;15(5):462–70 (34 ref.)

Measurement of dorsal mobility in the first ray: elimination of fat pad compression as a variable. Glasoe WM, et al. **Foot Ankle Int** 1998 Aug;19(8):542–6

Metatarsophalangeal and intermetatarsal angle: different values and interpretation of postoperative results dependent on the technique of measurement. Schneider W, et al. **Foot Ankle Int** 1998 Aug;19(8):532–6

Designing studies to estimate the penetrance of an identified autosomal dominant mutation: cohort, case-control, and genotyped-proband designs. Gail MH, et al. **Genet Epidemiol** 1999;16(1):15–39

Meta-analysis methodology for combining non-parametric sibpair linkage results: genetic homogeneity and identical markers. Gu C, et al. **Genet Epidemiol** 1998;15(6):609–26

Ethical issues in the design and conduct of randomised controlled trials. Edwards SJ, et al. **Health Technol Assess** 1998 Dec;2(15):i-vi, 1–132 (620 ref.)

Systematic reviews of trials and other studies. Sutton AJ, et al. **Health Technol Assess** 1998;2(19):1–276

Prognostic scores and design of clinical studies. Ohmann C. **Infection** 1998 Sep-Oct;26(5):342–4

The effect of methodological differences in two survey's estimates of the percentage of employers sponsoring health insurance. Hing E, et al. **Inquiry** 1999 Summer;36(2):212–20

Individual differences in aging minorities. Whitfield KE, et al. **Int J Aging Hum Dev** 1999;48(1):73–9

Evaluation designs for adequacy, plausibility and probability of public health programme performance and impact. Habicht JP, et al. **Int J Epidemiol** 1999 Feb;28(1):10–8 (20 ref.)

Case-case comparisons to study causation of common infectious diseases. McCarthy N, et al. **Int J Epidemiol** 1999 Aug;28(4):764–8 (24 ref.)

Induction versus Popper: substance versus semantics [letter] Pavesi M. **Int J Epidemiol** 1999 Apr;28(2):360–1 (7 ref.)

Capture-recapture method for estimating misclassification errors: application to the measurement of vaccine efficacy in randomized controlled trials. Simondon F, et al. **Int J Epidemiol** 1999 Feb;28(1):113–6

ACOG committee opinion. Ethical considerations in research involving pregnant women. Number 213, November 1998. Committee on Ethics. American College of Obstetricians and Gynecologists. **Int J Gynaecol Obstet** 1999 Apr; 65(1):93–6

One-eyed science: scientists, workplace reproductive hazards, and the right to work. Messing K. **Int J Health Serv** 1999;29(1):147–65

The Speech and Language Therapy Research Unit at Frenchay Hospital, Bristol. Cotton S. **Int J Lang Commun Disord** 1998;33 Suppl:6–9

The value of single-case research. Millard SK. **Int J Lang Commun Disord** 1998;33 Suppl:370–3

Supporting practitioner research in speech and language therapy. Miller C. **Int J Lang Commun Disord** 1998;33 Suppl:26–30

Potential application of molecular biology to leprosy research. Gillis TP. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):591–2

Pre-operative education--a review of the research design.

Shuldham C. **Int J Nurs Stud** 1999 Apr;36(2):179–87 (61 ref.)

Sound–musical stimulation of comatose patients: theoretical basis for a research program [letter] Urciuoli R, et al. **Intensive Care Med** 1999 Apr;25(4):422

Establishing the credibility of qualitative research findings: the plot thickens. Cutcliffe JR, et al. **J Adv Nurs** 1999 Aug; 30(2):374–80 (43 ref.)

The theory–practice gap in nursing: from research–based practice to practitioner–based research. Rolfe G. **J Adv Nurs** 1998 Sep;28(3):672–9

Triangulation in nursing research: issues of conceptual clarity and purpose. Shih FJ. **J Adv Nurs** 1998 Sep;28(3):631–41

Progress's Pilgrim: a critical narrative of research in progress. Tilley S, et al. **J Adv Nurs** 1999 May;29(5):1221–7

Randomized controlled trials of individualized homeopathy: a state–of–the–art review [see comments] Linde K, et al. **J Altern Complement Med** 1998 Winter;4(4):371–88 (50 ref.) . Comment in: J Altern Complement Med 1998 Winter;4(4):355–7.

Rationale and design of the Cocaine Alternative Treatments Study (CATS): a randomized, controlled trial of acupuncture [see comments] Margolin A, et al. **J Altern Complement Med** 1998 Winter;4(4):405–18. Comment in: J Altern Complement Med 1998 Winter;4(4):355–7. Comment in: J Altern Complement Med 1999 Feb;5(1):103–4.

A tale of two paradigms. Gliner JA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):342–3

Research problems and variables. Harmon RJ, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):784–5

ADHD in girls: clinical comparability of a research sample. Sharp WS, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jan;38(1):40–7

Drinking in college: the politics of research and prevention [editorial; comment] Keeling RP. **J Am Coll Health** 1998 Sep;47(2):51–5. Comment on: J Am Coll Health 1998 Sep;47(2):57–68.

The DASH Diet, Sodium Intake and Blood Pressure Trial (DASH–sodium): rationale and design. DASH–Sodium Collaborative Research Group. Svetkey LP, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S96–104

Dietary Approaches to Stop Hypertension: rationale, design, and methods. DASH Collaborative Research Group. Vogt TM, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S12–8 (60 ref.)

Eye Movement Desensitization and Reprocessing: an analysis of specific versus nonspecific treatment factors. Lohr JM, et al. **J Anxiety Disord** 1999 Jan–Apr;13(1–2):185–207 (133 ref.)

Commentary: On the limited role of the "single–subject" design in psychology: hypothesis generating but not testing [comment] Furedy JJ. **J Behav Ther Exp Psychiatry** 1999 Mar;30(1):21–2; discussion 23–5. Comment on: J Behav Ther Exp Psychiatry 1999 Mar;30(1):15–20.

Using a single–subject design to assess the development of anxiety in humans [see comments] Lejuez CW, et al. **J Behav Ther Exp Psychiatry** 1999 Mar;30(1):15–20. Comment in: J Behav Ther Exp Psychiatry 1999 Mar;30(1):21–2; discussion 23–5.

Design and analysis issues for crossover designs in phase I clinical studies. Boon PC, et al. **J Biopharm Stat** 1999 Mar; 9(1):109–28

A method for estimating and testing area under the curve in serial sacrifice, batch, and complete data designs. Holder DJ, et al. **J Biopharm Stat** 1999 Aug;9(3):451–64

Multiple–objective optimal designs. Huang YC, et al. **J Biopharm Stat** 1998 Nov;8(4):635–43

Group sequential procedures for repeated events data with frailty. Jiang W. **J Biopharm Stat** 1999 Aug;9(3):379–99

Approximately optimal designs for phase II clinical studies. Stallard N. **J Biopharm Stat** 1998 Jul;8(3):469–87

The distribution of the maximum likelihood estimator in up–and–down experiments for quantal dose–response data. Vågerö M, et al. **J Biopharm Stat** 1999 Aug;9(3):499–519

Bayesian monitoring of phase II trials in cancer chemoprevention [see comments] Cronin KA, et al. **J Clin Epidemiol** 1999 Aug;52(8):705–11. Comment in: J Clin Epidemiol 1999 Aug;52(8):713–4; discussion 715–6.

Estimation and sample design in prevalence surveys of dementia. Edland SD, et al. **J Clin Epidemiol** 1999 May; 52(5):399–403

The Zelen design may be the best choice for a heroin–provision experiment. Schellings R, et al. **J Clin Epidemiol** 1999 Jun;52(6):503–7

Mood stabilizers and the evolution of maintenance study designs in bipolar I disorder. Calabrese JR, et al. **J Clin Psychiatry** 1999;60 Suppl 5:5–13, discussion 14–5 (42 ref.)

The Risperidone Outcomes Study of Effectiveness (ROSE): a model for evaluating treatment strategies in typical psychiatric practice. Mahmoud R, et al. **J Clin Psychiatry** 1999;60 Suppl 3:42–7; discussion 48

Plans, designs, and analyses for clinical trials of anti–cocaine medications: where we are today. NIDA/VA/SU Working Group on Design and Analysis. Lavori PW, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):246–56

Relation between experimental and non–experimental study designs. HB vaccines: a case study. Jefferson T, et al. **J Epidemiol Community Health** 1999 Jan;53(1):51–4

Individual case studies in clinical research. Charlton BG, et al. **J Eval Clin Pract** 1998 May;4(2):147–55

Effect of cognitive rehabilitation on outcomes for persons with traumatic brain injury: A systematic review [see comments] Carney N, et al. **J Head Trauma Rehabil** 1999 Jun;14(3):277–307 (45 ref.). Comment in: J Head Trauma Rehabil 1999 Jun;14(3):308–11; discussion 322–4. Comment in: J Head Trauma Rehabil 1999 Jun;14(3):312–5; discussion 322–4. Comment in: J Head Trauma Rehabil 1999 Jun;14(3):316–21; discussion 322–4.

Design and analysis of serial limiting dilution assays with small sample sizes. Macken C. **J Immunol Methods** 1999 Jan 1;222(1–2):13–29

Interaction and model selection [letter] Wildner M, et al. **J Intern Med** 1997 Jun;241(6):535–6

The effect of membrane permeability on ESRD: design of a prospective randomised multicentre trial. Locatelli F, et al. **J Nephrol** 1999 Mar–Apr;12(2):85–8

Chance and design. McDonald WI. **J Neurol** 1999 Aug; 246(8):654–60

Nursing education planning: a Delphi study. Mitchell MP. **J Nurs Educ** 1998 Oct;37(7):305–7

Special considerations in design of trials with elderly subjects: unexplained weight loss, body composition and energy expenditure. Poehlman ET. **J Nutr** 1999 Jan;129(1S Suppl):260S–263S (25 ref.)

Special considerations in the design of trials involving children. Underwood LE. **J Nutr** 1999 Jan;129(1S Suppl):264S–269S (18 ref.)

Dusting off that old proposal: how to survive in the land of research. Clarke–Steffen L, et al. **J Pediatr Oncol Nurs** 1998 Oct;15(4):229–33

Commentary: current status and future directions in acute pediatric pain assessment and treatment [comment] Blount RL, et al. **J Pediatr Psychol** 1999 Apr;24(2):150–2. Comment on: J Pediatr Psychol 1999 Apr;24(2):131–45.

Acceptance Program Guidelines. Products and methods for the diagnosis and/or management of periodontitis. Council on Scientific Affairs. American Dental Association. **J Periodontol** 1998 Sep;69(9):1071–5

Acceptance Program Guidelines. Chemotherapeutic agents to slow or arrest periodontitis. Council on Scientific Affairs. American Dental Association. **J Periodontol** 1998 Sep;69(9):1076–80

Acceptance Program Guidelines. Products designed to regenerate periodontal tissues. Council on Scientific Affairs. American Dental Association. **J Periodontol** 1998 Sep;69(9):1081–4

Crossover design in tamoxifen bioequivalence: a borderline situation [letter] Marzo A. **J Pharm Pharmacol** 1998 Dec; 50(12):1433–4

Critical issues in longitudinal and observational studies: purpose, short versus long term, selection of study instruments, methods, outcomes, and biases. Wolfe F. **J Rheumatol** 1999 Feb;26(2):469–72

Rationale and design of the National Emphysema Treatment Trial (NETT): A prospective randomized trial of lung volume reduction surgery. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):518–28 (41 ref.)

Empirical evidence of design–related bias in studies of diagnostic tests [see comments] Lijmer JG, et al. **JAMA** 1999 Sep 15;282(11):1061–6. Comment in: JAMA 1999 Sep 15;282(11):1083–5.

From effect size into number needed to treat [letter] Furukawa TA. **Lancet** 1999 May 15;353(9165):1680

Biases in reporting of trials [letter; comment] Lorenz W. **Lancet** 1999 Apr 10;353(9160):1277. Comment on: Lancet 1999 Feb 6;353(9151):490–3.

Critical–care studies: redefining the rules [published erratum appears in Lancet 1999 Mar 6;353(9155):848] Palazzo M, et al. **Lancet** 1998 Oct 17;352(9136):1306–7

Is there a Gulf War syndrome? [letter; comment] Roff SR. **Lancet** 1999 Apr 3;353(9159):1182–3. Comment on: Lancet 1999 Jan 16;353(9148):169–78.

Stopping a clinical trial properly [letter; comment] Whitehead J. **Lancet** 1999 Jun 19;353(9170):2164. Comment on: Lancet 1999 Mar 20;353(9157):943–4.

Conceptional and structural conditions for successful clinical research. Troidl H. **Langenbecks Arch Surg** 1998 Oct; 383(5):306–16 (30 ref.)

Using single–subject methodology to investigate psychiatric treatments in systemic lupus erythematosus. Iverson GL, et al. **Lupus** 1998;7(5):295–300 (31 ref.)

The significance of research bias for evidence–based practice. Kachoyeanos MK. **MCN Am J Matern Child Nurs** 1998 Nov–Dec;23(6):334

Determining costs in VA: research design problems and solutions illustrated with case studies. Menke TJ, et al. **Med Care** 1999 Apr;37(4 Suppl Va):AS18–26

Application of random effects models and other methods to the analysis of multidimensional quality of life data in an AIDS clinical trial. Wu AW, et al. **Med Care** 1999 Mar; 37(3):249–58

Should research ethics change at the border? [letter; comment] Lurie P, et al. **Med J Aust** 1999 Aug 2; 171(3):167–8. Comment on: Med J Aust 1998 Nov 16;169(10):509–10.

Quality of life in clinical trials: assessment and utility with special reference to rHuEPO. Brandberg Y. **Med Oncol** 1998 Aug;15 Suppl 1:S8–12 (30 ref.)

The pros and cons of clinical trials [editorial] Eden OB. **Med Pediatr Oncol** 1998 Dec;31(6):521

Design and analysis of research on sport performance enhancement [see comments] Hopkins WG, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):472–85. Comment in: Med Sci Sports Exerc 1999 May;31(5):755–7.

Sport performance enhancement: design and analysis of research [letter; comment] Kearney JT. **Med Sci Sports Exerc** 1999 May;31(5):755–7. Comment on: Med Sci Sports Exerc 1999 Mar;31(3):472–85.

Failure to adequately use positive control data leads to poor quality mouse lymphoma data assessments. Moore MM, et al. **Mutagenesis** 1999 May;14(3):261–3 (19 ref.)

Valacyclovir to prevent cytomegalovirus disease after renal transplantation [letter] Shapiro ME, et al. **N Engl J Med** 1999 Sep 16;341(12):921

A step towards quality medical research. Mathew A, et al. **Natl Med J India** 1998 Nov–Dec;11(6):283–6

How many subjects constitute a study? Friston KJ, et al. **Neuroimage** 1999 Jul;10(1):1–5

The critical relationship between the timing of stimulus presentation and data acquisition in blocked designs with fMRI. Price CJ, et al. **Neuroimage** 1999 Jul;10(1):36–44

Multiple comparisons: a cautionary tale about the dangers of fishing expeditions. Cormier KD, et al. **Nutrition** 1999 Apr;15(4):332–3

Clinical trial design for obesity agents: a workshop report. Anderson JW, et al. **Obes Res** 1998 Jul;6(4):311–5

Acknowledging the importance of study design in the organization and quality of manuscripts [editorial] Minckler D. **Ophthalmology** 1999 Jan;106(1):11–2, 182–206

The Collaborative Initial Glaucoma Treatment Study: study design, methods, and baseline characteristics of enrolled patients. Musch DC, et al. **Ophthalmology** 1999 Apr; 106(4):653–62

Relating clinical study design to basic research. Choh V, et al. **Optom Vis Sci** 1999 Jul;76(7):462–7 (10 ref.)

Clinical utility of demineralized bone matrix for osseous defects, arthrodesis, and reconstruction: impact of processing techniques and study methodology. Russell JL, et al. **Orthopedics** 1999 May;22(5):524–31; quiz 532–3 (79 ref.)

Design of clinical trials in knee osteoarthritis: practical issues for debate [editorial] Doherty M, et al. **Osteoarthritis Cartilage** 1998 Nov;6(6):371–3

Methodological considerations in the design of the WHO Antenatal Care Randomised Controlled Trial. Donner A, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:59–74

Participation in a mail survey: role of repeated mailings and characteristics of nonrespondents among recent mothers. Larroque B, et al. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):218–33

Determinants of participation in an epidemiological study of preterm delivery. Savitz DA, et al. **Paediatr Perinat Epidemiol** 1999 Jan;13(1):114–25

The WHO antenatal care randomised controlled trial: rationale and study design. Villar J, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:27–58

Size is everything—large amounts of information are needed to overcome random effects in estimating direction and magnitude of treatment effects. Moore RA, et al. **Pain** 1998 Dec;78(3):209–16

Pain relief for neonatal circumcision: serious design flaws? [letter] Van Howe RS. **Pediatrics** 1999 Jan;103(1):196–7

New methodological advice for research in subliminal psychodynamic activation. Birgegard A, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):747–55

Further comments regarding Malik, et al.'s 1996 experiment on the method of subliminal psychodynamic activation. Greenberg AC. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1369–70

Clarifying the issues: a reply to Masling. Malik R, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):744–6

Research designs in physiotherapy, which is best [editorial] Partridge C. **Physiother Res Int** 1999;4(1):IV–V

Questionnaires: the use and abuse of social survey methods in medical research. Eaden J, et al. **Postgrad Med J** 1999 Jul;75(885):397–400 (36 ref.)

Data errors in EMT licensure evaluator article [letter; comment] [see comments] O'Keefe M. **Prehosp Emerg Care** 1999 Apr–Jun;3(2):174–8. Comment on: Prehosp Emerg Care 1998 Jan–Mar;2(1):37–46. Comment in: Prehosp Emerg Care 1999 Apr–Jun;3(2):178–9.

Cancer information service–initiated outcalls to promote screening mammography among low–income and minority women: design and feasibility testing. Crane LA, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 2):S29–38

Promoting cancer screening among the first–degree relatives of breast and colorectal cancer patients: the design of two randomized trials. Marcus AC, et al. **Prev Med** 1999 Mar; 28(3):229–42

Comment on the appropriateness of The Prostate publishing a trial comparing Permixon to finasteride without a placebo control group [editorial; comment] Gillenwater JY. **Prostate** 1998 Nov 1;37(3):194. Comment on: Prostate 1996 Oct;29(4):231–40; discussion 241–2.

Abstracts of trials presented at the Vth World Congress of Psychiatry (Mexico, 1971): a cohort study. Diezel K, et al. **Psychol Med** 1999 Mar;29(2):491–4

Collecting quality of life data in EORTC clinical trials—what happens in practice? Young T, et al. **Psychooncology** 1999 May–Jun;8(3):260–3

Wanted: hypothesis testing in alternative medicine [editorial] Dimsdale JE. **Psychosom Med** 1999 Jan–Feb;61(1):1–5

Simulation studies: a new method of prospective technology

assessment and design. Kumbruck C, et al. **Qual Life Res** 1999;8(1-2):161-70 (10 ref.)
Time and qualitative research. Sandelowski M. **Res Nurs Health** 1999 Feb;22(1):79-87 (31 ref.)
Bioaerosols in ambient air particulates: a review and research needs. Monn C, et al. **Rev Environ Health** 1999 Apr-Jun; 14(2):79-89 (56 ref.)
Design options and sources of bias in time-to-pregnancy studies. Olsen J. **Scand J Work Environ Health** 1999;25 Suppl 1:5-7; discussion 76-8
Overlooked control [letter] Sherley JL. **Science** 1999 Sep 10;285(5434):1676-7
Prostate cancer and black men. Brawley OW. **Semin Urol Oncol** 1998 Nov;16(4):184-6 (25 ref.)
Methodologic issues in low back pain research in primary care. Bouter LM, et al. **Spine** 1998 Sep 15;23(18):2014-20
Redesign of trials under different enrollment mixes. Meinert CL. **Stat Med** 1999 Feb 15;18(3):241-51; discussion 253-4
Construction of uniform-balanced cross-over designs for any odd number of treatments. Prescott P. **Stat Med** 1999 Feb 15;18(3):265-72
Planning group sizes in clinical trials with a continuous outcome and repeated measures. Schouten HJ. **Stat Med** 1999 Feb 15;18(3):255-64
Robust and realistic approaches to carry-over. Senn S, et al. **Stat Med** 1998 Dec 30;17(24):2849-64
A strategic view of randomized trial design in low-incidence paediatric cancer. Sposto R, et al. **Stat Med** 1999 May 30; 18(10):1183-97
Accrual strategies for phase I trials with delayed patient outcome. Thall PF, et al. **Stat Med** 1999 May 30; 18(10):1155-69
Comparing two prevalence rates in a two-phase design study. Zhou XH, et al. **Stat Med** 1999 May 30;18(10):1171-82
Issues related to the experimental design and subsequent statistical analysis of in vivo and in vitro comet studies. Lovell DP, et al. **Teratog Carcinog Mutagen** 1999; 19(2):109-19
Sex biases in subject selection: a survey of articles published in American medical journals. Resnik DB. **Theor Med Bioeth** 1999 Jun;20(3):245-60
Red cell transfusion outcome studies require a prospective, randomized design [letter; comment] Weiskopf RB. **Transfusion** 1999 Jun;39(6):657-60. Comment on: Transfusion 1998 Oct;38(10):924-31.
National Health Interview Survey: research for the 1995-2004 redesign. **Vital Health Stat 2** 1999 Jul; (126):1-119
Understanding clinical study design. Seibert C, et al. **WMJ** 1999 Mar-Apr;98(2):34-6
How does one determine efficacy? [editorial; comment] Lindblad WJ. **Wound Repair Regen** 1999 Mar-Apr;7(2):77 . Comment on: Wound Repair Regen 1999 Mar-Apr;7(2):90-6.
[Research supervisors] Aakerlund LP. **Ugeskr Laeger** 1999 Jul 26;161(30):4297-8 **(Dan)**
[From an idea to a project] Jørgensen CK. **Ugeskr Laeger** 1999 Jun 21;161(25):3817-9 **(Dan)**
[Roaming through the methodology. VIII. Pilot studies: sense and nonsense] Beurskens AJ, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2142-5 (Eng. Abstr.) **(Dut)**
[Roaming through methodology. IV. Causality] van Gijn J, et al. **Ned Tijdschr Geneeskd** 1998 Aug 1;142(31):1765-7 (2 ref.) (Eng. Abstr.) **(Dut)**
[Roaming through methodology. XV. Smoking grandfathers and other selection biases] van Gijn J, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1515-7 (7 ref.) (Eng. Abstr.) **(Dut)**
[Rapid healing of venous ulcers and lack of clinical rejection with an allogeneic cultured human skin equivalent] Ramelet AA, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):380-4 **(Fre)**
[Fetal alcohol syndrome and pyloric stenosis (letter; comment)] Dehaene P. **Arch Pediatr** 1999 Jan;6(1):106. Comment on: Arch Pediatr 1998 Jun;596):695-6. **(Fre)**
[Age of entrance to day care and allergies in childhood] Annesi-Maesano J. **Rev Epidemiol Sante Publique** 1999 Jun; 47(3):298-300 **(Fre)**
[Chemoprevention of breast cancer by tamoxifen: should we still ask this question?] Sasco AJ. **Rev Epidemiol Sante Publique** 1999 Jun;47(3):279-85 (20 ref.) (Eng. Abstr.) **(Fre)**
[Clinical controlled studies, incontrovertible support of evidence-based medicine (editorial)] Scheen AJ, et al. **Rev Med Liege** 1999 Jan;54(1):1 **(Fre)**
[Problems of study designs with randomization, blinding and placebos] Heusser P. **Forsch Komplementarmed** 1999 Apr; 6(2):89-102 (Eng. Abstr.) **(Ger)**
[The evaluation of research performance in psychiatry. Potential and pitfalls of bibliometric analysis] Pantel J, et al. **Nervenarzt** 1999 Mar;70(3):281-7 (Eng. Abstr.) **(Ger)**
[From clinical study to daily practice: how much weight does the study design carry? (letter; comment)] Casati A, et al. **Minerva Anestesiol** 1998 Dec;64(12):593-5. Comment on: Minerva Anestesiol 1998 Mar;64(3):89-97. **(Ita)**
[Designing and presenting a research project to a financing agency] Agustí García-Navarro A. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:31-3 **(Spa)**
[Types of clinical research: the most important errors of design and interpretation] Gómez de la Cámara A. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:9-13 **(Spa)**
[The EMECAM project: the Spanish Multicenter Study on the Relationship between Air Pollution and Mortality. The background, participants, objectives and methodology] Ballester Díez F, et al. **Rev Esp Salud Publica** 1999 Mar-Apr;73(2):165-75 (Eng. Abstr.) **(Spa)**
[The proposal of the EU concerning experimental animals is a threat to biomedical research. The aim should be fewer animals used per project and not a general reduction] Hagelin J, et al. **Lakartidningen** 1999 May 12; 96(19):2378-80 **(Swe)**
[Using qualitative methods in medical research can be misleading] Johansson E. **Lakartidningen** 1999 Apr 7; 96(14):1765-6 **(Swe)**

LEGISLATION & JURISPRUDENCE

Research ethics-no easy fix ahead [news] Brown P. **Nat Med** 1999 Oct;5(10):1094

STANDARDS

Research fundamentals: III. elements of a research protocol for clinical trials. Silverman R, et al. **Acad Emerg Med** 1998 Dec;5(12):1218-23
Wear and osteolysis in total joint replacements [letter; comment] Aspenberg P. **Acta Orthop Scand** 1998 Aug; 69(4):435-6. Comment on: Acta Orthop Scand Suppl 1998 Feb;278:1-16.
Ultrasound measurements of the newborn hip--comparison of two methods in 657 newborns [letter; comment] Graf R. **Acta Orthop Scand** 1998 Oct;69(5):550-1. Comment on: Acta Orthop Scand 1998 Feb;69(1):21-4.
Alcohol administration methodology 1994-1995: what researchers do and do not report about subjects and dosing procedures. Breslin FC, et al. **Addict Behav** 1999 Jul-Aug; 24(4):509-20 (108 ref.)
A perspective on the regulation of the evaluation of new antithrombotic drugs. Califf RM. **Am J Cardiol** 1998 Oct 22;82(8B):25P-35P (32 ref.)
Design and statistical analysis for the Pathways study. Davis CE, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):760S-763S
Factors influencing the optimal control-to-case ratio in matched case-control studies [published erratum appears in Am J Epidemiol 1999 Mar 1;149(5):489] Hennessy S, et al. **Am J Epidemiol** 1999 Jan 15;149(2):195-7
Occupational cancer among women: research status and methodologic considerations. Blair A, et al. **Am J Ind Med** 1999 Jul;36(1):6-17 (42 ref.)
Smoking as a confounder in case-control studies of occupational bladder cancer in women. ٦ Mannetje A, et al. **Am J Ind Med** 1999 Jul;36(1):75-82
Case studies, single-subject research, and N of 1 randomized trials: comparisons and contrasts. Backman CL, et al. **Am J Phys Med Rehabil** 1999 Mar-Apr;78(2):170-6 (22 ref.)
Missing the boat: competence and consent in psychiatric research [editorial; comment] Appelbaum PS. **Am J Psychiatry** 1998 Nov;155(11):1486-8. Comment on: Am J Psychiatry 1998 Nov;155(11):1508-11.
The challenge to psychiatry as society's agent for mental illness treatment and research [editorial; comment] Carpenter WT Jr. **Am J Psychiatry** 1999 Sep; 156(9):1307-10. Comment on: Am J Psychiatry 1998 Sep;156(9):1385-91.
Including children and adolescents with schizophrenia in medication-free research. Kumra S, et al. **Am J Psychiatry** 1999 Jul;156(7):1065-8
Treatment research at the crossroads: the scientific interface of clinical trials and effectiveness research. Wells KB. **Am J Psychiatry** 1999 Jan;156(1):5-10 (42 ref.)
The protective effect of condoms and nonoxynol-9 against HIV infection: a response to Wittkowski and colleagues [letter; comment] Feldblum PJ, et al. **Am J Public Health** 1999 Jan;89(1):108-10. Comment on: Am J Public Health 1998 Apr;88(4):590-6.
American College of Emergency Physicians: EMS research. **Ann Emerg Med** 1999 May;33(5):611
TCA overdose [letter] Dick WF, et al. **Ann Emerg Med** 1999 Jun;33(6):723-4
The emerging importance of genetics in epidemiologic research II. Issues in study design and gene mapping. Ellsworth DL, et al. **Ann Epidemiol** 1999 Feb;9(2):75-90 (54 ref.)
A critical evaluation of the methodology of the literature on medication compliance. Nichol MB, et al. **Ann Pharmacother** 1999 May;33(5):531-40 (72 ref.)
Combining stories and numbers: a methodologic approach for a critical nursing science. Berman H, et al. **ANS Adv Nurs Sci** 1998 Sep;21(1):1-15 (51 ref.)
Ergonomics in consumer product evaluation: an evolving process. Butters LM, et al. **Appl Ergon** 1998 Feb;29(1):55-8
Usage centred research for everyday product design. Kanis H. **Appl Ergon** 1998 Feb;29(1):75-82 (21 ref.)
Is utility in the mind of the beholder? A study of ergonomics methods. Stanton N, et al. **Appl Ergon** 1998 Feb;29(1):41-54
Methodological issues in evaluating Rorschach validity: a comment on Burns and Viglione (1996), Weiner (1996), and Ganellen (1996). Wood JM, et al. **Assessment** 1999 Jun; 6(2):115-29 (79 ref.)
Planning research [letter; comment] Perkoulidis A. **Aust Fam Physician** 1998 Nov;27(11):991. Comment on: Aust Fam Physician 1998 Aug;27(8):699-701.
Does it matter that your research is qualitative? [news] Veale B. **Aust Fam Physician** 1999 Jun;28(6):537-8
Cross-cultural research: trying to do it better. 1. Issues in study design. Small R, et al. **Aust N Z J Public Health** 1999 Aug;23(4):385-9
Cross-cultural research: trying to do it better. 2. Enhancing data quality. Small R, et al. **Aust N Z J Public Health** 1999 Aug;23(4):390-5
Central effects of the H1-antihistamine, cetirizine [letter; comment] Donnelly F, et al. **Aviat Space Environ Med** 1999 Jan;70(1):89. Comment on: Aviat Space Environ Med 1998 Feb;69(2):166-71.
Cancer incidence in USAF aircrew [letter; comment] Vlassov VV. **Aviat Space Environ Med** 1999 Jan;70(1):89-90. Comment on: Aviat Space Environ Med 1996 Feb;67(2):101-4. Comment on: Aviat Space Environ Med 1996 Apr;67(4):389.
Outcome measures in multiple sclerosis clinical trials. Andersson PB, et al. **Baillieres Clin Neurol** 1997 Oct; 6(3):409-28 (75 ref.)
Trial designs. Which one is best? Evans M. **Can Fam Physician** 1998 Sep;44:1845-6
Emergence of "pseudoscience" [letter; comment] Healey MA. **Can Fam Physician** 1998 Nov;44:2374-5. Comment on: Can Fam Physician 1998 Aug;44:1567-8, 1572-4. Comment on: Can Fam Physician 1998 Aug;44:1634-40.
Qualitative studies. Their role in medical research. Huston P, et al. **Can Fam Physician** 1998 Nov;44:2453-8 (19 ref.)
Checklists for excellence. Ketchum P. **Can Fam Physician** 1998 Oct;44:2193-201, 2204-12 **(Eng, Fre)**
Confronting the confounders: the meaning, detection, and treatment of confounders in research. Rhodes AE, et al. **Can J Psychiatry** 1999 Mar;44(2):175-9
Environmental selenium and cancer: risk or protection? [editorial; comment] Clark LC, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):847-8; discussion 851-2 (14 ref.). Comment on: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):853-6.
Quality of published articles in CAJM [letter; comment] Nystrom L. **Cent Afr J Med** 1998 Oct;44(10):264-5. Comment on: Cent Afr J Med 1994 Mar;40(3):78-9. Comment on: Cent Afr J Med 1997 Dec;43(12):350-4.
Lucid interval in infantile fatal head trauma [letter; comment] Plunkett J. **Child Abuse Negl** 1998 Oct;22(10):943-6. Comment on: Child Abuse Negl 1997 Oct;21(10):929-40.
Critical appraisal of the health research literature: prevalence or incidence of a health problem. Loney PL, et al. **Chronic Dis Can** 1998;19(4):170-6 (27 ref.)
Reproducibility of results with homeopathic remedies [letter] Buckman R. **CMAJ** 1999 Apr 20;160(8):1128-9
The evidence for insulin lispro [letter; comment] [see comments] McCormack J, et al. **CMAJ** 1998 Dec 1; 159(11):1353-5. Comment on: CMAJ 1998 Feb 24;158(4):506-11. Comment in: CMAJ 1999 Jun 1;160(11):1551-2.
Augmented enhancement of in vitro production of inflammatory cytokines...[editorial; comment] Dunn DL. **Crit Care Med** 1999 May;27(5):859-60 (10 ref.). Comment on: Crit Care Med 1999 May;27(5):929-36.
Has high-frequency ventilation been inappropriately discarded in adult acute respiratory distress syndrome? [see comments] Herridge MS, et al. **Crit Care Med** 1998 Dec; 26(12):2073-7 (33 ref.). Comment in: Crit Care Med 1998 Dec;26(12):1955-6.
The sirens' songs of confirmatory sepsis trials: selection bias and sampling error [editorial; comment] Natanson C, et al. **Crit Care Med** 1998 Dec;26(12):1927-31 (19 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1963-71.
Guideline for agreements at the initiation of research projects. Danish Committee on Scientific Dishonesty. **Dan Med Bull** 1999 Feb;46(1):61-3
Public assistance receipt among immigrants and natives: how the unit of analysis affects research findings. Van Hook J, et al. **Demography** 1999 Feb;36(1):111-20
A simulation study of confounding in generalized linear models for air pollution epidemiology. Chen C, et al. **Environ Health Perspect** 1999 Mar;107(3):217-22
Complexity and the Hawthorne effect in community trials [editorial; comment] Grufferman S. **Epidemiology** 1999 May;10(3):209-10. Comment on: Epidemiology 1999 May;10(3):219-27.
Omeprazole and bleeding peptic ulcer, or "how case-control studies can tell you what you suspected all along" [editorial; comment] Hawkey CJ. **Epidemiology** 1999 May;10(3):211-3 . Comment on: Epidemiology 1999 May;10(3):228-32.
Qualitative research on drug use in Europe [comment] Degkwitz P. **Eur Addict Res** 1999 Mar;5(1):1-3. Comment on: Eur Addict Res 1999 Mar;5(1):4-20.
Synthesis of qualitative research on drug use in the European Union: report on an EMCDDA project. European Monitoring Centre for Drugs and Drug Addiction [see comments] Fountain J, et al. **Eur Addict Res** 1999 Mar; 5(1):4-20. Comment in: Eur Addict Res 1999 Mar;5(1):1-3.
Graphical methods for detecting bias in meta-analysis. Ferrer RL. **Fam Med** 1998 Sep;30(8):579-83
A closer look at confounding. Sonis J. **Fam Med** 1998 Sep; 30(8):584-8
Explicit guidelines for qualitative research: a step in the right direction, a defence of the 'soft' option, or a form of sociological imperialism? Chapple A, et al. **Fam Pract** 1998 Dec;15(6):556-61 (34 ref.)
Signal versus noise in the evidence base for medicine: an alternative to hierarchies of evidence? Edwards AG, et

al. **Fam Pract** 1998 Aug;15(4):319–22
Reliability of F-scan in-shoe measurements of plantar pressure. Ahroni JH, et al. **Foot Ankle Int** 1998 Oct; 19(10):668–73
Subtalar joint movement: clinical and computed tomography scan correlation. Pearce TJ, et al. **Foot Ankle Int** 1999 Jul; 20(7):428–32
An investment appraisal approach to clinical trial design. Backhouse ME. **Health Econ** 1998 Nov;7(7):605–19
Modeling in economic evaluation: an unavoidable fact of life [letter; comment] Halpern MT, et al. **Health Econ** 1998 Dec;7(8):741–2. Comment on: Health Econ 1997 May–Jun;6(3):217–27.
Making Medicaid managed care research relevant. Gold M. **Health Serv Res** 1999 Feb;33(6):1639–50 (13 ref.)
Choosing between randomised and non-randomised studies: a systematic review. Britton A, et al. **Health Technol Assess** 1998;2(13):i–iv, 1–124 (204 ref.)
Swan to phoenix: the metamorphosis [editorial] Brandstetter RD, et al. **Heart Lung** 1998 Jul–Aug;27(4):215–7 (21 ref.)
Research instrumentation and elderly subjects. Burnside I, et al. **Image J Nurs Sch** 1998;30(2):185–90
Importance of the surveillance method: national prevalence studies on nosocomial infections and the limits of comparison. Gastmeier P, et al. **Infect Control Hosp Epidemiol** 1998 Sep;19(9):661–7
Evolving participation of aboriginal communities in health research ethics review: the impact of the Inuvik workshop. Kaufert J, et al. **Int J Circumpolar Health** 1999 Apr; 58(2):134–44
The use of ethnic identifiers in epidemiologic research. Robinson HC. **Int J Circumpolar Health** 1998;57 Suppl 1:617–21
Where there's smoke, is there fire? [editorial; comment] Brizel DM. **Int J Hyperthermia** 1998 Nov–Dec;14(6):589–91. Comment on: Int J Hyperthermia 1998 Nov–Dec;14(6):593–4.
Effectiveness of RF capacitive hyperthermia combined with radiotherapy for stages III and IV oro-hypopharyngeal cancers: a nonrandomized comparison between thermoradiotherapy and radiotherapy [letter] [see comments] Hiraki Y, et al. **Int J Hyperthermia** 1998 Nov–Dec;14(6):593–4. Comment in: Int J Hyperthermia 1998 Nov–Dec;14(6):589–91.
Objectivity in nursing research: observations and objections. Avis M. **Int J Nurs Stud** 1998 Jun;35(3):141–5 (30 ref.)
The psychological effect of the war in Afghanistan on young Afghan refugees from different ethnic backgrounds. Raskin A, et al. **Int J Soc Psychiatry** 1999 Summer;45(2):148–9
Endogenous endotoxemia of intestinal origin during cardiopulmonary bypass--role of type of flow and protective effect of selective digestive decontamination [letter; comment] Jakob SM, et al. **Intensive Care Med** 1998 Jul;24(7):748–9. Comment on: Intensive Care Med 1997 Dec;23(12):1251–7.
The power of the word: some post-structural considerations of qualitative approaches in nursing research. Crowe M. **J Adv Nurs** 1998 Aug;28(2):339–44 (22 ref.)
Collecting and analysing qualitative data: issues raised by the focus group. Sim J. **J Adv Nurs** 1998 Aug;28(2):345–52 (53 ref.)
Liabilities involved in conducting randomized clinical trials of CAM therapies in the absence of preliminary, foundational studies: a case in point [letter; comment] Margolin A. **J Altern Complement Med** 1999 Feb;5(1):103–4. Comment on: J Altern Complement Med 1998 Winter;4(4):405–18.
Alopecia areata investigational assessment guidelines. National Alopecia Areata Foundation. Olsen E, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):242–6
Hard questions about research procedures: the search for authenticity [editorial] Keeling RP. **J Am Coll Health** 1998 Nov;47(3):99–102
Nursing home staff as research partners [editorial; comment] Engle VF. **J Am Geriatr Soc** 1999 Apr;47(4):492–3. Comment on: J Am Geriatr Soc 1999 Apr;47(4):446–52.
Outpatient comprehensive geriatric assessment: an intervention whose time has come, or has it? [editorial; comment] Silliman RA, et al. **J Am Geriatr Soc** 1999 Mar; 47(3):371–2. Comment on: J Am Geriatr Soc 1999 Mar;47(3):269–76.
Palliative care and severe dementia [letter; comment] Van Nes MC, et al. **J Am Geriatr Soc** 1999 Mar;47(3):378–9. Comment on: J Am Geriatr Soc 1998 Mar;46(3):287–90.
The reliability of three techniques for measuring foot position. Weiner-Ogilvie S, et al. **J Am Podiatr Med Assoc** 1998 Aug;88(8):381–6
Does EMDR work? And if so, why?: a critical review of controlled outcome and dismantling research. Cahill SP, et al. **J Anxiety Disord** 1999 Jan–Apr;13(1–2):5–33 (72 ref.)
Treatment fidelity and research on Eye Movement Desensitization and Reprocessing (EMDR). Rosen GM. **J Anxiety Disord** 1999 Jan–Apr;13(1–2):173–84
Further considerations of null hypothesis testing. Clark CM. **J Clin Exp Neuropsychol** 1999 Apr;21(2):283–4
Psychotherapy research: basic or applied? [comment] Beutler LE, et al. **J Clin Psychol** 1999 Feb;55(2):171–80; discussion 191–200. Comment on: J Clin Psychol 1999 Feb;55(2):147–58.
Summary: paradigms for psychotherapy outcome research. Pilkonis PA, et al. **J Clin Psychol** 1999 Feb;55(2):201–5
Data monitoring: a hypothesis-testing approach for treatment-outcome research. Arnold DH, et al. **J Consult Clin Psychol** 1998 Dec;66(6):1030–5
Assessing social validity in clinical treatment research: issues and procedures. Foster SL, et al. **J Consult Clin Psychol** 1999 Jun;67(3):308–19
The meanings and measurement of clinical significance. Kazdin AE. **J Consult Clin Psychol** 1999 Jun;67(3):332–9
Exploring individual change. Krause MS, et al. **J Consult Clin Psychol** 1998 Oct;66(5):838–45
Riposte to Guest Commentaries on 'Problems associated with randomized controlled clinical trials in breast cancer [comment] Johnson AE. **J Eval Clin Pract** 1998 Aug; 4(3):231–6. Comment on: J Eval Clin Pract 1998 May;4(2):119–26; discussion 127–30.
Residential exposure summary methodology for a reproductive health study of multiple hazardous waste sites. Marshall EG, et al. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:87–98
Not an ideal study [letter; comment] Hahn DL. **J Fam Pract** 1999 Mar;48(3):230. Comment on: J Fam Pract 1998 Dec;47(6):453–60.
Summary report: evidence for the effectiveness of rehabilitation for persons with traumatic brain injury. Chesnut RM, et al. **J Head Trauma Rehabil** 1999 Apr; 14(2):176–88 (55 ref.)
Imperialism, research ethics and global health [editorial] [see comments] Benatar SR. **J Med Ethics** 1998 Aug;24(4):221–2 (14 ref.). Comment in: J Med Ethics 1999 Feb;25(1):62.
Decision making in the critically ill neonate [letter; comment] Kottow MH. **J Med Ethics** 1998 Aug;24(4):280–1. Comment on: J Med Ethics 1997 Jun;23(3):164–9.
Human leucocyte antigen frequencies [letter; comment] Naman RE. **J Med Liban** 1998 Jan–Feb;46(1):52–4. Comment on: J Med Liban 1997;45(2):78–83.
Commentary: empirically supported treatments for pediatric obesity: goals, outcome criteria, and the societal context [comment] Israel AC. **J Pediatr Psychol** 1999 Jun; 24(3):249–50. Comment on: J Pediatr Psychol 1999 Jun;24(3):223–48.
Commentary: salient aspects of research in pediatric headache and future directions [comment] Labbé EE. **J Pediatr Psychol** 1999 Apr;24(2):113–4. Comment on: J Pediatr Psychol 1999 Apr;24(2):91–109.
Commentary: psychological interventions for controlling children's pain: challenges for evidence-based medicine [comment] McGrath PA. **J Pediatr Psychol** 1999 Apr; 24(2):172–4. Comment on: J Pediatr Psychol 1999 Apr;24(2):155–67; discussion 168–71.
Who participates in research on adherence to treatment in insulin-dependent diabetes mellitus? Implications and recommendations for research. Riekert KA, et al. **J Pediatr Psychol** 1999 Jun;24(3):253–8
Empirically supported treatments in pediatric psychology: disease-related pain [see comments] Walco GA, et al. **J Pediatr Psychol** 1999 Apr;24(2):155–67; discussion 168–71 (58 ref.). Comment in: J Pediatr Psychol 1999 Apr;24(2):172–4.
Research based on archived information and samples. Recommendations from the Royal College of Physicians Committee on Ethical Issues in Medicine. **J R Coll Physicians Lond** 1999 May–Jun;33(3):264–6 (15 ref.)
Reporting requirements for longitudinal observational studies in rheumatology. Silman A, et al. **J Rheumatol** 1999 Feb; 26(2):481–3
Randomized clinical trials and longitudinal observational studies in systemic lupus erythematosus: consensus on a preliminary core set of outcome domains. Smolen JS, et al. **J Rheumatol** 1999 Feb;26(2):504–7
Preliminary core set of domains and reporting requirements for longitudinal observational studies in rheumatology. Wolfe F, et al. **J Rheumatol** 1999 Feb;26(2):484–9
Asset building: rhetoric versus reality--a cautionary note [letter] Price JH, et al. **J Sch Health** 1999 Aug;69(6):215–6
Building developmental assets: response to Price and Drake. Scales PC. **J Sch Health** 1999 Aug;69(6):217–8
Timing fracture repair in patients with severe brain injury (Glasgow Coma Scale Score <9) [letter; comment] Starr AJ. **J Trauma** 1998 Nov;45(5):980. Comment on: J Trauma 1998 Jun;44(6):977–82; discussion 982–3.
Beyond the case series: using regression analysis in modern veterinary medicine [editorial; comment] Morley PS, et al. **J Vet Intern Med** 1999 Mar–Apr;13(2):79–80. Comment on: J Vet Intern Med 1999 Mar–Apr;13(2):81–8.
Pooling research results: benefits and limitations of meta-analysis. Ioannidis JP, et al. **Jt Comm J Qual Improv** 1999 Sep;25(9):462–9 (41 ref.)
Assessing "best evidence": issues in grading the quality of studies for systematic reviews. Lohr KN, et al. **Jt Comm J Qual Improv** 1999 Sep;25(9):470–9 (36 ref.)
Sociological models and health care [letter] Chard J. **Lancet** 1999 Aug 14;354(9178):602
Beta2 agonists and heart failure [letter; comment] Lindmark B, et al. **Lancet** 1998 Nov 21;352(9141):1709–10. Comment on: Lancet 1998 Oct 3;352(9134):1081–2.
Interpretation of results from genetic studies of multifactorial diseases. Todd JA. **Lancet** 1999 Jul;354 Suppl 1:SI15–6
Basic surgical research. Messmer K. **Langenbecks Arch Surg** 1998 Oct;383(5):297–9 (9 ref.)
Decision making in CPR [letter; comment] Grace RF. **Med J Aust** 1999 Jan 4;170(1):45; discussion 45–6. Comment on: Med J Aust 1998 Aug 3;169(3):124–5. Comment on: Med J Aust 1998 Aug 3;169(3):128–31.
Diuretics, beta-blockers and gin-and-tonic [letter; comment] Messerli FH. **Med J Aust** 1998 Sep 21;169(6):344. Comment on: Med J Aust 1998 Mar 2;168(5):232–5.
Commentary on the mortality issue. Conroy JW, et al. **Ment Retard** 1998 Oct;36(5):410–1
Is community placement an independent risk factor for increased mortality? Comments on two recent reports [comment] Decouflé P, et al. **Ment Retard** 1998 Oct; 36(5):403–5. Comment on: Ment Retard 1998 Oct;36(5):360–71. Comment on: Ment Retard 1998 Oct;36(5):372–92.
Commentary on the meaning of residential mortality research [comment] Fujiura GT. **Ment Retard** 1998 Oct;36(5):400–3. Comment on: Ment Retard 1998 Oct;36(5):360–71. Comment on: Ment Retard 1998 Oct;36(5):372–9.
Mortality among people with mental retardation living in the United States: research review and policy application. Hayden MF. **Ment Retard** 1998 Oct;36(5):345–59 (42 ref.)
Observations on the California mortality studies [comment] Lakin KC. **Ment Retard** 1998 Oct;36(5):395–400. Comment on: Ment Retard 1998 Oct;36(5):360–71. Comment on: Ment Retard 1998 Oct;36(5):372–9.
Is it life threatening to live in the community? Commentary [comment] O'Brien KF, et al. **Ment Retard** 1998 Oct; 36(5):408–10. Comment on: Ment Retard 1998 Oct;36(5):360–71. Comment on: Ment Retard 1998 Oct;36(5):372–9.
"Perceptions" of questionable value [letter; comment] [see comments] Battafarano DF, et al. **Mil Med** 1998 Oct; 163(10):660. Comment on: Mil Med 1998 Jun;163(6):392–7. Comment in: Mil Med 1998 Dec;163(12):V.
HAPR questioned [letter; comment] Keck JW, et al. **Mil Med** 1998 Oct;163(10):659. Comment on: Mil Med 1998 Jun;163(6):398–407.
Methodological issues in cross-syndrome comparisons: matching procedures, sensitivity (Se), and specificity (Sp) [comment] Mervis CB, et al. **Monogr Soc Res Child Dev** 1999;64(1):115–30; discussion 131–9. Comment on: Monogr Soc Res Child Dev 1999 ;64(1):1–114.
Monitoring clinical trials. Sharples K, et al. **N Z Med J** 1998 Aug 28;111(1072):322–5 (22 ref.)
A higher standard for human research [editorial] **Nat Med** 1999 Jun;5(6):591
IPEG guideline on statistical design and analysis for pharmacodynamic trials. International Pharmaco-EEG Group. Ferber G, et al. **Neuropsychobiology** 1999; 39(2):92–100
Use of topical lidocaine in pediatric laceration repair [letter] Zempsky WT. **Pediatr Emerg Care** 1999 Jun;15(3):239
Research in subliminal psychodynamic activation: note on Masling (1998). Fudin R. **Percept Mot Skills** 1999 Apr; 88(2):374–6
The peer-review process: caveat lector [editorial; comment] Menegazzi JJ. **Prehosp Emerg Care** 1999 Apr–Jun; 3(2):178–9. Comment on: Prehosp Emerg Care 1999 Apr–Jun;3(2):174–8.
Effects of a lifestyle exercise intervention [letter; comment] Pereira MA, et al. **Prev Med** 1999 Jan;28(1):101–3. Comment on: Prev Med 1997 Nov–Dec;26(6):883–92.
Selection of 'normal' control subjects for psychiatric research: update on a model for centralized recruitment. Schechter D, et al. **Psychiatry Res** 1998 Jun 15;79(2):175–85
Rejoinder to Spiegel et al [letter; comment] Fox BH. **Psychooncology** 1998 Nov–Dec;7(6):518–9. Comment on: Psychooncology 1998 Sep–Oct;7(5):371–5.
Dissociating beliefs about heart rates and actual heart rates in patients with cardiac pacemakers. Windmann S, et al. **Psychophysiology** 1999 May;36(3):339–42
Improving the process quality using statistical design of experiments: a case study. Antony J, et al. **Qual Assur** 1998 Apr–Jun;6(2):87–95
Placebo-controlled trials: when are they needed? Streiner DL. **Schizophr Res** 1999 Feb 15;35(3):201–10
Placebo-controlled trials in schizophrenia: are they ethical? Are they necessary? Weijer C. **Schizophr Res** 1999 Feb 15;35(3):211–8; discussion 227–36
Methodological issues concerning evaluation of treatment for sexual offenders: randomization, treatment dropouts, untreated controls, and within-treatment studies [see comments] McConaghy N. **Sex Abuse** 1999 Jul; 11(3):183–93 (32 ref.). Comment in: Sex Abuse 1999 Jul;11(3):179–81.
Strength training: single versus multiple sets [letter] Byrd R, et al. **Sports Med** 1999 Jun;27(6):409–16
ICH Harmonised Tripartite Guideline. Statistical principles for clinical trials. International Conference on Harmonisation E9 Expert Working Group. **Stat Med** 1999 Aug 15;18(15):1905–42
Statistical issues in pharmacoepidemiological case-control studies. Ashby D, et al. **Stat Med** 1998 Aug 15–30; 17(15–16):1839–50; discussion 1859–62 (32 ref.)
Practical issues in equivalence trials. Ebbutt AF, et al. **Stat Med** 1998 Aug 15–30;17(15–16):1691–701
The management of interim analyses in drug development. Facey KM, et al. **Stat Med** 1998 Aug 15–30; 17(15–16):1801–9; discussion 1811–2 (28 ref.)
Issues for statisticians in pharmaco-economic evaluations. Grieve AP. **Stat Med** 1998 Aug 15–30;17(15–16):1715–23; discussion 1741–3 (17 ref.)
A framework establishing clear decision criteria for the

assessment of drug efficacy. Huster WJ, et al. **Stat Med** 1998 Aug 15-30;17(15-16):1829-38 (23 ref.)

Methodological advances and plans for improving regulatory success for confirmatory studies. Koch GG, et al. **Stat Med** 1998 Aug 15-30;17(15-16):1675-90 (41 ref.)

Providing evidence of efficacy for a new drug. Ruberg S, et al. **Stat Med** 1998 Aug 15-30;17(15-16):1813-23; discussion 1825-7 (11 ref.)

Some controversies in planning and analysing multi-centre trials. Senn S. **Stat Med** 1998 Aug 15-30;17(15-16):1753-65; discussion 1799-800 (8 ref.)

Recommendations to bridge rural/urban drug-use(r) research and practice. Leukefeld CG, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):785-93

Methodology for clinical trials in cancer patients with febrile neutropenia. Do we have a consensus? [editorial] Feld R. **Support Care Cancer** 1998 Sep;6(5):423-4

Criteria for response in patients in clinical trials of empiric antibiotic regimens for febrile neutropenia. Is there agreement? Feld R. **Support Care Cancer** 1998 Sep; 6(5):444-8 (14 ref.)

Empiric therapy for the febrile neutropenic patient. Design bias. Schimpff SC. **Support Care Cancer** 1998 Sep; 6(5):449-56 (16 ref.)

Methodological triangulation in public health research - advancement or mirage? [editorial] Razum O, et al. **Trop Med Int Health** 1999 Apr;4(4):243-4

Patterns of research programs [editorial] Morse JM. **West J Nurs Res** 1998 Dec;20(6):653-5

[The practice of systematic reviews. III. Evaluation of methodological quality of research studies] Assendelft WJ, et al. **Ned Tijdschr Geneeskd** 1999 Apr 3;143(14):714-9 (37 ref.) (Eng. Abstr.) **(Dut)**

[Roaming through methodology. XII. Pragmatic and pathophysiologic trials: a question of goal formulation (letter; comment)] Muizelaar JP. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1063. Comment on: Ned Tijdschr Geneeskd 1999 Mar 6;143(10):514-7. **(Dut)**

[Roaming through the methodology. XIV. The premature ending of a randomized trial] Vandenbroucke JP. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1305-8 (6 ref.) (Eng. Abstr.) **(Dut)**

[Roaming through methodology. IX. The interpretation of subgroup analyses] van der Windt DA, et al. **Ned Tijdschr Geneeskd** 1998 Oct 10;142(41):2245-7 (Eng. Abstr.) **(Dut)**

[Clinical researchers and the pharmaceutical industry.Usefulness and need for an independent steering committee] Van Gijn J, et al. **Ned Tijdschr Geneeskd** 1999 Jul 10;143(28):1477-9 (Eng. Abstr.) **(Dut)**

[Roaming through methodology. XIII. Matching as a rule is not useful] Verbeek AL. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1037-40 (7 ref.) (Eng. Abstr.) **(Dut)**

[Observer variability] Burtin P, et al. **Gastroenterol Clin Biol** 1998 Nov;22(11):897-905 (14 ref.) **(Fre)**

[Basic principles of clinical trials--what, how, and why?] Unnebrink K, et al. **Med Klin** 1999 Aug 15;94(8):458-64 (15 ref.) (Eng. Abstr.) **(Ger)**

[Clinical medicine, research, and medical ethics] de Miranda AC. **Acta Med Port** 1998 Aug-Sep;11(8-9):787-90 **(Por)**

[Critical assessment of articles on controlled clinical trials II. Results] Ferreira JJ, et al. **Acta Med Port** 1998 Aug-Sep; 11(8-9):755-60 (Eng. Abstr.) **(Por)**

[Critical assessment of articles on controlled clinical trials. I. Planning] Sampaio C, et al. **Acta Med Port** 1998 Aug-Sep;11(8-9):749-54 (Eng. Abstr.) **(Por)**

[Basic step sequence in the development of research protocols] Luna Filho B. **Arq Bras Cardiol** 1998 Dec; 71(6):735-40 **(Por)**

[The ethics committee at the Karolinska Institute comments on shortages of a study on spinal surgery (letter)] Terenius L. **Lakartidningen** 1999 Jun 23;96(25):3055 **(Swe)**

STATISTICS & NUMERICAL DATA

Question of experimental method in article in July AJO/DO [letter; comment] Bobic RA. **Am J Orthod Dentofacial Orthop** 1998 Nov; 114(5):20A-21A. Comment on: Am J Orthod Dentofacial Orthop 1998 Jul;114(1):15-24.

Statistically designed experiments to screen chemical mixtures for possible interactions. Groten JP, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1361-5

Nursing research in Finland from 1958 to 1995. Leino-Kilpi H, et al. **Image J Nurs Sch** 1998;30(4):363-7 (27 ref.)

Identifying measurement disturbance effects using Rasch item fit statistics and the Logit Residual Index. Mount RE, et al. **J Outcome Meas** 1998;2(4):338-50

Cost-effective design for dental randomized clinical trials with longitudinal observations. Hefti AF, et al. **J Periodontal Res** 1999 Apr;34(3):129-35

Beyond the case series: using regression analysis in modern veterinary medicine [editorial; comment] Morley PS, et al. **J Vet Intern Med** 1999 Mar-Apr;13(2):79-80. Comment on: J Vet Intern Med 1999 Mar-Apr;13(2):81-8.

Study design and data analysis in clinical and environmental models of nephrotoxicity. Mueller PW. **Ren Fail** 1999 May-Jul;21(3-4):337-40 (6 ref.)

Conference on meta-analysis in the design and monitoring of clinical trials [letter] Geller N, et al. **Stat Med** 1999 Mar 30;18(6):753-4

TRENDS

Phases of alcohol problem prevention research. Holder H, et al. **Alcohol Clin Exp Res** 1999 Jan;23(1):183-94

Research on stress ulcer prophylaxis: wrong questions, wrong answers? [editorial; comment] Tryba M. **Crit Care Med** 1999 Jan;27(1):16-7. Comment on: Crit Care Med 1999 Jan;27(1):98-103.

Nursing research in Finland from 1958 to 1995. Leino-Kilpi H, et al. **Image J Nurs Sch** 1998;30(4):363-7 (27 ref.)

Genetics and child psychiatry: I Advances in quantitative and molecular genetics. Rutter M, et al. **J Child Psychol Psychiatry** 1999 Jan;40(1):3-18 (485 ref.)

Science, ethics, and the future of research into maternal infant transmission of HIV-1. Perinatal HIV Intervention Research in Developing Countries Workshop participants [see comments] **Lancet** 1999 Mar 6;353(9155):832-5 (23 ref.) . Comment in: Lancet 1999 May 29;353(9167):1878; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1878-9; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1879; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1879-80; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1880-1.

Ethics committees and qualitative research [letter] Philipp E. **N Z Med J** 1999 Aug 27;112(1094):326

RESEARCH, HEALTH SERVICES see **HEALTH SERVICES RESEARCH**

RESEARCH INSTITUTES see **ACADEMIES AND INSTITUTES**

RESEARCH MISCONDUCT see **SCIENTIFIC MISCONDUCT**

RESEARCH, NURSING see **NURSING RESEARCH**

RESEARCH, NURSING ADMINISTRATION see **NURSING ADMINISTRATION RESEARCH**

RESEARCH, NURSING EDUCATION see **NURSING EDUCATION RESEARCH**

RESEARCH, NURSING EVALUATION see **NURSING EVALUATION RESEARCH**

RESEARCH, NURSING METHODOLOGY see **NURSING METHODOLOGY RESEARCH**

RESEARCH PERSONNEL

Selection, care, and feeding of a research mentor. Cupples SA. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun;13 Suppl 1:S22-8

Nurse researchers open doors. Trossman S. **Am J Nurs** 1999 Sep;99(9):68-70

Debunking research myths--anyone can do research. Beyea SC, et al. **AORN J** 1998 Oct;68(4):686-9

Volunteers as adjunct researchers in a cancer prevention trial: the American Cancer Society Colon Polyp Prevention Study. Edinboro PC, et al. **Cancer** 1998 Dec 1; 83(11):2384-90

The involvement of genome researchers in high school science education. Munn M, et al. **Genome Res** 1999 Jul; 9(7):597-607 (23 ref.)

Encouraging clinical research by physician scientists [comment] Shine KI. **JAMA** 1998 Oct 28;280(16):1442-4 . Comment on: JAMA 1998 Oct 28;280(16):1427-31.

Typical experiences of a former research fellow in the USA. Klar E. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:702-4

French researchers kick up a storm over CNRS 'reforms'. Centre National de la Recherche Scientifique [news] Butler D. **Nature** 1998 Oct 22;395(6704):729-30

Lymphopoietic cancer and other major causes of death among petrochemical researchers: an update. Lewis RJ, et al. **Occup Med (Lond)** 1999 Feb;49(2):71-7

Disappearing physician-scientists [letter; comment] [see comments] Brinkley WR. **Science** 1999 Feb 5;283(5403):791 . Comment on: Science 1999 Jan 15;283(5400):331-2. Comment in: Science 1999 Mar 5;283(5407):1455.

Preparing graduate students in biology [letter; comment] Gale AJ. **Science** 1998 Oct 30;282(5390):881-2. Comment on: Science 1998 Jul 31;281(5377):645.

Young scientists in biomedical research [letter; comment] [see comments] Hume DA. **Science** 1999 Apr 2;284(5411):49. Comment on: Science 1999 Mar 5;283(5407):1455. Comment on: Science 1999 Mar 5;283(5407):1455-6. Comment on: Science 1999 Mar 5;283(5407):1456. Comment in: Science 1999 May 7;284(5416):915-6.

Physician-scientists: staying alive [letter; comment] Perpich JG. **Science** 1999 Apr 23;284(5414):591-2. Comment on: Science 1999 Jan 15;283(5400):331-2.

Physician-scientists at risk [letter; comment] [see comments] Rockey D. **Science** 1999 Mar 5;283(5407):1455. Comment on: Science 1999 Jan 15;283(5400):331-2. Comment on: Science 1999 Feb 5;283(5403):791. Comment on: Science 1999 Feb 5;283(5403):791-2. Comment in: Science 1999 Apr 2;284(5411):49.

Physician-scientists--endangered and essential [see comments] Rosenberg L. **Science** 1999 Jan 15; 283(5400):331-2. Comment in: Science 1999 Feb 5;283(5403):791. Comment in: Science 1999 Feb 5;283(5403):791-2. Comment in: Science 1999 Mar 5;283(5407):1455. Comment in: Science 1999 Mar 5;283(5407):1455-6. Comment in: Science 1999 Mar 5;283(5407):1456. Comment in: Science 1999 Apr 23;284(5414):591-2.

Asking the right questions [letter; comment] Smith MA, et al. **Science** 1999 Jul 30;285(5428):665. Comment on: Science 1999 May 7;284(5416):915-6.

Disappearing physician-scientists [letter; comment] [see comments] Varki A. **Science** 1999 Feb 5;283(5403):791-2. Comment on: Science 1999 Jan 15;283(5400):331-2. Comment in: Science 1999 Mar 5;283(5407):1455.

CBS News: "60 Minutes," July 21, 1996: Who Poisoned Maryann? [see comments] Brent RL. **Teratology** 1999 Apr; 59(4):299-300. Comment in: Teratology 1999 Apr;59(4):301.

An observation: role of the M.D., Ph.D. in science. Watanabe PG. **Toxicol Sci** 1999 Jun;49(2):165

[The assistant was guilty? On the erotic of fraud in science (editorial)] Werner P. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug;136(4):Oa1-2 **(Ger)**

[Recruitment to medical research (letter; comment)] Lamvik J. **Tidsskr Nor Laegeforen** 1998 Aug 30;118(20):3180. Comment on: Tidsskr Nor Laegeforen 1998 Jun 10;118(15):2303. **(Nor)**

[Recruitment of students for medical research] Røttingen JA, et al. **Tidsskr Nor Laegeforen** 1998 Oct 30;118(26):4111-4 **(Nor)**

[How to secure future of the basic specialties in medical research and teaching?] Ytrehus K. **Tidsskr Nor Laegeforen** 1999 Feb 20;119(5):694-5 **(Nor)**

[Social and ethical responsibility of scientists (editorial)] Candeias JA. **Rev Saude Publica** 1999 Apr;33(2):111-2 **(Por)**

[The need for a review of the procedure for the preventive vaccination of researchers working with Rickettsia prowazekii] Ignatovich VF, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar-Apr; (2):52-6 (Eng. Abstr.) **(Rus)**

ECONOMICS

Physician-scientists at risk [letter; comment] [see comments] Montgomery EB Jr. **Science** 1999 Mar 5;283(5407):1455-6 . Comment on: Science 1999 Jan 15;283(5400):331-2. Comment in: Science 1999 Apr 2;284(5411):49.

EDUCATION

[Length of overseas research sojourn in the career path of academic surgeons] Schürmann G, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:836-9 (Eng. Abstr.) **(Ger)**

[Is a 3-month USA sojourn of value for a German university surgeon?] Woltmann A, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:845-6 (Eng. Abstr.) **(Ger)**

[Staff education in the Instituto de Medicina Tropical "Pedro Kouri". Yesterday, today and tomorrow (1979-1993)] Cantelar de Francisco N, et al. **Rev Cubana Med Trop** 1995; 47(3):224-8 **(Spa)**

HISTORY

The evolving relationship between the physician and the scientist in the 20th century. Bromley E. **JAMA** 1999 Jan 6;281(1):95, 99

LEGISLATION & JURISPRUDENCE

Researcher sues university over rights to transgenic technology [news] Dalton R. **Nature** 1999 Aug 12; 400(6745):601

ORGANIZATION & ADMINISTRATION

Building and maintaining an interdisciplinary research team. McGuire DB. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun; 13 Suppl 1:S17-21

Southern Society for Clinical Investigation: constitution, bylaws, and amendments. **Am J Med Sci** 1998 Nov; 316(5):335-8

Establishing a research coordinator network: the birth of an idea. Ecklund DJ. **J Nurs Adm** 1999 Jan;29(1):20-5

PSYCHOLOGY

On "being inspired" by Husserl's Phenomenology: reflections on Omery's exposition of phenomenology as a method of nursing research. Porter EJ. **ANS Adv Nurs Sci** 1998 Sep; 21(1):16-28 (53 ref.)

Substruction: illustrating the connections from research question to analysis. Wolf ZR, et al. **J Prof Nurs** 1999 Jan-Feb;15(1):33-7

Innovation: the mindset of risk taking [editorial] Cooper DL. **Mol Diagn** 1999 Mar;4(1):1-3

On relevance. Metcalf D. **Stem Cells** 1999;17(1):1-8

STANDARDS

Differences between clinical and research practices in diagnosing borderline personality disorder. Zimmerman M, et al. **Am J Psychiatry** 1999 Oct;156(10):1570-4

STATISTICS & NUMERICAL DATA

The clinician investigator: An endangered species. Roy CC,

et al. **Can J Gastroenterol** 1999 May;13(4):339–43 (18 ref.)
Clinical research: perceptions, reality, and proposed solutions. National Institutes of Health Director's Panel on Clinical Research [see comments] Nathan DG. **JAMA** 1998 Oct 28;280(16):1427–31. Comment in: JAMA 1998 Oct 28;280(16):1442–4.
Predictors and correlates of prevention research careers: a national study of residency graduates. Salive ME, et al. **Prev Med** 1999 Apr;28(4):430–6

SUPPLY & DISTRIBUTION

Personnel resource distribution for nursing programs in Carnegie-classified Research I and II and Doctoral I institutions. Gosnell DJ, et al. **J Prof Nurs** 1999 Jan–Feb; 15(1):44–51
Michael Smith: working to stop Canada's brain drain [news] Ferry J. **Lancet** 1999 Jan 16;353(9148):216

TRENDS

The physician–scientist: an essential—and fragile—link in the medical research chain. Rosenberg LE. **J Clin Invest** 1999 Jun;103(12):1621–6
There has been study after study [news] **J Investig Med** 1998 Dec;46(9):419
The physician–scientist really is an endangered species [news] Culliton BJ, et al. **J Investig Med** 1998 Dec;46(9):417–9

RESEARCH PRIORITIES see **RESEARCH**

RESEARCH PROTOCOLS, CLINICAL see **CLINICAL PROTOCOLS**

RESEARCH SUBJECT RECRUITMENT see **PATIENT SELECTION**

RESEARCH SUPPORT

Federal research funding at U.S. universities and colleges and the production of underrepresented-minority physicians. Cummings SM. **Acad Med** 1998 Oct;73(10):1122
The metrics process: Baylor's development of a "report card" for faculty and departments. Garson A Jr, et al. **Acad Med** 1999 Aug;74(8):861–70
Sustaining and renewing the federal research partnership with universities. Lane N. **Acad Med** 1999 Apr;74(4):428–9
Radiology research and the NIH: problems and future prospects. Bragg DG. **Acad Radiol** 1998 Sep;5 Suppl 2:S416–8
National Cancer Institute's OCCAM partners with NCCAM to expand research on unconventional cancer treatments [news] Muscat M. **Altern Ther Health Med** 1999 Jul; 5(4):26–30
The grant application: making yours stand out across the review cycle. Hurley AC, et al. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13 Suppl 1:S120–2
Alzheimer disease: where are we now? Where are we going? Khachaturian ZS, et al. **Alzheimer Dis Assoc Disord** 1998; 12 Suppl 3:S24–8
HHS announces $710 million in grants for HIV/AIDS care [news] Sweeney R, et al. **Am Fam Physician** 1999 May 1;59(9):2403
Nursing research comes into its own. Burtt K. **Am J Nurs** 1999 Jan;99(1 Pt 1):49–50
New opportunities for researchers in obstetrics and gynecology through programs supported by the National Institute of Child Health and Human Development. McNellis D, et al. **Am J Obstet Gynecol** 1999 Jul; 181(1):221–5
Funding clinical research: the need for information and longer term strategies. Feneley MR, et al. **Ann R Coll Surg Engl** 1999 May;81(3):145–50 (13 ref.)
After the grant runs out. Long-term provider health maintenance compliance using a computer-based tracking system. Cooley KA, et al. **Arch Fam Med** 1999 Jan–Feb; 8(1):13–7
Goals and goal setting in rehabilitation research [editorial; comment] Basford JR. **Arch Phys Med Rehabil** 1999 May; 80(5):479–80. Comment on: Arch Phys Med Rehabil 1999 May;80(5):481–4.
The grant portfolio of the National Center for Medical Rehabilitation Research: the first five years [see comments] Deitz J, et al. **Arch Phys Med Rehabil** 1999 May;80(5):481–4 . Comment in: Arch Phys Med Rehabil 1999 May;80(5):479–80.
How to obtain funding for your project. Weeks C. **Aust Fam Physician** 1998 Sep;27(9):807–9
Should industry sponsor research? Funding of research by infant formula companies [letter; comment] Candy DC. **BMJ** 1999 Jan 23;318(7178):260. Comment on: BMJ 1998 Aug 1;317(7154):337–8.
Should industry sponsor research? Portman Group has always openly acknowledged its source of funding [letter; comment] Coussins J. **BMJ** 1999 Jan 23;318(7178):261. Comment on: BMJ 1998 Aug 1;317(7154):336.
How to get a grant funded. Goldblatt D. **BMJ** 1998 Dec 12;317(7173):1647–8 (0 ref.)
Prospects for general practice research are bright despite research assessment exercise [letter] Kendrick T, et al. **BMJ** 1999 Jan 16;318(7177):194
Sponsored trials do not necessarily give more-favourable results [letter] Matthews JN. **BMJ** 1999 Jun 26; 318(7200):1762
Should industry sponsor research? Positive messages on breast feeding would result in need for infant formula decreasing [letter; comment] Porter A. **BMJ** 1999 Jan 23; 318(7178):260–1. Comment on: BMJ 1998 Aug 1;317(7154):337–8.
The genomic challenge [editorial] Richards T. **BMJ** 1999 Feb 6;318(7180):341–2
Canadian case questions funding [news] Spurgeon D. **BMJ** 1999 Jan 9;318(7176):77
Should industry sponsor research? Researchers must recognise damage done by overt association with formula manufacturers [letter; comment] Waterston T, et al. **BMJ** 1999 Jan 23;318(7178):260. Comment on: BMJ 1998 Aug 1;317(7154):337–8.
Disease burden predicts US government health research funding [news] **Bull World Health Organ** 1999;77(8):704–5
Need for an Institute of Primary Care Research within the Canadian Institutes of Health Research [editorial] Godwin M, et al. **Can Fam Physician** 1999 Jun;45:1405–9, 1417–21 **(Eng, Fre)**
NIH funding: a roller coaster Ride? Priorities if NIH funding increases. Fuster V. **Circulation** 1999 Apr 27;99(16):2064–6
Constraints of interest: lessons at the Hospital for Sick Children [editorial; comment] [published erratum appears in CMAJ 1998 Nov 17;159(10):1244] Phillips RA, et al. **CMAJ** 1998 Oct 20;159(8):955–7. Comment on: CMAJ 1998 Oct 20;159(8):983–6.
European funding for research [news] **Community Dent Health** 1998 Jun;15(2):127
Funding dental research in Europe [editorial] O'Mullane DM. **Community Dent Health** 1998 Jun;15(2):65–6
National Health Service funding for complementary medicine research: the NHS acupuncture trials [editorial] Vickers A. **Complement Ther Med** 1999 Mar;7(1):1–2
Financial disclosure is needed at the lectern, as well as in print [letter] Landow L. **Crit Care Med** 1998 Dec; 26(12):2093–4
The art of grant writing. Rasey JS. **Curr Biol** 1999 Jun 3; 9(11):R387
Clinical research funding and GI organizations. Bissell DM. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S90–3
At the threshold of knowledge [editorial] Butler RN. **Geriatrics** 1999 Sep;54(9):11
Gastroenterology research in the United Kingdom: funding sources and impact. Lewison G. **Gut** 1998 Aug;43(2):288–93
Testing the market. Trial tribulations. Hudson T. **Hosp Health Netw** 1998 Oct 20;72(20):35–6
Interesting conflicts and conflicting interests [editorial] Whitehouse PJ. **J Am Geriatr Soc** 1999 Jun;47(6):759–61
Manufacturer support and outcome [letter] Mandelkern M. **J Clin Psychiatry** 1999 Feb;60(2):122–3
Financial issues in defining levels for HIV/AIDS research. Eastaugh SR. **J Health Care Finance** 1998 Fall;25(1):19–25
Brown and Tufts scientists among those to receive NIH funding for AIDS research [news] D'Auria J. **J Investig Med** 1998 Dec;46(9):421
Cancer patient care in clinical trials sponsored by the National Cancer Institute: what does it cost? [editorial; comment] Brown ML. **J Natl Cancer Inst** 1999 May 19; 91(10):818–9. Comment on: J Natl Cancer Inst 1999 May 19;91(10):847–53.
Cancer research funding now has many financial players [news] Jenks S. **J Natl Cancer Inst** 1999 Jul 21; 91(14):1187–9
How to divvy up NIH's research pie sparks debate [news] Randal J. **J Natl Cancer Inst** 1999 Mar 3;91(5):410–2
Hughes' unexpected legacy: a thriving research enterprise [news] Volkers N. **J Natl Cancer Inst** 1999 Feb 17; 91(4):306–9
Nursing research. American Association of Colleges of Nursing. **J Prof Nurs** 1999 Jul–Aug;15(4):253–7
Too little too late? Deets C. **J Prof Nurs** 1999 Jul–Aug; 15(4):206
Life on the "Genius" track. Lubic RW. **J Prof Nurs** 1999 Jan–Feb;15(1):7–14
Research and women's health: why your vote is essential. Woolley M. **J Womens Health** 1998 Oct;7(8):979–81
Cost-effectiveness of interferon treatment for hepatitis C [letter; comment] Henley E. **JAMA** 1999 Jun 9; 281(22):2083; discussion 2084. Comment on: JAMA 1998 Dec 23–30;280(24):2088–93.
Meta-analysis of tacrine for Alzheimer disease: the influence of industry sponsors [letter; comment] Koepp R, et al. **JAMA** 1999 Jun 23–30;281(24):2287–8. Comment on: JAMA 1998 Nov 25;280(20):1777–82.
Funding stem cell research [news] Marwick C. **JAMA** 1999 Feb 24;281(8):692–3
Report on Australian research ups funding [news] Swan N. **JAMA** 1999 Jul 14;282(2):119–20
Untold costs of keeping up appearances [editorial] **Lancet** 1999 Jul 24;354(9175):265
Support for non-competitive trials [editorial] [see comments] **Lancet** 1999 Mar 13;353(9156):855. Comment in: Lancet 1999 May 8;353(9164):1626.
Breast cancer gets the hard sell [letter] Bodai E. **Lancet** 1997 Oct 11;350(9084):1102
Breast cancer gets the hard sell [letter; comment] Goodman DL. **Lancet** 1997 Oct 11;350(9084):1101–2. Comment on: Lancet 1997 Aug 9;350(9075):377.
Is there a Gulf War syndrome? [letter; comment] Holdstock D, et al. **Lancet** 1999 Apr 3;353(9159):1183. Comment on: Lancet 1999 Jan 16;353(9148):169–78. Comment on: Lancet 1999 Jan 16;353(9148):179–82.
Research grants and acknowledgment of funding of published studies [letter] Kernick DP. **Lancet** 1999 Sep 4; 354(9181):870
Funding of clinical research [letter] Ruffmann R. **Lancet** 1999 Aug 14;354(9178):602
HIV vaccine: how long must we wait? [letter; comment] Snow B. **Lancet** 1999 Jan 16;353(9148):241. Comment on: Lancet 1998 Oct 24;352(9137):1323.
Research funding [letter; comment] Warlow C, et al. **Lancet** 1999 Jun 26;353(9171):2250. Comment on: Lancet 1999 May 8;353(9164):1626.
Health insurance-funded research. Friedman JH. **Med Health R I** 1998 Dec;81(12):385
Public advocacy and allocation of federal funds for biomedical research. Dresser R. **Milbank Q** 1999; 77(2):257–74, 175
Alzheimer's research in eastern Europe benefits from US funding [news] Sansom C. **Mol Med Today** 1998 Sep; 4(9):368
Disclosure statements regarding hormonal treatment of prostate cancer [letter; comment] **N Engl J Med** 1999 May 27;340(21):1689–90. Comment on: N Engl J Med 1998 Oct 8;339(15):1036–42.
The Postal Service and cancer screening [letter] Bodai BI. **N Engl J Med** 1999 Aug 12;341(7):543
The Postal Service and cancer screening [letter] Silverstein SC. **N Engl J Med** 1999 Aug 12;341(7):542; discussion 543
The U.S. Postal Service and cancer screening—stamps of approval? Woloshin S, et al. **N Engl J Med** 1999 Mar 18; 340(11):884–7
Taking the profit out of biomedical research tools. Flores MA. **Nat Biotechnol** 1999 Aug;17(8):819–20
Overview of FY 2000 US federal budget request [news] Fox JL. **Nat Biotechnol** 1999 Mar;17(3):219
Smaller US firms more aggressive with federal grants [news] Swan N. **Nat Biotechnol** 1998 Dec;16(13):1306
Funding of human embryo research in the US. Thomson J. **Nat Biotechnol** 1999 Apr;17(4):312
Breaking waves down under [editorial] **Nat Genet** 1999 Jun; 22(2):117–8
An action plan for mouse genomics. Battey J, et al. **Nat Genet** 1999 Jan;21(1):73–5
Tobacco money and medical research [editorial] **Nat Med** 1999 Feb;5(2):125
Cancer centers set sights on tobacco settlement [news] Ault A. **Nat Med** 1999 Jan;5(1):10
New funds for cancer research [news] Birmingham K. **Nat Med** 1998 Oct;4(10):1100
Can research survive at MCPHU—the new Allegheny? [news] Birmingham K. **Nat Med** 1999 Feb;5(2):130–1
High risk research funding can be high profile [news] Birmingham K. **Nat Med** 1998 Nov;4(11):1216–7
The challenge of private biomedical research funding in Italy. Bordignon C. **Nat Med** 1999 Feb;5(2):135–7
Novo Nordisk invests in academic diabetes research [news] Brown P. **Nat Med** 1999 Mar;5(3):250
NIH opens conflict-of-interest investigation [news] Cimons M. **Nat Med** 1999 Feb;5(2):129–30
Britain excels in academic capitalism [news] Dickson D. **Nat Med** 1999 Feb;5(2):131–2
New infectious disease research funding [news] Dove A. **Nat Med** 1998 Dec;4(12):1350
IAVI advances AIDS vaccine research...International AIDS Vaccine Initiative [news] Dove A. **Nat Med** 1999 Jan;5(1):5
Windows mogul opens doors for medical research [news] Dove A. **Nat Med** 1999 Aug;5(8):857
Japan celebrates ten years of the HFSP. Human Frontier Science Program [news] Nathan R. **Nat Med** 1999 Jan; 5(1):7–8
Australian research grant awards remain static [news] Rouse R. **Nat Med** 1999 Jan;5(1):9
Skepticism surrounds Australia's biomedical research revolution [news] Rouse R. **Nat Med** 1998 Oct;4(10):1098
German cutbacks hurt science [news] Simm M. **Nat Med** 1999 Sep;5(9):971
Money for structural genomics [editorial] **Nat Struct Biol** 1999 Aug;6(8):707–8
'Frontiers' grants count cost of success [news] Abbott A, et al. **Nature** 1999 Jun 3;399(6735):398
Italian charity offers an alternative to the concorsi [news] Abbott A. **Nature** 1998 Nov 12;396(6707):102
Framework deal boosts life sciences...but nuclear work and fusion research lose out [news] Abbott A. **Nature** 1998 Nov 26;396(6709):294
Malaria research deal seeks to make up for industry's retreat [news] Butler D. **Nature** 1998 Oct 1;395(6701):417–8
French geneticists raise worries over use of new genome funds [news] Butler D. **Nature** 1999 May 20; 399(6733):185–6
Call for governments to back development of AIDS vaccine [news] Dickson D. **Nature** 1999 Sep 2;401(6748):4
Researchers face 'Catch-22' grants trap [letter] Ibáñez CF. **Nature** 1999 Mar 25;398(6725):280
Indian budget boost targets innovation, vaccines and genetics [news] Jayaraman KS. **Nature** 1999 Mar 4;398(6722):4
Epidemiologist's funds axed after report on Californian smoking [news] Lehrmann S. **Nature** 1998 Oct 15; 395(6703):629
While France gives more power to the centre [news] McCabe

RESEARCH SUPPORT

H. **Nature** 1999 Sep 23;401(6751):313
US researchers push network of massive spectrometers [news] Macilwain C. **Nature** 1998 Nov 19;396(6708):201
NIH promises funds to help biologists to use beamlines [news] Macilwain C. **Nature** 1998 Nov 19;396(6708):203
Five young life scientists win $1m no-strings grants [news] Macilwain C. **Nature** 1999 Jul 15;400(6741):198
Michigan to use tobacco money to fund life sciences [news] Macilwain C. **Nature** 1999 Jul 29;400(6743):391
US spirit is willing, but funds are still weak [news] Macilwain C. **Nature** 1999 Jan 7;397(6714):7-8
Biomedicine wins British budget top-up [news] Masood E. **Nature** 1998 Oct 29;395(6705):825
Harvard reveals plans for research centres [news] Nadis S. **Nature** 1999 Feb 4;397(6718):374
Will biomedicine outgrow support? Perutz MF. **Nature** 1999 May 27;399(6734):299-301
Australia boosts medical research, but keeps other budgets level [news] Pockley P. **Nature** 1999 May 13;399(6732):94
Japan declares five-year plan to double genome research funds [news] Saegusa A. **Nature** 1999 Jul 29;400(6743):389
Japan boosts proteomics and cell biology...[news] Saegusa A. **Nature** 1999 Sep 23;401(6751):313
German call to invest more in technology [news] Schiermeier Q. **Nature** 1999 Feb 11;397(6719):457
DFG urges Germany to boost its spending on genome research [news] Schiermeier Q. **Nature** 1999 Jun 17; 399(6737):622
Senator seeks reassurance on NIH budget [news] Wadman M. **Nature** 1999 Jan 14;397(6715):94
US life scientists seek 15 per cent rise to NIH research funds [news] Wadman M. **Nature** 1999 Jan 28;397(6717):284
Charity cools on stem cells after boycott by Catholics [news] Wadman M. **Nature** 1999 Aug 5;400(6744):493
US plans giant effort on protein structure [news] Wadman M. **Nature** 1999 Aug 5;400(6744):494
NIH weighs in behind improved synchrotrons [news] Wadman M. **Nature** 1999 Jul 29;400(6743):395
US faces increasing demand for funds to replace ageing equipment [news] Wadman M. **Nature** 1999 Sep 2; 401(6748):7
Varmus wish list guides senators in fight for biomedical funding [news] Wadman M. **Nature** 1999 Mar 4;398(6722):9
Ethicists urge funding for extraction of embryo cells [news] Wadman M. **Nature** 1999 May 27;399(6734):292
Israeli industry asks for boost to R&D [news] Watzman H. **Nature** 1998 Dec 17;396(6712):611
Increased NIH funding needed to combat cancer in minorities, medically underserved [news] **Oncology (Huntingt)** 1999 May;13(5):617
DHHS, EPA Fund. Children's environmental health research centers [news] **Public Health Rep** 1998 Nov-Dec;113(6):486
AIDS windfall [news] **Science** 1999 May 7;284(5416):885
AIDS center shuttered [news] **Science** 1999 May 21; 284(5418):1245
NIH invites activists into the inner sanctum [news] [see comments] Agnew B. **Science** 1999 Mar 26; 283(5410):1999-2001. Comment in: Science 1999 Apr 23;284(5414):589. Comment in: Science 1999 Apr 23;284(5414):589, 591.
Scientific leaders balk at broad data release [news] Agnew B. **Science** 1999 Jan 15;283(5400):307,309
Misconduct. Fraud finding triggers payback demand [news] Barinaga M, et al. **Science** 1999 Aug 20;285(5431):1189-90
Physician-scientists at risk [letter; comment] [see comments] Cameron OG. **Science** 1999 Mar 5;283(5407):1456. Comment on: Science 1999 Jan 15;283(5400):331-2. Comment in: Science 1999 Apr 2;284(5411):49.
Inner sanctum [letter; comment] [published erratum appears in Science 1999 Jun 11;284(5421):1776] Cook-Deegan RM. **Science** 1999 Apr 23;284(5414):589. Comment on: Science 1999 Mar 26;283(5410):1999-2001.
Australia. Budget back report on boosting biotech [news] Finkel E. **Science** 1999 May 21;284(5418):1248-9
Freedom of information requests [letter; comment] Goldwater WH. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
Freedom of information requests [letter; comment] Gough M. **Science** 1998 Dec 4;282(5395):1823. Comment on: Science 1998 Nov 6;282(5391):1023.
Subjecting belief to the scientific method [news] [see comments] Holden C. **Science** 1999 May 21; 284(5418):1257-9. Comment in: Science 1999 Jun 11;284(5421):1773.
Keck gives $110 million for USC initiatives [news] Kaiser J. **Science** 1999 Jul 30;285(5428):651
New law could open up lab books [news] [see comments] Kaiser J. **Science** 1998 Nov 6;282(5391):1023. Comment in: Science 1998 Dec 4;282(5395):1823.
Michigan plans massive investment in biotech [news] Kaiser J. **Science** 1999 Jul 23;285(5427):502-3
Canadian budget. Health research gets fundamental overhaul [news] Kondro W. **Science** 1999 Feb 26;283(5406):1241
NIH wins big as congress lumps together eight bills [news] Malakoff D, et al. **Science** 1998 Oct 23;282(5389):598-9
Senate tops house panel in raising NIH's budget [news] Malakoff D. **Science** 1999 Oct 1;286(5437):19, 21
NIH urged to fund centers to merge computing and biology [news] [published erratum appears in Science 1999 Jul 30;285(5428):665] Malakoff D. **Science** 1999 Jun 11; 284(5421):1742
Likelihood of NIH extramural funding [letter] Mandel HG, et al. **Science** 1999 Sep 10;285(5434):1674-6
Human genome project. Commercial firms win U.S. sequencing funds [news] Marshall E. **Science** 1999 Jul 16; 285(5426):310
A threat to biomedical research [editorial] Martin JB. **Science** 1999 Sep 10;285(5434):1671
Who's balancing the federal research portfolio and how? Merrill SA, et al. **Science** 1999 Sep 10;285(5434):1679-80
Keck helps five careers with $1 million grants [news] Mervis J. **Science** 1999 Jul 16;285(5426):312-3
Physician-scientists at risk [letter; comment] [see comments] Montgomery EB Jr. **Science** 1999 Mar 5;283(5407):1455-6 . Comment on: Science 1999 Jan 15;283(5400):331-2. Comment in: Science 1999 Apr 2;284(5411):49.
Environmental researchers wait anxiously for salvation [news] Nilsson A, et al. **Science** 1999 Feb 12;283(5404):924
A bonanza for plant genomics [news] Pennisi E. **Science** 1998 Oct 23;282(5389):652-4
Academic sequencers challenge Celera in a sprint to the finish [news] Pennisi E. **Science** 1999 Mar 19;283(5409):1822-3
Inner sanctum [letter; comment] Schiff H. **Science** 1999 Apr 23;284(5414):589,591. Comment on: Science 1999 Mar 26;283(5410):1999-2001.
From junk bond king to cancer crusader [news] Stokstad E. **Science** 1999 Feb 19;283(5405):1100-3
U.K. research funding. Life sciences win bulk of cash bonanza [news] Williams N. **Science** 1998 Nov 6; 282(5391):1015,1017-8
Prostate cancer research and the National Cancer Institute. Brawley OW, et al. **Semin Urol Oncol** 1998 Nov; 16(4):235-40 (26 ref.)
Funding for transplant research [letter] Halloran P. **Transpl Immunol** 1998 Dec;6(4):269
Chemicals, children and research $'s. Robertson WO. **Vet Hum Toxicol** 1998 Oct;40(5):308-9
[The FREJA research program in biology and medicine] Gammeltoft S. **Ugeskr Laeger** 1999 Jun 28;161(26):4018-20 **(Dan)**
[Peer review or drawing lots? (letter; comment)] Gjedde A. **Ugeskr Laeger** 1999 Jan 18;161(3):279. Comment on: Ugeskr Laeger 1998 Nov 16;160(47):6827-8. **(Dan)**
[Diabetic microangiopathy. The Novo Nordisk Fund distributes 100 millions to a consortium of Scandinavian researchers] Højgaard L. **Ugeskr Laeger** 1999 Feb 15; 161(7):966-8 **(Dan)**
[How reliable are peer reviews in research fund applications? (see comments)] Lous J, et al. **Ugeskr Laeger** 1998 Nov 16;160(47):6827-8. Comment in: Ugeskr Laeger 1999 Jan 18;161(3):279. **(Dan)**
[How to optimize the research at universities?] Skou JC. **Ugeskr Laeger** 1999 Apr 5;161(14):2059-62 (Eng. Abstr.) **(Dan)**
[Clinical research and pharmaceutical industry. A relationship with advantages and disadvantages] ten Cate JW, et al. **Ned Tijdschr Geneeskd** 1999 Jul 24; 143(30):1572-6 (Eng. Abstr.) **(Dut)**
[Foreign research position in the career development of academic surgeons] Schürmann G, et al. **Chirurg** 1999 Mar; 70(3):310-5 (Eng. Abstr.) **(Ger)**
[Recruitment to medical research (letter; comment)] Lamvik J. **Tidsskr Nor Laegeforen** 1998 Aug 30;118(20):3180. Comment on: Tidsskr Nor Laegeforen 1998 Jun 10;118(15):2303. **(Nor)**
[Resources in medical research] Sundnes SL. **Tidsskr Nor Laegeforen** 1998 Oct 30;118(26):4106-8 (Eng. Abstr.) **(Nor)**
[Designing and presenting a research project to a financing agency] Agustí García-Navarro A. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:31-3 **(Spa)**
[Evaluation activities a symptom of good health (editorial; comment)] Camí J. **Med Clin (Barc)** 1999 Feb 20; 112(6):218-9. Comment on: Med Clin (Barc) 1999 Feb 20;112(6):225-35. **(Spa)**
[Biomedical research in Spain (II). Assessment of the Health Research Fund (FIS) through the research projects funded in 1988-1995 for research centers, colleges, and schools (see comments)] Espinosa de los Monteros J, et al. **Med Clin (Barc)** 1999 Feb 20;112(6):225-35. Comment in: Med Clin (Barc) 1999 Feb 20;112(6):218-9. **(Spa)**
[Biomedical research in Spain (I). An evaluation of the Fondo de Investigacion Sanitaria (FIS) through research projects financed in the 1988-1995 period in health-care institutions (hospitals)] Espinosa de los Monteros J, et al. **Med Clin (Barc)** 1999 Feb 13;112(5):182-97 **(Spa)**
[Sociopolitical issues in medical research] Gonzalo LM. **Rev Med Univ Navarra** 1998 Apr-Jun;42(2):119-20 **(Spa)**
[Is society going to finance projects of drug companies?] Bake B. **Lakartidningen** 1999 May 12;96(19):2327-8 **(Swe)**
[Hardly any research funds to women] Hovelius B. **Lakartidningen** 1999 May 5;96(18):2192 **(Swe)**
[30 years of successful mycobacteriology research, The AHRI in Addis Abeba--a unique research environment in a developing country] Miörner H, et al. **Lakartidningen** 1999 Feb 10;96(6):585-7 (Eng. Abstr.) **(Swe)**
[Increasing competition: ten good suggestions for how to apply for research funds!] Pedersen N, et al. **Lakartidningen** 1999 Apr 14;96(15):1855-8 **(Swe)**

ECONOMICS

Ventricular assist device programs: design and function. Van Meter CH Jr, et al. **Ann Thorac Surg** 1999 Aug;68(2):643-5
Show me the money. **Chem Biol** 1998 Sep;5(9):R237
Superfund Basic Research: A state's perspective on health effects research needs [editorial] Pour AM. **Environ Health Perspect** 1999 Jan;107(1):A10-1
Funding system in the National Institutes of Health. Thomas DA. **J Oral Sci** 1998 Sep;40(3):129-30
Who is responsible for the common good in a competitive market? [editorial; comment] Fletcher RH. **JAMA** 1999 Mar 24-31;281(12):1127-8. Comment on: JAMA 1999 Mar 24-31;281(12):1087-92. Comment on: JAMA 1999 Mar 24-31;281(12):1093-8.
New research subjects in Grant-in-Aid for Cancer Research 1999-2000 from the Ministry of Health and Welfare, Japan [news] Asamura H. **Jpn J Clin Oncol** 1999 Apr;29(4):237
Funding clinical research [letter; comment] [see comments] Dieppe P, et al. **Lancet** 1999 May 8;353(9164):1626. Comment on: Lancet 1999 Mar 13;353(9156):855. Comment in: Lancet 1999 Jun 26;353(9171):2250.
US life sciences gets the lion's share [news] Greenberg DS. **Lancet** 1999 Apr 24;353(9162):1421
Australian medical research: more resources and the right balance [letter; comment] Gaughwin MD. **Med J Aust** 1998 Nov 2;169(9):502-3. Comment on: Med J Aust 1998 Jun 1;168(11):535-6.
Teaching and research in a casemix funding environment. Phillips PA. **Med J Aust** 1998 Oct 19;169 Suppl:S53-5
A new paradigm for funding cardiovascular-outcome research in general practice. The Second Australian National Blood Pressure Study. ANBP2 Management Committee [editorial] Reid CM, et al. **Med J Aust** 1998 Oct 5;169(7):349-50
Britain loses out on genome market [news] Birmingham K. **Nat Med** 1999 Oct;5(10):1097
CRC forced to compromise over tobacco funding ban [news] Firn D. **Nat Med** 1999 Feb;5(2):129
Public input benefits NIH [news] Novak K. **Nat Med** 1999 Oct;5(10):1097
Group calls for big increase in diabetes research [news] Novak K. **Nat Med** 1999 Apr;5(4):364
Finding funding for China's HIV research [news] Watanabe ME. **Nat Med** 1999 Apr;5(4):364-5
Increased funding for stroke research. Traystman RJ, et al. **Stroke** 1999 May;30(5):1147
Finding funds for clinical research [editorial] Michell AR. **Vet Rec** 1999 Jun 26;144(26):733
[Promoting research in Germany] Konze-Thomas B. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:741-3 (Eng. Abstr.) **(Ger)**
[Promotion of research in surgery by the Swiss National Foundation] Winkler U. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:738-40 (Eng. Abstr.) **(Ger)**
[Guidelines for third-party-financed research plans. The provisional final version of 20 March 1998 (editorial)] Thelen M. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):215-9 **(Ger)**

HISTORY

Rockefeller, Florey, and the penicillin connection. Fraenkel GJ. **Ann Diagn Pathol** 1999 Jun;3(3):195-8

LEGISLATION & JURISPRUDENCE

Creating effective research compliance programs in academic institutions. Grant G, et al. **Acad Med** 1999 Sep; 74(9):951-71
Legal issues surrounding privately funded research cause furore in Toronto [see comments] Shuchman M. **CMAJ** 1998 Oct 20;159(8):983-6. Comment in: CMAJ 1998 Oct 20;159(8):955-7.
Good intentions. Capron AM. **Hastings Cent Rep** 1999 Mar-Apr;29(2):26-7
Diabetes research plan presented to Congress [news] Marwick C. **JAMA** 1999 Apr 7;281(13):1158-9
Scientists appeal to revoke funding ban on embryo research [news] Cimons M, et al. **Nat Med** 1999 Jan;5(1):6
Millenium money for Japanese scientists [news] Triendl R. **Nat Med** 1999 Oct;5(10):1095
...While Europe contemplates funding ban [news] Butler D. **Nature** 1998 Nov 12;396(6707):105
Breakthrough stirs US embryo debate... [news] Butler D. **Nature** 1998 Nov 12;396(6707):104
Researcher fights suspension over funds [news] Dalton R. **Nature** 1999 Jun 24;399(6738):723
Embryonic stem-cell research exempt from ban, NIH is told [news] Wadman M. **Nature** 1999 Jan 21;397(6716):185-6
Public access to data [editorial] Frankel MS. **Science** 1999 Feb 19;283(5405):1114
Data disclosure. Congress votes down delay in access law [news] [published erratum appears in Science 1999 Aug 6;285(5429):838] Kaiser J. **Science** 1999 Jul 23;285(5427):511
Ruling may free NIH to fund stem cells studies [news] Marshall E. **Science** 1999 Jan 22;283(5401):465, 467
Sweden considers more oversight of research [news] Rose J, et al. **Science** 1999 Mar 19;283(5409):1829
[Illegal professional conflict of interest from the viewpoint of the attorney] Broglie MG. **Z Arztl Fortbild Qualitatssich** 1998 Oct;92(8-9):627-31 (Eng. Abstr.) **(Ger)**
[Illegal professional conflict of interest from the viewpoint of university research] Dietel M.

Z Arztl Fortbild Qualitatssich 1998 Oct;92(8-9):620-5 (Eng. Abstr.) **(Ger)**
[Does financing researchers and research at university clinics entail a conflict of interests and dependence?] Adler G. **Z Gastroenterol** 1999 Jul;Suppl 2:28-32 **(Ger)**
[Legal aspects of support to clinics, research and continuing education by industry] Räpple T. **Z Gastroenterol** 1999 Jul; Suppl 2:33-7 **(Ger)**

METHODS

Structure and process of federal funding for AD research. Wells N, et al. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun; 13 Suppl 1:S117-9
Idea to application: you are in charge. Wells N, et al. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun;13 Suppl 1:S111-6
The free market and scientific research benefit from private and public support. Stossel TP. **Curr Opin Hematol** 1998 Nov;5(6):367-8

ORGANIZATION & ADMINISTRATION

USA gets to grips with priority-setting for health research [news] **Bull World Health Organ** 1999;77(4):362-3
Canadian Institutes of Health Research: should there be an institute for digestive sciences? Fedorak RN. **Can J Gastroenterol** 1999 Jun;13(5):367-9
Hi-tech framework for alternative medicine [letter] [see comments] Godik E, et al. **J Altern Complement Med** 1998 Winter;4(4):365-6. Comment in: J Altern Complement Med 1998 Winter;4(4):355-7.
Complementary and alternative medicine: the road ahead [editorial] Harkin T. **J Altern Complement Med** 1998 Winter;4(4):359-60
Coordination of research efforts tied to defining profession's identity [letter] [published erratum appears in J Am Osteopath Assoc 1999 May;99(5):241] Engle M, et al. **J Am Osteopath Assoc** 1999 Apr;99(4):199
Research programs of the AOA and their role in osteopathic medical education. McGill SL, et al. **J Am Osteopath Assoc** 1998 Nov;98(11):627-31
TBI State Demonstration Grants. **J Head Trauma Rehabil** 1999 Apr;14(2):201-6
The time is now [editorial] Sullivan EJ. **J Prof Nurs** 1999 May-Jun;15(3):133-4
Clinical research: perceptions, reality, and proposed solutions. National Institutes of Health Director's Panel on Clinical Research [see comments] Nathan DG. **JAMA** 1998 Oct 28;280(16):1427-31. Comment in: JAMA 1998 Oct 28;280(16):1442-4.
Lessons in cooperation: an update on improving the quality of hospital care. Kabcenell A. **Jt Comm J Qual Improv** 1998 Oct;24(10):591-3
Maintaining vigilance over quality of EU research [editorial; comment] **Lancet** 1999 Apr 3;353(9159):1111. Comment on: Lancet 1999 Apr 3;353(9159):1192.
Encouraging high-quality clinical research in the tropics [letter; comment] [see comments] Eddleston M. **Lancet** 1999 Apr 3;353(9159):1190. Comment on: Lancet 1998 May 30;351(9116):1652-4. Comment in: Lancet 1999 Jun 26;353(9171):2248-9.
European Commission funding of research [letter; comment] Martin J. **Lancet** 1999 Apr 3;353(9159):1192. Comment on: Lancet 1999 Apr 3;353(9159):1111.
Show me the money: funding informatics research. Corn M. **MD Comput** 1999 Jul-Aug;16(4):17-20
Consumer Assessment of Health Plans Study (CAHPS). Foreword. Crofton C, et al. **Med Care** 1999 Mar;37(3 Suppl):MS1-9 (25 ref.)
Agency for Health Care Policy and Research. Eisenberg JM. **Med Care** 1999 Mar;37(3):217-9
Initiating a clinical trials cooperative group in an increasingly managed care environment: successes and problems in establishing collaboration. Baum HM, et al. **Med Care Res Rev** 1999;56 Suppl 2:139-52
Ethics committees: is reform in order? [editorial; comment] [see comments] Loblay RH, et al. **Med J Aust** 1999 Jan 4;170(1):9-10 (16 ref.). Comment on: Med J Aust 1999 Jan 4;170(1):26-8. Comment in: Med J Aust 1999 Jul 5;171(1):51-2.
Working with the Wellcome Trust. Ogilvie BM. **Med J Aust** 1998 Dec 7-21;169(11-12):634-7
What role can public health institutions play in drug development for the poor? A case study of artesunate. Gomes M, et al. **Med Trop (Mars)** 1998;58(3 Suppl):97-100 (10 ref.)
Evaluating the burden of disease and spending the research dollars of the National Institutes of Health [editorial; comment] Varmus H. **N Engl J Med** 1999 Jun 17; 340(24):1914-5. Comment on: N Engl J Med 1999 Jun 17;340(24):1881-7.
Italy labors in its reform of the CNR [news] Birmingham K, et al. **Nat Med** 1999 Feb;5(2):132
Australian budget pleases most researchers [news] Rouse R. **Nat Med** 1999 Jun;5(6):598
Radical reform needed to aid junior scientists [letter; comment] Vassiliou G. **Nature** 1998 Nov 26;396(6709):307 . Comment on: Nature 1998 Sep 10;395(6698):101. Comment on: Nature 1998 Sep 10;395(6698):103.
News from NINR [news] Grady PA. **Nurs Outlook** 1999 May-Jun;47(3):113
Research funding opportunities at the Agency for Health Care Policy and Research. Jones CB, et al. **Nurs Outlook** 1999 Jul-Aug;47(4):156-61
So where's the evidence? Gates GA. **Otolaryngol Head Neck Surg** 1999 May;120(5):619-20
Careers perspective interview: Norka Ruiz Bravo. Ruiz Bravo N. **Trends Cell Biol** 1999 Jun;9(6):245
The business of science and the science of business in the quest for an AIDS vaccine. Hilleman MR. **Vaccine** 1999 Mar 5;17(9-10):1211-22 (52 ref.)
Patterns of research programs [editorial] Morse JM. **West J Nurs Res** 1998 Dec;20(6):653-5

STANDARDS

Conflict of interest. McNutt K. **J Am Diet Assoc** 1999 Jan; 99(1):29-30
Long-chain polyunsaturated fatty acids, infant formula, and breastfeeding [letter; comment] Campbell C. **Lancet** 1998 Nov 21;352(9141):1703. Comment on: Lancet 1998 Aug 29;352(9129):688-91.

STATISTICS & NUMERICAL DATA

The impact of environmental factors on emergency medicine resident career choice. Stern SA, et al. **Acad Emerg Med** 1999 Apr;6(4):262-70
Scholarship and research of allied health deans and directors. Waller KV, et al. **J Allied Health** 1999 Spring;28(1):1-7
TBI Model System Grants. **J Head Trauma Rehabil** 1999 Apr;14(2):189-200
Market forces and unsponsored research in academic health centers [see comments] Weissman JS, et al. **JAMA** 1999 Mar 24-31;281(12):1093-8. Comment in: JAMA 1999 Mar 24-31;281(12):1127-8.
Is there gender bias in research fellowships awarded by the NHMRC? Ward JE, et al. **Med J Aust** 1998 Dec 7-21; 169(11-12):623-4
Alternative medicine--the case of herbal remedies [letter] Cherkin D, et al. **N Engl J Med** 1999 Feb 18;340(7):565; discussion 566
The relation between funding by the National Institutes of Health and the burden of disease [see comments] Gross CP, et al. **N Engl J Med** 1999 Jun 17;340(24):1881-7. Comment in: N Engl J Med 1999 Jun 17;340(24):1914-5.
Wooldridge Memorial Lecture. Veterinary research: the need for a culture change [see comments] Ogilvie BM. **Vet Rec** 1998 Nov 7;143(19):518-22. Comment in: Vet Rec 1999 Jan 30;144(5):129-30.

TRENDS

Recent trends and controversies in industry-sponsored clinical trials. Reed CR, et al. **Acad Emerg Med** 1999 Aug; 6(8):833-9 (37 ref.)
The changing landscape for clinical research [published erratum appears in Acad Med 1999 Sep;74(9):950] Heinig SJ, et al. **Acad Med** 1999 Jun;74(6):726-45 (42 ref.)
Diabetes research and diabetes care. Where do we stand? Davidson MB. **Diabetes Care** 1998 Dec;21(12):2152-60
The environment and biomedical research [editorial] Grupenhoff JT. **Environ Health Perspect** 1998 Dec; 106(12):A580-1
Increased funding for NIH: a biomedical science perspective. Brinkley WR, et al. **FASEB J** 1998 Nov;12(14):1431-5
Academic orthopaedics: a discipline at risk [letter; comment] Einhorn TA. **J Bone Joint Surg Br** 1998 Nov;80(6):1081 . Comment on: J Bone Joint Surg Br 1998 Jul;80(4):566-7.
Academic orthopaedics: a discipline at risk [letter; comment] Kruczydski J, et al. **J Bone Joint Surg Br** 1998 Nov; 80(6):1081-2. Comment on: J Bone Joint Surg Br 1998 Jul;80(4):566-7.
Academic orthopaedics: a discipline at risk [letter; comment] Sedel L. **J Bone Joint Surg Br** 1998 Nov;80(6):1082. Comment on: J Bone Joint Surg Br 1998 Jul;80(4):566-7.
The impact of the research assessment exercise on the funding of medical schools [editorial] Symonds EM. **J Public Health Med** 1999 Jun;21(2):123-4
New research subjects in Grant-in-Aid for Cancer Research 1999-2000 from the Ministry of Health and Welfare, Japan [news] Asamura H. **Jpn J Clin Oncol** 1999 Apr;29(4):237
How to spend the NIH riches? [news] Greenberg DS. **Lancet** 1999 Jan 2;353(9146):47
FASEB Federal Funding Consensus Conference FY 2000. Executive summary. **Physiologist** 1999 Feb;42(1):1, 3 (0 ref.)
Effective poultry programming in the next century. Poultry research: basic versus applied. Beard CW. **Poult Sci** 1999 May;78(5):655-7
Effective poultry programming in the next century. Balancing research programs: applied and basic. Cherry JA. **Poult Sci** 1999 May;78(5):653-4
Effective poultry programming in the next century. Introduction. Reynnells RD. **Poult Sci** 1999 May; 78(5):646-8
[Clinical researchers and pharmaceutical industry. Dangerous liaisons] Roos JC. **Ned Tijdschr Geneeskd** 1999 Aug 7; 143(32):1668-71 (Eng. Abstr.) **(Dut)**
[The "rehabilitation sciences" promotional emphasis--a promotional program and its implementation] Buschmann-Steinhage R, et al. **Rehabilitation (Stuttg)** 1998 Nov;37 Suppl 2:S71-7 (Eng. Abstr.) **(Ger)**
[Clinical research today and its promotion by industry--advantages and risks] Creutzfeldt W. **Z Gastroenterol** 1999 Jul;Suppl 2:4-11 **(Ger)**
[Partnership between drug industry and the university--innovation, proof of efficacy, drug safety] Weihrauch TR. **Z Gastroenterol** 1999 Jul;Suppl 2:12-8 **(Ger)**
[Research and education in geriatrics at German universities and colleges] Nikolaus T. **Z Gerontol Geriatr** 1998 Aug; 31(4):277-80 (Eng. Abstr.) **(Ger)**

RESEARCHERS see **RESEARCH PERSONNEL**

RESERPINE

ADMINISTRATION & DOSAGE

[Reserpine-diuretic combinations in therapy of arterial hypertension. Current considerations] Siepmann M, et al. **Med Klin** 1998 Dec 15;93(12):733-7 (57 ref.) **(Ger)**

ADVERSE EFFECTS

Effects of centrally of peripherally injected adrenomedullin on reserpine-induced gastric lesions. Clementi G, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):51-4

PHARMACOLOGY

Effect of norepinephrine on ouabain-sensitive, K+-dependent p-nitrophenylphosphatase activity in strial marginal cells of the cochlea in normal and reserpinized guinea pigs. Kanoh N. **Acta Otolaryngol (Stockh)** 1998 Nov; 118(6):817-20
Catecholamines in pericardial fluid of normotensive, spontaneously hypertensive and reserpine-treated rats. Klemola R, et al. **Acta Physiol Scand** 1999 Mar;165(3):293-7
Lack of effect of reserpine on immunoreactive imidazoline receptor proteins in rat brain. Miralles A, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:61-4
Inhibition of the emergence of ciprofloxacin resistance in Streptococcus pneumoniae by the multidrug efflux inhibitor reserpine. Markham PN. **Antimicrob Agents Chemother** 1999 Apr;43(4):988-9
NMDA receptor antagonists inhibit apomorphine-induced climbing behavior not only in intact mice but also in reserpine-treated mice. Kim HS, et al. **Behav Brain Res** 1999 Apr;100(1-2):135-42
Reserpine prevents hydroxyl radical formation by MPP+ in rat striatum. Obata T. **Brain Res** 1999 May 15; 828(1-2):68-73
Reserpine attenuates D-amphetamine and MDMA-induced transmitter release in vivo: a consideration of dose, core temperature and dopamine synthesis. Sabol KE, et al. **Brain Res** 1998 Sep 21;806(1):69-78
Alterations in Ca2+ storage and mobilization in submandibular acinar cells of reserpine-treated rats. Martinez JR, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):201-9
Acute reserpine treatment alters the catecholamine, glucocorticoid and opioid response to walking exercise in sheep. Pierzchala-Koziec K, et al. **Exp Clin Endocrinol Diabetes** 1999;107(1):85-8
Influence of reserpine on iron absorption in rats [published erratum appears in Haematologia (Budap) 1999;29(4):333] Ganchev T, et al. **Haematologia (Budap)** 1998;29(1):33-9
Drugs which can induce earlier roosting in the self-selected circadian rhythm of the canary. Wahlström G. **Isr J Med Sci** 1973;9 Suppl:72-8
The effect of reserpine, an inhibitor of multidrug efflux pumps, on the in-vitro activities of ciprofloxacin, sparfloxacin and moxifloxacin against clinical isolates of Staphylococcus aureus. Schmitz FJ, et al. **J Antimicrob Chemother** 1998 Dec;42(6):807-10
Catecholamines in paraganglia associated with the hepatic branch of the vagus nerve: effects of 6-hydroxydopamine and reserpine. Piñon M, et al. **J Auton Nerv Syst** 1999 Feb 15;75(2-3):131-5
Cyclic guanosylmonophosphate urinary excretion in parasympathicomimetic or parasympatholytic syndromes induced by reserpine or diphemanil-methylsulfate. Urios P, et al. **Life Sci** 1999;64(2):113-23
Reserpine modulates serotonin transporter mRNA levels in the rat brain. Xiao Q, et al. **Life Sci** 1999;64(1):63-8
Effect of reserpine on behavioural responses to agonists at 5-HT1A, 5-HT1B, 5-HT2A, and 5-HT2C receptor subtypes. Heslop KE, et al. **Neuropharmacology** 1999 Jun; 38(6):883-91
Central nervous system toxicity of manganese. II: Cocaine or reserpine inhibit manganese concentration in the rat brain. Ingersoll RT, et al. **Neurotoxicology** 1999 Apr-Jun; 20(2-3):467-76
Reserpine induces increase in neuropeptide Y immunoreactivity in rat amygdala neurons. Smiałowska M, et al. **Pol J Pharmacol** 1998 Nov-Dec;50(6):443-7

TOXICITY

Reserpine does not induce orofacial dyskinesia in spontaneously hypertensive rats. Queiroz CM, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):105-8
Mitogenic short-term effects on hepatocytes and adrenocortical cells: phenobarbital and reserpine compared to carcinogenic and non-carcinogenic fluorene derivatives. Danz M, et al. **Exp Toxicol Pathol** 1998 Sep;50(4-6):416-24

RESIDENCE CHARACTERISTICS

Measuring preferences for living in U.S. states: a comparison of the rating scale, time trade-off, and standard gamble. Ackerman SJ, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S291-6

Contrasting influence of the living environment and gender on systemic hypertension in Saudi population of Gassim, Saudi Arabia. Soyannwo MA, et al. **Afr J Med Med Sci** 1997 Sep-Dec;26(3-4):145-52

Predictors of functional status in older people living at home. Béland F, et al. **Age Ageing** 1999 Mar;28(2):153-9

Validity and reliability of the Medical Outcomes Study Short Form-20 questionnaire as a measure of quality of life in elderly people living at home. Carver DJ, et al. **Age Ageing** 1999 Mar;28(2):169-74

Residential status and risk of hip fracture. Norton R, et al. **Age Ageing** 1999 Mar;28(2):135-9

An exploratory analysis of women and men within a self-help, communal-living recovery setting: a new beginning in a new house. Ferrari JR, et al. **Am J Drug Alcohol Abuse** 1999 May;25(2):305-17

Relations between individual and neighborhood-based measures of socioeconomic position and bone lead concentrations among community-exposed men: the Normative Aging Study. Elreedy S, et al. **Am J Epidemiol** 1999 Jul 15;150(2):129-41

Perceptions of danger: a psychological mediator of neighborhood demographic characteristics. Shumow L, et al. **Am J Orthopsychiatry** 1998 Jul;68(3):468-78

Prevalence of mental health and substance use disorders among homeless and low-income housed mothers. Bassuk EL, et al. **Am J Psychiatry** 1998 Nov;155(11):1561-4

Residential magnetic fields and childhood leukemia: a meta-analysis. Wartenberg D. **Am J Public Health** 1998 Dec;88(12):1787-94

Secular trends in male adult height 1904-1996 in relation to place of residence and parent's educational level in Portugal. Padez C, et al. **Ann Hum Biol** 1999 May-Jun; 26(3):287-98

Beneficial impact of the homelands movement on health outcomes in central Australian aborigines. McDermott R, et al. **Aust N Z J Public Health** 1998 Oct;22(6):653-8

A transitional living environment for persons with brain injuries: staff and client perceptions. Minnes P, et al. **Brain Inj** 1998 Nov;12(11):987-92

The contribution of neighborhood and family income to developmental test scores over the first three years of life. Klebanov PK, et al. **Child Dev** 1998 Oct;69(5):1420-36

Residential characteristics influence Der p 1 levels in homes in Melbourne, Australia [see comments] Dharmage S, et al. **Clin Exp Allergy** 1999 Apr;29(4):461-9. Comment in: Clin Exp Allergy 1999 Apr;29(4):433-5.

Neuropsychological and stress evaluation of a residential mercury exposure. Fiedler N, et al. **Environ Health Perspect** 1999 May;107(5):343-7

Functional ability among elderly people in three service settings: the discriminatory power of a new functional ability scale. Avlund K, et al. **Eur J Epidemiol** 1998 Dec; 14(8):783-90

Cataract, glaucoma and season of birth amongst patients born on the Indian subcontinent. Weale RA. **Indian J Ophthalmol** 1998 Dec;46(4):211-5

Place therapies for older adults: conceptual and interventive approaches. Scheidt RJ, et al. **Int J Aging Hum Dev** 1999; 48(1):1-15

Birth weight and environmental pollution in the county of Telemark, Norway. Hansteen IL, et al. **Int J Occup Environ Health** 1998 Apr-Jun;4(2):63-70

Interactions between group homes and neighbors: neighbor preferences. Cook JR. **J Behav Health Serv Res** 1998 Nov; 25(4):425-36

Child immunisation in Ghana: the effects of family, location and social disparity. Matthews Z, et al. **J Biosoc Sci** 1997 Jul;29(3):327-43

Effects of neighborhood and family stressors on African American male adolescents' self-worth and propensity for violent behavior. Paschall MJ, et al. **J Consult Clin Psychol** 1998 Oct;66(5):825-31

Residential exposure summary methodology for a reproductive health study of multiple hazardous waste sites. Marshall EG, et al. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:87-98

Living alone and neighborhood characteristics as predictors of social support in late life. Thompson EE, et al. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov;53(6):S354-64

Epidemiology of giardiasis in Tasmania: a potential risk to residents and visitors. Kettlewell JS, et al. **J Travel Med** 1998 Sep;5(3):127-30

From the Centers for Disease Control and Prevention. Neighborhood safety and the prevalence of physical inactivity--selected states, 1996. **JAMA** 1999 Apr 21; 281(15):1373

Residential proximity to industry and adverse birth outcomes [letter] Bhopal RS, et al. **Lancet** 1999 Sep 11; 354(9182):920-1

Neighborhood safety and the prevalence of physical inactivity--selected states, 1996. **MMWR Morb Mortal Wkly Rep** 1999 Feb 26;48(7):143-6

Effects of family history and place and season of birth on the risk of schizophrenia [see comments] Mortensen PB, et al. **N Engl J Med** 1999 Feb 25;340(8):603-8. Comment in: N Engl J Med 1999 Feb 25;340(8):645-7. Comment in: N Engl J Med 1999 Jul 29;341(5):370-1; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):371-2; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):372.

AIDS and the community. Farmer E. **P N G Med J** 1996 Sep;39(3):214-7 (6 ref.)

Low birth weight: race and maternal nativity--impact of community income. Fang J, et al. **Pediatrics** 1999 Jan; 103(1):E5

Residential status and birth outcomes: is the rural/urban distinction adequate? Hulme PA, et al. **Public Health Nurs** 1999 Jun;16(3):176-81

Paracoccidioidomycosis in children in the state of Rio de Janeiro (Brazil). Geographic distribution and the study of a "reservarea". Gonçalves AJ, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jan-Feb;40(1):11-3

Geographical variation in rate of schizophrenia in rural Ireland by place at birth vs place at onset. Youssef HA, et al. **Schizophr Res** 1999 Jun 22;37(3):233-43

Smoking and deprivation: are there neighbourhood effects? Duncan C, et al. **Soc Sci Med** 1999 Feb;48(4):497-505

Mortality variations in England and Wales between types of place: an analysis of the ONS longitudinal study. Office of National Statistics. Ecob R, et al. **Soc Sci Med** 1998 Dec;47(12):2055-66

The relationship of community quality to the health of women and men. Molinari C, et al. **Soc Sci Med** 1998 Oct; 47(8):1113-20

CLASSIFICATION

Social class and census-based deprivation scores: which is the best predictor of stillbirth rates? Joyce R, et al. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):269-77

STATISTICS & NUMERICAL DATA

Residence location of drivers involved in fatal crashes. Blatt J, et al. **Accid Anal Prev** 1998 Nov;30(6):705-11

Impact of environment on adolescent mental health and behavior: structural equation modeling. Stiffman AR, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):73-86

Outdoor tobacco advertising in six Boston neighborhoods. Evaluating youth exposure. Pucci LG, et al. **Am J Prev Med** 1998 Aug;15(2):155-9

Premature mortality in the United States: the roles of geographic area, socioeconomic status, household type, and availability of medical care. Mansfield CJ, et al. **Am J Public Health** 1999 Jun;89(6):893-8

Socioeconomic status, neighborhood social conditions, and neural tube defects. Wasserman CR, et al. **Am J Public Health** 1998 Nov;88(11):1674-80

Poverty area residence and changes in physical activity level: evidence from the Alameda County Study. Yen IH, et al. **Am J Public Health** 1998 Nov;88(11):1709-12

Transitions and inequalities in acute myocardial infarction mortality in New South Wales, 1969-94. Burnley IH. **Aust N Z J Public Health** 1999 Aug;23(4):343-51

How low can it go? Declining black-white segregation in a multiethnic context. Krivo LJ, et al. **Demography** 1999 Feb;36(1):93-109

Family and sociodemographic influences on patterns of leaving home in postwar Britain. Murphy M, et al. **Demography** 1998 Aug;35(3):293-305

Reassessing the decline in parent-child old-age coresidence during the twentieth century. Schoeni RF. **Demography** 1998 Aug;35(3):307-13

Public assistance receipt among immigrants and natives: how the unit of analysis affects research findings. Van Hook J, et al. **Demography** 1999 Feb;36(1):111-20

Is geographic variation in hip fracture rates related to current or former region of residence? Lauderdale DS, et al. **Epidemiology** 1998 Sep;9(5):574-7

Stillbirths in relation to the coastline of Cumbria, 1950-89. Dummer TJ, et al. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):131-7

Regional variation in smoking among African Americans. King G, et al. **Prev Med** 1999 Aug;29(2):126-32

Comparisons of immunisation accessibility between non-US born and US-born children in New York City. Sun WY, et al. **Public Health** 1998 Nov;112(6):405-8

The Environmental Rating Scale (ERS): a measure of the quality of the residential environment for adults with autism. Van Bourgondien ME, et al. **Res Dev Disabil** 1998 Sep-Oct;19(5):381-94

Aggregation and the measurement of income inequality: effects on morbidity. Soobader MJ, et al. **Soc Sci Med** 1999 Mar;48(6):733-44

Projecting immigrant earnings: the significance of country of origin. Duleep HO, et al. **Soc Secur Bull** 1998;61(4):32-44

Crack cocaine use in rural migrant populations: living arrangements and social support. Weatherby NL, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):685-706

RESIDENCY, DENTAL see **INTERNSHIP AND RESIDENCY**

RESIDENCY, MEDICAL see **INTERNSHIP AND RESIDENCY**

RESIDENCY, NONMEDICAL see **INTERNSHIP, NONMEDICAL**

RESIDENTIAL FACILITIES

Dehydroepiandrosterone sulfate (DHEA-S) and psychiatric and laboratory measures of frailty in a residential care population. Morrison MF, et al. **Am J Geriatr Psychiatry** 1998 Fall;6(4):277-84

Effects of formal and familial residential plans for adults with mental retardation on their aging mothers. Pruchno RA, et al. **Am J Ment Retard** 1999 Jan;104(1):38-52

Evacuation behaviours of occupants with learning difficulties in residential homes. Shields TJ, et al. **Disabil Rehabil** 1999 Jan;21(1):39-48

The effect of placement in a hostel on the post-hospitalization rehabilitation of psychiatrically disabled persons in Israel. Cohen BZ, et al. **Int J Rehabil Res** 1999 Mar;22(1):61-3

Wandering behavior and attempted exits among residents diagnosed with dementia-related illnesses: a qualitative approach. Dickinson JI, et al. **J Women Aging** 1998; 10(2):23-34

Children with severe disabilities: options for residential care. Bain KJ. **Med J Aust** 1998 Dec 7-21;169(11-12):598-600

Comparison of outcomes of acute care in short-term residential treatment and psychiatric hospital settings. Hawthorne WB, et al. **Psychiatr Serv** 1999 Mar;50(3):401-6

[Alimentary intake of selected pollutants and nitrate--results of a duplicate study in Bavarian homes for youth and seniors] Arnold R, et al. **Z Ernahrungswiss** 1998 Dec; 37(4):328-35 (Eng. Abstr.) **(Ger)**

[Invasive amebiasis at an institution for the mentally retarded in Hyogo Prefecture] Ono K, et al. **Rinsho Byori** 1999 Jul; 47(7):669-75 (Eng. Abstr.) **(Jpn)**

ORGANIZATION & ADMINISTRATION

Smoking policies and practices in a state-supported residential system for people with mental retardation. Minihan PM. **Am J Ment Retard** 1999 Mar;104(2):131-42

Resistance to a residential AIDS home: an empirical test of NIMBY. Colón I, et al. **J Homosex** 1999;37(3):135-45

Does a hostel's managing agency determine the access to psychiatric services of its residents? Lucas B, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Oct; 33(10):497-500

[Consideration of mental symptoms and physical disabilities in deciding upon placement in a residential home versus a nursing home] Dijkstra GJ, et al. **Tijdschr Gerontol Geriatr** 1999 Jun;30(3):114-20 (Eng. Abstr.) **(Dut)**

STANDARDS

Architectural acoustics in residences for adults with mental retardation and its relation to perceived homelikeness. Egli M, et al. **Am J Ment Retard** 1999 Jan;104(1):53-66

[Community self-help houses as a form of community social support] Dąbrowski S, et al. **Psychiatr Pol** 1998 Jul-Aug; 32(4):453-61 (Eng. Abstr.) **(Pol)**

STATISTICS & NUMERICAL DATA

Satisfaction of children in out-of-home care. Wilson L, et al. **Child Welfare** 1999 Jan-Feb;78(1):53-69

From the Centers for Disease Control and Prevention. Update: influenza activity--United States, 1998-99 season. **JAMA** 1999 Apr 7;281(13):1165-7

Update: influenza activity--United States, 1998-99 season. **MMWR Morb Mortal Wkly Rep** 1999 Mar 12;48(9):177-81

[New residents of residential care homes for the elderly. The problems of elders with mental disorders] Depla MF, et al. **Tijdschr Gerontol Geriatr** 1999 Jun;30(3):121-8 (Eng. Abstr.) **(Dut)**

SUPPLY & DISTRIBUTION

Community residential services would require expansion of 72% to serve everyone in community settings. Lakin KC, et al. **Ment Retard** 1999 Jun;37(3):251-4

TRENDS

Supportive homes for life versus treatment way-stations: an introduction to TAPS Project 41. Team for the Assessment of Psychiatric Services [see comments] Bigelow DA. **Community Ment Health J** 1998 Aug;34(4):403-5. Comment in: Community Ment Health J 1998 Aug;34(4):407-17.

The TAPS Project 41: homes for life? Residential stability five years after hospital discharge. Team for the Assessment of Psychiatric Services [see comments] Trieman N, et al. **Community Ment Health J** 1998 Aug;34(4):407-17. Comment in: Community Ment Health J 1998 Aug;34(4):403-5.

RESIDENTIAL MOBILITY

Frequent childhood geographic relocation: its impact on drug use initiation and the development of alcohol and other drug-related problems among adolescents and young adults. DeWit DJ. **Addict Behav** 1998 Sep-Oct;23(5):623-34

A conceptual model for the mobility patterns of nursing home admissions. McAuley WJ, et al. **Gerontologist** 1998 Dec; 38(6):726-34

Aurignacian lithic economy and early modern human mobility: new perspectives from classic sites in the Vézère valley of France. Blades BS. **J Hum Evol** 1999 Jul;

37(1):91-120
[Migration and health--the connection?] Larsen O. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3748 **(Nor)**
[Significance of migration patterns on self-evaluated health among Norwegian women aged 34-69 years (see comments)] Lund E, et al. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3752-5 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1998 Nov 20;118(28):4414. **(Nor)**

STATISTICS & NUMERICAL DATA

Gender, migration, and career trajectories in Malaysia [published erratum appears in Demography 1998 Nov;35(4):376] Chattopadhyay A. **Demography** 1998 Aug; 35(3):335-44
How low can it go? Declining black-white segregation in a multiethnic context. Krivo LJ, et al. **Demography** 1999 Feb;36(1):93-109
Functional status, assistance, and the risk of a community-based move. Miller ME, et al. **Gerontologist** 1999 Apr;39(2):187-200
Residential mobility and sudden infant death syndrome. Schluter PJ, et al. **J Paediatr Child Health** 1998 Oct; 34(5):432-7

TRENDS

How low can it go? Declining black-white segregation in a multiethnic context. Krivo LJ, et al. **Demography** 1999 Feb;36(1):93-109

RESIDENTIAL TREATMENT

The counseling role of the child and youth worker in a treatment classroom. Pazaratz D. **Adolescence** 1998 Winter; 33(132):725-34
Interventions for challenging behavior in residential settings. Stancliffe RJ, et al. **Am J Ment Retard** 1999 Jul; 104(4):364-75
Predicting posttreatment cocaine abstinence for first-time admissions and treatment repeaters. Hser YI, et al. **Am J Public Health** 1999 May;89(5):666-71
Reducing totality and opening residential settings to their regions in the Israeli Kibbutz Artzi educational institutions in the 1980s and 1990s. Dror Y. **J Adolesc** 1998 Oct; 21(5):529-41
Private and local authority children's homes: a comparison. Gibbs I, et al. **J Adolesc** 1998 Oct;21(5):517-27
The relationship between lethality of attempted suicide and prior suicidal communications in a sample of residential youth. Handwerk ML, et al. **J Adolesc** 1998 Aug; 21(4):407-14
Psychoanalytic considerations on indications for residential treatment. Cohen Y. **J Am Acad Psychoanal** 1998 Fall; 26(3):369-87
The characteristics and residential situations of people with severe intellectual disability and the most severe challenging behaviour in Wales. Lowe K, et al. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):375-89
Soteria and other alternatives to acute psychiatric hospitalization: a personal and professional review. Mosher LR. **J Nerv Ment Dis** 1999 Mar;187(3):142-9 (48 ref.)
Soteria and the medical marketplace [editorial] Sharfstein SS. **J Nerv Ment Dis** 1999 Mar;187(3):129-30
Factor-based prototypes of the Millon Adolescent Clinical Inventory in adolescents referred for residential treatment. Romm S, et al. **J Pers Assess** 1999 Feb;72(1):125-43
Reported medication errors in community residences for individuals with mental retardation: a quality review. Stupalski KA, et al. **Ment Retard** 1999 Apr;37(2):139-46
Homeless veterans' satisfaction with residential treatment. Kasprow WJ, et al. **Psychiatr Serv** 1999 Apr;50(4):540-5
Factors associated with treatment compliance in a population of juvenile sexual offenders [see comments] Hunter JA Jr, et al. **Sex Abuse** 1999 Jan;11(1):49-67. Comment in: Sex Abuse 1999 Jan;11(1):1-3.
The potter's box [editorial; comment] Maletzky BM. **Sex Abuse** 1999 Jan;11(1):1-3. Comment on: Sex Abuse 1999 Jan;11(1):49-67. Comment on: Sex Abuse 1999 Jan;11(1):69-85.
Gambling behavior of adolescents in residential placement in northwest Louisiana. Westphal JR, et al. **South Med J** 1998 Nov;91(11):1038-41
Previous participation in outpatient methadone program and residential treatment outcome: a research note from Hong Kong. Cheung YW, et al. **Subst Use Misuse** 1999 Jan; 34(1):103-18
[Social therapy of adolescence with social behavior disorders--results and catamnesis] Hirschberg W. **Prax Kinderpsychol Kinderpsychiatr** 1999 Apr;48(4):247-59 (Eng. Abstr.) **(Ger)**

CLASSIFICATION

Predictors of residential independence among outpatients with schizophrenia. Dickerson FB, et al. **Psychiatr Serv** 1999 Apr;50(4):515-9

METHODS

Antisocial behavioral syndromes among residential drug abuse treatment clients [corrected and republished article originally printed in Drug Alcohol Depend 1998 Feb 1;49(3):201-16] Goldstein RB, et al. **Drug Alcohol Depend** 1999 Jan 7;53(2):171-87
Tailoring and individualizing housing programs for homeless persons with chronic mental illness [clinical conference] Reilly EC, et al. **Harv Rev Psychiatry** 1999 Sep-Oct; 7(3):166-71
Reductions in criminality subsequent to group, individual, and family therapy in adolescent residential and day treatment settings. Byrnes EI, et al. **Int J Group Psychother** 1999 Jul;49(3):307-22
Multimodal intervention for selective mutism in mentally retarded children [letter; comment] Russell PS, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Sep;37(9):903-4 . Comment on: J Am Acad Child Adolesc Psychiatry 1995 Jul;34(7):836-46. Comment on: J Am Acad Child Adolesc Psychiatry 1995 Jul;34(7):847-56.
Random versus nonrandom assignment in the evaluation of treatment for cocaine abusers. McKay JR, et al. **J Consult Clin Psychol** 1998 Aug;66(4):697-701
Opportunity and the promotion of activity among adults with severe intellectual disability living in community residences: the impact of training staff in active support. Jones E, et al. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):164-78
Treatment for MICAs: design and implementation of the modified TC. Sacks S, et al. **J Psychoactive Drugs** 1999 Jan-Mar;31(1):19-30
Residential drug abuse treatment for probationers. Use of node-link mapping to enhance participation and progress. Pitre U, et al. **J Subst Abuse Treat** 1998 Nov-Dec; 15(6):535-43
[Model of residential psychoanalytic integrative parent-child therapy] Subkowski P. **Prax Kinderpsychol Kinderpsychiatr** 1999 Jul-Aug; 48(6):438-44 (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

A Safe Haven: an innovative approach to residential treatment of substance abuse. Uziel-Miller ND, et al. **Am J Public Health** 1999 Sep;89(9):1430-1
Illegal drug abuse and the community camp strategy in China. Wang W. **J Drug Educ** 1999;29(2):97-114
Women in residential drug treatment: differences by program type and pregnancy. Grella CE. **J Health Care Poor Underserved** 1999 May;10(2):216-29
Final thoughts on IMPACT: a federally funded, jail-based, drug-user-treatment program. Swartz JA, et al. **Subst Use Misuse** 1999 May;34(6):887-906

STANDARDS

Depressive symptoms and mentally ill chemical abusers' perception of the treatment environment in residential settings. Nuttbrock LA, et al. **Addict Behav** 1999 Jan-Feb; 24(1):139-44
Comparison of two community alternatives to incarceration for chronic juvenile offenders. Chamberlain P, et al. **J Consult Clin Psychol** 1998 Aug;66(4):624-33
A randomized trial comparing day and residential drug abuse treatment: 18-month outcomes. Guydish J, et al. **J Consult Clin Psychol** 1999 Jun;67(3):428-34
Effectiveness and quality of individual planning in residential settings: an analysis of outcomes. Stancliffe RJ, et al. **Ment Retard** 1999 Apr;37(2):104-16

STATISTICS & NUMERICAL DATA

Sexual abuse, parental bonding, social support, and program retention for women in substance abuse treatment. Cosden M, et al. **J Subst Abuse Treat** 1999 Mar;16(2):149-55

RESIDUAL CANCER see **NEOPLASM, RESIDUAL**

RESIDUAL TUMOR see **NEOPLASM, RESIDUAL**

RESIDUAL VOLUME

Respiratory physiology teaching: determination of residual volume by applying the indicator-dilution technique. Heller H, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):S53-6

RESIN-BONDED ACID-ETCHED FIXED PARTIAL DENTURE see **DENTURE, PARTIAL, FIXED, RESIN-BONDED**

RESIN-BONDED BRIDGE see **DENTURE, PARTIAL, FIXED, RESIN-BONDED**

RESIN-BONDED FIXED PARTIAL DENTURE see **DENTURE, PARTIAL, FIXED, RESIN-BONDED**

RESIN CEMENTS

A 5-year clinical evaluation of ceramic inlays (Cerec) cemented with a dual-cured or chemically cured resin composite luting agent. Sjögren G, et al. **Acta Odontol Scand** 1998 Oct;56(5):263-7
Shear stresses in the adhesive layer under porcelain veneers. A finite element method study. Troedson M, et al. **Acta Odontol Scand** 1998 Oct;56(5):257-62
Efficient and effective indirect bonding. Sondhi A. **Am J Orthod Dentofacial Orthop** 1999 Apr;115(4):352-9
Bracket bonding with 15- or 60-second etching and adhesive remaining on enamel after debonding. Osorio R, et al. **Angle Orthod** 1999 Feb;69(1):45-8
An ex vivo investigation into the bond strength of orthodontic brackets and adhesive systems. Sunna S, et al. **Br J Orthod** 1999 Mar;26(1):47-50
Multifunctional bases and liners. Elledge DA. **Dent Clin North Am** 1998 Oct;42(4):739-54, x
CaO-P2O5 glass hydroxyapatite double-layer plasma-sprayed coating: in vitro bioactivity evaluation. Ferraz MP, et al. **J Biomed Mater Res** 1999 Jun 15; 45(4):376-83
Retention of posts with resin, glass ionomer and hybrid cements. Love RM, et al. **J Dent** 1998 Sep;26(7):599-602
Distribution of calcium ions at the interface between resin bonding materials and tooth dentin. Use of commercially available adhesive systems. Hanaizumi Y, et al. **J Electron Microsc (Tokyo)** 1998;47(3):227-41
Marginal leakage in class II-restorations after use of ceramic-inserts luted with different materials. Hahn P, et al. **J Oral Rehabil** 1998 Aug;25(8):567-74
Influence of surface treatment on adherence energy of alloys used in bonded prosthetics. Moulin P, et al. **J Oral Rehabil** 1999 May;26(5):413-21
Five year evaluation of class III composite resin restorations in cavities pre-treated with an oxalic- or a phosphoric acid conditioner. van Dijken JW, et al. **J Oral Rehabil** 1999 May;26(5):364-71
The treatment of class III maxillary furcations using a resin-ionomer. A case report. Anderegg CR. **J Periodontol** 1998 Aug;69(8):948-50
Effects of adhesive fixed prosthesis retainer design on resultant resin luting agent thickness. Wassell RW, et al. **J Prosthet Dent** 1998 Oct;80(4):479-84

ADVERSE EFFECTS

Decalcification in relation to brackets bonded with glass ionomer cement or a resin adhesive. Millett DT, et al. **Angle Orthod** 1999 Feb;69(1):65-70

CHEMISTRY

Shear bond strength of composite, glass ionomer, and acidic primer adhesive systems. Bishara SE, et al. **Am J Orthod Dentofacial Orthop** 1999 Jan;115(1):24-8
Bonding of hybrid ionomers and resin cements to modified orthodontic band materials. Mennemeyer VA, et al. **Am J Orthod Dentofacial Orthop** 1999 Feb;115(2):143-7
Laboratory evaluation of a compomer and a resin-modified glass ionomer cement for orthodontic bonding. Millet DT, et al. **Angle Orthod** 1999 Feb;69(1):58-63; discussion 64
Effect of resin cure mode and fluoride content on bracket debonding. Steckel SE, et al. **Angle Orthod** 1999 Jun; 69(3):282-7
Solubility of a resin-modified glass ionomer cement. Quackenbush BM, et al. **ASDC J Dent Child** 1998 Sep-Oct; 65(5):310-2, 354
Resin-ionomer restorative materials for children: a review [see comments] Hse KM, et al. **Aust Dent J** 1999 Mar; 44(1):1-11 (106 ref.). Comment in: Aust Dent J 1999 Jun;44(2):138.
Restorative materials [letter; comment] Mount GJ. **Aust Dent J** 1999 Jun;44(2):138. Comment on: Aust Dent J 1999 Mar;44(1):1-11.
Surface structural change of bioactive inorganic filler-resin composite cement in simulated body fluid: effect of resin. Miyaji F, et al. **J Biomed Mater Res** 1998 Dec 15; 42(4):604-10
Effect of dentin primers containing N-methylolacrylamide or N-methylolmethacrylamide on dentin pretreatment. Fukushima T, et al. **J Dent** 1999 Jul;27(5):391-7
The influence of alloy composition on anaerobic adhesives in dental bonding. Ireland AJ, et al. **J Dent** 1998 Nov; 26(8):701-6
Flexural and thermal cycling of resins for veneering removable overlay dentures. Kountouras CG, et al. **J Dent** 1999 Jul;27(5):367-72
Fluoride release from orthodontic bonding agents: a comparison of three in vitro models. Monteith VL, et al. **J Dent** 1999 Jan;27(1):53-61
Water resistance of resin-bonded joints with time related to alloy surface treatment. Moulin P, et al. **J Dent** 1999 Jan; 27(1):79-87
Effect of water storage on the silanization in porcelain repair strength. Berry T, et al. **J Oral Rehabil** 1999 Jun; 26(6):459-63
The influence of finishing time on the marginal seal of a resin-modified glass-ionomer and polyacid-modified resin composite. Lim CC, et al. **J Oral Rehabil** 1999 Jan; 26(1):48-52
Effect of three-liquid bonding agents on bond strength to a machine-milled ceramic material. Sato K, et al. **J Oral Rehabil** 1999 Jul;26(7):570-4
Comparison of marginal sealing ability of new generation bonding systems. Yap AU, et al. **J Oral Rehabil** 1998 Sep; 25(9):666-71
Pilot study on the early shear strength of porcelain-dentin bonding using dual-cure cements. Braga RR, et al. **J Prosthet Dent** 1999 Mar;81(3):285-9
Effect of adhesive resin cement on design of partial veneer crowns. King ML, et al. **J Prosthet Dent** 1999 Aug; 82(2):157-60
In vitro study of fracture incidence and compressive fracture load of all-ceramic crowns cemented with resin-modified

RESIN CEMENTS

glass ionomer and other luting agents. Leevailoj C, et al. **J Prosthet Dent** 1998 Dec;80(6):699–707

Effect of luting composite shrinkage and thermal loads on the stress distribution in porcelain laminate veneers. Magne P, et al. **J Prosthet Dent** 1999 Mar;81(3):335–44

A simple method of increasing the adhesion between resinous cements and tinplated gold alloys: a pilot study. Ogunyinka A. **J Prosthet Dent** 1998 Sep;80(3):302–6

Microleakage of Class V resin-modified glass ionomer and compomer restorations. Toledano M, et al. **J Prosthet Dent** 1999 May;81(5):610–5

Effect of surface contamination on adhesive bonding of cast pure titanium and Ti-6Al-4V alloy. Watanabe I, et al. **J Prosthet Dent** 1999 Mar;81(3):270–6

PHARMACOLOGY

The influence of dentine bonding systems and their handling characteristics on the morphology and micropermeability of the dentine adhesive interface. Griffiths BM, et al. **J Dent** 1999 Jan;27(1):63–71

In vitro enamel effects of a resin-modified glass ionomer: fluoride uptake and resistance to demineralization. Wandera A. **Pediatr Dent** 1998 Nov-Dec;20(7):411–7

THERAPEUTIC USE

Barodontalgia: a review, and the influence of simulated diving on microleakage and on the retention of full cast crowns. Lyons KM, et al. **Mil Med** 1999 Mar;164(3):221–7

RESINS

Evaluation of resins for on-bead screening: a study of papain and chymotrypsin specificity using PEGA-bound combinatorial peptide libraries. Leon S, et al. **Bioorg Med Chem Lett** 1998 Nov 3;8(21):2997–3002

Solid-phase synthesis of a library of piperazinediones and diazepinediones via Kaiser oxime resin. Smith RA, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2369–74

Improved sensitivity for high resolution in situ hybridization using resin extraction of methyl methacrylate embedded material. Saito C, et al. **Biotech Histochem** 1999 Jan; 74(1):40–8

The properties of resin supports and their effects on solid-phase organic synthesis. Yan B. **Comb Chem High Throughput Screen** 1998 Dec;1(4):215–29 (81 ref.)

Robotic recovery of highly radioactive resin. Miller DC. **Health Phys** 1999 Feb;76(2 Suppl):S3–6

A new hybrid resin for stepwise screening of peptide libraries combined with single bead Edman sequencing. Hiemstra HS, et al. **J Pept Sci** 1998 Jun;4(4):282–8

Assessment of the pore geometry of stereolithographic models by high resolution MRI. Issa B, et al. **Magn Reson Imaging** 1998 Jun-Jul;16(5–6):651–3

Immunohistochemistry using polyester wax. Kent A. **Methods Mol Biol** 1999;97:655–61

[Importance of the chemical composition and chromatographic resins since the scaling up of a procedure for the purification of proteins] Boschetti E, et al. **Ann Pharm Fr** 1999 Mar;57(2):168–76 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Contact allergy to colophony. Clinical and experimental studies with emphasis on clinical relevance. Färm G. **Acta Derm Venereol Suppl (Stockh)** 1998;201:1–42

Allergenic components in modified and unmodified rosin. Chemical characterization and studies of allergenic activity. Gäfvert E. **Acta Derm Venereol Suppl (Stockh)** 1994; 184:1–36

Perianal contact dermatitis caused by nail lacquer allergy. Lazarov A. **Am J Contact Dermat** 1999 Mar;10(1):43–4

Allergic contact dermatitis from acrylic resin repair of windscreens. Bang Pedersen N. **Contact Dermatitis** 1998 Aug;39(2):99

Airborne allergic contact dermatitis from colophony in a car. Danielsen H. **Contact Dermatitis** 1999 Jul;41(1):51

Contact dermatitis caused by benzoyl peroxide in podiatrists. Dejobert Y, et al. **Contact Dermatitis** 1999 Mar;40(3):163

Eyelid dermatitis from methacrylates used for nail enhancement. Guin JD. **Contact Dermatitis** 1998 Dec; 39(6):312–3

Allergic contact reactions to colophony presenting as oral disease. Gupta G, et al. **Contact Dermatitis** 1999 Jun; 40(6):332–3

Allergic contact dermatitis from colophony and Compositae in a violinist. Murphy J, et al. **Contact Dermatitis** 1999 Jun; 40(6):334

Contact dermatitis due to urea-formaldehyde resin in shin-pads. Sommer S, et al. **Contact Dermatitis** 1999 Mar; 40(3):159–60

Desquamative gingivitis, sole manifestation of tosylamide/formaldehyde resin allergy. Staines KS, et al. **Contact Dermatitis** 1998 Aug;39(2):90

Occupational allergic contact dermatitis from unsaturated polyester resin in a car repair putty. Kanerva L, et al. **Int J Dermatol** 1999 Jun;38(6):447–52

Occupational dermatoses in composite production. Isaksson M, et al. **J Occup Environ Med** 1999 Apr;41(4):261–6

ANALYSIS

Oxidized resin acids in aerosol derived from rosin core solder. Smith PA, et al. **Am Ind Hyg Assoc J** 1998 Dec; 59(12):889–94

CHEMICAL SYNTHESIS

Resin-supported labeling reagents. Adamczyk M, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):217–20

CHEMISTRY

Allergenic components in modified and unmodified rosin. Chemical characterization and studies of allergenic activity. Gäfvert E. **Acta Derm Venereol Suppl (Stockh)** 1994; 184:1–36

Demonstration of the contact sensitizer p-tert-butylcatechol in p-tert-butylphenol formaldehyde resin. Zimerson E, et al. **Am J Contact Dermat** 1999 Mar;10(1):2–6

Conjugation of 7-oxodehydroabietic acid to lysine, a haptenation mechanism for an oxidized resin acid with dermal sensitizing properties. Smith PA, et al. **Appl Occup Environ Hyg** 1999 Mar;14(3):171–6

Long-term flexural strengths of resin-modified glass-ionomer cements. Kanchanavasita W, et al. **Biomaterials** 1998 Sep;19(18):1703–13

Resin-supported labeling reagents. Adamczyk M, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):217–20

Synthesis of novel analogues of the delta opioid ligand SNC-80 using REM resin. Cottney J, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1323–8

Oxidation of resin acids in colophony (rosin) and its implications for patch testing. Sadhra S, et al. **Contact Dermatitis** 1998 Aug;39(2):58–63

Extractable free monomers from self-cured dental sealants resulting from dispensing errors. Vaubert VM, et al. **J Biomed Mater Res** 1999 Spring;48(1):5–8

Origin of the residual NMR linewidth of a peptide bound to a resin under magic angle spinning. Elbayed K, et al. **J Magn Reson** 1999 Jan;136(1):127–9

ISOLATION & PURIFICATION

Separation of resin acids using cyclodextrin-modified capillary electrophoresis. Luong JH, et al. **Electrophoresis** 1999 Jun;20(7):1546–54

METABOLISM

Recent advances in understanding resin acid biodegradation: microbial diversity and metabolism. Martin VJ, et al. **Arch Microbiol** 1999 Sep;172(3):131–8 (46 ref.)

Total antioxidant potential of resinous exudates from Heliotropium species, and a comparison of the ABTS and DPPH methods. Lissi EA, et al. **Free Radic Res** 1999 Jun; 30(6):471–7

Improvement in detecting telomerase activity using silica-based resin treatment: An experience of urine in bladder carcinoma. Yahata N, et al. **Int J Oncol** 1999 Apr; 14(4):709–12

PHARMACOLOGY

Effectiveness of resins in neutralizing antibiotic activities in bactec plus Aerobic/F culture medium. Spaargaren J, et al. **J Clin Microbiol** 1998 Dec;36(12):3731–3

Mastic gum kills Helicobacter pylori [letter] Huwez FU, et al. **N Engl J Med** 1998 Dec 24;339(26):1946

TOXICITY

Biochemical and genotoxic responses of adult eel (Anguilla anguilla L.) to resin acids and pulp mill effluent: laboratory and field experiments. Pacheco M, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):81–93

RESINS, RESTORATIVE see **DENTAL CEMENTS**

RESINS, SYNTHETIC

Glass ring-wall sealing to prevent leakage from electrode culture chambers: a technical note. Marani E, et al. **Arch Physiol Biochem** 1998 Oct;106(4):316–7

Investigating highly crosslinked macroporous resins for solid-phase synthesis. Hori M, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2363–8

A simple method for coupling aldehydes to solid support. Metz WA, et al. **Bioorg Med Chem Lett** 1998 Sep 8; 8(17):2399–402

A mixed resin bed for the quenching and purification of tetrabutylammonium fluoride mediated desilylating reactions. Parlow JJ, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2391–4

Hantzsch pyrrole synthesis on solid support. Trautwein AW, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2381–4

Longevity of new hybrid restorative materials in class III cavities. van Dijken JW. **Eur J Oral Sci** 1999 Jun; 107(3):215–9

Asthma in tunnel workers exposed to synthetic resins. Ulvestad B, et al. **Scand J Work Environ Health** 1999 Aug; 25(4):335–41

[The construction of plates for intraoral registration with photopolymerizing resins. An original method] Mascellani SC, et al. **Minerva Stomatol** 1998 Oct;47(10):573–7 (Eng. Abstr.) **(Ita)**

ADMINISTRATION & DOSAGE

Effect of single dose resin-cathartic therapy on serum potassium concentration in patients with end-stage renal disease. Gruy-Kapral C, et al. **J Am Soc Nephrol** 1998 Oct; 9(10):1924–30

ADVERSE EFFECTS

Palmoplantar dermatitis may be due to phenol-formaldehyde resin contact dermatitis. Downs AM, et al. **Contact Dermatitis** 1998 Sep;39(3):147–8

Contact allergy to the monomers of p-tert-butylphenol-formaldehyde resin in the guinea pig. Zimerson E, et al. **Contact Dermatitis** 1998 Nov;39(5):222–6

Occupational dermatoses in composite production. Isaksson M, et al. **J Occup Environ Med** 1999 Apr;41(4):261–6

Simultaneous p-tert-butylphenol-formaldehyde resin and p-tert-butylcatechol contact allergies in man and sensitizing capacities of p-tert-butylphenol and p-tert-butylcatechol in guinea pigs. Zimerson E, et al. **J Occup Environ Med** 1999 Jan;41(1):23–8

CHEMISTRY

Shear bond strengths of two resin-modified glass ionomer cements to porcelain. Chung CH, et al. **Am J Orthod Dentofacial Orthop** 1999 May;115(5):533–5

Flexural and thermal cycling of resins for veneering removable overlay dentures. Kountouras CG, et al. **J Dent** 1999 Jul;27(5):367–72

Residual monomer/additive release and variability in cytotoxicity of light-curing glass-ionomer cements and compomers [letter; comment] Demke RS. **J Dent Res** 1999 Mar;78(3):724. Comment on: J Dent Res 1998 Dec;77(12):2012–9.

The stress reducing capacity of unfilled resin in a Class V cavity. Rees JS, et al. **J Oral Rehabil** 1999 May;26(5):422–7

Optimization of solid supports for combinatorial chemical synthesis. Mendonca AJ, et al. **Med Res Rev** 1999 Sep; 19(5):451–62 (88 ref.)

Enamel bond strengths of "one-bottle" adhesives. Swift EJ Jr, et al. **Pediatr Dent** 1998 Jul-Aug;20(4):259–62

PHARMACOLOGY

The effects of Pain-Free Desensitizer on dentine permeability and tubule occlusion over time, in vitro. Zhang Y, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):884–91

Effect of anticoagulation and lavage prior to casting of postmortem material with Mercox and Batson 17. Martin-Orti R, et al. **J Microsc** 1999 Aug;195 (Pt 2):150–60

RESISTANCE FACTORS see **R FACTORS**

RESISTANCE, NATURAL see **IMMUNITY, NATURAL**

RESISTANCE TRANSFER FACTOR see **F FACTOR**

RESISTANT OVARY SYNDROME see **OVARIAN FAILURE, PREMATURE**

RESOCYANINE see **HYMECROMONE**

RESORCINOLS

A modified orcinol test for the specific determination of RNA. Almog R, et al. **Anal Biochem** 1978 Nov;91(1):130–7

Absence of GRF glue effect two years after aortic repair [letter] Bassiony AA, et al. **Ann Thorac Surg** 1999 Apr; 67(4):1209

The use of gelatin-resorcin-formalin glue in acute aortic dissection type A. Fukunaga S, et al. **Eur J Cardiothorac Surg** 1999 May;15(5):564–9; discussion 570

[Surgical treatment of acute dissection of the ascending aorta (20 years experience)] Bachet J, et al. **Chirurgie** 1998 Jun; 123(3):229–37; discussion 238 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Contact dermatitis from polyvinyl chloride identification bands. Tung RC, et al. **Am J Contact Dermat** 1998 Dec; 9(4):234–6

CHEMICAL SYNTHESIS

Synthesis and nematocidal activity of diarylnonanoids related to malabaricones. Hosoi S, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):37–43

CHEMISTRY

Dual effect of alkylresorcinols, natural amphiphilic compounds, upon liposomal permeability. Gubernator J, et al. **Biochim Biophys Acta** 1999 May 12;1418(2):253–60

bis-5-Alkylresorcinols from Panopsis rubescens that inhibit DNA polymerase beta. Deng JZ, et al. **J Nat Prod** 1999 Mar;62(3):477–80

PHARMACOLOGY

Synthesis and nematocidal activity of diarylnonanoids related to malabaricones. Hosoi S, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):37–43

Antagonist pharmacology of metabotropic glutamate receptors coupled to phospholipase D activation in adult

rat hippocampus: focus on (2R,1'S,2'R,3'S)-2-(2'-carboxy-3'-phenylcyclopropyl) glycine versus 3, 5-dihydroxyphenylglycine.
Albani-Torregrossa S, et al. **Mol Pharmacol** 1999 Apr; 55(4):699-707

Comparison of the effects of low and high concentrations of group I metabotropic receptor agonists on field potentials in the hippocampal CA1 region in vitro.
Zahorodna A, et al. **Pol J Pharmacol** 1998 Jul-Oct; 50(4-5):291-8

Potentiation of synaptic transmission by (S)-3,5-dihydroxy phenylglycine in the rat dentate gyrus in vitro: a role for voltage dependent calcium channels and protein kinase C.
O'Leary DM, et al.
Prog Neuropsychopharmacol Biol Psychiatry 1999 Jan; 23(1):133-47

THERAPEUTIC USE

Surgery for acute type A aortic dissection: the Hopital Foch experience (1977-1998). Bachet J, et al.
Ann Thorac Surg 1999 Jun;67(6):2006-9; discussion 2014-9

Glue containment and anastomosis reinforcement in repair of aortic dissection. Neri E, et al. **Ann Thorac Surg** 1999 May;67(5):1510-1

Gelatin-resorcinol-formaldehyde-glutaraldehyde glue for sealing pulmonary air leaks during thoracoscopic operation.
Nomori H, et al. **Ann Thorac Surg** 1999 Jan;67(1):212-6

Aortic stump tailoring with GRF glue and a felt strip. Machii M, et al. **Surg Today** 1999;29(5):484-5

[Case report of surgical repair of left ventricular free wall rupture using GRF glue and pericardial patch] Tsukui H, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep;46(9):898-901 (Eng. Abstr.) **(Jpn)**

[Clinical experience with gelatin-resorcine-formol glue for repair of postinfarction ventricular septal rupture] Matsumoto M, et al. **Kyobu Geka** 1999 Aug;52(9):733-4 (Eng. Abstr.) **(Jpn)**

[An effective case of a new biological adhesive agent, gelatin-resorcinol formaldehyde-glutaralhyde glue (GRFG-glue) in treating refractory pulmonary fistula following lobectomy for pulmonary aspergilloma] Umemori Y, et al. **Kyobu Geka** 1999 Sep;52(10):872-4 (Eng. Abstr.) **(Jpn)**

RESORTS see **HEALTH RESORTS**

RESOURCE ALLOCATION see **HEALTH CARE RATIONING**

RESOURCE-BASED RELATIVE VALUE SCALE see **RELATIVE VALUE SCALES**

RESPIRATION

see related
APNEA
BREATH TESTS
BREATHING EXERCISES
CELL RESPIRATION
DYSPNEA
MOUTH BREATHING
OXYGEN CONSUMPTION

Postural changes in respiratory function. Rehder K.
Acta Anaesthesiol Scand Suppl 1998;113:13-6

Use of surfactant for prevention of respiratory distress syndrome in newborn infants in spontaneous breathing. A randomized multicentre clinical pilot-study. Dambeanu JM, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:39-45

Effect of environmental and clinical factors on lung function and respiratory symptoms in adolescents with alpha1-antitrypsin deficiency. Piitulainen E, et al.
Acta Paediatr 1998 Nov;87(11):1120-4

A method of assessing ventilatory responses to chemoreceptor stimulation in infants. Søvik S, et al.
Acta Paediatr 1999 May;88(5):563-70

Decreased pulmonary vascular resistance during nasal breathing: modulation by endogenous nitric oxide from the paranasal sinuses. Settergren G, et al.
Acta Physiol Scand 1998 Jul;163(3):235-9

Respiratory monitoring during MR imaging. The clinical value of a new fibre-optical monitor. Larsson C, et al.
Acta Radiol 1999 Jan;40(1):33-6

The effect of eucapnic and isocapnic volitional hyperventilation upon breathlessness. Binks A, et al.
Adv Exp Med Biol 1998;450:167-72

Phase relations between rhythmical forearm movements and breathing under normacapnic and hypercapnic conditions. Ebert D, et al. **Adv Exp Med Biol** 1998;450:101-10

Voice, breathing, and the control of exercise intensity. Goode RC, et al. **Adv Exp Med Biol** 1998;450:223-9

Techniques for assessing the shape of respiratory flow profiles from data containing marked breath-by-breath respiratory variability. Sato J, et al. **Adv Exp Med Biol** 1998;450:93-4

The expiratory flow pattern and the neuromuscular control of breathing in cats. van der Grinten CP, et al.
Adv Exp Med Biol 1998;450:95-100

A simple bedside test of 1-minute heart rate variability during deep breathing as a prognostic index after myocardial infarction. Katz A, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):32-8

Comparison of cardiopulmonary responses in obese women using ramp versus step treadmill protocols. McInnis KJ, et al. **Am J Cardiol** 1999 Jan 15;83(2):289-91, A7

Effect of percutaneous transvenous mitral commissurotomy on postexercise breathlessness as determined by ventilation during recovery from constant workload exercise. Tanabe Y, et al. **Am J Cardiol** 1998 Nov 1;82(9):1132-5, A9

Impaired adaptation of cardiopulmonary receptors to Western diet in normotensive black immigrants. Modesti PA, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):145-50

Respiratory and immunological findings in brewery workers. Godnic-Cvar J, et al. **Am J Ind Med** 1999 Jan;35(1):68-75

Respiratory symptoms and pulmonary function in coal miners: looking into the effects of simple pneumoconiosis. Wang X, et al. **Am J Ind Med** 1999 Feb;35(2):124-31

Effect of changes in the breathing mode and body position on tongue pressure with respiratory-related oscillations. Takahashi S, et al. **Am J Orthod Dentofacial Orthop** 1999 Mar;115(3):239-46

Differences in respiratory metabolism during treatment of hypoglycemia in infants of diabetic mothers and small-for-gestational-age infants. Kinnala A, et al.
Am J Perinatol 1998 Jun;15(6):363-7

The evolution of human speech: the role of enhanced breathing control. MacLarnon AM, et al.
Am J Phys Anthropol 1999 Jul;109(3):341-63 (160 ref.)

Metabolic and cardiorespiratory responses to hypoxia in fetal sheep: adenosine receptor blockade. Chau A, et al.
Am J Physiol 1999 Jun;276(6 Pt 2):R1805-11

A role for NMDA receptors in posthypoxic frequency decline in the rat [published erratum appears in Am J Physiol 1998 Sep;275(3 Pt 2): preceding R667] Coles SK, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1546-55

Rapid and accurate 13CO2 isotopic measurement in whole blood: comparison with expired gas. Dangin M, et al.
Am J Physiol 1999 Jan;276(1 Pt 1):E212-6

Peripheral muscle ergoreceptors and ventilatory response during exercise recovery in heart failure. Francis N, et al.
Am J Physiol 1999 Mar;276(3 Pt 2):H913-7

Episodic hypoxia enhances late hypoxic ventilation in developing rat: putative role of neuronal NO synthase. Gozal D, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R17-22

Effect of natural grass pollen exposure on exhaled nitric oxide in asthmatic children. Baraldi E, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):262-6

Breathing during sleep in patients with nocturnal desaturation. Becker HF, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):112-8

Longitudinal decline in measured firefighter single-breath diffusing capacity of carbon monoxide values. A respiratory surveillance dilemma. Burgess JL, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):119-24

Vital capacity reservoir and online measurement of childhood nitrosopnea are linearly related. Clinical implications. Canady RG, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):311-4

Determinants of rib motion in flail chest. Cappello M, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):886-91

Airway inflammation, exhaled nitric oxide, and severity of asthma in patients with western red cedar asthma. Chan-Yeung M, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1434-8

Exhaled nitric oxide as a noninvasive assessment of chronic cough. Chatkin JM, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1810-3

Ventilation above closing volume reduces pulmonary vascular resistance hysteresis. Creamer KM, et al.
Am J Respir Crit Care Med 1998 Oct;158(4):1114-9

Effect of spontaneous breathing trial duration on outcome of attempts to discontinue mechanical ventilation. Spanish Lung Failure Collaborative Group. Esteban A, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):512-8

Effect of ventilator flow rate on respiratory timing in normal humans. Fernandez R, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):710-9

Relationship between exhaled nitric oxide and childhood asthma. Frank TL, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1032-6

A community study of exhaled nitric oxide in healthy children. Franklin PJ, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):69-73

Relation of sleepiness to respiratory disturbance index: the Sleep Heart Health Study. Gottlieb DJ, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):502-7

Spirometric reference values from a sample of the general U.S. population. Hankinson JL, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):179-87

Combined use of exhaled hydrogen peroxide and nitric oxide in monitoring asthma. Horváth I, et al.
Am J Respir Crit Care Med 1998 Oct;158(4):1042-6

Expiratory phase tracheal gas insufflation and pressure control in sheep with permissive hypercapnia. Imanaka H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):49-54

Entrainment of blood pressure and heart rate oscillations by periodic breathing. Lorenzi-Filho G, et al.
Am J Respir Crit Care Med 1999 Apr;159(4 Pt 1):1147-54

Clinical use of respiratory changes in arterial pulse pressure to monitor the hemodynamic effects of PEEP. Michard F, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):935-9

Ventilatory and cardiovascular responses to inspired He-O2 during exercise in chronic obstructive pulmonary disease. Oelberg DA, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1876-82

Influence of environmental concentrations of NO on the exhaled NO test. Piacentini GL, et al.
Am J Respir Crit Care Med 1998 Oct;158(4):1299-301

Spontaneous breathing during ventilatory support improves ventilation-perfusion distributions in patients with acute respiratory distress syndrome. Putensen C, et al.
Am J Respir Crit Care Med 1999 Apr;159(4 Pt 1):1241-8

Airspace configuration at different transpulmonary pressures in normal and paraquat-induced lung injury in rats. Silva MF, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1230-4

Entrainment of respiration in humans by periodic lung inflations. Effect of state and CO(2). Simon PM, et al.
Am J Respir Crit Care Med 1999 Sep;160(3):950-60

Sniff nasal inspiratory pressure. Reference values in Caucasian children. Stefanutti D, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):107-11

Clinical characteristics, respiratory functional parameters, and outcome of a two-hour T-piece trial in patients weaning from mechanical ventilation. Vallverdú I, et al.
Am J Respir Crit Care Med 1998 Dec;158(6):1855-62

Applicability of the single-breath carbon monoxide diffusing capacity in a Norwegian Community Study. Welle I, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1745-50

Measurements of exhaled nitric oxide with the single-breath technique and positive expiratory pressure in infants. Wildhaber JH, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):74-8

Effects of the Breathe Right nasal strips on nasal ventilation. Gosepath J, et al. **Am J Rhinol** 1997 Sep-Oct;11(5):399-402

Objective assessment of the breathe-right device during exercise in adult males. Portugal LG, et al.
Am J Rhinol 1997 Sep-Oct;11(5):393-7

Cardiopulmonary effects of the laparoscopic pneumoperitoneum in a porcine model of adult respiratory distress syndrome. Greif WM, et al. **Am J Surg** 1999 Mar; 177(3):216-21

Role of the Bötzinger complex in fastigial nucleus-mediated respiratory responses. Zhang Z, et al. **Anat Rec** 1999 Apr 1;254(4):542-8

Fiberoptic-guided airway exchange of the esophageal-tracheal Combitube in spontaneously breathing versus mechanically ventilated patients. Gaitini LA, et al.
Anesth Analg 1999 Jan;88(1):193-6

The effects of increasing concentrations of desflurane on systemic oxygenation during one-lung ventilation in pigs. Karzai W, et al. **Anesth Analg** 1999 Jul;89(1):215-7

Ventilatory response to CO2 in children with obstructive sleep apnea from adenotonsillar hypertrophy. Strauss SG, et al. **Anesth Analg** 1999 Aug;89(2):328-32

Venous air embolism during Parkinson surgery in patients with spontaneous ventilation. Suarez S, et al.
Anesth Analg 1999 Apr;88(4):793-4

Preoxygenation: comparison of maximal breathing and tidal volume breathing techniques [see comments] Baraka AS, et al. **Anesthesiology** 1999 Sep;91(3):612-6. Comment in: Anesthesiology 1999 Sep;91(3):603-5.

Preoxygenation: best method for both efficacy and efficiency [editorial; comment] Benumof JL. **Anesthesiology** 1999 Sep; 91(3):603-5. Comment on: Anesthesiology 1999 Sep;91(3):612-6.

Transport phenomena in the human nasal cavity: a computational model. Naftali S, et al. **Ann Biomed Eng** 1998 Sep-Oct;26(5):831-9

Respiratory rates of Indian infants under 2 months of age. Bhandari A, et al. **Ann Trop Paediatr** 1998 Dec;18(4):329-34

Normalization of respiratory sinus arrhythmia by factoring in tidal volume. Kobayashi H. **Appl Human Sci** 1998 Sep; 17(5):207-13

The divergent ventilatory and heart rate response to moderate hypercapnia in infants with apnoea of infancy. Katz-Salamon M, et al. **Arch Dis Child** 1998 Sep; 79(3):231-6

Design and test of a new tracheostoma valve based on inhalation. Geertsema AA, et al.
Arch Otolaryngol Head Neck Surg 1999 Jun;125(6):622-6

Short hypobaric hypoxia and breathing pattern: effect of positive end expiratory pressure. Savourey G, et al.
Aviat Space Environ Med 1999 Sep;70(9):863-6

Goat fetuses disconnected from the placenta, but reconnected to an artificial placenta, display intermittent breathing movements. Kozuma S, et al. **Biol Neonate** 1999; 75(6):388-97

Effects of voluntary changes in breathing frequency on respiratory comfort. Denot-Ledunois S, et al.
Biol Psychol 1998 Sep;49(1-2):71-82

Stability of total respiratory resistance under multiple baseline conditions, isometric arm exercise and voluntary deep breathing. Ritz T, et al. **Biol Psychol** 1998 Sep; 49(1-2):187-213

Trusting computerized data reduction too much: a critique of Anderson's ambulatory respiratory monitor. Wilhelm FH, et al. **Biol Psychol** 1998 Sep;49(1-2):215-9; discussion 221-2

Cardioventilatory coupling: effects of IPPV. Larsen PD, et al. **Br J Anaesth** 1999 Apr;82(4):546-50

Evidence for medullary projections of the intercostal nerve-elicited inspiratory termination. Anderson MK, et al. **Brain Res** 1999 Jun 12;831(1-2):306-10

Role of glutamate receptor subtypes in the lamprey respiratory network. Bongianni F, et al. **Brain Res** 1999

May 1;826(2):298–302
Medium-frequency oscillations dominate the inspiratory nerve discharge of anesthetized newborn rats. Kocsis B, et al. **Brain Res** 1999 Feb 6;818(1):180–3
Altered respiratory response to substance P and reduced NK1 receptor binding in the nucleus of the solitary tract of aged rats. Mazzone SB, et al. **Brain Res** 1999 Apr 24; 826(1):139–42
Respiratory responses to chemical stimulation of the parabrachial nuclear complex in the rabbit. Mutolo D, et al. **Brain Res** 1998 Oct 5;807(1–2):182–6
The pre-Bötzinger complex and phase-spanning neurons in the adult rat. Sun QJ, et al. **Brain Res** 1998 Nov 2; 809(2):204–13
Connections of the rostral ventral respiratory neuronal cell group: an anterograde and retrograde tracing study in the rat. Gaytán SP, et al. **Brain Res Bull** 1998 Dec;47(6):625–42
The distribution of FOS-immunoreactive neurons in the brainstem, midbrain and diencephalon of fetal sheep in response to acute hypoxia in mid and late gestation. Nitsos I, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):9–26
Source dipole analysis of the early components of the RREP. Logie ST, et al. **Brain Topogr** 1998 Winter;11(2):153–64
The epidural structure changes during deep breathing. Igarashi T, et al. **Can J Anaesth** 1999 Sep;46(9):850–5
Acid–base regulation and control of ventilation in human pregnancy. Wolfe LA, et al. **Can J Physiol Pharmacol** 1998 Sep;76(9):815–27 (116 ref.)
Marked increase in flow velocities during deep expiration: A duplex Doppler sign of celiac artery compression syndrome. Erden A, et al. **Cardiovasc Intervent Radiol** 1999 Jul–Aug;22(4):331–2
Relationship between abnormalities on high-resolution CT and pulmonary function in systemic sclerosis. Diot E, et al. **Chest** 1998 Dec;114(6):1623–9
In vitro comparison of beclomethasone and salbutamol metered-dose inhaler aerosols inhaled during pediatric tidal breathing from four valved holding chambers. Finlay WH, et al. **Chest** 1998 Dec;114(6):1676–80
Reduction in ventilator response to CO2 with relaxation feedback during CO2 rebreathing in normal adults. Holliday JE, et al. **Chest** 1999 May;115(5):1285–92
Reproducibility of maximal exercise ergometer testing in patients with cystic fibrosis. McKone EF, et al. **Chest** 1999 Aug;116(2):363–8
Intratracheal pulmonary ventilation at low airway pressures in a ventilator-induced model of acute respiratory failure improves lung function and survival [see comments] Rossi N, et al. **Chest** 1998 Oct;114(4):1147–57. Comment in: Chest 1998 Oct;114(4):955–7.
Lung function and cardiopulmonary exercise performance after heart transplantation: influence of cardiac allograft vasculopathy. Schwaiblmair M, et al. **Chest** 1999 Aug; 116(2):332–9
Short-term rhythms of the cardiorespiratory system and their significance in neonatology. Patzak A. **Chronobiol Int** 1999 May;16(3):249–68 (159 ref.)
Driving respiration: the respiratory central pattern generator. Bellingham MC. **Clin Exp Pharmacol Physiol** 1998 Oct; 25(10):847–56
Upper airway function and dysfunction in respiration. Pierce RJ, et al. **Clin Exp Pharmacol Physiol** 1999 Jan;26(1):1–10 (102 ref.)
Analysis of nitric oxide in the exhaled air of patients with chronic glomerulonephritis. Kakoki M, et al. **Clin Nephrol** 1999 Aug;52(2):83–90
The effect of breathing frequency on deposition of drug aerosol using an inhalation–synchronized dosimeter in healthy adults. Häkkinen AM, et al. **Clin Physiol** 1999 May; 19(3):269–74
Ventilatory inefficiency for carbon dioxide during exercise in patients with pulmonary hypertension. Reybrouck T, et al. **Clin Physiol** 1998 Jul;18(4):337–44
Common slow modulation of respiration, arterial blood pressure and cortical activity during sleep onset while napping. Rittweger J. **Clin Physiol** 1999 May;19(3):221–9
Respiratory correlates of muscle sympathetic nerve activity in heart failure. Naughton MT, et al. **Clin Sci (Colch)** 1998 Sep;95(3):277–85
Evaluation of linear diaphragm-chest expansion models for magnetic resonance imaging motion artifact correction. Priatna A, et al. **Comput Biol Med** 1999 Mar;29(2):111–27
Effects of ventilator resetting on indirect calorimetry measurement in the critically ill surgical patient [see comments] Brandi LS, et al. **Crit Care Med** 1999 Mar; 27(3):531–9. Comment in: Crit Care Med 1999 Mar;27(3):459–60.
Breathing: does regular mean normal? [editorial; comment] Brochard L. **Crit Care Med** 1998 Nov;26(11):1773–4. Comment on: Crit Care Med 1998 Nov;26(11):1817–23.
Approximate entropy of respiratory rate and tidal volume during weaning from mechanical ventilation [see comments] Engoren M. **Crit Care Med** 1998 Nov; 26(11):1817–23. Comment in: Crit Care Med 1998 Nov;26(11):1773–4.
Prolonged partial liquid ventilation in spontaneously breathing awake animals. Rich PB, et al. **Crit Care Med** 1999 May;27(5):941–5
Influence of nasal fontanel receptors on the regulation of tracheobronchal vagal tone. Miličić D, et al. **Croat Med J** 1998 Dec;39(4):426–9
Respiratory responses to chilling and freezing in two sub-antarctic insects. Block W, et al. **Cryobiology** 1998 Sep; 37(2):163–6
Cardiorespiratory responses to bidirectional tilts in infants. Fifer WP, et al. **Early Hum Dev** 1999 Jul;55(3):265–79
Cardiorespiratory stability of premature boys and girls during kangaroo care. Fischer CB, et al. **Early Hum Dev** 1998 Sep;52(2):145–53
Increased amplitude modulation of continuous respiration precedes sudden infant death syndrome –detection by spectral estimation of respirogram. Rantonen T, et al. **Early Hum Dev** 1998 Nov;53(1):53–63
Body position, sleep states, and cardiorespiratory activity in developing low birth weight infants. Sahni R, et al. **Early Hum Dev** 1999 Apr;54(3):197–206
Electromyographic study of the pectoralis major, serratus anterior and external oblique muscles during respiratory activity in humans. Cerqueira EP, et al. **Electromyogr Clin Neurophysiol** 1999 Apr–May;39(3):131–7
Modifying breathing patterns in chronic heart failure [editorial] [see comments] Bernardi L. **Eur Heart J** 1999 Jan;20(2):83–4. Comment in: Eur Heart J 1999 Jul;20(14):1052–3.
Aetiology and pathophysiological implications of oscillatory ventilation at rest and during exercise in chronic heart failure. Do Cheyne and Stokes have an important message for modern-day patients with heart failure? Piepoli MF, et al. **Eur Heart J** 1999 Jul;20(13):946–53 (65 ref.)
Temporal changes in airway protective reflexes elicited by an endotracheal tube in surgical patients anaesthetized with sevoflurane. Hasegawa R, et al. **Eur J Anaesthesiol** 1999 Feb;16(2):98–102
Breathing pattern in highly competitive cyclists during incremental exercise. Lucía A, et al. **Eur J Appl Physiol** 1999 May;79(6):512–21
Phase-dependence of breathing and finger tracking movements during normocapnia and hypercapnia. Rassler B, et al. **Eur J Appl Physiol** 1999 Sep;80(4):324–32
Decreased exercise blood lactate concentrations after respiratory endurance training in humans. Spengler CM, et al. **Eur J Appl Physiol** 1999 Mar;79(4):299–305
Lack of association between changes in plasma leptin concentration and in food intake during the menstrual cycle. Paolisso G, et al. **Eur J Clin Invest** 1999 Jun; 29(6):490–5
Long term tidal breathing measurements in newborns: influence of a bias flow on ventilatory parameters. Windstetter D, et al. **Eur J Med Res** 1999 Jan 26;4(1):15–22
Inducing placebo respiratory depressant responses in humans via opioid receptors. Benedetti F, et al. **Eur J Neurosci** 1999 Feb;11(2):625–31
Synaptic inhibition in the isolated respiratory network of neonatal rats. Brockhaus J, et al. **Eur J Neurosci** 1998 Dec; 10(12):3823–39
Pontine and medullary control of the respiratory activity in the trigeminal and facial nerves of the newborn mouse: an in vitro study. Jacquin TD, et al. **Eur J Neurosci** 1999 Jan;11(1):213–22
Control of the pulmonary circulation in the fetus and during the transitional period to air breathing. Heymann MA. **Eur J Obstet Gynecol Reprod Biol** 1999 Jun;84(2):127–32 (55 ref.)
Expiratory CT in cigarette smokers: correlation between areas of decreased lung attenuation, pulmonary function tests and smoking history. Verschakelen JA, et al. **Eur Radiol** 1998;8(8):1391–9
The relationship between cardiac output and posthyperventilation hyperpnoea in patients with essential hypertension. Bellofiore S, et al. **Eur Respir J** 1998 Nov; 12(5):1160–3
Forced oscillation total respiratory resistance and spontaneous breathing lung resistance in COPD patients. Farré R, et al. **Eur Respir J** 1999 Jul;14(1):172–8
Maximum rate of change in oesophageal pressure assessed from unoccluded breaths: an option where mouth occlusion pressure is impractical. Hamnegård CH, et al. **Eur Respir J** 1998 Sep;12(3):693–7
Is respiratory controller arrhythmia an artifact or a real phenomenon? [editorial; comment] Jubran A. **Eur Respir J** 1999 Feb;13(2):236–7. Comment on: Eur Respir J 1999 Feb;13(2):365–70.
Expiratory flow limitation in awake sleep-disordered breathing subjects. Liistro G, et al. **Eur Respir J** 1999 Jul; 14(1):185–90
Effects of negative pressure assisted ventilation on dyspnoeic sensation and breathing pattern. Nishino T, et al. **Eur Respir J** 1998 Dec;12(6):1278–83
Depression of peripheral chemosensitivity by a dopaminergic mechanism in patients with obstructive sleep apnoea syndrome. Osanai S, et al. **Eur Respir J** 1999 Feb; 13(2):418–23
Regulation of breathing in hyperthyroidism: relationship to hormonal and metabolic changes. Pino-Garcia JM, et al. **Eur Respir J** 1998 Aug;12(2):400–7
Effects of high-altitude periodic breathing on sleep and arterial oxyhaemoglobin saturation. Salvaggio A, et al. **Eur Respir J** 1998 Aug;12(2):408–13
Nocturnal evolution of respiratory effort in obstructive sleep apnoea syndrome: influence on arousal threshold [see comments] Sforza E, et al. **Eur Respir J** 1998 Dec; 12(6):1257–63. Comment in: Eur Respir J 1998 Dec;12(6):1239–41.
A simple breathing circuit minimizing changes in alveolar ventilation during hyperpnoea. Sommer LZ, et al. **Eur Respir J** 1998 Sep;12(3):698–701
Bötzinger-complex, bulbospinal expiratory neurones monosynaptically inhibit ventral-group respiratory neurones in the decerebrate rat. Tian GF, et al. **Exp Brain Res** 1999 Jan;124(2):173–80
Mutual inhibition between Bötzinger-complex bulbospinal expiratory neurons detected with cross-correlation in the decerebrate rat. Tian GF, et al. **Exp Brain Res** 1999 Apr; 125(4):440–6
Perfluorochemical liquid-enhanced adenoviral vector distribution and expression in lungs of spontaneously breathing rodents. Weiss DJ, et al. **Exp Lung Res** 1999 Jun;25(4):317–33
Breathing patterns during slow and fast ramp exercise in man. Scheuermann BW, et al. **Exp Physiol** 1999 Jan;84(1):109–20
Respiratory control during upper airway infection mechanism for prolonged reflex apnoea and sudden infant death with special reference to infant sleep position. Lindgren C. **FEMS Immunol Med Microbiol** 1999 Aug 1; 25(1–2):97–102 (45 ref.)
Analyzing entrainment of heartbeat and respiration with surrogates. Seidel H, et al. **IEEE Eng Med Biol Mag** 1998 Nov–Dec;17(6):54–7
Piracetam for the treatment of breath-holding spells. Garg RK. **Indian Pediatr** 1998 Oct;35(10):1034–5
Streptococcus sanguis-induced platelet clotting in rabbits and hemodynamic and cardiopulmonary consequences. Meyer MW, et al. **Infect Immun** 1998 Dec;66(12):5906–14
Respiratory responses to exercise in divers at 0.4 MPa ambient air pressure. Tetzlaff K, et al. **Int Arch Occup Environ Health** 1998 Oct;71(7):472–8
Effects of exercise position on the ventilatory responses to exercise in chronic heart failure. Armour W, et al. **Int J Cardiol** 1998 Sep 1;66(1):59–63
Competitive pulmonary flow in infancy: the effect of respiration. Henneveld HT, et al. **Int J Cardiol** 1999 Jan; 68(1):9–12
Is odor processing related to oral breathing? Pause BM, et al. **Int J Psychophysiol** 1999 Jun;32(3):251–60
The use of active breathing control (ABC) to reduce margin for breathing motion. Wong JW, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):911–9
Respiratory ammonia output and blood ammonia concentration during incremental exercise. Ament W, et al. **Int J Sports Med** 1999 Feb;20(2):71–7
Ventilatory, lactate-derived and catecholamine thresholds during incremental treadmill running: relationship and reproducibility. Dickhuth HH, et al. **Int J Sports Med** 1999 Feb;20(2):122–7
Effect of cycling position on ventilatory and metabolic variables. Grappe F, et al. **Int J Sports Med** 1998 Jul; 19(5):336–41
The ventilatory threshold, heart rate, and endurance performance: relationships in elite cyclists. Hoogeveen AR, et al. **Int J Sports Med** 1999 Feb;20(2):114–7
Immediate effect of respiratory muscle stretch gymnastics and diaphragmatic breathing on respiratory pattern. Respiratory Muscle Conditioning Group. Ito M, et al. **Intern Med** 1999 Feb;38(2):126–32
Cardiopulmonary exercise testing in the pre-operative assessment of patients for repair of abdominal aortic aneurysm. Nugent AM, et al. **Ir J Med Sci** 1998 Oct–Dec; 167(4):238–41
The PEP transducer: a new way of measuring respiratory rate in the non-intubated patient [see comments] Dodds D, et al. **J Accid Emerg Med** 1999 Jan;16(1):26–8. Comment in: J Accid Emerg Med 1999 Jul;16(4):313.
The effect of changes in hearing status on speech sound level and speech breathing: a study conducted with cochlear implant users and NF-2 patients. Lane H, et al. **J Acoust Soc Am** 1998 Nov;104(5):3059–69
Changes in respiratory timing induced by hypercapnia in maturing rats. Abu-Shaweesh JM, et al. **J Appl Physiol** 1999 Aug;87(2):484–90
Ratio of active to passive muscle shortening in the canine diaphragm. Boriek AM, et al. **J Appl Physiol** 1999 Aug; 87(2):561–6
Ventilatory instability during sleep onset in individuals with high peripheral chemosensitivity. Dunai J, et al. **J Appl Physiol** 1999 Aug;87(2):661–72
Postinspiratory activity of costal and crural diaphragm. Easton PA, et al. **J Appl Physiol** 1999 Aug;87(2):582–9
Respiratory-related evoked potential elicited by expiratory occlusion. Hammond CS, et al. **J Appl Physiol** 1999 Aug; 87(2):835–42
Longitudinal distribution of chlorine absorption in human airways: comparison of nasal and oral quiet breathing. Nodelman V, et al. **J Appl Physiol** 1999 Jun;86(6):1984–93
Qualitative diagnostic calibration technique [letter] Thompson JR. **J Appl Physiol** 1999 Aug;87(2):869–72
Breathing responses to small inspiratory threshold loads in humans. Yan S, et al. **J Appl Physiol** 1999 Mar;86(3):874–80
A single minute lesion around the ventral respiratory group in medulla produces fatal apnea in cats. Hsieh JH, et al. **J Auton Nerv Syst** 1998 Aug 27;73(1):7–18
Pharmacological properties of the CO2/H+-sensitive area in the ventral medullary surface assessed by the effects of chemical stimulation on respiration. Kanazawa M, et al. **J Auton Nerv Syst** 1998 Aug 6;72(1):24–33
Changes in left ventricular contractility with the phase of respiration. Karlocai K, et al. **J Auton Nerv Syst** 1998 Nov

10;73(2-3):86-92
Brief application of simplified habit reversal to treat stuttering in children. Elliott AJ, et al.
J Behav Ther Exp Psychiatry 1998 Dec;29(4):289-302
Respiratory quotient is inversely associated with muscle sympathetic nerve activity. Snitker S, et al.
J Clin Endocrinol Metab 1998 Nov;83(11):3977-9
Respiratory change in size of honeycombing: inspiratory and expiratory spiral volumetric CT analysis of 97 cases. Johkoh T, et al. **J Comput Assist Tomogr** 1999 Mar-Apr; 23(2):174-80
Mechanics of lung ventilation in a larval salamander Ambystoma tigrinum. Brainerd EL. **J Exp Biol** 1998 Oct; 201 (Pt 20):2891-901
Mechanics of ventilation in swellsharks, Cephaloscyllium ventriosum (Scyliorhinidae). Ferry-Graham LA.
J Exp Biol 1999 Jun;202 (Pt 11):1501-10
Running, breathing and visceral motion in the domestic rabbit (Oryctolagus cuniculus): testing visceral displacement hypotheses. Simons RS. **J Exp Biol** 1999 Mar;202 (Pt 5):563-77
Do respiratory symptoms predict chronic airflow obstruction and bronchial hyperresponsiveness in older adults? Renwick DS, et al. **J Gerontol A Biol Sci Med Sci** 1999 Mar;54(3):M136-9
Parasympathetic function during deep breathing in the general population: relation to coronary risk factors and normal range. May O, et al. **J Intern Med** 1999 Mar; 245(3):287-94
A compact respiratory-triggering device for routine microimaging of laboratory mice. Minard KR, et al.
J Magn Reson Imaging 1998 Nov-Dec;8(6):1343-8
Automated monitoring of diaphragm end-expiratory position for real-time navigator echo MR coronary angiography. Taylor AM, et al. **J Magn Reson Imaging** 1999 Mar; 9(3):395-401
Influence of a Biokinergia session on cardiorespiratory and metabolic adaptations of trained subjects. Flore P, et al.
J Manipulative Physiol Ther 1998 Nov-Dec;21(9):621-8
Respiratory aspects of neurological disease [letter] Jolobe OM. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):256-7
Clinical and electrophysiological findings in critical illness polyneuropathy. Zifko UA, et al. **J Neurol Sci** 1998 Aug 14;159(2):186-93
Patterns of phrenic motor output evoked by chemical stimulation of neurons located in the pre-Bötzinger complex in vivo. Solomon IC, et al. **J Neurophysiol** 1999 Mar;81(3):1150-61
Fictive gill and lung ventilation in the pre- and postmetamorphic tadpole brain stem. Torgerson CS, et al.
J Neurophysiol 1998 Oct;80(4):2015-22
Concurrent inhibition and excitation of phrenic motoneurons during inspiration: phase-specific control of excitability. Parkis MA, et al. **J Neurosci** 1999 Mar 15;19(6):2368-80
Neural changes after operant conditioning of the aerial respiratory behavior in Lymnaea stagnalis. Spencer GE, et al. **J Neurosci** 1999 Mar 1;19(5):1836-43
Development of respiratory gated myocardial SPECT system. Cho K, et al. **J Nucl Cardiol** 1999 Jan-Feb;6(1 Pt 1):20-8
Monitoring of respiration using an amplified pretracheal stethoscope. Hochberg MG, et al.
J Oral Maxillofac Surg 1999 Jul;57(7):875-6
Spontaneous minute ventilation predicts readiness for extubation in mechanically ventilated preterm infants. Wilson BJ Jr, et al. **J Perinatol** 1998 Nov-Dec;18(6 Pt 1):436-9
Reflex inhibition of canine inspiratory intercostals by diaphragmatic tension receptors. De Troyer A, et al.
J Physiol (Lond) 1999 Jan 1;514 (Pt 1):255-63
Altered respiratory responses to hypoxia in mutant mice deficient in neuronal nitric oxide synthase. Kline DD, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):273-87
Two neural mechanisms for respiration-induced cutaneous vasodilatation in humans? Wallin BG, et al.
J Physiol (Lond) 1998 Dec 1;513 (Pt 2):559-69
Assessment of cardiac sympathetic regulation by respiratory-related arterial pressure variability in the rat. Yang CC, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):887-96
The control of breathing with reference to congenital central hypoventilation syndrome. Child F, et al. **J R Soc Med** 1998 Sep;91(9):479-83 (20 ref.)
Respiratory-related evoked potentials during the transition from alpha to theta EEG activity in stage 1 NREM sleep. Gora J, et al. **J Sleep Res** 1999 Jun;8(2):123-34
Relationship between physiological factors and clinical pain in dogs scored using a numerical rating scale. Holton LL, et al. **J Small Anim Pract** 1998 Oct;39(10):469-74
A combined method for estimating ventilatory threshold. Kara M, et al. **J Sports Med Phys Fitness** 1999 Mar; 39(1):16-9
13CO(2) peak value of L-[1-(13)C]phenylalanine breath test reflects hepatopathy. Ishii Y, et al. **J Surg Res** 1999 Sep; 86(1):130-5
Physiologic responses to primary blast. Guy RJ, et al.
J Trauma 1998 Dec;45(6):983-7
Determinants of myocardial performance after blunt chest trauma. Moomey CB Jr, et al. **J Trauma** 1998 Dec; 45(6):988-96
Temporary abdominal closure: a prospective evaluation of its effects on renal and respiratory physiology [see comments] Sugrue M, et al. **J Trauma** 1998 Nov; 45(5):914-21. Comment in: J Trauma 1999 Jul;47(1):190-2.
Effects of respiratory cycle on pulmonary venous flow and cardiac cycle on pulmonary venous diameter of dogs: a transesophageal echocardiography study. Chiang CH, et al. **J Vet Med Sci** 1999 Feb;61(2):155-8
Laryngeal movements in saxophone playing: video-endoscopic investigations with saxophone players. A pilot study. Weikert M, et al. **J Voice** 1999 Jun; 13(2):265-73
Nutritional, respiratory, and psychological effects of recombinant human growth hormone in patients undergoing abdominal aortic aneurysm repair. Barry MC, et al. **JPEN J Parenter Enteral Nutr** 1999 May-Jun; 23(3):128-35
The time from anaerobic threshold (AT) to respiratory compensation point reflects the rate of aerobic and anaerobic metabolism after the AT in chronic heart failure patients. Tanehata M, et al. **Jpn Circ J** 1999 Apr;63(4):274-7
Relationship between exercise capacity and ventilatory equivalent for carbon dioxide in patients with stable old myocardial infarction. Kimura M, et al. **Jpn Heart J** 1999 Mar;40(2):127-34
Effect of posture change on control of ventilation. Yoshizaki H, et al. **Jpn J Physiol** 1998 Aug;48(4):267-73
Nasal dilator strips increase maximum inspiratory flow via nasal wall stabilization. Di Somma EM, et al.
Laryngoscope 1999 May;109(5):780-4
Motion pattern adapted real-time respiratory gating. Sinkus R, et al. **Magn Reson Med** 1999 Jan;41(1):148-55
Delay equation analysis of human respiratory stability. Vielle B, et al. **Math Biosci** 1998 Sep;152(2):105-22
Clinical efficacy of respiratory gated conformal radiation therapy. Ramsey CR, et al. **Med Dosim** 1999 Summer; 24(2):115-9
Severe allergen-induced asthma despite the use of Buteyko breathing technique [letter] Weiner JM, et al.
Med J Aust 1999 Jul 19;171(2):109
A method for incorporating organ motion due to breathing into 3D dose calculations. Lujan AE, et al. **Med Phys** 1999 May;26(5):715-20
Control of airway function during and after exercise in asthmatics. Beck KC. **Med Sci Sports Exerc** 1999 Jan;31(1 Suppl):S4-11 (82 ref.)
The effect of Tai Chi on cardiorespiratory function in patients with coronary artery bypass surgery. Lan C, et al.
Med Sci Sports Exerc 1999 May;31(5):634-8
The European perspective. New dimensions in pulmonary research. MacAuley D. **Med Sci Sports Exerc** 1999 Jan;31(1 Suppl):S1-3
Ventilatory responses to dynamic exercise elicited by intramuscular sensors. Smith SA, et al.
Med Sci Sports Exerc 1999 Feb;31(2):277-86
Muscle ATP synthesis and utilisation, balanced during flow-induced increase of respiration. Janovská A, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):49-52
Breathing in patients with bullous emphysema: why lung volume reduction may work. Pride NB.
Monaldi Arch Chest Dis 1998 Aug;53(4):483-5 (17 ref.)
Neuronal pacemaker for breathing visualized in vitro. Koshiya N, et al. **Nature** 1999 Jul 22;400(6742):360-3
Inspiratory inhibition of pulmonary rapidly adapting receptor relay neurons in the rat. Ezure K, et al. **Neurosci Lett** 1998 Dec 11;258(1):49-52
Bilaterally independent respiratory rhythms in the decerebrate rat. Peever JH, et al. **Neurosci Lett** 1998 May 8;247(1):41-4
Comparison of normal sinus rhythm and pacing rate in children with minute ventilation single chamber rate adaptive permanent pacemakers. Celiker A, et al.
Pacing Clin Electrophysiol 1998 Nov;21(11 Pt 1):2100-4
Dynamics of spontaneous breathing during patient-triggered partial liquid ventilation. Bendel-Stenzel EM, et al.
Pediatr Pulmonol 1998 Nov;26(5):319-25
Sleep, respiratory rate, and growth hormone in chronic neonatal lung disease. Fitzgerald D, et al.
Pediatr Pulmonol 1998 Oct;26(4):241-9
Respiratory function in children undergoing bone marrow transplantation. Leneveu H, et al. **Pediatr Pulmonol** 1999 Jul;28(1):31-8
Ventilatory failure during resistive loaded breathing in the newborn primate. Mayock DE, et al. **Pediatr Pulmonol** 1998 Nov;26(5):312-8
Changes in pulmonary function in preterm infants recovering from RDS following early treatment with ambroxol: results of a randomized trial. Schmalisch G, et al.
Pediatr Pulmonol 1999 Feb;27(2):104-12
Exhaled nitric oxide and hepatopulmonary syndrome in a 6-year-old child. Azzolin N, et al. **Pediatrics** 1999 Aug; 104(2 Pt 1):299-300
Effects of viral lower respiratory tract infection on lung function in infants with cystic fibrosis. Hiatt PW, et al. **Pediatrics** 1999 Mar;103(3):619-26
Cardioventilatory coupling in the anaesthetised rabbit, rat and guinea-pig. Larsen PD, et al. **Pflugers Arch** 1999 May; 437(6):910-6
Respiratory effects in mice exposed to airborne emissions from Stachybotrys chartarum and implications for risk assessment. Wilkins CK, et al. **Pharmacol Toxicol** 1998 Sep; 83(3):112-9
Inductive plethysmography components analysis and improved non-invasive postoperative apnoea monitoring. Millard RK. **Physiol Meas** 1999 May;20(2):175-86
Effects of medullary midline lesions on cough and other airway reflexes in anaesthetized cats. Jakuš J, et al.
Physiol Res 1998;47(3):203-13
Control of breathing and brain activation in human subjects seen by functional magnetic resonance imaging. Smejkal V, et al. **Physiol Res** 1999;48(1):21-5
Maturation of the mammalian respiratory system. Hilaire G, et al. **Physiol Rev** 1999 Apr;79(2):325-60 (500 ref.)
Influence of feed deprivation on ventilation and gas exchange in broilers: relationship to pulmonary hypertension syndrome. Fedde MR, et al. **Poult Sci** 1998 Nov; 77(11):1704-10
Neurogenesis of patterns of automatic ventilatory activity. St-John WM. **Prog Neurobiol** 1998 Oct;56(1):97-117 (127 ref.)
Cardiac activity during sleep onset. Burgess HJ, et al.
Psychophysiology 1999 May;36(3):298-306
Impedance pneumography: noise as signal in impedance cardiography. Ernst JM, et al. **Psychophysiology** 1999 May; 36(3):333-8
Repeat measurement of respiratory mechanics using the forced oscillation technique in non-paralysed rats. Preuss JM, et al. **Pulm Pharmacol Ther** 1999;12(3):173-83
Normal pulmonary geometric changes due to respiration: evaluation with inspiratory and expiratory spiral CT. Wang Q, et al. **Radiat Med** 1998 Jul-Aug;16(4):257-62
Diaphragmatic and cardiac motion during suspended breathing: preliminary experience and implications for breath-hold MR imaging. Holland AE, et al. **Radiology** 1998 Nov;209(2):483-9
Nostril widening improves arterial oxygenation: a role for nasal nitric oxide? Herulf M, et al. **Respir Med** 1999 Feb; 93(2):134-5
The effect of thoracentesis on lung function and transthoracic electrical bioimpedance. Zerahn B, et al. **Respir Med** 1999 Mar;93(3):196-201
Exhaled nitric oxide in preterm infants. Artlich A, et al.
Respir Physiol 1998 Nov;114(2):195-200
Extent of expiratory flow limitation influences the increase in maximal exercise ventilation in hypoxia. Chapman RF, et al. **Respir Physiol** 1998 Jul;113(1):65-74
Assessment of respiratory system viscoelasticity in spontaneously breathing rabbits. D'Angelo E, et al.
Respir Physiol 1998 Dec;114(3):257-67
Postnatal development of respiratory function in lambs studied serially between birth and 8 weeks. Davey MG, et al. **Respir Physiol** 1998 Jul;113(1):83-93
CO2 and heat have different effects on directed ventilation behavior of grasshoppers Melanoplus differentialis. Henderson DR, et al. **Respir Physiol** 1998 Dec; 114(3):297-307
Suprapontine control of respiration. Horn EM, et al.
Respir Physiol 1998 Dec;114(3):201-11 (60 ref.)
A pontine-hypothalamic temperature difference correlated with cutaneous and respiratory heat loss. Parmeggiani PL, et al. **Respir Physiol** 1998 Oct;114(1):49-56
Effects of immersion in cool water on lung-exhaled nitric oxide at rest and during exercise. Pendergast DR, et al.
Respir Physiol 1999 Jan 1;115(1):73-81
Endogenous carbon monoxide in control of respiration. Prabhakar NR. **Respir Physiol** 1998 Oct;114(1):57-64 (46 ref.)
Respiratory pattern formation in the isolated bullfrog (Rana catesbeiana) brainstem-spinal cord. Reid SG, et al.
Respir Physiol 1998 Dec;114(3):239-55
Normoxic ventilatory response in lowlander and Sherpa elite climbers. Rodas G, et al. **Respir Physiol** 1998 Jul; 113(1):57-64
Rostral medullary respiratory neuronal activities of decerebrate cats in eupnea, apneusis and gasping. St. John WM. **Respir Physiol** 1999 Jun 1;116(1):47-65
Variability of vigilance and ventilation: studies on the control of respiration during sleep. Schäfer T. **Respir Physiol** 1998 Oct;114(1):37-48
Attenuated respiratory compensation during rapidly incremented ramp exercise. Scheuermann BW, et al.
Respir Physiol 1998 Dec;114(3):227-38
Hans Loeschcke, Robert Mitchell and the medullary CO2 chemoreceptors: a brief historical review. Severinghaus JW. **Respir Physiol** 1998 Oct;114(1):17-24
A significant proportion of exhaled nitric oxide arises in large airways in normal subjects. Silkoff PE, et al.
Respir Physiol 1998 Jul;113(1):33-8
Respiratory sensations during heavy exercise in subjects without respiratory chemosensitivity. Spengler CM, et al.
Respir Physiol 1998 Oct;114(1):65-74
Mechanisms and clinicophysiological implications of the sniff- and gasp-like aspiration reflex. Tomori Z, et al.
Respir Physiol 1998 Oct;114(1):83-98 (52 ref.)
Decrease in lung volume depends on end-expiratory pressure in a rabbit model of airway lavage. Krause MF, et al.
Respiration 1999;66(3):259-64
Oxygen uptake and cardiac performance in obese and normal subjects during exercise. Salvadori A, et al. **Respiration** 1999;66(1):25-33
A reappraisal of mouth-to-mouth ventilation during bystander-initiated cardiopulmonary resuscitation. A statement for healthcare professionals from the Ventilation Working Group of the Basic Life Support and Pediatric Life Support Subcommittees, American Heart Association. Becker LB, et al. **Resuscitation** 1997 Nov;35(3):189-201

(121 ref.)
Fat necks: modification of a standard surgical airway protocol in the pre-hospital environmental. Morris A, et al. **Resuscitation** 1997 Nov;35(3):253-4
Nasal route to ventilation during basic cardiopulmonary resuscitation in children under two months of age. Sorribes del Castillo J, et al. **Resuscitation** 1997 Nov;35(3):249-52
Improved nasal breathing in snorers increases nocturnal growth hormone secretion and serum concentrations of insulin-like growth factor 1 subsequently. Löth S, et al. **Rhinology** 1998 Dec;36(4):179-83
Umbilical extrusion in patients with ankylosing spondylitis [letter] Jajić I, et al. **Scand J Rheumatol** 1998;27(5):388
Effects of exaggerated lithotomy position on ventilation and hemodynamics during radical perineal prostatectomy. Ryniak S, et al. **Scand J Urol Nephrol** 1998 May;32(3):200-3
A new look into Neandertals' noses [news] Holden C. **Science** 1999 Jul 2;285(5424):31,33
Arousal threshold to respiratory stimuli in OSA patients: evidence for a sleep-dependent temporal rhythm. Sforza E, et al. **Sleep** 1999 Feb 1;22(1):69-75
Kinematics of the chest cage and spine during breathing in healthy individuals and in patients with adolescent idiopathic scoliosis. Leong JC, et al. **Spine** 1999 Jul 1; 24(13):1310-5
The effect of industrial back belts and breathing technique on trunk and pelvic coordination during a lifting task. McGorry RW, et al. **Spine** 1999 Jun 1;24(11):1124-30
Exhaled nitric oxide during exercise. Sheel AW, et al. **Sports Med** 1999 Aug;28(2):83-90 (64 ref.)
Changes in occlusion pressure (P0.1) and breathing pattern during pressure support ventilation. Perrigault PF, et al. **Thorax** 1999 Feb;54(2):119-23
The changes of ventilatory parameters in laparoscopic colecystectomy. Hong JY, et al. **Yonsei Med J** 1999 Aug; 40(4):307-12
Effects of permanent tracheostomy on respiratory reflexes to lung inflation and capsaicin in sevoflurane-anaesthetized dogs. Mutoh T, et al. **Zentralbl Veterinarmed A** 1999 Aug; 46(6):335-43
[A new non-invasive method for measurement of airway responsiveness in sedated rats] Wei EQ, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):471-4 (Eng. Abstr.) **(Chi)**
[Discharge patterns of respiratory related neurones in the medial areas of nucleus retrofacialis of medulla] Wu ZH, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):389-94 (Eng. Abstr.) **(Chi)**
[Respiration and aging] Guenard H. **Rev Mal Respir** 1998 Dec;15(6):713-21 (86 ref.) (Eng. Abstr.) **(Fre)**
[Diagnosis of nocturnal respiratory disorders. Review of portable monitoring devices. Analysis and evaluation of different polysomnography signals] Liistro G, et al. **Rev Mal Respir** 1998 Dec;15(6):733-41 (Eng. Abstr.) **(Fre)**
[Basal metabolism and respiratory quotient in obese children] Luciano A, et al. **Pediatr Med Chir** 1998 Nov-Dec; 20(6):399-403 (Eng. Abstr.) **(Ita)**
[Studies on the effects of constant exercise around the ventilatory threshold using spectral analysis of EMG and ECG-RR interval variability] Takahashi M. **Hokkaido Igaku Zasshi** 1999 Jan;74(1):7-18 (Eng. Abstr.) **(Jpn)**
[Efficacy of the cuffed oropharyngeal airway in spontaneously breathing patients] Hamada T, et al. **Masui** 1999 Jun;48(6):630-1 (Eng. Abstr.) **(Jpn)**
[The relationship between respiratory function and the change in end-tidal nitrous oxide concentration] Tsuchiya M, et al. **Masui** 1998 Aug;47(8):987-91 (Eng. Abstr.) **(Jpn)**
[Effects of female hormones on respiratory and cardiovascular regulation] Tatsumi K. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):359-67 (54 ref.) (Eng. Abstr.) **(Jpn)**
[Electromyographic activity of neck muscles during the production of inspiratory pressure] Yokoba M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb;37(2):102-7 (Eng. Abstr.) **(Jpn)**
[Peak oxygen uptake, ventilatory threshold and leg extension power in apparently healthy Japanese] Ohta T, et al. **Nippon Koshu Eisei Zasshi** 1999 Apr;46(4):289-97 (Eng. Abstr.) **(Jpn)**
[MR cholangiopancreatography using respiratory triggered half-Fourier RARE technique] Morimoto A, et al. **Nippon Rinsho** 1998 Nov;56(11):2859-64 (Eng. Abstr.) **(Jpn)**
[The present and future of the pulmonary function tests. The relationship between respiratory and non-respiratory function] Kambe M, et al. **Rinsho Byori** 1999 Mar; 47(3):262-7 (4 ref.) (Eng. Abstr.) **(Jpn)**
[Recovery of respiratory parameters and oxygen consumption during the recovery phase of cardiopulmonary exercise test in patients with dilated cardiomyopathy] Silveira C, et al. **Rev Port Cardiol** 1998 Nov;17(11):881-5 (Eng. Abstr.) **(Por)**
[Monitoring accuracy of ventilation parameters and gas mixture composition during anesthesia and artificial ventilation of the lungs] Levité EM, et al. **Anesteziol Reanimatol** 1999 May-Jun;(3):68-9 **(Rus)**
[The use of a pressure-support ventilation regimen in the recovery of spontaneous respiration after heart operations] Nikitin ES, et al. **Anesteziol Reanimatol** 1998 Jul-Aug; (4):31-6 (Eng. Abstr.) **(Rus)**
[Spirometric evaluation of external respiration function in laparoscopic and mini-laparotomy cholecystectomy] Timerbulatov VM, et al. **Anesteziol Reanimatol** 1999 May-Jun;(3):15-7 (Eng. Abstr.) **(Rus)**
[Effect of extremely dense nitrogen-oxygen breathing gases on the animal body] Vetosh AN, et al. **Dokl Akad Nauk** 1999 Mar;365(2):276-8 **(Rus)**
[Man's ability to assess changes and the value of the main parameters of external respiration during muscular work] Solopov IN. **Fiziol Cheloveka** 1998 Sep-Oct;24(5):35-9 **(Rus)**
[Effects of magnetic fields on the respiratory function] Zhernovoĭ AI, et al. **Med Tekh** 1999 Mar-Apr;(2):5-8 (Eng. Abstr.) **(Rus)**
[External respiratory function and pulmonary capillary blood flow in patients with postoperative recurrent pulmonary tuberculosis] El'kin AV, et al. **Probl Tuberk** 1999;(3):16-9 (Eng. Abstr.) **(Rus)**
[Oxygen tension in the brain cortex arterioles during spontaneous respiration with the hypoxic gas mixture in rats] Vovenko EP, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May-Jun; 84(5-6):527-35 (Eng. Abstr.) **(Rus)**
[Studies on the function of external respiration in adults and children with anomalous position of the heart chordae] Domnitskaia TM, et al. **Ter Arkh** 1999;71(3):54-7 (Eng. Abstr.) **(Rus)**
[Modulating effect of peripheral thermoreceptors on human respiration] Kozyreva TV, et al. **Vestn Ross Akad Med Nauk** 1998;(10):14-8 (25 ref.) (Eng. Abstr.) **(Rus)**
[Systemic reactions and the central mechanisms of respiratory regulation in adaptation to cold and hypoxia] Krivoshchekov SG, et al. **Vestn Ross Akad Med Nauk** 1998; (9):48-53 (Eng. Abstr.) **(Rus)**
[Maximum respiratory flow on an expedition to the Himalaya] Borderias Clau L. **Arch Bronconeumol** 1999 May;35 Suppl 3:49-54 (26 ref.) **(Spa)**

DRUG EFFECTS

Respiration during emergence from anaesthesia with desflurane/N2O vs. desflurane/air for gynaecological laparoscopy. Einarsson SG, et al. **Acta Anaesthesiol Scand** 1998 Nov;42(10):1192-8
Responses of respiratory drive and breathing pattern to inspiratory loading during nitrous oxide and isoflurane sedation. Ostlund A, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1043-9
Differential suppression of upper airway motor activity during carbachol-induced, REM sleep-like atonia. Fenik V, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1013-24
Instructional set and physiological response to CO2 inhalation. Welkowitz LA, et al. **Am J Psychiatry** 1999 May;156(5):745-8
Leptin prevents respiratory depression in obesity. O'donnell CP, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1477-84
Cardiorespiratory and anesthetic effects of propofol and thiopental in dogs. Quandt JE, et al. **Am J Vet Res** 1998 Sep;59(9):1137-43
Effects of buprenorphine on cardiovascular and pulmonary function in clinically normal horses and horses with chronic obstructive pulmonary disease. Szöke MO, et al. **Am J Vet Res** 1998 Oct;59(10):1287-91
The effects of residual neuromuscular blockade and volatile anesthetics on the control of ventilation. Eriksson LI. **Anesth Analg** 1999 Jul;89(1):243-51 (67 ref.)
Analgesia, pruritus, and ventilation exhibit a dose-response relationship in parturients receiving intrathecal fentanyl during labor. Herman NL, et al. **Anesth Analg** 1999 Aug; 89(2):378-83
Ventilatory responses to acute and sustained hypoxia during sevoflurane anesthesia in women. Sjögren D, et al. **Anesth Analg** 1999 Jul;89(1):209-14
Pharmacokinetic-pharmacodynamic modeling of the respiratory depressant effect of alfentanil. Bouillon T, et al. **Anesthesiology** 1999 Jul;91(1):144-55
Speed of onset and offset and mechanisms of ventilatory depression from sevoflurane: an experimental study in the cat. Dahan A, et al. **Anesthesiology** 1999 Apr;90(4):1119-28
Determination of the potency of remifentanil compared with alfentanil using ventilatory depression as the measure of opioid effect. Glass PS, et al. **Anesthesiology** 1999 Jun; 90(6):1556-63
Contribution of peripheral chemoreception to the depression of the hypoxic ventilatory response during halothane anesthesia in cats. Ide T, et al. **Anesthesiology** 1999 Apr; 90(4):1084-91
Sevoflurane-induced reduction of hypoxic drive is sex-independent. Sarton E, et al. **Anesthesiology** 1999 May; 90(5):1288-93
Sex differences in morphine-induced ventilatory depression reside within the peripheral chemoreflex loop. Sarton E, et al. **Anesthesiology** 1999 May;90(5):1329-38
Effects of halothane on synaptic neurotransmission to medullary expiratory neurons in the ventral respiratory group of dogs. Stuth EA, et al. **Anesthesiology** 1999 Sep; 91(3):804-14
Randomised controlled trial of effect of terbutaline before elective caesarean section on postnatal respiration and glucose homeostasis. Eisler G, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Mar;80(2):F88-92
Respiratory toxicity in mice exposed to mattress covers. Anderson RC, et al. **Arch Environ Health** 1999 May-Jun; 54(3):202-9
Sensory irritating potency of some microbial volatile organic compounds (MVOCs) and a mixture of five MVOCs. Korpi A, et al. **Arch Environ Health** 1999 Sep-Oct;54(5):347-52
Improved high altitude hypoxic tolerance and amelioration of anorexia and hypophagia in rats on oral glutamate supplementation. Kumar D, et al. **Aviat Space Environ Med** 1999 May;70(5):475-9
Respiratory sinus arrhythmia and clinical signs of anaesthesia in children. Blues CM, et al. **Br J Anaesth** 1998 Sep; 81(3):333-7
Influence of dose of domperidone on the acute ventilatory response to hypoxia in humans. Walsh TS, et al. **Br J Anaesth** 1998 Sep;81(3):322-6
Ventilatory effects of radiographic contrast media. Laude EA, et al. **Br J Radiol** 1998 Nov;71(851):1143-8
Respiratory effects of kynurenic acid microinjected into the ventromedullary surface of the rat. Tolentino-Silva FP, et al. **Braz J Med Biol Res** 1998 Oct;31(10):1339-43
Decreased respiratory depression during emergence from anesthesia with sevoflurane/N2O than with sevoflurane alone. Einarsson S, et al. **Can J Anaesth** 1999 Apr; 46(4):335-41
Respiratory effects of pressor and depressor agents in conscious rats. Walker JK, et al. **Can J Physiol Pharmacol** 1998 Jul-Aug;76(7-8):707-14
Prostaglandin E2 inhibition of fetal breathing movements is not sustained during prolonged reduced uterine blood flow in sheep. Watson CS, et al. **Can J Physiol Pharmacol** 1998 Sep;76(9):858-66
Anesthetic potency and cardiopulmonary effects of sevoflurane in goats: comparison with isoflurane and halothane. Hikasa Y, et al. **Can J Vet Res** 1998 Oct; 62(4):299-306
Effects of inhaled bronchodilators on pulmonary hemodynamics at rest and during exercise in patients with COPD. Saito S, et al. **Chest** 1999 Feb;115(2):376-82
Effect of SR-140333, a neurokinin-1 receptor antagonist, on airway reactivity to methacholine in sedated rats. Tian J, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):485-8
Effects of M1 and M2 receptor agonists and blockers on dog respiration. Yao B, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):267-70
Crude oil exposure affects air-breathing frequency, blood phosphate levels and ion regulation in an air-breathing teleost fish, Hoplosternum littorale. Brauner CJ, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):127-34
Optimizing liquid ventilation as a lung protection strategy for neonatal cardiopulmonary bypass: full functional residual capacity dosing is more effective than half functional residual capacity dosing [see comments] Cannon ML, et al. **Crit Care Med** 1999 Jun;27(6):1140-6. Comment in: Crit Care Med 1999 Jun;27(6):1052-3.
Respiratory depression in children receiving diazepam for acute seizures: a prospective study. Norris E, et al. **Dev Med Child Neurol** 1999 May;41(5):340-3
Comparison of cocaine and Na+ channel blockers on cardio-respiratory function in the rabbit. Erzouki HK, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):51-6
Breathing and pulmonary surfactant function in mice 24 h after ozone exposure. Currie WD, et al. **Eur Respir J** 1998 Aug;12(2):288-93
Carbonic anhydrase inhibitors and ventilation: a complex interplay of stimulation and suppression [editorial; comment] Swenson ER. **Eur Respir J** 1998 Dec; 12(6):1242-7. Comment on: Eur Respir J 1998 Dec;12(6):1271-7.
Effects of maternal alcohol intake on fractal properties in human fetal breathing dynamics. Akay M, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1097-103
Spectral analysis of heart rate variability and pulmonary responses to topical applications of 2% aminophylline-based thigh cream. Marks BL, et al. **Int J Obes Relat Metab Disord** 1999 Feb;23(2):198-202
Toxic effects of acute inhalation exposure to 1,2,4,5-tetramethylbenzene (durene) in experimental animals. Korsak Z, et al. **Int J Occup Med Environ Health** 1998;11(3):267-72
Toxic effects of acute inhalation exposure to 1-methylnaphthalene and 2-methylnaphthalene in experimental animals. Korsak Z, et al. **Int J Occup Med Environ Health** 1998;11(4):335-42
Airway responsiveness to methacholine: effects of deep inhalations and airway inflammation. Brusasco V, et al. **J Appl Physiol** 1999 Aug;87(2):567-73
Tyrosine kinase inhibitors modulate the ventilatory response to hypoxia in the conscious rat. Czapla MA, et al. **J Appl Physiol** 1999 Jul;87(1):363-9
Differential effects of clonidine on upper airway abductor and adductor muscle activity in awake goats. O'Halloran KD, et al. **J Appl Physiol** 1999 Aug;87(2):590-7
Cardiorespiratory effects of O-isobutyl S-[2-(diethylamino)-ethyl] methylphosphonothioate -- a structural isomer of VX. Chang FC, et al. **J Appl Toxicol** 1998 Sep-Oct;18(5):337-47
Inhalation of substance P and thiorphan: acute toxicity and effects on respiration in conscious guinea pigs. Koch BL, et al. **J Appl Toxicol** 1999 Jan-Feb;19(1):19-23

Ultra-rapid opioid detoxification increases spontaneous ventilation. Hoffman WE, et al. **J Clin Anesth** 1998 Aug; 10(5):372–6

Effects of tramadol and meperidine on respiration, plasma catecholamine concentrations, and hemodynamics. Mildh LH, et al. **J Clin Anesth** 1999 Jun;11(4):310–6

Ineffective cardiorespiratory function in hyperthyroidism. Kahaly GJ, et al. **J Clin Endocrinol Metab** 1998 Nov; 83(11):4075–8

Basic fibroblast growth factor increases long-term survival of spinal motor neurons and improves respiratory function after experimental spinal cord injury. Teng YD, et al. **J Neurosci** 1999 Aug 15;19(16):7037–47

Control of breathing in infants born to smoking mothers. Ueda Y, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):226–32

Delta-opioid ligands reverse alfentanil-induced respiratory depression but not antinociception. Su YF, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):815–23

Absence of viscerosomatic inhibition with injections of lobeline designed to activate human pulmonary C fibres [see comments] Gandevia SC, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):289–300. Comment in: J Physiol (Lond) 1998 Aug 15;511 (Pt 1):2.

Pharmacological modulators of respiratory control. Casaburi R. **Monaldi Arch Chest Dis** 1998 Jun;53(3):287–93 (99 ref.)

The pre-Bötzinger complex participates in generating the respiratory effects of thyroliberin. Inyushkin AN, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):321–6

Resistive loading reduces ventilatory response to strychnine in anesthetized rabbits. Delpierre S, et al. **Neurosci Lett** 1998 Oct 9;255(1):29–32

Suppression of inspiratory fast rhythm, but not bilateral short-term synchronization, by morphine in anesthetized rabbit. Kato F. **Neurosci Lett** 1998 Dec 18;258(2):89–92

Potential role for imidazole in the rhythmic respiratory activity of the in vitro neonatal rat brainstem. Krause WL, et al. **Neurosci Lett** 1998 Jul 31;251(3):153–6

Hypoxia attenuates the respiratory response to injection of substance P into the nucleus of the solitary tract of the rat. Mazzone SB, et al. **Neurosci Lett** 1998 Oct 30; 256(1):9–12

Central respiratory effects of substance P in neonatal mice: an in vitro study. Ptak K, et al. **Neurosci Lett** 1999 May 14;266(3):189–92

Maternal cocaine alters eupneic ventilation but not gasping of neonatal rats. St.-John WM. **Neurosci Lett** 1998 May 1;246(3):137–40

NMDA receptor-mediated inspiratory off-switching in pneumotaxic-disconnected cats. Haji A, et al. **Neurosci Res** 1998 Dec;32(4):323–31

Long-term respiratory health effects of the herbicide, paraquat, among workers in the Western Cape. Dalvie MA, et al. **Occup Environ Med** 1999 Jun;56(6):391–6

Effects of the respiratory stimulant almitrine on breathing and FOS expression in the brain of fetal and newborn sheep. Lee B, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):531–43

The effects of intravenous naltrindole and naltrindole 5'-isothiocyanate on sufentanil-induced respiratory depression and antinociception in rats. Verborgh C, et al. **Pharmacol Biochem Behav** 1999 May;63(1):175–83

A theoretical approach to the Ferguson principle and its use with non-reactive and reactive airborne chemicals. Alarie Y, et al. **Pharmacol Toxicol** 1998 Dec;83(6):270–9

Infraclavicular brachial plexus block effects on respiratory function and extent of the block. Rodríguez J, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6):564–8

Cardiorespiratory responses to intracerebroventricular injection of neuropeptide Y in anaesthetised dogs. Morton KD, et al. **Regul Pept** 1999 May 31;81(1-3):81–8

Cardiorespiratory responses to glutamate microinjected into the medullary raphé. Bernard DG. **Respir Physiol** 1998 Jul; 113(1):11–21

Effects of serotonin re-uptake inhibition on ventilatory control in goats. Henderson DR, et al. **Respir Physiol** 1999 Jan 1;115(1):1–10

Respiratory-related pharyngeal constrictor muscle activity in awake goats. O'Halloran KD, et al. **Respir Physiol** 1999 Jun 1;116(1):9–23

Aspartic acid in the arcuate nucleus attenuates the depressive effects of naloxone on ventilation. Schlenker EH. **Respir Physiol** 1998 Nov;114(2):99–107

Respiratory work in elastase treated hamsters. Sullivan KJ, et al. **Respir Physiol** 1998 Nov;114(2):133–42

Salmeterol and physical performance at -15 degrees C in highly trained nonasthmatic cross-country skiers. Sue-Chu M, et al. **Scand J Med Sci Sports** 1999 Feb;9(1):48–52

Effect of serotonin uptake inhibition on breathing during sleep and daytime symptoms in obstructive sleep apnea. Kraiczi H, et al. **Sleep** 1999 Feb 1;22(1):61–7

Respiratory depressant and skeletal muscle relaxant effects of low-dose pancuronium bromide in spontaneously breathing, isoflurane-anesthetized dogs. Lee DD, et al. **Vet Surg** 1998 Sep-Oct;27(5):473–9

[Respiratory effects of microinjection of 2 types of amino acid neurotransmitters in medial areas of nucleus retrofacialis] Wu Z, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):241, 245 **(Chi)**

[Evaluation of the inhaled glucocorticosteroid effects on non specific bronchial reactivity with particular reference to the late inflammatory phase in atopic asthma patients. II. The effect of regular administration of budesonide R on specific and non-specific bronchial reactivity] Siergiejko Z, et al. **Pol Merkuriusz Lek** 1998 May;4(23):250–3 (Eng. Abstr.) **(Pol)**

[The effect of nitric oxide donors on the respiratory rhythm of an artificially superfused preparation of the brain of newborn rats] Volhin DV, et al. **Fiziol Zh** 1999; 45(4):105–10 (Eng. Abstr.) **(Ukr)**

PHYSIOLOGY

Effects of interval training at the ventilatory threshold on the clinical and cardiorespiratory responses in elderly humans. Ahmaidi S, et al. **Eur J Appl Physiol** 1998 Jul;78(2):170–6

Differentiated ratings of perceived exertion at ventilatory threshold in children and adults. Mahon AD, et al. **Eur J Appl Physiol** 1998 Jul;78(2):115–20

Comparison of cardiorespiratory reflexes in NK1 receptor knockout, heterozygous and wild-type mice in vivo. Butcher JW, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2-3):89–95

[The current methodological approaches in assessing nasal breathing function] Krotov AIu. **Vestn Otorinolaringol** 1998;(4):51–2 (30 ref.) (Eng. Abstr.) **(Rus)**

RESPIRATION, ARTIFICIAL

see related

VENTILATORS, MECHANICAL

Hyperbaric oxygenation of mechanically ventilated patients poisoned with carbon monoxide [letter] Rivers EP. **Acad Emerg Med** 1998 Dec;5(12):1231–2

Expiratory flow-volume curves in mechanically ventilated patients with chronic obstructive pulmonary disease. Aerts JG, et al. **Acta Anaesthesiol Scand** 1999 Mar;43(3):322–7

A simplified method for separate measurements of lung and chest wall mechanics in ventilator-treated patients. Kárason S, et al. **Acta Anaesthesiol Scand** 1999 Mar; 43(3):308–15

Production of nitrogen dioxide during nitric oxide therapy using the Servo Ventilator 300 during volume-controlled ventilation. Lindberg L, et al. **Acta Anaesthesiol Scand** 1999 Mar;43(3):289–94

Negative pressure ventilation vs. spontaneous assisted ventilation during rigid bronchoscopy. A controlled randomised trial. Natalini G, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1063–9

Alternation of one-lung and two-lung ventilations with the same single-lumen endobronchial tube during thoracoscopic surgery--a case report. Lin WT, et al. **Acta Anaesthesiol Sin** 1998 Dec;36(4):229–33

Effect of preeclampsia on mortality, intraventricular hemorrhage, and need for mechanical ventilation in very low-birth-weight infants. Paul DA, et al. **Am J Perinatol** 1998 Jun;15(6):381–6

Surgical procedure affects physiological parameters in rat myocardial ischemia: need for mechanical ventilation. Horstick G, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H472–9

Renal and hemodynamic effects of losartan in conscious dogs during controlled mechanical ventilation. Krebs MO, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F425–32

Activation of human macrophages by mechanical ventilation in vitro. Pugin J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1040–50

Mechanical ventilation of rat lung: effect on surfactant forms. Savov J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L320–6

Outcomes after long-term acute care. An analysis of 133 mechanically ventilated patients. Carson SS, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1568–73

Mechanical ventilation affects local and systemic cytokines in an animal model of acute respiratory distress syndrome. Chiumello D, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):109–16

Ventilation above closing volume reduces pulmonary vascular resistance hysteresis. Creamer KM, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1114–9

Progressive mechanical ventilatory constraints with aging. DeLorey DS, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):169–77

Changes in the work of breathing induced by tracheotomy in ventilator-dependent patients. Diehl JL, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):383–8

Effect of spontaneous breathing trial duration on outcome of attempts to discontinue mechanical ventilation. Spanish Lung Failure Collaborative Group. Esteban A, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):512–8

Bacterial colonization patterns in mechanically ventilated patients with traumatic and medical head injury. Incidence, risk factors, and association with ventilator-associated pneumonia. Ewig S, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):188–98

Reconciling in vitro and in vivo measurements of aerosol delivery from a metered-dose inhaler during mechanical ventilation and defining efficiency-enhancing factors. Fink JB, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):63–8

The effect of mode, inspiratory time, and positive end-expiratory pressure on partial liquid ventilation. Fujino Y, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1087–95

Noninvasive ventilation as a systematic extubation and weaning technique in acute-on-chronic respiratory failure: a prospective, randomized controlled study. Girault C, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):86–92

Inhaled fenoterol-ipratropium bromide in mechanically ventilated patients with chronic obstructive pulmonary disease [see comments] Guerin C, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1036–42 . Comment in: Am J Respir Crit Care Med 1999 Apr;159(4 Pt 1):1029–30.

Increased intrapulmonary oxygen consumption in mechanically ventilated patients with pneumonia. Hensel M, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):137–43

Independent and combined effects of inhaled nitric oxide, liquid perfluorochemical, and high-frequency oscillatory ventilation in premature lambs with respiratory distress syndrome. Kinsella JP, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1220–7

Clinical examination reliably detects intrinsic positive end-expiratory pressure in critically ill, mechanically ventilated patients. Kress JP, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):290–4

A simple automated method for measuring pressure-volume curves during mechanical ventilation. Lu Q, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):275–82

Regional expansion of oleic acid-injured lungs. Martynowicz MA, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):250–8

Cycling of inspiratory and expiratory muscle groups with the ventilator in airflow limitation [published erratum appears in Am J Respir Crit Care Med 1999 Mar;159(3):1023] Parthasarathy S, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1471–8

Spontaneous breathing during ventilatory support improves ventilation-perfusion distributions in patients with acute respiratory distress syndrome. Putensen C, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1241–8

Variations in etiology of ventilator-associated pneumonia across four treatment sites: implications for antimicrobial prescribing practices. Rello J, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):608–13

Expiratory washout versus optimization of mechanical ventilation during permissive hypercapnia in patients with severe acute respiratory distress syndrome. Richecoeur J, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):77–85

Abnormal surfactant metabolism and function in preterm ventilated baboons. Seidner SR, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1982–9

Clinical characteristics, respiratory functional parameters, and outcome of a two-hour T-piece trial in patients weaning from mechanical ventilation. Vallverdú I, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1855–62

Closed circuit anaesthesia in ventilated patients using the Komesaroff vaporizer within the circle. Bewley JS, et al. **Anaesth Intensive Care** 1998 Oct;26(5):558–62

Failed intubation in the intensive care unit managed with laryngeal mask airway and percutaneous tracheostomy. Divatia JV, et al. **Anaesth Intensive Care** 1999 Aug; 27(4):409–11

The effect of manual lung hyperinflation and postural drainage on pulmonary complications in mechanically ventilated trauma patients. Ntoumenopoulos G, et al. **Anaesth Intensive Care** 1998 Oct;26(5):492–6

Physiological deadspace during normocapnic ventilation under anaesthesia. Puri GD, et al. **Anaesth Intensive Care** 1999 Apr;27(2):159–63

Manual ventilation via the laryngeal mask airway [letter] Flatt NW. **Anaesthesia** 1999 Feb;54(2):199

The effects of propofol, isoflurane, and sevoflurane on oxygenation and shunt fraction during one-lung ventilation [see comments] Abe K, et al. **Anesth Analg** 1998 Nov; 87(5):1164–9. Comment in: Anesth Analg 1999 Jul;89(1):258–9. Comment in: Anesth Analg 1999 Jul;89(1):259.

Transnasal transesophageal echocardiography: a modified application mode for cardiac examination in ventilated patients. Greim CA, et al. **Anesth Analg** 1999 Feb; 88(2):306–11

Oxygenation may improve with time during one-lung ventilation [letter; comment] Ishikawa S. **Anesth Analg** 1999 Jul;89(1):258–9. Comment on: Anesth Analg 1998 Nov;87(5):1164–9.

Desflurane and isoflurane produce similar alterations in systemic and pulmonary hemodynamics and arterial oxygenation in patients undergoing one-lung ventilation during thoracotomy. Pagel PS, et al. **Anesth Analg** 1998 Oct;87(4):800–7

Pressure-limited ventilation of infants with low-compliance lungs: the efficacy of an adult circle system versus two free-standing intensive care unit ventilator systems using an in vitro model. Stevenson GW, et al. **Anesth Analg** 1999 Sep;89(3):638–41

Transient hyperdynamic response associated with controlled hypocapneic hyperventilation during sevoflurane-nitrous oxide mask induction in adults. Vakkuri AP, et al. **Anesth Analg** 1999 Jun;88(6):1384–8

The effects of propofol, isoflurane, and sevoflurane on oxygenation during one-lung ventilation [letter; comment] Wang JY, et al. **Anesth Analg** 1999 Jul;89(1):259. Comment on: Anesth Analg 1998 Nov;87(5):1164–9.

Volatile anesthetics augment expression of proinflammatory cytokines in rat alveolar macrophages during mechanical ventilation. Kotani N, et al. **Anesthesiology** 1999 Jul; 91(1):187–97

Population pharmacokinetic modeling in very premature infants receiving midazolam during mechanical ventilation:

midazolam neonatal pharmacokinetics. Lee TC, et al. **Anesthesiology** 1999 Feb;90(2):451–7

Combining partial liquid ventilation and prone position in experimental acute lung injury. Max M, et al. **Anesthesiology** 1999 Sep;91(3):796–803

Assessing fluid responsiveness by the systolic pressure variation in mechanically ventilated patients. Systolic pressure variation as a guide to fluid therapy in patients with sepsis-induced hypotension [editorial; comment] Perel A. **Anesthesiology** 1998 Dec;89(6):1309–10. Comment on: Anesthesiology 1998 Dec;89(6):1313–21.

Systolic pressure variation as a guide to fluid therapy in patients with sepsis-induced hypotension [see comments] Tavernier B, et al. **Anesthesiology** 1998 Dec;89(6):1313–21. Comment in: Anesthesiology 1998 Dec;89(6):1309–10.

How to perform differential lung ventilation in pediatric cases? [letter] Tsujimoto S, et al. **Anesthesiology** 1999 Jul;91(1):327

Technique to determine inspiratory impedance during mechanical ventilation: implications for flow limited patients. Kaczka DW, et al. **Ann Biomed Eng** 1999 May-Jun;27(3):340–55

Mechanical ventilation in a cohort of elderly patients admitted to an intensive care unit. Ely EW, et al. **Ann Intern Med** 1999 Jul 20;131(2):96–104

Conversations with Stella. Gianakos D. **Ann Intern Med** 1999 Apr 20;130(8):698–9

Detrimental effects of standard medical therapy in congenital diaphragmatic hernia. Kays DW, et al. **Ann Surg** 1999 Sep;230(3):340–8; discussion 348–51

Prediction of hypoxemia and mechanical ventilation after lung resection for cancer. Filaire M, et al. **Ann Thorac Surg** 1999 May;67(5):1460–5

Partial liquid ventilation for acute allograft dysfunction after canine lung transplantation. Itano H, et al. **Ann Thorac Surg** 1999 Feb;67(2):332–9

Hemodynamic effects of carbon dioxide insufflation under single-lung ventilation during thoracoscopy. Ohtsuka T, et al. **Ann Thorac Surg** 1999 Jul;68(1):29–32; discussion 32–3

Renal processing of glucose in well and sick neonates. Coulthard MG, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Sep;81(2):F92–8

Randomised controlled trial of low dose fentanyl infusion in preterm infants with hyaline membrane disease. Lago P, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Nov;79(3):F194–7

Outcome at 5–6 years of prematurely born children who received morphine as neonates. MacGregor R, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F40–3

Older persons' opinions about life-sustaining procedures in the face of dementia. Gjerdingen DK, et al. **Arch Fam Med** 1999 Sep-Oct;8(5):421–5

Are oxygen indices effective for predicting pathological intrapulmonary shunt in mechanically ventilated children? Maulen-Radovan I, et al. **Arch Med Res** 1999 May-Jun;30(3):179–85

Analgesia and sedation in preterm neonates who require ventilatory support: results from the NOPAIN trial. Neonatal Outcome and Prolonged Analgesia in Neonates [published erratum appears in Arch Pediatr Adolesc Med 1999 Aug;153(8):895] Anand KJ, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):331–8

Complications of airway management in very-low-birth-weight infants. da Silva O, et al. **Biol Neonate** 1999;75(1):40–5

Inhaled budesonide in ventilator-dependent preterm infants: a randomized, double-blind pilot study. Merz U, et al. **Biol Neonate** 1999;75(1):46–53

Competition between gas exchange and speech production in ventilated subjects. Shea SA, et al. **Biol Psychol** 1998 Sep;49(1–2):9–27

Non-invasive ventilatory support in the management of respiratory failure after autologous peripheral blood stem cell transplantation [letter] Sica S, et al. **Bone Marrow Transplant** 1999 Mar;23(5):527

Outcomes following mechanical ventilation in children undergoing bone marrow transplantation. Warwick AB, et al. **Bone Marrow Transplant** 1998 Oct;22(8):787–94

Hemodynamic effects of medical antishock trousers during mechanical ventilation. Fellahi JL, et al. **Can J Anaesth** 1999 May;46(5 Pt 1):423–8

Hyperventilation after tourniquet deflation prevents an increase in cerebral blood flow velocity. Kadoi Y, et al. **Can J Anaesth** 1999 Mar;46(3):259–64

Bronchial anatomy and single-lung ventilation in the pig. Mouton WG, et al. **Can J Anaesth** 1999 Jul;46(7):701–3

Univent tubes, difficult airways and wire-guided endobronchial blockade [letter] Stewart WG. **Can J Anaesth** 1999 Jul;46(7):708–9

Mechanical ventilation of various human lung cells in vitro: identification of the macrophage as the main producer of inflammatory mediators. Dunn I, et al. **Chest** 1999 Jul;116(1 Suppl):95S–97S

Lack of influence of gender on outcomes of mechanically ventilated medical ICU patients. Epstein SK, et al. **Chest** 1999 Sep;116(3):732–9

The utility of open lung biopsy in patients requiring mechanical ventilation. Flabouris A, et al. **Chest** 1999 Mar;115(3):811–7

Continuous i.v. sedation and mechanical ventilation [letter; comment] Hersch M, et al. **Chest** 1999 Apr;115(4):1220. Comment on: Chest 1998 Aug;114(2):541–8.

Hand washing and use of gloves while managing patients receiving mechanical ventilation in the ICU. Khatib M, et al. **Chest** 1999 Jul;116(1):172–5

A comparison of bronchodilator therapy delivered by nebulization and metered-dose inhaler in mechanically ventilated patients. Marik P, et al. **Chest** 1999 Jun;115(6):1653–7

Postoperative ventilatory management. Price JA, et al. **Chest** 1999 May;115(5 Suppl):130S–137S (44 ref.)

Continuous IV sedation and prolonged mechanical ventilation [letter; comment] Sfeir TA, et al. **Chest** 1999 Feb;115(2):604–5. Comment on: Chest 1998 Aug;114(2):541–8.

Mechanical ventilation for respiratory failure posthoracotomy. D'Arsigny C, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):585–610 (124 ref.)

Adult respiratory failure. Tremblay A, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):557–83, viii–ix (175 ref.)

Theoretical study of inspiratory flow waveforms during mechanical ventilation on pulmonary blood flow and gas exchange. Niranjan SC, et al. **Comput Biomed Res** 1999 Aug;32(4):355–90

Paradigm shift in mechanical ventilatory support for acute respiratory distress syndrome: do no harm. Kaminsky DA. **Coron Artery Dis** 1998;9(8):527–33 (41 ref.)

Pharmacologic adjuncts to mechanical ventilation in acute respiratory distress syndrome. Albertson TE, et al. **Crit Care Clin** 1998 Oct;14(4):581–610, v (232 ref.)

Surfactant replacement in acute lung injury—the saga continues [editorial; comment] Arnold JH. **Crit Care Med** 1999 Jan;27(1):31–2. Comment on: Crit Care Med 1999 Jan;27(1):188–95.

Simulated mouth-to-mouth ventilation and chest compressions (bystander cardiopulmonary resuscitation) improves outcome in a swine model of prehospital pediatric asphyxial cardiac arrest [see comments] Berg RA, et al. **Crit Care Med** 1999 Sep;27(9):1893–9. Comment in: Crit Care Med 1999 Sep;27(9):2048–50.

Effects of ventilator resetting on indirect calorimetry measurement in the critically ill surgical patient [see comments] Brandi LS, et al. **Crit Care Med** 1999 Mar;27(3):531–9. Comment in: Crit Care Med 1999 Mar;27(3):459–60.

Critical care for the severely ill head and neck patient [see comments] Downey RJ, et al. **Crit Care Med** 1999 Jan;27(1):95–7. Comment in: Crit Care Med 1999 Jan;27(1):15.

Diagnostic procedures in ventilator-dependent infants [letter] Eber E, et al. **Crit Care Med** 1999 Sep;27(9):2073–4

Airway management during cardiopulmonary resuscitation: a shifting paradigm [editorial; comment] Gazmuri RJ. **Crit Care Med** 1999 Jan;27(1):27–8. Comment on: Crit Care Med 1999 Jan;27(1):142–5.

Effects of ventilator resetting on indirect calorimetry measurement—the importance of patience [editorial; comment] Kirkland L. **Crit Care Med** 1999 Mar;27(3):459–60. Comment on: Crit Care Med 1999 Mar;27(3):531–9.

Clinical predictors and outcomes for patients requiring tracheostomy in the intensive care unit [see comments] Kollef MH, et al. **Crit Care Med** 1999 Sep;27(9):1714–20. Comment in: Crit Care Med 1999 Sep;27(9):2024–5.

Midazolam or no midazolam: that is the question! [letter; comment] Marik P, et al. **Crit Care Med** 1999 Jul;27(7):1403. Comment on: Crit Care Med 1998 May;26(5):947–56.

Prognosis of pediatric bone marrow transplant recipients requiring mechanical ventilation [see comments] Rossi R, et al. **Crit Care Med** 1999 Jun;27(6):1181–6. Comment in: Crit Care Med 1999 Jun;27(6):1061–2.

Assessing sedation during intensive care unit mechanical ventilation with the Bispectral Index and the Sedation-Agitation Scale [see comments] Simmons LE, et al. **Crit Care Med** 1999 Aug;27(8):1499–504. Comment in: Crit Care Med 1999 Aug;27(8):1663–4.

Acute hypercapnia increases the oxygen-carrying capacity of the blood in ventilated dogs. Torbati D, et al. **Crit Care Med** 1998 Nov;26(11):1863–7

Experimental critical care in rats: gender differences in anesthesia, ventilation, and gas exchange. Torbati D, et al. **Crit Care Med** 1999 Sep;27(9):1878–84

Nonsurgical treatment of a severe tracheal rupture after endotracheal intubation. Zetti R, et al. **Crit Care Med** 1999 Mar;27(3):661–3 (9 ref.)

Tracheostomy for ventilator dependence in the elderly patient: a preliminary report. Kantu M, et al. **Ear Nose Throat J** 1999 Jul;78(7):500–4

Calculated and measured oxygen consumption in mechanically ventilated surgical patients in the early post-operative period. Brandi LS, et al. **Eur J Anaesthesiol** 1999 Jan;16(1):53–61

Warm ischemic time tolerance after ventilated non-heart-beating lung donation in piglets. Greco R, et al. **Eur J Cardiothorac Surg** 1998 Sep;14(3):319–25

Clinical and epidemiological findings in mechanically-ventilated patients with methicillin-resistant Staphylococcus aureus pneumonia. Pujol M, et al. **Eur J Clin Microbiol Infect Dis** 1998 Sep;17(9):622–8

Effects of half the tidal volume during cardiopulmonary resuscitation on acid-base balance and haemodynamics in pigs. Winkler M, et al. **Eur J Emerg Med** 1998 Jun;5(2):201–6

Chronic respiratory morbidity following premature delivery—prediction by prolonged respiratory support requirement? Kinali M, et al. **Eur J Pediatr** 1999 Jun;158(6):493–6

Early prediction of chronic lung disease by tracheal aspirate cytology in ventilated newborns. Smets K, et al. **Eur J Pediatr** 1999 Mar;158(3):234–7

The effect of positive endexpiratory pressure, peak inspiratory pressure, and inspiratory time on functional residual capacity in mechanically ventilated preterm infants. Thome U, et al. **Eur J Pediatr** 1998 Oct;157(10):831–7

New-born infants with severe hyaline membrane disease: radiological evaluation during high frequency oscillatory versus conventional ventilation. Helbich TH, et al. **Eur J Radiol** 1998 Oct;28(3):243–9

Pulmonary complications in patients with haematological malignancies treated at a respiratory ICU. Ewig S, et al. **Eur Respir J** 1998 Jul;12(1):116–22

Assessment of ventilation-perfusion mismatching in mechanically ventilated patients. Ferrer M, et al. **Eur Respir J** 1998 Nov;12(5):1172–6

Effects of chemical feedback on respiratory motor and ventilatory output during different modes of assisted mechanical ventilation. Mitrouska J, et al. **Eur Respir J** 1999 Apr;13(4):873–82

Bronchodilator delivery by metered-dose inhaler in mechanically ventilated COPD patients: influence of end-inspiratory pause. Mouloudi E, et al. **Eur Respir J** 1998 Jul;12(1):165–9

Validity of transcutaneous oxygen/carbon dioxide pressure measurement in the monitoring of mechanical ventilation in stable chronic respiratory failure. Rosner V, et al. **Eur Respir J** 1999 May;13(5):1044–7

Neonatal transport—a part of the study "follow-up of some indices in neonates, treated with artificial ventilation during the neonatal period". Despotova-Toleva L. **Folia Med (Plovdiv)** 1999;41(1):82–7

The influence of simultaneous intra-aortic balloon pumping and mechanical ventilation on hemodynamic parameters—numerical simulation. Darowski M, et al. **Front Med Biol Eng** 1999;9(2):155–74

Neonatal ventilation: present and future directions [editorial] Sinha SK, et al. **Indian Pediatr** 1998 Jul;35(7):595–600

New modes of ventilatory support. Branson RD, et al. **Int Anesthesiol Clin** 1999 Summer;37(3):103–25 (32 ref.)

Cardiopulmonary interactions during mechanical ventilation. Hurford WE. **Int Anesthesiol Clin** 1999 Summer;37(3):35–46 (52 ref.)

Typing of consecutive methicillin-resistant Staphylococcus aureus isolates from intensive care unit patients and staff with pulsed-field gel electrophoresis. Mueller-Premru M, et al. **Int J Antimicrob Agents** 1998 Nov;10(4):309–12

Mechanical ventilation of patients on long-term oxygen therapy with acute exacerbations of chronic obstructive pulmonary disease: prognosis and cost-utility analysis. Añón JM, et al. **Intensive Care Med** 1999 May;25(5):452–7

Influence of alveolar ventilation changes on calculated gastric intramucosal pH and gastric-arterial PCO2 difference [see comments] Bernardin G, et al. **Intensive Care Med** 1999 Mar;25(3):269–73. Comment in: Intensive Care Med 1999 Mar;25(3):249–51.

Inhalation therapy during mechanical ventilation. Cakar N. **Intensive Care Med** 1999 Feb;25(2):233–5

Gastric acidity and duodenogastric reflux during nasojejunal tube feeding in mechanically ventilated patients. Dive A, et al. **Intensive Care Med** 1999 Jun;25(6):574–80

Dynamic measurement of intrinsic PEEP does not represent the lowest intrinsic PEEP [see comments] Fujino Y, et al. **Intensive Care Med** 1999 Mar;25(3):274–8. Comment in: Intensive Care Med 1999 Mar;25(3):252–4.

Influence of mechanical ventilation on blood lactate in patients with acute respiratory failure. Gil A, et al. **Intensive Care Med** 1998 Sep;24(9):924–30

Mechanical ventilation of the patient with severe chronic obstructive pulmonary disease. Gladwin MT, et al. **Intensive Care Med** 1998 Sep;24(9):898–910 (108 ref.)

Airway occlusion pressure at 0.1 s (P0.1) after extubation: an early indicator of postextubation hypercapnic respiratory insufficiency. Hilbert G, et al. **Intensive Care Med** 1998 Dec;24(12):1277–82

The instillated surfactant in the treatment of sepsis-induced ARDS: case report [letter] Imperatore F, et al. **Intensive Care Med** 1999 Mar;25(3):330–1

Differential lung physiotherapy using a double lumen tube in flail chest and refractory lung atelectasis. Keohane M, et al. **Intensive Care Med** 1999 Apr;25(4):410–1

Changes in pulmonary mechanics after fiberoptic bronchoalveolar lavage in mechanically ventilated patients. Klein U, et al. **Intensive Care Med** 1998 Dec;24(12):1289–93

Right-to-left interatrial shunt in ARDS: dramatic improvement in prone position. Legras A, et al. **Intensive Care Med** 1999 Apr;25(4):412–4

Permissive hypercapnia in ARDS. Mancebo J. **Intensive Care Med** 1998 Dec;24(12):1339–40

Prevention of upper gastrointestinal bleeding in patients requiring mechanical ventilation. Matamis D. **Intensive Care Med** 1999 Jan;25(1):118–9 (7 ref.)

Acute pulmonary edema following amphetamine ingestion [letter] Maury E, et al. **Intensive Care Med** 1999 Mar;25(3):332–3

Liquid ventilation. Melo J, et al. **Intensive Care Med** 1999 Apr;25(4):420–1 (2 ref.)

Non-invasive mechanical ventilation: any role in ICU? [letter; comment] Nava S. **Intensive Care Med** 1999 Apr; 25(4):423–4. Comment on: Intensive Care Med 1998 Oct;24(10):999–1008.

Effect of inhaled nitric oxide on respiratory mechanics in ventilated infants with RSV bronchiolitis. Patel NR, et al. **Intensive Care Med** 1999 Jan;25(1):81–7

A prospective randomized comparison of conventional mechanical ventilation and very early high frequency oscillatory ventilation in extremely premature newborns with respiratory distress syndrome. Plavka R, et al. **Intensive Care Med** 1999 Jan;25(1):68–75

Measurement of functional residual capacity in the critically ill. Relevance for the assessment of respiratory mechanics during mechanical ventilation. Rimensberger PC, et al. **Intensive Care Med** 1999 May;25(5):540–2 (3 ref.)

Scintigraphy for evaluating early aspiration after oral feeding in patients receiving prolonged ventilation via tracheostomy. Schönhofer B, et al. **Intensive Care Med** 1999 Mar;25(3):311–4

Effect of ventilation on vascular permeability and cyclic nucleotide concentrations in ischemic sheep lungs. Pearse DB, et al. **J Appl Physiol** 1999 Jan;86(1):123–32

One-lung ventilation in patients with difficult airways [letter] Cheong KF, et al. **J Cardiothorac Vasc Anesth** 1999 Jun; 13(3):372

Tension pneumothorax, pneumomediastinum, pneumoperitoneum, and subcutaneous emphysema in a 15-year-old Chinese girl after a double-lumen tube intubation and one-lung ventilation. Sivalingam P, et al. **J Cardiothorac Vasc Anesth** 1999 Jun;13(3):312–5

Early extubation after abdominal aortic reconstruction [letter; comment] Stoneham M, et al. **J Cardiothorac Vasc Anesth** 1999 Feb;13(1):112–3. Comment on: J Cardiothorac Vasc Anesth 1998 Apr;12(2):174–6.

Functional residual capacity measurement during tracheal gas insufflation. Fujino Y, et al. **J Clin Monit Comput** 1998 May;14(4):225–32

Accuracy of volume measurements in mechanically ventilated newborns: a comparative study of commercial devices. Roske K, et al. **J Clin Monit Comput** 1998 Aug; 14(6):413–20

Outcome for cancer patients requiring mechanical ventilation. Groeger JS, et al. **J Clin Oncol** 1999 Mar; 17(3):991–7

Mechanical ventilation as a bridge to lung transplantation. O'Brien G, et al. **J Heart Lung Transplant** 1999 Mar; 18(3):255–65

Closed tracheal suctioning systems and infection control in the intensive care unit. Blackwood B, et al. **J Hosp Infect** 1998 Aug;39(4):315–21

Reduction of respiratory syncytial virus (RSV) in tracheal aspirates in intubated infants by use of humanized monoclonal antibody to RSV F protein. Malley R, et al. **J Infect Dis** 1998 Dec;178(6):1555–61

Mechanical ventilation in amyotrophic lateral sclerosis: a cross-cultural perspective. Borasio GD, et al. **J Neurol** 1998 Aug;245 Suppl 2:S7–12; discussion S29 (19 ref.)

Discontinuation of mechanical ventilation in patients with amyotrophic lateral sclerosis. Borasio GD, et al. **J Neurol** 1998 Nov;245(11):717–22

Following the learning curve: the evolution of kinder, gentler neonatal respiratory technology. Lockridge T. **J Obstet Gynecol Neonatal Nurs** 1999 Jul-Aug;28(4):443–55 (105 ref.)

Parents' perception of skin-to-skin care with their preterm infants requiring assisted ventilation. Neu M. **J Obstet Gynecol Neonatal Nurs** 1999 Mar-Apr; 28(2):157–64

Survival of a 30-week baby with congenital myotonic dystrophy initially ventilated for 55 days. Lee SY, et al. **J Paediatr Child Health** 1999 Jun;35(3):313–4

Narcotic analgesia for ventilated newborns: are placebo-controlled trials ethical and necessary? [editorial; comment] Kennedy KA, et al. **J Pediatr** 1999 Feb; 134(2):127–9. Comment on: J Pediatr 1999 Feb;134(2):144–50.

Occult nitric oxide inhalation improves oxygenation in mechanically ventilated children. Lum LC, et al. **J Pediatr** 1998 Nov;133(5):613–6

Advantages of fentanyl over morphine in analgesia for ventilated newborn infants after birth: A randomized trial [see comments] Saarenmaa E, et al. **J Pediatr** 1999 Feb; 134(2):144–50. Comment in: J Pediatr 1999 Feb;134(2):127–9.

Tracheal ligation and mechanical ventilation do not improve the antioxidant enzyme status in the lamb model of congenital diaphragmatic hernia. Kapur P, et al. **J Pediatr Surg** 1999 Feb;34(2):270–2

Dose-dependent evaluation of the effects of nebulized furosemide on pulmonary function in ventilated preterm infants. Prabhu VG, et al. **J Perinatol** 1998 Sep-Oct; 18(5):357–60

Spontaneous minute ventilation predicts readiness for extubation in mechanically ventilated preterm infants. Wilson BJ Jr, et al. **J Perinatol** 1998 Nov-Dec;18(6 Pt 1):436–9

Non-chemical inhibition of respiratory motor output during mechanical ventilation in sleeping humans. Wilson CR, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):605–18

Duodenal versus gastric feeding in ventilated blunt trauma patients: a randomized controlled trial. Kortbeek JB, et al. **J Trauma** 1999 Jun;46(6):992–6; discussion 996–8

The impact of diaphragm management on prolonged ventilator support after thoracoabdominal aortic repair. Engle J, et al. **J Vasc Surg** 1999 Jan;29(1):150–6

Progress in understanding ventilator-induced lung injury [editorial; comment] Hudson LD. **JAMA** 1999 Jul 7; 282(1):77–8. Comment on: JAMA 1999 Jul 7;282(1):54–61.

Effect of mechanical ventilation on inflammatory mediators in patients with acute respiratory distress syndrome: a randomized controlled trial [see comments] Ranieri VM, et al. **JAMA** 1999 Jul 7;282(1):54–61. Comment in: JAMA 1999 Jul 7;282(1):77–8.

Energy expenditure measurements in ventilated critically ill children: within- and between-day variability. White MS, et al. **JPEN J Parenter Enteral Nutr** 1999 Sep-Oct; 23(5):300–4

Unexpected endotracheal extubations [letter; comment] Kapadia F. **Lancet** 1998 Nov 14;352(9140):1633. Comment on: Lancet 1998 Aug 29;352(9129):671–2.

VM-in-Protégé: a study of software reuse. Park JY, et al. **Medinfo** 1998;9 Pt 1:644–8

Minimal flow and half-closed system ventilation in lung surgery. Brancadoro V, et al. **Minerva Anestesiol** 1999 Jan-Feb;65(1-2):11–8

Proceedings of the 3rd International Conference on Advances in Pulmonary Rehabilitation and Management of Chronic Respiratory Failure. Florence, Italy, March 11–14, 1998. **Monaldi Arch Chest Dis** 1998 Aug; 53(4):429–97

Proceedings of the 3rd International Conference on Advances in Pulmonary Rehabilitation and Management of Chronic Respiratory Failure. Florence, Italy, March 11–14, 1998. **Monaldi Arch Chest Dis** 1998 Jun; 53(3):281–380

Early institution of mechanical ventilation. Ambrosino N. **Monaldi Arch Chest Dis** 1998 Jun;53(3):321–3 (19 ref.)

Prone position in mechanically-ventilated patients. Brazzi L, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):410–4

If and when to close tracheostomy. Clini E, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):377–80 (31 ref.)

Noninvasive ventilation in acute exacerbations of chronic obstructive pulmonary disease. Elliott MW. **Monaldi Arch Chest Dis** 1998 Jun;53(3):343–7 (22 ref.)

Mechanical ventilation in chronic respiratory insufficiency: report on an Italian nationwide survey. The Italian Telethon Committee and the AIPO Study Group on Pulmonary Rehabilitation and Intensive Care. Gasperini M, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):394–9

Is early noninvasive mechanical ventilation of first choice in stable COPD patients with chronic respiratory failure? Patessio A. **Monaldi Arch Chest Dis** 1999 Feb;54(1):83–6 (48 ref.)

Invasive mechanical ventilation in exacerbations of chronic obstructive pulmonary disease. Pingleton SK. **Monaldi Arch Chest Dis** 1998 Jun;53(3):337–42 (44 ref.)

Is early noninvasive ventilation the first choice in stable restrictive patients with chronic respiratory failure? Shneerson J. **Monaldi Arch Chest Dis** 1999 Feb;54(1):87–9 (8 ref.)

Patient-ventilator interactions. Stroetz RW, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):331–6 (22 ref.)

Noninvasive positive-pressure ventilation [letter; comment] Mehta S, et al. **N Engl J Med** 1999 Jan 14;340(2):150–1. Comment on: N Engl J Med 1998 Aug 13;339(7):429–35.

Determination of ventilatory minute volumes for normocapnic ventilation under anaesthesia in healthy adults. Puri GD, et al. **Natl Med J India** 1999 Jan-Feb; 12(1):6–11

Non-conventional mechanical ventilation in severe ARDS, illustrated by a complicated case. Tulleken JE, et al. **Neth J Med** 1998 Nov;53(5):201–6

Mechanical ventilation for ischemic stroke and intracerebral hemorrhage [letter; comment] Bestué M, et al. **Neurology** 1999 Jun 10;52(9):1922–3. Comment on: Neurology 1998 Aug;51(2):447–51.

Resting energy expenditure and nitrogen balance in critically ill pediatric patients on mechanical ventilation. Coss-Bu JA, et al. **Nutrition** 1998 Sep;14(9):649–52

Energy expenditure and substrate utilization in mechanically ventilated children. Joosten KF, et al. **Nutrition** 1999 Jun; 15(6):444–8

Controlled ventilation enhances catheter stability during radiofrequency ablation. Vazir-Marino F, et al. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 1):86–90

A timed reexpansion inspiratory manoeuvre (TRIM) for treating oxyhaemoglobin desaturation in children following a period of apnoea--studies in an animal model. McDonald PF, et al. **Paediatr Anaesth** 1998;8(5):409–12

Intraoperative ventilation. Marraro G. **Paediatr Anaesth** 1998; 8(5):373–82 (42 ref.)

Acute care of the child with a tracheostomy. Posner JC. **Pediatr Emerg Care** 1999 Feb;15(1):49–54

Synchronized gas and partial liquid ventilation in lung-injured animals: improved gas exchange with decreased effort. Bendel-Stenzel EM, et al. **Pediatr Pulmonol** 1999 Apr;27(4):242–50

Respiratory system mechanics in patients receiving aerosolized ribavirin during mechanical ventilation for suspected respiratory syncytial viral infection. Jefferson LS, et al. **Pediatr Pulmonol** 1999 Aug;28(2):117–24

Lipid-laden macrophages in the tracheal aspirate of ventilated neonates receiving Intralipid: A pilot study. Kajetanowicz A, et al. **Pediatr Pulmonol** 1999 Aug; 28(2):101–8

Influence of inertance on respiratory mechanics measurements in mechanically ventilated puppies. Lanteri CJ, et al. **Pediatr Pulmonol** 1999 Aug;28(2):130–8

Effect of single versus multiple dosing on perfluorochemical distribution and elimination during partial liquid ventilation. Miller TF, et al. **Pediatr Pulmonol** 1999 Jun; 27(6):410–8

Comparison of lung volume measurements by antero-posterior chest X-ray and the SF6 washout technique in mechanically ventilated infants. Thome U, et al. **Pediatr Pulmonol** 1998 Oct;26(4):265–72

An in vitro validation of a commercially available metabolic cart using pediatric ventilator volumes. Webster PA, et al. **Pediatr Pulmonol** 1998 Dec;26(6):405–11

A comparison of the hemodynamic and respiratory effects of surfactant instillation during interrupted ventilation versus noninterrupted ventilation in rabbits with severe respiratory failure. Dijk PH, et al. **Pediatr Res** 1999 Feb; 45(2):235–40

Repeated acute hypoxia temporarily attenuates the ventilatory respiratory response to hypoxia in conscious newborn rats. Matsuoka T, et al. **Pediatr Res** 1999 Jul; 46(1):120–5

Bilateral nephrectomy, peritoneal dialysis and subsequent cadaveric renal transplantation for treatment of renal failure due to polycystic kidney disease requiring continuous ventilation. Spechtenhauser B, et al. **Pediatr Transplant** 1999 Aug;3(3):246–8

Ventilator care on a general ward [letter; comment] Straumanis JP. **Pediatrics** 1998 Nov;102(5):1221–2. Comment on: Pediatrics 1998 Feb;101(2):257–9.

Arteriovenous carbon dioxide removal: development and impact on ventilator management and survival during severe respiratory failure. Zwischenberger JB, et al. **Perfusion** 1999 Jul;14(4):299–310 (58 ref.)

Peritoneal dialysis in a patient receiving mechanical ventilation in prone position. Klisnick A, et al. **Perit Dial Int** 1998 Sep-Oct;18(5):536–8

Ventilatory effects of negative GABA(A) modulators in rhesus monkeys. Gerak LR, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):375–80

Effect of helium-oxygen on delivery of albuterol in a pediatric, volume-cycled, ventilated lung model. Habib DM, et al. **Pharmacotherapy** 1999 Feb;19(2):143–9

Improved control of gas humidity in neonatal intensive care ventilators. Drew T, et al. **Physiol Meas** 1998 Aug; 19(3):427–40

Mechanical ventilation: simplifying the terminology. Kapadia F. **Postgrad Med J** 1998 Jun;74(872):330–5 (8 ref.)

Acute respiratory distress syndrome. Liquid ventilation. Anzueto A, et al. **Respir Care Clin N Am** 1998 Dec; 4(4):679–94 (57 ref.)

Re: Ventilation in a Birmingham intensive care unit 1993-1995: outcome for patients with chronic obstructive pulmonary disease [letter; comment] Davidson AC, et al. **Respir Med** 1999 Apr;93(4):290–2. Comment on: Respir Med 1998 Feb;92(2):156–61.

Fulminant psittacosis requiring mechanical ventilation and demonstrating serological cross-reactivity between Legionella longbeachae and Chlamydia psittaci. Soni R, et al. **Respirology** 1999 Jun;4(2):203–5

Acute respiratory distress syndrome: a clinical update. Soubani AO, et al. **South Med J** 1999 May;92(5):450–7 (58 ref.)

Mechanical ventilation in critically ill cancer patients: outcome and utilisation of resources. Kongsgaard UE, et al. **Support Care Cancer** 1999 Mar;7(2):95–9

Reduced use of resources by early tracheostomy in ventilator-dependent patients with blunt trauma. Armstrong PA, et al. **Surgery** 1998 Oct;124(4):763–6; discussion 766–7

Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Eberhard L, et al. **Technol Health Care** 1999;7(4):243–59

In vivo evaluation of a new method for chemical analysis of volatile components in the respiratory gas of mechanically ventilated patients. Schubert JK, et al. **Technol Health Care** 1999;7(1):29–37

Early extubation after cardiac surgery: a prospective clinical trial including patients at risk. Plümer H, et al. **Thorac Cardiovasc Surg** 1998 Oct;46(5):275–80

Lung and chest wall mechanics in ventilated patients with end stage idiopathic pulmonary fibrosis. Nava S, et al. **Thorax** 1999 May;54(5):390–5

Ethical and clinical issues in the use of home non-invasive mechanical ventilation for the palliation of breathlessness in motor neurone disease. Polkey MI, et al. **Thorax** 1999 Apr;54(4):367–71 (43 ref.)

Endotracheal intubation and mechanical ventilation following respiratory arrest from high altitude pulmonary edema. Litch JA. **West J Med** 1999 Mar;170(3):174–6

[Cardiopulmonary effects of two modes of mechanical ventilation in dogs with and without acute lung injury-comparison of pressure regulated biphasic airway presure ventilation and intermittent positive pressure ventilation] Hong Q, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Aug; 20(4):218–21 (Eng. Abstr.) **(Chi)**

[Mechanical ventilation therapy with permissive hypercapnia

on ARDS] Xu L, et al.
Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih 1997 Apr; 20(2):72-5 (Eng. Abstr.) **(Chi)**

[Clinical study on action of artificial respiration produced by pressing in massage under anesthesia for lumbar intervertebral disc prolapse] Shi JH, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1997 Feb; 17(2):79-80 (Eng. Abstr.) **(Chi)**

[Pro or con accessory anesthesia breathing systems (editorial; comment)] Beydon L, et al. **Ann Fr Anesth Reanim** 1999 Feb;18(2):183-5. Comment on: Ann Fr Anesth Reanim 1999 Feb;18(2):243-8. **(Fre)**

[Severe head injuries: effects of pre-hospital mechanical ventilation on capnia] David JS, et al.
Ann Fr Anesth Reanim 1999 Apr;18(4):398-402 (Eng. Abstr.) **(Fre)**

[Accessory anesthetic breathing systems: verification before use (see comments)] Otteni JC, et al.
Ann Fr Anesth Reanim 1999 Feb;18(2):243-8 (Eng. Abstr.) . Comment in: Ann Fr Anesth Reanim 1999 Feb;18(2):183-5. **(Fre)**

[Intrathoracic drainage of a compressive pulmonary bulla in a patient receiving mechanical ventilation] Sleth JC, et al.
Ann Fr Anesth Reanim 1998;17(10):1239-42 (Eng. Abstr.) **(Fre)**

[Techniques and indications for bronchoscopy in the artificially ventilated patient] Dombret MC.
Rev Mal Respir 1999 Jan;16 Suppl 3:S91-4 (13 ref.) **(Fre)**

[Cystic fibrosis. Non-invasive ventilation: indications and results] Fauroux B. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S133-4 **(Fre)**

[Hygiene and disinfection best practices for home assisted respiratory care] Gautier V. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S141-2 **(Fre)**

[Value of bronchoalveolar lavage in an artificially ventilated patient] Maitre B. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S94-5 **(Fre)**

[Home management of chronic respiratory insufficiency. Non-invasive ventilation at home] Ordronneau J, et al.
Rev Mal Respir 1999 Jan;16 Suppl 3:S185-6 **(Fre)**

[Long-term ventilation at home in adults with neurological diseases] Raphaël JC, et al. **Rev Mal Respir** 1998 Sep; 15(4):495-505 (62 ref.) (Eng. Abstr.) **(Fre)**

[Mask induction and one-lung ventilation with sevoflurane] Janshon GP, et al. **Anaesthesist** 1998 Nov;47 Suppl 1:S52-7 (28 ref.) (Eng. Abstr.) **(Ger)**

[Weaning from artificial respiration. 2.] Kuhlen R, et al.
Anaesthesist 1998 Aug;47(8):693-703 (15 ref.) **(Ger)**

[Efficiency and risk of chest physiotherapy in the newborn--review of the literature] Krause MF, et al.
Klin Padiatr 1999 Jan-Feb;211(1):11-7 (27 ref.) (Eng. Abstr.) **(Ger)**

[Artificial respiration from intensive care unit to home. Proceedings of a conference. April 1997] **Med Klin** 1999 Apr;94(1 Spec No):1-111 **(Ger)**

[Acceptance and long-term results of home mechanical ventilation in various thoracic diseases] Schucher B, et al.
Med Klin 1999 Apr;94(1 Spec No):22-6 (Eng. Abstr.) **(Ger)**

[Multi-rotation CT during continuous ventilation: comparison of different density areas in healthy lungs and in the ARDS lavage model] Markstaller K, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Jun;170(6):575-80 (Eng. Abstr.) **(Ger)**

[Noninvasive ventilation in chronic obstructive lung disease] Laube I, et al. **Schweiz Med Wochenschr** 1999 Jul 13; 129(27-28):1013-24 (45 ref.) (Eng. Abstr.) **(Ger)**

[Quality of emergency ventilation. A prospective study of trauma patients] Helm M, et al. **Unfallchirurg** 1999 May; 102(5):347-53 (Eng. Abstr.) **(Ger)**

[Pathophysiology and respiratory therapy of chronic respiratory insufficiency in chronic pulmonary fibrosis] Fabel H. **Wien Klin Wochenschr Suppl** 1999;1:6-10 (6 ref.) **(Ger)**

Detection of Pseudomonas aeruginosa in bronchial and tracheal aspirates by PCR by amplification of the exotoxin A gene] Hummel A, et al. **Zentralbl Hyg Umweltmed** 1998 Dec;201(4-5):349-55 (Eng. Abstr.) **(Ger)**

[Invasive ventilation in pediatric patients discharged from intensive care to continuous home care] Carpino V, et al.
Minerva Anestesiol 1999 May;65(5 Suppl 1):70-3 **(Ita)**

[Mechanical ventilation during thoracic anesthesia] Valenza F. **Minerva Anestesiol** 1999 May;65(5):263-6 (Eng. Abstr.) **(Ita)**

[Clinical analysis of the prognosis of severe pneumonia requiring mechanical ventilation] Kobashi Y, et al.
Kansenshogaku Zasshi 1999 Jun;73(6):570-7 (Eng. Abstr.) **(Jpn)**

[Report of national survey on death due to tuberculosis in 1994 in national hospitals and the treatment and prognosis of tuberculous patients with mechanical ventilation] Machida K, et al. **Kekkaku** 1998 Dec;73(12):739-45 (Eng. Abstr.) **(Jpn)**

[Postoperative respiratory management in patients undergoing radical surgery with three fields lymph node dissection for thoracic esophageal cancer: clinical benefits of assisted ventilation with mini-tracheostomy] Kido T, et al. **Kyobu Geka** 1999 Mar;52(3):175-80; discussion 181-3 (Eng. Abstr.) **(Jpn)**

[Lung collapse during one lung ventilation does not change low frequency respiratory mechanics] Oka T, et al.
Masui 1998 Dec;47(12):1427-32 (Eng. Abstr.) **(Jpn)**

[Experience in managing refractory status epilepticus caused by viral encephalitis under long-term anesthesia with barbiturate: a case report] Ohori N, et al.
Rinsho Shinkeigaku 1998 May;38(5):474-7 (Eng. Abstr.) **(Jpn)**

[The use of high-frequency artificial ventilation of lungs in the surgery of the trachea] Glumcher FS. **Klin Khir** 1999; (4):38-41 (Eng. Abstr.) **(Rus)**

[Use of total myorelaxation for placing a laryngeal mask and further artificial lung ventilation] Buniatian AA, et al.
Vestn Ross Akad Med Nauk 1998;(6):21-8 (Eng. Abstr.) **(Rus)**

[Non-metabolic application of indirect calorimetry] Peláez Fernández J, et al. **Nutr Hosp** 1999 Jan-Feb;14(1):23-30 (Eng. Abstr.) **(Spa)**

[Ventilatory support in patients with acute disease of the central nervous system] Bugedo G, et al. **Rev Med Chil** 1999 Feb;127(2):211-21 (53 ref.) (Eng. Abstr.) **(Spa)**

[Lung function in premature infants can be improved. Surfactant therapy and CPAP reduce the need of respiratory support] Blennow M, et al. **Lakartidningen** 1999 Mar 31;96(13):1571-6 (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Measurement of dyspnea in patients treated with mechanical ventilation. Powers J, et al. **Am J Crit Care** 1999 Jul; 8(4):254-61

Tidal volume reduction for prevention of ventilator-induced lung injury in acute respiratory distress syndrome. The Multicenter Trail Group on Tidal Volume reduction in ARDS. Brochard L, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1831-8

Hyperinflation-induced lung injury during alveolar flooding in rats: effect of perfluorocarbon instillation. Dreyfuss D, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1752-7

Bacterial colonization patterns in mechanically ventilated patients with traumatic and medical head injury. Incidence, risk factors, and association with ventilator-associated pneumonia. Ewig S, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):188-98

Assessment of fever in the intensive care unit. Is the answer just beyond the tip of our nose? [editorial; comment] Hall J. **Am J Respir Crit Care Med** 1999 Mar;159(3):693-4. Comment on: Am J Respir Crit Care Med 1999 Mar;159(3):695-701.

The attributable morbidity and mortality of ventilator-associated pneumonia in the critically ill patient. The Canadian Critical Trials Group. Heyland DK, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1249-56

A randomized study assessing the systematic search for maxillary sinusitis in nasotracheally mechanically ventilated patients. Influence of nosocomial maxillary sinusitis on the occurrence of ventilator-associated pneumonia [see comments] Holzapfel L, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):695-701. Comment in: Am J Respir Crit Care Med 1999 Mar;159(3):693-4.

Pneumocephalus and resuscitation [letter] van Heerden PV, et al. **Anaesth Intensive Care** 1999 Apr;27(2):223-4

Tension pneumothorax complicating jet ventilation via a cook airway exchange catheter [see comments] Baraka AS. **Anesthesiology** 1999 Aug;91(2):557-8. Comment in: Anesthesiology 1999 Aug;91(2):342-4.

Ventilator-associated pneumonia in critically ill patients [letter; comment] Kramer B. **Ann Intern Med** 1999 Jun 15;130(12):1027-8. Comment on: Ann Intern Med 1998 Sep 15;129(6):433-40.

Tracheobronchial consequences of the use of heat and moisture exchangers in dogs. Barra Bisinotto FM, et al. **Can J Anaesth** 1999 Sep;46(9):897-903

Acute respiratory alkalosis associated with low minute ventilation in a patient with severe hypothyroidism. Lee HT, et al. **Can J Anaesth** 1999 Feb;46(2):185-9

The incidence of and clinical variables associated with vancomycin-resistant enterococcal colonization in mechanically ventilated patients. Bhorade SM, et al.
Chest 1999 Apr;115(4):1085-91

Role of different routes of tracheal colonization in the development of pneumonia in patients receiving mechanical ventilation. Cardeñosa Cendrero JA, et al. **Chest** 1999 Aug; 116(2):462-70

Diagnosis of nosocomial pneumonia in cancer patients undergoing mechanical ventilation: a prospective comparison of the plugged telescoping catheter with the protected specimen brush. Casetta M, et al. **Chest** 1999 Jun; 115(6):1641-5

The clinical utility of invasive diagnostic techniques in the setting of ventilator-associated pneumonia. Canadian Critical Care Trials Group [see comments] Heyland DK, et al. **Chest** 1999 Apr;115(4):1076-84. Comment in: Chest 1999 Apr;115(4):916-7.

Risk factors for an outbreak of multi-drug-resistant Acinetobacter nosocomial pneumonia among intubated patients [see comments] Husni RN, et al. **Chest** 1999 May; 115(5):1378-82. Comment in: Chest 1999 May;115(5):1226-8.

Ventilator-associated lung injury decreases lung ability to clear edema and downregulates alveolar epithelial cell Na,K-adenosine triphosphatase function. Lecuona E, et al. **Chest** 1999 Jul;116(1 Suppl):29S-30S

Acinetobacter baumannii infections in the ICU: customization is the key [editorial; comment] Rello J. **Chest** 1999 May; 115(5):1226-9. Comment on: Chest 1999 May;115(5):1378-82.

Significant tracheal obstruction causing failure to wean in patients requiring prolonged mechanical ventilation: a forgotten complication of long-term mechanical ventilation. Rumbak MJ, et al. **Chest** 1999 Apr; 115(4):1092-5

Lung injury caused by mechanical ventilation. Slutsky AS. **Chest** 1999 Jul;116(1 Suppl):9S-15S (42 ref.)

Pulmonary complications of mechanical ventilation. Sandur S, et al. **Clin Chest Med** 1999 Jun;20(2):223-47 (128 ref.)

Artificial ventilation-acquired sinopathy in the critically ill - the maxillary sinuses revisited. Westergren V.
Clin Exp Allergy 1999 Mar;29(3):298-305 (52 ref.)

Ventilator-associated sinusitis: a review. Westergren V, et al. **Clin Infect Dis** 1998 Oct;27(4):851-64 (111 ref.)

Acute lobar collapse: adults and infants differ in important ways [editorial; comment] Greene R. **Crit Care Med** 1999 Aug;27(8):1677-9 (21 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1594-7.

Chest wall elastance and acute respiratory failure [editorial; comment] Jardin F. **Crit Care Med** 1999 Aug;27(8):1653-4 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1454-60.

Ventilator-induced lung injury: more studies, more questions [editorial; comment] Kavanagh BP, et al.
Crit Care Med 1999 Aug;27(8):1669-71 (23 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1533-41.

Do the components of heat and moisture exchanger filters affect their humidifying efficacy and the incidence of nosocomial pneumonia? Thomachot L, et al.
Crit Care Med 1999 May;27(5):923-8

Intrahospital transport of critically ill children--should we pay attention? [editorial; comment] Venkataraman ST.
Crit Care Med 1999 Apr;27(4):694-5 (7 ref.). Comment on: Crit Care Med 1999 Apr;27(4):802-6.

Mechanisms initiating lung injury in the preterm. Jobe AH, et al. **Early Hum Dev** 1998 Nov;53(1):81-94 (66 ref.)

Pneumothorax and conventional ventilation in the neonatal period. Despotova-Toleva L. **Folia Med (Plovdiv)** 1998; 40(4):5-16

Duodenogastroesophageal reflux and esophageal mucosal injury in mechanically ventilated patients. Wilmer A, et al. **Gastroenterology** 1999 Jun;116(6):1293-9

Ranitidine reduced clinically important gastrointestinal bleeding in patients who required mechanical ventilation. Hinds CJ, et al. **Gut** 1999 Jan;44(1):10-1

Colonization with Pseudomonas aeruginosa in patients developing ventilator-associated pneumonia. Bergmans DC, et al. **Infect Control Hosp Epidemiol** 1998 Nov; 19(11):853-5

Ventilator-associated lung injury. Kacmarek RM.
Int Anesthesiol Clin 1999 Summer;37(3):47-64 (67 ref.)

Ventilator-associated pneumonia [published erratum appears in Int J Antimicrob Agents 1999 Feb;11(2):179-80] Visnegarwala F, et al. **Int J Antimicrob Agents** 1998 Aug; 10(3):191-205

Detection of endotracheal tube obstruction by analysis of the expiratory flow signal. Guttmann J, et al.
Intensive Care Med 1998 Nov;24(11):1163-72

Avoidance of tracheal intubation as a strategy to prevent ventilator-associated pneumonia [editorial; comment] Kollef MH. **Intensive Care Med** 1999 Jun;25(6):553-5. Comment on: Intensive Care Med 1999 Jun;25(6):567-73.

Ventilator-induced lung inflammation: is it always harmful? [letter] Plötz FB, et al. **Intensive Care Med** 1999 Feb; 25(2):236

Pulmonary air trapping during two-lung and one-lung ventilation. Ducros L, et al.
J Cardiothorac Vasc Anesth 1999 Feb;13(1):35-9

Adjudicating ventilator-associated pneumonia in a randomized trial of critically ill patients. Cook D, et al. **J Crit Care** 1998 Dec;13(4):159-63

Effect of continuous lateral rotational therapy on lung mucus transport in mechanically ventilated patients. Dolovich M, et al. **J Crit Care** 1998 Sep;13(3):119-25

Effect of hospital-acquired ventilator-associated pneumonia on mortality of severe community-acquired pneumonia. Leroy O, et al. **J Crit Care** 1999 Mar;14(1):12-9

Mechanical ventilation: past and present [letter; comment] Moustafa MH, et al. **J Emerg Med** 1999 May-Jun;17(3):526 . Comment on: J Emerg Med 1998 May-Jun;16(3):453-60.

Diagnosis of ventilator-associated pneumonia. Flanagan PG. **J Hosp Infect** 1999 Feb;41(2):87-99 (84 ref.)

Are most ICU infections really nosocomial? A prospective observational cohort study in mechanically ventilated patients. Silvestri L, et al. **J Hosp Infect** 1999 Jun; 42(2):125-33

Does postoperative ventilation have an effect on the integrity of the anastomosis in repaired oesophageal atresia? Beasley SW. **J Paediatr Child Health** 1999 Apr;35(2):120-2 (11 ref.)

When is conventional ventilation not conventional? [letter] Chavasse R. **J Paediatr Child Health** 1998 Aug;34(4):401

Clinical and technical approach to selective decontamination of the digestive tract (SDD). Zandstra DF.
Minerva Anestesiol 1999 May;65(5):197-201 (44 ref.)

Mechanical ventilation in acute respiratory distress syndrome: evolving concepts. Mehta S, et al.
Monaldi Arch Chest Dis 1998 Dec;53(6):647-53 (58 ref.)

Protective ventilatory strategy for ARDS: physiological evaluation of the clinical trials. Ranieri VM, et al.

Monaldi Arch Chest Dis 1998 Dec;53(6):644–6 (35 ref.)
The effect of hyperoxaemia on erythropoietin secretion in anaemic patients. Tsangaris H, et al.
Monaldi Arch Chest Dis 1999 Apr;54(2):120–5
Mechanisms of ventilation-induced lung injury: physiological rationale to prevent it. Verbrugge SJ, et al.
Monaldi Arch Chest Dis 1999 Feb;54(1):22–37 (158 ref.)
The prevention of ventilator-associated pneumonia [see comments] Kollef MH. **N Engl J Med** 1999 Feb 25; 340(8):627–34 (53 ref.). Comment in: N Engl J Med 1999 Jul 22;341(4):293–4.
Long-term ventilator-dependent children: a vocal profile analysis. Fraser J, et al. **Pediatr Rehabil** 1998 Apr–Jun; 2(2):71–5
Gastric perforation in infants with oesophageal atresia and distal tracheo-oesophageal fistula. Maoate K, et al.
Pediatr Surg Int 1999;15(1):24–7
Acute myopathy after status asthmaticus: steroids, myorelaxants or carbon dioxide? Goh AY, et al.
Respirology 1999 Mar;4(1):97–9
The Traveling Shutter Wave analyses non-linear compliance during mechanical ventilation. Mols G, et al.
Technol Health Care 1999;7(4):309–17
[Lung damage due to mechanical ventilation] Plötz FB, et al. **Ned Tijdschr Geneeskd** 1999 Jan 16;143(3):133–6 (33 ref.) (Eng. Abstr.) **(Dut)**
[Ocular infection by Pseudomonas aeruginosa in a mechanically ventilated patient] Wanten GJ, et al.
Ned Tijdschr Geneeskd 1998 Jul 11;142(28):1615–7 (Eng. Abstr.) **(Dut)**
[Phare study. Comparative study of combined cefepime-amikacin versus ceftazidime combined with amikacin in the treatment of nosocomial pneumonias in ventilated patients. Multicenter group study] Beaucaire G, et al. **Ann Fr Anesth Reanim** 1999 Feb;18(2):186–95 (Eng. Abstr.) **(Fre)**
[Pneumopericardium with favorable outcome in a ventilated premature infant] Follet-Bouhamed C, et al.
Arch Pediatr 1999 Jun;6(6):647–9 (Eng. Abstr.) **(Fre)**
[Empirical antibiotic therapy for nosocomial pneumonia acquired in assisted ventilation] Charbonneau P.
Presse Med 1998 Sep 12;27(26):1362–4 (5 ref.) **(Fre)**
[Endotracheal complications after long-term ventilation. Noninvasive ventilation in chronic thoracic diseases as an alternative to tracheostomy] Körber W, et al. **Med Klin** 1999 Apr;94(1 Spec No):45–50 (Eng. Abstr.) **(Ger)**
[Reconstruction of an extensive anterior tracheal defect in a tetraplegic patient during long-term ventilation by autologous cartilage clasps within a pectoralis major flap] Lohmann U, et al. **Zentralbl Chir** 1999;124(6):557–61 (Eng. Abstr.) **(Ger)**
[Arterial oxygenation during one lung ventilation in obese patients] Okamoto K, et al. **Masui** 1999 Feb;48(2):168–71 (Eng. Abstr.) **(Jpn)**
[Diagnostic usefulness of bronchoalveolar lavage in nosocomial pneumonia associated with mechanical ventilation in patients undergoing antibiotic treatment] Vázquez-García JC, et al. **Gac Med Mex** 1998 Nov–Dec; 134(6):651–9 (Eng. Abstr.) **(Spa)**
[Respiratory tract infections by Pseudomonas aeruginosa in patients under intubation] Rello J, et al. **Rev Clin Esp** 1998 Sep;198 Suppl 2:17–20 (31 ref.) **(Spa)**
[Criteria for the etiologic assessment of pneumonia in the patient with mechanical ventilation (editorial)] Torres Martí A. **Rev Clin Esp** 1998 Aug;198(8):491–3 **(Spa)**

ECONOMICS

The impact of a multidisciplinary approach on caring for ventilator-dependent patients. Young MP, et al.
Int J Qual Health Care 1998 Feb;10(1):15–26
South African health-budget cuts hit premature babies [letter; comment] Cooper PA. **Lancet** 1998 Dec 12;352(9144):1941 . Comment on: Lancet 1998 Oct 3;352(9134):1129.
Cost/benefit of noninvasive mechanical ventilation. Criner GJ. **Monaldi Arch Chest Dis** 1998 Jun;53(3):358–9 (7 ref.)
Cost-effectiveness of intermediate intensive care units for mechanically-ventilated patients. Pierson DJ.
Monaldi Arch Chest Dis 1998 Jun;53(3):360–4

HISTORY

Electroventilation--a missed opportunity? Geddes LA.
Biomed Instrum Technol 1998 Jul–Aug;32(4):401–14
[Respiratory resuscitation in Belgium] Delcroix M, et al.
Rev Mal Respir 1999 Jun;16(3):325–8 **(Fre)**
[History of respiratory resuscitation] Sadoul P.
Rev Mal Respir 1999 Jun;16(3):307–12 **(Fre)**
[Reconstruction of an ancient Egyptian mummy opening device. Remarks on the work of A. Ocklitz. Anaesthesist (1997) 46:599–603 (letter)] Kötter KP, et al.
Anaesthesist 1998 Dec;47(12):993–7 **(Ger)**
[Oxygen therapy and ventilation or the long road from discovery to prescription] Mihăiţan F, et al.
Pneumoftiziologia 1998 Apr–Jun;47(2):115–7 **(Rum)**

INSTRUMENTATION

One-lung ventilation when intubation is difficult--presentation of a new endobronchial blocker. Arndt GA, et al. **Acta Anaesthesiol Scand** 1999 Mar; 43(3):356–8
Performances of different control laws for automatic oxygen supply for COPD patients. Kroumov V, et al.
Adv Exp Med Biol 1998;450:85–91
Oxygen injector ventilation in adults and children: use of a variable pressure driving gas valve and a right angled connector. Payne KA, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):81–4
Respirator fit factor performance while sweating. Caretti DM, et al. **Am Ind Hyg Assoc J** 1999 Jan–Feb;60(1):84–8
The heat moisture exchange device (HME) in neonatal ventilation. Wilmshurst JM, et al. **Am J Perinatol** 1999; 16(1):13–6
Automatic control of pressure support mechanical ventilation using fuzzy logic. Nemoto T, et al.
Am J Respir Crit Care Med 1999 Aug;160(2):550–6
The intubating laryngeal mask. Clinical appraisal of ventilation and blind tracheal intubation in 110 patients. Agrò F, et al. **Anaesthesia** 1998 Nov;53(11):1084–90
Failure of the Univent bronchial blocker in sealing the bronchus [letter] Asai T. **Anaesthesia** 1999 Jan;54(1):97
Filters in breathing systems [letter] Drummond GB.
Anaesthesia 1999 Jun;54(6):605–6
Universal Shrader outlets on oxygen regulators [letter] Garfield MJ. **Anaesthesia** 1998 Dec;53(12):1234–6
Breathing system filters [letter] Stevens J. **Anaesthesia** 1999 Jan;54(1):90
Evaluation of a new operating room ventilator with volume-controlled ventilation: the Ohmeda 7900. Rothschiller JL, et al. **Anesth Analg** 1999 Jan;88(1):39–42
Protecting Ohmeda 7900 Ventilator flow sensor [letter; comment] Shogase A, et al. **Anesth Analg** 1999 Jan; 88(1):234. Comment on: Anesth Analg 1998 Jul;87(1):231–2.
Devices for difficult airway management in academic emergency departments: results of a national survey. Levitan RM, et al. **Ann Emerg Med** 1999 Jun;33(6):694–8
Software for real-time control of a tidal liquid ventilator. Heckman JL, et al. **Biomed Instrum Technol** 1999 May–Jun; 33(3):268–76
Dose monitoring in Partial Liquid Ventilation by infrared measurement of expired perfluorochemicals. Mazzoni M, et al. **Biomed Instrum Technol** 1999 Jul–Aug;33(4):356–64
Dose maintenance for Partial Liquid Ventilation: passive heat-and-moisture exchangers. Nugent LJ, et al.
Biomed Instrum Technol 1999 Jul–Aug;33(4):365–72
On-line techniques for perfluorochemical vapor sampling and measurement. Philips CM, et al.
Biomed Instrum Technol 1999 Jul–Aug;33(4):348–55
Recent innovations in total liquid ventilation system and component design. Sekins KM, et al.
Biomed Instrum Technol 1999 May–Jun;33(3):277–84
Small tidal volume ventilation using a zero deadspace tracheal tube. Liebenberg CS, et al. **Br J Anaesth** 1999 Feb;82(2):213–6
Airway management: contents of a difficult intubation cart. McGuire GP, et al. **Can J Anaesth** 1999 Feb;46(2):190–1
Indirect calorimetry in mechanically ventilated infants and children: accuracy of total daily energy expenditure with 2 hour measurements. Joosten KF, et al. **Clin Nutr** 1999 Jun;18(3):149–52
Respiratory mechanics in ventilated COPD patients: forced oscillation versus occlusion techniques. Farré R, et al.
Eur Respir J 1998 Jul;12(1):170–6
Bronchodilator response with use of OptiVent versus Aerosol Cloud Enhancer metered-dose inhaler spacers in patients receiving ventilatory assistance. Waugh JB, et al.
Heart Lung 1998 Nov–Dec;27(6):418–23
Effect of inspiratory flow waveform on work on endotracheal tubes: a model analysis. Polese G, et al.
Intensive Care Med 1999 May;25(5):503–7
Risk of fire outweighed by need for oxygen and defibrillation [letter; comment] McAnulty GR, et al.
J Accid Emerg Med 1999 Jan;16(1):77. Comment on: J Accid Emerg Med 1998 Jul;15(4):286.
A new bronchial blocker tube for one-lung ventilation. Kraenzler EJ, et al. **J Cardiothorac Vasc Anesth** 1999 Feb; 13(1):40–1
Adaptive lung ventilation (ALV) during anesthesia for pulmonary surgery: automatic response to transitions to and from one-lung ventilation. Weiler N, et al.
J Clin Monit Comput 1998 May;14(4):245–52
Comparison of nasal prongs with nasal catheters in the delivery of oxygen to children with hypoxia. Muhe L, et al. **J Trop Pediatr** 1998 Dec;44(6):365–8
A new system to supply carbon dioxide safely to glaucoma patients. Niwa Y, et al. **Jpn J Ophthalmol** 1999 Jan–Feb; 43(1):16–9
The art of interface. Tools for administering noninvasive ventilation. Leger SS, et al. **Med Klin** 1999 Apr;94(1 Spec No):35–9 (30 ref.)
Modified closed circuit underwater breathing apparatus LAR VII and laryngeal mask airway as adjuncts for dive buddy artificial ventilation. Mutzbauer TS, et al. **Mil Med** 1999 Jul;164(7):535–9
Practical applications of monitoring respiratory mechanics in newborn. Migliori C, et al. **Minerva Pediatr** 1999 Mar; 51(3):57–64 (11 ref.) **(Eng, Ita)**
Another complication of ribavirin therapy in a mechanically ventilated neonate. Dimond J. **Paediatr Anaesth** 1999; 9(5):448–50
New tools in ventilatory support: high frequency ventilation, nitric oxide, tracheal gas insufflation, non-invasive ventilation. Biarent D. **Pediatr Pulmonol Suppl** 1999; 18:178–81 (25 ref.)
Comparison of bag-valve-mask, manually triggered ventilator, and automated ventilator devices used while ventilating a nonintubated mannikin model. Updike G, et al. **Prehosp Emerg Care** 1998 Jan–Mar;2(1):52–5
Modification of the closed circuit underwater breathing apparatus LAR V makes it suitable for cardiopulmonary resuscitation (CPR). Mutzbauer TS, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):75–80
[Manual ventilation with a modified facial mask for fiberoptic bronchoscopy (letter)] Da Conceiçao M, et al.
Ann Fr Anesth Reanim 1999 May;18(5):607–8 **(Fre)**
[Anesthetic apparatus: failure of fresh gas delivery to the auxiliary circuit] Hotton J. **Ann Fr Anesth Reanim** 1999 Apr;18(4):465–6 (Eng. Abstr.) **(Fre)**
[Anesthesia ventilators (published erratum appears in Ann Fr Anesth Reanim 1998;17(1):90)] Otteni JC, et al.
Ann Fr Anesth Reanim 1997;16(7):895–907 (31 ref.) (Eng. Abstr.) **(Fre)**
[The use of filters for mechanical ventilation in anesthesiology and intensive care medicine: con] Lacour M, et al.
Anasthesiol Intensivmed Notfallmed Schmerzther 1999 Jul; 34(7):440–1 **(Ger)**
[The use of filters for mechanical ventilation in anesthesiology and intensive care medicine: pro] Rathgeber J. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Jul;34(7):438–40 **(Ger)**
[A comparison of ventilation techniques in ARDS. Volume controlled vs pressure regulated volume control] Riverso P, et al. **Minerva Anestesiol** 1998 Jul–Aug;64(7–8):339–43 (Eng. Abstr.) **(Ita)**
[The endotracheal tube used during artificial pulmonary ventilation] Tulepov AS. **Anesteziol Reanimatol** 1998 Jul–Aug;(4):58–60 (Eng. Abstr.) **(Rus)**
[Status and prospects of the development of anesthesia-respiratory equipment] Burlakov RI, et al.
Med Tekh 1999 Jan–Feb;(1):6–12 (Eng. Abstr.) **(Rus)**

METHODS

A comparison of demand-valve and bag-valve ventilations in a swine pneumothorax model. Kornegay HB Jr, et al.
Acad Emerg Med 1998 Oct;5(10):977–81
Effects of ventilatory pattern on exhaled nitric oxide in mechanically ventilated rabbits. Forsberg S, et al.
Acta Anaesthesiol Scand 1999 Apr;43(4):464–9
Splanchnic circulation is maintained during passive hyperventilation in orthotopic liver recipients. Krenn CG, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):515–9
Effects of isoflurane on oxygenation during one-lung ventilation in pulmonary emphysema patients. Satoh D, et al. **Acta Anaesthesiol Scand** 1998 Nov;42(10):1145–8
Comparison of airway pressure-triggered and airflow-triggered ventilation in very immature infants. Dimitriou G, et al. **Acta Paediatr** 1998 Dec;87(12):1256–60
Use of percutaneous cardiopulmonary support of patients with fulminant myocarditis and cardiogenic shock for improving prognosis. Kato S, et al. **Am J Cardiol** 1999 Feb 15;83(4):623–5, A10
Endotracheal tube narrowing after closed-system suctioning: prevalence and risk factors. Glass C, et al.
Am J Crit Care 1999 Mar;8(2):93–100
Use of backrest elevation in critical care: a pilot study. Grap MJ, et al. **Am J Crit Care** 1999 Jan;8(1):475–80
A post hoc descriptive study of patients receiving propofol. Kowalski SD, et al. **Am J Crit Care** 1999 Jan;8(1):507–13
Physiologic response of ventilator-dependent patients with chronic obstructive pulmonary disease to proportional assist ventilation and continuous positive airway pressure. Appendini L, et al. **Am J Respir Crit Care Med** 1999 May; 159(5 Pt 1):1510–7
Aspiration of airway dead space. A new method to enhance CO2 elimination. De Robertis E, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):728–32
Effect of ventilator flow rate on respiratory timing in normal humans. Fernandez R, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):710–9
Response of ventilator-dependent patients to different levels of pressure support and proportional assist. Giannouli E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1716–25
Expiratory phase tracheal gas insufflation and pressure control in sheep with permissive hypercapnia. Imanaka H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):49–54
Prone ventilation [letter] Sartain J, et al.
Anaesth Intensive Care 1999 Aug;27(4):424
Prone ventilation--it's time. Tobin A, et al.
Anaesth Intensive Care 1999 Apr;27(2):194–201 (55 ref.)
The bearded airway [letter; comment] Hancock AC.
Anaesthesia 1999 Apr;54(4):408. Comment on: Anaesthesia 1998 Oct;53(10):1034–5.
Ventilation during percutaneous tracheostomy [letter; comment] Jones DA, et al. **Anaesthesia** 1998 Sep;53(9):931 . Comment on: Anaesthesia 1998 Apr;53(4):343–8.
Predictable normocapnia [correction of normocapnoea] in controlled ventilation of infants with Jackson Rees or Bain system [published erratum appears in Anaesthesia 1999 Feb;54(2):206] Park JW, et al. **Anaesthesia** 1998 Dec; 53(12):1180–4
Bronchofibrescopic jet ventilation - an aid to percutaneous tracheostomy [letter] Sudunagunta S, et al. **Anaesthesia** 1999 Jun;54(6):606–7
Endobronchial intubation causes an immediate increase in peak inflation pressure in pediatric patients. Campos C, et al. **Anesth Analg** 1999 Feb;88(2):268–70

Fiberoptic-guided airway exchange of the esophageal-tracheal Combitube in spontaneously breathing versus mechanically ventilated patients. Gaitini LA, et al. **Anesth Analg** 1999 Jan;88(1):193-6

Arterial oxygenation during one-lung ventilation: combined versus general anesthesia. Garutti I, et al. **Anesth Analg** 1999 Mar;88(3):494-9

An adult system versus a Bain system: comparative ability to deliver minute ventilation to an infant lung model with pressure-limited ventilation. Stevenson GW, et al. **Anesth Analg** 1999 Mar;88(3):527-30

A comparison of three modes of ventilation with the use of an adult circle system in an infant lung model. Tobin MJ, et al. **Anesth Analg** 1998 Oct;87(4):766-71

Laryngeal mask airway fitted over a tracheotomy orifice: a mean to ventilate a tracheotomized patient during induction of anesthesia [letter] Morita Y, et al. **Anesthesiology** 1998 Nov;89(5):1295

Ventilatory strategies for acute respiratory distress syndrome. Lee KH, et al. **Ann Acad Med Singapore** 1998 May; 27(3):409-13 (37 ref.)

TCA overdose [letter] Dick WF, et al. **Ann Emerg Med** 1999 Jun;33(6):723-4

Partial liquid ventilation in adult patients with ARDS: a multicenter phase I-II trial. Adult PLV Study Group. Hirschl RB, et al. **Ann Surg** 1998 Nov;228(5):692-700

Cardiovascular effects of mechanical ventilation. Shekerdemian L, et al. **Arch Dis Child** 1999 May; 80(5):475-80 (35 ref.)

Volume controlled and time cycled pressure limited ventilation [letter; comment] Greenough A, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F79. Comment on: Arch Dis Child Fetal Neonatal Ed 1997 Nov;77(3):F202-5.

Prophylactic vs rescue surfactant and antenatal corticosteroids [letter; comment] Tyebkhan J, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F79-80. Comment on: Arch Dis Child Fetal Neonatal Ed 1997 Jul;77(1):F70-4.

A simplified single pump circuit for cardiac bypass with autogenous oxygenation. Marques E, et al. **Artif Organs** 1999 Jan;23(1):124-7

High-frequency oscillatory ventilation, partial liquid ventilation, or conventional mechanical ventilation in newborn piglets with saline lavage-induced acute lung injury. A comparison of gas-exchange efficacy and lung histomorphology. Degraeuwe PL, et al. **Biol Neonate** 1999; 75(2):118-29

Liquid ventilation: clinical experiences. Greenspan JS, et al. **Biomed Instrum Technol** 1999 May-Jun;33(3):253-9 (36 ref.)

Liquid ventilation state-of-the-art, Part I. Shaffer TH, et al. **Biomed Instrum Technol** 1999 May-Jun;33(3):251-2 (15 ref.)

Multifactorial analysis of exchanger efficiency and liquid conservation during perfluorochemical liquid-assisted ventilation. Wolfson MR, et al. **Biomed Instrum Technol** 1999 May-Jun;33(3):260-7

ABC of intensive care: respiratory support. Shelly MP, et al. **BMJ** 1999 Jun 19;318(7199):1674-7 (0 ref.)

Eligibility criteria improve children's access to long term ventilation at home [letter; comment] Snelling S. **BMJ** 1999 Jun 19;318(7199):1699. Comment on: BMJ 1999 Jan 30;318(7179):295-9.

Placebo-controlled study of inhaled nitric oxide to treat hypoxaemia during one-lung ventilation. Fradj K, et al. **Br J Anaesth** 1999 Feb;82(2):208-12

A physiology simulator: validation of its respiratory components and its ability to predict the patient's response to changes in mechanical ventilation. Hardman JG, et al. **Br J Anaesth** 1998 Sep;81(3):327-32

Comparison of exogenous surfactant therapy, mechanical ventilation with high end-expiratory pressure and partial liquid ventilation in a model of acute lung injury. Hartog A, et al. **Br J Anaesth** 1999 Jan;82(1):81-6

Performance of proportional and continuous nitric oxide delivery systems during pressure- and volume-controlled ventilation [see comments] Hiesmayr MJ, et al. **Br J Anaesth** 1998 Oct;81(4):544-52. Comment in: Br J Anaesth 1999 Apr;82(4):647-8.

Accuracy and precision of "deep sternal" and tracheal temperatures at high- and low-fresh-gas flows. Matsukawa T, et al. **Br J Anaesth** 1998 Aug;81(2):171-5

Dynamics of re-expansion of atelectasis during general anaesthesia. Rothen HU, et al. **Br J Anaesth** 1999 Apr; 82(4):551-6

Comparison of the effects of sevoflurane and isoflurane on arterial oxygenation during one lung ventilation. Wang JY, et al. **Br J Anaesth** 1998 Dec;81(6):850-3

Esophageal-directed pressure support ventilation in normal volunteers. Barnard M, et al. **Chest** 1999 Feb;115(2):482-9

Myopathy following mechanical ventilation for acute severe asthma: the role of muscle relaxants and corticosteroids [see comments] Behbehani NA, et al. **Chest** 1999 Jun; 115(6):1627-31. Comment in: Chest 1999 Jun;115(6):1490-2.

Nasal mask ventilation in children [letter; comment] Marcus CL, et al. **Chest** 1998 Dec;114(6):1794-5. Comment on: Chest 1998 May;113(5 Suppl):289S-344S.

Bedside evaluation of efficient airway humidification during mechanical ventilation of the critically ill. Ricard JD, et al. **Chest** 1999 Jun;115(6):1646-52

High-frequency percussive ventilation improves oxygenation in patients with ARDS. Velmahos GC, et al. **Chest** 1999 Aug;116(2):440-6

Liquid ventilation. Day SE, et al. **Clin Perinatol** 1998 Sep; 25(3):711-22 (80 ref.)

Ventilation in the trauma and surgical patient. Battistella FD. **Crit Care Clin** 1998 Oct;14(4):731-42 (61 ref.)

Noninvasive ventilation in neuromuscular disease. Bonekat HW. **Crit Care Clin** 1998 Oct;14(4):775-97 (114 ref.)

Ventilation of patients with asthma and obstructive lung disease. Jain S, et al. **Crit Care Clin** 1998 Oct;14(4):685-705 (85 ref.)

Monitoring patient mechanics during mechanical ventilation. Jubran A. **Crit Care Clin** 1998 Oct;14(4):629-53, vi (112 ref.)

Non-conventional respiratory support modalities applicable in the older child. High frequency ventilation and liquid ventilation. Kallas HJ. **Crit Care Clin** 1998 Oct;14(4):655-83 (245 ref.)

Provision of long-term mechanical ventilation. Scheinhorn DJ, et al. **Crit Care Clin** 1998 Oct;14(4):819-32, viii (68 ref.)

Mechanical ventilation of patients with acute lung injury. Sessler CN. **Crit Care Clin** 1998 Oct;14(4):707-29, vii (119 ref.)

Ventilation in the patient with unilateral lung disease. Thomas AR, et al. **Crit Care Clin** 1998 Oct;14(4):743-73 (115 ref.)

Vasodilators in mechanical ventilation. Zimmerman JL, et al. **Crit Care Clin** 1998 Oct;14(4):611-27 (89 ref.)

Partial liquid breathing: more questions than answers [editorial; comment] Arnold JH. **Crit Care Med** 1999 Sep; 27(9):2058-60. Comment on: Crit Care Med 1999 Sep;27(9):1934-9.

Clinical trials in acute respiratory distress syndrome: what is ARDS? [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1657-8 (13 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1478-85.

Optimizing liquid ventilation as a lung protection strategy for neonatal cardiopulmonary bypass: full functional residual capacity dosing is more effective than half functional residual capacity dosing [see comments] Cannon ML, et al. **Crit Care Med** 1999 Jun;27(6):1140-6. Comment in: Crit Care Med 1999 Jun;27(6):1052-3.

Neutrophil accumulation is reduced during partial liquid ventilation. Colton DM, et al. **Crit Care Med** 1998 Oct; 26(10):1716-24

Inhaled nitric oxide [letter; comment] Cuthbertson BH, et al. **Crit Care Med** 1999 Apr;27(4):848-9. Comment on: Crit Care Med 1998 Jan;26(1):1-2. Comment on: Crit Care Med 1998 Jan;26(1):15-23.

Effect of nitric oxide, perfluorocarbon, and heliox on minute volume measurement and ventilator volumes delivered. Devabhaktuni VG, et al. **Crit Care Med** 1999 Aug; 27(8):1603-7

A comparison of manual and mechanical ventilation during pediatric transport [see comments] Dockery WK, et al. **Crit Care Med** 1999 Apr;27(4):802-6. Comment in: Crit Care Med 1999 Apr;27(4):694-5.

Hypocapnia does not alter hepatic blood flow or oxygen consumption in patients with head injury. Ichai C, et al. **Crit Care Med** 1998 Oct;26(10):1725-30

Chest wall elastance and acute respiratory failure [editorial; comment] Jardin F. **Crit Care Med** 1999 Aug;27(8):1653-4 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1454-60.

Effects of partial liquid ventilation with perfluorocarbons on pressure-flow relationships, vascular compliance, and filtration coefficients of isolated blood-perfused rabbit lungs. Loer SA, et al. **Crit Care Med** 1998 Dec; 26(12):2037-41

Nitric oxide: how varied standards of ventilation affect study outcome [letter; comment] Papadakos PJ. **Crit Care Med** 1999 Apr;27(4):847-8. Comment on: Crit Care Med 1998 Jan;26(1):15-23.

Prolonged partial liquid ventilation in spontaneously breathing awake animals. Rich PB, et al. **Crit Care Med** 1999 May;27(5):941-5

Partial liquid ventilation reduces pulmonary neutrophil accumulation in an experimental model of systemic endotoxemia and acute lung injury. Rotta AT, et al. **Crit Care Med** 1998 Oct;26(10):1707-15

Intrahospital transport of critically ill children--should we pay attention? [editorial; comment] Venkataraman ST. **Crit Care Med** 1999 Apr;27(4):694-5 (7 ref.). Comment on: Crit Care Med 1999 Apr;27(4):802-6.

Liquid ventilation: more than "PEEP in a bottle"? [editorial; comment] Wong DH. **Crit Care Med** 1999 Jun;27(6):1052-3. Comment on: Crit Care Med 1999 Jun;27(6):1140-6.

Current status of liquid ventilation. Weis CM, et al. **Curr Opin Pediatr** 1999 Apr;11(2):126-32 (66 ref.)

Use of permissive hypercapnia in the ventilation of infants with respiratory syncytial virus infection. Tibby SM, et al. **Eur J Pediatr** 1999 Jan;158(1):42-5

Negative pressure ventilation versus conventional mechanical ventilation in the treatment of acute respiratory failure in COPD patients [see comments] Corrado A, et al. **Eur Respir J** 1998 Sep;12(3):519-25. Comment in: Eur Respir J 1998 Sep;12(3):515-6.

Effects of negative pressure assisted ventilation on dyspnoeic sensation and breathing pattern. Nishino T, et al. **Eur Respir J** 1998 Dec;12(6):1278-83

The current practice patterns of mechanical ventilation for respiratory failure in pediatric patients. Harel Y, et al. **Heart Lung** 1998 Jul-Aug;27(4):238-44

Acute respiratory distress syndrome following nitrogen dioxide exposure. Aggarwal AN, et al. **Indian J Chest Dis Allied Sci** 1998 Oct-Dec;40(4):275-9

"Resident friendly KEM quickcare easy recall guide" for the sick newborns requiring mechanical ventilation [letter] Kabra NS, et al. **Indian Pediatr** 1998 Sep;35(9):921-2

Recent advances in assisted ventilation for neonatal respiratory distress syndrome. Yu VY. **Indian Pediatr** 1998 Jul;35(7):631-40 (85 ref.)

New modes of mechanical ventilation. Putensen C, et al. **Intensive Care Med** 1998 Dec;24(12):1341-2

Sedation for the critically ill. Sydow M, et al. **Intensive Care Med** 1999 Jun;25(6):634-6 (4 ref.)

Partial liquid ventilation combined with kinetic therapy in acute respiratory failure in piglets. Urlesberger B, et al. **Intensive Care Med** 1999 May;25(5):496-502

Cardiorespiratory responses to negative pressure ventilation after tetralogy of fallot repair: a hemodynamic tool for patients with a low-output state. Shekerdemian LS, et al. **J Am Coll Cardiol** 1999 Feb;33(2):549-55

Partial liquid ventilation decreases albumin leak in the setting of acute lung injury. Colton DM, et al. **J Crit Care** 1998 Sep;13(3):136-9

Increased inspired oxygen concentration as a factor in improved brain tissue oxygenation and tissue lactate levels after severe human head injury. Menzel M, et al. **J Neurosurg** 1999 Jul;91(1):1-10

Proportional assist ventilation in low birth weight infants with acute respiratory disease: A comparison to assist/control and conventional mechanical ventilation. Schulze A, et al. **J Pediatr** 1999 Sep;135(3):339-44

Noninvasive ventilation. Rabatin JT, et al. **Mayo Clin Proc** 1999 Aug;74(8):817-20 (16 ref.)

One lung ventilation: prospective from an interested observer. Cohen E. **Minerva Anestesiol** 1999 May; 65(5):275-83 (22 ref.)

Proportional assist ventilation. Mancebo J. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):12-5 (8 ref.)

Clinical perspectives of "the open lung concept". Suárez-Sipmann F, et al. **Minerva Anestesiol** 1999 May; 65(5):310-2 (17 ref.)

Mechanical ventilation in elderly patients. Benhamou D, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):547-51

Modalities of ventilation in lung transplantation. Callegari G, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):543-6

Negative pressure ventilation. Carrado A, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):488-92 (28 ref.)

Modalities of ventilation in patients with human immunodeficiency virus infection. Gachot B, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):540-2 (28 ref.)

Modalities of ventilation in obesity. Muir JF, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):556-9 (21 ref.)

Is early noninvasive mechanical ventilation of first choice in stable restrictive patients with chronic respiratory failure? Raphaël JC, et al. **Monaldi Arch Chest Dis** 1999 Feb;54(1):90-7 (95 ref.)

Comparison of endtidal CO2 and arterial blood gas analysis in paediatric patients undergoing controlled ventilation with a laryngeal mask or a face mask. Ozlü O, et al. **Paediatr Anaesth** 1999;9(5):409-13

Needle cricothyroidotomy revisited. Peak DA, et al. **Pediatr Emerg Care** 1999 Jun;15(3):224-6

Respiratory failure in myasthenia gravis and negative pressure support. Chisakuta A, et al. **Pediatr Neurol** 1998 Sep;19(3):225-6

Dynamics of spontaneous breathing during patient-triggered partial liquid ventilation. Bendel-Stenzel EM, et al. **Pediatr Pulmonol** 1998 Nov;26(5):319-25

Is management of neonatal respiratory distress syndrome feasible in developing countries? Experience from Karachi (Pakistan) [see comments] Bhutta ZA, et al. **Pediatr Pulmonol** 1999 May;27(5):305-11. Comment in: Pediatr Pulmonol 1999 May;27(5):303-4.

Liquid ventilation in an infant with pulmonary alveolar proteinosis. Tsai WC, et al. **Pediatr Pulmonol** 1998 Oct; 26(4):283-6

Liquid ventilation: background and clinical trials. Bartlett RH. **Pediatr Pulmonol Suppl** 1999;18:182-3 (4 ref.)

New modes of ventilation: a non-aggression pact. Renolleau S. **Pediatr Pulmonol Suppl** 1999;18:184-7 (15 ref.)

Management of pulmonary complications in neuromuscular disease. Benditt JO. **Phys Med Rehabil Clin N Am** 1998 Feb;9(1):167-85 (57 ref.)

Non-invasive ventilation in acute exacerbations of COPD [editorial] Plant PK, et al. **QJM** 1998 Oct;91(10):657-60

Mechanical ventilation of the patient with chronic obstructive pulmonary disease. Hess DR, et al. **Respir Care Clin N Am** 1998 Sep;4(3):439-73 (146 ref.)

A lung-protective approach to ventilating ARDS. Marini JJ. **Respir Care Clin N Am** 1998 Dec;4(4):633-63, viii (133 ref.)

Outcome of COPD patients performing nocturnal non-invasive mechanical ventilation. Clini E, et al. **Respir Med** 1998 Oct;92(10):1215-22

Respiratory failure: current status of experimental therapies. Hirschl RB. **Semin Pediatr Surg** 1999 Aug;8(3):155-70 (177 ref.)

The Traveling Shutter Wave analyses non-linear compliance during mechanical ventilation. Mols G, et al. **Technol Health Care** 1999;7(4):309-17

Core guidelines for the discharge home of the child on

long-term assisted ventilation in the United Kingdom. UK Working Party on Paediatric Long Term Ventilation. Jardine E, et al. **Thorax** 1998 Sep;53(9):762–7
[What are the indications and modalities for mechanical ventilation?] **Ann Fr Anesth Reanim** 1999 Jan;18(1):72–8 (22 ref.) **(Fre)**
[Artificial respiration in the child: the gains of the last five years] Lacroix J, et al. **Arch Pediatr** 1999;6 Suppl 2:496s–497s **(Fre)**
[Non-invasive ventilation in acute or chronic respiratory failure: a comparison of volumetric ventilation] Aron C, et al. **Rev Mal Respir** 1999 Apr;16(2):181–7 (Eng. Abstr.) **(Fre)**
[Role and managmement of non-invasive ventilation in respiratory distress in the obese subject] Muir JF, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S114–6 **(Fre)**
[Our experience apropos of conventional ventilation in ORL surgery with CO2 laser] Boussofara M, et al. **Tunis Med** 1998 Nov;76(11):384–8 **(Fre)**
[Vasotropic therapy and artificial respiration for pulmonary hypertension] Grimminger F, et al. **Internist (Berl)** 1999 Jul;40(7):747–55 (16 ref.) **(Ger)**
[Long-term oxygen inhalation therapy and home artificial respiration for chronic pulmonary heart disease] Köhler D, et al. **Internist (Berl)** 1999 Jul;40(7):756–63 (62 ref.) **(Ger)**
[Nasal mechanical ventilation in children] Buhr-Schinner H, et al. **Med Klin** 1999 Apr;94(1 Spec No):73–6 (Eng. Abstr.) **(Ger)**
[Amyotrophic lateral sclerosis and nasal mechanical ventilation] Buhr-Schinner H, et al. **Med Klin** 1999 Apr; 94(1 Spec No):102–4 (Eng. Abstr.) **(Ger)**
[Quality of life of various patient groups during home mechanical ventilation] Hein H, et al. **Med Klin** 1999 Apr; 94(1 Spec No):99–101 (Eng. Abstr.) **(Ger)**
[Continuous flow apnoeic ventilation via intratracheal oxygen insufflation] Osseiran K, et al. **Med Klin** 1999 Apr; 94(1 Spec No):55–7 (Eng. Abstr.) **(Ger)**
[Concept of apartment-sharing groups for children and adolescents treated with long-term ventilation] Schwerdt M. **Med Klin** 1999 Apr;94(1 Spec No):77–80 (Eng. Abstr.) **(Ger)**
[Brain syndrome and home ventilation--diagnosis, therapy and consequences] Winterholler M, et al. **Med Klin** 1999 Apr;94(1 Spec No):62–5 (Eng. Abstr.) **(Ger)**
[Reconstruction of an extensive anterior tracheal defect in a tetraplegic patient during long-term ventilation by autologous cartilage clasps within a pectoralis major flap] Lohmann U, et al. **Zentralbl Chir** 1999;124(6):557–61 (Eng. Abstr.) **(Ger)**
[Total intravenous anesthesia in thoracotomy with one-lung ventilation] Pilotti L, et al. **Minerva Anestesiol** 1999 Jul-Aug;65(7–8):483–9 (Eng. Abstr.) **(Ita)**
[Pulmonary function tests as a predictor of chronic lung disease in ventilated preterm infants] Tortorolo L, et al. **Minerva Pediatr** 1998 May;50(5):151–6 (Eng. Abstr.) **(Ita)**
[Partial liquid ventilation (PLV) in the newborn and infants: initial experiences in Italy] Gentili M, et al. **Pediatr Med Chir** 1998 Sep-Oct;20(5):315–6 (Eng. Abstr.) **(Ita)**
[Changes in SpO2 during total intravenous anesthesia combined with propofol and SpO2 during one-lung anesthesia ventilation] Koishi K, et al. **Masui** 1999 Jan; 48(1):53–6 (Eng. Abstr.) **(Jpn)**
[Home mechanical ventilation for the treatment of respiratory insufficiency] Kimura K. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):89–93 (10 ref.) **(Jpn)**
[Ventilation using the laryngeal mask and intubation tube during general anesthesia for ophthalmic surgery] Michalska G, et al. **Klin Oczna** 1998;100(3):163–5 (Eng. Abstr.) **(Pol)**
[Noninvasive mechanical ventilation (editorial)] Sliwiński P. **Pneumonol Alergol Pol** 1999;67(1–2):5–11 **(Pol)**
[Optimization of artificial respiration parameters in patients with acute pulmonary parenchymal damage syndrome] Neverin VK, et al. **Anesteziol Reanimatol** 1999 Jan-Feb; (1):18–23 (Eng. Abstr.) **(Rus)**
[Experience in using artificial pulmonary ventilation with an inverse ratio of the respiratory-cycle phases in acute lung injury in the victims of severe wounds and mechanical damages] Polushin IuS, et al. **Vestn Khir Im I I Grek** 1998; 157(5):116–21 (Eng. Abstr.) **(Rus)**
[Non invasive ventilation in acute respiratory insufficiency: an alternative] Pablo Casas J, et al. **Medicina (B Aires)** 1998; 58(6):707–12 (Eng. Abstr.) **(Spa)**
[Intubation problems--ventilation problems (letter)] de la Linde Valverde CM, et al. **Rev Esp Anestesiol Reanim** 1999 May;46(5):227–8 **(Spa)**
[Inhalation administration of nitric oxide during selective pulmonary ventilation decreases the intrapulmonary shunt] del Barrio E, et al. **Rev Esp Anestesiol Reanim** 1999 Jun-Jul; 46(6):247–51 (Eng. Abstr.) **(Spa)**
[Ventilation in prone decubitus in a patient with respiratory distress during heart surgery] Rama-Maceiras P, et al. **Rev Esp Anestesiol Reanim** 1999 Feb;46(2):81–4 (Eng. Abstr.) **(Spa)**

NURSING

Motor Activity Assessment Scale: a valid and reliable sedation scale for use with mechanically ventilated patients in an adult surgical intensive care unit [see comments] Devlin JW, et al. **Crit Care Med** 1999 Jul;27(7):1271–5. Comment in: Crit Care Med 1999 Jul;27(7):1384–5.
The practice and perception of intensive care staff using the closed suctioning system. Blackwood B. **J Adv Nurs** 1998 Nov;28(5):1020–9

PSYCHOLOGY

Stress during mechanical ventilation: benefit of having concrete objective information before cardiac surgery. Kim H, et al. **Am J Crit Care** 1999 Mar;8(2):118–26
Intubation and mechanical ventilation for COPD: development of an instrument to elicit patient preferences. Dales RE, et al. **Chest** 1999 Sep;116(3):792–800
Benefit of music therapy for our intensive care unit (ICU) patients [letter; comment] Ahmad H, et al. **Heart Lung** 1999 Jan-Feb;28(1):79–80. Comment on: Heart Lung 1998 May-Jun;27(3):169–76.
Quality of life for ventilator-dependent ALS patients and their caregivers. Gelinas DF, et al. **J Neurol Sci** 1998 Oct; 160 Suppl 1:S134–6
[Recollections of ventilated patients after a stay in the intensive care unit] Rosé D, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):148–52 (Eng. Abstr.) **(Ger)**

STANDARDS

Performances of different control laws for automatic oxygen supply for COPD patients. Kroumov V, et al. **Adv Exp Med Biol** 1998;450:85–91
Are the respiratory responses to changes in ventilatory assist optimized? Oku Y, et al. **Adv Exp Med Biol** 1998;450:147–53
Advances in ventilatory support of the pediatric surgical patient. Hemmila MR, et al. **Curr Opin Pediatr** 1999 Jun; 11(3):241–8 (67 ref.)
Ventilatory care in a selection of Ontario hospitals: bigger is not necessarily better! Critical Care Research Network (CCR-Net). Keenan SP, et al. **Intensive Care Med** 1998 Sep;24(9):946–52
[Monitoring accuracy of ventilation parameters and gas mixture composition during anesthesia and artificial ventilation of the lungs] Levité EM, et al. **Anesteziol Reanimatol** 1999 May-Jun;(3):68–9 **(Rus)**

STATISTICS & NUMERICAL DATA

Current status of long term ventilation of children in the United Kingdom: questionnaire survey [see comments] Jardine E, et al. **BMJ** 1999 Jan 30;318(7179):295–9. Comment in: BMJ 1999 Jun 19;318(7199):1699.
Success in using non-invasive mechanical ventilation is predicted by patient pathophysiology. A retrospective review of 199 patients. Krall SP, et al. **Del Med J** 1999 May;71(5):213–20
Home mechanical ventilation: demographics and user perspectives. Goldstein RS. **Monaldi Arch Chest Dis** 1998 Oct;53(5):560–3

TRENDS

Use of high-frequency and nonconventional ventilation for respiratory failure. Donnelly KM, et al. **Curr Opin Pediatr** 1998 Jun;10(3):278–83 (60 ref.)
Round table conference: acute lung injury, 15th–17th March 1997 Brussels, Belgium. Marini JJ, et al. **Intensive Care Med** 1998 Aug;24(8):878–83
[Invasive and non-invasive home ventilation--changes between 1982 and 1996] Raffenberg M, et al. **Med Klin** 1999 Apr;94(1 Spec No):18–21 (Eng. Abstr.) **(Ger)**

UTILIZATION

Oscillatory ventilation for infants with respiratory distress syndrome--survey of current practice in the UK. Bragonier R, et al. **J Perinat Med** 1998;26(3):201–3

VETERINARY

Cardiopulmonary effects of bilateral hemithorax ventilation and diagnostic thoracoscopy in dogs. Faunt KK, et al. **Am J Vet Res** 1998 Nov;59(11):1494–8
Plasma electrolyte and metabolite concentrations associated with pentobarbital or pentobarbital-propofol anesthesia during three weeks' mechanical ventilation and intensive care in dogs. Gronert GA, et al. **Lab Anim Sci** 1998 Oct; 48(5):513–9

RESPIRATION, CELL see **CELL RESPIRATION**

RESPIRATION DISORDERS

[Claim, recognition, compensation of occupational respiratory diseases] Choudat D. **Rev Prat** 1998 Jun 15; 48(12):1327–31 (Eng. Abstr.) **(Fre)**
[Respiratory pathology in the agricultural environment] Dalphin JC. **Rev Prat** 1998 Jun 15;48(12):1313–8 (30 ref.) (Eng. Abstr.) **(Fre)**
[Patient-controlled sedation in a patient with respiratory dysfunction for reconstructive surgery of submandibular fracture under local anesthesia] Tokumine J, et al. **Masui** 1999 Mar;48(3):286–8 (Eng. Abstr.) **(Jpn)**

CHEMICALLY INDUCED

Instructional set and physiological response to CO2 inhalation. Welkowitz LA, et al. **Am J Psychiatry** 1999 May;156(5):745–8
Risk factors for sensitisation and respiratory symptoms among workers exposed to acid anhydrides: a cohort study. Barker RD, et al. **Occup Environ Med** 1998 Oct; 55(10):684–91
Inhalation of ammonium nitrate fuel oil explosive (ANFO): and possible concomitant exposure [letter; comment] [see comments] Søstrand P. **Occup Environ Med** 1998 Sep; 55(9):647. Comment on: Occup Environ Med 1998 Feb;55(2):144. Comment in: Occup Environ Med 1999 Mar;56(3):215.
Retrospective exposure assessment for a cohort study into respiratory effects of acid anhydrides. van Tongeren MJ, et al. **Occup Environ Med** 1998 Oct;55(10):692–6
Treatment of respiratory dyskinesia with olanzapine. Gotto J. **Psychosomatics** 1999 May-Jun;40(3):257–9
[Cardiorespiratory disorders in drug addiction] Kochetkova EA, et al. **Ter Arkh** 1998;70(12):84–7 (81 ref.) **(Rus)**
[Respiratory depression after postoperative analgesia using remifentanil (letter)] Calderón E, et al. **Rev Esp Anestesiol Reanim** 1999 Jun-Jul;46(6):272–3 **(Spa)**
[Our negative experience with meperidine for the prevention of coughing during cataract surgery (letter)] Carrero Cardenal EJ, et al. **Rev Esp Anestesiol Reanim** 1999 Mar; 46(3):133–4 **(Spa)**

COMPLICATIONS

Apneustic breathing in children with brainstem damage due to hypoxic-ischemic encephalopathy. Saito Y, et al. **Dev Med Child Neurol** 1999 Aug;41(8):560–7 (37 ref.)
Iron therapy in breath-holding spells and cerebral erythropoietin [letter; comment] Mocan MC, et al. **J Pediatr** 1998 Oct;133(4):583–4. Comment on: J Pediatr 1997 Apr;130(4):547–50.
Panic disorder following torture by suffocation is associated with predominantly respiratory symptoms. Bouwer C, et al. **Psychol Med** 1999 Jan;29(1):233–6
Relationship between early life respiratory illness, family size over time, and the development of asthma and hay fever: a seven year follow up study. Ponsonby AL, et al. **Thorax** 1999 Aug;54(8):664–9
[The role of the extracorporeal detoxication in prophylaxis and treatment of respiratory disorders in patients with acute ileus] Kutsyk IuB. **Klin Khir** 1998;(6):4–6 (Eng. Abstr.) **(Ukr)**

DIAGNOSIS

Gender differences in respiratory, nasal and skin symptoms: 6-7 versus 13-14-year-old children. Wieringa MH, et al. **Acta Paediatr** 1999 Feb;88(2):147–9
Panic disorder subtypes: differential responses to CO2 challenge. Biber B, et al. **Am J Psychiatry** 1999 May; 156(5):739–44
Improved airway assessment [letter] Bambridge AD. **Anaesthesia** 1999 Feb;54(2):203
Surfactant proteins A and D: disease markers. Kuroki Y, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):334–45 (47 ref.)
Persistent tachypnea in children: keep pulmonary embolism in mind. van Ommen CH, et al. **J Pediatr Hematol Oncol** 1998 Nov-Dec;20(6):570–3
Image of the month: Joubert syndrome. Mittler MA, et al. **Pediatr Neurosurg** 1999 Apr;30(4):218
[Unilateral nasal breathing difficulties] Jamali Y, et al. **HNO** 1999 Feb;47(2):126–7 **(Ger)**
[A 2-year-old child with acute respiratory difficulty. Pneumomediastinum and subcutaneous emphysema due to foreign body aspiration] Valdovinos Mahave MC, et al. **An Esp Pediatr** 1998 Dec;49(6):641–2 **(Spa)**

DRUG THERAPY

Breath holding spells in 91 children and response to treatment with iron. Mocan H, et al. **Arch Dis Child** 1999 Sep; 81(3):261–2
Bone loss and glucocorticoid therapy in patients with respiratory disease. Fairney A. **Thorax** 1999 Aug;54 Suppl 2:S52–7 (65 ref.)
The anti-inflammatory effects of macrolides. Wales D, et al. **Thorax** 1999 Aug;54 Suppl 2:S58–62 (48 ref.)

EPIDEMIOLOGY

Prevalence of chronic respiratory symptoms among Ohio cash grain farmers. Wilkins JR 3rd, et al. **Am J Ind Med** 1999 Feb;35(2):150–63
An audit of airway problems in the recovery room. Abdy S. **Anaesthesia** 1999 Apr;54(4):372–5
Current status of long term ventilation of children in the United Kingdom: questionnaire survey [see comments] Jardine E, et al. **BMJ** 1999 Jan 30;318(7179):295–9. Comment in: BMJ 1999 Jun 19;318(7199):1699.
Ten years of the SWORD project. Surveillance of Work-related and Occupational Respiratory Disease [see comments] Ross DJ. **Clin Exp Allergy** 1999 Jun;29(6):750–3 (23 ref.). Comment in: Clin Exp Allergy 1999 Jun;29(6):725–8.
Associations between white blood cell count, lung function, respiratory illness and mortality: the Busselton Health Study. James AL, et al. **Eur Respir J** 1999 May;

13(5):1115–9

Social deprivation and patterns of consultation for respiratory symptoms: a population–based cohort study. Trinder PM, et al. **J Epidemiol Community Health** 1999 Apr;53(4):251–2

Respiratory symptoms and pulmonary function of traffic policemen in Thonburi. Wongsurakiat P, et al. **J Med Assoc Thai** 1999 May;82(5):435–43

Antenatal steroids, condition at birth and respiratory morbidity and mortality in very preterm infants. Ee L, et al. **J Paediatr Child Health** 1998 Aug;34(4):377–83

Prevalence and predictors of work related respiratory symptoms in workers exposed to organic dusts [letter; comment] Fishwick D, et al. **Occup Environ Med** 1999 Aug; 56(8):575. Comment on: Occup Environ Med 1998 Oct;55(10):668–72.

Respiratory symptoms among glass bottle workers--cough and airways irritancy syndrome? Gordon SB, et al. **Occup Med (Lond)** 1998 Oct;48(7):455–9

Day care centers and respiratory health. Nafstad P, et al. **Pediatrics** 1999 Apr;103(4 Pt 1):753–8

[Traffic pollution and respiratory damages in children living in metropolitan areas. The SIDRIA Collaborative Group (Italian Studies on Respiratory Disorders in Childhood and the Environment)] **Epidemiol Prev** 1998 Oct–Dec; 22(4):242–7 **(Ita)**

[Respiratory tract symptoms in school children exposed to indoor and outdoor air pollution] Jędrychowski W, et al. **Pneumonol Alergol Pol** 1997;65(11–12):741–8 (Eng. Abstr.) **(Pol)**

[Respiratory and skin diseases among school children in the industrial and rural regions] Obtułowicz K, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):351–3 (Eng. Abstr.) **(Pol)**

[Chronic respiratory symptoms and lung function in children related to air pollution in the residential areas] Jędrychowski W, et al. **Przegl Epidemiol** 1998;52(3):329–37 (Eng. Abstr.) **(Pol)**

[The prevalence of respiratory symptoms, bronchial asthma and chronic bronchitis (simple and obstructive) in a representative sample of the adult rural population] Duțu S, et al. **Pneumoftiziologia** 1998 Jul–Sep;47(3):151–60 (Eng. Abstr.) **(Rum)**

ETIOLOGY

Postoperative respiratory arrhythmias: incidence and measurement. Sleigh JW. **Acta Anaesthesiol Scand** 1999 Aug;43(7):708–14

Influence of parental smoking on respiratory symptoms during the first decade of life: the Tucson Children's Respiratory Study. Stein RT, et al. **Am J Epidemiol** 1999 Jun 1;149(11):1030–7

Is the air in your hospital making you sick? Wilburn S. **Am J Nurs** 1999 Jul;99(7):71

Medullary metastasis causing impairment of respiratory pressure output with intact respiratory rhythm. Corne S, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):315–20

Hyperinflation–induced lung injury during alveolar flooding in rats: effect of perfluorocarbon instillation. Dreyfuss D, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1752–7

The cardiorespiratory effects of laparoscopic procedures in infants. Bozkurt P, et al. **Anaesthesia** 1999 Sep;54(9):831–4

Changes in lung volumes and poor perception of bronchoconstriction–induced respiratory symptoms. Catellier P, et al. **Ann Allergy Asthma Immunol** 1998 Oct; 81(4):315–21

Distinct patterns of respiratory difficulty in young children with achondroplasia: a clinical, sleep, and lung function study. Tasker RC, et al. **Arch Dis Child** 1998 Aug; 79(2):99–108

Respiratory complications after thyroidectomy and the need for tracheostomy in patients with a large goitre [see comments] Abdel Rahim AA, et al. **Br J Surg** 1999 Jan; 86(1):88–90. Comment in: Br J Surg 1999 Jul;86(7):967; discussion 968. Comment in: Br J Surg 1999 Jul;86(7):967–8.

Respiratory complications after thryroidectomy and the need for tracheostomy in patients with a large goitre [letter; comment] Lansdown M. **Br J Surg** 1999 Jul;86(7):967; discussion 968. Comment on: Br J Surg 1999 Jan;86(1):88–90.

Respiratory complication after thyroidectomy and the need for tracheostomy in patients with a large goitre [letter; comment] Palazzo FF, et al. **Br J Surg** 1999 Jul;86(7):967–8 . Comment on: Br J Surg 1999 Jan;86(1):88–90.

Liver transplantation: a critical care physician's personal odyssey. Brandstetter RD. **Chest** 1999 Sep;116(3):789–91

Gastroesophageal reflux and respiratory symptoms [letter] Field SK. **Chest** 1999 Sep;116(3):843

Diagnosis of anomalous innominate artery syndrome by spiral CT with 3D reconstruction of the airway: report of one case. Chen LC, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Mar–Apr;40(2):124–7

Assessment of the indoor environment in respiratory allergy. Sarpong SB, et al. **Ear Nose Throat J** 1998 Dec; 77(12):960–4 (30 ref.)

Removal of the laryngeal mask airway: factors affecting the incidence of post–operative adverse respiratory events in 300 patients. Baird MB, et al. **Eur J Anaesthesiol** 1999 Apr; 16(4):251–6

Breathing obstruction in relation to craniofacial and dental arch morphology in 4–year–old children. Löfstrand–Tideström B, et al. **Eur J Orthod** 1999 Aug; 21(4):323–32

Massive intrapericardial lipoma, a rare cause of breathlessness. Investigations and management. Doshi S, et al. **Int J Cardiol** 1998 Sep 30;66(2):211–5

Reinforcement of compliance with respiratory treatment in a child with cystic fibrosis. Hagopian LP, et al. **J Appl Behav Anal** 1999 Summer;32(2):233–6

Respiratory sinus arrhythmia of brainstem lesions. DiMario FJ, et al. **J Child Neurol** 1999 Apr;14(4):229–32

Respiratory aspects of neurological disease. Polkey MI, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):5–15 (170 ref.)

Sleep, respiration and ALS [editorial; comment] Aboussouan LS, et al. **J Neurol Sci** 1999 Mar 15;164(1):1–2. Comment on: J Neurol Sci 1999 Mar 15;164(1):37–43. Comment on: J Neurol Sci 1999 Mar 15;164(1):82–8.

Breathlessness with bilateral inguinal herniae. Raza N, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2128–9

Risks of respiratory disease in the heavy clay industry. Love RG, et al. **Occup Environ Med** 1999 Feb;56(2):124–33

Follow up investigation of workers in synthetic fibre plants with humidifier disease and work related asthma. Pal TM, et al. **Occup Environ Med** 1999 Jun;56(6):403–10

Lack of combined effects of exposure and smoking on respiratory health in aluminium potroom workers. Radon K, et al. **Occup Environ Med** 1999 Jul;56(7):468–72

Inhomogeneity in response to air pollution in European children (PEACE project). Roemer W, et al. **Occup Environ Med** 1999 Feb;56(2):86–92

Pulmonary function and respiratory symptoms in a population of airport workers. Tunnicliffe WS, et al. **Occup Environ Med** 1999 Feb;56(2):118–23

Respiratory symptoms and ventilatory performance in workers exposed to grain and grain based food dusts. Deacon SP, et al. **Occup Med (Lond)** 1998 May; 48(4):227–30

Gastroesophageal reflux and respiratory disorders [editorial; comment] Herbst JJ. **Pediatr Pulmonol** 1999 Apr; 27(4):229–30. Comment on: Pediatr Pulmonol 1999 Apr;27(4):231–5. Comment on: Pediatr Pulmonol 1999 Apr;27(4):236–41.

Lack of significant proximal esophageal acid reflux in infants presenting with respiratory symptoms [see comments] Vijayaratnam V, et al. **Pediatr Pulmonol** 1999 Apr; 27(4):231–5. Comment in: Pediatr Pulmonol 1999 Apr;27(4):229–30.

The comparison of respiratory resistance and occlusion pressure in alcohol dependent patients who complain or not of the respiratory system disorders. Kolarzyk E, et al. **Przegl Lek** 1999;56(6):428–32

HLA B27 and respiratory involvement in axial spondylarthropathies. A retrospective study in 107 male patients. Eulry F, et al. **Rev Rhum Engl Ed** 1998 Oct; 65(10):560–6

Respiratory symptoms and home environment in children: a national survey [published erratum appears in Thorax 1999 Apr;54(4):376] Burr ML, et al. **Thorax** 1999 Jan; 54(1):27–32

[Tracheal obstruction caused by bucking during general anesthesia in a patient with a mediastinal tumor] Nakamura M, et al. **Masui** 1998 Oct;47(10):1229–32 (Eng. Abstr.) **(Jpn)**

[Allergy to cow's milk] Czerwionka–Szaflarska M. **Pol Merkuriusz Lek** 1998 Dec;5(30):384–6 (Eng. Abstr.) **(Pol)**

[Chronic respiratory symptoms and lung function in children related to air pollution in the residential areas] Jędrychowski W, et al. **Przegl Epidemiol** 1998;52(3):329–37 (Eng. Abstr.) **(Pol)**

[Errors and hazards in the surgical treatment of vascular tumors of the mediastinum contributing to the respiratory tract compression in children] Krivchenia DIu, et al. **Klin Khir** 1999;(4):36–8 (Eng. Abstr.) **(Rus)**

HISTORY

Prolonged endotracheal intubation in infants and children. 1965 [classical article] Allen TH, et al. **Br J Anaesth** 1998 Sep;81(3):474–81; discussion 473

Postoperative analgesia and lung function: a comparison of morphine with extradural block. 1971 [classical article] Spence AA, et al. **Br J Anaesth** 1998 Dec;81(6):984–8; discussion 982–3

PATHOLOGY

Hyperinflation–induced lung injury during alveolar flooding in rats: effect of perfluorocarbon instillation. Dreyfuss D, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1752–7

A patient with ectodermal dysplasia, Joubert's syndrome, and brain cysts. Nuri Sener R. **Comput Med Imaging Graph** 1998 Jul–Aug;22(4):349–51

The safety and success rate of sputum induction using a low output ultrasonic nebuliser. Hunter CJ, et al. **Respir Med** 1999 May;93(5):345–8

PHYSIOPATHOLOGY

Contributions of hypoxia and respiratory disturbance index to sympathetic activation and blood pressure in obstructive sleep apnea syndrome. Peled N, et al. **Am J Hypertens** 1998 Nov;11(11 Pt 1):1284–9

Medullary metastasis causing impairment of respiratory pressure output with intact respiratory rhythm. Corne S, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):315–20

A comparison of apnea–hypopnea indices derived from different definitions of hypopnea. Tsai WH, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):43–8

Respiratory psychophysiology as a discipline: introduction to the special issue [editorial] Wientjes CJ, et al. **Biol Psychol** 1998 Sep;49(1–2):1–8

Upper airway function and dysfunction in respiration. Pierce RJ, et al. **Clin Exp Pharmacol Physiol** 1999 Jan;26(1):1–10 (102 ref.)

A comparison of a new transtelephonic portable spirometer with a laboratory spirometer. Izbicki G, et al. **Eur Respir J** 1999 Jul;14(1):209–13

Respiratory disturbances during sleep in syringomyelia and syringobulbia [see comments] Nogués M, et al. **Neurology** 1999 Jun 10;52(9):1777–83. Comment in: Neurology 1999 Jun 10;52(9):1732–3.

[Pulmonary function at the early stage after bone marrow transplantation] Hatta Y, et al. **Rinsho Ketsueki** 1998 Sep; 39(9):645–51 (Eng. Abstr.) **(Jpn)**

[Errors and hazards in the surgical treatment of vascular tumors of the mediastinum contributing to the respiratory tract compression in children] Krivchenia DIu, et al. **Klin Khir** 1999;(4):36–8 (Eng. Abstr.) **(Rus)**

[The importance of sleep in pneumology (editorial)] Rodenstein DO. **Arch Bronconeumol** 1998 Oct;34(9):415–6 **(Spa)**

PSYCHOLOGY

Changes in lung volumes and poor perception of bronchoconstriction–induced respiratory symptoms. Catellier P, et al. **Ann Allergy Asthma Immunol** 1998 Oct; 81(4):315–21

THERAPY

Airway problems in the recovery room [letter] Vaughan RS, et al. **Anaesthesia** 1999 Sep;54(9):912

Continuous distending pressure. Morley C. **Arch Dis Child Fetal Neonatal Ed** 1999 Sep;81(2):F152–6 (73 ref.)

Resuscitation of the newborn with airway compromise. Behar PM, et al. **Clin Perinatol** 1999 Sep;26(3):717–32, viii

Chronic respiratory morbidity following premature delivery--prediction by prolonged respiratory support requirement? Kinali M, et al. **Eur J Pediatr** 1999 Jun; 158(6):493–6

"Resident friendly KEM quickcare easy recall guide" for the sick newborns requiring mechanical ventilation [letter] Kabra NS, et al. **Indian Pediatr** 1998 Sep;35(9):921–2

Reinforcement of compliance with respiratory treatment in a child with cystic fibrosis. Hagopian LP, et al. **J Appl Behav Anal** 1999 Summer;32(2):233–6

Spontaneous minute ventilation predicts readiness for extubation in mechanically ventilated preterm infants. Wilson BJ Jr, et al. **J Perinatol** 1998 Nov–Dec;18(6 Pt 1):436–9

Real–time continuous visual biofeedback in the treatment of speech breathing disorders following childhood traumatic brain injury: report of one case. Murdoch BE, et al. **Pediatr Rehabil** 1999 Jan–Mar;3(1):5–20

Key developments in respiratory disease. Taggart S. **Practitioner** 1998 Mar;242(1584):179–80, 184 (4 ref.)

Oropharyngeal delivery of oxygen to children [see comments] Daga SR, et al. **Trop Doct** 1999 Apr;29(2):98–9 . Comment in: Trop Doct 1999 Apr;29(2):65.

[Usefulness of home visits in the control and evaluation of the appropriate use of home continuous oxygen therapy] Farrero E, et al. **Arch Bronconeumol** 1998 Sep;34(8):374–8 (Eng. Abstr.) **(Spa)**

[The role of the extracorporeal detoxication in prophylaxis and treatment of respiratory disorders in patients with acute ileus] Kutsyk IuB. **Klin Khir** 1998;(6):4–6 (Eng. Abstr.) **(Ukr)**

VETERINARY

Clinical and analytical studies of sheep dosed with various preparations of Astragalus lusitanicus. Abdennebi EH, et al. **Vet Hum Toxicol** 1998 Dec;40(6):327–31

RESPIRATOR WEANING see **VENTILATOR WEANING**

RESPIRATORS see **VENTILATORS, MECHANICAL**

RESPIRATORS, AIR–PURIFYING see **RESPIRATORY PROTECTIVE DEVICES**

RESPIRATORS, INDUSTRIAL see **RESPIRATORY PROTECTIVE DEVICES**

RESPIRATORS, NEGATIVE–PRESSURE see **VENTILATORS, NEGATIVE–PRESSURE**

RESPIRATORS, PULMONARY, NEGATIVE–PRESSURE see **VENTILATORS, NEGATIVE–PRESSURE**

RESPIRATORY ACIDOSIS see **ACIDOSIS, RESPIRATORY**

RESPIRATORY AIRFLOW see **PULMONARY VENTILATION**

RESPIRATORY ALKALOSIS see **ALKALOSIS, RESPIRATORY**

RESPIRATORY BURST

see related
GRANULOMATOUS DISEASE, CHRONIC

Transplantation, not dialysis, corrects azotemia-dependent priming of the neutrophil oxidative burst. Klein JB, et al. **Am J Kidney Dis** 1999 Mar;33(3):483-91

Phagocyte-induced oxidative stress in patients with haemodialysis treatment and organ transplantation. Lojek A, et al. **Biofactors** 1998;8(1-2):165-8

Inside the neutrophil phagosome: oxidants, myeloperoxidase, and bacterial killing. Hampton MB, et al. **Blood** 1998 Nov 1;92(9):3007-17 (165 ref.)

Diverse effects of neutrophil integrin occupation on respiratory burst activation. Yan SR, et al. **Cell Immunol** 1999 Aug 1;195(2):119-26

Intracellular free calcium regulates the onset of the respiratory burst of human neutrophils activated by phorbol myristate acetate. Hu TH, et al. **Cell Signal** 1999 May; 11(5):355-60

Decrease of respiratory burst in neutrophils of patients with ankylosing spondylitis by combined radon-hyperthermia treatment. Reinisch N, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):335-8

Oxidative modification of high-density lipoprotein 3 induced by human polymorphonuclear neutrophils. Protective effect of pentoxifylline. Cogny A, et al. **Eur J Biochem** 1999 Jan;259(1-2):32-9

Correction of respiratory burst activity in X-linked chronic granulomatous cells to therapeutically relevant levels after gene transfer into bone marrow CD34+ cells. Becker S, et al. **Hum Gene Ther** 1998 Jul 20;9(11):1561-70

A microscopic study of Fc gamma RIII-mediated respiratory burst in neutrophils. Model MA, et al. **Immunobiology** 1998 Jul;199(1):39-50

The respiratory burst activity of activated eosinophils in atopic asthmatics. Tsai JJ, et al. **Int Arch Allergy Immunol** 1999 May;119(1):38-44

Determination of the respiratory burst of polymorphonuclear leukocytes by microcalorimetry. Tan AM, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1-2):91-4

Effects of age on neutrophil function and its relevance to bacterial infections in the elderly. Angelis P, et al. **J Clin Lab Immunol** 1997;49(1):33-40

Respiratory burst activity in activated and unstimulated isolated bovine blood neutrophils during experimentally induced Escherichia coli mastitis. Van Oostveldt K, et al. **J Dairy Res** 1999 Aug;66(3):375-83

A simple flow cytometry assay using dihydrorhodamine for the measurement of the neutrophil respiratory burst in whole blood: comparison with the quantitative nitrobluetetrazolium test. Richardson MP, et al. **J Immunol Methods** 1998 Oct 1;219(1-2):187-93

Impaired phagocyte oxidative capacity in human immunodeficiency virus-infected children. Hayani KC, et al. **J Infect Dis** 1999 Mar;179(3):584-9

Digestion of C1q collagen-like domain with MMPs-1,-2,-3, and -9 further defines the sequence involved in the stimulation of neutrophil superoxide production. Ruiz S, et al. **J Leukoc Biol** 1999 Sep;66(3):416-22

Exacerbated immune stress response during experimental magnesium deficiency results from abnormal cell calcium homeostasis. Malpuech-Brugère C, et al. **Life Sci** 1998; 63(20):1815-22

Alveolar neutrophil oxidative burst and beta2 integrin expression in experimental acute pulmonary inflammation are not modified by inhaled nitric oxide. Kermarrec N, et al. **Shock** 1998 Aug;10(2):129-34

Priming of the neutrophil respiratory burst is species-dependent and involves MAP kinase activation. Yaffe MB, et al. **Surgery** 1999 Aug;126(2):248-54

Mediating phosphorylation events in the vanadium-induced respiratory burst of alveolar macrophages. Grabowski GM, et al. **Toxicol Appl Pharmacol** 1999 May 1;156(3):170-8

Flow cytometric determination of oxidative burst activity of equine peripheral blood and bronchoalveolar lavage-derived leucocytes [see comments] Raidal SL, et al. **Vet J** 1998 Sep;156(2):117-26. Comment in: Vet J 1998 Sep;156(2):79-80.

[Down-regulation effect of HIM82 on respiratory burst of neutrophil] Jiang X, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Aug; 19(4):247-51 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Remifentanil, fentanyl, and alfentanil have no influence on the respiratory burst of human neutrophils in vitro. Jaeger K, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1110-3

Improvement with disodium cromoglycate of neutrophil phagocytosis and respiratory burst activity in a patient with hyperimmunoglobulin E syndrome. Kojima K, et al. **Allergy** 1998 Nov;53(11):1101-3

Increase in granulocyte-macrophage-colony-stimulating factor secretion and the respiratory burst with decreased L-selectin expression in hyper-IgE syndrome patients. Vargas L, et al. **Ann Allergy Asthma Immunol** 1999 Sep; 83(3):245-51

Melatonin increases the intensity of respiratory burst and prevents L-selectin shedding in human neutrophils in vitro. Recchioni R, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):20-4

Effect of piracetam on polyphosphoinositide metabolism, cytosolic calcium release, and oxidative burst in human polymorphonuclear cells: interaction with fMLP-induced stimulation. Tissot M, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):163-70

Involvement of cyclic AMP generation in the inhibition of respiratory burst by 2-phenyl-4-quinolone (YT-1) in rat neutrophils. Wang JP, et al. **Biochem Pharmacol** 1998 Dec 1;56(11):1505-14

Priming effect of calcium ionophores on phorbol ester-induced respiratory burst in mouse peritoneal neutrophils. Dedkova EN, et al. **Biochemistry (Mosc)** 1999 Jul;64(7):788-94

Extracellular Ca2+ regulates the respiratory burst of human neutrophils. Bei L, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):475-83

Alteration of actin organization by jaspamide inhibits ruffling, but not phagocytosis or oxidative burst, in HL-60 cells and human monocytes. Fabian I, et al. **Blood** 1999 Jun 1; 93(11):3994-4005

The signal transduction mechanism involved in kazinol B-stimulated superoxide anion generation in rat neutrophils. Wang JP, et al. **Br J Pharmacol** 1998 Oct; 125(3):517-25

The effect of recombinant human granulocyte/macrophage-colony-stimulating factor (rHu GM-CSF) and rHu G-CSF administration on neutrophil chemiluminescence assay in patients following cyclic chemotherapy. Aslan M, et al. **Cancer Immunol Immunother** 1998 Nov;47(3):176-81

Influence of sub-minimum inhibitory concentrations of cefodizime on the phagocytosis, intracellular killing and oxidative bursts of human polymorphonuclear leukocytes. Braga PC, et al. **Chemotherapy** 1999 May-Jun;45(3):166-74

Effects of ciclosporin on whole blood chemiluminescence of renal transplant patients. Chen SY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):372-5

Neutrophils and monocytes from subjects with the Mediterranean G6PD variant: effect of Plasmodium falciparum hemozoin on G6PD activity, oxidative burst and cytokine production. Mordmüller B, et al. **Eur Cytokine Netw** 1998 Sep;9(3):239-45

Absence of regulation of human polymorphonuclear oxidative burst by interleukin-10, interleukin-4, interleukin-13 and transforming growth factor-beta in whole blood. Réglier-Poupet H, et al. **Eur Cytokine Netw** 1998 Dec;9(4):633-8

Effect of SK&F 96365 on extracellular Ca2+ -dependent O2- production in neutrophil-like HL-60 cells. Gallois A, et al. **Eur J Pharmacol** 1998 Nov 20;361(2-3):293-8

Modulation of the chemotactic peptide- and immunoglobulin G-triggered respiratory burst in human neutrophils by exogenous and endogenous adenosine. Zalavary S, et al. **Eur J Pharmacol** 1998 Aug 7;354(2-3):215-25

Cholera toxin differentially regulates nitric oxide synthesis, tumor necrosis factor-alpha production and respiratory burst in murine macrophages. Rodríguez BL, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):193-8

Stimulation of respiratory burst by cyclocommunin in rat neutrophils is associated with the increase in cellular Ca2+ and protein kinase C activity. Wang JP, et al. **Free Radic Biol Med** 1999 Mar;26(5-6):580-8

2-Hydroxymethyl-1-naphthol diacetate (TAC) suppresses the superoxide anion generation in rat neutrophils. Wang JP, et al. **Free Radic Biol Med** 1999 Apr;26(7-8):1010-8

Pentoxifylline decreases neutrophil respiratory bursts in patients with stable angina. Kowalski J, et al. **Fundam Clin Pharmacol** 1999;13(2):237-42

Measurement of the respiratory burst and chemotaxis in polymorphonuclear leukocytes from anti-ChE insecticides-exposed workers. Fernandes MD, et al. **Immunopharmacol Immunotoxicol** 1999 Aug;21(3):621-33

Trichilia glabra: effect on the phagocytic activity and respiratory burst response of peritoneal macrophages. Benencia F, et al. **Immunopharmacology** 1999 Jan; 41(1):45-53

PGG-glucan, a soluble beta-(1,3)-glucan, enhances the oxidative burst response, microbicidal activity, and activates an NF-kappa B-like factor in human PMN: evidence for a glycosphingolipid beta-(1,3)-glucan receptor. Wakshull E, et al. **Immunopharmacology** 1999 Feb;41(2):89-107

Activation of neutrophil respiratory burst by cytokines and chemoattractants. Regulatory role of extracellular matrix glycoproteins. Ottonello L, et al. **Inflamm Res** 1998 Aug; 47(8):345-50

Enhanced clearance of a multiple antibiotic resistant Staphylococcus aureus in rats treated with PGG-glucan is associated with increased leukocyte counts and increased neutrophil oxidative burst activity. Liang J, et al. **Int J Immunopharmacol** 1998 Nov;20(11):595-614

New cytokine dressings. II. Stimulation of oxidative burst in leucocytes in vitro and reduction of viable bacteria within an infected wound. Grzybowski J, et al. **Int J Pharm** 1999 Jul 20;184(2):179-87

GM-CSF increases in vitro the respiratory burst of human neutrophils after liver transplantation. Jaeger K, et al. **Intensive Care Med** 1999 Jun;25(6):612-5

Effect of plasma and LPS on respiratory burst of neutrophils in septic patients. Pascual C, et al. **Intensive Care Med** 1998 Nov;24(11):1181-6

Time and concentration dependent influence of dirithromycin on neutrophils oxidative burst. Levert H, et al. **J Antibiot (Tokyo)** 1999 Feb;52(2):127-33

Priming of human neutrophil respiratory burst by granulocyte/macrophage colony-stimulating factor (GM-CSF) involves partial phosphorylation of p47(phox). Dang PM, et al. **J Biol Chem** 1999 Jul 16;274(29):20704-8

Inhibition of fMLP-triggered respiratory burst of human monocytes by adenosine: involvement of A3 adenosine receptor. Broussas M, et al. **J Leukoc Biol** 1999 Sep; 66(3):495-501

Polyamines found in the inflamed periodontium inhibit priming and apoptosis in human polymorphonuclear leukocytes. Ratasirayakorn W, et al. **J Periodontol** 1999 Feb;70(2):179-84

Inhibition by magnolol of formylmethionyl-leucyl-phenyl alanine-induced respiratory burst in rat neutrophils. Wang JP, et al. **J Pharm Pharmacol** 1999 Mar;51(3):285-94

Decreased CD11b expression, phagocytosis, and oxidative burst in urban particulate pollution-exposed human monocytes and alveolar macrophages. Becker S, et al. **J Toxicol Environ Health** 1998 Dec 11;55(7):455-77

In vitro activity of aminoglycosides on the respiratory burst response in human polymorphonuclear neutrophils. Gressier B, et al. **Methods Find Exp Clin Pharmacol** 1998 Dec;20(10):819-24

In vitro influence of parenteral lipid emulsions on the respiratory burst of neutrophils. Heine J, et al. **Nutrition** 1999 Jul-Aug;15(7-8):540-5

The inhibitory effect of ambroxol on respiratory burst, degranulation and cytosolic Ca2+ change in degraded immunoglobulin G-activated neutrophils. Park NH, et al. **Pharmacol Toxicol** 1999 Feb;84(2):81-7

Effect of the mucoactive drug nacystelyn on the respiratory burst of human blood polymorphonuclear neutrophils. Nagy AM, et al. **Pulm Pharmacol Ther** 1997 Oct-Dec; 10(5-6):287-92

[Influence of bioactive glasses on the respiratory burst metabolism of polymorphonuclear neutrophils] Maitz MF, et al. **Biomed Tech (Berl)** 1999 Jun;44(6):172-5 (Eng. Abstr.) **(Ger)**

[Oxygen burst in human blood monocytes induced by liposomes with the various lipid composition] Atruz OM, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):63-5 **(Rus)**

[Role of Ca ions and protein kinase C in the action of vitamin E on respiratory burst of neutrophils and blast transformation of lymphocytes] Kapralov AA. **Ukr Biokhim Zh** 1998 Sep-Oct;70(5):64-8 (Eng. Abstr.) **(Rus)**

GENETICS

Activation of the human immunodeficiency virus-1 long terminal repeat by respiratory burst oxidants of neutrophils. Klebanoff SJ, et al. **Blood** 1999 Jan 1;93(1):350-6

IMMUNOLOGY

Effect of melanin and carotenoids of Exophiala (Wangiella) dermatitidis on phagocytosis, oxidative burst, and killing by human neutrophils. Schnitzler N, et al. **Infect Immun** 1999 Jan;67(1):94-101

Role of the 75-kDa TNF receptor in TNF-induced activation of neutrophil respiratory burst. Dri P, et al. **J Immunol** 1999 Jan 1;162(1):460-6

The amino-terminus of the amyloid-beta protein is critical for the cellular binding and consequent activation of the respiratory burst of human macrophages. Van Muiswinkel FL, et al. **J Neuroimmunol** 1999 Apr 1;96(1):121-30

Interaction between Salmonella typhimurium and phagocytic cells in pigs. Phagocytosis, oxidative burst and killing in polymorphonuclear leukocytes and monocytes. Riber U, et al. **Vet Immunol Immunopathol** 1999 Feb 22;67(3):259-70

Respiratory burst of human polymorphonuclear leukocytes in response to the galactoside-specific mistletoe lectin. Braun JM, et al. **Zentralbl Bakteriol** 1995 Nov;283(1):90-4

PHYSIOLOGY

Superoxide production of neutrophils after severe injury: impact of subsequent surgery and sepsis. Shih HC, et al. **Am J Emerg Med** 1999 Jan;17(1):15-8

Vestigial respiratory burst activity in wound macrophages. Nessel CC, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1587-94

Dependence of superoxide anion production on extracellular and intracellular calcium ions and protein kinase C in PMA-stimulated bovine neutrophils. Allard B, et al. **Can J Vet Res** 1999 Jan;63(1):13-7

Flow cytometric quantitation of human opsonin-dependent phagocytosis and oxidative burst responses to meningococcal antigens. Lehmann AK, et al. **Cytometry** 1998 Dec 1;33(4):406-13

Influence of structurally different lipid emulsions on human neutrophil oxygen radical production. Wanten GJ, et al. **Eur J Clin Invest** 1999 Apr;29(4):357-63

Pseudomonas aeruginosa hemolytic phospholipase C suppresses neutrophil respiratory burst activity. Terada LS, et al. **Infect Immun** 1999 May;67(5):2371-6

A melanin pigment purified from an epidemic strain of Burkholderia cepacia attenuates monocyte respiratory burst activity by scavenging superoxide anion. Zughaier SM, et al. **Infect Immun** 1999 Feb;67(2):908-13

RESPIRATORY BURST

Activation of neutrophil respiratory burst by cytokines and chemoattractants. Regulatory role of extracellular matrix glycoproteins. Ottonello L, et al. **Inflamm Res** 1998 Aug; 47(8):345–50

Flow-cytometric evaluation of oxidative burst in phagocytic cells of children with cystic fibrosis. Frühwirth M, et al. **Int Arch Allergy Immunol** 1998 Dec;117(4):270–5

Lipopolysaccharide-induced priming of the human neutrophil is not associated with a change in phosphotyrosine phosphatase activity. Leet CS, et al. **Int J Biochem Cell Biol** 1999 May;31(5):585–93

Cooperative stimulatory effects of tumor necrosis factor and granulocyte-macrophage colony-stimulating factor on the particular respiratory burst activity in human neutrophils: synergistic priming effect on concanavalin A-induced response, no interactive priming effect on the chemotactic peptide-induced response and additive triggering effect. Saeki K, et al. **Int J Hematol** 1998 Oct;68(3):269–78

Glycogen repletion following burst activity: a carbohydrate-sparing mechanism in animals adapted to arid environments? Bräu L, et al. **J Exp Zool** 1999 Aug 1; 284(3):271–5

Triggering of chloride ion efflux from human neutrophils as a novel function of leukocyte beta 2 integrins: relationship with spreading and activation of the respiratory burst. Menegazzi R, et al. **J Immunol** 1999 Jan 1;162(1):423–34

Disparities in the respiratory burst between human and rat neutrophils. Johnson JL, et al. **J Leukoc Biol** 1999 Feb; 65(2):211–6

Interleukin-8 priming of human neutrophils is not associated with persistently altered calcium fluxes but is additive with lipopolysaccharide. Van Dervort AL, et al. **J Leukoc Biol** 1998 Oct;64(4):511–8

Entrainment of the medullary respiratory generators by electrical stimulation in the cervical grey matter on in vitro preparations of newborn rat. Dubayle D, et al. **Neurosci Lett** 1998 Jun 5;248(3):204–8

Diapedesis across mammary epithelium reduces phagocytic and oxidative burst of bovine neutrophils. Smits E, et al. **Vet Immunol Immunopathol** 1999 May;68(2-4):169–76

RADIATION EFFECTS

Effect of magnetic resonance imaging on human respiratory burst of neutrophils. Heine J, et al. **FEBS Lett** 1999 Mar 5;446(1):15–7

RESPIRATORY CARE UNITS

Four-year experience with a unit for long-term ventilation (respiratory special care unit) at the Cleveland Clinic Foundation. Dasgupta A, et al. **Chest** 1999 Aug; 116(2):447–55

Intermediate respiratory intensive care units in Europe: a European perspective [see comments] Nava S, et al. **Thorax** 1998 Sep;53(9):798–802. Comment in: Thorax 1998 Sep;53(9):725–6.

HISTORY

The assisted respiration unit. 1964 [classical article] Mushin WW, et al. **Int Anesthesiol Clin** 1999 Winter;37(1):15–53

SUPPLY & DISTRIBUTION

Respiratory intensive care in Europe: lessons for the UK [editorial; comment] Elliott MW, et al. **Thorax** 1998 Sep; 53(9):725–6. Comment on: Thorax 1998 Sep;53(9):798–802.

RESPIRATORY CENTER

CYTOLOGY

Distribution of bulbospinal gamma-aminobutyric acid-synthesizing neurons of the ventral respiratory group of the rat. Ellenberger HH. **J Comp Neurol** 1999 Aug 16; 411(1):130–44

DRUG EFFECTS

NMDA receptor-mediated inspiratory off-switching in pneumotaxic-disconnected cats. Haji A, et al. **Neurosci Res** 1998 Dec;32(4):323–31

METABOLISM

Calcium currents of rhythmic neurons recorded in the isolated respiratory network of neonatal mice. Elsen FP, et al. **J Neurosci** 1998 Dec 15;18(24):10652–62

PHYSIOLOGY

Calcium currents of rhythmic neurons recorded in the isolated respiratory network of neonatal mice. Elsen FP, et al. **J Neurosci** 1998 Dec 15;18(24):10652–62

Involvement of reticular neurons of the cat medulla oblongata in the integrative activity of the respiratory center. Gordievskaya NA, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):327–32

The pre-Bötzinger complex participates in generating the respiratory effects of thyroliberin. Inyushkin AN, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):321–6

[Cold paralysis of the respiratory center and restoration of its function in homeothermic animals without rewarming] Arokina NK, et al. **Dokl Akad Nauk** 1999 Feb;364(4):560–2 **(Rus)**

PHYSIOPATHOLOGY

Is respiratory controller arrhythmia an artifact or a real phenomenon? [editorial; comment] Jubran A. **Eur Respir J** 1999 Feb;13(2):236–7. Comment on: Eur Respir J 1999 Feb;13(2):365–70.

Role of the respiratory control system in the pathophysiology of hypercapnia. Gardner WN. **Monaldi Arch Chest Dis** 1998 Jun;53(3):281–6 (71 ref.)

RESPIRATORY CHAIN see **ELECTRON TRANSPORT**

RESPIRATORY DEAD SPACE

Aspiration of airway dead space. A new method to enhance CO2 elimination. De Robertis E, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):728–32

Utility of deadspace and capnometry measurements in determination of surfactant efficacy in surfactant-depleted lungs [see comments] Wenzel U, et al. **Crit Care Med** 1999 May;27(5):946–52. Comment in: Crit Care Med 1999 May;27(5):862–3.

DRUG EFFECTS

Effects of sodium bicarbonate administration on the exercise tolerance of normal subjects breathing through dead space. Light RW, et al. **Chest** 1999 Jan;115(1):102–8

PHYSIOLOGY

Endotracheal intubation tube with reduced dead space (M-EIT): preliminary study on dogs [letter] Apan A. **Acta Anaesthesiol Scand** 1999 Sep;43(8):874–5

Physiological deadspace during normocapnic ventilation under anaesthesia. Puri GD, et al. **Anaesth Intensive Care** 1999 Apr;27(2):159–63

An algebraic solution to dead space determination according to Fowler's graphical method. Heller H, et al. **Comput Biomed Res** 1999 Apr;32(2):161–7

Pendelluft flow in symmetric airway bifurcations. Feng ZC, et al. **J Biomech Eng** 1998 Aug;120(4):463–7

Physiological dead space/tidal volume ratio during face mask, laryngeal mask, and cuffed oropharyngeal airway spontaneous ventilation. Casati A, et al. **J Clin Anesth** 1998 Dec;10(8):652–5

RESPIRATORY DISTRESS SYNDROME

BLOOD

Prostacyclin concentrations and transitional circulation in preterm infants requiring mechanical ventilation. Kluckow M, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan; 80(1):F34–7

Raised concentrations of aldehyde lipid peroxidation products in premature infants with chronic lung disease. Ogihara T, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F21–5

Lipid peroxidation and antioxidants in erythrocyte membranes of full-term and preterm newborns. Huertas JR, et al. **Biofactors** 1998;8(1-2):133–7

Indications of coagulation and/or fibrinolytic system activation in healthy and sick very-low-birth-weight neonates. Aronis S, et al. **Biol Neonate** 1998 Nov; 74(5):337–44

Elevated plasma endothelin-1 and cytokine levels in children with severe acute respiratory distress syndrome [see comments] Dobyns EL, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):246–9. Comment in: J Pediatr 1999 Aug;135(2 Pt 1):144–6.

A rat model of acute respiratory distress syndrome (ARDS): Part 1. Time dependency of histological and pathological changes. Germann PG, et al. **J Pharmacol Toxicol Methods** 1998 Aug;40(2):101–7

Increased tissue-type plasminogen activator antigen release is not accompanied by increased systemic fibrinolytic activity in severe neonatal respiratory distress syndrome. Brus F, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):588–94

Alpha-2-macroglobulin levels in early respiratory distress syndrome. Yurdakök M, et al. **Turk J Pediatr** 1998 Oct-Dec;40(4):567–70

[Glucose homeostasis against a background of respiratory distress in premature infants] Salabai ZV. **Lik Sprava** 1999 Mar;(2):110–2 (Eng. Abstr.) **(Ukr)**

CHEMICALLY INDUCED

Tityus discrepans venom produces a respiratory distress syndrome in rabbits through an indirect mechanism. D'Suze G, et al. **Toxicon** 1999 Jan;37(1):173–80

COMPLICATIONS

Does perinatal hypocarbia play a role in the pathogenesis of cerebral palsy? Salokorpi T, et al. **Acta Paediatr** 1999 May;88(5):571–5

Predicting bronchopulmonary dysplasia [letter; comment] Schroeder P, et al. **Intensive Care Med** 1999 Feb; 25(2):241–2. Comment on: Intensive Care Med 1998 May;24(5):476–80.

Acute respiratory distress syndrome following resection of a mesenchymal hamartoma of the liver. Fuchs J, et al. **Med Pediatr Oncol** 1999 Feb;32(2):151–3

Interleukin 8 in the tracheobronchial aspirate of infants acts as a neutrophil chemotactic factor in the development of chronic lung disease. Takasaki J, et al. **Pediatr Int** 1999 Feb;41(1):78–81

A patient with pseudohypoaldosteronism type 1 and respiratory distress syndrome. Malagon-Rogers M. **Pediatr Nephrol** 1999 Aug;13(6):484–6

DIAGNOSIS

Incidence of acute respiratory distress syndrome: a comparison of two definitions. Goh AY, et al. **Arch Dis Child** 1998 Sep;79(3):256–9

Lamellar body counts in amniotic fluid for prediction of fetal lung maturity. Beinlich A, et al. **Arch Gynecol Obstet** 1999; 262(3-4):173–80

A collaborative study of infant respiratory function testing. Dundas I, et al. **Eur Respir J** 1998 Oct;12(4):944–53

The biophysical/biochemical test. A new marker of fetal lung maturity in borderline cases. Piazze JJ, et al. **J Reprod Med** 1999 Jul;44(7):611–5

Prediction of RDS from amniotic fluid analysis: a comparison of the prognostic value of TLC and infra-red spectroscopy. Liu KZ, et al. **Prenat Diagn** 1998 Dec;18(12):1267–75

[Respiratory function in respiratory distress syndrome] Baghriche M, et al. **Arch Pediatr** 1998;5 Suppl 2:138s–141s **(Fre)**

[Respiratory distress of the newborn] Burguet A, et al. **Rev Prat** 1998 Feb 1;48(3):325–32 **(Fre)**

[Foreign bodies in the respiratory tract of infants and young children taken from personal material] Spodaryk M, et al. **Przegl Lek** 1998;55(9):490–3 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Use of surfactant for prophylaxis versus rescue treatment of respiratory distress syndrome: experience from an Italian-Bulgarian trial. Bevilacqua G, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:47–54

Effects of early postnatal dexamethasone therapy on calcium homeostasis and bone growth in preterm infants with respiratory distress syndrome. Lin YJ, et al. **Acta Paediatr** 1998 Oct;87(10):1061–5

Surfactant treatment for acute respiratory distress syndrome. López-Herce J, et al. **Arch Dis Child** 1999 Mar; 80(3):248–52

Randomised trial of three doses of inhaled nitric oxide in acute respiratory distress syndrome. Tang SF, et al. **Arch Dis Child** 1998 Nov;79(5):415–8

Principles of surfactant replacement. Robertson B, et al. **Biochim Biophys Acta** 1998 Nov 19;1408(2-3):346–61 (72 ref.)

Surfactant replacement in acute lung injury--the saga continues [editorial; comment] Arnold JH. **Crit Care Med** 1999 Jan;27(1):31–2. Comment on: Crit Care Med 1999 Jan;27(1):188–95.

Liquid perfluorochemical priming before surfactant therapy: this time the egg really does precede the chicken [editorial; comment] Baumgart S, et al. **Crit Care Med** 1999 Sep; 27(9):2053–4 (15 ref.). Comment on: Crit Care Med 1999 Sep;27(9):1916–22.

Perfluorocarbon priming and surfactant: physiologic and pathologic effects [see comments] Mrozek JD, et al. **Crit Care Med** 1999 Sep;27(9):1916–22. Comment in: Crit Care Med 1999 Sep;27(9):2053–4.

Instillation of calf lung surfactant extract (calfactant) is beneficial in pediatric acute hypoxemic respiratory failure. Members of the Mid-Atlantic Pediatric Critical Care Network [see comments] Willson DF, et al. **Crit Care Med** 1999 Jan;27(1):188–95. Comment in: Crit Care Med 1999 Jan;27(1):31–2.

Serial phospholipid analysis in preterm infants: comparison of Exosurf and Survanta. Lloyd J, et al. **Early Hum Dev** 1999 Mar;54(2):157–68

Outcome predictors in nitric oxide treated preterm infants. Dimitriou G, et al. **Eur J Pediatr** 1999 Jul;158(7):589–91

Disease-related response to inhaled nitric oxide in newborns with severe hypoxaemic respiratory failure. French Paediatric Study Group of Inhaled NO. Mercier JC, et al. **Eur J Pediatr** 1998 Sep;157(9):747–52

Delivery of salbutamol to nonventilated preterm infants by metered-dose inhaler, jet nebulizer, and ultrasonic nebulizer. Fok TF, et al. **Eur Respir J** 1998 Jul;12(1):159–64

Role of early post natal dexamethasone in respiratory distress syndrome [letter; comment] Locham KK, et al. **Indian Pediatr** 1998 Sep;35(9):932. Comment on: Indian Pediatr 1998 Feb;35(2):117–22.

Single dose surfactant rescue therapy in neonatal respiratory distress syndrome. Sanghvi KP, et al. **Indian Pediatr** 1998 Jun;35(6):533–6

Surfactant replacement therapy. Yu V. **Indian Pediatr** 1998 Nov;35(11):1081–96 (126 ref.)

Effect of inhaled nitric oxide on respiratory mechanics in ventilated infants with RSV bronchiolitis. Patel NR, et al. **Intensive Care Med** 1999 Jan;25(1):81–7

Changes of neonatal mortality rate between 'pre' and 'post' surfactant period. Choi YY, et al. **J Korean Med Sci** 1999 Feb;14(1):45–51

The outcome of very low birth weight neonates (</=1500 g) rescued by inhaled nitric oxide: neurodevelopment in early childhood [see comments] Cheung PY, et al.

J Pediatr 1998 Dec;133(6):735–9. Comment in: J Pediatr 1998 Dec;133(6):720–2.

Inhaled nitric oxide in the premature infant with severe hypoxemic respiratory failure: a time for caution [editorial; comment] Rosenberg AA. **J Pediatr** 1998 Dec;133(6):720–2 . Comment on: J Pediatr 1998 Dec;133(6):735–9.

Dose-dependent evaluation of the effects of nebulized furosemide on pulmonary function in ventilated preterm infants. Prabhu VG, et al. **J Perinatol** 1998 Sep–Oct; 18(5):357–60

Levels of evidence for the pharmacological effectiveness of prolonged methylprednisolone treatment in unresolving acute respiratory distress syndrome. Meduri GU. **Minerva Anestesiol** 1999 May;65(5):193–6 (12 ref.)

Early inhaled glucocorticoid therapy to prevent bronchopulmonary dysplasia [see comments] Cole CH, et al. **N Engl J Med** 1999 Apr 1;340(13):1005–10. Comment in: N Engl J Med 1999 Apr 1;340(13):1036–8.

Comparative trial of artificial and natural surfactants in the treatment of respiratory distress syndrome of prematurity: experiences in a developing country [see comments] da Costa DE, et al. **Pediatr Pulmonol** 1999 May;27(5):312–7 . Comment in: Pediatr Pulmonol 1999 May;27(5):303–4.

Pulmonary function at school-age in surfactant-treated preterm infants. Gappa M, et al. **Pediatr Pulmonol** 1999 Mar;27(3):191–8

Prevention of chronic lung disease in preterm infants by early postnatal dexamethasone therapy. Lin YJ, et al. **Pediatr Pulmonol** 1999 Jan;27(1):21–6

Treatment of meconium aspiration syndrome with surfactant lavage in an experimental rabbit model. Ohama Y, et al. **Pediatr Pulmonol** 1999 Jul;28(1):18–23

Changes in pulmonary function in preterm infants recovering from RDS following early treatment with ambroxol: results of a randomized trial. Schmalisch G, et al. **Pediatr Pulmonol** 1999 Feb;27(2):104–12

Bronchodilator delivered by metered dose inhaler and spacer improves respiratory system compliance more than nebulizer-delivered bronchodilator in ventilated premature infants. Sivakumar D, et al. **Pediatr Pulmonol** 1999 Mar; 27(3):208–12

Surfactant replacement therapy for respiratory distress syndrome. American Academy of Pediatrics. Committee on Fetus and Newborn. **Pediatrics** 1999 Mar;103(3):684–5

A three-day course of dexamethasone therapy to prevent chronic lung disease in ventilated neonates: a randomized trial. Garland JS, et al. **Pediatrics** 1999 Jul;104(1 Pt 1):91–9

Early versus late surfactant treatment in preterm infants of 27 to 32 weeks' gestational age: a multicenter controlled clinical trial. Gortner L, et al. **Pediatrics** 1998 Nov; 102(5):1153–60

Early dexamethasone therapy and blood cell count in preterm infants. Peng CT, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):476–81

[A trial of the use of the Russian surfactant Surfactant HL for treating the respiratory distress syndrome in newborn infants] Grebennikov VA, et al. **Anesteziol Reanimatol** 1998 Jul–Aug;(4):36–9 (Eng. Abstr.) **(Rus)**

[Lung function in premature infants can be improved. Surfactant therapy and CPAP reduce the need of respiratory support] Blennow M, et al. **Lakartidningen** 1999 Mar 31;96(13):1571–6 (Eng. Abstr.) **(Swe)**

EPIDEMIOLOGY

[Changes in the epidemiology of the acute respiratory distress syndrome (ARDS) in children] Martino Alba R, et al. **An Esp Pediatr** 1999 Jun;50(6):566–70 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Congenital diaphragmatic hernia with gastric volvulus presenting as an acute tension gastrothorax. Beckmann KR, et al. **Am J Emerg Med** 1999 Jan;17(1):35–7

A case of congenital mumps infection complicated with persistent pulmonary hypertension. Takahashi Y, et al. **Am J Perinatol** 1998 Jul;15(7):409–12

Transfusion-related acute lung injury (TRALI) complicating colectomy for ulcerative colitis. Keifer JC, et al. **Anesthesiology** 1998 Oct;89(4):1020–3

Hemodynamic changes induced by liposomes and liposome-encapsulated hemoglobin in pigs: a model for pseudoallergic cardiopulmonary reactions to liposomes. Role of complement and inhibition by soluble CR1 and anti-C5a antibody. Szebeni J, et al. **Circulation** 1999 May 4;99(17):2302–9

Risk factors for the development of respiratory distress syndrome and transient tachypnoea in newborn infants. Italian Group of Neonatal Pneumology. Dani C, et al. **Eur Respir J** 1999 Jul;14(1):155–9

Teratoma in a newborn: an unusual cause of airway obstruction. de Bree R, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jun 1;44(1):39–42

Epignathus: a germ-cell tumour presenting as neonatal respiratory distress. Demajumdar R, et al. **Int J Pediatr Otorhinolaryngol** 1999 Jan 25;47(1):87–90

Untreated idiopathic hypoparathyroidism associated with infant congenital and perinatal abnormalities [letter] Kaneko N, et al. **Intern Med** 1999 Jan;38(1):75

Multicystic dysplastic kidney as cause of gastric outlet obstruction and respiratory compromise. Triest JA, et al. **J Urol** 1999 Jun;161(6):1918–9

Functional pulmonary surfactant deficiency and neonatal respiratory disorders. Ogawa Y, et al. **Pediatr Pulmonol Suppl** 1999;18:175–7 (8 ref.)

[Pertussis in young infants] Vegelin AL, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2657–60 (Eng. Abstr.) **(Dut)**

[Pyolaryngocele: a rare cause of respiratory distress] Makeieff M, et al. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(3):183–5 (Eng. Abstr.) **(Fre)**

[Autopsy and microscopic study of lungs in newborns with respiratory distress: 33 cases] el Mezni F, et al. **Tunis Med** 1999 Apr;77(4):215–8 (Eng. Abstr.) **(Fre)**

GENETICS

Jarcho-Levin syndrome: two consecutive pregnancies in a Puerto Rican couple. Wong G, et al. **Ultrasound Obstet Gynecol** 1998 Jul;12(1):70–3

IMMUNOLOGY

Complexity of inflammatory mediators in acute respiratory distress syndrome (ARDS) [editorial; comment] Schears GJ, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):144–6. Comment on: J Pediatr 1999 Aug;135(2 Pt 1):246–9.

METABOLISM

Measurement of protein flux with positron emission tomography in neonates. Nama V, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F26–9

Presence of bleomycin-detectable free iron in the alveolar system of preterm infants. Gerber CE, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):218–22

Hyperoxia induces thioredoxin and thioredoxin reductase gene expression in lungs of premature baboons with respiratory distress and bronchopulmonary dysplasia. Das KC, et al. **Chest** 1999 Jul;116(1 Suppl):101S

Interleukin 10 inhibits alveolar macrophage production of inflammatory mediators involved in adult respiratory distress syndrome. Lo CJ, et al. **J Surg Res** 1998 Oct; 79(2):179–84

Cardiopulmonary bypass reduces pulmonary surfactant activity in infants. Griese M, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):237–44

Complement and contact activation related to surfactant response in respiratory distress syndrome. Wagner MH, et al. **Pediatr Res** 1999 Jan;45(1):14–8

MICROBIOLOGY

Ureaplasma urealyticum, erythromycin and respiratory morbidity in high-risk preterm neonates. Jónsson B, et al. **Acta Paediatr** 1998 Oct;87(10):1079–84

MORTALITY

Confidential enquiry into deaths due to prematurity. Cartlidge PH, et al. **Acta Paediatr** 1999 Feb;88(2):220–3

Outcome predictors in nitric oxide treated preterm infants. Dimitriou G, et al. **Eur J Pediatr** 1999 Jul;158(7):589–91

Changes of neonatal mortality rate between 'pre' and 'post' surfactant period. Choi YY, et al. **J Korean Med Sci** 1999 Feb;14(1):45–51

Trend in mortality from respiratory distress syndrome in the United States, 1970–1995. Lee Ks, et al. **J Pediatr** 1999 Apr;134(4):434–40

PATHOLOGY

Markers of pulmonary inflammation in tracheobronchial fluid of premature infants with respiratory distress syndrome. Burón E, et al. **Allergol Immunopathol (Madr)** 1999 Jan–Feb;27(1):11–7

Open lung biopsies in neonates on ECMO: additional cases. Extracorporeal membrane oxygenation [letter; comment] Ryan CA, et al. **J Pediatr Surg** 1998 Aug;33(8):1327–8. Comment on: J Pediatr Surg 1996 Oct;31(10):1376–8.

A rat model of acute respiratory distress syndrome (ARDS): Part I. Time dependency of histological and pathological changes. Germann PG, et al. **J Pharmacol Toxicol Methods** 1998 Aug;40(2):101–7

[Autopsy and microscopic study of lungs in newborns with respiratory distress: 33 cases] el Mezni F, et al. **Tunis Med** 1999 Apr;77(4):215–8 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Weaning from mechanical ventilation: patterns in young children recovering from acute hypoxemic respiratory failure [see comments] Curley MA, et al. **Am J Crit Care** 1998 Sep;7(5):335–45. Comment in: Am J Crit Care 1998 Sep;7(5):332–4.

Pattern recognition: a complex process [editorial; comment] Hanneman SK. **Am J Crit Care** 1998 Sep;7(5):332–4. Comment on: Am J Crit Care 1998 Sep;7(5):335–45.

Functional residual capacity and pulmonary mechanics in premature infants receiving a 12-day dexamethasone course. Lee M, et al. **Am J Perinatol** 1999;16(3):151–6

Positive end-expiratory pressure preserves surfactant function in preterm lambs. Michna J, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):634–9

Changes in pulmonary function in preterm infants recovering from RDS following early treatment with ambroxol: results of a randomized trial. Schmalisch G, et al. **Pediatr Pulmonol** 1999 Feb;27(2):104–12

Increased tissue-type plasminogen activator antigen release is not accompanied by increased systemic fibrinolytic activity in severe neonatal respiratory distress syndrome. Brus F, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):588–94

[The sigh in ARDS (acute respiratory distress syndrome) Pelosi P, et al. **Minerva Anestesiol** 1999 May;65(5):313–7 (16 ref.) (Eng. Abstr.) **(Ita)**

PREVENTION & CONTROL

Use of surfactant for prophylaxis versus rescue treatment of respiratory distress syndrome: experience from an Italian-Bulgarian trial. Bevilacqua G, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:47–54

Use of surfactant for prevention of respiratory distress syndrome in newborn infants in spontaneous breathing. A randomized multicentre clinical pilot-study. Dambeanu JM, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:39–45

Antenatal steroids to prevent respiratory distress syndrome: multiple gestation as an effect modifier. Quist-Therson EC, et al. **Acta Obstet Gynecol Scand** 1999 May;78(5):388–92

Efficacy of sequential early systemic and inhaled corticosteroid therapy in the prevention of chronic lung disease of prematurity. Kovács L, et al. **Acta Paediatr** 1998 Jul;87(7):792–8

Corticosteroid therapy for prevention of respiratory distress syndrome in severe preeclampsia. Amorim MM, et al. **Am J Obstet Gynecol** 1999 May;180(5):1283–8

A randomized, controlled trial of oral and intramuscular dexamethasone in the prevention of neonatal respiratory distress syndrome. Egerman RS, et al. **Am J Obstet Gynecol** 1998 Nov;179(5):1120–3

Artificial reconstituted pulmonary surfactant in prevention and treatment of respiratory distress syndrome in neonates. Jiang ZQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar; 18(2):182–4

New technique for artificial lung maturation. Direct intramuscular fetal corticosteroid therapy. Ljubić A, et al. **Clin Exp Obstet Gynecol** 1999;26(1):16–9

Pulmonary haemorrhage in infants with gestational age of less than 30 weeks [letter] De Carolis MP, et al. **Eur J Pediatr** 1998 Dec;157(12):1037–8

Multiple vs. single betamethasone therapy. Neonatal and maternal effects. Pratt L, et al. **J Reprod Med** 1999 Mar; 44(3):257–64

Antenatal corticosteroids for the prevention of neonatal respiratory distress in a predominantly rural state Medicaid population. Golden WE, et al. **Obstet Gynecol** 1998 Nov; 92(5):837–41

Fetal versus maternal and gestational age effects of repetitive antenatal glucocorticoids. Jobe AH, et al. **Pediatrics** 1998 Nov;102(5):1116–25

[The use of Curosurf with premature infants--the prevention or treatment of the neonatal RDS] Iarükova N, et al. **Akush Ginekol (Sofiia)** 1998;37(3):12–4 (Eng. Abstr.) **(Bul)**

[Does prenatal administration of thyrotropin releasing hormone contribute to premature delivery?] Binder T, et al. **Ceska Gynekol** 1999 Jan;64(1):10–9 **(Cze)**

[Coughing and wheezing children: improvement after parents stop smoking (see comments)] Brand PL, et al. **Ned Tijdschr Geneeskd** 1998 Apr 11;142(15):825–7 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1574. **(Dut)**

[Elective cesarean section is preferred after the completion of a minimum of 38 weeks of pregnancy (see comments)] Graziosi GC, et al. **Ned Tijdschr Geneeskd** 1998 Oct 17; 142(42):2300–3 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jan 2;143(1):60. **(Dut)**

THERAPY

Weaning from mechanical ventilation: patterns in young children recovering from acute hypoxemic respiratory failure [see comments] Curley MA, et al. **Am J Crit Care** 1998 Sep;7(5):335–45. Comment in: Am J Crit Care 1998 Sep;7(5):332–4.

Pattern recognition: a complex process [editorial; comment] Hanneman SK. **Am J Crit Care** 1998 Sep;7(5):332–4. Comment on: Am J Crit Care 1998 Sep;7(5):335–45.

Congenital diaphragmatic hernia: experience with preoperative stabilization and delayed surgery without ECMO and inhaled nitric oxide. Al-Hathal M, et al. **Am J Perinatol** 1998 Aug;15(8):487–90

Independent and combined effects of inhaled nitric oxide, liquid perfluorochemical, and high-frequency oscillatory ventilation in premature lambs with respiratory distress syndrome. Kinsella JP, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1220–7

High-frequency oscillation via a laryngeal mask airway [letter] Fraser J, et al. **Anaesthesia** 1999 Apr;54(4):404

Meta-analysis of elective high frequency ventilation in preterm infants with respiratory distress syndrome. Cools F, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan; 80(1):F15–20

Volume controlled and time cycled pressure limited ventilation [letter; comment] Greenough A, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F79. Comment on: Arch Dis Child Fetal Neonatal Ed 1997 Nov;77(3):F202–5.

Multicentre trail of high frequency ventilation. Ukos Study Group [letter] Johnson A, et al.

Arch Dis Child Fetal Neonatal Ed 1999 Sep;81(2):F160
Randomised trial of elective continuous positive airway pressure (CPAP) compared with rescue CPAP after extubation. Robertson NJ, et al.
Arch Dis Child Fetal Neonatal Ed 1998 Jul;79(1):F58–60
Nasal high frequency ventilation in neonates with moderate respiratory insufficiency. van der Hoeven M, et al.
Arch Dis Child Fetal Neonatal Ed 1998 Jul;79(1):F61–3
Early nasal continuous positive airway pressure and minimal handling in the treatment of very-low-birth-weight infants. Kamper J. **Biol Neonate** 1999 Jun;76 Suppl 1:22–8 (34 ref.)
Preoperative extracorporeal membrane oxygenation in newborns with total anomalous pulmonary venous connection. Ishino K, et al. **Cardiovasc Surg** 1999 Jun; 7(4):473–5
Independent and combined effects of inhaled nitric oxide, liquid perfluorochemical, and high-frequency oscillatory ventilation in premature lambs with respiratory distress syndrome. Kinsella JP, et al. **Chest** 1999 Jul;116(1 Suppl):15S–16S
Experiences with high-frequency oscillatory ventilation in premature infants with respiratory distress syndrome. Jeng MJ, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Sep; 61(9):531–7
Intratracheal pulmonary ventilation in neonatal respiratory failure [editorial; comment] Bancalari E. **Crit Care Med** 1999 Jan;27(1):18–9. Comment on: Crit Care Med 1999 Jan;27(1):109–12.
Recent developments in inhaled nitric oxide therapy of the newborn. Kinsella JP, et al. **Curr Opin Pediatr** 1999 Apr; 11(2):121–5 (33 ref.)
Successful use of an intraosseous infusion in an 800 grams preterm infant. Ramet J, et al. **Eur J Emerg Med** 1998 Sep; 5(3):327–8
Intermittent positive pressure ventilation in a neonatal intensive care unit: Hyderabad experience. Mathur NC, et al. **Indian Pediatr** 1998 Apr;35(4):349–52
Recent advances in assisted ventilation for neonatal respiratory distress syndrome. Yu VY. **Indian Pediatr** 1998 Jul;35(7):631–40 (85 ref.)
Liquid ventilation. Melo J, et al. **Intensive Care Med** 1999 Apr;25(4):420–1 (2 ref.)
A prospective randomized comparison of conventional mechanical ventilation and very early high frequency oscillatory ventilation in extremely premature newborns with respiratory distress syndrome. Plavka R, et al.
Intensive Care Med 1999 Jan;25(1):68–75
Intratracheal anti-tumor necrosis factor-alpha antibody attenuates ventilator-induced lung injury in rabbits. Imai Y, et al. **J Appl Physiol** 1999 Aug;87(2):510–5
Decision making in the nursery: an ethical dilemma [see comments] Jones C, et al. **J Clin Ethics** 1998 Fall; 9(3):314–22. Comment in: J Clin Ethics 1998 Fall;9(3):215.
Use of high frequency oscillatory ventilation (HFOV) for respiratory distress syndrome (RDS). Stewart DL, et al. **J Ky Med Assoc** 1999 Jan;97(1):17–21
Surfactant use in the term neonate with hypoxemic respiratory failure [letter; comment] Abman SH, et al. **J Pediatr** 1998 Nov;133(5):716–7. Comment on: J Pediatr 1998 Jan;132(1):40–7.
Predictors of intracranial hemorrhage during neonatal extracorporeal membrane oxygenation. Hardart GE, et al. **J Pediatr** 1999 Feb;134(2):156–9
Proportional assist ventilation in low birth weight infants with acute respiratory disease: A comparison to assist/control and conventional mechanical ventilation. Schulze A, et al. **J Pediatr** 1999 Sep;135(3):339–44
The Edmonton experience with venovenous extracorporeal membrane oxygenation. Osiovich HC, et al.
J Pediatr Surg 1998 Dec;33(12):1749–52
Oscillatory ventilation for infants with respiratory distress syndrome--survey of current practice in the UK. Bragonier R, et al. **J Perinat Med** 1998;26(3):201–3
The perils of paediatric research [editorial] [see comments] **Lancet** 1999 Feb 27;353(9154):685. Comment in: Lancet 1999 May 1;353(9163):1530–1.
Is management of neonatal respiratory distress syndrome feasible in developing countries? Experience from Karachi (Pakistan) [see comments] Bhutta ZA, et al.
Pediatr Pulmonol 1999 May;27(5):305–11. Comment in: Pediatr Pulmonol 1999 May;27(5):303–4.
Synergistic effects of high-frequency ventilation and inhaled nitric oxide in the treatment of hypoxemic respiratory failure in infancy [letter] Hoehn T, et al.
Pediatr Pulmonol 1998 Sep;26(3):228–30
Neonatal respiratory care and infant mortality in emerging countries [editorial; comment] Sola A, et al.
Pediatr Pulmonol 1999 May;27(5):303–4 (8 ref.). Comment on: Pediatr Pulmonol 1999 May;27(5):305–11. Comment on: Pediatr Pulmonol 1999 May;27(5):312–7.
Indications for surfactant therapy--the aAPO2 coming of age [comment] Hall RT. **Pediatrics** 1999 Feb;103(2):E25. Comment on: Pediatrics 1999 Feb;103(2):E24.
Delivery room management of extremely low birth weight infants: spontaneous breathing or intubation? Lindner W, et al. **Pediatrics** 1999 May;103(5 Pt 1):961–7
Nasal continuous positive airway pressure and early surfactant therapy for respiratory distress syndrome in newborns of less than 30 weeks' gestation [see comments] Verder H, et al. **Pediatrics** 1999 Feb;103(2):E24. Comment in: Pediatrics 1999 Feb;103(2):E25.
Surfactant replacement therapy in RSV-induced acute respiratory distress syndrome (ARDS). Goh AY, et al.
Singapore Med J 1999 Feb;40(2):113–6
Acute respiratory distress syndrome: a clinical update. Soubani AO, et al. **South Med J** 1999 May;92(5):450–7 (58 ref.)
[The first Danish experiences with neonatal extracorporeal membrane oxygenation] Arrøe M, et al. **Ugeskr Laeger** 1999 Mar 15;161(11):1585–9 (Eng. Abstr.) **(Dan)**
[Intensive treatment of newborns with severe respiratory failure (editorial)] Henneberg SW, et al. **Ugeskr Laeger** 1999 Mar 15;161(11):1569 **(Dan)**
[Results of extracorporeal membrane oxygenation in 100 newborns with cardiorespiratory insufficiency (published erratum appears in Ned Tijdschr Geneeskd 1999 Mar 20;143(12):648)] van Heijst AF, et al.
Ned Tijdschr Geneeskd 1999 Feb 13;143(7):356–60 (Eng. Abstr.) **(Dut)**
[Respiratory distress of the newborn] Burguet A, et al.
Rev Prat 1998 Feb 1;48(3):325–32 **(Fre)**
[Interactive computer program for separating respiratory pressure in newborn infants into its elastic, viscous and inert components] Foitzik B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:278–9 **(Ger)**
[Model studies for determining inertia of the respiratory system in ventilated newborn infants with jet impulses] Schmidt M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:132–3 **(Ger)**
[Combination therapy of high frequency oscillatory ventilation, NO inhalation and surfactant replacement in a child with acute respiratory distress syndrome] Merz U, et al. **Klin Padiatr** 1999 Mar-Apr;211(2):83–5 (Eng. Abstr.) **(Ger)**
[Our experience in the use of a Russian preparation of pulmonary surfactant in the treatment of acute respiratory distress syndrome and severe pneumonia in children] Tsybul'kin EK, et al. **Anesteziol Reanimatol** 1999 Mar-Apr; (2):61–5 (Eng. Abstr.) **(Rus)**
[Effect of inhaled nitric oxide on the first 24 hours of assisted respiration in the critically ill child] López-Herce Cid J, et al. **An Esp Pediatr** 1999 Mar;50(3):253–8 (Eng. Abstr.) **(Spa)**
[High-frequency oscillatory ventilation as salvage strategy in the newborn infant. Spanish multicenter study. I] Morcillo F, et al. **An Esp Pediatr** 1999 Mar;50(3):269–74 (Eng. Abstr.) **(Spa)**
[Ventilation in prone decubitus in a patient with respiratory distress during heart surgery] Rama-Maceiras P, et al.
Rev Esp Anestesiol Reanim 1999 Feb;46(2):81–4 (Eng. Abstr.) **(Spa)**

VIROLOGY

Surfactant replacement therapy in RSV-induced acute respiratory distress syndrome (ARDS). Goh AY, et al.
Singapore Med J 1999 Feb;40(2):113–6

RESPIRATORY DISTRESS SYNDROME, ADULT

Acute respiratory distress syndrome: 30 years later. Lesur O, et al. **Can Respir J** 1999 Jan-Feb;6(1):71–86 (130 ref.)
Proceedings of the 41st Annual Thomas L. Petty Aspen Lung Conference: Acute Lung Injury. **Chest** 1999 Jul;116(1 Suppl):1S–127S
Conference summary: acute lung injury. Matthay MA.
Chest 1999 Jul;116(1 Suppl):119S–126S
Chemokines in lung injury: Thomas A. Neff Lecture. Strieter RM, et al. **Chest** 1999 Jul;116(1 Suppl):103S–110S (80 ref.)
Cellular alterations in fibroproliferative lung disease. Toews GB. **Chest** 1999 Jul;116(1 Suppl):112S–116S (32 ref.)
Round table conference: acute lung injury, 15th–17th March 1997 Brussels, Belgium. Marini JJ, et al.
Intensive Care Med 1998 Aug;24(8):878–83
Adult respiratory distress syndrome following cardiopulmonary bypass: incidence, prophylaxis and management. Kaul TK, et al.
J Cardiovasc Surg (Torino) 1998 Dec;39(6):777–81
ARDS. History, definitions, and physiology. Brown SD.
Respir Care Clin N Am 1998 Dec;4(4):567–82, vii (21 ref.)
[Systemic inflammatory response syndrome and acute lung injury, multiple organ dysfunction syndrome (editorial)] Sun G, et al.
Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih 1997 Apr; 20(2):67–8 **(Chi)**
[Acute respiratory distress syndrome] Matějovič M, et al.
Cas Lek Cesk 1999 Apr 26;138(9):262–7 (37 ref.) (Eng. Abstr.) **(Cze)**

BLOOD

PEEP: blood gas cosmetics or a therapy for ARDS? [editorial; comment] Pesenti A, et al. **Crit Care Med** 1999 Feb;27(2):253–4 (17 ref.). Comment on: Crit Care Med 1999 Feb;27(2):380–4.
Influence of mechanical ventilation on blood lactate in patients with acute respiratory failure. Gil A, et al.
Intensive Care Med 1998 Sep;24(9):924–30
Integrated stimulation by CXC chemokines enhances PMN [Ca2+]i signaling in trauma and adult respiratory distress syndrome. Hauser CJ, et al. **Surgery** 1999 Aug; 126(2):208–15
[The prognostic value of eicosanoids in the acute respiratory distress syndrome] Masclans JR, et al. **Med Clin (Barc)** 1999 Jan 30;112(3):81–4 (Eng. Abstr.) **(Spa)**

CHEMICALLY INDUCED

Pulmonary injury after ski wax inhalation exposure. Bracco D, et al. **Ann Emerg Med** 1998 Nov;32(5):616–9
Intraoperative respiratory failure in a patient after treatment with bleomycin: previous and current intraoperative exposure to 50% oxygen. Luis M, et al.
Eur J Anaesthesiol 1999 Jan;16(1):66–8
Complications of bowel cleansing with polyethylene glycol-electrolyte solution [letter; comment] Van Gossum A, et al. **Gastrointest Endosc** 1999 Jun;49(6):818. Comment on: Gastrointest Endosc 1998 Mar;47(3):254–6. Comment on: Gastrointest Endosc 1998 May;47(5):408–10.
Fatal multi-organ failure after suicidal overdose with MDMA, 'ecstasy': case report and review of the literature. Walubo A, et al. **Hum Exp Toxicol** 1999 Feb;18(2):119–25
Acute respiratory distress syndrome following nitrogen dioxide exposure. Aggarwal AN, et al.
Indian J Chest Dis Allied Sci 1998 Oct-Dec;40(4):275–9
Activation of polymorphonuclear leukocytes in oleic acid-induced lung injury. Moriuchi H, et al.
Intensive Care Med 1998 Jul;24(7):709–15
Ether suicide poisoning by intravenous injection [letter; comment] Serrano N, et al. **Intensive Care Med** 1999 Mar; 25(3):337–8. Comment on: Intensive Care Med 1998 Jun;24(6):624–5.
Severe respiratory distress following sodium oleate ingestion. Okumura T, et al. **J Toxicol Clin Toxicol** 1998;36(6):587–9
Adult respiratory distress syndrome after experimental intravenous gamma-globulin concentrate and monocyte-reactive IgG antibodies [letter] Dooren MC, et al. **Lancet** 1998 Nov 14;352(9140):1601–2
The adult respiratory distress syndrome after dextran infusion as an antithrombotic agent in free TRAM flap breast reconstruction. Hein KD, et al. **Plast Reconstr Surg** 1999 May;103(6):1706–8
Acute respiratory distress syndrome in a welder exposed to metal fumes. Barbee JY Jr, et al. **South Med J** 1999 May; 92(5):510–2
[Chloroquine poisoning with respiratory distress and fatal outcome (see comments)] Ndiaye N, et al.
Ann Fr Anesth Reanim 1999 Jun;18(6):683–5 (Eng. Abstr.) . Comment in: Ann Fr Anesth Reanim 1999 Jun;18(6):621–2. **(Fre)**
[Acute respiratory distress syndrome in a patient treated with atenolol] Guilaumé B, et al. **Rev Mal Respir** 1998 Sep; 15(4):541–3 (Eng. Abstr.) **(Fre)**

CLASSIFICATION

Hemodynamic profile in severe ARDS [letter; comment] Jardin F. **Intensive Care Med** 1999 Feb;25(2):246–7. Comment on: Intensive Care Med 1998 Oct;24(10):1018–28.
Early and late acute respiratory distress syndrome: two distinct clinical entities. Croce MA, et al. **J Trauma** 1999 Mar;46(3):361–6; discussion 366–8

COMPLICATIONS

Systemic hypotension on withdrawal from inhaled nitric oxide in an adult patient with acute respiratory distress syndrome [letter] Buratti T, et al. **Crit Care Med** 1999 Feb; 27(2):441
Success in using non-invasive mechanical ventilation is predicted by patient pathophysiology. A retrospective review of 199 patients. Krall SP, et al. **Del Med J** 1999 May;71(5):213–20
Noninvasive ventilation for the treatment of acute respiratory failure in patients with hematologic malignancies: a pilot study. Conti G, et al. **Intensive Care Med** 1998 Dec; 24(12):1283–8
Is myositis ossificans following ARDS a complication of prone-dependency or is it osteoarthropathia hypertrophicans (Bamberger-Marie syndrome)? [letter; comment] Deller A, et al. **Intensive Care Med** 1998 Dec; 24(12):1345–6. Comment on: Intensive Care Med 1998 Mar;24(3):276–7.
Partial liquid ventilation decreases albumin leak in the setting of acute lung injury. Colton DM, et al. **J Crit Care** 1998 Sep;13(3):136–9
Intraoperative use of nitric oxide during intracranial aneurysm clipping in a patient with acute respiratory distress syndrome. Grady RE, et al.
J Neurosurg Anesthesiol 1999 Apr;11(2):124–6
Cholestatic jaundice with skin desquamation in a 12-year-old girl [clinical conference] Stutts JT, et al. **J Pediatr** 1999 May;134(5):649–53
Pulmonary hypertension in acute respiratory distress syndrome. Leeman M. **Monaldi Arch Chest Dis** 1999 Apr; 54(2):146–9 (29 ref.)
Revving the motor of multiple organ dysfunction syndrome. Gut dysfunction in ARDS and multiorgan failure. Taylor DE. **Respir Care Clin N Am** 1998 Dec;4(4):611–31, vii–viii (58 ref.)
A case of group II non-specific interstitial pneumonia developed during corticosteroid therapy after acute respiratory distress syndrome. Ishioka S, et al.
Respirology 1999 Sep;4(3):283–5

DIAGNOSIS

Neuropsychological sequelae and impaired health status in survivors of severe acute respiratory distress syndrome. Hopkins RO, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):50–6

Novel assessment of acute lung injury by in vivo near-infrared spectroscopy. Shibata S, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):317–23

Toward new definitions of acute respiratory distress syndrome [editorial; comment] Abraham E. **Crit Care Med** 1999 Feb;27(2):237–8 (13 ref.). Comment on: Crit Care Med 1999 Feb;27(2):304–12.

The necessity of performing transesophageal echocardiography in patients with acute respiratory distress syndrome [letter] Falter F, et al. **Intensive Care Med** 1999 Jun;25(6):637

Detection of lung injury with conventional and neural network-based analysis of continuous data. Räsänen J, et al. **J Clin Monit Comput** 1998 Aug;14(6):433–9

Tumour necrosis factor as predictor for pulmonary dysfunction after cardiac surgery [letter] Gilliland HE, et al. **Lancet** 1998 Oct 17;352(9136):1281–2

Ventilation index and outcome in children with acute respiratory distress syndrome. Paret G, et al. **Pediatr Pulmonol** 1998 Aug;26(2):125–8

[Knowledge-based diagnosis and therapeutic recommendations with fuzzy-set theory methods in patients with acute lung failure (ARDS)] Steltzer H, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Apr;34(4):218–23 (Eng. Abstr.) **(Ger)**

[Miliary tuberculosis and adult respiratory distress syndrome in an infant] Krüger M, et al. **Klin Padiatr** 1998 Nov–Dec; 210(6):425–7 (Eng. Abstr.) **(Ger)**

[Mendelson syndrome in infancy and childhood] Baum WF, et al. **Pneumologie** 1998 Oct;52(10):556–9 (21 ref.) (Eng. Abstr.) **(Ger)**

[Significance of systemic inflammation in 1,278 trauma patients] Ertel W, et al. **Unfallchirurg** 1998 Jul;101(7):520–6 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Modified natural and synthetically reconstituted surfactant therapies for acute lung injury caused by endotoxin in rats. Tashiro K, et al. **Acta Anaesthesiol Scand** 1999 Sep; 43(8):821–8

Heparin improves gas exchange during experimental acute lung injury in newborn piglets. Abubakar K, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1620–5

Intravenous almitrine combined with inhaled nitric oxide for acute respiratory distress syndrome. The NO Almitrine Study Group. Gallart L, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1770–7

Response to inhaled nitric oxide in acute lung injury depends on distribution of pulmonary blood flow prior to its administration. Gust R, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):563–70

Aerosolized soluble nitric oxide donor improves oxygenation and pulmonary hypertension in acute lung injury. Jacobs BR, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1536–42

Nitration of proteins in bronchoalveolar lavage fluid from patients with acute respiratory distress syndrome receiving inhaled nitric oxide. Lamb NJ, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):1031–4

Inhaled nitric oxide and vasoconstrictors in acute respiratory distress syndrome. Papazian L, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):473–9

Vaporized perfluorocarbon improves oxygenation and pulmonary function in an ovine model of acute respiratory distress syndrome [see comments] Bleyl JU, et al. **Anesthesiology** 1999 Aug;91(2):461–9. Comment in: Anesthesiology 1999 Aug;91(2):340–2.

Effects of exogenous surfactant on acute lung injury induced by intratracheal instillation of infant formula or human breast milk in rabbits. Nishina K, et al. **Anesthesiology** 1999 Jul;91(1):240–52

Vaporized perfluorocarbon: taking the "liquid" out of liquid ventilation [editorial; comment] Warner DO. **Anesthesiology** 1999 Aug;91(2):340–2. Comment on: Anesthesiology 1999 Aug;91(2):461–9.

Surfactant treatment for acute respiratory distress syndrome. López-Herce J, et al. **Arch Dis Child** 1999 Mar; 80(3):248–52

Comparison of rSP-C surfactant with natural and synthetic surfactants after late treatment in a rat model of the acute respiratory distress syndrome. Häfner D, et al. **Br J Pharmacol** 1998 Jul;124(6):1083–90

Levels of evidence for the pharmacologic effectiveness of prolonged methylprednisolone treatment in unresolving ARDS. Meduri GU. **Chest** 1999 Jul;116(1 Suppl):116S–118S

Update on clinical trials with inhaled nitric oxide. Frostell CG. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):539–41

Pharmacologic adjuncts to mechanical ventilation in acute respiratory distress syndrome. Albertson TE, et al. **Crit Care Clin** 1998 Oct;14(4):581–610, v (232 ref.)

Liposomal prostaglandin E1 (TLC C-53) in acute respiratory distress syndrome: a controlled, randomized, double-blind, multicenter clinical trial. TLC C-53 ARDS Study Group [see comments] Abraham E, et al. **Crit Care Med** 1999 Aug; 27(8):1478–85. Comment in: Crit Care Med 1999 Aug;27(8):1657–8.

Clinical trials in acute respiratory distress syndrome: what is ARDS? [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1657–8 (13 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1478–85.

Inhaled nitric oxide [letter; comment] Cuthbertson BH, et al. **Crit Care Med** 1999 Apr;27(4):848–9. Comment on: Crit Care Med 1998 Jan;26(1):1–2. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

Neither dopamine nor dobutamine corrects mesenteric blood flow depression caused by positive end-expiratory pressure in a rat model of acute lung injury. Lee RD, et al. **Crit Care Med** 1998 Nov;26(11):1875–80

Nitric oxide: how varied standards of ventilation affect study outcome [letter; comment] Papadakos PJ. **Crit Care Med** 1999 Apr;27(4):847–8. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

Inhaled nitric oxide in ARDS: is the question closed? [letter; comment] Preiser JC, et al. **Crit Care Med** 1999 Apr; 27(4):846–7. Comment on: Crit Care Med 1998 Jan;26(1):15–23.

Effect of surfactant on respiratory failure associated with thoracic aneurysm surgery [see comments] Satoh D, et al. **Crit Care Med** 1998 Oct;26(10):1660–2. Comment in: Crit Care Med 1998 Oct;26(10):1626–7.

Is there a role for surfactant replacement therapy in adult pulmonary dysfunction? [editorial; comment] Warren WH. **Crit Care Med** 1998 Oct;26(10):1626–7 (18 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1660–2.

Effects of tachykinin NK1 or PAF receptor blockade on the lung injury induced by scorpion venom in rats. Matos IM, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):293–300

Reactive oxygen species in acute lung injury [letter; comment] Ruffmann R. **Eur Respir J** 1998 Dec;12(6):1486 . Comment on: Eur Respir J 1998 Mar;11(3):745–57.

Efficacy of Curosurf in a rat model of acute respiratory distress syndrome. van Helden HP, et al. **Eur Respir J** 1998 Sep;12(3):533–9

Nitric oxide in acute lung injury. Eissa NT. **Intensive Care Med** 1998 Nov;24(11):1226–7

Anticoagulative effect of nitric oxide inhalation in ARDS. Ferrer R, et al. **Intensive Care Med** 1998 Aug;24(8):837–8

Long chain versus medium chain lipids in patients with ARDS: effects on pulmonary haemodynamics and gas exchange. Smirniotis V, et al. **Intensive Care Med** 1998 Oct;24(10):1029–33

Nitric oxide in acute hypoxic respiratory failure: from the bench to the bedside and back again [editorial; comment] Bohn D. **J Pediatr** 1999 Apr;134(4):387–9 (29 ref.). Comment on: J Pediatr 1999 Apr;134(4):406–12.

Continuous dose furosemide as a therapeutic approach to acute respiratory distress syndrome (ARDS). Reising CA, et al. **J Surg Res** 1999 Mar;82(1):56–60

Nitric oxide inhalation for paraquat-induced lung injury [see comments] Eisenman A, et al. **J Toxicol Clin Toxicol** 1998; 36(6):575–84. Comment in: J Toxicol Clin Toxicol 1998 ;36(6):585–6.

Methylprednisolone for unresolving ARDS [letter; comment] Wheeler A, et al. **JAMA** 1998 Dec 23–30;280(24):2074. Comment on: JAMA 1998 Jul 8;280(2):159–65. Comment on: JAMA 1998 Jul 8;280(2):182–3.

Nitric oxide for ARDS--what is the evidence? Ferreira E, et al. **Pharmacotherapy** 1999 Jan;19(1):60–9 (36 ref.)

Effects of early treatment with rSP-C surfactant on oxygenation and histology in rats with acute lung injury. Häfner D, et al. **Pulm Pharmacol Ther** 1999;12(3):193–201

Acute respiratory distress syndrome. Inhaled nitric oxide. Hanania NA, et al. **Respir Care Clin N Am** 1998 Dec; 4(4):695–709 (93 ref.)

Systemic pharmacologic therapy of ARDS. Komara JJ Jr, et al. **Respir Care Clin N Am** 1998 Dec;4(4):739–50 (67 ref.)

Established acute respiratory distress syndrome: benefit of corticosteroid rescue therapy [see comments] Keel JB, et al. **Respiration** 1998;65(4):258–64. Comment in: Respiration 1998 ;65(4):256.

Corticosteroids in late adult respiratory distress syndrome--towards a better use [editorial; comment] Olivieri D. **Respiration** 1998;65(4):256–7 (13 ref.). Comment on: Respiration 1998 ;65(4):258–64.

Corticosteroid rescue in late paediatric acute respiratory distress syndrome. Goh AY, et al. **Respirology** 1999 Sep; 4(3):295–7

A 21-aminosteroid, U-74006F, attenuates endotoxin-induced lung injury in awake sheep. Kubo K, et al. **Respirology** 1999 Jun;4(2):167–72

[Use of corticoids in severe extensive lung diseases and adult respiratory distress syndrome (ARDS)] Mayaud C. **Rev Pneumol Clin** 1998 Sep;54 Suppl 2:S9–11 **(Fre)**

[Adjuvant therapy for sepsis and ARDS] Thiel M. **Anaesthesist** 1998 Nov;47(11):943–4 **(Ger)**

[Successfully treated acute respiratory distress syndrome with serial plasma and bronchoalveolar measurement of inflammatory cytokines] Katakami N. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):702–7 (Eng. Abstr.) **(Jpn)**

[Pharmacological properties and therapeutic efficacy of the domestic preparations of lung surfactants] Rozenberg OA, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):455–8 **(Rus)**

[Continuous inhalation administration of surfactant-BL for control of adult respiratory distress syndrome after reconstruction of the abdominal aorta] Shevchenko IuL, et al. **Vestn Khir Im I I Grek** 1999;158(3):72–5 (Eng. Abstr.) **(Rus)**

[Inhaled nitric oxide: one modality in the treatment of ARDS] Carrillo-Esper R, et al. **Gac Med Mex** 1999 Jul–Aug; 135(4):417–21 (28 ref.) (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

Incidence and mortality after acute respiratory failure and acute respiratory distress syndrome in Sweden, Denmark, and Iceland. The ARF Study Group. Luhr OR, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1849–61

Serum surfactant protein-A levels predict development of ARDS in at-risk patients. Greene KE, et al. **Chest** 1999 Jul;116(1 Suppl):90S–91S

Epidemiology of acute lung injury and ARDS. Hudson LD, et al. **Chest** 1999 Jul;116(1 Suppl):74S–82S (43 ref.)

The effect of chronic alcohol abuse on the incidence of ARDS and the severity of the multiple organ dysfunction syndrome in adults with septic shock: an interim and multivariate analysis. Moss M, et al. **Chest** 1999 Jul;116(1 Suppl):97S–98S

Reduced quality of life in survivors of acute respiratory distress syndrome compared with critically ill control patients. Davidson TA, et al. **JAMA** 1999 Jan 27; 281(4):354–60

[Changes in the epidemiology of the acute respiratory distress syndrome (ARDS) in children] Martino Alba R, et al. **An Esp Pediatr** 1999 Jun;50(6):566–70 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Acute lung injury following thermal insult to the skin: a light and transmission electron microscopial study. Arbak S, et al. **Acta Histochem** 1999 Jul;101(3):255–62

Resolution of adult respiratory distress syndrome after recovery from fulminant hepatic failure. Khanlou H, et al. **Am J Med Sci** 1999 Feb;317(2):134–6

Role of matrix metalloproteinases in models of macrophage-dependent acute lung injury. Evidence for alveolar macrophage as source of proteinases. Gibbs DF, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1145–54

Role of inducible nitric oxide synthase in endotoxin-induced acute lung injury. Kristof AS, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1883–9

Initial serum ferritin levels in patients with multiple trauma and the subsequent development of acute respiratory distress syndrome. Sharkey RA, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1506–9

Monocyte human leukocyte antigen-DR expression correlates with intrapulmonary shunting after major trauma. Giannoudis PV, et al. **Am J Surg** 1999 Jun; 177(6):454–9

Respiratory failure following talc pleurodesis. Rehse DH, et al. **Am J Surg** 1999 May;177(5):437–40

"Near drowning" due to hydatid disease. Boots RJ. **Anaesth Intensive Care** 1998 Dec;26(6):680–1

Acute lung injury after instillation of human breast milk into rabbits' lungs: effects of pH and gastric juice. O'Hare B, et al. **Anesthesiology** 1999 Apr;90(4):1112–8

Lung injury and acute respiratory distress syndrome after cardiopulmonary bypass. Asimakopoulos G, et al. **Ann Thorac Surg** 1999 Sep;68(3):1107–15 (87 ref.)

Multiple sequential insults cause post-pump syndrome. Picone AL, et al. **Ann Thorac Surg** 1999 Apr;67(4):978–85

Adult respiratory distress syndrome after microvascular free tissue reconstruction in head and neck malignancy. Logan SW, et al. **Br J Oral Maxillofac Surg** 1998 Oct;36(5):371–4

Acute lung injury after tracheal instillation of acidified soya-based or Enfalac formula or human breast milk in rabbits. Chin C, et al. **Can J Anaesth** 1999 Mar;46(3):282–6

Systemic thermal injury in anesthetized rabbits causes early pulmonary vascular injury that is not ablated by lazaroids. Miles D, et al. **Can J Anaesth** 1999 Feb;46(2):142–7

Use of genetically altered mice to investigate the role of nuclear factor-kappa B activation and cytokine gene expression in sepsis-induced ARDS. Blackwell TS, et al. **Chest** 1999 Jul;116(1 Suppl):73S–74S

Closing pressure rather than opening pressure determines optimal positive end-expiratory pressure and avoids overdistention. Creamer KM, et al. **Chest** 1999 Jul;116(1 Suppl):26S–27S

Alloreactive Th1 cells localize in lung and induce acute lung injury. Dixon AE, et al. **Chest** 1999 Jul;116(1 Suppl):36S–37S

Macrophage migration inhibitory factor and acute lung injury. Donnelly SC, et al. **Chest** 1999 Jul;116(1 Suppl):111S

Initiation and tolerance to acute lung injury: yin-yang mechanisms involving interleukin-1. Faust-Chan R, et al. **Chest** 1999 Jul;116(1 Suppl):102S–103S

Ethanol ingestion impairs alveolar epithelial glutathione homeostasis and function, and predisposes to endotoxin-mediated acute lung injury. Guidot D, et al. **Chest** 1999 Jul;116(1 Suppl):82S

Transgenic HbS mouse neutrophils in increased susceptibility to acute lung injury: implications for sickle acute chest syndrome. Hsu L, et al. **Chest** 1999 Jul;116(1 Suppl):92S

Severe systemic inflammatory response syndrome with shock and ARDS resulting from Still's disease: clinical response with high-dose pulse methylprednisolone therapy. Iglesias J, et al. **Chest** 1999 Jun;115(6):1738–40

RESPIRATORY DISTRESS SYNDROME, ADULT

Lung cytokines and ARDS: Roger S. Mitchell Lecture. Martin TR. **Chest** 1999 Jul;116(1 Suppl):2S–8S (73 ref.)

Lung injury caused by mechanical ventilation. Slutsky AS. **Chest** 1999 Jul;116(1 Suppl):9S–15S (42 ref.)

Polymorphonuclear leukocytes released from the bone marrow and acute lung injury. van Eeden SF, et al. **Chest** 1999 Jul;116(1 Suppl):43S–46S

Postpneumonectomy pulmonary edema. Deslauriers J, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):611–31, ix (46 ref.)

Targeting the proteolytic arsenal of neutrophils. A promising approach for postpump syndrome and ARDS [editorial; comment] Shah PK. **Circulation** 1999 Jul 27;100(4):333–4 (25 ref.). Comment on: Circulation 1999 Jul 27;100(4):400–6.

Vivax malaria complicated by adult respiratory distress syndrome. Carlini ME, et al. **Clin Infect Dis** 1999 May; 28(5):1182–3

The etiology and treatment of traumatic and septic shock. Hardaway RM. **Compr Ther** 1999 Jun–Jul;25(6–7):330–4

Ventilation in the trauma and surgical patient. Battistella FD. **Crit Care Clin** 1998 Oct;14(4):731–42 (61 ref.)

Effects of mean airway pressure and tidal excursion on lung injury induced by mechanical ventilation in an isolated perfused rabbit lung model [see comments] Broccard AF, et al. **Crit Care Med** 1999 Aug;27(8):1533–41. Comment in: Crit Care Med 1999 Aug;27(8):1669–71.

Extreme hypoventilation reduces ventilator-induced lung injury during ventilation with low positive end-expiratory pressure in saline-lavaged rabbits [see comments] Hickling KG, et al. **Crit Care Med** 1998 Oct;26(10):1690–7. Comment in: Crit Care Med 1998 Oct;26(10):1632–3.

Chest wall elastance and acute respiratory failure [editorial; comment] Jardin F. **Crit Care Med** 1999 Aug;27(8):1653–4 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1454–60.

Ventilator-induced lung injury: more studies, more questions [editorial; comment] Kavanagh BP, et al. **Crit Care Med** 1999 Aug;27(8):1669–71 (23 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1533–41.

The answer is (gently) blowing in the wind? [editorial; comment] Marelich GP, et al. **Crit Care Med** 1999 Apr; 27(4):687–8 (9 ref.). Comment on: Crit Care Med 1999 Apr;27(4):779–83.

Purine in bronchoalveolar lavage fluid as a marker of ventilation-induced lung injury [see comments] Verbrugge SJ, et al. **Crit Care Med** 1999 Apr;27(4):779–83. Comment in: Crit Care Med 1999 Apr;27(4):687–6.

Clinical course of acute respiratory distress syndrome after esophageal resection [letter; comment] Jankovic ZB, et al. **Dig Surg** 1998;15(4):374–6. Comment on: Dig Surg 1998;15(3):273–8.

Acute lung injury, acute respiratory distress syndrome and inhalation injury: an overview. Kimmel EC, et al. **Drug Chem Toxicol** 1999 Feb;22(1):91–128 (140 ref.)

Do not forget to listen to the ambulance crew and the spouse.... [published erratum appears in Eur J Emerg Med 1998 Sep;5(3):379] Calle P, et al. **Eur J Emerg Med** 1998 Jun;5(2):269–71

Non-cardiogenic pulmonary oedema in vascular surgery. Pararajasingam R, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):93–105 (154 ref.)

Soluble L-selectin plasma concentrations in infants undergoing heart surgery: no association with capillary leak syndrome or need for respiratory support. Bührer C, et al. **Intensive Care Med** 1998 Oct;24(10):1093–8

The instillated surfactant in the treatment of sepsis-induced ARDS: case report [letter] Imperatore F, et al. **Intensive Care Med** 1999 Mar;25(3):330–1

Engraftment syndrome and survival after respiratory failure post-bone marrow transplantation. Marín D, et al. **Intensive Care Med** 1998 Jul;24(7):732–5

Acute lung injury in head trauma patients. Mascia L, et al. **Intensive Care Med** 1998 Oct;24(10):1115–6 (4 ref.)

ARDS in a patient with homozygous beta-thalassemia due to yersiniosis. Mavrommati P, et al. **Intensive Care Med** 1999 Feb;25(2):226–9

Pulmonary dysfunction following primary bilateral femoral nailing--a case report [letter] Pape HC, et al. **Intensive Care Med** 1999 May;25(5):547

Noninvasive pressure support ventilation (NIPSV) with face mask in patients with acute cardiogenic pulmonary edema (ACPE) [see comments] Rusterholtz T, et al. **Intensive Care Med** 1999 Jan;25(1):21–8. Comment in: Intensive Care Med 1999 Jan;25(1):1–2.

Hemodynamic profile in severe ARDS: results of the European Collaborative ARDS Study [published erratum appears in Intensive Care Med 1999 Feb;25(2):247] [see comments] Squara P, et al. **Intensive Care Med** 1998 Oct; 24(10):1018–28. Comment in: Intensive Care Med 1999 Feb;25(2):246–7.

Phrenic nerve injury following cardiac surgery: a review. Tripp HF, et al. **J Card Surg** 1998 May;13(3):218–23 (29 ref.)

Soluble tumor necrosis factor receptor prevents post-pump syndrome. Carney DE, et al. **J Surg Res** 1999 May 15; 83(2):113–21

Prevalence of acute respiratory distress syndrome after cardiac surgery. Asimakopoulos G, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):620–1

Early and late acute respiratory distress syndrome: two distinct clinical entities. Croce MA, et al. **J Trauma** 1999 Mar;46(3):361–6; discussion 366–8

Tumour necrosis factor as predictor for pulmonary dysfunction after cardiac surgery [letter] Gilliland HE, et al. **Lancet** 1998 Oct 17;352(9136):1281–2

Acute respiratory distress syndrome. Wyncoll DL, et al. **Lancet** 1999 Aug 7;354(9177):497–501 (48 ref.)

Fat embolism syndrome in a case of abdominal lipectomy with liposuction. Scroggins C, et al. **Md Med J** 1999 May–Jun;48(3):116–8

The haemodialysis patient who developed acute respiratory distress syndrome after a trip to a hot spring spa. Shimizu Y, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):455–7

Lessons from an unusual case: malignancy associated hypercalcemia, pancreatitis and respiratory failure due to ARDS. Wymenga AN, et al. **Neth J Med** 1999 Jan; 54(1):27–30

Hypoxia and chest pain due to acute constipation: an underdiagnosed condition? Luder AS, et al. **Pediatr Pulmonol** 1998 Sep;26(3):222–3

Idiopathic bronchiolitis obliterans with organizing pneumonia presenting with adult respiratory distress syndrome. Pérez de Llano LA, et al. **Respir Med** 1998 Jun; 92(6):884–6

Pulmonary edema in cerebral malaria patients in Thailand. Aursudkij B, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):541–5

Evidence of a central role for p38 map kinase induction of tumor necrosis factor alpha in pancreatitis-associated pulmonary injury. Yang J, et al. **Surgery** 1999 Aug; 126(2):216–22

Acute lung injury after massive household endotoxin exposure [see comments] Sarkar P, et al. **Tenn Med** 1999 Jan;92(1):21–3. Comment in: Tenn Med 1999 Apr;92(4):117.

[A rare cause of intra-alveolar hemorrhage: a transfusion-related incident with leukoagglutination due to antigranulocyte antibodies (Trali syndrome)] Cailleux N, et al. **Rev Med Interne** 1998 Jun;19(6):434–7 (Eng. Abstr.) **(Fre)**

[Leptospirosis: a rare cause of acute respiratory distress syndrome in metropolitan France] du Couëdic L, et al. **Rev Pneumol Clin** 1998 Oct;54(5):268–70 (Eng. Abstr.) **(Fre)**

[The adult respiratory distress syndrome during the recovery of the neutrophil level after autologous bone marrow transplantation] Lisukov IA, et al. **Ter Arkh** 1998;70(7):78–9 (6 ref.) **(Rus)**

[Respiratory distress syndrome due to hyperleukocytic leukemias] Valdovinos Mahave MC, et al. **An Med Interna** 1999 Jul;16(7):359–60 (8 ref.) (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Mechanical ventilation affects local and systemic cytokines in an animal model of acute respiratory distress syndrome. Chiumello D, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):109–16

Modulation of proinflammatory cytokines by nitric oxide in murine acute lung injury. Walley KR, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):698–704

Role of interleukin 8 in the genesis of acute respiratory distress syndrome through an effect on neutrophil apoptosis. Goodman ER, et al. **Arch Surg** 1998 Nov; 133(11):1234–9

Regulation of neutrophil activation in acute lung injury. Downey GP, et al. **Chest** 1999 Jul;116(1 Suppl):46S–54S (59 ref.)

Anti-IL-8 autoantibodies in alveolar fluid from patients at risk for ARDS and with well-defined ARDS. Kurdowska A, et al. **Chest** 1999 Jul;116(1 Suppl):9S

Neutrophil accumulation is reduced during partial liquid ventilation. Colton DM, et al. **Crit Care Med** 1998 Oct; 26(10):1716–24

Treatment of increased microvascular permeability following inflammation? [editorial; comment] Groeneveld AB. **Crit Care Med** 1999 Jan;27(1):23–4. Comment on: Crit Care Med 1999 Jan;27(1):130–6.

Partial liquid ventilation reduces pulmonary neutrophil accumulation in an experimental model of systemic endotoxemia and acute lung injury. Rotta AT, et al. **Crit Care Med** 1998 Oct;26(10):1707–15

Cytokine-induced neutrophil chemoattractant in a rat model of lipopolysaccharide-induced acute lung injury. Yamasawa H, et al. **Inflammation** 1999 Jun;23(3):263–74

Activation of polymorphonuclear leukocytes in oleic acid-induced lung injury. Moriuchi H, et al. **Intensive Care Med** 1998 Jul;24(7):709–15

Soluble Fas ligand induces epithelial cell apoptosis in humans with acute lung injury (ARDS). Matute-Bello G, et al. **J Immunol** 1999 Aug 15;163(4):2217–25

Effect of mechanical ventilation on inflammatory mediators in patients with acute respiratory distress syndrome: a randomized controlled trial [see comments] Ranieri VM, et al. **JAMA** 1999 Jul 7;282(1):54–61. Comment in: JAMA 1999 Jul 7;282(1):77–8.

METABOLISM

Procollagen types I and III aminoterminal propeptide levels during acute respiratory distress syndrome and in response to methylprednisolone treatment. Meduri GU, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1432–41

The influence of liposome-encapsulated prostaglandin E1 on hydrogen peroxide concentrations in the exhaled breath of patients with the acute respiratory distress syndrome. Heard SO, et al. **Anesth Analg** 1999 Aug;89(2):353–7

A mathematical model of gas exchange in an intravenous membrane oxygenator. Hewitt TJ, et al. **Ann Biomed Eng** 1998 Jan–Feb;26(1):166–78

Expression of endothelial nitric oxide synthase, inducible nitric oxide synthase, and endothelin-1 in lungs of subjects who died with ARDS. Albertine KH, et al. **Chest** 1999 Jul;116(1 Suppl):101S–102S

Reduced growth factor expression in mice resistant to developing fibroproliferative lesions after lung injury. Brody AR, et al. **Chest** 1999 Jul;116(1 Suppl):97S

Exhaled breath condensate isoprostanes are elevated in patients with acute lung injury or ARDS. Carpenter CT, et al. **Chest** 1998 Dec;114(6):1653–9

Elevated pulmonary edema fluid concentrations of soluble intercellular adhesion molecule-1 in patients with acute lung injury: biological and clinical significance. Conner ER, et al. **Chest** 1999 Jul;116(1 Suppl):83S–84S

Adhesion molecules and cellular biomechanical changes in acute lung injury: Giles F. Filley Lecture. Doerschuk CM, et al. **Chest** 1999 Jul;116(1 Suppl):37S–43S (51 ref.)

Hyaluronan fragments induce plasminogen activator inhibitor-1 and inhibit urokinase activity in mouse alveolar macrophages: a potential mechanism for impaired fibrinolytic activity in acute lung injury. Horton MR, et al. **Chest** 1999 Jul;116(1 Suppl):17S

Hyperoxic lung injury increases HOCl-modified lung proteins and NA,K-adenosine triphosphatase nitrotyrosine content. Ingbar DH, et al. **Chest** 1999 Jul;116(1 Suppl):100S

Choosing the appropriate control [letter; comment] Morris PE, et al. **Chest** 1999 Apr;115(4):1214–5. Comment on: Chest 1998 Jun;113(6):1632–9.

HTI56, an integral apical membrane protein of the human alveolar type I cell, is a biochemical marker of acute lung injury. Newman V, et al. **Chest** 1999 Jul;116(1 Suppl):35S–36S

Regulation of oxidant production in acute lung injury. Sanders KA, et al. **Chest** 1999 Jul;116(1 Suppl):56S–61S (39 ref.)

The heterogeneity of BAL cells and protein in patients at risk for and with ARDS. Steinberg KP, et al. **Chest** 1999 Jul;116(1 Suppl):98S

Interleukin-6 protection in hyperoxic lung injury. Ward NS, et al. **Chest** 1999 Jul;116(1 Suppl):26S

Oxidative damage to proteins of bronchoalveolar lavage fluid in patients with acute respiratory distress syndrome: evidence for neutrophil-mediated hydroxylation, nitration, and chlorination [see comments] Lamb NJ, et al. **Crit Care Med** 1999 Sep;27(9):1738–44. Comment in: Crit Care Med 1999 Sep;27(9):2028–30.

Nitric oxide production after acute, unilateral hydrochloric acid-induced lung injury in a canine model. Lee KH, et al. **Crit Care Med** 1998 Dec;26(12):2042–7

The answer is (gently) blowing in the wind? [editorial; comment] Marelich GP, et al. **Crit Care Med** 1999 Apr; 27(4):687–8 (9 ref.). Comment on: Crit Care Med 1999 Apr;27(4):779–83.

Oxidant-mediated lung injury in the acute respiratory distress syndrome [editorial; comment] Matthay MA, et al. **Crit Care Med** 1999 Sep;27(9):2028–30. Comment on: Crit Care Med 1999 Sep;27(9):1738–44.

The alveolar space is the site of intense inflammatory and profibrotic reactions in the early phase of acute respiratory distress syndrome [see comments] Pugin J, et al. **Crit Care Med** 1999 Feb;27(2):304–12. Comment in: Crit Care Med 1999 Feb;27(2):237–8.

Purine in bronchoalveolar lavage fluid as a marker of ventilation-induced lung injury [see comments] Verbrugge SJ, et al. **Crit Care Med** 1999 Apr;27(4):779–83. Comment in: Crit Care Med 1999 Apr;27(4):687–6.

Surfactant composition reflects lung overinflation and arterial oxygenation in patients with acute lung injury. Bersten AD, et al. **Eur Respir J** 1998 Aug;12(2):301–8

Clara cell protein as a marker of Clara cell damage and bronchoalveolar blood barrier permeability. Hermans C, et al. **Eur Respir J** 1999 May;13(5):1014–21

Secretory leukocyte proteinase inhibitor is preferentially increased in patients with acute respiratory distress syndrome [see comments] Sallenave JM, et al. **Eur Respir J** 1999 May;13(5):1029–36. Comment in: Eur Respir J 1999 May;13(5):947–8.

Elastase and its physiological inhibitors in ARDS: what decides between inflammatory storm or dead calm? [editorial; comment] Suter PM. **Eur Respir J** 1999 May; 13(5):947–8. Comment on: Eur Respir J 1999 May;13(5):1029–36.

Adult respiratory distress syndrome – an update. Hasleton PS, et al. **Histopathology** 1999 Apr;34(4):285–94 (77 ref.)

Antioxidant status in patients with acute respiratory distress syndrome [editorial; comment] Koch T. **Intensive Care Med** 1999 Feb;25(2):134–6 (18 ref.). Comment on: Intensive Care Med 1999 Feb;25(2):180–5.

Antioxidant status in patients with acute respiratory distress syndrome [see comments] Metnitz PG, et al. **Intensive Care Med** 1999 Feb;25(2):180–5. Comment in: Intensive Care Med 1999 Feb;25(2):134–6.

Bronchoscopic lavage with perfluorocarbon decreases postprocedure hypoxemia in an ovine model of smoke inhalation. Cindrick LL, et al. **J Trauma** 1999 Jan; 46(1):129–35

Role of transcription factors in inflammatory lung diseases. Rahman I, et al. **Thorax** 1998 Jul;53(7):601–12 (119 ref.)
[Immunohistochemical change of endothelin-1 in acute lung injury and the role in its pathogenesis] Chen X, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):251–3 (Eng. Abstr.) **(Chi)**
[Supranormal oxygen delivery] Katsuya H. **Masui** 1998 Dec; 47 Suppl:S81–7 (16 ref.) **(Jpn)**
[Serum and pulmonary angiotensin converting enzyme as a marker of acute lung injury in an experimental model of adult respiratory distress syndrome] del Castillo Rueda A, et al. **An Med Interna** 1999 May;16(5):229–35 (Eng. Abstr.) **(Spa)**

MICROBIOLOGY

Protective effect of endotoxin instillation on subsequent bacteria-induced acute lung injury in rats. Jean D, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1702–8
Dengue hemorrhagic fever (DHF) presenting with ARDS. Sen MK, et al. **Indian J Chest Dis Allied Sci** 1999 Apr–Jun; 41(2):115–9
Postoperative adult respiratory distress syndrome (ARDS) due to Pasteurella multocida [letter] Michel F, et al. **J Infect** 1999 Mar;38(2):133–4
Adult respiratory distress syndrome in systemic lupus erythematosus: causes and prognostic factors: a single center, retrospective study. Kim WU, et al. **Lupus** 1999; 8(7):552–7
A 21-aminosteroid, U-74006F, attenuates endotoxin-induced lung injury in awake sheep. Kubo K, et al. **Respirology** 1999 Jun;4(2):167–72
Near fatal acute respiratory distress syndrome in a patient with human ehrlichiosis. Patel RG, et al. **South Med J** 1999 Mar;92(3):333–5
Ehrlichiosis with severe pulmonary manifestations despite early treatment. Weaver RA, et al. **South Med J** 1999 Mar; 92(3):336–9
Cause of ARDS [letter; comment] Hornsby RP. **Tenn Med** 1999 Apr;92(4):117. Comment on: Tenn Med 1999 Jan;92(1):21–3. Comment on: Tenn Med 1999 Jan;92(1):26.

MORTALITY

Effect of change in velocity on the development of medical complications in patients with multisystem trauma sustained in vehicular crashes. Dischinger PC, et al. **Accid Anal Prev** 1998 Nov;30(6):831–7
Early predictive factors of survival in the acute respiratory distress syndrome. A multivariate analysis. Monchi M, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1076–81
ARDS: are we winning at last? [editorial] Sair M, et al. **Anaesthesia** 1998 Sep;53(9):831–2
Tidal volume, positive end-expiratory pressure, and mortality in acute respiratory distress syndrome [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1661–3 (23 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1492–8.
Value of abdominal computed tomography (CT) concerning the prognosis in patients with acute respiratory distress syndrome (ARDS) [letter] Mäurer J, et al. **Intensive Care Med** 1999 Mar;25(3):330
Epidemiology in ARDS. Suchyta MR, et al. **Intensive Care Med** 1999 May;25(5):538–9 (3 ref.)
Adult respiratory distress syndrome in systemic lupus erythematosus: causes and prognostic factors: a single center, retrospective study. Kim WU, et al. **Lupus** 1999; 8(7):552–7
Ventilation index and outcome in children with acute respiratory distress syndrome. Paret G, et al. **Pediatr Pulmonol** 1998 Aug;26(2):125–8
Maternal mortality associated with adult respiratory distress syndrome [letter; comment] Alkhuja S. **South Med J** 1998 Dec;91(12):1183. Comment on: South Med J 1998 May;91(5):441–4.

PATHOLOGY

Acute lung injury following thermal insult to the skin: a light and transmission electron microscopial study. Arbak S, et al. **Acta Histochem** 1999 Jul;101(3):255–62
The pathology of transfusion-related acute lung injury. Dry SM, et al. **Am J Clin Pathol** 1999 Aug;112(2):216–21
Airspace configuration at different transpulmonary pressures in normal and paraquat-induced lung injury in rats. Silva MF, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1230–4
Happy Valentine's Day [letter] Buentes OW, et al. **Am J Surg Pathol** 1999 Feb;23(2):239
CXC chemokines regulate angiogenic activity in acute lung injury. Keane MP, et al. **Chest** 1999 Jul;116(1 Suppl):93S–94S
Compositional, structural, and functional alterations in pulmonary surfactant in surgical patients after the early onset of systemic inflammatory response syndrome or sepsis [see comments] Raymondos K, et al. **Crit Care Med** 1999 Jan;27(1):82–9. Comment in: Crit Care Med 1999 Jan;27(1):12–3.
Shining some light on the development of pulmonary edema [editorial; comment] Schenkman KA, et al. **Crit Care Med** 1999 Sep;27(9):2046–7. Comment on: Crit Care Med 1999 Sep;27(9):1862–8.
Adult respiratory distress syndrome – an update. Hasleton PS, et al. **Histopathology** 1999 Apr;34(4):285–94 (77 ref.)
An improved method for isolation of microvascular endothelial cells from normal and inflamed human lung. Lou JN, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul–Aug; 34(7):529–36
Endothelial cell apoptosis in lipopolysaccharide-induced lung injury in mice. Fujita M, et al. **Int Arch Allergy Immunol** 1998 Nov;117(3):202–8
Morphological changes in chest radiographs of patients with acute respiratory distress syndrome (ARDS). Mäurer J, et al. **Intensive Care Med** 1998 Nov;24(11):1152–6
Partial liquid ventilation influences pulmonary histopathology in an animal model of acute lung injury. Rotta AT, et al. **J Crit Care** 1999 Jun;14(2):84–92
Soluble Fas ligand induces epithelial cell apoptosis in humans with acute lung injury (ARDS). Matute-Bello G, et al. **J Immunol** 1999 Aug 15;163(4):2217–25
The spatial distribution of pulmonary lesions in severe ARDS. An autopsy study of 35 cases. Barth PJ, et al. **Pathol Res Pract** 1998;194(7):465–71
Acute respiratory distress syndrome. Cellular biology and pathology. Parsley EL. **Respir Care Clin N Am** 1998 Dec; 4(4):583–609, vii (142 ref.)
Fibroproliferation and mast cells in the acute respiratory distress syndrome [see comments] Liebler JM, et al. **Thorax** 1998 Oct;53(10):823–9. Comment in: Thorax 1998 Oct;53(10):815–7.
The acute respiratory distress syndrome: fibrosis in the fast lane [editorial; comment] Marshall R, et al. **Thorax** 1998 Oct;53(10):815–7. Comment on: Thorax 1998 Oct;53(10):823–9.
Fulminant lethal tuberculous pneumonia (Sepsis tuberculosis gravissima) with ARDS in a non-immunocompromised western European middle-aged man. Peck-Radosavljevic M, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):157–60
[Pathology of diseases responsible for the development of respiratory insufficiency] Nagai A. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):45–50 (5 ref.) **(Jpn)**

PHYSIOPATHOLOGY

Acute respiratory failure associated with acute myocardial infarction. Did he have ARDS? [letter] Yokioka H. **Acta Anaesthesiol Scand** 1999 Feb;43(2):241
Efficacy of tracheal gas insufflation in spontaneously breathing sheep with lung injury. Cereda MF, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):845–50
Pressure-volume curves and compliance in acute lung injury: evidence of recruitment above the lower inflection point. Jonson B, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1172–8
Ventilator-associated lung injury decreases lung ability to clear edema in rats. Lecuona E, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):603–9
Right heart catheterization in acute lung injury: an observational study. Marinelli WA, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):69–76
Effect of different pressure levels on the dynamics of lung collapse and recruitment in oleic-acid-induced lung injury. Neumann P, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1636–43
Hypercapnic acidosis may attenuate acute lung injury by inhibition of endogenous xanthine oxidase. Shibata K, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1578–84
Cardiopulmonary effects of the laparoscopic pneumoperitoneum in a porcine model of adult respiratory distress syndrome. Greif WM, et al. **Am J Surg** 1999 Mar; 177(3):216–21
Extravascular lung water and acute respiratory distress syndrome--oxygenation and outcome. Davey-Quinn A, et al. **Anaesth Intensive Care** 1999 Aug;27(4):357–62
Does norepinephrine modify the effects of inhaled nitric oxide in septic patients with acute respiratory distress syndrome? Papazian L, et al. **Anesthesiology** 1998 Nov; 89(5):1089–98
Inhaled nitric oxide and the longitudinal distribution of PVR in ARDS [letter; comment] Farmery AD. **Br J Anaesth** 1998 Dec;81(6):989–92. Comment on: Br J Anaesth 1998 Apr;80(4):440–6.
Gelatinase B deficiency does not protect against lipopolysaccharide-induced acute lung injury. Betsuyaku T, et al. **Chest** 1999 Jul;116(1 Suppl):17S–18S
Adenoviral-mediated overexpression of the NA,K-ATPase beta1 subunit gene increases lung edema clearance and improves survival during acute hyperoxic lung injury in rats. Factor P, et al. **Chest** 1999 Jul;116(1 Suppl):24S–25S
Endothelial activation in ARDS. Zimmerman GA, et al. **Chest** 1999 Jul;116(1 Suppl):18S–24S (61 ref.)
Respiratory mechanics and surfactant in the acute respiratory distress syndrome. Bersten AD, et al. **Clin Exp Pharmacol Physiol** 1998 Nov;25(11):955–63 (76 ref.)
Effects of mean airway pressure and tidal excursion on lung injury induced by mechanical ventilation in an isolated perfused rabbit lung model [see comments] Broccard AF, et al. **Crit Care Med** 1999 Aug;27(8):1533–41. Comment in: Crit Care Med 1999 Aug;27(8):1669–71.
Pulmonary surfactant in acute lung injury [editorial; comment] Cane RD, et al. **Crit Care Med** 1999 Jan; 27(1):12–3. Comment on: Crit Care Med 1999 Jan;27(1):82–9.
Vascular recruitment increases evidence of lung injury [see comments] Ehrhart IC, et al. **Crit Care Med** 1999 Jan; 27(1):120–9. Comment in: Crit Care Med 1999 Jan;27(1):21–2.
Treatment of increased microvascular permeability following inflammation? [editorial; comment] Groeneveld AB. **Crit Care Med** 1999 Jan;27(1):23–4. Comment on: Crit Care Med 1999 Jan;27(1):130–6.
Chest wall elastance and acute respiratory failure [editorial; comment] Jardin F. **Crit Care Med** 1999 Aug;27(8):1653–4 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1454–60.
Effects of the prone position on gas exchange and hemodynamics in severe acute respiratory distress syndrome [see comments] Jolliet P, et al. **Crit Care Med** 1998 Dec;26(12):1977–85. Comment in: Crit Care Med 1998 Dec;26(12):1934–5.
Pulmonary blood flow and flow-dependent metabolic function during acute lung injury: recruitment for better or worse? [editorial; comment] Matuschak GM, et al. **Crit Care Med** 1999 Jan;27(1):21–2. Comment on: Crit Care Med 1999 Jan;27(1):120–9.
Compositional, structural, and functional alterations in pulmonary surfactant in surgical patients after the early onset of systemic inflammatory response syndrome or sepsis [see comments] Raymondos K, et al. **Crit Care Med** 1999 Jan;27(1):82–9. Comment in: Crit Care Med 1999 Jan;27(1):12–3.
Endothelin-1 and thromboxane A2 increase pulmonary vascular resistance in granulocyte-mediated lung injury. Schmeck J, et al. **Crit Care Med** 1998 Nov;26(11):1868–74
Acute effects of inhaled nitric oxide in adult respiratory distress syndrome. Iotti GA, et al. **Eur Respir J** 1998 Nov; 12(5):1164–71
Pathophysiology of the acute respiratory distress syndrome. Dennehy KC, et al. **Int Anesthesiol Clin** 1999 Summer; 37(3):1–13 (28 ref.)
Gas exchange and pulmonary haemodynamic responses to fat emulsions in acute respiratory distress syndrome. Masclans JR, et al. **Intensive Care Med** 1998 Sep; 24(9):918–23
Hemodynamic profile in severe ARDS: results of the European Collaborative ARDS Study [published erratum appears in Intensive Care Med 1999 Feb;25(2):247] [see comments] Squara P, et al. **Intensive Care Med** 1998 Oct; 24(10):1018–28. Comment in: Intensive Care Med 1999 Feb;25(2):246–7.
Functional residual capacity measurement during tracheal gas insufflation. Fujino Y, et al. **J Clin Monit Comput** 1998 May;14(4):225–32
Damage to surfactant-specific protein in acute respiratory distress syndrome. Baker CS, et al. **Lancet** 1999 Apr 10; 353(9160):1232–7
Gas exchange in acute respiratory failure. Hedenstierna G, et al. **Minerva Anestesiol** 1999 Jun;65(6):383–7 (23 ref.)
A role for phospholipase A2 in ARDS pathogenesis. Touqui L, et al. **Mol Med Today** 1999 Jun;5(6):244–9
Acute respiratory distress syndrome. Cellular biology and pathology. Parsley EL. **Respir Care Clin N Am** 1998 Dec; 4(4):583–609, vii (142 ref.)
[Cardiopulmonary effects of two modes of mechanical ventilation in dogs with and without acute lung injury–comparison of pressure regulated biphasic airway presure ventilation and intermittent positive pressure ventilation] Hong Q, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Aug; 20(4):218–21 (Eng. Abstr.) **(Chi)**
[Effects of permissive hypercapnia on cardiopulmonary function in acute lung injury model] Huang J, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):76–9 (Eng. Abstr.) **(Chi)**
[Retrospective analysis of transpulmonary and pulmonary arterial measurement of cardiac output in ARDS patients] Zöllner C, et al. **Anaesthesist** 1998 Nov;47(11):912–7 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Effect of granulocyte/colony-stimulating factor on the onset of the adult respiratory distress syndrome. Takahashi Y, et al. **Acta Haematol** 1999;101(3):124–9
Additive effect of nitric oxide inhalation on the oxygenation benefit of the prone position in the adult respiratory distress syndrome. Germann P, et al. **Anesthesiology** 1998 Dec; 89(6):1401–6
Taking the low (stretch) road [editorial; comment] Arnold JH. **Chest** 1998 Oct;114(4):955–7. Comment on: Chest 1998 Oct;114(4):1147–57.
Initiation and tolerance to acute lung injury: yin-yang mechanisms involving interleukin-1. Faust-Chan R, et al. **Chest** 1999 Jul;116(1 Suppl):102S–103S
Protective effects of heme oxygenase-1 in acute lung injury. Otterbein LE, et al. **Chest** 1999 Jul;116(1 Suppl):61S–63S
Extreme hypoventilation reduces ventilator-induced lung injury during ventilation with low positive end-expiratory pressure in saline-lavaged rabbits [see comments] Hickling KG, et al. **Crit Care Med** 1998 Oct;26(10):1690–7. Comment in: Crit Care Med 1998 Oct;26(10):1632–3.
Effect of short-term enteral feeding with eicosapentaenoic and gamma-linolenic acids on alveolar macrophage eicosanoid synthesis and bactericidal function in rats. Palombo JD, et al. **Crit Care Med** 1999 Sep;27(9):1908–15
Development, implementation, and evaluation of a

ketoconazole practice guideline for ARDS prophylaxis. Sinuff T, et al. **J Crit Care** 1999 Mar;14(1):1–6

Soluble tumor necrosis factor receptor prevents post-pump syndrome. Carney DE, et al. **J Surg Res** 1999 May 15; 83(2):113–21

A leukocyte elastase inhibitor reduces thrombin-induced pulmonary oedema in the rat: mechanisms of action. Ahn CM, et al. **Pulm Pharmacol Ther** 1998;11(4):291–9

[Protective effect of reduqing injection on rabbits with acute lung injury] Liu HJ, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1996 Nov; 16(11):679–80 (Eng. Abstr.) **(Chi)**

RADIOGRAPHY

A computed tomography scan assessment of regional lung volume in acute lung injury. The CT Scan ARDS Study Group. Puybasset L, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1644–55

A lung computed tomographic assessment of positive end-expiratory pressure-induced lung overdistension. Vieira SR, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1571–7

Value of abdominal computed tomography (CT) concerning the prognosis in patients with acute respiratory distress syndrome (ARDS) [letter] Mäurer J, et al.
Intensive Care Med 1999 Mar;25(3):330

Morphological changes in chest radiographs of patients with acute respiratory distress syndrome (ARDS). Mäurer J, et al. **Intensive Care Med** 1998 Nov;24(11):1152–6

Acute respiratory distress syndrome: CT abnormalities at long-term follow-up. Desai SR, et al. **Radiology** 1999 Jan; 210(1):29–35

[Imaging in intensive medicine. Techniques. Indications, diagnostic signs. II] Bankier A, et al. **Radiologe** 1998 Dec; 38(12):1089–99 **(Ger)**

[Multi-rotation CT during continuous ventilation: comparison of different density areas in healthy lungs and in the ARDS lavage model] Markstaller K, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Jun;170(6):575–80 (Eng. Abstr.) **(Ger)**

[The x-ray diagnosis of the respiratory distress syndrome] Grigor'ian GO, et al. **Klin Khir** 1998;(11):27–8 (Eng. Abstr.) **(Rus)**

SURGERY

Veno-venous extracorporeal lung assist with concurrent distal aortic perfusion: repair of ruptured aorta in a patient with dense ARDS. Borg UR, et al. **Int J Artif Organs** 1998 Jun;21(6):344–7

Single lung transplantation for adult respiratory distress syndrome after paraquat poisoning [see comments] Licker M, et al. **Thorax** 1998 Jul;53(7):620–1. Comment in: Thorax 1998 Jul;53(7):619.

THERAPY

Tidal volume reduction for prevention of ventilator-induced lung injury in acute respiratory distress syndrome. The Multicenter Trail Group on Tidal Volume reduction in ARDS. Brochard L, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1831–8

Dosing and delivery of a recombinant surfactant in lung-injured adult sheep. Lewis J, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):741–7

Clinical use of respiratory changes in arterial pulse pressure to monitor the hemodynamic effects of PEEP. Michard F, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):935–9

Sigh in acute respiratory distress syndrome. Pelosi P, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):872–80

Spontaneous breathing during ventilatory support improves ventilation-perfusion distributions in patients with acute respiratory distress syndrome. Putensen C, et al.
Am J Respir Crit Care Med 1999 Apr;159(4 Pt 1):1241–8

Expiratory washout versus optimization of mechanical ventilation during permissive hypercapnia in patients with severe acute respiratory distress syndrome. Richecoeur J, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):77–85

Prone ventilation--it's time. Tobin A, et al.
Anaesth Intensive Care 1999 Apr;27(2):194–201 (55 ref.)

Combining partial liquid ventilation and prone position in experimental acute lung injury. Max M, et al.
Anesthesiology 1999 Sep;91(3):796–803

Combined high-frequency ventilation (CHFV) in the treatment of acute lung injury--a case report. Ip-Yam PC, et al. **Ann Acad Med Singapore** 1998 May;27(3):437–41

Ventilatory strategies for acute respiratory distress syndrome. Lee KH, et al. **Ann Acad Med Singapore** 1998 May; 27(3):409–13 (37 ref.)

A mathematical model of gas exchange in an intravenous membrane oxygenator. Hewitt TJ, et al.
Ann Biomed Eng 1998 Jan-Feb;26(1):166–78

Enhancement of O2 and CO2 transfer through microporous hollow fibers by pressure cycling. Nodelman V, et al.
Ann Biomed Eng 1998 Nov-Dec;26(6):1044–54

The Ontario Prehospital Advanced Life Support (OPALS) study Part II: Rationale and methodology for trauma and respiratory distress patients. OPALS Study Group. Stiell IG, et al. **Ann Emerg Med** 1999 Aug;34(2):256–62

Partial liquid ventilation in adult patients with ARDS: a multicenter phase I–II trial. Adult PLV Study Group. Hirschl RB, et al. **Ann Surg** 1998 Nov;228(5):692–700

Inhaled nitric oxide for adult respiratory distress syndrome after pulmonary resection. Mathisen DJ, et al.
Ann Thorac Surg 1998 Dec;66(6):1894–902

Percutaneous extracorporeal arteriovenous CO2 removal for severe respiratory failure. Zwischenberger JB, et al.
Ann Thorac Surg 1999 Jul;68(1):181–7

Successful non-invasive ventilatory support in a patient with regimen-related toxicity during allogeneic bone marrow transplantation. Ghosh K, et al.
Bone Marrow Transplant 1999 Apr;23(8):833–4

Comparison of exogenous surfactant therapy, mechanical ventilation with high end-expiratory pressure and partial liquid ventilation in a model of acute lung injury. Hartog A, et al. **Br J Anaesth** 1999 Jan;82(1):81–6

Successful utilization of ECMO to treat an adult burn patient with ARDS. Patton ML, et al. **Burns** 1998 Sep;24(6):566–8

Clinical correlates in acute lung injury: response to inhaled nitric oxide. Brett SJ, et al. **Chest** 1998 Nov;114(5):1397–404

Surfactant lavage treatment in a model of respiratory distress syndrome. Cochrane CG, et al. **Chest** 1999 Jul;116(1 Suppl):85S–86S

Optimal positive end-expiratory pressure fails to preserve nonrespiratory lung function in acute lung injury. Creamer K, et al. **Chest** 1999 Jul;116(1 Suppl):16S–17S

Four-year experience with a unit for long-term ventilation (respiratory special care unit) at the Cleveland Clinic Foundation. Dasgupta A, et al. **Chest** 1999 Aug; 116(2):447–55

Effect of positive end-expiratory pressure on regional lung expansion of oleic acid-injured dogs. Martynowicz MA, et al. **Chest** 1999 Jul;116(1 Suppl):28S–29S

Noninvasive positive pressure ventilation: successful outcome in patients with acute lung injury/ARDS. Rocker GM, et al. **Chest** 1999 Jan;115(1):173–7

High-frequency percussive ventilation improves oxygenation in patients with ARDS. Velmahos GC, et al. **Chest** 1999 Aug;116(2):440–6

Targeting the proteolytic arsenal of neutrophils. A promising approach for postpump syndrome and ARDS [editorial; comment] Shah PK. **Circulation** 1999 Jul 27;100(4):333–4 (25 ref.). Comment on: Circulation 1999 Jul 27;100(4):400–6.

Paradigm shift in mechanical ventilatory support for acute respiratory distress syndrome: do no harm. Kaminsky DA. **Coron Artery Dis** 1998;9(8):527–33 (41 ref.)

Pharmacologic adjuncts to mechanical ventilation in acute respiratory distress syndrome. Albertson TE, et al.
Crit Care Clin 1998 Oct;14(4):581–610, v (232 ref.)

Ventilation in the trauma and surgical patient. Battistella FD. **Crit Care Clin** 1998 Oct;14(4):731–42 (61 ref.)

Non-conventional respiratory support modalities applicable in the older child. High frequency ventilation and liquid ventilation. Kallas HJ. **Crit Care Clin** 1998 Oct;14(4):655–83 (245 ref.)

Mechanical ventilation of patients with acute lung injury. Sessler CN. **Crit Care Clin** 1998 Oct;14(4):707–29, vii (119 ref.)

Partial liquid breathing: more questions than answers [editorial; comment] Arnold JH. **Crit Care Med** 1999 Sep; 27(9):2058–60. Comment on: Crit Care Med 1999 Sep;27(9):1934–9.

Research in sepsis and acute respiratory distress syndrome: are we changing course? [comment] Bernard GR.
Crit Care Med 1999 Feb;27(2):434–6. Comment on: Crit Care Med 1999 Feb;27(2):427–30. Comment on: Crit Care Med 1999 Feb;27(2):431–3.

Tidal volume, positive end-expiratory pressure, and mortality in acute respiratory distress syndrome [editorial; comment] Brochard L, et al. **Crit Care Med** 1999 Aug;27(8):1661–3 (23 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1492–8.

Prospective, randomized, controlled clinical trial comparing traditional versus reduced tidal volume ventilation in acute respiratory distress syndrome patients [see comments] Brower RG, et al. **Crit Care Med** 1999 Aug;27(8):1492–8 . Comment in: Crit Care Med 1999 Aug;27(8):1661–3.

Neutrophil accumulation is reduced during partial liquid ventilation. Colton DM, et al. **Crit Care Med** 1998 Oct; 26(10):1716–24

Futility of randomized, controlled ARDS trials--a new approach is needed [see comments] Fuhrman BP, et al. **Crit Care Med** 1999 Feb;27(2):431–3. Comment in: Crit Care Med 1999 Feb;27(2):434–6.

Effect of enteral feeding with eicosapentaenoic acid, gamma-linolenic acid, and antioxidants in patients with acute respiratory distress syndrome. Enteral Nutrition in ARDS Study Group [see comments] Gadek JE, et al.
Crit Care Med 1999 Aug;27(8):1409–20. Comment in: Crit Care Med 1999 Aug;27(8):1646–8.

Tidal volume, PaCO2, and lung injury [editorial; comment] Gregory GA, et al. **Crit Care Med** 1998 Oct;26(10):1632–3 (16 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1690–7.

Has high-frequency ventilation been inappropriately discarded in adult acute respiratory distress syndrome? [see comments] Herridge MS, et al. **Crit Care Med** 1998 Dec; 26(12):2073–7 (33 ref.). Comment in: Crit Care Med 1998 Dec;26(12):1955–6.

High-frequency ventilation [editorial; comment] MacIntyre NR. **Crit Care Med** 1998 Dec;26(12):1955–6 (8 ref.). Comment on: Crit Care Med 1998 Dec;26(12):2073–7.

PEEP in the prone position: reversing the perfusion imbalance [editorial; comment] Marini JJ, et al.
Crit Care Med 1999 Jan;27(1):1–2. Comment on: Crit Care Med 1999 Jan;27(1):37–45.

Capnography in critical care: accurate assessment of ARDS therapy? [editorial; comment] Napolitano LM.
Crit Care Med 1999 May;27(5):862–3 (17 ref.). Comment on: Crit Care Med 1999 May;27(5):946–52.

PEEP: blood gas cosmetics or a therapy for ARDS? [editorial; comment] Pesenti A, et al. **Crit Care Med** 1999 Feb;27(2):253–4 (17 ref.). Comment on: Crit Care Med 1999 Feb;27(2):380–4.

Lung recruitment during small tidal volume ventilation allows minimal positive end-expiratory pressure without augmenting lung injury. Rimensberger PC, et al.
Crit Care Med 1999 Sep;27(9):1940–5

The open lung during small tidal volume ventilation: concepts of recruitment and "optimal" positive end-expiratory pressure. Rimensberger PC, et al.
Crit Care Med 1999 Sep;27(9):1946–52

Partial liquid ventilation reduces pulmonary neutrophil accumulation in an experimental model of systemic endotoxemia and acute lung injury. Rotta AT, et al.
Crit Care Med 1998 Oct;26(10):1707–15

Prone position in acute respiratory distress syndrome: turning over an old idea [editorial; comment] Trottier SJ.
Crit Care Med 1998 Dec;26(12):1934–5 (20 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1977–85.

The effect of positive end-expiratory pressure during partial liquid ventilation in acute lung injury in piglets [see comments] Zobel G, et al. **Crit Care Med** 1999 Sep; 27(9):1934–9. Comment in: Crit Care Med 1999 Sep;27(9):2058–60.

Measurement of overinflation by multiple linear regression analysis in patients with acute lung injury. Bersten AD.
Eur Respir J 1998 Sep;12(3):526–32

Volumetric capnography in patients with acute lung injury: effects of positive end-expiratory pressure. Blanch L, et al. **Eur Respir J** 1999 May;13(5):1048–54

Acute respiratory distress syndrome following nitrogen dioxide exposure. Aggarwal AN, et al.
Indian J Chest Dis Allied Sci 1998 Oct-Dec;40(4):275–9

Ancillary therapies for acute respiratory distress syndrome. Kwo J, et al. **Int Anesthesiol Clin** 1999 Summer;37(3):65–83 (66 ref.)

Noninvasive ventilation for the treatment of acute respiratory failure in patients with hematologic malignancies: a pilot study. Conti G, et al. **Intensive Care Med** 1998 Dec; 24(12):1283–8

Detection of endotracheal tube obstruction by analysis of the expiratory flow signal. Guttmann J, et al.
Intensive Care Med 1998 Nov;24(11):1163–72

The instillated surfactant in the treatment of sepsis-induced ARDS: case report [letter] Imperatore F, et al.
Intensive Care Med 1999 Mar;25(3):330–1

Right-to-left interatrial shunt in ARDS: dramatic improvement in prone position. Legras A, et al.
Intensive Care Med 1999 Apr;25(4):412–4

Venovenous ECMO in life-threatening radiocontrast mediated-ARDS [letter] Machiels JP, et al.
Intensive Care Med 1999 May;25(5):546

Permissive hypercapnia in ARDS. Mancebo J.
Intensive Care Med 1998 Dec;24(12):1339–40

Improvement in oxygenation by prone position and nitric oxide in patients with acute respiratory distress syndrome. Martinez M, et al. **Intensive Care Med** 1999 Jan;25(1):29–36

Liquid ventilation. Melo J, et al. **Intensive Care Med** 1999 Apr;25(4):420–1 (2 ref.)

Combined lung injury, meningitis and cerebral edema: how permissive can hypercapnia be? [letter; comment] Nichani S. **Intensive Care Med** 1999 Jan;25(1):125–6. Comment on: Intensive Care Med 1998 Jun;24(6):616–9.

Acute respiratory distress syndrome and non-occlusive mesenteric ischemia as major clinical manifestations of thrombotic thrombocytopenic purpura: complete remission following exchange plasmapheresis. Chang JC, et al.
J Clin Apheresis 1998;13(4):190–2

Partial liquid ventilation influences pulmonary histopathology in an animal model of acute lung injury. Rotta AT, et al. **J Crit Care** 1999 Jun;14(2):84–92

Nitric oxide inhalation for paraquat--surviving both poisoning and therapy? [editorial; comment] Hall AH.
J Toxicol Clin Toxicol 1998;36(6):585–6. Comment on: J Toxicol Clin Toxicol 1998 ;36(6):575–84.

Severe respiratory distress following sodium oleate ingestion. Okumura T, et al. **J Toxicol Clin Toxicol** 1998;36(6):587–9

Effect of mechanical ventilation on inflammatory mediators in patients with acute respiratory distress syndrome: a randomized controlled trial [see comments] Ranieri VM, et al. **JAMA** 1999 Jul 7;282(1):54–61. Comment in: JAMA 1999 Jul 7;282(1):77–8.

Nitric oxide inhalation and use in treatment of ARDS. Takrouri MS. **Middle East J Anesthesiol** 1999 Feb; 15(1):5–12

Natural surfactant supplementation in ARDS in paediatric age. Marraro GA, et al. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):92–7

Mechanical ventilation in acute respiratory distress syndrome: evolving concepts. Mehta S, et al.
Monaldi Arch Chest Dis 1998 Dec;53(6):647–53 (58 ref.)

Protective ventilatory strategy for ARDS: physiological evaluation of the clinical trials. Ranieri VM, et al.
Monaldi Arch Chest Dis 1998 Dec;53(6):644–6 (35 ref.)

ARDS, searching for treatment modes or understanding the

"rules"? Gattinoni L, et al. **Neth J Med** 1998 Nov; 53(5):212–3 (7 ref.)
Non-conventional mechanical ventilation in severe ARDS, illustrated by a complicated case. Tulleken JE, et al. **Neth J Med** 1998 Nov;53(5):201–6
Synchronized gas and partial liquid ventilation in lung-injured animals: improved gas exchange with decreased effort. Bendel-Stenzel EM, et al. **Pediatr Pulmonol** 1999 Apr;27(4):242–50
Effects of mean and swing pressures on piston-type high-frequency oscillatory ventilation in rabbits with and without acute lung injury. Sakai T, et al. **Pediatr Pulmonol** 1999 May;27(5):328–35
Peritoneal dialysis in a patient receiving mechanical ventilation in prone position. Klisnick A, et al. **Perit Dial Int** 1998 Sep–Oct;18(5):536–8
Acute respiratory distress syndrome. Liquid ventilation. Anzueto A, et al. **Respir Care Clin N Am** 1998 Dec; 4(4):679–94 (57 ref.)
Acute respiratory distress syndrome. Patient position and motion strategies. Force TR, et al. **Respir Care Clin N Am** 1998 Dec;4(4):665–77, viii (31 ref.)
A lung-protective approach to ventilating ARDS. Marini JJ. **Respir Care Clin N Am** 1998 Dec;4(4):633–63, viii (133 ref.)
Treatment of adult respiratory distress syndrome: plea for rescue therapy of the alveolar epithelium. Berthiaume Y, et al. **Thorax** 1999 Feb;54(2):150–60 (154 ref.)
[Mechanical ventilation therapy with permissive hypercapnia on ARDS] Xu L, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):72–5 (Eng. Abstr.) **(Chi)**
[Effect of inhaled nitric oxide in a patient with intracranial hypertension] Peillon D, et al. **Ann Fr Anesth Reanim** 1999 Feb;18(2):225–9 (Eng. Abstr.) **(Fre)**
[Recent developments in the treatment of pediatric acute respiratory distress syndrome] Fraisse A, et al. **Arch Pediatr** 1998 Oct;5(10):1107–21 (90 ref.) (Eng. Abstr.) **(Fre)**
[Inhalation of nitric oxide in severe lung failure] Westphal K, et al. **Anaesthesiol Reanim** 1998;23(6):144–8 (Eng. Abstr.) **(Ger)**
[Knowledge-based diagnosis and therapeutic recommendations with fuzzy-set theory methods in patients with acute lung failure (ARDS)] Steltzer H, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Apr;34(4):218–23 (Eng. Abstr.) **(Ger)**
[An automated concept for optimal ventilation of ARDS patients] Leonhardt S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:176–7 **(Ger)**
[A new technique for pronation. Benefits for patients and operators] Brambilla D, et al. **Minerva Anestesiol** 1999 May; 65(5 Suppl 1):116–8 **(Ita)**
[A comparison of ventilation techniques in ARDS. Volume controlled vs pressure regulated volume control] Riverso P, et al. **Minerva Anestesiol** 1998 Jul–Aug;64(7–8):339–43 (Eng. Abstr.) **(Ita)**
[Experience in using artificial pulmonary ventilation with an inverse ratio of the respiratory-cycle phases in acute lung injury in the victims of severe wounds and mechanical damages] Polushin IuS, et al. **Vestn Khir Im I I Grek** 1998; 157(5):116–21 (Eng. Abstr.) **(Rus)**

VIROLOGY

Parvovirus B19 infection associated with respiratory distress [see comments] Morris CN, et al. **Clin Infect Dis** 1998 Oct; 27(4):900–1. Comment in: Clin Infect Dis 1999 Jun;28(6):1343.
The first case of H5N1 avian influenza infection in a human with complications of adult respiratory distress syndrome and Reye's syndrome. Ku AS, et al. **J Paediatr Child Health** 1999 Apr;35(2):207–9
Dengue shock syndrome and acute respiratory distress syndrome [letter; comment] Thong MK. **Lancet** 1998 Nov 21;352(9141):1712. Comment on: Lancet 1998 Sep 19;352(9132):971–7.
Chickenpox ARDS in a health care worker following occupational exposure. Knaggs A, et al. **Occup Med (Lond)** 1998 May;48(4):261–2

RESPIRATORY DRAINAGE, POSTURAL see **DRAINAGE, POSTURAL**

RESPIRATORY DRUG ADMINISTRATION see **ADMINISTRATION, INHALATION**

RESPIRATORY ENTERIC ORPHAN VIRUSES see **REOVIRIDAE**

RESPIRATORY FAILURE see **RESPIRATORY INSUFFICIENCY**

RESPIRATORY FUNCTION TESTS

Allergy to mites: relation to lung function and airway hyperresponsiveness. van der Heide S, et al. **Allergy** 1998; 53(48 Suppl):104–7 (28 ref.)
Role of lung perfusion scintigraphy in relation to chest computed tomography and pulmonary function in the evaluation of candidates for lung volume reduction surgery. Thurnheer R, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):301–10
Pulmonary function changes after interscalene brachial plexus anesthesia with 0.5% and 0.75% ropivacaine: a double-blinded comparison with 2% mepivacaine. Casati A, et al. **Anesth Analg** 1999 Mar;88(3):587–92
Association of ambient air quality with children's lung function in urban and rural Iran. Asgari MM, et al. **Arch Environ Health** 1998 May–Jun;53(3):222–30
Acute paraquat intoxication: using nuclear pulmonary studies to predict patient outcome. Kao CH, et al. **Chest** 1999 Sep; 116(3):709–14
Thoracoabdominal asynchrony in small children with lung disease--methodological aspects and the relationship to lung mechanics. Strömberg NO, et al. **Clin Physiol** 1998 Sep;18(5):447–56
The necessity of building population specific prediction equations for clinical assessment of pulmonary function tests. Hellmann S, et al. **Eur J Pediatr** 1999 Jun; 158(6):519–22
Pulmonary function abnormalities in children with Henoch-Schönlein purpura. Cazzato S, et al. **Eur Respir J** 1999 Mar;13(3):597–601
Respiratory function in patients with thalassaemia and iron overload. Dimopoulou I, et al. **Eur Respir J** 1999 Mar; 13(3):602–5
Micronodules and emphysema in coal mine dust or silica exposure: relation with lung function. Gevenois PA, et al. **Eur Respir J** 1998 Nov;12(5):1020–4
Impaired ventilatory function and elevated insulin levels in nondiabetic males: the Normative Aging Study. Lazarus R, et al. **Eur Respir J** 1998 Sep;12(3):635–40
Tracking of lung function parameters and the longitudinal relationship with lifestyle. Twisk JW, et al. **Eur Respir J** 1998 Sep;12(3):627–34
Normal chest radiograph and lung function do not necessarily mean normal lungs [editorial; comment] Shimura S. **Intern Med** 1998 Nov;37(11):901–2 (10 ref.). Comment on: Intern Med 1998 Nov;37(11):922–6.
Leak measurements in spontaneously breathing premature newborns by using the flow-through technique. Foitzik B, et al. **J Appl Physiol** 1998 Sep;85(3):1187–93
Expiratory flow limitation and intrinsic positive end-expiratory pressure in obesity. Pankow W, et al. **J Appl Physiol** 1998 Oct;85(4):1236–43
Weight change and lung function: implications for workplace surveillance studies. McKay RT, et al. **J Occup Environ Med** 1999 Jul;41(7):596–604
A mathematical evaluation of the multiple breath nitrogen washout (MBNW) technique and the multiple inert gas elimination technique (MIGET). Whiteley JP, et al. **J Theor Biol** 1998 Oct 21;194(4):517–39
Bartenders' pulmonary function after establishment of a smoke-free workplace [letter] Bell C, et al. **JAMA** 1999 Aug 18;282(7):629
Respiratory effects of secondhand smoke [letter; comment] Smith CJ, et al. **JAMA** 1999 Mar 24–31;281(12):1083. Comment on: JAMA 1998 Dec 9;280(22):1909–14.
Pulmonary involvement in juvenile systemic lupus erythematosus: a study on lung function in patients asymptomatic for respiratory disease. Trapani S, et al. **Lupus** 1998;7(8):545–50
Monitoring respiratory muscles. Nava S. **Monaldi Arch Chest Dis** 1998 Dec;53(6):640–3 (26 ref.)
Changes in lung function between age 8 and 14 years in children with birth weight of less than 1,501 g. Doyle LW, et al. **Pediatr Pulmonol** 1999 Mar;27(3):185–90
Pulmonary function at school-age in surfactant-treated preterm infants. Gappa M, et al. **Pediatr Pulmonol** 1999 Mar;27(3):191–8
Thoracoabdominal asynchrony and ratio of time to peak tidal expiratory flow over total expiratory time in adolescents with cystic fibrosis. Hunter JM, et al. **Pediatr Pulmonol** 1999 Sep;28(3):199–204
Right-sided pulmonary aplasia: longitudinal lung function studies in two cases and comparison to results from term healthy neonates. Nowotny T, et al. **Pediatr Pulmonol** 1998 Aug;26(2):138–44
Isovolume pressure/flow curves of rapid thoracoabdominal compressions in infants without respiratory disease. Ratjen F, et al. **Pediatr Pulmonol** 1998 Sep;26(3):197–203
Effect of positioning on recorded lung sound intensities in subjects without pulmonary dysfunction. Jones A, et al. **Phys Ther** 1999 Jul;79(7):682–90
Perinatal lung function measurements and prediction of respiratory problems in infancy. Greenough A, et al. **Physiol Meas** 1998 Aug;19(3):421–6
Complexity of terminal airspace geometry assessed by lung computed tomography in normal subjects and patients with chronic obstructive pulmonary disease. Mishima M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8829–34
Pulmonary function following adjuvant chemotherapy and radiotherapy for breast cancer and the issue of three-dimensional treatment planning. Lind PA, et al. **Radiother Oncol** 1998 Dec;49(3):245–54
Prediction of overall pulmonary function loss in relation to the 3-D dose distribution for patients with breast cancer and malignant lymphoma. Theuws JC, et al. **Radiother Oncol** 1998 Dec;49(3):233–43
Pulmonary function threshold for distinguishing ventilatory- and nonventilatory-limited patients with airflow obstruction. Fink G, et al. **Respir Med** 1998 Oct; 92(10):1245–50
Survey of knowledge of simple pulmonary function tests (PFTs) amongst trainee doctors in England. Mamun M. **Respir Med** 1999 May;93(5):356–60
Contribution of lung function to exercise capacity in patients with chronic heart failure. Dimopoulou I, et al. **Respiration** 1999;66(2):144–9
Late postoperative respiratory function in adults after surgical correction of atrial septal defects. Analysis of respiratory dysfunction patterns. Hamano K, et al. **Scand Cardiovasc J** 1998;32(3):135–6
Pulmonary function in chronic heart failure. Changes after heart transplantation. Ulrik CS, et al. **Scand Cardiovasc J** 1999;33(3):131–6
Functional and high-resolution computed tomographic studies of divers' lungs. Reuter M, et al. **Scand J Work Environ Health** 1999 Feb;25(1):67–74
Correlation of unilateral thoracoscopic lung volume reduction with improvement in lung function and exercise performance in patients with severe pulmonary emphysema. Kaiwa Y, et al. **Surg Today** 1999;29(8):718–23
Repeatability of lung function tests during methacholine challenge in wheezy infants. Delacourt C, et al. **Thorax** 1998 Nov;53(11):933–8
[Evaluation of preoperative functional status in patients with lung cancer] Riedel M, et al. **Cas Lek Cesk** 1999 May 10; 138(10):301–9 (78 ref.) (Eng. Abstr.) **(Cze)**
[Respiratory function in respiratory distress syndrome] Baghriche M, et al. **Arch Pediatr** 1998;5 Suppl 2:138s–141s **(Fre)**
[Respiratory function tests in pediatric asthma] Chaussain M, et al. **Arch Pediatr** 1998;5 Suppl 2:135s–138s (21 ref.) **(Fre)**
[Functional respiratory examination in pediatrics: why and how?] Marchal F. **Arch Pediatr** 1998;5 Suppl 2:131s–132s **(Fre)**
[Functional respiratory testing in mucoviscidosis] Matran R, et al. **Arch Pediatr** 1998;5 Suppl 2:132s–134s (12 ref.) **(Fre)**
[Technical help in following the asthmatic child] Reinhardt MC. **Arch Pediatr** 1999;6 Suppl 2:361s–363s **(Fre)**
[Diagnostic pneumology using model aerosols] Scheuch G, et al. **Pneumologie** 1999 Jul;53(7):329–36 (Eng. Abstr.) **(Ger)**
[Assessment of functional surgical treatment of patients with bronchial carcinoma] Schulz C, et al. **Pneumologie** 1999 Jul;53(7):337–47 (78 ref.) **(Ger)**
[New predictive formulas of pulmonary function in Japanese children] Yamaguchi I, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Aug;36(8):665–71 (Eng. Abstr.) **(Jpn)**
[The present and future of the pulmonary function tests. The relationship between respiratory and non-respiratory function] Kambe M, et al. **Rinsho Byori** 1999 Mar; 47(3):262–7 (4 ref.) (Eng. Abstr.) **(Jpn)**
[The respiratory system of workers employed in the casting and processing of copper] Marcisz C, et al. **Pneumonol Alergol Pol** 1998;66(9–10):433–9 (Eng. Abstr.) **(Pol)**
[Function of peripheral airways in children and adolescents with deformities of the anterior chest wall] Zaba R. **Pneumonol Alergol Pol** 1999;67(1–2):12–6 (Eng. Abstr.) **(Pol)**
[Results of functional breath-holding tests in healthy men in a horizontal and vertical position] Modin AIu. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):132–4 **(Rus)**
[Normograms of spirometric values for the city of Buenos Aires] Galindez F, et al. **Medicina (B Aires)** 1998; 58(2):141–6 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Adverse reactions to peak flow monitoring. Report of 5 patients. Schoch OD, et al. **Respiration** 1998;65(4):320–2

INSTRUMENTATION

Numerically based design of an orifice plate flowmetering system for human respiratory flow monitoring. Fortuna AO, et al. **Ann Biomed Eng** 1999 May–Jun;27(3):356–65
Infection control in the respiratory laboratory: risk, costs, expediency [editorial; comment] Pierce RJ. **Aust N Z J Med** 1999 Feb;29(1):3–4. Comment on: Aust N Z J Med 1999 Feb;29(1):9–14.
Elevation of peak expiratory flow by "spitting" maneuver [letter] Malloy J. **Chest** 1998 Nov;114(5):1497–8
Construction of anthropometric measuring chair (AMC) for lung function prediction. Balantič Z, et al. **Coll Antropol** 1998 Dec;22(2):563–73
A system to simulate gas exchange in humans to control quality of metabolic measurements. Prieur F, et al. **Eur J Appl Physiol** 1998 Nov;78(6):549–54
High-frequency respiratory input impedance measurements in infants assessed by the high speed interrupter technique. Frey U, et al. **Eur Respir J** 1998 Jul;12(1):148–58
Assessment of accuracy and applicability of a new electronic peak flow meter and asthma monitor [see comments] Richter K, et al. **Eur Respir J** 1998 Aug;12(2):457–62. Comment in: Eur Respir J 1998 Aug;12(2):761–2.
Measuring tidal volume and functional residual capacity change in sleeping infants using a volume displacement plethysmograph. Wilson SJ, et al. **Eur Respir J** 1998 Nov; 12(5):1186–90
The development and validation of a digital peak respiratory pressure monitor and its characteristics in healthy human

subjects. Maruthy KN, et al.
Indian J Physiol Pharmacol 1999 Apr;43(2):186–92
A comparison of peak expiratory flow rates obtained with the Morgan Spirocheck and a Mini Peak Flow Meter. Singh HD, et al. **Indian J Physiol Pharmacol** 1997 Jan; 41(1):91–3
The PEP transducer [letter; comment] Breakell A, et al. **J Accid Emerg Med** 1999 Jul;16(4):313. Comment on: J Accid Emerg Med 1999 Jan;16(1):26–8.
Assessment of the AirWatch lung function monitoring system.Asthma Clinical Research Network (ACRN). Martin RJ, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):535–6
When is conventional ventilation not conventional? [letter] Chavasse R. **J Paediatr Child Health** 1998 Aug;34(4):401
Evaluation of catheter-mounted transducers for intra-oesophageal pressure recording in respiratory function tests. Peters RJ, et al. **Med Biol Eng Comput** 1998 Sep;36(5):562–7
Respiratory resistance measured by an airflow perturbation device. Lausted CG, et al. **Physiol Meas** 1999 Feb; 20(1):21–35
[Fiber optic sensor technology in the endotracheal tube] Gerhard E, et al. **Biomed Tech (Berl)** 1999 Jan–Feb; 44(1–2):25–30 (Eng. Abstr.) **(Ger)**
[Pulmonary diagnosis with model aerosols. II: Aerosol bolus dispersion--a marker for convection gas transport. Basic principles and initial clinical results] Kohlhäufl M, et al. **Pneumologie** 1999 Jan;53(1):50–6 (42 ref.) **(Ger)**
[Complex system for respiration studies in animals] Aleksandrova NP, et al.
Ross Fiziol Zh Im I M Sechenova 1998 Nov;84(11):1303–7 **(Rus)**

METHODS

Forced expiratory maneuvers in very young children. Assessment of flow limitation. Jones MH, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):791–5
A frequency domain approach to nonlinear and structure identification for long memory systems: application to lung mechanics. Zhang Q, et al. **Ann Biomed Eng** 1999 Jan–Feb; 27(1):1–13
Early detection of upper airway obstructions by analysis of acoustical respiratory input impedance. Reisch S, et al. **Biol Cybern** 1999 Jul;81(1):25–37
The unidirectional valve is the best method to determine maximal inspiratory pressure during weaning. Caruso P, et al. **Chest** 1999 Apr;115(4):1096–101
PFT principles and bronchodilator testing in clinical practice: a guide for primary care physicians. Margolis ML.
Compr Ther 1998 Sep;24(9):441–5
A system to simulate gas exchange in humans to control quality of metabolic measurements. Prieur F, et al.
Eur J Appl Physiol 1998 Nov;78(6):549–54
Single-breath method for assessing the viscoelastic properties of the respiratory system. Antonaglia V, et al.
Eur Respir J 1998 Nov;12(5):1191–6
Measurement of airway resistance using the interrupter technique in preschool children in the ambulatory setting. Bridge PD, et al. **Eur Respir J** 1999 Apr;13(4):792–6
A collaborative study of infant respiratory function testing. Dundas I, et al. **Eur Respir J** 1998 Oct;12(4):944–53
Flow volume loops: postural significance. Sundaram P, et al. **Indian J Chest Dis Allied Sci** 1998 Jul–Sep;40(3):201–3
The development and validation of a digital peak respiratory pressure monitor and its characteristics in healthy human subjects. Maruthy KN, et al.
Indian J Physiol Pharmacol 1999 Apr;43(2):186–92
Prediction equation for lung functions in South Indian children. Nair RH, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):390–6
Measurement of respiratory mechanics in paediatric intensive care: in vitro assessment of a pulmonary function device. Nève V, et al. **Intensive Care Med** 1998 Oct;24(10):1083–8
Pulmonary gas-exchange analysis by using simultaneous deposition of aerosolized and injected microspheres. Altemeier WA, et al. **J Appl Physiol** 1998 Dec; 85(6):2344–51
Effect of ventilation distribution on aerosol bolus dispersion and recovery. Brown JS, et al. **J Appl Physiol** 1998 Dec; 85(6):2112–7
Analysis of forced expiratory maneuvers from raised lung volumes in preterm infants. Henschen M, et al.
J Appl Physiol 1998 Nov;85(5):1989–97
The practical application and interpretation of simple lung function tests in cystic fibrosis. Brand PL, et al.
J R Soc Med 1999;92 Suppl 37:2–12
Methods of testing lung function in early childhood. Beardsmore CS. **Pediatr Allergy Immunol** 1998;9(11 Suppl):30–6 (56 ref.)
Ventilation index and outcome in children with acute respiratory distress syndrome. Paret G, et al.
Pediatr Pulmonol 1998 Aug;26(2):125–8
Abnormal flow-volume loop leading to the diagnosis of bronchogenic cyst. Sharief N, et al. **Pediatr Pulmonol** 1999 Mar;27(3):218–20
Lung function testing in preschool children. Marchal F, et al. **Pediatr Pulmonol Suppl** 1999;18:21–3 (15 ref.)
Respiratory function testing in early childhood: where have we come from and where are we going? Stocks J.
Pediatr Pulmonol Suppl 1999;18:24–8 (29 ref.)
Lung function testing in infants. Stocks J.
Pediatr Pulmonol Suppl 1999;18:14–20 (10 ref.)
Evaluation of a non-invasive respiratory monitoring system for sleeping subjects. Carlson BW, et al. **Physiol Meas** 1999 Feb;20(1):53–63
Evaluation of forced oscillation technique for early detection of airway obstruction in sleep apnea: a model study. Reisch S, et al. **Technol Health Care** 1998 Nov;6(4):245–57
Effect of breathing circuit resistance on the measurement of ventilatory function. Johns DP, et al. **Thorax** 1998 Nov; 53(11):944–8
[Presentation of apparatus and methods of measurement] Le Roux P. **Arch Pediatr** 1999;6 Suppl 2:356s–357s **(Fre)**
[Functional, pediatric respiratory tests. Which tests to propose and at what age?] Crenesse D, et al.
Rev Mal Respir 1999 Jan;16 Suppl 3:S162–3 **(Fre)**
[Pulmonary function tests as a predictor of chronic lung disease in ventilated preterm infants] Tortorolo L, et al. **Minerva Pediatr** 1998 May;50(5):151–6 (Eng. Abstr.) **(Ita)**
[New clinical tests that physicians should know for diagnosis of respiratory system disease] Takizawa H.
Nippon Naika Gakkai Zasshi 1998 Oct 10;87(10):1993–8 (9 ref.) **(Jpn)**

STATISTICS & NUMERICAL DATA

Short-term variations in oscillatory and spirometric lung function parameters of non-asthmatic adults. Randell JT, et al. **Clin Physiol** 1999 Jul;19(4):329–37
Physical activity, physical fitness and respiratory function--exercise and respiratory function. MacAuley D, et al. **Ir J Med Sci** 1999 Apr–Jun;168(2):119–23
Pulmonary function studies in healthy Filipino adults residing in the United States. Lin FL, et al.
J Allergy Clin Immunol 1999 Aug;104(2 Pt 1):338–40

VETERINARY

Monitoring respiratory function and sleep in the obese Vietnamese pot-bellied pig. Tuck SA, et al.
J Appl Physiol 1999 Jul;87(1):444–51
Validation of impulse oscillometry in Friesian and Blue Belgian calves with respect to changes in extrathoracic upper airway resistance. Reinhold P, et al. **Res Vet Sci** 1998 Sep–Oct;65(2):93–101

RESPIRATORY HYPERSENSITIVITY

New therapeutic approaches for allergic diseases of the respiratory tract. Euroconference, Paris, France, April 1–4, 1998, Abstracts. **Res Immunol** 1998 Mar–Apr; 149(3):173–270
[Respiratory allergy in childhood. Proceedings of a meeting. Pontault Combault, 11–13 June 1998] **Arch Pediatr** 1999; 6 Suppl 1:3s–113s **(Fre)**
[Respiratory allergy and good clinical practice] Bourrier T. **Arch Pediatr** 1999;6 Suppl 1:67S–71S (Eng. Abstr.) **(Fre)**

CHEMICALLY INDUCED

Nerve growth factor induces a neurokinin-1 receptor-mediated airway hyperresponsiveness in guinea pigs. de Vries A, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1541–4
Effect of inhaled leukotriene D4 on airway eosinophilia and airway hyperresponsiveness in asthmatic subjects. Mulder A, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1562–7
Occupational respiratory hypersensitivity caused by preparations containing acrylates in dental personnel. Piirilä P, et al. **Clin Exp Allergy** 1998 Nov;28(11):1404–11
Experience with a mouse intranasal test for the predictive identification of respiratory sensitization potential of proteins. Blaikie L, et al. **Food Chem Toxicol** 1999 Aug; 37(8):889–96
Chemical respiratory allergy, IgE and the relevance of predictive test methods: a commentary. Kimber I, et al. **Hum Exp Toxicol** 1998 Oct;17(10):537–40 (23 ref.)

COMPLICATIONS

Expression of heat shock protein 72 by alveolar macrophages in hypersensitivity pneumonitis. Racine C, et al.
Am J Physiol 1999 Mar;276(3 Pt 1):L501–5
Expression of costimulatory molecules on alveolar macrophages in hypersensitivity pneumonitis. Israël-Assayag E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1830–4
Heterogeneity of atopic dermatitis defined by the immune response to inhalant and food allergens. Fabrizi G, et al. **Eur J Dermatol** 1999 Jul–Aug;9(5):380–4
The role of food and inhaled allergens in atopic dermatitis. Grunebaum E, et al. **J Cutan Med Surg** 1999 Feb;3 Suppl 2:S2–24–S2–28 (45 ref.)
From food allergy and atopic dermatitis to respiratory allergy. Kjellman NI, et al. **Pediatr Allergy Immunol** 1998; 9(11 Suppl):13–7 (30 ref.)
Hypersensitivity pneumonitis among workers cultivating Tricholoma conglobatum (shimeji). Akizuki N, et al.
Respiration 1999;66(3):273–8
[Practical aspects of cross-reaction allergies] Hogendijk S. **Rev Med Suisse Romande** 1999 Mar;119(3):231–4 (11 ref.) **(Fre)**

DIAGNOSIS

Nasal challenge with histamine decreases nonspecific bronchial reactivity in workers exposed to respiratory irritants. Godnic-Cvar J, et al. **Am J Ind Med** 1999 Apr; 35(4):420–5
Airways inflammation, atopy, and (1—> 3)-beta-D-glucan exposures in two schools. Rylander R, et al.
Am J Respir Crit Care Med 1998 Nov;158(5 Pt 1):1685–7
Exhaled nitric oxide, sensitization, and exposure to allergens in patients with asthma who are not taking inhaled steroids. Simpson A, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):45–9
Atopic dermatitis in early infancy predicts allergic airway disease at 5 years. Bergmann RL, et al.
Clin Exp Allergy 1998 Aug;28(8):965–70
Longitudinal predictors of airway responsiveness to distilled water: the role of atopy and maternal smoke exposure. Studnicka M, et al. **Eur Respir J** 1998 Jul;12(1):75–81
Specific IgE to cross-reactive carbohydrate determinants strongly affect the in vitro diagnosis of allergic diseases [see comments] Mari A, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1005–11. Comment in: J Allergy Clin Immunol 1999 Jun;103(6):1000–1.
A comparison of skin prick tests, intradermal skin tests, and RASTs in the diagnosis of cat allergy. Wood RA, et al.
J Allergy Clin Immunol 1999 May;103(5 Pt 1):773–9
Respiratory function as measured by peak expiratory flow rate and PM10: six communities study. Lee JT, et al.
J Expo Anal Environ Epidemiol 1999 Jul–Aug;9(4):293–9
Electrocochleographic changes after intranasal allergen challenge: A possible diagnostic tool in patients with Meniere's disease. Gibbs SR, et al.
Otolaryngol Head Neck Surg 1999 Sep;121(3):283–4
Mold testing by RAST and skin test methods in patients with allergic fungal sinusitis. Mabry RL, et al.
Otolaryngol Head Neck Surg 1999 Sep;121(3):252–4
Allergic and infectious pediatric sinusitis [see comments] Zacharisen MC, et al. **Pediatr Ann** 1998 Nov;27(11):759–66 (19 ref.). Comment in: Pediatr Ann 1998 Nov;27(11):708.
[Comparison of two techniques of automated screening in respiratory and food allergy (UniCAP versus IMMULITE)] Costongs GM, et al.
Allerg Immunol (Paris) 1998 Oct;30(8):240–4 (Eng. Abstr.) **(Fre)**
[VIDAS Stallertest: clinico-biological evaluation of a new global test for respiratory allergy] Felden F, et al.
Pathol Biol (Paris) 1998 Dec;46(10):819–23 (Eng. Abstr.) **(Fre)**
[The diagnostic value of endonasal provocation with chemical antigens in occupational respiratory allergoses] Makarova VN, et al. **Med Tr Prom Ekol** 1998;(11):20–2 (Eng. Abstr.) **(Rus)**
[Laboratory diagnosis of allergic inflammation] Andrejević S, et al. **Srp Arh Celok Lek** 1998 Nov–Dec; 126(11–12):499–505 (40 ref.) (Eng. Abstr.) **(Scc)**
[Spirometry in workers in a wheat-processing industry] Corzo G, et al. **Invest Clin** 1998 Sep;39(3):175–87 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Anti-CD86 (B7.2) treatment abolishes allergic airway hyperresponsiveness in mice. Haczku A, et al.
Am J Respir Crit Care Med 1999 May;159(5 Pt 1):1638–43
Effect of chronic theophylline treatment on the methacholine dose-response curve in allergic asthmatic subjects. Page CP, et al. **Eur Respir J** 1998 Jul;12(1):24–9
Oligonucleotide therapy of allergic asthma. Metzger WJ, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):260–6 (58 ref.)
Effect of steroids on nasal inflammatory cells and cytokine profile. Kondo H, et al. **Laryngoscope** 1999 Jan;109(1):91–7
[Antiallergy drugs and respiratory diseases in children] Donato L, et al. **Arch Pediatr** 1999;6 Suppl 1:98S–104S (12 ref.) (Eng. Abstr.) **(Fre)**
[Dosage of DNCG (Intal, Aarane) (letter)] Darlath W, et al. **Pneumologie** 1998 Dec;52(12):730–1 **(Ger)**
[Treatment of allergic inflammations with steroidal agents] Balaban J, et al. **Srp Arh Celok Lek** 1999 May–Jun; 127(5–6):202–5 (12 ref.) **(Scc)**
[Treatment of allergic inflammation with non-steroidal anti-inflammatory agents] Perić-Popadić A, et al.
Srp Arh Celok Lek 1999 Mar–Apr;127(3–4):137–41 (25 ref.) **(Scc)**

EPIDEMIOLOGY

IgE-mediated allergy to Lepidoglyphus destructor in an urban population--an epidemiologic study. Gislason D, et al. **Allergy** 1999 Aug;54(8):878–83
Non-specific nasal and bronchial reactivity are not correlated in non-asthmatic subjects occupationally exposed to irritants and in healthy subjects. Godnic-Cvar J, et al.
Am J Ind Med 1999 Apr;35(4):426–31
Organic dust toxic syndrome in swine confinement farming. Vogelzang PF, et al. **Am J Ind Med** 1999 Apr;35(4):332–4
Prevalence of asthma and respiratory symptoms in dairy farmers in the French province of the Doubs. Dalphin JC, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1493–8
Home dampness and respiratory health status in european children [see comments] Andriessen JW, et al.
Clin Exp Allergy 1998 Oct;28(10):1191–200. Comment in:

Clin Exp Allergy 1998 Oct;28(10):1178–81.

Why is allergy increasing?--environmental factors. Davies RJ, et al. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:8–14 (46 ref.)

High prevalence of sensitization to inhalant allergens in patients with myelomeningocele allergic to latex products. Palmieri A, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:67–8

Bakery work, atopy and the incidence of self-reported hay fever and rhinitis. Brisman J, et al. **Eur Respir J** 1999 Mar; 13(3):502–7

Asthma and respiratory symptoms in urban and rural Saudi Arabia. Hijazi N, et al. **Eur Respir J** 1998 Jul;12(1):41–4

Fungal extracellular polysaccharides in house dust as a marker for exposure to fungi: relations with culturable fungi, reported home dampness, and respiratory symptoms. Douwes J, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):494–500

Respiratory research's reach [news] Mitka M. **JAMA** 1999 Jun 16;281(23):2172

Particularities of pollen allergies in Greece. Papageorgiou PS. **Pediatr Pulmonol Suppl** 1999;18:168–71

Odor sensitivity and respiratory complaint profiles in a community-based sample with asthma, hay fever, and chemical odor intolerance. Baldwin CM, et al. **Toxicol Ind Health** 1999 Apr-Jun;15(3–4):403–9

[Pollution and allergy: the epidemiological data] Dutau H, et al. **Allerg Immunol (Paris)** 1998 Dec;30(10):329–36 (70 ref.) (Eng. Abstr.) **(Fre)**

[Respiratory allergy in children: current aspects and perspectives (editorial)] Dutau G. **Arch Pediatr** 1999;6 Suppl 1:3S–5S **(Fre)**

[Anaphylaxis in children and adolescents: apropos of 44 patients aged 2 months to 15 years] Marguet C, et al. **Arch Pediatr** 1999;6 Suppl 1:72S–78S (Eng. Abstr.) **(Fre)**

[Epidemiology of respiratory allergy in children] Pin I, et al. **Arch Pediatr** 1999;6 Suppl 1:6S–13S (65 ref.) (Eng. Abstr.) **(Fre)**

[Hypersensitivity to house dust mites and incidence of acute respiratory tract infections in children with bronchial asthma] Chuchro P, et al. **Przegl Lek** 1998;55(11):586–90 (Eng. Abstr.) **(Pol)**

ETHNOLOGY

Year-round housedust mite levels on the Highveld. Cadman A, et al. **S Afr Med J** 1998 Dec;88(12):1580–2

ETIOLOGY

Occupational allergy caused by Dianthus caryophillus, Gypsophila paniculata, and Lilium longiflorum. Vidal C, et al. **Allergy** 1998 Oct;53(10):995–8

Predictors of repeated wheeze in the first year of life: the relative roles of cockroach, birth weight, acute lower respiratory illness, and maternal smoking. Gold DR, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):227–36

Anti-CD86 (B7.2) treatment abolishes allergic airway hyperresponsiveness in mice. Haczku A, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1638–43

Advice from your allergist: pet allergies. **Ann Allergy Asthma Immunol** 1999 May;82(5):429–30

Sensitization to storage mites in urban working environment. Macan J, et al. **Arh Hig Rada Toksikol** 1998 Mar; 49(1):27–32

Indoor environmental factors and respiratory illness [editorial; comment] Custovic A, et al. **Clin Exp Allergy** 1998 Oct;28(10):1178–81. Comment on: Clin Exp Allergy 1998 Oct;28(10):1191–200.

Role of viruses in the onset of asthma and allergy: lessons from animal models. Hegele RG. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:78–81 (30 ref.)

On early sensitization to allergens and development of respiratory symptoms. Sherrill D, et al. **Clin Exp Allergy** 1999 Jul;29(7):905–11

Occupational allergy caused by carnation (Dianthus caryophyllus). Sánchez-Guerrero IM, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):181–5

Respiratory function as measured by peak expiratory flow rate and PM10: six communities study. Lee JT, et al. **J Expo Anal Environ Epidemiol** 1999 Jul–Aug;9(4):293–9

Inhibition of allergic airway inflammation in mice lacking nitric oxide synthase 2. Xiong Y, et al. **J Immunol** 1999 Jan 1;162(1):445–52

Systemic reactions due to allergen immunotherapy. Karaayvaz M, et al. **J Investig Allergol Clin Immunol** 1999 Jan-Feb;9(1):39–44

Respiratory symptoms and sensitization in bread and cake bakers. Smith TA, et al. **Occup Med (Lond)** 1998 Jul; 48(5):321–8

Air pollution and respiratory disease in children: what is the clinically relevant impact? Nicolai T. **Pediatr Pulmonol Suppl** 1999;18:9–13 (15 ref.)

Effect of environmental tobacco smoke exposure on respiratory symptoms in children. SCARPOL Team. Swiss Study on Childhood Allergy and Respiratory Symptoms with Respect to Air Pollution, Climate and Pollen. Hajnal BL, et al. **Schweiz Med Wochenschr** 1999 May 15; 129(19):723–30

Toxicology of protein allergenicity: prediction and characterization. Kimber I, et al. **Toxicol Sci** 1999 Apr; 48(2):157–62

[Experimental studies of the effects of atmospheric pollutants] Pauli G, et al. **Allerg Immunol (Paris)** 1998 Dec; 30(10):317–22 (40 ref.) (Eng. Abstr.) **(Fre)**

[Inter-relationship between allergenic pollens and air pollution] Peltre G. **Allerg Immunol (Paris)** 1998 Dec; 30(10):324–6 (1 ref.) (Eng. Abstr.) **(Fre)**

[Pollution and allergy: the contributions of animal and in vitro experimentation] Wallaert B, et al. **Allerg Immunol (Paris)** 1998 Dec;30(10):311–6 (44 ref.) (Eng. Abstr.) **(Fre)**

[Respiratory allergy and the viruses] Brouard J, et al. **Arch Pediatr** 1999;6 Suppl 1:29S–34S (Eng. Abstr.) **(Fre)**

[Allergens causing respiratory allergy: the aeroallergens] Deschildre A. **Arch Pediatr** 1999;6 Suppl 1:48S–54S (38 ref.) (Eng. Abstr.) **(Fre)**

[Respiratory allergy in children and passive smoking] Dubus JC, et al. **Arch Pediatr** 1999;6 Suppl 1:35S–38S (Eng. Abstr.) **(Fre)**

[Respiratory allergy and environmental pollution in pediatrics] Le Roux P. **Arch Pediatr** 1999;6 Suppl 1:39S–47S (63 ref.) (Eng. Abstr.) **(Fre)**

[Circannual rhythm of the risk of IgE-dependent sensitization to acari depending on the birth date. Interpretation and practical consequences in prevention] de Montis G. **Bull Acad Natl Med** 1998;182(8):1697–705; discussion 1705–7 (Eng. Abstr.) **(Fre)**

[Exterior and interior air pollution. Its impact on health] Molina C. **Bull Acad Natl Med** 1999;183(2):323–5 **(Fre)**

[Allergologic significance of the epithelium of domestic animals] Wallenstein G. **Pneumologie** 1998 Nov; 52(11):602–7 (79 ref.) **(Ger)**

[Food allergy. Most often conceals an inhalational allergy] Helbling A. **Schweiz Rundsch Med Prax** 1998 Sep 30; 87(40):1309–15 (71 ref.) (Eng. Abstr.) **(Ger)**

[Occupational respiratory allergopathies: environmental monitoring, air allergens, prevention] Previdi M, et al. **Med Lav** 1998 Nov-Dec;89(6):481–98 (68 ref.) (Eng. Abstr.) **(Ita)**

[Latent factors aggravating airway allergic symptom in urban population: the involvement of urban living environments] Azuma E, et al. **Nippon Koshu Eisei Zasshi** 1999 Mar; 46(3):184–98 (Eng. Abstr.) **(Jpn)**

[Animal models of pulmonary allergic disease] Grubek-Jaworska H. **Pneumonol Alergol Pol** 1999; 67(3–4):151–8 (30 ref.) **(Pol)**

[Sensitization to paprika: anaphylaxis after intake and rhinoconjunctivitis after contact through airways] Vega de la Osada F, et al. **Med Clin (Barc)** 1998 Sep 12;111(7):263–6 (Eng. Abstr.) **(Spa)**

GENETICS

Interaction of HLA phenotype and exposure intensity in sensitization to complex platinum salts. Newman Taylor AJ, et al. **Am J Respir Crit Care Med** 1999 Aug; 160(2):435–8

No association between atopy/asthma and the ILe50Val polymorphism of IL-4 receptor. Noguchi E, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):342–5

Asthma and diabetes [letter] Bottini N, et al. **Lancet** 1999 Aug 7;354(9177):515–6

Asthma and diabetes [letter] Huang SW. **Lancet** 1999 Aug 7;354(9177):515

IMMUNOLOGY

Respiratory symptoms, skin disorders and serum IgE levels in farm workers. Bener A, et al. **Allerg Immunol (Paris)** 1999 Feb;31(2):52–6

Role of IgE in the development of allergic airway inflammation and airway hyperresponsiveness--a murine model. Hamelmann E, et al. **Allergy** 1999 Apr; 54(4):297–305 (51 ref.)

Effect of pre- and postnatal tobacco smoke exposure on specific sensitization to food and inhalant allergens during the first 3 years of life. Multicenter Allergy Study Group, Germany. Kulig M, et al. **Allergy** 1999 Mar;54(3):220–8

Exposure to an abundance of cat (Fel d 1) and dog (Can f 1) allergens in Swedish farming households. Parvaneh S, et al. **Allergy** 1999 Mar;54(3):229–34

Inflammation markers and cytokines in breast milk of atopic and nonatopic women. Rudloff S, et al. **Allergy** 1999 Mar; 54(3):206–11

The association between serum levels of Th cytokines and rhinoconjunctivitis caused by methyltetrahydrophthalic anhydride. Yokota K, et al. **Allergy** 1998 Aug;53(8):803–7

Stem cell factor-induced airway hyperreactivity in allergic and normal mice. Campbell E, et al. **Am J Pathol** 1999 Apr;154(4):1259–65

CD23 and allergic pulmonary inflammation: potential role as an inhibitor. Cernadas M, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):1–8

Antigen-induced airway hyperresponsiveness, pulmonary eosinophilia, and chemokine expression in B cell-deficient mice. MacLean JA, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):379–87

The role of alpha4 (CD49d) and beta2 (CD18) integrins in eosinophil and neutrophil migration to allergic lung inflammation in the Brown Norway rat. Schneider T, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):448–57

Effects of cyclosporin A and dinactin on T-cell proliferation, interleukin-5 production, and murine pulmonary inflammation. Umland SP, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):481–92

Dissociation of airway hyperresponsiveness from immunoglobulin E and airway eosinophilia in a murine model of allergic asthma. Wilder JA, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1326–34

Kinetics of allergen-induced airway eosinophilic cytokine production and airway inflammation. Gauvreau GM, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):640–7

Involvement of alpha-4 integrins in allergic airway responses and mast cell degranulation in vivo. Hojo M, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1127–33

Antigen-induced airway inflammation in atopic subjects generates dysfunction of pulmonary surfactant. Jarjour NN, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):336–41

Human isolated airway contraction: interaction between air pollutants and passive sensitization. Roux E, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):439–45

Long-term topical exposure to toluene diisocyanate in mice leads to antibody production and in vivo airway hyperresponsiveness three hours after intranasal challenge. Scheerens H, et al. **Am J Respir Crit Care Med** 1999 Apr; 159(4 Pt 1):1074–80

Role of peroxynitrite in airway microvascular hyperpermeability during late allergic phase in guinea pigs. Sugiura H, et al. **Am J Respir Crit Care Med** 1999 Aug; 160(2):663–71

Respiratory allergy to mushroom spores: not well recognized, but relevant. Helbling A, et al. **Ann Allergy Asthma Immunol** 1999 Jul;83(1):17–9

Allergenic relationship among four common and dominant airborne palm pollen grains from Eastern India. Chowdhury I, et al. **Clin Exp Allergy** 1998 Aug; 28(8):977–83

Prediction of sensitization to inhalant allergens in childhood: evaluating family history, atopic dermatitis and sensitization to food allergens. The MAS Study Group. Multicentre Allergy Study. Kulig M, et al. **Clin Exp Allergy** 1998 Nov; 28(11):1397–403

Adenoviral infection inhibits allergic airways inflammation in mice. Stämpfli MR, et al. **Clin Exp Allergy** 1998 Dec; 28(12):1581–90

Allergy to Parietaria officinalis pollen. Cvitanović S. **Croat Med J** 1999 Mar;40(1):42–8 (51 ref.)

Indoor versus outdoor allergens in allergic respiratory disease. Platts-Mills TA, et al. **Curr Opin Immunol** 1998 Dec;10(6):634–9 (52 ref.)

Bystander suppression of occupational hapten sensitization in rats made tolerant to ovalbumin. Pullerits T, et al. **Eur Respir J** 1998 Oct;12(4):889–94

A rat model presenting eosinophilia in the airways, lung eosinophil activation, and pulmonary hyperreactivity. Carvalho C, et al. **Exp Lung Res** 1999 Jun;25(4):303–16

Both CD80 and CD86 co-stimulatory molecules regulate allergic pulmonary inflammation. Mark DA, et al. **Int Immunol** 1998 Nov;10(11):1647–55

Specific IgG response to monomeric and polymeric diphenylmethane diisocyanate conjugates in subjects with respiratory reactions to isocyanates. Aul DJ, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):749–55

Repeatability of allergen-induced airway inflammation. Gauvreau GM, et al. **J Allergy Clin Immunol** 1999 Jul; 104(1):66–71

Total serum IgE and its association with asthma symptoms and allergic sensitization among children. Sherrill DL, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):28–36

Decreased expression of Th2 type cytokine mRNA contributes to the lack of allergic bronchial inflammation in aged rats. Ide K, et al. **J Immunol** 1999 Jul 1; 163(1):396–402

An adoptive transfer model of allergic lung inflammation in mice is mediated by CD4+CD62LlowCD25+ T cells. Wise JT, et al. **J Immunol** 1999 May 1;162(9):5592–600

Hypersensitivity to chironomid larvae. Galindo PA, et al. **J Investig Allergol Clin Immunol** 1998 Jul–Aug;8(4):219–25

Breaking the nexus between asthma and atopy [editorial] Holt PG, et al. **Med J Aust** 1998 Oct 5;169(7):354–5

Negative regulation of airway responsiveness that is dependent on gammadelta T cells and independent of alphabeta T cells [see comments] Lahn M, et al. **Nat Med** 1999 Oct;5(10):1150–6. Comment in: Nat Med 1999 Oct;5(10):1127–8.

Occupational IgE sensitisation to phytase, a phosphatase derived from Aspergillus niger. Doekes G, et al. **Occup Environ Med** 1999 Jul;56(7):454–9

IgG subclass antibody responses to birch pollen in sibling pairs discordant for atopy. Härfast B, et al. **Pediatr Allergy Immunol** 1998 Nov;9(4):208–14

Airway hyperresponsiveness in anaesthetised guinea-pigs 18–24 hours after antigen inhalation does not occur with all intravenously administered spasmogens. Johnson A, et al. **Pharmacol Toxicol** 1999 Jun;84(6):281–7

Hypersensitivity pneumonitis among workers cultivating Tricholoma conglobatum (shimeji). Akizuki N, et al. **Respiration** 1999;66(3):273–8

Long-term exposure to diesel exhaust enhances antigen-induced eosinophilic inflammation and epithelial damage in the murine airway. Ichinose T, et al. **Toxicol Sci** 1998 Jul;44(1):70–9

[Practical aspects of cross-reaction allergies] Hogendijk S. **Rev Med Suisse Romande** 1999 Mar;119(3):231–4 (11 ref.) **(Fre)**

[Antigen-induced airway hyperresponsiveness in infantile guinea pigs] Taniguchi H, et al. **Arerugi** 1998 Aug; 47(8):720-5 (Eng. Abstr.) **(Jpn)**

METABOLISM

Segmental antigen challenge increases fibronectin in bronchoalveolar lavage fluid. Meerschaert J, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):619-25

Selective phosphodiesterase inhibitors modulate the activity of alveolar macrophages from sensitized guinea-pigs. Germain N, et al. **Eur Respir J** 1998 Dec;12(6):1334-9

PATHOLOGY

Nitrogen dioxide modifies allergic inflammation in tracheal mucosa. Ohashi Y, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:227-32

Enhanced proteoglycan deposition in the airway wall of atopic asthmatics. Huang J, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):725-9

Differences in nasal cellular infiltrates between allergic children and age-matched controls. Vinke JG, et al. **Eur Respir J** 1999 Apr;13(4):797-803

Prolonged eosinophil accumulation in allergic lung interstitium of ICAM-2 deficient mice results in extended hyperresponsiveness. Gerwin N, et al. **Immunity** 1999 Jan; 10(1):9-19

The origins of basophils and eosinophils in allergic inflammation. Denburg JA. **J Allergy Clin Immunol** 1998 Nov;102(5):S74-6

Decreased expression of Th2 type cytokine mRNA contributes to the lack of allergic bronchial inflammation in aged rats. Ide K, et al. **J Immunol** 1999 Jul 1; 163(1):396-402

Inhibition of allergic airway inflammation in mice lacking nitric oxide synthase 2. Xiong Y, et al. **J Immunol** 1999 Jan 1;162(1):445-52

Outdoor environmental injury of the airways and development of allergic respiratory diseases. D'Amato G, et al. **Pulm Pharmacol Ther** 1998 Oct-Dec;11(5-6):369-74 (57 ref.)

PHYSIOPATHOLOGY

Clinical polymorphism of respiratory allergy. Muñoz-López F. **Allergol Immunopathol (Madr)** 1999 May-Jun; 27(3):169-72 (12 ref.)

The clinical expression of allergy in the lungs. O'Byrne PM, et al. **Allergy** 1999 Jan;54(1):7-14 (53 ref.)

A1 adenosine receptor-mediated Ins(1,4,5)P3 generation in allergic rabbit airway smooth muscle. Abebe W, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L990-7

Selectin blockade prevents antigen-induced late bronchial responses and airway hyperresponsiveness in allergic sheep. Abraham WM, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1205-14

The effect of exposure to ozone and nitrogen dioxide on the airway response of atopic asthmatics to inhaled allergen: dose- and time-dependent effects. Jenkins HS, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):33-9

Markers of impaired growth of pulmonary function in children and adolescents. Ulrik CS, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):40-4

The role of the inhibitory nonadrenergic noncholinergic system in antigen-induced pulmonary hypersensitivity. Lamm WJ, et al. **Chin J Physiol** 1998 Sep 30;41(3):139-44

Predicting the impairment and accelerated decline of lung function - the role of immunoglobulin E [editorial; comment] Dow L. **Clin Exp Allergy** 1998 Oct;28(10):1174-7 . Comment on: Clin Exp Allergy 1998 Oct;28(10):1210-8.

IL-2 enhances allergic airway responses in rats by increased inflammation but not through increased synthesis of cysteinyl leukotrienes. Renzi PM, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):145-52

Budesonide affects allergic mucociliary dysfunction. O'Riordan TG, et al. **J Appl Physiol** 1998 Sep; 85(3):1086-91

Altered contractile sensitivity of isolated bronchial artery to phenylephrine in ovalbumin-sensitized rabbits. Zschauer AO, et al. **J Appl Physiol** 1999 May;86(5):1721-7

Effects of inflammatory cells on neuronal M2 muscarinic receptor function in the lung. Fryer AD, et al. **Life Sci** 1999;64(6-7):449-55 (49 ref.)

Airway morphology and function of rats following dermal sensitization and respiratory challenge with low molecular weight chemicals. Arts JH, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):66-76

[Determination of airway reactivity in the conscious and unrestrained guinea pigs] Wei E, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):86-8 (Eng. Abstr.) **(Chi)**

PREVENTION & CONTROL

Wheat sensitization and work-related symptoms in the baking industry are preventable. An epidemiologic study. Houba R, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1499-503

An in vivo model of beta-adrenoceptor desensitization. Chong BT, et al. **J Pharmacol Toxicol Methods** 1998 Aug; 40(2):109-15

Efficacy of measures of hygiene in workers sensitised to acid anhydrides and the influence of selection bias on the results. Drexler H, et al. **Occup Environ Med** 1999 Mar;56(3):202-5

Effects of DP-1904, a thromboxane synthetase inhibitor, on the antigen-induced airway hyperresponsiveness and infiltration of inflammatory cells in guinea-pigs. Takami M, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Dec;59(6):407-14

[Preventive measures regarding occupational allergens. 30th Congress of the German Society of Pneumology, 12 March 1998 in Leipzig] Baur X. **Pneumologie** 1998 Sep;52(9):501-3 **(Ger)**

[German Society of Pneumology. Recommendations for prevention of occupational asthma] Baur X, et al. **Pneumologie** 1998 Sep;52(9):504-14 (101 ref.) **(Ger)**

THERAPY

Continuous antihistamine treatment controls allergic inflammation and reduces respiratory morbidity in children with mite allergy. Ciprandi G, et al. **Allergy** 1999 Apr; 54(4):358-65

Therapeutic effects of antibodies to interleukin-5. Cuss FM. **Allergy** 1998;53(45 Suppl):89-92 (46 ref.)

Treatment of allergic airways disease with anti-IgE. Holgate ST, et al. **Allergy** 1998;53(45 Suppl):83-8 (62 ref.)

Opposite effects of immunotherapy with ovalbumin and the immunodominant T-cell epitope on airway eosinophilia and hyperresponsiveness in a murine model of allergic asthma. Janssen EM, et al. **Am J Respir Cell Mol Biol** 1999 Jul;21(1):21-9

Molecular mechanisms of allergen-specific immunotherapy for atopic diseases. Chiang BL. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1998 Sep-Oct;39(5):293-6 (36 ref.)

Modified T-cell activation pattern during specific immunotherapy (SIT) in cat-allergic patients. Meissner N, et al. **Clin Exp Allergy** 1999 May;29(5):618-25

Patient satisfaction and allergen immunotherapy. Gozalo Reques F, et al. **J Investig Allergol Clin Immunol** 1999 Mar-Apr;9(2):101-5

Cluster versus conventional immunotherapy in patients allergic to Dermatophagoides pteronyssinus: a controlled study of in vivo and in vitro parameters. Muro MD, et al. **J Investig Allergol Clin Immunol** 1999 May-Jun; 9(3):146-54

Treatment of allergic fungal sinusitis: a comparison trial of postoperative immunotherapy with specific fungal antigens. Folker RJ, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1623-7

Immunotherapy for allergic fungal sinusitis: three years' experience. Mabry RL, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):648-51

Therapy of allergic pulmonary diseases with anti-IgE antibodies. A review. Fick RB. **Pediatr Pulmonol Suppl** 1999;18:115-7 (17 ref.)

[Specific immunotherapy] Just J, et al. **Arch Pediatr** 1999;6 Suppl 1:108S-113S (Eng. Abstr.) **(Fre)**

VIROLOGY

Diminished IL-10 production in subjects with allergy after infection with influenza A virus. Gentile DA, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1045-8

RESPIRATORY INSUFFICIENCY

Sickle cell acute chest syndrome: pathogenesis and rationale for treatment. Stuart MJ, et al. **Blood** 1999 Sep 1; 94(5):1555-60

Analysis of factors that characterize health impairment in patients with chronic respiratory failure. Quality of Life in Chronic Respiratory Failure Group. Carone M, et al. **Eur Respir J** 1999 Jun;13(6):1293-300

[Respiratory insufficiency: discussion] Narita N, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):100-16 **(Jpn)**

[Engraftment syndrome in hematopoietic stem cell transplantation] Miwa A. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):595-600 (23 ref.) **(Jpn)**

BLOOD

Clearance of Clara cell secretory protein 16 (CC16) and surfactant proteins A and B from blood in acute respiratory failure. Doyle IR, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1528-35

Endothelin-1 and NO2/NO3 circulating levels after short-term (1h) oxygen supplementation in patients with chronic respiratory failure during long-term oxygen treatment (LTOT). Biondi R, et al. **Immunopharmacol Immunotoxicol** 1998 Aug;20(3):433-46

Spontaneous variability of arterial oxygenation in critically ill mechanically ventilated patients. Tsai YH, et al. **Intensive Care Med** 1999 Jan;25(1):37-43

Elevated plasma brain natriuretic peptide levels in chronic respiratory failure with cor pulmonale. Bando M, et al. **Respir Med** 1999 Jul;93(7):507-14

CHEMICALLY INDUCED

The respiratory effects of tramadol in children under halothane an anaesthesia. Bösenberg AT, et al. **Anaesthesia** 1998 Oct;53(10):960-4

Time course of changes in breathing pattern in morphine- and oxycodone-induced respiratory depression. Leino K, et al. **Anaesthesia** 1999 Sep;54(9):835-40

Respiratory depression after 5 micrograms of intrathecal sufentanil. Fournier R, et al. **Anesth Analg** 1998 Dec; 87(6):1377-8

Speed of onset and offset and mechanisms of ventilatory depression from sevoflurane: an experimental study in the cat. Dahan A, et al. **Anesthesiology** 1999 Apr;90(4):1119-28

Respiratory failure following oral administration of metoclopramide. MacLaren R, et al. **Ann Pharmacother** 1998 Oct;32(10):1017-20

Minocycline hypersensitivity with respiratory failure. Clayton BD, et al. **Arch Dermatol** 1999 Feb;135(2):139-40

Respiratory distress due to minocycline-induced pulmonary lupus. Christodoulou CS, et al. **Chest** 1999 May; 115(5):1471-3

Acute hypermagnesemia and respiratory arrest following infusion of MgSO4 for tocolysis. Cao Z, et al. **Clin Chim Acta** 1999 Jul;285(1-2):191-3

Kerosene-induced severe acute respiratory failure in near drowning: reports on four cases and review of the literature. Segev D, et al. **Crit Care Med** 1999 Aug; 27(8):1437-40 (14 ref.)

Respiratory depression in children receiving diazepam for acute seizures: a prospective study. Norris E, et al. **Dev Med Child Neurol** 1999 May;41(5):340-3

Surfactant therapy restores gas exchange in lung injury due to paraquat intoxication in rats. So KL, et al. **Eur Respir J** 1998 Aug;12(2):284-7

Near fatal anticholinergic intoxication after routine fundoscopy. Brunner GA, et al. **Intensive Care Med** 1998 Jul;24(7):730-1

Poisoning and severe ventilatory depression after oral ingestion of the industrially produced analgesic mixture tilidine with naloxone (Valoron N solution) [letter] Krüger M, et al. **Intensive Care Med** 1998 Jul;24(7):746

Morphine-induced ventilatory failure after spinal cord compression. Quevedo F, et al. **J Pain Symptom Manage** 1999 Aug;18(2):140-2

Use of partial liquid ventilation to manage pulmonary complications of acute verapamil-sustained release poisoning. Szekely LA, et al. **J Toxicol Clin Toxicol** 1999; 37(4):475-9

Acute respiratory failure due to gentamicin aerosolization. Melani AS, et al. **Monaldi Arch Chest Dis** 1998 Jun; 53(3):274-6

[Postoperative respiratory failure resulting from perioperative withdrawal of antiparkinsonian medications] Koganei H, et al. **Masui** 1999 Jan;48(1):70-2 (Eng. Abstr.) **(Jpn)**

CLASSIFICATION

Acute hypoxemic respiratory failure in children: case mix and the utility of respiratory severity indices. Peters MJ, et al. **Intensive Care Med** 1998 Jul;24(7):699-705

COMPLICATIONS

High prevalence of sensorineural hearing loss among survivors of neonatal congenital diaphragmatic hernia. Western Canadian ECMO Follow-up Group. Robertson CM, et al. **Am J Otol** 1998 Nov;19(6):730-6

Use of extracorporeal life support for adult patients with respiratory failure and sepsis. Rich PB, et al. **ASAIO J** 1998 Jul-Aug;44(4):263-6

Hypoxic hepatitis caused by acute exacerbation of chronic respiratory failure: a case-controlled, hemodynamic study of 17 consecutive cases. Henrion J, et al. **Hepatology** 1999 Feb;29(2):427-33

Right ventricular impairment in patients with chronic respiratory failure on home oxygen therapy--non-invasive assessment using a new Doppler index. Yamaguchi K, et al. **J Int Med Res** 1998 Oct-Nov;26(5):239-47

Syndrome of inappropriate secretion of antidiuretic hormone associated with amyotrophic lateral sclerosis in respiratory failure. Yoshida Y, et al. **Respirology** 1999 Jun;4(2):185-7

[Role and managmement of non-invasive ventilation in respiratory distress in the obese subject] Muir JF, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S114-6 **(Fre)**

[A 51-year-old patient with arterial hypertension, respiratory insufficiency and polycythemia--an unusual cause of nocturnal sleep-associated breathing disorder] Krabbe C, et al. **Dtsch Med Wochenschr** 1999 Jun 11;124(23):721-6 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Arterial blood gases and acid-base balance. Knowledge of bicarbonate concentrations is needed to assess respiratory failure [letter; comment] Matthews PC. **BMJ** 1999 Mar 13;318(7185):734. Comment on: BMJ 1998 Oct 31;317(7167):1213-6.

Arterial blood gases and acid-base balance. Allen's test is not routinely used before radial arterial puncture [letter; comment] Steele A. **BMJ** 1999 Mar 13;318(7185):734. Comment on: BMJ 1998 Oct 31;317(7167):1213-6.

Weaning from mechanical ventilation. Chao DC, et al. **Crit Care Clin** 1998 Oct;14(4):799-817, viii (79 ref.)

Acute hypoxemic respiratory failure in children: case mix and the utility of respiratory severity indices. Peters MJ, et al. **Intensive Care Med** 1998 Jul;24(7):699-705

[Orthopnea: not always of cardiac origin (see comments)] Oranen BI, et al. **Ned Tijdschr Geneeskd** 1999 May 1; 143(18):921-4 (32 ref.) (Eng. Abstr.). Comment in: Ned

Tijdschr Geneeskd 1999 Jul 3;143(27):1443–4. **(Dut)**

[Functional respiratory examination in pediatrics: why and how?] Marchal F. **Arch Pediatr** 1998;5 Suppl 2:131s–132s **(Fre)**

[Functional respiratory testing in mucoviscidosis] Matran R, et al. **Arch Pediatr** 1998;5 Suppl 2:132s–134s (12 ref.) **(Fre)**

[Techniques and indications for bronchoscopy in the artificially ventilated patient] Dombret MC. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S91–4 (13 ref.) **(Fre)**

[Value of bronchoalveolar lavage in an artificially ventilated patient] Maitre B. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S94–5 **(Fre)**

[Mendelson syndrome in infancy and childhood] Baum WF, et al. **Pneumologie** 1998 Oct;52(10):556–9 (21 ref.) (Eng. Abstr.) **(Ger)**

[Evaluation of respiratory muscles] Fitting JW. **Schweiz Med Wochenschr** 1998 Aug 15;128(33):1212–6 (10 ref.) (Eng. Abstr.) **(Ger)**

[Approach to diagnosis of respiratory insufficiency] Tatsumi K, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10; 88(1):4–10 (5 ref.) **(Jpn)**

[Role of respiratory function tests in differential diagnosis of respiratory and cardiac insufficiency] Grishin OV, et al. **Ter Arkh** 1999;71(4):13–7 (Eng. Abstr.) **(Rus)**

[Acute respiratory failure as the presentation of amyotrophic lateral sclerosis. Apropos a case] Hernández Borge J, et al. **Arch Bronconeumol** 1999 Jan;35(1):48–50 (20 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Phentolamine improves clinical outcome after balloon valvoplasty in neonates with severe pulmonary stenosis. Galal O, et al. **Cardiol Young** 1999 Mar;9(2):127–8

Respiratory insufficiency in postmenopausal women: sustained improvement of gas exchange with short-term medroxyprogesterone acetate. Saaresranta T, et al. **Chest** 1999 Jun;115(6):1581–7

Inhaled nitric oxide and treatment of hypoxic respiratory failure. Ehrenkranz RA. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):546–7

Surfactant replacement in acute lung injury--the saga continues [editorial; comment] Arnold JH. **Crit Care Med** 1999 Jan;27(1):31–2. Comment on: Crit Care Med 1999 Jan;27(1):188–95.

Low-dose inhaled nitric oxide improves the oxygenation and ventilation of infants and children with acute, hypoxemic respiratory failure [see comments] Ream RS, et al. **Crit Care Med** 1999 May;27(5):989–96. Comment in: Crit Care Med 1999 May;27(5):871–2.

Effect of surfactant on respiratory failure associated with thoracic aneurysm surgery [see comments] Satoh D, et al. **Crit Care Med** 1998 Oct;26(10):1660–2. Comment in: Crit Care Med 1998 Oct;26(10):1626–7.

Low-dose inhaled nitric oxide and oxygenation in pediatric hypoxic respiratory failure. Wrong bullet, wrong target [editorial; comment] Tibby S, et al. **Crit Care Med** 1999 May;27(5):871–2 (21 ref.). Comment on: Crit Care Med 1999 May;27(5):989–96.

Instillation of calf lung surfactant extract (calfactant) is beneficial in pediatric acute hypoxemic respiratory failure. Members of the Mid-Atlantic Pediatric Critical Care Network [see comments] Willson DF, et al. **Crit Care Med** 1999 Jan;27(1):188–95. Comment in: Crit Care Med 1999 Jan;27(1):31–2.

Concurrent administration of amrinone with nitric oxide most improves PaO2/FiO2 in acute respiratory and cardiac failure. Yukioka H, et al. **Eur J Emerg Med** 1999 Jun; 6(2):161–4

Experimental neonatal respiratory failure induced by lysophosphatidylcholine: effect of surfactant treatment. Grossmann G, et al. **J Appl Physiol** 1999 Feb;86(2):633–40

Nitric oxide in acute hypoxic respiratory failure: from the bench to the bedside and back again [editorial; comment] Bohn D. **J Pediatr** 1999 Apr;134(4):387–9 (29 ref.). Comment on: J Pediatr 1999 Apr;134(4):406–12.

Comparison of rapid bolus instillation with simplified slow administration of surfactant in lung lavaged rats. Fernández-Ruanova MB, et al. **Pediatr Pulmonol** 1998 Aug;26(2):129–34

Effect of chronic furosemide administration on acid–base balance in patients with chronic hypercapnic respiratory failure. Urano T, et al. **Tokai J Exp Clin Med** 1998 Oct; 23(4):193–7

[Prostacyclin inhalation in pulmonary failure following smoke inhalation] Nielsen HR, et al. **Ugeskr Laeger** 1998 Nov 30;160(49):7141 (Eng. Abstr.) **(Dan)**

[Use of Tienam in a 50-year old male with respiratory failure caused by multiple congenital bronchogenic cysts infected with bacteria with significant antibiotic resistance] Kawecki P, et al. **Przegl Lek** 1998;55(3):136–7 (Eng. Abstr.) **(Pol)**

EPIDEMIOLOGY

Acute neonatal respiratory distress in Italy: a one-year prospective study. Italian Group of Neonatal Pneumology. Rubaltelli FF, et al. **Acta Paediatr** 1998 Dec;87(12):1261–8

Incidence and mortality after acute respiratory failure and acute respiratory distress syndrome in Sweden, Denmark, and Iceland. The ARF Study Group. Luhr OR, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1849–61

Breathlessness in elderly individuals is related to low lung function and reversibility of airway obstruction. Boezen HM, et al. **Eur Respir J** 1998 Oct;12(4):805–10

[Chronic respiratory insufficiency: evaluation, evolution, prognosis] Weitzenblum E, et al. **Bull Acad Natl Med** 1998; 182(6):1123–36; discussion 1136–7 (Eng. Abstr.) **(Fre)**

[Why are infants prone to respiratory failure?] Hammer J. **Schweiz Rundsch Med Prax** 1999 Jun 3;88(23):1035–7 (11 ref.) **(Ger)**

[Tuberculosis sequelae in Japan] Mori M. **Kekkaku** 1999 Jan; 74(1):1–4 (6 ref.) (Eng. Abstr.) **(Jpn)**

[Estimated numbers of patients with intractable respiratory diseases] Hashimoto S, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec;36(12):1006–10 (Eng. Abstr.) **(Jpn)**

ETIOLOGY

Acute respiratory failure associated with acute myocardial infarction. Did he have ARDS? [letter] Yokioka H. **Acta Anaesthesiol Scand** 1999 Feb;43(2):241

Respiratory distress due to tracheal aspergillosis in a severely immunocompromised patient. Lévy V, et al. **Acta Haematol** 1998;100(2):85–7

Respiratory failure following talc pleurodesis. Rehse DH, et al. **Am J Surg** 1999 May;177(5):437–40

Bilevel non-invasive ventilation in malignant large airways obstruction during chemotherapy and radiotherapy. Grant RK, et al. **Anaesth Intensive Care** 1999 Jun;27(3):295–7

Respiratory insufficiency in Charcot-Marie-Tooth disease [letter; comment] Hirsch NP. **Anaesthesia** 1998 Oct; 53(10):1034. Comment on: Anaesthesia 1998 Jun;53(6):586–8.

Right aortic arch, right ligamentum, absent left pulmonary artery: a rare vascular ring. Dodge-Khatami A, et al. **Ann Thorac Surg** 1999 May;67(5):1472–4

Microscopic polyangiitis: clinical and laboratory findings in eighty-five patients. Guillevin L, et al. **Arthritis Rheum** 1999 Mar;42(3):421–30

Airway flow limitation in patients with vibroacoustic disease. Reis Ferreira JM, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A63–9

Acute spinal cord and head injury: case report and discussion of cardiac, respiratory and endocrine abnormalities. Johnson CD, et al. **Bol Asoc Med P R** 1998 Apr–Jun; 90(4–6):95–101

Noninvasive mechanical ventilation in a patient with respiratory failure after hematopoietic progenitor transplantation. Marin D, et al. **Bone Marrow Transplant** 1998 Dec;22(11):1123–4

Non-invasive ventilatory support in the management of respiratory failure after autologous peripheral blood stem cell transplantation [letter] Sica S, et al. **Bone Marrow Transplant** 1999 Mar;23(5):527

Use of the cardiopulmonary risk index [letter; comment] Epstein SK. **Chest** 1999 Jan;115(1):308–9. Comment on: Chest 1998 Jul;114(1):69–75.

A reversible cause of hypercapnic respiratory failure: lower motor neuronopathy associated with renal cell carcinoma. Forman D, et al. **Chest** 1999 Mar;115(3):899–901

Pulmonary manifestations of POEMS syndrome: case report and literature review. Mokhlesi B, et al. **Chest** 1999 Jun; 115(6):1740–2

Late complications. Late respiratory failure. Wihlm JM, et al. **Chest Surg Clin N Am** 1999 Aug;9(3):633–54, ix-x (79 ref.)

Early complications. Respiratory failure. Zwischenberger JB, et al. **Chest Surg Clin N Am** 1999 Aug;9(3):543–64, viii (142 ref.)

Severe acute respiratory failure due to legionella pneumonia treated with extracorporeal membrane oxygenation. Ichiba S, et al. **Clin Infect Dis** 1999 Mar;28(3):686–7

Acute human immunodeficiency virus infection with severe respiratory and renal failure. Onuchic MH, et al. **Clin Infect Dis** 1998 Dec;27(6):1537–8

Acute respiratory failure associated with cryptococcosis in patients with AIDS: analysis of predictive factors. Visnegarwala F, et al. **Clin Infect Dis** 1998 Nov; 27(5):1231–7

Maternal fever and neonatal depression: preliminary observations. Perlman JM. **Clin Pediatr (Phila)** 1999 May; 38(5):287–91

Tracheal and oesophageal stenting for carcinoma of the upper oesophagus invading the tracheo-bronchial tree. Nicholson DA. **Clin Radiol** 1998 Oct;53(10):760–3

Noninvasive ventilation in neuromuscular disease. Bonekat HW. **Crit Care Clin** 1998 Oct;14(4):775–97 (114 ref.)

Acute eosinophilic pneumonia: a treatable cause of severe acute respiratory failure [editorial; comment] Sarnaik AP, et al. **Crit Care Med** 1999 Sep;27(9):2069–70. Comment on: Crit Care Med 1999 Sep;27(9):2014–6.

Tracheobronchial stenting in patients with esophageal cancer involving the central airways. Belleguic C, et al. **Endoscopy** 1999 Mar;31(3):232–6

Extracorporeal membrane oxygenation--a last-resort therapy for newborns with congenital diaphragmatic hernia or other causes of severe respiratory failure. van der Staak F. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;80(2):195–7 (5 ref.)

Dry lung syndrome: complete airway collapse mimicking pulmonary hypoplasia? Losa M, et al. **Eur J Pediatr** 1998 Nov;157(11):935–8

Negative pressure ventilation versus conventional mechanical ventilation in the treatment of acute respiratory failure in COPD patients [see comments] Corrado A, et al. **Eur Respir J** 1998 Sep;12(3):519–25. Comment in: Eur Respir J 1998 Sep;12(3):515–6.

Severe respiratory failure requiring ICU admission in bone marrow transplant recipients. Gruson D, et al. **Eur Respir J** 1999 Apr;13(4):883–7

Airway occlusion pressure at 0.1 s (P0.1) after extubation: an early indicator of postextubation hypercapnic respiratory insufficiency. Hilbert G, et al. **Intensive Care Med** 1998 Dec;24(12):1277–82

The use of noninvasive pressure support ventilation for severe respiratory insufficiency due to pulmonary oedema [see comments] Hoffmann B, et al. **Intensive Care Med** 1999 Jan;25(1):15–20. Comment in: Intensive Care Med 1999 Jan;25(1):1–2.

Predictors of respiratory function deterioration after transfer of critically ill patients. Marx G, et al. **Intensive Care Med** 1998 Nov;24(11):1157–62

Left postpneumonectomy syndrome successfully treated with endobronchial stent. Nakamura Y, et al. **Intern Med** 1998 Oct;37(10):880–3 (12 ref.)

Right aortic arch and aortic aneurysm leading to near-complete compression of the trachea after coronary artery surgery. Ihra G, et al. **J Cardiothorac Vasc Anesth** 1998 Aug;12(4):437–8

Chronic respiratory distress, dyspepsia, and diarrhea: What is the connection? [clinical conference] Bauer WM, et al. **J Clin Gastroenterol** 1998 Dec;27(4):312–5

Pulmonary tuberculosis presenting as acute respiratory failure: radiologic findings. Choi D, et al. **J Comput Assist Tomogr** 1999 Jan–Feb;23(1):107–13

Rapid reperfusion causes stress failure in ischemic rat lungs. Pierre AF, et al. **J Thorac Cardiovasc Surg** 1998 Dec; 116(6):932–42

Aspiration of black mustard. Gulbransen G, et al. **J Toxicol Clin Toxicol** 1998;36(6):591–3

Sternal fracture with mediastinal hematoma: delayed cardiopulmonary sequelae. Crestanello JA, et al. **J Trauma** 1999 Jul;47(1):161–4

A 60-year-old woman with weakness, fatigue, and acute respiratory failure: case report and discussion of the differential diagnosis. Sander HW, et al. **Mil Med** 1998 Oct; 163(10):715–8

The mechanism of respiratory failure in paraneoplastic pemphigus [letter] Garcia-Rio F, et al. **N Engl J Med** 1999 Sep 9;341(11):848

Severe hypokalaemia and respiratory arrest due to renal tubular acidosis in a patient with Sjögren syndrome. Ohtani H, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2201–3

Diffuse pulmonary infiltrates in immunocompromised patients. Fijen JW, et al. **Neth J Med** 1999 Jul;55(1):23–8

Group A streptococcal toxic shock syndrome and associated respiratory distress. Friedman O, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):566–9

Respiratory failure in myasthenia gravis and negative pressure support. Chisakuta A, et al. **Pediatr Neurol** 1998 Sep;19(3):225–6

Respiratory failure in nemaline myopathy [letter; comment] Maayan C, et al. **Pediatr Neurol** 1998 Aug;19(2):156–7. Comment on: Pediatr Neurol 1997 May;16(4):344–6.

Myopathy with mitochondrial changes presenting as respiratory failure in two brothers. Lemos AB, et al. **Pediatr Pulmonol** 1999 Mar;27(3):213–7

Congenitally short trachea with compression of the left mainstem bronchus: MRI findings. de Priester JA, et al. **Pediatr Radiol** 1998 May;28(5):342–3

Alveolar capillary dysplasia with misalignment of the pulmonary veins: a rare but fatal cause of neonatal respiratory failure. Kane TD, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):89–91

Varied presentations of unilateral lung hypoplasia and agenesis: a report of four cases. Thomas RJ, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):94–5

Transalar sphenoidal encephalocele and respiratory distress in a neonate: a case report. Mylanus EA, et al. **Pediatrics** 1999 Jan;103(1):E12

Management of pulmonary complications in neuromuscular disease. Benditt JO. **Phys Med Rehabil Clin N Am** 1998 Feb;9(1):167–85 (57 ref.)

Pulmonary vasculitis associated with anti-Jo-1 antibodies. Brown I, et al. **Respir Med** 1998 Jul;92(7):986–8

Non-invasive ventilation in hypercapnic respiratory failure secondary to sclerodermic chest wall restriction. Nageh TT, et al. **Respir Med** 1998 Sep;92(9):1170–2

Life-threatening situations in sarcoidosis. James DG. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):134–9 (13 ref.)

Prolonged respiratory failure in chlamydia pneumoniae pneumonia. Machi T, et al. **Scand J Infect Dis** 1998; 30(6):620–1

Respiratory syncytial virus infection in young Malaysian children. Chan P, et al. **Singapore Med J** 1999 May; 40(5):336–40

Management of respiratory problems unique to high tetraplegia. Fromm B, et al. **Spinal Cord** 1999 Apr; 37(4):239–44

Abnormal respiratory patterns in childhood cerebral malaria. Crawley J, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):305–8

Endotracheal intubation and mechanical ventilation following respiratory arrest from high altitude pulmonary

edema. Litch JA. **West J Med** 1999 Mar;170(3):174–6
[Acute respiratory insufficiency in children] Duiverman EJ, et al. **Ned Tijdschr Geneeskd** 1999 Jan 23;143(4):197–201 (17 ref.) (Eng. Abstr.) **(Dut)**
[Orthopnea: not always of cardiac origin (letter; comment)] Kampelmacher MJ, et al. **Ned Tijdschr Geneeskd** 1999 Jul 3;143(27):1443–4. Comment on: Ned Tijdschr Geneeskd 1999 May 1;143(18):921–4. **(Dut)**
[Orthopnea: not always of cardiac origin (see comments)] Oranen BI, et al. **Ned Tijdschr Geneeskd** 1999 May 1; 143(18):921–4 (32 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jul 3;143(27):1443–4. **(Dut)**
[Respiratory failure sometimes is due to a cardiac cause] van den Tol DC, et al. **Ned Tijdschr Geneeskd** 1998 Aug 29; 142(35):1937–41 (Eng. Abstr.) **(Dut)**
[Postoperative ventilatory depression after flushing of the infusion line (comment)] Nouri M, et al.
Ann Fr Anesth Reanim 1999 Aug;18(7):814–5. Comment on: Ann Fr Anesth Reanim 1999 Mar;18(3):358–9. **(Fre)**
[Respiratory problems in severe scoliosis] Barois A.
Bull Acad Natl Med 1999;183(4):721–30 (21 ref.) (Eng. Abstr.) **(Fre)**
[Home management of chronic respiratory insufficiency. Non-invasive ventilation at home] Ordronneau J, et al.
Rev Mal Respir 1999 Jan;16 Suppl 3:S185–6 **(Fre)**
[A rare case of severe pulmonary artery hypertension. Thrombosing pulmonary microangiopathy due to tumor] Perrin C, et al. **Rev Mal Respir** 1998 Sep;15(4):545–7 (Eng. Abstr.) **(Fre)**
[Acute respiratory insufficiency in patients with bronchopulmonary cancer] Mayaud C, et al.
Rev Pneumol Clin 1998 Sep;54(4):171–9 (56 ref.) (Eng. Abstr.) **(Fre)**
[Acute respiratory distress in a patient with sickle-cell anemia] Wislez M, et al. **Rev Pneumol Clin** 1999 Mar; 55(1):31–3 (Eng. Abstr.) **(Fre)**
[Neurologic cause of respiratory insufficiency (letter; comment)] Schönhofer B. **Dtsch Med Wochenschr** 1999 May 7;124(18):576–7. Comment on: Dtsch Med Wochenschr 1998 May 8;123(19):594–6. **(Ger)**
[Respiratory problems after injuries of the cervical spine] Stocker R, et al. **Schweiz Med Wochenschr** 1998 Sep 26; 128(39):1462–6 (13 ref.) (Eng. Abstr.) **(Ger)**
[Anesthetic management of a patient with Eaton-Lambert syndrome with chronic respiratory failure] Onozawa H, et al. **Masui** 1999 Mar;48(3):260–4 (Eng. Abstr.) **(Jpn)**
[Allergic granulomatous angiitis associated with cerebral infarction, myo-pericarditis and acute respiratory failure due to eosinophilic pneumonia] Aoshima M, et al.
Nihon Kokyuki Gakkai Zasshi 1998 Nov;36(11):978–83 (Eng. Abstr.) **(Jpn)**
[Severe pneumococcal pneumonia with acute respiratory failure and neutropenia] Araya J, et al.
Nihon Kokyuki Gakkai Zasshi 1998 Sep;36(9):803–8 (Eng. Abstr.) **(Jpn)**
[Polymyositis-induced respiratory failure in the presence of antecedent pleural effusion] Araya J, et al.
Nihon Kokyuki Gakkai Zasshi 1998 Aug;36(8):713–6 (Eng. Abstr.) **(Jpn)**
[Myasthenia gravis presenting as isolated respiratory failure] Kishimoto N, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct;36(10):891–5 (7 ref.) (Eng. Abstr.) **(Jpn)**
[Severe respiratory distress caused by dental foreign object] Muro K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec; 36(12):1023–6 (Eng. Abstr.) **(Jpn)**
[Eosinophilia and cough induced by resumption of cigarette smoking in a beginning smoker recovering from acute respiratory failure] Nakajima M, et al.
Nihon Kokyuki Gakkai Zasshi 1999 Jul;37(7):543–8 (Eng. Abstr.) **(Jpn)**
[Motor neuron disease with respiratory insufficiency as primary manifestation] Yagyu H, et al.
Nihon Kokyuki Gakkai Zasshi 1999 Apr;37(4):321–6 (Eng. Abstr.) **(Jpn)**
[Etiology and physiopathology of diseases responsible for the development of respiratory insufficiency] Suga M.
Nippon Naika Gakkai Zasshi 1999 Jan 10;88(1):37–44 (5 ref.) **(Jpn)**
[Respiratory failure based on pulmonary tuberculosis sequelae and its management] Tsurutani H, et al.
Nippon Rinsho 1998 Dec;56(12):3190–4 (15 ref.) (Eng. Abstr.) **(Jpn)**
[Respiratory failure in mitochondrial myopathy treated with noninvasive mechanical ventilation] Bieleń P, et al.
Pneumonol Alergol Pol 1998;66(11–12):555–9 (Eng. Abstr.) **(Pol)**
[Deficiency of conditioning function of the respiratory system in some respiratory and circulatory diseases] Agarkov SF. **Ter Arkh** 1999;71(3):48–51 (Eng. Abstr.) **(Rus)**
[Young's syndrome causing respiratory insufficiency (letter)] Veres Racamonde A, et al. **Arch Bronconeumol** 1999 Jul-Aug;35(7):361–2 **(Spa)**
[Comment on "Respiratory failure secondary to disautonomy in lateral bulbar infarction" (letter; comment)] Pérez de Llano LA, et al. **Neurologia** 1999 Feb;14(2):94–5. Comment on: Neurologia 1998 Jun-Jul;13(6):312–3. **(Spa)**
[Cardiorespiratory failure and diabetic autonomic neuropathy: a case report] Cánovas L, et al.
Rev Esp Anestesiol Reanim 1998 Nov;45(9):397–400 (Eng. Abstr.) **(Spa)**
[Ventilatory support in patients with acute disease of the central nervous system] Bugedo G, et al. **Rev Med Chil** 1999 Feb;127(2):211–21 (53 ref.) (Eng. Abstr.) **(Spa)**

GENETICS

Mitochondrial DNA 8993 T > C mutation presenting as juvenile Leigh syndrome with respiratory failure. Mak SC, et al. **J Child Neurol** 1998 Jul;13(7):349–51
Mitochondrial myopathy with predominant respiratory dysfunction in a patient with A3243G mutation in the mitochondrial tRNA(Leu(UUR))gene. Yang CC, et al.
J Formos Med Assoc 1998 Oct;97(10):715–9
[Clinical thinking and decision making in practice: a full-term neonate with misunderstood respiratory insufficiency] van Heijst AF, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12; 143(24):1256–60 (Eng. Abstr.) **(Dut)**

HISTORY

[History of respiratory resuscitation] Sadoul P.
Rev Mal Respir 1999 Jun;16(3):307–12 **(Fre)**

IMMUNOLOGY

The mechanism of respiratory failure in paraneoplastic pemphigus. Nousari HC, et al. **N Engl J Med** 1999 May 6;340(18):1406–10

METABOLISM

Reduced ventilator pressure and improved P/F ratio during percutaneous arteriovenous carbon dioxide removal for severe respiratory failure. Alpard SK, et al. **Ann Surg** 1999 Aug;230(2):215–24

MICROBIOLOGY

Determinants of short- and long-term outcome in patients with respiratory failure caused by AIDS-related Pneumocystis carinii pneumonia. Forrest DM, et al.
Arch Intern Med 1999 Apr 12;159(7):741–7
Bronchial mucormycosis with progressive air trapping. Collins DM, et al. **Mayo Clin Proc** 1999 Jul;74(7):698–701
Index of suspicion. Case 3. Infantile botulism. Kornfeld H.
Pediatr Rev 1999 Jan;20(1):29, 32
Acute respiratory failure due to miliary tuberculosis in a patient with idiopathic CD4+ T-lymphocytopaenia. Suzuki Y, et al. **Respir Med** 1998 Jul;92(7):977–9
Fulminant psittacosis requiring mechanical ventilation and demonstrating serological cross-reactivity between Legionella longbeachae and Chlamydia psittaci. Soni R, et al. **Respirology** 1999 Jun;4(2):203–5

MORTALITY

Incidence and mortality after acute respiratory failure and acute respiratory distress syndrome in Sweden, Denmark, and Iceland. The ARF Study Group. Luhr OR, et al.
Am J Respir Crit Care Med 1999 Jun;159(6):1849–61
Pneumocystis carinii pneumonia requiring intensive care management: survival and prognostic study in 110 patients with human immunodeficiency virus [see comments] Bédos JP, et al. **Crit Care Med** 1999 Jun;27(6):1109–15. Comment in: Crit Care Med 1999 Jun;27(6):1043–4.
Reversal of fortune? Respiratory failure after bone marrow transplantation [editorial; comment] Bojko T, et al.
Crit Care Med 1999 Jun;27(6):1061–2 (17 ref.). Comment on: Crit Care Med 1999 Jun;27(6):1181–6.
Prognosis of pediatric bone marrow transplant recipients requiring mechanical ventilation [see comments] Rossi R, et al. **Crit Care Med** 1999 Jun;27(6):1181–6. Comment in: Crit Care Med 1999 Jun;27(6):1061–2.
Lung transplant waiting list: differential outcome of type of end-stage lung disease, one year after registration. De Meester J, et al. **J Heart Lung Transplant** 1999 Jun; 18(6):563–71

NURSING

Following the learning curve: the evolution of kinder, gentler neonatal respiratory technology. Lockridge T.
J Obstet Gynecol Neonatal Nurs 1999 Jul-Aug;28(4):443–55 (105 ref.)

PATHOLOGY

Endothelial cell changes are associated with pulmonary edema and respiratory distress in mice infected with the WA1 human Babesia parasite. Hemmer RM, et al.
J Parasitol 1999 Jun;85(3):479–89

PHYSIOPATHOLOGY

Changes in the work of breathing induced by tracheotomy in ventilator-dependent patients. Diehl JL, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):383–8
Partitioning of respiratory system resistance in children with respiratory insufficiency. Kaditis AG, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):389–96
A simple automated method for measuring pressure-volume curves during mechanical ventilation. Lu Q, et al.
Am J Respir Crit Care Med 1999 Jan;159(1):275–82
Correcting static intrinsic positive end-expiratory pressure for expiratory muscle contraction. Validation of a new method. Zakynthinos SG, et al.
Am J Respir Crit Care Med 1999 Sep;160(3):785–90
Airway flow limitation in patients with vibroacoustic disease. Reis Ferreira JM, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A63–9
Monitoring patient mechanics during mechanical ventilation. Jubran A. **Crit Care Clin** 1998 Oct;14(4):629–53, vi (112 ref.)
Effects of pressure ramp slope values on the work of breathing during pressure support ventilation in restrictive patients [see comments] [published erratum appears in Crit Care Med 1999 Jul;27(7):1404] Bonmarchand G, et al.
Crit Care Med 1999 Apr;27(4):715–22. Comment in: Crit Care Med 1999 Apr;27(4):670–1.
Ventilatory muscle recruitment and work of breathing in patients with respiratory failure after thoracic surgery. Takeda S, et al. **Eur J Cardiothorac Surg** 1999 Apr; 15(4):449–55
Effect of continuous lateral rotational therapy on lung mucus transport in mechanically ventilated patients. Dolovich M, et al. **J Crit Care** 1998 Sep;13(3):119–25
Evaluation of right-ventricular function by Doppler echocardiography in patients with chronic respiratory failure. Nishimura E, et al. **J Int Med Res** 1999 Mar-Apr; 27(2):65–73
Non-invasive ventilation--mechanisms of benefit. Elliott MW. **Med Klin** 1999 Apr;94(1 Spec No):2–6 (18 ref.)
Prone position in mechanically-ventilated patients. Brazzi L, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):410–4
High blood levels of nitric oxide in rats subjected to prolonged respiratory arrest and their modulation during adrenocorticotropin-induced resuscitation. Bazzani C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):53–9
Ventilatory failure during resistive loaded breathing in the newborn primate. Mayock DE, et al. **Pediatr Pulmonol** 1998 Nov;26(5):312–8
A comparison of the hemodynamic and respiratory effects of surfactant instillation during interrupted ventilation versus noninterrupted ventilation in rabbits with severe respiratory failure. Dijk PH, et al. **Pediatr Res** 1999 Feb; 45(2):235–40
Late postoperative respiratory function in adults after surgical correction of atrial septal defects. Analysis of respiratory dysfunction patterns. Hamano K, et al.
Scand Cardiovasc J 1998;32(3):135–6
Changes in occlusion pressure (P0.1) and breathing pattern during pressure support ventilation. Perrigault PF, et al.
Thorax 1999 Feb;54(2):119–23
[Parietal suspension during laparoscopic cholecystectomy in patients with respiratory insufficiency (letter)] Bloch P.
Presse Med 1998 May 2–9;27(17):810 **(Fre)**
[Pathophysiology and respiratory therapy of chronic respiratory insufficiency in chronic pulmonary fibrosis] Fabel H. **Wien Klin Wochenschr Suppl** 1999;1:6–10 (6 ref.) **(Ger)**
[Sleep and exercise dysfunction in respiratory insufficiency] Akashiba T. **Nippon Naika Gakkai Zasshi** 1999 Jan 10; 88(1):24–31 (6 ref.) **(Jpn)**
[Pathophysiology of respiratory insufficiency based on the lung function] Kanazawa M.
Nippon Naika Gakkai Zasshi 1999 Jan 10;88(1):11–7 (4 ref.) **(Jpn)**
[Circulatory dynamics based on physiopathology of respiratory insufficiency] Nagasaka Y.
Nippon Naika Gakkai Zasshi 1999 Jan 10;88(1):18–23 (7 ref.) **(Jpn)**
[Etiology and physiopathology of acute exacerbation of respiratory insufficiency] Yanai M.
Nippon Naika Gakkai Zasshi 1999 Jan 10;88(1):32–6 (4 ref.) **(Jpn)**

PREVENTION & CONTROL

Prediction of respiratory distress during maximal physical exercise: the role of trait anxiety. Wilson JR, et al.
Am Ind Hyg Assoc J 1999 Jul-Aug;60(4):512–7
The effect of low-dose ketamine on fentanyl-induced respiratory depression. Mildh L, et al. **Anaesthesia** 1998 Oct;53(10):965–70
Opiate detoxification under anesthesia: no apparent benefit but suppression of thyroid hormones and risk of pulmonary and renal failure. Pfab R, et al. **J Toxicol Clin Toxicol** 1999; 37(1):43–50
Modalities of ventilation in lung transplantation. Callegari G, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):543–6

RADIOGRAPHY

High-resolution CT findings in Wilson-Mikity syndrome: a case report. Reittner P, et al. **Pediatr Radiol** 1998 Sep; 28(9):691–3
[Bilateral lung images and respiratory insufficiency in an 86-year-old man with polyarteritis nodosa (clinical conference)] Bosch X, et al. **Med Clin (Barc)** 1999 Jul 10; 113(5):189–97 **(Spa)**

REHABILITATION

[Effect of kinetic therapy on the course of treatment of patients with post-traumatic lung failure] Erhard J, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1091–3 (Eng. Abstr.) **(Ger)**
[Noninvasive ventilation in chronic obstructive lung disease] Laube I, et al. **Ther Umsch** 1999 Mar;56(3):147–50 (8 ref.) (Eng. Abstr.) **(Ger)**
[Effect of kinetic therapy on the treatment outcome in

patients with post-traumatic lung failure] Erhard J, et al. **Unfallchirurg** 1998 Dec;101(12):928-34 (Eng. Abstr.) **(Ger)**

[Therapy of respiratory insufficiency. Comprehensive respiratory rehabilitation] Kida K. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):57-62 (6 ref.) **(Jpn)**

SURGERY

Advances in lung transplantation. Kesten S. **Dis Mon** 1999 Mar;45(3):101-14 (41 ref.)

Clamshell or sternotomy for double lung or heart-lung transplantation? Macchiarini P, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):333-9

Chest reconstruction in asphyxiating thoracic dystrophy. Sharoni E, et al. **J Pediatr Surg** 1998 Oct;33(10):1578-81

[Role of surgery in the treatment of obstructive respiratory insufficiency] Pariente R. **Bull Acad Natl Med** 1998; 182(6):1173-80; discussion 1180-1 (Eng. Abstr.) **(Fre)**

[Therapeutic objectives and strategies in NBIA 1 (Hallovorden-Spatz syndrome)] Bruscoli F, et al. **Minerva Anestesiol** 1998 Nov;64(11):529-34 (Eng. Abstr.) **(Ita)**

THERAPY

Assisted mechanical ventilation using combined elastic and resistive unloading in cats with severe respiratory failure: effects on gas exchange and phrenic nerve activity. Schulze A, et al. **Acta Paediatr** 1999 Jun;88(6):636-41

Large scale implementation of a respiratory therapist-driven protocol for ventilator weaning. Ely EW, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):439-46

Noninvasive ventilation as a systematic extubation and weaning technique in acute-on-chronic respiratory failure: a prospective, randomized controlled study. Girault C, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):86-92

Bilevel non-invasive ventilation in malignant large airways obstruction during chemotherapy and radiotherapy. Grant RK, et al. **Anaesth Intensive Care** 1999 Jun;27(3):295-7

Reduced ventilator pressure and improved P/F ratio during percutaneous arteriovenous carbon dioxide removal for severe respiratory failure. Alpard SK, et al. **Ann Surg** 1999 Aug;230(2):215-24

Use of laryngeal masks in the resuscitation of a neonate with difficult airway [letter] Trawöger R, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Sep;81(2):F160

Determinants of short- and long-term outcome in patients with respiratory failure caused by AIDS-related Pneumocystis carinii pneumonia. Forrest DM, et al. **Arch Intern Med** 1999 Apr 12;159(7):741-7

Extracorporeal membrane oxygenation for nonneonatal acute respiratory failure. Masiakos PT, et al. **Arch Surg** 1999 Apr; 134(4):375-9; discussion 379-80

Arteriovenous extracorporeal carbon dioxide removal: a mathematical model and experimental evaluation. Conrad SA, et al. **ASAIO J** 1998 Jul-Aug;44(4):267-77

Intravascular membrane oxygenator and carbon dioxide removal devices: a review of performance and improvements. Zwischenberger JB, et al. **ASAIO J** 1999 Jan-Feb;45(1):41-6 (24 ref.)

Economic evaluation and randomised controlled trial of extracorporeal membrane oxygenation: UK collaborative trial. The Extracorporeal Membrane Oxygenation Economics Working Group [see comments] Roberts TE. **BMJ** 1998 Oct 3;317(7163):911-5; discussion 915-6. Comment in: BMJ 1999 Mar 13;318(7185):738.

Noninvasive mechanical ventilation in a patient with respiratory failure after hematopoietic progenitor transplantation. Marin D, et al. **Bone Marrow Transplant** 1998 Dec;22(11):1123-4

Non-invasive ventilatory support in the management of respiratory failure after autologous peripheral blood stem cell transplantation [letter] Sica S, et al. **Bone Marrow Transplant** 1999 Mar;23(5):527

Clinical indications for noninvasive positive pressure ventilation in chronic respiratory failure due to restrictive lung disease, COPD, and nocturnal hypoventilation--a consensus conference report. **Chest** 1999 Aug;116(2):521-34 (63 ref.)

Predicting 3-day and 7-day outcomes of weaning from mechanical ventilation. Afessa B, et al. **Chest** 1999 Aug; 116(2):456-61

Duplicate publication [letter; comment] Block AJ. **Chest** 1999 May;115(5):1479. Comment on: Chest 1997 Jun;111(6):1639-48.

Comparison of noninvasive positive pressure ventilation with standard medical therapy in hypercapnic acute respiratory failure. Celikel T, et al. **Chest** 1998 Dec;114(6):1636-42

Efficacy and compliance with noninvasive positive pressure ventilation in patients with chronic respiratory failure. Criner GJ, et al **Chest** 1999 Sep;116(3):667-75

Four-year experience with a unit for long-term ventilation (respiratory special care unit) at the Cleveland Clinic Foundation. Dasgupta A, et al. **Chest** 1999 Aug; 116(2):447-55

A comparison of bronchodilator therapy delivered by nebulization and metered-dose inhaler in mechanically ventilated patients. Marik P, et al. **Chest** 1999 Jun; 115(6):1653-7

Limitations to study on noninvasive ventilation [letter; comment] Ntoumenopoulos G. **Chest** 1999 Jan;115(1):303 . Comment on: Chest 1998 May;113(5):1339-46.

Use of a ventilatory support system (BiPAP) for acute respiratory failure in the emergency department. Poponick JM, et al. **Chest** 1999 Jul;116(1):166-71

Venovenous extracorporeal life support via percutaneous cannulation in 94 patients. Pranikoff T, et al. **Chest** 1999 Mar;115(3):818-22

Bedside evaluation of efficient airway humidification during mechanical ventilation of the critically ill. Ricard JD, et al. **Chest** 1999 Jun;115(6):1646-52

Intratracheal pulmonary ventilation at low airway pressures in a ventilator-induced model of acute respiratory failure improves lung function and survival [see comments] Rossi N, et al. **Chest** 1998 Oct;114(4):1147-57. Comment in: Chest 1998 Oct;114(4):955-7.

Noninvasive positive pressure ventilation in the emergency department [letter; comment] Sottiaux TM. **Chest** 1999 Jan; 115(1):301-3. Comment on: Chest 1998 May;113(5):1339-46.

Mechanical ventilation for respiratory failure postthoracotomy. D'Arsigny C, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):585-610 (124 ref.)

Adult respiratory failure. Tremblay A, et al. **Chest Surg Clin N Am** 1998 Aug;8(3):557-83, viii-ix (175 ref.)

Severe acute respiratory failure due to legionella pneumonia treated with extracorporeal membrane oxygenation. Ichiba S, et al. **Clin Infect Dis** 1999 Mar;28(3):686-7

Use of bilevel positive airway pressure (BIPAP) in end-stage patients with cystic fibrosis awaiting lung transplantation. Caronia CG, et al. **Clin Pediatr (Phila)** 1998 Sep;37(9):555-9

Liquid ventilation. Day SE, et al. **Clin Perinatol** 1998 Sep; 25(3):711-22 (80 ref.)

Noninvasive ventilation in neuromuscular disease. Bonekat HW. **Crit Care Clin** 1998 Oct;14(4):775-97 (114 ref.)

Weaning from mechanical ventilation. Chao DC, et al. **Crit Care Clin** 1998 Oct;14(4):799-817, viii (79 ref.)

Monitoring patient mechanics during mechanical ventilation. Jubran A. **Crit Care Clin** 1998 Oct;14(4):629-53, vi (112 ref.)

Noninvasive management of pediatric neuromuscular ventilatory failure: a viable alternative [editorial; comment] Barnes SD. **Crit Care Med** 1998 Dec;26(12):1952-3 (10 ref.) . Comment on: Crit Care Med 1998 Dec;26(12):2061-5.

Effects of pressure ramp slope values on the work of breathing during pressure support ventilation in restrictive patients [see comments] [published erratum appears in Crit Care Med 1999 Jul;27(7):1404] Bonmarchand G, et al. **Crit Care Med** 1999 Apr;27(4):715-22. Comment in: Crit Care Med 1999 Apr;27(4):670-1.

Noninvasive ventilation in children with respiratory failure [letter; comment] Fortenberry JD. **Crit Care Med** 1998 Dec;26(12):2095-6. Comment on: Crit Care Med 1998 Jan;26(1):169-73.

Noninvasive management of pediatric neuromuscular ventilatory failure [see comments] Niranjan V, et al. **Crit Care Med** 1998 Dec;26(12):2061-5. Comment in: Crit Care Med 1998 Dec;26(12):1952-3.

Use of high-frequency and nonconventional ventilation for respiratory failure. Donnelly KM, et al. **Curr Opin Pediatr** 1998 Jun;10(3):278-83 (60 ref.)

Advances in ventilatory support of the pediatric surgical patient. Hemmila MR, et al. **Curr Opin Pediatr** 1999 Jun; 11(3):241-8 (67 ref.)

Inhaled nitric oxide in the treatment of hypoxemic respiratory failure. Kass LJ, et al. **Curr Opin Pediatr** 1998 Jun; 10(3):284-90 (27 ref.)

Success in using non-invasive mechanical ventilation is predicted by patient pathophysiology. A retrospective review of 199 patients. Krall SP, et al. **Del Med J** 1999 May;71(5):213-20

Botulism with respiratory insufficiency requiring extra corporeal carbon dioxide removal. Buchmann T, et al. **Eur J Anaesthesiol** 1999 May;16(5):346-9

Non-invasive continuous positive airway pressure in acute hypoxaemic respiratory failure--experience of an emergency department. L'HerE, et al. **Eur J Emerg Med** 1998 Sep;5(3):313-8

Negative pressure ventilation versus conventional mechanical ventilation in the treatment of acute respiratory failure in COPD patients [see comments] Corrado A, et al. **Eur Respir J** 1998 Sep;12(3):519-25. Comment in: Eur Respir J 1998 Sep;12(3):515-6.

The presence and sequence of endotracheal tube colonization in patients undergoing mechanical ventilation. Feldman C, et al. **Eur Respir J** 1999 Mar;13(3):546-51

Validity of transcutaneous oxygen/carbon dioxide pressure measurement in the monitoring of mechanical ventilation in stable chronic respiratory failure. Rosner V, et al. **Eur Respir J** 1999 May;13(5):1044-7

Surfactant therapy restores gas exchange in lung injury due to paraquat intoxication in rats. So KL, et al. **Eur Respir J** 1998 Aug;12(2):284-7

Being more positive about negative ventilation? [editorial; comment] Wysocki M. **Eur Respir J** 1998 Sep;12(3):515-6 (19 ref.). Comment on: Eur Respir J 1998 Sep;12(3):519-25.

The current practice patterns of mechanical ventilation for respiratory failure in pediatric patients. Harel Y, et al. **Heart Lung** 1998 Jul-Aug;27(4):238-44

Noninvasive positive pressure ventilation for acute respiratory failure. Hess DR. **Int Anesthesiol Clin** 1999 Summer;37(3):85-102 (50 ref.)

Noninvasive ventilation: experience at a community teaching hospital. Alsous F, et al. **Intensive Care Med** 1999 May; 25(5):458-63

Physiologic evaluation of non-invasive pressure support ventilation in trauma patients with acute respiratory failure. Gregoretti C, et al. **Intensive Care Med** 1998 Aug; 24(8):785-90

Noninvasive positive pressure ventilation in acute respiratory failure. Mehta S. **Intensive Care Med** 1998 Oct; 24(10):1113-4 (4 ref.)

Partial liquid ventilation combined with kinetic therapy in acute respiratory failure in piglets. Urlesberger B, et al. **Intensive Care Med** 1999 May;25(5):496-502

Pediatric burn patients with respiratory failure: predictors of outcome with the use of extracorporeal life support. Kane TD, et al. **J Burn Care Rehabil** 1999 Mar-Apr; 20(2):145-50

Outcome for cancer patients requiring mechanical ventilation. Groeger JS, et al. **J Clin Oncol** 1999 Mar; 17(3):991-7

Effect of continuous lateral rotational therapy on lung mucus transport in mechanically ventilated patients. Dolovich M, et al. **J Crit Care** 1998 Sep;13(3):119-25

Right ventricular impairment in patients with chronic respiratory failure on home oxygen therapy--non-invasive assessment using a new Doppler index. Yamaguchi K, et al. **J Int Med Res** 1998 Oct-Nov;26(5):239-47

Bipap improves survival and rate of pulmonary function decline in patients with ALS [see comments] Kleopa KA, et al. **J Neurol Sci** 1999 Mar 15;164(1):82-8. Comment in: J Neurol Sci 1999 Mar 15;164(1):1-2.

Following the learning curve: the evolution of kinder, gentler neonatal respiratory technology. Lockridge T. **J Obstet Gynecol Neonatal Nurs** 1999 Jul-Aug;28(4):443-55 (105 ref.)

Multicenter randomized controlled trial of the effects of inhaled nitric oxide therapy on gas exchange in children with acute hypoxemic respiratory failure [see comments] Dobyns EL, et al. **J Pediatr** 1999 Apr;134(4):406-12. Comment in: J Pediatr 1999 Apr;134(4):387-9.

Occult nitric oxide inhalation improves oxygenation in mechanically ventilated children. Lum LC, et al. **J Pediatr** 1998 Nov;133(5):613-6

Randomized comparison of high-frequency ventilation with high-rate intermittent positive pressure ventilation in preterm infants with respiratory failure [see comments] Thome U, et al. **J Pediatr** 1999 Jul;135(1):39-46. Comment in: J Pediatr 1999 Jul;135(1):9-11.

High-frequency ventilation versus conventional ventilation: No winner-but no loser [editorial; comment] Truog WE. **J Pediatr** 1999 Jul;135(1):9-11 (10 ref.). Comment on: J Pediatr 1999 Jul;135(1):39-46.

Venovenous extracorporeal membrane oxygenation in newborn infants using the umbilical vein as a reinfusion route. Kato J, et al. **J Pediatr Surg** 1998 Sep;33(9):1446-8

Extracorporeal membrane oxygenation for nonneonatal pulmonary and multiple-organ failure. Weber TR, et al. **J Pediatr Surg** 1998 Nov;33(11):1605-9

Using NIPPV on a general respiratory ward [letter; comment] Bell D. **J R Coll Physicians Lond** 1998 Sep-Oct; 32(5):489-90. Comment on: J R Coll Physicians Lond 1998 May-Jun;32(3):219-24.

Extracorporeal life support in pulmonary failure after trauma. Michaels AJ, et al. **J Trauma** 1999 Apr;46(4):638-45

Coughing reflex induced by electrostimulation of the trachea: a pilot study [letter] Dekens JL, et al. **Lancet** 1999 Mar 13;353(9156):902

Noninvasive ventilation. Rabatin JT, et al. **Mayo Clin Proc** 1999 Aug;74(8):817-20 (16 ref.)

Non-invasive ventilation--mechanisms of benefit. Elliott MW. **Med Klin** 1999 Apr;94(1 Spec No):2-6 (18 ref.)

Proceedings of the 3rd International Conference on Advances in Pulmonary Rehabilitation and Management of Chronic Respiratory Failure. Florence, Italy, March 11-14, 1998. **Monaldi Arch Chest Dis** 1999 Feb;54(1):55-97

Early institution of mechanical ventilation. Ambrosino N. **Monaldi Arch Chest Dis** 1998 Jun;53(3):321-3 (19 ref.)

Noninvasive positive pressure ventilation in trauma patients with acute respiratory failure. Beltrame F, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):109-14

Mechanical ventilation in elderly patients. Benhamou D, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):547-51

Noninvasive pressure support ventilation in acute respiratory failure. Brochard L. **Monaldi Arch Chest Dis** 1998 Aug; 53(4):486-7 (20 ref.)

Negative pressure ventilation. Carrado A, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):488-92 (28 ref.)

Noninvasive ventilation in acute exacerbations of chronic obstructive pulmonary disease. Elliott MW. **Monaldi Arch Chest Dis** 1998 Jun;53(3):343-7 (22 ref.)

Mechanical ventilation in chronic respiratory insufficiency: report on an Italian nationwide survey. The Italian Telethon Committee and the AIPO Study Group on Pulmonary Rehabilitation and Intensive Care. Gasperini M, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):394-9

Management of respiratory failure in cystic fibrosis. Hodson ME. **Monaldi Arch Chest Dis** 1998 Oct;53(5):537-9 (23 ref.)

Intravascular gas exchange. Keogh BF, et al. **Monaldi Arch Chest Dis** 1999 Feb;54(1):38-42 (18 ref.)

Modalities of ventilation in obesity. Muir JF, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):556-9 (21 ref.)

Noninvasive techniques of weaning from mechanical

ventilation. Nava S. **Monaldi Arch Chest Dis** 1998 Jun; 53(3):355–7

Is early noninvasive mechanical ventilation of first choice in stable COPD patients with chronic respiratory failure? Patessio A. **Monaldi Arch Chest Dis** 1999 Feb;54(1):83–6 (48 ref.)

Invasive mechanical ventilation in exacerbations of chronic obstructive pulmonary disease. Pingleton SK. **Monaldi Arch Chest Dis** 1998 Jun;53(3):337–42 (44 ref.)

Is early noninvasive mechanical ventilation of first choice in stable restrictive patients with chronic respiratory failure? Raphaël JC, et al. **Monaldi Arch Chest Dis** 1999 Feb;54(1):90–7 (95 ref.)

Is early noninvasive ventilation the first choice in stable restrictive patients with chronic respiratory failure? Shneerson J. **Monaldi Arch Chest Dis** 1999 Feb;54(1):87–9 (8 ref.)

The effect of hyperoxaemia on erythropoietin secretion in anaemic patients. Tsangaris H, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):120–5

Noninvasive positive-pressure ventilation [letter; comment] Mehta S, et al. **N Engl J Med** 1999 Jan 14;340(2):150–1. Comment on: N Engl J Med 1998 Aug 13;339(7):429–35.

High-frequency jet ventilation using a helium-oxygen mixture. Tobias JD, et al. **Paediatr Anaesth** 1999;9(5):451–5

Acute care of the child with a tracheostomy. Posner JC. **Pediatr Emerg Care** 1999 Feb;15(1):49–54

Respiratory failure in myasthenia gravis and negative pressure support. Chisakuta A, et al. **Pediatr Neurol** 1998 Sep;19(3):225–6

A comparison of the hemodynamic and respiratory effects of surfactant instillation during interrupted ventilation versus noninterrupted ventilation in rabbits with severe respiratory failure. Dijk PH, et al. **Pediatr Res** 1999 Feb; 45(2):235–40

Prolonged preoperative stabilization using high-frequency oscillatory ventilation does not improve the outcome in neonates with congenital diaphragmatic hernia. Kamata S, et al. **Pediatr Surg Int** 1998 Oct;13(8):542–6

Arteriovenous carbon dioxide removal: development and impact on ventilator management and survival during severe respiratory failure. Zwischenberger JB, et al. **Perfusion** 1999 Jul;14(4):299–310 (58 ref.)

Management of pulmonary complications in neuromuscular disease. Benditt JO. **Phys Med Rehabil Clin N Am** 1998 Feb;9(1):167–85 (57 ref.)

Treatment of respiratory failure with inhaled nitric oxide and high- frequency ventilation in an infant with respiratory syncytial virus pneumonia and bronchopulmonary dysplasia. Hoehn T, et al. **Respiration** 1998;65(6):477–80

Effect of early application of biphasic positive airway pressure on the outcome of extubation in ventilator weaning. Jiang JS, et al. **Respirology** 1999 Jun;4(2):161–5

Fulminant psittacosis requiring mechanical ventilation and demonstrating serological cross-reactivity between Legionella longbeachae and Chlamydia psittaci. Soni R, et al. **Respirology** 1999 Jun;4(2):203–5

Effects of a novel pneumatic vest on postoperative pain and lung function after coronary artery bypass grafting. Laurikka JO, et al. **Scand Cardiovasc J** 1998;32(3):141–4

Respiratory failure: current status of experimental therapies. Hirschl RB. **Semin Pediatr Surg** 1999 Aug;8(3):155–70 (177 ref.)

Management of respiratory problems unique to high tetraplegia. Fromm B, et al. **Spinal Cord** 1999 Apr; 37(4):239–44

Endotracheal intubation and mechanical ventilation following respiratory arrest from high altitude pulmonary edema. Litch JA. **West J Med** 1999 Mar;170(3):174–6

[Progresses in the study of pediatrics] Chen X, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):899–900 (0 ref.) **(Chi)**

[Perioperative management of open-chest surgery for cancer patients in advanced stage in aged and with respiratory insufficiency] Ye Y, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jun;35(6):364–6 (Eng. Abstr.) **(Chi)**

[The first Danish experiences with neonatal extracorporeal membrane oxygenation] Arnpe M, et al. **Ugeskr Laeger** 1999 Mar 15;161(11):1585–9 (Eng. Abstr.) **(Dan)**

[Long-term oxygen therapy in chronic respiratory insufficiency] Emborg J, et al. **Ugeskr Laeger** 1998 Nov 30;160(49):7135–8 (Eng. Abstr.) **(Dan)**

[Clinical and respiratory function follow-up of 39 infants treated with neonatal respiratory extracorporeal assistance] Koskas M, et al. **Arch Pediatr** 1999 Mar;6(3):263–70 (Eng. Abstr.) **(Fre)**

[Instrumental management of chronic respiratory insufficiency: contribution of long-term therapeutic assistance at home] Muir JF, et al. **Bull Acad Natl Med** 1998;182(6):1139–56; discussion 1156–8 (33 ref.) (Eng. Abstr.) **(Fre)**

[Medico-social management of severe respiratory insufficiency. Role of Associations] Voisin C. **Bull Acad Natl Med** 1998;182(6):1159–71; discussion 1172 (25 ref.) (Eng. Abstr.) **(Fre)**

[Non-invasive ventilation in acute or chronic respiratory failure: a comparison of volumetric ventilation] Aron C, et al. **Rev Mal Respir** 1999 Apr;16(2):181–7 (Eng. Abstr.) **(Fre)**

[Home management of chronic respiratory insufficiency. Oxygen inhalation therapy] Chaouat A, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S186–7 **(Fre)**

[Techniques and indications for bronchoscopy in the artificially ventilated patient] Dombret MC. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S91–4 (13 ref.) **(Fre)**

[Practical management of non-invasive ventilation in acute respiratory insufficiency and chronic obstructive respiratory insufficiency] Jounieaux V. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S113–4 **(Fre)**

[Role and managmement of non-invasive ventilation in respiratory distress in the obese subject] Muir JF, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S114–6 **(Fre)**

[Home management of chronic respiratory insufficiency. Non-invasive ventilation at home] Ordronneau J, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S185–6 **(Fre)**

[Long-term ventilation at home in adults with neurological diseases] Raphaël JC, et al. **Rev Mal Respir** 1998 Sep; 15(4):495–505 (62 ref.) (Eng. Abstr.) **(Fre)**

[Characteristics of patients with domiciliary equipment for chronic respiratory diseases in Martinique] Chenu E, et al. **Rev Pneumol Clin** 1998 Oct;54(5):245–50 (Eng. Abstr.) **(Fre)**

[Nasal mechanical ventilation in children] Buhr-Schinner H, et al. **Med Klin** 1999 Apr;94(1 Spec No):73–6 (Eng. Abstr.) **(Ger)**

[Daytime mechanical ventilation in chronic ventilatory insufficiency] Schönhofer B, et al. **Med Klin** 1999 Apr;94(1 Spec No):9–12 (Eng. Abstr.) **(Ger)**

[Noninvasive pressure support ventilation (NIPSV) as therapy for severe respiratory insufficiency due to pulmonary edema] Hoffmann B, et al. **Pneumologie** 1999 Jun;53(6):316–21 (Eng. Abstr.) **(Ger)**

[Evaluation of the FREEDOM O2, DC Concentrator, a portable oxygen concentrator capable of operating under car battery power] Nakamoto T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jul;36(7):595–600 (Eng. Abstr.) **(Jpn)**

[Exercise therapy of respiratory insufficiency] Hirata K, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):70–6 (5 ref.) **(Jpn)**

[Home mechanical ventilation for the treatment of respiratory insufficiency] Kimura K. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):89–93 (10 ref.) **(Jpn)**

[Therapy of respiratory insufficiency. Oxygen inhalation therapy, including home oxygen therapy] Nishimura M. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):51–6 (11 ref.) **(Jpn)**

[Noninvasive positive pressure ventilation (NIPPV) for the treatment of respiratory insufficiency] Oi M, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):77–81 (10 ref.) **(Jpn)**

[Justification of the current therapy applied to respiratory insufficiency (editorial)] Ota Y. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):1–3 **(Jpn)**

[Respiratory failure in mitochondrial myopathy treated with noninvasive mechanical ventilation] Bieleń P, et al. **Pneumonol Alergol Pol** 1998;66(11–12):555–9 (Eng. Abstr.) **(Pol)**

[Noninvasive mechanical ventilation (editorial)] Sliwiński P. **Pneumonol Alergol Pol** 1999;67(1–2):5–11 **(Pol)**

[Home mechanical ventilation as a treatment of the sequelae of tuberculosis surgery] Prats Soro E, et al. **An Med Interna** 1999 Jan;16(1):35–7 (12 ref.) (Eng. Abstr.) **(Spa)**

[Non invasive ventilation in acute respiratory insufficiency: an alternative] Pablo Casas J, et al. **Medicina (B Aires)** 1998; 58(6):707–12 (Eng. Abstr.) **(Spa)**

[Ventilatory support in patients with acute disease of the central nervous system] Bugedo G, et al. **Rev Med Chil** 1999 Feb;127(2):211–21 (53 ref.) (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Echocardiographic evidence of aortopulmonary collaterals in premature infants after closure of ductus arteriosus. Birnbacher R, et al. **Am J Perinatol** 1998;15(10):561–5

Evaluation of right-ventricular function by Doppler echocardiography in patients with chronic respiratory failure. Nishimura E, et al. **J Int Med Res** 1999 Mar–Apr; 27(2):65–73

VETERINARY

What is your diagnosis? Extensive alveolar pattern in the caudodorsal and caudoventral aspects of the right and left lungs. Costa LR, et al. **J Am Vet Med Assoc** 1999 Sep 1;215(5):623–4

VIROLOGY

Perinatal mumps associated with bronchiolitis and respiratory distress [letter] Fukao T, et al. **Eur J Pediatr** 1998 Nov; 157(11):952–3

RESPIRATORY MECHANICS

Techniques for assessing the shape of respiratory flow profiles from data containing marked breath-by-breath respiratory variability. Sato J, et al. **Adv Exp Med Biol** 1998;450:93–4

Functional residual capacity and pulmonary mechanics in premature infants receiving a 12-day dexamethasone course. Lee M, et al. **Am J Perinatol** 1999;16(3):151–6

Diurnal variation in lung function in subgroups from two Dutch populations: consequences for longitudinal analysis. Borsboom GJ, et al. **Am J Respir Crit Care Med** 1999 Apr; 159(4 Pt 1):1163–71

Efficacy of tracheal gas insufflation in spontaneously breathing sheep with lung injury. Cereda MF, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):845–50

Endogenous cortisol and lung damage in a predominantly smoking population. Clark KD, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):755–9

The effect of mode, inspiratory time, and positive end-expiratory pressure on partial liquid ventilation. Fujino Y, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1087–95

Chest wall hyperinflation during acute bronchoconstriction in asthma. Gorini M, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):808–16

Pressure-volume curves and compliance in acute lung injury: evidence of recruitment above the lower inflection point. Jonson B, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1172–8

A study of twelve Southern California communities with differing levels and types of air pollution. II. Effects on pulmonary function. Peters JM, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):768–75

Changes in respiratory mechanics during abdominal laparoscopic surgery in children. Bergesio R, et al. **Anaesth Intensive Care** 1999 Jun;27(3):245–8

Respiratory mechanics during laparoscopic cholecystectomy: the effects of the abdominal wall lift [see comments] Carry PY, et al. **Anesth Analg** 1998 Dec;87(6):1393–7. Comment in: Anesth Analg 1999 Sep;89(3):800.

Respiratory system mechanics or pulmonary mechanics in the prone position [letter; comment] Drummond GB. **Anesth Analg** 1999 Aug;89(2):531–2. Comment on: Anesth Analg 1998 Nov;87(5):1175–80.

Jet ventilation in upper airway obstruction: description and model lung testing of a new jetting device [see comments] Garry B, et al. **Anesth Analg** 1998 Oct;87(4):915–20. Comment in: Anesth Analg 1999 Jun;88(6):1427–8.

Respiratory mechanics during laparoscopic cholecystectomy [letter; comment] Koivusalo AM, et al. **Anesth Analg** 1999 Sep;89(3):800. Comment on: Anesth Analg 1998 Dec;87(6):1393–7.

A frequency domain approach to nonlinear and structure identification for long memory systems: application to lung mechanics. Zhang Q, et al. **Ann Biomed Eng** 1999 Jan–Feb; 27(1):1–13

Effects of smoking in pregnancy on neonatal lung function. Milner AD, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F8–14

Changes in respiratory mechanics after tracheostomy. Davis K Jr, et al. **Arch Surg** 1999 Jan;134(1):59–62

Impairment of cardiac performance by laparoscopy in patients receiving positive end-expiratory pressure. Kraut EJ, et al. **Arch Surg** 1999 Jan;134(1):76–80

The effect of air pollution on ventilatory function in nonsmoking women. Matković V, et al. **Arh Hig Rada Toksikol** 1998 Mar;49(1):19–25

Nocturnal hypoxaemia and respiratory function after endovascular and conventional abdominal aortic aneurysm repair. Thompson JP, et al. **Br J Anaesth** 1999 Jan; 82(1):129–31

Modulation of hypoxic depressions of ventilatory activity in the newborn piglet by mesencephalic mechanisms. St.-John WM, et al. **Brain Res** 1999 Feb 20;819(1–2):147–9

Hemodynamic rounds series II: evaluating new hemodynamic criteria of constrictive physiology: respiratory dynamics. Azrak E, et al. **Catheter Cardiovasc Interv** 1999 May; 47(1):80–4

How accurate is spirometry at predicting restrictive pulmonary impairment? Aaron SD, et al. **Chest** 1999 Mar; 115(3):869–73

Effect of age upon airway obstruction and reversibility in adult patients with asthma. Bellia V, et al. **Chest** 1998 Nov; 114(5):1336–42

Pulmonary function improves after expandable metal stent placement for benign airway obstruction. Eisner MD, et al. **Chest** 1999 Apr;115(4):1006–11

Ventilatory and diffusion abnormalities in long-term survivors after orthotopic heart transplantation. Ewert R, et al. **Chest** 1999 May;115(5):1305–11

A critical review of the studies of the effects of simulated or real gastroesophageal reflux on pulmonary function in asthmatic adults. Field SK. **Chest** 1999 Mar;115(3):848–56 (50 ref.)

Site of pleural drain insertion and early postoperative pulmonary function following coronary artery bypass grafting with internal mammary artery. Hagl C, et al. **Chest** 1999 Mar;115(3):757–61

Use of pulse oximetry to recognize severity of airflow obstruction in obstructive airway disease: correlation with pulsus paradoxus. Hartert TV, et al. **Chest** 1999 Feb; 115(2):475–81

Emerging concepts in the evaluation of ventilatory limitation during exercise: the exercise tidal flow-volume loop [see comments] Johnson BD, et al. **Chest** 1999 Aug; 116(2):488–503 (56 ref.). Comment in: Chest 1999 Aug;116(2):277–8.

Effects of lung volume reduction surgery on exercise pulmonary hemodynamics in severe emphysema. Kubo K, et al. **Chest** 1998 Dec;114(6):1575–82

Respiratory muscle performance, pulmonary mechanics, and gas exchange between the BiPAP S/T-D system and the Servo Ventilator 900C with bilevel positive airway pressure ventilation following gradual pressure support weaning. Patel RG, et al. **Chest** 1998 Nov;114(5):1390–6

Chronological change of respiratory function in smokers with elevated serum carcinoembryonic antigen levels. Kashiwabara K, et al. **Clin Chim Acta** 1998 Aug 28; 276(2):179–86

Predicting the impairment and accelerated decline of lung function – the role of immunoglobulin E [editorial; comment] Dow L. **Clin Exp Allergy** 1998 Oct;28(10):1174–7 . Comment on: Clin Exp Allergy 1998 Oct;28(10):1210–8.

Dyspnoea, peripheral airway involvement and respiratory muscle effort in patients with type I diabetes mellitus under good metabolic control. Scano G, et al. **Clin Sci (Colch)** 1999 May;96(5):499–506

A forward model for maximum expiration. Polak AG. **Comput Biol Med** 1998 Nov;28(6):613–25

Theoretical study of inspiratory flow waveforms during mechanical ventilation on pulmonary blood flow and gas exchange. Niranjan SC, et al. **Comput Biomed Res** 1999 Aug;32(4):355–90

Monitoring patient mechanics during mechanical ventilation. Jubran A. **Crit Care Clin** 1998 Oct;14(4):629–53, vi (112 ref.)

Time-course of impairment of respiratory mechanics after cardiac surgery and cardiopulmonary bypass [see comments] Ranieri VM, et al. **Crit Care Med** 1999 Aug; 27(8):1454–60. Comment in: Crit Care Med 1999 Aug;27(8):1653–4.

Lung recruitment during small tidal volume ventilation allows minimal positive end-expiratory pressure without augmenting lung injury. Rimensberger PC, et al. **Crit Care Med** 1999 Sep;27(9):1940–5

The open lung during small tidal volume ventilation: concepts of recruitment and "optimal" positive end-expiratory pressure. Rimensberger PC, et al. **Crit Care Med** 1999 Sep;27(9):1946–52

Experimental critical care in rats: gender differences in anesthesia, ventilation, and gas exchange. Torbati D, et al. **Crit Care Med** 1999 Sep;27(9):1878–84

Cardiorespiratory variables and sensation during stimulation of the left vagus in patients with epilepsy. Banzett RB, et al. **Epilepsy Res** 1999 May;35(1):1–11

Validation of respiratory inductive plethysmography using the Qualitative Diagnostic Calibration method in anaesthetized infants. Brown K, et al. **Eur Respir J** 1998 Oct;12(4):935–43

Lung function and exercise capacity in thalassaemia major. Cracowski C, et al. **Eur Respir J** 1998 Nov;12(5):1130–6

Relationships between nasal potential difference and respiratory function in adults with cystic fibrosis. Fajac I, et al. **Eur Respir J** 1998 Dec;12(6):1295–300

Expiratory and inspiratory chest computed tomography and pulmonary function tests in cigarette smokers. Kubo K, et al. **Eur Respir J** 1999 Feb;13(2):252–6

Pulmonary function in sickle cell disease with or without acute chest syndrome. Santoli F, et al. **Eur Respir J** 1998 Nov;12(5):1124–9

Expiratory flow limitation in compressed air divers and oxygen divers [see comments] Tetzlaff K, et al. **Eur Respir J** 1998 Oct;12(4):895–9. Comment in: Eur Respir J 1999 Jun;13(6):1496–7.

Effects of a standard hyperbaric oxygen treatment protocol on pulmonary function. Thorsen E, et al. **Eur Respir J** 1998 Dec;12(6):1442–5

Differences in spontaneous breathing pattern and mechanics in patients with severe COPD recovering from acute exacerbation [see comments] Vitacca M, et al. **Eur Respir J** 1999 Feb;13(2):365–70. Comment in: Eur Respir J 1999 Feb;13(2):236–7.

Pulmonary mechanics and graphics during positive pressure ventilation. Hess DR, et al. **Int Anesthesiol Clin** 1999 Summer;37(3):15–34 (75 ref.)

Changes in pulmonary mechanics after fiberoptic bronchoalveolar lavage in mechanically ventilated patients. Klein U, et al. **Intensive Care Med** 1998 Dec;24(12):1289–93

Acute ventilatory restriction in children after weaning off inhaled nitric oxide: relation to rebound pulmonary hypertension. Schulze-Neick I, et al. **Intensive Care Med** 1999 Jan;25(1):76–80

Lung mechanics and end-expiratory lung volume during hypoxia in rats. Bonora M, et al. **J Appl Physiol** 1999 Jul; 87(1):15–21

Estimation of inspiratory pressure drop in neonatal and pediatric endotracheal tubes. Jarreau PH, et al. **J Appl Physiol** 1999 Jul;87(1):36–46

Ventilation and locomotion coupling in varsity male rowers. Siegmund GP, et al. **J Appl Physiol** 1999 Jul;87(1):233–42

The influence of cardiopulmonary function on outcome of veterans undergoing resectional therapy for lung cancer. Canver CC, et al. **J Cardiovasc Surg (Torino)** 1998 Aug; 39(4):497–501

Loss of pulmonary function gains after lung volume reduction surgery. Kesten S, et al. **J Heart Lung Transplant** 1999 Mar;18(3):266–8

Exercise performance in cystic fibrosis before and after bilateral lung transplantation. Oelberg DA, et al. **J Heart Lung Transplant** 1998 Nov;17(11):1104–12

Mechanical ventilatory constraints in aging, lung disease, and obesity: perspectives and brief review. Babb TG. **Med Sci Sports Exerc** 1999 Jan;31(1 Suppl):S12–22 (44 ref.)

Ventilatory responses to exercise in patients with asymptomatic left ventricular dysfunction. Digenio AG, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):942–8

Respiratory effects of pharingeal gas insufflation in patients with chronic obstructive pulmonary disease. Righini ER, et al. **Minerva Anestesiol** 1998 Sep;64(9):399–407

Practical applications of monitoring respiratory mechanics in newborn. Migliori C, et al. **Minerva Pediatr** 1999 Mar; 51(3):57–64 (11 ref.) **(Eng, Ita)**

Prone position in mechanically-ventilated patients. Brazzi L, et al. **Monaldi Arch Chest Dis** 1998 Aug;53(4):410–4

Respiratory mechanics. Milic-Emili J. **Monaldi Arch Chest Dis** 1998 Jun;53(3):294–5

Impact of laryngeal paralysis and its treatment on the glottic aperture and upper airway flow characteristics during exercise. Beaty MM, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):819–23

Comparison of methods of airway evaluation in obstructive sleep apnea syndrome. Woodson BT, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):460–3

The relationship of serum-eosinophil cationic protein and eosinophil count to disease activity in children with bronchial asthma. Prehn A, et al. **Pediatr Allergy Immunol** 1998 Nov;9(4):197–203

Influence of inertance on respiratory mechanics measurements in mechanically ventilated puppies. Lanteri CJ, et al. **Pediatr Pulmonol** 1999 Aug;28(2):130–8

Effect of a Soft Boston Orthosis on pulmonary mechanics in severe cerebral palsy. Leopando MT, et al. **Pediatr Pulmonol** 1999 Jul;28(1):53–8

Pulmonary function in ventilated infants with bronchiolitis [letter; comment] Newth CJ, et al. **Pediatr Pulmonol** 1998 Dec;26(6):438–41. Comment on: Pediatr Pulmonol 1998 Jan;25(1):18–31.

Inspiratory flow limitation in children with bronchopulmonary dysplasia. Sadeghi H, et al. **Pediatr Pulmonol** 1998 Sep;26(3):167–72

Elevation of metabolic rate by pyrogen administration does not affect the gain of respiratory peripheral chemoreflexes in unanesthetized kittens. Watanabe T, et al. **Pediatr Res** 1998 Sep;44(3):357–62

Changes in parameters of mechanics of breathing during high-frequency jet ventilation: what is the cause? Calkovská A, et al. **Physiol Res** 1997;46(4):271–8

Reliability of thoracic gas volume derived from mechanical impedance at different levels of the vital capacity. Peslin R, et al. **Respiration** 1999;66(4):323–31

The effect of aerobic training in girls with idiopathic scoliosis. Athanasopoulos S, et al. **Scand J Med Sci Sports** 1999 Feb; 9(1):36–40

Lung and chest wall mechanics in ventilated patients with end stage idiopathic pulmonary fibrosis. Nava S, et al. **Thorax** 1999 May;54(5):390–5

[An experimental model of the biphasic ventilatory response in hypoxia] Maxová H, et al. **Cesk Fysiol** 1999 May; 48(2):80–5 (Eng. Abstr.) **(Cze)**

[Anatomic and biologic role of the movement of the thorax in dogs and cats] Vollmerhaus B, et al. **Anat Histol Embryol** 1999 Mar;28(1):61–7 (Eng. Abstr.) **(Ger)**

[Interactive computer program for separating respiratory pressure in newborn infants into its elastic, viscous and inert components] Foitzik B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:278–9 **(Ger)**

[Lung collapse during one lung ventilation does not change low frequency respiratory mechanics] Oka T, et al. **Masui** 1998 Dec;47(12):1427–32 (Eng. Abstr.) **(Jpn)**

[The mechanical properties of the lungs in patients with congenital heart defects in the immediate postoperative period] Zatevakhina MV, et al. **Anesteziol Reanimatol** 1998 Jul-Aug;(4):6–10 (Eng. Abstr.) **(Rus)**

[Theoretical analysis of the effect of the dimensions and mechanical properties of the human trachea on respiratory impedance] D'iachenko AI. **Fiziol Cheloveka** 1998 Sep-Oct; 24(5):5–10 **(Rus)**

[A method for changing the breathing pattern in the combined treatment of neurotic phobias] Polienko IuN. **Lik Sprava** 1999 Mar;(2):97–9 (Eng. Abstr.) **(Rus)**

[Disorders of pulmonary ventilation function in patients with genital prolapse in postmenopause] Strinić T. **Lijec Vjesn** 1999 Mar;121(3):78–81 (Eng. Abstr.) **(Ser)**

[The importance of sleep in pneumology (editorial)] Rodenstein DO. **Arch Bronconeumol** 1998 Oct;34(9):415–6 **(Spa)**

DRUG EFFECTS

Evolution of respiratory mechanics in preterm babies after surfactant administration in the neonatal period. Parmigiani S, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:65–73

Influence of low dose dopamine on the heart rate and ventilatory responses to sustained isocapnic hypoxia. Dahan A, et al. **Adv Exp Med Biol** 1998;450:173–7

Chemoreflex effects of low dose sevoflurane in humans. Pandit JJ, et al. **Adv Exp Med Biol** 1998;450:35–41

Do sex-related differences exist in the respiratory pharmacology of opioids? Sarton E, et al. **Adv Exp Med Biol** 1998;450:141–5 (15 ref.)

Time-dependent hypoxic ventilatory responses in rats: effects of ketanserin and 5-carboxamidotryptamine. Kinkead R, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R658–66

Airway and tissue resistance in wheezy infants: effects of albuterol. Jackson AC, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):557–63

Cardiorespiratory effects of a tiletamine/zolazepam–ketamine–detomidine combination in horses. Muir WW 3rd, et al. **Am J Vet Res** 1999 Jun; 60(6):770–4

Protection from diaphragmatic fatigue by nitric oxide synthase inhibitor in dogs. Fujii Y, et al. **Anaesth Intensive Care** 1999 Feb;27(1):45–8

Respiratory effects of desflurane anesthesia on spontaneous ventilation in infants and children. Behforouz N, et al. **Anesth Analg** 1998 Nov;87(5):1052–5

Spinal anesthesia increases pulmonary responsiveness to methacholine in guinea pigs. Capelozzi M, et al. **Anesth Analg** 1998 Oct;87(4):874–8

Effect of formoterol on clinical parameters and lung functions in patients with bronchial asthma: a randomised controlled trial. Akpinarli A, et al. **Arch Dis Child** 1999 Jul;81(1):45–8

Respiratory effects of low-dose bupivacaine interscalene block. al-Kaisy AA, et al. **Br J Anaesth** 1999 Feb; 82(2):217–20

Respiratory action of capsaicin microinjected into the nucleus of the solitary tract: involvement of vanilloid and tachykinin receptors. Mazzone SB, et al. **Br J Pharmacol** 1999 May;127(2):473–81

A bolus of inhaled budesonide rapidly reverses airway subsensitivity and beta2-adrenoceptor down-regulation after regular inhaled formoterol. Aziz I, et al. **Chest** 1999 Mar;115(3):623–8

Assessing the reversibility of airway obstruction. Pellegrino R, et al. **Chest** 1998 Dec;114(6):1607–12

Combined effects of inhaled nitric oxide and hyperoxia on pulmonary vascular permeability and lung mechanics [see comments] Storme L, et al. **Crit Care Med** 1999 Jun; 27(6):1168–74. Comment in: Crit Care Med 1999 Jun;27(6):1059–60.

Recurrent respiratory depression after low doses of alfentanil [letter] Calenda E, et al. **Eur J Anaesthesiol** 1999 Mar; 16(3):206

Effects of endothelin-1 on airway and parenchymal mechanics in guinea-pigs. Adamicza A, et al. **Eur Respir J** 1999 Apr;13(4):767–74

Ozone-induced lung function decrements do not correlate with early airway inflammatory or antioxidant responses. Blomberg A, et al. **Eur Respir J** 1999 Jun;13(6):1418–28

Dark adaptation in early primary biliary cirrhosis. Hussaini SH, et al. **Eye** 1998;12 (Pt 3a):419–26

The effect of timolol drops on respiratory function. Sadiq SA, et al. **Eye** 1998;12 (Pt 3a):386–9

Effect of inhaled nitric oxide on respiratory mechanics in ventilated infants with RSV bronchiolitis. Patel NR, et al. **Intensive Care Med** 1999 Jan;25(1):81–7

Human ventilatory response to CO2 after 8 h of isocapnic or poikilocapnic hypoxia. Fatemian M, et al. **J Appl Physiol** 1998 Nov;85(5):1922–8

VCO2 and VE kinetics during moderate- and heavy-intensity exercise after acetazolamide administration. Scheuermann BW, et al. **J Appl Physiol** 1999 May;86(5):1534–43

Exposure to chlorine gas: effects on pulmonary function and morphology in anaesthetised and mechanically ventilated pigs. Gunnarsson M, et al. **J Appl Toxicol** 1998 Jul-Aug; 18(4):249–55

Dose-dependent evaluation of the effects of nebulized furosemide on pulmonary function in ventilated preterm infants. Prabhu VG, et al. **J Perinatol** 1998 Sep-Oct; 18(5):357–60

Cardiopulmonary effects of the alpha2-adrenoceptor agonists medetomidine and ST-91 in anesthetized sheep. Celly CS, et al. **J Pharmacol Exp Ther** 1999 May;289(2):712–20

Can a difference in chest wall mechanics explain the lower respiratory drive during propofol versus halothane anesthesia in children? Brown K. **Pediatr Pulmonol** 1998 Sep;26(3):183–9

Infant lung function after inhaled nitric oxide therapy for persistent pulmonary hypertension of the newborn. Dobyns EL, et al. **Pediatr Pulmonol** 1999 Jul;28(1):24–30

Respiratory system mechanics in patients receiving aerosolized ribavirin during mechanical ventilation for suspected respiratory syncytial viral infection. Jefferson LS, et al. **Pediatr Pulmonol** 1999 Aug;28(2):117–24

Early effects of inhaled steroids on airway hyperreactivity and pulmonary function in asthma [see comments] Sherrington CA, et al. **Pediatr Pulmonol** 1999 Jun; 27(6):376–82. Comment in: Pediatr Pulmonol 1999 Jun;27(6):365–8.

Bronchodilator delivered by metered dose inhaler and spacer improves respiratory system compliance more than nebulizer-delivered bronchodilator in ventilated premature infants. Sivakumar D, et al. **Pediatr Pulmonol** 1999 Mar; 27(3):208–12

CO2-induced prolongation of expiratory time during early development. Dreshaj IA, et al. **Respir Physiol** 1999 Aug 3;116(2-3):125–32

Gender-specific effects of CNQX administered into the arcuate nucleus on ventilatory patterns in rats. Schlenker E. **Respir Physiol** 1999 Aug 3;116(2-3):133–43

An acute intratracheal selenium study: immediate effects on respiration in guinea pigs. Nonavinakere VK, et al. **Toxicol Lett** 1999 Feb 22;104(3):231–7

[The effects of clomipramine on diurnal sleepiness and

respiratory parameters in a a case of Prader-Willi syndrome] Esnault-Lavandier S, et al. **Neurophysiol Clin** 1998 Dec;28(6):521-5 (Eng. Abstr.) **(Fre)**

GENETICS

Differential lung mechanics are genetically determined in inbred murine strains. Tankersley CG, et al. **J Appl Physiol** 1999 Jun;86(6):1764-9

Brain-derived neurotrophic factor is required for normal development of the central respiratory rhythm in mice. Balkowiec A, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):527-33

PHYSIOLOGY

Changes in transthoracic electrical impedance during endotoxemia in dogs. Adamicza A, et al. **Acta Physiol Hung** 1997-98;85(4):291-302

Phrenic nerve response to glutamate antagonist microinjection in the ventral medulla. Beagle JL, et al. **Adv Exp Med Biol** 1998;450:61-5

Characteristics of the VO2 slow component during heavy exercise in humans aged 30 to 80 years. Bell C, et al. **Adv Exp Med Biol** 1998;450:219-22

The effect of eucapnic and isocapnic volitional hyperventilation upon breathlessness. Binks A, et al. **Adv Exp Med Biol** 1998;450:167-72

Axonal projections from the pontine parabrachial-Kölliker-Fuse nuclei to the Bötzinger complex as revealed by antidromic stimulation in cats. Gang S, et al. **Adv Exp Med Biol** 1998;450:67-72

Voice, breathing, and the control of exercise intensity. Goode RC, et al. **Adv Exp Med Biol** 1998;450:223-9

Evidence for a central role of protein kinase C in modulation of the hypoxic ventilatory response in the rat. Gozal D, et al. **Adv Exp Med Biol** 1998;450:45-9

Temporal correlation in phrenic neural activity. Hoop B, et al. **Adv Exp Med Biol** 1998;450:111-8

Chemoreflex model parameters measurement. Mohan RM, et al. **Adv Exp Med Biol** 1998;450:185-93

Are the respiratory responses to changes in ventilatory assist optimized? Oku Y, et al. **Adv Exp Med Biol** 1998;450:147-53

Chemoreflex effects of low dose sevoflurane in humans. Pandit JJ, et al. **Adv Exp Med Biol** 1998;450:35-41

The influence of hypercapnic hyperpnea on the interaction between breathing and finger tracking movements in humans. Rassler B, et al. **Adv Exp Med Biol** 1998;450:213-8

Do sex-related differences exist in the respiratory pharmacology of opioids? Sarton E, et al. **Adv Exp Med Biol** 1998;450:141-5 (15 ref.)

Ventilatory response to passive head up tilt. Serrador JM, et al. **Adv Exp Med Biol** 1998;450:133-9

Human ventilatory response to immersion of the face in cool water. Stewart LM, et al. **Adv Exp Med Biol** 1998; 450:127-31

VE-VCO2 relationship in transient responses to step-load exercise from rest to recovery. Takahashi T, et al. **Adv Exp Med Biol** 1998;450:207-12

Changes in respiratory control during and after 48 hours of both isocapnic and poikilocapnic hypoxia in humans. Tansley JG, et al. **Adv Exp Med Biol** 1998;450:33-4

Selective depression of peripheral chemoreflex loop by sevoflurane in lightly anesthetized cats. Teppema L, et al. **Adv Exp Med Biol** 1998;450:155-8

Ventilatory response to imagination of exercise and altered perception of exercise load under hypnosis. Thornton JM, et al. **Adv Exp Med Biol** 1998;450:195-7

Synaptic connections to phrenic motoneurons in the decerebrate rat. Tian GF, et al. **Adv Exp Med Biol** 1998; 450:51-9

Methods of assessing respiratory impedance during flow limited and non-flow limited inspirations. Tuck SA, et al. **Adv Exp Med Biol** 1998;450:119-26

Ondine's curse and its inverse syndrome. Respiratory failure in autonomic vs. voluntary control. Yasuma F, et al. **Adv Exp Med Biol** 1998;450:179-84

Hebbian covariance learning. A nexus for respiratory variability, memory, and optimization? Young DL, et al. **Adv Exp Med Biol** 1998;450:73-83 (41 ref.)

Pulmonary rapidly adapting receptors and airway constriction. Yu J. **Adv Exp Med Biol** 1998;450:159-66

Breathing pattern response and epithelial labeling in ozone-induced airway injury in neutrophil-depleted rats. Vesely KR, et al. **Am J Respir Cell Mol Biol** 1999 Apr; 20(4):699-709

Altered lung mechanics after double-lung transplantation. Arens R, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1403-9

Instability of ventilatory control in patients with obstructive sleep apnea. Hudgel DW, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1142-9

Diaphragm strength in chronic heart failure. Hughes PD, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):529-34

Positive end-expiratory pressure improves gas exchange and pulmonary mechanics during partial liquid ventilation. Kirmse M, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1550-6

Model of functional restriction in chronic obstructive pulmonary disease, transplantation, and lung reduction surgery. Loring SH, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):821-8

Respiratory response during arm elevation in isolated diaphragm weakness. Martinez FJ, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):480-6

A new method to analyze lung compliance when pressure-volume relationship is nonlinear [see comments] Nikischin W, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1052-60. Comment in: Am J Respir Crit Care Med 1999 Jun;159(6):2028.

Cycling of inspiratory and expiratory muscle groups with the ventilator in airflow limitation [published erratum appears in Am J Respir Crit Care Med 1999 Mar;159(3):1023] Parthasarathy S, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1471-8

Functional magnetic stimulation of the abdominal muscles in humans. Polkey MI, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):513-22

Inspiratory flow dynamics during phrenic nerve stimulation in awake normals during nasal breathing. Séries F, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):614-20

Ventilatory mechanics and gas exchange during exercise before and after lung volume reduction surgery. Tschernko EM, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1424-31

Correcting static intrinsic positive end-expiratory pressure for expiratory muscle contraction. Validation of a new method. Zakynthinos SG, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):785-90

The effect of the prone position on pulmonary mechanics is frame-dependent [see comments] Palmon SC, et al. **Anesth Analg** 1998 Nov;87(5):1175-80. Comment in: Anesth Analg 1999 Aug;89(2):531-2.

Technique to determine inspiratory impedance during mechanical ventilation: implications for flow limited patients. Kaczka DW, et al. **Ann Biomed Eng** 1999 May-Jun;27(3):340-55

Factors affecting Volterra kernel estimation: emphasis on lung tissue viscoelasticity. Zhang Q, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):103-16

Pulmonary function following laparoscopic or conventional colorectal resection: a randomized controlled evaluation. Schwenk W, et al. **Arch Surg** 1999 Jan;134(1):6-12; discussion 13

Substance P and central respiratory activity: a comparative in vitro study on foetal and newborn rat. Ptak K, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):217-27

Respiratory muscle function and hypoxic ventilatory control in patients with type I diabetes. Mancini M, et al. **Chest** 1999 Jun;115(6):1553-62

Reliability of maximal respiratory pressures in multiple sclerosis. Smeltzer SC, et al. **Chest** 1999 Jun;115(6):1546-52

Respiratory mechanics and surfactant in the acute respiratory distress syndrome. Bersten AD, et al. **Clin Exp Pharmacol Physiol** 1998 Nov;25(11):955-63 (76 ref.)

Human respiratory muscles: sensations, reflexes and fatiguability. Gandevia SC, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):757-63 (38 ref.)

Respiratory-like periodicities in slow eye movements during sleep onset. Rittweger J, et al. **Clin Physiol** 1998 Sep; 18(5):471-8

Moon phases and ocean tides: the relationship between the inspiratory-expiratory phases of mechanical ventilation and right ventricular function [editorial; comment] Popovich MJ. **Crit Care Med** 1999 May;27(5):864-5 (14 ref.). Comment on: Crit Care Med 1999 May;27(5):953-8.

Phase-related changes in right ventricular cardiac output under volume-controlled mechanical ventilation with positive end-expiratory pressure [see comments] Theres H, et al. **Crit Care Med** 1999 May;27(5):953-8. Comment in: Crit Care Med 1999 May;27(5):864-5.

Temporal and durational patterns associating respiration and swallowing. Klahn MS, et al. **Dysphagia** 1999 Summer; 14(3):131-8

Modifying breathing patterns in chronic heart failure [editorial] [see comments] Bernardi L. **Eur Heart J** 1999 Jan;20(2):83-4. Comment in: Eur Heart J 1999 Jul;20(14):1052-3.

Neurobiology of respiratory-pattern training in congestive heart failure [letter] Friedman EH. **Eur Heart J** 1999 Jul; 20(14):1052-3

Do fire-fighters develop specific ventilatory responses in order to cope with exercise whilst wearing self-contained breathing apparatus? Donovan KJ, et al. **Eur J Appl Physiol** 1999 Jul;80(2):107-12

The effects of intermittent exposure to hypoxia during endurance exercise training on the ventilatory responses to hypoxia and hypercapnia in humans. Katayama K, et al. **Eur J Appl Physiol** 1998 Aug;78(3):189-94

Breath-to-breath "noise" in the ventilatory and gas exchange responses of children to exercise. Potter CR, et al. **Eur J Appl Physiol** 1999 Jul;80(2):118-24

Phase-dependence of breathing and finger tracking movements during normocapnia and hypercapnia. Rassler B, et al. **Eur J Appl Physiol** 1999 Sep;80(4):324-32

Surfactant composition reflects lung overinflation and arterial oxygenation in patients with acute lung injury. Bersten AD, et al. **Eur Respir J** 1998 Aug;12(2):301-8

Introduction to a new inspiratory threshold loading device. Chen RC, et al. **Eur Respir J** 1998 Jul;12(1):208-11

Respiratory mechanics in ventilated COPD patients: forced oscillation versus occlusion techniques. Farré R, et al. **Eur Respir J** 1998 Jul;12(1):170-6

Physiological basis of improvement after lung volume reduction surgery for severe emphysema: where are we? [see comments] Marchand E, et al. **Eur Respir J** 1999 Mar; 13(3):686-96 (99 ref.). Comment in: Eur Respir J 1999 Mar;13(3):480-1.

In normal subjects bracing impairs the function of the inspiratory muscles. Prandi E, et al. **Eur Respir J** 1999 May; 13(5):1078-85

Time to peak tidal expiratory flow and the neuromuscular control of expiration. van der Ent CK, et al. **Eur Respir J** 1998 Sep;12(3):646-52

Laryngeal movements during the respiratory cycle measured with an endoscopic imaging technique in the conscious horse at rest. Lafortuna CL, et al. **Exp Physiol** 1999 Jul; 84(4):739-46

Respiration and blood pressure variability: mechanical and autonomic influences. Saul JP. **Fundam Clin Pharmacol** 1998;12 Suppl 1:17s-22s

Factors affecting the respiratory ratio during cardiopulmonary by-pass. Boschetti F, et al. **Int J Artif Organs** 1998 Dec;21(12):802-8

Effect of inspiratory flow waveform on work on endotracheal tubes: a model analysis. Polese G, et al. **Intensive Care Med** 1999 May;25(5):503-7

Measurement of functional residual capacity in the critically ill. Relevance for the assessment of respiratory mechanics during mechanical ventilation. Rimensberger PC, et al. **Intensive Care Med** 1999 May;25(5):540-2 (3 ref.)

Posture effects on timing of abdominal muscle activity during stimulated ventilation. Abe T, et al. **J Appl Physiol** 1999 Jun;86(6):1994-2000

Soft palate muscle responses to negative upper airway pressure. Amis TC, et al. **J Appl Physiol** 1999 Feb; 86(2):523-30

Exercise VE and physical performance at altitude are not affected by menstrual cycle phase. Beidleman BA, et al. **J Appl Physiol** 1999 May;86(5):1519-26

Regional deposition and retention of particles in shallow, inhaled boluses: effect of lung volume. Bennett WD, et al. **J Appl Physiol** 1999 Jan;86(1):168-73

Within-night variation in respiratory effort preceding apnea termination and EEG delta power in sleep apnea. Berry RB, et al. **J Appl Physiol** 1998 Oct;85(4):1434-41

Estimating respiratory mechanics in the presence of flow limitation. Bijaoui E, et al. **J Appl Physiol** 1999 Jan; 86(1):418-26

Inspiratory and expiratory patterns of the pectoralis major muscle during pulmonary defensive reflexes. Bolser DC, et al. **J Appl Physiol** 1998 Nov;85(5):1786-92

Effect of ventilation distribution on aerosol bolus dispersion and recovery. Brown JS, et al. **J Appl Physiol** 1998 Dec; 85(6):2112-7

Invited editorial on "Irregularities and power law distributions in the breathing pattern in preterm and term infants" [editorial; comment] Bruce EN. **J Appl Physiol** 1998 Sep;85(3):787-8. Comment on: J Appl Physiol 1998 Sep;85(3):789-97.

Respiratory energetics during exercise at high altitude. Cibella F, et al. **J Appl Physiol** 1999 Jun;86(6):1785-92

Ventilatory effects of 8 h of isocapnic hypoxia with and without beta-blockade in humans. Clar C, et al. **J Appl Physiol** 1999 Jun;86(6):1897-904

Physiological effects of alveolar, tracheal, and "standard" pressure supports. Diehl JL, et al. **J Appl Physiol** 1999 Jul;87(1):428-37

Pontine cholinergic mechanisms enhance trigeminally evoked respiratory suppression in the anesthetized rat. Dutschmann M, et al. **J Appl Physiol** 1999 Sep;87(3):1059-65

Postinspiratory activity of the parasternal and external intercostal muscles in awake canines. Easton PA, et al. **J Appl Physiol** 1999 Sep;87(3):1097-101

Ventilatory effects of glial dysfunction in a rat brain stem chemoreceptor region [see comments] Erlichman JS, et al. **J Appl Physiol** 1998 Nov;85(5):1599-604. Comment in: J Appl Physiol 1998 Nov;85(5):1597-8.

Nonchemical influence of inspiratory pressure support on inspiratory activity in humans. Fauroux B, et al. **J Appl Physiol** 1998 Dec;85(6):2169-75

Ventilatory effects of glial dysfunction in a rat brain stem chemoreceptor region" [editorial; comment] Forster HV. **J Appl Physiol** 1998 Nov;85(5):1597-8. Comment on: J Appl Physiol 1998 Nov;85(5):1599-604.

The unbearable lightness of breathing [editorial; comment] Fredberg JJ, et al. **J Appl Physiol** 1999 Jan;86(1):3-4. Comment on: J Appl Physiol 1999 Jan;86(1):5-15.

Irregularities and power law distributions in the breathing pattern in preterm and term infants [see comments] Frey U, et al. **J Appl Physiol** 1998 Sep;85(3):789-97. Comment in: J Appl Physiol 1998 Sep;85(3):787-8.

Ventilation distribution during histamine provocation [letter] Gourgoulianis KI, et al. **J Appl Physiol** 1998 Sep;85(3):1198

Airway hyperresponsiveness to ultrasonically nebulized distilled water in subjects with tetraplegia. Grimm DR, et al. **J Appl Physiol** 1999 Apr;86(4):1165-9

External thoracic restriction, respiratory sensation, and ventilation during exercise in men. Harty HR, et al. **J Appl Physiol** 1999 Apr;86(4):1142-50

Effects of lung volume on lung and chest wall mechanics in rats. Hirai T, et al. **J Appl Physiol** 1999 Jan;86(1):16-21

Effect of prolonged, heavy exercise on pulmonary gas exchange in athletes. Hopkins SR, et al. **J Appl Physiol**

1998 Oct;85(4):1523–32
Role of muscular factors in cardiorespiratory responses to static exercise: contribution of reflex mechanisms. Iellamo F, et al. **J Appl Physiol** 1999 Jan;86(1):174–80
Ventilatory chemosensitive adaptations to intermittent hypoxic exposure with endurance training and detraining. Katayama K, et al. **J Appl Physiol** 1999 Jun;86(6):1805–11
Relationship between magnitude estimation of resistive loads, inspiratory pressures, and the RREP P(1) peak. Knafelc M, et al. **J Appl Physiol** 1999 Aug;87(2):516–22
Anatomic localization of 24- and 96-h particle retention in canine airways. Kreyling WG, et al. **J Appl Physiol** 1999 Jul;87(1):269–84
Mechanical effects of pharyngeal constrictor activation on pharyngeal airway function. Kuna ST, et al. **J Appl Physiol** 1999 Jan;86(1):411–7
Effect of carotid body denervation on breathing in neonatal goats. Lowry TF, et al. **J Appl Physiol** 1999 Sep; 87(3):1026–34
Effect of chronic sodium cyanate administration on O2 transport and uptake in hypoxic and normoxic exercise. McCanse W, et al. **J Appl Physiol** 1999 Apr;86(4):1257–63
Role of expiratory flow limitation in determining lung volumes and ventilation during exercise. McClaran SR, et al. **J Appl Physiol** 1999 Apr;86(4):1357–66
Expiratory time determined by individual anxiety levels in humans. Masaoka Y, et al. **J Appl Physiol** 1999 Apr; 86(4):1329–36
Influence of intercellular tissue connections on airway muscle mechanics [see comments] Meiss RA. **J Appl Physiol** 1999 Jan;86(1):5–15. Comment in: J Appl Physiol 1999 Jan;86(1):3–4.
Short-term potentiation of ventilation after different levels of hypoxia. Menendez AA, et al. **J Appl Physiol** 1999 May; 86(5):1478–82
Susceptibility to periodic breathing with assisted ventilation during sleep in normal subjects. Meza S, et al. **J Appl Physiol** 1998 Nov;85(5):1929–40
Dynamics of lung collapse and recruitment during prolonged breathing in porcine lung injury. Neumann P, et al. **J Appl Physiol** 1998 Oct;85(4):1533–43
Augmenting expiratory neuronal activity in sleep and wakefulness and in relation to duration of expiration. Orem J. **J Appl Physiol** 1998 Oct;85(4):1260–6
Important role of carotid afferents in control of breathing. Pan LG, et al. **J Appl Physiol** 1998 Oct;85(4):1299–306
Expiratory flow limitation and intrinsic positive end-expiratory pressure in obesity. Pankow W, et al. **J Appl Physiol** 1998 Oct;85(4):1236–43
Effects of dopamine and domperidone on ventilatory sensitivity to hypoxia after 8 h of isocapnic hypoxia. Pedersen ME, et al. **J Appl Physiol** 1999 Jan;86(1):222–9
Effect of I/E ratio on mean alveolar pressure during high-frequency oscillatory ventilation. Pillow JJ, et al. **J Appl Physiol** 1999 Jul;87(1):407–14
Influence of acute lung volume change on contractile properties of human diaphragm. Polkey MI, et al. **J Appl Physiol** 1998 Oct;85(4):1322–8
Acute response of the lung mechanics of the rabbit to hypoxia. Sakai H, et al. **J Appl Physiol** 1999 Jan; 86(1):306–12
Respiratory changes associated with rapid eye movements in normo- and hypercapnia during sleep. Schäfer T, et al. **J Appl Physiol** 1998 Dec;85(6):2213–9
VCO2 and VE kinetics during moderate- and heavy-intensity exercise after acetazolamide administration. Scheuermann BW, et al. **J Appl Physiol** 1999 May;86(5):1534–43
Effects of inspiratory and expiratory positive pressure difference on airflow dynamics during sleep. Séries F, et al. **J Appl Physiol** 1998 Nov;85(5):1855–62
Is breathing in infants chaotic? Dimension estimates for respiratory patterns during quiet sleep. Small M, et al. **J Appl Physiol** 1999 Jan;86(1):359–76
Oxypurinol administration fails to prevent free radical-mediated lipid peroxidation during loaded breathing. Supinski G, et al. **J Appl Physiol** 1999 Sep; 87(3):1123–31
Compensatory alveolar growth normalizes gas-exchange function in immature dogs after pneumonectomy. Takeda S, et al. **J Appl Physiol** 1999 Apr;86(4):1301–10
Postpneumonectomy alveolar growth does not normalize hemodynamic and mechanical function. Takeda SI, et al. **J Appl Physiol** 1999 Aug;87(2):491–7
Changes in respiratory control during and after 48 h of isocapnic and poikilocapnic hypoxia in humans. Tansley JG, et al. **J Appl Physiol** 1998 Dec;85(6):2125–34
Acinar flow irreversibility caused by perturbations in reversible alveolar wall motion. Tsuda A, et al. **J Appl Physiol** 1999 Mar;86(3):977–84
Increased cerebral extracellular adenosine and decreased PGE2 during ethanol-induced inhibition of FBM. Watson CS, et al. **J Appl Physiol** 1999 Apr;86(4):1410–20
Multichannel EEG analysis of respiratory evoked-potential components during wakefulness and NREM sleep. Webster KE, et al. **J Appl Physiol** 1998 Nov;85(5):1727–35
Mechanical advantage of the canine diaphragm. Wilson TA, et al. **J Appl Physiol** 1998 Dec;85(6):2284–90
Activity of respiratory pump and upper airway muscles during sleep onset. Worsnop C, et al. **J Appl Physiol** 1998 Sep;85(3):908–20
Breathing responses to small inspiratory threshold loads in humans. Yan S, et al. **J Appl Physiol** 1999 Mar;86(3):874–80
Strain dependence of the airway response to dry-gas hyperpnea challenge in the rat. Yang XX, et al. **J Appl Physiol** 1999 Jan;86(1):152–8
Stimulation of breathing by activation of pulmonary peripheral afferents in rabbits. Yu J, et al. **J Appl Physiol** 1998 Oct;85(4):1485–92
Inspiratory muscle activity during bird song. Wild JM, et al. **J Neurobiol** 1998 Sep 5;36(3):441–53
Models of respiratory rhythm generation in the pre-Bötzinger complex. I. Bursting pacemaker neurons. Butera RJ Jr, et al. **J Neurophysiol** 1999 Jul;82(1):382–97
Models of respiratory rhythm generation in the pre-Bötzinger complex. II. Populations Of coupled pacemaker neurons. Butera RJ Jr, et al. **J Neurophysiol** 1999 Jul;82(1):398–415
Differential effects of GABAA receptor antagonists in the control of respiratory neuronal discharge patterns. Dogas Z, et al. **J Neurophysiol** 1998 Nov;80(5):2368–77
Multimodal medullary neurons and correlational linkages of the respiratory network. Li Z, et al. **J Neurophysiol** 1999 Jul;82(1):188–201
Responses of simultaneously recorded respiratory-related medullary neurons to stimulation of multiple sensory modalities. Li Z, et al. **J Neurophysiol** 1999 Jul;82(1):176–87
A1 adenosine receptors modulate respiratory activity of the neonatal mouse via the cAMP-mediated signaling pathway. Mironov SL, et al. **J Neurophysiol** 1999 Jan;81(1):247–55
Improved pulmonary function after surgical reduction of congenital diaphragmatic hernia in lambs. Major D, et al. **J Pediatr Surg** 1999 Mar;34(3):426–9
Epiglottic movements during breathing in humans. Amis TC, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):307–14
Brain-derived neurotrophic factor is required for normal development of the central respiratory rhythm in mice. Balkowiec A, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):527–33
Discharge properties and recruitment of human diaphragmatic motor units during voluntary inspiratory tasks. Butler JE, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):907–20
Inhibition of inspiratory motor output by high-frequency low-pressure oscillations in the upper airway of sleeping dogs. Eastwood PR, et al. **J Physiol (Lond)** 1999 May 15; 517 (Pt 1):259–71
Medullary raphe neurones and baroreceptor modulation of the respiratory motor pattern in the cat [published erratum appears in J Physiol (Lond) 1998 Dec 15;513(Pt 3):935] Lindsey BG, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):863–82
Respiratory and cardiac modulation of single sympathetic vasoconstrictor and sudomotor neurones to human skin. Macefield VG, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):303–14
Ventilatory responses to hypercapnia and hypoxia after 6 h passive hyperventilation in humans. Ren X, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):885–94
Neurotransmitters and neuromodulators controlling the hypoxic respiratory response in anaesthetized cats [see comments] Richter DW, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):567–78. Comment in: J Physiol (Lond) 1999 Jan 15;514 (Pt 2):303.
Inspiration-promoting vagal reflex under NMDA receptor blockade in anaesthetized rabbits. Takano K, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):571–82
Central CO2 chemoreception: a mechanism involving P2 purinoceptors localized in the ventrolateral medulla of the anaesthetized rat. Thomas T, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):899–905
Effect of frequency and tidal volume on pleural pressure in rabbits during high frequency ventilation. Hernaiz MI, et al. **Lung** 1999;177(1):21–36
Degree of arterial desaturation in normoxia influences VO2max decline in mild hypoxia. Chapman RF, et al. **Med Sci Sports Exerc** 1999 May;31(5):658–63
Linkage between a muscle-specific CK gene marker and VO2max in the HERITAGE Family Study. Rivera MA, et al. **Med Sci Sports Exerc** 1999 May;31(5):698–701
Protein kinase C—a potential modifier of carotid body function. Faff L, et al. **Monaldi Arch Chest Dis** 1999 Apr; 54(2):172–7 (69 ref.)
The involvement of rostral ventromedullary neuronal structures in regulating the mechanism of formation of the respiratory rhythm in rats. Nikitin OL, et al. **Neurosci Behav Physiol** 1999 Mar-Apr;29(2):151–5
Evaluation of direct respiratory modulation of the QT interval variability. Emori T, et al. **Pacing Clin Electrophysiol** 1999 Jun;22(6 Pt 1):842–8
Of shadows and wind. Callahan CW. **Pediatr Pulmonol** 1998 Aug;26(2):145–6 (4 ref.)
Effect of sleep stages on measurements of passive respiratory mechanics in infants with bronchiolitis. Pratl B, et al. **Pediatr Pulmonol** 1999 Apr;27(4):273–7
A comparison of the hemodynamic and respiratory effects of surfactant instillation during interrupted ventilation versus noninterrupted ventilation in rabbits with severe respiratory failure. Dijk PH, et al. **Pediatr Res** 1999 Feb; 45(2):235–40
Repeated acute hypoxia temporarily attenuates the ventilatory respiratory response to hypoxia in conscious newborn rats. Matsuoka T, et al. **Pediatr Res** 1999 Jul; 46(1):120–5
The developmental character of cardiac autonomic responses to an acute noxious event in 4- and 8-month-old healthy infants. Oberlander TF, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):519–25
Characterization of cardiorespiratory responses to electrical stimulation of the globus pallidus in cat. Angyán L, et al. **Physiol Behav** 1999 Mar;66(1):53–8
Biological and behavioral correlates of quiet sleep respiration rates in infants. Montgomery-Downs H, et al. **Physiol Behav** 1998 Jul;64(5):637–43
Evaluation of a non-invasive respiratory monitoring system for sleeping subjects. Carlson BW, et al. **Physiol Meas** 1999 Feb;20(1):53–63
The psychobiology of strained breathing and its cardiovascular implications: a functional system review. Fokkema DS. **Psychophysiology** 1999 Mar;36(2):164–75 (165 ref.)
Pathophysiology of chronic obstructive pulmonary disease. Celli BR. **Respir Care Clin N Am** 1998 Sep;4(3):359–70, vii (39 ref.)
Bladder contractions alter inspiratory termination by superior laryngeal and intercostal nerve stimulation. Bartlett D Jr, et al. **Respir Physiol** 1999 Aug 3;116(2-3):105–14
Ventilatory, cardiovascular and metabolic responses to hypoxia and hypercapnia in the armadillo. Boggs DF, et al. **Respir Physiol** 1998 Aug;113(2):101–9
High-frequency oscillation and centroid frequency of diaphragm EMG during inspiratory loading. Cairns AM, et al. **Respir Physiol** 1998 Jun;112(3):305–13
Effects of resistive loading on the pattern of breathing. Calabrese P, et al. **Respir Physiol** 1998 Aug;113(2):167–79
Influence of abdomen on respiratory mechanics in supine rabbits. D'Angelo E, et al. **Respir Physiol** 1999 May 3; 115(3):287–99
How stiff is the armadillo? A comparison with the allometrics of mammalian respiratory mechanics. Frappell PB, et al. **Respir Physiol** 1998 Aug;113(2):111–22
Neurorespiratory pattern of gill and lung ventilation in the decerebrate spontaneously breathing tadpole. Gdovin MJ, et al. **Respir Physiol** 1998 Aug;113(2):135–46
Modulation of the hypoxic ventilatory response by Ca2+-dependent and Ca2+-independent protein kinase C in the dorsocaudal brainstem of conscious rats. Gozal D, et al. **Respir Physiol** 1998 Jun;112(3):283–90
N-methyl-D-aspartate-mediated bulbospinal respiratory drive is pH/P(CO2)-insensitive in turtle brainstem-spinal cord. Johnson SM, et al. **Respir Physiol** 1998 Sep; 113(3):201–12
Ventilatory dynamics of transient arousal in patients with obstructive sleep apnea. Khoo MC, et al. **Respir Physiol** 1998 Jun;112(3):291–303
Neonatal capsaicin treatment alters immediate ventilatory responses to inhaled wood smoke in rats. Kou YR, et al. **Respir Physiol** 1999 Aug 3;116(2-3):115–23
Improved breathing capacity during exercise in severe obstructive airway disease. Natif N, et al. **Respir Physiol** 1998 May;112(2):145–54
Effects of prosthetic reconstruction of the abdominal wall on respiratory mechanics in rats. Rocco PR, et al. **Respir Physiol** 1999 Jan 1;115(1):35–43
A new guinea-pig model for acute inhalation studies on combined effects of cold air and pollutants. Salonen RO, et al. **Respir Physiol** 1998 Sep;113(3):271–83
Cardiovascular and respiratory reflexes: the tropical fish, traira (Hoplias malabaricus) O2 chemoresponses. Sundin LI, et al. **Respir Physiol** 1999 Aug 3;116(2-3):181–99
Determinants of the hypercapnic and hypoxic response in normal man. van Klaveren RJ, et al. **Respir Physiol** 1998 Aug;113(2):157–65
Response of breathing pattern to flow and pressure in the upper airway of rats. Zhang X, et al. **Respir Physiol** 1998 Sep;113(3):191–200
A chest wall restrictor to study effects on pulmonary function and exercise. 1. Development and validation. Cline CC, et al. **Respiration** 1999;66(2):182–7
A chest wall restrictor to study effects on pulmonary function and exercise. 2. The energetics of restrictive breathing. Gonzalez J, et al. **Respiration** 1999;66(2):188–94
Volume-pressure properties of the upper airway in normal subjects and patients with obstructive sleep apnoea. Wu D, et al. **Respirology** 1999 Mar;4(1):69–75
Respiratory system compliance decreases after cardiopulmonary resuscitation and stomach inflation: impact of large and small tidal volumes on calculated peak airway pressure. Wenzel V, et al. **Resuscitation** 1998 Aug; 38(2):113–8
Functional and high-resolution computed tomographic studies of divers' lungs. Reuter M, et al. **Scand J Work Environ Health** 1999 Feb;25(1):67–74
Role of the cholinergic pathway in mediating platelet-activating factor-induced pulmonary dysfunctions in unsedated calves. Van de Weerdt ML, et al. **Zentralbl Veterinarmed A** 1999 Mar;46(2):103–13
[Starling resister and stability of sleep ventilation] Krieger J, et al. **Neurophysiol Clin** 1998 Dec;28(6):493–506 (11 ref.) (Eng. Abstr.) **(Fre)**
[Measurement of respiratory effort (esophageal pressure) and estimation of resistance of the upper airway in polysomnography: indications, limitations and results] Loiodice C, et al. **Neurophysiol Clin** 1998 Dec;28(6):507–20 (29 ref.) (Eng. Abstr.) **(Fre)**
[The sigh in ARDS (acute respiratory distress syndrome)

RESPIRATORY MECHANICS

Pelosi P, et al. **Minerva Anestesiol** 1999 May;65(5):313–7 (16 ref.) (Eng. Abstr.) **(Ita)**

[MR cholangiopancreatography using respiratory triggered half-Fourier RARE technique] Morimoto A, et al. **Nippon Rinsho** 1998 Nov;56(11):2859–64 (Eng. Abstr.) **(Jpn)**

[The effect of a repeated stay in a hypercapnic environment on the properties of the respiratory system] Pogodin MA, et al. **Fiziol Cheloveka** 1998 Nov–Dec;24(6):72–5 **(Rus)**

[Complex system for respiration studies in animals] Aleksandrova NP, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov;84(11):1303–7 **(Rus)**

RESPIRATORY MUSCLE TRAINING see **BREATHING EXERCISES**

RESPIRATORY MUSCLES

A randomized controlled trial of inspiratory muscle training in stable chronic heart failure. Johnson PH, et al. **Eur Heart J** 1998 Aug;19(8):1249–53

[Evaluation of respiratory muscles] Fitting JW. **Schweiz Med Wochenschr** 1998 Aug 15;128(33):1212–6 (10 ref.) (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Recombinant human growth hormone for reconditioning of respiratory muscle after lung volume reduction surgery [see comments] Felbinger TW, et al. **Crit Care Med** 1999 Aug; 27(8):1634–8. Comment in: Crit Care Med 1999 Aug;27(8):1687–8. Comment in: Crit Care Med 1999 Aug;27(8):1689–90.

Assessing new technology, another chapter: lung volume reduction surgery/recombinant human growth hormone [editorial; comment] Slonim AD, et al. **Crit Care Med** 1999 Aug;27(8):1687–8 (15 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1634–8.

An increase in the threshold of citric acid-induced cough during chest wall vibration in healthy humans. Kondo T, et al. **Jpn J Physiol** 1998 Oct;48(5):341–5

Respiratory muscle overloading and dyspnoea during bronchoconstriction in asthma: protective effects of fenoterol. Misuri G, et al. **Pulm Pharmacol Ther** 1997 Oct–Dec;10(5–6):299–304

Response of respiratory muscles to intravenous nicotine challenge in anaesthetized cats. Kopczyńska B, et al. **Respir Physiol** 1999 Aug 3;116(2–3):145–57

Inhaled and systemic corticosteroid therapies: Do they contribute to inspiratory muscle weakness in asthma? Akkoca O, et al. **Respiration** 1999;66(4):332–7

ENZYMOLOGY

A case of respiratory muscle weakness due to cytochrome c oxidase enzyme deficiency. O'Brien A, et al. **Eur Respir J** 1998 Sep;12(3):742–4

[Peroxide metabolism on respiratory muscles: effect of growth, maturation and aging] Montecinos L, et al. **Rev Med Chil** 1999 Mar;127(3):269–75 (Eng. Abstr.) **(Spa)**

INNERVATION

Driving respiration: the respiratory central pattern generator. Bellingham MC. **Clin Exp Pharmacol Physiol** 1998 Oct; 25(10):847–56

Time to peak tidal expiratory flow and the neuromuscular control of expiration. van der Ent CK, et al. **Eur Respir J** 1998 Sep;12(3):646–52

Distribution of bulbospinal gamma-aminobutyric acid-synthesizing neurons of the ventral respiratory group of the rat. Ellenberger HH. **J Comp Neurol** 1999 Aug 16; 411(1):130–44

Calcium oscillations in rhythmically active respiratory neurones in the brainstem of the mouse. Frermann D, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):119–31

Activation of respiratory afferents by resistive loaded breathing modifies somatosensory evoked potentials to median nerve stimulation in humans. Balzamo E, et al. **Neurosci Lett** 1999 Aug 6;270(3):157–60

Behaviors of bulbar respiratory interneurons during fictive swallowing and vomiting. Nakazawa K, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):412–8

METABOLISM

Early occurrence of respiratory muscle deoxygenation assessed by near-infrared spectroscopy during leg exercise in patients with chronic heart failure. Terakado S, et al. **Jpn Circ J** 1999 Feb;63(2):97–103

Reliability of a new device to assess the oxygen consumption of human respiratory muscles. Ahmaidi S, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):1076–82

PATHOLOGY

Airway muscle in infants with congenital diaphragmatic hernia: response to treatment. Broughton AR, et al. **J Pediatr Surg** 1998 Oct;33(10):1471–5

A second locus for autosomal dominant myopathy with proximal muscle weakness and early respiratory muscle involvement: a likely chromosomal locus on 2q21. Xiang F, et al. **Neuromuscul Disord** 1999 Jul;9(5):308–12

PHYSIOLOGY

The effects of learning on the ventilatory responses to inspiratory threshold loading. Eastwood PR, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1190–6

Cycling of inspiratory and expiratory muscle groups with the ventilator in airflow limitation [published erratum appears in Am J Respir Crit Care Med 1999 Mar;159(3):1023] Parthasarathy S, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1471–8

Sniff nasal inspiratory pressure. Reference values in Caucasian children. Stefanutti D, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):107–11

Assessment of abdominal muscle contractility, strength, and fatigue. Suzuki J, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1052–60

Effects of different expiratory maneuvers on inspiratory muscle force output. Zakynthinos S, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):892–5

Inspiratory muscle training protocol using a pressure threshold device: effect on dyspnea in chronic obstructive pulmonary disease. Nield MA. **Arch Phys Med Rehabil** 1999 Jan;80(1):100–2

Human respiratory muscles: sensations, reflexes and fatiguability. Gandevia SC, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):757–63 (38 ref.)

Electromyographic study of the pectoralis major, serratus anterior and external oblique muscles during respiratory activity in humans. Cerqueira EP, et al. **Electromyogr Clin Neurophysiol** 1999 Apr–May;39(3):131–7

Inspiratory muscle adaptations following pressure or flow training in humans. Tzelepis GE, et al. **Eur J Appl Physiol** 1999 May;79(6):467–71

Ventilatory muscle recruitment and work of breathing in patients with respiratory failure after thoracic surgery. Takeda S, et al. **Eur J Cardiothorac Surg** 1999 Apr; 15(4):449–55

Introduction to a new inspiratory threshold loading device. Chen RC, et al. **Eur Respir J** 1998 Jul;12(1):208–11

Use of mouth pressure twitches induced by cervical magnetic stimulation to assess voluntary activation of the diaphragm. de Bruin PF, et al. **Eur Respir J** 1998 Sep;12(3):672–8

Time to peak tidal expiratory flow and the neuromuscular control of expiration. van der Ent CK, et al. **Eur Respir J** 1998 Sep;12(3):646–52

Patient-ventilator interaction: a general model for nonpassive mechanical ventilation. Crooke PS, et al. **IMA J Math Appl Med Biol** 1998 Dec;15(4):321–37

Immediate effect of respiratory muscle stretch gymnastics and diaphragmatic breathing on respiratory pattern. Respiratory Muscle Conditioning Group. Ito M, et al. **Intern Med** 1999 Feb;38(2):126–32

Inspiratory and expiratory patterns of the pectoralis major muscle during pulmonary defensive reflexes. Bolser DC, et al. **J Appl Physiol** 1998 Nov;85(5):1786–92

Pattern of expiratory muscle activation during lower thoracic spinal cord stimulation. DiMarco AF, et al. **J Appl Physiol** 1999 Jun;86(6):1881–9

The unbearable lightness of breathing [editorial; comment] Fredberg JJ, et al. **J Appl Physiol** 1999 Jan;86(1):3–4. Comment on: J Appl Physiol 1999 Jan;86(1):5–15.

Regulation of nitric oxide production in response to skeletal muscle activation. Fujii Y, et al. **J Appl Physiol** 1998 Dec; 85(6):2330–6

Influence of intercellular tissue connections on airway muscle mechanics [see comments] Meiss RA. **J Appl Physiol** 1999 Jan;86(1):5–15. Comment in: J Appl Physiol 1999 Jan;86(1):3–4.

Dopaminergic modulation of respiratory motor output in peripherally chemodenervated goats. O'Halloran KD, et al. **J Appl Physiol** 1998 Sep;85(3):946–54

Chest wall kinematics and respiratory muscle action in walking healthy humans. Sanna A, et al. **J Appl Physiol** 1999 Sep;87(3):938–46

Influence of respiratory muscle work on VO(2) and leg blood flow during submaximal exercise. Wetter TJ, et al. **J Appl Physiol** 1999 Aug;87(2):643–51

Muscle kinematics for minimal work of breathing. Wilson TA, et al. **J Appl Physiol** 1999 Aug;87(2):554–60

Activity of respiratory pump and upper airway muscles during sleep onset. Worsnop C, et al. **J Appl Physiol** 1998 Sep;85(3):908–20

Inspiratory muscle activity during bird song. Wild JM, et al. **J Neurobiol** 1998 Sep 5;36(3):441–53

Mechanical advantage of the human parasternal intercostal and triangularis sterni muscles. De Troyer A, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):915–25

Non-chemical inhibition of respiratory motor output during mechanical ventilation in sleeping humans. Wilson CR, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):605–18

Sense of effort and dyspnoea. Killian KJ. **Monaldi Arch Chest Dis** 1998 Dec;53(6):654–60 (39 ref.)

Monitoring respiratory muscles. Nava S. **Monaldi Arch Chest Dis** 1998 Dec;53(6):640–3 (26 ref.)

Consequences of the combined deficiency in dystrophin and utrophin on the mechanical properties and myosin composition of some limb and respiratory muscles of the mouse. Deconinck N, et al. **Neuromuscul Disord** 1998 Aug; 8(6):362–70

A technique for global assessment of respiratory muscle performance at different lung volumes. Ratnovsky A, et al. **Physiol Meas** 1999 Feb;20(1):37–51

Effect of gender on rat upper airway muscle contractile properties. Cantillon D, et al. **Respir Physiol** 1998 Aug; 113(2):147–56

Task failure, breathing discomfort and CO2 accumulation without fatigue during inspiratory resistive loading in humans. Gorman RB, et al. **Respir Physiol** 1999 May 3; 115(3):273–86

Modified Campbell diagram to assess respiratory muscle action in speech. Johnston S, et al. **Respirology** 1999 Sep; 4(3):213–22

Training of the respiratory muscles in individuals with tetraplegia. Uijl SG, et al. **Spinal Cord** 1999 Aug; 37(8):575–9

[Electromyographic activity of respiratory muscles under hyperbaric conditions] Philipova D. **Ross Fiziol Zh Im I M Sechenova** 1998 Jul;84(7):679–93 (Eng. Abstr.) **(Rus)**

[Response of respiratory muscles to microinjections of acetylcholine and propranolol into the rat solitary nucleus] Sergeeva LI, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):798–805 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Expiratory function in complete tetraplegics: study of spirometry, maximal expiratory pressure, and muscle activity of pectoralis major and latissimus dorsi muscles. Fujiwara T, et al. **Am J Phys Med Rehabil** 1999 Sep–Oct; 78(5):464–9

Diaphragm strength in chronic heart failure. Hughes PD, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):529–34

Inspiratory muscle function and body composition in cystic fibrosis. Ionescu AA, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1271–6

Cycle ergometer and inspiratory muscle training in chronic obstructive pulmonary disease. Larson JL, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):500–7

Correcting static intrinsic positive end-expiratory pressure for expiratory muscle contraction. Validation of a new method. Zakynthinos SG, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):785–90

Abdominal weight and inspiratory resistance: their immediate effects on inspiratory muscle functions during maximal voluntary breathing in chronic tetraplegic patients. Lin KH, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):741–5

Discontinuous incremental threshold loading test: measure of respiratory muscle endurance in patients with COPD. Larson JL, et al. **Chest** 1999 Jan;115(1):60–7

Respiratory muscle function and hypoxic ventilatory control in patients with type I diabetes. Mancini M, et al. **Chest** 1999 Jun;115(6):1553–62

Respiratory muscle performance, pulmonary mechanics, and gas exchange between the BiPAP S/T-D system and the Servo Ventilator 900C with bilevel positive airway pressure ventilation following gradual pressure support weaning. Patel RG, et al. **Chest** 1998 Nov;114(5):1390–6

Respiratory muscles performance is related to oxygen kinetics during maximal exercise and early recovery in patients with congestive heart failure. Nanas S, et al. **Circulation** 1999 Aug 3;100(5):503–8

Dyspnoea, peripheral airway involvement and respiratory muscle effort in patients with type I diabetes mellitus under good metabolic control. Scano G, et al. **Clin Sci (Colch)** 1999 May;96(5):499–506

Non-invasive assessment of inspiratory muscle performance during exercise in patients with chronic heart failure. Vibarel N, et al. **Eur Heart J** 1998 May;19(5):766–73

Respiratory muscle involvement in multiple sclerosis. Gosselink R, et al. **Eur Respir J** 1999 Feb;13(2):449–54 (49 ref.)

Respiratory muscle function in patients with neuromuscular disorders and cardiopulmonary diseases. Syabbalo N. **Int J Clin Pract** 1998 Jul–Aug;52(5):319–29 (129 ref.)

Effects of experimental cortical seizures on respiratory motor nerve activities in piglets. Terndrup TE, et al. **J Appl Physiol** 1999 Jun;86(6):2052–8

An increase in the threshold of citric acid-induced cough during chest wall vibration in healthy humans. Kondo T, et al. **Jpn J Physiol** 1998 Oct;48(5):341–5

Respiratory muscle function in endocrine diseases. Siafakas NM, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):154–9 (101 ref.)

Respiratory muscles in heart failure. Vassilakopoulos T, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):150–3 (25 ref.)

Respiratory muscle involvement in Bethlem myopathy. Haq RU, et al. **Neurology** 1999 Jan 1;52(1):174–6

Chest physiotherapy in cystic fibrosis: improved tolerance with nasal pressure support ventilation. Fauroux B, et al. **Pediatrics** 1999 Mar;103(3):E32

Pathophysiology of chronic obstructive pulmonary disease. Celli BR. **Respir Care Clin N Am** 1998 Sep;4(3):359–70, vii (39 ref.)

Tension-time index of inspiratory muscles in COPD patients: role of airway obstruction. Hayot M, et al. **Respir Med** 1998 Jun;92(6):828–35

Exercise training in chronic hypoxia has no effect on ventilatory muscle function in humans. Thomas RG, et al. **Respir Physiol** 1998 May;112(2):195–202

Contribution of lung function to exercise capacity in patients with chronic heart failure. Dimopoulou I, et al. **Respiration** 1999;66(2):144–9

Volume-pressure properties of the upper airway in normal subjects and patients with obstructive sleep apnoea. Wu

D, et al. **Respirology** 1999 Mar;4(1):69–75

Exertional dyspnoea in patients with airway obstruction, with and without CO2 retention. Cloosterman SG, et al. **Thorax** 1998 Sep;53(9):768–74

Surgery and the respiratory muscles. Siafakas NM, et al. **Thorax** 1999 May;54(5):458–65 (111 ref.)

[Prevention of respiratory muscles deconditioning and deterioration of aerobic working capacity in prolonged weightlessness and hypokinesia] Baranov VM, et al. **Aviakosm Ekolog Med** 1998;32(6):36–42 (Eng. Abstr.) **(Rus)**

[Inspiratory muscle training in patients with chronic obstructive pulmonary disease] Lisboa C, et al. **Rev Med Chil** 1998 May;126(5):563–8 (29 ref.) (Eng. Abstr.) **(Spa)**

[Effects of inspiratory muscle training on the oxygen cost of breathing in patients with chronic obstructive pulmonary disease] Quintero JI, et al. **Rev Med Chil** 1999 Apr; 127(4):421–8 (Eng. Abstr.) **(Spa)**

RESPIRATORY PARALYSIS

CHEMICALLY INDUCED

Respiratory muscle rigidity in a preterm infant after use of fentanyl during Caesarean section. Lindemann R. **Eur J Pediatr** 1998 Dec;157(12):1012–3

Phrenic nerve block caused by interscalene brachial plexus block: effects of digital pressure and a low volume of local anesthetic. Sala-Blanch X, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):231–5

COMPLICATIONS

[Orthopnea: not always of cardiac origin (letter; comment)] Kampelmacher MJ, et al. **Ned Tijdschr Geneeskd** 1999 Jul 3;143(27):1443–4. Comment on: Ned Tijdschr Geneeskd 1999 May 1;143(18):921–4. **(Dut)**

DIAGNOSIS

Magnetic resonance navigator echo diaphragm monitoring in patients with suspected diaphragm paralysis. Taylor AM, et al. **J Magn Reson Imaging** 1999 Jan;9(1):69–74

Assessment of neonatal diaphragmatic paralysis using magnetic phrenic nerve stimulation. Rafferty GF, et al. **Pediatr Pulmonol** 1999 Mar;27(3):224–6

Index of suspicion. Case 1. Diagnosis: respiratory paralysis. Leopold JC. **Pediatr Rev** 1999 Mar;20(3):103–4

[Imaging of normal and pathologic diaphragm] Padovani B. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S84–5 **(Fre)**

[Diagnostic and therapeutic management of a diaphragmatic paralysis] Similowski T. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S85–7 **(Fre)**

[Evaluation of respiratory muscles] Fitting JW. **Schweiz Med Wochenschr** 1998 Aug 15;128(33):1212–6 (10 ref.) (Eng. Abstr.) **(Ger)**

ETIOLOGY

Dyspnea during interscalene block after recent coronary bypass surgery. Hashim MS, et al. **Anesth Analg** 1999 Jul; 89(1):55–6

Reversible unilateral diaphragmatic paralysis in pulmonary embolism [letter] Pils K, et al. **Chest** 1999 Aug;116(2):587–8

Post cardiac surgery phrenic nerve palsy: value of plication and potential for recovery. van Onna IE, et al. **Eur J Cardiothorac Surg** 1998 Aug;14(2):179–84

Diaphragmatic paralysis due to Lyme disease. Faul JL, et al. **Eur Respir J** 1999 Mar;13(3):700–2

Phrenic nerve injury following cardiac surgery: a review. Tripp HF, et al. **J Card Surg** 1998 May;13(3):218–23 (29 ref.)

Impact of diaphragmatic paralysis after cardiothoracic surgery in children. de Leeuw M, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):510–7

Diaphragmatic paralysis following minor blunt trauma. Dalshaug GB, et al. **J Trauma** 1999 Aug;47(2):413–5 (15 ref.)

Phrenic nerve block caused by interscalene brachial plexus block: effects of digital pressure and a low volume of local anesthetic. Sala-Blanch X, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):231–5

Chronic aneurysm of the descending thoracic aorta presenting with right pleural effusion and left phrenic paralysis. Rábago G, et al. **Tex Heart Inst J** 1999;26(1):96–8

PHYSIOPATHOLOGY

Respiratory response during arm elevation in isolated diaphragm weakness. Martinez FJ, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):480–6

Diaphragmatic paralysis with monoclonal gammopathy and antiganglioside GM1 antibodies. Dozier CE, et al. **Neurology** 1999 May 12;52(8):1715–6

[Cold paralysis of the respiratory center and restoration of its function in homeothermic animals without rewarming] Arokina NK, et al. **Dokl Akad Nauk** 1999 Feb;364(4):560–2 **(Rus)**

REHABILITATION

Respiratory response to exercise in postpolio patients with severe inspiratory muscle dysfunction. Weinberg J, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1095–100

SURGERY

Post cardiac surgery phrenic nerve palsy: value of plication and potential for recovery. van Onna IE, et al. **Eur J Cardiothorac Surg** 1998 Aug;14(2):179–84

Thoracoscopic diaphragmatic plication. Guy TS, et al. **Surg Laparosc Endosc** 1998 Aug;8(4):319–21

[Surgical treatment of chronic diaphragmatic paralysis and eventrations] Mouroux J, et al. **Rev Mal Respir** 1999 Jan; 16 Suppl 3:S87–8 **(Fre)**

THERAPY

[Diagnostic and therapeutic management of a diaphragmatic paralysis] Similowski T. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S85–7 **(Fre)**

ULTRASONOGRAPHY

[The value of sonography in the intensive care unit for the diagnosis of diaphragmatic paralysis] Dorffner R, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):274–7 (Eng. Abstr.) **(Ger)**

RESPIRATORY PHYSIOLOGY

The expiratory flow pattern and the neuromuscular control of breathing in cats. van der Grinten CP, et al. **Adv Exp Med Biol** 1998;450:95–100

Respiratory physiology teaching: determination of residual volume by applying the indicator-dilution technique. Heller H, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):S53–6

Respiratory and metabolic functions of carbonic anhydrase in exercised white muscle of trout. Wang Y, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1766–79

Physical activity patterns associated with cardiorespiratory fitness and reduced mortality: the Aerobics Center Longitudinal Study. Stofan JR, et al. **Am J Public Health** 1998 Dec;88(12):1807–13

Differentiating obstructive and central sleep respiratory events through pulse transit time. Argod J, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1778–83

Coordination of swallowing and phases of respiration during added respiratory loads in awake subjects. Kijima M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1898–902

Esophageal contractility synchronous with expiration. Mohri M, et al. **Ann Otol Rhinol Laryngol** 1999 Aug;108(8):806–9

A new aspect of the carotid body function controlling hypoxic ventilatory decline in humans. Kimura H, et al. **Appl Human Sci** 1998 Jul;17(4):131–7

Determinants and control of breathing during muscular exercise. Whipp BJ, et al. **Br J Sports Med** 1998 Sep; 32(3):199–211 (84 ref.)

Substance P-immunoreactive boutons closely appose inspiratory protruder hypoglossal motoneurons in the cat. Gatti PJ, et al. **Brain Res** 1999 Jul 10;834(1–2):155–9

Mu- and delta-opioid receptor densities in respiratory-related brainstem regions of neonatal swine. Laferrière A, et al. **Brain Res Dev Brain Res** 1999 Jan 11; 112(1):1–9

Ventilatory and metabolic effects of hypercapnia in conscious rats: AVP V1 receptor block. Walker JK, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):361–6

Hemodynamic rounds series II: hemodynamics of constrictive physiology: influence of respiratory dynamics on ventricular pressures. Higano ST, et al. **Catheter Cardiovasc Interv** 1999 Apr;46(4):473–86

A novel algorithm for the heart rate variability analysis of short-term recordings: polar representation of respiratory sinus arrhythmia. Migeotte PF, et al. **Comput Biomed Res** 1999 Feb;32(1):56–66

Comparative investigations of algorithms for the detection of breaths in newborns with disturbed respiratory signals. Schmidt M, et al. **Comput Biomed Res** 1998 Dec; 31(6):413–25

Value of beat-to-beat blood pressure changes, detected by pulse transit time, in the management of the obstructive sleep apnoea/hypopnoea syndrome. Pitson DJ, et al. **Eur Respir J** 1998 Sep;12(3):685–92

Detection of apnoeas, hypopnoeas and arousals by the AutoSet in the sleep apnoea/hypopnoea syndrome. Rees K, et al. **Eur Respir J** 1998 Oct;12(4):764–9

The effects of caffeine on the kinetics of O2 uptake, CO2 production and expiratory ventilation in humans during the on-transient of moderate and heavy intensity exercise. Bell C, et al. **Exp Physiol** 1999 Jul;84(4):761–74

Pseudomonas aeruginosa binds to neoglycoconjugates bearing mucin carbohydrate determinants and predominantly to sialyl-Lewis x conjugates. Scharfman A, et al. **Glycobiology** 1999 Aug;9(8):757–64

Cardiorespiratory response during exercise in patients with cyanotic congenital heart disease with and without a Fontan operation and in patients with congestive heart failure. Ohuchi H, et al. **Int J Cardiol** 1998 Oct 30; 66(3):241–51

US weight guidelines: is it also important to consider cardiorespiratory fitness? Lee CD, et al. **Int J Obes Relat Metab Disord** 1998 Aug;22 Suppl 2:S2–7

Cardiorespiratory responses and circulating metabolite concentrations in male and female adolescents during a simulated duathlon. Naughton GA, et al. **Int J Sports Med** 1998 Jul;19(5):303–9

Invited editorial on "Irregularities and power law distributions in the breathing pattern in preterm and term infants" [editorial; comment] Bruce EN. **J Appl Physiol** 1998 Sep;85(3):787–8. Comment on: J Appl Physiol 1998 Sep;85(3):789–97.

Influence of volume dependency and timing of airway occlusions on the Hering-Breuer reflex in infants. Rabbette PS, et al. **J Appl Physiol** 1998 Dec;85(6):2033–9

Pulmonary vagal innervation is required to establish adequate alveolar ventilation in the newborn lamb. Wong KA, et al. **J Appl Physiol** 1998 Sep;85(3):849–59

Using laboratory selection for desiccation resistance to examine the relationship between respiratory pattern and water loss in insects. Williams AE, et al. **J Exp Biol** 1998 Nov;201 (Pt 21):2945–52

The effect of respiratory pattern on water loss in desiccation-resistant Drosophila melanogaster. Williams AE, et al. **J Exp Biol** 1998 Nov;201 (Pt 21):2953–9

Respiratory function and immunological status in paper-recycling workers. Zuskin E, et al. **J Occup Environ Med** 1998 Nov;40(11):986–93

Comparison of respiratory function and fluid balance in very low birthweight infants given artificial or natural surfactant or no surfactant treatment. Kavvadia V, et al. **J Perinat Med** 1998;26(6):469–74

Osmotic regulation of airway reactivity by epithelium. Fedan JS, et al. **J Pharmacol Exp Ther** 1999 May;289(2):901–10

Blood pressure, breathing, and the carotid body. Calverley PM. **Lancet** 1999 Sep 18;354(9183):969–70

Air-liquid interfacial movement in models simulating airway reopening. Hsu SH, et al. **Med Eng Phys** 1998 Nov; 20(8):558–64

Role of the respiratory control system in the pathophysiology of hypercapnia. Gardner WN. **Monaldi Arch Chest Dis** 1998 Jun;53(3):281–6 (71 ref.)

Implications of pathophysiology for management of the obstructive sleep apnoea syndrome. McNicholas WT. **Monaldi Arch Chest Dis** 1998 Oct;53(5):524–9 (64 ref.)

Energy balance and intermediate metabolism in chronic lung disease. Muers MF, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):564–73 (51 ref.)

A mechanism of central sleep apnea in patients with heart failure [see comments] Javaheri S. **N Engl J Med** 1999 Sep 23;341(13):949–54. Comment in: N Engl J Med 1999 Sep 23;341(13):985–7.

Activation of respiratory afferents by resistive loaded breathing modifies somatosensory evoked potentials to median nerve stimulation in humans. Balzamo E, et al. **Neurosci Lett** 1999 Aug 6;270(3):157–60

Nitric oxide modulates respiratory-related neural activity in the isolated brainstem of the bullfrog. Hedrick MS, et al. **Neurosci Lett** 1998 Jul 24;251(2):81–4

Correlation of vasomotor- and respiratory-controlling mechanisms around the caudal ventrolateral medulla in cats. Yang KT, et al. **Neurosci Lett** 1999 Jul 9;269(2):79–82

Upper airway motor outputs during sneezing and coughing in decerebrate cats. Satoh I, et al. **Neurosci Res** 1998 Oct; 32(2):131–5

Effects of changes in ambient temperature on the Hering-Breüer reflex of the conscious newborn rat. Merazzi D, et al. **Pediatr Res** 1999 Mar;45(3):370–6

Ventilatory response and arterial blood gases during exercise in children. Ohuchi H, et al. **Pediatr Res** 1999 Mar; 45(3):389–96

Central control of the cardiovascular and respiratory systems and their interactions in vertebrates. Taylor EW, et al. **Physiol Rev** 1999 Jul;79(3):855–916 (673 ref.)

Relationship of structure and function of the avian respiratory system to disease susceptibility. Fedde MR. **Poult Sci** 1998 Aug;77(8):1130–8 (51 ref.)

Breathlessness, anxiety, and respiratory physiology [editorial; comment] Strohl KP, et al. **Psychosom Med** 1998 Nov–Dec; 60(6):680–1. Comment on: Psychosom Med 1998 Nov–Dec;60(6):671–9.

Endothelin and the airway mucosa. Baraniuk JN, et al. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):113–23 (102 ref.)

Endothelin receptor subtypes: distribution and function in the lung. Goldie RG. **Pulm Pharmacol Ther** 1998 Apr–Jun; 11(2–3):89–95 (103 ref.)

Tachykinins and airway function. Lagente V, et al. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):331–40 (122 ref.)

Nitric oxide and airways. Matera MG. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):341–8 (78 ref.)

Cytokines and airways: recent insights and therapeutic implications. Passalacqua G, et al. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):375–9 (56 ref.)

Modulation of sensory nerve function in the airways. Spina D. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):319–30 (160 ref.)

Does the motor cortical control of the diaphragm 'bypass' the brain stem respiratory centres in man? Corfield DR, et al. **Respir Physiol** 1998 Nov;114(2):109–17

Assessment of respiratory system viscoelasticity in spontaneously breathing rabbits. D'Angelo E, et al. **Respir Physiol** 1998 Dec;114(3):257–67

Ventilatory response to hypoxia in humans [letter] Robbins PA, et al. **Respir Physiol** 1999 May 3;115(3):333, 335

Temperature effects on lung and blood gases in Bufo paracnemis: consequences of bimodal gas exchange. Wang T, et al. **Respir Physiol** 1998 Sep;113(3):231–8

Maximum static respiratory pressures in healthy elderly men and women: issues of reproducibility and interpretation.

McConnell AK, et al. **Respiration** 1999;66(3):251–8

Airway epithelium: more than just a barrier! [letter; comment] Wessler I, et al. **Trends Pharmacol Sci** 1999 Feb;20(2):52–4. Comment on: Trends Pharmacol Sci 1998 Aug;19(8):334–41.

Spirometric variables recorded after lobeline administration in healthy Friesian and Belgian white and blue calves: normal values and effects of somatic growth. Bureau F, et al. **Vet J** 1999 May;157(3):302–8

[Respiratory defence mechanisms. Particular circumstances in healthy and sick children] Donato L. **Arch Pediatr** 1998; 5 Suppl 1:5s–8s (6 ref.) (Eng. Abstr.) **(Fre)**

[Evaluation of respiratory function (respiratory function tests)] Orehek J. **Rev Mal Respir** 1998 Sep;15 Suppl 2:S29–32 **(Fre)**

[Respiratory function and surgical reduction of lung volume] Sottiaux T, et al. **Rev Med Liege** 1998 Dec;53(12):770–7 (Eng. Abstr.) **(Fre)**

[Airway myocytes as immune effector cells in the pathogenesis of bronchial asthma. Myocyte culture as an in vitro model] John M, et al. **Pneumologie** 1999 Jun; 53(6):302–6 (40 ref.) **(Ger)**

[MRI phase contrast flow measurement of portal vein: influence and compensation of respiratory motion and propriety of phase correction using background] Nakano S, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):489–96 (Eng. Abstr.) **(Jpn)**

[Ergospirometry. Cardiopulmonary exercise test, methodology and interpretation] Yazbek Júnior P, et al. **Arq Bras Cardiol** 1998 Nov;71(5):719–24 **(Por)**

[Sensitivity of the respiratory center to carbon dioxide during prolonged exposure of humans to gas environment with unchanging level of hypercapnia] Bragin LKh, et al. **Aviakosm Ekolog Med** 1999;33(2):19–21 (Eng. Abstr.) **(Rus)**

[The mechanism of breathing under the conditions of prolonged voluntary hyperventilation] Bubeev IuA, et al. **Aviakosm Ekolog Med** 1999;33(2):22–6 (Eng. Abstr.) **(Rus)**

[Effect of ionospheric parameters on the respiratory and cardiac system, function of the brain and higher nervous system activity in healthy people] Lushnov MS, et al. **Biofizika** 1998 Sep–Oct;43(5):840–3 (Eng. Abstr.) **(Rus)**

[Sensitivity of the respiratory system to lung mechanoreceptor impulses during GABAergic system activation] Tarakanov IA, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):265–9 **(Rus)**

[Reaction of the system of hemostasis to additional respiratory resistance] Bialovskiĭ Iulu, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):40–3 **(Rus)**

[Pulmonary ventilation and gas exchange in breathing air of different temperatures] Grishin OV, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):44–7 **(Rus)**

[Physiologic effects of voluntary breath control in twins] Malkin VB, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):21–5 **(Rus)**

[The Gaba-ergic system and its importance for regulating respiration] Tarakanov IA, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):116–28 (159 ref.) **(Rus)**

[The effect of different types of weather on the external respiratory indices of young healthy subjects] Vadziuk SN, et al. **Fiziol Cheloveka** 1998 Nov–Dec;24(6):76–9 **(Rus)**

[The assessment of functional reserves in adolescents during loading] Bosenko AI, et al. **Gig Sanit** 1999 May–Jun; (3):51–2 **(Rus)**

[Functional homology in response of human cardiorespiratory system to effects of hypoxia and hypercapnia under different environmental conditions] Elfimov AI, et al. **Med Tr Prom Ekol** 1999;(1):28–36 (Eng. Abstr.) **(Rus)**

[Effect of mediodorsal thalamic nucleus on the respiratory neurons from medulla oblongata and the rat respiration during hypoxia] Akopian NS, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Feb;85(2):283–9 (Eng. Abstr.) **(Rus)**

[The protective reaction of external respiratory system to the long-term action of ecological factors] Shishkin GS, et al. **Vestn Ross Akad Med Nauk** 1998;(9):45–8 (Eng. Abstr.) **(Rus)**

[The effect of physical loading on the cardiorespiratory system indices of young schoolchildren] Lafauri IA, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Sep–Oct;(5):47–8 **(Rus)**

[Bicentennial of the death of Lazzaro Spallanzani, pioneer of cardiovascular and respiratory physiology] de Micheli A. **Arch Inst Cardiol Mex** 1999 Mar–Apr;69(2):109–12 **(Spa)**

DRUG EFFECTS

Developmental modulation of mouse hypoglossal nerve inspiratory output in vitro by noradrenergic receptor agonists. Selvaratnam SR, et al. **Brain Res** 1998 Sep 14; 805(1–2):104–15

A single very early dexamethasone dose improves respiratory and cardiovascular adaptation in preterm infants. Kopelman AE, et al. **J Pediatr** 1999 Sep;135(3):345–50

The effects of preperitoneal carbon dioxide insufflation on cardiopulmonary function in pigs. Blaney MW, et al. **JSLS** 1999 Jan–Mar;3(1):49–55

Respiratory depression after intravenous administration of delta-selective opioid peptide analogs. Szeto HH, et al. **Peptides** 1999;20(1):101–5

Regionally different influence of contractile agonists on isolated rat airway segments. Van de Voorde J, et al. **Respir Physiol** 1998 May;112(2):185–94

[Sensitivity of the respiratory center to carbon dioxide during prolonged exposure of humans to gas environment with unchanging level of hypercapnia] Bragin LKh, et al. **Aviakosm Ekolog Med** 1999;33(2):19–21 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

[The effect of normobaric hypoxia on the indices of the cardiorespiratory and immune systems in the inhabitants of radiation-contaminated regions] Mel'nyk TO, et al. **Fiziol Zh** 1999;45(1–2):104–13 (Eng. Abstr.) **(Ukr)**

RESPIRATORY PROTECTIVE DEVICES

An evaluation of an air-supplied blouse and an air hood. Poirier L. **Am Ind Hyg Assoc J** 1999 Jan–Feb;60(1):116–9

Prediction of respiratory distress during maximal physical exercise: the role of trait anxiety. Wilson JR, et al. **Am Ind Hyg Assoc J** 1999 Jul–Aug;60(4):512–7

Respiratory protective devices: rates of medical clearance and causes for work restrictions. Pappas GP, et al. **Am J Ind Med** 1999 Apr;35(4):390–4

Medical clearance for respirator use: sensitivity and specificity of a questionnaire. Pappas GP, et al. **Am J Ind Med** 1999 Apr;35(4):395–400

A valuable service [letter] Coles GV. **Appl Occup Environ Hyg** 1999 May;14(5):267–8

A description of factors affecting hazardous waste workers' use of respiratory protective equipment. Salazar MK, et al. **Appl Occup Environ Hyg** 1999 Jul;14(7):470–8

Do fire-fighters develop specific ventilatory responses in order to cope with exercise whilst wearing self-contained breathing apparatus? Donovan KJ, et al. **Eur J Appl Physiol** 1999 Jul;80(2):107–12

Protective effect of respiratory devices in farmers with occupational asthma. Müller-Wening D, et al. **Eur Respir J** 1998 Sep;12(3):569–72

The relative efficacy of respirators and room ventilation in preventing occupational tuberculosis. Fennelly KP, et al. **Infect Control Hosp Epidemiol** 1998 Oct;19(10):754–9

Selecting respirators for control of worker exposure to infectious aerosols. McCullough NV, et al. **Infect Control Hosp Epidemiol** 1999 Feb;20(2):136–44

The role of masks in preventing nosocomial transmission of tuberculosis. Fennelly KP. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S103–9

Laboratory performance evaluation of N95 filtering facepiece respirators, 1996. **MMWR Morb Mortal Wkly Rep** 1998 Dec 11;47(48):1045–9

Fit-testing for firefighters. Brickman CP Jr. **Occup Health Saf** 1999 Jan;68(1):56–8

The impact of wear time. Colton CE. **Occup Health Saf** 1998 Nov;67(11):26–30, 32–3

Medical fitness. Ellis T. **Occup Health Saf** 1999 May; 68(5):101–2

Respirator fit testing. Parker J, et al. **Occup Health Saf** 1999 May;68(5):92–6, 98–100

The development and use of respirator response functions as part of a workplace exposure monitoring program for control of potential respiratory hazards. Maxim LD, et al. **Regul Toxicol Pharmacol** 1998 Apr;27(2):131–49

Powered dust respirator helmets in the prevention of occupational asthma among farmers. Taivainen AI, et al. **Scand J Work Environ Health** 1998 Dec;24(6):503–7

ADVERSE EFFECTS

Cognitive performance and mood during respirator wear and exercise. Caretti DM. **Am Ind Hyg Assoc J** 1999 Mar–Apr; 60(2):213–8

Contact urticaria to the MCU-2A/P gas mask. Elmer KB, et al. **Mil Med** 1999 May;164(5):377–8

ECONOMICS

The costs of healthcare worker respiratory protection and fit-testing programs [see comments] Kellerman SE, et al. **Infect Control Hosp Epidemiol** 1998 Sep;19(9):629–34. Comment in: Infect Control Hosp Epidemiol 1998 Sep;19(9):626–8.

STANDARDS

Comparison of six respirator fit-test methods with an actual measurement of exposure in a simulated health care environment: Part I--Protocol development. Coffey CC, et al. **Am Ind Hyg Assoc J** 1998 Dec;59(12):852–61

Comparison of six respirator fit-test methods with an actual measurement of exposure in a simulated health care environment: Part II--Method comparison testing. Coffey CC, et al. **Am Ind Hyg Assoc J** 1998 Dec;59(12):862–70

Comparison of six respirator fit-test methods with an actual measurement of exposure in a simulated health care environment: Part III--Validation. Coffey CC, et al. **Am Ind Hyg Assoc J** 1999 May–Jun;60(3):363–6

Effect of respirator inspiratory resistance level on constant load treadmill work performance. Johnson AT, et al. **Am Ind Hyg Assoc J** 1999 Jul–Aug;60(4):474–9

Field performance measurements of half-facepiece respirators: steel mill operations. Myers WR, et al. **Am Ind Hyg Assoc J** 1998 Nov;59(11):789–95

Field performance measurements of half-facepiece respirators: developing probability estimates to evaluate the adequacy of an APF of 10. Myers WR, et al. **Am Ind Hyg Assoc J** 1998 Nov;59(11):796–801 (19 ref.)

Issues for variability [letter] Nicas M. **Am Ind Hyg Assoc J** 1999 Jul–Aug;60(4):428–31

The effects of strapped spectacles on the fit factors of three manufactured brands of full facepiece negative pressure respirators. Spear TM, et al. **Ann Occup Hyg** 1999 Apr; 43(3):193–9

Respiratory protection on offshore drilling rigs. Mattorano DA, et al. **Appl Occup Environ Hyg** 1999 Mar;14(3):141–8

Measurements of oxygen concentration of air within totally encapsulating chemical-protective suits. Veasey DA, et al. **Appl Occup Environ Hyg** 1999 Jul;14(7):442–7

Particle retention efficiency of filters in respiratory devices [letter; comment] Ball P. **Intensive Care Med** 1998 Sep; 24(9):989–90. Comment on: Intensive Care Med 1998 Jan;24(1):81–5.

Near-field speech intelligibility in chemical-biological warfare masks. Bishop J, et al. **Mil Med** 1999 Aug; 164(8):543–50

STATISTICS & NUMERICAL DATA

Compliance with OSHA's respiratory protection standard in hospitals. Krishnan U, et al. **Am Ind Hyg Assoc J** 1999 Mar–Apr;60(2):228–36

UTILIZATION

Decision model for optimizing respirator protection. Harber P, et al. **J Occup Environ Med** 1999 May;41(5):356–65 (55 ref.)

RESPIRATORY SOUNDS

Exhaled nitric oxide concentrations during treatment of wheezing exacerbation in infants and young children. Baraldi E, et al. **Am J Respir Crit Care Med** 1999 Apr; 159(4 Pt 1):1284–8

Pulmonary auscultatory skills during training in internal medicine and family practice. Mangione S, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1119–24

Cough, wheeze and sleep [letter; comment] Davies MJ, et al. **Arch Dis Child** 1998 Nov;79(5):465. Comment on: Arch Dis Child 1998 Jan;78(1):20–5.

A wavelet-based reduction of heart sound noise from lung sounds. Hadjileontiadis LJ, et al. **Int J Med Inf** 1998 Oct–Dec;52(1–3):183–90

Stridor in a 6-week-old infant caused by right aortic arch with aberrant left subclavian artery. McDougle L. **J Am Board Fam Pract** 1999 May–Jun;12(3):219–24

Inequality in infant morbidity: causes and consequences in England in the 1990s. ALSPAC Study Team. Avon Longitudinal Study of Pregnancy and Childhood. Baker D, et al. **J Epidemiol Community Health** 1998 Jul; 52(7):451–8

Neonatal stridor in association with herpes simplex infection of the larynx. Sharp HR, et al. **J Laryngol Otol** 1998 Dec; 112(12):1192–3 (7 ref.)

All that wheezes isn't asthma: why primary care physicians don't use the guidelines for the diagnosis and treatment of asthma. Fine M. **Med Health R I** 1999 Jul;82(7):240

Reflux in infants with laryngomalacia: results of 24-hour double-probe pH monitoring. Matthews BL, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):860–4

Recurrent ENT problems and wheezing in infants. Dutau G, et al. **Pediatr Allergy Immunol** 1998;9(11 Suppl):18–22 (59 ref.)

Criteria for deciding when to obtain chest radiographs in first time wheezers [letter; comment] Gershel J. **Pediatr Emerg Care** 1998 Dec;14(6):452. Comment on: Pediatr Emerg Care 1998 Jun;14(3):181–4.

Forced expiratory wheezes in a patient with dynamic expiratory narrowing of central airways and an oscillating pattern of the flow-volume curve. Bauer TT, et al. **Respiration** 1999;66(2):163–6

Wheezing Lung Sounds Analysis with adaptive local trigonometric transform. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):41–51

Real time analysis of lung sounds. Sun X, et al. **Technol Health Care** 1998 Jun;6(1):3–10

[Clinical epidemiological study of lower respiratory tract illness with wheezing in children under 2 years of age and its risk factors] Alba Moreno F, et al. **An Esp Pediatr** 1999 Apr;50(4):379–83 (Eng. Abstr.) **(Spa)**

[Caution for the Respiration Guard! (letter)] Lagercrantz H. **Lakartidningen** 1999 Jul 28;96(30–31):3318 **(Swe)**

CLASSIFICATION

Classification of respiratory sounds based on wavelet packet decomposition and learning vector quantization. Pesu L, et al. **Technol Health Care** 1998 Jun;6(1):65–74

DIAGNOSIS

Characteristics and diagnostic significance of spontaneous wheezing in children with asthma: results of continuous in vivo sound recording. Rietveld S, et al. **J Asthma** 1999 Jun;36(4):351–8

Pulse oximetry in the evaluation of the severity of acute asthma and/or wheezing in children. Solé D, et al. **J Asthma** 1999 Jun;36(4):327–33

Wheezing in school children is not always asthma. Nystad W, et al. **Pediatr Allergy Immunol** 1999 Feb;10(1):58–65

Relation between pulse oximetry and clinical score in children with acute wheezing less than 24 months of age. Pavón D, et al. **Pediatr Pulmonol** 1999 Jun;27(6):423–7

Detection of nocturnal wheezing in bronchial asthma using intermittent sleep tracheal sounds recording. Kiyokawa H, et al. **Respirology** 1999 Mar;4(1):37–45

[Dyspnea or stridor? (letter; comment)] Illum P. **Ugeskr Laeger** 1999 Mar 22;161(12):1781–2. Comment on: Ugeskr Laeger 1999 Jan 18;161(3):244–8. **(Dan)**

[Stridor in a female patient who underwent pneumonectomy. A postpneumonectomy syndrome] Jiménez Castro D, et al. **Rev Clin Esp** 1999 May;199(5):323–4 (8 ref.) **(Spa)**

DRUG EFFECTS

Airway and tissue resistance in wheezy infants: effects of albuterol. Jackson AC, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):557–63

Randomised controlled trial of budesonide for the prevention of post-bronchiolitis wheezing. Fox GF, et al. **Arch Dis Child** 1999 Apr;80(4):343–7

Analysis of tracheal sounds during forced exhalation in asthma patients and normal subjects: bronchodilator response effect. Fiz JA, et al. **Chest** 1999 Sep;116(3):633–8

Efficacy of bronchodilators administered by nebulizers versus spacer devices in infants with acute wheezing. Closa RM, et al. **Pediatr Pulmonol** 1998 Nov;26(5):344–8

A new application for superior laryngeal nerve block: treatment or prevention of laryngospasm and stridor [letter] Monsó A, et al. **Reg Anesth Pain Med** 1999 Mar–Apr; 24(2):186–7

ETIOLOGY

Predictors of repeated wheeze in the first year of life: the relative roles of cockroach, birth weight, acute lower respiratory illness, and maternal smoking. Gold DR, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):227–36

Rhinovirus and respiratory syncytial virus in wheezing children requiring emergency care. IgE and eosinophil analyses. Rakes GP, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):785–90

A patient with persistent wheezing, sinusitis, elevated IgE, and eosinophilia [clinical conference] Robinson J, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):144–9

Factors predisposing infants to lower respiratory infection with wheezing in the first two years of life. Yau KI, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):165–70

Respiratory symptoms and duration of residence in immigrant teenagers living in Melbourne, Australia. Powell CV, et al. **Arch Dis Child** 1999 Aug;81(2):159–62

Pertussis vaccination and wheezing illnesses in young children: prospective cohort study. The Longitudinal Study of Pregnancy and Childhood Team. Henderson J, et al. **BMJ** 1999 May 1;318(7192):1173–6

A 27-year-old woman with cough, dyspnea, and wheezing. Farrell M, et al. **Chest** 1999 Aug;116(2):557–9

Esophageal foreign body presenting with stridor: report of one case. Tan PT, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 May–Jun;40(3):195–6

Chest radiographs in the pediatric emergency department for children < or = 18 months of age with wheezing. Mahabee-Gittens EM, et al. **Clin Pediatr (Phila)** 1999 Jul; 38(7):395–9

High-frequency respiratory input impedance measurements in infants assessed by the high speed interrupter technique. Frey U, et al. **Eur Respir J** 1998 Jul;12(1):148–58

Psychogenic stridor: a cause of acute upper airway obstruction. Carbone J, et al. **J Am Osteopath Assoc** 1999 Apr;99(4):209–10

Home dampness and molds as determinants of respiratory symptoms and asthma in pre-school children. Jaakkola JJ, et al. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:129–42

Goitre presenting as an oropharyngeal mass: an unusual finding in the elderly. Berenholz LP, et al. **J Laryngol Otol** 1999 Feb;113(2):170–1 (6 ref.)

Invasive laryngeal candidiasis: a cause of stridor in the previously irradiated patient. Ganesan S, et al. **J Laryngol Otol** 1998 Jun;112(6):575–8

An unusual case of stridor due to osteophytes of the cervical spine: (Forestier's disease). Papakostas K, et al. **J Laryngol Otol** 1999 Jan;113(1):65–7 (15 ref.)

Primary tuberculous tracheitis. Tong FM, et al. **J Laryngol Otol** 1998 Jun;112(6):579–80

Immunologic mechanisms of virus-induced wheezing and asthma. Welliver RC. **J Pediatr** 1999 Aug;135(2 Pt 2):14–20 (41 ref.)

Stridor due to laryngeal haematoma. Roblin G, et al. **J R Soc Med** 1998 Nov;91(11):593

Investigation and treatment of chronic stridor in infancy. Landau LI. **Monaldi Arch Chest Dis** 1999 Feb;54(1):18–21 (10 ref.)

The importance of diagnosis of allergy in early wheezing. Trindade JC. **Pediatr Allergy Immunol** 1998;9(11 Suppl):23–9 (50 ref.)

Resident's column: all that wheezes.... The challenges of a common pediatric disease. Halterman JS. **Pediatr Ann** 1999 Jan;28(1):84–5

Risk factors in wheezing infants. Karaman O, et al. **Pediatr Int** 1999 Apr;41(2):147–50

One-year follow-up of young children hospitalized for wheezing: the influence of early anti-inflammatory therapy and risk factors for subsequent wheezing and asthma. Reijonen TM, et al. **Pediatr Pulmonol** 1998 Aug;26(2):113–9

Lung function in infants with wheezing and gastroesophageal reflux [see comments] Sheikh S, et al. **Pediatr Pulmonol** 1999 Apr;27(4):236–41. Comment in: Pediatr Pulmonol 1999 Apr;27(4):229–30.

Gastroesophageal reflux in infants with wheezing. Sheikh S, et al. **Pediatr Pulmonol** 1999 Sep;28(3):181–6

Pleomorphic adenoma and severe tracheal obstruction. Pomp J, et al. **Respir Med** 1998 Jun;92(6):889–91

Diagnostic red herring in an infant with stridor. Chen YT, et al. **Singapore Med J** 1998 Oct;39(10):471–2

Repeatability of lung function tests during methacholine challenge in wheezy infants. Delacourt C, et al. **Thorax** 1998 Nov;53(11):933–8

[Stridor caused by laryngeal rheumatoid arthritis] Clement F. **Ugeskr Laeger** 1999 Mar 29;161(13):1931–2 (Eng. Abstr.) **(Dan)**

[Parental smoking, asthma and wheezing in children and adolescents. Results of S.I.D.R.I.A. Collaborative Group S.I.D.R.I.A (Italian Studies on Respiratory Disorders in Childhood and the Environment)] **Epidemiol Prev** 1998 Jul–Sep;22(3):146–54 (Eng. Abstr.) **(Ita)**

[Forestier's disease. Ear, nose and throat manifestations] Salazar C, et al. **Acta Otorrinolaringol Esp** 1999 May; 50(4):327–31 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Immunoglobulin G subclasses in wheezing infants. Karaman O, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):564–6

Association between Der p 1 concentration and peak expiratory flow rate in children with wheeze: a longitudinal analysis. Jalaludin B, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):382–6

Differential immune responses to acute lower respiratory illness in early life and subsequent development of persistent wheezing and asthma. Martinez FD, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):915–20

Increased production of IFN-gamma and cysteinyl leukotrienes in virus-induced wheezing. van Schaik SM, et al. **J Allergy Clin Immunol** 1999 Apr;103(4):630–6

Immunologic mechanisms of virus-induced wheezing and asthma. Welliver RC. **J Pediatr** 1999 Aug;135(2 Pt 2):14–20 (41 ref.)

PHYSIOLOGY

Asthma, wheezy bronchitis, and atopy across two generations. Christie GL, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):125–9

Bronchoalveolar cell profiles in children with asthma, infantile wheeze, chronic cough, or cystic fibrosis. Marguet C, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1533–40

Of shadows and wind. Callahan CW. **Pediatr Pulmonol** 1998 Aug;26(2):145–6 (4 ref.)

Inverse filtering applied to upper airway sounds. Plante F, et al. **Technol Health Care** 1998 Jun;6(1):23–32

A new versatile PC-based lung sound analyzer with automatic crackle analysis (HeLSA); repeatability of spectral parameters and sound amplitude in healthy subjects. Sovijärvi AR, et al. **Technol Health Care** 1998 Jun;6(1):11–22

Estimation of analogue pre-filtering characteristics for CORSA standardisation. Sun XQ, et al. **Technol Health Care** 1998 Nov;6(4):275–83

PHYSIOPATHOLOGY

Impaired airway function and wheezing in infancy: the influence of maternal smoking and a genetic predisposition to asthma. Dezateux C, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):403–10

Measurements of exhaled nitric oxide with the single-breath technique and positive expiratory pressure in infants. Wildhaber JH, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):74–8

Dyspnea with 'wheezing' in a 75-year-old female [clinical conference] [see comments] Volcheck GW, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):309–14. Comment in: Ann Allergy Asthma Immunol 1998 Oct;81(4):275.

Comparison of lung function in infants exposed to maternal smoking and in infants with a family history of asthma. Sheikh S, et al. **Chest** 1999 Jul;116(1):52–8

Differences in airway wall compliance as a possible mechanism for wheezing disorders in infants. Frey U, et al. **Eur Respir J** 1998 Jul;12(1):136–42

Association between Der p 1 concentration and peak expiratory flow rate in children with wheeze: a longitudinal analysis. Jalaludin B, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):382–6

Agreement between spirometry and tracheal auscultation in assessing bronchial responsiveness in asthmatic children. Sprikkelman AB, et al. **Respir Med** 1999 Feb;93(2):102–7

Improving pulmonary auscultation as a tool in the diagnosis of bronchial obstruction--results of an educational intervention. Melbye H, et al. **Scand J Prim Health Care** 1998 Sep;16(3):160–4

Time-scale segmentation of respiratory sounds. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):53–63

Classification of respiratory sounds based on wavelet packet decomposition and learning vector quantization. Pesu L, et al. **Technol Health Care** 1998 Jun;6(1):65–74

Placing crackles on the flow-volume plane: a study of the relationship between the time position, the flow and the volume. Rossi M, et al. **Technol Health Care** 1998 Jun; 6(1):91–7

Distribution of crackles on the flow-volume plane in different pulmonary diseases. Vanderschoot J, et al. **Technol Health Care** 1998 Jun;6(1):81–9

A new method to detect crackles in respiratory sounds. Vannuccini L, et al. **Technol Health Care** 1998 Jun; 6(1):75–9

A new method for automatic wheeze detection. Waris M, et al. **Technol Health Care** 1998 Jun;6(1):33–40

VETERINARY

Paranasal sinus cyst as a cause of stridor in a standardbred colt. Gilroy BJ, et al. **Can Vet J** 1999 Jan;40(1):49–51

What is your diagnosis? Mass in the left nasal passage with evidence of mineralization. Lopez MJ, et al. **J Am Vet Med Assoc** 1999 Apr 1;214(7):1005–6

Anesthesia case of the month. Laryngeal stridor in a horse caused by an epiglottic cyst. Wilson DV, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):629–31

RESPIRATORY STIMULANTS see **RESPIRATORY SYSTEM AGENTS**

RESPIRATORY SYNCYTIAL VIRUS, BOVINE

Synergistic effects of concurrent challenge with bovine respiratory syncytial virus and 3-methylindole in calves. Bingham HR, et al. **Am J Vet Res** 1999 May;60(5):563–70

Phenotypic analysis of local cellular responses in calves infected with bovine respiratory syncytial virus. Mcinnes E, et al. **Immunology** 1999 Mar;96(3):396–403

Interferon gamma production during bovine respiratory syncytial virus (BRSV) infection is diminished in calves vaccinated with formalin-inactivated BRSV. Woolums AR, et al. **Vaccine** 1999 Mar 17;17(11–12):1293–7

CLASSIFICATION

Serological and genetic characterisation of bovine respiratory syncytial virus (BRSV) indicates that Danish isolates belong to the intermediate subgroup: no evidence of a selective effect on the variability of G protein nucleotide sequence by prior cell culture adaption and passages in cell culture or calves. Larsen LE, et al. **Vet Microbiol** 1998 Aug 15;62(4):265–79

GENETICS

Genetic and antigenic analysis of the G attachment protein of bovine respiratory syncytial virus strains. Elvander M, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2939–46

Generation of bovine respiratory syncytial virus (BRSV) from cDNA: BRSV NS2 is not essential for virus replication in tissue culture, and the human RSV leader region acts as a functional BRSV genome promoter. Buchholz UJ, et al. **J Virol** 1999 Jan;73(1):251–9

Genetic analysis of the G and P genes in ungulate respiratory syncytial viruses by RNase A mismatch cleavage method. Cristina J, et al. **Vet Microbiol** 1998 Jul;62(3):185–92

Serological and genetic characterisation of bovine respiratory syncytial virus (BRSV) indicates that Danish isolates belong to the intermediate subgroup: no evidence of a selective effect on the variability of G protein nucleotide sequence by prior cell culture adaption and passages in cell culture or calves. Larsen LE, et al. **Vet Microbiol** 1998 Aug 15;62(4):265–79

A bovine respiratory syncytial virus strain with mutations in subgroup-specific antigenic domains of the G protein induces partial heterologous protection in cattle. Schrijver RS, et al. **Vet Microbiol** 1998 Oct;63(2–4):159–75

IMMUNOLOGY

Contribution of advances in immunology to vaccine development. Morrison WI, et al. **Adv Vet Med** 1999; 41:181–95 (44 ref.)

The effects of bovine respiratory syncytial on normal ovine lymphocyte responses to mitogens or antigens in vitro. Keles I, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jan;22(1):1–13

Genetic and antigenic analysis of the G attachment protein of bovine respiratory syncytial virus strains. Elvander M, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2939–46

Evaluation of an IgM-specific indirect enzyme-linked immunosorbent assay for serodiagnosis of bovine respiratory syncytial virus infection: influence of IgM rheumatoid factor on test results with field sera. Graham DA, et al. **J Vet Diagn Invest** 1998 Oct;10(4):331–7

Complete protection of mice from respiratory syncytial virus infection following mucosal delivery of synthetic peptide vaccines. Bastien N, et al. **Vaccine** 1999 Feb 26; 17(7–8):832–6

The effect of formalin-inactivated vaccine on respiratory

disease associated with bovine respiratory syncytial virus infection in calves. West K, et al. **Vaccine** 1999 Feb 26; 17(7–8):809–20

Airborne transmission of BHV1, BRSV, and BVDV among cattle is possible under experimental conditions. Mars MH, et al. **Vet Microbiol** 1999 Apr 19;66(3):197–207

A bovine respiratory syncytial virus strain with mutations in subgroup-specific antigenic domains of the G protein induces partial heterologous protection in cattle. Schrijver RS, et al. **Vet Microbiol** 1998 Oct;63(2–4):159–75

Influence of concurrent BVDV infection on the IgM response of calves experimentally infected with bovine respiratory syncytial virus. Graham DA, et al. **Vet Rec** 1998 Aug 15;143(7):198–9

[Immunobiology of bovine respiratory syncytial virus infections] Schrijver RS. **Tijdschr Diergeneeskd** 1998 Nov 15;123(22):658–62 (29 ref.) (Eng. Abstr.) **(Dut)**

ISOLATION & PURIFICATION

An experimental study of a concurrent primary infection with bovine respiratory syncytial virus (BRSV) and bovine viral diarrhoea virus (BVDV) in calves. Elvander M, et al. **Acta Vet Scand** 1998;39(2):251–64

A comparison of diagnostic methods for the detection of bovine respiratory syncytial virus in experimental clinical specimens. West K, et al. **Can J Vet Res** 1998 Oct; 62(4):245–50

Evaluation of a nested reverse transcription–PCR assay based on the nucleoprotein gene for diagnosis of spontaneous and experimental bovine respiratory syncytial virus infections. Valarcher JF, et al. **J Clin Microbiol** 1999 Jun; 37(6):1858–62

PATHOGENICITY

Evaluation of severe disease induced by aerosol inoculation of calves with bovine respiratory syncytial virus. Woolums AR, et al. **Am J Vet Res** 1999 Apr;60(4):473–80

Synergistic effects of bovine respiratory syncytial virus and non-cytopathic bovine viral diarrhea virus infection on selected bovine alveolar macrophage functions. Liu L, et al. **Can J Vet Res** 1999 Jan;63(1):41–8

RESPIRATORY SYNCYTIAL VIRUS, HUMAN

Shedding of L-selectin and PECAM-1 and upregulation of Mac-1 and ICAM-1 on neutrophils in RSV bronchiolitis. Wang SZ, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L983–9

The apoptosis of neutrophils is accelerated in respiratory syncytial virus (RSV)-induced bronchiolitis. Wang SZ, et al. **Clin Exp Immunol** 1998 Oct;114(1):49–54

The effect of fluticasone propionate on respiratory syncytial virus-induced chemokine release by a human bronchial epithelial cell line. Noah TL, et al. **Immunopharmacology** 1998 Jun;39(3):193–9

Fimbria-mediated enhanced attachment of nontypeable Haemophilus influenzae to respiratory syncytial virus-infected respiratory epithelial cells. Jiang Z, et al. **Infect Immun** 1999 Jan;67(1):187–92

Intravenous ribavirin for infant bronchiolitis. Oommen A, et al. **J R Soc Med** 1999 Feb;92(2):81–2

Virological and pathomorphological aspects in experimental infections with some triassociated pneumotropic viruses in the white mouse. Petica M, et al. **Rom J Virol** 1997 Jan–Dec;48(1–4):27–42

[Vaccines against respiratory syncytial virus] Freymuth F, et al. **Arch Pediatr** 1999;6 Suppl 3:650s–654s (26 ref.) **(Fre)**

[Coincidental outbreaks of rotavirus and respiratory syncytial virus in Paris: a survey from 1993 to 1998] Gendrel D, et al. **Arch Pediatr** 1999 Jul;6(7):735–9 (Eng. Abstr.) **(Fre)**

[Severity of respiratory syncytial virus infection influenced by clinical risk factors and subtype A and B in hospitalized children] Bergsträsser E, et al. **Klin Padiatr** 1998 Nov–Dec; 210(6):418–21 (Eng. Abstr.) **(Ger)**

[Respiratory syncytial virus infection in childhood] Hammer J. **Schweiz Med Wochenschr** 1998 Sep 12;128(37):1366–74 (68 ref.) (Eng. Abstr.) **(Ger)**

CLASSIFICATION

[Subtypes of respiratory syncytial viruses] Lukić-Grlić A, et al. **Lijec Vjesn** 1999 Apr–May;121(4–5):144–7 (Eng. Abstr.) **(Scr)**

[Subgroups classification of strains of the respiratory syncytial virus isolated in an outbreak in Ciudad de La Havana] Chacón D, et al. **Rev Cubana Med Trop** 1996; 48(2):136–7 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Phenylephrine hydrochloride nose drops in adjunctive treatment of respiratory syncytial virus infection [letter] Campbell LA, et al. **Clin Pediatr (Phila)** 1999 Mar;38(3):188

Antiviral activity in Argentine medicinal plants. Kott V, et al. **J Ethnopharmacol** 1999 Jan;64(1):79–84

ENZYMOLOGY

Evolution of antiviral activity in the ribonuclease A gene superfamily: evidence for a specific interaction between eosinophil-derived neurotoxin (EDN/RNase 2) and respiratory syncytial virus. Domachowske JB, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5327–32

GENETICS

Molecular epidemiology of respiratory syncytial virus in The Gambia. Cane PA, et al. **Epidemiol Infect** 1999 Feb; 122(1):155–60

Genetic variability among group A and group B respiratory syncytial viruses in a children's hospital. Coggins WB, et al. **J Clin Microbiol** 1998 Dec;36(12):3552–7

Pathogenesis of pneumovirus infections in mice: detection of pneumonia virus of mice and human respiratory syncytial virus mRNA in lungs of infected mice by in situ hybridization. Cook PM, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2411–7

Evolutionary pattern of the G glycoprotein of human respiratory syncytial viruses from antigenic group B: the use of alternative termination codons and lineage diversification. Martinez I, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):125–30

Antigenic and genetic diversity among the attachment proteins of group A respiratory syncytial viruses that have caused repeat infections in children. Sullender WM, et al. **J Infect Dis** 1998 Oct;178(4):925–32

Generation of bovine respiratory syncytial virus (BRSV) from cDNA: BRSV NS2 is not essential for virus replication in tissue culture, and the human RSV leader region acts as a functional BRSV genome promoter. Buchholz UJ, et al. **J Virol** 1999 Jan;73(1):251–9

Model for polymerase access to the overlapped L gene of respiratory syncytial virus. Fearns R, et al. **J Virol** 1999 Jan;73(1):388–97

Role of the M2-1 transcription antitermination protein of respiratory syncytial virus in sequential transcription. Fearns R, et al. **J Virol** 1999 Jul;73(7):5852–64

The M2-2 protein of human respiratory syncytial virus is a regulatory factor involved in the balance between RNA replication and transcription. Bermingham A, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11259–64

Support plasmids and support proteins required for recovery of recombinant respiratory syncytial virus. Collins PL, et al. **Virology** 1999 Jul 5;259(2):251–5

Recombinant human respiratory syncytial virus (RSV) from cDNA and construction of subgroup A and B chimeric RSV. Jin H, et al. **Virology** 1998 Nov 10;251(1):206–14

GROWTH & DEVELOPMENT

Overnight titration of human respiratory syncytial virus using quantitative shell vial amplification. Domachowske JB, et al. **Biotechniques** 1998 Oct;25(4):644, 647

Altered growth characteristics of recombinant respiratory syncytial viruses which do not produce NS2 protein. Teng MN, et al. **J Virol** 1999 Jan;73(1):466–73

IMMUNOLOGY

Impact of respiratory syncytial virus immune globulin in 1996–1997: a local controlled comparison. Redding GJ, et al. **Arch Pediatr Adolesc Med** 1999 May;153(5):503–7

Respiratory syncytial virus infection: immune response, immunopathogenesis, and treatment. Domachowske JB, et al. **Clin Microbiol Rev** 1999 Apr;12(2):298–309 (194 ref.)

An in vitro selected binding protein (affibody) shows conformation-dependent recognition of the respiratory syncytial virus (RSV) G protein. Hansson M, et al. **Immunotechnology** 1999 Mar;4(3–4):237–52

Respiratory syncytial virus stimulates neutrophil degranulation and chemokine release. Jaovisidha P, et al. **J Immunol** 1999 Sep 1;163(5):2816–20

CD8 T cells are essential in the development of respiratory syncytial virus-induced lung eosinophilia and airway hyperresponsiveness. Schwarze J, et al. **J Immunol** 1999 Apr 1;162(7):4207–11

Vaccination with pertussis toxin alters the antibody response to simultaneous respiratory syncytial virus challenge. Fischer JE, et al. **J Infect Dis** 1999 Sep;180(3):714–9

Prophylaxis with respiratory syncytial virus F-specific humanized monoclonal antibody delays and moderately suppresses the native antibody response but does not impair immunity to late rechallenge. Fisher RG, et al. **J Infect Dis** 1999 Sep;180(3):708–13

Respiratory syncytial virus infection of human respiratory epithelial cells enhances inducible nitric oxide synthase gene expression. Tsutsumi H, et al. **J Leukoc Biol** 1999 Jul;66(1):99–104

Comparison of respiratory syncytial virus humoral immunity and response to infection in young and elderly adults. Falsey AR, et al. **J Med Virol** 1999 Oct;59(2):221–6

Identification of multiple protective epitopes (protectopes) in the central conserved domain of a prototype human respiratory syncytial virus G protein. Plotnicky-Gilquin H, et al. **J Virol** 1999 Jul;73(7):5637–45

Induction of Th-1 and Th-2 responses by respiratory syncytial virus attachment glycoprotein is epitope and major histocompatibility complex independent. Srikiatkhachorn A, et al. **J Virol** 1999 Aug;73(8):6590–7

Respiratory syncytial virus G and/or SH protein alters Th1 cytokines, natural killer cells, and neutrophils responding to pulmonary infection in BALB/c mice. Tripp RA, et al. **J Virol** 1999 Sep;73(9):7099–107

Addition of a missense mutation present in the L gene of respiratory syncytial virus (RSV) cpts530/1030 to RSV vaccine candidate cpts248/404 increases its attenuation and temperature sensitivity. Whitehead SS, et al. **J Virol** 1999 Feb;73(2):871–7

Two neutralizing human anti-RSV antibodies: cloning, expression, and characterization. Heard C, et al. **Mol Med** 1999 Jan;5(1):35–45

Prevention of respiratory syncytial virus (RSV) infection: RSV immune globulin intravenous and palivizumab. (American Academy of Pediatrics)] Canfield SD, et al. **Pediatr Ann** 1999 Aug;28(8):507–14

Complete protection of mice from respiratory syncytial virus infection following mucosal delivery of synthetic peptide vaccines. Bastien N, et al. **Vaccine** 1999 Feb 26; 17(7–8):832–6

A novel and effective intranasal immunization strategy for respiratory syncytial virus. Tebbey PW, et al. **Viral Immunol** 1999;12(1):41–5

Absence of lung immunopathology following respiratory syncytial virus (RSV) challenge in mice immunized with a recombinant RSV G protein fragment. Plotnicky-Gilquin H, et al. **Virology** 1999 May 25;258(1):128–40

[Anti-RS viral IgE in respiratory syncytial viral infection in adult patients with a complicated course of bronchitis] Krivitskaia VZ, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug; (4):56–61 (Eng. Abstr.) **(Rus)**

[The standardization of an ultramicro ELISA assay for the detection of IgG antibodies to the respiratory syncytial virus] Savón C, et al. **Rev Cubana Med Trop** 1996; 48(3):161–2 (Eng. Abstr.) **(Spa)**

ISOLATION & PURIFICATION

Respiratory viruses in children attending a major referral centre in Saudi Arabia. al-Hajjar S, et al. **Ann Trop Paediatr** 1998 Jun;18(2):87–92

Respiratory syncytial virus infection in children with acute respiratory infections in Zambia. Saijo M, et al. **Epidemiol Infect** 1998 Oct;121(2):397–400

Discrepancy between results of a commercial enzyme immunoassay kit and immunofluorescence staining for detection of respiratory syncytial virus antigen. Holter E, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):595–6

Detection of Bordetella pertussis and respiratory syncytial virus in air samples from hospital rooms. Aintablian N, et al. **Infect Control Hosp Epidemiol** 1998 Dec; 19(12):918–23

Recovery of respiratory syncytial virus from stethoscopes by conventional viral culture and polymerase chain reaction. Blydt-Hansen T, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):164–5

Support plasmids and support proteins required for recovery of recombinant respiratory syncytial virus. Collins PL, et al. **Virology** 1999 Jul 5;259(2):251–5

Detection and quantitation of human respiratory syncytial virus (RSV) using minigenome cDNA and a Sindbis virus replicon: a prototype assay for negative-strand RNA viruses. Olivo PD, et al. **Virology** 1998 Nov 10; 251(1):198–205

[Prevention and therapy of bronchiolitis: current status] León León MC, et al. **An Esp Pediatr** 1998 Nov;49(5):451–5 (46 ref.) **(Spa)**

METABOLISM

Identification of a linear heparin binding domain for human respiratory syncytial virus attachment glycoprotein G. Feldman SA, et al. **J Virol** 1999 Aug;73(8):6610–7

Incomplete regulation of NF-kappaB by IkappaBalpha during respiratory syncytial virus infection in A549 cells. Fiedler MA, et al. **J Virol** 1999 May;73(5):4502–7

Recombinant vesicular stomatitis virus expressing respiratory syncytial virus (RSV) glycoproteins: RSV fusion protein can mediate infection and cell fusion. Kahn JS, et al. **Virology** 1999 Feb 1;254(1):81–91

Characterization of the interaction of the human respiratory syncytial virus phosphoprotein and nucleocapsid protein using the two-hybrid system. Slack MS, et al. **Virus Res** 1998 Jun;55(2):167–76

PATHOGENICITY

Inactivation of respiratory syncytial virus by generic hand dishwashing detergents and antibacterial hand soaps. Contreras PA, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):57–8

Respiratory syncytial virus infection in young Malaysian children. Chan P, et al. **Singapore Med J** 1999 May; 40(5):336–40

PHYSIOLOGY

Infection with respiratory syncytial virus and water-soluble components of cigarette smoke alter production of tumour necrosis factor alpha and nitric oxide by human blood monocytes. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):387–94

RhoA interacts with the fusion glycoprotein of respiratory syncytial virus and facilitates virus-induced syncytium formation. Pastey MK, et al. **J Virol** 1999 Sep;73(9):7262–70

Interferon gamma expressed by a recombinant respiratory syncytial virus attenuates virus replication in mice without compromising immunogenicity. Bukreyev A, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2367–72

[A comparison of the NCI-H292 line with other continuous lines for the multiplication of respiratory viruses] Morier L, et al. **Rev Cubana Med Trop** 1996;48(3):171-3 (Eng. Abstr.) **(Spa)**

RESPIRATORY SYNCYTIAL VIRUS INFECTIONS

Respiratory syncytial virus: A continuing culprit and conundrum. Hall CB. **J Pediatr** 1999 Aug;135(2 Pt 2):2-7 (60 ref.)

Respiratory syncytial virus infection. Simoes EA. **Lancet** 1999 Sep 4;354(9181):847-52 (52 ref.)

Respiratory syncytial virus infection in older persons. Falsey AR. **Vaccine** 1998 Nov;16(18):1775-8 (38 ref.)

BLOOD

Peripheral blood cytokine responses and disease severity in respiratory syncytial virus bronchiolitis. Bont L, et al. **Eur Respir J** 1999 Jul;14(1):144-9

CLASSIFICATION

Severity of illness models for respiratory syncytial virus-associated hospitalization. Moler FW, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1234-40

COMPLICATIONS

Asthma and respiratory syncytial virus infection in infancy: is there a link? Wang SZ, et al. **Clin Exp Allergy** 1998 Aug; 28(8):927-35 (121 ref.)

RSV and the timing of surgery for congenital heart disease [editorial; comment] Boyer KM. **Crit Care Med** 1999 Sep; 27(9):2065-6. Comment on: Crit Care Med 1999 Sep;27(9):1974-81.

Impact of respiratory syncytial virus infection on surgery for congenital heart disease: postoperative course and outcome [see comments] Khongphatthanayothin A, et al. **Crit Care Med** 1999 Sep;27(9):1974-81. Comment in: Crit Care Med 1999 Sep;27(9):2065-6.

Effect of inhaled nitric oxide on respiratory mechanics in ventilated infants with RSV bronchiolitis. Patel NR, et al. **Intensive Care Med** 1999 Jan;25(1):81-7

Respiratory virus infections in immunocompromised patients [editorial] Muir D, et al. **J Med Microbiol** 1998 Jul; 47(7):561-2

The RSV-asthma link: the emerging story. Introduction. Eigen H. **J Pediatr** 1999 Aug;135(2 Pt 2):1

Respiratory syncytial virus immune globulin for prophylaxis against respiratory syncytial virus disease in infants and children with congenital heart disease. The Cardiac Study Group. Simoes EA, et al. **J Pediatr** 1998 Oct;133(4):492-9

What link between early respiratory viral infections and atopic asthma? [see comments] Everard ML. **Lancet** 1999 Aug 14;354(9178):527-8. Comment in: Lancet 1999 Aug 14;354(9178):541-5.

Respiratory syncytial virus in early life and risk of wheeze and allergy by age 13 years [see comments] Stein RT, et al. **Lancet** 1999 Aug 14;354(9178):541-5. Comment in: Lancet 1999 Aug 14;354(9178):527-8.

Isoproterenol continuous inhalation therapy in an infant with severe bronchiolitis lifesaving therapy. Sakamoto Y, et al. **Pediatr Int** 1999 Feb;41(1):94-6

High-frequency oscillatory ventilation in RSV bronchiolitis patients. Duval EL, et al. **Respir Med** 1999 Jun;93(6):435-40

Treatment of respiratory failure with inhaled nitric oxide and high- frequency ventilation in an infant with respiratory syncytial virus pneumonia and bronchopulmonary dysplasia. Hoehn T, et al. **Respiration** 1998;65(6):477-80

Surfactant replacement therapy in RSV-induced acute respiratory distress syndrome (ARDS). Goh AY, et al. **Singapore Med J** 1999 Feb;40(2):113-6

[Penicillin-resistant pneumococcal pneumonia (serotype p14), and coinfection with respiratory syncytial virus and Mycoplasma] Brémont F, et al. **Arch Pediatr** 1998;5 Suppl 1:33s-36s (Eng. Abstr.) **(Fre)**

DIAGNOSIS

Rhinovirus and respiratory syncytial virus in wheezing children requiring emergency care. IgE and eosinophil analyses. Rakes GP, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):785-90

Clinical impact of preoperative respiratory syncytial virus testing. Manworren RC, et al. **AORN J** 1999 May; 69(5):1003-6, 1008-13

Near patient testing for respiratory syncytial virus in paediatric accident and emergency: prospective pilot study. Mackenzie A, et al. **BMJ** 1999 Jul 31;319(7205):289-90

Surfactant administration in severe hypoxic respiratory failure due to respiratory syncytial virus [letter] Gebara BM, et al. **Clin Pediatr (Phila)** 1999 Apr;38(4):253-4

Parainfluenza virus and respiratory syncytial virus infection in infants undergoing bone marrow transplantation for severe combined immunodeficiency. Taylor CE, et al. **Commun Dis Public Health** 1998 Sep;1(3):202-3

A colorimetric microtiter plate PCR system detects respiratory syncytial virus in nasal aspirates and discriminates subtypes A and B. Tang YW, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):333-7

Detection of respiratory syncytial virus in samples frozen at -20 degrees C [letter] Yilmaz G, et al. **J Clin Microbiol** 1999 Jul;37(7):2390

Efficacy of Directigen RSV testing in patient management following admission from a paediatric emergency department. Lipson SM, et al. **J Hosp Infect** 1999 Apr; 41(4):323-9

Ventricular arrhythmia associated with respiratory syncytial viral infection. Huang M, et al. **Pediatr Cardiol** 1998 Nov-Dec;19(6):498-500

Enzyme-linked immunoassay for respiratory syncytial virus is not predictive of bronchiolitis in sudden infant death syndrome. Parham DM, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):375-9

Severity of respiratory syncytial virus disease related to type and genotype of virus and to cytokine values in nasopharyngeal secretions. Hornsleth A, et al. **Pediatr Infect Dis J** 1998 Dec;17(12):1114-21

Usefulness of bronchoalveolar lavage for diagnosis of acute and persistent respiratory syncytial virus lung infections in guinea pigs. Dakhama A, et al. **Pediatr Pulmonol** 1998 Dec;26(6):396-404

Sequential MRI, SPECT and PET in respiratory syncytial virus encephalitis. Hirayama K, et al. **Pediatr Radiol** 1999 Apr;29(4):282-6

[Central apnea in newborns] van Putten MJ, et al. **Ned Tijdschr Geneeskd** 1999 Feb 27;143(9):441-4 (17 ref.) (Eng. Abstr.) **(Dut)**

[Respiratory syncytial virus infection in childhood] Hammer J. **Schweiz Med Wochenschr** 1998 Sep 12;128(37):1366-74 (68 ref.) (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Ribavirin in ventilated respiratory syncytial virus bronchiolitis. A randomized, placebo-controlled trial. Guerguerian AM, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):829-34

Treatment of RSV pneumonia in adults--evidence of ribavirin effectiveness? Dominguez KD, et al. **Ann Pharmacother** 1999 Jun;33(6):739-41 (19 ref.)

Efficacy of RD3-0028 aerosol treatment against respiratory syncytial virus infection in immunosuppressed mice. Sudo K, et al. **Antimicrob Agents Chemother** 1999 Apr; 43(4):752-7

Mouse model of respiratory syncytial virus infection to evaluate antiviral activity in vivo. Sudo K, et al. **Antivir Chem Chemother** 1999 May;10(3):135-9

Prospective follow-up and pulmonary functions from a placebo-controlled randomized trial of ribavirin therapy in respiratory syncytial virus bronchiolitis. Ribavirin Study Group. Rodriguez WJ, et al. **Arch Pediatr Adolesc Med** 1999 May;153(5):469-74

Pre-emptive use of aerosolized ribavirin in the treatment of asymptomatic pediatric marrow transplant patients testing positive for RSV. Adams R, et al. **Bone Marrow Transplant** 1999 Sep;24(6):661-4

Phenylephrine hydrochloride nose drops in adjunctive treatment of respiratory syncytial virus infection [letter] Campbell LA, et al. **Clin Pediatr (Phila)** 1999 Mar;38(3):188

A direct comparison of the activities of two humanized respiratory syncytial virus monoclonal antibodies: MEDI-493 and RSHZ19. Johnson S, et al. **J Infect Dis** 1999 Jul;180(1):35-40

Intravenous ribavirin for infant bronchiolitis. Oommen A, et al. **J R Soc Med** 1999 Feb;92(2):81-2

[Effects of selenium supplement on acute lower respiratory tract infection caused by respiratory syncytial virus] Liu X, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Nov; 31(6):358-61 (Eng. Abstr.) **(Chi)**

[Respiratory syncytial virus infections and ribavirin: the controversy continues (editorial; comment)] Aujard Y. **Arch Pediatr** 1998 Feb;5(2):107-10 (24 ref.). Comment on: Arch Pediatr 1998 Feb;5(2):123-31. **(Fre)**

[Is the use of ribavirin aerosols in respiratory syncytial virus infections justified? Clinical and economic evaluation (see comments)] Ventura F, et al. **Arch Pediatr** 1998 Feb; 5(2):123-31 (Eng. Abstr.). Comment in: Arch Pediatr 1998 Feb;5(2):107-10. **(Fre)**

[The efficacy of oral vitamin A supplementation for measles and respiratory syncytial virus (RSV) infection] Kawasaki Y, et al. **Kansenshogaku Zasshi** 1999 Feb;73(2):104-9 (Eng. Abstr.) **(Jpn)**

ECONOMICS

Impact of palivizumab on expected costs of respiratory syncytial virus infection in preterm infants: potential for savings. Marchetti A, et al. **Clin Ther** 1999 Apr; 21(4):752-66

Cost-effectiveness of respiratory syncytial virus prophylaxis among preterm infants [see comments] Joffe S, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):419-27. Comment in: Pediatrics 1999 Sep;104(3 Pt 1):559-60.

ENZYMOLOGY

Respiratory syncytial virus infection of human respiratory epithelial cells enhances inducible nitric oxide synthase gene expression. Tsutsumi H, et al. **J Leukoc Biol** 1999 Jul;66(1):99-104

EPIDEMIOLOGY

Respiratory syncytial and other virus infections in persons with chronic cardiopulmonary disease. Walsh EE, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):791-5

Molecular epidemiology of respiratory syncytial virus in The Gambia. Cane PA, et al. **Epidemiol Infect** 1999 Feb; 122(1):155-60

Respiratory syncytial virus infection in children with acute respiratory infections in Zambia. Saijo M, et al. **Epidemiol Infect** 1998 Oct;121(2):397-400

Clinical and epidemiological aspects of respiratory syncytial virus lower respiratory tract infections. Lukić-Grlić A, et al. **Eur J Epidemiol** 1999 Apr;15(4):361-5

RSV-associated hospitalizations in Alaska Native infants. Singleton R, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:255-9

Risk factors for severe respiratory syncytial virus infection leading to hospital admission in children in the Western Region of The Gambia. Weber MW, et al. **Int J Epidemiol** 1999 Feb;28(1):157-62

Respiratory syncytial virus pneumonia among the elderly: an assessment of disease burden. Han LL, et al. **J Infect Dis** 1999 Jan;179(1):25-30 (39 ref.)

Severe respiratory syncytial virus disease in Alaska native children. RSV Alaska Study Group. Karron RA, et al. **J Infect Dis** 1999 Jul;180(1):41-9

From the Centers for Disease Control and Prevention. Update: respiratory syncytial virus activity--United States, 1997-98 season. **JAMA** 1999 Jan 13;281(2):127

Update: respiratory syncytial virus activity--United States, 1997-98 season. **MMWR Morb Mortal Wkly Rep** 1998 Dec 11;47(48):1043-5

Epidemiology of respiratory syncytial virus infection requiring hospitalization in East Denmark. Kristensen K, et al. **Pediatr Infect Dis J** 1998 Nov;17(11):996-1000

Predicting deterioration in previously healthy infants hospitalized with respiratory syncytial virus infection. Brooks AM, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):463-7

Rehospitalization for respiratory syncytial virus among premature infants. Joffe S, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):894-9

[Coincidental outbreaks of rotavirus and respiratory syncytial virus in Paris: a survey from 1993 to 1998] Gendrel D, et al. **Arch Pediatr** 1999 Jul;6(7):735-9 (Eng. Abstr.) **(Fre)**

ETIOLOGY

[Severity of respiratory syncytial virus infection influenced by clinical risk factors and subtype A and B in hospitalized children] Bergsträsser E, et al. **Klin Padiatr** 1998 Nov-Dec; 210(6):418-21 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Safety and pharmacokinetics of an intramuscular monoclonal antibody (SB 209763) against respiratory syncytial virus (RSV) in infants and young children at risk for severe RSV disease. Meissner HC, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1183-8

The apoptosis of neutrophils is accelerated in respiratory syncytial virus (RSV)-induced bronchiolitis. Wang SZ, et al. **Clin Exp Immunol** 1998 Oct;114(1):49-54

Respiratory syncytial virus infection: immune response, immunopathogenesis, and treatment. Domachowske JB, et al. **Clin Microbiol Rev** 1999 Apr;12(2):298-309 (194 ref.)

The effects of bovine respiratory syncytial on normal ovine lymphocyte responses to mitogens or antigens in vitro. Keles I, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jan;22(1):1-13

Host responses to respiratory virus infection and immunization. Crowe JE Jr. **Curr Top Microbiol Immunol** 1999;236:191-214 (235 ref.)

Effect of respiratory syncytial virus on subsequent allergic sensitization to ovalbumin in guinea-pigs. Dakhama A, et al. **Eur Respir J** 1999 May;13(5):976-82

Phenotypic analysis of local cellular responses in calves infected with bovine respiratory syncytial virus. Mcinnes E, et al. **Immunology** 1999 Mar;96(3):396-403

Autocrine regulation of interleukin-8 by interleukin-1alpha in respiratory syncytial virus-infected pulmonary epithelial cells in vitro. Patel JA, et al. **Immunology** 1998 Dec; 95(4):501-6

A primate model of respiratory syncytial virus infection. Babu PG, et al. **Indian J Exp Biol** 1998 Aug;36(8):758-62

Increased production of IFN-gamma and cysteinyl leukotrienes in virus-induced wheezing. van Schaik SM, et al. **J Allergy Clin Immunol** 1999 Apr;103(4):630-6

Development of human antibodies against linear antigenic and immunogenic regions of respiratory syncytial virus (RSV) nucleocapsid and phospho-proteins shows the site-directed characteristics. Leonova IV, et al. **J Clin Virol** 1998 Aug 20;11(2):137-47

Synergistic effect of immunization with a peptide cocktail inducing antibody, helper and cytotoxic T-cell responses on protection against respiratory syncytial virus. Hsu SC, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1401-5

Intracellular IFN-gamma expression in natural killer cells precedes lung CD8+ T cell recruitment during respiratory syncytial virus infection. Hussell T, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2593-601

Viral infection modulates expression of hypersensitivity pneumonitis. Gudmundsson G, et al. **J Immunol** 1999 Jun 15;162(12):7397-401

Host genetic determinants of vaccine-induced eosinophilia during respiratory syncytial virus infection. Hussell T, et

al. **J Immunol** 1998 Dec 1;161(11):6215-22

CD8 T cells are essential in the development of respiratory syncytial virus-induced lung eosinophilia and airway hyperresponsiveness. Schwarze J, et al. **J Immunol** 1999 Apr 1;162(7):4207-11

Vaccination with pertussis toxin alters the antibody response to simultaneous respiratory syncytial virus challenge. Fischer JE, et al. **J Infect Dis** 1999 Sep;180(3):714-9

Prophylaxis with respiratory syncytial virus F-specific humanized monoclonal antibody delays and moderately suppresses the native antibody response but does not impair immunity to late rechallenge. Fisher RG, et al. **J Infect Dis** 1999 Sep;180(3):708-13

Comparison of respiratory syncytial virus humoral immunity and response to infection in young and elderly adults. Falsey AR, et al. **J Med Virol** 1999 Oct;59(2):221-6

Prevention strategies for respiratory syncytial virus: passive and active immunization. Englund JA. **J Pediatr** 1999 Aug; 135(2 Pt 2):38-44 (66 ref.)

Exposure to urban air particulates alters the macrophage-mediated inflammatory response to respiratory viral infection. Becker S, et al. **J Toxicol Environ Health** 1999 Aug 13;57(7):445-57

Secreted respiratory syncytial virus G glycoprotein induces interleukin-5 (IL-5), IL-13, and eosinophilia by an IL-4-independent mechanism. Johnson TR, et al. **J Virol** 1999 Oct;73(10):8485-95

Identification of multiple protective epitopes (protectopes) in the central conserved domain of a prototype human respiratory syncytial virus G protein. Plotnicky-Gilquin H, et al. **J Virol** 1999 Jul;73(7):5637-45

Human antibody responses to mature and immature forms of viral envelope in respiratory syncytial virus infection: significance for subunit vaccines. Sakurai H, et al. **J Virol** 1999 Apr;73(4):2956-62

Induction of Th-1 and Th-2 responses by respiratory syncytial virus attachment glycoprotein is epitope and major histocompatibility complex independent. Srikiatkhachorn A, et al. **J Virol** 1999 Aug;73(8):6590-7

Cytotoxic T-lymphocyte precursor frequencies in BALB/c mice after acute respiratory syncytial virus (RSV) infection or immunization with a formalin-inactivated RSV vaccine. Tripp RA, et al. **J Virol** 1998 Nov;72(11):8971-5

Respiratory syncytial virus G and/or SH protein alters Th1 cytokines, natural killer cells, and neutrophils responding to pulmonary infection in BALB/c mice. Tripp RA, et al. **J Virol** 1999 Sep;73(9):7099-107

Measles vaccine failure and infections [letter] Bennett J, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):850

Elevated cytokine concentrations in the nasopharyngeal and tracheal secretions of children with respiratory syncytial virus disease. Sheeran P, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):115-22

Induction of CD95 (Fas) and apoptosis in respiratory epithelial cell cultures following respiratory syncytial virus infection. O'donnell DR, et al. **Virology** 1999 Apr 25; 257(1):198-207

[Vaccines against respiratory syncytial virus] Freymuth F, et al. **Arch Pediatr** 1999;6 Suppl 3:650s-654s (26 ref.) **(Fre)**

[Anti-RS viral IgE in respiratory syncytial viral infection in adult patients with a complicated course of bronchitis] Krivitskaia VZ, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):56-61 (Eng. Abstr.) **(Rus)**

METABOLISM

Respiratory syncytical virus-induced chemokine expression in the lower airways: eosinophil recruitment and degranulation. Harrison AM, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1918-24

Surfactant protein levels in severe respiratory syncytial virus infection. Kerr MH, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1115-8

IL-8 and neutrophil elastase levels in the respiratory tract of infants with RSV bronchiolitis. Abu-Harb M, et al. **Eur Respir J** 1999 Jul;14(1):139-43

The effect of fluticasone propionate on respiratory syncytial virus-induced chemokine release by a human bronchial epithelial cell line. Noah TL, et al. **Immunopharmacology** 1998 Jun;39(3):193-9

A comparison of IL-2 levels in nasopharyngeal and endotracheal aspirates of babies with respiratory syncytial viral bronchiolitis. Joshi P, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):618-20

Surfactant protein-A enhances respiratory syncytial virus clearance in vivo. LeVine AM, et al. **J Clin Invest** 1999 Apr;103(7):1015-21

NURSING

FOCUS on preparation for RSV season. Kempker-Russell MK. **MCN Am J Matern Child Nurs** 1999 Sep-Oct; 24(5):226-9

PATHOLOGY

Respiratory syncytial virus infects the Bonnet monkey, Macaca radiata. Simoes EA, et al. **Pediatr Dev Pathol** 1999 Jul-Aug;2(4):316-26

Virological and pathomorphological aspects in experimental infections with some triassociated pneumotropic viruses in the white mouse. Petica M, et al. **Rom J Virol** 1997 Jan-Dec;48(1-4):27-42

Respiratory syncytial virus infection in young Malaysian children. Chan P, et al. **Singapore Med J** 1999 May; 40(5):336-40

PHYSIOPATHOLOGY

Shedding of L-selectin and PECAM-1 and upregulation of Mac-1 and ICAM-1 on neutrophils in RSV bronchiolitis. Wang SZ, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L983-9

Permissiveness of guinea pig alveolar macrophage subpopulations to acute respiratory syncytial virus infection in vitro. Dakhama A, et al. **Chest** 1998 Dec;114(6):1681-8

IL-5 and eosinophils are essential for the development of airway hyperresponsiveness following acute respiratory syncytial virus infection. Schwarze J, et al. **J Immunol** 1999 Mar 1;162(5):2997-3004

Neural control mechanisms within airways: disruption by respiratory syncytial virus. Larsen GL, et al. **J Pediatr** 1999 Aug;135(2 Pt 2):21-7

Pulmonary function changes in children after respiratory syncytial virus infection in infancy. McBride JT. **J Pediatr** 1999 Aug;135(2 Pt 2):28-32 (25 ref.)

Effects of viral lower respiratory tract infection on lung function in infants with cystic fibrosis. Hiatt PW, et al. **Pediatrics** 1999 Mar;103(3):619-26

PREVENTION & CONTROL

Monoclonal antibody approved for RSV disease prevention [news] **Am J Health Syst Pharm** 1998 Aug 15;55(16):1654, 1656

Reducing the rate of nosocomially transmitted respiratory syncytial virus [published erratum appears in Am J Infect Control 1999 Jun;27(3):303] Karanfil LV, et al. **Am J Infect Control** 1999 Apr;27(2):91-6

Safety and pharmacokinetics of an intramuscular monoclonal antibody (SB 209763) against respiratory syncytial virus (RSV) in infants and young children at risk for severe RSV disease. Meissner HC, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1183-8

Respiratory syncytial virus (RSV) disease and prospects for its control. Wyde PR. **Antiviral Res** 1998 Aug;39(2):63-79 (200 ref.)

Impact of respiratory syncytial virus immune globulin in 1996-1997: a local controlled comparison. Redding GJ, et al. **Arch Pediatr Adolesc Med** 1999 May;153(5):503-7

Effectiveness of RSVIG prophylaxis and therapy of respiratory syncytial virus in an immunosuppressed animal model. Ottolini MG, et al. **Bone Marrow Transplant** 1999 Jul;24(1):41-5

Impact of palivizumab on expected costs of respiratory syncytial virus infection in preterm infants: potential for savings. Marchetti A, et al. **Clin Ther** 1999 Apr; 21(4):752-66

Recent approaches to the management and prevention of respiratory syncytial virus infection. McCarthy CA, et al. **Curr Clin Top Infect Dis** 1998;18:1-18 (119 ref.)

Recent developments in the biology of respiratory syncytial virus: are vaccines and new treatments just round the corner? Hussell T, et al. **Curr Opin Microbiol** 1999 Aug; 2(4):410-4 (46 ref.)

Inactivation of respiratory syncytial virus by generic hand dishwashing detergents and antibacterial hand soaps. Contreras PA, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):57-8

Protective efficacy against respiratory syncytial virus following murine neonatal immunization with BBG2Na vaccine: influence of adjuvants and maternal antibodies. Siegrist CA, et al. **J Infect Dis** 1999 Jun;179(6):1326-33

Prevention strategies for respiratory syncytial virus: passive and active immunization. Englund JA. **J Pediatr** 1999 Aug; 135(2 Pt 2):38-44 (66 ref.)

Respiratory syncytial virus immune globulin for prophylaxis against respiratory syncytial virus disease in infants and children with congenital heart disease. The Cardiac Study Group. Simoes EA, et al. **J Pediatr** 1998 Oct;133(4):492-9

Prophylaxis against respiratory syncytial virus in premature infants [letter] Bont L, et al. **Lancet** 1999 Sep 18; 354(9183):1003-4

FOCUS on preparation for RSV season. Kempker-Russell MK. **MCN Am J Matern Child Nurs** 1999 Sep-Oct; 24(5):226-9

Palivizumab (Synagis) for prevention of RSV infection. **Med Lett Drugs Ther** 1999 Jan 1;41(1043):3-4

Respiratory viruses in acute otitis media [editorial; comment] Eskola J, et al. **N Engl J Med** 1999 Jan 28;340(4):312-4. Comment on: N Engl J Med 1999 Jan 28;340(4):260-4.

Respiratory syncytial virus immune globulin and conflict of interest [letter; comment] Groothuis JR. **N Engl J Med** 1998 Nov 26;339(22):1644. Comment on: N Engl J Med 1993 Nov 18;329(21):1524-30.

Prevention of respiratory syncytial virus (RSV) infection: RSV immune globulin intravenous and palivizumab. (American Academy of Pediatrics)] Canfield SD, et al. **Pediatr Ann** 1999 Aug;28(8):507-14

Monoclonal antibodies against respiratory syncytial virus. Givner LB. **Pediatr Infect Dis J** 1999 Jun;18(6):541-2

Respiratory syncytial virus vaccines. Karron RA, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):919-20

Immunoprophylaxis with palivizumab, a humanized respiratory syncytial virus monoclonal antibody, for prevention of respiratory syncytial virus infection in high risk infants: a consensus opinion. Meissner HC, et al. **Pediatr Infect Dis J** 1999 Mar;18(3):223-31 (57 ref.)

Safety and pharmacokinetics of an intramuscular humanized monoclonal antibody to respiratory syncytial virus in premature infants and infants with bronchopulmonary dysplasia. The MEDI-493 Study Group. Sáez-Llorens X, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):787-91

Prevention of respiratory syncytial virus infections: indications for the use of palivizumab and update on the use of RSV-IGIV. American Academy of Pediatrics Committee on Infectious Diseases and Committee of Fetus and Newborn. **Pediatrics** 1998 Nov;102(5):1211-6

Questions about palivizumab (Synagis) [letter; comment] Eppes SC. **Pediatrics** 1999 Feb;103(2):534-5; discussion 535-6. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):648-51.

IMpact-RSV Study Group report [letter] Fox JL. **Pediatrics** 1999 Oct;104(4 Pt 1):994-5

Effectiveness of RSV-IVIG in premature infants: success in the home [letter; comment] Hayes C, et al. **Pediatrics** 1999 Mar;103(3):698-9. Comment on: Pediatrics 1998 Feb;101(2):320-1.

Cost-effectiveness of respiratory syncytial virus prophylaxis among preterm infants [see comments] Joffe S, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):419-27. Comment in: Pediatrics 1999 Sep;104(3 Pt 1):559-60.

Questions about palivizumab (Synagis) [letter; comment] Lee SL, et al. **Pediatrics** 1999 Feb;103(2):535; discussion 535-6 . Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7.

RSV immune globulin prophylaxis: is an ounce of prevention worth a pound of cure? [comment] Moler FW. **Pediatrics** 1999 Sep;104(3 Pt 1):559-60. Comment on: Pediatrics 1999 Sep;104(3 Pt 1):419-27.

Comments on palivizumab (Synagis) [comment] Moler FW, et al. **Pediatrics** 1999 Feb;103(2):495-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):648-51.

IMpact-RSV Study Group report [letter] Suresh G. **Pediatrics** 1999 Oct;104(4 Pt 1):993; discussion 995

IMpact-RSV Study Group report [letter] Zempsky WT, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):993-4; discussion 995

New vaccines. Heins JR. **S D J Med** 1999 Jan;52(1):21-2

Complete protection of mice from respiratory syncytial virus infection following mucosal delivery of synthetic peptide vaccines. Bastien N, et al. **Vaccine** 1999 Feb 26; 17(7-8):832-6

A novel and effective intranasal immunization strategy for respiratory syncytial virus. Tebbey PW, et al. **Viral Immunol** 1999;12(1):41-5

-Prevention of respiratory syncytial virus infection- Gillet Y. **Arch Pediatr** 1998 Mar;5(3):333-7 (Eng. Abstr.) **(Fre)**

[Advances in the study of pediatric infectious diseases] Aristegui Fernández J, et al. **An Esp Pediatr** 1999 May; 50(5):525-30 (59 ref.) **(Spa)**

THERAPY

Use of permissive hypercapnia in the ventilation of infants with respiratory syncytial virus infection. Tibby SM, et al. **Eur J Pediatr** 1999 Jan;158(1):42-5

Reduction of respiratory syncytial virus (RSV) in tracheal aspirates in intubated infants by use of humanized monoclonal antibody to RSV F protein. Malley R, et al. **J Infect Dis** 1998 Dec;178(6):1555-61

Management strategies for respiratory syncytial virus infections in infants. Rodriguez WJ. **J Pediatr** 1999 Aug; 135(2 Pt 2):45-50 (37 ref.)

Respiratory system mechanics in patients receiving aerosolized ribavirin during mechanical ventilation for suspected respiratory syncytial viral infection. Jefferson LS, et al. **Pediatr Pulmonol** 1999 Aug;28(2):117-24

Interferon gamma expressed by a recombinant respiratory syncytial virus attenuates virus replication in mice without compromising immunogenicity. Bukreyev A, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2367-72

Surfactant replacement therapy in RSV-induced acute respiratory distress syndrome (ARDS). Goh AY, et al. **Singapore Med J** 1999 Feb;40(2):113-6

TRANSMISSION

Reducing the rate of nosocomially transmitted respiratory syncytial virus [published erratum appears in Am J Infect Control 1999 Jun;27(3):303] Karanfil LV, et al. **Am J Infect Control** 1999 Apr;27(2):91-6

Detection of Bordetella pertussis and respiratory synctial virus in air samples from hospital rooms. Aintablian N, et al. **Infect Control Hosp Epidemiol** 1998 Dec; 19(12):918-23

Recovery of respiratory syncytial virus from stethoscopes by conventional viral culture and polymerase chain reaction. Blydt-Hansen T, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):164-5

VETERINARY

An experimental study of a concurrent primary infection with bovine respiratory syncytial virus (BRSV) and bovine viral diarrhoea virus (BVDV) in calves. Elvander M, et al. **Acta Vet Scand** 1998;39(2):251-64

Contribution of advances in immunology to vaccine development. Morrison WI, et al. **Adv Vet Med** 1999; 41:181-95 (44 ref.)

Synergistic effects of concurrent challenge with bovine

respiratory syncytial virus and 3-methylindole in calves. Bingham HR, et al. **Am J Vet Res** 1999 May;60(5):563-70

Effect of concurrent experimentally induced bovine respiratory syncytial virus and bovine viral diarrhea virus infection on respiratory tract and enteric diseases in calves [published erratum appears in Am J Vet Res 1999 Jan;60(1):13] Brodersen BW, et al. **Am J Vet Res** 1998 Nov; 59(11):1423-30

Evaluation of severe disease induced by aerosol inoculation of calves with bovine respiratory syncytial virus. Woolums AR, et al. **Am J Vet Res** 1999 Apr;60(4):473-80

A comparison of diagnostic methods for the detection of bovine respiratory syncytial virus in experimental clinical specimens. West K, et al. **Can J Vet Res** 1998 Oct; 62(4):245-50

Evaluation of a nested reverse transcription-PCR assay based on the nucleoprotein gene for diagnosis of spontaneous and experimental bovine respiratory syncytial virus infections. Valarcher JF, et al. **J Clin Microbiol** 1999 Jun; 37(6):1858-62

Evaluation of an IgM-specific indirect enzyme-linked immunosorbent assay for serodiagnosis of bovine respiratory syncytial virus infection: influence of IgM rheumatoid factor on test results with field sera. Graham DA, et al. **J Vet Diagn Invest** 1998 Oct;10(4):331-7

The effect of formalin-inactivated vaccine on respiratory disease associated with bovine respiratory syncytial virus infection in calves. West K, et al. **Vaccine** 1999 Feb 26; 17(7-8):809-20

Interferon gamma production during bovine respiratory syncytial virus (BRSV) infection is diminished in calves vaccinated with formalin-inactivated BRSV. Woolums AR, et al. **Vaccine** 1999 Mar 17;17(11-12):1293-7

Serological and genetic characterisation of bovine respiratory syncytial virus (BRSV) indicates that Danish isolates belong to the intermediate subgroup: no evidence of a selective effect on the variability of G protein nucleotide sequence by prior cell culture adaption and passages in cell culture or calves. Larsen LE, et al. **Vet Microbiol** 1998 Aug 15;62(4):265-79

Airborne transmission of BHV1, BRSV, and BVDV among cattle is possible under experimental conditions. Mars MH, et al. **Vet Microbiol** 1999 Apr 19;66(3):197-207

A bovine respiratory syncytial virus strain with mutations in subgroup-specific antigenic domains of the G protein induces partial heterologous protection in cattle. Schrijver RS, et al. **Vet Microbiol** 1998 Oct;63(2-4):159-75

Influence of concurrent BVDV infection on the IgM response of calves experimentally infected with bovine respiratory syncytial virus. Graham DA, et al. **Vet Rec** 1998 Aug 15;143(7):198-9

[Immunobiology of bovine respiratory syncytial virus infections] Schrijver RS. **Tijdschr Diergeneeskd** 1998 Nov 15;123(22):658-62 (29 ref.) (Eng. Abstr.) **(Dut)**

VIROLOGY

Synergistic effects of bovine respiratory syncytial virus and non-cytopathic bovine viral diarrhea virus infection on selected bovine alveolar macrophage functions. Liu L, et al. **Can J Vet Res** 1999 Jan;63(1):41-8

Tracheal aspirate as a substrate for polymerase chain reaction detection of viral genome in childhood pneumonia and myocarditis. Akhtar N, et al. **Circulation** 1999 Apr 20; 99(15):2011-8

Molecular epidemiology of respiratory syncytial virus in The Gambia. Cane PA, et al. **Epidemiol Infect** 1999 Feb; 122(1):155-60

Antigenic and genetic diversity among the attachment proteins of group A respiratory syncytial viruses that have caused repeat infections in children. Sullender WM, et al. **J Infect Dis** 1998 Oct;178(4):925-32

Recombinant respiratory syncytial virus bearing a deletion of either the NS2 or SH gene is attenuated in chimpanzees. Whitehead SS, et al. **J Virol** 1999 Apr;73(4):3438-42

[Prevention and therapy of bronchiolitis: current status] León León MC, et al. **An Esp Pediatr** 1998 Nov;49(5):451-5 (46 ref.) **(Spa)**

[Subgroups classification of strains of the respiratory syncytial virus isolated in an outbreak in Ciudad de La Havana] Chacón D, et al. **Rev Cubana Med Trop** 1996; 48(2):136-7 (Eng. Abstr.) **(Spa)**

RESPIRATORY SYNCYTIAL VIRUSES

A colorimetric microtiter plate PCR system detects respiratory syncytial virus in nasal aspirates and discriminates subtypes A and B. Tang YW, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):333-7

Respiratory syncytial virus immune globulin for prophylaxis against respiratory syncytial virus disease in infants and children with congenital heart disease. The Cardiac Study Group. Simoes EA, et al. **J Pediatr** 1998 Oct;133(4):492-9

Secreted respiratory syncytial virus G glycoprotein induces interleukin-5 (IL-5), IL-13, and eosinophilia by an IL-4-independent mechanism. Johnson TR, et al. **J Virol** 1999 Oct;73(10):8485-95

Respiratory syncytial virus infects the Bonnet monkey, Macaca radiata. Simoes EA, et al. **Pediatr Dev Pathol** 1999 Jul-Aug;2(4):316-26

Questions about palivizumab (Synagis) [letter; comment] Eppes SC. **Pediatrics** 1999 Feb;103(2):534-5; discussion 535-6. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):648-51.

Effectiveness of RSV-IVIG in premature infants: success in the home [letter; comment] Hayes C, et al. **Pediatrics** 1999 Mar;103(3):698-9. Comment on: Pediatrics 1998 Feb;101(2):320-1.

Questions about palivizumab (Synagis) [letter; comment] Lee SL, et al. **Pediatrics** 1999 Feb;103(2):535; discussion 535-6 . Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7.

Comments on palivizumab (Synagis) [comment] Moler FW, et al. **Pediatrics** 1999 Feb;103(2):495-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):531-7. Comment on: Pediatrics 1998 Sep;102(3 Pt 1):648-51.

CHEMISTRY

Effects of humanization by variable domain resurfacing on the antiviral activity of a single-chain antibody against respiratory syncytial virus. Delagrave S, et al. **Protein Eng** 1999 Apr;12(4):357-62

CLASSIFICATION

Multiplex PCR for typing and subtyping influenza and respiratory syncytial viruses. Stockton J, et al. **J Clin Microbiol** 1998 Oct;36(10):2990-5

Severity of respiratory syncytial virus disease related to type and genotype of virus and to cytokine values in nasopharyngeal secretions. Hornsleth A, et al. **Pediatr Infect Dis J** 1998 Dec;17(12):1114-21

DRUG EFFECTS

Mouse model of respiratory syncytial virus infection to evaluate antiviral activity in vivo. Sudo K, et al. **Antivir Chem Chemother** 1999 May;10(3):135-9

2-5A-DNA conjugate inhibition of respiratory syncytial virus replication: effects of oligonucleotide structure modifications and RNA target site selection. Barnard DL, et al. **Antiviral Res** 1999 Apr;41(3):119-34

Effect of nitrogen dioxide on respiratory viral infection in airway epithelial cells. Becker S, et al. **Environ Res** 1999 Aug;81(2):159-66

New iridoids from the medicinal plant Barleria prionitis with potent activity against respiratory syncytial virus. Chen JL, et al. **J Nat Prod** 1998 Oct;61(10):1295-7

Respiratory syncytial virus strain A2 is resistant to the antiviral effects of type I interferons and human MxA. Atreya PL, et al. **Virology** 1999 Sep 1;261(2):227-41

GENETICS

Respiratory syncytial virus G glycoprotein expressed using the Semliki Forest virus replicon is biologically active. Peroulis I, et al. **Arch Virol** 1999;144(1):107-16

Direct detection of respiratory syncytial virus, parainfluenza virus, and adenovirus in clinical respiratory specimens by a multiplex reverse transcription-PCR assay. Osiowy C. **J Clin Microbiol** 1998 Nov;36(11):3149-54

Analysis of ruminant respiratory syncytial virus isolates by RNAse protection of the G glycoprotein transcripts. Alansari H, et al. **J Vet Diagn Invest** 1999 May;11(3):215-20

Diverse gene junctions of respiratory syncytial virus modulate the efficiency of transcription termination and respond differently to M2-mediated antitermination. Hardy RW, et al. **J Virol** 1999 Jan;73(1):170-6

The major attenuating mutations of the respiratory syncytial virus vaccine candidate cpts530/1009 specify temperature-sensitive defects in transcription and replication and a non-temperature-sensitive alteration in mRNA termination. Juhasz K, et al. **J Virol** 1999 Jun; 73(6):5176-80

Recombinant respiratory syncytial virus bearing a deletion of either the NS2 or SH gene is attenuated in chimpanzees. Whitehead SS, et al. **J Virol** 1999 Apr;73(4):3438-42

Virus-inducible expression of a host chemokine gene relies on replication-linked mRNA stabilization. Koga T, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5680-5

Genetic analysis of the G and P genes in ungulate respiratory syncytial viruses by RNase A mismatch cleavage method. Cristina J, et al. **Vet Microbiol** 1998 Jul;62(3):185-92

Role of cellular actin in the gene expression and morphogenesis of human respiratory syncytial virus. Burke E, et al. **Virology** 1998 Dec 5;252(1):137-48

GROWTH & DEVELOPMENT

Respiratory syncytial virus induces the expression of 5-lipoxygenase and endothelin-1 in bronchial epithelial cells. Behera AK, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):704-9

IMMUNOLOGY

Safety and pharmacokinetics of an intramuscular monoclonal antibody (SB 209763) against respiratory syncytial virus (RSV) in infants and young children at risk for severe RSV disease. Meissner HC, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1183-8

Effectiveness of RSVIG prophylaxis and therapy of respiratory syncytial virus in an immunosuppressed animal model. Ottolini MG, et al. **Bone Marrow Transplant** 1999 Jul;24(1):41-5

Impact of palivizumab on expected costs of respiratory syncytial virus infection in preterm infants: potential for savings. Marchetti A, et al. **Clin Ther** 1999 Apr; 21(4):752-66

Recent developments in the biology of respiratory syncytial virus: are vaccines and new treatments just round the corner? Hussell T, et al. **Curr Opin Microbiol** 1999 Aug; 2(4):410-4 (46 ref.)

Effect of respiratory syncytial virus on subsequent allergic sensitization to ovalbumin in guinea-pigs. Dakhama A, et al. **Eur Respir J** 1999 May;13(5):976-82

Neutrophils induce damage to respiratory epithelial cells infected with respiratory syncytial virus. Wang SZ, et al. **Eur Respir J** 1998 Sep;12(3):612-8

Development of human antibodies against linear antigenic and immunogenic regions of respiratory syncytial virus (RSV) nucleocapsid and phospho-proteins shows the site-directed characteristics. Leonova IV, et al. **J Clin Virol** 1998 Aug 20;11(2):137-47

Synergistic effect of immunization with a peptide cocktail inducing antibody, helper and cytotoxic T-cell responses on protection against respiratory syncytial virus. Hsu SC, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1401-5

Using distilled water for the extraction of mucosal antibodies and the subsequent application in RSV neutralization test. Hu KF, et al. **J Immunoassay** 1998 May-Aug; 19(2-3):209-22

Viral infection modulates expression of hypersensitivity pneumonitis. Gudmundsson G, et al. **J Immunol** 1999 Jun 15;162(12):7397-401

Host genetic determinants of vaccine-induced eosinophilia during respiratory syncytial virus infection. Hussell T, et al. **J Immunol** 1998 Dec 1;161(11):6215-22

Human monoclonal antibodies isolated from spontaneous Epstein-Barr virus-transformed tumors of Hu-SPL-SCID mice and specific for fusion protein display broad neutralizing activity toward respiratory syncytial virus. Chamat S, et al. **J Infect Dis** 1999 Aug;180(2):268-77

A direct comparison of the activities of two humanized respiratory syncytial virus monoclonal antibodies: MEDI-493 and RSHZ19. Johnson S, et al. **J Infect Dis** 1999 Jul;180(1):35-40

A simple and reproducible method for collecting nasal secretions in frail elderly adults, for measurement of virus-specific IgA. Walsh EE, et al. **J Infect Dis** 1999 May; 179(5):1268-73

Effect of compounds with antibacterial activities in human milk on respiratory syncytial virus and cytomegalovirus in vitro. Portelli J, et al. **J Med Microbiol** 1998 Nov; 47(11):1015-8

Human antibody responses to mature and immature forms of viral envelope in respiratory syncytial virus infection: significance for subunit vaccines. Sakurai H, et al. **J Virol** 1999 Apr;73(4):2956-62

Cytotoxic T-lymphocyte precursor frequencies in BALB/c mice after acute respiratory syncytial virus (RSV) infection or immunization with a formalin-inactivated RSV vaccine. Tripp RA, et al. **J Virol** 1998 Nov;72(11):8971-5

Induction of antibody responses in the common mucosal immune system by respiratory syncytical virus immunostimulating complexes. Hu KF, et al. **Med Microbiol Immunol (Berl)** 1999 May;187(4):191-8

Enzyme-linked immunoassay for respiratory syncytial virus is not predictive of bronchiolitis in sudden infant death syndrome. Parham DM, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):375-9

Monoclonal antibodies against respiratory syncytial virus. Givner LB. **Pediatr Infect Dis J** 1999 Jun;18(6):541-2

Respiratory syncytial virus vaccines. Karron RA, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):919-20

Immunoprophylaxis with palivizumab, a humanized respiratory syncytial virus monoclonal antibody, for prevention of respiratory syncytial virus infection in high risk infants: a consensus opinion. Meissner HC, et al. **Pediatr Infect Dis J** 1999 Mar;18(3):223-31 (57 ref.)

Safety and pharmacokinetics of an intramuscular humanized monoclonal antibody to respiratory syncytial virus in premature infants and infants with bronchopulmonary dysplasia. The MEDI-493 Study Group. Sáez-Llorens X, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):787-91

Effects of humanization by variable domain resurfacing on the antiviral activity of a single-chain antibody against respiratory syncytial virus. Delagrave S, et al. **Protein Eng** 1999 Apr;12(4):357-62

New vaccines. Heins JR. **S D J Med** 1999 Jan;52(1):21-2

Immunological properties of plaque purified strains of live attenuated respiratory syncytial virus (RSV) for human vaccine. Herlocher ML, et al. **Vaccine** 1999 Jan; 17(2):172-81

The serum albumin-binding region of streptococcal protein G (BB) potentiates the immunogenicity of the G130-230 RSV-A protein. Libon C, et al. **Vaccine** 1999 Feb 5; 17(5):406-14

Monoclonal antibody-resistant mutants selected with a respiratory syncytial virus-neutralizing human antibody fab fragment (Fab 19) define a unique epitope on the fusion (F) glycoprotein. Crowe JE, et al. **Virology** 1998 Dec 20; 252(2):373-5

ISOLATION & PURIFICATION

Rapid detection of respiratory viruses by shell vial assay using simultaneous culture of HEp-2, LLC-MK2, and MDCK cells in a single vial. Navarro-Marí JM, et al. **J Clin Microbiol** 1999 Jul;37(7):2346-7

Direct detection of respiratory syncytial virus, parainfluenza

virus, and adenovirus in clinical respiratory specimens by a multiplex reverse transcription-PCR assay. Osiowy C. **J Clin Microbiol** 1998 Nov;36(11):3149-54

Detection of respiratory syncytial virus in samples frozen at -20 degrees C [letter] Yilmaz G, et al. **J Clin Microbiol** 1999 Jul;37(7):2390

Efficacy of Directigen RSV testing in patient management following admission from a paediatric emergency department. Lipson SM, et al. **J Hosp Infect** 1999 Apr; 41(4):323-9

Reduction of respiratory syncytial virus (RSV) in tracheal aspirates in intubated infants by use of humanized monoclonal antibody to RSV F protein. Malley R, et al. **J Infect Dis** 1998 Dec;178(6):1555-61

Respiratory viruses in acute otitis media [editorial; comment] Eskola J, et al. **N Engl J Med** 1999 Jan 28;340(4):312-4. Comment on: N Engl J Med 1999 Jan 28;340(4):260-4.

Prevalence of various respiratory viruses in the middle ear during acute otitis media [see comments] Heikkinen T, et al. **N Engl J Med** 1999 Jan 28;340(4):260-4. Comment in: N Engl J Med 1999 Jan 28;340(4):312-4.

[Detection of respiratory syncytial virus using immunohistochemistry. Report of 53 cases of sudden infant death] Siani V, et al. **Ann Pathol** 1999 Apr;19(2):99-102 (Eng. Abstr.) **(Fre)**

METABOLISM

Surfactant protein-A enhances respiratory syncytial virus clearance in vivo. LeVine AM, et al. **J Clin Invest** 1999 Apr;103(7):1015-21

Atypical pulmonary eosinophilia is mediated by a specific amino acid sequence of the attachment (G) protein of respiratory syncytial virus. Tebbey PW, et al. **J Exp Med** 1998 Nov 16;188(10):1967-72

Involvement of caveolae in the uptake of respiratory syncytial virus antigen by dendritic cells. Werling D, et al. **J Leukoc Biol** 1999 Jul;66(1):50-8

Casein kinase 2-mediated phosphorylation of respiratory syncytial virus phosphoprotein P is essential for the transcription elongation activity of the viral polymerase; phosphorylation by casein kinase 1 occurs mainly at Ser(215) and is without effect. Dupuy LC, et al. **J Virol** 1999 Oct;73(10):8384-92

PATHOGENICITY

Permissiveness of guinea pig alveolar macrophage subpopulations to acute respiratory syncytial virus infection in vitro. Dakhama A, et al. **Chest** 1998 Dec;114(6):1681-8

PHYSIOLOGY

Exposure to cigarette smoke, a major risk factor for sudden infant death syndrome: effects of cigarette smoke on inflammatory responses to viral infection and bacterial toxins. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1-2):145-54

Infection with respiratory syncytial virus enhances expression of native receptors for non-pilate Neisseria meningitidis on HEp-2 cells. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Feb;23(2):115-24

A single amino acid substitution in the phosphoprotein of respiratory syncytial virus confers thermosensitivity in a reconstituted RNA polymerase system. Marriott AC, et al. **J Virol** 1999 Jun;73(6):5162-5

RESPIRATORY SYSTEM

European Respiratory Society annual congress. Geneva, Switzerland, September 19-23, 1998. Abstracts. **Eur Respir J Suppl** 1998 Sep;28:1s-507s

Foreign body aspiration in children--a persistent problem. Tariq P. **JPMA J Pak Med Assoc** 1999 Feb;49(2):33-6

Aspiration of gauze pressure-pack following a dental extraction: a case report. Villasenor A. **Pediatr Dent** 1999 Mar-Apr;21(2):135-6 (6 ref.)

5th Congress of the Asian Pacific Society of Respirology. Sydney, Australia, 9-12 October 1998. Abstracts. **Respirology** 1998 Oct;3 Suppl:A1-98

[Foreign bodies in the respiratory tract of infants and young children taken from personal material] Spodaryk M, et al. **Przegl Lek** 1998;55(9):490-3 (Eng. Abstr.) **(Pol)**

ABNORMALITIES see RESPIRATORY SYSTEM ABNORMALITIES

ANATOMY & HISTOLOGY

Influence of upper airway shunt on total respiratory impedance in infants. Desager KN, et al. **J Appl Physiol** 1999 Sep;87(3):902-9

The micro-plethysmograph: a new device to measure small volume displacements by isolated human airway segments. Tiddens HA, et al. **J Pharmacol Toxicol Methods** 1998 Jul; 40(1):13-20

CT-assisted versus silicone rubber cast morphometry of the lower respiratory tract in healthy amazons (genus Amazona) and grey parrots (genus Psittacus). Krautwald-Junghanns ME, et al. **Res Vet Sci** 1998 Jul-Aug;65(1):17-22

Biotransport in the human respiratory system. Elad D. **Technol Health Care** 1999;7(4):271-84 (68 ref.)

[Starling resister and stability of sleep ventilation] Krieger J, et al. **Neurophysiol Clin** 1998 Dec;28(6):493-506 (11 ref.) (Eng. Abstr.) **(Fre)**

BLOOD SUPPLY

Airway epithelium of transplanted lungs with and without direct bronchial artery revascularization. Nørgaard MA, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):37-44

CHEMISTRY

Experimental deposition of environmental tobacco smoke submicrometer particulate matter in the human respiratory tract. Morawska L, et al. **Am Ind Hyg Assoc J** 1999 May-Jun;60(3):334-9

Determination of low-molecular-mass antioxidant concentrations in human respiratory tract lining fluids. van der Vliet A, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L289-96

MUC5B is a major gel-forming, oligomeric mucin from human salivary gland, respiratory tract and endocervix: identification of glycoforms and C-terminal cleavage. Wickström C, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):685-93

Detection of anionic antimicrobial peptides in ovine bronchoalveolar lavage fluid and respiratory epithelium. Brogden KA, et al. **Infect Immun** 1998 Dec;66(12):5948-54

CYTOLOGY

Forkhead transcription factor HFH-4 and respiratory epithelial cell differentiation. Whitsett JA, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):153-4 (17 ref.)

Immunohistochemical localization of vascular endothelial growth factor in the globule leukocyte/mucosal mast cell of the rat respiratory and digestive tracts. Fan L, et al. **Histochem Cell Biol** 1999 Jan;111(1):13-21

Effect of atropine on ciliary beat in human upper respiratory tract epithelial cells. Centanni S, et al. **Int J Tissue React** 1998;20(4):131-6

Ciliary activity in differentiating and reactivated human respiratory epithelial cells. Hard R, et al. **Laryngoscope** 1999 Jan;109(1):103-7

[Airway myocytes as immune effector cells in the pathogenesis of bronchial asthma. Myocyte culture as an in vitro model] John M, et al. **Pneumologie** 1999 Jun; 53(6):302-6 (40 ref.) **(Ger)**

DRUG EFFECTS

ACE-inhibitors and defence reflexes of the airways. Fraňová S, et al. **Acta Physiol Hung** 1997-98;85(4):359-66

The in vivo effects of milrinone on the airways of cystic fibrosis mice and human subjects. Smith SN, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):129-34

Experimental studies on guanosine 3',5'-cyclic monophosphate levels and airway responsiveness of the novel phosphodiesterase type 5 inhibitor SR 265579 in guinea-pigs. Kapui Z, et al. **Arzneimittelforschung** 1999 Aug;49(8):685-93

The effect of selective phosphodiesterase inhibitors on mucociliary activity in the upper and lower airways in vitro. Cervin A, et al. **Auris Nasus Larynx** 1998 Sep; 25(3):269-76

Intracellular calcium mobilization and phospholipid degradation in sphingosylphosphorylcholine-stimulated human airway epithelial cells. Orlati S, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):641-9

Pharmacological characterization of the muscarinic receptor antagonist, glycopyrrolate, in human and guinea-pig airways. Haddad EB, et al. **Br J Pharmacol** 1999 May; 127(2):413-20

Effects of the orally active non-peptide bradykinin B2 receptor antagonist, FR173657, on plasma extravasation in guinea pig airways. Watanabe M, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):373-8

A novel mouse beta defensin, Defb2, which is upregulated in the airways by lipopolysaccharide. Morrison GM, et al. **FEBS Lett** 1999 Jan 8;442(1):112-6

Protection of human upper respiratory tract cell lines against sulphur mustard toxicity by hexamethylenetetramine (HMT). Andrew DJ, et al. **Hum Exp Toxicol** 1998 Jul; 17(7):373-9

Protection of human upper respiratory tract cell lines against sulphur mustard toxicity by glutathione esters. Andrew DJ, et al. **Hum Exp Toxicol** 1998 Jul;17(7):387-95

Comparison of respiratory sensations induced by J receptor stimulation with lobeline in left handers & right handers. Jaju DS, et al. **Indian J Med Res** 1998 Dec;108:291-5

Effect of beta-agonists on inflammatory cells. Barnes PJ. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 2):S10-7 (109 ref.)

Leptin attenuates respiratory complications associated with the obese phenotype. Tankersley CG, et al. **J Appl Physiol** 1998 Dec;85(6):2261-9

Pharmacological Control of Airways in Health and Diseases. Capri, Italy, October 1998. Preface. Cazzola M. **Pulm Pharmacol Ther** 1998 Oct-Dec;11(5-6):317-8

Mechanisms of response to ozone exposure: the role of mast cells in mice. Kleeberger SR, et al. **Res Rep Health Eff Inst** 1999 Apr;(85):1-30; discussion 31-6

Bacterial toxins which perturb ciliary function and respiratory epithelium. Dowling RB, et al. **Soc Appl Bacteriol Symp Ser** 1998;27:138S-148S (100 ref.)

Sensory irritation and multiple chemical sensitivity. Anderson RC, et al. **Toxicol Ind Health** 1999 Apr-Jun;15(3-4):339-45

Nasal epithelium as a sentinel for airborne environmental pollution. Calderón-Garcidueñas L, et al. **Toxicol Sci** 1998 Dec;46(2):352-64

Comparison of pulmonary and pleural responses of rats and hamsters to inhaled refractory ceramic fibers. Gelzleichter TR, et al. **Toxicol Sci** 1999 May;49(1):93-101

Respiratory epithelium, production performance and behaviour of formaldehyde-exposed broiler chicks. Zulkifli I, et al. **Vet Res Commun** 1999 Mar;23(2):91-9

[Antibiotic sensitivity of pneumonia pathogens in newborns and problems of antibacterial therapy of the pathologic process] Kozlova IA, et al. **Antibiot Khimioter** 1998; 43(11):24-7 (Eng. Abstr.) **(Rus)**

EMBRYOLOGY

The developing renal, reproductive, and respiratory systems of the African elephant suggest an aquatic ancestry. Gaeth AP, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5555-8

ENZYMOLOGY

Endothelin-stimulated ERK activation in airway smooth-muscle cells requires calcium influx and Raf activation. Vichi P, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):99-105

Decreased expression of angiotensin-converting enzyme in the airway epithelium of asthmatic subjects is associated with eosinophil inflammation. Roisman GL, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):402-10

GROWTH & DEVELOPMENT

Postnatal development of respiratory function in lambs studied serially between birth and 8 weeks. Davey MG, et al. **Respir Physiol** 1998 Jul;113(1):83-93

IMMUNOLOGY

Upper airway epithelial cells support eosinophil survival in vitro through production of GM-CSF and prostaglandin E2: regulation by glucocorticoids and TNF-alpha. Daffern PJ, et al. **Allergy Asthma Proc** 1999 Jul-Aug;20(4):243-53

Effects of ion composition and tonicity on human neutrophil antibacterial activity. Verghese MW, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):920-8

Hemorrhagic shock impairs mucosal immunity to gut-derived antigens. Saini MS, et al. **Am Surg** 1999 Jul; 65(7):637-42

Allergy in the airway. Sutherland M, et al. **Aust Fam Physician** 1998 Aug;27(8):681-5 (32 ref.)

Interleukin-4 and interferon-gamma synergistically increase secretory component gene expression, but are additive in stimulating secretory immunoglobulin A release by Calu-3 airway epithelial cells. Loman S, et al. **Immunology** 1999 Apr;96(4):537-43

Secretory phospholipase A2: a putative mediator of airway inflammation. De Marino V, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):200-1

Role of the Th2 cytokines in the development of allergen-induced airway inflammation and hyperresponsiveness. Hamelmann E, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):90-4

Lack of systemic anaphylaxis and aeroallergen-induced airway plasma extravasation in allergic immunoglobulin-deficient mice. Korsgren M, et al. **Int Arch Allergy Immunol** 1999 Jan;118(1):67-73

Allergen-induced sensory neuroplasticity in airways. Undem BJ, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2-4):150-3

Therapeutic efficacy of an anti-IL-5 monoclonal antibody delivered into the respiratory tract in a murine model of asthma. Shardonofsky FR, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):215-21

Increased production of IFN-gamma and cysteinyl leukotrienes in virus-induced wheezing. van Schaik SM, et al. **J Allergy Clin Immunol** 1999 Apr;103(4):630-6

Pulmonary expression of interleukin-13 causes inflammation, mucus hypersecretion, subepithelial fibrosis, physiologic abnormalities, and eotaxin production. Zhu Z, et al. **J Clin Invest** 1999 Mar;103(6):779-88

Functional studies on dendritic cells in the respiratory tract and related mucosal tissues. Holt PG, et al. **J Leukoc Biol** 1999 Aug;66(2):272-5 (43 ref.)

Selective augmentation of antibodies in various mucosal regions, after intranasal immunization with diphtheria in mice. Gizurarson S, et al. **J Pharm Sci** 1998 Nov; 87(11):1267-9

Glutamine-enriched total parenteral nutrition preserves respiratory immunity and improves survival to a Pseudomonas Pneumonia. DeWitt RC, et al. **J Surg Res** 1999 Jun 1;84(1):13-8

gammadelta T cells provide a breath of fresh air for asthma research [news; comment] Holt PG, et al. **Nat Med** 1999 Oct;5(10):1127-8. Comment on: Nat Med 1999 Oct;5(10):1150-6.

Pulmonary defence mechanisms. Nicod LP. **Respiration** 1999; 66(1):2-11 (75 ref.)

Administration of interleukin-12 prevents mite Der p 1 allergen-IgE antibody production and airway eosinophil

infiltration in an animal model of airway inflammation. Lee YL, et al. **Scand J Immunol** 1999 Mar;49(3):229–36

Killed whole bacterial cells, a mucosal delivery system for the induction of immunity in the respiratory tract and middle ear: an overview. Kyd JM, et al. **Vaccine** 1999 Mar 26;17(13–14):1775–81 (49 ref.)

Optimal induction of upper respiratory tract immunity to reovirus 1/L by combined upper and lower respiratory tract inoculation. Thompson AH, et al. **Vaccine** 1999 Mar 17;17(11–12):1404–15

Cellular and humoral responses in the respiratory tract of goats following intranasal stimulation using formalin-killed Pasteurella haemolytica A2. Zamri-Saad M, et al. **Vet Microbiol** 1999 Mar 12;65(3):233–40

[Effect of stress and relaxation on the local immune system of the upper respiratory tract. A contribution to psychoneuroimmunology] Kugler J. **Zentralbl Gynakol** 1999;121 Suppl 1:62–8 **(Ger)**

INJURIES

Ammonia capsule ingestion causing upper aerodigestive tract injury. Rosenbaum AM, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):678–80

INNERVATION

The expiratory flow pattern and the neuromuscular control of breathing in cats. van der Grinten CP, et al. **Adv Exp Med Biol** 1998;450:95–100

Mediators of anaphylaxis but not activated neutrophils augment cholinergic responses of equine small airways. Olszewski MA, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L522–9

Influences of neck afferents on sympathetic and respiratory nerve activity. Bolton PS, et al. **Brain Res Bull** 1998 Nov 15;47(5):413–9

The role of dorsal respiratory group neurons studied with cross-correlation in the decerebrate rat. Tian GF, et al. **Exp Brain Res** 1998 Jul;121(1):29–34

Allergen-induced sensory neuroplasticity in airways. Undem BJ, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2–4):150–3

Neuromechanical interaction in human snoring and upper airway obstruction. Huang L, et al. **J Appl Physiol** 1999 Jun;86(6):1759–63

Invited editorial on "Neuromechanical interaction in human snoring and upper airway obstruction" [editorial] Roberts D. **J Appl Physiol** 1999 Jun;86(6):1757–8

CNS innervation of vagal preganglionic neurons controlling peripheral airways: a transneuronal labeling study using pseudorabies virus. Hadziefendic S, et al. **J Auton Nerv Syst** 1999 May 28;76(2–3):135–45

Evidence for glycinergic respiratory neurons: Bötzinger neurons express mRNA for glycinergic transporter 2. Schreihofer AM, et al. **J Comp Neurol** 1999 May 17; 407(4):583–97

Reconfiguration of the respiratory network at the onset of locust flight. Ramirez JM. **J Neurophysiol** 1998 Dec; 80(6):3137–47

Distinct subtypes of metabotropic glutamate receptors mediate differential actions on excitability of spinal respiratory motoneurons. Dong XW, et al. **J Neurosci** 1999 Jul 1;19(13):5173–84

A comparison of sensory nerve function in human, guinea-pig, rabbit and marmoset airways. Spina D, et al. **Life Sci** 1998;63(18):1629–42

Autonomic innervation of human airways: structure, function, and pathophysiology in asthma. van der Velden VH, et al. **Neuroimmunomodulation** 1999 May-Jun; 6(3):145–59 (266 ref.)

Ambiguous respiratory neurons are modulated by GABA(A) receptor-mediated inhibition. Yajima Y, et al. **Neuroscience** 1999 Apr;90(1):249–57

Neurogenesis of patterns of automatic ventilatory activity. St-John WM. **Prog Neurobiol** 1998 Oct;56(1):97–117 (127 ref.)

Modulation of sensory nerve function in the airways. Spina D. **Pulm Pharmacol Ther** 1998 Oct-Dec;11(5–6):319–30 (160 ref.)

Alterations in respiratory neuronal activities in the medullary 'pre-Bötzinger' region in hypocapnia. St.-John WM. **Respir Physiol** 1998 Nov;114(2):119–31

[Modulatory mechanisms involved in the parasympathetic excitatory neuro-effector transmission in the airway and gastrointestinal tracts--perspective for a new drug creation] Ito Y. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:28P–31P (9 ref.) (Eng. Abstr.) **(Jpn)**

[Transmitter-dependent involvement of the respiratory interneurons in the locomotor rhythm in the pulmonate mollusc Lymnaea] Sakharov DA, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct;84(10):1029–37 (Eng. Abstr.) **(Rus)**

METABOLISM

Respiratory carcinoma cell lines. MUC genes and glycoconjugates. Berger JT, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):500–10

Developmental mucin gene expression in the human respiratory tract. Buisine MP, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):209–18

Respiratory syncytical virus-induced chemokine expression in the lower airways: eosinophil recruitment and degranulation. Harrison AM, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1918–24

Direct gene transfer to the respiratory tract of mice with pure plasmid and lipid-formulated DNA. McCluskie MJ, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct; 8(5):401–14

Platelet-derived-growth-factor stimulation of the p42/p44 mitogen-activated protein kinase pathway in airway smooth muscle: role of pertussis-toxin-sensitive G-proteins, c-Src tyrosine kinases and phosphoinositide 3-kinase. Conway AM, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):171–7

Intracellular calcium mobilization and phospholipid degradation in sphingosylphosphorylcholine-stimulated human airway epithelial cells. Orlati S, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):641–9

Physical characterization of a low-charge glycoform of the MUC5B mucin comprising the gel-phase of an asthmatic respiratory mucous plug. Sheehan JK, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):507–13

The penetration of ceftibuten into the respiratory tract [comment] Krumpe P, et al. **Chest** 1999 Aug;116(2):369–74 . Comment on: Lancet 1998 Jun 13;351(9118):1801–4.

Optimization of the mammalian respiratory system: symmorphosis versus single species adaptation. Jones JH. **Comp Biochem Physiol B Biochem Mol Biol** 1998 May; 120(1):125–38 (58 ref.)

Neuropeptides in atopic dermatitis. Giannetti A. **Curr Probl Dermatol** 1999;28:51–5 (8 ref.)

Aerosol deposition modeling using ACSL. Carpenter RL. **Drug Chem Toxicol** 1999 Feb;22(1):73–90

Metabolic and cardioventilatory responses during a graded exercise test before and 24 h after a triathlon. Le Gallais D, et al. **Eur J Appl Physiol** 1999 Jan;79(2):176–81

Influence of different routes of flush perfusion on the distribution of lung preservation solutions in parenchyma and airways. Bitu-Moreno J, et al. **Eur J Cardiothorac Surg** 1999 Apr;15(4):481–9

IL-8 and neutrophil elastase levels in the respiratory tract of infants with RSV bronchiolitis. Abu-Harb M, et al. **Eur Respir J** 1999 Jul;14(1):139–43

Pharmacokinetics and pharmacodynamics of fluoroquinolones in the respiratory tract. Wise R, et al. **Eur Respir J** 1999 Jul;14(1):221–9 (97 ref.)

A novel mouse beta defensin, Defb2, which is upregulated in the airways by lipopolysaccharide. Morrison GM, et al. **FEBS Lett** 1999 Jan 8;442(1):112–6

Regional clearance of solute from peripheral airway epithelia: recovery after sublobar exposure to ozone. Foster WM, et al. **J Appl Physiol** 1999 Feb;86(2):641–6

Longitudinal distribution of chlorine absorption in human airways: comparison of nasal and oral quiet breathing. Nodelman V, et al. **J Appl Physiol** 1999 Jun;86(6):1984–93

Effect of host modification and age on airway epithelial gene transfer mediated by a murine leukemia virus-derived vector. Johnson LG, et al. **J Virol** 1998 Nov;72(11):8861–72

Effect of single versus multiple dosing on perfluorochemical distribution and elimination during partial liquid ventilation. Miller TF, et al. **Pediatr Pulmonol** 1999 Jun; 27(6):410–8

Nitric oxide and airways. Matera MG. **Pulm Pharmacol Ther** 1998 Oct-Dec;11(5–6):341–8 (78 ref.)

Localization and comparative toxicity of methylsulfonyl-2,5- and 2,6-dichlorobenzene in the olfactory mucosa of mice. Bahrami F, et al. **Toxicol Sci** 1999 May;49(1):116–23

Uptake of 10 polar organic solvents during short-term respiration. Kumagai S, et al. **Toxicol Sci** 1999 Apr; 48(2):255–63

Binding of the potent allergen hexahydrophthalic anhydride in the mucosa of the upper respiratory and alimentary tract following single inhalation exposures in guinea pigs and rats. Lindh CH, et al. **Toxicology** 1999 Jun 15; 134(2–3):153–68

Airway epithelium: more than just a barrier! [letter; comment] Wessler I, et al. **Trends Pharmacol Sci** 1999 Feb;20(2):52–4 . Comment on: Trends Pharmacol Sci 1998 Aug;19(8):334–41.

MICROBIOLOGY

Effect of inhibition of nitric oxide synthase on Pseudomonas aeruginosa infection of respiratory mucosa in vitro. Dowling RB, et al. **Am J Respir Cell Mol Biol** 1998 Dec; 19(6):950–8

Antibiotic resistance in oral/respiratory bacteria. Roberts MC. **Crit Rev Oral Biol Med** 1998;9(4):522–40 (140 ref.)

Bacteriological activity of trovafloxacin, a new quinolone, against respiratory tract pathogens. Pechère JC, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jun;17(6):405–12 (48 ref.)

Susceptibility of European respiratory tract isolates to trovafloxacin, ciprofloxacin, clarithromycin, azithromycin and ampicillin. Pontani D, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jun;17(6):413–9

Postantibiotic and physiological effects of tilmicosin, tylosin, and apramycin at subminimal and suprainhibitory concentrations on some swine and bovine respiratory tract pathogens. Diarra MS, et al. **Int J Antimicrob Agents** 1999 Aug;12(3):229–37

Evaluation of the new MB redox system for detection of growth of mycobacteria. Cambau E, et al. **J Clin Microbiol** 1999 Jun;37(6):2013–5

Performance characteristics of the BDProbeTec system for direct detection of Mycobacterium tuberculosis complex in respiratory specimens. Pfyffer GE, et al. **J Clin Microbiol** 1999 Jan;37(1):137–40

Chronic airway colonization by Penicillium emersonii in a patient with cystic fibrosis. Cimon B, et al. **Med Mycol** 1999 Aug;37(4):291–3

Distribution of Acinetobacter baumannii in a neurointensive care unit. Kõljalg S, et al. **Scand J Infect Dis** 1999; 31(2):145–50

Pneumocystis carinii interactions with respiratory epithelium. Pottratz ST. **Semin Respir Infect** 1998 Dec;13(4):323–9 (35 ref.)

[Resistance of respiratory and enteral bacteria to antibiotics] Solórzano-Santos F, et al. **Salud Publica Mex** 1998 Nov-Dec;40(6):510–6 (44 ref.) **(Spa)**

PARASITOLOGY

The ultrastructure of gametogenesis of cryptosporidium baileyi (eimeriorina; cryptosporidiidae) in the respiratory tract of broiler chickens (Gallus domesticus). Cheadle MA, et al. **J Parasitol** 1999 Aug;85(4):609–15

PATHOLOGY

Airway inflammation, exhaled nitric oxide, and severity of asthma in patients with western red cedar asthma. Chan-Yeung M, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1434–8

Effect of inhaled leukotriene D4 on airway eosinophilia and airway hyperresponsiveness in asthmatic subjects. Mulder A, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1562–7

Guidelines of the Papanicolaou Society of Cytopathology for the examination of cytologic specimens obtained from the respiratory tract. Papanicolaou Society of Cytopathology Task Force on Standards of Practice. **Diagn Cytopathol** 1999 Jul;21(1):61–9

Cytologic distinction between bronchioalveolar carcinoma and reactive/reparative respiratory epithelium: a cytomorphometric analysis. Fiorella RM, et al. **Diagn Cytopathol** 1998 Oct;19(4):270–3

Regulation of airway neurogenic inflammation by neutral endopeptidase [see comments] Di Maria GU, et al. **Eur Respir J** 1998 Dec;12(6):1454–62 (109 ref.). Comment in: Eur Respir J 1998 Dec;12(6):1250–1.

Imaging of airway cells [editorial] Puchelle E, et al. **Eur Respir J** 1998 Jul;12(1):3–5

Neutrophils induce damage to respiratory epithelial cells infected with respiratory syncytial virus. Wang SZ, et al. **Eur Respir J** 1998 Sep;12(3):612–8

Airway remodeling in asthma amplifies heterogeneities in smooth muscle shortening causing hyperresponsiveness. Gillis HL, et al. **J Appl Physiol** 1999 Jun;86(6):2001–12

Guidelines of the Papanicolaou Society of Cytopathology for the examination of cytologic specimens obtained from the respiratory tract. The Papanicolaou Society of Cytopathology Task Force on Standards of Practice. **Mod Pathol** 1999 Apr;12(4):427–36

Acute effects of palatopharyngoplasty on airway collapsibility. Tucker Woodson B. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):82–6

Airway structure: a role for confocal microscopy? Goldie RG, et al. **Pulm Pharmacol Ther** 1998 Oct-Dec; 11(5–6):349–54 (68 ref.)

Airways remodelling in asthma. Vignola AM, et al. **Pulm Pharmacol Ther** 1998 Oct-Dec;11(5–6):359–67 (148 ref.)

A heated humidifier reduces upper airway dryness during continuous positive airway pressure therapy. Wiest GH, et al. **Respir Med** 1999 Jan;93(1):21–6

Amyloidosis and the respiratory tract. Gillmore JD, et al. **Thorax** 1999 May;54(5):444–51 (80 ref.)

Tetrahymena pyriformis in the ciliate mobility test. Validation and description of a testing procedure for the registration of harmful substances in the air as well as the effects of cigarette smoke on the human respiratory ciliated epithelium. Gräf W, et al. **Zentralbl Hyg Umweltmed** 1999 Feb;201(6):451–72

[Epithelial cells in bronchial asthma] Djurić V, et al. **Srp Arh Celok Lek** 1998 May-Jun;126(5–6):204–8 (Eng. Abstr.) **(Scc)**

PHYSIOLOGY see RESPIRATORY PHYSIOLOGY

PHYSIOPATHOLOGY

Ectopic bronchus: an insufficiently recognized malformation causing respiratory morbidity in VATER association. Hattori H, et al. **Am J Med Genet** 1999 Jan 15;82(2):140–2

The in vivo effects of milrinone on the airways of cystic fibrosis mice and human subjects. Smith SN, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):129–34

A simple automated method for measuring pressure-volume curves during mechanical ventilation. Lu Q, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):275–82

Evidence of acinar airway involvement in asthma. Verbanck S, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1545–50

Respiratory compromise and dramatic chest X-ray changes during general anesthesia in a patient with a bronchogenic cyst. Sata T, et al. **Anesthesiology** 1999 Mar;90(3):911–3

Effect of atmospheric pollution on the respiratory system. Oyarzún M, et al. **Biol Res** 1998;31(4):361–6

RESPIRATORY SYSTEM

Sympathetic and respiratory responses to hypoxia in essential hypertension. Yu BH, et al. **Clin Exp Hypertens** 1999 Apr; 21(3):249–62

Reduced baroreflex sensitivity and cardiorespiratory transfer in amyotrophic lateral sclerosis. Linden D, et al. **Electroencephalogr Clin Neurophysiol** 1998 Oct; 109(5):387–90

Neuromechanical interaction in human snoring and upper airway obstruction. Huang L, et al. **J Appl Physiol** 1999 Jun;86(6):1759–63

Invited editorial on "Neuromechanical interaction in human snoring and upper airway obstruction" [editorial] Roberts D. **J Appl Physiol** 1999 Jun;86(6):1757–8

Leptin attenuates respiratory complications associated with the obese phenotype. Tankersley CG, et al. **J Appl Physiol** 1998 Dec;85(6):2261–9

Pulmonary function changes in children after respiratory syncytial virus infection in infancy. McBride JT. **J Pediatr** 1999 Aug;135(2 Pt 2):28–32 (25 ref.)

Excision of spinal tumor in a patient with severe pulmonary dysfunction using combined spinal and epidural anesthesia with two epidural catheters. Takiguchi T, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):267–71

Total respiratory system compliance after thoracoplasty. Shiraishi K, et al. **Respir Med** 1998 Jun;92(6):810–4

[Respiratory defence mechanisms. Particular circumstances in healthy and sick children] Donato L. **Arch Pediatr** 1998; 5 Suppl 1:5s–8s (6 ref.) (Eng. Abstr.) **(Fre)**

[Deficiency of conditioning function of the respiratory system in some respiratory and circulatory diseases] Agarkov SF. **Ter Arkh** 1999;71(3):48–51 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

Evaluation of airways in obstructive pulmonary disease using high-resolution computed tomography. King GG, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):992–1004 (37 ref.)

Respiratory compromise and dramatic chest X-ray changes during general anesthesia in a patient with a bronchogenic cyst. Sata T, et al. **Anesthesiology** 1999 Mar;90(3):911–3

Foreign body aspiration in children: value of radiography and complications of bronchoscopy. Zerella JT, et al. **J Pediatr Surg** 1998 Nov;33(11):1651–4

SECRETION

Respiratory tract epithelium and its secretions. British Association for Lung Research Symposium. 2–4 September 1998. Abstracts. **Respir Med** 1998 Nov;92(11):A1–30

Airway secretion and asthma [editorial;; comment] Smaldone GC. **Respiration** 1999;66(2):110–1 (4 ref.). Comment on: Respiration 1999 ;66(2):112–8.

Mucin gene expression and mucin secretion in human airway epithelium. Yoon JH, et al. **Rhinology** 1998 Dec; 36(4):146–52 (71 ref.)

SURGERY

[Cardiovascular surgery and respiratory surgery of the future: toward the new millennium. Discussion] Furuse A, et al. **Kyobu Geka** 1999 Aug;52(9):757–73 **(Jpn)**

ULTRASTRUCTURE

Calcified mitochondria in epithelial cells of the respiratory tract in upper respiratory thermal injury. Drut R. **Diagn Cytopathol** 1998 Oct;19(4):288–9

VIROLOGY

Neutrophils induce damage to respiratory epithelial cells infected with respiratory syncytial virus. Wang SZ, et al. **Eur Respir J** 1998 Sep;12(3):612–8

Epidemiologic evidence of increased airway reactivity in children with a history of bronchiolitis. Kattan M. **J Pediatr** 1999 Aug;135(2 Pt 2):8–13 (38 ref.)

Optimal induction of upper respiratory tract immunity to reovirus l/L by combined upper and lower respiratory tract inoculation. Thompson AH, et al. **Vaccine** 1999 Mar 17;17(11–12):1404–15

RESPIRATORY SYSTEM ABNORMALITIES

DIAGNOSIS

Comparison of endoscopy and radiographic fluoroscopy in the evaluation of pediatric congenital airway abnormalities. Altman KW, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jun 1;44(1):43–6

GENETICS

De novo complete trisomy 5p: clinical report and FISH studies. Reichenbach H, et al. **Am J Med Genet** 1999 Aug 27;85(5):447–51 (12 ref.)

THERAPY

Congenital airway abnormalities in patients requiring hospitalization. Altman KW, et al. **Arch Otolaryngol Head Neck Surg** 1999 May;125(5):525–8

ULTRASONOGRAPHY

Ultrasound measurements of the diameter of the fetal trachea, larynx and pharynx throughout gestation applicability to prenatal diagnosis of obstructive anomalies of the upper respiratory-digestive tract. Kalache KD, et al. **Prenat Diagn** 1999 Mar;19(3):211–8

VETERINARY

Feline respiratory diseases. Hoskins JD. **Vet Clin North Am Small Anim Pract** 1999 Jul;29(4):945–58, vii (21 ref.)

RESPIRATORY SYSTEM AGENTS

Global warming and efficacy of therapeutic agents for respiratory diseases [letter] Arya SC. **Respiration** 1999; 66(4):380–2

ADMINISTRATION & DOSAGE

Improving oxygenation during bronchopulmonary lavage using nitric oxide inhalation and almitrine infusion. Moutafis M, et al. **Anesth Analg** 1999 Aug;89(2):302–4

ADVERSE EFFECTS

Intravenous almitrine bismesylate reversibly induces lactic acidosis and hepatic dysfunction in patients with acute lung injury. B'chir A, et al. **Anesthesiology** 1998 Oct; 89(4):823–30

[Almitrin and patients with COPD--a dangerous combination? (letter)] Köhler D, et al. **Pneumologie** 1998 Oct;52(10):541–2 **(Ger)**

CHEMISTRY

[Stability of extemporaneous preparations of doxapram (Dopram) for neonatal use (letter)] Barbé F, et al. **Arch Pediatr** 1998 Oct;5(10):1170–1 **(Fre)**

PHARMACOLOGY

Spirometric variables recorded after lobeline administration in healthy Friesian and Belgian white and blue calves: normal values and effects of somatic growth. Bureau F, et al. **Vet J** 1999 May;157(3):302–8

Maximal ventilation assessment in healthy calves. Bureau F, et al. **Vet J** 1999 May;157(3):309–14

THERAPEUTIC USE

Low-dose doxapram for treatment of apnoea following early weaning in very low birthweight infants: a randomized, double-blind study. Huon C, et al. **Acta Paediatr** 1998 Nov; 87(11):1180–4

Intravenous almitrine combined with inhaled nitric oxide for acute respiratory distress syndrome. The NO Almitrine Study Group. Gallart L, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1770–7

Ventilatory and cardiovascular responses to inspired He–O2 during exercise in chronic obstructive pulmonary disease. Oelberg DA, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1876–82

Intravenous almitrine bismesylate reversibly induces lactic acidosis and hepatic dysfunction in patients with acute lung injury. B'chir A, et al. **Anesthesiology** 1998 Oct; 89(4):823–30

Inhaled nitric oxide, almitrine infusion, or their coadministration as a treatment of severe hypoxemic focal lung lesions. Paven D, et al. **Anesthesiology** 1998 Nov; 89(5):1157–65

Pharmacologic adjuncts to mechanical ventilation in acute respiratory distress syndrome. Albertson TE, et al. **Crit Care Clin** 1998 Oct;14(4):581–610, v (232 ref.)

Pharmacological Control of Airways in Health and Diseases. Capri, Italy, October 1998. Preface. Cazzola M. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):317–8

[Stability of extemporaneous preparations of doxapram (Dopram) for neonatal use (letter)] Barbé F, et al. **Arch Pediatr** 1998 Oct;5(10):1170–1 **(Fre)**

TOXICITY

Potentiation of acetaminophen hepatotoxicity and mortality by doxapram in mice. Kanno S, et al. **Biol Pharm Bull** 1998 Sep;21(9):934–7

RESPIRATORY THERAPY

see related

BREATHING EXERCISES

Health care professionals caring for critically ill patients [letter; comment] Carroll P. **Am J Crit Care** 1999 Jan; 8(1):525–6. Comment on: Am J Crit Care 1998 May;7(3):165–7.

Randomized controlled trial of physician-directed versus respiratory therapy consult service-directed respiratory care to adult non-ICU inpatients. Stoller JK, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1068–75

Pulmonary rehabilitation programs in Canada: national survey. Brooks D, et al. **Can Respir J** 1999 Jan–Feb; 6(1):55–63

Ventilatory care in status asthmaticus. Smyth RJ. **Can Respir J** 1998 Nov–Dec;5(6):485–90 (43 ref.)

Questioning flutter therapy [letter; comment] Ntoumenopoulos G. **Chest** 1999 Jul;116(1):270–1. Comment on: Chest 1998 Oct;114(4):993–7.

A randomized controlled trial of inspiratory muscle training in stable chronic heart failure. Johnson PH, et al. **Eur Heart J** 1998 Aug;19(8):1249–53

Mucus transport and physiotherapy--a new series [editorial; comment] Hill SL, et al. **Eur Respir J** 1999 May; 13(5):949–50. Comment on: Eur Respir J 1999 May;13(5):1177–88.

Physiotherapy and bronchial mucus transport. van der Schans CP, et al. **Eur Respir J** 1999 Jun;13(6):1477–86 (121 ref.)

Pre-operative short-term pulmonary rehabilitation for patients of chronic obstructive pulmonary disease undergoing coronary artery bypass graft surgery. Rajendran AJ, et al. **Indian Heart J** 1998 Sep–Oct; 50(5):531–4

Buteyko breathing techniques in asthma: a blinded randomised controlled trial [see comments] Bowler SD, et al. **Med J Aust** 1998 Dec 7–21;169(11–12):575–8. Comment in: Med J Aust 1998 Dec 7–21;169(11–12):573–4.

Advances in pulmonary rehabilitation and management of chronic respiratory failure [editorial] Donner CF, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):257–8

Respiratory management in acute CNS catastrophies [letter; comment] Carmichael ST. **Neurology** 1999 Jan 1; 52(1):217–8. Comment on: Neurology 1998 Jan;50(1):11–20.

Review article on inhalation rewarming [letter; comment] Giesbrecht GG, et al. **Resuscitation** 1998 Jul;38(1):59–60. Comment on: Resuscitation 1998 Feb;36(2):101–4.

[Respiratory kinesitherapy. For whom? Why do it?] Sergysels R. **Rev Mal Respir** 1998 Oct;15(5):571–3 **(Fre)**

[Yoga respiratory therapy helps children with asthma (news)] Krusche F. **Fortschr Med** 1999 Feb 20;117(5):44 **(Ger)**

["FCKW-free inhalation therapy--an update". Congress report on the symposium by 3M Medica Corporation, Borken, on the 39th Congress of the German Society of Pneumology, Leipzig, 12 March 1998] Steinkamp G. **Pneumologie** 1998 Sep;52(9):535–8 **(Ger)**

INSTRUMENTATION

Flutter flap [letter; comment] Bauer ML. **Chest** 1999 Jun; 115(6):1757. Comment on: Chest 1998 Oct;114(4):993–7.

Comparison of the flutter device to standard chest physiotherapy in hospitalized patients with cystic fibrosis: a pilot study [see comments] Homnick DN, et al. **Chest** 1998 Oct;114(4):993–7. Comment in: Chest 1999 Jun;115(6):1757. Comment in: Chest 1999 Jul;116(1):270–1.

Effects of the flutter device on pulmonary function studies among pediatric cystic fibrosis patients. Padman R, et al. **Del Med J** 1999 Jan;71(1):13–8

Effects of flutter and PEP mask physiotherapy on symptoms and lung function in children with cystic fibrosis. van Winden CM, et al. **Eur Respir J** 1998 Jul;12(1):143–7

Effects of sputum oscillations and rhDNase in vitro: a combined approach to treat cystic fibrosis lung disease. Dasgupta B, et al. **Pediatr Pulmonol** 1998 Oct;26(4):250–5

[Characteristics of patients with domiciliary equipment for chronic respiratory diseases in Martinique] Chenu E, et al. **Rev Pneumol Clin** 1998 Oct;54(5):245–50 (Eng. Abstr.) **(Fre)**

[Inhaled corticosteroid therapy in mild and moderate persistent asthma. Acceptability of a new inhalation system: the jet] Pujet JC, et al. **Rev Pneumol Clin** 1999 Apr; 55(2):88–93 (Eng. Abstr.) **(Fre)**

METHODS

External stimuli in the form of vibratory massage after heart or lung transplantation. Doering TJ, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):108–10

Large scale implementation of a respiratory therapist-driven protocol for ventilator weaning. Ely EW, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):439–46

Contributions of respiratory care practitioners to intensive care: a review. Yu NC, et al. **Ann Acad Med Singapore** 1998 May;27(3):422–5 (21 ref.)

The effect of breathing frequency on deposition of drug aerosol using an inhalation-synchronized dosimeter in healthy adults. Häkkinen AM, et al. **Clin Physiol** 1999 May; 19(3):269–74

Noninvasive management of pediatric neuromuscular ventilatory failure [see comments] Niranjan V, et al. **Crit Care Med** 1998 Dec;26(12):2061–5. Comment in: Crit Care Med 1998 Dec;26(12):1952–3.

The effects of aerosolized dextran in a mouse model of Pseudomonas aeruginosa pulmonary infection. Bryan R, et al. **J Infect Dis** 1999 Jun;179(6):1449–58

Maximizing functional capacity. Pulmonary rehabilitation and adjunctive measures. Resnikoff PM, et al. **Respir Care Clin N Am** 1998 Sep;4(3):475–92 (91 ref.)

[Inhalation therapy in children younger than 2 years. II. The practice (see comments)] Griffioen RW, et al. **Ned Tijdschr Geneeskd** 1998 Jun 27;142(26):1488–93 (15 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Oct 3;142(40):2212–3; discussion 2214–5. **(Dut)**

[Pulmonary auscultation and kinesitherapy in pediatrics] Postiaux G. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S206–7 **(Fre)**

[Comparative study of the efficacy of 2 respiratory physiotherapy protocols for patients with cystic fibrosis] Sánchez Riera H, et al. **Arch Bronconeumol** 1999 Jun;

35(6):275–9 (Eng. Abstr.) **(Spa)**
[Evaluation of amplified spontaneous pattern ventilation in postoperative patients. Comparison with pressure support] Sánchez de Merás AM, et al. **Rev Esp Anestesiol Reanim** 1999 May;46(5):197–204 (Eng. Abstr.) **(Spa)**

STANDARDS

Attitudes of respiratory care practitioners and students regarding pulmonary prevention. Sockrider MM, et al. **Chest** 1998 Oct;114(4):1193–8

UTILIZATION

The effect of a neonatal telecardiology system on respiratory therapy in very low birthweight infants. Rendina MC, et al. **Medinfo** 1998;9 Pt 1:298–301

RESPIRATORY THERAPY DEPARTMENT, HOSPITAL

Infection control in the bronchoscopy suite. A review. Mehta AC, et al. **Clin Chest Med** 1999 Mar;20(1):19–32, ix (114 ref.)

RESPIRATORY TRACT DISEASES

Joint meeting of Paediatric Assembly, European Respiratory Society and European Society of Pediatric Allergy and Clinical Immunology. Berlin, Germany, May 26–29, 1999. Abstracts. **Allergy** 1999;54 Suppl 51:1–48
Issues and controversies in respiratory medicine. Conference proceedings. Phoenix, Arizona, USA. November 20–23, 1997. **Can Respir J** 1999 Jan–Feb;6 Suppl A:5A–53A
European Respiratory Society annual congress. Geneva, Switzerland, September 19–23, 1998. Abstracts. **Eur Respir J Suppl** 1998 Sep;28:1s–507s
Manpower in respiratory medicine: a position paper of the Irish Thoracic Society. Brennan N. **Ir Med J** 1999 May–Jun;92(4):332–4
Hispanic mothers' knowledge and care of their children with respiratory illnesses: a pilot study. Robledo L, et al. **J Pediatr Nurs** 1999 Aug;14(4):239–47
Multi-centre clinical respiratory research: a new approach? Hetzel MR, et al. **J R Coll Physicians Lond** 1998 Sep–Oct; 32(5):412–6
Lovelace Respiratory Research Institute annual symposium: validity of animal models of human respiratory diseases. Seagrave J, et al. **Lab Anim Sci** 1999 Feb;49(1):7–9
Proceedings of European Seminars in Respiratory Medicine—Update 1998. Courmayeur, Italy, June 27–July 2, 1998. **Monaldi Arch Chest Dis** 1998 Dec;53(6):603–719
5th Congress of the Asian Pacific Society of Respirology. Sydney, Australia, 9–12 October 1998. Abstracts. **Respirology** 1998 Oct;3 Suppl:A1–98
[The Review of Respiratory Diseases on the verge of the XXIst century] Meurice JC, et al. **Rev Mal Respir** 1999 Jun;16(3):267–8 **(Fre)**
[The 39th annual meeting of the Japanese Respiratory Society. Yokohama, Japan. March 25–27, 1999. Abstracts] **Nihon Kokyuki Gakkai Zasshi** 1999 Mar;37(3):1–329 **(Jpn)**

CHEMICALLY INDUCED

Matrix metalloproteinase gelatinases in sulfur mustard–induced acute airway injury in guinea pigs. Calvet JH, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L754–62
Respiratory health hazards in agriculture. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 2):S1–S76
All but quiet on the particulate front [editorial; comment] Brunekreef B. **Am J Respir Crit Care Med** 1999 Feb; 159(2):354–6 (16 ref.). Comment on: Am J Respir Crit Care Med 1999 Feb;159(2):365–72. Comment on: Am J Respir Crit Care Med 1999 Feb;159(2):373–82.
Renal failure and corrosive airway and gastrointestinal injury after ingestion of diluted diquat solution. Tanen DA, et al. **Ann Emerg Med** 1999 Oct;34(4 Pt 1):542–5
Sensory irritating potency of some microbial volatile organic compounds (MVOCs) and a mixture of five MVOCs. Korpi A, et al. **Arch Environ Health** 1999 Sep–Oct;54(5):347–52
Serum complement levels in children in communities with different levels of air pollution in Japan. Shima M, et al. **Arch Environ Health** 1999 Jul–Aug;54(4):264–70
Reactive airways dysfunction and systemic complaints after mass exposure to bromine [clinical conference] Woolf A, et al. **Environ Health Perspect** 1999 Jun;107(6):507–9
Personally measured weekly exposure to NO2 and respiratory health among preschool children. Mukala K, et al. **Eur Respir J** 1999 Jun;13(6):1411–7
Health effects of urban outdoor air pollution in children. Current epidemiological data. Ségala C. **Pediatr Pulmonol Suppl** 1999;18:6–8 (15 ref.)
Toxicological mechanisms underlying oxidant pollutant–induced airway injury. Krishna MT, et al. **Rev Environ Health** 1998 Jan–Jun;13(1–2):59–71 (75 ref.)
Acrolein: a respiratory toxin that suppresses pulmonary host defense. Li L, et al. **Rev Environ Health** 1998 Jan–Jun; 13(1–2):99–108 (75 ref.)
Ozone–induced respiratory illness during the repair of a portland cement kiln. Sanderson WT, et al. **Scand J Work Environ Health** 1999 Jun;25(3):227–32
Assessment of pyrethroid–induced paraesthesias: comparison of animal model and human data. Pauluhn J, et al. **Toxicol Lett** 1998 Aug;96–97:361–8
Factors contributing to the acute and subchronic adverse respiratory effects of machining fluid aerosols in guinea pigs. Gordon T, et al. **Toxicol Sci** 1999 May;49(1):86–92

CLASSIFICATION

Self–reporting versus parental reporting of acute respiratory symptoms of children and their relation to pulmonary function and air pollution. Hoek G, et al. **Int J Epidemiol** 1999 Apr;28(2):293–9

COMPLICATIONS

Respiratory symptoms and long–term risk of death from cardiovascular disease, cancer and other causes in Swedish men. Rosengren A, et al. **Int J Epidemiol** 1998 Dec; 27(6):962–9
Gastroesophageal reflux and respiratory phenomena in infants: status of the intraluminal impedance technique. Wenzl TG, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr; 28(4):423–8
Sleep in patients with respiratory disease. Lewis DA. **Respir Care Clin N Am** 1999 Sep;5(3):447–60, ix (69 ref.)
[Mitral valve prolapse and respiratory diseases] Korytnikov KI. **Klin Med (Mosk)** 1999;77(4):15–8 (5 ref.) (Eng. Abstr.) **(Rus)**

CONGENITAL

Difficult airway in a patient with Marshall–Smith syndrome. Antila H, et al. **Paediatr Anaesth** 1998;8(5):429–32

DIAGNOSIS

Assessing diagnostic classification in an emergency department: implications for daily time series studies of air pollution. Stieb DM, et al. **Am J Epidemiol** 1998 Oct 1; 148(7):666–70
Respiratory rates of Indian infants under 2 months of age. Bhandari A, et al. **Ann Trop Paediatr** 1998 Dec;18(4):329–34
Respiratory tract inflammation in swine confinement workers studied using induced sputum and exhaled nitric oxide. Von Essen SG, et al. **J Toxicol Clin Toxicol** 1998;36(6):557–65
Teleconsultation in otolaryngology: live versus store and forward consultations. Sclafani AP, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):62–72
Use of postoperative chest x–ray after elective adult tracheotomy. Smith DK, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):848–51
Bronchoalveolar lavage of newborn infants. Kotecha S. **Pediatr Pulmonol Suppl** 1999;18:122–4 (10 ref.)
Perinatal lung function measurements and prediction of respiratory problems in infancy. Greenough A, et al. **Physiol Meas** 1998 Aug;19(3):421–6
Respiratory health and immunological profile of poultry workers. Rees D, et al. **S Afr Med J** 1998 Sep;88(9):1110–7
[A child with puzzling complaints—does he have a disease? (see comments)] de Ridder L, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2769–72 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2769–72. Comment in: Ned Tijdschr Geneeskd 1999 Apr 24;143(17):919. **(Dut)**
[Diagnostic use of oxygen consumption and gas exchange in exercise testing] Aguilaniu B, et al. **Rev Mal Respir** 1998 Oct;15(5):575–87 (Eng. Abstr.) **(Fre)**
[Diagnostic kinesitherapy tools in pneumology] Gouilly E, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S136–7 **(Fre)**
[Quebec spirometry reference values] Martin RR, et al. **Rev Mal Respir** 1998 Dec;15(6):781–8 (Eng. Abstr.) **(Fre)**
[Duration of anamnesis in patients with hemoptysis] Salajka F. **Acta Med Austriaca** 1999;26(1):17–9 (Eng. Abstr.) **(Ger)**
[New clinical tests that physicians should know for diagnosis of respiratory system disease] Takizawa H. **Nippon Naika Gakkai Zasshi** 1998 Oct 10;87(10):1993–8 (9 ref.) **(Jpn)**
[Exercise tests and respiratory gas analysis in cardiology. Testing procedure and selected parameters needed for evaluation of cardiopulmonary system function] Podolec P, et al. **Przegl Lek** 1998;55(2):57–63 (18 ref.) (Eng. Abstr.) **(Pol)**
[Aspects of respiratory diseases at non–ferrous metal production and processing industry] Aleshina OE, et al. **Med Tr Prom Ekol** 1999;(5):36–8 **(Rus)**
[Respiratory system diseases in workers in the production of nickel, cobalt and copper] Artiunina GP, et al. **Med Tr Prom Ekol** 1998;(11):32–6 **(Rus)**
[Respiratory function and allergic reactions in paper recycling workers] Zuškin E, et al. **Arh Hig Rada Toksikol** 1998 Jun;49(2):165–77 (Eng. Abstr.) **(Scr)**

DRUG THERAPY

Montelukast reduces airway eosinophilic inflammation in asthma: a randomized, controlled trial. Pizzichini E, et al. **Eur Respir J** 1999 Jul;14(1):12–8
Pharmacological Control of Airways in Health and Diseases. Capri, Italy, October 1998. Preface. Cazzola M. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):317–8
Anticholinergic agents. Cazzola M, et al. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):381–92 (96 ref.)
Leukotriene antagonists. Costello JF. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):393–5 (28 ref.)
Cytokines and airways: recent insights and therapeutic implications. Passalacqua G, et al. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):375–9 (56 ref.)
Global warming and efficacy of therapeutic agents for respiratory diseases [letter] Arya SC. **Respiration** 1999; 66(4):380–2
[Prescription and consumption of antibiotics in ambulatory care] **Presse Med** 1999 Feb 20;28(7):343–50 (Eng. Abstr.) **(Fre)**
[Therapeutic update 1997–1998 (1). First part] Scheen AJ. **Rev Med Liege** 1998 Aug;53(8):459–66 (28 ref.) (Eng. Abstr.) **(Fre)**
[Clinical significance of fungal and microbial associations and antibacterial therapy for treatment of chronic inflammatory respiratory tract diseases in children] Platonova MM, et al. **Antibiot Khimicter** 1998;43(9):19–23 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Neutral endopeptidase 24.11: its physiologic and possibly pathophysiologic role in inflammation with special effect on respiratory inflammation. Koehne P, et al. **Allergy** 1998 Nov;53(11):1023–42 (248 ref.)
Matrix metalloproteinase gelatinases in sulfur mustard–induced acute airway injury in guinea pigs. Calvet JH, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L754–62

EPIDEMIOLOGY

Relative chronic effects of different occupational dusts on respiratory indices and health of workers in three Ethiopian factories. Mengesha YA, et al. **Am J Ind Med** 1998 Oct; 34(4):373–80
Work–related respiratory disorders and farming characteristics among cattle farmers in Northern Germany. Radon K, et al. **Am J Ind Med** 1999 Oct;36(4):444–9
Respiratory problems associated with exposure to airborne particles in the community. Goren A, et al. **Arch Environ Health** 1999 May–Jun;54(3):165–71
Home dampness and respiratory health status in european children [see comments] Andriessen JW, et al. **Clin Exp Allergy** 1998 Oct;28(10):1191–200. Comment in: Clin Exp Allergy 1998 Oct;28(10):1178–81.
Body height and weight and respiratory diseases in skeletal Class II/1 orthodontic patients. Legović M, et al. **Coll Antropol** 1998 Dec;22 Suppl:185–91
Air pollution and health effects: A study of medical visits among children in Santiago, Chile. Ostro BD, et al. **Environ Health Perspect** 1999 Jan;107(1):69–73
Daily hospital respiratory admissions and winter air mass types, Birmingham, UK. McGregor GR, et al. **Int J Biometeorol** 1999 Jul;43(1):21–30
Self–reporting versus parental reporting of acute respiratory symptoms of children and their relation to pulmonary function and air pollution. Hoek G, et al. **Int J Epidemiol** 1999 Apr;28(2):293–9
Prevalence of respiratory symptoms: marked differences within a small geographical area. Wieringa MH, et al. **Int J Epidemiol** 1998 Aug;27(4):630–5
Particulate matter, sulfur dioxide, and pulmonary function in never–smoking adults in Chongqing, China. Wang B, et al. **Int J Occup Environ Health** 1999 Jan–Mar;5(1):14–9
School absence and treatment in school children with respiratory symptoms in The Netherlands: data from the Child Health Monitoring System. Spee–van der Wekke J, et al. **J Epidemiol Community Health** 1998 Jun;52(6):359–63
Lung function and general illness symptoms in a semiconductor manufacturing facility. Luo JC, et al. **J Occup Environ Med** 1998 Oct;40(10):895–900
Respiratory findings in workers employed in the brick–manufacturing industry. Zuskin E, et al. **J Occup Environ Med** 1998 Sep;40(9):814–20
Respiratory morbidity of hospitalized children with Trisomy 21. Hilton JM, et al. **J Paediatr Child Health** 1999 Aug; 35(4):383–6
Respiratory symptoms in Lancashire textile weavers. Raza SN, et al. **Occup Environ Med** 1999 Aug;56(8):514–9
SWORD '97: surveillance of work–related and occupational respiratory disease in the UK. Ross DJ, et al. **Occup Med (Lond)** 1998 Nov;48(8):481–5 (9 ref.)
Electronic surveillance of disease states: a preliminary study in electronic detection of respiratory diseases in a primary care setting. Hung J, et al. **Proc AMIA Symp** 1998:688–92
Use of the General Practice Research Database (GPRD) for respiratory epidemiology: a comparison with the 4th Morbidity Survey in General Practice (MSGP4). Hansell A, et al. **Thorax** 1999 May;54(5):413–9
[Pre– and postoperative complications of elderly patients with femoral neck fractures—a report of 525 cases] Suzuki S, et al. **Masui** 1999 May;48(5):528–33 (Eng. Abstr.) **(Jpn)**
[Assessment of answer repeatability in a questionnaire evaluation of respiratory tract symptoms in children] Jaźwiec–Kanyion B, et al. **Pneumonol Alergol Pol** 1998; 66(9–10):456–63 (Eng. Abstr.) **(Pol)**
[Epidemiological factors of mushroom poisoning in the north–east of Poland] Lapiński TW, et al. **Przegl Epidemiol** 1998;52(4):463–67 (Eng. Abstr.) **(Pol)**

RESPIRATORY TRACT DISEASES

ETIOLOGY

The respiratory risks of cannabis smoking [editorial] Hall W. **Addiction** 1998 Oct;93(10):1461–3

Re: "Breastfeeding reduces risk of respiratory illness in infants" [letter; comment] Gordon AG. **Am J Epidemiol** 1999 Aug 15;150(4):427–8. Comment on: Am J Epidemiol 1998 May 1;147(9):863–70.

Respiratory symptoms and lung function in two prebake aluminum smelters. Fritschi L, et al. **Am J Ind Med** 1999 May;35(5):491–8

The relationship of chronic mucin secretion to airway disease in normal and CFTR–deficient mice. Cressman VL, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):853–66

Peak expiratory flow variability, bronchial responsiveness, and susceptibility to ambient air pollution in adults. Boezen M, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1848–54

A study of twelve Southern California communities with differing levels and types of air pollution. I. Prevalence of respiratory morbidity. Peters JM, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):760–7

Long–term ambient air pollution and respiratory symptoms in adults (SAPALDIA study). The SAPALDIA Team. Zemp E, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1257–66

Indoor endotoxin and glucan in association with airway inflammation and systemic symptoms. Wan GH, et al. **Arch Environ Health** 1999 May–Jun;54(3):172–9

Parental smoking and respiratory illnesses in Australian children aged 0–4 years: ABS 1989–90 National Health Survey results. Lister SM, et al. **Aust N Z J Public Health** 1998 Dec;22(7):781–6

Noise–induced extra–aural pathology: a review and commentary. Alves–Pereira M. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A7–21 (98 ref.)

The effect of chronic exposure to low frequency noise on rat tracheal epithelia. De Sousa Pereira A, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A86–90

Effect of atmospheric pollution on the respiratory system. Oyarzún M, et al. **Biol Res** 1998;31(4):361–6

Respiratory system response to ambient air magnesite particulates. Reichrtová E, et al. **Cent Eur J Public Health** 1998 Aug;6(3):238–40

Pulmonary risk factors compromising postoperative recovery after surgical repair for congenital heart disease. Bandla HP, et al. **Chest** 1999 Sep;116(3):740–7

Particulate and ozone pollutant effects on the respiratory function of children in southwest Mexico City [see comments] [published erratum appears in Epidemiology 1999 Jul;10(4):470] Gold DR, et al. **Epidemiology** 1999 Jan; 10(1):8–16. Comment in: Epidemiology 1999 Jan;10(1):1–4.

Short–term associations between outdoor air pollution and visits to accident and emergency departments in London for respiratory complaints. Atkinson RW, et al. **Eur Respir J** 1999 Feb;13(2):257–65

Fine particulate air pollution, resuspended road dust and respiratory health among symptomatic children. Tiittanen P, et al. **Eur Respir J** 1999 Feb;13(2):266–73

Respiratory complications of gastrointestinal diseases. Young MA, et al. **Gastroenterol Clin North Am** 1998 Dec; 27(4):721–46 (115 ref.)

Passive smoke exposure in infants and children with respiratory tract diseases. Köhler E, et al. **Hum Exp Toxicol** 1999 Apr;18(4):212–7

Passive smoking and respiratory symptoms in primary school children in Hong Kong. Child Health and Activity Research Group (CHARG). Lam TH, et al. **Hum Exp Toxicol** 1999 Apr;18(4):218–23

Respiratory health and fluoride exposure in different parts of the modern primary aluminum industry. Radon K, et al. **Int Arch Occup Environ Health** 1999 Aug;72(5):297–303

Reporting bias related to an environmental hazard. Goren AI. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:211–27

Pulmonary complications in traumatic brain injury. Wiercisiewski DR, et al. **J Head Trauma Rehabil** 1998 Feb; 13(1):28–35

Risk indicator of dust exposure and health effects in cement plant workers. Alvear–Galindo MG, et al. **J Occup Environ Med** 1999 Aug;41(8):654–61

Health effects of the 1991 Kuwait oil fires: a survey of US army troops. Petruccelli BP, et al. **J Occup Environ Med** 1999 Jun;41(6):433–9

Something particular in the air we breathe? [letter; comment] Robinson DL. **Med J Aust** 1999 Apr 5;170(7):342. Comment on: Med J Aust 1998 Nov 2;169(9):452–3.

Road traffic and adverse respiratory effects in children. SIDRIA Collaborative Group. Ciccone G, et al. **Occup Environ Med** 1998 Nov;55(11):771–8

Respiratory health of cigar factory workers. Uitti J, et al. **Occup Environ Med** 1998 Dec;55(12):834–9

Evaluation of chronic respiratory effects in the potato processing industry: indications of a healthy worker effect? Zock JP, et al. **Occup Environ Med** 1998 Dec;55(12):823–7

Illness and injury in animal confinement workers. Von Essen S, et al. **Occup Med** 1999 Apr–Jun;14(2):337–50 (69 ref.)

Antireflux surgery in children suffering from reflux–associated respiratory diseases. Ahrens P, et al. **Pediatr Pulmonol** 1999 Aug;28(2):89–93

Indoor air pollution and the respiratory health of children. Burr ML. **Pediatr Pulmonol Suppl** 1999;18:3–5

Functional pulmonary surfactant deficiency and neonatal respiratory disorders. Ogawa Y, et al. **Pediatr Pulmonol Suppl** 1999;18:175–7 (8 ref.)

Health effects of passive smoking–10: Summary of effects of parental smoking on the respiratory health of children and implications for research. Cook DG, et al. **Thorax** 1999 Apr;54(4):357–66 (62 ref.)

The health effects of living near cement kilns; a symptom survey in Midlothian, Texas. Legator MS, et al. **Toxicol Ind Health** 1998 Nov–Dec;14(6):829–42

[Medium and long–term sequelae of community–acquired pneumonia in children] Deschildre A. **Arch Pediatr** 1998; 5 Suppl 1:45s–48s (19 ref.) (Eng. Abstr.) **(Fre)**

[The air that we breathe] Bonnaud F, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S201–2 **(Fre)**

[Respective influence of occupational and personal factors on respiratory function in dairy farmers] Choma D, et al. **Rev Mal Respir** 1998 Dec;15(6):765–72 (Eng. Abstr.) **(Fre)**

[Relative importance of domestic pollution and atmospheric pollution on respiratory health] Nouvet G. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S177–8 **(Fre)**

[Diseases associated with organic dusts] Michel O. **Rev Med Brux** 1998 Sep;19(4):A358–62 (20 ref.) (Eng. Abstr.) **(Fre)**

[Endotoxins in the workplace and in the environment] Danuser B, et al. **Schweiz Med Wochenschr** 1999 Mar 27; 129(12):475–83 (56 ref.) (Eng. Abstr.) **(Ger)**

[The role of intercellular adhesion molecule–1 in respiratory disorders] Nagase T. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov;36(11):923–7 (54 ref.) (Eng. Abstr.) **(Jpn)**

[Aspects of respiratory diseases at non–ferrous metal production and processing industry] Aleshina OE, et al. **Med Tr Prom Ekol** 1999;(5):36–8 **(Rus)**

[Respiratory function in textile workers involved in the processing of synthetic fibers] Zuškin E, et al. **Arh Hig Rada Toksikol** 1998 Mar;49(1):33–43 (Eng. Abstr.) **(Scr)**

[Pediatric diseases associated with passive smoking] Ferris Tortajada J, et al. **An Esp Pediatr** 1998 Oct;49(4):339–47 (83 ref.) **(Spa)**

[The tobacco habit and lower respiratory disorders. Who smokes and when? (letter; comment)] Díaz Vázquez CA. **Aten Primaria** 1998 Nov 30;22(9):611–2. Comment on: Aten Primaria 1998 Jun 15;22(1):46–51. **(Spa)**

[The domestic inhalation of the smoke from firewood and of other biological materials. A risk for the development of respiratory diseases] Pérez–Padilla JR, et al. **Gac Med Mex** 1999 Jan–Feb;135(1):19–29 (Eng. Abstr.) **(Spa)**

GENETICS

Case of partial trisomy 2q3 with clinical manifestations of Marshall–Smith syndrome. Seidahmed MZ, et al. **Am J Med Genet** 1999 Jul 16;85(2):185–8 (11 ref.)

HISTORY

The journal 150 years ago. March 1849. Colon GA. **J La State Med Soc** 1999 Mar;151(3):123–5

IMMUNOLOGY

Serum complement levels in children in communities with different levels of air pollution in Japan. Shima M, et al. **Arch Environ Health** 1999 Jul–Aug;54(4):264–70

Respiratory function and immunological status in paper–recycling workers. Zuskin E, et al. **J Occup Environ Med** 1998 Nov;40(11):986–93

Respiratory health and immunological profile of poultry workers. Rees D, et al. **S Afr Med J** 1998 Sep;88(9):1110–7

[Effect of stress and relaxation on the local immune system of the upper respiratory tract. A contribution to psychoneuroimmunology] Kugler J. **Zentralbl Gynakol** 1999;121 Suppl 1:62–8 **(Ger)**

METABOLISM

The penetration of ceftibuten into the respiratory tract [comment] Krumpe P, et al. **Chest** 1999 Aug;116(2):369–74 . Comment on: Lancet 1998 Jun 13;351(9118):1801–4.

MICROBIOLOGY

[Clinical significance of fungal and microbial associations and antibacterial therapy for treatment of chronic inflammatory respiratory tract diseases in children] Platonova MM, et al. **Antibiot Khimioter** 1998;43(9):19–23 (Eng. Abstr.) **(Rus)**

MORTALITY

Long–term inhalable particles and other air pollutants related to mortality in nonsmokers [see comments] Abbey DE, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):373–82. Comment in: Am J Respir Crit Care Med 1999 Feb;159(2):354–6.

Time–series analysis of air pollution and cause–specific mortality. Zmirou D, et al. **Epidemiology** 1998 Sep; 9(5):495–503

Air pollution and mortality in Madrid, Spain: a time–series analysis. Alberdi Odriozola JC, et al. **Int Arch Occup Environ Health** 1998 Nov;71(8):543–9

Mortality from nonmalignant diseases of the respiratory, genitourinary and nervous systems among workers exposed to styrene in the reinforced plastics and composites industry in the United States. Wong O, et al. **Scand J Work Environ Health** 1999 Aug;25(4):317–25

An approximate CUSUM procedure for surveillance of health events. Rossi G, et al. **Stat Med** 1999 Aug 30; 18(16):2111–22

[Daily mortality in Santiago and its relationship with air pollution] Sanhueza P, et al. **Rev Med Chil** 1999 Feb; 127(2):235–42 (Eng. Abstr.) **(Spa)**

NURSING

Research priorities in respiratory nursing. Wewers ME, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):2006–15

PATHOLOGY

Protocol for the examination of specimens removed from patients with carcinomas of the upper aerodigestive tract: carcinomas of the oral cavity including lip and tongue, nasal and paranasal sinuses, pharynx, larynx, salivary glands, hypopharynx, oropharynx, and nasopharynx. Cancer Committee, College of American Pathologists. Min KW, et al. **Arch Pathol Lab Med** 1998 Mar;122(3):222–30 (58 ref.)

The effect of chronic exposure to low frequency noise on rat tracheal epithelia. De Sousa Pereira A, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A86–90

Long–term follow–up of the clinical relevance of short outer dynein arms in human nasal cilia. Torkkeli T, et al. **Eur Arch Otorhinolaryngol** 1998;255(10):495–8

Amyloidosis and the respiratory tract. Gillmore JD, et al. **Thorax** 1999 May;54(5):444–51 (80 ref.)

[Immunohistochemical studies on neuronal changes in brain stem nucleus of forensic autopsied cases. I. Various cases of asphyxia and respiratory disorder] Kubo S, et al. **Nippon Hoigaku Zasshi** 1998 Dec;52(6):345–9 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Reactive airways dysfunction and systemic complaints after mass exposure to bromine [clinical conference] Woolf A, et al. **Environ Health Perspect** 1999 Jun;107(6):507–9

The effect of patient technique and training on the accuracy of self–recorded peak expiratory flow. Gannon PF, et al. **Eur Respir J** 1999 Jul;14(1):28–31

Modulation of the acute respiratory effects of winter air pollution by serum and dietary antioxidants: a panel study. Grievink L, et al. **Eur Respir J** 1999 Jun;13(6):1439–46

Effects of airway inflammation on cough response in the guinea pig. Xiang A, et al. **J Appl Physiol** 1998 Nov; 85(5):1847–54

Respiratory function and immunological status in paper–recycling workers. Zuskin E, et al. **J Occup Environ Med** 1998 Nov;40(11):986–93

Cytokines and airways: recent insights and therapeutic implications. Passalacqua G, et al. **Pulm Pharmacol Ther** 1998 Oct–Dec;11(5–6):375–9 (56 ref.)

[High (or abnormal) upper airway resistance] Guilleminault C, et al. **Rev Mal Respir** 1999 Apr;16(2):173–80 **(Fre)**

[A difficult baptism. Where does the syndrome of upper airway resistance exist?] Krieger J. **Rev Mal Respir** 1999 Apr;16(2):123–4 **(Fre)**

[The functional status and work capacity of coal mine workers with a history of an acute respiratory disease] Perederil GS. **Lik Sprava** 1998 Aug;(6):164–7 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

Re: "Breastfeeding reduces risk of respiratory illness in infants" [letter; comment] Gordon AG. **Am J Epidemiol** 1999 Aug 15;150(4):427–8. Comment on: Am J Epidemiol 1998 May 1;147(9):863–70.

Respiratory protection on offshore drilling rigs. Mattorano DA, et al. **Appl Occup Environ Hyg** 1999 Mar;14(3):141–8

Benefits of influenza vaccination for bedridden patients [letter] Fukushima T, et al. **Arch Intern Med** 1999 Jun 14; 159(11):1258

Prevention of respiratory diseases. Thakker H, et al. **Indian J Med Sci** 1998 Feb;52(2):60–5 (3 ref.)

Controlling silica exposures. Breeding DC. **Occup Health Saf** 1998 Oct;67(10):178–81

Ultrasonic solution. Delaney RW. **Occup Health Saf** 1998 Nov;67(11):42–3, 66

Hygienic practices and acute respiratory illness in family and group day care homes. St. Sauver J, et al. **Public Health Rep** 1998 Nov–Dec;113(6):544–51

[The air that we breathe] Bonnaud F, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S201–2 **(Fre)**

[Respiratory tract diseases and instructions on smoking cessation] Kawakami M. **Nippon Naika Gakkai Zasshi** 1999 Feb 10;88(2):362–7 (11 ref.) **(Jpn)**

PSYCHOLOGY

[Effect of stress and relaxation on the local immune system of the upper respiratory tract. A contribution to psychoneuroimmunology] Kugler J. **Zentralbl Gynakol** 1999;121 Suppl 1:62–8 **(Ger)**

[The value of studies of quality of life in chronic respiratory tract diseases in the framework of holistic medicine (editorial)] Farnik–Brodzińska M, et al. **Wiad Lek** 1998; 51(7–8):316–20 (Eng. Abstr.) **(Pol)**

RADIOGRAPHY

Localized amyloidosis of the respiratory system: CT features. Kim HY, et al. **J Comput Assist Tomogr** 1999 Jul-Aug; 23(4):627-31

The value of ultrafast computed tomography in the investigation of pediatric chest disease. Coren ME, et al. **Pediatr Pulmonol** 1998 Dec;26(6):389-95

[Guidelines for the routine assessment of respiratory surgical risk: thoracic radiography] Assenza M, et al. **G Chir** 1999 Apr;20(4):149-53 (Eng. Abstr.) **(Ita)**

RADIOTHERAPY

[A trial of the use of an EHF therapy apparatus in preventing immunodeficiency states in acute respiratory diseases] Efimov EI, et al. **Voen Med Zh** 1999 May;320(5):58-9 **(Rus)**

SURGERY

Induction immunosuppression for lung transplantation with OKT3. Wain JC, et al. **Ann Thorac Surg** 1999 Jan; 67(1):187-93

Thoracoscopic procedures for intrathoracic and pulmonary diseases. Sung SW, et al. **Respirology** 1999 Mar;4(1):19-29 (61 ref.)

THERAPY

Effects of humidification on nasal symptoms and compliance in sleep apnea patients using continuous positive airway pressure. Massie CA, et al. **Chest** 1999 Aug;116(2):403-8

Therapeutic benefits of qigong exercises in combination with drugs. Sancier KM. **J Altern Complement Med** 1999 Aug; 5(4):383-9 (38 ref.)

Respiratory intensive care in Europe: lessons for the UK [editorial; comment] Elliott MW, et al. **Thorax** 1998 Sep; 53(9):725-6. Comment on: Thorax 1998 Sep;53(9):798-802.

[What can be expected from gene therapy in respiratory diseases?] Mornex JF. **Presse Med** 1998 Apr 25; 27(16):769-70 **(Fre)**

[Respiratory kinesitherapy. For whom? Why do it?] Sergysels R. **Rev Mal Respir** 1998 Oct;15(5):571-3 **(Fre)**

[Evaluating the influence of hospital size on respiratory health care efficiency in Andalusia] Galán González-Serna JM, et al. **Arch Bronconeumol** 1999 May;35(5):202-7 (Eng. Abstr.) **(Spa)**

VETERINARY

The association of titers to Haemophilus somnus, and other putative pathogens, with the occurrence of bovine respiratory disease and weight gain in feedlot calves. Martin SW, et al. **Can J Vet Res** 1998 Oct;62(4):262-7

Clinical assessment of gas exchange in mature horses. Davis MS, et al. **Equine Vet J** 1998 Sep;30(5):396-400

Cytologic examination of specimens obtained by means of tracheal washes performed before and after high-speed treadmill exercise in horses with a history of poor performance. Martin BB Jr, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):673-7

Detection of cilia-associated respiratory (CAR) bacillus in nasal-swab specimens from infected rats by use of polymerase chain reaction. Franklin CL, et al. **Lab Anim Sci** 1999 Feb;49(1):114-7

Relationship of structure and function of the avian respiratory system to disease susceptibility. Fedde MR. **Poult Sci** 1998 Aug;77(8):1130-8 (51 ref.)

Feline respiratory diseases. Hoskins JD. **Vet Clin North Am Small Anim Pract** 1999 Jul;29(4):945-58, vii (21 ref.)

Cellular and humoral responses in the respiratory tract of goats following intranasal stimulation using formalin-killed Pasteurella haemolytica A2. Zamri-Saad M, et al. **Vet Microbiol** 1999 Mar 12;65(3):233-40

Detection of antibodies to influenza A virus in cattle in association with respiratory disease and reduced milk yield. Brown IH, et al. **Vet Rec** 1998 Dec 5;143(23):637-8

Cytological and microbiological results from equine guttural pouch lavages obtained percutaneously: correlation with histopathological findings. Chiesa OA, et al. **Vet Rec** 1999 May 29;144(22):618-21

Investigation of a possible role for Chlamydia in a new disease syndrome in dairy cattle. Dannatt L, et al. **Vet Rec** 1998 Dec 19-26;143(25):691-3

VIROLOGY

Antibody responses after Sendai virus infection and their role in upper and lower respiratory tract disease in rats. Liang SC, et al. **Lab Anim Sci** 1999 Aug;49(4):385-94

RESPIRATORY TRACT FISTULA

COMPLICATIONS

Endoscopic treatment of wirsungo-cysto-pleural fistula. Hastier P, et al. **Eur J Gastroenterol Hepatol** 1998 Jun; 10(6):527-9

ETIOLOGY

Early complications. Esophagopleural fistula. Massard G, et al. **Chest Surg Clin N Am** 1999 Aug;9(3):617-31, ix (44 ref.)

Midfacial complications of prolonged cocaine snorting. Villa PD. **J Can Dent Assoc** 1999 Apr;65(4):218-23 (28 ref.)

Complications resulting from treatment of severe posterior epistaxis. Bent JP 3rd, et al. **J Laryngol Otol** 1999 Mar; 113(3):252-4

Aortobronchial fistula after expandable metal stent insertion for pediatric bronchomalacia. Cook CH, et al. **J Pediatr Surg** 1998 Aug;33(8):1306-8

Traumatic thoracobiliary fistula: report of a case successfully managed conservatively, with an overview of current diagnostic and therapeutic options. Sheik-Gafoor MH, et al. **J Trauma** 1998 Oct;45(4):819-21 (16 ref.)

[A case of tracheal fistula after operation for esophageal cancer] Atsuta Y, et al. **Kyobu Geka** 1999 Jul;52(7):531-4 (Eng. Abstr.) **(Jpn)**

[A colopleural fistula as the clinical presentation of colonic adenocarcinoma (letter)] Domingo-Morera JA, et al. **Arch Bronconeumol** 1999 Jan;35(1):52-3 (6 ref.) **(Spa)**

PREVENTION & CONTROL

The value of Asamura-Naruke type main bronchus stump closure and pleuro-pericardial flap covering by own method to avoid broncho-pleural fistula (BPF). Kecskés L, et al. **Acta Chir Hung** 1999;38(1):71-3

Tracheo-innominate artery fistula after tracheostomy. Kapural L, et al. **Anesth Analg** 1999 Apr;88(4):777-80

Prevention of postoperative air leakage from lungs using a purified human collagen membrane-polyglycolic acid sheet. Tsuda T, et al. **Ann Thorac Surg** 1999 Aug; 68(2):339-42

RADIOGRAPHY

[Crohn disease of the esophagus with esophageal-pulmonary fistula] Stiewe S, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):562-3 **(Ger)**

SURGERY

Videothoracoscopy and muscle flaps in the treatment of bronchial stump fistula. Kowalewski J, et al. **Acta Chir Hung** 1999;38(1):79-81

Pancreaticopleural fistula treated by transpapillary implantation of a plastic prosthesis [letter; comment] Griesshammer B, et al. **Endoscopy** 1998 Oct;30(8):741. Comment on: Endoscopy 1996 Nov;28(9):784.

[A case of tracheal fistula after operation for esophageal cancer] Atsuta Y, et al. **Kyobu Geka** 1999 Jul;52(7):531-4 (Eng. Abstr.) **(Jpn)**

THERAPY

Bronchopleural fistula after pneumonectomy: a major challenge. Athanassiadi K, et al. **Acta Chir Hung** 1999; 38(1):5-7

A new instrument for endoscopic gluing for bronchopleural fistulae. Tsunezuka Y, et al. **Ann Thorac Surg** 1999 Sep; 68(3):1088-9

A syndrome of inappropriate secretion of antidiuretic hormone associated with pleuritis caused by OK-432. Hanagiri T, et al. **Respiration** 1998;65(4):310-2

RESPIRATORY TRACT INFECTIONS

Opportunistic thoracic infections. Bacteria, viruses, and protozoa. Talbot EA, et al. **Chest Surg Clin N Am** 1999 Feb;9(1):167-92, ix-x (91 ref.)

Proceedings of the International Conference on Acute Respiratory Infections. Canberra, Australia, July 1997. **Clin Infect Dis** 1999 Feb;28(2):188-238

Bibliography. Current world literature. Infections diseases. **Curr Opin Pulm Med** 1999 May;5(3):B63-85

Host responses to respiratory virus infection and immunization. Crowe JE Jr. **Curr Top Microbiol Immunol** 1999;236:191-214 (235 ref.)

Effects of viral respiratory disease education and surveillance on antibiotic prescribing. Temte JL, et al. **Fam Med** 1999 Feb;31(2):101-6

Priorities for research in lung health. International Union Against Tuberculosis and Lung Disease (IUATLD), and the International Development Research Centre (IDRC). Paris. 9-11 December 1997. **Int J Tuberc Lung Dis** 1998 Dec;2(12):1046-8

Principles and priorities in acute respiratory infections in children. Enarson PM, et al. **Int J Tuberc Lung Dis** 1998 Sep;2(9 Suppl 1):S77-86

Assessment of pediatric patients for general anesthesia: the child with an upper respiratory infection and the ex-premature infant. Steward DJ. **Semin Pediatr Surg** 1999 Feb;8(1):13-7

Loss prevention case of the month. Teamwork missing. Avery JK. **Tenn Med** 1999 Jul;92(7):261-2, 268

[Beta-lactamase producers and other bacteria: which ones to take into consideration and when? The viewpoint of the pediatrician] de Blic J. **Presse Med** 1998 Sep;27 Suppl 4:16-7 **(Fre)**

[Management of lower respiratory infections in young children] Olivier C. **Presse Med** 1998 Sep;27 Suppl 4:7-8 **(Fre)**

[Management of community-acquired lower respiratory infections. Definition, epidemiology, risk factors and prevention] Léophonte P. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S9-11 **(Fre)**

[HIV Infection/AIDS and respiratory tract infections in Japan] Kimura S. **Kekkaku** 1998 Sep;73(9):563-71 (29 ref.) (Eng. Abstr.) **(Jpn)**

[Tuberculosis in respiratory system--tracheo-bronchial tuberculosis, pulmonary tuberculosis, tuberculous pleurisy and thoracic empyema] Nagao K. **Nippon Rinsho** 1998 Dec; 56(12):3104-9 (13 ref.) (Eng. Abstr.) **(Jpn)**

[Acute upper airway infection] Narushima M. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):407-9 (12 ref.) **(Jpn)**

[Diagnostic and therapeutical recommendations for infections of the respiratory tract] **Pol Merkuriusz Lek** 1998 Jul; 5(25):7-48 **(Pol)**

[Respiratory tract infections by Pseudomonas aeruginosa in patients under intubation] Rello J, et al. **Rev Clin Esp** 1998 Sep;198 Suppl 2:17-20 (31 ref.) **(Spa)**

BLOOD

Immature neutrophils in the blood smears of young febrile children. Kuppermann N, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):261-6

COMPLICATIONS

An epidemiological study of postviral olfactory disorder. Sugiura M, et al. **Acta Otolaryngol Suppl (Stockh)** 1998; 538:191-6

Prophylactic intermittent treatment with inhaled corticosteroids of asthma exacerbations due to airway infections in toddlers. Svedmyr J, et al. **Acta Paediatr** 1999 Jan;88(1):42-7

Recurrent respiratory tract infections during the first 3 years of life and atopy at school age. Nystad W, et al. **Allergy** 1998 Dec;53(12):1189-94

Can acute Chlamydia pneumoniae respiratory tract infection initiate chronic asthma? Hahn DL, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):339-44

Clinical predictors of hypoxaemia in Gambian children with acute lower respiratory tract infection: prospective cohort study. Usen S, et al. **BMJ** 1999 Jan 9;318(7176):86-91

Infective exacerbations of COPD [letter; comment] Sayiner A, et al. **Chest** 1999 May;115(5):1481. Comment on: Chest 1998 Jun;113(6):1542-8.

Life-threatening leukocytoclastic vasculitis with pulmonary involvement due to echovirus 7. Chia JK, et al. **Clin Infect Dis** 1998 Nov;27(5):1326-7

On eggs and chicken [editorial; comment] de Jongste JC, et al. **Eur Respir J** 1999 Jul;14(1):2-3 (14 ref.). Comment on: Eur Respir J 1999 Jul;14(1):4-11.

Anorexia, OCD, and streptococcus [letter; comment] Henry MC, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar; 38(3):228-9. Comment on: J Am Acad Child Adolesc Psychiatry 1997 Aug;36(8):1128-33.

Detection of viral, Chlamydia pneumoniae and Mycoplasma pneumoniae infections in exacerbations of asthma in children. Freymuth F, et al. **J Clin Virol** 1999 Aug; 13(3):131-9

Recurrent acute cerebellar ataxia of childhood following nonspecific respiratory tract infection. Visudtibhan A, et al. **J Med Assoc Thai** 1998 Dec;81(12):1015-8

Respiratory virus infections in immunocompromised patients [editorial] Muir D, et al. **J Med Microbiol** 1998 Jul; 47(7):561-2

Lung function in infants with chronic pulmonary disease after severe adenoviral illness. Teper AM, et al. **J Pediatr** 1999 Jun;134(6):730-3

Immunologic mechanisms of virus-induced wheezing and asthma. Welliver RC. **J Pediatr** 1999 Aug;135(2 Pt 2):14-20 (41 ref.)

Respiratory viruses in acute otitis media [editorial; comment] Eskola J, et al. **N Engl J Med** 1999 Jan 28;340(4):312-4. Comment on: N Engl J Med 1999 Jan 28;340(4):260-4.

Recurrent ENT problems and wheezing in infants. Dutau G, et al. **Pediatr Allergy Immunol** 1998;9(11 Suppl):18-22 (59 ref.)

Potential infectious disease complications of upper respiratory tract infections. Gooch WM 3rd. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S79-82 (26 ref.)

Time to development of acute otitis media during an upper respiratory tract infection in children. Koivunen P, et al. **Pediatr Infect Dis J** 1999 Mar;18(3):303-5

Midcervical postinfectious ligamentous instability: a variant of Grisel's syndrome. Lopes DK, et al. **Pediatr Neurosurg** 1998 Sep;29(3):133-7

Severe viral respiratory infections in infants with cystic fibrosis. Armstrong D, et al. **Pediatr Pulmonol** 1998 Dec; 26(6):371-9

Viruses and asthma exacerbations [editorial] Papadopoulos NG, et al. **Thorax** 1998 Nov;53(11):913-4

[Respiratory tract infections as cause of acute myocardial infarction] Kolmos HJ. **Ugeskr Laeger** 1999 Mar 1; 161(9):1278-9 **(Dan)**

[Two children with a rare etiology of torticollis: primitive neuro-ectodermal tumor and Grisel's syndrome (letter; comment)] Cruysberg JR, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1573-4. Comment on: Ned Tijdschr Geneeskd 1998 May 2;142(18):1030-3. **(Dut)**

[Postinfectious bilateral leg edema and lumbar sciatica] Mock B, et al. **Med Klin** 1998 Aug 15;93(8):499 **(Ger)**

[Asthma and infection: risk or prevention?] von Mutius E. **Schweiz Med Wochenschr** 1998 Nov 21;128(47):1833-9 (49 ref.) (Eng. Abstr.) **(Ger)**

[Viral respiratory infection in bronchial asthma] Suzuki S. **Arerugi** 1999 Jan;48(1):5–8 (28 ref.) **(Jpn)**

[Influence of beclomethasone dipropionate inhalation therapy on respiratory bacterial infection in patients with an acute exacerbation of COPD] Watanabe Y, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jan;37(1):10–3 (Eng. Abstr.) **(Jpn)**

[Selected etiological factors in the pathogenesis of subglottic laryngitis in children] Zielnik-Jurkiewicz B. **Otolaryngol Pol** 1998;52(3):359–61 (Eng. Abstr.) **(Pol)**

[Pseudo-hemoptysis due to Serratia marcescens, an etiology to remember (letter)] Hurtado Ayuso JE, et al. **Arch Bronconeumol** 1999 Apr;35(4):194–5 **(Spa)**

[Infection and chronic obstructive pulmonary disease] Zalacain R. **Arch Bronconeumol** 1998 Oct;34(9):453–62 (118 ref.) **(Spa)**

[Multiple abscesses (cerebral, splenic, cutaneous) and pulmonary infection] Camino X, et al. **Enferm Infecc Microbiol Clin** 1999 Apr;17(4):189–90 **(Spa)**

DIAGNOSIS

Free secretory component as a standardization protein for nasopharyngeal specimens from children with upper respiratory tract infection. Heikkinen T, et al. **Acta Paediatr** 1999 Feb;88(2):150–3

Mixed respiratory viral infections in Estonia: a long-term laboratory study. Subi K. **Acta Virol** 1998 Dec;42(6):413–5

Rhinovirus and respiratory syncytial virus in wheezing children requiring emergency care. IgE and eosinophil analyses. Rakes GP, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):785–90

Reliability of parental history of antibiotic use for Filipino children admitted with acute lower respiratory tract infection. Sombrero L, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):397–9

Respiratory tract viral infections in inner-city asthmatic adults. Atmar RL, et al. **Arch Intern Med** 1998 Dec 7–21; 158(22):2453–9

Reliable and easy identification of bacterial acute respiratory infections of childhood. Perera A, et al. **Ceylon Med J** 1998 Dec;43(4):200–5

Fever without apparent source on clinical examination, lower respiratory infections in children, and other infectious diseases. McCarthy PL, et al. **Curr Opin Pediatr** 1999 Feb; 11(1):89–106 (96 ref.)

Molecular techniques for the diagnosis of respiratory bacterial infection. Gillespie S. **Curr Opin Pulm Med** 1999 May;5(3):174–8 (35 ref.)

Systemic markers of inflammation in stable bronchiectasis. Wilson CB, et al. **Eur Respir J** 1998 Oct;12(4):820–4

Direct detection of respiratory syncytial virus, parainfluenza virus, and adenovirus in clinical respiratory specimens by a multiplex reverse transcription-PCR assay. Osiowy C. **J Clin Microbiol** 1998 Nov;36(11):3149–54

Immunochromatography test for rapid diagnosis of adenovirus respiratory tract infections: comparison with virus isolation in tissue culture. Tsutsumi H, et al. **J Clin Microbiol** 1999 Jun;37(6):2007–9

Detection of respiratory syncytial virus in samples frozen at -20 degrees C [letter] Yilmaz G, et al. **J Clin Microbiol** 1999 Jul;37(7):2390

Evaluating the presentation and management of upper respiratory tract infection in primary care clinics in Saudi Arabia: biomedical factors do not govern clinical decision making. Al-Shammari SA, et al. **J Eval Clin Pract** 1999 Feb;5(1):65–71

Use of PCR to detect mycoplasma DNA in respiratory tract specimens from adult HIV-positive patients. Cultrera R, et al. **J Med Microbiol** 1998 Nov;47(11):983–6

Comparison of two serological methods and a polymerase chain reaction-enzyme immunoassay for the diagnosis of acute respiratory infections with Chlamydia pneumoniae in adults. Petitjean J, et al. **J Med Microbiol** 1998 Jul; 47(7):615–21

Detection of pneumolysin in sputum. Wheeler J, et al. **J Med Microbiol** 1999 Sep;48(9):863–6

Efficacy of PCR and other diagnostic methods for the detection of respiratory adenoviral infections. Räty R, et al. **J Med Virol** 1999 Sep;59(1):66–72

Serological diagnosis of respiratory viral infections. A five-year study of hospitalised patients. Donati D, et al. **New Microbiol** 1998 Oct;21(4):365–74

Allergic and infectious pediatric sinusitis [see comments] Zacharisen MC, et al. **Pediatr Ann** 1998 Nov;27(11):759–66 (19 ref.). Comment in: Pediatr Ann 1998 Nov;27(11):708.

Lower respiratory tract infection and pneumonia in the community. Macfarlane J. **Semin Respir Infect** 1999 Jun; 14(2):151–62 (77 ref.)

[Immunology in medical practice. XVIII [correction of XVII]. Children with recurrent airway problems: asthma is not always the cause (published erratum appears in Ned Tijdschr Geneeskd 1999 May 8;143(19):1016)] Arets HG, et al. **Ned Tijdschr Geneeskd** 1999 Apr 10;143(15):769–72 (Eng. Abstr.) **(Dut)**

[Epidemic of respiratory tract infections by Mycoplasma pneumoniae in an institute for mentally disabled, investigated with polymerase chain reaction of a throat swab specimen] Dorigo-Zetsma JW, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12;143(24):1261–5 (Eng. Abstr.) **(Dut)**

[Management of community-acquired lower respiratory infections. Management in the hospital] Chidiac C. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S11–2 **(Fre)**

[Prevalence of Chlamydia pneumoniae in respiratory infections in children: an ambulatory diagnostic problem] Ravaioli E, et al. **Pediatr Med Chir** 1998 Sep–Oct; 20(5):329–32 (Eng. Abstr.) **(Ita)**

[Laboratory diagnosis of viral infections. 1. Respiratory tract infections] Takeuchi K. **Rinsho Byori** 1998 Nov;Suppl 108:43–58 (22 ref.) **(Jpn)**

[The laboratory and acute respiratory tract infections in family practice] Hjortdahl P, et al. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2799 **(Nor)**

[Usefulness of bronchoalveolar lavage in the renal transplant patient with suspected respiratory infection] Ruiz LA, et al. **Arch Bronconeumol** 1998 Sep;34(8):388–93 (Eng. Abstr.) **(Spa)**

[Design and applicability of a clinical guide for appropriate attention in acute respiratory infections] Flores-Hernández S, et al. **Gac Med Mex** 1999 Mar-Apr;135(2):121–37 (Eng. Abstr.) **(Spa)**

[Chlamydia as the agent responsible for infections of the upper respiratory tract in children and adults] Aristegui Fernández J. **Rev Clin Esp** 1998 Sep;198 Suppl 1:19–23 (31 ref.) **(Spa)**

[Utility of bronchoalveolar lavage in the diagnosis of respiratory infection in HIV patients] Aliaga L, et al. **Rev Med Univ Navarra** 1997 Oct-Dec;41(4):217–23 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Appropriate use of antibiotics for URIs in children: Part II. Cough, pharyngitis and the common cold. The Pediatric URI Consensus Team. Dowell SF, et al. **Am Fam Physician** 1998 Oct 15;58(6):1335–42, 1345 (67 ref.)

Drug treatment for URIs: back to the drawing board [editorial; comment] Wellbery C. **Am Fam Physician** 1998 Oct 1;58(5):1066–8. Comment on: Am Fam Physician 1998 Oct 1;58(5):1113–8, 1123.

A randomized controlled trial of the effect of fluid extract of Echinacea purpurea on the incidence and severity of colds and respiratory infections [see comments] Grimm W, et al. **Am J Med** 1999 Feb;106(2):138–43. Comment in: Am J Med 1999 Feb;106(2):259–60.

Antibiotic resistance in community-acquired respiratory tract infections: current issues. Spach DH, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):293–302; quiz 302–3 (87 ref.)

Expanding uses of fluoroquinolones: opportunities and challenges [editorial] Hooper DC. **Ann Intern Med** 1998 Dec 1;129(11):908–10

Activities of new fluoroquinolones against fluoroquinolone-resistant pathogens of the lower respiratory tract. Piddock LJ, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):2956–60

Two pharmacodynamic models for assessing the efficacy of amoxicillin-clavulanate against experimental respiratory tract infections caused by strains of Streptococcus pneumoniae. Woodnutt G, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):29–34

Efficacy of high-dose amoxicillin-clavulanate against experimental respiratory tract infections caused by strains of Streptococcus pneumoniae. Woodnutt G, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):35–40

Approaches to antiviral chemotherapy for acute respiratory infections. Shigeta S. **Antivir Chem Chemother** 1998 Mar; 9(2):93–107 (87 ref.)

Systematic review of the treatment of upper respiratory tract infection. Fahey T, et al. **Arch Dis Child** 1998 Sep; 79(3):225–30

Antibiotics for upper respiratory tract infections. A trip to Abilene? [editorial; comment] Herman JM. **Arch Fam Med** 1999 Sep–Oct;8(5):431–2. Comment on: Arch Fam Med 1999 Sep–Oct;8(5):426–30.

Antibiotics for upper respiratory tract infections. Follow-up utilization and antibiotic use [see comments] Hueston WJ, et al. **Arch Fam Med** 1999 Sep–Oct;8(5):426–30. Comment in: Arch Fam Med 1999 Sep–Oct;8(5):431–2.

Respiratory infections in the community. A concise update. Ferguson J. **Aust Fam Physician** 1998 Oct;27(10):883–7 (0 ref.)

Reducing antibiotics for respiratory tract symptoms in primary care: consolidating 'why' and considering 'how' [see comments] Butler CC, et al. **Br J Gen Pract** 1998 Dec; 48(437):1865–70 (105 ref.). Comment in: Br J Gen Pract 1998 Dec;48(437):1815–6. Comment in: Br J Gen Pract 1999 Mar;49(440):237.

Antibiotics for respiratory tract symptoms in general practice [editorial; comment] [see comments] Fahey T. **Br J Gen Pract** 1998 Dec;48(437):1815–6. Comment on: Br J Gen Pract 1998 Dec;48(437):1865–70. Comment in: Br J Gen Pract 1999 Mar;49(440):237.

Antibiotic-resistant Streptococcus pneumoniae. Implications for medical practice [see comments] Wang EE, et al. **Can Fam Physician** 1998 Sep;44:1881–8 (72 ref.). Comment in: Can Fam Physician 1998 Sep;44:1769–73, 1780–4. Comment in: Can Fam Physician 1998 Nov;44:2375–6.

Clinical implications of resistance in the management of respiratory tract infections. Garau J. **Can Respir J** 1999 Jan-Feb;6 Suppl A:23A–6A (25 ref.)

Evolving patterns of resistance to respiratory pathogens in Canada. Hoban DJ, et al. **Can Respir J** 1999 Jan-Feb;6 Suppl A:27A–30A (22 ref.)

How should we evaluate new anti-infectives for respiratory tract infections? Paladino JA. **Can Respir J** 1999 Jan-Feb; 6 Suppl A:31A–4A

Cefixime in the treatment of upper respiratory tract infections and otitis media. de Lalla F. **Chemotherapy** 1998 Sep;44 Suppl 1:19–23

Cefixime in the treatment of respiratory and urinary tract infections. Ludwig E. **Chemotherapy** 1998 Sep;44 Suppl 1:31–4

Chinese Herbal Medicine in the treatment of acute respiratory tract infections: review of randomized and controlled clinical trials. Liu C, et al. **Clin Infect Dis** 1999 Feb; 28(2):235–6 (27 ref.)

Antibiotic strategies for developing countries: experience with acute respiratory tract infections in Pakistan. Qazi SA. **Clin Infect Dis** 1999 Feb;28(2):214–8

Antibiotic prescribing for Canadian preschool children: evidence of overprescribing for viral respiratory infections. Wang EE, et al. **Clin Infect Dis** 1999 Jul;29(1):155–60

Comparison of the in vitro activity of and pathogen responses to sparfloxacin with those of other agents in the treatment of respiratory tract, urinary tract, and skin and skin-structure infections. Dowzicky M, et al. **Clin Ther** 1999 May;21(5):790–805; discussion 789

Upper respiratory tract infections. Moore DA, et al. **Curr Opin Pulm Med** 1999 May;5(3):157–63 (63 ref.)

Clinical and pharmacological evaluation of a modified cefotaxime bid regimen versus traditional tid in pediatric lower respiratory tract infections. Boccazzi A, et al. **Diagn Microbiol Infect Dis** 1998 Dec;32(4):265–72

Risk-benefit assessment of therapies for Mycobacterium avium complex infections. Griffith DE. **Drug Saf** 1999 Aug; 21(2):137–52 (60 ref.)

Antibiotic treatment of adults with chest infection in general practice. **Drug Ther Bull** 1998 Sep;36(9):68–72 (34 ref.)

Levofloxacin. Its use in infections of the respiratory tract, skin, soft tissues and urinary tract. Langtry HD, et al. **Drugs** 1998 Sep;56(3):487–515 (126 ref.)

What is the place of fluoroquinolones in the treatment of community-acquired respiratory tract infections? Momméja-Marin H, et al. **Drugs** 1999 Jun;57(6):851–3 (11 ref.)

Previous respiratory tract infections and antibiotic consumption in children with long- and short-term carriage of penicillin-resistant Streptococcus pneumoniae. Gunnarsson O, et al. **Epidemiol Infect** 1998 Dec; 121(3):523–8

Bacteriological activity of trovafloxacin, a new quinolone, against respiratory tract pathogens. Pechère JC, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jun;17(6):405–12 (48 ref.)

Plasma esterases in cystic fibrosis: the impact of a respiratory exacerbation and its treatment. Abou-Hatab K, et al. **Eur J Clin Pharmacol** 1999 Feb;54(12):937–41

Clinical and immunoregulatory effects of roxithromycin therapy for chronic respiratory tract infection. Nakamura H, et al. **Eur Respir J** 1999 Jun;13(6):1371–9

Treatment of upper respiratory tract infections in the first year of life without antibiotics and antipyretics. Patchev H, et al. **Folia Med (Plovdiv)** 1999;41(1):88–91

New quinolones: their role in clinical practice [editorial] [see comments] Masterton RG. **Hosp Med** 1999 Feb; 60(2):82–3. Comment in: Hosp Med 1999 Apr;60(4):309.

An audit of the effect of intravenous antibiotic treatment on spirometric measures of pulmonary function in cystic fibrosis. Bradley JM, et al. **Ir J Med Sci** 1999 Jan-Mar; 168(1):25–8

Fluoroquinolones as treatment for patients with lower respiratory tract infections caused by Streptococcus pneumoniae [letter; comment] Amyes SG, et al. **J Antimicrob Chemother** 1998 Sep;42(3):398–9. Comment on: J Antimicrob Chemother 1997 Dec;40 Suppl A:11–8. Comment on: J Antimicrob Chemother 1998 Mar;41(3):411–5.

Antibiotic dosing issues in lower respiratory tract infection: population-derived area under inhibitory curve is predictive of efficacy. Highet VS, et al. **J Antimicrob Chemother** 1999 Mar;43 Suppl A:55–63

Piperacillin/tazobactam plus tobramycin versus ceftazidime plus tobramycin for the treatment of patients with nosocomial lower respiratory tract infection. Piperacillin/tazobactam Nosocomial Pneumonia Study Group. Joshi M, et al. **J Antimicrob Chemother** 1999 Mar; 43(3):389–97

Spiramycin renaissance. Rubinstein E, et al. **J Antimicrob Chemother** 1998 Nov;42(5):572–6 (24 ref.)

The role of newer macrolides in the treatment of community-acquired respiratory tract infection. A review of experimental and clinical data. Carbon C, et al. **J Chemother** 1999 Apr;11(2):107–18 (77 ref.)

Trends in the antimicrobial susceptibility of bacterial respiratory tract pathogens--findings of the Alexander Project 1992–1996. Felmingham D, et al. **J Chemother** 1999 Feb;11 Suppl 1:5–21

Basing empiric treatment choices for respiratory tract infection on the results of the Alexander Project. Garau J. **J Chemother** 1999 Feb;11 Suppl 1:51–5

Echinacea for upper respiratory infection. Barrett B, et al. **J Fam Pract** 1999 Aug;48(8):628–35 (71 ref.)

The relation between purulent manifestations and antibiotic treatment of upper respiratory tract infections [see

comments] Gonzales R, et al. **J Gen Intern Med** 1999 Mar; 14(3):151–6. Comment in: J Gen Intern Med 1999 Mar;14(3):203–4.

Managing upper respiratory tract infections: practice without evidence [editorial; comment] Lautenbach E, et al. **J Gen Intern Med** 1999 Mar;14(3):203–4. Comment on: J Gen Intern Med 1999 Mar;14(3):151–6.

Antibiotics for children with upper respiratory tract infections [letter; comment] Brooks N. **JAMA** 1998 Oct 28;280(16):1400–1; discussion 1401–2. Comment on: JAMA 1998 Mar 18;279(11):875–7. Comment on: JAMA 1998 Mar 18;279(11):881–2.

Antibiotics for children with upper respiratory tract infections [letter; comment] Chen RF. **JAMA** 1998 Oct 28;280(16):1399; discussion 1401–2. Comment on: JAMA 1997 Sep 17;278(11):901–4. Comment on: JAMA 1998 Mar 18;279(11):875–7.

Antibiotics for children with upper respiratory tract infections [letter; comment] Fahey T, et al. **JAMA** 1998 Oct 28;280(16):1399–400; discussion 1401–2. Comment on: JAMA 1998 Mar 18;279(11):875–7. Comment on: JAMA 1998 Mar 18;279(11):881–2.

Antibiotics for children with upper respiratory tract infections [letter; comment] Westfall JM. **JAMA** 1998 Oct 28;280(16):1399; discussion 1401–2. Comment on: JAMA 1998 Mar 18;279(11):875–7.

Antibiotics for children with upper respiratory tract infections [letter; comment] Woolf SH. **JAMA** 1998 Oct 28;280(16):1400; discussion 1401–2. Comment on: JAMA 1998 Mar 18;279(11):875–7. Comment on: JAMA 1998 Mar 18;279(11):881–2.

Promoting evidence-based alternative medicine [comment] Hensley MJ, et al. **Med J Aust** 1998 Dec 7–21; 169(11–12):573–4. Comment on: Med J Aust 1998 Dec 7–21;169(11–12):575–8. Comment on: Med J Aust 1998 Dec 7–21;169(11–12):579–82.

Chinese herbal medicines in the treatment of acute respiratory infections: a review of randomised and controlled clinical trials [see comments] Liu C, et al. **Med J Aust** 1998 Dec 7–21;169(11–12):579–82 (36 ref.). Comment in: Med J Aust 1998 Dec 7–21;169(11–12):573–4.

Switch therapy: an economical strategy for treating lower respiratory tract infections. Weinhouse GL. **Natl Med J India** 1998 Jul–Aug;11(4):179–80

Treatment of upper and lower respiratory tract infections: clinical trials with cefprozil. Aronovitz G. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S83–8 (25 ref.)

Cefprozil and respiratory tract infections in children. Pichichero ME. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S53–4

Who will benefit from DNase? [editorial; comment] Rubin BK. **Pediatr Pulmonol** 1999 Jan;27(1):3–4. Comment on: Pediatr Pulmonol 1999 Jan;27(1):59–61.

A pilot study of the efficacy of constant-infusion ceftazidime in the treatment of endobronchial infections in adults with cystic fibrosis. Bosso JA, et al. **Pharmacotherapy** 1999 May; 19(5):620–6

Overuse of antimicrobial therapy for upper respiratory infections and acute bronchitis: who, why, and what can be done? [editorial; comment] Liu HH. **Pharmacotherapy** 1999 Apr;19(4):371–3. Comment on: Pharmacotherapy 1999 Apr;19(4):388–92.

Survey of clinical pharmacists' knowledge of appropriateness of antimicrobial therapy for upper respiratory infections and acute bronchitis [see comments] Mainous AG 3rd, et al. **Pharmacotherapy** 1999 Apr;19(4):388–92. Comment in: Pharmacotherapy 1999 Apr;19(4):371–3.

Is prescribing antibiotics by phone for respiratory infections acceptable? This expert says yes! Martin RJ. **Postgrad Med** 1999 Feb;105(2):47, 52

Is prescribing antibiotics by phone for respiratory infections acceptable? This expert says no! Olson LC. **Postgrad Med** 1999 Feb;105(2):46, 48, 51

When to prescribe in lower respiratory tract infection? Macfarlane J, et al. **Practitioner** 1997 Dec;241(1581):732–4, 737–8 (11 ref.)

Major change in the use of antibiotics following a national programme: Swedish Strategic Programme for the Rational Use of Antimicrobial Agents and Surveillance of Resistance (STRAMA). Mölstad S, et al. **Scand J Infect Dis** 1999; 31(2):191–5

[The clinical manifestation and drug sensitive tests of lower respiratory tract infection by enterobacter cloacae. The Pulmonary Infection and Fibrosis Group, Thoracic Society Shanghai Medical Association] **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Aug; 20(4):208–11 (Eng. Abstr.) **(Chi)**

[Clinical evaluation and immunomodulatory study of cefodizime] Li G, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Nov;36(11):759–63 (Eng. Abstr.) **(Chi)**

[Antibacterial activity in vitro and clinical use of sulperazon] Wang X, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jun; 36(6):406–10 (Eng. Abstr.) **(Chi)**

[A randomized controlled clinical study of cefetamet pivoxil versus cefixime in the treatment of 99 cases bacterial infections] Zhao C, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jul;36(7):465–8 (Eng. Abstr.) **(Chi)**

[Clinical and experimental study on fuganlin oral liquid in treating repeated respiratory tract infection] Wu ZQ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Nov; 17(11):655–9 (Eng. Abstr.) **(Chi)**

[Systemic antibiotic therapy in current practice: ENT and lower respiratory tract infections] **Presse Med** 1999 Feb 27;28(8):406–14 **(Fre)**

[Antibiotic therapy of upper respiratory tract infections in ambulatory care. Report of the National Observatory on Drug Prescription and Consumption] Bouvenot G. **Presse Med** 1999 Feb 20;28(7):352–3 **(Fre)**

[Conclusion: what is the choice of antibiotics in adult respiratory tract infections?] Klossek JM, et al. **Presse Med** 1999 Sep 4;28 Suppl 1:16–8 (Eng. Abstr.) **(Fre)**

[Beta-lactamase producers and other bacteria: which ones to take into consideration and when? The viewpoint of the pneumologist] Poirier R. **Presse Med** 1998 Sep;27 Suppl 4:14–5 **(Fre)**

[Beta-lactamase producers and other bacteria: which ones to take into consideration and when? The viewpoint of the microbiologist] Quentin C. **Presse Med** 1998 Sep;27 Suppl 4:12–3 **(Fre)**

[Antibiotic therapy in ENT and respiratory tract infections: emergency recommendations (editorial)] Trémolières F. **Presse Med** 1999 Feb 27;28(8):417–8 **(Fre)**

[Management of community-acquired lower respiratory infections. Management in the hospital] Chidiac C. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S11–2 **(Fre)**

[Zopiclone and delirium: a case report (letter)] David M, et al. **Therapie** 1998 Jan–Feb;53(1):78–80 **(Fre)**

[Myrtol standardized in the treatment of acute and chronic respiratory infections in children. A multicenter post-marketing surveillance study] Sengespeik HC, et al. **Arzneimittelforschung** 1998 Oct;48(10):990–4 (Eng. Abstr.) **(Ger)**

[Respiratory tract infections--laboratory tests usually unnecessary. New quinolones recommended by professional groups considered] Steiert P. **Fortschr Med** 1999 Feb 28;117(6):41 **(Ger)**

[Antibiotic sensitivity of important pathogens of bacterial respiratory tract infections in Northeast Germany] Fierek O, et al. **Med Klin** 1998 Nov 15;93(11):656–61 (Eng. Abstr.) **(Ger)**

[Effectiveness of ceftibuten+ + in the sequential therapy of respiratory and urinary tract infections] Székely E, et al. **Orv Hetil** 1999 Jul 25;140(30):1681–5 (Eng. Abstr.) **(Hun)**

[Imipenem/cilastatin sodium and other beta-lactams for respiratory tract infections: clinical benefit and treatment days for cure] Oizumi K, et al. **Jpn J Antibiot** 1999 Jan; 52(1):1–15 (Eng. Abstr.) **(Jpn)**

[Evaluation of a multi-hospital cooperative study on the efficacy and safety of panipenem/betamipron (PAPM/BP) on elderly patients of respiratory infections] Goto H, et al. **Kansenshogaku Zasshi** 1999 Jan;73(1):43–52 (Eng. Abstr.) **(Jpn)**

[Practical implications of bacterial resistance to antibiotics. Attempts to fight it] Denys A. **Otolaryngol Pol** 1997;51 Suppl 25:171–4 (5 ref.) (Eng. Abstr.) **(Pol)**

[Theoretical basis for the antibiotic therapy of the upper part of the respiratory system] Denys A. **Otolaryngol Pol** 1997; 51 Suppl 25:155–60 (10 ref.) (Eng. Abstr.) **(Pol)**

[Acoustic rhinometry in the assessment of the topical treatment of upper respiratory infections with fusafungin] Samoliński B, et al. **Otolaryngol Pol** 1998;52(3):327–34 (Eng. Abstr.) **(Pol)**

[Therapeutic effectiveness of Cedax in the treatment of selected acute upper respiratory diseases] Szmeja Z, et al. **Otolaryngol Pol** 1998;52(3):271–5 (Eng. Abstr.) **(Pol)**

[Clinical efficacy and safety of spiramycin and clarithromycin in the treatment of outpatients with lower respiratory tract infections] Bocheńska-Marciniak M, et al. **Pol Arch Med Wewn** 1998 Sep;100(3):222–35 (Eng. Abstr.) **(Pol)**

[Efficacy and tolerance of fenspiride in adult patients with acute respiratory tract infections] Płusa T, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):368–71 (Eng. Abstr.) **(Pol)**

[Selection of antibacterial therapy for treatment of infections in elderly patients] Belousov IuB, et al. **Antibiot Khimioter** 1998;43(10):19–23 (Eng. Abstr.) **(Rus)**

[Chemotherapeutics for treatment of influenza and other viral respiratory tract infections in children] Drinevskiĭ VP, et al. **Antibiot Khimioter** 1998;43(9):29–34 (Eng. Abstr.) **(Rus)**

[Compliance in antibiotic therapy of respiratory tract infections] Karpov OI. **Antibiot Khimioter** 1999;44(8):37–45 (47 ref.) **(Rus)**

[Use of spiramycin in the treatment of inflammatory diseases ot the respiratory tract in children in ambulatory conditions] Otsiians EN, et al. **Antibiot Khimioter** 1998; 43(11):34–7 (Eng. Abstr.) **(Rus)**

[Self-medication in acute respiratory infection: a strategy to potentiate in health education? (letter)] Gil Alvarez J. **Aten Primaria** 1998 Sep 15;22(4):262–4 **(Spa)**

[Etiology and treatment of choice of respiratory infections in primary care. Opinion of the physicians of the URANO Group] Ripoll MA, et al. **Aten Primaria** 1999 Mar 31; 23(5):296–300 (Eng. Abstr.) **(Spa)**

[Is trovafloxacin an antibiotic exclusively for the treatment of respiratory infections?] Garau J. **Enferm Infecc Microbiol Clin** 1998 Dec;16 Suppl 2:43–6; discussion 47–52 (24 ref.) **(Spa)**

[Has the moment arrived for quinolones in the treatment of respiratory infections?] Gomis M, et al. **Enferm Infecc Microbiol Clin** 1998 Dec;16 Suppl 2:1–7; discussion 47–52 (20 ref.) **(Spa)**

[Design and applicability of a clinical guide for appropriate attention in acute respiratory infections] Flores-Hernández S, et al. **Gac Med Mex** 1999 Mar-Apr;135(2):121–37 (Eng. Abstr.) **(Spa)**

[Antibiotic prescription in acute respiratory infections in adults: its variability and appropriateness in 10 Spanish hospitals] Inglada Galiana L, et al. **Rev Clin Esp** 1999 Feb; 199(2):59–65 (Eng. Abstr.) **(Spa)**

ECONOMICS

Antibiotics for upper respiratory tract infections. Follow-up utilization and antibiotic use [see comments] Hueston WJ, et al. **Arch Fam Med** 1999 Sep–Oct;8(5):426–30. Comment in: Arch Fam Med 1999 Sep–Oct;8(5):431–2.

How should we evaluate new anti-infectives for respiratory tract infections? Paladino JA. **Can Respir J** 1999 Jan–Feb; 6 Suppl A:31A–4A

EPIDEMIOLOGY

Respiratory syncytial and other virus infections in persons with chronic cardiopulmonary disease. Walsh EE, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):791–5

Factors predisposing infants to lower respiratory infection with wheezing in the first two years of life. Yau KI, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):165–70

Incidence and clinical implications of isolation of Mycobacterium kansasii: results of a 5-year, population-based study. Bloch KC, et al. **Ann Intern Med** 1998 Nov 1;129(9):698–704

The impact of short stature on child morbidity in a rural African community. Ibrahim MM, et al. **Ann Trop Paediatr** 1998 Jun;18(2):145–54

Risk factors for pneumonia and other lower respiratory tract infections in elderly residents of long-term care facilities. Loeb M, et al. **Arch Intern Med** 1999 Sep 27; 159(17):2058–64

Prevalence of nosocomial respiratory tract infections in the surgical intensive care units of a medical center. Wang FD, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Oct; 61(10):589–95

Respiratory tract infections as a public health challenge. Douglas RM. **Clin Infect Dis** 1999 Feb;28(2):192–4

Recent increases in influenza and other respiratory infections [published erratum appears in Commun Dis Rep CDR Wkly 1999 Jan 22;9(4):32] **Commun Dis Rep CDR Wkly** 1999 Jan 15;9(3):17, 20

The disease problems of Kosovan refugees in Albania. **Commun Dis Rep CDR Wkly** 1999 Apr 30;9(18):155

Acute respiratory infections, and influenza vaccine for 1999/2000. **Commun Dis Rep CDR Wkly** 1999 Mar 5; 9(10):87, 90

Epidemiology of respiratory infectious diseases. Enarson DA, et al. **Curr Opin Pulm Med** 1999 May;5(3):128–35 (142 ref.)

Respiratory diseases among U.S. military personnel: countering emerging threats. Gray GC, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):379–85 (80 ref.)

Frequency of infections and risk of asthma, atopy and airway hyperresponsiveness in children [see comments] von Mutius E, et al. **Eur Respir J** 1999 Jul;14(1):4–11. Comment in: Eur Respir J 1999 Jul;14(1):2–3.

Respiratory tract infections in Greenlandic children: a prospective cohort study. Koch A, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:252–4

RSV-associated hospitalizations in Alaska Native infants. Singleton R, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:255–9

Building-related health problems: reflections on different symptom prevalence among pupils and teachers. Thörn A. **Int J Circumpolar Health** 1998 Oct;57(4):249–56

Two nursing home outbreaks of respiratory infection with Legionella sainthelensi. Loeb M, et al. **J Am Geriatr Soc** 1999 May;47(5):547–52

Incidence of upper respiratory tract Mycoplasma pneumoniae infections among outpatients in Rhône-Alpes, France, during five successive winter periods. Layani-Milon MP, et al. **J Clin Microbiol** 1999 Jun;37(6):1721–6

Impact of microbiology practice on cumulative prevalence of respiratory tract bacteria in patients with cystic fibrosis. Shreve MR, et al. **J Clin Microbiol** 1999 Mar;37(3):753–7

Acute respiratory disease survey in Tripura in case of children below five years of age. Deb SK. **J Indian Med Assoc** 1998 Apr;96(4):111–6

Reemergence of adenovirus type 4 acute respiratory disease in military trainees: report of an outbreak during a lapse in vaccination. Barraza EM, et al. **J Infect Dis** 1999 Jun; 179(6):1531–3

Clinical characteristics of acute viral lower respiratory tract infections in hospitalized children in Seoul, 1996–1998. Ahn KM, et al. **J Korean Med Sci** 1999 Aug;14(4):405–11

Upper respiratory tract infection, heterologous immunisation and meningococcal disease. Scholten RJ, et al. **J Med Microbiol** 1999 Oct;48(10):943–6

Common health problems in HIV-infected travelers to the (sub)tropics. Simons FM, et al. **J Travel Med** 1999 Jun; 6(2):71–5

Secular changes in rates of respiratory complications and diarrhoea among measles cases. Marufu T, et al. **J Trop Pediatr** 1998 Dec;44(6):347–50

The impact of breastfeeding practices on respiratory and diarrhoeal disease in infancy: a study from Sri Lanka.

Perera BJ, et al. **J Trop Pediatr** 1999 Apr;45(2):115–8

Respiratory viral infections in the elderly in a nursing home. Yamakoshi M, et al. **Kansenshogaku Zasshi** 1998 Sep; 72(9):876–82

Outdoor air pollution and children's respiratory symptoms in the steel cities of New South Wales [see comments] Lewis PR, et al. **Med J Aust** 1998 Nov 2;169(9):459–63. Comment in: Med J Aust 1998 Nov 2;169(9):452–3.

Carriage of respiratory tract pathogens and molecular epidemiology of Streptococcus pneumoniae colonization in healthy children attending day care centers in Lisbon, Portugal. De Lencastre H, et al. **Microb Drug Resist** 1999 Spring;5(1):19–29

Seasonal variation of grounding rates among B–52H aircrew. Bendrick GA. **Mil Med** 1998 Oct;163(10):692–4

An epidemic of a pertussis–like illness caused by Chlamydia pneumoniae. Hagiwara K, et al. **Pediatr Infect Dis J** 1999 Mar;18(3):271–5

Risk factors for carriage of respiratory pathogens in the nasopharynx of healthy children. Ascanius Project Collaborative Group. Principi N, et al. **Pediatr Infect Dis J** 1999 Jun;18(6):517–23

Viral lower respiratory tract infections in children in Istanbul, Turkey [letter] Yilmaz G, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):173

Changing epidemiology of Pseudomonas aeruginosa infection in Danish cystic fibrosis patients (1974–1995). Frederiksen B, et al. **Pediatr Pulmonol** 1999 Sep;28(3):159–66

Meta–analysis on the association between environmental tobacco smoke (ETS) exposure and the prevalence of lower respiratory tract infection in early childhood. Li JS, et al. **Pediatr Pulmonol** 1999 Jan;27(1):5–13

Prevalence of asthma or respiratory symptoms among children attending primary schools in Paris. Momas I, et al. **Pediatr Pulmonol** 1998 Aug;26(2):106–12

Regional differences in prevalence and risks of respiratory diseases in children. Cropp GJ. **Pediatr Pulmonol Suppl** 1999;18:37–40 (8 ref.)

Investigation of seroprevalence of respiratory virus infections in an infant population with a multiantigen fluorescence immunoassay using heel–prick blood samples collected on filter paper. Nelson JK, et al. **Pediatr Res** 1999 Jun; 45(6):799–802

Day care attendance in the first year of life and illnesses of the upper and lower respiratory tract in children with a familial history of atopy. Celedon JC, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):495–500

Day care centers and respiratory health. Nafstad P, et al. **Pediatrics** 1999 Apr;103(4 Pt 1):753–8

Hygienic practices and acute respiratory illness in family and group day care homes. St Sauver J, et al. **Public Health** 1998 Nov–Dec;113(6):544–51

Acute respiratory infection, Afghanistan. **Wkly Epidemiol Rec** 1999 Mar 5;74(9):65 **(Eng, Fre)**

[Epidemic of respiratory tract infections by Mycoplasma pneumoniae in an institute for mentally disabled, investigated with polymerase chain reaction of a throat swab specimen] Dorigo–Zetsma JW, et al. **Ned Tijdschr Geneeskd** 1999 Jun 12;143(24):1261–5 (Eng. Abstr.) **(Dut)**

[Current status of acute respiratory infections in children under five years of age in Nairobi, Kenya] Taguchi H, et al. **Kansenshogaku Zasshi** 1998 Dec;72(12):1289–94 (Eng. Abstr.) **(Jpn)**

[Hypersensitivity to house dust mites and incidence of acute respiratory tract infections in children with bronchial asthma] Chuchro P, et al. **Przegl Lek** 1998;55(11):586–90 (Eng. Abstr.) **(Pol)**

[Incidence and risk factors for diarrhoea and acute respiratory infections in urban communities of Pernambuco, Brazil] Vásquez ML, et al. **Cad Saude Publica** 1999 Jan–Mar;15(1):163–71 (Eng. Abstr.) **(Por)**

[Patterns in the epidemic process of respiratory streptococcal infections in Vladivostok] Kolpakov SL. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):88–9 **(Rus)**

[The estimation of morbidity from acute respiratory infections in adults] Aramas Pérez L, et al. **Rev Cubana Med Trop** 1995;47(2):100–7 (Eng. Abstr.) **(Spa)**

ETHNOLOGY

Sudden infant death syndrome and Canadian Aboriginals: bacteria and infections. Wilson CE. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):221–6

ETIOLOGY

Health effects resulting from nitrogen dioxide exposure in an indoor ice arena. Rosenlund M, et al. **Arch Environ Health** 1999 Jan–Feb;54(1):52–7

Dampness and airway inflammation and systemic symptoms in office building workers. Wan GH, et al. **Arch Environ Health** 1999 Jan–Feb;54(1):58–63

Risk factors for pneumonia and other lower respiratory tract infections in elderly residents of long–term care facilities. Loeb M, et al. **Arch Intern Med** 1999 Sep 27; 159(17):2058–64

Postanginal septicaemia with external jugular venous thrombosis: case report. Schwartz HC, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):144–6

Respiratory infectious complications in the intensive care unit. Torres A, et al. **Clin Chest Med** 1999 Jun; 20(2):287–301, viii (67 ref.)

Lung infections in pediatric lung transplantation: experience in 49 cases. Metras D, et al. **Eur J Cardiothorac Surg** 1999 Apr;15(4):490–4; discussion 495

Systemic markers of inflammation in stable bronchiectasis. Wilson CB, et al. **Eur Respir J** 1998 Oct;12(4):820–4

Cotinine in meconium indicates risk for early respiratory tract infections. Nuesslein TG, et al. **Hum Exp Toxicol** 1999 Apr; 18(4):283–90

Beliefs about children's illness. Pebley A, et al. **J Biosoc Sci** 1999 Apr;31(2):195–219

From the Centers for Disease Control and Prevention. Nosocomial Burkholderia cepacia infection and colonization associated with intrinsically contaminated mouthwash—Arizona, 1998. **JAMA** 1999 Jan 27;281(4):318

Clinical and technical approach to selective decontamination of the digestive tract (SDD). Zandstra DF. **Minerva Anestesiol** 1999 May;65(5):197–201 (44 ref.)

Nosocomial Burkholderia cepacia infection and colonization associated with intrinsically contaminated mouthwash—Arizona, 1998. **MMWR Morb Mortal Wkly Rep** 1998 Nov 6;47(43):926–8

Meta–analysis on the association between environmental tobacco smoke (ETS) exposure and the prevalence of lower respiratory tract infection in early childhood. Li JS, et al. **Pediatr Pulmonol** 1999 Jan;27(1):5–13

Regional differences in prevalence and risks of respiratory diseases in children. Cropp GJ. **Pediatr Pulmonol Suppl** 1999;18:37–40 (8 ref.)

Effect of environmental tobacco smoke exposure on respiratory symptoms in children. SCARPOL Team. Swiss Study on Childhood Allergy and Respiratory Symptoms with Respect to Air Pollution, Climate and Pollen. Hajnal BL, et al. **Schweiz Med Wochenschr** 1999 May 15; 129(19):723–30

[Immunology in medical practice. XVIII [correction of XVII]. Children with recurrent airway problems: asthma is not always the cause (published erratum appears in Ned Tijdschr Geneeskd 1999 May 8;143(19):1016)] Arets HG, et al. **Ned Tijdschr Geneeskd** 1999 Apr 10;143(15):769–72 (Eng. Abstr.) **(Dut)**

[Review of risks of biological agents and preventive measures to safeguard the health of compost production workers] Giubileo L, et al. **Med Lav** 1998 Jul–Aug;89(4):301–15 (Eng. Abstr.) **(Ita)**

[Respiratory involvement in neutropenic patients] Moldovan D, et al. **Pneumoftiziologia** 1998 Jul–Sep;47(3):185–8 (13 ref.) **(Rum)**

GENETICS

Homozygous deletion of the CYP21A–TNXA–RP2–C4B gene region conferring C4B deficiency associated with recurrent respiratory infections. Jaatinen T, et al. **Hum Immunol** 1999 Aug;60(8):707–14

Cystic fibrosis: an inherited susceptibility to bacterial respiratory infections. Tümmler B, et al. **Mol Med Today** 1999 Aug;5(8):351–8 (50 ref.)

HISTORY

Infectious pulmonary disease in patients receiving immunosuppressive therapy for organ transplantation. 1964 [classical article] Hill RB Jr, et al. **Rev Med Virol** 1999 Jan–Mar;9(1):5–10; discussion 3–5, 10–4

IMMUNOLOGY

Immediate hypersensitivity in adults with IgG deficiency and recurrent respiratory infections. Popa V, et al. **Ann Allergy Asthma Immunol** 1999 Jun;82(6):567–73

Exercise and resistance to infection. Nieman DC. **Can J Physiol Pharmacol** 1998 May;76(5):573–80 (47 ref.)

Anaphylactic sensitization to aeroantigen during respiratory virus infection. O'Donnell DR, et al. **Clin Exp Allergy** 1998 Dec;28(12):1501–8

Respiratory infections in immunocompromised patients. Barry SM, et al. **Curr Opin Pulm Med** 1999 May; 5(3):168–73 (50 ref.)

Defense mechanisms against infections. Reynolds HY. **Curr Opin Pulm Med** 1999 May;5(3):136–42 (61 ref.)

Sudden infant death syndrome, virus infections and cytokines. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):85–96 (140 ref.)

Inflammatory responses in sudden infant death syndrome — past and present views. Vege A, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):67–78 (135 ref.)

Levels of gamma interferon and interleukin–4 are inversely related to the levels of their corresponding autoantibodies in patients with lower respiratory tract infection. ElKarim R, et al. **Infect Immun** 1999 Jun;67(6):3051–4

Increased production of IFN–gamma and cysteinyl leukotrienes in virus–induced wheezing. van Schaik SM, et al. **J Allergy Clin Immunol** 1999 Apr;103(4):630–6

The effects of upper respiratory infection on T–cell proliferation and steroid sensitivity of asthmatics. Vianna EO, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):592–7

A pediatrician's view. Why do we have paranasal sinuses? [editorial] [see comments] Altemeier WA 3rd, et al. **Pediatr Ann** 1998 Dec;27(12):784–5. Comment in: Pediatr Ann 1999 Mar;28(3):152.

Evaluating children with respiratory tract infections: the role of immunization with bacterial polysaccharide vaccine. Wasserman RL, et al. **Pediatr Infect Dis J** 1999 Feb; 18(2):157–63 (37 ref.)

Investigation of seroprevalence of respiratory virus infections in an infant population with a multiantigen fluorescence immunoassay using heel–prick blood samples collected on filter paper. Nelson JK, et al. **Pediatr Res** 1999 Jun; 45(6):799–802

Psychological stress, cytokine production, and severity of upper respiratory illness. Cohen S, et al. **Psychosom Med** 1999 Mar–Apr;61(2):175–80

[Effect of chaihu guizhi decoction on the immunoglobulin and IgG subgroup in children with recurrent respiratory tract infection] Li ZH, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Nov; 17(11):653–4 (Eng. Abstr.) **(Chi)**

[The characteristics of the humoral antibacterial immunity of young children with respiratory organ diseases] Zinkevich OD, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):65–8 (Eng. Abstr.) **(Rus)**

METABOLISM

Interaction of viral infections with muscarinic receptors. Jacoby DB, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:59–64 (41 ref.)

Eotaxin levels and eosinophils in guinea pig broncho–alveolar lavage fluid are increased at the onset of a viral respiratory infection. Scheerens J, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:74–7

Beta–chemokines are produced in lungs of mice with mycoplasma respiratory disease. Simecka JW. **Curr Microbiol** 1999 Sep;39(3):163–7

Energy balance during acute respiratory exacerbations in children with cystic fibrosis. Reilly JJ, et al. **Eur Respir J** 1999 Apr;13(4):804–9

Pharmacokinetics and pharmacodynamics of fluoroquinolones in the respiratory tract. Wise R, et al. **Eur Respir J** 1999 Jul;14(1):221–9 (97 ref.)

Antibiotic dosing issues in lower respiratory tract infection: population–derived area under inhibitory curve is predictive of efficacy. Highet VS, et al. **J Antimicrob Chemother** 1999 Mar;43 Suppl A:55–63

[Analysis of population pharmacokinetics with NONMEM in clinical patients treated with amikacin by intravenous infusion] Chu XM, et al. **Yao Hsueh Hsueh Pao** 1996; 31(12):881–5 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

Is Chlamydia pneumoniae responsible for disease in children? [letter; comment] Ozsoylu S. **Acta Paediatr** 1998 Sep; 87(9):1016. Comment on: Acta Paediatr 1998 Jan;87(1):23–7.

Persistence of Pseudomonas aeruginosa strains in respiratory infection in AIDS patients. Asboe D, et al. **AIDS** 1998 Oct 1;12(14):1771–5

Role of Mycoplasma pneumoniae in acute respiratory–tract infections in Saudi paediatric patients. al Rashed A. **Ann Trop Med Parasitol** 1998 Jul;92(5):595–601

Antimicrobial resistance of 1,113 Streptococcus pneumoniae isolates from patients with respiratory tract infections in Spain: results of a 1–year (1996–1997) multicenter surveillance study. The Spanish Surveillance Group for Respiratory Pathogens. Baquero F, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):357–9

Haemophilus influenzae and Moraxella catarrhalis from patients with community–acquired respiratory tract infections: antimicrobial susceptibility patterns from the SENTRY antimicrobial Surveillance Program (United States and Canada, 1997). Doern GV, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):385–9

Increase in quinolone resistance in a Haemophilus influenzae strain isolated from a patient with recurrent respiratory infections treated with ofloxacin. Vila J, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):161–2

In vitro activity of HSR–903, a new oral quinolone, against bacteria causing respiratory infections. Watanabe A, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1767–8

Moraxella (Branhamella) catarrhalis: clinical, microbiological and immunological features in lower respiratory tract infections. Christensen JJ. **APMIS Suppl** 1999;88:1–36 (249 ref.)

In vitro antibacterial activity of thiamphenicol glycinate acetylcysteinate against respiratory pathogens. Albini E, et al. **Arzneimittelforschung** 1999 Jun;49(6):533–7

Antibiotic–resistant Streptococcus pneumoniae. Implications for medical practice [see comments] Wang EE, et al. **Can Fam Physician** 1998 Sep;44:1881–8 (72 ref.). Comment in: Can Fam Physician 1998 Sep;44:1769–73, 1780–4. Comment in: Can Fam Physician 1998 Nov;44:2375–6.

Bordetella bronchiseptica infection in human immunodeficiency virus–infected patients. Dworkin MS, et al. **Clin Infect Dis** 1999 May;28(5):1095–9

Penicillin–resistant Streptococcus pneumoniae increasingly threatens the patient and challenges the physician [editorial; comment] Mufson MA. **Clin Infect Dis** 1998 Oct; 27(4):771–3. Comment on: Clin Infect Dis 1998 Oct;27(4):764–70.

Current attitudes regarding use of antimicrobial agents: results from physician's and parents' focus group

discussions. Barden LS, et al. **Clin Pediatr (Phila)** 1998 Nov; 37(11):665–71

Antimicrobial resistance in community-acquired respiratory tract pathogens. Lark RL, et al. **Compr Ther** 1999 Jan; 25(1):20–9 (83 ref.)

Upper respiratory tract infections. Moore DA, et al. **Curr Opin Pulm Med** 1999 May;5(3):157–63 (63 ref.)

BAY 12–8039, a novel fluoroquinolone. Activity against important respiratory tract pathogens. Biedenbach DJ, et al. **Diagn Microbiol Infect Dis** 1998 Sep;32(1):45–50

The prevalence of fluoroquinolone resistance among clinically significant respiratory tract isolates of Streptococcus pneumoniae in the United States and Canada--1997 results from the SENTRY Antimicrobial Surveillance Program. Doern GV, et al. **Diagn Microbiol Infect Dis** 1998 Dec;32(4):313–6

Comparative antimicrobial activity of trovafloxacin tested against 3049 Streptococcus pneumoniae isolates from the 1997–1998 respiratory infection season. Jones RN, et al. **Diagn Microbiol Infect Dis** 1998 Oct;32(2):119–26

Risk-benefit assessment of therapies for Mycobacterium avium complex infections. Griffith DE. **Drug Saf** 1999 Aug; 21(2):137–52 (60 ref.)

DNA restriction patterns produced by pulsed-field gel electrophoresis in Moraxella catarrhalis isolated from different geographical areas. Martinez G, et al. **Epidemiol Infect** 1999 Jun;122(3):417–22

Influence of increased macrolide consumption on macrolide resistance of common respiratory pathogens. Cizman M, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jul;18(7):522–4

Etiology of respiratory tract infection in adults in a general practice setting. Lieberman D, et al. **Eur J Clin Microbiol Infect Dis** 1998 Oct;17(10):685–9

Elafin (elastase-specific inhibitor) has anti-microbial activity against gram-positive and gram-negative respiratory pathogens. Simpson AJ, et al. **FEBS Lett** 1999 Jun 11; 452(3):309–13

The nasopharyngeal bacterial flora in infancy: effects of age, gender, season, viral upper respiratory tract infection and sleeping position. Harrison LM, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):19–28

Expression of urease does not affect the ability of Bordetella bronchiseptica to colonise and persist in the murine respiratory tract. McMillan DJ, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):7–11

Susceptibility and resistance emergence studies with macrolides. Retsema JA. **Int J Antimicrob Agents** 1999 Mar; 11 Suppl 1:S15–21; discussion S31–2 (22 ref.)

Respiratory manifestations of salmonelloses in AIDS patients [letter] Hovette P, et al. **Int J Tuberc Lung Dis** 1999 Aug; 3(8):743–4

In-vitro susceptibility of 1982 respiratory tract pathogens and 1921 urinary tract pathogens against 19 antimicrobial agents: a Canadian multicentre study. Canadian Antimicrobial Study Group. Blondeau JM, et al. **J Antimicrob Chemother** 1999 Mar;43 Suppl A:3–23

Nasopharyngeal carriage of penicillin-resistant Streptococcus pneumoniae among children with acute respiratory tract infections in Thailand: a molecular epidemiological survey. Dejsirilert S, et al. **J Clin Microbiol** 1999 Jun;37(6):1832–8

Rapid identification of nine microorganisms causing acute respiratory tract infections by single-tube multiplex reverse transcription-PCR: feasibility study. Gröndahl B, et al. **J Clin Microbiol** 1999 Jan;37(1):1–7

Synthesis and antibacterial activity of ketolides (6-O-methyl-3-oxoerythromycin derivatives): a new class of antibacterials highly potent against macrolide-resistant and -susceptible respiratory pathogens. Agouridas C, et al. **J Med Chem** 1998 Oct 8;41(21):4080–100

Role of oral bacteria in respiratory infection. Scannapieco FA. **J Periodontol** 1999 Jul;70(7):793–802 (87 ref.)

Molecular characterization of penicillin-resistant Streptococcus pneumoniae isolates causing respiratory disease in the United States. Corso A, et al. **Microb Drug Resist** 1998 Winter;4(4):325–37

Penicillin-resistant pneumococci in southern Sweden, 1993–1997. Kamme C, et al. **Microb Drug Resist** 1999 Spring;5(1):31–6

Molecular evidence for the existence of additional members of the order Chlamydiales. Ossewaarde JM, et al. **Microbiology** 1999 Feb;145 (Pt 2):411–7

Airways microbial flora in COPD patients in stable clinical conditions and during exacerbations: a bronchoscopic investigation. Pela R, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):262–7

Sinusitis [see comments] Wald ER. **Pediatr Ann** 1998 Dec; 27(12):811–8 (30 ref.). Comment in: Pediatr Ann 1999 Mar;28(3):151.

Microbial factors leading to recurrent upper respiratory tract infections. Brook I. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S62–7 (35 ref.)

Microbiology of bacterial respiratory infections. Cappelletty D. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S55–61 (66 ref.)

Bordetella bronchiseptica respiratory infection in a child after bone marrow transplantation. Choy KW, et al. **Pediatr Infect Dis J** 1999 May;18(5):481–3

Update on respiratory infection caused by Bordetella parapertussis. Hoppe JE. **Pediatr Infect Dis J** 1999 Apr; 18(4):375–81 (70 ref.)

Pneumococcal immune complexes in the diagnosis of lower respiratory infections in children. Korppi M, et al. **Pediatr Infect Dis J** 1998 Nov;17(11):992–5

Upper respiratory tract infections in family practice. Ruoff G. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S73–8 (33 ref.)

Association of Chlamydia pneumoniae with otitis media in children. Falck G, et al. **Scand J Infect Dis** 1998; 30(4):377–80

Evaluation of three methods for culturing alginate throat swabs from cystic fibrosis patients. Hoppe JE, et al. **Zentralbl Bakteriol** 1998 Dec;288(4):457–61

[Assessment of sputum culture and serology for detection of chlamydia pneumoniae in patients with symptomatic acute respiratory tract infection] Cao L, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):95–7 (Eng. Abstr.) **(Chi)**

[Role of anaerobic bacteria in community-acquired respiratory pathology] Dubreuil L. **Presse Med** 1998 Sep; 27 Suppl 4:10–1 **(Fre)**

[In vitro activity of pristinamycin on respiratory bacteria] Leclercq R. **Presse Med** 1999 Sep 4;28 Suppl 1:6–9 (Eng. Abstr.) **(Fre)**

[Beta-lactamase producers and other bacteria: which ones to take into consideration and when? The viewpoint of the microbiologist] Quentin C. **Presse Med** 1998 Sep;27 Suppl 4:12–3 **(Fre)**

[Bacteriology in community-acquired respiratory pathology] Weber P. **Presse Med** 1998 Mar 21;27(11):546–8 **(Fre)**

[Bronchoalveolar lavage in lower respiratory tract infections in patients with bronchopulmonary carcinoma. Our experience] Turitto G, et al. **Recenti Prog Med** 1998 Dec; 89(12):625–9 (Eng. Abstr.) **(Ita)**

[Susceptibilities of bacteria isolated from patients with lower respiratory infectious diseases to antibiotics (1996)] Ikemoto H, et al. **Jpn J Antibiot** 1998 Jul;51(7):437–74 (Eng. Abstr.) **(Jpn)**

[Susceptibilities of bacteria isolated from patients with lower respiratory infectious diseases to antibiotics (1997)] Ikemoto H, et al. **Jpn J Antibiot** 1999 May;52(5):353–97 (Eng. Abstr.) **(Jpn)**

[Clinical evaluation of anaerobic infections in patients with bronchopulmonary infections diagnosed by transtracheal aspiration] Konishi M, et al. **Kansenshogaku Zasshi** 1999 Jul;73(7):675–80 (Eng. Abstr.) **(Jpn)**

[A clinical study of respiratory infection isolating non-pathogenic Neisseria by transtracheal aspiration] Maeda K, et al. **Kansenshogaku Zasshi** 1998 Nov; 72(11):1171–5 (Eng. Abstr.) **(Jpn)**

[Recurrent respiratory tract infection caused by Moraxella catarrhalis in patients with pneumoconiosis] Omori A, et al. **Kansenshogaku Zasshi** 1999 Apr;73(4):311–7 (Eng. Abstr.) **(Jpn)**

[Evaluation of Mycobacterium kansasii isolates from a clinical laboratory in a city hospital] Tazawa S, et al. **Kekkaku** 1999 Jan;74(1):19–25 (Eng. Abstr.) **(Jpn)**

[Bacterial infections in otolaryngology on clinical material study] Murlewska A, et al. **Otolaryngol Pol** 1997;51 Suppl 25:175–8 (10 ref.) (Eng. Abstr.) **(Pol)**

[Etiology and treatment of choice of respiratory infections in primary care. Opinion of the physicians of the URANO Group] Ripoll MA, et al. **Aten Primaria** 1999 Mar 31; 23(5):296–300 (Eng. Abstr.) **(Spa)**

[Other communal respiratory pathogens and new fluoroquinolones] Cantón R, et al. **Enferm Infecc Microbiol Clin** 1998 Dec;16 Suppl 2:12–21; discussion 47–52 (107 ref.) **(Spa)**

[In vitro activity of trovafloxacin in 238 respiratory pathogens.] Alarcón T, et al. **Rev Esp Quimioter** 1998 Mar; 11(1):47–51 (Eng. Abstr.) **(Spa)**

MORTALITY

Mortality from lower respiratory infection in nursing home residents. A pilot prospective community-based study. Mehr DR, et al. **J Fam Pract** 1998 Oct;47(4):298–304

Outcome for children under 5 years hospitalized with severe acute lower respiratory tract infections in Yemen: a 5 year experience. Banajeh SM. **J Trop Pediatr** 1998 Dec; 44(6):343–6

Mortality from respiratory infection in Australia 1964–1996 [letter; comment] Lee CK, et al. **Med J Aust** 1999 Jul 5; 171(1):55. Comment on: Med J Aust 1998 Jun 15;168(12):601–4.

PATHOLOGY

Lesions in the upper respiratory tract in chickens experimentally infected with Newcastle disease viruses isolated in Australia. Hooper PT, et al. **Aust Vet J** 1999 Jan;77(1):50–1

PHYSIOPATHOLOGY

Use of the laryngeal mask airway in children with upper respiratory tract infections: beware secretions [letter; comment] Smith BL. **Anesth Analg** 1999 Mar;88(3):693. Comment on: Anesth Analg 1998 Apr;86(4):706–11.

Mechanisms of asthma exacerbation. Johnston SL. **Clin Exp Allergy** 1998 Nov;28 Suppl 5:181–6; discussion 203–5 (34 ref.)

Role of respiratory infection in onset of asthma and chronic obstructive pulmonary disease. Martinez FD. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:53–8 (42 ref.)

Respiratory control during upper airway infection mechanism for prolonged reflex apnoea and sudden infant death with special reference to infant sleep position. Lindgren C. **FEMS Immunol Med Microbiol** 1999 Aug 1; 25(1–2):97–102 (45 ref.)

Alveolar macrophages of children suffering from recurrent infections of respiratory tract are less efficient in eliminating apoptotic neutrophils. Pryjma J, et al. **Pediatr Pulmonol** 1999 Mar;27(3):167–73

Quantification of cytokines and inflammatory mediators in samples of nasopharyngeal secretions with unknown dilution. Heikkinen T, et al. **Pediatr Res** 1999 Feb; 45(2):230–4

Exposure to nitrogen dioxide (NO2) and respiratory disease risk. Chauhan AJ, et al. **Rev Environ Health** 1998 Jan–Jun; 13(1–2):73–90 (93 ref.)

[Respiratory defence mechanisms. Particular circumstances in healthy and sick children] Donato L. **Arch Pediatr** 1998; 5 Suppl 1:5s–8s (6 ref.) (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

A randomized controlled trial of the effect of fluid extract of Echinacea purpurea on the incidence and severity of colds and respiratory infections [see comments] Grimm W, et al. **Am J Med** 1999 Feb;106(2):138–43. Comment in: Am J Med 1999 Feb;106(2):259–60.

Echinacea root extracts for the prevention of upper respiratory tract infections: a double-blind, placebo-controlled randomized trial. Melchart D, et al. **Arch Fam Med** 1998 Nov–Dec;7(6):541–5

Effectiveness of antibiotic prophylaxis in critically ill patients. Distinction must be made between tracheal inflammation and pneumonia [letter] Sanderson PJ. **BMJ** 1998 Nov 28; 317(7171):1526

Use of aerosolized antibiotics in patients with cystic fibrosis. Campbell PW 3rd, et al. **Chest** 1999 Sep;116(3):775–88 (47 ref.)

Epidemiology and prevention of group A streptococcal infections: acute respiratory tract infections, skin infections, and their sequelae at the close of the twentieth century. Carapetis JR, et al. **Clin Infect Dis** 1999 Feb;28(2):205–10

A national program for control of acute respiratory tract infections: the Philippine experience. Dayrit ES. **Clin Infect Dis** 1999 Feb;28(2):195–9

The future role of international agencies in control of acute respiratory tract infections. Miller D. **Clin Infect Dis** 1999 Feb;28(2):230–3

Introduction: acute respiratory tract infections--the forgotten pandemic. Shann F, et al. **Clin Infect Dis** 1999 Feb;28(2):189–91

Intranasal antibody prophylaxis for protection against viral disease. Weltzin R, et al. **Clin Microbiol Rev** 1999 Jul; 12(3):383–93 (116 ref.)

Efficacy of oral immunotherapy on respiratory infections in hemodialysis patients: a double-blind, placebo-controlled study. Tielemans C, et al. **Clin Nephrol** 1999 Mar; 51(3):153–60

Using monoclonal antibodies to prevent mucosal transmission of epidemic infectious diseases. Zeitlin L, et al. **Emerg Infect Dis** 1999 Jan–Feb;5(1):54–64 (127 ref.)

Effectiveness of a training program in reducing infections in toddlers attending day care centers [see comments] Carabin H, et al. **Epidemiology** 1999 May;10(3):219–27. Comment in: Epidemiology 1999 May;10(3):209–10.

Isoprinosine does not protect against frequent respiratory tract infections in childhood. Litzman J, et al. **Eur J Pediatr** 1999 Jan;158(1):32–7

Evaluation of a handwashing intervention to reduce respiratory illness rates in senior day-care centers. Falsey AR, et al. **Infect Control Hosp Epidemiol** 1999 Mar; 20(3):200–2

Bacterial filters in anesthesia: results of 9 years of surveillance. van Hassel S, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):58–60

Prophylaxis with the novel immunomodulator pidotimod reduces the frequency and severity of upper respiratory tract infections in children with Down's syndrome. La Mantia I, et al. **J Chemother** 1999 Apr;11(2):126–30

Echinacea for the prevention of upper respiratory tract infections. Gunning K, et al. **J Fam Pract** 1999 Feb;48(2):93

Response to a heptavalent conjugate Streptococcus pneumoniae vaccine in children with recurrent infections who are unresponsive to the polysaccharide vaccine. Sorensen RU, et al. **Pediatr Infect Dis J** 1998 Aug; 17(8):685–91

The beneficial effects of weekly low-dose vitamin A supplementation on acute lower respiratory infections and diarrhea in Ecuadorian children. Sempértegui F, et al. **Pediatrics** 1999 Jul;104(1):e1

Breastfeeding at 6 months and effects on infections. Chye JK, et al. **Singapore Med J** 1998 Dec;39(12):551–6

DNA-mediated immunization with glycoprotein D of equine herpesvirus 1 (EHV-1) in a murine model of EHV-1 respiratory infection. Ruitenberg KM, et al. **Vaccine** 1999 Jan 21;17(3):237–44

[Presentation of a method for tracheobronchial aspiration taking into account the rules for asepsis (letter)] Boulard G, et al. **Ann Fr Anesth Reanim** 1997;16(4):462 **(Fre)**

[Prevention of nosocomial influenza-like respiratory tract infections in nursing homes (letter) (see comments)] Andersen BM, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10; 119(9):1336. Comment in: Tidsskr Nor Laegeforen 1999 May 10;119(12):1802–3. **(Nor)**

RESPIRATORY TRACT INFECTIONS

[The prevention of acute respiratory viral infections and pneumonias among the troops] Sibilev VI, et al. **Voen Med Zh** 1999 Feb;320(2):18–23 **(Rus)**

PSYCHOLOGY

Care-seeking behavior. D'Souza RM. **Clin Infect Dis** 1999 Feb;28(2):234

The effects of idazoxan on reaction times, eye movements and the mood of healthy volunteers and patients with upper respiratory tract illnesses. Smith A, et al. **J Psychopharmacol** 1999;13(2):148–51

Psychosocial influences on upper respiratory infectious illness in children. Turner Cobb JM, et al. **J Psychosom Res** 1998 Oct;45(4):319–30

RADIOGRAPHY

The utility of CT in imaging chest infections in HIV-negative patients. Richenberg J, et al. **Curr Opin Pulm Med** 1999 May;5(3):179–84 (33 ref.)

Do radiographic features of acute infection influence management of lower respiratory tract infections in the community? Simpson JC, et al. **Eur Respir J** 1998 Dec; 12(6):1384–7

Trends in pediatric emergency imaging. John SD. **Radiol Clin North Am** 1999 Sep;37(5):995–1034, vi (91 ref.)

[Radiologic approach to community-acquired pneumonia] Brunelle F. **Arch Pediatr** 1998;5 Suppl 1:26s–27s (Eng. Abstr.) **(Fre)**

[Evolution and radiologic surveillance on community-acquired pneumonia in children] Monroc M, et al. **Arch Pediatr** 1998;5 Suppl 1:37s–44s (18 ref.) (Eng. Abstr.) **(Fre)**

THERAPY

Family medicine clinic survey on the treatment of upper respiratory tract infections [letter] Kemper KJ. **Arch Fam Med** 1998 Nov–Dec;7(6):517–8

Do radiographic features of acute infection influence management of lower respiratory tract infections in the community? Simpson JC, et al. **Eur Respir J** 1998 Dec; 12(6):1384–7

Performance failure of an evidence-based upper respiratory infection clinical guideline [see comments] O'Connor PJ, et al. **J Fam Pract** 1999 Sep;48(9):690–7. Comment in: J Fam Pract 1999 Sep;48(9):669–70.

A clinical investigation on massage for prevention and treatment of recurrent respiratory tract infection in children. Zhu S, et al. **J Tradit Chin Med** 1998 Dec; 18(4):285–91

[Is it wrong to use immunostimulants in pediatric practice?] Fischer A. **Arch Pediatr** 1999;6 Suppl 2:427s–428s **(Fre)**

[Management of community-acquired lower respiratory tract infection in the adult. Recommendations by the French Language Society of Pneumology with collaboration of the French Language Society of Infectious Pathology, from the recommendations of the European Respiratory Society] Huchon G, et al. **Rev Mal Respir** 1999 Apr; 16(2):224–33 **(Fre)**

TRANSMISSION

The day care center as a risk factor for acute respiratory infections. Flores Hernández S, et al. **Arch Med Res** 1999 May–Jun;30(3):216–23

Interrupting the transmission of respiratory tract infections: theory and practice. Monto AS. **Clin Infect Dis** 1999 Feb; 28(2):200–4

Imported tropical respiratory tract infections. Zuckerman JN. **Curr Opin Pulm Med** 1999 May;5(3):164–7 (20 ref.)

An outbreak of Bacillus cereus respiratory tract infections on a neonatal unit due to contaminated ventilator circuits. Gray J, et al. **J Hosp Infect** 1999 Jan;41(1):19–22

[Respiratory and community infections] Ovetchkine P, et al. **Arch Pediatr** 1999;6 Suppl 3:633s–635s (12 ref.) **(Fre)**

VETERINARY

Persistence of maternal antibodies against Mycoplasma agassizii in desert tortoise hatchlings. Schumacher IM, et al. **Am J Vet Res** 1999 Jul;60(7):826–31

Virulence and transmissibility of some Australian and exotic strains of Newcastle disease virus used in some vaccines. Hansson E, et al. **Aust Vet J** 1999 Jan;77(1):51–3

Lentogenic Newcastle disease virus and respiratory disease in Australian broiler chickens. Hooper PT, et al. **Aust Vet J** 1999 Jan;77(1):53–4

Isolation of Georgia variant (Georgia isolate 1992) infectious bronchitis virus but not Ornithobacterium rhinotracheale from a Kentucky broiler complex. Erbeck DH, et al. **Avian Dis** 1998 Jul–Sep;42(3):613–7

Bacterin-induced protection of turkeys against fowl cholera following infection with Bordetella avium. Rimler RB, et al. **Avian Dis** 1998 Oct–Dec;42(4):752–6

Vaccination of chickens against Ornithobacterium rhinotracheale infection. van Empel P, et al. **Avian Dis** 1998 Jul–Sep;42(3):572–8

The association of titers to bovine coronavirus with treatment for bovine respiratory disease and weight gain in feedlot calves. Martin SW, et al. **Can J Vet Res** 1998 Oct; 62(4):257–61

Immunodeficiency syndrome in a 3-year-old llama. Sivasankar M. **Can Vet J** 1999 Apr;40(4):271–2

Coenonia anatina gen. nov., sp. nov., a novel bacterium associated with respiratory disease in ducks and geese. Vandamme P, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:867–74

Evaluation of serologic and viral detection methods for diagnosing feline herpesvirus-1 infection in cats with acute respiratory tract or chronic ocular disease. Maggs DJ, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):502–7

Upper respiratory tract disease in the gopher tortoise is caused by Mycoplasma agassizii. Brown MB, et al. **J Clin Microbiol** 1999 Jul;37(7):2262–9

Sensitivity comparison for detection of respiratory bovine coronaviruses in nasal samples from feedlot cattle by ELISA and isolation with the G clone of HRT-18 cells. da Silva MR, et al. **J Vet Diagn Invest** 1999 Jan;11(1):15–9

Differential serologic response to Mycoplasma ovipneumoniae and Mycoplasma arginini in lambs affected with chronic respiratory disease. Niang M, et al. **J Vet Diagn Invest** 1999 Jan;11(1):34–40

Isolation of cilia-associated respiratory (CAR) bacillus from pigs and calves and experimental infection of gnotobiotic pigs and rodents. Nietfeld JC, et al. **J Vet Diagn Invest** 1999 May;11(3):252–8

Prevalence of feline Chlamydia psittaci and feline herpesvirus 1 in cats with upper respiratory tract disease. Sykes JE, et al. **J Vet Intern Med** 1999 May–Jun;13(3):153–62

Properties and functions of feline herpesvirus type 1 glycoproteins. Maeda K, et al. **J Vet Med Sci** 1998 Aug; 60(8):881–8 (97 ref.)

Respiratory nematodiases in raptors in Quebec. Lavoie M, et al. **J Wildl Dis** 1999 Apr;35(2):375–80

Experimentally induced infection of gerbils with cilia-associated respiratory bacillus. St. Clair MB, et al. **Lab Anim Sci** 1999 Aug;49(4):421–3

Broiler industry strategies for control of respiratory and enteric diseases. Dekich MA. **Poult Sci** 1998 Aug; 77(8):1176–80

Bacterial respiratory disease of poultry. Glisson JR. **Poult Sci** 1998 Aug;77(8):1139–42 (10 ref.)

Mycoplasmas in the etiology of multifactorial respiratory disease. Kleven SH. **Poult Sci** 1998 Aug;77(8):1146–9 (61 ref.)

Turkey industry strategies for control of respiratory and enteric diseases. Poss PE. **Poult Sci** 1998 Aug;77(8):1181–5

Viral diseases of the respiratory system. Villegas P. **Poult Sci** 1998 Aug;77(8):1143–5 (24 ref.)

Colonization ability and pathogenic properties of a fim- mutant of an avian strain of Escherichia coli. Marc D, et al. **Res Microbiol** 1998 Jul–Aug;149(7):473–85

Isolation and characterization of Bordetella bronchiseptica from cats in southern Louisiana. Hoskins JD, et al. **Vet Immunol Immunopathol** 1998 Oct 23;65(2–4):173–6

Survey of infectious agents involved in acute respiratory disease in finishing pigs. Loeffen WL, et al. **Vet Rec** 1999 Jul 31;145(5):123–9

Actinobacillus and Pasteurella species isolated from horses with lower airway disease. Ward CL, et al. **Vet Rec** 1998 Sep 5;143(10):277–9

Efficacy of sustained release needle-less ceftiofur sodium implants in treating calves with bovine respiratory disease. Kesler DJ, et al. **Zentralbl Veterinarmed [B]** 1999 Feb; 46(1):25–35

Infections and reinfections with avian pneumovirus subtype A and B on Belgian turkey farms and relation to respiratory problems. Van de Zande S, et al. **Zentralbl Veterinarmed [B]** 1998 Dec;45(10):621–6

[Breath condensate—a medium obtained by a noninvasive method for the detection of inflammation mediators of the lung] Reinhold P, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun–Jul; 112(6–7):254–9 (Eng. Abstr.) **(Ger)**

VIROLOGY

Respiratory viruses in children attending a major referral centre in Saudi Arabia. al-Hajjar S, et al. **Ann Trop Paediatr** 1998 Jun;18(2):87–92

First International Symposium on Influenza and Other Respiratory Viruses: summary and overview: Kapalua, Maui, Hawaii, December 4–6, 1998. Kaiser L, et al. **Antiviral Res** 1999 Jul;42(3):149–75 (94 ref.)

Respiratory tract viral infections in inner-city asthmatic adults. Atmar RL, et al. **Arch Intern Med** 1998 Dec 7–21; 158(22):2453–9

An equine herpesvirus 1 mutant with a lacZ insertion between open reading frames 62 and 63 is replication competent and causes disease in the murine respiratory model. Csellner H, et al. **Arch Virol** 1998;143(11):2215–31

PCR detection of viral nucleic acid in fatal asthma: is the lower respiratory tract a reservoir for common viruses? Macek V, et al. **Can Respir J** 1999 Jan–Feb;6(1):37–43

Role of viruses in the onset of asthma and allergy: lessons from animal models. Hegele RG. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:78–81 (30 ref.)

Conventional respiratory viruses recovered from immunocompromised patients: clinical considerations. Rabella N, et al. **Clin Infect Dis** 1999 May;28(5):1043–8

Diagnosis of respiratory viruses in cancer and transplant patients. Englund JA, et al. **Curr Clin Top Infect Dis** 1999; 19:30–59 (121 ref.)

Molecular and serological characterization of adenovirus genome type 7h isolated in Japan. Hashido M, et al. **Epidemiol Infect** 1999 Apr;122(2):281–6

Comparison of three monoclonal antibody pools for the detection of respiratory viral antigen in respiratory secretions. Taylor P, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):522–4

Strain variation in adenovirus serotypes 4 and 7a causing acute respiratory disease. Crawford-Miksza LK, et al. **J Clin Microbiol** 1999 Apr;37(4):1107–12

Rapid identification of nine microorganisms causing acute respiratory tract infections by single-tube multiplex reverse transcription-PCR: feasibility study. Gröndahl B, et al. **J Clin Microbiol** 1999 Jan;37(1):1–7

Direct detection of respiratory syncytial virus, parainfluenza virus, and adenovirus in clinical respiratory specimens by a multiplex reverse transcription-PCR assay. Osiowy C. **J Clin Microbiol** 1998 Nov;36(11):3149–54

Clinical characteristics of acute viral lower respiratory tract infections in hospitalized children in Seoul, 1996–1998. Ahn KM, et al. **J Korean Med Sci** 1999 Aug;14(4):405–11

Immunologic mechanisms of virus-induced wheezing and asthma. Welliver RC. **J Pediatr** 1999 Aug;135(2 Pt 2):14–20 (41 ref.)

Simultaneous multiple viral infections in childhood acute lower respiratory tract infections in southern Taiwan. Huang JJ, et al. **J Trop Pediatr** 1998 Oct;44(5):308–11

The effect of exercise training on the severity and duration of a viral upper respiratory illness. Weidner TG, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1578–83

Respiratory viral infections and the endothelin system. Henry PJ. **Pulm Pharmacol Ther** 1998 Apr–Jun;11(2–3):133–40 (81 ref.)

[Respiratory allergy and the viruses] Brouard J, et al. **Arch Pediatr** 1999;6 Suppl 1:29S–34S (Eng. Abstr.) **(Fre)**

-Prevention of respiratory syncytial virus infection- Gillet Y. **Arch Pediatr** 1998 Mar;5(3):333–7 (Eng. Abstr.) **(Fre)**

[Study of the viral etiology of lower respiratory tract infections in a neonatal unit] Fortea J, et al. **Enferm Infecc Microbiol Clin** 1998 Dec;16(10):453–5 (Eng. Abstr.) **(Spa)**

RESPIRATORY TRACT NEOPLASMS

Recurrent respiratory papillomatosis. Murray LN, et al. **J La State Med Soc** 1998 Oct;150(10):456–9 (15 ref.)

[Extramedullary plasmacytoma] Togawa A. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):419–21 (5 ref.) **(Jpn)**

[Primary melanoma of the respiratory tract] Kharchenko VP, et al. **Arkh Patol** 1998 Jul–Aug;60(4):38–41 (Eng. Abstr.) **(Rus)**

CHEMICALLY INDUCED

Case-control study on the role of heterocyclic amines in the etiology of upper aerodigestive cancers in Uruguay. De Stefani E, et al. **Nutr Cancer** 1998;32(1):43–8

DIAGNOSIS

[Duration of anamnesis in patients with hemoptysis] Salajka F. **Acta Med Austriaca** 1999;26(1):17–9 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Cyclosporin A enhances paclitaxel toxicity against leukemia and respiratory epithelial cancers. Ross HJ, et al. **Clin Cancer Res** 1997 Jan;3(1):57–62

EPIDEMIOLOGY

Initial results from the national registry for juvenile-onset recurrent respiratory papillomatosis. RRP Task Force. Armstrong LR, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jul;125(7):743–8

GENETICS

Patterns of chromosomal imbalances in carcinomas of the respiratory tract. Petersen I, et al. **Adv Exp Med Biol** 1998; 451:9–16

Significance of DNA ploidy and cell proliferation in juvenile respiratory papillomatosis. Stern Y, et al. **Ann Otol Rhinol Laryngol** 1998 Oct;107(10 Pt 1):815–9

Variation of p53 mutational spectra between carcinoma of the upper and lower respiratory tract. Law JC, et al. **Clin Cancer Res** 1995 Jul;1(7):763–8

Genotypic analysis of flow-sorted and microdissected head and neck squamous lesions by whole-genome amplification. Coombes MM, et al. **Diagn Mol Pathol** 1998 Aug; 7(4):197–201

Loss of heterozygosity at 10q in tumors of the upper respiratory tract is associated with poor prognosis. Gasparotto D, et al. **Int J Cancer** 1999 Aug 20;84(4):432–6

PATHOLOGY

Variants of squamous cell carcinoma of the upper aerodigestive tract. Wenig BM. **Anat Pathol** 1998;3:17–51 (134 ref.)

An aggressive and invasive growth of juvenile papillomas involving the total respiratory tract. Petersen BL, et al. **J Laryngol Otol** 1998 Nov;112(11):1101–4

Oxyphilic proliferations of the respiratory tract and paranasal sinuses. Ritter JH, et al. **Semin Diagn Pathol** 1999 May; 16(2):105–16 (75 ref.)

[Recurrent, primary multifocal malignant melanoma of the mucous membrane of the upper respiratory tract. Peculiarities of the in-situ components] Köppl H, et al. **Pathologe** 1999 May;20(3):195-9 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Retinoid chemoprevention of aerodigestive cancer: from basic research to the clinic. Ki Hong W, et al. **Clin Cancer Res** 1999 Jul;1(7):677-86 (64 ref.)

RADIOTHERAPY

Irradiation of recurrent respiratory papillomatosis causing spinal cord compression. Shelton CH, et al. **Am J Otolaryngol** 1999 May-Jun;20(3):180-3

SURGERY

Clinical experience with carinal resection. Mitchell JD, et al. **J Thorac Cardiovasc Surg** 1999 Jan;117(1):39-52; discussion 52-3

Thoracoscopy in infants and children. Rothenberg SS. **Semin Pediatr Surg** 1998 Nov;7(4):194-201 (27 ref.)

THERAPY

[Interventional bronchoscopic procedures--indications] Schönfeld N, et al. **Dtsch Med Wochenschr** 1999 May 28; 124(21):659-61 (8 ref.) **(Ger)**

VETERINARY

Neoplasia of the respiratory tract. Scarratt WK, et al. **Vet Clin North Am Equine Pract** 1998 Dec;14(3):451-73, v (123 ref.)

RESPITE CARE

Respite from stress and other service needs of homeless families. Kissman K. **Community Ment Health J** 1999 Jun; 35(3):241-9

The effects of respite care on informal carers' well-being: a systematic review. McNally S, et al. **Disabil Rehabil** 1999 Jan;21(1):1-14

The Dorothy Ley Hospice Day Respite Program. Filman J, et al. **J Palliat Care** 1998 Autumn;14(3):94-7

Spousal caregiving when the adult day services center is closed. Campell DD, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):20-5

Respite care--volunteers as providers. Robinson KM, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Jan;37(1):30-5

METHODS

The Circle Model--support for relatives of people with dementia. Jansson W, et al. **Int J Geriatr Psychiatry** 1998 Oct;13(10):674-81

Mobility and dementia: is physiotherapy treatment during respite care effective? Pomeroy VM, et al. **Int J Geriatr Psychiatry** 1999 May;14(5):389-97

UTILIZATION

Institutional respite care: breaking chores or breaking social bonds? Braithwaite V. **Gerontologist** 1998 Oct;38(5):610-7

Patterns of respite use by aging mothers of adults with mental retardation. Freedman RI, et al. **Ment Retard** 1999 Apr; 37(2):93-103

RESPONSE, ACUTE-PHASE see **ACUTE-PHASE REACTION**

RESPONSE ELEMENTS

Alpha, beta-unsaturated aldehydes mediate inducible expression of glutathione S-transferase in hepatoma cells through activation of the antioxidant response element (ARE). Tjalkens RB, et al. **Adv Exp Med Biol** 1999; 463:123-31

Modulation of wild-type p53 activity by mutant p53 R273H depends on the p53 responsive element (p53RE). A comparative study between the p53REs of the MDM2, WAFI/Cip1 and Bax genes in the lung cancer environment. WAFI/Cip1 = WAF1/Cip1. Zacharatos PV, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):579-87

Regulation of interferon-alpha/beta-stimulated gene expression through the gamma-activated transcriptional element. Weihua X, et al. **Antiviral Res** 1999 Jan; 40(3):145-53

Up-regulation of the human gamma-glutamylcysteine synthetase regulatory subunit gene involves binding of Nrf-2 to an electrophile responsive element. Moinova HR, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):661-8

Characterization of cis-elements required for the transcriptional activation of the rae28/mph1 gene in F9 cells. Motaleb MA, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):509-15

Sequences at the 3' side of the c-fos SRE mediate gene expression via an Sob1-dependent, TCF-independent pathway. Omoike OI, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):523-9

Isolation of pig mitochondrial 3-hydroxy-3-methylglutaryl-CoA synthase gene promoter: characterization of a peroxisome proliferator-responsive element. Ortiz JA, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):329-35

Acute-phase induced phosphorylation of rat liver nucleoprotein p70 modulates its binding affinity for the haptoglobin gene. Grigorov I, et al. **Biochem Mol Biol Int** 1998 Aug;45(5):1067-72

Interaction of human estrogen receptors alpha and beta with the same naturally occurring estrogen response elements [published erratum appears in Biochem Pharmacol 1999 Jun 15;57(12):1447] Hyder SM, et al. **Biochem Pharmacol** 1999 Mar 15;57(6):597-601

Specificity in the binding of aminoglycosides to HIV-RRE RNA. Cho J, et al. **Biochemistry** 1999 Jun 29; 38(26):8548-54

Characterization of an inverted repeat with a zero spacer (IR0)-type retinoic acid response element from the mouse nuclear orphan receptor TR2-11 gene. Lee CH, et al. **Biochemistry** 1999 Jul 6;38(27):8820-5

Regulation of expression of surfactant protein-A. Mendelson CR, et al. **Biochim Biophys Acta** 1998 Nov 19; 1408(2-3):132-49 (59 ref.)

Conservation of an insulin response unit between mouse and human glucose-6-phosphatase catalytic subunit gene promoters: transcription factor FKHR binds the insulin response sequence. Ayala JE, et al. **Diabetes** 1999 Sep; 48(9):1885-9

Leukemic transformation by the v-ErbA oncoprotein entails constitutive binding to and repression of an erythroid enhancer in vivo. Ciana P, et al. **EMBO J** 1998 Dec 15; 17(24):7382-94

A novel jasmonate- and elicitor-responsive element in the periwinkle secondary metabolite biosynthetic gene Str interacts with a jasmonate- and elicitor-inducible AP2-domain transcription factor, ORCA2. Menke FL, et al. **EMBO J** 1999 Aug 16;18(16):4455-63

Identification of Bach2 as a B-cell-specific partner for small maf proteins that negatively regulate the immunoglobulin heavy chain gene 3' enhancer. Muto A, et al. **EMBO J** 1998 Oct 1;17(19):5734-43

Sip4, a Snf1 kinase-dependent transcriptional activator, binds to the carbon source-responsive element of gluconeogenic genes. Vincent O, et al. **EMBO J** 1998 Dec 1;17(23):7002-8

Is gonadotrope expression of the gonadotropin releasing hormone receptor gene mediated by autocrine/paracrine stimulation of an activin response element? Duval DL, et al. **Endocrinology** 1999 Apr;140(4):1949-52

An assay for the detection of xenoestrogens based on a promoter containing overlapping EREs. Massaad C, et al. **Environ Health Perspect** 1999 Jul;107(7):563-6

The HNF-3alpha transcription factor is a primary target for retinoic acid action. Jacob A, et al. **Exp Cell Res** 1999 Jul 10;250(1):1-9

The vitamin D receptor binds in a transcriptionally inactive form and without a defined polarity on a retinoic acid response element. Jimenez-Lara AM, et al. **FASEB J** 1999 Jun;13(9):1073-81

Arginine-aminoglycoside conjugates that bind to HIV transactivation responsive element RNA in vitro. Litovchick A, et al. **FEBS Lett** 1999 Feb 19;445(1):73-9

Multiple regulatory elements control the expression of the yeast ACR1 gene. Redruello B, et al. **FEBS Lett** 1999 Feb 26;445(2-3):246-50

Negative cooperativity between juxtaposed E-box and cAMP/TPA responsive elements in the cholecystokinin gene promoter. Rourke IJ, et al. **FEBS Lett** 1999 Apr 1; 448(1):15-8

The identification of response regulators of Branhamella catarrhalis using PCR. Mibus DJ, et al. **FEMS Immunol Med Microbiol** 1998 Dec;22(4):351-4

Maximal induction of p69 2', 5'-oligoadenylate synthetase in Daudi cells requires cooperation between an ISRE and two IRF-1-like elements. Wang Q, et al. **Gene** 1998 Nov 5;222(1):83-90

alpha2D/A-adrenergic receptor gene induction in the retina by phorbol ester: involvement of an AP-2 element. Venkataraman V, et al. **Genes Cells** 1999 Mar;4(3):161-73

Nuclear events in ethylene signaling: a transcriptional cascade mediated by ETHYLENE-INSENSITIVE3 and ETHYLENE-RESPONSE-FACTOR1. Solano R, et al. **Genes Dev** 1998 Dec 1;12(23):3703-14

Recurrent mutations in the iron regulatory element of L-ferritin in hereditary hyperferritinemia-cataract syndrome. Cicilano M, et al. **Haematologica** 1999 Jun; 84(6):489-92

Role of the interferon-stimulated response element in HLA-B downregulation in human melanoma cell lines. Griffioen M, et al. **Immunogenetics** 1999 Apr;49(4):287-94

An atypical iron-responsive element (IRE) within crayfish ferritin mRNA and an iron regulatory protein 1 (IRP1)-like protein from crayfish hepatopancreas. Huang TS, et al. **Insect Biochem Mol Biol** 1999 Jan;29(1):1-9

Serum response elements activate and cAMP responsive elements inhibit expression of transcription factor Egr-1 in synovial fibroblasts of rheumatoid arthritis patients. Aicher WK, et al. **Int Immunol** 1999 Jan;11(1):47-61

Cloning and expression of a novel dominant-negative-acting estrogen response element-binding protein in the heterogeneous nuclear ribonucleoprotein family. Chen H, et al. **J Biol Chem** 1998 Nov 20;273(47):31352-7

Phosphorylation of serine 256 by protein kinase B disrupts transactivation by FKHR and mediates effects of insulin on insulin-like growth factor-binding protein-1 promoter activity through a conserved insulin response sequence. Guo S, et al. **J Biol Chem** 1999 Jun 11;274(24):17184-92

Identification of a hypoxia response element in the transferrin receptor gene. Lok CN, et al. **J Biol Chem** 1999 Aug 20; 274(34):24147-52

Tissue-specific regulation of the ecto-5'-nucleotidase promoter. Role of the camp response element site in mediating repression by the upstream regulatory region. Spychala J, et al. **J Biol Chem** 1999 Aug 6;274(32):22705-12

Additional protein factors play a role in the formation of VDR/RXR complexes on vitamin D response elements. Zierold C, et al. **J Cell Biochem** 1998 Dec 15;71(4):515-23

IP-10 gene transcription by virus in astrocytes requires cooperation of ISRE with adjacent kappaB site but not IRF-1 or viral transcription. Cheng G, et al. **J Interferon Cytokine Res** 1998 Nov;18(11):987-97

Association of plasma lipids and apolipoproteins with the insulin response element in the apoC-III promoter region in familial combined hyperlipidemia. Groenendijk M, et al. **J Lipid Res** 1999 Jun;40(6):1036-44

Analysis of the interaction between the p53 binding domain and the p21/CiP1 DNA response element: a novel architectural organization. Appella E, et al. **J Protein Chem** 1998 Aug;17(6):527-8

Potent inhibition of human immunodeficiency virus type 1 (HIV-1) gene expression and virus production by an HIV-2 tat activation-response RNA decoy. Browning CM, et al. **J Virol** 1999 Jun;73(6):5191-5

The 5' RNA terminus of spleen necrosis virus contains a novel posttranscriptional control element that facilitates human immunodeficiency virus Rev/RRE-independent Gag production. Butsch M, et al. **J Virol** 1999 Jun; 73(6):4847-55

Polyvalent Rev decoys act as artificial Rev-responsive elements. Symensma TL, et al. **J Virol** 1999 May; 73(5):4341-9

Translational control of gene expression using retroviral vectors with iron response elements. Davis JL, et al. **Methods Enzymol** 1999;306:225-41

Antiprogestin regulable gene switch for induction of gene expression in vivo. Wang Y, et al. **Methods Enzymol** 1999; 306:281-94

Trithorax- and Polycomb-group response elements within an Ultrabithorax transcription maintenance unit consist of closely situated but separable sequences. Tillib S, et al. **Mol Cell Biol** 1999 Jul;19(7):5189-202

The first exon of the human sc gene contains an androgen responsive unit and an interferon regulatory factor element. Haelens A, et al. **Mol Cell Endocrinol** 1999 Jul 20; 153(1-2):91-102

Basic helix-loop-helix proteins can act at the E-box within the serum response element of the c-fos promoter to influence hormone-induced promoter activation in Sertoli cells. Chaudhary J, et al. **Mol Endocrinol** 1999 May; 13(5):774-86

The promoter of the rat 3-hydroxy-3-methylglutaryl coenzyme A reductase gene contains a tissue-specific estrogen-responsive region. Di Croce L, et al. **Mol Endocrinol** 1999 Aug;13(8):1225-36

Inducible binding of cyclic adenosine 3',5'-monophosphate (cAMP)-responsive element binding protein (CREB) to a cAMP-responsive promoter in vivo. Wölfl S, et al. **Mol Endocrinol** 1999 May;13(5):659-69

Stress factors acting at the level of the plasma membrane induce transcription via the stress response element (STRE) of the yeast Saccharomyces cerevisiae. Moskvina E, et al. **Mol Microbiol** 1999 Jun;32(6):1263-72

Identification of a glucocorticoid response element in the rat beta2-adrenergic receptor gene. Cornett LE, et al. **Mol Pharmacol** 1998 Dec;54(6):1016-23

The THCRE2 site in the rat tyrosine hydroxylase gene promoter is responsive to phorbol ester. Best JA, et al. **Neurosci Lett** 1998 Dec 24;258(3):131-4

The mammalian endoplasmic reticulum stress response element consists of an evolutionarily conserved tripartite structure and interacts with a novel stress-inducible complex. Roy B, et al. **Nucleic Acids Res** 1999 Mar 15; 27(6):1437-43

Attenuated expression of the serum responsive T1 gene in ras transformed fibroblasts due to the inhibition of c-fos gene activity. Kessler R, et al. **Oncogene** 1999 Mar 4; 18(9):1733-44

Human PACAP response gene 1 (p22/PRG1): proliferation-associated expression in pancreatic carcinoma cells. Schäfer H, et al. **Pancreas** 1999 May;18(4):378-84

The sfr6 mutation in Arabidopsis suppresses low-temperature induction of genes dependent on the CRT/DRE sequence motif. Knight H, et al. **Plant Cell** 1999 May;11(5):875-86

Three unrelated viral transforming proteins (vIRF, EBNA2, and E1A) induce the MYC oncogene through the interferon-responsive PRF element by using different transcription coadaptors. Jayachandra S, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11566-71

Estrogen induction of the cyclin D1 promoter: involvement of a cAMP response-like element. Sabbah M, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11217-22

A search in the genome of Saccharomyces cerevisiae for genes regulated via stress response elements. Moskvina E, et al. **Yeast** 1998 Aug;14(11):1041-50

DRUG EFFECTS

Identification of 1 alpha,25-dihydroxyvitamin D3 response

elements in the human transforming growth factor beta 2 gene. Wu Y, et al. **Biochemistry** 1999 Mar 2;38(9):2654–60

The tissue-specific transcription factor Pit-1/GHF-1 binds to the c-fos serum response element and activates c-fos transcription. Gaiddon C, et al. **Mol Endocrinol** 1999 May; 13(5):742–51

Fibrates increase human REV-ERBalpha expression in liver via a novel peroxisome proliferator-activated receptor response element. Gervois P, et al. **Mol Endocrinol** 1999 Mar;13(3):400–9

Turning a negative into a positive: vitamin D receptor interactions with the avian parathyroid hormone response element. Koszewski NJ, et al. **Mol Endocrinol** 1999 Mar; 13(3):455–65

The activation and composition of FiRE (an FGF-inducible response element) differ in a cell type- and growth factor-specific manner. Jaakkola P, et al. **Oncogene** 1998 Sep 10;17(10):1279–86

GENETICS

CsA-sensitive purine-box transcriptional regulator in bronchial epithelial cells contains NF45, NF90, and Ku. Aoki Y, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1164–72

Cis-acting sequences from the rat cytochrome P450 2B1 gene confer pulmonary and phenobarbital-inducible expression in transgenic mice. Skarin T, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):177–84

The same xenobiotic response element is required for constitutive and inducible expression of the mammalian aldehyde dehydrogenase-3 gene. Boesch JS, et al. **Arch Biochem Biophys** 1999 Jan 15;361(2):223–30

Glucocorticoids stimulate CREB binding to a cyclic-AMP response element in the rat serine dehydratase gene. Haas MJ, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):317–24

Influence of a cap site element on tissue-restricted expression of the glycoprotein hormone alpha-subunit gene. Cox GS, et al. **Biochem Biophys Res Commun** 1999 Jul 14; 260(3):752–9

Transcription of the human thyrotropin-releasing hormone receptor gene-analysis of basal promoter elements and glucocorticoid response elements. Høvring PI, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):829–34

Identification of a novel cis-acting positive element responsible for the cell-specific expression of the NK-1 homeobox gene. Kim SJ, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):538–44

UV-Laser induced protein/DNA crosslinking reveals sequence variations of DNA elements bound by c-Jun in vivo. Santoro R, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):68–74

Characterization and purification of carbohydrate response element-binding protein of the rat L-type pyruvate kinase gene promoter. Yamada K, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):44–9

Xenobiotic-responsive element for the transcriptional activation of the rat Cu/Zn superoxide dismutase gene. Yoo HY, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):133–7

Identification of an oxygen-responsive element in the 5'-flanking sequence of the rat cytosolic phosphoenolpyruvate carboxykinase-1 gene, modulating its glucagon-dependent activation. Bratke J, et al. **Biochem J** 1999 May 1;339 (Pt 3):563–9

Structural characterization of DNA and RNA sequences recognized by the gene 5 protein of bacteriophage fd. Oliver AW, et al. **Biochem J** 1999 May 1;339 (Pt 3):525–31

Identification of a functional transcriptional factor AP-1 site in the sheep interferon tau gene that mediates a response to PMA in JEG3 cells. Yamaguchi H, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):767–73

An insulator element and condensed chromatin region separate the chicken beta-globin locus from an independently regulated erythroid-specific folate receptor gene. Prioleau MN, et al. **EMBO J** 1999 Jul 15; 18(14):4035–48

Repressor binding to a dorsal regulatory site traps human eIF4E in a high cap-affinity state. Ptushkina M, et al. **EMBO J** 1999 Jul 15;18(14):4068–75

Transcriptional induction of the p69 isoform of 2',5'-oligoadenylate synthetase by interferon-beta and interferon-gamma involves three regulatory elements and interferon-stimulated gene factor 3. Floyd-Smith G, et al. **Exp Cell Res** 1999 Jan 10;246(1):138–47

Characterization of the minimal osmotic response element of the bovine Na+/myo-inositol cotransporter gene [letter] Zhou C, et al. **Exp Eye Res** 1999 Jan;68(1):137–42

PPARgamma3 mRNA: a distinct PPARgamma mRNA subtype transcribed from an independent promoter. Fajas L, et al. **FEBS Lett** 1998 Oct 30;438(1-2):55–60

Effects of nucleoside analog incorporation on DNA binding to the DNA binding domain of the GATA-1 erythroid transcription factor. Foti M, et al. **FEBS Lett** 1999 Feb 5;444(1):47–53

Interaction between the (-170) CRE and the (-150) CCAAT box is necessaryfor efficient activation of the fibronectin gene promoter by cAMP and ATF-2. Pesce CG, et al. **FEBS Lett** 1999 Sep 3;457(3):445–51

Identification of a functional 3',5'-cyclic adenosine monophosphate response element within the second promoter of the mouse somatostatin receptor type 2 gene. Wöltje M, et al. **FEBS Lett** 1998 Nov 27;440(1-2):107–10

A GC-box is required for expression of the human vimentin gene. Izmailova ES, et al. **Gene** 1999 Jul 22;235(1-2):69–75

HIV-1 rev nuclear export signal binding peptides isolated by phage display. Jensen A, et al. **J Mol Biol** 1998; 283(1):245–54

Cytomegalovirus and human herpesvirus-6 trans-activate the HIV-1 long terminal repeat via multiple response regions in human fetal astrocytes [see comments] McCarthy M, et al. **J Neurovirol** 1998 Oct;4(5):495–511. Comment in: J Neurovirol 1998 Oct;4(5):471–3.

Enterocyte-like differentiation of the Caco-2 intestinal cell line is associated with increases in AP-1 protein binding. Ding Q, et al. **Life Sci** 1999;64(3):175–82

Control elements of muscarinic receptor gene expression. Saffen D, et al. **Life Sci** 1999;64(6-7):479–86 (32 ref.)

In vitro evidence of two-component system phosphorylation between the Mycobacterium tuberculosis TrcR/TrcS proteins. Haydel SE, et al. **Microb Pathog** 1999 Apr; 26(4):195–206

Functional analysis of upstream regulating regions from the Yarrowia lipolytica XPR2 promoter. Madzak C, et al. **Microbiology** 1999 Jan;145 (Pt 1):75–87

Roles for GcvA-binding sites 3 and 2 and the Lrp-binding region in gcvT::lacZ expression in Escherichia coli. Stauffer LT, et al. **Microbiology** 1998 Oct;144 (Pt 10):2865–72

Thyroid hormone direct repeat 4 response element is a positive regulatory element for the human TR2 orphan receptor, a member of steroid receptor superfamily. Chang C, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):195–200

Tumor necrosis factor activates a nuclear inhibitor of vitamin D and retinoid-X receptors. Fernandez-Martin JL, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):65–72

Subtype- and response element-dependent differences in transactivation by peroxisome proliferator-activated receptors alpha and gamma. Kassam A, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):153–62

Analysis of proopiomelanocortin gene transcription mechanisms in bronchial tumour cells. Picon A, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1-2):93–102

Insulin inhibition of glucocorticoid-stimulated gene transcription: requirement for an insulin response element? Pierreux CE, et al. **Mol Cell Endocrinol** 1999 Jan 25; 147(1-2):1–5 (33 ref.)

Multiple elements in the distal part of the 1.2 kb 5'-flanking region of the rat GnRH receptor gene regulate gonadotrope-specific expression conferred by proximal domain. Pincas H, et al. **Mol Cell Endocrinol** 1998 Sep 25; 144(1-2):95–108

Structural requirements of the glucocorticoid and retinoic acid response units in the phosphoenolpyruvate carboxykinase gene promoter. Sugiyama T, et al. **Mol Endocrinol** 1998 Oct;12(10):1487–98

Specificity of DNA binding of the c-Myc/Max and ARNT/ARNT dimers at the CACGTG recognition site. Swanson HI, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3205–12

A human Raf-responsive zinc-finger protein that binds to divergent sequences. Zhang L, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2947–56

The EWS/TEC fusion protein encoded by the t(9;22) chromosomal translocation in human chondrosarcomas is a highly potent transcriptional activator. Labelle Y, et al. **Oncogene** 1999 May 27;18(21):3303–8

IMMUNOLOGY

Transactivation of classical and nonclassical HLA class I genes through the IFN-stimulated response element. Gobin SJ, et al. **J Immunol** 1999 Aug 1;163(3):1428–34

The Jun kinase cascade is responsible for activating the CD28 response element of the IL-2 promoter: proof of cross-talk with the I kappa B kinase cascade. Kempiak SJ, et al. **J Immunol** 1999 Mar 15;162(6):3176–87

TCR and IL-12 receptor signals cooperate to activate an individual response element in the IFN-gamma promoter in effector Th cells. Zhang F, et al. **J Immunol** 1999 Jul 15;163(2):728–35

PHYSIOLOGY

Identification of glucocorticoid-responsive elements that control transcription of rat glutamine synthetase. Chandrasekhar S, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L319–31

Functional consensus for mammalian osmotic response elements. Ferraris JD, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C667–73

ROR alpha augments thyroid hormone receptor-mediated transcriptional activation. Koibuchi N, et al. **Endocrinology** 1999 Mar;140(3):1356–64

Neuroendocrine cell type-specific and inducible expression of the secretogranin II gene: crucial role of cyclic adenosine monophosphate and serum response elements. Mahata SK, et al. **Endocrinology** 1999 Feb;140(2):739–49

AP-1 and T3RE cis elements operate as a functional unit in the transcriptional control of the human malic enzyme gene. González-Manchón C, et al. **Gene** 1999 Jan 8; 226(1):111–9

JNKK1 organizes a MAP kinase module through specific and sequential interactions with upstream and downstream components mediated by its amino-terminal extension. Xia Y, et al. **Genes Dev** 1998 Nov 1;12(21):3369–81

Coordinate regulation of NAD(P)H:quinone oxidoreductase and glutathione-S-transferases in primary cultures of rat neurons and glia: role of the antioxidant/electrophile responsive element. Ahlgren-Beckendorf JA, et al. **Glia** 1999 Jan 15;25(2):131–42

The activation of the rat copper/zinc superoxide dismutase gene by hydrogen peroxide through the hydrogen peroxide-responsive element and by paraquat and heat shock through the same heat shock element. Yoo HY, et al. **J Biol Chem** 1999 Aug 20;274(34):23887–92

Prostaglandin E-prostanoid-3 receptor activation of cyclic AMP response element-mediated gene transcription. Audoly LP, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):140–8

Two separate NCoR (nuclear receptor corepressor) interaction domains mediate corepressor action on thyroid hormone response elements. Cohen RN, et al. **Mol Endocrinol** 1998 Oct;12(10):1567–81

An explanation for observed estrogen receptor binding to single-stranded estrogen-responsive element DNA. Driscoll MD, et al. **Mol Endocrinol** 1999 Jun;13(6):958–68

Identification of a retinoic acid-inducible element in the murine PTH/PTHrP (parathyroid hormone/parathyroid hormone-related peptide) receptor gene. Karperien M, et al. **Mol Endocrinol** 1999 Jul;13(7):1183–96

Functional analysis of the mouse ICER (Inducible cAMP Early Repressor) promoter: evidence for a protein that blocks calcium responsiveness of the CAREs (cAMP autoregulatory elements). Krueger DA, et al. **Mol Endocrinol** 1999 Jul;13(7):1207–17

Androgen regulation of the cyclin-dependent kinase inhibitor p21 gene through an androgen response element in the proximal promoter. Lu S, et al. **Mol Endocrinol** 1999 Mar; 13(3):376–84

Cyclic adenosine-3',5'-monophosphate-mediated activation of a glutamine synthetase composite glucocorticoid response element. Richardson J, et al. **Mol Endocrinol** 1999 Apr;13(4):546–54

The phosphoenolpyruvate carboxykinase gene glucocorticoid response unit: identification of the functional domains of accessory factors HNF3 beta (hepatic nuclear factor-3 beta) and HNF4 and the necessity of proper alignment of their cognate binding sites. Wang JC, et al. **Mol Endocrinol** 1999 Apr;13(4):604–18

Homologous regulation of the gonadotropin-releasing hormone receptor gene is partially mediated by protein kinase C activation of an activator protein-1 element. White BR, et al. **Mol Endocrinol** 1999 Apr;13(4):566–77

HMG-1 stimulates estrogen response element binding by estrogen receptor from stably transfected HeLa cells. Zhang CC, et al. **Mol Endocrinol** 1999 Apr;13(4):632–43

Stimulation of cAMP response element (CRE)-mediated transcription during contextual learning [see comments] Impey S, et al. **Nat Neurosci** 1998 Nov;1(7):595–601. Comment in: Nat Neurosci 1998 Nov;1(7):543–5.

The role of the T-box for the function of the vitamin D receptor on different types of response elements. Quack M, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5372–8

RESPONSE LATENCY see **REACTION TIME**

RESPONSE TIME see **REACTION TIME**

RESPONSIBILITY, SOCIAL see **SOCIAL RESPONSIBILITY**

REST

see related
BED REST

Prediction of coronary artery lesions in unstable angina by iodine 123 beta-methyl iodophenyl pentadecanoic acid (BMIPP), a fatty acid analogue, single photon emission computed tomography at rest. Morimoto K, et al. **Angiology** 1999 Aug;50(8):639–48

Quiet resting is not necessary prior to routine antenatal blood pressure measurement. Duggan PM. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):19–20

Effect of sex steroids on beta-endorphin levels at rest and during submaximal treadmill exercise in anovulatory and ovulatory runners. Meyer WR, et al. **Fertil Steril** 1999 Jun; 71(6):1085–91

Potassium supplementation induces beneficial cardiovascular changes during rest and stress in salt sensitive individuals. West SG, et al. **Health Psychol** 1999 May;18(3):229–40

Sudden tachycardia at rest in a 39-year-old man. Hancock EW. **Hosp Pract (Off Ed)** 1999 Apr 15;34(4):43–6

The effect of exercise training intensity on thyroid activity at rest. Rosołowska-Huszcz D. **J Physiol Pharmacol** 1998 Sep;49(3):457–66

Effect of active rest by oral reading on a mirror-drawing task. Sada Y. **Percept Mot Skills** 1998 Oct;87(2):635–42

Carbon isotope fractionation between blood and expired CO2 at rest and exercise. Panteleev N, et al. **Respir Physiol** 1999 Jun 1;116(1):77–83

[Hematocrit in professional cyclists and in sedentary men (letter)] Varet B. **Presse Med** 1999 Jul 3–10;28(24):1294 **(Fre)**

[Resting energy expenditure in cystic fibrosis] Cancho Candela R, et al. **Nutr Hosp** 1999 Jul–Aug;14(4):153–8 (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

Body composition, resting and running metabolic rates, and net cost of running in rats during starvation. Fuglei E, et al. **Acta Physiol Scand** 1999 Feb;165(2):203–10

Near–infrared monitoring of tissue oxygenation during application of lower body pressure at rest and during dynamical exercise in humans. Nishiyasu T, et al. **Acta Physiol Scand** 1999 Jun;166(2):123–30

A positron emission tomographic study of subthalamic nucleus stimulation in Parkinson disease: enhanced movement–related activity of motor–association cortex and decreased motor cortex resting activity. Ceballos–Baumann AO, et al. **Arch Neurol** 1999 Aug;56(8):997–1003

Naps and modafinil as countermeasures for the effects of sleep deprivation on cognitive performance. Batéjat DM, et al. **Aviat Space Environ Med** 1999 May;70(5):493–8

Thermoregulatory responses to cold: effects of handwear with multi–layered clothing. Gonzalez RR, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1076–82

Sodium chloride–citrate beverages attenuate hypovolemia in men resting 12 h at 2800 m altitude. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Oct;69(10):936–43

Plasma volume expansion with oral fluids in hypohydrated men at rest and during exercise. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Sep;69(9):837–44

Decongestant effects on hemodynamics at rest, exercise, and recovery from exercise during—6 degrees of head down tilt. Rosene JM, et al. **Aviat Space Environ Med** 1999 Jan; 70(1):15–21

Short hypobaric hypoxia and breathing pattern: effect of positive end expiratory pressure. Savourey G, et al. **Aviat Space Environ Med** 1999 Sep;70(9):863–6

Post–rest contraction amplitude in myocytes from failing human ventricle. Davia K, et al. **Basic Res Cardiol** 1998; 93 Suppl 1:33–7

Rest–activity rhythm of the blind mole rat Spalax ehrenbergi under different lighting conditions. Tobler I, et al. **Behav Brain Res** 1998 Nov;96(1–2):173–83

Plasma catecholamines, neuropeptide Y and leucine–enkephalin in uremic patients before and after dialysis during rest and handgrip. Klin M, et al. **Boll Chim Farm** 1998 Sep;137(8):306–13

Trace elements and electrolytes in human resting mixed saliva after exercise. Chicharro JL, et al. **Br J Sports Med** 1999 Jun;33(3):204–7

Gender differences in cardiovascular and catecholamine responses to cold–air exposure at rest. Pettit SE, et al. **Can J Appl Physiol** 1999 Apr;24(2):131–47

Reproducibility of the alterations in circulation and cerebral oxygenation from supine rest to head–up tilt. Houtman S, et al. **Clin Physiol** 1999 Mar;19(2):169–77

Comparison of resting energy expenditure measurements by ventilated canopy and by respiration chamber. Kistorp CN, et al. **Clin Physiol** 1999 Jul;19(4):344–7

A fractal approach for evaluation of pulmonary circulation in man at rest and during exercise. Kuikka JT, et al. **Clin Physiol** 1999 Mar;19(2):107–10

Interstitial lactate levels in human skin at rest and during an oral glucose load: a microdialysis study. Petersen LJ. **Clin Physiol** 1999 May;19(3):246–50

Predictability of in vivo changes in pennation angle of human tibialis anterior muscle from rest to maximum isometric dorsiflexion. Maganaris CN, et al. **Eur J Appl Physiol** 1999 Feb;79(3):294–7

Effects of repeated exercise/rest sessions at –10 degrees C on skin and rectal temperatures in men wearing chemical protective clothing. Rissanen S, et al. **Eur J Appl Physiol** 1998 Nov;78(6):560–4

Laryngeal movements during the respiratory cycle measured with an endoscopic imaging technique in the conscious horse at rest. Lafortuna CL, et al. **Exp Physiol** 1999 Jul; 84(4):739–46

Exercise performance in patients with dilated cardiomyopathy: relationship to resting left ventricular function. Güleç S, et al. **Int J Cardiol** 1998 Aug; 65(3):247–53

Pharmacokinetics and hemodynamic effects of diltiazem in healthy volunteers: comparing resting with the effect of exercise. Yeung PK, et al. **Int J Clin Pharmacol Ther** 1999 Aug;37(8):413–6

Sleep and alertness during alternating monophasic and polyphasic rest–activity cycles. Porcú S, et al. **Int J Neurosci** 1998 Jul;95(1–2):43–50

The effects of rest and subsequent training on selected physiological parameters in professional female classical dancers. Koutedakis Y, et al. **Int J Sports Med** 1999 Aug; 20(6):379–83

Broadband performance of an active headrest. Rafaely B, et al. **J Acoust Soc Am** 1999 Aug;106(2):787–93

Lactate kinetics at rest and during exercise in lambs with aortopulmonary shunts. Beaufort–Krol GC, et al. **J Appl Physiol** 1999 Mar;86(3):832–9

Effect of furosemide on pulmonary blood flow distribution in resting and exercising horses. Erickson HH, et al. **J Appl Physiol** 1999 Jun;86(6):2034–43

Force–velocity–power and force–pCa relationships of human soleus fibers after 17 days of bed rest. Widrick JJ, et al. **J Appl Physiol** 1998 Nov;85(5):1949–56

Rest and exercise hemodynamics after the Ross procedure: an echocardiographic study. da Costa F, et al. **J Card Surg** 1998 May;13(3):177–85

Urinary excretion of nitric oxide metabolites in runners, sedentary individuals and patients with coronary artery disease: effects of 42 km marathon, 15 km race and a cardiac rehabilitation program. Rodriguez–Plaza LG, et al. **J Cardiovasc Risk** 1997 Oct–Dec;4(5–6):367–72

Studies on day–time resting habits of JE vector mosquitoes in upper Assam with a note on insecticide susceptibility status. Khan SA, et al. **J Commun Dis** 1997 Dec; 29(4):367–70

Ageing and the circadian and homeostatic regulation of human sleep during forced desynchrony of rest, melatonin and temperature rhythms. Dijk DJ, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):611–27

T1 measurements of 31P metabolites in resting and exercising human gastrocnemius/soleus muscle at 1.5 Tesla. Newcomer BR, et al. **Magn Reson Med** 1999 Mar; 41(3):486–94

Circulating neuropeptide Y (NPY) and catecholamines in rat under resting and stress conditions. Arguments for extra–adrenal origin of NPY, adrenal and extra–adrenal sources of catecholamines. Bernet F, et al. **Neurosci Lett** 1998 Jun 26;250(1):45–8

Ultradian rhythms in young and adult mice: further support for the basic rest–activity cycle. D'Olimpio F, et al. **Physiol Behav** 1998 Jul;64(5):697–701

Aerobic exercise and resting blood pressure among women: a meta–analysis. Kelley GA. **Prev Med** 1999 Mar; 28(3):264–75

[Heart rate response and its variability during different phases of maximal graded exercise] Alonso D de O, et al. **Arq Bras Cardiol** 1998 Dec;71(6):787–92 (Eng. Abstr.) **(Por)**

[Energy expenditure at rest: indirect calorimetry vs the Fick principle] Raurich Puigdevall JM, et al. **Nutr Hosp** 1998 Nov–Dec;13(6):303–8 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Transcutaneous electrical nerve stimulation (TENS) improves the rest–activity rhythm in midstage Alzheimer's disease. Scherder EJ, et al. **Behav Brain Res** 1999 May; 101(1):105–7

The effects of a 20–min nap at noon on sleepiness, performance and EEG activity. Hayashi M, et al. **Int J Psychophysiol** 1999 May;32(2):173–80

REST VERTICAL DIMENSION see **VERTICAL DIMENSION**

RESTAURANTS

A Mexican restaurant–associated outbreak of Salmonella Enteritidis type 34 infections traced to a contaminated egg farm. McNeil MM, et al. **Epidemiol Infect** 1999 Apr; 122(2):209–15

Factors affecting selection of restaurants by Anglo– and Mexican–American families. Elder J, et al. **J Am Diet Assoc** 1999 Jul;99(7):856–8

Evaluation of dehydrated restaurant food waste products as feedstuffs for finishing pigs. Myer RO, et al. **J Anim Sci** 1999 Mar;77(3):685–92

An untypeable Shigella flexneri strain associated with an outbreak in California. Trevejo RT, et al. **J Clin Microbiol** 1999 Jul;37(7):2352–3

Enterotoxin production by coagulase–negative staphylococci in restaurant workers from Kuwait City may be a potential cause of food poisoning. Udo EE, et al. **J Med Microbiol** 1999 Sep;48(9):819–23

System memory in violent incidents: evidence from patterns of reoccurrence. Beale D, et al. **J Occup Health Psychol** 1999 Jul;4(3):233–44

The effect of waitresses' touch on alcohol consumption in dyads. Kaufman D, et al. **J Soc Psychol** 1999 Jun; 139(3):261–7

Bartenders' pulmonary function after establishment of a smoke–free workplace [letter] Bell C, et al. **JAMA** 1999 Aug 18;282(7):629

Bartenders' respiratory health after establishment of smoke–free bars and taverns [see comments] Eisner MD, et al. **JAMA** 1998 Dec 9;280(22):1909–14. Comment in: JAMA 1998 Dec 9;280(22):1947–9. Comment in: JAMA 1999 Mar 24–31;281(12):1083.

Perceptions of the effect of an impending restaurant smoking ban on dining–out experience. Wakefield M, et al. **Prev Med** 1999 Jul;29(1):53–6

[Home and outside home food complementarity in Bamako (Mali): nutritional and economic aspects. What is the rationality behind consumers' choices?] Ag Bendech M, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):151–64 (Eng. Abstr.) **(Fre)**

[The nutritional education initiative of the Istituto Nazionale della Nutrizione accomplished with the contribution of McDonald's (news)] Pala DV. **Epidemiol Prev** 1998 Oct–Dec;22(4):195 **(Ita)**

[Improvement in the hygiene training of workers in public eating establishments and the foodstuffs trade] Krasil'shchikov MI, et al. **Gig Sanit** 1999 Jan–Feb;(1):25–8 (Eng. Abstr.) **(Rus)**

ECONOMICS

Environmental tobacco smoke regulations have not hurt restaurant sales in North Carolina. Goldstein AO, et al. **N C Med J** 1998 Sep–Oct;59(5):284–7

LEGISLATION & JURISPRUDENCE

Tourism and hotel revenues before and after passage of smoke–free restaurant ordinances. Glantz SA, et al. **JAMA** 1999 May 26;281(20):1911–8

Impact of smoking control rules on restaurants in Orange County, North Carolina. Sobel RA, et al. **N C Med J** 1998 Sep–Oct;59(5):288

STANDARDS

Formative evaluation of an Inspection Certificate Program (ICP) pilot in Toronto. Dwyer JJ, et al. **Can J Public Health** 1999 May–Jun;90(3):209–12

Fat content of restaurant meals: comparison between menu and experimental values. Sloan ME, et al. **J Am Diet Assoc** 1999 Jun;99(6):731–3

Salmonella Thompson associated with improper handling of roast beef at a restaurant in Sioux Falls, South Dakota. Shapiro R, et al. **J Food Prot** 1999 Feb;62(2):118–22

STATISTICS & NUMERICAL DATA

Restaurant smoking restrictions and environmental tobacco smoke exposure [see comments] Brauer M, et al. **Am J Public Health** 1998 Dec;88(12):1834–6. Comment in: Am J Public Health 1998 Dec;88(12):1759–60.

The effect of eating out on quality of diet in premenopausal women. Clemens LH, et al. **J Am Diet Assoc** 1999 Apr; 99(4):442–4

RESTING PHASE see **INTERPHASE**

RESTING POTENTIALS see **MEMBRANE POTENTIALS**

RESTLESS LEGS

How to help patients with restless legs syndrome. Discerning the indescribable and relaxing the restless. Evidente VG, et al. **Postgrad Med** 1999 Mar;105(3):59–61, 65–6, 73–4 (22 ref.)

[Restless leg syndrome] Winkelmann J, et al. **Med Monatsschr Pharm** 1999 Mar;22(3):67–71 (8 ref.) **(Ger)**

[Restless legs syndrome] Horiguchi J. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):200–2 (6 ref.) **(Jpn)**

[Restless legs. A much neglected syndrome (see comments)] Ulfberg J, et al. **Lakartidningen** 1999 Mar 10;96(10):1183–4, 1187–8 (47 ref.) (Eng. Abstr.). Comment in: Lakartidningen 1999 Jul 14;96(28–29):3238. **(Swe)**

CHEMICALLY INDUCED

Nocturnal eating/drinking syndrome and neuroleptic–induced restless legs syndrome. Horiguchi J, et al. **Int Clin Psychopharmacol** 1999 Jan;14(1):33–6

A case of neuroleptic–induced unilateral akathisia with periodic limb movements in the opposite side during sleep. Yamashita H, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):291–3

COMPLICATIONS

Restless legs syndrome associated with spinal cord lesions [letter] Hartmann M, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):688–9

Charcot–Marie–Tooth disease type 2 with restless legs syndrome. Gemignani F, et al. **Neurology** 1999 Mar 23; 52(5):1064–6

Sleep disturbance in spinocerebellar ataxias: is the **SCA3** mutation a cause of restless legs syndrome? Schöls L, et al. **Neurology** 1998 Dec;51(6):1603–7

DIAGNOSIS

Periodic limb movement in sleep in children with Williams syndrome. Arens R, et al. **J Pediatr** 1998 Nov;133(5):670–4

Circadian rhythm of periodic limb movements and sensory symptoms of restless legs syndrome. Trenkwalder C, et al. **Mov Disord** 1999 Jan;14(1):102–10

Polysomnographic sleep measures in patients with uremic and idiopathic restless legs syndrome. Wetter TC, et al. **Mov Disord** 1998 Sep;13(5):820–4

DRUG THERAPY

Nocturnal subcutaneous apomorphine infusion in Parkinson's disease and restless legs syndrome. Reuter I, et al. **Acta Neurol Scand** 1999 Sep;100(3):163–7

An overview of levodopa in the management of restless legs syndrome in a dialysis population: pharmacokinetics, clinical trials, and complications of therapy. Janzen L, et al. **Ann Pharmacother** 1999 Jan;33(1):86–92 (36 ref.)

Treatment of restless legs syndrome with tramadol: an open study. Lauerma H, et al. **J Clin Psychiatry** 1999 Apr; 60(4):241–4

Treatment of restless leg syndrome with pergolide. Gunning K, et al. **J Fam Pract** 1999 Apr;48(4):250

Ropinirole for restless legs syndrome. Ondo W. **Mov Disord** 1999 Jan;14(1):138–40

Encouraging initial response of restless legs syndrome to pramipexole. Becker PM, et al. **Neurology** 1998 Oct; 51(4):1221–3

A controlled study of additional sr–L–dopa in L–dopa–responsive restless legs syndrome with late–night

symptoms. Collado-Seidel V, et al. **Neurology** 1999 Jan 15;52(2):285-90
Randomized, double-blind, placebo-controlled trial of pergolide in restless legs syndrome. Earley CJ, et al. **Neurology** 1998 Dec;51(6):1599-602
Restless legs syndrome [letter] Gálvez-Jiménez N, et al. **Neurology** 1999 Jul 22;53(2):439-40
Restless legs syndrome improved by pramipexole: a double-blind randomized trial. Montplaisir J, et al. **Neurology** 1999 Mar 23;52(5):938-43
A randomized controlled study of pergolide in patients with restless legs syndrome. Wetter TC, et al. **Neurology** 1999 Mar 23;52(5):944-50
Treatment of periodic leg movement disorder and restless leg syndrome with talipexole. Inoue Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):283-5
Effect of pergolide on restless legs and leg movements in sleep in uremic patients. Pieta J, et al. **Sleep** 1998 Sep 15; 21(6):617-22
[Diagnosis and therapy of special movement disorders] **Fortschr Neurol Psychiatr** 1998 Nov;66(11 Suppl Diagnostik):2-6 **(Ger)**
[Are restless legs an indication in the treatment with levodopa? (letter; comment)] Starzmann S. **Lakartidningen** 1999 Jul 14;96(28-29):3238. Comment on: Lakartidningen 1999 Mar 10;96(10):1183-4, 1187-8. **(Swe)**

GENETICS

Familial painful restless legs syndrome correlates with pain dependent variation of blood flow to the caudate, thalamus, and anterior cingulate gyrus. San Pedro EC, et al. **J Rheumatol** 1998 Nov;25(11):2270-5
Studies of penetrance and anticipation in five autosomal-dominant restless legs syndrome pedigrees. Lazzarini A, et al. **Mov Disord** 1999 Jan;14(1):111-6
Sleep disturbance in spinocerebellar ataxias: is the SCA3 mutation a cause of restless legs syndrome? Schöls L, et al. **Neurology** 1998 Dec;51(6):1603-7

PHYSIOPATHOLOGY

The influence of sex, age and sleep/wake state on characteristics of periodic leg movements in restless legs syndrome patients. Nicolas A, et al. **Clin Neurophysiol** 1999 Jul;110(7):1168-74
Periodic limb movement disorder and restless legs syndrome in children with attention-deficit hyperactivity disorder. Picchietti DL, et al. **J Child Neurol** 1998 Dec;13(12):588-94
Familial painful restless legs syndrome correlates with pain dependent variation of blood flow to the caudate, thalamus, and anterior cingulate gyrus. San Pedro EC, et al. **J Rheumatol** 1998 Nov;25(11):2270-5
Unilateral painful legs and moving toes syndrome with moving fingers--evidence for distinct oscillators. Ebersbach G, et al. **Mov Disord** 1998 Nov;13(6):965-8
Restless legs syndrome: a disease in search of identity [editorial] Chokroverty S, et al. **Neurology** 1999 Mar 23; 52(5):907-10
Charcot-Marie-Tooth disease type 2 with restless legs syndrome. Gemignani F, et al. **Neurology** 1999 Mar 23; 52(5):1064-6
EEG and cardiac activation during periodic leg movements in sleep: support for a hierarchy of arousal responses. Sforza E, et al. **Neurology** 1999 Mar 10;52(4):786-91
Motor system excitability in patients with restless legs syndrome. Tergau F, et al. **Neurology** 1999 Mar 23; 52(5):1060-3
Disappearance of rhythmic involuntary movements during sleep in a case of olivopontocerebellar atrophy. Miyamoto M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):287-90

RADIONUCLIDE IMAGING

Positron emission tomographic studies in restless legs syndrome. Trenkwalder C, et al. **Mov Disord** 1999 Jan; 14(1):141-5
Striatal dopaminergic function in restless legs syndrome: 18F-dopa and 11C-raclopride PET studies. Turjanski N, et al. **Neurology** 1999 Mar 23;52(5):932-7

RESTLESSNESS see **PSYCHOMOTOR AGITATION**

RESTRAINT, PHYSICAL

see related
IMMOBILIZATION
PROTECTIVE DEVICES

The influence of head restraint and occupant factors on peak head/neck kinematics in low-speed rear-end collisions. Siegmund GP, et al. **Accid Anal Prev** 1999 Jul; 31(4):393-407
US reconsiders use of seclusion and restraints in psychiatric patients [news] Charatan F. **BMJ** 1999 Jul 10;319(7202):77
Complaints of pain after use of handcuffs should not be dismissed [letter; comment] Haddad FS, et al. **BMJ** 1999 Jan 2;318(7175):55. Comment on: BMJ 1988 Jul 9;297(6641):111-2.
Physical interventions [letter] Harris J. **Br J Psychiatry** 1998 Nov;173:442
Prudent restraint use [letter] Pluto LA. **Chest** 1999 Sep; 116(3):843
The use and abuse of restraints [letter; comment] Lewin PK. **CMAJ** 1998 Nov 17;159(10):1239, 1241. Comment on: CMAJ 1998 Jun 16;158(12):1603-7.
Use of physical restraints on elderly patients: an exploratory study of the perceptions of nurses in Hong Kong. Lee DT, et al. **J Adv Nurs** 1999 Jan;29(1):153-9
Predictors of continued physical restraint use in nursing home residents following restraint reduction efforts. Sullivan-Marx EM, et al. **J Am Geriatr Soc** 1999 Mar; 47(3):342-8
Assessment of self-injurious behavior maintained by access to self-restraint materials. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter;31(4):647-50
Using physical intervention to manage challenging behaviour [letter] Harris J. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):434
Effects of restraint stress and spontaneous hypertension on neuropeptide Y neurones in the brainstem and arcuate nucleus. Krukoff TL, et al. **J Neuroendocrinol** 1999 Sep; 11(9):715-23
Prevalence and patterns of physical restraint use in the acute care setting. Minnick AF, et al. **J Nurs Adm** 1998 Nov; 28(11):19-24
Planned change to implement a restraint reduction program [published erratum appears in J Nurs Care Qual 1999 Aug;13(6):following table of contents] Gilbert M, et al. **J Nurs Care Qual** 1999 Jun;13(5):57-64
Improving patient care through implementation of nurse-driven restraint protocols. Winston PA, et al. **J Nurs Care Qual** 1999 Aug;13(6):32-46
Restraints and the elderly with mental illness: ethical issues and moral reasoning [see comments] Dawkins VH. **J Psychosoc Nurs Ment Health Serv** 1998 Oct;36(10):22-7 (12 ref.). Comment in: J Psychosoc Nurs Ment Health Serv 1998 Dec;36(12):6.
Revisiting restraints [letter; comment] Harris D. **J Psychosoc Nurs Ment Health Serv** 1998 Dec;36(12):6. Comment on: J Psychosoc Nurs Ment Health Serv 1998 Oct;36(10):22-7.
Reducing inappropriate restraint use in Colorado's long-term care facilities. Palmer L, et al. **Jt Comm J Qual Improv** 1999 Feb;25(2):78-94
Stress-related hormonal and metabolic responses to restraint, with and without butorphanol administration, in pre-conditioned goats. Carroll GL, et al. **Lab Anim Sci** 1998 Aug;48(4):387-90
Charles Whitney Page, MD, and the abolition of restraints in American psychiatry. Page LA. **Med Health R I** 1999 Aug;82(8):291-2
Nurses' judgments regarding seclusion and restraint of psychiatric patients: a social judgment analysis. Holzworth RJ, et al. **Res Nurs Health** 1999 Jun;22(3):189-201
Restraint and housing of ratites. Raines AM. **Vet Clin North Am Food Anim Pract** 1998 Nov; 14(3):387-99, v (1 ref.)
[Coercive measures in psychiatry. Restraint on psychiatric units of the Hannover Medical University] Bastiaan P, et al. **Psychiatr Prax** 1998 Sep;25(5):231-4 (Eng. Abstr.) **(Ger)**
[Are restraints used too frequently? Indications, incidence and conditions for restraint in a general psychiatric department. A prospective study] Klimitz H, et al. **Psychiatr Prax** 1998 Sep;25(5):235-9 (Eng. Abstr.) **(Ger)**
[Safety belts as a traffic safety requirement (letter)] Nandorf R. **Lakartidningen** 1999 Mar 17;96(11):1290 **(Swe)**

ADVERSE EFFECTS

Metabolic acidosis in restraint-associated cardiac arrest: a case series. Hick JL, et al. **Acad Emerg Med** 1999 Mar; 6(3):239-43
Pictures of fatal bedrail entrapment [letter] Miles S, et al. **Am Fam Physician** 1998 Nov 15;58(8):1755, 1759-60
Reexamination of custody restraint position and positional asphyxia. Chan TC, et al. **Am J Forensic Med Pathol** 1998 Sep;19(3):201-5 (31 ref.)
Relationships between aggressive behavior in cognitively impaired nursing home residents and use of restraints, psychoactive drugs, and secured units. Ryden MB, et al. **Arch Psychiatr Nurs** 1999 Aug;13(4):170-8
Death in a hobble restraint [letter; comment] Röggla G, et al. **CMAJ** 1999 Jul 13;161(1):21. Comment on: CMAJ 1998 Jun 16;158(12):1603-7.
The use and abuse of restraints [letter; comment] Sedran RJ, et al. **CMAJ** 1998 Nov 17;159(10):1239-40. Comment on: CMAJ 1998 Jun 16;158(12):1603-7.
What happens next? Baker T, et al. **Hastings Cent Rep** 1999 Mar-Apr;29(2):24; discussion 24-5
Effect of Saiboku-to, an Oriental Herbal Medicine, on gastric lesion induced by restraint water-immersion stress or by ethanol treatment. Yuzurihara M, et al. **J Pharm Pharmacol** 1999 Apr;51(4):483-90
Restraining patients and shoulder dislocations during seizures. DeToledo JC, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):300-2 (32 ref.)
Factors associated with excited delirium deaths in police custody. Ross DL. **Mod Pathol** 1998 Nov;11(11):1127-37 (47 ref.)

INSTRUMENTATION

Pelvic restraint effect on lumbar gluteal and hamstring muscle electromyographic activation. Udermann BE, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):428-31
Craniospinal axis irradiation in children. Treatment in supine position including field verification as a prerequisite for anesthesia without intubation. Rades D, et al. **Strahlenther Onkol** 1999 Aug;175(8):409-12

LEGISLATION & JURISPRUDENCE

Report of the Council on Scientific Affairs. Use of restraints for patients in nursing homes. Council on Scientific Affairs, American Medical Association. Guttman R, et al. **Arch Fam Med** 1999 Mar-Apr;8(2):101-5 (42 ref.)
Physical restraints in the acute care setting: issues and future direction. Frengley JD, et al. **Clin Geriatr Med** 1998 Nov; 14(4):727-43 (59 ref.)
Restraint reduction and legal risk management. Kapp MB. **J Am Geriatr Soc** 1999 Mar;47(3):375-6
Legislation to regulate use of restraints and seclusion in mental health facilities introduced in Congress [news] **Psychiatr Serv** 1999 May;50(5):715-6
Seclusion and restraint: Congress reacts to reports of abuse. Appelbaum PS. **Psychiatr Serv** 1999 Jul;50(7):881-2, 885

METHODS

Use of seclusion and restraint in psychiatric patients in Harare Hospital Psychiatric Unit, Zimbabwe: gender differences. Sebit MB, et al. **Cent Afr J Med** 1998 Nov;44(11):277-80
Physical restraints in the acute care setting: issues and future direction. Frengley JD, et al. **Clin Geriatr Med** 1998 Nov; 14(4):727-43 (59 ref.)
Use of physical restraints in nursing homes in New South Wales, Australia. Retsas AP, et al. **Int J Nurs Stud** 1998 Jun;35(3):177-83
Survey findings describing the use of physical restraints in nursing homes in Victoria, Australia. Retsas AP. **Int J Nurs Stud** 1998 Jun;35(3):184-91
Conservative management of pyogenic osteomyelitis of the occipitocervical junction. Spies EH, et al. **Spine** 1999 Apr 15;24(8):818-22

VETERINARY

Immobilisation of pinniped species. Lynch MJ, et al. **Aust Vet J** 1999 Mar;77(3):181-5 (39 ref.)
Malpractice implications of animal restraint. Hannah HW. **J Am Vet Med Assoc** 1999 Jan 1;214(1):41
Alterations of brain monoamine levels in pigs exposed to acute immobilization stress. Piekarzewska A, et al. **Zentralbl Veterinarmed A** 1999 May;46(4):197-207

RESTRICTION ENDONUCLEASES see **DNA RESTRICTION ENZYMES**

RESTRICTION ENDONUCLEASES, TYPE I see **DEOXYRIBONUCLEASES, TYPE I SITE-SPECIFIC**

RESTRICTION ENDONUCLEASES, TYPE II see **DEOXYRIBONUCLEASES, TYPE II SITE-SPECIFIC**

RESTRICTION ENDONUCLEASES, TYPE III see **DEOXYRIBONUCLEASES, TYPE III SITE-SPECIFIC**

RESTRICTION FRAGMENT LENGTH POLYMORPHISM see **POLYMORPHISM, RESTRICTION FRAGMENT LENGTH**

RESTRICTION MAPPING

Genotyping of the prion protein gene at codon 129. Zimmermann K, et al. **Acta Neuropathol (Berl)** 1999 Apr; 97(4):355-8
Analysis of defective genomes of bombyx mori nucleopolyhedrovirus generated by serial undiluted passage in cell culture. Yanase T, et al. **Acta Virol** 1998 Apr; 42(2):65-70
Genomic relationships between Enterococcus faecium strains from different sources and with different antibiotic resistance profiles evaluated by restriction endonuclease analysis of total chromosomal DNA using EcoRI and PvuII. Quednau M, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1777-80
RFLP mapping of the whole genome of ten viral isolates representative of different biological groups of potato virus Y. Glais L, et al. **Arch Virol** 1998;143(11):2077-91
DNA sequence analysis of the genes for the fowl adenovirus serotype 10 putative 33K and pVIII. Sheppard M, et al. **DNA Seq** 1998 Mar;9(1):37-43
Chromosome mapping in Cryptosporidium parvum and establishment of a long-range restriction map for chromosome VI. Putignani L, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):231-8
Genome size and macrorestriction map of Xanthomonas campestris pv. glycines YR32 chromosome. Widjaja R, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):59-68
Arabidopsis YAC restriction mapping. Morroll SM, et al. **Genome** 1998 Dec;41(6):806-17
A long-range restriction map of deletion interval 6 of the human Y chromosome: a region frequently deleted in azoospermic males. Yen PH. **Genomics** 1998 Nov 15; 54(1):5-12
Physical and genetic map of the Pasteurella multocida A:1 chromosome. Hunt ML, et al. **J Bacteriol** 1998 Nov; 180(22):6054-8
First chromosomal restriction map of Actinobacillus

pleuropneumoniae and localization of putative virulence-associated genes. Oswald W, et al. **J Bacteriol** 1999 Jul;181(14):4161-9

Variable and invariable DNA repeat characters revealed by taxonprint approach are useful for molecular systematics. Fedorov AN, et al. **J Mol Evol** 1999 Jan;48(1):69-76

Genetic profile of the SMXA recombinant inbred mouse strains revealed with restriction landmark genomic scanning. Mori M, et al. **Mamm Genome** 1998 Sep; 9(9):695-709

Physical-genetic map of the erythromycin-producing organism Saccharopolyspora erythraea. Reeves AR, et al. **Microbiology** 1998 Aug;144 (Pt 8):2151-9

Physical map of the chromosome of Aeromonas salmonicida and genomic comparisons between Aeromonas strains. Umelo E, et al. **Microbiology** 1998 Aug;144 (Pt 8):2141-9

Genetic differentiation in the striped dolphin Stenella coeruleoalba from European waters according to mitochondrial DNA (mtDNA) restriction analysis. Garcia-Martinez J, et al. **Mol Ecol** 1999 Jun;8(6):1069-73

Oropharyngeal candidosis in AIDS patients: an epidemiological study using restriction analysis of Candida albicans total genomic DNA. Elias Costa MR, et al. **Mycoses** 1999 Apr;42(1-2):41-6

Identification of Cannabis sativa L. (Cannabaceae) using restriction profiles of the Internal Transcribed Spacer II (ITS2). Gigliano GS. **Sci Justice** 1998 Oct-Dec; 38(4):225-30

[A nosocomial outbreak of Moraxella catarrhalis confirmed by restriction enzyme analysis] Omori A, et al. **Kansenshogaku Zasshi** 1999 Apr;73(4):361-2 **(Jpn)**

[Follicular conjunctivitis caused by an adenovirus. The characterization of its strains by restriction endonucleases] Savón C, et al. **Rev Cubana Med Trop** 1995;47(3):195-8 (Eng. Abstr.) **(Spa)**

METHODS

Oligonucleotide stimulators allow complete cleavage of agarose-embedded DNA by particular type II restriction endonucleases. Kupper D, et al. **Anal Biochem** 1999 Aug 1;272(2):275-7

A sensitive new method for rapid detection of abnormal methylation patterns in global DNA and within CpG islands. Pogribny I, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):624-8

A new method for determining the stereochemistry of DNA cleavage reactions: application to the SfiI and HpaII restriction endonucleases and to the MuA transposase. Mizuuchi K, et al. **Biochemistry** 1999 Apr 6;38(14):4640-8

Molecular typing of Salmonella serotype Thompson strains isolated from human and animal sources. Chisholm SA, et al. **Epidemiol Infect** 1999 Feb;122(1):33-9

Restriction-PCR fingerprinting of the immunoglobulin VH repertoire: direct detection of an immune response and global analysis of B cell clonality. White HN. **Eur J Immunol** 1998 Oct;28(10):3268-79

Single-step PCR amplification and enzyme restriction analysis of the entire Helicobacter pylori cytotoxin vacA gene for genetic variability studies. Perales G, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):55-62

DNA typing for identification of some species of Calliphoridae. An interest in forensic entomology. Malgorn Y, et al. **Forensic Sci Int** 1999 Jun 28;102(2-3):111-9

Establishing the Cryptosporidium parvum karyotype by NotI and SfiI restriction analysis and Southern hybridization. Cacciò S, et al. **Gene** 1998 Sep 28;219(1-2):73-9

Optical mapping of Plasmodium falciparum chromosome 2. Jing J, et al. **Genome Res** 1999 Feb;9(2):175-81

Error checking and graphical representation of multiple-complete-digest (MCD) restriction-fragment maps. Thayer EC, et al. **Genome Res** 1999 Jan;9(1):79-90

Arrangement of individual human ribosomal DNA fragments on stretched DNA fibers. Schöfer C, et al. **Histochem Cell Biol** 1998 Aug;110(2):201-5

Genomic alterations in human meningiomas detected by restriction landmark genomic scanning and immunohistochemical studies. Inui T, et al. **Int J Oncol** 1999 Sep;15(3):459-66

Sequence assembly validation by multiple restriction digest fragment coverage analysis. Rouchka EC, et al. **Ismb** 1998; 6:140-7

An algorithmic approach to multiple complete digest mapping. Fasulo D, et al. **J Comput Biol** 1999 Summer; 6(2):187-207

Estimation for restriction sites observed by optical mapping using reversible-jump Markov Chain Monte Carlo. Lee JK, et al. **J Comput Biol** 1998 Fall;5(3):505-15

A uniform framework for ordered restriction map problems. Parida L. **J Comput Biol** 1998 Winter;5(4):725-39

Gene identification by exon amplification. Church DM, et al. **Methods Enzymol** 1999;303:83-99

cDNA representational difference analysis: a sensitive and flexible method for identification of differentially expressed genes. Hubank M, et al. **Methods Enzymol** 1999;303:325-49

Restriction enzymes as probes of nucleosome stability and dynamics. Polach KJ, et al. **Methods Enzymol** 1999; 304:278-98

READS: a method for display of 3'-end fragments of restriction enzyme-digested cDNAs for analysis of differential gene expression. Prashar Y, et al. **Methods Enzymol** 1999;303:258-72

A modified method for the display of 3'-end restriction fragments of cDNAs: molecular profiling of gene expression in neutrophils. Subrahmanyam YV, et al. **Methods Enzymol** 1999;303:272-97

An improved alkaline lysis method for minipreparation of plasmid DNA. Liou JT, et al. **Prep Biochem Biotechnol** 1999 Feb;29(1):49-54

Construction and validation of yeast artificial chromosome contig maps by RecA-assisted restriction endonuclease cleavage. Lauer P, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11318-23

Whole-genome shotgun optical mapping of Deinococcus radiodurans. Lin J, et al. **Science** 1999 Sep 3; 285(5433):1558-62

A study of ENU-induced mutagenesis in the mouse using the restriction site mutation (RSM) assay. Jenkins GJ, et al. **Teratog Carcinog Mutagen** 1999;19(4):281-92

[The use of molecular biology in the modeling of Pseudomonas aeruginosa strains recovered from nosocomial infections] Fiett J, et al. **Przegl Epidemiol** 1998; 52(4):427-40 (18 ref.) (Eng. Abstr.) **(Pol)**

RESTRICTION-MODIFICATION SYSTEMS see **DNA RESTRICTION-MODIFICATION ENZYMES**

RESUME, JOB see **JOB APPLICATION**

RESUSCITATION

The researcher's toolbox [editorial; comment] Cone DC. **Acad Emerg Med** 1999 Feb;6(2):91-3. Comment on: Acad Emerg Med 1999 Feb;6(2):95-102.

Systemic and microcirculatory effects of autologous whole blood resuscitation in severe hemorrhagic shock. Kerger H, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2035-43

Changes in resistance vessels during hemorrhagic shock and resuscitation in conscious hamster model. Sakai H, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H563-71

Is resuscitation after traumatic suicide attempt a futile effort? A five-year review at a level I trauma center. Cusick TE, et al. **Am Surg** 1999 Jul;65(7):643-6; discussion 646-7

Initial resuscitation volume in uncontrolled hemorrhage: effects on organ function. Haizlip TM Jr, et al. **Am Surg** 1999 Mar;65(3):215-7

ATLS: a foundation for trauma training. Bell RM, et al. **Ann Emerg Med** 1999 Aug;34(2):233-7

Intraosseous lines in preterm and full term neonates. Ellemunter H, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F74-5

Relationship of systemic inflammatory response syndrome to organ dysfunction, length of stay, and mortality in critical surgical illness: effect of intensive care unit resuscitation. Talmor M, et al. **Arch Surg** 1999 Jan; 134(1):81-7

Comparison of resuscitation with diaspirin crosslinked hemoglobin (DCLHb) vs fresh blood in a rat burn shock model. Soltero RG, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Mar; 27(2):135-52

Facial burns in children: a series analysis with implications for resuscitation and forensic odontology. Acton C, et al. **Aust Dent J** 1999 Mar;44(1):20-4

Accuracy of burn size estimation and subsequent fluid resuscitation prior to arrival at the Yorkshire Regional Burns Unit. A three year retrospective study. Collis N, et al. **Burns** 1999 Jun;25(4):345-51

Perioperative cardiac arrest and resuscitation: do we know what we're doing? [editorial; comment] Bands C, et al. **Can J Anaesth** 1999 Jun;46(6):519-24. Comment on: Can J Anaesth 1999 Jun;46(6):529-35.

Persistent gastric intramucosal ischemia in patients with sepsis following resuscitation from shock. Oud L, et al. **Chest** 1999 May;115(5):1390-6

ILCOR advisory statement: resuscitation of the newly born infant. An advisory statement from the pediatric working group of the International Liaison Committee on Resuscitation. Kattwinkel J, et al. **Circulation** 1999 Apr 13;99(14):1927-38

Resuscitation of the newborn with airway compromise. Behar PM, et al. **Clin Perinatol** 1999 Sep;26(3):717-32, viii

Ethical issues surrounding resuscitation. Boyle RJ, et al. **Clin Perinatol** 1999 Sep;26(3):779-92 (73 ref.)

Medication use in neonatal resuscitation. Burchfield DJ. **Clin Perinatol** 1999 Sep;26(3):683-91 (57 ref.)

Resuscitation of the surgical neonate. Chahine AA, et al. **Clin Perinatol** 1999 Sep;26(3):693-715 (38 ref.)

Physiologic reflexes and their impact on resuscitation of the newborn. Halbower AC, et al. **Clin Perinatol** 1999 Sep; 26(3):621-7, vi (33 ref.)

Intrauterine resuscitation of the compromised fetus. Lindsay MK. **Clin Perinatol** 1999 Sep;26(3):569-84, v (77 ref.)

Delivery room resuscitation of the newborn. Wolkoff LI, et al. **Clin Perinatol** 1999 Sep;26(3):641-58 (45 ref.)

Accidental hypothermia. Hanania NA, et al. **Crit Care Clin** 1999 Apr;15(2):235-49 (53 ref.)

Total splanchnic resuscitation, SIRS, and MODS [editorial; comment] Marik PE. **Crit Care Med** 1999 Feb;27(2):257-8 (43 ref.). Comment on: Crit Care Med 1999 Feb;27(2):394-400.

Ethical issues of resuscitation. Marco CA. **Emerg Med Clin North Am** 1999 May;17(2):527-38, xiii-xiv (96 ref.)

Ethical aspects of resuscitation. Kettler D, et al. **Eur J Anaesthesiol** 1998 Nov;15(6):721-4

Demographic differences in the resuscitation knowledge and skills of the Standard First Aid Class ambulance crews in Japan. Tanigawa K, et al. **Eur J Emerg Med** 1998 Mar; 5(1):41-6

Ventricular tachycardia during follow-up in patients resuscitated from ventricular fibrillation: experience from stored electrograms of implantable cardioverter-defibrillators. Rüppel R, et al. **J Am Coll Cardiol** 1998 Nov 15;32(6):1724-30

High doses of epinephrine may not be beneficial [news] **J Am Dent Assoc** 1999 Jan;130(1):33, 36

Newborn resuscitation and anesthesia responsibility post-cesarean section. Gaiser RR. **J Clin Anesth** 1999 Feb; 11(1):69-72

Cardiac arrest in Saudi Arabia: a 7-year experience in Riyadh. Conroy KM, et al. **J Emerg Med** 1999 Jul-Aug; 17(4):617-23

A multi-state survey of videotaping practices for major trauma resuscitations. Ellis DG, et al. **J Emerg Med** 1999 Jul-Aug;17(4):597-604

The facilitated pediatric resuscitation room. Lanoix R, et al. **J Emerg Med** 1999 Mar-Apr;17(2):363-6

Immunomodulatory effects of hypertonic resuscitation on the development of lung inflammation following hemorrhagic shock. Rizoli SB, et al. **J Immunol** 1998 Dec 1; 161(11):6288-96

Mortality and neurodevelopmental outcome for infants receiving adrenaline in neonatal resuscitation. O'Donnell AI, et al. **J Paediatr Child Health** 1998 Dec;34(6):551-6

Resuscitation of a micropremie: the case of MacDonald v. Milleville [see comments] Paris JJ, et al. **J Perinatol** 1998 Jul-Aug;18(4):302-5. Comment in: J Perinatol 1998 Nov-Dec;18(6 Pt 1):502.

Small intestinal production of nitric oxide is decreased following resuscitated hemorrhage. Fruchterman TM, et al. **J Surg Res** 1998 Nov;80(1):102-9

Decreased alpha-adrenergic response in the intestinal microcirculation after "two-hit" hemorrhage/resuscitation and bacteremia. Spain DA, et al. **J Surg Res** 1999 Jun 15; 84(2):180-5

Antioxidative resuscitation solution prevents leukocyte adhesion in the liver after hemorrhagic shock. Bauer C, et al. **J Trauma** 1999 May;46(5):886-93

Brain tissue oxygenation during hemorrhagic shock, resuscitation, and alterations in ventilation. Manley GT, et al. **J Trauma** 1999 Feb;46(2):261-7

Effects of witnessed resuscitation [letter; comment] Skinner AC. **Lancet** 1998 Oct 24;352(9137):1394. Comment on: Lancet 1998 Aug 22;352(9128):614-7.

Consensus and controversy over resuscitation of the newborn infant. Soll R. **Lancet** 1999 Jul 3;354(9172):4-5 (13 ref.)

Proceedings of a symposium on resuscitation and intensive care. Milan, Italy, 26-28 May 1999. **Minerva Anestesiol** 1999 Jun;65(6):337-475 **(Eng, Ita)**

Epinephrine for out-of-hospital cardiac arrest [letter; comment] Bakker J, et al. **N Engl J Med** 1999 Jun 3; 340(22):1763-4; discussion 1765. Comment on: N Engl J Med 1998 Nov 26;339(22):1595-601.

Rule-based folly at the moment of birth [letter] Silverman WA. **Paediatr Perinat Epidemiol** 1998 Oct;12(4):366-8

Aggressiveness of care. Rosenberg NM, et al. **Pediatr Emerg Care** 1999 Jun;15(3):235-8

Resuscitation of the newly born infant: an advisory statement from the Pediatric Working Group of the International Liaison Committee on Resuscitation. Kattwinkel J, et al. **Resuscitation** 1999 Feb-Mar;40(2):71-88 (85 ref.)

The Portuguese resuscitation council: a child in maturation--report of the first year of life. Paiva JA, et al. **Resuscitation** 1999 Feb-Mar;40(2):111-3

Annual Congress of the Swiss Society of Anesthesiology and Resuscitation. Bale, 13-14 November 1998. Abstracts. **Schweiz Med Wochenschr Suppl** 1998;104:1S-12S **(Eng, Ger)**

Oxyradical-mediated hepatocellular Ca2+ alterations during hemorrhagic shock and resuscitation. Silomon M, et al. **Shock** 1999 Mar;11(3):193-8

Neutrophil accumulation and damage to the gastric mucosa in resuscitated hemorrhagic shock is independent of inducible nitric oxide synthase. Tsukada K, et al. **Shock** 1999 May;11(5):319-24

Time course of serum neuron-specific enolase. A predictor of neurological outcome in patients resuscitated from cardiac arrest. Schoerkhuber W, et al. **Stroke** 1999 Aug; 30(8):1598-603

Effect of hypertonic saline solution and dextran on ventricular blood flow and heart-lung interaction after hemorrhagic shock. Diebel LN, et al. **Surgery** 1998 Oct; 124(4):642-9; discussion 649-50

Complement inhibition prevents gut ischemia and endothelial cell dysfunction after hemorrhage/resuscitation. Fruchterman TM, et al. **Surgery** 1998 Oct;124(4):782-91; discussion 791-2

A resuscitated case from asphyxia by large bronchial cast. Itabashi S, et al. **Tohoku J Exp Med** 1999 Feb;187(2):183-8

Effective administration of recombinant tissue plasminogen activator (rt-PA) during resuscitation of a post partum patient with massive pulmonary embolism. Cyrkowicz A, et al. **Zentralbl Gynakol** 1999;121(8):396-8

[40th National Congress on Anesthesia and Resuscitation. Paris, France, 24-27 September 1998. Abstracts] **Ann Fr Anesth Reanim** 1998;17(8):813-1087 **(Fre)**

[Practical information on materiovigilance in anesthesia-resuscitation] Beydon L, et al. **Ann Fr Anesth Reanim** 1999 Mar;18(3):fi40-3 **(Fre)**

[A challenge in neuroresuscitation: secondary cerebral lesions of systemic origin] Boulard G, et al. **Ann Fr Anesth Reanim** 1997;16(7):fi16-8 **(Fre)**

[The use of curare-like agents in resuscitation] Suppini A, et al. **Ann Fr Anesth Reanim** 1999 Mar;18(3):341-54 (142 ref.) (Eng. Abstr.) **(Fre)**

[Emergency medicine and resuscitation in a tropical environment-- a new challenge for Africa (editorial)] Saissy JM. **Med Trop (Mars)** 1998;58(3):241-2 **(Fre)**

[Reanimation of cirrhotic patients: what are the limits (editorial)] Durand F. **Presse Med** 1999 Feb 13;28(6):285-6 **(Fre)**

[Ventricular rupture after blunt thoracic trauma] Byhahn C, et al. **Anaesthesiol Reanim** 1999;24(2):47-50 (Eng. Abstr.) **(Ger)**

[Resuscitation in newborn infants] Stopfkuchen H. **Anaesthesist** 1998 Sep;47(9):787 **(Ger)**

[Successful resuscitation of a patient with ventricular fibrillation in Bland-White-Garland syndrome in adulthood. A case report] Kreutzer U, et al. **Z Kardiol** 1998 Jul;87(7):560-5 (18 ref.) (Eng. Abstr.) **(Ger)**

[Use of semax at a follow-up of patients with posthypoxic encephalopathy] Alekseeva GV, et al. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):40-3 (Eng. Abstr.) **(Rus)**

[Clinical and prognostic significance of assessing early postresuscitation changes in parameters of blood lipid peroxidation] Evtushenko AIa, et al. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):26-9 (Eng. Abstr.) **(Rus)**

[Current issues of resuscitation] Negovskil VA, et al. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):6-9 (27 ref.) (Eng. Abstr.) **(Rus)**

[Logic of the development of intensive care in critical states] Riabov GA. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):10-3 (13 ref.) **(Rus)**

[Cerebral oximetry in the para-infrared range. The possibilities for its use in a neurological resuscitation department] Tsarenko SV, et al. **Anesteziol Reanimatol** 1998 Jul-Aug;(4):43-7 (Eng. Abstr.) **(Rus)**

[Stages of disseminated intravascular coagulation after resuscitation in patients with massive hemorrhage and severe multiple trauma] Zolotokrylina ES. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):13-8 (Eng. Abstr.) **(Rus)**

[Mechanisms of actovegin effect on the central nervous system during postischemic period] Boiarinov GA, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):395-8 **(Rus)**

[Action of neuropeptides on the status of neuronal populations in the post-resuscitation period: structural-functional correlation] Avrushchenko MSh, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):7-11 (Eng. Abstr.) **(Rus)**

[The biogenic amine content of rat tissues in the postresuscitation period following hemorrhagic shock and the effect of the preparation semax] Bastrikova NA, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):19-22 (Eng. Abstr.) **(Rus)**

[Role of disorders of metabolism in rat myocardium and endotoxemia in the pathogenesis of post-resuscitation cardiodepression] Dolgikh VT, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):15-9 (Eng. Abstr.) **(Rus)**

[Effects of presensitization and clinical death in the history on the dynamics of morphofunctional parallels of retinal and cerebral circulation] Enikeev DA, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):21-3 (Eng. Abstr.) **(Rus)**

[The modelling of clinical death and postresuscitation disease] Evtushenko AIa, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):14-5 **(Rus)**

[Hemocoagulation while dying of blood loss and restoration to life after clinical death] Iakovleva NE, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):26-8 (Eng. Abstr.) **(Rus)**

[DNA-endonucleolysis in cell nuclei of brain and liver in patients dying from hemorrhage and after resuscitation: general patterns and differences] Kozhura VL, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):5-7 (Eng. Abstr.) **(Rus)**

[Functional-morphologic evaluation of the effect of the regulatory peptide kyotorphin on the status of the CNS in the post-resuscitation period] Nazarenko IV, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):31-3 (Eng. Abstr.) **(Rus)**

[A comparison of the convulsive readiness of the brain, of long-term memory and of learning capacity and their structural equivalents in the postresuscitation period] Stepanov SS, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):15-9 (Eng. Abstr.) **(Rus)**

[Post-resuscitation neurosomatic deviations and the feasibility of their correction with a drug of metabolic action] Zarzhetskil IuV, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):11-5 (Eng. Abstr.) **(Rus)**

[XXIV Congress of the Spanish Society of Anesthesiology, Resuscitation and Pain Therapy. Sevilla, Spain, 11-15 May 1999. Abstracts] **Rev Esp Anestesiol Reanim** 1999 May;46 Suppl 1:1-336 **(Spa)**

[Sudden death due to recuperated ventricular fibrillation: Brugada syndrome?] Asenjo R, et al. **Rev Med Chil** 1998 Jul;126(7):814-21 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Abdominal closure using nonabsorbable mesh after massive resuscitation prevents abdominal compartment syndrome and gastrointestinal fistula. Ciresi DL, et al. **Am Surg** 1999 Aug;65(8):720-4; discussion 724-5

Rebound intracranial hypertension in dogs after resuscitation with hypertonic solutions from hemorrhagic shock accompanied by an intracranial mass lesion. Prough DS, et al. **J Neurosurg Anesthesiol** 1999 Apr;11(2):102-11

Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417-23

Complement activation mediates intestinal injury after resuscitation from hemorrhagic shock. Spain DA, et al. **J Trauma** 1999 Feb;46(2):224-33

EDUCATION

Trauma resuscitation/critical care fellowship for emergency physicians: a necessary step for the future of academic emergency medicine. Bozeman WP, et al. **Acad Emerg Med** 1999 Apr;6(4):331-3

Early experience with simulated trauma resuscitation [see comments] McLellan BA. **Can J Surg** 1999 Jun;42(3):205-10. Comment in: Can J Surg 1999 Jun;42(3):164-5.

Surgical training in the 21st century [editorial; comment] Waddell JP. **Can J Surg** 1999 Jun;42(3):164-5. Comment on: Can J Surg 1999 Jun;42(3):205-10. **(Eng, Fre)**

The preliminary result of the training course of pediatric advanced life support [see comments] Lin IJ, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan-Feb;40(1):5-8. Comment in: Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hu 1999 Jan-Feb;40(1):4.

Should doctors practise resuscitation skills on newly deceased patients? A survey of public opinion. Tachakra S, et al. **J R Soc Med** 1998 Nov;91(11):576-8

Do our patients understand? A comparison of understanding in adult inpatients and schoolchildren. Taylor EM, et al. **N Z Med J** 1998 Nov 27;111(1078):449-51

ResusSim 98--a PC advanced life support trainer. Christensen UJ, et al. **Resuscitation** 1998 Oct-Nov;39(1-2):81-4

Resuscitation training for medical students. Leah V, et al. **Resuscitation** 1998 Oct-Nov;39(1-2):87-90

HISTORY

History of neonatal resuscitation. Tales of heroism and desperation. Raju TN. **Clin Perinatol** 1999 Sep;26(3):629-40, vi-vii

[The contribution of the Military Medical Academy to the development of Russian anesthesiology and the science of resuscitation] Polushin IuS. **Voen Med Zh** 1999 Jul;320(7):70-4 **(Rus)**

INSTRUMENTATION

Neonatal resuscitation with the laryngeal mask airway in normal and low birth weight infants. Gandini D, et al. **Anesth Analg** 1999 Sep;89(3):642-3

Talk to the specialist. Pre-use testing of manual resuscitators. **Health Devices** 1999 Aug;28(8):323

Effective application of bronchodilator aerosols from metered-dose inhalers (MDI) via resuscitator-bag and adapter. Schleufe P, et al. **Resuscitation** 1998 Dec;39(3):175-8

[Use of the Fibroxy mask for bronchial fibroscopy and resuscitation] Lenfant F, et al. **Ann Fr Anesth Reanim** 1999 May;18(5):547-9 (Eng. Abstr.) **(Fre)**

METHODS

Artifactual injuries of the larynx produced by resuscitative intubation. Raven KP, et al. **Am J Forensic Med Pathol** 1999 Mar;20(1):31-6

Intracavernous infusion: an alternative route to intravenous access during resuscitation? [letter] Pertek JP, et al. **Ann Emerg Med** 1998 Dec;32(6):753-4

Redefining resuscitation [editorial; comment] Hillman KM. **Aust N Z J Med** 1998 Dec;28(6):759-60. Comment on: Aust N Z J Med 1998 Dec;28(6):795-8.

Perioperative resuscitation knowledge base [see comments] Porayko LD, et al. **Can J Anaesth** 1999 Jun;46(6):529-35 . Comment in: Can J Anaesth 1999 Jun;46(6):519-24.

Intestinal mucosal permeability: mechanisms and implications for treatment [editorial; comment] Marik PE, et al. **Crit Care Med** 1999 Aug;27(8):1650-1 (24 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1429-36.

Acadesine during fluid resuscitation from shock and abdominal sepsis [see comments] Melton SM, et al. **Crit Care Med** 1999 Mar;27(3):565-75 (46 ref.). Comment in: Crit Care Med 1999 Mar;27(3):468-9.

Resuscitation of the newly born infant: an advisory statement from the Pediatric Working Group of the International Liaison Committee on Resuscitation. Kattwinkel J, et al. **Eur J Pediatr** 1999 Apr;158(4):345-58 (85 ref.)

The calcaneum as a site for intraosseous infusion. McCarthy G, et al. **J Accid Emerg Med** 1998 Nov;15(6):421

The effects of biphasic and conventional monophasic defibrillation on postresuscitation myocardial function. Tang W, et al. **J Am Coll Cardiol** 1999 Sep;34(3):815-22

An evaluation of the end points of resuscitation. Elliott DC. **J Am Coll Surg** 1998 Nov;187(5):536-47 (84 ref.)

Controlled resuscitation for uncontrolled hemorrhagic shock. Burris D, et al. **J Trauma** 1999 Feb;46(2):216-23

Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417-23

Resuscitation with lactated Ringer's solution in rats with hemorrhagic shock induces immediate apoptosis. Deb S, et al. **J Trauma** 1999 Apr;46(4):582-8; discussion 588-9

Lactated ringer's is superior to normal saline in a model of massive hemorrhage and resuscitation. Healey MA, et al. **J Trauma** 1998 Nov;45(5):894-9

Dry fibrin sealant dressings reduce blood loss, resuscitation volume, and improve survival in hypothermic coagulopathic swine with grade V liver injuries. Holcomb JB, et al. **J Trauma** 1999 Aug;47(2):233-40; discussion 240-2

The effects of diaspirin cross-linked hemoglobin on hemodynamics, metabolic acidosis, and survival in burned rats. Soltero RG, et al. **J Trauma** 1999 Feb;46(2):286-91

The effects of varying fluid volume and rate of resuscitation during uncontrolled hemorrhage. Soucy DM, et al. **J Trauma** 1999 Feb;46(2):209-15

Timing fracture repair in patients with severe brain injury (Glasgow Coma Scale Score <9) [letter; comment] Starr AJ. **J Trauma** 1998 Nov;45(5):980. Comment on: J Trauma 1998 Jun;44(6):977-82; discussion 982-3.

A positive approach to burn care [news] Senior K. **Lancet** 1999 Apr 10;353(9160):1248

A life-threatening anaphylactoid reaction to polyvalent antivenom despite pretreatment [letter; comment] Barratt SM. **Med J Aust** 1999 Jan 18;170(2):92; discussion 92-3. Comment on: Med J Aust 1998 Sep 7;169(5):257-8.

Hypertonic saline resuscitation. Rocha e Silva M. **Medicina (B Aires)** 1998;58(4):393-402 (186 ref.)

Logistics of parenteral fluids in battlefield resuscitation. Pearce FJ, et al. **Mil Med** 1999 Sep;164(9):653-5

Special resuscitation issues encountered during air medical transport. Air Medical Services Committee of the National Association of EMS Physicians. Hankins DG, et al. **Prehosp Emerg Care** 1998 Oct-Dec;2(4):326-7

Comparison of two paediatric resuscitation charts for ease of use. Alexander R, et al. **Resuscitation** 1998 Sep;38(3):151-5

Pharmacokinetics and pharmacodynamics of hydroxyethyl starch in hypovolemic pigs; a comparison of peripheral and intraosseous infusion. Kentner R, et al. **Resuscitation** 1999 Jan;40(1):37-44

Aminophylline in undifferentiated out-of-hospital asystolic cardiac arrest. Mader TJ, et al. **Resuscitation** 1999 Jun;41(1):39-45

The influence of chest compressions and external defibrillation on the release of creatine kinase-MB and cardiac troponin T in patients resuscitated from out-of-hospital cardiac arrest. Müllner M, et al. **Resuscitation** 1998 Aug;38(2):99-105

Jaw lift--a simple and effective method to open the airway in children. Roth B, et al. **Resuscitation** 1998 Dec;39(3):171-4

Hemodynamic and metabolic responses to repeated hemorrhage and resuscitation with hypertonic saline dextran in conscious swine. O'Benar JD, et al. **Shock** 1998 Sep;10(3):223-8

Central and regional hemodynamics during uncontrolled bleeding using hypertonic saline dextran for resuscitation. Riddez L, et al. **Shock** 1998 Sep;10(3):176-81

A novel fluid resuscitation therapy for hemorrhagic shock. Roy JW, et al. **Shock** 1998 Sep;10(3):213-7

Early up-regulation of intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 expression in rats with hemorrhagic shock and resuscitation. Sun LL, et al. **Shock** 1999 Jun;11(6):416-22

[Defibrillation with an automatic external defibrillator outside the hospital: a life-saving, but restricted treatment? (letter; comment)] Huisman AW. **Ned Tijdschr Geneeskd** 1999 Apr 17;143(16):873. Comment on: Ned Tijdschr Geneeskd 1999 Feb 27;143(9):482-5. **(Dut)**

[Drowning and near-drowning in children] van der Lely N, et al. **Ned Tijdschr Geneeskd** 1998 Oct 17;142(42):2294-7 (21 ref.) (Eng. Abstr.) **(Dut)**

[Volumetric hemodynamic monitoring] Pittoni G, et al. **Minerva Anestesiol** 1999 Jun;65(6):357-61 (20 ref.) **(Ita)**

[Critical appraisal of treatments in emergency settings] Takahashi H, et al. **Nippon Geka Gakkai Zasshi** 1999 Jul;100(7):449-54 (32 ref.) (Eng. Abstr.) **(Jpn)**

[The role of cytochrome c in preventing postresuscitation functional disorders of the central nervous system] Boiarinov GA, et al. **Eksp Klin Farmakol** 1998 Nov-Dec;61(6):54-7 (Eng. Abstr.) **(Rus)**

[Resuscitation of the burned child in critical condition] Sanabria Carretero P, et al. **Rev Esp Anestesiol Reanim** 1998 Aug-Sep;45(7):285-93 (80 ref.) (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Katie's and Millie's eyes. Weglarz R. **Am J Nurs** 1999 Jun;99(6):25

Surrogates' agreement with patients' resuscitation preferences: effect of age, relationship, and SUPPORT intervention. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment. Marbella AM, et al. **J Crit Care** 1998 Sep;13(3):140-5

Effect of witnessed resuscitation on bereaved relatives [letter; comment] Stewart K, et al. **Lancet** 1998 Dec 5; 352(9143):1863. Comment on: Lancet 1998 Aug 22;352(9128):614–7.

STANDARDS

Every hospital must improve in-hospital resuscitation [letter; comment] Bhaskarabhatla VM. **BMJ** 1999 May 22; 318(7195):1421–2. Comment on: BMJ 1999 Jan 23;318(7178):232–3.

Optimizing discussions about resuscitation: development of a guide based on patients' recommendations. Carlsen MS, et al. **J Clin Ethics** 1998 Fall;9(3):263–72

An advisory statement from the Pediatric Working Group of the International Liaison Committee on Resuscitation. Kattwinkel J, et al. **Pediatrics** 1999 Apr;103(4):e56 (85 ref.)

The impact of paramedics on out-of-hospital cardiac arrests in a rural community. Kriegsman WE Jr, et al. **Prehosp Emerg Care** 1998 Oct–Dec;2(4):274–9

Authorities for resuscitation in Germany. Dick W. **Resuscitation** 1998 Jul;38(1):57

STATISTICS & NUMERICAL DATA

Paediatric resuscitation—by phone. Tuthill DP, et al. **J Paediatr Child Health** 1998 Dec;34(6):524–7

Management of extremely low birth weight infants: perceptions of viability and parental counseling practices. Martinez AM, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 1):520–4

Treatment of out-of-hospital cardiac arrest in Ljubljana: outcome report according to the 'Utstein' style. Tadel S, et al. **Resuscitation** 1998 Sep;38(3):169–76

Out-of-hospital cardiac arrests in Amsterdam and its surrounding areas: results from the Amsterdam resuscitation study (ARREST) in 'Utstein' style. Waalewijn RA, et al. **Resuscitation** 1998 Sep;38(3):157–67

[Perioperative antibiotic prophylaxis practice of French anesthesiologists and resuscitators: results of a national survey] Martin C, et al. **Ann Fr Anesth Reanim** 1997; 16(7):913–7 (Eng. Abstr.) **(Fre)**

TRENDS

Logistics of parenteral fluids in battlefield resuscitation. Pearce FJ, et al. **Mil Med** 1999 Sep;164(9):653–5

Future trends in cerebral resuscitation. Safar P. **Minerva Anestesiol** 1999 Mar;65(3):69–73 (20 ref.)

[Current trends in the development of monitoring observation in a resuscitation and intensive therapy department] Karavaev BI. **Anesteziol Reanimatol** 1998 Jul–Aug;(4):57–8 **(Rus)**

VETERINARY

Acupuncture resuscitation techniques questioned [letter; comment] Fausel SL. **J Am Vet Med Assoc** 1999 Mar 1; 214(5):618. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):37–9.

Acupuncture resuscitation techniques questioned [letter; comment] Papurt ML. **J Am Vet Med Assoc** 1999 Mar 1;214(5):618, 620. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):37–9.

Acupuncture resuscitation techniques questioned [letter; comment] Rattan JC. **J Am Vet Med Assoc** 1999 Mar 1; 214(5):616, 618. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):37–9.

Anesthesia case of the month. Dystocia, cesarean section and acupuncture resuscitation of newborn kittens [see comments] Skarda RT. **J Am Vet Med Assoc** 1999 Jan 1; 214(1):37–9. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):616, 618. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):618. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):618, 620. Comment in: J Am Vet Med Assoc 1999 May 1;214(9):1317.

Believes GV-26 conclusions unfounded [letter; comment] Smith T. **J Am Vet Med Assoc** 1999 May 1;214(9):1317. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):37–9.

RESUSCITATION DECISIONS see **RESUSCITATION ORDERS**

RESUSCITATION ORDERS

No resuscitation orders and withdrawal of therapy in French paediatric intensive care units. Groupe Francophone de Réanimation et d'Urgences Pédiatriques [see comments] Martinot A, et al. **Acta Paediatr** 1998 Jul;87(7):769–73. Comment in: Acta Paediatr 1998 Jul;87(7):721–2.

No resuscitation orders and withdrawal of therapy in paediatric intensive care units [comment] Ryan CA. **Acta Paediatr** 1998 Jul;87(7):721–2. Comment on: Acta Paediatr 1998 Jul;87(7):769–73.

"Springing back" advance care planning in dialysis. **Am J Kidney Dis** 1999 May;33(5):980–91

Goals- and values-directed approach to informed consent in the "DNR" patient presenting for surgery: more demanding of the anesthesiologist? [editorial; comment] Jackson SH, et al. **Anesthesiology** 1999 Jan;90(1):3–6. Comment on: Anesthesiology 1999 Jan;90(1):289–95.

DNR in the OR: a goal-directed approach [see comments] Truog RD, et al. **Anesthesiology** 1999 Jan;90(1):289–95 (20 ref.). Comment in: Anesthesiology 1999 Jan;90(1):3–6.

Cultivating conscience: learning to make end-of-life decisions in the emergency department. Keyes LE, et al. **Ann Emerg Med** 1999 Apr;33(4):464–8

Development of a statewide protocol for the prehospital identification of DNR patients in Connecticut including new DNR regulations. Leon MD, et al. **Ann Emerg Med** 1999 Aug;34(2):263–74

Compliance with do-not-resuscitate orders for hospitalized patients transported to radiology departments [see comments] Heffner JE, et al. **Ann Intern Med** 1998 Nov 15;129(10):801–5. Comment in: Ann Intern Med 1998 Nov 15;129(10):831–3. Comment in: Ann Intern Med 1999 Jul 6;131(1):72–3.

Do-not-resuscitate orders in radiology departments [letter; comment] Mylonakis E. **Ann Intern Med** 1999 Jul 6; 131(1):72–3. Comment on: Ann Intern Med 1998 Nov 15;129(10):801–5.

Unilateral do-not-attempt-resuscitation orders and ethics consultation: a case series [see comments] Casarett D, et al. **Crit Care Med** 1999 Jun;27(6):1116–20. Comment in: Crit Care Med 1999 Jun;27(6):1045–7.

Do-not-resuscitate orders in the face of patient and family opposition [editorial; comment] Leonard CT, et al. **Crit Care Med** 1999 Jun;27(6):1045–7 (19 ref.). Comment on: Crit Care Med 1999 Jun;27(6):1116–20.

Summary of the 1998 annual meeting's scientific sessions. Martz EW. **Del Med J** 1999 Feb;71(2):77–80

Circumstances of dying in hospitalized children. van der Wal ME, et al. **Eur J Pediatr** 1999 Jul;158(7):560–5

Orders not to resuscitate: points to consider [editorial] Cohen SL. **Hosp Med** 1998 Feb;59(2):96

Managing expectations before the cancer intensive care unit [letter] Thangathurai D, et al. **Intensive Care Med** 1999 May;25(5):550

Therapeutic CPR or consent DNR—a dilemma looking for an answer. Plunkitt K, et al. **J Am Coll Cardiol** 1998 Dec; 32(7):2095–7

Life-sustaining treatment decisions for nursing home residents: who discusses, who decides and what is decided? Levin JR, et al. **J Am Geriatr Soc** 1999 Jan;47(1):82–7

The influence of physician race, age, and gender on physician attitudes toward advance care directives and preferences for end-of-life decision-making. Mebane EW, et al. **J Am Geriatr Soc** 1999 May;47(5):579–91

Nurses' attitudes toward do-not-resuscitate orders. Purvis RJ, et al. **J Burn Care Rehabil** 1998 Nov–Dec;19(6):538–41

Optimizing discussions about resuscitation: development of a guide based on patients' recommendations. Carlsen MS, et al. **J Clin Ethics** 1998 Fall;9(3):263–72

Should we honor prehospital DNR orders in patients who attempt suicide? [letter; comment] Koenig KL, et al. **J Emerg Med** 1998 Sep–Oct;16(5):761–2. Comment on: J Emerg Med 1997 Jan–Feb;15(1):109–11.

The role of audit in making do not resuscitate decisions. Hayes S, et al. **J Eval Clin Pract** 1999 Aug;5(3):305–12 (30 ref.)

Would physicians override a do-not-resuscitate order when a cardiac arrest is iatrogenic? Casarett DJ, et al. **J Gen Intern Med** 1999 Jan;14(1):35–8

The timing of do-not-resuscitate orders and hospital costs. De Jonge KE, et al. **J Gen Intern Med** 1999 Mar; 14(3):190–2

Racial variation in the use of do-not-resuscitate orders. Shepardson LB, et al. **J Gen Intern Med** 1999 Jan; 14(1):15–20

The status of the do-not-resuscitate order in Chinese clinical trial patients in a cancer centre. Liu JM, et al. **J Med Ethics** 1999 Aug;25(4):309–14

End-of-life decisions and advance directives in palliative care: a cross-cultural survey of patients and health-care professionals. Voltz R, et al. **J Pain Symptom Manage** 1998 Sep;16(3):153–62

A piece of my mind. A mother's voice. Nenner F. **JAMA** 1999 Mar 24–31;281(12):1065

On estimating the causal effects of DNR orders [editorial; comment] McIntosh MW, et al. **Med Care** 1999 Aug; 37(8):722–6 (16 ref.). Comment on: Med Care 1999 Aug;37(8):727–37.

Increased risk of death in patients with do-not-resuscitate orders [see comments] Shepardson LB, et al. **Med Care** 1999 Aug;37(8):727–37. Comment in: Med Care 1999 Aug;37(8):719. Comment in: Med Care 1999 Aug;37(8):722–6.

Do patients die because they have DNR orders, or do they have DNR orders because they are going to die? [editorial; comment] Sulmasy DP. **Med Care** 1999 Aug;37(8):719–21 (14 ref.). Comment on: Med Care 1999 Aug;37(8):727–37.

A staff dialogue on do not resuscitate orders: psychosocial issues faced by patients, their families, and caregivers. O'Shea EM, et al. **Oncologist** 1999;4(3):256–62

Advance directives in a pediatric emergency department. Walsh-Kelly CM, et al. **Pediatrics** 1999 Apr;103(4 Pt 1):826–30

Decisions to terminate resuscitation. Resuscitation Committee. de Vos R, et al. **Resuscitation** 1998 Oct–Nov; 39(1–2):7–13

Impact of survival probability, life expectancy, quality of life and patient preferences on do-not-attempt-resuscitation orders in a hospital. Resuscitation Committee. de Vos R, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):15–21

Do not resuscitate orders and stopping resuscitation [editorial] McLauchlan CA, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):3–5

Unexpected return of spontaneous circulation after cessation of resuscitation (Lazarus phenomenon) [see comments] Maleck WH, et al. **Resuscitation** 1998 Oct–Nov; 39(1–2):125–8 (26 ref.). Comment in: Resuscitation 1999 Jun;41(1):87.

Treatment limiting decisions in a neurosurgical unit. Fitzpatrick MO, et al. **Scott Med J** 1999 Apr;44(2):47–8

Care of elderly patients with DNR orders in Singapore—a descriptive study. Low JA, et al. **Singapore Med J** 1998 Oct;39(10):456–60

A broader look at medical futility. Shelton W. **Theor Med Bioeth** 1998 Aug;19(4):383–400 (18 ref.)

[Deaths at the neonatal department. Withholding or interruption of life-support treatment] Bjerager MO, et al. **Ugeskr Laeger** 1999 Mar 29;161(13):1916–9 (Eng. Abstr.) **(Dan)**

[Foregoing of lifesaving therapeutic measures in moribund patients] Röggla G. **Dtsch Med Wochenschr** 1999 Aug 20; 124(33):982; discussion 983–4 **(Ger)**

["Meaningless treatment" in terminal care. Importance of declaring do-not-resuscitate orders] Löfmark R, et al. **Lakartidningen** 1998 Oct 21;95(43):4759–61 (20 ref.) (Eng. Abstr.) **(Swe)**

[When is cardiopulmonary resuscitation medically futile? Prognostic instruments can make difficult decisions easier] Löfmark R, et al. **Lakartidningen** 1999 Mar 3;96(9):1046–7 **(Swe)**

LEGISLATION & JURISPRUDENCE

Oklahoma's new Do-Not-Resuscitate Act has been in effect since Nov. 1 [news] **J Okla State Med Assoc** 1997 Nov–Dec;90(8):453–8

Do not resuscitate (DNR): analysis of the DNR act. Koehler S, et al. **J Okla State Med Assoc** 1999 Jul;92(7):316–9 (9 ref.)

'Do not resuscitate' orders. The right to refuse cardiopulmonary resuscitation. Ferenz L, et al. **N C Med J** 1999 May–Jun;60(3):152–6

Moving DNR beyond the hospital. Sasser H. **Pa Med** 1999 Sep;102(9):18–9

[On the topic of do not resuscitate (DNR) orders on intensive care units: an evaluation of the present status on intensive care units of the Innsbruck University clinics] Fries D, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):161–8 (Eng. Abstr.) **(Ger)**

[Decisions and attitudes in treatment of incompetent, chronically ill, aged patients. A comparison between nurses and physicians: why does no one ask the nurse?] Richter J, et al. **Z Gerontol Geriatr** 1999 Apr;32(2):131–8 (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

Do patients' ethnic and social factors influence the use of do-not-resuscitate orders? Thompson BL, et al. **Ethn Dis** 1999 Winter;9(1):132–9

Resuscitation in hospice. Henderson S, et al. **Hastings Cent Rep** 1998 Nov–Dec;28(6):20; discussion 20–2

Decision making in CPR [letter; comment] Grace RF. **Med J Aust** 1999 Jan 4;170(1):45; discussion 45–6. Comment on: Med J Aust 1998 Aug 3;169(3):124–5. Comment on: Med J Aust 1998 Aug 3;169(3):128–31.

The northeast Tennessee Spirituality and End of Life Issues Survey. Ginn DR, et al. **Tenn Med** 1998 Nov;91(11):425–30 (13 ref.)

RETAINERS, ORTHODONTIC see **ORTHODONTIC RETAINERS**

RETE TESTIS

DRUG EFFECTS

Neonatal exposure of male rats to estradiol benzoate causes rete testis dilation and backflow impairment of spermatogenesis. Aceitero J, et al. **Anat Rec** 1998 Sep; 252(1):17–33

ENZYMOLOGY

Galactosyltransferase, pyrophosphatase and phosphatase activities in luminal plasma of the cauda epididymidis and in the rete testis fluid of some mammals. Tang Y. **J Reprod Fertil** 1998 Nov;114(2):277–85

PATHOLOGY

Adenocarcinoma of the rete testis. Skailes GE, et al. **Clin Oncol (R Coll Radiol)** 1998;10(6):401–3

Pronounced cystic transformation of the Rete testis. MRI appearance. Meyer DR, et al. **Invest Radiol** 1999 Sep; 34(9):600–3

Case no. 1. Bilateral testicular pain. Tubular ectasia of rete testis. Goharderakhshan RZ, et al. **Tech Urol** 1999 Mar; 5(1):57–8

[Adenoma of the rete testis (letter)] Badoual C, et al. **Ann Pathol** 1999 Mar;19(1):80–1 **(Fre)**

SECRETION

Postnatal differentiation of the ductus deferens, tail of the epididymis, and distal body of the epididymis in goats occurs independently of rete testis fluid. Goyal HO, et al.

RETE TESTIS

Anat Rec 1999 Apr 1;254(4):508–20

ULTRASTRUCTURE

A scanning electron microscopic study of the rete testis of the guinea pig. Beu CC, et al. **Acta Anat (Basel)** 1998; 162(4):194–8

RETENTION (PSYCHOLOGY)

Effects of cues on memory in alcoholics and controls. Nixon SJ, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):1065–9

The role of prior knowledge and elaboration in text comprehension and memory: a comparison of self-generated elaboration and text-provided elaboration. Kim SI, et al. **Am J Psychol** 1998 Fall;111(3):353–78

The contributions of source misattributions, acquiescence, and response bias to children's false memories. McBrien CM, et al. **Am J Psychol** 1998 Winter;111(4):509–28

The retention of adaptation to motion sickness eliciting stimulation. Hu S, et al. **Aviat Space Environ Med** 1999 Aug;70(8):766–8

Returning to the scene: reminders and context reinstatement enhance children's recall. Priestley G, et al. **Dev Psychol** 1999 Jul;35(4):1006–19

What develops in working memory? A life span perspective. Swanson HL. **Dev Psychol** 1999 Jul;35(4):986–1000

Measuring skill acquisition and retention with an ATM simulator: the need for age-specific training. Mead S, et al. **Hum Factors** 1998 Sep;40(3):516–23

Retention interval and eyewitness memory for events and personal identifying attributes. Ebbesen EB, et al. **J Appl Psychol** 1998 Oct;83(5):745–62

Word production: dissociation of two retrieval modes of semantic memory across time. Fernaeus SE, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):137–43

Does memory test performance in children become more consistent with age? Cross-sectional comparisons using the WRAML. Wide Range Assessment of Memory and Learning. Putzke JD, et al. **J Clin Exp Neuropsychol** 1998 Dec;20(6):835–45

Auditory list memory and interference processes in monkeys. Wright AA. **J Exp Psychol Anim Behav Process** 1999 Jul; 25(3):284–96

A deficit in the short-term retention of lexical-semantic information: forgetting words but remembering a story. Romani C, et al. **J Exp Psychol Gen** 1999 Mar;128(1):56–77

Updating accounts following a correction of misinformation. Johnson HM, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov;24(6):1483–94

Regular versus randomized sentences, nouns versus prepositions, and assimilation in salience. King DL, et al. **J Gen Psychol** 1999 Apr;126(2):177–83

Identification accuracy of children versus adults: a meta-analysis. Pozzulo JD, et al. **Law Hum Behav** 1998 Oct;22(5):549–70

Reversing the phonological similarity effect. Nairne JS, et al. **Mem Cognit** 1999 Jan;27(1):45–53

Spatial working memory and reference memory of Brown Norway and WAG rats in a holeboard discrimination task. van der Staay FJ. **Neurobiol Learn Mem** 1999 Jan; 71(1):113–25

Long-term retention of classical eyeblink conditioning in amnesia. Schugens MM, et al. **Neuroreport** 1999 Jan 18; 10(1):149–52

Spatial and discrimination learning in rodents infected with the nematode Strongyloides ratti. Braithwaite VA, et al. **Parasitology** 1998 Aug;117 (Pt 2):145–54

Effect of different quantities of variable practice on acquisition, retention, and transfer of an applied motor skill. Goodwin JE, et al. **Percept Mot Skills** 1998 Aug; 87(1):147–51

Numbers of details in the reconstruction of an emotional narrative decrease linearly as a function of time. Richards PM, et al. **Percept Mot Skills** 1998 Aug;87(1):216–8

A strategy for screening memory functions in individuals with mental retardation. McDaniel WF, et al. **Res Dev Disabil** 1998 Jul–Aug;19(4):317–25

Improved retention of the EMS activation component (EMSAC) in adult CPR education. Bilger MC, et al. **Resuscitation** 1997 Nov;35(3):219–24

[Attention deficit disorders and memory capacity in children with language delay and in normal children] Lauth GW, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Apr; 48(4):260–72 (Eng. Abstr.) **(Ger)**

[Retention of knowledge. III--Gynecology program] Bastos AC, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Mar–Apr;53(2):100–3 (Eng. Abstr.) **(Por)**

DRUG EFFECTS

Cognitive performance and biochemical markers in septum, hippocampus and striatum of rats after an i.c.v. injection of streptozotocin: a correlation analysis. Prickaerts J, et al. **Behav Brain Res** 1999 Jul;102(1–2):73–88

Reactivation treatment prevents the memory-impairing effects of scopolamine in preweanling rats. Sandstrom NJ, et al. **Behav Neurosci** 1998 Aug;112(4):909–19

Unilateral reversible inactivations of the nucleus tractus solitarius and amygdala attenuate the effects of bombesin on memory storage. Rashidy-Pour A, et al. **Brain Res** 1998 Dec 14;814(1–2):127–32

Involvement of hippocampal NMDA receptors in retention of shuttle avoidance conditioning in rats. Roesler R, et al. **Braz J Med Biol Res** 1998 Dec;31(12):1601–4

Effects of huperzine A on nucleus basalis magnocellularis lesion-induced spatial working memory deficit. Xiong ZQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):128–32

Short communication: long- but not medium-term retention of olfactory memories in honeybees is impaired by actinomycin D and anisomycin. Wüstenberg D, et al. **Eur J Neurosci** 1998 Aug;10(8):2742–5

Conditions under which lorazepam can facilitate retrieval. File SE, et al. **J Clin Psychopharmacol** 1999 Aug; 19(4):349–53

Stimulators of the cAMP cascade reverse amnesia induced by intra-amygdala but not intrahippocampal KN-62 administration. Barros DM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):94–103

Phlorizin, a competitive inhibitor of glucose transport, facilitates memory storage in mice. Boccia MM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):104–12

Chloramphenicol-induced amnesia for passive avoidance training in the day-old chick. Freeman FM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):80–93

Norepinephrine infused into the basolateral amygdala posttraining enhances retention in a spatial water maze task. Hatfield T, et al. **Neurobiol Learn Mem** 1999 Mar; 71(2):232–9

Effects of posttraining administration of insulin on retention of a habituation response in mice: participation of a central cholinergic mechanism. Kopf SR, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):50–61

Differential effects of post-training muscimol and AP5 infusions into different regions of the cingulate cortex on retention for inhibitory avoidance in rats. Mello e Souza T, et al. **Neurobiol Learn Mem** 1999 Sep;72(2):118–27

Chronic administration of propranolol impairs inhibitory avoidance retention in mice. Nielson KA, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):248–57

MK-801 improves retention in aged rats: implications for altered neural plasticity in age-related memory deficits. Norris CM, et al. **Neurobiol Learn Mem** 1999 Mar; 71(2):194–206

A behavioral analysis of the spatial learning deficit induced by the NMDA receptor antagonist MK-801 (dizocilpine) in the rat. Ahlander M, et al. **Neuropsychopharmacology** 1999 Sep;21(3):414–26

Glucose and memory: fractionation of enhancement effects? Foster JK, et al. **Psychopharmacology (Berl)** 1998 Jun; 137(3):259–70

Risperidone versus haloperidol on secondary memory: can newer medications aid learning? Kern RS, et al. **Schizophr Bull** 1999;25(2):223–32

[Effects of new constituents L-6a and L-10 from leaves of Luffa cylinderica on learning, memory, and hippocampal somatostatin in rats] Qi SB, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):529–31 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Strain-dependent involvement of D1 and D2 dopamine receptors in muscarinic cholinergic influences on memory storage. Castellano C, et al. **Behav Brain Res** 1999 Jan; 98(1):17–26

The role of the agranular insular cortex in working memory for food reward value and allocentric space in rats. Ragozzino ME, et al. **Behav Brain Res** 1999 Jan; 98(1):103–12

Effects of mammillary body lesions on spatial reference and working memory tasks. Santín LJ, et al. **Behav Brain Res** 1999 Jul;102(1–2):137–50

Differential roles of cerebellar cortex and deep cerebellar nuclei in learning and retention of a spatial task: studies in intact and cerebellectomized lurcher mutant mice. Hilber P, et al. **Behav Genet** 1998 Jul;28(4):299–308

Correlational relationship between shock intensity and corticosterone secretion on the establishment and subsequent expression of contextual fear conditioning. Cordero MI, et al. **Behav Neurosci** 1998 Aug;112(4):885–91

Ontogenetic differences in the expression of conditioned stimulus conditioning: effects of retention interval. McKinzie DL, et al. **Behav Neurosci** 1998 Aug;112(4):920–8

Effects of neocortical ectopias upon the acquisition and retention of a non-spatial reference memory task in BXSB mice. Balogh SA, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):291–3

Children's and adults' spontaneous false memories: long-term persistence and mere-testing effects. Brainerd CJ, et al. **Child Dev** 1998 Oct;69(5):1361–77

An expanding training series protracts retention for 3-month-old infants. Hartshorn K, et al. **Dev Psychobiol** 1998 Nov;33(3):271–82

Electrophysiological evidence of developmental changes in the duration of auditory sensory memory. Gomes H, et al. **Dev Psychol** 1999 Jan;35(1):294–302

EEG power changes during a multiple level memory retention task. Wilson GF, et al. **Int J Psychophysiol** 1999 May;32(2):107–18

Visual list memory in capuchin monkeys (Cebus apella). Wright AA. **J Comp Psychol** 1999 Mar;113(1):74–80

Emotion and memory: Children's long-term remembering, forgetting, and suggestibility. Quas JA, et al. **J Exp Child Psychol** 1999 Apr;72(4):235–70

Suppression of c-fos induction in rat brain impairs retention of a brightness discrimination reaction. Grimm R, et al. **Learn Mem** 1997 Jan–Feb;3(5):402–13

c-Fos induction in the rat nucleus of the solitary tract correlates with the retention and forgetting of a conditioned taste aversion. Houpt TA, et al. **Learn Mem** 1996 Jul–Aug;3(1):25–30

Reaction time distributions across normal forgetting: searching for markers of memory consolidation. Reber PJ, et al. **Learn Mem** 1997 Sep–Oct;4(3):284–90

Effects of unilateral entorhinal cortex lesion on retention of water maze performance. Glasier MM, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):19–33

Context shift and protein synthesis inhibition disrupt long-term habituation after spaced, but not massed, training in the crab Chasmagnathus. Hermitte G, et al. **Neurobiol Learn Mem** 1999 Jan;71(1):34–49

The functional neuroanatomy of episodic memory: the role of the frontal lobes, the hippocampal formation, and other areas. Desgranges B, et al. **Neuroimage** 1998 Aug; 8(2):198–213 (120 ref.)

Retention and adaptive control of force patterns in finger-tapping sequences. Inui N, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1245–50

Effects of contextual interference and age on acquisition, retention, and transfer of motor skill. Jarus T, et al. **Percept Mot Skills** 1999 Apr;88(2):437–47

[The significance of synaptic neurotransmitters on the acquisition and retention of vestibular habituation] Mierzwiński J. **Otolaryngol Pol** 1998;52(6):747–9 **(Pol)**

RETICULAR FORMATION

ANATOMY & HISTOLOGY

The neural substrate for 'learned' and 'nonlearned' activities in birds: a discussion of the organization of bulbar reticular premotor systems with side-lights on the mammalian situation. Dubbeldam JL. **Acta Anat (Basel)** 1998; 163(3):157–72 (84 ref.)

Fluorescent double-label study of lateral reticular nucleus projections to the spinal cord and periaqueductal gray in the rat. Lee HS, et al. **Anat Rec** 1999 Sep 1;256(1):91–8

Descending neural projections to the spinal cord in the channel catfish, Ictalurus punctatus. New JG, et al. **Anat Rec** 1998 Oct;252(2):235–53

Immunohistochemistry and spinal projections of the reticular formation in the northern leopard frog, Rana pipiens. Adli DS, et al. **J Comp Neurol** 1999 Feb 15;404(3):387–407

CYTOLOGY

Cervical and reticular projections of neurones located in S1 and S2 segments of the cat's spinal cord. Mrówczyński W, et al. **Arch Ital Biol** 1998 Nov;136(4):237–45

The retinal projections to the ventral and dorsal divisions of the medial terminal nucleus and mesencephalic reticular formation in the Japanese monkey (Macaca fuscata): a reinvestigation with cholera toxin B subunit as an anterograde tracer. Nakagawa S, et al. **Brain Res** 1998 Nov 2;809(2):198–203

Anodally focused polarization of peripheral nerve allows discrimination of myelinated and unmyelinated fiber input to brainstem nuclei. Petruska JC, et al. **Exp Brain Res** 1998 Aug;121(4):379–90

Triple projections of neurones located in S1 and S2 segments of the cat spinal cord to the C6 segment, the cerebellum and the reticular formation. Grottel K, et al. **Exp Physiol** 1998 Nov;83(6):737–46

Organization of cortical projections to the medullary subnucleus reticularis dorsalis: a retrograde and anterograde tracing study in the rat. Desbois C, et al. **J Comp Neurol** 1999 Jul 26;410(2):178–96

DRUG EFFECTS

Vasoactive intestinal polypeptide excites medial pontine reticular formation neurons in the brainstem rapid eye movement sleep-induction zone. Kohlmeier KA, et al. **J Neurosci** 1999 May 15;19(10):4073–81

Clonidine evokes vasodepressor responses via alpha2-adrenergic receptors in gigantocellular reticular formation. Aicher SA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):688–94

Potentiation of haloperidol catalepsy by microinjections of nicotine into the striatum or pons in rats. Elazar Z, et al. **Life Sci** 1999;64(13):1117–25

METABOLISM

3-Dimensional anatomic relationship of serotonergic and muscarinic receptor binding in the pontine reticular formation of the human infant brainstem. Panigraphy A, et al. **Clin Neuropathol** 1998 Nov–Dec;17(6):318–25

Immunohistochemistry and spinal projections of the reticular formation in the northern leopard frog, Rana pipiens. Adli DS, et al. **J Comp Neurol** 1999 Feb 15;404(3):387–407

NMDA receptor-mediated control of presynaptic calcium and neurotransmitter release. Cochilla AJ, et al. **J Neurosci** 1999 Jan 1;19(1):193–205

PATHOLOGY

Loss of catecholaminergic neurons in the medullary reticular formation in myotonic dystrophy. Ono S, et al.

Neurology 1998 Oct;51(4):1121-4

PHYSIOLOGY

Divergence of lamina VII and VIII neurones of S1 and S2 segments of the cat's spinal cord to the cerebellum and the reticular formation. Krutki P, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(2):81-8

EEG activity in cat's isolated brainstem. Zernicki B, et al. **Arch Ital Biol** 1998 Nov;136(4):273-7

The effect of brainstem stimulation on the evoked potentials in the intergeniculate leaflet. Lewandowski MH, et al. **Brain Res** 1999 May 8;827(1-2):139-42

Tectal projections to the parvicellular reticular formation and the upper cervical spinal cord in the rat, with special reference to axon collateral innervation. Yasui Y, et al. **Brain Res** 1998 Aug 31;804(1):149-54

Electrophysiological and neuropharmacological study of tectoreticular pathways in lampreys. Zompa IC, et al. **Brain Res** 1998 Sep 7;804(2):238-52

Neurology of saccades and smooth pursuit. Gaymard B, et al. **Curr Opin Neurol** 1999 Feb;12(1):13-9 (56 ref.)

A crossed projection from the optic tectum to craniocervical premotor areas in the brainstem reticular formation. An anterograde and retrograde tracing study in the mallard (Anas platyrhynchos L.). Tellegen AJ, et al. **Eur J Morphol** 1998 Dec;36(4-5):227-43

The medullary dorsal reticular nucleus facilitates pain behaviour induced by formalin in the rat. Almeida A, et al. **Eur J Neurosci** 1999 Jan;11(1):110-22

Correlation of primate superior colliculus and reticular formation discharge with proximal limb muscle activity. Stuphorn V, et al. **J Neurophysiol** 1999 Apr;81(4):1978-82

Projection to the lateral reticular nucleus from neurons located in C6-C7 segments of the spinal cord. An electrophysiological study in the cat. Krutki P, et al. **J Physiol Paris** 1999 May-Jun;93(3):251-6

Involvement of reticular neurons of the cat medulla oblongata in the integrative activity of the respiratory center. Gordievskaya NA, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):327-32

Effects of lesion of pontomedullary reticular formation on visually triggered vertical and oblique head orienting movements in alert cats. Sasaki S, et al. **Neurosci Lett** 1999 Apr 9;265(1):13-6

Axonal trajectories of the nucleus reticularis gigantocellularis neurons in the C2-C3 segments in cats. Sasaki S, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):137-40

Neural connections of the pontine reticular formation, which connects reciprocally with the nucleus prepositus hypoglossi in the rat. Iwasaki H, et al. **Neuroscience** 1999; 93(1):195-208

Dynamic properties of corticothalamic excitatory postsynaptic potentials and thalamic reticular inhibitory postsynaptic potentials in thalamocortical neurons of the guinea-pig dorsal lateral geniculate nucleus. von Krosigk M, et al. **Neuroscience** 1999;91(1):7-20

Paying attention to the thalamic reticular nucleus. Guillery RW, et al. **Trends Neurosci** 1998 Jan;21(1):28-32 (44 ref.)

PHYSIOPATHOLOGY

Reduced sensory gating of the P1 potential in rape victims and combat veterans with posttraumatic stress disorder. Skinner RD, et al. **Depress Anxiety** 1999;9(3):122-30

The tachykinin NK1 receptor antagonist GR205171 abolishes the retching activity of neurons comprising the central pattern generator for vomiting in dogs. Fukuda H, et al. **Neurosci Res** 1999 Jan;33(1):25-32

Nucleus reticularis gigantocellularis and nucleus raphe magnus in the brain stem exert opposite effects on behavioral hyperalgesia and spinal Fos protein expression after peripheral inflammation [published erratum appears in Pain 1999 May;81(1-2):215-9] Wei F, et al. **Pain** 1999 Mar;80(1-2):127-41

RETICULIN

ANALOGS & DERIVATIVES

Oral antibiotics reduce body temperature of healthy rabbits in a thermoneutral environment. Fuller A, et al. **J Basic Clin Physiol Pharmacol** 1999;10(1):1-13

ANALYSIS

Circulating haemopoietic progenitor cells in primary and secondary myelofibrosis: relation to collagen and reticulin fibrosis. Colović MD, et al. **Eur J Haematol** 1999 Mar; 62(3):155-9

GENETICS

The StrQ protein encoded in the gene cluster for 5'-hydroxystreptomycin of Streptomyces glaucescens GLA.0 is a alpha-D-glucose-1-phosphate cytidylyltransferase (CDP-D-glucose synthase). Beyer S, et al. **Eur J Biochem** 1998 Dec 15;258(3):1059-67

IMMUNOLOGY

Anti-tissue transglutaminase, anti-endomysium and anti-R1-reticulin autoantibodies-the antibody trinity of coeliac disease. Lock RJ, et al. **Clin Exp Immunol** 1999 May;116(2):258-62

High frequency of antigliadin antibodies and absence of antireticulin and antiendomysium antibodies in patients with ulcerative colitis. Kull K, et al. **J Gastroenterol** 1999 Feb;34(1):61-5

Small-bowel mucosal inflammation in reticulin or gliadin antibody-positive patients without villous atrophy. Kaukinen K, et al. **Scand J Gastroenterol** 1998 Sep; 33(9):944-9

RETICULOCYTE COUNT

Decreasing reticulocyte counts associated with declining post-dose erythropoietin plasma levels in anaemia of prematurity. Meister B, et al. **Biol Neonate** 1998 Dec; 74(6):409-15

The effect of 61 days of combined iron (Chemiron) and single iron therapy on haemoglobin, packed cell volume, platelets and reticulocytes during pregnancy. Preliminary report. Ajayi GO, et al. **Clin Exp Obstet Gynecol** 1998;25(3):107-11

Diagnosing lead poisoning [letter; comment] Abramowicz M. **N Engl J Med** 1999 Feb 18;340(7):569. Comment on: N Engl J Med 1998 Sep 17;339(12):827-30.

DRUG EFFECTS

The effect of recombinant human erythropoietin on platelet counts is strongly modulated by the adequacy of iron supply. Loo M, et al. **Blood** 1999 May 15;93(10):3286-93

INSTRUMENTATION

Automated reticulocyte counting--an evaluation of GEN-S, Cell-Dyn 3500 and Cell-Dyn 4000 [letter] Yu PH, et al. **Clin Lab Haematol** 1999 Apr;21(2):145-7

[Reticulocytes parameters in some hemolysis syndromes: preliminary results obtained with the Coulter Gen.S system] Fourcade C, et al. **Ann Biol Clin (Paris)** 1999 Jan-Feb;57(1):85-9 **(Fre)**

METHODS

Automated reticulocyte counting--an evaluation of GEN-S, Cell-Dyn 3500 and Cell-Dyn 4000 [letter] Yu PH, et al. **Clin Lab Haematol** 1999 Apr;21(2):145-7

RETICULOCYTES

CHEMISTRY

Reticulocyte hemoglobin content to diagnose iron deficiency in children [see comments] Brugnara C, et al. **JAMA** 1999 Jun 16;281(23):2225-30. Comment in: JAMA 1999 Jun 16;281(23):2247-8.

Hypochromic red cells and reticulocyte haemglobin content as markers of iron-deficient erythropoiesis in patients undergoing chronic haemodialysis. Cullen P, et al. **Nephrol Dial Transplant** 1999 Mar;14(3):659-65

CYTOLOGY

Simultaneous evaluation of reticulated elements in whole blood by flow cytometry. Rapi S, et al. **Eur J Histochem** 1997;41 Suppl 2:39-40

[Terminal differentiation of human peripheral blood CD34 positive cells to reticulocytes in vitro and effects of cytoskeletal modifiers on enucleation] Fukada Y. **Hokkaido Igaku Zasshi** 1998 Nov;73(6):543-56 (Eng. Abstr.) **(Jpn)**

[Use of % unit expressing the reticulocyte ratio (letter)] Tatsumi N, et al. **Rinsho Ketsueki** 1999 Jun;40(6):521-3 **(Jpn)**

DRUG EFFECTS

Genotoxicity study of bojungchisup-tang, an oriental herbal decoction-in vitro chromosome aberration assay in Chinese hamster lung cells and in vivo supravital-staining micronucleus assay with mouse peripheral reticulocytes. Ryu JC, et al. **Arch Pharm Res** 1998 Aug;21(4):391-7

Sensitivity of reticulocyte indices to iron therapy in an intensely training athlete. Ashenden MJ, et al. **Br J Sports Med** 1998 Sep;32(3):259-60

Inhibitory effects of chlorophyllin on micronucleus formation induced by ethyl carbamate and its proximate and ultimate carcinogenic forms in mouse peripheral reticulocytes. Kim SG, et al. **Environ Mol Mutagen** 1999;34(1):57-60

Reticulocytes and solvents: an epidemiological study. Cardoso E, et al. **Hematol Cell Ther** 1999 Apr;41(2):39-45

Effects of nitroglycerin on energy metabolism of rat reticulocytes. Maletić SD, et al. **J Physiol Pharmacol** 1999 Mar;50(1):75-87

Inhibitory effects of isopropyl-2-(1,3-dithietane-2-ylidene)-2-[N-(4-methylthiazol-2-yl)carbamoyl]acetate (YH439) on benzo[a]pyrene-induced skin carcinogenesis and micronucleated reticulocyte formation in mice. Surh YJ, et al. **Mutat Res** 1999 Jan 25;423(1-2):149-53

ENZYMOLOGY

Expression of leukocyte-type 12-lipoxygenase and reticulocyte-type 15-lipoxygenase in rabbits. Thiele BJ, et al. **Adv Exp Med Biol** 1999;447:45-61

Hexokinase, glucose-6-phosphate dehydrogenase and antioxidant enzymes in diabetic reticulocytes: effects of insulin and vanadate. Gupta BL, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1145-52

Heme-regulated eIF-2alpha kinase purifies as a hemoprotein. Chefalo PJ, et al. **Eur J Biochem** 1998 Dec 1;258(2):820-30

Characterization of the hemin-sensitive eukaryotic initiation factor 2alpha kinase from mouse nonerythroid cells. Berlanga JJ, et al. **J Biol Chem** 1998 Nov 27; 273(48):32340-6

Identification of rabbit reticulocyte E217K as a UBC7 homologue and functional characterization of its core domain loop. Lin H, et al. **J Biol Chem** 1999 May 21; 274(21):14685-91

Arachidonate 15-lipoxygenase of reticulocyte-type in human rheumatoid arthritis type B synoviocytes and modulation of its activity by proinflammatory cytokines. Liagre B, et al. **J Rheumatol** 1999 May;26(5):1044-51

Intra- and extracellular expression of rabbit reticulocyte 15-lipoxygenase in the Baculovirus/insect cell system. Borngräber S, et al. **Protein Expr Purif** 1998 Nov; 14(2):237-46

IMMUNOLOGY

F reticulocytes assay: a method to evaluate fetal hemoglobin production. Maier-Redelsperger M, et al. **Hemoglobin** 1998 Sep-Nov;22(5-6):419-25

METABOLISM

Evidence for and consequences of chronic heme deficiency in Belgrade rat reticulocytes. Garrick MD, et al. **Biochim Biophys Acta** 1999 Mar 8;1449(2):125-36

Ubiquitin-proteasome-dependent degradation of apolipoprotein B100 in vitro. Sakata N, et al. **Biochim Biophys Acta** 1999 Jan 29;1437(1):71-9

Comparison of Escherichia coli and rabbit reticulocyte ribosome display systems. Hanes J, et al. **FEBS Lett** 1999 Apr 30;450(1-2):105-10

Membrane perturbing factor in reticulocyte lysate, which is transiently activated by proteases. Sakaki K, et al. **FEBS Lett** 1999 Jul 9;454(3):345-8

Purification of a 38-kDa protein from rabbit reticulocyte lysate which promotes protein renaturation by heat shock protein 70 and its identification as delta-aminolevulinic acid dehydratase and as a putative DnaJ protein. Gross M, et al. **J Biol Chem** 1999 Jan 29;274(5):3125-34

Non-transferrin-bound iron uptake in Belgrade and normal rat erythroid cells. Garrick LM, et al. **J Cell Physiol** 1999 Mar;178(3):349-58

Complement receptor 1 (CD35) on human reticulocytes: normal expression in systemic lupus erythematosus and HIV-infected patients. Lach-Trifilieff E, et al. **J Immunol** 1999 Jun 15;162(12):7549-54

Can reticulocyte parameters be of use in detecting iron deficient erythropoiesis in female athletes? Ashenden MJ, et al. **J Sports Med Phys Fitness** 1999 Jun;39(2):140-6

Hypochromic red blood cells and reticulocytes. Schaefer RM, et al. **Kidney Int Suppl** 1999 Mar;69:S44-8 (19 ref.)

An alpha subunit-deficient form of eukaryotic protein synthesis initiation factor eIF-2 from rabbit reticulocyte lysate and its activity in ternary complex formation. Mouat MF, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):69-78

Response of mean reticulocyte haemoglobin content to intravenous iron therapy in haemodialysis patients [letter] Bhandari S, et al. **Nephrol Dial Transplant** 1998 Dec; 13(12):3276-7

Purification and some properties of an oxydative inhibitor in rabbit reticulocyte lysates. Erdogdu G, et al. **Z Naturforsch [C]** 1998 Sep-Oct;53(9-10):897-901

PARASITOLOGY

Plasmodium falciparum: enhanced gametocyte formation in vitro in reticulocyte-rich blood. Trager W, et al. **Exp Parasitol** 1999 Feb;91(2):115-8

PATHOLOGY

Heinz bodies interfere with automated reticulocyte counts. Español I, et al. **Haematologica** 1999 Apr;84(4):373-4

Hematologic response in type I Gaucher's disease after enzyme replacement therapy [letter] Parco S, et al. **Haematologica** 1999 Apr;84(4):376-7

Reticulocytes and solvents: an epidemiological study. Cardoso E, et al. **Hematol Cell Ther** 1999 Apr;41(2):39-45

PHYSIOLOGY

Failure to demonstrate postpartum functional iron deficiency using quantitative red blood cell analysis. Richter C, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 May;84(1):69-74

TOP mRNAs are translationally inhibited by a titratable repressor in both wheat germ extract and reticulocyte lysate. Biberman Y, et al. **FEBS Lett** 1999 Aug 13; 456(3):357-60

Erythroid marrow activity and hemoglobin H levels in hemoglobin H disease. Papassotiriou I, et al. **J Pediatr Hematol Oncol** 1998 Nov-Dec;20(6):539-44

RETICULOCYTOSIS see **RETICULOCYTE COUNT**

RETICULOENDOTHELIAL SYSTEM

see related
HISTIOCYTES
KUPFFER CELLS

RETICULOENDOTHELIAL SYSTEM

MACROPHAGES
PHAGOCYTES

DRUG EFFECTS

Effect of chronic chloroquine administration on iron loading in the liver and reticuloendothelial system and on oxidative responses by the alveolar macrophages. Legssyer R, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):907–11

Pentoxifylline--more evidence that it improves host defenses during sepsis [editorial; comment] Reynolds H. **Crit Care Med** 1999 Apr;27(4):681–3 (41 ref.). Comment on: Crit Care Med 1999 Apr;27(4):756–63.

METABOLISM

O/W lipid emulsions for parenteral drug delivery. III. Lipophilicity necessary for incorporation in oil particles even after intravenous injection. Sakaeda T, et al. **J Drug Target** 1998;6(2):119–27

PHYSIOPATHOLOGY

Reticuloendothelial system activity and organ failure in patients with multiple injuries. Pape HC, et al. **Arch Surg** 1999 Apr;134(4):421–7

RETICULOENDOTHELIOSIS

COMPLICATIONS

[A 65 year-old man with leukemic reticuloendotheliosis, fever of unknown origin and multiorgan failure (clinical conference)] Aguado Garcia JM, et al. **Rev Clin Esp** 1998 Aug;198(8):548–54 **(Spa)**

DRUG THERAPY

Disseminated pagetoid reticulosis: response to bath PUVA [letter] Behrens S, et al. **Br J Dermatol** 1998 Aug; 139(2):343–4

GENETICS

Immunophenotypic and genotypic characterization of nasal lymphoma with polymorphic reticulosis morphology. Ohsawa M, et al. **Int J Cancer** 1999 Jun 11;81(6):865–70

IMMUNOLOGY

Immunophenotypic and genotypic characterization of nasal lymphoma with polymorphic reticulosis morphology. Ohsawa M, et al. **Int J Cancer** 1999 Jun 11;81(6):865–70

THERAPY

Successful unrelated umbilical cord blood transplantation in a child with Omenn's syndrome. Benito A, et al. **Pediatr Hematol Oncol** 1999 Jul–Aug;16(4):361–6

RETICULOENDOTHELIOSIS, LEUKEMIC see **LEUKEMIA, HAIRY CELL**

RETICULOENDOTHELIOSIS VIRUS, AVIAN

Reticuloendotheliosis in captive greater and Attwater's prairie chickens. Drew ML, et al. **J Wildl Dis** 1998 Oct; 34(4):783–91

RETICULOHISTIOCYTOMA see **HISTIOCYTOSIS, NON-LANGERHANS-CELL**

RETICULOLYMPHOSARCOMA see **LYMPHOMA**

RETICULOPODIA see **PSEUDOPODIA**

RETICULOSIS see **RETICULOENDOTHELIOSIS**

RETICULOSIS, HISTIOCYTIC MEDULLARY see **HISTIOCYTOSIS, MALIGNANT**

RETICULUM

INNERVATION

Antagonist of nitric oxide synthesis inhibits nerve-mediated relaxation of isolated strips of rumen and reticulum. Schneider DA, et al. **J Dairy Sci** 1998 Oct;81(10):2588–94

PHYSIOLOGY

The relaxant effects of parathyroid hormone(1–34) and parathyroid hormone-related protein(1–34) on ovine reticulo-ruminal smooth muscle in vivo. Care AD, et al. **Exp Physiol** 1999 Jul;84(4):665–75

Tremorgenic mycotoxins paxilline, penitrem and lolitrem B, the non-tremorgenic 31-epilolitrem B and electromyographic activity of the reticulum and rumen of sheep. McLeay LM, et al. **Res Vet Sci** 1999 Apr; 66(2):119–27

RADIOGRAPHY

Reticular foreign bodies. Causative or coincidence? Farrow CS. **Vet Clin North Am Food Anim Pract** 1999 Jul; 15(2):397–408 (0 ref.)

RETICULUM CELL-LIKE SARCOMA, YOSHIDA see **SARCOMA, YOSHIDA**

RETICULUM-CELL SARCOMA see **LYMPHOMA, LARGE-CELL**

RETINA

see related
ANGIOID STREAKS
ELECTRORETINOGRAPHY

A vitrectomy improves the transfection efficiency of adenoviral vector-mediated gene transfer to Müller cells. Sakamoto T, et al. **Gene Ther** 1998 Aug;5(8):1088–97

Human retina-specific amine oxidase: genomic structure of the gene (AOC2), alternatively spliced variant, and mRNA expression in retina. Imamura Y, et al. **Genomics** 1998 Jul 15;51(2):293–8

Effect of pupillary dilation on retinal nerve fiber layer thickness as measured by scanning laser polarimetry in eyes with and without cataract. Hoh ST, et al. **J Glaucoma** 1999 Jun;8(3):159–63

Correlation of functional and structural measurements in eyes suspected of having glaucoma. Polo V, et al. **J Glaucoma** 1999 Jun;8(3):172–6

Fas ligand (CD95 ligand) controls angiogenesis beneath the retina. Kaplan HJ, et al. **Nat Med** 1999 Mar;5(3):292–7

[Implantation of the artificial retina] Yagi T, et al. **Nippon Rinsho** 1999 May;57(5):1208–15 (18 ref.) (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Autosomal recessive syndrome of growth and mental retardation, seizures, retinal abnormalities, and osteodysplasia with similarity to the Gurrieri syndrome. Orrico A, et al. **Am J Med Genet** 1999 Jan 1;82(1):84–7

Pseudodoubling of the optic disc. Barboni P, et al. **Arch Ophthalmol** 1998 Oct;116(10):1400–1

Severe ocular abnormalities in C57BL/6 but not in 129/Sv p53-deficient mice. Ikeda S, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1874–8

Clinical characteristics of CHARGE syndrome. Ahn BS, et al. **Korean J Ophthalmol** 1998 Dec;12(2):130–4

Misexpression of cNSCL1 disrupts retinal development. Li CM, et al. **Mol Cell Neurosci** 1999 Jul;14(1):17–27

Expression of gicerin, a cell adhesion molecule, in the abnormal retina in silver plumage color mutation of Japanese quail (Coturnix japonica). Tsukamoto Y, et al. **Neurosci Lett** 1999 Apr 30;266(1):53–6

Prevalence of retinal detachments in children with chorioretinal colobomas [letter; comment] Morrison DA, et al. **Ophthalmology** 1999 Apr;106(4):645–6. Comment on: Ophthalmology 1998 Aug;105(8):1455–8.

ANATOMY & HISTOLOGY

Effects of contact lenses on scanning laser polarimetry of the peripapillary retinal nerve fiber layer. Bhandari A, et al. **Am J Ophthalmol** 1999 Jun;127(6):722–4

Relation between size of optic disc and thickness of retinal nerve fibre layer in normal subjects. Funaki S, et al. **Br J Ophthalmol** 1998 Nov;82(11):1242–5

Retinal nerve fibre layer polarimetry: histological and clinical comparison. Morgan JE, et al. **Br J Ophthalmol** 1998 Jun; 82(6):684–90

Retinal structure and visual acuity in a polyprotodont marsupial, the fat-tailed dunnart (Sminthopsis crassicaudata). Arrese C, et al. **Brain Behav Evol** 1999; 53(3):111–26 (154 ref.)

Retinal projections and retinal ganglion cell distribution patterns in a sturgeon (Acipenser transmontanus), a non-teleost actinopterygian fish. Ito H, et al. **Brain Behav Evol** 1999;53(3):127–41 (85 ref.)

Functional anatomy of the photoreceptor and second-order cell mosaics in the retina of Xenopus laevis. Wilhelm M, et al. **Cell Tissue Res** 1999 Jul;297(1):35–46

Retinal nerve fiber layer thickness in human eyes. Dichtl A, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jun; 237(6):474–9

Registration of stereo and temporal images of the retina. Ritter N, et al. **IEEE Trans Med Imaging** 1999 May; 18(5):404–18

Eye1 and Eye2: gene loci that modulate eye size, lens weight, and retinal area in the mouse. Zhou G, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):817–25

Descriptive information of topographic parameters computed at the optic nerve head with the Heidelberg retina tomograph. Saruhan A, et al. **J Glaucoma** 1998 Dec; 7(6):420–9

Visual system of the stalk-eyed fly, Cyrtodiopsis quinqueguttata (Diopsidae, Diptera): an anatomical investigation of unusual eyes. Buschbeck EK, et al. **J Neurobiol** 1998 Nov 15;37(3):449–68

Natural copepods are superior to enriched artemia nauplii as feed for halibut larvae (Hippoglossus hippoglossus) in terms of survival, pigmentation and retinal morphology: relation to dietary essential fatty acids. Shields RJ, et al. **J Nutr** 1999 Jun;129(6):1186–94

Reflectance and curvature of the inner limiting membrane at the foveola. Gorrand JM, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Jun;16(6):1229–37

Relationship between age and the thickness of the retinal nerve fiber layer in normal subjects. Funaki S, et al. **Jpn J Ophthalmol** 1999 May–Jun;43(3):180–5

Anatomical and neurochemical peculiarities of the pika retina: basis for lack of circadian rhythm of core temperature. Luo ZW, et al. **Neurosci Lett** 1999 Jan 4; 259(1):13–6

Scanning laser tomography: effect of change in keratometry values on retinal distance measures. Hosking S, et al. **Ophthalmic Physiol Opt** 1998 May;18(3):294–8

Noninvasive mapping of the normal retinal thickness at the posterior pole. Asrani S, et al. **Ophthalmology** 1999 Feb; 106(2):269–73

Tomographic reconstruction of the retina using a confocal scanning laser ophthalmoscope. Vieira P, et al. **Physiol Meas** 1999 Feb;20(1):1–19

MR imaging anatomy of the optic pathways. Tamraz JC, et al. **Radiol Clin North Am** 1999 Jan;37(1):1–36, ix (65 ref.)

Optical coherence tomography. Ripandelli G, et al. **Semin Ophthalmol** 1998 Dec;13(4):199–202 (12 ref.)

[Ophthalmological photo database Alcon OPHDA volume 1 is created!] **Klin Monatsbl Augenheilkd** 1999 Feb; 214(2):aA18–9 **(Ger)**

["On which the rays of visible objects have an effect": microscopic anatomy of the retina 1834–1841] Schickore J. **Medizinhist J** 1999;34(2):139–57 **(Ger)**

CHEMISTRY

Subcellular compartmentation of glutathione and glutathione precursors. A high resolution immunogold analysis of the outer retina of guinea pig. Huster D, et al. **Anat Embryol (Berl)** 1998 Oct;198(4):277–87

Colocalization of GLUT3 and choline acetyltransferase immunoreactivity in the rat retina. Watanabe T, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):505–11

Fluorometric analysis of intracellular sodium concentrations in isolated retinal horizontal cells. Andersen KA, et al. **Biol Bull** 1998 Oct;195(2):204–5

The pineal organ as a folded retina: immunocytochemical localization of opsins. Vigh B, et al. **Biol Cell** 1998 Dec; 90(9):653–9

GABA and GABA-transporter (GAT-1) immunoreactivities in the retina of the salmon (Salmo salar L.). Ekström P, et al. **Brain Res** 1998 Nov 23;812(1–2):179–85

D-aspartate localization in the rat pituitary gland and retina. Lee JA, et al. **Brain Res** 1999 Aug 14;838(1–2):193–9

Glut1 and glut3 expression, but not capillary density, is increased by cobalt chloride in rat cerebrum and retina. Badr GA, et al. **Brain Res Mol Brain Res** 1999 Jan 22; 64(1):24–33

Gene expression of the P2X receptors in the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Aug 31; 59(2):269–72

The levels of retinal mRNA for gefiltin, a neuronal intermediate filament protein, are regulated by the tectum during optic fiber regeneration in the goldfish. Niloff MS, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):78–89

Essential role of alpha 6 integrins in cortical and retinal lamination. Georges-Labouesse E, et al. **Curr Biol** 1998 Aug 27;8(17):983–6

Copurification of selected glycolytic enzymes with retinal S-antigen (arrestin) by hydroxyapatite agarose chromatography of bovine retina. Mirshahi M, et al. **Curr Eye Res** 1999 May;18(5):327–34

Ionotropic glutamate receptors in isolated horizontal cells of the rabbit retina. Blanco R, et al. **Eur J Neurosci** 1999 Mar;11(3):867–73

The dopamine D2 receptor subfamily in rat retina: ultrastructural immunogold and in situ hybridization studies. Derouiche A, et al. **Eur J Neurosci** 1999 Apr; 11(4):1391–402

Distribution of synaptic vesicle proteins in the mammalian retina identifies obligatory and facultative components of ribbon synapses. Von Kriegstein K, et al. **Eur J Neurosci** 1999 Apr;11(4):1335–48

Immunolocalization of CD44 in the dystrophic rat retina. Chaitin MH, et al. **Exp Eye Res** 1998 Sep;67(3):283–92

A novel member of the Ig superfamily, RPE7, expressed on the retinal pigment epithelial cell and Müller cell of the bovine retina. Yoshimoto M, et al. **Exp Eye Res** 1998 Sep; 67(3):331–40

Quantification of intraocular retained perfluorodecalin after macroscopic complete removal. Winter M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb;237(2):153–6

Evidence for upregulation and redistribution of vascular endothelial growth factor (VEGF) receptors flt-1 and flk-1 in the oxygen-injured rat retina. Robbins SG, et al. **Growth Factors** 1998;16(1):1–9

Colocalization of tight junction proteins, occludin and ZO-1, and glucose transporter GLUT1 in cells of the blood-ocular barrier in the mouse eye. Tserentsoodol N, et al. **Histochem Cell Biol** 1998 Dec;110(6):543–51

Stage specific glycosylation pattern for lactoseries carbohydrates in the developing chick retina. Andressen C, et al. **Histochem J** 1999 May;31(5):331–8

Fetuin in neurons of the retina and cerebellum during fetal and postnatal development of the rat. Kitchener PD, et al. **Int J Dev Neurosci** 1999 Feb;17(1):21–30

GABAergic system in the developing mammalian retina: dual sources of GABA at early stages of postnatal development. Yamasaki EN, et al. **Int J Dev Neurosci** 1999 Jun; 17(3):201–13

Excitatory amino acids and serotonin uptake blockers reveal two physiologically distinct serotonin systems in the retina of the skate, Raja erinacea. Schuette E, et al. **Int J Neurosci** 1998 Jul;95(1-2):115-32

The rhodopsin content of human eyes. Fulton AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1878-83

Identification of a nervous tissue-specific chondroitin sulfate proteoglycan, neurocan, in developing rat retina. Inatani M, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2350-9

Beta-arrestin-related proteins in ocular tissues. Nicolas-Léveque C, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1812-8

SPACR, a novel interphotoreceptor matrix glycoprotein in human retina that interacts with hyaluronan. Acharya S, et al. **J Biol Chem** 1998 Nov 20;273(47):31599-606

Reversed-phase high-performance liquid chromatographic identification of lutein and zeaxanthin stereoisomers in bovine retina using a C30 bonded phase. Dachtler M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):211-6

Immunochemical localization of calretinin in the retina of the turbot (Psetta maxima) during development. Doldan MJ, et al. **J Comp Neurol** 1999 Apr 19;406(4):425-32

Dopamine D1-receptor immunolocalization in goldfish retina. Mora-Ferrer C, et al. **J Comp Neurol** 1999 Sep 6; 411(4):705-14

Differential expression of ionotropic glutamate receptor subunits in the outer retina. Morigiwa K, et al. **J Comp Neurol** 1999 Mar 8;405(2):173-84

Molecular and pharmacological properties of GABA-rho subunits from white perch retina. Qian H, et al. **J Neurobiol** 1998 Nov 5;37(2):305-20

Intracellular polyamine levels are involved in NMDA-evoked nitric oxide production in chick retina cells. Ientile R, et al. **J Neurochem** 1999 Apr;72(4):1744-9

Postnatal development of GABAA receptor beta1, beta2/3, and gamma2 immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 Jul 15;57(2):185-94

Effect of diet on the fatty acid and molecular species composition of dog retina phospholipids. Delton-Vandenbroucke I, et al. **Lipids** 1998 Dec; 33(12):1187-93

Analysis of zeaxanthin distribution within individual human retinas. Landrum JT, et al. **Methods Enzymol** 1999; 299:457-67

Synoretin--A new protein belonging to the synuclein family. Surguchov A, et al. **Mol Cell Neurosci** 1999 Feb; 13(2):95-103

Identifying and mapping novel retinal-expressed ESTs from humans. Malone K, et al. **Mol Vis** 1999 May 4;5:5

The cloning of GRK7, a candidate cone opsin kinase, from cone- and rod-dominant mammalian retinas. Weiss ER, et al. **Mol Vis** 1998 Dec 8;4:27

Immunohistochemical localization of taurine in the retina of developing and adult human and adult monkey. Nag TC, et al. **Neurochem Int** 1998 Aug;33(2):195-200

Kainate-induced retina amacrine-like cell damage is mediated by AMPA receptors. Ferreira IL, et al. **Neuroreport** 1998 Oct 26;9(15):3471-5

[3H]acetylcholine release from rat amacrine-like neurons is inhibited by adenosine A1 receptor activation. Santos PF, et al. **Neuroreport** 1998 Nov 16;9(16):3693-8

Immunolocalization of the prion protein in scrapie affected rodent retinas. Foster J, et al. **Neurosci Lett** 1999 Jan 22; 260(1):1-4

Anatomical and neurochemical peculiarities of the pika retina: basis for lack of circadian rhythm of core temperature. Luo ZW, et al. **Neurosci Lett** 1999 Jan 4; 259(1):13-6

Localization of 5-hydroxytryptamine1A and 5-hydroxytryptamine7 receptors in rabbit ocular and brain tissues. Chidlow G, et al. **Neuroscience** 1998 Dec; 87(3):675-89

Developmental study of Müller cells in the rat retina using a new monoclonal antibody, RT10F7. Yamasaki EN, et al. **Neuroscience** 1998 Jul;85(2):627-36

Involvement of poly (ADP-ribose)-polymerase in the Pax-6 gene regulation in neuroretina. Plaza S, et al. **Oncogene** 1999 Jan 28;18(4):1041-51

Light and electron microscopical analysis of nitric oxide synthase-like immunoreactive neurons in the rat retina. Chun MH, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):379-89

Immunocytochemical localization of excitatory and inhibitory neurotransmitters in the zebrafish retina. Connaughton VP, et al. **Vis Neurosci** 1999 May-Jun; 16(3):483-90

Substance P-immunoreactive neurons in hamster retinas. Li HB, et al. **Vis Neurosci** 1999 May-Jun;16(3):475-81

5-HT2a receptors in the rabbit retina: potential presynaptic modulators. Pootanakit K, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):221-30

CYTOLOGY

Serotonergic neurons and processes in the adult and developing retina of Ichthyophis kohtaoensis (Amphibia; Gymnophiona). Dünker N. **Anat Embryol (Berl)** 1999 Jan; 199(1):35-43

Distribution and ultrastructural localization of pituitary adenylate cyclase-activating polypeptide (PACAP) and its receptor in the rat retina. Seki T, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:408-11

Selective propagation of retinal pericytes in mixed microvascular cell cultures using L-leucine-methyl ester. Lee CS, et al. **Biotechniques** 1998 Sep;25(3):482-8, 490-2, 494

A quantitative analysis of cells in the ganglion cell layer of the chick retina. Chen Y, et al. **Brain Behav Evol** 1999; 53(2):75-86

Response of microglial cells after a cryolesion in the peripheral proliferative retina of tench. Jimeno D, et al. **Brain Res** 1999 Jan 16;816(1):175-89

The retinal projections to the ventral and dorsal divisions of the medial terminal nucleus and mesencephalic reticular formation in the Japanese monkey (Macaca fuscata): a reinvestigation with cholera toxin B subunit as an anterograde tracer. Nakagawa S, et al. **Brain Res** 1998 Nov 2;809(2):198-203

Activation of NMDA receptors protects against glutamate neurotoxicity in the retina: evidence for the involvement of neurotrophins. Rocha M, et al. **Brain Res** 1999 May 8;827(1-2):79-92

Retina-derived microglial cells induce photoreceptor cell death in vitro. Roque RS, et al. **Brain Res** 1999 Jul 31; 836(1-2):110-9

Protective effects of vasoactive intestinal peptide against delayed glutamate neurotoxicity in cultured retina. Shoge K, et al. **Brain Res** 1998 Oct 26;809(1):127-36

A simple method to obtain retinal cell preparations highly enriched in specific cell types. Suitability for lipid metabolism studies. Guido ME, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):147-55

Expression of the P2X7-receptor subunit in neurons of the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):106-9

Effects of sciatic-conditioned medium on neonatal rat retinal cells in vitro. Torres PM, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1439-42

Morphogenesis and pattern formation in the retina of the crayfish Procambarus clarkii. Hafner GS, et al. **Cell Tissue Res** 1998 Sep;293(3):535-50

Morphology and synaptic connectivity of nitric oxide synthase-immunoreactive neurons in the guinea pig retina. Oh SJ, et al. **Cell Tissue Res** 1999 Sep;297(3):397-408

Changing patterns of spatial buffering of glutamate in developing rat retinae are mediated by the Müller cell glutamate transporter GLAST. Pow DV, et al. **Cell Tissue Res** 1999 Jul;297(1):57-66

The hNT human neuronal cell line survives and migrates into rat retina. Konobu T, et al. **Cell Transplant** 1998 Nov-Dec;7(6):549-58

Neuronal diversity: too many cell types for comfort? Stevens CF. **Curr Biol** 1998 Oct 8;8(20):R708-10 (7 ref.)

Microglia increase as photoreceptors decrease in the aging avian retina. Kunert KS, et al. **Curr Eye Res** 1999 Jun; 18(6):440-7

Ionotropic glutamate receptors in isolated horizontal cells of the rabbit retina. Blanco R, et al. **Eur J Neurosci** 1999 Mar;11(3):867-73

Changes in morphology and behaviour of retinal growth cones before and after crossing the midline of the mouse chiasm - a confocal microscopy study. Chan SO, et al. **Eur J Neurosci** 1998 Aug;10(8):2511-22

Apoptotic cell death of proliferating neuroepithelial cells in the embryonic retina is prevented by insulin. Diaz B, et al. **Eur J Neurosci** 1999 May;11(5):1624-32

Horizontal cells of the rabbit retina are non-selectively connected to the cones. Hack I, et al. **Eur J Neurosci** 1999 Jul;11(7):2261-74

Rapid desensitization converts prolonged glutamate release into a transient EPSC at ribbon synapses between retinal bipolar and amacrine cells. Maguire G. **Eur J Neurosci** 1999 Jan;11(1):353-62

AMPA-preferring receptors with high Ca2+ permeability mediate dendritic plasticity of retinal horizontal cells. Okada T, et al. **Eur J Neurosci** 1999 Mar;11(3):1085-95

Clonal expansion and cell dispersion in the developing mouse retina. Reese BE, et al. **Eur J Neurosci** 1999 Aug; 11(8):2965-78

Reaction of Müller cells after increased intraocular pressure in the rat retina. Kim IB, et al. **Exp Brain Res** 1998 Aug; 121(4):419-24

An immunohistochemical study of an autosomal dominant feline rod/cone dysplasia (Rdy cats). Chong NH, et al. **Exp Eye Res** 1999 Jan;68(1):51-7

The transplantation of human fetal neuroretinal cells in advanced retinitis pigmentosa patients: results of a long-term safety study. Das T, et al. **Exp Neurol** 1999 May; 157(1):58-68

Excitotoxic damage of retinal glial cells depends upon normal neuron-glial interactions. Heidinger V, et al. **Glia** 1998 Jun; 23(2):146-55

Immunogold evidence suggests that coupling of K+ siphoning and water transport in rat retinal Müller cells is mediated by a coenrichment of Kir4.1 and AQP4 in specific membrane domains. Nagelhus EA, et al. **Glia** 1999 Mar;26(1):47-54

K+ Channel density increases selectively in the endfoot of retinal glial cells during development of Rana catesbiana. Rojas L, et al. **Glia** 1999 Jan 15;25(2):199-203

MHC expression in syngeneic and allogeneic retinal cell transplants in the rat. Larsson J, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan;237(1):82-5

Contribution of microglia as passenger leukocytes to the fate of intraocular neuronal retinal grafts. Ma N, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2384-93

Calcium and protein kinase C regulate the actin cytoskeleton in the synaptic terminal of retinal bipolar cells. Job C, et al. **J Cell Biol** 1998 Dec 14;143(6):1661-72

Costratification of a population of bipolar cells with the direction-selective circuitry of the rabbit retina. Brown SP, et al. **J Comp Neurol** 1999 May 24;408(1):97-106

Nerve growth factor receptor TrkA is expressed by horizontal and amacrine cells during chicken retinal development. Karlsson M, et al. **J Comp Neurol** 1998 Oct 26;400(3):408-16

Analysis of the short wavelength-sensitive ("blue") cone mosaic in the primate retina: comparison of New World and Old World monkeys. Martin PR, et al. **J Comp Neurol** 1999 Mar 29;406(1):1-14

Antibody to calretinin stains AII amacrine cells in the rabbit retina: double-label and confocal analyses. Massey SC, et al. **J Comp Neurol** 1999 Aug 16;411(1):3-18

Spatiotemporal gradients of differentiation of chick retina types I and II cholinergic cells: identification of a common postmitotic cell population. Prada F, et al. **J Comp Neurol** 1999 Aug 2;410(3):457-66

Müller (glial) cell development in vivo and in retinal explant cultures: morphology and electrophysiology, and the effects of elevated ammonia. Bringmann A, et al. **J Hirnforsch** 1998;39(2):193-206

Fibroblast growth factor receptor signaling in Xenopus retinal axon extension. Lom B, et al. **J Neurobiol** 1998 Dec; 37(4):633-41

Multipotential stem cells and progenitors in the vertebrate retina. Reh TA, et al. **J Neurobiol** 1998 Aug;36(2):206-20 (114 ref.)

Evidence for an antiapoptotic role of dopamine in developing retinal tissue. Varella MH, et al. **J Neurochem** 1999 Aug; 73(2):485-92

The major cell populations of the mouse retina. Jeon CJ, et al. **J Neurosci** 1998 Nov 1;18(21):8936-46

Immunohistological studies of metabotropic glutamate receptor subtype 6-deficient mice show no abnormality of retinal cell organization and ganglion cell maturation. Tagawa Y, et al. **J Neurosci** 1999 Apr 1;19(7):2568-79

A role for tectal midline glia in the unilateral containment of retinocollicular axons. Wu DY, et al. **J Neurosci** 1998 Oct 15;18(20):8344-55

A fluorescent double stain for visualization of neural tissue by confocal laser scanning microscopy. Kröger RH, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):87-92

Anti-recoverin antibodies cause the apoptotic death of mammalian photoreceptor cells in vitro. Chen W, et al. **J Neurosci Res** 1999 Sep 1;57(5):706-18

Unique retina cell phenotypes revealed by immunological analysis of recoverin expression in rat retina cells. McGinnis JF, et al. **J Neurosci Res** 1999 Jan 15; 55(2):252-60

The kinetics of exocytosis and endocytosis in the synaptic terminal of goldfish retinal bipolar cells. Neves G, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):181-202

Structure determines function of the retina, a neural center. 4. The 'duplex' nature of vision. Sjöstrand FS. **J Submicrosc Cytol Pathol** 1998 Oct;30(4):463-74 (88 ref.)

Morphological classification of ganglion cells in the central retina of chicks. Chen Y, et al. **J Vet Med Sci** 1999 May; 61(5):537-42

The nuclear receptor transcription factor, retinoid-related orphan receptor beta, regulates retinal progenitor proliferation. Chow L, et al. **Mech Dev** 1998 Oct; 77(2):149-64

Patch-clamp, ion-sensing, and glutamate-sensing techniques to study glutamate transport in isolated retinal glial cells. Billups B, et al. **Methods Enzymol** 1998;296:617-32

The golden age of retinal cell culture. Seigel GM. **Mol Vis** 1999 Apr 19;5:4 (157 ref.)

The GABA(C) receptor is present in cone-horizontal cell axon terminals isolated from catfish retina. Jung CS, et al. **Neurosci Lett** 1999 Feb 5;260(3):185-8

Characterization of spontaneous excitatory synaptic currents in newt retinal bipolar cells. Kawai F. **Neurosci Lett** 1999 Aug 13;271(1):49-52

Horizontal cells of the rat retina show choline acetyltransferase- and vesicular acetylcholine transporter-like immunoreactivities during early postnatal developmental stages. Kim IB, et al. **Neurosci Lett** 1998 Sep 4;253(2):83-6

Enzyme histochemical identification of microglial cells in the retina of a fish (Tinca tinca). Velasco A, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):101-4

Ca2+ regulation by the Na(+)-Ca2+ exchanger in retinal horizontal cells depolarized by L-glutamate. Hayashida Y, et al. **Neurosci Res** 1998 Jul;31(3):189-99

An optimal redox status for the survival of axotomized ganglion cells in the developing retina. Castagné V, et al. **Neuroscience** 1999;93(1):313-20

Developmental study of Müller cells in the rat retina using a new monoclonal antibody, RT10F7. Yamasaki EN, et al. **Neuroscience** 1998 Jul;85(2):627-36

Glutathione depletion causes an uncoupling effect on retinal horizontal cells through oxidative stress. Zhou ZY, et al. **Neuroscience** 1999;90(4):1493-9

Neural retinal cell transplantation: ideal versus reality [editorial] Berson EL, et al. **Ophthalmology** 1999 Mar; 106(3):445-6 (13 ref.)

The eyes of deep-sea fish. II. Functional morphology of the

retina. Wagner HJ, et al. **Prog Retin Eye Res** 1998 Oct; 17(4):637-85 (144 ref.)

Synaptic connectivity of two types of recoverin-labeled cone bipolar cells and glutamic acid decarboxylase immunoreactive amacrine cells in the inner plexiform layer of the rat retina. Chun MH, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):791-800

The cone/horizontal cell network: a possible site for color constancy. Kamermans M, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):787-97

Spectral sensitivity of the feedback signal from horizontal cells to cones in goldfish retina. Kraaij DA, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):799-808

Analysis of two types of cone bipolar cells in the retina of a New World monkey, the marmoset, Callithrix jacchus. Luo X, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):707-19

Identification and distribution of photoreceptor subtypes in the neotenic tiger salamander retina. Sherry DM, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1175-87

Comparison of the responses of AII amacrine cells in the dark- and light-adapted rabbit retina. Xin D, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):653-65

[Apoptotic changes after pressure-induced ischemia-reperfusion injury in the rat retina] Nishiyama Y, et al. **Nippon Ganka Gakkai Zasshi** 1998 Jul; 102(7):417-24 (Eng. Abstr.) **(Jpn)**

[Structure of the interrelations between retinal neuroglia and ganglion cells] Makarov FN, et al. **Morfologiia** 1999; 116(4):18-22 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Treatment of nonproliferative diabetic retinopathy with Defibrotide in noninsulin-dependent diabetes mellitus: a pilot study. Vingolo EM, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):315-20

Effect of acute acetyl-l-carnitine treatment on daytime melatonin synthesis in the rat. Olatunji-Bello II, et al. **Afr J Med Med Sci** 1997 Sep-Dec;26(3-4):175-7

Effects of methotrexate treatment on serum immunoreactivity of a patient with normal-pressure glaucoma. Fellman RL, et al. **Am J Ophthalmol** 1999 Jun;127(6):724-5

Taurine, glutamate and GABA modulate the outgrowth from goldfish retinal explants and its concentrations are affected by the crush of the optic nerve. Lima L, et al. **Amino Acids** 1998;15(3):195-209

Methanol intoxication with retinal injury by intravenous injection [letter] Wang JY, et al. **Ann Emerg Med** 1999 Aug;34(2):297-8

Canthaxanthine retinopathy. Espaillat A, et al. **Arch Ophthalmol** 1999 Mar;117(3):412-3

Hydroxychloroquine retinopathy. Maturi RK, et al. **Arch Ophthalmol** 1999 Sep;117(9):1262-3

l-Deprenyl, blocking apoptosis and regulating gene expression in cultured retinal neurons. Xu L, et al. **Biochem Pharmacol** 1999 Oct 1;58(7):1183-90

Insulin-mediated stimulation of ChAT and c-Jun in the developing retina neurons involves PI 3-kinase. Hausman RE, et al. **Biochem Soc Trans** 1998 Nov;26(4):S312

The network-selective actions of quinoxalines on the neurocircuitry operations of the rabbit retina. Cohen ED, et al. **Brain Res** 1999 Jun 12;831(1-2):206-28

The adenylate cyclase inhibitor MDL-12330A has a non-specific effect on glycine transport in Müller cells from the retina. Gadea A, et al. **Brain Res** 1999 Aug 14; 838(1-2):200-4

Sodium-dependent glutamate transport in Müller glial cells: regulation by phorbol esters. González MI, et al. **Brain Res** 1999 Jun 12;831(1-2):140-5

Taurine uptake activity in the rat retina: protein kinase C-independent inhibition by chelerythrine. Militante JD, et al. **Brain Res** 1999 Feb 13;818(2):368-74

Attenuation by PACAP of glutamate-induced neurotoxicity in cultured retinal neurons. Shoge K, et al. **Brain Res** 1999 Aug 21;839(1):66-73

High vulnerability of GABA-immunoreactive neurons to kainate in rat retinal cultures: correlation with the kainate-stimulated cobalt uptake. Yoon YH, et al. **Brain Res** 1999 Mar 27;823(1-2):33-41

Antibiotics and light responses in superfused bovine retina. Walter P, et al. **Cell Mol Neurobiol** 1999 Feb;19(1):87-92

Effect of a cGMP-specific phosphodiesterase inhibitor on retinal function. Estrade M, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):157-63

Influence of the antioxidants vitamin E and idebenone on retinal cell injury mediated by chemical ischemia, hypoglycemia, or oxidative stress. Rego AC, et al. **Free Radic Biol Med** 1999 Jun;26(11-12):1405-17

alpha2D/A-adrenergic receptor gene induction in the retina by phorbol ester: involvement of an AP-2 element. Venkataraman V, et al. **Genes Cells** 1999 Mar;4(3):161-73

Ability of retinal Müller glial cells to protect neurons against excitotoxicity in vitro depends upon maturation and neuron-glial interactions. Heidinger V, et al. **Glia** 1999 Feb 1;25(3):229-39

Müller cell swelling, glutamate uptake, and excitotoxic neurodegeneration in the isolated rat retina. Izumi Y, et al. **Glia** 1999 Feb 15;25(4):379-89

Fibrotic scar formation in central serous chorioretinopathy developed during systemic treatment with corticosteroids. Hooymans JM. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov;236(11):876-9

The effect of tranilast on experimental proliferative vitreoretinopathy. Ito S, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Aug;237(8):691-6

Tamoxifen retinopathy: does it really exist? Lazzaroni F, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep; 236(9):669-73

PEDF (pigment epithelium-derived factor) promotes increase and maturation of pigment granules in pigment epithelial cells in neonatal albino rat retinal cultures. Malchiodi-Albedi F, et al. **Int J Dev Neurosci** 1998 Aug; 16(5):423-32

Strychnine-insensitive [3H] glycine binding to synaptosomal membranes from the chick retina. Rodriguez-Contreras A, et al. **Int J Dev Neurosci** 1998 Aug;16(5):413-21

Ca2+ mobilization and capacitative Ca2+ entry regulate DNA synthesis in cultured chick retinal neuroepithelial cells. Sugioka M, et al. **Int J Dev Neurosci** 1999 Jun; 17(3):163-72

Intravitreal toxicology in rabbits of two preparations of 1-O-octadecyl-sn-glycerol-3-phosphonoformate, a sustained-delivery anti-CMV drug. Cheng L, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1487-95

Effects of photodynamic therapy using verteporfin on experimental choroidal neovascularization and normal retina and choroid up to 7 weeks after treatment. Husain D, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2322-31

BDNF attenuates retinal cell death caused by chemically induced hypoxia in rats. Ikeda K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2130-40

Neuroprotective effects of eliprodil in retinal excitotoxicity and ischemia. Kapin MA, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1177-82

N-methyl-D-aspartate (NMDA)--induced apoptosis in rat retina. Lam TT, et al. **Invest Ophthalmol Vis Sci** 1999 Sep; 40(10):2391-7

Suppression of retinal neovascularization by the NF-kappaB inhibitor pyrrolidine dithiocarbamate in mice. Yoshida A, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1624-9

Perfluorodecalin modifies the pattern of cell arrangement and induces loss of neurites in rat retinal cultures. Malchiodi-Albedi F, et al. **J Biomed Mater Res** 1998 Sep 15;41(4):608-13

Myosin translocation in retinal pericytes during free-radical induced apoptosis. Shojaee N, et al. **J Cell Biochem** 1999 Oct 1;75(1):118-29

Kainate activation of horizontal, bipolar, amacrine, and ganglion cells in the rabbit retina. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):65-76

Pigment epithelium-derived factor protects cultured retinal neurons against hydrogen peroxide-induced cell death. Cao W, et al. **J Neurosci Res** 1999 Sep 15;57(6):789-800

Pregnenolone sulfate modulates NMDA receptors, inducing and potentiating acute excitotoxicity in isolated retina. Guarneri P, et al. **J Neurosci Res** 1998 Dec 15;54(6):787-97

Influence of nicotine and cotinine on retinal phospholipase A2 and its significance to macular function. Sastry BV, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):447-58

Influence of halothane on phospholipase A2 and enzymatic methylations in the rat retinal membranes. Sastry BV, et al. **J Ocul Pharmacol Ther** 1999 Apr;15(2):165-78

Pharmacological characterization of [3H]-Ifenprodil binding to polyamine binding sites on rabbit and rat retinal homogenates: role in neuroprotection? Sharif NA, et al. **J Ocul Pharmacol Ther** 1999 Jun;15(3):271-81

Improvement of ocular blood flow and retinal functions with puerarin analogs. Xuan B, et al. **J Ocul Pharmacol Ther** 1999 Jun;15(3):207-16

Effects of some N-nitropyrazole derivatives on ocular blood flow and retinal function recovery after ischemic insult. Xuan B, et al. **J Ocul Pharmacol Ther** 1999 Apr; 15(2):135-42

Effects of crocin analogs on ocular blood flow and retinal function. Xuan B, et al. **J Ocul Pharmacol Ther** 1999 Apr; 15(2):143-52

Cyclic 3',5'-guanosine monophosphate synthesis induced by atrial natriuretic peptide, C-type natriuretic peptide, and nitric oxide in the rat retina. Moriwaki Y, et al. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):269-74

Retinal side-effects of sildenafil [letter] [see comments] Vobig MA, et al. **Lancet** 1999 Jan 30;353(9150):375. Comment in: Lancet 1999 Jan 30;353(9150):340-1.

Retinal side-effects of sildenafil [letter; comment] Vobig MA. **Lancet** 1999 Apr 24;353(9162):1442. Comment on: Lancet 1999 Jan 30;353(9150):340-1.

No cause for alarm over retinal side-effects of sildenafil [comment] [see comments] Zrenner E. **Lancet** 1999 Jan 30; 353(9150):340-1. Comment on: Lancet 1999 Jan 30;353(9150):375. Comment in: Lancet 1999 Apr 24;353(9162):1442.

The effects of dietary alpha-linolenic acid compared with docosahexaenoic acid on brain, retina, liver, and heart in the guinea pig. Abedin L, et al. **Lipids** 1999 May; 34(5):475-82

Tolerability and safety of 0.1% diclofenac plus 0.3% tobramycin fixed-dose ophthalmic solution: a randomized, comparative, controlled study in healthy volunteers. Salvá P, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr; 21(3):203-8

Reduction of fibronectin expression by intravitreal administration of antisense oligonucleotides. Roy S, et al. **Nat Biotechnol** 1999 May;17(5):476-9

Insulin-stimulated taurine uptake in rat retina and retinal pigment epithelium. Salceda R. **Neurochem Int** 1999 Oct; 35(4):301-6

Spermine inhibits [3H]glycine binding at the NMDA receptors from plexiform layers of chick retina. Calderón F, et al. **Neurochem Res** 1998 Nov;23(11):1363-9

Distinct glycolysis inhibitors determine retinal cell sensitivity to glutamate-mediated injury. Rego AC, et al. **Neurochem Res** 1999 Mar;24(3):351-8

Kainate-induced retina amacrine-like cell damage is mediated by AMPA receptors. Ferreira IL, et al. **Neuroreport** 1998 Oct 26;9(15):3471-5

Magnesium plus mexiletine inhibit energy usage and protect retinas against ischemia. Maynard KI, et al. **Neuroreport** 1998 Dec 21;9(18):4141-4

Elevation of melatonin in chicken retina by 5-hydroxytryptophan: differential light/dark responses. Thomas KB, et al. **Neuroreport** 1998 Dec 21;9(18):4041-4

Biphasic effects of melatonin on the propagation of excitation waves in the chicken retina. Ebert E, et al. **Neurosci Lett** 1999 Jun 11;268(1):37-40

Zinc modulation of AMPA receptors may be relevant to splice variants in carp retina. Shen Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):177-80

Influence of gamma-aminobutyric acid on retinal cells excitotoxicity upon glucose deprivation. Rego AC, et al. **Neurosci Res** 1999 May;34(1):31-6

Cooperation between glutathione depletion and protein synthesis inhibition against naturally occurring neuronal death. Castagné V, et al. **Neuroscience** 1998 Oct; 86(3):895-902

Experimental intravitreal application of ciprofloxacin in rabbits. Wiechens B, et al. **Ophthalmologica** 1999; 213(2):120-8

Verteporfin photodynamic therapy retreatment of normal retina and choroid in the cynomolgus monkey. Reinke MH, et al. **Ophthalmology** 1999 Oct;106(10):1915-23

Detection of color vision defects in chloroquine retinopathy. Vu BL, et al. **Ophthalmology** 1999 Sep;106(9):1799-803; discussion 1804

The effects of two stereoisomers of N-acetylcysteine on photochemical damage by UVA and blue light in rat retina. Busch EM, et al. **Photochem Photobiol** 1999 Sep; 70(3):353-8

Lead-induced alterations in retinal cGMP phosphodiesterase trigger calcium overload, mitochondrial dysfunction and rod photoreceptor apoptosis. Fox DA, et al. **Toxicol Lett** 1998 Dec 28;102-103:359-61

Suppression of voltage-dependent K+ currents in retinal bipolar cells by ascorbate. Fan SF, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):141-8

A dissection of the electroretinogram from the isolated rat retina with microelectrodes and drugs. Green DG, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):727-41

Horizontal cell glutamate receptor modulation by NO: mechanisms and functional implications for the first visual synapse. McMahon DG, et al. **Vis Neurosci** 1999 May-Jun; 16(3):425-33

Memantine reduces alterations to the mammalian retina, in situ, induced by ischemia. Osborne NN. **Vis Neurosci** 1999 Jan-Feb;16(1):45-52

Sub-millimolar cobalt selectively inhibits the receptive field surround of retinal neurons. Vigh J, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):159-68

Effects of adenosinergic agents on the vascular resistance and on the optic nerve response in the perfused cat eye. Kaelin-Lang A, et al. **Vision Res** 1999 Mar;39(6):1059-68

[Chloroquine- and chlorphentermin-induced lipidosis in rat retina] Bredehorn T, et al. **Klin Monatsbl Augenheilkd** 1999 Mar;214(3):178-82 (Eng. Abstr.) **(Ger)**

[Effects of a new excitotoxic amino acid, dysiherbaine, on cultured Müller cells] Minei R. **Nippon Ganka Gakkai Zasshi** 1999 Aug;103(8):584-90 (Eng. Abstr.) **(Jpn)**

[Circadian changes in levels of free amino acids in rat retina, and regulation of them by melatonin] Pozdeev NV, et al. **Dokl Akad Nauk** 1998 Sep;362(3):424-6 **(Rus)**

[Melatonin lowers the threshold of light sensitivity of the human retina] Arushanian EB, et al. **Eksp Klin Farmakol** 1999 Mar-Apr;62(2):58-60 (Eng. Abstr.) **(Rus)**

[The effect of caffeine on the color-discriminating function of the retina in volunteers] Ovanesov KB. **Eksp Klin Farmakol** 1998 Nov-Dec;61(6):17-9 (Eng. Abstr.) **(Rus)**

EMBRYOLOGY

The expression of GABA(A) receptors during the development of the rabbit retina. Hu M, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):515-20

Proliferation of actively migrating ameboid microglia in the developing quail retina. Marín-Teva JL, et al. **Anat Embryol (Berl)** 1999 Sep;200(3):289-300

In vitro analysis of a mammalian retinal progenitor that gives rise to neurons and glia. Ahmad I, et al. **Brain Res** 1999 Jun 12;831(1-2):1-10

Effects of neurotrophins on embryonic retinal outgrowth. Atkinson J, et al. **Brain Res Dev Brain Res** 1999 Feb 5; 112(2):173-80

Cell death precedes rod neurogenesis in embryonic teleost retinal development. Hoke KL, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):143-6

Transient accumulation of retinoblastoma/E2F-1 protein complexes correlates with the onset of neuronal

differentiation in the developing quail neural retina. Kastner A, et al. **Cell Growth Differ** 1998 Oct;9(10):857–67

The roles of intrinsic and extrinsic cues and bHLH genes in the determination of retinal cell fates. Cepko CL. **Curr Opin Neurobiol** 1999 Feb;9(1):37–46 (55 ref.)

Eph receptors and ephrins in neural development. O'Leary DD, et al. **Curr Opin Neurobiol** 1999 Feb;9(1):65–73 (74 ref.)

Activin family members in the developing chick retina: expression patterns, protein distribution, and in vitro effects. Belecky-Adams TL, et al. **Dev Biol** 1999 Jun 1; 210(1):107–23

Retinal neurogenesis: the formation of the initial central patch of postmitotic cells. Hu M, et al. **Dev Biol** 1999 Mar 15; 207(2):309–21

Animal–vegetal asymmetries influence the earliest steps in retina fate commitment in Xenopus. Moore KB, et al. **Dev Biol** 1999 Aug 1;212(1):25–41

Differential expression of AP-2alpha and AP-2beta in the developing chick retina: repression of R-FABP promoter activity by AP-2. Bisgrove DA, et al. **Dev Dyn** 1999 Mar; 214(3):195–206

Cloning of zebrafish vsx1: expression of a paired-like homeobox gene during CNS development. Passini MA, et al. **Dev Genet** 1998;23(2):128–41

not really finished is crucial for development of the zebrafish outer retina and encodes a transcription factor highly homologous to human Nuclear Respiratory Factor-1 and avian Initiation Binding Repressor. Becker TS, et al. **Development** 1998 Nov;125(22):4369–78

Extrinsic and intrinsic factors control the genesis of amacrine and cone cells in the rat retina. Belliveau MJ, et al. **Development** 1999 Feb;126(3):555–66

Math5 encodes a murine basic helix-loop-helix transcription factor expressed during early stages of retinal neurogenesis. Brown NL, et al. **Development** 1998 Dec;125(23):4821–33

The netrin receptor frazzled is required in the target for establishment of retinal projections in the Drosophila visual system. Gong Q, et al. **Development** 1999 Apr;126(7):1451–6

A role for the fibroblast growth factor receptor in cell fate decisions in the developing vertebrate retina. McFarlane S, et al. **Development** 1998 Oct;125(20):3967–75

oko meduzy mutations affect neuronal patterning in the zebrafish retina and reveal cell–cell interactions of the retinal neuroepithelial sheet. Malicki J, et al. **Development** 1999 Mar;126(6):1235–46

Regulation of EGF receptor signaling establishes pattern across the developing Drosophila retina. Spencer SA, et al. **Development** 1998 Dec;125(23):4777–90

Changes in morphology and behaviour of retinal growth cones before and after crossing the midline of the mouse chiasm – a confocal microscopy study. Chan SO, et al. **Eur J Neurosci** 1998 Aug;10(8):2511–22

Positional specificities of retinal growth cones in the mouse superior colliculus. Llirbat B, et al. **Eur J Neurosci** 1999 Jun;11(6):2103–13

Clonal expansion and cell dispersion in the developing mouse retina. Reese BE, et al. **Eur J Neurosci** 1999 Aug; 11(8):2965–78

Rek, an Axl/Tyro3-related receptor-class tyrosine kinase, is expressed in Müller glia and differentiating neural subpopulations in the avian retina. Fiordalisi JJ, et al. **Exp Eye Res** 1999 Feb;68(2):201–10

Localization of Six4/AREC3 in the developing mouse retina; implications in mammalian retinal development. Niiya A, et al. **Exp Eye Res** 1998 Dec;67(6):699–707

Connexin alpha1 and cell proliferation in the developing chick retina. Becker DL, et al. **Exp Neurol** 1999 Apr; 156(2):326–32

The transplantation of human fetal neuroretinal cells in advanced retinitis pigmentosa patients: results of a long-term safety study. Das T, et al. **Exp Neurol** 1999 May; 157(1):58–68

The retinal pigment epithelium as a developmental regulator of the neural retina. Jeffery G. **Eye** 1998;12 (Pt 3b):499–503 (32 ref.)

Synthesis and differentially regulated processing of proinsulin in developing chick pancreas, liver and neuroretina. Alarcón C, et al. **FEBS Lett** 1998 Oct 9;436(3):361–6

Morphometric study of the human embryonic retina. Styszyński A, et al. **Folia Morphol (Warsz)** 1998; 57(3):213–20

Involvement of P2 purinoceptors in the regulation of DNA synthesis in the neural retina of chick embryo. Sugioka M, et al. **Int J Dev Neurosci** 1999 Apr;17(2):135–44

Expression of antioxidant protective proteins in the rat retina during prenatal and postnatal development. Chen W, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):744–51

Identification of a nervous tissue-specific chondroitin sulfate proteoglycan, neurocan, in developing rat retina. Inatani M, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2350–9

Changes in axon arrangement in the retinofugal [correction of retinofungal] pathway of mouse embryos: confocal microscopy study using single- and double-dye label. Chan SO, et al. **J Comp Neurol** 1999 Apr 5;406(2):251–62

Nerve growth factor receptor TrkA is expressed by horizontal and amacrine cells during chicken retinal development. Karlsson M, et al. **J Comp Neurol** 1998 Oct 26;400(3):408–16

Domains of regulatory gene expression and the developing optic chiasm: correspondence with retinal axon paths and candidate signaling cells. Marcus RC, et al. **J Comp Neurol** 1999 Jan 18;403(3):346–58

Naturally occurring cell death and migration of microglial precursors in the quail retina during normal development. Marín-Teva JL, et al. **J Comp Neurol** 1999 Sep 20; 412(2):255–75

Developmental appearance of oligodendrocytes in the embryonic chick retina. Ono K, et al. **J Comp Neurol** 1998 Aug 31;398(3):309–22

Spatiotemporal gradients of differentiation of chick retina types I and II cholinergic cells: identification of a common postmitotic cell population. Prada F, et al. **J Comp Neurol** 1999 Aug 2;410(3):457–66

Early retinal development in the zebrafish, Danio rerio: light and electron microscopic analyses. Schmitt EA, et al. **J Comp Neurol** 1999 Feb 22;404(4):515–36

Expression of receptor tyrosine phosphatases during development of the retinotectal projection of the chick. Ledig MM, et al. **J Neurobiol** 1999 Apr;39(1):81–96

Origins of the extracellular glutamate released during total metabolic blockade in the immature retina. Zeevalk GD, et al. **J Neurochem** 1998 Dec;71(6):2373–81

c-jun Is dispensable for developmental cell death and axogenesis in the retina. Herzog KH, et al. **J Neurosci** 1999 Jun 1;19(11):4349–59

Voltage-activated calcium currents in rat retinal ganglion cells in situ: changes during prenatal and postnatal development. Schmid S, et al. **J Neurosci** 1999 May 1; 19(9):3486–94

Prenatal development of retinogeniculate axons in the macaque monkey during segregation of binocular inputs. Snider CJ, et al. **J Neurosci** 1999 Jan 1;19(1):220–8

Developmentally regulated spontaneous activity in the embryonic chick retina. Wong WT, et al. **J Neurosci** 1998 Nov 1;18(21):8839–52

Expression of transforming growth factor-beta superfamily receptors in developing rat eyes. Yamada H, et al. **Jpn J Ophthalmol** 1999 Jul-Aug;43(4):290–4

Dorsal and ventral rentinoic territories defined by retinoic acid synthesis, break-down and nuclear receptor expression. McCaffery P, et al. **Mech Dev** 1999 Jul; 85(1–2):203–14

Dorsal and ventral retinal territories defined by retinoic acid synthesis, break-down and nuclear receptor expression. McCaffery P, et al. **Mech Dev** 1999 Apr;82(1–2):119–30

Development of the retina. Malicki J. **Methods Cell Biol** 1999; 59:273–99 (102 ref.)

Misexpression of cNSCL1 disrupts retinal development. Li CM, et al. **Mol Cell Neurosci** 1999 Jul;14(1):17–27

Developmental regulation of group III metabotropic glutamate receptors modulating adenylate cyclase activity in the avian retina. Sampaio LF, et al. **Neurochem Int** 1998 Oct;33(4):367–74

The role of retinal waves and synaptic normalization in retinogeniculate development. Eglen SJ. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28; 354(1382):497–506

ENZYMOLOGY

Serine/threonine protein phosphatases type 1, 2A and 2C in vertebrate retinae. Selke D, et al. **Acta Anat (Basel)** 1998; 162(2–3):151–6

The three-dimensional structures of two isoforms of nucleoside diphosphate kinase from bovine retina. Ladner JE, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1127–35

Purification, crystallization and preliminary crystallographic analysis of bovine cytosolic brain-type creatine kinase. Loew A, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):989–90

Molecular cloning of retinal oxidase/aldehyde oxidase cDNAs from rabbit and mouse livers and functional expression of recombinant mouse retinal oxidase cDNA in Escherichia coli. Huang DY, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):264–72

Three kinds of guanylate cyclase expressed in medaka photoreceptor cells in both retina and pineal organ. Hisatomi O, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):216–20

Kinetic properties of the human liver cytosolic aldehyde dehydrogenase for retinal isomers. Bhat PV, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):195–7

Nucleoside diphosphate kinase from bovine retina: purification, subcellular localization, molecular cloning, and three-dimensional structure. Abdulaev NG, et al. **Biochemistry** 1998 Oct 6;37(40):13958–67

Delineation of two functionally distinct gammaPDE binding sites on the bovine retinal cGMP phosphodiesterase by a mutant gammaPDE subunit. Berger AL, et al. **Biochemistry** 1999 Jan 26;38(4):1293–9

Possible mechanism for the decrease of mitochondrial aspartate aminotransferase activity in ischemic and hypoxic rat retinas. Endo S, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):385–96

Subcellular localization and characterization of nucleoside diphosphate kinase in rat retina: effect of diabetes. Kowluru A, et al. **Biosci Rep** 1998 Aug;18(4):187–98

Histochemical localisation of mitochondrial enzyme activity in human optic nerve and retina. Andrews RM, et al. **Br J Ophthalmol** 1999 Feb;83(2):231–5

Two groups of TH-like immunoreactive neurons in the frog (Rana pipiens) retina. Kicliter E, et al. **Brain Res** 1999 Jan 16;816(1):149–57

Localization of mRNAs for CDP-diacylglycerol synthase and phosphatidylinositol synthase in the brain and retina of developing and adult rats. Saito S, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):21–30

Bovine arylalkylamine N-acetyltransferase activity correlated with mRNA expression in pineal and retina. Craft CM, et al. **Brain Res Mol Brain Res** 1999 Feb 19; 65(1):44–51

On the inhibition of camel retina acetylcholinesterase activity by cycloheximide in vitro. al-Jafari AA, et al. **Cell Biol Toxicol** 1998 Jun;14(3):167–74

Superoxide dismutases in retinal degeneration of WBN/Kob rat. Ogawa T, et al. **Curr Eye Res** 1998 Nov;17(11):1067–73

Effects of brain-derived neurotrophic factor on the development of NADPH-diaphorase/nitric oxide synthase-positive amacrine cells in the rodent retina. Cellerino A, et al. **Eur J Neurosci** 1999 Aug;11(8):2824–34

Regulation of calcium/calmodulin-dependent protein kinase II in the adult rat retina is mediated by ionotropic glutamate receptors. Laabich A, et al. **Exp Eye Res** 1999 Jun; 68(6):703–13

Predominance of MMP-1 and MMP-2 in epiretinal and subretinal membranes of proliferative vitreoretinopathy. Webster L, et al. **Exp Eye Res** 1999 Jan;68(1):91–8

Isolation of cDNA clones encoding two isoforms of nucleoside diphosphate kinase from bovine retina. Karaschuk G, et al. **FEBS Lett** 1999 Apr 16;449(1):83–7

A novel form of rhodopsin kinase from chicken retina and pineal gland. Zhao X, et al. **FEBS Lett** 1999 Jul 2; 454(1–2):115–21

Immunohistochemical localization of xanthine oxidase in human retina. Fox NE, et al. **Free Radic Biol Med** 1998 Apr;24(6):900–5

Modification of enzymatic antioxidants in retinal microvascular cells by glucose or advanced glycation end products. Paget C, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):121–9

CuZn superoxide dismutase transgenic retinal transplants. Grasbon T, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):336–41

Ultracytochemical study of guanylate cyclases A and B in light- and dark-adapted retinas. Spreca A, et al. **Histochem J** 1999 Jul;31(7):477–83

Expression of antioxidant protective proteins in the rat retina during prenatal and postnatal development. Chen W, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):744–51

Apoptotic retinal neuronal death by ischemia-reperfusion is executed by two distinct caspase family proteases. Katai N, et al. **Invest Ophthalmol Vis Sci** 1999 Oct; 40(11):2697–705

Regulation of gamma-glutamylcysteine synthetase subunit gene expression in retinal Müller cells by oxidative stress. Lu SC, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1776–82

Selective degradation of nonsense beta-phosphodiesterase mRNA in the heterozygous rd mouse. Yan W, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2529–36

Kinetic constants for the inhibition of camel retinal acetylcholinesterase by the carbamate insecticide lannate. Kamal MA, et al. **J Biochem Mol Toxicol** 1999;13(1):41–6

Activation of retinal guanylyl cyclase-1 by Ca2+-binding proteins involves its dimerization. Yu H, et al. **J Biol Chem** 1999 May 28;274(22):15547–55

Genetic targeting: the serotonin N-acetyltransferase promoter imparts circadian expression selectively in the pineal gland and retina of transgenic rats. Burke Z, et al. **J Neurochem** 1999 Oct;73(4):1343–9

Both the neuronal and inducible isoforms contribute to upregulation of retinal nitric oxide synthase activity by brain-derived neurotrophic factor. Klöcker N, et al. **J Neurosci** 1999 Oct 1;19(19):8517–27

Disruption of a retinal guanylyl cyclase gene leads to cone-specific dystrophy and paradoxical rod behavior. Yang RB, et al. **J Neurosci** 1999 Jul 15;19(14):5889–97

Differential localization and expression of alpha and beta isoenzymes of protein kinase C in the rat retina. Kosaka J, et al. **J Neurosci Res** 1998 Dec 1;54(5):655–63

NADPH-diaphorase activity in normally developing and intracranially transplanted retinas. Chen ST, et al. **Neurochem Res** 1999 Aug;24(8):1051–7

[3H]acetylcholine release from rat amacrine-like neurons is inhibited by adenosine A1 receptor activation. Santos PF, et al. **Neuroreport** 1998 Nov 16;9(16):3693–8

Diurnal rhythms of tryptophan hydroxylase activity in Xenopus laevis retina: opposing phases in photoreceptors and inner retinal neurons. Valenciano AI, et al. **Neuroreport** 1999 Jul 13;10(10):2131–5

Horizontal cells of the rat retina show choline acetyltransferase- and vesicular acetylcholine transporter-like immunoreactivities during early postnatal developmental stages. Kim IB, et al. **Neurosci Lett** 1998 Sep 4;253(2):83–6

Immunocytochemical localization of nitric oxide synthase in the mammalian retina. Kim IB, et al. **Neurosci Lett** 1999 Jun 4;267(3):193–6

Circadian expression of serotonin N-acetyltransferase mRNA in the rat retina. Sakamoto K, et al. **Neurosci Lett** 1998 Apr 3;245(2):113–6

Molecular cloning of serotonin N-acetyltransferase gene from the mouse and its daily expression in the retina. Sakamoto K, et al. **Neurosci Lett** 1998 Jul 10;250(3):181–4

In situ localization of neuronal nitric oxide synthase (nNOS)

mRNA in the rat retina. Shin DH, et al. **Neurosci Lett** 1999 Jul 23;270(1):53–5
Expression of Nedd2/ICH–1 (caspase–2) in the developing rat retina. Kojima M, et al. **Neurosci Res** 1998 Jul; 31(3):211–7
Melatonin synthesis pathway: circadian regulation of the genes encoding the key enzymes in the chicken pineal gland and retina. Bernard M, et al. **Reprod Nutr Dev** 1999 May–Jun;39(3):325–34 (44 ref.)
Localization of nitric oxide synthase in the tree shrew retina. Cao QL, et al. **Vis Neurosci** 1999 May–Jun;16(3):399–409
Localization of nitric oxide synthase, NADPH diaphorase and soluble guanylyl cyclase in adult rabbit retina. Haberecht MF, et al. **Vis Neurosci** 1998 Sep–Oct; 15(5):881–90
Soluble guanylate cyclase and nitric oxide synthase in synaptosomal fractions of bovine retina. Margulis A, et al. **Vis Neurosci** 1998 Sep–Oct;15(5):867–73
Endothelial nitric oxide synthase (eNOS) is localized to Müller cells in all vertebrate retinas. Haverkamp S, et al. **Vision Res** 1999 Jul;39(14):2299–303
[Ser/Thr–phosphatases from bovine retina: detection of cDNA coding for the catalytic subunit of the gamma–isoform PP2B and two homologs of rdgC/PPEF] Kutuzov MA, et al. **Bioorg Khim** 1998 Feb;24(2):151–3 (Eng. Abstr.) **(Rus)**
[The effect of Hirudo therapy on a change in the activity of retinal transport adenosinetriphosphatases in the rabbit with photic eye damage] Musaev Galbinur PI, et al. **Vestn Oftalmol** 1999 May–Jun;115(3):26–8 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Expression of GABA transporter subtypes (GAT1, GAT3) in the developing rabbit retina. Hu M, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):261–5
Genetics of epithelial polarity and pattern in the Drosophila retina. Reifegerste R, et al. **Bioessays** 1999 Apr;21(4):275–85 (63 ref.)
Characterization of the cell death promoter, Bad, in the developing rat retina and forebrain. Rickman DW, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):41–7
Changing patterns of spatial buffering of glutamate in developing rat retinae are mediated by the Müller cell glutamate transporter GLAST. Pow DV, et al. **Cell Tissue Res** 1999 Jul;297(1):57–66
Microglia increase as photoreceptors decrease in the aging avian retina. Kunert KS, et al. **Curr Eye Res** 1999 Jun; 18(6):440–7
Rod photoreceptor maturation does not vary with retinal eccentricity in mammalian retina. Timmers AM, et al. **Curr Eye Res** 1999 Jun;18(6):393–402
Disrupted retinal development in the embryonic belly spot and tail mutant mouse. Tang Q, et al. **Dev Biol** 1999 Mar 1;207(1):239–55
Genetic evidence for cell death mediated by nerve growth factor and the neurotrophin receptor p75 in the developing mouse retina and spinal cord. Frade JM, et al. **Development** 1999 Feb;126(4):683–90
decapentaplegic and wingless are regulated by eyes absent and eyegone and interact to direct the pattern of retinal differentiation in the eye disc. Hazelett DJ, et al. **Development** 1998 Sep;125(18):3741–51
NeuroD regulates multiple functions in the developing neural retina in rodent. Morrow EM, et al. **Development** 1999 Jan; 126(1):23–36
Heat shock proteins in retinal neurogenesis: identification of the PM1 antigen as the chick Hsc70 and its expression in comparison to that of other chaperones. Morales AV, et al. **Eur J Neurosci** 1998 Oct;10(10):3237–45
Stage specific glycosylation pattern for lactoseries carbohydrates in the developing chick retina. Andressen C, et al. **Histochem J** 1999 May;31(5):331–8
Horizontal cell differentiation in the retina of the Brazilian opossum, Monodelphis domestica. Lyser KM, et al. **Int J Dev Neurosci** 1999 Jun;17(3):225–37
Expression patterns of neurturin and its receptor components in developing and degenerative mouse retina. Jomary C, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):568–74
Effect of targeted expression of clusterin in photoreceptor cells on retinal development and differentiation. Jomary C, et al. **J Cell Sci** 1999 May;112 (Pt 10):1455–64
Pattern formation by retinal afferents in the ferret lateral geniculate nucleus: developmental segregation and the role of N–methyl–D–aspartate receptors. Hahm JO, et al. **J Comp Neurol** 1999 Aug 23;411(2):327–45
Naturally occurring cell death and migration of microglial precursors in the quail retina during normal development. Marín–Teva JL, et al. **J Comp Neurol** 1999 Sep 20; 412(2):255–75
Altered development of dopaminergic cells in the retina of weaver mice. Savy C, et al. **J Comp Neurol** 1999 Oct 4; 412(4):656–68
Ontogenetic changes in the retinal photoreceptor mosaic in a fish, the black bream, Acanthopagrus butcheri. Shand J, et al. **J Comp Neurol** 1999 Sep 20;412(2):203–17
Müller (glial) cell development in vivo and in retinal explant cultures: morphology and electrophysiology, and the effects of elevated ammonia. Bringmann A, et al. **J Hirnforsch** 1998;39(2):193–206
Ion conductances related to development of repetitive firing in mouse retinal ganglion neurons in situ. Rothe T, et al. **J Neurobiol** 1999 Feb 5;38(2):191–206
Evidence for an antiapoptotic role of dopamine in developing retinal tissue. Varella MH, et al. **J Neurochem** 1999 Aug; 73(2):485–92
Distribution of mitochondria within Müller cells–II. Post–natal development of the rabbit retinal periphery in vivo and in vitro: dependence on oxygen supply. Germer A, et al. **J Neurocytol** 1998 Jun;27(5):347–59
Voltage–activated calcium currents in rat retinal ganglion cells in situ: changes during prenatal and postnatal development. Schmid S, et al. **J Neurosci** 1999 May 1; 19(9):3486–94
A reliable method for organ culture of neonatal mouse retina with long–term survival. Ogilvie JM, et al. **J Neurosci Methods** 1999 Feb 1;87(1):57–65
Developmental expression of the neurotransmitter transporter NTT4. Jursky F, et al. **J Neurosci Res** 1999 Jan 1;55(1):24–35
Postnatal development of dopamine D1 receptor immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 May 15;56(4):397–404
Postnatal development of GABAA receptor beta1, beta2/3, and gamma2 immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 Jul 15;57(2):185–94
Marsupial retinocollicular system shows differential expression of messenger RNA encoding EphA receptors and their ligands during development. Vidovic M, et al. **J Neurosci Res** 1999 Jul 15;57(2):244–54
The nuclear receptor transcription factor, retinoid–related orphan receptor beta, regulates retinal progenitor proliferation. Chow L, et al. **Mech Dev** 1998 Oct; 77(2):149–64
Neurotrophins and other growth factors in the generation of retinal neurons. Frade JM, et al. **Microsc Res Tech** 1999 May 15–Jun 1;45(4–5):243–51 (72 ref.)
Immunohistochemical localization of taurine in the retina of developing and adult human and adult monkey. Nag TC, et al. **Neurochem Int** 1998 Aug;33(2):195–200
Expression of Nedd2/ICH–1 (caspase–2) in the developing rat retina. Kojima M, et al. **Neurosci Res** 1998 Jul; 31(3):211–7
An optimal redox status for the survival of axotomized ganglion cells in the developing retina. Castagné V, et al. **Neuroscience** 1999;93(1):313–20
Developmental expression of calretinin immunoreactivity in the human retina and a comparison with two other EF–hand calcium binding proteins. Nag TC, et al. **Neuroscience** 1999;91(1):41–50
GABA as a developmental neurotransmitter in the outer plexiform layer of the vertebrate retina. Redburn–Johnson D. **Perspect Dev Neurobiol** 1998;5(2–3):261–7 (57 ref.)
Mechanisms involved in development of retinotectal connections: roles of Eph receptor tyrosine kinases, NMDA receptors and nitric oxide. Ernst AF, et al. **Prog Brain Res** 1998;118:115–31 (131 ref.)
Apoptosis in developing retinal tissue. Linden R, et al. **Prog Retin Eye Res** 1999 Mar;18(2):133–65 (260 ref.)
Retinal development, degeneration and functional restitution [editorial] Baehr W, et al. **Vision Res** 1999 Jul; 39(15):2439–40

IMMUNOLOGY

Immunological problems of transplantation into the subretinal space. Enzmann V, et al. **Acta Anat (Basel)** 1998; 162(2–3):178–83 (51 ref.)
Association of antiretinal antibodies and cystoid macular edema in patients with retinitis pigmentosa. Heckenlively JR, et al. **Am J Ophthalmol** 1999 May;127(5):565–73
Human antiretinal antibodies in toxoplasma retinochoroiditis. Whittle RM, et al. **Br J Ophthalmol** 1998 Sep;82(9):1017–21
Autoantibodies to small heat shock proteins in glaucoma. Tezel G, et al. **Invest Ophthalmol Vis Sci** 1998 Nov; 39(12):2277–87
Antibodies to recoverin induce apoptosis of photoreceptor and bipolar cells in vivo. Adamus G, et al. **J Autoimmun** 1998 Oct;11(5):523–33
Anti–enolase–alpha autoantibodies in cancer–associated retinopathy: epitope mapping and cytotoxicity on retinal cells. Adamus G, et al. **J Autoimmun** 1998 Dec;11(6):671–7
Intranasal administration of retinal antigens induces transient T cell activation and apoptosis within drainage lymph nodes but not spleen. Laliotou B, et al. **J Autoimmun** 1999 May;12(3):145–55
Retinal expression of a neo–self antigen, beta–galactosidase, is not tolerogenic and creates a target for autoimmune uveoretinitis. Gregerson DS, et al. **J Immunol** 1999 Jul 15; 163(2):1073–80
Immune privilege in the retina. Gregerson DS. **Ocul Immunol Inflamm** 1998 Dec;6(4):257–67 (68 ref.)

INJURIES

Cataracts, bilateral macular holes, and rhegmatogenous retinal detachment induced by lightning. Espaillat A, et al. **Am J Ophthalmol** 1999 Feb;127(2):216–7
Methanol intoxication with retinal injury by intravenous injection [letter] Wang JY, et al. **Ann Emerg Med** 1999 Aug;34(2):297–8
Management of posterior segment intraocular foreign bodies: 14 years' experience. De Souza S, et al. **Can J Ophthalmol** 1999 Feb;34(1):23–9
Thresholds for visible lesions in the primate eye produced by ultrashort near–infrared laser pulses. Cain CP, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2343–9
Diode laser–induced thermal damage evaluation on the retina with a liposome dye system. Desmettre TJ, et al. **Lasers Surg Med** 1999;24(1):61–8
Light–induced damage in the retina: differential effects of dimethylthiourea on photoreceptor survival, apoptosis and DNA oxidation. Organisciak DT, et al. **Photochem Photobiol** 1999 Aug;70(2):261–8
Eye injuries caused by cow horns. Goldblum D, et al. **Retina** 1999;19(4):314–7
[Diode laser–induced retinal thermal damage control with a liposome–dye system] Desmettre T, et al. **J Fr Ophtalmol** 1998 Dec;21(10):714–22 (Eng. Abstr.) **(Fre)**
[Value of fluorescein angiography in control of retinal thermal damage due to diode laser] Desmettre T, et al. **J Fr Ophtalmol** 1999 Aug–Sep;22(7):730–7 (Eng. Abstr.) **(Fre)**
[Modern methods of medical rehabilitation in traumatic detachment of retina] Kiseleva OA, et al. **Vestn Oftalmol** 1998 Nov–Dec;114(6):15–7 (Eng. Abstr.) **(Rus)**
[Restoration of retinal functional activity after surgical treatment of its detachment in patients with different eyeball injuries] Zueva MV, et al. **Vestn Oftalmol** 1998 Jul–Aug;114(4):13–5 (Eng. Abstr.) **(Rus)**

METABOLISM

Calcium–binding proteins and nitric oxide in retinal function and disease. Müller F, et al. **Acta Anat (Basel)** 1998; 162(2–3):142–50 (109 ref.)
The expression of GABA(A) receptors during the development of the rabbit retina. Hu M, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):515–20
Expression of GABA transporter subtypes (GAT1, GAT3) in the adult rabbit retina. Hu M, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):255–60
Direct evidence of Na+/Ca2+ exchange in squid rhabdomeric membranes. Bauer PJ, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C558–65
Localization of IgG in the normal and dystrophic rat retina after laser lesions. Chu Y, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):117–25
Expression of Pax–6 mRNA in the retinal degeneration (rd) mouse. Jones SE, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):236–40
The human retina and retinal pigment epithelium are abundant sources of vitronectin mRNA. Ozaki S, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):524–9
cDNA cloning and functional expression of the dolphin retinal rod Na–Ca+K exchanger NCKX1: comparison with the functionally silent bovine NCKX1. Cooper CB, et al. **Biochemistry** 1999 May 11;38(19):6276–83
Mutagenesis studies of human red opsin: trp–281 is essential for proper folding and protein–retinal interactions. Nakayama TA, et al. **Biochemistry** 1998 Dec 15; 37(50):17487–94
Purine biosynthesis de novo in bovine retina: purification and characterization of amidophosphoribosyl transferase and phosphoribosyl pyrophosphate synthetase. Kian IA, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):648–51
Human retina contains polyamine sensitive [3H]–ifenprodil binding sites: implications for neuroprotection? Sharif NA, et al. **Br J Ophthalmol** 1999 Feb;83(2):236–40
Modulation of extracellular GABA levels in the retina by activation of glial P2X–purinoceptors. Neal MJ, et al. **Br J Pharmacol** 1998 May;124(2):317–22
Transferrin binding protein is expressed by oligodendrocytes in the avian retina. Cho SS, et al. **Brain Res** 1999 Jan 16; 816(1):229–33
Spatio–temporal analysis of light–induced Fos expression in the retina of rd mutant mice. Huerta JJ, et al. **Brain Res** 1999 Jul 10;834(1–2):122–7
Postnatal development of parvalbumin immunoreactive amacrine cells in the rabbit retina. Casini G, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):107–17
Inhibition of beta1–integrin expression reduces clone size during early retinogenesis. Skeith A, et al. **Brain Res Dev Brain Res** 1999 Aug 5;116(1):123–6
Circadian expression of tryptophan hydroxylase mRNA in the chicken retina. Chong NW, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):243–50
Expression patterns of voltage–dependent calcium channel alpha 1 subunits (alpha 1A–alpha 1E) mRNA in rat retina. Kamphuis W, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):209–20
Melatonin receptor RNA expression in Xenopus retina. Wiechmann AF, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):297–303
Developmental basis of retinal–specific induction of cancer by RB mutation. Gallie BL, et al. **Cancer Res** 1999 Apr 1;59(7 Suppl):1731s–1735s (25 ref.)
A retinal axon fascicle uses spitz, an EGF receptor ligand, to construct a synaptic cartridge in the brain of Drosophila. Huang Z, et al. **Cell** 1998 Nov 25;95(5):693–703
Expression of the microphthalmia–associated basic helix–loop–helix leucine zipper transcription factor Mi in avian neuroretina cells induces a pigmented phenotype. Planque N, et al. **Cell Growth Differ** 1999 Jul;10(7):525–36
Increased expression of low–affinity NGF receptor in rat retinal Müller cells after ischemia and reperfusion. Tomita

H, et al. **Cell Struct Funct** 1998 Aug;23(4):201–7
Modulation of VEGF production by pH and glucose in retinal Müller cells. Brooks SE, et al. **Curr Eye Res** 1998 Sep;17(9):875–82
Quantitative estimation of RNA transcripts suggests persistence of Pax-6 expression in the postembryonic chick retina. Bhat SJ, et al. **Dev Neurosci** 1999;21(2):140–6
NeuroD regulates multiple functions in the developing neural retina in rodent. Morrow EM, et al. **Development** 1999 Jan; 126(1):23–36
Glucose transport in brain and retina: implications in the management and complications of diabetes. Kumagai AK. **Diabetes Metab Res Rev** 1999 Jul–Aug;15(4):261–73 (163 ref.)
Does pattern electroretinogram spatial tuning alteration in Parkinson's disease depend on motor disturbances or retinal dopaminergic loss? Peppe A, et al. **Electroencephalogr Clin Neurophysiol** 1998 Apr; 106(4):374–82
Dystrophin and beta-dystroglycan in photoreceptor terminals from normal and mdx3Cv mouse retinae. Blank M, et al. **Eur J Neurosci** 1999 Jun;11(6):2121–33
Localization of synapse-associated proteins during postnatal development of the rat retina. Koulen P. **Eur J Neurosci** 1999 Jun;11(6):2007–18
Differential acetylcholine and GABA release from cultured chick retina cells. Santos PF, et al. **Eur J Neurosci** 1998 Aug;10(8):2723–30
Functional characteristics of skate connexin35, a member of the gamma subfamily of connexins expressed in the vertebrate retina. White TW, et al. **Eur J Neurosci** 1999 Jun;11(6):1883–90
Reactive oxygen species as mediators of photoreceptor apoptosis in vitro. Carmody RJ, et al. **Exp Cell Res** 1999 May 1;248(2):520–30
An adenosine analogue inhibits NMDA receptor-mediated responses in bipolar cells of the rat retina [letter] Costenla AR, et al. **Exp Eye Res** 1999 Mar;68(3):367–70
Identification and immunolocalization of actin cytoskeletal components in light- and dark-adapted octopus retinas. De Velasco B, et al. **Exp Eye Res** 1999 Jun;68(6):725–37
Characterization of a novel C-kinesin (KIFC3) abundantly expressed in vertebrate retina and RPE. Hoang E, et al. **Exp Eye Res** 1999 Jul;69(1):57–68
Protection from oxidant injury by sodium-dependent GSH uptake in retinal Müller cells. Kannan R, et al. **Exp Eye Res** 1999 May;68(5):609–16
Basic FGF-induced down-regulation of IGF-I mRNA in cultured rat Müller cells. Li F, et al. **Exp Eye Res** 1999 Jan;68(1):19–27
Rabbit retinal Müller cells undergo antigenic changes in response to experimentally induced proliferative vitreoretinopathy. McGillem GS, et al. **Exp Eye Res** 1999 May;68(5):617–27
Glutamate receptor subunit GluR2 and NMDAR1 immunoreactivity in the retina of macaque monkeys with experimental glaucoma does not identify vulnerable neurons. Hof PR, et al. **Exp Neurol** 1998 Oct;153(2):234–41
Abnormalities of retinal metabolism in diabetes or experimental galactosemia. VI. Comparison of retinal and cerebral cortex metabolism, and effects of antioxidant therapy. Kowluru RA, et al. **Free Radic Biol Med** 1999 Feb;26(3–4):371–8
Modification of enzymatic antioxidants in retinal microvascular cells by glucose or advanced glycation end products. Paget C, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):121–9
Effect of growth factors on expression of integrin subtypes in microvascular endothelial cells isolated from bovine retinas. Enaida H, et al. **Fukushima J Med Sci** 1998 Jun; 44(1):43–52
Palmitoyl-protein thioesterase gene expression in the developing mouse brain and retina: implications for early loss of vision in infantile neuronal ceroid lipofuscinosis. Zhang Z, et al. **Gene** 1999 Apr 29;231(1–2):203–11
Co-injection of adenovirus expressing CTLA4-Ig prolongs adenovirally mediated lacZ reporter gene expression in the mouse retina. Ali RR, et al. **Gene Ther** 1998 Nov; 5(11):1561–5
A mammalian ortholog of Drosophila timeless, highly expressed in SCN and retina, forms a complex with mPER1. Takumi T, et al. **Genes Cells** 1999 Jan;4(1):67–75
Six3 overexpression initiates the formation of ectopic retina. Loosli F, et al. **Genes Dev** 1999 Mar 15;13(6):649–54
Localization of retina/pineal-expressed sequences: identification of novel candidate genes for inherited retinal disorders. Sohocki MM, et al. **Genomics** 1999 May 15; 58(1):29–33
Characterization of glycine transport in cultured Müller glial cells from the retina. Gadea A, et al. **Glia** 1999 Jun; 26(4):273–9
Localization of p75 neurotrophin receptor in the retina of the adult SD rat: an immunocytochemical study at light and electron microscopic levels. Hu B, et al. **Glia** 1998 Oct;24(2):187–97
Sodium-bicarbonate cotransport in retinal astrocytes and Müller cells of the rat. Newman EA. **Glia** 1999 Jun; 26(4):302–8
K+ Channel density increases selectively in the endfoot of retinal glial cells during development of Rana catesbiana. Rojas L, et al. **Glia** 1999 Jan 15;25(2):199–203
Characterization of SPACR, a sialoprotein associated with cones and rods present in the interphotoreceptor matrix of the human retina: immunological and lectin binding analysis. Acharya S, et al. **Glycobiology** 1998 Oct; 8(10):997–1006
Neurotrophic growth factors stimulate glycosaminoglycan synthesis in identified retinal cell populations in vitro. Normand G, et al. **Glycobiology** 1998 Dec;8(12):1227–35
Immunohistochemical localization of Na+/Ca2+ exchanger in human retina and retinal pigment epithelium. Loeffler KU, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):929–33
The effect of acetazolamide on passive and active transport of fluorescein across the blood-retina barrier in retinitis pigmentosa complicated by macular oedema. Moldow B, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):881–9
Evaluation of adeno-associated virus-mediated gene transfer into the rat retina by clinical fluorescence photography. Rolling F, et al. **Hum Gene Ther** 1999 Mar 1;10(4):641–8
Cloning and characterization of a secreted frizzled-related protein that is expressed by the retinal pigment epithelium. Chang JT, et al. **Hum Mol Genet** 1999 Apr;8(4):575–83
RPGR transcription studies in mouse and human tissues reveal a retina-specific isoform that is disrupted in a patient with X-linked retinitis pigmentosa. Kirschner R, et al. **Hum Mol Genet** 1999 Aug;8(8):1571–8
Encapsidated adenovirus mini-chromosome-mediated delivery of genes to the retina: application to the rescue of photoreceptor degeneration. Kumar-Singh R, et al. **Hum Mol Genet** 1998 Nov;7(12):1893–900
Expression patterns of dystrophin products, especially of apodystrophin-1/Dp71, in the neural retina of Amphibian urodele Pleurodeles waltl. Arsanto JP, et al. **Int J Dev Biol** 1999 Jan;43(1):75–83
Cell adhesion molecules in subretinal fluid: soluble forms of VCAM-1 (vascular cell adhesion molecule-1) and L-selectin. Toker E, et al. **Int Ophthalmol** 1998–99; 22(2):71–6
Subnormal retinal oxygenation response precedes diabetic-like retinopathy. Berkowitz BA, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2100–5
Differential distribution of dystrophins in rat retina. Claudepierre T, et al. **Invest Ophthalmol Vis Sci** 1999 Jun; 40(7):1520–9
Light and choroidal PO2 modulation of intraretinal oxygen levels in an avascular retina. Cringle SJ, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2307–13
Histamine immunoreactive axons in the macaque retina. Gastinger MJ, et al. **Invest Ophthalmol Vis Sci** 1999 Feb; 40(2):487–95
Immunohistochemical localization of somatostatin receptor subtypes sst1 and sst2 in the rat retina. Helboe L, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2376–82
Cell-specific expression of tubby gene family members (tub, Tulp1,2, and 3) in the retina. Ikeda S, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2706–12
Expression of proteoglycan decorin in neural retina. Inatani M, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1783–91
Human Müller cells express VEGF183, a novel spliced variant of vascular endothelial growth factor. Jingjing L, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):752–9
Expression patterns of neurturin and its receptor components in developing and degenerative mouse retina. Jomary C, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):568–74
Zinc deficiency and oxidative stress in the retina of pigmented rats. Miceli MV, et al. **Invest Ophthalmol Vis Sci** 1999 May; 40(6):1238–44
Effects of acetazolamide on passive and active transport of fluorescein across the normal BRB. Moldow B, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1770–5
Expression of folate receptor alpha in the mammalian retinol pigmented epithelium and retina. Smith SB, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):840–8
Localization of cannabinoid CB1 receptors in the human anterior eye and retina. Straiker AJ, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2442–8
Intraretinal oxygen distribution in the rat with graded systemic hyperoxia and hypercapnia. Yu DY, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2082–7
Stimulation with N-methyl-D-aspartate or kainic acid increases cyclic guanosine monophosphate-like immunoreactivity in turtle retina: involvement of nitric oxide synthase. Blute TA, et al. **J Comp Neurol** 1999 Feb 1;404(1):75–85
Localization of metabotropic glutamate receptors mGluR1alpha and mGluR2/3 in the cat retina. Cai W, et al. **J Comp Neurol** 1999 May 10;407(3):427–37
Differential regulation of ciliary neurotrophic factor receptor-alpha expression in all major neuronal cell classes during development of the chick retina. Fuhrmann S, et al. **J Comp Neurol** 1998 Oct 19;400(2):244–54
Gap junction protein connexin43 is heterogeneously expressed among glial cells in the adult rabbit retina. Johansson K, et al. **J Comp Neurol** 1999 May 10; 407(3):395–403
Effects of retinal dopamine depletion on the growth of the fish eye. Kröger RH, et al. **J Comp Physiol [A]** 1999 Apr; 184(4):403–12
Immunoreactivity to synaptosomal-associated protein-25 in developing rat retinas: effects of a glutamate agonist and retinal transplantation to a host brain. Chen ST, et al. **J Hirnforsch** 1998;39(2):253–62
Developmental expression of dynamin in the chick retinotectal system. Bergmann M, et al. **J Histochem Cytochem** 1999 Oct;47(10):1297–306
Multistratified expression of polysialic acid and its relationship to VAChT-containing neurons in the inner plexiform layer of adult rat retina. Sawaguchi A, et al. **J Histochem Cytochem** 1999 Jul;47(7):919–28
Indoleamine-accumulating cell death and endogenous glial cell reaction induced by 5,7-dihydroxytryptamine in the cat retina. Jo SM, et al. **J Korean Med Sci** 1998 Aug; 13(4):414–22
Effect of GABA on melatonin content in golden hamster retina. Jaliffa CO, et al. **J Neurochem** 1999 May; 72(5):1999–2005
Origins of the extracellular glutamate released during total metabolic blockade in the immature retina. Zeevalk GD, et al. **J Neurochem** 1998 Dec;71(6):2373–81
Day and night dysfunction in intraretinal melatonin and related indoleamines metabolism, correlated with the development of glaucoma-like disorder in an avian model. Dkhissi O, et al. **J Neuroendocrinol** 1998 Nov;10(11):863–9
Sodium action potentials are not required for light-evoked release of GABA or glycine from retinal amacrine cells. Bieda MC, et al. **J Neurophysiol** 1999 Jun;81(6):3092–5
Light-induced calcium influx into retinal axons is regulated by presynaptic nicotinic acetylcholine receptor activity in vivo. Edwards JA, et al. **J Neurophysiol** 1999 Feb; 81(2):895–907
A neuronal-specific mammalian homolog of the Drosophila retinal degeneration B gene with expression restricted to the retina and dentate gyrus. Lu C, et al. **J Neurosci** 1999 Sep 1;19(17):7317–25
Developmental expression of the neurotransmitter transporter NTT4. Jursky F, et al. **J Neurosci Res** 1999 Jan 1;55(1):24–35
Postnatal development of dopamine D1 receptor immunoreactivity in the rat retina. Koulen P. **J Neurosci Res** 1999 May 15;56(4):397–404
Unique retina cell phenotypes revealed by immunological analysis of recoverin expression in rat retina cells. McGinnis JF, et al. **J Neurosci Res** 1999 Jan 15; 55(2):252–60
Reciprocity between light intensity and rhodopsin concentration across the rat retina. Williams TP, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):869–74
Day/night variation of tryptophan hydroxylase and serotonin N-acetyltransferase mRNA levels in the ovine pineal gland and retina. Privat K, et al. **J Pineal Res** 1999 May; 26(4):193–203
Expression of transforming growth factor-beta superfamily receptors in developing rat eyes. Yamada H, et al. **Jpn J Ophthalmol** 1999 Jul–Aug;43(4):290–4
Alteration of the GABAergic neuronal system of the retina and superior colliculus in streptozotocin-induced diabetic rat. Honda M, et al. **Kobe J Med Sci** 1998 Feb;44(1):1–8
A hypothesis to explain the reduced blood levels of docosahexaenoic acid in inherited retinal degenerations caused by mutations in genes encoding retina-specific proteins. Anderson RE, et al. **Lipids** 1999;34 Suppl:S235–7 (25 ref.)
A role for cerebral and retinal endothelial cells in the supply of docosahexaenoic acid to the brain and the retina? Delton-Vandenbroucke I, et al. **Lipids** 1999;34 Suppl:S117
Dorsal and ventral retinal territories defined by retinoic acid synthesis, break-down and nuclear receptor expression. McCaffery P, et al. **Mech Dev** 1999 Apr;82(1–2):119–30
Gene expression of insulin-like growth factor-I, its receptor and binding proteins in retina under hypoxic conditions. Averbukh E, et al. **Metabolism** 1998 Nov;47(11):1331–6
Functional alpha6-containing nicotinic receptors are present in chick retina. Vailati S, et al. **Mol Pharmacol** 1999 Jul; 56(1):11–9
Regional expression of disease-related genes in human and monkey retina. Bernstein SL, et al. **Mol Vis** 1998 Nov 5; 4:24
Novel expression pattern of interphotoreceptor retinoid-binding protein (IRBP) in the adult and developing zebrafish retina and RPE. Stenkamp DL, et al. **Mol Vis** 1998 Dec 2;4:26
Structure and developmental expression of the mouse RGR opsin gene. Tao L, et al. **Mol Vis** 1998 Dec 2;4:25
Mutations in a novel retina-specific gene cause autosomal dominant retinitis pigmentosa. Sullivan LS, et al. **Nat Genet** 1999 Jul;22(3):255–9
Kainate receptors mediate synaptic transmission between cones and 'Off' bipolar cells in a mammalian retina. DeVries SH, et al. **Nature** 1999 Jan 14;397(6715):157–60
Reduced brain creatine in gyrate atrophy of the choroid and retina with hyperornithinemia [see comments] Nänto-Salonen K, et al. **Neurology** 1999 Jul 22;53(2):303–7 . Comment in: Neurology 1999 Jul 22;53(2):249–50.
Functional consequences of coincident expression of EphA receptors and ephrin-A ligands. McLaughlin T, et al. **Neuron** 1999 Apr;22(4):636–9
Characterization of the electrogenic Na+ -K+ pump in bipolar cells isolated from carp retina. Zushi I, et al. **Neuropharmacology** 1998 Aug;37(8):1053–61
Effects of bFGF and TGFbeta on the expression of amyloid precursor and B-cell lymphoma protooncogene proteins in the rat retina. Chen ST, et al. **Neuroreport** 1999 Feb 25;10(3):509–12
Expression of CNTF in Müller cells of the rat retina after

pressure-induced ischemia. Ju WK, et al. **Neuroreport** 1999 Feb 5;10(2):419-22

A gustatory cyclic nucleotide-gated channels CNGgust, is expressed in the retina. Misaka T, et al. **Neuroreport** 1999 Mar 17;10(4):743-6

Elevation of melatonin in chicken retina by 5-hydroxytryptophan: differential light/dark responses. Thomas KB, et al. **Neuroreport** 1998 Dec 21;9(18):4041-4

NMDA induces BDNF expression in the albino rat retina in vivo. Vecino E, et al. **Neuroreport** 1999 Apr 6; 10(5):1103-6

The GABA(C) receptor is present in cone-horizontal cell axon terminals isolated from catfish retina. Jung CS, et al. **Neurosci Lett** 1999 Feb 5;260(3):185-8

Differential localization of GABA(A) receptor alpha and beta subunits in the hamster retina and relationship with glutamic acid decarboxylase immunoreactivity. Lee YL, et al. **Neurosci Lett** 1998 May 22;248(1):29-32

Expression of the gene for the retinal protein peripherin in the pineal gland of humans and Djungarian hamsters (Phodopus sungorus). Lerchl A, et al. **Neurosci Lett** 1998 Dec 24;258(3):187-9

Centrifugal Phe-Met-Arg-Phe-NH2-like immunoreactive innervation of the retina in a non-teleost bony fish, Lepisosteus osseus. Malz CR, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):33-6

Divalent cations modulate glutamate receptors in retinal horizontal cells of the perch (Perca fluviatilis). Schmidt KF. **Neurosci Lett** 1999 Mar 5;262(2):109-12

Expression of gicerin, a cell adhesion molecule, in the abnormal retina in silver plumage color mutation of Japanese quail (Coturnix japonica). Tsukamoto Y, et al. **Neurosci Lett** 1999 Apr 30;266(1):53-6

Desensitization of AMPA receptors on horizontal cells isolated from crucian carp retina. Lu T, et al. **Neurosci Res** 1998 Jun;31(2):123-35

Cellular and subcellular expression of monocarboxylate transporters in the pigment epithelium and retina of the rat. Bergersen L, et al. **Neuroscience** 1999 Apr;90(1):319-31

Alterations of potassium channel activity in retinal Müller glial cells induced by arachidonic acid. Bringmann A, et al. **Neuroscience** 1998 Oct;86(4):1291-306

Expression of mt1 melatonin receptor in rat retina: evidence for multiple cell targets for melatonin. Fujieda H, et al. **Neuroscience** 1999;93(2):793-9

Evidence of metabotropic glutamate receptor subtypes found on catfish horizontal and bipolar retinal neurons. Gafka AC, et al. **Neuroscience** 1999;90(4):1403-14

Distribution of monocarboxylate transporters MCT1 and MCT2 in rat retina. Gerhart DZ, et al. **Neuroscience** 1999; 92(1):367-75

Developmental expression of calretinin immunoreactivity in the human retina and a comparison with two other EF-hand calcium binding proteins. Nag TC, et al. **Neuroscience** 1999;91(1):41-50

S100B and S100A1 proteins in bovine retina:their calcium-dependent stimulation of a membrane-bound guanylate cyclase activity as investigated by ultracytochemistry. Rambotti MG, et al. **Neuroscience** 1999;92(3):1089-101

Glutathione depletion causes an uncoupling effect on retinal horizontal cells through oxidative stress. Zhou ZY, et al. **Neuroscience** 1999;90(4):1493-9

Age-related accumulation of free polyunsaturated fatty acids in human retina. Nourooz-Zadeh J, et al. **Ophthalmic Res** 1999;31(4):273-9

The glutathione content of retinal Müller (glial) cells: the effects of aging and of application of free-radical scavengers. Paasche G, et al. **Ophthalmic Res** 1998; 30(6):351-60

Retinoic acid increases in the retina of the chick with form deprivation myopia. Seko Y, et al. **Ophthalmic Res** 1998; 30(6):361-7

Stable transgene expression in rod photoreceptors after recombinant adeno-associated virus-mediated gene transfer to monkey retina. Bennett J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9920-5

Gbeta5 prevents the RGS7-Galphao interaction through binding to a distinct Ggamma-like domain found in RGS7 and other RGS proteins. Levay K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2503-7

A G protein gamma subunit-like domain shared between RGS11 and other RGS proteins specifies binding to Gbeta5 subunits. Snow BE, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13307-12

Calcium-independent release of neurotransmitter in the retina: a "copernican" viewpoint change. Piccolino M, et al. **Prog Retin Eye Res** 1999 Jan;18(1):1-38 (89 ref.)

Pigment epithelium-derived factor: a potent inhibitor of angiogenesis. Dawson DW, et al. **Science** 1999 Jul 9; 285(5425):245-8

Nitric oxide modulates cGMP levels in neurons of the inner and outer retina in opposite ways. Gotzes S, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):945-55

Gamma-atrial natriuretic peptide 1-25 is found in bipolar cells in turtle and rat retinas. Haverkamp S, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):771-9

Distribution of GABA-like immunoreactive neurons and fibers in the central visual nuclei and retina of frog, Rana pipiens. Li Z, et al. **Vis Neurosci** 1998 Nov-Dec; 15(6):995-1006

A comparison of the inhibitory actions of glycine and GABA on acetylcholine release from the rabbit retina. Linn DM. **Vis Neurosci** 1998 Nov-Dec;15(6):1057-65

Rapid calcium-current kinetics in synaptic terminals of goldfish retinal bipolar neurons. Mennerick S, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1051-6

Reduced glutamate uptake by retinal glial cells under ischemic/hypoxic conditions. Napper GA, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):149-58

Distribution of GABA(C)-like responses among acutely dissociated rat retinal neurons. Nelson R, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):179-90

Distribution of the glycine transporter glyt-1 in mammalian and nonmammalian retinae. Pow DV, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):231-9

Localization of AMPA-selective glutamate receptor subunits in the cat retina: a light- and electron-microscopic study. Qin P, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):169-77

Erratum: Temporal and spatial patterns of opsin gene expression in the zebrafish (Danio rerio): corrections with additions. Schmitt EA, et al. **Vis Neurosci** 1999 May-Jun; 16(3):601-5

Cloning and functional expression of a novel gap junction channel from the retina of Danio aquipinnatus. Wagner TL, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1137-44

Persistent transgene product in retina, optic nerve and brain after intraocular injection of rAAV. Dudus L, et al. **Vision Res** 1999 Jul;39(15):2545-53

Platelet-derived growth factor B-chain expression in the rat retina and optic nerve: distribution and changes after transection of the optic nerve. Mekada A, et al. **Vision Res** 1998 Oct;38(20):3031-9

[Expression of brain-derived neurotrophic factor gene in retina following vitreous tap] Sakai T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Apr;103(4):271-6 (Eng. Abstr.) **(Jpn)**

[The synthesis and effects of nitric oxide at the retinal level] Cruce M, et al. **Oftalmologia** 1998;42(2):9-12 (12 ref.) (Eng. Abstr.) **(Rum)**

[Inorganic phosphate is used for synthesis of phosphatidylinositol-4,5-diphosphate] [letter] Grigor'ev IV, et al. **Biofizika** 1998 Nov-Dec;43(6):1127-9 (Eng. Abstr.) **(Rus)**

[Cyclical changes in the rate of de novo purine biosynthesis in rat retina] Kiian IuA, et al. **Dokl Akad Nauk** 1999 Jul; 367(2):262-4 **(Rus)**

[Comparative assessment of antioxidant activity of para-aminobenzoic acid and emoxipin in retina] Akberova SI, et al. **Vestn Oftalmol** 1998 Nov-Dec;114(6):39-44 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Successful surgical removal of encapsulated subretinal cysticercus. Gupta A, et al. **Retina** 1998;18(6):563-6

[An attempt to extract an intraretinal nematode located in the papillomacular bundle] Meyer-Riemann W, et al. **Klin Monatsbl Augenheilkd** 1999 Feb;214(2):116-9 (Eng. Abstr.) **(Ger)**

[Chorio-retinal lesion in a young patient with severe vision loss] Castro FJ, et al. **Enferm Infecc Microbiol Clin** 1998 Nov;16(9):433-4 **(Spa)**

PATHOLOGY

Unilateral atypical fundus lesions with slow progression. Karma A, et al. **Acta Ophthalmol Scand** 1999 Jun; 77(3):359-63

Digital fundus imaging: a quality and cost comparison with 35-mm film. Prasad S, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):79-82

Detection of shallow detachments in central serous chorioretinopathy. Wang M, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):402-5

Induced acute ocular hypertension: mode of retinal cell degeneration. Pescosolido N, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):20-1

Left ventricular geometry as an independent predictor for extracardiac target organ damage in essential hypertension. Shigematsu Y, et al. **Am J Hypertens** 1998 Oct; 11(10):1171-7

Patterns of diabetic macular edema with optical coherence tomography. Otani T, et al. **Am J Ophthalmol** 1999 Jun; 127(6):688-93

Peripapillary atrophy in primary angle-closure glaucoma: a comparative study with primary open-angle glaucoma. Uchida H, et al. **Am J Ophthalmol** 1999 Feb;127(2):121-8

Microglia in the optic nerve head and the region of parapapillary chorioretinal atrophy in glaucoma. Neufeld AH. **Arch Ophthalmol** 1999 Aug;117(8):1050-6

The utility of entoptic perimetry as a screening test for cytomegalovirus retinitis. Plummer DJ, et al. **Arch Ophthalmol** 1999 Feb;117(2):202-7

Tissue effects of subclinical diode laser treatment of the retina. Pollack JS, et al. **Arch Ophthalmol** 1998 Dec; 116(12):1633-9

Short-wavelength automated perimetry and retinal nerve fiber layer evaluation in suspected cases of glaucoma. Polo V, et al. **Arch Ophthalmol** 1998 Oct;116(10):1295-8

Availability of color fundus photographs from previous visit affects practice patterns for patients with diabetes mellitus. Rosberger DF, et al. **Arch Ophthalmol** 1998 Dec; 116(12):1607-10

Expression of the VEGF gene family during retinal vaso-obliteration and hypoxia. Simpson DA, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):333-40

Sources of bias in studies of optic disc and retinal nerve fibre layer morphology. Garway-Heath DF, et al. **Br J Ophthalmol** 1998 Sep;82(9):986

Measurement of retinal nerve fibre layer by scanning laser polarimetry and high pass resolution perimetry in normal tension glaucoma with relatively high or low intraocular pressure. Shirakashi M, et al. **Br J Ophthalmol** 1999 Mar; 83(3):353-7

Retinal thickness variation in the diabetic patient measured by the retinal thickness analyser. Weinberger D, et al. **Br J Ophthalmol** 1998 Sep;82(9):1003-6

Degeneration and gliosis in rat retina and central nervous system following 3,3'-iminodipropionitrile exposure. Seoane A, et al. **Brain Res** 1999 Jul 3;833(2):258-71

Evidence of decreased adhesion between the neural retina and retinal pigmented epithelium of the Mitfvit (vitiligo) mutant mouse. Bora N, et al. **Cell Tissue Res** 1999 Jan; 295(1):65-75

Intraocular transplantation of E1A-immortalized retinal precursor cells. Seigel GM, et al. **Cell Transplant** 1998 Nov-Dec;7(6):559-66

Absence of p53 delays apoptotic photoreceptor cell death in the rds mouse. Ali RR, et al. **Curr Eye Res** 1998 Sep; 17(9):917-23

Beyond retinal screening: digital imaging in the assessment and follow-up of patients with diabetic retinopathy. Kerr D, et al. **Diabet Med** 1998 Oct;15(10):878-82

Pattern reversal electroretinograms in patients with unilateral idiopathic full thickness macular holes. Gündüz K. **Eur J Ophthalmol** 1999 Jan-Mar;9(1):37-42

A new parameter for assessing the thickness of the retinal nerve fiber layer for glaucoma diagnosis. Kogure S, et al. **Eur J Ophthalmol** 1999 Apr-Jun;9(2):93-8

Limitations of imaging choroidal tumors in vivo by optical coherence tomography. Schaudig U, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):588-92

Mapping the human retina. Pinz A, et al. **IEEE Trans Med Imaging** 1998 Aug;17(4):606-19

Idiopathic central serous chorioretinopathy. Hussain D, et al. **Indian J Ophthalmol** 1998 Sep;46(3):131-7 (55 ref.)

Biopsy of the retina and the choroid. Arbour JD, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):213-22 (49 ref.)

The interpretation of optical coherence tomography images of the retina. Chauhan DS, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2332-42

Retinal TUNEL-positive cells and high glutamate levels in vitreous humor of mutant quail with a glaucoma-like disorder. Dkhissi O, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):990-5

Multiple genetic loci modify risk for retinoblastoma in transgenic mice. Griep AE, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2723-32

Relation of optical coherence tomography to microanatomy in normal and rd chickens. Huang Y, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2405-16

Morphometric analysis of the extramacular retina from postmortem eyes with retinitis pigmentosa. Humayun MS, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):143-8

Necrosis and apoptosis after retinal ischemia: involvement of NMDA-mediated excitotoxicity and p53. Joo CK, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):713-20

Neuroprotective effects of eliprodil in retinal excitotoxicity and ischemia. Kapin MA, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1177-82

Apoptosis and caspases after ischemia-reperfusion injury in rat retina. Lam TT, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):967-75

Long-term histological and electrophysiological results of an inactive epiretinal electrode array implantation in dogs. Majji AB, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2073-81

cGMP phosphodiesterase-alpha mutation causes progressive retinal atrophy in the Cardigan Welsh corgi dog. Petersen-Jones SM, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1637-44

Chronic hypoxemia: effects on developing nitrergic and dopaminergic amacrine cells. Roufail E, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1467-76

Measuring geographic atrophy in advanced age-related macular degeneration. Sunness JS, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1761-9

Subretinal lesions in subacute sclerosing panencephalitis. Nguyen NQ, et al. **J Aapos** 1999 Aug;3(4):252-4

Joslin Vision Network Validation Study: pilot image stabilization phase. Aiello LM, et al. **J Am Optom Assoc** 1998 Nov;69(11):699-710

Peripheral retinal hemorrhages: a literature review and report on thirty-three patients. Tolls DB. **J Am Optom Assoc** 1998 Sep;69(9):563-74 (47 ref.)

Antibodies to recoverin induce apoptosis of photoreceptor and bipolar cells in vivo. Adamus G, et al. **J Autoimmun** 1998 Oct;11(5):523-33

Identification of PKDL, a novel polycystic kidney disease 2-like gene whose murine homologue is deleted in mice with kidney and retinal defects. Nomura H, et al. **J Biol Chem** 1998 Oct 2;273(40):25967-73

Hyperoxia causes decreased expression of vascular endothelial growth factor and endothelial cell apoptosis in adult retina. Yamada H, et al. **J Cell Physiol** 1999 May; 179(2):149-56

Visual abnormalities in albino wallabies: a brief note. Guillery RW, et al. **J Comp Neurol** 1999 Jan 5;403(1):33–8

Retinal mitosis is regulated by dopa, a melanin precursor that may influence the time at which cells exit the cell cycle: analysis of patterns of cell production in pigmented and albino retinae. Ilia M, et al. **J Comp Neurol** 1999 Mar 15;405(3):394–405

Retinal nerve fiber layer thickness within the area of apparently normal visual field in normal-tension glaucoma with hemifield defect. Reyes RD, et al. **J Glaucoma** 1998 Oct;7(5):329–35

Aberrant morphology of Müller glial cells in retinas of a microphthalmic mouse strain. Hilbig H, et al. **J Hirnforsch** 1998;39(2):155–60

Microangiopathy of the brain and retina with hearing loss in a 50 year old woman: extending the spectrum of Susac's syndrome. Barker RA, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):641–3

Chorioretinal lesions in patients and carriers of chronic granulomatous disease. Goldblatt D, et al. **J Pediatr** 1999 Jun;134(6):780–3

Quantitative evaluation of "sunset glow" fundus in Vogt–Koyanagi–Harada disease. Suzuki S. **Jpn J Ophthalmol** 1999 Jul–Aug;43(4):327–33

Images in clinical medicine. Lipemia retinalis. Fred HL, et al. **N Engl J Med** 1999 Jun 24;340(25):1969

Renal pathology patterns in type II diabetes mellitus: relationship with retinopathy. The Collaborative Study Group. Schwartz MM, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2547–52

Immunolocalization of the prion protein in scrapie affected rodent retinas. Foster J, et al. **Neurosci Lett** 1999 Jan 22; 260(1):1–4

Upregulation of retinal vascular endothelial growth factor mRNAs in spontaneously diabetic rats without ophthalmoscopic retinopathy. A possible participation of advanced glycation end products in the development of the early phase of diabetic retinopathy. Segawa Y, et al. **Ophthalmic Res** 1998;30(6):333–9

Factors affecting image acquisition during scanning laser polarimetry: authors' response [letter; comment] Hoh ST, et al. **Ophthalmic Surg Lasers** 1999 May;30(5):411–2. Comment on: Ophthalmic Surg Lasers 1998 Jul;29(7):545–51.

Asymmetry in intraocular pressure and retinal nerve fiber layer thickness in normal–tension glaucoma. Gugleta K, et al. **Ophthalmologica** 1999;213(4):219–23

Optic nerve head and retinal nerve fiber layer analysis. American Academy of Ophthalmology. **Ophthalmology** 1999 Jul;106(7):1414–24

Indocyanine green angiography in birdshot chorioretinopathy. Fardeau C, et al. **Ophthalmology** 1999 Oct;106(10):1928–34

Differentiation of degenerative retinoschisis from retinal detachment using optical coherence tomography. Ip M, et al. **Ophthalmology** 1999 Mar;106(3):600–5

The use of confocal scanning laser tomography in the evaluation of retinal elevation in age–related macular degeneration. Jaakkola A, et al. **Ophthalmology** 1999 Feb; 106(2):274–9

Retinal nerve fiber layer measurement by nerve fiber analyzer in normal subjects and patients with glaucoma. Lee VW, et al. **Ophthalmology** 1999 May;106(5):1006–8

Vitreoretinal findings similar to retinopathy of prematurity in infants with compound heterozygous protein S deficiency. Mintz–Hittner HA, et al. **Ophthalmology** 1999 Aug;106(8):1525–30

Localized wedge–shaped defects of retinal nerve fiber layer and disc hemorrhage in glaucoma. Sugiyama K, et al. **Ophthalmology** 1999 Sep;106(9):1762–7

Blue–on–yellow visual field and retinal nerve fiber layer in ocular hypertension and glaucoma. Teesalu P, et al. **Ophthalmology** 1998 Nov;105(11):2077–81

Fundus magnification produced during direct ophthalmoscopy of the corrected eye. Chung KM. **Optom Vis Sci** 1999 Feb;76(2):121–6

Dexamethasone reduces oxygen induced retinopathy in a mouse model. Rotschild T, et al. **Pediatr Res** 1999 Jul; 46(1):94–100

Utility of pupillary dilation for detecting leukocoria in patients with retinoblastoma. Canzano JC, et al. **Pediatrics** 1999 Oct;104(4):e44

Effects of sulfinpyrazone on retinal damage induced by experimental diabetes mellitus in rabbits. Drago F, et al. **Pharmacol Res** 1998 Aug;38(2):97–100

The preprocessing of retinal images for the detection of fluorescein leakage. Cree MJ, et al. **Phys Med Biol** 1999 Jan;44(1):293–308

Monocular focal retinal lesions induce short–term topographic plasticity in adult cat visual cortex. Calford MB, et al. **Proc R Soc Lond B Biol Sci** 1999 Mar 7; 266(1418):499–507 (37 ref.)

Apoptotic cell death in retinal degenerations. Remé CE, et al. **Prog Retin Eye Res** 1998 Oct;17(4):443–64 (175 ref.)

Peripheral retinal evaluation comparing fundus photographs with fluorescein angiograms in patients with diabetes mellitus. Agardh E, et al. **Retina** 1998;18(5):420–3

Combined hamartoma of the retina and retinal pigment epithelium: a bilateral presentation. Blumenthal EZ, et al. **Retina** 1998;18(6):557–9

Long–term results after scleral buckling surgery in uncomplicated juvenile retinal detachment without proliferative vitreoretinopathy. Häring G, et al. **Retina** 1998;18(6):501–5

Bietti's crystalline dystrophy of the retina and cornea. Jurklies B, et al. **Retina** 1999;19(2):168–71

Progressive subretinal fibrosis in a child following hemolytic uremic syndrome [published erratum appears in Retina 1999;19(3):259–60] Krott R, et al. **Retina** 1999;19(1):77–9

A new chart for planning retinal surgery. Lincoff H, et al. **Retina** 1998;18(5):415–9

Angiographic and histological evaluation of porcine retinal vascular damage and protection with perfluorocarbons after massive air embolism. Herren JI, et al. **Stroke** 1998 Nov;29(11):2396–403

Administration of nerve growth factor, brain–derived neurotrophic factor and insulin–like growth factor–II protects phosphate–activated glutaminase in the ischemic and reperfused rat retinas. Tomita H, et al. **Tohoku J Exp Med** 1999 Mar;187(3):227–36

Biochemical and morphological analysis of non–NMDA receptor mediated excitotoxicity in chick embryo retina. Chen Q, et al. **Vis Neurosci** 1999 Jan–Feb;16(1):131–9

Morphologic studies of the retina in a new diabetic model; SHR/N:Mcc–cp rat. Kim SH, et al. **Yonsei Med J** 1998 Oct;39(5):453–62

[Relationship between the retinal nerve fiber layer thickness and the effect of aging in normal eyes] Ono J, et al. **Nippon Ganka Gakkai Zasshi** 1998 Nov;102(11):752–8 (Eng. Abstr.) **(Jpn)**

[Relationship between visual field loss and retinal nerve fiber layer thickness in open–angle glaucoma] Ono J, et al. **Nippon Ganka Gakkai Zasshi** 1998 Oct;102(10):685–91 (Eng. Abstr.) **(Jpn)**

[Hyperlipoproteinemias and proteinase inhibitor balance in patients with proliferative diabetic retinopathy with solid exudates in retina] Chesnokova NB, et al. **Vestn Oftalmol** 1999 Jan–Feb;115(1):14–6 (Eng. Abstr.) **(Rus)**

[Effect of diabetic encephalopathy on fundus oculi status in diabetes] Gadzhiev RV. **Vestn Oftalmol** 1998 Nov–Dec; 114(6):17–9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Retinal function in Swedish ophthalmologists using argon lasers as reflected in colour contrast sensitivity. Normal thresholds in the great majority of the cases. Frennesson C, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):610–2

Choroidal regulation of oxygen supply to the guinea pig retina. Cringle S, et al. **Adv Exp Med Biol** 1998;454:385–9

Juvenile X–linked retinoschisis from XLRS1 Arg213Trp mutation with preservation of the electroretinogram scotopic b–wave. Sieving PA, et al. **Am J Ophthalmol** 1999 Aug;128(2):179–84

Pituitary adenylate cyclase activating peptide (PACAP) in the retinohypothalamic tract: a daytime regulator of the biological clock. Hannibal J, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:197–206

Retinal waves and visual system development. Wong RO. **Annu Rev Neurosci** 1999;22:29–47 (121 ref.)

What gives rise to impaired smooth pursuit in the relatives of patients with schizophrenia? Abel LA. **Arch Ophthalmol** 1999 Apr;117(4):522–3

A technique for in vivo measurement of photoreceptor orientation in the chicken retina. Beresford JA, et al. **Aust N Z J Ophthalmol** 1999 Jun–Aug;27(3–4):241–3

Does cortical motion adaptation exhibit functional properties analogous to light adaptation in the retina? Clifford CW, et al. **Aust N Z J Ophthalmol** 1999 Jun–Aug;27(3–4):258–60

Modes of interactions between signaling pathways. Jordan JD, et al. **Biochem Pharmacol** 1998 May 1;55(9):1347–52 (35 ref.)

Extracellular pH gradients measured from isolated retinal cells. Malchow RP, et al. **Biol Bull** 1998 Oct;195(2):203–4

Rhodopsin early receptor potential revisited [see comments] Sakmar TP. **Biophys J** 1999 Sep;77(3):1189–91. Comment in: Biophys J 1999 Sep;77(3):1333–57.

On the role of self–excitation in the development of topographic order in the visual system of the frog. Somogyvári Z, et al. **Biosystems** 1998 Sep–Dec; 48(1–3):215–22

Retinal projections and retinal ganglion cell distribution patterns in a sturgeon (Acipenser transmontanus), a non–teleost actinopterygian fish. Ito H, et al. **Brain Behav Evol** 1999;53(3):127–41 (85 ref.)

Modulation of rhythmic melatonin synthesis in Xenopus retinal photoreceptors by cyclic AMP. Hasegawa M, et al. **Brain Res** 1999 Apr 10;824(2):161–7

Retinal spreading depression induced by photoactivation: involvement of free radicals and potassium. Netto M, et al. **Brain Res** 1999 May 8;827(1–2):221–4

Expression of the AMPA–type glutamate receptor subunits in the chick optic tectum changes biphasically after retinal deafferentation. Pires RS, et al. **Brain Res** 1998 Nov 9; 810(1–2):283–7

Choline acetyltransferase and acetylcholinesterase in the normal, developing and regenerating newt retinas. Cheon EW, et al. **Brain Res Dev Brain Res** 1999 Aug 5; 116(1):97–109

Evidence that the influence of ganglion cell axons on astrocyte morphology is mediated by action spike activity during development. Gargini C, et al. **Brain Res Dev Brain Res** 1998 Oct 1;110(2):177–84

Thioreductase activity of retina cognin and its role in cell adhesion. Pariser HP, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):1–9

Gene expression of the P2X receptors in the rat retina. Brändle U, et al. **Brain Res Mol Brain Res** 1998 Aug 31; 59(2):269–72

Molecular correlates of topographic reorganization in primary visual cortex following retinal lesions. Obata S, et al. **Cereb Cortex** 1999 Apr–May;9(3):238–48

Melatonin's role in vertebrate circadian rhythms. Cassone VM. **Chronobiol Int** 1998 Sep;15(5):457–73 (86 ref.)

Keeping an eye on retinal clocks. Herzog ED, et al. **Chronobiol Int** 1999 May;16(3):229–47 (155 ref.)

Development of a silicon retinal implant: cortical evoked potentials following focal stimulation of the rabbit retina with light and electricity. Nadig MN. **Clin Neurophysiol** 1999 Sep;110(9):1545–53

Invariants in the ipsilateral retinotectal visual projection of frogs. Beauquin C, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jan; 122(1):99–107

Retinal processing: amacrine cells keep it short and sweet. Lagnado L. **Curr Biol** 1998 Aug 27;8(17):R598–600 (8 ref.)

Susceptibility of retinal ganglion cells to excitotoxicity depends on soma size and retinal eccentricity. Vorwerk CK, et al. **Curr Eye Res** 1999 Jul;19(1):59–65

Spike timing in the mammalian visual system. Bair W. **Curr Opin Neurobiol** 1999 Aug;9(4):447–53 (49 ref.)

Signals transmitted along retinal axons in Drosophila: Hedgehog signal reception and the cell circuitry of lamina cartridge assembly. Huang Z, et al. **Development** 1998 Oct; 125(19):3753–64

Comparison of guinea pig electroretinograms measured with bipolar corneal and unipolar intravitreal electrodes. Bui BV, et al. **Doc Ophthalmol** 1998;95(1):15–34

The c–wave of the electroretinogram recorded under clinical conditions from rabbits. Hamasaki DI, et al. **Doc Ophthalmol** 1997–98;94(4):365–81

Comparisons of contact lens, foil, fiber and skin electrodes for patterns electroretinograms. McCulloch DL, et al. **Doc Ophthalmol** 1997–98;94(4):327–40

A simple and stable d.c.electrode for ocular electrophysiology. Niemeyer G, et al. **Doc Ophthalmol** 1998;95(1):55–61

Neural retinal contribution to the slow negative potential of the canine electroretinogram. Shirao Y, et al. **Doc Ophthalmol** 1997–98;94(4):293–306

Topography of the multifocal electroretinogram. Verdon WA, et al. **Doc Ophthalmol** 1998;95(1):73–90

Identification of the stimulated hemiretinae using a reduced number of PVEP trials. Hoffmann K, et al. **Electroencephalogr Clin Neurophysiol** 1998 Nov; 108(6):560–6

Rapid desensitization converts prolonged glutamate release into a transient EPSC at ribbon synapses between retinal bipolar and amacrine cells. Maguire G. **Eur J Neurosci** 1999 Jan;11(1):353–62

Ocular perturbations and retinal/extraretinal information: the coordination of saccadic and manual movements. Binsted G, et al. **Exp Brain Res** 1999 Jul;127(2):193–206

Reaction of Müller cells after increased intraocular pressure in the rat retina. Kim IB, et al. **Exp Brain Res** 1998 Aug; 121(4):419–24

Differing roles of adenosine receptor subtypes in retinal ischemia–reperfusion injury in the rat. Li B, et al. **Exp Eye Res** 1999 Jan;68(1):9–17

Migration of retinal microglia in experimental proliferative vitreoretinopathy [letter] McGillem GS, et al. **Exp Eye Res** 1998 Sep;67(3):371–5

A key role for GAP–43 in the retinotectal topographic organization. Zhu Q, et al. **Exp Neurol** 1999 Feb; 155(2):228–42

Plasma–induced changes in the physiology of mammalian retinal glial cells: role of glutamate. Kusaka S, et al. **Glia** 1999 Feb 1;25(3):205–15

Circumferential migration of ameboid microglia in the margin of the developing quail retina. Marín–Teva JL, et al. **Glia** 1999 Sep;27(3):226–38

Immunogold evidence suggests that coupling of K+ siphoning and water transport in rat retinal Müller cells is mediated by a coenrichment of Kir4.1 and AQP4 in specific membrane domains. Nagelhus EA, et al. **Glia** 1999 Mar;26(1):47–54

Noninvasive measurement of the Bayliss effect in retinal autoregulation. Blum M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr; 237(4):296–300

The contrast characteristic of the pattern electroretinogram depends on temporal frequency. Zapf HR, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb;237(2):93–9

Location of human face–selective cortex with respect to retinotopic areas. Halgren E, et al. **Hum Brain Mapp** 1999; 7(1):29–37

Parallel processing in the mammalian retina: the Proctor Lecture. Boycott B, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1313–27 (134 ref.)

Marked alteration of sterol metabolism and composition without compromising retinal development or function. Fliesler SJ, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1792–801

Average optical performance of the human eye as a function of age in a normal population. Guirao A, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):203–13

Directional and spectral reflectance of the rat retinal nerve fiber layer. Knighton RW, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):639–47

Crowding in central and eccentric vision: the effects of contour interaction and attention. Leat SJ, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):504–12

Visual temporal frequency characteristics determined by pseudorandom stimuli. Momose K, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):50–4

Adult human retinal neurons in culture: Physiology of horizontal cells. Picaud S, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2637–48

Inhibition of caspase activity in retinal cell apoptosis induced by various stimuli in vitro. Tezel G, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2660–7

Effects of dietary n-3 fatty acid deficiency and repletion in the guinea pig retina. Weisinger HS, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):327–38

Retinoscopy [letter; comment] Mutti DO, et al. **J Am Optom Assoc** 1998 Oct;69(10):620–4. Comment on: J Am Optom Assoc 1996 Oct;67(10):610–8.

Retinal targets for calmodulin include proteins implicated in synaptic transmission. Xu XZ, et al. **J Biol Chem** 1998 Nov 20;273(47):31297–307

Retinal GABA(A) receptors participate in the regulation of circadian responses to light. Della Maggiore V, et al. **J Biol Rhythms** 1999 Feb;14(1):47–53

A delayed rectifier current is modulated by the circadian pacemaker in Bulla. Michel S, et al. **J Biol Rhythms** 1999 Apr;14(2):141–50

Melatonin suppression by light in humans is maximal when the nasal part of the retina is illuminated. Visser EK, et al. **J Biol Rhythms** 1999 Apr;14(2):116–21

Electrical activity regulates dendritic reorganization in ganglion cells after neonatal retinal lesion in the cat. Deplano S, et al. **J Comp Neurol** 1999 Mar 8;405(2):262–70

Relationship between laminar topology and retinotopy in the rhesus lateral geniculate nucleus: results from a functional atlas. Erwin E, et al. **J Comp Neurol** 1999 Apr 28; 407(1):92–102

Synaptic input to small bistratified (blue-ON) ganglion cells in the retina of a new world monkey, the marmoset Callithrix jacchus. Ghosh KK, et al. **J Comp Neurol** 1999 Oct 25;413(3):417–28

Activity-dependent refinement in the goldfish retinotectal system is mediated by the dynamic regulation of processes withdrawal: an in vivo imaging study. Johnson FA, et al. **J Comp Neurol** 1999 Apr 19;406(4):548–62

Kainate activation of horizontal, bipolar, amacrine, and ganglion cells in the rabbit retina. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):65–76

Mapping glutamatergic drive in the vertebrate retina with a channel-permeant organic cation. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):47–64

Glycinergic amacrine cells of the rat retina. Menger N, et al. **J Comp Neurol** 1998 Nov 9;401(1):34–46

Visual acuity, contrast sensitivity and retinal magnification in a marsupial, the tammar wallaby (Macropus eugenii). Hemmi JM, et al. **J Comp Physiol [A]** 1998 Sep; 183(3):379–87

Blockade of a retinal cGMP-gated channel by polyamines. Lu Z, et al. **J Gen Physiol** 1999 Jan;113(1):35–43

Laminar restriction of retinal macrophagic response to optic nerve axotomy in the rat. Garcia-Valenzuela E, et al. **J Neurobiol** 1999 Jul;40(1):55–66

NMDA receptor activity stabilizes presynaptic retinotectal axons and postsynaptic optic tectal cell dendrites in vivo. Rajan I, et al. **J Neurobiol** 1999 Feb 15;38(3):357–68

Role for cell adhesion and glycosyl (HNK-1 and oligomannoside) recognition in the sharpening of the regenerating retinotectal projection in goldfish. Schmidt JT, et al. **J Neurobiol** 1998 Dec;37(4):659–71

Requirement for nitric oxide in retinal neuronal cell death induced by activated Müller glial cells. Goureau O, et al. **J Neurochem** 1999 Jun;72(6):2506–15

Resistance of retinal extracellular space to Ca2+ level decrease: implications for the synaptic effects of divalent cations. Dmitriev A, et al. **J Neurophysiol** 1999 Jul; 82(1):283–9

Reciprocal synaptic interactions between rod bipolar cells and amacrine cells in the rat retina. Hartveit E. **J Neurophysiol** 1999 Jun;81(6):2923–36

Response attenuation during coincident afferent excitatory inputs. Kogo N, et al. **J Neurophysiol** 1999 Jun; 81(6):2945–55

Proprioceptive and retinal afference modify postsaccadic ocular drift. Lewis RF, et al. **J Neurophysiol** 1999 Aug; 82(2):551–63

Retinal input induces three firing patterns in neurons of the superficial superior colliculus of neonatal rats. Lo FS, et al. **J Neurophysiol** 1999 Feb;81(2):954–8

Retinal waves are governed by collective network properties. Butts DA, et al. **J Neurosci** 1999 May 1;19(9):3580–93

A neurotrophic model of the development of the retinogeniculocortical pathway induced by spontaneous retinal waves. Elliott T, et al. **J Neurosci** 1999 Sep 15; 19(18):7951–70

NMDA receptor-mediated refinement of a transient retinotectal projection during development requires nitric oxide. Ernst AF, et al. **J Neurosci** 1999 Jan 1;19(1):229–35

Two actions of calcium regulate the supply of releasable vesicles at the ribbon synapse of retinal bipolar cells. Gomis A, et al. **J Neurosci** 1999 Aug 1;19(15):6309–17

Composition of the GABA(A) receptors of retinal dopaminergic neurons. Gustincich S, et al. **J Neurosci** 1999 Sep 15;19(18):7812–22

Pituitary adenylate cyclase-activating peptide (PACAP) in the retinohypothalamic tract: a potential daytime regulator of the biological clock. Hannibal J, et al. **J Neurosci** 1997 Apr 1;17(7):2637–44

Stable properties of spontaneous EPSCs and miniature retinal EPSCs during the development of ON/OFF sublamination in the ferret lateral geniculate nucleus. Hohnke CD, et al. **J Neurosci** 1999 Jan 1;19(1):236–47

Inactivation of Rho signaling pathway promotes CNS axon regeneration. Lehmann M, et al. **J Neurosci** 1999 Sep 1; 19(17):7537–47

The metabotropic receptor mGluR6 may signal through G(o), but not phosphodiesterase, in retinal bipolar cells. Nawy S. **J Neurosci** 1999 Apr 15;19(8):2938–44

Neural correlates of perceived brightness in the retina, lateral geniculate nucleus, and striate cortex. Rossi AF, et al. **J Neurosci** 1999 Jul 15;19(14):6145–56

Ammonium and glutamate released by neurons are signals regulating the nutritive function of a glial cell. Tsacopoulos M, et al. **J Neurosci** 1997 Apr 1;17(7):2383–90

Excess of serotonin (5-HT) alters the segregation of ispilateral and contralateral retinal projections in monoamine oxidase A knock-out mice: possible role of 5-HT uptake in retinal ganglion cells during development. Upton AL, et al. **J Neurosci** 1999 Aug 15;19(16):7007–24

Neurotransmitter coupling through gap junctions in the retina. Vaney DI, et al. **J Neurosci** 1998 Dec 15; 18(24):10594–602

Developmentally regulated spontaneous activity in the embryonic chick retina. Wong WT, et al. **J Neurosci** 1998 Nov 1;18(21):8839–52

Novel method of chronically blocking retinal activity. Prusky GT, et al. **J Neurosci Methods** 1999 Feb 1;87(1):105–10

An in vitro technique for electrophysiological mapping of reptilian retinotectal projections. Stirling RV, et al. **J Neurosci Methods** 1998 Jun 1;81(1-2):85–9

Role of nitric oxide in mediating retinal blood flow regulation in cats. Harino S, et al. **J Ocul Pharmacol Ther** 1999 Aug; 15(4):295–303

Nitric oxide modulation of retinal, choroidal, and anterior uveal blood flow in newborn piglets. Jacot JL, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):473–89

Influence of destruction of retina-RPE complex on the proliferation of scleral chondrocytes in chicks. Wang IJ, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):429–36

Reflectance and curvature of the inner limiting membrane at the foveola. Gorrand JM, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Jun;16(6):1229–37

Dynamical use of different sources of information in heading judgments from retinal flow. Grigo A, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Sep;16(9):2079–91

Mathematical modeling of retinal birefringence scanning. Hunter DG, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Sep;16(9):2103–11

Apodization by the Stiles-Crawford effect moderates the visual impact of retinal image defocus. Zhang X, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Apr;16(4):812–20

Necessity of acetylcholine for retinal directionally selective responses to drifting gratings in rabbit [see comments] Grzywacz NM, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):575–81. Comment in: J Physiol (Lond) 1998 Oct 15;512 (Pt 2):316.

The generation of directionally selective responses in the retina [comment] Mangel SC. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):316. Comment on: J Physiol (Lond) 1998 Oct 15;512 (Pt 2):575–81.

Colour processing in the primate retina: recent progress. Martin PR. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):631–8 (78 ref.)

Potentiation of transmitter release by protein kinase C in goldfish retinal bipolar cells. Minami N, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):219–25

The kinetics of exocytosis and endocytosis in the synaptic terminal of goldfish retinal bipolar cells. Neves G, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):181–202

Field sensitivity action spectra of cone photoreceptors in the turtle retina. Perlman I, et al. **J Physiol (Lond)** 1998 Sep 1;511 (Pt 2):479–94

Metabotropic GABA receptors facilitate L-type and inhibit N-type calcium channels in single salamander retinal neurons. Shen W, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):711–8

A rise in intracellular Ca2+ underlies light adaptation in dogfish retinal 'on' bipolar cells. Shiells RA, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):343–50

Binocular phase interactions in area 21a of the cat. Vickery RM, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):541–9

Structure determines function of the retina, a neural center. 4. The 'duplex' nature of vision. Sjöstrand FS. **J Submicrosc Cytol Pathol** 1998 Oct;30(4):463–74 (88 ref.)

Effect of intraocular irrigating solution on flicker electroretinogram during cataract surgery in human eye. Kitamura K, et al. **Jpn J Ophthalmol** 1998 Jul-Aug; 42(4):275–80.

A signal analysis method for retinal image velocity computation of vestibular-ocular reflex eye movement investigations. Juhola M. **Medinfo** 1998;9 Pt 2:1247–9

Fibroblast growth factor (FGF) soluble receptor 1 acts as a natural inhibitor of FGF2 neurotrophic activity during retinal degeneration. Guillonneau X, et al. **Mol Biol Cell** 1998 Oct;9(10):2785–802

Excess target-derived brain-derived neurotrophic factor preserves the transient uncrossed retinal projection to the superior colliculus. Isenmann S, et al. **Mol Cell Neurosci** 1999 Jul;14(1):52–65

Rpe65 is necessary for production of 11-cis-vitamin A in the retinal visual cycle. Redmond TM, et al. **Nat Genet** 1998 Dec;20(4):344–51

A far-sighted view of myopia [news] Wildsoet CF, et al. **Nat Med** 1999 Aug;5(8):879–80

Electrical microstimulation of cortical area MST biases heading perception in monkeys [see comments] Britten KH, et al. **Nat Neurosci** 1998 May;1(1):59–63. Comment in: Nat Neurosci 1998 May;1(1):6–8.

Lateral inhibition in the inner retina is important for spatial tuning of ganglion cells. Cook PB, et al. **Nat Neurosci** 1998 Dec;1(8):714–9

A sense of direction: going with the flow [news; comment] Cumming B. **Nat Neurosci** 1998 May;1(1):6–8. Comment on: Nat Neurosci 1998 May;1(1):59–63.

The metabolic cost of neural information. Laughlin SB, et al. **Nat Neurosci** 1998 May;1(1):36–41

Anticipation of moving stimuli by the retina [see comments] Berry MJ 2nd, et al. **Nature** 1999 Mar 25;398(6725):334–8 . Comment in: Nature 1999 Mar 25;398(6725):291–2.

Neurobiology. The eyes have it! [news; comment] Gegenfurtner K. **Nature** 1999 Mar 25;398(6725):291–2. Comment on: Nature 1999 Mar 25;398(6725):334–8.

The protein MAP-1B links GABA(C) receptors to the cytoskeleton at retinal synapses. Hanley JG, et al. **Nature** 1999 Jan 7;397(6714):66–9

Theory and implementation of infomax filters for the retina. Haft M, et al. **Network** 1998 Feb;9(1):39–71

Relation between retinotopical and orientation maps in visual cortex. Ernst U, et al. **Neural Comput** 1999 Feb 15; 11(2):375–9

A parallel noise-robust algorithm to recover depth information from radial flow fields. Wörgötter E, et al. **Neural Comput** 1999 Feb 15;11(2):381–416

Photoreceptors sensitive for various wave-lengths in the pineal complex and retina of reptiles immunocytochemical localization of opsins. Debreceni K, et al. **Neurobiology (Bp)** 1998;6(4):463–5

Retinotopic maps in human prestriate visual cortex: the demarcation of areas V2 and V3. Shipp S, et al. **Neuroimage** 1995 Jun;2(2):125–32

Topographic guidance labels in a sensory projection to the forebrain. Feldheim DA, et al. **Neuron** 1998 Dec; 21(6):1303–13

The neural code of the retina. Meister M, et al. **Neuron** 1999 Mar;22(3):435–50 (125 ref.)

The retinotopy of visual spatial attention. Tootell RB, et al. **Neuron** 1998 Dec;21(6):1409–22

Expression of p75 neurotrophin receptor in the injured and regenerating rat retina. Hu B, et al. **Neuroreport** 1999 Apr 26;10(6):1293–7

Characterization of spontaneous excitatory synaptic currents in newt retinal bipolar cells. Kawai F. **Neurosci Lett** 1999 Aug 13;271(1):49–52

Zn2+ differentially modulates glycine receptors versus GABA receptors in isolated carp retinal third-order neurons. Li P, et al. **Neurosci Lett** 1999 Jul 9;269(2):75–8

Circadian rhythms and light responsiveness of mammalian clock gene, Clock and BMAL1, transcripts in the rat retina. Namihira M, et al. **Neurosci Lett** 1999 Aug 13;271(1):1–4

Neuropeptide Y (NPY) or fragment NPY 13-36, but not NPY 18-36, inhibit retinotectal transfer in cane toads Bufo marinus. Schwippert WW, et al. **Neurosci Lett** 1998 Aug 28;253(1):33–6

Effects of aging on lens transmittance and retinal input to the suprachiasmatic nucleus in golden hamsters. Zhang Y, et al. **Neurosci Lett** 1998 Dec 24;258(3):167–70

Suprachiasmatic nucleus and intergeniculate leaflet in the diurnal rodent Octodon degus: retinal projections and immunocytochemical characterization. Goel N, et al. **Neuroscience** 1999;92(4):1491–509

Retinal input to the sleep-active ventrolateral preoptic nucleus in the rat. Lu J, et al. **Neuroscience** 1999; 93(1):209–14

Location and stability of a newly established eccentric retinal locus suitable for reading, achieved through training of patients with a dense central scotoma. Nilsson UL, et al. **Optom Vis Sci** 1998 Dec;75(12):873–8

The discrimination of heading from optic flow is not retinally invariant. Atchley P, et al. **Percept Psychophys** 1999 Apr; 61(3):387–96

GABA as a developmental neurotransmitter in the outer plexiform layer of the vertebrate retina. Redburn-Johnson D. **Perspect Dev Neurobiol** 1998;5(2-3):261–7 (57 ref.)

GABA as a developmental signal in the inner retina and optic nerve. Sandell JH. **Perspect Dev Neurobiol** 1998; 5(2-3):269–78 (137 ref.)

The role of retinal waves and synaptic normalization in retinogeniculate development. Eglen SJ. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28; 354(1382):497–506

The effects of electroconvulsive shock on retinal activity. Shaw NA. **Physiol Behav** 1999 Aug 1;67(1):153–9

Tomographic reconstruction of the retina using a confocal scanning laser ophthalmoscope. Vieira P, et al.

Physiol Meas 1999 Feb;20(1):1-19

Retinotopic mapping of lateral geniculate nucleus in humans using functional magnetic resonance imaging. Chen W, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2430-4

Optical recording of light-evoked calcium signals in the functionally intact retina. Denk W, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7035-40

Phosphorylation of photolyzed rhodopsin is calcium-insensitive in retina permeabilized by alpha-toxin. Otto-Bruc AE, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15014-9

Spatial heterogeneity and function of voltage- and ligand-gated ion channels in retinal amacrine neurons. Maguire G. **Proc R Soc Lond B Biol Sci** 1999 May 22; 266(1423):987-92

The role of nitric oxide in development of the patch-cluster system and retinocollicular pathways in the rodent superior colliculus. Mize RR, et al. **Prog Brain Res** 1998;118:133-52 (92 ref.)

Endothelium-derived agents in pericyte function/dysfunction. Chakravarthy U, et al. **Prog Retin Eye Res** 1999 Jul;18(4):511-27 (108 ref.)

The intact isolated (ex vivo) retina as a model system for the study of excitotoxicity. Romano C, et al. **Prog Retin Eye Res** 1998 Oct;17(4):465-83 (124 ref.)

Oscillatory potentials in the retina: what do they reveal. Wachtmeister L. **Prog Retin Eye Res** 1998 Oct; 17(4):485-521 (242 ref.)

The eyes of deep-sea fish. II. Functional morphology of the retina. Wagner HJ, et al. **Prog Retin Eye Res** 1998 Oct; 17(4):637-85 (144 ref.)

Dopamine receptor subtypes expressed in vertebrate (carp and eel) retinae: cloning, sequencing and comparison of five D1-like and three D2-like receptors. Hirano J, et al. **Receptors Channels** 1998;5(6):387-404

Early integration of retinal and extra-retinal information: recent results and hypotheses. Sauvan XM. **Rev Neurosci** 1998;9(4):291-9 (35 ref.)

Retinal scanning display: light sources moving over the retina. de Wit GC. **Sci Prog** 1999;82 (Pt 2):135-49

Regulation of the mammalian pineal by non-rod, non-cone, ocular photoreceptors [see comments] Lucas RJ, et al. **Science** 1999 Apr 16;284(5413):505-7. Comment in: Science 1999 Apr 16;284(5413):421-2.

Spontaneous activity: signal or noise? [comment] McCormick DA. **Science** 1999 Jul 23;285(5427):541-3. Comment on: Science 1999 Jul 23;285(5427):599-604.

Correlational structure of spontaneous neuronal activity in the developing lateral geniculate nucleus in vivo [see comments] Weliky M, et al. **Science** 1999 Jul 23; 285(5427):599-604. Comment in: Science 1999 Jul 23;285(5427):541-3.

An information-theoretic approach to interactions in images. Boccignone G, et al. **Spat Vis** 1999;12(3):345-62

Contour integration and scale combination processes in visual edge detection. Dakin SC, et al. **Spat Vis** 1999;12(3):309-27

Indirect evidence for an association of 5-HT(1B) binding sites with retinal and geniculate axon terminals in the rat suprachiasmatic nucleus. Manrique C, et al. **Synapse** 1999 Sep 15;33(4):314-23

Synaptic connectivity of two types of recoverin-labeled cone bipolar cells and glutamic acid decarboxylase immunoreactive amacrine cells in the inner plexiform layer of the rat retina. Chun MH, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):791-800

The role of spontaneous retinal activity before eye opening in the maturation of form and function in the retinogeniculate pathway of the ferret. Cook PM, et al. **Vis Neurosci** 1999 May-Jun;16(3):491-501

A dissection of the electroretinogram from the isolated rat retina with microelectrodes and drugs. Green DG, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):727-41

Complementary roles of two excitatory pathways in retinal directional selectivity. Grzywacz NM, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1119-27

Current source-density analysis of light-evoked field potentials in rabbit retina. Karwoski CJ, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):369-77

Increased serotonin in the developing superior colliculus affects receptive-field size of retinotectal afferents but not that of postsynaptic neurons. Ke M, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):121-30

Visual function in regenerating teleost retina following cytotoxic lesioning. Mensinger AF, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):241-51

Spatiotemporal structure of depolarization spread in cortical pyramidal cell populations evoked by diffuse retinal light flashes. Senseman DM. **Vis Neurosci** 1999 Jan-Feb; 16(1):65-79

Contribution of rod, on-bipolar, and horizontal cell light responses to the ERG of dogfish retina. Shiells RA, et al. **Vis Neurosci** 1999 May-Jun;16(3):503-11

New role for the primate fovea: a retinal excavation determines photoreceptor deployment and shape. Springer AD. **Vis Neurosci** 1999 Jul-Aug;16(4):629-36

Electrophysiological evidence for tranrient topographic organization of retinotectal projections during optic nerve regeneration in the lizard, Ctenophorus ornatus. Stirling RV, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):681-93

The electroretinogram of the rhodopsin knockout mouse. Toda K, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):391-8

VEP and PERG acuity in anesthetized young adult rhesus monkeys. Ver Hoeve JN, et al. **Vis Neurosci** 1999 Jul-Aug; 16(4):607-17

Comparison of the responses of AII amacrine cells in the dark- and light-adapted rabbit retina. Xin D, et al. **Vis Neurosci** 1999 Jul-Aug;16(4):653-65

Evidence for a noise gain control mechanism in human vision. Brown LG, et al. **Vision Res** 1998 Jun;38(13):1925-33

Optical, receptoral, and retinal constraints on foveal and peripheral vision in the human neonate. Candy TR, et al. **Vision Res** 1998 Dec;38(24):3857-70

Long-term changes in retinal contrast sensitivity in chicks from frosted occluders and drugs: relations to myopia? Diether S, et al. **Vision Res** 1999 Jul;39(15):2499-510

The effect of forced vergence on retinal correspondence. Fogt N, et al. **Vision Res** 1998 Sep;38(18):2711-9

Analysis of pharmacologically isolated components of the ERG. Gargini C, et al. **Vision Res** 1999 May;39(10):1759-66

Electrophysiological properties of a new isolated rat retina preparation. Green DG, et al. **Vision Res** 1999 Jun; 39(13):2165-77

Identifying inner retinal contributions to the human multifocal ERG. Hood DC, et al. **Vision Res** 1999 Jun; 39(13):2285-91

The feedback pathway from horizontal cells to cones. A mini review with a look ahead. Kamermans M, et al. **Vision Res** 1999 Jul;39(15):2449-68 (117 ref.)

Comparative retinal physiology in anthropoids. Kremers J, et al. **Vision Res** 1998 Nov;38(21):3339-44

A two-dimensional model of brightness perception based on spatial filtering consistent with retinal processing. McArthur JA, et al. **Vision Res** 1999 Mar;39(6):1199-219

Synaptic mechanisms of bipolar cell terminals. Matthews G. **Vision Res** 1999 Jul;39(15):2469-76

[The electroretinogram (ERG) of the mouse: normal values, optimal stimulation and recording] Kueng-Hitz N, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):288-90 (Eng. Abstr.) **(Ger)**

[The role of apoptosis in physiology and pathology of the retina] Obuchowska I, et al. **Klin Oczna** 1999;101(2):139-43 (47 ref.) (Eng. Abstr.) **(Pol)**

[Retinal regeneration after dissection of the optic nerve in newts exposed on board the Bion-11 biosatellite] Grigorian EN, et al. **Aviakosm Ekolog Med** 1999;33(3):15-20 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Inner retinal function in hereditary retinal dystrophies. Ruether K, et al. **Acta Anat (Basel)** 1998;162(2-3):169-77

Intraocular foreign bodies. Factors influencing final visual outcome. Chiquet C, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):321-5

An experimental study on damage of retina function due to toxicity of carbon disulfide and lipid peroxidation. Qingfen T, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):298-301

Central serous chorioretinopathy: bilateral multifocal electroretinographic abnormalities. Marmor MF, et al. **Arch Ophthalmol** 1999 Feb;117(2):184-8

Retinal sparing by selective retinal pigment epithelial photocoagulation. Roider J, et al. **Arch Ophthalmol** 1999 Aug;117(8):1028-34

Simultaneous pattern electroretinogram and visual evoked potential recordings in dyslexic children. Brecelj J, et al. **Doc Ophthalmol** 1997-98;94(4):355-64

Electroretinographic changes in eyes with idiopathic macular hole treated by vitrectomy. Matsumoto CS, et al. **Doc Ophthalmol** 1997-98;94(4):341-54

Oscillatory potentials of the electroretinogram in hypertensive patients with different antihypertensive treatment. Ravalico G, et al. **Doc Ophthalmol** 1997-98; 94(4):321-6

The VEP and ERG in a young infant with cystic fibrosis. A case report. Suttle CM, et al. **Doc Ophthalmol** 1998; 95(1):63-71

Does pattern electroretinogram spatial tuning alteration in Parkinson's disease depend on motor disturbances or retinal dopaminergic loss? Peppe A, et al. **Electroencephalogr Clin Neurophysiol** 1998 Apr; 106(4):374-82

Interactions of spatial and luminance information in the retina of chickens during myopia development. Feldkaemper M, et al. **Exp Eye Res** 1999 Jan;68(1):105-15

Focal electroretinograms and fundus appearance in nonexudative age-related macular degeneration. Quantitative relationship between retinal morphology and function. Falsini B, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar; 237(3):193-200

Automated static perimetry as a screening method for evaluation of retinal perfusion in diabetic retinopathy. Pahor D. **Int Ophthalmol** 1997-98;21(6):305-9

Oscillopsia and tolerance to retinal image movement in congenital nystagmus. Abadi RV, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):339-45

Riluzole improves functional recovery after ischemia in the rat retina. Ettaiche M, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):729-36

Multifocal electroretinogram delays reveal local retinal dysfunction in early diabetic retinopathy. Fortune B, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2638-51

Correlation between morphological and functional retinal impairment in multiple sclerosis patients. Parisi V, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2520-7

Correlation of pattern electroretinogram with optic disc cup shape in ocular hypertension. Salgarello T, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1989-97

Perceived visual ability for independent mobility in persons with retinitis pigmentosa. Turano KA, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):865-77

Photoreceptor dystrophy in the RCS rat: roles of oxygen, debris, and bFGF. Valter K, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2427-42

Blood-retinal barrier and autofluorescence of the posterior polar retina in long-standing pseudophakia. Miyake K, et al. **J Cataract Refract Surg** 1999 Jul;25(7):891-7

Docosahexaenoic acid and retinal function in children with long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency. Harding CO, et al. **J Inherit Metab Dis** 1999 May;22(3):276-80

Unilateral injury to the adult rat optic nerve causes multiple cellular responses in the contralateral site. Bodeutsch N, et al. **J Neurobiol** 1999 Jan;38(1):116-28

The electroretinogram in chronic renal failure. Lim JH, et al. **Korean J Ophthalmol** 1998 Jun;12(1):68-72

Effects of dystrophin isoforms on signal transduction through neural retina: genotype-phenotype analysis of duchenne muscular dystrophy mouse mutants. Pillers DA, et al. **Mol Genet Metab** 1999 Feb;66(2):100-10

Investigation of retinitis pigmentosa using the multifocal electroretinogram. Chan HL, et al. **Ophthalmic Physiol Opt** 1998 Jul;18(4):335-50

Retinal pigment epithelial dysfunction in human immunodeficiency virus-infected patients with cytomegalovirus retinitis. Harrison JM, et al. **Ophthalmology** 1999 Apr;106(4):790-7

Cytidine-5'-diphosphocholine (citicoline) improves retinal and cortical responses in patients with glaucoma. Parisi V, et al. **Ophthalmology** 1999 Jun;106(6):1126-34

Selective B-wave reduction with congenital cataract in neurofibromatosis-2. Tong JT, et al. **Ophthalmology** 1999 Sep;106(9):1681-3

Blur sensitivity in myopes. Rosenfield M, et al. **Optom Vis Sci** 1999 May;76(5):303-7

Imposed retinal image size changes--do they provide a cue to the sign of lens-induced defocus in chick? Schmid KL, et al. **Optom Vis Sci** 1999 May;76(5):320-5

Modeling human eye aberrations and their compensation for high-resolution retinal imaging. Zhu L, et al. **Optom Vis Sci** 1998 Nov;75(11):827-39 (37 ref.)

Good visual acuity in an adult population with marked posterior segment changes secondary to retinopathy of prematurity. Ferrone PJ, et al. **Retina** 1998;18(4):335-8

Change in retinal sensitivity due to excision of choroidal neovascularization and its influence on visual acuity outcome. Tsujikawa M, et al. **Retina** 1999;19(2):135-40

The electroretinogram in diabetic retinopathy. Tzekov R, et al. **Surv Ophthalmol** 1999 Jul-Aug;44(1):53-60 (106 ref.)

[The prognostic significance of the electrophysiological indices of the retina and optic nerve in patients with opacities of the optical media of the eye] Lariukhina GM, et al. **Vestn Oftalmol** 1998 Sep-Oct;114(5):45-8 (10 ref.) (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Radiation retinopathy following plaque radiotherapy for posterior uveal melanoma. Gündüz K, et al. **Arch Ophthalmol** 1999 May;117(5):609-14

Light exposure is not associated with retinopathy of prematurity. Mills MD. **Arch Ophthalmol** 1998 Nov; 116(11):1517-8 (18 ref.)

Good visual outcome following laser therapy for proliferative radiation retinopathy. Thorne JE, et al. **Arch Ophthalmol** 1999 Jan;117(1):125-6

Single vs. paired visual stimulation: superposition of early neuromagnetic responses and retinotopy in extrastriate cortex in humans. Supek S, et al. **Brain Res** 1999 May 29; 830(1):43-55

Enolase activity in chicken embryo primary retina cells is not affected by exposure to a 60-Hz electric field. Dutta SK, et al. **Cancer Biochem Biophys** 1998 Jun;16(1-2):45-52

Solar retinopathy. A study from Nepal and from Germany. Rai N, et al. **Doc Ophthalmol** 1998;95(2):99-108

Central serous chorioretinopathy complicating solar retinopathy treated with glucocorticoids. Bouzas EA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):166-8

Changes in manganese superoxide dismutase expression after exposure of the retina to intense light. Yamamoto M, et al. **Histochem J** 1999 Feb;31(2):81-7

Late retinal complications of radiation therapy for nasal and paranasal malignancies: relationship between irradiated-dose area and severity. Takeda A, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):599-605

Retinal phototoxicity. Solley WA, et al. **Int Ophthalmol Clin** 1999 Spring;39(2):1-12 (55 ref.)

Ultrastructural localization of light-induced lipid peroxides in the rat retina. Kayatz P, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2314-21

Solar retinopathy in a hospital-based primary care clinic. Stokkermans TJ, et al. **J Am Optom Assoc** 1998 Oct; 69(10):625-36 (75 ref.)

Laser pointers: toys, nuisances, or significant eye hazards? Yolton RL, et al. **J Am Optom Assoc** 1999 May;70(5):285-9 (15 ref.)

Dark- and light-induced changes in coupling between

horizontal cells in mammalian retina. Xin D, et al. **J Comp Neurol** 1999 Mar 1;405(1):75–87

Retinal damage by light in the golden hamster: an ultrastructural study in the retinal pigment epithelium and Bruch's membrane. Thumann G, et al. **J Photochem Photobiol B** 1999 Apr;49(2–3):104–11

Reciprocity between light intensity and rhodopsin concentration across the rat retina. Williams TP, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):869–74

Retinal cell death by light damage. Aonuma H, et al. **Jpn J Ophthalmol** 1999 May–Jun;43(3):171–9

Light-emitting diodes and cool white fluorescent light similarly suppress pineal gland melatonin and maintain retinal function and morphology in the rat. Heeke DS, et al. **Lab Anim Sci** 1999 Jun;49(3):297–304

Light- and focus-dependent expression of the transcription factor ZENK in the chick retina. Fischer AJ, et al. **Nat Neurosci** 1999 Aug;2(8):706–12

The effects of two stereoisomers of N-acetylcysteine on photochemical damage by UVA and blue light in rat retina. Busch EM, et al. **Photochem Photobiol** 1999 Sep; 70(3):353–8

Light-induced damage in the retina: differential effects of dimethylthiourea on photoreceptor survival, apoptosis and DNA oxidation. Organisciak DT, et al. **Photochem Photobiol** 1999 Aug;70(2):261–8

Damage to rat retinal DNA induced in vivo by visible light. Specht S, et al. **Photochem Photobiol** 1999 Jan;69(1):91–8

Temporal sequence of changes in rat retina after UV-A and blue light exposure. Busch EM, et al. **Vision Res** 1999 Apr; 39(7):1233–47

[Microperimetry and reading saccades in retinopathia solaris. Follow-up with the scanning laser ophthalmoscope] Ehrt O, et al. **Ophthalmologe** 1999 May;96(5):325–31 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Post-arteriography cholesterol embolism. Prat C, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):564

SECRETION

Effect of acute acetyl-l-carnitine treatment on daytime melatonin synthesis in the rat. Olatunji-Bello II, et al. **Afr J Med Med Sci** 1997 Sep–Dec;26(3–4):175–7

Imaging of glutamate release from the goldfish retinal slice. Ayoub GS, et al. **Vision Res** 1998 Oct;38(19):2909–12

[Sub-retinal fluid interleukin-10 (Il-10) and interleukin-13 (Il-13) concentration in patients with retinal detachment] Bakunowicz-Lazarczyk A, et al. **Klin Oczna** 1999; 101(2):85–7 (Eng. Abstr.) **(Pol)**

SURGERY

Immunological problems of transplantation into the subretinal space. Enzmann V, et al. **Acta Anat (Basel)** 1998; 162(2–3):178–83 (51 ref.)

Long-term outcome of RPE allografts to the subretinal space of rabbits. Crafoord S, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):247–54

Peripheral retinal cryotherapy for postvitrectomy diabetic vitreous hemorrhage in phakic patients [letter; comment] Cekic O, et al. **Am J Ophthalmol** 1999 Jun;127(6):740–1. Comment on: Am J Ophthalmol 1998 Jul;126(1):82–90.

Peribulbar anesthesia with either 0.75% ropivacaine or a 2% lidocaine and 0.5% bupivacaine mixture for vitreoretinal surgery: a double-blinded study. Gioia L, et al. **Anesth Analg** 1999 Sep;89(3):739–42

Panretinal photocoagulation in the treatment of vitreoretinal amyloidosis [letter] Baum MD, et al. **Arch Ophthalmol** 1998 Nov;116(11):1534

A new model of retinal pigment epithelium transplantation with microspheres. Oganesian A, et al. **Arch Ophthalmol** 1999 Sep;117(9):1192–200

Tissue effects of subclinical diode laser treatment of the retina. Pollack JS, et al. **Arch Ophthalmol** 1998 Dec; 116(12):1633–9

Local anaesthesia for vitreoretinal surgery: a case-control study of 200 cases [see comments] Rao GP, et al. **Eye** 1998; 12 (Pt 3a):407–11. Comment in: Eye 1999;13 (Pt 1):122–3.

Cellular response in rabbit eyes after human fetal RPE cell transplantation. Gabrielian K, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):326–35

Photoreceptor allografts in a feline model of retinal degeneration. Ivert L, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov; 236(11):844–52

MHC expression in syngeneic and allogeneic retinal cell transplants in the rat. Larsson J, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan;237(1):82–5

360 degrees retinectomy in severe anterior PVR and PDR. Faude F, et al. **Int Ophthalmol** 1998–99;22(2):119–23

Surgical management of subretinal hemorrhage. Hochman MA, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):291–301 (45 ref.)

Tracking RPE transplants labeled by retroviral gene transfer with green fluorescent protein. Lai CC, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2141–6

Long-term histological and electrophysiological results of an inactive epiretinal electrode array implantation in dogs. Majji AB, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2073–81

Long-term visual outcome in proliferative diabetic retinopathy patients after panretinal photocoagulation. Dogru M, et al. **Jpn J Ophthalmol** 1999 May–Jun; 43(3):217–24

Quantitative fluorescein angiography following diode laser retinal photocoagulation. Mordon S, et al. **Lasers Surg Med** 1999;24(5):338–45

The subretinal microphotodiode array retinal prosthesis II [letter; comment] Chow AY, et al. **Ophthalmic Res** 1999; 31(3):246. Comment on: Ophthalmic Res 1998;30(3):195–8.

Ophthalmic local anesthesia [letter; comment] Gillow JT, et al. **Ophthalmology** 1999 May;106(5):858. Comment on: Ophthalmology 1998 Feb;105(2):371–6.

Phacoemulsification and silicone oil removal through a single incision [letter; comment] Tanner V, et al. **Ophthalmology** 1999 Jul;106(7):1235; discussion 1236. Comment on: Ophthalmology 1998 Nov;105(11):2023–7.

[Value of fluorescein angiography in control of retinal thermal damage due to diode laser] Desmettre T, et al. **J Fr Ophtalmol** 1999 Aug–Sep;22(7):730–7 (Eng. Abstr.) **(Fre)**

[Relaxing retinopathies and liquid perfluorocarbons] Morel C, et al. **J Fr Ophtalmol** 1998 May;21(5):315–20 (Eng. Abstr.) **(Fre)**

[An attempt to extract an intraretinal nematode located in the papillomacular bundle] Meyer-Riemann W, et al. **Klin Monatsbl Augenheilkd** 1999 Feb;214(2):116–9 (Eng. Abstr.) **(Ger)**

[Vitreoretinal surgery in the treatment of neovascular glaucoma] Psichias A, et al. **Klin Monatsbl Augenheilkd** 1999 Feb;214(2):61–70 (Eng. Abstr.) **(Ger)**

[Translocation of the retina in senile macular degeneration] Landau K, et al. **Schweiz Med Wochenschr** 1999 Jan 12; 129(1–2):49–51 **(Ger)**

TRANSPLANTATION

Preliminary report: indications of improved visual function after retinal sheet transplantation in retinitis pigmentosa patients. Radtke ND, et al. **Am J Ophthalmol** 1999 Sep; 128(3):384–7

Partial and full-thickness neuroretinal transplants. Ghosh F, et al. **Exp Eye Res** 1999 Jan;68(1):67–74

CuZn superoxide dismutase transgenic retinal transplants. Grasbon T, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):336–41

Successful cotransplantation of intact sheets of fetal retina with retinal pigment epithelium. Aramant RB, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1557–64

Graft-host connections in long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):126–32

Long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):133–42

Contribution of microglia as passenger leukocytes to the fate of intraocular neuronal retinal grafts. Ma N, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2384–93

Immunoreactivity to synaptosomal-associated protein-25 in developing rat retinas: effects of a glutamate agonist and retinal transplantation to a host brain. Chen ST, et al. **J Hirnforsch** 1998;39(2):253–62

T cell immunity induced by allogeneic microglia in relation to neuronal retina transplantation. Ma N, et al. **J Immunol** 1999 Apr 15;162(8):4482–9

Immunohistochemical markers in full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Ophthalmic Res** 1999;31(1):5–15

Neural retinal cell transplantation [letter] Gouras P. **Ophthalmology** 1999 Oct;106(10):1855; discussion 1857

Neural retinal cell transplantation [letter] Wong F. **Ophthalmology** 1999 Oct;106(10):1855–7; discussion 1857

ULTRASONOGRAPHY

Ultrasonic evaluation of the vitreous and retina. Coleman DJ, et al. **Semin Ophthalmol** 1998 Dec;13(4):210–8 (11 ref.)

ULTRASTRUCTURE

Ultrastructure of the retina in adult neuronal ceroid lipofuscinosis. Goebel HH, et al. **Acta Anat (Basel)** 1998; 162(2–3):127–32

The arm-repeat protein NPRAP (neurojungin) is a constituent of the plaques of the outer limiting zone in the retina, defining a novel type of adhering junction. Paffenholz R, et al. **Exp Cell Res** 1999 Aug 1;250(2):452–64

Ultracytochemical study of guanylate cyclases A and B in light- and dark-adapted retinas. Spreca A, et al. **Histochem J** 1999 Jul;31(7):477–83

Retinal and lenticular ultrastructure in the aestivating salamanderfish, Lepidogalaxias salamandroides (Galaxiidae, Teleostei) with special reference to a new type of photoreceptor mosaic. Collin SP, et al. **Histol Histopathol** 1998 Oct;13(4):1037–48

Long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):133–42

Ultrastructural localization of light-induced lipid peroxides in the rat retina. Kayatz P, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2314–21

Developmental appearance of oligodendrocytes in the embryonic chick retina. Ono K, et al. **J Comp Neurol** 1998 Aug 31;398(3):309–22

Distribution of mitochondria within Müller cells--I. Correlation with retinal vascularization in different mammalian species. Germer A, et al. **J Neurocytol** 1998 Jun;27(5):329–45

Distribution of mitochondria within Müller cells--II. Post-natal development of the rabbit retinal periphery in vivo and in vitro: dependence on oxygen supply. Germer A, et al. **J Neurocytol** 1998 Jun;27(5):347–59

[Functional and morphological features of vitreoretinal proliferation after penetrating wounds of eye complicated by hemophthalmos (immunohistochemical and electron microscopy study)] Khoroshilova-Maslova IP, et al. **Vestn Oftalmol** 1998 Nov–Dec;114(6):10–4 (Eng. Abstr.) **(Rus)**

RETINAL see **RETINALDEHYDE**

RETINAL ANLAGE TUMOR see **NEUROECTODERMAL TUMOR, MELANOTIC**

RETINAL ARTERY

Retinal capillary microaneurysms. Correction of erroneous attribution: Bader not Bowman. Ashton N. **Eye** 1998;12 (Pt 3a):471–3

Fundal findings preceding retinal artery macroaneurysm [letter] Cahill MT, et al. **Eye** 1998;12 (Pt 6):1023–4

Nd:YAG laser photodisruption for preretinal hemorrhage due to retinal macroaneurysm. Iijima H, et al. **Retina** 1998; 18(5):430–4

Regression of retinal arterial aneurysms in a case of idiopathic retinal vasculitis, aneurysms, and neuroretinitis (IRVAN). Sashihara H, et al. **Retina** 1999;19(3):250–1

Diagnostic and therapeutic challenges. Schatz H, et al. **Retina** 1998;18(6):551–3 (2 ref.)

[Role of vitrectomy in the treatment of retinal arterial macroaneurysms] Gastaud P, et al. **J Fr Ophtalmol** 1999 Jun–Jul;22(6):639–44 (Eng. Abstr.) **(Fre)**

ABNORMALITIES

Congenital retinal macrovessels: a "low visual acuity" case report with a 14-year follow-up. de Crecchio G, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):474–5

Retinocephalic vascular malformation: case report. Muthukumar N, et al. **Br J Neurosurg** 1998 Oct; 12(5):458–60

Abnormal retinal vascularisation in preterm children as a general vascular phenomenon [letter] [see comments] [published erratum appears in Lancet 1999 Mar 27;353(9158):1104] Hellström A, et al. **Lancet** 1998 Dec 5;352(9143):1827. Comment in: Lancet 1999 Mar 27;353(9158):1099–100.

Surgical decompression of branch retinal vein occlusion via arteriovenous crossing sheathotomy: a prospective review of 15 cases. Opremcak EM, et al. **Retina** 1999;19(1):1–5 (11 ref.)

DRUG EFFECTS

In vitro studies of the effects of beta-adrenergic drugs on retinal and posterior ciliary microarteries. Hoste AM. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S183–90 (66 ref.)

PATHOLOGY

Indocyanine green angiography in isolated primary retinal arterial macroaneurysms. Gomez-Ulla F, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):671–4

Retinal findings in Takayasu's arteritis. Karam EZ, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):209–13

Retinal arteriolar diameters and elevated blood pressure: the Atherosclerosis Risk in Communities Study. Sharrett AR, et al. **Am J Epidemiol** 1999 Aug 1;150(3):263–70

Acquired prepapillary arterial loop after central retinal artery obstruction [see comments] Cohen SY. **Arch Ophthalmol** 1998 Oct;116(10):1398–9. Comment in: Arch Ophthalmol 1999 Jul;117(7):978.

All prepapillary arterial loops are not alike [letter] Jampol LM, et al. **Arch Ophthalmol** 1999 Jul;117(7):978

All prepapillary arterial loops are not alike [letter; comment] Parsa CF, et al. **Arch Ophthalmol** 1999 Jul;117(7):978. Comment on: Arch Ophthalmol 1998 Oct;116(10):1398–9.

Collaterals in branch retinal artery occlusion. Sharma MC, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):324–5

Branch retinal vein occlusion after spontaneous obliteration of retinal arterial macroaneurysm. Battaglia Parodi M, et al. **Retina** 1998;18(4):378–9

[Exit of the retinal central vascular trunk and extent of para-papillary atrophy] Budde WM, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):300–1 (Eng. Abstr.) **(Ger)**

[The time course of white retinal arterioles in two cases of antiphospholipid antibody syndrome] Suzuki A, et al. **Nippon Ganka Gakkai Zasshi** 1998 Jul;102(7):455–61 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Effects of peribulbar anesthesia on ocular blood flow in patients undergoing cataract surgery. Findl O, et al. **Am J Ophthalmol** 1999 Jun;127(6):645–9

Doppler ultrasound of blood flow velocities in ophthalmic and central retinal arteries during the early neonatal period. Papacci P, et al. **Am J Ophthalmol** 1998 Nov;126(5):691–7

A new pressure attenuation index to evaluate retinal circulation. A link to protective factors in diabetic retinopathy. Quigley M, et al. **Arch Ophthalmol** 1999 Jan; 117(1):84–9

Noninvasive measurement of the Bayliss effect in retinal autoregulation. Blum M, et al.
Graefes Arch Clin Exp Ophthalmol 1999 Apr; 237(4):296–300

Human ocular vasodynamic changes in light and darkness. Havelius U, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1850–5

Assessment of ocular perfusion after carotid endarterectomy with color–flow duplex scanning. Cohn EJ Jr, et al.
J Vasc Surg 1999 Apr;29(4):665–71

Fluorescent labeling of blood cells for evaluation of retinal and choroidal circulation [published erratum appears in Ophthalmic Surg Lasers 1999 May;30(5):412] Khoobehi B, et al. **Ophthalmic Surg Lasers** 1999 Feb;30(2):140–5

Modulation of Heidelberg Retinal Flowmeter parameter flow at the papilla of healthy subjects: effect of carbogen, oxygen, high intraocular pressure, and beta–blockers. Haefliger IO, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S59–65

Physiology of perfusion as it relates to the optic nerve head. Orgül S, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S17–26 (144 ref.)

[The mechanical fundus perfusion model: blood flow velocity determined by ICG angiography and Heidelberg retina flowmetry] Hendrickson P, et al.
Klin Monatsbl Augenheilkd 1999 May;214(5):275–6 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Indocyanine green videoangiography and color Doppler imaging in Behçet's disease. Atmaca LS, et al.
Acta Ophthalmol Scand 1999 Aug;77(4):444–7

Retrobulbar hemodynamics in amaurosis fugax; investigation by color Doppler velocity. Vécsei PV, et al.
Acta Ophthalmol Scand 1999 Feb;77(1):19–22

Effects of blood pressure on orbital and middle cerebral artery resistances in healthy pregnant women and women with preeclampsia. Belfort MA, et al.
Am J Obstet Gynecol 1999 Mar;180(3 Pt 1):601–7

Color Doppler imaging discloses reduced ocular blood flow velocities in nonexudative age–related macular degeneration. Ciulla TA, et al. **Am J Ophthalmol** 1999 Jul; 128(1):75–80

Retrobulbar and peripheral capillary blood flow in hypercholesterolemic subjects. Senn B, et al.
Am J Ophthalmol 1999 Sep;128(3):310–6

Branch retinal artery occlusion: angiographic demonstration of increased retinal blood flow after external carotid endarterectomy. Shah GK, et al. **Can J Ophthalmol** 1999 Feb;34(1):36–9

Color doppler imaging of the central retinal artery in premature infants undergoing examination for retinopathy of prematurity. Holland DR, et al. **J Aapos** 1999 Aug; 3(4):194–8

Three assumptions: ocular blood flow and glaucoma [editorial; comment] Cioffi GA. **J Glaucoma** 1998 Oct; 7(5):299–300. Comment on: J Glaucoma 1998 Oct;7(5):301–5. Comment on: J Glaucoma 1998 Oct;7(5):336–42.

The effect of nilvadipine, a calcium–channel blocker, on the hemodynamics of retrobulbar vessels in normal–tension glaucoma [see comments] Yamamoto T, et al.
J Glaucoma 1998 Oct;7(5):301–5. Comment in: J Glaucoma 1998 Oct;7(5):299–300.

Ocular arterial flow hemodynamics in patients with diabetes mellitus. Arai T, et al. **J Ultrasound Med** 1998 Nov; 17(11):675–81

The Hettinger hand vibration test, vasospasm, and glaucoma. Goldberg I, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S66–78

[Blood flow velocity in the central retinal artery of exotoxin–induced uveitis in rabbits] Yamada R, et al.
Nippon Ganka Gakkai Zasshi 1999 Aug;103(8):591–6 (Eng. Abstr.) **(Jpn)**

[Microcirculatory bed of bulbar conjunctiva and fundus oculi vessels in cervical osteochondrosis] Samoilov AN.
Vestn Oftalmol 1998 Nov–Dec;114(6):37–9 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Color Doppler image of central retinal artery of eyes with an intraconal mass. Mendivil A, et al. **Curr Eye Res** 1999 Feb;18(2):104–9

Color doppler imaging of the central retinal artery in premature infants undergoing examination for retinopathy of prematurity. Holland DR, et al. **J Aapos** 1999 Aug; 3(4):194–8

Reproducibility of color Doppler imaging for orbital arteries in Japanese patients with normal–tension glaucoma. Niwa Y, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):389–92

Echographic characteristics of retinal arterial macroaneurysm. Tang WM, et al. **Retina** 1998;18(6):559–63

[The hemodynamic characteristics of the central retinal artery and ophthalmic artery in atherosclerotic lesions of the carotid arteries based on the data from ultrasonic study methods] Kharlan SI, et al. **Vestn Oftalmol** 1998 Sep–Oct; 114(5):39–44 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Microvasculature of the rat optic nerve head. Morrison JC, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1702–9

RETINAL ARTERY OCCLUSION

[Small retinal, cochlear, and cerebral infarctions in the young patient, "SICRET" syndrome of Susac syndrome] Mala L, et al. **J Fr Ophtalmol** 1998 May;21(5):375–80 (17 ref.) (Eng. Abstr.) **(Fre)**

[Susac syndrome: presentation of a new case (letter)] Castellanos MM, et al. **Neurologia** 1999 Jan;14(1):43–5 **(Spa)**

BLOOD

Plasma lipoprotein(a) levels are high in patients with central retinal artery occlusion. Murata M, et al. **Thromb Res** 1998 Aug 15;91(4):169–75

COMPLICATIONS

Optic disk morphology in experimental central retinal artery occlusion in rhesus monkeys. Jonas JB, et al.
Am J Ophthalmol 1999 May;127(5):523–30

Ocular venous occlusion and hyperhomocysteinemia [letter] Cruysberg JR. **Ann Intern Med** 1999 Oct 19;131(8):632–3

Acquired prepapillary arterial loop after central retinal artery obstruction [see comments] Cohen SY. **Arch Ophthalmol** 1998 Oct;116(10):1398–9. Comment in: Arch Ophthalmol 1999 Jul;117(7):978.

All prepapillary arterial loops are not alike [letter] Jampol LM, et al. **Arch Ophthalmol** 1999 Jul;117(7):978

All prepapillary arterial loops are not alike [letter; comment] Parsa CF, et al. **Arch Ophthalmol** 1999 Jul;117(7):978. Comment on: Arch Ophthalmol 1998 Oct;116(10):1398–9.

Combined central retinal artery and vein occlusion in a child with systemic non–Hodgkin's lymphoma. Saatci AO, et al. **Int Ophthalmol** 1998–99;22(2):125–7

DIAGNOSIS

Does a visible retinal embolus increase the likelihood of hemodynamically significant carotid artery stenosis in patients with acute retinal arterial occlusion? Sharma S, et al. **Arch Ophthalmol** 1998 Dec;116(12):1602–6

Collaterals in branch retinal artery occlusion. Sharma MC, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):324–5

[Retinal artery occlusion during disseminated lupus erythematosus] Cheour M, et al. **J Fr Ophtalmol** 1999 Feb; 22(1):67–9 (Eng. Abstr.) **(Fre)**

[A case of bilateral continuous central retinal artery occlusion] Nakamura H, et al.
Nippon Ganka Gakkai Zasshi 1999 Apr;103(4):327–31 (Eng. Abstr.) **(Jpn)**

[Obstructions of the retinal artery branches--the clinical and therapeutic aspects] Nicoară S, et al. **Oftalmologia** 1998; 42(2):55–8 (Eng. Abstr.) **(Rum)**

DRUG THERAPY

Superselective intraarterial fibrinolysis in central retinal artery occlusion. Padolecchia R, et al.
AJNR Am J Neuroradiol 1999 Apr;20(4):565–7

Retinal arterial occlusion with LIF using rTPA [letter; comment] Hayreh SS. **Ophthalmology** 1999 Jul; 106(7):1236–9. Comment on: Ophthalmology 1999 Apr;106(4):768–73.

Treatment of retinal arterial occlusion with local fibrinolysis using recombinant tissue plasminogen activator [see comments] Richard G, et al. **Ophthalmology** 1999 Apr; 106(4):768–73. Comment in: Ophthalmology 1999 Jul;106(7):1236–9.

Selective intra–arterial fibrinolysis of acute central retinal artery occlusion. Weber J, et al. **Stroke** 1998 Oct; 29(10):2076–9

Selective thrombolysis of central retinal artery occlusion without long–term systemic heparinization. Wirostko WJ, et al. **Surg Neurol** 1998 Nov;50(5):408–10

[Persistent value of intra–arterial fibrinolysis 8 hours or more following central retinal artery occlusion or of its branches] Weill A, et al. **J Fr Ophtalmol** 1998 Aug–Sep;21(7):466–70 (Eng. Abstr.) **(Fre)**

[Systemic lysis therapy in retinal vascular occlusions] Hattenbach LO. **Ophthalmologe** 1998 Aug;95(8):568–75 (47 ref.) (Eng. Abstr.) **(Ger)**

[Results of fraxiparin and ticlid therapy of acute retinal vessels occlusion] Kasymova MS. **Vestn Oftalmol** 1998 Jul–Aug;114(4):21–4 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Retinal emboli and stroke: the Beaver Dam Eye Study. Klein R, et al. **Arch Ophthalmol** 1999 Aug;117(8):1063–8

ETIOLOGY

Retinal artery air embolism in dogs: fluorescein angiographic evaluation of effects of hypotension and hemodilution. Soga K, et al. **Anesth Analg** 1999 May;88(5):1004–10

Follow up of focal narrowing of retinal arterioles in glaucoma. Papastathopoulos KI, et al. **Br J Ophthalmol** 1999 Mar;83(3):285–9

Branch retinal artery occlusion in systemic diseases: a case report. Hondeghem K, et al. **Bull Soc Belge Ophtalmol** 1999;271:9–15

Partial retinal artery occlusion after coil embolization of an intracerebral aneurysm. Ascaso FJ, et al.
Eur J Ophthalmol 1999 Apr–Jun;9(2):142–4

The effect of perioperative embolisation on visual function in patients undergoing carotid endarterectomy. Gaunt ME, et al. **Eur J Vasc Endovasc Surg** 1998 Sep;16(3):231–7

Central retinal artery occlusion and optic disc drusen [letter] Farah SG, et al. **Eye** 1998;12 (Pt 3a):480–2 (26 ref.)

Transient retinal arterial compromise in Graves' orbitopathy [letter] Ghabrial R, et al. **Eye** 1998;12 (Pt 3a):477–9

Microemboli are not a prerequisite in retinal artery occlusive diseases. Haase CG, et al. **Eye** 1998;12 (Pt 4):659–62

Case in point. Branch retinal artery occlusion secondary to a cholesterol embolus. Long BA, et al.
Hosp Pract (Off Ed) 1999 Apr 15;34(4):30

Bilateral anterior ischemic optic neuropathy and branch retinal artery occlusion after radical prostatectomy. Williams GC, et al. **J Urol** 1999 Oct;162(4):1384–5

The clinico–ophthalmological spectrum of antiphospholipid syndrome. Giorgi D, et al. **Ocul Immunol Inflamm** 1998 Dec;6(4):269–73 (21 ref.)

Combined central retinal artery and central retinal vein occlusion following pars plana vitrectomy. Verma L, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):317–9

Mechanisms of retinal arterial occlusive disease in African American and Caucasian patients. Ahuja RM, et al.
Stroke 1999 Aug;30(8):1506–9

[Isolated occlusion of a cilioretinal artery] Velasque L, et al. **J Fr Ophtalmol** 1999 Apr;22(3):388–93 (Eng. Abstr.) **(Fre)**

[Arterial occlusion of the eye in infectious endocarditis] Schmidt D, et al. **Ophthalmologe** 1999 Apr;96(4):264–6 (Eng. Abstr.) **(Ger)**

GENETICS

Retinal vascular occlusion and deficiencies in the protein C pathway. Greiner K, et al. **Am J Ophthalmol** 1999 Jul; 128(1):69–74

Branch retinal arteriolar occlusion associated with familial factor V Leiden polymorphism and positive rheumatoid factor. Dhar–Munshi S, et al. **Arch Ophthalmol** 1999 Jul; 117(7):971–3

Activated protein C resistance, factor V Leiden, and retinal vessel occlusion [editorial; comment] Ma AD, et al.
Retina 1998;18(4):297–300. Comment on: Retina 1998 ;18(4):308–15. Comment on: Retina 1998 ;18(4):376–7.

Arterial vascular occlusion associated with factor V Leiden gene mutation [see comments] Tayyanipour R, et al.
Retina 1998;18(4):376–7. Comment in: Retina 1998 ;18(4):297–300.

[Hereditary disorders of the protein C system in central artery and branch arteriolar occlusions] Greiner K, et al.
Klin Monatsbl Augenheilkd 1999 Jul;215(1):33–6 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Anticardiolipin antibodies and occlusive vascular disease of the eye: prospective study. Kalogeropoulos CD, et al.
Doc Ophthalmol 1998;95(2):109–20

Recurrent retinal artery occlusion after the disappearance of lupus anticoagulant [letter] McKibbin M, et al. **Eye** 1998; 12 (Pt 5):893–4

MICROBIOLOGY

Bartonella henselae infection associated with peripapillary angioma, branch retinal artery occlusion, and severe vision loss. Gray AV, et al. **Am J Ophthalmol** 1999 Feb; 127(2):223–4

PATHOLOGY

Angiographic and histologic effects of fundus photodynamic therapy with a hydrophilic sensitizer (mono–L–aspartyl chlorin e6). Mori K, et al. **Ophthalmology** 1999 Jul; 106(7):1384–91

PHYSIOPATHOLOGY

Reperfusion of occluded capillary beds in diabetic retinopathy. Takahashi K, et al. **Am J Ophthalmol** 1998 Dec;126(6):791–7

Branch retinal artery occlusion: angiographic demonstration of increased retinal blood flow after external carotid endarterectomy. Shah GK, et al. **Can J Ophthalmol** 1999 Feb;34(1):36–9

Quantifying leukocyte dynamics and plugging in retinal microcirculation of streptozotosin–induced diabetic rats. Kinukawa Y, et al. **Curr Eye Res** 1999 Jan;18(1):49–55

Blood coagulation parameters in retinal arterial occlusion. Sagripanti A, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jun;237(6):480–3

[Multifocal electroretinograms in patients with branch retinal artery occlusion] Ohshima A, et al.
Nippon Ganka Gakkai Zasshi 1999 Mar;103(3):223–8 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

[Isolated occlusion of a cilioretinal artery] Velasque L, et al. **J Fr Ophtalmol** 1999 Apr;22(3):388–93 (Eng. Abstr.) **(Fre)**

RETINAL ARTERY OCCLUSION

VIROLOGY

HIV-related occlusive vasculitis. Roth DB, et al. **Arch Ophthalmol** 1999 May;117(5):696–8

RETINAL BREAKS see **RETINAL PERFORATIONS**

RETINAL DEGENERATION

BLOOD

A hypothesis to explain the reduced blood levels of docosahexaenoic acid in inherited retinal degenerations caused by mutations in genes encoding retina-specific proteins. Anderson RE, et al. **Lipids** 1999;34 Suppl:S235–7 (25 ref.)

CHEMICALLY INDUCED

Degeneration and gliosis in rat retina and central nervous system following 3,3'-iminodipropionitrile exposure. Seoane A, et al. **Brain Res** 1999 Jul 3;833(2):258–71

COMPLICATIONS

Butterfly-like pattern dystrophy and unilateral choroidal neovascularization. Saatci AO, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):734–6

Oculomotor phenotypes in autosomal dominant ataxias. Buttner N, et al. **Arch Neurol** 1998 Oct;55(10):1353–7

Artificial vision. Humayun MS, et al. **Eye** 1998;12 (Pt 3b):605–7

Extensive chorioretinal atrophy in Vogt-Koyanagi-Harada disease. Sonoda S, et al. **Jpn J Ophthalmol** 1999 Mar–Apr; 43(2):113–9

Focal retinal pigment epithelial dysplasia associated with fundus flavimaculatus. Gass JD, et al. **Retina** 1999; 19(4):297–301

Bietti's crystalline dystrophy of the retina and cornea. Jurklies B, et al. **Retina** 1999;19(2):168–71

Golden tapetal-like fundus reflex and posterior hyaloid in a patient with x-linked juvenile retinoschisis. Miyake Y, et al. **Retina** 1999;19(1):84–6

Episcleritis associated with pigmentary retinal degeneration in an HTLV-I carrier. Nomura E, et al. **Tokai J Exp Clin Med** 1998 Oct;23(4):183–5

DIAGNOSIS

Clinical features of Goldmann-Favre syndrome. Ikäheimo K, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):459–61

Retinal degeneration in retinitis pigmentosa and neuronal ceroid lipofuscinosis: An overview. Birch DG. **Mol Genet Metab** 1999 Apr;66(4):356–66 (27 ref.)

Menkes disease [letter; comment] Gasch AT, et al. **Ophthalmology** 1999 Mar;106(3):442–3. Comment on: Ophthalmology 1998 Jun;105(6):1076–8.

Differentiation of degenerative retinoschisis from retinal detachment using optical coherence tomography. Ip M, et al. **Ophthalmology** 1999 Mar;106(3):600–5

[Simplified electroretinography protocol and diagnosis of retinal dystrophies in children] Dhellemmes SD, et al. **J Fr Ophtalmol** 1999 Apr;22(3):383–7 (Eng. Abstr.) **(Fre)**

[Detection of parafoveal scotoma by multifocal electroretinograms] Matsuno K, et al. **Nippon Ganka Gakkai Zasshi** 1998 Aug;102(8):545–50 (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Superoxide dismutases in retinal degeneration of WBN/Kob rat. Ogawa T, et al. **Curr Eye Res** 1998 Nov;17(11):1067–73

Caspaselike proteases activated in apoptotic photoreceptors of Royal College of Surgeons rats. Katai N, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1802–7

Selective degradation of nonsense beta-phosphodiesterase mRNA in the heterozygous rd mouse. Yan W, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2529–36

The localization of glutathione peroxidase in the photoreceptor cells and the retinal pigment epithelial cells of Wistar and Royal College of Surgeons dystrophic rats. Akeo K, et al. **Pigment Cell Res** 1999 Apr;12(2):107–17

EPIDEMIOLOGY

Risk of retinal detachment in patients with lattice degeneration. Sasaki K, et al. **Jpn J Ophthalmol** 1998 Jul–Aug;42(4):308–13

ETIOLOGY

Optic disc neovascularization following severe retinoschisis due to shaken baby syndrome. Brown SM, et al. **Arch Ophthalmol** 1999 Jun;117(6):838–9

Müller cell cone, an overlooked part of the anatomy of the fovea centralis: hypotheses concerning its role in the pathogenesis of macular hole and foveomacualr retinoschisis. Gass JD. **Arch Ophthalmol** 1999 Jun; 117(6):821–3

Photoreceptor cell damage by light in young Royal College of Surgeons rats. Organisciak DT, et al. **Curr Eye Res** 1999 Aug;19(2):188–96

The effect of continuous light on refractive error and the ocular components of the rat. Mutti DO, et al. **Exp Eye Res** 1998 Dec;67(6):631–6

The dystrophic retina in multisystem disorders: the electroretinogram in neuronal ceroid lipofuscinoses. Weleber RG. **Eye** 1998;12 (Pt 3b):580–90 (54 ref.)

Horizontal cells of the rat retina are resistant to degenerative processes induced by ischemia-reperfusion. Chun MH, et al. **Neurosci Lett** 1999 Jan 29;260(2):125–8

Ocular changes in mucopolysaccharidosis IV A (Morquio A syndrome) and long-term results of perforating keratoplasty. Käsmann-Kellner B, et al. **Ophthalmologica** 1999;213(3):200–5

Vertebrate photoreceptor cell development and disease. Morrow EM, et al. **Trends Cell Biol** 1998 Sep;8(9):353–8 (68 ref.)

[Senile retinoschisis and schisis-amotio. Pathogenesis, diagnosis, therapy] Clemens S. **Ophthalmologe** 1999 Mar; 96(3):W215–26 (38 ref.) **(Ger)**

[Degenerative diseases affecting vision] Salacz G. **Orv Hetil** 1999 Jul 4;140(27):1507–11 (Eng. Abstr.) **(Hun)**

GENETICS

Rhodopsin mutations as the cause of retinal degeneration. Classification of degeneration phenotypes in the model system Drosophila melanogaster. Bentrop J. **Acta Anat (Basel)** 1998;162(2–3):85–94 (50 ref.)

The role of the peripherin/RDS gene in retinal dystrophies. Kohl S, et al. **Acta Anat (Basel)** 1998;162(2–3):75–84 (69 ref.)

The Royal College of Surgeons rat: an animal model for inherited retinal degeneration with a still unknown genetic defect. Strauss O, et al. **Acta Anat (Basel)** 1998; 162(2–3):101–11 (151 ref.)

Recent advances in the molecular genetics of hereditary retinal dystrophies with primary involvement of the macula. Weber BH. **Acta Anat (Basel)** 1998;162(2–3):65–74 (93 ref.)

Clinical features of Goldmann-Favre syndrome. Ikäheimo K, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):459–61

Renal-retinal syndromes: association of retinal anomalies and recessive nephronophthisis in patients with homozygous deletion of the NPH1 locus [see comments] Caridi G, et al. **Am J Kidney Dis** 1998 Dec;32(6):1059–62 (12 ref.). Comment in: Am J Kidney Dis 1998 Dec;32(6):1084–5.

Juvenile X-linked retinoschisis from XLRS1 Arg213Trp mutation with preservation of the electroretinogram scotopic b-wave. Sieving PA, et al. **Am J Ophthalmol** 1999 Aug;128(2):179–84

Expression of Pax-6 mRNA in the retinal degeneration (rd) mouse. Jones SE, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):236–40

Recurrent missense (R197C) and nonsense (Y89X) mutations in the XLRS1 gene in families with X-linked retinoschisis. Shastry BS, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):317–9

Spatio-temporal analysis of light-induced Fos expression in the retina of rd mutant mice. Huerta JJ, et al. **Brain Res** 1999 Jul 10;834(1–2):122–7

Circadian regulation of iodopsin and clock is altered in the retinal degeneration chicken retina. Larkin P, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):253–63

Three widespread founder mutations contribute to high incidence of X-linked juvenile retinoschisis in Finland. Huopaniemi L, et al. **Eur J Hum Genet** 1999 Apr; 7(3):368–76

Isolation and investigation of canine phosducin as a candidate for canine generalized progressive retinal atrophies. Lin CT, et al. **Exp Eye Res** 1998 Oct;67(4):473–80

Molecular genetics of human retinal dystrophies. Inglehearn CF. **Eye** 1998;12 (Pt 3b):571–9 (114 ref.)

The photoreceptor [editorial] Moore AT. **Eye** 1998;12 (Pt 3b):497

Animal models of human retinal dystrophies. Petersen-Jones SM. **Eye** 1998;12 (Pt 3b):566–70 (53 ref.)

TIMP-1 expression is increased in X-linked progressive retinal atrophy despite its exclusion as a candidate gene. Zeiss CJ, et al. **Gene** 1998 Dec 28;225(1–2):67–75

A novel retinal degeneration locus identified by linkage and comparative mapping of canine early retinal degeneration. Acland GM, et al. **Genomics** 1999 Jul 15;59(2):134–42

Human DCTN1: genomic structure and evaluation as a candidate for Alström syndrome. Collin GB, et al. **Genomics** 1998 Nov 1;53(3):359–64

Wagner vitreoretinal degeneration with genetic linkage refinement on chromosome 5q13–q14. Zech JC, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 May;237(5):387–93

Japanese juvenile retinoschisis is caused by mutations of the XLRS1 gene. Hotta Y, et al. **Hum Genet** 1998 Aug; 103(2):142–4

Refined genetic and physical positioning of the gene for Doyne honeycomb retinal dystrophy (DHRD). Kermani S, et al. **Hum Genet** 1999 Jan;104(1):77–82

Refinement of genetic localization of the Alström syndrome on chromosome 2p12–13 by linkage analysis in a North African family. Macari F, et al. **Hum Genet** 1998 Dec; 103(6):658–61

Repeated injections of a ciliary neurotrophic factor analogue leading to long-term photoreceptor survival in hereditary retinal degeneration. Chong NH, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1298–305

Screening of the gene encoding the alpha'-subunit of cone cGMP-PDE in patients with retinal degenerations. Gao YQ, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1818–22

Retinal degenerations with truncation mutations in the cone-rod homeobox (CRX) gene. Jacobson SG, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2417–26

Increased susceptibility to constant light in nr and pcd mice with inherited retinal degenerations. LaVail MM, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):1020–4

Tubby-like protein 1 homozygous splice-site mutation causes early-onset severe retinal degeneration. Lewis CA, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2106–14

Retinal vasculature changes in Norric disease mice. Richter M, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2450–7

Thresholds for masking responses to light in three strains of retinally degenerate mice. Mrosovsky N, et al. **J Comp Physiol [A]** 1999 Apr;184(4):423–8

Assessment of the interphotoreceptor matrix proteoglycan-1 (IMPG1) gene localised to 6q13–q15 in autosomal dominant Stargardt-like disease (ADSTGD), progressive bifocal chorioretinal atrophy (PBCRA), and North Carolina macular dystrophy (MCDR1). Gehrig A, et al. **J Med Genet** 1998 Aug;35(8):641–5

Activation of caspase-3 in the retina of transgenic rats with the rhodopsin mutation s334ter during photoreceptor degeneration. Liu C, et al. **J Neurosci** 1999 Jun 15; 19(12):4778–85

A hypothesis to explain the reduced blood levels of docosahexaenoic acid in inherited retinal degenerations caused by mutations in genes encoding retina-specific proteins. Anderson RE, et al. **Lipids** 1999;34 Suppl:S235–7 (25 ref.)

Genetic and physical maps of the mouse rd3 locus; exclusion of the ortholog of USH2A. Danciger JS, et al. **Mamm Genome** 1999 Jul;10(7):657–61

Isolation and characterization of the murine X-linked juvenile retinoschisis (Rs1h) gene. Gehrig AE, et al. **Mamm Genome** 1999 Mar;10(3):303–7

Congenital stationary night blindness in the dog: common mutation in the RPE65 gene indicates founder effect. Aguirre GD, et al. **Mol Vis** 1998 Oct 30;4:23

Mutations in the gene encoding 11-cis retinol dehydrogenase cause delayed dark adaptation and fundus albipunctatus. Yamamoto H, et al. **Nat Genet** 1999 Jun;22(2):188–91

Expression of alphaB-crystallin in a mouse model of inherited retinal degeneration. Jones SE, et al. **Neuroreport** 1998 Dec 21;9(18):4161–5

A Swedish family with a mutation in the peripherin/RDS gene (Arg-172-Trp) associated with a progressive retinal degeneration. Ekström U, et al. **Ophthalmic Genet** 1998 Sep;19(3):149–56

Retinal degeneration associated with ectopia lentis. Simonelli F, et al. **Ophthalmic Genet** 1999 Jun;20(2):121–6

Golden tapetal-like fundus reflex and posterior hyaloid in a patient with x-linked juvenile retinoschisis. Miyake Y, et al. **Retina** 1999;19(1):84–6

Retinal development, degeneration and functional restitution [editorial] Baehr W, et al. **Vision Res** 1999 Jul; 39(15):2439–40

IMMUNOLOGY

Expression of interferon-gamma in the lens exacerbates anterior uveitis and induces retinal degenerative changes in transgenic Lewis rats. Egwuagu CE, et al. **Clin Immunol** 1999 May;91(2):196–205

METABOLISM

Calcium-binding proteins and nitric oxide in retinal function and disease. Müller F, et al. **Acta Anat (Basel)** 1998; 162(2–3):142–50 (109 ref.)

Changes in choroidal innervation in Royal College of Surgeons rats with hereditary retinal degeneration. Rexer M, et al. **Acta Anat (Basel)** 1998;162(2–3):112–8

Intraretinal oxygen distribution in urethan-induced retinopathy in rats. Yu DY, et al. **Am J Physiol** 1998 Jun; 274(6 Pt 2):H2009–17

Expression of Pax-6 mRNA in the retinal degeneration (rd) mouse. Jones SE, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):236–40

Circadian regulation of iodopsin and clock is altered in the retinal degeneration chicken retina. Larkin P, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):253–63

Retinal pigment epithelial cells from Royal College of Surgeons dystrophic rats can take up melanin granules. Braun M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan;237(1):67–71

Distribution of pigment epithelium autofluorescence in retinal disease state recorded in vivo and its change over time. von Rückmann A, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan;237(1):1–9

Adenovirally expressed basic fibroblast growth factor rescues photoreceptor cells in RCS rats. Akimoto M, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):273–9

Synthesis and release of docosahexaenoic acid by the RPE cells of prcd-affected dogs. Chen H, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2418–22

Differential distribution of dystrophins in rat retina. Claudepierre T, et al. **Invest Ophthalmol Vis Sci** 1999 Jun; 40(7):1520–9

Expression patterns of neurturin and its receptor components in developing and degenerative mouse retina. Jomary C, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):568–74

Photoreceptor membrane proteins, phototransduction, and retinal degenerative diseases. The Friedenwald Lecture.

Molday RS. **Invest Ophthalmol Vis Sci** 1998 Dec; 39(13):2491–513 (183 ref.)

Activation of caspase–3 in the retina of transgenic rats with the rhodopsin mutation s334ter during photoreceptor degeneration. Liu C, et al. **J Neurosci** 1999 Jun 15; 19(12):4778–85

Quantitative analysis of major histocompatibility complex class II–positive cells in posterior segment of Royal College of Surgeons rat eyes. Akaishi K, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):357–62

Identification, isolation, and characterization of a 32–kDa fatty acid–binding protein missing from lymphocytes in humans with Bietti crystalline dystrophy (BCD). Lee J, et al. **Mol Genet Metab** 1998 Oct;65(2):143–54

Regional expression of disease–related genes in human and monkey retina. Bernstein SL, et al. **Mol Vis** 1998 Nov 5; 4:24

Levels of retinoic acid and retinaldehyde dehydrogenase expression in eyes of the Mitf–vit mouse model of retinal degeneration. Duncan T, et al. **Mol Vis** 1999 Jun 28;5:9

Lactose promotes organized photoreceptor outer segment assembly and preserves expression of photoreceptor proteins in retinal degeneration. Jablonski MM, et al. **Mol Vis** 1999 Aug 11;5:16

Expression of alphaB–crystallin in a mouse model of inherited retinal degeneration. Jones SE, et al. **Neuroreport** 1998 Dec 21;9(18):4161–5

PATHOLOGY

Induced acute ocular hypertension: mode of retinal cell degeneration. Pescosolido N, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):20–1

Previously apparently undescribed autosomal recessive MCA/MR syndrome with light fixation, retinal cone dystrophy, and seizures: the M syndrome. Rauch A, et al. **Am J Med Genet** 1999 Jan 15;82(2):194–8

Cone–rod dystrophy with serpentine–like retinal deposits. Kellner U. **Arch Ophthalmol** 1998 Oct;116(10):1307–13

Evidence of decreased adhesion between the neural retina and retinal pigmented epithelium of the Mitfvit (vitiligo) mutant mouse. Bora N, et al. **Cell Tissue Res** 1999 Jan; 295(1):65–75

Absence of p53 delays apoptotic photoreceptor cell death in the rds mouse. Ali RR, et al. **Curr Eye Res** 1998 Sep; 17(9):917–23

Photoreceptor cell damage by light in young Royal College of Surgeons rats. Organisciak DT, et al. **Curr Eye Res** 1999 Aug;19(2):188–96

An immunohistochemical study of an autosomal dominant feline rod/cone dysplasia (Rdy cats). Chong NH, et al. **Exp Eye Res** 1999 Jan;68(1):51–7

Morphological changes of retinal pigment epithelium and choroid in rd–mice. Neuhardt T, et al. **Exp Eye Res** 1999 Jan;68(1):75–83

Accumulation of membranes and photoreceptor degeneration in mouse retina. Kralj M, et al. **Folia Morphol (Warsz)** 1998; 57(4):331–40

Retinal degeneration induced by N–methyl–N–nitrosourea in Syrian golden hamsters. Taomoto M, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep;236(9):688–95

Retinal degeneration in the rd mouse in the absence of c–fos. Hafezi F, et al. **Invest Ophthalmol Vis Sci** 1998 Nov; 39(12):2239–44

Retinal vasculature changes in Norrie disease mice. Richter M, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2450–7

Morphology of single ganglion cells in the glaucomatous primate retina. Weber AJ, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2304–20

Inflammatory response and retinal ganglion cell degeneration following intraocular injection of ME7. Russelakis–Carneiro M, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):196–206

Horizontal cells of the rat retina are resistant to degenerative processes induced by ischemia–reperfusion. Chun MH, et al. **Neurosci Lett** 1999 Jan 29;260(2):125–8

Vascular architecture of degenerated retina in WBN/Kob rats: corrosion cast and electron microscopic study. Bhutto IA, et al. **Ophthalmic Res** 1999;31(5):367–77

Abnormal cone synapses in human cone–rod dystrophy. Gregory–Evans K, et al. **Ophthalmology** 1998 Dec; 105(12):2306–12

Apoptotic cell death in retinal degenerations. Remé CE, et al. **Prog Retin Eye Res** 1998 Oct;17(4):443–64 (175 ref.)

[Angiographic findings and histological localization of indocyanine green in N–methyl–N–nitrosourea induced retinal degeneration in rats] Nagai Y, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul;103(7):489–96 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Inner retinal function in hereditary retinal dystrophies. Ruether K, et al. **Acta Anat (Basel)** 1998;162(2–3):169–77

Morphogenesis of the retinal pigment epithelium: toward understanding retinal degenerative diseases. Marmorstein AD, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:1–12 (46 ref.)

Evidence supportive of a functional discrimination between photopic oscillatory potentials as revealed with cone and rod mediated retinopathies. Lachapelle P, et al. **Doc Ophthalmol** 1998;95(1):35–54

Repeated injections of a ciliary neurotrophic factor analogue leading to long–term photoreceptor survival in hereditary retinal degeneration. Chong NH, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1298–305

Riluzole improves functional recovery after ischemia in the rat retina. Ettaiche M, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):729–36

Topography of cone electrophysiology in the enhanced S cone syndrome. Marmor MF, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1866–73

Photoreceptor dystrophy in the RCS rat: roles of oxygen, debris, and bFGF. Valter K, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2427–42

Lack of causal relationship between clusterin expression and photoreceptor apoptosis in light–induced retinal degeneration. Jomary C, et al. **J Neurochem** 1999 May; 72(5):1923–9

Fibroblast growth factor (FGF) soluble receptor 1 acts as a natural inhibitor of FGF2 neurotrophic activity during retinal degeneration. Guillonneau X, et al. **Mol Biol Cell** 1998 Oct;9(10):2785–802

Yearly rates of rod and cone functional loss in retinitis pigmentosa and cone–rod dystrophy. Birch DG, et al. **Ophthalmology** 1999 Feb;106(2):258–68

PREVENTION & CONTROL

Does hyperoxygenation limit retinal degeneration after retinal detachment? [editorial; comment] Aaberg TM Sr. **Am J Ophthalmol** 1999 Aug;128(2):231. Comment on: Am J Ophthalmol 1999 Aug;128(2):155–61. Comment on: Am J Ophthalmol 1999 Aug;128(2):165–72.

Glial cell line–derived neurotrophic factor induces histologic and functional protection of rod photoreceptors in the rd/rd mouse. Frasson M, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2724–34

Effects of the neurotrophin brain–derived neurotrophic factor in an experimental model of retinal detachment. Lewis GP, et al. **Invest Ophthalmol Vis Sci** 1999 Jun; 40(7):1530–44

Functional protection of photoreceptors from light–induced damage by dimethylthiourea and Ginkgo biloba extract. Ranchon I, et al. **Invest Ophthalmol Vis Sci** 1999 May; 40(6):1191–9

The melatonin antagonist luzindole protects retinal photoreceptors from light damage in the rat. Sugawara T, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2458–65

PSYCHOLOGY

Thresholds for masking responses to light in three strains of retinally degenerate mice. Mrosovsky N, et al. **J Comp Physiol [A]** 1999 Apr;184(4):423–8

REHABILITATION

Can subretinal microphotodiodes successfully replace degenerated photoreceptors? Zrenner E, et al. **Vision Res** 1999 Jul;39(15):2555–67

SURGERY

Photoreceptor allografts in a feline model of retinal degeneration. Ivert L, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov; 236(11):844–52

Successful cotransplantation of intact sheets of fetal retina with retinal pigment epithelium. Aramant RB, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1557–64

Rescue effects of IPE transplants in RCS rats: short–term results. Schraermeyer U, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1545–56

The use of perfluorodecalin in retinal detachments with retinoschisis. Aslan O, et al. **Ophthalmic Surg Lasers** 1998 Oct;29(10):818–21

Neural retinal cell transplantation [letter] Gouras P. **Ophthalmology** 1999 Oct;106(10):1855; discussion 1857

THERAPY

Stimulus–specific and cell type–specific cascades: emerging principles relating to control of apoptosis in the eye. Wilson SE. **Exp Eye Res** 1999 Sep;69(3):255–66 (99 ref.)

Retinal degeneration and transplantation in the Royal College of Surgeons rat. Lund RD, et al. **Eye** 1998;12 (Pt 3b):597–604

Photoreceptor rescue. Luthert PJ, et al. **Eye** 1998;12 (Pt 3b):591–6 (60 ref.)

Adenovirus–mediated delivery of rhodopsin–promoted bcl–2 results in a delay in photoreceptor cell death in the rd/rd mouse. Bennett J, et al. **Gene Ther** 1998 Sep;5(9):1156–64

Light treatment enhances photoreceptor survival in dystrophic retinas of Royal College of Surgeons rats. Nir I, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2383–90

Intravitreous transplantation of encapsulated fibroblasts secreting the human fibroblast growth factor 2 delays photoreceptor cell degeneration in Royal College of Surgeons rats. Uteza Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3126–31

Management of hereditary retinal degenerations: present status and future directions. Sharma RK, et al. **Surv Ophthalmol** 1999 Mar–Apr;43(5):427–44 (254 ref.)

VETERINARY

Ocular manifestations of equine motor neuron disease [see comments] Riis RC, et al. **Equine Vet J** 1999 Mar; 31(2):99–110. Comment in: Equine Vet J 1999 Mar;31(2):90–1.

Isolation and investigation of canine phosducin as a candidate for canine generalized progressive retinal atrophies. Lin CT, et al. **Exp Eye Res** 1998 Oct;67(4):473–80

Evaluation of the APOH gene as a positional candidate for prcd in dogs. Gu W, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1229–37

Relation of optical coherence tomography to microanatomy in normal and rd chickens. Huang Y, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2405–16

cGMP phosphodiesterase–alpha mutation causes progressive retinal atrophy in the Cardigan Welsh corgi dog. Petersen–Jones SM, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1637–44

Frequency of the codon 807 mutation in the cGMP phosphodiesterase beta–subunit gene in Irish setters and other dog breeds with hereditary retinal degeneration. Aguirre GD, et al. **J Hered** 1999 Jan–Feb;90(1):143–7

Strategies for identification of mutations causing hereditary retinal diseases in dogs: evaluation of opsin as a candidate gene. Ray K, et al. **J Hered** 1999 Jan–Feb;90(1):133–7

Photoreceptor dysplasia (pd) in miniature schnauzer dogs: evaluation of candidate genes by molecular genetic analysis. Zhang Q, et al. **J Hered** 1999 Jan–Feb;90(1):57–61

RETINAL DETACHMENT

see related

SCLERAL BUCKLING

BLOOD

The effect of silicone ocular surgical devices on serum IgG binding to silicones. Shaikh S, et al. **Am J Ophthalmol** 1998 Dec;126(6):798–804

The occurrence of retinol and carotenoids in human subretinal fluid. Chan C, et al. **Curr Eye Res** 1998 Sep; 17(9):890–5

The influence of retinal detachment surgery on perioperative blood fibrinolysis. Malukiewicz–Wisniewska G, et al. **Curr Eye Res** 1999 Aug;19(2):123–30

CHEMICALLY INDUCED

Bilateral serous retinal detachment resembling central serous chorioretinopathy following epidural steroid injection. Kao LY. **Retina** 1998;18(5):479–81

Sarcoidosis and central serous retinopathy: a dangerous combination. Sharma OP, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):189–91

COMPLICATIONS

Iris retraction syndrome associated with nonrhegmatogenous retinal detachment. Geyer O, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):617–9

Limiting photoreceptor death and deconstruction during experimental retinal detachment: the value of oxygen supplementation [see comments] Mervin K, et al. **Am J Ophthalmol** 1999 Aug;128(2):155–64. Comment in: Am J Ophthalmol 1999 Aug;128(2):231.

Crystalline retinopathy associated with chronic retinal detachment. Ahmed I, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1449–53

High incidence of glucose intolerance in Vogt–Koyanagi–Harada disease. Yawata N, et al. **Br J Ophthalmol** 1999 Jan;83(1):39–42

Effects of the neurotrophin brain–derived neurotrophic factor in an experimental model of retinal detachment. Lewis GP, et al. **Invest Ophthalmol Vis Sci** 1999 Jun; 40(7):1530–44

Bullous retinal detachment in a patient with central serous chorioretinopathy. Yang CM, et al. **J Formos Med Assoc** 1998 Oct;97(10):711–4

Selective B–wave reduction with congenital cataract in neurofibromatosis–2. Tong JT, et al. **Ophthalmology** 1999 Sep;106(9):1681–3

Fluorescein and indocyanine green angiographic findings in congenital optic disk pit associated with macular detachment. Theodossiadis GP, et al. **Retina** 1999; 19(1):6–11

[Rhegmatogenous retinal detachment and hypertension: Schwartz–Matsuo syndrome] Majo F, et al. **J Fr Ophtalmol** 1998 Nov;21(9):707–11 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

Detection of shallow detachments in central serous chorioretinopathy. Wang M, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):402–5

Bilateral rhegmatogenous retinal detachments with unilateral vitreous base avulsion as the presenting signs of child abuse. Gonzales CA, et al. **Am J Ophthalmol** 1999 Apr; 127(4):475–7

Patterns of diabetic macular edema with optical coherence tomography. Otani T, et al. **Am J Ophthalmol** 1999 Jun; 127(6):688–93

Indocyanine green angiography of central serous chorioretinopathy. Chen SJ, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Sep; 62(9):605–13

Survey of surgical indications and results of primary pars plana vitrectomy for rhegmatogenous retinal detachments. Oshima Y, et al. **Jpn J Ophthalmol** 1999 Mar-Apr; 43(2):120-6

Differentiation of degenerative retinoschisis from retinal detachment using optical coherence tomography. Ip M, et al. **Ophthalmology** 1999 Mar;106(3):600-5

The use of confocal scanning laser tomography in the evaluation of retinal elevation in age-related macular degeneration. Jaakkola A, et al. **Ophthalmology** 1999 Feb; 106(2):274-9

Spatial extent of pigment epithelial detachments in age-related macular degeneration. Kunze C, et al. **Ophthalmology** 1999 Sep;106(9):1830-40

Coats' disease and persistent hyperplastic primary vitreous. Role of MR imaging and CT. Edward DP, et al. **Radiol Clin North Am** 1998 Nov;36(6):1119-31, x (64 ref.)

[Serous detection of the neuroretina in Waldenström disease. A case report] Feigl B, et al. **Klin Monatsbl Augenheilkd** 1999 Jul;215(1):64-7 (Eng. Abstr.) **(Ger)**

[Sub-retinal fluid interleukin-10 (Il-10) and interleukin-13 (Il-13) concentration in patients with retinal detachment] Bakunowicz-Lazarczyk A, et al. **Klin Oczna** 1999; 101(2):85-7 (Eng. Abstr.) **(Pol)**

[Results of retinal detachment surgery in aphakic and pseudo-aphakic eyes] Karczewicz D, et al. **Klin Oczna** 1999;101(2):99-101 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Primary use of silicone oil tamponade in the management of perforating globe injury secondary to inadvertent local anaesthesia injection for ophthalmic surgery. Rosenthal G, et al. **Int Ophthalmol** 1997-98;21(6):349-52

[The effect of total protein and albumin levels in serum on retinal detachment due to EPH-gestosis] Kokot W, et al. **Klin Oczna** 1998;100(3):167-9 (Eng. Abstr.) **(Pol)**

EPIDEMIOLOGY

Retinal detachment following intracapsular cataract extraction. A 10-year follow-up study. Naeser K, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):727-30

The Swedish Retinal Detachment Register. I. A database for epidemiological and clinical studies. Algvere PV, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):137-44

Risk of retinal detachment in patients with lattice degeneration. Sasaki K, et al. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):308-13

Prevalence of retinal detachments in children with chorioretinal colobomas [letter; comment] Morrison DA, et al. **Ophthalmology** 1999 Apr;106(4):645-6. Comment on: Ophthalmology 1998 Aug;105(8):1455-8.

Retinal detachment in Olmsted County, Minnesota, 1976 through 1995. Rowe JA, et al. **Ophthalmology** 1999 Jan; 106(1):154-9

ETHNOLOGY

Racial difference in the incidence of retinal detachment in Singapore. Wong TY, et al. **Arch Ophthalmol** 1999 Mar; 117(3):379-83

ETIOLOGY

Retinal detachment following intracapsular cataract extraction. A 10-year follow-up study. Naeser K, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):727-30

Cataracts, bilateral macular holes, and rhegmatogenous retinal detachment induced by lightning. Espaillat A, et al. **Am J Ophthalmol** 1999 Feb;127(2):216-7

Retinal detachment in phakic eyes with anterior chamber intraocular lenses to correct severe myopia [letter] Kwok AK, et al. **Am J Ophthalmol** 1999 Sep;128(3):395-6

Retinal detachment in phakic eyes with anterior chamber intraocular lenses to correct severe myopia. Ruiz-Moreno JM, et al. **Am J Ophthalmol** 1999 Mar;127(3):270-5

The importance of qualitative vitreous examination in patients with acute posterior vitreous detachment. Sharma S, et al. **Arch Ophthalmol** 1999 Mar;117(3):343-6

Retinoschisis associated with disc coloboma [letter] Hotta K, et al. **Br J Ophthalmol** 1999 Jan;83(1):124

Late side-effects of radiotherapy for subfoveal choroidal neovascularization. Postelmans L, et al. **Bull Soc Belge Ophtalmol** 1999;271:61-8

The use of perfluorocarbon liquid in the surgical repair of a bullous retinal detachment secondary to Coats' disease. Devenyi RG. **Can J Ophthalmol** 1998 Dec;33(7):385-6

A rabbit model of proliferative vitreoretinopathy induced by injection of astrocytic cultures. Yew DT, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):759-73

Rapidly resorptive exudative retinal detachment in a patient with renogenic hypertension: case report. Liao HP, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Jun;22(2):324-7

Central serous chorioretinopathy in a patient with cryoglobulinaemia [letter] Zamir E, et al. **Eye** 1999 Apr; 13 (Pt 2):265-6

Risk of retinal detachment in myopic eyes after intraocular lens implantation: a 7 year study. Fritch CD. **J Cataract Refract Surg** 1998 Oct;24(10):1357-60

Total retinal detachment in a preterm infant treated with ECMO. Extracorporeal membrane oxygenation. Good WV, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jul-Aug; 36(4):213-5

Bilateral symmetric retinal detachment and multiple retinal pigment epithelial detachments during haemodialysis. Troiano P, et al. **Nephrol Dial Transplant** 1998 Aug; 13(8):2135-7

Management of cytomegalovirus-related rhegmatogenous retinal detachments. Baumal CR, et al. **Ophthalmic Surg Lasers** 1998 Nov;29(11):916-25 (60 ref.)

Traumatic retinal detachment from a water balloon slingshot. Chaudhry NA, et al. **Ophthalmic Surg Lasers** 1998 Oct; 29(10):864-5

Retinal breaks and rhegmatogenous retinal detachment in association with branch retinal vein occlusion. Kir E, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):285-8

Macular serous retinal detachment caused by subretinal leakage in tilted disc syndrome [see comments] Cohen SY, et al. **Ophthalmology** 1998 Oct;105(10):1831-4. Comment in: Ophthalmology 1999 Aug;106(8):1453-5.

Retinal complications after cataract extraction in patients with high myopia. Fan DS, et al. **Ophthalmology** 1999 Apr; 106(4):688-91; discussion 691-2

Rhegmatogenous retinal detachment after block excision of epithelial implantation cysts and tumors of the anterior uvea. Jonas JB, et al. **Ophthalmology** 1999 Oct; 106(10):1942-6

Retinal detachment in pseudophakic eyes with and without Nd:YAG laser posterior capsulotomy. Ranta P, et al. **Ophthalmology** 1998 Nov;105(11):2127-33

Serous macular detachment and tilted disc syndrome [letter; comment] Tosti G. **Ophthalmology** 1999 Aug;106(8):1453-5 . Comment on: Ophthalmology 1998 Oct;105(10):1831-4.

Retinal detachments due to traumatic tears in the pars plana ciliaris. Alappatt JJ, et al. **Retina** 1998;18(6):506-9

Visual and surgical outcomes of retinal detachment following macular hole repair. Heier JS, et al. **Retina** 1999;19(2):110-5

Retinal detachment associated with macular hole surgery: characteristics, mechanism, and outcomes. Tabandeh H, et al. **Retina** 1999;19(4):281-6

The etiology and treatment of macular detachment associated with optic nerve pits and related anomalies. Postel EA, et al. **Trans Am Ophthalmol Soc** 1998;96:73-88; discussion 88-93

[Retinal detachment--severe complication after posterior scleral reinforcement operation] Zhang J, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):210-2 (Eng. Abstr.) **(Chi)**

[Retinal detachment following YAG laser section of vitreous strands. Apropos of 3 cases] Benhamou N, et al. **J Fr Ophtalmol** 1998 Aug-Sep;21(7):495-500 (Eng. Abstr.) **(Fre)**

[Senile retinoschisis and schisis-amotio. Pathogenesis, diagnosis, therapy] Clemens S. **Ophthalmologe** 1999 Mar; 96(3):W215-26 (38 ref.) **(Ger)**

[Multicenter retrospective study of retinal detachment associated with atopic dermatitis] Hida T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jan;103(1):40-7 (Eng. Abstr.) **(Jpn)**

[The effect of total protein and albumin levels in serum on retinal detachment due to EPH-gestosis] Kokot W, et al. **Klin Oczna** 1998;100(3):167-9 (Eng. Abstr.) **(Pol)**

GENETICS

Retinal detachment in an infant with the ring chromosome 13 syndrome. Filous A, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):739-41

Three widespread founder mutations contribute to high incidence of X-linked juvenile retinoschisis in Finland. Huopaniemi L, et al. **Eur J Hum Genet** 1999 Apr; 7(3):368-76

Unusual presentation of Norrie's disease with hypomagnesemia. Kumar MS, et al. **Indian Pediatr** 1998 Aug;35(8):783-6

Isolated Norrie disease in a female caused by a balanced translocation t(X,6). Meire FM, et al. **Ophthalmic Genet** 1998 Dec;19(4):203-7

METABOLISM

[Measurements of serum and subretinal fluid before and after surgery of retinal detachment] Jin S, et al. **Chung Hua Yen Ko Tsa Chih** 1997 Jan;33(1):36-8 (Eng. Abstr.) **(Chi)**

[Effects of subretinal fluid containing proteins with different molecular weights on the proliferative vitreoretinopathy] Tang L, et al. **Hunan I Ko Ta Hsueh Hsuch Pao** 1997; 22(2):119-22 (Eng. Abstr.) **(Chi)**

PATHOLOGY

Comparative studies of morphological changes and interleukin concentration in subretinal fluid of patients with retinal detachment. Bakunowicz-Lazarczyk A, et al. **Ophthalmologica** 1999;213(1):25-9

A new chart for planning retinal surgery. Lincoff H, et al. **Retina** 1998;18(5):415-9

The etiology and treatment of macular detachment associated with optic nerve pits and related anomalies. Postel EA, et al. **Trans Am Ophthalmol Soc** 1998;96:73-88; discussion 88-93

[Knobby-like choroidal neovascularization accompanied with retinal pigment epithelial detachment] Imaizumi H, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul;103(7):527-37 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Surgical debridement of scleral abscesses with concomitant resolution of the complicating exudative retinal detachment. Tseng SH. **Ophthalmic Surg Lasers** 1998 Nov; 29(11):939-42

Visual recovery in macula-off rhegmatogenous retinal detachments [see comments] Ross WH, et al. **Ophthalmology** 1998 Nov;105(11):2149-53. Comment in: Ophthalmology 1999 Sep;106(9):1641-2.

Indocyanine green angiography and pathophysiology of multifocal posterior pigment epitheliopathy. Uyama M, et al. **Retina** 1999;19(1):12-21

PREVENTION & CONTROL

Limiting the proliferation and reactivity of retinal Müller cells during experimental retinal detachment: the value of oxygen supplementation [see comments] Lewis G, et al. **Am J Ophthalmol** 1999 Aug;128(2):165-72. Comment in: Am J Ophthalmol 1999 Aug;128(2):231.

Prophylactic argon laser retinopexy prior to removal of silicone oil: a pilot study [letter; comment] Ahluwalia HS, et al. **Eye** 1998;12 (Pt 3a):490. Comment on: Eye 1997;11 (Pt 3):328-30.

[Acute retinal necrosis syndrome. Argon laser coagulation for prevention of rhegmatogenic retinal detachment] Hudde T, et al. **Ophthalmologe** 1998 Jul;95(7):473-7 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

[Anterior chamber and retinal detachment] Baudouin C. **J Fr Ophtalmol** 1999 Apr;22(3):399 **(Fre)**

REHABILITATION

[Modern methods of medical rehabilitation in traumatic detachment of retina] Kiseleva OA, et al. **Vestn Oftalmol** 1998 Nov-Dec;114(6):15-7 (Eng. Abstr.) **(Rus)**

SURGERY

Silicone oil tamponade in eyes with posterior staphyloma and retinal detachment caused by macular hole. Scholda C, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):704-6

Does hyperoxygenation limit retinal degeneration after retinal detachment? [editorial; comment] Aaberg TM Sr. **Am J Ophthalmol** 1999 Aug;128(2):231. Comment on: Am J Ophthalmol 1999 Aug;128(2):155-61. Comment on: Am J Ophthalmol 1999 Aug;128(2):165-72.

Spectacle-mounted prisms as an aid in face-down positioning after vitrectomy surgery. Copeland CS, et al. **Am J Ophthalmol** 1999 Apr;127(4):480-1

Comparison of pneumatic retinopexy and scleral buckling in the management of primary rhegmatogenous retinal detachment. Southern Wisconsin Pneumatic Retinopexy Study Group [see comments] Han DP, et al. **Am J Ophthalmol** 1998 Nov;126(5):658-68. Comment in: Am J Ophthalmol 1999 Jun;127(6):741-3.

Complete epiretinal membrane separation in highly myopic eyes with retinal detachment resulting from a macular hole. Oshima Y, et al. **Am J Ophthalmol** 1998 Nov;126(5):669-76

The effect of silicone ocular surgical devices on serum IgG binding to silicones. Shaikh S, et al. **Am J Ophthalmol** 1998 Dec;126(6):798-804

Comparison of pneumatic retinopexy and scleral buckling in the management of primary rhegmatogenous retinal detachment [letter; comment] Tornambe PE, et al. **Am J Ophthalmol** 1999 Jun;127(6):741-3. Comment on: Am J Ophthalmol 1998 Nov;126(5):658-68.

Refractive changes associated with scleral buckling and division in retinopathy of prematurity. Chow DR, et al. **Arch Ophthalmol** 1998 Nov;116(11):1446-8

Elevated intraocular pressure and hypotony following silicone oil retinal tamponade for complex retinal detachment: incidence and risk factors. Henderer JD, et al. **Arch Ophthalmol** 1999 Feb;117(2):189-95

Long-term complications of silicone and hydrogel explants in retinal reattachment surgery. Roldán-Pallarés M, et al. **Arch Ophthalmol** 1999 Feb;117(2):197-201

Treatment of pigment epithelial detachments due to age-related macular degeneration with intra-ocular C3F8 injection. Gross-Jendroska M, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):311-7

Use of silicone oil in the treatment of complicated retinal detachment: results from 1981 to 1994. Han L, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):299-304

Conventional retinal detachment surgery: technique, complications and results. Van Tricht V, et al. **Bull Soc Belge Ophtalmol** 1998;270:39-43

The use of perfluorocarbon liquid in the surgical repair of a bullous retinal detachment secondary to Coats' disease. Devenyi RG. **Can J Ophthalmol** 1998 Dec;33(7):385-6

Corneal astigmatism after scleral buckling surgery assessed by Fourier analysis of videokeratography data. Tomidokoro A, et al. **Cornea** 1998 Sep;17(5):517-21

The influence of retinal detachment surgery on perioperative blood fibrinolysis. Malukiewicz-Wiśniewska G, et al. **Curr Eye Res** 1999 Aug;19(2):123-30

Changes in axial length after retinal detachment surgery. Malukiewicz-Wiśniewska G, et al. **Eur J Ophthalmol** 1999

Apr-Jun;9(2):115-9

Local anaesthesia for vitreoretinal surgery: a case-control study of 200 cases [see comments] Rao GP, et al. **Eye** 1998; 12 (Pt 3a):407-11. Comment in: Eye 1999;13 (Pt 1):122-3.

Results of primary retinal detachment surgery: a prospective audit [letter; comment] Snead MP, et al. **Eye** 1998;12 (Pt 4):750-1. Comment on: Eye 1997;11 (Pt 6):869-71.

Follow-up of functionally lost eyes after vitrectomy and silicone oil tamponade for tractional retinal detachment. van den Brink J, et al.
Graefes Arch Clin Exp Ophthalmol 1999 Sep;237(9):741-4

A new curved vitreous cutter for managing phakic retinal detachment with proliferative vitreoretinopathy. Natarajan S, et al. **Indian J Ophthalmol** 1998 Jun;46(2):87-9

The adjunctive use of perfluoroperhydrophenanthrene (Vitreon) in diabetic vitrectomy. Wafapoor H, et al.
Int Ophthalmol 1998-99;22(2):89-96

Complications associated with vortex vein damage in scleral buckling surgery for rhegmatogenous retinal detachment. Doi N, et al. **Jpn J Ophthalmol** 1999 May-Jun;43(3):232-8

The management of retinal detachments associated with choroidal colobomas by vitrectomy with cyanoacrylate retinopexy. Hotta K, et al. **Jpn J Ophthalmol** 1998 Jul-Aug; 42(4):323-6

Survey of surgical indications and results of primary pars plana vitrectomy for rhegmatogenous retinal detachments. Oshima Y, et al. **Jpn J Ophthalmol** 1999 Mar-Apr; 43(2):120-6

Cone electroretinograms in response to color stimuli after successful retinal detachment surgery. Yamamoto S, et al. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):314-7

In office retinal detachment surgery: pneumatic retinopexy, a Rhode Island experience. Snady-McCoy L.
Med Health R I 1999 Feb;82(2):46-8

The use of perfluorodecalin in retinal detachments with retinoschisis. Aslan O, et al. **Ophthalmic Surg Lasers** 1998 Oct;29(10):818-21

Management of cytomegalovirus-related rhegmatogenous retinal detachments. Baumal CR, et al.
Ophthalmic Surg Lasers 1998 Nov;29(11):916-25 (60 ref.)

An unusual complication of retinal reattachment surgery. Ozertürk Y, et al. **Ophthalmic Surg Lasers** 1999 Jun; 30(6):483-4

Surgical repair of retinal detachment secondary to cytomegalovirus retinitis. Stier PA, et al.
Ophthalmic Surg Lasers 1999 Apr;30(4):289-94

Phacoemulsification and silicone oil removal through a single incision [letter; comment] Batman C, et al.
Ophthalmology 1999 Jul;106(7):1234-5; discussion 1236. Comment on: Ophthalmology 1998 Nov;105(11):2023-7.

Pneumatic retinopexy in the treatment of recurrent retinal detachment [letter; comment] Batman C, et al.
Ophthalmology 1998 Oct;105(10):1788-9. Comment on: Ophthalmology 1997 Dec;104(12):2014-7.

Surgical repair of rhegmatogenous retinal detachment after treatment for retinoblastoma. Baumal CR, et al.
Ophthalmology 1998 Nov;105(11):2134-9

Pars plana vitrectomy without scleral buckle for pseudophakic retinal detachments. Campo RV, et al.
Ophthalmology 1999 Sep;106(9):1811-5; discussion 1816

Surgery for retinal detachment [letter; comment] Friberg TR, et al. **Ophthalmology** 1999 Sep;106(9):1641-2. Comment on: Ophthalmology 1998 Nov;105(11):2149-53.

Scleral buckling surgery for active stage 4A retinopathy of prematurity. Hinz BJ, et al. **Ophthalmology** 1998 Oct; 105(10):1827-30

Glaucoma after pars plana vitrectomy and silicone oil injection for complicated retinal detachments. Honavar SG, et al. **Ophthalmology** 1999 Jan;106(1):169-76; discussion 177

Vitrectomy for rhegmatogenous or tractional retinal detachment with familial exudative vitreoretinopathy. Ikeda T, et al. **Ophthalmology** 1999 Jun;106(6):1081-5

Methicillin-resistant Staphylococcus aureus infections after scleral buckling procedures for retinal detachments associated with atopic dermatitis. Oshima Y, et al.
Ophthalmology 1999 Jan;106(1):142-7

Silicone oil in the repair of pediatric complex retinal detachments: a prospective, observational, multicenter study. Scott IU, et al. **Ophthalmology** 1999 Jul; 106(7):1399-407; discussion 1407-8

Primary vitrectomy for rhegmatogenous retinal detachment associated with choroidal detachment. Sharma T, et al.
Ophthalmology 1998 Dec;105(12):2282-5

Corneal topographic changes after retinal and vitreous surgery. Weinberger D, et al. **Ophthalmology** 1999 Aug; 106(8):1521-4

Management of complications in eyes containing two intraocular lenses. Williams DF, et al. **Ophthalmology** 1998 Nov;105(11):2017-22

Long-term follow-up of retinal detachment due to macular hole in myopic eyes treated by temporary silicone oil tamponade and laser photocoagulation. Wolfensberger TJ, et al. **Ophthalmology** 1999 Sep;106(9):1786-91

Retinal detachment surgery in Marfan's syndrome. Abboud EB. **Retina** 1998;18(5):405-9

Current popularity of pneumatic retinopexy. Benson WE, et al. **Retina** 1999;19(3):238-41

Primary vitrectomy with perfluoro-n-octane use in the treatment of pseudophakic retinal detachment with undetected retinal breaks. Brazitikos PD, et al. **Retina** 1999; 19(2):103-9

Surgical repair of cytomegalovirus-related retinal detachment without silicone oil in patients with AIDS [see comments] Canzano JC, et al. **Retina** 1999;19(4):274-80. Comment in: Retina 1999 ;19(4):271-3.

A "detachment infusion" for macular translocation surgery [letter] Faude F, et al. **Retina** 1999;19(2):173-4

Retinal detachment in cytomegalovirus retinitis: should our approach be changed? [editorial; comment] Freeman WR. **Retina** 1999;19(4):271-3 (12 ref.). Comment on: Retina 1999 ;19(4):274-80.

Drainage of subretinal fluid with a radiosurgical instrument: a preliminary report. Gallenga PE, et al. **Retina** 1998; 18(6):555-7

Transscleral diode laser retinopexy in retinal detachment surgery: results of a multicenter trial. Haller JA, et al.
Retina 1998;18(5):399-404

Long-term results after scleral buckling surgery in uncomplicated juvenile retinal detachment without proliferative vitreoretinopathy. Häring G, et al. **Retina** 1998;18(6):501-5

Combined tractional rhegmatogenous retinal detachment in familial exudative vitreoretinopathy associated with posterior retinal holes: surgical therapy. Ikeda T, et al.
Retina 1998;18(6):566-8

A new chart for planning retinal surgery. Lincoff H, et al.
Retina 1998;18(5):415-9

[The best timing of silicone oil removal] Jiang Y, et al.
Chung Hua Yen Ko Tsa Chih 1997 Jan;33(1):39-41 (Eng. Abstr.) **(Chi)**

[Lenticular-vitreoretinal surgery for complicated retinal detachment] Liu W, et al.
Chung Hua Yen Ko Tsa Chih 1997 May;33(3):207-9 (Eng. Abstr.) **(Chi)**

[Retinal detachment with retinal tears--clinical characteristics and surgical results] Boháčová E, et al.
Cesk Slov Oftalmol 1999 May;55(3):128-35 (Eng. Abstr.) **(Cze)**

[Retinal detachments and retinal surgery (published erratum appears in Ned Tijdschr Geneeskd 1999 May 8;143(19):1016)] La Heij EC, et al.
Ned Tijdschr Geneeskd 1999 Apr 10;143(15):781-5 (16 ref.) (Eng. Abstr.) **(Dut)**

[Liquid perfluorocarbons in vitreo-retinal surgery] Benchekroun O, et al. **J Fr Ophtalmol** 1998 Dec; 21(10):773-81 (54 ref.) **(Fre)**

[Postoperative proliferative vitreoretinopathy in rhegmatogenous retinal detachment associated with stage B preoperative proliferative vitreoretinopathy: comparative results of trans-scleral retinopexy with diode laser or trans-pupillary retinopexy with argon laser] Duquesne N, et al. **J Fr Ophtalmol** 1998 Oct;21(8):555-9 (Eng. Abstr.) **(Fre)**

[Relaxing retinopathies and liquid perfluorocarbons] Morel C, et al. **J Fr Ophtalmol** 1998 May;21(5):315-20 (Eng. Abstr.) **(Fre)**

[12th Annual Session of the Retinologic Society. 9-10 July 1999, Regensburg, in association with the British/Irish Society for Retinal Surgery] **Klin Monatsbl Augenheilkd** 1999;215 Suppl 2:1-20 **(Ger)**

[Intraocular gases in vitreous and retinal surgery. II: Clinical aspects] Faude F, et al. **Ophthalmologe** 1999 Jun; 96(6):413-20 **(Ger)**

[Automobile driving capacity after retinal detachment surgery] Schrader WF, et al. **Ophthalmologe** 1999 Feb; 96(2):102-7 (Eng. Abstr.) **(Ger)**

[A comparative study of visual outcomes following primary vitrectomy and scleral buckling procedures to manage macular off rhegmatogenous retinal detachments] Oshima Y, et al. **Nippon Ganka Gakkai Zasshi** 1999 Mar; 103(3):215-22 (Eng. Abstr.) **(Jpn)**

[Surgical outcomes of vitrectomy for retinal detachment due to macular hole with proliferative vitreoretinopathy] Tsuruoka M, et al. **Nippon Ganka Gakkai Zasshi** 1998 Sep; 102(9):583-6 (Eng. Abstr.) **(Jpn)**

[Usefulness of different silicone oils for intraocular tamponade] Latecka-Krajewska B, et al. **Klin Oczna** 1998; 100(5):295-300 (Eng. Abstr.) **(Pol)**

[Evaluation of the use of intravitreal air in retinal detachment surgery] Malukiewicz-Wiśniewska G, et al. **Klin Oczna** 1999;101(2):95-8 (Eng. Abstr.) **(Pol)**

[The importance of silicone oil removal in prophylaxis of the late complications of internal tamponade] Wesołek-Czernik A, et al. **Klin Oczna** 1998;100(5):301-4 (Eng. Abstr.) **(Pol)**

[Restoration of retinal functional activity after surgical treatment of its detachment in patients with different eyeball injuries] Zueva MV, et al. **Vestn Oftalmol** 1998 Jul-Aug;114(4):13-5 (Eng. Abstr.) **(Rus)**

THERAPY

[Neovascularization in severe myopia] Ducourneau D, et al.
J Fr Ophtalmol 1998 Dec;21(10):782-4 **(Fre)**

ULTRASONOGRAPHY

[Color Doppler ultrasonography in evaluation of intraocular lesions] Wu Z, et al. **Chung Hua Yen Ko Tsa Chih** 1997 Mar;33(2):88-91 (Eng. Abstr.) **(Chi)**

[Ultrasonic diagnosis of retinal detachment after internal tamponade with silicone oil] Krásnik V, et al.
Cesk Slov Oftalmol 1998;54(5):305-9 (Eng. Abstr.) **(Slo)**

RETINAL DIALYSES see **RETINAL PERFORATIONS**

RETINAL DISEASES

[Clinical observation on juvenile-children type of Coats' disease] Wang G, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):216-8 (Eng. Abstr.) **(Chi)**

BLOOD

Plasminogen activator inhibitor 1 in central serous chorioretinopathy. Iijima H, et al. **Am J Ophthalmol** 1999 Apr;127(4):477-8

Hyperornithinaemia associated with gyrate atrophy of the choroid and retina: two cases from India. Christopher R, et al. **Ann Clin Biochem** 1999 Jul;36 (Pt 4):519-22

CHEMICALLY INDUCED

Canthaxanthine retinopathy. Espaillat A, et al.
Arch Ophthalmol 1999 Mar;117(3):412-3

Hydroxychloroquine retinopathy. Maturi RK, et al.
Arch Ophthalmol 1999 Sep;117(9):1262-3

Screening for hydroxychloroquine retinopathy. Screening should be selective [letter; comment] May K, et al.
BMJ 1998 Nov 14;317(7169):1388-9. Comment on: BMJ 1998 Mar 7;316(7133):716-7.

Central serous chorioretinopathy complicating solar retinopathy treated with glucocorticoids. Bouzas EA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):166-8

Fibrotic scar formation in central serous chorioretinopathy developed during systemic treatment with corticosteroids. Hooymans JM. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov;236(11):876-9

Tamoxifen retinopathy: does it really exist? Lazzaroni F, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep; 236(9):669-73

Crack eye syndrome. Colatrella N, et al.
J Am Optom Assoc 1999 Mar;70(3):193-7

An ophthalmological view on the efficacy and safety of chloroquine versus hydroxychloroquine [editorial] [see comments] Easterbrook M. **J Rheumatol** 1999 Sep; 26(9):1866-8. Comment in: J Rheumatol 1999 Sep;26(9):1868.

More thoughts about antimalarials: should one prescribe chloroquine? [editorial; comment] Esdaile JM.
J Rheumatol 1999 Sep;26(9):1868. Comment on: J Rheumatol 1999 Sep;26(9):1864-6. Comment on: J Rheumatol 1999 Sep;26(9):1866-8.

Outer retinal dysfunction in patients treated with vigabatrin. Arndt CF, et al. **Neurology** 1999 Apr 12;52(6):1201-5

Detection of color vision defects in chloroquine retinopathy. Vu BL, et al. **Ophthalmology** 1999 Sep;106(9):1799-803; discussion 1804

Bilateral macular infarction due to diaminodiphenyl sulfone (4,4' DDS) toxicity. Chakrabarti M, et al. **Retina** 1999; 19(1):83-4

[Metamorphopsia of the Alice in Wonderland-syndrome (letter; comment)] Cruysberg JR, et al.
Ned Tijdschr Geneeskd 1999 Mar 27;143(13):696-7; discussion 697-8. Comment on: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2787-9. **(Dut)**

[Ocular complications of hormonal treatments: oral contraception and menopausal hormonal replacement therapy] Glacet-Bernard A, et al. **Contracept Fertil Sex** 1999 Apr;27(4):285-90 (29 ref.) (Eng. Abstr.) **(Fre)**

[Ophthalmologic monitoring in chloroquine therapy (news)] Eggers I, et al. **Klin Monatsbl Augenheilkd** 1998 Sep; 213(3):aA10 **(Ger)**

COMPLICATIONS

Diabetic maculopathy caused by disturbances in retinal vasomotion. A new hypothesis. Bek T.
Acta Ophthalmol Scand 1999 Aug;77(4):376-80 (36 ref.)

Causes of severe visual loss in the early treatment diabetic retinopathy study: ETDRS report no. 24. Early Treatment Diabetic Retinopathy Study Research Group. Fong DS, et al. **Am J Ophthalmol** 1999 Feb;127(2):137-41

Multiple evanescent white dot syndrome in older patients. Lim JI, et al. **Am J Ophthalmol** 1999 Jun;127(6):725-8

Crystalline retinopathy associated with chronic retinal detachment. Ahmed I, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1449-53

Diplopia secondary to aniseikonia associated with macular disease. Benegas NM, et al. **Arch Ophthalmol** 1999 Jul; 117(7):896-9

Nonsurgical management of binocular diplopia induced by macular pathology. Silverberg M, et al.
Arch Ophthalmol 1999 Jul;117(7):900-3

Retinal hamartoma in oral-facial-digital syndrome. Tsai PS, et al. **Arch Ophthalmol** 1999 Jul;117(7):963-5

Localized scotomata detected with temporal modulation perimetry in central serous chorioretinopathy. Vingrys AJ, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):109-16

Gradual painless visual loss: retinal causes. Elner SG.
Clin Geriatr Med 1999 Feb;15(1):25-46, v-vi (47 ref.)

Sudden painless visual loss: retinal causes. Whitmore PV.
Clin Geriatr Med 1999 Feb;15(1):15-24, v

Upward extension of an atrophic tract of the retinal pigment epithelium associated with congenital macular toxoplasmosis. Khairallah M, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9(1):71-2

Central serous chorioretinopathy and HIV. Spalding JM.
J Am Optom Assoc 1999 Jun;70(6):391-8

Bullous retinal detachment in a patient with central serous chorioretinopathy. Yang CM, et al. **J Formos Med Assoc** 1998 Oct;97(10):711–4

Nonarteritic anterior ischemic optic neuropathy with macular edema: visual improvement and fluorescein angiographic characteristics. Tomsak RL, et al. **J Neuroophthalmol** 1998 Sep;18(3):166–8

Punctate outer retinal toxoplasmosis in an HIV-positive child. Moraes HV Jr. **Ocul Immunol Inflamm** 1999 Jun; 7(2):93–5

Detection of vascular endothelial growth factor and tumor necrosis factor alpha in epiretinal membranes of proliferative diabetic retinopathy, proliferative vitreoretinopathy and macular pucker. Armstrong D, et al. **Ophthalmologica** 1998;212(6):410–4

Coats' response in Leber's congenital amaurosis. Bhagat N, et al. **Retina** 1999;19(4):356–9

Familial exudative vitreoretinopathy associated with monocular axial myopia. Cheeseman EW Jr, et al. **Retina** 1999;19(3):257–9

Retinal manifestations of HIV-1 and HIV-2 infections among hospital patients in The Gambia, west Africa. Jaffar S, et al. **Trop Med Int Health** 1999 Jul;4(7):487–92

CONGENITAL

Congenital retinal macrovessels: a "low visual acuity" case report with a 14-year follow-up. de Crecchio G, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):474–5

DIAGNOSIS

An amplitude ratio of pattern visually evoked cortical potentials. Fujimoto N, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):157–9

Indocyanine green angiography in isolated primary retinal arterial macroaneurysms. Gomez-Ulla F, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):671–4

Familial exudative vitreoretinopathy mimicking persistent hyperplastic primary vitreous. Chang-Godinich A, et al. **Am J Ophthalmol** 1999 Apr;127(4):469–71

Efficacy and safety of fluorescein angiography with orally administered sodium fluorescein. Hara T, et al. **Am J Ophthalmol** 1998 Oct;126(4):560–4

Progressive confluent circumpapillary multiple evanescent white-dot syndrome. Luttrull JK, et al. **Am J Ophthalmol** 1999 Sep;128(3):378–80

Optical cross-sectional assessment of the macula by retinal thickness analyzer in optic disk pit maculopathy. Oshima Y, et al. **Am J Ophthalmol** 1999 Jul;128(1):106–9

Fundus and fluorescein documentation of hypomelanosis of Ito. Ikeda T, et al. **Arch Ophthalmol** 1999 Jul;117(7):976–7

Intraocular tuberculosis without detectable systemic infection [letter] Sarvananthan N, et al. **Arch Ophthalmol** 1998 Oct; 116(10):1386–8

Idiopathic juxtafoveolar retinal telangiectasis and pigment epithelial hyperplasia: an optical coherence tomographic study. Trabucchi G, et al. **Arch Ophthalmol** 1999 Mar; 117(3):405–6

Extrafoveal photostress recovery test in glaucoma and idiopathic central serous chorioretinopathy. Horiguchi M, et al. **Br J Ophthalmol** 1998 Sep;82(9):1007–12

Accuracy of visible retinal emboli for the detection of cardioembolic lesions requiring anticoagulation or cardiac surgery. Retinal Emboli of Cardiac Origin Study Group. Sharma S, et al. **Br J Ophthalmol** 1998 Jun;82(6):655–8

Multiple evanescent white dot syndrome. Schelfhout V, et al. **Bull Soc Belge Ophtalmol** 1998;270:19–23

The use of optical coherence tomography in macular diseases. Stalmans P, et al. **Bull Soc Belge Ophtalmol** 1999;272:15–30

Ophthaproblem. Central serous chorioretinopathy. Sharma S. **Can Fam Physician** 1998 Sep;44:1827, 1833–5

Congenital cavernous sinus syndrome in a child with neurofibromatosis type 2. Yu CB, et al. **Can J Ophthalmol** 1999 Apr;34(2):101–3

Dark spots in late-phase indocyanine green angiographic studies in a patient with presumed ocular histoplasmosis syndrome. Weinberger AW, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jun;237(6):524–6

Cancer-associated retinopathy in a patient with advanced epithelial ovarian carcinoma. Harmon JP, et al. **Gynecol Oncol** 1999 Jun;73(3):430–2

Idiopathic central serous chorioretinopathy. Hussain D, et al. **Indian J Ophthalmol** 1998 Sep;46(3):131–7 (55 ref.)

Measurement and classification of retinal vascular tortuosity. Hart WE, et al. **Int J Med Inf** 1999 Feb–Mar; 53(2–3):239–52

Detection and prevention of maculopathy associated with antimalarial agents. Easterbrook M. **Int Ophthalmol Clin** 1999 Spring;39(2):49–57 (33 ref.)

A methodologic issue for ophthalmic telemedicine: image quality and its effect on diagnostic accuracy and confidence. Briggs R, et al. **J Am Optom Assoc** 1998 Sep; 69(9):601–5

Ocular toxocariasis: a rare presentation of a posterior pole granuloma with an associated choroidal neovascular membrane. Lampariello DA, et al. **J Am Optom Assoc** 1999 Apr;70(4):245–52

Optical coherence tomography of macular thickness after cataract surgery. Sourdille P, et al. **J Cataract Refract Surg** 1999 Feb;25(2):256–61

Multiple evanescent white-dot syndrome in a 10-year-old child. Olitsky SE. **J Pediatr Ophthalmol Strabismus** 1998 Sep–Oct;35(5):288–9

A case of frosted branch angiitis with yellowish-white placoid lesions: fluorescein and indocyanine green angiography findings. Masuda K, et al. **Jpn J Ophthalmol** 1998 Nov–Dec;42(6):484–9

Retinal vasculitis revealed by fluorescein angiography in patients with inflammatory bowel disease. Matsuo T, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):398–400

Quantitative evaluation of "sunset glow" fundus in Vogt-Koyanagi-Harada disease. Suzuki S. **Jpn J Ophthalmol** 1999 Jul–Aug;43(4):327–33

Progressive changes in the fluorescein and indocyanine green angiogram in acute idiopathic maculopathy. Akduman LS, et al. **Ocul Immunol Inflamm** 1999 Jun;7(2):97–102

The natural history of macular edema after cataract surgery in diabetes. Dowler JG, et al. **Ophthalmology** 1999 Apr; 106(4):663–8

Indocyanine green angiography in birdshot chorioretinopathy. Fardeau C, et al. **Ophthalmology** 1999 Oct;106(10):1928–34

Oral fluorescein angiography with the confocal scanning laser ophthalmoscope. Garcia CR, et al. **Ophthalmology** 1999 Jun;106(6):1114–8

Routine dilated fundus examination diagnostic yield [letter; comment] Henning K, et al. **Ophthalmology** 1998 Nov; 105(11):1983–5. Comment on: Ophthalmology 1998 Feb;105(2):382–6.

Cat-scratch disease [letter; comment] Lee AG. **Ophthalmology** 1999 Jan;106(1):1. Comment on: Ophthalmology 1998 Jun;105(6):1024–31.

Digital red-free photography for the evaluation of retinal blood vessel displacement in epiretinal membrane. Weinberger D, et al. **Ophthalmology** 1999 Jul;106(7):1380–3

Cushing's disease masking coincidental steroid-responsive diseases. Rehman HU, et al. **Postgrad Med J** 1999 Jan; 75(879):43–5

Coats' disease and persistent hyperplastic primary vitreous. Role of MR imaging and CT. Edward DP, et al. **Radiol Clin North Am** 1998 Nov;36(6):1119–31, x (64 ref.)

Combined hamartoma of the retina and retinal pigment epithelium: a bilateral presentation. Blumenthal EZ, et al. **Retina** 1998;18(6):557–9

Diagnostic and therapeutic challenges. McDonald HR. **Retina** 1999;19(2):158–62

Diagnostic and therapeutic challenges. Bilateral reduction in central visual function. McDonald HR. **Retina** 1999; 19(3):242–5

Quantitative analysis of diabetic macular edema after scatter laser photocoagulation with the scanning retinal thickness analyzer. Tsujikawa A, et al. **Retina** 1999;19(1):59–64

Fluorescein and indocyanine green angiography in vascular chorioretinal diseases. Brancato R, et al. **Semin Ophthalmol** 1998 Dec;13(4):189–98 (29 ref.)

Electrophysiological evaluation of the macular cone system: focal electroretinography and visual evoked potentials after photostress. Parisi V, et al. **Semin Ophthalmol** 1998 Dec; 13(4):178–88 (76 ref.)

Optical coherence tomography. Ripandelli G, et al. **Semin Ophthalmol** 1998 Dec;13(4):199–202 (12 ref.)

Scanning laser ophthalmoscope microperimetry. Varano M, et al. **Semin Ophthalmol** 1998 Dec;13(4):203–9

Optic disk edema with a macular star. Ghauri RR, et al. **Surv Ophthalmol** 1998 Nov–Dec;43(3):270–4

[Anatomic-clinical study of two cases of ocular siderosis] Janssens D, et al. **Bull Soc Belge Ophtalmol** 1999;272:115–9 **(Fre)**

[Retinal pigment anomalies associated with Fabry's disease] Jourdel D, et al. **J Fr Ophtalmol** 1998 Dec;21(10):755–60 (Eng. Abstr.) **(Fre)**

[Combined hamartoma of the pigment epithelium and retina] Maalouf T, et al. **J Fr Ophtalmol** 1999 Aug–Sep;22(7):798 **(Fre)**

[Macular imaging with optical coherence tomography] Pal E, et al. **J Fr Ophtalmol** 1998 Aug–Sep;21(7):484–94 (Eng. Abstr.) **(Fre)**

[Mediterranean spotted fever. Apropos of a case] Restat S, et al. **J Fr Ophtalmol** 1999 May;22(5):554–61 (Eng. Abstr.) **(Fre)**

[On the value of research on retinal cholesterol embolism (letter)] Berkman M. **Presse Med** 1998 May 16;27(18):864 **(Fre)**

[Retina where the neurons become tangled] Fabre M, et al. **Rev Med Interne** 1999;20 Suppl 2:322s–324s **(Fre)**

[From the symptom to electroretinography diagnosis] Niemeyer G. **Klin Monatsbl Augenheilkd** 1999 May; 214(5):328–31 (Eng. Abstr.) **(Ger)**

[White-noise field campimetry in HIV+ patients] Hettesheimer H, et al. **Ophthalmologe** 1999 Jul;96(7):437–42 (Eng. Abstr.) **(Ger)**

[Interobserver variation of spontaneous venous pulse in the retina (letter)] Ortín Castaño A, et al. **Neurologia** 1999 Mar; 14(3):140 **(Spa)**

DRUG THERAPY

Pulmonary hypertension and diffuse macular edema responsive to acetazolamide [letter] Hammond CJ, et al. **Arch Ophthalmol** 1998 Nov;116(11):1535–6

The role of azathioprine in the management of retinal vasculitis. Greenwood AJ, et al. **Eye** 1998;12 (Pt 5):783–8

Central serous chorioretinopathy complicating solar retinopathy treated with glucocorticoids. Bouzas EA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb; 237(2):166–8

Pathogenesis and neuroprotective treatment in Purtscher's retinopathy. Wang AG, et al. **Jpn J Ophthalmol** 1998 Jul–Aug;42(4):318–22

Sub-tenon's corticosteroids for the treatment of macular edema in bone marrow transplant retinopathy. Walton RC, et al. **Retina** 1999;19(2):171–3

Neuroprotection in relation to retinal ischemia and relevance to glaucoma. Osborne NN, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S102–28 (235 ref.)

[Central serous chorioretinopathy--treatment with beta blockers] Fabianová J, et al. **Cesk Slov Oftalmol** 1998 Nov; 54(6):401–4 (Eng. Abstr.) **(Slo)**

ENZYMOLOGY

Roles of constitutive nitric oxide synthase in postischemic rat retina. Hangai M, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):450–8

TIMP-1 and TIMP-2 levels in vitreous and subretinal fluid. Matsuo T, et al. **Jpn J Ophthalmol** 1998 Sep–Oct; 42(5):377–80

EPIDEMIOLOGY

Prevalence of retinopathy in people with diabetes, impaired glucose tolerance, and normal glucose tolerance. Rajala U, et al. **Diabetes Care** 1998 Oct;21(10):1664–9

ETHNOLOGY

Absence of hypertensive retinopathy in a Turkish kindred with autosomal dominant hypertension and brachydactyly. Hattenbach LO, et al. **Br J Ophthalmol** 1998 Dec; 82(12):1363–5

ETIOLOGY

Capillary closure secondary to retinal vein occlusion. A morphological, histopathological, and immunohistochemical study. Bek T. **Acta Ophthalmol Scand** 1998 Dec;76(6):643–8

Retinal findings in Takayasu's arteritis. Karam EZ, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):209–13

A prospective study of ocular manifestations in childhood acute leukaemia. Reddy SC, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):700–3

Retinal complications and plasma C5a levels during interferon alpha therapy for chronic hepatitis C. Sugano S, et al. **Am J Gastroenterol** 1998 Dec;93(12):2441–4

Human immunodeficiency virus-associated vision loss: electroretinogram attenuation. Donahue SP. **Am J Ophthalmol** 1998 Nov;126(5):729–31

Photic maculopathy after pterygium excision. Karp KO, et al. **Am J Ophthalmol** 1999 Aug;128(2):248–50

Visual and anatomic outcomes associated with posterior segment complications after ganciclovir implant procedures in patients with AIDS and cytomegalovirus retinitis [see comments] Lim JI, et al. **Am J Ophthalmol** 1999 Mar; 127(3):288–93. Comment in: Am J Ophthalmol 1999 Mar;127(3):327–8.

Laser pointer-induced macular injury. Luttrull JK, et al. **Am J Ophthalmol** 1999 Jan;127(1):95–6

Peripheral retinal nonperfusion associated with essential thrombocytosis. Nobacht S, et al. **Am J Ophthalmol** 1999 Jan;127(1):101–2

Systemic findings associated with central serous chorioretinopathy. Tittl MK, et al. **Am J Ophthalmol** 1999 Jul;128(1):63–8

Laser pointer maculopathy. Zamir E, et al. **Am J Ophthalmol** 1999 Jun;127(6):728–9

Ophthalmic manifestations of dermatomyositis. Backhouse O, et al. **Ann Rheum Dis** 1998 Aug;57(8):447–9

Acquired prepapillary arterial loop after central retinal artery obstruction [see comments] Cohen SY. **Arch Ophthalmol** 1998 Oct;116(10):1398–9. Comment in: Arch Ophthalmol 1999 Jul;117(7):978.

All prepapillary arterial loops are not alike [letter] Jampol LM, et al. **Arch Ophthalmol** 1999 Jul;117(7):978

All prepapillary arterial loops are not alike [letter; comment] Parsa CF, et al. **Arch Ophthalmol** 1999 Jul;117(7):978. Comment on: Arch Ophthalmol 1998 Oct;116(10):1398–9.

Frosted branch angiitis with ocular toxoplasmosis. Ysasaga JE, et al. **Arch Ophthalmol** 1999 Sep;117(9):1260–1

Inferior oblique myectomy using monopolar cutting diathermy resulting in bilateral retinal scarring [letter] Burton BJ, et al. **Br J Ophthalmol** 1999 Mar;83(3):374–5

Ophthaproblem. Purtscher's disease. Sharma S. **Can Fam Physician** 1999 Jun;45:1453, 1460

Demyelination of retinal myelinated nerve fibers in Behcet's disease. Chavis PS, et al. **Doc Ophthalmol** 1998;95(2):157–64

Solar retinopathy. A study from Nepal and from Germany. Rai N, et al. **Doc Ophthalmol** 1998;95(2):99–108

Central serous retinopathy associated with Weber-Christian disease. Dinakaran S, et al. **Eur J Ophthalmol** 1999 Apr–Jun;9(2):139–41

Peripapillary subretinal neovascular complex complicating papillitis [letter] Anuradha S, et al. **Eye** 1999;13 (Pt 1):112–3

Ocular complications with high-dose interferon alpha in chronic active hepatitis. Kadayifcilar S, et al. **Eye** 1999 Apr;13 (Pt 2):241–6

The contribution of macular changes to visual loss in benign intracranial hypertension. Talks SJ, et al. **Eye** 1998;12 (

Pt 5):806–8
Retinal abnormalities in experimental vitamin E deficiency. Goss-Sampson MA, et al. **Free Radic Biol Med** 1998 Sep; 25(4–5):457–62
Rare case of small-cell carcinoma arising from the endometrium with paraneoplastic retinopathy. Sekiguchi I, et al. **Gynecol Oncol** 1998 Dec;71(3):454–7 (9 ref.)
Retinopathy in systemic lupus erythematosus: pathogenesis and approach to therapy. Giorgi D, et al. **Hum Immunol** 1999 Aug;60(8):688–96 (49 ref.)
Ophthalmological findings in patients with Takayasu disease. Kiyosawa M, et al. **Int J Cardiol** 1998 Oct 1;66 Suppl 1:S141–7; discussion S149
Late ophthalmological complications after total body irradiation in non-human primates. Niemer-Tucker MM, et al. **Int J Radiat Biol** 1999 Apr;75(4):465–72
Late retinal complications of radiation therapy for nasal and paranasal malignancies: relationship between irradiated-dose area and severity. Takeda A, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):599–605
Retinal phototoxicity. Solley WA, et al. **Int Ophthalmol Clin** 1999 Spring;39(2):1–12 (55 ref.)
Cancer-associated retinopathy during treatment for small-cell lung carcinoma. Kashiwabara K, et al. **Intern Med** 1999 Jul;38(7):597–601
Thresholds for visible lesions in the primate eye produced by ultrashort near-infrared laser pulses. Cain CP, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2343–9
Parapapillary chorioretinal atrophy in chronic high-pressure experimental glaucoma in rhesus monkeys. Hayreh SS, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2296–303
Subretinal lesions in subacute sclerosing panencephalitis. Nguyen NQ, et al. **J Aapos** 1999 Aug;3(4):252–4
Juxtapapillary nerve fiber layer infarction as a complication of coronary artery bypass surgery. Jarrell RL 3rd, et al. **J Am Optom Assoc** 1998 Dec;69(12):759–65
Postprandial transient visual loss. Nehmad L, et al. **J Am Optom Assoc** 1999 May;70(5):295–9
Solar retinopathy in a hospital-based primary care clinic. Stokkermans TJ, et al. **J Am Optom Assoc** 1998 Oct; 69(10):625–36 (75 ref.)
Gray-white, spherical deposition on retinal vessel associated with acute retinal necrosis and diabetic retinopathy in HTLV-I carriers. Nakao K, et al. **Jpn J Ophthalmol** 1998 Nov-Dec;42(6):490–4
Pathogenesis and neuroprotective treatment in Purtscher's retinopathy. Wang AG, et al. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):318–22
Cancer-associated retinopathy in a patient with non-small-cell lung carcinoma. Salgia R, et al. **Lung Cancer** 1998 Nov;22(2):149–52
Extensive brain calcification in two children with bilateral Coats' disease. Goutières F, et al. **Neuropediatrics** 1999 Feb; 30(1):19–21
Macular vasculopathy and its evolution in incontinentia pigmenti. Goldberg MF. **Ophthalmic Genet** 1998 Sep; 19(3):141–8
Familial pseudoxanthoma elasticum. Smith LF, et al. **Ophthalmic Genet** 1998 Sep;19(3):169–71
Visual disturbances and pathologic ocular findings in primary antiphospholipid syndrome. Gelfand YA, et al. **Ophthalmology** 1999 Aug;106(8):1537–40
Risk factors for radiation maculopathy and papillopathy after intraocular irradiation. Gragoudas ES, et al. **Ophthalmology** 1999 Aug;106(8):1571–7; discussion 1577–8
Chorioretinopathy in primary antiphospholipid syndrome: a case report. Boets EP, et al. **Retina** 1998;18(4):382–5
Acute posterior multifocal placoid pigment epitheliopathy associated with Wegener's granulomatosis. Chiquet C, et al. **Retina** 1999;19(4):309–13
Coats'-like response in pars planitis. Suh DW, et al. **Retina** 1999;19(1):79–80
Association of antiphospholipid antibodies with retinal vascular disease in systemic lupus erythematosus. Montehermoso A, et al. **Semin Arthritis Rheum** 1999 Apr; 28(5):326–32
Hepatic retinopathia: changes in retinal function [letter; comment] Kashani AA. **Vision Res** 1999 Jun;39(11):2027–9 . Comment on: Vision Res 1997 Jun;37(12):1699–706.
[Retinal pigment anomalies associated with Fabry's disease] Jourdel D, et al. **J Fr Ophtalmol** 1998 Dec;21(10):755–60 (Eng. Abstr.) **(Fre)**
[Viral infectious diseases of the retina] Azumi A, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):336–8 (7 ref.) **(Jpn)**
[A case report of systemic lupus erythematosus patient with severe lupus retinopathy and antiphospholipid antibody] Imanaka H, et al. **Ryumachi** 1999 Feb;39(1):22–6 (Eng. Abstr.) **(Jpn)**
[Central serous chorioretinopathy--a new model of etiopathogenesis] Fabianová J, et al. **Cesk Slov Oftalmol** 1998 Nov;54(6):405–8 **(Slo)**

GENETICS

A range of clinical phenotypes associated with mutations in CRX, a photoreceptor transcription-factor gene. Sohocki MM, et al. **Am J Hum Genet** 1998 Nov;63(5):1307–15
A fifth locus for Bardet-Biedl syndrome maps to chromosome 2q31. Young TL, et al. **Am J Hum Genet** 1999 Mar;64(3):900–4
Mitochondrial maculopathy: geographic atrophy of the macula in the MELAS associated A to G 3243 mitochondrial DNA point mutation. Latkany P, et al. **Am J Ophthalmol** 1999 Jul;128(1):112–4
Assessment of RS1 in X-linked juvenile retinoschisis and sporadic senile retinoschisis. Gehrig A, et al. **Clin Genet** 1999 Jun;55(6):461–5
UHX1 and PCTK1: precise characterisation and localisation within a gene-rich region in Xp11.23 and evaluation as candidate genes for retinal diseases mapped to Xp21.1-p11.2. Brandau O, et al. **Eur J Hum Genet** 1998 Sep-Oct;6(5):459–66
Autosomal recessive retinal dystrophy associated with two novel mutations in the RPE65 gene. Marlhens F, et al. **Eur J Hum Genet** 1998 Sep-Oct;6(5):527–31
The mouse X-linked juvenile retinoschisis cDNA: expression in photoreceptors. Reid SN, et al. **Gene** 1999 Feb 18; 227(2):257–66
Isolation and mapping of novel candidate genes for retinal disorders using suppression subtractive hybridization. den Hollander AI, et al. **Genomics** 1999 Jun 15;58(3):240–9
Refined genetic and physical localization of the Wagner disease (WGN1) locus and the genes CRTL1 and CSPG2 to a 2- to 2.5-cM region of chromosome 5q14.3. Perveen R, et al. **Genomics** 1999 Apr 15;57(2):219–26
Radiation hybrid mapping of chromosomal region 2p15–p16: integration of expressed and polymorphic sequences maps at the Carney complex (CNC) and Doyne honeycomb retinal dystrophy (DHRD) loci. Taymans SE, et al. **Genomics** 1999 Mar 15;56(3):344–9
Retinal dystrophy of Swedish briard/briard-beagle dogs is due to a 4-bp deletion in RPE65. Veske A, et al. **Genomics** 1999 Apr 1;57(1):57–61
Intragenic polymorphic missense mutations in the XLRS1 gene in families with juvenile X-linked retinoschisis. Hiraoka M, et al. **Hum Genet** 1999 Jun;104(6):526–7
Identifying and mapping novel retinal-expressed ESTs from humans. Malone K, et al. **Mol Vis** 1999 May 4;5:5
Cerebroretinal vasculopathy mimicking a brain tumor: a case of a rare hereditary syndrome. Weil S, et al. **Neurology** 1999 Aug 11;53(3):629–31
Dominant retinal dystrophies and Stargardt disease [editorial; comment] Lewis RA. **Ophthalmic Genet** 1999 Jun; 20(2):69–70. Comment on: Ophthalmic Genet 1999 Jun;20(2):71–81.
A Colombian family with X-linked juvenile retinoschisis with three affected females finding of a frameshift mutation. Mendoza-Londono R, et al. **Ophthalmic Genet** 1999 Mar; 20(1):37–43
IRPA scientific newsletter--a new website to integrate data on hereditary retinal disorders [letter] Preising M, et al. **Ophthalmic Genet** 1998 Dec;19(4):213–4
Severe juvenile retinoschisis associated with a 33-bps deletion in XLRS1 gene. Shinoda K, et al. **Ophthalmic Genet** 1999 Mar;20(1):57–61
[Molecular genetics of inherited chorioretinal dystrophy--strategy for identifying disease causing genes] Mashima Y. **Nippon Ganka Gakkai Zasshi** 1999 Mar; 103(3):165–77 (91 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Immune-mediated retinopathy in a patient with stiff-man syndrome. Steffen H, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar;237(3):212–9
Profiling of human leukocyte antigens in Eales' disease. Biswas J, et al. **Int Ophthalmol** 1997-98;21(5):277–81
Recoverin and Hsc 70 are found as autoantigens in patients with cancer-associated retinopathy. Ohguro H, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):82–9
Anti-enolase-alpha autoantibodies in cancer-associated retinopathy: epitope mapping and cytotoxicity on retinal cells. Adamus G, et al. **J Autoimmun** 1998 Dec;11(6):671–7
The 22-kDa antigen in optic nerve and retinal diseases. Keltner JL, et al. **J Neuroophthalmol** 1999 Jun;19(2):71–83
HLA typing in patients with multiple evanescent white dot syndrome (MEWDS). Borruat FX, et al. **Ocul Immunol Inflamm** 1998 Mar;6(1):39–41
Cellular immune response to retinal S-antigen and interphotoreceptor retinoid-binding protein fragments in Eales' disease patients. Saxena S, et al. **Pathobiology** 1999; 67(1):39–44

METABOLISM

Localization of IgG in the normal and dystrophic rat retina after laser lesions. Chu Y, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):117–25
Reproducibility of fundus autofluorescence measurements obtained using a confocal scanning laser ophthalmoscope. Lois N, et al. **Br J Ophthalmol** 1999 Mar;83(3):276–9
Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia-reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087–96
Hepatocyte growth factor in vitreous fluid of patients with proliferative diabetic retinopathy and other retinal disorders. Katsura Y, et al. **Diabetes Care** 1998 Oct; 21(10):1759–63
Changes of GABA metabolic enzymes in acute retinal ischemia. Kobayashi N, et al. **Exp Eye Res** 1999 Jul; 69(1):91–6
Hypoxia inducible factor-1alpha is increased in ischemic retina: temporal and spatial correlation with VEGF expression. Ozaki H, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):182–9
[Energy metabolism disorders in experimental atherosclerotic chorioretinopathy] Fisher OA. **Vestn Oftalmol** 1999 Mar-Apr;115(2):28–31 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Bilateral small retinal infiltrates during rickettsial infection [letter] Lukas JR, et al. **Br J Ophthalmol** 1998 Oct; 82(10):1217–8
Retinopathy associated with enterococcus enteropathy in the neonatal rat. Zhang S, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1305–9

PARASITOLOGY

Toxocara cati-induced ocular Toxocariasis [letter] Sakai R, et al. **Arch Ophthalmol** 1998 Dec;116(12):1686–7
"Silent" ocular toxocariasis. Beiran I, et al. **Eur J Ophthalmol** 1998 Jul-Sep;8(3):195–6

PATHOLOGY

Progression of myelinated retinal nerve fibers. Rosen B, et al. **Am J Ophthalmol** 1999 Apr;127(4):471–3
Laser scanning tomography of localised nerve fibre layer defects. Burk RO, et al. **Br J Ophthalmol** 1998 Oct; 82(10):1112–7
Viridans group Streptococcus subretinal abscess [letter] Rimpel NR, et al. **Br J Ophthalmol** 1999 Mar;83(3):373–4
Patterns of increased in vivo fundus autofluorescence in the junctional zone of geographic atrophy of the retinal pigment epithelium associated with age-related macular degeneration. Holz FG, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb;237(2):145–52
Long-term follow-up of severe central serous chorioretinopathy using indocyanine green angiography. Shiraki K, et al. **Int Ophthalmol** 1997-98;21(5):245–53
Biopsy of the retina and the choroid. Arbour JD, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):213–22 (49 ref.)
A possible role for p16INK4 in neuronal cell death after retinal ischemia-reperfusion injury. Kuroiwa S, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):528–33
Apoptosis and caspases after ischemia-reperfusion injury in rat retina. Lam TT, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):967–75
Ocular fundus lesions in systemic lupus erythematosus model mice. Nakamura A, et al. **Jpn J Ophthalmol** 1998 Sep-Oct; 42(5):345–51
Images in clinical medicine. Lipemia retinalis. Fred HL, et al. **N Engl J Med** 1999 Jun 24;340(25):1969
Cerebroretinal vasculopathy mimicking a brain tumor: a case of a rare hereditary syndrome. Weil S, et al. **Neurology** 1999 Aug 11;53(3):629–31
Unexpected difficult intubation in the patient with Morning Glory syndrome. Shevchenko Y, et al. **Paediatr Anaesth** 1999;9(4):359–61
Vitreoschisis in Eales' disease: pathogenic role and significance in surgery. Badrinath SS, et al. **Retina** 1999; 19(1):51–4
Histopathologic study of presumed parafoveal telangiectasis. Eliassi-Rad B, et al. **Retina** 1999;19(4):332–5
Unilateral acute idiopathic maculopathy: an unusual presentation? Gelisken F, et al. **Retina** 1998;18(5):477–9
Bilateral choristomas in the ocular adnexa, lids, and posterior segment. Simons BD, et al. **Retina** 1998;18(4):380–2
[Apoptotic changes after pressure-induced ischemia-reperfusion injury in the rat retina] Nishiyama Y, et al. **Nippon Ganka Gakkai Zasshi** 1998 Jul; 102(7):417–24 (Eng. Abstr.) **(Jpn)**
[The role of apoptosis in physiology and pathology of the retina] Obuchowska I, et al. **Klin Oczna** 1999;101(2):139–43 (43 ref.) (Eng. Abstr.) **(Pol)**

PHYSIOPATHOLOGY

An experimental study on damage of retina function due to toxicity of carbon disulfide and lipid peroxidation. Qingfen T, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):298–301
Central serous chorioretinopathy: bilateral multifocal electroretinographic abnormalities. Marmor MF, et al. **Arch Ophthalmol** 1999 Feb;117(2):184–8
Electrophysiological evaluation of visual loss in Müller cell sheen dystrophy. Kellner U, et al. **Br J Ophthalmol** 1998 Jun;82(6):650–4
Short-wavelength sensitive visual field loss in patients with clinically significant diabetic macular oedema. Hudson C, et al. **Diabetologia** 1998 Aug;41(8):918–28
Assessment of the sympatho-vagal interaction in central serous chorioretinopathy measured by power spectral analysis of heart rate variability. Bernasconi P, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):571–6
Laser flare-cell meter analysis of blood-aqueous barrier functional status in a patient with crystalline retinopathy. Chen MS, et al. **J Formos Med Assoc** 1999 Apr;98(4):287–9
Photoreceptor "retinoid pumps" in health and disease. Bok D. **Neuron** 1999 Jul;23(3):412–4 (11 ref.)
Role of nitric oxide during the initial phase of reperfusion after retinal ischemia in the rat. Hangai M, et al. **Ophthalmic Res** 1999;31(1):16–23
Retinal and optic nerve head ischemic disorders and atherosclerosis: role of serotonin. Hayreh SS. **Prog Retin Eye Res** 1999 Mar;18(2):191–221 (168 ref.)

RETINAL DISEASES

PREVENTION & CONTROL

How to protect your eyes from solar retinopathy. Stalmans P, et al. **Bull Soc Belge Ophtalmol** 1999;272:93–100

Topically applied betaxolol attenuates NMDA-induced toxicity to ganglion cells and the effects of ischaemia to the retina. Osborne NN, et al. **Exp Eye Res** 1999 Sep; 69(3):331–42

Detection and prevention of maculopathy associated with antimalarial agents. Easterbrook M. **Int Ophthalmol Clin** 1999 Spring;39(2):49–57 (33 ref.)

BDNF attenuates retinal cell death caused by chemically induced hypoxia in rats. Ikeda K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2130–40

The effects of two stereoisomers of N-acetylcysteine on photochemical damage by UVA and blue light in rat retina. Busch EM, et al. **Photochem Photobiol** 1999 Sep; 70(3):353–8

[Ocular complications of hormonal treatments: oral contraception and menopausal hormonal replacement therapy] Glacet-Bernard A, et al. **Contracept Fertil Sex** 1999 Apr;27(4):285–90 (29 ref.) (Eng. Abstr.) **(Fre)**

SURGERY

Ciliary body endophotocoagulation during pars plana vitrectomy for pediatric patients with vitreoretinal disorders and glaucoma. Sears JE, et al. **Am J Ophthalmol** 1998 Nov;126(5):723–5

Panretinal photocoagulation in the treatment of vitreoretinal amyloidosis [letter] Baum MD, et al. **Arch Ophthalmol** 1998 Nov;116(11):1534

Retinal sparing by selective retinal pigment epithelial photocoagulation. Roider J, et al. **Arch Ophthalmol** 1999 Aug;117(8):1028–34

Good visual outcome following laser therapy for proliferative radiation retinopathy. Thorne JE, et al. **Arch Ophthalmol** 1999 Jan;117(1):125–6

Pars plana vitrectomy and subretinal surgery for ocular toxocariasis. Werner JC, et al. **Arch Ophthalmol** 1999 Apr; 117(4):532–4

Localization of IgG in the normal and dystrophic rat retina after laser lesions. Chu Y, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):117–25

Risk factors for pain and nausea following retinal and vitreous surgery under conscious sedation. Mandelcorn M, et al. **Can J Ophthalmol** 1999 Aug;34(5):281–5

Determining the clinical significance of randomized clinical trials: a review of the efficacy of laser photocoagulation. Sharma S. **Can J Ophthalmol** 1999 Feb;34(1):46–9 (13 ref.)

Long term visual results of vitrectomy for Eales disease complications. Shanmugam MP, et al. **Int Ophthalmol** 1998; 22(1):61–4

Combined clear corneal phacoemulsification, vitreoretinal surgery, and intraocular lens implantation. Scharwey K, et al. **J Cataract Refract Surg** 1999 May;25(5):693–8

Chemical stability of silicone oil in the human eye after prolonged clinical use. Lakits A, et al. **Ophthalmology** 1999 Jun;106(6):1091–100

Successful surgical removal of encapsulated subretinal cysticercus. Gupta A, et al. **Retina** 1998;18(6):563–6

Sub-Tenon's anesthesia in vitreoretinal surgery: a needleless technique. Kwok AK, et al. **Retina** 1999;19(4):291–6

[Vitrectomy in optic nerve disc pit with maculopathy] Kalvodová B, et al. **Cesk Slov Oftalmol** 1999 May; 55(3):123–7 (Eng. Abstr.) **(Cze)**

[Anatomic-clinical study of two cases of ocular siderosis] Janssens D, et al. **Bull Soc Belge Ophtalmol** 1999;272:115–9 **(Fre)**

[Effect of local revascularization of choroid on ocular tissues and lipid peroxidation in experimental atherosclerotic chorioretinopathy] Fisher OA, et al. **Vestn Oftalmol** 1998 Jul-Aug;114(4):32–5 (Eng. Abstr.) **(Rus)**

THERAPY

A vitrectomy improves the transfection efficiency of adenoviral vector-mediated gene transfer to Müller cells. Sakamoto T, et al. **Gene Ther** 1998 Aug;5(8):1088–97

Retinopathy in systemic lupus erythematosus: pathogenesis and approach to therapy. Giorgi D, et al. **Hum Immunol** 1999 Aug;60(8):688–96 (49 ref.)

Cryopexy is not as bad as all that [letter; comment] Lincoff H, et al. **Retina** 1998;18(5):486–8. Comment on: Retina 1997;17(4):338–43.

[Low vision care (editorial; comment)] Yanashima K. **Nippon Ganka Gakkai Zasshi** 1999 Jan;103(1):1–2. Comment on: Nippon Ganka Gakkai Zasshi 1999 Jan;103(1):34–9. **(Jpn)**

ULTRASONOGRAPHY

Ultrasound biomicroscopy in peripheral retinovitreal toxocariasis. Tran VT, et al. **Am J Ophthalmol** 1999 May; 127(5):607–9

Echographic characteristics of retinal arterial macroaneurysm. Tang WM, et al. **Retina** 1998;18(6):559–63

VETERINARY

Optic neuropathy and retinopathy in closantel toxicosis of sheep and goats. Gill PA, et al. **Aust Vet J** 1999 Apr; 77(4):259–61

Comparative study of viral encephalopathy and retinopathy in juvenile sea bass Dicentrarchus labrax infected in different ways. Péducasse S, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):11–20

Retinal dystrophy of Swedish briard/briard-beagle dogs is due to a 4-bp deletion in RPE65. Veske A, et al. **Genomics** 1999 Apr 1;57(1):57–61

VIROLOGY

HIV retinopathy at seroconversion [letter] Finlayson J, et al. **Br J Ophthalmol** 1998 Nov;82(11):1339–40

RETINAL DISPARITY see **VISION DISPARITY**

RETINAL DRUSEN

COMPLICATIONS

Early drusen formation in the normal and aging eye and their relation to age related maculopathy: a clinicopathological study. Sarks SH, et al. **Br J Ophthalmol** 1999 Mar; 83(3):358–68

ETIOLOGY

Comet-tailed drusen of the retinal pigment epithelium in angioid streaks. Mansour AM, et al. **Eye** 1998;12 (Pt 6):943–4

Drusen in age-related macular degeneration: pathogenesis, natural course, and laser photocoagulation-induced regression. Abdelsalam A, et al. **Surv Ophthalmol** 1999 Jul-Aug;44(1):1–29 (148 ref.)

[Indocyanine green angiography of basal laminar drusen in the retinal pigment epithelium associated with vitelliform macular degeneration] Quaranta M, et al. **J Fr Ophtalmol** 1998 Mar;21(3):185–90 (Eng. Abstr.) **(Fre)**

GENETICS

A single EFEMP1 mutation associated with both Malattia Leventinese and Doyne honeycomb retinal dystrophy. Stone EM, et al. **Nat Genet** 1999 Jun;22(2):199–202

METABOLISM

Vitronectin is a constituent of ocular drusen and the vitronectin gene is expressed in human retinal pigmented epithelial cells. Hageman GS, et al. **FASEB J** 1999 Mar; 13(3):477–84

PATHOLOGY

Basal linear deposit and large drusen are specific for early age-related maculopathy. Curcio CA, et al. **Arch Ophthalmol** 1999 Mar;117(3):329–39

Computer-assisted, interactive fundus image processing for macular drusen quantitation. Shin DS, et al. **Ophthalmology** 1999 Jun;106(6):1119–25

PHYSIOPATHOLOGY

Temporal sensitivity deficits in patients with high-risk drusen. Phipps JA, et al. **Aust N Z J Ophthalmol** 1999 Jun-Aug;27(3–4):265–7

Laser-induced drusen reduction improves visual function at 1 year. Choroidal Neovascularization Prevention Trial Research Group [see comments] Ho AC, et al. **Ophthalmology** 1999 Jul;106(7):1367–73; discussion 1374. Comment in: Ophthalmology 1999 Jul;106(7):1241–2.

RADIOGRAPHY

[Indocyanine green angiography of basal laminar drusen in the retinal pigment epithelium associated with vitelliform macular degeneration] Quaranta M, et al. **J Fr Ophtalmol** 1998 Mar;21(3):185–90 (Eng. Abstr.) **(Fre)**

SURGERY

Variability of RPE reaction in two cases after selective RPE laser effects in prophylactic treatment of drusen. Roider J, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan; 237(1):45–50

Can laser photocoagulation of eyes with high-risk drusen prevent vision loss from age-related macular degeneration? [editorial; comment] Folk JC, et al. **Ophthalmology** 1999 Jul;106(7):1241–2 (19 ref.). Comment on: Ophthalmology 1999 Jul;106(7):1367–73; discussion 1374.

Laser-induced drusen reduction improves visual function at 1 year. Choroidal Neovascularization Prevention Trial Research Group [see comments] Ho AC, et al. **Ophthalmology** 1999 Jul;106(7):1367–73; discussion 1374. Comment in: Ophthalmology 1999 Jul;106(7):1241–2.

RETINAL DYSPLASIA

COMPLICATIONS

Bilateral macular dysplasia in fragile X syndrome. Kranjc BS, et al. **Optom Vis Sci** 1998 Dec;75(12):856–9

Focal retinal pigment epithelial dysplasia associated with fundus flavimaculatus. Gass JD, et al. **Retina** 1999; 19(4):297–301

VETERINARY

MRD in the golden retriever--an update [news] **J Small Anim Pract** 1998 Nov;39(11):556

Canine health schemes: tackling MRD in golden retrievers [news] **Vet Rec** 1998 Oct 17;143(16):430–1

RETINAL GANGLION CELLS

CHEMISTRY

Immunocytochemical localization of the NMDA-R2A receptor subunit in the cat retina. Goebel DJ, et al. **Brain Res** 1998 Oct 19;808(2):141–54

Cation channel control of neurite morphology. Heng JE, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):67–73

Calcium released from intracellular stores inhibits GABAA-mediated currents in ganglion cells of the turtle retina. Akopian A, et al. **J Neurophysiol** 1998 Sep; 80(3):1105–15

Immunohistological studies of metabotropic glutamate receptor subtype 6-deficient mice show no abnormality of retinal cell organization and ganglion cell maturation. Tagawa Y, et al. **J Neurosci** 1999 Apr 1;19(7):2568–79

Increased levels of TrkA in the regenerating retinal ganglion cells of fish. Vecino E, et al. **Neuroreport** 1998 Oct 26; 9(15):3409–13

Differential localization of GABA(B) receptors in the mouse retina. Zhang C, et al. **Neuroreport** 1998 Oct 26; 9(15):3493–7

Immunocytochemical localization of calretinin containing neurons in retina from rabbit, cat, and dog. Jeon MH, et al. **Neurosci Res** 1998 Sep;32(1):75–84

Substance P-immunoreactive neurons in hamster retinas. Li HB, et al. **Vis Neurosci** 1999 May-Jun;16(3):475–81

CLASSIFICATION

Neural cell classification by wavelets and multiscale curvature. Cesar Júnior RM, et al. **Biol Cybern** 1998 Oct; 79(4):347–60

The Eta ganglion cell type of cat retina. Berson DM, et al. **J Comp Neurol** 1999 May 31;408(2):204–19

The zeta cell: a new ganglion cell type in cat retina. Berson DM, et al. **J Comp Neurol** 1998 Sep 21;399(2):269–88

Automatic characterization and classification of ganglion cells from the salamander retina. Costa L da F, et al. **J Comp Neurol** 1999 Feb 1;404(1):33–51

Morphological classification of ganglion cells in the central retina of chicks. Chen Y, et al. **J Vet Med Sci** 1999 May; 61(5):537–42

CYTOLOGY

Further observations on the presence of ganglion cells in the oculomotor nerves of mammals and fish: number, origin and probable functions. Palmieri G, et al. **Anat Histol Embryol** 1999 May;28(2):109–13

Number of neurons in the retinal ganglion cell layer of the quokka wallaby do not change throughout life. Harman AM, et al. **Anat Rec** 1999 Sep 1;256(1):78–83

Transmitter-specific input to OFF-alpha ganglion cells in the cat retina. Owczarzak MT, et al. **Anat Rec** 1999 Aug 1;255(4):363–73

Distribution and ultrastructural localization of pituitary adenylate cyclase-activating polypeptide (PACAP) and its receptor in the rat retina. Seki T, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:408–11

Axon deviation in the human lamina cribrosa [see comments] Morgan JE, et al. **Br J Ophthalmol** 1998 Jun;82(6):680–3 . Comment in: Br J Ophthalmol 1998 Jun;82(6):595–6.

Cation channel control of neurite morphology. Heng JE, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):67–73

Caspase inhibitors block the retinal ganglion cell death following optic nerve transection. Chaudhary P, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):36–45

Bax antisense oligonucleotides reduce axotomy-induced retinal ganglion cell death in vivo by reduction of Bax protein expression. Isenmann S, et al. **Cell Death Differ** 1999 Jul;6(7):673–82

Susceptibility of retinal ganglion cells to excitotoxicity depends on soma size and retinal eccentricity. Vorwerk CK, et al. **Curr Eye Res** 1999 Jul;19(1):59–65

POU domain factor Brn-3b is essential for retinal ganglion cell differentiation and survival but not for initial cell fate specification. Gan L, et al. **Dev Biol** 1999 Jun 15; 210(2):469–80

Retinal neurogenesis: the formation of the initial central patch of postmitotic cells. Hu M, et al. **Dev Biol** 1999 Mar 15; 207(2):309–21

Specific expression of ezrin, a cytoskeletal-membrane linker protein, in a subset of chick retinotectal and sensory projections. Takahashi M, et al. **Eur J Neurosci** 1999 Feb; 11(2):545–58

Long-term effect of inhibition of ced 3-like caspases on the survival of axotomized retinal ganglion cells in vivo. Kermer P, et al. **Exp Neurol** 1999 Jul;158(1):202–5

Nitric oxide synthase inhibition delays axonal degeneration and promotes the survival of axotomized retinal ganglion cells. Koeberle PD, et al. **Exp Neurol** 1999 Aug; 158(2):366–81

Graft-host connections in long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):126–32

Rat optic nerve oligodendrocytes develop in the absence of viable retinal ganglion cell axons. Ueda H, et al. **J Cell Biol** 1999 Sep 20;146(6):1365–74

The zeta cell: a new ganglion cell type in cat retina. Berson DM, et al. **J Comp Neurol** 1998 Sep 21;399(2):269–88

The Eta ganglion cell type of cat retina. Berson DM, et al. **J Comp Neurol** 1999 May 31;408(2):204–19

Automatic characterization and classification of ganglion cells from the salamander retina. Costa L da F, et al. **J Comp Neurol** 1999 Feb 1;404(1):33–51

Interocular symmetry in nerve fiber layer thickness of normal eyes as determined by polarimetry. Essock EA, et al. **J Glaucoma** 1999 Apr;8(2):90–8

Impulse encoding across the dendritic morphologies of retinal ganglion cells. Sheasby BW, et al. **J Neurophysiol** 1999 Apr;81(4):1685–98

The nondiscriminating zone of directionally selective retinal ganglion cells: comparison with dendritic structure and implications for mechanism. He S, et al. **J Neurosci** 1999 Sep 15;19(18):8049–56

Axonal injury alters alternative splicing of the retinal NR1 receptor: the preferential expression of the NR1b isoforms is crucial for retinal ganglion cell survival. Kreutz MR, et al. **J Neurosci** 1998 Oct 15;18(20):8278–91

The neuronal architecture of Xenopus retinal ganglion cells is sculpted by rho-family GTPases in vivo. Ruchhoeft ML, et al. **J Neurosci** 1999 Oct 1;19(19):8454–63

Randomized retinal ganglion cell axon routing at the optic chiasm of GAP-43-deficient mice: association with midline recrossing and lack of normal ipsilateral axon turning. Sretavan DW, et al. **J Neurosci** 1998 Dec 15; 18(24):10502–13

Cell production and cell death in the generation of variation in neuron number. Strom RC, et al. **J Neurosci** 1998 Dec 1;18(23):9948–53

Combined methods of retrograde staining, layer-separation and viscoelastic cell stabilization to isolate retinal ganglion cells in adult rats. Simon P, et al. **J Neurosci Methods** 1998 Sep 1;83(2):113–24

Morphological classification of ganglion cells in the central retina of chicks. Chen Y, et al. **J Vet Med Sci** 1999 May; 61(5):537–42

Widespread integration and survival of adult-derived neural progenitor cells in the developing optic retina. Takahashi M, et al. **Mol Cell Neurosci** 1998 Dec;12(6):340–8

Retinal ganglion cell loss after the period of naturally occurring cell death in bcl-2-/- mice. Cellerino A, et al. **Neuroreport** 1999 Apr 6;10(5):1091–5

Rescue of retinal ganglion cells from axotomy-induced apoptosis through TRK oncogene transfer. Garcia Valenzuela E, et al. **Neuroreport** 1998 Oct 5;9(14):3165–70

Increased levels of TrkA in the regenerating retinal ganglion cells of fish. Vecino E, et al. **Neuroreport** 1998 Oct 26; 9(15):3409–13

Rat retinal ganglion cells culture enriched with the magnetic cell sorter. Shoge K, et al. **Neurosci Lett** 1999 Jan 8; 259(2):111–4

Immunocytochemical localization of calretinin containing neurons in retina from rabbit, cat, and dog. Jeon MH, et al. **Neurosci Res** 1998 Sep;32(1):75–84

Analysis of dendritic arbors of native and regenerated ganglion cells in the goldfish retina. Cameron DA, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):253–61

Morphology of wide-field, monostratified ganglion cells of the human retina. Peterson BB, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):107–20

Ganglion cells of a short-wavelength-sensitive cone pathway in New World monkeys: morphology and physiology. Silveira LC, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):333–43

Species-dependent variation in the dendritic stratification of apparently homologous retinal ganglion cell mosaics in two neoteleost fishes. Cook JE, et al. **Vision Res** 1999 Aug; 39(16):2615–31

Morphology of P and M retinal ganglion cells of the bush baby. Yamada ES, et al. **Vision Res** 1998 Nov; 38(21):3345–52

DRUG EFFECTS

Major biological effects of neurotrophic factors on retinal ganglion cells in mammals. Cui Q, et al. **Biol Signals Recept** 1998 Jul-Aug;7(4):220–6 (63 ref.)

Lidocaine toxicity to rat retinal ganglion cells. Grosskreutz CL, et al. **Curr Eye Res** 1999 May;18(5):363–7

Susceptibility of retinal ganglion cells to excitotoxicity depends on soma size and retinal eccentricity. Vorwerk CK, et al. **Curr Eye Res** 1999 Jul;19(1):59–65

Short communication: protection of axotomized retinal ganglion cells by adenovirally delivered BDNF in vivo. Isenmann S, et al. **Eur J Neurosci** 1998 Aug;10(8):2751–6

Long-term effect of inhibition of ced 3-like caspases on the survival of axotomized retinal ganglion cells in vivo. Kermer P, et al. **Exp Neurol** 1999 Jul;158(1):202–5

The contribution of various NOS gene products to HIV-1 coat protein (gp120)-mediated retinal ganglion cell injury. Dreyer EB, et al. **Invest Ophthalmol Vis Sci** 1999 Apr; 40(5):983–9

Ethambutol is toxic to retinal ganglion cells via an excitotoxic pathway. Heng JE, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):190–6

Protection by eliprodil against excitotoxicity in cultured rat retinal ganglion cells. Pang IH, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1170–6

Pilocarpine toxicity in retinal ganglion cells. Vorwerk CK, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):813–6

Spontaneous activity in developing turtle retinal ganglion cells: pharmacological studies. Sernagor E, et al. **J Neurosci** 1999 May 15;19(10):3874–87

Differential effects of apamin- and charybdotoxin-sensitive K+ conductances on spontaneous discharge patterns of developing retinal ganglion cells. Wang GY, et al. **J Neurosci** 1999 Apr 1;19(7):2609–18

BDNF and NT-4 differentially modulate neurite outgrowth in developing retinal ganglion cells. Bosco A, et al. **J Neurosci Res** 1999 Sep 15;57(6):759–69

Iron-induced cytotoxicity in cultured rat retinal neurons. Sohn J, et al. **Korean J Ophthalmol** 1998 Dec;12(2):77–84

Cooperation between glutathione depletion and protein synthesis inhibition against naturally occurring neuronal death. Castagné V, et al. **Neuroscience** 1998 Oct; 86(3):895–902

Organophosphate-induced acetylcholinesterase inhibition and embryonic retinal cell necrosis in vivo in the teleost (Oryzias latipes). Hamm JT, et al. **Neurotoxicology** 1998 Dec;19(6):853–69

Inhibition of nitric-oxide synthase 2 by aminoguanidine provides neuroprotection of retinal ganglion cells in a rat model of chronic glaucoma. Neufeld AH, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9944–8

ENZYMOLOGY

The neuronal form of nitric oxide synthase is required for pattern formation by retinal afferents in the ferret lateral geniculate nucleus. Cramer KS, et al. **Brain Res Dev Brain Res** 1999 Aug 5;116(1):79–86

Light exposure activates retina ganglion cell lysophosphatidic acid acyl transferase and phosphatidic acid phosphatase by a c-fos-dependent mechanism. de Arriba Zerpa GA, et al. **J Neurochem** 1999 Sep;73(3):1228–35

Calcium released from intracellular stores inhibits GABAA-mediated currents in ganglion cells of the turtle retina. Akopian A, et al. **J Neurophysiol** 1998 Sep; 80(3):1105–15

Retinal vulnerability to glutamate excitotoxicity in canine glaucoma: induction of neuronal nitric oxide synthase in retinal ganglion cells. Franco-Bourland RE, et al. **Proc West Pharmacol Soc** 1998;41:201–4

IMMUNOLOGY

Definition of ocular antigens in ciliary body and retinal ganglion cells by the marker antibody pANCA. Gordon LK, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1250–5

METABOLISM

Characterization of MARCKS (Myristoylated alanine-rich C kinase substrate) identified by a monoclonal antibody generated against chick embryo neural retina. Zolessi FR, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):480–7

A simple method to obtain retinal cell preparations highly enriched in specific cell types. Suitability for lipid metabolism studies. Guido ME, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):147–55

Co-expression of c-Jun and ATF-2 characterizes the surviving retinal ganglion cells which maintain axonal connections after partial optic nerve injury. Kreutz MR, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):232–41

Bax antisense oligonucleotides reduce axotomy-induced retinal ganglion cell death in vivo by reduction of Bax protein expression. Isenmann S, et al. **Cell Death Differ** 1999 Jul;6(7):673–82

Embryonic lens repels retinal ganglion cell axons. Ohta K, et al. **Dev Biol** 1999 Jul 1;211(1):124–32

Chloride-dependent transport of NH4+ into bee retinal glial cells. Marcaggi P, et al. **Eur J Neurosci** 1999 Jan; 11(1):167–77

Glutamate receptor subunit GluR2 and NMDAR1 immunoreactivity in the retina of macaque monkeys with experimental glaucoma does not identify vulnerable neurons. Hof PR, et al. **Exp Neurol** 1998 Oct;153(2):234–41

Rapid increase in cytosolic calcium ion concentration mediated by acetylcholine receptors in cultured retinal neurons and Müller cells. Wakakura M, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):934–9

Assessment of Thy-1 mRNA levels as an index of retinal ganglion cell damage. Nash MS, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1293–8

Spatial correspondence between R-cadherin expression domains and retinal ganglion cell axons in developing zebrafish. Liu Q, et al. **J Comp Neurol** 1999 Jul 26; 410(2):290–302

R-cadherin expression in the developing and adult zebrafish visual system. Liu Q, et al. **J Comp Neurol** 1999 Jul 26; 410(2):303–19

Active role of glutamate uptake in the synaptic transmission from retinal nonspiking neurons. Matsui K, et al. **J Neurosci** 1999 Aug 15;19(16):6755–66

A zinc-dependent Cl- current in neuronal somata. Tabata T, et al. **J Neurosci** 1999 Jul 1;19(13):5195–204

Localization of mRNAs for trkB isoforms and p75 in rat retinal ganglion cells [published erratum appears in J Neurosci Res 1999 Jan 1;55(1):135] Suzuki A, et al. **J Neurosci Res** 1998 Oct 1;54(1):27–37

Depolarization and cAMP elevation rapidly recruit TrkB to the plasma membrane of CNS neurons. Meyer-Franke A, et al. **Neuron** 1998 Oct;21(4):681–93

The transport rate of cholera toxin B subunit in the retinofugal pathways of the chick. Wu CC, et al. **Neuroscience** 1999;92(2):665–76

Retinal ganglion cell dysfunction induced by hypoxia and glutamate: potential neuroprotective effects of beta-blockers. Gross RL, et al. **Surv Ophthalmol** 1999 Jun; 43 Suppl 1:S162–70

Maturation of intrinsic membrane properties in rat retinal ganglion cells. Guenther E, et al. **Vision Res** 1999 Jul; 39(15):2477–84

PATHOLOGY

Deviant axons and glaucomatous damage [editorial; comment] Caprioli J. **Br J Ophthalmol** 1998 Jun;82(6):595–6 . Comment on: Br J Ophthalmol 1998 Jun;82(6):680–3.

Electrophysiological and histological measures of retinal injury in chronic ocular hypertensive monkeys. Hare W, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9 Suppl 1:S30–3

Retinal ganglion cell layer and visual function in a patient with optic disc drusen. Gellrich MM, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):904–15

Ganglion cell losses underlying visual field defects from experimental glaucoma. Harwerth RS, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2242–50

Experimental induction of retinal ganglion cell death in adult mice. Li Y, et al. **Invest Ophthalmol Vis Sci** 1999 Apr; 40(5):1004–8

Assessment of Thy-1 mRNA levels as an index of retinal ganglion cell damage. Nash MS, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1293–8

Morphology of single ganglion cells in the glaucomatous primate retina. Weber AJ, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2304–20

Early magnocellular loss in glaucoma demonstrated using the pseudorandomly stimulated flash visual evoked potential. Klistorner AI, et al. **J Glaucoma** 1999 Apr; 8(2):140–8

Genesis, neurotrophin responsiveness, and apoptosis of a pronounced direct connection between the two eyes of the chick embryo: a natural error or a meaningful developmental event? Thanos S. **J Neurosci** 1999 May 15; 19(10):3900–17

Apoptotic versus necrotic characteristics of retinal ganglion cell death after partial optic nerve injury. Bien A, et al. **J Neurotrauma** 1999 Feb;16(2):153–63

NF-kappa B activation following optic nerve transection. Choi JS, et al. **Korean J Ophthalmol** 1998 Jun;12(1):19–24

Inflammatory response and retinal ganglion cell degeneration following intraocular injection of ME7. Russelakis-Carneiro M, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):196–206

Transneuronal degeneration of retinal ganglion cells in early hemispherectomized monkeys. Herbin M, et al. **Neuroreport** 1999 May 14;10(7):1447–52

Nitric oxide: a potential mediator of retinal ganglion cell damage in glaucoma. Neufeld AH. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S129–35 (54 ref.)

Apoptosis of retinal ganglion cells in glaucoma: an update of the molecular pathways involved in cell death. Nickells RW. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S151–61 (94 ref.)

Monocular enucleation prevents retinal ganglion-cell loss following neonatal visual cortex damage in cats. Illig KR, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1097–105

PHYSIOLOGY

Transmitter-specific input to OFF-alpha ganglion cells in the cat retina. Owczarzak MT, et al. **Anat Rec** 1999 Aug 1;255(4):363–73

Neural cell classification by wavelets and multiscale curvature. Cesar Júnior RM, et al. **Biol Cybern** 1998 Oct; 79(4):347–60

Spatial asymmetries in cat retinal ganglion cell responses. Gaudiano P, et al. **Biol Cybern** 1998 Aug;79(2):151–9

Models for the cross-correlation between retinal ganglion cells. Levine MW. **Biol Cybern** 1998 Nov;79(5):367–76

Retinal projections and retinal ganglion cell distribution patterns in a sturgeon (Acipenser transmontanus), a non-teleost actinopterygian fish. Ito H, et al. **Brain Behav Evol** 1999;53(3):127–41 (85 ref.)

Multiple types of spontaneous excitatory synaptic currents in salamander retinal ganglion cells. Gao F, et al. **Brain Res** 1999 Mar 13;821(2):487–502

Regenerative sprouting of retinal ganglion cells of adult hamsters induced by the epineurium of a peripheral nerve. Lai MY, et al. **Brain Res** 1999 Mar 27;823(1-2):241–8

Evidence that the influence of ganglion cell axons on astrocyte morphology is mediated by action spike activity during development. Gargini C, et al. **Brain Res Dev Brain Res** 1998 Oct 1;110(2):177–84

Population coding in the retina. Nirenberg S, et al. **Curr Opin Neurobiol** 1998 Aug;8(4):488–93 (18 ref.)

Eph receptors and ephrins in neural development. O'Leary DD, et al. **Curr Opin Neurobiol** 1999 Feb;9(1):65–73 (74 ref.)

POU domain factor Brn-3b is essential for retinal ganglion cell differentiation and survival but not for initial cell fate specification. Gan L, et al. **Dev Biol** 1999 Jun 15;

210(2):469–80
Intrinsic survival mechanisms for retinal ganglion cells. Levin LA. **Eur J Ophthalmol** 1999 Jan–Mar;9 Suppl 1:S12–6 (45 ref.)
Receptive-field properties of adult cat's retinal ganglion cells with regenerated axons. Miyoshi T, et al. **Exp Brain Res** 1999 Feb;124(3):383–90
Neuroplasticity in the cat's visual system. Origin, termination, expansion, and increased coupling of the retino-geniculo-middle suprasylvian visual pathway following early ablations of areas 17 and 18. Payne BR, et al. **Exp Brain Res** 1998 Aug;121(3):334–49
A possible selective impairment of magnocellular function in compression of the anterior visual pathways. Tassinari G, et al. **Exp Brain Res** 1999 Aug;127(4):391–401
Nitric oxide synthase inhibition delays axonal degeneration and promotes the survival of axotomized retinal ganglion cells. Koeberle PD, et al. **Exp Neurol** 1999 Aug; 158(2):366–81
Extent and duration of recovered pupillary light reflex following retinal ganglion cell axon regeneration through peripheral nerve grafts directed to the pretectum in adult rats. Whiteley SJO, et al. **Exp Neurol** 1998 Dec; 154(2):560–72
Activation of caspase-3 in axotomized rat retinal ganglion cells in vivo. Kermer P, et al. **FEBS Lett** 1999 Jun 25; 453(3):361–4
Adult rat olfactory nerve ensheathing cells are effective promoters of adult central nervous system neurite outgrowth in coculture. Sonigra RJ, et al. **Glia** 1999 Feb 1;25(3):256–69
Cross-species collapse activity of polarized radial glia on retinal ganglion cell axons. Stier H, et al. **Glia** 1999 Jan 15;25(2):143–53
A computational model of electrical stimulation of the retinal ganglion cell. Greenberg RJ, et al. **IEEE Trans Biomed Eng** 1999 May;46(5):505–14
CNTF, not other trophic factors, promotes axonal regeneration of axotomized retinal ganglion cells in adult hamsters. Cui Q, et al. **Invest Ophthalmol Vis Sci** 1999 Mar; 40(3):760–6
Survival of axotomized retinal ganglion cells in peripheral nerve-grafted ferrets. Quan MZ, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2360–6
Axon outgrowth is regulated by an intracellular purine-sensitive mechanism in retinal ganglion cells. Benowitz LI, et al. **J Biol Chem** 1998 Nov 6; 273(45):29626–34
Neurolin Ig domain 2 participates in retinal axon guidance and Ig domains 1 and 3 in fasciculation. Leppert CA, et al. **J Cell Biol** 1999 Jan 25;144(2):339–49
Electrical activity regulates dendritic reorganization in ganglion cells after neonatal retinal lesion in the cat. Deplano S, et al. **J Comp Neurol** 1999 Mar 8;405(2):262–70
Synaptic input to small bistratified (blue-ON) ganglion cells in the retina of a new world monkey, the marmoset Callithrix jacchus. Ghosh KK, et al. **J Comp Neurol** 1999 Oct 25;413(3):417–28
Kainate activation of horizontal, bipolar, amacrine, and ganglion cells in the rabbit retina. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):65–76
Mapping glutamatergic drive in the vertebrate retina with a channel-permeant organic cation. Marc RE. **J Comp Neurol** 1999 Apr 28;407(1):47–64
Retinal axon regeneration in peripheral nerve, tectal, and muscle grafts in adult rats. Tan MM, et al. **J Comp Neurol** 1999 Oct 4;412(4):617–32
Distribution of retinogeniculate cells in the tammar wallaby in relation to decussation at the optic chiasm. Wimborne BM, et al. **J Comp Neurol** 1999 Mar 1;405(1):128–40
Laminar restriction of retinal macrophagic response to optic nerve axotomy in the rat. Garcia-Valenzuela E, et al. **J Neurobiol** 1999 Jul;40(1):55–66
Response of retinal ganglion cell axons to striped linear gradients of repellent guidance molecules. Rosentreter SM, et al. **J Neurobiol** 1998 Dec;37(4):541–62
Ion conductances related to development of repetitive firing in mouse retinal ganglion neurons in situ. Rothe T, et al. **J Neurobiol** 1999 Feb 5;38(2):191–206
Glial cell line-derived neurotrophic factor (GDNF) promotes the survival of axotomized retinal ganglion cells in adult rats: comparison to and combination with brain-derived neurotrophic factor (BDNF). Yan Q, et al. **J Neurobiol** 1999 Feb 15;38(3):382–90
Interactions of inhibition and excitation in the light-evoked currents of X type retinal ganglion cells. Cohen ED. **J Neurophysiol** 1998 Dec;80(6):2975–90
Correlated firing in rabbit retinal ganglion cells. DeVries SH. **J Neurophysiol** 1999 Feb;81(2):908–20
Characterization of spontaneous inhibitory synaptic currents in salamander retinal ganglion cells. Gao F, et al. **J Neurophysiol** 1998 Oct;80(4):1752–64
Impulse encoding across the dendritic morphologies of retinal ganglion cells. Sheasby BW, et al. **J Neurophysiol** 1999 Apr;81(4):1685–98
Analysis of excitatory and inhibitory spontaneous synaptic activity in mouse retinal ganglion cells. Tian N, et al. **J Neurophysiol** 1998 Sep;80(3):1327–40
Action potentials in the dendrites of retinal ganglion cells. Velte TJ, et al. **J Neurophysiol** 1999 Mar;81(3):1412–7
Neuronal discriminator formed by metabotropic gamma-aminobutyric acid receptors. Zhang J, et al. **J Neurophysiol** 1998 Dec;80(6):3365–8
Retinal waves are governed by collective network properties. Butts DA, et al. **J Neurosci** 1999 May 1;19(9):3580–93
Optic nerve crush: axonal responses in wild-type and bcl-2 transgenic mice. Chierzi S, et al. **J Neurosci** 1999 Oct 1; 19(19):8367–76
Pituitary adenylate cyclase-activating peptide (PACAP) in the retinohypothalamic tract: a potential daytime regulator of the biological clock. Hannibal J, et al. **J Neurosci** 1997 Apr 1;17(7):2637–44
The nondiscriminating zone of directionally selective retinal ganglion cells: comparison with dendritic structure and implications for mechanism. He S, et al. **J Neurosci** 1999 Sep 15;19(18):8049–56
Glutamate uptake limits synaptic excitation of retinal ganglion cells. Higgs MH, et al. **J Neurosci** 1999 May 15; 19(10):3691–700
AMPA receptor activates a G-protein that suppresses a cGMP-gated current. Kawai F, et al. **J Neurosci** 1999 Apr 15;19(8):2954–9
The power ratio and the interval map: spiking models and extracellular recordings. Reich DS, et al. **J Neurosci** 1998 Dec 1;18(23):10090–104
Neural correlates of perceived brightness in the retina, lateral geniculate nucleus, and striate cortex. Rossi AF, et al. **J Neurosci** 1999 Jul 15;19(14):6145–56
The neuronal architecture of Xenopus retinal ganglion cells is sculpted by rho-family GTPases in vivo. Ruchhoeft ML, et al. **J Neurosci** 1999 Oct 1;19(19):8454–63
Voltage-activated calcium currents in rat retinal ganglion cells in situ: changes during prenatal and postnatal development. Schmid S, et al. **J Neurosci** 1999 May 1; 19(9):3486–94
Ca2+-permeable P2X receptor channels in cultured rat retinal ganglion cells. Taschenberger H, et al. **J Neurosci** 1999 May 1;19(9):3353–66
Excess of serotonin (5-HT) alters the segregation of ispilateral and contralateral retinal projections in monoamine oxidase A knock-out mice: possible role of 5-HT uptake in retinal ganglion cells during development. Upton AL, et al. **J Neurosci** 1999 Aug 15;19(16):7007–24
Misexpression of cNSCL1 disrupts retinal development. Li CM, et al. **Mol Cell Neurosci** 1999 Jul;14(1):17–27
Lateral inhibition in the inner retina is important for spatial tuning of ganglion cells. Cook PB, et al. **Nat Neurosci** 1998 Dec;1(8):714–9
A novel signaling pathway from rod photoreceptors to ganglion cells in mammalian retina. Soucy E, et al. **Neuron** 1998 Sep;21(3):481–93
Expression of p75 neurotrophin receptor in the injured and regenerating rat retina. Hu B, et al. **Neuroreport** 1999 Apr 26;10(6):1293–7
An optimal redox status for the survival of axotomized ganglion cells in the developing retina. Castagné V, et al. **Neuroscience** 1999;93(1):313–20
Ciliary neurotrophic factor is and axogenesis factor for retinal ganglion cells. Jo SA, et al. **Neuroscience** 1999 Mar; 89(2):579–91
Developmental changes in voltage-activated potassium currents of rat retinal ganglion cells. Reiff DF, et al. **Neuroscience** 1999;92(3):1103–17
Neuronal coupling in the central nervous system: lessons from the retina. Vaney DI. **Novartis Found Symp** 1999; 219:113–25; discussion 125–33 (63 ref.)
Modulation of glycine receptors in retinal ganglion cells by zinc. Han Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3234–8
Introductory comments on neuroprotection. Kaufman PL, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S89–90 (10 ref.)
The dynamics of primate M retinal ganglion cells. Benardete EA, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):355–68
Analysis of dendritic arbors of native and regenerated ganglion cells in the goldfish retina. Cameron DA, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):253–61
Balanced interactions in ganglion-cell receptive fields. Granda AM, et al. **Vis Neurosci** 1999 Mar–Apr; 16(2):319–32
Evidence for a ganglion cell contribution to the primate electroretinogram (ERG): effects of TTX on the multifocal ERG in macaque. Hood DC, et al. **Vis Neurosci** 1999 May–Jun;16(3):411–6
Responses of directionally selective retinal ganglion cells to activation of AMPA glutamate receptors. Jensen RJ. **Vis Neurosci** 1999 Mar–Apr;16(2):205–19
Non-monotonic contrast behavior in directionally selective ganglion cells and evidence for its dependence on their GABAergic input. Merwine DK, et al. **Vis Neurosci** 1998 Nov–Dec;15(6):1129–36
Functional properties of retinal ganglion cells during optic nerve regeneration in the goldfish. Oh DJ, et al. **Vis Neurosci** 1998 Nov–Dec;15(6):1145–55
Ganglion cells of a short-wavelength-sensitive cone pathway in New World monkeys: morphology and physiology. Silveira LC, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):333–43
TTX attenuates surround inhibition in rabbit retinal ganglion cells. Taylor WR. **Vis Neurosci** 1999 Mar–Apr;16(2):285–90
UV responses in the retina of the turtle. Ventura DF, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):191–204
Projections of single retinal ganglion cells to the visual centers: an intracellular staining study in a plethodontid salamander. Wiggers W. **Vis Neurosci** 1999 May–Jun; 16(3):435–47
Effects of inhibiting glutamine synthetase and blocking glutamate uptake on b-wave generation in the isolated rat retina. Winkler BS, et al. **Vis Neurosci** 1999 Mar–Apr; 16(2):345–53
A biophysical model for the developmental time course of retinal orientation selectivity. Burgi PY, et al. **Vision Res** 1998 Sep;38(18):2787–800
Evidence for spatial aliasing effects in the Y-like cells of the magnocellular visual pathway. Maddess T, et al. **Vision Res** 1998 Jun;38(12):1843–59
Synchronous oscillations in the cat retina. Neuenschwander S, et al. **Vision Res** 1999 Jul;39(15):2485–97
Retinal ganglion cell dysfunction in humans following post-geniculate lesions: specific spatio-temporal losses revealed by pattern ERG. Porrello G, et al. **Vision Res** 1999 May;39(9):1739–45
Retinal ganglion cell response properties in the transcorneal electrically evoked response of the visual system. Shimazu K, et al. **Vision Res** 1999 Jun;39(13):2251–60
Post-receptoral mechanisms of colour vision in New World primates. Silveira LC, et al. **Vision Res** 1998 Nov; 38(21):3329–37
[Apoptosis--new frontier of retinal neuronal death study (editorial)] Kashii S. **Nippon Ganka Gakkai Zasshi** 1998 Oct;102(10):643–4 **(Jpn)**
[Neuronal cell death mechanism in glaucomatous optic neuropathy] Murakami A, et al. **Nippon Ganka Gakkai Zasshi** 1998 Oct;102(10):645–53 (85 ref.) (Eng. Abstr.) **(Jpn)**
[Discovering phenomena leading to the death of retinal ganglion cells in glaucoma: the aim of ophthalmology at the end of the 20th century. (The report introducing the 1st Glaucoma Symposium organized by Glaucoma Section of POS -- Wroclaw, April 17–18, 1998)] Nižankowska MH. **Klin Oczna** 1998;100(6):413–5 **(Pol)**

TRANSPLANTATION

Synergistic effect of optic and peripheral nerve grafts on sprouting of axon-like processes of axotomized retinal ganglion cells in adult hamsters. Cho KS, et al. **Neurosci Lett** 1999 Apr 23;265(3):175–8

ULTRASTRUCTURE

Intrinsic determinants of retinal axon collateralization and arborization patterns. Bhide PG, et al. **J Comp Neurol** 1999 Aug 16;411(1):119–29
Organization of retinal axons within the optic nerve, optic chiasm, and the innervation of multiple central nervous system targets Rana pipiens. Montgomery NM, et al. **J Comp Neurol** 1998 Dec 14;402(2):222–37
Visible and near-infrared imaging of the nerve fiber layer of the isolated rat retina. Knighton RW, et al. **J Glaucoma** 1999 Feb;8(1):31–7
Antibodies against neurofilament subunits label retinal ganglion cells but not displaced amacrine cells of hamsters. Kong WC, et al. **Life Sci** 1999;64(19):1773–8
Modulation of EphA receptor function by coexpressed ephrinA ligands on retinal ganglion cell axons. Hornberger MR, et al. **Neuron** 1999 Apr;22(4):731–42
[Structure of the interrelations between retinal neuroglia and ganglion cells] Makarov FN, et al. **Morfologiia** 1999; 116(4):18–22 (Eng. Abstr.) **(Rus)**

RETINAL HEMORRHAGE

CHEMICALLY INDUCED

Retinal haemorrhage caused by "ecstasy" [letter] Jacks AS, et al. **Br J Ophthalmol** 1998 Jul;82(7):842–3
Tamoxifen retinopathy. Lee AG. **J Neuroophthalmol** 1998 Dec;18(4):276
Accidental subretinal injection of triamcinolone acetonide. Modarres M, et al. **Ophthalmic Surg Lasers** 1998 Nov; 29(11):935–8

COMPLICATIONS

Correlation of the peripapillary atrophy area with optic disc cupping and disc hemorrhage. Hayakawa T, et al. **J Glaucoma** 1998 Oct;7(5):306–11
Localized wedge-shaped defects of retinal nerve fiber layer and disc hemorrhage in glaucoma. Sugiyama K, et al. **Ophthalmology** 1999 Sep;106(9):1762–7
Branch retinal vein occlusion after spontaneous obliteration of retinal arterial macroaneurysm. Battaglia Parodi M, et al. **Retina** 1998;18(4):378–9
[Red eye] Imre G. **Orv Hetil** 1999 Jul 18;140(29):1631–3 (Eng. Abstr.) **(Hun)**

DIAGNOSIS

Small retinal hemorrhages as the only signs of an intracranial aneurysm [letter; comment] Slavin ML. **Am J Ophthalmol** 1999 Jan;127(1):109–10. Comment on: Am J Ophthalmol 1998 Mar;125(3):401–3.
Ophthaproblem. Valsalva retinopathy. Sharma S. **Can Fam Physician** 1998 Dec;44:2643, 2651–2
Images in cardiovascular medicine. Roth's spots. Blumenthal EZ, et al. **Circulation** 1999 Mar 9;99(9):1271
Peripheral retinal hemorrhages: a literature review and report on thirty-three patients. Tolls DB. **J Am Optom Assoc** 1998 Sep;69(9):563–74 (47 ref.)

[Vitreous hemorrhage and pre-retinal hemorrhage "without obvious point of origin" in diabetic patients. Apropos of 5 cases] Basteau F, et al. **J Fr Ophtalmol** 1999 May; 22(5):528–35 (Eng. Abstr.) **(Fre)**

[Acute preretinal hemorrhage before life threatening complications of subarachnoid hemorrhage] Budde WM, et al. **Klin Monatsbl Augenheilkd** 1998 Aug;213(2):121–2 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Management of acute submacular hemorrhage using recombinant tissue plasminogen activator and gas. Hesse L, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr; 237(4):273–7

Management of submacular hemorrhage with intravitreous tissue plasminogen activator injection and pneumatic displacement. Hassan AS, et al. **Ophthalmology** 1999 Oct; 106(10):1900–6; discussion 1906–7

EPIDEMIOLOGY

Disc hemorrhage and peripapillary atrophy in apparently healthy subjects. Sugiyama K, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):139–42

ETIOLOGY

Unilateral retinal hemorrhages in documented cases of child abuse. Drack AV, et al. **Am J Ophthalmol** 1999 Sep; 128(3):340–4

Can convulsions alone cause retinal haemorrhages in infants? Tyagi AK, et al. **Br J Ophthalmol** 1998 Jun;82(6):659–60

Images in cardiovascular medicine. Roth's spots. Blumenthal EZ, et al. **Circulation** 1999 Mar 9;99(9):1271

Peripheral retinal hemorrhages: a literature review and report on thirty-three patients. Tolls DB. **J Am Optom Assoc** 1998 Sep;69(9):563–74 (47 ref.)

High altitude retinopathy. Lee AG, et al. **J Neuroophthalmol** 1999 Sep;19(3):205–6

Retinal hemorrhages caused by accidental household trauma. Christian CW, et al. **J Pediatr** 1999 Jul;135(1):125–7

Retinal venous macroaneurysm associated with premacular hemorrhage. Khairallah M, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):226–8

Natural history of macular subretinal hemorrhage in age-related macular degeneration. Scupola A, et al. **Ophthalmologica** 1999;213(2):97–102

Three types of retinal bleeding as a complication of hypotony after trabeculectomy. Suzuki R, et al. **Ophthalmologica** 1999;213(2):135–8 (11 ref.)

High-altitude retinopathy and altitude illness. Wiedman M, et al. **Ophthalmology** 1999 Oct;106(10):1924–6; discussion 1927

White-centred retinal haemorrhages (Roth spots). Ling R, et al. **Postgrad Med J** 1998 Oct;74(876):581–2

PATHOLOGY

Bilateral macular hemorrhage after laser in situ keratomileusis. Luna JD, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jul;237(7):611–3

PHYSIOPATHOLOGY

Natural course of submacular hemorrhage. Chen WL, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 May; 62(5):268–77

SURGERY

Surgical treatment of submacular hemorrhage associated with idiopathic polypoidal choroidal vasculopathy. Shiraga F, et al. **Am J Ophthalmol** 1999 Aug;128(2):147–54

Dense subhyaloid hemorrhage or subinternal limiting membrane hemorrhage in the macula treated by Nd:YAG laser. Adel B, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1542–3

Long-term results after drainage of premacular subhyaloid hemorrhage into the vitreous with a pulsed Nd:YAG laser. Ulbig MW, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1465–9

Nd:YAG laser treatment for macular preretinal hemorrhage. Zaman F, et al. **Arch Ophthalmol** 1999 May;117(5):694–5

Surgical extraction of subfoveal choroidal new vessels and submacular haemorrhage in age-related macular degeneration: results of a prospective study. Scheider A, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan; 237(1):10–5

Surgical management of subretinal hemorrhage. Hochman MA, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):291–301 (45 ref.)

Nd:YAG laser treatment for premacular hemorrhage. Dori D, et al. **Ophthalmic Surg Lasers** 1998 Dec;29(12):998–1000

Nd:YAG laser photodisruption for preretinal hemorrhage due to retinal macroaneurysm. Iijima H, et al. **Retina** 1998; 18(5):430–4

THERAPY

Pneumatic displacement of subretinal hemorrhage without tissue plasminogen activator. Ohji M, et al. **Arch Ophthalmol** 1998 Oct;116(10):1326–32

Preoperative use of tissue plasminogen activator for large submacular hemorrhage. Chaudhry NA, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):176–80

[Neovascularization in severe myopia] Ducourneau D, et al. **J Fr Ophtalmol** 1998 Dec;21(10):782–4 **(Fre)**

ULTRASONOGRAPHY

[Color Doppler ultrasonography in diagnosis of post-traumatic optic neuropathy] Mariak Z, et al. **Klin Oczna** 1999;101(2):105–10 (Eng. Abstr.) **(Pol)**

RETINAL HOLES see **RETINAL PERFORATIONS**

RETINAL NECROSIS SYNDROME, ACUTE

[Kirisawa type uveitis (acute retinal necrosis syndrome) (editorial; comment)] Sakuragi S. **Nippon Ganka Gakkai Zasshi** 1999 Jun;103(6):413–4. Comment on: Nippon Ganka Gakkai Zasshi 1999 Jun;103(6):442–8. Comment on: Nippon Ganka Gakkai Zasshi 1999 Jun;103(6):447–81. **(Jpn)**

[Viral infectious diseases of the retina] Azumi A, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):336–8 (7 ref.) **(Jpn)**

CEREBROSPINAL FLUID

[Cerebrospinal fluid analysis in Kirisawa-Urayama type uveitis (see comments] Iizuka Y, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jun;103(6):442–8 (Eng. Abstr.). Comment in: Nippon Ganka Gakkai Zasshi 1999 Jun;103(6):413–4. **(Jpn)**

COMPLICATIONS

Gray-white, spherical deposition on retinal vessel associated with acute retinal necrosis and diabetic retinopathy in HTLV-I carriers. Nakao K, et al. **Jpn J Ophthalmol** 1998 Nov-Dec;42(6):490–4

[A case of AIDS complicated by progressive outer retinal necrosis] Shimakawa M, et al. **Nippon Ganka Gakkai Zasshi** 1999 Feb;103(2):137–43 (Eng. Abstr.) **(Jpn)**

DRUG THERAPY

Failure of sorivudine therapy in progressive outer retinal necrosis caused by varicella zoster virus. Rosenthal G, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):327–8

Acute retinal necrosis--early manifestation and successful treatment with steroid and acyclovir: case report. Lin YC, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec;21(4):493–7

ETIOLOGY

Bilateral acute retinal necrosis caused by cytomegalovirus in an immunocompromised patient. Akpek EK, et al. **Am J Ophthalmol** 1999 Jan;127(1):93–5

Progressive outer retinal necrosis syndrome as an early manifestation of human immunodeficiency virus infection. Yang CM, et al. **J Formos Med Assoc** 1999 Feb;98(2):141–4

[Optic neuromyelitis and bilateral acute retinal necrosis due to varicella zoster in a patient with AIDS] Merle H, et al. **J Fr Ophtalmol** 1998 May;21(5):381–6 (Eng. Abstr.) **(Fre)**

[Acute retinal necrosis with varicella zoster dermatitis in the fellow eyelid (see comments)] Nakanishi F, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jun;103(6):477–81 (Eng. Abstr.). Comment in: Nippon Ganka Gakkai Zasshi 1999 Jun;103(6):413–4. **(Jpn)**

IMMUNOLOGY

Progressive outer retinal necrosis in a patient with cutaneous non-Hodgkin's T cell lymphoma (Sézary syndrome) [letter] Njoo FL, et al. **Br J Ophthalmol** 1998 Oct;82(10):1218–9

PATHOLOGY

[Laser-tyndallometry in eyes with acute retinal necrosis syndrome. Erlanger Laser-tyndallometry study group] Nguyen NX, et al. **Klin Monatsbl Augenheilkd** 1998 Oct; 213(4):197–200 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Correlation of varicella-zoster virus copies and final visual acuities of acute retinal necrosis syndrome. Abe T, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):747–52

SURGERY

[Acute retinal necrosis syndrome. Argon laser coagulation for prevention of rhegmatogenic retinal detachment] Hudde T, et al. **Ophthalmologe** 1998 Jul;95(7):473–7 (Eng. Abstr.) **(Ger)**

VIROLOGY

Acute retinal necrosis after neonatal herpes encephalitis [letter; comment] Levinson RD, et al. **Br J Ophthalmol** 1999 Jan;83(1):123–4 (6 ref.). Comment on: Br J Ophthalmol 1997 May;81(5):415–6.

Correlation of varicella-zoster virus copies and final visual acuities of acute retinal necrosis syndrome. Abe T, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):747–52

RETINAL NEOPLASMS

see related **RETINOBLASTOMA**

Establishment and characterization of a second primary osteosarcoma cell line (OSrb/N-M) from a patient cured of bilateral retinoblastoma. Kawai K, et al. **Cancer Lett** 1999 Jan 8;135(1):37–46

Retinoblastoma. Zucker JM, et al. **Eur J Cancer** 1998 Jun; 34(7):1045–8; discussion 1048–9 (40 ref.)

Ocular and fulminant cerebral lymphoma in AIDS. Matthews G, et al. **Int J STD AIDS** 1999 Jul;10(7):483–6

Multifocal osteosarcoma following retinoblastoma. Pratt CB, et al. **Ophthalmic Genet** 1999 Mar;20(1):23–9

Transgenic mouse models for tumors of melanocytes and retinal pigment epithelium. Beermann F, et al. **Pigment Cell Res** 1999 Apr;12(2):71–80 (71 ref.)

Retinoblastoma in an adult: a case report. Pam VA, et al. **West Afr J Med** 1998 Oct-Dec;17(4):280–3

CHEMICALLY INDUCED

New retinoblastoma tumors in children undergoing systemic chemotherapy [letter] Scott IU, et al. **Arch Ophthalmol** 1998 Dec;116(12):1685–6

COMPLICATIONS

Growth parameters in children with retinoblastoma. Peek AM, et al. **Acta Paediatr** 1999 Feb;88(2):181–5

Postpartum cerebellar herniation in von Hippel-Lindau syndrome. Othmane IS, et al. **Am J Ophthalmol** 1999 Sep; 128(3):387–9

Persistent hyperplastic primary vitreous with retinal tumor in tuberous sclerosis: report of a case including tumoral immunohistochemistry and cytogenetic analyses. Milot J, et al. **Ophthalmology** 1999 Mar;106(3):630–4

DIAGNOSIS

Unilateral atypical fundus lesions with slow progression. Karma A, et al. **Acta Ophthalmol Scand** 1999 Jun; 77(3):359–63

Late diagnosis of retinoblastoma in a developing country. Chantada G, et al. **Arch Dis Child** 1999 Feb;80(2):171–4

Primary intraocular lymphoma with a low interleukin 10 to interleukin 6 ratio and heterogeneous IgH gene rearrangement. Buggage RR, et al. **Arch Ophthalmol** 1999 Sep;117(9):1239–42

Intraocular-central nervous system lymphoma: clinical features, diagnosis, and outcomes. Akpek EK, et al. **Ophthalmology** 1999 Sep;106(9):1805–10

Utility of pupillary dilation for detecting leukocoria in patients with retinoblastoma. Canzano JC, et al. **Pediatrics** 1999 Oct;104(4):e44

Retinoblastoma and simulating lesions. Role of CT, MR imaging and use of Gd-DTPA contrast enhancement. Kaufman LM, et al. **Radiol Clin North Am** 1998 Nov; 36(6):1101–17 (63 ref.)

Use of microdissection and molecular genetics in the pathologic diagnosis of retinoblastoma. Whitcup SM, et al. **Retina** 1999;19(4):318–24

Proliferation not apoptosis as a prognostic indicator in retinoblastoma. Kim CJ, et al. **Virchows Arch** 1999 Apr; 434(4):301–5

[Unilateral retinoblastomas with late bilateralization. Three case reports] Poncet P, et al. **J Fr Ophtalmol** 1998 Mar; 21(3):223–6 (Eng. Abstr.) **(Fre)**

[Leukokoria in a child: emergency and challenge] Balmer A, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):332–5 (9 ref.) (Eng. Abstr.) **(Fre)**

[Leukocoria (white pupil) among children--mother is always right] Baggesen K, et al. **Tidsskr Nor Laegeforen** 1999 Feb 28;119(6):794–5 (Eng. Abstr.) **(Nor)**

DRUG THERAPY

The outcome of chemoreduction treatment in patients with Reese-Ellsworth group V retinoblastoma. Gündüz K, et al. **Arch Ophthalmol** 1998 Dec;116(12):1613–7

Antineoplastic effect and toxicity of 1,25-dihydroxy-16-ene-23-yne-vitamin D3 in athymic mice with Y-79 human retinoblastoma tumors. Sabet SJ, et al. **Arch Ophthalmol** 1999 Mar;117(3):365–70

Combining cyclosporin with chemotherapy controls intraocular retinoblastoma without requiring radiation [see comments] Chan HSL, et al. **Clin Cancer Res** 1996 Sep; 2(9):1499–508. Comment in: Clin Cancer Res 1997 Mar;3(3):491–2.

Vincristine- and cisplatin-induced apoptosis in human retinoblastoma. Potentiation by sodium butyrate. Conway RM, et al. **Eur J Cancer** 1998 Oct;34(11):1741–8

Topical topic. Use of chemotherapy for retinoblastoma. Pratt CB. **Med Pediatr Oncol** 1998 Dec;31(6):531–3 (28 ref.)

Misleading leads. Orbital cellulitis following chemotherapy for retinoblastoma. Roebuck DJ, et al. **Med Pediatr Oncol** 1998 Dec;31(6):534–5

A phase I/II study of subconjunctival carboplatin for intraocular retinoblastoma. Abramson DH, et al. **Ophthalmology** 1999 Oct;106(10):1947–50

"Eight drugs in one day" chemotherapy in a nonfamilial bilateral retinoblastoma with recurrent cerebrospinal fluid metastases. Sandri A, et al. **Pediatr Hematol Oncol** 1998 Nov-Dec;15(6):557–61

RETINAL NEOPLASMS

ENZYMOLOGY

Involvement of interleukin-1beta-converting enzyme in apoptosis of irradiated retinoblastomas. Kondo Y, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2769-74

EPIDEMIOLOGY

Retinoblastoma: problems and perspectives from India. Sahu S, et al. **Pediatr Hematol Oncol** 1998 Nov-Dec;15(6):501-8

ETIOLOGY

Clinical characteristics of ocular angiomatosis in von Hippel-Lindau disease and correlation with germline mutation. Webster AR, et al. **Arch Ophthalmol** 1999 Mar; 117(3):371-8

Is sunlight an aetiological agent in the genesis of retinoblastoma? Hooper ML. **Br J Cancer** 1999 Mar; 79(7-8):1273-6

GENETICS

RB1 gene mutations in peripheral blood DNA of patients with isolated unilateral retinoblastoma [letter] Klutz M, et al. **Am J Hum Genet** 1999 Feb;64(2):667-8

VHL gene deletion and enhanced VEGF gene expression detected in the stromal cells of retinal angioma. Chan CC, et al. **Arch Ophthalmol** 1999 May;117(5):625-30

Gene transfer into retinoblastoma cells. Chau KY, et al. **Biotechniques** 1999 Mar;26(3):444-6

Trilateral retinoblastoma with an RB1 deletion inherited from a carrier mother: a case report. Amare P, et al. **Cancer Genet Cytogenet** 1999 May;111(1):28-31

Dysmorphic phenotype and neurological impairment in 22 retinoblastoma patients with constitutional cytogenetic 13q deletion. Baud O, et al. **Clin Genet** 1999 Jun;55(6):478-82

Elements regulating the transcription of human interstitial retinoid-binding protein (IRBP) gene in cultured retinoblastoma cells. Fong SL, et al. **Curr Eye Res** 1999 Apr;18(4):283-91

Which retinoblastoma patients should be screened for RB1 mutations? [editorial] Cowell JK, et al. **Eur J Cancer** 1998 Nov;34(12):1825-6

Age at diagnosis to discriminate those patients for whom constitutional DNA sequencing is appropriate in sporadic unilateral retinoblastoma. Zajaczek S, et al. **Eur J Cancer** 1998 Nov;34(12):1919-21

Cavernous haemangioma of retina and skin [letter] Backhouse O, et al. **Eye** 1998;12 (Pt 6):1027-8

Morphologic and genetic analysis of retinal angioma associated with massive gliosis in a patient with von Hippel-Lindau disease. Vortmeyer AO, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jun;237(6):513-7

Multiple genetic loci modify risk for retinoblastoma in transgenic mice. Griep AE, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2723-32

The retinoblastoma susceptibility gene product/Sp1 signalling pathway is modulated by Ca2+/calmodulin kinases II and IV activity. Sohm F, et al. **Oncogene** 1999 Apr 29;18(17):2762-9

Developmental defects and tumor predisposition in Rb mutant mice. Vooijs M, et al. **Oncogene** 1999 Sep 20; 18(38):5293-303 (137 ref.)

The two-stage mutation model in retinal hemangioblastoma. Chang JH, et al. **Ophthalmic Genet** 1998 Sep;19(3):123-30

A clinical and molecular genetic analysis of solitary ocular angioma. Webster AR, et al. **Ophthalmology** 1999 Mar; 106(3):623-9

Mitotic recombination map of 13cen-13q14 derived from an investigation of loss of heterozygosity in retinoblastomas. Hagstrom SA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2952-7

Pediatric case of the day. Osteogenic sarcoma as a second malignancy with bilateral hereditary retinoblastoma. Allison JW, et al. **Radiographics** 1999 May-Jun;19(3):830-2

[Retinal capillary angioma. Clinical and molecular genetic studies] Kreusel KM, et al. **Ophthalmologe** 1999 Feb; 96(2):71-6 (Eng. Abstr.) **(Ger)**

[Genetic studies in retinoblastoma] Bosun I, et al. **Oftalmologia** 1998;45(4):28-34 (Eng. Abstr.) **(Rum)**

METABOLISM

Expression patterns of cyclin D1 and related proteins regulating G1-S phase transition in uveal melanoma and retinoblastoma. Coupland SE, et al. **Br J Ophthalmol** 1998 Aug;82(8):961-70

Intraocular carboplatin concentrations following intravenous administration for human intraocular retinoblastoma. Abramson DH, et al. **Ophthalmic Genet** 1999 Mar; 20(1):31-6

Loss of delta6-desaturase activity leads to impaired docosahexaenoic acid synthesis in Y-79 retinoblastoma cells. Marzo I, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Nov; 59(5):293-7

MICROBIOLOGY

Bartonella henselae infection associated with peripapillary angioma, branch retinal artery occlusion, and severe vision loss. Gray AV, et al. **Am J Ophthalmol** 1999 Feb; 127(2):223-4

PATHOLOGY

Cutaneous melanoma-associated paraneoplastic retinopathy: histopathologic observations. Gittinger JW Jr, et al. **Am J Ophthalmol** 1999 May;127(5):612-4

Retinal oligodendroglioma. Marek J, et al. **Am J Ophthalmol** 1999 Sep;128(3):389-91

Second primary rhabdomyosarcomas in patients with bilateral retinoblastoma: a clinicopathologic and immunohistochemical study. Hasegawa T, et al. **Am J Surg Pathol** 1998 Nov;22(11):1351-60

Pleomorphic xanthoastrocytoma of the retina. Zarate JO, et al. **Am J Surg Pathol** 1999 Jan;23(1):79-81

Acquired immunodeficiency syndrome-related intraocular B-cell lymphoma. Rivero ME, et al. **Arch Ophthalmol** 1999 May;117(5):616-22

Neoplasms of the retinal pigment epithelium: the 1998 Albert Ruedemann, Sr, memorial lecture, Part 2. Shields JA, et al. **Arch Ophthalmol** 1999 May;117(5):601-8

Disseminated retinoblastoma successfully treated with myeloablative chemotherapy--implication for molecular detection of minimal residual disease. Yamane S, et al. **Bone Marrow Transplant** 1999 May;23(9):971-4

Presumed calcified retinal cavernous hemangioma. Almaswary MA, et al. **Can J Ophthalmol** 1999 Aug; 34(5):294-5

Intraocular transplantation of E1A-immortalized retinal precursor cells. Seigel GM, et al. **Cell Transplant** 1998 Nov-Dec;7(6):559-66

B16LS9 melanoma cells spread to the liver from the murine ocular posterior compartment (PC). Diaz CE, et al. **Curr Eye Res** 1999 Feb;18(2):125-9

Mutant herpes simplex virus-mediated suppression of retinoblastoma. Kogishi J, et al. **Curr Eye Res** 1999 May; 18(5):321-6

Cytological aspiration of intraocular retinoblastoma in an 11-year-old boy. Decaussin M, et al. **Diagn Cytopathol** 1998 Sep;19(3):190-3

Appearance and rapid growth of retinal tumor (reactive astrocytic hyperplasia?). Khawly JA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jan;237(1):78-81

Pathological and histological study on retinoblastoma. Fujisawa K, et al. **Kobe J Med Sci** 1998 Feb;44(1):19-30

Tumors of the retinal pigment epithelium metastasize to inguinal lymph nodes and spleen in tyrosinase-related protein 1/SV40 T antigen transgenic mice. Penna D, et al. **Oncogene** 1998 Nov 19;17(20):2601-7

Invasive giant cell astrocytoma of the retina in a patient with tuberous sclerosis. Gündüz K, et al. **Ophthalmology** 1999 Mar;106(3):639-42

Primary ocular Epstein-Barr virus-associated non-Hodgkin's lymphoma in a patient with AIDS: a clinicopathologic report. Mittra RA, et al. **Retina** 1999;19(1):45-50

Histopathology of a vasoproliferative tumor of the ocular fundus. Smeets MH, et al. **Retina** 1998;18(5):470-2

Retinoblastoma in transgenic mice: models of hereditary retinoblastoma. Mills MD, et al. **Surv Ophthalmol** 1999 May-Jun;43(6):508-18 (105 ref.)

[Fluorescein angiography of retinal changes in patients with neurofibromatosis 2] Hazim W, et al. **Ophthalmologe** 1998 Oct;95(10):687-90 (Eng. Abstr.) **(Ger)**

[The role of apoptosis in physiology and pathology of the retina] Obuchowska I, et al. **Klin Oczna** 1999;101(2):139-43 (43 ref.) (Eng. Abstr.) **(Pol)**

[The extension of retinoblastoma into neighboring structures] Bosun I, et al. **Oftalmologia** 1998;44(3):47-52 (Eng. Abstr.) **(Rum)**

PHYSIOPATHOLOGY

New insights into trilateral retinoblastoma [editorial; comment] Singh AD, et al. **Cancer** 1999 Jul 1;86(1):3-5. Comment on: Cancer 1999 Jul 1;86(1):135-41.

Visual outcomes in children with bilateral retinoblastoma. Hall LS, et al. **J Aapos** 1999 Jun;3(3):138-42

RADIOGRAPHY

Multifocal osteosarcoma as second tumor after childhood retinoblastoma. Potepan P, et al. **Skeletal Radiol** 1999 Jul; 28(7):415-21

RADIOTHERAPY

A technique for suturing peripapillary radioactive plaques. Abdel-Dayem HK, et al. **Am J Ophthalmol** 1999 Feb; 127(2):224-6

Radiation complications and tumor control after plaque radiotherapy of choroidal melanoma with macular involvement. Gündüz K, et al. **Am J Ophthalmol** 1999 May; 127(5):579-89

External beam radiotherapy in retinoblastoma: tumor control and comparison of 2 techniques. Scott IU, et al. **Arch Ophthalmol** 1999 Jun;117(6):766-70

Advanced bilateral retinoblastoma treated conservatively with lens sparing external beam radiation therapy: report of three cases. Kao LY, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Mar;22(1):100-5

Cancer incidence after retinoblastoma: radiation dose and sarcoma risk. Murray T. **Surv Ophthalmol** 1998 Nov-Dec; 43(3):288-9

SURGERY

Orbital development after enucleation in early childhood. Fountain TR, et al. **Ophthal Plast Reconstr Surg** 1999 Jan; 15(1):32-6

Surgical repair of rhegmatogenous retinal detachment after treatment for retinoblastoma. Baumal CR, et al. **Ophthalmology** 1998 Nov;105(11):2134-9

THERAPY

Treatment of paraneoplastic visual loss with intravenous immunoglobulin: report of 3 cases. Guy J, et al. **Arch Ophthalmol** 1999 Apr;117(4):471-7 (36 ref.)

Thermotherapy for retinoblastoma. Shields CL, et al. **Arch Ophthalmol** 1999 Jul;117(7):885-93

Role of chemotherapy alone or in combination with hyperthermia in the primary treatment of intraocular retinoblastoma: preliminary results. Levy C, et al. **Br J Ophthalmol** 1998 Oct;82(10):1154-8

An experimental application of gene therapy for human retinoblastoma. Hayashi N, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):265-72

Recent developments in the management of retinoblastoma. Shields CL, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jan-Feb;36(1):8-18; quiz 35-6 (64 ref.)

RAC nixes plan to treat retinoblastoma [news; comment] Garber K. **Science** 1999 Jun 25;284(5423):2066. Comment on: Science 1999 Jul 30;285(5428):663-4.

Retinoblastoma treatment [letter; comment] Hurwitz RL, et al. **Science** 1999 Jul 30;285(5428):663-4. Comment on: Science 1999 Jun 25;284(5423):2066.

[Experimental research on in vivo gene-therapy of retinoblastoma] Chen D, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Aug; 16(4):211-5 (Eng. Abstr.) **(Chi)**

[Retinoblastoma] Bornfeld N. **Klin Monatsbl Augenheilkd** 1999 Apr;214(4):aA10-1 **(Ger)**

[Follow-up of retinoblastoma during homeopathic therapy] Käsmann-Kellner B, et al. **Klin Monatsbl Augenheilkd** 1999 Apr;214(4):aA12-6 **(Ger)**

[The results of multimodal treatment in retinoblastoma] Zemba M, et al. **Oftalmologia** 1998;45(4):46-54 (Eng. Abstr.) **(Rum)**

ULTRASONOGRAPHY

Fetal retinoblastoma. Salim A, et al. **J Ultrasound Med** 1998 Nov;17(11):717-20

VIROLOGY

Mutant herpes simplex virus-mediated suppression of retinoblastoma. Kogishi J, et al. **Curr Eye Res** 1999 May; 18(5):321-6

Human cytomegalovirus infection in a retinoblastoma cell line in vitro. Kumano Y, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):945-9

RETINAL NEOVASCULARIZATION

DIAGNOSIS

Optociliary veins in optic nerve sheath meningioma. Indocyanine green videoangiography findings. Muci-Mendoza R, et al. **Ophthalmology** 1999 Feb; 106(2):311-8

DRUG THERAPY

1998 Jules Gonin lecture of the Retina Research Foundation. Drug treatment of ocular neovascularization and proliferation. Wiedemann P. **Graefes Arch Clin Exp Ophthalmol** 1999 Jun;237(6):445-7

Pigment epithelium-derived factor: a potent inhibitor of angiogenesis. Dawson DW, et al. **Science** 1999 Jul 9; 285(5425):245-8

ENZYMOLOGY

Human diabetic neovascular membranes contain high levels of urokinase and metalloproteinase enzymes. Das A, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):809-13

ETIOLOGY

Optic disc neovascularization following severe retinoschisis due to shaken baby syndrome. Brown SM, et al. **Arch Ophthalmol** 1999 Jun;117(6):838-9

Metabolic acidosis-induced retinopathy in the neonatal rat. Holmes JM, et al. **Invest Ophthalmol Vis Sci** 1999 Mar; 40(3):804-9

Subretinal neovascularization secondary to Candida endophthalmitis: long-term follow-up after submacular surgery. Shah GK, et al. **Retina** 1999;19(1):81-2

[Subretinal neovascular membranes in membranoproliferative glomerulonephritis type II] Framme C, et al. **Klin Monatsbl Augenheilkd** 1998 Oct;213(4):252-3 (Eng. Abstr.) **(Ger)**

GENETICS

Neovascularization of the RPE: temporal differences in mice with rod photoreceptor gene defects. Nishikawa S, et al. **Exp Eye Res** 1998 Nov;67(5):509-15

METABOLISM

Expression of thrombospondin-1 in ischemia-induced retinal neovascularization. Suzuma K, et al. **Am J Pathol** 1999

Feb;154(2):343–54
Intraretinal oxygen distribution in urethan-induced retinopathy in rats. Yu DY, et al. **Am J Physiol** 1998 Jun; 274(6 Pt 2):H2009–17
Expression of the VEGF gene family during retinal vaso-obliteration and hypoxia. Simpson DA, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):333–40
Increased expression of KDR/Flk-1 (VEGFR-2) in murine model of ischemia-induced retinal neovascularization. Suzuma K, et al. **Microvasc Res** 1998 Nov;56(3):183–91

PATHOLOGY

Neovascularization of the optic disc. What is the origin of the blood flow? Hinz BJ, et al. **Arch Ophthalmol** 1998 Dec; 116(12):1694–5
Cellular response in subretinal neovascularization induced by bFGF-impregnated microspheres. Kimura H, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):524–8
Histopathological findings in proliferative membrane from a patient with sarcoid uveitis. Miyao A, et al. **Jpn J Ophthalmol** 1999 May-Jun;43(3):209–12
[Contribution of posterior hyaloid membrane to pathogenesis and transciliary surgery of proliferative diabetic retinopathy] Sdobnikova SV, et al. **Vestn Oftalmol** 1999 Jan-Feb;115(1):11–3 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

Dramatic inhibition of retinal and choroidal neovascularization by oral administration of a kinase inhibitor. Seo MS, et al. **Am J Pathol** 1999 Jun; 154(6):1743–53
Retinal neovascularization is suppressed with a matrix metalloproteinase inhibitor. Das A, et al. **Arch Ophthalmol** 1999 Apr;117(4):498–503
Diltiazem reduces retinal neovascularization in a mouse model of oxygen induced retinopathy. Higgins RD, et al. **Curr Eye Res** 1999 Jan;18(1):20–7
Suppression of retinal neovascularization by the NF-kappaB inhibitor pyrrolidine dithiocarbamate in mice. Yoshida A, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1624–9

RADIOTHERAPY

Ophthalmic plaque radiotherapy for age-related macular degeneration associated with subretinal neovascularization. Finger PT, et al. **Am J Ophthalmol** 1999 Feb;127(2):170–7
External beam radiation in patients suffering from exudative age-related macular degeneration. A matched-pairs study and 1-year clinical follow-up. Krott R, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):916–21
External beam radiotherapy for subretinal neovascularization in age-related macular degeneration: is this treatment efficient? Staar S, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):467–73

SURGERY

Anatomic and functional recovery of the fovea after foveal translocation surgery without large retinotomy and simultaneous excision of a neovascular membrane. Fujikado T, et al. **Am J Ophthalmol** 1998 Dec;126(6):839–42
Relationship of diabetic microvascular complications to outcome in panretinal photocoagulation treatment of proliferative diabetic retinopathy [letter; comment] Tanner V, et al. **Eye** 1998;12 (Pt 4):751–2. Comment on: Eye 1997;11 (Pt 4):531–6.
Panretinal photocoagulation during cataract extraction in eyes with active proliferative diabetic eye disease. West JA, et al. **Eye** 1999 Apr;13 (Pt 2):170–3
Trans-scleral diode laser photocoagulation in proliferative sickle cell retinopathy. Seiberth V. **Ophthalmology** 1999 Sep;106(9):1828–9

THERAPY

[Neovascularization in severe myopia] Ducourneau D, et al. **J Fr Ophtalmol** 1998 Dec;21(10):782–4 **(Fre)**

ULTRASONOGRAPHY

[Ultrasound biomicroscopic findings of anterior hyaloidal fibrovascular proliferation] Matsumura S, et al. **Nippon Ganka Gakkai Zasshi** 1998 Nov;102(11):759–63 (Eng. Abstr.) **(Jpn)**

RETINAL PERFORATIONS

COMPLICATIONS

Silicone oil tamponade in eyes with posterior staphyloma and retinal detachment caused by macular hole. Scholda C, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):704–6
Complete epiretinal membrane separation in highly myopic eyes with retinal detachment resulting from a macular hole. Oshima Y, et al. **Am J Ophthalmol** 1998 Nov;126(5):669–76
Objective assessment of photoreceptor displacement and metamorphopsia: a study of macular holes. Jensen OM, et al. **Arch Ophthalmol** 1998 Oct;116(10):1303–6
Retinal breaks [letter; comment] Lam DS, et al. **Ophthalmology** 1999 May;106(5):859–60. Comment on: Ophthalmology 1998 Jun;105(6):1045–9; discussion 1049–50.
Long-term follow-up of retinal detachment due to macular hole in myopic eyes treated by temporary silicone oil tamponade and laser photocoagulation. Wolfensberger TJ, et al. **Ophthalmology** 1999 Sep;106(9):1786–91
Retinal detachments due to traumatic tears in the pars plana ciliaris. Alappatt JJ, et al. **Retina** 1998;18(6):506–9
Epiretinal membranes surrounding idiopathic macular holes. Blain P, et al. **Retina** 1998;18(4):316–21
[Weak and moderate myopia and the prognostic value of macular hole surgery] Gilon B, et al. **Bull Soc Belge Ophtalmol** 1999;272:77–9 (Eng. Abstr.) **(Fre)**
[Surgical outcomes of vitrectomy for retinal detachment due to macular hole with proliferative vitreoretinopathy] Tsuruoka M, et al. **Nippon Ganka Gakkai Zasshi** 1998 Sep; 102(9):583–6 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Indocyanine green angiography of retinal pigment epithelial tears. Giovannini A, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):83–7
Simultaneous indocyanine green and fluorescein angiography in retinal pigment epithelium tear using the confocal scanning laser ophthalmoscope. Axer-Siegel R, et al. **Am J Ophthalmol** 1999 Sep;128(3):331–9
Macular hole formation: new data provided by optical coherence tomography. Gaudric A, et al. **Arch Ophthalmol** 1999 Jun;117(6):744–51
Pattern reversal electroretinograms in patients with unilateral idiopathic full thickness macular holes. Gündüz K. **Eur J Ophthalmol** 1999 Jan-Mar;9(1):37–42
Correlation of quantitative three-dimensional measurements of macular hole size with visual acuity after vitrectomy. Kobayashi H, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):283–8
Diagnosis and management of idiopathic macular holes. Saxena S, et al. **Indian J Ophthalmol** 1998 Dec;46(4):185–93 (57 ref.)

ETIOLOGY

Idiopathic giant retinal tears in identical twins. Chaudhry NA, et al. **Am J Ophthalmol** 1999 Jan;127(1):96–9
Cataracts, bilateral macular holes, and rhegmatogenous retinal detachment induced by lightning. Espaillat A, et al. **Am J Ophthalmol** 1999 Feb;127(2):216–7
Clinical course of macular holes: the Eye Disease Case-Control Study [see comments] Chew EY, et al. **Arch Ophthalmol** 1999 Feb;117(2):242–6. Comment in: Arch Ophthalmol 1999 Feb;117(2):248–9.
Macular hole: a continuing saga [editorial; comment] Fine SL. **Arch Ophthalmol** 1999 Feb;117(2):248–9 (5 ref.). Comment on: Arch Ophthalmol 1999 Feb;117(2):242–6.
Müller cell cone, an overlooked part of the anatomy of the fovea centralis: hypotheses concerning its role in the pathogenesis of macular hole and foveomacualr retinoschisis. Gass JD. **Arch Ophthalmol** 1999 Jun; 117(6):821–3
Macular hole formation: new data provided by optical coherence tomography. Gaudric A, et al. **Arch Ophthalmol** 1999 Jun;117(6):744–51
Giant retinal pigment epithelial tear after trabeculectomy. Lois N, et al. **Arch Ophthalmol** 1999 Apr;117(4):546–7
The importance of qualitative vitreous examination in patients with acute posterior vitreous detachment. Sharma S, et al. **Arch Ophthalmol** 1999 Mar;117(3):343–6
Retinoschisis associated with disc coloboma [letter] Hotta K, et al. **Br J Ophthalmol** 1999 Jan;83(1):124
The posterior vitreous detachment clinic: do new retinal breaks develop in the six weeks following an isolated symptomatic posterior vitreous detachment? Richardson PS, et al. **Eye** 1999 Apr;13 (Pt 2):237–40
Indocyanine green angiographic findings of lacquer cracks in pathologic myopia. Ohno-Matsui K, et al. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):293–9
Retinal breaks and rhegmatogenous retinal detachment in association with branch retinal vein occlusion. Kir E, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):285–8
Reopening of macular holes after initially successful repair. Christmas NJ, et al. **Ophthalmology** 1998 Oct; 105(10):1835–8
Retinal complications after cataract extraction in patients with high myopia. Fan DS, et al. **Ophthalmology** 1999 Apr; 106(4):688–91; discussion 691–2
Retinal detachment in pseudophakic eyes with and without Nd:YAG laser posterior capsulotomy. Ranta P, et al. **Ophthalmology** 1998 Nov;105(11):2127–33
Giant retinal tears after photorefractive keratectomy. Vilaplana D, et al. **Retina** 1999;19(4):342–3

PATHOLOGY

Preoperative measurements of macular hole with scanning laser ophthalmoscopy. Correlation with functional outcome. Byhr E, et al. **Acta Ophthalmol Scand** 1998 Oct; 76(5):579–83
[Vitreoretinal tomography and foveolar traction in macular hole development and macular pseudohole] Mori K, et al. **Nippon Ganka Gakkai Zasshi** 1999 May;103(5):371–8 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Electroretinographic changes in eyes with idiopathic macular hole treated by vitrectomy. Matsumoto CS, et al. **Doc Ophthalmol** 1997-98;94(4):341–54
Visual field change in eyes with retinal pigment epithelial tear. Iijima H, et al. **Retina** 1999;19(3):198–203
Impressions: a patient's view. Matsumura M. **Retina** 1998; 18(5):489
Psychophysical observations concerned with a foveal lesion (macular hole). Burke W. **Vision Res** 1999 Jul;39(14):2421–7

RADIOGRAPHY

Juvenile retinoschisis: imaging findings. Lateef SS, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1148–50

SURGERY

Spectacle-mounted prisms as an aid in face-down positioning after vitrectomy surgery. Copeland CS, et al. **Am J Ophthalmol** 1999 Apr;127(4):480–1
Macular hole surgery in conjunction with endolaser photocoagulation. Min WK, et al. **Am J Ophthalmol** 1999 Mar;127(3):306–11
Prevention of visual field defect after macular hole surgery by passing air used for fluid-air exchange through water. Ohji M, et al. **Am J Ophthalmol** 1999 Jan;127(1):62–6
Prevention of visual field defect after macular hole surgery by passing air used for fluid-air exchange through water [letter] Welch JC. **Am J Ophthalmol** 1999 Sep;128(3):396–7
Dissection of the posterior hyaloid. Ruiz-Moreno JM, et al. **Arch Ophthalmol** 1998 Oct;116(10):1392–3
Histopathological features of vitreous removed at macular hole surgery. Sadda SR, et al. **Arch Ophthalmol** 1999 Apr; 117(4):478–84
Assessment of macular function by multifocal electroretinogram before and after macular hole surgery. Si YJ, et al. **Br J Ophthalmol** 1999 Apr;83(4):420–4
Visual function and patient satisfaction after macular hole surgery. Pearce IA, et al. **Eye** 1998;12 (Pt 4):651–8
The residual epiretinal membrane after vitrectomy for macular hole. Kurihara K, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Aug;237(8):648–53
Predictive value of pattern VEP, pattern ERG and hole size in macular hole surgery. Tilanus MA, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Aug;237(8):629–35
Diagnosis and management of idiopathic macular holes. Saxena S, et al. **Indian J Ophthalmol** 1998 Dec;46(4):185–93 (57 ref.)
Surgical management of macular hole. Miller DG, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):261–74 (55 ref.)
Macular hole surgery-associated peripheral visual field loss. Arima T, et al. **Jpn J Ophthalmol** 1998 Nov-Dec; 42(6):476–83
The use of internal limiting membrane maculorrhexis in treatment of idiopathic macular holes. Park DW, et al. **Korean J Ophthalmol** 1998 Dec;12(2):92–7
Reopening of macular holes after initially successful repair. Christmas NJ, et al. **Ophthalmology** 1998 Oct; 105(10):1835–8
Evaluation of new techniques of macular surgery [editorial; comment] Freeman WR, et al. **Ophthalmology** 1999 May; 106(5):861–2. Comment on: Ophthalmology 1999 May;106(5):932–8.
Silicone oil tamponade to seal macular holes without position restrictions. Goldbaum MH, et al. **Ophthalmology** 1998 Nov;105(11):2140–7; discussion 2147–8
Outpatient postoperative fluid-gas exchange after early failed vitrectomy surgery [letter; comment] Kwok AK, et al. **Ophthalmology** 1998 Oct;105(10):1787–8. Comment on: Ophthalmology 1997 Dec;104(12):2009–13.
Visual outcome of surgery for epiretinal membranes with macular pseudoholes. Massin P, et al. **Ophthalmology** 1999 Mar;106(3):580–5
Effect of autologous platelet concentrate in surgery for idiopathic macular hole: results of a multicenter, double-masked, randomized trial. Platelets in Macular Hole Surgery Group [see comments] Paques M, et al. **Ophthalmology** 1999 May;106(5):932–8. Comment in: Ophthalmology 1999 May;106(5):861–2.
Macular hole surgery with internal-limiting membrane peeling and intravitreous air. Park DW, et al. **Ophthalmology** 1999 Jul;106(7):1392–7; discussion 1397–8
Vitrectomy with silicone oil or long-acting gas in eyes with giant retinal tears: long-term follow-up of a randomized clinical trial. Batman C, et al. **Retina** 1999;19(3):188–92
Primary vitrectomy with perfluoro-n-octane use in the treatment of pseudophakic retinal detachment with undetected retinal breaks. Brazitikos PD, et al. **Retina** 1999; 19(2):103–9
Visual and surgical outcomes of retinal detachment following macular hole repair. Heier JS, et al. **Retina** 1999;19(2):110–5
Combined tractional rhegmatogenous retinal detachment in familial exudative vitreoretinopathy associated with posterior retinal holes: surgical therapy. Ikeda T, et al. **Retina** 1998;18(6):566–8
Macular hole surgery using thrombin-activated fibrinogen and selective removal of the internal limiting membrane. Olsen TW, et al. **Retina** 1998;18(4):322–9
Cystoid macular edema following combined phacoemulsification and vitrectomy for macular hole. Sheidow TG, et al. **Retina** 1998;18(6):510–4
Retinal detachment associated with macular hole surgery: characteristics, mechanism, and outcomes. Tabandeh H, et al. **Retina** 1999;19(4):281–6

RETINAL PERFORATIONS

[Surgical management for giant retinal tear] Chen H, et al. **Chung Hua Yen Ko Tsa Chih** 1997 Mar;33(2):125–8 (Eng. Abstr.) **(Chi)**

[Retinal detachment with retinal tears--clinical characteristics and surgical results] Boháčová E, et al. **Cesk Slov Oftalmol** 1999 May;55(3):128–35 (Eng. Abstr.) **(Cze)**

[Early indications for pars plana vitrectomy in idiopathic macular holes] Ernest J, et al. **Cesk Slov Oftalmol** 1998; 54(5):310–4 (Eng. Abstr.) **(Cze)**

[Weak and moderate myopia and the prognostic value of macular hole surgery] Gilon B, et al. **Bull Soc Belge Ophtalmol** 1999;272:77–9 (Eng. Abstr.) **(Fre)**

["Rupture" of the internal limiting membrane in surgery of the macular hole: preliminary results] Gribomont AC. **Bull Soc Belge Ophtalmol** 1999;272:9–11 (Eng. Abstr.) **(Fre)**

[Results and complications of surgery for idiopathic macular holes] Kapetanios AD, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):282–4 (Eng. Abstr.) **(Fre)**

[Macular morphologic reconstruction and visual recovery in patients following macular hole surgery] Yamanishi S, et al. **Nippon Ganka Gakkai Zasshi** 1999 Apr;103(4):282–8 (Eng. Abstr.) **(Jpn)**

THERAPY

Base up prism spectacles as visual aid in patients treated for macular hole [letter] Crafoord S, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):241

Temporary vitreous gas tamponade by perfluoromethylcyclopentane. Hui YN, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Sep;236(9):709–12

Retinal breaks [letter; comment] Wilkinson CP. **Ophthalmology** 1999 Jan;106(1):2–3. Comment on: Ophthalmology 1998 Jun;105(6):1045–9; discussion 1049–50.

Preparation of autologous platelets for the ophthalmologic treatment of macular holes. Gehring S, et al. **Transfusion** 1999 Feb;39(2):144–8

[Vitrectomy and autologous thrombocyte concentrate in the treatment of idiopathic macular holes] Karel I, et al. **Cesk Slov Oftalmol** 1999 Jul;55(4):191–202 (Eng. Abstr.) **(Cze)**

ULTRASONOGRAPHY

Juvenile retinoschisis: imaging findings. Lateef SS, et al. **AJNR Am J Neuroradiol** 1999 Jun–Jul;20(6):1148–50

RETINAL PIGMENT EPITHELIAL DETACHMENT see **RETINAL DETACHMENT**

RETINAL PIGMENT EPITHELIUM see **PIGMENT EPITHELIUM OF EYE**

RETINAL PIGMENTS

Visual pigment: G-protein-coupled receptor for light signals. Shichida Y, et al. **Cell Mol Life Sci** 1998 Dec; 54(12):1299–315 (153 ref.)

Iris transillumination defects in the pigment dispersion syndrome as detected with infrared videography: a comparison between a group of blacks and a group of nonblacks. Roberts DK, et al. **Optom Vis Sci** 1999 Aug; 76(8):544–9

Probing for the threshold energy for visual transduction: red-shifted visual pigment analogs from 3-methoxy-3-dehydroretinal and related compounds. Imai H, et al. **Photochem Photobiol** 1999 Jul;70(1):111–5

[Retinal pigment anomalies associated with Fabry's disease] Jourdel D, et al. **J Fr Ophtalmol** 1998 Dec;21(10):755–60 (Eng. Abstr.) **(Fre)**

[Diversity of visual pigments and phototransduction systems on the basis of both molecular phylogenetic and functional protein analyses] Terakita A, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(3):217–25 (35 ref.) **(Jpn)**

ANALYSIS

A practical method for measuring macular pigment optical density. Wooten BR, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2481–9

Extraretinal photoreceptors at the compound eye's posterior margin in Drosophila melanogaster. Yasuyama K, et al. **J Comp Neurol** 1999 Sep 20;412(2):193–202

Visual pigments and oil droplets in the retina of a passerine bird, the canary Serinus canaria: microspectrophotometry and opsin sequences. Das D, et al. **Vision Res** 1999 Aug; 39(17):2801–15

Enhanced retinal longwave sensitivity using a chlorophyll-derived photosensitiser in Malacosteus niger, a deep-sea dragon fish with far red bioluminescence. Douglas RH, et al. **Vision Res** 1999 Aug;39(17):2817–32

BIOSYNTHESIS

The metabolic pathway of visual pigment chromophore formation in Drosophila melanogaster--all-trans (3S)-3-hydroxyretinal is formed from all-trans retinal via (3R)-3-hydroxyretinal in the dark. Seki T, et al. **Eur J Biochem** 1998 Oct 15;257(2):522–7

Human cone pigment expressed in transgenic mice yields altered vision. Jacobs GH, et al. **J Neurosci** 1999 Apr 15; 19(8):3258–65

CHEMISTRY

The angles between the C(1)–, C(5)–, and C(9)–methyl bonds of the retinylidene chromophore and the membrane normal increase in the M intermediate of bacteriorhodopsin: direct determination with solid-state (2)H NMR. Moltke S, et al. **Biochemistry** 1999 Sep 7;38(36):11762–72

Spectral tuning in salamander visual pigments studied with dihydroretinal chromophores. Makino CL, et al. **Biophys J** 1999 Aug;77(2):1024–35

How vertebrate and invertebrate visual pigments differ in their mechanism of photoactivation. Nakagawa M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6189–92

How color visual pigments are tuned. Kochendoerfer GG, et al. **Trends Biochem Sci** 1999 Aug;24(8):300–5 (38 ref.)

GENETICS

Kinetics of visual pigment regeneration in excised mouse eyes and in mice with a targeted disruption of the gene encoding interphotoreceptor retinoid-binding protein or arrestin. Palczewski K, et al. **Biochemistry** 1999 Sep 14; 38(37):12012–9

Circadian regulation of iodopsin and clock is altered in the retinal degeneration chicken retina. Larkin P, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):253–63

Position of a 'green-red' hybrid gene in the visual pigment array determines colour-vision phenotype. Hayashi T, et al. **Nat Genet** 1999 May;22(1):90–3

Mutually exclusive expression of human red and green visual pigment-reporter transgenes occurs at high frequency in murine cone photoreceptors [see comments] Wang Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5251–6 . Comment in: Proc Natl Acad Sci U S A 1999 Apr 27;96(9):4743–5.

Adaptive evolution of color vision of the Comoran coelacanth (Latimeria chalumnae). Yokoyama S, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6279–84

Pigment gene expression in protan color vision defects. Balding SD, et al. **Vision Res** 1998 Nov;38(21):3359–64

Analysis of red/green color discrimination in subjects with a single X-linked photopigment gene. Crognale MA, et al. **Vision Res** 1999 Feb;39(4):707–19

Molecular evolution of trichromacy in primates. Hunt DM, et al. **Vision Res** 1998 Nov;38(21):3299–306

Expression of L cone pigment gene subtypes in females. Neitz M, et al. **Vision Res** 1998 Nov;38(21):3221–5

Relating color discrimination to photopigment genes in deutan observers. Shevell SK, et al. **Vision Res** 1998 Nov; 38(21):3371–6

L-cone pigment genes expressed in normal colour vision. Sjoberg SA, et al. **Vision Res** 1998 Nov;38(21):3213–9

HISTORY

Herbert Dartnall--obituary. Loew ER, et al. **Vision Res** 1999 Feb;39(4):679–83

ISOLATION & PURIFICATION

Isolation and one-step preparation of A2E and iso-A2E, fluorophores from human retinal pigment epithelium. Parish CA, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14609–13

METABOLISM

Regulation of the reduced-folate transporter by nitric oxide in cultured human retinal pigment epithelial cells. Smith SB, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):279–83

Effect of anion binding on iodopsin studied by low-temperature fourier transform infrared spectroscopy. Imamoto Y, et al. **Biochemistry** 1999 Sep 7;38(36):11749–54

Kinetics of visual pigment regeneration in excised mouse eyes and in mice with a targeted disruption of the gene encoding interphotoreceptor retinoid-binding protein or arrestin. Palczewski K, et al. **Biochemistry** 1999 Sep 14; 38(37):12012–9

Foveal cone photopigment distribution: small alterations associated with macular pigment distribution. Elsner AE, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2394–404

Retinal mitosis is regulated by dopa, a melanin precursor that may influence the time at which cells exit the cell cycle: analysis of patterns of cell production in pigmented and albino retinae. Ilia M, et al. **J Comp Neurol** 1999 Mar 15;405(3):394–405

Kinetics of foveal cone photopigment in myopia without chorioretinal degeneration. Horio N, et al. **Jpn J Ophthalmol** 1999 Jan–Feb;43(1):44–7

Identification and distribution of dietary precursors of the Drosophila visual pigment chromophore: analysis of carotenoids in wild type and ninaD mutants by HPLC. Giovannucci DR, et al. **Vision Res** 1999 Jan;39(2):219–29

PHARMACOLOGY

Inhibition of lysosomal degradative functions in RPE cells by a retinoid component of lipofuscin. Holz FG, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):737–43

PHYSIOLOGY

Fourth module of Xenopus interphotoreceptor retinoid-binding protein: activity in retinoid transfer between the retinal pigment epithelium and rod photoreceptors. Gonzalez-Fernandez F, et al. **Curr Eye Res** 1998 Dec;17(12):1150–7

Photopigments and seeing--lessons from natural experiments: the Proctor lecture. Jacobs GH. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2204–16 (99 ref.)

UV- and midwave-sensitive cone-driven retinal responses of the mouse: a possible phenotype for coexpression of cone photopigments. Lyubarsky AL, et al. **J Neurosci** 1999 Jan 1;19(1):442–55

How vertebrate and invertebrate visual pigments differ in their mechanism of photoactivation. Nakagawa M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6189–92

The eyes of deep-sea fish. I: Lens pigmentation, tapeta and visual pigments. Douglas RH, et al. **Prog Retin Eye Res** 1998 Oct;17(4):597–636 (178 ref.)

Increased absolute light sensitivity in Himalayan mice with cold-induced ocular pigmentation. Balkema GW, et al. **Vis Neurosci** 1998 Sep–Oct;15(5):841–9

Effects of known variations in photopigments on L/M cone ratios estimated from luminous efficiency functions. Bieber ML, et al. **Vision Res** 1998 Jun;38(13):1961–6

Spectra of human L cones. Kraft TW, et al. **Vision Res** 1998 Dec;38(23):3663–70

Macular pigment and the colour-specificity of visual evoked potentials. Moreland JD, et al. **Vision Res** 1998 Nov; 38(21):3241–5

A back-propagation neural network predicts absorption maxima of chimeric human red/green visual pigments. Robinson PR, et al. **Vision Res** 1999 May;39(9):1707–12

The effects of temperature on the dark-adapted spectral sensitivity function of the adult zebrafish. Saszik S, et al. **Vision Res** 1999 Mar;39(6):1051–8

Macular pigment densities derived from central and peripheral spectral sensitivity differences. Sharpe LT, et al. **Vision Res** 1998 Nov;38(21):3233–9

RADIATION EFFECTS

Spectral tuning in salamander visual pigments studied with dihydroretinal chromophores. Makino CL, et al. **Biophys J** 1999 Aug;77(2):1024–35

Photophysical studies of A2-E, putative precursor of lipofuscin, in human retinal pigment epithelial cells. Cubeddu R, et al. **Photochem Photobiol** 1999 Aug; 70(2):172–5

How color visual pigments are tuned. Kochendoerfer GG, et al. **Trends Biochem Sci** 1999 Aug;24(8):300–5 (38 ref.)

RETINAL S-ANTIGEN see **ARRESTIN**

RETINAL TEARS see **RETINAL PERFORATIONS**

RETINAL VEIN

Ocular venous occlusion and hyperhomocysteinemia [letter] Ducloux D, et al. **Ann Intern Med** 1999 Oct 5;131(7):548–9

Retinal venous macroaneurysm associated with premacular hemorrhage. Khairallah M, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):226–8

ABNORMALITIES

Venous loops and reduplications in diabetic retinopathy. Prevalence, distribution, and pattern of development. Bek T. **Acta Ophthalmol Scand** 1999 Apr;77(2):130–4

Congenital retinal macrovessels: a "low visual acuity" case report with a 14-year follow-up. de Crecchio G, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):474–5

Optic nerve hypoplasia with isolated tortuosity of the retinal veins: a marker of endocrinopathy. Hellström A, et al. **Arch Ophthalmol** 1999 Jul;117(7):880–4

Idiopathic retinal venous-choroidal anastomosis. Gaddie IB, et al. **Retina** 1998;18(5):483–5

Surgical decompression of branch retinal vein occlusion via arteriovenous crossing sheathotomy: a prospective review of 15 cases. Opremcak EM, et al. **Retina** 1999;19(1):1–5 (11 ref.)

DRUG EFFECTS

Comparison of short- and long-term effects of betaxolol and timolol on human retinal circulation. Yoshida A, et al. **Eye** 1998;12 (Pt 5):848–53

IMMUNOLOGY

[High endothelial venules. Kinetics of the expression in IRBP-induced experimental autoimmune uveitis] Stiemer R, et al. **Ophthalmologe** 1999 Jan;96(1):40–4 (Eng. Abstr.) **(Ger)**

PATHOLOGY

Retinal findings in Takayasu's arteritis. Karam EZ, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):209–13

Venous collateral remodeling in a patient with posttraumatic glaucoma. Piltz-Seymour JR, et al. **Am J Ophthalmol** 1999 Jul;128(1):101–3

PHYSIOLOGY

Real-time blood velocity measurements in human retinal vein using the laser speckle phenomenon. Nagahara M, et al. **Jpn J Ophthalmol** 1999 May-Jun;43(3):186-95

Spontaneous pulsation of the retinal veins. Levine DN. **Microvasc Res** 1998 Nov;56(3):154-65

Clinical problem-solving: a balancing act [letter; comment] Ho TB, et al. **N Engl J Med** 1999 Jul 8;341(2):129; discussion 130. Comment on: N Engl J Med 1999 Feb 4;340(5):374-8.

Intra-ocular pressure changes during maximal isometric contraction: does this reflect intra-cranial pressure or retinal venous pressure? Dickerman RD, et al. **Neurol Res** 1999 Apr;21(3):243-6

Physiology of perfusion as it relates to the optic nerve head. Orgül S, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S17-26 (144 ref.)

[The mechanical fundus perfusion model: blood flow velocity determined by ICG angiography and Heidelberg retina flowmetry] Hendrickson P, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):275-6 (Eng. Abstr.) **(Ger)**

[Interobserver variation of spontaneous venous pulse in the retina (letter)] Ortín Castaño A, et al. **Neurologia** 1999 Mar; 14(3):140 **(Spa)**

PHYSIOPATHOLOGY

Retinal blood flow measurements in branch retinal vein occlusion using scanning laser Doppler flowmetry. Avila CP Jr, et al. **Am J Ophthalmol** 1998 Nov;126(5):683-90

Retinal blood flow in nonischemic central retinal vein occlusion [letter; comment] Feke GT, et al. **Ophthalmology** 1999 May;106(5):857. Comment on: Ophthalmology 1998 May;105(5):772-5.

Retinal blood flow in nonischemic central retinal vein occlusion [letter; comment] Orgül S. **Ophthalmology** 1999 May;106(5):856-7. Comment on: Ophthalmology 1998 May;105(5):772-5.

[Hemodynamics of prepapillary vascular loop in hemi-central retinal vein occlusion] Takahashi K. **Nippon Ganka Gakkai Zasshi** 1999 May;103(5):404-8 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

[Central retinal vein occlusion and opto-ciliary shunts. An angiographic diagnosis] Meyer L, et al. **J Fr Ophtalmol** 1999 Apr;22(3):310-4 (Eng. Abstr.) **(Fre)**

SURGERY

Laser-induced chorioretinal anastomosis and central retinal vein occlusion [letter; comment] Parodi MB. **Arch Ophthalmol** 1999 Jan;117(1):140-1. Comment on: Arch Ophthalmol 1998 Jan;116(1):43-52.

Chorioretinal venous anastomosis for central retinal vein occlusion: transvitreal venipuncture. Fekrat S, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):52-5

Problems of chorioretinal venous anastomosis by laser for treatment of nonischemic central retinal vein occlusion. Aktan SG, et al. **Ophthalmologica** 1998;212(6):389-93

ULTRASTRUCTURE

Microvasculature of the rat optic nerve head. Morrison JC, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1702-9

RETINAL VEIN OCCLUSION

[Retinal phlebothrombosis: modern aspects in etiology, pathogenesis, diagnosis and therapy] Malaian AS, et al. **Vestn Oftalmol** 1999 Mar-Apr;115(2):35-40 (97 ref.) **(Rus)**

BLOOD

Thrombin-antithrombin III complex in acute retinal vein occlusion [see comments] Iijima H, et al. **Am J Ophthalmol** 1998 Nov;126(5):677-82. Comment in: Am J Ophthalmol 1999 Jul;128(1):124-5.

Thrombin-antithrombin III complex in acute retinal vein occlusion [letter; comment] Sagripanti A, et al. **Am J Ophthalmol** 1999 Jul;128(1):124-5. Comment on: Am J Ophthalmol 1998 Nov;126(5):677-82.

Plasma endothelial-1 concentrations in patients with retinal vein occlusions [letter; comment] Hólló G. **Br J Ophthalmol** 1999 Jan;83(1):127-8. Comment on: Br J Ophthalmol 1998 May;82(5):498-503.

Hypercoagulable states in patients with retinal venous occlusion. Abu El-Asrar AM, et al. **Doc Ophthalmol** 1998; 95(2):133-43

Fibrinolytic activity in retinal vein occlusion. Abu El-Asrar AM, et al. **Int Ophthalmol** 1997-98;21(6):343-8

[The effect of plasmapheresis on the rheological properties of the blood in patients with thrombosis of the central retinal vein] Komashchuk AS, et al. **Lik Sprava** 1999 Mar; (2):45-7 (Eng. Abstr.) **(Rus)**

COMPLICATIONS

Capillary closure secondary to retinal vein occlusion. A morphological, histopathological, and immunohistochemical study. Bek T. **Acta Ophthalmol Scand** 1998 Dec;76(6):643-8

Ocular venous occlusion and hyperhomocysteinemia [letter] Cruysberg JR. **Ann Intern Med** 1999 Oct 19;131(8):632-3

Diagnosis of activated protein C resistance in retinal vein occlusion [letter; comment] Aznar J. **Br J Ophthalmol** 1998 Jul;82(7):849. Comment on: Br J Ophthalmol 1996 Mar;80(3):194.

Iris neovascularization following branch retinal artery occlusion. Shah GK, et al. **Can J Ophthalmol** 1998 Dec; 33(7):389-90

Combined central retinal artery and vein occlusion in a child with systemic non-Hodgkin's lymphoma. Saatci AO, et al. **Int Ophthalmol** 1998-99;22(2):125-7

Consultation section. Cataract surgical problem. **J Cataract Refract Surg** 1999 Sep;25(9):1178-83

Retinal breaks and rhegmatogenous retinal detachment in association with branch retinal vein occlusion. Kir E, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):285-8

Blurred vision and high blood pressure in a young woman. Flanagan DE, et al. **Postgrad Med J** 1998 Oct;74(876):614-5

[Two cases of frosted retinal angiitis with central retinal vein occlusion] Kaburaki T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Aug;103(8):617-25 (Eng. Abstr.) **(Jpn)**

[Case of ANCA-related nephritis complicated with central retinal vein occlusion] Ishiguro T, et al. **Nippon Naika Gakkai Zasshi** 1999 May 10;88(5):897-9 **(Jpn)**

DIAGNOSIS

Changes in the retinal veins in acute optic neuritis. Engell T, et al. **Acta Neurol Scand** 1999 Aug;100(2):81-3

Macular edema computer-aided evaluation in ocular vein occlusions. Martínez-Costa L, et al. **Comput Biomed Res** 1998 Oct;31(5):374-84

Blurred vision during exacerbation of ulcerative colitis. Alcalde M, et al. **Postgrad Med J** 1998 Sep;74(875):551-2

[Quantification of functional retinal damage in branch retinal vein thromboses] Barbazetto IA, et al. **Ophthalmologe** 1999 Mar;96(3):159-65 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Ultrasound enhanced thrombolysis in experimental retinal vein occlusion in the rabbit. Larsson J, et al. **Br J Ophthalmol** 1998 Dec;82(12):1438-40

Intravitreal tissue plasminogen activator for acute central retinal vein occlusion. Lahey JM, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):427-34

Fibrinolytic therapy with low-dose recombinant tissue plasminogen activator in retinal vein occlusion. Hattenbach LO, et al. **Ophthalmologica** 1998;212(6):394-8

[Nitric oxide donors and retinal vein occlusion] Donati G, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):280-1 (Eng. Abstr.) **(Fre)**

[Systemic lysis therapy in retinal vascular occlusions] Hattenbach LO. **Ophthalmologe** 1998 Aug;95(8):568-75 (47 ref.) (Eng. Abstr.) **(Ger)**

[Warfarin potassium for impending central retinal vein occlusion] Furuta M, et al. **Nippon Ganka Gakkai Zasshi** 1999 Feb;103(2):124-8 (Eng. Abstr.) **(Jpn)**

[Results of fraxiparin and ticlid therapy of acute retinal vessels occlusion] Kasymova MS. **Vestn Oftalmol** 1998 Jul-Aug;114(4):21-4 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Alterations in protein tyrosine kinase pathways following retinal vein occlusion in the rat. Hayashi A, et al. **Curr Eye Res** 1999 Mar;18(3):231-9

EPIDEMIOLOGY

[Retinal vein occlusion and lipoprotein (a)] Ribeaudeau-Saindelle F, et al. **J Fr Ophtalmol** 1998 Apr; 21(4):245-50 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Heparin cofactor II deficiency in central retinal vein occlusion [letter] Hattenbach LO, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):758-9

Idiopathic central retinal vein occlusion in a thrombophilic patient with the heterozygous 20210 G/A prothrombin genotype. Incorvaia C, et al. **Am J Ophthalmol** 1999 Aug; 128(2):247-8

Venous collateral remodeling in a patient with posttraumatic glaucoma. Piltz-Seymour JR, et al. **Am J Ophthalmol** 1999 Jul;128(1):101-3

Central retinal vein occlusion in a patient with IgG lambda monoclonal gammopathy. Enzenauer RW, et al. **Arch Ophthalmol** 1999 Jan;117(1):134-5

Heritable thrombophilia and hypofibrinolysis. Possible causes of retinal vein occlusion. Glueck CJ, et al. **Arch Ophthalmol** 1999 Jan;117(1):43-9

Risk factors in central retinal vein occlusion and activated protein C resistance. Güven D, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9(1):43-8

Retinal vein occlusion in a woman with heterozygous Fabry's disease. Oto S, et al. **Eur J Ophthalmol** 1998 Oct-Dec; 8(4):265-7

Retinal vein occlusion, the contraceptive pill and the prothrombin 20210A allele [letter] Edwards M, et al. **Eye** 1999 Apr;13 (Pt 2):269

Retinal arteriovenous malformation with fluctuating vision and ischemic central retinal vein occlusion and its sequelae: 25-year follow-up of a case. Hardy TG, et al. **J Neuroophthalmol** 1998 Dec;18(4):233-6

Central retinal vein occlusion during remission of ulcerative colitis. Doi M, et al. **Jpn J Ophthalmol** 1999 May-Jun; 43(3):213-6

The clinico-ophthalmological spectrum of antiphospholipid syndrome. Giorgi D, et al. **Ocul Immunol Inflamm** 1998 Dec;6(4):269-73 (21 ref.)

Combined central retinal artery and central retinal vein occlusion following pars plana vitrectomy. Verma L, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):317-9

Retinal vein occlusions [letter; comment] Parodi MB. **Ophthalmology** 1999 Mar;106(3):439-40. Comment on: Ophthalmology 1998 May;105(5):765-71.

Branch retinal vein occlusion after spontaneous obliteration of retinal arterial macroaneurysm. Battaglia Parodi M, et al. **Retina** 1998;18(4):378-9

[Fibrinolytic system and a central retinal vein thrombosis] Malukiewicz-Wiśniewska G. **Klin Oczna** 1998;100(3):175-8 (16 ref.) (Eng. Abstr.) **(Pol)**

GENETICS

Retinal vascular occlusion and deficiencies in the protein C pathway. Greiner K, et al. **Am J Ophthalmol** 1999 Jul; 128(1):69-74

The 20210A allele of the prothrombin gene is not a risk factor for retinal vein occlusion [letter] Delahousse B, et al. **Blood Coagul Fibrinolysis** 1998 Jul;9(5):447-8

Analysis of genetic polymorphisms related to thrombosis and other risk factors in patients with retinal vein occlusion. Salomon O, et al. **Blood Coagul Fibrinolysis** 1998 Oct; 9(7):617-22

Retinal vein occlusion associated with methylenetetrahydrofolate reductase mutation. Loewenstein A, et al. **Ophthalmology** 1999 Sep; 106(9):1817-20

Bilateral retinal vein occlusion associated with factor V Leiden mutation. Spagnolo BV, et al. **Retina** 1998; 18(4):377-8

Retinal vein occlusion and inherited conditions predisposing to thrombophilia [letter] Albisinni R, et al. **Thromb Haemost** 1998 Oct;80(4):702-3

IMMUNOLOGY

Anticardiolipin antibodies and occlusive vascular disease of the eye: prospective study. Kalogeropoulos CD, et al. **Doc Ophthalmol** 1998;95(2):109-20

[Antiphospholipid antibodies in ophthalmology (letter)] Asensio Sánchez VM, et al. **An Med Interna** 1998 Nov; 15(11):616 **(Spa)**

METABOLISM

Factor V Leiden, activated protein C resistance, and retinal vein occlusion [see comments] Ciardella AP, et al. **Retina** 1998;18(4):308-15. Comment in: Retina 1998 ;18(4):297-300.

Activated protein C resistance, factor V Leiden, and retinal vessel occlusion [editorial; comment] Ma AD, et al. **Retina** 1998;18(4):297-300. Comment on: Retina 1998 ;18(4):308-15. Comment on: Retina 1998 ;18(4):376-7.

PATHOLOGY

Is change of the vessel wall a risk factor for venous thrombosis? [letter; comment] Verougstraete C. **Lancet** 1999 Jun 19;353(9170):2158. Comment on: Lancet 1999 Apr 3;353(9159):1167-73.

Angiographic and histologic effects of fundus photodynamic therapy with a hydrophilic sensitizer (mono-L-aspartyl chlorin e6). Mori K, et al. **Ophthalmology** 1999 Jul; 106(7):1384-91

[A case of central retinal vein occlusion forming the epiretinal membrane] Ohkita T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Feb;103(2):144-8 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Retinal blood flow measurements in branch retinal vein occlusion using scanning laser Doppler flowmetry. Avila CP Jr, et al. **Am J Ophthalmol** 1998 Nov;126(5):683-90

Reperfusion of occluded capillary beds in diabetic retinopathy. Takahashi K, et al. **Am J Ophthalmol** 1998 Dec;126(6):791-7

Central retinal vein occlusion associated with cryofibrinogenemia in a young adult--study of skin dynamic capillaroscopy. Tsai RK, et al. **J Formos Med Assoc** 1998 Nov;97(11):777-9

Retinal blood flow in nonischemic central retinal vein occlusion [letter; comment] Orgül S. **Ophthalmology** 1999 May;106(5):856-7. Comment on: Ophthalmology 1998 May;105(5):772-5.

Retinal blood flow in nonischemic central retinal vein occlusion [letter; comment] Quigley MG. **Ophthalmology** 1999 May;106(5):856; discussion 856-7. Comment on: Ophthalmology 1998 May;105(5):772-5.

[NO donors and experimental retinal vein occlusion] Donati G, et al. **J Fr Ophtalmol** 1999 May;22(4):446-50 (Eng. Abstr.) **(Fre)**

[Central retinal vein occlusion and opto-ciliary shunts. An

angiographic diagnosis] Meyer L, et al. **J Fr Ophtalmol** 1999 Apr;22(3):310–4 (Eng. Abstr.) **(Fre)**

[Hemodynamics of prepapillary vascular loop in hemi-central retinal vein occlusion] Takahashi K. **Nippon Ganka Gakkai Zasshi** 1999 May;103(5):404–8 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

[Central retinal vein occlusion and opto-ciliary shunts. An angiographic diagnosis] Meyer L, et al. **J Fr Ophtalmol** 1999 Apr;22(3):310–4 (Eng. Abstr.) **(Fre)**

SURGERY

Laser-induced chorioretinal anastomosis and central retinal vein occlusion [letter; comment] Parodi MB. **Arch Ophthalmol** 1999 Jan;117(1):140–1. Comment on: Arch Ophthalmol 1998 Jan;116(1):43–52.

Arterial blood flow characteristics in central retinal vein occlusion and effects of panretinal photocoagulation treatment: an investigation by colour Doppler imaging. Avunduk AM, et al. **Br J Ophthalmol** 1999 Jan;83(1):50–3

Optic nerve sheath decompression for progressive central retinal vein occlusion. Dev S, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):181–4

Chorioretinal venous anastomosis for central retinal vein occlusion: transvitreal venipuncture. Fekrat S, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):52–5

Problems of chorioretinal venous anastomosis by laser for treatment of nonischemic central retinal vein occlusion. Aktan SG, et al. **Ophthalmologica** 1998;212(6):389–93

Surgical decompression of branch retinal vein occlusion via arteriovenous crossing sheathotomy: a prospective review of 15 cases. Opremcak EM, et al. **Retina** 1999;19(1):1–5 (11 ref.)

[Laser photocoagulation of central retinal vein occlusion (editorial)] Tobari I. **Nippon Ganka Gakkai Zasshi** 1999 Feb;103(2):75–6 **(Jpn)**

THERAPY

[The effect of plasmapheresis on the rheological properties of the blood in patients with thrombosis of the central retinal vein] Komashchuk AS, et al. **Lik Sprava** 1999 Mar; (2):45–7 (Eng. Abstr.) **(Rus)**

VIROLOGY

HIV-related occlusive vasculitis. Roth DB, et al. **Arch Ophthalmol** 1999 May;117(5):696–8

RETINAL VESSELS

see related

FLUORESCEIN ANGIOGRAPHY

Accuracy of visible retinal emboli for the detection of cardioembolic lesions requiring anticoagulation or cardiac surgery. Retinal Emboli of Cardiac Origin Study Group. Sharma S, et al. **Br J Ophthalmol** 1998 Jun;82(6):655–8

Serotoninergic status in patients with hereditary vascular retinopathy syndrome. Storimans CW, et al. **Br J Ophthalmol** 1998 Aug;82(8):897–900

The use of perfluorocarbon liquid in the surgical repair of a bullous retinal detachment secondary to Coats' disease. Devenyi RG. **Can J Ophthalmol** 1998 Dec;33(7):385–6

Microaneurysms in the development of diabetic retinopathy (UKPDS 42). UK Prospective Diabetes Study Group. Kohner EM, et al. **Diabetologia** 1999 Sep;42(9):1107–12

Changes of GABA metabolic enzymes in acute retinal ischemia. Kobayashi N, et al. **Exp Eye Res** 1999 Jul; 69(1):91–6

Peripapillary subretinal neovascular complex complicating papillitis [letter] Anuradha S, et al. **Eye** 1999;13 (Pt 1):112–3

The role of azathioprine in the management of retinal vasculitis. Greenwood AJ, et al. **Eye** 1998;12 (Pt 5):783–8

Mechanism of the pathogenesis of glutamate neurotoxicity in retinal ischemia. Adachi K, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):766–74

Measurement and classification of retinal vascular tortuosity. Hart WE, et al. **Int J Med Inf** 1999 Feb–Mar; 53(2–3):239–52

Riluzole improves functional recovery after ischemia in the rat retina. Ettaiche M, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):729–36

Neuroprotective effects of eliprodil in retinal excitotoxicity and ischemia. Kapin MA, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1177–82

Retinal ischemic preconditioning in the rat: requirement for adenosine and repetitive induction. Li B, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1200–16

Retinal ischemia-reperfusion injury attenuated by blocking of adhesion molecules of vascular endothelium. Tsujikawa A, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1183–90

Distribution of mitochondria within Müller cells--I. Correlation with retinal vascularization in different mammalian species. Germer A, et al. **J Neurocytol** 1998 Jun;27(5):329–45

Magnesium plus mexiletine inhibit energy usage and protect retinas against ischemia. Maynard KI, et al. **Neuroreport** 1998 Dec 21;9(18):4141–4

Fibrinolytic therapy with low-dose recombinant tissue plasminogen activator in retinal vein occlusion. Hattenbach LO, et al. **Ophthalmologica** 1998;212(6):394–8

Cushing's disease masking coincidental steroid-responsive diseases. Rehman HU, et al. **Postgrad Med J** 1999 Jan; 75(879):43–5

Locating blood vessels in retinal images by piece-wise threshold probing of a matched filter response. Hoover A, et al. **Proc AMIA Symp** 1998;:931–5

Retinal and optic nerve head ischemic disorders and atherosclerosis: role of serotonin. Hayreh SS. **Prog Retin Eye Res** 1999 Mar;18(2):191–221 (168 ref.)

Free radical generation following pressure-induced retinal ischemia in the rat. Perlman JI, et al. **Retina** 1999; 19(3):255–7

Regression of retinal arterial aneurysms in a case of idiopathic retinal vasculitis, aneurysms, and neuroretinitis (IRVAN). Sashihara H, et al. **Retina** 1999;19(3):250–1

Memantine reduces alterations to the mammalian retina, in situ, induced by ischemia. Osborne NN. **Vis Neurosci** 1999 Jan–Feb;16(1):45–52

Models for the description of angioscotomas. Benda N, et al. **Vision Res** 1999 May;39(10):1889–96

The purine nucleoside adenosine in retinal ischemia-reperfusion injury. Ghiardi GJ, et al. **Vision Res** 1999 Jul;39(15):2519–35 (81 ref.)

Angioscotoma detection with fundus-oriented perimetry. A study with dark and bright stimuli of different sizes. Schiefer U, et al. **Vision Res** 1999 May;39(10):1897–909

[Effects of presensitization and clinical death in the history on the dynamics of morphofunctional parallels of retinal and cerebral circulation] Enikeev DA, et al. **Patol Fiziol Eksp Ter** 1999 Apr–Jun;(2):21–3 (Eng. Abstr.) **(Rus)**

ABNORMALITIES

Multiple cranial arteriovenous malformations in a child with eventual blindness in the affected eye. Yasuhara T, et al. **Am J Ophthalmol** 1999 Jan;127(1):99–101

Morning glory disc anomaly in neurofibromatosis type 2. Brodsky MC, et al. **Arch Ophthalmol** 1999 Jun; 117(6):839–41

Chorioretinal vascular abnormalities associated with angioid streaks and pseudoxanthoma elasticum. Secrétan M, et al. **Arch Ophthalmol** 1998 Oct;116(10):1333–6

Missense mutation and hexanucleotide duplication in the PAX2 gene in two unrelated families with renal-coloboma syndrome (MIM 120330). Devriendt K, et al. **Hum Genet** 1998 Aug;103(2):149–53

Retinal arteriovenous malformation with fluctuating vision and ischemic central retinal vein occlusion and its sequelae: 25-year follow-up of a case. Hardy TG, et al. **J Neuroophthalmol** 1998 Dec;18(4):233–6

Abnormal retinal vascularisation in preterm children [letter; comment] Minicucci G, et al. **Lancet** 1999 Mar 27; 353(9158):1099–100. Comment on: Lancet 1998 Dec 5;352(9143):1827.

Are optic disc drusen inherited? Antcliff RJ, et al. **Ophthalmology** 1999 Jul;106(7):1278–81

Coats' response in Leber's congenital amaurosis. Bhagat N, et al. **Retina** 1999;19(4):356–9

Macular vasculopathy and its evolution in incontinentia pigmenti. Goldberg MF. **Trans Am Ophthalmol Soc** 1998; 96:55–65; discussion 65–72

ANATOMY & HISTOLOGY

A multimodal registration algorithm of eye fundus images using vessels detection and Hough transform. Zana F, et al. **IEEE Trans Med Imaging** 1999 May;18(5):419–28

A new method for noninvasive optical sectioning of the chorioretinal vasculature. Shahidi M, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2733–43

Mouse fundus photography and angiography: a catalogue of normal and mutant phenotypes. Hawes NL, et al. **Mol Vis** 1999 Sep 15;5:22

[Histological proof of indocyanine green angiography--healthy eyes] Matsubara T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul;103(7):497–505 (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Intraretinal oxygen distribution in urethan-induced retinopathy in rats. Yu DY, et al. **Am J Physiol** 1998 Jun; 274(6 Pt 2):H2009–17

Retinal neovascularization is suppressed with a matrix metalloproteinase inhibitor. Das A, et al. **Arch Ophthalmol** 1999 Apr;117(4):498–503

Normalization of glucose entry under the high glucose condition by phlorizin attenuates the high glucose-induced morphological and functional changes of cultured bovine retinal pericytes. Wakisaka M, et al. **Biochim Biophys Acta** 1999 Jan 6;1453(1):83–91

Acute effect of metipranolol on the retinal circulation. Wolf S, et al. **Br J Ophthalmol** 1998 Aug;82(8):892–6

Pre-enrichment of modified low density lipoproteins with alpha-tocopherol mitigates adverse effects on cultured retinal capillary cells. Jenkins AJ, et al. **Curr Eye Res** 1999 Aug;19(2):137–45

From the lab to the clinic: activation of an alpha-2 agonist pathway is neuroprotective in models of retinal and optic nerve injury. Wheeler LA, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9 Suppl 1:S17–21

Angiotensin II-induced constrictions are masked by bovine retinal vessels. Kulkarni PS, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):721–8

VEGF increases retinal vascular ICAM-1 expression in vivo. Lu M, et al. **Invest Ophthalmol Vis Sci** 1999 Jul; 40(8):1808–12

17 Beta-estradiol increases VEGF receptor-2 and promotes DNA synthesis in retinal microvascular endothelial cells. Suzuma I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug; 40(9):2122–9

Effects of cilazapril on the retinal vessels in spontaneously hypertensive rats: corrosion cast and scanning electron microscopic study. Bhutto IA, et al. **Life Sci** 1999; 64(3):PL27–39

Effect of angiotensin-converting enzyme inhibition with perindopril and beta-blockade with atenolol on retinal blood flow in hypertensive diabetic subjects. Patel V, et al. **Metabolism** 1998 Dec;47(12 Suppl 1):28–33

Systemic administration of acidic fibroblast growth factor ameliorates the ischemic injury of the retina in rats. Cuevas P, et al. **Neurosci Lett** 1998 Oct 9;255(1):1–4

In vivo effect of 8-epi-PGF2alpha on retinal circulation in diabetic and non-diabetic rats. Michoud E, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Dec; 59(6):349–55

Bilateral macular infarction due to diaminodiphenyl sulfone (4,4' DDS) toxicity. Chakrabarti M, et al. **Retina** 1999; 19(1):83–4

[Neuroprotection in ischemia of the retina in an animal model] Lagrèze WA, et al. **Ophthalmologe** 1999 Jun; 96(6):370–4 (Eng. Abstr.) **(Ger)**

[Effect of topical levobunolol on retinal, optic nerve head, and choroidal circulation in normal volunteers] Ogasawara H, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jul; 103(7):544–50 (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Roles of constitutive nitric oxide synthase in postischemic rat retina. Hangai M, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):450–8

Polyol formation and NADPH-dependent reductases in dog retinal capillary pericytes and endothelial cells. Sato S, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):697–704

Functional and morphologic evidence of the presence of tissue-plasminogen activator in vascular nerves: implications for a neurologic control of vessel wall fibrinolysis and rigidity. Wang Y, et al. **J Neurosci Res** 1998 Aug 15;53(4):443–53

GROWTH & DEVELOPMENT

A model system for the study of human retinal angiogenesis: activation of monocytes and endothelial cells and the association with the expression of the monocarboxylate transporter type 1 (MCT-1). Knott RM, et al. **Diabetologia** 1999 Jul;42(7):870–7

IMMUNOLOGY

Increased expression of endothelial antigen PAL-E in human diabetic retinopathy correlates with microvascular leakage. Schlingemann RO, et al. **Diabetologia** 1999 May; 42(5):596–602

Profiling of human leukocyte antigens in Eales' disease. Biswas J, et al. **Int Ophthalmol** 1997–98;21(5):277–81

Leukocyte trafficking in experimental autoimmune uveitis in vivo. Parnaby-Price A, et al. **J Leukoc Biol** 1998 Oct; 64(4):434–40

INNERVATION

[Structure of the interrelations between retinal neuroglia and ganglion cells] Makarov FN, et al. **Morfologiia** 1999; 116(4):18–22 (Eng. Abstr.) **(Rus)**

METABOLISM

Expression of thrombospondin-1 in ischemia-induced retinal neovascularization. Suzuma K, et al. **Am J Pathol** 1999 Feb;154(2):343–54

Mapping retinal fluorescein leakage with confocal scanning laser fluorometry of the human vitreous. Lobo CL, et al. **Arch Ophthalmol** 1999 May;117(5):631–7

Tranilast inhibits protein kinase C-dependent signalling pathway linked to angiogenic activities and gene expression of retinal microcapillary endothelial cells. Koyama S, et al. **Br J Pharmacol** 1999 May;127(2):537–45

Intracellular protein glycation in cultured retinal capillary pericytes and endothelial cells exposed to high-glucose concentration. Chibber R, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Feb;45(1):47–57

Altered mRNA levels of antioxidant enzymes in pre-apoptotic pericytes from human diabetic retinas. Li W, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Feb; 45(1):59–66

Increased vasodilatory prostaglandin production in the diabetic rat retinal vasculature. Johnson EI, et al. **Curr Eye Res** 1999 Feb;18(2):79–82

Expression of vascular endothelial growth factor and its receptor, KDR, following retinal ischemia-reperfusion injury in the rat. Ogata N, et al. **Curr Eye Res** 1998 Nov; 17(11):1087–96

Glucose-mediated regulation of transforming growth factor-beta (TGF-beta) and TGF-beta receptors in human retinal endothelial cells. Pascal MM, et al.

Curr Eye Res 1999 Aug;19(2):162–70

Vascular endothelial growth factor activates nuclear factor–kappaB and induces monocyte chemoattractant protein–1 in bovine retinal endothelial cells. Marumo T, et al. **Diabetes** 1999 May;48(5):1131–7

Metabolic acidosis–induced retinopathy in the neonatal rat. Holmes JM, et al. **Invest Ophthalmol Vis Sci** 1999 Mar; 40(3):804–9

Effects of acetazolamide on passive and active transport of fluorescein across the normal BRB. Moldow B, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1770–5

Hypoxia inducible factor–1alpha is increased in ischemic retina: temporal and spatial correlation with VEGF expression. Ozaki H, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):182–9

Partial characterization of the human retinal endothelial cell tight and adherens junction complexes. Russ PK, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2479–85

Structure and activation of the large latent transforming growth factor–Beta complex. Nunes I, et al. **J Am Optom Assoc** 1998 Oct;69(10):643–8 (45 ref.)

Oximetry of retinal vessels by dual–wavelength imaging: calibration and influence of pigmentation. Beach JM, et al. **J Appl Physiol** 1999 Feb;86(2):748–58

Upregulation of retinal vascular endothelial growth factor mRNAs in spontaneously diabetic rats without ophthalmoscopic retinopathy. A possible participation of advanced glycation end products in the development of the early phase of diabetic retinopathy. Segawa Y, et al. **Ophthalmic Res** 1998;30(6):333–9

Prevention of leukostasis and vascular leakage in streptozotocin–induced diabetic retinopathy via intercellular adhesion molecule–1 inhibition. Miyamoto K, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10836–41

PATHOLOGY

Capillary closure secondary to retinal vein occlusion. A morphological, histopathological, and immunohistochemical study. Bek T. **Acta Ophthalmol Scand** 1998 Dec;76(6):643–8

Efficacy and safety of fluorescein angiography with orally administered sodium fluorescein. Hara T, et al. **Am J Ophthalmol** 1998 Oct;126(4):560–4

Peripheral retinal nonperfusion associated with essential thrombocytosis. Nobacht S, et al. **Am J Ophthalmol** 1999 Jan;127(1):101–2

Progression of myelinated retinal nerve fibers. Rosen B, et al. **Am J Ophthalmol** 1999 Apr;127(4):471–3

Pseudodoubling of the optic disc. Barboni P, et al. **Arch Ophthalmol** 1998 Oct;116(10):1400–1

Does a visible retinal embolus increase the likelihood of hemodynamically significant carotid artery stenosis in patients with acute retinal arterial occlusion? Sharma S, et al. **Arch Ophthalmol** 1998 Dec;116(12):1602–6

Idiopathic juxtafoveolar retinal telangiectasis and pigment epithelial hyperplasia: an optical coherence tomographic study. Trabucchi G, et al. **Arch Ophthalmol** 1999 Mar; 117(3):405–6

Frosted branch angiitis with ocular toxoplasmosis. Ysasaga JE, et al. **Arch Ophthalmol** 1999 Sep;117(9):1260–1

Advanced glycation endproducts accelerate calcification in microvascular pericytes. Yamagishi S, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):353–7

Angiogenic interaction between retinal endothelial cells and pericytes from normal and diabetic rabbits, and phenotypic changes of diabetic cells. Morisaki N, et al. **Cell Mol Biol (Noisy–le–grand)** 1999 Feb;45(1):67–77

A comparison of computer based classification methods applied to the detection of microaneurysms in ophthalmic fluorescein angiograms. Frame AJ, et al. **Comput Biol Med** 1998 May;28(3):225–38

Retinal microvasculopathy in human immunodeficiency type 1 (HIV)–infected children. Tejada P, et al. **Int Ophthalmol** 1997–98;21(6):319–21

Necrosis and apoptosis after retinal ischemia: involvement of NMDA–mediated excitotoxicity and p53. Joo CK, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):713–20

A possible role for p16INK4 in neuronal cell death after retinal ischemia–reperfusion injury. Kuroiwa S, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):528–33

Retinal vasculature changes in Norrie disease mice. Richter M, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2450–7

Postprandial transient visual loss. Nehmad L, et al. **J Am Optom Assoc** 1999 May;70(5):295–9

Three dimensional analysis of microaneurysms in the human diabetic retina. Moore J, et al. **J Anat** 1999 Jan;194 (Pt 1):89–100

Reduced retinal vascularization in children with growth hormone deficiency. Hellström A, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):795–8

Retinal ischemia in aortic arch atheromatous disease. Romano JG, et al. **J Neuroophthalmol** 1998 Dec;18(4):237–41

A case of frosted branch angiitis with yellowish–white placoid lesions: fluorescein and indocyanine green angiography findings. Masuda K, et al. **Jpn J Ophthalmol** 1998 Nov–Dec;42(6):484–9

Retinal vasculitis revealed by fluorescein angiography in patients with inflammatory bowel disease. Matsuo T, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):398–400

Gray–white, spherical deposition on retinal vessel associated with acute retinal necrosis and diabetic retinopathy in HTLV–I carriers. Nakao K, et al. **Jpn J Ophthalmol** 1998 Nov–Dec;42(6):490–4

Pathogenesis and neuroprotective treatment in Purtscher's retinopathy. Wang AG, et al. **Jpn J Ophthalmol** 1998 Jul–Aug;42(4):318–22

Retinal vessel diameter in normal and primary open–angle glaucoma. Lee SB, et al. **Korean J Ophthalmol** 1998 Jun; 12(1):51–9

Is change of the vessel wall a risk factor for venous thrombosis? [letter; comment] Verougstraete C. **Lancet** 1999 Jun 19;353(9170):2158. Comment on: Lancet 1999 Apr 3;353(9159):1167–73.

Cerebroretinal vasculopathy mimicking a brain tumor: a case of a rare hereditary syndrome. Weil S, et al. **Neurology** 1999 Aug 11;53(3):629–31

Oral fluorescein angiography with the confocal scanning laser ophthalmoscope. Garcia CR, et al. **Ophthalmology** 1999 Jun;106(6):1114–8

A small foveal avascular zone may be an historic mark of prematurity. Mintz–Hittner HA, et al. **Ophthalmology** 1999 Jul;106(7):1409–13

Digital red–free photography for the evaluation of retinal blood vessel displacement in epiretinal membrane. Weinberger D, et al. **Ophthalmology** 1999 Jul;106(7):1380–3

High–altitude retinopathy and altitude illness. Wiedman M, et al. **Ophthalmology** 1999 Oct;106(10):1924–6; discussion 1927

Dexamethasone reduces oxygen induced retinopathy in a mouse model. Rotschild T, et al. **Pediatr Res** 1999 Jul; 46(1):94–100

The preprocessing of retinal images for the detection of fluorescein leakage. Cree MJ, et al. **Phys Med Biol** 1999 Jan;44(1):293–308

Coats' disease and persistent hyperplastic primary vitreous. Role of MR imaging and CT. Edward DP, et al. **Radiol Clin North Am** 1998 Nov;36(6):1119–31, x (64 ref.)

Vitreoschisis in Eales' disease: pathogenic role and significance in surgery. Badrinath SS, et al. **Retina** 1999; 19(1):51–4

Fluorescein angiography of extreme peripheral retina and rubeosis iridis in proliferative diabetic retinopathy. Terasaki H, et al. **Retina** 1999;19(4):302–8

Association of antiphospholipid antibodies with retinal vascular disease in systemic lupus erythematosus. Montehermoso A, et al. **Semin Arthritis Rheum** 1999 Apr; 28(5):326–32

[An observation on early morphological changes in retinal microvascular vessels in diabetic rats] Yang Y, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):230–2 (Eng. Abstr.) **(Chi)**

[Two cases of frosted retinal angiitis with central retinal vein occlusion] Kaburaki T, et al. **Nippon Ganka Gakkai Zasshi** 1999 Aug;103(8):617–25 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

The influence of ocular pulsatility on scanning laser Doppler flowmetry. Sullivan P, et al. **Am J Ophthalmol** 1999 Jul; 128(1):81–7

Regulation of retinal and optic nerve blood flow [letter; comment] Feke GT, et al. **Arch Ophthalmol** 1999 Jul; 117(7):979. Comment on: Arch Ophthalmol 1998 Nov;116(11):1491–5.

Regulation of retinal and optic nerve blood flow [see comments] Harris A, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1491–5 (72 ref.). Comment in: Arch Ophthalmol 1999 Jul;116(11):1491–5.

Automatic full field analysis of perfusion images gained by scanning laser Doppler flowmetry. Michelson G, et al. **Br J Ophthalmol** 1998 Nov;82(11):1294–300

Heidelberg retina flowmeter parameters at the papilla in healthy subjects. Griesser SM, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9(1):32–6

Mechanisms of hyperoxia–induced reductions in retinal blood flow in newborn pig. Zhu Y, et al. **Exp Eye Res** 1998 Sep; 67(3):357–69

The pecten oculi of the chicken: a model system for vascular differentiation and barrier maturation. Wolburg H, et al. **Int Rev Cytol** 1999;187:111–59 (230 ref.)

A role for cerebral and retinal endothelial cells in the supply of docosahexaenoic acid to the brain and the retina? Delton–Vandenbroucke I, et al. **Lipids** 1999;34 Suppl:S117

Acute effects of cigarette smoking on tissue circulation in human optic nerve head and choroid–retina. Tamaki Y, et al. **Ophthalmology** 1999 Mar;106(3):564–9

Endothelium–derived agents in pericyte function/dysfunction. Chakravarthy U, et al. **Prog Retin Eye Res** 1999 Jul;18(4):511–27 (108 ref.)

Demonstration of exclusive cilioretinal vascular system supplying the retina in man: vacant discs. Parsa CF, et al. **Trans Am Ophthalmol Soc** 1998;96:95–106; discussion 106–9

[Oxygen saturation of retinal vessels. Studies for measuring with polarized light] Hammer M, et al. **Ophthalmologe** 1999 Jul;96(7):428–31 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Diabetic maculopathy caused by disturbances in retinal vasomotion. A new hypothesis. Bek T. **Acta Ophthalmol Scand** 1999 Aug;77(4):376–80 (36 ref.)

Evaluation of the efficacy of nicergoline on blood flow and ocular function in patients affected by chronic simple glaucoma. Protti R, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):42–5

Reperfusion of occluded capillary beds in diabetic retinopathy. Takahashi K, et al. **Am J Ophthalmol** 1998 Dec;126(6):791–7

Peripapillary retinal blood flow in normal tension glaucoma. Chung HS, et al. **Br J Ophthalmol** 1999 Apr;83(4):466–9

Quantifying leukocyte dynamics and plugging in retinal microcirculation of streptozotosin–induced diabetic rats. Kinukawa Y, et al. **Curr Eye Res** 1999 Jan;18(1):49–55

Central and peripheral arteriovenous passage times of the retina in glaucoma. Duijm HF, et al. **Exp Eye Res** 1999 Aug;69(2):145–53

Automated static perimetry as a screening method for evaluation of retinal perfusion in diabetic retinopathy. Pahor D. **Int Ophthalmol** 1997–98;21(6):305–9

Regional differences in retinal vascular reactivity. Chung HS, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2448–53

Retinal blood flow regulation in diabetes mellitus: impaired autoregulation and No detectable effect of autonomic neuropathy using laser doppler velocimetry, computer assisted image analysis, and isometric exercise. Dumskyj MJ, et al. **Microvasc Res** 1999 May;57(3):353–6

Expression of CNTF in Müller cells of the rat retina after pressure–induced ischemia. Ju WK, et al. **Neuroreport** 1999 Feb 5;10(2):419–22

Role of nitric oxide during the initial phase of reperfusion after retinal ischemia in the rat. Hangai M, et al. **Ophthalmic Res** 1999;31(1):16–23

Retinal blood flow in nonischemic central retinal vein occlusion [letter; comment] Quigley MG. **Ophthalmology** 1999 May;106(5):856; discussion 856–7. Comment on: Ophthalmology 1998 May;105(5):772–5.

Role of retinal vascular endothelial cells in development of CMV retinitis. Rao NA, et al. **Trans Am Ophthalmol Soc** 1998;96:111–23; discussion 124–6

[Interest in the Heidelberg Retinal Flowmeter for measuring the retinal and papillary blood flow] Collignon–Brach J. **Bull Soc Belge Ophtalmol** 1998;270:51–5 (Eng. Abstr.) **(Fre)**

RADIATION EFFECTS

Radiation–induced leukocyte entrapment in the rat retinal microcirculation. Hiroshiba N, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1217–22

SURGERY

Trans–scleral diode laser photocoagulation in proliferative sickle cell retinopathy. Seiberth V. **Ophthalmology** 1999 Sep;106(9):1828–9

ULTRASONOGRAPHY

[Color Doppler echography study of ocular blood flow velocity in patients with proliferative diabetic retinopathy after performance of retinal pan–photocoagulation: 2 years' follow–up] Mendivil A, et al. **Rev Med Univ Navarra** 1998 Jul–Sep;42(3):134–44 (Eng. Abstr.) **(Spa)**

ULTRASTRUCTURE

Surface specialization of the capillary endothelium in the pecten oculi of the chicken, and their overt roles in pectineal haemodynamics and nutrient transfer to the inner neural retina. Kiama SG, et al. **Acta Biol Hung** 1997; 48(4):473–83

A scanning electron microscope study of the luminal surface specializations in the blood vessels of the pecten oculi in a diurnal bird, the black kite (Milvus migrans). Kiama SG, et al. **Anat Anz** 1998 Oct;180(5):455–60

Contribution of O4+ oligodendrocyte precursors and astrocytes to the glial ensheathment of vessels in the rabbit myelinated streak. Morcos Y, et al. **Glia** 1999 Jul;27(1):1–14

Remodeling of retinal capillaries in the diabetic hypertensive rat. Dosso AA, et al. **Invest Ophthalmol Vis Sci** 1999 Sep; 40(10):2405–10

Effects of cilazapril on the retinal vessels in spontaneously hypertensive rats: corrosion cast and scanning electron microscopic study. Bhutto IA, et al. **Life Sci** 1999; 64(3):PL27–39

Vascular architecture of degenerated retina in WBN/Kob rats: corrosion cast and electron microscopic study. Bhutto IA, et al. **Ophthalmic Res** 1999;31(5):367–77

Retinal capillary changes in Otsuka Long–Evans Tokushima fatty rats (spontaneously diabetic strain). Electron–microscopic study. Miyamura N, et al. **Ophthalmic Res** 1999;31(5):358–66

Electron microscopic evidence for the mechanism of blood–retinal barrier breakdown in diabetic rabbits: comparison with magnetic resonance imaging. Vinores SA, et al. **Pathol Res Pract** 1998;194(7):497–505

RETINALDEHYDE

ADMINISTRATION & DOSAGE

Repair of UVA–induced elastic fiber and collagen damage by 0.05% retinaldehyde cream in an ex vivo human skin model. Boisnic S, et al. **Dermatology** 1999;199 Suppl 1:43–8

Clinical use of topical retinaldehyde on photoaged skin. Creidi P, et al. **Dermatology** 1999;199 Suppl 1:49–52

RETINALDEHYDE

Efficacy of topical 0.05% retinaldehyde in skin aging by ultrasound and rheological techniques. Diridollou S, et al. **Dermatology** 1999;199 Suppl 1:37–41

Comedolytic effect of topical retinaldehyde in the rhino mouse model. Fort-Lacoste L, et al. **Dermatology** 1999;199 Suppl 1:33–5

Retinaldehyde alleviates rosacea. Vienne MP, et al. **Dermatology** 1999;199 Suppl 1:53–6

Delivery of 9-Cis retinal to photoreceptors from bovine serum albumin. Li Z, et al. **Photochem Photobiol** 1999 Apr; 69(4):500–4

ADVERSE EFFECTS

Tolerance profile of retinol, retinaldehyde and retinoic acid under maximized and long-term clinical conditions. Fluhr JW, et al. **Dermatology** 1999;199 Suppl 1:57–60

Tolerance of topical retinaldehyde in humans. Sachsenberg-Studer EM. **Dermatology** 1999;199 Suppl 1:61–3

ANALOGS & DERIVATIVES

Analysis of cyclic and acyclic analogs of retinol, retinoic acid, and retinal by laser desorption ionization-, matrix-assisted laser desorption ionization-mass spectrometry, and UV/Vis spectroscopy. Wingerath T, et al. **Anal Biochem** 1999 Aug 1;272(2):232–42

Categorizing reactivity of bacteriorhodopsin cysteine mutants crosslinking to 4-bromoretinal. Datta-Gupta N, et al. **Biochem Mol Biol Int** 1999 May;47(5):773–80

Spectral tuning in salamander visual pigments studied with dihydroretinal chromophores. Makino CL, et al. **Biophys J** 1999 Aug;77(2):1024–35

Probing for the threshold energy for visual transduction: red-shifted visual pigment analogs from 3-methoxy-3-dehydroretinal and related compounds. Imai H, et al. **Photochem Photobiol** 1999 Jul;70(1):111–5

[Retinol Acetate Reference Standard (Control 971) and Retinol Palmitate Reference Standard (Control 971) of National Institute of Health Sciences] Tanimoto T, et al. **Kokuritsu Iyakuhin Shokuhin Eisei Kenkyusho Hokoku** 1998;(116):170–3 (Eng. Abstr.) **(Jpn)**

BIOSYNTHESIS

Holo-cellular retinol-binding protein: distinction of ligand-binding affinity from efficiency as substrate in retinal biosynthesis. Penzes P, et al. **Biochemistry** 1999 Feb 16;38(7):2088–93

The metabolic pathway of visual pigment chromophore formation in Drosophila melanogaster--all-trans (3S)-3-hydroxyretinal is formed from all-trans retinal via (3R)-3-hydroxyretinal in the dark. Seki T, et al. **Eur J Biochem** 1998 Oct 15;257(2):522–7

Bacterioopsin-triggered retinal biosynthesis is inhibited by bacteriorhodopsin formation in Halobacterium salinarium. Deshpande A, et al. **J Biol Chem** 1999 Aug 13; 274(33):23535–40

Intracellular localization and membrane topology of 11-cis retinol dehydrogenase in the retinal pigment epithelium suggest a compartmentalized synthesis of 11-cis retinaldehyde. Simon A, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):549–58

CHEMICAL SYNTHESIS

Stereoselective synthesis of 11Z-9-demethyl-9-benzyl- and 9-phenyl-retinals and their interaction with bovine opsin. Wada A, et al. **Bioorg Med Chem Lett** 1998 Mar 3; 8(5):423–6

CHEMISTRY

Analysis of cyclic and acyclic analogs of retinol, retinoic acid, and retinal by laser desorption ionization-, matrix-assisted laser desorption ionization-mass spectrometry, and UV/Vis spectroscopy. Wingerath T, et al. **Anal Biochem** 1999 Aug 1;272(2):232–42

Structure and conformation of the retinal chromophore in bovine rhodopsin. Groebner G, et al. **Biochem Soc Trans** 1998 Aug;26(3):S308

Determination of 6s-trans conformation of retinal chromophore in sensory rhodopsin I and phoborhodopsin. Wada A, et al. **Bioorg Med Chem Lett** 1998 Jun 2; 8(11):1365–8

Simulation analysis of the retinal conformational equilibrium in dark-adapted bacteriorhodopsin. Baudry J, et al. **Biophys J** 1999 Apr;76(4):1909–17

The structure and mechanism of the family of retinal proteins from halophilic archaea. Oesterhelt D. **Curr Opin Struct Biol** 1998 Aug;8(4):489–500 (96 ref.)

Formation and structure of stably dispersed particles composed of retinal with dipalmitoylphosphatidylcholine: coexistence of emulsion particles with bilayer vesicles. Asai Y, et al. **Eur J Pharm Biopharm** 1999 Jul;48(1):77–83

Rotational resonance NMR of 13C2-labelled retinal: quantitative internuclear distance determination. Feng X, et al. **Solid State Nucl Magn Reson** 1999 Jul;14(2):81–90

Multiple-quantum relaxation in the magic-angle-spinning NMR of 13C spin pairs. Karlsson T, et al. **Solid State Nucl Magn Reson** 1999 Jun;14(1):43–58

GENETICS

Bothnia dystrophy caused by mutations in the cellular retinaldehyde-binding protein gene (RLBP1) on chromosome 15q26. Burstedt MS, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):995–1000

Recessive mutations in the RLBP1 gene encoding cellular retinaldehyde-binding protein in a form of retinitis punctata albescens. Morimura H, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):1000–4

METABOLISM

Metabolism of retinaldehyde by human liver and kidney. Ambroziak W, et al. **Adv Exp Med Biol** 1999;463:205–11

The hunt for a retinal-specific aldehyde dehydrogenase in sheep liver. Kitson KE, et al. **Adv Exp Med Biol** 1999; 463:213–21

A structural explanation for the retinal specificity of class 1 ALDH enzymes. Moore SA, et al. **Adv Exp Med Biol** 1999;463:27–38

Conformational change in bacterio-opsin on binding to retinal. Renthal R, et al. **Biophys Chem** 1999 Apr 19; 78(3):241–5

Three electronic state model of the primary phototransformation of bacteriorhodopsin. Humphrey W, et al. **Biophys J** 1998 Oct;75(4):1689–99

Fourth module of Xenopus interphotoreceptor retinoid-binding protein: activity in retinoid transfer between the retinal pigment epithelium and rod photoreceptors. Gonzalez-Fernandez F, et al. **Curr Eye Res** 1998 Dec;17(12):1150–7

Metabolism of topical retinaldehyde. Sorg O, et al. **Dermatology** 1999;199 Suppl 1:13–7

Metabolism of retinaldehyde isomers in pregnant rats: 13-cis- and all-trans-retinaldehyde, but not 9-cis-retinaldehyde, yield very similar patterns of retinoid metabolites. Sass JO, et al. **Drug Metab Dispos** 1999 Mar;27(3):317–21

Release of retinol and denaturation of its plasma carrier, retinol-binding protein. Bychkova VE, et al. **Fold Des** 1998; 3(4):285–91

Polarity of 11-cis retinal release from cultured retinal pigment epithelium. Carlson A, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):533–7

Structural and enzymatic properties of a gastric NADP(H)-dependent and retinal-active alcohol dehydrogenase. Peralba JM, et al. **J Biol Chem** 1999 Sep 10;274(37):26021–6

Binding of lipophilic nutrients to beta-lactoglobulin prepared by bioselective adsorption. Wang Q, et al. **J Dairy Sci** 1999 Feb;82(2):257–64

The nop-1 gene of Neurospora crassa encodes a seven transmembrane helix retinal-binding protein homologous to archaeal rhodopsins. Bieszke JA, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8034–9

Structure and function in rhodopsin: kinetic studies of retinal binding to purified opsin mutants in defined phospholipid-detergent mixtures serve as probes of the retinal binding pocket. Reeves PJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1927–31

Sheep liver cytosolic aldehyde dehydrogenase: the structure reveals the basis for the retinal specificity of class 1 aldehyde dehydrogenases. Moore SA, et al. **Structure** 1998 Dec 15;6(12):1541–51

PHARMACOKINETICS

Delivery of 9-Cis retinal to photoreceptors from bovine serum albumin. Li Z, et al. **Photochem Photobiol** 1999 Apr; 69(4):500–4

PHARMACOLOGY

Biological activities of topical retinaldehyde. Didierjean L, et al. **Dermatology** 1999;199 Suppl 1:19–24

Antibacterial activity of retinaldehyde against Propionibacterium acnes. Pechère M, et al. **Dermatology** 1999;199 Suppl 1:29–31

Topical 9-cis-retinaldehyde for delivery of 9-cis-retinoic acid in mouse skin. Didierjean L, et al. **Exp Dermatol** 1999 Jun;8(3):199–203

Retinal stimulates ATP hydrolysis by purified and reconstituted ABCR, the photoreceptor-specific ATP-binding cassette transporter responsible for Stargardt disease. Sun H, et al. **J Biol Chem** 1999 Mar 19; 274(12):8269–81

THERAPEUTIC USE

New Concepts for Topical Use of Natural Retinoids: Retinaldehyde in Perspective. Proceedings of a satellite symposium of the 7th EADV meeting. Nice, France, October 7, 1998. **Dermatology** 1999;199 Suppl 1:1–63

Profilometric evaluation of photodamage after topical retinaldehyde and retinoic acid treatment. Creidi P, et al. **J Am Acad Dermatol** 1998 Dec;39(6):960–5

RETINENE see **RETINALDEHYDE**

RETINITIS

CHEMICALLY INDUCED

Intravitreally injected platelet activating factor induces retinitis in experimental animals. Rosenbaum JT, et al. **Curr Eye Res** 1999 May;18(5):342–8

COMPLICATIONS

Progression of cytomegalovirus retinitis in acquired immunodeficiency syndrome: a case report. Chiou SH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 May; 62(5):316–21

Regression of retinal arterial aneurysms in a case of idiopathic retinal vasculitis, aneurysms, and neuroretinitis (IRVAN). Sashihara H, et al. **Retina** 1999;19(3):250–1

DIAGNOSIS

Leber's idiopathic stellate neuroretinitis: differential diagnosis and approach to management. Casson RJ, et al. **Aust N Z J Ophthalmol** 1999 Feb;27(1):65–9 (21 ref.)

Identification of BK virus in a patient with acquired immune deficiency syndrome and bilateral atypical retinitis. Hedquist BG, et al. **Ophthalmology** 1999 Jan;106(1):129–32

Cat scratch disease: posterior segment manifestations. Solley WA, et al. **Ophthalmology** 1999 Aug;106(8):1546–53

Diffuse unilateral subacute neuroretinitis. Stokkermans TJ. **Optom Vis Sci** 1999 Jul;76(7):444–54 (45 ref.)

Bilateral Bartonella-associated neuroretinitis. Wade NK, et al. **Retina** 1999;19(4):355–6

[Bilateral neuroretinitis with zoster infection] Nicaeus T, et al. **Klin Monatsbl Augenheilkd** 1999 Mar;214(3):175–7 (Eng. Abstr.) **(Ger)**

[The diagnostic significance of polymerase chain reaction for ocular samples in viral retinitis] Nagae Y, et al. **Nippon Ganka Gakkai Zasshi** 1998 Aug;102(8):509–14 (Eng. Abstr.) **(Jpn)**

DRUG THERAPY

Intravitreal toxicology and therapeutic efficacy of the carboxymethyl ester of the 1-O-octadecyl-sn-glycerol-3-phosphonoformate (ODG-PFA-O-Me), a novel lipid antiviral prodrug for intraocular drug delivery. Cheng L, et al. **J Ocul Pharmacol Ther** 1999 Aug;15(4):363–77

Management of B. henselae neuroretinitis in cat-scratch disease [letter; comment] Rosen B. **Ophthalmology** 1999 Jan;106(1):1–2. Comment on: Ophthalmology 1998 Mar;105(3):459–66.

Treatment of herpes retinitis in an animal model with a sustained delivery antiviral drug, liposomal 1-O-octadecyl-SN-glycerol-3-phosphonoformate. Cheng L, et al. **Retina** 1999;19(4):325–31

ENZYMOLOGY

Differential expression of nitric oxide synthase in experimental uveoretinitis. Zhang J, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1899–905

ETIOLOGY

Keratitis and retinitis secondary to tarantula hair. Shrum KR, et al. **Arch Ophthalmol** 1999 Aug;117(8):1096–7

Conservative management of documented neuroretinitis in cat scratch disease associated with Bartonella henselae infection. Rosen BS, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):153–6

Retinal microvasculopathy in human immunodeficiency type 1 (HIV)-infected children. Tejada P, et al. **Int Ophthalmol** 1997-98;21(6):319–21

Mice deficient in inducible nitric oxide synthase are susceptible to experimental autoimmune uveoretinitis. Silver PB, et al. **Invest Ophthalmol Vis Sci** 1999 May; 40(6):1280–4

[Association of heat-shock protein and uveitis] Yamakawa N, et al. **Nippon Ganka Gakkai Zasshi** 1998 Jul;102(7):411–6 (Eng. Abstr.) **(Jpn)**

GENETICS

Identification of genomic regions controlling experimental autoimmune uveoretinitis in rats. Sun SH, et al. **Int Immunol** 1999 Apr;11(4):529–34

Conserved T cell receptor complementarity-determining region 3 of ocular T cells in mice with experimental autoimmune uveoretinitis. Uehara R, et al. **Ophthalmic Res** 1999;31(4):249–55

IMMUNOLOGY

Human antiretinal antibodies in toxoplasma retinochoroiditis. Whittle RM, et al. **Br J Ophthalmol** 1998 Sep;82(9):1017–21

Antigen-presenting cells in experimental autoimmune uveoretinitis. Ishimoto S, et al. **Exp Eye Res** 1998 Nov; 67(5):539–48

Kinetics of intraocular cytokines in the suppression of experimental autoimmune uveoretinitis by type I IFN. Okada AA, et al. **Int Immunol** 1998 Dec;10(12):1917–22

Effects of experimental ocular inflammation on ocular immune privilege. Ohta K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2010–8

Intranasal administration of retinal antigens induces transient T cell activation and apoptosis within drainage lymph nodes but not spleen. Laliotou B, et al. **J Autoimmun** 1999 May;12(3):145–55

Retinal expression of a neo-self antigen, beta-galactosidase, is not tolerogenic and creates a target for autoimmune uveoretinitis. Gregerson DS, et al. **J Immunol** 1999 Jul 15; 163(2):1073–80

METABOLISM

Modulating phenotype and cytokine production of leucocytic retinal infiltrate in experimental autoimmune uveoretinitis following intranasal tolerance induction with retinal antigens. Laliotou B, et al. **Br J Ophthalmol** 1999 Apr; 83(4):478–85

MICROBIOLOGY

Cat-scratch neuroretinitis. Lombardo J.
J Am Optom Assoc 1999 Aug;70(8):525–30

Tuberculous neuroretinitis. Stechschulte SU, et al.
J Neuroophthalmol 1999 Sep;19(3):201–4

PARASITOLOGY

Diffuse unilateral subacute neuroretinitis in Europe. Harto MA, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9(1):58–62

Retinochoroiditis is induced by oral administration of Toxoplasma gondii cysts in the hamster model. Gormley PD, et al. **Exp Eye Res** 1999 Jun;68(6):657–61

PATHOLOGY

Angiography of experimental autoimmune uveoretinitis with ultrastructural correlation. Okada AA, et al.
Graefes Arch Clin Exp Ophthalmol 1998 Nov; 236(11):865–72

In vivo neutralization of P-selectin inhibits leukocyte-endothelial interactions in retinal microcirculation during ocular inflammation. Miyamoto K, et al. **Microvasc Res** 1998 May;55(3):230–40

PREVENTION & CONTROL

Protection against murine cytomegalovirus retinitis by adoptive transfer of virus-specific CD8+ T cells. Bigger JE, et al. **Invest Ophthalmol Vis Sci** 1999 Oct; 40(11):2608–13

Protective effect of the type IV phosphodiesterase inhibitor rolipram in EAU: protection is independent of IL-10-inducing activity. Xu H, et al.
Invest Ophthalmol Vis Sci 1999 Apr;40(5):942–50

[Suppression of experimental autoimmune uveoretinitis with a combination of cyclosporin and allopurinol] Matuura G, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jan;103(1):26–33 (Eng. Abstr.) **(Jpn)**

THERAPY

Effect of type I interferon on experimental autoimmune uveoretinitis in rats [see comments] Okada AA, et al.
Ocul Immunol Inflamm 1998 Dec;6(4):215–26. Comment in: Ocul Immunol Inflamm 1998 Dec;6(4):209–10.

Acute immunosuppression and syngeneic bone marrow transplantation in ocular autoimmunity abort disease, but do not result in induction of long-term protection. Savion S, et al. **Ocul Immunol Inflamm** 1998 Sep;6(3):163–72

Riding on a carousel with IFN-alpha and TNF-alpha [editorial; comment] Zierhut M. **Ocul Immunol Inflamm** 1998 Dec;6(4):209–10 (15 ref.). Comment on: Ocul Immunol Inflamm 1998 Dec;6(4):215–26.

Diffuse unilateral subacute neuroretinitis. Stokkermans TJ. **Optom Vis Sci** 1999 Jul;76(7):444–54 (45 ref.)

VETERINARY

Transmission of viral encephalopathy and retinopathy (VER) to yolk-sac larvae of the Atlantic halibut Hippoglossus hippoglossus: occurrence of nodavirus in various organs and a possible route of infection. Grotmol S, et al.
Dis Aquat Organ 1999 May 12;36(2):95–106

Retinal immunopathology in horses with uveitis. Kalsow CM, et al. **Ocul Immunol Inflamm** 1998 Dec;6(4):239–51

VIROLOGY

BK virus as the cause of meningoencephalitis, retinitis and nephritis in a patient with AIDS. Bratt G, et al. **AIDS** 1999 Jun 18;13(9):1071–5

Cicatrization of cytomegalovirus retinitis following introduction of highly active anti-retroviral therapy: uveitis as a possible indicator of good ocular prognosis. Herbort CP, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct; 236(10):795–7

Comparison of cytomegalovirus loads in plasma and leukocytes of patients with cytomegalovirus retinitis. The Cytomegalovirus Retinitis and Viral Resistance Study Group. Jabs DA, et al. **J Clin Microbiol** 1999 May; 37(5):1431–5

Recurrent varicella-zoster virus retinitis in a patient treated with systemic corticosteroids. Satoh N, et al.
Ocul Immunol Inflamm 1998 Sep;6(3):185–8

Role of retinal vascular endothelial cells in development of CMV retinitis. Rao NA, et al.
Trans Am Ophthalmol Soc 1998;96:111–23; discussion 124–6

[The diagnostic significance of polymerase chain reaction for ocular samples in viral retinitis] Nagae Y, et al.
Nippon Ganka Gakkai Zasshi 1998 Aug;102(8):509–14 (Eng. Abstr.) **(Jpn)**

RETINITIS, CYTOMEGALOVIRUS see **CYTOMEGALOVIRUS RETINITIS**

RETINITIS PIGMENTOSA

IRPA scientific newsletter--a new website to integrate data on hereditary retinal disorders [letter] Preising M, et al.
Ophthalmic Genet 1998 Dec;19(4):213–4

[Sildenafil (Viagra) is contraindicated in tapetoretinal degeneration (letter)] Ehinger B. **Lakartidningen** 1999 Jan 6;96(1–2):14 **(Swe)**

BLOOD

Prothrombin time in retinitis pigmentosa. Vinchurkar M.
Indian J Ophthalmol 1998 Jun;46(2):103–4

COMPLICATIONS

Choroidal melanoma in a patient with retinitis pigmentosa and Usher's syndrome [letter] Gündüz K, et al.
Br J Ophthalmol 1998 Jul;82(7):847–8

Severe prenatal growth retardation, dysmorphic features, pigmentary retinopathy, and generalized absence of subcutaneous tissues: a new entity? Nowaczyk MJ, et al.
Clin Dysmorphol 1998 Oct;7(4):263–8

Unilateral pigmentary degeneration of the retina associated with heterochromia iridis. Grisanti S, et al.
Graefes Arch Clin Exp Ophthalmol 1998 Dec;236(12):940–4

Interstitial nephritis and retinitis pigmentosa [letter; comment] Szelestei T, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2421. Comment on: Nephrol Dial Transplant 1997 Jul;12(7):1468–70.

Retinitis pigmentosa, nanophthalmos, and optic disc drusen: a case report. Buys YM, et al. **Ophthalmology** 1999 Mar; 106(3):619–22

Visual acuity impairment in patients with retinitis pigmentosa at age 45 years or older. Grover S, et al.
Ophthalmology 1999 Sep;106(9):1780–5

Vitreous change in retinitis pigmentosa [letter; comment] Sudarshan AP. **Ophthalmology** 1999 Feb;106(2):210. Comment on: Ophthalmology 1998 Jul;105(7):1239–43.

Semen analysis in the Usher syndrome type 2A. van Aarem A, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun; 61(3):126–30

CONGENITAL

Volumetric neuroimaging in Usher syndrome: evidence of global involvement. Schaefer GB, et al.
Am J Med Genet 1998 Aug 27;79(1):1–4

DIAGNOSIS

Progression of defects in the central 10-degree visual field of patients with retinitis pigmentosa and choroideremia. Hirakawa H, et al. **Am J Ophthalmol** 1999 Apr; 127(4):436–42

Optical coherence tomography of cystoid macular edema associated with retinitis pigmentosa. Hirakawa H, et al.
Am J Ophthalmol 1999 Aug;128(2):185–91

Preimplantation diagnosis of autosomal dominant retinitis pigmentosum using two simultaneous single cell assays for a point mutation in the rhodopsin gene. Strom CM, et al.
Mol Hum Reprod 1998 Apr;4(4):351–5

Clinical and genetic studies of an autosomal dominant cone-rod dystrophy with features of Stargardt disease [see comments] Kniazeva MF, et al. **Ophthalmic Genet** 1999 Jun;20(2):71–81. Comment in: Ophthalmic Genet 1999 Jun;20(2):69–70.

Retinitis pigmentosa inversa. Ferrucci S, et al.
Optom Vis Sci 1998 Aug;75(8):560–70

Diagnostic and therapeutic challenges: Choroidal neovascularization. Schatz H, et al. **Retina** 1998;18(5):466–9

[Standardized evaluation of red, green and blue perception. Comparison between color arrangement and computer-assisted test procedures] Nimsgern C, et al.
Ophthalmologe 1998 Aug;95(8):559–63 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Safety of <7500 RE (<25000 IU) vitamin A daily in adults with retinitis pigmentosa. Sibulesky L, et al.
Am J Clin Nutr 1999 Apr;69(4):656–63

Retinitis pigmentosa: rod photoreceptor rescue by a calcium-channel blocker in the rd mouse. Frasson M, et al. **Nat Med** 1999 Oct;5(10):1183–7

ETIOLOGY

Docosahexaenoic acid and retinal function in children with long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency. Harding CO, et al. **J Inherit Metab Dis** 1999 May;22(3):276–80

[A case of motor and sensory polyneuropathy with retinitis pigmentosa and diffuse idiopathic skeletal hyperostosis] Osoegawa M, et al. **Rinsho Shinkeigaku** 1999 May; 39(5):542–5 (Eng. Abstr.) **(Jpn)**

GENETICS

Reply to Inglehearn [letter] Bergen AA, et al.
Am J Hum Genet 1998 Oct;63(4):1232–4

No mutations in the coding region of the PRKCG gene in three families with retinitis pigmentosa linked to the RP11 locus on chromosome 19q [letter] Dryja TP, et al.
Am J Hum Genet 1999 Sep;65(3):926–8

A novel locus (RP24) for X-linked retinitis pigmentosa maps to Xq26-27. Gieser L, et al. **Am J Hum Genet** 1998 Nov; 63(5):1439–47

Refinement of the locus for autosomal recessive Retinitis pigmentosa (RP25) linked to chromosome 6q in a family of Pakistani origin. [letter] Khaliq S, et al.
Am J Hum Genet 1999 Aug;65(2):571–4

Protein-truncation mutations in the RP2 gene in a North American cohort of families with X-linked retinitis pigmentosa [letter] Mears AJ, et al. **Am J Hum Genet** 1999 Mar;64(3):897–900

A retGC-1 mutation in autosomal dominant cone-rod dystrophy [letter] Perrault I, et al. **Am J Hum Genet** 1998 Aug;63(2):651–4

A range of clinical phenotypes associated with mutations in CRX, a photoreceptor transcription-factor gene. Sohocki MM, et al. **Am J Hum Genet** 1998 Nov;63(5):1307–15

Familial occurrence of retinitis punctata albescens and congenital sensorineural deafness. Botelho PJ, et al.
Am J Ophthalmol 1999 Aug;128(2):246–7

Photoreceptor rosettes in autosomal dominant retinitis pigmentosa with reduced penetrance. Tulvatana W, et al.
Arch Ophthalmol 1999 Mar;117(3):399–402

A case of McLeod syndrome with chronic renal failure. Jeren-Strujić B, et al. **Blood Purif** 1998;16(6):336–40

Management of inherited outer retinal dystrophies: present and future. Chong NH, et al. **Br J Ophthalmol** 1999 Jan; 83(1):120–2 (46 ref.)

Cone and rod dysfunction in the NARP syndrome. Chowers I, et al. **Br J Ophthalmol** 1999 Feb;83(2):190–3

Ocular signs associated with a rhodopsin mutation (Cys-167-->Arg) in a family with autosomal dominant retinitis pigmentosa [letter] Simonelli F, et al.
Br J Ophthalmol 1998 Jun;82(6):709

Update in genetics: genetic eye diseases and the ophthalmologist. MacDonald IM. **Can J Ophthalmol** 1999 Apr;34(2):69–73 (10 ref.)

Linkage analysis in a large Spanish family with X-linked retinitis pigmentosa: phenotype-genotype correlation. Capeans C, et al. **Clin Genet** 1998 Jul;54(1):26–32

Integrated genetic and physical map of the 1q31-->q32.1 region, encompassing the RP12 locus, the F13B and HF1 genes, and the EEF1AL11 and RPL30 pseudogenes. van Soest S, et al. **Cytogenet Cell Genet** 1999;84(1–2):22–7

Refinement of the RP17 locus for autosomal dominant retinitis pigmentosa, construction of a YAC contig and investigation of the candidate gene retinal fascin. Bardien-Kruger S, et al. **Eur J Hum Genet** 1999 Apr; 7(3):332–8

A novel locus for Usher syndrome type II, USH2B, maps to chromosome 3 at p23-24.2. Hmani M, et al.
Eur J Hum Genet 1999 Apr;7(3):363–7

The neurogenic weakness, ataxia and retinitis pigmentosa (NARP) syndrome mtDNA mutation (T8993G) triggers muscle ATPase deficiency and hypocitrullinaemia. Parfait B, et al. **Eur J Pediatr** 1999 Jan;158(1):55–8

The cone dystrophies. Simunovic MP, et al. **Eye** 1998;12 (Pt 3b):553–65 (126 ref.)

Refined mapping of the gene for autosomal dominant retinitis pigmentosa (RP17) on chromosome 17q22. den Hollander AI, et al. **Hum Genet** 1999 Jan;104(1):73–6

The Usher syndrome in the Lebanese population and further refinement of the USH2A candidate region. Saouda M, et al. **Hum Genet** 1998 Aug;103(2):193–8

Identification of novel RPGR (retinitis pigmentosa GTPase regulator) mutations in a subset of X-linked retinitis pigmentosa families segregating with the RP3 locus. Zito I, et al. **Hum Genet** 1999 Jul–Aug;105(1–2):57–62

160Thr mutation in the rhodopsin gene associated with retinitis pigmentosa. Capeans C, et al. **Hum Hered** 1998 Sep–Oct;48(5):237–40

Molecular genetic study of autosomal dominant retinitis pigmentosa in Lithuanian patients. Kucinskas V, et al.
Hum Hered 1999 Mar;49(2):71–4

A nonsense mutation in a novel gene is associated with retinitis pigmentosa in a family linked to the RP1 locus. Guillonneau X, et al. **Hum Mol Genet** 1999 Aug;8(8):1541–6

RPGR transcription studies in mouse and human tissues reveal a retina-specific isoform that is disrupted in a patient with X-linked retinitis pigmentosa. Kirschner R, et al.
Hum Mol Genet 1999 Aug;8(8):1571–8

Severe autosomal dominant retinitis pigmentosa caused by a novel rhodopsin mutation (Ter349Glu). Mutations in brief no. 208. Online. Bessant DA, et al. **Hum Mutat** 1999; 13(1):83

Identification of a 5' splice site mutation in the RPGR gene in a family with X-linked retinitis pigmentosa (RP3). Dry KL, et al. **Hum Mutat** 1999;13(2):141–5

Rhodopsin mutation G109R in a family with autosomal dominant retinitis pigmentosa. Goliath R, et al.
Hum Mutat 1998;Suppl 1:S40–1

Twelve novel myosin VIIA mutations in 34 patients with Usher syndrome type I: confirmation of genetic heterogeneity. Janecke AR, et al. **Hum Mutat** 1999; 13(2):133–40

Rhodopsin splice site sequence changes in retinitis pigmentosa and their effect at the mRNA level. Whitehead JL, et al. **Hum Mutat** 1998;Suppl 1:S295–7

Identification of three novel mutations in the MYO7A gene. Cuevas JM, et al. **Hum Mutat (Online)** 1999 Aug 19; 14(2):181

Analysis of DNA elements that modulate myosin VIIA expression in humans. Orten DJ, et al.

Hum Mutat (Online) 1999 Oct;14(4):354

Phenotype of an X-linked retinitis pigmentosa family with a novel splice defect in the RPGR gene. Bauer S, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2470–4

Bothnia dystrophy caused by mutations in the cellular retinaldehyde-binding protein gene (RLBP1) on chromosome 15q26. Burstedt MS, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):995–1000

Frequency of mutations in the gene encoding the alpha subunit of rod cGMP-phosphodiesterase in autosomal recessive retinitis pigmentosa. Dryja TP, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1859–65

Recessive mutations in the RLBP1 gene encoding cellular retinaldehyde-binding protein in a form of retinitis punctata albescens. Morimura H, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):1000–4

Acuity recovery and cone pigment regeneration after a bleach in patients with retinitis pigmentosa and rhodopsin mutations. Sandberg MA, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2457–61

Further refinement of the Usher 2A locus at 1q41. Bessant DA, et al. **J Med Genet** 1998 Sep;35(9):773–4

Usher syndrome type III (USH3) linked to chromosome 3q in an Italian family. Gasparini P, et al. **J Med Genet** 1998 Aug;35(8):666–7

A new dominant retinitis pigmentosa family mapping to the RP18 locus on chromosome 1q11–21 [letter] Inglehearn CF, et al. **J Med Genet** 1998 Sep;35(9):788–9

A new family linked to the RP1 dominant retinitis pigmentosa locus on chromosome 8q [letter] Inglehearn CF, et al. **J Med Genet** 1999 Aug;36(8):646–8

Intraocular gene transfer of ciliary neurotrophic factor prevents death and increases responsiveness of rod photoreceptors in the retinal degeneration slow mouse. Cayouette M, et al. **J Neurosci** 1998 Nov 15;18(22):9282–93

Disruption of a retinal guanylyl cyclase gene leads to cone-specific dystrophy and paradoxical rod behavior. Yang RB, et al. **J Neurosci** 1999 Jul 15;19(14):5889–97

Identification of a RAPD marker linked to progressive rod–cone degeneration in dogs. Gu W, et al. **Mamm Genome** 1998 Sep;9(9):740–4

Detection of a novel Cys628STOP mutation of the myosin VIIA gene in Usher syndrome type Ib. Cuevas JM, et al. **Mol Cell Probes** 1998 Dec;12(6):417–20

Preimplantation diagnosis of autosomal dominant retinitis pigmentosum using two simultaneous single cell assays for a point mutation in the rhodopsin gene. Strom CM, et al. **Mol Hum Reprod** 1998 Apr;4(4):351–5

Detection of alterations in all three exons of the peripherin/RDS gene in Swedish patients with retinitis pigmentosa using an efficient DGGE system. Ekström U, et al. **Mol Pathol** 1998 Oct;51(5):287–91

A mutation in NRL is associated with autosomal dominant retinitis pigmentosa [letter] Bessant DA, et al. **Nat Genet** 1999 Apr;21(4):355–6

Mutations in a human homologue of Drosophila crumbs cause retinitis pigmentosa (RP12). den Hollander AI, et al. **Nat Genet** 1999 Oct;23(2):217–21

Mutations in a gene encoding a new oxygen-regulated photoreceptor protein cause dominant retinitis pigmentosa. Pierce EA, et al. **Nat Genet** 1999 Jul;22(3):248–54

Mutations in a novel retina-specific gene cause autosomal dominant retinitis pigmentosa. Sullivan LS, et al. **Nat Genet** 1999 Jul;22(3):255–9

Autosomal recessive posterior column ataxia and retinitis pigmentosa [letter; comment] Berciano J, et al. **Neurology** 1998 Dec;51(6):1772–3. Comment on: Neurology 1997 Dec;49(6):1717–20.

Posterior column ataxia with retinitis pigmentosa (AXPC1) maps to chromosome 1q31–q32. Higgins JJ, et al. **Neurology** 1999 Jan 1;52(1):146–50

Clinical and genetic studies of an autosomal dominant cone–rod dystrophy with features of Stargardt disease [see comments] Kniazeva MF, et al. **Ophthalmic Genet** 1999 Jun;20(2):71–81. Comment in: Ophthalmic Genet 1999 Jun;20(2):69–70.

Retinitis pigmentosa, mental retardation, marked short stature, and brachydactyly in two sibs. Lorda-Sanchez I, et al. **Ophthalmic Genet** 1999 Jun;20(2):127–31

Rhodopsin C110Y mutation causes a type 2 autosomal dominant retinitis pigmentosa. Millá E, et al. **Ophthalmic Genet** 1998 Sep;19(3):131–9

Clinical expression of X-linked retinitis pigmentosa in a Swedish family with the RP2 genotype. Ponjavic V, et al. **Ophthalmic Genet** 1998 Dec;19(4):187–96

Analysis of the IRBP gene as a cause of RP in 45 ARRP Spanish families. Autosomal recessive retinitis pigmentosa. Interstitial retinol binding protein. Spanish Multicentric and Multidisciplinary Group for Research into Retinitis Pigmentosa. Valverde D, et al. **Ophthalmic Genet** 1998 Dec; 19(4):197–202

X-linked retinitis pigmentosa in two families with a missense mutation in the RPGR gene and putative change of glycine to valine at codon 60. Fishman GA, et al. **Ophthalmology** 1998 Dec;105(12):2286–96

Pigmentary retinal dystrophy and the syndrome of maternally inherited diabetes and deafness caused by the mitochondrial DNA 3243 tRNA(Leu) A to G mutation. Smith PR, et al. **Ophthalmology** 1999 Jun;106(6):1101–8

Semen analysis in the Usher syndrome type 2A. van Aarem A, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun; 61(3):126–30

Biochemical analysis of a dimerization domain mutation in RetGC-1 associated with dominant cone-rod dystrophy. Tucker CL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9039–44

Retinitis pigmentosa: defined from a molecular point of view. van Soest S, et al. **Surv Ophthalmol** 1999 Jan–Feb; 43(4):321–34 (149 ref.)

Exclusion of the apoE gene in autosomal dominant retinitis pigmentosa. Souied EH, et al. **Vision Res** 1998 Dec; 38(24):3829–31

[Evaluation of some clinical parameters in patients with retinitis pigmentosa in relationship to the type of inheritance] Zalewska R, et al. **Klin Oczna** 1999; 101(1):29–32 (Eng. Abstr.) **(Pol)**

[Identification of 2 allelic mutations of the gene of the phosphodiesterase beta subunit in a Spanish family with recessive autosomic retinitis pigmentosa] Baiget M, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):420–2 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Association of antiretinal antibodies and cystoid macular edema in patients with retinitis pigmentosa. Heckenlively JR, et al. **Am J Ophthalmol** 1999 May;127(5):565–73

METABOLISM

Accumulation of tissue inhibitor of metalloproteinases-3 in human eyes with Sorsby's fundus dystrophy or retinitis pigmentosa. Fariss RN, et al. **Br J Ophthalmol** 1998 Nov; 82(11):1329–34

The effect of acetazolamide on passive and active transport of fluorescein across the blood–retina barrier in retinitis pigmentosa complicated by macular oedema. Moldow B, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):881–9

Opsin localization and rhodopsin photochemistry in a transgenic mouse model of retinitis pigmentosa. Wu TH, et al. **Neuroscience** 1998 Dec;87(3):709–17

PATHOLOGY

Photoreceptor rosettes in autosomal dominant retinitis pigmentosa with reduced penetrance. Tulvatana W, et al. **Arch Ophthalmol** 1999 Mar;117(3):399–402

The interpretation of optical coherence tomography images of the retina. Chauhan DS, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2332–42

Morphometric analysis of the extramacular retina from postmortem eyes with retinitis pigmentosa. Humayun MS, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):143–8

Retinal degeneration in retinitis pigmentosa and neuronal ceroid lipofuscinosis: An overview. Birch DG. **Mol Genet Metab** 1999 Apr;66(4):356–66 (27 ref.)

[Retinitis pigmentosa and vitreo-macular traction syndrome. An anatomo-clinical and histopathological study apropos of a case] Gastaud P, et al. **J Fr Ophtalmol** 1999 Aug–Sep; 22(7):766–70 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Impaired function of bipolar cells in the Royal College of Surgeons rat. Hanitzsch R, et al. **Acta Anat (Basel)** 1998; 162(2–3):119–26

Visual sensations produced by optic nerve stimulation using an implanted self-sizing spiral cuff electrode. Veraart C, et al. **Brain Res** 1998 Nov 30;813(1):181–6

The fundamental and second harmonic of the photopic flicker electroretinogram: temporal frequency-dependent abnormalities in retinitis pigmentosa. Falsini B, et al. **Clin Neurophysiol** 1999 Sep;110(9):1554–62

Comparative study of visual, auditory, and olfactory function in Usher syndrome. Seeliger M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):301–7

Perceived visual ability for independent mobility in persons with retinitis pigmentosa. Turano KA, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):865–77

A diffusible factor from normal retinal cells promotes rod photoreceptor survival in an in vitro model of retinitis pigmentosa. Streichert LC, et al. **J Neurobiol** 1999 Jun 15; 39(4):475–90

Investigation of retinitis pigmentosa using the multifocal electroretinogram. Chan HL, et al. **Ophthalmic Physiol Opt** 1998 Jul;18(4):335–50

Yearly rates of rod and cone functional loss in retinitis pigmentosa and cone–rod dystrophy. Birch DG, et al. **Ophthalmology** 1999 Feb;106(2):258–68

Low-frequency damped electroretinographic wavelets in young asymptomatic patients with dominant retinitis pigmentosa: a new electroretinographic finding. Lam BL, et al. **Ophthalmology** 1999 Jun;106(6):1109–13

Mental effort required for walking: effects of retinitis pigmentosa. Turano KA, et al. **Optom Vis Sci** 1998 Dec; 75(12):879–86

Coherence and the judgment of spatial displacements in retinitis pigmentosa. Alexander KR, et al. **Vision Res** 1999 Jun;39(13):2267–74

Pattern electrical stimulation of the human retina. Humayun MS, et al. **Vision Res** 1999 Jul;39(15):2569–76

[A case of familial Bardet–Biedl syndrome (obesity, slight mental retardation, polydactyly, retinitis pigmentosum and renal failure) with insulin-resistant diabetes mellitus] Iannello S, et al. **Minerva Endocrinol** 1998 Sep;23(3):83–92 (Eng. Abstr.) **(Ita)**

[The relationships between visual disability and visual scores in patients with retinitis pigmentosa (see comments)] Sumi I, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jan;103(1):34–9 (Eng. Abstr.). Comment in: Nippon Ganka Gakkai Zasshi 1999 Jan;103(1):1–2. **(Jpn)**

REHABILITATION

Difficulty in performing everyday activities in patients with juvenile macular dystrophies: comparison with patients with retinitis pigmentosa. Szlyk JP, et al. **Br J Ophthalmol** 1998 Dec;82(12):1372–6

SURGERY

Preliminary report: indications of improved visual function after retinal sheet transplantation in retinitis pigmentosa patients. Radtke ND, et al. **Am J Ophthalmol** 1999 Sep; 128(3):384–7

The transplantation of human fetal neuroretinal cells in advanced retinitis pigmentosa patients: results of a long-term safety study. Das T, et al. **Exp Neurol** 1999 May; 157(1):58–68

Neural retinal cell transplantation: ideal versus reality [editorial] Berson EL, et al. **Ophthalmology** 1999 Mar; 106(3):445–6 (13 ref.)

Neural retinal cell transplantation [letter] Wong F. **Ophthalmology** 1999 Oct;106(10):1855–7; discussion 1857

[Cataract surgery in patients with retinitis pigmentosa] Schumacher S, et al. **Klin Monatsbl Augenheilkd** 1998 Aug; 213(2):71–3 (Eng. Abstr.) **(Ger)**

THERAPY

Photoreceptor layer reconstruction in a rodent model of retinal degeneration. Kwan AS, et al. **Exp Neurol** 1999 Sep;159(1):21–33

Rescue from photoreceptor degeneration in the rd mouse by human immunodeficiency virus vector-mediated gene transfer. Takahashi M, et al. **J Virol** 1999 Sep;73(9):7812–6

RETINOBLASTOMA

see related

GENES, RETINOBLASTOMA

Establishment and characterization of a second primary osteosarcoma cell line (OSrb/N-M) from a patient cured of bilateral retinoblastoma. Kawai K, et al. **Cancer Lett** 1999 Jan 8;135(1):37–46

Retinoblastoma. Zucker JM, et al. **Eur J Cancer** 1998 Jun; 34(7):1045–8; discussion 1048–9 (40 ref.)

Multifocal osteosarcoma following retinoblastoma. Pratt CB, et al. **Ophthalmic Genet** 1999 Mar;20(1):23–9

Retinoblastoma in an adult: a case report. Pam VA, et al. **West Afr J Med** 1998 Oct–Dec;17(4):280–3

CHEMICALLY INDUCED

New retinoblastoma tumors in children undergoing systemic chemotherapy [letter] Scott IU, et al. **Arch Ophthalmol** 1998 Dec;116(12):1685–6

COMPLICATIONS

Growth parameters in children with retinoblastoma. Peek AM, et al. **Acta Paediatr** 1999 Feb;88(2):181–5

CONGENITAL

Retinoblastoma as a congenital primary intracranial tumor. Al Omari A, et al. **J Pediatr Hematol Oncol** 1999 Jul–Aug; 21(4):296–8

DIAGNOSIS

Late diagnosis of retinoblastoma in a developing country. Chantada G, et al. **Arch Dis Child** 1999 Feb;80(2):171–4

Retinoblastoma as a congenital primary intracranial tumor. Al Omari A, et al. **J Pediatr Hematol Oncol** 1999 Jul–Aug; 21(4):296–8

Tumor markers in retinoblastoma. Mul D, et al. **Med Pediatr Oncol** 1999 Feb;32(2):146–7 (9 ref.)

Utility of pupillary dilation for detecting leukocoria in patients with retinoblastoma. Canzano JC, et al. **Pediatrics** 1999 Oct;104(4):e44

Retinoblastoma and simulating lesions. Role of CT, MR imaging and use of Gd-DTPA contrast enhancement. Kaufman LM, et al. **Radiol Clin North Am** 1998 Nov; 36(6):1101–17 (63 ref.)

Use of microdissection and molecular genetics in the pathologic diagnosis of retinoblastoma. Whitcup SM, et al. **Retina** 1999;19(4):318–24

Proliferation not apoptosis as a prognostic indicator in retinoblastoma. Kim CJ, et al. **Virchows Arch** 1999 Apr; 434(4):301–5

[Unilateral retinoblastomas with late bilateralization. Three case reports] Poncet P, et al. **J Fr Ophtalmol** 1998 Mar; 21(3):223–6 (Eng. Abstr.) **(Fre)**

[Leukokoria in a child: emergency and challenge] Balmer A, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):332–5 (9 ref.) (Eng. Abstr.) **(Fre)**

[Genetic and molecular diagnostics in retinoblastoma] Lohmann D, et al. **Klin Monatsbl Augenheilkd** 1998 Oct; 213(4):191–6 (25 ref.) (Eng. Abstr.) **(Ger)**

[Leukocoria (white pupil) among children--mother is always

right] Baggesen K, et al. **Tidsskr Nor Laegeforen** 1999 Feb 28;119(6):794-5 (Eng. Abstr.) **(Nor)**

DRUG THERAPY

The outcome of chemoreduction treatment in patients with Reese-Ellsworth group V retinoblastoma. Gündüz K, et al. **Arch Ophthalmol** 1998 Dec;116(12):1613-7

Antineoplastic effect and toxicity of 1,25-dihydroxy-16-ene-23-yne-vitamin D3 in athymic mice with Y-79 human retinoblastoma tumors. Sabet SJ, et al. **Arch Ophthalmol** 1999 Mar;117(3):365-70

Evaluation of 9-cis retinoic acid for a new remedy of human retinoblastoma. Tsukamoto H, et al. **Biochem Mol Biol Int** 1998 Dec;46(5):987-91

Combining cyclosporin with chemotherapy controls intraocular retinoblastoma without requiring radiation [see comments] Chan HSL, et al. **Clin Cancer Res** 1996 Sep; 2(9):1499-508. Comment in: Clin Cancer Res 1997 Mar;3(3):491-2.

Combining cyclosporin with chemotherapy controls intraocular retinoblastoma without requiring radiation [letter; comment] Greenwald MJ, et al. **Clin Cancer Res** 1997 Mar;3(3):491-2. Comment on: Clin Cancer Res 1996 Sep;2(9):1499-508.

Vincristine- and cisplatin-induced apoptosis in human retinoblastoma. Potentiation by sodium butyrate. Conway RM, et al. **Eur J Cancer** 1998 Oct;34(11):1741-8

Increase of ceramide and induction of mixed apoptosis/necrosis by N-(4-hydroxyphenyl)- retinamide in neuroblastoma cell lines [see comments] Maurer BJ, et al. **J Natl Cancer Inst** 1999 Jul 7;91(13):1138-46. Comment in: J Natl Cancer Inst 1999 Jul 7;91(13):1099-100.

Topical topic. Use of chemotherapy for retinoblastoma. Pratt CB. **Med Pediatr Oncol** 1998 Dec;31(6):531-3 (28 ref.)

Misleading leads. Orbital cellulitis following chemotherapy for retinoblastoma. Roebuck DJ, et al. **Med Pediatr Oncol** 1998 Dec;31(6):534-5

A phase I/II study of subconjunctival carboplatin for intraocular retinoblastoma. Abramson DH, et al. **Ophthalmology** 1999 Oct;106(10):1947-50

"Eight drugs in one day" chemotherapy in a nonfamilial bilateral retinoblastoma with recurrent cerebrospinal fluid metastases. Sandri A, et al. **Pediatr Hematol Oncol** 1998 Nov-Dec;15(6):557-61

ENZYMOLOGY

Involvement of interleukin-1beta-converting enzyme in apoptosis of irradiated retinoblastomas. Kondo Y, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2769-74

EPIDEMIOLOGY

Retinoblastoma: problems and perspectives from India. Sahu S, et al. **Pediatr Hematol Oncol** 1998 Nov-Dec;15(6):501-8

ETIOLOGY

Is sunlight an aetiological agent in the genesis of retinoblastoma? Hooper ML. **Br J Cancer** 1999 Mar; 79(7-8):1273-6

GENETICS

Absence of pericentromeric heterochromatin (9qh-) in a patient with bilateral retinoblastoma. Sivakumaran TA, et al. **Acta Genet Med Gemellol (Roma)** 1997;46(4):193-8

RB1 gene mutations in peripheral blood DNA of patients with isolated unilateral retinoblastoma [letter] Klutz M, et al. **Am J Hum Genet** 1999 Feb;64(2):667-8

Evidence of somatic and germinal mosaicism in pseudo-low-penetrant hereditary retinoblastoma, by constitutional and single-sperm mutation analysis [letter] Munier FL, et al. **Am J Hum Genet** 1998 Dec;63(6):1903-8

Gene transfer into retinóblastoma cells. Chau KY, et al. **Biotechniques** 1999 Mar;26(3):444-6

Trilateral retinoblastoma with an RB1 deletion inherited from a carrier mother: a case report. Amare P, et al. **Cancer Genet Cytogenet** 1999 May;111(1):28-31

Dysmorphic phenotype and neurological impairment in 22 retinoblastoma patients with constitutional cytogenetic 13q deletion. Baud O, et al. **Clin Genet** 1999 Jun;55(6):478-82

Elements regulating the transcription of human interstitial retinoid-binding protein (IRBP) gene in cultured retinoblastoma cells. Fong SL, et al. **Curr Eye Res** 1999 Apr;18(4):283-91

Which retinoblastoma patients should be screened for RB1 mutations? [editorial] Cowell JK, et al. **Eur J Cancer** 1998 Nov;34(12):1825-6

Age at diagnosis to discriminate those patients for whom constitutional DNA sequencing is appropriate in sporadic unilateral retinoblastoma. Zajączek S, et al. **Eur J Cancer** 1998 Nov;34(12):1919-21

Sequence, expression and genetic mapping of a rainbow trout retinoblastoma cDNA. Brunelli JP, et al. **Gene** 1999 Jan 21;226(2):175-80

Low frequency of oncogenic mutations in the core promoter region of the RB1 gene [letter] Fujita T, et al. **Hum Mutat** 1999;13(5):410-1

Multiple genetic loci modify risk for retinoblastoma in transgenic mice. Griep AE, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2723-32

Detection of homozygous deletions in tumors by hybridization of representational difference analysis (RDA) products to chromosome-specific YAC clone arrays. Zeschnigk M, et al. **Nucleic Acids Res** 1999 Nov 1; 27(21):e30

The retinoblastoma susceptibility gene product/Sp1 signalling pathway is modulated by Ca2+/calmodulin kinases II and IV activity. Sohm F, et al. **Oncogene** 1999 Apr 29;18(17):2762-9

Developmental defects and tumor predisposition in Rb mutant mice. Vooijs M, et al. **Oncogene** 1999 Sep 20; 18(38):5293-303 (137 ref.)

Mitotic recombination map of 13cen-13q14 derived from an investigation of loss of heterozygosity in retinoblastomas. Hagstrom SA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2952-7

Pediatric case of the day. Osteogenic sarcoma as a second malignancy with bilateral hereditary retinoblastoma. Allison JW, et al. **Radiographics** 1999 May-Jun;19(3):830-2

[Retinoblastoma: importance of genetic counseling] Girardet A, et al. **J Fr Ophtalmol** 1998 Apr;21(4):295-301 (21 ref.) **(Fre)**

[Genetic and molecular diagnostics in retinoblastoma] Lohmann D, et al. **Klin Monatsbl Augenheilkd** 1998 Oct; 213(4):191-6 (25 ref.) (Eng. Abstr.) **(Ger)**

[Genetic studies in retinoblastoma] Bosun I, et al. **Oftalmologia** 1998;45(4):28-34 (Eng. Abstr.) **(Rum)**

METABOLISM

Expression patterns of cyclin D1 and related proteins regulating G1-S phase transition in uveal melanoma and retinoblastoma. Coupland SE, et al. **Br J Ophthalmol** 1998 Aug;82(8):961-70

Increased cyclin E level in retinoblastoma cells during programmed cell death. Lauricella M, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Dec;44(8):1229-35

Increase of ceramide and induction of mixed apoptosis/necrosis by N-(4-hydroxyphenyl)- retinamide in neuroblastoma cell lines [see comments] Maurer BJ, et al. **J Natl Cancer Inst** 1999 Jul 7;91(13):1138-46. Comment in: J Natl Cancer Inst 1999 Jul 7;91(13):1099-100.

Expression of vascular endothelial growth factor (VEGF) and its receptors is regulated in eyes with intra-ocular tumours. Stitt AW, et al. **J Pathol** 1998 Nov;186(3):306-12

Induction of programmed cell death in human retinoblastoma Y79 cells by C2-ceramide. Vento R, et al. **Mol Cell Biochem** 1998 Aug;185(1-2):7-15

Involvement of retinoblastoma (Rb) and E2F transcription factors during photodynamic therapy of human epidermoid carcinoma cells A431. Ahmad N, et al. **Oncogene** 1999 Mar 11;18(10):1891-6

Intraocular carboplatin concentrations following intravenous administration for human intraocular retinoblastoma. Abramson DH, et al. **Ophthalmic Genet** 1999 Mar; 20(1):31-6

Loss of delta6-desaturase activity leads to impaired docosahexaenoic acid synthesis in Y-79 retinoblastoma cells. Marzo I, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Nov; 59(5):293-7

PATHOLOGY

Second primary rhabdomyosarcomas in patients with bilateral retinoblastoma: a clinicopathologic and immunohistochemical study. Hasegawa T, et al. **Am J Surg Pathol** 1998 Nov;22(11):1351-60

Disseminated retinoblastoma successfully treated with myeloablative chemotherapy--implication for molecular detection of minimal residual disease. Yamane S, et al. **Bone Marrow Transplant** 1999 May;23(9):971-4

Trilateral retinoblastoma: is the location of the intracranial tumor important? [see comments] Paulino AC. **Cancer** 1999 Jul 1;86(1):135-41 (45 ref.). Comment in: Cancer 1999 Jul 1;86(1):3-5.

Mutant herpes simplex virus-mediated suppression of retinoblastoma. Kogishi J, et al. **Curr Eye Res** 1999 May; 18(5):321-6

Cytological aspiration of intraocular retinoblastoma in an 11-year-old boy. Decaussin M, et al. **Diagn Cytopathol** 1998 Sep;19(3):190-3

Pathological and histological study on retinoblastoma. Fujisawa K, et al. **Kobe J Med Sci** 1998 Feb;44(1):19-30

Retinoblastoma in transgenic mice: models of hereditary retinoblastoma. Mills MD, et al. **Surv Ophthalmol** 1999 May-Jun;43(6):508-18 (105 ref.)

A rare presentation of trilateral retinoblastoma. Varan A, et al. **Tumori** 1998 Jul-Aug;84(4):515-6

[The role of apoptosis in physiology and pathology of the retina] Obuchowska I, et al. **Klin Oczna** 1999;101(2):139-43 (43 ref.) (Eng. Abstr.) **(Pol)**

[The extension of retinoblastoma into neighboring structures] Bosun I, et al. **Oftalmologia** 1998;44(3):47-52 (Eng. Abstr.) **(Rum)**

PHYSIOPATHOLOGY

New insights into trilateral retinoblastoma [editorial; comment] Singh AD, et al. **Cancer** 1999 Jul 1;86(1):3-5. Comment on: Cancer 1999 Jul 1;86(1):135-41.

Visual outcomes in children with bilateral retinoblastoma. Hall LS, et al. **J Aapos** 1999 Jun;3(3):138-42

PREVENTION & CONTROL

Commentary. Pupillary dilation by pediatricians. Metz TH Jr, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):958-60

RADIOTHERAPY

A technique for suturing peripapillary radioactive plaques. Abdel-Dayem HK, et al. **Am J Ophthalmol** 1999 Feb; 127(2):224-6

External beam radiotherapy in retinoblastoma: tumor control and comparison of 2 techniques. Scott IU, et al. **Arch Ophthalmol** 1999 Jun;117(6):766-70

Advanced bilateral retinoblastoma treated conservatively with lens sparing external beam radiation therapy: report of three cases. Kao LY, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Mar;22(1):100-5

Combining cyclosporin with chemotherapy controls intraocular retinoblastoma without requiring radiation [letter; comment] Greenwald MJ, et al. **Clin Cancer Res** 1997 Mar;3(3):491-2. Comment on: Clin Cancer Res 1996 Sep;2(9):1499-508.

A stereotactic radiation therapy device for retinoblastoma using a noncircular collimator and intensity filter. Cormack RA, et al. **Med Phys** 1998 Aug;25(8):1438-42

Multifocal osteosarcoma as second tumor after childhood retinoblastoma. Potepan P, et al. **Skeletal Radiol** 1999 Jul; 28(7):415-21

Cancer incidence after retinoblastoma: radiation dose and sarcoma risk. Murray T. **Surv Ophthalmol** 1998 Nov-Dec; 43(3):288-9

SURGERY

Treatment of retinoblastoma with the transscleral diode laser. Abramson DH, et al. **Am J Ophthalmol** 1998 Nov; 126(5):733-5

Orbital development after enucleation in early childhood. Fountain TR, et al. **Ophthal Plast Reconstr Surg** 1999 Jan; 15(1):32-6

Surgical repair of rhegmatogenous retinal detachment after treatment for retinoblastoma. Baumal CR, et al. **Ophthalmology** 1998 Nov;105(11):2134-9

Surgical reconstruction of the contracted eye socket and orbitozygomatic hypoplasia in a one-stage operation. Mu X, et al. **Plast Reconstr Surg** 1999 Feb;103(2):487-93

THERAPY

Thermotherapy for retinoblastoma. Shields CL, et al. **Arch Ophthalmol** 1999 Jul;117(7):885-93

Role of chemotherapy alone or in combination with hyperthermia in the primary treatment of intraocular retinoblastoma: preliminary results. Levy C, et al. **Br J Ophthalmol** 1998 Oct;82(10):1154-8

Suicide gene therapy for treatment of retinoblastoma in a murine model. Hurwitz MY, et al. **Hum Gene Ther** 1999 Feb 10;10(3):441-8

An experimental application of gene therapy for human retinoblastoma. Hayashi N, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):265-72

Recent developments in the management of retinoblastoma. Shields CL, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jan-Feb;36(1):8-18; quiz 35-6 (64 ref.)

Neuro-oncology-endocrinology interface: A patient who earned her salt [clinical conference] Janss AJ, et al. **Med Pediatr Oncol** 1999 Oct;33(4):413-7

RAC nixes plan to treat retinoblastoma [news; comment] Garber K. **Science** 1999 Jun 25;284(5423):2066. Comment on: Science 1999 Jul 30;285(5428):663-4.

Retinoblastoma treatment [letter; comment] Hurwitz RL, et al. **Science** 1999 Jul 30;285(5428):663-4. Comment on: Science 1999 Jun 25;284(5423):2066.

[Experimental research on in vivo gene-therapy of retinoblastoma] Chen D, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Aug; 16(4):211-5 (Eng. Abstr.) **(Chi)**

[Retinoblastoma] Bornfeld N. **Klin Monatsbl Augenheilkd** 1999 Apr;214(4):aA10-1 **(Ger)**

[Follow-up of retinoblastoma during homeopathic therapy] Käsmann-Kellner B, et al. **Klin Monatsbl Augenheilkd** 1999 Apr;214(4):aA12-6 **(Ger)**

[The results of multimodal treatment in retinoblastoma] Zemba M, et al. **Oftalmologia** 1998;45(4):46-54 (Eng. Abstr.) **(Rum)**

ULTRASONOGRAPHY

Fetal retinoblastoma. Salim A, et al. **J Ultrasound Med** 1998 Nov;17(11):717-20

VIROLOGY

Human cytomegalovirus infection in a retinoblastoma cell line in vitro. Kumano Y, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):945-9

RETINOBLASTOMA GENES see **GENES, RETINOBLASTOMA**

RETINOBLASTOMA NUCLEAR PHOSPHOPROTEIN P105-RB see **RETINOBLASTOMA PROTEIN**

RETINOBLASTOMA PROTEIN

ANALYSIS

Altered patterns of retinoblastoma gene product expression in benign, premalignant and malignant epithelium of the larynx: an immunohistochemical study including correlation with p53, bcl-2 and proliferating indices. Ioachim E, et al. **Anticancer Res** 1999 Jan-Feb; 19(1A):541-5

Chromosome 13q deletion mapping in pituitary tumors: infrequent loss of the retinoblastoma susceptibility gene (RB1) locus despite loss of RB1 protein product in somatotrophinomas. Simpson DJ, et al. **Cancer Res** 1999 Apr 1;59(7):1562-6

Differential expression of the retinoblastoma gene family members pRb/p105, p107, and pRb2/p130 in lung cancer. Baldi A, et al. **Clin Cancer Res** 1996 Jul;2(7):1239-45

Prognostic significance of cyclin D1 and retinoblastoma expression in combination with p53 abnormalities in primary, resected non-small cell lung cancers. Nishio M, et al. **Clin Cancer Res** 1997 Jul;3(7):1051-8

Abnormal bcl-2 and pRb expression are independent correlates of radiation response in muscle-invasive bladder cancer. Pollack A, et al. **Clin Cancer Res** 1997 Oct; 3(10):1823-9

Altered retinoblastoma and p53 protein status in non-small cell carcinoma of the lung: potential synergistic effects on prognosis. Xu HJ, et al. **Clin Cancer Res** 1996 Jul; 2(7):1169-76

Detection of intracellular antigens by flow cytometry: comparison of two chemical methods and microwave heating. Millard I, et al. **Clin Chem** 1998 Nov; 44(11):2320-30

Cyclin-dependent kinase inhibitor expression in human heart failure. A comparison with fetal development [see comments] Burton PB, et al. **Eur Heart J** 1999 Apr; 20(8):604-11. Comment in: Eur Heart J 1999 Apr;20(8):555-7.

Expression of cell-cycle regulators during heart development and failure [editorial; comment] Deprez RH, et al. **Eur Heart J** 1999 Apr;20(8):555-7 (7 ref.). Comment on: Eur Heart J 1999 Apr;20(8):604-11.

Retinoblastoma and p53 protein expression in sporadic colorectal cancers. Chetty R, et al. **Eur J Surg Oncol** 1998 Oct;24(5):436-9

Changes in expression of pRb, p16 and cyclin D1 in non-small cell lung cancer: an immunohistochemical study. Malusecka E, et al. **Folia Histochem Cytobiol** 1999; 37(1):19-24

Alteration of pRb/p16/cdk4 regulation in human osteosarcoma. Benassi MS, et al. **Int J Cancer** 1999 Oct 22;84(5):489-93

P16/MTS1 and pRB expression in endometrial carcinomas. Milde-Langosch K, et al. **Virchows Arch** 1999 Jan; 434(1):23-8

Evaluation of retinoblastoma and Ki-67 immunostaining as diagnostic markers of benign and malignant parathyroid disease. Farnebo F, et al. **World J Surg** 1999 Jan;23(1):68-74

[Relationship between human papillomavirus E7 protein and Rb gene product in fresh tissues of squamous cervical carcinoma] Wang P, et al. **Chung Hua Fu Chan Ko Tsa Chih** 1997 Dec;32(12):722-4 (Eng. Abstr.) **(Chi)**

[The expression of p16, CDK4 and pRb in hepatocellular carcinomas] Luo D, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Jun;7(2):94-5 (Eng. Abstr.) **(Chi)**

ANTAGONISTS & INHIBITORS

TGF-beta1-mediated hypertrophy involves inhibiting pRB phosphorylation by blocking activation of cyclin E kinase. Liu B, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F186-94

Viral ski inhibits retinoblastoma protein (Rb)-mediated transcriptional repression in a dominant negative fashion. Tokitou F, et al. **J Biol Chem** 1999 Feb 19;274(8):4485-8

HLA class I-mediated induction of cell proliferation involves cyclin E-mediated inactivation of Rb function and induction of E2F activity. Nath N, et al. **J Immunol** 1999 May 1;162(9):5351-8

BIOSYNTHESIS

Overexpression of Rb and E2F-1 in ataxia-telangiectasia lymphocytes. Varghese S, et al. **Arch Pharm Res** 1998 Dec; 21(6):640-4

Clinical relevance of pRb and p53 co-overexpression in soft tissue sarcomas. Würl P, et al. **Cancer Lett** 1999 May 24; 139(2):159-65

Polyamine analogue induction of the p53-p21WAF1/CIP1-Rb pathway and G1 arrest in human melanoma cells. Kramer DL, et al. **Cancer Res** 1999 Mar 15;59(6):1278-86

Tumor suppressor proteins as regulators of cell differentiation. Li ZR, et al. **Cancer Res** 1998 Oct 1; 58(19):4282-7

Bovine papillomavirus E2 protein activates a complex growth-inhibitory program in p53-negative HT-3 cervical carcinoma cells that includes repression of cyclin A and cdc25A phosphatase genes and accumulation of hypophosphorylated retinoblastoma protein. Naeger LK, et al. **Cell Growth Differ** 1999 Jun;10(6):413-22

Retinoblastoma protein expression leads to reduced Oct-1 DNA binding activity and enhances interleukin-8 expression. Zhang H, et al. **Cell Growth Differ** 1999 Jul; 10(7):457-65

Correlation of abnormal RB, p16ink4a, and p53 expression with 3p loss of heterozygosity, other genetic abnormalities, and clinical features in 103 primary non-small cell lung cancers. Geradts J, et al. **Clin Cancer Res** 1999 Apr; 5(4):791-800

Differential expression of the retinoblastoma gene family members in choroidal melanoma: prognostic significance. Massaro-Giordano M, et al. **Clin Cancer Res** 1999 Jun; 5(6):1455-8

Loss of heterozygosity of the Rb gene correlates with pRb protein expression and associates with p53 alteration in human esophageal cancer. Xing EP, et al. **Clin Cancer Res** 1999 May;5(5):1231-40

Regulation of expression and activity of distinct pRB, E2F, D-type cyclin, and CKI family members during terminal differentiation of P19 cells. Gill RM, et al. **Exp Cell Res** 1998 Oct 10;244(1):157-70

Immunohistochemical analysis for cell proliferation-related protein expression in small cell carcinoma of the esophagus; a comparative study with small cell carcinoma of the lung and squamous cell carcinoma of the esophagus. Okudela K, et al. **Histol Histopathol** 1999 Apr;14(2):479-85

Loss of retinoblastoma protein expression is frequent in small cell neuroendocrine carcinoma of the cervix and is unrelated to HPV type. Herrington CS, et al. **Hum Pathol** 1999 Aug;30(8):906-10

Expression of p16, Rb, and cyclin D1 gene products in oral and laryngeal squamous carcinoma: biological and clinical implications [see comments] El-Naggar AK, et al. **Hum Pathol** 1999 Sep;30(9):1013-8. Comment in: Hum Pathol 1999 Sep;30(9):1001-3.

Decreased retinoblastoma protein expression in gamma-irradiated mouse ovarian follicles. Lee CJ, et al. **In Vivo** 1999 May-Jun;13(3):263-6

Cell cycle arrest during measles virus infection: a G0-like block leads to suppression of retinoblastoma protein expression. Naniche D, et al. **J Virol** 1999 Mar; 73(3):1894-901

Expression of PRAD1/cyclin D1, retinoblastoma gene products, and Ki67 in parathyroid hyperplasia caused by chronic renal failure versus primary adenoma. Tominaga Y, et al. **Kidney Int** 1999 Apr;55(4):1375-83

Simultaneous alterations of retinoblastoma and p53 protein expression in astrocytic tumors. Rathore A, et al. **Pathol Oncol Res** 1999;5(1):21-7

[Alterations of retinoblastoma gene and its protein expression in aggressive bone tumors] Li Y, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Oct;26(5):262-5 (Eng. Abstr.) **(Chi)**

[Relationship between p16 and Rb protein expression in astrocytomas] Lin Y, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Dec;26(6):340-2 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Retinoblastoma protein contains a C-terminal motif that targets it for phosphorylation by cyclin-cdk complexes. Adams PD, et al. **Mol Cell Biol** 1999 Feb;19(2):1068-80

Functional interaction between human topoisomerase IIalpha and retinoblastoma protein. Bhat UG, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7859-64

DEFICIENCY

RB-mediated suppression of spontaneous multiple neuroendocrine neoplasia and lung metastases in Rb+/- mice. Nikitin AY, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3916-21

GENETICS

RB1 gene mutations in peripheral blood DNA of patients with isolated unilateral retinoblastoma [letter] Klutz M, et al. **Am J Hum Genet** 1999 Feb;64(2):667-8

Significance of P53 and Rb protein expression in surgically treated non-small cell lung cancers. Lee YC, et al. **Ann Thorac Surg** 1999 Aug;68(2):343-7; discussion 348

Genetic alterations in the retinoblastoma protein-related p107 gene in human hematologic malignancies. Takimoto H, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):264-8

Transcriptional regulation of the CDK inhibitor p16INK4a gene by a novel pRb-associated repressor, RBAR1. Kaneko S, et al. **Biochem Mol Biol Int** 1999 Feb; 47(2):205-15

Intact functional domains of the retinoblastoma gene product (pRb) are required for downregulation of telomerase activity. Nguyen DC, et al. **Biochim Biophys Acta** 1999 May 14;1445(2):207-15

Role of p16/MTS1, cyclin D1 and RB in primary oral cancer and oral cancer cell lines. Sartor M, et al. **Br J Cancer** 1999 Apr;80(1-2):79-86

Loss of functional pRB is not a ubiquitous feature of B-cell malignancies. Sinclair AJ, et al. **Br J Cancer** 1999 May; 80(5-6):670-5

Identification and characterization of the putative retinoblastoma control element of the rat insulin-like growth factor binding protein-2 gene. Kutoh E, et al. **Cancer Lett** 1999 Mar 1;136(2):187-94

pRb and E2f-1 in mouse development and tumorigenesis. Macleod K. **Curr Opin Genet Dev** 1999 Feb;9(1):31-9 (64 ref.)

c-MYC, RB-1, TP53, and centromere 8 and 17 copy number in B-cell non-Hodgkin's lymphomas assessed by dual-color fluorescence in situ hybridization. Galteland E, et al. **Cytometry** 1999 Apr 15;38(2):53-60

Neural precursor cells differentiating in the absence of Rb exhibit delayed terminal mitosis and deregulated E2F 1 and 3 activity. Callaghan DA, et al. **Dev Biol** 1999 Mar 15;207(2):257-70

Cloning and functional studies of a novel gene aberrantly expressed in RB-deficient embryos. Yuan SS, et al. **Dev Biol** 1999 Mar 1;207(1):62-75

Simian virus 40-like DNA sequences and large-T antigen-retinoblastoma family protein pRb2/p130 interaction in human mesothelioma. Mutti L, et al. **Dev Biol Stand** 1998;94:47-53

The C. elegans gene lin-36 acts cell autonomously in the lin-35 Rb pathway. Thomas JH, et al. **Development** 1999 Aug;126(15):3449-59

Direct estimation of the recombination frequency between the RB1 gene and two closely linked microsatellites using sperm typing. Girardet A, et al. **Eur J Hum Genet** 1999 Feb-Mar;7(2):239-42

Sequence, expression and genetic mapping of a rainbow trout retinoblastoma cDNA. Brunelli JP, et al. **Gene** 1999 Jan 21;226(2):175-80

Low frequency of oncogenic mutations in the core promoter region of the RB1 gene [letter] Fujita T, et al. **Hum Mutat** 1999;13(5):410-1

Loss of heterozygosity at chromosome arm 13q and RB1 status in human prostate cancer. Latil A, et al. **Hum Pathol** 1999 Jul;30(7):809-15

Common delta2 and delta8 RB1 variants in human breast and prostate tissues [letter] Latil A, et al. **Int J Cancer** 1999 Feb 9;80(4):632-3

Activation of Rb and decline in androgen receptor protein precede retinoic acid-induced apoptosis in androgen-dependent LNCaP cells and their androgen-independent derivative. Gao M, et al. **J Cell Physiol** 1999 Jun;179(3):336-46

Thyroid follicular oncogenesis in iodine-deficient and iodine-sufficient areas: search for alterations of the ras, met and bFGF oncogenes and of the Rb anti-oncogene. Bartolone L, et al. **J Endocrinol Invest** 1998 Nov; 21(10):680-7

Repression of Epstein-Barr virus EBNA-1 gene transcription by pRb during restricted latency. Ruf IK, et al. **J Virol** 1999 Oct;73(10):7943-51

Differential expression of key cell cycle genes (p16/cyclin D1/pRb) in head and neck squamous carcinomas. Lai S, et al. **Lab Invest** 1999 Mar;79(3):255-60

Cumulative effect of phosphorylation of pRB on regulation of E2F activity. Brown VD, et al. **Mol Cell Biol** 1999 May; 19(5):3246-56

Cytosine methylation transforms an E2F site in the retinoblastoma gene promoter into a binding site for the general repressor methylcytosine-binding protein 2 (MeCP2). De Fiore B, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2852-9

RET cooperates with RB/p53 inactivation in a somatic multi-step model for murine thyroid cancer. Coxon AB, et al. **Oncogene** 1998 Sep 24;17(12):1625-8

Tobacco retinoblastoma-related protein phosphorylated by a distinct cyclin-dependent kinase complex with Cdc2/cyclin D in vitro. Nakagami H, et al. **Plant J** 1999 May;18(3):243-52

Regulation of endogenous E2F1 stability by the retinoblastoma family proteins. Martelli F, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2858-63

Intranuclear localization of human papillomavirus 16 E7 during transformation and preferential binding of E7 to the Rb family member p130. Smith-McCune K, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6999-7004

ISOLATION & PURIFICATION

Level of retinoblastoma protein expression correlates with p16 (MTS-1/INK4A/CDKN2) status in bladder cancer. Benedict WF, et al. **Oncogene** 1999 Feb 4;18(5):1197-203

METABOLISM

Retinoblastoma protein expression and prognosis in laryngeal cancer. Dokiya F, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):759-62

Alterations of the p16-pRb pathway and the chromosome locus 9p21-22 in non-small-cell lung carcinomas: relationship with p53 and MDM2 protein expression. Gorgoulis VG, et al. **Am J Pathol** 1998 Dec;153(6):1749-65

Glucocorticoids inhibit proliferation, cyclin D1 expression, and retinoblastoma protein phosphorylation, but not activity of the extracellular-regulated kinases in human cultured airway smooth muscle. Fernandes D, et al. **Am J Respir Cell Mol Biol** 1999 Jul;21(1):77-88

Significance of Fas and retinoblastoma protein expression during the progression of Barrett's metaplasia to adenocarcinoma. Coppola D, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):298-304

Rb independent inhibition of cell growth by p15(INK4B). Aytac U, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):534-8

Direct interaction of p21 cyclin-dependent kinase inhibitor

with the retinoblastoma tumor suppressor protein. Nakanishi M, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):35–40

Involvement of polyamines in retinoblastoma protein phosphorylation. Omura T, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):731–4

Polyamine analogue-mediated cell cycle responses in human melanoma cells involves the p53, p21, Rb regulatory pathway. Kramer DL, et al. **Biochem Soc Trans** 1998 Nov; 26(4):609–14 (25 ref.)

Involvement of the retinoblastoma protein in monocytic and neutrophilic lineage commitment of human bone marrow progenitor cells. Bergh G, et al. **Blood** 1999 Sep 15; 94(6):1971–8

Retinoic acid prevents phosphorylation of pRB in normal human B lymphocytes: regulation of cyclin E, cyclin A, and p21(Cip1). Naderi S, et al. **Blood** 1999 Aug 15; 94(4):1348–58

Molecular analysis of selected cell cycle regulatory proteins during aerobic and hypoxic maintenance of human ovarian carcinoma cells. Krtolica A, et al. **Br J Cancer** 1999 Aug; 80(12):1875–83

Functional interaction between retinoblastoma protein and stress-activated protein kinase in multiple myeloma cells. Chauhan D, et al. **Cancer Res** 1999 Mar 15;59(6):1192–5

The partial homeodomain of the transcription factor Pax-5 (BSAP) is an interaction motif for the retinoblastoma and TATA-binding proteins. Eberhard D, et al. **Cancer Res** 1999 Apr 1;59(7 Suppl):1716s–1724s; discussion 1724s–1725s

Transduced p16INK4a peptides inhibit hypophosphorylation of the retinoblastoma protein and cell cycle progression prior to activation of Cdk2 complexes in late G1. Gius DR, et al. **Cancer Res** 1999 Jun 1;59(11):2577–80

p16/pRb pathway alterations are required for bypassing senescence in human prostate epithelial cells. Jarrard DF, et al. **Cancer Res** 1999 Jun 15;59(12):2957–64

Bdp, a new member of a family of DNA-binding proteins, associates with the retinoblastoma gene product. Numata S, et al. **Cancer Res** 1999 Aug 1;59(15):3741–7

The COOH-terminal region of pRb2/p130 binds to histone deacetylase 1 (HDAC1), enhancing transcriptional repression of the E2F-dependent cyclin A promoter. Stiegler P, et al. **Cancer Res** 1998 Nov 15;58(22):5049–52

Posttranslational mechanisms contribute to the suppression of specific cyclin:CDK complexes by all-trans retinoic acid in human bronchial epithelial cells. Sueoka N, et al. **Cancer Res** 1999 Aug 1;59(15):3838–44

Defining the substrate specificity of cdk4 kinase-cyclin D1 complex. Grafstrom RH, et al. **Carcinogenesis** 1999 Feb; 20(2):193–8

Cdk phosphorylation triggers sequential intramolecular interactions that progressively block Rb functions as cells move through G1. Harbour JW, et al. **Cell** 1999 Sep 17; 98(6):859–69

The adenomatous polyposis coli protein and retinoblastoma protein are cleaved early in apoptosis and are potential substrates for caspases. Browne SJ, et al. **Cell Death Differ** 1998 Mar;5(3):206–13

Selective induction of apoptosis in Philadelphia chromosome-positive chronic myelogenous leukemia cells by an inhibitor of BCR - ABL tyrosine kinase, CGP 57148. Dan S, et al. **Cell Death Differ** 1998 Aug;5(8):710–5

Transient accumulation of retinoblastoma/E2F-1 protein complexes correlates with the onset of neuronal differentiation in the developing quail neural retina. Kastner A, et al. **Cell Growth Differ** 1998 Oct;9(10):857–67

Toward an understanding of the functional complexity of the E2F and retinoblastoma families. Nevins JR. **Cell Growth Differ** 1998 Aug;9(8):585–93 (100 ref.)

The fraction of cells in G1 with bound retinoblastoma protein increases with the duration of the cell cycle. Jonassen TS, et al. **Cell Prolif** 1994 Feb;27(2):95–104

Alterations of Rb pathway (Rb-p16INK4-cyclin D1) in preinvasive bronchial lesions. Brambilla E, et al. **Clin Cancer Res** 1999 Feb;5(2):243–50

Paradoxical increase in retinoblastoma protein in colorectal carcinomas may protect cells from apoptosis. Yamamoto H, et al. **Clin Cancer Res** 1999 Jul;5(7):1805–15

pRb is required for MEF2-dependent gene expression as well as cell-cycle arrest during skeletal muscle differentiation. Novitch BG, et al. **Curr Biol** 1999 May 6;9(9):449–59

The retinoblastoma pathway in plant cell cycle and development. Gutierrez C. **Curr Opin Plant Biol** 1998 Dec; 1(6):492–7 (46 ref.)

Regulation of Rb and E2F by signal transduction cascades: divergent effects of JNK1 and p38 kinases. Wang S, et al. **EMBO J** 1999 Mar 15;18(6):1559–70

Expression of cyclin D1 and retinoblastoma protein in colorectal cancer. Palmqvist R, et al. **Eur J Cancer** 1998 Sep;34(10):1575–81

Involvement of the retinoblastoma protein in brown and white adipocyte cell differentiation: functional and physical association with the adipogenic transcription factor C/EBPalpha. Puigserver P, et al. **Eur J Cell Biol** 1998 Oct; 77(2):117–23

Analysis of site-specific phosphorylation of the retinoblastoma protein during cell cycle progression. Boylan JF, et al. **Exp Cell Res** 1999 Apr 10;248(1):110–4

Phosphorylation of retinoblastoma protein assayed in individual HL-60 cells during their proliferation and differentiation. Juan G, et al. **Exp Cell Res** 1998 Oct 10; 244(1):83–92

Transforming growth factor beta inhibits growth of more differentiated myeloid leukemia cells and retinoblastoma protein phosphorylation at serine 795. Hu X, et al. **Exp Hematol** 1999 Apr;27(4):605–14

Changes in the expression of c-myc, RB and tyrosine-phosphorylated proteins during proliferation of NIH 3T3 cells induced by hyaluronic acid. Moon SO, et al. **Exp Mol Med** 1998 Mar 31;30(1):29–33

Liver cell dysplasia: reactivities for c-met protein, Rb protein, E-cadherin and transforming growth factor-beta 1 in comparison with hepatocellular carcinoma. Zhao M, et al. **Histol Histopathol** 1998 Jul;13(3):657–70

Bcl-2- and CrmA-inhibitable dephosphorylation and cleavage of retinoblastoma protein during etoposide-induced apoptosis. An B, et al. **Int J Mol Med** 1998 Jan;1(1):131–6

Pax-6 interactions with TATA-box-binding protein and retinoblastoma protein. Cvekl A, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1343–50

Nucleolar protein B23.1 binds to retinoblastoma protein and synergistically stimulates DNA polymerase alpha activity. Takemura M, et al. **J Biochem (Tokyo)** 1999 May; 125(5):904–9

Discovery of a regulatory motif that controls the exposure of specific upstream cyclin-dependent kinase sites that determine both conformation and growth suppressing activity of pRb. Driscoll B, et al. **J Biol Chem** 1999 Apr 2;274(14):9463–71

Involvement of cell cycle elements, cyclin-dependent kinases, pRb, and E2F x DP, in B-amyloid-induced neuronal death. Giovanni A, et al. **J Biol Chem** 1999 Jul 2;274(27):19011–6

Activation of peroxisome proliferator-activated receptor gamma bypasses the function of the retinoblastoma protein in adipocyte differentiation. Hansen JB, et al. **J Biol Chem** 1999 Jan 22;274(4):2386–93

Differential regulation of androgen and glucocorticoid receptors by retinoblastoma protein. Lu J, et al. **J Biol Chem** 1998 Nov 20;273(47):31528–33

Recruitment of the retinoblastoma protein to c-Jun enhances transcription activity mediated through the AP-1 binding site. Nishitani J, et al. **J Biol Chem** 1999 Feb 26; 274(9):5454–61

The geranylgeranyltransferase I inhibitor GGTI-298 induces hypophosphorylation of retinoblastoma and partner switching of cyclin-dependent kinase inhibitors. A potential mechanism for GGTI-298 antitumor activity. Sun J, et al. **J Biol Chem** 1999 Mar 12;274(11):6930–4

Retinoblastoma (RB1) gene product expression in breast carcinoma. Correlation with Ki-67 growth fraction and biopathological profile. Ceccarelli C, et al. **J Clin Pathol** 1998 Nov;51(11):818–24

Mutations in the retinoblastoma protein-binding LXCXE motif of rubella virus putative replicase affect virus replication. Forng RY, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):327–32

B cell antigen receptor-mediated activation of cyclin-dependent retinoblastoma protein kinases and inhibition by co-cross-linking with Fc gamma receptors. Tanguay D, et al. **J Immunol** 1999 Sep 15;163(6):3160–8

Hypophosphorylated retinoblastoma protein is associated with G2 arrest in esophageal squamous cell carcinoma. Rigberg DA, et al. **J Surg Res** 1999 Jun 1;84(1):101–5

Characterization of CELO virus proteins that modulate the pRb/E2F pathway. Lehrmann H, et al. **J Virol** 1999 Aug; 73(8):6517–25

Multiple abnormalities of the p16INK4a-pRb regulatory pathway in cultured melanoma cells. Rizos H, et al. **Melanoma Res** 1999 Feb;9(1):10–9

Loss of retinoblastoma protein expression in laryngeal squamous cell carcinoma. Mizokami H, et al. **Mod Pathol** 1999 Jan;12(1):47–53

Differential regulation of p21 by p53 and Rb in cellular response to oxidative stress. Yin Y, et al. **Mol Carcinog** 1999 Jan;24(1):15–24

Sodium butyrate induces retinoblastoma protein dephosphorylation, p16 expression and growth arrest of colon cancer cells. Schwartz B, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):21–30

Retinoblastoma protein contains a C-terminal motif that targets it for phosphorylation by cyclin-cdk complexes. Adams PD, et al. **Mol Cell Biol** 1999 Feb;19(2):1068–80

Elevated cyclin E levels, inactive retinoblastoma protein, and suppression of the p27(K1P1) inhibitor characterize early development of promyeloid cells into macrophages. Liu Q, et al. **Mol Cell Biol** 1999 Sep;19(9):6229–39

Modulation of cell proliferation by cytokeratins K10 and K16. Paramio JM, et al. **Mol Cell Biol** 1999 Apr; 19(4):3086–94

Rb inhibits the intrinsic kinase activity of TATA-binding protein-associated factor TAFII250. Siegert JL, et al. **Mol Cell Biol** 1999 Jan;19(1):846–54

Raf-1 physically interacts with Rb and regulates its function: a link between mitogenic signaling and cell cycle regulation. Wang S, et al. **Mol Cell Biol** 1998 Dec; 18(12):7487–98

Functions of cyclin A1 in the cell cycle and its interactions with transcription factor E2F-1 and the Rb family of proteins. Yang R, et al. **Mol Cell Biol** 1999 Mar; 19(3):2400–7

Estrogen-induced rat pituitary tumor is associated with loss of retinoblastoma susceptibility gene product. Chun TY, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):87–92

C-terminal region of human somatostatin receptor 5 is required for induction of Rb and G1 cell cycle arrest. Sharma K, et al. **Mol Endocrinol** 1999 Jan;13(1):82–90

Alterations of p16-pRb pathway and chromosome locus 9p21–22 in sporadic invasive breast carcinomas. Gorgoulis VG, et al. **Mol Med** 1998 Dec;4(12):807–22

The cloning of plant E2F, a retinoblastoma-binding protein, reveals unique and conserved features with animal G(1)/S regulators. Ramirez-Parra E, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3527–33

Identification of AP-2 as an interactive target of Rb and a regulator of the G1/S control element of the hamster histone H3.2 promoter. Wu F, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4837–45

Transcriptional repression of the E2F-1 gene by interferon-alpha is mediated through induction of E2F-4/pRB and E2F-4/p130 complexes. Furukawa Y, et al. **Oncogene** 1999 Mar 18;18(11):2003–14

Activation and repression of p21(WAF1/CIP1) transcription by RB binding proteins. Gartel AL, et al. **Oncogene** 1998 Dec 31;17(26):3463–9

Posttranslational regulation of the retinoblastoma gene family member p107 by calpain protease. Jang JS, et al. **Oncogene** 1999 Mar 11;18(10):1789–96

Hypoxia-induced pRB hypophosphorylation results from downregulation of CDK and upregulation of PP1 activities. Krtolica A, et al. **Oncogene** 1998 Nov 5;17(18):2295–304

RBP1 induces growth arrest by repression of E2F-dependent transcription. Lai A, et al. **Oncogene** 1999 Mar 25; 18(12):2091–100

Cyclin D1 amplification is independent of p16 inactivation in head and neck squamous cell carcinoma. Okami K, et al. **Oncogene** 1999 Jun 10;18(23):3541–5

pRB is required for interferon-gamma-induction of the MHC class II abeta gene. Zhu X, et al. **Oncogene** 1999 Sep 2; 18(35):4940–7

Immunohistochemical overexpression of p16 protein associated with intact retinoblastoma protein expression in cervical cancer and cervical intraepithelial neoplasia. Sano T, et al. **Pathol Int** 1998 Aug;48(8):580–5

The role of pRb2/p130 protein in diagnosing lung carcinoma on fine needle aspiration biopsies. Minimo C, et al. **Pathol Res Pract** 1999;195(2):67–70

In childhood acute lymphoblastic leukemia the hypophosphorylated retinoblastoma protein, p110RB, is diminished, as compared with normal CD34+ peripheral blood progenitor cells. Leibundgut K, et al. **Pediatr Res** 1999 May;45(5 Pt 1):692–6

Tobacco retinoblastoma-related protein phosphorylated by a distinct cyclin-dependent kinase complex with Cdc2/cyclin D in vitro. Nakagami H, et al. **Plant J** 1999 May;18(3):243–52

Functional interaction between human topoisomerase IIalpha and retinoblastoma protein. Bhat UG, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7859–64

Inhibition of cyclin-dependent kinase 2 by p21 is necessary for retinoblastoma protein-mediated G1 arrest after gamma-irradiation. Brugarolas J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1002–7

A mechanism for Rb/p130-mediated transcription repression involving recruitment of the CtBP corepressor. Meloni AR, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9574–9

p27 and Rb are on overlapping pathways suppressing tumorigenesis in mice. Park MS, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6382–7

Inhibition of caspase activity does not prevent the signaling phase of apoptosis in prostate cancer cells. Denmeade SR, et al. **Prostate** 1999 Jun 1;39(4):269–79

Bean yellow dwarf virus RepA, but not rep, binds to maize retinoblastoma protein, and the virus tolerates mutations in the consensus binding motif. Liu L, et al. **Virology** 1999 Apr 10;256(2):270–9

Adenovirus E4 open reading frame 4-induced dephosphorylation inhibits E1A activation of the E2 promoter and E2F-1-mediated transactivation independently of the retinoblastoma tumor suppressor protein. Mannervik M, et al. **Virology** 1999 Apr 10; 256(2):313–21

Two domains within the adenovirus type 12 E1A unique spacer have disparate effects on the interaction of E1A with P105-Rb and the transformation of primary mouse cells. Rumpf H, et al. **Virology** 1999 Apr 25;257(1):45–53

[Function of the p53-pRb-dependent path after exposure to DNA damaging agents in rats embryonal fibroblast cells, transformed by E1A and Ha-Ras oncogenes] Bulavin DV, et al. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):703–11 **(Rus)**

PHARMACOLOGY

Differential induction of the androgen receptor transcriptional activity by selective androgen receptor coactivators. Yeh S, et al. **Keio J Med** 1999 Jun;48(2):87–92 (40 ref.)

PHYSIOLOGY

Stable transfection of retinoblastoma gene promotes contact inhibition of cell growth and hepatocyte nuclear factor-1-mediated transcription in human hepatoma cells. Awazu S, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):269–73

The cell cycle-regulating transcription factors E2F-RB. Brehm A, et al. **Br J Cancer** 1999 Jul;80 Suppl 1:38-41 (26 ref.)
Loss of functional pRB is not a ubiquitous feature of B-cell malignancies. Sinclair AJ, et al. **Br J Cancer** 1999 May; 80(5-6):670-5
Cytotoxic T lymphocytes that recognize decameric peptide sequences of retinoblastoma binding protein 1 (RBP-1) associated with human breast cancer. Takahashi T, et al. **Br J Cancer** 1999 Sep;81(2):342-9
Cooperative alterations of Rb pathway regulators in mouse primary T cell lymphomas. Pérez de Castro IP, et al. **Carcinogenesis** 1999 Sep;20(9):1675-82
Active transcriptional repression by the Rb-E2F complex mediates G1 arrest triggered by p16INK4a, TGFbeta, and contact inhibition. Zhang HS, et al. **Cell** 1999 Apr 2; 97(1):53-61
pRb and the cdks in apoptosis and the cell cycle. Kasten MM, et al. **Cell Death Differ** 1998 Feb;5(2):132-40 (84 ref.)
Negative control elements of the cell cycle in human tumors. Adams PD, et al. **Curr Opin Cell Biol** 1998 Dec;10(6):791-7 (66 ref.)
Strain-dependent embryonic lethality in mice lacking the retinoblastoma-related p130 gene. LeCouter JE, et al. **Development** 1998 Dec;125(23):4669-79
Dissecting functions of the retinoblastoma tumor suppressor and the related pocket proteins by integrating genetic, cell biology, and electrophoretic techniques. Hansen K, et al. **Electrophoresis** 1999 Feb;20(2):372-81
Protein phosphatase type 1, the product of the retinoblastoma susceptibility gene, and cell cycle control. Rubin E, et al. **Front Biosci** 1998 Dec 1;3:D1209-19 (90 ref.)
New perspectives on retinoblastoma family functions in differentiation. Yee AS, et al. **Front Biosci** 1998 Jun 8; 3:D532-47 (100 ref.)
At the crossroad of tumorigenesis: drivers and hitchhikers [editorial; comment] Cordon-Cardo C. **Hum Pathol** 1999 Sep;30(9):1001-3. Comment on: Hum Pathol 1999 Sep;30(9):1013-8. Comment on: Hum Pathol 1999 Sep;30(9):1071-6. Comment on: Hum Pathol 1999 Sep;30(9):1087-92.
Activation of RB tumor suppressor protein and growth suppression of small cell lung carcinoma cells by reintroduction of p16INK4A gene. Sumitomo K, et al. **Int J Oncol** 1999 Jun;14(6):1075-80
TGFbeta-induced growth inhibition involves cell cycle inhibitor p21 and pRb independent from p15 expression. Voss M, et al. **Int J Oncol** 1999 Jan;14(1):93-101
E-cadherin mediates aggregation-dependent survival of prostate and mammary epithelial cells through the retinoblastoma cell cycle control pathway. Day ML, et al. **J Biol Chem** 1999 Apr 2;274(14):9656-64
The RB family of cell cycle regulatory factors. Stiegler P, et al. **J Cell Biochem Suppl** 1998;30-31:30-6 (33 ref.)
The retinoblastoma protein alters the phosphorylation state of polyomavirus large T antigen in murine cell extracts and inhibits polyomavirus origin DNA replication. Reynisdóttir I, et al. **J Virol** 1999 Apr;73(4):3004-13
RB regulates the stability and the apoptotic function of p53 via MDM2. Hsieh JK, et al. **Mol Cell** 1999 Feb;3(2):181-93
Mechanism of transcriptional repression of E2F by the retinoblastoma tumor suppressor protein. Ross JF, et al. **Mol Cell** 1999 Feb;3(2):195-205
Sp1-mediated transcription of the Werner helicase gene is modulated by Rb and p53. Yamabe Y, et al. **Mol Cell Biol** 1998 Nov;18(11):6191-200
Turning off RB for a healthy heart? [news] Fricker J. **Mol Med Today** 1999 Feb;5(2):50-1
Both Rb/p16INK4a inactivation and telomerase activity are required to immortalize human epithelial cells [see comments] Kiyono T, et al. **Nature** 1998 Nov 5; 396(6706):84-8. Comment in: Nature 1998 Nov 5;396(6706):23-4.
pRB phosphorylation mutants reveal role of pRB in regulating S phase completion by a mechanism independent of E2F. Chew YP, et al. **Oncogene** 1998 Oct 29; 17(17):2177-86
Role of the retinoblastoma protein family, pRB, p107 and p130 in the negative control of cell growth. Graña X, et al. **Oncogene** 1998 Dec 24;17(25):3365-83 (193 ref.)
The presence of the Rb c-box peptide in the cytoplasm inhibits p210bcr-abl transforming function. Guo XY, et al. **Oncogene** 1999 Feb 25;18(8):1589-95
The retinoblastoma tumor suppressor inhibits cellular proliferation through two distinct mechanisms: inhibition of cell cycle progression and induction of cell death. Knudsen KE, et al. **Oncogene** 1999 Sep 16;18(37):5239-45
Expression and role of PML gene in normal adult hematopoiesis: functional interaction between PML and Rb proteins in erythropoiesis. Labbaye C, et al. **Oncogene** 1999 Jun 10;18(23):3529-40
p16INK4a, but not constitutively active pRb, can impose a sustained G1 arrest: molecular mechanisms and implications for oncogenesis. Lukas J, et al. **Oncogene** 1999 Jul 8;18(27):3930-5
Anchorage-dependent expression of cyclin A in primary cells requires a negative DNA regulatory element and a functional Rb. Philips A, et al. **Oncogene** 1999 Mar 11; 18(10):1819-25
Role of caspases and possible involvement of retinoblastoma protein during TGFbeta-mediated apoptosis of human B lymphocytes. Schrantz N, et al. **Oncogene** 1999 Jun 10; 18(23):3511-9
Prohibitin, a potential tumor suppressor, interacts with RB and regulates E2F function. Wang S, et al. **Oncogene** 1999 Jun 10;18(23):3501-10
Functional domains in cyclin D1: pRb-kinase activity is not essential for transformation. Zwicker J, et al. **Oncogene** 1999 Jan 7;18(1):19-25
Big brothers are watching: the retinoblastoma family and growth control. Stiegler P, et al. **Prog Mol Subcell Biol** 1998;20:25-42 (107 ref.)
Retinoblastoma protein meets chromatin. Brehm A, et al. **Trends Biochem Sci** 1999 Apr;24(4):142-5 (49 ref.)

RADIATION EFFECTS

Decreased retinoblastoma protein expression in gamma-irradiated mouse ovarian follicles. Lee CJ, et al. **In Vivo** 1999 May-Jun;13(3):263-6

RETINOIC ACID see **TRETINOIN**

13-CIS-RETINOIC ACID see **ISOTRETINOIN**

RETINOIC ACID-BINDING PROTEINS see **RECEPTORS, RETINOIC ACID**

RETINOIC ACID RECEPTORS see **RECEPTORS, RETINOIC ACID**

RETINOIDS

Role of retinoids in renal development: pathophysiological implication. Merlet-Bénichou C, et al. **Curr Opin Nephrol Hypertens** 1999 Jan;8(1):39-43 (41 ref.)
What are natural retinoids? Vahlquist A. **Dermatology** 1999; 199 Suppl 1:3-11 (84 ref.)
Retinoids and adipose tissues: metabolism, cell differentiation and gene expression. Villarroya F, et al. **Int J Obes Relat Metab Disord** 1999 Jan;23(1):1-6 (47 ref.)
Central hypothyroidism associated with retinoid X receptor-selective ligands. Sherman SI, et al. **N Engl J Med** 1999 Apr 8;340(14):1075-9
'Retinoids 97': the meeting of the European retinoid research group (ERRG) 1997. Roos T. **Skin Pharmacol Appl Skin Physiol** 1998 May-Jun; 11(3):166-9

ADMINISTRATION & DOSAGE

A new topical retinoid--why a new topical acne therapy? Cunliffe WJ. **Br J Dermatol** 1998 Oct;139 Suppl 52:1-2
Management of Darier's disease. Burge S. **Clin Exp Dermatol** 1999 Mar;24(2):53-6 (25 ref.)
Current research and future developments in retinoids: oral and topical agents. Chandraratna RA. **Cutis** 1998 Feb;61(2 Suppl):40-5 (19 ref.)
Tazarotene gel is safe and effective in the treatment of acne vulgaris: a multicenter, double-blind, vehicle-controlled study. Shalita AR, et al. **Cutis** 1999 Jun;63(6):349-54

ADVERSE EFFECTS

Retinoid-induced hypercalcemia in a patient with kaposi sarcoma associated with acquired immunodeficiency syndrome. Aboulafia DM, et al. **Am J Clin Oncol** 1998 Oct;21(5):513-7
Phase I and pharmacologic study of the arotinoid Ro 40-8757 in combination with cisplatin and etoposide in patients with non-small cell lung cancer. van Zuylen L, et al. **Anticancer Drugs** 1999 Apr;10(4):361-8
Central hypothyroidism associated with retinoid X receptor-selective ligands. Sherman SI, et al. **N Engl J Med** 1999 Apr 8;340(14):1075-9

ANALYSIS

Quantitative determination of endogenous retinoids in mouse embryos by high-performance liquid chromatography with on-line solid-phase extraction, column switching and electrochemical detection. Sakhi AK, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):451-60
Retinoids in nonmammalian embryos. Maden M. **Methods Mol Biol** 1999;97:491-509 (41 ref.)
Properties of retinoids. Structure, handling, and preparation. Barua AB, et al. **Mol Biotechnol** 1998 Oct;10(2):167-82 (46 ref.)

ANTAGONISTS & INHIBITORS

Apoptosis induction and potent antiestrogen receptor-negative breast cancer activity in vivo by a retinoid antagonist. Fanjul AN, et al. **Cancer Res** 1998 Oct 15;58(20):4607-10
Dicarba-closo-dodecaboranes as a pharmacophore. Novel potent retinoidal agonists. Endo Y, et al. **Chem Pharm Bull (Tokyo)** 1999 Apr;47(4):585-7
Mechanism of inhibition of aldehyde dehydrogenase by citral, a retinoid antagonist. Kikonyogo A, et al. **Eur J Biochem** 1999 Jun;262(3):704-12

BLOOD

The status of retinoids in women suffering from hyper- and hypothyroidism: interrelationship between vitamin A, beta-carotene and thyroid hormones. Goswami UC, et al. **Int J Vitam Nutr Res** 1999 Mar;69(2):132-5
Determination of 13-cis-3-hydroxyretinoic acid, all-trans-3-hydroxyretinoic acid and their 4-oxo metabolites in human and animal plasma by high-performance liquid chromatography with automated column switching and UV detection. Wyss R, et al. **J Pharm Biomed Anal** 1998 Dec;18(4-5):761-76
On-line solid-phase extraction and isocratic separation of retinoic acid isomers in microbore column switching system. Gundersen TE, et al. **Methods Enzymol** 1999; 299:430-41
Plasma retinoid levels in head and neck cancer patients: a comparison with healthy controls and the effect of retinyl palmitate treatment. Copper MP, et al. **Oral Oncol** 1999 Jan;35(1):40-4

CHEMICAL SYNTHESIS

Molecular docking studies on interaction of diverse retinol structures with human alcohol dehydrogenases predict a broad role in retinoid ligand synthesis. Foglio MH, et al. **Biochim Biophys Acta** 1999 Jul 13;1432(2):239-50
A new class of RAR subtype selective retinoids: correlation of pharmacological effects with receptor activity. Vuligonda V, et al. **Bioorg Med Chem** 1999 Feb;7(2):263-70
Stereoselective synthesis and receptor activity of conformationally defined retinoid X receptor selective ligands. Vuligonda V, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):589-94
A new class of potent RAR antagonists: dihydroanthracenyl, benzochromenyl and benzothiochromenyl retinoids. Vuligonda V, et al. **Bioorg Med Chem Lett** 1999 Mar 8; 9(5):743-8
Structural basis for engineering of retinoic acid receptor isotype-selective agonists and antagonists. Géhin M, et al. **Chem Biol** 1999 Aug;6(8):519-29
Dicarba-closo-dodecaboranes as a pharmacophore. Retinoidal antagonists and potential agonists. Iijima T, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):398-404
Synthesis, structure-activity relationships, and RARgamma-ligand interactions of nitrogen heteroarotinoids. Dhar A, et al. **J Med Chem** 1999 Sep 9;42(18):3602-14

CHEMISTRY

The angles between the C(1)-, C(5)-, and C(9)-methyl bonds of the retinylidene chromophore and the membrane normal increase in the M intermediate of bacteriorhodopsin: direct determination with solid-state (2)H NMR. Moltke S, et al. **Biochemistry** 1999 Sep 7;38(36):11762-72
Retinylidene ligand structure in bovine rhodopsin, metarhodopsin-I, and 10-methylrhodopsin from internuclear distance measurements using 13C-labeling and 1-D rotational resonance MAS NMR. Verdegem PJ, et al. **Biochemistry** 1999 Aug 31;38(35):11316-24
Considerations for in vitro retinoid experiments: importance of protein interaction. Klaassen I, et al. **Biochim Biophys Acta** 1999 Apr 19;1427(2):265-75
Current research and future developments in retinoids: oral and topical agents. Chandraratna RA. **Cutis** 1998 Feb;61(2 Suppl):40-5 (19 ref.)
Properties of retinoids. Structure, handling, and preparation. Barua AB, et al. **Mol Biotechnol** 1998 Oct;10(2):167-82 (46 ref.)
NMR studies of retinoid-protein interactions: the conformation of [13C]-beta-ionones bound to beta-lactoglobulin B. Curley RW Jr, et al. **Pharm Res** 1999 May;16(5):651-9

CLASSIFICATION

A new class of RAR subtype selective retinoids: correlation of pharmacological effects with receptor activity. Vuligonda V, et al. **Bioorg Med Chem** 1999 Feb;7(2):263-70

ISOLATION & PURIFICATION

Isolation and one-step preparation of A2E and iso-A2E, fluorophores from human retinal pigment epithelium. Parish CA, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14609-13

METABOLISM

The role of retinoid metabolism by alcohol and aldehyde dehydrogenases in differentiation of cultured neuronal cells. Blythe TJ, et al. **Adv Exp Med Biol** 1999;463:199-204
Function of alcohol dehydrogenase and aldehyde dehydrogenase gene families in retinoid signaling. Duester G. **Adv Exp Med Biol** 1999;463:311-9 (53 ref.)
The vitamin A metabolism and expression of retinoid-binding proteins differ in HaCaT cells and normal human keratinocytes. Törmä H, et al. **Arch Dermatol Res** 1999 Jun;291(6):339-45
Activity of human 11-cis-retinol dehydrogenase (Rdh5) with steroids and retinoids and expression of its mRNA in extra-ocular human tissue. Wang J, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):23-7
Retinylidene ligand structure in bovine rhodopsin, metarhodopsin-I, and 10-methylrhodopsin from internuclear distance measurements using 13C-labeling and 1-D rotational resonance MAS NMR. Verdegem PJ, et al. **Biochemistry** 1999 Aug 31;38(35):11316-24
A sonic hedgehog-independent, retinoid-activated pathway of neurogenesis in the ventral spinal cord. Pierani A, et

al. **Cell** 1999 Jun 25;97(7):903–15
Topical natural retinoids. The 'proligand–non–ligand' concept. Saurat JH, et al. **Dermatology** 1999;199 Suppl 1:1–2
A molecular basis for retinoic acid–induced axial truncation. Iulianella A, et al. **Dev Biol** 1999 Jan 1;205(1):33–48
Retinoid signaling required for normal heart development regulates GATA–4 in a pathway distinct from cardiomyocyte differentiation. Kostetskii I, et al. **Dev Biol** 1999 Feb 15;206(2):206–18
Retinoid signaling is required for chondrocyte maturation and endochondral bone formation during limb skeletogenesis. Koyama E, et al. **Dev Biol** 1999 Apr 15; 208(2):375–91
Stromal cells mediate retinoid–dependent functions essential for renal development. Mendelsohn C, et al. **Development** 1999 Mar;126(6):1139–48
Retinoids are produced by glia in the lateral ganglionic eminence and regulate striatal neuron differentiation. Toresson H, et al. **Development** 1999 Mar;126(6):1317–26
Metabolism of retinaldehyde isomers in pregnant rats: 13–cis– and all–trans–retinaldehyde, but not 9–cis–retinaldehyde, yield very similar patterns of retinoid metabolites. Sass JO, et al. **Drug Metab Dispos** 1999 Mar;27(3):317–21
Expression of retinoic acid receptor and retinoid X receptor subtypes in rat liver cells: implications for retinoid signalling in parenchymal, endothelial, Kupffer and stellate cells. Ulven SM, et al. **Eur J Cell Biol** 1998 Oct;77(2):111–6
Embryonal carcinoma cell lines stably transfected with mRARbeta2–lacZ: sensitive system for measuring levels of active retinoids. Sonneveld E, et al. **Exp Cell Res** 1999 Aug 1;250(2):284–97
Maintenance of retinoid metabolism in human retinal pigment epithelium cell culture. von Recum HA, et al. **Exp Eye Res** 1999 Jul;69(1):97–107
Fra–1: a novel target for retinoid action. Kaiser A, et al. **FEBS Lett** 1999 Apr 1;448(1):45–8
Identification of newt connective tissue growth factor as a target of retinoid regulation in limb blastemal cells. Cash DE, et al. **Gene** 1998 Nov 5;222(1):119–24
Vitamin D and retinoids in parathyroid glands (review). Hellman P, et al. **Int J Mol Med** 1999 Apr;3(4):355–61 (79 ref.)
The role of carotenoids and retinoids in gap junctional communication. Stahl W, et al. **Int J Vitam Nutr Res** 1998; 68(6):354–9 (39 ref.)
Retinoid kinetics in eye tissues of VPP transgenic mice and their normal littermates. Qtaishat NM, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1040–9
Differential mechanisms of retinoid transfer from cellular retinol binding proteins types I and II to phospholipid membranes. Herr FM, et al. **J Biol Chem** 1999 Apr 2; 274(14):9556–63
Retinoid isomers differ in the ability to induce release of SMRT corepressor from retinoic acid receptor–alpha. Hong SH, et al. **J Biol Chem** 1999 Jan 29;274(5):2885–92
Retinoid–dependent recruitment of a histone H1 displacement activity by retinoic acid receptor. Nagpal S, et al. **J Biol Chem** 1999 Aug 6;274(32):22563–8
Abnormal anteroposterior and dorsoventral patterning of the limb bud in the absence of retinoids. Stratford T, et al. **Mech Dev** 1999 Mar;81(1–2):115–25
Retinoids and their receptors in skeletal development. Underhill TM, et al. **Microsc Res Tech** 1998 Oct 15; 43(2):137–55 (239 ref.)
Allosteric regulation of the discriminative responsiveness of retinoic acid receptor to natural and synthetic ligands by retinoid X receptor and DNA. Mouchon A, et al. **Mol Cell Biol** 1999 Apr;19(4):3073–85
Structure–function relationships in the four repeats of human interphotoreceptor retinoid–binding protein (IRBP). Nickerson JM, et al. **Mol Vis** 1998 Dec 31;4:33
NMR studies of retinoid–protein interactions: the conformation of [13C]–beta–ionones bound to beta–lactoglobulin B. Curley RW Jr, et al. **Pharm Res** 1999 May;16(5):651–9
Metabolism to a response pathway selective retinoid ligand during axial pattern formation. Pijnappel WW, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15424–9
The role of retinoids in developmental mechanisms in embryos. Maden M. **Subcell Biochem** 1998;30:81–111 (138 ref.)
Structure and function of retinoid–binding proteins. Newcomer ME, et al. **Subcell Biochem** 1998;30:53–80 (62 ref.)
Retinoid endocrinology from metabolism to cellular signaling. Vieira AV. **Subcell Biochem** 1998;30:29–51 (148 ref.)
The bioconversion of beta–carotene into retinoids. Wang XD, et al. **Subcell Biochem** 1998;30:159–80 (55 ref.)
Retinoids as endogenous components of the regenerating limb and tail. Maden M. **Wound Repair Regen** 1998 Jul–Aug; 6(4):358–65 (53 ref.)

PHARMACOKINETICS

An improved low–permeability in vitro–model of the blood–brain barrier: transport studies on retinoids, sucrose, haloperidol, caffeine and mannitol. Franke H, et al. **Brain Res** 1999 Feb 6;818(1):65–71
Future trends: a new generation of retinoids. Chandraratna RA. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 2):S149–52 (11 ref.)
[Synthetic peptide as retinoid vector and antiproliferative agent] Pellegrin P, et al. **C R Seances Soc Biol Fil** 1998; 192(2):297–309 (Eng. Abstr.) **(Fre)**

PHARMACOLOGY

Retinoid–mediated suppression of tumor invasion and matrix metalloproteinase synthesis. Schoenermark MP, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:466–86
1,25–Dihydroxyvitamin D(3) and 9–cis–retinoids are synergistic regulators of 24–hydroxylase activity in the rat and 1, 25–dihydroxyvitamin D(3) alters retinoic acid metabolism in vivo. Reinhardt TA, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):244–8
Optimization of treatment conditions for studying the anticancer effects of retinoids using pancreatic adenocarcinoma as a model. El–Metwally TH, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):596–603
Retinoic acid receptor alpha mediates growth inhibition by retinoids in human colon carcinoma HT29 cells. Nicke B, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):572–7
Expression of c–erbB–4/HER4 is regulated in T47D breast carcinoma cells by retinoids and vitamin D3. Offterdinger M, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):559–64
Retinoids control the expression of c–erbB receptors in breast cancer cells. Offterdinger M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):907–13
Greater synergism of retinoic acid receptor (RAR) agonists with vitamin D3 than that of retinoid X receptor (RXR) agonists with regard to growth inhibition and differentiation induction in monoblastic leukemia cells. Makishima M, et al. **Biochem Pharmacol** 1999 Mar 1; 57(5):521–9
Inhibition of apolipoprotein(a) synthesis in cynomolgus monkey hepatocytes by retinoids via involvement of the retinoic acid receptor. Neele DM, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):263–71
Mitochondrial permeability transition and release of cytochrome c induced by retinoic acids. Rigobello MP, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):665–70
The novel synthetic retinoid 6–[3–adamantyl–4–hydroxyphenyl]–2–naphthalene carboxylic acid (CD437) causes apoptosis in acute promyelocytic leukemia cells through rapid activation of caspases. Mologni L, et al. **Blood** 1999 Feb 1;93(3):1045–61
Effects of novel RAR– and RXR–selective retinoids on myeloid leukemic proliferation and differentiation in vitro. Shiohara M, et al. **Blood** 1999 Mar 15;93(6):2057–66
Retinoic acid receptor alpha mediates growth inhibition by retinoids in rat pancreatic carcinoma DSL–6A/C1 cells. Brembeck FH, et al. **Br J Cancer** 1998 Nov;78(10):1288–95
Inhibition of proliferation and induction of apoptosis in soft tissue sarcoma cells by interferon–alpha and retinoids. Brodowicz T, et al. **Br J Cancer** 1999 Jul;80(9):1350–8
Synergistic inhibition of prostate cancer cell lines by a 19–nor hexafluoride vitamin D3 analogue and anti–activator protein 1 retinoid. Campbell MJ, et al. **Br J Cancer** 1999 Jan;79(1):101–7
Growth inhibition of human in vitro and mouse in vitro and in vivo mammary tumor models by retinoids in comparison with tamoxifen and the RU–486 anti–progestagen. Darro F, et al. **Breast Cancer Res Treat** 1998 Sep;51(1):39–55
The RARgamma selective agonist CD437 inhibits gastric cell growth through the mechanism of apoptosis. Jiang SY, et al. **Cancer Lett** 1999 Apr 1;137(2):217–25
Apoptosis induction and potent antiestrogen receptor–negative breast cancer activity in vivo by a retinoid antagonist. Fanjul AN, et al. **Cancer Res** 1998 Oct 15;58(20):4607–10
ET–1 expression and growth inhibition of prostate cancer cells: a retinoid target with novel specificity. Hsu JY, et al. **Cancer Res** 1998 Nov 1;58(21):4817–22
Implication of p53 in growth arrest and apoptosis induced by the synthetic retinoid CD437 in human lung cancer cells. Sun SY, et al. **Cancer Res** 1999 Jun 15;59(12):2829–33
Overexpression of retinoic acid receptor beta in head and neck squamous cell carcinoma cells increases their sensitivity to retinoid–induced suppression of squamous differentiation by retinoids. Wan H, et al. **Cancer Res** 1999 Jul 15;59(14):3518–26
Induction of apoptosis by the novel retinoid AHPN in human T–cell lymphoma cells involves caspase–dependent and independent pathways. Adachi H, et al. **Cell Death Differ** 1998 Nov;5(11):973–83
Structural basis for engineering of retinoic acid receptor isotype–selective agonists and antagonists. Gehin M, et al. **Chem Biol** 1999 Aug;6(8):519–29
Differential responses of normal, premalignant, and malignant human bronchial epithelial cells to receptor–selective retinoids. Sun SY, et al. **Clin Cancer Res** 1999 Feb; 5(2):431–7
Inhibitory effects of retinoids on vascular endothelial growth factor production by cultured human skin keratinocytes. Lachgar S, et al. **Dermatology** 1999;199 Suppl 1:25–7
Initial retinoid requirement for early avian development coincides with retinoid receptor coexpression in the precardiac fields and induction of normal cardiovascular development. Kostetskii I, et al. **Dev Dyn** 1998 Oct; 213(2):188–98
Action of retinoids on embryonic and early postnatal testis development. Cupp AS, et al. **Endocrinology** 1999 May; 140(5):2343–52
Activation of the p38 and JNK/SAPK mitogen–activated protein kinase pathways during apoptosis is mediated by a novel retinoid. Zhang Y, et al. **Exp Cell Res** 1999 Feb 25;247(1):233–40
Leukemia cell differentiation: cellular and molecular interactions of retinoids and vitamin D. James SY, et al. **Gen Pharmacol** 1999 Jan;32(1):143–54 (174 ref.)
Induction of retinoic acid receptor beta mediates growth inhibition in retinoid resistant human colon carcinoma cells. Nicke B, et al. **Gut** 1999 Jul;45(1):51–7
Positive and negative interaction of 1,25–dihydroxyvitamin D3 and the retinoid CD437 in the induction of human melanoma cell apoptosis. Danielsson C, et al. **Int J Cancer** 1999 May 5;81(3):467–70
Anti–proliferative effect of retinoids and interferon–alpha–2a on vaginal cell lines derived from squamous intra–epithelial lesions. Hietanen S, et al. **Int J Cancer** 1998 Oct 29; 78(3):338–45
Inhibition of lysosomal degradative functions in RPE cells by a retinoid component of lipofuscin. Holz FG, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):737–43
Retinoids and psoriasis: novel issues in retinoid pharmacology and implications for psoriasis treatment. Saurat JH. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 2):S2–6 (20 ref.)
Regulation of AML2/CBFA3 in hematopoietic cells through the retinoic acid receptor alpha–dependent signaling pathway. Le XF, et al. **J Biol Chem** 1999 Jul 30; 274(31):21651–8
Identification of a novel class of retinoic acid receptor beta–selective retinoid antagonists and their inhibitory effects on AP–1 activity and retinoic acid–induced apoptosis in human breast cancer cells. Li Y, et al. **J Biol Chem** 1999 May 28;274(22):15360–6
Retinoids inhibit interleukin–12 production in macrophages through physical associations of retinoid X receptor and NFkappaB. Na SY, et al. **J Biol Chem** 1999 Mar 19; 274(12):7674–80
Retinoids synergize with interleukin–2 to augment IFN–gamma and interleukin–12 production by human peripheral blood mononuclear cells. Fox FE, et al. **J Interferon Cytokine Res** 1999 Apr;19(4):407–15
Keratinocyte–specific retinoid regulation of human cellular retinoic acid binding protein–II (hCRABPII) gene promoter requires an evolutionarily conserved DR1 retinoic acid–responsive element. Di W, et al. **J Invest Dermatol** 1998 Dec;111(6):1109–15
Retinoids downregulate vascular endothelial growth factor/vascular permeability factor production by normal human keratinocytes. Weninger W, et al. **J Invest Dermatol** 1998 Nov;111(5):907–11
Cyclin D1 proteolysis: a retinoid chemoprevention signal in normal, immortalized, and transformed human bronchial epithelial cells. Boyle JO, et al. **J Natl Cancer Inst** 1999 Feb 17;91(4):373–9
Apoptosis induction of POS canine osteosarcoma cells by vitamin D and retinoids. Barroga EF, et al. **J Vet Med Sci** 1998 Nov;60(11):1269–72
Retinoid–mediated signaling pathways in CD38 antigen expression in myeloid leukemia cells. Mehta K, et al. **Leuk Lymphoma** 1999 Feb;32(5–6):441–9 (65 ref.)
In acute promyelocytic leukemia NB4 cells, the synthetic retinoid CD437 induces contemporaneously apoptosis, a caspase–3–mediated degradation of PML/RARalpha protein and the PML retargeting on PML–nuclear bodies. Gianni M, et al. **Leukemia** 1999 May;13(5):739–49
Expression patterns of the JEM–1 gene in normal and tumor cells: ubiquity contrasting with a faint, but retinoid–induced, mRNA expression in promyelocytic NB4 cells. Tong JH, et al. **Leukemia** 1998 Nov;12(11):1733–40
Inhibition by retinoids of benzo(A)pyrene metabolism catalyzed by 3–methylcholanthrene–induced rat cytochrome P–450 1A1. Huang DY, et al. **Metabolism** 1999 Jun;48(6):689–92
Treatment of mice with retinoids in vivo and in vitro. Skeletal staining. Morriss–Kay GM. **Methods Mol Biol** 1999;97:33–9 (15 ref.)
Post–transcriptional regulation of MyD118 and GADD45 in human lung carcinoma cells during 6–[3–(1–adamantyl)–4–hydroxyphenyl]–2– naphthalene carboxylic acid–induced apoptosis. Sakaue M, et al. **Mol Pharmacol** 1999 Apr;55(4):668–76
Post–transcriptional regulation of the DNA damage–inducible gadd45 gene in human breast carcinoma cells exposed to a novel retinoid CD437. Rishi AK, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3111–9
Implication of c–Myc in apoptosis induced by the retinoid CD437 in human lung carcinoma cells. Sun SY, et al. **Oncogene** 1999 Jul 1;18(26):3894–901
Mechanisms of apoptosis induced by the synthetic retinoid CD437 in human non–small cell lung carcinoma cells. Sun SY, et al. **Oncogene** 1999 Apr 8;18(14):2357–65
Overexpression of bcl–2 or bcl–XL fails to inhibit apoptosis mediated by a novel retinoid. Fontana JA, et al. **Oncol Res** 1998;10(6):313–24
Effect of Am–80, a synthetic derivative of retinoid, on experimental arthritis in mice. Nagai H, et al. **Pharmacology** 1999 Feb;58(2):101–12
Identification and characterization of a retinoid–induced class II tumor suppressor/growth regulatory gene. DiSepio D, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14811–5
Metabolism to a response pathway selective retinoid ligand

during axial pattern formation. Pijnappel WW, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15424–9
Effects of vitamin D and retinoids on the differentiation and growth in vitro of canine osteosarcoma and its clonal cell lines. Barroga EF, et al. **Res Vet Sci** 1999 Jun;66(3):231–6
Anticoagulant effects of synthetic retinoids and activated vitamin D3. Koyama T, et al. **Semin Thromb Hemost** 1998; 24(3):217–26
Defense and repair mechanisms in the airway epithelium exposed to oxidative stress: effects of analogues of retinoic acid. Baeza-Squiban A, et al. **Toxicol Lett** 1998 Aug; 96–97:245–51
[Retinoids. A new drug group with many possible uses?] Otter K, et al. **Med Monatsschr Pharm** 1999 Jan;22(1):2–7 (15 ref.) **(Ger)**

RADIATION EFFECTS

Photophysical studies of A2-E, putative precursor of lipofuscin, in human retinal pigment epithelial cells. Cubeddu R, et al. **Photochem Photobiol** 1999 Aug; 70(2):172–5

THERAPEUTIC USE

Retinoids in pancreatic cancer. Riecken EO, et al. **Ann Oncol** 1999;10 Suppl 4:197–200 (35 ref.)
Chemopreventive activity of a C-glucuronide analog of N-(4-hydroxyphenyl) retinamide-O-glucuronide against mammary tumor development and growth. Abou-Issa HM, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):999–1004
Retinoids: present role and future potential. Evans TR, et al. **Br J Cancer** 1999 Apr;80(1–2):1–8 (120 ref.)
The emerging role of retinoids and retinoic acid metabolism blocking agents in the treatment of cancer. Miller WH Jr. **Cancer** 1998 Oct 15;83(8):1471–82 (146 ref.)
Growth-inhibitory effects of the synthetic retinoid CD437 against ovarian carcinoma models in vitro and in vivo. Langdon SP, et al. **Cancer Chemother Pharmacol** 1998; 42(5):429–32
Effects of protocatechuic acid, S-methylmethanethiosulfonate or 5-hydroxy-4-(2-phenyl-(E)ethenyl)-2(5H)-furanone (KYN-54) on 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone-induced pulmonary carcinogenesis in mice. Mori H, et al. **Cancer Lett** 1999 Jan 29;135(2):123–7
Retinoid chemoprevention of aerodigestive cancer: from basic research to the clinic. Ki Hong W, et al. **Clin Cancer Res** 1995 Jul;1(7):677–86 (64 ref.)
Dowling Oration delivered at the Royal College of Physicians, London, Friday 5 June 1998. Retinoids: renaissance and reformation. Griffiths CE. **Clin Exp Dermatol** 1999 Jul;24(4):329–35 (23 ref.)
Beta-interferon, retinoids and tamoxifen combination in advanced breast cancer. Recchia F, et al. **Clin Ter** 1998 May–Jun;149(3):203–8
Retinoids in the chemoprevention of bladder cancer. Sabichi AL, et al. **Curr Opin Oncol** 1998 Sep;10(5):479–84 (33 ref.)
Topical retinoids in the treatment of acne vulgaris. Bershad S, et al. **Cutis** 1999 Aug;64(2 Suppl):8–20; quiz 21–3 (33 ref.)
Acne therapy. White GM. **Dis Mon** 1999 Aug;45(8):301–30 (57 ref.)
Retinoids in chemoprevention. Whelan P. **Eur Urol** 1999; 35(5–6):424–8 (47 ref.)
Retinoids and vitamin D analogues: action on nuclear transcription. Griffiths CE. **Hosp Med** 1998 Jan;59(1):12–6
Retinoids and psoriasis: novel issues in retinoid pharmacology and implications for psoriasis treatment. Saurat JH. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 2):S2–6 (20 ref.)
CCAAT/enhancer binding protein epsilon is a potential retinoid target gene in acute promyelocytic leukemia treatment [see comments] Park DJ, et al. **J Clin Invest** 1999 May 15;103(10):1399–408. Comment in: J Clin Invest 1999 May 15;103(10):1367–8.
Anticoagulant effects of synthetic retinoids. Koyama T, et al. **Leuk Lymphoma** 1998 Sep;31(1–2):71–80
Cancer chemoprevention. Part 1: Retinoids and carotenoids and other classic antioxidants. Singh DK, et al. **Oncology (Huntingt)** 1998 Nov;12(11):1643–53, 1657–8; discussion 1659–60 (111 ref.)
Synthetic retinoid CD437 induces S-phase arrest and apoptosis in human prostate cancer cells LNCaP and PC-3. Liang JY, et al. **Prostate** 1999 Feb 15;38(3):228–36
Chemoprevention in head and neck cancer: basic science and clinical application. Geyer C, et al. **Semin Radiat Oncol** 1998 Oct;8(4):292–301 (60 ref.)
Retinoid therapy: compatible skin care. Appa Y. **Skin Pharmacol Appl Skin Physiol** 1999 May–Jun; 12(3):111–9
[Prevention of hepatic carcinogenesis by retinoids] Moriwaki H, et al. **Nippon Naika Gakkai Zasshi** 1999 Aug 10; 88(8):1548–53 (11 ref.) **(Jpn)**
[Control of thrombosis by retinoids and vitamin D3 derivatives] Koyama T, et al. **Rinsho Ketsueki** 1999 May; 40(5):378–81 (9 ref.) **(Jpn)**
[Acne vulgaris: local and systemic treatment] Kwiecień A, et al. **Pol Merkuriusz Lek** 1999 May;6(35):291–3 (29 ref.) (Eng. Abstr.) **(Pol)**

TOXICITY

Teratology of retinoids. Collins MD, et al. **Annu Rev Pharmacol Toxicol** 1999;39:399–430 (197 ref.)
Activity of 9-cis-retinoic acid and receptor-selective retinoids in small cell lung cancer cell lines. Rosati R, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4071–5
Retinoid teratogenicity in the macaque: verification of dosing regimen. Hendrickx AG, et al. **J Med Primatol** 1998 Dec; 27(6):310–8
Retinoid signaling in immortalized and carcinoma-derived human uroepithelial cells. Waliszewski P, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1–2):55–65
Multiple factors contribute to the toxicity of the aromatic retinoid TTNPB (Ro 13-7410): interactions with the retinoic acid receptors. Pignatello MA, et al. **Toxicol Appl Pharmacol** 1999 Sep 1;159(2):109–16

RETINOL see **VITAMIN A**

RETINOL-BINDING PROTEINS

ANALYSIS

CRBP I and CRABP I localisation during olfactory nerve development. Gustafson AL, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):121–6

BIOSYNTHESIS

Retinol-binding protein is produced by rabbit chondrocytes and responds to parathyroid hormone (PTH)/PTH-related peptide-cyclic adenosine monophosphate pathway. Kawashima-Ohya Y, et al. **Endocrinology** 1999 Mar; 140(3):1075–81
Retinoid binding proteins-expression patterns in the human placenta. Johansson S, et al. **Placenta** 1999 Jul–Aug; 20(5–6):459–65

CHEMISTRY

Crystallization and preliminary X-ray data for the human transthyretin-retinol-binding protein (RBP) complex bound to an anti-RBP Fab. Malpeli G, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):276–8
Structure of pig plasma retinol-binding protein at 1.65 A resolution. Zanotti G, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):1049–52
The structure of human retinol-binding protein (RBP) with its carrier protein transthyretin reveals an interaction with the carboxy terminus of RBP. Naylor HM, et al. **Biochemistry** 1999 Mar 2;38(9):2647–53
Release of retinol and denaturation of its plasma carrier, retinol-binding protein. Bychkova VE, et al. **Fold Des** 1998; 3(4):285–91
Functional concerted motions in the bovine serum retinol-binding protein. Chau PL, et al. **J Comput Aided Mol Des** 1999 Jan;13(1):11–20
The structure and dynamics of rat apo-cellular retinol-binding protein II in solution: comparison with the X-ray structure. Lu J, et al. **J Mol Biol** 1999 Mar 5; 286(4):1179–95
Structure and function of cytoplasmic retinoid binding proteins. Li E. **Mol Cell Biochem** 1999 Feb;192(1–2):105–8
Structure-function relationships in the four repeats of human interphotoreceptor retinoid-binding protein (IRBP). Nickerson JM, et al. **Mol Vis** 1998 Dec 31;4:33
Improved folding of apo-retinol-binding protein in the periplasm of Escherichia coli: positive influences of dsbC coexpression and of an amino acid exchange in the vitamin A binding site. Schmidt AM, et al. **Protein Eng** 1998 Jul; 11(7):601–7
Recombinant human retinol-binding protein refolding, native disulfide formation, and characterization. Xie Y, et al. **Protein Expr Purif** 1998 Oct;14(1):31–7
Dissection of multi-protein complexes using mass spectrometry: subunit interactions in transthyretin and retinol-binding protein complexes. Rostom AA, et al. **Proteins** 1998;Suppl 2:3–11
Structure and function of retinoid-binding proteins. Newcomer ME, et al. **Subcell Biochem** 1998;30:53–80 (62 ref.)

CLASSIFICATION

Novel classes of fatty acid and retinol binding protein from nematodes. McDermott L, et al. **Mol Cell Biochem** 1999 Feb;192(1–2):69–75 (41 ref.)

GENETICS

Biochemical but not clinical vitamin A deficiency results from mutations in the gene for retinol binding protein [see comments] Biesalski HK, et al. **Am J Clin Nutr** 1999 May; 69(5):931–6. Comment in: Am J Clin Nutr 1999 May;69(5):829–30.
Mutations in the gene encoding retinol binding protein and retinol deficiency: is there compensation by retinyl esters and retinoic acid? [editorial; comment] Ross AC. **Am J Clin Nutr** 1999 May;69(5):829–30. Comment on: Am J Clin Nutr 1999 May;69(5):931–6.
Transcriptional regulation of cellular retinol-binding protein, type II gene expression in small intestine by dietary fat. Suruga K, et al. **Arch Biochem Biophys** 1999 Feb 1; 362(1):159–66
Kinetics of visual pigment regeneration in excised mouse eyes and in mice with a targeted disruption of the gene encoding interphotoreceptor retinoid-binding protein or arrestin. Palczewski K, et al. **Biochemistry** 1999 Sep 14; 38(37):12012–9
Steroid regulation of retinol-binding protein in the ovine oviduct. Eberhardt DM, et al. **Biol Reprod** 1999 Mar; 60(3):714–20
Elements regulating the transcription of human interstitial retinoid-binding protein (IRBP) gene in cultured retinoblastoma cells. Fong SL, et al. **Curr Eye Res** 1999 Apr;18(4):283–91
Assignment of the cellular retinol-binding protein 2 gene (RBP2) to human chromosome band 3q23 by in situ hybridization. De Baere E, et al. **Cytogenet Cell Genet** 1998; 83(3–4):240–1
Assignment of the cellular retinol-binding protein 1 gene (RBP1) and of the coatomer beta subunit gene (COPB2) to human chromosome band 3q23 by in situ hybridization. De Baere E, et al. **Cytogenet Cell Genet** 1998;82(3–4):226–7
Regulation of cellular retinol-binding protein type II gene expression by arachidonic acid analogue and 9-cis retinoic acid in caco-2 cells. Suruga K, et al. **Eur J Biochem** 1999 May;262(1):70–8
Closing in on the BPES gene on 3q23: mapping of a de Novo reciprocal translocation t(3;4)(q23;p15.2) breakpoint within a 45-kb cosmid and mapping of three candidate genes, RBP1, RBP2, and beta'-COP, distal to the breakpoint. De Baere E, et al. **Genomics** 1999 Apr 1;57(1):70–8
Phenotype in retinol deficiency due to a hereditary defect in retinol binding protein synthesis. Seeliger MW, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):3–11
OTX2 homeodomain protein binds a DNA element necessary for interphotoreceptor retinoid binding protein gene expression. Bobola N, et al. **Mech Dev** 1999 Apr; 82(1–2):165–9
Retinol uptake and metabolism, and cellular retinol binding protein expression in an in vitro model of hepatic stellate cells. Vicente CP, et al. **Mol Cell Biochem** 1998 Oct; 187(1–2):11–21
Cellular Retinol Binding Protein 1 (RBP1): a frequent polymorphism, refined map position and exclusion as the Blepharophimosis Ptosis Epicanthus inversus Syndrome gene. Bisceglia L, et al. **Mol Cell Probes** 1998 Aug; 12(4):255–8
Gene expression of cellular retinoid-binding proteins: modulation by retinoic acid and dexamethasone in postnatal rat lung. Whitney D, et al. **Pediatr Res** 1999 Jan;45(1):2–7

IMMUNOLOGY

Crystallization and preliminary X-ray data for the human transthyretin-retinol-binding protein (RBP) complex bound to an anti-RBP Fab. Malpeli G, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):276–8
Epitope discovery using bacteriophage display: the minimum epitope of an anti-IRBP antibody. Tighe PJ, et al. **Exp Eye Res** 1999 Jun;68(6):679–84
Autoimmunity to a pathogenic retinal antigen begins as a balanced cytokine response that polarizes towards type 1 in a disease-susceptible and towards type 2 in a disease-resistant genotype. Sun B, et al. **Int Immunol** 1999 Aug;11(8):1307–12
Interleukin 12 protects from a T helper type 1-mediated autoimmune disease, experimental autoimmune uveitis, through a mechanism involving interferon gamma, nitric oxide, and apoptosis. Tarrant TK, et al. **J Exp Med** 1999 Jan 18;189(2):219–30
Cellular immune response to retinal S-antigen and interphotoreceptor retinoid-binding protein fragments in Eales' disease patients. Saxena S, et al. **Pathobiology** 1999; 67(1):39–44
Production of monoclonal antibodies and enzyme immunoassay to bovine retinol-binding protein and determination of retinol-binding protein serum levels and retinol concentrations in serum and liver in dairy cows before and after parturition. Lindberg LA, et al. **Res Vet Sci** 1999 Jun;66(3):259–63
[High endothelial venules. Kinetics of the expression in IRBP-induced experimental autoimmune uveitis] Stiemer R, et al. **Ophthalmologe** 1999 Jan;96(1):40–4 (Eng. Abstr.) **(Ger)**

METABOLISM

Holo-cellular retinol-binding protein: distinction of ligand-binding affinity from efficiency as substrate in retinal biosynthesis. Penzes P, et al. **Biochemistry** 1999 Feb 16;38(7):2088–93
Carboxyl ester lipase overexpression in rat hepatoma cells and CEL deficiency in mice have no impact on hepatic uptake or metabolism of chylomicron-retinyl ester. van Bennekum AM, et al. **Biochemistry** 1999 Mar 30; 38(13):4150–6
Intestinal absorption of dietary cholesteryl ester is decreased but retinyl ester absorption is normal in carboxyl ester lipase knockout mice. Weng W, et al. **Biochemistry** 1999 Mar 30;38(13):4143–9
Studies on the cellular uptake of retinol binding protein and retinol. Tosetti F, et al. **Exp Cell Res** 1999 Aug 1; 250(2):423–33
Interphotoreceptor retinoid-binding protein (IRBP) is

rapidly cleared from the Xenopus interphotoreceptor matrix. Cunningham LL, et al. **Exp Eye Res** 1999 Apr; 68(4):399–410

Evidence for an essential role of megalin in transepithelial transport of retinol. Christensen EI, et al. **J Am Soc Nephrol** 1999 Apr;10(4):685–95

Differential mechanisms of retinoid transfer from cellular retinol binding proteins types I and II to phospholipid membranes. Herr FM, et al. **J Biol Chem** 1999 Apr 2; 274(14):9556–63

beta-carotene 15,15'-dioxygenase activity and cellular retinol-binding protein type II level are enhanced by dietary unsaturated triacylglycerols in rat intestines. During A, et al. **J Nutr** 1998 Oct;128(10):1614–9

A low molar ratio of retinol binding protein to transthyretin indicates vitamin A deficiency during inflammation: studies in rats and a posterior analysis of vitamin A-supplemented children with measles. Rosales FJ, et al. **J Nutr** 1998 Oct; 128(10):1681–7

Vitamin A-sensitive tissues in transgenic mice expressing high levels of human cellular retinol-binding protein type I are not altered phenotypically. Trøen G, et al. **J Nutr** 1999 Sep;129(9):1621–7

Structure-function relationships in the four repeats of human interphotoreceptor retinoid-binding protein (IRBP). Nickerson JM, et al. **Mol Vis** 1998 Dec 31;4:33

Novel expression pattern of interphotoreceptor retinoid-binding protein (IRBP) in the adult and developing zebrafish retina and RPE. Stenkamp DL, et al. **Mol Vis** 1998 Dec 2;4:26

Structure and function of retinoid-binding proteins. Newcomer ME, et al. **Subcell Biochem** 1998;30:53–80 (62 ref.)

PHARMACOLOGY

Fourth module of Xenopus interphotoreceptor retinoid-binding protein: activity in retinoid transfer between the retinal pigment epithelium and rod photoreceptors. Gonzalez-Fernandez F, et al. **Curr Eye Res** 1998 Dec;17(12):1150–7

PHYSIOLOGY

When complex worlds collide: retinoic acid and apoptosis [editorial; comment] Ashwell JD. **Cell Death Differ** 1998 Jan;5(1):1–3. Comment on: Cell Death Differ 1998 Jan;5(1):4–10. Comment on: Cell Death Differ 1998 Jan;5(1):11–9.

Structure and function of cytoplasmic retinoid binding proteins. Li E. **Mol Cell Biochem** 1999 Feb;192(1–2):105–8

Arginine to glutamine substitutions in the fourth module of Xenopus interphotoreceptor retinoid-binding protein. Baer CA, et al. **Mol Vis** 1998 Dec 30;4:30

SECRETION

MMH cells: An in vitro model for the study of retinol-binding protein secretion regulated by retinol. Bellovino D, et al. **J Cell Physiol** 1999 Oct;181(1):24–32

URINE

The effect of 'renal-dose' dopamine on renal tubular function following cardiac surgery: assessed by measuring retinol binding protein (RBP). Tang AT, et al. **Eur J Cardiothorac Surg** 1999 May;15(5):717–21; discussion 721–2

Diagnostic value of urinary retinol-binding protein in childhood nephrotic syndrome. Dillon SC, et al. **Pediatr Nephrol** 1998 Oct;12(8):643–7

RETINOPATHY OF PREMATURITY

Retinopathy of prematurity in Sri Lanka. Weerakoon IK, et al. **Ceylon Med J** 1998 Dec;43(4):194–5

Retinopathy of prematurity and associated factors. Simons BD, et al. **Int Ophthalmol Clin** 1999 Spring;39(2):29–48 (96 ref.)

[Retinopathy of prematurity] Nascutzy C, et al. **Oftalmologia** 1998;45(4):85–92 (22 ref.) (Eng. Abstr.) **(Rum)**

BLOOD

Bilirubin levels and severe retinopathy of prematurity in infants with estimated gestational ages of 23 to 26 weeks. DeJonge MH, et al. **J Pediatr** 1999 Jul;135(1):102–4

Outcomes of extremely premature infants related to their peak serum bilirubin concentrations and exposure to phototherapy. Yeo KL, et al. **Pediatrics** 1998 Dec; 102(6):1426–31

CHEMICALLY INDUCED

Dopamine use is an indicator for the development of threshold retinopathy of prematurity. Mizoguchi MB, et al. **Br J Ophthalmol** 1999 Apr;83(4):425–8

COMPLICATIONS

Refractive changes associated with scleral buckling and division in retinopathy of prematurity. Chow DR, et al. **Arch Ophthalmol** 1998 Nov;116(11):1446–8

Good visual acuity in an adult population with marked posterior segment changes secondary to retinopathy of prematurity. Ferrone PJ, et al. **Retina** 1998;18(4):335–8

Prospective study of New Zealand infants with birth weight less than 1500 g and screened for retinopathy of prematurity: visual outcome at age 7–8 years. Saunders RA. **Surv Ophthalmol** 1999 Jan-Feb;43(4):373–4

DIAGNOSIS

Retinopathy of prematurity: guidelines for screening and treatment [letter; comment] Pollock W, et al. **Eye** 1998;12 (Pt 6):1035. Comment on: Eye 1995;9 (Pt 6 Su):31–5. Comment on: Eye 1997;11 (Pt 4):509–14.

The decreasing incidence and severity of retinopathy of prematurity. Bullard SR, et al. **J Aapos** 1999 Feb;3(1):46–52

Retinopathy of prematurity-mimicking retinopathy in full-term babies. Kim HY, et al. **Korean J Ophthalmol** 1998 Dec;12(2):98–102

A small foveal avascular zone may be an historic mark of prematurity. Mintz-Hittner HA, et al. **Ophthalmology** 1999 Jul;106(7):1409–13

[Ophthalmological screening studies in newborn infants. German Ophthalmological Society] Clemens S, et al. **Ophthalmologe** 1999 Apr;96(4):257–63 **(Ger)**

[Computer program for retinopathy of prematurity screening] Vögele C, et al. **Ophthalmologe** 1999 Feb;96(2):82–6 (Eng. Abstr.) **(Ger)**

[Screening for retinopathy of prematurity: reliability] de la Cruz Bértolo FJ, et al. **An Esp Pediatr** 1999 Feb; 50(2):156–60 (45 ref.) **(Spa)**

DRUG THERAPY

Diltiazem reduces retinal neovascularization in a mouse model of oxygen induced retinopathy. Higgins RD, et al. **Curr Eye Res** 1999 Jan;18(1):20–7

Indomethacin improves oxygen-induced retinopathy in the mouse. Nandgaonkar BN, et al. **Pediatr Res** 1999 Aug; 46(2):184–8

ECONOMICS

Cost-effectiveness of treatment for threshold retinopathy of prematurity. Brown GC, et al. **Pediatrics** 1999 Oct; 104(4):e47

EPIDEMIOLOGY

Ophthalmological long-term follow up of preterm infants: a population based, prospective study of the refraction and its development. Holmström M, et al. **Br J Ophthalmol** 1998 Nov;82(11):1265–71

The decreasing incidence and severity of retinopathy of prematurity. Bullard SR, et al. **J Aapos** 1999 Feb;3(1):46–52

Retinopathy of prematurity in infants < 32 weeks' gestation at birth in New South Wales in 1993 and 1994. Todd D, et al. **J Paediatr Child Health** 1999 Aug;35(4):355–7

Decreased prevalence of retinopathy of prematurity in an inner-city hospital. Lim J, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):12–6

The effect of blood transfusion protocol on retinopathy of prematurity: A prospective, randomized study. Brooks SE, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):514–8

Current incidence of retinopathy of prematurity, 1989–1997. Hussain N, et al. **Pediatrics** 1999 Sep;104(3):e26

ETIOLOGY

Light exposure is not associated with retinopathy of prematurity. Mills MD. **Arch Ophthalmol** 1998 Nov; 116(11):1517–8 (18 ref.)

Metabolic acidosis-induced retinopathy in the neonatal rat. Holmes JM, et al. **Invest Ophthalmol Vis Sci** 1999 Mar; 40(3):804–9

Retinopathy of prematurity: lack of association with prenatal care. Higgins RD, et al. **J Aapos** 1999 Apr;3(2):114–6

Vitreoretinal findings similar to retinopathy of prematurity in infants with compound heterozygous protein S deficiency. Mintz-Hittner HA, et al. **Ophthalmology** 1999 Aug;106(8):1525–30

Effects of premature exposure to light: a credibility struggle. Silverman WA. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):128–30 (12 ref.)

METABOLISM

Polyamine system in developing rat eye and an animal model of retinopathy of prematurity. Gralek M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Sep;237(9):781–6

Evidence for upregulation and redistribution of vascular endothelial growth factor (VEGF) receptors flt-1 and flk-1 in the oxygen-injured rat retina. Robbins SG, et al. **Growth Factors** 1998;16(1):1–9

PATHOLOGY

Rod photoreceptors in infant rats with a history of oxygen exposure. Fulton AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):168–74

PHYSIOPATHOLOGY

Development of grating acuity in infants with Retinopathy of Prematurity. Dogru M, et al. **Acta Ophthalmol Scand** 1999 Feb;77(1):72–5

Ophthalmological follow up of preterm infants: a population based, prospective study of visual acuity and strabismus. Holmström G, et al. **Br J Ophthalmol** 1999 Feb; 83(2):143–50

Intraocular pressure, pulse amplitude and pulsatile ocular blood flow measurement in premature infants screened for retinopathy of prematurity [letter] McKibbin M, et al. **Eye** 1999 Apr;13 (Pt 2):266–7

Agreement between grating acuity at age 1 year and Snellen acuity at age 5.5 years in the preterm child. Cryotherapy for Retinopathy of Prematurity Cooperative Group. Dobson V, et al. **Invest Ophthalmol Vis Sci** 1999 Feb; 40(2):496–503

Interobserver agreement for grating acuity and letter acuity assessment in 1- to 5.5-year-olds with severe retinopathy of prematurity. Harvey EM, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1565–76

Color doppler imaging of the central retinal artery in premature infants undergoing examination for retinopathy of prematurity. Holland DR, et al. **J Aapos** 1999 Aug; 3(4):194–8

Abnormal retinal vascularisation in preterm children [letter; comment] Minicucci G, et al. **Lancet** 1999 Mar 27; 353(9158):1099–100. Comment on: Lancet 1998 Dec 5;352(9143):1827.

Visual outcomes after laser photocoagulation for threshold retinopathy of prematurity. Connolly BP, et al. **Ophthalmology** 1999 Sep;106(9):1734–7; discussion 1737–8

Good visual acuity in an adult population with marked posterior segment changes secondary to retinopathy of prematurity. Ferrone PJ, et al. **Retina** 1998;18(4):335–8

PREVENTION & CONTROL

Retinopathy of prematurity and antenatal corticosteroids. The Italian ROP Study Group. Console V, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:75–9

Does light reduction prevent retinopathy of prematurity? Winslow EH, et al. **Am J Nurs** 1999 Sep;99(9):14

Vitamin E for ROP [letter; comment] Zamora SA, et al. **J Pediatr** 1999 Feb;134(2):249. Comment on: J Pediatr 1997 Dec;131(6):844–50.

Dexamethasone reduces oxygen induced retinopathy in a mouse model. Rotschild T, et al. **Pediatr Res** 1999 Jul; 46(1):94–100

SURGERY

Treatment outcome in fellow eyes after laser photocoagulation for retinopathy of prematurity. Brooks SE, et al. **Am J Ophthalmol** 1999 Jan;127(1):56–61

Limbus-based external reference coagulation in transscleral diode laser photocoagulation for threshold retinopathy of prematurity [letter; comment] Arnold RW. **Arch Ophthalmol** 1998 Oct;116(10):1404. Comment on: Arch Ophthalmol 1997 Oct;115(10):1270–5.

Management of retinopathy of prematurity with cryotherapy. Gezer A, et al. **Eur J Ophthalmol** 1999 Jan-Mar;9(1):49–52

Surgical advances in retinopathy of prematurity. Andrews AP, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):275–90 (41 ref.)

Factors related to poor visual outcome in patients with retinopathy of prematurity after xenon are photocoagulation and/or cryocautery [letter; comment] Saito Y. **Jpn J Ophthalmol** 1998 Jul-Aug;42(4):335–6. Comment on: Jpn J Ophthalmol 1997 Nov-Dec;41(6):428–35.

Anatomical and visual results of vitreous surgery for advanced retinopathy of prematurity. Choi MY, et al. **Korean J Ophthalmol** 1998 Jun;12(1):60–7

Visual outcomes after laser photocoagulation for threshold retinopathy of prematurity. Connolly BP, et al. **Ophthalmology** 1999 Sep;106(9):1734–7; discussion 1737–8

Scleral buckling surgery for active stage 4A retinopathy of prematurity. Hinz BJ, et al. **Ophthalmology** 1998 Oct; 105(10):1827–30

THERAPY

Longer-term visual outcome of eyes with retinopathy of prematurity treated with cryotherapy or diode laser. O'Keefe M, et al. **Br J Ophthalmol** 1998 Nov;82(11):1246–8

Three year visual outcome for treated stage 3 retinopathy of prematurity: cryotherapy versus laser. Pearce IA, et al. **Br J Ophthalmol** 1998 Nov;82(11):1254–9

Therapeutic outcomes of cryotherapy versus transpupillary diode laser photocoagulation for threshold retinopathy of prematurity. Paysse EA, et al. **J Aapos** 1999 Aug; 3(4):234–40

Therapy for retinopathy of prematurity. Fleck BW. **Lancet** 1999 Jan 16;353(9148):166–7

Outcomes of extremely premature infants related to their peak serum bilirubin concentrations and exposure to phototherapy. Yeo KL, et al. **Pediatrics** 1998 Dec; 102(6):1426–31

ULTRASONOGRAPHY

An ultrasonographic study of stage-5 retinopathy of prematurity. Tamburrelli C, et al. **Ophthalmologica** 1998; 212(6):381–8

RETIREMENT

When should a surgeon retire? Greenfield LJ, et al. **Adv Surg** 1999;32:385–93

Anticipation of and adjustment to retirement. Lehr U, et al.

Aging (Milano) 1998 Oct;10(5):358–67

Re: A modest proposal [letter; comment] Mogelvang C. **Ann Plast Surg** 1998 Nov;41(5):571–2. Comment on: Ann Plast Surg 1997 Mar;38(3):296–7.

'Old surgeons never die....' Thompson SG. **Ann R Coll Surg Engl** 1999 Jan;81(1 Suppl):30–5

Otolaryngologists older than 60 years: results of and reflections on survey responses from 865 colleagues regarding retirement. Ward NO, et al. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):263–8

Calling up the troops [letter; comment] Berger E. **CMAJ** 1999 Jun 1;160(11):1556. Comment on: CMAJ 1999 Mar 23;160(6):889–91.

Retiree health benefits: availability from employers and participation by employees. Loprest P. **Gerontologist** 1998 Dec;38(6):684–94

Rural health. Solo act. Castrey M. **Hosp Health Netw** 1998 Nov 5;72(21):50

Pension planning for doctors. Harris-Deans P. **Hosp Med** 1998 Sep;59(9):743

Time, age, and the transition to retirement: new evidence on life-course flexibility? Settersten RA Jr. **Int J Aging Hum Dev** 1998;47(3):177–203

Predictors of early retirement and rehabilitation for use in a screening to detect workers in need of rehabilitation. Biefang S, et al. **Int J Rehabil Res** 1998 Mar;21(1):13–27

Early retirement? Is it possible? Foster J. **Iowa Med** 1999 Jan–Feb;89(1):23

Retirement from orthopaedic surgery. Ritter MA, et al. **J Bone Joint Surg Am** 1999 Mar;81(3):414–8

At risk on the cusp of old age: living arrangements and functional status among black, white and Hispanic adults. Waite LJ, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):S136–44

Adjustment of Korean-American physicians in Korea: aspect of personal satisfaction. Hong SD. **J Korean Med Sci** 1999 Aug;14(4):359–64

[For a new management of the life ages: example of the age of retirement] Hagmann HM. **Rev Med Suisse Romande** 1999 Apr;119(4):315–7 **(Fre)**

[Let us help retired persons by reducing medical costs (letter)] Szabó G. **Orv Hetil** 1999 May 16;140(20):1143–4 **(Hun)**

[Retirement of the physician] Muñoz-Kapellmann R, et al. **Gac Med Mex** 1998 May–Jun;134(3):327–36 **(Spa)**

ECONOMICS

Retirement from orthodontics: financial and psychosocial preparation and adaptation. McNeill RW. **Am J Orthod Dentofacial Orthop** 1999 Mar;115(3):283–7

Retiring at 55: is it a media-created myth? Lee G. **Can J Gastroenterol** 1999 Jun;13(5):382–4 (2 ref.)

Retirement patterns and employee benefits: do benefits matter? Fronstin P. **Gerontologist** 1999 Feb;39(1):37–47

Three streams, one river: a coordinated approach to financing retirement. Etheredge L. **Health Aff (Millwood)** 1999 Jan–Feb;18(1):80–91

Employers. Retirement woes [news] **Hosp Health Netw** 1998 Sep 20;72(18):18

Retirement savings of dentists in private practice. Brown LJ, et al. **J Am Dent Assoc** 1999 Aug;130(8):1210–8

Effect on benefits of earnings at ages 65 or older, 1995. Kestenbaum B, et al. **Soc Secur Bull** 1999;62(1):4–9

Retirement income security in the United Kingdom. Liu L. **Soc Secur Bull** 1999;62(1):23–46 (87 ref.)

Individual Social Security accounts: issues of administrative feasibility and cost, 1998. Olsen KA, et al. **Soc Secur Bull** 1999;62(1):75–90 (103 ref.)

The Galveston Plan and Social Security: a comparative analysis of two systems. Wilson TM. **Soc Secur Bull** 1999; 62(1):47–64

LEGISLATION & JURISPRUDENCE

Supreme Court eyes ERISA pre-emption. Employment Retirement Income Security Act. Sfikas PM. **J Am Dent Assoc** 1999 May;130(5):739–41

Older Americans Act: implications for nursing. Wallace DC, et al. **Nurs Outlook** 1999 Jul–Aug;47(4):181–5 (21 ref.)

PSYCHOLOGY

Retirement intentions and spousal support: a multi-actor approach. Henkens K. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):S63–73

Consequences of retirement activities for distress and the sense of personal control. Ross CE, et al. **J Health Soc Behav** 1998 Dec;39(4):317–34

Below the fold. Eastbourne. **Lancet** 1999 Mar 20; 353(9157):1025

Patient certification through mutual problem lists. Smith SL, et al. **Mil Med** 1998 Nov;163(11):786–8

[Women and their retirement: adaptation as a dynamic assessment process] Geerts C, et al. **Tijdschr Gerontol Geriatr** 1999 Feb;30(1):6–11 (Eng. Abstr.) **(Dut)**

STATISTICS & NUMERICAL DATA

Retrospective analysis of census data on general practitioners who qualified in South Asia: who will replace them as they retire? Taylor DH Jr, et al. **BMJ** 1999 Jan 30; 318(7179):306–10

Elevated liver enzyme activity in construction workers: prevalence and impact on early retirement and all-cause mortality. Arndt V, et al. **Int Arch Occup Environ Health** 1998 Sep;71(6):405–12

Effect on benefits of earnings at ages 65 or older, 1995. Kestenbaum B, et al. **Soc Secur Bull** 1999;62(1):4–9

Retirement income security in the United Kingdom. Liu L. **Soc Secur Bull** 1999;62(1):23–46 (87 ref.)

Early retirement in the United States. Woodbury RG. **Stat Bull Metrop Insur Co** 1999 Jul–Sep;80(3):2–7

TRENDS

Retiring at 55: is it a media-created myth? Lee G. **Can J Gastroenterol** 1999 Jun;13(5):382–4 (2 ref.)

Failing firefighters: a survey of causes of death and ill-health retirement in serving firefighters in Strathclyde, Scotland from 1985–94. Ide CW. **Occup Med (Lond)** 1998 Sep; 48(6):381–8

Baby Boomers likely to go out with a bang. Kennedy M. **WMJ** 1998 Dec;97(11):24–7 (0 ref.)

RETIREMENT BENEFITS see **PENSIONS**

RETRACTED PUBLICATION [Publication Type]

Severe anaphylactic reaction due to a chlorhexidine-impregnated central venous catheter [letter; comment] [retracted in Anesthesiology 1999 Aug;91(2):602] Terazawa E, et al. **Anesthesiology** 1998 Nov;89(5):1296–8 . Comment on: Anesthesiology 1997 Nov;87(5):1242–4.

Nitric oxide is required for expression of LTP that is induced by stimulation phase-locked with theta rhythm [retracted in Eur J Neurosci 1999 Jul;11(7):2596] Hölscher C. **Eur J Neurosci** 1999 Jan;11(1):335–43

Correlation of laryngeal and pharyngeal carcinomas and 24-hour pH monitoring of the esophagus and pharynx [retracted by Chen MY, Ott DJ, Koufman JA. In: Otolaryngol Head Neck Surg 1999 Jul;121(1):168] Chen MY, et al. **Otolaryngol Head Neck Surg** 1998 Nov; 119(5):460–2

Is phentermine an inhibitor of monoamine oxidase? A critical appraisal [letter] [retracted by Rothman RB. In: Synapse 1999 Jul;33(1):81; discussion 82] Rothman RB. **Synapse** 1999 May;32(2):141–5

RETRACTION OF PUBLICATION

Scientific misconduct and correcting the scientific literature [published erratum appears in Acad Med 1999 Jun;74(6):621] Parrish DM. **Acad Med** 1999 Mar; 74(3):221–30

Retraction. The TSG101 tumor susceptibility gene is located in chromosome 11 band p15 and is mutated in human breast cancer [comment] Li L, et al. **Cell** 1998 May 15; 93(4):following 660. Comment on: Cell 1997 Jan 10;88(1):143–54.

[Plagiarism in publications by Dr. Andrzej Jendryczko] Wroński M. **Przegl Lek** 1998;55(11):629–33 (Eng. Abstr.) **(Pol)**

RETRACTION OF PUBLICATION [Publication Type]

Notice of withdrawal [retraction of Terazawa E, Shimonaka H, Nagase K, Masue T, Dohi S. In: Anesthesiology 1998 Nov;89(5):1296–8] **Anesthesiology** 1999 Aug;91(2):602

Plagiarism [retraction of Bhardwaj A, Kirsch JR. In: Anesthesiology 1998 Aug;89(2):289–91] Todd MM. **Anesthesiology** 1998 Dec;89(6):1307–8

Mechanism of anti-proliferation caused by YC-1, an indazole derivative, in cultured rat A10 vascular smooth-muscle cells [retraction of Yu SM, Cheng ZJ, Guh JH, Lee FY, Kuo SC. In: Biochem J 1995 Mar 15;306(Pt 3):787–92] Cheng ZJ, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):191

Functional interactions between synthetic alkyl phospholipids and the ABC transporters P-glycoprotein, Ste-6, MRP, and Pgh 1 [retraction of Ruetz S, Brault M, Dalton W, Gros P. In: Biochemistry 1997 Jul 1;36(26):8180–8] Ruetz S, et al. **Biochemistry** 1999 Mar 2; 38(9):2860

Retraction [retraction of Schwerdtle RF, Störkel S, Neuhaus C, Brauch H, Weidt E, Brenner W, Hohenfellner R, Huber C, Decker HJ. In: Cancer Res 1996 Jul 1;56(13):2927–30 and Schwerdtle RF, Winterpacht A, Störkel S, Brenner W, Hohenfellner R, Zabel B, Huber C, Decker HJ. In: Cancer Res 1997 Nov 15;57(22):5009–12] Schwerdtle RF, et al. **Cancer Res** 1999 Apr 15;59(8):2021

Retraction. TAF(II)s mediate activation of transcription in the Drosophila embryo [retraction of Sauer F, Wassarman DA, Rubin GM, Tjian R. In: Cell 1996 Dec 27;87(7):1271–84] Sauer F, et al. **Cell** 1998 Nov 13; 95(4):following 573

Site specific deoxynucleotide substitutions in yeast U6 snRNA block splicing of pre-mRNA in vitro [retraction of Kim CH, Ryan DE, Marciniec T, Abelson J. In: EMBO J 1997 Apr 15;16(8):2119–29] Kim CH, et al. **EMBO J** 1999 May 17;18(10):2908

Retraction [retraction of Walden R, Hayashi H, Lubenow H, Czaja I, Schell J. In: EMBO J 1994 Oct 17;13(20):4729–36 and Harling H, Czaja I, Schell J, Walden R. In: EMBO J 1997 Oct 1;16(19):5855–66] Schell J. **EMBO J** 1999 May 17;18(10):2908

Autolymphocyte therapy-1. In vivo tumor-specific adoptive cellular therapy of murine melanoma and carcinoma using ex vivo activated memory T-lymphocytes [retraction of Gold JE, Osband ME. In: Eur J Cancer 1994;30A(12):1871–82] **Eur J Cancer** 1998 May;34(6):946

Retraction. Interferon-gamma is essential for the development of cerebral malaria [retraction of Rudin W, Favre N, Bordmann G, Ryffel B. In: Eur J Immunol 1997 Apr;27(4):810–5] **Eur J Immunol** 1998 Oct;28(10):3398

Nitric oxide is required for expression of LTP that is induced by stimulation phase-locked with theta rhythm [retraction of Hölscher C. In: Eur J Neurosci 1999 Jan;11(1):335–43] **Eur J Neurosci** 1999 Jul;11(7):2596

A reconsideration of stress experiments and population heterogeneity [retraction of Khazaeli AA, Xiu L, Curtsinger JW. In: Exp Gerontol 1995 Mar-Apr;30(2):177–84] Curtsinger JW, et al. **Exp Gerontol** 1997 Nov-Dec;32(6):727–9

Article retraction [retraction of Cao Y, Qin L, Zhang L, Safrit J, Ho DD. In: Immunol Lett 1996 Jun;51(1–2):7–13] **Immunol Lett** 1998 Nov;64(1):following 55

Author errata [retraction of Lydon NB, Mett H, Mueller M, Becker M, Cozens RM, Stover D, Daniels D, Traxler P, Buchdunger E. In: Int J Cancer 1998 Mar 30;76(1):154–63] Lydon N, et al. **Int J Cancer** 1999 May 17;81(4):669

Author errata [retraction of Meyer T, Regenass U, Fabbro D, Alteri E, Rösel J, Müller M, Caravatti G, Matter A. In: Int J Cancer 1989 May 15;43(5):851–6] Meyer T, et al. **Int J Cancer** 1999 May 17;81(4):669

Secretion of biologically active recombinant fibrinogen by yeast [retraction of Roy SN, Kudryk B, Redman CM. In: J Biol Chem 1995 Oct 6;270(40):23761–7] Redman CM, et al. **J Biol Chem** 1999 Jan 1;274(1):554

Functional expression of the multidrug resistance-associated protein in the yeast Saccharomyces cerevisiae [retraction of Ruetz S, Brault M, Kast C, Hemenway C, Heitman J, Grant CE, Cole SP, Deeley RG, Gros P. In: J Biol Chem 1996 Feb 23;271(8):4154–60] Ruetz S, et al. **J Biol Chem** 1999 Jan 22;274(4):2592

Hypoxia-inducible factor 1alpha (HIF-1alpha) is a non-heme iron protein. Implications for oxygen sensing [retraction of Srinivas V, Zhu X, Salceda S, Nakamura R, Caro J. In: J Biol Chem 1998 Jul 17;273(29):18019–22] Srinivas V, et al. **J Biol Chem** 1999 Jan 8;274(2):1180

Retraction: suicide after natural disasters [retraction of Krug EG, Kresnow M, Peddicord JP, Dahlberg LL, Powell KE, Crosby AE, Annest JL. In: N Engl J Med 1998 Feb 5;338(6):373–8] Krug EG, et al. **N Engl J Med** 1999 Jan 14;340(2):148–9

Retraction: absence of human T-cell lymphotropic virus type I in cutaneous T-cell lymphoma [retraction of Kikuchi A, Nishikawa T, Yamaguchi K. In: N Engl J Med 1997 Jan 23;336(4):296–7] Nishikawa T, et al. **N Engl J Med** 1999 Jun 10;340(23):1837

Identification and role of adenylyl cyclase in auxin signalling in higher plants [retraction of Ichikawa T, Suzuki Y, Czaja I, Schommer C, Lessnick A, Schell J, Walden R. In: Nature 1997 Dec 18–25;390(6661):698–701] Ichikawa T, et al. **Nature** 1998 Nov 26;396(6709):390

Correlation of laryngeal and pharyngeal carcinomas and 24-hour pH monitoring of the esophagus and pharynx [retraction of Chen MY, Ott DJ, Casolo BJ, Moghazy KM, Koufman JA. In: Otolaryngol Head Neck Surg 1998 Nov;119(5):460–2] Chen MY, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):168

The pfmdr1 gene of Plasmodium falciparum confers cellular resistance to antimalarial drugs in yeast cells [retraction of Ruetz S, Delling U, Brault M, Schurr E, Gros P. In: Proc Natl Acad Sci U S A 1996 Sep 3;93(18):9942–7] Ruetz S, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1810

Retraction [retraction of Nitta I, Ueda T, Watanabe K. In: RNA 1998 Mar;4(3):257–67] Nitta I, et al. **RNA** 1999 May; 5(5):707

Retraction [retraction of James WH. In: Scand J Work Environ Health 1997 Feb;23(1):69] James WH. **Scand J Work Environ Health** 1998 Oct;24(5):416

Neuronal cell death: retraction [retraction of Van der Zee CE, Ross GM, Riopelle RJ, Hagg T. In: Science 1996 Dec 6;274(5293):1729–32] Hagg T. **Science** 1999 Jul 16; 285(5426):340

Peptide bond formation: retraction [retraction of Nitta I, Kamada Y, Noda H, Ueda T, Wantanabe K. In: Science 1998 Jul 31;281(5377):666–9] Nitta I, et al. **Science** 1999 Mar 26;283(5410):2019–20

Phytohormone-independent division of tobacco protoplast-derived cells: retractions [retraction of Hayashi H, Czaja I, Lubenow H, Schell J, Walden R. In: Science 1992 Nov 20;258(5086):1350–3 and van de Sande K, Pawlowski K, Czaja I, Wieneke U, Schell J, Schmidt J, Walden R, Matvienko M, Wellink J, van Kammen A, Franssen H, Bisseling T. In: Science 1996 Jul 19;273(5273):370–3] Schell J. **Science** 1999 May 21; 284(5418):1275

Retraction and apology: Is phentermine an inhibitor of monoamine oxidase? [retraction of Rothman RB. In: Synapse 1999 May;32(2):141–5] Rothman RB. **Synapse** 1999 Jul;33(1):81; discussion 82

[The cases of plagiarism in "Ginekologia Polska" (retraction of Jendryczko A, Dródz M, Tomala J, Magner K. In:

Ginekol Pol 1985 Nov;56(11):677–81 and Jendryczko A, Tomala J, Witoszyńska T. In: Ginekol Pol 1995 Jun;66(6):351–3 and Jendryczko A, Poręba R. In: Ginekol Pol 1996 Jan;67(1):34–6 and Jendryczko A, Tomala J. In: Ginekol Pol 1996 Feb;67(2):65–9)] **Ginekol Pol** 1998 Jul; 69(7):559–60 **(Pol)**

[The cases of plagiarism in "Ginekologia Polska" (retraction of Bażowska G, Jendryczko A. In: Ginekol Pol 1995 Apr;66(4):205–10)] **Ginekol Pol** 1998 Sep;69(9):671 **(Pol)**

RETRAINING, PROFESSIONAL see **EDUCATION, PROFESSIONAL, RETRAINING**

RETREATMENT

see related
REOPERATION

RETROBULBAR HEMORRHAGE

CHEMICALLY INDUCED

Postoperative orbital hemorrhage following thrombolysis for acute myocardial infarction. Yuen VH, et al. **Can J Ophthalmol** 1999 Feb;34(1):33–5

DIAGNOSIS

Diagnosis and treatment of retrobulbar hematoma resulting from blunt periorbital trauma. Rosdeutscher JD, et al. **Ann Plast Surg** 1998 Dec;41(6):618–22

ETIOLOGY

Scurvy causing bilateral orbital hemorrhage. Sloan B, et al. **Arch Ophthalmol** 1999 Jun;117(6):842–3

Orbital haemorrhage as a complication of gastroscopy [letter] Acheson AG, et al. **Endoscopy** 1999 Aug;31(6):509

THERAPY

Diagnosis and treatment of retrobulbar hematoma resulting from blunt periorbital trauma. Rosdeutscher JD, et al. **Ann Plast Surg** 1998 Dec;41(6):618–22

RETROBULBAR NEURITIS see **OPTIC NEURITIS**

RETROCOCHLEAR DISEASES

PREVENTION & CONTROL

Successful prevention of retrocochlear hearing loss in murine experimental allergic encephalomyelitis with T cell receptor Vbeta8-specific antibody. Suzuki M, et al. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):917–27

RETROELEMENTS

see related
DNA TRANSPOSABLE ELEMENTS
MUTAGENESIS, INSERTIONAL

Cloning and nucleotide sequence of retroposons specific to hominoid primates derived from an endogenous retrovirus (HERV-K). Kim HS, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):595–601

Fidelity of retrotransposon replication. Gabriel A, et al. **Ann N Y Acad Sci** 1999 May 18;870:108–18 (35 ref.)

Classification of reverse transcribing elements: a discussion document [news] Hull R. **Arch Virol** 1999;144(1):209–13; discussion 213–4

Cell cycle control of reverse transcriptase activity for the yeast retrotransposon Ty3. Karst SM, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):679–84

Targeting of human retrotransposon integration is directed by the specificity of the L1 endonuclease for regions of unusual DNA structure. Cost GJ, et al. **Biochemistry** 1998 Dec 22;37(51):18081–93

A sequence of the U5 region of Drosophila 1731 retrotransposon long terminal repeat (LTR) trans-represses the LTR-directed transcription. Faure E. **Biochemistry (Mosc)** 1999 Jun;64(6):678–92

Clone-specific high-frequency retrotransposition of a recombinant virus containing a VL30 promoter in SV40-transformed NIH3T3 cells. Tzavaras T, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):186–98

Human endogenous retroviral sequences: possible roles in reproductive physiopathology. Taruscio D, et al. **Biol Reprod** 1998 Oct;59(4):713–24 (141 ref.)

DNA methylation and expression of LINE-1 and HERV-K provirus sequences in urothelial and renal cell carcinomas. Florl AR, et al. **Br J Cancer** 1999 Jul;80(9):1312–21

Hypothesis: for the worst and for the best, L1Hs retrotransposons actively participate in the evolution of the human centromeric alphoid sequences. Laurent AM, et al. **Chromosome Res** 1999;7(4):305–17

Proviral amplification of the Gypsy endogenous retrovirus of Drosophila melanogaster involves env-independent invasion of the female germline. Chalvet F, et al. **EMBO J** 1999 May 4;18(9):2659–69

Metastatic rat carcinoma cells express a new retrotransposon. Grassi M, et al. **Gene** 1999 Jun 11;233(1–2):59–66

Highly heterogeneous families of Ty1/copia retrotransposons in the Lycopersicon chilense genome. Yañez M, et al. **Gene** 1998 Nov 19;222(2):223–8

Identification of novel random amplified polymorphic DNAs (RAPDs) on the W chromosome of the domesticated silkworm, Bombyx mori, and the wild silkworm, B. mandarina, and their retrotransposable element-related nucleotide sequences. Abe H, et al. **Genes Genet Syst** 1998 Aug;73(4):243–54

A complete full-length non-LTR retrotransposon, BMC1, on the W chromosome of the silkworm, Bombyx mori. Abe H, et al. **Genes Genet Syst** 1998 Dec;73(6):353–8

Molecular identification of the active ninja retrotransposon and the inactive aurora element in Drosophila simulans and D. melanogaster. Kanamori Y, et al. **Genes Genet Syst** 1998 Dec;73(6):385–96

Molecular structure of the copia-like retrotransposable element Yokozuna on the W chromosome of the silkworm, Bombyx mori. Ohbayashi F, et al. **Genes Genet Syst** 1998 Dec;73(6):345–52

Detection of the ongoing sorting of ancestrally polymorphic SINEs toward fixation or loss in populations of two species of charr during speciation. Hamada M, et al. **Genetics** 1998 Sep;150(1):301–11

Host genes that affect the target-site distribution of the yeast retrotransposon Ty1. Huang H, et al. **Genetics** 1999 Apr; 151(4):1393–407

Tempo and mode of Ty element evolution in Saccharomyces cerevisiae. Jordan IK, et al. **Genetics** 1999 Apr; 151(4):1341–51

Retrotransposon-related DNA sequences in the centromeres of grass chromosomes. Miller JT, et al. **Genetics** 1998 Dec; 150(4):1615–23

Rana/Pol III: a family of SINE-like sequences in the genomes of western Palearctic water frogs. Bucci S, et al. **Genome** 1999 Jun;42(3):504–11

Chromosomal organization of a sequence related to LTR-like elements of Ty1-copia retrotransposons in Avena species. Linares C, et al. **Genome** 1999 Aug;42(4):706–13

Characterization of genes encoding translation initiation factor eIF-2gamma in mouse and human: sex chromosome localization, escape from X-inactivation and evolution. Ehrmann IE, et al. **Hum Mol Genet** 1998 Oct;7(11):1725–37

An L1 element intronic insertion in the black-eyed white (Mitf[mi-bw]) gene: the loss of a single Mitf isoform responsible for the pigmentary defect and inner ear deafness. Yajima I, et al. **Hum Mol Genet** 1999 Aug; 8(8):1431–41

Moose, a new family of LTR-retrotransposons in the mosquito Anopheles gambiae. Biessmann H, et al. **Insect Mol Biol** 1999 May;8(2):201–12

Identification of a non-LTR retrotransposon from the gypsy moth. Garner KJ, et al. **Insect Mol Biol** 1999 May; 8(2):231–42

Conserved features at the 5Wend of Drosophila R2 retrotransposable elements: implications for transcription and translation. George JA, et al. **Insect Mol Biol** 1999 Feb;8(1):3–10

Control of genes by mammalian retroposons. Tomilin NV. **Int Rev Cytol** 1999;186:1–48 (277 ref.)

The L1Tc, long interspersed nucleotide element from Trypanosoma cruzi, encodes a protein with 3'-phosphatase and 3'-phosphodiesterase enzymatic activities. Olivares M, et al. **J Biol Chem** 1999 Aug 20;274(34):23883–6

Molecular and epidemiological characterization of vaginal Saccharomyces cerevisiae isolates. Posteraro B, et al. **J Clin Microbiol** 1999 Jul;37(7):2230–5

Sequence heterogeneity in copia-like retrotransposons in Anopheles (Diptera: Culicidae) in Thailand. Rongnoparut P, et al. **J Med Entomol** 1998 Sep;35(5):771–7

Reverse transcription of the yeast Ty1 retrotransposon: the mode of first strand transfer is either intermolecular or intramolecular. Wilhelm M, et al. **J Mol Biol** 1999 May 14;288(4):505–10

Coevolution of PERB11 (MIC) and HLA class I genes with HERV-16 and retroelements by extended genomic duplication. Kulski JK, et al. **J Mol Evol** 1999 Jul; 49(1):84–97

Similar target site selection occurs in integration of plant and mammalian retroposons. Tatout C, et al. **J Mol Evol** 1998 Oct;47(4):463–70

Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13

Proteolytic processing and assembly of gag and gag-pol proteins of TED, a baculovirus-associated retrotransposon of the gypsy family. Hajek KL, et al. **J Virol** 1998 Nov; 72(11):8718–24

The integration machinery of ZAM, a retroelement from Drosophila melanogaster, acts as a sequence-specific endonuclease. Leblanc P, et al. **J Virol** 1999 Aug; 73(8):7061–4

Modular evolution of the integrase domain in the Ty3/Gypsy class of LTR retrotransposons. Malik HS, et al. **J Virol** 1999 Jun;73(6):5186–90

A map of interactions between the proteins of a retrotransposon. Steele SJ, et al. **J Virol** 1998 Nov; 72(11):9318–22

Retrotransposons transcribed preferentially in proximal tubules of salt-hypertensive rats. Nagase M, et al. **Kidney Int** 1999 Mar;55(3):995–1004

The mouse mutation Pdn (Polydactyly Nagoya) is caused by the integration of a retrotransposon into the Gli3 gene. Thien H, et al. **Mamm Genome** 1999 Mar;10(3):205–9

The domain structure and retrotransposition mechanism of R2 elements are conserved throughout arthropods. Burke WD, et al. **Mol Biol Evol** 1999 Apr;16(4):502–11

Mobilization of two retroelements, ZAM and Idefix, in a novel unstable line of Drosophila melanogaster. Desset S, et al. **Mol Biol Evol** 1999 Jan;16(1):54–66

Swimmer 1, a new low-copy-number LINE family in teleost genomes with sequence similarity to mammalian L1 [letter] Duvernell DD, et al. **Mol Biol Evol** 1998 Dec;15(12):1791–3

Phylogenetic perspective reveals abundant Ty1/Ty2 hybrid elements in the Saccharomyces cerevisiae genome [letter] Jordan IK, et al. **Mol Biol Evol** 1999 Mar;16(3):419–22

Interspecific hybridization increases transposition rates of Osvaldo. Labrador M, et al. **Mol Biol Evol** 1999 Jul; 16(7):931–7

Evolutionary dynamics of Ty1-copia group retrotransposons in grass shown by reverse transcriptase domain analysis. Matsuoka Y, et al. **Mol Biol Evol** 1999 Feb;16(2):208–17

The retrotransposon Osvaldo from Drosophila buzzatii displays all structural features of a functional retrovirus. Pantazidis A, et al. **Mol Biol Evol** 1999 Jul;16(7):909–21

A new member of the Sin3 family of corepressors is essential for cell viability and required for retroelement propagation in fission yeast. Dang VD, et al. **Mol Cell Biol** 1999 Mar; 19(3):2351–65

cDNA of the yeast retrotransposon Ty5 preferentially recombines with substrates in silent chromatin. Ke N, et al. **Mol Cell Biol** 1999 Jan;19(1):484–94

Phylogeny and transpositional activity of Ty1-copia group retrotransposons in cereal genomes. Gribbon BM, et al. **Mol Gen Genet** 1999 Jul;261(6):883–91

A novel simple satellite DNA is colocalized with the Stalker retrotransposon in Drosophila melanogaster heterochromatin. Makunin IV, et al. **Mol Gen Genet** 1999 Mar;261(2):381–7

Degenerate MAGGY elements in a subgroup of Pyricularia grisea: a possible example of successful capture of a genetic invader by a fungal genome. Nakayashiki H, et al. **Mol Gen Genet** 1999 Jul;261(6):958–66

Multiple Ty-mediated chromosomal translocations lead to karyotype changes in a wine strain of Saccharomyces cerevisiae. Rachidi N, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):841–50

An estimated frequency of endogenous insertional mutations in humans [letter] Kazazian HH Jr. **Nat Genet** 1999 Jun; 22(2):130

Transcription analysis of the telomeric repeat-specific retrotransposons TRAS1 and SART1 of the silkworm Bombyx mori. Takahashi H, et al. **Nucleic Acids Res** 1999 May 1;27(9):2015–21

A Ty3/gypsy retrotransposon-like sequence localizes to the centromeric regions of cereal chromosomes. Presting GG, et al. **Plant J** 1998 Dec;16(6):721–8

Intimate association of microsatellite repeats with retrotransposons and other dispersed repetitive elements in barley. Ramsay L, et al. **Plant J** 1999 Feb;17(4):415–25

The Tpv2 family of retrotransposons of Phaseolus vulgaris: structure, integration characteristics, and use for genotype classification. Garber K, et al. **Plant Mol Biol** 1999 Mar; 39(4):797–807

Patterns of nucleotide substitution in Drosophila and mammalian genomes. Petrov DA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1475–9

The yeast retrotransposon Ty5 uses the anticodon stem-loop of the initiator methionine tRNA as a primer for reverse transcription. Ke N, et al. **RNA** 1999 Jul;5(7):929–38

Nonmethylated transposable elements and methylated genes in a chordate genome. Simmen MW, et al. **Science** 1999 Feb 19;283(5405):1164–7

[The role of retroposition in the self-regulation of genome processes (do genes program the body and retroposons program genome?] Bebikhov DV, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):4–14 (77 ref.) **(Rus)**

[Molecular analysis of integration sites of the drosophila retrotransposon burdock] Krasnov AN, et al. **Genetika** 1999 Jan;35(1):105–10 (Eng. Abstr.) **(Rus)**

[Telomeric retrotransposon HeT-A and its role in forming Drosophila telomeres] Danilevskaia ON, et al. **Mol Biol (Mosk)** 1999 Jan–Feb;33(1):38–47 (31 ref.) **(Rus)**

[Preferred transcription of the copia retrotransposon in Drosophila melanogaster testes] Filatov DA, et al. **Mol Biol (Mosk)** 1998 Nov–Dec;32(6):976–80 **(Rus)**

[Comparative analysis of the structure and retrotransposable activity of two variants of the Drosophila melanogaster MDG4 (gypsy) mobile element] Liubomirskaia NV, et al. **Mol Biol (Mosk)** 1998 Sep–Oct;32(5):823–9 **(Rus)**

[Retrotransposon-host genome: mechanisms and effects of interaction] Pasiukova EG, et al. **Mol Biol (Mosk)** 1999 Jan–Feb;33(1):26–37 (136 ref.) **(Rus)**

GENETICS

Mobile introns: retrohoming by complete reverse splicing. Eickbush TH. **Curr Biol** 1999 Jan 14;9(1):R11–4

A novel human DNA-binding protein with sequence similarity to a subfamily of redox proteins which is able to repress RNA-polymerase-III-driven transcription of the Alu-family retroposons in vitro. Kropotov A, et al. **Eur J Biochem** 1999 Mar;260(2):336–46

The 3' non-coding region of the Drosophila melanogaster HeT-A telomeric retrotransposon contains sequences with propensity to form G-quadruplex DNA. Abad JP, et al. **FEBS Lett** 1999 Jun 18;453(1–2):59–62

RETROELEMENTS

Polymorphism in structure of the retrotransposable element 412 in Drosophila simulans and D. melanogaster populations. Cizeron G, et al. **Gene** 1999 May 31; 232(2):183–90

A LINE element from the pufferfish (fugu) Fugu rubripes which shows similarity to the CR1 family of non-LTR retrotransposons. Poulter R, et al. **Gene** 1999 Feb 18; 227(2):169–79

De novo retrotransposition of unbiased sequences in a human breast cancer cell clone. Werle-Schneider G, et al. **Genes Chromosomes Cancer** 1999 Sep;26(1):84–91

The relationship between the rate of transposition and transposable element copy number for copia and Doc retrotransposons of Drosophila melanogaster. Pasyukova EG, et al. **Genet Res** 1998 Aug;72(1):1–11

RNA expression from a site-specific non-LTR retrotransposon microinjected into Xenopus oocytes. Pont-Kingdon G, et al. **Genetica** 1998;104(1):67–76

Retrotransposable elements R1 and R2 in the rDNA units of Drosophila mercatorum: abnormal abdomen revisited. Malik HS, et al. **Genetics** 1999 Feb;151(2):653–65

Extreme structural heterogeneity among the members of a maize retrotransposon family. Marillonnet S, et al. **Genetics** 1998 Nov;150(3):1245–56

Quantitative genetic analysis of copia retrotransposon activity in inbred Drosophila melanogaster lines. Nuzhdin SV, et al. **Genetics** 1998 Oct;150(2):755–66

High-frequency retrotransposition of a marked I factor in Drosophila melanogaster correlates with a dynamic expression pattern of the ORF1 protein in the cytoplasm of oocytes. Seleme M, et al. **Genetics** 1999 Feb; 151(2):761–71

Analysis of the promoter from an expanding mouse retrotransposon subfamily. DeBerardinis RJ, et al. **Genomics** 1999 Mar 15;56(3):317–23

Full-length human L1 insertions retain the capacity for high frequency retrotransposition in cultured cells. Kimberland ML, et al. **Hum Mol Genet** 1999 Aug;8(8):1557–60

Yeast Ty retrotransposons assemble into virus-like particles whose T-numbers depend on the C-terminal length of the capsid protein. Al-Khayat HA, et al. **J Mol Biol** 1999 Sep 10;292(1):65–73

Full-length L1 elements have arisen recently in the same 1-kb region of the gorilla and human genomes. DeBerardinis RJ, et al. **J Mol Evol** 1998 Sep;47(3):292–301

Interelement selection in the regulatory region of the copia retrotransposon. Jordan IK, et al. **J Mol Evol** 1998 Dec; 47(6):670–6

The mouse gene encoding the testis-specific isoform of Poly(A) binding protein (Pabp2) is an expressed retroposon: intimations that gene expression in spermatogenic cells facilitates the creation of new genes. Kleene KC, et al. **J Mol Evol** 1998 Sep;47(3):275–81

A novel tripartite structure comprising a mariner-like element and two additional retrotransposons found in the Bombyx mori genome. Nakajima Y, et al. **J Mol Evol** 1999 May;48(5):577–85

Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of retroviral vectors. López-Lastra M, et al. **J Virol** 1999 Oct;73(10):8393–402

Promoter activity of the zebrafish bhikhari retroelement requires an intact activin signaling pathway. Vogel AM, et al. **Mech Dev** 1999 Jul;85(1–2):133–46

Distribution of the retrotransposable element 412 in Drosophila species. Cizeron G, et al. **Mol Biol Evol** 1998 Dec;15(12):1589–99

SR2 elements, non-long terminal repeat retrotransposons of the RTE-1 lineage from the human blood fluke Schistosoma mansoni. Drew AC, et al. **Mol Biol Evol** 1999 Sep;16(9):1256–69

Retrotransposons and retroviruses: analysis of the envelope gene. Lerat E, et al. **Mol Biol Evol** 1999 Sep;16(9):1198–207

Repositional parasitism of SINEs on LINEs: identification of SINEs and LINEs in elasmobranchs. Ogiwara I, et al. **Mol Biol Evol** 1999 Sep;16(9):1238–50

Involvement of DNA end-binding protein Ku in Ty element retrotransposition. Downs JA, et al. **Mol Cell Biol** 1999 Sep;19(9):6260–8

Schizosaccharomyces pombe retrotransposon Tf2 mobilizes primarily through homologous cDNA recombination. Hoff EF, et al. **Mol Cell Biol** 1998 Nov;18(11):6839–52

Reverse transcription of a self-primed retrotransposon requires an RNA structure similar to the U5-IR stem-loop of retroviruses. Lin JH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6859–69

Polymorphism of insertion sites of Ty1-copia class retrotransposons and its use for linkage and diversity analysis in pea. Ellis TH, et al. **Mol Gen Genet** 1998 Oct; 260(1):9–19

Identification and characterization of novel retrotransposons of the gypsy type in rice. Kumekawa N, et al. **Mol Gen Genet** 1999 Jan;260(6):593–602

Non-LTR retrotransposons (LINEs) as ubiquitous components of plant genomes. Noma K, et al. **Mol Gen Genet** 1999 Feb;261(1):71–9

Molecular characterization of a retrotransposon in Drosophila melanogaster, nomad, and its relationship to other retrovirus-like mobile elements. Whalen JH, et al. **Mol Gen Genet** 1998 Dec;260(5):401–9

Structural flexibility of a DNA hairpin located in the long terminal repeat of the Drosophila 1731 retrotransposon. Slama-Schwok A, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5142–51

Retrotransposon-based insertion polymorphisms (RBIP) for high throughput marker analysis. Flavell AJ, et al. **Plant J** 1998 Dec;16(5):643–50

A 13-bp cis-regulatory element in the LTR promoter of the tobacco retrotransposon Tto1 is involved in responsiveness to tissue culture, wounding, methyl jasmonate and fungal elicitors. Takeda S, et al. **Plant J** 1999 May;18(4):383–93

IFG, a gypsy-like retrotransposon in Pinus (Pinaceae), has an extensive history in pines. Kossack DS, et al. **Plant Mol Biol** 1999 Feb;39(3):417–26

Hybrid Ty1/HIV-1 elements used to detect inhibitors and monitor the activity of HIV-1 reverse transcriptase. Nissley DV, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13905–10

Determining and dating recent rodent speciation events by using L1 (LINE-1) retrotransposons. Verneau O, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11284–9

Identification of the endonuclease domain encoded by R2 and other site-specific, non-long terminal repeat retrotransposable elements. Yang J, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7847–52

Genomic demography: a life-history analysis of transposable element evolution. Promislow DE, et al. **Proc R Soc Lond B Biol Sci** 1999 Aug 7;266(1428):1555–60

[Molecular analysis of complete copy of Drosophila Burdock mobile element] Churikov NA, et al. **Dokl Akad Nauk** 1998 Dec;363(4):561–4 **(Rus)**

[Cloning and expression in E.coli of integrase domain of mobile genetic element MDG4 (gypsy)] Glukhov IL, et al. **Dokl Akad Nauk** 1998 Nov;363(1):114–7 **(Rus)**

[Kinetics of amplification of two variants of Drosophila melanogaster retrotransposon MDG4] Smirnova IuB, et al. **Dokl Akad Nauk** 1998 Dec;363(4):558–60 **(Rus)**

PHYSIOLOGY

Mutations in nonconserved domains of Ty3 integrase affect multiple stages of the Ty3 life cycle. Nymark-McMahon MH, et al. **J Virol** 1999 Jan;73(1):453–65

Nup124p is a nuclear pore factor of Schizosaccharomyces pombe that is important for nuclear import and activity of retrotransposon Tf1. Balasundaram D, et al. **Mol Cell Biol** 1999 Aug;19(8):5768–84

RETROGNATHISM

see related
MANDIBULAR ADVANCEMENT

PHYSIOPATHOLOGY

Alteration of the functional condition of the mandible during clinical treatment. Schwestka-Polly R, et al. **Anat Anz** 1999 Jan;181(1):45–50

SURGERY

Soft and hard tissue correction of facial deformity associated with bilateral temporomandibular joint ankylosis. Salins PC. **Int J Oral Maxillofac Surg** 1998 Dec;27(6):422–4

THERAPY

Surgically-assisted orthopedic protraction of the maxilla in cleft lip and palate patients. Rachmiel A, et al. **Int J Oral Maxillofac Surg** 1999 Feb;28(1):9–14

Pharyngeal injury during percutaneous endoscopic gastrostomy in a child. Lamireau T, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):237–8

RETROGRADE DEGENERATION

COMPLICATIONS

Axonal degeneration of peripheral facial nerve in a patient with progressive hemifacial atrophy. Henta T, et al. **Plast Reconstr Surg** 1999 May;103(6):1700–2

PHYSIOPATHOLOGY

Relation between diffuse axonal injury and internal head structures on blunt impact. Nishimoto T, et al. **J Biomech Eng** 1998 Feb;120(1):140–7

RETROGRADE OBTURATION

Outcomes of periradicular surgery in cases with apical pathosis and untreated canals. Danin J, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):227–32

Considerations in the selection of a root-end filling material. Johnson BR. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):398–404 (40 ref.)

Persistent periapical radiolucencies of root-filled human teeth, failed endodontic treatments, and periapical scars. Nair PN, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):617–27

INSTRUMENTATION

Root-end cavity preparation after apicoectomy using a new type of sonic and diamond-surfaced retrotip: a 1-year follow-up study. von Arx T, et al. **J Oral Maxillofac Surg** 1999 Jun;57(6):656–61

METHODS

Success and failure in periradicular surgery: a longitudinal retrospective analysis. Testori T, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):493–8

UTILIZATION

Nonsurgical root canal therapy treatment with apparent indications for root-end surgery. Moiseiwitsch JR, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Sep;86(3):335–40

RETROLENTAL FIBROPLASIA see **RETINOPATHY OF PREMATURITY**

RETROPERITONEAL FIBROSIS

[Idiopathic retroperitoneal fibrosis] Valderrama Rojas M, et al. **Rev Clin Esp** 1999 Apr;199(4):222–6 (28 ref.) **(Spa)**

CHEMICALLY INDUCED

Pericardial, retroperitoneal, and pleural fibrosis induced by pergolide. Shaunak S, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):79–81

COMPLICATIONS

Combined idiopathic retroperitoneal and mediastinal fibrosis with pericardial involvement. Klisnick A, et al. **Clin Nephrol** 1999 Jul;52(1):51–5 (31 ref.)

Crystal-storing histiocytosis and immunocytoma associated with multifocal fibrosclerosis. Garc-ia JF, et al. **Histopathology** 1998 Nov;33(5):459–64

Obstructive nephropathy as a result of retroperitoneal fibrosis: a review of its pathogenesis and associations. Demko TM, et al. **J Am Soc Nephrol** 1997 Apr;8(4):684–8 (26 ref.)

Retroperitoneal fibrosis and membranous nephropathy. Improvement of both diseases after treatment with steroids and immunosuppressive agents. Moroni G, et al. **Nephrol Dial Transplant** 1999 May;14(5):1303–5

A case of ureteric obstruction, retroperitoneal fibrosis, and carcinoid tumour. Dev S, et al. **Postgrad Med J** 1999 Jan; 75(879):38–40

Systemic multifocal fibrosclerosis. Johal SS, et al. **Postgrad Med J** 1998 Oct;74(876):608–9

Images in clinical urology. Testicular encasement by retroperitoneal fibrosis: a rare testicular mass. Palmer LS, et al. **Urology** 1999 Mar;53(3):619–20

[Case of retroperitoneal fibrosis exhibiting a variety of auto-antibodies and complicated by Sjogren's syndrome] Sakamoto K, et al. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2319–21 **(Jpn)**

[A case of seronegative spondylarthropathy with iritis and retroperitoneal fibrosis] Takahashi M, et al. **Ryumachi** 1999 Feb;39(1):17–21 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Severe back and abdominal pain in a 44-year-old woman. Jaffer A, et al. **Cleve Clin J Med** 1998 Nov–Dec; 65(10):515–8

Low grade fever, back pain and livedo reticularis in a 60-year-old man [clinical conference] Voulgarelis M, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):95–8

Atypical retroperitoneal fibrosis: MRI findings. Ayuso JR, et al. **Eur Radiol** 1999;9(5):937–9

Intrinsic common bile duct stricture: an unusual presentation of retroperitoneal fibrosis. Lascarides CE, et al. **Gastrointest Endosc** 1999 Jul;50(1):102–5 (17 ref.)

Multifocal fibrosclerosis presenting as Grave's orbitopathy. Bilateral exophthalmos associated with retroperitoneal and sellar fibrosis. van der Pol R, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar;237(3):256–8

Retroperitoneal fibrosis: unusual localization. Marinoni M, et al. **Hepatogastroenterology** 1998 Jul–Aug;45(22):973–7

Obstructive nephropathy as a result of retroperitoneal fibrosis: a review of its pathogenesis and associations. Demko TM, et al. **J Am Soc Nephrol** 1997 Apr;8(4):684–8 (26 ref.)

Stenosis of the common bile duct due to Ormond's disease: case report and review of the literature. Dejaco C, et al. **J Hepatol** 1999 Jul;31(1):156–9 (19 ref.)

Idiopathic retroperitoneal fibrosis simulating renal malignancy. Tripodi SA, et al. **J Urol** 1998 Dec;160(6 Pt 1):2145

[Retroperitoneal fibrosis and arthritis—a manifestation of the same illness] Thiele A, et al. **Z Rheumatol** 1998 Oct; 57(5):285–91 (Eng. Abstr.) **(Ger)**

[Chronic periaortitis] Messinetti S, et al. **Ann Ital Chir** 1998 Sep–Oct;69(5):601–11 (86 ref.) (Eng. Abstr.) **(Ita)**

[Retroperitoneal fibrosis with antiphospholipid syndrome: a coincidence or common autoimmunological etiology?] Zelichowski G, et al. **Pol Merkuriusz Lek** 1998 Nov; 5(29):298–300 (Eng. Abstr.) **(Pol)**

[A 56-year-old man with abdominal pain, intermittent claudication and a retroperitoneal mass] Medina Pérez M, et al. **Arch Esp Urol** 1998 Nov;51(9):935–7 (10 ref.) (Eng. Abstr.) **(Spa)**

[77-year-old male with constitutional syndrome and periaortic abdominal mass] Garcia Bermejo P, et al. **Rev Clin Esp** 1999 Mar;199(3):173-4 **(Spa)**

DRUG THERAPY

Idiopathic retroperitoneal fibrosis treated with tamoxifen only. al-Musawi D, et al. **Br J Urol** 1998 Sep;82(3):442-3

Treatment of retroperitoneal fibrosis by mycophenolate mofetil and corticosteroids [letter] Grotz W, et al. **Lancet** 1998 Oct 10;352(9135):1195

Retroperitoneal fibrosis and membranous nephropathy. Improvement of both diseases after treatment with steroids and immunosuppressive agents. Moroni G, et al. **Nephrol Dial Transplant** 1999 May;14(5):1303-5

Conservative treatment of acute Ormond's disease. Adam U, et al. **Tech Urol** 1999 Mar;5(1):54-6

[A case of idiopathic retroperitoneal fibrosis with renal subcapsular urinoma resolved by steroid therapy] Sakai Y. **Hinyokika Kiyo** 1999 Apr;45(4):249-51 (Eng. Abstr.) **(Jpn)**

ETIOLOGY

Retroperitoneal fibrosis and systemic lupus erythematosus. Okada H, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1300-2

Localized nodular idiopathic retroperitoneal fibrosis: successful treatment with surgical resection. Fujii K, et al. **Pancreas** 1999 Aug;19(2):213-5

Idiopathic retroperitoneal fibrosis with bilateral lower ureteric obstruction--a case report with literature review. Koh JS, et al. **Singapore Med J** 1998 Sep;39(9):416-7 (15 ref.)

[Retroperitoneal fibrosis caused by barium: complication of rectal perforation during double contrast enema of the colon. Report of a case] Rollandi GA, et al. **Radiol Med (Torino)** 1999 Jun;97(6):539-42 **(Ita)**

[Retroperitoneal fibrosis with antiphospholipid syndrome: a coincidence or common autoimmunological etiology?] Zelichowski G, et al. **Pol Merkuriusz Lek** 1998 Nov; 5(29):298-300 (Eng. Abstr.) **(Pol)**

PATHOLOGY

Juxtaglomerular cell tumor with retroperitoneal fibrosis and secondary immune-complex glomerulonephritis: a possible contribution of the renin angiotensin system to renal fibrosis. Moriya H, et al. **Am J Kidney Dis** 1999 Sep; 34(3):e10

Fine-needle aspiration findings in idiopathic retroperitoneal fibrosis. Dash RC, et al. **Diagn Cytopathol** 1999 Jul; 21(1):22-6

Chronic sclerosing sialadenitis of the submandibular gland associated with idiopathic retroperitoneal fibrosis. Sekine S, et al. **Pathol Int** 1999 Jul;49(7):663-7

SURGERY

MRSA psoas abscess after retroperitoneal fibrosis [letter] Waring WS, et al. **J Infect** 1999 May;38(3):202-3

Idiopathic retroperitoneal fibrosis with bilateral lower ureteric obstruction--a case report with literature review. Koh JS, et al. **Singapore Med J** 1998 Sep;39(9):416-7 (15 ref.)

VIROLOGY

Activation in vivo of retroperitoneal fibromatosis-associated herpesvirus, a simian homologue of human herpesvirus-8. Bosch ML, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):467-75

RETROPERITONEAL NEOPLASMS

Ossifying fibromyxoid tumor of soft parts in a child: a case report. Ijiri R, et al. **J Pediatr Surg** 1999 Aug;34(8):1294-6 (18 ref.)

Transhepatic artery chemoembolization for liver metastases of primary retroperitoneal endodermal sinus tumor. A case report. Chen CL, et al. **J Reprod Med** 1999 Jun; 44(6):559-62

CLASSIFICATION

Retroperitoneal ectopic neural mass: "abdominal brain"--presentation of two cases and proposal of classification of paraneuraxial neural ectopia. Hori A, et al. **Acta Neuropathol (Berl)** 1998 Sep;96(3):301-6

COMPLICATIONS

The management of inferior vena cava obstruction complicating metastatic germ cell tumors. Hassan B, et al. **Cancer** 1999 Feb 15;85(4):912-8

Glucocorticoid therapy for nonislet cell tumour hypoglycaemia (NICTH) [letter] McNulty SJ, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):546

Hypercalcemia in malignant paraganglioma due to parathyroid hormone-related protein. Loh K, et al. **Horm Res** 1998;50(4):217-21

Childhood retroperitoneal lymphangioma presenting following minor trauma. Freud E, et al. **Injury** 1999 Jun; 30(5):380-3

Costello syndrome: two cases with embryonal rhabdomyosarcoma. Kerr B, et al. **J Med Genet** 1998 Dec; 35(12):1036-9

Coarctation of the aorta associated with neuroblastoma. Friedman DM, et al. **Pediatr Cardiol** 1998 Nov-Dec; 19(6):480-1 (10 ref.)

[Progressive asymmetrical peripheral neuropathy of both legs in a 64-year-old man (clinical conference)] Kuntzer T, et al. **Rev Neurol (Paris)** 1998 Nov;154(11):789-94 . **(Fre)**

[Secondary varicocele as a clinical manifestation of primitive retroperitoneal tumor] Signori GB, et al. **Minerva Urol Nefrol** 1998 Dec;50(4):267-9 (Eng. Abstr.) **(Ita)**

[Atypical case of retroperitoneal paraganglioma parasympaticum coexisting with recurrent bleeding from upper gastrointestinal tract] Witek R, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):210-1 (Eng. Abstr.) **(Pol)**

DIAGNOSIS

Pseudomyxoma retroperitonei with spontaneous skin fistula. Koizumi J, et al. **Abdom Imaging** 1999 Mar-Apr;24(2):193-5

Retroperitoneal malignant mesenchymoma: imaging findings in five cases. Suzuki S, et al. **Abdom Imaging** 1999 Jan-Feb; 24(1):92-7

Retroperitoneal malignant fibrous histiocytoma. Répássy DL, et al. **Acta Chir Hung** 1998;37(3-4):271-9

MR findings in primary retroperitoneal schwannoma. Hayasaka K, et al. **Acta Radiol** 1999 Jan;40(1):78-82

Never say never [letter; comment] de Chadarévian JP. **Am J Clin Pathol** 1999 Mar;111(3):424-6. Comment on: Am J Clin Pathol 1998 Jun;109(6):662-8.

Persistent elevation of CA 19-9 levels in a patient with an extended retroperitoneal dermoid. Micke O, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2717-20

A diagnosis of lymphangioleiomyomatosis in a pregnant woman presenting with a retroperitoneal mass. Weinans MJ, et al. **Br J Obstet Gynaecol** 1999 Jul;106(7):747-8

Benign solitary fibrous tumour of the pre-sacral space: MRI findings. Chun HJ, et al. **Br J Radiol** 1998 Jun; 71(846):677-9

Retroperitoneal ganglioneuroma: report of a case diagnosed by fine-needle aspiration cytology, with review of the literature. Jain M, et al. **Diagn Cytopathol** 1999 Sep; 21(3):194-6 (18 ref.)

Fine-needle aspiration with flow cytometric immunophenotyping for primary diagnosis of intra-abdominal lymphomas. Liu K, et al. **Diagn Cytopathol** 1999 Aug;21(2):98-104

Retroperitoneal ganglioneuroma: a report of diagnosis by fine-needle aspiration cytology. Yen H, et al. **Diagn Cytopathol** 1998 Nov;19(5):385-7

Retroperitoneal mucinous cystadenoma. Kehagias DT, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Feb;82(2):213-5

Pseudomyxoma retroperitonei. Matsuoka Y, et al. **Eur Radiol** 1999;9(3):457-9

Benign retroperitoneal schwannoma mimicking a pancreatic cystic tumor: case report and literature review. Hsiao WC, et al. **Hepatogastroenterology** 1998 Nov-Dec; 45(24):2418-20 (9 ref.)

Paraneoplastic pemphigus associated with follicular dendritic cell sarcoma arising from Castleman's tumor. Lee IJ, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):294-7

Retroperitoneal lymphangioleiomyomatosis. De Praeter G, et al. **J Belge Radiol** 1998 Oct;81(5):237

Two cases of neuroblastoma presenting to the emergency department. Christiansen GM, et al. **J Emerg Med** 1999 Mar-Apr;17(2):265-8

Unusual benign nerve sheath tumours. Sidhu BS, et al. **J Indian Med Assoc** 1998 Apr;96(4):123-5

Incidental liposarcomas identified during hernia repair operations. Montgomery E, et al. **J Surg Oncol** 1999 May; 71(1):50-3

Association of gastrointestinal stromal tumor (leiomyosarcoma), pulmonary chondroma, and nonfunctional retroperitoneal paraganglioma [clinical conference] Mendes W, et al. **Med Pediatr Oncol** 1998 Dec; 31(6):537-40

Spontaneous pelvic hematoma simulating neoplasm: case report and literature review. Chia SH, et al. **Oncol Rep** 1999 Jan-Feb;6(1):189-91

Extra-adrenal phechromocytoma and renal cell carcinoma--an unusual case of tumour synchronism. Vendeira P, et al. **Scand J Urol Nephrol** 1999 Apr; 33(2):133-5

Recurrent Wilms' tumour or retroperitoneal teratoma? A challenging case. Govender D, et al. **Virchows Arch** 1999 Jul;435(1):67-70

[Diagnosis and treatment of retroperitoneal chemodectoma. Report of 7 cases] Lei Z, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):371-2 **(Chi)**

[Primary retroperitoneal extragonadal germ cell tumor] Van de Gaer P, et al. **J Belge Radiol** 1998 Oct;81(5):221-2 (Eng. Abstr.) **(Dut)**

[Retroperitoneal mucinous cystadenoma: a case report] Pouche D, et al. **Contracept Fertil Sex** 1998 Oct; 26(10):VIII-V **(Fre)**

[Retroperitoneal sarcomas: 1. Natural history and preoperative evaluation] Bonvalot S. **J Chir (Paris)** 1999 Mar;136(1):5-9 (17 ref.) (Eng. Abstr.) **(Fre)**

[Peritoneal splenosis simulating a right retroperitoneal mass] Chagnaud C, et al. **J Radiol** 1998 Nov;79(11):1407-9 (Eng. Abstr.) **(Fre)**

[Retroperitoneal non-secreting paraganglioma] Crozier F, et al. **J Radiol** 1999 Feb;80(2):150-2 (Eng. Abstr.) **(Fre)**

[Retroperitoneal mucinous cystadenoma] Azam P, et al. **Prog Urol** 1999 Apr;9(2):319-21 (Eng. Abstr.) **(Fre)**

[Retroperitoneal tumors. Observations on 8 cases] Tramontano R, et al. **Minerva Chir** 1998 Jun;53(6):539-41 (Eng. Abstr.) **(Ita)**

[A case of accessory spleen presenting as retroperitoneal tumor] Kato Y, et al. **Hinyokika Kiyo** 1998 Oct; 44(10):711-4 (20 ref.) (Eng. Abstr.) **(Jpn)**

[A case of retroperitoneal hemangiopericytoma] Kura N, et al. **Hinyokika Kiyo** 1999 Jan;45(1):45-8 (Eng. Abstr.) **(Jpn)**

[A case of retroperitoneal teratoma in an adult resembling adrenal tumors] Megumi Y, et al. **Hinyokika Kiyo** 1999 Jan;45(1):37-9 (Eng. Abstr.) **(Jpn)**

[Retroperitoneal schwannoma: a case report] Yamamichi F, et al. **Hinyokika Kiyo** 1999 Jan;45(1):41-3 (Eng. Abstr.) **(Jpn)**

[Current principles of diagnosis and surgical treatment of non-organ retroperitoneal tumors] Klimenkov AA, et al. **Vopr Onkol** 1998;44(5):546-50 (Eng. Abstr.) **(Rus)**

[Extragonadal germ tumor] Carmona Campos EC, et al. **Actas Urol Esp** 1999 Jun;23(6):546-8 (Eng. Abstr.) **(Spa)**

[A benign retroperitoneal schwannoma: a review of the literature and a report of a new case] Cortés Aránguez I, et al. **Actas Urol Esp** 1999 Jul-Aug;23(7):621-4 (15 ref.) (Eng. Abstr.) **(Spa)**

[A retrovesical mass (intestinal duplication)] Marco Pérez LM, et al. **Actas Urol Esp** 1999 May;23(5):440-3 (6 ref.) (Eng. Abstr.) **(Spa)**

[A retroperitoneal cellular schwannoma] Ortiz Rey JA, et al. **Actas Urol Esp** 1999 May;23(5):455-8 (12 ref.) (Eng. Abstr.) **(Spa)**

[Exophytic renal angiolipoma versus retroperitoneal liposarcoma] Medina Pérez M, et al. **Arch Esp Urol** 1998 Dec;51(10):1034-6 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Treatment of a malignant enterocutaneous fistula with octreotide acetate. Ayache S, et al. **Cancer Invest** 1999; 17(5):320-1

A 47-year-old man with leiomyosarcoma and altered mental status. Gurm HS, et al. **Cleve Clin J Med** 1999 Jan; 66(1):15-7

High-dose chemotherapy in germ cell tumours: a large single centre experience. Rick O, et al. **Eur J Cancer** 1998 Nov; 34(12):1883-8

Secondary leukemia following high cumulative doses of etoposide in patients treated for advanced germ cell tumors. Kollmannsberger C, et al. **J Clin Oncol** 1998 Oct; 16(10):3386-91

Management consideration in nonpulmonary visceral metastatic seminoma of testis. Park DS, et al. **J Korean Med Sci** 1999 Aug;14(4):431-7

Retroperitoneal germ cell tumor treated by PVeBV chemotherapy: a case report. Abe H, et al. **Jpn J Clin Oncol** 1999 May;29(5):261-3

Platinum-based chemotherapy of primary extragonadal germ cell tumours: the Hellenic Cooperative Oncology Group experience. Pectasides D, et al. **Oncology** 1999 Jul;57(1):1-9

EPIDEMIOLOGY

Retroperitoneal recurrences after retroperitoneal lymph node dissection for low-stage nonseminomatous germ cell tumors. Cespedes RD, et al. **Urology** 1999 Sep;54(3):548-52

GENETICS

Embryonal rhabdomyosarcoma with only numerical chromosome changes. Case report and review of the literature. Polito P, et al. **Cancer Genet Cytogenet** 1999 Mar; 109(2):161-5 (19 ref.)

[Studies on gene expression of bcl-2 and its correlation with tumor cell apoptosis as well as expression of p16 in human neuroblastoma] Zhe X, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Oct;26(5):289-92 (Eng. Abstr.) **(Chi)**

MORTALITY

Does debulking improve survival rate in advanced-stage retroperitoneal embryonal rhabdomyosarcoma? Blakely ML, et al. **J Pediatr Surg** 1999 May;34(5):736-41; discussion 741-2

Prognostic factors in retroperitoneal sarcomas: ploidy of DNA as a predictor of clinical outcome. Herman K, et al. **J Surg Oncol** 1999 May;71(1):32-5

PATHOLOGY

Retroperitoneal ectopic neural mass: "abdominal brain"--presentation of two cases and proposal of classification of paraneuraxial neural ectopia. Hori A, et al. **Acta Neuropathol (Berl)** 1998 Sep;96(3):301-6

Atypical and malignant solitary fibrous tumors in extrathoracic locations: evidence of their comparability to intra-thoracic tumors. Vallat-Decouvelaere AV, et al. **Am J Surg Pathol** 1998 Dec;22(12):1501-11

Establishment of an IL-2-dependent cell line derived from 'nasal-type' NK/T-cell lymphoma of CD2+, sCD3-, CD3epsilon+, CD56+ phenotype and associated with the Epstein-Barr virus. Kagami Y, et al. **Br J Haematol** 1998 Dec;103(3):669-77

RETROPERITONEAL NEOPLASMS

Shoulder mass in a 38-year-old woman [clinical conference] Averyt J, et al. **Clin Orthop** 1998 Oct;(355):323-7, 330-2

The cytology of bronchial brushings from a malignant paraganglioma metastasizing to the lung. Stephen MR, et al. **Cytopathology** 1999 Jun;10(3):211-5

An endodermal sinus tumor arising from a mature cystic teratoma in the retroperitoneum in a child: is a mature teratoma a premalignant condition? [see comments] Ohno Y, et al. **Hum Pathol** 1998 Oct;29(10):1167-9. Comment in: Hum Pathol 1999 May;30(5):596.

Intra-abdominal and retroperitoneal liposarcomas. Sato T, et al. **Int Surg** 1999 Apr-Jun;84(2):163-7

Late recurrence with malignant degeneration of testicular teratoma. Case report. Bulbul MA, et al. **J Med Liban** 1998 Mar-Apr;46(2):103-5

47-year-old man with left flank pain: a clinical pathological correlation conference of the University of Oklahoma College of Medicine [clinical conference] Quintana D, et al. **J Okla State Med Assoc** 1998 Dec;91(9):494-503

A patient with extra-adrenal retroperitoneal paraganglioma and review of the literature. Alp H, et al. **J Pediatr Endocrinol Metab** 1998 Nov-Dec;11(6):763-5 (7 ref.)

Case of retroperitoneal dedifferentiated mixed-type liposarcoma: comparison of proliferative activity in specimens from four operations. Kato T, et al. **J Surg Oncol** 1999 Sep;72(1):32-6

The giant of the giant schwannomas. Kuznetsov D, et al. **J Urol** 1999 Sep;162(3 Pt 1):791-2

Brief report: Advanced paraganglioma: A role for chemotherapy? Fitoussi O, et al. **Med Pediatr Oncol** 1999 Aug;33(2):129-31

Retroperitoneal leiomyosarcomas unassociated with the gastrointestinal tract: a clinicopathologic analysis of 17 cases. Rajani B, et al. **Mod Pathol** 1999 Jan;12(1):21-8

A retroperitoneal bronchogenic cyst with malignant change. Sullivan SM, et al. **Pathol Int** 1999 Apr;49(4):338-41 (30 ref.)

Retroperitoneal leiomyosarcoma of a male centenarian. Yokoo H, et al. **Pathol Int** 1998 Dec;48(12):985-8 (15 ref.)

Huge localised fibrous tumour of the retroperitoneum [letter] Fujimori H, et al. **Postgrad Med J** 1998 Sep;74(875):575

Bone metastases from a paraganglioma. A review of five cases. Razakaboay M, et al. **Rev Rhum Engl Ed** 1999 Feb; 66(2):86-91 (18 ref.)

Malignant paraganglioma metachronously recurring at short duration in different paraganglions: report of a case. Sonoda I, et al. **Surg Today** 1999;29(8):769-72

Characterization and chemosensitivity of two human malignant peripheral nerve sheath tumour cell lines derived from a patient with neurofibromatosis type 1. Imaizumi S, et al. **Virchows Arch** 1998 Nov;433(5):435-41

[Pelvic hemangiopericytoma in pregnancy. Report of a case] Petignat P, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Nov;27(7):721-4 (Eng. Abstr.) **(Fre)**

[A benign retroperitoneal schwannoma with vertebral lysis. A case report] Napolitano C, et al. **Ann Ital Chir** 1998 Nov-Dec;69(6):815-6; discussion 817 (Eng. Abstr.) **(Ita)**

[Computerized tomography and magnetic resonance in the study of retroperitoneal sarcomas] Marano I, et al. **Radiol Med (Torino)** 1998 Sep;96(3):232-7 (Eng. Abstr.) **(Ita)**

[A case of metastatic liposarcoma originating in the retroperitoneum successfully treated with combination chemotherapy] Kobayashi K, et al. **Gan To Kagaku Ryoho** 1999 Feb;26(3):385-8 (Eng. Abstr.) **(Jpn)**

[Atypical case of retroperitoneal paraganglioma parasympaticum coexisting with recurrent bleeding from upper gastrointestinal tract] Witek R, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):210-1 (Eng. Abstr.) **(Pol)**

[The nephrotic syndrome, AA amyloidosis and a retroperitoneal tumor mass in a 20-year-old female patient (clinical conference)] Bayés B, et al. **Med Clin (Barc)** 1998 Dec 5;111(19):751-7 **(Spa)**

PHYSIOPATHOLOGY

[Two cases of retroperitoneal functioning paraganglioma] Maruyama T, et al. **Hinyokika Kiyo** 1998 Dec; 44(12):869-73 (12 ref.) (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

Case report: Serous cystadenocarcinoma of the retroperitoneum: CT and sonographic appearance. Kurosaki Y, et al. **Clin Radiol** 1998 Dec;53(12):916-8

Possible misinterpretation on computed tomography of left inferior vena cava as retroperitoneal lymph node metastasis: a report of two cases. Arisawa C, et al. **Int J Urol** 1999 Apr;6(4):215-8

Postchemotherapy retroperitoneal residual mass in infantile yolk sac tumor. Kuo JY, et al. **Int J Urol** 1999 Feb; 6(2):116-8

Retroperitoneal cystic lymphangioma. Poncelet V. **J Belge Radiol** 1998 Oct;81(5):245

[Computerized tomography and magnetic resonance in the study of retroperitoneal sarcomas] Marano I, et al. **Radiol Med (Torino)** 1998 Sep;96(3):232-7 (Eng. Abstr.) **(Ita)**

RADIONUCLIDE IMAGING

Simulation of renal function by tumor and its effect on the calculated glomerular filtration rate. Boxen I. **Clin Nucl Med** 1999 May;24(5):338-42

Iodine-123 BMIPP and Ga-67 scintigraphy in liposarcoma. Yamamoto Y, et al. **Clin Nucl Med** 1998 Sep;23(9):609-12

SECONDARY

Resection of small, residual retroperitoneal masses after chemotherapy for nonseminomatous testicular cancer: a decision analysis. Steyerberg EW, et al. **Cancer** 1999 Mar 15;85(6):1331-41

Endometrium adenocarcinoma with choriocarcinomatous differentiation: a case report. Tunç M, et al. **Eur J Gynaecol Oncol** 1998;19(5):489-91

Possible misinterpretation on computed tomography of left inferior vena cava as retroperitoneal lymph node metastasis: a report of two cases. Arisawa C, et al. **Int J Urol** 1999 Apr;6(4):215-8

Management consideration in nonpulmonary visceral metastatic seminoma of testis. Park DS, et al. **J Korean Med Sci** 1999 Aug;14(4):431-7

Cervical sarcoma botryoides. A case report. Vlahos NP, et al. **J Reprod Med** 1999 Mar;44(3):306-8

Primary pure intratesticular fibrosarcoma. Val-Bernal JF, et al. **Pathol Int** 1999 Feb;49(2):185-9

Rhabdomyosarcoma metastasizing as a malignant ectomesenchymoma. Edwards V, et al. **Ultrastruct Pathol** 1999 Jul-Aug;23(4):267-73

Retroperitoneal recurrences after retroperitoneal lymph node dissection for low-stage nonseminomatous germ cell tumors. Cespedes RD, et al. **Urology** 1999 Sep;54(3):548-52

Recurrent Wilms' tumour or retroperitoneal teratoma? A challenging case. Govender D, et al. **Virchows Arch** 1999 Jul;435(1):67-70

[Retroperitoneal recurrence of non-seminomatous testicular tumors: computerized tomography findings before retroperitoneal lymph node excision] Hosten N, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):61-5 (Eng. Abstr.) **(Ger)**

[Positron emission tomography with [18 F]-2-fluoro-2-deoxy-D-glucose (18FDG-PET) in diagnosis of retroperitoneal lymph node metastases of testicular tumors] Müller-Mattheis V, et al. **Urologe A** 1998 Nov;37(6):609-20 (Eng. Abstr.) **(Ger)**

SECRETION

[Secreting retroperitoneal paraganglioma. Apropos of a case] Farthouat P, et al. **J Chir (Paris)** 1997 Nov;134(5-6):248-51 (Eng. Abstr.) **(Fre)**

SURGERY

Retroperitoneal venous hemangioma. Igarashi J, et al. **Am J Gastroenterol** 1998 Nov;93(11):2292-3

Resection of small, residual retroperitoneal masses after chemotherapy for nonseminomatous testicular cancer: a decision analysis. Steyerberg EW, et al. **Cancer** 1999 Mar 15;85(6):1331-41

Laparoscopic treatment of retroperitoneal benign schwannoma. Ohigashi T, et al. **Int J Urol** 1999 Feb; 6(2):100-3

Unusual benign nerve sheath tumours. Sidhu BS, et al. **J Indian Med Assoc** 1998 Apr;96(4):123-5

Does debulking improve survival rate in advanced-stage retroperitoneal embryonal rhabdomyosarcoma? Blakely ML, et al. **J Pediatr Surg** 1999 May;34(5):736-41; discussion 741-2

Surgical treatment for neuroblastoma: complications during 15 years' experience. Cañete A, et al. **J Pediatr Surg** 1998 Oct;33(10):1526-30

Combined resection of abdominal aorta and inferior vena cava for retroperitoneal rhabdomyosarcoma invading the aortoiliac bifurcation. Ito F, et al. **J Pediatr Surg** 1998 Oct; 33(10):1566-8

Long-term results after inferior vena caval resection during retroperitoneal lymphadenectomy for metastatic germ cell cancer. Beck SD, et al. **J Vasc Surg** 1998 Nov;28(5):808-14

Retrorectal carcinoid tumor. Gorski T, et al. **South Med J** 1999 Apr;92(4):417-20 (22 ref.)

Retroperitoneal sarcoma--the continued challenge for surgery and oncology. Herman K, et al. **Surg Oncol** 1998 Jul-Aug;7(1-2):77-81 (33 ref.)

Liver transplantation for metastatic hemangiopericytoma associated with hypoglycemia. Adams J, et al. **Transplantation** 1999 Feb 15;67(3):488-9

Primary retroperitoneal soft tissue sarcomas: results of aggressive surgical treatment. Malerba M, et al. **World J Surg** 1999 Jul;23(7):670-5

[Retroperitoneal mucinous cystadenoma: a case report] Pouche D, et al. **Contracept Fertil Sex** 1998 Oct; 26(10):VIII-V **(Fre)**

[Retroperitoneal sarcomas: 2. Surgical and complementary treatment] Bonvalot S. **J Chir (Paris)** 1999 Jun;136(2):61-6 (17 ref.) (Eng. Abstr.) **(Fre)**

[Transcutaneous and laparoscopic laser treatment in extensive retroperitoneal lymphangiomas in childhood] Cholewa D, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:399-404 (Eng. Abstr.) **(Ger)**

[Surgery of extensive retroperitoneal soft tissue sarcoma] Junginger T. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:388-92 (8 ref.) (Eng. Abstr.) **(Ger)**

[Retroperitoneal malignant fibrous histiocytoma] Csata S, et al. **Orv Hetil** 1999 Feb 14;140(7):359-62 (Eng. Abstr.) **(Hun)**

[Clinical study of retroperitoneal lymph node dissection for patients with advanced germ cell tumors] Okamura K, et al. **Hinyokika Kiyo** 1999 Feb;45(2):95-101 (Eng. Abstr.) **(Jpn)**

[Current principles of diagnosis and surgical treatment of non-organ retroperitoneal tumors] Klimenkov AA, et al. **Vopr Onkol** 1998;44(5):546-50 (Eng. Abstr.) **(Rus)**

THERAPY

[High dose chemotherapy with autologous stem cell support in the treatment of germ cell tumors: experience of the centre Léon-Bérard between 1982 and 1996] Fléchon A, et al. **Bull Cancer** 1999 Apr;86(4):391-9 (Eng. Abstr.) **(Fre)**

[High-dose chemotherapy followed by peripheral blood stem cell transplantation in advanced extragonadal germ cell tumor--a case report] Matsuura H, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Apr;90(4):521-5 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Sonographic diagnosis of a retroperitoneal dermoid cyst in a young girl. Kanizsai B, et al. **Ultrasound Obstet Gynecol** 1998 Nov;12(5):367-8

Detection of adrenal and retroperitoneal masses in a general health examination system. Masumori N, et al. **Urology** 1998 Oct;52(4):572-6

RETROPERITONEAL SPACE

Retroperitoneal hemorrhage after diagnostic colonoscopy: an unusual complication [letter] Yoshimura H, et al. **Am J Gastroenterol** 1999 Jul;94(7):1992-3

Retroperitoneal abscess presenting with a buttock swelling and anaemia. Spedding RL, et al. **J Accid Emerg Med** 1999 Jul;16(4):302-3

Microbiology of retroperitoneal abscesses in children. Brook I. **J Med Microbiol** 1999 Jul;48(7):697-700

Müllerian cysts of the mesentery and retroperitoneum: a case report and literature review. Lee J, et al. **Pathol Int** 1998 Nov;48(11):902-6 (9 ref.)

Mesenteric, omental, and retroperitoneal edema in cirrhosis: frequency and spectrum of CT findings. Chopra S, et al. **Radiology** 1999 Jun;211(3):737-42

Retroperitoneal and mesenteric cysts. Alwan MH, et al. **Singapore Med J** 1999 Mar;40(3):160-4

[Rare primary localization of echinococcus cysts. Presentation of 2 cases and review of the literature] Santangelo M, et al. **Ann Ital Chir** 1999 May-Jun; 70(3):451-6 (Eng. Abstr.) **(Ita)**

[Extragenital retroperitoneal endometriosis: cause of renal colic] Petruniaev AI, et al. **Urol Nefrol (Mosk)** 1998 Nov-Dec;(6):45-6 **(Rus)**

[Spontaneous ruptures of the kidney and retroperitoneal hematomas in hemorrhagic fever with renal syndrome] Zagidullin IM, et al. **Urol Nefrol (Mosk)** 1998 Nov-Dec; (6):50-3 (56 ref.) **(Rus)**

[Retroperitoneal hematoma and femoral compression neuropathy--a complication of anticoagulation therapy after myocardial infarct] Kristian P, et al. **Vnitr Lek** 1998 Jun;44(6):366-9 (Eng. Abstr.) **(Slo)**

BLOOD SUPPLY

[Diagnostic and therapeutic problems of sponaneous retroperitoneal hematoma] Temes G, et al. **Orv Hetil** 1998 Oct 4;139(40):2369-71 (Eng. Abstr.) **(Hun)**

INJURIES

[Evaluation of the risk of mediastinal or retroperitoneal injuries caused by dorso-lumbar pedicle screws] Hernigou P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Sep; 84(5):411-20 (Eng. Abstr.) **(Fre)**

[A rare complication of the Greenfield vena cava filter] Cavallaro A, et al. **Ann Ital Chir** 1998 Sep-Oct;69(5):655-9 (Eng. Abstr.) **(Ita)**

PATHOLOGY

Pseudomyxoma retroperitonei. Matsuoka Y, et al. **Eur Radiol** 1999;9(3):457-9

Retroperitoneal Castleman's disease of the hyaline vascular type presenting arborizing calcification. Sadamoto Y, et al. **Intern Med** 1998 Aug;37(8):691-3

Retroperitoneoscopic nephrectomy for benign diseases of the kidney: prospective nonrandomized comparison with open surgical nephrectomy. Hemal AK, et al. **J Endourol** 1999 Jul-Aug;13(6):425-31

Laparoscopy and retroperitoneoscopy--novel techniques of which clinical nephrologists should be aware. Rassweiler J, et al. **Nephrol Dial Transplant** 1999 Feb;14(2):313-7 (7 ref.)

Retroperitoneal bronchogenic cyst: report of a case and literature review. Itoh H, et al. **Pathol Int** 1999 Feb; 49(2):152-5 (22 ref.)

Castleman disease of the pararenal retroperitoneum: report of a case. Okada S, et al. **Surg Today** 1999;29(2):178-81

[A giant retroperitoneal cyst deriving from the vestiges of

a mullerian duct] Damianov N, et al. **Khirurgiia (Sofiia)** 1998;51(4):62–3 **(Bul)**

RADIOGRAPHY

Significance of retroperitoneal air after endoscopic retrograde cholangiopancreatography with sphincterotomy. Genzlinger JL, et al. **Am J Gastroenterol** 1999 May;94(5):1267–70

SURGERY

Endoscopic retroperitoneal surgery. Himpens J. **Dig Surg** 1998;15(2):181–4

Retroperitoneoscopic treatment of a retrocaval ureter. Mugiya S, et al. **Int J Urol** 1999 Aug;6(8):419–22

Extraperitoneoscopic ureterocutaneostomy with hernia repair. Aydin S, et al. **Int Urol Nephrol** 1998;30(5):559–60

Pulmonary function after posterior retroperitoneoscopic surgery. Sasagawa I, et al. **Int Urol Nephrol** 1998; 30(6):695–8

Geometry of laparoscopic suturing and knotting techniques. Frede T, et al. **J Endourol** 1999 Apr;13(3):191–8

Comparison between the transabdominal and retroperitoneal approaches for aortic reconstruction in patients at high risk. Kirby LB, et al. **J Vasc Surg** 1999 Sep;30(3):400–5

[Primary retroperitoneal hydatid cyst (letter)] Lahlou MK, et al. **Ann Chir** 1998;52(1):102 **(Fre)**

[A method for retroperitoneoscopy in surgery on the the organs of the retroperitoneal space] Kurbatov DG, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):35–6 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

[Ultrasound lymph node imaging in the abdomen and retroperitoneum of healthy probands] Dietrich CF, et al. **Ultraschall Med** 1998 Dec;19(6):265–9 (Eng. Abstr.) **(Ger)**

RETROPHARYNGEAL ABSCESS

COMPLICATIONS

Internal carotid artery narrowing in children with retropharyngeal lymphadenitis and abscess. Hudgins PA, et al. **AJNR Am J Neuroradiol** 1998 Nov–Dec; 19(10):1841–3

Pott's disease with unstable cervical spine, retropharyngeal cold abscess and progressive airway obstruction. Pollard BA, et al. **Can J Anaesth** 1999 Aug;46(8):772–5

Retropharyngeal abscess. A rare presentation of nasopharyngeal carcinoma. Pak MW, et al. **J Laryngol Otol** 1999 Jan;113(1):70–2

DIAGNOSIS

Retropharyngeal abscess after blunt trauma in an adolescent. Selbst SM, et al. **Pediatr Emerg Care** 1998 Dec;14(6):406–8

ETIOLOGY

Retropharyngeal abscess: recent trends. Sharma HS, et al. **Auris Nasus Larynx** 1998 Dec;25(4):403–6

Retropharyngeal abscess: an unusual turn of events in a baby with pneumonia. Manda VV, et al. **Cent Afr J Med** 1999 Jan;45(1):21–2

Retropharyngeal abscess: an unusual complication of tracheal intubation. Stein S, et al. **Eur J Anaesthesiol** 1999 Feb; 16(2):133–6

Retropharyngeal abscess associated with vertebral osteomyelitis and spinal epidural abscess. Jang YJ, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):705–8

Retropharyngeal abscess after blunt trauma in an adolescent. Selbst SM, et al. **Pediatr Emerg Care** 1998 Dec;14(6):406–8

MICROBIOLOGY

Retropharyngeal abscess caused by Streptococcus agalactiae. Chivite D, et al. **Clin Infect Dis** 1998 Nov;27(5):1320–1

Clostridium septicum myonecrosis presenting as a parapharyngeal abscess in a patient with aplastic anemia. Fowler VG Jr, et al. **Infection** 1998 Sep–Oct;26(5):309–10

RADIOGRAPHY

Retropharyngeal abscesses: a clinical and radiologic correlation. Boucher C, et al. **J Otolaryngol** 1999 Jun; 28(3):134–7 (13 ref.)

SURGERY

Retropharyngeal abscesses: a clinical and radiologic correlation. Boucher C, et al. **J Otolaryngol** 1999 Jun; 28(3):134–7 (13 ref.)

[Treatment of deep neck infections] Constantinidis J, et al. **Laryngorhinootologie** 1998 Oct;77(10):551–6 (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Colour Doppler ultrasonography of retropharyngeal abscess. Chao HC, et al. **J Otolaryngol** 1999 Jun;28(3):138–41

VETERINARY

Imaging findings in a cow with a retropharyngeally displaced magnet. Braun U, et al. **Vet Radiol Ultrasound** 1999 Mar–Apr;40(2):162–3

VIROLOGY

Retropharyngeal abscess and Epstein–Barr virus infection in children. Takoudes TG, et al. **Ann Otol Rhinol Laryngol** 1998 Dec;107(12):1072–5

RETROPNEUMOPERITONEUM

COMPLICATIONS

Benign pneumoperitoneum associated with pneumomediastinum and pneumoretroperitoneum in ambulatory outpatients. Silbergleit R, et al. **J Emerg Med** 1999 Jan–Feb;17(1):81–5

Fatal carbon dioxide embolism as an unreported complication of retroperitoneoscopy. Blaser A, et al. **Surg Endosc** 1999 Jul;13(7):713–4 (11 ref.)

ETIOLOGY

Pneumocystis cystoides intestinalis with pneumoperitoneum and pneumoretroperitoneum in a patient with extensive chronic graft–versus–host disease. Schulenburg A, et al. **Bone Marrow Transplant** 1999 Aug;24(3):331–3

Retroperitoneal gas after colonoscopy. Daniels IR, et al. **J R Soc Med** 1999 Jan;92(1):21–2

[Pneumoretroperitoneum due to pneumatosis cystoides intestinalis. An etiopathogenetic and clinico–diagnostic assessment. A clinical case report] Gullà N, et al. **Minerva Chir** 1998 Sep;53(9):757–65 (43 ref.) (Eng. Abstr.) **(Ita)**

PHYSIOPATHOLOGY

Renal effects of carbon dioxide insufflation in rabbit pneumoretroperitoneum model. Güler C, et al. **J Endourol** 1998 Aug;12(4):367–70

RADIOGRAPHY

Subphrenic crescentic lucencies: pneumoperitoneum vs extraperitoneal air [letter; comment] Cho KC. **Abdom Imaging** 1998 Nov–Dec;23(6):659. Comment on: Abdom Imaging 1997 Jul–Aug;22(4):395–7.

RETROPOSONS see **RETROELEMENTS**

RETROSPECTIVE MORAL JUDGMENT see **MORALS**

RETROSPECTIVE STUDIES

Retrospective exposure assessment in large occupational cohort studies in China: advantages and concerns [editorial] Dosemeci M. **Ann Occup Hyg** 1999 Aug;43(6):377–9

Retrospective analyses of large medical databases: what do they tell us? [editorial] Ward RA, et al. **J Am Soc Nephrol** 1999 Feb;10(2):429–32 (19 ref.)

Potential effect of authorization bias on medical record research. Jacobsen SJ, et al. **Mayo Clin Proc** 1999 Apr; 74(4):330–8

Testing for centre effects in multi–centre survival studies: a Monte Carlo comparison of fixed and random effects tests. Andersen PK, et al. **Stat Med** 1999 Jun 30; 18(12):1489–500

RETROTRANSPOSONS see **RETROELEMENTS**

RETROVIRIDAE

The risk of using baboons as transplant donors. Exogenous and endogenous viruses. Allan JS. **Ann N Y Acad Sci** 1998 Dec 30;862:87–99 (76 ref.)

Effects of retroviral–mediated MDR1 expression on hematopoietic stem cell self–renewal and differentiation in culture. Bunting KD, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:125–40; discussion 140–1

Ablation of tumor cells in vivo by direct injection of HSV–thymidine kinase retroviral vector and ganciclovir therapy. Howard BD, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:352–65

Enhanced retroviral transduction efficiency of pancreatic tumor cell lines using different envelope glycoproteins. Howard BD, et al. **Ann N Y Acad Sci** 1999 Jun 30; 880:366–70

Endogenous retroviruses: a potential problem for xenotransplantation? Stoye JP, et al. **Ann N Y Acad Sci** 1998 Dec 30;862:67–74 (26 ref.)

Retroviral–fibronectin interactions in transduction of mammalian cells. Williams DA. **Ann N Y Acad Sci** 1999 Apr 30;872:109–13; discussion 113–4 (15 ref.)

Increased gene transfer into human CD34+ progenitor cells using retroviral vectors produced by a canine packaging cell line. Bauer G, et al. **Biol Blood Marrow Transplant** 1998;4(3):119–27

Possible retroviral origin of prion disease: could prion disease be reconsidered as a preleukemia syndrome? Labat ML. **Biomed Pharmacother** 1999;53(1):47–53 (60 ref.)

Enhanced retroviral transduction of 5–fluorouracil–resistant human bone marrow (stem) cells using a genetically modified packaging cell line. Povey J, et al. **Blood** 1998 Dec 1;92(11):4080–9

Effects of long term feeding of raw soya bean flour on virus–induced pancreatic carcinogenesis in guinea fowl. Kirev T, et al. **Cancer Lett** 1999 Jan 29;135(2):195–202

Enrichment of an antigen–specific T cell response by retrovirally transduced human dendritic cells. Heemskerk MH, et al. **Cell Immunol** 1999 Jul 10;195(1):10–7

Higher efficiency of retrovirus transduction in the late stage of primary culture of hepatocytes from nontreated than from partially hepatectomized rat. Enosawa S, et al. **Cell Transplant** 1998 Jul–Aug;7(4):413–6

Efficient and persistent expression of beta–glucuronidase gene in CD34+ cells from human umbilical cord blood by retroviral vector. Ohashi T, et al. **Eur J Haematol** 1998 Oct;61(4):235–9

Protection of retrovirus–induced disease by transplantation of bone marrow cells transduced with MuLV env gene via retrovirus vector. Kitagawa M, et al. **Exp Hematol** 1999 Feb;27(2):234–41

Retroviral–mediated adrenoleukodystrophy–related gene transfer corrects very long chain fatty acid metabolism in adrenoleukodystrophy fibroblasts: implications for therapy. Flavigny E, et al. **FEBS Lett** 1999 Apr 9;448(2–3):261–4

Antibodies: from genes to targeted cancer gene therapy [editorial] Hawkins RE, et al. **Gene Ther** 1998 Dec; 5(12):1581–3

Expression of a retrovirally transduced gene under control of an internal housekeeping gene promoter does not persist due to methylation and is restored partially by 5–azacytidine treatment. Kuriyama S, et al. **Gene Ther** 1998 Oct;5(10):1299–305

Optimised retroviral infection of human epidermal keratinocytes: long–term expression of transduced integrin gene following grafting on to SCID mice. Levy L, et al. **Gene Ther** 1998 Jul;5(7):913–22

Effective reversal of a transformed phenotype by retrovirus–mediated transfer of a ribozyme directed against mutant N–ras [published erratum appears in Gene Ther 1999 Jan;6(1):148] Scherr M, et al. **Gene Ther** 1998 Sep; 5(9):1227–34

Provision of positive and negative selections in retroviral vectors containing the cytosine deaminase gene. Shiau AL, et al. **Gene Ther** 1998 Nov;5(11):1571–4

Transduction of glioma cells using a high–titer retroviral vector system and their subsequent migration in brain tumors. Tamura M, et al. **Gene Ther** 1998 Dec; 5(12):1698–704

Retrovirus–mediated correction of the metabolic defect in cultured Farber disease cells. Medin JA, et al. **Hum Gene Ther** 1999 May 20;10(8):1321–9

Soluble bone marrow stroma factors improve the efficiency of retroviral transfer of the human multidrug resistance 1 gene to human mobilized peripheral blood progenitor cells. Schiedlmeier B, et al. **Hum Gene Ther** 1999 Jun 10; 10(9):1443–52

Retrovirus vector–mediated correction and cross–correction of lysosomal alpha–mannosidase deficiency in human and feline fibroblasts. Sun H, et al. **Hum Gene Ther** 1999 May 20;10(8):1311–9

Construction of a single–chain interleukin–12–expressing retroviral vector and its application in cytokine gene therapy against experimental coccidioidomycosis. Jiang C, et al. **Infect Immun** 1999 Jun;67(6):2996–3001

Use of the bnx/hu xenograft model of human hematopoiesis to optimize methods for retroviral–mediated stem cell transduction (Review). Dao MA, et al. **Int J Mol Med** 1998 Jan;1(1):257–64 (50 ref.)

9th International Conference on Human Retrovirology HTLV and Related Viruses. Kagoshima, Japan, April 5–9, 1999. Abstracts.. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 1;20(4):A1–88

ONg retroviral particles in chick cell grown vaccines [comment] Weiss RA. **J Clin Virol** 1998 Jul 24;11(1):3–6 . Comment on: J Clin Virol 1998 Jul 24;11(1):7–18. Comment on: J Clin Virol 1998 Jul 24;11(1):19–28.

Genetic engineering of dendritic cells to express immunosuppressive molecules (viral IL–10, TGF–beta, and CTLA4Ig). Lu L, et al. **J Leukoc Biol** 1999 Aug; 66(2):293–6 (31 ref.)

Woodchuck hepatitis virus posttranscriptional regulatory element enhances expression of transgenes delivered by retroviral vectors. Zufferey R, et al. **J Virol** 1999 Apr; 73(4):2886–92

Retrovirus–mediated insertional mutagenesis in zebrafish. Amsterdam A, et al. **Methods Cell Biol** 1999;60:87–98 (28 ref.)

Gene transfer to the rodent embryo by retroviral vectors. Pavlath GK, et al. **Methods Mol Biol** 1999;97:519–38 (19 ref.)

Identification of the block in targeted retroviral–mediated gene transfer. Zhao Y, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4005–10

Construction and characterization of single–transcript tricistronic retroviral vectors using two internal ribosome entry sites. Metz MZ, et al. **Somat Cell Mol Genet** 1998 Jan;24(1):53–69

Retrovirus time travel [letter; comment] Takeuchi Y. **Trends Microbiol** 1998 Nov;6(11):430. Comment on: Trends Microbiol 1998 Oct;6(10):411–5.

[Autoimmune diseases and retroviruses] Sugaya T, et al. **Nippon Naika Gakkai Zasshi** 1998 Oct 10;87(10):2093–9 (13 ref.) **(Jpn)**

[Retroviruses and autoimmune diseases] Fugo K, et al. **Nippon Rinsho** 1999 Feb;57(2):310–5 (20 ref.) (Eng. Abstr.)

(Jpn)
[Gene transfer using virus vectors] Koizumi K, et al. **Nippon Seirigaku Zasshi** 1998;60(7-8):319-30 (36 ref.) (Jpn)

CHEMISTRY

Stabilization of active recombinant retroviruses in an amorphous dry state with trehalose. Bieganski RM, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):615-20

Retroviral RNA dimer linkage. Greatorex J, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2877-82 (40 ref.)

G-patch: a new conserved domain in eukaryotic RNA-processing proteins and type D retroviral polyproteins. Aravind L, et al. **Trends Biochem Sci** 1999 Sep;24(9):342-4

DRUG EFFECTS

Two antiretroviral drugs likely to be confused [letter] [see comments] Johnson JT, et al. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1728-9. Comment in: Am J Health Syst Pharm 1998 Dec 15;55(24):2639-40.

Stabilization of active recombinant retroviruses in an amorphous dry state with trehalose. Bieganski RM, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):615-20

Antimurine retroviral effect of doxycycline. Sturtz FG. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):643-7

[Resistance to antiretroviral agents: mechanism and study methods] Bossi P, et al. **Presse Med** 1998 Dec;27 Suppl 5:18-9 (Eng. Abstr.) (Fre)

[Therapeutic attitude to HIV infection: uncertain and variable scientific attitudes. 1998 national survey of physicians prescribing antiretroviral drugs] Landman R, et al. **Presse Med** 1999 May 1-8;28(17):899-907 (Eng. Abstr.) (Fre)

[Immunologic reconstruction after antiretroviral treatment] Tubiana R, et al. **Presse Med** 1999 Feb 27;28(8):424-8 (Eng. Abstr.) (Fre)

[Additive effect of marihuana and retrovirus in the anergy of natural killer cells in mice] Ongrádi J, et al. **Orv Hetil** 1999 Jan 10;140(2):81-4 (32 ref.) (Eng. Abstr.) (Hun)

ENZYMOLOGY

In vivo analysis of retroviral integrase structure and function. Engelman A. **Adv Virus Res** 1999;52:411-26 (54 ref.)

Substrate recognition by retroviral integrases. Katzman M, et al. **Adv Virus Res** 1999;52:371-95 (125 ref.)

Reverse transcriptase activity and particle production in B lymphoblastoid cell lines established from lymphocytes of patients with multiple sclerosis. Christensen T, et al. **AIDS Res Hum Retroviruses** 1999 Feb 10;15(3):285-91

Major and minor groove contacts in retroviral integrase-LTR interactions. Wang T, et al. **Biochemistry** 1999 Mar 23;38(12):3624-32

Effect of substrate residues on the P2' preference of retroviral proteinases. Boross P, et al. **Eur J Biochem** 1999 Sep; 264(3):921-9

GENETICS

Retroviral-mediated transfer and expression of the common gamma chain into human hematopoietic progenitors. Candotti F, et al. **Acta Haematol** 1999;101(2):106-10

Gene therapy for severe combined immunodeficiency caused by adenosine deaminase deficiency: improved retroviral vectors for clinical trials. Onodera M, et al. **Acta Haematol** 1999;101(2):89-96 (30 ref.)

A simple and efficient purification of transduced cells by using green fluorescent protein gene as a selection marker. Shimizu T, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):586-92

Efficient retroviral infection of human cells utilising an adenoviral vector expressing the ecotropic receptor. Scott-Taylor TH, et al. **Adv Exp Med Biol** 1998;451:423-30

Development of a double-copy bicistronic retroviral vector for human gene therapy. Wiznerowicz M, et al. **Adv Exp Med Biol** 1998;451:441-7

Host proteins in retroviral cDNA integration. Bushman FD. **Adv Virus Res** 1999;52:301-17 (81 ref.)

Retroviral vector-mediated gene transfer into keratocytes in vitro and in vivo. Seitz B, et al. **Am J Ophthalmol** 1998 Nov;126(5):630-9

Retrovirus-mediated HO gene transfer into endothelial cells protects against oxidant-induced injury. Yang L, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L127-33

Immobilized sample amplification for quantitative determination of retroviruses. Wei K, et al. **Anal Biochem** 1999 Jun 1;270(2):187-94

ISA assay for retroviruses [news] **Anal Chem** 1999 Aug 1; 71(15):512A

Vector development: a major obstacle in human gene therapy [editorial] Jane SM, et al. **Ann Med** 1998 Oct;30(5):413-5 (9 ref.)

Construction of recombinant retroviruses expressing mutated k-ras or mutated p53 genes. Kadaja L, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:371-3

Selective killing of osteosarcoma cells in culture after retroviral mediated gene transfer of a herpes simplex thymidine kinase suicide gene. Grossin L, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):71-6

Gene therapy in the central nervous system: the use of recombinant retroviruses. Suhr ST, et al. **Arch Neurol** 1999 Mar;56(3):287-92 (11 ref.)

Use of enhanced green fluorescent protein to optimize and quantitate infection of target cells with recombinant retroviruses. Cashion LM, et al. **Biotechniques** 1999 May; 26(5):924-6, 928-30

Functional testing of a bicistronic retroviral vector for intracellular peptide production. Duch M, et al. **Biotechniques** 1999 Jun;26(6):1032-4, 1036

Cell cycle dependence of retroviral transduction: An issue of overlapping time scales. Andreadis S, et al. **Biotechnol Bioeng** 1998 Apr 20-May 5;58(2-3):272-81

Removal of proteoglycans increases efficiency of retroviral gene transfer. Le Doux JM, et al. **Biotechnol Bioeng** 1998 Apr 5;58(1):23-34

Large-scale processing of recombinant retroviruses for gene therapy. Andreadis ST, et al. **Biotechnol Prog** 1999 Jan-Feb;15(1):1-11 (80 ref.)

Differential inhibition of retrovirus transduction by proteoglycans and free glycosaminoglycans. Le Doux JM, et al. **Biotechnol Prog** 1999 May-Jun;15(3):397-406

Development of a condensed locus control region cassette and testing in retrovirus vectors for A gamma-globin. Emery DW, et al. **Blood Cells Mol Dis** 1998 Sep; 24(3):322-39

An improved method for generating retroviral producer clones for vectors lacking a selectable marker gene. Persons DA, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):167-82

Retrovirus-mediated gene therapy for hepatocellular carcinoma: selective and enhanced suicide gene expression regulated by human alpha-fetoprotein enhancer directly linked to its promoter. Mawatari F, et al. **Cancer Gene Ther** 1998 Sep-Oct;5(5):301-6

Phase I trial of interferon-gamma (IFN-gamma) retroviral vector administered intratumorally to patients with metastatic melanoma. Nemunaitis J, et al. **Cancer Gene Ther** 1999 Jul-Aug;6(4):322-30

In vivo manipulation of interleukin-2 expression by a retroviral tetracycline (tet)-regulated system. Pitzer C, et al. **Cancer Gene Ther** 1999 Mar-Apr;6(2):139-46

Retroviral vector-mediated transfer of the interferon-alpha gene in chronic myeloid leukemia cells. Salesse S, et al. **Cancer Gene Ther** 1998 Nov-Dec;5(6):390-400

Gene amplification of human cytidine deaminase proviral cDNA and increased levels of its mRNA produces enhanced drug resistance to cytosine arabinoside in retroviral-transduced murine fibroblasts. Beauséjour CM, et al. **Cancer Lett** 1999 Jan 8;135(1):29-36

An endogenous retrovirus with nucleic acid sequences similar to those of the multiple sclerosis associated retrovirus at the human T-cell receptor alpha, delta gene locus. Alliel PM, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep; 44(6):927-31

Construction of an inducible nitric-oxide synthase gene transferring vector mediated by retrovirus. Zang MW, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):121-7

Retroviral transfer of the human MDR1 gene confers resistance to bisantrene-specific hematotoxicity. Aksentijevich I, et al. **Clin Cancer Res** 1996 Jun;2(6):973-80

Retroviral-mediated gene transduction of human alkyltransferase complementary DNA confers nitrosourea resistance to human hematopoietic progenitors. Allay JA, et al. **Clin Cancer Res** 1996 Aug;2(8):1353-9

Clinical trials involving multidrug resistance transcription units in retroviral vectors [editorial; comment] Deisseroth AB. **Clin Cancer Res** 1999 Jul;5(7):1607-9. Comment on: Clin Cancer Res 1999 Jul;5(7):1619-28.

Retroviral coexpression of two different types of drug resistance genes to protect normal cells from combination chemotherapy. Suzuki M, et al. **Clin Cancer Res** 1997 Jun; 3(6):947-54

Retroviral transfer and expression of the human multiple drug resistance (MDR) gene in peripheral blood progenitor cells. Ward M, et al. **Clin Cancer Res** 1996 May;2(5):873-6

Acute retroviruses and oncogenesis. Arbelaez AM, et al. **Crit Rev Oncog** 1999;10(1-2):17-81 (623 ref.)

Chronic retroviruses and oncogenesis. Patarca R. **Crit Rev Oncog** 1998;9(2):151-98 (375 ref.)

Cell targeting by murine retroviral vectors. Karavanas G, et al. **Crit Rev Oncol Hematol** 1998 Jun;28(1):7-30 (203 ref.)

A quantitative focus assay for titration of retroviruses that encode human granulocyte-macrophage colony-stimulating factor (GM-CSF). Feldman RA. **Cytokine** 1999 Jun;11(6):459-62

Transgene expression in zebrafish: A comparison of retroviral-vector and DNA-injection approaches. Linney E, et al. **Dev Biol** 1999 Sep 1;213(1):207-16

No evidence for association between IDDMK(1,2)22, a novel isolated retrovirus, and IDDM. Jaeckel E, et al. **Diabetes** 1999 Jan;48(1):209-14

Detection of porcine endogenous retrovirus: possible involvement in pig islet xenotransplantation. Martignat L, et al. **Diabetes Metab** 1998 Nov;24(5):434-41

Human endogenous retrovirus with a high genomic sequence homology with IDDMK(1,2)22 is not specific for Type I (insulin-dependent) diabetic patients but ubiquitous. Kim A, et al. **Diabetologia** 1999 Apr;42(4):413-8

Regulation of N-acetylgalactosamine 4-sulfatase expression in retrovirus-transduced feline mucopolysaccharidosis type VI muscle cells. Yogalingam G, et al. **DNA Cell Biol** 1999 Mar;18(3):187-95

Inhibition of human telomerase by a retrovirus expressing telomeric antisense RNA. Bisoffi M, et al. **Eur J Cancer** 1998 Jul;34(8):1242-9

Fractionation of rat hepatocyte subpopulations with varying metabolic potential, proliferative capacity, and retroviral gene transfer efficiency. Rajvanshi P, et al. **Exp Cell Res** 1998 Nov 1;244(2):405-19

The cytochrome b5 tail anchors and stabilizes subdomains of human DNA topoisomerase II alpha in the cytoplasm of retrovirally infected mammalian cells. Soltermann A, et al. **Exp Cell Res** 1999 Jun 15;249(2):308-19

Retroviral vector-mediated gene transfer into umbilical cord blood CD34brCD38-CD33- cells. Gentry T, et al. **Exp Hematol** 1999 Aug;27(8):1244-54

Optimization of retroviral-mediated gene transfer to human NOD/SCID mouse repopulating cord blood cells through a systematic analysis of protocol variables. Hennemann B, et al. **Exp Hematol** 1999 May;27(5):817-25

Retroviral transduction of enriched hematopoietic stem cells allows lifelong Bcl-2 expression in multiple lineages but does not perturb hematopoiesis. Innes KM, et al. **Exp Hematol** 1999 Jan;27(1):75-87

Retroviruses, ascorbate, and mutations, in the evolution of Homo sapiens. Challem JJ, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):130-2 (25 ref.)

Second gene expression in bicistronic constructs using short synthetic intercistrons and viral IRES sequences. Havenga MJE, et al. **Gene** 1998 Nov 19;222(2):319-27

The selectable marker neo gene down-regulates gene expression from retroviral vectors containing an internal ribosome entry site. Byun J, et al. **Gene Ther** 1998 Oct; 5(10):1441-4

Adeno-retroviral chimeric viruses as in vivo transducing agents. Caplen NJ, et al. **Gene Ther** 1999 Mar;6(3):454-9

Enhanced pancreatic tumor regression by a combination of adenovirus and retrovirus-mediated delivery of the herpes simplex virus thymidine kinase gene. Carrió M, et al. **Gene Ther** 1999 Apr;6(4):547-53

In vitro and in vivo effects of retrovirus-mediated transfer of the connexin 43 gene in malignant gliomas: consequences for HSVtk/GCV anticancer gene therapy. Cirenei N, et al. **Gene Ther** 1998 Sep;5(9):1221-6

5-Azacytidine prevents transgene methylation in vivo. Di Ianni M, et al. **Gene Ther** 1999 Apr;6(4):703-7

FMEV vectors: both retroviral long terminal repeat and leader are important for high expression in transduced hematopoietic cells. Hildinger M, et al. **Gene Ther** 1998 Nov;5(11):1575-9

Artificial capillary culture: expansion and retroviral transduction of CD4+ T-lymphocytes for clinical application. Knop AE, et al. **Gene Ther** 1999 Mar; 6(3):373-84

Complete cure of established murine hepatocellular carcinoma is achievable by repeated injections of retroviruses carrying the herpes simplex virus thymidine kinase gene. Kuriyama S, et al. **Gene Ther** 1999 Apr; 6(4):525-33

Construction of new retroviral producer cells from adenoviral and retroviral vectors. Lin X. **Gene Ther** 1998 Sep;5(9):1251-8

Retrovirally transduced bone marrow stromal cells isolated from a mouse model of human osteogenesis imperfecta (oim) persist in bone and retain the ability to form cartilage and bone after extended passaging. Oyama M, et al. **Gene Ther** 1999 Mar;6(3):321-9

Retroviral vector-mediated expression of hirudin by human vascular endothelial cells: implications for the design of retroviral vectors expressing biologically active proteins. Rade JJ, et al. **Gene Ther** 1999 Mar;6(3):385-92

Enhanced in vitro and in vivo gene delivery using cationic agent complexed retrovirus vectors. Themis M, et al. **Gene Ther** 1998 Sep;5(9):1180-6

A retroviral vector system 'STITCH' in combination with an optimized single chain antibody chimeric receptor gene structure allows efficient gene transduction and expression in human T lymphocytes. Weijtens ME, et al. **Gene Ther** 1998 Sep;5(9):1195-203

Generation of a conditionally neo(r)-containing retroviral producer cell line: effects of neo(r) on retroviral titer and transgene expression. Wildner O, et al. **Gene Ther** 1998 May;5(5):684-91

Retroviral vector-mediated gene transfer into keratocytes: in vitro effects of polybrene and protamine sulfate. Seitz B, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug; 236(8):602-12

Retroviral gene transfer into human hematopoietic cells: an in vitro kinetic study. Briones J, et al. **Haematologica** 1999 Jun;84(6):483-8

Expression of the nlsLacz gene in dendritic cells derived from retrovirally transduced peripheral blood CD34+ cells. Chischportich C, et al. **Haematologica** 1999 Mar; 84(3):195-203

Coexpression of cytidine deaminase and mutant dihydrofolate reductase by a bicistronic retroviral vector confers resistance to cytosine arabinoside and methotrexate. Beauséjour CM, et al. **Hum Gene Ther** 1998 Nov 20; 9(17):2537-44

In vivo hepatocyte retrovirus-mediated gene transfer through the rat biliary tract. De Godoy JL, et al. **Hum Gene Ther** 1999 Jan 20;10(2):249-57

Retroviral vectors for the expression of two genes in human multipotent neural precursors and their differentiated neuronal and glial progeny. Derrington EA, et al.

Hum Gene Ther 1999 May 1;10(7):1129–38

Functional characterization of adenoviral/retroviral chimeric vectors and their use for efficient screening of retroviral producer cell lines. Duisit G, et al. **Hum Gene Ther** 1999 Jan 20;10(2):189–200

Retroviral transfer of the glucocerebrosidase gene into CD34+ cells from patients with Gaucher disease: in vivo detection of transduced cells without myeloablation. Dunbar CE, et al. **Hum Gene Ther** 1998 Nov 20; 9(17):2629–40

Insertion of two independent enhancers in the long terminal repeat of a self-inactivating vector results in high-titer retroviral vectors with tissue-specific expression. Fassati A, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2459–68

A novel strategy of cell targeting based on tissue-specific expression of the ecotropic retrovirus receptor gene. Igarashi T, et al. **Hum Gene Ther** 1998 Dec 10;9(18):2691–8

Generation of a systemic antitumor response with regional intratumoral injections of interferon gamma retroviral vector. Karavodin LM, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2231–41

High-efficiency transduction and long-term gene expression with a murine stem cell retroviral vector encoding the green fluorescent protein in human marrow stromal cells. Marx JC, et al. **Hum Gene Ther** 1999 May 1;10(7):1163–73

High level of retrovirus-mediated gene transfer into dendritic cells derived from cord blood and mobilized peripheral blood CD34+ cells. Movassagh M, et al. **Hum Gene Ther** 1999 Jan 20;10(2):175–87

Amphotropic retroviral vectors displaying hepatocyte growth factor-envelope fusion proteins improve transduction efficiency of primary hepatocytes. Nguyen TH, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2469–79

Interference between effector RNAs expressed from conventional dual-function anti-HIV retroviral vectors can be circumvented using dual-effector-cassette retroviral vectors. Peng H, et al. **Hum Gene Ther** 1999 Feb 10; 10(3):449–62

Retroviral-mediated expression of an MHC class I-restricted T cell receptor in the CD8 T cell compartment of bone marrow-reconstituted mice. Pogulis RJ, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2285–97

A retroviral vector that directs simultaneous expression of alpha and beta T cell receptor genes. Pogulis RJ, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2299–304

In utero gene therapy: transfer and long-term expression of the bacterial neo(r) gene in sheep after direct injection of retroviral vectors into preimmune fetuses. Porada CD, et al. **Hum Gene Ther** 1998 Jul 20;9(11):1571–85

Beta-galactosidase gene transfer to human malignant glioma in vivo using replication-deficient retroviruses and adenoviruses. Puumalainen AM, et al. **Hum Gene Ther** 1998 Aug 10;9(12):1769–74

Genetic immunization of chimpanzees chronically infected with the hepatitis B virus, using a recombinant retroviral vector encoding the hepatitis B virus core antigen. Sällberg M, et al. **Hum Gene Ther** 1998 Aug 10;9(12):1719–29

Apoptosis by retrovirus- and adenovirus-mediated gene transfer of Fas ligand to glioma cells: implications for gene therapy. Shinoura N, et al. **Hum Gene Ther** 1998 Sep 20; 9(14):1983–93

RNA levels of human retrovirus receptors Pit1 and Pit2 do not correlate with infectibility by three retroviral vector pseudotypes. Uckert W, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2619–27

Production of minigene-containing retroviral vectors using an alphavirus/retrovirus hybrid vector system. Wahlfors JJ, et al. **Hum Gene Ther** 1999 May 1;10(7):1197–206

Retrovirus-mediated transfer of anti-MDR1 ribozymes fully restores chemosensitivity of P-glycoprotein-expressing human lymphoma cells. Wang FS, et al. **Hum Gene Ther** 1999 May 1;10(7):1185–95

High-resolution analysis of cytosine methylation in the 5long terminal repeat of retroviral vectors. Wang L, et al. **Hum Gene Ther** 1998 Nov 1;9(16):2321–30

Improvement of gene transduction efficiency in T lymphocytes using retroviral vectors. Wu AG, et al. **Hum Gene Ther** 1999 Apr 10;10(6):977–82

Generation of retroviral vector for clinical studies using transient transfection. Yang S, et al. **Hum Gene Ther** 1999 Jan 1;10(1):123–32

Genomics of the major histocompatibility complex: haplotypes, duplication, retroviruses and disease. Dawkins R, et al. **Immunol Rev** 1999 Feb;167:275–304 (167 ref.)

Morphological and molecular characterization of new Drosophila cell lines established from a strain permissive for gypsy transposition. Chalvet F, et al. **In Vitro Cell Dev Biol Anim** 1998 Nov-Dec;34(10):799–804

Acquired immunity in nude mice induced by expression of the IL-2 or IL-4 gene in human pancreatic carcinoma cells and anti-tumor effect generated by in vivo gene transfer using retrovirus. Kimura M, et al. **Int J Cancer** 1999 Aug 12;82(4):549–55

Retroviral expression of a mutant (Gly-533) human DNA topoisomerase I cDNA confers a dominant form of camptothecin resistance. Yanase K, et al. **Int J Cancer** 1999 Mar 31;81(1):134–40

Retrovirus-mediated gene therapy for human hepatocellular carcinoma transplanted in athymic mice. Ueki T, et al. **Int J Mol Med** 1998 Apr;1(4):671–5

Tracking RPE transplants labeled by retroviral gene transfer with green fluorescent protein. Lai CC, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2141–6

Retrovirus-mediated gene transfer to photocoagulation-induced choroidal neovascular membranes. Murata T, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2474–8

Single cell analysis and selection of living retrovirus vector-corrected mucopolysaccharidosis VII cells using a fluorescence-activated cell sorting-based assay for mammalian beta-glucuronidase enzymatic activity. Lorincz MC, et al. **J Biol Chem** 1999 Jan 8;274(2):657–65

Analysis of polypurine tract-associated DNA plus-strand priming in vivo utilizing a plant pararetroviral vector carrying redundant ectopic priming elements. Noad RJ, et al. **J Biol Chem** 1998 Dec 4;273(49):32568–75

Modulation of renal carcinoma cells in vitro: comparison after transduction with retroviral vector containing a human IFN-gamma gene versus incubation with soluble IFN-gamma. Nayak SK, et al. **J Interferon Cytokine Res** 1999 Jan;19(1):49–58

In utero allotransplantation of retrovirally transduced fetal hepatocytes in primates: feasibility and short-term follow-up. Andreoletti M, et al. **J Matern Fetal Med** 1998 Nov-Dec;7(6):296–303

Human proinsulin production in primary rat hepatocytes after retroviral vector gene transfer. Falqui L, et al. **J Mol Med** 1999 Jan;77(1):250–3

Suppression of TGF-beta1 in human gliomas by retroviral gene transfection enhances susceptibility to LAK cells. Yamanaka R, et al. **J Neurooncol** 1999 May;43(1):27–34

Early expression of marker genes in the rabbit medial collateral and anterior cruciate ligaments: the use of different viral vectors and the effects of injury. Hildebrand KA, et al. **J Orthop Res** 1999 Jan;17(1):37–42

Retrovirus-mediated expression of the GalR1 galanin receptor: implication for efficient stable expression of functional G protein-coupled receptors. Wang S, et al. **J Recept Signal Transduct Res** 1998 Jul-Nov; 18(4-6):311–20

Stable gene expression with VSV-G pseudotyped-retrovirus vector in the rat liver. Shiraishi M, et al. **J Surg Res** 1999 Jun 15;84(2):168–73

Identification of protein instability determinants in the carboxy-terminal region of c-Myb removed as a result of retroviral integration in murine monocytic leukemias. Bies J, et al. **J Virol** 1999 Mar;73(3):2038–44

Importance of basic residues in the nucleocapsid sequence for retrovirus Gag assembly and complementation rescue. Bowzard JB, et al. **J Virol** 1998 Nov;72(11):9034–44

The 5' RNA terminus of spleen necrosis virus contains a novel posttranscriptional control element that facilitates human immunodeficiency virus Rev/RRE-independent Gag production. Butsch M, et al. **J Virol** 1999 Jun; 73(6):4847–55

Design of 5' untranslated sequences in retroviral vectors developed for medical use. Hildinger M, et al. **J Virol** 1999 May;73(5):4083–9

Characterization of a Chinese hamster ovary cell line developed by retroviral insertional mutagenesis that is resistant to Sindbis virus infection. Jan JT, et al. **J Virol** 1999 Jun;73(6):4919–24

Cell-type-specific gene transfer into human cells with retroviral vectors that display single-chain antibodies. Jiang A, et al. **J Virol** 1998 Dec;72(12):10148–56

Efficient transduction by an amphotropic retrovirus vector is dependent on high-level expression of the cell surface virus receptor. Kurre P, et al. **J Virol** 1999 Jan; 73(1):495–500

Walleye retroviruses associated with skin tumors and hyperplasias encode cyclin D homologs. LaPierre LA, et al. **J Virol** 1998 Nov;72(11):8765–71

Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of retroviral vectors. López-Lastra M, et al. **J Virol** 1999 Oct;73(10):8393–402

R region sequences in the long terminal repeat of a murine retrovirus specifically increase expression of unspliced RNAs. Trubetskoy AM, et al. **J Virol** 1999 Apr; 73(4):3477–83

Discovery of a new endogenous type C retrovirus (FcEV) in cats: evidence for RD-114 being an FcEV(Gag-Pol)/baboon endogenous virus BaEV(Env) recombinant. van der Kuyl AC, et al. **J Virol** 1999 Oct; 73(10):7994–8002

High-titer MSCV-based retrovirus generated in the pCL acute virus packaging system confers sustained gene expression in vivo. Norris PS, et al. **J Virol Methods** 1998 Nov;75(2):161–7

Hematopoietic retroviral gene marking in patients with follicular non-Hodgkin's lymphoma. Bachier CR, et al. **Leuk Lymphoma** 1999 Jan;32(3-4):279–88

Impact of human endogenous retroviral elements on cellular genes: strategy for isolation of LTR-driven chimeric transcripts. Seifarth W, et al. **Leukemia** 1999 Apr;13 Suppl 1:S97–8

Translational control of gene expression using retroviral vectors with iron response elements. Davis JL, et al. **Methods Enzymol** 1999;306:225–41

Gene transfer in avian embryos using replication-competent retroviruses. Logan C, et al. **Methods Mol Biol** 1999; 97:539–51

Use of a retroviral vector for expression of a foreign gene. Miller BW, et al. **Methods Mol Biol** 1999;120:1–9

Retrotransposons and retroviruses: analysis of the envelope gene. Lerat E, et al. **Mol Biol Evol** 1999 Sep;16(9):1198–207

The retrotransposon Osvaldo from Drosophila buzzatii displays all structural features of a functional retrovirus. Pantazidis A, et al. **Mol Biol Evol** 1999 Jul;16(7):909–21

Transgene vectors go retro [news] Wells K, et al. **Nat Biotechnol** 1999 Jan;17(1):25–6

In vivo selection of retrovirally transduced hematopoietic stem cells. Allay JA, et al. **Nat Med** 1998 Oct;4(10):1136–43

Transduction of cultured oligodendrocytes from normal and twitcher mice by a retroviral vector containing human galactocerebrosidase (GALC) cDNA. Costantino-Ceccarini E, et al. **Neurochem Res** 1999 Feb; 24(2):287–93

Retroviral-mediated transfer of the galactocerebrosidase gene in neural progenitor cells. Torchiana E, et al. **Neuroreport** 1998 Dec 1;9(17):3823–7

In vivo selection for intronic splicing signals from a randomized pool. Bouck J, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4516–23

Rapid and efficient cloning of proviral flanking fragments by kanamycin resistance gene complementation. Fehse B, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):706–7

Effects of interleukin-2 transduction on the human hepatoma cell lines using retroviral vector. Kim JH, et al. **Oncol Rep** 1999 Jan-Feb;6(1):49–54

Antisense bcl-2 retrovirus vector increases the sensitivity of a human gastric adenocarcinoma cell line to photodynamic therapy. Zhang WG, et al. **Photochem Photobiol** 1999 May; 69(5):582–6

Constructing primate phylogenies from ancient retrovirus sequences. Johnson WE, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10254–60

Genetic and epigenetic susceptibility to endogenous retrovirus-induced lymphomas in SL mice. Hiai H, et al. **Prog Exp Tumor Res** 1999;35:64–77 (32 ref.)

In vivo selection of hematopoietic stem cells transduced with DHFR-expressing retroviral vectors. Sorrentino BP, et al. **Prog Exp Tumor Res** 1999;36:143–61 (47 ref.)

A role for DNA-PK in retroviral DNA integration. Daniel R, et al. **Science** 1999 Apr 23;284(5414):644–7

Retroviral vectors for liver-directed gene therapy. Kalpana GV. **Semin Liver Dis** 1999;19(1):27–37 (40 ref.)

Recombinant retrovirus vectors for the expression of MHC class II heterodimers. Shimada H, et al. **Surg Today** 1999; 29(6):533–41

Retroviral transduction and expansion of peripheral blood lymphocytes for the treatment of mucopolysaccharidosis type II, Hunter's syndrome. Stroncek DF, et al. **Transfusion** 1999 Apr;39(4):343–50

Screening by tRNA primer extension analysis of porcine kidney mRNA libraries defines a novel endogenous porcine retroviral long terminal repeat. Hoopes CW, et al. **Transplantation** 1999 Jun 15;67(11):1391–5

Nucleic-acid-chaperone activity of retroviral nucleocapsid proteins: significance for viral replication. Rein A, et al. **Trends Biochem Sci** 1998 Aug;23(8):297–301 (54 ref.)

Poxviral/retroviral chimeric vectors allow cytoplasmic production of transducing defective retroviral particles. Holzer GW, et al. **Virology** 1999 Jan 5;253(1):107–14

Retrovirus DNA termini bound by integrase communicate in trans for full-site integration in vitro. McCord M, et al. **Virology** 1999 Jul 5;259(2):392–401

Characterization of human MMTV-like (HML) elements similar to a sequence that was highly expressed in a human breast cancer: further definition of the HML-6 group. Yin H, et al. **Virology** 1999 Mar 30;256(1):22–35

[Effects of retrovirus-mediated HSV-tk/GCV on human hepatocellular carcinoma] Zhao Y, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Jun;7(2):113–5 (Eng. Abstr.) **(Chi)**

[Humoral and cell mediated immunity induced by HBV-S gene recombinant retroviral vector] Zhou Z, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar;7(1):3–5 (Eng. Abstr.) **(Chi)**

[Splicing and stability of intron in the expression retroviral vector with human clotting factor IX] Xing YN, et al. **I Chuan Hsueh Pao** 1998 Dec;25(6):471–7 (Eng. Abstr.) **(Chi)**

[The retroviral spumaviruses: new data in retrovirology] Saib A. **Bull Acad Natl Med** 1999;183(3):559–68 (13 ref.) (Eng. Abstr.) **(Fre)**

[Evaluation of recombinant retrovirus and adenovirus for gene transfer to normal and pathologic intestinal tissue] Laine F, et al. **Gastroenterol Clin Biol** 1999 Feb;23(2):221–8 (Eng. Abstr.) **(Fre)**

GROWTH & DEVELOPMENT

Systematic comparison of a color reporter gene and drug resistance genes for the determination of retroviral titers. Sapp CM, et al. **J Biomed Sci** 1999 Sep-Oct;6(5):342–8

High-titer MSCV-based retrovirus generated in the pCL acute virus packaging system confers sustained gene expression in vivo. Norris PS, et al. **J Virol Methods** 1998 Nov;75(2):161–7

Loss of retrovirus production in JB/RH melanoma cells transfected with H-2Kb and TAP-1 genes. Li M, et al. **Virology** 1999 Jan 20;253(2):230–40

IMMUNOLOGY

Immunosuppression by retroviruses: implications for

xenotransplantation. Denner J. **Ann N Y Acad Sci** 1998 Dec 30;862:75–86 (38 ref.)

Antiretroviral antibodies: implications for schizophrenia, schizophrenia spectrum disorders, and bipolar disorder. Hart DJ, et al. **Biol Psychiatry** 1999 Mar 15;45(6):704–14

High prevalence of antibodies against HERV–K10 in patients with testicular cancer but not with AIDS. Goedert JJ, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Apr;8(4 Pt 1):293–6

Retroviral superantigens and type 1 diabetes mellitus. Murphy VJ, et al. **Cell** 1998 Oct 2;95(1):9–11; discussion 16

The IDDMK(1,2)22 retrovirus is not detectable in either mRNA or genomic DNA from patients with type 1 diabetes. Muir A, et al. **Diabetes** 1999 Jan;48(1):219–22

High level antibody response to retrovirus–associated but not to melanocyte lineage–specific antigens in mice protected against B16 melanoma. Sfondrini L, et al. **Int J Cancer** 1999 Sep 24;83(1):107–12

Retroviral gene transfer, rapid selection, and maintenance of the immature phenotype in mouse dendritic cells. Gasperi C, et al. **J Leukoc Biol** 1999 Aug;66(2):263–7

Characterization of antigens expressed in normal baboon trophoblast and cross–reactive with HIV/SIV antibodies. Langat DK, et al. **J Reprod Immunol** 1999 Jan;42(1):41–58

Kinetics of the development of protective immunity in mice vaccinated with a live attenuated retrovirus. Dittmer U, et al. **J Virol** 1999 Oct;73(10):8435–40

Cell–type–specific gene transfer into human cells with retroviral vectors that display single–chain antibodies. Jiang A, et al. **J Virol** 1998 Dec;72(12):10148–56

Induction of hyporesponsiveness to intact foreign protein via retroviral–mediated gene expression: the IgG scaffold is important for induction and maintenance of immune hyporesponsiveness. Kang Y, et al.
Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8609–14

ISOLATION & PURIFICATION

Immobilized sample amplification for quantitative determination of retroviruses. Wei K, et al.
Anal Biochem 1999 Jun 1;270(2):187–94

The IDDMK(1,2)22 retrovirus is not detectable in either mRNA or genomic DNA from patients with type 1 diabetes. Muir A, et al. **Diabetes** 1999 Jan;48(1):219–22

Soft shell clams Mya arenaria with disseminated neoplasia demonstrate reverse transcriptase activity. House ML, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):187–92

In vivo gene transfer of a suicide gene under the transcriptional control of the carcinoembryonic antigen promoter results in bone marrow transduction but can avoid bone marrow suppression. Cao G, et al.
Int J Oncol 1999 Jul;15(1):107–12

Novel retroviral sequences are expressed in the epididymis and uterus of Syrian hamsters. DeHaven JE, et al.
J Gen Virol 1998 Nov;79 (Pt 11):2687–94

Discovery of a new endogenous type C retrovirus (FcEV) in cats: evidence for RD–114 being an FcEV(Gag–Pol)/baboon endogenous virus BaEV(Env) recombinant. van der Kuyl AC, et al. **J Virol** 1999 Oct; 73(10):7994–8002

Isolation of a retrovirus from multiple sclerosis patients in self–generated Iodixanol gradients. Møller–Larsen A, et al. **J Virol Methods** 1998 Aug;73(2):151–61

Quantitation of gene expression by real–time PCR disproves a "retroviral hypothesis" for childhood–onset diabetes mellitus. Knerr I, et al. **Pediatr Res** 1999 Jul;46(1):57–60

Characterization of human MMTV–like (HML) elements similar to a sequence that was highly expressed in a human breast cancer: further definition of the HML–6 group. Yin H, et al. **Virology** 1999 Mar 30;256(1):22–35

[MSRV retrovirus and gliotoxin protein: potential biological markers in multiple sclerosis?] Perron H.
Ann Biol Clin (Paris) 1998 Jul–Aug;56(4):427–38 (52 ref.) (Eng. Abstr.) **(Fre)**

METABOLISM

Kinetics of retrovirus production and decay. Le Doux JM, et al. **Biotechnol Bioeng** 1999 Jun 20;63(6):654–62

IDDM patients neither show humoral reactivities against endogenous retroviral envelope protein nor do they differ in retroviral mRNA expression from healthy relatives or normal individuals. Badenhoop K, et al. **Diabetes** 1999 Jan; 48(1):215–8

Up–regulation of the Pit–2 phosphate transporter/retrovirus receptor by protein kinase C epsilon. Jobbagy Z, et al. **J Biol Chem** 1999 Mar 12;274(11):7067–71

Importance of basic residues in the nucleocapsid sequence for retrovirus Gag assembly and complementation rescue. Bowzard JB, et al. **J Virol** 1998 Nov;72(11):9034–44

Simultaneous infection with retroviruses pseudotyped with different envelope proteins bypasses viral receptor interference associated with colocalization of gp70 and target cells on fibronectin CH–296. MacNeill EC, et al. **J Virol** 1999 May;73(5):3960–7

Retrovirus DNA termini bound by integrase communicate in trans for full–site integration in vitro. McCord M, et al. **Virology** 1999 Jul 5;259(2):392–401

PATHOGENICITY

Walleye retroviruses associated with skin tumors and hyperplasias encode cyclin D homologs. LaPierre LA, et al. **J Virol** 1998 Nov;72(11):8765–71

Thymic dendritic cells are primary targets for the oncogenic virus SL3–3. Uittenbogaart CH, et al. **J Virol** 1998 Dec; 72(12):10118–25

Asymmetric DDE (D35E)–like sequences in the RAG proteins: implications for V(D)J recombination and retroviral pathogenesis. Dreyfus DH, et al.
Med Hypotheses 1999 Jun;52(6):545–9 (32 ref.)

Somatic cell mutants resistant to retrovirus replication: intracellular blocks during the early stages of infection. Gao G, et al. **Mol Biol Cell** 1999 Jun;10(6):1705–17

PHYSIOLOGY

Molecular events in the assembly of retrovirus particles. Sakalian M, et al. **Adv Exp Med Biol** 1998;440:329–39 (33 ref.)

An efficient retrovirus–mediated transduction of human blood coagulation factor VIII cDNA in regenerating rat liver. Oh SH, et al. **Ann Hematol** 1999 May;78(5):213–8

Amphotropic retrovirus transduction of hematopoietic stem cells. Orlic D, et al. **Ann N Y Acad Sci** 1999 Apr 30; 872:115–23; discussion 123–4

Retroviruses: ancient and modern. Weiss RA, et al.
Arch Virol Suppl 1999;15:171–7 (30 ref.)

Involvement of temperature sensitive syncytium inducing VSV or defective retroviruses in the development of spongiform encephalopathies. Chany C.
Biomed Pharmacother 1997;51(10):446–8

The reverse transcriptase activity in cell–free medium of chicken embryo fibroblast cultures is not associated with a replication–competent retrovirus [see comments] Khan AS, et al. **J Clin Virol** 1998 Jul 24;11(1):7–18. Comment in: J Clin Virol 1998 Jul 24;11(1):3–6.

Modification of retroviral tropism by display of IGF–I. Chadwick MP, et al. **J Mol Biol** 1999 Jan 15;285(2):485–94

Hypothesis: link between endogenous retroviruses and cardiovascular disease. Bing OH, et al.
J Mol Cell Cardiol 1998 Jul;30(7):1257–62 (21 ref.)

The resistance of retroviral vectors produced from human cells to serum inactivation in vivo and in vitro is primate species dependent. DePolo NJ, et al. **J Virol** 1999 Aug; 73(8):6708–14

Identification of retroviral late domains as determinants of particle size. Garnier L, et al. **J Virol** 1999 Mar; 73(3):2309–20

Neural stem cells as engraftable packaging lines can mediate gene delivery to microglia: evidence from studying retroviral env–related neurodegeneration. Lynch WP, et al. **J Virol** 1999 Aug;73(8):6841–51

Suppressor mutations within the core binding factor (CBF/AML1) binding site of a T–cell lymphomagenic retrovirus. Martiney MJ, et al. **J Virol** 1999 Mar; 73(3):2143–52

Walleye dermal sarcoma virus: OrfA N–terminal end inhibits the activity of a reporter gene directed by eukaryotic promoters and has a negative effect on the growth of fish and mammalian cells. Zhang Z, et al. **J Virol** 1999 Oct; 73(10):8884–9

Retroviruses. Closing the joint [news] Coffin JM, et al.
Nature 1999 Jun 3;399(6735):413, 415–6

Beneficial role of human endogenous retroviruses: facts and hypotheses. Larsson E, et al. **Scand J Immunol** 1998 Oct; 48(4):329–38 (123 ref.)

Porcine endogenous retrovirus is transmitted neither in vivo nor in vitro from porcine endothelial cells to baboons. Martin U, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):913–4

Retroviruses as model systems for the study of nuclear RNA export pathways. Cullen BR. **Virology** 1998 Sep 30; 249(2):203–10 (39 ref.)

Poxviral/retroviral chimeric vectors allow cytoplasmic production of transducing defective retroviral particles. Holzer GW, et al. **Virology** 1999 Jan 5;253(1):107–14

Fusion between uninfected cells in retrovirus–induced fusion–from–within. Andersen KB, et al. **Virus Res** 1998 Nov;58(1–2):53–64

RETROVIRIDAE INFECTIONS

9th International Conference on Human Retrovirology HTLV and Related Viruses. Kagoshima, Japan, April 5–9, 1999. Abstracts..
J Acquir Immune Defic Syndr Hum Retrovirol 1999 Apr 1;20(4):A1–88

Xenotransplantation and the risk of retroviral zoonosis [see comments] Brown J, et al. **Trends Microbiol** 1998 Oct; 6(10):411–5. Comment in: Trends Microbiol 1998 Nov;6(11):430. Comment in: Trends Microbiol 1998 Nov;6(11):430–1. Comment in: Trends Microbiol 1998 Nov;6(11):431–2.

COMPLICATIONS

Effects of long term feeding of raw soya bean flour on virus–induced pancreatic carcinogenesis in guinea fowl. Kirev T, et al. **Cancer Lett** 1999 Jan 29;135(2):195–202

Primate retroviruses and oncogenesis. Sanguineti–Diaz C, et al. **Crit Rev Oncog** 1998;9(3–4):209–53 (471 ref.)

Retrovirus–associated rheumatic syndromes. Herrmann M, et al. **Curr Opin Rheumatol** 1998 Jul;10(4):347–54 (78 ref.)

Evidence of retroviral involvement in an Italian patient with Ofuji's disease. Veraldi S, et al. **Dermatology** 1999; 198(1):86–9

DIAGNOSIS

Distinguishing immunosilent AIDS from the acute retroviral syndrome in a frequent blood donor. Kopko P, et al.
Transfusion 1999 Apr;39(4):383–6

Polymerase chain reaction assays for the diagnosis of infection with the porcine endogenous retrovirus and the detection of pig cells in human and nonhuman recipients of pig xenografts. Switzer WM, et al. **Transplantation** 1999 Jul 27;68(2):183–8

DRUG THERAPY

Significant interactions with new antiretrovirals and psychotropic drugs. Tseng AL, et al. **Ann Pharmacother** 1999 Apr;33(4):461–73 (83 ref.)

Risk of HIV related Kaposi's sarcoma and non–Hodgkin's lymphoma with potent antiretroviral therapy: prospective cohort study. Swiss HIV Cohort Study. Ledergerber B, et al. **BMJ** 1999 Jul 3;319(7201):23–4

Modulation of ex vivo cytokine production by splenocytes using in vitro combined therapeutics in murine retroviral model. Kang LC, et al. **DNA Cell Biol** 1999 Jul; 18(7):585–92

Interleukin–12 administration in retroviral infection of mice increases the potential to produce functional dendritic cells from bone marrow stem cells. Kelleher P, et al.
Immunol Lett 1999 Jan;65(1–2):51–4

Enhancement of thermal effect in virally infected mammalian cells in vitro and its modification by chlorpromazine. Shenoy MA, et al. **Indian J Exp Biol** 1998 Jul;36(7):668–74

Update from the 6th Conference on Retroviruses and Opportunistic Infections [news] Klaus BD, et al.
Nurse Pract 1999 Apr;24(4):117–21

[Observance, adherence, compliance ...different words for better therapeutic results] Baril L. **Presse Med** 1998 Dec; 27 Suppl 5:13–4 (Eng. Abstr.) **(Fre)**

[The role of stavudine in antiretroviral therapy] Molina JM.
Presse Med 1998 Oct 31;27(33):1708–9 **(Fre)**

ETIOLOGY

Characterization of two infectious mouse mammary tumour viruses: superantigenicity and tumorigenicity. Buggiano V, et al. **Scand J Immunol** 1999 Mar;49(3):269–77

GENETICS

Rapid retroviral infection of human haemopoietic cells of different lineages: efficient transfer in fresh T cells. Introna M, et al. **Br J Haematol** 1998 Nov;103(2):449–61

A recurring pattern of chromosomal aberrations in mammary gland tumors of MMTV–cmyc transgenic mice. Weaver ZA, et al. **Genes Chromosomes Cancer** 1999 Jul;25(3):251–60

Fine mapping of the friend retrovirus resistance gene, Rfv3, on mouse chromosome 15. Super HJ, et al. **J Virol** 1999 Sep;73(9):7848–52

IMMUNOLOGY

Retroviruses and autoimmune endocrine diseases. Coutant R, et al. **Ann Med Interne (Paris)** 1999 Apr;150(3):235–44 (83 ref.)

Immunosuppression by retroviruses: implications for xenotransplantation. Denner J. **Ann N Y Acad Sci** 1998 Dec 30;862:75–86 (38 ref.)

CD40–deficient mice infected with the defective murine leukemia virus LP–BM5def do not develop murine AIDS but produce IgE and IgG1 in vivo. Yu P, et al.
Eur J Immunol 1999 Feb;29(2):615–25

Interplays between mouse mammary tumor virus and the cellular and humoral immune response. Acha–Orbea H, et al. **Immunol Rev** 1999 Apr;168:287–303 (130 ref.)

Prevention of immune dysfunction and vitamin E loss by dehydroepiandrosterone and melatonin supplementation during murine retrovirus infection. Zhang Z, et al.
Immunology 1999 Feb;96(2):291–7

B cell response after MMTV infection: extrafollicular plasmablasts represent the main infected population and can transmit viral infection. Ardavín C, et al.
J Immunol 1999 Mar 1;162(5):2538–45

Genetic and immunological parameters governing in vivo susceptibility/resistance to retrovirally induced murine malignant histiocytosis. Panoskaltsis–Mortari A, et al.
J Leukoc Biol 1998 Oct;64(4):441–50

Role of dendritic cells in the immune response induced by mouse mammary tumor virus superantigen. Baribaud F, et al. **J Virol** 1999 Oct;73(10):8403–10

Kinetics of the development of protective immunity in mice vaccinated with a live attenuated retrovirus. Dittmer U, et al. **J Virol** 1999 Oct;73(10):8435–40

Lymphocyte deficiencies increase susceptibility to friend virus–induced erythroleukemia in Fv–2 genetically resistant mice. Hasenkrug KJ. **J Virol** 1999 Aug;73(8):6468–73

Dissecting the immune response to moloney murine sarcoma/leukemia virus–induced tumors by means of a DNA vaccination approach. Milan G, et al. **J Virol** 1999 Mar;73(3):2280–7

Neuroimmunopathogenesis of ts1 MoMuLV viral infection. Lynn WS, et al. **Neuroimmunomodulation** 1998 Sep–Oct; 5(5):248–60

Combined in vitro effect of marijuana and retrovirus on the activity of mouse natural killer cells. Ongrádi J, et al.

Pathol Oncol Res 1998;4(3):191–9
High levels of IL-4 and IL-10 mRNA and low levels of IL-2, IL-9 and IFN-gamma mRNA in MuLV-induced lymphomas. Beaty RM, et al. **Virology** 1999 Sep 1; 261(2):253–62

METABOLISM

Host proteins in retroviral cDNA integration. Bushman FD. **Adv Virus Res** 1999;52:301–17 (81 ref.)
The pattern of neurotransmitter alterations in LP-BM5 infected mice is consistent with glutamatergic hyperactivation. Kustova Y, et al. **Brain Res** 1998 May 18;793(1–2):119–26
Quantitative variation of free amino acids in the central nervous system of MoMuLV-ts1-infected mice. Stoica G, et al. **In Vivo** 1998 Jul–Aug;12(4):395–401

PATHOLOGY

Isolated leptomeningeal Castleman's disease with viral particles in the follicular dendritic cells. Gulati P, et al. **Arch Pathol Lab Med** 1998 Nov;122(11):1026–9 (18 ref.)
Differences of milk-transmitted murine mammary tumor virus (MMTV) among mouse strains. Sayama K, et al. **In Vivo** 1999 Mar–Apr;13(2):135–40
High incidence of meningeal infiltration by leukemic cells after infection of chimeric virus between neuropathogenic and non-neuropathogenic retroviruses. Takase-Yoden S, et al. **J Neurovirol** 1999 Aug;5(4):414–20
Moloney murine leukemia virus-induced preleukemic thymic atrophy and enhanced thymocyte apoptosis correlate with disease pathogenicity. Bonzon C, et al. **J Virol** 1999 Mar; 73(3):2434–41
Walleye dermal sarcoma virus: OrfA N-terminal end inhibits the activity of a reporter gene directed by eukaryotic promoters and has a negative effect on the growth of fish and mammalian cells. Zhang Z, et al. **J Virol** 1999 Oct; 73(10):8884–9
Evidence of neuronal degeneration in C57B1/6 mice infected with the LP-BM5 leukemia retrovirus mixture. Kustova Y, et al. **Mol Chem Neuropathol** 1998 Aug–Dec; 35(1–3):39–59
Zidovudine [AZT] myotoxicity: quantitative separation of AZT effects on proliferation and differentiation of muscle cells in vitro. Lack of myotoxicity potentiation by retrovirus. Waclawik AJ, et al. **Neurotoxicology** 1999 Feb; 20(1):49–56

PHYSIOPATHOLOGY

Increased blood-brain barrier permeability in LP-BM5 infected mice is mediated by neuroexcitatory mechanisms. Kustova Y, et al. **Brain Res** 1999 Aug 21;839(1):153–63
A friendly signal [news; comment] Schwartzberg PL. **Nat Genet** 1999 Oct;23(2):128–30. Comment on: Nat Genet 1999 Oct;23(2):159–65.
Physical inactivity of murine retrovirus infected C57BL/6 mice is prevented by melatonin and dehydroepiandrosterone. Araghi-Niknam M, et al. **Proc Soc Exp Biol Med** 1998 Nov;219(2):144–8
Experimental infection of calves with bovine leukemia virus (BLV): an applicable model of a retroviral infection. Ungar-Waron H, et al. **Vet Immunol Immunopathol** 1999 Feb 1;67(2):195–201

PREVENTION & CONTROL

Animal studies of prophylaxis. Black RJ. **Am J Med** 1997 May 19;102(5B):39–44 (19 ref.)
Protection of retrovirus-induced disease by transplantation of bone marrow cells transduced with MuLV env gene via retrovirus vector. Kitagawa M, et al. **Exp Hematol** 1999 Feb;27(2):234–41
Protection against establishment of retroviral persistence by vaccination with a live attenuated virus. Dittmer U, et al. **J Virol** 1999 May;73(5):3753–7
Requirement for multiple lymphocyte subsets in protection by a live attenuated vaccine against retroviral infection. Dittmer U, et al. **Nat Med** 1999 Feb;5(2):189–93
[Jaundice with free bilirubin following preventive anti-retroviral therapy after sexual aggression] Questel F, et al. **Presse Med** 1999 Jan 9;28(1):8–10 (Eng. Abstr.) **(Fre)**

TRANSMISSION

The risk of using baboons as transplant donors. Exogenous and endogenous viruses. Allan JS. **Ann N Y Acad Sci** 1998 Dec 30;862:87–99 (76 ref.)
Endogenous retroviruses: a potential problem for xenotransplantation? Stoye JP, et al. **Ann N Y Acad Sci** 1998 Dec 30;862:67–74 (26 ref.)
Is xenotransplantation worth the risk? [letter; comment] Greek R, et al. **J Am Vet Med Assoc** 1998 Oct 1;213(7):950, 952. Comment on: J Am Vet Med Assoc 1998 Aug 1;213(3):331.
Interclass transmission and phyletic host tracking in murine leukemia virus-related retroviruses. Martin J, et al. **J Virol** 1999 Mar;73(3):2442–9
Safety of xenografts [letter; comment] Collignon P. **Lancet** 1998 Oct 24;352(9137):1390; discussion 1390–1. Comment on: Lancet 1998 Aug 29;352(9129):695–9.
Search for cross-species transmission of porcine endogenous retrovirus in patients treated with living pig tissue [see comments] Paradis K, et al. **Science** 1999 Aug 20; 285(5431):1236–41. Comment in: Science 1999 Aug 20;285(5431):1221–2.
Xenografts and retroviruses [comment] Weiss RA. **Science** 1999 Aug 20;285(5431):1221–2. Comment on: Science 1999 Aug 20;285(5431):1236–41.
Infection in xenotransplantation: a clinical approach. Fishman JA. **Transplant Proc** 1999 Sep;31(6):2225–7 (23 ref.)

VETERINARY

Retroviruses: ancient and modern. Weiss RA, et al. **Arch Virol Suppl** 1999;15:171–7 (30 ref.)
Epidemiology of feline foamy virus and feline immunodeficiency virus infections in domestic and feral cats: a seroepidemiological study. Winkler IG, et al. **J Clin Microbiol** 1999 Sep;37(9):2848–51
Seroepidemiological survey of feline retrovirus infections in domestic and leopard cats in northern Vietnam in 1997. Miyazawa T, et al. **J Vet Med Sci** 1998 Nov;60(11):1273–5
Complete sequence of enzootic nasal tumor virus, a retrovirus associated with transmissible intranasal tumors of sheep. Cousens C, et al. **J Virol** 1999 May;73(5):3986–93
Walleye retroviruses associated with skin tumors and hyperplasias encode cyclin D homologs. LaPierre LA, et al. **J Virol** 1998 Nov;72(11):8765–71
Jaagsiekte sheep retrovirus is necessary and sufficient to induce a contagious lung cancer in sheep. Palmarini M, et al. **J Virol** 1999 Aug;73(8):6964–72
Reticuloendotheliosis in captive greater and Attwater's prairie chickens. Drew ML, et al. **J Wildl Dis** 1998 Oct; 34(4):783–91
Retrovirus-induced disease in poultry. Payne LN. **Poult Sci** 1998 Aug;77(8):1204–12 (58 ref.)
Cryptosporidium in cats--additional evidence for C. felis. Morgan UM, et al. **Vet J** 1998 Sep;156(2):159–61
Recombinant feline leukemia virus (FeLV) variants establish a limited infection with altered cell tropism in specific-pathogen-free cats in the absence of FeLV subgroup A helper virus. Bechtel MK, et al. **Vet Pathol** 1999 Mar;36(2):91–9
[Risk of infection causes by viruses in xenotransplantation] von der Helm K, et al. **Zentralbl Chir** 1999;124(7):600–3 (19 ref.) (Eng. Abstr.) **(Ger)**

VIROLOGY

Host proteins in retroviral cDNA integration. Bushman FD. **Adv Virus Res** 1999;52:301–17 (81 ref.)
Retroviral RNA related to ERV9/MSRV in a human serum: a new sequence variant. Olsson P, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):591–3
Retroviruses: ancient and modern. Weiss RA, et al. **Arch Virol Suppl** 1999;15:171–7 (30 ref.)
Possible retroviral origin of prion disease: could prion disease be reconsidered as a preleukemia syndrome? Labat ML. **Biomed Pharmacother** 1999;53(1):47–53 (60 ref.)
Establishment and characterization of osteoblast-like cell lines from retrovirus (RFB MuLV)-induced osteomas in mice. Goralczyk R, et al. **Differentiation** 1998 Sep; 63(5):253–62
Characterization of the block in replication of nucleocapsid protein zinc finger mutants from moloney murine leukemia virus. Gorelick RJ, et al. **J Virol** 1999 Oct;73(10):8185–95
Jaagsiekte retrovirus is widely distributed both in T and B lymphocytes and in mononuclear phagocytes of sheep with naturally and experimentally acquired pulmonary adenomatosis. Holland MJ, et al. **J Virol** 1999 May; 73(5):4004–8
Appearance of mink cell focus-inducing recombinants during in vivo infection by moloney murine leukemia virus (M-MuLV) or the Mo+PyF101 M-MuLV enhancer variant: implications for sites of generation and roles in leukemogenesis. Lander JK, et al. **J Virol** 1999 Jul; 73(7):5671–80
Neural stem cells as engraftable packaging lines can mediate gene delivery to microglia: evidence from studying retroviral env-related neurodegeneration. Lynch WP, et al. **J Virol** 1999 Aug;73(8):6841–51
Selection of reversions and suppressors of a mutation in the CBF binding site of a lymphomagenic retrovirus. Martinez MJ, et al. **J Virol** 1999 Sep;73(9):7599–606
Identification of directly infected cells in the bone marrow of neonatal moloney murine leukemia virus-infected mice by use of a moloney murine leukemia virus-based vector. Okimoto MA, et al. **J Virol** 1999 Feb;73(2):1617–23
Foamy virus capsids require the cognate envelope protein for particle export. Pietschmann T, et al. **J Virol** 1999 Apr; 73(4):2613–21
Detection of bovine retrospumavirus by the polymerase chain reaction. Pamba R, et al. **J Virol Methods** 1999 Mar; 78(1–2):199–208
Retrovirus time travel [letter; comment] Takeuchi Y. **Trends Microbiol** 1998 Nov;6(11):430. Comment on: Trends Microbiol 1998 Oct;6(10):411–5.
[5th Conference on Opportunistic Retrovirus Infections in HIV: contribution of anti-retroviral combinations] Granier F, et al. **Presse Med** 1998 Apr 4;27(13):622–3 **(Fre)**

RETROVIRIDAE PROTEINS

HIV-1: fifteen proteins and an RNA. Frankel AD, et al. **Annu Rev Biochem** 1998;67:1–25 (134 ref.)

ANALYSIS

3D NMR experiments for measuring 15N relaxation data of large proteins: application to the 44 kDa ectodomain of SIV gp41. Caffrey M, et al. **J Magn Reson** 1998 Dec; 135(2):368–72

CHEMISTRY

The crystal structure of the SIV gp41 ectodomain at 1.47 A resolution. Yang ZN, et al. **J Struct Biol** 1999 Jun 15; 126(2):131–44
Folding the ribonuclease H domain of Moloney murine leukemia virus reverse transcriptase requires metal binding or a short N-terminal extension. Goedken ER, et al. **Proteins** 1998 Oct 1;33(1):135–43

GENETICS

A novel strategy of cell targeting based on tissue-specific expression of the ecotropic retrovirus receptor gene. Igarashi T, et al. **Hum Gene Ther** 1998 Dec 10;9(18):2691–8
Replication of a foamy virus mutant with a constitutively active U3 promoter and deleted accessory genes. Schenk T, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1591–8
Mitochondrial targeting of the p13II protein coded by the x-II ORF of human T-cell leukemia/lymphotropic virus type I (HTLV-I). Ciminale V, et al. **Oncogene** 1999 Aug 5;18(31):4505–14

METABOLISM

Mitochondrial targeting of the p13II protein coded by the x-II ORF of human T-cell leukemia/lymphotropic virus type I (HTLV-I). Ciminale V, et al. **Oncogene** 1999 Aug 5;18(31):4505–14
Nuclear localization of the functional Bel 1 transactivator but not of the gag proteins of the feline foamy virus. Bodem J, et al. **Virology** 1998 Nov 10;251(1):22–7

PHYSIOLOGY

Cells expressing the human foamy virus (HFV) accessory Bet protein are resistant to productive HFV superinfection. Bock M, et al. **Virology** 1998 Oct 10;250(1):194–204

RETROVIRIDAE PROTEINS, ONCOGENIC

ANTAGONISTS & INHIBITORS

Protein kinase C activation inhibits tyrosine phosphorylation of Cbl and its recruitment of Src homology 2 domain-containing proteins. Liu Y, et al. **J Immunol** 1999 Jun 15;162(12):7095–101
Acetylaminofluorene inhibits nitric oxide production in LPS-stimulated RAW 264.7 cells by blocking NF-kappa B/Rel activation. Jeon YJ, et al. **Toxicol Lett** 1999 Feb 22;104(3):195–202

BIOSYNTHESIS

Targeted expression of an oncogenic adaptor protein v-Crk potentiates axonal growth in dorsal root ganglia and motor neurons in vivo. Weinstein DE, et al. **Brain Res Dev Brain Res** 1999 Aug 5;116(1):29–39
The effect of the cellular stress response on human T-lymphotropic virus type I envelope protein expression. Andrews JM, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):2905–8
Expression of envelope proteins of endogeneous C-type retrovirus on the surface of mouse and human oocytes at fertilization. Nilsson BO, et al. **Virus Genes** 1999; 18(2):115–20

CHEMISTRY

Crystal structure of human T cell leukemia virus type 1 gp21 ectodomain crystallized as a maltose-binding protein chimera reveals structural evolution of retroviral transmembrane proteins. Kobe B, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4319–24

GENETICS

Angiogenesis induced by urothelial cells (HCV-29) and their v-ras and v-raf transfectants. Przybyszewska M, et al. **Cancer Lett** 1998 Sep 25;131(2):157–61
Rel blocks both anti-Fas- and TNF alpha-induced apoptosis and an intact Rel transactivation domain is essential for this effect. Zong WX, et al. **Cell Death Differ** 1998 Nov; 5(11):963–72
Expression of bovine leukemia virus ENV glycoprotein in insect cells by recombinant baculovirus. Russo S, et al. **FEBS Lett** 1998 Sep 25;436(1):11–6
TOM1 genes map to human chromosome 22q13.1 and mouse chromosome 8C1 and encode proteins similar to the endosomal proteins HGS and STAM. Seroussi E, et al. **Genomics** 1999 May 1;57(3):380–8
Inhibitory effect of theobromine on induction of angiogenesis and VEGF mRNA expression in v-raf transfectants of human urothelial cells HCV-29. Skopinska-Rózewska E, et al. **Int J Mol Med** 1998 Dec;2(6):649–52
A third human CBL gene is on chromosome 19. Ollendorff V, et al. **Int J Oncol** 1998 Dec;13(6):1159–61
Spontaneous metastasis of rat liver epithelial cells transformed with v-raf and v-raf/v-myc: association with

different phenotypic properties. Bisgaard HC, et al. **Invasion Metastasis** 1997;17(5):240–50

Interaction and specificity of Rel-related proteins in regulating Drosophila immunity gene expression. Han ZS, et al. **J Biol Chem** 1999 Jul 23;274(30):21355–61

Ras- and Raf-induced down-modulation of non-muscle tropomyosin are MEK-independent. Janssen RA, et al. **J Biol Chem** 1998 Nov 27;273(48):32182–6

Identification of a receptor-binding pocket on the envelope protein of friend murine leukemia virus. Davey RA, et al. **J Virol** 1999 May;73(5):3758–63

The fit-1 common integration locus in human and mouse is closely linked to MYB. Barr NI, et al. **Mamm Genome** 1999 Jun;10(6):556–9

Identification of v-Rel oncogene-induced inhibitor of apoptosis by differential display. You M, et al. **Methods** 1998 Dec;16(4):373–85

Mapping of a serine-rich domain essential for the transcriptional, antiapoptotic, and transforming activities of the v-Rel oncoprotein. Chen C, et al. **Mol Cell Biol** 1999 Jan;19(1):307–16

Cooperation of Myb and Myc proteins in T cell lymphomagenesis. Davies J, et al. **Oncogene** 1999 Jun 17; 18(24):3643–7

IMMUNOLOGY

Influence of amino acid substitutions on antigenicity of immunodominant regions of the HTLV type I envelope surface gylcoprotein: a study using monoclonal antibodies raised against relevant peptides. Londos-Gagliardi D, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):909–20

Establishment of monoclonal antibody, gp21-34, against HTLV-II envelope protein (p20E). Miyagawa E, et al. **Hybridoma** 1998 Aug;17(4):347–54

The humoral immune response to human T-cell lymphotropic virus type I envelope glycoprotein gp46 is directed primarily against conformational epitopes. Hadlock KG, et al. **J Virol** 1999 Feb;73(2):1205–12

METABOLISM

Bovine leukemia virus transmembrane protein gp30 physically associates with the down-regulatory phosphatase SHP-1. Cantor GH, et al. **Cell Immunol** 1999 May 1;193(2):117–24

A direct interaction between the adaptor protein Cbl-b and the kinase zap-70 induces a positive signal in T cells. Zhang Z, et al. **Curr Biol** 1999 Feb 25;9(4):203–6

Characterization of Cbl-Nck and Nck-Pak1 interactions in myeloid FcgammaRII signaling. Izadi KD, et al. **Exp Cell Res** 1998 Dec 15;245(2):330–42

Expression of bovine leukemia virus ENV glycoprotein in insect cells by recombinant baculovirus. Russo S, et al. **FEBS Lett** 1998 Sep 25;436(1):11–6

c-Cbl/Sli-1 regulates endocytic sorting and ubiquitination of the epidermal growth factor receptor. Levkowitz G, et al. **Genes Dev** 1998 Dec 1;12(23):3663–74

Cell surface retention sequence binding protein-1 interacts with the v-sis gene product and platelet-derived growth factor beta-type receptor in simian sarcoma virus-transformed cells. Boensch C, et al. **J Biol Chem** 1999 Apr 9;274(15):10582–9

Phosphorylation- and activation-independent association of the tyrosine kinase Syk and the tyrosine kinase substrates Cbl and Vav with tubulin in B-cells. Fernandez JA, et al. **J Biol Chem** 1999 Jan 15;274(3):1401–6

Stimulation of IRS-1-associated phosphatidylinositol 3-kinase and Akt/protein kinase B but not glucose transport by beta1-integrin signaling in rat adipocytes. Guilherme A, et al. **J Biol Chem** 1998 Dec 11; 273(50):33119–22

Myb-interacting protein, ATBF1, represses transcriptional activity of Myb oncoprotein. Kaśpar P, et al. **J Biol Chem** 1999 May 14;274(20):14422–8

Specific contributions of the small GTPases Rho, Rac, and Cdc42 to Dbl transformation. Lin R, et al. **J Biol Chem** 1999 Aug 13;274(33):23633–41

Cyclin D expression is controlled post-transcriptionally via a phosphatidylinositol 3-kinase/Akt-dependent pathway. Muise-Helmericks RC, et al. **J Biol Chem** 1998 Nov 6; 273(45):29864–72

Activation of nuclear factor of activated T cells-(NFAT) and activating protein 1 (AP-1) by oncogenic 70Z Cbl requires an intact phosphotyrosine binding domain but not Crk(L) or p85 phosphatidylinositol 3-kinase association. van Leeuwen JE, et al. **J Biol Chem** 1999 Feb 19; 274(8):5153–62

Interactions of the cytoplasmic domains of human and simian retroviral transmembrane proteins with components of the clathrin adaptor complexes modulate intracellular and cell surface expression of envelope glycoproteins. Berlioz-Torrent C, et al. **J Virol** 1999 Feb;73(2):1350–61

Simultaneous infection with retroviruses pseudotyped with different envelope proteins bypasses viral receptor interference associated with colocalization of gp70 and target cells on fibronectin CH-296. MacNeill EC, et al. **J Virol** 1999 May;73(5):3960–7

Failure To cleave murine leukemia virus envelope protein does not preclude its incorporation in virions and productive virus-receptor interaction. Zavorotinskaya T, et al. **J Virol** 1999 Jul;73(7):5621–9

Egr3/Pilot, a zinc finger transcription factor, is rapidly regulated by activity in brain neurons and colocalizes with Egr1/zif268. Yamagata K, et al. **Learn Mem** 1994 Jul-Aug; 1(2):140–52

Epigallocathechin-3 gallate selectively inhibits the PDGF-BB-induced intracellular signaling transduction pathway in vascular smooth muscle cells and inhibits transformation of sis-transfected NIH 3T3 fibroblasts and human glioblastoma cells (A172). Ahn HY, et al. **Mol Biol Cell** 1999 Apr;10(4):1093–104

Regulation of endothelium-derived nitric oxide production by the protein kinase Akt. Fulton D, et al. **Nature** 1999 Jun 10;399(6736):597–601

Suppression of transforming growth factor-beta-induced apoptosis through a phosphatidylinositol 3-kinase/Akt-dependent pathway. Chen RH, et al. **Oncogene** 1998 Oct 15;17(15):1959–68

Strict regulation of c-Raf kinase levels is required for early organogenesis of the vertebrate inner ear. Sanz C, et al. **Oncogene** 1999 Jan 14;18(2):429–37

Promotion of early osteoclastogenesis and B lymphopoiesis in the bone marrow of transgenic rats with the env-pX gene of human T-cell lymphotropic virus type I. Yamazaki H, et al. **Oncogene** 1998 Dec 10;17(23):2955–60

Importance of the intracytoplasmic domain of the simian immunodeficiency virus (SIV) envelope glycoprotein for pathogenesis. Luciw PA, et al. **Virology** 1998 Dec 5; 252(1):9–16

PHYSIOLOGY

Myb and oncogenesis. Ganter B, et al. **Adv Cancer Res** 1999; 76:21–60 (289 ref.)

Ral and Rho-dependent activation of phospholipase D in v-Raf-transformed cells. Frankel P, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):502–7

Oncoprotein v-Myb and retinoic acid receptor alpha are mutual antagonists. Zemanová K, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):239–50

Activation of mitochondrial Raf-1 is involved in the antiapoptotic effects of Akt. Majewski M, et al. **Cancer Res** 1999 Jun 15;59(12):2815–9

Conspiracy theory: RAS and RAF do not act alone. Sternberg PW, et al. **Cell** 1998 Nov 13;95(4):447–50 (17 ref.)

Rel blocks both anti-Fas- and TNF alpha-induced apoptosis and an intact Rel transactivation domain is essential for this effect. Zong WX, et al. **Cell Death Differ** 1998 Nov; 5(11):963–72

Dual regulation of T cell receptor-mediated signaling by oncogenic Cbl mutant 70Z. Zhang Z, et al. **J Biol Chem** 1999 Feb 19;274(8):4883–9

Physiological signals and oncogenesis mediated through Crk family adapter proteins. Feller SM, et al. **J Cell Physiol** 1998 Dec;177(4):535–52 (229 ref.)

Early growth response factor 1: a pleiotropic mediator of inducible gene expression. Khachigian LM, et al. **J Mol Med** 1998 Aug;76(9):613–6 (34 ref.)

The YXXL sequences of a transmembrane protein of bovine leukemia virus are required for viral entry and incorporation of viral envelope protein into virions. Inabe K, et al. **J Virol** 1999 Feb;73(2):1293–301

Transformation by v-Myb. Lipsick JS, et al. **Oncogene** 1999 May 13;18(19):3047–55 (145 ref.)

Myc and Myb: are the veils beginning to lift? Prendergast GC. **Oncogene** 1999 May 13;18(19):2914–5

RETROVIRUS D, NEW ENGLAND see **RETROVIRUSES TYPE D, SIMIAN**

RETROVIRUS INFECTIONS see **RETROVIRIDAE INFECTIONS**

RETROVIRUS-LIKE ELEMENTS see **RETROELEMENTS**

RETROVIRUS PROTEINS see **RETROVIRIDAE PROTEINS**

RETROVIRUSES see **RETROVIRIDAE**

RETROVIRUSES, ALV-RELATED see **RETROVIRUSES TYPE C, AVIAN**

RETROVIRUSES, ENDOGENOUS see **ENDOGENOUS RETROVIRUSES**

RETROVIRUSES, SIMIAN

"Have you seen this?" Abnormal lymphocytes in simian retrovirus (type D)-infected cynomolgus monkeys. Usborne AL, et al. **Toxicol Pathol** 1999 Jul-Aug; 27(4):468–70

GENETICS

Assignment of the human endogenous retrovirus S71 (SSAV1) to chromosome 18 band q12.3 by radiation hybrid mapping. Kim HS, et al. **Cytogenet Cell Genet** 1998; 83(3-4):207

RETROVIRUSES TYPE C, AVIAN

METABOLISM

Production and characterization of a soluble, active form of Tva, the subgroup A avian sarcoma and leukosis virus receptor. Balliet JW, et al. **J Virol** 1999 Apr;73(4):3054–61

Substitutions in the receptor-binding domain of the avian sarcoma and leukosis virus envelope uncouple receptor-triggered structural rearrangements in the surface and transmembrane subunits. Damico R, et al. **J Virol** 1999 Apr;73(4):3087–94

RETROVIRUSES TYPE C, MAMMALIAN

Search for cross-species transmission of porcine endogenous retrovirus in patients treated with living pig tissue [see comments] Paradis K, et al. **Science** 1999 Aug 20; 285(5431):1236–41. Comment in: Science 1999 Aug 20;285(5431):1221–2.

Xenografts and retroviruses [comment] Weiss RA. **Science** 1999 Aug 20;285(5431):1221–2. Comment on: Science 1999 Aug 20;285(5431):1236–41.

GENETICS

Construction of a swine BAC library: application to the characterization and mapping of porcine type C endoviral elements. Rogel-Gaillard C, et al. **Cytogenet Cell Genet** 1999;85(3-4):205–11

Genetic analysis of the rat leukemia virus: influence of viral sequences in transduction of the c-ras proto-oncogene and expression of its transforming activity. Lee SY, et al. **J Virol** 1998 Dec;72(12):9906–17

IMMUNOLOGY

Development and validation of a Western immunoblot assay for detection of antibodies to porcine endogenous retrovirus. Matthews AL, et al. **Transplantation** 1999 Apr 15;67(7):939–43

ISOLATION & PURIFICATION

Constitutive production of a murine retrovirus in the human B-lymphoblastoid cell line, DG-75. Raisch KP, et al. **Virology** 1998 Oct 10;250(1):135–9

METABOLISM

Expression of envelope proteins of endogeneous C-type retrovirus on the surface of mouse and human oocytes at fertilization. Nilsson BO, et al. **Virus Genes** 1999; 18(2):115–20

RETROVIRUSES TYPE D

GENETICS

Complete sequence of enzootic nasal tumor virus, a retrovirus associated with transmissible intranasal tumors of sheep. Cousens C, et al. **J Virol** 1999 May;73(5):3986–93

Jaagsiekte retrovirus is widely distributed both in T and B lymphocytes and in mononuclear phagocytes of sheep with naturally and experimentally acquired pulmonary adenomatosis. Holland MJ, et al. **J Virol** 1999 May; 73(5):4004–8

ISOLATION & PURIFICATION

Improved Mg2+-based reverse transcriptase assay for detection of primate retroviruses. Sears JF, et al. **J Clin Microbiol** 1999 Jun;37(6):1704–8

Novel endogenous type D retroviral particles expressed at high levels in a SCID mouse thymic lymphoma. Ristevski S, et al. **J Virol** 1999 Jun;73(6):4662–9

METABOLISM

Identification of novel import and export signals of human TAP, the protein that binds to the constitutive transport element of the type D retrovirus mRNAs. Bear J, et al. **Mol Cell Biol** 1999 Sep;19(9):6306–17

PHYSIOLOGY

Jaagsiekte sheep retrovirus is necessary and sufficient to induce a contagious lung cancer in sheep. Palmarini M, et al. **J Virol** 1999 Aug;73(8):6964–72

ULTRASTRUCTURE

Isolated leptomeningeal Castleman's disease with viral particles in the follicular dendritic cells. Gulati P, et al. **Arch Pathol Lab Med** 1998 Nov;122(11):1026–9 (18 ref.)

RETROVIRUSES TYPE D, SIMIAN

GENETICS

Molecular cloning and cell-specific growth characterization of polymorphic variants of type D serogroup 2 simian retroviruses. Marracci GH, et al. **Virology** 1999 Aug 15; 261(1):43–58

GROWTH & DEVELOPMENT

Molecular cloning and cell-specific growth characterization of polymorphic variants of type D serogroup 2 simian retroviruses. Marracci GH, et al. **Virology** 1999 Aug 15; 261(1):43-58

IMMUNOLOGY

Simian retrovirus receptor and neutralization mechanism by antibodies to the envelope glycoprotein. Anderson DE, et al. **Viral Immunol** 1999;12(1):47-56

METABOLISM

A sodium-dependent neutral-amino-acid transporter mediates infections of feline and baboon endogenous retroviruses and simian type D retroviruses. Tailor CS, et al. **J Virol** 1999 May;73(5):4470-4

PHYSIOLOGY

The RD114/simian type D retrovirus receptor is a neutral amino acid transporter. Rasko JE, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2129-34

RETT SYNDROME

[Contemporary views on Rett's syndrome: clinical, cytogenetic and molecular studies] Vorsanova SG, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(3):61-9 (99 ref.) **(Rus)**

[Increase support to patients with Rett syndrome! (letter)] Hånell U. **Lakartidningen** 1999 Jul 28;96(30-31):3316 **(Swe)**

BLOOD

Very long-chain fatty acids in Rett syndrome. Stradomska TJ, et al. **Eur J Pediatr** 1999 Mar;158(3):226-9

CEREBROSPINAL FLUID

Levels of cerebrospinal fluid nerve-growth factor differ in infantile autism and Rett syndrome. Riikonen R, et al. **Dev Med Child Neurol** 1999 Mar;41(3):148-52

Cerebrospinal fluid gangliosides in patients with Rett syndrome and infantile neuronal ceroid lipofuscinosis. Lekman AY, et al. **Europ J Paediatr Neurol** 1999; 3(3):119-23

Developmental aspects of cerebrospinal fluid levels of beta-phenylethylamine and it's role in pediatric neurological disorders. Satoi M. **Kurume Med J** 1999; 46(1):17-23

COMPLICATIONS

Familial aggregation in Rett syndrome: what is the evidence for clustering of other disorders in families of affected girls? Leonard H, et al. **Am J Med Genet** 1999 Jan 29;82(3):228-34

Epidural analgesia for pain relief after scoliosis surgery in a patient with Rett's syndrome. Konen AA, et al. **Anesth Analg** 1999 Aug;89(2):451-2

Serum melatonin kinetics and long-term melatonin treatment for sleep disorders in Rett syndrome. Miyamoto A, et al. **Brain Dev** 1999 Jan;21(1):59-62

A population-based approach to the investigation of osteopenia in Rett syndrome. Leonard H, et al. **Dev Med Child Neurol** 1999 May;41(5):323-8

Brief report: autistic behaviors among children with fragile X or Rett syndrome: implications for the classification of pervasive developmental disorder. Mazzocco MM, et al. **J Autism Dev Disord** 1998 Aug;28(4):321-8

[Clinical course of epileptic seizures in Rett's syndrome] Nieto-Barrera M, et al. **Rev Neurol** 1999 Mar 1-15; 28(5):449-53 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Proton magnetic resonance spectroscopy of the brain in three cases of Rett syndrome: comparison with autism and normal controls. Hashimoto T, et al. **Acta Neurol Scand** 1998 Jul;98(1):8-14

Pons tumour behind a phenotypic Rett syndrome presentation. Vanhala R, et al. **Dev Med Child Neurol** 1998 Dec;40(12):836-9

The preserved speech variant: a subgroup of the Rett complex: a clinical report of 30 cases. Zappella M, et al. **J Autism Dev Disord** 1998 Dec;28(6):519-26

Rett syndrome: photographic evidence of rapid regression. Fiumara A, et al. **J Child Neurol** 1999 Aug;14(8):550-2

Rett syndrome: 1H spectroscopic imaging at 4.1 Tesla. Pan JW, et al. **J Child Neurol** 1999 Aug;14(8):524-8

Male Rett syndrome variant: application of diagnostic criteria. Jan MM, et al. **Pediatr Neurol** 1999 Mar; 20(3):238-40 (13 ref.)

[Rett phenotype in patient with XXY karyotype: case report] Schwartzman JS, et al. **Arq Neuropsiquiatr** 1998 Dec; 56(4):824-8 (Eng. Abstr.) **(Por)**

[The clinical phenomenology of Rett's syndrome] Calderón-González R, et al. **Gac Med Mex** 1999 Jan-Feb; 135(1):11-8 (Eng. Abstr.) **(Spa)**

[Rett syndrome as a hodogenesis disorder] Narbona J. **Rev Neurol** 1999 Jan 1-15;28(1):97-101 (51 ref.) (Eng. Abstr.) **(Spa)**

[Atypical forms of Rett's syndrome] Nieto-Barrera M. **Rev Neurol** 1999 Jan 1-15;28(1):101-4 (35 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Rett syndrome: randomized controlled trial of L-carnitine. Ellaway C, et al. **J Child Neurol** 1999 Mar;14(3):162-7

EPIDEMIOLOGY

[Rett's syndrome in the Spanish population] Pineda M, et al. **Rev Neurol** 1999 Jan 1-15;28(1):105-9 (16 ref.) (Eng. Abstr.) **(Spa)**

GENETICS

Rett syndrome in a boy with a 47,XXY karyotype [letter; comment] Salomão Schwartzman J, et al. **Am J Hum Genet** 1999 Jun;64(6):1781-5. Comment on: Am J Hum Genet 1998 Nov;63(5):1552-8.

Rett syndrome: confirmation of X-linked dominant inheritance, and localization of the gene to Xq28 [letter] [see comments] Sirianni N, et al. **Am J Hum Genet** 1998 Nov;63(5):1552-8. Comment in: Am J Hum Genet 1999 Jun;64(6):1781-5.

Identification and molecular characterization of a small 11q23.3 de novo duplication in a patient with Rett syndrome manifestations. Delobel B, et al. **Am J Med Genet** 1998 Nov 16;80(3):273-80

Monosomy 18q syndrome and atypical Rett syndrome in a girl with an interstitial deletion (18)(q21.1q22.3). Gustavsson P, et al. **Am J Med Genet** 1999 Feb 12; 82(4):348-51

Familial aggregation in Rett syndrome: what is the evidence for clustering of other disorders in families of affected girls? Leonard H, et al. **Am J Med Genet** 1999 Jan 29;82(3):228-34

Rett syndrome and genetic drift. Bühler EM, et al. **Brain Dev** 1999 Apr;21(3):175-8

Fragile X and Rett syndromes in Puerto Rico [letter] Toro-Sola MA. **Clin Genet** 1998 Oct;54(4):365

Rett syndrome: significant clinical overlap with Angelman syndrome but not with methylation status. Ellaway C, et al. **J Child Neurol** 1998 Sep;13(9):448-51

Congenital variant Rett syndrome in a girl with terminal deletion of chromosome 3p. Wahlström J, et al. **J Med Genet** 1999 Apr;36(4):343-5

Linkage analysis in Rett syndrome families suggests that there may be a critical region at Xq28. Webb T, et al. **J Med Genet** 1998 Dec;35(12):997-1003

Studies on mitochondrial pathogenesis of Rett syndrome: ultrastructural data from skin and muscle biopsies and mutational analysis at mtDNA nucleotides 10463 and 2835 [letter] Cardaioli E, et al. **J Submicrosc Cytol Pathol** 1999 Apr;31(2):301-4

Rett syndrome is caused by mutations in X-linked MECP2, encoding methyl-CpG-binding protein 2 [see comments] Amir RE, et al. **Nat Genet** 1999 Oct;23(2):185-8. Comment in: Nat Genet 1999 Oct;23(2):127-8.

Breaking the silence in Rett syndrome [news; comment] Willard HF, et al. **Nat Genet** 1999 Oct;23(2):127-8. Comment on: Nat Genet 1999 Oct;23(2):185-8.

Gene defect linked to Rett syndrome [news] Gura T. **Science** 1999 Oct 1;286(5437):27

[Computerized ribosomal RNA secondary structure modeling of mutants found in Rett syndrome patients and their mothers] Qi Y, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Jun; 16(3):153-5 (Eng. Abstr.) **(Chi)**

[Rett syndrome as a hodogenesis disorder] Narbona J. **Rev Neurol** 1999 Jan 1-15;28(1):97-101 (51 ref.) (Eng. Abstr.) **(Spa)**

METABOLISM

Development of amino acid receptors in frontal cortex from girls with Rett syndrome. Blue ME, et al. **Ann Neurol** 1999 Apr;45(4):541-5

Altered development of glutamate and GABA receptors in the basal ganglia of girls with Rett syndrome. Blue ME, et al. **Exp Neurol** 1999 Apr;156(2):345-52

Neurotrophic factors in cerebrospinal fluid and serum of patients with Rett syndrome. Vanhala R, et al. **J Child Neurol** 1998 Sep;13(9):429-33

PATHOLOGY

Ultrastructural study of enteric ganglia in three patients with Rett syndrome. Malandrini A, et al. **Brain Dev** 1998 Dec; 20(8):586-8

Decreased dendritic branching in frontal, motor and limbic cortex in Rett syndrome compared with trisomy 21. Armstrong DD, et al. **J Neuropathol Exp Neurol** 1998 Nov; 57(11):1013-7

Morphological study of the entorhinal cortex, hippocampal formation, and basal ganglia in Rett syndrome patients. Leontovich TA, et al. **Neurobiol Dis** 1999 Apr;6(2):77-91

Organ growth in Rett syndrome: a postmortem examination analysis. Armstrong DD, et al. **Pediatr Neurol** 1999 Feb; 20(2):125-9

PHYSIOPATHOLOGY

Prolonged QT interval in Rett syndrome. Ellaway CJ, et al. **Arch Dis Child** 1999 May;80(5):470-2

Recent insights into hyperventilation from the study of Rett syndrome. Kerr AM, et al. **Arch Dis Child** 1999 Apr; 80(4):384-7 (28 ref.)

Workshop on Autonomic Function in Rett Syndrome. Swedish Rett Center Frösön, Sweden, May 1998. Engerström IW, et al. **Brain Dev** 1998 Aug;20(5):323-6

Cerebral oxygenation and hemodynamics during hyperventilation and sleep in patients with Rett syndrome. Murakami Y, et al. **Brain Dev** 1998 Dec;20(8):574-8

Oropharyngeal dysfunction and gastroesophageal dysmotility are present in girls and women with Rett syndrome. Motil KJ, et al. **J Pediatr Gastroenterol Nutr** 1999 Jul;29(1):31-7

PSYCHOLOGY

Receptive communication in late-stage Rett syndrome: a cautionary note [letter] Meyer KA, et al. **J Autism Dev Disord** 1999 Feb;29(1):93-4

RADIOGRAPHY

Metacarpophalangeal pattern profile and bone age in Rett syndrome: further radiological clues to the diagnosis. Leonard H, et al. **Am J Med Genet** 1999 Mar 12;83(2):88-95

Diagnosis of Rett syndrome: can a radiograph help? Glasson EJ, et al. **Dev Med Child Neurol** 1998 Nov;40(11):737-42

REUPTAKE INHIBITORS, NEUROTRANSMITTER see **NEUROTRANSMITTER UPTAKE INHIBITORS**

REV GENE PRODUCTS see **GENE PRODUCTS, REV**

REV GENES see **GENES, REV**

REV PROTEIN see **GENE PRODUCTS, REV**

REV-RESPONSIVE ELEMENT see **GENES, ENV**

REVERSAL LEARNING

Brief functional analysis and treatment of a vocal tic. Watson TS, et al. **J Appl Behav Anal** 1998 Fall;31(3):471-4

Habit-reversal treatment for children's stuttering: assessment in three settings. de Kinkelder M, et al. **J Behav Ther Exp Psychiatry** 1998 Sep;29(3):261-5

DRUG EFFECTS

Effects of MK-801 on vicarious trial-and-error and reversal of olfactory discrimination learning in weanling rats. Griesbach GS, et al. **Behav Brain Res** 1998 Dec; 97(1-2):29-38

Impairment of cingulothalamic learning-related neuronal coding in rabbits exposed to cocaine in utero: general and sex-specific effects. Taylor CL, et al. **Behav Neurosci** 1999 Feb;113(1):62-77

Effects of diazepam or chronic alcohol treatment on spatial reversal learning in mice. Borde N, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):719-25

PHYSIOLOGY

Selective deficits in reversal learning after neostriatum caudolaterale lesions in pigeons: possible behavioral equivalencies to the mammalian prefrontal system. Hartmann B, et al. **Behav Brain Res** 1998 Nov; 96(1-2):125-33

A comparison between the effects of medial septal lesions and entorhinal cortex lesions on performance of nonspatial working memory tasks and reversal learning. Yee BK, et al. **Behav Brain Res** 1998 Aug;94(2):281-300

Monkeys with rhinal cortex damage or neurotoxic hippocampal lesions are impaired on spatial scene learning and object reversals. Murray EA, et al. **Behav Neurosci** 1998 Dec;112(6):1291-303

Restricted lesions to ventral prefrontal subareas block reversal learning but not visual discrimination learning in rats. Li L, et al. **Physiol Behav** 1998 Nov 15;65(2):371-9

REVERSE IMMUNOBLOTTING see **IMMUNOBLOTTING**

REVERSE TRANSCRIPTASE see **RNA-DIRECTED DNA POLYMERASE**

REVERSE TRANSCRIPTASE, HIV-1 see **HIV-1 REVERSE TRANSCRIPTASE**

REVERSE TRANSCRIPTASE INHIBITORS

ADMINISTRATION & DOSAGE

Characterizing patterns of drug-taking behavior with a multiple drug regimen in an AIDS clinical trial. Kastrissios H, et al. **AIDS** 1998 Dec 3;12(17):2295-303

Once-daily drug for persons with HIV [news] **Am Fam Physician** 1998 Dec;58(9):2174-5

Dosage adjustment of antiretroviral agents in patients with organ dysfunction. Hilts AE, et al. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2528-33 (38 ref.)

Toxicokinetics of 2',3'-didehydro-3'-deoxythymidine, stavudine (D4T). Kaul S, et al. **Drug Metab Dispos** 1999 Jan;27(1):1-12

Extended lamivudine retreatment for chronic hepatitis B:

maintenance of viral suppression after discontinuation of therapy. Dienstag JL, et al. **Hepatology** 1999 Oct; 30(4):1082-7

Efficacy and safety of delavirdine mesylate with zidovudine and didanosine compared with two-drug combinations of these agents in persons with HIV disease with CD4 counts of 100 to 500 cells/mm3 (ACTG 261). ACTG 261 Team. Friedland GH, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1;21(4):281-92

Lamivudine is safe and effective in fulminant hepatitis B [letter] Santantonio T, et al. **J Hepatol** 1999 Mar;30(3):551

Quantitative hepatitis B virus DNA assessment by the limiting-dilution polymerase chain reaction in chronic hepatitis B patients: evidence of continuing viral suppression with longer duration and higher dose of lamivudine therapy. Honkoop P, et al. **J Viral Hepat** 1998 Sep;5(5):307-12

Lamivudine for chronic hepatitis B [letter; comment] Bernasconi E, et al. **N Engl J Med** 1998 Dec 10; 339(24):1786-7. Comment on: N Engl J Med 1998 Jul 9;339(2):61-8.

[Drug therapy of chronic hepatitis B] Renner EL, et al. **Soz Praventivmed** 1998;43 Suppl 1:S21-3, S95-7 (Eng. Abstr.) **(Ger, Fre)**

ADVERSE EFFECTS

Lipodystrophy associated with nevirapine-containing antiretroviral therapies [letter] Aldeen T, et al. **AIDS** 1999 May 7;13(7):865-7

Incidence of rash and discontinuation of nevirapine using two different escalating initial doses [letter] Antón P, et al. **AIDS** 1999 Mar 11;13(4):524-5

Adverse effects of reverse transcriptase inhibitors: mitochondrial toxicity as common pathway [editorial] Brinkman K, et al. **AIDS** 1998 Oct 1;12(14):1735-44 (108 ref.)

Reply to Gonzalez and Everall: Lest we forget: neuropsychiatry and the new generation anti-HIV drugs [letter] Colebunders R, et al. **AIDS** 1999 May 7;13(7):869

Abacavir rechallenge has to be avoided in case of hypersensitivity reaction [letter] Escaut L, et al. **AIDS** 1999 Jul 30;13(11):1419-20

Redistribution of body fat in HIV-infected women undergoing combined antiretroviral therapy. Gervasoni C, et al. **AIDS** 1999 Mar 11;13(4):465-71

High incidence of nevirapine-associated rash in HIV-infected Chinese [letter] Ho TT, et al. **AIDS** 1998 Oct 22;12(15):2082-3

A phase I/II study of the safety and pharmacokinetics of nevirapine in HIV-1-infected pregnant Ugandan women and their neonates (HIVNET 006). Musoke P, et al. **AIDS** 1999 Mar 11;13(4):479-86

Nevirapine-induced withdrawal symptoms in HIV patients on methadone maintenance programme: an alert [letter] Otero MJ, et al. **AIDS** 1999 May 28;13(8):1004-5

Potential interaction of antiretroviral therapy with paclitaxel in patients with AIDS-related Kaposi's sarcoma [letter] Schwartz JD, et al. **AIDS** 1999 Feb 4;13(2):283-4

Neuromuscular function in HIV infection: analysis of a placebo-controlled combination antiretroviral trial. AIDS Clinical Group 175/801 Study Team. Simpson DM, et al. **AIDS** 1998 Dec 24;12(18):2425-32

Agranulocytosis induced by abacavir [letter] Tikhomirov V, et al. **AIDS** 1999 Jul 30;13(11):1420-1

Anaphylaxis after rechallenge with abacavir [letter] Walensky RP, et al. **AIDS** 1999 May 28;13(8):999-1000

Zidovudine toxicity in uninfected healthcare workers. Italian Registry of Antiretroviral Prophylaxis. Ippolito G, et al. **Am J Med** 1997 May 19;102(5B):58-62

Safety and single-dose pharmacokinetics of abacavir (1592U89) in human immunodeficiency virus type 1-infected children. Hughes W, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):609-15

Safety and pharmacokinetics of abacavir (1592U89) following oral administration of escalating single doses in human immunodeficiency virus type 1-infected adults. Kumar PN, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):603-8

Toxic epidermal necrolysis in acquired immunodeficiency syndrome treated with intravenous gammaglobulin. Phan TG, et al. **Australas J Dermatol** 1999 Aug;40(3):153-7

DRESS (drug rash with eosinophilia and systemic symptoms) syndrome associated with nevirapine therapy. Bourezane Y, et al. **Clin Infect Dis** 1998 Nov;27(5):1321-2

Precipitous declines in hemoglobin levels associated with combination zidovudine and lamivudine therapy. Tseng A, et al. **Clin Infect Dis** 1998 Oct;27(4):908-9

Safety profile of nevirapine, a nonnucleoside reverse transcriptase inhibitor for the treatment of human immunodeficiency virus infection. Pollard RB, et al. **Clin Ther** 1998 Nov-Dec;20(6):1071-92 (40 ref.)

Peripheral neuropathy with nucleoside antiretrovirals: risk factors, incidence and management. Moyle GJ, et al. **Drug Saf** 1998 Dec;19(6):481-94 (67 ref.)

Hyperlipidemia under treatment with proteinase inhibitors. Segerer S, et al. **Infection** 1999 Mar-Apr;27(2):77-81

Nevirapine-induced cutaneous hypersensitivity reactions and successful tolerance induction. Demoly P, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):504-5

Riboflavine and severe lactic acidosis [letter] Luzzati R, et al. **Lancet** 1999 Mar 13;353(9156):901-2

Methadone withdrawal when starting an antiretroviral regimen including nevirapine. Heelon MW, et al. **Pharmacotherapy** 1999 Apr;19(4):471-2

[Glucose tolerance test for tracing of mitochondrial toxicity from nucleoside analogs] Brinkman K, et al. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2231-2 **(Dut)**

[Focal mycobacterial lymphadenitis after starting highly active antiretroviral therapy] Schwietert M, et al. **Dtsch Med Wochenschr** 1999 Jan 22;124(3):45-8 (Eng. Abstr.) **(Ger)**

ANALYSIS

Quantitative determination of (-)-2'-deoxy-3'-thiacytidine (lamivudine) in human plasma, saliva and cerebrospinal fluid by high-performance liquid chromatography with ultraviolet detection. Hoetelmans RM, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25; 713(2):387-94

Quantification of lamivudine (3TC) by competitive immunoassay. Akeb F, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):893-6

BLOOD

The extent of non-adherence in a large AIDS clinical trial using plasma dideoxynucleoside concentrations as a marker. Kastrissios H, et al. **AIDS** 1998 Dec 3;12(17):2305-11

Rapid determination of nevirapine in human plasma by ion-pair reversed-phase high-performance liquid chromatography with ultraviolet detection. van Heeswijk RP, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25; 713(2):395-9

Rapid quantification of delavirdine, a novel non-nucleoside reverse transcriptase inhibitor, in human plasma using isocratic reversed-phase high-performance liquid chromatography with fluorescence detection. Veldkamp AI, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):151-7

High-performance liquid chromatography method for analyzing the antiretroviral agent efavirenz in human plasma. Villani P, et al. **Ther Drug Monit** 1999 Jun; 21(3):346-50

CHEMICAL SYNTHESIS

Structure-based design of novel dihydroalkoxybenzyloxopyrimidine derivatives as potent nonnucleoside inhibitors of the human immunodeficiency virus reverse transcriptase. Sudbeck EA, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3225-33

An approach towards the synthesis of potential metal-chelating TSAO-T derivatives as bidentate inhibitors of human immunodeficiency virus type 1 reverse transcriptase. Chamorro C, et al. **Antivir Chem Chemother** 1998 Sep;9(5):413-22

Synthesis and biological activity of novel 1H,3H-thiazolo[3,4-a]benzimidazoles: non-nucleoside human immunodeficiency virus type 1 reverse transcriptase inhibitors. Chimirri A, et al. **Antivir Chem Chemother** 1999 Jul;10(4):211-7

Synthesis and biological evaluation of 5H-indolo [3,2-b][1,5]benzothiazepine derivatives, designed as conformationally constrained analogues of the human immunodeficiency virus type 1 reverse transcriptase inhibitor L-737,126. Silvestri R, et al. **Antivir Chem Chemother** 1998 Mar;9(2):139-48

Allosteric inhibitors against HIV-1 reverse transcriptase: design and synthesis of MKC-442 analogues having an omega-functionalized acyclic structure. Tanaka H, et al. **Antivir Chem Chemother** 1998 Jul;9(4):325-32

Regiospecific synthesis and anti-human immunodeficiency virus activity of novel 5-substituted N-alkylcarbamoyl and N,N-dialkylcarbamoyl 1,2,3-triazole-TSAO analogues. Velázquez S, et al. **Antivir Chem Chemother** 1998 Nov; 9(6):481-9

Synthesis of a non-nucleoside reverse transcriptase inhibitor in the alkenyldiarylmethane (ADAM) series with optimized potency and therapeutic index. Cushman M, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):195-8

A dipyrido [2,3-b:3',2'-f]azepine analog of the HIV-1 reverse transcriptase inhibitor nevirapine. Dyatkin AB, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2169-72

A new class of anti-HIV agents: synthesis and activity of conjugates of HIV protease inhibitors with a reverse transcriptase inhibitor. Kimura T, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):803-6

Structure-based design of N-[2-(1-piperidinylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea and N-[2-(1-piperazinylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea as potent non-nucleoside inhibitors of HIV-1 reverse transcriptase. Mao C, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2213-8

Synthesis and anti-HIV activities of urea-PETT analogs belonging to a new class of potent non-nucleoside HIV-1 reverse transcriptase inhibitors. Sahlberg C, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1511-6

Synthesis of 5,8-dimethoxy-3-hydroxy-4-quinolone, a reported inhibitor of HIV RT, and evidence the original proposed structure was incorrect. Zembower DE, et al. **Bioorg Med Chem Lett** 1999 Feb 22;9(4):543-6

Synthesis and anti-HIV-1 activities of new pyrimido[5,4-b]indoles. Merino I, et al. **Farmaco** 1999 Apr 30;54(4):255-64

A new potent HIV-1 reverse transcriptase inhibitor. A synthetic peptide derived from the interface subunit domains. Morris MC, et al. **J Biol Chem** 1999 Aug 27; 274(35):24941-6

Novel 1,1,3-trioxo-2H,4H-thieno[3,4-e][1,2,4]thiadiazine derivatives as non-nucleoside reverse transcriptase inhibitors that inhibit human immunodeficiency virus type 1 replication. Arranz E, et al. **J Med Chem** 1998 Oct 8; 41(21):4109-17

5-Alkyl-2-(alkylthio)-6-(2,6-dihalophenylmethyl)-3, 4-dihydropyrimidin-4(3H)-ones: novel potent and selective dihydro-alkoxy-benzyl-oxopyrimidine derivatives. Mai A, et al. **J Med Chem** 1999 Feb 25; 42(4):619-27

Synthesis and biological evaluation of 2',3'-didehydro-2',3'-dideoxy-5-fluorocytidine (D4FC) analogues: discovery of carbocyclic nucleoside triphosphates with potent inhibitory activity against HIV-1 reverse transcriptase. Shi J, et al. **J Med Chem** 1999 Mar 11;42(5):859-67

Abasic analogues of TSAO-T as the first sugar derivatives that specifically inhibit HIV-1 reverse transcriptase. Velázquez S, et al. **J Med Chem** 1998 Nov 5;41(23):4636-47

Synthesis and biological activity of 2',5'-oligoadenylate trimers containing 5'-terminal 5'-amino-5'-deoxy- and 5'-amino-3',5'-dideoxyadenosine derivatives. Kvasyuk EI, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1483-4

"Mixed inhibitors" of HIV-reverse transcriptase: synthesis and antiviral activity. Pontikis R, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):707-8

Discovery and development of the BHAP nonnucleoside reverse transcriptase inhibitor delavirdine mesylate. Adams WJ, et al. **Pharm Biotechnol** 1998;11:285-312 (19 ref.)

CHEMISTRY

Novel 3'-spiro nucleoside analogues of TSAO-T. Part II. A comparative study based on NMR conformational analysis in solution and theoretical calculations. Alvarez R, et al. **Antivir Chem Chemother** 1998 Jul;9(4):333-40

Conformational study of the HIV-1 reverse transcriptase inhibitor 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine (HEPT). Lawtrakul L, et al. **Biol Chem** 1999 Feb; 380(2):265-7

Docking experiments in the flexible non-nucleoside inhibitor binding pocket of HIV-1 reverse transcriptase. Titmuss SJ, et al. **Bioorg Med Chem** 1999 Jun;7(6):1163-70

Rational design and synthesis of phenethyl-5-bromopyridyl thiourea derivatives as potent non-nucleoside inhibitors of HIV reserve transcriptase. Vig R, et al. **Bioorg Med Chem** 1998 Oct;6(10):1789-97

Biaryl acids: novel non-nucleoside inhibitors of HIV reverse transcriptase types 1 and 2. Milton J, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2623-8 (11 ref.)

A peptide inhibitor of HIV-1 reverse transcriptase using alpha,beta-dehydro residues: a structure-based computer model. Rao GS, et al. **J Biomol Struct Dyn** 1998 Oct; 16(2):347-54

A molecular-field-based similarity study of non-nucleoside HIV-1 reverse transcriptase inhibitors. Mestres J, et al. **J Comput Aided Mol Des** 1999 Jan;13(1):79-93

Prediction of the binding free energies of new TIBO-like HIV-1 reverse transcriptase inhibitors using a combination of PROFEC, PB/SA, CMC/MD, and free energy calculations. Eriksson MA, et al. **J Med Chem** 1999 Mar 11;42(5):868-81

Crystallographic analysis of the binding modes of thiazoloisoindolinone non-nucleoside inhibitors to HIV-1 reverse transcriptase and comparison with modeling studies. Ren J, et al. **J Med Chem** 1999 Sep 23; 42(19):3845-51

Prediction of binding affinities for TIBO inhibitors of HIV-1 reverse transcriptase using Monte Carlo simulations in a linear response method. Smith RH Jr, et al. **J Med Chem** 1998 Dec 17;41(26):5272-86

Cross-strand purine-pyrimidine stack and sheared purine.pyrimidine pairing in the human HIV-1 reverse transcriptase inhibitors. Chou SH, et al. **J Mol Biol** 1999 Jan 8;285(1):41-8

Structures of Tyr188Leu mutant and wild-type HIV-1 reverse transcriptase complexed with the non-nucleoside inhibitor HBY 097: inhibitor flexibility is a useful design feature for reducing drug resistance. Hsiou Y, et al. **J Mol Biol** 1998 Nov 27;284(2):313-23

Novel series of [ddN]-[TSAO-T] heterodimers as potential bi-functional inhibitors of HIV-1 RT. Studies in the linker and ddN region. Velázquez S, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):1029-30

Field-based similarity forcing in energy minimization and molecular matching. Blinn JR, et al. **Pac Symp Biocomput** 1999;:415-25

Phenolic aporphine-benzylisoquinoline alkaloids from Thalictrum faberi. Lin LZ, et al. **Phytochemistry** 1999 Mar; 50(5):829-34

HIV reverse transcriptase inhibitors of natural origin. Matthée G, et al. **Planta Med** 1999 Aug;65(6):493-506 (137 ref.)

ECONOMICS

Low-cost drug cuts perinatal HIV-transmission rate [news] McCarthy M. **Lancet** 1999 Jul 24;354(9175):309

ISOLATION & PURIFICATION

Anti-HIV coumarins from Calophyllum seed oil. Spino C, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3475-8

Terpenoids of Syzygium formosanum. Chang CW, et al. **J Nat Prod** 1999 Feb;62(2):327-8

HIV reverse transcriptase inhibitors of natural origin. Matthée G, et al. **Planta Med** 1999 Aug;65(6):493-506 (137 ref.)

METABOLISM

Liquid chromatography/mass spectrometry and high-field nuclear magnetic resonance characterization of novel mixed diconjugates of the non-nucleoside human immunodeficiency virus-1 reverse transcriptase inhibitor, efavirenz. Mutlib AE, et al. **Drug Metab Dispos** 1999 Sep; 27(9):1045-56

Mutational analysis of Tyr-318 within the non-nucleoside reverse transcriptase inhibitor binding pocket of human immunodeficiency virus type I reverse transcriptase. Pelemans H, et al. **J Biol Chem** 1998 Dec 18; 273(51):34234-9

Crystallographic analysis of the binding modes of thiazoloisoindolinone non-nucleoside inhibitors to HIV-1 reverse transcriptase and comparison with modeling studies. Ren J, et al. **J Med Chem** 1999 Sep 23; 42(19):3845-51

Characterization of the activation pathway of phosphoramidate triester prodrugs of stavudine and zidovudine. Saboulard D, et al. **Mol Pharmacol** 1999 Oct; 56(4):693-704

Molecular basis for the enantioselectivity of HIV-1 reverse transcriptase: role of the 3'-hydroxyl group of the L-(beta)-ribose in chiral discrimination between D- and L-enantiomers of deoxy- and dideoxy-nucleoside triphosphate analogs. Maga G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):972-8

Structural determinants of HIV-1 reverse transcriptase stereoselectivity towards (beta)-L-deoxy- and dideoxy-pyrimidine nucleoside triphosphates: molecular basis for the combination of L-dideoxynucleoside analogs with non-nucleoside inhibitors in anti HIV chemotherapy. Maga G, et al. **Nucleosides Nucleotides** 1999 Apr-May; 18(4-5):795-805

Outsmarting HIV drug resistance [news; comment] Balter M. **Science** 1998 Nov 27;282(5394):1623, 1625. Comment on: Science 1998 Nov 27;282(5394):1669-75.

PHARMACOKINETICS

Nelfinavir and nevirapine interaction? [letter; comment] Mulcahy F, et al. **AIDS** 1998 Dec 3;12(17):2361. Comment on: AIDS 1998 Jul 9;12(10):1163-7. Comment on: AIDS 1998 Jul 9;12(10):1243-4.

Safety and single-dose pharmacokinetics of abacavir (1592U89) in human immunodeficiency virus type 1-infected children. Hughes W, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):609-15

Safety and pharmacokinetics of abacavir (1592U89) following oral administration of escalating single doses in human immunodeficiency virus type 1-infected adults. Kumar PN, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):603-8

The transport of the anti-HIV drug, 2',3'-didehydro-3'-deoxythymidine (D4T), across the blood-brain and blood-cerebrospinal fluid barriers. Thomas SA, et al. **Br J Pharmacol** 1998 Sep;125(1):49-54

Paclitaxel in the treatment of human immunodeficiency virus 1-associated Kaposi's sarcoma--drug-drug interactions with protease inhibitors and a nonnucleoside reverse transcriptase inhibitor: a case report study. Nannan Panday VR, et al. **Cancer Chemother Pharmacol** 1999;43(6):516-9

Pharmacokinetics and potential interactions amongst antiretroviral agents used to treat patients with HIV infection. Barry M, et al. **Clin Pharmacokinet** 1999 Apr; 36(4):289-304 (101 ref.)

Clinical pharmacokinetics of lamivudine. Johnson MA, et al. **Clin Pharmacokinet** 1999 Jan;36(1):41-66 (70 ref.)

Nonlinear pharmacokinetics of efavirenz (DMP-266), a potent HIV-1 reverse transcriptase inhibitor, in rats and monkeys. Balani SK, et al. **Drug Metab Dispos** 1999 Jan; 27(1):41-5

Absorption, distribution, metabolism, and excretion of atevirdine in the rat. Chang M, et al. **Drug Metab Dispos** 1998 Oct;26(10):1008-18

Toxicokinetics of 2',3'-didehydro-3'-deoxythymidine, stavudine (D4T). Kaul S, et al. **Drug Metab Dispos** 1999 Jan;27(1):1-12

The ex vivo human placental transfer of the anti-HIV nucleoside inhibitor abacavir and the protease inhibitor amprenavir. Bawdon RE. **Infect Dis Obstet Gynecol** 1998; 6(6):244-6

PHARMACOLOGY

Variations in HIV-1 pol gene associated with reduced sensitivity to antiretroviral drugs in treatment-naive patients. Birk M, et al. **AIDS** 1998 Dec 24;12(18):2369-75

Selective vertical transmission of HIV-1 antiretroviral resistance mutations. Colgrove RC, et al. **AIDS** 1998 Dec 3;12(17):2281-8

Identification of reverse transcriptase mutations associated with HIV-1 drug resistance mainly against non-nucleoside reverse transcriptase inhibitors in treatment-naive patients [letter] Magiorkinis E, et al. **AIDS** 1999 Jul 9;13(10):1276-8

Highly drug-resistant HIV-1 clinical isolates are cross-resistant to many antiretroviral compounds in current clinical development. Palmer S, et al. **AIDS** 1999 Apr 16; 13(6):661-7

Multiple dideoxynucleoside analogue-resistant (MddNR) HIV-1 strains isolated from patients from different European countries. Schmit JC, et al. **AIDS** 1998 Oct 22; 12(15):2007-15

Lactoferrin inhibits HIV-1 replication in vitro and exhibits synergy when combined with zidovudine [letter] Viani RM, et al. **AIDS** 1999 Jul 9;13(10):1273-4

Effect of ribavirin on zidovudine efficacy and toxicity in vitro: a concentration-dependent interaction. Sim SM, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1661-7

Rapid screening of phenotypic resistance to nevirapine by direct analysis of HIV type 1 reverse transcriptase activity in plasma. Vázquez-Rosales G, et al. **AIDS Res Hum Retroviruses** 1999 Sep 1;15(13):1191-200

Prevalence and incidence of resistance to zidovudine and other antiretroviral drugs. Mayers DL. **Am J Med** 1997 May 19;102(5B):70-5 (55 ref.)

Unique anti-human immunodeficiency virus activities of the nonnucleoside reverse transcriptase inhibitors calanolide A, costatolide, and dihydrocostatolide. Buckheit RW Jr, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1827-34

Use of the hepatitis B virus recombinant baculovirus-HepG2 system to study the effects of (-)-beta-2',3'-dideoxy-3'-thiacytidine on replication of hepatitis B virus and accumulation of covalently closed circular DNA. Delaney WE 4th, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):2017-26

A rapid non-culture-based assay for clinical monitoring of phenotypic resistance of human immunodeficiency virus type 1 to lamivudine (3TC). García Lerma J, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):264-70

Patterns of resistance and cross-resistance to human immunodeficiency virus type 1 reverse transcriptase inhibitors in patients treated with the nonnucleoside reverse transcriptase inhibitor loviride. Miller V, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3123-9

Inhibition of human immunodeficiency virus type 1 replication by combination of transcription inhibitor K-12 and other antiretroviral agents in acutely and chronically infected cells. Okamoto M, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):492-7

Hydroxyurea enhances the activities of didanosine, 9-[2-(phosphonylmethoxy)ethyl]adenine, and 9-[2-(phosphonylmethoxy)propyl]adenine against drug-susceptible and drug-resistant human immunodeficiency virus isolates. Palmer S, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):2046-50

A new point mutation (P157S) in the reverse transcriptase of human immunodeficiency virus type 1 confers low-level resistance to (-)-beta-2',3'-dideoxy-3'-thiacytidine. Smith RA, et al. **Antimicrob Agents Chemother** 1999 Aug; 43(8):2077-80

Emergence of drug-resistant populations of woodchuck hepatitis virus in woodchucks treated with the antiviral nucleoside lamivudine. Zhou T, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1947-54

Anti-human immunodeficiency virus type 1 (HIV-1) activity of 2'-fluoro-2',3'-dideoxyarabinosyladenine (F-ddA) used in combination with other mechanistically diverse inhibitors of HIV-1 replication. Buckheit RW Jr, et al. **Antivir Chem Chemother** 1999 May;10(3):115-9

Synthesis and biological activity of novel 1H,3H-thiazolo[3,4-a]benzimidazoles: non-nucleoside human immunodeficiency virus type 1 reverse transcriptase inhibitors. Chimirri A, et al. **Antivir Chem Chemother** 1999 Jul;10(4):211-7

The hepatitis B virus M539V polymerase variation responsible for 3TC resistance also confers cross-resistance to other nucleoside analogues. Ladner SK, et al. **Antivir Chem Chemother** 1998 Jan;9(1):65-72

Synthesis, anti-human immunodeficiency virus activity and esterase lability of some novel carboxylic ester-modified phosphoramidate derivatives of stavudine (d4T). McGuigan C, et al. **Antivir Chem Chemother** 1998 Nov; 9(6):473-9

Colorimetric assays for evaluation of the mode of action of human immunodeficiency virus type 1 non-nucleoside reverse transcriptase inhibitors. Shao X, et al. **Antivir Chem Chemother** 1998 Mar;9(2):167-76

Synthesis and biological evaluation of 5H-indolo [3,2-b][1,5]benzothiazepine derivatives, designed as conformationally constrained analogues of the human immunodeficiency virus type 1 reverse transcriptase inhibitor L-737,126. Silvestri R, et al. **Antivir Chem Chemother** 1998 Mar;9(2):139-48

Pyrido [1,2a] indole derivatives identified as novel non-nucleoside reverse transcriptase inhibitors of human immunodeficiency virus type 1. Taylor DL, et al. **Antivir Chem Chemother** 1999 Mar;10(2):79-86

Synthesis and anti-HIV activity of some novel arylphosphate and H-phosphonate derivatives of 3'-azido-2',3'-dideoxythymidine and 2',3'-didehydro-2',3'-dideoxythymidine. Cardona VM, et al. **Antiviral Res** 1999 Jul;42(3):189-96

A new contained human immunodeficiency virus type 1 host cell system for evaluation of antiviral activities of interferons and other agents in vitro. Moussazadeh M, et al. **Antiviral Res** 1999 Jul;42(3):177-87

Effect of nucleoside analogs and non-nucleoside inhibitors of HIV-1 reverse transcriptase on cell-free virions. Ventura M, et al. **Arch Virol** 1999;144(3):513-23

Nitric oxide inhibits the HIV-1 reverse transcriptase activity. Persichini T, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):624-7

Suppression of resistance to drugs targeted to human immunodeficiency virus reverse transcriptase by combination therapy. Balzarini J. **Biochem Pharmacol** 1999 Jul 1;58(1):1-27 (219 ref.)

Biochemical characterization of HIV-1 reverse transcriptases encoding mutations at amino acid residues 161 and 208 involved in resistance to phosphonoformate. Tramontano E, et al. **Biochem Pharmacol** 1998 Dec 15;56(12):1583-9

Actinomycin D inhibition of DNA strand transfer reactions catalyzed by HIV-1 reverse transcriptase and nucleocapsid protein. Davis WR, et al. **Biochemistry** 1998 Oct 6; 37(40):14213-21

Rational design and synthesis of phenethyl-5-bromopyridyl thiourea derivatives as potent non-nucleoside inhibitors of HIV reserve transcriptase. Vig R, et al. **Bioorg Med Chem** 1998 Oct;6(10):1789-97

Biaryl acids: novel non-nucleoside inhibitors of HIV reverse transcriptase types 1 and 2. Milton J, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2623-8 (11 ref.)

Synthesis and anti-HIV activities of urea-PETT analogs belonging to a new class of potent non-nucleoside HIV-1 reverse transcriptase inhibitors. Sahlberg C, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1511-6

5-Alkyl-2-[(methylthiomethyl)thio]-6-(benzyl)-pyrimidin-4-(1H)-ones as potent non-nucleoside reverse transcriptase inhibitors of S-DABO series. Vig R, et al. **Bioorg Med Chem Lett** 1998 Jun 16;8(12):1461-6

In vitro anti-human immunodeficiency virus (HIV) activity of the chromanone derivative, 12-oxocalanolide A, a novel NNRTI. Xu ZQ, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2179-84

Oltipraz, a novel inhibitor of hepatitis B virus transcription through elevation of p53 protein. Chi WJ, et al. **Carcinogenesis** 1998 Dec;19(12):2133-8

Perspectives of non-nucleoside reverse transcriptase inhibitors (NNRTIs) in the therapy of HIV-1 infection. De Clercq E. **Farmaco** 1999 Jan-Feb;54(1-2):26-45 (157 ref.)

Mechanistic studies show that (-)-FTC-TP is a better inhibitor of HIV-1 reverse transcriptase than 3TC-TP. Feng JY, et al. **FASEB J** 1999 Sep;13(12):1511-7

Reduction of viral load and immune complex load on CD4+ lymphocytes as a consequence of highly active antiretroviral treatment (HAART) in HIV-infected hemophilia patients. Daniel V, et al. **Immunol Lett** 1999 Aug 3;69(2):283-9

Oxandrolone, used for treatment of wasting disease in HIV-1-infected patients, does not diminish the antiviral activity of deoxynucleoside analogues in lymphocyte and macrophage cell cultures. Segal DM, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):215-9

Selective inhibition of HIV-1 reverse transcriptase by an antiviral inhibitor, (R)-9-(2-Phosphonylmethoxypropyl)adenine. Suo Z, et al. **J Biol Chem** 1998 Oct 16;273(42):27250-8

Susceptibility of lamivudine-resistant hepatitis B virus to other reverse transcriptase inhibitors. Ono-Nita SK, et al. **J Clin Invest** 1999 Jun;103(12):1635-40

Rapid, phenotypic HIV-1 drug sensitivity assay for protease and reverse transcriptase inhibitors. Walter H, et al. **J Clin Virol** 1999 Jun;13(1-2):71-80

A search for anti-viral properties in Panamanian medicinal plants. The effects on HIV and its essential enzymes. Matsuse IT, et al. **J Ethnopharmacol** 1999 Jan;64(1):15-22

Identification of insertion mutations in HIV-1 reverse transcriptase causing multiple drug resistance to nucleoside analogue reverse transcriptase inhibitors. Sugiura W, et al. **J Hum Virol** 1999 May-Jun;2(3):146-53

Novel 1,1,3-trioxo-2H,4H-thieno[3,4-e][1,2,4]thiadiazine derivatives as non-nucleoside reverse transcriptase inhibitors that inhibit human immunodeficiency virus type 1 replication. Arranz E, et al. **J Med Chem** 1998 Oct 8; 41(21):4109-17

The role of the iminium bond in the inhibition of reverse transcriptase by quaternary benzophenanthridines. Kerry MA, et al. **J Pharm Pharmacol** 1998 Nov;50(11):1307-15

The P236L delavirdine-resistant human immunodeficiency virus type 1 mutant is replication defective and demonstrates alterations in both RNA 5'-end- and DNA 3'-end-directed RNase H activities. Gerondelis P, et al. **J Virol** 1999 Jul;73(7):5803-13

Comparative fitness of multi-dideoxynucleoside-resistant human immunodeficiency virus type 1 (HIV-1) in an In vitro competitive HIV-1 replication assay. Kosalaraksa P, et al. **J Virol** 1999 Jul;73(7):5356-63

Efficacy of antiretroviral agents against murine replication-competent retrovirus infection in human cells. Powell SK, et al. **J Virol** 1999 Oct;73(10):8813-6

Reverse transcriptase inhibitors can selectively block the synthesis of differently sized viral DNA transcripts in cells acutely infected with human immunodeficiency virus type 1. Quan Y, et al. **J Virol** 1999 Aug;73(8):6700-7

HIV-1 drug resistance in newly infected individuals [see comments] Boden D, et al. **JAMA** 1999 Sep 22-29;

282(12):1135–41. Comment in: JAMA 1999 Sep 22–29;282(12):1177–9.
Reduced antiretroviral drug susceptibility among patients with primary HIV infection [see comments] Little SJ, et al. **JAMA** 1999 Sep 22–29;282(12):1142–9. Comment in: JAMA 1999 Sep 22–29;282(12):1177–9.
Infant growth after in utero exposure to zidovudine [letter] Zuccotti GV, et al. **JAMA** 1999 Aug 11;282(6):527–9
Suppression of replication of multidrug-resistant HIV type 1 variants by combinations of thymidylate synthase inhibitors with zidovudine or stavudine. Gao WY, et al. **Mol Pharmacol** 1999 Mar;55(3):535–40
Closing in on HIV drug resistance [news] Larder BA, et al. **Nat Struct Biol** 1999 Feb;6(2):103–6
Mechanism of inhibition of HIV reverse transcriptase by 1-(2-deoxy-beta-D-ribofuranosyl)-4-acetylimidazolin-2-one (imidine). Kalman TI, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):847–8
"Mixed inhibitors" of HIV-reverse transcriptase: synthesis and antiviral activity. Pontikis R, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):707–8
Novel series of [ddN]-[TSAO-T] heterodimers as potential bi-functional inhibitors of HIV-1 RT. Studies in the linker and ddN region. Velázquez S, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):1029–30
Argentine plant extracts active against polymerase and ribonuclease H activities of HIV-1 reverse transcriptase. Hnatyszyn O, et al. **Phytother Res** 1999 May;13(3):206–9
Antiviral properties of a crude extract from a green alga Caulerpa taxifolia (Vahl) C. Agardh. Nicoletti E, et al. **Phytother Res** 1999 May;13(3):245–7
Mutations in the human immunodeficiency virus type 1 reverse transcriptase gene observed in stavudine and didanosine strains obtained by in vitro passages. Bossi P, et al. **Res Virol** 1998 Nov-Dec;149(6):355–61
Structure of a covalently trapped catalytic complex of HIV-1 reverse transcriptase: implications for drug resistance [see comments] Huang H, et al. **Science** 1998 Nov 27; 282(5394):1669–75. Comment in: Science 1998 Nov 27;282(5394):1623, 1625.
Higher selection pressure from antiretroviral drugs in vivo results in increased evolutionary distance in HIV-1 pol. Günthard HF, et al. **Virology** 1999 Jun 20;259(1):154–65
[Recent challenges and progress in AIDS therapy—emergence of drug resistant HIV-1 variants] Mitsuya H. **Rinsho Ketsueki** 1999 Apr;40(4):249–54 (20 ref.) **(Jpn)**

THERAPEUTIC USE

Is zidovudine therapy in pregnant HIV-infected women associated with gestational age and birthweight? The European Collaborative Study. **AIDS** 1999 Jan 14; 13(1):119–24
HIV-1 RNA response to antiretroviral treatment in 1280 participants in the Delta Trial: an extended virology study. Delta Coordinating Committee and Delta Virology Committee. **AIDS** 1999 Jan 14;13(1):57–65
An evaluation of HIV RNA and CD4 cell count as surrogates for clinical outcome. Delta Coordinating Committee and Virology Group. **AIDS** 1999 Apr 1;13(5):565–73
Long-term follow-up of randomized trials of immediate versus deferred zidovudine in symptom-free HIV infection. Joint Concorde and Opal Coordinating Committee [editorial] **AIDS** 1998 Jul 30;12(11):1259–65 (19 ref.)
A randomized double-blind trial of the addition of lamivudine or matching placebo to current nucleoside analogue reverse transcriptase inhibitor therapy in HIV-infected children: the PENTA-4 trial. Paediatric European Network for Treatment of AIDS. **AIDS** 1998 Oct 1;12(14):F151–60
Patterns of response (CD4 cell count and viral load) at 6 months in HIV-infected patients on highly active antiretroviral therapy [letter] Barreiro PM, et al. **AIDS** 1999 Mar 11;13(4):525–6
Clinical experience with adding delavirdine to combination therapy in patients in whom multiple antiretroviral treatment including protease inhibitors has failed. Bellman PC. **AIDS** 1998 Jul 30;12(11):1333–40
Changes in blood CD8+ lymphocyte activation status and plasma HIV RNA levels during antiretroviral therapy. Bouscarat F, et al. **AIDS** 1998 Jul 30;12(11):1267–73
T cell changes after combined nucleoside analogue therapy in HIV primary infection. Carcelain G, et al. **AIDS** 1999 Jun 18;13(9):1077–81
Protease inhibitor and triple-drug therapy: cellular immune parameters are not restored in pediatric AIDS patients after 6 months of treatment. Chougnet C, et al. **AIDS** 1998 Dec 24;12(18):2397–406
Randomized trial comparing saquinavir soft gelatin capsules versus indinavir as part of triple therapy (CHEESE study). Cohen Stuart JW, et al. **AIDS** 1999 May 7;13(7):F53–8
Insertion of two amino acids combined with changes in reverse transcriptase containing tyrosine-215 of HIV-1 resistant to multiple nucleoside analogs. de Jong JJ, et al. **AIDS** 1999 Jan 14;13(1):75–80
Disease progression and poor survival of AIDS-associated progressive multifocal leukoencephalopathy despite highly active antiretroviral therapy [letter] De Luca A, et al. **AIDS** 1998 Oct 1;12(14):1937–8
Higher antiviral activity of antiretroviral regimens including protease inhibitors [letter] de Mendoza C, et al. **AIDS** 1999 May 28;13(8):998–9
Salvage therapy with ritonavir-saquinavir plus two nucleoside reverse transcriptase inhibitors in patients failing with amprenavir-zidovudine-lamivudine [letter] De Wit S, et al. **AIDS** 1999 May 7;13(7):864–5
Substituting nevirapine for protease inhibitors because of intolerance [letter] Dieleman JP, et al. **AIDS** 1999 Jul 30; 13(11):1423–4
Clinical improvement of HIV-associated psoriasis parallels a reduction of HIV viral load induced by effective antiretroviral therapy [letter] Fischer T, et al. **AIDS** 1999 Apr 1;13(5):628–9
Patients with HIV-1 RNA below 1000 copies/ml after 48 weeks on dual nucleoside combination therapy. Delta Coordinating Committee [letter] Flandre P. **AIDS** 1999 Feb 25;13(3):430–1
An open randomized controlled trial of zidovudine plus lamivudine versus stavudine plus lamivudine. Foudraine NA, et al. **AIDS** 1998 Aug 20;12(12):1513–9
Stavudine in zidovudine (ZDV)-experienced compared with ZDV-naive patients. Gallant JE, et al. **AIDS** 1999 Feb 4;13(2):225–9
Immunologic effects of combined protease inhibitor and reverse transcriptase inhibitor therapy in previously treated chronic HIV-1 infection. Giorgi JV, et al. **AIDS** 1998 Oct 1;12(14):1833–44
Long-term antiretroviral combination therapy including lamivudine in HIV-1 infected women during pregnancy [letter] Grubert TA, et al. **AIDS** 1999 Jul 30;13(11):1430–1
Randomized, controlled phase II trial of subcutaneous interleukin-2 in combination with highly active antiretroviral therapy (HAART) in HIV patients. Hengge UR, et al. **AIDS** 1998 Dec 3;12(17):F225–34
Visceral leishmaniasis in HIV-infected patients with non-detectable HIV-1 viral load after highly active antiretroviral therapy [letter] Jiménez-Expósito MJ, et al. **AIDS** 1999 Jan 14;13(1):152–3
High rebound of plasma and cellular HIV load after discontinuation of triple combination therapy [letter] Jubault V, et al. **AIDS** 1998 Dec 3;12(17):2358–9
Vaccination and HIV-1 replication during highly active antiretroviral therapy [letter] Kroon FP, et al. **AIDS** 1999 Jan 14;13(1):135–6
Lamivudine in combination with zidovudine, stavudine, or didanosine in patients with HIV-1 infection. A randomized, double-blind, placebo-controlled trial. National Institute of Allergy and Infectious Disease AIDS Clinical Trials Group Protocol 306 Investigators. Kuritzkes DR, et al. **AIDS** 1999 Apr 16;13(6):685–94
Impact of drug resistance mutations on virologic response to salvage therapy. Swiss HIV Cohort Study. Lorenzi P, et al. **AIDS** 1999 Feb 4;13(2):F17–21
Withdrawal of Mycobacterium avium complex suppressive therapy in HIV-1-infected patients on highly active antiretroviral therapy [letter] Martinez E, et al. **AIDS** 1999 Jan 14;13(1):147–8
Reversion of metabolic abnormalities after switching from HIV-1 protease inhibitors to nevirapine. Martinez E, et al. **AIDS** 1999 May 7;13(7):805–10
Persistent alterations in T-cell repertoire, cytokine and chemokine receptor gene expression after 1 year of highly active antiretroviral therapy. Martinon F, et al. **AIDS** 1999 Feb 4;13(2):185–94
CD4+CD7-lymphocyte subset is expanded in HIV-infected patients with low CD4 cell count rescue during highly active antiretroviral therapy [letter] Meroni L, et al. **AIDS** 1999 Apr 1;13(5):621–2
Virological and immunological responses to once-daily dosing of didanosine in combination with stavudine. A1454-143 Team. Mobley JE, et al. **AIDS** 1999 Jul 30; 13(11):F87–93
Rebound of plasma HIV viral load following prolonged suppression with combination therapy [letter] Montaner JS, et al. **AIDS** 1998 Jul 30;12(11):1398–9
Immune restoration does not invariably occur following long-term HIV-1 suppression during antiretroviral therapy. INCAS Study Group. Pakker NG, et al. **AIDS** 1999 Feb 4;13(2):203–12
Increasing survival time after AIDS in Italy: the role of new combination antiretroviral therapies. Tuscany AIDS Study Group. Pezzotti P, et al. **AIDS** 1999 Feb 4;13(2):249–55
Long-term evaluation of triple nucleoside therapy administered from primary HIV-1 infection. Poggi C, et al. **AIDS** 1999 Jul 9;13(10):1213–20
Suppression of plasma viral load below 20 copies/ml is required to achieve a long-term response to therapy. Raboud JM, et al. **AIDS** 1998 Sep 10;12(13):1619–24
Correlation of response to treatment and HIV genotypic changes during phase III trials with saquinavir and reverse transcriptase inhibitor combination therapy. Race E, et al. **AIDS** 1998 Aug 20;12(12):1465–74
Efficacy and safety of stavudine and didanosine combination therapy in antiretroviral-experienced patients. Raffi F, et al. **AIDS** 1998 Oct 22;12(15):1999–2005
Combined stavudine and lamivudine during pregnancy [letter] Ristola M, et al. **AIDS** 1999 Feb 4;13(2):285
Protease inhibitors as initial therapy for individuals with an intermediate risk of HIV disease progression: is more necessarily better? Schechter M, et al. **AIDS** 1999 Jan 14; 13(1):97–102
HIV-1 RNA, CD4 cell count and the risk of progression to AIDS and death during treatment with HIV-1 reverse transcriptase inhibitors. Staszewski S, et al. **AIDS** 1998 Oct 22;12(15):1991–7
Combination antiretroviral therapy including ritonavir in children infected with human immunodeficiency. Thuret I, et al. **AIDS** 1999 Jan 14;13(1):81–7
Alternative multidrug regimen provides improved suppression of HIV-1 replication over triple therapy. Weverling GJ, et al. **AIDS** 1998 Jul 30;12(11):F117–22
Cellular proviral HIV type 1 DNA load persists after long-term RT-inhibitor therapy in HIV type 1 infected persons. Bruisten SM, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10;14(12):1053–8
Zidovudine therapy and HIV type 1 mutations in children with symptomatic HIV type 1 infection: effect of switching to didanosine or zidovudine plus didanosine therapy. Italian Multicenter Study Group on HIV Mutations in Children. Principi N, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1653–9
Downregulation of Bcl-2, but not of Bax or Bcl-x, is associated with T lymphocyte apoptosis in HIV infection and restored by antiretroviral therapy or by interleukin 2. Regamey N, et al. **AIDS Res Hum Retroviruses** 1999 Jun 10;15(9):803–10
Abacavir for treatment of HIV infection [news] **Am Fam Physician** 1999 Mar 1;59(5):1329
Lamivudine therapy for chemotherapy-induced reactivation of hepatitis B virus infection. Ahmed A, et al. **Am J Gastroenterol** 1999 Jan;94(1):249–51
Once-daily nonnucleoside reverse-transcriptase inhibitor approved [news] **Am J Health Syst Pharm** 1998 Dec 1; 55(23):2458
Efficacy of zidovudine in preventing HIV transmission from mother to infant. Balsley J. **Am J Med** 1997 May 19; 102(5B):45–6
Effect of potent antiretroviral therapy on recurrent cytomegalovirus retinitis treated with the ganciclovir implant [see comments] Davis JL, et al. **Am J Ophthalmol** 1999 Mar;127(3):283–7. Comment in: Am J Ophthalmol 1999 Mar;127(3):327–8.
Prevention of hepatitis B flare-up during chemotherapy using lamivudine: case report and review of the literature. Al-Taie OH, et al. **Ann Hematol** 1999 May;78(5):247–9 (18 ref.)
Highly active antiretroviral therapy in HIV-related Kaposi's sarcoma [letter] Tavio M, et al. **Ann Oncol** 1998 Aug; 9(8):923
The role of non-nucleoside reverse transcriptase inhibitors (NNRTIs) in the therapy of HIV-1 infection. De Clercq E. **Antiviral Res** 1998 Jun;38(3):153–79 (137 ref.)
Resistance mutations selected in vivo under therapy with anti-HIV drug HBY 097 differ from resistance pattern selected in vitro. Rübsamen-Waigmann H, et al. **Antiviral Res** 1999 May;42(1):15–24
Highly active antiretroviral therapy (HAART) for the treatment of infection with human immunodeficiency virus type 1. Shafer RW, et al. **Biomed Pharmacother** 1999 Mar; 53(2):73–86 (105 ref.)
AIDS update 1999: viral reservoirs and immune-based therapies. Isada CM, et al. **Cleve Clin J Med** 1999 May; 66(5):267–9 (3 ref.)
Human immunodeficiency virus-associated dementia: review of pathogenesis, prophylaxis, and treatment studies of zidovudine therapy. Simpson DM. **Clin Infect Dis** 1999 Jul;29(1):19–34 (89 ref.)
Highly active antiretroviral therapy decreases the incidence of bacteremia in human immunodeficiency virus-infected individuals. Tacconelli E, et al. **Clin Infect Dis** 1998 Oct; 27(4):901–2
Guide to major clinical trials of antiretroviral therapy in human immunodeficiency virus-infected patients: protease inhibitors, non-nucleoside reverse transcriptase inhibitors, and nucleotide reverse transcriptase inhibitors. Tavel JA, et al. **Clin Infect Dis** 1999 Mar;28(3):643–76 (99 ref.)
Safety and efficacy of ritonavir and saquinavir in combination with zidovudine and lamivudine. Michelet C, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):661–71
Recovery from life-threatening, corticosteroid-unresponsive, chemotherapy-related reactivation of hepatitis B associated with lamivudine therapy. ter Borg F, et al. **Dig Dis Sci** 1998 Oct;43(10):2267–70
Efavirenz. Adkins JC, et al. **Drugs** 1998 Dec;56(6):1055–64; discussion 1065–6 (34 ref.)
Lamivudine. A review of its therapeutic potential in chronic hepatitis B. Jarvis B, et al. **Drugs** 1999 Jul;58(1):101–41 (279 ref.)
Genotypic resistance to zidovudine as a predictor of failure of subsequent therapy with human immunodeficiency virus type-1 nucleoside reverse-transcriptase inhibitors. Venturi G, et al. **Eur J Clin Microbiol Infect Dis** 1999 Apr; 18(4):274–82
Human immunodeficiency virus and hepatitis B virus co-infection in two siblings: viral loads markedly reduced by triple-therapy including lamivudine [letter] Horneff G, et al. **Eur J Pediatr** 1999 Aug;158(8):687–8
Food and Drug Administration approves lamivudine for hepatitis B. **Front Med Biol Eng** 1999;9(1):95
Lamivudine for chronic hepatitis B: the magic bullet or just another bright prospect? Kowdley KV. **Gastroenterology** 1999 Jun;116(6):1498–9
YMDD motif in hepatitis B virus DNA polymerase influences on replication and lamivudine resistance: A study by in vitro full-length viral DNA transfection. Ono-Nita SK, et al. **Hepatology** 1999 Mar;29(3):939–45

Efficacy of lamivudine in patients with hepatitis B e antigen-negative/hepatitis B virus DNA-positive (precore mutant) chronic hepatitis B.Lamivudine Precore Mutant Study Group. Tassopoulos NC, et al. **Hepatology** 1999 Mar; 29(3):889–96

Restoration of the immune system with anti-retroviral therapy. Autran B, et al. **Immunol Lett** 1999 Mar; 66(1–3):207–11 (9 ref.)

Apoptosis and the CD95 system in HIV disease: impact of highly active anti-retroviral therapy (HAART). Gougeon ML, et al. **Immunol Lett** 1999 Mar;66(1–3):97–103

Molecular tracking of an Human Immunodeficiency Virus nef specific cytotoxic T-cell clone shows persistence of clone-specific T-cell receptor DNA but not mRNA following early combination antiretroviral therapy. Nixon DF, et al. **Immunol Lett** 1999 Mar;66(1–3):219–28

Antigen-specific T-lymphocyte proliferative responses during highly active antiretroviral therapy (HAART) of HIV-1 infection. Pontesilli O, et al. **Immunol Lett** 1999 Mar;66(1–3):213–7

A randomized trial of interferon-alpha2a and zidovudine versus bleomycin and zidovudine for AIDS-related Kaposi's sarcoma. Swiss HIV Cohort Study. Opravil M, et al. **Int J STD AIDS** 1999 Jun;10(6):369–75

Kaposi's sarcoma regression following treatment with a triple antiretroviral regimen containing nevirapine. Shaw AJ, et al. **Int J STD AIDS** 1999 Jun;10(6):417–8

Development and significance of the HIV-1 reverse transcriptase M184V mutation during combination therapy with lamivudine, zidovudine, and protease inhibitors. Catucci M, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):203–8

Adequacy of prenatal care and prescription of zidovudine to prevent perinatal HIV transmission. Lansky A, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):223–7

Prevention of mother-to-child transmission of HIV in Thailand: physicians' attitudes on zidovudine use, pregnancy termination, and willingness to provide care. Stringer JS, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):217–22

Lack of tumors in infants with perinatal HIV-1 exposure and fetal/neonatal exposure to zidovudine. Hanson IC, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):463–7

A randomized, controlled, double-blind study comparing the survival benefit of four different reverse transcriptase inhibitor therapies (three-drug, two-drug, and alternating drug) for the treatment of advanced AIDS. AIDS Clinical Trial Group 193A Study Team. Henry K, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):339–49

Phase II, randomized, open-label, community-based trial to compare the safety and activity of combination therapy with recombinant interferon-alpha2b and zidovudine versus zidovudine alone in patients with asymptomatic to mildly symptomatic HIV infection. HIV Protocol C91–253 Study Team. Krown SE, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):245–54

Negative result of cytomegalovirus blood culture with restoration of CD4+ T-cell reactivity to cytomegalovirus after HAART in an HIV-1-infected patient [letter] Li TS, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):514–5

Analysis of HIV-1 reverse transcriptase gene mutations in infected children treated with zidovudine. Orlandi P, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Nov 1;19(3):230–7

Treatment for AIDS [news] **J Am Osteopath Assoc** 1998 Oct; 98(10):529

Immunosuppression and reactivation of hepatitis B in the lamivudine era: opportunities for prevention and exploitation? [editorial; comment] Farrell GC. **J Gastroenterol Hepatol** 1999 Aug;14(8):741–4. Comment on: J Gastroenterol Hepatol 1999 Aug;14(8):801–3. Comment on: J Gastroenterol Hepatol 1999 Aug;14(8):804–6.

Case report: dramatic response to lamivudine therapy following corticosteroid priming in chronic hepatitis B [see comments] Liaw YF, et al. **J Gastroenterol Hepatol** 1999 Aug;14(8):804–6. Comment in: J Gastroenterol Hepatol 1999 Aug;14(8):741–4.

Case report: lamivudine therapy for submassive hepatic necrosis due to reactivation of hepatitis B following chemotherapy [see comments] Maguire CM, et al. **J Gastroenterol Hepatol** 1999 Aug;14(8):801–3. Comment in: J Gastroenterol Hepatol 1999 Aug;14(8):741–4.

What's new in HIV. Morris-Jones S, et al. **J Infect** 1999 Mar;38(2):i–ii

Variability in repeated consecutive measurements of plasma human immunodeficiency virus RNA in persons receiving stable nucleoside reverse transcriptase inhibitor therapy or no treatment. Bartlett JA, et al. **J Infect Dis** 1998 Dec; 178(6):1803–5

Novel four-drug salvage treatment regimens after failure of a human immunodeficiency virus type 1 protease inhibitor-containing regimen: antiviral activity and correlation of baseline phenotypic drug susceptibility with virologic outcome. Deeks SG, et al. **J Infect Dis** 1999 Jun; 179(6):1375–81

Antiviral activity of the human immunodeficiency virus type 1-specific nonnucleoside reverse transcriptase inhibitor HBY 097 alone and in combination with zidovudine in a phase II study. HBY 097/2001 Study Group. Kleim JP, et al. **J Infect Dis** 1999 Mar;179(3):709–13

Clinical resistance patterns and responses to two sequential protease inhibitor regimens in saquinavir and reverse transcriptase inhibitor-experienced persons. Lawrence J, et al. **J Infect Dis** 1999 Jun;179(6):1356–64

Long-term prognosis following zidovudine monotherapy in primary human immunodeficiency virus type 1 infection. Lindbäck S, et al. **J Infect Dis** 1999 Jun;179(6):1549–52

Human immunodeficiency virus type 1 expressing the lamivudine-associated M184V mutation in reverse transcriptase shows increased susceptibility to adefovir and decreased replication capability in vitro. Miller MD, et al. **J Infect Dis** 1999 Jan;179(1):92–100

The ALBI trial: a randomized controlled trial comparing stavudine plus didanosine with zidovudine plus lamivudine and a regimen alternating both combinations in previously untreated patients infected with human immunodeficiency virus. Molina JM, et al. **J Infect Dis** 1999 Aug;180(2):351–8

Virologic and immunologic response to nucleoside reverse-transcriptase inhibitor therapy among human immunodeficiency virus-infected infants and children. Palumbo PE, et al. **J Infect Dis** 1999 Mar;179(3):576–83

Genotypic resistance and the treatment of HIV-1 infection in Espírito Santo, Brazil. Pilcher CD, et al. **J Infect Dis** 1999 May;179(5):1259–63

Levels of human immunodeficiency virus type 1-specific cytotoxic T-lymphocyte effector and memory responses decline after suppression of viremia with highly active antiretroviral therapy. Kalams SA, et al. **J Virol** 1999 Aug; 73(8):6721–8

Lack of long-term effects of in utero exposure to zidovudine among uninfected children born to HIV-infected women. Pediatric AIDS Clinical Trials Group Protocol 219/076 Teams. Culnane M, et al. **JAMA** 1999 Jan 13;281(2):151–7

From the Food and Drug Administration. Nightingale SL. **JAMA** 1998 Nov 4;280(17):1472

Perinatal HIV prevention. Stephenson J. **JAMA** 1999 Aug 18;282(7):625

HIV-treatment guidelines [news] **Lancet** 1999 May 15; 353(9165):1682

HIV and AIDS. Gap between biology and reality in AIDS. Carr A, et al. **Lancet** 1998 Dec 19–26;352 Suppl 4:SIV16 (5 ref.)

Drug-resistance genotyping in HIV-1 therapy: the VIRADAPT randomised controlled trial [see comments] Durant J, et al. **Lancet** 1999 Jun 26;353(9171):2195–9. Comment in: Lancet 1999 Jun 26;353(9171):2173–4.

A pill a day, or two, for hepatitis B? [published erratum appears in Lancet 1999 May 15;353(9165):1714] Dusheiko G. **Lancet** 1999 Mar 27;353(9158):1032–3

Reduction in human immunodeficiency virus patient hospitalizations and nontraumatic mortality after adoption of highly active antiretroviral therapy. Baum SE, et al. **Mil Med** 1999 Sep;164(9):609–12

South Africa: setting the wrong example [editorial] **Nat Med** 1999 Jan;5(1):1

Limited CD4+ T-cell renewal in early HIV-1 infection: effect of highly active antiretroviral therapy. Fleury S, et al. **Nat Med** 1998 Jul;4(7):794–801

Drug could slash rate of perinatal HIV [news] **Nature** 1999 Jul 22;400(6742):304

State of the art: antiretroviral and prophylactic treatments in HIV/AIDS. Porche DJ. **Nurs Clin North Am** 1999 Mar; 34(1):95–112 (37 ref.)

HIV drug now approved for use with protease inhibitors [published erratum appears in Nurse Pract 1998 Oct;23(10):89] **Nurse Pract** 1998 Oct;23(10):89

A review of abacavir and efavirenz: new antiretroviral drugs to treat HIV-1 infection [news] Wolbach J, et al. **Nurse Pract** 1999 Jun;24(6):81–2, 87–90, 92 (27 ref.)

AIDS drugs effective against most common HIV strain [news] **Oncology (Huntingt)** 1999 Mar;13(3):392

Antiretroviral therapy and medical management of pediatric HIV infection and 1997 USPHS/IDSA report on the prevention of opportunistic infections in persons infected with human immunodeficiency virus. **Pediatrics** 1998 Oct; 102(4 Pt 2):999–1085 (267 ref.)

Neurologic, neurocognitive, and brain growth outcomes in human immunodeficiency virus-infected children receiving different nucleoside antiretroviral regimens. Pediatric AIDS Clinical Trials Group 152 Study Team. Raskino C, et al. **Pediatrics** 1999 Sep;104(3):e32

Consequences of ddI-induced reduction of acute SIVmac251 virus load on cytokine profiles in cynomolgus macaques. Gigout L, et al. **Res Virol** 1998 Nov-Dec;149(6):341–54

A trial comparing nucleoside monotherapy with sequential therapy with 3 drugs in HIV-infected patients. Roca B, et al. **Scand J Infect Dis** 1998;30(4):426–8

Lamivudine therapy of hepatitis B virus-related liver disease: cirrhosis, posttransplantation recurrence, and de novo infection. Bárcena R, et al. **Transplant Proc** 1999 Sep; 31(6):2457–8

Successful use of lamivudine for severe acute hepatitis B virus infection in a cardiac transplant recipient [letter] Dulai G, et al. **Transplantation** 1999 May 15;67(9):1288–9

Treatment of chronic hepatitis B with lamivudine in renal transplant recipients. Jung YO, et al. **Transplantation** 1998 Sep 27;66(6):733–7

[A changed pattern of opportunistic infections and malignancies in HIV-seropositive patients after the introduction of intensive anti-HIV-combination therapy] Borleffs JC, et al. **Ned Tijdschr Geneeskd** 1998 Oct 31; 142(44):2395–9 (16 ref.) (Eng. Abstr.) **(Dut)**

[FDA approval of the first HIV anti-retroviral from DuPont-Pharma: SUSTIVA (efavirenz). SUSTIVA should be associated with other anti-retrovirals and could be considered a new alternative first line treatment] **Allerg Immunol (Paris)** 1998 Oct;30(8):268–70 **(Fre)**

[Effects of double and triple antiretroviral agents on the HCV viral load in patients coinfected with HIV and HCV] Gavazzi G, et al. **Pathol Biol (Paris)** 1998 Jun;46(6):412–5 (Eng. Abstr.) **(Fre)**

[Antiretroviral therapy of HIV infections. New recommendations by the International AIDS Society] Allouch H. **Presse Med** 1998 Nov 7;27(34):1739–41 **(Fre)**

[The role of stavudine in antiretroviral therapy] Molina JM. **Presse Med** 1998 Oct 31;27(33):1708–9 **(Fre)**

[Nevirapine (Viramune): a new HIV inhibitor] De Wit S, et al. **Rev Med Brux** 1999 Apr;20(2):95–9 (12 ref.) (Eng. Abstr.) **(Fre)**

[Diagnosis and treatment of ocular viral infections in AIDS patients] Guex-Crosier Y. **Rev Med Suisse Romande** 1998 Nov;118(11):941–7 (15 ref.) (Eng. Abstr.) **(Fre)**

[A new drug in HIV infections authorized (news)] **Dtsch Med Wochenschr** 1999 Sep 10;124(36):A20 **(Ger)**

[HIV, hepatitis, influenza: new antiviral agents] **Dtsch Med Wochenschr** 1999 Jan 8;124(1–2):A16 **(Ger)**

[HIV infections: mortality reduced only in developed countries (news)] Wehr A. **Dtsch Med Wochenschr** 1999 May 7;124(18):A8–9 **(Ger)**

[Non-nucleoside reverse transcriptase inhibitors. AIDS long-term management] Sautter R. **Fortschr Med** 1998 Jul 20;116(20–21):56–7 **(Ger)**

[New management of hepatitis B virus] Sata M, et al. **Nippon Naika Gakkai Zasshi** 1999 Apr 10;88(4):713–7 (14 ref.) **(Jpn)**

[Combined polychemotherapy of patients with chronic hepatitis C] Nikitin IG, et al. **Klin Med (Mosk)** 1999; 77(5):24–6 **(Rus)**

[Antiretroviral treatment in 1999: from uncertainty to hopefulness (editorial)] Pujol de la Llave E. **An Med Interna** 1999 May;16(5):215–7 (47 ref.) **(Spa)**

[One year treatment with lamivudine in different hepatitis B virus related hepatic diseases] Buti M, et al. **Gastroenterol Hepatol** 1999 Mar;22(3):117–21 (Eng. Abstr.) **(Spa)**

[Non-nucleoside reverse transcriptase inhibitors of the human immunodeficiency virus (editorial)] Roca B, et al. **Med Clin (Barc)** 1998 Nov 21;111(17):660–2 **(Spa)**

REVERSE TRANSCRIPTASE POLYMERASE CHAIN REACTION

see related

RNA-DIRECTED DNA POLYMERASE

Reverse transcriptase polymerase chain reaction on fine needle aspirates for rapid detection of translocations in synovial sarcoma [see comments] Nilsson G, et al. **Acta Cytol** 1998 Nov-Dec;42(6):1317–24. Comment in: Acta Cytol 1998 Nov-Dec;42(6):1315–6.

Separation of cardiomyocytes and coronary endothelial cells for cell-specific RT-PCR. Preisig-Müller R, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H413–6

Detection of melanoma micrometastasis in sentinel nodes by reverse transcription-polymerase chain reaction correlates with tumor thickness and is predictive of micrometastatic disease in the lymph node basin. Blaheta HJ, et al. **Am J Surg Pathol** 1999 Jul;23(7):822–8

The detection of minimal numbers of contaminating epithelial tumor cells in blood or bone marrow: use, limitations and future of RNA-based methods. Lambrechts AC, et al. **Ann Oncol** 1998 Dec;9(12):1269–76 (60 ref.)

Detection of tyrosinase mRNA by reverse transcription-polymerase chain reaction in melanoma sentinel nodes [see comments] Bieligk SC, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):232–40. Comment in: Ann Surg Oncol 1999 Apr-May;6(3):225–6.

Reverse transcription-polymerase chain reaction analysis of genes involved in gonadal differentiation in pigs. Parma P, et al. **Biol Reprod** 1999 Sep;61(3):741–8

Quantification of inhibin/activin alpha and betaA subunit messenger ribonucleic acid by competitive reverse transcription-polymerase chain reaction in chicken granulosa cells during follicular development. Safi M, et al. **Biol Reprod** 1998 Nov;59(5):1047–54

Competitive RT-PCR for measuring metalloproteinase gene expression in human mesangial cells exposed to a hyperglycemic environment. Death AK, et al. **Biotechniques** 1999 Sep;27(3):512–8, 520

Quantitative RT-PCR to evaluate in vivo expression of multiple transgenes using a common intron. Fairman J, et al. **Biotechniques** 1999 Sep;27(3):566–70, 572–4

Quantitative RT-PCR: pitfalls and potential. Freeman WM, et al. **Biotechniques** 1999 Jan;26(1):112–22, 124–5 (66 ref.)

Preoperative nested reverse transcription-polymerase chain reaction for prostate specific membrane antigen predicts biochemical recurrence after radical prostatectomy. Okegawa T, et al. **BJU Int** 1999 Jul;84(1):112–7

Distinct expression patterns of the p53-homologue p73 in malignant and normal hematopoiesis assessed by a novel real-time reverse transcription-polymerase chain reaction

assay and protein analysis. Peters UR, et al. **Cancer Res** 1999 Sep 1;59(17):4233–6

Accurate and objective preoperative diagnosis of thyroid papillary carcinomas by reverse transcription–PCR detection of oncofetal fibronectin messenger RNA in fine-needle aspiration biopsies. Takano T, et al. **Cancer Res** 1998 Nov 1;58(21):4913–7

Optimization of the tyrosinase mRNA probe to detect circulating melanocytes with reverse transcription and polymerase chain reaction. Carrillo E, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Dec;44(8):1247–52

Detection of PAX3–FKHR and PAX7–FKHR fusion transcripts in rhabdomyosarcoma by reverse transcriptase-polymerase chain reaction using paraffin-embedded tissue. Chen BF, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Feb;62(2):86–91

Detection of microscopic neuroblastoma in marrow by histology, immunocytology, and reverse transcription–PCR of multiple molecular markers. Cheung IY, et al. **Clin Cancer Res** 1998 Nov;4(11):2801–5

Detection of melanoma cells in the blood of melanoma patients by melanoma-inhibitory activity (MIA) reverse transcription–PCR. Mühlbauer M, et al. **Clin Cancer Res** 1999 May;5(5):1099–105

Diagnosis of Jamestown Canyon encephalitis by polymerase chain reaction. Huang C, et al. **Clin Infect Dis** 1999 Jun; 28(6):1294–7

Use of reverse transcription polymerase chain reaction with colorimetric plate hybridization to detect a cytomegalovirus late spliced mRNA in polymorphonuclear leukocytes from renal transplant patients. Andre E, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):287–91

A colorimetric microtiter plate PCR system detects respiratory syncytial virus in nasal aspirates and discriminates subtypes A and B. Tang YW, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):333–7

Diagnosis of synovial sarcoma with the reverse transcriptase-polymerase chain reaction: analyses of 84 soft tissue and bone tumors. Hiraga H, et al. **Diagn Mol Pathol** 1998 Apr;7(2):102–10

Detection of TLS/FUS–CHOP fusion transcripts in myxoid and round cell liposarcomas by nested reverse transcription-polymerase chain reaction using archival paraffin-embedded tissues. Hisaoka M, et al. **Diagn Mol Pathol** 1998 Apr;7(2):96–101

Preservation of nucleic acids for polymerase chain reaction after prolonged storage at room temperature. Tuttle RM, et al. **Diagn Mol Pathol** 1998 Dec;7(6):302–9

PCR-directed DNA sequencing of "nondeletion" HPRT-mutants induced by bleomycin in CHO K1-BH4 cells. An J, et al. **Environ Mol Mutagen** 1998;32(3):244–50

Quantification of bacterial mRNA involved in degradation of 1,2,4-trichlorobenzene by Pseudomonas sp. strain P51 from liquid culture and from river sediment by reverse transcriptase PCR (RT/PCR). Meckenstock R, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):123–9

Detection of bcr/abl mRNA in a case of chronic myelogenous leukemia in long-term remission: CML or sensitivity of detection? Anguita E, et al. **Haematologica** 1998 Aug;83(8):744–7 (16 ref.)

Comparative evaluation of hepatitis C virus RNA quantitation by branched DNA, NASBA, and monitor assays. Lunel F, et al. **Hepatology** 1999 Feb;29(2):528–35

Detection of genomic– and minus-strand of hepatitis C virus RNA in the liver of chronic hepatitis C patients by strand-specific semiquantitative reverse-transcriptase polymerase chain reaction. Negro F, et al. **Hepatology** 1999 Feb;29(2):536–42

A tale of two strands: reverse-transcriptase polymerase chain reaction detection of hepatitis C virus replication. Sangar DV, et al. **Hepatology** 1998 Nov;28(5):1173–6 (31 ref.)

Detection of EWS-WT1 fusion mRNA in ascites of a patient with desmoplastic small round cell tumor by RT–PCR. Perez RP, et al. **Hum Pathol** 1999 Feb;30(2):239–42

Reverse transcriptase polymerase chain reaction as a reliable method to detect epidermal growth factor receptor exon 2–7 gene deletion in human glioblastomas. Worm K, et al. **Hum Pathol** 1999 Feb;30(2):222–7

Detection of bluetongue virus genome segment 6 sequences by RT–PCR. Bandyopadhyay SK, et al. **Indian J Exp Biol** 1998 Oct;36(10):1034–7

Detection of messenger RNA for the beta-subunit of chorionic gonadotropin in urinary cells from patients with transitional cell carcinoma of the bladder by reverse transcription-polymerase chain reaction. Hotakainen K, et al. **Int J Cancer** 1999 Jun 21;84(3):304–8

Quantitation by competitive PCR assay of vascular endothelial growth factor in non-small cell lung carcinomas. Boldrini L, et al. **Int J Oncol** 1999 Jan; 14(1):161–8

Preoperative diagnosis of medullary thyroid carcinoma by RT–PCR using RNA extracted from leftover cells within a needle used for fine needle aspiration biopsy. Takano T, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):951–5

Comparison of the enzyme-linked immunosorbant assay III, recombinant immunoblot third generation assay, and polymerase chain reaction method in the detection of hepatitis C virus infection in haemodialysis patients. Garinis G, et al. **J Clin Lab Anal** 1999;13(3):122–5

Rapid detection of human rhinoviruses in nasopharyngeal aspirates by a microwell reverse transcription–PCR–hybridization assay. Blomqvist S, et al. **J Clin Microbiol** 1999 Sep;37(9):2813–6

Comparison of enzyme immunoassay and reverse transcriptase PCR for identification of serotype G9 rotaviruses. Coulson BS, et al. **J Clin Microbiol** 1999 Oct; 37(10):3187–93

Quantitative analysis of mRNA as a marker for viability of Mycobacterium tuberculosis. Hellyer TJ, et al. **J Clin Microbiol** 1999 Feb;37(2):290–5

Identification of encephalomyocarditis virus in clinical samples by reverse transcription–PCR followed by genetic typing using sequence analysis. Vanderhallen H, et al. **J Clin Microbiol** 1998 Dec;36(12):3463–7

Polymerase chain reaction and immunohistochemistry frequently detect occult melanoma cells in regional lymph nodes of melanoma patients. Hatta N, et al. **J Clin Pathol** 1998 Aug;51(8):597–601

HCV genotyping by three methods: analysis of discordant results based on sequencing. Furione M, et al. **J Clin Virol** 1999 Aug;13(3):121–30

Analysis of a coded panel of licensed vaccines by polymerase chain reaction-based reverse transcriptase assays: a collaborative study [seecomments] Maudru T, et al. **J Clin Virol** 1998 Jul 24;11(1):19–28

Rotavirus G and P types in children from Belém, northern Brazil, as determined by RT–PCR: occurrence of mixed P type infections. Mascarenhas JD, et al. **J Diarrhoeal Dis Res** 1998 Mar;16(1):8–14

Analysis of splice variants of the fibronectin gene in thyroid carcinomas by reverse transcription-polymerase chain reaction: increased expression of oncofetal fibronectin mRNA in papillary carcinomas is not caused by the alternation in splicing. Takano T, et al. **J Endocrinol Invest** 1999 Jan;22(1):18–22

Distribution of Norwalk virus within shellfish following bioaccumulation and subsequent depuration by detection using RT–PCR. Schwab KJ, et al. **J Food Prot** 1998 Dec; 61(12):1674–80

Use of reverse-transcriptase polymerase chain reaction (RT–PCR) for carcinoembryonic antigen, cytokeratin 19, and maspin in the detection of tumor cells in leukapheresis products from patients with breast cancer: comparison with immunocytochemistry. López-Guerrero JA, et al. **J Hematother** 1999 Feb;8(1):53–61

Application of electronmicroscopy, enzyme immunoassay, and RT–PCR to monitor an outbreak of astrovirus type 1 in a paediatric bone marrow transplant unit. Cubitt WD, et al. **J Med Virol** 1999 Mar;57(3):313–21

Comparison of RT–PCR with other diagnostic assays for rapid detection of influenza viruses. Pregliasco F, et al. **J Med Virol** 1998 Oct;56(2):168–73

Reverse transcription-polymerase chain reaction in the diagnosis of Helicobacter pylori infection in Finnish children. Oksanen K, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar;28(3):252–6

Re: The value of a reverse transcriptase polymerase chain reaction assay in preoperative staging and followup of patients with prostate cancer [letter; comment] Berteau P, et al. **J Urol** 1999 Mar;161(3):924–6. Comment on: J Urol 1998 Apr;159(4):1134–8.

Detection of circulating prostate specific antigen expressing prostatic cells in the bone marrow of radical prostatectomy patients by sensitive reverse transcriptase polymerase chain reaction. Gao CL, et al. **J Urol** 1999 Apr;161(4):1070–6

Urinary cytology and competitive reverse transcriptase-polymerase chain reaction analysis of a specific CD44 variant to detect and monitor bladder cancer [see comments] Miyake H, et al. **J Urol** 1998 Dec;160(6 Pt 1):2004–8. Comment in: J Urol 1998 Dec;160(6 Pt 1):2009–10.

Detection of each of the causal agents of groundnut rosette disease in plants and vector aphids by RT–PCR. Naidu RA, et al. **J Virol Methods** 1998 Dec;76(1–2):9–18

Reverse-transcription polymerase chain reaction for the detection of viruses from plants and aphids. Singh RP. **J Virol Methods** 1998 Oct;74(2):125–38

Microplate-reverse hybridization method to determine dengue virus serotype. Sudiro TM, et al. **J Virol Methods** 1998 Aug;73(2):229–35

Molecular staging of malignant melanoma: correlation with clinical outcome. Shivers SC, et al. **JAMA** 1998 Oct 28; 280(16):1410–5

Prostate-specific membrane antigen-derived primers in a nested reverse transcription polymerase chain reaction for detecting prostatic cancer cells. Saimoto A, et al. **Jpn J Cancer Res** 1999 Feb;90(2):233–9

Detection of cilia-associated respiratory (CAR) bacillus in nasal-swab specimens from infected rats by use of polymerase chain reaction. Franklin CL, et al. **Lab Anim Sci** 1999 Feb;49(1):114–7

Expression of an IL-1 receptor antagonist during mouse hepatocarcinogenesis demonstrated by differential display analysis. Yamada Y, et al. **Lab Invest** 1999 Sep; 79(9):1059–67

Detection of BCR-ABL transcripts in chronic myeloid leukemia (CML) using an in situ RT–PCR assay. Preudhomme C, et al. **Leukemia** 1999 May;13(5):818–23

Detection of inducible nitric oxide synthase (iNOS) mRNA by RT–PCR in ATL patients and HTLV-I infected cell lines: clinical features and apoptosis by NOS inhibitor. Sonoki T, et al. **Leukemia** 1999 May;13(5):713–8

Reverse transcriptase-polymerase chain reaction fails to detect peripheral-blood hepatitis C RNA in formalin-fixed liver tissue. Guerrero RB, et al. **Liver Transpl Surg** 1998 Nov;4(6):455–60

Identification and characterisation of malignant cells using RT–PCR on single flow-sorted cells. Rasmussen T, et al. **Med Oncol** 1998 Jul;15(2):96–102

Diagnosis of mouse hepatitis virus contamination in mouse population by using nude mice and RT–PCR. Wang RF, et al. **Mol Cell Probes** 1999 Feb;13(1):29–33

Assessment of SNRPN expression as a molecular tool in the diagnosis of Prader-Willi syndrome. Carrel AL, et al. **Mol Diagn** 1999 Mar;4(1):5–10

A seminested RT–PCR assay for HER2/neu: initial validation of a new method for the detection of disseminated breast cancer cells. Wasserman L, et al. **Mol Diagn** 1999 Mar;4(1):21–8

Rapid detection of enteroviral RNA in cerebrospinal fluid (CSF) from patients with aseptic meningitis by reverse transcription–nested polymerase chain reaction. Furione M, et al. **New Microbiol** 1998 Oct;21(4):343–51

Quantification of mRNA levels of endothelin receptor subtypes and preproEndothelin-1 in renal needle biopsies by competitive reverse transcriptase polymerase chain reaction. Asberg A, et al. **Scand J Clin Lab Invest** 1998 Jul;58(4):299–306

Fast detection of tissue factor and tissue factor pathway inhibitor messenger RNA in endothelial cells and monocytes by sensitive reverse transcription–polymerase chain reaction. Iochmann S, et al. **Thromb Res** 1999 May 1;94(3):165–73

Measurement of the expression of oncofetal fibronectin mRNA in thyroid carcinomas by competitive reverse transcription–polymerase chain reaction. Higashiyama T, et al. **Thyroid** 1999 Mar;9(3):235–40

Reverse transcriptase-polymerase chain reaction analysis of thyrocyte-relevant genes in fine-needle aspiration biopsies of the human thyroid. Winzer R, et al. **Thyroid** 1998 Nov; 8(11):981–7

Prostate specific membrane antigen (PSM) is expressed in various human tissues: implication for the use of PSM reverse transcription polymerase chain reaction to detect hematogenous prostate cancer spread. Renneberg H, et al. **Urol Res** 1999;27(1):23–7

Blinded evaluation of reverse transcriptase-polymerase chain reaction prostate-specific antigen peripheral blood assay for molecular staging of prostate cancer. Gao CL, et al. **Urology** 1999 Apr;53(4):714–21

Effect of prostate biopsy on the results of the PSA RT–PCR test. Goldman HB, et al. **Urology** 1998 Dec;52(6):1073–8

Use of bovine viral diarrhoea virus as an internal control for amplification of hepatitis C virus. Cleland A, et al. **Vox Sang** 1999;76(3):170–4

A nested RT–PCR for the detection of tick-borne encephalitis virus (TBEV) in ticks in natural foci. Schrader C, et al. **Zentralbl Bakteriol** 1999 Jul;289(3):319–28

[Update on a diagnostic test for choroideremia: the protein truncation test (PTT)] Beaufrere L, et al. **J Fr Ophtalmol** 1998 May;21(5):345–50 (Eng. Abstr.) **(Fre)**

[In vitro detection of prostate cancer circulating cells by immunocytochemistry, flow cytometry and RT–PCR PSA] de la Taille A, et al. **Prog Urol** 1998 Dec;8(6):1058–64 (Eng. Abstr.) **(Fre)**

[Identification of enteroviruses in environmental samples using PCR coupled with a colorimetric microwell method] Gualillo O, et al. **Ann Ig** 1999 May–Jun;11(3):179–85 **(Ita)**

[Analysis of molecular basis of neuronal properties using the patch-clamp RT–PCR method] Tsuzuki K. **Nippon Rinsho** 1998 Jul;56(7):1681–7 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Disappearance of residual disease confirmed by RT–PCR following induction chemotherapy in two hypoplastic leukemia patients with t(8;21)] Sawada M, et al. **Rinsho Ketsueki** 1999 Apr;40(4):311–7 (Eng. Abstr.) **(Jpn)**

[Use of rapid methods in detection of enteroviruses] Eremin VF, et al. **Klin Lab Diagn** 1999 Mar;(3):23–4, 33 (Eng. Abstr.) **(Rus)**

[The importance of polymerase chain reaction in the diagnosis of enterovirus infections of the central nervous system in children. Clinico-epidemiologic characteristics] Pena MJ, et al. **Enferm Infecc Microbiol Clin** 1999 May; 17(5):227–30 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Bovine serum albumin reverses inhibition of RT–PCR by melanin. Giambernardi TA, et al. **Biotechniques** 1998 Oct; 25(4):564–6

Use of citric acid for neutralizing polymerase chain reaction inhibition by chlorogenic acid in potato extracts. Singh RP, et al. **J Virol Methods** 1998 Oct;74(2):231–5

INSTRUMENTATION

New device and method for capture, reverse transcription and nested PCR in a single closed-tube. Olmos A, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1564–5

METHODS

Comparison of different methods of RNA isolation for plum pox virus detection by reverse transcription–polymerase chain reaction. Faggioli F, et al. **Acta Virol** 1998 Sep;

42(4):219–21
Long distance RT-PCRs of human coronavirus 229E RNA. Thiel V, et al. **Adv Exp Med Biol** 1998;440:269–73
A rapid practical RT-PCR-based approach for the detection of the PML/RAR alpha fusion transcript in acute promyelocytic leukemia. Hussey CE, et al. **Am J Clin Pathol** 1999 Aug;112(2):256–62
Serologic and molecular diagnosis of Colorado tick fever viral infections. Attoui H, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):763–8
Prevention of heteroduplex formation in mRNA quantitation by reverse transcription-polymerase chain reaction. Chen Z, et al. **Anal Biochem** 1999 Jan 15;266(2):230–2
The inherent quantitative capacity of the reverse transcription-polymerase chain reaction. Halford WP, et al. **Anal Biochem** 1999 Jan 15;266(2):181–91
Differential quantitation of alternatively spliced messenger RNAs using isoform-specific real-time RT-PCR. Kafert S, et al. **Anal Biochem** 1999 Apr 10;269(1):210–3
Estimation of gene expression within the intestinal mucosa using semiquantitative reverse transcriptase-polymerase chain reaction. Kong SE, et al. **Anal Biochem** 1999 Jun 15;271(1):111–4
Quantification of endothelin ETA and ETB receptor mRNA by competitive reverse transcription-polymerase chain reaction: development of a multispecies assay. Smith PJ, et al. **Anal Biochem** 1999 Jun 15;271(1):93–6
Quantification of ribonucleotide reductase expression in wild-type and hydroxyurea-resistant cell lines employing in situ reverse transcriptase polymerase chain reaction and a computerized image analysis system. Wadler S, et al. **Anal Biochem** 1999 Feb 1;267(1):24–9
Simultaneous measurement of multiple mRNAs with a single control by quantitative competitive reverse transcriptase-polymerase chain reaction: glucose transporters Glut1 and Glut4. Welch RD, et al. **Anal Biochem** 1999 Mar 1;268(1):102–9
A strategy for detection of viruses in groundwater by PCR. Abbaszadegan M, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):444–9
Quantification of hepatitis A virus in shellfish by competitive reverse transcription-PCR with coextraction of standard RNA. Arnal C, et al. **Appl Environ Microbiol** 1999 Jan; 65(1):322–6
Quantification of 16S rRNAs in complex bacterial communities by multiple competitive reverse transcription-PCR in temperature gradient gel electrophoresis fingerprints. Felske A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4581–7
Differential priming of RNA templates during cDNA synthesis markedly affects both accuracy and reproducibility of quantitative competitive reverse-transcriptase PCR. Zhang J, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):231–41
A multiplex RT-PCR assay for analysis of relative transcript levels of different members of multigene families: application to Arabidopsis calmodulin gene family. Verma PK, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):699–706
A comparison of 2 PCR-based methods for the quantitation of mRNA levels of putative membrane receptors in transfected mammalian cell clones. Murdock PR, et al. **Biochem Soc Trans** 1998 Nov;26(4):S362
A computer-driven approach to PCR-based differential screening, alternative to differential display. Consalez GG, et al. **Bioinformatics** 1999 Feb;15(2):93–105
A non-radioactive method for inexpensive quantitative RT-PCR. Maggiolini M, et al. **Biol Chem** 1999 Jun; 380(6):695–7
Identification of progesterone-dependent messenger ribonucleic acid regulatory patterns in the rhesus monkey endometrium by differential-display reverse transcription-polymerase chain reaction. Ace CI, et al. **Biol Reprod** 1999 Apr;60(4):1029–35
Partial characterization of a human zinc-deficiency syndrome by differential display. Muga SJ, et al. **Biol Trace Elem Res** 1999 Apr;68(1):1–12
Rapid isolation of HCV RNA from Catrimox-lysed whole blood using QIAamp spin columns [published erratum appears in Biotechniques 1999 Apr;26(4):716] Ali SA, et al. **Biotechniques** 1998 Dec;25(6):975–8
Amplification of FADD mRNA using RT-PCR results in an artifact. Alonso M, et al. **Biotechniques** 1999 May; 26(5):828–30, 832, 834
Comparison of three RNA amplification methods as sources of DNA for sequencing. Chadwick N, et al. **Biotechniques** 1998 Nov;25(5):818–20, 822
Direct cloning of differential display products eluted from northern blots. Denovan-Wright EM, et al. **Biotechniques** 1999 Jun;26(6):1046–8, 1050
Use of long RT-PCR to characterize splice variant mRNAs. Hu Y, et al. **Biotechniques** 1998 Aug;25(2):224–9
Evaluation of the effects of DNase treatment on signal specificity in RT-PCR and in situ RT-PCR. Ivarsson K, et al. **Biotechniques** 1998 Oct;25(4):630–2, 634, 636 passim
Differential display combined with a regulated transient expression system. Kanamori H, et al. **Biotechniques** 1999 Jun;26(6):1018–20
Accurate quantification of expression of transgenes marked with restriction endonuclease site polymorphisms by RT-PCR. Li S, et al. **Biotechniques** 1998 Oct;25(4):558–60, 562
Adaptation of the fluorogenic 5'-nuclease chemistry to a PCR-based reverse transcriptase assay. Maudru T, et al. **Biotechniques** 1998 Dec;25(6):972–5
Absolute quantitation of MDR1 transcripts using heterologous DNA standards--validation of the competitive RT-PCR (CRT-PCR) approach. el-Osta A, et al. **Biotechniques** 1999 Jun;26(6):1114–6, 1118–20, 1122 passim
Combination of cross-species RNA solution hybridization and immunoprecipitation aids in the cloning of RT-PCR products. Pootanakit K, et al. **Biotechniques** 1999 Apr; 26(4):616–8
Comparison of three RT-PCR methods. Sellner LN, et al. **Biotechniques** 1998 Aug;25(2):230–4
Laser capture microdissection of single cells from complex tissues. Suarez-Quian CA, et al. **Biotechniques** 1999 Feb; 26(2):328–35
Nonlethal detection of transgene expression in the CNS of founder mice. Wakabayashi T, et al. **Biotechniques** 1999 Feb;26(2):302–4, 306–7
Detection of canine distemper virus in 100% of Paget's disease samples by in situ-reverse transcriptase-polymerase chain reaction. Mee AP, et al. **Bone** 1998 Aug;23(2):171–5
Improved methods using the reverse transcriptase polymerase chain reaction to detect tumour cells. Burchill SA, et al. **Br J Cancer** 1999 Feb;79(5–6):971–7
Specificity of reverse transcriptase polymerase chain reaction assays designed for the detection of circulating cancer cells is influenced by cytokines in vivo and in vitro. Jung R, et al. **Br J Cancer** 1998 Nov;78(9):1194–8
Development of a sensitive, specific reverse transcriptase polymerase chain reaction-based assay for epithelial tumour cells in effusions. Sakaguchi M, et al. **Br J Cancer** 1999 Feb;79(3–4):416–22
Detection of karyotypic aberrations in acute myeloblastic leukaemia: a prospective comparison between PCR/FISH and standard cytogenetics in 140 patients with de novo AML. Krauter J, et al. **Br J Haematol** 1998 Oct;103(1):72–8
Semi-quantitative reverse-transcriptase polymerase chain reaction: an approach for the measurement of target gene expression in human brain. Chen L, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):132–9
Rapid cloning of cDNA ends polymerase chain reaction of G-protein-coupled receptor kinase 6: an improved method to determine 5'- and 3'-cDNA ends. Fehr C, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):242–51
Quantitation of nicotinic acetylcholine receptor subunits alpha 4 and beta 2 messenger RNA in postmortem human brain using a non-radioactive RT-PCR and CCD imaging system. Utsugisawa K, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):92–6
Modulation of estrogen receptor gene expression in human breast cancer cells: a decoy strategy with specific PCR-generated DNA fragments. Penolazzi L, et al. **Breast Cancer Res Treat** 1998 Jun;49(3):227–35
The detection of renal carcinoma cells in the peripheral blood with an enhanced reverse transcriptase-polymerase chain reaction assay for MN/CA9. McKiernan JM, et al. **Cancer** 1999 Aug 1;86(3):492–7
Quantitation of MYC gene expression in sporadic breast tumors with a real-time reverse transcription-PCR assay. Bièche I, et al. **Cancer Res** 1999 Jun 15;59(12):2759–65
Preoperative diagnosis of thyroid papillary and anaplastic carcinomas by real-time quantitative reverse transcription-polymerase chain reaction of oncofetal fibronectin messenger RNA. Takano T, et al. **Cancer Res** 1999 Sep 15;59(18):4542–5
Limitations of the reverse transcription-polymerase chain reaction method for the detection of carcinoembryonic antigen-positive tumor cells in peripheral blood. Ko Y, et al. **Clin Cancer Res** 1998 Sep;4(9):2141–6
Detection of cancer cells in peripheral blood of breast cancer patients using reverse transcription-polymerase chain reaction for epidermal growth factor receptor. Leitzel K, et al. **Clin Cancer Res** 1998 Dec;4(12):3037–43
Major interference from leukocytes in reverse transcription-PCR identified as neurotoxin ribonuclease from eosinophils: detection of residual chronic myelogenous leukemia from cell lysates by use of an eosinophil-depleted cell preparation. Hämäläinen MM, et al. **Clin Chem** 1999 Apr;45(4):465–71
Highly sensitive and specific fluorescence reverse transcription-PCR assay for the pseudogene-free detection of beta-actin transcripts as quantitative reference. Kreuzer KA, et al. **Clin Chem** 1999 Feb;45(2):297–300
Reducing the impact of endogenous ribonucleases on reverse transcription-PCR assay systems [editorial; comment] O'Leary TJ. **Clin Chem** 1999 Apr;45(4):449–50. Comment on: Clin Chem 1999 Apr;45(4):465–71.
Simple and broadly applicable sample preparation by use of magnetic glass particles. Bartl K, et al. **Clin Chem Lab Med** 1998 Aug;36(8):557–9
Automation of polymerase chain reaction-based systems for detection of hepatitis C virus RNA. Kessler HH, et al. **Clin Chem Lab Med** 1998 Aug;36(8):583–6
Assay for hepatitis C virus in peripheral blood mononuclear cells enhances sensitivity of diagnosis and monitoring of HCV-associated hepatitis. El-Awady MK, et al. **Clin Chim Acta** 1999 May;283(1–2):1–14
Quanititation of gene expression by means of HPLC analysis of RT-PCR products. Bachmair F, et al. **Clin Chim Acta** 1999 Jan;279(1–2):25–34
Increased levels of endothelin ETB receptor mRNA in human omental arteries after organ culture: quantification by competitive reverse transcription-polymerase chain reaction. Möller S, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):788–94
Detecting residual bcr-abl transcripts in chronic myeloid leukaemia patients using coupled reverse transcriptase-polymerase chain reaction with rTth DNA polymerase. Mar-Aguilar F, et al. **Clin Lab Haematol** 1998 Aug;20(4):221–4
Simultaneous detection of IFN-gamma and IL-4 mRNAs using RT-PCR and time-resolved fluorometry. Halminen M, et al. **Cytokine** 1999 Jan;11(1):87–93
Quantification of murine cytokine mRNAs using real time quantitative reverse transcriptase PCR. Overbergh L, et al. **Cytokine** 1999 Apr;11(4):305–12
Quantitative method to determine mRNA levels by reverse transcriptase-polymerase chain reaction from leukocyte subsets purified by fluorescence-activated cell sorting: application to peripheral cannabinoid receptors. Marchand J, et al. **Cytometry** 1999 Mar 1;35(3):227–34
Improved sensitivity of reverse transcriptase polymerase chain reaction for hepatitis C virus using random hexamer primers. Radhakrishnan S, et al. **Diagn Microbiol Infect Dis** 1999 Mar;33(3):153–6
Identification of true differentially expressed mRNAs in a pair of human bladder transitional cell carcinomas using an improved differential display procedure. Gromova I, et al. **Electrophoresis** 1999 Feb;20(2):241–8
Differential display competitive polymerase chain reaction: an optimal tool for assaying gene expression. Jørgensen M, et al. **Electrophoresis** 1999 Feb;20(2):230–40
Detection of SYT-SSX1/2 fusion transcripts by reverse transcriptase-polymerase chain reaction (RT-PCR) is a valuable diagnostic tool in synovial sarcoma. Willeke F, et al. **Eur J Cancer** 1998 Dec;34(13):2087–93
In situ reverse transcriptase-polymerase chain reaction: an innovative tool for hepatitis C virus RNA detection and localisation, and for quantification of infected cells. Muratori L. **Eur J Histochem** 1998;42(2):133–6 (20 ref.)
Application of nested polymerase chain reaction to detection of mouse hepatitis virus in fecal specimens during a natural outbreak in an immunodeficient mouse colony. Yamada YK, et al. **Exp Anim** 1998 Oct;47(4):261–4
Quantification of insulin-like growth factor-1 (IGF-1) mRNA: development and validation of an internally standardised competitive reverse transcription-polymerase chain reaction. Pfaffl M, et al. **Exp Clin Endocrinol Diabetes** 1998;106(6):506–13
A comparative kinetic RT/-PCR strategy for the quantitation of mRNAs in microdissected human renal biopsy specimens. Del Prete D, et al. **Exp Nephrol** 1998 Nov-Dec;6(6):563–7
Measurement of dog cytokines by reverse transcription-quantitative competitive polymerase chain reaction. Pinelli E, et al. **Immunogenetics** 1999 Jul; 49(7–8):696–9
Single-cell analysis by RT-PCR reveals differential expression of multiple type 1 and 2 cytokine genes among cells within polarized CD4+ T cell populations. Kelso A, et al. **Int Immunol** 1999 Apr;11(4):617–21
Detection of metastases in sentinel lymph nodes of breast cancer patients by multiple-marker RT-PCR. Bostick PJ, et al. **Int J Cancer** 1998 Dec 18;79(6):645–51
Blood-based reverse transcriptase polymerase chain reaction assays for prostatic specific antigen: long term follow-up confirms the potential utility of this assay in identifying patients more likely to have biochemical recurrence (rising PSA) following radical prostatectomy. de la Taille A, et al. **Int J Cancer** 1999 Aug 20;84(4):360–4
Highly specific and sensitive detection of malignancy in urine samples from patients with urothelial cancer by CD44v8-10/CD44v10 competitive RT-PCR. Miyake H, et al. **Int J Cancer** 1998 Dec 18;79(6):560–4
Identification of a novel cytokeratin 19 pseudogene that may interfere with reverse transcriptase-polymerase chain reaction assays used to detect micrometastatic tumor cells. Ruud P, et al. **Int J Cancer** 1999 Jan 5;80(1):119–25
Detection of hepatitis A virus in shellfish by nested reverse transcription-PCR. Croci L, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):67–71
The role of the detection of hematogenous micrometastasis in prostate adenocarcinoma and malignant melanoma by RT-PCR. Sardi I, et al. **Int J Mol Med** 1999 Apr;3(4):417–9
Absence of human astrovirus RNA in sewage and environmental samples. Egglestone SI, et al. **J Appl Microbiol** 1999 Apr;86(4):709–14
Physiological states of individual Salmonella typhimurium cells monitored by in situ reverse transcription-PCR. Hølmstrom K, et al. **J Bacteriol** 1999 Mar;181(6):1733–8
In vivo transcription of the Escherichia coli oxyR regulon as a function of growth phase and in response to oxidative stress. Michán C, et al. **J Bacteriol** 1999 May;181(9):2759–64
RNA isolation from human skin tissues for colorimetric differential display. Hipfel R, et al. **J Biochem Biophys Methods** 1998 Nov 18;37(3):131–5
Nucleic acid sequence-based amplification, a new method for analysis of spliced and unspliced Epstein-Barr virus latent transcripts, and its comparison with reverse transcriptase PCR. Brink AA, et al. **J Clin Microbiol** 1998 Nov;36(11):3164–9
Direct detection of Sabin poliovirus vaccine strains in stool specimens of first-dose vaccinees by a sensitive reverse

transcription-PCR method. Buonagurio DA, et al. **J Clin Microbiol** 1999 Feb;37(2):283-9

Comparison of NucliSens and Roche Monitor assays for quantitation of levels of human immunodeficiency virus type 1 RNA in plasma. Dyer JR, et al. **J Clin Microbiol** 1999 Feb;37(2):447-9

Rapid identification of nine microorganisms causing acute respiratory tract infections by single-tube multiplex reverse transcription-PCR: feasibility study. Gröndahl B, et al. **J Clin Microbiol** 1999 Jan;37(1):1-7

High-throughput real-time reverse transcription-PCR quantitation of hepatitis C virus RNA. Martell M, et al. **J Clin Microbiol** 1999 Feb;37(2):327-32

Direct detection of respiratory syncytial virus, parainfluenza virus, and adenovirus in clinical respiratory specimens by a multiplex reverse transcription-PCR assay. Osiowy C. **J Clin Microbiol** 1998 Nov;36(11):3149-54

Multiplex PCR for typing and subtyping influenza and respiratory syncytial viruses. Stockton J, et al. **J Clin Microbiol** 1998 Oct;36(10):2990-5

Ultrasensitive reverse transcription-PCR assay for quantitation of human immunodeficiency virus type 1 RNA in plasma. Sun R, et al. **J Clin Microbiol** 1998 Oct; 36(10):2964-9

Evaluation of a nested reverse transcription-PCR assay based on the nucleoprotein gene for diagnosis of spontaneous and experimental bovine respiratory syncytial virus infections. Valarcher JF, et al. **J Clin Microbiol** 1999 Jun; 37(6):1858-62

Clinical evaluation of an in-house reverse transcription-competitive PCR for quantitation of human immunodeficiency virus type 1 RNA in plasma. Zazzi M, et al. **J Clin Microbiol** 1999 Feb;37(2):333-8

Quantitative polymerase chain reaction for the detection of micrometastases in patients with breast cancer. Slade MJ, et al. **J Clin Oncol** 1999 Mar;17(3):870-9

Direct in situ reverse transcriptase-linked polymerase chain reaction with biotinylated primers for the detection of hepatitis C virus RNA in liver biopsies. Bettinger D, et al. **J Clin Virol** 1999 May;12(3):233-41

High-throughput extraction, amplification, and detection (HEAD) of HCV-RNA in individual blood donations. Legler TJ, et al. **J Clin Virol** 1999 Jun;13(1-2):95-103

Improved sensitivity of astrovirus-specific RT-PCR following culture of stool samples in CaCO-2 cells. Mustafa H, et al. **J Clin Virol** 1998 Aug 20;11(2):103-7

Rotaviruses detected by reverse transcription polymerase chain reaction in acute gastroenteritis during a trial of rhesus-human reassortant rotavirus tetravalent vaccine: implications for vaccine efficacy analysis. Pang XL, et al. **J Clin Virol** 1999 Jun;13(1-2):9-16

Usefulness of nested PCR and sequence analysis in a nosocomial outbreak of neonatal enterovirus infection. Takami T, et al. **J Clin Virol** 1998 Jul 24;11(1):67-75

Optimization, assessment, and proposed use of a direct nested reverse transcription-polymerase chain reaction protocol for the detection of hepatitis C virus. Abdel-Hamid M, et al. **J Hum Virol** 1997 Nov-Dec;1(1):58-65

Comparison of detection techniques for cytokine reverse transcriptase polymerase chain reaction; digoxigenin-labeled polymerase chain reaction permits sensitive detection of cytokine mRNA in rat heart allografts. Damoiseaux JG, et al. **J Immunol Methods** 1998 Aug 1;217(1-2):185-93

Development of a direct in situ RT-PCR method using labeled primers to detect cytokine mRNA inside cells. Gey A, et al. **J Immunol Methods** 1999 Jul 30;227(1-2):149-60

Frequency of clonally expanded T cells evaluated by PCR from a single cell. Kurokawa M, et al. **J Immunol Methods** 1999 Apr 22;224(1-2):203-8

RT-PCR quantitation of cytokine responses in vivo from specimens containing small numbers of cells during bioimmunotherapy. Nash MA, et al. **J Immunol Methods** 1998 Oct 1;219(1-2):169-79

Reverse transcriptase in situ polymerase chain reaction for gene expression in rat mast cells and macrophages. Nohara O, et al. **J Immunol Methods** 1999 Jun 24;226(1-2):147-58

Quantitation of cytochrome P450 mRNAs in patients with suspected liver diseases as assessed by reverse transcriptase-polymerase chain reaction. Finnström N, et al. **J Lab Clin Med** 1999 Aug;134(2):133-40

Specific detection of echoviruses 22 and 23 in cell culture supernatants by RT-PCR. Oberste MS, et al. **J Med Virol** 1999 Jun;58(2):178-81

Comparative study of a modified competitive RT-PCR and Amplicor HCV monitor assays for quantitation of hepatitis C virus RNA in serum. Olmedo E, et al. **J Med Virol** 1999 May;58(1):35-43

Reverse transcription polymerase chain reaction method for the detection of glycopeptide resistance in enterococci. Privitera O, et al. **J Microbiol Methods** 1999 Mar; 35(2):95-100

Comparative analysis of multiple receptor subunit mRNA in micropunches obtained from different brain regions using a competitive RT-PCR method. Durgam VR, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):33-40

A synthetic standard for competitive RT-PCR quantitation of 13 GABA receptor type A subunit mRNAs in rats and mice. Liu ZF, et al. **J Neurosci Methods** 1998 Nov 1; 85(1):89-98

Use of real-time PCR and molecular beacons to detect virus replication in human immunodeficiency virus type 1-infected individuals on prolonged effective antiretroviral therapy. Lewin SR, et al. **J Virol** 1999 Jul;73(7):6099-103

Hepatitis E virus RNA detection in serum and feces specimens with the use of microspin columns. Aggarwal R, et al. **J Virol Methods** 1998 Oct;74(2):209-13

A comparison of two RNA isolation methods for double-stranded RNA of infectious bursal disease virus. Akin A, et al. **J Virol Methods** 1998 Oct;74(2):179-84

Detection of GB virus C RNA by GBV-C LCx and two PCR assays with primers from the 5'non-coding and NS5B region. Berg ES, et al. **J Virol Methods** 1998 Dec; 76(1-2):43-9

Highly sensitive detection of swine vesicular disease virus based on a single tube RT-PCR system and DIG-ELISA detection. Callens M, et al. **J Virol Methods** 1999 Jan; 77(1):87-99

Minimizing DNA recombination during long RT-PCR. Fang G, et al. **J Virol Methods** 1998 Dec;76(1-2):139-48

One-tube fluorogenic reverse transcription-polymerase chain reaction for the quantitation of feline coronaviruses. Gut M, et al. **J Virol Methods** 1999 Jan;77(1):37-46

Comparison of specific and random priming in the reverse transcriptase polymerase chain reaction for genotyping group A rotaviruses. Iturriza-Gomara M, et al. **J Virol Methods** 1999 Mar;78(1-2):93-103

A competitive reverse transcription-polymerase chain reaction assay for quantitation of GB virus C/hepatitis G virus RNA that circumvents heteroduplex artifact. Liu F, et al. **J Virol Methods** 1999 May;79(2):149-59

Closed one-tube reverse transcription nested polymerase chain reaction for the detection of pestiviral RNA with fluorescent probes. McGoldrick A, et al. **J Virol Methods** 1999 Apr;79(1):85-95

Comparison of the plaque test and reverse transcription nested PCR for the detection of FMDV in nasal swabs and probang samples. Moss A, et al. **J Virol Methods** 1999 Jun;80(1):59-67

A simple, rapid method of nucleic acid extraction without tissue homogenization for detecting viroids by hybridization and RT-PCR. Nakahara K, et al. **J Virol Methods** 1999 Jan;77(1):47-58

Original reverse transcription polymerase chain reaction method to obtain the full-length cDNA of rice tungro spherical virus. Perrin Y, et al. **J Virol Methods** 1999 May; 79(2):161-8

Detection of avian leukosis virus in albumen of chicken eggs using reverse transcription polymerase chain reaction. Pham TD, et al. **J Virol Methods** 1999 Mar;78(1-2):1-11

Multicyclic reverse transcription-polymerase chain reaction assay system for quantification of GB virus-C/hepatitis G virus RNA in serum. Saito T, et al. **J Virol Methods** 1998 Oct;74(2):185-91

Quantitative sense-specific determination of murine coronavirus RNA by reverse transcription polymerase chain reaction. Schoenike B, et al. **J Virol Methods** 1999 Mar;78(1-2):35-49

Recovery and detection of enterovirus, hepatitis A virus and Norwalk virus in hardshell clams (Mercenaria mercenaria) by RT-PCR methods. Suñén E, et al. **J Virol Methods** 1999 Feb;77(2):179-87

Serotyping of foot-and-mouth disease virus by antigen capture reverse transcriptase/polymerase chain reaction. Suryanarayana V, et al. **J Virol Methods** 1999 Jun; 80(1):45-52

Single-step reverse transcriptase-polymerase chain reaction for detection of Borna disease virus RNA in vitro and in vivo. Mizutani T, et al. **Jpn J Vet Res** 1999 Feb;46(4):165-9

Reverse transcriptase-polymerase chain reaction study of anion exchanger-2 in canine tissues and different Madin-Darby canine kidney cell types. Prime G, et al. **Kidney Int Suppl** 1998 Sep;67:S171-3

RET/PTC fusion gene products in patients suffering from thyroid carcinomas [letter; comment] Bachrati CZ, et al. **Laryngoscope** 1999 Jun;109(6):1011-5. Comment on: Laryngoscope 1997 Jan;107(1):95-100.

A new PCR MIMIC strategy to quantify low mdr1 mRNA levels in drug resistant cell lines and AML blast samples. Illmer T, et al. **Leuk Res** 1999 Jul;23(7):653-63

Monitoring of BCR-ABL expression using real-time RT-PCR in CML after bone marrow or peripheral blood stem cell transplantation. Eder M, et al. **Leukemia** 1999 Sep;13(9):1383-9

The effect of long-term freezing of RT-PCR reagent mixes on the sensitivity of bcr-abl mRNA detection [letter] Nelson RE, et al. **Leukemia** 1999 Aug;13(8):1299-300

Detection of BCR-ABL transcripts in chronic myeloid leukemia (CML) using a 'real time' quantitative RT-PCR assay. Preudhomme C, et al. **Leukemia** 1999 Jun; 13(6):957-64

A multiplex RT-PCR assay for the detection of chimeric transcripts encoded by the risk-stratifying translocations of pediatric acute lymphoblastic leukemia. Scurto P, et al. **Leukemia** 1998 Dec;12(12):1994-2005

Impact of human endogenous retroviral elements on cellular genes: strategy for isolation of LTR-driven chimeric transcripts. Seifarth W, et al. **Leukemia** 1999 Apr;13 Suppl 1:S97-8

Targeted display: a new technique for the analysis of differential gene expression. Brown AJ, et al. **Methods Enzymol** 1999;303:392-408

Quantitation of heme oxygenase (HO-1) copies in human tissues by competitive RT/PCR. Abraham NG. **Methods Mol Biol** 1998;108:199-209

Intracellular gene expression. Analysis of RNA from mycobacteria in macrophages using RT-PCR. Butcher PD, et al. **Methods Mol Biol** 1998;101:285-306

Determination of phospholipase A2s expression in mast cells by reverse-transcriptase polymerase chain reaction. Fonteh AN, et al. **Methods Mol Biol** 1999;120:91-105

RT-PCR on embryos using degenerate oligonucleotide primers. Graham A. **Methods Mol Biol** 1999;97:591-9

Techniques for the measurement of lipoprotein lipase messenger RNA. Ranganathan G, et al. **Methods Mol Biol** 1999;109:329-35 (7 ref.)

In situ RT-PCR and hybridization techniques. Thaker V. **Methods Mol Biol** 1999;115:379-402 (46 ref.)

Single-cell RT-PCR cDNA subtraction. Weaver DL, et al. **Methods Mol Biol** 1999;97:601-9

Determination of serotypes of astroviruses by reverse transcription-polymerase chain reaction and homologies of the types by the sequencing of Japanese isolates. Matsui M, et al. **Microbiol Immunol** 1998;42(8):539-47

Single-step reverse transcription-polymerase chain reaction for the detection of hepatitis C virus RNA. Mizutani T, et al. **Microbiol Immunol** 1998;42(8):549-53

Detection of low level Plasmodium falciparum gametocytes using reverse transcriptase polymerase chain reaction. Babiker HA, et al. **Mol Biochem Parasitol** 1999 Mar 15; 99(1):143-8

Detection of TNF alpha and Fas ligand mRNA within synovial mononuclear cells by fluorescence in-cell labeling PCR (FICL-PCR). Okubo M, et al. **Mol Biol Rep** 1998 Nov;25(4):217-24

Recovering cDNA bands from differential display RT-PCR gels using a transparency film mask. de Oliveira JG, et al. **Mol Biotechnol** 1999 Apr;11(2):195-7

Gene digging. A method for obtaining species-specific sequence based on conserved segments of nucleotides in open reading frames. Sanyal A, et al. **Mol Biotechnol** 1998 Dec;10(3):223-30

Cytochrome P450 2E1 mRNA in the rat prostate: detection and quantitation by competitive reverse transcription and polymerase chain reaction. Jiang Y, et al. **Mol Cell Probes** 1998 Oct;12(5):263-71

The use of nested RT-PCR of prostate-specific membrane antigen in blood cells: implications for the detection of haematogenous neoplastic cells in patients with prostate adenocarcinoma. Lucotte G, et al. **Mol Cell Probes** 1998 Dec;12(6):421-5

Semi-quantitative RT-PCR for comparison of mRNAs in cells with different amounts of housekeeping gene transcripts. Serazin-Leroy V, et al. **Mol Cell Probes** 1998 Oct;12(5):283-91

A multiplex PCR for Massachusetts and Arkansas serotypes of infectious bronchitis virus. Wang X, et al. **Mol Cell Probes** 1999 Feb;13(1):1-7

Redefinition of dystrophin isoform distribution in mouse tissue by RT-PCR implies role in nonmuscle manifestations of duchenne muscular dystrophy. Tokarz SA, et al. **Mol Genet Metab** 1998 Dec;65(4):272-81

Detection of a novel splice variant of the hypoxanthine-guanine phosphoribosyl transferase gene in human oocytes and preimplantation embryos: implications for a RT-PCR-based preimplantation diagnosis of Lesch-Nyhan syndrome. Daniels R, et al. **Mol Hum Reprod** 1998 Aug;4(8):785-9

Detection of gonadotrophin releasing hormone and its receptor mRNA in human placental trophoblasts using in-situ reverse transcription-polymerase chain reaction. Wolfahrt S, et al. **Mol Hum Reprod** 1998 Oct; 4(10):999-1006

A novel, rapid in cell RNA amplification technique for the detection of low copy mRNA transcripts. Uhlmann V, et al. **Mol Pathol** 1998 Jun;51(3):160-3

Accurate determination of relative messenger RNA levels by RT-PCR. Stenman J, et al. **Nat Biotechnol** 1999 Jul; 17(7):720-2

Real-time quantitative RT-PCR after laser-assisted cell picking. Fink L, et al. **Nat Med** 1998 Nov;4(11):1329-33

Isoforms of alpha1E voltage-gated calcium channels in rat cerebellar granule cells--detection of major calcium channel alpha1-transcripts by reverse transcription-polymerase chain reaction. Schramm M, et al. **Neuroscience** 1999;92(2):565-75

Localization of inducible nitric oxide synthase mRNA in inflamed gastrointestinal mucosa by in situ reverse transcriptase-polymerase chain reaction. Zhang XJ, et al. **Nitric Oxide** 1998;2(3):187-92

Serial analysis of gene expression: rapid RT-PCR analysis of unknown SAGE tags. van den Berg A, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):e17

A rapid protocol for the authentication of isolated differential display RT-PCR CDNAs. Miele G, et al. **Prep Biochem Biotechnol** 1999 Aug;29(3):245-55

Rapid genotyping of hepatitis C virus by direct cycle sequencing of PCR-amplified cDNAs and capillary electrophoresis analysis. Doglio A, et al. **Res Virol** 1998 Jul-Aug;149(4):219-27

One-tube multiplex RT-PCR of BCR-ABL transcripts in analysis of patients with chronic myeloid leukaemia and acute lymphoblastic leukaemia. Nogva HK, et al. **Scand J Clin Lab Invest** 1998 Dec;58(8):647-54

Development of reverse transcription-competitive polymerase chain reaction method to quantitate the

expression levels of human sodium iodide symporter. Ryu KY, et al. **Thyroid** 1999 Apr;9(4):405–9

An RT–PCR assay for the specific detection of classical swine fever virus in clinical samples. Díaz de Arce H, et al. **Vet Res** 1998 Sep–Oct;29(5):431–40

[PCR SSCP study of an echovirus 30 meningitis outbreak] Maisonneuve L, et al. **Pathol Biol (Paris)** 1999 May; 47(5):534–8 (Eng. Abstr.) **(Fre)**

[Improved RT–PCR: one-step RT–PCR and mRNA selective PCR] Yamamoto J, et al. **Tanpakushitsu Kakusan Koso** 1999 Feb;44(2):189–93 (6 ref.) **(Jpn)**

STANDARDS

Absolute quantitation of MDR1 transcripts using heterologous DNA standards—validation of the competitive RT–PCR (CRT–PCR) approach. el-Osta A, et al. **Biotechniques** 1999 Jun;26(6):1114–6, 1118–20, 1122 passim

Internal control for quality assurance of diagnostic RT–PCR. Willhauck M, et al. **Biotechniques** 1998 Oct;25(4):656–9

Evaluation of breast tumour cell contamination in the bone marrow and leukapheresis collections by RT–PCR for cytokeratin-19 mRNA. Vannucchi AM, et al. **Br J Haematol** 1998 Dec;103(3):610–7

Critical level and detection limit: performance measures for PCR-based assays. Markert-Hahn C, et al. **J Virol Methods** 1998 Oct;74(2):139–48

Preliminary experience in external quality control of RT–PCR PML–RAR alpha detection in promyelocytic leukemia. Bolufer P, et al. **Leukemia** 1998 Dec; 12(12):2024–8

Multiplex PCR for quality control of template RNA/cDNA in RT–PCR assays. Watzinger F, et al. **Leukemia** 1998 Dec; 12(12):1984–6; discussion 1987–93

Optimization of a reverse transcription–polymerase chain reaction (RT–PCR) mass assay for low-abundance mRNA. Cale JM, et al. **Methods Mol Biol** 1998;105:351–71 (4 ref.)

VETERINARY

Detection of equine arteritis virus in semen by reverse transcriptase polymerase chain reaction–ELISA. Ramina A, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jul; 22(3):187–97

Rapid and sensitive reverse transcriptase–polymerase chain reaction based detection and differential diagnosis of fish pathogenic rhabdoviruses in organ samples and cultured cells. Miller TA, et al. **Dis Aquat Organ** 1998 Sep 11; 34(1):13–20

Reverse transcription polymerase chain reaction (RT–PCR) used for the detection of Taura syndrome virus (TSV) in experimentally infected shrimp. Nunan LM, et al. **Dis Aquat Organ** 1998 Oct 8;34(2):87–91

Detection of porcine reproductive and respiratory syndrome virus by reverse transcription–polymerase chain reaction using different regions of the viral genome. Guarino H, et al. **J Vet Diagn Invest** 1999 Jan;11(1):27–33

Use of polymerase chain reaction to simultaneously detect and type bovine viral diarrhoea viruses isolated from clinical specimens. el-Kholy AA, et al. **Rev Sci Tech** 1998 Dec;17(3):733–42

Comparison of a reverse transcription–polymerase chain reaction assay and virus isolation for the detection of classical swine fever virus. Vydelingum S, et al. **Rev Sci Tech** 1998 Dec;17(3):674–81

The detection of bovine viral diarrhoea virus in bulk milk samples by the use of a single-tube RT–PCR. Drew TW, et al. **Vet Microbiol** 1999 Jan;64(2–3):145–54

Detection and genotyping of bovine diarrhea virus by reverse transcription–polymerase chain amplification of the 5' untranslated region. Letellier C, et al. **Vet Microbiol** 1999 Jan;64(2–3):155–67

RT–PCR amplification of various canine cytokines and so-called house-keeping genes in a species-specific macrophage cell line (DH82) and canine peripheral blood leukocytes. Gröne A, et al. **Zentralbl Veterinarmed [B]** 1999 Jun;46(5):301–10

[Detection of viral hemorrhagic septicemia virus (VHSV) in rainbow trout (Oncorhynchus mykiss) by reverse transcription followed by polymerase chain reaction. Diagnostic validation] Guillou JP, et al. **Vet Res** 1999 Jan–Feb;30(1):49–60 (Eng. Abstr.) **(Fre)**

REVERSE TRANSCRIPTION see **TRANSCRIPTION, GENETIC**

REVERSE TRIIODOTHYRONINE see **TRIIODOTHYRONINE, REVERSE**

REVIEW LITERATURE

see related

META-ANALYSIS

Review papers in substance abuse research [editorial] Rehm J. **Addiction** 1999 Feb;94(2):173–6

Importance of systematic reviews and meta-analyses for research and practice. Wagenaar AC. **Am J Prev Med** 1999 Jan;16(1 Suppl):9–11

Systematic reviews of published evidence: miracles or minefields? Deeks JJ. **Ann Oncol** 1998 Jul;9(7):703–9

Review of the usefulness of contacting other experts when conducting a literature search for systematic reviews. McManus RJ, et al. **BMJ** 1998 Dec 5;317(7172):1562–3 (5 ref.)

Systematic reviews and meta-analyses: the value for surgery. Sheldon TA. **Br J Surg** 1999 Aug;86(8):977–8

Systematic reviews and making decisions [editorial] Logan S. **Child Care Health Dev** 1998 Jul;24(4):255–7

Traditional reviews, meta-analyses and pooled analyses in epidemiology. Blettner M, et al. **Int J Epidemiol** 1999 Feb; 28(1):1–9 (47 ref.)

Systematic reviews and the practice of evidence-based dentistry: professional and policy implications. Ismail AI, et al. **J Am Coll Dent** 1999 Spring;66(1):5–12

The information wars [see comments] Horton R. **Lancet** 1999 Jan 16;353(9148):164–5. Comment in: Lancet 1999 Feb 13;353(9152):594.

Use of systematic reviews of randomised trials by Australian neonatologists and obstetricians [letter; comment] Jordens CF, et al. **Med J Aust** 1998 Oct 5;169(7):399–400. Comment on: Med J Aust 1998 Mar 16;168(6):267–70.

Systematic reviews. Hearn J, et al. **Palliat Med** 1999 Jan; 13(1):75–80

Developing search strategies for detecting high quality reviews in a hypertext test collection. Zacks MP, et al. **Proc AMIA Symp** 1998;:663–7

[The practice of systematic reviews. I. Introduction] Offringa M, et al. **Ned Tijdschr Geneeskd** 1999 Mar 27;143(13):653–6 (11 ref.) (Eng. Abstr.) **(Dut)**

[The practice of systematic reviews. V. Heterogeneity between studies and subgroup analysis] Scholten RJ, et al. **Ned Tijdschr Geneeskd** 1999 Apr 17;143(16):843–8 (Eng. Abstr.) **(Dut)**

[Meta-analysis is a good help for literature review. It makes the analysis of earlier studies more efficient and more objective (see comments)] Ahlbom A, et al. **Lakartidningen** 1999 Jan 20;96(3):148–9. Comment in: Lakartidningen 1999 May 12;96(19):2332. **(Swe)**

REVISION, JOINT see **REOPERATION**

REVISION, SURGICAL see **REOPERATION**

REWARD

Activation of reward-relevant neurons in the caudate-putamen influences the development of medial prefrontal cortex self-stimulation: a moveable electrode mapping study. Bielajew C, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(3):189–98

Operant ethanol reward in C57BL/6 mice: influence of gender and procedural variables. Middaugh LD, et al. **Alcohol** 1999 Apr;17(3):185–94

Naltrexone effects on ethanol reward and discrimination in C57BL/6 mice. Middaugh LD, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):456–64

Functional magnetic resonance imaging of brain reward circuitry in the human. Breiter HC, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:523–47 (76 ref.)

Associative processes in addiction and reward. The role of amygdala–ventral striatal subsystems. Everitt BJ, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:412–38 (126 ref.)

Involvement of acetylcholine in the nucleus accumbens in cocaine reinforcement. Mark GP, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:792–5

Amphetamine injections into the nucleus accumbens enhance the reward of stimulation of the subiculum. Sweet KL, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:828–30

Plasticity of quantal size in ventral midbrain dopamine neurons: possible implications for the neurochemistry of feeding and reward. Pothos EN, et al. **Appetite** 1998 Dec; 31(3):405

Midbrain periaqueductal lesions do not degrade medial forebrain bundle stimulation reward. Waraczynski M, et al. **Behav Brain Res** 1998 Oct;95(2):167–77

Contributions of the hippocampus, amygdala, and dorsal striatum to the response elicited by reward reduction. Salinas JA, et al. **Behav Neurosci** 1998 Aug;112(4):812–26

Choice between money and intranasal heroin in morphine-maintained humans. Comer SD, et al. **Behav Pharmacol** 1997 Dec;8(8):677–90

Interactions between sulpiride infusions within the perifornical region of the lateral hypothalamus and the nucleus accumbens on measures of locomotor activity and conditioned place preference. Morutto SL, et al. **Behav Pharmacol** 1998 Jul;9(4):345–55

The effects of a monetary alternative on marijuana self-administration. Ward AS, et al. **Behav Pharmacol** 1997 Aug;8(4):275–86

Antinociceptive effects of brain rewarding system in the developing rabbit: behavioral and electrophysiological analysis. Butkevich IP, et al. **Brain Res** 1999 Jul 10; 834(1–2):13–24

Prefrontal cortex infusions of SCH 23390 cause immediate and delayed effects on ventral tegmental area stimulation reward. Duvauchelle CL, et al. **Brain Res** 1998 Nov 16; 811(1–2):57–62

What is the role of dopamine in reward: hedonic impact, reward learning, or incentive salience? Berridge KC, et al. **Brain Res Brain Res Rev** 1998 Dec;28(3):309–69 (531 ref.)

Long-lasting structural changes in CA3 hippocampal and layer V motor cortical pyramidal neurons associated with self-stimulation rewarding experience: a quantitative Golgi study. Shankaranarayana Rao BS, et al. **Brain Res Bull** 1998 Sep 1;47(1):95–101

Neural systems for behavioral activation and reward. Kalivas PW, et al. **Curr Opin Neurobiol** 1999 Apr;9(2):223–7 (41 ref.)

Delay of gratification in chimpanzees (Pan troglodytes). Beran MJ, et al. **Dev Psychobiol** 1999 Mar;34(2):119–27

Drug-activation of brain reward pathways. Wise RA. **Drug Alcohol Depend** 1998 Jun–Jul;51(1–2):13–22 (121 ref.)

Activation of reward circuitry in human opiate addicts. Sell LA, et al. **Eur J Neurosci** 1999 Mar;11(3):1042–8

Effects of excitotoxic lesions of the rat ventral striatum on the perception of reward cost. Bowman EM, et al. **Exp Brain Res** 1998 Dec;123(4):439–48

Effects of monetary contingencies on smoking relapse: influences of trait depression, personality, and habitual nicotine intake. Gilbert DG, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):174–81

Discounting of delayed rewards in opioid-dependent outpatients: exponential or hyperbolic discounting functions? Madden GJ, et al. **Exp Clin Psychopharmacol** 1999 Aug;7(3):284–93

The 'illegitimacy bonus' and state efforts to reduce out-of wedlock births. Donovan P. **Fam Plann Perspect** 1999 Mar–Apr;31(2):94–7

Clozapine for comorbid substance use disorder and schizophrenia: do patients with schizophrenia have a reward-deficiency syndrome that can be ameliorated by clozapine? Green AI, et al. **Harv Rev Psychiatry** 1999 Mar–Apr;6(6):287–96 (94 ref.)

Preceptor appraisals of rewards and student preparedness in the clinical setting. Hill N, et al. **J Allied Health** 1999 Summer;28(2):86–90

Criminal recidivism as a neurobehavioral syndrome [letter] French AP, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Sep;38(9):1070–1

Effects of contingent reward and instruction on oral reading performance at differing levels of passage difficulty. Noell GH, et al. **J Appl Behav Anal** 1998 Winter;31(4):659–63

The real and imagined harmful effects of rewards: implications for clinical practice. Reitman D. **J Behav Ther Exp Psychiatry** 1998 Jun;29(2):101–13 (34 ref.)

Physician support and rewards: developing a support system. Burdick D. **J Cancer Educ** 1999 Spring;14(1):52–3

Sensitivity to reward frequency in boys with attention deficit hyperactivity disorder. Tripp G, et al. **J Clin Child Psychol** 1999 Sep;28(3):366–75

Tactile learning and the individual evaluation of the reward in honey bees (Apis mellifera L.). Scheiner R, et al. **J Comp Physiol [A]** 1999 Jul;185(1):1–10

Use of personal trainers and financial incentives to increase exercise in a behavioral weight-loss program. Jeffery RW, et al. **J Consult Clin Psychol** 1998 Oct;66(5):777–83

Heroin addicts have higher discount rates for delayed rewards than non-drug-using controls. Kirby KN, et al. **J Exp Psychol Gen** 1999 Mar;128(1):78–87

Amount of reward has opposite effects on the discounting of delayed and probabilistic outcomes. Green L, et al. **J Exp Psychol Learn Mem Cogn** 1999 Mar;25(2):418–27

Pain-induced analgesia mediated by mesolimbic reward circuits. Gear RW, et al. **J Neurosci** 1999 Aug 15; 19(16):7175–81

Enhancement of locomotor activity and conditioned reward to cocaine by brain-derived neurotrophic factor. Horger BA, et al. **J Neurosci** 1999 May 15;19(10):4110–22

Dopamine fluctuations in the nucleus accumbens during maintenance, extinction, and reinstatement of intravenous D-amphetamine self-administration. Ranaldi R, et al. **J Neurosci** 1999 May 15;19(10):4102–9

Medial forebrain bundle lesions fail to structurally and functionally disconnect the ventral tegmental area from many ipsilateral forebrain nuclei: implications for the neural substrate of brain stimulation reward. Simmons JM, et al. **J Neurosci** 1998 Oct 15;18(20):8515–33

Recognition of staff nurse job performance and achievements: staff and manager perceptions. Cronin SN, et al. **J Nurs Adm** 1999 Jan;29(1):26–31

Should physicians accept gifts from patients? Lyckholm LJ. **JAMA** 1998 Dec 9;280(22):1944–6

Role of the kappa-opioid system in the attenuation of the morphine-induced place preference under chronic pain. Suzuki T, et al. **Life Sci** 1999;64(1):PL1–7

Dopamine neurons report an error in the temporal prediction of reward during learning. Hollerman JR, et al. **Nat Neurosci** 1998 Aug;1(4):304–9

Expectation of reward modulates cognitive signals in the basal ganglia. Kawagoe R, et al. **Nat Neurosci** 1998 Sep; 1(5):411–6

Cannabinoid transmission and reward-related events. Gardner EL, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):502–33 (314 ref.)

Reward prediction in primate basal ganglia and frontal cortex. Schultz W, et al. **Neuropharmacology** 1998 Apr–May;37(4–5):421–9 (30 ref.)

Reward-quality dependent anticipation in rat nucleus accumbens. Miyazaki K, et al. **Neuroreport** 1998 Dec 1; 9(17):3943–8

Increased numerical density of synapses in CA3 region of hippocampus and molecular layer of motor cortex after self-stimulation rewarding experience. Rao BS, et al.

REWARD

Neuroscience 1999;91(3):799–803

Self-stimulation rewarding experience induced alterations in dendritic spine density in CA3 hippocampal and layer V motor cortical pyramidal neurons. Shankaranarayana Rao BS, et al. **Neuroscience** 1999;89(4):1067–77

Motivation and reward factors that affect private physician involvement in an obstetrics and gynecology clerkship. Dodson MC. **Obstet Gynecol** 1998 Oct;92(4 Pt 1):628–33

Anticipatory cues can interfere with inhibitory operant behavior in the rat. Persinger MA. **Percept Mot Skills** 1998 Aug;87(1):304–6

Feeding and reward interactions from chronic paroxetine treatment. Konkle AT, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):435–40

The effects of neonatal cocaine exposure on a play-rewarded spatial discrimination task in juvenile rats. Willford JA, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):137–43

Opioids, reward and addiction: An encounter of biology, psychology, and medicine. van Ree JM, et al. **Pharmacol Rev** 1999 Jun;51(2):341–96 (740 ref.)

Absolute and relative rewarding properties of fructose, glucose, and saccharin mixtures as reflected in anticipatory contrast. Flaherty CF, et al. **Physiol Behav** 1999 Jul; 66(5):841–53

Reward magnitude, but not time of day, influences the trial-spacing effect in autoshaping with rats. Thomas B, et al. **Physiol Behav** 1998 Dec 1;65(3):423–7

Measuring reward with the conditioned place preference paradigm: a comprehensive review of drug effects, recent progress and new issues. Tzschentke TM. **Prog Neurobiol** 1998 Dec;56(6):613–72 (700 ref.)

Laboratory measures of aggression and impulsivity in women with borderline personality disorder. Dougherty DM, et al. **Psychiatry Res** 1999 Mar 22;85(3):315–26

Genetic differences in cocaine-induced conditioned place preference in mice depend on conditioning trial duration. Cunningham CL, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):73–80

Psychopharmacology of conditioned reward: evidence for a rewarding signal at D1-like dopamine receptors. Sutton MA, et al. **Psychopharmacology (Berl)** 1999 May; 144(2):95–110 (130 ref.)

Enhanced responding for conditioned reward produced by intra-accumbens amphetamine is potentiated after cocaine sensitization. Taylor JR, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):31–40

Monetary reinforcement and Wisconsin Card Sorting performance in schizophrenia: why show me the money? Hellman SG, et al. **Schizophr Res** 1998 Nov 9;34(1–2):67–75

Regulation of cocaine reward by CREB. Carlezon WA Jr, et al. **Science** 1998 Dec 18;282(5397):2272–5

Role for cingulate motor area cells in voluntary movement selection based on reward. Shima K, et al. **Science** 1998 Nov 13;282(5392):1335–8

[Psychosocial factors at work and cardiovascular diseases: contribution of the Effort-Reward Imbalance model] Niedhammer I, et al. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):398–410 (92 ref.) (Eng. Abstr.) **(Fre)**

REWARMING

Changing temperature management for cardiopulmonary bypass. Cook DJ. **Anesth Analg** 1999 Jun;88(6):1254–71 (166 ref.)

A dramatic accumulation of glycogen in the brown adipose tissue of rats following recovery from cold exposure. Farkas V, et al. **Arch Biochem Biophys** 1999 May 1; 365(1):54–61

Accidental hypothermia. Hanania NA, et al. **Crit Care Clin** 1999 Apr;15(2):235–49 (53 ref.)

On the accuracy of intra-arterial pressure measurement: the pressure gradient effect [editorial; comment] Hynson JM, et al. **Crit Care Med** 1998 Oct;26(10):1623–4 (15 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1646–9.

Regional cerebral blood flow and regional glucose use during rewarding after hypothermic cardiopulmonary bypass [letter; comment] Miyamoto TA, et al. **J Thorac Cardiovasc Surg** 1999 Jun;117(6):1228–9. Comment on: J Thorac Cardiovasc Surg 1998 Sep;116(3):503–10.

Review article on inhalation rewarming [letter; comment] Giesbrecht GG, et al. **Resuscitation** 1998 Jul;38(1):59–60. Comment on: Resuscitation 1998 Feb;36(2):101–4.

The physiological response to norepinephrine during hypothermia and rewarming. Weiss SJ, et al. **Resuscitation** 1998 Dec;39(3):189–95

Scottish Hypothermia and Rewarming Project (SHARP) [letter] Gordon MW, et al. **Scott Med J** 1998 Aug;43(4):105

[Accidental intraoperative whole-body hypothermia: the mechanisms of its occurrence and of self-warming] Romanov MA. **Anesteziol Reanimatol** 1998 Jul–Aug; (4):65–72 (145 ref.) **(Rus)**

[Effects of neo-kyotorphin and delta sleep-inducing peptide on the rectal temperature in rats in the norm, during hypothermia and self-warming] Pavlov Iu, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):113–5 **(Rus)**

[Can the nervous system functions of mammals be restored during deep cooling without warming? New facts and the evolution of views] Ivanov KP. **Usp Fiziol Nauk** 1999 Jan–Mar;30(1):73–89 (68 ref.) (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Postischemic hyperthermia exacerbates neurologic injury after deep hypothermic circulatory arrest. Shum-Tim D, et al. **J Thorac Cardiovasc Surg** 1998 Nov;116(5):780–92

INSTRUMENTATION

[Level 1 systems in clinical practice] Amicucci G, et al. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):46–8 **(Ita)**

METHODS

Forced hot air rewarming in hypothermic patients with cardiocirculatory arrest? [letter; comment] Mair P, et al. **Acta Anaesthesiol Scand** 1998 Sep;42(8):1018–20. Comment on: Acta Anaesthesiol Scand 1997 Nov;41(10):1359–64.

Pharmacological vasodilatation improves efficiency of rewarming from hypothermic cardiopulmonary bypass. Deakin CD, et al. **Br J Anaesth** 1998 Aug;81(2):147–51

Severe accidental hypothermia: rewarming strategy using a veno-venous bypass system and a convective air warmer. Bräuer A, et al. **Intensive Care Med** 1999 May;25(5):520–3

Warming the core after cardiac surgery [letter; comment] Ponte J. **J Cardiothorac Vasc Anesth** 1998 Aug;12(4):496. Comment on: J Cardiothorac Vasc Anesth 1997 Oct;11(6):708–11.

A non-invasive means to effectively restore normothermia in cold stressed individuals: a preliminary report. Soreide E, et al. **J Emerg Med** 1999 Jul–Aug;17(4):725–30

Influence of rewarming conditions after hypothermia in gerbils with transient forebrain ischemia. Nakamura T, et al. **J Neurosurg** 1999 Jul;91(1):114–20

Randomised study of skin-to-skin versus incubator care for rewarming low-risk hypothermic neonates [letter] Christensson K, et al. **Lancet** 1998 Oct 3;352(9134):1115

Severe accidental hypothermia successfully treated by warmed peritoneal lavage. Visetti E, et al. **Minerva Anestesiol** 1998 Oct;64(10):471–5

Convective warming blankets improve peroperative heat preservation in congenital heart surgery. Schlünzen L, et al. **Paediatr Anaesth** 1998;8(5):397–401

Severe accidental hypothermia: the need for prolonged aggressive resuscitative efforts. Kulkarni RG, et al. **Prehosp Emerg Care** 1999 Jul–Sep;3(3):254–9

Freezing to death--the treatment of accidental hypothermia in the Scottish mountains. Grant P, et al. **Scott Med J** 1998 Apr;43(2):36–7 (4 ref.)

REX GENE PRODUCTS see **GENE PRODUCTS, REX**

REX GENES see **GENES, PX**

REX PROTEIN see **GENE PRODUCTS, REX**

REYE SYNDROME

[Reye's syndrome] Yoshida I. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):120–3 (4 ref.) **(Jpn)**

BLOOD

Primary plasmalemmal carnitine transporter defect manifested with dicarboxylic aciduria and impaired fatty acid oxidation. Tang NL, et al. **J Inherit Metab Dis** 1998 Jun;21(4):423–5

CHEMICALLY INDUCED

Aspirin in acute rheumatic fever. Singh S. **Indian Pediatr** 1998 Nov;35(11):1159–60

[Reye syndrome in a child having received chemotherapy (letter; comment)] Dubern B, et al. **Arch Pediatr** 1998 Mar; 5(3):342–3. Comment on: Arch Pediatr 1994 Jun;1(6):573–7. **(Fre)**

[An adult case of Reye syndrome induced by diclofenac sodium, and recovered by plasma exchange] Ohyagi Y, et al. **Rinsho Shinkeigaku** 1998 Apr;38(4):311–3 (Eng. Abstr.) **(Jpn)**

[Delayed type malignant syndrome and Parkinson's syndrome due to tiapride, Reye-like syndrome induced by calcium hopantenate] Noda S. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):538–41 (15 ref.) **(Jpn)**

COMPLICATIONS

A long-term follow-up of cognitive, emotional, and behavioural sequelae to Reye syndrome. Meekin SL, et al. **Dev Med Child Neurol** 1999 Aug;41(8):549–53

[Meningitis due to Bacillus cereus in an infant with Reye syndrome] Ferroni A, et al. **Arch Pediatr** 1998 Oct; 5(10):1103–6 (Eng. Abstr.) **(Fre)**

[Brainstem edema in patients with acute encephalopathy and encephalitis] Ishikawa A. **No To Hattatsu** 1998 Sep; 30(5):383–6 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Whatever happened to Reye's syndrome? Did it ever really exist? [see comments] Orlowski JP. **Crit Care Med** 1999 Aug;27(8):1582–7. Comment in: Crit Care Med 1999 Aug;27(8):1674–6.

Reye's syndrome: hold the obituary [editorial; comment] Sarnaik AP. **Crit Care Med** 1999 Aug;27(8):1674–6 (19 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1582–7.

[Acute shock encephalopathy syndrome in a girl with Sotos syndrome--with special reference to differentiation from Reye syndrome] Kimura S, et al. **No To Hattatsu** 1999 Jul;31(4):355–8 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Reye's syndrome: hold the obituary [editorial; comment] Sarnaik AP. **Crit Care Med** 1999 Aug;27(8):1674–6 (19 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1582–7.

Reye's syndrome in the United States from 1981 through 1997 [see comments] Belay ED, et al. **N Engl J Med** 1999 May 6;340(18):1377–82. Comment in: N Engl J Med 1999 May 6;340(18):1423–4.

Reye's syndrome [letter] Hall SM, et al. **N Engl J Med** 1999 Sep 9;341(11):845–6

The disappearance of Reye's syndrome--a public health triumph [editorial; comment] Monto AS. **N Engl J Med** 1999 May 6;340(18):1423–4. Comment on: N Engl J Med 1999 May 6;340(18):1377–82.

METABOLISM

The mechanism of inhibition of beta-oxidation by aspirin metabolites in skin fibroblasts from Reye's syndrome patients and controls. Glasgow JF, et al. **Biochim Biophys Acta** 1999 May 31;1454(1):115–25

MORTALITY

Effects of antipyretics on mortality due to influenza B virus in a mouse model of Reye's syndrome. Crocker JF, et al. **Clin Invest Med** 1998 Aug–Oct;21(4–5):192–202

PREVENTION & CONTROL

Reye's syndrome [letter] Johnson GM. **N Engl J Med** 1999 Sep 9;341(11):846–7

THERAPY

[An adult case of Reye syndrome induced by diclofenac sodium, and recovered by plasma exchange] Ohyagi Y, et al. **Rinsho Shinkeigaku** 1998 Apr;38(4):311–3 (Eng. Abstr.) **(Jpn)**

VIROLOGY

Antipyretics and Reye's syndrome [editorial] Butterworth RF. **Clin Invest Med** 1998 Aug–Oct;21(4–5):209–10

The first case of H5N1 avian influenza infection in a human with complications of adult respiratory distress syndrome and Reye's syndrome. Ku AS, et al. **J Paediatr Child Health** 1999 Apr;35(2):207–9

RFLP see **POLYMORPHISM, RESTRICTION FRAGMENT LENGTH**

RH FACTORS see **RH-HR BLOOD-GROUP SYSTEM**

RH-HR BLOOD-GROUP SYSTEM

see related **ERYTHROBLASTOSIS, FETAL**

Acute intravascular haemolytic transfusion reaction due to anti-c undetected by conventional pretransfusion cross-matching tests [letter] Pradhan D, et al. **Am J Hematol** 1999 May;61(1):82–3

Consensus Conference on Anti-D Prophylaxis. Edinburgh, United Kingdom, 8–9 April 1997. Papers and abstracts. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:iv, 1–44 (0 ref.)

Detection of fetal RHD-specific sequences in maternal plasma [letter] Faas BH, et al. **Lancet** 1998 Oct 10; 352(9135):1196

[The effect of ABO, Rhesus and Kell blood group antigens on gallstone prevalence. A sonographic study of 1030 blood donors] Kratzer W, et al. **Dtsch Med Wochenschr** 1999 May 14;124(19):579–83 (Eng. Abstr.) **(Ger)**

ANALYSIS

Maternal blood group in ABO and Rh systems and somatic condition of newborns. Litwiejko-Pietryńczak E, et al. **Rocz Akad Med Bialymst** 1998;43:154–9

Antenatal genotyping of the blood groups of the fetus. Avent ND. **Vox Sang** 1998;74 Suppl 2:365–74 (74 ref.)

BIOSYNTHESIS

Expression of the Rh-related glycoprotein (Rh50). Suyama K, et al. **Acta Haematol** 1998;100(4):181–6

BLOOD

Rhesus anti-D immunoglobulin in chronic autoimmune neuropathy. de Jager AE, et al. **Acta Neurol Scand** 1998 Jul;98(1):64–6

Prenatal typing of fetal DNA in cases of potential alloimmune haemolytic disease of the newborn: clinical benefit outweighs disadvantage. Shields JA. **Br J Biomed Sci** 1999; 56(1):49–55 (31 ref.)

Prevalence of rhesus phenotypes among local population in Karachi. Furqan E, et al. **JPMA J Pak Med Assoc** 1998 Sep;48(9):278–9

Prenatal determination of fetal RhD (rhesus positive) type

by an amplification of DNA. Kvasnička J, et al. **Sb Lek** 1998;99(1):13–20

Recommendations for the use of anti-D immunoglobulin for Rh prophylaxis. British Blood Transfusion Society and the Royal College of Obstetricians and Gynaecologists. Lee D, et al. **Transfus Med** 1999 Mar;9(1):93–7

Male fetuses are particularly affected by maternal alloimmunization to D antigen. Ulm B, et al. **Transfusion** 1999 Feb;39(2):169–73

CHEMISTRY

Molecular basis of weak D phenotypes. Wagner FF, et al. **Blood** 1999 Jan 1;93(1):385–93

GENETICS

Molecular basis for Rh(null) syndrome: identification of three new missense mutations in the Rh50 glycoprotein gene. Huang CH, et al. **Am J Hematol** 1999 Sep;62(1):25–32

Rhmod syndrome: a family study of the translation-initiator mutation in the Rh50 glycoprotein gene. Huang C, et al. **Am J Hum Genet** 1999 Jan;64(1):108–17

Reliability and clinical application of fetal RhD genotyping with two different fluorescent duplex polymerase chain reaction assays: three years' experience. Crombach G, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):435–40

A splicing mutation of the RHAG gene associated with the Rhnull phenotype. Kawano M, et al. **Ann Hum Genet** 1998 Mar;62 (Pt 2):107–13

Distribution of AB0 and RH blood group alleles in different populations of southern Punjab, Pakistan. Mian A, et al. **Anthropol Anz** 1999 Mar;57(1):33–9

Sequence analysis of the spacer region between the RHD and RHCE genes. Okuda H, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):378–83

The genomic organization of the partial D category DVa: the presence of a new partial D associated with the DVa phenotype. Omi T, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):786–94

Molecular basis of weak D phenotypes. Wagner FF, et al. **Blood** 1999 Jan 1;93(1):385–93

Shift from Rh-positive to Rh-negative phenotype caused by a somatic mutation within the RHD gene in a patient with chronic myelocytic leukaemia. Chérif-Zahar B, et al. **Br J Haematol** 1998 Sep;102(5):1263–70

Heterogeneity of blood group RhE variants revealed by serological analysis and molecular alteration of the RHCE gene and transcript. Noizat-Pirenne F, et al. **Br J Haematol** 1998 Nov;103(2):429–36

Anti Rh 17 in a multigravida with Rh-D-/[symbol: see text] genotype resulting in haemolytic disease of the newborn. Davis SG, et al. **Clin Exp Obstet Gynecol** 1998;25(3):75

Characterization of the mouse Rh blood group gene. Westhoff CM, et al. **Genomics** 1999 May 1;57(3):451–4

The STR polymorphisms in intron 8 may provide information about the molecular evolution of RH haplotypes. Fujiwara H, et al. **Hum Genet** 1999 Apr;104(4):301–6

Sequences and evolution of mammalian RH gene transcripts and proteins. Apoil P, et al. **Immunogenetics** 1999 Jan; 49(1):15–25

Gorilla RH-like genes and antigens. Apoil PA, et al. **Immunogenetics** 1999 Feb;49(2):125–33

Expression analysis of human Rhesus blood group antigens by gene transduction into erythroid and non-erythroid cells. Iwamoto S, et al. **Int J Hematol** 1998 Oct; 68(3):257–68

The members of the RH gene family (RH50 and RH30) followed different evolutionary pathways. Matassi G, et al. **J Mol Evol** 1999 Feb;48(2):151–9

Noninvasive determination of fetal RhD status using fetal DNA in maternal serum and PCR. Bischoff FZ, et al. **J Soc Gynecol Investig** 1999 Mar-Apr;6(2):64–9

RhD hemolytic disease of the newborn [editorial; comment] Bowman JM. **N Engl J Med** 1998 Dec 10;339(24):1775–7 . Comment on: N Engl J Med 1998 Dec 10;339(24):1734–8.

Prenatal diagnosis of fetal RhD status by molecular analysis of maternal plasma [see comments] Lo YM, et al. **N Engl J Med** 1998 Dec 10;339(24):1734–8. Comment in: N Engl J Med 1998 Dec 10;339(24):1775–7.

Foetal RhD genotyping using DNA extracted from maternal plasma. Mohan A, et al. **Natl Med J India** 1999 May-Jun; 12(3):118–9

RhD status of a fetus at risk for haemolytic disease with a discrepant maternal DNA-based RhD genotype. Denomme GA, et al. **Prenat Diagn** 1999 May;19(5):424–7

Rh phenotype prediction by DNA typing and its application to practice. Flegel WA, et al. **Transfus Med** 1998 Dec; 8(4):281–302 (144 ref.)

The VS and V blood group polymorphisms in Africans: a serologic and molecular analysis. Daniels GL, et al. **Transfusion** 1998 Oct;38(10):951–8

Application of RHD and RHCE genotyping for correct blood group determination in chronically transfused patients. Legler TJ, et al. **Transfusion** 1999 Aug;39(8):852–5

Site-directed mutagenesis of the human D antigen: definition of D epitopes on the sixth external domain of the D protein expressed on K562 cells [see comments] Liu W, et al. **Transfusion** 1999 Jan;39(1):17–25. Comment in: Transfusion 1999 Jan;39(1):1–5.

Genotyping of RHD by multiplex polymerase chain reaction analysis of six RHD-specific exons [published erratum appears in Transfusion 1999 May;39(5):546] Maaskant-van Wijk PA, et al. **Transfusion** 1998 Nov-Dec; 38(11-12):1015–21

Rh blood group system in Turkey. Kanra T. **Turk J Pediatr** 1998 Oct-Dec;40(4):525–31

A single point mutation at a splice site generates a silent RH50 gene in a composite heterozygous RHnull blood donor [letter] Cowley NM, et al. **Vox Sang** 1999;76(4):247–8

RHD gene polymorphisms among RhD-negative Chinese in Taiwan. Sun CF, et al. **Vox Sang** 1998;75(1):52–7

[Rhesus factor determination of the genome of stereomicroscopy selected amniocytes] Ludwig M, et al. **Zentralbl Gynakol** 1998;120(9):454–7 (Eng. Abstr.) **(Ger)**

[Distribution of ABO and Rhesus phenotypes and genes in the population of Kursk region] Ivanov VP, et al. **Genetika** 1998 Dec;34(12):1686–91 (Eng. Abstr.) **(Rus)**

[Associations between the coat color and the blood-group system D antigens in horses] Kniazev SP, et al. **Genetika** 1999 Apr;35(4):499–503 (Eng. Abstr.) **(Rus)**

[Gene frequencies and heterozygosity of the population of Donetsk Province, Ukraine by the alleles of the ABO and Rhesus systems] Mukhin VN. **Tsitol Genet** 1999 May-Jun; 33(3):10–3 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

A new splenic artery Doppler velocimetric index for prediction of severe fetal anemia associated with Rh alloimmunization. Bahado-Singh R, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):49–54

Obstetric outcome after RhD and Kell testing. Lipitz S, et al. **Hum Reprod** 1998 Jun;13(6):1472–5

Anti-G in a pregnant patient. Cash K, et al. **Transfusion** 1999 May;39(5):531–3

Evaluation of the gel system for ABO grouping and D typing. Langston MM, et al. **Transfusion** 1999 Mar;39(3):300–5

Characterization of a macaque anti-Rh17-like monoclonal antibody. Blancher A, et al. **Vox Sang** 1998;75(1):58–62

A comparison of in vitro tests for predicting the severity of haemolytic disease of the fetus and newborn. Hadley AG. **Vox Sang** 1998;74 Suppl 2:375–83 (79 ref.)

Two examples of an inseparable antibody that reacts equally well with DW+ and Rh32+ red blood cells. Reid ME, et al. **Vox Sang** 1998;75(3):230–3

Anti-Rh D activity of commercial intravenous immunoglobulin preparations. Turner CE, et al. **Vox Sang** 1999;76(1):55–8

[Hemolytic disease of the newborn and irregular blood group antibodies in the Netherlands: prevalence and morbidity] van Dijk BA, et al. **Ned Tijdschr Geneeskd** 1999 Jul 10; 143(28):1465–9 (Eng. Abstr.) **(Dut)**

[Identification of alloantibodies associated with an autoantibody: profile of 2 quality control programs in French blood transfusion facilities] Mannessier L, et al. **Transfus Clin Biol** 1998 Dec;5(6):385–91 (Eng. Abstr.) **(Fre)**

METABOLISM

Functional cell surface expression of band 3, the human red blood cell anion exchange protein (AE1), in K562 erythroleukemia cells: band 3 enhances the cell surface reactivity of Rh antigens. Beckmann R, et al. **Blood** 1998 Dec 1;92(11):4428–38

Effect of 1-beta-D-arabino-furanosyl-cytosine (ara-C) induction of K562 cells on expression of Rh and other blood group active proteins. Wiener E, et al. **Br J Haematol** 1998 Oct;103(1):259–67

RH IMMUNE GLOBULIN see **RHO(D) IMMUNE GLOBULIN**

RH ISOIMMUNIZATION

see related
ERYTHROBLASTOSIS, FETAL

Anti Rh 17 in a multigravida with Rh-D-/[symbol: see text] genotype resulting in haemolytic disease of the newborn. Davis SG, et al. **Clin Exp Obstet Gynecol** 1998;25(3):75

Maternal sickle cell anemia and neonatal isoimmunization. Narchi H, et al. **Int J Gynaecol Obstet** 1998 Aug; 62(2):129–34

Male fetuses are particularly affected by maternal alloimmunization to D antigen. Ulm B, et al. **Transfusion** 1999 Feb;39(2):169–73

COMPLICATIONS

Coincidence of neonatal alloimmune thrombocytopenia and maternal anti-D immunization: case report [letter] Klüter H, et al. **Br J Haematol** 1998 Sep;102(5):1383–4

Late hyporegenerative anemia in neonates with rhesus hemolytic disease. al-Alaiyan S, et al. **J Perinat Med** 1999; 27(2):112–5

Fetal splenic size in anemia due to Rh-alloimmunization. Bahado-Singh R, et al. **Obstet Gynecol** 1998 Nov; 92(5):828–32

[Severe newborn icterus due to Rhesus incompatibility. Treatment with intravenous immunoglobulins (letter)] Sebag O, et al. **Arch Pediatr** 1999 Mar;6(3):345 **(Fre)**

DIAGNOSIS

Assessment of the clinical usefulness of the 'Queenan' chart versus the 'Liley' chart in predicting severity of rhesus iso-immunization. Scott F, et al. **Prenat Diagn** 1998 Nov; 18(11):1143–8

Clinical evaluation of a solid-phase test for red cell antibody screening of pregnant women. Shanwell A, et al. **Transfusion** 1999 Jan;39(1):26–31

[Diagnosis and therapy of erythrocyte alloimmunization in pregnancy] Calda P, et al. **Ceska Gynekol** 1998 Jun; 63(3):170–5 (Eng. Abstr.) **(Cze)**

[Management of Rhesus isoimmunization. Viewpoint of the obstetrician] Langer B. **Arch Pediatr** 1998 Nov; 5(11):1269–73 (Eng. Abstr.) **(Fre)**

[Rhesus factor determination of the genome of stereomicroscopy selected amniocytes] Ludwig M, et al. **Zentralbl Gynakol** 1998;120(9):454–7 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Routine antenatal Rhesus D immunoglobulin prophylaxis: the results of a prospective 10 year study. MacKenzie IZ, et al. **Br J Obstet Gynaecol** 1999 May;106(5):492–7

ETIOLOGY

An audit of anti-D sensitisation in Yorkshire. McSweeney E, et al. **Br J Obstet Gynaecol** 1998 Oct;105(10):1091–4

Severe hemolytic disease from rhesus anti-C antibodies in a surrogate pregnancy after oocyte donation. A case report. Mitchell S, et al. **J Reprod Med** 1999 Apr;44(4):388–90

IMMUNOLOGY

Can a single measurement of amniotic fluid delta optical density be safely used in the clinical management of Rhesus-alloimmunized pregnancies before 27 weeks' gestation? Rahman F, et al. **Acta Obstet Gynecol Scand** 1998 Sep;77(8):804–7

Ontogeny of the fetal immune system: study on pregnancies with Rh-isoimmunization and nonimmune fetal hydrops. Noia G, et al. **Clin Immunol** 1999 Jan;90(1):115–8

A comparison of in vitro tests for predicting the severity of haemolytic disease of the fetus and newborn. Hadley AG. **Vox Sang** 1998;74 Suppl 2:375–83 (79 ref.)

[Levels of lymphocyte subpopulations in peripheral fetal blood in Rh(D) erythrocyte isoimmunization in pregnancy] Calda P, et al. **Ceska Gynekol** 1998 Jun;63(3):176–80 (Eng. Abstr.) **(Cze)**

PREVENTION & CONTROL

Successful prevention of post-transfusion Rh alloimmunization by intravenous Rho (D) immune globulin (WinRho SD). Anderson B, et al. **Am J Hematol** 1999 Mar; 60(3):245–7

Consensus Conference on Anti-D Prophylaxis. Edinburgh, United Kingdom, 8-9 April 1997. Papers and abstracts. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:iv, 1–44 (0 ref.)

Economics of antenatal prophylaxis. Cairns JA. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:19–22 (12 ref.)

The prevention of Rh haemolytic disease of the fetus and newborn--general background. Contreras M. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:7–10 (24 ref.)

The scientific basis of antenatal prophylaxis. Urbaniak SJ. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:11–8 (22 ref.)

ACOG practice bulletin. Prevention of Rh D alloimmunization. Number 4, May 1999 (replaces educational bulletin Number 147, October 1990). Clinical management guidelines for obstetrician-gynecologists. American College of Obstetrics and Gynecology. **Int J Gynaecol Obstet** 1999 Jul;66(1):63–70

RhD hemolytic disease of the newborn [editorial; comment] Bowman JM. **N Engl J Med** 1998 Dec 10;339(24):1775–7 . Comment on: N Engl J Med 1998 Dec 10;339(24):1734–8.

Recommendations for the use of anti-D immunoglobulin for Rh prophylaxis. British Blood Transfusion Society and the Royal College of Obstetricians and Gynaecologists. Lee D, et al. **Transfus Med** 1999 Mar;9(1):93–7

[What will happen to the Rh prophylaxis? (letter)] Björnståhl H. **Lakartidningen** 1999 Apr 28;96(17):2069 **(Swe)**

THERAPY

Rhesus disease: postnatal management and outcome. Greenough A. **Eur J Pediatr** 1999 Sep;158(9):689–93 (58 ref.)

Management and outcome of fetomaternal Rh alloimmunization in twin pregnancies. Lepercq J, et al. **Fetal Diagn Ther** 1999 Jan-Feb;14(1):26–30

Experience with intrauterine transfusions for severe Rh alloimmunization in a developing country. Gupte SC, et al. **J Matern Fetal Med** 1998 Nov-Dec;7(6):287–91

Perinatal management of fetal hemolytic disease due to Rh incompatibility combined with fetal alloimmune thrombocytopenia due to HPA-5b incompatibility. Schild RL, et al. **Ultrasound Obstet Gynecol** 1999 Jul;14(1):64–7

[Diagnosis and therapy of erythrocyte alloimmunization in pregnancy] Calda P, et al. **Ceska Gynekol** 1998 Jun; 63(3):170–5 (Eng. Abstr.) **(Cze)**

RHABDITIDA

Infectivity, distribution, and persistence of the entomopathogenic nematode Steinernema carpocapsae all strain (Rhabditida: Steinernematidae) applied by sprinklers

RHABDITIDA

or boom sprayer to dry-pick cranberries. Hayes AE, et al. **J Econ Entomol** 1999 Jun;92(3):539-46

CLASSIFICATION

Two new species of nematodes (Rhabditida: Diplogasteridae and Rhabditidae) parasites of Gryllodes laplatae (Orthoptera: Gryllidae) in Argentina. Reboredo GR, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec;93(6):763-6

GROWTH & DEVELOPMENT

Buccal capsule development as a consideration for phylogenetic analysis of Rhabditida (Nemata). Dolinski C, et al. **Dev Genes Evol** 1998 Nov;208(9):495-503

PHYSIOLOGY

Two new species of nematodes (Rhabditida: Diplogasteridae and Rhabditidae) parasites of Gryllodes laplatae (Orthoptera: Gryllidae) in Argentina. Reboredo GR, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec;93(6):763-6

ULTRASTRUCTURE

The ultrastructure of the cuticle and sheath of infective juveniles of entomopathogenic steinernematid nematodes. Patel MN, et al. **J Helminthol** 1998 Sep;72(3):257-66

RHABDITIDA INFECTIONS

VETERINARY

Halicephalobus gingivalis (Stefanski, 1954) from a fatal infection in a horse in Ontario, Canada with comments on the validity of H. deletrix and a review of the genus. Anderson RC, et al. **Parasite** 1998 Sep;5(3):255-61

Rhabditis dermatitis in sheep in Saudi Arabia [letter] Abbas B, et al. **Vet Rec** 1999 Jul 24;145(4):115-6

RHABDITIS see **RHABDITOIDEA**

RHABDITOIDEA

Suppression of diamondback moth (Lepidoptera: Plutellidae) with an entomopathogenic nematode (Rhabditida: Steinernematidae) and Bacillus thuringiensis Berliner. Baur ME, et al. **J Econ Entomol** 1998 Oct;91(5):1089-95

Pest status of American plum borer (Lepidoptera: Pyralidae) and fruit tree borer control with synthetic insecticides and entomopathogenic nematodes in New York State. Kain DP, et al. **J Econ Entomol** 1999 Feb;92(1):193-200

Entomopathogenic nematodes for control of diapausing codling moth (Lepidoptera: Tortricidae) in fruit bins. Lacey LA, et al. **J Econ Entomol** 1999 Feb;92(1):104-9

Entomopathogenic nematodes to control black vine weevil (Coleoptera: Curculionidae) on strawberry. Wilson M, et al. **J Econ Entomol** 1999 Jun;92(3):651-7

Evaluation of spinning disc technology for the application of entomopathogenic nematodes against a foliar pest. Mason JM, et al. **J Invertebr Pathol** 1999 May;73(3):282-8

Successful parasitation of locusts by entomopathogenic nematodes is correlated with inhibition of insect phagocytes. van Sambeek J, et al. **J Invertebr Pathol** 1999 Mar;73(2):154-61

CHEMISTRY

Biophysical properties of the surface of desiccation-tolerant mutants and parental strain of the entomopathogenic nematode Heterorhabditis megidis (strain UK211). O'Leary SA, et al. **Parasitology** 1998 Oct;117 (Pt 4):337-45

CLASSIFICATION

Molecular differentiation and phylogeny of entomopathogenic nematodes (rhabditida: heterorhabditidae) based on ND4 gene sequences of Mitochondrial DNA. Liu J, et al. **J Parasitol** 1999 Aug; 85(4):709-15

Halicephalobus gingivalis (Stefanski, 1954) from a fatal infection in a horse in Ontario, Canada with comments on the validity of H. deletrix and a review of the genus. Anderson RC, et al. **Parasite** 1998 Sep;5(3):255-61

CYTOLOGY

Evolution of sperm size in nematodes: sperm competition favours larger sperm. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):263-7

GENETICS

Novel application of PhastSystem polyacrylamide gel electrophoresis using restriction fragment length polymorphism--internal transcribed spacer patterns of individuals for molecular identification of entomopathogenic nematodes. Pamjav H, et al. **Electrophoresis** 1999 Jun;20(6):1266-73

Gel electrophoretic restriction fragment length polymorphism analysis of DNA derived from individual nematodes, using the PhastSystem. Triga D, et al. **Electrophoresis** 1999 Jun;20(6):1274-9

IMMUNOLOGY

Active resistance of entomophagous rhabditid Heterorhabditis bacteriophora to insect immunity. Jarosz J. **Parasitology** 1998 Sep;117 (Pt 3):201-8

MICROBIOLOGY

Molecular identification of Photorhabdus luminescens strains by amplification of specific fragments of the 16S ribosomal DNA. Ehlers RU, et al. **Syst Appl Microbiol** 1998 Dec; 21(4):509-19

PATHOGENICITY

Factors influencing the infectivity of a Canadian isolate of Steinernema kraussei (Nematoda: Steinernematidae) at low temperature. Mrácek Z, et al. **J Invertebr Pathol** 1999 May; 73(3):243-7

Rhabditis dermatitis in sheep in Saudi Arabia [letter] Abbas B, et al. **Vet Rec** 1999 Jul 24;145(4):115-6

PHYSIOLOGY

Host range, specificity, and virulence of Steinernema feltiae, Steinernema rarum, and Heterorhabditis bacteriophora (Steinernematidae and Heterorhabditidae) from Argentina. de Doucet MM, et al. **J Invertebr Pathol** 1999 May; 73(3):237-42

Entomopathogenic nematodes as control agents of developmental stages of the black-legged tick, Ixodes scapularis. Hill DE. **J Parasitol** 1998 Dec;84(6):1124-7

Arginine kinase and phosphoarginine, a functional phosphagen, in the rhabditoid nematode steinernema carpocapsae. Platzer EG, et al. **J Parasitol** 1999 Aug; 85(4):603-7

Are there temporarily non-infectious dauer stages in entomopathogenic nematode populations: a test of the phased infectivity hypothesis. Campbell JF, et al. **Parasitology** 1999 May;118 (Pt 5):499-508

Evolution of sperm size in nematodes: sperm competition favours larger sperm. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):263-7

RHABDOID TUMOR

CHEMICALLY INDUCED

The development of malignant rhabdoid tumor in a patient with Behçet's disease treated with ciclosporin. Muramatsu M, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct; 236(10):798-9

CONGENITAL

Congenital disseminated malignant rhabdoid tumor: a distinct clinicopathologic entity demonstrating abnormalities of chromosome 22q11. White FV, et al. **Am J Surg Pathol** 1999 Mar;23(3):249-56 (52 ref.)

Congenital malignant rhabdoid tumor presenting as a cutaneous nodule: report of 2 cases with review of the literature. Hsueh C, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1099-102 (16 ref.)

DIAGNOSIS

Analysis of chromosome 22q as an aid to the diagnosis of rhabdoid tumor: a case report. Simons J, et al. **Am J Surg Pathol** 1999 Aug;23(8):982-8

Rhabdoid tumor of the kidney with primitive neuroectodermal tumor of the central nervous system. Parellada JA, et al. **Eur J Radiol** 1998 Oct;28(3):219-21

Central nervous system atypical teratoid tumor/rhabdoid tumor: response to intensive therapy and review of the literature. Hilden JM, et al. **J Neurooncol** 1998 Dec; 40(3):265-75 (39 ref.)

GENETICS

Analysis of chromosome 22q as an aid to the diagnosis of rhabdoid tumor: a case report. Simons J, et al. **Am J Surg Pathol** 1999 Aug;23(8):982-8

Congenital disseminated malignant rhabdoid tumor: a distinct clinicopathologic entity demonstrating abnormalities of chromosome 22q11. White FV, et al. **Am J Surg Pathol** 1999 Mar;23(3):249-56 (52 ref.)

Cloning and characterization of a novel Rab-family gene, Rab36, within the region at 22q11.2 that is homozygously deleted in malignant rhabdoid tumors. Mori T, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):594-600

Isochromosome (12p) and peritriploidy in a highly malignant extrarenal rhabdoid tumor. Comtesse PP, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):175-7

Germ-line and acquired mutations of INI1 in atypical teratoid and rhabdoid tumors. Biegel JA, et al. **Cancer Res** 1999 Jan 1;59(1):74-9

hSNF5/INI1 inactivation is mainly associated with homozygous deletions and mitotic recombinations in rhabdoid tumors. Rousseau-Merck MF, et al. **Cancer Res** 1999 Jul 1;59(13):3152-6

Simultaneous presentation of atypical teratoid/rhabdoid tumor in siblings. Proust F, et al. **J Neurooncol** 1999 May; 43(1):63-70

Establishment and molecular characterization of five cell lines derived from renal and extrarenal malignant rhabdoid tumors. Rosson GB, et al. **Mod Pathol** 1998 Dec; 11(12):1228-37

METABOLISM

Malignant rhabdoid tumor of the duodenum. Lee JR, et al. **Ann Diagn Pathol** 1998 Feb;2(1):25-30

PATHOLOGY

Atypical teratoid/rhabdoid tumor--a stereogram unveiled. Buchino JJ. **Adv Anat Pathol** 1999 Mar;6(2):97-102

"Rhabdoid" meningioma: an aggressive variant. Perry A, et al. **Am J Surg Pathol** 1998 Dec;22(12):1482-90

Extrarenal rhabdoid tumors of soft tissue: a clinicopathologic and immunohistochemical study of 18 cases. Fanburg-Smith JC, et al. **Ann Diagn Pathol** 1998 Dec; 2(6):351-62

Malignant rhabdoid tumor of the duodenum. Lee JR, et al. **Ann Diagn Pathol** 1998 Feb;2(1):25-30

Congenital malignant rhabdoid tumor presenting as a cutaneous nodule: report of 2 cases with review of the literature. Hsueh C, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1099-102 (16 ref.)

Pathologic quiz case. Extrarenal rhabdoid tumor. Zhou Y, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):853-4 (9 ref.)

Isochromosome (12p) and peritriploidy in a highly malignant extrarenal rhabdoid tumor. Comtesse PP, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):175-7

Malignant mixed Müllerian tumor with rhabdoid features: a report of two cases and a review of the literature. Baschinsky DY, et al. **Gynecol Oncol** 1999 Apr; 73(1):145-50 (23 ref.)

Malignant myoepithelioma of the vulva resembling a rhabdoid tumour. Hinze P, et al. **Histopathology** 1999 Jul; 35(1):50-4

Malignant rhabdoid-tumor cell line showing neural and smooth-muscle-cell phenotypes. Sugimoto T, et al. **Int J Cancer** 1999 Aug 27;82(5):678-86

Characterization of a primary central nervous system atypical teratoid/rhabdoid tumor and derivative cell line: immunophenotype and neoplastic properties. Yachnis AT, et al. **J Neuropathol Exp Neurol** 1998 Oct;57(10):961-71

Atypical teratoid/rhabdoid tumor of the CNS: cytopathology and immunohistochemistry of insulin-like growth factor-II, insulin-like growth factor receptor type 1, cathepsin D, and Ki-67. Ogino S, et al. **Mod Pathol** 1999 Apr;12(4):379-85

Clinicopathological characteristics of atypical teratoid/rhabdoid tumor. Oka H, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):510-7; discussion 517-8

Malignant rhabdoid tumor of the vulva: case report with cytological, immunohistochemical, ultrastructural and DNA ploidy studies and a review of the literature. Igarashi T, et al. **Pathol Int** 1998 Nov;48(11):887-91 (19 ref.)

Poorly differentiated adenocarcinoma with extensive rhabdoid differentiation: clinicopathological features of two cases arising in the gastrointestinal tract. Al-Nafussi A, et al. **Pathol Int** 1999 Feb;49(2):160-3

Infantile extrarenal rhabdoid tumor. Perlman EJ, et al. **Pediatr Dev Pathol** 1998 Mar-Apr;1(2):149-52

Spontaneous rupture of a malignant rhabdoid tumour of the liver. Kelly DM, et al. **Pediatr Surg Int** 1998 Nov; 14(1-2):111-2

RADIOGRAPHY

Special imaging casebook. Neonatal malignant rhabdoid tumor of the kidney. Herman TE, et al. **J Perinatol** 1998 Sep-Oct;18(5):408-10

RADIOTHERAPY

Regarding Weiss et al., IJROBP 41:103-109; 1998 [letter; comment] Byram D. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):247. Comment on: Int J Radiat Oncol Biol Phys 1998 Jul 15;41(5):1013-9.

SECONDARY

A 4-year-old girl with a ventriculoperitoneal shunt metastasis of a central nervous system atypical teratoid/rhabdoid tumor. Korones DN, et al. **Med Pediatr Oncol** 1999 May;32(5):389-91

THERAPY

Central nervous system atypical teratoid tumor/rhabdoid tumor: response to intensive therapy and review of the literature. Hilden JM, et al. **J Neurooncol** 1998 Dec; 40(3):265-75 (39 ref.)

Successful treatment of a patient with stage IV rhabdoid tumor of the kidney: case report and review. Waldron PE, et al. **J Pediatr Hematol Oncol** 1999 Jan-Feb;21(1):53-7 (28 ref.)

VETERINARY

Malignant rhabdoid tumour in the orbit of a horse. Hong CB, et al. **J Comp Pathol** 1999 Aug;121(2):197-201

RHABDOMYOLYSIS

Rhabdomyolysis. Visweswaran P, et al. **Crit Care Clin** 1999 Apr;15(2):415-28, ix-x (51 ref.)

BLOOD

Serum gelsolin and rhabdomyolysis. Löfberg M, et al.

J Neurol Sci 1998 May 7;157(2):187–90

CHEMICALLY INDUCED

Concomitant use of cytochrome P450 3A4 inhibitors and simvastatin. Gruer PJ, et al. **Am J Cardiol** 1999 Oct 1; 84(7):811–5

Rhabdomyolysis and renal failure associated with cerivastatin–gemfibrozil combination therapy [see comments] Pogson GW, et al. **Am J Cardiol** 1999 Apr 1; 83(7):1146. Comment in: Am J Cardiol 1999 Aug 15;84(4):497.

Noncardiogenic pulmonary edema and rhabdomyolsis after protamine administration in a patient with unrecognized McArdle's disease. Lobato EB, et al. **Anesthesiology** 1999 Jul;91(1):303–5

Rhabdomyolysis associated with naltrexone. Zaim S, et al. **Ann Pharmacother** 1999 Mar;33(3):312–3

Case of the month: February 1999—54 year old man with severe muscle weakness. Hill MD, et al. **Brain Pathol** 1999 Jul;9(3):607–8

Inhalation anesthetics and Duchenne's muscular dystrophy [editorial; comment] Goresky GV, et al. **Can J Anaesth** 1999 Jun;46(6):525–8. Comment on: Can J Anaesth 1999 Jun;46(6):564–6.

Non-traumatic rhabdomyolysis with gluteal ulcer. Yotsuyanagi T, et al. **Clin Exp Dermatol** 1998 May; 23(3):113–5

Two episodes of acute renal failure, rhabdomyolysis, and severe hepatitis in an AIDS patient successively treated with ritonavir and indinavir. Benveniste O, et al. **Clin Infect Dis** 1999 May;28(5):1180–1

Alcohol-associated rhabdomyolysis: ethanol induction of cytochrome P450 may potentiate myotoxicity. Riggs JE. **Clin Neuropharmacol** 1998 Nov–Dec;21(6):363–4

Rhabdomyolysis associated with the combined use of hydroxymethylglutaryl-coenzyme A reductase inhibitors with gemfibrozil and macrolide antibiotics. Landesman KA, et al. **Conn Med** 1999 Aug;63(8):455–7

Severe peripheral polyneuropathy and rhabdomyolysis in lithium intoxication: a case report [letter] Su KP, et al. **Gen Hosp Psychiatry** 1999 Mar–Apr;21(2):136–7

Fatal multi-organ failure after suicidal overdose with MDMA, 'ecstasy': case report and review of the literature. Walubo A, et al. **Hum Exp Toxicol** 1999 Feb;18(2):119–25

Severe rhabdomyolysis as a complication of high-dose chemotherapy in a patient with advanced testicular cancer. Hoshi S, et al. **Int J Urol** 1999 Jan;6(1):56–8

Case report: rhabdomyolysis induced by mibefradil in a patient treated with cyclosporine and simvastatin. Wombolt DG, et al. **J Clin Pharmacol** 1999 Mar;39(3):310–2

Rhabdomyolysis associated with bupropion treatment [letter] David D, et al. **J Clin Psychopharmacol** 1999 Apr; 19(2):185–6

Chest wall pain and possible rhabdomyolysis after chloropicrin exposure. A case series. Prudhomme JC, et al. **J Occup Environ Med** 1999 Jan;41(1):17–22

Focal rhabdomyolysis and brachial plexopathy: an association with heroin and chronic ethanol use. Riggs JE, et al. **Mil Med** 1999 Mar;164(3):228–9

Fenofibrate-induced rhabdomyolysis in two dialysis patients with hypothyroidism [letter] Clouâtre Y, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):1047–8

Rhabdomyolysis due to bezafibrate in CAPD patients. A role for dihydropyridine drugs? Weissgarten J, et al. **Perit Dial Int** 1999 Mar–Apr;19(2):180–2

Renal tubular acidosis, hypokalemic paralysis, rhabdomyolysis, and acute renal failure--a rare presentation of Chinese herbal nephropathy. Lee CT, et al. **Ren Fail** 1999 Mar;21(2):227–30

Hypomagnesemia and mild rhabdomyolysis in living related donor renal transplant recipient treated with cyclosporine A. Cavdar C, et al. **Scand J Urol Nephrol** 1998 Dec; 32(6):415–7

Influenza myositis and rhabdomyolysis in an HIV positive man: was zidovudine a co-factor? [letter] Guha I, et al. **Sex Transm Infect** 1999 Jun;75(3):204–5

Rhabdomyolysis in heart transplant patients on HMG-CoA reductase inhibitors and cyclosporine. Rodriguez JA, et al. **Transplant Proc** 1999 Sep;31(6):2522–3

[Multi-systemic toxicity of colchicine and renal failure: apropos of a case] Rosset L, et al. **Schweiz Med Wochenschr** 1998 Dec 5;128(49):1953–7 (Eng. Abstr.) **(Fre)**

[Toxic effects of anesthetics: rhabdomyolysis with acute renal insufficiency] Jović-Stošić J, et al. **Vojnosanit Pregl** 1999 Jan–Feb;56(1):83–8 (Eng. Abstr.) **(Scc)**

[Rhabdomyolysis and compartment syndrome associated with drug abuse (letter)] Blanco Garcia S, et al. **Rev Esp Anestesiol Reanim** 1999 Jan;46(1):46–7 **(Spa)**

COMPLICATIONS

Rhabdomyolysis associated with near-drowning. Bonnor R, et al. **Am J Med Sci** 1999 Sep;318(3):201–2

Rhabdomyolysis and acute renal failure due to status epilepticus [letter] Güven M, et al. **Clin Nephrol** 1998 Sep; 50(3):204

Acute renal failure due to hypokalemic rhabdomyolysis in Gitelman's syndrome. Nishihara G, et al. **Clin Nephrol** 1998 Nov;50(5):330–2 (9 ref.)

Disseminated intravascular coagulation (DIC) and rhabdomyolysis in fulminant varicella infection--case report and review of the literature. Hollenstein U, et al. **Infection** 1998 Sep–Oct;26(5):306–8 (40 ref.)

Posttraumatic renal failure [letter; comment] Abu-Zidan FM. **J Am Coll Surg** 1999 Mar;188(3):333. Comment on: J Am Coll Surg 1998 Jun;186(6):693–716.

Acute renal failure in rhabdomyolysis. Guglielminotti J, et al. **Minerva Anestesiol** 1999 May;65(5):250–5 (46 ref.)

[Atraumatic Clostridium infection with fulminant psoas rhabdomyolysis and liver abscess] Deli RM, et al. **Rontgenpraxis** 1998;51(12):462–6 **(Ger)**

[Rhabdomyolysis associated with measles in a young adult (letter)] Alamillo A, et al. **An Med Interna** 1998 Aug; 15(8):451–2 **(Spa)**

[Acute renal failure in rhabdomyolysis] Fernández-Fúnez A. **Rev Clin Esp** 1998 Nov;198(11):758–64 (118 ref.) **(Spa)**

DIAGNOSIS

The value of computed tomography and magnetic resonance imaging to diagnose rhabdomyolysis in acute renal failure. Nakahara K, et al. **Nephrol Dial Transplant** 1999 Jun; 14(6):1564–7

Non-traumatic acute rhabdomyolysis. Taly AB, et al. **Neurol India** 1999 Mar;47(1):51–4

Rhabdomyolysis in DOMS. Martinez Carsi C, et al. **Nuklearmedizin** 1999;38(5):164–8

Index of Suspicion. Case 1. Rhabdomyolysis. Amin S. **Pediatr Rev** 1998 Oct;19(10):333–4

Acute onset of dermatomyositis presenting in pregnancy with rhabdomyolysis and fetal loss. Kofteridis DP, et al. **Scand J Rheumatol** 1999;28(3):192–4

[Rhabdomyolysis: clinical features, causes, complications and treatment] Szumilak D, et al. **Przegl Lek** 1998;55(5):274–9 (52 ref.) (Eng. Abstr.) **(Pol)**

[Rhabdomyolysis, elevated creatine kinase and acute carbon monoxide poisoning (letter; comment)] Desola J, et al. **An Med Interna** 1999 Feb;16(2):109–10. Comment on: An Med Interna 1998 Jul;15(7):397. **(Spa)**

DRUG THERAPY

[Rhabdomyolysis and cholestatic hepatitis treated with simvastatin and chlorzoxazone] Bielecki JW, et al. **Schweiz Med Wochenschr** 1999 Apr 3;129(13):514–8 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Metabolic causes of recurrent rhabdomyolysis. Löfberg M, et al. **Acta Neurol Scand** 1998 Oct;98(4):268–75

EPIDEMIOLOGY

Haff disease associated with eating buffalo fish--United States, 1997. **MMWR Morb Mortal Wkly Rep** 1998 Dec 25;47(50):1091–3

[Epidemic rhabdomyolysis due to the eating of quail. A clinical, epidemiological and experimental study (see comments)] Aparicio R, et al. **Med Clin (Barc)** 1999 Feb 6;112(4):143–6 (Eng. Abstr.). Comment in: Med Clin (Barc) 1999 Feb 6;112(4):140–2. **(Spa)**

ETIOLOGY

Rhabdomyolysis secondary to hyperemesis gravidarum. Fukada Y, et al. **Acta Obstet Gynecol Scand** 1999 Jan; 78(1):71

Rhabdomyolysis in European viper bite. Denis D, et al. **Acta Paediatr** 1998 Sep;87(9):1013–5

Cocaine-associated rhabdomyolysis and excited delirium: different stages of the same syndrome. Ruttenber AJ, et al. **Am J Forensic Med Pathol** 1999 Jun;20(2):120–7 (66 ref.)

Rhabdomyolysis associated with near-drowning. Bonnor R, et al. **Am J Med Sci** 1999 Sep;318(3):201–2

Rhabdomyolysis after abdominal surgery in the hyperlordotic position enforced by pneumatic support. Uratsuji Y, et al. **Anesthesiology** 1999 Jul;91(1):310–2

Rhabdomyolysis after correction of hyponatremia due to psychogenic polydipsia possibly complicated by clozapine. Wicki J, et al. **Ann Pharmacother** 1998 Sep;32(9):892–5

Rhabdomyolysis in association with Duchenne's muscular dystrophy [see comments] Obata R, et al. **Can J Anaesth** 1999 Jun;46(6):564–6. Comment in: Can J Anaesth 1999 Jun;46(6):525–8.

Exercise-induced rhabdomyolysis. O'Donnell J, et al. **Eur J Emerg Med** 1998 Sep;5(3):325–6

A case of acute renal failure and compartment syndrome after an alcoholic binge. Sofat N, et al. **J Accid Emerg Med** 1999 Jul;16(4):296–8

Postoperative acute renal failure secondary to rhabdomyolysis from exaggerated lithotomy position [clinical conference] Gabrielli A, et al. **J Clin Anesth** 1999 May;11(3):257–63

Muscle phosphofructokinase deficiency (Tarui's disease): report of a case. Lin HC, et al. **J Formos Med Assoc** 1999 Mar;98(3):205–8

Rhabdomyolysis and acute pancreatitis. Pezzilli R, et al. **J Gastroenterol Hepatol** 1999 Feb;14(2):168–71

Acute life-threatening event with rhabdomyolysis after starting on high-dose pyridoxine therapy in an infant with homocystinuria. Shoji Y, et al. **J Inherit Metab Dis** 1998 Jun;21(4):439–40

Rhabdomyolysis in transplant patients [editorial] East C, et al. **J Nephrol** 1998 Sep–Oct;11(5):221–3

Muscle pain after exercise. Nielsen C, et al. **Lancet** 1999 Mar 27;353(9158):1062

"Abdominal crunch"-induced rhabdomyolysis presenting as right upper quadrant pain. Haas DC, et al. **Mil Med** 1999 Feb;164(2):160–1

Haff disease associated with eating buffalo fish--United States, 1997. **MMWR Morb Mortal Wkly Rep** 1998 Dec 25;47(50):1091–3

Rhabdomyolysis and acute renal failure in an adult with measles virus infection. Seibold S, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1829–31

Hyponatremia-associated rhabdomyolysis. Trimarchi H, et al. **Nephron** 1999;82(3):274–7 (33 ref.)

Non-traumatic acute rhabdomyolysis. Taly AB, et al. **Neurol India** 1999 Mar;47(1):51–4

Respiratory chain deficiency presenting as recurrent myoglobinuria in childhood. de Lonlay-Debeney P, et al. **Neuropediatrics** 1999 Feb;30(1):42–4

Diabetic ketoacidosis and rhabdomyolysis following excessive intake of a weight reducing diet. Goyal SB, et al. **Ren Fail** 1998 Jul;20(4):645–7

Exertional rhabdomyolysis after recent coxsackie B virus infection. Marinella MA. **South Med J** 1998 Nov; 91(11):1057–9

[Acute rhabdomyolysis in the child] Hue V, et al. **Arch Pediatr** 1998 Aug;5(8):887–95 (49 ref.) (Eng. Abstr.) **(Fre)**

[Conn adenoma manifesting as reversible tetraparesis and rhabdomyolysis] Mourad JJ, et al. **Rev Med Interne** 1998 Mar;19(3):203–5 (Eng. Abstr.) **(Fre)**

[Clinical case of the month. A case of acute rhabdomyolysis] Rorive A, et al. **Rev Med Liege** 1999 Mar;54(3):143–8 (Eng. Abstr.) **(Fre)**

[Rhabdomyolysis following nephrectomy for pyonephrosis: a case report] Gakiya M, et al. **Hinyokika Kiyo** 1999 Mar; 45(3):219–21 (Eng. Abstr.) **(Jpn)**

[Rhabdomyolysis following radical prostatectomy: a case report] Hongo F, et al. **Hinyokika Kiyo** 1999 Mar; 45(3):215–7 (Eng. Abstr.) **(Jpn)**

[A case of severe hypernatremia complicated with rhabdomyolysis] Asahara H, et al. **Rinsho Shinkeigaku** 1998 Apr;38(4):301–4 (22 ref.) (Eng. Abstr.) **(Jpn)**

[Rhabdomyolysis as a complication of carbon monoxide poisoning (letter; comment)] Berlango Jiménez A, et al. **An Med Interna** 1999 Feb;16(2):109. Comment on: An Med Interna 1998 Jul;15(7):397. **(Spa)**

[Carnitine palmitoyltransferase deficiency as the cause of effort rhabdomyolysis (letter) (see comments)] Miró O, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):436–7. Comment in: Med Clin (Barc) 1999 Apr 17;112(13):517. **(Spa)**

[Carnitine palmitoyltransferase deficiency as the cause of effort rhabdomyolysis (letter; comment)] Sánchez Román J, et al. **Med Clin (Barc)** 1999 Apr 17;112(13):517. Comment on: Med Clin (Barc) 1998 Oct 10;111(11):436–7. **(Spa)**

[Rhabdomyolysis associated with disseminated gonococcal infection in an elderly woman] Attorri S, et al. **Medicina (B Aires)** 1998;58(6):739–40 (Eng. Abstr.) **(Spa)**

[Rhabdomyolysis secondary to Conn's syndrome (letter)] Abellán Martínez J, et al. **Rev Clin Esp** 1998 Aug; 198(8):557–8 **(Spa)**

HISTORY

B.C.E., or C.E., which? [letter; comment] Tomlinson WK. **Pharos** 1998 Fall;61(4):30–1. Comment on: Pharos 1998 Spring;61(2):18–22.

METABOLISM

Fatty acid oxidation defects in muscle. Morris AA, et al. **Curr Opin Neurol** 1998 Oct;11(5):485–90 (50 ref.)

Increased lipid peroxidation in patients with rhabdomyolysis [letter] Holt S, et al. **Lancet** 1999 Apr 10;353(9160):1241

MICROBIOLOGY

Bacterial sepsis-induced rhabdomyolysis. Betrosian A, et al. **Intensive Care Med** 1999 May;25(5):469–74

[Acute rhabdomyolysis by Q fever (letter)] Salcedo J, et al. **Enferm Infecc Microbiol Clin** 1999 May;17(5):250–1 **(Spa)**

PATHOLOGY

Acute rhabdomyolysis and intravascular hemolysis following extensive wasp stings. Chao SC, et al. **Int J Dermatol** 1999 Feb;38(2):135–7

Rhabdomyolysis lesions showing magnetic resonance contrast enhancement. Kakuda W, et al. **J Neuroimaging** 1999 Jul;9(3):182–4

Epidemiology, mechanisms and clinical features of rhabdomyolysis. Bollaert PE, et al. **Minerva Anestesiol** 1999 May;65(5):245–9 (61 ref.)

PHYSIOPATHOLOGY

A causative role for redox cycling of myoglobin and its inhibition by alkalinization in the pathogenesis and treatment of rhabdomyolysis-induced renal failure. Moore KP, et al. **J Biol Chem** 1998 Nov 27;273(48):31731–7

RADIONUCLIDE IMAGING

Rectus abdominis rhabdomyolysis after sit ups: unexpected

RHABDOMYOLYSIS

detection by bone scan. Kao PF, et al. **Br J Sports Med** 1998 Sep;32(3):253–4

THERAPY

The management of shock and local injury in traumatic rhabdomyolysis. Nespoli A, et al. **Minerva Anestesiol** 1999 May;65(5):256–62 (36 ref.)

URINE

Recurrent rhabdomyolysis in a child with glutaric aciduria type I. Wilson CJ, et al. **J Inherit Metab Dis** 1999 Jun; 22(5):663–4

VETERINARY

In vitro contractile responses and contracture testing of skeletal muscle from Quarter Horses with exertional rhabdomyolysis. Lentz LR, et al. **Am J Vet Res** 1999 Jun; 60(6):684–8

Abnormal regulation of muscle contraction in horses with recurrent exertional rhabdomyolysis. Lentz LR, et al. **Am J Vet Res** 1999 Aug;60(8):992–9

Heritability of recurrent exertional rhabdomyolysis in Thoroughbred racehorses. MacLeay JM, et al. **Am J Vet Res** 1999 Feb;60(2):250–6

Review of exertional rhabdomyolysis and a case in a rhesus monkey (Macaca mulatta). Reuter JD, et al. **J Med Primatol** 1998 Dec;27(6):303–9 (29 ref.)

RHABDOMYOMA

COMPLICATIONS

Tuberous sclerosis with intracardiac rhabdomyoma in a fetus with trisomy 21: case report and review of literature. Krapp M, et al. **Prenat Diagn** 1999 Jul;19(7):610–3 (26 ref.)

[Case report of tuberous sclerosis and congenital heart disease] Rocha G, et al. **Rev Port Cardiol** 1999 May; 18(5):497–500 (Eng. Abstr.) **(Por)**

CONGENITAL

Neonatal cardiac rhabdomyoma. Kalgutkar A, et al. **Indian Pediatr** 1998 Dec;35(12):1228–30

DIAGNOSIS

Multiple rhabdomyomas in monozygotic twins. Zamith MM, et al. **Cardiol Young** 1999 Mar;9(2):200–2

[Cardiac tumors. Our experience with 4 cases] Torres Borrego J, et al. **An Esp Pediatr** 1999 Jan;50(1):61–4 (24 ref.) **(Spa)**

PATHOLOGY

Rhabdomyoma of the true vocal fold. LaBagnara J Jr, et al. **J Voice** 1999 Jun;13(2):289–93

A tumorous type of pulmonary rhabdomyomatous dysplasia. By A. Ramaswany et al. (in: Pathol. Res. Pract. 194: 639–642, 1988) [letter; comment] Fraggetta F, et al. **Pathol Res Pract** 1999;195(3):199–200. Comment on: Pathol Res Pract 1998;194(9):639–42.

A tumorous type of pulmonary rhabdomyomatous dysplasia [see comments] Ramaswamy A, et al. **Pathol Res Pract** 1998;194(9):639–42 (15 ref.). Comment in: Pathol Res Pract 1999;195(3):199–200.

[Neonatal cardiac rhabdomyoma: case report and clinico-epidemiologic considerations] Lima-Rogel V, et al. **Arch Inst Cardiol Mex** 1998 Sep-Oct;68(5):421–5 (Eng. Abstr.) **(Spa)**

SURGERY

Left ventricular rhabdomyoma. A case report. Stellingwerff GC, et al. **J Cardiovasc Surg (Torino)** 1999 Feb;40(1):131–3

VETERINARY

Laryngeal rhabdomyoma in a golden retriever. Clercx C, et al. **Vet Rec** 1998 Aug 15;143(7):196–8

RHABDOMYOSARCOMA

Pediatric genitourinary tumors. Lee HH, et al. **Curr Opin Oncol** 1999 May;11(3):218–25 (57 ref.)

Common musculoskeletal tumors of childhood and adolescence. Arndt CA, et al. **N Engl J Med** 1999 Jul 29; 341(5):342–52 (100 ref.)

[Urogential rhabdomyosarcoma] Wald M, et al. **Harefuah** 1998 Aug;135(3–4):142–4 (13 ref.) **(Heb)**

BLOOD SUPPLY

Host microvasculature influence on tumor vascular morphology and endothelial gene expression. Roberts WG, et al. **Am J Pathol** 1998 Oct;153(4):1239–48

DIAGNOSIS

Rhabdomyosarcoma mimicking acute leukemia [letter; comment] Parham DM, et al. **Arch Pathol Lab Med** 1998 Dec;122(12):1047. Comment on: Arch Pathol Lab Med 1998 Apr;122(4):375–8.

The role of radiology in childhood rhabdomyosarcoma. McHugh K, et al. **Clin Radiol** 1999 Jan;54(1):2–10 (46 ref.)

Cardiac rhabdomyosarcoma: diagnosis by MR imaging. Villacampa VM, et al. **Eur Radiol** 1999;9(4):634–7

Role of electron microscopy and other special techniques in the diagnosis of childhood round cell tumors. Mierau GW, et al. **Hum Pathol** 1998 Dec;29(12):1347–55

Polysialylated neural cell adhesion molecule as a marker for differential diagnosis in pediatric tumors. Glüer S, et al. **J Pediatr Surg** 1998 Oct;33(10):1516–20

Intimal-type primary sarcoma of the thoracic aorta presenting as a saccular false aneurysm: report of a case with evidence of rhabdomyosarcomatous differentiation. Neri E, et al. **J Thorac Cardiovasc Surg** 1999 Aug; 118(2):371–2

Cervical epidural rhabdomyosarcoma with a leukemia-like presentation in an aged patient--case report. Haisa T, et al. **Neurol Med Chir (Tokyo)** 1999 Mar;39(3):234–7

A follow-up of rhabdomyosarcoma of the infratemporal fossa region in adults based on the magnetic resonance imaging findings: case reports. Goto TK, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):616–25 (20 ref.)

Rhabdomyosarcoma of the orbit. Evaluation with MR imaging and CT. Mafee MF, et al. **Radiol Clin North Am** 1998 Nov;36(6):1215–27, xii

[Standards, options and recommendations (SOR) for clinical care of rhabdomyosarcoma (RMS) and other soft tissue sarcoma in children. Federation of the French Cancer Centers. French Society of Pediatric Oncology (published erratum appears in Bull Cancer 1999 Feb;86(2):232)] Sommelet D, et al. **Bull Cancer** 1998 Dec;85(12):1015–42 (218 ref.) (Eng. Abstr.) **(Fre)**

[Rhabdomyosarcoma in the area of the head-neck. A synopsis of some cases, therapeutic possibilities and prognoses] Hess A, et al. **Laryngorhinootologie** 1998 Oct; 77(10):557–63 (Eng. Abstr.) **(Ger)**

[Prostatic rhabdomyosarcoma in adults] Muñoz Vélez D, et al. **Arch Esp Urol** 1998 Nov;51(9):883–8 (21 ref.) (Eng. Abstr.) **(Spa)**

[Alveolar rhabdomyosarcoma with massive infiltration of the bone marrow as its initial manifestation] Pérez del Río MJ, et al. **Sangre (Barc)** 1998 Jun;43(3):236–9 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Evaluation of irinotecan in combination with 5-fluorouracil or etoposide in xenograft models of colon adenocarcinoma and rhabdomyosarcoma. Houghton JA, et al. **Clin Cancer Res** 1996 Jan;2(1):107–18

Treatment of intermediate risk rhabdomyosarcoma and undifferentiated sarcoma with alternating cycles of vincristine/doxorubicin/cyclophosphamide and etoposide/ifosfamide. Arndt CA, et al. **Eur J Cancer** 1998 Jul;34(8):1224–9

Treatment of non-metastatic rhabdomyosarcomas in childhood and adolescence. Results of the second study of the International Society of Paediatric Oncology: MMT84. Flamant F, et al. **Eur J Cancer** 1998 Jun; 34(7):1050–62

Late complications of therapy in 213 children with localized, nonorbital soft-tissue sarcoma of the head and neck: A descriptive report from the Intergroup Rhabdomyosarcoma Studies (IRS)-II and - III. IRS Group of the Children's Cancer Group and the Pediatric Oncology Group. Raney RB, et al. **Med Pediatr Oncol** 1999 Oct;33(4):362–71

High-dose chemotherapy followed by peripheral blood stem cell rescue for metastatic rhabdomyosarcoma: the experience at Chicago Children's Memorial Hospital. Walterhouse DO, et al. **Med Pediatr Oncol** 1999 Feb; 32(2):88–92

Studies on the mechanism of resistance to rapamycin in human cancer cells. Hosoi H, et al. **Mol Pharmacol** 1998 Nov;54(5):815–24

Differential diagnosis of metastases in bone scans: chemotherapy induced bone necrosis. Reuland P, et al. **Nuklearmedizin** 1999;38(2):38–42

Bax is an important determinant of chemosensitivity in pediatric tumor cell lines independent of Bcl-2 expression and p53 status. McPake CR, et al. **Oncol Res** 1998; 10(5):235–44

ENZYMOLOGY

Increased DNA methyltransferase expression in rhabdomyosarcomas. Chen B, et al. **Int J Cancer** 1999 Sep 24;83(1):10–4

EPIDEMIOLOGY

Parameningeal rhabdomyosarcoma. Report of 19 cases. Oujilal A, et al. **Acta Otorhinolaryngol Belg** 1998; 52(3):235–40

ETIOLOGY

Experimental induction of rhabdomyosarcoma in mice with fractionated doses of beta-irradiation. Gupta A, et al. **J Cancer Res Clin Oncol** 1999;125(5):257–67

GENETICS

Restoration of p16INK4A protein induces myogenic differentiation in RD rhabdomyosarcoma cells. Urashima M, et al. **Br J Cancer** 1999 Mar;79(7–8):1032–6

Cytogenetic study of a spindle-cell rhabdomyosarcoma of the parotid gland. Gil-Benso R, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):150–3

Insulin-like growth factor II and PAX3-FKHR cooperate in the oncogenesis of rhabdomyosarcoma. Wang W, et al. **Cancer Res** 1998 Oct 1;58(19):4426–33

Mutation of Thr115 in MyoD positively regulates function in murine fibroblasts and human rhabdomyosarcoma cells. Liu LN, et al. **Cell Growth Differ** 1998 Sep;9(9):699–711

Detection of PAX3-FKHR and PAX7-FKHR fusion transcripts in rhabdomyosarcoma by reverse transcriptase-polymerase chain reaction using paraffin-embedded tissue. Chen BF, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Feb;62(2):86–91

The role of Pax3 and Pax7 in development and cancer. Mansouri A. **Crit Rev Oncog** 1998;9(2):141–9 (62 ref.)

PAX3-FKHR and PAX7-FKHR gene fusions in rhabdomyosarcoma [letter; comment] Kelly KM, et al. **J Pediatr Hematol Oncol** 1998 Sep-Oct;20(5):517–8. Comment on: J Pediatr Hematol Oncol 1998 Jan-Feb;20(1):86–7.

Multidrug resistance phenotype in the RMS-GR human rhabdomyosarcoma cell line obtained after polychemotherapy. Prados J, et al. **Jpn J Cancer Res** 1999 Jul;90(7):788–93

Rhabdomyosarcoma--working out the pathways. Merlino G, et al. **Oncogene** 1999 Sep 20;18(38):5340–8 (134 ref.)

AP-2 may contribute to IGF-II overexpression in rhabdomyosarcoma. Zhang L, et al. **Oncogene** 1998 Sep 10;17(10):1261–70

[Comparison of the transcription of the fetal type acetylcholine receptor and myogenin in rhabdomyosarcoma] Gattenlöhner S, et al. **Verh Dtsch Ges Pathol** 1998;82:195–201 (Eng. Abstr.) **(Ger)**

HISTORY

Early history of pathology studies by the Intergroup Rhabdomyosarcoma Study Group. Newton WA Jr, et al. **Pediatr Dev Pathol** 1999 May-Jun;2(3):275–85

IMMUNOLOGY

Effective T cell regeneration following high-dose chemotherapy rescued with CD34+ cell enriched peripheral blood progenitor cells in children. Heitger A, et al. **Bone Marrow Transplant** 1999 Feb;23(4):347–53

METABOLISM

Wild-type p53-mediated down-modulation of interleukin 15 and interleukin 15 receptors in human rhabdomyosarcoma cells. De Giovanni C, et al. **Br J Cancer** 1998 Dec; 78(12):1541–6

Expression of CD44 by rhabdomyosarcoma: a new prognostic marker? Humphrey G, et al. **Br J Cancer** 1999 May;80(5–6):918–21

Expression of neural cell adhesion molecules and neurofilament protein isoforms in skeletal muscle tumors. Molenaar WM, et al. **Hum Pathol** 1998 Nov;29(11):1290–3

Production of stem cell factor and expression of c-kit in human rhabdomyosarcoma cells: lack of autocrine growth modulation. Landuzzi L, et al. **Int J Cancer** 1998 Nov 9; 78(4):441–5

Tumor necrosis factor induces ceramide oscillations and negatively controls sphingolipid synthases by caspases in apoptotic Kym-1 cells. Bourteele S, et al. **J Biol Chem** 1998 Nov 20;273(47):31245–51

Cadherin-11 is highly expressed in rhabdomyosarcomas and during differentiation of myoblasts in vitro. Markus MA, et al. **J Pathol** 1999 Jan;187(2):164–72

Evaluation of new monoclonal anti-MyoD1 and anti-myogenin antibodies for the diagnosis of rhabdomyosarcoma. Cui S, et al. **Pathol Int** 1999 Jan; 49(1):62–8

[The correlation between expression of oncogene protein products p53, p21, p185 and cell differentiation and prognosis in rhabdomyosarcoma] Lai R, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Feb;26(1):35–7 (Eng. Abstr.) **(Chi)**

MORTALITY

Turkish experience with rhabdomyosarcoma: an analysis of 255 patients for 20 years. Akyüz C, et al. **Turk J Pediatr** 1998 Oct-Dec;40(4):491–501

PATHOLOGY

Pancreatic metastasis of cardiac rhabdomyosarcoma diagnosed by fine needle aspiration. A case report. Khalbuss WE, et al. **Acta Cytol** 1999 May-Jun;43(3):447–51

Fine needle aspiration biopsy of a small round cell tumor exhibiting both neural and myogenic differentiation. A case report. Ravinsky E, et al. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1320–4

Prognostic value of proliferating cell nuclear antigen immunostaining in pediatric rhabdomyosarcomas. Tokuç G, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):573–9

Second primary rhabdomyosarcomas in patients with bilateral retinoblastoma: a clinicopathologic and immunohistochemical study. Hasegawa T, et al. **Am J Surg Pathol** 1998 Nov;22(11):1351–60

GR-891: a novel 5-fluorouracil acyclonucleoside prodrug for differentiation therapy in rhabdomyosarcoma cells. Marchal JA, et al. **Br J Cancer** 1999 Feb;79(5–6):807–13

Haemophagocytosis in bone marrow rhabdomyosarcoma. Schwartz S, et al. **Br J Haematol** 1999 Jun;105(3):573
Cytogenetic study of a spindle-cell rhabdomyosarcoma of the parotid gland. Gil-Benso R, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):150-3
Rapamycin causes poorly reversible inhibition of mTOR and induces p53-independent apoptosis in human rhabdomyosarcoma cells. Hosoi H, et al. **Cancer Res** 1999 Feb 15;59(4):886-94
Cytologic diagnosis and subtyping of rhabdomyosarcoma. Atahan S, et al. **Cytopathology** 1998 Dec;9(6):389-97
Skeletal muscle regeneration mimicking rhabdomyosarcoma: a potential diagnostic pitfall. Guillou L, et al. **Histopathology** 1998 Aug;33(2):136-44
Laryngeal rhabdomyosarcoma in adults. Ruske DR, et al. **J Laryngol Otol** 1998 Jul;112(7):670-2 (17 ref.)
Rhabdomyosarcoma of the penis in a 15-month-old boy. Antoneli CB, et al. **J Urol** 1998 Dec;160(6 Pt 1):2200-1 (3 ref.)
Assessment of iron oxide particles (AMI 227) and a gadolinium complex (Gd-DOTA) in dynamic susceptibility contrast MR imagings (FLASH and EPI) in a tumor model implanted in rats. Loubeyre P, et al. **Magn Reson Imaging** 1999 May;17(4):627-31
Rhabdomyosarcoma: an overview. Dagher R, et al. **Oncologist** 1999;4(1):34-44 (80 ref.)
A case report of gastric carcinosarcoma with rhabdomyosarcomatous and neuroendocrinal differentiation. Tsuneyama K, et al. **Pathol Res Pract** 1999; 195(2):93-7; discussion 98
Intergroup Rhabdomyosarcoma Study: update for pathologists. Qualman SJ, et al. **Pediatr Dev Pathol** 1998 Nov-Dec;1(6):550-61 (35 ref.)
Ectomesenchymoma of the prostate: histological diagnostic criteria. Govender D, et al. **Pediatr Surg Int** 1999; 15(1):68-70
Uterine rhabdomyosarcoma metastatic to mediastinal lymph nodes: diagnosis by transbronchial needle aspiration. Goldstein LS, et al. **South Med J** 1999 Jan;92(1):84-7
Efficacy and concentration-response of murine anti-VEGF monoclonal antibody in tumor-bearing mice and extrapolation to humans. Mordenti J, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):14-21
Sarcomatoid hepatocellular-carcinoma showing rhabdomyoblastic differentiation in the adult cirrhotic liver. Akasofu M, et al. **Virchows Arch** 1999 Jun;434(6):511-5
Intimal-type primary sarcoma of the aorta. Report of a case with evidence of rhabdomyosarcomatous differentiation. Miracco C, et al. **Virchows Arch** 1999 Jul;435(1):62-6
[Pathology of childhood and adolescent rhabdomyosarcoma] Leuschner I, et al. **Pathologe** 1999 Mar;20(2):87-97 (30 ref.) (Eng. Abstr.) **(Ger)**
[Rhabdomyosarcoma and extraosseous Ewing's sarcoma] Harms D, et al. **Verh Dtsch Ges Pathol** 1998;82:83-98 (71 ref.) (Eng. Abstr.) **(Ger)**
[Rhabdomyosarcoma of the neck in adults] Fernández Pérez A, et al. **Acta Otorrinolaringol Esp** 1999 Apr;50(3):211-4 (Eng. Abstr.) **(Spa)**
[Paratesticular rhabdomyosarcoma] Martín-Marquina Aspiunza A, et al. **Actas Urol Esp** 1998 Oct;22(9):778-80 (Eng. Abstr.) **(Spa)**
[Paratesticular rhabdomyosarcoma] Méndez Gallart R, et al. **Actas Urol Esp** 1999 Jun;23(6):549-52 (Eng. Abstr.) **(Spa)**

RADIOTHERAPY

Repeated use of the cuffed oropharyngeal airway in an infant for radiation therapy [letter] Greenberg RS, et al. **Anesth Analg** 1999 Jun;88(6):1421-2
Role of radiation therapy in parameningeal rhabdomyosarcoma. Paulino AC. **Cancer Invest** 1999; 17(3):223-30 (40 ref.)
The effects of radiation on craniofacial skeletal growth: a quantitative study. Denys D, et al. **Int J Pediatr Otorhinolaryngol** 1998 Sep 15;45(1):7-13
Microvascular and tumor cell alterations during continuous hyperfractionated irradiation: an electron microscopic investigation on the rat R1H rhabdomyosarcoma. Lorke DE, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1; 44(4):895-904
Late complications of therapy in 213 children with localized, nonorbital soft-tissue sarcoma of the head and neck: A descriptive report from the Intergroup Rhabdomyosarcoma Studies (IRS)-II and - III. IRS Group of the Children's Cancer Group and the Pediatric Oncology Group. Raney RB, et al. **Med Pediatr Oncol** 1999 Oct;33(4):362-71
Growth hormone deficiency following radiotherapy for orbital and parameningeal sarcomas. Goddard AG, et al. **Pediatr Hematol Oncol** 1999 Jan-Feb;16(1):23-33

SECONDARY

Pancreatic metastasis of cardiac rhabdomyosarcoma diagnosed by fine needle aspiration. A case report. Khalbuss WE, et al. **Acta Cytol** 1999 May-Jun;43(3):447-51
T4 lung tumors with infiltration of the thoracic aorta: is an operation reasonable? Klepetko W, et al. **Ann Thorac Surg** 1999 Feb;67(2):340-4
Combination chemotherapy and IL-15 administration induce permanent tumor regression in a mouse lung tumor model: NK and T cell-mediated effects antagonized by B cells. Chapoval AI, et al. **J Immunol** 1998 Dec 15; 161(12):6977-84
Metastatic rhabdomyosarcoma presenting as an isolated lateral rectus restriction. Simpson JL, et al. **J Pediatr Ophthalmol Strabismus** 1999 Mar-Apr;36(2):90-1
Clear cell (glycogen-rich) rhabdomyosarcoma presenting as cervical lymphadenopathy. Govender D, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 Jan-Feb; 61(1):52-4 (9 ref.)
Uterine rhabdomyosarcoma metastatic to mediastinal lymph nodes: diagnosis by transbronchial needle aspiration. Goldstein LS, et al. **South Med J** 1999 Jan;92(1):84-7
Rhabdomyosarcoma metastasizing as a malignant ectomesenchymoma. Edwards V, et al. **Ultrastruct Pathol** 1999 Jul-Aug;23(4):267-73

SURGERY

Risk-based management: current concepts of treating malignant solid tumors of childhood. Grosfeld JL. **J Am Coll Surg** 1999 Oct;189(4):407-25 (93 ref.)
Progress in the surgical management of vaginal rhabdomyosarcoma: a 25-year review from the Intergroup Rhabdomyosarcoma Study Group. Andrassy RJ, et al. **J Pediatr Surg** 1999 May;34(5):731-4; discussion 734-5
Combined resection of abdominal aorta and inferior vena cava for retroperitoneal rhabdomyosarcoma invading the aortoiliac bifurcation. Ito F, et al. **J Pediatr Surg** 1998 Oct; 33(10):1566-8
Is retroperitoneal lymph node dissection necessary for adult paratesticular rhabdomyosarcoma? Hermans BP, et al. **J Urol** 1998 Dec;160(6 Pt 1):2074-7

THERAPY

Childhood rhabdomyosarcoma of the trunk and extremities. Tabrizi P, et al. **Am J Orthop** 1999 Aug;28(8):440-6
Effective T cell regeneration following high-dose chemotherapy rescued with CD34+ cell enriched peripheral blood progenitor cells in children. Heitger A, et al. **Bone Marrow Transplant** 1999 Feb;23(4):347-53
Parameningeal rhabdomyosarcoma: major advances but no cigar! [editorial] Jaffe N. **Cancer Invest** 1999;17(3):231-3
Combination chemotherapy and IL-15 administration induce permanent tumor regression in a mouse lung tumor model: NK and T cell-mediated effects antagonized by B cells. Chapoval AI, et al. **J Immunol** 1998 Dec 15; 161(12):6977-84
Rhabdomyosarcoma in children--a ten year review. Bradford WB, et al. **J Ky Med Assoc** 1998 Oct; 96(10):399-402
What comprises appropriate therapy for children/adolescents with rhabdomyosarcoma arising in the abdominal wall? A report from the Intergroup Rhabdomyosarcoma Study Group. Beech TR, et al. **J Pediatr Surg** 1999 May; 34(5):668-71
Conservative management of uterine rhabdomyosarcoma. Hammerman RM, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 2):669-70
Rhabdomyosarcoma: an overview. Dagher R, et al. **Oncologist** 1999;4(1):34-44 (80 ref.)
Efficacy and concentration-response of murine anti-VEGF monoclonal antibody in tumor-bearing mice and extrapolation to humans. Mordenti J, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):14-21
[Standards, options and recommendations (SOR) for clinical care of rhabdomyosarcoma (RMS) and other soft tissue sarcoma in children. Federation of the French Cancer Centers. French Society of Pediatric Oncology (published erratum appears in Bull Cancer 1999 Feb;86(2):232)] Sommelet D, et al. **Bull Cancer** 1998 Dec;85(12):1015-42 (218 ref.) (Eng. Abstr.) **(Fre)**
[Rhabdomyosarcoma of the prostate in childhood: a case report] Okumura A, et al. **Hinyokika Kiyo** 1998 Aug; 44(8):611-4 (Eng. Abstr.) **(Jpn)**

ULTRASTRUCTURE

Microtubular aggregates within the rough endoplasmic reticulum of embryonal rhabdomyosarcoma cells: a case report. Tsuchida R, et al. **Ultrastruct Pathol** 1999 May-Jun; 23(3):193-8

VETERINARY

Rhabdomyosarcoma of the tongue in a dog. Lascelles BD, et al. **J Small Anim Pract** 1998 Dec;39(12):587-91

RHABDOMYOSARCOMA, ALVEOLAR

COMPLICATIONS

Massive disseminated intravascular coagulation and hyperfibrinolysis in alveolar rhabdomyosarcoma: case report and review of the literature. Fiegl M, et al. **Ann Hematol** 1999 Jul;78(7):335-8 (18 ref.)
Costello syndrome and rhabdomyosarcoma [letter] Feingold M. **J Med Genet** 1999 Jul;36(7):582-3

DIAGNOSIS

Metastatic alveolar rhabdomyosarcoma with increased serum creatine kinase MB and cardiac troponin T and normal cardiac troponin I [letter] Isotalo PA, et al. **Clin Chem** 1999 Sep;45(9):1576-8
Polymerase chain reaction-based diagnosis of rhabdomyosarcomas: comparison of fetal type acetylcholine receptor subunits and myogenin. Gattenlöhner S, et al. **Diagn Mol Pathol** 1998 Jun; 7(3):129-34

GENETICS

Alveolar rhabdomyosarcoma in a 68-year-old patient identified by cytogenetic analysis of bone marrow. Stindl R, et al. **Cancer Genet Cytogenet** 1998 Nov;107(1):43-7
Gene expression profiling of alveolar rhabdomyosarcoma with cDNA microarrays. Khan J, et al. **Cancer Res** 1998 Nov 15;58(22):5009-13
N-myc gene amplification in rhabdomyosarcoma detected by fluorescence in situ hybridization: its correlation with histologic features. Hachitanda Y, et al. **Mod Pathol** 1998 Dec;11(12):1222-7
PAX3 and PAX7 exhibit conserved cis-acting transcription repression domains and utilize a common gain of function mechanism in alveolar rhabdomyosarcoma. Bennicelli JL, et al. **Oncogene** 1999 Jul 29;18(30):4348-56
Myc oncogene expression and nude mouse tumorigenicity and metastasis formation are higher in alveolar than embryonal rhabdomyosarcoma cell lines. Kouraklis G, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):552-8
[Evidence of genetic alterations in chromosome 11 in embryonal and alveolar rhabdomyosarcoma] Brinkschmidt C, et al. **Verh Dtsch Ges Pathol** 1998;82:210-4 (Eng. Abstr.) **(Ger)**

PATHOLOGY

Hemophagocytic ability of rhabdomyosarcoma cells. Kounami S, et al. **Acta Haematol** 1998 Dec;100(3):160-1
Diagnosis of disseminated alveolar rhabdomyosarcoma using cytogenetics: case report. Githang'a JN. **East Afr Med J** 1998 Dec;75(12):724-5
Unusual clinical evolution of a paratesticular alveolar rhabdomyosarcoma in a child. de Camargo B, et al. **Med Pediatr Oncol** 1999 Oct;33(4):422-4
N-myc gene amplification in rhabdomyosarcoma detected by fluorescence in situ hybridization: its correlation with histologic features. Hachitanda Y, et al. **Mod Pathol** 1998 Dec;11(12):1222-7
Myc oncogene expression and nude mouse tumorigenicity and metastasis formation are higher in alveolar than embryonal rhabdomyosarcoma cell lines. Kouraklis G, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):552-8
[Alveolar rhabdomyosarcoma presenting as acute leukemia] Reinecke P, et al. **Verh Dtsch Ges Pathol** 1998;82:336-9 (Eng. Abstr.) **(Ger)**
[Atypical biological behavior of alveolar rhabdomyosarcoma in five patients] Durán Padilla MA, et al. **Rev Invest Clin** 1999 Jan-Feb;51(1):17-22 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

The role of chimeric paired box transcription factors in the pathogenesis of pediatric rhabdomysarcoma. Barr FG. **Cancer Res** 1999 Apr 1;59(7 Suppl):1711s-1715s

RADIONUCLIDE IMAGING

Resolved splenic accumulation of Tc-99m HMDP after recovery of disseminated intravascular coagulation in a patient with rhabdomyosarcoma. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):414-7

SECONDARY

Metastases to the breast from rhabdomyosarcoma: appearances on MRI. Perlet C, et al. **Eur Radiol** 1999; 9(6):1113-6

SURGERY

[Rhabdomyosarcoma of the hand. Apropos of a case confined to the thenar eminence] Dumortier R, et al. **Ann Chir Plast Esthet** 1998 Oct;43(5):563-6 (Eng. Abstr.) **(Fre)**

RHABDOMYOSARCOMA, EMBRYONAL

[Paratesticular rhabdomyosarcoma. Report of a case and review of the literature] Guinda Sevillano C, et al. **Actas Urol Esp** 1998 Sep;22(8):690-4 (17 ref.) (Eng. Abstr.) **(Spa)**

COMPLICATIONS

Facial paralysis: a presenting feature of rhabdomyosarcoma. Jan MM. **Int J Pediatr Otorhinolaryngol** 1998 Dec 15; 46(3):221-4
Costello syndrome: two cases with embryonal rhabdomyosarcoma. Kerr B, et al. **J Med Genet** 1998 Dec; 35(12):1036-9
Hemihypertrophy and a poorly differentiated embryonal rhabdomyosarcoma of the pelvis. Samuel DP, et al. **Med Pediatr Oncol** 1999 Jan;32(1):38-43
[An rare cause of vaginal discharge: sarcoma botryoides] Oude Elberink CS, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1728-32 (Eng. Abstr.) **(Dut)**

RHABDOMYOSARCOMA, EMBRYONAL

CONGENITAL

Congenital subcutaneous nodule in an infant [clinical conference] Tay YK, et al. **Pediatr Dermatol** 1998 Sep-Oct; 15(5):403-5

DIAGNOSIS

Rhabdomyosarcoma of the urachus. A case report. Yokoyama S, et al. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1293-8

Polymerase chain reaction-based diagnosis of rhabdomyosarcomas: comparison of fetal type acetylcholine receptor subunits and myogenin. Gattenlöhner S, et al. **Diagn Mol Pathol** 1998 Jun; 7(3):129-34

Sarcoma botryoides of the female genital tract: long-term results of conservative treatment followed by pregnancy. A case report. Marana HR, et al. **Eur J Gynaecol Oncol** 1999;20(2):122-3

Laryngeal embryonal rhabdomyosarcoma in a child: MRI appearance. Mortelé K, et al. **Eur Radiol** 1998;8(7):1251-3

Retropharyngeal rhabdomyosarcoma mimicking pseudotumor cerebri. Kikuchi M, et al. **Pediatr Neurol** 1999 Jul;21(1):496-9

DRUG THERAPY

Conservative treatment followed by chemotherapy with doxorubicin and ifosfamide for cervical sarcoma botryoides in young females. Zanetta G, et al. **Br J Cancer** 1999 May; 80(3-4):403-6

Sarcoma botryoides of the female genital tract: long-term results of conservative treatment followed by pregnancy. A case report. Marana HR, et al. **Eur J Gynaecol Oncol** 1999;20(2):122-3

Primary conjunctival rhabdomyosarcoma: 2.5 years' follow-up after combined chemotherapy and brachytherapy. Sekundo W, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov;236(11):873-5

Successful treatment of intracaval and atrial extension of rhabdomyosarcoma without surgical excision: an unusual presentation. Akyüz C, et al. **Med Pediatr Oncol** 1999 Apr; 32(4):313-4

EPIDEMIOLOGY

Parameningeal rhabdomyosarcoma. Report of 19 cases. Oujilal A, et al. **Acta Otorhinolaryngol Belg** 1998; 52(3):235-40

ETIOLOGY

Neurofibromatosis 1 associated with embryonal rhabdomyosarcoma of the urinary bladder. Reich S, et al. **Pediatr Hematol Oncol** 1999 May-Jun;16(3):263-6

GENETICS

Child with mosaic variegated aneuploidy and embryonal rhabdomyosarcoma. Limwongse C, et al. **Am J Med Genet** 1999 Jan 1;82(1):20-4 (24 ref.)

Trisomy 8 in embryonal rhabdomyosarcoma detected by fluorescence in situ hybridization. Afify A, et al. **Cancer Genet Cytogenet** 1999 Jan 15;108(2):127-32

Embryonal rhabdomyosarcoma with only numerical chromosome changes. Case report and review of the literature. Polito P, et al. **Cancer Genet Cytogenet** 1999 Mar; 109(2):161-5 (19 ref.)

N-myc gene amplification in rhabdomyosarcoma detected by fluorescence in situ hybridization: its correlation with histologic features. Hachitanda Y, et al. **Mod Pathol** 1998 Dec;11(12):1222-7

Myc oncogene expression and nude mouse tumorigenicity and metastasis formation are higher in alveolar than embryonal rhabdomyosarcoma cell lines. Kouraklis G, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):552-8

[Evidence of genetic alterations in chromosome 11 in embryonal and alveolar rhabdomyosarcoma] Brinkschmidt C, et al. **Verh Dtsch Ges Pathol** 1998;82:210-4 (Eng. Abstr.) **(Ger)**

MORTALITY

Does debulking improve survival rate in advanced-stage retroperitoneal embryonal rhabdomyosarcoma? Blakely ML, et al. **J Pediatr Surg** 1999 May;34(5):736-41; discussion 741-2

PATHOLOGY

Sarcoma botryoides of the cervix. Report of a case with cytopathologic findings. Matsuura Y, et al. **Acta Cytol** 1999 May-Jun;43(3):475-80

Embryonal rhabdomyosarcoma of the nose in an elderly patient, case report and review of the literature. Jund R, et al. **Auris Nasus Larynx** 1998 Dec;25(4):445-50 (25 ref.)

Rhabdomyosarcoma in a child with massive pleural effusion: cytological diagnosis from pleural fluid. Cohen I, et al. **Diagn Cytopathol** 1999 Aug;21(2):125-8

Rhabdomyosarcoma (RMS) of the uterine cervix in two Ethiopian patients: case report. Ergete W, et al. **Ethiop Med J** 1998 Apr;36(2):141-6

Intra-abdominal embryonal rhabdomyosarcoma in an adult. Kaplan AM, et al. **Gynecol Oncol** 1999 Aug;74(2):282-5

Solid tumors and germ cell tumors induce nonneoplastic germ cell proliferations in testes of infants and young children [letter] Hawkins EP, et al. **Hum Pathol** 1998 Dec; 29(12):1547-8

Subsequent urethral relapses with extension into the corpora cavernosa of embryonal rhabdomyosarcoma of the prostate. Guarriello A, et al. **J Urol** 1999 Jun;161(6):1911

Successful treatment of intracaval and atrial extension of rhabdomyosarcoma without surgical excision: an unusual presentation. Akyüz C, et al. **Med Pediatr Oncol** 1999 Apr; 32(4):313-4

N-myc gene amplification in rhabdomyosarcoma detected by fluorescence in situ hybridization: its correlation with histologic features. Hachitanda Y, et al. **Mod Pathol** 1998 Dec;11(12):1222-7

Congenital subcutaneous nodule in an infant [clinical conference] Tay YK, et al. **Pediatr Dermatol** 1998 Sep-Oct; 15(5):403-5

Myc oncogene expression and nude mouse tumorigenicity and metastasis formation are higher in alveolar than embryonal rhabdomyosarcoma cell lines. Kouraklis G, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):552-8

RADIOTHERAPY

Primary conjunctival rhabdomyosarcoma: 2.5 years' follow-up after combined chemotherapy and brachytherapy. Sekundo W, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Nov;236(11):873-5

SECONDARY

Rhabdomyosarcoma of the urachus. A case report. Yokoyama S, et al. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1293-8

Cervical sarcoma botryoides. A case report. Vlahos NP, et al. **J Reprod Med** 1999 Mar;44(3):306-8

SURGERY

Conservative treatment followed by chemotherapy with doxorubicin and ifosfamide for cervical sarcoma botryoides in young females. Zanetta G, et al. **Br J Cancer** 1999 May; 80(3-4):403-6

Does debulking improve survival rate in advanced-stage retroperitoneal embryonal rhabdomyosarcoma? Blakely ML, et al. **J Pediatr Surg** 1999 May;34(5):736-41; discussion 741-2

Primary embryonal rhabdomyosarcoma of the breast in an adolescent female: a case report. Herrera LJ, et al. **J Pediatr Surg** 1998 Oct;33(10):1582-4

Cervical sarcoma botryoides. A case report. Vlahos NP, et al. **J Reprod Med** 1999 Mar;44(3):306-8

ULTRASONOGRAPHY

Prenatal sonographic features of embryonal rhabdomyosarcoma. Onderoğlu LS, et al. **Ultrasound Obstet Gynecol** 1999 Mar;13(3):210-2 (7 ref.)

VETERINARY

Differentiated embryonal rhabdomyosarcoma in a cow. Jimma K, et al. **J Vet Med Sci** 1999 May;61(5):577-80

[Embryonal rhabdomyosarcoma in a lamb of the Texel breed] Herfen K, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):87-91 (Eng. Abstr.) **(Ger)**

RHABDOVIRIDAE

CHEMISTRY

Deduced structural model for animal rhabdovirus glycoproteins. Walker PJ, et al. **J Gen Virol** 1999 May;80 (Pt 5):1211-20

Characterization of intramolecular disulfide bonds and secondary modifications of the glycoprotein from viral hemorrhagic septicemia virus, a fish rhabdovirus. Einer-Jensen K, et al. **J Virol** 1998 Dec;72(12):10189-96

Purification of the glycoprotein G from viral haemorrhagic septicaemia virus, a fish rhabdovirus, by lectin affinity chromatography. Perez L, et al. **J Virol Methods** 1998 Dec; 76(1-2):1-8

CLASSIFICATION

Yellow head virus from Thailand and gill-associated virus from Australia are closely related but distinct prawn viruses. Cowley JA, et al. **Dis Aquat Organ** 1999 May 12; 36(2):153-7

GENETICS

Structure analysis of the rice yellow stunt rhabdovirus glycoprotein gene and its mRNA. Luo ZL, et al. **Arch Virol** 1998;143(12):2453-9

Combined DNA immunization with the glycoprotein gene of viral hemorrhagic septicemia virus and infectious hematopoietic necrosis virus induces double-specific protective immunity and nonspecific response in rainbow trout. Boudinot P, et al. **Virology** 1998 Sep 30; 249(2):297-306

Complete genomic sequence of viral hemorrhagic septicemia virus, a fish rhabdovirus. Schütze H, et al. **Virus Genes** 1999;19(1):59-65

Structure, expression and phylogenetic analysis of the glycoprotein gene of Cocal virus. Bhella RS, et al. **Virus Res** 1998 Apr;54(2):197-205

IMMUNOLOGY

Immunogenicity of a recombinant infectious hematopoietic necrosis virus glycoprotein produced in insect cells. Cain KD, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):67-72

Mapping of linear antibody epitopes of the glycoprotein of VHSV, a salmonid rhabdovirus. Fernandez-Alonso M, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):167-76

Viral-antigen dependence and T-cell receptor expression in leucocytes from rhabdovirus immunized trout. Estepa A, et al. **Vet Immunol Immunopathol** 1999 Mar 29;68(1):73-89

Combined DNA immunization with the glycoprotein gene of viral hemorrhagic septicemia virus and infectious hematopoietic necrosis virus induces double-specific protective immunity and nonspecific response in rainbow trout. Boudinot P, et al. **Virology** 1998 Sep 30; 249(2):297-306

ISOLATION & PURIFICATION

Epizootiology of viral hemorrhagic septicemia virus in Pacific herring from the spawn-on-kelp fishery in Prince William Sound, Alaska, USA. Hershberger PK, et al. **Dis Aquat Organ** 1999 Jun 23;37(1):23-31

Rapid and sensitive reverse transcriptase-polymerase chain reaction based detection and differential diagnosis of fish pathogenic rhabdoviruses in organ samples and cultured cells. Miller TA, et al. **Dis Aquat Organ** 1998 Sep 11; 34(1):13-20

Truncated particles produced in fish surviving infectious hematopoietic necrosis virus infection: mediators of persistence? Kim CH, et al. **J Virol** 1999 Jan;73(1):843-9

Procedures for plant rhabdovirus purification, polyribosome isolation, and replicase extraction. Jackson AO, et al. **Methods Mol Biol** 1998;81:77-97

[Detection of viral hemorrhagic septicemia virus (VHSV) in rainbow trout (Oncorhynchus mykiss) by reverse transcription followed by polymerase chain reaction. Diagnostic validation] Guillou JP, et al. **Vet Res** 1999 Jan-Feb;30(1):49-60 (Eng. Abstr.) **(Fre)**

METABOLISM

Temperature dependent characteristics of a recombinant infectious hematopoietic necrosis virus glycoprotein produced in insect cells. Cain KD, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):1-10

Fish rhabdovirus cell entry is mediated by fibronectin. Bearzotti M, et al. **J Virol** 1999 Sep;73(9):7703-9

PATHOGENICITY

Mutations in the glycoprotein of viral haemorrhagic septicaemia virus that affect virulence for fish and the pH threshold for membrane fusion. Gaudin Y, et al. **J Gen Virol** 1999 May;80 (Pt 5):1221-9

PHYSIOLOGY

vig-1, a new fish gene induced by the rhabdovirus glycoprotein, has a virus-induced homologue in humans and shares conserved motifs with the MoaA family. Boudinot P, et al. **J Virol** 1999 Mar;73(3):1846-52

RHABDOVIRIDAE INFECTIONS

DIAGNOSIS

Non-rabies Lyssavirus human encephalitis from fruit bats: Australian bat Lyssavirus (pteropid Lyssavirus) infection. Samaratunga H, et al. **Neuropathol Appl Neurobiol** 1998 Aug;24(4):331-5

EPIDEMIOLOGY

A retrospective search for lyssavirus in humans in the Northern Territory. Skull SA, et al. **Aust N Z J Public Health** 1999 Jun;23(3):305-8

Mokola virus infection: description of recent South African cases and a review of the virus epidemiology. von Teichman BF, et al. **J S Afr Vet Assoc** 1998 Dec; 69(4):169-71

IMMUNOLOGY

Paramunity-inducing effects of vaccinia strain MVA. Vilsmeier B. **Berl Munch Tierarztl Wochenschr** 1999 Sep; 112(9):329-33

Mathematical model of a virus-neutralizing immunglobulin response. Funk GA, et al. **J Theor Biol** 1998 Nov 7; 195(1):41-52

Neuronal expression of NOS-1 is required for host recovery from viral encephalitis. Komatsu T, et al. **Virology** 1999 Jun 5;258(2):389-95

PREVENTION & CONTROL

Identification of the murine Mx2 gene: interferon-induced expression of the Mx2 protein from the feral mouse gene confers resistance to vesicular stomatitis virus. Jin HK, et al. **J Virol** 1999 Jun;73(6):4925-30

THERAPY

Delayed administration of interleukin-12 is efficacious in

promoting recovery from lethal viral encephalitis. Ireland DD, et al. **Viral Immunol** 1999;12(1):35–40

VETERINARY

Potential for contact and mechanical vector transmission of vesicular stomatitis virus New Jersey in pigs. Stallknecht DE, et al. **Am J Vet Res** 1999 Jan;60(1):43–8

Immunogenicity of a recombinant infectious hematopoietic necrosis virus glycoprotein produced in insect cells. Cain KD, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):67–72

Epizootiology of viral hemorrhagic septicemia virus in Pacific herring from the spawn-on-kelp fishery in Prince William Sound, Alaska, USA. Hershberger PK, et al. **Dis Aquat Organ** 1999 Jun 23;37(1):23–31

Rapid and sensitive reverse transcriptase-polymerase chain reaction based detection and differential diagnosis of fish pathogenic rhabdoviruses in organ samples and cultured cells. Miller TA, et al. **Dis Aquat Organ** 1998 Sep 11; 34(1):13–20

Australian bat lyssavirus infection in a captive juvenile black flying fox. Field H, et al. **Emerg Infect Dis** 1999 May–Jun; 5(3):438–40

Public veterinary medicine: public health. Serologic evaluation of vesicular stomatitis virus exposure in horses and cattle in 1996. Mumford EL, et al. **J Am Vet Med Assoc** 1998 Nov 1;213(9):1265–9

Mutations in the glycoprotein of viral haemorrhagic septicaemia virus that affect virulence for fish and the pH threshold for membrane fusion. Gaudin Y, et al. **J Gen Virol** 1999 May;80 (Pt 5):1221–9

1995 epizootic of vesicular stomatitis (New Jersey serotype) in the western United States: an entomologic perspective. Schmidtmann ET, et al. **J Med Entomol** 1999 Jan;36(1):1–7

Truncated particles produced in fish surviving infectious hematopoietic necrosis virus infection: mediators of persistence? Kim CH, et al. **J Virol** 1999 Jan;73(1):843–9

Vesicular stomatitis. Letchworth GJ, et al. **Vet J** 1999 May; 157(3):239–60 (267 ref.)

Complete genomic sequence of viral hemorrhagic septicemia virus, a fish rhabdovirus. Schütze H, et al. **Virus Genes** 1999;19(1):59–65

[Detection of viral hemorrhagic septicemia virus (VHSV) in rainbow trout (Oncorhynchus mykiss) by reverse transcription followed by polymerase chain reaction. Diagnostic validation] Guillou JP, et al. **Vet Res** 1999 Jan–Feb;30(1):49–60 (Eng. Abstr.) **(Fre)**

VIROLOGY

Australian bat lyssavirus infection in a captive juvenile black flying fox. Field H, et al. **Emerg Infect Dis** 1999 May–Jun; 5(3):438–40

Australian lyssavirus infection [letter] Uma A, et al. **J Indian Med Assoc** 1998 Jun;96(6):195

RHADINOVIRUS

GENETICS

Identification of the R1 oncogene and its protein product from the rhadinovirus of rhesus monkeys. Damania B, et al. **J Virol** 1999 Jun;73(6):5123–31

A rhesus macaque rhadinovirus related to Kaposi's sarcoma-associated herpesvirus/human herpesvirus 8 encodes a functional homologue of interleukin-6. Kaleeba JA, et al. **J Virol** 1999 Jul;73(7):6177–81

Sequence and genomic analysis of a Rhesus macaque rhadinovirus with similarity to Kaposi's sarcoma-associated herpesvirus/human herpesvirus 8. Searles RP, et al. **J Virol** 1999 Apr;73(4):3040–53

PHYSIOLOGY

Herpesvirus ateles gene product Tio interacts with nonreceptor protein tyrosine kinases. Albrecht JC, et al. **J Virol** 1999 Jun;73(6):4631–9

Rhesus rhadinovirus establishes a latent infection in B lymphocytes in vivo. Bergquam EP, et al. **J Virol** 1999 Sep;73(9):7874–6

RHAMNOSE

Genes involved in cell wall localization and side chain formation of rhamnose-glucose polysaccharide in Streptococcus mutans. Yamashita Y, et al. **J Bacteriol** 1998 Nov;180(21):5803–7

ANALOGS & DERIVATIVES

Production of rhamnolipid biosurfactant by fed-batch culture of Pseudomonas aeruginosa using glucose as a sole carbon source. Lee Y, et al. **Biosci Biotechnol Biochem** 1999 May; 63(5):946–7

Conversion of dTDP-4-keto-6-deoxyglucose to free dTDP-4-keto-rhamnose by the rmlC gene products of Escherichia coli and Mycobacterium tuberculosis. Stern RJ, et al. **Microbiology** 1999 Mar;145 (Pt 3):663–71

ANALYSIS

Scarcity or complete lack of single rhamnose residues interspersed within the homogalacturonan regions of citrus pectin. Zhan D, et al. **Carbohydr Res** 1998 Jun; 308(3–4):373–80

BIOSYNTHESIS

Purification, crystallization and preliminary structural studies of dTDP-6-deoxy-D-xylo-4-hexulose 3,5-epimerase (RmlC), the third enzyme of the dTDP-L-rhamnose synthesis pathway, from Salmonella enterica serovar typhimurium. Giraud MF, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):706–8

Synthesis of the A-band polysaccharide sugar D-rhamnose requires Rmd and WbpW: identification of multiple AlgA homologues, WbpW and ORF488, in Pseudomonas aeruginosa [published erratum appears in Mol Microbiol 1999 Jan;31(1):397–8] Rocchetta HL, et al. **Mol Microbiol** 1998 Sep;29(6):1419–34

METABOLISM

Rhamnose lipids--biosynthesis, microbial production and application potential. Lang S, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):22–32 (116 ref.)

The metabolism of 6-deoxyhexoses in bacterial and animal cells. Tonetti M, et al. **Biochimie** 1998 Nov;80(11):923–31 (53 ref.)

The sensitivity of the lactulose/rhamnose gut permeability test. van Nieuwenhoven MA, et al. **Eur J Clin Invest** 1999 Feb;29(2):160–5

RHAMNUS

CHEMISTRY

Biologically active anthracenones from roots of Karwinskia parvifolia. Waksman N, et al. **Phytochemistry** 1999 Mar; 50(6):1041–6

[Sea buckthorn and sea buckthorn oils--recent developments in China and central Asia] Aitzetmüller K, et al. **Nahrung** 1999 Aug;43(4):228–32 (25 ref.) (Eng. Abstr.) **(Ger)**

RHENIUM

Nonisotopic surrogates for technetium as ligands for monoamine transporters. Tamagnan G, et al. **Adv Neurol** 1999;80:99–103

Integrated "3+1" oxorhenium(V) complexes as estrogen mimics. Skaddan MB, et al. **Bioconjug Chem** 1999 Jan–Feb; 10(1):119–29

Electrodeposition of radioactive rhenium onto stents to prevent restenosis. Häfeli UO, et al. **Biomaterials** 1998 May; 19(10):925–33

Long-lifetime lipid rhenium metal-ligand complex for probing membrane dynamics on the microsecond timescale. Li L, et al. **Chem Phys Lipids** 1999 May;99(1):1–9

Labeling peptides with rhenium-188. Meléndez-Alafort L, et al. **Int J Pharm** 1999 May 25;182(2):165–72

Preparation and properties of radioactive rhenium glass microspheres intended for in vivo radioembolization therapy. Conzone SD, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):617–25

TROTEC-1: a new high-affinity ligand for labeling of the dopamine transporter. Hoepping A, et al. **J Med Chem** 1998 Nov 5;41(23):4429–32

Synthesis and amyloid binding properties of rhenium complexes: preliminary progress toward a reagent for SPECT imaging of Alzheimer's disease brain. Zhen W, et al. **J Med Chem** 1999 Jul 29;42(15):2805–15

Effect of reaction conditions on preparations of rhenium-188 hydroxyethylidene diphosphonate complexes. Lin WY, et al. **Nucl Med Biol** 1999 May;26(4):455–9

ADMINISTRATION & DOSAGE

Rhenium-186-labeled hydroxyethylidene diphosphonate dosimetry and dosing guidelines for the palliation of skeletal metastases from androgen-independent prostate cancer. Graham MC, et al. **Clin Cancer Res** 1999 Jun;5(6):1307–18

ADVERSE EFFECTS

Marrow toxicity and radiation absorbed dose estimates from rhenium-186-labeled monoclonal antibody. Breitz HB, et al. **J Nucl Med** 1998 Oct;39(10):1746–51

CHEMISTRY

Preparation of [186Re]Re-DMSA and its bio-distribution studies. Kothari K, et al. **Appl Radiat Isot** 1999 Jul; 51(1):43–9

Preparation, stability studies and pharmacological behavior of [186Re]Re-HEDP. Kothari K, et al. **Appl Radiat Isot** 1999 Jul;51(1):51–8

Derivatives of 1,3,5-triamino-1,3,5-trideoxy-cis-inositol as versatile pentadentate ligands for protein labeling with Re-186/188. prelabeling, biodistribution, and X-ray structural studies. Kramer A, et al. **Bioconjug Chem** 1998 Nov-Dec;9(6):691–702

An N2S2 bifunctional chelator for technetium-99m and rhenium: complexation, conjugation, and epimerization to a single isomer. Luyt LG, et al. **Bioconjug Chem** 1999 May-Jun;10(3):470–9

Protein and peptide labeling with (cyclopentadienyl)tricarbonyl rhenium and technetium. Spradau TW, et al. **Bioconjug Chem** 1998 Nov-Dec; 9(6):765–72

Novel rhenium complexes derived from alpha-tropanol as potential ligands for the dopamine transporter. Hoepping A, et al. **Bioorg Med Chem** 1998 Oct;6(10):1663–72

Side-chain selective and covalent labelling of proteins by organometallic complexes of heavy transition metals--possible application in radio-crystallography of proteins. Salmain M, et al. **Eur J Biochem** 1998 Nov 15; 258(1):192–9

Synthesis and binding affinities of new 17 alpha-substituted estradiol-rhenium "n + 1" mixed-ligand and thioether-carbonyl complexes. Wüst F, et al. **Steroids** 1998 Dec;63(12):665–71

DIAGNOSTIC USE

Single-injection gamma probe-guided sentinel lymph node detection in 40 melanomatous lymphadenectomies. Cohen M, et al. **Ann Plast Surg** 1998 Oct;41(4):397–401

Improved tumor targeting of rhenium-186-labeled anti-human high-m.w. melanoma-associated antigen monoclonal antibody 763.74 following purification with anti-idiotypic monoclonal antibody MK2-23. Hamby CV, et al. **Int J Cancer** 1998 Nov 9;78(4):486–90

Rhenium-186-mercaptoacetyltriglycine-labeled monoclonal antibody for radioimmunotherapy: in vitro assessment, in vivo kinetics and dosimetry in tumor-bearing nude mice. Kinuya S, et al. **Jpn J Cancer Res** 1998 Aug;89(8):870–8

188Re-direct labeling of monoclonal antibodies for radioimmunotherapy of solid tumors: biodistribution, normal organ dosimetry, and toxicology. Iznaga-Escobar N. **Nucl Med Biol** 1998 Jul;25(5):441–7 (58 ref.)

METABOLISM

Ligands for the estrogen receptor, containing cyclopentadienyltricarbonylrhenium units. Spradau TW, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3235–40

Preparation, biodistribution, and dosimetry of 188Re-labeled MoAb ior ce1 and its F(ab')2 fragments by avidin-biotin strategy. Ferro-Flores G, et al. **Nucl Med Biol** 1999 Jan; 26(1):57–62

PHARMACOKINETICS

Biodistribution studies of the 186Re complex of 3-amino-1-hydroxypropylidene-1,1-bisphosphonic acid in mice. Alyafei S, et al. **Nucl Med Commun** 1999 Jun; 20(6):551–7

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795–801

Design and characterization of alpha-melanotropin peptide analogs cyclized through rhenium and technetium metal coordination. Giblin MF, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12814–8

PHARMACOLOGY

Preparation, stability studies and pharmacological behavior of [186Re]Re-HEDP. Kothari K, et al. **Appl Radiat Isot** 1999 Jul;51(1):51–8

STANDARDS

A new experimental determination of the dose calibrator setting for 188Re. Zimmerman BE, et al. **J Nucl Med** 1999 Sep;40(9):1508–16

THERAPEUTIC USE

Pain palliation with rhenium-186 HEDP in breast cancer patients with disseminated bone metastases. Palmedo H, et al. **Clin Nucl Med** 1999 Sep;24(9):643–8

Hepatic tumor radioembolization in a rat model using radioactive rhenium (186Re/188Re) glass microspheres. Häfeli UO, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):189–99

Combination 186Re-HEDP and cisplatin supra-additive treatment effects in prostate cancer cells. Geldof AA, et al. **J Nucl Med** 1999 Apr;40(4):667–71

186Re-etidronate in breast cancer patients with metastatic bone pain. Han SH, et al. **J Nucl Med** 1999 Apr; 40(4):639–42

Intratumoral injection of rhenium-188 microspheres into an animal model of hepatoma. Wang SJ, et al. **J Nucl Med** 1998 Oct;39(10):1752–7

The effect of contrast medium and balloon shape on dosimetry for arterial irradiation with 188Re. Fox RA, et al. **Med Phys** 1999 May;26(5):771–6

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795–801

Rhenium-188 microspheres: a new radiation synovectomy agent. Wang SJ, et al. **Nucl Med Commun** 1998 May; 19(5):427–33

RHEOGRAPHY see **PLETHYSMOGRAPHY, IMPEDANCE**

RHEOLOGY

Regulation of low shear flow-induced HAEC VCAM-1

expression and monocyte adhesion. Mohan S, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1100–7

Effects of mucokinetic drugs on rheological properties of reconstituted human nasal mucus. Rhee CS, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):101–5

Diffusing wave spectroscopy microrheology of actin filament networks [published erratum appears in Biophys J 1999 Apr;76(4):2317] Palmer A, et al. **Biophys J** 1999 Feb; 76(2):1063–71

Hyaluronan, hydration and flow conductivity of rat dermis. Bert J, et al. **Biorheology** 1998 May–Jun;35(3):211–9

A model for cytoplasmic rheology consistent with magnetic twisting cytometry. Butler JP, et al. **Biorheology** 1998 May–Jun;35(3):193–209

Rheological characterization of hydroxypropylcellulose gels. Ramachandran S, et al. **Drug Dev Ind Pharm** 1999 Feb; 25(2):153–61

Hydrodynamical comparison of aortic arch cannulae. Verdonck PR, et al. **Int J Artif Organs** 1998 Nov; 21(11):705–13

Peak expiratory flow associated with change in positioning of the instrument: comparison of five peak flow meters. Nolan S, et al. **J Asthma** 1999 May;36(3):291–4

Simulation of particle-hemodynamics in a partially occluded artery segment with implications to the initiation of microemboli and secondary stenoses. Buchanan JR Jr, et al. **J Biomech Eng** 1998 Aug;120(4):446–54

Theoretical and experimental study of intermittent blood flows in microcirculation: application to the in-vivo determination of compliance. Guiffant G, et al. **J Biomech Eng** 1998 Dec;120(6):737–42

Factor Xa generation at the surface of cultured rat vascular smooth muscle cells in an in vitro flow system. Hall CL, et al. **J Biomech Eng** 1998 Aug;120(4):484–90

Numerical analysis for stability and self-excited oscillation in collapsible tube flow. Hayashi S, et al. **J Biomech Eng** 1998 Aug;120(4):468–75

A one-dimensional unsteady separable and reattachable flow model for collapsible tube-flow analysis. Ikeda T, et al. **J Biomech Eng** 1999 Apr;121(2):153–9

An asymptotic model of viscous flow limitation in a highly collapsed channel. Jensen OE. **J Biomech Eng** 1998 Aug; 120(4):544–6

A numerical study of blood flow patterns in anatomically realistic and simplified end-to-side anastomoses. Moore JA, et al. **J Biomech Eng** 1999 Jun;121(3):265–72

Influence of thrombin in suspension, surface activation, and high shear on platelet surface GPIb/IX distribution. White JG, et al. **J Lab Clin Med** 1999 Mar;133(3):245–52

Automatic vessel segmentation using active contours in cine phase contrast flow measurements. Kozerke S, et al. **J Magn Reson Imaging** 1999 Jul;10(1):41–51

Umbilical Doppler velocimetry prediction of discordant twins. Chittacharoen A, et al. **J Obstet Gynaecol Res** 1999 Apr;25(2):95–8

Assessment of subchondral bone blood flow in the rabbit femoral condyle using the laser speckle method. Fukuoka S, et al. **J Orthop Res** 1999 May;17(3):368–75

A new computerized biomechanical perfusion model for ex vivo study of fluid mechanical forces in intact conduit vessels. Gan L, et al. **J Vasc Res** 1999 Jan–Feb;36(1):68–78

Fluid transport in glass beads phantoms: spatial velocity measurements and confirmation of the stochastic model. Bencsik M, et al. **Magn Reson Imaging** 1998 Jun–Jul; 16(5–6):605–7

A broad line NMR and MRI study of water and water transport in Portland cement pastes. Bohris AJ, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):455–61

A NMR characterisation of a banded sandstone. Bolam AC, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):609–11

Microdynamics and phase equilibria in organic nanocrystals. Booth HF, et al. **Magn Reson Imaging** 1998 Jun–Jul; 16(5–6):501–4

NMR imaging experiments for the verification of stochastic transport theory. Irwin NC, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):493–6

Estimation of porous media flow functions using NMR imaging data. Kulkarni R, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):707–9

Fluid flow in porous systems. Mansfield P, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):451–4

Characterisation of fluid flow through porous media using three-dimensional microimaging and pulsed gradient stimulated echo NMR. Manz B, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):673–5

The characterisation of fluid transport in porous solids by means of pulsed magnetic field gradient NMR. Packer KJ, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):463–9

Visualisation of structure and flow in packed beds. Sederman AJ, et al. **Magn Reson Imaging** 1998 Jun–Jul; 16(5–6):497–500

Flow and transport studies in (non)consolidated porous (bio)systems consisting of solid or porous beads by PFG NMR. Van As H, et al. **Magn Reson Imaging** 1998 Jun–Jul; 16(5–6):569–73

Rheodynamic model of cardiac pressure pulsations. Petrov VG, et al. **Math Biosci** 1999 Mar 15;157(1–2):237–52

Role of a perivascular ultrasonic micro-flow probe in aneurysm surgery. Charbel FT, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38 Suppl:35–8

Uterine Doppler velocimetry and placental hypoxic-ischemic lesion in pregnancies with fetal intrauterine growth restriction. Ferrazzi E, et al. **Placenta** 1999 Jul–Aug; 20(5–6):389–94

Direct monitoring using an endoscope for buried flaps [letter] Mizunuma M, et al. **Plast Reconstr Surg** 1999 Sep; 104(3):884

Effects of exercise and training on blood rheology. El-Sayed MS. **Sports Med** 1998 Nov;26(5):281–92 (59 ref.)

Extracorporeal rheopheresis in the treatment of acute ischemic stroke: A randomized pilot study. Berrouschot J, et al. **Stroke** 1999 Apr;30(4):787–92

[The mechanical fundus perfusion model: blood flow velocity determined by ICG angiography and Heidelberg retina flowmetry] Hendrickson P, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):275–6 (Eng. Abstr.) **(Ger)**

[Uroflowmeter, a device for measuring urine volume and urination rate] Budnikov VA, et al. **Med Tekh** 1999 Jul–Aug;(4):47–8 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Effects of proinflammatory cytokines and bacterial toxins on neutrophil rheologic properties. Lavkan AH, et al. **Crit Care Med** 1998 Oct;26(10):1677–82

Calcium antagonists and thiazide diuretics have opposite effects on blood rheology and radial artery compliance in arterial hypertension: a randomized double-blind study. Khder Y, et al. **Fundam Clin Pharmacol** 1998;12(4):457–62

HISTORY

The water depression flowmeter. Ball C, et al. **Anaesth Intensive Care** 1999 Jun;27(3):237

INSTRUMENTATION

Comparison of pitot traverses taken at varying distances downstream of obstructions. Guffey SE, et al. **Am Ind Hyg Assoc J** 1999 Mar–Apr;60(2):165–74

Effects of xenon on the performance of various respiratory flowmeters. Goto T, et al. **Anesthesiology** 1999 Feb; 90(2):555–63

Numerically based design of an orifice plate flowmetering system for human respiratory flow monitoring. Fortuna AO, et al. **Ann Biomed Eng** 1999 May–Jun;27(3):356–65

Quantitative assessment of chronic aortic regurgitation with 3-dimensional echocardiographic reconstruction: comparison with electromagnetic flowmeter measurements. Acar P, et al. **J Am Soc Echocardiogr** 1999 Feb;12(2):138–48

Technical note: measuring portal blood flow in sheep using an ultrasonic transit time flow probe. Rémond D, et al. **J Anim Sci** 1998 Oct;76(10):2712–6

Symptom monitoring in childhood asthma: how to use a peak flow meter. Yoos HL, et al. **Pediatr Ann** 1999 Jan; 28(1):31–9

Ultrasonic investigation of blood flow. Fish PJ. **Proc Inst Mech Eng [H]** 1999;213(3):169–80 (28 ref.)

[Interest in the Heidelberg Retinal Flowmeter for measuring the retinal and papillary blood flow] Collignon-Brach J. **Bull Soc Belge Ophtalmol** 1998;270:51–5 (Eng. Abstr.) **(Fre)**

METHODS

Extracorporeal recording of mouse hemodynamic parameters by ultrasound velocity dilution. Krivitski NM, et al. **ASAIO J** 1999 Jan–Feb;45(1):32–6

Fluid dynamic optimization of a ventricular assist device using particle image velocimetry. Mussivand T, et al. **ASAIO J** 1999 Jan–Feb;45(1):25–31

Measurement of local viscoelasticity and forces in living cells by magnetic tweezers. Bausch AR, et al. **Biophys J** 1999 Jan;76(1 Pt 1):573–9

Histological methods to determine blood flow distribution with fluorescent microspheres. Luchtel DL, et al. **Biotech Histochem** 1998 Nov;73(6):291–309 (26 ref.)

In vitro analysis of colour Doppler flow with the use of proximal isovelocity surface area: improved flow estimates using a nonhemispherical model. Iwanochko RM, et al. **Can J Cardiol** 1999 Jan;15(1):89–94

Thermal denaturation and renaturation of a fermentation broth of xanthan: rheological consequences. Capron I, et al. **Int J Biol Macromol** 1998 Oct;23(3):215–25

Peak expiratory flow associated with change in positioning of the instrument: comparison of five peak flow meters. Nolan S, et al. **J Asthma** 1999 May;36(3):291–4

Velocity selective radiofrequency pulse trains. Norris DG, et al. **J Magn Reson** 1999 Mar;137(1):231–6

Fast NMR flow measurements in plants using FLASH imaging. Rokitta M, et al. **J Magn Reson** 1999 Mar; 137(1):29–32

Repetitive cell 'jumps' during hypotonic lysis of erythrocytes observed with a simple flow chamber. Zade-Oppen AM. **J Microsc** 1998 Oct;192 (Pt 1):54–62

Direct measurement of intraparticle fluid velocity in superporous agarose beads. Larsson PO, et al. **J Mol Recognit** 1998 Winter;11(1–6):270–2

Home uroflowmetry: improved accuracy in outflow assessment. Boci R, et al. **Neurourol Urodyn** 1999; 18(1):25–32

Low reproducibility of maximum urinary flow rate determined by portable flowmetry. Sonke GS, et al. **Neurourol Urodyn** 1999;18(3):183–91

How should blood rheology be measured in macroglobulinaemia? Persson SU, et al. **Scand J Clin Lab Invest** 1998 Dec;58(8):669–76

Noninvasive cerebrospinal fluid shunt flow measurement by Doppler ultrasound using ultrasonically excited bubbles: a feasibility study. Lam KW, et al. **Ultrasound Med Biol** 1999 Mar;25(3):371–89

STATISTICS & NUMERICAL DATA

Examples of uniform-penalty inversion of multiexponential relaxation data. Borgia GC, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):549–52

Estimates of permeability and irreducible water saturation by means of a new robust computation of fractional power average relaxation times. Borgia GC, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):613–5

Generalised calculation of NMR imaging edge effects arising from restricted diffusion in porous media. Callaghan PT, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):471–8

A new method for estimating T2 distributions from NMR measurements. Miller A, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):617–9

RHESUS BLOOD-GROUP SYSTEM see **RH-HR BLOOD-GROUP SYSTEM**

RHESUS MONKEY see **MACACA MULATTA**

RHETINIC ACID see **GLYCYRRHETINIC ACID**

RHEUM see **RHUBARB**

RHEUM EMODIN see **EMODIN**

RHEUMATIC DISEASES

Ways and side tracks in research of rheumatic diseases [editorial] Fassbender HG. **Acta Med Croatica** 1998; 52(4–5):195–8

Musculo-skeletal diseases. Tsechkovski MS. **Acta Orthop Scand Suppl** 1998 Jun;281:61–2

Soft tissue rheumatism among Nigerians. Adelowo OO, et al. **Afr J Med Med Sci** 1997 Sep–Dec;26(3–4):183–4

Utilization of rheumatology physician services by the elderly. Katz JN, et al. **Am J Med** 1998 Oct;105(4):312–8

Annual scientific meeting of the Australian Rheumatology Association. Sydney, New South Wales, Australia. 24–27 May 1998. Abstracts. **Aust N Z J Med** 1998 Oct; 28(5):729–52

2nd Belgian Congress on Rheumatology. Brussels, Belgium, October 1–3, 1998. Abstracts. **Clin Rheumatol** 1998; 17(5):423–64

Bibliography. Current world literature. Nonarticular rheumatism, sports-related injuries and related conditions. **Curr Opin Rheumatol** 1999 Mar;11(2):B36–68

Health services research. Suarez-Almazor ME, et al. **Curr Opin Rheumatol** 1999 Mar;11(2):110–6 (49 ref.)

Developing case definitions for symptom-based conditions: the problem of specificity. Hyams KC. **Epidemiol Rev** 1998; 20(2):148–56 (124 ref.)

A cyberclinic in rheumatology. Pal B, et al. **J R Coll Physicians Lond** 1999 Mar–Apr;33(2):161–2

OMERACT IV. Outcome Measures in Rheumatology. Cancún, Mexico, April 16–20, 1998. **J Rheumatol** 1999 Feb; 26(2):459–507

Education of rheumatic disorders at Dutch medical schools. Jacobs JC, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:14–6

The responsiveness of generic quality of life instruments in rheumatic diseases. A systematic review of randomized controlled trials. Ortiz Z, et al. **J Rheumatol** 1999 Jan; 26(1):210–6 (26 ref.)

Vaccination of the immunosuppressed adult patient with rheumatologic disease. Avery RK. **Rheum Dis Clin North Am** 1999 Aug;25(3):567–84, viii (73 ref.)

Directions in rheumatology: past, present and future. Report of a conference to celebrate the 50th anniversary of the Oliver Bird Fund held at Churchill College Cambridge, 24–26 September 1998. Botting R, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):887–901

[Report from the congress of the American College of Rheumatology, San Diego, 8–12 November 1998] Hachulla E. **Rev Med Interne** 1999 Mar;20(3):211–5 **(Fre)**

[28th Meeting of the German Society of Rheumatology. Baden-Baden, 16–19 September 1998. Abstracts] **Z Rheumatol** 1998;57 Suppl 1:1–96 **(Ger)**

[The 43rd Congress of the Japan Rheumatism Association. Sapporo, Japan. June 3–5, 1999. Abstracts] **Ryumachi** 1999 Apr;39(2):85–555 **(Jpn)**

[Nomenclature and classification of the rheumatic diseases (editorial)] Shichikawa K. **Ryumachi** 1998 Aug; 38(4):577–80 (8 ref.) **(Jpn)**

BLOOD

Circulating P- and L-selectin and T-lymphocyte activation and patients with autoimmune rheumatic diseases. Sfikakis PP, et al. **Clin Rheumatol** 1999;18(1):28–32

[Role of cryoglobulinemia in rheumatic diseases as illustrated by citizens of Moscow (resident population) and Tynda (migrants to Siberia)] Satybaldyev AM, et al. **Ter Arkh** 1998;70(11):60–4 (Eng. Abstr.) **(Rus)**

CHEMICALLY INDUCED

Extraspinal enthesopathy caused by isotretinoin therapy. Brandt JR, et al. **J Manipulative Physiol Ther** 1999 Jul-Aug;22(6):417-20

COMPLICATIONS

Rheumatic manifestations preceding adult acute leukemia: characteristics and implication in course and prognosis. Gur H, et al. **Acta Haematol** 1999 Mar;101(1):1-6

Risk factors for steroid diabetes in rheumatic patients. Raúl Ariza-Andraca C, et al. **Arch Med Res** 1998 Autumn; 29(3):259-62

Opioids and rheumatic disease pain: comment on the article by Ytterberg et al [letter; comment] Gelfand SG. **Arthritis Rheum** 1999 Apr;42(4):830-1. Comment on: Arthritis Rheum 1998 Sep;41(9):1603-12.

Temporal relationships between physical symptoms and psychiatric disorder. Results from a national birth cohort. Hotopf M, et al. **Br J Psychiatry** 1998 Sep;173:255-61

Mycobacterium tuberculosis infection in patients with systemic rheumatic diseases. A case-series. Hernández-Cruz B, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):289-96

Autoimmune rheumatic diseases and the heart. Hussain S, et al. **Hosp Med** 1999 Feb;60(2):95-9 (23 ref.)

Risk of developing certain malignancies is related to duration of immunosuppressive drug exposure in patients with rheumatic diseases. Asten P, et al. **J Rheumatol** 1999 Aug; 26(8):1705-14

Musculoskeletal manifestations, pain, and quality of life in Persian Gulf War veterans referred for rheumatologic evaluation [see comments] Escalante A, et al. **J Rheumatol** 1998 Nov;25(11):2228-35. Comment in: J Rheumatol 1998 Nov;25(11):2059-61.

Peripheral enthesopathies in psoriatic arthritis [letter; comment] Scarpa R. **J Rheumatol** 1998 Nov;25(11):2288-9 . Comment on: J Rheumatol 1997 Nov;24(11):2268-9.

Pulmonary manifestations of rheumatic diseases. Eid NS, et al. **Pediatr Pulmonol Suppl** 1999;18:91-2

Is the WHO analgesic ladder for cancer pain management appropriate for rheumatology patients? [Editorial] Bannwarth B. **Rev Rhum Engl Ed** 1999 May;66(5):241-4

Dyspepsia and heartburn. Ahmad NA, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):703-18, x (106 ref.)

Large artery occlusive disease. Bartholomew JR, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):669-86, ix (48 ref.)

Screening for cancer in the patient with rheumatic disease. Bowles KE, et al. **Rheum Dis Clin North Am** 1999 Aug; 25(3):719-44, x (137 ref.)

Psychological and behavioral approaches to pain management for patients with rheumatic disease. Bradley LA, et al. **Rheum Dis Clin North Am** 1999 Feb;25(1):215-32, viii (110 ref.)

Evaluation and treatment of hypertension. Chou CM. **Rheum Dis Clin North Am** 1999 Aug;25(3):521-37 (69 ref.)

Management of lipid disorders. Friedrich CA, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):507-20 (53 ref.)

Detection and management of coronary artery disease in patients with rheumatologic disorders. Ghaffari S. **Rheum Dis Clin North Am** 1999 Aug;25(3):657-68 (42 ref.)

Women's health. Lautenbach GL, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):539-65 (111 ref.)

The use of analgesics in the management of pain in rheumatic diseases. Moreland LW, et al. **Rheum Dis Clin North Am** 1999 Feb;25(1):153-91, vii (272 ref.)

Recognition and management of preoperative risk. Nierman E, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):585-622 (150 ref.)

Perioperative management of selected problems in patients with rheumatic diseases. Shaw M, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):623-38, ix (58 ref.)

[Early developing pancarditis and unclassified inflammatory rheumatism (letter)] Quilichini R, et al. **Rev Med Interne** 1998 Jun;19(6):449-51 **(Fre)**

[Pulmonary hypertension in rheumatic diseases] Manganelli P, et al. **Minerva Med** 1999 Mar;90(3):59-72 (149 ref.) (Eng. Abstr.) **(Ita)**

[Subclinical interstitial lung involvement in rheumatic diseases. Correlation of high resolution computerized tomography and functional and cytologic findings] Salaffi F, et al. **Radiol Med (Torino)** 1999 Jan-Feb;97(1-2):33-41 (Eng. Abstr.) **(Ita)**

[The association between autoimmune thyroid diseases and rheumatic diseases: a review] MasukoHongo K, et al. **Nippon Rinsho** 1999 Aug;57(8):1873-7 (18 ref.) (Eng. Abstr.) **(Jpn)**

[The assessment of the effect of glucocorticosteroid and nonsteroidal anti-inflammatory preparations on the development of an erosive-ulcerative lesion of the gastrointestinal tract in patients with rheumatic diseases] Karateev AE, et al. **Ter Arkh** 1999;71(2):26-30 (Eng. Abstr.) **(Rus)**

[Atherothrombosis in rheumatic diseases: pathogenesis analysis] Nasonov EL. **Ter Arkh** 1998;70(9):92-5 (74 ref.) **(Rus)**

[Complicated gastroduodenal ulcers in rheumatology patients] Barashkov VG, et al. **Vestn Khir Im I I Grek** 1998;157(4):28-31 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Cardiac myxoma in a 6-year-old child--constitutional symptoms mimicking rheumatic disease and the role of interleukin-6. Hövels-Gürich HH, et al. **Acta Paediatr** 1999 Jul;88(7):786-8

Immunologic tests in rheumatology. Moder KG. **Ann Allergy Asthma Immunol** 1998 Dec;81(6):539-44, 547; quiz 547-8 (25 ref.)

Autoantibodies and specific serum proteins in the diagnosis of rheumatological disorders. Ismail AA, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):565-78 (115 ref.)

Work related upper limb disorders: getting down to specifics. Palmer K, et al. **Ann Rheum Dis** 1998 Aug;57(8):445-6

The value of screening for psychiatric disorders in rheumatology referrals. O'Malley PG, et al. **Arch Intern Med** 1998 Nov 23;158(21):2357-62

Detection of antinuclear antibodies: comparative evaluation of enzyme immunoassay and indirect immunofluorescence methods. Homburger HA, et al. **Arch Pathol Lab Med** 1998 Nov;122(11):993-9

Rheumatic disease and cystic fibrosis. Merkel PA. **Arthritis Rheum** 1999 Aug;42(8):1563-71 (100 ref.)

Acquiring background knowledge for machine learning using function decomposition: a case study in rheumatology. Zupan B, et al. **Artif Intell Med** 1998 Sep-Oct; 14(1-2):101-17

Enthesiopathy: clinical manifestations, imaging and treatment. Olivieri I, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):665-81 (53 ref.)

When it's not a rheumatic disease. van Solingen RM, et al. **Bull Rheum Dis** 1998 Oct;47(6):2-4

Rheumatologic manifestations of HIV-1 and HTLV-1 infections. Vassilopoulos D, et al. **Cleve Clin J Med** 1998 Sep;65(8):436-41 (33 ref.)

Extraspinal enthesopathy caused by isotretinoin therapy. Brandt JR, et al. **J Manipulative Physiol Ther** 1999 Jul-Aug;22(6):417-20

Malignancies in children who initially present with rheumatic complaints. Cabral DA, et al. **J Pediatr** 1999 Jan; 134(1):53-7

Musculoskeletal manifestations, pain, and quality of life in Persian Gulf War veterans referred for rheumatologic evaluation [see comments] Escalante A, et al. **J Rheumatol** 1998 Nov;25(11):2228-35. Comment in: J Rheumatol 1998 Nov;25(11):2059-61.

Comparison between the standard anticardiolipin antibody test and a new phospholipid test in patients with connective tissue diseases. Merkel PA, et al. **J Rheumatol** 1999 Mar; 26(3):591-6

Work disability and soft tissue rheumatism [letter] Sinclair DS. **J Rheumatol** 1999 Jun;26(6):1414-5

Clinical analysis of Behçet disease: arthritic manifestations in Behçet disease may present as seronegative rheumatoid arthritis or palindromic rheumatism. Park JH. **Korean J Intern Med** 1999 Jan;14(1):66-72

Do referring doctors and rheumatologists agree? [letter] Doube A. **N Z Med J** 1999 Aug 13;112(1093):304

Is routine synovial fluid analysis necessary? Lessons and recommendations from an audit. Pal B, et al. **Rheumatol Int** 1999;18(5-6):181-2

Prognosis in children with rheumatic diseases: justification for consideration of new therapies. Petty RE. **Rheumatology (Oxford)** 1999 Aug;38(8):739-42

[The hand and rheumatism] Lioté F, et al. **Ann Radiol (Paris)** 1997;40(3):182-8 (Eng. Abstr.) **(Fre)**

[Scientific bases of medical examinations of patients with rheumatic diseases] Ivanova MM. **Vestn Ross Akad Med Nauk** 1998;(12):19-22 (36 ref.) (Eng. Abstr.) **(Rus)**

[Autoantibodies and autoimmune rheumatologic diseases] Krajnc I. **Reumatizam** 1997;45(1):5-12 (Eng. Abstr.) **(Scr)**

DIET THERAPY

n-6 and n-3 essential fatty acids in rheumatoid arthritis and other rheumatic conditions. Belch JJ, et al. **Proc Nutr Soc** 1998 Nov;57(4):563-9 (39 ref.)

DRUG THERAPY

Thiopurine methyltransferase genotype predicts therapy-limiting severe toxicity from azathioprine. Black AJ, et al. **Ann Intern Med** 1998 Nov 1;129(9):716-8

Can we use steroid hormones to immunomodulate rheumatic diseases? Rheumatoid arthritis as an example. Bijlsma JW. **Ann N Y Acad Sci** 1999 Jun 22;876:366-76; discussion 376-7 (33 ref.)

Long-term effectiveness of antimalarial drugs in rheumatic diseases. Aviña-Zubieta JA, et al. **Ann Rheum Dis** 1998 Oct;57(10):582-7

Enthesiopathy: clinical manifestations, imaging and treatment. Olivieri I, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):665-81 (53 ref.)

Tuberculosis prophylaxis in patients with steroid treatment and systemic rheumatic diseases. A case-control study. Hernández-Cruz B, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):81-7

Prevention of infectious complications in rheumatic disease patients: immunization, Pneumocystis carinii prophylaxis, and screening for latent infections. Singer NG, et al. **Curr Opin Rheumatol** 1999 May;11(3):173-8 (21 ref.)

Treatment of inflammatory rheumatic disorders in pregnancy: what are the safest treatment options? Ostensen M, et al. **Drug Saf** 1998 Nov;19(5):389-410 (264 ref.)

Clinically important drug interactions with disease-modifying antirheumatic drugs. Haagsma CJ. **Drugs Aging** 1998 Oct;13(4):281-9 (55 ref.)

Patient based methods for assessing adverse events in clinical trials in rheumatology. Progress report for the OMERACT Drug Toxicity Working Party. Outcome Measures in Rheumatology. Gazarian M, et al. **J Rheumatol** 1999 Jan; 26(1):207-9

Intravenous corticosteroids: adverse reactions are more variable than expected in children. Klein-Gitelman MS, et al. **J Rheumatol** 1998 Oct;25(10):1995-2002

Selected drug complications and treatment conflicts in the presence of coexistent diseases. Vassilopoulos D, et al. **Rheum Dis Clin North Am** 1999 Aug;25(3):745-77, x (232 ref.)

Non-steroidal anti-inflammatory drugs: back to the future [editorial] Flower RJ. **Rheumatology (Oxford)** 1999 Aug; 38(8):693-6

Economic comparison of nimesulide and diclofenac, and the incidence of adverse events in the treatment of rheumatic disease in Greece. Liaropoulos L. **Rheumatology (Oxford)** 1999 May;38 Suppl 1:39-46

[Role of corticosteroid therapy in non-malignant diseases] Vignes S, et al. **Rev Med Interne** 1998 Nov;19(11):799-810 (87 ref.) (Eng. Abstr.) **(Fre)**

[Results of efficacy study with diclofenac/orphenadrine infusions in patients with musculoskeletal diseases and functional disorders] Aglas F, et al. **Acta Med Austriaca** 1998;25(3):86-90 (Eng. Abstr.) **(Ger)**

[Glucocorticoids in the therapy of rheumatism. 2: Systemic corticoid therapy] Kaiser H. **Fortschr Med** 1998 Dec 10; 116(34):41-3 **(Ger)**

[Progress in the therapy of rheumatism (editorial)] Heinzl S. **Med Monatsschr Pharm** 1999 Aug;22(8):225 **(Ger)**

[Institute of Rheumatology and progress of antirheumatic therapy] Sigidin IaA. **Vestn Ross Akad Med Nauk** 1998; (12):7-9 (Eng. Abstr.) **(Rus)**

[Is therapy with local infiltrations feasible in primary care consultations? (see comments)] Magaña Loarte JE, et al. **Aten Primaria** 1999 Jan;23(1):4-7 (Eng. Abstr.). Comment in: Aten Primaria 1999 Jun 30;24(2):118-9. **(Spa)**

[A comparative evaluation of the efficacy of peroral and intravenous pulse therapy with methylprednisolone in rheumatic diseases] Amosova KM, et al. **Lik Sprava** 1998 Oct-Nov;(7):48-52 (Eng. Abstr.) **(Ukr)**

ECONOMICS

Controversies in economic evaluation in the rheumatic diseases [editorial; comment] Gabriel SE. **J Rheumatol** 1999 Sep;26(9):1859-60. Comment on: J Rheumatol 1999 Sep;26(9):1861-3.

Work disability and soft tissue rheumatism [editorial; comment] Reilly PA. **J Rheumatol** 1998 Aug;25(8):1454-6 . Comment on: J Rheumatol 1998 Aug;25(8):1570-7.

Economic comparison of nimesulide and diclofenac, and the incidence of adverse events in the treatment of rheumatic disease in Greece. Liaropoulos L. **Rheumatology (Oxford)** 1999 May;38 Suppl 1:39-46

[Promoting patient-oriented quality management in rheumatologic management from the viewpoint of patients] Becker-Capeller D. **Z Rheumatol** 1998 Dec;57(6):431-3 (Eng. Abstr.) **(Ger)**

EPIDEMIOLOGY

One hundred and seventy cases of childhood-onset rheumatological disease in Singapore. See Y, et al. **Ann Acad Med Singapore** 1998 Jul;27(4):496-502

We need simple guidelines for reporting rates of rheumatic diseases [letter; comment] McCarty DJ, et al. **Arthritis Rheum** 1999 Mar;42(3):585. Comment on: Arthritis Rheum 1997 Sep;40(9):1725.

A résumé of epidemiological surveys of several main rheumatic diseases in China. Zhang N. **Chin Med J (Engl)** 1998 Mar;111(3):195-6 (10 ref.)

Bibliography. Current world literature. Epidemiology and health services research. **Curr Opin Rheumatol** 1999 Mar; 11(2):B25-36

Epidemiology and health services research [editorial] Gabriel SE. **Curr Opin Rheumatol** 1999 Mar;11(2):89-90

Epidemiology of the rheumatic diseases. Rooney BK, et al. **Curr Opin Rheumatol** 1999 Mar;11(2):91-7 (45 ref.)

Rheumatoid symptoms following breast cancer treatment: a controlled comparison. Andrykowski MA, et al. **J Pain Symptom Manage** 1999 Aug;18(2):85-94

From the Centers for Disease Control and Prevention. Impact of arthritis and other rheumatic conditions on the health-care system--United States, 1997. **JAMA** 1999 Jun 16;281(23):2177-8

Impact of arthritis and other rheumatic conditions on the health-care system--United States, 1997. **MMWR Morb Mortal Wkly Rep** 1999 May 7;48(17):349-53

Health outcomes in offspring of mothers with breast implants. Kjøller K, et al. **Pediatrics** 1998 Nov;102(5):1112-5

Media coverage of chronic diseases in the Netherlands. van der Wardt EM, et al. **Semin Arthritis Rheum** 1999 Apr; 28(5):333-41

[Epidemiology of rheumatic diseases in historical aspect]

Benevolenskaia LI. **Vestn Ross Akad Med Nauk** 1998; (12):15–8 (Eng. Abstr.) **(Rus)**

ETHNOLOGY

Rheumatic disease and the Australian aborigine. Roberts-Thomson RA, et al. **Ann Rheum Dis** 1999 May; 58(5):266–70 (33 ref.)

Soluble HLA-I in rheumatic diseases. Wolf RE, et al. **Hum Immunol** 1998 Oct;59(10):644–9

Rheumatic diseases in North America's indigenous peoples. Peschken CA, et al. **Semin Arthritis Rheum** 1999 Jun; 28(6):368–91 (127 ref.)

ETIOLOGY

A rare enthesopathy in psoriatic oligoarthritis. Scarpa R, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:74–5

Bibliography. Current world literature. Systemic disorders with rheumatic manifestations. **Curr Opin Rheumatol** 1999 Jan;11(1):B13–23

Rheumatologic manifestations of gastrointestinal disorders. Braun J, et al. **Curr Opin Rheumatol** 1999 Jan;11(1):68–74 (71 ref.)

Rheumatologic features of hematologic disorders. Ehrenfeld M, et al. **Curr Opin Rheumatol** 1999 Jan;11(1):62–7 (42 ref.)

Pathogenesis and mechanisms of inflammation in the childhood rheumatic diseases. Jarvis JN. **Curr Opin Rheumatol** 1998 Sep;10(5):459–67 (91 ref.)

Genetic diseases with rheumatic manifestations in children. Prahalad S, et al. **Curr Opin Rheumatol** 1998 Sep; 10(5):488–93 (38 ref.)

Rheumatologic manifestations of gastrointestinal diseases. Katz JP, et al. **Gastroenterol Clin North Am** 1998 Sep; 27(3):533–62, v (188 ref.)

Molecular investigations implicate human endogenous retroviruses as mediators of anti-retroviral antibodies in autoimmune rheumatic disease. Nelson PN, et al. **Immunol Invest** 1999 Jul;28(4):277–89

Rheumatic manifestations in patients with thromboangiitis obliterans (Buerger's disease). Puéchal X, et al. **J Rheumatol** 1999 Aug;26(8):1764–8

Modeling the involvement of the hypothalamic-pituitary-adrenal and hypothalamic-pituitary-gonadal axes in autoimmune and stress-related rheumatic syndromes in women. Crofford LJ, et al. **J Womens Health** 1999 Mar;8(2):203–15 (58 ref.)

Assessing the harm of silicone gel-filled breast implants [letter] Shapiro MM. **Nurse Pract** 1999 Mar;24(3):140–1 (20 ref.)

Rheumatic manifestations related to acrodermatitis chronica atrophicans. A review of four cases. Gerster JC, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):567–70

A rheumatic view. Keat A. **Trans Med Soc Lond** 1996–97; 113:1–5

Rheumatic complications following liver transplantation. Taillandier J, et al. **Transplant Proc** 1999 May;31(3):1717–8

[Polyarthralgia disclosing hyperthyroidism. Two case reports (see comments)] Molinier S, et al. **Presse Med** 1998 Sep 12;27(26):1324–6 (Eng. Abstr.). Comment in: Presse Med 1999 Jan 23;28(3):132–3. **(Fre)**

GENETICS

Signal transduction and transcription factors in rheumatic disease. Firestein GS, et al. **Arthritis Rheum** 1999 Apr; 42(4):609–21 (126 ref.)

Tumour necrosis factor alpha gene polymorphisms and rheumatic diseases [editorial] Verweij CL, et al. **Br J Rheumatol** 1998 Sep;37(9):923–6

HLA-DRB1 genes in 5 rheumatic disease multi-case families. Tian X, et al. **Chin Med J (Engl)** 1998 Mar;111(3):208–10

Pediatric and heritable disorders. **Curr Opin Rheumatol** 1998 Sep;10(5):B193–202

HLA-DMA and HLA-DMB genotyping in patients with rheumatic diseases. Yen JH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 May; 15(5):263–7

Relevance of tumour necrosis factor alpha gene polymorphism in rheumatic disease [letter] Wilson AG, et al. **Rheumatology (Oxford)** 1999 Jul;38(7):681–3

[Analysis of susceptibility genes to rheumatic diseases] Tsuchiya N, et al. **Nippon Rinsho** 1999 Feb;57(2):323–8 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Genetic aspects of rheumatic diseases] Miakotkin VA. **Vestn Ross Akad Med Nauk** 1998;(12):39–43 (42 ref.) (Eng. Abstr.) **(Rus)**

HISTORY

Rheumatic diseases in Ayurveda: a historical perspective. Ulrich-Merzenich G, et al. **Arthritis Rheum** 1999 Jul; 42(7):1553–5

[History of patient education in rheumatic diseases in Croatia] Jajić Z. **Reumatizam** 1998;46(1):31–4 (Eng. Abstr.) **(Scr)**

IMMUNOLOGY

Proceedings of the 1st International Conference on the Neuroendocrine Immune Basis of the Rheumatic Diseases. Genova, Italy, September 18–20, 1998. **Ann N Y Acad Sci** 1999 Jun 22;876:xi–xv, 1–433

Neuroendocrine immune basis of the rheumatic diseases. Cutolo M, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:xi–xv

Nuclear factor-kappa B activity in T cells from patients with rheumatic diseases: a preliminary report. Collantes E, et al. **Ann Rheum Dis** 1998 Dec;57(12):738–41

Does smoking stimulate rheumatoid factor production in non-rheumatic individuals? Jónsson T, et al. **APMIS** 1998 Oct;106(10):970–4

Sugar printing rheumatic diseases: a potential method for disease differentiation using immunoglobulin G oligosaccharides. Watson M, et al. **Arthritis Rheum** 1999 Aug;42(8):1682–90

Adhesion and lymphocyte costimulatory molecules in systemic rheumatic diseases. Sfikakis PP, et al. **Clin Rheumatol** 1999;18(4):317–27 (129 ref.)

Sialyl Lewis(x) expression on IgG in rheumatoid arthritis and other arthritic conditions: a preliminary study. Goodarzi MT, et al. **Glycoconj J** 1998 Dec;15(12):1149–54

Soluble HLA-I in rheumatic diseases. Wolf RE, et al. **Hum Immunol** 1998 Oct;59(10):644–9

Hypophyseal-pituitary-adrenal axis in autoimmune and rheumatic diseases. Athreya BH, et al. **Immunol Res** 1998; 18(2):93–102 (56 ref.)

The neuroendocrine immune basis of rheumatic diseases. Bijlsma JW, et al. **Immunol Today** 1999 Jul;20(7):298–301

Anticardiolipin antibodies in childhood rheumatic disorders. Gedalia A, et al. **Lupus** 1998;7(8):551–3

[Activity of the autoimmune process during systemic rheumatic diseases and distribution of constant brain potential] Klimenko LL, et al. **Biofizika** 1999 Mar-Apr; 44(2):368–71 (Eng. Abstr.) **(Rus)**

[Constant brain potentials as neurophysiological markers of autoimmune process] Klimenko LL, et al. **Biofizika** 1999 Mar-Apr;44(2):372–7 (Eng. Abstr.) **(Rus)**

[Physical criteria of pathological processes. II. Modulating role of functional interhemisphere asymmetry in forming and immune response in rheumatic diseases] Klimenko LL, et al. **Biofizika** 1998 Nov-Dec;43(6):1066–70 (Eng. Abstr.) **(Rus)**

[The significance of determining antibodies to viruses of the Herpesviridae family in rheumatic diseases] Egorova ON, et al. **Ter Arkh** 1999;71(5):57–61 (Eng. Abstr.) **(Rus)**

PATHOLOGY

Do we need pediatric rheumatologists? The Hamburg, Germany experience [letter] Foeldvari I. **Arthritis Rheum** 1999 Feb;42(2):396

Fibroblastic rheumatism: clinical and histologic evolution of cutaneous manifestations. Fam AG, et al. **J Rheumatol** 1998 Nov;25(11):2261–6

[Physical criteria of pathological processes. I. Change in the functional hemispheric asymmetry at various stages of rheumatic diseases] Klimenko LL, et al. **Biofizika** 1999 May-Jun;44(3):537–9 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Rasch analysis of the Western Ontario MacMaster questionnaire (WOMAC) in 2205 patients with osteoarthritis, rheumatoid arthritis, and fibromyalgia. Wolfe F, et al. **Ann Rheum Dis** 1999 Sep;58(9):563–8

Signal transduction and transcription factors in rheumatic disease. Firestein GS, et al. **Arthritis Rheum** 1999 Apr; 42(4):609–21 (126 ref.)

Rheumatic disease and cystic fibrosis. Merkel PA. **Arthritis Rheum** 1999 Aug;42(8):1563–71 (100 ref.)

The pathomechanic effects of rheumatic diseases on the pedal joints. Albert SF. **Clin Podiatr Med Surg** 1999 Apr; 16(2):259–70 (9 ref.)

Pathogenesis and mechanisms of inflammation in the childhood rheumatic diseases. Jarvis JN. **Curr Opin Rheumatol** 1998 Sep;10(5):459–67 (91 ref.)

The neuroendocrine immune basis of rheumatic diseases. Bijlsma JW, et al. **Immunol Today** 1999 Jul;20(7):298–301

Fibroblastic rheumatism: clinical and histologic evolution of cutaneous manifestations. Fam AG, et al. **J Rheumatol** 1998 Nov;25(11):2261–6

Classification of inflammatory arthritis by enthesitis [see comments] McGonagle D, et al. **Lancet** 1998 Oct 3; 352(9134):1137–40 (43 ref.). Comment in: Lancet 1998 Dec 12;352(9144):1938. Comment in: Lancet 1998 Dec 12;352(9144):1938–9. Comment in: Lancet 1999 May 1;353(9163):1526–7.

PREVENTION & CONTROL

[Role of the Institute of Rheumatology in formation and development of State controlling system of rheumatic diseases] Folomeeva OM, et al. **Vestn Ross Akad Med Nauk** 1998;(12):9–12 (Eng. Abstr.) **(Rus)**

PSYCHOLOGY

Depression in the patient with rheumatologic disease. Stoltz CM, et al. **Rheum Dis Clin North Am** 1999 Aug; 25(3):687–702, x (48 ref.)

Psychological factors in chronic rheumatic diseases--a review. The case of rheumatoid arthritis, current research and some problems [see comments] Persson LO, et al. **Scand J Rheumatol** 1999;28(3):137–44 (90 ref.). Comment in: Scand J Rheumatol 1999 ;28(3):131–6.

Psychological distress and rheumatic disease [editorial; comment] Wolfe F. **Scand J Rheumatol** 1999;28(3):131–6 (52 ref.). Comment on: Scand J Rheumatol 1999 ;28(3):137–44.

From the fibromyalgia challenge toward a new bio-psycho-social model of rheumatic diseases. Neeck G. **Z Rheumatol** 1998;57 Suppl 2:A13–6

RADIOGRAPHY

Radiographic manifestations of rheumatic diseases affecting the foot and ankle. Loredo R. **Clin Podiatr Med Surg** 1999 Apr;16(2):215–58, v (39 ref.)

RADIONUCLIDE IMAGING

The utility of bone scans in rheumatology. Duncan I, et al. **Clin Nucl Med** 1999 Jan;24(1):9–14

[Nuclear medicine and rheumatology. Diagnostic and therapeutic integration] Colamussi P, et al. **Radiol Med (Torino)** 1999 Jun;97(6):510–7 (67 ref.) **(Ita)**

RADIOTHERAPY

[Nuclear medicine and rheumatology. Diagnostic and therapeutic integration] Colamussi P, et al. **Radiol Med (Torino)** 1999 Jun;97(6):510–7 (67 ref.) **(Ita)**

REHABILITATION

Bioclimatology and balneology in dermatology: a Dead Sea perspective. Abels DJ, et al. **Clin Dermatol** 1998 Nov-Dec; 16(6):695–8 (15 ref.)

[Physical therapy with analgesic effects in inflammatory rheumatic diseases] Senn E. **Z Arztl Fortbild Qualitatssich** 1999 Jul;93(5):316–21 (Eng. Abstr.) **(Ger)**

[Quality management in rheumatologic rehabilitation at a time of structural change] Ehlebracht-König I. **Z Rheumatol** 1998 Dec;57(6):420–3 (Eng. Abstr.) **(Ger)**

[Quality management in the interdisciplinary specialty hospital] Rau R. **Z Rheumatol** 1998 Dec;57(6):413–9 (Eng. Abstr.) **(Ger)**

[Virkersund Spa. Changes in patient admission and therapeutic outcome over the last 15 years] Nilsen KH. **Tidsskr Nor Laegeforen** 1999 Jun 30;119(17):2465–8 (Eng. Abstr.) **(Nor)**

SURGERY

Deep vein thrombosis and pulmonary embolism prophylaxis in joint replacement surgery. Merli GJ. **Rheum Dis Clin North Am** 1999 Aug;25(3):639–56, ix (91 ref.)

THERAPY

Gene therapy for rheumatic diseases. Evans CH, et al. **Arthritis Rheum** 1999 Jan;42(1):1–16 (102 ref.)

Usage of complementary therapies in rheumatology: a systematic review. Ernst E. **Clin Rheumatol** 1998; 17(4):301–5 (31 ref.)

Beneficial effect of phlebotomy on hepatitis C virus-associated musculoskeletal manifestations. Hilzenrat N, et al. **Clin Rheumatol** 1998;17(5):390–2

Bibliography. Current world literature. Clinical therapeutics. **Curr Opin Rheumatol** 1999 May;11(3):B69–90

Biologic agents in the treatment of inflammatory rheumatic diseases. Lorenz HM, et al. **Curr Opin Rheumatol** 1999 May;11(3):179–84 (29 ref.)

Nonarticular rheumatism, sports-related injuries, and related conditions [editorial] Pinals RS. **Curr Opin Rheumatol** 1999 Mar;11(2):117–8

Hematopoietic stem cell transplantation in rheumatic diseases. Snowden JA, et al. **Curr Opin Rheumatol** 1999 May; 11(3):167–72 (43 ref.)

Balneotherapy for rheumatic diseases at the Dead Sea [letter; comment] Sukenik S. **Int J Dermatol** 1998 Sep;37(9):717–8 . Comment on: Int J Dermatol 1997 Jul;36(7):481–92.

Managed care and the practice of rheumatology [letter; comment] Prupas M. **J Rheumatol** 1998 Dec;25(12):2473–4 . Comment on: J Rheumatol 1998 Apr;25(4):609. Comment on: J Rheumatol 1998 Apr;25(4):641–9.

Do referring doctors and rheumatologists agree? [letter] Doube A. **N Z Med J** 1999 Aug 13;112(1093):304

Oligonucleotides: a new resource in rheumatology? [editorial] Chary-Valckenaere I, et al. **Rev Rhum Engl Ed** 1998 Oct; 65(10):543–5

Letter to the editor about the article: is spa therapy cost-effective in rheumatic disorders? [letter; comment] Graber-Duvernay B. **Rev Rhum Engl Ed** 1998 Oct; 65(10):600–2. Comment on: Rev Rhum Engl Ed 1998 Mar;65(3):173–80.

Long-term toxicity of immune suppression in juvenile rheumatic diseases. Laxer RM. **Rheumatology (Oxford)** 1999 Aug;38(8):743–6

Prognosis in children with rheumatic diseases: justification for consideration of new therapies. Petty RE. **Rheumatology (Oxford)** 1999 Aug;38(8):739–42

Research on complementary medicine in rheumatic diseases: the need for better quality studies and reproduction of claimed positive results [editorial] van Haselen RA. **Rheumatology (Oxford)** 1999 May;38(5):387–90

Stem cell transplantation--a treatment for severe rheumatic diseases?--A review. Jantunen EJ, et al. **Scand J Rheumatol** 1999;28(2):69–74 (47 ref.)

[Rheumatology 1998: are there recent advances?] Frey D, et al. **Schweiz Med Wochenschr** 1998 Dec 26; 128(51-52):2038–42 (4 ref.) **(Ger)**

[Thermotherapy in rheumatic diseases] Berliner MN. **Z Arztl Fortbild Qualitatssich** 1999 Jul;93(5):331–4 (Eng. Abstr.) **(Ger)**

[Workshop on quality management in rheumatology. Eisenach, 22–24 May 1998. Abstracts] **Z Rheumatol** 1998 Dec;57(6):409–55 **(Ger)**

ULTRASONOGRAPHY

The current role of high-resolution ultrasonography of the hand and wrist in rheumatic diseases. van Vugt RM, et al. **Clin Exp Rheumatol** 1998 Jul–Aug;16(4):454–8

VIROLOGY

Mechanisms of viral pathogenesis in rheumatic disease. Perl A. **Ann Rheum Dis** 1999 Aug;58(8):454–61 (113 ref.)

Retrovirus-associated rheumatic syndromes. Herrmann M, et al. **Curr Opin Rheumatol** 1998 Jul;10(4):347–54 (78 ref.)

[Epstein-Barr virus and rheumatic disease] Murakami K. **Ryumachi** 1998 Dec;38(6):849–59 (70 ref.) **(Jpn)**

RHEUMATIC FEVER

Rheumatic fever and rheumatic heart disease: an overview. Groves AM. **Trop Doct** 1999 Jul;29(3):129–32 (17 ref.)

[Rheumatic fever] Miyata K, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):99–101 (6 ref.) **(Jpn)**

[Sydenham's chorea] Sato H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):104–7 (14 ref.) **(Jpn)**

BLOOD

Association of rheumatic fever with serum albumin concentration and body iron stores in Bangladeshi children: case-control study. Zaman MM, et al. **BMJ** 1998 Nov 7; 317(7168):1287–8

COMPLICATIONS

Rheumatic chorea in northern Australia: a clinical and epidemiological study. Carapetis JR, et al. **Arch Dis Child** 1999 Apr;80(4):353–8

PANDAS: the search for environmental triggers of pediatric neuropsychiatric disorders. Lessons from rheumatic fever. Garvey MA, et al. **J Child Neurol** 1998 Sep;13(9):413–23 (123 ref.)

Advanced atrioventricular block in a 39-year-old man with acute rheumatic fever. Barold SS, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 1):2025–8

DIAGNOSIS

Post-streptococcal reactive arthritis: a clinical and serological description, revealing its distinction from acute rheumatic fever. Jansen TL, et al. **J Intern Med** 1999 Mar; 245(3):261–7

Alternative medicine [letter] Manukulasuriya U. **N Z Med J** 1999 Mar 26;112(1084):103–4

T. Duckett Jones and his criteria for the diagnosis of acute rheumatic fever. Shulman ST. **Pediatr Ann** 1999 Jan; 28(1):9–12

Acute rheumatic fever with three major criteria: polyarthritis, carditis and chorea. A case report. Günal N, et al. **Turk J Pediatr** 1998 Oct–Dec;40(4):585–8

[Chorea due to acute rheumatic fever in a 9 year old girl (letter; comment)] Jansen TL, et al. **Ned Tijdschr Geneeskd** 1999 Feb 20;143(8):433–4. Comment on: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2789–92. **(Dut)**

DRUG THERAPY

Aspirin in acute rheumatic fever. Singh S. **Indian Pediatr** 1998 Nov;35(11):1159–60

[Acute rheumatic fever in today's children] Olivier C. **Presse Med** 1998 Jun 27;27(23):1159–67 (51 ref.) (Eng. Abstr.) **(Fre)**

EPIDEMIOLOGY

[Acute articular rheumatism in the child in 1997] Olivier C. **Pathol Biol (Paris)** 1998 Dec;46(10):802–12 (52 ref.) (Eng. Abstr.) **(Fre)**

[Rheumatic fever and rheumatic heart disease in Northwest Russia] Augestad KM, et al. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1456–9 (Eng. Abstr.) **(Nor)**

[The effect of prevention and other factors in the decrease in rheumatic fever] Fabečić-Sabadi V, et al. **Lijec Vjesn** 1998 Jun;120(6):151–6 (Eng. Abstr.) **(Scr)**

ETHNOLOGY

Functional analysis of IgA antibodies specific for a conserved epitope within the M protein of group A streptococci from Australian Aboriginal endemic communities. Brandt ER, et al. **Int Immunol** 1999 Apr;11(4):569–76

GENETICS

[Participation of major histocompatibility system alleles in the susceptibility to rheumatic fever] Vargas-Alarcón G, et al. **Arch Inst Cardiol Mex** 1999 Jan–Feb;69(1):72–9 (54 ref.) (Eng. Abstr.) **(Spa)**

HISTORY

[Rheumatic fever (rheumatism) in the XX century] Nasonova VA. **Ter Arkh** 1998;70(9):41–4 **(Rus)**

IMMUNOLOGY

Superantigen-induced T cell responses in acute rheumatic fever and chronic rheumatic heart disease patients. Bhatnagar A, et al. **Clin Exp Immunol** 1999 Apr; 116(1):100–6

Functional analysis of IgA antibodies specific for a conserved epitope within the M protein of group A streptococci from Australian Aboriginal endemic communities. Brandt ER, et al. **Int Immunol** 1999 Apr;11(4):569–76

[HLA-DQA1 genes involved in genetic susceptibility to rheumatic fever and rheumatic heart disease in southern Hans] Gu J, et al. **Chung Hua Nei Ko Tsa Chih** 1997 May; 36(5):308–11 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

The clinical spectrum of post-streptococcal syndromes with arthritis in children. Bont L, et al. **Clin Exp Rheumatol** 1998 Nov–Dec;16(6):750–2

The changing face of rheumatic fever in the 20th century [editorial] Stollerman GH. **J Med Microbiol** 1998 Aug; 47(8):655–7 (30 ref.)

Bacterial Infection and Related Arthritides. Proceedings of a symposium. Bordeaux, France, December 12, 1997. **Rev Rhum Engl Ed** 1999 Jan 30;66(1 Suppl):1S–76S

Bacterial infection and related arthritides: what do we really know? Schaeverbeke T, et al. **Rev Rhum Engl Ed** 1999 Jan 30;66(1 Suppl):1S–2S (11 ref.)

[Is infection with group A streptococcus the only reason for rheumatic fever?—a case report of rheumatic fever coexisting with Coxsackie B1 virus infection] Górska A, et al. **Przegl Lek** 1998;55(7–8):418–9 (Eng. Abstr.) **(Pol)**

MORTALITY

Mortality due to acute rheumatic fever and rheumatic heart disease in the Northern Territory: a preventable cause of death in aboriginal people. Carapetis JR, et al. **Aust N Z J Public Health** 1999 Apr;23(2):159–63

PREVENTION & CONTROL

Vaccine strategies to prevent rheumatic fever. Brandt ER, et al. **Immunol Res** 1999;19(1):89–103

Inefficacy of a 3-day course of azithromycin in preventing acute rheumatic fever after group A streptococcal infection (scarlet fever) in an 8-year-old child [letter] Ghirga G, et al. **J Pediatr** 1999 Jan;134(1):123–4

THERAPY

Current guidelines for the treatment of patients with rheumatic fever. Thatai D, et al. **Drugs** 1999 Apr; 57(4):545–55 (93 ref.)

RHEUMATIC HEART DISEASE

Rheumatic fever. Mota CC, et al. **Cardiol Young** 1999 May; 9(3):239–48

Rheumatic fever and rheumatic heart disease: an overview. Groves AM. **Trop Doct** 1999 Jul;29(3):129–32 (17 ref.)

BLOOD

Increased plasma nitrite level in cardiac failure. Ramesh G, et al. **J Mol Cell Cardiol** 1999 Aug;31(8):1495–500

COMPLICATIONS

Predictors of left atrial thrombus and spontaneous echo contrast in rheumatic valve disease before and after mitral valve replacement. Ozkan M, et al. **Am J Cardiol** 1998 Nov 1;82(9):1066–70

Single coronary artery with "high take-off" origin in a patient with rheumatic mitral stenosis--a case report. Tikiz H, et al. **Angiology** 1999 Mar;50(3):261–5

The Cox-Maze III procedure for atrial fibrillation associated with rheumatic mitral valve disease. Kim KB, et al. **Ann Thorac Surg** 1999 Sep;68(3):799–803; discussion 803–4

Hyperlucent lung in a patient with mitral valve disease. Mobeireek AF, et al. **Chest** 1998 Nov;114(5):1469–71

Assessment of mitral valve volume by quantitative three-dimensional echocardiography in patients with rheumatic mitral valve stenosis [letter; comment] Cheng TO. **Clin Cardiol** 1998 Nov;21(11):869–70. Comment on: Clin Cardiol 1998 Jun;21(6):415–8.

Acute rheumatic pancarditis associated with poststreptococcal acute glomerulonephritis: a patient report. Kakkera DR, et al. **Clin Pediatr (Phila)** 1998 Sep; 37(9):569–72 (11 ref.)

Can pulmonary venous hypertension be graded by the chest radiograph? Sharma S, et al. **Clin Radiol** 1998 Dec; 53(12):899–902

Percutaneous balloon dilatation of rheumatic mitral stenosis associated with cor triatriatum. Kumar PR, et al. **Indian Heart J** 1999 Mar–Apr;51(2):206–8

Aortic valve repair by cusp extension with the use of fresh autologous pericardium in children with rheumatic aortic insufficiency. Kalangos A, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):225–36

Pulsating arm veins [letter; comment] Hobbs JT. **Lancet** 1998 Nov 14;352(9140):1629. Comment on: Lancet 1998 Sep 26;352(9133):1030.

Urticarial eruption associated with rheumatic fever in a child. Nousari HC, et al. **Pediatr Dermatol** 1999 Jul–Aug; 16(4):288–91

Rheumatoid aortic regurgitation [letter] Allali F, et al. **Rev Rhum Engl Ed** 1998 Jul–Sep;65(7–9):513–4

[Chorea subsequent to acute rheumatic fever in a 9-year-old girl (see comments)] Scheurer CD, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2789–92 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Feb 20;143(8):433–4. **(Dut)**

DIAGNOSIS

[Difficulties in the diagnosis of recurrent rheumocarditis after a history of subacute infectious endocarditis] Belokrinitskaia OA, et al. **Ter Arkh** 1998;70(8):52–3 **(Rus)**

[Rheumatic cardiopathy and Chagas disease] Rodriguez-Patiño AE, et al. **Arch Inst Cardiol Mex** 1998 May–Jun;68(3):239–46 (43 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

[Improvement in fibrinolytic function following anticoagulant treatment in chronic rheumatic atrial fibrillation] Marin Ortuño F, et al. **Rev Esp Cardiol** 1999 Jan;52(1):25–30 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

Does rheumatic fever occur usually between the ages of 5 and 15 years? Zaman MM, et al. **Int J Cardiol** 1998 Sep 1;66(1):17–21

[Rheumatic fever and rheumatic heart disease in Northwest Russia] Augestad KM, et al. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1456–9 (Eng. Abstr.) **(Nor)**

ETIOLOGY

Advanced atrioventricular block in a 39-year-old man with acute rheumatic fever. Barold SS, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 1):2025–8

IMMUNOLOGY

HLA class II associations with rheumatic heart disease are more evident and consistent among clinically homogeneous patients. Guédez Y, et al. **Circulation** 1999 Jun 1; 99(21):2784–90

Superantigen-induced T cell responses in acute rheumatic fever and chronic rheumatic heart disease patients. Bhatnagar A, et al. **Clin Exp Immunol** 1999 Apr; 116(1):100–6

[HLA-DQA1 genes involved in genetic susceptibility to rheumatic fever and rheumatic heart disease in southern Hans] Gu J, et al. **Chung Hua Nei Ko Tsa Chih** 1997 May; 36(5):308–11 (Eng. Abstr.) **(Chi)**

PATHOLOGY

Electron microscopic observations of apoptotic cells in various etiologies of human cardiovascular diseases. Lee YS, et al. **Chin Med J (Engl)** 1998 May;111(5):428–32

PHYSIOPATHOLOGY

[Predication of hemodynamic changes of rheumatic heart disease with P wave of electrocardiogram] Wang C, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):462, 464 **(Chi)**

SURGERY

Perinatal mitral valve interventions: a report of 10 cases. Birincioglu CL, et al. **Ann Thorac Surg** 1999 May; 67(5):1312–4

The use of pulsatile perfusion during aortic valve replacement in pregnancy. Tripp HF, et al. **Ann Thorac Surg** 1999 Apr; 67(4):1169–71

Hemodynamic rounds series II: hemodynamic evaluation of a stenotic bioprosthetic mitral valve. Azrak E, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):70–5

Aortic valve replacement with biological substitute. Choudhary SK, et al. **J Card Surg** 1998 Jan;13(1):1–8; discussion 9–10

Mitral valve replacement with a pulmonary autograft: initial experience. Kabbani SS, et al. **J Heart Valve Dis** 1999 Jul; 8(4):359–66; discussion 366–7

Pulmonary autograft: should it be used in young patients with rheumatic disease? Choudhary SK, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):483–90; discussion 490–1

THERAPY

Five-year follow-up after percutaneous balloon mitral valvuloplasty in children and adolescents. Zaki A, et al. **Am J Cardiol** 1999 Mar 1;83(5):735–9

Successful percutaneous balloon mitral valvuloplasty in a patient with left atrial thrombus--a case report. Nseir G, et al. **Angiology** 1999 Mar;50(3):255–9

Percutaneous balloon dilatation of rheumatic mitral stenosis associated with cor triatriatum. Kumar PR, et al. **Indian Heart J** 1999 Mar–Apr;51(2):206–8

Balloon mitral valvotomy in juvenile rheumatic mitral

RHEUMATIC HEART DISEASE

stenosis [letter; comment] Kapoor A, et al. **Int J Cardiol** 1998 Sep 1;66(1):97–8. Comment on: Int J Cardiol 1997 Oct 31;62(1):19–22.

[The quantum gravitational therapy of myocarditis] Ovcharova AP. **Lik Sprava** 1999 Apr–May;(3):95–7 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Systematic transesophageal echocardiographic examination in mitral valve repair: the evolution of a discipline into the twenty-first century [editorial; comment] Savage RM, et al. **Anesth Analg** 1999 Jun;88(6):1197–9 (14 ref.). Comment on: Anesth Analg 1999 Jun;88(6):1205–12.

Diagnosis of active rheumatic carditis. The echoes of change. Narula J, et al. **Circulation** 1999 Oct 5;100(14):1576–81

RHEUMATIC NODULE

CHEMICALLY INDUCED

Accelerated nodulosis immediately after initiating weekly low dose methotrexate for rheumatoid arthritis [letter] Jun JB, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):127

Rheumatoid nodules of the larynx. Sørensen WT, et al. **J Laryngol Otol** 1998 Jun;112(6):573–4

PATHOLOGY

Anitschkow myocytes or cardiac histiocytes in human hearts. Stehbens WE, et al. **Pathology** 1999 May;31(2):98–101

RHEUMATISM see **RHEUMATIC DISEASES**

RHEUMATISM, ARTICULAR, ACUTE see **RHEUMATIC FEVER**

RHEUMATISM, MUSCULAR see **FIBROMYALGIA**

RHEUMATISM, PERI-EXTRA-ARTICULAR see **POLYMYALGIA RHEUMATICA**

RHEUMATOID FACTOR

[Progress in clinical tests and the pathophysiological study of collagen diseases--rheumatoid factor] Ozaki S. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2396–401 (5 ref.) **(Jpn)**

ANALYSIS

Branch retinal arteriolar occlusion associated with familial factor V Leiden polymorphism and positive rheumatoid factor. Dhar-Munshi S, et al. **Arch Ophthalmol** 1999 Jul; 117(7):971–3

Molecular analysis of rheumatoid factor (RF)-negative B cell hybridomas from rheumatoid synovial tissue: evidence for an antigen-induced stimulation with selection of high mutated IgVH and low mutated IgVL/lambda genes. Krenn V, et al. **Clin Exp Immunol** 1999 Jan;115(1):168–75

Evaluation of an IgM-specific indirect enzyme-linked immunosorbent assay for serodiagnosis of bovine respiratory syncytial virus infection: influence of IgM rheumatoid factor on test results with field sera. Graham DA, et al. **J Vet Diagn Invest** 1998 Oct;10(4):331–7

Combined elevation of IgM and IgA rheumatoid factor has high diagnostic specificity for rheumatoid arthritis. Jónsson T, et al. **Rheumatol Int** 1998;18(3):119–22

BIOSYNTHESIS

Does smoking stimulate rheumatoid factor production in non-rheumatic individuals? Jónsson T, et al. **APMIS** 1998 Oct;106(10):970–4

Human rheumatoid factor production is dependent on CD40 signaling and autoantigen. Kyburz D, et al. **J Immunol** 1999 Sep 15;163(6):3116–22

The specificity of synovial IgM rheumatoid factors (RF) for genetically engineered IgG antibodies is not affected by the method used to immortalize RF-producing B cells. Bonagura VR, et al. **Scand J Immunol** 1999 Jan; 49(1):106–11

BLOOD

Prediction of postpartum onset of rheumatoid arthritis. Iijima T, et al. **Ann Rheum Dis** 1998 Aug;57(8):460–3

Cryoglobulinaemia and rheumatic manifestations in patients with hepatitis C virus infection. Lee YH, et al. **Ann Rheum Dis** 1998 Dec;57(12):728–31

Only high disease activity and positive rheumatoid factor indicate poor prognosis in patients with early rheumatoid arthritis treated with "sawtooth" strategy [see comments] Möttönen T, et al. **Ann Rheum Dis** 1998 Sep;57(9):533–9 . Comment in: Ann Rheum Dis 1999 May;58(5):323.

Hepatitis C virus (HCV) infection: serum rheumatoid factor activity and HCV genotype correlate with cryoglobulin clonality [letter] Antonescu C, et al. **Blood** 1998 Nov 1; 92(9):3486–7

A prospective study on the occurrence of autoantibodies in low-risk pregnancies. Matthiesen LS, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Mar;83(1):21–6

Issues in rheumatoid arthritis [letter; comment] Calin A. **Lancet** 1999 Apr 3;353(9159):1185–6. Comment on: Lancet 1999 Jan 9;353(9147):123–4.

False-positive rapid tests for malaria in patients with rheumatoid factor [letter] Grobusch MP, et al. **Lancet** 1999 Jan 23;353(9149):297

Absence of longitudinal changes in rheumatologic parameters after silicone breast implantation: a prospective 13-year study. Miller AS 3rd, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2299–303

Relationship of rheumatoid factor isotype levels with joint lesions detected by magnetic resonance imaging in early rheumatoid arthritis. Di Franco M, et al. **Rev Rhum Engl Ed** 1999 May;66(5):251–5

Rheumatoid factor--does the patient have arthritis? Patel YI. **S Afr Med J** 1999 Jul;89(7):742–3

High prevalence of rheumatoid factor in community-based series of patients with rheumatoid arthritis meeting the new (1987) ARA criteria: RF-negative non-erosive rheumatoid arthritis is very rare. Hakala M, et al. **Scand J Rheumatol** 1998;27(5):368–72

[Serum immunoglobulin concentrations and autoantibodies in patients with Yusho] Tsuji H, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):147–9 (Eng. Abstr.) **(Jpn)**

[The prevalence of rheumatoid arthritis and the rheumatoid factor in the native inhabitants of northeastern Siberia] Erdes Sh, et al. **Ter Arkh** 1999;71(5):9–12 (Eng. Abstr.) **(Rus)**

[Efficacy of D-penicillamine and methotrexate in the treatment of rheumatoid arthritis in relation to levels of circulating rheumatoid factors of different classes] Zborovskii AB, et al. **Ter Arkh** 1999;71(1):60–3 (Eng. Abstr.) **(Rus)**

GENETICS

Rheumatoid factors in primary Sjögren's syndrome (pSS) use diverse VH region genes, the majority of which show no evidence of somatic hypermutation. Elagib KE, et al. **Clin Exp Immunol** 1999 Aug;117(2):388–94

IMMUNOLOGY

Mooren ulcer in South India: serology and clinical risk factors. Zegans ME, et al. **Am J Ophthalmol** 1999 Aug; 128(2):205–10

Possible presence of enhancing antibodies in idiopathic thrombocytopenic purpura. Yang YY, et al. **Br J Haematol** 1999 Jan;104(1):69–80

Anti-agalactosyl IgG antibodies and isotype profiles of rheumatoid factors in Sjögren's syndrome and rheumatoid arthritis. Ichikawa Y, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):709–15

Autoantigen-specific B cell activation in Fas-deficient rheumatoid factor immunoglobulin transgenic mice. Wang H, et al. **J Exp Med** 1999 Sep 6;190(5):639–49

Rheumatoid factor and antikeratin antibody are independent from presence of DR4 or DR1 in rheumatoid arthritis. Cantagrel A, et al. **Rev Rhum Engl Ed** 1999 Jan;66(1):20–3

[Rheumatoid factor: what could we learn from mature autoantibodies] Pasquali JL. **Rev Med Interne** 1999;20 Suppl 1:31S–32S **(Fre)**

METABOLISM

The level of human decidua-associated protein (hDP) 200, identified as a monoclonal rheumatoid factor in the fallopian tube. Halperin R, et al. **Am J Reprod Immunol** 1999 Apr;41(4):253–6

Functional analysis of rheumatoid factor-producing B cells from the synovial fluid of rheumatoid arthritis patients. Reparon-Schuijt CC, et al. **Arthritis Rheum** 1998 Dec; 41(12):2211–20

PHYSIOLOGY

Rheumatoid factor B cell tolerance via autonomous Fas/FasL-independent apoptosis. Warnatz K, et al. **Cell Immunol** 1999 Jan 10;191(1):69–73

RADIATION EFFECTS

A study of the effects of pulsed electromagnetic field therapy with respect to serological grouping in rheumatoid arthritis. Ganguly KS, et al. **J Indian Med Assoc** 1998 Sep; 96(9):272–5

RHEUMATOID NODULE

CHEMICALLY INDUCED

Successful treatment of methotrexate induced nodulosis with D-penicillamine. Dash S, et al. **J Rheumatol** 1999 Jun; 26(6):1396–9

COMPLICATIONS

Echocardiographic findings and 24-h electrocardiographic Holter monitoring in patients with nodular and non-nodular rheumatoid arthritis. Wisłowska M, et al. **Rheumatol Int** 1999;18(5–6):163–9

DIAGNOSIS

Unusual onset of rheumatoid arthritis with diffuse pulmonary nodulosis: a diagnostic problem. Laloux L, et al. **J Rheumatol** 1999 Apr;26(4):920–2

Rheumatoid nodule of the foot: MRI appearances mimicking an indeterminate soft tissue mass. Sanders TG, et al. **Skeletal Radiol** 1998 Aug;27(8):457–60 (14 ref.)

DRUG THERAPY

Successful treatment of methotrexate induced nodulosis with D-penicillamine. Dash S, et al. **J Rheumatol** 1999 Jun; 26(6):1396–9

EPIDEMIOLOGY

Identification and prevalence of rheumatoid nodules in the finger tendons using high frequency ultrasonography. Kotob H, et al. **J Rheumatol** 1999 Jun;26(6):1264–8

[Occurrence of subcutaneous rheumatoid nodules in patients with rheumatoid arthritis in Croatia] Vlak T, et al. **Reumatizam** 1998;46(1):21–5 (Eng. Abstr.) **(Scr)**

ETIOLOGY

"Rheumatoid nodules" and lymphoma! Courtney PA, et al. **Ann Rheum Dis** 1998 Oct;57(10):578–9

Pathogenic mechanisms in the rheumatoid nodule: comparison of proinflammatory cytokine production and cell adhesion molecule expression in rheumatoid nodules and synovial membranes from the same patient [see comments] Wikaningrum R, et al. **Arthritis Rheum** 1998 Oct;41(10):1783–97. Comment in: Arthritis Rheum 1999 May;42(5):1067–8.

Rheumatoid nodules in a patient with primary antiphospholipid (Hughes) syndrome. Elkayam O, et al. **Lupus** 1998;7(7):488–91

GENETICS

[An unusual case of Heberden arthrosis in a young man] Rascu A, et al. **Z Rheumatol** 1999 Apr;58(2):95–9 (Eng. Abstr.) **(Ger)**

METABOLISM

Proinflammatory cytokine production and cell adhesion molecule expression compared in rheumatoid nodules and synovial membranes: comment on the article by Wikaningrum et al [letter; comment] Elewaut D, et al. **Arthritis Rheum** 1999 May;42(5):1067–8. Comment on: Arthritis Rheum 1998 Oct;41(10):1783–97.

Detection of sarcolectin-specific receptors like the cytokine macrophage migration inhibitory factor in rheumatoid nodules. Zschäbitz A, et al. **Histol Histopathol** 1999 Jul; 14(3):771–7

PATHOLOGY

[Usefulness of endoscopic lung biopsy in the diagnosis of rheumatoid lung nodules (letter)] Núñez A, et al. **Arch Bronconeumol** 1998 Dec;34(11):564–5 **(Spa)**

ULTRASONOGRAPHY

Identification and prevalence of rheumatoid nodules in the finger tendons using high frequency ultrasonography. Kotob H, et al. **J Rheumatol** 1999 Jun;26(6):1264–8

RHEUMATOID PURPURA see **PURPURA, SCHOENLEIN-HENOCH**

RHEUMATOID SPONDYLITIS see **SPONDYLITIS, ANKYLOSING**

RHEUMATOLOGY

see related
COLLAGEN DISEASES
RHEUMATIC DISEASES

The ties of ILAR and WHO. Rasker JJ, et al. **Acta Orthop Scand Suppl** 1998 Jun;281:63–4

Posttraumatic fibromyalgia at pain facilities versus rheumatologists' offices: a commentary [comment] Fishbain DA, et al. **Am J Phys Med Rehabil** 1998 Nov-Dec; 77(6):562. Comment on: Am J Phys Med Rehabil 1994 Nov-Dec;73(6):403–12.

Update in rheumatology. Campbell SM, et al. **Ann Intern Med** 1999 Jan 19;130(2):135–42 (8 ref.)

A unified list of acronyms for the rheumatology literature [editorial] Bombardieri S, et al. **Arthritis Rheum** 1998 Nov; 41(11):1901–5

Do we need pediatric rheumatologists? The Hamburg, Germany experience [letter] Foeldvari I. **Arthritis Rheum** 1999 Feb;42(2):396

ACR presidential address: Rheum for more. American College of Rheumatology. Koopman WJ. **Arthritis Rheum** 1998 Oct;41(10):1711–3

Annual scientific meeting of the Australian Rheumatology Association. Sydney, New South Wales, Australia. 24–27 May 1998. Abstracts. **Aust N Z J Med** 1998 Oct; 28(5):729–52

An insight into rheumatology resources available on the World Wide Web. Tench CM, et al. **Br J Rheumatol** 1998 Nov;37(11):1233–5

2nd Belgian Congress on Rheumatology. Brussels, Belgium, October 1–3, 1998. Abstracts. **Clin Rheumatol** 1998; 17(5):423–64

Usage of complementary therapies in rheumatology: a systematic review. Ernst E. **Clin Rheumatol** 1998; 17(4):301–5 (31 ref.)

How Canadian and US rheumatologists treat moderate or aggressive rheumatoid arthritis: a survey. Maetzel A, et al. **J Rheumatol** 1998 Dec;25(12):2331–8

Managed care and the practice of rheumatology [letter; comment] Prupas M. **J Rheumatol** 1998 Dec;25(12):2473–4 . Comment on: J Rheumatol 1998 Apr;25(4):609. Comment on: J Rheumatol 1998 Apr;25(4):641–9.

Rheumatology moves online for Joint Motion 2000–2010. Larkin M. **Lancet** 1999 Apr 17;353(9161):1368

Bone malignancies and rheumatologists [editorial] Kahn MF. **Rev Rhum Engl Ed** 1998 Jul–Sep;65(7–9):451–2

The current status of ultrasonography in rheumatology [editorial] Wakefield RJ, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):195–8

[62nd Congress of the American College of Rheumatology, San Diego, 8–12 November 1998] Cherin P. **Rev Med Interne** 1999 Apr;20(4):311–7 (34 ref.) **(Fre)**

[Report from the congress of the American College of Rheumatology, San Diego, 8–12 November 1998] Hachulla E. **Rev Med Interne** 1999 Mar;20(3):211–5 **(Fre)**

[28th Meeting of the German Society of Rheumatology. Baden-Baden, 16–19 September 1998. Abstracts] **Z Rheumatol** 1998;57 Suppl 1:1–96 **(Ger)**

[Quality recommendations of the German Society of Rheumatology. Basis for further responsibilities] Keitel W. **Z Rheumatol** 1998 Oct;57(5):355–7 (17 ref.) (Eng. Abstr.) **(Ger)**

[Report on the OMERACT IV CONFERENCE 16–20 April 1998 in Cancun/Mexico] Uitz E, et al. **Z Rheumatol** 1998 Aug;57(4):268–70 **(Ger)**

[The 43rd Congress of the Japan Rheumatism Association. Sapporo, Japan. June 3–5, 1999. Abstracts] **Ryumachi** 1999 Apr;39(2):85–555 **(Jpn)**

[Osteogenesis imperfecta in the rheumatologist's practice] Belen'kii AG, et al. **Ter Arkh** 1998;70(8):66–9 **(Rus)**

[Rheumatology research. Analysis of Spanish papers published in 1990–1996 in 9 foreign journals in the field] Batlle-Gualda E, et al. **Rev Clin Esp** 1998 Sep; 198(9):587–95 (Eng. Abstr.) **(Spa)**

ECONOMICS

Does economic evaluation have anything to offer the rheumatologist? [editorial] Hurst NP, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):2–5 (18 ref.)

EDUCATION

Guidelines for rheumatology undergraduate core curriculum. EULAR Standing Committee on Education and Training. Doherty M, et al. **Ann Rheum Dis** 1999 Mar;58(3):133–5

Improving musculoskeletal clinical skills teaching. A regionwide audit and intervention study. Kay L, et al. **Ann Rheum Dis** 1998 Nov;57(11):656–9

A college for its teachers [editorial] Pisetsky DS, et al. **Arthritis Rheum** 1999 Apr;42(4):595–8

Manchester experience in establishing a part-time MSc course in rheumatology. Herrick AL, et al. **Br J Rheumatol** 1998 Sep;37(9):1020–2

Undergraduate Education in Rheumatology, Challenges for the Millennium. Sentosa, Singapore, June 13–15, 1997. Proceedings. **J Rheumatol** 1999 Feb;26 Suppl 55:1–59

The teaching of rheumatology in a graduate entry medical school. Ahern M, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:46–8

Interactive computer programs. Armstrong R. **J Rheumatol** 1999 Feb;26 Suppl 55:56–7

The present state of undergraduate education in rheumatology in Australia. Barraclough D. **J Rheumatol** 1999 Feb;26 Suppl 55:17–8

The use of trained arthritis patients in the instruction of the musculoskeletal examination. Branch VK, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:52–5

Rheumatology training for general practice. Brooks PM. **J Rheumatol** 1999 Feb;26 Suppl 55:58–9

Video supported small group learning: problem solving and clinical reasoning. Dequeker J. **J Rheumatol** 1999 Feb;26 Suppl 55:49–51

Learning objectives of undergraduate medical education in rheumatology. Dequeker J. **J Rheumatol** 1999 Feb;26 Suppl 55:43–5

Undergraduate education in rheumatology: challenges for the millennium. Dequeker J. **J Rheumatol** 1999 Feb;26 Suppl 55:3–5

The core curriculum: history and examination. Edmonds J, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:33–4

The teaching of rheumatology in undergraduate medical education in France. Euller-Ziegler L. **J Rheumatol** 1999 Feb;26 Suppl 55:9

North American undergraduate education in rheumatology. Hess EV. **J Rheumatol** 1999 Feb;26 Suppl 55:21

Education of rheumatic disorders at Dutch medical schools. Jacobs JC, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:14–6

Undergraduate education in rheumatology in Latin America. Jasin HE. **J Rheumatol** 1999 Feb;26 Suppl 55:20

Skills development in rheumatology undergraduate and postgraduate curricula. Jerome D, et al. **J Rheumatol** 1999 Feb;26 Suppl 55:38–40 (0 ref.)

Undergraduate rheumatology teaching in Africa. Kalla AA. **J Rheumatol** 1999 Feb;26 Suppl 55:26–8

Undergraduate education in rheumatology in Asian Pacific countries (APLAR). Lien IN. **J Rheumatol** 1999 Feb;26 Suppl 55:19

Undergraduate education in rheumatology in Latin America. Onetti CM. **J Rheumatol** 1999 Feb;26 Suppl 55:22–3

Attitude education in rheumatology. Rasker JJ. **J Rheumatol** 1999 Feb;26 Suppl 55:41–2

Undergraduate education in rheumatology in Brazil. Sato EI. **J Rheumatol** 1999 Feb;26 Suppl 55:24

The American College of Rheumatology Core Curriculum—a problem based learning curriculum: rationale and design. Simon LS. **J Rheumatol** 1999 Feb;26 Suppl 55:31–2

Rheumatology training at the American University of Beirut [letter; comment] Uthman I, et al. **J Rheumatol** 1999 Mar; 26(3):753–4. Comment on: J Rheumatol 1998 Jun;25(6):1037–40.

Undergraduate medical education in rheumatology in Europe. Woolf AD. **J Rheumatol** 1999 Feb;26 Suppl 55:6–8

Undergraduate medical education in rheumatology--aims. Woolfe AD. **J Rheumatol** 1999 Feb;26 Suppl 55:29–30

Undergraduate education in rheumatology in Tunisia. Zakraoui L. **J Rheumatol** 1999 Feb;26 Suppl 55:25

Methods in undergraduate education in rheumatology. Zeidler H. **J Rheumatol** 1999 Feb;26 Suppl 55:35–7

Undergraduate education in rheumatology in German speaking countries. Zeidler HK. **J Rheumatol** 1999 Feb;26 Suppl 55:10–3

How is rheumatology taught in France during the first two cycles of medical school? [editorial] Boissier MC, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):546–8

[Continuing education as an instrument of medical quality management] Kaltwasser JP, et al. **Z Rheumatol** 1998 Dec; 57(6):437–41 (Eng. Abstr.) **(Ger)**

HISTORY

The L.E. cell and its legacy. 1948 [Classical Article] Tan EM. **Clin Exp Rheumatol** 1998 Nov–Dec;16(6):652–8

Rheumatology in Italy at the threshold of the year 2000. Punzi L. **Rev Rhum Engl Ed** 1999 May;66(5):278–80

[Christian Georg Schmorl] Nüsslein H, et al. **Z Rheumatol** 1999 Feb;58(1):1 **(Ger)**

[Glucocorticoids: 50 years of their use in rheumatology (editorial)] Nasonov EL. **Ter Arkh** 1999;71(5):5–9 **(Rus)**

[The Institute of Rheumatology is 40 years old: results and prospects] Nasonova VA, et al. **Vestn Ross Akad Med Nauk** 1998;(12):3–6 **(Rus)**

INSTRUMENTATION

Ankylosing spondylitis: plenary discussion and results of voting on selection of domains and some specific instruments. van der Heijde D, et al. **J Rheumatol** 1999 Apr;26(4):1003–5 (16 ref.)

Selection of instruments in the core set for DC-ART, SMARD, physical therapy, and clinical record keeping in ankylosing spondylitis. Progress report of the ASAS Working Group. Assessments in Ankylosing Spondylitis. van der Heijde D, et al. **J Rheumatol** 1999 Apr;26(4):951–4 (12 ref.)

LEGISLATION & JURISPRUDENCE

[Need and possibility for quality management in the rheumatologic specialty practice] Karger T. **Z Rheumatol** 1998 Dec;57(6):410–2 (Eng. Abstr.) **(Ger)**

MANPOWER

Provision of primary care by office-based rheumatologists: results from the National Ambulatory Medical Care Surveys, 1991–1995. Ward MM. **Arthritis Rheum** 1999 Mar; 42(3):409–14

METHODS

Admissible evidence. Croft P. **Ann Rheum Dis** 1998 Jul; 57(7):387–9

Evidence-based medicine or medicines-based evidence? Dieppe P. **Ann Rheum Dis** 1998 Jul;57(7):385–6

Clinimetric concepts in outcome assessment: the OMERACT filter. Bellamy N. **J Rheumatol** 1999 Apr;26(4):948–50 (19 ref.)

Genetic epidemiology: caveat lector [letter] Blank RD. **J Rheumatol** 1999 Jun;26(6):1416–7

Introduction to reading radiographs by the Scott modification of the Larsen method. Edmonds J, et al. **J Rheumatol** 1999 Mar;26(3):740–2 (12 ref.)

Conceptual issues in scoring radiographic progression in rheumatoid arthritis. Kirwan JR. **J Rheumatol** 1999 Mar; 26(3):720–5 (33 ref.)

A practical exercise in reading RA radiographs by the larsen and sharp methods. Molenaar ET, et al. **J Rheumatol** 1999 Mar;26(3):746–8

Imaging in rheumatoid arthritis: results of group discussions. Molenaar ET, et al. **J Rheumatol** 1999 Mar;26(3):749–51

Validity of area-under-the-curve analysis to summarize effect in rheumatoid arthritis clinical trials. Pham B, et al. **J Rheumatol** 1999 Mar;26(3):712–6

Reporting requirements for longitudinal observational studies in rheumatology. Silman A, et al. **J Rheumatol** 1999 Feb; 26(2):481–3

Methodological issues in radiographic scoring methods in rheumatoid arthritis. van der Heijde D, et al. **J Rheumatol** 1999 Mar;26(3):726–30 (36 ref.)

How to read radiographs according to the Sharp/van der Heijde method. van der Heijde D. **J Rheumatol** 1999 Mar; 26(3):743–5 (10 ref.)

Preliminary core set of domains and reporting requirements for longitudinal observational studies in rheumatology. Wolfe F, et al. **J Rheumatol** 1999 Feb;26(2):484–9

Oligonucleotides: a new resource in rheumatology? [editorial] Chary-Valckenaere I, et al. **Rev Rhum Engl Ed** 1998 Oct; 65(10):543–5

[Development of studies on problem of infectious arthritis at the Institute of RHeumatology, Russian Academy of Medical Sciences in 1970 to 1990] Agababova ER. **Vestn Ross Akad Med Nauk** 1998;(12):23–6 (41 ref.) (Eng. Abstr.) **(Rus)**

[Role of the Institute of Rheumatology in formation and development of State controlling system of rheumatic diseases] Folomeeva OM, et al. **Vestn Ross Akad Med Nauk** 1998;(12):9–12 (Eng. Abstr.) **(Rus)**

[Forty years study of systemic scleroderma (data of Institute of Rheumatology, Russian Academy of Medical Sciences)] Guseva NG. **Vestn Ross Akad Med Nauk** 1998;(12):27–31 (Eng. Abstr.) **(Rus)**

[Scientific bases of medical examinations of patients with rheumatic diseases] Ivanova MM. **Vestn Ross Akad Med Nauk** 1998;(12):19–22 (36 ref.) (Eng. Abstr.) **(Rus)**

[Rheumoorthopedics as an integral part of complex therapy of rheumatic diseases with joint involvement] Pavlov VP. **Vestn Ross Akad Med Nauk** 1998;(12):47–9 (11 ref.) (Eng. Abstr.) **(Rus)**

[Institute of Rheumatology and progress of antirheumatic therapy] Sigidin IaA. **Vestn Ross Akad Med Nauk** 1998; (12):7–9 (Eng. Abstr.) **(Rus)**

[Clinical immunology in rheumatology] Speranskiĭ AI. **Vestn Ross Akad Med Nauk** 1998;(12):12–5 (Eng. Abstr.) **(Rus)**

ORGANIZATION & ADMINISTRATION

Y2K, strategic alliances, and you. Kaufman RL. **Arthritis Rheum** 1999 Mar;42(3):406–8

STANDARDS

The American College of Rheumatology nomenclature and case definitions for neuropsychiatric lupus syndromes. **Arthritis Rheum** 1999 Apr;42(4):599–608 (123 ref.)

Classification of childhood arthritis: a work in progress. Petty RE. **Baillieres Clin Rheumatol** 1998 May;12(2):181–90 (20 ref.)

Classification of childhood arthritis: divide and conquer [editorial; comment] Petty RE, et al. **J Rheumatol** 1998 Oct;25(10):1869–70. Comment on: J Rheumatol 1998 Oct;25(10):1991–4.

Revision of the proposed classification criteria for juvenile idiopathic arthritis: Durban, 1997 [see comments] Petty RE, et al. **J Rheumatol** 1998 Oct;25(10):1991–4. Comment in: J Rheumatol 1998 Oct;25(10):1869–70.

Reporting requirements for longitudinal observational studies in rheumatology. Silman A, et al. **J Rheumatol** 1999 Feb; 26(2):481–3

[Quality assurance in rheumatology] Keitel W. **Z Arztl Fortbild Qualitatssich** 1999 Mar;93(2):141–4 (Eng. Abstr.) **(Ger)**

[Workshop on quality management in rheumatology. Eisenach, 22–24 May 1998. Abstracts] **Z Rheumatol** 1998 Dec;57(6):409–55 **(Ger)**

STATISTICS & NUMERICAL DATA

Utilization of rheumatology physician services by the elderly. Katz JN, et al. **Am J Med** 1998 Oct;105(4):312–8

An overview of rheumatological research in the European Union. Mela GS, et al. **Ann Rheum Dis** 1998 Nov; 57(11):643–7

Provision of primary care by office-based rheumatologists: results from the National Ambulatory Medical Care Surveys, 1991–1995. Ward MM. **Arthritis Rheum** 1999 Mar; 42(3):409–14

Do referring doctors and rheumatologists agree? [letter] Doube A. **N Z Med J** 1999 Aug 13;112(1093):304

TRENDS

Rheumatological arthroscopy or research arthroscopy in rheumatology? [editorial] Ayral X, et al. **Br J Rheumatol** 1998 Oct;37(10):1039–41 (32 ref.)

An Update on Pediatric Rheumatology: from Basic Research to Clinical Applications. Genoa, December 4–5, 1997. Picco P, et al. **Clin Exp Rheumatol** 1998 Nov–Dec; 16(6):757–8

Epidemiology and health services research [editorial] Gabriel SE. **Curr Opin Rheumatol** 1999 Mar;11(2):89–90

Therapeutic advances in systemic lupus erythematosus. Godfrey T, et al. **Curr Opin Rheumatol** 1998 Sep; 10(5):435–41 (81 ref.)

1998 update on antiphospholipid antibodies. Petri M. **Curr Opin Rheumatol** 1998 Sep;10(5):426–30 (53 ref.)

The evolution of arthritis antiinflammatory care: where are we today? Simon LS. **J Rheumatol** 1999 Apr;26 Suppl 56:11–7 (76 ref.)

Rheumatology in Italy at the threshold of the year 2000. Punzi L. **Rev Rhum Engl Ed** 1999 May;66(5):278–80

[Rheumatology] Genth E, et al. **Internist (Berl)** 1999 Apr; 40(4):401–6 (21 ref.) **(Ger)**

RHINENCEPHALON

RHINENCEPHALON see **LIMBIC SYSTEM**

RHINITIS

Allergic rhinitis in childhood. **Allergy** 1999;54 Suppl 55:7–34 (260 ref.)

Rhinitis, sinusitis, and polyposis. Young MC.
Allergy Asthma Proc 1998 Jul–Aug;19(4):211–8 (37 ref.)

Nasal congestion during pregnancy. Ellegård E, et al.
Clin Otolaryngol 1999 Aug;24(4):307–11

[Acute nasal, sinus and pharyngeal infections in children] Gilain L. **Rev Prat** 1998 Feb 15;48(4):457–61 **(Fre)**

[Acute nasal-sinus infections in the adult] Parietti C, et al. **Rev Prat** 1998 Jan 15;48(2):199–204 **(Fre)**

CHEMICALLY INDUCED

Facial dermatitis, contact urticaria, rhinoconjunctivitis, and asthma induced by potato. Jeannet-Peter N, et al.
Am J Contact Dermat 1999 Mar;10(1):40–2

Exposure–response relationships in rhinitis and conjunctivitis caused by methyltetrahydrophthalic anhydride. Yokota K, et al. **Int Arch Occup Environ Health** 1999 Jan;72(1):14–8

Chronic rhinitis in workers at risk of reactive airways dysfunction syndrome due to exposure to chlorine. Leroyer C, et al. **Occup Environ Med** 1999 May;56(5):334–8

Changes in nasal reactivity in patients with rhinitis medicamentosa after treatment with fluticasone propionate and placebo nasal spray. Graf PM, et al.
ORL J Otorhinolaryngol Relat Spec 1998 Nov–Dec; 60(6):334–8

Inflammatory and epithelial responses during the development of ozone-induced mucous cell metaplasia in the nasal epithelium of rats. Cho HY, et al. **Toxicol Sci** 1999 Sep;51(1):135–45

COMPLICATIONS

Rhinitis mimicking odontalgia: a case report. Gallin DM, et al. **N Y State Dent J** 1998 Dec;64(10):22

Allergic rhinitis and rhinosinusitis. Is there a connection between allergy and infection? Ferguson BJ, et al.
Postgrad Med 1999 Apr;105(4):55–8, 61, 64 (36 ref.)

MR imaging and CT of orbital infections and complications in acute rhinosinusitis. Eustis HS, et al.
Radiol Clin North Am 1998 Nov;36(6):1165–83, xi (56 ref.)

Effects of pre-existing rhinitis on ozone-induced mucous cell metaplasia in rat nasal epithelium. Cho HY, et al.
Toxicol Appl Pharmacol 1999 Jul 15;158(2):92–102

[Clinical evaluation of Olbas oil effect on nasal mucosa in acute rhinitis patients during common cold] Zalewski P, et al. **Otolaryngol Pol** 1997;51 Suppl 25:312–4 (Eng. Abstr.) **(Pol)**

[A case of aspirin triad] Atamuradov MA, et al.
Vestn Otorinolaringol 1999;(4):50 **(Rus)**

DIAGNOSIS

Nonspecific nasal mucosal reactivity, expressed as changes in nasal airway resistance after bilateral saline provocation. Haavisto L, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):275–8

A comparison of two methods for determining nasal irritant sensitivity. Shusterman DJ, et al. **Am J Rhinol** 1997 Sep–Oct;11(5):371–8

Executive Summary of Joint Task Force Practice Parameters on Diagnosis and Management of Rhinitis. Dykewicz MS, et al. **Ann Allergy Asthma Immunol** 1998 Nov;81(5 Pt 2):463–8

Joint Task Force Algorithm and Annotations for Diagnosis and Management of Rhinitis. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):469–73

Joint Task Force summary statements on Diagnosis and Management of Rhinitis. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):474–7

Diagnosis and management of rhinitis: complete guidelines of the Joint Task Force on Practice Parameters in Allergy, Asthma and Immunology. American Academy of Allergy, Asthma, and Immunology. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):478–518

The management of postnasal drip. Forer M, et al.
Aust Fam Physician 1999 Mar;28(3):223–8 (22 ref.)

The stuffy nose and rhinitis. Fornadley JA.
Med Clin North Am 1999 Jan;83(1):1–12

Rhinosinusitis. Current concepts in evaluation and management. Osguthorpe JD, et al.
Med Clin North Am 1999 Jan;83(1):27–41, vii–viii (30 ref.)

Diagnosis and management of rhinitis. Weldon D.
Prim Care 1998 Dec;25(4):831–48 (112 ref.)

Nasal patency and lavage biomarkers in relation to settled dust and cleaning routines in schools. Wålinder R, et al.
Scand J Work Environ Health 1999 Apr;25(2):137–43

Histamine release upon adenosine 5'-monophosphate (AMP) nasal provocation in allergic subjects. Polosa R, et al.
Thorax 1999 Mar;54(3):230–3

[Diagnostic values of nasal mucosa cytology] Miszke A, et al. **Otolaryngol Pol** 1999;53(2):153–6 (11 ref.) (Eng. Abstr.) **(Pol)**

[Current methods for assessing mucociliary transport disorders in the diagnosis of chronic rhinosinusitis] Zakharova GP, et al. **Vestn Otorinolaringol** 1998;(4):53–5 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Azelastine reduces mediators of inflammation in patients with nasal polyps. Mösges R, et al. **Allergy Asthma Proc** 1998 Nov–Dec;19(6):379–83

Antidepressants, rhinosinusitis are topics of new AHCPR evidence reports [news] Miller JL.
Am J Health Syst Pharm 1999 May 1;56(9):853

Ipratropium bromide nasal spray 0.03% and beclomethasone nasal spray alone and in combination for the treatment of rhinorrhea in perennial rhinitis. Dockhorn R, et al.
Ann Allergy Asthma Immunol 1999 Apr;82(4):349–59

Intranasal corticosteroids in allergic rhinitis. Paper did not include all data on adverse effects [letter] Paddon D.
BMJ 1999 May 15;318(7194):1350

Intranasal corticosteroids in allergic rhinitis. Evidence of efficacy is useful but not only factor to be considered [letter; comment] Paterson C. **BMJ** 1999 May 15; 318(7194):1350–1. Comment on: BMJ 1998 Dec 12;317(7173):1624–9.

Contact allergy to corticosteroids in asthma/rhinitis patients. Isaksson M, et al. **Contact Dermatitis** 1999 Jun;40(6):327–8

Azithromycin versus placebo in acute infectious rhinitis with clinical symptoms but without radiological signs of maxillary sinusitis. Haye R, et al.
Eur J Clin Microbiol Infect Dis 1998 May;17(5):309–12

Effects of the nasal decongestant oxymetazoline on human olfactory and intranasal trigeminal function in acute rhinitis. Hummel T, et al. **Eur J Clin Pharmacol** 1998 Sep; 54(7):521–8

The clinical pharmacology of brompheniramine in children. Simons FE, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):223–6

Antihistamines. Wroblewski BA. **J Head Trauma Rehabil** 1998 Feb;13(1):83–5

Exhaling a budesonide inhaler through the nose results in a significant reduction in dose requirement of budesonide nasal spray in patients having asthma with rhinitis. Shaikh WA. **J Investig Allergol Clin Immunol** 1999 Jan–Feb; 9(1):45–9

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al.
Laryngoscope 1998 Oct;108(10):1528–33

Changes in nasal reactivity in patients with rhinitis medicamentosa after treatment with fluticasone propionate and placebo nasal spray. Graf PM, et al.
ORL J Otorhinolaryngol Relat Spec 1998 Nov–Dec; 60(6):334–8

Effects of systemic steroid treatment in chronic polypoid rhinosinusitis evaluated with magnetic resonance imaging. Damm M, et al. **Otolaryngol Head Neck Surg** 1999 Apr; 120(4):517–23

Diagnosis and management of rhinitis. Weldon D.
Prim Care 1998 Dec;25(4):831–48 (112 ref.)

Experimentally induced nasal hypersecretion does not reduce the efficacy of intranasal levocabastine. Borum S, et al.
Rhinology 1998 Dec;36(4):153–5

What you need to know--medications for rhinitis--uses and abuses. Soh KB. **Singapore Med J** 1999 Feb;40(2):120–2

24 hour and fractionated profiles of adrenocortical activity in asthmatic patients receiving inhaled and intranasal corticosteroids. Wilson AM, et al. **Thorax** 1999 Jan; 54(1):20–6

[Dexpanthenol nasal spray as an effective therapeutic principle for treatment of rhinitis sicca anterior] Kehrl W, et al. **Laryngorhinootologie** 1998 Sep;77(9):506–12 (Eng. Abstr.) **(Ger)**

[Decongestants in treatment of nasal obstruction] Bogacka E. **Otolaryngol Pol** 1999;53(3):347–52 (20 ref.) (Eng. Abstr.) **(Pol)**

[The usage of nasal drops Tyzine in otorhinolaryngology] Kozłowski Z, et al. **Otolaryngol Pol** 1997;51 Suppl 25:315–9 (Eng. Abstr.) **(Pol)**

ECONOMICS

Use of diagnostic clusters to assess the economic consequences of rhinopharyngitis in children in Italy and France during the winter. Rhinitis Survey Group. Van Cauwenberge P, et al. **Clin Ther** 1999 Feb;21(2):404–21

EPIDEMIOLOGY

Month of birth and childhood atopic diseases in the tropics. Chew FT, et al. **Allergy** 1998 Oct;53(10):962–8

Age at symptom onset and distribution by sex and symptoms in patients sensitized to different allergens. Guerra S, et al. **Allergy** 1998 Sep;53(9):863–9

Impact of air pollution on prevalence of rhinitis in Istanbul. Keles N, et al. **Arch Environ Health** 1999 Jan–Feb; 54(1):48–51

Rhinosinusitis and asthma: epiphenomenon or causal association? de Benedictis FM, et al. **Chest** 1999 Feb; 115(2):550–6 (69 ref.)

Prevalence of rhinitis, pillow type and past and present ownership of furred pets [see comments] Frosh AC, et al.
Clin Exp Allergy 1999 Apr;29(4):457–60. Comment in: Clin Exp Allergy 1999 Apr;29(4):429–32.

Asthma, rhinitis and eczema in Maltese 13–15 year-old schoolchildren — prevalence, severity and associated factors [ISAAC]. International Study of Asthma and Allergies in Childhood. Montefort S, et al.
Clin Exp Allergy 1998 Sep;28(9):1089–99

Prevalence of childhood asthma, rhinitis and eczema in Scandinavia and Eastern Europe. Björkstén B, et al.
Eur Respir J 1998 Aug;12(2):432–7

Bakery work, atopy and the incidence of self-reported hay fever and rhinitis. Brisman J, et al. **Eur Respir J** 1999 Mar; 13(3):502–7

Health surveillance in milling, baking and other food manufacturing operations--five years' experience. Smith TA, et al. **Occup Med (Lond)** 1999 Apr;49(3):147–53

ETIOLOGY

Occupational rhinitis caused by beech wood dust. Hernandez M, et al. **Allergy** 1999 Apr;54(4):405–6

Occupational allergic rhinitis and contact urticaria caused by bishop's weed (Ammi majus). Kiistala R, et al.
Allergy 1999 Jun;54(6):635–9

Atopy and intolerance of antimicrobial drugs increase the risk of reactions to acetaminophen and nimesulide in patients allergic to nonsteroidal anti-inflammatory drugs. Pastorello EA, et al. **Allergy** 1998 Sep;53(9):880–4

Relationships between rhinitis and asthma. Vignola AM, et al. **Allergy** 1998 Sep;53(9):833–9 (83 ref.)

Hairdresser's dermatitis caused by oak moss in permanent waving solution. Kanerva L, et al. **Contact Dermatitis** 1999 Jul;41(1):55–6

Rhinoconjunctivitis and asthma caused by vine pollen: a case report. Feo Brito F, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):262–6

Home dampness and molds as determinants of respiratory symptoms and asthma in pre-school children. Jaakkola JJ, et al. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:129–42

ENT issues in pregnancy. Lippincott LH, et al.
J La State Med Soc 1999 Jul;151(7):350–4 (13 ref.)

Rhinosinusitis and atopy in patients infected with HIV. García-Rodríguez JF, et al. **Laryngoscope** 1999 Jun; 109(6):939–44

Role of gastroesophageal reflux in pediatric upper airway disorders. Halstead LA. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):208–14

Nasal patency and lavage biomarkers in relation to settled dust and cleaning routines in schools. Wålinder R, et al.
Scand J Work Environ Health 1999 Apr;25(2):137–43

[Environment and nasal hyperreactivity] Lacroix JS.
Rev Med Suisse Romande 1999 Aug;119(8):619–21 (16 ref.) (Eng. Abstr.) **(Fre)**

[Intranasal necrotic lesion in a neutropenic patient] Saavedra JM, et al. **Enferm Infecc Microbiol Clin** 1998 Jun–Jul; 16(6):285–6 **(Spa)**

[Sensitization to paprika: anaphylaxis after intake and rhinoconjunctivitis after contact through airways] Vega de la Osada F, et al. **Med Clin (Barc)** 1998 Sep 12;111(7):263–6 (Eng. Abstr.) **(Spa)**

GENETICS

Lack of association of atopy/asthma and the interleukin-4 receptor alpha gene in Japanese. Noguchi E, et al.
Clin Exp Allergy 1999 Feb;29(2):228–33

IMMUNOLOGY

Mechanisms of mucosal inflammation in the nose and lungs. Kips J. **Allergy** 1999;54 Suppl 50:37–8 (16 ref.)

Unstimulated basophils in atopic and nonatopic subjects express intracellular interleukin-4: detection by flow cytometry. Kon OM, et al. **Allergy** 1998 Sep;53(9):891–6

Comparison of the efficacy of subcutaneous and sublingual immunotherapy in mite-sensitive patients with rhinitis and asthma--a placebo controlled study. Mungan D, et al.
Ann Allergy Asthma Immunol 1999 May;82(5):485–90

IgE-Fc epsilonRI-mast cell axis in the allergic cycle. Pawankar R, et al. **Clin Exp Allergy** 1998 Aug;28 Suppl 3:6–14

Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al.
Laryngoscope 1998 Oct;108(10):1528–33

[Immunoglobulin subclass defects in patients with therapy refractor chronic rhinosinusitis] May A, et al. **HNO** 1999 Jan;47(1):19–24 (Eng. Abstr.) **(Ger)**

[An assessment of the immune status of the mucosal membranes in chronic rhinosinusitis] Khmel'nitskaia NM, et al. **Vestn Otorinolaringol** 1998;(4):47–50 (Eng. Abstr.) **(Rus)**

METABOLISM

The kinin system in rhinitis and asthma. Proud D.
Clin Rev Allergy Immunol 1998 Winter;16(4):351–64 (83 ref.)

Sinus mucosal IL-8 gene expression in chronic rhinosinusitis. Rhyoo C, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):395–400

The clinical pharmacology of brompheniramine in children. Simons FE, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):223–6

Transforming growth factor-alpha and rhinitis. Lam SM, et al. **Laryngoscope** 1999 Jul;109(7 Pt 1):1119–24

Nasal nitric oxide and its relationship to nasal symptoms, smoking and nasal nitrate. Olin AC, et al. **Rhinology** 1998 Sep;36(3):117–21

MICROBIOLOGY

Bacteriologic findings from the nose, ethmoid, and bloodstream during endoscopic surgery for chronic

rhinosinusitis: implications for antibiotic therapy. Rontal M, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):91–6

A mouse model of acute bacterial rhinosinusitis. Bomer K, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov; 124(11):1227–32

PATHOLOGY

Effect of sex hormones on eosinophilic inflammation in nasal mucosa. Hamano N, et al. **Allergy Asthma Proc** 1998 Sep–Oct;19(5):263–9

PHYSIOPATHOLOGY

Occupational and allergic rhinitis: impact on worker productivity and safety. Slavin RG.
Allergy Asthma Proc 1998 Sep–Oct;19(5):277–84 (58 ref.)

Distilled water nasal provocation in hyperreactive patients. Baudoin T, et al. **Am J Rhinol** 1999 May–Jun;13(3):229–33

Olfactory function in acute rhinitis. Hummel T, et al.
Ann N Y Acad Sci 1998 Nov 30;855:616–24

Evaluation of side effects after nicotine nasal spray in patients with chronic rhinitis. Bende M, et al. **Rhinology** 1998 Sep; 36(3):98–100

PSYCHOLOGY

Validation of the standardized version of the Rhinoconjunctivitis Quality of Life Questionnaire. Juniper EF, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):364–9

RADIOGRAPHY

Test–retest reliability of computed tomography in the assessment of chronic rhinosinusitis. Bhattacharyya N.
Laryngoscope 1999 Jul;109(7 Pt 1):1055–8

SURGERY

Bacteriologic findings from the nose, ethmoid, and bloodstream during endoscopic surgery for chronic rhinosinusitis: implications for antibiotic therapy. Rontal M, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):91–6

Surgical outcomes in rhinosinusitis: what we know. Osguthorpe JD. **Otolaryngol Head Neck Surg** 1999 Apr; 120(4):451–3

Impact of endoscopic sinus surgery on global health perception: an outcomes study. Winstead W, et al.
Otolaryngol Head Neck Surg 1998 Nov;119(5):486–91

The holmium:YAG laser for treatment of inferior turbinate hypertrophy. Serrano E, et al. **Rhinology** 1998 Jun; 36(2):77–80

[Treatment of nasal obstruction with subtotal inferior turbinectomy in chronic rhinitis: a retrospective study on 50 patients] Faulcon P, et al.
Ann Otolaryngol Chir Cervicofac 1998 Oct;115(4):228–33 (30 ref.) (Eng. Abstr.) **(Fre)**

THERAPY

Diagnosis and management of rhinitis: complete guidelines of the Joint Task Force on Practice Parameters in Allergy, Asthma and Immunology. American Academy of Allergy, Asthma, and Immunology. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):478–518

Joint Task Force summary statements on Diagnosis and Management of Rhinitis. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):474–7

Joint Task Force Algorithm and Annotations for Diagnosis and Management of Rhinitis. Dykewicz MS, et al.
Ann Allergy Asthma Immunol 1998 Nov;81(5 Pt 2):469–73

Executive Summary of Joint Task Force Practice Parameters on Diagnosis and Management of Rhinitis. Dykewicz MS, et al. **Ann Allergy Asthma Immunol** 1998 Nov;81(5 Pt 2):463–8

National guidelines needed to manage rhinitis and prevent complications. Rachelefsky GS.
Ann Allergy Asthma Immunol 1999 Mar;82(3):296–305 (126 ref.)

Importance of IgG4 determination in in vitro immunotherapy follow–up of inhalant allergens. Oehling AK, et al.
J Investig Allergol Clin Immunol 1998 Nov–Dec;8(6):333–9

Dermatophagoides pteronyssinus cluster immunotherapy. A controlled trial of safety and clinical efficacy. Tabar AI, et al. **J Investig Allergol Clin Immunol** 1999 May–Jun; 9(3):155–64

Current concepts in the management of paediatric rhinosinusitis. Jones NS. **J Laryngol Otol** 1999 Jan; 113(1):1–9 (104 ref.)

Finally: standardized definitions and practice parameters for rhinosinusitis [see comments] Osguthorpe JD.
J S C Med Assoc 1998 Dec;94(12):539–41. Comment in: J S C Med Assoc 1999 May;95(5):208–9.

Current therapy for chronic rhinitis [see comments] Parsons GS. **J S C Med Assoc** 1998 Dec;94(12):535–8. Comment in: J S C Med Assoc 1999 May;95(5):208–9.

200 cases of chronic rhinitis treated by acupuncture at nei ying xiang. Hu Y, et al. **J Tradit Chin Med** 1997 Mar; 17(1):53–4

Alternative to endoscopic sinus surgery in the management of pediatric chronic rhinosinusitis refractory to oral antimicrobial therapy. Buchman CA, et al.
Otolaryngol Head Neck Surg 1999 Feb;120(2):219–24

[Clinical evaluation of Olbas oil effect on nasal mucosa in acute rhinitis patients during common cold] Zalewski P, et al. **Otolaryngol Pol** 1997;51 Suppl 25:312–4 (Eng. Abstr.) **(Pol)**

VETERINARY

Sino–orbital aspergillosis in a dog. Willis AM, et al.
J Am Vet Med Assoc 1999 Jun 1;214(11):1644–7, 1639

Nasal nocardiosis in a calf. Takahashi K, et al.
J Vet Med Sci 1999 Apr;61(4):421–3

Minerva [letter] Swinburne LM. **Lancet** 1999 Jan 2; 353(9146):74

Invasive hyphomycotic rhinitis in a cat due to Metarhizium anisopliae. Muir D, et al. **Med Mycol** 1998 Feb;36(1):51–4

RHINITIS, ALLERGIC, NONSEASONAL see **RHINITIS, ALLERGIC, PERENNIAL**

RHINITIS, ALLERGIC, PERENNIAL

Update in allergy and immunology. O'Hollaren MT.
Ann Intern Med 1998 Dec 15;129(12):1036–43 (5 ref.)

Perennial rhinitis: An independent risk factor for asthma in nonatopic subjects: results from the European Community Respiratory Health Survey. Leynaert B, et al.
J Allergy Clin Immunol 1999 Aug;104(2 Pt 1):301–4

[Allergic rhinitis] Guez S, et al.
Rev Laryngol Otol Rhinol (Bord) 1999;120(2):137–43 **(Fre)**

BLOOD

Nitric oxide in allergic rhinitis and asthma. Frieri M.
Allergy Asthma Proc 1998 Nov–Dec;19(6):349–51 (42 ref.)

Decrease of serum levels of soluble CD23 during immunotherapy in patients with perennial allergic rhinitis. Tanaka A, et al. **Ann Otol Rhinol Laryngol** 1999 Feb; 108(2):193–200

CHEMICALLY INDUCED

Occupational asthma to diacrylate. Weytjens K, et al.
Allergy 1999 Mar;54(3):289–90

The effects of different levels of air pollution on atopy and symptoms of allergic rhinitis. Keleş N, et al.
Am J Rhinol 1999 May–Jun;13(3):185–90

[Non–allergic rhinitis or intrinsic rhinitis? Unusual features of nickel allergy] Hassoun S, et al.
Allerg Immunol (Paris) 1999 Feb;31(2):57–9 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

Perennial allergic rhinitis and chronic sinusitis: correlation with rhinologic risk factors. Berrettini S, et al. **Allergy** 1999 Mar;54(3):242–8

What is the optimal way of treating these patients today and in the future? Steinsvåg S. **Allergy** 1999;54 Suppl 50:48–50

Can the natural course of allergy and asthma be changed by allergen vaccinations? Valovirta E. **Allergy** 1999;54 Suppl 50:27–9

Pharmacotherapy to prevent the complications of allergic rhinitis. Beckman DB, et al. **Allergy Asthma Proc** 1999 Jul–Aug;20(4):215–23 (81 ref.)

Co–existence of asthma and allergic rhinitis: a 23–year follow–up study of college students. Greisner WA 3rd, et al. **Allergy Asthma Proc** 1998 Jul–Aug;19(4):185–8

Complications of allergic rhinitis. Settipane RA.
Allergy Asthma Proc 1999 Jul–Aug;20(4):209–13 (39 ref.)

Epiphora: the role of rhinitis. Kubba H, et al.
Am J Rhinol 1998 Jul–Aug;12(4):273–4

Rhinitis symptoms in chronic fatigue syndrome. Baraniuk JN, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):359–65

Allergic rhinitis history as a predictor of other future disqualifying otorhinolaryngological defects. Walker C, et al. **Aviat Space Environ Med** 1998 Oct;69(10):952–6

Rhinitis alone or rhinitis plus asthma: what makes the difference? Magnan A, et al. **Eur Respir J** 1998 Nov; 12(5):1073–8

Allergic rhinitis in Rochester, Minnesota residents with asthma: frequency and impact on health care charges. Yawn BP, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):54–9

The diagnosis and incidence of allergic fungal sinusitis. Ponikau JU, et al. **Mayo Clin Proc** 1999 Sep;74(9):877–84

Allergic rhinitis and rhinosinusitis. Is there a connection between allergy and infection? Ferguson BJ, et al.
Postgrad Med 1999 Apr;105(4):55–8, 61, 64 (36 ref.)

DIAGNOSIS

Clinical evaluation of lumiward immunoassay system for detection of specific IgE associated with allergic rhinitis. Yamada K, et al. **Acta Otolaryngol Suppl (Stockh)** 1998; 538:169–77

Anterior rhinomanometry in nasal allergen challenges. Ferreira MB, et al. **Allerg Immunol (Paris)** 1998 Nov; 30(9):295–7

Diagnostic value of nasal provocation challenge with allergens in children. Jean R, et al. **Allergy** 1998 Oct; 53(10):990–4

Ultrasonic nebulization of hypertonic solution: a new method for obtaining specimens from nasal mucosa for morphologic and biochemical analysis in allergic rhinitis. Melillo G, et al. **Allergy** 1998 Aug;53(8):794–7

Effect of pre–treatment with inhaled furosemide on allergen nasal challenge. Nucera E, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):359–61

Diagnostic significance of impression cytology in allergic rhinoconjunctivitis. Sapçi T, et al. **Am J Rhinol** 1999 Jan–Feb;13(1):31–5

Fluctuating olfactory sensitivity and distorted odor perception in allergic rhinitis. Apter AJ, et al.
Arch Otolaryngol Head Neck Surg 1999 Sep;125(9):1005–10

Nasal passage patency in patients with allergic rhinitis measured by acoustic rhinometry: nasal responses after allergen and histamine provocation. Miyahara Y, et al.
Auris Nasus Larynx 1998 Sep;25(3):261–7

Can we predict atopic disease using perinatal risk factors? [editorial;comment] Bergmann RL, et al.
Clin Exp Allergy 1998 Aug;28(8):905–7 (25 ref.). Comment on: Clin Exp Allergy 1998 Aug;28(8):936–42.

Allergic rhinitis--making the correct diagnosis. Lund V.
Clin Exp Allergy 1998 Dec;28 Suppl 6:25–8 (15 ref.)

Alpha2–macroglobulin and eosinophil cationic protein in the allergic airway mucosa in seasonal allergic rhinitis. Meyer P, et al. **Eur Respir J** 1999 Mar;13(3):633–7

Current therapy for chronic rhinitis [letter; comment] Davidson A, et al. **J S C Med Assoc** 1999 May;95(5):208–9 . Comment on: J S C Med Assoc 1998 Dec;94(12):535–8. Comment on: J S C Med Assoc 1998 Dec;94(12):539–41.

Evaluation and management of allergic rhinitis. Hadley JA.
Med Clin North Am 1999 Jan;83(1):13–25

Nasal hyperreactivity. Gerth van Wijk RG, et al.
Rhinology 1999 Jun;37(2):50–5 (49 ref.)

[Semiologic study of chronic perennial and permanent paranasal sinus dysfunction. Prevalence of symptoms] Bonfils P, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Oct; 115(4):177–88 (Eng. Abstr.) **(Fre)**

[Diagnostic use of enzymatic RAST skin tests and determination of eosinophils in nasal mucosa in allergic rhinitis] Gómez Castillo CA, et al. **Rev Alerg Mex** 1998 Nov–Dec;45(6):150–8 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Suplatast tosilate affects the initial increase in specific IgE and interleukin–4 during immunotherapy for perennial allergic rhinitis. Washio Y, et al.
Acta Otolaryngol Suppl (Stockh) 1998;538:126–32

Comparative study between fluticasone propionate and cetirizine in the treatment of allergic rhinitis [published erratum appears in Allergol Immunopathol (Madr) 1999 May–Jun;27(3):173] D'Ambrosio FP, et al.
Allergol Immunopathol (Madr) 1998 Nov–Dec;26(6):277–82

Mizolastine therapy also has an effect on nasal blockade in perennial allergic rhinoconjunctivitis. RIPERAN Study Group. Bachert C, et al. **Allergy** 1998 Oct;53(10):969–75

A 12–week, placebo–controlled study of the efficacy and safety of ebastine, 10 and 20 mg once daily, in the treatment of perennial allergic rhinitis. Multicentre Study Group. Bousquet J, et al. **Allergy** 1999 Jun;54(6):562–8

Efficacy and safety relative to placebo of an oral formulation of cetirizine and sustained–release pseudoephedrine in the management of nasal congestion. Horak F, et al.
Allergy 1998 Sep;53(9):849–56

In vivo and ex vivo inhibitory effects of loratadine on histamine release in patients with allergic rhinitis. Miadonna A, et al. **Allergy** 1998 Dec;53(12):1183–8

Mechanisms of rhinitis. Baraniuk JN.
Allergy Asthma Proc 1998 Nov–Dec;19(6):343–7 (37 ref.)

Ipratropium bromide nasal spray 0.03% provides additional relief from rhinorrhea when combined with terfenadine in perennial rhinitis patients; a randomized, double–blind, active–controlled trial. Finn AF Jr, et al. **Am J Rhinol** 1998 Nov–Dec;12(6):441–9

Brompheniramine maleate: a double–blind, placebo–controlled comparison with terfenadine for symptoms of allergic rhinitis. Thoden WR, et al.
Am J Rhinol 1998 Jul–Aug;12(4):293–9

Distribution of two types of mast cells in the nasal mucosa after chemosurgical treatment of allergic rhinitis using trichloroacetic acid. Yao K, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):141–4

Ipratropium bromide nasal spray 0.03% and beclomethasone nasal spray alone and in combination for the treatment of rhinorrhea in perennial rhinitis. Dockhorn R, et al.
Ann Allergy Asthma Immunol 1999 Apr;82(4):349–59

Comparison of ipratropium bromide 0.03% with beclomethasone dipropionate in the treatment of perennial rhinitis in children. Milgrom H, et al.
Ann Allergy Asthma Immunol 1999 Aug;83(2):105–11

Nasal budesonide offers superior symptom relief in perennial allergic rhinitis in comparison to nasal azelastine. Stern MA, et al. **Ann Allergy Asthma Immunol** 1998 Oct; 81(4):354–8

Effects of azelastine on the level of serum interleukin–4 and soluble CD23 antigen in the treatment of nasal allergy. Ito H, et al. **Arzneimittelforschung** 1998 Dec;48(12):1143–7

Clinical efficacy of an antiallergic drug on otitis media with effusion in association with allergic rhinitis. Suzuki M, et al. **Auris Nasus Larynx** 1999 Apr;26(2):123–9

Intranasal corticosteroids versus oral H1 receptor antagonists in allergic rhinitis: systematic review of randomised controlled trials. Weiner JM, et al. **BMJ** 1998 Dec 12; 317(7173):1624–9

Rapid symptom relief in rhinitis. Bousquet J.
Clin Exp Allergy 1999 Mar;29 Suppl 1:25–9

Antihistamines in severe/chronic rhinitis. Bousquet J. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:49–53 (23 ref.)
Optimizing treatment options. Naclerio RM. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:54–9
Clinical assessment of antihistamines in rhinitis. Scadding GK. **Clin Exp Allergy** 1999 Jul;29 Suppl 3:77–81 (23 ref.)
Management of rhinitis--the specialist's opinion. van Cauwenberge P. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:29–33
The role of leukotrienes and antileukotriene agents in the pathogenesis and treatment of allergic rhinitis. Simon RA. **Clin Rev Allergy Immunol** 1999 Spring–Summer; 17(1–2):271–5 (29 ref.)
Link between patient preferences and treatment outcomes in seasonal allergic rhinitis: an empiric investigation. Ricard N, et al. **Clin Ther** 1999 Jan;21(1):268–77
Advances in the pharmacological treatment of allergic rhinitis. Rusznak C, et al. **Curr Probl Dermatol** 1999; 28:102–18 (29 ref.)
Treating allergic rhinitis in pregnancy. Safety considerations. Mazzotta P, et al. **Drug Saf** 1999 Apr;20(4):361–75 (54 ref.)
Mometasone furoate. A review of its intranasal use in allergic rhinitis. Onrust SV, et al. **Drugs** 1998 Oct;56(4):725–45 (71 ref.)
Involvement of cysteinyl leukotrienes in biphasic increase of nasal airway resistance of antigen-induced rhinitis in guinea pigs. Fujita M, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):349–56
Comparison of the efficacy of budesonide and fluticasone propionate aqueous nasal spray for once daily treatment of perennial allergic rhinitis. Day J, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):902–8
Pros and cons of the use of antihistamines in managing allergic rhinitis. Day J. **J Allergy Clin Immunol** 1999 Mar; 103(3 Pt 2):S395–9 (53 ref.)
Use of nasal steroids in managing allergic rhinitis. LaForce C. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 2):S388–94 (90 ref.)
Pathophysiology and pharmacotherapy of allergic rhinitis. Foreword. Spector S. **J Allergy Clin Immunol** 1999 Mar; 103(3 Pt 2):S377
Effects of intranasal corticosteroids on adrenal, bone, and blood markers of systemic activity in allergic rhinitis. Wilson AM, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):598–604
Efficacy and safety of azelastine nasal spray for the treatment of allergic rhinitis. Golden SJ, et al. **J Am Osteopath Assoc** 1999 Jul;99(7 Suppl):S7–12 (35 ref.)
Intranasal steroids or antihistamines for allergic rhinitis? Grimm KJ. **J Fam Pract** 1999 Mar;48(3):170–1
Intranasal budesonide or fluticasone for allergic rhinitis. Yedavally-Yellayi SK, et al. **J Fam Pract** 1999 Apr; 48(4):248–9
Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1999 Apr;109(4):551–6
Effects of Sho-seiryu-to on experimental allergic rhinitis in guinea pigs. Sakaguchi M, et al. **Methods Find Exp Clin Pharmacol** 1999 May;21(4):303–8
The effect of a cysteinyl leukotriene antagonist, ONO-1078 (pranlukast) on agonist- and antigen-induced nasal microvascular leakage in guinea pigs. Shirasaki H, et al. **Rhinology** 1998 Jun;36(2):62–5
[Clinical and experimental study for allergic rhinitis with treatment of biminkang mixture] Bao L, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Feb; 17(2):70–2 (Eng. Abstr.) **(Chi)**
[Asthma inhaler may relieve even the symptoms of allergic rhinitis (letter)] Vilkka V. **Duodecim** 1995;111(20):1970 **(Fin)**
[Allergic rhinitis. New therapy options] Blaeser-Kiel G. **Med Monatsschr Pharm** 1998 Oct;21(10):322–3 **(Ger)**
[Allergic rhinitis. Topical steroids without systemic effect] Maegele M. **Med Monatsschr Pharm** 1999 Mar;22(3):89–90 **(Ger)**
[The efficacy of cetirizine in the treatment of perennial allergic rhinitis] Pacor ML, et al. **Recenti Prog Med** 1999 Jun;90(6):325–6 (Eng. Abstr.) **(Ita)**
[Decongesting effect of tramazoline on nasal airway patency and nasal symptoms as evaluated by acoustic rhinometry: an objective study in 30 allergic and six non-allergic subjects] Takeno S, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul;101(7):900–7 (Eng. Abstr.) **(Jpn)**
[Cromones in the therapy of food-induced allergic rhinitis, pharyngitis and laryngitis] Buczyłko K. **Pol Merkuriusz Lek** 1998 Dec;5(30):357–9 (18 ref.) (Eng. Abstr.) **(Pol)**
[Second generation topical antihistaminics] Pietrzkowicz M, et al. **Pol Merkuriusz Lek** 1999 May;6(35):277–80 (59 ref.) (Eng. Abstr.) **(Pol)**
[Therapeutic effectiveness of histaglobin preparations in patients with allergic rhinitis and chronic urticaria] Gushchin IS, et al. **Ter Arkh** 1999;71(3):57–62 (Eng. Abstr.) **(Rus)**
[Anti-recurrence treatment of polypous rhinosinusitis] Kondrat'ev VA, et al. **Vesta Otorinolaringol** 1999;(4):39 (3 ref.) (Eng. Abstr.) **(Rus)**

ECONOMICS

Direct expenditures for the treatment of allergic rhinoconjunctivitis in 1996, including the contributions of related airway illnesses. Ray NF, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):401–7
[Medico-economic aspects of the management of perennial allergic rhinitis in general medicine] Dessi P, et al. **Allerg Immunol (Paris)** 1998 Nov;30(9):277–83 (Eng. Abstr.) **(Fre)**

ENZYMOLOGY

[Role of angiotensin-converting enzyme on bradykinin nasal provocation: comparison of normal volunteers and allergic subjects] Gotoh M. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):218–25 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Prevalence and prediction of allergic rhinitis using questionnaire and nasal smear examination in schoolchildren. Okano M, et al. **Acta Otolaryngol Suppl** 1999;540:58–63
Changing prevalence of allergic rhinitis and asthma. Sly RM. **Ann Allergy Asthma Immunol** 1999 Mar;82(3):233–48; quiz 248–52 (104 ref.)
Perinatal risk factors for atopic disease in conscripts [see comments] Bråbäck L, et al. **Clin Exp Allergy** 1998 Aug; 28(8):936–42. Comment in: Clin Exp Allergy 1998 Aug;28(8):905–7.
Atopy and allergic disorders among adults in Tartu, Estonia compared with Uppsala, Sweden [see comments] Jõgi R, et al. **Clin Exp Allergy** 1998 Sep;28(9):1072–80. Comment in: Clin Exp Allergy 1998 Sep;28(9):1043–6.
Asthma and atopy in Western and Eastern communities--current status and open questions [editorial; comment] Nowak D, et al. **Clin Exp Allergy** 1998 Sep; 28(9):1043–6 (34 ref.). Comment on: Clin Exp Allergy 1998 Sep;28(9):1072–80.
The prevalence of allergic rhinitis and nasal symptoms in Nottingham. Jones NS, et al. **Clin Otolaryngol** 1998 Dec; 23(6):547–54
Prevalence and severity of symptoms of asthma, allergic rhino-conjunctivitis and atopic eczema in secondary school children in Ibadan, Nigeria. Falade AG, et al. **East Afr Med J** 1998 Dec;75(12):695–8
Comparison of indoor allergens, allergic scores, and demographic data in Taiwanese adults with asthma or allergic rhinitis, or both. Li LF, et al. **J Formos Med Assoc** 1999 Jul;98(7):486–91
Parietaria allergy in children. Botey J, et al. **Pediatr Pulmonol Suppl** 1999;18:157–62
[Prevalence and severity of bronchial asthma, allergic rhinitis and atopic dermatitis in Salzburg school children] Eder W, et al. **Wien Klin Wochenschr** 1998 Oct 16;110(19):669–77 (Eng. Abstr.) **(Ger)**
[Clinical follow-up of an epidemiologic study on asthma and allergies in childhood] Eder W, et al. **Wien Klin Wochenschr** 1998 Oct 16;110(19):678–85 (Eng. Abstr.) **(Ger)**

ETIOLOGY

The clinical expression of allergy in the nose. van Cauwenberge P, et al. **Allergy** 1999 Feb;54(2):93–102 (82 ref.)
Prenatal factors and occurrence of rhinitis and eczema among offspring. Xu B, et al. **Allergy** 1999 Aug;54(8):829–36
Mechanisms of rhinitis. Baraniuk JN. **Allergy Asthma Proc** 1998 Nov-Dec;19(6):343–7 (37 ref.)
Experimental models in rhinitis. Demoly P, et al. **Clin Exp Allergy** 1999 Jul;29 Suppl 3:72–6 (17 ref.)
The role of leukotrienes and antileukotriene agents in the pathogenesis and treatment of allergic rhinitis. Simon RA. **Clin Rev Allergy Immunol** 1999 Spring–Summer; 17(1–2):271–5 (29 ref.)
New insights in the pathogenesis of allergic rhinitis. Van Cauwenberge P, et al. **Curr Probl Dermatol** 1999;28:95–101 (35 ref.)
Nasal symptoms and indices of nasal inflammation in flour-dust-exposed bakers. Brisman J, et al. **Int Arch Occup Environ Health** 1998 Nov;71(8):525–32
Umbilical cord blood mononuclear cell proliferative response to house dust mite does not predict the development of allergic rhinitis and asthma. Chan-Yeung M, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):317–21
A moviemaker's malady [letter] Sue MA. **N Engl J Med** 1999 Mar 18;340(11):897
[Asthma and rhinoconjunctivitis caused by castor bean dust] Baur X, et al. **Pneumologie** 1998 Oct;52(10):539–40 (Eng. Abstr.) **(Ger)**
[Cromones in the therapy of food-induced allergic rhinitis, pharyngitis and laryngitis] Buczyłko K. **Pol Merkuriusz Lek** 1998 Dec;5(30):357–9 (18 ref.) (Eng. Abstr.) **(Pol)**
[A cat at home can cause nasal congestion at work] Johansson M, et al. **Lakartidningen** 1999 Jan 20;96(3):197–200 **(Swe)**

GENETICS

Expression of histidine decarboxylase messenger RNA and histamine N-methyltransferase messenger RNA in nasal allergy [see comments] Hirata N, et al. **Clin Exp Allergy** 1999 Jan;29(1):76–83. Comment in: Clin Exp Allergy 1999 Jan;29(1):9–11.
A familial predisposition in bronchial hyperresponsiveness among patients with allergic rhinitis. Koh YY, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):921–6
Prevalence of specific allergic diseases in school children as related to parental atopy. Matsuoka S, et al. **Pediatr Int** 1999 Feb;41(1):46–51

HISTORY

The historical background of allergic rhinopathy therapy. Passàli D, et al. **Rhinology** 1998 Sep;36(3):139–41

IMMUNOLOGY

Detection of thromboxane A2 receptor mRNA in the nasal mucosa of patients with allergic rhinitis. Maesako K, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:61–4
Reactivity to recombinant house-dust-mite allergens in asthma and rhinitis in a tropical environment. Lynch NR, et al. **Allergy** 1998 Aug;53(8):808–11
Strain-dependent induction of allergic rhinitis without adjuvant in mice. Okano M, et al. **Allergy** 1999 Jun; 54(6):593–601
Occupational IgE-mediated asthma, rhinoconjunctivitis, and contact urticaria caused by Easter lily (Lilium longiflorum) and tulip. Piirilä P, et al. **Allergy** 1999 Mar;54(3):273–7
Allergen-induced matrix metalloproteinase-9 in nasal lavage fluid. van Toorenenbergen AW, et al. **Allergy** 1999 Mar; 54(3):293–4
Cellular infiltration and cytokine mRNA expression in perennial allergic rhinitis. Varga EM, et al. **Allergy** 1999 Apr;54(4):338–45
Comparison of sinusitis with and without allergic rhinitis: characteristics of paranasal sinus effusion and mucosa. Suzuki M, et al. **Am J Otolaryngol** 1999 May–Jun; 20(3):143–50
Monoclonal antibody-detectable carbohydrate epitopes of human nasal secretions are differentially expressed in tissue and diseases. Kishioka C, et al. **Am J Rhinol** 1999 Jan–Feb; 13(1):37–43
Distribution of two types of mast cells in the nasal mucosa after chemosurgical treatment of allergic rhinitis using trichloroacetic acid. Yao K, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):141–4
Changes in skin and nasal sensitivity to allergens and the course of rhinitis; a long-term follow-up study [see comments] Simola M, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):152–6. Comment in: Ann Allergy Asthma Immunol 1999 Feb;82(2):131–2.
Histamine H1 receptor and reactivity of the nasal mucosa in sensitized guinea pigs. Ohkawa C, et al. **Auris Nasus Larynx** 1999 Jul;26(3):293–8
Relationship between cholinergic airway tone and serum immunoglobulin E in human subjects. Endoh N, et al. **Eur Respir J** 1998 Jul;12(1):71–4
IL-12 receptor beta2 and CD30 expression in paranasal sinus mucosa of patients with chronic sinusitis. Suzuki H, et al. **Eur Respir J** 1999 May;13(5):1008–13
Hemopoietic mechanisms in allergic airway inflammation. Denburg JA, et al. **Int Arch Allergy Immunol** 1998 Nov; 117(3):155–9 (55 ref.)
Role of CD4-positive T cells in the pathogenesis of nasal allergy in the murine model. Ogasawara H, et al. **Int Arch Allergy Immunol** 1999 Jan;118(1):37–43
Topical CTLA4-Ig suppresses ongoing mucosal immune response in presensitized murine model of allergic rhinitis. Sato J, et al. **Int Arch Allergy Immunol** 1999 Jul; 119(3):197–204
Th-2 type cytokine receptors in allergic rhinitis and in response to topical steroids. Wright ED, et al. **Laryngoscope** 1999 Apr;109(4):551–6
Allergic rhinitis. Nash DR. **Pediatr Ann** 1998 Dec; 27(12):799–808 (20 ref.)
Mechanisms of IL-6, IL-8, and GM-CSF release in nasal secretions of allergic patients after nasal challenge. Ohkubo K, et al. **Rhinology** 1998 Dec;36(4):156–61
[Effects of cigarette smoke on allergic diseases] Wang L, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Mar; 31(2):78–80 (Eng. Abstr.) **(Chi)**
[Effects of immunotherapy on cytokine production from peripheral blood mononuclear cells in patient with house dust mite allergic rhinitis] Ishii K, et al. **Arerugi** 1999 Apr; 48(4):480–5 (Eng. Abstr.) **(Jpn)**
[Degranulation of human eosinophils in nasal allergy] Watanabe K, et al. **Arerugi** 1999 May;48(5):500–6 (Eng. Abstr.) **(Jpn)**
[Cytokine production of peripheral mononuclear cells in HD-mite-allergic rhinitis patients] Ishii K, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Jan;102(1):66–72 (Eng. Abstr.) **(Jpn)**

METABOLISM

Localization of nitric oxide synthase in human nasal mucosa with nasal allergy. Kawamoto H, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:65–70
The herbal medicine shoseiryu-to inhibits allergen-induced synthesis of tumour necrosis factor alpha by peripheral blood mononuclear cells in patients with perennial allergic rhinitis. Tanaka A, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:118–25
In vivo and ex vivo inhibitory effects of loratadine on histamine release in patients with allergic rhinitis. Miadonna A, et al. **Allergy** 1998 Dec;53(12):1183–8

Nasal secretion analysis in allergic rhinitis, cystic fibrosis, and nonallergic fibromyalgia/chronic fatigue syndrome subjects. Baraniuk JN, et al. **Am J Rhinol** 1998 Nov–Dec; 12(6):435–40

Allergen–stimulated leukotriene B4 and interleukin–8 levels in patients with asthma and allergic rhinitis–modulation by a lipid pathway inhibitor. Frieri M, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):331–6

Distribution of rantes and interleukin–5 in allergic nasal mucosa and nasal polyps. Lee CH, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):594–8

Monocyte chemotactic and activating factor/monocyte chemoattractant protein–1–mediated histamine release from human nasal mucosa. Fujikura T, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec;124(12):1331–5

Early IL–4 production driving Th2 differentiation in a human in vivo allergic model is mast cell derived. Wang M, et al. **Clin Immunol** 1999 Jan;90(1):47–54

Exhaled and nasal NO levels in allergic rhinitis: relation to sensitization, pollen season and bronchial hyperresponsiveness. Henriksen AH, et al. **Eur Respir J** 1999 Feb;13(2):301–6

Mechanisms of IL–6, IL–8, and GM–CSF release in nasal secretions of allergic patients after nasal challenge. Ohkubo K, et al. **Rhinology** 1998 Dec;36(4):156–61

MICROBIOLOGY

[The role of imperfect fungi in etiopathogenesis of allergic rhinitis] Namysłowski G, et al. **Otolaryngol Pol** 1998; 52(3):277–80 (Eng. Abstr.) **(Pol)**

PATHOLOGY

Allergic fungal sinusitis. A report of two cases with diagnosis by intraoperative aspiration cytology. Schnadig VJ, et al. **Acta Cytol** 1999 Mar–Apr;43(2):268–72

Extensive interstitial collagen deposition on the basement membrane zone in allergic nasal mucosa. Sanai A, et al. **Acta Otolaryngol** 1999;119(4):473–8

Comparison between nasal and bronchial inflammation in asthmatic and control subjects. Chanez P, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):588–95

Distribution of rantes and interleukin–5 in allergic nasal mucosa and nasal polyps. Lee CH, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):594–8

PHYSIOPATHOLOGY

The effect of ramatroban (BAY u 3405), a thromboxane A2 receptor antagonist, on nasal cavity volume and minimum cross–sectional area and nasal mucosal hemodynamics after nasal mucosal allergen challenge in patients with perennial allergic rhinitis. Terada N, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;537:32–7

Influence of nasal provocation on FEV1/PEF of asthmatic patients with or without rhinitis. Ferreira MB, et al. **Allerg Immunol (Paris)** 1999 May;31(5):134–8

Occupational and allergic rhinitis: impact on worker productivity and safety. Slavin RG. **Allergy Asthma Proc** 1998 Sep–Oct;19(5):277–84 (58 ref.)

Airway neural responses to kinins: tachyphylaxis and role of receptor subtypes. Reynolds CJ, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):431–8

Distilled water nasal provocation in hyperreactive patients. Baudoin T, et al. **Am J Rhinol** 1999 May–Jun;13(3):229–33

Nasal and bronchial histamine reactivity in patients with allergic rhinitis out of season. Kölbeck KG, et al. **Ann Allergy Asthma Immunol** 1999 Jan;82(1):55–60

Comparative role of peptide leukotrienes and histamine in the development of nasal mucosal swelling in nasal allergy. Numata T, et al. **Ann Otol Rhinol Laryngol** 1999 May; 108(5):467–73

The inflammatory nature of allergic disease. Durham SR. **Clin Exp Allergy** 1998 Dec;28 Suppl 6:20–4 (20 ref.)

Pathophysiological features of the nasal mucosa in patients with idiopathic rhinitis compared to allergic rhinitis. Numata T, et al. **Int Arch Allergy Immunol** 1999 Aug; 119(4):304–13

Neural hyperresponsiveness and nerve growth factor in allergic rhinitis. Sanico AM, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):154–8

Pathophysiology and pharmacotherapy of allergic rhinitis. Foreword. Spector S. **J Allergy Clin Immunol** 1999 Mar; 103(3 Pt 2):S377

Hyperosmolar saline induces reflex nasal secretions, evincing neural hyperresponsiveness in allergic rhinitis. Sanico AM, et al. **J Appl Physiol** 1999 Apr;86(4):1202–10

The alteration of nasal resistance before and after local exposure to heated aerosol in perennial allergic rhinitis. Naito K, et al. **Rhinology** 1999 Jun;37(2):66–8

Environmental controls in reducing house dust mites and nasal symptoms in patients with allergic rhinitis. Moon JS, et al. **Yonsei Med J** 1999 Jun;40(3):238–43

[The role of eosinophils in nasal hypersensitivity] Okamoto Y. **Arerugi** 1999 Jun;48(6):569–71 (4 ref.) **(Jpn)**

PREVENTION & CONTROL

The South African Allergic Rhinitis Working Group and allergic rhinitis [letter; comment] Green RJ, et al. **S Afr Med J** 1998 Nov;88(11):1366–7. Comment on: S Afr Med J 1996 Oct;86(10 Pt 2):1315–28.

PSYCHOLOGY

State and trait anxiety in women affected by allergic and vasomotor rhinitis. Addolorato G, et al. **J Psychosom Res** 1999 Mar;46(3):283–9

Development and preliminary validation of the multiattribute Rhinitis Symptom Utility Index. Revicki DA, et al. **Qual Life Res** 1998 Dec;7(8):693–702

[Quality of patient's life: effects of bronchial asthma and allergic rhinitis] Chuchalin AG, et al. **Ter Arkh** 1998; 70(9):53–7 (31 ref.) **(Rus)**

REHABILITATION

[Effectiveness of secondary preventive programs for patients with asthma and rhinitis in the baking industry] Grieshaber R, et al. **Pneumologie** 1998 Nov;52(11):656–65 (Eng. Abstr.) **(Ger)**

[Effectiveness of secondary prevention programs for asthma and rhinitis in the baking industry. Pneumology 52 (1998) 656–65 (letter)] Nowak D. **Pneumologie** 1999 Jul; 53(7):M45–6 **(Ger)**

SURGERY

Laser surgery for allergic rhinitis: the effect on seromucinous glands. Elwany S, et al. **Otolaryngol Head Neck Surg** 1999 May;120(5):742–4

[Nd:YAG laser treatment of the lower turbinates with contact in hyperreflexic and allergic rhinopathy] Olthoff A, et al. **Laryngorhinootologie** 1999 May;78(5):240–3 (Eng. Abstr.) **(Ger)**

THERAPY

Risk factors for adverse systemic reactions occurring during immunotherapy with standardized Dermatophagoides farinae extracts. Ohashi Y, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:113–7

Allergen–specific immunotherapy for allergic rhinitis: a new insight into its clinical efficacy and mechanism. Ohashi Y, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:178–90 (82 ref.)

A comparative study of the clinical efficacy of immunotherapy and conventional pharmacological treatment for patients with perennial allergic rhinitis. Ohashi Y, et al. **Acta Otolaryngol Suppl (Stockh)** 1998; 538:102–12

Nasal topical immunotherapy [editorial] Muñoz–López F. **Allergol Immunopathol (Madr)** 1999 Jan–Feb;27(1):1–4 (9 ref.) **(Eng, Spa)**

Long–term treatment with allergoid immunotherapy with Parietaria. Clinical and immunologic effects in a randomized, controlled trial. Ariano R, et al. **Allergy** 1999 Apr;54(4):313–9

Utilization and cost of immunotherapy for allergic asthma and rhinitis. Donahue JG, et al. **Ann Allergy Asthma Immunol** 1999 Apr;82(4):339–47

What role do systemic corticosteroids, immunotherapy, and antifungal drugs play in the therapy of allergic fungal rhinosinusitis? Ferguson BJ. **Arch Otolaryngol Head Neck Surg** 1998 Oct;124(10):1174–8 (19 ref.)

Allergic fungal rhinosinusitis: our experience. Kuhn FA, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct; 124(10):1179–80

Allergic fungal rhinosinusitis: experience with immunotherapy. Mabry RL, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct;124(10):1178

Serologic study of the working mechanisms of immunotherapy for children with perennial allergic rhinitis. Ohashi Y, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec;124(12):1337–46

New treatments for allergic rhinitis. Tkachyk SJ. **Can Fam Physician** 1999 May;45:1255–60 (22 ref.)

Immunotherapy in allergic rhinitis: a prevention for asthma? Demoly P, et al. **Curr Probl Dermatol** 1999;28:119–23 (20 ref.)

Allergen–specific IgE in circulating immune complexes in patients with inhalant allergy undergoing specific immunotherapy. Rogala B, et al. **J Investig Allergol Clin Immunol** 1999 May–Jun;9(3):183–9

Acupuncture at agger nasi for treatment of allergic rhinitis. Xia Z, et al. **J Tradit Chin Med** 1997 Dec;17(4):278–9

Patient use of traditional and complementary therapies in treating rhinosinusitis before consulting an otolaryngologist. Krouse JH, et al. **Laryngoscope** 1999 Aug; 109(8):1223–7

Suppressive effects of CTLA4–Ig on nasal allergic reactions in presensitized murine model. Sato J, et al. **Life Sci** 1999; 64(9):785–95

Allergen immunotherapy and avoidance. Fawcett WAIV. **Prim Care** 1998 Dec;25(4):869–83 (38 ref.)

How to treat allergic rhinitis. Lee NP, et al. **West J Med** 1999 Jul;171(1):31–4 (18 ref.)

[An analysis of combined desensitizing acupoints therapy in 419 cases of allergic rhinitis accompanying asthma] Zhou RL, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Oct;17(10):587–9 (Eng. Abstr.) **(Chi)**

[Effects of immunotherapy on cytokine production from peripheral blood mononuclear cells in patient with house dust mite allergic rhinitis] Ishii K, et al. **Arerugi** 1999 Apr; 48(4):480–5 (Eng. Abstr.) **(Jpn)**

[Perennial specific immunotherapy in pollen allergy] Rapiejko P, et al. **Otolaryngol Pol** 1997;51 Suppl 25:223–5 (Eng. Abstr.) **(Pol)**

[Subclasses of IgG (IgG1–IgG4) in children during specific immunotherapy] Trofimowicz A, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):354–6 (Eng. Abstr.) **(Pol)**

RHINITIS, ALLERGIC, SEASONAL see **HAY FEVER**

RHINITIS, ATROPHIC

ETIOLOGY

Contributory and exacerbating roles of gaseous ammonia and organic dust in the etiology of atrophic rhinitis. Hamilton TD, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):199–203

IMMUNOLOGY

Contributory and exacerbating roles of gaseous ammonia and organic dust in the etiology of atrophic rhinitis. Hamilton TD, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):199–203

MICROBIOLOGY

Endoscopic sinus surgery and postoperative intravenous aminoglycosides in the treatment of atrophic rhinitis. Jiang RS, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):325–33

SURGERY

Application of endoscopic sinus surgery to primary atrophic rhinitis? A clinical trial. Fang SY, et al. **Rhinology** 1998 Sep;36(3):122–7

Septal mucoperichondrial flap for closure of nostril in atrophic rhinitis. el Kholy A, et al. **Rhinology** 1998 Dec; 36(4):202–3

THERAPY

Closure of the nasal vestibule in atrophic rhinitis--a new non–surgical technique. Lobo CJ, et al. **J Laryngol Otol** 1998 Jun;112(6):543–6

VETERINARY

Computed axial tomography of the porcine nasal cavity and a morphometric comparison of the nasal turbinates with other visualization techniques. Shryock TR, et al. **Can J Vet Res** 1998 Oct;62(4):287–92

Two–color hybridization assay for simultaneous detection of Bordetella bronchiseptica and toxigenic Pasteurella multocida from swine. Register KB, et al. **J Clin Microbiol** 1998 Nov;36(11):3342–6

Demonstration that Australian Pasteurella multocida isolates from sporadic outbreaks of porcine pneumonia are non–toxigenic (toxA–) and display heterogeneous DNA restriction endonuclease profiles compared with toxigenic isolates from herds with progressive atrophic rhinitis. Djordjevic SP, et al. **J Med Microbiol** 1998 Aug; 47(8):679–88

Histochemical and lectinhistochemical studies on nasal mucosa of pigs with or without respiratory diseases. Perfumo CJ, et al. **J Vet Med Sci** 1998 Sep;60(9):1021–3

Development of a typing system for epidemiological studies of porcine toxin–producing Pasteurella multocida ssp. multocida in Denmark. Fussing V, et al. **Vet Microbiol** 1999 Feb 23;65(1):61–74

RHINITIS, VASOMOTOR

BLOOD

Serum–soluble Fas levels as a marker to distinguish allergic and nonallergic rhinitis. Kato M, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1213–4

DIAGNOSIS

Histamine releasability after adenosine challenge in subjects with allergic and non–allergic rhinitis: possible implications for mast cell priming. Polosa R, et al. **Ann Ital Med Int** 1999 Apr–Jun;14(2):86–93

ETIOLOGY

Vasomotor rhinitis following trauma to the nose. Segal S, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):208–10

PHYSIOPATHOLOGY

Pathophysiological features of the nasal mucosa in patients with idiopathic rhinitis compared to allergic rhinitis. Numata T, et al. **Int Arch Allergy Immunol** 1999 Aug; 119(4):304–13

PSYCHOLOGY

State and trait anxiety in women affected by allergic and vasomotor rhinitis. Addolorato G, et al. **J Psychosom Res** 1999 Mar;46(3):283–9

RHINOPHARYNX see **NASOPHARYNX**

RHINOPHYMA

[On the problem of rhinophyma management] Szmeja Z, et al. **Otolaryngol Pol** 1999;53(1):29–33 (22 ref.) (Eng. Abstr.)

RHINOPHYMA

(Pol)

COMPLICATIONS

Mohs' surgery as an approach to treatment of multiple skin cancer in rhinophyma. Tamir G, et al. **J Cutan Med Surg** 1999 Jan;3(3):169–71

DIAGNOSIS

Giant rhinophyma--a case report. Račić G, et al. **Rhinology** 1999 Mar;37(1):43–5

PATHOLOGY

[On rhinophyma and its cytological characteristics] Shatokhina SN, et al. **Vestn Otorinolaringol** 1999;(3):50–1 (Eng. Abstr.) (Rus)

SURGERY

Shave excision as an adjunct to the therapy of a rhinophyma-like complication in post-kala-azar dermal leishmaniasis [letter] Ramesh V, et al. **Acta Derm Venereol** 1999 Jul;79(4):330–1

Giant rhinophyma--a case report. Račić G, et al. **Rhinology** 1999 Mar;37(1):43–5

[Surgical treatment of rhinophyma using CO2 laser] Jurkiewicz D, et al. **Otolaryngol Pol** 1999;53(2):157–61 (Eng. Abstr.) (Pol)

[Application of CO2 laser surgery in the treatment of rhinophyma] Jurkiewicz D, et al. **Otolaryngol Pol** 1997;51 Suppl 25:129–33 (Eng. Abstr.) (Pol)

RHINOPLASTY

Body dysmorphic disorder and aesthetic surgery: case report. Castelló JR, et al. **Aesthetic Plast Surg** 1998 Sep–Oct; 22(5):329–31

The effect of skeletal remodeling on the nasal profile: considerations for rhinoplasty in the older patient. Pessa JE, et al. **Aesthetic Plast Surg** 1999 Jul–Aug;23(4):239–42

A case of human adjuvant disease after augmentation rhinoplasty. Shiba A, et al. **Aesthetic Plast Surg** 1999 May–Jun;23(3):175–8

Anesthesia for facial surgery. Ullmann Y, et al. **Aesthetic Plast Surg** 1999 Jul–Aug;23(4):296–7

Isolated Tessier no. 1 cleft of the nose. Agrawal K, et al. **Ann Plast Surg** 1998 Sep;41(3):311–3

Evaluation of the results of delayed rhinoplasty in cleft lip and palate patients. Functional and aesthetic implications and factors that affect successful nasal repair. Anastassov GE, et al. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):416–24

Unusual septoplasty complication: Streptococcus viridans endocarditis. Leonard DW, et al. **Ear Nose Throat J** 1998 Oct;77(10):827, 830–1

Effect of esthetic illusions on rhinoplasty assessment. Mendelsohn MS, et al. **J Otolaryngol** 1998 Aug; 27(4):228–31

Nasal alar reconstruction: a critical analysis using melolabial island and paramedian forehead flaps. Arden RL, et al. **Laryngoscope** 1999 Mar;109(3):376–82

A preliminary study of cocaine absorption from the nasal mucosa. Liao BS, et al. **Laryngoscope** 1999 Jan; 109(1):98–102

Septorhinoplasty. Form versus function. Holt GR. **Otolaryngol Clin North Am** 1999 Feb;32(1):1–6

Photogrammetric comparison of two methods for synchronous repair of bilateral cleft lip and nasal deformity. Kohout MP, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1339–49

Primary unilateral cleft nose correction: a 10-year follow-up [see comments] Millard DR Jr, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1331–8. Comment in: Plast Reconstr Surg 1999 Jun;103(7):2094.

Nasal packing in rhinoplasty and septorhinoplasty: it is wiser to avoid [letter] Yavuzer R, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1081–2

Surgical and prosthetic treatment of congenital absence of the nose: a case report. Chmielik M, et al. **Rhinology** 1998 Jun;36(2):94–5

[Surgical anatomy of the nose. I] Adant JP, et al. **Ann Chir Plast Esthet** 1998 Oct;43(5):499–510 (31 ref.) (Eng. Abstr.) (Fre)

[Surgical anatomy of the nose. II] Adant JP, et al. **Ann Chir Plast Esthet** 1998 Oct;43(5):511–6 (Eng. Abstr.) (Fre)

[Secondary rhinoplasty for unilateral cleft lip and palate. Review of the literature and 50 clinical cases] Gounot N, et al. **Ann Chir Plast Esthet** 1998 Jun;43(3):240–7 (42 ref.) (Eng. Abstr.) (Fre)

[Dimenhydrinate and metoclopramide for prevention of nausea and vomiting following septorhinoplasties in women] Eberhart LH, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Aug; 34(8):480–4 (Eng. Abstr.) (Ger)

ADVERSE EFFECTS

Alterations in nasal sensibility following open rhinoplasty. Bafaqeeh SA, et al. **Br J Plast Surg** 1998 Oct;51(7):508–10

Isolated lesion of the medial orbital wall following endonasal surgery. Isolated fractures of the medial orbital wall. Scassellati-Sforzolini G, et al. **Int Ophthalmol** 1997–98; 21(6):353–8

Septorhinoplasty under general anaesthesia [letter] Anderson PJ, et al. **Rhinology** 1998 Dec;36(4):204

[Supracapular palsy: a complication of surgical positioning?] Ould-Ahmed M, et al. **Ann Fr Anesth Reanim** 1999 Jun; 18(6):674–6 (Eng. Abstr.) (Fre)

HISTORY

An operation for the removal of deformity arising from fracture of the triangular cartilage of the nose. 1898 [classical article] Pegler. **J Laryngol Otol** 1998 Oct; 112(10):995

INSTRUMENTATION

Powered instrumentation for rhinoplasty and septoplasty. Becker DG, et al. **Otolaryngol Clin North Am** 1999 Aug; 32(4):683–93

Securing the nostril retainer [letter] Ozgür F, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1328

Securing the nostril retainer [letter] Ozgür F, et al. **Plast Reconstr Surg** 1999 Sep;104(3):882

A reliable absorbable intranasal bolster for proper maintenance of fractured nasal bone position. Ducic Y, et al. **Rhinology** 1999 Jun;37(2):88–9

[Prosthetic management of tumor-induced nasal defects] Klein M. **HNO** 1999 Jul;47(7):623–8 (Eng. Abstr.) (Ger)

METHODS

Technique for correction of the retracted columella, acute columellar-labial angle, and long upper lip. Flowers RS, et al. **Aesthetic Plast Surg** 1999 Jul–Aug;23(4):243–6

Stenosis of the nasal vestibule and its treatment. Kotzur A, et al. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):86–92 (11 ref.)

Open rhinoplasty through a forked flap incision. Mavili ME, et al. **Aesthetic Plast Surg** 1999 Jul–Aug;23(4):247–51

Bioplastique as a complement in conventional plastic surgery. Nácul AM, et al. **Aesthetic Plast Surg** 1998 Nov–Dec; 22(6):444–50

Augmentation rhinoplasty using an L-shaped auricular cartilage framework combined with dermal fat graft for cleft lip nose. Nakakita N, et al. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):107–12

Lateral nasal osteotomies: implications of bony thickness on fracture patterns. Harshbarger RJ, et al. **Ann Plast Surg** 1999 Apr;42(4):365–70; discussion 370–1

The bilobed island flap in nasal ala reconstruction. Golcman R, et al. **Br J Plast Surg** 1998 Oct;51(7):493–8

Additional graft donor sites for the nasal ala [letter; comment] Field LM. **Dermatol Surg** 1999 Mar;25(3):256–7. Comment on: Dermatol Surg 1997 May;23(5):335–49; quiz 350–1.

Principles for correcting the septum in septorhinoplasty: two-point fixation. Jones NS. **J Laryngol Otol** 1999 May; 113(5):405–12 (11 ref.)

An unusual complication of augmentation rhinoplasty: late displacement of dorsal nasal splint. Owa AO, et al. **J Laryngol Otol** 1999 Apr;113(4):358–60

Late complications of nasal augmentation using silicone implants. Pak MW, et al. **J Laryngol Otol** 1998 Nov; 112(11):1074–7

Gore-tex augmentation grafting in rhinoplasty--is it safe? Mendelsohn M, et al. **J Otolaryngol** 1998 Dec;27(6):337–41

Influence of lateral osteotomies in the dimensions of the nasal cavity. Grymer LF, et al. **Laryngoscope** 1999 Jun; 109(6):936–8

Architectural deficiencies of the nose: treatment of the saddle nose and short nose deformities. Dyer WK 2nd, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):89–112

Dramatic refinement of the nasal tip. Farrior EH. **Otolaryngol Clin North Am** 1999 Aug;32(4):621–36

The septum in rhinoplasty. Keefe MA, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):15–36

Grafts amd implants in rhinoplasty and nasal reconstruction. Lovice DB, et al. **Otolaryngol Clin North Am** 1999 Feb; 32(1):113–41

Unilateral cleft rhinoplasty: a review. Madorsky SJ, et al. **Otolaryngol Clin North Am** 1999 Aug;32(4):669–82 (43 ref.)

Deprojecting the nasal profile. Papel ID, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):65–87

Functional nasal surgery. Schlosser RJ, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):37–51

Nasal base surgery. Silver WE, et al. **Otolaryngol Clin North Am** 1999 Aug;32(4):653–68 (15 ref.)

Repairing the twisted nose. TerKonda RP, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):53–64

Illusions in rhinoplasty. Younger RA. **Otolaryngol Clin North Am** 1999 Aug;32(4):637–51

Overlay grafting for lateral nasal wall concavities. Gilbert SE. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):385–8

Anatomic basis and clinical implications for nasal tip support in open versus closed rhinoplasty. Adams WP Jr, et al. **Plast Reconstr Surg** 1999 Jan;103(1):255–61; discussion 262–4

Nasal sill augmentation in adult incomplete cleft lip nose deformity using superiorly based turn over orbicularis oris muscle flap: an anatomic approach. Agarwal R, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1350–7; discussion 1358–9

The reverse auricular flap: a new flap for nose reconstruction. Bakhach J, et al. **Plast Reconstr Surg** 1999 Oct; 104(5):1280–8

Correction of the crooked nose. Byrd HS, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2148–57

Use of cartilaginous autografts in nasal surgery: 8 years of experience. Cárdenas-Camarena L, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1003–14

Elaboration of an alternative, segmental, cartilage-sparing tip graft technique: experience in 405 cases. Constantian MB. **Plast Reconstr Surg** 1999 Jan;103(1):237–53; discussion 254

Columellar elongation in bilateral cleft lip [letter; comment] Cutting C, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1761–2. Comment on: Plast Reconstr Surg 1998 Mar;101(3):630–9.

Rhinoplasty: a simplified, three-stitch, open tip suture technique. Part I: primary rhinoplasty. Daniel RK. **Plast Reconstr Surg** 1999 Apr;103(5):1491–502

Rhinoplasty: a simplified, three-stitch, open tip suture technique. Part II: secondary rhinoplasty. Daniel RK. **Plast Reconstr Surg** 1999 Apr;103(5):1503–12

Upper lateral splay graft. Guyuron B, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2169–77

Cranial bone grafts for dorsal nasal augmentation [letter] Hodgkinson DJ. **Plast Reconstr Surg** 1999 Oct; 104(5):1570–1

Long-term follow-up of cranial bone graft in dorsal nasal augmentation. Jackson IT, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1869–73

Long-term follow-up of cranial bone graft and dorsal nasal augmentation [letter] Jackson IT. **Plast Reconstr Surg** 1999 Sep;104(3):882

Asymmetric incision for open rhinoplasty in cleft lip nasal deformity. Koh KS, et al. **Plast Reconstr Surg** 1999 Jun; 103(7):1835–8

Bilateral congenital circular defects of the alar cartilages of the nose [letter] Latifoğlu O, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1760–2

The "lapel" technique [letter; comment] Lerma J. **Plast Reconstr Surg** 1998 Nov;102(6):2274–5. Comment on: Plast Reconstr Surg 1997 Dec;100(7):1941–3.

Primary correction of unilateral cleft nose: a more accurate diagram [letter; comment] Millard DR. **Plast Reconstr Surg** 1999 Jun;103(7):2094. Comment on: Plast Reconstr Surg 1998 Oct;102(5):1331–8.

The principle of rotation advancement for repair of unilateral complete cleft lip and nasal deformity: technical variations and analysis of results. Mulliken JB, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1247–60

An 18-year experience with the umbrella graft in rhinoplasty. Peck GC Jr, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2158–65; discussion 2166–8

Aesthetic rhinoplasty with maximum preservation of alar cartilages: experience with 52 consecutive cases. Regalado-Briz A. **Plast Reconstr Surg** 1999 Feb; 103(2):671–80; discussion 681–2

The aesthetic unit dorsal nasal flap: rationale for avoiding a glabellar incision. Rohrich RJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1289–94

The role of open rhinoplasty in the management of nasal dermoid cysts. Rohrich RJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1459–66; quiz 1467; discussion 1468

Anatomic basis and clinical implications for nasal tip support in open and closed rhinoplasty [letter] Tebbetts JB. **Plast Reconstr Surg** 1999 Oct;104(5):1571–3

Use of the nasal SMAS to reconstruct defects of the tip, alae, columella, or septum. Ulloa-Gregori AO, et al. **Plast Reconstr Surg** 1999 Sep;104(3):631–6

Turnover forehead flap combined with composite crus of helix graft for partial nasal reconstruction. Zilinsky I, et al. **Plast Reconstr Surg** 1999 Jan;103(1):192–6

Excision and replacement of nasal septum in aesthetic and functional nose surgery: setting criteria and establishing indications. Sciuto S, et al. **Rhinology** 1999 Jun;37(2):74–9

Negative pressure suction in nasal septum surgery. Skoulakis CE, et al. **Rhinology** 1999 Jun;37(2):86–7

The triple swing flap technique to correct the asymmetry of unilateral cleft lip nose deformities. Gubisch W. **Scand J Plast Reconstr Surg Hand Surg** 1998 Sep; 32(3):287–94

[Augmentation rhinoplasty with particulate hydroxy apatite artificial bone in 50 cases--a follow-up of 8 years] Guo X, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 May;13(3):185–7 (Eng. Abstr.) (Chi)

[The application of computer imaging simulation in nose augmentation] Wang D, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 May;13(3):182–4 (Eng. Abstr.) (Chi)

[External rhinoplasty: a useful approach for a young plastic surgeon] Adant JP, et al. **Ann Chir Plast Esthet** 1998 Dec; 43(6):635–48 (Eng. Abstr.) (Fre)

[State-of-the art on rhinoplasty, facial rejuvenation and breast augmentation. Antibes, Juan-les-pins, 24–26] Mole B. **Ann Chir Plast Esthet** 1997 Jun;42(3):275–6 (Fre)

[The use of calvarial bone in nasal reconstruction] Zanaret M, et al. **Ann Otolaryngol Chir Cervicofac** 1999 Apr; 116(1):16–26 (Eng. Abstr.) (Fre)

[Septum reconstruction with PDS implant] Bönisch M, et al. **HNO** 1999 Jun;47(6):546–50 (Eng. Abstr.) (Ger)

[Increasing the length of the columella. Concepts and techniques] Schauss F. **HNO** 1999 Jul;47(7):663–73 (23 ref.) (Ger)

[Nasal fractures--indications for open reposition] Simmen D. **Laryngorhinootologie** 1998 Jul;77(7):388–93 (Eng. Abstr.)

(Ger)
[Rhinoplasty] Tschopp AC. **Ther Umsch** 1999 Apr; 56(4):200–5 (13 ref.) (Eng. Abstr.) (Ger)
[Surgical treatment methods for the short saddle nose and high skin portion of the upper lip] Ezrokhin VM, et al. **Stomatologiia (Mosk)** 1998;77(6):34–6 (Eng. Abstr.) (Rus)
[The elimination of the retractility of the skin portion of the nasal septum] Ezrokhin VM, et al. **Stomatologiia (Mosk)** 1999;78(3):39–41 (Eng. Abstr.) (Rus)
[Modern methods of nasal tip correction] Oganesian SS. **Vestn Otorinolaringol** 1999;(3):46–7 (Eng. Abstr.) (Rus)

PSYCHOLOGY

Psychosocial impact of cosmetic rhinoplasty. Haraldsson P. **Aesthetic Plast Surg** 1999 May–Jun;23(3):170–4
Motivation for rhinoplasty: changes in 5970 cases, in three groups, 1964 to 1997. Shulman O, et al. **Aesthetic Plast Surg** 1998 Nov–Dec;22(6):420–4
Considerations before rhinoplasty. Correa AJ, et al. **Otolaryngol Clin North Am** 1999 Feb;32(1):7–14

RHINOSCLEROMA

[Some aspects of scleroma problem] Konoval'chikov GD, et al. **Vestn Otorinolaringol** 1999;(4):51–5 (39 ref.) (Rus)

COMPLICATIONS

Transglottic scleroma. Keschner D, et al. **Am J Otolaryngol** 1998 Nov–Dec;19(6):407–11 (11 ref.)

DIAGNOSIS

MR appearance of rhinoscleroma. Razek AA, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):575–8
[Rhinoscleroma: a case report] Issing WJ, et al. **Laryngorhinootologie** 1999 Apr;78(4):200–3 (Eng. Abstr.) (Ger)
[Nasal scleroma (rhinoscleroma): pathological and clinical results] August C, et al. **Pathologe** 1998 Sep;19(5):384–7 (Eng. Abstr.) (Ger)

PATHOLOGY

[Spheno–ethmoidal rhinoscleroma. Report of a case and review of the literature] Evrard I, et al. **Ann Otolaryngol Chir Cervicofac** 1998 May;115(2):85–8 (12 ref.) (Eng. Abstr.) (Fre)
[Nasal scleroma (rhinoscleroma): pathological and clinical results] August C, et al. **Pathologe** 1998 Sep;19(5):384–7 (Eng. Abstr.) (Ger)
[Rhinoscleroma. A case report] Valor García C, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):321–3 (Eng. Abstr.) (Spa)

RHINOSPORIDIOSIS

Disseminated cutaneous rhinosporidiosis. Thappa DM, et al. **J Dermatol** 1998 Aug;25(8):527–32 (26 ref.)

COMPLICATIONS

Rhinosporidiosis presenting with two soft tissue tumors followed by dissemination. Angunawela P, et al. **Pathology** 1999 Feb;31(1):57–8

IMMUNOLOGY

Immunolocalization of an endogenous antigenic material of Rhinosporidium seeberi expressed only during mature sporangial development. Herr RA, et al. **FEMS Immunol Med Microbiol** 1999 Mar;23(3):205–12

MICROBIOLOGY

[Nasal rhinosporidiosis] Soler Lluch E, et al. **Acta Otorrinolaringol Esp** 1998 Aug–Sep;49(6):498–500 (Eng. Abstr.) (Spa)

PATHOLOGY

Rhinosporidiosis of the conjunctiva. Mukhtar AU. **Cent Afr J Med** 1999 Jan;45(1):20–1
Urethral rhinosporidiosis: report of a case presenting with a penile growth and urethral fistula. Sah SP, et al. **Trans R Soc Trop Med Hyg** 1999 May–Jun;93(3):298–9

RHINOSPORIDIUM

CLASSIFICATION

Phylogenetic analysis of Rhinosporidium seeberi's 18S small–subunit ribosomal DNA groups this pathogen among members of the protoctistan Mesomycetozoa clade. Herr RA, et al. **J Clin Microbiol** 1999 Sep;37(9):2750–4

ISOLATION & PURIFICATION

[Nasal rhinosporidiosis] Soler Lluch E, et al. **Acta Otorrinolaringol Esp** 1998 Aug–Sep;49(6):498–500 (Eng. Abstr.) (Spa)

RHINOTRACHEITIS VIRUS, TURKEY see **PNEUMOVIRUS**

RHINOVIRUS

Infection of human respiratory submucosal glands with rhinovirus: effects on cytokine and ICAM–1 production. Yamaya M, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L362–71
Rhinovirus and respiratory syncytial virus in wheezing children requiring emergency care. IgE and eosinophil analyses. Rakes GP, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):785–90
Rhinoviruses: important respiratory pathogens. Pitkäranta A, et al. **Ann Med** 1998 Dec;30(6):529–37 (79 ref.)
Rhinovirus infections: induction and modulation of airways inflammation in asthma. Grünberg K, et al. **Clin Exp Allergy** 1999 Jun;29 Suppl 2:65–73 (112 ref.)
Influence of inoculation site of combined oil–adjuvanted vaccine on the antibody response in chickens. Deguchi K, et al. **J Vet Med Sci** 1998 Jul;60(7):831–5
Eukaryotic initiation factor 4GII (eIF4GII), but not eIF4GI, cleavage correlates with inhibition of host cell protein synthesis after human rhinovirus infection. Svitkin YV, et al. **J Virol** 1999 Apr;73(4):3467–72
The effect of exercise training on the severity and duration of a viral upper respiratory illness. Weidner TG, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1578–83
The role of viral and atypical bacterial pathogens in asthma pathogenesis. Johnston SL. **Pediatr Pulmonol Suppl** 1999; 18:141–3 (13 ref.)
Asthma, viruses, and nitric oxide. Sanders SP. **Proc Soc Exp Biol Med** 1999 Mar;220(3):123–32 (162 ref.)
[Rhinovirus infections in hospitalized children: a 3–year study] Pierrès–Surer N, et al. **Arch Pediatr** 1998 Jan; 5(1):9–14 (Eng. Abstr.) (Fre)
[Rhinovirus pneumonia] Kasai T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):90–2 (14 ref.) (Jpn)

CHEMISTRY

Crystallization and preliminary X–ray analysis of human rhinovirus serotype 2 (HRV2). Verdaguer N, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Aug;55 (Pt 8):1459–61
Analysis of common cold virus (human rhinovirus serotype 2) by capillary zone electrophoresis: the problem of peak identification. Okun VM, et al. **Anal Chem** 1999 May 15; 71(10):2028–32
Position–dependent processing of peptides presented on the surface of cowpea mosaic virus. Taylor KM, et al. **Biol Chem** 1999 Mar;380(3):387–92

DRUG EFFECTS

Anti–picornavirus activity of synthetic flavon–3–yl esters. Conti C, et al. **Antivir Chem Chemother** 1998 Nov; 9(6):511–5
The effects of antirhino– and enteroviral vinylacetylene benzimidazoles on cytochrome P450 function and hepatic porphyrin levels in mice. Tebbe MJ, et al. **Antiviral Res** 1999 May;42(1):25–33
Evidence that enviroxime targets multiple components of the rhinovirus 14 replication complex. Brown–Augsburger P, et al. **Arch Virol** 1999;144(8):1569–85
Short synthesis and anti–rhinoviral activity of imidazo[1,2–a]pyridines: the effect of acyl groups at 3–position. Hamdouchi C, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1391–4
Enatioseparation and anti–rhinovirus activity of 3–benzylchroman–4–ones. Quaglia MG, et al. **Chirality** 1999;11(5–6):495–500
2–Amino–3–substituted–6–[(E)–1–phenyl–2–(N–methylcarbamoyl)vinyl]imid azo[1,2–a]pyridines as a novel class of inhibitors of human rhinovirus: stereospecific synthesis and antiviral activity. Hamdouchi C, et al. **J Med Chem** 1999 Jan 14;42(1):50–9
Recombinant soluble low–density lipoprotein receptor fragment inhibits common cold infection. Marlovits TC, et al. **J Mol Recognit** 1998 Winter;11(1–6):49–51
Application of oral bioavailability surrogates in the design of orally active inhibitors of rhinovirus replication. Stratford RE Jr, et al. **J Pharm Sci** 1999 Aug;88(8):747–53
Effect of bafilomycin A1 and nocodazole on endocytic transport in HeLa cells: implications for viral uncoating and infection. Bayer N, et al. **J Virol** 1998 Dec; 72(12):9645–55
Structure–assisted design of mechanism–based irreversible inhibitors of human rhinovirus 3C protease with potent antiviral activity against multiple rhinovirus serotypes. Matthews DA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11000–7

ENZYMOLOGY

Inhibition of 3C protease from human rhinovirus strain 1B by peptidyl bromomethylketonehydrazides. Kati WM, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):363–75
Structure–based design, synthesis, and biological evaluation of irreversible human rhinovirus 3C protease inhibitors. 3. Structure–activity studies of ketomethylene–containing peptidomimetics. Dragovich PS, et al. **J Med Chem** 1999 Apr 8;42(7):1203–12
Structure–based design, synthesis, and biological evaluation of irreversible human rhinovirus 3C protease inhibitors. 4. Incorporation of P1 lactam moieties as L–glutamine replacements. Dragovich PS, et al. **J Med Chem** 1999 Apr 8;42(7):1213–24

GENETICS

unr, a cellular cytoplasmic RNA–binding protein with five cold–shock domains, is required for internal initiation of translation of human rhinovirus RNA. Hunt SL, et al. **Genes Dev** 1999 Feb 15;13(4):437–48
Polypyrimidine–tract binding protein (PTB) is necessary, but not sufficient, for efficient internal initiation of translation of human rhinovirus–2 RNA. Hunt SL, et al. **RNA** 1999 Mar;5(3):344–59
The rhinovirus type 14 genome contains an internally located RNA structure that is required for viral replication. McKnight KL, et al. **RNA** 1998 Dec;4(12):1569–84

GROWTH & DEVELOPMENT

Rhinovirus replication in HeLa cells cultured under conditions of simulated microgravity. Long JP, et al. **Aviat Space Environ Med** 1998 Sep;69(9):851–6

IMMUNOLOGY

A disulfide–bound HIV–1 V3 loop sequence on the surface of human rhinovirus 14 induces neutralizing responses against HIV–1. Zhang A, et al. **Biol Chem** 1999 Mar; 380(3):365–74
Responses to human rhinovirus in CD45 T cell subsets isolated from tonsil. Wilamasundera S, et al. **Eur J Immunol** 1998 Dec;28(12):4374–81
Rhinovirus regulation of IL–1 receptor antagonist in vivo and in vitro: a potential mechanism of symptom resolution. Yoon HJ, et al. **J Immunol** 1999 Jun 15;162(12):7461–9
Closer to a cure for the common cold? [editorial] McIntosh K. **JAMA** 1999 May 19;281(19):1844–5
Efficacy of tremacamra, a soluble intercellular adhesion molecule 1, for experimental rhinovirus infection: a randomized clinical trial. Turner RB, et al. **JAMA** 1999 May 19;281(19):1797–804

ISOLATION & PURIFICATION

Improved detection of rhinoviruses in clinical samples by using a newly developed nested reverse transcription–PCR assay. Andeweg AC, et al. **J Clin Microbiol** 1999 Mar; 37(3):524–30
Rapid detection of human rhinoviruses in nasopharyngeal aspirates by a microwell reverse transcription–PCR–hybridization assay. Blomqvist S, et al. **J Clin Microbiol** 1999 Sep;37(9):2813–6
Respiratory viruses and acute otitis media [letter] Pitkäranta A, et al. **N Engl J Med** 1999 Jun 24;340(25):2001–2; discussion 2002

METABOLISM

Rhinovirus replication causes RANTES production in primary bronchial epithelial cells. Schroth MK, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1220–8
Antiviral effect of hyperthermic treatment in rhinovirus infection. Conti C, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):822–9
Soluble LDL minireceptors. Minimal structure requirements for recognition of minor group human rhinovirus. Marlovits TC, et al. **J Biol Chem** 1998 Dec 11; 273(50):33835–40
The structure of the two amino–terminal domains of human intercellular adhesion molecule–1 suggests how it functions as a rhinovirus receptor. Bella J, et al. **Virus Res** 1999 Aug; 62(2):107–17
Rhinovirus 2A proteinase mediated stimulation of rhinovirus RNA translation is additive to the stimulation effected by cellular RNA binding proteins. Hunt SL, et al. **Virus Res** 1999 Aug;62(2):119–28

PATHOGENICITY

Rhinovirus–16 colds in healthy and in asthmatic subjects: similar changes in upper and lower airways. Fleming HE, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):100–8
Association of rhinovirus infections with asthma. Gern JE, et al. **Clin Microbiol Rev** 1999 Jan;12(1):9–18 (139 ref.)
Th2 cytokines exert a dominant influence on epithelial cell expression of the major group human rhinovirus receptor, ICAM–1. Bianco A, et al. **Eur Respir J** 1998 Sep; 12(3):619–26
Effect of bafilomycin A1 and nocodazole on endocytic transport in HeLa cells: implications for viral uncoating and infection. Bayer N, et al. **J Virol** 1998 Dec; 72(12):9645–55
Very–low–density lipoprotein receptor fragment shed from HeLa cells inhibits human rhinovirus infection. Marlovits TC, et al. **J Virol** 1998 Dec;72(12):10246–50

PHYSIOLOGY

Rhinovirus–mediated changes in airway smooth muscle responsiveness: induced autocrine role of interleukin–1beta. Hakonarson H, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L13–21
Effect of nitric oxide on rhinovirus replication and virus–induced interleukin–8 elaboration. Kaul P, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1193–8
The role of oxidative stress in rhinovirus induced elaboration

RHINOVIRUS

of IL-8 by respiratory epithelial cells. Biagioli MC, et al. **Free Radic Biol Med** 1999 Feb;26(3-4):454-62

Mechanism of rhinovirus-induced changes in airway smooth muscle responsiveness. Hakonarson H, et al. **J Clin Invest** 1998 Nov 1;102(9):1732-41

Rhinoviruses replicate effectively at lower airway temperatures. Papadopoulos NG, et al. **J Med Virol** 1999 May;58(1):100-4

RHIZOBIACEAE

Ochrobactrum intermedium infection after liver transplantation. Möller LVM, et al. **J Clin Microbiol** 1999 Jan;37(1):241-4

CHEMISTRY

Chitin oligosaccharide synthesis by rhizobia and zebrafish embryos starts by glycosyl transfer to O4 of the reducing-terminal residue. Kamst E, et al. **Biochemistry** 1999 Mar 30;38(13):4045-52

Nodule-inducing activity of synthetic Sinorhizobium meliloti nodulation factors and related lipo-chitooligosaccharides on alfalfa. Importance of the acyl chain structure. Demont-Caulet N, et al. **Plant Physiol** 1999 May; 120(1):83-92

CLASSIFICATION

Characterisation of rhizobia from African acacias and other tropical woody legumes using Biolog and partial 16S rRNA sequencing. McInroy SG, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):111-7

Allorhizobium undicola gen. nov., sp. nov., nitrogen-fixing bacteria that efficiently nodulate Neptunia natans in Senegal. de Lajudie P, et al. **Int J Syst Bacteriol** 1998 Oct; 48 Pt 4:1277-90

Diversity of rhizobia associated with Amorpha fruticosa isolated from Chinese soils and description of Mesorhizobium amorphae sp. nov. Wang ET, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:51-65

ENZYMOLOGY

Susceptibility to hydrogen peroxide and catalase activity of root nodule bacteria. Ohwada T, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):457-62

Two new aminopeptidases from Ochrobactrum anthropi active on D-alanyl-p-nitroanilide. Fanuel L, et al. **Cell Mol Life Sci** 1999 May;55(5):812-8

GENETICS

Genes involved in the formation and assembly of rhizobial cytochromes and their role in symbiotic nitrogen fixation. Delgado MJ, et al. **Adv Microb Physiol** 1998;40:191-231 (160 ref.)

Isolation and characterization of ACC deaminase genes from two different plant growth-promoting rhizobacteria. Shah S, et al. **Can J Microbiol** 1998 Sep;44(9):833-43

Multiple small heat shock proteins in rhizobia. Münchbach M, et al. **J Bacteriol** 1999 Jan;181(1):83-90

Isolation of carbon- and nitrogen-deprivation-induced loci of Sinorhizobium meliloti 1021 by Tn5-luxAB mutagenesis. Milcamps A, et al. **Microbiology** 1998 Nov;144 (Pt 11):3205-18

Constructs for insertional mutagenesis, transcriptional signal localization and gene regulation studies in root nodule and other bacteria. Reeve WG, et al. **Microbiology** 1999 Jun; 145 (Pt 6):1307-16

Comparison of the evolutionary dynamics of symbiotic and housekeeping loci: a case for the genetic coherence of rhizobial lineages. Wernegreen JJ, et al. **Mol Biol Evol** 1999 Jan;16(1):98-113

Carbamoylation of azorhizobial Nod factors is mediated by NodU. D'Haeze W, et al. **Mol Plant Microbe Interact** 1999 Jan;12(1):68-73

GROWTH & DEVELOPMENT

Susceptibility to hydrogen peroxide and catalase activity of root nodule bacteria. Ohwada T, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):457-62

IMMUNOLOGY

Brucella outer membrane lipoproteins share antigenic determinants with bacteria of the family Rhizobiaceae. Cloeckaert A, et al. **Clin Diagn Lab Immunol** 1999 Jul; 6(4):627-9

METABOLISM

Coproporphyrin excretion by Azorhizobium caulinodans under micro-aerobic conditions. Pronk AF, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):245-51

Sinorhizobium fredii and Sinorhizobium meliloti produce structurally conserved lipopolysaccharides and strain-specific K antigens. Reuhs BL, et al. **Appl Environ Microbiol** 1998 Dec;64(12):4930-8

Azorhizobium caulinodans PII and GlnK proteins control nitrogen fixation and ammonia assimilation. Michel-Reydellet N, et al. **J Bacteriol** 1999 Apr; 181(8):2655-8

A functional myo-inositol catabolism pathway is essential for rhizopine utilization by Sinorhizobium meliloti. Galbraith MP, et al. **Microbiology** 1998 Oct;144 (Pt 10):2915-24

Isolation of carbon- and nitrogen-deprivation-induced loci of Sinorhizobium meliloti 1021 by Tn5-luxAB mutagenesis. Milcamps A, et al. **Microbiology** 1998 Nov;144 (Pt 11):3205-18

Carbamoylation of azorhizobial Nod factors is mediated by NodU. D'Haeze W, et al. **Mol Plant Microbe Interact** 1999 Jan;12(1):68-73

PHYSIOLOGY

Allorhizobium undicola gen. nov., sp. nov., nitrogen-fixing bacteria that efficiently nodulate Neptunia natans in Senegal. de Lajudie P, et al. **Int J Syst Bacteriol** 1998 Oct; 48 Pt 4:1277-90

The early nodulin gene MtN6 is a novel marker for events preceding infection of Medicago truncatula roots by Sinorhizobium meliloti. Mathis R, et al. **Mol Plant Microbe Interact** 1999 Jun;12(6):544-55

RHIZOBIUM

CHEMISTRY

Rhizobium sp. strain NGR234 and R. fredii USDA257 share exceptionally broad, nested host ranges. Pueppke SG, et al. **Mol Plant Microbe Interact** 1999 Apr;12(4):293-318

CLASSIFICATION

Group-specific differentiation of Rhizobium from clover species by PCR amplification of 23S rDNA sequences. Tesfaye M, et al. **Can J Microbiol** 1998 Nov;44(11):1102-5

Discrimination of Rhizobium tropici and R. leguminosarum strains by PCR-specific amplification of 16S-23S rDNA spacer region fragments and denaturing gradient gel electrophoresis (DGGE). de Oliveira VM, et al. **Lett Appl Microbiol** 1999 Feb;28(2):137-41

ENZYMOLOGY

Purification and characterization of an alpha-glucosidase from Rhizobium sp. (Robinia pseudoacacia L.) strain USDA 4280. Berthelot K, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2907-11

Plant-exuded choline is used for rhizobial membrane lipid biosynthesis by phosphatidylcholine synthase. de Rudder KE, et al. **J Biol Chem** 1999 Jul 9;274(28):20011-6

Isolation and characterization of the catalase gene from Rhizobium sp. SNU003, a root nodule symbiont of Canavalia lineata. Kwon SI, et al. **Mol Cells** 1999 Feb 28; 9(1):49-55

GENETICS

Expression of genes for enzymes of the flavonoid biosynthetic pathway in the early stages of the Rhizobium-legume symbiosis. McKhann HI, et al. **Adv Exp Med Biol** 1998; 439:45-54

Prevalence of the Rhizobium etli-like allele in genes coding for 16S rRNA among the indigenous rhizobial populations found associated with wild beans from the Southern Andes in Argentina. Aguilar OM, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3520-4

Sequence and molecular analysis of the Rhizobium etli glsA gene, encoding a thermolabile glutaminase. Calderón J, et al. **Biochim Biophys Acta** 1999 Mar 19;1444(3):451-6

Group-specific differentiation of Rhizobium from clover species by PCR amplification of 23S rDNA sequences. Tesfaye M, et al. **Can J Microbiol** 1998 Nov;44(11):1102-5

Selection of EPS-deficient mutants (Exo-) from Rhizobium huakuii 107 by region-directed Tn5 mutagenesis. Zhou B, et al. **Chin J Biotechnol** 1998;14(1):37-43

Genes and signal molecules involved in the rhizobia-leguminoseae symbiosis. Bladergroen MR, et al. **Curr Opin Plant Biol** 1998 Aug;1(4):353-9 (61 ref.)

Isolation and sequencing of a second Rhizobium tropici CFN299 genetic locus that contains genes homologous to amino acid sulphate activation genes. Laeremans T, et al. **DNA Seq** 1998 Mar;9(1):65-70

Identification of nodulation promoter (nod-box) regions of Rhizobium galegae. Suominen L, et al. **FEMS Microbiol Lett** 1999 Aug 15;177(2):217-23

Three replicons of Rhizobium sp. Strain NGR234 harbor symbiotic gene sequences. Flores M, et al. **J Bacteriol** 1998 Nov;180(22):6052-3

Mutational analysis of the Rhizobium etli recA operator. Tapias A, et al. **J Bacteriol** 1998 Dec;180(23):6325-31

Inducers of nod genes of Rhizobium ciceri. Srivastava P, et al. **Microbiol Res** 1999 May;154(1):49-55

Stabilization of Rhizobium symbiosis plasmids. Falla TJ, et al. **Microbiology** 1999 Mar;145 (Pt 3):515-6

Mutants of Rhizobium tropici strain CIAT899 that do not induce chlorosis in plants. O'Connell KP, et al. **Microbiology** 1998 Sep;144 (Pt 9):2607-17

A stomatin-like protein encoded by the slp gene of Rhizobium etli is required for nodulation competitiveness on the common bean. You Z, et al. **Microbiology** 1998 Sep; 144 (Pt 9):2619-27

Isolation and characterization of the catalase gene from Rhizobium sp. SNU003, a root nodule symbiont of Canavalia lineata. Kwon SI, et al. **Mol Cells** 1999 Feb 28; 9(1):49-55

Genetic complementation of rhizobial nod mutants with Frankia DNA: artifact or reality? Cérémonie H, et al. **Mol Gen Genet** 1998 Oct;260(1):115-9

Bacterial genes induced within the nodule during the Rhizobium-legume symbiosis. Oke V, et al. **Mol Microbiol** 1999 May;32(4):837-49

High-resolution transcriptional analysis of the symbiotic plasmid of Rhizobium sp. NGR234. Perret X, et al. **Mol Microbiol** 1999 Apr;32(2):415-25

The nolL gene from Rhizobium etli determines nodulation efficiency by mediating the acetylation of the fucosyl residue in the nodulation factor. Corvera A, et al. **Mol Plant Microbe Interact** 1999 Mar;12(3):236-46

Sulfation of nod factors via nodHPQ is nodD independent in Rhizobium tropici CIAT899. Folch-Mallol JL, et al. **Mol Plant Microbe Interact** 1998 Oct;11(10):979-87

Phaseolus vulgaris recognizes Azorhizobium caulinodans Nod factors with a variety of chemical substituents. Laeremans T, et al. **Mol Plant Microbe Interact** 1999 Sep; 12(9):820-4

Mutation in GDP-fucose synthesis genes of Sinorhizobium fredii alters Nod factors and significantly decreases competitiveness to nodulate soybeans. Lamrabet Y, et al. **Mol Plant Microbe Interact** 1999 Mar;12(3):207-17

The Rhizobium etli metZ gene is essential for methionine biosynthesis and nodulation of Phaseolus vulgaris. Taté R, et al. **Mol Plant Microbe Interact** 1999 Jan;12(1):24-34

Jasmonic acid stimulates the expression of nod genes in Rhizobium. Rosas S, et al. **Plant Mol Biol** 1998 Dec; 38(6):1161-8

Biological behavior of plasmid in Rhizobium sp. strain S25 from Tephrosia candida. Zou X, et al. **Plasmid** 1998 Sep; 40(2):158-63

ISOLATION & PURIFICATION

Purification of leghemoglobin from nodules of Crotalaria infected with Rhizobium. Mendonça EH, et al. **Phytochemistry** 1999 Jan;50(2):313-6

METABOLISM

Regulation of symbiotic root nodule development. Schultze M, et al. **Annu Rev Genet** 1998;32:33-57 (176 ref.)

Nod factors integrate spontaneously in biomembranes and transfer rapidly between membranes and to root hairs, but transbilayer flip-flop does not occur. Goedhart J, et al. **Biochemistry** 1999 Aug 17;38(33):10898-907

Biological sensors: More than one way to sense oxygen. Pellequer JL, et al. **Curr Biol** 1999 Jun 3;9(11):R416-8 (12 ref.)

Role of lectins (and rhizobial exopolysaccharides) in legume nodulation. Hirsch AM. **Curr Opin Plant Biol** 1999 Aug; 2(4):320-6 (53 ref.)

A gene cluster encoding malonyl-CoA decarboxylase (MatA), malonyl-CoA synthetase (MatB) and a putative dicarboxylate carrier protein (MatC) in Rhizobium trifolii--cloning, sequencing, and expression of the enzymes in Escherichia coli. An JH, et al. **Eur J Biochem** 1998 Oct 15;257(2):395-402

NolL of Rhizobium sp. strain NGR234 is required for O-acetyltransferase activity. Berck S, et al. **J Bacteriol** 1999 Feb;181(3):957-64

Glutamine biosynthesis and the utilization of succinate and glutamine by Rhizobium etli and Sinorhizobium meliloti. Encarnación S, et al. **Microbiology** 1998 Sep;144 (Pt 9):2629-38

Sulfation of nod factors via nodHPQ is nodD independent in Rhizobium tropici CIAT899. Folch-Mallol JL, et al. **Mol Plant Microbe Interact** 1998 Oct;11(10):979-87

The Rhizobium etli metZ gene is essential for methionine biosynthesis and nodulation of Phaseolus vulgaris. Taté R, et al. **Mol Plant Microbe Interact** 1999 Jan;12(1):24-34

PATHOGENICITY

Mutants of Rhizobium tropici strain CIAT899 that do not induce chlorosis in plants. O'Connell KP, et al. **Microbiology** 1998 Sep;144 (Pt 9):2607-17

PHYSIOLOGY

Carbohydrate determinants of Rhizobium-legume symbioses. Price NP. **Carbohydr Res** 1999 Apr 30;317(1-4):1-9 (89 ref.)

Chemotaxis of Rhizobium sp.S2 towards Cajanus cajan root exudate and its major components. Pandya S, et al. **Curr Microbiol** 1999 Apr;38(4):205-9

Genealogy of legume-Rhizobium symbioses. Broughton WJ, et al. **Curr Opin Plant Biol** 1999 Aug;2(4):305-11 (50 ref.)

Refined analysis of early symbiotic steps of the Rhizobium-Medicago interaction in relationship with microtubular cytoskeleton rearrangements. Timmers AC, et al. **Development** 1999 Aug;126(16):3617-28

Assignment of biological functions to specific plasmids in a local isolate of Rhizobium cicer. Yildiz EE, et al. **Folia Microbiol (Praha)** 1999;44(1):55-8

Identification of a plasmid-borne locus in Rhizobium etli KIM5s involved in lipopolysaccharide O-chain biosynthesis and nodulation of Phaseolus vulgaris. Vinuesa P, et al. **J Bacteriol** 1999 Sep;181(18):5606-14

Mass spectrometric analysis of lipo-chitin oligosaccharides--signal molecules mediating the host-specific legume-rhizobium symbiosis. van der Drift KM, et al. **Mass Spectrom Rev** 1998 Mar-Apr;17(2):75-95

(102 ref.)
A stomatin-like protein encoded by the slp gene of Rhizobium etli is required for nodulation competitiveness on the common bean. You Z, et al. **Microbiology** 1998 Sep; 144 (Pt 9):2619-27
Acid tolerance in root nodule bacteria. Glenn AR, et al. **Novartis Found Symp** 1999;221:112-26; discussion 126-30 (35 ref.)

RHIZOBIUM LEGUMINOSARUM

CHEMISTRY

Effects of calcium and protons on the secondary structure of the nodulation protein NodO from Rhizobium leguminosarum biovar viciae. Serra MD, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):516-22
Determination of plasmid-encoded functions in Rhizobium leguminosarum biovar trifolii using proteome analysis of plasmid-cured derivatives. Guerreiro N, et al. **Electrophoresis** 1998 Aug;19(11):1972-9

CLASSIFICATION

Discrimination of Rhizobium tropici and R. leguminosarum strains by PCR-specific amplification of 16S-23S rDNA spacer region fragments and denaturing gradient gel electrophoresis (DGGE). de Oliveira VM, et al. **Lett Appl Microbiol** 1999 Feb;28(2):137-41

DRUG EFFECTS

The viable-but-nonculturable condition is induced by copper in Agrobacterium tumefaciens and Rhizobium leguminosarum. Alexander E, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3754-6
[Effect of the addition of specific lectin on the symbiosis of Rhizobium leguminosarum and Phaseolus vulgaris] Mestrallet MG, et al. **Rev Argent Microbiol** 1999 Apr-Jun; 31(2):72-7 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

A deacylase in Rhizobium leguminosarum membranes that cleaves the 3-O-linked beta-hydroxymyristoyl moiety of lipid A precursors. Basu SS, et al. **J Biol Chem** 1999 Apr 16;274(16):11150-8
Cloning and overexpression of glycosyltransferases that generate the lipopolysaccharide core of Rhizobium leguminosarum. Kadrmas JL, et al. **J Biol Chem** 1998 Oct 9;273(41):26432-40

GENETICS

Molecular characterization and symbiotic importance of prsD gene of Rhizobium leguminosarum bv. trifolii TA1. Mazur A, et al. **Acta Biochim Pol** 1998;45(4):1067-73
Occurrence of lipopolysaccharide alterations among Tn5 mutants of Rhizobium leguminosarum bv. trifolii strain 24.1 with altered colony morphology. Szyprowska S, et al. **Acta Biochim Pol** 1998;45(4):1001-9
High-efficiency transformation of Rhizobium leguminosarum by electroporation. Garg B, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2802-4
Cloning and characterization of a Rhizobium leguminosarum gene encoding a bacteriocin with similarities to RTX toxins. Oresnik IJ, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):2833-40
Is the fur gene of Rhizobium leguminosarum essential? de Luca NG, et al. **FEMS Microbiol Lett** 1998 Nov 15; 168(2):289-95
Rhizobium leguminosarum bv. viciae hypA gene is specifically expressed in pea (Pisum sativum) bacteroids and required for hydrogenase activity and processing. Hernando Y, et al. **FEMS Microbiol Lett** 1998 Dec 15; 169(2):295-302
The pssB gene product of Rhizobium leguminosarum bv. trifolii is homologous to a family of inositol monophosphatases. Janczarek M, et al. **FEMS Microbiol Lett** 1999 Apr 15;173(2):319-25
An arginine residue (Arg101), which is conserved in many GroEL homologues, is required for interactions between the two heptameric rings. Jones S, et al. **J Mol Biol** 1998 Oct 2;282(4):789-800
Structural and putative regulatory genes involved in cellulose synthesis in Rhizobium leguminosarum bv. trifolii. Ausmees N, et al. **Microbiology** 1999 May;145 (Pt 5):1253-62
The fhu genes of Rhizobium leguminosarum, specifying siderophore uptake proteins: fhuDCB are adjacent to a pseudogene version of fhuA. Stevens JB, et al. **Microbiology** 1999 Mar;145 (Pt 3):593-601
Molecular characterization of pssCDE genes of Rhizobium leguminosarum bv. trifolii strain TA1: pssD mutant is affected in exopolysaccharide synthesis and endocytosis of bacteria. Król J, et al. **Mol Plant Microbe Interact** 1998 Nov;11(11):1142-8
Comparison of characteristics of the nodX genes from various Rhizobium leguminosarum strains. Ovtsyna AO, et al. **Mol Plant Microbe Interact** 1999 Mar;12(3):252-8
[Structure-functional organization of exopolysaccharide biosynthetic genes in Rhizobium leguminosarum bv. viciae VF39. Sadykov MR, et al. **Mol Biol (Mosk)** 1998 Sep-Oct; 32(5):797-804 **(Rus)**

GROWTH & DEVELOPMENT

The viable-but-nonculturable condition is induced by copper in Agrobacterium tumefaciens and Rhizobium leguminosarum. Alexander E, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3754-6

METABOLISM

Functional identification of ATP-driven Ca2+ pump in the peribacteroid membrane of broad bean root nodules. Andreev IM, et al. **FEBS Lett** 1999 Mar 19;447(1):49-52
A phosphotransferase that generates phosphatidylinositol 4-phosphate (PtdIns-4-P) from phosphatidylinositol and lipid A in Rhizobium leguminosarum. A membrane-bound enzyme linking lipid a and ptdins-4-p biosynthesis. Basu SS, et al. **J Biol Chem** 1999 Apr 16;274(16):11139-49
A model for the catabolism of rhizopine in Rhizobium leguminosarum involves a ferredoxin oxygenase complex and the inositol degradative pathway. Bahar M, et al. **Mol Plant Microbe Interact** 1998 Nov;11(11):1057-68

PHYSIOLOGY

Analysis of quorum-sensing-dependent control of rhizosphere-expressed (rhi) genes in Rhizobium leguminosarum bv. viciae. Rodelas B, et al. **J Bacteriol** 1999 Jun;181(12):3816-23
Cell density-dependent starvation survival of Rhizobium leguminosarum bv. phaseoli: identification of the role of an N-acyl homoserine lactone in adaptation to stationary-phase survival. Thorne SH, et al. **J Bacteriol** 1999 Feb;181(3):981-90
The pea (Pisum sativum L.) genes sym33 and sym40 control infection thread formation and root nodule function. Tsyganov VE, et al. **Mol Gen Genet** 1998 Sep; 259(5):491-503

RHIZOBIUM MELILOTI

CHEMISTRY

Dynamic light-scattering and preliminary crystallographic studies of the sensor domain of the haem-based oxygen sensor FixL from Rhizobium meliloti. Miyatake H, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1215-8
Crystallization and preliminary X-ray studies of the Rhizobium meliloti DctD two-component receiver domain. Staley M, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1416-8
Proteome analysis of the model microsymbiont Sinorhizobium meliloti: isolation and characterisation of novel proteins. Guerreiro N, et al. **Electrophoresis** 1999 Apr-May;20(4-5):818-25

CLASSIFICATION

The Sinorhizobium meliloti insertion sequence (IS) elements ISRm102F34-1/ISRm7 and ISRm220-13-5 belong to a new family of insertion sequence elements. Selbitschka W, et al. **FEMS Microbiol Lett** 1999 Mar 1;172(1):1-7

DRUG EFFECTS

Toxicity and osmoprotective activities of analogues of glycine betaine obtained by solid phase organic synthesis towards Sinorhizobium meliloti. Cosquer A, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):49-54

ENZYMOLOGY

Co-transcription of Rhizobium meliloti lysyl-tRNA synthetase and glutamyl-tRNA synthetase genes. Pelchat M, et al. **FEBS Lett** 1999 Apr 16;449(1):23-7
Methylmalonyl-CoA mutase encoding gene of Sinorhizobium meliloti. Charles TC, et al. **Gene** 1999 Jan 8;226(1):121-7
Reduction of adenosine-5'-phosphosulfate instead of 3'-phosphoadenosine-5'-phosphosulfate in cysteine biosynthesis by Rhizobium meliloti and other members of the family Rhizobiaceae. Abola AP, et al. **J Bacteriol** 1999 Sep;181(17):5280-7
Poly-3-hydroxybutyrate degradation in Rhizobium (Sinorhizobium) meliloti: isolation and characterization of a gene encoding 3-hydroxybutyrate dehydrogenase. Aneja P, et al. **J Bacteriol** 1999 Feb;181(3):849-57
alpha-Galactoside uptake in Rhizobium meliloti: isolation and characterization of agpA, a gene encoding a periplasmic binding protein required for melibiose and raffinose utilization. Gage DJ, et al. **J Bacteriol** 1998 Nov; 180(21):5739-48
Expression and study of recombinant ExoM, a beta1-4 glucosyltransferase involved in succinoglycan biosynthesis in Sinorhizobium meliloti. Lellouch AC, et al. **J Bacteriol** 1999 Feb;181(4):1141-8
Characterization of an atypical superoxide dismutase from Sinorhizobium meliloti. Santos R, et al. **J Bacteriol** 1999 Aug;181(15):4509-16
Genes coding for phosphotransacetylase and acetate kinase in Sinorhizobium meliloti are in an operon that is inducible by phosphate stress and controlled by phoB. Summers ML, et al. **J Bacteriol** 1999 Apr;181(7):2217-24

GENETICS

Increase in alfalfa nodulation, nitrogen fixation, and plant growth by specific DNA amplification in Sinorhizobium meliloti. Castillo M, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2716-22
A novel screening method for isolating exopolysaccharide-deficient mutants. Liu M, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4600-2
Tn5-induced and spontaneous switching of Sinorhizobium meliloti to faster-swarming behavior. Wei X, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1228-35
Genetic basis of enterobacterial repetitive intergenic consensus (ERIC)-PCR fingerprint pattern in Sinorhizobium meliloti and identification of S. meliloti employing PCR primers derived from an ERIC-PCR fragment. Niemann S, et al. **Arch Microbiol** 1999 Jul; 172(1):22-30
Co-transcription of Rhizobium meliloti lysyl-tRNA synthetase and glutamyl-tRNA synthetase genes. Pelchat M, et al. **FEBS Lett** 1999 Apr 16;449(1):23-7
The Sinorhizobium meliloti insertion sequence (IS) elements ISRm102F34-1/ISRm7 and ISRm220-13-5 belong to a new family of insertion sequence elements. Selbitschka W, et al. **FEMS Microbiol Lett** 1999 Mar 1;172(1):1-7
Mapping of 41 chemotaxis, flagellar and motility genes to a single region of the Sinorhizobium meliloti chromosome. Sourjik V, et al. **Gene** 1998 Nov 26;223(1-2):283-90
Poly-3-hydroxybutyrate degradation in Rhizobium (Sinorhizobium) meliloti: isolation and characterization of a gene encoding 3-hydroxybutyrate dehydrogenase. Aneja P, et al. **J Bacteriol** 1999 Feb;181(3):849-57
Different phenotypic classes of Sinorhizobium meliloti mutants defective in synthesis of K antigen. Campbell GRO, et al. **J Bacteriol** 1998 Oct;180(20):5432-6
Novel rkp gene clusters of Sinorhizobium meliloti involved in capsular polysaccharide production and invasion of the symbiotic nodule: the rkpK gene encodes a UDP-glucose dehydrogenase. Kereszt A, et al. **J Bacteriol** 1998 Oct; 180(20):5426-31
Rhizobium (Sinorhizobium) meliloti phn genes: characterization and identification of their protein products. Parker GF, et al. **J Bacteriol** 1999 Jan; 181(2):389-95
Characterization of an atypical superoxide dismutase from Sinorhizobium meliloti. Santos R, et al. **J Bacteriol** 1999 Aug;181(15):4509-16
Differential regulation of two divergent Sinorhizobium meliloti genes for HPII-like catalases during free-living growth and protective role of both catalases during symbiosis. Sigaud S, et al. **J Bacteriol** 1999 Apr; 181(8):2634-9
Genes coding for phosphotransacetylase and acetate kinase in Sinorhizobium meliloti are in an operon that is inducible by phosphate stress and controlled by phoB. Summers ML, et al. **J Bacteriol** 1999 Apr;181(7):2217-24
Cloning, sequencing, and characterization of the cgmB gene of Sinorhizobium meliloti involved in cyclic beta-glucan biosynthesis. Wang P, et al. **J Bacteriol** 1999 Aug; 181(15):4576-83
A novel Sinorhizobium meliloti operon encodes an alpha-glucosidase and a periplasmic-binding-protein-dependent transport system for alpha-glucosides. Willis LB, et al. **J Bacteriol** 1999 Jul; 181(14):4176-84
Identification of a novel nutrient-deprivation-induced Sinorhizobium meliloti gene (hmgA) involved in the degradation of tyrosine. Milcamps A, et al. **Microbiology** 1999 Apr;145 (Pt 4):935-47
The transcriptional regulator gene phrR in Sinorhizobium meliloti WSM419 is regulated by low pH and other stresses. Reeve WG, et al. **Microbiology** 1998 Dec;144 (Pt 12):3335-42
Biosynthesis of the exopolysaccharide galactoglucan in Sinorhizobium meliloti is subject to a complex control by the phosphate-dependent regulator PhoB and the proteins ExpG and MucR. Rüberg S, et al. **Microbiology** 1999 Mar; 145 (Pt 3):603-11
The eff-482 locus of Sinorhizobium meliloti CXM1-105 that influences symbiotic effectiveness consists of three genes encoding an endoglycanase, a transcriptional regulator and an adenylate cyclase. Sharypova LA, et al. **Mol Gen Genet** 1999 Jul;261(6):1032-44
Regulation of divergent transcription from the uvrA-ssb promoters in Sinorhizobium meliloti. Tapias A, et al. **Mol Gen Genet** 1999 Aug;262(1):121-30
Expression and regulation of phosphate stress inducible genes in Sinorhizobium meliloti. Summers ML, et al. **Mol Plant Microbe Interact** 1998 Nov;11(11):1094-101
A high-density physical map of Sinorhizobium meliloti 1021 chromosome derived from bacterial artificial chromosome library. Capela D, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9357-62

ISOLATION & PURIFICATION

A novel screening method for isolating exopolysaccharide-deficient mutants. Liu M, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4600-2

METABOLISM

Disaccharides as a new class of nonaccumulated osmoprotectants for Sinorhizobium meliloti. Gouffi K, et

RHIZOBIUM MELILOTI

al. **Appl Environ Microbiol** 1999 Apr;65(4):1491–500

Rhizobium (Sinorhizobium) meliloti phn genes: characterization and identification of their protein products. Parker GF, et al. **J Bacteriol** 1999 Jan; 181(2):389–95

Cloning, sequencing, and characterization of the cgmB gene of Sinorhizobium meliloti involved in cyclic beta-glucan biosynthesis. Wang P, et al. **J Bacteriol** 1999 Aug; 181(15):4576–83

Glutamine biosynthesis and the utilization of succinate and glutamine by Rhizobium etli and Sinorhizobium meliloti. Encarnación S, et al. **Microbiology** 1998 Sep;144 (Pt 9):2629–38

Biosynthetic control of molecular weight in the polymerization of the octasaccharide subunits of succinoglycan, a symbiotically important exopolysaccharide of Rhizobium meliloti. González JE, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13477–82

PHYSIOLOGY

Tn5-induced and spontaneous switching of Sinorhizobium meliloti to faster-swarming behavior. Wei X, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1228–35

The regulator gene phoB mediates phosphate stress-controlled synthesis of the membrane lipid diacylglyceryl-N,N,N-trimethylhomoserine in Rhizobium (Sinorhizobium) meliloti. Geiger O, et al. **Mol Microbiol** 1999 Apr;32(1):63–73

BioS, a biotin-induced, stationary-phase, and possible LysR-type regulator in Sinorhizobium meliloti. Heinz EB, et al. **Mol Plant Microbe Interact** 1999 Sep;12(9):803–12

VIROLOGY

Identification of site-specific recombination genes int and xis of the Rhizobium temperate phage 16-3. Semsey S, et al. **J Bacteriol** 1999 Jul;181(14):4185–92

RHIZOCTONIA

DRUG EFFECTS

Synthesis of a Trichoderma chitinase which affects the Sclerotium rolfsii and Rhizoctonia solani cell walls. Lima LH, et al. **Folia Microbiol (Praha)** 1999;44(1):45–9

Viscosinamide, a new cyclic depsipeptide with surfactant and antifungal properties produced by Pseudomonas fluorescens DR54. Nielsen TH, et al. **J Appl Microbiol** 1999 Jul;87(1):80–90

ENZYMOLOGY

Characterization of an endo-1,3-beta-D-glucanase produced during the interaction between the mycoparasite Stachybotrys elegans and its host Rhizoctonia solani. Archambault C, et al. **Can J Microbiol** 1998 Oct; 44(10):989–97

GENETICS

Mating type-correlated molecular markers and demonstration of heterokaryosis in the phytopathogenic fungus Thanatephorus cucumeris (Rhizoctonia solani) AG 1-IC by AFLP DNA fingerprinting analysis. Julián MC, et al. **J Biotechnol** 1999 Jan 8;67(1):49–56

GROWTH & DEVELOPMENT

Characterization of genes involved in biosynthesis of a novel antibiotic from Burkholderia cepacia BC11 and their role in biological control of Rhizoctonia solani. Kang Y, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3939–47

PATHOGENICITY

The role of an extracellular chitinase from Trichoderma virens Gv29-8 in the biocontrol of Rhizoctonia solani. Baek JM, et al. **Curr Genet** 1999 Feb;35(1):41–50

Reduced toxicity and broad spectrum resistance to viral and fungal infection in transgenic plants expressing pokeweed antiviral protein II. Wang P, et al. **Plant Mol Biol** 1998 Dec;38(6):957–64

PHYSIOLOGY

Chitinase gene expression during mycoparasitic interaction of Trichoderma harzianum with its host. Zeilinger S, et al. **Fungal Genet Biol** 1999 Mar;26(2):131–40

[Evaluation of Trichoderma spp. as antagonist of Rhizoctonia solani in vitro and as biocontrol of greenhouse tomato plants] Durman S, et al. **Rev Argent Microbiol** 1999 Jan-Mar;31(1):13–8 (Eng. Abstr.) **(Spa)**

RHIZOMELIC CHONDRODYSPLASIA PUNCTATA see **CHONDRODYSPLASIA PUNCTATA, RHIZOMELIC**

RHIZOMUCOR

[Necrotizing cellulitis of the hand and forearm in a hospitalized diabetic patient] Lozano F, et al. **Enferm Infecc Microbiol Clin** 1999 Jan;17(1):37–8 **(Spa)**

ENZYMOLOGY

Structure of the Rhizomucor miehei aspartic proteinase complexed with the inhibitor pepstatin A at 2.7 A resolution. Yang J, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):625–30

Characterization of alg2 encoding a mannosyltransferase in the zygomycete fungus Rhizomucor pusillus. Yamazaki H, et al. **Gene** 1998 Oct 23;221(2):179–84

Analysis of the dynamics of rhizomucor miehei lipase at different temperatures. Peters GH, et al. **J Biomol Struct Dyn** 1999 Apr;16(5):1003–18

GENETICS

Characterization of alg2 encoding a mannosyltransferase in the zygomycete fungus Rhizomucor pusillus. Yamazaki H, et al. **Gene** 1998 Oct 23;221(2):179–84

ISOLATION & PURIFICATION

Rhizomucor pusillus mucormycosis combined with chlamydiosis in an African grey parrot (Psittacus erithacus erithacus). Desmidt M, et al. **Vet Rec** 1998 Oct 17; 143(16):447–8

METABOLISM

Degradation of hydroxypropylcellulose by Rhizomucor: effects on release from theophylline-hydroxypropylcellulose tablets. Alvarez-Lorenzo C, et al. **Int J Pharm** 1999 Mar 25; 180(1):105–11

RHIZOPUS

Effect of water extracts of Rhizopus delemar on the stimulus coupled responses of neutrophils and their modulation by various protein kinase inhibitors. Zhang J, et al. **Clin Chim Acta** 1999 Apr;282(1-2):89–100

Pulmonary Rhizopus rhizopodiformis cavitary abscess in a cardiac allograft recipient. Tan HP, et al. **J Cardiovasc Surg (Torino)** 1999 Apr;40(2):223–6

Bronchial mucormycosis with progressive air trapping. Collins DM, et al. **Mayo Clin Proc** 1999 Jul;74(7):698–701

ENZYMOLOGY

Active site characterization of RNase Rs from Rhizopus stolonifer: involvement of histidine and lysine in catalysis and carboxylate in substrate binding. Rangarajan S, et al. **Biochim Biophys Acta** 1999 Aug 5;1428(2-3):372–80

'Interfacial affinity chromatography' of lipases: separation of different fractions by selective adsorption on supports activated with hydrophobic groups. Sabuquillo P, et al. **Biochim Biophys Acta** 1998 Nov 10;1388(2):337–48

Cloning of genomic DNA of Rhizopus niveus lipase and expression in the yeast Saccharomyces cerevisiae. Kohno M, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2425–7

Interactions of fluorescent triacylglycerol analogs covalently bound to the active site of a lipase from Rhizopus oryzae. Zandonella G, et al. **Eur J Biochem** 1999 May;262(1):63–9

Functional expression of Rhizopus oryzae lipase in Pichia pastoris: high-level production and some properties. Minning S, et al. **J Biotechnol** 1998 Dec 11;66(2-3):147–56

The Rhizopus oryzae secreted aspartic proteinase gene family: an analysis of gene expression. Farley PC, et al. **Microbiology** 1998 Aug;144 (Pt 8):2355–66

Intracellular chitinase gene from Rhizopus oligosporus: molecular cloning and characterization. Takaya N, et al. **Microbiology** 1998 Sep;144 (Pt 9):2647–54

Rational design of Rhizopus oryzae lipase with modified stereoselectivity toward triradylglycerols. Scheib H, et al. **Protein Eng** 1998 Aug;11(8):675–82

High-level expression of Rhizopus niveus lipase in the yeast Saccharomyces cerevisiae and structural properties of the expressed enzyme. Kohno M, et al. **Protein Expr Purif** 1999 Apr;15(3):327–35

[The roles of chitin synthases and chitinases on the tip growth and the differentiation of filamentous fungi] Horiuchi H, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec; 43(15):2182–90 (47 ref.) **(Jpn)**

GENETICS

Isolation of a class IV chitin synthase gene from a zygomycete fungus, Rhizopus oligosporus. Motoyama T, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):1–8

The Rhizopus oryzae secreted aspartic proteinase gene family: an analysis of gene expression. Farley PC, et al. **Microbiology** 1998 Aug;144 (Pt 8):2355–66

Intracellular chitinase gene from Rhizopus oligosporus: molecular cloning and characterization. Takaya N, et al. **Microbiology** 1998 Sep;144 (Pt 9):2647–54

ISOLATION & PURIFICATION

Disseminated zygomycosis due to Rhizopus schipperae after heatstroke. Anstead GM, et al. **J Clin Microbiol** 1999 Aug; 37(8):2656–62

METABOLISM

Decolorization and detoxification of extraction-stage effluent from chlorine bleaching of kraft pulp by Rhizopus oryzae. Nagarathnamma R, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):1078–82

cDNA sequence and deduced amino acid sequence of a fungal stress protein induced in Rhizopus nigricans by steroids. Crešnar B, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):664–7

Efficient production of L-(+)-lactic acid using mycelial cotton-like flocs of Rhizopus oryzae in an air-lift bioreactor. Park EY, et al. **Biotechnol Prog** 1998 Sep-Oct; 14(5):699–704

Changes in the contents of fat-soluble vitamins and provitamins during tempe fermentation. Denter J, et al. **Int J Food Microbiol** 1998 Dec 8;45(2):129–34

Glucosamine content of tempe mould, Rhizopus oligosporus. Sparringa RA, et al. **Int J Food Microbiol** 1999 Mar 1; 47(1-2):153–7

Biotransformation of the diperpenoid, isosteviol, by Aspergillus niger, Penicillium chrysogenum and Rhizopus arrhizus. de Oliveira BH, et al. **Phytochemistry** 1999 Jul; 51(6):737–41

The biotransformation of ent-kaur-16-en-19-oic acid by Rhizopus stolonifer. Silva EA, et al. **Phytochemistry** 1999 Oct;52(3):397–400

Effect of infection by Rhizopus oryzae on biochemical composition of stored potato tubers. Amadioha AC. **Plant Foods Hum Nutr** 1999;53(2):145–51

PHYSIOLOGY

Chlamydoconidia formation in zygomycosis due to Rhizopus species. Kimura M, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1120–2

Response of Rhizopus oligosporus to temporal temperature profiles in a model solid-state fermentation system. Ikasari L, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):722–8

RHIZOTOMY

Selective dorsal rhizotomy studies [letter; comment] Rosenbaum PL. **Dev Med Child Neurol** 1998 Oct;40(10):717 . Comment on: Dev Med Child Neurol 1997 Mar;39(3):178–84. Comment on: Dev Med Child Neurol 1998 Apr;40(4):220–32. Comment on: Dev Med Child Neurol 1998 Apr;40(4):239–47.

Percutaneous stereotactic differential radiofrequency thermal rhizotomy for the treatment of trigeminal neuralgia. Scrivani SJ, et al. **J Oral Maxillofac Surg** 1999 Feb; 57(2):104–11; discussion 111–2

Partial sensory rhizotomy as an alternative treatment of trigeminal neuralgia. Howng SL, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Aug; 14(8):492–7

Propofol in the anaesthetic management of percutaneous rhizolysis for trigeminal neuralgia. Cafiero T, et al. **Minerva Anestesiol** 1999 Apr;65(4):169–74

Upper extremity performance and self-care skill changes in children with spastic cerebral palsy following selective posterior rhizotomy. Loewen P, et al. **Pediatr Neurosurg** 1998 Oct;29(4):191–8

Selective dorsal rhizotomy in children with cerebral palsy. Results in 18 cases at one year postoperatively. Hodgkinson I, et al. **Stereotact Funct Neurosurg** 1997;69(1-4 Pt 2):259–67

Somatosensory evoked potentials following functional posterior rhizotomy in spastic children. Parise M, et al. **Stereotact Funct Neurosurg** 1997;69(1-4 Pt 2):268–73

ADVERSE EFFECTS

Spinal deformity after selective dorsal rhizotomy in patients with cerebral palsy. Mooney JF 3rd, et al. **Clin Orthop** 1999 Jul;(364):48–52

Complications after selective posterior rhizotomy for spasticity in children with cerebral palsy. Steinbok P, et al. **Pediatr Neurosurg** 1998 Jun;28(6):300–13

METHODS

Limited (L4-S1, L5-S1) selective dorsal rhizotomy for reducing spasticity in cerebral palsy. Lazareff JA, et al. **Acta Neurochir (Wien)** 1999;141(7):743–51; discussion 751–2

New surgical interventions for cerebral palsy and the place of gait analysis. Morton R. **Dev Med Child Neurol** 1999 Jun;41(6):424–8

Abducens nerve palsy after radiofrequency rhizolysis for trigeminal neuralgia: case report. Harrigan MR, et al. **Neurosurgery** 1998 Sep;43(3):623–5

Percutaneous radiofrequency lumbar facet rhizotomy in mechanical low back pain syndrome. Cho J, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):212–7

Sensory perception in patients with trigeminal neuralgia: effects of percutaneous retrogasserian glycerol rhizotomy. Eide PK, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):207–11

Microvascular decompression and percutaneous rhizotomy in trigeminal neuralgia. Lee KH, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):196–9

[Functional posterior rhizotomy as a surgical treatment for spastic cerebral palsy in childhood] Morota N. **No To Hattatsu** 1999 Jul;31(4):359–65 (Eng. Abstr.) **(Jpn)**

RHO(D) IMMUNE GLOBULIN

Clinical outcomes after hepatitis C infection from contaminated anti-D immune globulin [letter] Bonis PA. **N Engl J Med** 1999 Sep 2;341(10):763

Clinical outcomes after hepatitis C infection from

contaminated anti-D immune globulin [letter] Lawlor E, et al. **N Engl J Med** 1999 Sep 2;341(10):762; discussion 763

ADMINISTRATION & DOSAGE

Successful prevention of post-transfusion Rh alloimmunization by intravenous Rho (D) immune globulin (WinRho SD). Anderson B, et al. **Am J Hematol** 1999 Mar; 60(3):245-7

Single dose of anti-D immunoglobulin for antenatal prophylaxis is smaller in the Netherlands than in the United Kingdom [letter; comment] van Dijk B. **BMJ** 1998 Oct 31;317(7167):1253-4. Comment on: BMJ 1997 Dec 6;315(7121):1480-1. Comment on: BMJ 1998 May 23;316(7144):1611.

The prevention of Rh haemolytic disease of the fetus and newborn--general background. Contreras M. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:7-10 (24 ref.)

The scientific basis of antenatal prophylaxis. Urbaniak SJ. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:11-8 (22 ref.)

ACOG practice bulletin. Prevention of Rh D alloimmunization. Number 4, May 1999 (replaces educational bulletin Number 147, October 1990). Clinical management guidelines for obstetrician-gynecologists. American College of Obstetrics and Gynecology. **Int J Gynaecol Obstet** 1999 Jul;66(1):63-70

ADVERSE EFFECTS

A likelihood-based method of identifying contaminated lots of blood product. Reilly M, et al. **Int J Epidemiol** 1999 Aug;28(4):787-92

Possible urticarial reaction to new ultra-filtered Rho immune globulin [letter] Danielson CF, et al. **Vox Sang** 1998; 75(2):155

Transmission rates of hepatitis C virus by different batches of a contaminated anti-D immunoglobulin preparation [see comments] Lawlor E, et al. **Vox Sang** 1999;76(3):138-43. Comment in: Vox Sang 1999 ;76(3):135-7.

A second outbreak of hepatitis C virus infection from anti-D immunoglobulin in Ireland. Smith DB, et al. **Vox Sang** 1999; 76(3):175-80

ANALYSIS

Detection of weak D and D(VI) red cells in D-negative mixtures by flow cytometry: implications for feto-maternal haemorrhage quantification and D typing policies for newborns. Lloyd-Evans P, et al. **Br J Haematol** 1999 Mar; 104(3):621-5

BLOOD

An audit of anti-D sensitisation in Yorkshire. McSweeney E, et al. **Br J Obstet Gynaecol** 1998 Oct;105(10):1091-4

Evaluation by enzyme-linked immunosorbent assay of IgG anti-D and IgG subclass concentrations in immunoglobulin preparations. Ahaded A, et al. **Transfusion** 1999 May; 39(5):515-21

ECONOMICS

Economics of antenatal prophylaxis. Cairns JA. **Br J Obstet Gynaecol** 1998 Nov;105 Suppl 18:19-22 (12 ref.)

IMMUNOLOGY

Coincidence of neonatal alloimmune thrombocytopenia and maternal anti-D immunization: case report [letter] Klüter H, et al. **Br J Haematol** 1998 Sep;102(5):1383-4

Sequence and specificity analysis of recombinant human Fab anti-Rh D isolated by phage display. Miescher S, et al. **Vox Sang** 1998;75(4):278-87

A stable reagent system for screening and identifying red blood cell irregular antibodies: application to commercial antibodies. Million L, et al. **Vox Sang** 1998;75(4):288-97

THERAPEUTIC USE

Use of Rh immune globulin when transfusing large volumes of Rh-positive cells [letter; comment] Werch J. **Am J Clin Pathol** 1999 May;111(5):712. Comment on: Am J Clin Pathol 1998 Sep;110(3):281-92.

Routine antenatal Rhesus D immunoglobulin prophylaxis: the results of a prospective 10 year study. MacKenzie IZ, et al. **Br J Obstet Gynaecol** 1999 May;106(5):492-7

Clinical outcomes after hepatitis C infection from contaminated anti-D immune globulin. Irish Hepatology Research Group. Kenny-Walsh E. **N Engl J Med** 1999 Apr 22;340(16):1228-33

The continuing struggle to eliminate hemolytic disease of the newborn from RH (D) [editorial] Barlow JF. **S D J Med** 1999 Jan;52(1):7-8

Recommendations for the use of anti-D immunoglobulin for Rh prophylaxis. British Blood Transfusion Society and the Royal College of Obstetricians and Gynaecologists. Lee D, et al. **Transfus Med** 1999 Mar;9(1):93-7

[About one case of foetal anti-D allo-immunisation: foetal blood transfusional follow up with automate Coulter gen. S] Lahary A, et al. **Ann Biol Clin (Paris)** 1999 Mar-Apr; 57(2):214-7 **(Fre)**

RHO FACTOR

An Escherichia coli gene (yaeO) suppresses temperature-sensitive mutations in essential genes by modulating Rho-dependent transcription termination. Pichoff S, et al. **Mol Microbiol** 1998 Aug;29(3):859-69

CHEMISTRY

Evidence for the location of bicyclomycin binding to the Escherichia coli transcription termination factor Rho. Riba I, et al. **J Biol Chem** 1998 Dec 18;273(51):34033-41

The structural basis for terminator recognition by the Rho transcription termination factor. Bogden CE, et al. **Mol Cell** 1999 Apr;3(4):487-93

DRUG EFFECTS

Regulation of Ca2+-independent smooth muscle contraction by alternative staurosporine-sensitive kinase. Kureishi Y, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):315-20

GENETICS

Characterisation of the enzymatic and RNA-binding properties of the Rhodobacter sphaeroides 2.4.1. Rho homologue. Ingham CJ. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):115-25

Networks and groups within the genus Neisseria: analysis of argF, recA, rho, and 16S rRNA sequences from human Neisseria species. Smith NH, et al. **Mol Biol Evol** 1999 Jun;16(6):773-83

Autogenous regulation of transcription termination factor Rho and the requirement for Nus factors in Bacillus subtilis. Ingham CJ, et al. **Mol Microbiol** 1999 Jan;31(2):651-63

Instability of pUC19 in Escherichia coli transcription termination factor mutant, rho026. Sozhamannan S, et al. **Plasmid** 1999 Jan;41(1):63-9

METABOLISM

The conserved arginine in rho-GTPase-activating protein is essential for efficient catalysis but not for complex formation with Rho.GDP and aluminum fluoride. Graham DL, et al. **Biochemistry** 1999 Jan 19;38(3):985-91

Transcription termination factor Rho contains three noncatalytic nucleotide binding sites. Kim DE, et al. **J Biol Chem** 1999 Apr 23;274(17):11623-8

Evidence for the location of bicyclomycin binding to the Escherichia coli transcription termination factor Rho. Riba I, et al. **J Biol Chem** 1998 Dec 18;273(51):34033-41

The C-terminal domain of the alpha subunit of Escherichia coli RNA polymerase is required for efficient rho-dependent transcription termination. Kainz M, et al. **J Mol Biol** 1998 Dec 18;284(5):1379-90

Citron, a Rho-target, interacts with PSD-95/SAP-90 at glutamatergic synapses in the thalamus. Furuyashiki T, et al. **J Neurosci** 1999 Jan 1;19(1):109-18

A simple polypyrimidine repeat acts as an artificial Rho-dependent terminator in vivo and in vitro. Guérin M, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4895-900

PHYSIOLOGY

Ral and Rho-dependent activation of phospholipase D in v-Raf-transformed cells. Frankel P, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):502-7

A role for Rho-like GTPases in the polarisation of mouse eight-cell blastomeres. Clayton L, et al. **Dev Biol** 1999 Jan 15;205(2):322-31

Myosin II activation promotes neurite retraction during the action of Rho and Rho-kinase. Amano M, et al. **Genes Cells** 1998 Mar;3(3):177-88

RHODAMINE 123

see related
P-GLYCOPROTEIN

Removal of carcinoma cells from contaminated bone marrow using the lipophilic cation rhodamine 123. Wong JR, et al. **Clin Cancer Res** 1995 Jun;1(6):621-30

METABOLISM

Role of P-glycoprotein in distribution of rhodamine 123 into aqueous humor in rabbits. Kajikawa T, et al. **Curr Eye Res** 1999 Mar;18(3):240-6

Correlation of rhodamine 123 efflux by neoplastic plasma cells with clinical and biological characteristics of multiple myeloma. Pérez-Simón JA, et al. **Cytometry** 1999 Feb 15; 38(1):24-9

Transport of rhodamine 123, a P-glycoprotein substrate, across rat intestine and Caco-2 cell monolayers in the presence of cytochrome P-450 3A-related compounds. Yumoto R, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):149-55

PHARMACOKINETICS

The in vivo effect of the administration of resistance-modulating agents on rhodamine 123 distribution in mice thymus and lymph nodes. Marques-Santos LF, et al. **Cancer Lett** 1999 Mar 22;137(1):99-106

Renal excretion of rhodamine 123, a P-glycoprotein substrate, in rats with glycerol-induced acute renal failure. Kunihara M, et al. **J Pharm Pharmacol** 1998 Oct; 50(10):1161-5

BBB transport and P-glycoprotein functionality using MDR1A (-/-) and wild-type mice. Total brain versus microdialysis concentration profiles of rhodamine-123. de Lange EC, et al. **Pharm Res** 1998 Nov;15(11):1657-65

THERAPEUTIC USE

The effect of rhodamine-123 on 3 prostate tumors from the rat. Arcadi JA. **J Urol** 1998 Dec;160(6 Pt 2):2402-6

RHODAMINES

Quantitative laser microscopy in single cells based on ratio-imaging of fluorescent indicators: a critical assessment. Opitz N. **Biomed Tech (Berl)** 1998;43 Suppl:452-3

Tetramethyl rhodamine methyl ester (TMRM) is suitable for cytofluorometric measurements of mitochondrial membrane potential in cells treated with digitonin. Floryk D, et al. **Biosci Rep** 1999 Feb;19(1):27-34

Terbium and rhodamine as labels in a homogeneous time-resolved fluorometric energy transfer assay of the beta subunit of human chorionic gonadotropin in serum. Blomberg K, et al. **Clin Chem** 1999 Jun;45(6 Pt 1):855-61

Single-molecule detection with total internal reflection excitation: comparing signal-to-background and total signals in different geometries. Ambrose WP, et al. **Cytometry** 1999 Jul 1;36(3):224-31

Fluorescence imaging of single molecules in polymer microspheres. Barnes MD, et al. **Cytometry** 1999 Jul 1; 36(3):169-75

Dynamics of single dye molecules observed by confocal imaging and spectroscopy. Weber MA, et al. **Cytometry** 1999 Jul 1;36(3):217-23

Mutation detection using fluorescent enzyme mismatch cleavage with T4 endonuclease VII. Babon JJ, et al. **Electrophoresis** 1999 Jun;20(6):1162-70

Mixed-dye staining method for protein detection in polyacrylamide gel electrophoresis using calconcarboxylic acid and rhodamine B. Jung DW, et al. **Electrophoresis** 1998 Oct;19(14):2412-5

Rhodamine phalloidin F-actin: critical concentration versus tensile strength. Adami R, et al. **Eur J Biochem** 1999 Jul; 263(1):270-5

A new fluorescence-based, hydrophobic photolabeling technique for analyzing membrane-associated proteins. Hess D, et al. **FEBS Lett** 1999 Feb 26;445(2-3):279-82

Isolation and characterization of fluorophore-binding RNA aptamers. Holeman LA, et al. **Fold Des** 1998;3(6):423-31

Sulphorhodamine B assay for measuring proliferation of a pigmented melanocyte cell line and its application to the evaluation of crude drugs used in the treatment of vitiligo. Lin ZX, et al. **J Ethnopharmacol** 1999 Aug;66(2):141-50

Quantitative determination of gap junctional permeability in the lens cortex. Eckert R, et al. **J Membr Biol** 1999 May 15;169(2):91-102

Detection of reactive nitrogen species using 2,7-dichlorodihydrofluorescein and dihydrorhodamine 123. Ischiropoulos H, et al. **Methods Enzymol** 1999;301:367-73 (16 ref.)

Detection of multiresistant Salmonella typhimurium DT104 using multiplex and fluorogenic PCR. Carlson SA, et al. **Mol Cell Probes** 1999 Jun;13(3):213-22

ADMINISTRATION & DOSAGE

The effects of pH and intraliposomal buffer strength on the rate of liposome content release and intracellular drug delivery. Lee RJ, et al. **Biosci Rep** 1998 Apr;18(2):69-78

CHEMICAL SYNTHESIS

Design, synthesis, and spectroscopic properties of peptide-bridged fluorescence energy-transfer cassettes. Li Y, et al. **Bioconjug Chem** 1999 Mar-Apr;10(2):241-5

CHEMISTRY

Detection of proteins in polyacrylamide gels using eriochrome black T and rhodamine B. Jung DW, et al. **Anal Biochem** 1998 Oct 1;263(1):118-20

Interaction kinetics of tetramethylrhodamine transferrin with human transferrin receptor studied by fluorescence correlation spectroscopy. Schüler J, et al. **Biochemistry** 1999 Jun 29;38(26):8402-8

Enhancing solid phase synthesis by a noncovalent protection strategy-efficient coupling of rhodamine to resin-bound peptide nucleic acids. Mayfield LD, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1419-22

Peak height pattern in dichloro-rhodamine and energy transfer dye terminator sequencing. Zakeri H, et al. **Biotechniques** 1998 Sep;25(3):406-10, 412-4

Isolation of a fluorophore-specific DNA aptamer with weak redox activity. Wilson C, et al. **Chem Biol** 1998 Nov; 5(11):609-17

Hypervalent chromium mimics reactive oxygen species as measured by the oxidant-sensitive dyes 2',7'-dichlorofluorescin and dihydrorhodamine. Martin BD, et al. **Chem Res Toxicol** 1998 Dec;11(12):1402-10

Dye structure affects Taq DNA polymerase terminator selectivity. Brandis JW. **Nucleic Acids Res** 1999 Apr 15; 27(8):1912-8

Manganese citrate improves base-calling accuracy in DNA

RHODAMINES

sequencing reactions using rhodamine-based fluorescent dye-terminators. Korch C, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1405-7

DIAGNOSTIC USE

Comparison between the clonogenic, MTT, and SRB assays for determining radiosensitivity in a panel of human bladder cancer cell lines and a ureteral cell line. Banasiak D, et al. **Radiat Oncol Investig** 1999;7(2):77-85

METABOLISM

Microquantification of cellular and in vitro F-actin by rhodamine phalloidin fluorescence enhancement. Katanaev VL, et al. **Anal Biochem** 1998 Nov 15;264(2):185-90

Efflux of rhodamine from CD56+ cells as a surrogate marker for reversal of P-glycoprotein-mediated drug efflux by PSC 833. Robey R, et al. **Blood** 1999 Jan 1;93(1):306-14

Comparative genomic hybridization with lissamine- and fluorescein-labeled nucleotides. Rosenberg C, et al. **Cytometry** 1998 Aug 1;32(4):337-41

A simple flow cytometry assay using dihydrorhodamine for the measurement of the neutrophil respiratory burst in whole blood: comparison with the quantitative nitrobluetetrazolium test. Richardson MP, et al. **J Immunol Methods** 1998 Oct 1;219(1-2):187-93

Intracellular degradation of fluorescent glycolipids by lysosomal enzymes and their activators. Madar-Shapiro L, et al. **J Inherit Metab Dis** 1999 Jun;22(5):623-37

Dye structure affects Taq DNA polymerase terminator selectivity. Brandis JW. **Nucleic Acids Res** 1999 Apr 15; 27(8):1912-8

PHARMACOKINETICS

Comparison of in vivo and in vitro deposition of rhodamine and fluorescein in hair. Stout PR, et al. **Drug Metab Dispos** 1998 Oct;26(10):943-8

Investigation of the positive response of ethyl acrylate in the mouse lymphoma genotoxicity assay. Ciaccio PJ, et al. **Toxicol Sci** 1998 Dec;46(2):324-32

PHARMACOLOGY

Tracing of axonal connectivities in a combined slice preparation of rat brains--a study by rhodamine-dextran-amine-application in the lateral nucleus of the amygdala. von Bohlen und Halbach O, et al. **J Neurosci Methods** 1998 Jun 1;81(1-2):169-75

RHODANATES see **THIOCYANATES**

RHODANESE see **THIOSULFATE SULFURTRANSFERASE**

RHODANINE

ANALOGS & DERIVATIVES

An aldose reductase inhibitor prevents the glucose-induced increase in PDGF-beta receptor in cultured rat aortic smooth muscle cells. Kasuya Y, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):853-8

I-123 MIBG cardiac imaging in diabetic neuropathy before and after epalrestat therapy. Utsunomiya K, et al. **Clin Nucl Med** 1999 Jun;24(6):418-20

Long-term effect of epalrestat on cardiac autonomic neuropathy in subjects with non-insulin dependent diabetes mellitus. Ikeda T, et al. **Diabetes Res Clin Pract** 1999 Mar; 43(3):193-8

Effects of aldose reductase inhibitor and vitamin B12 on myocardial uptake of iodine-123 metaiodobenzylguanidine in patients with non-insulin-dependent diabetes mellitus. Utsunomiya K, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1643-8

Epalrestat prevents the decrease in gastric mucosal blood flow and protects the gastric mucosa in streptozotocin diabetic rats [see comments] Suzuki H, et al. **J Gastroenterol** 1999 Apr;34(2):172-7. Comment in: J Gastroenterol 1999 Apr;34(2):288-91.

Protective effect of an aldose reductase inhibitor against bone loss in galactose-fed rats: possible involvement of the polyol pathway in bone metabolism. Inaba M, et al. **Metabolism** 1999 Jul;48(7):904-9

Administration of an aldose reductase inhibitor, ONO-2235, to streptozotocin-diabetic mice restores reductions of DRG neuronal attachment to extracellular matrix proteins in vitro. Sango K, et al. **Neurosci Lett** 1999 Mar 26; 263(2-3):157-60

[Effects of the aldose reductase inhibitor on diabetic polyneuropathy--the efficacy of F wave measurement] Shimada H, et al. **No To Shinkei** 1998 Sep;50(9):817-20 (Eng. Abstr.) **(Jpn)**

RHODIUM

ADMINISTRATION & DOSAGE

Encapsulation and release of rhodium(II) citrate and its association complex with hydroxypropyl-beta-cyclodextrin from biodegradable polymer microspheres. Sinisterra RD, et al. **J Pharm Sci** 1999 May;88(5):574-6

CHEMISTRY

Differential DNA recognition by the enantiomers of 1-Rh(MGP)2 phi: a combination of shape selection and direct readout. Franklin SJ, et al. **Biochemistry** 1998 Nov 17;37(46):16093-105

Gas chromatographic kinetic study of carbon monoxide oxidation over platinum-rhodium alloy catalysts. Gavril D, et al. **J Chromatogr A** 1999 Aug 13;852(2):507-23

A circular dichroism and fluorescence quenching study of the interactions between rhodium(II) complexes and human serum albumin. Espósito BP, et al. **J Inorg Biochem** 1999 May 30;75(1):55-61

PHARMACOLOGY

Site-specific inhibition of transcription factor binding to DNA by a metallointercalator. Odom DT, et al. **Biochemistry** 1999 Apr 20;38(16):5155-63

Studies of antibacterial activity of binuclear rhodium (II) complexes with heterocyclic nitrogen ligands. Bień M, et al. **J Inorg Biochem** 1999 Jan-Feb;73(1-2):49-55

THERAPEUTIC USE

Metal complexes of bleomycin: evaluation of [Rh-105]-bleomycin for use in targeted radiotherapy. Brooks RC, et al. **Nucl Med Biol** 1999 May;26(4):421-30

RHODNIUS

Beauveria bassiana (Hyphomycetes) as a possible agent for biological control of Chagas disease vectors. Luz C, et al. **J Med Entomol** 1998 Nov;35(6):977-9

Trapping sylvatic Triatominae (Reduviidae) in hollow trees. Noireau F, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb; 93(1):13-4

Bednet impregnation for Chagas disease control: a new perspective. Kroeger A, et al. **Trop Med Int Health** 1999 Mar;4(3):194-8

ANATOMY & HISTOLOGY

Characterization of Rhodnius neglectus from two regions of Brazil using isoenzymes, genitalia morphology and morphometry. Soares RP, et al. **Mem Inst Oswaldo Cruz** 1999 Mar-Apr;94(2):161-6

CLASSIFICATION

Salivary heme proteins distinguish Rhodnius prolixus from Rhodnius robustus (Hemiptera: Reduviidae: Triatominae). Soares RP, et al. **Acta Trop** 1998 Nov 30;71(3):285-91

ENZYMOLOGY

Ouabain-insensitive Na(+)-ATPase activity of Malpighian tubules from Rhodnius prolixus. Caruso-Neves C, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):807-11

GENETICS

Isolation and characterization of microsatellite markers in the bloodsucking bug Rhodnius pallescens (Heteroptera, Reduviidae). Harry M, et al. **Mol Ecol** 1998 Dec; 7(12):1784-6

GROWTH & DEVELOPMENT

Development of Rhodnius prolixus (Hemiptera: Reduviidae) under constant and cyclic conditions of temperature and humidity. Luz C, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):403-9

Biology of nymphs of Rhodnius robustus Larrousse, 1927 (Hemiptera, Reduviidae), fed on pigeon or on Swiss mouse blood in laboratory conditions. Braga MV, et al. **Rev Bras Biol** 1999 Feb;59(1):91-4

IMMUNOLOGY

Modulation of murine lymphocyte responsiveness by the saliva of Rhodnius prolixus (Hemiptera: Reduviidae). Kalvachová P, et al. **J Med Entomol** 1999 May;36(3):341-4

METABOLISM

Uptake of Rhodnius heme-binding protein (RHBP) by the ovary of Rhodnius prolixus. Machado EA, et al. **Arch Insect Biochem Physiol** 1998;39(4):133-43

Kinetic analysis on nitric oxide binding of recombinant Prolixin-S, a nitric oxide transport protein from the bloodsucking bug, Rhodnius prolixus. Kaneko Y, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):492-9

Protein phosphorylation during Rhodnius prolixus embryogenesis: protein kinase casein kinase II activity. Fialho E, et al. **Insect Biochem Mol Biol** 1999 Mar; 29(3):215-23

Urate synthesis in the blood-sucking insect rhodnius prolixus. Stimulation by hemin is mediated by protein kinase C. Graça-Souza AV, et al. **J Biol Chem** 1999 Apr 2; 274(14):9673-6

The distribution of a CRF-like diuretic peptide in the blood-feeding bug Rhodnius prolixus. Te Brugge VA, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2017-27

Haemolymph and fat body metallo-protease associated with Enterobacter cloacae infection in the bloodsucking insect, Rhodnius prolixus. Feder D, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec;93(6):823-6

Novel nitric oxide-liberating heme proteins from the saliva of bloodsucking insects. Walker FA, et al. **Met Ions Biol Syst** 1999;36:621-63 (189 ref.)

Haem detoxification by an insect [letter] Oliveira MF, et al. **Nature** 1999 Aug 5;400(6744):517-8

PARASITOLOGY

Species specific detection of Trypanosoma cruzi and Trypanosoma rangeli in vector and mammalian hosts by polymerase chain reaction amplification of kinetoplast minicircle DNA. Vallejo GA, et al. **Acta Trop** 1999 Mar 15;72(2):203-12

Utility of the polymerase chain reaction in detection of Trypanosoma cruzi in Guatemalan Chagas' disease vectors. Dorn PL, et al. **Am J Trop Med Hyg** 1999 May;60(5):740-5

Influence of brain and azadirachtin on Trypanosoma cruzi development in the vector, Rhodnius prolixus. Gonzalez MS, et al. **Exp Parasitol** 1999 Jun;92(2):100-8

Studies on a haemolymph lectin isolated from Rhodnius prolixus and its interaction with Trypanosoma rangeli. Mello CB, et al. **Exp Parasitol** 1999 Apr;91(4):289-96

Rhodnius prolixus infected with Trypanosoma rangeli: In vivo and in vitro experiments. Gomes SA, et al. **J Invertebr Pathol** 1999 May;73(3):289-93

Trypanosoma cruzi: correlations of biological aspects of the life cycle in mice and triatomines. Lima VS, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):397-402

Neolignans inhibit Trypanosoma cruzi infection of its triatomine insect vector, Rhodnius prolixus. Cabral MM, et al. **Parasitol Res** 1999 Mar;85(3):184-7

PHYSIOLOGY

Yeast culture volatiles as attractants for Rhodnius prolixus: electroantennogram responses and captures in yeast-baited traps. Lorenzo MG, et al. **Acta Trop** 1999 Jan 15; 72(1):119-24

RHODOBACTER

DRUG EFFECTS

Repression of nitrogenase by ethanol in nitrogen-deprived cultures of Rhodovulum sulfidophilum. Maeda I, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):121-6

ENZYMOLOGY

Dimethylsulphoxide reductase from purple phototrophic bacteria: structures and mechanism(s). McEwan AG, et al. **Biochem Soc Trans** 1998 Aug;26(3):390-6 (34 ref.)

The cytochrome bc1 complex from Rhodovulum sulfidophilum is a dimer with six quinones per monomer and an additional 6-kDa component. Montoya G, et al. **Eur J Biochem** 1999 Feb;259(3):709-18

Repression of nitrogenase by ethanol in nitrogen-deprived cultures of Rhodovulum sulfidophilum. Maeda I, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):121-6

Proton uptake controls electron transfer in cytochrome c oxidase. Karpefors M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13606-11

GENETICS

A new cytochrome subunit bound to the photosynthetic reaction center in the purple bacterium, Rhodovulum sulfidophilum. Masuda S, et al. **J Biol Chem** 1999 Apr 16; 274(16):10795-801

METABOLISM

Biosynthesis of the 3-acetyl and 13(1)-oxo groups of bacteriochlorophyll a in the facultative aerobic bacterium, Rhodovulum sulfidophilum--the presence of both oxygenase and hydratase pathways for isocyclic ring formation. Porra RJ, et al. **Eur J Biochem** 1998 Oct 1; 257(1):185-91

RHODOBACTER CAPSULATUS

CHEMISTRY

Electron and proton transfer on the acceptor side of the reaction center in chromatophores of Rhodobacter capsulatus: evidence for direct protonation of the semiquinone state of QB. Lavergne J, et al. **Biochemistry** 1999 Apr 6;38(14):4542-52

Imidazole binding to Rhodobacter capsulatus cytochrome c2. Effect of site-directed mutants on ligand binding. Dumortier C, et al. **J Biol Chem** 1998 Oct 2; 273(40):25647-53

Mass spectrometric mapping of ion channel proteins (porins) and identification of their supramolecular membrane assembly. Bühler S, et al. **Proteins** 1998;Suppl 2:63-73

DRUG EFFECTS

Short-term regulation of nitrogenase activity by NH4+ in Rhodobacter capsulatus: multiple in vivo nitrogenase responses to NH4+ addition. Yakunin AF, et al. **J Bacteriol** 1998 Dec;180(23):6392-5

ENZYMOLOGY

Crystallization and preliminary X-ray analysis of the Rhodobacter capsulatus magnesium chelatase BchI subunit. Willows RD, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):689-90

Rhodobacter capsulatus DNA topoisomerase I purification and characterization. Alkorta I, et al. **Arch Biochem Biophys** 1999 Feb 1;362(1):123-30

Stopped-flow studies on dimethylsulphoxide reductase from Rhodobacter capsulatus: kinetic competence of the dimethylsulphide-reduced intermediate. Smith AT, et al. **Biochem Soc Trans** 1998 Aug;26(3):S211

Reactions of dimethylsulfoxide reductase from Rhodobacter capsulatus with dimethyl sulfide and with dimethyl sulfoxide: complexities revealed by conventional and stopped-flow spectrophotometry. Adams B, et al. **Biochemistry** 1999 Jun 29;38(26):8501-11

Substitution of the sixth axial ligand of Rhodobacter capsulatus cytochrome c1 heme yields novel cytochrome c1 variants with unusual properties. Darrouzet E, et al. **Biochemistry** 1999 Jun 22;38(25):7908-17

Ubiquinone binding capacity of the Rhodobacter capsulatus cytochrome bc1 complex: effect of diphenylamine, a weak binding QO site inhibitor. Sharp RE, et al. **Biochemistry** 1999 Mar 16;38(11):3440-6

Isolation and characterization of a two-subunit cytochrome b-c1 subcomplex from Rhodobacter capsulatus and reconstitution of its ubihydroquinone oxidation (Qo) site with purified Fe-S protein subunit. Valkova-Valchanova MB, et al. **Biochemistry** 1998 Nov 17;37(46):16242-51

Q-Band resonance Raman investigation of turnip cytochrome f and Rhodobacter capsulatus cytochrome c1. Gao F, et al. **Biochim Biophys Acta** 1999 Mar 19;1430(2):203-13

Purification and characterization of pyruvate oxidoreductase from the photosynthetic bacterium Rhodobacter capsulatus. Yakunin AF, et al. **Biochim Biophys Acta** 1998 Nov 2;1409(1):39-49

Characterization of cytochrome c-556 from the purple phototrophic bacterium Rhodobacter capsulatus as a cytochrome-c peroxidase. Hu W, et al. **Eur J Biochem** 1998 Nov 15;258(1):29-36

ATP-synthase of Rhodobacter capsulatus: coupling of proton flow through F0 to reactions in F1 under the ATP synthesis and slip conditions. Feniouk BA, et al. **FEBS Lett** 1999 Feb 26;445(2-3):409-14

The molybdenum cofactor biosynthesis protein MobA from Rhodobacter capsulatus is required for the activity of molybdenum enzymes containing MGD, but not for xanthine dehydrogenase harboring the MPT cofactor. Leimkühler S, et al. **FEMS Microbiol Lett** 1999 May 15; 174(2):239-46

The "green" form I ribulose 1,5-bisphosphate carboxylase/oxygenase from the nonsulfur purple bacterium Rhodobacter capsulatus. Horken KM, et al. **J Bacteriol** 1999 Jul;181(13):3935-41

Activity of the molybdopterin-containing xanthine dehydrogenase of Rhodobacter capsulatus can be restored by high molybdenum concentrations in a moeA mutant defective in molybdenum cofactor biosynthesis. Leimkühler S, et al. **J Bacteriol** 1999 Oct;181(19):5930-9

Short-term regulation of nitrogenase activity by NH4+ in Rhodobacter capsulatus: multiple in vivo nitrogenase responses to NH4+ addition. Yakunin AF, et al. **J Bacteriol** 1998 Dec;180(23):6392-5

The presence of ADP-ribosylated Fe protein of nitrogenase in Rhodobacter capsulatus is correlated with cellular nitrogen status. Yakunin AF, et al. **J Bacteriol** 1999 Apr; 181(7):1994-2000

Heterologous expression of the Rhodobacter capsulatus BchI, -D, and -H genes that encode magnesium chelatase subunits and characterization of the reconstituted enzyme. Willows RD, et al. **J Biol Chem** 1998 Dec 18; 273(51):34206-13

Asymmetric reduction of racemic sulfoxides by dimethyl sulfoxide reductases from Rhodobacter capsulatus, Escherichia coli and Proteus species. Hanlon SP, et al. **Microbiology** 1998 Aug;144 (Pt 8):2247-53

Different cleavage specificities of RNases III from Rhodobacter capsulatus and Escherichia coli. Conrad C, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4446-53

GENETICS

The atpIBEXF operon coding for the F0 sector of the ATP synthase from the purple nonsulfur photosynthetic bacterium Rhodobacter capsulatus. Borghese R, et al. **Arch Microbiol** 1998 Oct;170(5):385-8

Molecular cloning and expression analysis of the Rhodobacter capsulatus sodB gene, encoding an iron superoxide dismutase. Cortez N, et al. **J Bacteriol** 1998 Oct; 180(20):5413-20

Regulated expression of a highly conserved regulatory gene cluster is necessary for controlling photosynthesis gene expression in response to anaerobiosis in Rhodobacter capsulatus. Du S, et al. **J Bacteriol** 1999 Jul;181(14):4334-41

Transcript cleavage, attenuation, and an internal promoter in the Rhodobacter capsulatus puc operon. LeBlanc H, et al. **J Bacteriol** 1999 Aug;181(16):4955-60

CrtJ bound to distant binding sites interacts cooperatively to aerobically repress photopigment biosynthesis and light harvesting II gene expression in Rhodobacter capsulatus. Elsen S, et al. **J Biol Chem** 1998 Nov 13;273(46):30762-9

Characterization of DorC from Rhodobacter capsulatus, a c-type cytochrome involved in electron transfer to dimethyl sulfoxide reductase. Shaw AL, et al. **J Biol Chem** 1999 Apr 9;274(15):9911-4

Heterologous expression of the Rhodobacter capsulatus BchI, -D, and -H genes that encode magnesium chelatase subunits and characterization of the reconstituted enzyme. Willows RD, et al. **J Biol Chem** 1998 Dec 18; 273(51):34206-13

Heterologous expression of genes encoding bacterial light-harvesting complex II in Rhodobacter capsulatus and Rhodovulum sulfidophilum. Katsiou E, et al. **Microbiol Res** 1998 Nov;153(3):189-204

Mutational analysis of the dimethylsulfoxide respiratory (dor) operon of Rhodobacter capsulatus. Shaw AL, et al. **Microbiology** 1999 Jun;145 (Pt 6):1409-20

Characterization of a molybdenum cofactor biosynthetic gene cluster in Rhodobacter capsulatus which is specific for the biogenesis of dimethylsulfoxide reductase. Solomon PS, et al. **Microbiology** 1999 Jun;145 (Pt 6):1421-9

Cloning and characterization of the rpoH gene of Rhodobacter capsulatus. Emetz D, et al. **Mol Gen Genet** 1998 Nov;260(2-3):212-7

In vitro activation and repression of photosynthesis gene transcription in Rhodobacter capsulatus. Bowman WC, et al. **Mol Microbiol** 1999 Jul;33(2):429-37

GROWTH & DEVELOPMENT

An engineered cytochrome b6c1 complex with a split cytochrome b is able to support photosynthetic growth of Rhodobacter capsulatus. Saribas AS, et al. **J Bacteriol** 1999 Sep;181(17):5365-72

METABOLISM

The LHIalpha and LHIIalpha complexes in association with phospholipids are able to be inserted in heavy membranes of Rhodobacter capsulatus B10. Pucheu NL, et al. **Curr Microbiol** 1999 Jul;39(1):37-42

Metabolism of L-phenylalanine and L-tyrosine by the phototrophic bacterium Rhodobacter capsulatus. Sáez LP, et al. **Curr Microbiol** 1999 Jan;38(1):51-6

Role of XDHC in Molybdenum cofactor insertion into xanthine dehydrogenase of Rhodobacter capsulatus. Leimkühler S, et al. **J Bacteriol** 1999 May;181(9):2745-51

Autophosphorylation, phosphotransfer, and DNA-binding properties of the RegB/RegA two-component regulatory system in Rhodobacter capsulatus. Bird TH, et al. **J Biol Chem** 1999 Jun 4;274(23):16343-8

RHODOBACTER SPHAEROIDES

AppA, a redox regulator of photosystem formation in Rhodobacter sphaeroides 2.4.1, is a flavoprotein. Identification of a novel fad binding domain. Gomelsky M, et al. **J Biol Chem** 1998 Dec 25;273(52):35319-25

CHEMISTRY

Electrocatalytic reduction of S-nitrosoglutathione at electrodes modified with an electropolymerized film of a pyrrole-derived viologen system and their application to cellular S-nitrosoglutathione determinations. Wu Q, et al. **Anal Biochem** 1998 Oct 1;263(1):102-12

The reaction center-LH1 antenna complex of Rhodobacter sphaeroides contains one PufX molecule which is involved in dimerization of this complex. Francia F, et al. **Biochemistry** 1999 May 25;38(21):6834-45

Observation of the protonated semiquinone intermediate in isolated reaction centers from Rhodobacter sphaeroides: implications for the mechanism of electron and proton transfer in proteins. Graige MS, et al. **Biochemistry** 1999 Aug 31;38(35):11465-73

Generation of triplet and cation-radical bacteriochlorophyll a in carotenoidless LH1 and LH2 antenna complexes from Rhodobacter sphaeroides. Limantara L, et al. **Biochemistry** 1998 Dec 15;37(50):17469-86

P+HA- charge recombination reaction rate constant in Rhodobacter sphaeroides reaction centers is independent of the P/P+ midpoint potential. Tang CK, et al. **Biochemistry** 1999 Jul 6;38(27):8794-9

Primary charge separation routes in the BChl:BPhe heterodimer reaction centers of Rhodobacter sphaeroides. van Brederode ME, et al. **Biochemistry** 1999 Jun 8; 38(23):7545-55

FT-IR analysis of membranes of Rhodobacter sphaeroides 2.4.3 grown under microaerobic and denitrifying conditions. Mitchell DM, et al. **Biochim Biophys Acta** 1998 Dec 1;1409(2):99-105

Fast reversible electron transfer for photosynthetic reaction center from wild type Rhodobacter sphaeroides re-constituted in polycation sandwiched monolayer film. Kong J, et al. **Bioelectrochem Bioenerg** 1999 Feb; 48(1):101-7

Reorientation of the acetyl group of the photoactive bacteriopheophytin in reaction centers of Rhodobacter sphaeroides: an ENDOR/TRIPLE resonance study. Müh F, et al. **Biospectroscopy** 1999;5(1):35-46

CD-monitored redox titration of the Rieske Fe-S protein of Rhodobacter sphaeroides: pH dependence of the midpoint potential in isolated bc1 complex and in membranes. Ugulava NB, et al. **FEBS Lett** 1998 Dec 4; 440(3):409-13

Projection structures of three photosynthetic complexes from Rhodobacter sphaeroides: LH2 at 6 A, LH1 and RC-LH1 at 25 A. Walz T, et al. **J Mol Biol** 1998 Oct 2;282(4):833-45

ENZYMOLOGY

A human putative Suv3-like RNA helicase is conserved between Rhodobacter and all eukaryotes. Dmochowska A, et al. **Acta Biochim Pol** 1999;46(1):155-62

Molecular approaches to probe differential NADH activation of phosphoribulokinase isozymes from Rhodobacter sphaeroides. Novak JS, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):273-82

Magnesium chelatase from Rhodobacter sphaeroides: initial characterization of the enzyme using purified subunits and evidence for a BchI-BchD complex. Gibson LC, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):243-51

Cytochrome c oxidase from eucaryotes but not from procaryotes is allosterically inhibited by ATP. Follmann K, et al. **Biochem Mol Biol Int** 1998 Aug;45(5):1047-55

Effects of mutation of the conserved glutamic acid-286 in subunit I of cytochrome c oxidase from Rhodobacter sphaeroides. Jünemann S, et al. **Biochemistry** 1999 Apr 20; 38(16):5248-55

Steps toward constructing a cytochrome b6 f complex in the purple bacterium Rhodobacter sphaeroides: an example of the structural plasticity of a membrane cytochrome. Kuras R, et al. **Biochemistry** 1998 Nov 17;37(46):16280-8

The cbb3 terminal oxidase of Rhodobacter sphaeroides 2.4.1: structural and functional implications for the regulation of spectral complex formation. Oh JI, et al. **Biochemistry** 1999 Mar 2;38(9):2688-96

Aspartate-132 in cytochrome c oxidase from Rhodobacter sphaeroides is involved in a two-step proton transfer during oxo-ferryl formation. Smirnova IA, et al. **Biochemistry** 1999 May 25;38(21):6826-33

Factors determining electron-transfer rates in cytochrome c oxidase: investigation of the oxygen reaction in the R. sphaeroides enzyme. Adelroth P, et al. **Biochim Biophys Acta** 1998 Oct 5;1367(1-3):107-17

Involvement in denitrification of the napKEFDABC genes encoding the periplasmic nitrate reductase system in the denitrifying phototrophic bacterium Rhodobacter sphaeroides f. sp. denitrificans. Liu HP, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):530-6

Heterologous expression of correctly assembled methylamine dehydrogenase in Rhodobacter sphaeroides. Graichen ME, et al. **J Bacteriol** 1999 Jul;181(14):4216-22

Anaerobic purification and characterization of nitrous oxide reductase from Rhodobacter sphaeroides f. sp. denitrificans IL106. Sato K, et al. **J Biochem (Tokyo)** 1999 May; 125(5):864-8

Re-design of Rhodobacter sphaeroides dimethyl sulfoxide reductase. Enhancement of adenosine N1-oxide reductase activity. Hilton JC, et al. **J Biol Chem** 1999 Mar 26; 274(13):8428-36

Topological analysis of the membrane-localized redox-responsive sensor kinase PrrB from Rhodobacter sphaeroides 2.4.1. Ouchane S, et al. **J Biol Chem** 1999 Jun 11;274(24):17290-6

Pathways for proton release during ubihydroquinone oxidation by the bc(1) complex. Crofts AR, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10021-6

Expression and one-step purification of a fully active polyhistidine-tagged cytochrome bc1 complex from Rhodobacter sphaeroides. Guergova-Kuras M, et al. **Protein Expr Purif** 1999 Apr;15(3):370-80

GENETICS

Characterisation of the enzymatic and RNA-binding properties of the Rhodobacter sphaeroides 2.4.1. Rho homologue. Ingham CJ. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):115-25

Involvement in denitrification of the napKEFDABC genes encoding the periplasmic nitrate reductase system in the denitrifying phototrophic bacterium Rhodobacter sphaeroides f. sp. denitrificans. Liu HP, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):530-6

Plasmid content and localization of the genes encoding the denitrification enzymes in two strains of Rhodobacter sphaeroides. Schwintner C, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):313-21

Heterologous expression of correctly assembled methylamine dehydrogenase in Rhodobacter sphaeroides. Graichen ME, et al. **J Bacteriol** 1999 Jul;181(14):4216-22

Redox-dependent gene regulation in Rhodobacter sphaeroides 2.4.1(T): effects on dimethyl sulfoxide reductase (dor) gene expression. Mouncey NJ, et al. **J Bacteriol** 1998 Nov;180(21):5612-8

Genomic complexity among strains of the facultative photoheterotrophic bacterium Rhodobacter sphaeroides. Nereng KS, et al. **J Bacteriol** 1999 Mar;181(5):1684-8

Nitrite and nitrous oxide reductase regulation by nitrogen oxides in Rhodobacter sphaeroides f. sp. denitrificans IL106. Sabaty M, et al. **J Bacteriol** 1999 Oct; 181(19):6028-32

Flexibility of the neck region of the rieske iron-sulfur protein is functionally important in the cytochrome bc1 complex. Tian H, et al. **J Biol Chem** 1998 Oct 23;273(43):27953-9

A novel mechanism for the regulation of photosynthesis gene expression by the TspO outer membrane protein of Rhodobacter sphaeroides 2.4.1. Yeliseev AA, et al.

J Biol Chem 1999 Jul 23;274(30):21234–43

Transcriptional regulation of photosynthesis operons in Rhodobacter sphaeroides 2.4.1. Zeilstra-Ryalls JH, et al. **Methods Enzymol** 1998;297:151–66

Manganous ions suppress photosynthesis gene expression in Rhodobacter sphaeroides. Horne IM, et al. **Microbiology** 1998 Aug;144 (Pt 8):2255–61

RsGDB, the Rhodobacter sphaeroides Genome Database. Choudhary M, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):61–2

[Nucleotide sequence of gltB gene encoding the large subunit of Rhodobacter sphaeroides glutamate synthase] Lu T, et al. **Wei Sheng Wu Hsueh Pao** 1997 Apr;37(2):87–94 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

[Induction of early endotoxin tolerance with atoxic endotoxin--a new method for preventing sepsis syndrome] Staubach KH, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1067–70 (Eng. Abstr.) **(Ger)**

METABOLISM

Periplasmic nitrate-reducing system of the phototrophic bacterium Rhodobacter sphaeroides DSM 158: transcriptional and mutational analysis of the napKEFDABC gene cluster. Reyes F, et al. **Biochem J** 1998 May 1;331 (Pt 3):897–904

Modification of the binding pocket for the QA ubiquinone in the reaction centre from Rhodobacter sphaeroides. Ridge JP, et al. **Biochem Soc Trans** 1998 Aug;26(3):S209

Protein engineering of the photoreaction centre from Rhodobacter sphaeroides. Ridge JP, et al. **Biochem Soc Trans** 1998 Aug;26(3):422–7 (41 ref.)

Cytochrome c" from the obligate methylotroph Methylophilus methylotrophus, an unexpected homolog of sphaeroides heme protein from the phototroph Rhodobacter sphaeroides. Klarskov K, et al. **Biochim Biophys Acta** 1999 May 26;1412(1):47–55

The LH1-RC core complex of Rhodobacter sphaeroides: interaction between components, time-dependent assembly, and topology of the PufX protein. Pugh RJ, et al. **Biochim Biophys Acta** 1998 Sep 7;1366(3):301–16

Supramolecular organization of the photosynthetic apparatus of Rhodobacter sphaeroides. Jungas C, et al. **EMBO J** 1999 Feb 1;18(3):534–42

Thioredoxin is involved in oxygen-regulated formation of the photosynthetic apparatus of Rhodobacter sphaeroides. Pasternak C, et al. **J Bacteriol** 1999 Jan;181(1):100–6

Effect of deuteration and cryosolvents on the energy transduction in primary processes of photosynthesis. Gorokhov VV, et al. **Membr Cell Biol** 1998;12(5):593–608

Energy level of P+B- with respect to P* found from recombination fluorescence measurements in pheophytin-modified reaction centres. Shuvalov VA, et al. **Membr Cell Biol** 1998;12(5):563–9

The membrane-attached electron carrier cytochrome cy from Rhodobacter sphaeroides is functional in respiratory but not in photosynthetic electron transfer. Myllykallio H, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4348–53

Identification of the proton pathway in bacterial reaction centers: inhibition of proton transfer by binding of Zn2+ or Cd2+. Paddock ML, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6183–8

Multiple pathways for ultrafast transduction of light energy in the photosynthetic reaction center of Rhodobacter sphaeroides. van Brederode ME, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2054–9

Simulating proton translocations in proteins: probing proton transfer pathways in the Rhodobacter sphaeroides reaction center. Sham YY, et al. **Proteins** 1999 Sep 1;36(4):484–500

PHYSIOLOGY

Transformations in flagellar structure of Rhodobacter sphaeroides and possible relationship to changes in swimming speed. Armitage JP, et al. **J Bacteriol** 1999 Aug; 181(16):4825–33

Roles of chemosensory pathways in transient changes in swimming speed of Rhodobacter sphaeroides induced by changes in photosynthetic electron transport. Romagnoli S, et al. **J Bacteriol** 1999 Jan;181(1):34–9

Localization and environmental regulation of MCP-like proteins in Rhodobacter sphaeroides. Harrison DM, et al. **Mol Microbiol** 1999 Feb;31(3):885–92

RADIATION EFFECTS

Roles of chemosensory pathways in transient changes in swimming speed of Rhodobacter sphaeroides induced by changes in photosynthetic electron transport. Romagnoli S, et al. **J Bacteriol** 1999 Jan;181(1):34–9

ULTRASTRUCTURE

A rapid method for the isolation of intracytoplasmic membranes from Rhodopseudomonas sphaeroides using an air-driven ultracentrifuge. Shepherd WD, et al. **Anal Biochem** 1978 Nov;91(1):194–8

RHODOCOCCUS

Pulmonary malacoplakia associated with Rhodococcus equi infection in a patient with AIDS. Shin MS, et al. **Chest** 1999 Mar;115(3):889–92

Movement disorders in encephalitis induced by Rhodococcus aurantiacus infection relieved by the administration of L-dopa and anti-T-cell antibodies. Min Y, et al. **Immunology** 1999 Jan;96(1):10–5

The genus Rhodococcus. Bell KS, et al. **J Appl Microbiol** 1998 Aug;85(2):195–210 (189 ref.)

CHEMISTRY

Surface-active lipids in rhodococci. Lang S, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):59–70 (70 ref.)

Cell envelope composition and organisation in the genus Rhodococcus. Sutcliffe IC. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):49–58 (65 ref.)

CLASSIFICATION

Novel rhodococci and other mycolate actinomycetes from the deep sea. Colquhoun JA, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):27–40

Rhodococcal systematics: problems and developments. Goodfellow M, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):3–20 (195 ref.)

Identification of Rhodococcus, Gordona and Dietzia species using carbon source utilization tests ("Biotype-100" strips). Bizet C, et al. **Res Microbiol** 1997 Dec;148(9):799–809

DRUG EFFECTS

Effects of surfactant mixtures, including Corexit 9527, on bacterial oxidation of acetate and alkanes in crude oil. Bruheim P, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1658–61

ENZYMOLOGY

Enantioselective biotransformations using rhodococci. Beard TM, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct; 74(1-3):99–106

A self-compartmentalizing protease in Rhodococcus: the 20S proteasome. De Mot R, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):83–7 (25 ref.)

Hydrazide synthesis: novel substrate specificity of amidase. Kobayashi M, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):415–8

Purification and partial characterization of caffeine oxidase--A novel enzyme from a mixed culture consortium. Madyastha KM, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):460–4

Detection of a nitric oxide synthase possibly involved in the regulation of the Rhodococcus sp R312 nitrile hydratase. Sari MA, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):364–8

Tertiary and quaternary structures of photoreactive Fe-type nitrile hydratase from Rhodococcus sp. N-771: roles of hydration water molecules in stabilizing the structures and the structural origin of the substrate specificity of the enzyme. Nakasako M, et al. **Biochemistry** 1999 Aug 3; 38(31):9887–98

Phenylalanine dehydrogenase from Rhodococcus sp. M4: high-resolution X-ray analyses of inhibitory ternary complexes reveal key features in the oxidative deamination mechanism. Vanhooke JL, et al. **Biochemistry** 1999 Feb 23;38(8):2326–39

Isolation and primary characterization of an amidase from Rhodococcus rhodochrous. Kotlova EK, et al. **Biochemistry (Mosc)** 1999 Apr;64(4):384–9

Isolation and characterization of catechol 1,2-dioxygenases from Rhodococcus rhodnii strain 135 and Rhodococcus rhodochrous strain 89: comparison with analogous enzymes of the ordinary and modified ortho-cleavage pathways. Solyanikova IP, et al. **Biochemistry (Mosc)** 1999 Jul; 64(7):824–31

Nitrile hydratase involved in aldoxime metabolism from Rhodococcus sp. strain YH3-3 purification and characterization. Kato Y, et al. **Eur J Biochem** 1999 Aug; 263(3):662–70

Heterologous expression of alkene monooxygenase from Rhodococcus rhodochrous B-276. Smith TJ, et al. **Eur J Biochem** 1999 Mar;260(2):446–52

The Rhodococcus erythropolis DCL14 limonene-1,2-epoxide hydrolase gene encodes an enzyme belonging to a novel class of epoxide hydrolases. Barbirato F, et al. **FEBS Lett** 1998 Nov 6;438(3):293–6

The catalytic mechanism of amidase also involves nitrile hydrolysis [published erratum appears in FEBS Lett 1999 Feb 12;444(2-3):296] Kobayashi M, et al. **FEBS Lett** 1998 Nov 20;439(3):325–8

The modified beta-ketoadipate pathway in Rhodococcus rhodochrous N75: enzymology of 3-methylmuconolactone metabolism. Cha CJ, et al. **J Bacteriol** 1998 Dec; 180(24):6668–73

Heterologous expression and characterization of the purified oxygenase component of Rhodococcus globerulus P6 biphenyl dioxygenase and of chimeras derived from it. Chebrou H, et al. **J Bacteriol** 1999 Aug;181(16):4805–11

Evidence for an inducible nucleotide-dependent acetone carboxylase in Rhodococcus rhodochrous B276. Clark DD, et al. **J Bacteriol** 1999 May;181(9):2752–8

Purification of a glutathione S-transferase and a glutathione conjugate-specific dehydrogenase involved in isoprene metabolism in Rhodococcus sp. strain AD45. van Hylckama Vlieg JE, et al. **J Bacteriol** 1999 Apr; 181(7):2094–101

3-Ketosteroid-delta1-dehydrogenase of Rhodococcus rhodochrous: sequencing of the genomic DNA and hyperexpression, purification, and characterization of the recombinant enzyme. Morii S, et al. **J Biochem (Tokyo)** 1998 Nov;124(5):1026–32

Stereoselective carveol dehydrogenase from Rhodococcus erythropolis DCL14. A novel nicotinoprotein belonging to the short chain dehydrogenase/reductase superfamily. van der Werf MJ, et al. **J Biol Chem** 1999 Sep 10; 274(37):26296–304

Late events in the assembly of 20S proteasomes. Mayr J, et al. **J Struct Biol** 1998 Dec 15;124(2-3):179–88

An enzyme controlled by light: the molecular mechanism of photoreactivity in nitrile hydratase. Endo I, et al. **Trends Biotechnol** 1999 Jun;17(6):244–8

GENETICS

Development of recombinant bacteria for the degradation of dibenzothiophene. Jeong KJ, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:375–8

Cloning of genes that have environmental and clinical importance from rhodococci and related bacteria. Dabbs ER. **Antonie Van Leeuwenhoek** 1998 Jul-Oct; 74(1-3):155–67 (50 ref.)

The putative regulator of catechol catabolism in Rhodococcus opacus 1CP--an IclR-type, not a LysR-type transcriptional regulator. Eulberg D, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):71–82

Structural alteration of linear plasmids encoding the genes for polychlorinated biphenyl degradation in Rhodococcus strain RHA1. Fukuda M, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):169–73

Applied aspects of Rhodococcus genetics. Larkin MJ, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):133–53 (210 ref.)

Molecular characterisation of a Rhodococcus ohp operon. Powell JA, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct; 74(1-3):175–88

Characterization of the basic replicon of Rhodococcus plasmid pSOX and development of a Rhodococcus-Escherichia coli shuttle vector. Denis-Larose C, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4363–7

Isolation and characterization of indene bioconversion genes from Rhodococcus strain I24. Treadway SL, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):786–93

Selective transport of divalent cations by transition metal permeases: the Alcaligenes eutrophus HoxN and the Rhodococcus rhodochrous NhlF. Degen O, et al. **Arch Microbiol** 1999 Feb;171(3):139–45

The Rhodococcus erythropolis DCL14 limonene-1,2-epoxide hydrolase gene encodes an enzyme belonging to a novel class of epoxide hydrolases. Barbirato F, et al. **FEBS Lett** 1998 Nov 6;438(3):293–6

Transcriptional analysis of the nitrile-degrading operon from Rhodococcus sp. ACV2 and high level production of recombinant amidase with an Escherichia coli-T7 expression system. Bigey F, et al. **J Appl Microbiol** 1999 May;86(5):752–60

Heterologous expression and characterization of the purified oxygenase component of Rhodococcus globerulus P6 biphenyl dioxygenase and of chimeras derived from it. Chebrou H, et al. **J Bacteriol** 1999 Aug;181(16):4805–11

Purification and characterization of a novel naphthalene dioxygenase from Rhodococcus sp. strain NCIMB12038. Larkin MJ, et al. **J Bacteriol** 1999 Oct;181(19):6200–4

Distribution of a Nocardia brasiliensis catalase gene fragment in members of the genera Nocardia, Gordona, and Rhodococcus. Vera-Cabrera L, et al. **J Clin Microbiol** 1999 Jun;37(6):1971–6

Characterization of IS2112, a new insertion sequence from Rhodococcus, and its relationship with mobile elements belonging to the IS110 family. Kulakov LA, et al. **Microbiology** 1999 Mar;145 (Pt 3):561–8

GROWTH & DEVELOPMENT

Degradation of chloronitrobenzenes by a coculture of Pseudomonas putida and a Rhodococcus sp. Park HS, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1083–91

ISOLATION & PURIFICATION

In situ detection of rhodococci associated with activated sludge foams. Davenport RJ, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):41–8

Characterization of antarctic hydrocarbon-degrading bacteria capable of producing bioemulsifiers. Yakimov MM, et al. **New Microbiol** 1999 Jul;22(3):249–56

METABOLISM

Biotransformation of nitriles by rhodococci. Bunch AW. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):89–97 (40 ref.)

Structural alteration of linear plasmids encoding the genes for polychlorinated biphenyl degradation in Rhodococcus strain RHA1. Fukuda M, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):169–73

Application of whole cell rhodococcal biocatalysts in acrylic polymer manufacture. Hughes J, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):107-18 (50 ref.)

Desulphurisation of benzothiophene and dibenzothiophene by actinomycete organisms belonging to the genus Rhodococcus, and related taxa. Oldfield C, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):119-32 (65 ref.)

Effects of surfactant mixtures, including Corexit 9527, on bacterial oxidation of acetate and alkanes in crude oil. Bruheim P, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1658-61

Initial transformations in the biodegradation of benzothiazoles by Rhodococcus isolates. De Wever H, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3270-4

Microbial desulfurization of a crude oil middle-distillate fraction: analysis of the extent of sulfur removal and the effect of removal on remaining sulfur. Grossman MJ, et al. **Appl Environ Microbiol** 1999 Jan;65(1):181-8

Degradation of chloronitrobenzenes by a coculture of Pseudomonas putida and a Rhodococcus sp. Park HS, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1083-91

Rhodococcus erythropolis DCL14 contains a novel degradation pathway for limonene. van der Werf MJ, et al. **Appl Environ Microbiol** 1999 May;65(5):2092-102

Degradation of alicyclic molecules by Rhodococcus ruber CD4. Schumacher JD, et al. **Appl Microbiol Biotechnol** 1999 Jul;52(1):85-90

Linear alkanesulfonates as carbon and energy sources for gram-positive and gram-negative bacteria. Reichenbecher W, et al. **Arch Microbiol** 1999 May-Jun;171(6):430-8

19F NMR study on the biodegradation of fluorophenols by various Rhodococcus species. Bondar VS, et al. **Biodegradation** 1998;9(6):475-86

Influence of selected physical parameters on the biodegradation of acrylamide by immobilized cells of Rhodococcus sp. Nawaz MS, et al. **Biodegradation** 1998; 9(5):381-7

Development of an automated microbial sensor system. Heim S, et al. **Biosens Bioelectron** 1999 Feb;14(2):187-93

Temperature effects and substrate interactions during the aerobic biotransformation of BTEX mixtures by toluene-enriched consortia and Rhodococcus rhodochrous. Deeb RA, et al. **Biotechnol Bioeng** 1999 Mar 5;62(5):526-36

3-nitroadipate, a metabolic intermediate for mineralization of 2, 4-dinitrophenol by a new strain of a Rhodococcus species. Blasco R, et al. **J Bacteriol** 1999 Jan;181(1):149-52

Hydride-Meisenheimer complex formation and protonation as key reactions of 2,4,6-trinitrophenol biodegradation by Rhodococcus erythropolis. Rieger PG, et al. **J Bacteriol** 1999 Feb;181(4):1189-95

Etherolytic cleavage of 4-(2,4-dichlorophenoxy)butyric acid and 4-(4-chloro-2-methylphenoxy)butyric acid by species of Rhodococcus and Aureobacterium isolated from an alkaline environment. Mertingk H, et al. **J Basic Microbiol** 1998;38(4):257-267

Granuloma formation and in vitro macrophage activation in mice by mycoloyl glycolipids from Nocardia asteroides and related taxa. Han Y, et al. **Osaka City Med J** 1998 Dec;44(2):201-17

PHYSIOLOGY

Physiological adaptations involved in alkane assimilation at a low temperature by Rhodococcus sp. strain Q15. Whyte LG, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2961-8

RHODOCOCCUS EQUI

Pulmonary malacoplakia associated with Rhodococcus equi infection in patient's with AIDS: case report and review. Guerrero MF, et al. **Clin Infect Dis** 1999 Jun;28(6):1334-6 (15 ref.)

Report of invasive Rhodococcus equi infections in Taiwan, with an emphasis on the emergence of multidrug-resistant strains. Hsueh PR, et al. **Clin Infect Dis** 1998 Aug; 27(2):370-5

Rhodococcus equi infections: clinical features and laboratory diagnosis. Cornish N, et al. **Curr Clin Top Infect Dis** 1999; 19:198-215 (95 ref.)

Modulation of cytokine response of pneumonic foals by virulent Rhodococcus equi. Giguère S, et al. **Infect Immun** 1999 Oct;67(10):5041-7

Infection by Rhodococcus equi in a patient with AIDS: histological appearance mimicking Whipple's disease and Mycobacterium avium-intracellulare infection. Hamrock D, et al. **J Clin Pathol** 1999 Jan;52(1):68-71

Rhodococcus equi infections in goats. Tkachuk-Saad O, et al. **Vet Rec** 1998 Sep 12;143(11):311-2

[Pulmonary malacoplakia caused by Rhodococcus equi in AIDS: a case report] Goupil F, et al. **Rev Pneumol Clin** 1999 Jun;55(3):171-4 (Eng. Abstr.) **(Fre)**

[Bronchial malacoplakia associated with Rhodococcus equi pneumonia in a patient with acquired immunodeficiency syndrome (letter)] Alcalde Encinas MM, et al. **Rev Clin Esp** 1998 Sep;198(9):630-1 **(Spa)**

DRUG EFFECTS

In vitro activities of polycationic peptides alone and in combination with clinically used antimicrobial agents against Rhodococcus equi. Giacometti A, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):2093-6

ENZYMOLOGY

Production of cholesterol oxidase by Rhodococcus equi No. 23 in a jar fermenter. Chou CC, et al. **Biotechnol Appl Biochem** 1999 Jun;29 (Pt 3):217-21

Maximization of cholesterol oxidase production by Rhodococcus equi no. 23 By using response surface methodology. Lee MT, et al. **Biotechnol Appl Biochem** 1998 Dec;28 (Pt 3):229-33

GENETICS

Diversity of isolates of Rhodococcus equi from Australian thoroughbred horse farms. Morton AC, et al. **Antonie Van Leeuwenhoek** 1998 Jul-Oct;74(1-3):21-5

Restriction fragment length polymorphisms of virulence plasmids in Rhodococcus equi. Takai S, et al. **J Clin Microbiol** 1999 Oct;37(10):3417-20

IMMUNOLOGY

Cutaneous malakoplakia in pigs inoculated with Rhodococcus equi. Madarame H, et al. **FEMS Immunol Med Microbiol** 1998 Dec;22(4):329-33

Live virulent Rhodococcus equi, rather than killed or avirulent, elicits protective immunity to R. equi infection in mice. Takai S, et al. **FEMS Immunol Med Microbiol** 1999 May;24(1):1-9

ISOLATION & PURIFICATION

Rhodococcus equi and Nocardia brasiliensis infection of the brain and liver in a patient with acute nonlymphoblastic leukemia. Akan H, et al. **Eur J Clin Microbiol Infect Dis** 1998 Oct;17(10):737-9

Rhodococcus equi lung abscess complicating Evan's syndrome treated with corticosteroid. Tsang KW, et al. **Respiration** 1998;65(4):327-30

Disseminated Rhodococcus equi infection in two goats. Davis WP, et al. **Vet Pathol** 1999 Jul;36(4):336-9

[Rhodococcus equi--new human threat] Wiercińska-Drapało A, et al. **Pneumonol Alergol Pol** 1998;66(5-6):346-50 (21 ref.) **(Pol)**

[Cerebral abscess caused by Rhodococcus equi in an immunocompetent patient (letter)] Blanco J, et al. **Enferm Infecc Microbiol Clin** 1998 Jun-Jul;16(6):294-5 (10 ref.) **(Spa)**

METABOLISM

Effect of a mixed culture on co-oxidation during the degradation of saturated hydrocarbon mixture. Ko SH, et al. **J Appl Microbiol** 1999 Jul;87(1):72-9

PATHOGENICITY

Tumour necrosis factor and interferon-gamma are required in host resistance against virulent Rhodococcus equi infection in mice: cytokine production depends on the virulence levels of R. equi. Kasuga-Aoki H, et al. **Immunology** 1999 Jan;96(1):122-7

Restriction fragment length polymorphisms of virulence plasmids in Rhodococcus equi. Takai S, et al. **J Clin Microbiol** 1999 Oct;37(10):3417-20

Pathogenicity of Rhodococcus equi strains possessing virulence-associated 15- to 17-kDa and 20-kDa antigens: experimental and natural cases in pigs. Madarame H, et al. **J Comp Pathol** 1998 Nov;119(4):397-405

TNF receptor p55 is required for elimination of inflammatory cells following control of intracellular pathogens. Kanaly ST, et al. **J Immunol** 1999 Oct 1;163(7):3883-9

Peripheral blood lymphocyte subpopulations and immunoglobulin concentrations in healthy foals and foals with Rhodococcus equi pneumonia. Flaminio MJ, et al. **J Vet Intern Med** 1999 May-Jun;13(3):206-12

PHYSIOLOGY

Role of the 85-kilobase plasmid and plasmid-encoded virulence-associated protein A in intracellular survival and virulence of Rhodococcus equi. Giguère S, et al. **Infect Immun** 1999 Jul;67(7):3548-57

RHODOPSEUDOMONAS

CHEMISTRY

Crystallization and preliminary x-ray crystallographic analysis of the B800-820 light-harvesting complex from Rhodopseudomonas acidophila strain 7050. McLuskey K, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):885-7

Electrostatic interactions at the donor side of the photosynthetic reaction center of Rhodopseudomonas viridis. Baymann F, et al. **Biochemistry** 1998 Nov 3; 37(44):15320-6

Conformational heterogeneity of the bacteriopheophytin electron acceptor HA in reaction centers from Rhodopseudomonas viridis revealed by Fourier transform infrared spectroscopy and site-directed mutagenesis. Breton J, et al. **Biochemistry** 1999 Aug 31;38(35):11541-52

Selective release, removal, and reconstitution of bacteriochlorophyll a molecules into the B800 sites of LH2 complexes from Rhodopseudomonas acidophila 10050. Fraser NJ, et al. **Biochemistry** 1999 Jul 27;38(30):9684-92

Characterization of the different peripheral light-harvesting complexes from high- and low-light grown cells from Rhodopseudomonas palustris. Gall A, et al. **Biochemistry** 1999 Apr 20;38(16):5185-90

Electron paramagnetic resonance studies of zinc-substituted reaction centers from Rhodopseudomonas viridis. Gardiner AT, et al. **Biochemistry** 1999 Sep 7;38(36):11773-87

Disordered exciton model for the core light-harvesting antenna of Rhodopseudomonas viridis. Novoderezhkin V, et al. **Biophys J** 1999 Aug;77(2):666-81

Refined crystal structures of reaction centres from Rhodopseudomonas viridis in complexes with the herbicide atrazine and two chiral atrazine derivatives also lead to a new model of the bound carotenoid. Lancaster CR, et al. **J Mol Biol** 1999 Feb 26;286(3):883-98

Basis for monomer stabilization in Rhodopseudomonas palustris cytochrome c' derived from the crystal structure. Shibata N, et al. **J Mol Biol** 1998 Dec 4;284(3):751-60

The dynamics of structural deformations of immobilized single light-harvesting complexes. Bopp MA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11271-6

GENETICS

BadR, a new MarR family member, regulates anaerobic benzoate degradation by Rhodopseudomonas palustris in concert with AadR, an Fnr family member. Egland PG, et al. **J Bacteriol** 1999 Apr;181(7):2102-9

Molecular and functional characterization of the Rhodopseudomonas palustris no. 7 phosphoenolpyruvate carboxykinase gene. Inui M, et al. **J Bacteriol** 1999 May; 181(9):2689-96

Molecular analysis of the recA gene and SOS box of the purple non-sulfur bacterium Rhodopseudomonas palustris no. 7. Dumay V, et al. **Microbiology** 1999 May;145 (Pt 5):1275-85

METABOLISM

Degradation of 3-chlorobenzoate under low-oxygen conditions in pure and mixed cultures of the anoxygenic photoheterotroph Rhodopseudomonas palustris DCP3 and an aerobic Alcaligenes species. Krooneman J, et al. **Appl Environ Microbiol** 1999 Jan;65(1):131-7

Selective release, removal, and reconstitution of bacteriochlorophyll a molecules into the B800 sites of LH2 complexes from Rhodopseudomonas acidophila 10050. Fraser NJ, et al. **Biochemistry** 1999 Jul 27;38(30):9684-92

Bacteriochlorin-protein interactions in native B800-B850, B800 deficient and B800-Bchla(p)-reconstituted complexes from Rhodopseudomonas acidophila, strain 10050. Gall A, et al. **FEBS Lett** 1999 Apr 23;449(2-3):269-72

The structural organization of the antenna chromophore protein complexes in membranes of the photosynthetic bacterium Rhodopseudomonas viridis. Klevanik AV. **Membr Cell Biol** 1998;12(1):9-26

RHODOPSEUDOMONAS CAPSULATUS see **RHODOBACTER CAPSULATUS**

RHODOPSEUDOMONAS SPHAEROIDES see **RHODOBACTER SPHAEROIDES**

RHODOPSIN

[Structural view of mechanism of photo-signal transduction related with rhodopsin and heterotrimeric G protein] Fujiyoshi Y. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):347-54 (7 ref.) **(Jpn)**

ADMINISTRATION & DOSAGE

Adenovirus-mediated delivery of rhodopsin-promoted bcl-2 results in a delay in photoreceptor cell death in the rd/rd mouse. Bennett J, et al. **Gene Ther** 1998 Sep;5(9):1156-64

ANALOGS & DERIVATIVES

Kinetics of the light-induced proton translocation associated with the pH-dependent formation of the metarhodopsin I/II equilibrium of bovine rhodopsin. Dickopf S, et al. **Biochemistry** 1998 Dec 1;37(48):16888-97

Effect of protein hydration on receptor conformation: decreased levels of bound water promote metarhodopsin II formation. Mitchell DC, et al. **Biochemistry** 1999 Jun 15;38(24):7617-23

Temperature and pH dependence of the metarhodopsin I-metarhodopsin II equilibrium and the binding of metarhodopsin II to G protein in rod disk membranes. Parkes JH, et al. **Biochemistry** 1999 May 25;38(21):6862-78

Retinylidene ligand structure in bovine rhodopsin, metarhodopsin-I, and 10-methylrhodopsin from internuclear distance measurements using 13C-labeling and 1-D rotational resonance MAS NMR. Verdegem PJ, et al. **Biochemistry** 1999 Aug 31;38(35):11316-24

Evidence for the specific interaction of a lipid molecule with rhodopsin which is altered in the transition to the active state metarhodopsin II. Beck M, et al. **FEBS Lett** 1998 Oct 9;436(3):304-8

ANALYSIS

Variation in sensitivity, absorption and density of the central

rod distribution with eccentricity. Tornow RP, et al. **Acta Anat (Basel)** 1998;162(2–3):163–8

The rhodopsin content of human eyes. Fulton AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1878–83

Opsin localization and rhodopsin photochemistry in a transgenic mouse model of retinitis pigmentosa. Wu TH, et al. **Neuroscience** 1998 Dec;87(3):709–17

CHEMISTRY

Structure and conformation of the retinal chromophore in bovine rhodopsin. Groebner G, et al. **Biochem Soc Trans** 1998 Aug;26(3):S308

Structure of the G-protein–coupled receptor, rhodopsin: a domain approach. Yeagle PL, et al. **Biochem Soc Trans** 1998 Aug;26(3):520–31 (70 ref.)

Structural features and light-dependent changes in the sequence 306–322 extending from helix VII to the palmitoylation sites in rhodopsin: a site-directed spin-labeling study. Altenbach C, et al. **Biochemistry** 1999 Jun 22;38(25):7931–7

Structural features and light-dependent changes in the sequence 59–75 connecting helices I and II in rhodopsin: a site-directed spin-labeling study. Altenbach C, et al. **Biochemistry** 1999 Jun 22;38(25):7945–9

Structure and function in rhodopsin: effects of disulfide cross-links in the cytoplasmic face of rhodopsin on transducin activation and phosphorylation by rhodopsin kinase. Cai K, et al. **Biochemistry** 1999 Sep 28; 38(39):12893–8

Solid state 15N NMR evidence for a complex Schiff base counterion in the visual G-protein–coupled receptor rhodopsin. Creemers AF, et al. **Biochemistry** 1999 Jun 1; 38(22):7195–9

Phosphorylation alters the pH-dependent active state equilibrium of rhodopsin by modulating the membrane surface potential. Gibson SK, et al. **Biochemistry** 1999 Aug 24;38(34):11103–14

Single-cysteine substitution mutants at amino acid positions 55–75, the sequence connecting the cytoplasmic ends of helices I and II in rhodopsin: reactivity of the sulfhydryl groups and their derivatives identifies a tertiary structure that changes upon light-activation. Klein-Seetharaman J, et al. **Biochemistry** 1999 Jun 22;38(25):7938–44

Structural features of the C-terminal domain of bovine rhodopsin: a site-directed spin-labeling study. Langen R, et al. **Biochemistry** 1999 Jun 22;38(25):7918–24

The hydrogen-bonding network of water molecules and the peptide backbone in the region connecting Asp83, Gly120, and Glu113 in bovine rhodopsin. Nagata T, et al. **Biochemistry** 1998 Dec 8;37(49):17216–22

Tertiary interactions between the fifth and sixth transmembrane segments of rhodopsin. Struthers M, et al. **Biochemistry** 1999 May 18;38(20):6597–603

Retinylidene ligand structure in bovine rhodopsin, metarhodopsin-I, and 10-methylrhodopsin from internuclear distance measurements using 13C-labeling and 1-D rotational resonance MAS NMR. Verdegem PJ, et al. **Biochemistry** 1999 Aug 31;38(35):11316–24

State-dependent disulfide cross-linking in rhodopsin. Yu H, et al. **Biochemistry** 1999 Sep 14;38(37):12028–32

Tertiary interactions between transmembrane segments 3 and 5 near the cytoplasmic side of rhodopsin. Yu H, et al. **Biochemistry** 1999 Sep 14;38(37):12033–40

Effects of phosphorylation on the structure of the G-protein receptor rhodopsin. Dorey M, et al. **Biochim Biophys Acta** 1999 Jan 12;1416(1–2):217–24

Structure of rhodopsin. Schertler GF. **Eye** 1998;12 (Pt 3b):504–10 (37 ref.)

Evidence for the specific interaction of a lipid molecule with rhodopsin which is altered in the transition to the active state metarhodopsin II. Beck M, et al. **FEBS Lett** 1998 Oct 9;436(3):304–8

Conformational changes in rhodopsin. Movement of helix f detected by site-specific chemical labeling and fluorescence spectroscopy. Dunham TD, et al. **J Biol Chem** 1999 Jan 15;274(3):1683–90

Folding and assembly in rhodopsin. Effect of mutations in the sixth transmembrane helix on the conformation of the third cytoplasmic loop. Ridge KD, et al. **J Biol Chem** 1999 Jul 23;274(30):21437–42

Characterisation of an improved two-dimensional p22121 crystal from bovine rhodopsin. Krebs A, et al. **J Mol Biol** 1998 Oct 9;282(5):991–1003

The effects of octanol on the late photointermediates of rhodopsin. Mah TL, et al. **Photochem Photobiol** 1998 Nov; 68(5):762–70

Light-induced exposure of the cytoplasmic end of transmembrane helix seven in rhodopsin. Abdulaev NG, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12854–9

Magic angle spinning NMR of the protonated retinylidene Schiff base nitrogen in rhodopsin: expression of 15N-lysine- and 13C-glycine-labeled opsin in a stable cell line. Eilers M, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):487–92

Structure and function in rhodopsin: further elucidation of the role of the intradiscal cysteines, Cys–110, –185, and –187, in rhodopsin folding and function. Hwa J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1932–5

How vertebrate and invertebrate visual pigments differ in their mechanism of photoactivation. Nakagawa M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6189–92

DEFICIENCY

The electroretinogram of the rhodopsin knockout mouse. Toda K, et al. **Vis Neurosci** 1999 Mar–Apr;16(2):391–8

GENETICS

Rhodopsin mutations as the cause of retinal degeneration. Classification of degeneration phenotypes in the model system Drosophila melanogaster. Bentrop J. **Acta Anat (Basel)** 1998;162(2–3):85–94 (50 ref.)

Single-cysteine substitution mutants at amino acid positions 306–321 in rhodopsin, the sequence between the cytoplasmic end of helix VII and the palmitoylation sites: sulfhydryl reactivity and transducin activation reveal a tertiary structure. Cai K, et al. **Biochemistry** 1999 Jun 22; 38(25):7925–30

Psoralen photo-cross-linking by triplex-forming oligonucleotides at multiple sites in the human rhodopsin gene. Perkins BD, et al. **Biochemistry** 1999 Sep 28; 38(39):12850–9

Binding of arrestin to cytoplasmic loop mutants of bovine rhodopsin. Raman D, et al. **Biochemistry** 1999 Apr 20; 38(16):5117–23

Ocular signs associated with a rhodopsin mutation (Cys–167—>Arg) in a family with autosomal dominant retinitis pigmentosa [letter] Simonelli F, et al. **Br J Ophthalmol** 1998 Jun;82(6):709

Neovascularization of the RPE: temporal differences in mice with rod photoreceptor gene defects. Nishikawa S, et al. **Exp Eye Res** 1998 Nov;67(5):509–15

160Thr mutation in the rhodopsin gene associated with retinitis pigmentosa. Capeans C, et al. **Hum Hered** 1998 Sep–Oct;48(5):237–40

Molecular genetic study of autosomal dominant retinitis pigmentosa in Lithuanian patients. Kucinskas V, et al. **Hum Hered** 1999 Mar;49(2):71–4

Structural and functional rescue of murine rod photoreceptors by human rhodopsin transgene. McNally N, et al. **Hum Mol Genet** 1999 Jul;8(7):1309–12

Severe autosomal dominant retinitis pigmentosa caused by a novel rhodopsin mutation (Ter349Glu). Mutations in brief no. 208. Online. Bessant DA, et al. **Hum Mutat** 1999; 13(1):83

Rhodopsin mutation G109R in a family with autosomal dominant retinitis pigmentosa. Goliath R, et al. **Hum Mutat** 1998;Suppl 1:S40–1

A novel mutation within the rhodopsin gene (Thr–94–Ile) causing autosomal dominant congenital stationary night blindness. al-Jandal N, et al. **Hum Mutat** 1999;13(1):75–81

Rhodopsin splice site sequence changes in retinitis pigmentosa and their effect at the mRNA level. Whitehead JL, et al. **Hum Mutat** 1998;Suppl 1:S295–7

Acuity recovery and cone pigment regeneration after a bleach in patients with retinitis pigmentosa and rhodopsin mutations. Sandberg MA, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2457–61

Evolution of the archaeal rhodopsins: evolution rate changes by gene duplication and functional differentiation. Ihara K, et al. **J Mol Biol** 1999 Jan 8;285(1):163–74

Activation of caspase-3 in the retina of transgenic rats with the rhodopsin mutation s334ter during photoreceptor degeneration. Liu C, et al. **J Neurosci** 1999 Jun 15; 19(12):4778–85

Preimplantation diagnosis of autosomal dominant retinitis pigmentosum using two simultaneous single cell assays for a point mutation in the rhodopsin gene. Strom CM, et al. **Mol Hum Reprod** 1998 Apr;4(4):351–5

Retinal rod photoreceptor-specific gene mutation perturbs cone pathway development [see comments] Banin E, et al. **Neuron** 1999 Jul;23(3):549–57. Comment in: Neuron 1999 Jul;23(3):411–2.

Rhodopsin C110Y mutation causes a type 2 autosomal dominant retinitis pigmentosa. Millá E, et al. **Ophthalmic Genet** 1998 Sep;19(3):131–9

The nop-1 gene of Neurospora crassa encodes a seven transmembrane helix retinal-binding protein homologous to archaeal rhodopsins. Bieszke JA, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8034–9

Morphological, physiological, and biochemical changes in rhodopsin knockout mice. Lem J, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):736–41

Gaining new insight into the molecular basis of evolution [news] Pennisi E. **Science** 1999 Jul 30;285(5428):654–5

IMMUNOLOGY

Epitope mapping of anti-rhodopsin antibodies from patients with normal pressure glaucoma. Romano C, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1275–80

METABOLISM

Rhodopsin's carboxyl-terminal threonines are required for wild-type arrestin-mediated quench of transducin activation in vitro. Brannock MT, et al. **Biochemistry** 1999 Mar 23;38(12):3770–7

Structure and function in rhodopsin: effects of disulfide cross-links in the cytoplasmic face of rhodopsin on transducin activation and phosphorylation by rhodopsin kinase. Cai K, et al. **Biochemistry** 1999 Sep 28; 38(39):12893–8

Phosphorylation alters the pH-dependent active state equilibrium of rhodopsin by modulating the membrane surface potential. Gibson SK, et al. **Biochemistry** 1999 Aug 24;38(34):11103–14

Role of carboxyl-terminal charges on S-modulin membrane affinity and inhibition of rhodopsin phosphorylation. Matsuda S, et al. **Biochemistry** 1999 Jan 26;38(4):1310–5

Interaction between photoactivated rhodopsin and the C-terminal peptide of transducin alpha-subunit studied by FTIR spectroscopy. Nishimura S, et al. **Biochemistry** 1998 Nov 10;37(45):15816–24

Binding of arrestin to cytoplasmic loop mutants of bovine rhodopsin. Raman D, et al. **Biochemistry** 1999 Apr 20; 38(16):5117–23

Identification of regions of arrestin that bind to rhodopsin. Smith WC, et al. **Biochemistry** 1999 Mar 2;38(9):2752–61

Proton transfer reactions linked to rhodopsin activation. Szundi I, et al. **Biochemistry** 1998 Oct 6;37(40):14237–44

Retinylidene ligand structure in bovine rhodopsin, metarhodopsin-I, and 10-methylrhodopsin from internuclear distance measurements using 13C-labeling and 1-D rotational resonance MAS NMR. Verdegem PJ, et al. **Biochemistry** 1999 Aug 31;38(35):11316–24

Tertiary interactions between transmembrane segments 3 and 5 near the cytoplasmic side of rhodopsin. Yu H, et al. **Biochemistry** 1999 Sep 14;38(37):12033–40

Palmitoylation of rhodopsin with S-protein acyltransferase: enzyme catalyzed reaction versus autocatalytic acylation [published erratum appears in Biochim Biophys Acta 1999 Jan 4;1436(3):630] Veit M, et al. **Biochim Biophys Acta** 1998 Oct 2;1394(1):90–8

Binding of transducin and transducin-derived peptides to rhodopsin studies by attenuated total reflection-Fourier transform infrared difference spectroscopy. Fahmy K. **Biophys J** 1998 Sep;75(3):1306–18

Rhodopsin's carboxy-terminal cytoplasmic tail acts as a membrane receptor for cytoplasmic dynein by binding to the dynein light chain Tctex-1. Tai AW, et al. **Cell** 1999 Jun 25;97(7):877–87

Carboxyl terminal of rhodopsin kinase is required for the phosphorylation of photo-activated rhodopsin. Yu QM, et al. **Cell Res** 1998 Dec;8(4):303–10

Control of rhodopsin activity in vision. Baylor DA, et al. **Eye** 1998;12 (Pt 3b):521–5 (22 ref.)

Post-Golgi trafficking of rhodopsin in retinal photoreceptors. Deretic D. **Eye** 1998;12 (Pt 3b):526–30 (40 ref.)

Evidence for the specific interaction of a lipid molecule with rhodopsin which is altered in the transition to the active state metarhodopsin II. Beck M, et al. **FEBS Lett** 1998 Oct 9;436(3):304–8

A novel photointermediate of octopus rhodopsin activates its G-protein. Nakagawa M, et al. **FEBS Lett** 1998 Oct 2;436(2):259–62

Selective activation of G-protein subtypes by vertebrate and invertebrate rhodopsins. Terakita A, et al. **FEBS Lett** 1998 Nov 13;439(1–2):110–4

How does arrestin respond to the phosphorylated state of rhodopsin? Vishnivetskiy SA, et al. **J Biol Chem** 1999 Apr 23;274(17):11451–4

The amino terminus with a conserved glutamic acid of G protein–coupled receptor kinases is indispensable for their ability to phosphorylate photoactivated rhodopsin. Yu QM, et al. **J Neurochem** 1999 Sep;73(3):1222–7

A rise in intracellular Ca2+ underlies light adaptation in dogfish retinal 'on' bipolar cells. Shiells RA, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):343–50

Reciprocity between light intensity and rhodopsin concentration across the rat retina. Williams TP, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):869–74

Identification of a single phosphorylation site within octopus rhodopsin. Ohguro H, et al. **Photochem Photobiol** 1998 Dec; 68(6):824–8

Structure and function in rhodopsin: further elucidation of the role of the intradiscal cysteines, Cys–110, –185, and –187, in rhodopsin folding and function. Hwa J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1932–5

Signal transfer from rhodopsin to the G-protein: evidence for a two-site sequential fit mechanism. Kisselev OG, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4898–903

Structure and function in rhodopsin: kinetic studies of retinal binding to purified opsin mutants in defined phospholipid-detergent mixtures serve as probes of the retinal binding pocket. Reeves PJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1927–31

New clues to movement control and vision [news] Wickelgren I. **Science** 1998 Oct 9;282(5387):224–5

PHARMACOLOGY

Effect of detergents and lipids on transducin photoactivation by rhodopsin. Bubis J. **Biol Res** 1998;31(1):59–71

Effect of rhodopsin C-terminal peptide on photoresponses in functionally intact rod outer segments. Jindrová H, et al. **Physiol Res** 1998;47(4):279–84

PHYSIOLOGY

Origin of reproducibility in the responses of retinal rods to single photons. Rieke F, et al. **Biophys J** 1998 Oct; 75(4):1836–57

Rhodopsin early receptor potential revisited [see comments] Sakmar TP. **Biophys J** 1999 Sep;77(3):1189–91. Comment in: Biophys J 1999 Sep;77(3):1333–57.

Time-resolved rhodopsin activation currents in a unicellular expression system [see comments] Sullivan JM, et al.

Biophys J 1999 Sep;77(3):1333–57. Comment in: Biophys J 1999 Sep;77(3):1189–91.
Altered rhodopsin regeneration in diabetic mice caused by acid conditions within the rod photoreceptors. Ostroy SE. **Curr Eye Res** 1998 Oct;17(10):979–85
Rhodopsin and phototransduction. Pepe IM. **J Photochem Photobiol B** 1999 Jan;48(1):1–10 (171 ref.)
How vertebrate and invertebrate visual pigments differ in their mechanism of photoactivation. Nakagawa M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6189–92
Phosphorylation of photolyzed rhodopsin is calcium-insensitive in retina permeabilized by alpha-toxin. Otto-Bruc AE, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15014–9
Does rod phototransduction involve the delayed transition of activated rhodopsin to a second, more active catalytic state? Pepperberg DR. **Vis Neurosci** 1998 Nov-Dec; 15(6):1067–78

RADIATION EFFECTS

Influence of UVA light stress on photoreceptor cell metabolism: decreased rates of rhodopsin regeneration and opsin synthesis. Rapp LM, et al. **Exp Eye Res** 1999 Jun; 68(6):757–64
Reciprocity between light intensity and rhodopsin concentration across the rat retina. Williams TP, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):869–74
Light-induced exposure of the cytoplasmic end of transmembrane helix seven in rhodopsin. Abdulaev NG, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12854–9

RHODOSPIRILLACEAE

CHEMISTRY

Crystallization and preliminary X-ray diffraction analysis of cytochrome c' from Rubrivivax gelatinosus at 1.3 A resolution. Benini S, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Mar 1;54 (Pt 2):284–7
Interaction site for high-potential iron-sulfur protein on the tetraheme cytochrome subunit bound to the photosynthetic reaction center of Rubrivivax gelatinosus. Osyczka A, et al. **Biochemistry** 1999 Mar 9;38(10):2861–5
Purification, redox and spectroscopic properties of the tetraheme cytochrome c isolated from Rubrivivax gelatinosus. Agalidis I, et al. **Eur J Biochem** 1999 Apr; 261(1):325–36

ENZYMOLOGY

Iron reductase for magnetite synthesis in the magnetotactic bacterium Magnetospirillum magnetotacticum. Noguchi Y, et al. **J Bacteriol** 1999 Apr;181(7):2142–7

GENETICS

A consensus sequence for the Rhodospirillaceae SOS operators. Labazi M, et al. **FEMS Microbiol Lett** 1999 Feb 1;171(1):37–42
Heterologous expression of genes encoding bacterial light-harvesting complex II in Rhodobacter capsulatus and Rhodovulum sulfidophilum. Katsiou E, et al. **Microbiol Res** 1998 Nov;153(3):189–204

METABOLISM

Protonation/deprotonation reactions triggered by photoactivation of photoactive yellow protein from Ectothiorhodospira halophila. Hendriks J, et al. **J Biol Chem** 1999 Jun 18;274(25):17655–60
Phototrophic oxidation of ferrous iron by a Rhodomicrobium vannielii strain. Heising S, et al. **Microbiology** 1998 Aug; 144 (Pt 8):2263–9

PHYSIOLOGY

A new study of bacterial motion: superconducting quantum interference device microscopy of magnetotactic bacteria. Chemla YR, et al. **Biophys J** 1999 Jun;76(6):3323–30

RHODOSPIRILLUM

CHEMISTRY

In vitro reconstitution of the core and peripheral light-harvesting complexes of Rhodospirillum molischianum from separately isolated components. Todd JB, et al. **Biochemistry** 1998 Dec 15;37(50):17458–68
Bacterial photoreceptor with similarity to photoactive yellow protein and plant phytochromes. Jiang Z, et al. **Science** 1999 Jul 16;285(5426):406–9

METABOLISM

Amino acid sequences of two high-potential iron-sulfur proteins (HiPIPs) from the moderately halophilic purple phototrophic bacterium, Rhodospirillum salinarum. Ambler RP, et al. **Arch Biochem Biophys** 1999 Sep 1; 369(1):143–8

PHYSIOLOGY

The respiratory chain of the halophilic anoxygenic purple bacterium Rhodospirillum sodomense. Bonora P, et al. **Arch Microbiol** 1998 Nov;170(6):435–41

RHODOSPIRILLUM RUBRUM

CHEMISTRY

Identification of two important heme site residues (cysteine 75 and histidine 77) in CooA, the CO-sensing transcription factor of Rhodospirillum rubrum. Shelver D, et al. **Biochemistry** 1999 Mar 2;38(9):2669–78
The effect of pressure on the bacteriochlorophyll a binding sites of the core antenna complex from Rhodospirillum rubrum. Sturgis JN, et al. **Biochemistry** 1998 Oct 20; 37(42):14875–80
GroEL-GroES cycling: ATP and nonnative polypeptide direct alternation of folding-active rings. Rye HS, et al. **Cell** 1999 Apr 30;97(3):325–38
Are the light-harvesting I complexes from Rhodospirillum rubrum arranged around the reaction centre in a square geometry? Stahlberg H, et al. **J Mol Biol** 1998 Oct 2; 282(4):819–31

ENZYMOLOGY

Triphenyltin as an inhibitor of membrane-bound pyrophosphatase of Rhodospirillum rubrum. Celis H, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):157–63
Catalytic properties of hybrid complexes of the NAD(H)-binding and NADP(H)-binding domains of the proton-translocating transhydrogenases from Escherichia coli and Rhodospirillum rubrum. Fjellström O, et al. **Biochemistry** 1999 Jan 5;38(1):415–22
Distinct structures and environments for the three hemes of the cytochrome bc1 complex from Rhodospirillum rubrum. A resonance Raman study using B-band excitations. Le Moigne C, et al. **Biochemistry** 1999 Jan 19;38(3):1066–76
Mutation of amino acid residues in the mobile loop region of the NAD(H)-binding domain of proton-translocating transhydrogenase. Gupta S, et al. **Biochim Biophys Acta** 1998 Nov 2;1409(1):25–38
A catalytically active complex formed from the recombinant dI protein of Rhodospirillum rubrum transhydrogenase, and the recombinant dIII protein of the human enzyme. Peake SJ, et al. **Biochim Biophys Acta** 1999 Apr 21; 1411(1):159–69
The mobile loop region of the NAD(H) binding component (dI) of proton-translocating nicotinamide nucleotide transhydrogenase from Rhodospirillum rubrum: complete NMR assignment and effects of bound nucleotides. Quirk PG, et al. **Biochim Biophys Acta** 1999 Jun 30;1412(2):139–48
Refolding of recombinant alpha and beta subunits of the Rhodospirillum rubrum F(0)F(1) ATP synthase into functional monomers that reconstitute an active alpha(1)beta(1)-dimer. Du Z, et al. **Eur J Biochem** 1999 Jul;263(2):430–7
Hydrolysis of native poly(hydroxybutyrate) granules (PHB), crystalline PHB, and artificial amorphous PHB granules by intracellular and extracellular depolymerases. Merrick JM, et al. **Int J Biol Macromol** 1999 Jun-Jul;25(1–3):129–34
Correlation of activity regulation and substrate recognition of the ADP-ribosyltransferase that regulates nitrogenase activity in Rhodospirillum rubrum. Kim K, et al. **J Bacteriol** 1999 Mar;181(5):1698–702

METABOLISM

Characterization of the interaction of dinitrogenase reductase-activating glycohydrolase from Rhodospirillum rubrum with bacterial membranes. Halbleib CM, et al. **Arch Microbiol** 1999 Jul;172(1):51–8
Ni(2+) transport and accumulation in Rhodospirillum rubrum. Watt RK, et al. **J Bacteriol** 1999 Aug; 181(15):4554–60
Redox-controlled ligand exchange of the heme in the CO-sensing transcriptional activator CooA. Aono S, et al. **J Biol Chem** 1998 Oct 2;273(40):25757–64
Transcription activation by CooA, the CO-sensing factor from Rhodospirillum rubrum. The interaction between CooA and the C-terminal domain of the alpha subunit of RNA polymerase. He Y, et al. **J Biol Chem** 1999 Apr 16; 274(16):10840–5

RHODOTORULA

Amphotericin B lipid complex therapy in an AIDS patient with Rhodotorula rubra fungemia. Lui AY, et al. **Clin Infect Dis** 1998 Oct;27(4):892–3
Rhodotorula rubra fungaemia in an immunosuppressed patient. Papadogeorgakis H, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):169–70
Fungal peritonitis caused by Candida parapsilosis and subsequently Rhodotorula glutinis in a CAPD patient [letter] Asim M, et al. **Perit Dial Int** 1999 Mar-Apr; 19(2):183

DRUG EFFECTS

UK-1, a novel cytotoxic metabolite from Streptomyces sp. 517-02. IV. Antifungal action of methyl UK-1. Ueki M, et al. **J Antibiot (Tokyo)** 1998 Sep;51(9):883–5

ENZYMOLOGY

Endo-beta-glucanase secreted by a psychrotrophic yeast: purification and characterization. Oikawa T, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1751–6
First evaluation of the Brazilian microorganisms biocatalytic potential. Cagnon JR, et al. **Chemosphere** 1999 Apr; 38(10):2237–42
Overexpression in Escherichia coli of a recombinant chimeric Rhodotorula gracilis d-amino acid oxidase. Molla G, et al. **Protein Expr Purif** 1998 Nov;14(2):289–94

GROWTH & DEVELOPMENT

Pseudohyphal variations of yeasts exposed to specific space flight parameters. Volz PA, et al. **Microbios** 1998; 95(380):25–34
Space flight micro-fungi after 27 years storage in water and in continuous culture. Volz PA, et al. **Microbios** 1998; 96(384):111–25

ISOLATION & PURIFICATION

Rhodotorula sp. infection in corneal interface following lamellar keratoplasty--a case report. Panda A, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):227–8

METABOLISM

Production of ethyl (R)-2-hydroxy-4-phenylbutanoate via reduction of ethyl 2-oxo-4-phenylbutanoate in an interface bioreactor. Oda S, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1762–7
On the absence of the glyceraldehyde 3-phosphate/pyruvate pathway for isoprenoid biosynthesis in fungi and yeasts. Disch A, et al. **FEMS Microbiol Lett** 1998 Nov 15; 168(2):201–8

RADIATION EFFECTS

Pseudohyphal variations of yeasts exposed to specific space flight parameters. Volz PA, et al. **Microbios** 1998; 95(380):25–34

RHOMBENCEPHALIC SLEEP see **SLEEP, REM**

RHOMBENCEPHALON

ANATOMY & HISTOLOGY

Jaw origins [letter; comment] Koentges G. **Science** 1999 May 21;284(5418):1273. Comment on: Science 1999 Apr 23;284(5414):575, 577.

CYTOLOGY

Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos. Muhr J, et al. **Neuron** 1999 Aug;23(4):689–702

DRUG EFFECTS

Dorsomedial hindbrain participation in glucoprivic feeding response to 2DG but not 2DG-induced hyperglycemia or activation of the HPA axis. Edmonds BK, et al. **Brain Res** 1998 Aug 10;801(1–2):21–8

EMBRYOLOGY

Supraependymal cells and fibers during the early stages of chick rhombencephalic development. Ojeda JL, et al. **Anat Embryol (Berl)** 1998 Sep;198(3):237–44
The fork head transcription factor Fkh5/Mf3 is a developmental marker gene for superior colliculus layers and derivatives of the hindbrain somatic afferent zone. Alvarez-Bolado G, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):205–15
How to build a vertebrate hindbrain. Lessons from genetics. Schneider-Maunoury S, et al. **C R Acad Sci III** 1998 Oct; 321(10):819–34 (137 ref.)
The relationship between rhombomeres and vestibular neuron populations as assessed in quail-chicken chimeras. Diaz C, et al. **Dev Biol** 1998 Oct 1;202(1):14–28
A paraxial exclusion zone creates patterned cranial neural crest cell outgrowth adjacent to rhombomeres 3 and 5. Farlie PG, et al. **Dev Biol** 1999 Sep 1;213(1):70–84
The role of kreisler in segmentation during hindbrain development. Manzanares M, et al. **Dev Biol** 1999 Jul 15; 211(2):220–37
A role for xGCNF in midbrain-hindbrain patterning in Xenopus laevis. Song K, et al. **Dev Biol** 1999 Sep 1; 213(1):170–9
Ectopic expression of hoxb2 after retinoic acid treatment or mRNA injection: disruption of hindbrain and craniofacial morphogenesis in zebrafish embryos. Yan YL, et al. **Dev Dyn** 1998 Dec;213(4):370–85
Role of Pax-5 in the regulation of a mid-hindbrain organizer's activity. Funahashi J, et al. **Dev Growth Differ** 1999 Feb;41(1):59–72
The zebrafish detour gene is essential for cranial but not spinal motor neuron induction. Chandrasekhar A, et al. **Development** 1999 Jun;126(12):2727–37
Evidence for collapsin-1 functioning in the control of neural crest migration in both trunk and hindbrain regions. Eickholt BJ, et al. **Development** 1999 May;126(10):2181–9
Drosophila engrailed can substitute for mouse Engrailed1 function in mid-hindbrain, but not limb development. Hanks MC, et al. **Development** 1998 Nov;125(22):4521–30
Hoxa1 and Krox-20 synergize to control the development of rhombomere 3. Helmbacher F, et al. **Development** 1998

Dec;125(23):4739–48
Regeneration of isthmic tissue is the result of a specific and direct interaction between rhombomere 1 and midbrain. Irving C, et al. **Development** 1999 Sep;126(18):3981–9
Overexpression of thyroid hormone receptor alpha 1 during zebrafish embryogenesis disrupts hindbrain patterning and implicates retinoic acid receptors in the control of hox gene expression. Essner JJ, et al. **Differentiation** 1999 Jul; 65(1):1–11
Regionalized metabolic activity establishes boundaries of retinoic acid signalling. Hollemann T, et al. **EMBO J** 1998 Dec 15;17(24):7361–72
Emigration of neuroepithelial cells from the hindbrain neural tube in the chick embryo. Sohal GS, et al. **Int J Dev Neurosci** 1998 Oct;16(6):477–81
Regional patterning of reticulospinal and vestibulospinal neurons in the hindbrain of mouse and rat embryos. Auclair F, et al. **J Comp Neurol** 1999 Aug 23;411(2):288–300
Rhombomere development in a reptilian embryo. Pritz MB. **J Comp Neurol** 1999 Aug 23;411(2):317–26
Massive loss of mid- and hindbrain neurons during embryonic development of homozygous lurcher mice. Cheng SS, et al. **J Neurosci** 1997 Apr 1;17(7):2400–7
Expression of GATA-2 in the developing avian rhombencephalon. Bell E, et al. **Mech Dev** 1999 Jun; 84(1–2):173–6
Comparative analysis of Otx2, Gbx2, Pax2, Fgf8 and Wnt1 gene expressions during the formation of the chick midbrain/hindbrain domain. Hidalgo-Sánchez M, et al. **Mech Dev** 1999 Mar;81(1–2):175–8
Distribution of neuregulin-1 (nrg1) and erbB4 transcripts in embryonic chick hindbrain. Dixon M, et al. **Mol Cell Neurosci** 1999 Apr;13(4):237–58
The caudal limit of Otx2 expression positions the isthmic organizer. Broccoli V, et al. **Nature** 1999 Sep 9; 401(6749):164–8
A role for Gbx2 in repression of Otx2 and positioning the mid/hindbrain organizer. Millet S, et al. **Nature** 1999 Sep 9;401(6749):161–4
Hoxa2 and Hoxb2 control dorsoventral patterns of neuronal development in the rostral hindbrain. Davenne M, et al. **Neuron** 1999 Apr;22(4):677–91
Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos. Muhr J, et al. **Neuron** 1999 Aug;23(4):689–702
Defects in embryonic hindbrain development and fetal resorption resulting from vitamin A deficiency in the rat are prevented by feeding pharmacological levels of all-trans-retinoic acid. White JC, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13459–64
Homeotic transformation of rhombomere identity after localized Hoxb1 misexpression. Bell E, et al. **Science** 1999 Jun 25;284(5423):2168–71
Mechanism of hyperthermia effects on CNS development: rostral gene expression domains remain, despite severe head truncation; and the hindbrain/otocyst relationship is altered. Buckiová D, et al. **Teratology** 1999 Mar; 59(3):139–47

GROWTH & DEVELOPMENT

The fork head transcription factor Fkh5/Mf3 is a developmental marker gene for superior colliculus layers and derivatives of the hindbrain somatic afferent zone. Alvarez-Bolado G, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):205–15

METABOLISM

Subgroups of hindbrain catecholamine neurons are selectively activated by 2-deoxy-D-glucose induced metabolic challenge. Ritter S, et al. **Brain Res** 1998 Sep 14;805(1–2):41–54
Graded retinoid responses in the developing hindbrain. Godsave SF, et al. **Dev Dyn** 1998 Sep;213(1):39–49

PATHOLOGY

Reduced hindbrain herniation after intrauterine myelomeningocele repair: A report of four cases. Tulipan N, et al. **Pediatr Neurosurg** 1998 Nov;29(5):274–8

PHYSIOLOGY

Cholecystokinin actions in the parabrachial nucleus: effects on thirst and salt appetite. Menani JV, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1431–7
Dorsomedial hindbrain participation in glucoprivic feeding response to 2DG but not 2DG-induced hyperglycemia or activation of the HPA axis. Edmonds BK, et al. **Brain Res** 1998 Aug 10;801(1–2):21–8
Salt appetite: interaction of forebrain angiotensinergic and hindbrain, serotonergic mechanisms. Menani JV, et al. **Brain Res** 1998 Aug 10;801(1–2):29–35
Delay in meal termination follows blockade of N-methyl-D-aspartate receptors in the dorsal hindbrain. Treece BR, et al. **Brain Res** 1998 Nov 9;810(1–2):34–40
Diencephalic and mesencephalic projections to rhombencephalic reticular nuclei in lampreys. Zompa IC, et al. **Brain Res** 1998 Aug 17;802(1–2):27–54
Electrophysiological and neuropharmacological study of tectoreticular pathways in lampreys. Zompa IC, et al. **Brain Res** 1998 Sep 7;804(2):238–52
Regeneration of isthmic tissue is the result of a specific and direct interaction between rhombomere 1 and midbrain. Irving C, et al. **Development** 1999 Sep;126(18):3981–9
Rhombomere origin plays a role in the specificity of cranial motor axon projections in the chick. Warrilow J, et al. **Eur J Neurosci** 1999 Apr;11(4):1403–13
Early development of the motor and premotor circuitry of a sexually dimorphic vocal pathway in a teleost fish. Knapp R, et al. **J Neurobiol** 1999 Mar;38(4):475–90
Time course of the development of motor behaviors in the zebrafish embryo. Saint-Amant L, et al. **J Neurobiol** 1998 Dec;37(4):622–32
Role of GABAA receptors in rat hindbrain nuclei controlling gastric motor function. Sivarao DV, et al. **Neurogastroenterol Motil** 1998 Aug;10(4):305–13
[Effects of acetyl-DL-leucine on the recovery of the locomotor equilibrium and spontaneous discharge of lateral vestibular nucleus neurons in unilateral vestibular neurectomized cats] Sun J. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):257–60 (Eng. Abstr.) **(Chi)**

RHONCHI see **RESPIRATORY SOUNDS**

RHUBARB

Dietary rhubarb (Rheum rhaponticum) stalk fibre stimulates cholesterol 7 alpha-hydroxylase gene expression and bile acid excretion in cholesterol-fed C57BL/6J mice. Goel V, et al. **Br J Nutr** 1999 Jan;81(1):65–71
[Clinical study of shuizhi-dahuang mixture in treating schizophrenics with blood stasis syndrome] Zhu YZ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Nov; 16(11):646–8 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Separation and determination of anthraquinone derivatives in rhubarb and its preparations by micellar electrokinetic capillary chromatography. Ji SG, et al. **Biomed Chromatogr** 1998 Nov-Dec;12(6):335–7
Emodin, an anthraquinone derivative isolated from the rhizomes of Rheum palmatum, selectively inhibits the activity of casein kinase II as a competitive inhibitor. Yim H, et al. **Planta Med** 1999 Feb;65(1):9–13

THERAPEUTIC USE

A clinical study on compound da huang (radix et Rhizoma rhei) preparations for improvement of senile persons' memory ability. Tian J, et al. **J Tradit Chin Med** 1997 Sep; 17(3):168–73
[Experimental treatment of rhubarb on mesangio-proliferative glomerulonephritis in rats] Wei J, et al. **Chung Hua Nei Ko Tsa Chih** 1997;36(2):87–9 (Eng. Abstr.) **(Chi)**
[Clinical observation on treatment of infantile cholestatic hepatitis syndrome by rhubarb] Huang ZH, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Aug; 17(8):459–61 (Eng. Abstr.) **(Chi)**
[Clinical study on niaodujing in treating chronic renal failure] Wang YJ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Nov; 16(11):649–51 (Eng. Abstr.) **(Chi)**

RHUS see **TOXICODENDRON**

RHUS DERMATITIS see **DERMATITIS, TOXICODENDRON**

RHYNCOPHTHIRINA see **LICE**

RHYTHM METHOD

Personal hormone monitoring for contraception. Bonnar J, et al. **Br J Fam Plann** 1999 Jan;24(4):128–34
Contraceptive efficacy of the personal hormone monitoring system Persona. Trussell J. **Br J Fam Plann** 1999 Jul; 25(2):34–5
Incidence of irregular cycles among Mayan women who reported having regular cycles: implications for fertility awareness methods. Burkhart MC, et al. **Contraception** 1999 Apr;59(4):271–5

RHYTHMICITY see **PERIODICITY**

RHYTIDECTOMY see **RHYTIDOPLASTY**

RHYTIDOPLASTY

Cervical rhytidectomy. Mottura AA. **Aesthetic Plast Surg** 1999 May-Jun;23(3):179–88
High-tech facelift. Ramirez OM. **Aesthetic Plast Surg** 1998 Sep-Oct;22(5):318–28
Anesthesia for facial surgery. Ullmann Y, et al. **Aesthetic Plast Surg** 1999 Jul-Aug;23(4):296–7
Management of buccal space tumors by rhytidectomy approach with superficial musculoaponeurotic system reconstruction. Madorsky SJ, et al. **Am J Otolaryngol** 1999 Jan-Feb;20(1):51–5
A total intravenous anesthetic technique for outpatient facial laser resurfacing. Blakeley KR, et al. **Anesth Analg** 1998 Oct;87(4):827–9
Eyelid healing after carbon dioxide laser skin resurfacing: histological analysis. Mannor GE, et al. **Arch Ophthalmol** 1999 Jul;117(7):913–6
Cigarette smoking, wound healing, and face-lift. Campanile G, et al. **Clin Dermatol** 1998 Sep-Oct;16(5):575–8 (48 ref.)
Cosmetic use of botulinum A exotoxin for the aging neck. Brandt FS, et al. **Dermatol Surg** 1998 Nov;24(11):1232–4 (9 ref.)
Extent of undermining and neurovascular trabeculae [letter; comment] Field LM. **Dermatol Surg** 1999 Jan;25(1):77–8. Comment on: Dermatol Surg 1998 Aug;24(8):821–6.
Why devote an issue to botulinum toxin? [editorial] Klein AW, et al. **Dermatol Surg** 1998 Nov;24(11):1167
Facial plastic surgery: new solutions for "old" problems. Costa LE. **J S C Med Assoc** 1998 Dec;94(12):553–6
Advances in cutaneous aesthetic surgery. Stratigos AJ, et al. **JAMA** 1998 Oct 28;280(16):1397–8
Five things oculoplastic surgeons should know about facial plastic surgery. Sherris DA, et al. **Ophthal Plast Reconstr Surg** 1999 Jul;15(4):229–31
Hairline incisions [letter; comment] Camirand A. **Plast Reconstr Surg** 1999 Feb;103(2):736–7. Comment on: Plast Reconstr Surg 1998 May;101(6):1743.
A proposed nomenclature for rhytidectomy [letter; comment] Evans TW. **Plast Reconstr Surg** 1999 Mar;103(3):1080–1. Comment on: Plast Reconstr Surg 1998 Sep;102(3):878–81.
Midline platysma muscular overlap for neck restoration. Fuente del Campo A. **Plast Reconstr Surg** 1998 Oct; 102(5):1710–4; discussion 1715
Frequent face lift sequelae: hollow eyes and the lateral sweep: cause and repair. Hamra ST. **Plast Reconstr Surg** 1998 Oct; 102(5):1658–66
What age(s) for face lifts? [letter; comment] Lambros VS. **Plast Reconstr Surg** 1999 Mar;103(3):1076. Comment on: Plast Reconstr Surg 1998 Sep;102(4):1293–4.
CO2 laser resurfacing over facial flaps [letter; comment] Mayl N. **Plast Reconstr Surg** 1998 Oct;102(5):1768–9. Comment on: Plast Reconstr Surg 1998 Mar;101(3):816–9.
Pyriform augmentation as an ancillary procedure in facial rejuvenation surgery. Pessa JE, et al. **Plast Reconstr Surg** 1999 Feb;103(2):683–6
Long-term assessment of CO2 facial laser resurfacing: aesthetic results and complications. Schwartz RJ, et al. **Plast Reconstr Surg** 1999 Feb;103(2):592–601
The subperiosteal face lift [letter; comment] Tobin HA. **Plast Reconstr Surg** 1999 Apr;103(5):1539. Comment on: Plast Reconstr Surg 1998 Sep;102(3):843–55.
Erbium laser resurfacing: current concepts. Weinstein C. **Plast Reconstr Surg** 1999 Feb;103(2):602–16; discussion 617–8
Pseudoxanthoma elasticum. Case report. Chen TH, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):421–4
[Conservative forehead facelift. Design and preliminary results] Gola R. **Ann Chir Plast Esthet** 1999 Jun; 44(3):224–30 (Eng. Abstr.) **(Fre)**
[Botulinum toxin and facial wrinkles: a new injection procedure] Le Louarn C. **Ann Chir Plast Esthet** 1998 Oct; 43(5):526–33 (Eng. Abstr.) **(Fre)**
[Endoscopic fronto-temporo-malar face lift. Technique and results apropos of 18 cases] Poignonec S. **Ann Chir Plast Esthet** 1998 Oct;43(5):517–25 (Eng. Abstr.) **(Fre)**
[Face lifts as soon as the 3rd decade of life?] Brenner P. **Dtsch Med Wochenschr** 1998 Dec 11;123(50):1530–1 **(Ger)**

ADVERSE EFFECTS

Discoloration following collagen injections [letter] Davis PK. **Br J Plast Surg** 1999 Jan;52(1):81
Famciclovir prophylaxis of herpes simplex virus reactivation after laser skin resurfacing. Alster TS, et al. **Dermatol Surg** 1999 Mar;25(3):242–6
Incidence of postoperative infection or positive culture after facial laser resurfacing: a pilot study, a case report, and a proposal for a rational approach to antibiotic prophylaxis. Ross EV, et al. **J Am Acad Dermatol** 1998 Dec;39(6):975–81 (33 ref.)
The use of micrografts and minigrafts for the correction of the postrhytidectomy lost sideburn. Barrera A. **Plast Reconstr Surg** 1998 Nov;102(6):2237–40
[Fasciitis following face lift] Mitz V. **Ann Chir Plast Esthet** 1997 Dec;42(6):603–7; discussion 608 (9 ref.) (Eng. Abstr.) **(Fre)**

HISTORY

History of the cosmetic use of Botulinum A exotoxin. Carruthers A, et al. **Dermatol Surg** 1998 Nov; 24(11):1168–70
[The life of Maurice Virenque (1888–1946). From "Gueules Cassées" to cervicofacial facelift] Vrebos J, et al. **Ann Chir Plast Esthet** 1998 Apr;43(2):169–74 (Eng. Abstr.) **(Fre)**

INSTRUMENTATION

A side-by-side comparison of carbon dioxide resurfacing lasers for the treatment of rhytides. Gross EA, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):547–53
Erbium: YAG laser--an improved periorbital resurfacing device. Kopelman J. **Semin Ophthalmol** 1998 Sep; 13(3):136–41 (16 ref.)
[Endoscopic forehead, face and neck lifting] Mühlbauer W. **Handchir Mikrochir Plast Chir** 1999 Jan;31(1):37–41 (Eng.

Abstr.) **(Ger)**

METHODS

Custom-made rhytidoplasty. Cardoso de Castro C. **Aesthetic Plast Surg** 1999 Jan-Feb;23(1):45-50

Endoscopic subcutaneous and SMAS facelift without preauricular scars. de la Fuente A, et al. **Aesthetic Plast Surg** 1999 Mar-Apr;23(2):119-24

Full-face laser resurfacing and rhytidectomy. Graf RM, et al. **Aesthetic Plast Surg** 1999 Mar-Apr;23(2):101-6

Elevation of the lateral brow without the help of an endoscope. Lassus C. **Aesthetic Plast Surg** 1999 Jan-Feb; 23(1):23-7

Bioplastique as a complement in conventional plastic surgery. Nácul AM, et al. **Aesthetic Plast Surg** 1998 Nov-Dec; 22(6):444-50

A nondeforming rhytidectomy incision. Talamas I. **Aesthetic Plast Surg** 1999 May-Jun;23(3):228-32

Modifications in endoscopic facelifts. Celik M, et al. **Ann Plast Surg** 1999 Jun;42(6):638-43

Combination therapy: utilization of CO2 and Erbium:YAG lasers for skin resurfacing. Collawn SS. **Ann Plast Surg** 1999 Jan;42(1):21-6

Buccal fat pad pedicle flap for midface augmentation. Ramirez OM. **Ann Plast Surg** 1999 Aug;43(2):109-18

Comparative clinical trial of 2 carbon dioxide resurfacing lasers with varying pulse durations. 100 microseconds vs 1 millisecond. Duke D, et al. **Arch Dermatol** 1998 Oct; 134(10):1240-6

Cryogen spray cooling in combination with nonablative laser treatment of facial rhytides. Kelly KM, et al. **Arch Dermatol** 1999 Jun;135(6):691-4

Comparison of erbium:YAG and carbon dioxide lasers in resurfacing of facial rhytides. Khatri KA, et al. **Arch Dermatol** 1999 Apr;135(4):391-7

Why does carbon dioxide resurfacing work? A review. Ross EV, et al. **Arch Dermatol** 1999 Apr;135(4):444-54 (98 ref.)

Comparison of subperiosteal vs subgaleal elevation techniques used in forehead lifts. Nassif PS, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov; 124(11):1209-15

Comparison of four carbon dioxide resurfacing lasers. A clinical and histopathologic evaluation. Alster TS, et al. **Dermatol Surg** 1999 Mar;25(3):153-8; discussion 159

Resurfacing and punch excision for scarring [letter; comment] Field LM. **Dermatol Surg** 1999 Mar;25(3):257-8. Comment on: Dermatol Surg 1998 May;24(5):527-30.

Combined laser resurfacing with the 950-microsec pulsed CO2 + Er:YAG lasers. Goldman MP, et al. **Dermatol Surg** 1999 Mar;25(3):160-3

Laser resurfacing of the neck with the Erbium: YAG laser. Goldman MP, et al. **Dermatol Surg** 1999 Mar;25(3):164-7; discussion 167-8

Periorbital rejuvenation: a review of dermatologic treatments. Manaloto RM, et al. **Dermatol Surg** 1999 Jan; 25(1):1-9 (80 ref.)

Long-term effects of one general pass laser resurfacing. A look at dermal tightening and skin quality. Ruiz-Esparza J, et al. **Dermatol Surg** 1999 Mar;25(3):169-73; discusion 174

Electron microscopy comparison of CO2 laser flash scanning and pulse technology one year after skin resurfacing. Trelles MA, et al. **Int J Dermatol** 1999 Jan;38(1):58-64

Fixation techniques for endoscopic browlift. Kennedy BD, et al. **J Oral Maxillofac Surg** 1999 May;57(5):588-94 (24 ref.)

Laser treatment of solar elastosis with epithelial preservation. Muccini JA Jr, et al. **Lasers Surg Med** 1998;23(3):121-7

Total intravenous anesthesia for office-based laser facial resurfacing. Trytko RL, et al. **Lasers Surg Med** 1999; 25(2):126-30

Histologic analysis of the thermal effect on epidermal and dermal structures following treatment with the superpulsed CO2 laser and the erbium: YAG laser: an in vivo study. Utley DS, et al. **Lasers Surg Med** 1999;24(2):93-102

Periorbital skin resurfacing using high energy erbium:YAG laser: results in 50 patients. Weiss RA, et al. **Lasers Surg Med** 1999;24(2):81-6

Laser blepharoplasty and skin resurfacing. American Academy of Ophthalmology. **Ophthalmology** 1998 Nov; 105(11):2154-9

Endoscopic malar/midface suspension procedure [see comments] Anderson RD, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2196-208. Comment in: Plast Reconstr Surg 1999 Jun;103(7):2081-2.

Carbon dioxide laser-assisted endoscopic forehead lift. Choo PH, et al. **Plast Reconstr Surg** 1999 Jan;103(1):294-8

Lifting of the upper two-thirds of the face: supraperiosteal-subSMAS versus subperiosteal approach. The quest for physiologic surgery. de la Plaza R, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2178-89

Simultaneous face lifting and skin resurfacing. Fulton JE. **Plast Reconstr Surg** 1998 Dec;102(7):2480-9

A simplified transblepharoplasty subperiosteal cheek lift [see comments] Gunter JP, et al. **Plast Reconstr Surg** 1999 Jun; 103(7):2029-35; discussion 2036-41. Comment in: Plast Reconstr Surg 1999 Jun;103(7):2010-1.

The zygorbicular dissection in composite rhytidectomy: an ideal midface plane. Hamra ST. **Plast Reconstr Surg** 1998 Oct;102(5):1646-57

Vertical preperiosteal rejuvenation of the frame of the eyelids and midface. Hinderer UT. **Plast Reconstr Surg** 1999 Oct; 104(5):1482-99; discussion 1500-1

Subperiosteal rejuvenation of the midface and periorbital area: a simplified approach. Hobar PC, et al. **Plast Reconstr Surg** 1999 Sep;104(3):842-51; discussion 852-3

Sideburn reconstruction in secondary lifting. Juri J. **Plast Reconstr Surg** 1998 Nov;102(6):2241-3

Periauricular face lift incisions and the auricular anchor. Knize DM. **Plast Reconstr Surg** 1999 Oct;104(5):1508-20; discussion 1521-3

Limited incision foreheadplasty. Knize DM. **Plast Reconstr Surg** 1999 Jan;103(1):271-84; discussion 285-90

Reassessment of the coronal incision and subgaleal dissection for foreheadplasty [letter; comment] Knize DM. **Plast Reconstr Surg** 1999 Apr;103(4):1326-7. Comment on: Plast Reconstr Surg 1998 Aug;102(2):478-89; discussion 490-2.

Hairline lowering during foreheadplasty. Marten TJ. **Plast Reconstr Surg** 1999 Jan;103(1):224-36

MacGyver Midface [letter; comment] Pozner JN, et al. **Plast Reconstr Surg** 1999 Jun;103(7):2081-2. Comment on: Plast Reconstr Surg 1998 Nov;102(6):2196-208.

Aging nasolabial fold and treatment by direct excision. Rudkin G, et al. **Plast Reconstr Surg** 1999 Oct; 104(5):1502-5; discussion 1506-7

Dynamic technique: three-flap SMAS [letter; comment] Tapia A, et al. **Plast Reconstr Surg** 1999 Feb;103(2):743-5 . Comment on: Plast Reconstr Surg 1997 Aug;100(2):501.

The extended supraplatysmal plane face lift [letter; comment] Trepsat F. **Plast Reconstr Surg** 1998 Dec;102(7):2513-4. Comment on: Plast Reconstr Surg 1998 Feb;101(2):494-503.

Recent advances in soft tissue augmentation. Krauss MC. **Semin Cutan Med Surg** 1999 Jun;18(2):119-28 (71 ref.)

The transeyelid subperiosteal midface-lift in the unhappy postblepharoplasty patient. Edelstein C, et al. **Semin Ophthalmol** 1998 Sep;13(3):107-14 (13 ref.)

The endoscopic browlift for forehead rejuvenation. Holck DE, et al. **Semin Ophthalmol** 1998 Sep;13(3):149-57 (25 ref.)

[Subperiosteal endoscopic forehead facelifting] Ma H, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):57-9 (Eng. Abstr.) **(Chi)**

[CO2 laser skin resurfacing. Critical analysis of recent literature] Dubois R, et al. **Ann Chir Plast Esthet** 1998 Dec; 43(6):659-63 (22 ref.) (Eng. Abstr.) **(Fre)**

[Isolated cervico-facial liposuction applied to the treatment of aging] Flageul G, et al. **Ann Chir Plast Esthet** 1996 Dec; 41(6):620-30 (Eng. Abstr.) **(Fre)**

[Conservative cervico-facial facelift. Concept and preliminary results] Gola R. **Ann Chir Plast Esthet** 1997 Feb;42(1):9-20 (27 ref.) (Eng. Abstr.) **(Fre)**

[The forehead cutaneo-musculo-aponeurotic unit and aging of the forehead. Anatomo-physiological considerations and surgical implications] Gola R. **Ann Chir Plast Esthet** 1999 Feb;44(1):89-102 (Eng. Abstr.) **(Fre)**

[Results of biplane face lifts with maximal skin underlining and vertical SMAS flap] Mitz V, et al. **Ann Chir Plast Esthet** 1996 Dec;41(6):603-12 (Eng. Abstr.) **(Fre)**

[State-of-the art on rhinoplasty, facial rejuvenation and breast augmentation. Antibes, Juan-les-pins, 24-26] Mole B. **Ann Chir Plast Esthet** 1997 Jun;42(3):275-6 **(Fre)**

[Pathogenesis and treatment of the nasolabial fat pad: nasolabial dermolipopexy] Trepsat F. **Ann Chir Plast Esthet** 1996 Dec;41(6):613-9 (Eng. Abstr.) **(Fre)**

[Face lift--indications, contraindications and operation] Tschopp H. **Ther Umsch** 1999 Apr;56(4):194-9 (9 ref.) (Eng. Abstr.) **(Ger)**

TRENDS

Laser mania in medicine. Anderson RL, et al. **Arch Ophthalmol** 1998 Dec;116(12):1657-8

Who should perform face-lifts? [editorial] Goldberg RA. **Arch Ophthalmol** 1998 Dec;116(12):1661-2

RIB FRACTURES

Hedgehog signaling molecules in bone marrow cells at the initial stage of fracture repair. Ito H, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):443-51

COMPLICATIONS

Successful treatment of exsanguinating aortic injury from a fractured rib. Kern JA, et al. **Am Surg** 1998 Dec; 64(12):1158-60

Balanced analgesia for the management of pain associated with multiple fractured ribs in an opioid addict [letter] Connor DF, et al. **Anaesth Intensive Care** 1998 Aug; 26(4):459-60

Is there an association between fractures of the cervical spine and first- and second-rib fractures? Logan PM. **Can Assoc Radiol J** 1999 Feb;50(1):41-3

Delayed traumatic hemothorax on ticlopidine and aspirin for coronary stent. Quinn MW, et al. **Chest** 1999 Jul; 116(1):257-60

Delayed hemothorax after blunt thoracic trauma: an uncommon entity with significant morbidity. Simon BJ, et al. **J Trauma** 1998 Oct;45(4):673-6

A case of traumatic fat embolism syndrome without long bone fracture. Digby J, et al. **Tenn Med** 1999 Aug; 92(8):308-9

[Intraabdominal organ injury due to blunt chest trauma--report of two cases] Inoue S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep;46(9):902-5 (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Expression of metalloproteinase-13 (Collagenase-3) is induced during fracture healing in mice. Yamagiwa H, et al. **Bone** 1999 Aug;25(2):197-203

ETIOLOGY

Nontraumatic bilateral first rib fractures. Tsukada A, et al. **Acta Orthop Belg** 1998 Dec;64(4):406-8

Injury to the first rib synchondrosis in a rugby footballer. Kemp SP, et al. **Br J Sports Med** 1999 Apr;33(2):131-2

Isolated bilateral first rib fractures--an unusual sequel of whiplash injury. Qureshi T, et al. **Injury** 1998 Jun; 29(5):397-8

Erosion and nonunion of the first rib after sternoclavicular reconstruction with Dacron. Reilly P, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):76-8

Thoracic epidural analgesia versus intravenous patient-controlled analgesia for the treatment of rib fracture pain after motor vehicle crash. Wu CL, et al. **J Trauma** 1999 Sep;47(3):564-7

Multiple rib fractures caused by coughing in a young woman without bone loss [letter] Jamard B, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):237-8

Upper extremity and rib stress fractures in a child. Moon BS, et al. **Skeletal Radiol** 1998 Jul;27(7):403-5

METABOLISM

Switch of osteonectin and osteopontin mRNA expression in the process of cartilage-to-bone transition during fracture repair. Nakase T, et al. **Acta Histochem** 1998 Jul; 100(3):287-95

PATHOLOGY

Immunohistochemical localization of nerve growth factor in fractured and unfractured rat bone. Grills BL, et al. **Acta Orthop Scand** 1998 Aug;69(4):415-9

Fluorescence-aided detection of microdamage in compact bone. Lee TC, et al. **J Anat** 1998 Aug;193 (Pt 2):179-84

RADIOGRAPHY

Multiple nodular opacities on chest radiograph after lung transplantation. van den Berg JW, et al. **Chest** 1999 Jan; 115(1):272-4

Stress fracture of the sixth rib in an elite athlete. Bojanić I, et al. **Croat Med J** 1998 Dec;39(4):458-60

Costochondral junction fractures and intra-abdominal trauma in non-accidental injury (child abuse). Ng CS, et al. **Pediatr Radiol** 1998 Sep;28(9):671-6

Upper extremity and rib stress fractures in a child. Moon BS, et al. **Skeletal Radiol** 1998 Jul;27(7):403-5

VETERINARY

Abnormalities of the thoracic bellows: stress fractures of the ribs and hiatal hernia [see comments] Hardie EM, et al. **J Vet Intern Med** 1998 Jul-Aug;12(4):279-87. Comment in: J Vet Intern Med 1998 Nov-Dec;12(6):478-80.

RIBAVIRIN

ADMINISTRATION & DOSAGE

Hepatitis C and the 'cure' [letter; comment] Cooksley WG. **Aust Fam Physician** 1998 Dec;27(12):1086. Comment on: Aust Fam Physician 1998 Sep;27(9):839.

Pre-emptive use of aerosolized ribavirin in the treatment of asymptomatic pediatric marrow transplant patients testing positive for RSV. Adams R, et al. **Bone Marrow Transplant** 1999 Sep;24(6):661-4

Interferon-ribavirin for chronic hepatitis C with and without cirrhosis: analysis of individual patient data of six controlled trials. Eurohep Study Group for Viral Hepatitis. Schalm SW, et al. **Gastroenterology** 1999 Aug;117(2):408-13

Adenovirus pneumonitis successfully treated with intravenous ribavirin [letter] Jurado Chacón M, et al. **Haematologica** 1998 Dec;83(12):1128-9

Interferon + ribavirin combination therapy. Open new approach to treatment of patients with hepatitis C virus [comment] Iino S. **Ital J Gastroenterol Hepatol** 1999 Apr; 31(3):216-7. Comment on: Ital J Gastroenterol Hepatol 1999 Apr;31(3):211-5.

Retreatment of non-responder or relapser chronic hepatitis C patients with interferon plus ribavirin vs interferon alone [see comments] Milella M, et al. **Ital J Gastroenterol Hepatol** 1999 Apr;31(3):211-5. Comment in: Ital J Gastroenterol Hepatol 1999 Apr;31(3):216-7.

Efficacy of ribavirin plus interferon alpha on viraemia of GB virus-C/hepatitis G virus: comparison with interferon alpha alone. Kao JH, et al. **J Gastroenterol Hepatol** 1998 Dec;13(12):1249-53

Contact hypersensitivity responses following ribavirin treatment in vivo are influenced by type 1 cytokine

polarization, regulation of IL-10 expression, and costimulatory signaling. Tam RC, et al. **J Immunol** 1999 Oct 1;163(7):3709-17

Intravenous ribavirin for infant bronchiolitis. Oommen A, et al. **J R Soc Med** 1999 Feb;92(2):81-2

Successful treatment of HCV-associated cryoglobulinaemic glomerulonephritis with a combination of interferon-alpha and ribavirin. Misiani R, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1558-60

Respiratory system mechanics in patients receiving aerosolized ribavirin during mechanical ventilation for suspected respiratory syncytial viral infection. Jefferson LS, et al. **Pediatr Pulmonol** 1999 Aug;28(2):117-24

[Indications for combination interferon-ribavirin therapy in chronic hepatitis C] Blum HE. **Internist (Berl)** 1998 Sep; 39(9):981 **(Ger)**

[Ribavirin/interferon-alpha combination in treatment of chronic hepatitis C: what is the status today?] Renner EL. **Schweiz Med Wochenschr** 1999 Jan 12;129(1-2):8-10 (6 ref.) **(Ger)**

[Therapy of recurrent hepatitis C after liver transplantation] Hug B. **Schweiz Rundsch Med Prax** 1998 Sep 2;87(36):1160 **(Ger)**

[Interferon-alpha plus ribavirin combination therapy in chronic hepatitis C] Sarrazin C, et al. **Z Gastroenterol** 1999 Jul;37(7):669-74 **(Ger)**

[Is combination therapy of chronic hepatitis C with interferon alpha and ribavirin in primary interferon nonresponders indicated?--An analysis of personal experiences and review of the literature] Wedemeyer H, et al. **Z Gastroenterol** 1998 Sep;36(9):819-27 (35 ref.) (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

High prevalence of cutaneous reactions to interferon alfa plus ribavirin combination therapy in patients with chronic hepatitis C virus [letter] Sookoian S, et al. **Arch Dermatol** 1999 Aug;135(8):1000-1

Coupling to lactosaminated poly-L-lysine reduces the toxic effects of ribavirin on red blood cells [letter] Fiume L, et al. **J Hepatol** 1998 Dec;29(6):1032-3

Severe anemia following combined alpha-interferon/ribavirin therapy of chronic hepatitis C [letter] Tappero G, et al. **J Hepatol** 1998 Dec;29(6):1033-4

-Headache: an unrecognized risk of ribavirin in infants? (letter)- Odièvre M, et al. **Arch Pediatr** 1998 Mar;5(3):347 **(Fre)**

ANALOGS & DERIVATIVES

Synergistic action of tiazofurin and genistein on growth inhibition and differentiation of K-562 human leukemic cells. Li W, et al. **Life Sci** 1998;63(22):1975-81

Synergistic down-regulation of signal transduction and cytotoxicity by tiazofurin and quercetin in human ovarian carcinoma cells. Shen F, et al. **Life Sci** 1999;64(21):1869-76

The synthesis and antiviral activity of 4-fluoro-1-beta-D-ribofuranosyl-1H-pyrazole-3-carboxamide. Storer R, et al. **Nucleosides Nucleotides** 1999 Feb;18(2):203-16

Synergistic action of tiazofurin and genistein in human ovarian carcinoma cells. Li W, et al. **Oncol Res** 1998; 10(3):117-22

CHEMISTRY

Another complication of ribavirin therapy in a mechanically ventilated neonate. Dimond J. **Paediatr Anaesth** 1999; 9(5):448-50

IMMUNOLOGY

Photoallergic skin reaction to ribavirin. Stryjek-Kaminska D, et al. **Am J Gastroenterol** 1999 Jun;94(6):1686-8

Ribavirin polarizes human T cell responses towards a Type 1 cytokine profile. Tam RC, et al. **J Hepatol** 1999 Mar; 30(3):376-82

ISOLATION & PURIFICATION

[Microbiological synthesis of virazole by immobilized cells] Iaskovich GA, et al. **Prikl Biokhim Mikrobiol** 1999 Mar-Apr;35(2):146-9 (Eng. Abstr.) **(Rus)**

PHARMACOKINETICS

Ribavirin and interferon alfa-2b in chronic hepatitis C: assessment of possible pharmacokinetic and pharmacodynamic interactions. Khakoo S, et al. **Br J Clin Pharmacol** 1998 Dec;46(6):563-70

The clinical pharmacology of ribavirin. Glue P. **Semin Liver Dis** 1999;19 Suppl 1:17-24 (28 ref.)

PHARMACOLOGY

Effect of ribavirin on zidovudine efficacy and toxicity in vitro: a concentration-dependent interaction. Sim SM, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1661-7

Inhibition of Borna disease virus replication by ribavirin in persistently infected cells. Mizutani T, et al. **Arch Virol** 1998;143(10):2039-44

Effects of the ribavirin-interferon alpha combination on cultured peripheral blood mononuclear cells from chronic hepatitis C patients. Martin J, et al. **Cytokine** 1998 Aug; 10(8):635-44

The antiviral compound ribavirin modulates the T helper (Th) 1/Th2 subset balance in hepatitis B and C virus-specific immune responses. Hultgren C, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2381-91

Inhibition of Borna disease virus replication by ribavirin. Jordan I, et al. **J Virol** 1999 Sep;73(9):7903-6

SVMPA, a mutant of sindbis virus resistant to mycophenolic acid and ribavirin, shows an increased sensitivity to chick interferon. Rosenblum CI, et al. **Virology** 1999 Jun 20; 259(1):228-33

THERAPEUTIC USE

Is antiviral treatment (IFN alpha and/or ribavirin) justified in cirrhosis related to hepatitis C virus? Société Royale Belge de Gastro-entérologie. Poynard T, et al. **Acta Gastroenterol Belg** 1998 Oct-Dec;61(4):431-7 (53 ref.)

Up to date treatment of hepatitis C in adults. Schalm SW, et al. **Acta Gastroenterol Belg** 1998 Oct-Dec;61(4):397-9 (12 ref.)

Interferon alpha with ribavirin for the treatment of chronic hepatitis C in non-responders or relapsers to interferon monotherapy. Moreno-Monteagudo JA, et al. **Aliment Pharmacol Ther** 1998 Aug;12(8):717-23

Interferon-alpha-2B and ribavirin in combination for chronic hepatitis C patients not responding to interferon-alpha alone: an Italian multicenter, randomized, controlled, clinical study. Barbaro G, et al. **Am J Gastroenterol** 1998 Dec;93(12):2445-51

Response to retreatment with interferon-alpha plus ribavirin in chronic hepatitis C patients is independent of the NS5A gene nucleotide sequence. Ibarrola N, et al. **Am J Gastroenterol** 1999 Sep;94(9):2487-95

Interferon alpha-2B and ribavirin in combination for patients with chronic hepatitis C who failed to respond to, or relapsed after, interferon alpha therapy: a randomized trial [see comments] Barbaro G, et al. **Am J Med** 1999 Aug; 107(2):112-8. Comment in: Am J Med 1999 Aug;107(2):180-1.

Treatment of hepatitis C: a decision that needs careful consideration [editorial; comment] Wright TL. **Am J Med** 1999 Aug;107(2):180-1. Comment on: Am J Med 1999 Aug;107(2):112-8.

Ribavirin in ventilated respiratory syncytial virus bronchiolitis. A randomized, placebo-controlled trial. Guerguerian AM, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):829-34

Treatment of RSV pneumonia in adults--evidence of ribavirin effectiveness? Dominguez KD, et al. **Ann Pharmacother** 1999 Jun;33(6):739-41 (19 ref.)

Prospective follow-up and pulmonary functions from a placebo-controlled randomized trial of ribavirin therapy in respiratory syncytial virus bronchiolitis. Ribavirin Study Group. Rodriguez WJ, et al. **Arch Pediatr Adolesc Med** 1999 May;153(5):469-74

Interferon and ribavirin combination therapy in patients with chronic hepatitis C and mixed cryoglobulinemia [letter] Donada C, et al. **Blood** 1998 Oct 15;92(8):2983-4

Treatment of hepatitis C infection. Review underplayed important public health issues [letter] Agarwal K, et al. **BMJ** 1999 Aug 14;319(7207):450-1

Fulminant adenovirus hepatitis following unrelated bone marrow transplantation: failure of intravenous ribavirin therapy. Chakrabarti S, et al. **Bone Marrow Transplant** 1999 Jun;23(11):1209-11

New treatment for hepatitis C. Williams CN. **Can J Gastroenterol** 1999 Jan-Feb;13(1):19-20

Adding ribavirin to interferon alpha-2b for chronic hepatitis C infection increased virological response and nausea. Schalm SW. **Gut** 1998 Nov;43(5):602

r-Interferon alfa-2b/ribavirin combined therapy followed by low-dose r-interferon alfa-2b in chronic hepatitis C interferon nonresponders [letter; comment] Perasso A, et al. **Hepatology** 1999 Jan;29(1):297-8. Comment on: Hepatology 1998 Aug;28(2):341-6.

Combination therapy for chronic hepatitis C: interferon and ribavirin. Christie JM, et al. **Hosp Med** 1999 May; 60(5):357-61 (24 ref.)

Pilot study of triple antiviral therapy for chronic hepatitis C in interferon alpha non-responders [see comments] Brillanti S, et al. **Ital J Gastroenterol Hepatol** 1999 Mar; 31(2):130-4. Comment in: Ital J Gastroenterol Hepatol 1999 Mar;31(2):135-6.

Combination therapy for chronic hepatitis C [comment] Marcellin P. **Ital J Gastroenterol Hepatol** 1999 Mar; 31(2):135-6. Comment on: Ital J Gastroenterol Hepatol 1999 Mar;31(2):130-4.

Changes in serum hepatitis C virus RNA in interferon nonresponders retreated with interferon plus ribavirin: a preliminary report. Nyberg L, et al. **J Clin Gastroenterol** 1999 Jun;28(4):313-6

Interferon-alpha plus ribavirin in chronic hepatitis C resistant to previous interferon-alpha course: results of a randomized multicenter trial. Andreone P, et al. **J Hepatol** 1999 May; 30(5):788-93

Early prediction of response in interferon monotherapy and in interferon-ribavirin combination therapy for chronic hepatitis C: HCV RNA at 4 weeks versus ALT. Brouwer JT, et al. **J Hepatol** 1999 Feb;30(2):192-8

A randomized trial of ribavirin and interferon-alpha vs. interferon-alpha alone in patients with chronic hepatitis C who were non-responders to a previous treatment. Multicenter Study Group under the coordination of the Necker Hospital, Paris, France. Pol S, et al. **J Hepatol** 1999 Jul;31(1):1-7

Improved correlation between multiple mutations within the NS5A region and virological response in European patients chronically infected with hepatitis C virus type 1b undergoing combination therapy [see comments] Sarrazin C, et al. **J Hepatol** 1999 Jun;30(6):1004-13. Comment in: J Hepatol 1999 Jun;30(6):1152-4.

Effect of retreatment with interferon alone or interferon plus ribavirin on hepatitis C virus quasispecies diversification in nonresponder patients with chronic hepatitis C. Gerotto M, et al. **J Virol** 1999 Sep;73(9):7241-7

Effects of ribavirin on hepatitis C-associated nephrotic syndrome in four liver transplant recipients. Pham HP, et al. **Kidney Int** 1998 Oct;54(4):1311-9

Randomised trial of interferon alpha2b plus ribavirin for 48 weeks or for 24 weeks versus interferon alpha2b plus placebo for 48 weeks for treatment of chronic infection with hepatitis C virus. International Hepatitis Interventional Therapy Group (IHIT) [see comments] Poynard T, et al. **Lancet** 1998 Oct 31;352(9138):1426-32. Comment in: Lancet 1999 Feb 6;353(9151):499; discussion 500. Comment in: Lancet 1999 Feb 6;353(9151):499-500. Comment in: ACP J Club 1999 May-Jun;130(3):70.

Interferon versus ribavirin plus interferon in chronic hepatitis C previously resistant to interferon: a randomized trial. Salmerón J, et al. **Liver** 1999 Aug;19(4):275-80

The treatment of hepatitis C [editorial] Sievert W, et al. **Med J Aust** 1999 Mar 1;170(5):200-2

Interferon plus ribavirin for chronic hepatitis C. **Med Lett Drugs Ther** 1999 Jun 4;41(1054):53-4

Interferon alfa-2b alone or in combination with ribavirin for the treatment of relapse of chronic hepatitis C. International Hepatitis Interventional Therapy Group [see comments] Davis GL, et al. **N Engl J Med** 1998 Nov 19;339(21):1493-9 . Comment in: N Engl J Med 1998 Nov 19;339(21):1549-50. Comment in: N Engl J Med 1999 Apr 15;340(15):1207; discussion 1208-9.

Combination therapy for hepatitis C infection [editorial; comment] Liang TJ. **N Engl J Med** 1998 Nov 19; 339(21):1549-50. Comment on: N Engl J Med 1998 Nov 19;339(21):1485-92. Comment on: N Engl J Med 1998 Nov 19;339(21):1493-9.

Interferon alfa-2b alone or in combination with ribavirin as initial treatment for chronic hepatitis C. Hepatitis Interventional Therapy Group [see comments] McHutchison JG, et al. **N Engl J Med** 1998 Nov 19; 339(21):1485-92. Comment in: N Engl J Med 1998 Nov 19;339(21):1549-50. Comment in: N Engl J Med 1999 Apr 15;340(15):1207; discussion 1208-9.

Combination therapy for hepatitis C infection [letter; comment] Newman TB. **N Engl J Med** 1999 Apr 15; 340(15):1207; discussion 1208-9. Comment on: N Engl J Med 1998 Nov 19;339(21):1485-92. Comment on: N Engl J Med 1998 Nov 19;339(21):1493-9.

Combination of interferon alpha and ribavirin in the treatment of hepatitis C: implications for the clinical nephrologist [editorial] Fabrizi F, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2079-81 (10 ref.)

Two options for hepatitis C treatment. **Pa Med** 1999 Apr; 102(4):22-3 (9 ref.)

Treatment with interferon-alpha2a alone or interferon-alpha2a plus ribavirin in patients with chronic hepatitis C previously treated with interferon-alpha2a. CONSTRUCT Group. Bell H, et al. **Scand J Gastroenterol** 1999 Feb;34(2):194-8

Combination therapy with interferon alfa and ribavirin as retreatment of interferon relapse in chronic hepatitis C. Davis GL. **Semin Liver Dis** 1999;19 Suppl 1:49-55 (46 ref.)

Activity of combination therapy with interferon alfa-2b plus ribavirin in chronic hepatitis C patients co-infected with HIV. Dieterich DT, et al. **Semin Liver Dis** 1999;19 Suppl 1:87-94 (63 ref.)

Standards of treatment in chronic hepatitis C. Gish RG. **Semin Liver Dis** 1999;19 Suppl 1:35-47 (187 ref.)

Combination therapy with interferon plus ribavirin for the initial treatment of chronic hepatitis C. McHutchison JG, et al. **Semin Liver Dis** 1999;19 Suppl 1:57-65

Safety of combination interferon alfa-2b/ribavirin therapy in chronic hepatitis C-relapsed and treatment-naive patients. Maddrey WC. **Semin Liver Dis** 1999;19 Suppl 1:67-75

Hepatitis C not incurable [letter] Hill N. **Tex Med** 1998 Oct; 94(10):11-2

Treatment of severe recurrent hepatitis C after liver transplantation with ribavirin plus interferon alpha. Fischer L, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):494-5

Outcome of long-term ribavirin therapy for recurrent hepatitis C after liver transplantation. Cattral MS, et al. **Transplantation** 1999 May 15;67(9):1277-80

[Epidermolysis bullosa acquisita and hepatitis C] Thiery S, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):264-7 (Eng. Abstr.) **(Fre)**

[Respiratory syncytial virus infections and ribavirin: the controversy continues (editorial; comment)] Aujard Y. **Arch Pediatr** 1998 Feb;5(2):107-10 (24 ref.). Comment on: Arch Pediatr 1998 Feb;5(2):123-31. **(Fre)**

[Is the use of ribavirin aerosols in respiratory syncytial virus infections justified? Clinical and economic evaluation (see comments)] Ventura F, et al. **Arch Pediatr** 1998 Feb; 5(2):123-31 (Eng. Abstr.). Comment in: Arch Pediatr 1998 Feb;5(2):107-10. **(Fre)**

[Treatment of chronic hepatitis C: interferon alpha-2b alone

or in combination with ribavirin] Fontaine H, et al. **Gastroenterol Clin Biol** 1999 Apr;23(4):541-4 **(Fre)**

[Opinion on interferon-ribavirin association in the primary treatment of chronic hepatitis C] Bergmann JF. **Presse Med** 1999 Jan 16;28(2):77-8 **(Fre)**

[Should we treat cirrhosis in hepatitis C carriers with antiviral agents?] Brenard R, et al. **Rev Med Brux** 1999 Feb; 20(1):A50 **(Fre)**

[Update on hepatitis C: potential transmission by invasive medical examinations; new therapeutic modalities (1)] Delwaide J. **Rev Med Liege** 1998 Aug;53(8):467-9 (17 ref.) (Eng. Abstr.) **(Fre)**

[Interferon-alpha and ribavirin: advances in the therapy of chronic hepatitis C] Zeuzem S. **Dtsch Med Wochenschr** 1999 May 21;124(20):636-42 (42 ref.) **(Ger)**

[Severe relapse of hepatitis C following liver transplantation. Successful treatment with a combination of interferon-alpha and ribavirin] Telegdy L, et al. **Orv Hetil** 1999 Aug 22;140(34):1891-3 (Eng. Abstr.) **(Hun)**

RIBITOL

ANALOGS & DERIVATIVES

Kelletinin A, from the marine mollusc Buccinulum corneum, promotes differentiation in Hydra vulgaris. De Petrocellis L, et al. **Res Commun Mol Pathol Pharmacol** 1999 Jan; 103(1):17-28

RIBOFLAVIN

Immunological relatedness of chicken and human riboflavin carrier protein. Subramanian S, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):539-44

Influence of aqueous coatings on the stability of enteric coated pellets and tablets. Thoma K, et al. **Eur J Pharm Biopharm** 1999 Jan;47(1):39-50

Current knowledge concerning optimum nutritional status of riboflavin, niacin and pyridoxine. Powers HJ. **Proc Nutr Soc** 1999 May;58(2):435-40 (47 ref.)

ADMINISTRATION & DOSAGE

Effect of riboflavin supplementation on zinc and iron absorption and growth performance in mice. Agte VV, et al. **Biol Trace Elem Res** 1998 Nov;65(2):109-15

ANALOGS & DERIVATIVES

Function of coenzyme F420 in aerobic catabolism of 2,4, 6-trinitrophenol and 2,4-dinitrophenol by Nocardioides simplex FJ2-1A. Ebert S, et al. **J Bacteriol** 1999 May; 181(9):2669-74

ANALYSIS

Thiamin, riboflavin, and niacin contents of the gluten-free diet: is there cause for concern? Thompson T. **J Am Diet Assoc** 1999 Jul;99(7):858-62

Determination of riboflavin, flavin mononucleotide and flavin-adenine dinucleotide in wine and other beverages by high-performance liquid chromatography with fluorescence detection. Andrés-Lacueva C, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):355-63

Light regime, riboflavin, and pH effects on 2,4-D photodegradation in water. Harrison SK, et al. **J Environ Sci Health B** 1999 May;34(3):469-89

Thiamin, riboflavin, and alpha-tocopherol content of exotic meats and loss due to gamma radiation. Lakritz L, et al. **J Food Prot** 1998 Dec;61(12):1681-3

BIOSYNTHESIS

Threonine aldolase overexpression plus threonine supplementation enhanced riboflavin production in Ashbya gossypii. Monschau N, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4283-90

Estimation of P-to-O ratio in Bacillus subtilis and its influence on maximum riboflavin yield. Sauer U, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):750-4

Metabolic capacity of Bacillus subtilis for the production of purine nucleosides, riboflavin, and folic acid. Sauer U, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):227-38

Physiological consequence of disruption of the VMA1 gene in the riboflavin overproducer Ashbya gossypii. Förster C, et al. **J Biol Chem** 1999 Apr 2;274(14):9442-8

Plant riboflavin biosynthesis. Cloning, chloroplast localization, expression, purification, and partial characterization of spinach lumazine synthase. Jordan DB, et al. **J Biol Chem** 1999 Jul 30;274(31):22114-21

Molecular analysis of riboflavin synthesis genes in Bartonella henselae and use of the ribC gene for differentiation of Bartonella species by PCR. Bereswill S, et al. **J Clin Microbiol** 1999 Oct;37(10):3159-66

BLOOD

Folic acid, riboflavin, thiamine, and vitamin B-6 status of a group of first-time blood donors. Booth CK, et al. **Am J Clin Nutr** 1998 Nov;68(5):1075-80

Riboflavin and riboflavin-derived cofactors in adolescent girls with anorexia nervosa. Capo-chichi CD, et al. **Am J Clin Nutr** 1999 Apr;69(4):672-8

Quantification of riboflavin, flavin mononucleotide, and flavin adenine dinucleotide in human plasma by capillary electrophoresis and laser-induced fluorescence detection. Hustad S, et al. **Clin Chem** 1999 Jun;45(6 Pt 1):862-8

The thiamin, riboflavin and pyridoxine status of patients on emergency admission to hospital. Jamieson CP, et al. **Clin Nutr** 1999 Apr;18(2):87-91

Enzymic evaluation of thiamin, riboflavin and pyridoxine status of parturient mothers and their newborn infants in a Mediterranean area of Spain. Sánchez DJ, et al. **Eur J Clin Nutr** 1999 Jan;53(1):27-38

Molybdenum, xanthine oxidase and riboflavin levels in tamoxifen treated postmenopausal women with breast cancer. Vaidya SM, et al. **Indian J Med Sci** 1998 Jun; 52(6):244-7

[Metabolism of vitamins B1 and B2 during phenylketonuria] Kodentsova VM, et al. **Vopr Med Khim** 1999 Mar-Apr; 45(2):150-7 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Riboflavin-mediated delivery of a macromolecule into cultured human cells. Holladay SR, et al. **Biochim Biophys Acta** 1999 Jan 4;1426(1):195-204

X-ray crystal structure of the Desulfovibrio vulgaris (Hildenborough) apoflavodoxin-riboflavin complex. Walsh MA, et al. **Eur J Biochem** 1998 Dec 1;258(2):362-71

Vitamin B2 interference with TDx drugs-of-abuse assays. Kunsman GW, et al. **J Forensic Sci** 1998 Nov;43(6):1225-7

[In vitro interaction of selegiline, riboflavin and light. Sensitized photodegradation of drugs. I] Takács M, et al. **Acta Pharm Hung** 1999 Jun;69(3):103-7 (Eng. Abstr.) **(Hun)**

DEFICIENCY see RIBOFLAVIN DEFICIENCY

METABOLISM

Biosynthesis of cobalamin in Salmonella typhimurium: transformation of riboflavin into the 5,6-dimethylbenzimidazole moiety. Keck B, et al. **Arch Microbiol** 1998 Dec;171(1):66-8

Riboflavin transport by rabbit renal basolateral membrane vesicles. Yanagawa N, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):56-62

A comparison of two dissimilar monoclonal antibodies that are directed to a common epitope in the reduced and carboxymethylated chicken riboflavin carrier protein. Lobo SC, et al. **Immunol Invest** 1998 Dec;27(6):339-53

The study of riboflavin requirement in broiler chickens. Olkowski AA, et al. **Int J Vitam Nutr Res** 1998; 68(5):316-27

Is thallium-induced nephrotoxicity in rats connected with riboflavin and/or GSH?--reconsideration of hypotheses on the mechanism of thallium toxicity. Appenroth D, et al. **J Appl Toxicol** 1999 Jan-Feb;19(1):61-6

Energy depletion differently affects membrane transport and intracellular metabolism of riboflavin taken up by isolated rat enterocytes. Gastaldi G, et al. **J Nutr** 1999 Feb; 129(2):406-9

Debromination of (alpha-bromoiso-valeryl)urea catalysed by rat blood. Kitamura S, et al. **J Pharm Pharmacol** 1999 Jan; 51(1):73-8

The ribR gene encodes a monofunctional riboflavin kinase which is involved in regulation of the Bacillus subtilis riboflavin operon. Solovieva IM, et al. **Microbiology** 1999 Jan;145 (Pt 1):67-73

PHARMACOLOGY

Protection by vitamin B2 against oxidant-mediated acute lung injury. Seekamp A, et al. **Inflammation** 1999 Oct; 23(5):449-60

Effect of vitamin B2 on somatic cell counts in milk of clinical Staphylococcus aureus mastitis. Sato S, et al. **J Vet Med Sci** 1999 May;61(5):569-71

Specificity of mutations induced by riboflavin mediated photosensitization in the supF gene of Escherichia coli. Tano K, et al. **Mutat Res** 1998 Dec 3;420(1-3):7-13

RADIATION EFFECTS

[In vitro interaction of selegiline, riboflavin and light. Sensitized photodegradation of drugs. I] Takács M, et al. **Acta Pharm Hung** 1999 Jun;69(3):103-7 (Eng. Abstr.) **(Hun)**

THERAPEUTIC USE

Riboflavine and severe lactic acidosis [letter] Luzzati R, et al. **Lancet** 1999 Mar 13;353(9156):901-2

Effect of pyridoxine or riboflavin supplementation on plasma homocysteine levels in women with oral lesions. Lakshmi AV, et al. **Natl Med J India** 1998 Jul-Aug;11(4):171-2

Effectiveness of high-dose riboflavin in migraine prophylaxis [letter; comment] Yee AJ. **Neurology** 1999 Jan 15; 52(2):431-2. Comment on: Neurology 1998 Feb;50(2):466-70.

[Leigh syndrome and leukodystrophy due to partial succinate dehydrogenase deficiency: regression with riboflavin] Pinard JM, et al. **Arch Pediatr** 1999 Apr;6(4):421-6 (Eng. Abstr.) **(Fre)**

TOXICITY

Hypoxia potentiates ultraviolet A-induced riboflavin cytotoxicity. Minami H, et al. **J Invest Dermatol** 1999 Jul; 113(1):77-81

URINE

[Metabolism of vitamins B1 and B2 during phenylketonuria] Kodentsova VM, et al. **Vopr Med Khim** 1999 Mar-Apr; 45(2):150-7 (Eng. Abstr.) **(Rus)**

RIBOFLAVIN DEFICIENCY

DIAGNOSIS

Thiamin and riboflavin status of medical inpatients. Songchitsomboon S, et al. **J Med Assoc Thai** 1998 Dec; 81(12):931-7

EPIDEMIOLOGY

The thiamin, riboflavin and pyridoxine status of patients on emergency admission to hospital. Jamieson CP, et al. **Clin Nutr** 1999 Apr;18(2):87-91

ETIOLOGY

Reconsideration of some hypotheses on the mechanism of thallium toxicity in rats with special respect to riboflavin and glutathione. Appenroth D, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:16-8

METABOLISM

Riboflavin metabolism--relevance to human nutrition. Lakshmi AV. **Indian J Med Res** 1998 Nov;108:182-90 (75 ref.)

RIBOFLAVIN SYNTHASE

ANTAGONISTS & INHIBITORS

Design and synthesis of 6-(6-D-ribitylamino-2,4-dihydroxypyrimidin-5-yl)-1-hexyl phosphonic acid, a potent inhibitor of lumazine synthase. Cushman M, et al. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):39-42

RIBONUCLEASE A see RIBONUCLEASE, PANCREATIC

RIBONUCLEASE H see RIBONUCLEASE H, CALF THYMUS

RIBONUCLEASE H, CALF THYMUS

ANTAGONISTS & INHIBITORS

Argentine plant extracts active against polymerase and ribonuclease H activities of HIV-1 reverse transcriptase. Hnatyszyn O, et al. **Phytother Res** 1999 May;13(3):206-9

BIOSYNTHESIS

Cloning of the cDNA encoding the large subunit of human RNase HI, a homologue of the prokaryotic RNase HII. Frank P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12872-7

CHEMISTRY

Stabilization of ribonuclease HI from Thermus thermophilus HB8 by the spontaneous formation of an intramolecular disulfide bond. Hirano N, et al. **Biochemistry** 1998 Sep 8; 37(36):12640-8

A thermodynamic comparison of mesophilic and thermophilic ribonucleases H. Hollien J, et al. **Biochemistry** 1999 Mar 23;38(12):3831-6

Pressure-denatured state of Escherichia coli ribonuclease HI as monitored by Fourier transform infrared and NMR spectroscopy. Yamasaki K, et al. **Biochemistry** 1998 Dec 22;37(51):18001-9

Sensitive detection of the binding of E2F to its promoter by exonuclease III- and BssHII-protection PCR assays. Han B, et al. **J Biochem Biophys Methods** 1999 Feb 25; 39(1-2):85-92

NMR structure of the N-terminal domain of Saccharomyces cerevisiae RNase HI reveals a fold with a strong resemblance to the N-terminal domain of ribosomal protein L9. Evans SP, et al. **J Mol Biol** 1999 Aug 20;291(3):661-9

Confirmation of the hierarchical folding of RNase H: a protein engineering study. Raschke TM, et al. **Nat Struct Biol** 1999 Sep;6(9):825-31

A novel DNA-binding motif shares structural homology to DNA replication and repair nucleases and polymerases. Yuan YC, et al. **Nat Struct Biol** 1998 Nov;5(11):959-64

A comparative analysis of computational motif-detection methods. Hudak J, et al. **Pac Symp Biocomput** 1999;:138-49

Characterization of a folding intermediate from HIV-1 ribonuclease H. Kern G, et al. **Protein Sci** 1998 Oct; 7(10):2164-74

Folding the ribonuclease H domain of Moloney murine leukemia virus reverse transcriptase requires metal binding or a short N-terminal extension. Goedken ER, et al. **Proteins** 1998 Oct 1;33(1):135-43

Characterization of internal motions of Escherichia coli ribonuclease H by Monte Carlo simulation. Haliloglu T. **Proteins** 1999 Mar 1;34(4):533-9

Exploring the dynamic information content of a protein

NMR structure: comparison of a molecular dynamics simulation with the NMR and X-ray structures of Escherichia coli ribonuclease HI. Philippopoulos M, et al. **Proteins** 1999 Jul 1;36(1):87–110

GENETICS

Identification of the genes encoding Mn2+–dependent RNase HII and Mg2+–dependent RNase HIII from Bacillus subtilis: classification of RNases H into three families. Ohtani N, et al. **Biochemistry** 1999 Jan 12; 38(2):605–18

Cloning, subcellular localization and functional expression of human RNase HII. Frank P, et al. **Biol Chem** 1998 Dec; 379(12):1407–12

Identification of a ribonuclease H gene in both Mycoplasma genitalium and Mycoplasma pneumoniae by a new method for exhaustive identification of ORFs in the complete genome sequences. Bellgard MI, et al. **FEBS Lett** 1999 Feb 19;445(1):6–8

Cloning, expression, and mapping of ribonucleases H of human and mouse related to bacterial RNase HI. Cerritelli SM, et al. **Genomics** 1998 Nov 1;53(3):300–7

Gene cloning and characterization of recombinant RNase HII from a hyperthermophilic archaeon. Haruki M, et al. **J Bacteriol** 1998 Dec;180(23):6207–14

Isolation of RNase H genes that are essential for growth of Bacillus subtilis 168. Itaya M, et al. **J Bacteriol** 1999 Apr;181(7):2118–23

Cloning of the cDNA encoding the large subunit of human RNase HI, a homologue of the prokaryotic RNase HII. Frank P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12872–7

ISOLATION & PURIFICATION

Purification of Saccharomyces cerevisiae RNase H(70) and identification of the corresponding gene. Frank P, et al. **FEBS Lett** 1999 May 7;450(3):251–6

METABOLISM

Boranophosphates support the RNase H cleavage of polyribonucleotides. Rait VK, et al.
Antisense Nucleic Acid Drug Dev 1999 Feb;9(1):53–60

Selective mRNA degradation by antisense oligonucleotide-2,5A chimeras: involvement of RNase H and RNase L. Robbins I, et al. **Biochimie** 1998 Aug–Sep; 80(8–9):711–20

Impact of mixed-backbone oligonucleotides on target binding affinity and target cleaving specificity and selectivity by Escherichia coli RNase H. Shen LX, et al.
Bioorg Med Chem 1998 Oct;6(10):1695–705

Discrimination between ribonuclease H- and ribonuclease L-mediated RNA degradation by 2'-O-methylated 2-5A-antisense oligonucleotides. Cramer H, et al.
Bioorg Med Chem Lett 1999 Apr 5;9(7):1049–54

Regulation of the angiotensin type-1 receptor by antisense oligonucleotides occurs through an RNase H-type mechanism. Ho SP, et al. **Brain Res Mol Brain Res** 1999 Feb 19;65(1):23–33

Bacteriophage T4 rnh (RNase H) null mutations: effects on spontaneous mutation and epistatic interaction with rII mutations. Bebenek A, et al. **J Bacteriol** 1999 May; 181(10):3123–8

Gene cloning and characterization of recombinant RNase HII from a hyperthermophilic archaeon. Haruki M, et al. **J Bacteriol** 1998 Dec;180(23):6207–14

Activation/attenuation model for RNase H. A one-metal mechanism with second-metal inhibition. Keck JL, et al. **J Biol Chem** 1998 Dec 18;273(51):34128–33

Residues in the alphaH and alpha1 helices of the HIV-1 reverse transcriptase thumb subdomain required for the specificity of RNase H-catalyzed removal of the polypurine tract primer. Powell MD, et al.
J Biol Chem 1999 Jul 9;274(28):19885–93

Soluble Rous sarcoma virus reverse transcriptases alpha, alphabeta, and beta purified from insect cells are processive DNA polymerases that lack an RNase H 3'--> 5'directed processing activity. Werner S, et al. **J Biol Chem** 1999 Sep 10;274(37):26329–36

Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for the analysis of RNase H cleavage products. Polo LM, et al. **J Mass Spectrom** 1998 Dec; 33(12):1226–31

The P236L delavirdine-resistant human immunodeficiency virus type 1 mutant is replication defective and demonstrates alterations in both RNA 5'-end- and DNA 3'-end-directed RNase H activities. Gerondelis P, et al. **J Virol** 1999 Jul;73(7):5803–13

RNase H requirements for the second strand transfer reaction of human immunodeficiency virus type 1 reverse transcription. Smith CM, et al. **J Virol** 1999 Aug; 73(8):6573–81

Human RNase H-mediated RNA cleavage from DNA-RNA duplexes is inhibited by 6-deoxythioguanosine incorporation into DNA. Krynetskaia NF, et al.
Mol Pharmacol 1999 Oct;56(4):841–8

Confirmation of the hierarchical folding of RNase H: a protein engineering study. Raschke TM, et al.
Nat Struct Biol 1999 Sep;6(9):825–31

A structure-specific DNA endonuclease is enriched in kinetoplasts purified from Crithidia fasciculata. Engel ML, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4733–8

RIBONUCLEASE N1 see RIBONUCLEASE T1

RIBONUCLEASE, PANCREATIC

Cleavage of double-stranded copy RNA by RNase 1 and RNase T1 provides a robust means to detect p53 gene mutations in clinical specimens. Prescott J, et al.
Electrophoresis 1999 Jun;20(6):1149–61

ANALYSIS

Quantitative analysis of the composition of the native and scrambled ribonuclease A. Chang JY. **Anal Biochem** 1999 Mar 1;268(1):147–50

A fluorescence-based assay for ribonuclease A activity. James DA, et al. **Anal Biochem** 1998 Nov 1;264(1):26–33

Variants of ribonuclease inhibitor that resist oxidation. Kim BM, et al. **Protein Sci** 1999 Feb;8(2):430–4

ANTAGONISTS & INHIBITORS

Toward rational design of ribonuclease inhibitors: high-resolution crystal structure of a ribonuclease A complex with a potent 3',5'-pyrophosphate-linked dinucleotide inhibitor. Leonidas DD, et al. **Biochemistry** 1999 Aug 10;38(32):10287–97

[Angiogenin-induced angiogenesis as a target in the therapy of tumors] Komolova GS, et al. **Eksp Klin Farmakol** 1998 Sep–Oct;61(5):81–4 (51 ref.) **(Rus)**

BIOSYNTHESIS

Semisynthesis of cytotoxic proteins using a modified protein splicing element. Evans TC Jr, et al. **Protein Sci** 1998 Nov; 7(11):2256–64

CHEMISTRY

Melting points of lysozyme and ribonuclease A crystals correlated with protein unfolding: a Raman spectroscopic study. Jacob J, et al.
Acta Crystallogr D Biol Crystallogr 1998 Jan 1;54 (Pt 1):74–80

Plasticity, hydration and accessibility in ribonuclease A. The structure of a new crystal form and its low-humidity variant. Sadasivan C, et al.
Acta Crystallogr D Biol Crystallogr 1998 Nov 1;54(2 (Pt 6)):1343–52

Influence of dynamic power compensation in an isothermal titration microcalorimeter. García-Fuentes L, et al.
Anal Chem 1998 Nov 1;70(21):4615–23

Coulombic effects of remote subsites on the active site of ribonuclease A. Fisher BM, et al. **Biochemistry** 1998 Dec 15;37(50):17386–401

Conformational unfolding studies of three-disulfide mutants of bovine pancreatic ribonuclease A and the coupling of proline isomerization to disulfide redox reactions. Iwaoka M, et al. **Biochemistry** 1999 Mar 2;38(9):2805–15

Structural analysis of ternary complexes of Escherichia coli RNA polymerase: ribonuclease footprinting of the nascent RNA in complexes. Milan S, et al. **Biochemistry** 1999 Jan 5;38(1):218–25

His...Asp catalytic dyad of ribonuclease A: conformational stability of the wild-type, D121N, D121A, and H119A enzymes. Quirk DJ, et al. **Biochemistry** 1998 Dec 22; 37(51):17958–64

Distribution of disulfide bonds in the two-disulfide intermediates in the regeneration of bovine pancreatic ribonuclease A: further insights into the folding process. Volles MJ, et al. **Biochemistry** 1999 Jun 1;38(22):7284–93

Protein engineering of ribonucleases. Cafaro V, et al.
Biochimie 1998 Nov;80(11):905–9

His ... Asp catalytic dyad of ribonuclease A: histidine pKa values in the wild-type, D121N, and D121A enzymes. Quirk DJ, et al. **Biophys J** 1999 Mar;76(3):1571–9

Two-dimensional mid-IR and near-IR correlation spectra of ribonuclease A: using overtones and combination modes to monitor changes in secondary structure. Schultz CP, et al. **Biospectroscopy** 1998;4(5 Suppl):S19–29

I. Study of protein aggregation due to heat denaturation: A structural approach using circular dichroism spectroscopy, nuclear magnetic resonance, and static light scattering. Tsai AM, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):273–80

II. Electrostatic effect in the aggregation of heat-denatured RNase A and implications for protein additive design. Tsai AM, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):281–5

Oxidative polymerization of ribonuclease A by lignin peroxidase from Phanerochaete chrysosporium. Role of veratryl alcohol in polymer oxidation. Sheng D, et al.
Eur J Biochem 1999 Feb;259(3):626–34

Crystal structure of a hybrid between ribonuclease A and bovine seminal ribonuclease--the basic surface, at 2.0 A resolution. Vatzaki EH, et al. **Eur J Biochem** 1999 Feb; 260(1):176–82

Extrinsic protein stabilization by the naturally occurring osmolytes beta-hydroxyectoine and betaine. Knapp S, et al. **Extremophiles** 1999 Aug;3(3):191–8

Effect of protein disulfide isomerase on the regeneration of bovine ribonuclease A with dithiothreitol. Shin HC, et al. **FEBS Lett** 1999 Jul 30;456(1):143–5

Circular dichroism study of ribonuclease A mutants containing the minimal structural requirements for dimerization and swapping. Catanzano F, et al.
Int J Biol Macromol 1998 Nov;23(4):277–85

Role of Phe120 in the activity and structure of bovine pancreatic ribonuclease A. Tanimizu N, et al.
J Biochem (Tokyo) 1998 Aug;124(2):410–6

A new remote subsite in ribonuclease A. Fisher BM, et al.
J Biol Chem 1998 Dec 18;273(51):34134–8

The subsites structure of bovine pancreatic ribonuclease A accounts for the abnormal kinetic behavior with cytidine 2',3'-cyclic phosphate. Moussaoui M, et al.
J Biol Chem 1998 Oct 2;273(40):25565–72

Variation in the diffusion and release of ribonuclease through and from esterified hyaluronic acid membranes: effect of changes in matrix characteristics. Simon LD, et al.
J Controlled Release 1999 Aug 27;61(1–2):159–64

A pulse-chase-competition experiment to determine if a folding intermediate is on or off-pathway: application to ribonuclease A. Laurents DV, et al. **J Mol Biol** 1998 Oct 30;283(3):669–78

Hydrogen exchange in ribonuclease A and ribonuclease S: evidence for residual structure in the unfolded state under native conditions. Neira JL, et al. **J Mol Biol** 1999 Jan 15;285(2):627–43

Membrane-confined analytical electrophoresis. Laue TM, et al. **Methods Enzymol** 1998;295:494–518

Speeding along the protein folding highway, are we reading the signs correctly? [news; comment] Jennings PA.
Nat Struct Biol 1998 Oct;5(10):846–8. Comment on: Nat Struct Biol 1998 Oct;5(10):882–4.

The burst phase in ribonuclease A folding and solvent dependence of the unfolded state [see comments] Qi PX, et al. **Nat Struct Biol** 1998 Oct;5(10):882–4. Comment in: Nat Struct Biol 1998 Oct;5(10):846–8.

Native-state hydrogen-exchange studies of a fragment complex can provide structural information about the isolated fragments. Chakshusmathi G, et al.
Proc Natl Acad Sci U S A 1999 Jul 6;96(14):7899–904

Trifluoroethanol-induced conformational transitions of proteins: insights gained from the differences between alpha-lactalbumin and ribonuclease A. Gast K, et al.
Protein Sci 1999 Mar;8(3):625–34

A mechanistic analysis of the increase in the thermal stability of proteins in aqueous carboxylic acid salt solutions. Kaushik JK, et al. **Protein Sci** 1999 Jan;8(1):222–33

Heat capacity change for ribonuclease A folding. Pace CN, et al. **Protein Sci** 1999 Jul;8(7):1500–4

Thermodynamic stability of ribonuclease A in alkylurea solutions and preferential solvation changes accompanying its thermal denaturation: a calorimetric and spectroscopic study. Poklar N, et al. **Protein Sci** 1999 Apr;8(4):832–40

The crystal structure of recombinant rat pancreatic RNase A. Gupta V, et al. **Proteins** 1999 Apr 1;35(1):1–12

Prediction of loop geometries using a generalized born model of solvation effects. Rapp CS, et al. **Proteins** 1999 May 1;35(2):173–83

A single-domain antibody fragment in complex with RNase A: non-canonical loop structures and nanomolar affinity using two CDR loops. Decanniere K, et al. **Structure** 1999 Apr 15;7(4):361–70

[Imidazole compounds simulated active center of ribonuclease A. Synthesis and RNA cleaving activity] Sil'nikov VN, et al. **Dokl Akad Nauk** 1999 Feb;364(5):690–4 **(Rus)**

[The use of pancreatic RNAse in the production of baker's yeast] Lutskaia AIu, et al. **Prikl Biokhim Mikrobiol** 1998 Sep–Oct;34(5):588–91 (Eng. Abstr.) **(Rus)**

[Endonuclease activity of recombinant pancreatic nuclease (A–K7H)] Ljuca F, et al. **Med Arh** 1999;53(2):69–71 (Eng. Abstr.) **(Scr)**

GENETICS

Conformational unfolding studies of three-disulfide mutants of bovine pancreatic ribonuclease A and the coupling of proline isomerization to disulfide redox reactions. Iwaoka M, et al. **Biochemistry** 1999 Mar 2;38(9):2805–15

His...Asp catalytic dyad of ribonuclease A: conformational stability of the wild-type, D121N, D121A, and H119A enzymes. Quirk DJ, et al. **Biochemistry** 1998 Dec 22; 37(51):17958–64

New muteins of RNase A with enhanced antitumor action. Cafaro V, et al. **FEBS Lett** 1998 Oct 16;437(1–2):149–52

Ribonuclease k6: chromosomal mapping and divergent rates of evolution within the RNase A gene superfamily. Deming MS, et al. **Genome Res** 1998 Jun;8(6):599–607

Circular dichroism study of ribonuclease A mutants containing the minimal structural requirements for dimerization and swapping. Catanzano F, et al.
Int J Biol Macromol 1998 Nov;23(4):277–85

Inclusion of cetaceans within the order Artiodactyla based on phylogenetic analysis of pancreatic ribonuclease genes. Kleineidam RG, et al. **J Mol Evol** 1999 Mar;48(3):360–8

Engineering receptor-mediated cytotoxicity into human ribonucleases by steric blockade of inhibitor interaction [see comments] Suzuki M, et al. **Nat Biotechnol** 1999 Mar; 17(3):265–70. Comment in: Nat Biotechnol 1999 Mar;17(3):227–8.

Evolution of antiviral activity in the ribonuclease A gene superfamily: evidence for a specific interaction between eosinophil-derived neurotoxin (EDN/RNase 2) and respiratory syncytial virus. Domachowske JB, et al.
Nucleic Acids Res 1998 Dec 1;26(23):5327–32

ISOLATION & PURIFICATION

Sucrose enhances the recovery and activity of ribonuclease A during reversed micelle extraction. Spirovska G, et al. **Biotechnol Bioeng** 1998 May 20;58(4):374–9

Protein variant separations by cation-exchange chromatography on tentacle-type polymeric stationary phases. Weitzhandler M, et al. **J Chromatogr A** 1998 Dec 18;828(1–2):365–72

METABOLISM

Superadditive and subadditive effects of "hot spot" mutations within the interfaces of placental ribonuclease inhibitor with angiogenin and ribonuclease A. Chen CZ, et al. **Biochemistry** 1999 Jul 20;38(29):9273–85

Coulombic effects of remote subsites on the active site of ribonuclease A. Fisher BM, et al. **Biochemistry** 1998 Dec 15;37(50):17386–401

Extending the limits to enzymatic catalysis: diffusion of ribonuclease A in one dimension. Kelemen BR, et al. **Biochemistry** 1999 Apr 27;38(17):5302–7

Selective mRNA degradation by antisense oligonucleotide-2,5A chimeras: involvement of RNase H and RNase L. Robbins I, et al. **Biochimie** 1998 Aug-Sep; 80(8–9):711–20

His ... Asp catalytic dyad of ribonuclease A: histidine pKa values in the wild-type, D121N, and D121A enzymes. Quirk DJ, et al. **Biophys J** 1999 Mar;76(3):1571–9

Sucrose enhances the recovery and activity of ribonuclease A during reversed micelle extraction. Spirovska G, et al. **Biotechnol Bioeng** 1998 May 20;58(4):374–9

Structural changes to ribonuclease A and their effects on biological activity. Soucek J, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):103–11

Modification of the unfolding region in bovine pancreatic ribonuclease and its influence on the thermal stability and proteolytic fragmentation. Arnold U, et al. **Eur J Biochem** 1999 Jan;259(1–2):470–5

Reactivity of glutaredoxins 1, 2 and 3 from Escherichia coli and protein disulfide isomerase towards glutathionyl-mixed disulfides in ribonuclease A. Lundström-Ljung J, et al. **FEBS Lett** 1999 Jan 25;443(2):85–8

Effect of protein disulfide isomerase on the regeneration of bovine ribonuclease A with dithiothreitol. Shin HC, et al. **FEBS Lett** 1999 Jul 30;456(1):143–5

Role of Phe120 in the activity and structure of bovine pancreatic ribonuclease A. Tanimizu N, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):410–6

A new remote subsite in ribonuclease A. Fisher BM, et al. **J Biol Chem** 1998 Dec 18;273(51):34134–8

PHARMACOKINETICS

Monoacylation of ribonuclease A enables its transport across an in vitro model of the blood–brain barrier. Chopineau J, et al. **J Controlled Release** 1998 Dec 4;56(1–3):231–7

PHARMACOLOGY

Luteinizing hormone releasing hormone–RNase A conjugates specifically inhibit the proliferation of LHRH-receptor-positive human prostate and breast tumor cells. Gho YS, et al. **Mol Cells** 1999 Feb 28;9(1):31–6

THERAPEUTIC USE

Unique recombinant human ribonuclease and inhibition of Kaposi's sarcoma cell growth. Newton DL, et al. **J Natl Cancer Inst** 1998 Dec 2;90(23):1787–91

Smartbombs and cloaking devices [news; comment] Wagner RW, et al. **Nat Biotechnol** 1999 Mar;17(3):227–8. Comment on: Nat Biotechnol 1999 Mar;17(3):265–70.

TOXICITY

A dimeric mutant of human pancreatic ribonuclease with selective cytotoxicity toward malignant cells. Piccoli R, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7768–73

RIBONUCLEASE T1

Cleavage of double-stranded copy RNA by RNase 1 and RNase T1 provides a robust means to detect p53 gene mutations in clinical specimens. Prescott J, et al. **Electrophoresis** 1999 Jun;20(6):1149–61

BIOSYNTHESIS

[Biosynthesis of extracellular guanyl-specific ribonuclease from Bacillus circulans] Znamenskaia LV, et al. **Mikrobiologiia** 1998 Sep-Oct;67(5):619–25 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Three-dimensional structure of ribonuclease T1 complexed with an isosteric phosphonate substrate analogue of GpU: alternate substrate binding modes and catalysis. Arni RK, et al. **Biochemistry** 1999 Feb 23;38(8):2452–61

Contribution of a conserved asparagine to the conformational stability of ribonucleases Sa, Ba, and T1. Hebert EJ, et al. **Biochemistry** 1998 Nov 17;37(46):16192–200

Modification of ribonuclease T1 specificity by random mutagenesis of the substrate binding segment. Hubner B, et al. **Biochemistry** 1999 Jan 26;38(4):1371–6

Structural analysis of ternary complexes of Escherichia coli RNA polymerase: ribonuclease footprinting of the nascent RNA in complexes. Milan S, et al. **Biochemistry** 1999 Jan 5;38(1):218–25

A protein folding intermediate of ribonuclease T1 characterized at high resolution by 1D and 2D real-time NMR spectroscopy. Balbach J, et al. **J Mol Biol** 1999 Jan 15;285(2):829–42

The paradox between m values and deltaCp's for denaturation of ribonuclease T1 with disulfide bonds intact and broken. Baskakov IV, et al. **Protein Sci** 1999 Jun; 8(6):1314–9

Dissection of the structural and functional role of a conserved hydration site in RNase T1. Langhorst U, et al. **Protein Sci** 1999 Apr;8(4):722–30

New structural insights into the refolding of ribonuclease T1 as seen by time-resolved Fourier-transform infrared spectroscopy. Reinstädler D, et al. **Proteins** 1999 Feb 15; 34(3):303–16

GENETICS

Expression of the genes for guanyl-specific ribonucleases from Bacillus intermedius and Bacillus pumilus is regulated by the two component signal transduction system PhoP–PhoR in B. subtilis. Znamenskaya LV, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):217–22

Selecting proteins with improved stability by a phage-based method. Sieber V, et al. **Nat Biotechnol** 1998 Oct; 16(10):955–60

[Expression of secreted guanyl-specific ribonuclease genes from Bacillus intermedius and Bacillus pumilus in Bacillus subtilis cells] Znamenskaia LV, et al. **Mol Gen Mikrobiol Virusol** 1999;(1):12–7 (Eng. Abstr.) **(Rus)**

METABOLISM

Modification of ribonuclease T1 specificity by random mutagenesis of the substrate binding segment. Hubner B, et al. **Biochemistry** 1999 Jan 26;38(4):1371–6

PHYSIOLOGY

Dissection of the structural and functional role of a conserved hydration site in RNase T1. Langhorst U, et al. **Protein Sci** 1999 Apr;8(4):722–30

RIBONUCLEASES

Human ribonucleases. Vlassov AV. **Biochemistry (Mosc)** 1998 Dec;63(12):1349–60 (127 ref.)

Plasmid purification using hot Mg2+ treatment and no RNase. Ugarov VI, et al. **Biotechniques** 1999 Feb; 26(2):194–6, 198

Multiprobe RNase protection assay with internally labeled radioactive probes, generated by RT–PCR and nested PCR. von Wolff M, et al. **Front Biosci** 1999 Jul 1;4:C1–3

Ribonuclease–gold labels proteoglycan–containing cytoplasmic granules and ribonucleic acid–containing organelles—a survey. Dvorak AM, et al. **Histol Histopathol** 1999 Apr;14(2):597–626 (166 ref.)

ANALYSIS

Highly heterogeneous Phl p 5–specific T cells from patients with allergic rhinitis differentially recognize recombinant Phl p 5 isoallergens. Würtzen P, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):115–22

[The optimization of a method for determining RNAse activity by using high-polymer RNA] Kolpakov AI, et al. **Klin Lab Diagn** 1999 May;(5):14–6 (Eng. Abstr.) **(Rus)**

ANTAGONISTS & INHIBITORS

Crystallization and preliminary X-ray investigation of the complex of RNase Sa with wild-type barstar. Urbanikova L, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1; 54 (Pt 3):403–4

Ribonuclease inhibitor from Streptomyces aureofaciens. Krajčiková D, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:14–6

Crystal structure of the complex RNase Sa–barstar at 1.7 A resolution. Urbániková L, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:12–4

Potent inhibition of mammalian ribonucleases by 3', 5'-pyrophosphate-linked nucleotides. Russo N, et al. **J Biol Chem** 1999 May 21;274(21):14902–8

Structural resolution of the folding pathway of a protein by correlation of phi-values with inter-residue contacts. Nölting B. **J Theor Biol** 1998 Oct 7;194(3):419–28

Uncloaking RNases [letter] Rybak SM, et al. **Nat Biotechnol** 1999 May;17(5):408

Engineering receptor-mediated cytotoxicity into human ribonucleases by steric blockade of inhibitor interaction [see comments] Suzuki M, et al. **Nat Biotechnol** 1999 Mar; 17(3):265–70. Comment in: Nat Biotechnol 1999 Mar;17(3):227–8.

Variants of ribonuclease inhibitor that resist oxidation. Kim BM, et al. **Protein Sci** 1999 Feb;8(2):430–4

BIOSYNTHESIS

A new phagemid vector for positive selection of recombinants based on a conditionally lethal barnase gene. Yazynin S, et al. **FEBS Lett** 1999 Jun 11;452(3):351–4

Synthesis and biochemical characterization of obligatory dimers of the sugar non-specific nuclease from Serratia marcescens using specifically designed bismaleimidoalkanes as SH-specific crosslinking reagents. Franke I, et al. **J Protein Chem** 1999 Jan;18(1):137–46

Cloning and characterization of a gibberellin-induced RNase expressed in barley aleurone cells. Rogers SW, et al. **Plant Physiol** 1999 Apr;119(4):1457–64

BLOOD

Characterization and selectivity of catalytic antibodies from human serum with RNase activity. Vlassov A, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5243–50

CHEMICAL SYNTHESIS

Design and semisynthesis of spermine-sensitive Ribonuclease S'. Hamachi I, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1215–8

CHEMISTRY

Refinement and structural analysis of barnase at 1.5 A resolution. Martin C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Feb;55 (Pt 2):386–98

Recognition of RNase Sa by the inhibitor barstar: structure of the complex at 1.7 A resolution. Sevčik J, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):954–63

Contribution of a conserved asparagine to the conformational stability of ribonucleases Sa, Ba, and T1. Hebert EJ, et al. **Biochemistry** 1998 Nov 17;37(46):16192–200

Role of individual cysteine residues and disulfide bonds in the structure and function of Aspergillus ribonucleolytic toxin restrictocin. Nayak SK, et al. **Biochemistry** 1999 Aug 3;38(31):10052–8

Crystal structure of a ribonuclease from the seeds of bitter gourd (Momordica charantia) at 1.75 A resolution. Nakagawa A, et al. **Biochim Biophys Acta** 1999 Aug 17; 1433(1–2):253–60

Purification of a 76-kDa iron-binding protein from human seminal plasma by affinity chromatography specific for ribonuclease: structural and functional identity with milk lactoferrin. Sorrentino S, et al. **Biochim Biophys Acta** 1999 Feb 10;1430(1):103–10

Design and semisynthesis of spermine-sensitive Ribonuclease S'. Hamachi I, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1215–8

Characterization of ribonucleases from culture medium of Lentinus edodes. Kobayasi H, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1604–8

Presence of asparagine-linked N-acetylglucosamine and chitobiose in Pyrus pyrifolia S-RNases associated with gametophytic self-incompatibility. Ishimizu T, et al. **Eur J Biochem** 1999 Aug;263(3):624–34

Identification of regions in which positive selection may operate in S-RNase of Rosaceae: implication for S-allele-specific recognition sites in S-RNase. Ishimizu T, et al. **FEBS Lett** 1998 Dec 4;440(3):337–42

X-ray structural analysis of compensating mutations at the barnase–barstar interface. Martin C, et al. **FEBS Lett** 1999 Jun 11;452(3):128–32

Crystal structure of the complex RNase Sa–barstar at 1.7 A resolution. Urbániková L, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:12–4

Promotion of polypeptide folding by interactions with Asn-Glycans. Kimura N, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):857–62

Molecular dissection of mitogillin reveals that the fungal ribotoxins are a family of natural genetically engineered ribonucleases. Kao R, et al. **J Biol Chem** 1999 Apr 30; 274(18):12576–82

Sequential assignment and solution secondary structure of doubly labelled ribonuclease Sa [letter] Laurents DV, et al. **J Biomol NMR** 1999 May;14(1):89–90

Hirsutellin A displays significant homology to microbial extracellular ribonucleases. Martínez-Ruiz A, et al. **J Invertebr Pathol** 1999 Jul;74(1):96–7

An irregular beta-bulge common to a group of bacterial RNases is an important determinant of stability and function in barnase. Axe DD, et al. **J Mol Biol** 1999 Mar 12; 286(5):1471–85

Acquisition of native-like interactions in C-terminal fragments of barnase. Neira JL, et al. **J Mol Biol** 1999 Mar 26;287(2):421–32

Exploring the folding funnel of a polypeptide chain by biophysical studies on protein fragments. Neira JL, et al. **J Mol Biol** 1999 Jan 22;285(3):1309–33

Hydrogen exchange in ribonuclease A and ribonuclease S: evidence for residual structure in the unfolded state under native conditions. Neira JL, et al. **J Mol Biol** 1999 Jan 15;285(2):627–43

Foldability of barnase mutants obtained by permutation of modules or secondary structure units. Tsuji T, et al. **J Mol Biol** 1999 Mar 12;286(5):1581–96

Structural response to mutation at a protein–protein interface. Vaughan CK, et al. **J Mol Biol** 1999 Mar 12; 286(5):1487–506

Cloning and characterization of cDNAs encoding S-RNases from almond (Prunus dulcis): primary structural features and sequence diversity of the S-RNases in Rosaceae.

Ushijima K, et al. **Mol Gen Genet** 1998 Nov;260(2-3):261-8

Structure-function relationships of acid ribonucleases: lysosomal, vacuolar, and periplasmic enzymes. Irie M. **Pharmacol Ther** 1999 Feb;81(2):77-89 (114 ref.)

Native-state hydrogen-exchange studies of a fragment complex can provide structural information about the isolated fragments. Chakshusmathi G, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7899-904

A specific transition state for S-peptide combining with folded S-protein and then refolding. Goldberg JM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2019-24

Trimeric domain-swapped barnase. Zegers I, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):818-22

Comparative study of binase and barnase: experience in chimeric ribonucleases. Schulga A, et al. **Protein Eng** 1998 Sep;11(9):775-82

Selective and asymmetric action of trypsin on the dimeric forms of seminal RNase. De Lorenzo C, et al. **Protein Sci** 1998 Dec;7(12):2653-8

Time resolved fluorescence and phosphorescence properties of the individual tryptophan residues of barnase: evidence for protein-protein interactions. De Beuckeleer K, et al. **Proteins** 1999 Jul 1;36(1):42-53

Conserved water molecules in a large family of microbial ribonucleases. Loris R, et al. **Proteins** 1999 Jul 1; 36(1):117-34

X-ray crystallographic studies of the denaturation of ribonuclease S. Ratnaparkhi GS, et al. **Proteins** 1999 Aug 15;36(3):282-94

[Cytotoxic properties of pancreatic ribonuclease, modified by the surface active substance oxanol KD-6] Kalacheva NV, et al. **Antibiot Khimioter** 1998;43(12):16-9 (Eng. Abstr.) **(Rus)**

[Comparative analysis of interaction sites of Thermus thermophilus and Escherichia coli tRNA(Tyr) with homologous aminoacyl-tRNA synthetases by means of chemical modification and nuclease hydrolysis] Egorova SP, et al. **Bioorg Khim** 1998 Aug;24(8):593-600 (Eng. Abstr.) **(Rus)**

GENETICS

Escherichia coli cafA gene encodes a novel RNase, designated as RNase G, involved in processing of the 5' end of 16S rRNA. Wachi M, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):483-8

A ribonuclease from sclerotia of the edible mushroom Pleurotus tuber-regium. Wang HX, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):544-6

Identification of regions in which positive selection may operate in S-RNase of Rosaceae: implication for S-allele-specific recognition sites in S-RNase. Ishimizu T, et al. **FEBS Lett** 1998 Dec 4;440(3):337-42

Permutation of modules or secondary structure units creates proteins with basal enzymatic properties. Tsuji T, et al. **FEBS Lett** 1999 Jun 18;453(1-2):145-50

A new phagemid vector for positive selection of recombinants based on a conditionally lethal barnase gene. Yazynin S, et al. **FEBS Lett** 1999 Jun 11;452(3):351-4

Function, mechanism and regulation of bacterial ribonucleases. Nicholson AW. **FEMS Microbiol Rev** 1999 Jun;23(3):371-90 (148 ref.)

Seminal-type ribonuclease genes in ruminants, sequence conservation without protein expression? Kleineidam RG, et al. **Gene** 1999 Apr 29;231(1-2):147-53

The differential pattern of tissue-specific expression of ruminant pancreatic type ribonucleases may help to understand the evolutionary history of their genes. Sasso MP, et al. **Gene** 1999 Feb 18;227(2):205-12

Ribonuclease-charged vector for facile direct cloning with positive selection. Deyev SM, et al. **Mol Gen Genet** 1998 Sep;259(4):379-82

Cloning and characterization of cDNAs encoding S-RNases from almond (Prunus dulcis): primary structural features and sequence diversity of the S-RNases in Rosaceae. Ushijima K, et al. **Mol Gen Genet** 1998 Nov;260(2-3):261-8

Creation of a ribonuclease abzyme through site-directed mutagenesis. Fletcher MC, et al. **Nat Biotechnol** 1998 Nov; 16(11):1065-7

Uncloaking RNases [letter] Rybak SM, et al. **Nat Biotechnol** 1999 May;17(5):408

A relic S-RNase is expressed in the styles of self-compatible Nicotiana sylvestris. Golz JF, et al. **Plant J** 1998 Dec; 16(5):591-9

Cloning and characterization of a gibberellin-induced RNase expressed in barley aleurone cells. Rogers SW, et al. **Plant Physiol** 1999 Apr;119(4):1457-64

Human pancreatic RNase1-human epidermal growth factor fusion: an entirely human 'immunotoxin analog' with cytotoxic properties against squamous cell carcinomas. Psarras K, et al. **Protein Eng** 1998 Dec;11(12):1285-92

IMMUNOLOGY

Differential recognition of recombinant Phl p 5 isoallergens by Phl p 5-specific T cells. van Neerven R, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):125-8

Monomer arrangement in HSP90 dimer as determined by decoration with N and C-terminal region specific antibodies. Maruya M, et al. **J Mol Biol** 1999 Jan 22; 285(3):903-7

Creation of a ribonuclease abzyme through site-directed mutagenesis. Fletcher MC, et al. **Nat Biotechnol** 1998 Nov; 16(11):1065-7

Immunodominant peptide epitopes of allergen, Asp f 1 from the fungus Aspergillus fumigatus. Kurup VP, et al. **Peptides** 1998;19(9):1469-77

ISOLATION & PURIFICATION

Synthesis and biochemical characterization of obligatory dimers of the sugar non-specific nuclease from Serratia marcescens using specifically designed bismaleimidoalkanes as SH-specific crosslinking reagents. Franke I, et al. **J Protein Chem** 1999 Jan;18(1):137-46

METABOLISM

A ribonuclease from sclerotia of the edible mushroom Pleurotus tuber-regium. Wang HX, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):544-6

Real-time monitoring of enzymatic cleavage of nucleic acids using a quartz crystal microbalance. Wang J, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):477-80

Parallel acceleration of phosphoenolpyruvate carboxykinase mRNA degradation and increase in ribonuclease activity induced by insulin in cultured rat hepatocytes. Heise T, et al. **Biol Chem** 1998 Jul;379(7):875-83

Comparison of base specificity and other enzymatic properties of two protozoan ribonucleases from Physarum polycephalum and Dictyostelium discoideum. Inokuchi N, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):141-5

Comparison of methods for quantitation of radioactivity in protected hybrids in RNase protection assays. Pham K, et al. **Biotechniques** 1998 Aug;25(2):198-200, 202, 204 passim

Evidence for mannosidase activities in Streptococcus oralis when grown on glycoproteins as carbohydrate source. Tarelli E, et al. **Carbohydr Res** 1998 Nov;312(3):159-64

Major interference from leukocytes in reverse transcription-PCR identified as neurotoxin ribonuclease from eosinophils: detection of residual chronic myelogenous leukemia from cell lysates by use of an eosinophil-depleted cell preparation. Hämäläinen MM, et al. **Clin Chem** 1999 Apr;45(4):465-71

Reducing the impact of endogenous ribonucleases on reverse transcription-PCR assay systems [editorial; comment] O'Leary TJ. **Clin Chem** 1999 Apr;45(4):449-50. Comment on: Clin Chem 1999 Apr;45(4):465-71.

Enzymatic and chemical cleavage methods. Taylor GR. **Electrophoresis** 1999 Jun;20(6):1125-30 (32 ref.)

Presence of asparagine-linked N-acetylglucosamine and chitobiose in Pyrus pyrifolia S-RNases associated with gametophytic self-incompatibility. Ishimizu T, et al. **Eur J Biochem** 1999 Aug;263(3):624-34

Reconsidering the energetics of ribonuclease catalysed RNA hydrolysis. Loverix S, et al. **Eur J Biochem** 1998 Oct 1; 257(1):286-90

Key role of barstar Cys-40 residue in the mechanism of heat denaturation of bacterial ribonuclease complexes with barstar. Protasevich II, et al. **FEBS Lett** 1999 Feb 26; 445(2-3):384-8

Permutation of modules or secondary structure units creates proteins with basal enzymatic properties. Tsuji T, et al. **FEBS Lett** 1999 Jun 18;453(1-2):145-50

Function, mechanism and regulation of bacterial ribonucleases. Nicholson AW. **FEMS Microbiol Rev** 1999 Jun;23(3):371-90 (148 ref.)

Identification of a new transthyretin variant (Ile49) in familial amyloidotic polyneuropathy using electrospray ionization mass spectrometry and nonisotopic RNase cleavage assay. Nakamura M, et al. **Hum Hered** 1999 Jul;49(4):186-9

Quantification of ovine and bovine calpain I, calpain II, and calpastatin mRNA by ribonuclease protection assay. Ilian MA, et al. **J Anim Sci** 1999 Apr;77(4):853-64

Ribonuclease activity of rat liver perchloric acid-soluble protein, a potent inhibitor of protein synthesis. Morishita R, et al. **J Biol Chem** 1999 Jul 16;274(29):20688-92

An irregular beta-bulge common to a group of bacterial RNases is an important determinant of stability and function in barnase. Axe DD, et al. **J Mol Biol** 1999 Mar 12; 286(5):1471-85

Detection of anticodon nuclease residues involved in tRNALys cleavage specificity. Meidler R, et al. **J Mol Biol** 1999 Apr 2;287(3):499-510

Modifications of RNase protection assay for neuroscience applications. Ilyin SE, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):139-41

Influence of the carbohydrate moiety on the proteolytic cleavage sites in ribonuclease B. Arnold U, et al. **J Protein Chem** 1998 Jul;17(5):397-405

In vitro processing of herpes simplex virus type 1 DNA replication intermediates by the viral alkaline nuclease, UL12. Goldstein JN, et al. **J Virol** 1998 Nov;72(11):8772-81

An in vitro system using HeLa cytoplasmic extracts that reproduces regulated mRNA stability. Ford LP, et al. **Methods** 1999 Jan;17(1):21-7

Proteasome subunit zeta, a putative ribonuclease, is also found as a free monomer. Jørgensen L, et al. **Mol Biol Rep** 1999 Apr;26(1-2):119-23

Ribonuclease improves the state of hippocampal sections in the post-ischemic period. Kudryashov IE, et al. **Neurosci Behav Physiol** 1998 Jul-Aug;28(4):357-65

Analysis of putative RNase sensitivity and protease insensitivity of demethylation activity in extracts from rat myoblasts. Swisher JF, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5573-80

Mechanism and specificity of RNA cleavage by chemical ribonucleases. Beloglazova N, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1463-5

Regulation of S-like ribonuclease levels in Arabidopsis. Antisense inhibition of RNS1 or RNS2 elevates anthocyanin accumulation. Bariola PA, et al. **Plant Physiol** 1999 Jan;119(1):331-42

A specific transition state for S-peptide combining with folded S-protein and then refolding. Goldberg JM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2019-24

Selective and asymmetric action of trypsin on the dimeric forms of seminal RNase. De Lorenzo C, et al. **Protein Sci** 1998 Dec;7(12):2653-8

A cytotoxic ribonuclease targeting specific transfer RNA anticodons. Ogawa T, et al. **Science** 1999 Mar 26; 283(5410):2097-100

Structural details of urea binding to barnase: a molecular dynamics analysis. Caflisch A, et al. **Structure Fold Des** 1999 May;7(5):477-88

Functional conservations of the alkaline nuclease of herpes simplex type 1 and human cytomegalovirus. Gao M, et al. **Virology** 1998 Sep 30;249(2):460-70

PHARMACOLOGY

RNase treatment of yeast and mammalian cell extracts affects in vitro substrate methylation by type I protein arginine N-methyltransferases. Frankel A, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):391-400

Armored RNA technology for production of ribonuclease-resistant viral RNA controls and standards. Pasloske BL, et al. **J Clin Microbiol** 1998 Dec;36(12):3590-4

Interferon enhances the activity of the anticancer ribonuclease, onconase. Vasandani VM, et al. **J Interferon Cytokine Res** 1999 May;19(5):447-54

A non-radioactive in situ hybridization method that does not require RNAse-free conditions. Tongiorgi E, et al. **J Neurosci Methods** 1998 Dec 1;85(2):129-39

Lysozyme and RNases as anti-HIV components in beta-core preparations of human chorionic gonadotropin. Lee-Huang S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):2678-81

[Effect of the RNAase from Bacillus intermedius on growth and physiological characteristics of Escherichia coli] Egorov SIu, et al. **Mikrobiologiia** 1999 Jan-Feb;68(1):51-5 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Structure-function relationships of acid ribonucleases: lysosomal, vacuolar, and periplasmic enzymes. Irie M. **Pharmacol Ther** 1999 Feb;81(2):77-89 (114 ref.)

[Changes in the trophic organization of mitotic cycle of Candida utilis after exposure to RNAse from Bacillus intermedius] Kupriianova-Ashina FG, et al. **Mikrobiologiia** 1999 Mar-Apr;68(2):155-9 (Eng. Abstr.) **(Rus)**

TOXICITY

Reversible nephrotoxicity of onconase and effect of lysine pH on renal onconase uptake. Vasandani VM, et al. **Cancer Chemother Pharmacol** 1999;44(2):164-9

Cell cycle-related differences in susceptibility of NIH/3T3 cells to ribonucleases. Smith MR, et al. **Exp Cell Res** 1999 Feb 25;247(1):220-32

Enhanced in vitro cytotoxicity and cytostasis of the combination of onconase with a proteasome inhibitor. Mikulski SM, et al. **Int J Oncol** 1998 Oct;13(4):633-44

RIBONUCLEIC ACID see **RNA**

RIBONUCLEOPROTEIN PARTICLES, VAULT see **VAULT RIBONUCLEOPROTEIN PARTICLES**

RIBONUCLEOPROTEINS

Analysis of B-cell epitopes of the Ro/SS-A autoantigen. Wahren-Herlenius M, et al. **Immunol Today** 1999 May; 20(5):234-40 (57 ref.)

[Calbindin D28K and calreticulin] Kuwano R. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1675-80 (43 ref.) **(Jpn)**

ANALYSIS

Heterogeneous nuclear ribonucleoprotein B1 as a new marker of early detection for human lung cancers. Sueoka E, et al. **Cancer Res** 1999 Apr 1;59(7):1404-7

A novel isoform ratio switch of the polypyrimidine tract binding protein. Wagner EJ, et al. **Electrophoresis** 1999 Apr-May;20(4-5):1082-6

Analysis of T cell receptor Vbeta repertoires of annular erythema associated with Sjögren's syndrome. Yamamoto T, et al. **Eur J Dermatol** 1998 Jun;8(4):248-51

Morphological and biochemical analysis of anti-nuclear matrix protein antibodies in human sera. Yu E, et al. **J Korean Med Sci** 1999 Feb;14(1):27-33

Electrophoretic analysis of the ribonucleoproteins of hepatitis delta virus. Dingle K, et al. **J Virol Methods** 1998 Nov; 75(2):199-204

BIOSYNTHESIS

Calreticulin expression is associated with androgen regulation of the sensitivity to calcium ionophore-induced apoptosis in LNCaP prostate cancer cells. Zhu N, et al. **Cancer Res** 1999 Apr 15;59(8):1896-902

CHEMISTRY

Recent advances in protein methylation: enzymatic methylation of nucleic acid binding proteins. Kim S, et al. **Amino Acids** 1998;15(4):291-306 (58 ref.)

Determination of a putative phosphate-containing peptide in calreticulin. Cala SE. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):233-8

Characterization of DNA binding properties and sequence specificity of the human 52 kDa Ro/SS-A (Ro52) zinc finger protein. Frank MB. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):665-70

Calreticulin, a multifunctional Ca2+ binding chaperone of the endoplasmic reticulum. Michalak M, et al. **Biochem Cell Biol** 1998;76(5):779-85 (51 ref.)

Mapping RNA-protein interactions in ribonuclease P from Escherichia coli using electron paramagnetic resonance spectroscopy. Gopalan V, et al. **Biochemistry** 1999 Feb 9; 38(6):1705-14

Solution structures of the first and second RNA-binding domains of human U2 small nuclear ribonucleoprotein particle auxiliary factor (U2AF(65)). Ito T, et al. **EMBO J** 1999 Aug 16;18(16):4523-34

Identification and characterization of a novel kind of nuclear protein occurring free in the nucleoplasm and in ribonucleoprotein structures of the "speckle" type. Brandner JM, et al. **Eur J Cell Biol** 1998 Apr;75(4):295-308

Crystal structure of the two-RRM domain of hnRNP A1 (UP1) complexed with single-stranded telomeric DNA. Ding J, et al. **Genes Dev** 1999 May 1;13(9):1102-15

Localization in the nucleolus and coiled bodies of protein subunits of the ribonucleoprotein ribonuclease P. Jarrous N, et al. **J Cell Biol** 1999 Aug 9;146(3):559-72

High precision solution structure of the C-terminal KH domain of heterogeneous nuclear ribonucleoprotein K, a c-myc transcription factor. Baber JL, et al. **J Mol Biol** 1999 Jun 18;289(4):949-62

Cyanelle RNase P: RNA structure analysis and holoenzyme properties of an organellar ribonucleoprotein enzyme. Cordier A, et al. **J Mol Biol** 1999 May 28;289(1):9-20

A supraspliceosome model for large nuclear ribonucleoprotein particles based on mass determinations by scanning transmission electron microscopy. Müller S, et al. **J Mol Biol** 1998 Oct 23;283(2):383-94

Structure and interactions with RNA of the N-terminal UUAG-specific RNA-binding domain of hnRNP D0. Nagata T, et al. **J Mol Biol** 1999 Mar 26;287(2):221-37

Molecular characterization of a calcium-binding protein from the filarial parasite Dirofilaria immitis. Tsuji N, et al. **Mol Biochem Parasitol** 1998 Nov 30;97(1-2):69-79

Homology modeling of an RNP domain from a human RNA-binding protein: Homology-constrained energy optimization provides a criterion for distinguishing potential sequence alignments. Sahasrabudhe PV, et al. **Proteins** 1998 Dec 1;33(4):558-66

Crystallographic studies of RNA hairpins in complexes with recombinant MS2 capsids: implications for binding requirements. Grahn E, et al. **RNA** 1999 Jan;5(1):131-8

Crystal structures of Nova-1 and Nova-2 K-homology RNA-binding domains. Lewis HA, et al. **Structure Fold Des** 1999 Feb 15;7(2):191-203

G-patch: a new conserved domain in eukaryotic RNA-processing proteins and type D retroviral polyproteins. Aravind L, et al. **Trends Biochem Sci** 1999 Sep;24(9):342-4

DRUG EFFECTS

Estrogenic xenobiotics increase expression of SS-A/Ro autoantigens in cultured human epidermal cells. Sakabe K, et al. **Acta Derm Venereol** 1998 Nov;78(6):420-3

GENETICS

Neuronal expression of a Caenorhabditis elegans elav-like gene and the effect of its ectopic expression. Fujita M, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):646-52

Expression of the heterogenous nuclear ribonucleoprotein complex K protein and the prolyl-4-hydroxylase alpha-subunit in atherosclerotic arterial smooth muscle cells. Laury-Kleintop LD, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):382-9

A rare chimeric TLS/FUS-CHOP transcript in a patient with multiple liposarcomas: a case report. Schneider-Stock R, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):130-3

Novel breakpoints of the EWS gene and the WT1 gene in a desmoplastic small round cell tumor. Shimizu Y, et al. **Cancer Genet Cytogenet** 1998 Oct 15;106(2):156-8

Neural expression profile of Elav-like genes in human brain. Schramm M, et al. **Clin Neuropathol** 1999 Jan-Feb; 18(1):17-22

Assignment of the human BC200 RNA gene (BCYRN1) to chromosome 2p16 by radiation hybrid mapping. Basile V, et al. **Cytogenet Cell Genet** 1998;82(3-4):271-2

The genomic breakpoint and chimeric transcripts in the EWSR1-ETV4/E1AF gene fusion in Ewing sarcoma. Ishida S, et al. **Cytogenet Cell Genet** 1998;82(3-4):278-83

Germ-line regulation of the Caenorhabditis elegans sex-determining gene tra-2. Kuwabara PE, et al. **Dev Biol** 1998 Dec 1;204(1):251-62

Modulation of exon skipping by high-affinity hnRNP A1-binding sites and by intron elements that repress splice site utilization. Blanchette M, et al. **EMBO J** 1999 Apr 1;18(7):1939-52

Imprinted methylation and its effect on expression of the mouse Zfp127 gene. Hershko A, et al. **Gene** 1999 Jul 8; 234(2):323-7

Two forms of expression and genomic structure of the human heterogeneous nuclear ribonucleoprotein D-like JKTBP gene (HNRPDL). Kamei D, et al. **Gene** 1999 Mar 4; 228(1-2):13-22

Genomic structure of the human RBP56/hTAFII68 and FUS/TLS genes. Morohoshi F, et al. **Gene** 1998 Oct 23; 221(2):191-8

Structures, sequence characteristics, and synteny relationships of the transcription factor E4TF1, the splicing factor U2AF35 and the cystathionine beta synthetase genes from Fugu rubripes. Tassone F, et al. **Gene** 1999 Jan 21; 226(2):211-23

ELAV tumor antigen, Hel-N1, increases translation of neurofilament M mRNA and induces formation of neurites in human teratocarcinoma cells. Antic D, et al. **Genes Dev** 1999 Feb 15;13(4):449-61

Pre-mRNA splicing of IgM exons M1 and M2 is directed by a juxtaposed splicing enhancer and inhibitor. Kan JL, et al. **Genes Dev** 1999 Feb 15;13(4):462-71

Evidence for 3' untranslated region-dependent autoregulation of the Drosophila gene encoding the neuronal nuclear RNA-binding protein ELAV. Samson ML. **Genetics** 1998 Oct;150(2):723-33

Human transformer-2-beta gene (SFRS10): complete nucleotide sequence, chromosomal localization, and generation of a tissue-specific isoform. Nayler O, et al. **Genomics** 1998 Oct 15;53(2):191-202

A novel imprinted gene, encoding a RING zinc-finger protein, and overlapping antisense transcript in the Prader-Willi syndrome critical region. Jong MT, et al. **Hum Mol Genet** 1999 May;8(5):783-93

Imprinting of a RING zinc-finger encoding gene in the mouse chromosome region homologous to the Prader-Willi syndrome genetic region. Jong MT, et al. **Hum Mol Genet** 1999 May;8(5):795-803

Multiple forms of the U2 small nuclear ribonucleoprotein auxiliary factor U2AF subunits expressed in higher plants. Domon C, et al. **J Biol Chem** 1998 Dec 18;273(51):34603-10

A set of highly conserved RNA-binding proteins, alphaCP-1 and alphaCP-2, implicated in mRNA stabilization, are coexpressed from an intronless gene and its intron-containing paralog. Makeyev AV, et al. **J Biol Chem** 1999 Aug 27;274(35):24849-57

A novel EWS-ERG rearrangement generating two hybrid mRNAs in a peripheral primitive neuroectodermal tumour (pPNET) with a t(15;22) translocation. Minoletti F, et al. **J Pathol** 1998 Dec;186(4):434-7

Xenopus elav-like genes are differentially expressed during neurogenesis. Perron M, et al. **Mech Dev** 1999 Jun; 84(1-2):139-42

Sequence-independent assembly of spermatid mRNAs into messenger ribonucleoprotein particles. Schmidt EE, et al. **Mol Cell Biol** 1999 May;19(5):3904-15

TRA-1 regulates the cellular distribution of the tra-2 mRNA in C. elegans. Graves LE, et al. **Nature** 1999 Jun 24; 399(6738):802-5

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3534-42

Human POMp75 is identified as the pro-oncoprotein TLS/FUS: both POMp75 and POMp100 DNA homologous pairing activities are associated to cell proliferation. Bertrand P, et al. **Oncogene** 1999 Aug 5; 18(31):4515-21

mRNA and protein expression of SSA/Ro and SSB/La in human fetal cardiac myocytes cultured using a novel application of the Langendorff procedure. Tseng CE, et al. **Pediatr Res** 1999 Feb;45(2):260-9

Calreticulin expression in plant cells: developmental regulation, tissue specificity and intracellular distribution. Borisjuk N, et al. **Planta** 1998 Nov;206(4):504-14

An exon that prevents transport of a mature mRNA. MacMorris MA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3813-8

The neuronal RNA-binding protein Nova-2 is implicated as the autoantigen targeted in POMA patients with dementia. Yang YY, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13254-9

Rpp14 and Rpp29, two protein subunits of human ribonuclease P. Jarrous N, et al. **RNA** 1999 Feb;5(2):153-7

RNA-protein interactions in the human RNase MRP ribonucleoprotein complex. Pluk H, et al. **RNA** 1999 Apr; 5(4):512-24

Molecular genetic analysis of U2AF59 in Schizosaccharomyces pombe: differential sensitivity of introns to mutational inactivation. Romfo CM, et al. **RNA** 1999 Jan;5(1):49-65

U2AF35 is encoded by an essential gene clustered in an operon with RRM/cyclophilin in Caenorhabditis elegans. Zorio DA, et al. **RNA** 1999 Apr;5(4):487-94

Ontogeny of Ro hYRNAs in human heart. Fraire-Velázquez S, et al. **Scand J Rheumatol** 1999;28(2):100-5

[Structure-functional analysis of human CBP1 protein, related to K group splicing proteins] Luk'ianova TI, et al. **Dokl Akad Nauk** 1999 Jul;367(3):412-5 **(Rus)**

IMMUNOLOGY

Chronotropic competence of the sinus node in congenital complete heart block. Menon A, et al. **Am J Cardiol** 1998 Nov 1;82(9):1119-21, A9

Antibody levels to recombinant tick calreticulin increase in humans after exposure to Ixodes scapularis (Say) and are correlated with tick engorgement indices. Sanders ML, et al. **Am J Epidemiol** 1999 Apr 15;149(8):777-84

Detecting anti-SSA and anti-SSB antibodies in routine analysis: a comparison between double immunodiffusion and immunoblotting. Yago M, et al. **Ann Clin Biochem** 1999 May;36 (Pt 3):365-71

Congenital conduction defects in children born to asymptomatic mothers with anti-SSA/SSB antibodies: report of two cases. Falcini F, et al. **Ann Ital Med Int** 1998 Jul-Sep;13(3):169-72

Immunization of mice with human 60-kd Ro peptides results in epitope spreading if the peptides are highly homologous between human and mouse. Scofield RH, et al. **Arthritis Rheum** 1999 May;42(5):1017-24

Fine specificity of the autoimmune response to the Ro/SSA and La/SSB ribonucleoproteins. Scofield RH, et al. **Arthritis Rheum** 1999 Feb;42(2):199-209 (94 ref.)

Human autoantibodies recognizing a native macromolecular structure composed of Sm core proteins in U small nuclear RNP particles. Takeda Y, et al. **Arthritis Rheum** 1998 Nov; 41(11):2059-67

Detection of anti-Ro/SSA and anti-La/SSB autoantibody-producing cells in salivary glands from patients with Sjögren's syndrome. Tengnér P, et al. **Arthritis Rheum** 1998 Dec;41(12):2238-48

Molecular chaperones are targets of autoimmunity in Ro(SS-A) immune mice. Kinoshita G, et al. **Clin Exp Immunol** 1999 Feb;115(2):268-74

Fourth international workshop on neonatal lupus syndromes and the Ro/SSA-La/SSB System. Brucato A, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):130-6

Identification of common epitopes on gliadin, enterocytes, and calreticulin recognised by antigliadin antibodies of patients with coeliac disease [see comments] Krupicková S, et al. **Gut** 1999 Feb;44(2):168-73. Comment in: Gut 1999 Feb;44(2):151-2.

The association of anti-Ro52 autoantibodies with myositis and scleroderma autoantibodies. Frank MB, et al. **J Autoimmun** 1999 Mar;12(2):137-42

Calreticulin, a peptide-binding chaperone of the endoplasmic reticulum, elicits tumor- and peptide-specific immunity. Basu S, et al. **J Exp Med** 1999 Mar 1;189(5):797-802

Immune responses to Ro60 and its peptides in mice. I. The nature of the immunogen and endogenous autoantigen determine the specificities of the induced autoantibodies. Deshmukh US, et al. **J Exp Med** 1999 Feb 1;189(3):531-40

Induction of autoimmunity by multivalent immunodominant and subdominant T cell determinants of La (SS-B). Farris AD, et al. **J Immunol** 1999 Mar 1;162(5):3079-87

Accessibility of SSA/Ro and SSB/La antigens to maternal autoantibodies in apoptotic human fetal cardiac myocytes. Miranda ME, et al. **J Immunol** 1998 Nov 1;161(9):5061-9

Induction of antibodies reactive with SSA/Ro-SSB/La and development of congenital heart block in a murine model. Miranda-Carús ME, et al. **J Immunol** 1998 Dec 1; 161(11):5886-92

Calreticulin displays in vivo peptide-binding activity and can elicit CTL responses against bound peptides. Nair S, et al. **J Immunol** 1999 Jun 1;162(11):6426-32

C1q inhibits autoantibody binding to calreticulin. Racila DM, et al. **Lupus** 1999;8(4):300-4

A hookworm allergen which strongly resembles calreticulin. Pritchard DI, et al. **Parasite Immunol** 1999 Sep;21(9):439-50

High prevalence of antibodies to calreticulin of the IgA class in primary biliary cirrhosis: a possible role of gut-derived bacterial antigens in its aetiology? Kreisel W, et al. **Scand J Gastroenterol** 1999 Jun;34(6):623-8

Protein-protein interactions between native Ro52 and immunoglobulin G heavy chain. Yang Y, et al. **Scand J Immunol** 1999 Jun;49(6):620-8

Immune-mediated congenital heart block (CHB): identifying and counseling patients at risk for having children with CHB. Julkunen H, et al. **Semin Arthritis Rheum** 1998 Oct; 28(2):97-106

[Progress in clinical tests and the pathophysiological study of collagen diseases--anti-ribonucleoprotein antibodies] Mimori T. **Nippon Naika Gakkai Zasshi** 1998 Dec 10; 87(12):2414-20 (4 ref.) **(Jpn)**

[Autoantibodies and analysis of target antigens] Mimori T. **Nippon Rinsho** 1999 Feb;57(2):316-22 (4 ref.) (Eng. Abstr.) **(Jpn)**

ISOLATION & PURIFICATION

Identification of chURP, a nuclear calmodulin-binding protein related to hnRNP-U. Lodge AP, et al. **Eur J Biochem** 1999 Apr;261(1):137-47

METABOLISM

Cellular protein hnRNP-A1 interacts with the 3'-end and the intergenic sequence of mouse hepatitis virus

negative-strand RNA to form a ribonucleoprotein complex. Zhang X, et al. **Adv Exp Med Biol** 1998; 440:227-34

Recent advances in protein methylation: enzymatic methylation of nucleic acid binding proteins. Kim S, et al. **Amino Acids** 1998;15(4):291-306 (58 ref.)

Intracellular localisation of the Ro 52kD auto-antigen in HeLa cells visualised with green fluorescent protein chimeras. Pourmand N, et al. **Autoimmunity** 1998; 28(4):225-33

Heterogeneous nuclear ribonucleoprotein I (hnRNP-I/PTB) selectively binds the conserved 3' terminus of hepatitis C viral RNA. Chung RT, et al.
Biochem Biophys Res Commun 1999 Jan 19;254(2):351-62

hnRNP A2 and hnRNP L bind the 3'UTR of glucose transporter 1 mRNA and exist as a complex in vivo. Hamilton BJ, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):646-51

The dendritic translocation of translin protein in the form of BC1 RNA protein particles in developing rat hippocampal neurons in primary culture. Kobayashi S, et al. **Biochem Biophys Res Commun** 1998 Dec 18; 253(2):448-53

Ligand-specific, transient interaction between integrins and calreticulin during cell adhesion to extracellular matrix proteins is dependent upon phosphorylation/dephosphorylation events. Coppolino MG, et al. **Biochem J** 1999 May 15;340 (Pt 1):41-50

Heterogeneous nuclear ribonucleoprotein D0B is a sequence-specific DNA-binding protein. Tolnay M, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):417-25

Evidence that C1q binds specifically to CH2-like immunoglobulin gamma motifs present in the autoantigen calreticulin and interferes with complement activation. Kovacs H, et al. **Biochemistry** 1998 Dec 22;37(51):17865-74

Endogenous substrates of sphingosine-dependent kinases (SDKs) are chaperone proteins: heat shock proteins, glucose-regulated proteins, protein disulfide isomerase, and calreticulin. Megidish T, et al. **Biochemistry** 1999 Mar 16; 38(11):3369-78

Inhibition of the apolipoprotein B mRNA editing enzyme-complex by hnRNP C1 protein and 40S hnRNP complexes. Greeve J, et al. **Biol Chem** 1998 Aug-Sep; 379(8-9):1063-73

Altered expression of heterogenous nuclear ribonucleoproteins and SR factors in human colon adenocarcinomas. Ghigna C, et al. **Cancer Res** 1998 Dec 15;58(24):5818-24

Role of calreticulin in regulating intracellular Ca2+ storage and capacitative Ca2+ entry in HeLa cells. Llewelyn Roderick H, et al. **Cell Calcium** 1998 Oct;24(4):253-62

Pre-mRNP particles: From gene to nuclear pore. Daneholt B. **Curr Biol** 1999 Jun 3;9(11):R412-5 (19 ref.)

Tyrosine kinase Pyk2 mediates G-protein-coupled receptor regulation of the Ewing sarcoma RNA-binding protein EWS. Felsch JS, et al. **Curr Biol** 1999 May 6;9(9):485-8

Lectins as chaperones in glycoprotein folding. Trombetta ES, et al. **Curr Opin Struct Biol** 1998 Oct;8(5):587-92 (48 ref.)

Identification of human autoantigen La/SS-B as BC1/BC200 RNA-binding protein. Kremerskothen J, et al.
DNA Cell Biol 1998 Sep;17(9):751-9

Modulation of exon skipping by high-affinity hnRNP A1-binding sites and by intron elements that repress splice site utilization. Blanchette M, et al. **EMBO J** 1999 Apr 1;18(7):1939-52

hnRNP A/B proteins are required for inhibition of HIV-1 pre-mRNA splicing. Caputi M, et al. **EMBO J** 1999 Jul 15;18(14):4060-7

Control of cleavage site selection during mRNA 3' end formation by a yeast hnRNP. Minvielle-Sebastia L, et al. **EMBO J** 1998 Dec 15;17(24):7454-68

A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. Pannone BK, et al. **EMBO J** 1998 Dec 15;17(24):7442-53

Phosphorylation of splicing factor SF1 on Ser20 by cGMP-dependent protein kinase regulates spliceosome assembly. Wang X, et al. **EMBO J** 1999 Aug 16; 18(16):4549-59

Structure-specific binding recognition of a methanogen chromosomal protein. Paradinas C, et al.
Eur J Biochem 1998 Oct 15;257(2):372-9

Structural determinants in 5S RNA and TFIIIA for 7S RNP formation. Theunissen O, et al. **Eur J Biochem** 1998 Dec 1;258(2):758-67

Spatial organization of four hnRNP proteins in relation to sites of transcription, to nuclear speckles, and to each other in interphase nuclei and nuclear matrices of HeLa cells. Mattern KA, et al. **Exp Cell Res** 1999 Feb 1;246(2):461-70

The intranuclear movement of Balbiani ring premessenger ribonucleoprotein particles. Singh OP, et al.
Exp Cell Res 1999 Aug 25;251(1):135-46

hnRNPs H, H' and F behave differently with respect to posttranslational cleavage and subcellular localization. Honoré B, et al. **FEBS Lett** 1999 Aug 6;456(2):274-80

Association of the rat heterogeneous nuclear RNA-ribonucleoprotein F with TATA-binding protein. Yoshida T, et al. **FEBS Lett** 1999 Aug 27;457(2):251-4

Two F-box/WD-repeat proteins Pop1 and Pop2 form hetero- and homo-complexes together with cullin-1 in the fission yeast SCF (Skp1-Cullin-1-F-box) ubiquitin ligase. Kominami K, et al. **Genes Cells** 1998 Nov;3(11):721-35

Binding of hnRNP H to an exonic splicing silencer is involved in the regulation of alternative splicing of the rat beta-tropomyosin gene. Chen CD, et al. **Genes Dev** 1999 Mar 1;13(5):593-606

WT1 interacts with the splicing factor U2AF65 in an isoform-dependent manner and can be incorporated into spliceosomes. Davies RC, et al. **Genes Dev** 1998 Oct 15; 12(20):3217-25

ELAV proteins stabilize deadenylated intermediates in a novel in vitro mRNA deadenylation/degradation system. Ford LP, et al. **Genes Dev** 1999 Jan 15;13(2):188-201

Uncoupling of the hnRNP Npl3p from mRNAs during the stress-induced block in mRNA export. Krebber H, et al. **Genes Dev** 1999 Aug 1;13(15):1994-2004

Unraveling a cytoplasmic role for hnRNP D in the in vivo mRNA destabilization directed by the AU-rich element. Loflin P, et al. **Genes Dev** 1999 Jul 15;13(14):1884-97

Human transformer-2-beta gene (SFRS10): complete nucleotide sequence, chromosomal localization, and generation of a tissue-specific isoform. Nayler O, et al. **Genomics** 1998 Oct 15;53(2):191-202

Interaction of C1q and the collectins with the potential receptors calreticulin (cC1qR/collectin receptor) and megalin. Sim RB, et al. **Immunobiology** 1998 Aug; 199(2):208-24 (77 ref.)

Calreticulin is expressed on the cell surface of activated human peripheral blood T lymphocytes in association with major histocompatibility complex class I molecules. Arosa FA, et al. **J Biol Chem** 1999 Jun 11;274(24):16917-22

Identification of apoptosis-associated proteins in a human Burkitt lymphoma cell line. Cleavage of heterogeneous nuclear ribonucleoprotein A1 by caspase 3 [published erratum appears in J Biol Chem 1998 Dec 11;273(50):33884] Brockstedt E, et al. **J Biol Chem** 1998 Oct 23; 273(43):28057-64

G4 DNA binding by LR1 and its subunits, nucleolin and hnRNP D, A role for G-G pairing in immunoglobulin switch recombination. Dempsey LA, et al. **J Biol Chem** 1999 Jan 8;274(2):1066-71

A specific isoform of hnRNP D interacts with DNA in the LR1 heterodimer: canonical RNA binding motifs in a sequence-specific duplex DNA binding protein. Dempsey LA, et al. **J Biol Chem** 1998 Oct 30;273(44):29224-9

Initiation of mitochondrial DNA replication by transcription and R-loop processing. Lee DY, et al. **J Biol Chem** 1998 Nov 13;273(46):30614-21

Regulated interaction of protein kinase Cdelta with the heterogeneous nuclear ribonucleoprotein K protein. Schullery DS, et al. **J Biol Chem** 1999 May 21; 274(21):15101-9

Regulation of human vascular endothelial growth factor mRNA stability in hypoxia by heterogeneous nuclear ribonucleoprotein L. Shih SC, et al. **J Biol Chem** 1999 Jan 15;274(3):1359-65

Oncoprotein TLS interacts with serine-arginine proteins involved in RNA splicing. Yang L, et al. **J Biol Chem** 1998 Oct 23;273(43):27761-4

Monoclonal antibody specific to a subclass of polyproline-Arg motif provides evidence for the presence of an snRNA-free spliceosomal Sm protein complex in vivo: implications for molecular interactions involving proline-rich sequences of Sm B/B' proteins. Filali M, et al. **J Cell Biochem** 1999 Aug 1;74(2):168-80

The RNA-editing enzyme ADAR1 is localized to the nascent ribonucleoprotein matrix on Xenopus lampbrush chromosomes but specifically associates with an atypical loop. Eckmann CR, et al. **J Cell Biol** 1999 Feb 22; 144(4):603-15

Localization in the nucleolus and coiled bodies of protein subunits of the ribonucleoprotein ribonuclease P. Jarrous N, et al. **J Cell Biol** 1999 Aug 9;146(3):559-72

Nuclear import and the evolution of a multifunctional RNA-binding protein. Rosenblum JS, et al. **J Cell Biol** 1998 Nov 16;143(4):887-99

ELAV protein HuA (HuR) can redistribute between nucleus and cytoplasm and is upregulated during serum stimulation and T cell activation. Atasoy U, et al. **J Cell Sci** 1998 Nov; 111 (Pt 21):3145-56

A novel hnRNP protein (HAP/SAF-B) enters a subset of hnRNP complexes and relocates in nuclear granules in response to heat shock. Weighardt F, et al. **J Cell Sci** 1999 May;112 (Pt 10):1465-76

Calreticulin displays in vivo peptide-binding activity and can elicit CTL responses against bound peptides. Nair S, et al. **J Immunol** 1999 Jun 1;162(11):6426-32

Cyanelle RNase P: RNA structure analysis and holoenzyme properties of an organellar ribonucleoprotein enzyme. Cordier A, et al. **J Mol Biol** 1999 May 28;289(1):9-20

Synergistic stimulation of HIV-1 rev-dependent export of unspliced mRNA to the cytoplasm by hnRNP A1. Najera I, et al. **J Mol Biol** 1999 Feb 5;285(5):1951-64

Specific interaction of heterogeneous nuclear ribonucleoprotein particle U with the leader RNA sequence of vesicular stomatitis virus. Gupta AK, et al. **J Virol** 1998 Nov;72(11):8532-40

Heterogeneous nuclear ribonucleoprotein L interacts with the 3' border of the internal ribosomal entry site of hepatitis C virus. Hahm B, et al. **J Virol** 1998 Nov;72(11):8782-8

A novel heterogeneous nuclear ribonucleoprotein-like protein interacts with NS1 of the minute virus of mice. Harris CE, et al. **J Virol** 1999 Jan;73(1):72-80

La autoantigen specifically recognizes a predicted stem-loop in hepatitis B virus RNA. Heise T, et al. **J Virol** 1999 Jul; 73(7):5767-76

Polypyrimidine tract-binding protein binds to the leader RNA of mouse hepatitis virus and serves as a regulator of viral transcription. Li HP, et al. **J Virol** 1999 Jan; 73(1):772-7

Interaction of eukaryotic initiation factor eIF4B with the internal ribosome entry site of foot-and-mouth disease virus is independent of the polypyrimidine tract-binding protein. Rust RC, et al. **J Virol** 1999 Jul;73(7):6111-3

Intracellular redistribution of truncated La protein produced by poliovirus 3Cpro-mediated cleavage. Shiroki K, et al. **J Virol** 1999 Mar;73(3):2193-200

Transient association of calnexin and calreticulin with newly synthesized G1 and G2 glycoproteins of uukuniemi virus (family Bunyaviridae). Veijola J, et al. **J Virol** 1999 Jul; 73(7):6123-7

A heterogeneous nuclear ribonucleoprotein A/B-related protein binds to single-stranded DNA near the 5' end or within the genome of feline parvovirus and can modify virus replication. Wang D, et al. **J Virol** 1999 Sep; 73(9):7761-8

Association of influenza virus matrix protein with ribonucleoproteins. Ye Z, et al. **J Virol** 1999 Sep; 73(9):7467-73

C1q inhibits autoantibody binding to calreticulin. Racila DM, et al. **Lupus** 1999;8(4):300-4

Identification and characterization of a calreticulin-binding nuclear protein as histone (H1), an autoantigen in systemic lupus erythematosus. Treves S, et al. **Lupus** 1998; 7(7):479-87

Xenopus elav-like genes are differentially expressed during neurogenesis. Perron M, et al. **Mech Dev** 1999 Jun; 84(1-2):139-42

Purification and RNA binding properties of the polycytidylate-binding proteins alphaCP1 and alphaCP2. Kiledjian M, et al. **Methods** 1999 Jan;17(1):84-91

MxA GTPase: oligomerization and GTP-dependent interaction with viral RNP target structures. Kochs G, et al. **Methods** 1998 Jul;15(3):255-63

Identification of RNA-protein contacts within functional ribonucleoprotein complexes by RNA site-specific labeling and UV crosslinking. Reed R, et al. **Methods** 1999 May; 18(1):3-12

Trypanosoma cruzi calreticulin is a lectin that binds monoglucosylated oligosaccharides but not protein moieties of glycoproteins. Labriola C, et al.
Mol Biol Cell 1999 May;10(5):1381-94

ERp57 functions as a subunit of specific complexes formed with the ER lectins calreticulin and calnexin. Oliver JD, et al. **Mol Biol Cell** 1999 Aug;10(8):2573-82

Association of nonribosomal nucleolar proteins in ribonucleoprotein complexes during interphase and mitosis. Piñol-Roma S. **Mol Biol Cell** 1999 Jan;10(1):77-90

hnRNP H is a component of a splicing enhancer complex that activates a c-src alternative exon in neuronal cells. Chou MY, et al. **Mol Cell Biol** 1999 Jan;19(1):69-77

Thymidylate synthase protein and p53 mRNA form an in vivo ribonucleoprotein complex. Chu E, et al.
Mol Cell Biol 1999 Feb;19(2):1582-94

hnRNP A1 recruited to an exon in vivo can function as an exon splicing silencer. Del Gatto-Konczak F, et al.
Mol Cell Biol 1999 Jan;19(1):251-60

Polypyrimidine tract-binding protein positively regulates inclusion of an alternative 3'-terminal exon. Lou H, et al.
Mol Cell Biol 1999 Jan;19(1):78-85

Differentiation-induced internal translation of c-sis mRNA: analysis of the cis elements and their differentiation-linked binding to the hnRNP C protein. Sella O, et al.
Mol Cell Biol 1999 Aug;19(8):5429-40

Polypyrimidine tract binding protein functions as a repressor to regulate alternative splicing of alpha-actinin mutally exclusive exons. Southby J, et al. **Mol Cell Biol** 1999 Apr; 19(4):2699-711

Tetrahymena telomerase ribonucleoprotein RNA-protein interactions. Autexier C, et al. **Nucleic Acids Res** 1999 May 15;27(10):2227-34

hnRNP C and polypyrimidine tract-binding protein specifically interact with the pyrimidine-rich region within the 3'NTR of the HCV RNA genome. Gontarek RR, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1457-63

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al.
Nucleic Acids Res 1999 Sep 1;27(17):3534-42

Human POMp75 is identified as the pro-oncoprotein TLS/FUS: both POMp75 and POMp100 DNA homologous pairing activities are associated to cell proliferation. Bertrand P, et al. **Oncogene** 1999 Aug 5; 18(31):4515-21

The telomerase RNA pseudoknot is critical for the stable assembly of a catalytically active ribonucleoprotein. Gilley D, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6621-5

A Crm1p-independent nuclear export path for the mRNA-associated protein, Npl3p/Mtr13p. Liu Y, et al.
Proc Natl Acad Sci U S A 1999 Jun 8;96(12):6739-44

Functions of SR and Tra2 proteins in pre-mRNA splicing regulation. Tacke R, et al. **Proc Soc Exp Biol Med** 1999 Feb;220(2):59-63 (29 ref.)

Ro60 ribonucleoprotein inhibits transcription by T3 RNA polymerase in vitro. Campos-Almaraz MD, et al.
Rev Rhum Engl Ed 1999 Jun;66(6):310-4

Transient interaction of BBP/ScSF1 and Mud2 with the splicing machinery affects the kinetics of spliceosome assembly. Rutz B, et al. **RNA** 1999 Jun;5(6):819–31

Separable roles in vivo for the two RNA binding domains of Drosophila A1–hnRNP homolog. Zu K, et al. **RNA** 1998 Dec;4(12):1585–98

[EGF-dependent association of 20S-proteasome and alpha-RNP particles with the epidermal growth factor receptor in A-431 cells] Konstantinova IM, et al. **Tsitologiia** 1998;40(11):954–7 (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Vasostatin, a calreticulin fragment, inhibits angiogenesis and suppresses tumor growth. Pike SE, et al. **J Exp Med** 1998 Dec 21;188(12):2349–56

Calreticulin inhibits vitamin D's action on the PTH gene in vitro and may prevent vitamin D's effect in vivo in hypocalcemic rats. Sela-Brown A, et al. **Mol Endocrinol** 1998 Aug;12(8):1193–200

PHYSIOLOGY

Calreticulin, a component of the endoplasmic reticulum and of cytotoxic lymphocyte granules, regulates perforin-mediated lysis in the hemolytic model system. Fraser SA, et al. **Biochem Cell Biol** 1998;76(5):881–7

Overexpression of calreticulin fails to abolish its induction by perturbation of normal ER function. Llewellyn DH, et al. **Biochem Cell Biol** 1998;76(5):875–80

Calreticulin, a multifunctional Ca2+ binding chaperone of the endoplasmic reticulum. Michalak M, et al. **Biochem Cell Biol** 1998;76(5):779–85 (51 ref.)

Roles of calreticulin and calnexin during mucin synthesis in LS180 and HT29/A1 human colonic adenocarcinoma cells. McCool DJ, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):593–600

Calreticulin down-regulates both GTP binding and transglutaminase activities of transglutaminase II. Feng JF, et al. **Biochemistry** 1999 Aug 17;38(33):10743–9

hnRNP complexes: composition, structure, and function. Krecic AM, et al. **Curr Opin Cell Biol** 1999 Jun; 11(3):363–71 (62 ref.)

Neural inducing factors from Xenopus laevis eggs and embryos. Tiedemann H, et al. **Dev Growth Differ** 1999 Apr; 41(2):201–5

The levels of the RoRNP-associated Y RNA are dependent upon the presence of ROP-1, the Caenorhabditis elegans Ro60 protein. Labbé JC, et al. **Genetics** 1999 Jan; 151(1):143–50

Calreticulin affects focal contact-dependent but not close contact-dependent cell-substratum adhesion. Fadel MP, et al. **J Biol Chem** 1999 May 21;274(21):15085–94

Terminator-specific recycling of a B1-Alu transcription complex by RNA polymerase III is mediated by the RNA terminus-binding protein La. Goodier JL, et al. **J Biol Chem** 1998 Oct 2;273(40):26110–6

Translational control of specific genes during differentiation of HL-60 cells. Krichevsky AM, et al. **J Biol Chem** 1999 May 14;274(20):14295–305

Calreticulin enhances the transcriptional activity of thyroid transcription factor-1 by binding to its homeodomain. Perrone L, et al. **J Biol Chem** 1999 Feb 19;274(8):4640–5

Calreticulin is essential for cardiac development. Mesaeli N, et al. **J Cell Biol** 1999 Mar 8;144(5):857–68

Lower concentration of La protein required for internal ribosome entry on hepatitis C virus RNA than on poliovirus RNA. Isoyama T, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2319–27

An evaluation of elongation factor 1 alpha as a phylogenetic marker for eukaryotes. Roger AJ, et al. **Mol Biol Evol** 1999 Feb;16(2):218–33

DSEF-1 is a member of the hnRNP H family of RNA-binding proteins and stimulates pre-mRNA cleavage and polyadenylation in vitro. Bagga PS, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5343–50

mRNA surveillance in eukaryotes: kinetic proofreading of proper translation termination as assessed by mRNP domain organization? Hilleren P, et al. **RNA** 1999 Jun; 5(6):711–9 (67 ref.)

Pathophysiological roles of calreticulin in autoimmune disease. Eggleton P, et al. **Scand J Immunol** 1999 May; 49(5):466–73 (77 ref.)

Cytoplasmic regulatory functions of the KH-domain proteins hnRNPs K and E1/E2. Ostareck-Lederer A, et al. **Trends Biochem Sci** 1998 Nov;23(11):409–11 (36 ref.)

ULTRASTRUCTURE

DNA bending induced by the archaebacterial histone-like protein MC1. Cam EL, et al. **J Mol Biol** 1999 Jan 22; 285(3):1011–21

RIBONUCLEOPROTEINS, SMALL NUCLEAR

ANALYSIS

Identification of both shared and distinct proteins in the major and minor spliceosomes. Will CL, et al. **Science** 1999 Jun 18;284(5422):2003–5

BIOSYNTHESIS

pICln inhibits snRNP biogenesis by binding core spliceosomal proteins. Pu WT, et al. **Mol Cell Biol** 1999 Jun;19(6):4113–20

CHEMISTRY

Crystal structures of two Sm protein complexes and their implications for the assembly of the spliceosomal snRNPs. Kambach C, et al. **Cell** 1999 Feb 5;96(3):375–87

Structure and assembly of the spliceosomal small nuclear ribonucleoprotein particles. Kambach C, et al. **Curr Opin Struct Biol** 1999 Apr;9(2):222–30 (64 ref.)

The cytoplasmic sites of the snRNP protein complexes are punctate structures that are responsive to changes in metabolism and intracellular architecture. Zieve GW. **Exp Cell Res** 1999 Feb 25;247(1):249–56

Coilin can form a complex with the U7 small nuclear ribonucleoprotein. Bellini M, et al. **Mol Biol Cell** 1998 Oct; 9(10):2987–3001

Molecular dynamics studies of U1A-RNA complexes. Reyes CM, et al. **RNA** 1999 Feb;5(2):235–44

Cbf5p, a potential pseudouridine synthase, and Nhp2p, a putative RNA-binding protein, are present together with Gar1p in all H BOX/ACA-motif snoRNPs and constitute a common bipartite structure. Watkins NJ, et al. **RNA** 1998 Dec;4(12):1549–68

GENETICS

Prader-Willi syndrome is caused by disruption of the SNRPN gene. Kuslich CD, et al. **Am J Hum Genet** 1999 Jan;64(1):70–6

Structure and function correlations at the imprinted mouse Snrpn locus. Gabriel JM, et al. **Mamm Genome** 1998 Oct; 9(10):788–93

Evolutionary fates and origins of U12-type introns. Burge CB, et al. **Mol Cell** 1998 Dec;2(6):773–85

[The export and absorption of the prosome-like RNP (alphaRNP) displaying the activity of immunomodulation in cell cultures] Pleskach VA, et al. **Dokl Akad Nauk** 1999 Apr;365(5):700–3 **(Rus)**

IMMUNOLOGY

Human autoantibodies recognizing a native macromolecular structure composed of Sm core proteins in U small nuclear RNP particles. Takeda Y, et al. **Arthritis Rheum** 1998 Nov; 41(11):2059–67

T cell receptor beta-chain third complementarity-determining region gene usage is highly restricted among Sm-B autoantigen-specific human T cell clones derived from patients with connective tissue disease. Talken BL, et al. **Arthritis Rheum** 1999 Apr;42(4):703–9

Diverse antibody recognition patterns of the multiple Sm-D antigen polypeptides. Hoch SO, et al. **Clin Immunol** 1999 Aug;92(2):203–8

Antibodies to yeast Sm motif 1 cross-react with human Sm core polypeptides. Bahia D, et al. **Eur J Biochem** 1999 Apr; 261(2):371–8

MHC class II gene associations with autoantibodies to U1A and SmD1 proteins. Dumortier H, et al. **Int Immunol** 1999 Feb;11(2):249–57

Thirteen anti-Sm monoclonal antibodies immunoprecipitate the three cytoplasmic snRNP core protein precursors in six distinct subsets. Fury M, et al. **J Autoimmun** 1999 Mar; 12(2):91–100

Human monoclonal autoantibody fragments from combinatorial antibody libraries directed to the U1snRNP associated U1C protein; epitope mapping, immunolocalization and V-gene usage. Hoet RM, et al. **Mol Immunol** 1998 Nov;35(16):1045–55

Presence of autoantibodies against small nuclear ribonucleoprotein epitopes in Chagas' patients' sera. Bach-Elias M, et al. **Parasitol Res** 1998 Oct;84(10):796–9

ISOLATION & PURIFICATION

Purification of the spliced leader ribonucleoprotein particle from Leptomonas collosoma revealed the existence of an Sm protein in trypanosomes. Cloning the SmE homologue. Goncharov I, et al. **J Biol Chem** 1999 Apr 30; 274(18):12217–21

METABOLISM

Guided tours: from precursor snoRNA to functional snoRNP. Weinstein LB, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):378–84 (56 ref.)

Nhp2p and Nop10p are essential for the function of H/ACA snoRNPs. Henras A, et al. **EMBO J** 1998 Dec 1; 17(23):7078–90

Characterization of Sm-like proteins in yeast and their association with U6 snRNA. Mayes AE, et al. **EMBO J** 1999 Aug 2;18(15):4321–31

Modifications of U2 snRNA are required for snRNP assembly and pre-mRNA splicing. Yu YT, et al. **EMBO J** 1998 Oct 1;17(19):5783–95

The cytoplasmic sites of the snRNP protein complexes are punctate structures that are responsive to changes in metabolism and intracellular architecture. Zieve GW. **Exp Cell Res** 1999 Feb 25;247(1):249–56

Initial recognition of U12-dependent introns requires both U11/5' splice-site and U12/branchpoint interactions. Frilander MJ, et al. **Genes Dev** 1999 Apr 1;13(7):851–63

Monoclonal antibody specific to a subclass of polyproline-Arg motif provides evidence for the presence of an snRNA-free spliceosomal Sm protein complex in vivo: implications for molecular interactions involving proline-rich sequences of Sm B/B' proteins. Filali M, et al. **J Cell Biochem** 1999 Aug 1;74(2):168–80

CRM1-mediated recycling of snurportin 1 to the cytoplasm. Paraskeva E, et al. **J Cell Biol** 1999 Apr 19;145(2):255–64

Coilin can form a complex with the U7 small nuclear ribonucleoprotein. Bellini M, et al. **Mol Biol Cell** 1998 Oct; 9(10):2987–3001

Stem-loop binding protein facilitates 3'-end formation by stabilizing U7 snRNP binding to histone pre-mRNA. Dominski Z, et al. **Mol Cell Biol** 1999 May;19(5):3561–70

Elevated levels of a U4/U6.U5 snRNP-associated protein, Spp381p, rescue a mutant defective in spliceosome maturation. Lybarger S, et al. **Mol Cell Biol** 1999 Jan; 19(1):577–84

pICln inhibits snRNP biogenesis by binding core spliceosomal proteins. Pu WT, et al. **Mol Cell Biol** 1999 Jun;19(6):4113–20

Polishing the cutting edge of gems [news] Dietz H. **Nat Genet** 1998 Dec;20(4):321–2

Saccharomyces cerevisiae telomerase is an Sm small nuclear ribonucleoprotein particle. Seto AG, et al. **Nature** 1999 Sep 9;401(6749):177–80

At least three linear regions but not the zinc-finger domain of U1C protein are exposed at the surface of the protein in solution and on the human spliceosomal U1 snRNP particle. Dumortier H, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5486–91

SMN mutants of spinal muscular atrophy patients are defective in binding to snRNP proteins. Pellizzoni L, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11167–72

The human Prp8 protein is a component of both U2- and U12-dependent spliceosomes. Luo HR, et al. **RNA** 1999 Jul;5(7):893–908

Birth of the snoRNPs: the evolution of the modification-guide snoRNAs. Lafontaine DL, et al. **Trends Biochem Sci** 1998 Oct;23(10):383–8 (50 ref.)

PHYSIOLOGY

Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441–52

Myb-related fission yeast cdc5p is a component of a 40S snRNP-containing complex and is essential for pre-mRNA splicing. McDonald WH, et al. **Mol Cell Biol** 1999 Aug; 19(8):5352–62

RIBONUCLEOPROTEINS, SMALL, U1

ANALYSIS

Identification of both shared and distinct proteins in the major and minor spliceosomes. Will CL, et al. **Science** 1999 Jun 18;284(5422):2003–5

BIOSYNTHESIS

Altered expression level of a systemic nuclear autoantigen determines the fate of immune response to self. Kawahata K, et al. **J Immunol** 1999 Jun 1;162(11):6482–91

CHEMISTRY

Structural changes in the transition state of protein folding: alternative interpretations of curved chevron plots. Otzen DE, et al. **Biochemistry** 1999 May 18;38(20):6499–511

Molecular dynamics simulations of the complex between human U1A protein and hairpin II of U1 small nuclear RNA and of free RNA in solution. Tang Y, et al. **Biophys J** 1999 Sep;77(3):1284–305

An unusual chemical reactivity of Sm site adenosines strongly correlates with proper assembly of core U snRNP particles. Hartmuth K, et al. **J Mol Biol** 1999 Jan 8;285(1):133–47

Reconstitution of a core chromatin remodeling complex from SWI/SNF subunits. Phelan ML, et al. **Mol Cell** 1999 Feb; 3(2):247–53

Simulations of the dynamics at an RNA-protein interface. Hermann T, et al. **Nat Struct Biol** 1999 Jun;6(6):540–4

Molecular dynamics studies of U1A-RNA complexes. Reyes CM, et al. **RNA** 1999 Feb;5(2):235–44

GENETICS

Interaction of the U1 snRNP with nonconserved intronic sequences affects 5' splice site selection. Puig O, et al. **Genes Dev** 1999 Mar 1;13(5):569–80

The general transcription factors IIA, IIB, IIF, and IIE are required for RNA polymerase II transcription from the human U1 small nuclear RNA promoter. Kuhlman TC, et al. **Mol Cell Biol** 1999 Mar;19(3):2130–41

The pre-mRNA 5'cap determines whether U6 small nuclear RNA succeeds U1 small nuclear ribonucleoprotein particle at 5' splice sites. O'Mullane L, et al. **Mol Cell Biol** 1998 Dec;18(12):7510–20

The role of overlapping U1 and U11 5' splice site sequences in a negative regulator of splicing. Hibbert CS, et al. **RNA** 1999 Mar;5(3):333–43

RIBONUCLEOPROTEINS, SMALL, U1

IMMUNOLOGY

Distribution and antigen specificity of anti-U1RNP antibodies in patients with systemic sclerosis. Ihn H, et al. **Clin Exp Immunol** 1999 Aug;117(2):383–7

Analysis of T cell receptors specific for U1-70kD small nuclear ribonucleoprotein autoantigen: the alpha chain complementarity determining region three is highly conserved among connective tissue disease patients. Talken BL, et al. **Hum Immunol** 1999 Mar;60(3):200–8

MHC class II gene associations with autoantibodies to U1A and SmD1 proteins. Dumortier H, et al. **Int Immunol** 1999 Feb;11(2):249–57

The importance of the light chain for the epitope specificity of human anti-U1 small nuclear RNA autoantibodies present in systemic lupus erythematosus patients. Hoet RM, et al. **J Immunol** 1999 Sep 15;163(6):3304–12

Altered expression level of a systemic nuclear autoantigen determines the fate of immune response to self. Kawahata K, et al. **J Immunol** 1999 Jun 1;162(11):6482–91

Human monoclonal autoantibody fragments from combinatorial antibody libraries directed to the U1snRNP associated U1C protein; epitope mapping, immunolocalization and V-gene usage. Hoet RM, et al. **Mol Immunol** 1998 Nov;35(16):1045–55

ISOLATION & PURIFICATION

An inhibitor of nuclear export activates the p53 response and induces the localization of HDM2 and p53 to U1A-positive nuclear bodies associated with the PODs. Lain S, et al. **Exp Cell Res** 1999 May 1;248(2):457–72

METABOLISM

The Sm core domain mediates targeting of U1 snRNP to subnuclear compartments involved in transcription and splicing. Malatesta M, et al. **Exp Cell Res** 1999 Jun 15; 249(2):189–98

Dynamic interactions between splicing snRNPs, coiled bodies and nucleoli revealed using snRNP protein fusions to the green fluorescent protein. Sleeman J, et al. **Exp Cell Res** 1998 Sep 15;243(2):290–304

Binding of U1A protein to the 3' untranslated region of its pre-mRNA. Grainger RJ, et al. **J Mol Biol** 1999 May 14; 288(4):585–94

RNA recognition by the human U1A protein is mediated by a network of local cooperative interactions that create the optimal binding surface. Kranz JK, et al. **J Mol Biol** 1999 Jan 8;285(1):215–31

SWI/SNF complexes and facilitation of TATA binding protein:nucleosome interactions. Imbalzano AN. **Methods** 1998 Aug;15(4):303–14

c-MYC interacts with INI1/hSNF5 and requires the SWI/SNF complex for transactivation function. Cheng SW, et al. **Nat Genet** 1999 May;22(1):102–5

At least three linear regions but not the zinc-finger domain of U1C protein are exposed at the surface of the protein in solution and on the human spliceosomal U1 snRNP particle. Dumortier H, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5486–91

The plant U1 small nuclear ribonucleoprotein particle 70K protein interacts with two novel serine/arginine-rich proteins. Golovkin M, et al. **Plant Cell** 1998 Oct; 10(10):1637–48

The snRNP-free U1A (SF-A) complex(es): identification of the largest subunit as PSF, the polypyrimidine-tract binding protein-associated splicing factor. Lutz CS, et al. **RNA** 1998 Dec;4(12):1493–9

Target discrimination by RNA-binding proteins: role of the ancillary protein U2A' and a critical leucine residue in differentiating the RNA-binding specificity of spliceosomal proteins U1A and U2B". Rimmele ME, et al. **RNA** 1998 Nov;4(11):1386–96

Purine-rich enhancers function in the AT-AC pre-mRNA splicing pathway and do so independently of intact U1 snRNP. Wu Q, et al. **RNA** 1998 Dec;4(12):1664–73

PHYSIOLOGY

Transcriptional regulation: SWItching circuitry. Wade PA, et al. **Curr Biol** 1999 Mar 25;9(6):R221–4 (12 ref.)

Interaction between the negative regulator of splicing element and a 3' splice site: requirement for U1 small nuclear ribonucleoprotein and the 3' splice site branch point/pyrimidine tract. Cook CR, et al. **J Virol** 1999 Mar; 73(3):2394–400

U1 small nuclear ribonucleoprotein and splicing inhibition by the rous sarcoma virus negative regulator of splicing element. McNally LM, et al. **J Virol** 1999 Mar; 73(3):2385–93

RIBONUCLEOPROTEINS, SMALL, U2

ANALYSIS

Identification of both shared and distinct proteins in the major and minor spliceosomes. Will CL, et al. **Science** 1999 Jun 18;284(5422):2003–5

CHEMISTRY

Partial purification of the yeast U2 snRNP reveals a novel yeast pre-mRNA splicing factor required for pre-spliceosome assembly. Caspary F, et al. **EMBO J** 1999 Jun 15;18(12):3463–74

A capping domain for LRR protein interaction modules. Ceulemans H, et al. **FEBS Lett** 1999 Aug 13;456(3):349–51

GENETICS

The yeast U2A'/U2B complex is required for pre-spliceosome formation. Caspary F, et al. **EMBO J** 1998 Nov 2;17(21):6348–58

Transcription of the human U2 snRNA genes continues beyond the 3' box in vivo. Cuello P, et al. **EMBO J** 1999 May 17;18(10):2867–77

Multiple forms of the U2 small nuclear ribonucleoprotein auxiliary factor U2AF subunits expressed in higher plants. Domon C, et al. **J Biol Chem** 1998 Dec 18;273(51):34603–10

Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142–54

The fission yeast prp10(+) gene involved in pre-mRNA splicing encodes a homologue of highly conserved splicing factor, SAP155. Habara Y, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5662–9

Coexpression of the adenovirus 12 E1B 55 kDa oncoprotein and cellular tumor suppressor p53 is sufficient to induce metaphase fragility of the human RNU2 locus. Liao D, et al. **Virology** 1999 Feb 1;254(1):11–23

METABOLISM

The movement of coiled bodies visualized in living plant cells by the green fluorescent protein. Boudonck K, et al. **Mol Biol Cell** 1999 Jul;10(7):2297–307

The human Prp8 protein is a component of both U2- and U12-dependent spliceosomes. Luo HR, et al. **RNA** 1999 Jul;5(7):893–908

Target discrimination by RNA-binding proteins: role of the ancillary protein U2A' and a critical leucine residue in differentiating the RNA-binding specificity of spliceosomal proteins U1A and U2B". Rimmele ME, et al. **RNA** 1998 Nov;4(11):1386–96

PHYSIOLOGY

Target discrimination by RNA-binding proteins: role of the ancillary protein U2A' and a critical leucine residue in differentiating the RNA-binding specificity of spliceosomal proteins U1A and U2B". Rimmele ME, et al. **RNA** 1998 Nov;4(11):1386–96

ULTRASTRUCTURE

Combined biochemical and electron microscopic analyses reveal the architecture of the mammalian U2 snRNP. Krämer A, et al. **J Cell Biol** 1999 Jun 28;145(7):1355–68

RIBONUCLEOPROTEINS, SMALL, U3 see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

RIBONUCLEOPROTEINS, SMALL, U4 see **RIBONUCLEOPROTEINS, SMALL, U4–U6**

RIBONUCLEOPROTEINS, SMALL, U4–U6

ANALYSIS

Identification by mass spectrometry and functional analysis of novel proteins of the yeast [U4/U6.U5] tri-snRNP. Gottschalk A, et al. **EMBO J** 1999 Aug 16;18(16):4535–48

BIOSYNTHESIS

A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. Pannone BK, et al. **EMBO J** 1998 Dec 15;17(24):7442–53

CHEMISTRY

The PWI motif: a new protein domain in splicing factors. Blencowe BJ, et al. **Trends Biochem Sci** 1999 May; 24(5):179–80

GENETICS

Purification of the yeast U4/U6.U5 small nuclear ribonucleoprotein particle and identification of its proteins. Stevens SW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7226–31

The first ATPase domain of the yeast 246-kDa protein is required for in vivo unwinding of the U4/U6 duplex. Kim DH, et al. **RNA** 1999 Jul;5(7):959–71

ISOLATION & PURIFICATION

Purification of the yeast U4/U6.U5 small nuclear ribonucleoprotein particle and identification of its proteins. Stevens SW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7226–31

METABOLISM

RNA unwinding in U4/U6 snRNPs requires ATP hydrolysis and the DEIH-box splicing factor Brr2. Raghunathan PL, et al. **Curr Biol** 1998 Jul 16;8(15):847–55

A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. Pannone BK, et al. **EMBO J** 1998 Dec 15;17(24):7442–53

Functional and structural characterization of the prp3 binding domain of the yeast prp4 splicing factor. Ayadi L, et al. **J Mol Biol** 1998 Dec 4;284(3):673–87

A novel genetic screen for snRNP assembly factors in yeast identifies a conserved protein, Sad1p, also required for pre-mRNA splicing. Lygerou Z, et al. **Mol Cell Biol** 1999 Mar;19(3):2008–20

PHARMACOLOGY

Yeast ortholog of the Drosophila crooked neck protein promotes spliceosome assembly through stable U4/U6.U5 snRNP addition. Chung S, et al. **RNA** 1999 Aug; 5(8):1042–54

RIBONUCLEOPROTEINS, SMALL, U5

ANALYSIS

Identification by mass spectrometry and functional analysis of novel proteins of the yeast [U4/U6.U5] tri-snRNP. Gottschalk A, et al. **EMBO J** 1999 Aug 16;18(16):4535–48

CHEMISTRY

Overproduction, purification, crystallization and preliminary x-ray diffraction studies of the human spliceosomal protein U5-15kD. Reuter K, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):888–90

The human U5-220kD protein (hPrp8) forms a stable RNA-free complex with several U5-specific proteins, including an RNA unwindase, a homologue of ribosomal elongation factor EF-2, and a novel WD-40 protein. Achsel T, et al. **Mol Cell Biol** 1998 Nov;18(11):6756–66

Protein-RNA interactions in the U5 snRNP of Saccharomyces cerevisiae [corrected and republished article originally printed in RNA 1998 Oct; 4(10):1239–50] Dix I, et al. **RNA** 1998 Dec;4(12):1675–86

GENETICS

Comparison of enzymatic activities of the HIV-1 and HFV integrases to their U5 LTR substrates. Oh YT, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):621–9

Purification of the yeast U4/U6.U5 small nuclear ribonucleoprotein particle and identification of its proteins. Stevens SW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7226–31

The C-terminal region of hPrp8 interacts with the conserved GU dinucleotide at the 5' splice site. Reyes JL, et al. **RNA** 1999 Feb;5(2):167–79

ISOLATION & PURIFICATION

Purification of the yeast U4/U6.U5 small nuclear ribonucleoprotein particle and identification of its proteins. Stevens SW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7226–31

METABOLISM

Conserved loop I of U5 small nuclear RNA is dispensable for both catalytic steps of pre-mRNA splicing in HeLa nuclear extracts. Ségault V, et al. **Mol Cell Biol** 1999 Apr; 19(4):2782–90

PHARMACOLOGY

Yeast ortholog of the Drosophila crooked neck protein promotes spliceosome assembly through stable U4/U6.U5 snRNP addition. Chung S, et al. **RNA** 1999 Aug; 5(8):1042–54

RIBONUCLEOPROTEINS, SMALL, U6 see **RIBONUCLEOPROTEINS, SMALL, U4–U6**

RIBONUCLEOPROTEINS, SMALL, U7 see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

RIBONUCLEOSIDE DIPHOSPHATE REDUCTASE

ANTAGONISTS & INHIBITORS

Phase I and pharmacologic study of oral (E)-2'-deoxy-2'-(fluoromethylene) cytidine: on a daily x 5-day schedule. Masuda N, et al. **Invest New Drugs** 1998–99;16(3):245–54

Domain-structured N1,N2-derivatized hydrazines as inhibitors of ribonucleoside diphosphate reductase: redox-cycling considerations. Sarel S, et al. **J Med Chem** 1999 Jan 28;42(2):242–8

BIOSYNTHESIS

The regulation of ribonucleoside diphosphate reductase by the tumor promoter orotic acid in normal rat liver in vivo. Manjeshwar S, et al. **Mol Carcinog** 1999 Mar;24(3):188–96

GENETICS

The in vitro ligation of bacterially expressed proteins using an intein from Methanobacterium thermoautotrophicum. Evans TC Jr, et al. **J Biol Chem** 1999 Feb 12;274(7):3923–6

Effect of IciA protein on the expression of the nrd gene encoding ribonucleoside diphosphate reductase in E. coli. Han JS, et al. **Mol Gen Genet** 1998 Oct;259(6):610–4

RIBONUCLEOSIDE PHOSPHATES see **RIBONUCLEOTIDES**

RIBONUCLEOSIDES

CHEMICAL SYNTHESIS

1-Azaribofuranoside analogues as designed inhibitors of purine nucleoside phosphorylase. Synthesis and biological evaluation. Hansen SU, et al. **Acta Chem Scand** 1998 Oct; 52(10):1214–22

Mechanism-based design of inosine 5-monophosphate dehydrogenase inhibitors: synthesis and biological activities of 5-ethynyl-1-beta-D-ribofuranosylimidazole-4-carboxamide (EICAR) and its derivatives. Minakawa N, et al. **Curr Med Chem** 1999 Jul;6(7):615–28

CHEMISTRY

Preparation and properties of 2',5'-linked oligonucleotide analogues containing 3'-O,4'-C-methyleneribonucleosides. Obika S, et al. **Bioorg Med Chem Lett** 1999 Feb 22; 9(4):515–8

Studies designed to increase the stability and antiviral activity (HCMV) of the active benzimidazole nucleoside, TCRB. Townsend LB, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):509–19

METABOLISM

Cell proliferation induced by 8-oxoguanosine and 8-methylguanosine, two adducts produced by free radical attack on ribonucleosides and RNA. Kwee JK, et al. **Chem Biol Interact** 1998 Nov 6;116(1–2):61–77

Functional characterization of a human purine-selective, Na+-dependent nucleoside transporter (hSPNT1) in a mammalian expression system. Schaner ME, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1487–91

PHARMACOLOGY

1-Azaribofuranoside analogues as designed inhibitors of purine nucleoside phosphorylase. Synthesis and biological evaluation. Hansen SU, et al. **Acta Chem Scand** 1998 Oct; 52(10):1214–22

Phosphorylation of triciribine is necessary for activity against HIV type 1. Ptak RG, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1315–22

Comparison of antiviral compounds against human herpesvirus 6 and 7. Yoshida M, et al. **Antiviral Res** 1998 Dec;40(1-2):73–84

Mizoribine and mycophenolate mofetil. Ishikawa H. **Curr Med Chem** 1999 Jul;6(7):575–97 (82 ref.)

Mechanism-based design of inosine 5-monophosphate dehydrogenase inhibitors: synthesis and biological activities of 5-ethynyl-1-beta-D-ribofuranosylimidazole-4-carboxamide (EICAR) and its derivatives. Minakawa N, et al. **Curr Med Chem** 1999 Jul;6(7):615–28

Acadesine increases blood flow in the collateralized heart during exercise. Ishibashi Y, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):552–61

Similarity between nuclear matrix proteins of various cells revealed by an improved isolation method. Gerner C, et al. **J Cell Biochem** 1998 Dec 1;71(3):363–74

Inhibition of Epstein-Barr virus replication by a benzimidazole L-riboside: novel antiviral mechanism of 5,6-dichloro-2-(isopropylamino)-1-beta-L-ribofuranosyl-1H-benzimidazole. Zacny VL, et al. **J Virol** 1999 Sep; 73(9):7271–7

Improvement by 5-amino-4-imidazole carboxamide riboside of the contractile dysfunction that follows brief periods of ischemia through increases in ecto-5-nucleotidase activity and adenosine release in canine hearts. Kitakaze M, et al. **Jpn Circ J** 1999 Jul;63(7):542–53

Modulating effects of adenosine and modified adenine ribonucleosides on human cells (HL-60). Meisel H, et al. **Nahrung** 1999 Jun;43(3):213–5

Studies designed to increase the stability and antiviral activity (HCMV) of the active benzimidazole nucleoside, TCRB. Townsend LB, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):509–19

ATP depletion, purine riboside triphosphate accumulation and rat thymocyte death induced by purine riboside. Kozlowska M, et al. **Toxicol Lett** 1999 Feb 22;104(3):171–81

THERAPEUTIC USE

Acadesine during fluid resuscitation from shock and abdominal sepsis [see comments] Melton SM, et al. **Crit Care Med** 1999 Mar;27(3):565–75 (46 ref.). Comment in: Crit Care Med 1999 Mar;27(3):468–9.

The unorthodox and orthodox: the therapeutic role of acadesine after traumatic injury and sepsis [editorial; comment] Unkle DW. **Crit Care Med** 1999 Mar;27(3):468–9 . Comment on: Crit Care Med 1999 Mar;27(3):565–7 5.

Long-term open-trial of mizoribine with prednisolone in 24 patients with multiple sclerosis: safety, clinical and magnetic resonance imaging outcome. Saida K, et al. **Intern Med** 1999 Aug;38(8):636–42

A prospective trial of steroid cessation after renal transplantation in pediatric patients treated with cyclosporine and mizoribine. Motoyama O, et al. **Pediatr Transplant** 1997 Aug;1(1):29–36

RIBONUCLEOTIDE REDUCTASES

ANTAGONISTS & INHIBITORS

Multifactorial mechanisms of drug resistance in tumor cell populations selected for resistance to specific chemotherapeutic agents. Cory AH, et al. **Adv Enzyme Regul** 1998;38:3–18

Simultaneous determination of deoxyribonucleoside in the [illegible] of ribonucleoside triphosphates in human ca[illegible] cells by high-performance liquid chro[illegible]tography. Decosterd LA, et al. **Anal Biochem** 1999 May 15;. 0(1):59–68

The relationship between the antitumor activity and the ribonucleotide reductase inhibitory activity of (E)-2'-deoxy-2'-(fluoromethylene) cytidine, MDL 101,731. Kanazawa J, et al. **Anticancer Drugs** 1998 Aug; 9(7):653–7

Inhibition of ribonucleotide reductase by a new class of isoindole derivatives: drug synergism with cytarabine (Ara-C) and induction of cellular apoptosis. Nandy P, et al. **Anticancer Res** 1999 May-Jun;19(3A):1625–33

The antiviral activity of the ribonucleotide reductase inhibitor BILD 1351 SE in combination with acyclovir against HSV type-1 in cell culture. Lawetz C, et al. **Antiviral Res** 1998 Jul;39(1):35–46

Design and synthesis of a tetrahydropyran-based inhibitor of mammalian ribonucleotide reductase. Smith AB 3rd, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3133–6

Successful treatment of gemcitabine toxicity with a brief course of oral corticosteroid therapy. Vander Els NJ, et al. **Chest** 1998 Dec;114(6):1779–81

Augmentation of 1-beta-D-arabinofuranosylcytosine (Ara-C) cytotoxicity in leukaemia cells by co-administration with antisignalling drugs. Freund A, et al. **Eur J Cancer** 1998 May;34(6):895–901

Mouse leukemia L1210 cells selected for resistance to the ribonucleotide reductase inhibitor, 4-methyl-5-amino-1-formylisoquinoline thiosemicarbazone show altered response to DNA damaging agents. Crenshaw TR, et al. **Int J Oncol** 1999 Sep;15(3):487–90

5'-Phosphoramidates and 5'-diphosphates of 2'-O-allyl-beta-D-arabinofuranosyluracil, -cytosine, and -adenine: inhibition of ribonucleotide reductase. Manfredini S, et al. **J Med Chem** 1999 Aug 26;42(17):3243–50

Liz1p, a novel fission yeast membrane protein, is required for normal cell division when ribonucleotide reductase is inhibited. Moynihan EB, et al. **Mol Biol Cell** 1999 Feb; 10(2):245–57

Synthesis, cytostatic activity and inhibition of ribonucleotide reductase by 5'-phosphoramidates and 5'-diphosphates, of 2'-O-allyl-arabinofuranosyl nucleosides. Manfredini S, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):1007–8

Mechanism-based inhibition of ribonucleotide reductases: new mechanistic considerations and promising biological applications. Robins MJ. **Nucleosides Nucleotides** 1999 Apr-May;18(4–5):779–93 (36 ref.)

CHEMISTRY

Regeneration of the tyrosyl radical in native or p-butoxyphenol-treated mouse ribonucleotide reductase R2 protein. Davydov A, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):322–5

The tyrosyl free radical of recombinant ribonucleotide reductase from Mycobacterium tuberculosis is located in a rigid hydrophobic pocket. Liu A, et al. **Biochemistry** 1998 Nov 17;37(46):16369–77

Ribonucleotide reductase R2 protein is phosphorylated at serine-20 by P34cdc2 kinase. Chan AK, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):363–71

Reactivity studies of the tyrosyl radical in ribonucleotide reductase from Mycobacterium tuberculosis and Arabidopsis thaliana--comparison with Escherichia coli and mouse. Elleingand E, et al. **Eur J Biochem** 1998 Dec 1;258(2):485–90

The iron-oxygen reconstitution reaction in protein R2-Tyr-177 mutants of mouse ribonucleotide reductase. Epr and electron nuclear double resonance studies on a new transient tryptophan radical. Pötsch S, et al. **J Biol Chem** 1999 Jun 18;274(25):17696–704

Evidence by mutagenesis that Tyr(370) of the mouse ribonucleotide reductase R2 protein is the connecting link in the intersubunit radical transfer pathway. Rova U, et al. **J Biol Chem** 1999 Aug 20;274(34):23746–51

EPR properties of mixed-valent mu-oxo and mu-hydroxo dinuclear iron complexes produced by radiolytic reduction at 77 K. Davydov RM, et al. **J Biol Inorg Chem** 1999 Jun; 4(3):292–301

Pulsed electron-nuclear double resonance (ENDOR) at 140 GHz. Bennati M, et al. **J Magn Reson** 1999 Jun; 138(2):232–43

High-field EPR detection of a disulfide radical anion in the reduction of cytidine 5'-diphosphate by the E441Q R1 mutant of Escherichia coli ribonucleotide reductase. Lawrence CC, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8979–84

A glycyl radical site in the crystal structure of a class III ribonucleotide reductase. Logan DT, et al. **Science** 1999 Mar 5;283(5407):1499–504

Pyruvate formate lyase is structurally homologous to type I ribonucleotide reductase. Leppänen VM, et al. **Structure Fold Des** 1999 Jul 15;7(7):733–44

[Structural organization of 2C-terminal region and its analogs in a subunit of ribonucleotide reductase from herpes virus] Akhmedov NA, et al. **Bioorg Khim** 1998 Aug;24(8):586–92 (Eng. Abstr.) **(Rus)**

GENETICS

Quantification of ribonucleotide reductase expression in wild-type and hydroxyurea-resistant cell lines employing in situ reverse transcriptase polymerase chain reaction and a computerized image analysis system. Wadler S, et al. **Anal Biochem** 1999 Feb 1;267(1):24–9

Molecular genetic analysis of primary lung cancer and cancer metastatic to the lung. Schreiber G, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1109–15 (43 ref.)

Effects of perturbations of pools of deoxyribonucleoside triphosphates on expression of ribonucleotide reductase, a G1/S transition state enzyme, in p53-mutated cells. Wadler S, et al. **Biochem Pharmacol** 1998 May 1;55(9):1353–60

O2 activation by non-heme diiron proteins: identification of a symmetric mu-1,2-peroxide in a mutant of ribonucleotide reductase. Moënne-Loccoz P, et al. **Biochemistry** 1998 Oct 20;37(42):14659–63

A megaplasmid-borne anaerobic ribonucleotide reductase in Alcaligenes eutrophus H16. Siedow A, et al. **J Bacteriol** 1999 Aug;181(16):4919–28

Identification of cis-regulating elements and trans-acting factors regulating the expression of the gene encoding the small subunit of ribonucleotide reductase in Dictyostelium discoideum. Bonfils C, et al. **J Biol Chem** 1999 Jul 16; 274(29):20384–90

Two YY-1-binding proximal elements regulate the promoter strength of the TATA-less mouse ribonucleotide reductase R1 gene. Johansson E, et al. **J Biol Chem** 1998 Nov 6; 273(45):29816–21

The PK domain of the large subunit of herpes simplex virus type 2 ribonucleotide reductase (ICP10) is required for immediate-early gene expression and virus growth. Smith CC, et al. **J Virol** 1998 Nov;72(11):9131–41

Lung cancer and the human gene for ribonucleotide reductase subunit M1 (RRM1). Pitterle DM, et al. **Mamm Genome** 1999 Sep;10(9):916–22

Regulation of the ribonucleotide reductase small subunit gene by DNA-damaging agents in Dictyostelium discoideum. Gaudet P, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3042–8

Characterization by pulse-field electrophoresis of a new region of DNA amplification containing the M2 subunit of ribonucleotide reductase in hydroxyurea-resistant Leishmania. Lye LF, et al. **Parasitol Res** 1999 Mar; 85(3):188–93

Molecular characterization of tobacco ribonucleotide reductase RNR1 and RNR2 cDNAs and cell cycle-regulated expression in synchronized plant cells. Chaboute ME, et al. **Plant Mol Biol** 1998 Nov; 38(5):797–806

Vaccine potential of a herpes simplex virus type 2 mutant deleted in the PK domain of the large subunit of ribonucleotide reductase (ICP10). Aurelian L, et al. **Vaccine** 1999 Apr 9;17(15-16):1951–63

ISOLATION & PURIFICATION

Ribonucleotide reduction in Pseudomonas species: simultaneous presence of active enzymes from different classes. Jordan A, et al. **J Bacteriol** 1999 Jul; 181(13):3974–80

Adenosylcobalamin-dependent ribonucleoside triphosphate reductase from Lactobacillus leichmannii. Rapid, improved purification involving dGTP-based affinity chromatography plus biophysical characterization studies demonstrating enhanced, "crystallographic level" purity. Suto RK, et al. **Prep Biochem Biotechnol** 1999 Aug; 29(3):273–309

METABOLISM

Ribonucleotide reductases. Jordan A, et al. **Annu Rev Biochem** 1998;67:71–98 (152 ref.)

Metabolic fate of oxidized guanine ribonucleotides in mammalian cells. Hayakawa H, et al. **Biochemistry** 1999 Mar 23;38(12):3610–4

Studies on the catalysis of carbon-cobalt bond homolysis by ribonucleoside triphosphate reductase: evidence for concerted carbon-cobalt bond homolysis and thiyl radical formation. Licht SS, et al. **Biochemistry** 1999 Jan 26; 38(4):1221–33

Thermodynamic and kinetic studies on carbon-cobalt bond homolysis by ribonucleoside triphosphate reductase: the importance of entropy in catalysis. Licht SS, et al. **Biochemistry** 1999 Jan 26;38(4):1234–42

Ribonucleotide reductase R2 protein is phosphorylated at serine-20 by P34cdc2 kinase. Chan AK, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):363–71

The activation of ribonucleotide reductase in animal organs

RIBONUCLEOTIDE REDUCTASES

as the cellular response against the treatment with DNA-damaging factors and the influence of radioprotectors on this effect. Pulatova MK, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):321-9

The function of adenosylcobalamin in the mechanism of ribonucleoside triphosphate reductase from Lactobacillus leichmannii. Lawrence CC, et al. **Curr Opin Chem Biol** 1998 Oct;2(5):650-5 (33 ref.)

Allosteric control of three B12-dependent (class II) ribonucleotide reductases. Implications for the evolution of ribonucleotide reduction. Eliasson R, et al. **J Biol Chem** 1999 Mar 12;274(11):7182-9

Allosteric regulation of vaccinia virus ribonucleotide reductase, analyzed by simultaneous monitoring of its four activities. Hendricks SP, et al. **J Biol Chem** 1998 Nov 6; 273(45):29512-8

Differential effects of hydroxyurea upon deoxyribonucleoside triphosphate pools, analyzed with vaccinia virus ribonucleotide reductase. Hendricks SP, et al. **J Biol Chem** 1998 Nov 6;273(45):29519-23

Allosteric regulation of Trypanosoma brucei ribonucleotide reductase studied in vitro and in vivo. Hofer A, et al. **J Biol Chem** 1998 Dec 18;273(51):34098-104

Binding of Cob(II)alamin to the adenosylcobalamin-dependent ribonucleotide reductase from Lactobacillus leichmannii. Identification of dimethylbenzimidazole as the axial ligand. Lawrence CC, et al. **J Biol Chem** 1999 Mar 12;274(11):7039-42

Cysteinyl and substrate radical formation in active site mutant E441Q of Escherichia coli class I ribonucleotide reductase. Persson AL, et al. **J Biol Chem** 1998 Nov 20; 273(47):31016-20

The unique N terminus of herpes simplex virus type 1 ribonucleotide reductase large subunit is phosphorylated by casein kinase 2, which may have a homologue in Escherichia coli. Conner J. **J Gen Virol** 1999 Jun;80 (Pt 6):1471-6

The PK domain of the large subunit of herpes simplex virus type 2 ribonucleotide reductase (ICP10) is required for immediate-early gene expression and virus growth. Smith CC, et al. **J Virol** 1998 Nov;72(11):9131-41

High-field EPR detection of a disulfide radical anion in the reduction of cytidine 5'-diphosphate by the E441Q R1 mutant of Escherichia coli ribonucleotide reductase. Lawrence CC, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8979-84

Harnessing free radicals: formation and function of the tyrosyl radical in ribonucleotide reductase. Stubbe J, et al. **Trends Biochem Sci** 1998 Nov;23(11):438-43 (45 ref.)

PHYSIOLOGY

Overexpression of ribonucleotide reductase as a mechanism of resistance to 2,2-difluorodeoxycytidine in the human KB cancer cell line. Goan YG, et al. **Cancer Res** 1999 Sep 1;59(17):4204-7

Interferons regulate the phenotype of wild-type and mutant herpes simplex viruses in vivo. Leib DA, et al. **J Exp Med** 1999 Feb 15;189(4):663-72

RIBONUCLEOTIDES

ANALYSIS

Monitoring of intracellular ribonucleotide pools is a powerful tool in the development and characterization of mammalian cell culture processes. Grammatikos SI, et al. **Biotechnol Bioeng** 1999 Aug 5;64(3):357-67

Selective detection of ribose-methylated nucleotides in RNA by a mass spectrometry-based method. Qiu F, et al. **Nucleic Acids Res** 1999 Sep 15;27(18):e20

BIOSYNTHESIS

Synthesis of mixed ribo/deoxyribopolynucleotides by mutant T7 RNA polymerase. Gudima SO, et al. **FEBS Lett** 1998 Nov 20;439(3):302-6

CHEMICAL SYNTHESIS

A multisubstrate adduct inhibitor of AICAR transformylase. Wall M, et al. **J Med Chem** 1999 Sep 9;42(18):3421-4

CHEMISTRY

Evidence for the direct transfer of the carboxylate of N5-carboxyaminoimidazole ribonucleotide (N5-CAIR) to generate 4-carboxy-5-aminoimidazole ribonucleotide catalyzed by Escherichia coli PurE, an N5-CAIR mutase. Meyer E, et al. **Biochemistry** 1999 Mar 9;38(10):3012-8

A single tyrosine prevents insertion of ribonucleotides in the eukaryotic-type phi29 DNA polymerase. Bonnin A, et al. **J Mol Biol** 1999 Jul 2;290(1):241-51

Thermodynamics of unpaired terminal nucleotides on short RNA helixes correlates with stacking at helix termini in larger RNAs. Burkard ME, et al. **J Mol Biol** 1999 Jul 30; 290(5):967-82

[Interaction of Ag+ ions with ribonucleotides of canonical bases] Sorokin VA, et al. **Biofizika** 1999 Mar-Apr; 44(2):208-15 (Eng. Abstr.) **(Rus)**

METABOLISM

Hammerhead ribozyme mechanism: a ribonucleotide 5' to the substrate cleavage site is not essential. Kore AR, et al. **Biochemistry** 1999 Aug 24;38(34):10915-8

Novel mechanism for the impairment of cell proliferation in HIV-1 infection. Bofill M, et al. **Immunol Today** 1999 Jun;20(6):258-61 (29 ref.)

Two nucleotide transport proteins in Chlamydia trachomatis, one for net nucleoside triphosphate uptake and the other for transport of energy. Tjaden J, et al. **J Bacteriol** 1999 Feb;181(4):1196-202

Allosteric control of three B12-dependent (class II) ribonucleotide reductases. Implications for the evolution of ribonucleotide reduction. Eliasson R, et al. **J Biol Chem** 1999 Mar 12;274(11):7182-9

Allosteric regulation of Trypanosoma brucei ribonucleotide reductase studied in vitro and in vivo. Hofer A, et al. **J Biol Chem** 1998 Dec 18;273(51):34098-104

Stimulated activity of human topoisomerases IIalpha and IIbeta on RNA-containing substrates. Wang Y, et al. **J Biol Chem** 1999 Aug 6;274(32):22839-46

Efficient synthesis of nucleic acids heavily modified with non-canonical ribose 2'-groups using a mutantT7 RNA polymerase (RNAP). Padilla R, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1561-3

PHARMACOLOGY

Phosphorylation of triciribine is necessary for activity against HIV type 1. Ptak RG, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1315-22

Translocation of myocardial GLUT-4 and increased glucose uptake through activation of AMPK by AICAR. Russell RR 3rd, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H643-9

A 5'-monophosphate form of bredinin selectively inhibits the activities of mammalian DNA polymerases in vitro. Horie T, et al. **Int J Mol Med** 1998 Jan;1(1):83-90

URINE

Urinary adenosine and aminoimidazolecarboxamide excretion in methotrexate-treated patients with psoriasis. Baggott JE, et al. **Arch Dermatol** 1999 Jul;135(7):813-7

RIBOSE

ANALOGS & DERIVATIVES

Acid promoted transformations of fluorescent luminarosine and its 2'-modified analogues. Burdzy A, et al. **Acta Biochim Pol** 1998;45(4):941-8

CHEMISTRY

3D HCCH-COSY-TOCSY experiment for the assignment of ribose and amino acid side chains in 13C labeled RNA and protein. Hu W, et al. **J Biomol NMR** 1998 Nov; 12(4):559-64

METABOLISM

Heterofermentative metabolism of glucose and ribose and utilisation of citrate by the smooth biotype of Lactobacillus amylovorus NCFB 2745. Whitley K, et al. **Antonie Van Leeuwenhoek** 1999 Apr;75(3):217-23

Molecular interactions in ribose transport: the binding protein module symmetrically associates with the homodimeric membrane transporter. Park Y, et al. **EMBO J** 1999 Aug 2;18(15):4149-56

A mutated PtsG, the glucose transporter, allows uptake of D-ribose. Oh H, et al. **J Biol Chem** 1999 May 14; 274(20):14006-11

Motif 2 in adenosine kinase homologous ginseng polypeptide showed affinity to D-ribose by capillary zone electrophoresis and surface plasmon resonance. Kajiwara H. **J Chromatogr A** 1998 Aug 21;817(1-2):173-9

Adenosine diphosphate (ADP)-ribosylation of the guanosine triphosphatase (GTPase) rho in resting peripheral blood human T lymphocytes results in pseudopodial extension and the inhibition of T cell activation. Woodside DG, et al. **J Exp Med** 1998 Oct 5;188(7):1211-21

Induced fit on sugar binding activates ribokinase. Sigrell JA, et al. **J Mol Biol** 1999 Jul 30;290(5):1009-18

Molecular basis for the enantioselectivity of HIV-1 reverse transcriptase: role of the 3'-hydroxyl group of the L-(beta)-ribose in chiral discrimination between D- and L-enantiomers of deoxy- and dideoxy-nucleoside triphosphate analogs. Maga G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):972-8

Selective detection of ribose-methylated nucleotides in RNA by a mass spectrometry-based method. Qiu F, et al. **Nucleic Acids Res** 1999 Sep 15;27(18):e20

[A new pathway for regulating purine biosynthesis in Escherichia coli by a protein-component of the ribose transporter] Kiian IuA. **Dokl Akad Nauk** 1999 Jan; 364(3):414-6 **(Rus)**

PHARMACOLOGY

Effect of D-ribose on purine synthesis and neurological symptoms in a patient with adenylosuccinase deficiency. Salerno C, et al. **Biochim Biophys Acta** 1999 Jan 6; 1453(1):135-40

Effect of ribose on cardiac adenine nucleotides in a donor model for heart transplantation. Müller C, et al. **Eur J Med Res** 1998 Dec 16;3(12):554-8

RIBOSE-PHOSPHATE PYROPHOSPHOKINASE

CHEMISTRY

Purine biosynthesis de novo in bovine retina: purification and characterization of amidophosphoribosyl transferase and phosphoribosyl pyrophosphate synthetase. Kian IA, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):648-51

GENETICS

Cloning and sequencing of cDNAs specifying a novel class of phosphoribosyl diphosphate synthase in Arabidopsis thaliana. Krath BN, et al. **Biochim Biophys Acta** 1999 Mar 19;1430(2):403-8

Accelerated transcription of PRPS1 in X-linked overactivity of normal human phosphoribosylpyrophosphate synthetase. Ahmed M, et al. **J Biol Chem** 1999 Mar 12;274(11):7482-8

Characterisation of the gene encoding phosphoribosylpyrophosphate synthetase (PRS) of Giardia intestinalis. Kyradji S, et al. **Mol Biochem Parasitol** 1998 Nov 30;97(1-2):225-8

ISOLATION & PURIFICATION

Purine biosynthesis de novo in bovine retina: purification and characterization of amidophosphoribosyl transferase and phosphoribosyl pyrophosphate synthetase. Kian IA, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):648-51

METABOLISM

Rat liver phosphoribosylpyrophosphate synthetase is activated by free Mg2+ in a manner that overcomes its inhibition by nucleotides. Sonoda T, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):32-40

PRS5, the fifth member of the phosphoribosyl pyrophosphate synthetase gene family in Saccharomyces cerevisiae, is essential for cell viability in the absence of either PRS1 or PRS3. Hernando Y, et al. **J Bacteriol** 1998 Dec; 180(23):6404-7

Organellar and cytosolic localization of four phosphoribosyl diphosphate synthase isozymes in spinach. Krath BN, et al. **Plant Physiol** 1999 Feb;119(2):497-506

RIBOSEMONOPHOSPHATES

IMMUNOLOGY

Evaluation of serum levels of IgG subclasses and anti-ribosyl-ribitolphosphate IgG and IgG2 in children with Haemophilus influenzae b meningitis. IshigamiMiyake TT, et al. **J Trop Pediatr** 1999 Jun;45(3):130-4

METABOLISM

In vitro assessment of salvage pathways for pyrimidine bases in rat liver and brain. Cappiello M, et al. **Biochim Biophys Acta** 1998 Oct 23;1425(2):273-81

RIBOSOMAL DNA see **DNA, RIBOSOMAL**

RIBOSOMAL FRAMESHIFTING see **FRAMESHIFTING, RIBOSOMAL**

RIBOSOMAL PROTEIN S6 KINASE

ANALYSIS

Rapid immunoblot and kinase assay tests for a syndromal form of X linked mental retardation: Coffin-Lowry syndrome. Merienne K, et al. **J Med Genet** 1998 Nov; 35(11):890-4

ANTAGONISTS & INHIBITORS

Inhibition of S6 kinase by rapamycin blocks maturation of Rana dybowskii oocytes. Bandyopadhyay A, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):230-9

Inhibition of rat hepatocyte proliferation by transforming growth factor beta and glucagon is associated with inhibition of ERK2 and p70 S6 kinase. Dixon M, et al. **Hepatology** 1999 May;29(5):1418-24

Inhibition of DNA synthesis by a farnesyltransferase inhibitor involves inhibition of the p70(s6k) pathway. Law BK, et al. **J Biol Chem** 1999 Feb 19;274(8):4743-8

Osmotic stress inhibits p70/85 S6 kinase through activation of a protein phosphatase. Parrott LA, et al. **J Biol Chem** 1999 Aug 27;274(35):24731-6

Involvement of the rapamycin-sensitive pathway in the insulin regulation of muscle protein synthesis in streptozotocin-diabetic rats. Grzelkowska K, et al. **J Endocrinol** 1999 Jan;160(1):137-45

BIOSYNTHESIS

Glucocorticoid-induced insulin resistance of protein synthesis is independent of the rapamycin-sensitive pathways in rat skeletal muscle. Dardevet D, et al. **J Endocrinol** 1999 Jul;162(1):77-85

CHEMISTRY

Cloning and characterization of p70(S6K beta) defines a novel family of p70 S6 kinases. Saitoh M, et al.

Biochem Biophys Res Commun 1998 Dec 18;253(2):470–6

DRUG EFFECTS

Discordant effects of rapamycin on proliferation and p70S6 kinase phosphorylation in normal and neoplastic rat chromaffin cells. Powers JF, et al. **Neurosci Lett** 1999 Jan 15;259(3):137–40

GENETICS

Mutation analysis of the RSK2 gene in Coffin–Lowry patients: extensive allelic heterogeneity and a high rate of de novo mutations. Jacquot S, et al. **Am J Hum Genet** 1998 Dec;63(6):1631–40

Cloning and characterization of p70(S6K beta) defines a novel family of p70 S6 kinases. Saitoh M, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):470–6

Atypical protein kinase Clambda binds and regulates p70 S6 kinase. Akimoto K, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):417–24

Localization of PS6K to chromosomal region 17q23 and determination of its amplification in breast cancer. Couch FJ, et al. **Cancer Res** 1999 Apr 1;59(7):1408–11

Disruption of the p70(s6k)/p85(s6k) gene reveals a small mouse phenotype and a new functional S6 kinase. Shima H, et al. **EMBO J** 1998 Nov 16;17(22):6649–59

Molecular cloning and characterization of a novel p70 S6 kinase, p70 S6 kinase beta containing a proline-rich region. Gout I, et al. **J Biol Chem** 1998 Nov 13;273(46):30061–4

Activation of p70(S6) kinase by beta-adrenoceptor agonists on adult cardiomyocytes. Simm A, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2059–67

The mouse Rsk3 gene maps to the Leh66 elements carrying the t-complex responder Tcr. Kispert A, et al. **Mamm Genome** 1999 Aug;10(8):794–802

Deletion of 11 amino acids in p90(rsk-mo-1) abolishes kinase activity. Spring DJ, et al. **Mol Cell Biol** 1999 Jan; 19(1):317–20

METABOLISM

Phosphorylation of p70(S6k) correlates with increased skeletal muscle mass following resistance exercise. Baar K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C120–7

Differential regulation of MAP kinase, p70(S6K), and Akt by contraction and insulin in rat skeletal muscle. Sherwood DJ, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E870–8

Temporal activation of p70 S6 kinase and Akt1 by insulin: PI 3-kinase-dependent and -independent mechanisms. Somwar R, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E618–25

Atypical protein kinase Clambda binds and regulates p70 S6 kinase. Akimoto K, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):417–24

Differential signaling cascade of MAP kinase and S6 kinase depends on 3',5'-monophosphate concentration in schwann cells: correlation to cellular differentiation and proliferation. Mutoh T, et al. **Brain Res** 1998 Nov 9; 810(1-2):274–8

The presence of a constitutively active phosphoinositide 3-kinase in small cell lung cancer cells mediates anchorage-independent proliferation via a protein kinase B and p70s6k-dependent pathway. Moore SM, et al. **Cancer Res** 1998 Nov 15;58(22):5239–47

The ras recruitment system, a novel approach to the study of protein-protein interactions. Broder YC, et al. **Curr Biol** 1998 Oct 8;8(20):1121–4

A MAP kinase docking site is required for phosphorylation and activation of p90(rsk)/MAPKAP kinase-1. Gavin AC, et al. **Curr Biol** 1999 Mar 11;9(5):281–4

A link between MAP kinase and p34(cdc2)/cyclin B during oocyte maturation: p90(rsk) phosphorylates and inactivates the p34(cdc2) inhibitory kinase Myt1 [published erratum appears in EMBO J 1999 Feb 15;18(4):1092] Palmer A, et al. **EMBO J** 1998 Sep 1;17(17):5037–47

p70 S6 kinase activation is not required for insulin-like growth factor-induced differentiation of rat, mouse, or human skeletal muscle cells. Canicio J, et al. **Endocrinology** 1998 Dec;139(12):5042–9

Endothelin-mediated vascular growth requires p42/p44 mitogen-activated protein kinase and p70 S6 kinase cascades via transactivation of epidermal growth factor receptor. Iwasaki H, et al. **Endocrinology** 1999 Oct; 140(10):4659–68

A p85 subunit-independent p110alpha PI 3-kinase colocalizes with p70 S6 kinase on actin stress fibers and regulates thrombin-stimulated stress fiber formation in swiss 3T3 cells. Johanson SO, et al. **Exp Cell Res** 1999 Apr 10; 248(1):223–33

Late signals from the PDGF receptors leading to the activation of the p70S6-kinase are necessary for the transition from G1 to S phase in AKR-2B cells. Simm A, et al. **Exp Cell Res** 1998 Nov 1;244(2):379–93

Role of ERK1/ERK2 and p70S6K pathway in insulin signalling of protein synthesis. Sale EM, et al. **FEBS Lett** 1999 Mar 5;446(1):122–6

Structural requirement of leucine for activation of p70 S6 kinase. Shigemitsu K, et al. **FEBS Lett** 1999 Mar 26; 447(2-3):303–6

Insulin and insulin-like growth factor-1 stimulate proliferation and type I collagen accumulation by human hepatic stellate cells: differential effects on signal transduction pathways. Svegliati-Baroni G, et al. **Hepatology** 1999 Jun;29(6):1743–51

Steroidogenic factor-1 regulates transcription of the human anti-müllerian hormone receptor. Barbara PS, et al. **J Biol Chem** 1998 Nov 6;273(45):29654–60

Stress-activated protein kinase-2/p38 and a rapamycin-sensitive pathway are required for C2C12 myogenesis. Cuenda A, et al. **J Biol Chem** 1999 Feb 12; 274(7):4341–6

Amino acid-dependent control of p70(s6k). Involvement of tRNA aminoacylation in the regulation. Iiboshi Y, et al. **J Biol Chem** 1999 Jan 8;274(2):1092–9

90-kDa ribosomal S6 kinase is phosphorylated and activated by 3-phosphoinositide-dependent protein kinase-1. Jensen CJ, et al. **J Biol Chem** 1999 Sep 17;274(38):27168–76

Suboptimal cross-linking of antigen receptor induces Syk-dependent activation of p70S6 kinase through protein kinase C and phosphoinositol 3-kinase. Li HL, et al. **J Biol Chem** 1999 Apr 2;274(14):9812–20

RSK-B, a novel ribosomal S6 kinase family member, is a CREB kinase under dominant control of p38alpha mitogen-activated protein kinase (p38alphaMAPK). Pierrat B, et al. **J Biol Chem** 1998 Nov 6;273(45):29661–71

Generation of constitutively active p90 ribosomal S6 kinase in vivo. Implications for the mitogen-activated protein kinase-activated protein kinase family. Poteet-Smith CE, et al. **J Biol Chem** 1999 Aug 6;274(32):22135–8

Identification of an extracelluiar signal-regulated kinase (ERK) docking site in ribosomal S6 kinase, a sequence critical for activation by ERK in vivo. Smith JA, et al. **J Biol Chem** 1999 Jan 29;274(5):2893–8

Transcription factor phosphorylation by pp90(rsk2). Identification of Fos kinase and NGFI-B kinase I as pp90(rsk2). Swanson KD, et al. **J Biol Chem** 1999 Feb 5; 274(6):3385–95

p90(RSK) is a serum-stimulated Na+/H+ exchanger isoform-1 kinase. Regulatory phosphorylation of serine 703 of Na+/H+ exchanger isoform-1. Takahashi E, et al. **J Biol Chem** 1999 Jul 16;274(29):20206–14

Identification of kinase-phosphatase signaling modules composed of p70 S6 kinase-protein phosphatase 2A (PP2A) and p21-activated kinase-PP2A. Westphal RS, et al. **J Biol Chem** 1999 Jan 8;274(2):687–92

Branched-chain amino acids are essential in the regulation of PHAS-I and p70 S6 kinase by pancreatic beta-cells. A possible role in protein translation and mitogenic signaling. Xu G, et al. **J Biol Chem** 1998 Oct 23; 273(43):28178–84

Growth hormone-dependent differentiation of 3T3-F442A preadipocytes requires Janus kinase/signal transducer and activator of transcription but not mitogen-activated protein kinase or p70 S6 kinase signaling. Yarwood SJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8662–8

MAP kinases, phosphatidylinositol 3-kinase, and p70 S6 kinase mediate the mitogenic response of human endothelial cells to vascular endothelial growth factor. Yu Y, et al. **J Cell Physiol** 1999 Feb;178(2):235–46

Activation of phosphatidylinositol 3-kinase, protein kinase B, and p70 S6 kinases in lipopolysaccharide-stimulated Raw 264.7 cells: differential effects of rapamycin, Ly294002, and wortmannin on nitric oxide production. Salh B, et al. **J Immunol** 1998 Dec 15;161(12):6947–54

Activation of p70(S6) kinase by beta-adrenoceptor agonists on adult cardiomyocytes. Simm A, et al. **J Mol Cell Cardiol** 1998 Oct;30(10):2059–67

A p90(rsk) mutant constitutively interacting with MAP kinase uncouples MAP kinase from p34(cdc2)/cyclin B activation in Xenopus oocytes. Gavin AC, et al. **Mol Biol Cell** 1999 Sep;10(9):2971–86

p70(s6k) integrates phosphatidylinositol 3-kinase and rapamycin-regulated signals for E2F regulation in T lymphocytes. Brennan P, et al. **Mol Cell Biol** 1999 Jul; 19(7):4729–38

Protein kinase B localization and activation differentially affect S6 kinase 1 activity and eukaryotic translation initiation factor 4E-binding protein 1 phosphorylation. Dufner A, et al. **Mol Cell Biol** 1999 Jun;19(6):4525–34

p70 S6 kinase is regulated by protein kinase Czeta and participates in a phosphoinositide 3-kinase-regulated signalling complex. Romanelli A, et al. **Mol Cell Biol** 1999 Apr;19(4):2921–8

p70(S6K) controls selective mRNA translation during oocyte maturation and early embryogenesis in Xenopus laevis. Schwab MS, et al. **Mol Cell Biol** 1999 Apr;19(4):2485–94

Deletion of 11 amino acids in p90(rsk-mo-1) abolishes kinase activity. Spring DJ, et al. **Mol Cell Biol** 1999 Jan; 19(1):317–20

Regulation of ribosomal S6 protein kinase-p90(rsk), glycogen synthase kinase 3, and beta-catenin in early Xenopus development. Torres MA, et al. **Mol Cell Biol** 1999 Feb; 19(2):1427–37

Phosphorylation and activation of p70 S6 kinase by manganese in PC12 cells. Hirata Y, et al. **Neuroreport** 1998 Sep 14;9(13):3037–40

Involvement of adenylate cyclase and p70(S6)-kinase activation in IL-10 up-regulation in human monocytes by gp41 envelope protein of human immunodeficiency virus type 1. Barcova M, et al. **Pflugers Arch** 1999 Mar; 437(4):538–46

Metabotropic glutamate receptor-initiated translocation of protein kinase p90rsk to polyribosomes: a possible factor regulating synaptic protein synthesis. Angenstein F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15078–83

Protein phosphatase 2A interacts with the 70-kDa S6 kinase and is activated by inhibition of FKBP12-rapamycinassociated protein. Peterson RT, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4438–42

Perspectives: cell biology. Lawrence JC Jr. [comment] Leevers SJ. **Science** 1999 Sep 24; 285(5436):2082–3. Comment on: Science 1999 Sep 24;285(5436):2126–9.

Drosophila S6 kinase: a regulator of cell size [see comments] Montagne J, et al. **Science** 1999 Sep 24;285(5436):2126–9 . Comment in: Science 1999 Sep 24;285(5436):2082–3.

Interaction of RAFT1 with gephyrin required for rapamycin-sensitive signaling. Sabatini DM, et al. **Science** 1999 May 14;284(5417):1161–4

Requirement of Rsk-2 for epidermal growth factor-activated phosphorylation of histone H3. Sassone-Corsi P, et al. **Science** 1999 Aug 6;285(5429):886–91

[Effects of hypoxia/reoxygenation on mitogen-activated protein kinase activity in cultured neonatal rabbit cardiac myocytes] Yu WJ, et al. **Sheng Li Hsueh Pao** 1997 Oct; 49(5):531–6 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Bradykinin-stimulated protein synthesis by myocytes is dependent on the MAP kinase pathway and p70(S6K). Ritchie RH, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1393–8

Evidence that phosphatidylinositol 3-kinase and p70S6K protein are involved in differentiation of HL-60 cells induced by calcitriol. Marcinkowska E, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3507–14

Regulation of cell growth and cyclin D1 expression by the constitutively active FRAP-p70s6K pathway in human pancreatic cancer cells. Grewe M, et al. **Cancer Res** 1999 Aug 1;59(15):3581–7

p70 S6 kinase-mediated protein synthesis is a critical step for vascular endothelial cell proliferation. Viñals F, et al. **J Biol Chem** 1999 Sep 17;274(38):26776–82

Phosphatidylinositol 3'-kinase, but not S6-kinase, is required for insulin-like growth factor-I and IL-4 to maintain expression of Bcl-2 and promote survival of myeloid progenitors. Minshall C, et al. **J Immunol** 1999 Apr 15; 162(8):4542–9

Translational homeostasis: eukaryotic translation initiation factor 4E control of 4E-binding protein 1 and p70 S6 kinase activities. Khaleghpour K, et al. **Mol Cell Biol** 1999 Jun; 19(6):4302–10

Role and regulation of 90 kDa ribosomal S6 kinase (RSK) in signal transduction. Frödin M, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):65–77 (82 ref.)

RIBOSOMAL PROTEINS

ANALYSIS

Nuclear and nucleolar localization of Saccharomyces cerevisiae ribosomal proteins S22 and S25. Timmers AC, et al. **FEBS Lett** 1999 Jun 11;452(3):335–40

Direct analysis of protein complexes using mass spectrometry. Link AJ, et al. **Nat Biotechnol** 1999 Jul; 17(7):676–82

ANTAGONISTS & INHIBITORS

Targeted diagnosis and treatment of superficial bladder cancer with monoclonal antibody BDI-1. Yu L, et al. **Chin Med J (Engl)** 1998 May;111(5):404–7

Prediction of a conserved, neutralizing epitope in ribosome-inactivating proteins. Lebeda FJ, et al. **Int J Biol Macromol** 1999 Jan;24(1):19–26

BIOSYNTHESIS

Identification of four genes in endothelial cells whose expression is affected by tumor cells and host immune status--a study in ex vivo-isolated endothelial cells. Liliensiek B, et al. **Blood** 1998 Nov 1;92(9):3394–404

BIRICODAR (VX-710; Incel): an effective chemosensitizer in neuroblastoma. Yanagisawa T, et al. **Br J Cancer** 1999 Jun;80(8):1190–6

Control of ribosomal protein L1 synthesis in mesophilic and thermophilic archaea. Kraft A, et al. **Genetics** 1999 Aug; 152(4):1363–72

Transcriptional elements involved in the repression of ribosomal protein synthesis. Li B, et al. **Mol Cell Biol** 1999 Aug;19(8):5393–404

UVB and gamma-radiation induce the expression of mRNAs encoding the ribosomal subunit L13A in rat keratinocytes. Shahmolky N, et al. **Photochem Photobiol** 1999 Sep; 70(3):341–7

[Regulation of synthesis of ribosomal protein L7-L12: role of intercistronic rplJL region as an enhancer of translation] Artamonova VS, et al. **Bioorg Khim** 1998 Jul;24(7):530–8 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Observation of Escherichia coli ribosomal proteins and their posttranslational modifications by mass spectrometry. Arnold RJ, et al. **Anal Biochem** 1999 Apr 10;269(1):105–12

Structure-function relationships in the ribosomal protein L12 in the archaeon Sulfolobus acidocaldarius. Kusser I, et al. **Arch Biochem Biophys** 1999 May 15;365(2):254–61

Cloning and characterization of p70(S6K beta) defines a novel family of p70 S6 kinases. Saitoh M, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):470–6

Protein–RNA sequence covariation in a ribosomal protein–rRNA complex. GuhaThakurta D, et al. **Biochemistry** 1999 Mar 23;38(12):3633–40

pKa values and the pH dependent stability of the N–terminal domain of L9 as probes of electrostatic interactions in the denatured state. Differentiation between local and nonlocal interactions. Kuhlman B, et al. **Biochemistry** 1999 Apr 13; 38(15):4896–903

Structural changes in the transition state of protein folding: alternative interpretations of curved chevron plots. Otzen DE, et al. **Biochemistry** 1999 May 18;38(20):6499–511

Folding of the multidomain ribosomal protein L9: the two domains fold independently with remarkably different rates. Sato S, et al. **Biochemistry** 1999 Apr 27; 38(17):5643–50

Structural studies of ribosomal proteins. Nikonov SV, et al. **Biol Chem** 1998 Jul;379(7):795–805

The characterization of two Dictyostelium discoideum genes encoding ribosomal proteins with sequence similarity to rat L27a and L37a. Ohmachi T, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):2008–15

Ribosomal mechanics, antibiotics, and GTP hydrolysis [comment] Porse BT, et al. **Cell** 1999 May 14;97(4):423–6 (16 ref.). Comment on: Cell 1999 May 14;97(4):491–502.

A detailed view of a ribosomal active site: the structure of the L11–RNA complex [see comments] Wimberly BT, et al. **Cell** 1999 May 14;97(4):491–502. Comment in: Cell 1999 May 14;97(4):423–6.

Unique features of Chinese hamster S13 gene relative to its human and Xenopus analogs. Chen MS, et al. **DNA Cell Biol** 1999 Jun;18(6):463–70

The three–dimensional structure of the RNA–binding domain of ribosomal protein L2; a protein at the peptidyl transferase center of the ribosome. Nakagawa A, et al. **EMBO J** 1999 Mar 15;18(6):1459–67

The NMR structure of Escherichia coli ribosomal protein L25 shows homology to general stress proteins and glutaminyl–tRNA synthetases. Stoldt M, et al. **EMBO J** 1998 Nov 2;17(21):6377–84

Voltage sensitivity and conformational change of isolated S4L45 fragments from sodium channels are tuned to proline. Helliuin O, et al. **Eur Biophys J** 1998;27(6):595–604

Correlation between chlamydial infection and autoimmune response: molecular mimicry between RNA polymerase major sigma subunit from Chlamydia trachomatis and human L7. Hemmerich P, et al. **Eur J Immunol** 1998 Nov; 28(11):3857–66

Mammalian mitochondrial ribosomal proteins. N–terminal amino acid sequencing, characterization, and identification of corresponding gene sequences. Goldschmidt–Reisin S, et al. **J Biol Chem** 1998 Dec 25;273(52):34828–36

Probing the rRNA environment of ribosomal protein S5 across the subunit interface and inside the 30 S subunit using tethered Fe(II). Culver GM, et al. **J Mol Biol** 1999 Feb 19;286(2):355–64

NMR structure of the N–terminal domain of Saccharomyces cerevisiae RNase HI reveals a fold with a strong resemblance to the N–terminal domain of ribosomal protein L9. Evans SP, et al. **J Mol Biol** 1999 Aug 20;291(3):661–9

Mapping the ribosomal RNA neighborhood of protein L11 by directed hydroxyl radical probing. Holmberg L, et al. **J Mol Biol** 1999 Jun 4;289(2):223–33

Global analysis of the effects of temperature and denaturant on the folding and unfolding kinetics of the N–terminal domain of the protein L9. Kuhlman B, et al. **J Mol Biol** 1998 Dec 18;284(5):1661–70

Ribosomal protein L15 as a probe of 50 S ribosomal subunit structure. Lieberman KR, et al. **J Mol Biol** 1998 Dec 18; 284(5):1367–78

Effects of varying the local propensity to form secondary structure on the stability and folding kinetics of a rapid folding mixed alpha/beta protein: characterization of a truncation mutant of the N–terminal domain of the ribosomal protein L9. Luisi DL, et al. **J Mol Biol** 1999 May 28;289(1):167–74

Conformational analysis of a set of peptides corresponding to the entire primary sequence of the N–terminal domain of the ribosomal protein L9: evidence for stable native–like secondary structure in the unfolded state. Luisi DL, et al. **J Mol Biol** 1999 Mar 26;287(2):395–407

Synthesis of the C–terminal hexapeptide of the L6 ribosomal protein. Liakopoulou–Kyriakides M, et al. **J Protein Chem** 1998 Aug;17(6):557–8

Solid–phase synthesis and structural studies of the N–terminal 25 peptides of ribosomal S2 proteins from Th. thermophilus and E. coli. Sintihaki E, et al. **J Protein Chem** 1998 Aug; 17(6):551

Crystallization and preliminary X–ray crystallographic study of a 23S rRNA binding domain of the ribosomal protein L2 from Bacillus stearothermophilus. Nakashima T, et al. **J Struct Biol** 1998 Dec 1;124(1):99–101

Determination of the cross–linked residues in homo–dimerization of S19 ribosomal protein concomitant with exhibition of monocyte chemotactic activity. Nishiura H, et al. **Lab Invest** 1999 Aug;79(8):915–23

S19 ribosomal protein cross–linked dimer causes monocyte–predominant infiltration by means of molecular mimicry to complement C5a. Nishiura H, et al. **Lab Invest** 1998 Dec;78(12):1615–23

The effects of hydrostatic pressure on ribosome conformation in Escherichia coli: and in vivo study using differential scanning calorimetry. Niven GW, et al. **Microbiology** 1999 Feb;145 (Pt 2):419–25

Placement of protein and RNA structures into a 5 A–resolution map of the 50S ribosomal subunit [see comments] Ban N, et al. **Nature** 1999 Aug 26; 400(6747):841–7. Comment in: Nature 1999 Aug 26;400(6747):811–2.

Structure of a bacterial 30S ribosomal subunit at 5.5 A resolution [see comments] Clemons WM Jr, et al. **Nature** 1999 Aug 26;400(6747):833–40. Comment in: Nature 1999 Aug 26;400(6747):811–2.

Mechanics of the ribosome [news; comment] Garrett R. **Nature** 1999 Aug 26;400(6747):811–2. Comment on: Nature 1999 Aug 26;400(6747):833–40. Comment on: Nature 1999 Aug 26;400(6747):841–7.

Site–directed hydroxyl radical probing of 30S ribosomal subunits by using Fe(II) tethered to an interruption in the 16S rRNA chain. Samaha RR, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):366–70

Global analysis of the thermal and chemical denaturation of the N–terminal domain of the ribosomal protein L9 in H2O and D2O. Determination of the thermodynamic parameters, deltaH(o), deltaS(o), and deltaC(o)p and evaluation of solvent isotope effects. Kuhlman B, et al. **Protein Sci** 1998 Nov;7(11):2405–12

Amide proton exchange measurements as a probe of the stability and dynamics of the N–terminal domain of the ribosomal protein L9: comparison with the intact protein. Vugmeyster L, et al. **Protein Sci** 1998 Sep;7(9):1994–7

Tertiary structure prediction of mixed alpha/beta proteins via energy minimization. Standley DM, et al. **Proteins** 1998 Nov 1;33(2):240–52

Directed hydroxyl radical probing of 16S ribosomal RNA in ribosomes containing Fe(II) tethered to ribosomal protein S20. Culver GM, et al. **RNA** 1998 Dec; 4(12):1471–80

Crystal structure of a conserved ribosomal protein–RNA complex. Conn GL, et al. **Science** 1999 May 14; 284(5417):1171–4

Ribosome finally begins to yield its complete structure [news] Pennisi E. **Science** 1999 Aug 27;285(5432):1343

Elucidating the medium–resolution structure of ribosomal particles: an interplay between electron cryo–microscopy and X–ray crystallograhy. Harms J, et al. **Structure Fold Des** 1999 Aug 15;7(8):931–41

[Protein environment of the nucleotide U–1061 in the "790 stem–look" region of 18S rRNA in human ribosomal 40S subunit] Malygin AA, et al. **Mol Biol (Mosk)** 1999 Mar–Apr;33(2):183–9 **(Rus)**

DRUG EFFECTS

A comparison of the inhibition of translation and 50S ribosomal subunit formation in Staphylococcus aureus cells by nine different macrolide antibiotics. Champney WS, et al. **Curr Microbiol** 1998 Dec;37(6):412–7

Inhibition of translation and 50S ribosomal subunit formation in Staphylococcus aureus cells by 11 different ketolide antibiotics. Champney WS, et al. **Curr Microbiol** 1998 Dec; 37(6):418–25

The antibiotic micrococcin acts on protein L11 at the ribosomal GTPase centre. Porse BT, et al. **J Mol Biol** 1999 Mar 19;287(1):33–45

GENETICS

TNF–alpha and IFN–gamma down–regulate the expression of the metastasis–associated bi–functional 37LRP/p40 gene and protein in transformed keratinocytes. Clausse N, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):564–9

Hairpin ribozyme specificity in vivo: a case of promiscuous cleavage. Denman RB. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):356–60

Increased expression of rat ribosomal protein L4 mRNA in 5–azacytidine–treated PC12 cells prior to apoptosis. Kajikawa S, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):220–4

A gene coding for a ribosomal protein L41 in cycloheximide–resistant ribosomes has a promoter which is upregulated under the growth–inhibitory conditions in yeast, Candida maltosa. Mutoh E, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):611–5

Cloning and characterization of p70(S6K beta) defines a novel family of p70 S6 kinases. Saitoh M, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):470–6

Cloning and characterization of the L15 ribosomal protein gene homologue from the crayfish Orconectes limosus. Tom M, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):313–6

Functional characterization of transcriptional regulatory elements in the upstream region and intron 1 of the human S6 ribosomal protein gene. Antoine M, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):327–35

Isolation and characterization of the mouse ribosomal protein S7 gene. Annilo T, et al. **Biochem Mol Biol Int** 1998 Oct; 46(2):287–95

Augmentation in the expression of a ribosomal protein associated with transformation. Go H, et al. **Biochem Mol Biol Int** 1998 Oct;46(3):629–38

Genomic structure of the human ribosomal protein L41 gene. Go H, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1227–31

Reconstitution of functionally active Thermus aquaticus large ribosomal subunits with in vitro–transcribed rRNA. Khaitovich P, et al. **Biochemistry** 1999 Feb 9;38(6):1780–8

Phosphorylation of ribosomal protein P0 is not essential for ribosome function but can affect translation. Rodriguez–Gabriel MA, et al. **Biochemistry** 1998 Nov 24; 37(47):16620–6

Nucleotide sequences of genes for ribosomal protein L41 and tRNAThr(AGU) from Coprinus cinereus. Aimi T, et al. **Biochim Biophys Acta** 1999 Jun 15;1432(1):137–41

The mRNA–binding ribosomal protein S26 as a molecular marker in plants: molecular cloning, sequencing and differential gene expression during environmental stress. Brosché M, et al. **Biochim Biophys Acta** 1999 Jun 9; 1445(3):342–4

A yeast strain defective in oleic acid utilization has a mutation in the RML2 gene. Trotter PJ, et al. **Biochim Biophys Acta** 1999 May 18;1438(2):223–38

Structure and stability of recombinant protein depend on the extra N–terminal methionine residue: S6 permutein from direct and fusion expression systems. Uversky VN, et al. **Biochim Biophys Acta** 1999 Jul 13;1432(2):324–32

DNA–binding requirements of the yeast protein Rap1p as selected in silico from ribosomal protein gene promoter sequences. Lascaris RF, et al. **Bioinformatics** 1999 Apr; 15(4):267–77

Sequence analysis of a 32–kb region including the major ribosomal protein gene clusters from alkaliphilic Bacillus sp. strain C–125. Takami H, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):452–5

Heparin/heparan sulfate interacting protein gene expression is up–regulated in human colorectal carcinoma and correlated with differentiation status and metastasis. Wang Y, et al. **Cancer Res** 1999 Jun 15;59(12):2989–94

Cloning, sequencing and developmental expression of the genes encoding S4 and S10 ribosomal proteins in the cellular slime mould Dictyostelium discoideum. Tapparo A, et al. **Curr Genet** 1998 Dec;34(5):410–8

Editing and translation of ribosomal protein S13 transcripts: unedited translation products are not detectable in maize mitochondria. Williams MA, et al. **Curr Genet** 1998 Sep; 34(3):221–6

Assignment of the L11 ribosomal protein gene (RPL11) to human chromosome 1p36.1––>p35 by in situ hybridization. Graphodatsky AS, et al. **Cytogenet Cell Genet** 1999; 84(1–2):97–8

Genomic structure and chromosome location of RPL27A/Rpl27a, the genes encoding human and mouse ribosomal protein L27A. Kusuda J, et al. **Cytogenet Cell Genet** 1999;85(3–4):248–51

Dictyostelium ribosomal protein genes and the elongation factor 1B gene show coordinate developmental regulation which is under post–transcriptional control. Agarwal AK, et al. **Differentiation** 1999 Jun;64(5):247–54

Unique features of Chinese hamster S13 gene relative to its human and Xenopus analogs. Chen MS, et al. **DNA Cell Biol** 1999 Jun;18(6):463–70

High–resolution mapping of ribosomal protein genes to human chromosome 19. Kenmochi N, et al. **DNA Res** 1998 Aug 31;5(4):229–33

A novel plant nuclear gene encoding chloroplast ribosomal protein S9 has a transit peptide related to that of rice chloroplast ribosomal protein L12. Arimura S, et al. **FEBS Lett** 1999 May 7;450(3):231–4

The origin of cecropins; implications from synthetic peptides derived from ribosomal protein L1. Pütsep K, et al. **FEBS Lett** 1999 May 28;451(3):249–52

Ribosomal protein S4 gene of the African green monkey (Cercopithecus aethiops). Kim H. **Folia Primatol (Basel)** 1999;70(3):177–9

Isolation, characterization and expression of the Xenopus laevis ribosomal protein S6 gene. Antoine M, et al. **Gene** 1999 Apr 29;231(1–2):127–35

Isolation and expression of the genes encoding the acidic ribosomal phosphoproteins P1 and P2 of the medfly Ceratitis capitata. Gagou ME, et al. **Gene** 1999 Jan 21; 226(2):365–73

Construction of mutant strains of Neisseria gonorrhoeae lacking new antibiotic resistance markers using a two gene cassette with positive and negative selection. Johnston DM, et al. **Gene** 1999 Aug 5;236(1):179–84

Sequence and expression analysis of a novel Xenopus laevis cDNA that encodes a protein similar to bacterial and chloroplast ribosomal protein L24. Kousteni S, et al. **Gene** 1999 Jul 22;235(1–2):13–8

Characterization of cDNAs encoding cytoplasmic ribosomal protein L15 and L27a in petunia (Petunia hybrida): primary structures and coordinate expression. Lee HS, et al. **Gene** 1999 Jan 21;226(2):155–63

Eimeria tenella: cloning and characterization of cDNA encoding a S3a ribosomal protein. Ouarzane M, et al. **Gene** 1998 Dec 28;225(1–2):125–30

Molecular population genetics of the rp49 gene region in different chromosomal inversions of Drosophila subobscura. Rozas J, et al. **Genetics** 1999 Jan;151(1):189–202

Characterization of the human mitochondrial ribosomal S12 gene. Johnson DF, et al. **Genomics** 1998 Sep 15;52(3):363–8

The Drosophila homologue of ribosomal protein L8. Ruhf ML, et al. **Insect Biochem Mol Biol** 1999 Apr;29(4):349–53

Ribosomal protein L5 of Bombyx mori: cDNA sequence and tissue differences in the L5 mRNA content. Yang C, et al. **Insect Mol Biol** 1998 Nov;7(4):301–6

Analysis of the 60 S ribosomal protein L27a (L29) gene of Trypanosoma brucei. Brown SV, et al. **Int J Parasitol** 1999 May;29(5):731–6

Cloning and characterisation of cDNA encoding the Trypanosoma brucei ribosomal protein L24. Read LK, et al. **Int J Parasitol** 1999 Apr;29(4):601–5

Sequence analysis of the ribosomal L11 protein gene (rplK = relC) in Streptomyces lavendulae using a deletion allele. Kawamoto S, et al. **J Antibiot (Tokyo)** 1998 Oct; 51(10):954–7

Phylogenetic analysis of L4-mediated autogenous control of the S10 ribosomal protein operon. Allen T, et al. **J Bacteriol** 1999 Oct;181(19):6124–32

SSB, encoding a ribosome-associated chaperone, is coordinately regulated with ribosomal protein genes. Lopez N, et al. **J Bacteriol** 1999 May;181(10):3136–43

The GTPase center protein L12 is required for correct ribosomal stalk assembly but not for Saccharomyces cerevisiae viability. Briones E, et al. **J Biol Chem** 1998 Nov 27;273(48):31956–61

Mammalian mitochondrial ribosomal proteins. N-terminal amino acid sequencing, characterization, and identification of corresponding gene sequences. Goldschmidt-Reisin S, et al. **J Biol Chem** 1998 Dec 25;273(52):34828–36

Mutations in ribosomal protein L10e confer resistance to the fungal-specific eukaryotic elongation factor 2 inhibitor sordarin. Justice MC, et al. **J Biol Chem** 1999 Feb 19; 274(8):4869–75

Erythromycin resistance mutations in ribosomal proteins L22 and L4 perturb the higher order structure of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jun 18; 289(4):827–34

Thermus thermophilus L11 ribosomal protein: cloning, overproduction, structural, and functional studies—in vivo methylation of the overproduced protein. Triantafillidou D, et al. **J Protein Chem** 1998 Aug;17(6):519–20

Ribosomal S27a coding sequences upstream of ubiquitin coding sequences in the genome of a pestivirus. Becher P, et al. **J Virol** 1998 Nov;72(11):8697–704

Resistance of ribosomal protein mRNA translation to protein synthesis shutoff induced by poliovirus. Cardinali B, et al. **J Virol** 1999 Aug;73(8):7070–6

A kirromycin-resistant EF-Tu species reverses streptomycin dependence of Escherichia coli strains mutated in ribosomal protein S12. Zuurmond AM, et al. **Microbiology** 1998 Dec; 144 (Pt 12):3309–16

A small spliceosomal-type intron occurs in a ribosomal protein gene of the microsporidian Encephalitozoon cuniculi. Biderre C, et al. **Mol Biochem Parasitol** 1998 Aug 1;94(2):283–6

Regulation of ribosome biogenesis by the rapamycin-sensitive TOR-signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000

Ribosomal protein S14 of Saccharomyces cerevisiae regulates its expression by binding to RPS14B pre-mRNA and to 18S rRNA. Fewell SW, et al. **Mol Cell Biol** 1999 Jan; 19(1):826–34

Ribosomal protein L3 mutants alter translational fidelity and promote rapid loss of the yeast killer virus. Peltz SW, et al. **Mol Cell Biol** 1999 Jan;19(1):384–91

Cloning and characterization of plastid ribosomal protein S16 gene from potato (Solanum tuberosum L. cv Désirée). Bae JM, et al. **Mol Cells** 1998 Aug 31;8(4):466–70

Novel ribosomal genes from maize are differentially expressed in the zygotic and somatic cell cycles. Dresselhaus T, et al. **Mol Gen Genet** 1999 Mar; 261(2):416–27

The gene for mitochondrial ribosomal protein S14 has been transferred to the nucleus in Arabidopsis thaliana. Figueroa P, et al. **Mol Gen Genet** 1999 Aug;262(1):139–44

Differential gene expression in apoptosis: identification of ribosomal protein 23K, a cell proliferation inhibitor. Chen FW, et al. **Mol Genet Metab** 1998 Aug;64(4):271–82

Isolation of a cDNA encoding a homologue of ribosomal protein L26 in the decapod crustacean Penaeus japonicus. Watanabe T. **Mol Mar Biol Biotechnol** 1998 Dec; 7(4):259–62

Novel ribosomal mutations affecting translational accuracy, antibiotic resistance and virulence of Salmonella typhimurium. Björkman J, et al. **Mol Microbiol** 1999 Jan; 31(1):53–8

Modelling in Escherichia coli of mutations in mitoribosomal protein S12: novel mutant phenotypes of rpsL. Toivonen JM, et al. **Mol Microbiol** 1999 Mar;31(6):1735–46

The structure and evolution of the ribosomal proteins encoded in the spc operon of the archaeon (Crenarchaeota) Sulfolobus acidocaldarius. Yang D, et al. **Mol Phylogenet Evol** 1999 Jul;12(2):177–85

Trinucleotide repeat length variation in the human ribosomal protein L14 gene (RPL14): localization to 3p21.3 and loss of heterozygosity in lung and oral cancers. Shriver SP, et al. **Mutat Res** 1998 Nov;406(1):9–23

The gene encoding ribosomal protein S19 is mutated in Diamond-Blackfan anaemia. Draptchinskaia N, et al. **Nat Genet** 1999 Feb;21(2):169–75

Drosophila RpS3a, a novel Minute gene situated between the segment polarity genescubitus interruptus and dTCF. van Beest M, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4471–5

The S7 ribosomal protein gene is truncated and overlaps a cytochrome c biogenesis gene in pea mitochondria. Zhuo D, et al. **Plant Mol Biol** 1999 May;40(1):91–7

Subpopulations of chloroplast ribosomes change during photoregulated development of Zea mays leaves: ribosomal proteins L2, L21, and L29. Zhao YY, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8997–9002

Overexpression in Escherichia coli, purification, and characterization of recombinant 60S ribosomal acidic proteins from Saccharomyces cerevisiae. Tchórzewski M, et al. **Protein Expr Purif** 1999 Feb;15(1):40–7

Comparison of expression systems in the yeasts Saccharomyces cerevisiae, Hansenula polymorpha, Klyveromyces lactis, Schizosaccharomyces pombe and Yarrowia lipolytica. Cloning of two novel promoters from Yarrowia lipolytica. Müller S, et al. **Yeast** 1998 Oct; 14(14):1267–83

Functional analysis of three adjacent open reading frames from the right arm of yeast chromosome XVI. Waśkiewicz-Staniorowska B, et al. **Yeast** 1998 Aug; 14(11):1027–39

[Studies on selectivity of recognizing factor for rmf promoter] Ding Q, et al. **Wei Sheng Wu Hsueh Pao** 1997 Feb;37(1):21–5 (Eng. Abstr.) **(Chi)**

[Interaction of an isolated subunit of sigma-70 with oligodeoxyribonucleotides, identical to regions -10 and -35 of the spc promoter] Tulokhonov II, et al. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):169–73 **(Rus)**

IMMUNOLOGY

The role of carrier protein in the sensitivity of enzyme-linked immunosorbent assay for antiribosomal P protein antibodies: further comment on the article by Yoshio et al [letter; comment] Hirohata S, et al. **Arthritis Rheum** 1999 Mar;42(3):593–4. Comment on: Arthritis Rheum 1997 Jul;40(7):1364–5.

Differential roles of the anti-ribosomal P antibody and antineuronal antibody in the pathogenesis of central nervous system involvement in systemic lupus erythematosus. Isshi K, et al. **Arthritis Rheum** 1998 Oct; 41(10):1819–27

Prevalence of autoantibodies to ribosomal P proteins in juvenile-onset systemic lupus erythematosus compared with the adult disease. Reichlin M, et al. **Arthritis Rheum** 1999 Jan;42(1):69–75

Anti-dsDNA autoantibody cross-reacts with the C-terminal hydrophobic cluster region containing phenylalanines in the acidic ribosomal phosphoprotein P1 to exert a cytostatic effect on the cells. Sun KH, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):334–9

Characterization of autoantibodies generated in mice by immunization with the C-terminal region of Trypanosoma cruzi ribosomal P1 and P2 proteins. Motrán CC, et al. **Clin Immunol** 1999 Apr;91(1):17–24

Autoreactive human T cell lines recognizing ribosomal protein L7. Donauer J, et al. **Int Immunol** 1999 Feb; 11(2):125–32

Cellular dysfunction induced by penetration of autoantibodies into living cells: cellular damage and dysfunction mediated by antibodies to dsDNA and ribosomal P proteins. Reichlin M. **J Autoimmun** 1998 Oct;11(5):557–61

Humoral and cell-mediated autoimmune reactions to human acidic ribosomal P2 protein in individuals sensitized to Aspergillus fumigatus P2 protein. Mayer C, et al. **J Exp Med** 1999 May 3;189(9):1507–12

Host immune responses to ribosome, ribosomal proteins, and RNA from Mycobacterium bovis bacille de Calmette-Güerin. Miyazaki C, et al. **Vaccine** 1999 Jan 21; 17(3):245–51

[A case of severe neuropsychiatric lupus erythematosus treated by plasmapheresis: diagnostic values of serum antiribosomal P protein antibodies and interleukin-6 in cerebrospinal fluid] Fukui W, et al. **Nihon Rinsho Meneki Gakkai Kaishi** 1998 Aug;21(4):172–9 (Eng. Abstr.) **(Jpn)**

ISOLATION & PURIFICATION

Expression cloning for arsenite-resistance resulted in isolation of tumor-suppressor fau cDNA: possible involvement of the ubiquitin system in arsenic carcinogenesis. Rossman TG, et al. **Carcinogenesis** 1999 Feb;20(2):311–6

Systematic, computer-assisted optimisation of the isolation of Thermus thermophilus 50S ribosomal proteins by reversed-phase high-performance liquid chromatography. Boysen RI, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1-2):69–89

Antibacterial peptide from H. pylori [letter] Pütsep K, et al. **Nature** 1999 Apr 22;398(6729):671–2

Ribosomal proteins in the cyanobacterium Anabaena variabilis strain M3: presence of L25 protein. Sato N, et al. **Plant Cell Physiol** 1998 Dec;39(12):1367–71

Overexpression in Escherichia coli, purification, and characterization of recombinant 60S ribosomal acidic proteins from Saccharomyces cerevisiae. Tchórzewski M, et al. **Protein Expr Purif** 1999 Feb;15(1):40–7

METABOLISM

Phosphorylation of yeast ribosomal proteins by CK1 and CK11 in the presence of heparin. Wojda I, et al. **Acta Biochim Pol** 1999;46(1):211–5

Structure-function relationships in the ribosomal protein L12 in the archaeon Sulfolobus acidocaldarius. Kusser I, et al. **Arch Biochem Biophys** 1999 May 15;365(2):254–61

Enhancement of cell death due to decrease in Mg2+ uptake by OmpC (cation-selective porin) deficiency in ribosome modulation factor-deficient mutant. Apirakaramwong A, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):482–7

Identification of ribosomal protein L34 as a novel Cdk5 inhibitor. Moorthamer M, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):631–8

Binding of Escherichia coli initiation factor IF2 to 30S ribosomal subunits: a functional role for the N-terminus of the factor. Moreno JM, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):465–71

Phosphorylation of ribosomal protein L5 by protein kinase CKII decreases its 5S rRNA binding activity. Park JW, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):475–81

Ribosome-associated protein LBP/p40 binds to S21 protein of 40S ribosome: analysis using a yeast two-hybrid system. Sato M, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):385–90

Intracellular association of FGF-2 with the ribosomal protein L6/TAXREB107. Shen B, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):524–8

Human ribosomal protein L7 carries two nucleic acid-binding domains with distinct specificities. von Mikecz A, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):530–6

Human bleomycin hydrolase binds ribosomal proteins. Koldamova RP, et al. **Biochemistry** 1999 Jun 1; 38(22):7111–7

Phosphorylation of ribosomal protein P0 is not essential for ribosome function but can affect translation. Rodriguez-Gabriel MA, et al. **Biochemistry** 1998 Nov 24; 37(47):16620–6

DNA-protein interactions between mammalian nuclear proteins and a GCC-element included in a composite cis-acting element of mouse ribosomal protein L32 promoter. Orlov SV, et al. **Biochemistry (Mosc)** 1999 Feb; 64(2):207–12

Identification by site-directed mutagenesis of amino acid residues in ribosomal protein L2 that are essential for binding to 23S ribosomal RNA. Harada N, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):176–86

Yeast ribosomal proteins L4, L17, L20, and L25 exhibit different binding characteristics for the yeast 35S precursor rRNA. Yeh LC, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1-2):139–48

Structure and expression of a non-polyadenylated ribosome bound transcript carrying the sequence of human ribosomal protein L7 mRNA in antisense orientation. Hohlbaum AM, et al. **Biol Chem** 1998 Aug-Sep;379(8–9):1193–200

Guanosine tetraphosphate-induced dissociation of open complexes at the Escherichia coli ribosomal protein promoters rplJ and rpsA P1: nanosecond depolarization spectroscopic studies. Raghavan A, et al. **Biophys Chem** 1998 Oct 5;75(1):21–32

The differential effects of guanosine tetraphosphate on open complex formation at the Escherichia coli ribosomal protein promoters rplJ and rpsA P1. Raghavan A, et al. **Biophys Chem** 1998 Oct 5;75(1):7–19

The characterization of two Dictyostelium discoideum genes encoding ribosomal proteins with sequence similarity to rat L27a and L37a. Ohmachi T, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):2008–15

The three-dimensional structure of the RNA-binding domain of ribosomal protein L2; a protein at the peptidyl transferase center of the ribosome. Nakagawa A, et al. **EMBO J** 1999 Mar 15;18(6):1459–67

Involvement of Arabidopsis thaliana ribosomal protein S27 in mRNA degradation triggered by genotoxic stress. Revenkova E, et al. **EMBO J** 1999 Jan 15;18(2):490–9

Host proteins can stimulate Tn7 transposition: a novel role for the ribosomal protein L29 and the acyl carrier protein. Sharpe PL, et al. **EMBO J** 1998 Oct 1;17(19):5822–31

N-terminal domain, residues 1-91, of ribosomal protein TL5 from Thermus thermophilus binds specifically and strongly to the region of 5S rRNA containing loop E. Gongadze GM, et al. **FEBS Lett** 1999 May 14;451(1):51–5

Discrimination of 5'-terminal start codons by translation initiation factor 3 is mediated by ribosomal protein S1. Moll I, et al. **FEBS Lett** 1998 Oct 2;436(2):213–7

Poly(ADP-ribose) polymerase interacts with novel Drosophila ribosomal proteins, L22 and l23a, with unique histone-like amino-terminal extensions. Koyama Y, et al. **Gene** 1999 Jan 21;226(2):339–45

Up-regulation of the multidrug resistance genes, Mrp1 and Mdr1b, and down-regulation of the organic anion transporter, Mrp2, and the bile salt transporter, Spgp, in endotoxemic rat liver. Vos TA, et al. **Hepatology** 1998 Dec; 28(6):1637–44

Phylogenetic analysis of L4-mediated autogenous control of the S10 ribosomal protein operon. Allen T, et al. **J Bacteriol** 1999 Oct;181(19):6124–32

Isoaspartate in ribosomal protein S11 of Escherichia coli. David CL, et al. **J Bacteriol** 1999 May;181(9):2872–7

The GTPase center protein L12 is required for correct ribosomal stalk assembly but not for Saccharomyces cerevisiae viability. Briones E, et al. **J Biol Chem** 1998 Nov 27;273(48):31956–61

The phosphorylation of protein S6 modulates the interaction of the 40 S ribosomal subunit with the 5'-untranslated region of a dictyostelium pre-spore-specific mRNA and

controls its stability. Chiaberge S, et al. **J Biol Chem** 1998 Oct 16;273(42):27070–5
Pokeweed antiviral protein accesses ribosomes by binding to L3. Hudak KA, et al. **J Biol Chem** 1999 Feb 5; 274(6):3859–64
Leucine regulates translation of specific mRNAs in L6 myoblasts through mTOR-mediated changes in availability of eIF4E and phosphorylation of ribosomal protein S6. Kimball SR, et al. **J Biol Chem** 1999 Apr 23; 274(17):11647–52
A ribosomal protein is required for translational regulation of GCN4 mRNA. Evidence for involvement of the ribosome in eIF2 recycling. Mueller PP, et al. **J Biol Chem** 1998 Dec 4;273(49):32870–7
Pituitary tumor-transforming gene protein associates with ribosomal protein S10 and a novel human homologue of DnaJ in testicular cells. Pei L. **J Biol Chem** 1999 Jan 29; 274(5):3151–8
Interaction of the sarcin/ricin domain of 23 S ribosomal RNA with proteins L3 and L6. Uchiumi T, et al. **J Biol Chem** 1999 Jan 8;274(2):681–6
Photoaffinity labeling and mass spectrometry identify ribosomal protein S3 as a potential target for hybrid polar cytodifferentiation agents. Webb Y, et al. **J Biol Chem** 1999 May 14;274(20):14280–7
Antizyme2 is a negative regulator of ornithine decarboxylase and polyamine transport. Zhu C, et al. **J Biol Chem** 1999 Sep 10;274(37):26425–30
DNA replication errors produced by the replicative apparatus of Escherichia coli. Fujii S, et al. **J Mol Biol** 1999 Jun 18;289(4):835–50
E. coli RpsO mRNA decay: RNase E processing at the beginning of the coding sequence stimulates poly(A)-dependent degradation of the mRNA. Hajnsdorf E, et al. **J Mol Biol** 1999 Mar 5;286(4):1033–43
Mapping the ribosomal RNA neighborhood of protein L11 by directed hydroxyl radical probing. Holmberg L, et al. **J Mol Biol** 1999 Jun 4;289(2):223–33
Ribosomal protein L15 as a probe of 50 S ribosomal subunit structure. Lieberman KR, et al. **J Mol Biol** 1998 Dec 18; 284(5):1367–78
Assembly of proteins and 5 S rRNA to transcripts of the major structural domains of 23 S rRNA. Ostergaard P, et al. **J Mol Biol** 1998 Nov 27;284(2):227–40
Structural and functional studies on the overproduced L11 protein from Thermus thermophilus. Triantafillidou D, et al. **J Protein Chem** 1999 Feb;18(2):215–23
Translation initiation factor eIF4B interacts with a picornavirus internal ribosome entry site in both 48S and 80S initiation complexes independently of initiator AUG location. Ochs K, et al. **J Virol** 1999 Sep;73(9):7505–14
S19 ribosomal protein cross-linked dimer causes monocyte-predominant infiltration by means of molecular mimicry to complement C5a. Nishiura H, et al. **Lab Invest** 1998 Dec;78(12):1615–23
Ribosomal protein S14 of Saccharomyces cerevisiae regulates its expression by binding to RPS14B pre-mRNA and to 18S rRNA. Fewell SW, et al. **Mol Cell Biol** 1999 Jan; 19(1):826–34
Double-stranded RNA-activated protein kinase (PKR) is negatively regulated by 60S ribosomal subunit protein L18. Kumar KU, et al. **Mol Cell Biol** 1999 Feb;19(2):1116–25
Down-regulation of RpS21, a putative translation initiation factor interacting with P40, produces viable minute imagos and larval lethality with overgrown hematopoietic organs and imaginal discs. Török I, et al. **Mol Cell Biol** 1999 Mar; 19(3):2308–21
Interactions of HIV protease inhibitors with ATP-dependent drug export proteins. Gutmann H, et al. **Mol Pharmacol** 1999 Aug;56(2):383–9
Mechanisms and interaction of vinblastine and reduced glutathione transport in membrane vesicles by the rabbit multidrug resistance protein Mrp2 expressed in insect cells. Van Aubel RA, et al. **Mol Pharmacol** 1999 Oct;56(4):714–9
The Database of Ribosomal Cross-links: an update. Baranov PV, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):184–5
Codon usage as a tool to predict the cellular location of eukaryotic ribosomal proteins and aminoacyl-tRNA synthetases. Chiapello H, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2848–51
RNA binding strategies of ribosomal proteins. Draper DE, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):381–8 (59 ref.)
Nuclear and nucleolar targeting of human ribosomal protein S25: common features shared with HIV-1 regulatory proteins. Kubota S, et al. **Oncogene** 1999 Feb 18; 18(7):1503–14
Ligand-induced conformational changes observed in single RNA molecules. Ha T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9077–82
Identification of an RNA-protein bridge spanning the ribosomal subunit interface [see comments] Culver GM, et al. **Science** 1999 Sep 24;285(5436):2133–6. Comment in: Science 1999 Sep 24;285(5436):2077–8.
Over-expression of Candida albicans mitochondrial ribosomal protein S9 (MrpS9p) disturbs mitochondrial function in Saccharomyces cerevisiae. Wiltshire C, et al. **Yeast** 1999 Jan 30;15(2):139–43

PHARMACOLOGY

Transport of monoglucuronosyl and bisglucuronosyl bilirubin by recombinant human and rat multidrug resistance protein 2. Kamisako T, et al. **Hepatology** 1999 Aug;30(2):485–90

PHYSIOLOGY

Mutation in P0, a dual function ribosomal protein/apurinic/apyrimidinic endonuclease, modifies gene expression and position effect variegation in Drosophila. Frolov MV, et al. **Genetics** 1998 Dec;150(4):1487–95
Involvement of ribosomal proteins in regulating cell growth and apoptosis: translational modulation or recruitment for extraribosomal activity? Naora H. **Immunol Cell Biol** 1999 Jun;77(3):197–205 (74 ref.)
Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441–52
Antiterminator-dependent modulation of transcription elongation rates by NusB and NusG. Zellars M, et al. **Mol Microbiol** 1999 Jun;32(6):1296–304
Role of the 37 kDa laminin receptor precursor in the life cycle of prions. Rieger R, et al. **Transfus Clin Biol** 1999 Feb;6(1):7–16 (65 ref.)

RIBOSOMAL RNA see **RNA, RIBOSOMAL**

5S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 5S**

5.8S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 5.8S**

16S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 16S**

18S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 18S**

23S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 23S**

28S RIBOSOMAL RNA see **RNA, RIBOSOMAL, 28S**

RIBOSOMES

see related
DNA, RIBOSOMAL
RIBOSOMAL PROTEINS
RNA, RIBOSOMAL

Crystallization and preliminary crystallographic analyses of pokeweed antiviral protein from seeds. Li HM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):137–9
Small angle scattering in ribosomal structure research: localization of the messenger RNA within ribosomal elongation states. Jünemann R, et al. **Biol Chem** 1998 Jul; 379(7):807–18
Mutual orientation of tRNAs and interactions between the codon-anticodon duplexes within the ribosome: a stereochemical analysis. Lim VI, et al. **Biol Chem** 1998 Jul; 379(7):773–81 (44 ref.)
Molecular cloning, sequencing, purification, and characterization of Pseudomonas aeruginosa ribosome recycling factor. Ohnishi M, et al. **J Bacteriol** 1999 Feb; 181(4):1281–91
The beta4 integrin interactor p27(BBP/eIF6) is an essential nuclear matrix protein involved in 60S ribosomal subunit assembly. Sanvito F, et al. **J Cell Biol** 1999 Mar 8; 144(5):823–37
Analysis of rRNA function using specialized ribosomes. Brink MF, et al. **Methods Mol Biol** 1998;77:117–28 (11 ref.)
Internal ribosome entry sites tests with circular mRNAs. Chen CY, et al. **Methods Mol Biol** 1998;77:355–63 (15 ref.)
Measurement of ribosomal accuracy and proofreading in E. coli burst systems. Ehrenberg M, et al. **Methods Mol Biol** 1998;77:227–41 (27 ref.)
Heelprinting analysis of in vivo ribosome pause sites. Hollingsworth MJ, et al. **Methods Mol Biol** 1998;77:153–65 (20 ref.)
[Ribosomal abnormalities and human diseases] Kenmochi N. **Seikagaku** 1999 Mar;71(3):205–10 (19 ref.) **(Jpn)**
[Photoaffinity modification of human 80S ribosome using an analog of the mRNA-derivative of the hexaribonucleotide pUUUGUU, bearing an arylazide group on the guanine residue] Graifer DM, et al. **Mol Biol (Mosk)** 1999 Mar-Apr; 33(2):174–82 **(Rus)**
[Ribosomal structure: RNA-protein and protein-protein interactions] Nikonov SV, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):773–81 (75 ref.) **(Rus)**

CHEMISTRY

Crystallographic studies on the ribosome, a large macromolecular assembly exhibiting severe nonisomorphism, extreme beam sensitivity and no internal symmetry. Yonath A, et al. **Acta Crystallogr A** 1998 Nov 1;54(1 (Pt 6)):945–55 (45 ref.)
Directed hydroxyl radical probing of 16S ribosomal RNA in 70S ribosomes from internal positions of the RNA. Newcomb LF, et al. **Biochemistry** 1999 Jan 19;38(3):945–51
Structural studies of the translational apparatus. Agrawal RK, et al. **Curr Opin Struct Biol** 1999 Apr;9(2):215–21 (56 ref.)
Induced fit in initial selection and proofreading of aminoacyl-tRNA on the ribosome. Pape T, et al. **EMBO J** 1999 Jul 1;18(13):3800–7
Conformational variability in Escherichia coli 70S ribosome as revealed by 3D cryo-electron microscopy. Agrawal RK, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):243–54
Automated diagnosis of data-model conflicts using metadata. Chen RO, et al. **J Am Med Inform Assoc** 1999 Sep-Oct; 6(5):374–92
Probing the rRNA environment of ribosomal protein S5 across the subunit interface and inside the 30 S subunit using tethered Fe(II). Culver GM, et al. **J Mol Biol** 1999 Feb 19;286(2):355–64
Ribosomal protein L15 as a probe of 50 S ribosomal subunit structure. Lieberman KR, et al. **J Mol Biol** 1998 Dec 18; 284(5):1367–78
Nucleotides in 23S rRNA protected by the association of 30S and 50S ribosomal subunits. Merryman C, et al. **J Mol Biol** 1999 Jan 8;285(1):107–13
EF-G-dependent GTP hydrolysis induces translocation accompanied by large conformational changes in the 70S ribosome. Agrawal RK, et al. **Nat Struct Biol** 1999 Jul; 6(7):643–7
Placement of protein and RNA structures into a 5 A-resolution map of the 50S ribosomal subunit [see comments] Ban N, et al. **Nature** 1999 Aug 26; 400(6747):841–7. Comment in: Nature 1999 Aug 26;400(6747):811–2.
Structure of a bacterial 30S ribosomal subunit at 5.5 A resolution [see comments] Clemons WM Jr, et al. **Nature** 1999 Aug 26;400(6747):833–40. Comment in: Nature 1999 Aug 26;400(6747):811–2.
Mechanics of the ribosome [news; comment] Garrett R. **Nature** 1999 Aug 26;400(6747):811–2. Comment on: Nature 1999 Aug 26;400(6747):833–40. Comment on: Nature 1999 Aug 26;400(6747):841–7.
Ribosomal proteins in the cyanobacterium Anabaena variabilis strain M3: presence of L25 protein. Sato N, et al. **Plant Cell Physiol** 1998 Dec;39(12):1367–71
Positions in the 30S ribosomal subunit proximal to the 790 loop as determined by phenanthroline cleavage. Muth GW, et al. **RNA** 1999 Jul;5(7):856–64
Directed hydroxyl radical probing of 16S rRNA in the ribosome: spatial proximity of RNA elements of the 3' and 5' domains. Newcomb LF, et al. **RNA** 1999 Jul;5(7):849–55
Identification of the ribosome binding sites of translation initiation factor IF3 by multidimensional heteronuclear NMR spectroscopy. Sette M, et al. **RNA** 1999 Jan; 5(1):82–92
X-ray crystal structures of 70S ribosome functional complexes [see comments] Cate JH, et al. **Science** 1999 Sep 24;285(5436):2095–104. Comment in: Science 1999 Sep 24;285(5436):2048–51. Comment in: Science 1999 Sep 24;285(5436):2077–8.
Identification of an RNA-protein bridge spanning the ribosomal subunit interface [see comments] Culver GM, et al. **Science** 1999 Sep 24;285(5436):2133–6. Comment in: Science 1999 Sep 24;285(5436):2077–8.
Function is structure [comment] [see comments] Liljas A. **Science** 1999 Sep 24;285(5436):2077–8. Comment on: Science 1999 Sep 24;285(5436):2095–104. Comment on: Science 1999 Sep 24;285(5436):2133–5. Comment in: Science 1999 Sep 24;285(5436):2048–51.
The race to the ribosome structure [news; comment] Pennisi E. **Science** 1999 Sep 24;285(5436):2048–51. Comment on: Science 1999 Sep 24;285(5436):2077–8. Comment on: Science 1999 Sep 24;285(5436):2095–104.
Ribosome finally begins to yield its complete structure [news] Pennisi E. **Science** 1999 Aug 27;285(5432):1343
Elucidating the medium-resolution structure of ribosomal particles: an interplay between electron cryo-microscopy and X-ray crystallograhy. Harms J, et al. **Structure Fold Des** 1999 Aug 15;7(8):931–41

DRUG EFFECTS

A gene coding for a ribosomal protein L41 in cycloheximide-resistant ribosomes has a promoter which is upregulated under the growth-inhibitory conditions in yeast, Candida maltosa. Mutoh E, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):611–5
Cisplatin-DNA adducts inhibit ribosomal RNA synthesis by hijacking the transcription factor human upstream binding factor. Zhai X, et al. **Biochemistry** 1998 Nov 17; 37(46):16307–15
Primer tRNA(Trp) of RSV-transformed or RAV-1-infected cells up-regulates the antiribosomal activity of gelonin. Brigotti M, et al. **Biochimie** 1998 Jul;80(7):575–8
Colocalization of single ribosomes with intermediate filaments in puromycin-treated and serum-starved mouse embryo fibroblasts. Traub P, et al. **Biol Cell** 1998 Jul; 90(4):319–37
Purification and activity study of the A- and B-chains of cinnamomin, a type II ribosome-inactivating protein. Pu Z, et al. **Biol Chem** 1998 Dec;379(12):1413–8
Studies on cycloheximide-sensitive and cycloheximide-resistant ribosomes in the yeast Candida maltosa. Mutoh E, et al. **Gene** 1998 Dec 11;224(1-2):9–15
Pokeweed antiviral protein accesses ribosomes by binding to L3. Hudak KA, et al. **J Biol Chem** 1999 Feb 5; 274(6):3859–64
Trichothecene mycotoxins trigger a ribotoxic stress response that activates c-Jun N-terminal kinase and p38 mitogen-activated protein kinase and induces apoptosis. Shifrin VI, et al. **J Biol Chem** 1999 May 14; 274(20):13985–92
3-D organization of ribosomal transcription units after DRB inhibition of RNA polymerase II transcription. Panse SL, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2145–54
Effect of antibiotics on large ribosomal subunit assembly reveals possible function of 5 S rRNA. Khaitovich P, et al. **J Mol Biol** 1999 Sep 3;291(5):1025–34

The antibiotic micrococcin acts on protein L11 at the ribosomal GTPase centre. Porse BT, et al. **J Mol Biol** 1999 Mar 19;287(1):33–45

Effect of mutations in the A site of 16 S rRNA on aminoglycoside antibiotic–ribosome interaction. Recht MI, et al. **J Mol Biol** 1999 Feb 12;286(1):33–43

Reducing the immunogenicity and improving the in vivo activity of trichosanthin by site-directed pegylation. He XH, et al. **Life Sci** 1999;65(4):355–68

Macrolide antibiotic inhibition of translation and 50S ribosomal subunit assembly in methicillin-resistant Staphylococcus aureus cells. Champney WS, et al. **Microb Drug Resist** 1998 Fall;4(3):169–74

Peptidyl transferase antibiotics perturb the relative positioning of the 3'-terminal adenosine of P/P'-site-bound tRNA and 23S rRNA in the ribosome. Kirillov SV, et al. **RNA** 1999 Aug;5(8):1003–13

The plant ribosome inactivating protein saporin induces micronucleus formation in peripheral human lymphocytes in vitro. Poma A, et al. **Toxicol Lett** 1999 Mar 8; 105(1):67–73

Cation channel formed at lipid bilayer by Cinnamomin, a new type II ribosome-inactivating protein. Zhang PG, et al. **Toxicon** 1999 Sep;37(9):1313–22

ENZYMOLOGY

Identification and requirement of three ribosome binding domains in dsRNA-dependent protein kinase (PKR). Wu S, et al. **Biochemistry** 1998 Sep 29;37(39):13816–26

Renaturation of rabbit liver aminoacyl-tRNA synthetases by 80S ribosomes. Turkovskaya HV, et al. **Int J Biochem Cell Biol** 1999 Jul;31(7):759–68

Generation of constitutively active p90 ribosomal S6 kinase in vivo. Implications for the mitogen-activated protein kinase-activated protein kinase family. Poteet-Smith CE, et al. **J Biol Chem** 1999 Aug 6;274(32):22135–8

Peptidyl transferase center activity observed in single ribosomes. Sytnik A, et al. **J Mol Biol** 1999 Jan 8; 285(1):49–54

GENETICS

Reconstitution of functional 50S ribosomes from in vitro transcripts of Bacillus stearothermophilus 23S rRNA. Green R, et al. **Biochemistry** 1999 Feb 9;38(6):1772–9

Reconstitution of functionally active Thermus aquaticus large ribosomal subunits with in vitro-transcribed rRNA. Khaitovich P, et al. **Biochemistry** 1999 Feb 9;38(6):1780–8

Phosphorylation of ribosomal protein P0 is not essential for ribosome function but can affect translation. Rodriguez-Gabriel MA, et al. **Biochemistry** 1998 Nov 24; 37(47):16620–6

Expression of Vitreoscilla hemoglobin in Escherichia coli enhances ribosome and tRNA levels: a flow field-flow fractionation study. Nilsson M, et al. **Biotechnol Prog** 1999 Mar-Apr;15(2):158–63

Efficient gene trap screening for novel developmental genes using IRES beta geo vector and in vitro preselection. Bonaldo P, et al. **Exp Cell Res** 1998 Oct 10;244(1):125–36

A recombinant ribosome-inactivating protein from the plant Phytolacca dioica L. produced from a synthetic gene. Del Vecchio Blanco F, et al. **FEBS Lett** 1998 Oct 23; 437(3):241–5

A pseudoknot-compatible universal site is located in the large ribosomal RNA in the peptidyltransferase center. Ivanov VI, et al. **FEBS Lett** 1999 Mar 5;446(1):60–4

Dynamics of translation on the ribosome: molecular mechanics of translocation. Rodnina MV, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):317–33 (97 ref.)

Carbon regulation of ribosomal genes in Neurospora crassa occurs by a mechanism which does not require Cre-1, the homologue of the Aspergillus carbon catabolite repressor, CreA. de la Serna I, et al. **Fungal Genet Biol** 1999 Apr; 26(3):253–69

Mapping of a novel human carbonyl reductase, CBR3, and ribosomal pseudogenes to human chromosome 21q22.2. Watanabe K, et al. **Genomics** 1998 Aug 15;52(1):95–100

Arrangement of individual human ribosomal DNA fragments on stretched DNA fibers. Schöfer C, et al. **Histochem Cell Biol** 1998 Aug;110(2):201–5

The ribosome scanning model for translation initiation: implications for gene prediction and full-length cDNA detection. Agarwal P, et al. **Ismb** 1998;6:2–7

Absence of internal ribosome entry site-mediated tissue specificity in the translation of a bicistronic transgene. Shaw-Jackson C, et al. **J Virol** 1999 Apr;73(4):2729–38

A novel A-kinase anchoring protein in the heart interacts with G alpha 13. Suzuki M, et al. **Jpn Heart J** 1999 Mar; 40(2):199–208

Rapid evaluation in Escherichia coli of antisense RNAs and ribozymes. Tatout C, et al. **Lett Appl Microbiol** 1998 Nov; 27(5):297–301

Two independent internal ribosome entry sites are involved in translation initiation of vascular endothelial growth factor mRNA. Huez I, et al. **Mol Cell Biol** 1998 Nov; 18(11):6178–90

A new version of the RDP (Ribosomal Database Project). Maidak BL, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):171–3

Ribosomes can slide over and beyond "hungry" codons, resuming protein chain elongation many nucleotides downstream. Gallant JA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13771–6

Engineering of bacterial ribosomes: replacement of all seven Escherichia coli rRNA operons by a single plasmid-encoded operon [see comments] Nomura M. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1820–2 (25 ref.). Comment in: Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1971–6.

Orientation of the tRNA anticodon in the ribosomal P-site: quantitative footprinting with U33-modified, anticodon stem and loop domains. Ashraf SS, et al. **RNA** 1999 Sep; 5(9):1191–9

The uridine in "U-turn": contributions to tRNA-ribosomal binding. Ashraf SS, et al. **RNA** 1999 Apr;5(4):503–11

Efficient reconstitution of functional Escherichia coli 30S ribosomal subunits from a complete set of recombinant small subunit ribosomal proteins. Culver GM, et al. **RNA** 1999 Jun;5(6):832–43

A stable hairpin preceded by a short open reading frame promotes nonlinear ribosome migration on a synthetic mRNA leader. Hemmings-Mieszczak M, et al. **RNA** 1999 Sep;5(9):1149–57

A selection system for functional internal ribosome entry site (IRES) elements: analysis of the requirement for a conserved GNRA tetraloop in the encephalomyocarditis virus IRES. Robertson ME, et al. **RNA** 1999 Sep; 5(9):1167–79

Internal ribosome entry sites (IRESs): reality and use. Houdebine LM, et al. **Transgenic Res** 1999 Jun;8(3):157–77 (200 ref.)

Genetic analysis of the internal ribosome entry segment of bovine viral diarrhea virus. Chon SK, et al. **Virology** 1998 Nov 25;251(2):370–82

[Utilization of antisense oligonucleotide strategy in study of exposing and localization of rRNA on surface ribosomal subunits] Sobkiewicz A, et al. **Postepy Biochem** 1998; 44(1):55–63 (43 ref.) **(Pol)**

IMMUNOLOGY

Host immune responses to ribosome, ribosomal proteins, and RNA from Mycobacterium bovis bacille de Calmette-Güerin. Miyazaki C, et al. **Vaccine** 1999 Jan 21; 17(3):245–51

[Psychosis as the initial manifestation of systemic lupus erythematosus: the role of lupus band test and anti-ribosomal antibodies] Muñoz-Málaga A, et al. **Rev Neurol** 1999 Apr 16-30;28(8):779–81 (Eng. Abstr.) **(Spa)**

METABOLISM

Implications of rRNA operon copy number and ribosome content in the marine oligotrophic ultramicrobacterium Sphingomonas sp. strain RB2256. Fegatella F, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4433–8

Enhancement of cell death due to decrease in $Mg2+$ uptake by OmpC (cation-selective porin) deficiency in ribosome modulation factor-deficient mutant. Apirakaramwong A, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):482–7

RIP-JIP60 alters conformation of ribosomes in vivo. Dunaeva M, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):572–3

Purification and characterization of novel ribosome inactivating proteins, alpha- and beta-pisavins, from seeds of the garden pea Pisum sativum. Lam SS, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):135–42

Binding of Escherichia coli initiation factor IF2 to 30S ribosomal subunits: a functional role for the N-terminus of the factor. Moreno JM, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):465–71

Ribosome inactivating protein and lectin from bitter melon (Momordica charantia) seeds: sequence comparison with related proteins. Wang H, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):143–6

Purification, characterization and molecular cloning of trichoanguin, a novel type I ribosome-inactivating protein from the seeds of Trichosanthes anguina. Chow LP, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):211–9

Purification and characterization of trichomaglin--a novel ribosome-inactivating protein with abortifacient activity. Chen R, et al. **Biochem Mol Biol Int** 1999 Feb;47(2):185–93

Phosphorylation of ribosomal protein P0 is not essential for ribosome function but can affect translation. Rodriguez-Gabriel MA, et al. **Biochemistry** 1998 Nov 24; 37(47):16620–6

Structure of the decoding center of the ribosome. Sergiev PV, et al. **Biochemistry (Mosc)** 1998 Aug;63(8):963–76

Effects of domain exchanges between Escherichia coli and mammalian mitochondrial EF-Tu on interactions with guanine nucleotides, aminoacyl-tRNA and ribosomes. Bullard JM, et al. **Biochim Biophys Acta** 1999 Jul 7; 1446(1-2):102–14

Quinupristin (RP 57669): a new tool to investigate ribosome-group B streptogramin interactions. Beyer D, et al. **Biol Chem** 1998 Jul;379(7):841–6

Structure and expression of a non-polyadenylated ribosome bound transcript carrying the sequence of human ribosomal protein L7 mRNA in antisense orientation. Hohlbaum AM, et al. **Biol Chem** 1998 Aug-Sep;379(8-9):1193–200

Ribosomal protection from tetracycline mediated by Tet(O): Tet(O) interaction with ribosomes is GTP-dependent. Trieber CA, et al. **Biol Chem** 1998 Jul;379(7):847–55

Differential stability of E. coli ribosomal particles and free RNA towards thermal degradation studied by microcalorimetry. Bonincontro A, et al. **Biophys Chem** 1998 Nov 16;75(2):97–103

Promotion of ATP and S-140 to ribosome inactivation with camphorin, cinnamomin, and other RNA N-glycosidases. Ruan JP, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May; 19(3):261–4

Totally in vitro protein selection using mRNA-protein fusions and ribosome display. Roberts RW. **Curr Opin Chem Biol** 1999 Jun;3(3):268–73 (39 ref.)

Phosphorylation by CK2 and MAPK enhances calnexin association with ribosomes. Chevet E, et al. **EMBO J** 1999 Jul 1;18(13):3655–66

The three-dimensional structure of the RNA-binding domain of ribosomal protein L2; a protein at the peptidyl transferase center of the ribosome. Nakagawa A, et al. **EMBO J** 1999 Mar 15;18(6):1459–67

Interactions of ribosome nascent chain complexes of the chloroplast-encoded D1 thylakoid membrane protein with cpSRP54. Nilsson R, et al. **EMBO J** 1999 Feb 1; 18(3):733–42

Induced fit in initial selection and proofreading of aminoacyl-tRNA on the ribosome. Pape T, et al. **EMBO J** 1999 Jul 1;18(13):3800–7

Complete kinetic mechanism of elongation factor Tu-dependent binding of aminoacyl-tRNA to the A site of the E. coli ribosome. Pape T, et al. **EMBO J** 1998 Dec 15;17(24):7490–7

Basis for prokaryotic specificity of action of aminoglycoside antibiotics. Recht MI, et al. **EMBO J** 1999 Jun 1; 18(11):3133–8

Dynamics and efficiency in vivo of UGA-directed selenocysteine insertion at the ribosome. Suppmann S, et al. **EMBO J** 1999 Apr 15;18(8):2284–93

Post-termination ribosome interactions with the 5'UTR modulate yeast mRNA stability. Vilela C, et al. **EMBO J** 1999 Jun 1;18(11):3139–52

The deoxyribonuclease activity attributed to ribosome-inactivating proteins is due to contamination. Day PJ, et al. **Eur J Biochem** 1998 Dec 1;258(2):540–5

The stromal protein large subunit of ribulose-1,5-bisphosphate carboxylase is translated by membrane-bound ribosomes. Mühlbauer SK, et al. **Eur J Biochem** 1999 May;261(3):784–8

Depletion of Escherichia coli 4.5S RNA leads to an increase in the amount of protein elongation factor EF-G associated with ribosomes. Nakamura K, et al. **Eur J Biochem** 1999 Jan;259(1-2):543–50

The jasmonate-induced 60 kDa protein of barley exhibits N-glycosidase activity in vivo. Dunaeva M, et al. **FEBS Lett** 1999 Jun 11;452(3):263–6

Amber mutations in ribosome recycling factors of Escherichia coli and Thermus thermophilus: evidence for C-terminal modulator element. Fujiwara T, et al. **FEBS Lett** 1999 Mar 26;447(2-3):297–302

Comparison of Escherichia coli and rabbit reticulocyte ribosome display systems. Hanes J, et al. **FEBS Lett** 1999 Apr 30;450(1-2):105–10

Domain IV of elongation factor G from Thermus thermophilus is strictly required for translocation. Martemyanov KA, et al. **FEBS Lett** 1999 Jun 11; 452(3):155–9

Unregulated exposure of the ribosomal M-site caused by NAC depletion results in delivery of non-secretory polypeptides to the Sec61 complex. Möller I, et al. **FEBS Lett** 1998 Dec 11;441(1):1–5

Characterization of the domains of E. coli initiation factor IF2 responsible for recognition of the ribosome. Moreno JM, et al. **FEBS Lett** 1999 Jul 16;455(1-2):130–4

Inhibition of the double-stranded RNA-dependent protein kinase PKR by mammalian ribosomes. Raine DA, et al. **FEBS Lett** 1998 Oct 9;436(3):343–8

Nuclear export of the small ribosomal subunit requires the ran-GTPase cycle and certain nucleoporins. Moy TI, et al. **Genes Dev** 1999 Aug 15;13(16):2118–33

Functional interaction of yeast elongation factor 3 with yeast ribosomes. Chakraburtty K. **Int J Biochem Cell Biol** 1999 Jan;31(1):163–73 (50 ref.)

N-terminal and C-terminal modifications affect folding, release from the ribosomes and stability of in vitro synthesized proteins. Kramer G, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):231–41

The ribosome scanning model for translation initiation: implications for gene prediction and full-length cDNA detection. Agarwal P, et al. **Ismb** 1998;6:2–7

Role of ribosome release in regulation of tna operon expression in Escherichia coli. Konan KV, et al. **J Bacteriol** 1999 Mar;181(5):1530–6

SSB, encoding a ribosome-associated chaperone, is coordinately regulated with ribosomal protein genes. Lopez N, et al. **J Bacteriol** 1999 May;181(10):3136–43

Distinct functions of eukaryotic translation initiation factors eIF1A and eIF3 in the formation of the 40 S ribosomal preinitiation complex. Chaudhuri J, et al. **J Biol Chem** 1999 Jun 18;274(25):17975–80

The phosphorylation of protein S6 modulates the interaction of the 40 S ribosomal subunit with the 5'-untranslated region of a dictyostelium pre-spore-specific mRNA and controls its stability. Chiaberge S, et al. **J Biol Chem** 1998 Oct 16;273(42):27070–5

Protection patterns of tRNAs do not change during ribosomal translocation. Dabrowski M, et al.

J Biol Chem 1998 Dec 4;273(49):32793–800
Mak21p of Saccharomyces cerevisiae, a homolog of human CAATT–binding protein, is essential for 60 S ribosomal subunit biogenesis. Edskes HK, et al. **J Biol Chem** 1998 Oct 30;273(44):28912–20
Protein kinase C enables the regulatory circuit that connects membrane synthesis to ribosome synthesis in Saccharomyces cerevisiae. Nierras CR, et al. **J Biol Chem** 1999 May 7;274(19):13235–41
Starved Saccharomyces cerevisiae cells have the capacity to support internal initiation of translation. Paz I, et al. **J Biol Chem** 1999 Jul 30;274(31):21741–5
Probing surface structure of sarcin domain on ribosomes of Escherichia coli by complementary oligo DNAs and ribosome–inactivating protein. Cheung J, et al. **J Biomed Sci** 1999 Jul–Aug;6(4):277–84
The ribosome regulates the GTPase of the beta–subunit of the signal recognition particle receptor. Bacher G, et al. **J Cell Biol** 1999 Aug 23;146(4):723–30
minifly, a Drosophila gene required for ribosome biogenesis. Giordano E, et al. **J Cell Biol** 1999 Mar 22;144(6):1123–33
Prefoldin–nascent chain complexes in the folding of cytoskeletal proteins. Hansen WJ, et al. **J Cell Biol** 1999 Apr 19;145(2):265–77
A novel in vivo assay reveals inhibition of ribosomal nuclear export in ran–cycle and nucleoporin mutants. Hurt E, et al. **J Cell Biol** 1999 Feb 8;144(3):389–401
3–D organization of ribosomal transcription units after DRB inhibition of RNA polymerase II transcription. Panse SL, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2145–54
Lower concentration of La protein required for internal ribosome entry on hepatitis C virus RNA than on poliovirus RNA. Isoyama T, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2319–27
Effect of antibiotics on large ribosomal subunit assembly reveals possible function of 5 S rRNA. Khaitovich P, et al. **J Mol Biol** 1999 Sep 3;291(5):1025–34
Ribosomal protein L15 as a probe of 50 S ribosomal subunit structure. Lieberman KR, et al. **J Mol Biol** 1998 Dec 18;284(5):1367–78
Assembly of proteins and 5 S rRNA to transcripts of the major structural domains of 23 S rRNA. Ostergaard P, et al. **J Mol Biol** 1998 Nov 27;284(2):227–40
Functional interaction between tRNA2Gly2 at the ribosomal P–site and RF1 during termination at UAG. Zhang S, et al. **J Mol Biol** 1998 Dec 18;284(5):1243–6
The ribosome–structure and functional ligand–binding experiments using cryo–electron microscopy. Frank J. **J Struct Biol** 1998 Dec 15;124(2–3):142–50
Heterogeneous nuclear ribonucleoprotein L interacts with the 3' border of the internal ribosomal entry site of hepatitis C virus. Hahm B, et al. **J Virol** 1998 Nov;72(11):8782–8
Natural variation in translational activities of the 5' nontranslated RNAs of hepatitis C virus genotypes 1a and 1b: evidence for a long–range RNA–RNA interaction outside of the internal ribosomal entry site. Honda M, et al. **J Virol** 1999 Jun;73(6):4941–51
Translation initiation factor eIF4B interacts with a picornavirus internal ribosome entry site in both 48S and 80S initiation complexes independently of initiator AUG location. Ochs K, et al. **J Virol** 1999 Sep;73(9):7505–14
Interaction of eukaryotic initiation factor eIF4B with the internal ribosome entry site of foot–and–mouth disease virus is independent of the polypyrimidine tract–binding protein. Rust RC, et al. **J Virol** 1999 Jul;73(7):6111–3
Synthesis and site–specific binding of thioated tRNAs to probe ribosome–tRNA interactions. Dabrowski M, et al. **Methods Mol Biol** 1998;77:413–26 (17 ref.)
Chemical and enzymatic probing of antibiotic–ribosome complexes. Rodriguez–Fonseca C, et al. **Methods Mol Biol** 1998;77:311–23 (23 ref.)
Analyses of ribosome distribution during in vitro translation. Wolin SL. **Methods Mol Biol** 1998;77:1–9 (17 ref.)
IRP–1 binding to ferritin mRNA prevents the recruitment of the small ribosomal subunit by the cap–binding complex eIF4F. Muckenthaler M, et al. **Mol Cell** 1998 Sep;2(3):383–8
NMD3 encodes an essential cytoplasmic protein required for stable 60S ribosomal subunits in Saccharomyces cerevisiae. Ho JH, et al. **Mol Cell Biol** 1999 Mar;19(3):2389–99
Cyclosporin A promotes translational silencing of autocrine interleukin–3 via ribosome–associated deadenylation. Nair AP, et al. **Mol Cell Biol** 1999 Jan;19(1):889–98
The evolutionarily conserved eukaryotic arginine attenuator peptide regulates the movement of ribosomes that have translated it. Wang Z, et al. **Mol Cell Biol** 1998 Dec;18(12):7528–36
Nip7p interacts with Nop8p, an essential nucleolar protein required for 60S ribosome biogenesis, and the exosome subunit Rrp43p. Zanchin NI, et al. **Mol Cell Biol** 1999 Feb;19(2):1518–25
Ribosome association contributes to restricting mRNAs to the cell body of hippocampal neurons. Lu Z, et al. **Mol Cell Neurosci** 1998 Dec;12(6):363–75
DnaK–dependent ribosome biogenesis in Escherichia coli: competition for dominance between the alleles dnaK756 and dnaK+. Sbai M, et al. **Mol Gen Genet** 1998 Nov;260(2–3):199–206
The Database of Ribosomal Cross–links: an update. Baranov PV, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):184–5
A rapid and sensitive method to measure the enzymatic activity of ribosome–inactivating proteins. Brigotti M, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4306–7
Primer extension analysis of eukaryotic ribosome–mRNA complexes. Kozak M. **Nucleic Acids Res** 1998 Nov 1;26(21):4853–9
Use of an internal ribosome entry site for bicistronic expression of Cre recombinase or rtTA transactivator. Lindeberg J, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1552–4
The environment of 5S rRNA in the ribosome: cross–links to 23S rRNA from sites within helices II and III of the 5S molecule. Osswald M, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2283–90
Structure and function of a small RNA that selectively inhibits internal ribosome entry site–mediated translation. Venkatesan A, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):562–72
Inhibition of RNA polymerase III transcription by a ribosome–associated kinase activity. Westmark CJ, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4758–64
Differential expression of Myc1 and Myc2 isoforms in cells transformed by eIF4E: evidence for internal ribosome repositioning in the human c–myc 5'UTR. Carter PS, et al. **Oncogene** 1999 Jul 29;18(30):4326–35
Deriving ribosomal binding site (RBS) statistical models from unannotated DNA sequences and the use of the RBS model for N–terminal prediction. Hayes WS, et al. **Pac Symp Biocomput** 1998;:279–90
Stochastic and nonstochastic post–transcriptional silencing of chitinase and beta–1,3–glucanase genes involves increased RNA turnover–possible role for ribosome–independent RNA degradation. Holtorf H, et al. **Plant Cell** 1999 Mar;11(3):471–84
Isolation and characterization of four type–1 ribosome–inactivating proteins, with polynucleotide:adenosine glycosidase activity, from leaves of Phytolacca dioica L. Di Maro A, et al. **Planta** 1999 Mar;208(1):125–31
Suppression of protein synthesis in brain during hibernation involves inhibition of protein initiation and elongation. Frerichs KU, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14511–6
Ribosome display efficiently selects and evolves high–affinity antibodies in vitro from immune libraries. Hanes J, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14130–5
Characterization of functionally active subribosomal particles from Thermus aquaticus. Khaitovich P, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):85–90
A general mechanism for regulation of access to the translocon: competition for a membrane attachment site on ribosomes. Möller I, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13425–30
Direct crosslinking of the antitumor antibiotic sparsomycin, and its derivatives, to A2602 in the peptidyl transferase center of 23S–like rRNA within ribosome–tRNA complexes. Porse BT, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9003–8
Thiostrepton inhibits the turnover but not the GTPase of elongation factor G on the ribosome. Rodnina MV, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9586–90
Plant ribosome recycling factor homologue is a chloroplastic protein and is bactericidal in escherichia coli carrying temperature–sensitive ribosome recycling factor. Rolland N, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5464–9
rRNA complementarity within mRNAs: a possible basis for mRNA–ribosome interactions and translational control. Tranque P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12238–43
Subpopulations of chloroplast ribosomes change during photoregulated development of Zea mays leaves: ribosomal proteins L2, L21, and L29. Zhao YY, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8997–9002
The 16–kDa alpha–crystallin–like protein of Mycobacterium bovis BCG is produced under conditions of oxygen deficiency and is associated with ribosomes. Tabira Y, et al. **Res Microbiol** 1998 Apr;149(4):255–64
Single atom modification (O−>S) of tRNA confers ribosome binding. Ashraf SS, et al. **RNA** 1999 Feb;5(2):188–94
A stable hairpin preceded by a short open reading frame promotes nonlinear ribosome migration on a synthetic mRNA leader. Hemmings–Mieszczak M, et al. **RNA** 1999 Sep;5(9):1149–57
Cap–independent polysomal association of natural mRNAs encoding c–myc, BiP, and eIF4G conferred by internal ribosome entry sites. Johannes G, et al. **RNA** 1998 Dec;4(12):1500–13
Neighborhood of 16S rRNA nucleotides U788/U789 in the 30S ribosomal subunit determined by site–directed crosslinking. Mundus D, et al. **RNA** 1998 Nov;4(11):1373–85
A selection system for functional internal ribosome entry site (IRES) elements: analysis of the requirement for a conserved GNRA tetraloop in the encephalomyocarditis virus IRES. Robertson ME, et al. **RNA** 1999 Sep;5(9):1167–79
Recognition of the codon–anticodon helix by ribosomal RNA. Yoshizawa S, et al. **Science** 1999 Sep 10;285(5434):1722–5
Internal ribosome entry sites (IRESs): reality and use. Houdebine LM, et al. **Transgenic Res** 1999 Jun;8(3):157–77 (200 ref.)
Ribosome recruitment and scanning: what's new? Pestova TV, et al. **Trends Biochem Sci** 1999 Mar;24(3):85–7 (29 ref.)
Internal initiation of translation of bovine viral diarrhea virus RNA. Pestova TV, et al. **Virology** 1999 Jun 5;258(2):249–56
[Protein environment of the nucleotide U–1061 in the "790 stem–look" region of 18S rRNA in human ribosomal 40S subunit] Malygin AA, et al. **Mol Biol (Mosk)** 1999 Mar–Apr;33(2):183–9 **(Rus)**
[Computer analysis of regulatory signals in complete bacterial genomes. Participation of ribosome binding] Mironov AA, et al. **Mol Biol (Mosk)** 1999 Jan–Feb;33(1):133–40 **(Rus)**

PHYSIOLOGY

Nucleoid proteins of pea chloroplasts: detection of a protein homologous to ribosomal protein. Oleskina YuP, et al. **Biochem Mol Biol Int** 1999 May;47(5):757–63
Activation of metabotropic glutamate receptors is necessary for transneuronal regulation of ribosomes in chick auditory neurons. Hyson RL. **Brain Res** 1998 Nov 2;809(2):214–20
The GTPase center protein L12 is required for correct ribosomal stalk assembly but not for Saccharomyces cerevisiae viability. Briones E, et al. **J Biol Chem** 1998 Nov 27;273(48):31956–61
The 5' untranslated region of GB virus B shows functional similarity to the internal ribosome entry site of hepatitis C virus. Grace K, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2337–41
The effects of hydrostatic pressure on ribosome conformation in Escherichia coli: and in vivo study using differential scanning calorimetry. Niven GW, et al. **Microbiology** 1999 Feb;145 (Pt 2):419–25
Regulation of ribosome biogenesis by the rapamycin–sensitive TOR–signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000
A secreted DNA–binding protein that is translated through an internal ribosome entry site (IRES) and distributed in a discrete pattern in the central nervous system. Kim JG, et al. **Mol Cell Neurosci** 1998 Oct;12(3):119–40
Translation. Cinderella factors have a ball [news; comment] Jackson RJ. **Nature** 1998 Aug 27;394(6696):829–31. Comment on: Nature 1998 Aug 27;394(6696):854–9.
Eukaryotic ribosomes require initiation factors 1 and 1A to locate initiation codons [see comments] Pestova TV, et al. **Nature** 1998 Aug 27;394(6696):854–9. Comment in: Nature 1998 Aug 27;394(6696):829–31.
Studies of the relationship between ultrastructural synaptic plasticity and ribosome number in dendritic terminals in the rat neocortex in a cellular conditioning model. Khludova GG. **Neurosci Behav Physiol** 1999 Mar–Apr;29(2):175–80
X–ray crystal structures of 70S ribosome functional complexes [see comments] Cate JH, et al. **Science** 1999 Sep 24;285(5436):2095–104. Comment in: Science 1999 Sep 24;285(5436):2048–51. Comment in: Science 1999 Sep 24;285(5436):2077–8.
Function is structure [comment] [see comments] Liljas A. **Science** 1999 Sep 24;285(5436):2077–8. Comment on: Science 1999 Sep 24;285(5436):2095–104. Comment on: Science 1999 Sep 24;285(5436):2133–5. Comment in: Science 1999 Sep 24;285(5436):2048–51.
[Two recent topics in ribosome research] Endo Y. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(15):2199–205 (22 ref.) **(Jpn)**

ULTRASTRUCTURE

Crystallographic studies on the ribosome, a large macromolecular assembly exhibiting severe nonisomorphism, extreme beam sensitivity and no internal symmetry. Yonath A, et al. **Acta Crystallogr A** 1998 Nov 1;54(1 (Pt 6)):945–55 (45 ref.)
Structure of the decoding center of the ribosome. Sergiev PV, et al. **Biochemistry (Mosc)** 1998 Aug;63(8):963–76
Colocalization of single ribosomes with intermediate filaments in puromycin–treated and serum–starved mouse embryo fibroblasts. Traub P, et al. **Biol Cell** 1998 Jul;90(4):319–37
Conformational variability in Escherichia coli 70S ribosome as revealed by 3D cryo–electron microscopy. Agrawal RK, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):243–54
Effect of buffer conditions on the position of tRNA on the 70 S ribosome as visualized by cryoelectron microscopy. Agrawal RK, et al. **J Biol Chem** 1999 Mar 26;274(13):8723–9
Structure and structural variations of the Escherichia coli 30 S ribosomal subunit as revealed by three–dimensional cryo–electron microscopy. Gabashvili IS, et al. **J Mol Biol** 1999 Mar 12;286(5):1285–91
Three–dimensional placement of the conserved 530 loop of 16 S rRNA and of its neighboring components in the 30 S subunit. Wang R, et al. **J Mol Biol** 1999 Feb 19;286(2):521–40
The ribosome–structure and functional ligand–binding experiments using cryo–electron microscopy. Frank J. **J Struct Biol** 1998 Dec 15;124(2–3):142–50
Regulation of ribosome biogenesis by the rapamycin–sensitive TOR–signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000
Ribosomes and polyribosomes are present in the squid giant axon: an immunocytochemical study. Sotelo JR, et al. **Neuroscience** 1999 May;90(2):705–15
Updating a bibliography using the related articles function

within PubMed. Liu X, et al. **Proc AMIA Symp** 1998;:750–4
Location of translational initiation factor IF3 on the small ribosomal subunit. McCutcheon JP, et al.
Proc Natl Acad Sci U S A 1999 Apr 13;96(8):4301–6
Ribosome finally begins to yield its complete structure [news] Pennisi E. **Science** 1999 Aug 27;285(5432):1343
The race to the ribosome structure [news; comment] Pennisi E. **Science** 1999 Sep 24;285(5436):2048–51. Comment on: Science 1999 Sep 24;285(5436):2077–8. Comment on: Science 1999 Sep 24;285(5436):2095–104.

VIROLOGY

Characterization of an internal ribosome entry site within mRNA 5 of murine hepatitis virus. Jendrach M, et al.
Arch Virol 1999;144(5):921–33
Parameters influencing translational efficiency in aphthovirus IRES-based bicistronic expression vectors. de Quinto SL, et al. **Gene** 1998 Sep 14;217(1–2):51–6
Identification of a new element for RNA replication within the internal ribosome entry site of poliovirus RNA. Ishii T, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):917–20
Heterogeneous nuclear ribonucleoprotein L interacts with the 3' border of the internal ribosomal entry site of hepatitis C virus. Hahm B, et al. **J Virol** 1998 Nov;72(11):8782–8
Phylogenetic evidence for the improved RNA higher-order structure in internal ribosome entry sequences of HCV and pestiviruses. Le SY, et al. **Virus Genes** 1998;17(3):279–95

RIBOSYLHYPOXANTHINE MONOPHOSPHATE see **INOSINE MONOPHOSPHATE**

RIBOVIRIN see **RIBAVIRIN**

RIBOZYMES see **RNA, CATALYTIC**

RIBS

see related
TIETZE'S SYNDROME

Pseudolesions of the liver possibly caused by focal rib compression: analysis based on hemodynamic change. Yoshimitsu K, et al. **AJR Am J Roentgenol** 1999 Mar; 172(3):645–9
Hemangioma of the rib: a rare diagnosis. Clements RH, et al. **Am Surg** 1998 Nov;64(11):1027–9
Primary cervical malignant teratoma with a rib metastasis in an adult: five-year survival after surgery and chemotherapy. A case report with a review of the literature. Als C, et al. **Ann Oncol** 1998 Sep;9(9):1015–22 (51 ref.)
Chest wall repair with a titanium instrument. Ohno K, et al. **Ann Thorac Surg** 1998 Nov;66(5):1805–6
Age assessment by rib phase analysis in Turks. Yavuz MF, et al. **Forensic Sci Int** 1998 Nov 30;98(1–2):47–54
The phantom. Plasswilm L, et al. **Respiration** 1998; 65(5):417–20
Diagnostic issues in tuberculosis of the ribs with a review of 12 surgically proven cases. Chang JH, et al.
Respirology 1999 Sep;4(3):249–53
Salmonella osteomyelitis of the rib. Andrianopoulos EG, et al. **Scand Cardiovasc J** 1998;32(3):181–2
Primary clear cell sarcoma of bone: a unique site of origin. Gelczer RK, et al. **Skeletal Radiol** 1999 Apr;28(4):240–3
Fibromyxoma of the rib: report of a case. Kamiyoshihara M, et al. **Surg Today** 1999;29(5):475–7
An abdominal desmoid tumor involving the xyphoid and costal chondrium associated with pregnancy: report of a case. Kunieda K, et al. **Surg Today** 1999;29(9):927–30
[Processing of ceramiclike xenogeneic bone and experimental study of its bone formation from composite graft combined with bone marrow] Li Y, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1998 Mar;12(2):94–8 (Eng. Abstr.) **(Chi)**
[Tuberculosis of the thoracic wall. Presentation of 4 personal cases and review of the literature] Mathlouthi A, et al. **Rev Pneumol Clin** 1998 Sep;54(4):182–6 (22 ref.) (Eng. Abstr.) **(Fre)**
[Case report of primary lymphoma] Amamou K, et al.
Tunis Med 1999 Apr;77(4):242–6 (Eng. Abstr.) **(Fre)**
[Enchondroma protuberance with destroying the rib: report of a case] Kamiyoshihara M, et al. **Kyobu Geka** 1998 Sep; 51(10):885–7 (Eng. Abstr.) **(Jpn)**
[Costal epithelioid hemangioendothelioma. A case report (letter)] Nicolau Pastrie F, et al. **Arch Bronconeumol** 1998 Oct;34(9):467 **(Spa)**

ABNORMALITIES

A gene for autosomal recessive spondylocostal dysostosis maps to 19q13.1–q13.3. Turnpenny PD, et al.
Am J Hum Genet 1999 Jul;65(1):175–82
Severe micrognathia, cleft palate, absent olfactory tract, and abnormal rib development: cerebro-costo-mandibular syndrome or a new syndrome? Kirk EP, et al.
Am J Med Genet 1999 May 21;84(2):120–4
Abnormal skeletogenesis occurs coincident with increased apoptosis in the Splotch (Sp2H) mutant: putative roles for Pax3 and PDGFRalpha in rib patterning. Dickman ED, et al. **Anat Rec** 1999 Jul 1;255(3):353–61
Investigating back pain. Watson A. **Aust Fam Physician** 1999 Apr;28(4):375
Anomalous first rib in a high school wrestler. Karageanes SJ, et al. **Clin J Sport Med** 1998 Jul;8(3):240–2
Complete absence of rib ossification, micrognathia and ear anomalies: extreme expression of cerebro-costo-mandibular syndrome? Hennekam RC, et al. **Eur J Hum Genet** 1998 Jan;6(1):71–4
Intrathoracic rib demonstrated by helical CT with three-dimensional reconstruction. Laufer L, et al.
Eur Radiol 1999;9(1):60–1
Protrusion and mixed deformities. Keszler P, et al.
J Cardiovasc Surg (Torino) 1999 Jun;40(3):439–43
Hypoplastic left heart in cerebrocostomandibular syndrome [letter] Kirk E, et al. **J Med Genet** 1998 Oct;35(10):879
Migraine complicated by brachial plexopathy as displayed by MRI and MRA: aberrant subclavian artery and cervical ribs. Saxton EH, et al. **J Natl Med Assoc** 1999 Jun; 91(6):333–41
Jarcho-Levin syndrome: report on a long-term follow-up of an untreated patient. Hayek S, et al.
J Pediatr Orthop B 1999 Apr;8(2):150–3
Association between long gap atresia and 13 ribs in neonates presenting with esophageal atresia and tracheoesophageal fistula [letter; comment] Bosenberg AT, et al.
J Pediatr Surg 1998 Aug;33(8):1328. Comment on: J Pediatr Surg 1997 Oct;32(10):1453–4.
Bifid ribs observed in the third and the fourth ribs. Osawa T, et al. **Kaibogaku Zasshi** 1998 Dec;73(6):633–5
Jumbled spine and ribs (Jsr): a new mutation on mouse chromosome 5. Miyoshi H, et al. **Mamm Genome** 1999 Mar; 10(3):213–7
Cervical ribs: useful marker of monosomy X in fetal hydrops. Keeling JW, et al. **Pediatr Dev Pathol** 1999 Mar–Apr; 2(2):119–23
Prenatal ultrasonographic diagnosis of the cerebro-costo-mandibular syndrome: case report and review of the literature. Megier P, et al. **Prenat Diagn** 1998 Dec;18(12):1294–9 (30 ref.)
A thoracic complication of hereditary multiple exostoses in an adult. Nick JA, et al. **Respir Med** 1999 Mar;93(3):217–9 (22 ref.)
Scoliosis secondary to cerebrocosto-mandibular syndrome. A case report with surgical management. Winter RB, et al. **Spine** 1999 May 1;24(9):908–11
Prenatal sonographic features of spondylocostal dysostosis and diaphragmatic hernia in the first trimester. Lam YH, et al. **Ultrasound Obstet Gynecol** 1999 Mar;13(3):213–5
Jarcho-Levin syndrome: two consecutive pregnancies in a Puerto Rican couple. Wong G, et al.
Ultrasound Obstet Gynecol 1998 Jul;12(1):70–3
[Cerebrocostomandibular syndrome (letter)] Sahyoun S, et al. **Arch Pediatr** 1998 Nov;5(11):1288–9 **(Fre)**
[The cerebrocostomandibular syndrome] Cohnen M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):160–2 (10 ref.) **(Ger)**
[Description of a case of spondylo-thoracic dysplasia or Jarcho-Levin syndrome] Ughi M, et al.
Pediatr Med Chir 1998 Sep-Oct;20(5):353–5 (Eng. Abstr.) **(Ita)**
[Function of peripheral airways in children and adolescents with deformities of the anterior chest wall] Zaba R.
Pneumonol Alergol Pol 1999;67(1–2):12–6 (Eng. Abstr.) **(Pol)**

ANATOMY & HISTOLOGY

Osteometric analysis of sexual dimorphism in the sternal end of the rib in a west African population. Wiredu EK, et al. **J Forensic Sci** 1999 Sep;44(5):921–5
The ribs: anatomic and radiologic considerations. Kurihara Y, et al. **Radiographics** 1999 Jan–Feb;19(1):105–19; quiz 151–2 (16 ref.)
Identification of rib cage's lower margin in cardiopulmonary resuscitation. Kavalieratos CS, et al. **Resuscitation** 1998 Oct–Nov;39(1–2):85–6

BLOOD SUPPLY

Implantable hepatic arterial infusion device: placement without laparotomy via an intercostal artery. Castaing D, et al. **J Am Coll Surg** 1998 Nov;187(5):565–8
Vascular pedicle rib graft in anterior transthoracic fusion procedures. Technical note. Deen HG, et al.
J Neurosurg 1999 Jan;90(1 Suppl):155–8

CHEMISTRY

Immunohistochemical localization of nerve growth factor in fractured and unfractured rat bone. Grills BL, et al.
Acta Orthop Scand 1998 Aug;69(4):415–9
A time course study on STR profiles derived from human bone, muscle, and bone marrow. Frank WE, et al.
J Forensic Sci 1999 Jul;44(4):778–82

EMBRYOLOGY

Rib truncations and fusions in the Sp2H mouse reveal a role for Pax3 in specification of the ventro-lateral and posterior parts of the somite. Henderson DJ, et al. **Dev Biol** 1999 May 1;209(1):143–58
[Histologic-histochemical and immunocytochemical investigations of cartilage canals in human rib cartilage] Craatz S, et al. **Anat Anz** 1999 Jul;181(4):359–63 (Eng. Abstr.) **(Ger)**

GROWTH & DEVELOPMENT

[Histologic-histochemical and immunocytochemical investigations of cartilage canals in human rib cartilage] Craatz S, et al. **Anat Anz** 1999 Jul;181(4):359–63 (Eng. Abstr.) **(Ger)**

INJURIES

Immunohistochemical localization of nerve growth factor in fractured and unfractured rat bone. Grills BL, et al.
Acta Orthop Scand 1998 Aug;69(4):415–9
Traumatic thoracic aortic injury caused by a sharp edge of left fractured rib on body position change: case report. Hsu YP, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Sep; 21(3):343–6
Posttraumatic fibro-osseous lesion of rib. McDermott MB, et al. **Hum Pathol** 1999 Jul;30(7):770–80 (49 ref.)

METABOLISM

Age-independent constancy of mineral contents in human ribs. Utsumi M, et al. **Biol Trace Elem Res** 1999 Feb; 67(2):165–71

MICROBIOLOGY

Proteus mirabilis osteomyelitis of the ribs in a girl with sickle cell anaemia [letter] Kanfaoui A, et al. **Eur J Pediatr** 1999 Sep;158(9):767

PARASITOLOGY

Spinal cord compression due to costal Echinococcus multilocularis. Savas R, et al.
Comput Med Imaging Graph 1999 Mar–Apr;23(2):85–8

PATHOLOGY

New autosomal recessive syndrome of severe microcephaly and skeletal anomalies including posterior rib–gap defects. Duval A, et al. **Am J Med Genet** 1998 Dec 4;80(4):429–34
Tumors of the ribs: experience with 47 cases. Andrianopoulos EG, et al. **Eur J Cardiothorac Surg** 1999 May;15(5):615–20
A case of abnormal localization of osteomyelitis. Sirakov N, et al. **Folia Med (Plovdiv)** 1999;41(1):66–7
Fluorescence-aided detection of microdamage in compact bone. Lee TC, et al. **J Anat** 1998 Aug;193 (Pt 2):179–84
Rib biopsy technique for cortical bone evaluation in rhesus monkeys (Macaca mulatta). Binkley N, et al.
Lab Anim Sci 1999 Feb;49(1):87–9
Small cell osteogenic sarcoma of the ribs: cytological, immunohistochemical, and ultrastructural study with literature review. Park SH, et al. **Ultrastruct Pathol** 1999 Mar–Apr;23(2):133–40 (19 ref.)
[Costal chondrosarcoma. 4 cases] Ben M'rad S, et al.
Presse Med 1999 Sep 4;28(25):1355–60 (Eng. Abstr.) **(Fre)**
[Gorham disease of the rib with osteolysis followed by bone remodeling. Study with magnetic resonance imaging] Sans N, et al. **Rev Mal Respir** 1999 Feb;16(1):98–101 (14 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Biomechanics of human thoracic ribs. Yoganandan N, et al.
J Biomech Eng 1998 Feb;120(1):100–4
Biomechanical role of the intervertebral disc and costovertebral joint in stability of the thoracic spine. A canine model study. Takeuchi T, et al. **Spine** 1999 Jul 15; 24(14):1414–20

PHYSIOPATHOLOGY

Determinants of rib motion in flail chest. Cappello M, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):886–91

RADIOGRAPHY

Neuropathic back pain: discordance between the level of the involved spine/rib and the associated dermatome. Roos DE. **Clin Oncol (R Coll Radiol)** 1998;10(5):337–8
The vertical displacement sign: a technique for differentiating between left and right ribs on the lateral chest radiograph. Kurihara Y, et al. **Clin Radiol** 1999 Jun;54(6):367–9
A biomechanical analysis of the vertebral and rib deformities in structural scoliosis. Wever DJ, et al. **Eur Spine J** 1999; 8(4):252–60
Osteochondroma of the first rib presenting as a prominent clavicle. A report of 2 cases. Aithal VK, et al.
Int Orthop 1999;23(1):66–7
Pediatric case of the day. Ewing sarcoma of the rib with intraspinal extension. Coombs RJ, et al. **Radiographics** 1999 Jan–Feb;19(1):241–4
Keep your eyes on the ribs: the spectrum of normal variants and diseases that involve the ribs. Guttentag AR, et al. **Radiographics** 1999 Sep–Oct;19(5):1125–42
The ribs: anatomic and radiologic considerations. Kurihara Y, et al. **Radiographics** 1999 Jan–Feb;19(1):105–19; quiz 151–2 (16 ref.)
Case of the season. Chest wall mesenchymal hamartoma. Shetty AK, et al. **Semin Roentgenol** 1998 Jul;33(3):215–7
Primary multifocal tuberculous osteomyelitis with involvement of the ribs. Chang DS, et al.
Skeletal Radiol 1998 Nov;27(11):641–5 (21 ref.)
[Snapping scapula: the value of 3D imaging] Sans N, et al.
J Radiol 1999 Apr;80(4):379–81 (Eng. Abstr.) **(Fre)**

RIBS

RADIONUCLIDE IMAGING

The "hug" view: an image that results in optimal visualization of the upper posterior thorax. Freeman L, et al. **Clin Nucl Med** 1999 Jan;24(1):63

Bone scintigraphy in a case of oncogenous osteomalacia. Ohta H, et al. **Clin Nucl Med** 1998 Jul;23(7):467–9

SURGERY

As originally published in 1992: Chest wall stabilization with synthetic reabsorbable material. Updated in 1999. Puma F, et al. **Ann Thorac Surg** 1999 Jun;67(6):1823–4

Bioabsorbable poly-L-lactide costal coaptation pins and their clinical application in thoracotomy. Tatsumi A, et al. **Ann Thorac Surg** 1999 Mar;67(3):765–8

Kitchen-table medicine [letter; comment] McLennan DW. **CMAJ** 1999 Jan 12;160(1):22. Comment on: CMAJ 1998 Jul 14;159(1):61–2.

A physiological approach to surgical treatment of progressive early idiopathic scoliosis. Xiong B, et al. **Eur Spine J** 1998; 7(6):505–8

Pectus excavatum: special surgical technique, perioperative management and long-term results. Tjan TD, et al. **J Cardiovasc Surg (Torino)** 1999 Apr;40(2):289–97

Simultaneous anterior-posterior approach for excision of malignant paraspinal tumor and subsequent reconstruction. Technical note. Hasegawa K, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):236–40

Video-assisted thoracic surgical non-rib spreading simultaneously stapled lobectomy (VATS(n)SSL). Lewis RJ, et al. **Semin Thorac Cardiovasc Surg** 1998 Oct; 10(4):332–9

Port-access first-rib resection. Ohtsuka T, et al. **Surg Endosc** 1999 Sep;13(9):940–2

Clinical application of biodegradable rib connecting pins in thoracotomy. Hirata T, et al. **Thorac Cardiovasc Surg** 1999 Jun;47(3):183–7

[Intra-thoracic costal sites of osteogenic exostoses in the child] Cottalorda J, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct; 84(6):563–6 (12 ref.) (Eng. Abstr.) **(Fre)**

[Costal osteoid osteoma] Porsch M, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun;137(3):244–6 (Eng. Abstr.) **(Ger)**

[The importance of excision of the first thoracic rib and accessory cervical rib in the treatment of deep venous thrombosis of the upper extremities] Pukacki F, et al. **Wiad Lek** 1998;51(11–12):497–503 (Eng. Abstr.) **(Pol)**

TRANSPLANTATION

Costochondral grafts replacing the mandibular condyle. Ross RB. **Cleft Palate Craniofac J** 1999 Jul;36(4):334–9

Costochondral grafts to replace mandibular condyles in juvenile chronic arthritis patients: long-term effects on facial growth. Svensson B, et al. **J Craniomaxillofac Surg** 1998 Oct;26(5):275–85

Vascular pedicle rib graft in anterior transthoracic fusion procedures. Technical note. Deen HG, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):155–8

In situ splitting of a rib graft for reconstruction of the orbital floor. Johnson PE, et al. **Plast Reconstr Surg** 1999 May; 103(6):1709–11

Autologous bone grafting in staged scoliosis surgery. The patient as bone bank. Chugh S, et al. **Spine** 1998 Aug 15; 23(16):1793–5

[Histological study on the using of autogenous costal perichondrium graft to repair the cartilage of condylar process of mandible] Xie Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):199–202 (Eng. Abstr.) **(Chi)**

RIBULOSE BIPHOSPHATE CARBOXYLASE-OXYGENASE see **RIBULOSE-BISPHOSPHATE CARBOXYLASE**

RIBULOSE-BISPHOSPHATE CARBOXYLASE

ANALYSIS

Production and characterization of a specific rubisco monoclonal antibody, and its use in rubisco quantification during Zantedeschia aethiopica spathe development. Tavares RM, et al. **Hybridoma** 1999 Apr;18(2):203–9

ANTAGONISTS & INHIBITORS

Proline suppresses Rubisco activity in higher plants. Sivakumar P, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):428–32

The localisation of 2-carboxy-D-arabinitol 1-phosphate and inhibition of Rubisco in leaves of Phaseolus vulgaris L. Parry MA, et al. **FEBS Lett** 1999 Feb 5;444(1):106–10

BIOSYNTHESIS

BUNDLE SHEATH DEFECTIVE2, a novel protein required for post-translational regulation of the rbcL gene of maize. Brutnell TP, et al. **Plant Cell** 1999 May; 11(5):849–64

Differential light regulation of the rbcS gene expression in two cell lines of the liverwort Marchantia paleacea var. diptera. Suzuki T, et al. **Plant Cell Physiol** 1999 Jan; 40(1):100–3

[Identification and expression of ribulose 1,5-bisphosphate carboxylase/oxygenase gene from Thiobacillus versutus] Liu Z, et al. **Wei Sheng Wu Hsueh Pao** 1997 Aug; 37(4):304–6 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Purification, crystallization and preliminary X-ray studies of two isoforms of Rubisco from Alcaligenes eutrophus. Hansen S, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):310–3

Preliminary X-ray crystallographic study of wild-type and mutant ribulose-1,5-bisphosphate carboxylase/oxygenase from Chlamydomonas reinhardtii. Yen A, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):668–70

Closely related form I ribulose bisphosphate carboxylase/oxygenase molecules that possess different CO2/O2 substrate specificities. Horken KM, et al. **Arch Biochem Biophys** 1999 Jan 15;361(2):183–94

Quantum chemical analysis of the enolization of ribulose bisphosphate: the first hurdle in the fixation of CO2 by Rubisco. King WA, et al. **Biochemistry** 1998 Nov 3; 37(44):15414–22

Unusual ribulose 1,5-bisphosphate carboxylase/oxygenase of anoxic Archaea. Watson GM, et al. **J Bacteriol** 1999 Mar; 181(5):1569–75

Fragmentation of the large subunit of ribulose-1,5-bisphosphate carboxylase by reactive oxygen species occurs near Gly-329. Ishida H, et al. **J Biol Chem** 1999 Feb 19;274(8):5222–6

Crystal structure of carboxylase reaction-oriented ribulose 1, 5-bisphosphate carboxylase/oxygenase from a thermophilic red alga, Galdieria partita. Sugawara H, et al. **J Biol Chem** 1999 May 28;274(22):15655–61

The crystal structure of rubisco from Alcaligenes eutrophus reveals a novel central eight-stranded beta-barrel formed by beta-strands from four subunits. Hansen S, et al. **J Mol Biol** 1999 May 14;288(4):609–21

Reconstitution of active dimeric ribulose bisphosphate carboxylase from an unfoleded state depends on two chaperonin proteins and Mg-ATP. Goloubinoff P, et al. **Nature** 1989 Dec 21–28;342(6252):884–9

Plastome engineering of ribulose-1,5-bisphosphate carboxylase/oxygenase in tobacco to form a sunflower large subunit and tobacco small subunit hybrid. Kanevski I, et al. **Plant Physiol** 1999 Jan;119(1):133–42

A study of conserved in-loop and out-of-loop glycine residues in the large subunit of ribulose bisphosphate carboxylase/oxygenase by directed mutagenesis. Cheng ZQ, et al. **Protein Eng** 1998 Jun;11(6):457–65

Chaperonin function: folding by forced unfolding. Shtilerman M, et al. **Science** 1999 Apr 30;284(5415):822–5

GENETICS

Diel rhythms in ribulose-1,5-bisphosphate carboxylase/oxygenase and glutamine synthetase gene expression in a natural population of marine picoplanktonic cyanobacteria (Synechococcus spp.). Wyman M. **Appl Environ Microbiol** 1999 Aug;65(8):3651–9

Effect of mutation of lysine-128 of the large subunit of ribulose bisphosphate carboxylase/oxygenase from Anacystis nidulans. Bainbridge G, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):387–93

The stromal protein large subunit of ribulose-1,5-bisphosphate carboxylase is translated by membrane-bound ribosomes. Mühlbauer SK, et al. **Eur J Biochem** 1999 May;261(3):784–8

Reduction of G-box binding factor DNA binding activity, but not G-box binding factor abundance, causes the downregulation of RBCS2 expression during early tomato fruit development. Baum K, et al. **FEBS Lett** 1999 Jul 2; 454(1-2):95–9

Subfamily divergence in the multigene family of ribulose-1,5-bisphosphate carboxylase/oxygenase (rbcS) in Triticeae and its relatives. Sasanuma T, et al. **Genes Genet Syst** 1998 Oct;73(5):297–309

Presence of a structurally novel type ribulose-bisphosphate carboxylase/oxygenase in the hyperthermophilic archaeon, Pyrococcus kodakaraensis KOD1. Ezaki S, et al. **J Biol Chem** 1999 Feb 19;274(8):5078–82

Cloning and characterization of ribulose bisphosphate carboxylase gene of a carboxydobacterium, hydrogenophagea pseudoflava DSM 1084. Lee SN, et al. **Mol Cells** 1998 Oct 31;8(5):524–9

Plastome engineering of ribulose-1,5-bisphosphate carboxylase/oxygenase in tobacco to form a sunflower large subunit and tobacco small subunit hybrid. Kanevski I, et al. **Plant Physiol** 1999 Jan;119(1):133–42

Rare germinal unequal crossing-over leading to recombinant gene formation and gene duplication in Arabidopsis thaliana. Jelesko JG, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10302–7

A study of conserved in-loop and out-of-loop glycine residues in the large subunit of ribulose bisphosphate carboxylase/oxygenase by directed mutagenesis. Cheng ZQ, et al. **Protein Eng** 1998 Jun;11(6):457–65

Genetic engineers aim to soup up crop photosynthesis [news] Mann CC. **Science** 1999 Jan 15;283(5400):314–6

[Homology analysis of RubisCO gene of Thiobacillus versutus with extremelly acidophilic thiobacilli] Liu Z, et al. **Wei Sheng Wu Hsueh Pao** 1997 Jun;37(3):179–83 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Production and characterization of a specific rubisco monoclonal antibody, and its use in rubisco quantification during Zantedeschia aethiopica spathe development. Tavares RM, et al. **Hybridoma** 1999 Apr;18(2):203–9

ISOLATION & PURIFICATION

Purification, crystallization and preliminary X-ray studies of two isoforms of Rubisco from Alcaligenes eutrophus. Hansen S, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):310–3

METABOLISM

Closely related form I ribulose bisphosphate carboxylase/oxygenase molecules that possess different CO2/O2 substrate specificities. Horken KM, et al. **Arch Biochem Biophys** 1999 Jan 15;361(2):183–94

Effect of mutation of lysine-128 of the large subunit of ribulose bisphosphate carboxylase/oxygenase from Anacystis nidulans. Bainbridge G, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):387–93

The "green" form I ribulose 1,5-bisphosphate carboxylase/oxygenase from the nonsulfur purple bacterium Rhodobacter capsulatus. Horken KM, et al. **J Bacteriol** 1999 Jul;181(13):3935–41

Unusual ribulose 1,5-bisphosphate carboxylase/oxygenase of anoxic Archaea. Watson GM, et al. **J Bacteriol** 1999 Mar; 181(5):1569–75

C172S substitution in the chloroplast-encoded large subunit affects stability and stress-induced turnover of ribulose-1,5-bisphosphate carboxylase/oxygenase. Moreno J, et al. **J Biol Chem** 1999 Sep 17;274(38):26789–93

Victorin induction of an apoptotic/senescence-like response in oats. Navarre DA, et al. **Plant Cell** 1999 Feb;11(2):237–49

Inactivation of the monocistronic rca gene in Anabaena variabilis suggests a physiological ribulose bisphosphate carboxylase/oxygenase activase-like function in heterocystous cyanobacteria. Li LA, et al. **Plant Mol Biol** 1999 Jun;40(3):467–78

Mechanism of light regulation of Rubisco: a specific role for the larger Rubisco activase isoform involving reductive activation by thioredoxin-f. Zhang N, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9438–43

Genetic engineers aim to soup up crop photosynthesis [news] Mann CC. **Science** 1999 Jan 15;283(5400):314–6

RIBULOSE DIPHOSPHATE CARBOXYLASE see **RIBULOSE-BISPHOSPHATE CARBOXYLASE**

RIBULOSEBIPHOSPHATE CARBOXYLASE see **RIBULOSE-BISPHOSPHATE CARBOXYLASE**

RIBULOSEPHOSPHATES

acs1 of Haemophilus influenzae type a capsulation locus region II encodes a bifunctional ribulose 5-phosphate reductase- CDP-ribitol pyrophosphorylase. Follens A, et al. **J Bacteriol** 1999 Apr;181(7):2001–7

GENETICS

Organization of the genes involved in the ribulose monophosphate pathway in an obligate methylotrophic bacterium, Methylomonas aminofaciens 77a. Sakai Y, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):125–30

RICE

The evaluation of antianaphylactic effect of Oryza sativa L. in rats. Kim HM, et al. **Am J Chin Med** 1999;27(1):63–71

Strategies to improve the nutritive value of rice bran in poultry diets. I. The addition of food enzymes to target the non-starch polysaccharide fractions in diets of chickens and ducks gave no response. Farrell DJ, et al. **Br Poult Sci** 1998 Sep;39(4):549–54

Efficiency of utilisation of energy from maize- and broken rice-based diets in old White Leghorn and Rhode Island Red laying hens. Jadhao SB, et al. **Br Poult Sci** 1999 May; 40(2):275–83

Strategies to improve the nutritive value of rice bran in poultry diets. II. Changes in oil digestibility, metabolisable energy and attempts to increase the digestibility of the oil fraction in the diets of chickens and ducklings. Martin EA, et al. **Br Poult Sci** 1998 Sep;39(4):555–9

DL-methionine supplementation of rice-and-bean diets affects gamma-glutamyltranspeptidase activity and glutathione content in livers of growing rats. De-Oliveira IM, et al. **Braz J Med Biol Res** 1999 Apr;32(4):483–8

Characterization of the inhibitory effect of boiled rice on intestinal chloride secretion in guinea pig crypt cells. Mathews CJ, et al. **Gastroenterology** 1999 Jun;116(6):1342–7

Species diversity and interspecific associations among mosquitoes in rice agro-ecosystem of Kheda district, Gujarat. Kant R, et al. **Indian J Malariol** 1998 Mar; 35(1):22–30

Respiratory symptoms and pulmonary function among Chinese rice-granary workers. Ye TT, et al. **Int J Occup Environ Health** 1998 Jul–Sep;4(3):155–9

Absorption, by humans, of beta-carotene from fortified

soybean oil added to rice: effect of heat treatment. Dutra-de-Oliveira JE, et al. **J Am Coll Nutr** 1998 Aug; 17(4):361-5

Effect of drastic undernutrition on digestion in Zebu cattle receiving a diet based on rice straw. Grimaud P, et al. **J Dairy Sci** 1999 May;82(5):974-81

Comparative study of rice-based oral rehydration salt solution versus glucose-based oral rehydration salt solution (WHO) in children with acute dehydrating diarrhoea. Sharma A, et al. **J Indian Med Assoc** 1998 Dec;96(12):367-8

Hydrogen production in dogs adapts to addition of lactulose and to a meat and rice diet. Pouteau E, et al. **J Nutr** 1998 Dec;128(12 Suppl):2666S-2668S

Effect of two rice culture methods on the seasonal occurrence of mosquito larvae and other aquatic animals in rice fields of southwestern Korea. Lee DK. **J Vector Ecol** 1998 Dec;23(2):161-70

The impact of rice pesticides on the aquatic ecosystems of the Sacramento River and Delta (California). Byard JL. **Rev Environ Contam Toxicol** 1999;159:95-110 (32 ref.)

[The impact of rice fields on malaria transmission in the city of Bouaké, Côte d'Ivoire] Dossou-Yovo J, et al. **Bull Soc Pathol Exot** 1998;91(4):327-33 (Eng. Abstr.) **(Fre)**

[Impact on health of early supplementation with rice in infants in Laos (letter)] Graz B. **Med Trop (Mars)** 1999; 59(1):102-3 **(Fre)**

[Analysis of 209 PCB congeners by high separation gas chromatography/low resolution mass spectrometer] Mimura K, et al. **Fukuoka Igaku Zasshi** 1999 May; 90(5):192-201 (Eng. Abstr.) **(Jpn)**

[Consumption of foods prepared with corn, wheat and rice and its relationship to gastric cancer incidence in Mexico] Rascón Pacheco RA, et al. **Arch Latinoam Nutr** 1998 Sep; 48(3):221-4 (Eng. Abstr.) **(Spa)**

CHEMISTRY

Enzymatic determination of soluble and insoluble dietary fiber in rice and wheat bran. Gonçalvez AA, et al. **Arch Latinoam Nutr** 1998 Dec;48(4):334-8

Inhibitory effect of cycloartenol ferulate, a component of rice bran, on tumor promotion in two-stage carcinogenesis in mouse skin. Yasukawa K, et al. **Biol Pharm Bull** 1998 Oct;21(10):1072-6

Antimicrobial activity of 4-hydroxybenzoic acid and trans 4-hydroxycinnamic acid isolated and identified from rice hull. Cho JY, et al. **Biosci Biotechnol Biochem** 1998 Nov; 62(11):2273-6

Strategies to improve the nutritive value of rice bran in poultry diets. III. The addition of inorganic phosphorus and a phytase to duck diets. Farrell DJ, et al. **Br Poult Sci** 1998 Dec;39(5):601-11

Strategies to improve the nutritive value of rice bran in poultry diets. IV. Effects of addition of fish meal and a microbial phytase to duckling diets on bird performance and amino acid digestibility. Martin EA, et al. **Br Poult Sci** 1998 Dec;39(5):612-21

Separation and characterization of proteins from green and etiolated shoots of rice (Oryza sativa L.): towards a rice proteome. Komatsu S, et al. **Electrophoresis** 1999 Mar; 20(3):630-6

Characterization of specific binding sites for a mitogenic sulfated peptide, phytosulfokine-alpha, in the plasma-membrane fraction derived from Oryza sativa L. Matsubayashi Y, et al. **Eur J Biochem** 1999 Jun; 262(3):666-71

Solution structure of a lipid transfer protein extracted from rice seeds. Comparison with homologous proteins. Poznanski J, et al. **Eur J Biochem** 1999 Feb;259(3):692-708

Studies on removal efficiency of chloroform from tap water by rice bran. Adachi A, et al. **J Toxicol Environ Health** 1998 Nov 13;55(5):385-7

The evaluation of the antianaphylactic effect of Oryza sativa L. subsp. hsien Ting in rats. Kim HM, et al. **Pharmacol Res** 1999 Jul;40(1):31-6

Identification of polypeptides associated with an enriched cytoskeleton-protein body fraction from developing rice endosperm. Wu Y, et al. **Plant Cell Physiol** 1998 Dec; 39(12):1251-7

Tissue localization of expansins in deepwater rice. Cho HT, et al. **Plant J** 1998 Sep;15(6):805-12

Non-occupational lead and cadmium exposure of adult women in Bangkok, Thailand. Zhang ZW, et al. **Sci Total Environ** 1999 Feb 2;226(1):65-74

[Gamma-oryzanol: an important component in rice brain oil] Scavariello EM, et al. **Arch Latinoam Nutr** 1998 Mar; 48(1):7-12 (30 ref.) (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Isolation of a cDNA for tryptophan synthase beta from rice and studies of its expression in a 5-methyltryptophan-resistant mutant of rice. Kisaka H, et al. **Plant Mol Biol** 1998 Nov;38(5):875-8

Regulation of the chitinase gene expression in suspension-cultured rice cells by N-acetylchitooligosaccharides: differences in the signal transduction pathways leading to the activation of elicitor-responsive genes. Nishizawa Y, et al. **Plant Mol Biol** 1999 Mar;39(5):907-14

EMBRYOLOGY

Callus initiation, maintenance, and shoot induction in rice. Blackhall NW, et al. **Methods Mol Biol** 1999;111:19-29 (22 ref.)

ENZYMOLOGY

Cloning and sequencing of cDNA encoding the rice methionyl-tRNA synthetase. Deniziak M, et al. **Acta Biochim Pol** 1998;45(3):669-76

Purification and characterization of sucrose synthase isozymes from etiolated rice seedlings. Huang DY, et al. **Biochem Mol Biol Int** 1998 Sep;46(1):107-13

Genomic DNA sequence of a rice gene coding for a pullulanase-type of starch debranching enzyme. Francisco PB Jr, et al. **Biochim Biophys Acta** 1998 Sep 8; 1387(1-2):469-77

Organization and structure of NADH-dependent glutamate synthase gene from rice plants. Goto S, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):298-308

Simultaneous measurement of alpha-amylase and glucoamylase activities in sake rice koji by capillary electrophoresis of sodium dodecyl sulfate-protein complexes and activity measurement of glucoamylase by in-capillary enzyme reaction method. Watanabe T, et al. **Electrophoresis** 1998 Oct;19(13):2331-7

Characterization of rice endo-beta-glucanase genes (Gns2-Gns14) defines a new subgroup within the gene family. Romero GO, et al. **Gene** 1998 Nov 26; 223(1-2):311-20

High-level expression of maize phosphoenolpyruvate carboxylase in transgenic rice plants [see comments] Ku MS, et al. **Nat Biotechnol** 1999 Jan;17(1):76-80. Comment in: Nat Biotechnol 1999 Jan;17(1):22-3.

The structure and organization of two cysteine endopeptidase genes from rice. Kato H, et al. **Plant Cell Physiol** 1999 Apr;40(4):462-7

The 3' untranslated region of a rice alpha-amylase gene mediates sugar-dependent abundance of mRNA. Chan MT, et al. **Plant J** 1998 Sep;15(5):685-95

A rice homolog of Cdk7/MO15 phosphorylates both cyclin-dependent protein kinases and the carboxy-terminal domain of RNA polymerase II. Yamaguchi M, et al. **Plant J** 1998 Dec;16(5):613-9

Molecular characterization of catalytic-subunit cDNA sequences encoding protein phosphatases 1 and 2A and study of their roles in the gibberellin-dependent Osamy-c expression in rice. Chang M, et al. **Plant Mol Biol** 1999 Jan;39(1):105-15

Molecular characterization of a gene for alanine aminotransferase from rice (Oryza sativa). Kikuchi H, et al. **Plant Mol Biol** 1999 Jan;39(1):149-59

Differential expression of genes for cyclin-dependent protein kinases in rice plants. Umeda M, et al. **Plant Physiol** 1999 Jan;119(1):31-40

Expression of a gibberellin-induced leucine-rich repeat receptor-like protein kinase in deepwater rice and its interaction with kinase-associated protein phosphatase. van der Knaap E, et al. **Plant Physiol** 1999 Jun;120(2):559-70

Purification, characterization, and cDNA structure of isoamylase from developing endosperm of rice. Fujita N, et al. **Planta** 1999 Apr;208(2):283-93

GENETICS

Widespread occurrence of the homologues of the early nodulin (ENOD) genes in Oryza species and related grasses. Reddy PM, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):148-54

Expansion of a (GA) dinucleotide at a microsatellite locus associated with domestication in rice. Ramakrishna W, et al. **Biochem Genet** 1998 Oct;36(9-10):323-7

Molecular cloning and expression of the Na+/H+ exchanger gene in Oryza sativa. Fukuda A, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):149-55

Expression of novel homeobox genes in early embryogenesis in rice. Ito Y, et al. **Biochim Biophys Acta** 1999 Mar 19; 1444(3):445-50

Isolation, analysis and expression of homologues of the soybean early nodulin gene GmENOD93 (GmN93) from rice. Reddy PM, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):386-92

Identification of the gene structure and promoter region of H+-translocating inorganic pyrophosphatase in rice (Oryza sativa L.). Sakakibara Y, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):117-24

A novel variant of translation elongation factor-1beta: isolation and characterization of the rice gene encoding EF-1beta2. Terui Y, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2-3):369-72

Molecular cloning and characterization of a cDNA for an iron-superoxide dismutase in rice (Oryza sativa L.). Kaminaka H, et al. **Biosci Biotechnol Biochem** 1999 Feb; 63(2):302-8

Quality and safety evaluation of genetically engineered rice with soybean glycinin: analyses of the grain composition and digestibility of glycinin in transgenic rice. Momma K, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):314-8

Proteins involved in membrane transport between the ER and the Golgi apparatus: 21 putative plant homologues revealed by dbEST searching. Andreeva AV, et al. **Cell Biol Int** 1998;22(2):145-60

Construction of a DNA library from chromosome 4 of rice (Oryza sativa) by microdissection. Mao YW, et al. **Cell Res** 1998 Dec;8(4):285-93

Transcription of plastid-derived tRNA genes in rice mitochondria. Miyata S, et al. **Curr Genet** 1998 Sep; 34(3):216-20

Rice as a model for cereal genomics. Goff SA. **Curr Opin Plant Biol** 1999 Apr;2(2):86-9 (38 ref.)

Initiation of shoot apical meristem in rice: characterization of four SHOOTLESS genes. Satoh N, et al. **Development** 1999 Aug;126(16):3629-36

Isolation and characterization of rice MADS box gene homologues and their RFLP mapping. Shinozuka Y, et al. **DNA Res** 1999 Apr 30;6(2):123-9

A novel calmodulin-like protein gene in rice which has an unusual prolonged C-terminal sequence carrying a putative prenylation site. Xiao C, et al. **DNA Res** 1999 Jun 30; 6(3):179-81

Promoter structure and activity of type 1 rice metallothionein-like gene. Hsieh HM, et al. **DNA Seq** 1998 Mar;9(1):9-17

Random amplified polymorphic DNA analysis of Indian scented basmati rice (Oryza sativa L.) germplasm for identification of variability and duplicate accessions, if any. Verma SK, et al. **Electrophoresis** 1999 Jun;20(8):1786-9

Loss-of-function mutations in the rice homeobox gene OSH15 affect the architecture of internodes resulting in dwarf plants. Sato Y, et al. **EMBO J** 1999 Feb 15; 18(4):992-1002

Four rice genes encoding cysteine synthase: isolation and differential responses to sulfur, nitrogen and light. Nakamura T, et al. **Gene** 1999 Mar 18;229(1-2):155-61

Characterization of rice endo-beta-glucanase genes (Gns2-Gns14) defines a new subgroup within the gene family. Romero GO, et al. **Gene** 1998 Nov 26; 223(1-2):311-20

Co-integration, co-expression and co-segregation of an unlinked selectable marker gene and NtFAD3 gene in transgenic rice plants produced by particle bombardment. Wakita Y, et al. **Genes Genet Syst** 1998 Aug;73(4):219-26

Physical mapping of duplicated genomic regions of two chromosome ends in rice. Wu J, et al. **Genetics** 1998 Dec; 150(4):1595-603

Time-related mapping of quantitative trait loci underlying tiller number in rice. Wu WR, et al. **Genetics** 1999 Jan; 151(1):297-303

Identification of trait-improving quantitative trait loci alleles from a wild rice relative, Oryza rufipogon. Xiao J, et al. **Genetics** 1998 Oct;150(2):899-909

Molecular dissection of developmental behavior of plant height in rice (Oryza sativa L.). Yan J, et al. **Genetics** 1998 Nov;150(3):1257-65

Application of restriction fragment fingerprinting with a rice microsatellite sequence to assembling rice YAC clones. Ashikawa I, et al. **Genome** 1999 Apr;42(2):330-7

RAPD mapping in a doubled haploid population of rice (Oryza sativa L.). Subudhi PK, et al. **Hereditas** 1999; 130(1):41-9

A maize MuDR-like element expressed in rice callus subcultured with proline. Yoshida S, et al. **Hereditas** 1998; 129(1):95-9

Origin and evolution of twin microsatellites in the genus Oryza. Akagi H, et al. **Heredity** 1998 Aug;81 (Pt 2):187-97

Molecular characterization of two endogenous double-stranded RNAs in rice and their inheritance by interspecific hybrids. Moriyama H, et al. **J Biol Chem** 1999 Mar 12;274(11):6882-8

DNA sequence comparison considering both amino acid and nucleotide insertions/deletions because of evolution and experimental error. Irie R, et al. **J Biotechnol** 1999 Mar 26;69(1):19-26

Molecular analysis of transgenic rice. Buchholz WG, et al. **Methods Mol Biol** 1998;81:397-415

Production of transgenic rice (Oryza sativa subspecies japonica cv. Taipei 309). Buchholz WG, et al. **Methods Mol Biol** 1998;81:383-96

Transformation of rice via PEG-mediated DNA uptake into protoplasts. Datta K, et al. **Methods Mol Biol** 1999; 111:335-47 (19 ref.)

Selection of RAPD marker for growth of seedlings at low temperature in rice. Kim KM, et al. **Mol Cells** 1999 Jun 30;9(3):265-9

Identification and characterization of novel retrotransposons of the gypsy type in rice. Kumekawa N, et al. **Mol Gen Genet** 1999 Jan;260(6):593-602

A "defeated" rice resistance gene acts as a QTL against a virulent strain of Xanthomonas oryzae pv. oryzae. Li ZK, et al. **Mol Gen Genet** 1999 Feb;261(1):58-63

Organization of the 1.9-kb repeat unit RCE1 in the centromeric region of rice chromosomes. Nonomura KI, et al. **Mol Gen Genet** 1999 Feb;261(1):1-10

Rice has two distinct classes of protein kinase genes related to SNF1 of Saccharomyces cerevisiae, which are differently regulated in early seed development. Takano M, et al. **Mol Gen Genet** 1998 Nov;260(4):388-94

Homologs of animal eyes absent (eya) genes are found in higher plants. Takeda Y, et al. **Mol Gen Genet** 1999 Aug; 262(1):131-8

Identification of mutable slender glume gene in rice (Oryza sativa L.). Teraishi M, et al. **Mol Gen Genet** 1999 Apr; 261(3):487-94

Patterns of cytosine methylation in an elite rice hybrid and its parental lines, detected by a methylation-sensitive

amplification polymorphism technique. Xiong LZ, et al. **Mol Gen Genet** 1999 Apr;261(3):439–46

Towards rice genome scanning by map-based AFLP fingerprinting. Zhu JH, et al. **Mol Gen Genet** 1999 Feb; 261(1):184–95

Expression and inheritance of multiple transgenes in rice plants [see comments] Chen L, et al. **Nat Biotechnol** 1998 Nov;16(11):1060–4. Comment in: Nat Biotechnol 1998 Nov;16(11):1009–10.

Iron fortification of rice seed by the soybean ferritin gene [see comments] Goto F, et al. **Nat Biotechnol** 1999 Mar; 17(3):282–6. Comment in: Nat Biotechnol 1999 Mar;17(3):230–1.

High-level expression of maize phosphoenolpyruvate carboxylase in transgenic rice plants [see comments] Ku MS, et al. **Nat Biotechnol** 1999 Jan;17(1):76–80. Comment in: Nat Biotechnol 1999 Jan;17(1):22–3.

Wake-up call for Japan's genomics [editorial] **Nature** 1999 Apr 15;398(6728):543

US firm's bid to sequence rice genome causes stir in Japan... [news] Saegusa A. **Nature** 1999 Apr 15;398(6728):545

Japanese plan speeds up rice genome sequencing [news] Saegusa A. **Nature** 1999 Sep 9;401(6749):102

Gene cloning and expression of cytosolic glutathione reductase in rice (Oryza sativa L.). Kaminaka H, et al. **Plant Cell Physiol** 1998 Dec;39(12):1269–80

The structure and organization of two cysteine endopeptidase genes from rice. Kato H, et al. **Plant Cell Physiol** 1999 Apr;40(4):462–7

Isolation and characterization of two importin-beta genes from rice. Matsuki R, et al. **Plant Cell Physiol** 1998 Aug; 39(8):879–84

Detection of several mRNA species in rice phloem sap. Sasaki T, et al. **Plant Cell Physiol** 1998 Aug;39(8):895–7

Transcript level for a gene encoding a putative type 1a plasma membrane receptor is induced by gibberellin in deepwater rice. van der Knaap E, et al. **Plant Cell Physiol** 1998 Nov; 39(11):1127–32

Molecular characterization of transforming plasmid rearrangements in transgenic rice reveals a recombination hotspot in the CaMV 35S promoter and confirms the predominance of microhomology mediated recombination. Kohli A, et al. **Plant J** 1999 Mar;17(6):591–601

Rice ENOD40: isolation and expression analysis in rice and transgenic soybean root nodules. Kouchi H, et al. **Plant J** 1999 Apr;18(2):121–9

Silencing of an aleurone-specific gene in transgenic rice is caused by a rearranged transgene. Morino K, et al. **Plant J** 1999 Feb;17(3):275–85

Expression of snowdrop lectin (GNA) in transgenic rice plants confers resistance to rice brown planthopper. Rao KV, et al. **Plant J** 1998 Aug;15(4):469–77

Cloning of a wheat puroindoline gene promoter by IPCR and analysis of promoter regions required for tissue-specific expression in transgenic rice seeds. Digeon JF, et al. **Plant Mol Biol** 1999 Apr;39(6):1101–12

An anaerobically inducible early (aie) gene family from rice. Huq E, et al. **Plant Mol Biol** 1999 Jul;40(4):591–601

Isolation and characterization of an anther-specific gene, RA8, from rice (Oryza sativa L.). Jeon JS, et al. **Plant Mol Biol** 1999 Jan;39(1):35–44

Identification of class B and class C floral organ identity genes from rice plants. Kang HG, et al. **Plant Mol Biol** 1998 Dec;38(6):1021–9

Molecular characterization of a gene for alanine aminotransferase from rice (Oryza sativa). Kikuchi H, et al. **Plant Mol Biol** 1999 Jan;39(1):149–59

Longevity of 5-azacytidine-mediated gene expression and re-establishment of silencing in transgenic rice. Kumpatla SP, et al. **Plant Mol Biol** 1998 Dec;38(6):1113–22

Identification of a rice APETALA3 homologue by yeast two-hybrid screening. Moon YH, et al. **Plant Mol Biol** 1999 May;40(1):167–77

Unusual inheritance of evolutionarily-related double-stranded RNAs in interspecific hybrid between rice plants Oryza sativa and Oryza rufipogon. Moriyama H, et al. **Plant Mol Biol** 1999 Apr;39(6):1127–36

Physical mapping of unique nucleotide sequences on identified rice chromosomes. Ohmido N, et al. **Plant Mol Biol** 1998 Dec;38(6):1043–52

Characterization of the KNOX class homeobox genes Oskn2 and Oskn3 identified in a collection of cDNA libraries covering the early stages of rice embryogenesis. Postma-Haarsma AD, et al. **Plant Mol Biol** 1999 Jan; 39(2):257–71

Chemical induction of disease resistance in rice is correlated with the expression of a gene encoding a nucleotide binding site and leucine-rich repeats. Sakamoto K, et al. **Plant Mol Biol** 1999 Jul;40(5):847–55

Isolation and characterization of a rice homebox gene, OSH15. Sato Y, et al. **Plant Mol Biol** 1998 Dec; 38(6):983–98

Identification of cis-regulatory elements required for endosperm expression of the rice storage protein glutelin gene GluB-1. Washida H, et al. **Plant Mol Biol** 1999 May; 40(1):1–12

Determination of the motif responsible for interaction between the rice APETALA1/AGAMOUS-LIKE9 family proteins using a yeast two-hybrid system. Moon YH, et al. **Plant Physiol** 1999 Aug;120(4):1193–204

Differential expression of genes for cyclin-dependent protein kinases in rice plants. Umeda M, et al. **Plant Physiol** 1999 Jan;119(1):31–40

Expression of a gibberellin-induced leucine-rich repeat receptor-like protein kinase in deepwater rice and its interaction with kinase-associated protein phosphatase. van der Knaap E, et al. **Plant Physiol** 1999 Jun;120(2):559–70

Temporal and spatial patterns of accumulation of the transcript of Myo-inositol-1-phosphate synthase and phytin-containing particles during seed development in rice. Yoshida KT, et al. **Plant Physiol** 1999 Jan;119(1):65–72

The expression of the salt-responsive gene salT from rice is regulated by hormonal and developmental cues. Garcia AB, et al. **Planta** 1998 Dec;207(2):172–80

Suppression of the heterotrimeric G protein causes abnormal morphology, including dwarfism, in rice. Fujisawa Y, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7575–80

Four intracellular genomes direct weevil biology: nuclear, mitochondrial, principal endosymbiont, and Wolbachia. Heddi A, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6814–9

A single nuclear transcript encoding mitochondrial RPS14 and SDHB of rice is processed by alternative splicing: common use of the same mitochondrial targeting signal for different proteins. Kubo N, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9207–11

Biotechnology. New genes boost rice nutrients [news] Gura T. **Science** 1999 Aug 13;285(5430):994–5

Rice genome. U.S. adds $12 million to global sequencing push [news] Normile D. **Science** 1999 Oct 1;286(5437):24–5

Expression and immunolocalisation of the snowdrop lectin, GNA in transgenic rice plants. Sudhakar D, et al. **Transgenic Res** 1998 Sep;7(5):371–8

[Genetic mapping of the rice telomeric regions through PCR] Shen LS, et al. **I Chuan Hsueh Pao** 1998 Dec;25(6):508–16 (Eng. Abstr.) **(Chi)**

[Obtaining transgenic rice plants and their progenies using Agrobacterium tumefaciens] Yin ZC, et al. **I Chuan Hsueh Pao** 1998 Dec;25(6):517–24 (Eng. Abstr.) **(Chi)**

[Genetic analysis on a new sterile locus discovered in hybrids between indica and japonica rice (Oryza sativa L.)] Zhu XD, et al. **I Chuan Hsueh Pao** 1998;25(3):245–51 (Eng. Abstr.) **(Chi)**

GROWTH & DEVELOPMENT

Haemoglobin (Erythrogen)-enhanced post-thaw growth of cryopreserved cells. Azhakanandam K, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Mar; 27(2):163–9

Initiation of shoot apical meristem in rice: characterization of four SHOOTLESS genes. Satoh N, et al. **Development** 1999 Aug;126(16):3629–36

Molecular dissection of developmental behavior of plant height in rice (Oryza sativa L.). Yan J, et al. **Genetics** 1998 Nov;150(3):1257–65

Cryopreservation of rice tissue cultures. Benson EE, et al. **Methods Mol Biol** 1999;111:83–94

Transformation of rice via PEG-mediated DNA uptake into protoplasts. Datta K, et al. **Methods Mol Biol** 1999; 111:335–47 (19 ref.)

Selection of RAPD marker for growth of seedlings at low temperature in rice. Kim KM, et al. **Mol Cells** 1999 Jun 30;9(3):265–9

Identification of class B and class C floral organ identity genes from rice plants. Kang HG, et al. **Plant Mol Biol** 1998 Dec;38(6):1021–9

IMMUNOLOGY

Cereal allergens: rice-seed allergens with structural similarity to wheat and barley allergens. Nakase M, et al. **Allergy** 1998;53(46 Suppl):55–7

Flow cytometry and surface plasmon resonance analyses demonstrate that the monoclonal antibody JIM19 interacts with a rice cell surface component involved in abscisic acid signalling in protoplasts. Desikan R, et al. **FEBS Lett** 1999 Aug 6;456(2):257–62

Corn allergens: IgE antibody reactivity and cross-reactivity with rice, soy, and peanut. Lehrer SB, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):298–9

[Usefulness of hypoallergenic rice (AFT-R 1) and analysis of the salt insoluble rice allergen molecule] Ikezawa Z, et al. **Arerugi** 1999 Jan;48(1):40–9 (Eng. Abstr.) **(Jpn)**

[Effectiveness of hypoallergenic rice-by cast analysis] Juji F, et al. **Arerugi** 1999 Jan;48(1):56–63 (Eng. Abstr.) **(Jpn)**

METABOLISM

A novel calmodulin-like protein gene in rice which has an unusual prolonged C-terminal sequence carrying a putative prenylation site. Xiao C, et al. **DNA Res** 1999 Jun 30; 6(3):179–81

Flow cytometry and surface plasmon resonance analyses demonstrate that the monoclonal antibody JIM19 interacts with a rice cell surface component involved in abscisic acid signalling in protoplasts. Desikan R, et al. **FEBS Lett** 1999 Aug 6;456(2):257–62

In vitro characterization of rice importin beta1: molecular interaction with nuclear transport factors and mediation of nuclear protein import. Jiang CJ, et al. **FEBS Lett** 1998 Oct 16;437(1-2):127–30

Isolation of a novel auxin receptor from soluble fractions of rice (Oryza sativa L.) shoots. Kim YS, et al. **FEBS Lett** 1998 Nov 6;438(3):241–4

Cerebrosides A and C, sphingolipid elicitors of hypersensitive cell death and phytoalexin accumulation in rice plants. Koga J, et al. **J Biol Chem** 1998 Nov 27;273(48):31985–91

Purification, characterization, and application of an acid urease from Arthrobacter mobilis. Miyagawa K, et al. **J Biotechnol** 1999 Feb 19;68(2-3):227–36

Patterns of cytosine methylation in an elite rice hybrid and its parental lines, detected by a methylation-sensitive amplification polymorphism technique. Xiong LZ, et al. **Mol Gen Genet** 1999 Apr;261(3):439–46

Lesion mimic mutants of rice with alterations in early signaling events of defense. Takahashi A, et al. **Plant J** 1999 Mar;17(5):535–45

Temporal and spatial patterns of accumulation of the transcript of Myo-inositol-1-phosphate synthase and phytin-containing particles during seed development in rice. Yoshida KT, et al. **Plant Physiol** 1999 Jan;119(1):65–72

The refolding, purification, and activity analysis of a rice Bowman-Birk inhibitor expressed in Escherichia coli. Li N, et al. **Protein Expr Purif** 1999 Feb;15(1):99–104

Expression and immunolocalisation of the snowdrop lectin, GNA in transgenic rice plants. Sudhakar D, et al. **Transgenic Res** 1998 Sep;7(5):371–8

MICROBIOLOGY

Cholesterol-lowering effects of a proprietary Chinese red-yeast-rice dietary supplement [see comments] Heber D, et al. **Am J Clin Nutr** 1999 Feb;69(2):231–6. Comment in: Am J Clin Nutr 1999 Jul;70(1):106–8.

Novel bacteriocin of Pediococcus sp. ISK-1 isolated from well-aged bed of fermented rice bran. Kimura H, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:345–8

Cloning and nucleotide sequence analysis of gyrB of Bacillus cereus, B. thuringiensis, B. mycoides, and B. anthracis and their application to the detection of B. cereus in rice. Yamada S, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1483–90

Construction of a BAC library of the rice blast fungus Magnaporthe grisea and finding specific genome regions in which its transposons tend to cluster. Nishimura M, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1515–21

Introduction and expression of the cry1Ac gene of Bacillus thuringiensis in a cereal-associated bacterium, Bacillus polymyxa. Sudha SN, et al. **Curr Microbiol** 1999 Mar; 38(3):163–7

Infection-related development in the rice blast fungus Magnaporthe grisea. Hamer JE, et al. **Curr Opin Microbiol** 1998 Dec;1(6):693–7 (39 ref.)

Acropetal: a genetic locus required for conidiophore architecture and pathogenicity in the rice blast fungus. Lau GW, et al. **Fungal Genet Biol** 1998 Jun-Jul;24(1-2):228–39

An electron-conformational method of identification of pharmacophore and anti-pharmacophore shielding: application to rice blast activity. Bersuker IB, et al. **J Comput Aided Mol Des** 1999 Jul;13(4):419–34

Survival and growth of psychrotrophic Bacillus cereus in dry and reconstituted infant rice cereal. Jaquette CB, et al. **J Food Prot** 1998 Dec;61(12):1629–35

Type IV pili are involved in plant-microbe and fungus-microbe interactions. Dörr J, et al. **Mol Microbiol** 1998 Oct;30(1):7–17

Ochratoxin A in rice cultivars after inoculation of Penicillium verrucosum. Axberg K, et al. **Nat Toxins** 1998;6(2):73–84

The Pib gene for rice blast resistance belongs to the nucleotide binding and leucine-rich repeat class of plant disease resistance genes. Wang ZX, et al. **Plant J** 1999 Jul; 19(1):55–64

Sulfur oxidation in rice field soil: activity, enumeration, isolation and characterization of thiosulfate-oxidizing bacteria. Stubner S, et al. **Syst Appl Microbiol** 1998 Dec; 21(4):569–78

PHYSIOLOGY

Metabolic engineering of rice leading to biosynthesis of glycinebetaine and tolerance to salt and cold [published erratum appears in Plant Mol Biol 1999 May;40(1):195] Sakamoto A, et al. **Plant Mol Biol** 1998 Dec;38(6):1011–9

POISONING

Concentrations of PCBs, PCDFs and PCDDs in the blood of Yusho patients and their toxic equivalent contribution. Masuda Y, et al. **Chemosphere** 1998 Oct-Nov; 37(9-12):1773–80

[An epidemiologic examination on the prevalence of the periodontal diseases and oral pigmentation in Yusho patients in 1998] Hashiguchi I, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):150–3 (Eng. Abstr.) **(Jpn)**

[Analysis of all PCB congeners in breast milk and blood of Yusho patients] Mimura K, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):202–9 (Eng. Abstr.) **(Jpn)**

[Evaluation of dermatological symptoms of Yusho patients in the annual examination in 1997-1998] Nakayama J, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):143–6 (Eng. Abstr.) **(Jpn)**

[Association between the results of blood test and blood PCB level of chronic Yusho patients twenty five years after the outbreak] Tokunaga S, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):157–61 (Eng. Abstr.) **(Jpn)**

[Serum immunoglobulin concentrations and autoantibodies

in patients with Yusho] Tsuji H, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):147–9 (Eng. Abstr.) **(Jpn)**

[Influential factors in elevation of serum creatine phosphokinase for the patients with Kanemi Yusho] Yoshimura T, et al. **Fukuoka Igaku Zasshi** 1999 May; 90(5):246–50 (Eng. Abstr.) **(Jpn)**

RADIATION EFFECTS

Phosphorylation of proteins in the stem section of etiolated rice seedling irradiated with red light. Hamada T, et al. **Biol Pharm Bull** 1999 Feb;22(2):122–6

VIROLOGY

The 42K protein of rice dwarf virus is a post-translational cleavage product of the 46K outer capsid protein. Mao ZJ, et al. **Arch Virol** 1998;143(9):1831–8

In vivo and in vitro phosphorylation of rice dwarf phytoreovirus Pns12 cytoplasmic nonstructural protein. Suzuki N, et al. **Arch Virol** 1999;144(7):1371–80

Rice ragged stunt oryzavirus genome segment S4 could encode an RNA dependent RNA polymerase and a second protein of unknown function. Upadhyaya NM, et al. **Arch Virol** 1998;143(9):1815–22

The C-terminal region of the P3 structural protein of rice dwarf phytoreovirus is important for P3–P3 interaction. Uyeda S, et al. **Arch Virol** 1999;144(8):1653–7

Structure of double-shelled rice dwarf virus. Lu G, et al. **J Virol** 1998 Nov;72(11):8541–9

The P2 protein of rice dwarf phytoreovirus is required for adsorption of the virus to cells of the insect vector. Omura T, et al. **J Virol** 1998 Nov;72(11):9370–3

Differentiation of rice tungro bacilliform virus strains by restriction analysis and DNA hybridization. Cabauatan PQ, et al. **J Virol Methods** 1998 Dec;76(1–2):121–6

Original reverse transcription polymerase chain reaction method to obtain the full-length cDNA of rice tungro spherical virus. Perrin Y, et al. **J Virol Methods** 1999 May; 79(2):161–8

Resistance to rice yellow mottle virus (RYMV) in cultivated African rice varieties containing RYMV transgenes. Pinto YM, et al. **Nat Biotechnol** 1999 Jul;17(7):702–7

RICE TUNGRO BACILLIFORM VIRUS see **BADNAVIRUS**

RICIN

[The biological activity of Ricinus communis on the housefly (Musca domestica)] Alvarez Montes de Oca DM, et al. **Rev Cubana Med Trop** 1996;48(3):192–4 (Eng. Abstr.) **(Spa)**

ADMINISTRATION & DOSAGE

Potentiation of TNF-alpha toxicity by conjugation with ricin A-chain. Gould DJ, et al. **Cytokine** 1998 Dec;10(12):931–9

ADVERSE EFFECTS

Decreases in levels of serum fibronectin predict the severity of vascular leak syndrome in patients treated with ricin A chain-containing immunotoxins. Baluna R, et al. **Clin Cancer Res** 1996 Oct;2(10):1705–12

CHEMISTRY

Free energy determinants of binding the rRNA substrate and small ligands to ricin A-chain. Olson MA, et al. **Biophys J** 1999 Jan;76(1 Pt 1):28–39

Prediction of a conserved, neutralizing epitope in ribosome-inactivating proteins. Lebeda FJ, et al. **Int J Biol Macromol** 1999 Jan;24(1):19–26

[A novel plant lectin group has homologous structure to ribosome-inactivating protein, ricin] Kaku H. **Seikagaku** 1999 Feb;71(2):124–8 (15 ref.) **(Jpn)**

GENETICS

The phenotype of mutations of G2655 in the sarcin/ricin domain of 23 S ribosomal RNA. Macbeth MR, et al. **J Mol Biol** 1999 Jan 22;285(3):965–75

IMMUNOLOGY

Ricin A immunotoxins of IgG and Fab of anti-CALLA monoclonal antibody: effect of water soluble long-chain SPDP on conjugate yield, immunoselectivity and cytotoxicity. Woo BH, et al. **Arch Pharm Res** 1994 Dec; 17(6):452–7

Comparison of the quality of protection elicited by toxoid and peptide liposomal vaccine formulations against ricin as assessed by markers of inflammation. Griffiths GD, et al. **Vaccine** 1999 Jun 4;17(20–21):2562–8

METABOLISM

Ricin RCA60: evidence of its phospholipase activity. Helmy M, et al. **Biochem Biophys Res Commun** 1999 May 10; 258(2):252–5

Identification of three oligosaccharide binding sites in ricin. Steeves RM, et al. **Biochemistry** 1999 Sep 7;38(36):11677–85

Free energy determinants of binding the rRNA substrate and small ligands to ricin A-chain. Olson MA, et al. **Biophys J** 1999 Jan;76(1 Pt 1):28–39

Involvement of N-acetylcysteine-sensitive pathways in ricin-induced apoptotic cell death in U937 cells. Oda T, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):341–8

Involvement of the amino acids outside the active-site cleft in the catalysis of ricin A chain. Kitaoka Y. **Eur J Biochem** 1998 Oct 1;257(1):255–62

Endocytosis and intracellular transport of ricin: recent discoveries. Sandvig K, et al. **FEBS Lett** 1999 Jun 4; 452(1–2):67–70 (54 ref.)

Interaction of the sarcin/ricin domain of 23 S ribosomal RNA with proteins L3 and L6. Uchiumi T, et al. **J Biol Chem** 1999 Jan 8;274(2):681–6

Characterization of in vitro and in vivo mutations in non-conserved nucleotides in the ribosomal RNA recognition domain for the ribotoxins ricin and sarcin and the translation elongation factors. Macbeth MR, et al. **J Mol Biol** 1999 Jan 15;285(2):567–80

A rapid and sensitive method to measure the enzymatic activity of ribosome-inactivating proteins. Brigotti M, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4306–7

Processing of preproricin in transgenic tobacco. Sehnke PC, et al. **Protein Expr Purif** 1999 Mar;15(2):188–95

PHARMACOLOGY

Cell polarization is required for ricin sensitivity in a Caco-2 cell line selected for ricin resistance. Jackman MR, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):323–7

Genetic defect in N-acetylglucosaminyltransferase I gene of a ricin-resistant baby hamster kidney mutant. Opat AS, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):593–8

Involvement of both caspase-like proteases and serine proteases in apoptotic cell death induced by ricin, modeccin, diphtheria toxin, and pseudomonas toxin. Komatsu N, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):1038–44

Intrathecal therapy of leptomeningeal CEM T-cell lymphoma in nude rats with anti-CD7 ricin toxin A chain immunotoxin. Herrlinger U, et al. **J Neurooncol** 1998 Oct; 40(1):1–9

Emperipolesis of lymphoid cells in vagal efferent neurons following an intraneural injection of ricin into the vagus nerve in rats. Ng YK, et al. **Neurosci Lett** 1999 Aug 6; 270(3):153–6

THERAPEUTIC USE

Cell surface density of p185(c-erbB-2) determines susceptibility to anti-p185(c-erbB-2)-ricin A chain (RTA) immunotoxin therapy alone and in combination with anti-p170(EGFR)-RTA in ovarian cancer cells. Dean GS, et al. **Clin Cancer Res** 1998 Oct;4(10):2545–50

Phase II clinical trial of bolus infusion anti-B4 blocked ricin immunoconjugate in patients with relapsed B-cell non-Hodgkin's lymphoma. Multani PS, et al. **Clin Cancer Res** 1998 Nov;4(11):2599–604

Inhibition of posterior capsule opacification with an immunotoxin specific for lens epithelial cells: 24 month clinical results. Clark DS, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1614–20

The use of an anti-CD3 immunotoxin to prevent the development of lymphoproliferative disease in SCID/PBL mice. Clinchy B, et al. **J Immunol Methods** 1998 Sep 1; 218(1–2):141–53

TOXICITY

A humanized single-chain Fv fragment with high targeting potential against human malignant gliomas. Ohtomo T, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4311–5

Potentiation of TNF-alpha toxicity by conjugation with ricin A-chain. Gould DJ, et al. **Cytokine** 1998 Dec;10(12):931–9

Time- and concentration-dependent production of superoxide anion, nitric oxide, DNA damage and cellular death by ricin in the J774A.1 macrophage cells. Hassoun EA, et al. **J Biochem Mol Toxicol** 1999;13(3–4):179–85

Influence of cytotoxicity enhancers in combination with human serum on the activity of CD22-recombinant ricin A against B cell lines, chronic and acute lymphocytic leukemia cells. van Horssen PJ, et al. **Leukemia** 1999 Feb; 13(2):241–9

Evidence for a structural motif in toxins and interleukin-2 that may be responsible for binding to endothelial cells and initiating vascular leak syndrome. Baluna R, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3957–62

Comparison of the quality of protection elicited by toxoid and peptide liposomal vaccine formulations against ricin as assessed by markers of inflammation. Griffiths GD, et al. **Vaccine** 1999 Jun 4;17(20–21):2562–8

RICINOLEIC ACIDS

ADVERSE EFFECTS

Allergic contact dermatitis from military camouflage. Goon AT, et al. **Contact Dermatitis** 1999 May;40(5):290–1

Polyglycerol polyricinoleate (PGPR) is a compound used in the baking industry and in the manufacture of chocolate [letter] James WH. **Food Chem Toxicol** 1999 Feb–Mar; 37(2–3):268–9

METABOLISM

Biosynthesis of ricinoleate in castor oil. McKeon TA, et al. **Adv Exp Med Biol** 1999;464:37–47 (30 ref.)

PHARMACOLOGY

Does polyglycerol polyricinoleate alter offspring sex ratios? [letter] James WH. **Food Chem Toxicol** 1999 Aug;37(8):919

RICINUS

see related
CASTOR OIL
RICIN

CHEMISTRY

Pharmacological evaluation of ricinine, a central nervous system stimulant isolated from Ricinus communis. Ferraz AC, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):367–75

ENZYMOLOGY

Role of hydrophobic partitioning in substrate selectivity and turnover of the ricinus communis stearoyl acyl carrier protein delta(9) desaturase. Haas JA, et al. **Biochemistry** 1999 Sep 28;38(39):12833–40

A fluorescence study of ligand-induced conformational changes in cytosolic fructose-1,6-bisphosphatase from germinating castor oil seeds. Hodgson RJ, et al. **Biochim Biophys Acta** 1998 Nov 10;1388(2):285–94

PHYSIOLOGY

Fast NMR flow measurements in plants using FLASH imaging. Rokitta M, et al. **J Magn Reson** 1999 Mar; 137(1):29–32

RICKETS

Rickets today--children still need milk and sunshine [editorial; comment] Bishop N. **N Engl J Med** 1999 Aug 19;341(8):602–4. Comment on: N Engl J Med 1999 Aug 19;341(8):563–4.

Images in clinical medicine. Nutritional rickets. Thacher TD. **N Engl J Med** 1999 Aug 19;341(8):576

[Rickets in children in Norway--an epidemic of concern for the Norwegian authorities?] Brunvand L, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1328–9 **(Nor)**

CHEMICALLY INDUCED

A new form of Rickets during infancy: phosphate depletion-induced osteopenia due to antacid ingestion [editorial; comment] Chesney RW. **Arch Pediatr Adolesc Med** 1998 Dec;152(12):1168–9. Comment on: Arch Pediatr Adolesc Med 1998 Dec;152(12):1243–5.

Rickets and secondary craniosynostosis associated with long-term antacid use in an infant [letter] [see comments] Shetty AK, et al. **Arch Pediatr Adolesc Med** 1998 Dec; 152(12):1243–5 (19 ref.). Comment in: Arch Pediatr Adolesc Med 1998 Dec;152(12):1168–9.

Rachitic rosary in a well chelated thalassaemic patient with primary amenorrhea (patient report). Lauriola AL, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:979–80

COMPLICATIONS

Hypocalcemic tetany in a toddler with undiagnosed rickets. Duplechin RY, et al. **Ann Emerg Med** 1999 Sep; 34(3):399–402

Dilated cardiomyopathy as a first sign of nutritional vitamin D deficiency rickets in infancy. Mustafa A, et al. **Can J Cardiol** 1999 Jun;15(6):699–701

Incidental diagnosis of nutritional rickets after clavicle fracture. Herman MJ, et al. **Orthopedics** 1999 Feb; 22(2):254–5

Cardiac functions in children with vitamin D deficiency rickets. Uysal S, et al. **Pediatr Cardiol** 1999 Jul–Aug; 20(4):283–6

[The spontaneous otitis media in rickety rats] Sun H, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):317–9 (Eng. Abstr.) **(Chi)**

DIAGNOSIS

Nutritional rickets in suburbia. Pugliese MT, et al. **J Am Coll Nutr** 1998 Dec;17(6):637–41

Rickets on MR images. Ecklund K, et al. **Pediatr Radiol** 1999 Sep;29(9):673–5

[Disease caused by lack of sunlight: rickets and osteomalacia] Wauters IM, et al. **Ned Tijdschr Geneeskd** 1999 Mar 20; 143(12):593–7 (22 ref.) (Eng. Abstr.) **(Dut)**

DIET THERAPY

Rickets in Nigerian children: response to calcium supplementation. Thacher T, et al. **J Trop Pediatr** 1999 Aug;45(4):202–7

DRUG THERAPY

Calcium supplements increase the serum levels of crosslinked N-telopeptides of bone collagen and parathyroid hormone in rachitic Nigerian children. Scariano JK, et al. **Clin Biochem** 1998 Jul;31(5):421–7

Calcium metabolism and growth during early treatment of children with X-linked hypophosphataemic rickets. Kruse

RICKETS

K, et al. **Eur J Pediatr** 1998 Nov;157(11):894–900

Growth and bone mineral density in a child with X-linked hypophosphatemic rickets: early response to treatment. Sugiyama T, et al. **J Bone Miner Metab** 1999;17(2):137–40

Healing of rickets after calcium supplementation [letter] Oginni LM, et al. **Lancet** 1999 Jan 23;353(9149):296–7

A comparison of calcium, vitamin D, or both for nutritional rickets in Nigerian children [see comments] Thacher TD, et al. **N Engl J Med** 1999 Aug 19;341(8):563–8. Comment in: N Engl J Med 1999 Aug 19;341(8):602–4.

ENZYMOLOGY

The importance of 25-hydroxyvitamin D3 1 alpha-hydroxylase gene in vitamin D-dependent rickets. Kato S, et al. **Curr Opin Nephrol Hypertens** 1998 Jul; 7(4):377–83 (61 ref.)

EPIDEMIOLOGY

Vitamin D deficiency rickets in developing countries. Karrar ZA. **Ann Trop Paediatr** 1998 Sep;18 Suppl:S89–92 (36 ref.)

Incidence of rickets of prematurity at Kenyatta National Hospital, Nairobi. Oyatsi DP, et al. **East Afr Med J** 1999 Feb;76(2):63–6

ETIOLOGY

An inborn error of bile acid synthesis (3beta-hydroxy-delta5-C27-steroid dehydrogenase deficiency) presenting as malabsorption leading to rickets. Akobeng AK, et al. **Arch Dis Child** 1999 May;80(5):463–5

Lesson of the week: florid rickets associated with prolonged breast feeding without vitamin D supplementation [see comments] Mughal MZ, et al. **BMJ** 1999 Jan 2; 318(7175):39–40. Comment in: BMJ 1999 Jan 2;318(7175):2–3. Comment in: BMJ 1999 May 22;318(7195):1417.

Vitamin D concentrations in Asian children living in England. Limited vitamin D intake and use of sunscreens may lead to rickets [letter; comment] [see comments] Zlotkin S. **BMJ** 1999 May 22;318(7195):1417. Comment on: BMJ 1999 Jan 2;318(7175):2–3. Comment on: BMJ 1999 Jan 2;318(7175):39–40. Comment in: BMJ 1999 Jul 24;319(7204):254.

When you see rickets, consider calcium deficiency [editorial; comment] Bergstrom WH. **J Pediatr** 1998 Dec;133(6):722–4 . Comment on: J Pediatr 1998 Dec;133(6):789–91.

Absence of vitamin D deficiency in young Nigerian children. Pfitzner MA, et al. **J Pediatr** 1998 Dec;133(6):740–4

Intracortical osteoblastic osteosarcoma with oncogenic rickets. Hasegawa T, et al. **Skeletal Radiol** 1999 Jan; 28(1):41–5

GENETICS

Genetics of vitamin D 1alpha-hydroxylase deficiency in 17 families. Wang JT, et al. **Am J Hum Genet** 1998 Dec; 63(6):1694–702

The importance of 25-hydroxyvitamin D3 1 alpha-hydroxylase gene in vitamin D-dependent rickets. Kato S, et al. **Curr Opin Nephrol Hypertens** 1998 Jul; 7(4):377–83 (61 ref.)

Genetic causes of rickets. Miller WL, et al. **Curr Opin Pediatr** 1999 Aug;11(4):333–9 (40 ref.)

Endocrine and metabolism [editorial] Root AW. **Curr Opin Pediatr** 1999 Aug;11(4):329–32 (12 ref.)

Novel mutations in the 1alpha-hydroxylase (P450c1) gene in three families with pseudovitamin D-deficiency rickets resulting in loss of functional enzyme activity in blood-derived macrophages. Smith SJ, et al. **J Bone Miner Res** 1999 May;14(5):730–9

A PHEX gene mutation is responsible for adult-onset vitamin D-resistant hypophosphatemic osteomalacia: evidence that the disorder is not a distinct entity from X-linked hypophosphatemic rickets. Econs MJ, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3459–62

Hereditary rickets revealed [editorial; comment] Portale AA, et al. **Kidney Int** 1998 Nov;54(5):1762–4. Comment on: Kidney Int 1998 Nov;54(5):1437–43.

Two novel 1alpha-hydroxylase mutations in French-Canadians with vitamin D dependency rickets type II [see comments] Yoshida T, et al. **Kidney Int** 1998 Nov; 54(5):1437–43. Comment in: Kidney Int 1998 Nov;54(5):1762–4.

HISTORY

Professor Armand Trousseau (1801–67) and the treatment of rickets. Dunn PM. **Arch Dis Child Fetal Neonatal Ed** 1999 Mar;80(2):F155–7

RADIOGRAPHY

Incidental diagnosis of nutritional rickets after clavicle fracture. Herman MJ, et al. **Orthopedics** 1999 Feb; 22(2):254–5

VETERINARY

Parathyroid receptor gene expression by epiphyseal growth plates in rickets and tibial dyschondroplasia. Ben-Bassat S, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):185–95

RICKETS, HYPOPHOSPHATEMIC see **HYPOPHOSPHATEMIA, FAMILIAL**

RICKETS, RENAL see **RENAL OSTEODYSTROPHY**

RICKETS, VITAMIN D-RESISTANT see **HYPOPHOSPHATEMIA, FAMILIAL**

RICKETS, X-LINKED HYPOPHOSPHATEMIC see **HYPOPHOSPHATEMIA, FAMILIAL**

RICKETTSIA

CHEMISTRY

Rickettsiae and Chlamydiae: evidence of horizontal gene transfer and gene exchange. Wolf YI, et al. **Trends Genet** 1999 May;15(5):173–5 (15 ref.)

CLASSIFICATION

Invasion of one insect species, Adalia bipunctata, by two different male-killing bacteria. Hurst GD, et al. **Insect Mol Biol** 1999 Feb;8(1):133–9

Distribution and phylogeny of Wolbachia inducing thelytoky in Rhoditini and 'Aylacini' (Hymenoptera: Cynipidae). Plantard O, et al. **Insect Mol Biol** 1999 May;8(2):185–91

Rickettsia slovaca sp. nov., a member of the spotted fever group rickettsiae. Sekeyová Z, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1455–62

Rickettsia honei sp. nov., the aetiological agent of Flinders Island spotted fever in Australia. Stenos J, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1399–404

DRUG EFFECTS

Tetracycline therapy targets intracellular bacteria in the filarial nematode Litomosoides sigmodontis and results in filarial infertility. Hoerauf A, et al. **J Clin Invest** 1999 Jan; 103(1):11–8

Preliminary results on the effect of tetracycline on the embryogenesis and symbiotic bacteria (Wolbachia) of Dirofilaria immitis. An update and discussion. Genchi C, et al. **Parassitologia** 1998 Sep;40(3):247–9

GENETICS

Sequence analysis of a fragment of rOmpA gene of several isolates of spotted fever group rickettsiae from China [published erratum appears in Acta Virol 1998 Jun;42(3):196] Chen M, et al. **Acta Virol** 1998 Apr; 42(2):91–3

Wolbachia infections are distributed throughout insect somatic and germ line tissues. Dobson SL, et al. **Insect Biochem Mol Biol** 1999 Feb;29(2):153–60

Microbe-induced cytoplasmic incompatibility as a mechanism for introducing transgenes into arthropod populations. Turelli M, et al. **Insect Mol Biol** 1999 May; 8(2):243–55

Phylogenetic status of a fecundity-enhancing Wolbachia that does not induce thelytoky in Trichogramma. Vavre F, et al. **Insect Mol Biol** 1999 Feb;8(1):67–72

Rickettsia helvetica in Ixodes ricinus ticks in Sweden. Nilsson K, et al. **J Clin Microbiol** 1999 Feb;37(2):400–3

Genome degradation is an ongoing process in Rickettsia. Andersson JO, et al. **Mol Biol Evol** 1999 Sep;16(9):1178–91

Molecular phylogeny and rearrangement of rRNA genes in Rickettsia species. Andersson SG, et al. **Mol Biol Evol** 1999 Jul;16(7):987–95

[A molecular epidemiologic investigation of north Asia fever in scenic spots of Beijing suburb] Chen M, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):197–200 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Rickettsia serosurvey in Kimberley, Western Australia. Graves S, et al. **Am J Trop Med Hyg** 1999 May;60(5):786–9

Serologic study of the prevalence of rickettsiosis in Yucatán: evidence for a prevalent spotted fever group rickettsiosis. Zavala-Velazquez JE, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):405–8

Prevalence of antibodies to Rickettsia conorii Ricketsia africae, Rickettsia typhi and Coxiella burnetii in Mauritania [letter] Niang M, et al. **Eur J Epidemiol** 1998 Dec; 14(8):817–8

[Common antigenicity of lipopolysaccharides between Rickettsiae and Proteus in the Weil-Felix test] Amano K. **Nippon Saikingaku Zasshi** 1998 Nov;53(4):599–610 (43 ref.) **(Jpn)**

ISOLATION & PURIFICATION

Serologic evidence of rickettsialpox (Rickettsia akari) infection among intravenous drug users in inner-city Baltimore, Maryland. Comer JA, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):894–8

Tick-borne rickettiosis in Guadeloupe, the French West Indies: isolation of Rickettsia africae from Amblyomma variegatum ticks and serosurvey in humans, cattle, and goats. Parola P, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):888–93

Outbreak of Rickettsia africae infections in participants of an adventure race in South Africa. Fournier PE, et al. **Clin Infect Dis** 1998 Aug;27(2):316–23

Tick-transmitted infections in Transvaal: consider Rickettsia africae [letter] Fournier PE, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):178–81

Rickettsia honei sp. nov., the aetiological agent of Flinders Island spotted fever in Australia. Stenos J, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1399–404

Rickettsia helvetica in Ixodes ricinus ticks in Sweden. Nilsson K, et al. **J Clin Microbiol** 1999 Feb;37(2):400–3

African tick-bite fever imported into Norway: presentation of 8 cases. Jensenius M, et al. **Scand J Infect Dis** 1999; 31(2):131–3

RICKETTSIA CONORII

IMMUNOLOGY

Prevalence of antibodies to Rickettsia conorii Ricketsia africae, Rickettsia typhi and Coxiella burnetii in Mauritania [letter] Niang M, et al. **Eur J Epidemiol** 1998 Dec; 14(8):817–8

Antibodies reactive with Ehrlichia canis, Ehrlichia phagocytophila genogroup antigens and the spotted fever group rickettsial antigens, in free-ranging jackals (Canis aureus syriacus) from Israel. Waner T, et al. **Vet Parasitol** 1999 Mar 31;82(2):121–8

ISOLATION & PURIFICATION

Mediterranean spotted fever in pregnancy. Cohen J, et al. **Scand J Infect Dis** 1999;31(2):202–3

PATHOGENICITY

Short report: prevalence of antibodies against spotted fever, murine typhus, and Q fever rickettsiae in humans living in Zambia. Okabayashi T, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):70–2

PHYSIOLOGY

A comparative study of the actin-based motilities of the pathogenic bacteria Listeria monocytogenes, Shigella flexneri and Rickettsia conorii. Gouin E, et al. **J Cell Sci** 1999 Jun;112 (Pt 11):1697–708

RICKETTSIA INFECTIONS

Queensland tick typhus. Pinn TG, et al. **Aust N Z J Med** 1998 Dec;28(6):824–6

Vibrio infections and rickettsioses: summary notes. Katz AM. **J Cutan Med Surg** 1999 Jul;3(5):247–8, 259

Severe encephalopathies in children with antibodies reactive with Rickettsia africae [letter] Jacquemard R, et al. **S Afr Med J** 1998 Nov;88(11):1432

[Sennetsu rickettsiosis] Aoki N. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):286–7 (10 ref.) **(Jpn)**

[Queensland tick typhus, and other SFG rickettsiosis] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):270–2 (17 ref.) **(Jpn)**

[African tick-bite fever] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):273–5 (8 ref.) **(Jpn)**

[Spotted fever group rickettsiosis: introduction] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):255–9 (15 ref.) **(Jpn)**

[Japanese spotted fever] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):264–6 (15 ref.) **(Jpn)**

BLOOD

[The rheological properties of the blood in patients with tick-borne typhus] Nikulina MA, et al. **Klin Med (Mosk)** 1998;76(7):32–3 (Eng. Abstr.) **(Rus)**

COMPLICATIONS

Bilateral small retinal infiltrates during rickettsial infection [letter] Lukas JR, et al. **Br J Ophthalmol** 1998 Oct; 82(10):1217–8

[Adult onset Still's disease after rickettsia infection (letter)] Segado Soriano A, et al. **An Med Interna** 1998 Sep; 15(9):510–1 **(Spa)**

DIAGNOSIS

Imported African tick bite fever: a case report. Sexton DJ, et al. **Am J Trop Med Hyg** 1999 May;60(5):865–7

Diagnosis of rickettsial diseases using samples dried on blotting paper. Fenollar F, et al. **Clin Diagn Lab Immunol** 1999 Jul;6(4):483–8

Outbreak of Rickettsia africae infections in participants of an adventure race in South Africa. Fournier PE, et al. **Clin Infect Dis** 1998 Aug;27(2):316–23

Tick-transmitted infections in Transvaal: consider Rickettsia africae [letter] Fournier PE, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):178–81

African tick-bite fever imported into Norway: presentation of 8 cases. Jensenius M, et al. **Scand J Infect Dis** 1999; 31(2):131–3

[African tick-bite rickettsiosis: the 1st case of autochthonous infection?] Combemale P, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):601–3 (Eng. Abstr.) **(Fre)**

[Cutaneous signs of Rickettsia and related microorganisms] Duval X, et al. **Rev Med Interne** 1998 Aug;19(8):548–57 (57 ref.) (Eng. Abstr.) **(Fre)**

[Two cases of spotted fever group rickettsiosis contracted in southern parts of Africa] Kimura M, et al.

Kansenshogaku Zasshi 1998 Dec;72(12):1311-6 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Serologic evidence of rickettsialpox (Rickettsia akari) infection among intravenous drug users in inner-city Baltimore, Maryland. Comer JA, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):894-8

Rickettsia serosurvey in Kimberley, Western Australia. Graves S, et al. **Am J Trop Med Hyg** 1999 May;60(5):786-9

Tick-borne rickettiosis in Guadeloupe, the French West Indies: isolation of Rickettsia africae from Amblyomma variegatum ticks and serosurvey in humans, cattle, and goats. Parola P, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):888-93

Serologic study of the prevalence of rickettsiosis in Yucatán: evidence for a prevalent spotted fever group rickettsiosis. Zavala-Velazquez JE, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):405-8

Outbreak of Rickettsia africae infections in participants of an adventure race in South Africa. Fournier PE, et al. **Clin Infect Dis** 1998 Aug;27(2):316-23

The incidence of ehrlichial and rickettsial infection in patients with unexplained fever and recent history of tick bite in central North Carolina. Carpenter CF, et al. **J Infect Dis** 1999 Sep;180(3):900-3

Serological evidence of natural infection of wild rodents (Rattus spp and Tupaia glis) with rickettsiae in Malaysia. Tay ST, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):560-2 (10 ref.)

Seroprevalence of Rickettsia in a gold-panning population in north-eastern Gabon. Bertherat E, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):393-4

[A molecular epidemiologic investigation of north Asia fever in scenic spots of Beijing suburb] Chen M, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):197-200 (Eng. Abstr.) **(Chi)**

[African Rickettsia infections] Bernit E, et al. **Presse Med** 1999 Sep 11;28(26):1428-32 (Eng. Abstr.) **(Fre)**

MICROBIOLOGY

Rickettsia slovaca sp. nov., a member of the spotted fever group rickettsiae. Sekeyová Z, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1455-62

Rickettsia honei sp. nov., the aetiological agent of Flinders Island spotted fever in Australia. Stenos J, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1399-404

RICKETTSIA PROWAZEKII

ENZYMOLOGY

Membrane topology of the Rickettsia prowazekii ATP/ADP translocase revealed by novel dual pho-lac reporters. Alexeyev MF, et al. **J Mol Biol** 1999 Jan 29;285(4):1503-13

GENETICS

Isolation and characterization of the dnaA gene of Rickettsia prowazekii. Waite RT, et al. **Acta Virol** 1998 Apr; 42(2):95-101

Ancient and recent horizontal transfer events: the origins of mitochondria. Andersson SG, et al. **APMIS Suppl** 1998; 84:5-14 (46 ref.)

Nucleotide sequence of the gene and features of the major outer membrane protein of a virulent Rickettsia prowazekii strain. Emelyanov VV, et al. **Biochemistry (Mosc)** 1999 May;64(5):494-503

Gene synthesis, bacterial expression and purification of the Rickettsia prowazekii ATP/ADP translocase. Alexeyev MF, et al. **Biochim Biophys Acta** 1999 Jul 15; 1419(2):299-306

The genome of Rickettsia prowazekii and some thoughts on the origin of mitochondria and hydrogenosomes. Müller M, et al. **Bioessays** 1999 May;21(5):377-81 (39 ref.)

Membrane topology of the Rickettsia prowazekii ATP/ADP translocase revealed by novel dual pho-lac reporters. Alexeyev MF, et al. **J Mol Biol** 1999 Jan 29;285(4):1503-13

The genome sequence of Rickettsia prowzekii and the origin of mitochondria [see comments] Andersson SG, et al. **Nature** 1998 Nov 12;396(6707):133-40. Comment in: Nature 1998 Nov 12;396(6707):109-10.

Rickettsia, typhus and the mitochondrial connection [news; comment] Gray MW. **Nature** 1998 Nov 12; 396(6707):109-10. Comment on: Nature 1998 Nov 12;396(6707):133-40.

Genome links typhus bug to mitochondrion [news] Pennisi E. **Science** 1998 Nov 13;282(5392):1243

[Phylogenetic analysis based on groE shows the closest evolutionary relationship between mitochondria and Rickettsia] Emel'ianov VV, et al. **Genetika** 1999 Jun; 35(6):733-43 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

[The need for a review of the procedure for the preventive vaccination of researchers working with Rickettsia prowazekii] Ignatovich VF, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar-Apr; (2):52-6 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

Body lice as tools for diagnosis and surveillance of reemerging diseases. Roux V, et al. **J Clin Microbiol** 1999 Mar;37(3):596-9

METABOLISM

Rickettsia prowazekii transports UMP and GMP, but not CMP, as building blocks for RNA synthesis. Winkler HH, et al. **J Bacteriol** 1999 May;181(10):3238-41

PHYSIOLOGY

Obligate intracellular parasites: Rickettsia prowazekii and Chlamydia trachomatis. Zomorodipour A, et al. **FEBS Lett** 1999 Jun 4;452(1-2):11-5

RICKETTSIA QUINTANA see **BARTONELLA QUINTANA**

RICKETTSIA RICKETTSII

IMMUNOLOGY

Serologic study of the prevalence of rickettsiosis in Yucatán: evidence for a prevalent spotted fever group rickettsiosis. Zavala-Velazquez JE, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):405-8

ISOLATION & PURIFICATION

Evidence of rickettsial spotted fever and ehrlichial infections in a subtropical territory of Jujuy, Argentina. Ripoll CM, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):350-4

Acute disseminated encephalomyelitis after Rocky Mountain spotted fever. Wei TY, et al. **Pediatr Neurol** 1999 Jul; 21(1):503-5

PATHOGENICITY

Lethal effect of Rickettsia rickettsii on its tick vector (Dermacentor andersoni). Niebylski ML, et al. **Appl Environ Microbiol** 1999 Feb;65(2):773-8

Rickettsia rickettsii infection of the EA.hy 926 endothelial cell line: morphological response to infection and evidence for oxidative injury. Eremeeva ME, et al. **Microbiology** 1998 Aug;144 (Pt 8):2037-48

PHYSIOLOGY

Dynamics of actin-based movement by Rickettsia rickettsii in vero cells. Heinzen RA, et al. **Infect Immun** 1999 Aug; 67(8):4201-7

RICKETTSIA TSUTSUGAMUSHI see **ORIENTIA TSUTSUGAMUSHI**

RICKETTSIA TYPHI

GENETICS

Green fluorescent protein as a marker in Rickettsia typhi transformation. Troyer JM, et al. **Infect Immun** 1999 Jul; 67(7):3308-11

IMMUNOLOGY

Serologic study of the prevalence of rickettsiosis in Yucatán: evidence for a prevalent spotted fever group rickettsiosis. Zavala-Velazquez JE, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):405-8

Prevalence of antibodies to Rickettsia conorii Ricketsia africae, Rickettsia typhi and Coxiella burnetii in Mauritania [letter] Niang M, et al. **Eur J Epidemiol** 1998 Dec; 14(8):817-8

PATHOGENICITY

Short report: prevalence of antibodies against spotted fever, murine typhus, and Q fever rickettsiae in humans living in Zambia. Okabayashi T, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):70-2

Seroepidemiologic survey of Orientia tsutsugamushi, Rickettsia typhi, and TT118 spotted fever group rickettsiae in rubber estate workers in Malaysia. Tee TS, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):73-7

RICKETTSIACEAE

CLASSIFICATION

16S rDNA phylogeny and ultrastructural characterization of Wolbachia intracellular bacteria of the filarial nematodes Brugia malayi, B. pahangi, and Wuchereria bancrofti. Taylor MJ, et al. **Exp Parasitol** 1999 Apr;91(4):356-61

Phylogenetic analysis of parthenogenesis-inducing Wolbachia in the genus Aphytis (Hymenoptera: Aphelinidae). Gottlieb Y, et al. **Insect Mol Biol** 1998 Nov; 7(4):393-6

Phylogeny of Wolbachia in filarial nematodes. Bandi C, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 22; 265(1413):2407-13

DRUG EFFECTS

Effects of tetracycline on the filarial worms Brugia pahangi and Dirofilaria immitis and their bacterial endosymbionts Wolbachia. Bandi C, et al. **Int J Parasitol** 1999 Feb; 29(2):357-64

GENETICS

Phylogenetic relationships of symbiotic methanogens in diverse termites. Ohkuma M, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):147-53

Mitochondrial DNA polymorphism, sex ratio distorters and population genetics in the isopod Armadillidium vulgare. Rigaud T, et al. **Genetics** 1999 Aug;152(4):1669-77

Gene organization of the dnaA region of Wolbachia. Sun LV, et al. **J Bacteriol** 1999 Aug;181(15):4708-10

Spacer 2 region and 5S rDNA variation of Wolbachia strains involved in cytoplasmic incompatibility or sex-ratio distortion in arthropods. van Meer MM, et al. **Lett Appl Microbiol** 1999 Jan;28(1):17-22

Gene structure, activity and localization of a catalase from intracellular bacteria in Onchocerca volvulus. Henkle-Dührsen K, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1-2):69-81

The first detection of the insertion sequence ISW1 in the intracellular reproductive parasite Wolbachia. Masui S, et al. **Plasmid** 1999 Jul;42(1):13-9

DNA sequences provide grist for microbiologists [news] Pennisi E. **Science** 1999 Feb 19;283(5405):1105-6

Evolution of Wolbachia pipientis transmission dynamics in insects. McGraw EA, et al. **Trends Microbiol** 1999 Jul; 7(7):297-302 (48 ref.)

ISOLATION & PURIFICATION

Wolbachia in two insect host-parasitoid communities. West SA, et al. **Mol Ecol** 1998 Nov;7(11):1457-65

PATHOGENICITY

Relative virulence of three isolates of Piscirickettsia salmonis for coho salmon Oncorhynchus kisutch. House ML, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):107-13

PHYSIOLOGY

Horizontal transfer of Wolbachia between phylogenetically distant insect species by a naturally occurring mechanism. Heath BD, et al. **Curr Biol** 1999 Mar 25;9(6):313-6

The diverse habitats of obligate intracellular parasites. Hackstadt T. **Curr Opin Microbiol** 1998 Feb;1(1):82-7 (60 ref.)

A stable triple Wolbachia infection in Drosophila with nearly additive incompatibility effects. Rousset F, et al. **Heredity** 1999 Jun;82 (Pt 6):620-7

Evolution of Wolbachia pipientis transmission dynamics in insects. McGraw EA, et al. **Trends Microbiol** 1999 Jul; 7(7):297-302 (48 ref.)

RICKETTSIACEAE INFECTIONS

[Rickettsialpox] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):267-9 (14 ref.) **(Jpn)**

DIAGNOSIS

Monoclonal antibody-based immunohistochemical diagnosis of rickettsialpox: the macrophage is the principal target. Walker DH, et al. **Mod Pathol** 1999 May;12(5):529-33

IMMUNOLOGY

Monoclonal antibody-based immunohistochemical diagnosis of rickettsialpox: the macrophage is the principal target. Walker DH, et al. **Mod Pathol** 1999 May;12(5):529-33

MICROBIOLOGY

[Detection of north-Asia tick-borne spotted fever in ticks and rodents along the Heilongjiang river-side by restriction fragment length polymorphism of PCR products] Chen M, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Feb;18(1):5-7 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Wolbachia transfer from Drosophila melanogaster into D. simulans: Host effect and cytoplasmic incompatibility relationships. Poinsot D, et al. **Genetics** 1998 Sep; 150(1):227-37

VETERINARY

Relative virulence of three isolates of Piscirickettsia salmonis for coho salmon Oncorhynchus kisutch. House ML, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):107-13

Serosurvey of wild rodents for Rickettsioses (spotted fever, murine typhus and Q fever) in Java Island, Indonesia. Ibrahim IN, et al. **Eur J Epidemiol** 1999 Jan;15(1):89-93

The effect of subclinical experimental Cowdria ruminantium infection in ewes on the growth and milk consumption of pre-weaning lambs. Martinez TA, et al. **Prev Vet Med** 1999 Jul 20;41(2-3):105-18

The effect of subclinical experimental Cowdria ruminantium infection on the health and reproductive performance of breeding ewes. Martinez TA, et al. **Prev Vet Med** 1999 Jul 20;41(2-3):89-103

RICKETTSIAL VACCINES

RICKETTSIAL VACCINES

IMMUNOLOGY

[The need for a review of the procedure for the preventive vaccination of researchers working with Rickettsia prowazekii] Ignatovich VF, et al.
Zh Mikrobiol Epidemiol Immunobiol 1999 Mar-Apr; (2):52-6 (Eng. Abstr.) **(Rus)**

RICKETTSIALES

CHEMISTRY

Western blotting analysis of heat shock proteins of Rickettsiales and other eubacteria. Eremeeva ME, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):229-37

CLASSIFICATION

Phylogenetic analysis of Piscirickettsia salmonis by 16S, internal transcribed spacer (ITS) and 23S ribosomal DNA sequencing. Mauel MJ, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):115-23

[Rickettsiales--modern findings] Punda-Polić V.
Lijec Vjesn 1999 Jan-Feb;121(1-2):27-34 (126 ref.) (Eng. Abstr.) **(Scr)**

GENETICS

In situ detection of novel bacterial endosymbionts of Acanthamoeba spp. phylogenetically related to members of the order Rickettsiales. Fritsche TR, et al.
Appl Environ Microbiol 1999 Jan;65(1):206-12

GROWTH & DEVELOPMENT

Cross-order transfer of Wolbachia from Muscidifurax uniraptor (Hymenoptera: Pteromalidae) to Drosophila simulans (Diptera: Drosophilidae). Van Meer MM, et al. **Heredity** 1999 Feb;82 (Pt 2):163-9

ISOLATION & PURIFICATION

In situ detection of novel bacterial endosymbionts of Acanthamoeba spp. phylogenetically related to members of the order Rickettsiales. Fritsche TR, et al.
Appl Environ Microbiol 1999 Jan;65(1):206-12

RICKETTSIALES INFECTIONS

[Rickettsiales--modern findings] Punda-Polić V.
Lijec Vjesn 1999 Jan-Feb;121(1-2):27-34 (126 ref.) (Eng. Abstr.) **(Scr)**

DRUG THERAPY

[Rickettsioses: their chemoprophylaxis and chemotherapy] Plekhanova TM, et al. **Voen Med Zh** 1998 Sep;319(9):64-8, 95 (34 ref.) (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

[Rickettsioses: their chemoprophylaxis and chemotherapy] Plekhanova TM, et al. **Voen Med Zh** 1998 Sep;319(9):64-8, 95 (34 ref.) (Eng. Abstr.) **(Rus)**

TRANSMISSION

[Rickettsioses: the ecological aspects of the problem] Grabarev PA, et al. **Voen Med Zh** 1998 Aug;319(8):27-34 (32 ref.) **(Rus)**

RICKETTSIALPOX see **RICKETTSIACEAE INFECTIONS**

RICKETTSIEAE

ISOLATION & PURIFICATION

[Detection of north-Asia tick-borne spotted fever in ticks and rodents along the Heilongjiang river-side by restriction fragment length polymorphism of PCR products] Chen M, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Feb;18(1):5-7 (Eng. Abstr.) **(Chi)**

RIDA see **SCRAPIE**

RIFABUTIN

ADVERSE EFFECTS

Corneal endothelial deposits in children positive for human immunodeficiency virus receiving rifabutin prophylaxis for Mycobacterium avium complex bacteremia. Smith JA, et al. **Am J Ophthalmol** 1999 Feb;127(2):164-9

Corneal endothelial deposits in patients with HIV infection or AIDS: epidemiologic evidence of the contribution of rifabutin. Holland SP, et al. **Can J Ophthalmol** 1999 Jun; 34(4):204-9

Polyarthralgia-arthritis syndrome induced by low doses of rifabutin. Le Gars L, et al. **J Rheumatol** 1999 May; 26(5):1201-2

[Acute hypopyon uveitis with rifabutin therapy of systemic Mycobacterium avium complex (MAC) infection in AIDS] Schaller UC, et al. **Ophthalmologe** 1999 Apr;96(4):267-9 (Eng. Abstr.) **(Ger)**

[The tolerability and therapeutic efficacy of rifabutin in the treatment of pulmonary tuberculosis] Parola D, et al.
Recenti Prog Med 1999 May;90(5):254-7 (Eng. Abstr.) **(Ita)**

BLOOD

Specific high-performance liquid chromatography assay for determination of rifabutin plasma concentration following Extrelut column extraction. Gatti G, et al.
J Chromatogr B Biomed Sci Appl 1999 May 28;728(2):233-9

PHARMACOLOGY

Rifampin and rifabutin resistance mechanism in Helicobacter pylori. Heep M, et al. **Antimicrob Agents Chemother** 1999 Jun;43(6):1497-9

Comparative effects of rifabutin and rifampicin on cytochromes P450 and UDP-glucuronosyl-transferases expression in fresh and cryopreserved human hepatocytes. Reinach B, et al. **Chem Biol Interact** 1999 Jun 1; 121(1):37-48

The effects of rifampin and rifabutin on the pharmacokinetics and pharmacodynamics of a combination oral contraceptive. Barditch-Crovo P, et al.
Clin Pharmacol Ther 1999 Apr;65(4):428-38

Comparison of azithromycin and clarithromycin in their interactions with rifabutin in healthy volunteers. Apseloff G, et al. **J Clin Pharmacol** 1998 Sep;38(9):830-5

Effects of rifabutin and rifampicin on the pharmacokinetics of ethinylestradiol and norethindrone. LeBel M, et al.
J Clin Pharmacol 1998 Nov;38(11):1042-50

[An antitubercular antibiotic of prolonged action--rifabutin. Antimicrobial spectrum, pharmacodynamic and pharmacokinetic characteristics] Tsybanev AA, et al.
Antibiot Khimioter 1999;44(8):30-6 (40 ref.) **(Rus)**

THERAPEUTIC USE

A randomized, placebo-controlled study of rifabutin added to a regimen of clarithromycin and ethambutol for treatment of disseminated infection with Mycobacterium avium complex. Gordin FM, et al. **Clin Infect Dis** 1999 May;28(5):1080-5

Successful treatment of pulmonary Mycobacterium xenopi infection in a natural killer cell-deficient patient with clarithromycin, rifabutin, and sparfloxacin. Schmitt H, et al. **Clin Infect Dis** 1999 Jul;29(1):120-4

Does in vitro susceptibility to rifabutin and ethambutol predict the response to treatment of Mycobacterium avium complex bacteremia with rifabutin, ethambutol, and clarithromycin? Canadian HIV Trials Network Protocol 010 Study Group. Shafran SD, et al. **Clin Infect Dis** 1998 Dec;27(6):1401-5

[The tolerability and therapeutic efficacy of rifabutin in the treatment of pulmonary tuberculosis] Parola D, et al.
Recenti Prog Med 1999 May;90(5):254-7 (Eng. Abstr.) **(Ita)**

RIFAMPICIN see **RIFAMPIN**

RIFAMPIN

In vitro activity of rifampin-minocyclin coating to Candida albicans [letter] Schierholz JM, et al. **Crit Care Med** 1999 Aug;27(8):1691-3

ADMINISTRATION & DOSAGE

In situ repair of a secondary aortoappendiceal fistula with a rifampin-bonded Dacron graft. Chiche L, et al.
Ann Vasc Surg 1999 Mar;13(2):225-8

Use of microsphere technology for targeted delivery of rifampin to Mycobacterium tuberculosis-infected macrophages. Barrow ELW, et al.
Antimicrob Agents Chemother 1998 Oct;42(10):2682-9

Efficacy of microencapsulated rifampin in Mycobacterium tuberculosis-infected mice. Quenelle DC, et al.
Antimicrob Agents Chemother 1999 May;43(5):1144-51

Investigation of a rifampin, fusidic-acid and mupirocin releasing silicone catheter. Schierholz JM, et al.
Biomaterials 1998 Nov;19(22):2065-74

Oral rifampin plus azithromycin or clarithromycin to treat osteomyelitis in rabbits. Shirtliff ME, et al. **Clin Orthop** 1999 Feb;(359):229-36

Single dose multidrug therapy for single lesion paucibacillary leprosy [letter; comment] Kars HK. **Indian J Lepr** 1998 Apr-Jun;70(2):214-5; discussion 219-21. Comment on: Indian J Lepr 1997 Apr-Jun;69(2):121-9.

Single dose multidrug therapy for single lesion paucibacillary leprosy [letter; comment] Porichha D. **Indian J Lepr** 1998 Apr-Jun;70(2):213-4; discussion 219-21. Comment on: Indian J Lepr 1997 Apr-Jun;69(2):121-9.

Single dose multidrug therapy for single lesion paucibacillary leprosy [letter; comment] Prasad KN. **Indian J Lepr** 1998 Apr-Jun;70(2):215-6; discussion 219-21. Comment on: Indian J Lepr 1997 Apr-Jun;69(2):121-9.

Single dose multidrug therapy for single lesion paucibacillry leprosy [letter; comment] Salafia A. **Indian J Lepr** 1998 Apr-Jun;70(2):216-9; discussion 219-21. Comment on: Indian J Lepr 1997 Apr-Jun;69(2):121-9.

Action of metronidazole in combination with isoniazid & rifampicin on persisting organisms in experimental murine tuberculosis. Paramasivan CN, et al. **Indian J Med Res** 1998 Oct;108:115-9

Assessment of a combined preparation of isoniazid, rifampicin and pyrazinamide (Rifater) in the initial phase of chemotherapy in three 6-month regimens for smear-positive pulmonary tuberculosis: a five-year follow-up report [see comments] Teo SK.
Int J Tuberc Lung Dis 1999 Feb;3(2):126-32. Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):87.

In situ replacement of infected aortic grafts with rifampicin-bonded prostheses: the Leicester experience (1992 to 1998). Hayes PD, et al. **J Vasc Surg** 1999 Jul; 30(1):92-8

Rifampicin containing antituberculosis medication [letter] Cavell GF, et al. **Thorax** 1998 Nov;53(11):1002

[Long-term efficacy of full course intermittent short-course chemotherapy on new smear positive tuberculosis patients] **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Jun; 20(3):164-6 (Eng. Abstr.) **(Chi)**

[Compliance, tolerance and effectiveness of a short chemoprophylaxis regimen for the treatment of tuberculosis] Martinez Alfaro E, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):401-4 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Anaphylactic reactions to topical rifamycin. García F, et al. **Allergy** 1999 May;54(5):527-8

Tubulointerstitial nephritis associated with minimal self reexposure to rifampin. Feinfeld DA, et al.
Am J Kidney Dis 1999 May;33(5):e3

Effect of short-term rifampin on stable cyclosporine concentrations [letter] Freitag VL, et al.
Ann Pharmacother 1999 Jul-Aug;33(7-8):871-2

Pill-induced esophagitis caused by oral rifampin. Smith SJ, et al. **Ann Pharmacother** 1999 Jan;33(1):27-31

Interaction between ciprofloxacin and rifampin. Temple ME, et al. **Ann Pharmacother** 1999 Jul-Aug;33(7-8):868-70 (24 ref.)

Induction of zidovudine glucuronidation and amination pathways by rifampicin in HIV-infected patients. Gallicano KD, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):168-79

Phase I pharmacokinetic study of a new 3-azinomethyl-rifamycin (rifametane) as compared to rifampicin. Potkar C, et al. **Chemotherapy** 1999 May-Jun; 45(3):147-53

A case of pseudomembranous colitis associated with rifampicin. Chan LY, et al. **Chin Med J (Engl)** 1998 Jan; 111(1):90-1

Shock and cerebral infarct after rifampin re-exposure in a patient infected with human immunodeficiency virus. Martinez E, et al. **Clin Infect Dis** 1998 Nov;27(5):1329-30

Lymphocyte transformation test for the evaluation of adverse effects of antituberculous drugs. Schreiber J, et al.
Eur J Med Res 1999 Feb 25;4(2):67-71

Acute tubulo-interstitial nephritis requiring dialysis associated with intermittent rifampicin use: case report. Gallieni M, et al. **Int J Artif Organs** 1999 Jul;22(7):477-81

Rifampicin induced acute renal failure [editorial] Izhar M, et al. **Int J Artif Organs** 1999 Jul;22(7):474-6

Isoniazid and rifampicin rarely cause acute pancreatitis in patients with tuberculosis [letter] Chan TY.
Int J Clin Pharmacol Ther 1999 Feb;37(2):109

Fixed drug eruption due to rifampin. John SS. **Lepr Rev** 1998 Dec;69(4):397-9

Therapeutic dilemma: crescentic mesangiocapillary glomerulonephritis type 1 in a patient on antituberculous therapy with rifampicin [letter] Kistler A, et al.
Nephrol Dial Transplant 1999 Jan;14(1):243-4

Hepatic enzyme abnormalities in children on triple therapy for tuberculosis. Corrigan D, et al. **Pediatr Pulmonol** 1999 Jan;27(1):37-42

Impact of rifampin on serum amiodarone concentrations in a patient with congenital heart disease. Zarembski DG, et al. **Pharmacotherapy** 1999 Feb;19(2):249-51

Interaction between rifampin and levothyroxine. Nolan SR, et al. **South Med J** 1999 May;92(5):529-31

[Clinical and pathological analysis of liver injury resulting from rifampin and isoniazid] Xing T, et al.
Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih 1997 Feb; 20(1):33-5 (Eng. Abstr.) **(Chi)**

[Fulminant hepatitis in the course of antitubercular treatment (apropos of 2 cases)] Mbaye PS, et al. **Dakar Med** 1995; 40(2):129-31 (Eng. Abstr.) **(Fre)**

[Severe hypercalcemia in a patient treated with fluconazole and rifampicin (letter)] Bani-Sadr F, et al. **Presse Med** 1998 May 16;27(18):860 **(Fre)**

[Rifampicin-glucocorticoid combinations (editorial)] Lévesque H, et al. **Rev Med Interne** 1998 May;19(5):303-4 **(Fre)**

[A case of partial Addison's disease activated with the administration of rifampicin (RFP)] Okudaira S, et al.
Kekkaku 1999 Feb;74(2):115-20 (Eng. Abstr.) **(Jpn)**

[Thrombocytopenia associated with rifampicin (letter)] Cordero L, et al. **An Med Interna** 1999 May;16(5):269 **(Spa)**

ANALOGS & DERIVATIVES

Development of rifapentine susceptibility tests for Mycobacterium tuberculosis. Heifets L, et al.
Antimicrob Agents Chemother 1999 Jan;43(1):25-8

Pharmacokinetics of rifapentine in subjects seropositive for the human immunodeficiency virus: a phase I study. Keung AC, et al. **Antimicrob Agents Chemother** 1999 May;

43(5):1230–3
Rifapentine [published erratum appears in Drugs 1999 Apr;57(4):506] Jarvis B, et al. **Drugs** 1998 Oct;56(4):607–16; discussion 617 (46 ref.)
Drug watch [news] **Indian Pediatr** 1998 Aug;35(8):810
Enzyme induction observed in healthy volunteers after repeated administration of rifapentine and its lack of effect on steady-state rifapentine pharmacokinetics: part I. Keung A, et al. **Int J Tuberc Lung Dis** 1999 May;3(5):426–36
Single and multiple dose pharmacokinetics of rifapentine in man: part II. Keung A, et al. **Int J Tuberc Lung Dis** 1999 May;3(5):437–44
Single-dose pharmacokinetics of rifapentine in women. Keung AC, et al. **J Pharmacokinet Biopharm** 1998 Feb; 26(1):75–85
Acquired rifamycin monoresistance in patients with HIV-related tuberculosis treated with once-weekly rifapentine and isoniazid. Tuberculosis Trials Consortium. Vernon A, et al. **Lancet** 1999 May 29;353(9167):1843–7
Rifapentine—a long-acting rifamycin for tuberculosis. **Med Lett Drugs Ther** 1999 Feb 26;41(1047):21–2

ANALYSIS

Determination of rifampicin and its main metabolite in plasma and urine in presence of pyrazinamide and isoniazid by HPLC method. Panchagnula R, et al. **J Pharm Biomed Anal** 1999 Jan;18(6):1013–20

BLOOD

Bioavailability of rifampicin, isoniazid and pyrazinamide from fixed-dose combination capsules. Zwolska Z, et al. **Int J Tuberc Lung Dis** 1998 Oct;2(10):824–30
Effect of trikatu, an Ayurvedic prescription, on the pharmacokinetic profile of rifampicin in rabbits. Karan RS, et al. **J Ethnopharmacol** 1999 Mar;64(3):259–64

CHEMISTRY

Stability of bethanechol chloride, pyrazinamide, quinidine sulfate, rifampin, and tetracycline hydrochloride in extemporaneously compounded oral liquids. Allen LV Jr, et al. **Am J Health Syst Pharm** 1998 Sep 1;55(17):1804–9
Evaluation of biodegradable rifampicin-bearing microsphere formulations using a stability-indicating high-performance liquid chromatographic assay. Bain DF, et al. **Eur J Pharm Sci** 1998 Dec;7(1):57–65
Modulation of rifampicin release from spray-dried microspheres using combinations of poly-(DL-lactide). Bain DF, et al. **J Microencapsul** 1999 May-Jun; 16(3):369–85
Solvent influence on spray-dried biodegradable microspheres. Bain DF, et al. **J Microencapsul** 1999 Jul-Aug;16(4):453–74

METABOLISM

ADP-ribosylation as an intermediate step in inactivation of rifampin by a mycobacterial gene. Quan S, et al. **Antimicrob Agents Chemother** 1999 Jan;43(1):181–4
Accumulation of rifampicin by Escherichia coli and Staphylococcus aureus. Williams KJ, et al. **J Antimicrob Chemother** 1998 Nov;42(5):597–603
Rifampicin: a glucocorticoid receptor ligand? [letter; comment] Ray DW, et al. **Nat Med** 1998 Oct;4(10):1090–1 . Comment on: Nat Med 1998 Jan;4(1):92–6.

PHARMACOKINETICS

The effect of hemodialysis on isoniazid, rifampin, pyrazinamide, and ethambutol. Malone RS, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1580–4
Rifampin concentrations in various compartments of the human brain: a novel method for determining drug levels in the cerebral extracellular space. Mindermann T, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2626–9
Phase I pharmacokinetic study of a new 3-azinomethyl-rifamycin (rifametane) as compared to rifampicin. Potkar C, et al. **Chemotherapy** 1999 May-Jun; 45(3):147–53
Pharmacokinetics of rifampin under fasting conditions, with food, and with antacids [published erratum appears in Chest 1999 May;115(5):1485] Peloquin CA, et al. **Chest** 1999 Jan; 115(1):12–8
A comparative study of the rifampicin binding and elution characteristics for collagen- and albumin-sealed vascular grafts. Lovering AM, et al. **Eur J Vasc Endovasc Surg** 1999 Apr;17(4):347–50
Pharmacokinetic profile of a new 3-azinomethyl rifamycin (SPA-S-565) in volunteers as compared with conventional rifampicin. Kelkar MS, et al. **Int J Clin Pharmacol Res** 1998;18(3):137–43
Bioavailability of rifampicin, isoniazid and pyrazinamide in a triple drug formulation: comparison of plasma and urine kinetics [see comments] Gurumurthy P, et al. **Int J Tuberc Lung Dis** 1999 Feb;3(2):119–25. Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):87.
Comparative bioequivalence study of rifampicin and isoniazid combinations in healthy volunteers. Padgaonkar KA, et al. **Int J Tuberc Lung Dis** 1999 Jul;3(7):627–31
Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing. Zhang JN, et al. **J Chemother** 1998 Oct;10(5):354–9
Comparative bioavailability of three different preparations of rifampicin. Pählka R, et al. **J Clin Pharm Ther** 1999 Jun;24(3):219–25
[Results of examination in healthy volunteers of rifampicin and isoniazid bioavailability from Polish two-drug combination capsules of rifamazid used for tuberculosis treatment] Zofia Z, et al. **Pneumonol Alergol Pol** 1998; 66(3-4):198–206 (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

In vitro activities of antibiotics alone and in combination against Brucella melitensis at neutral and acidic pHs. Akova M, et al. **Antimicrob Agents Chemother** 1999 May; 43(5):1298–300
Characterization of mutations in the rpoB gene that confer rifampin resistance in Staphylococcus aureus. Aubry-Damon H, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2590–4
Antibacterial effects of levofloxacin, erythromycin, and rifampin in a human monocyte system against Legionella pneumophila. Baltch AL, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3153–6
Physiological cost of rifampin resistance induced in vitro in Mycobacterium tuberculosis. Billington OJ, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1866–9
Rifampin and rifabutin resistance mechanism in Helicobacter pylori. Heep M, et al. **Antimicrob Agents Chemother** 1999 Jun;43(6):1497–9
Induction of hepatic mrp2 (cmrp/cmoat) gene expression in nonhuman primates treated with rifampicin or tamoxifen. Kauffmann HM, et al. **Arch Toxicol** 1998 Dec;72(12):763–8
Pharmacokinetics of dolasetron with coadministration of cimetidine or rifampin in healthy subjects. Dimmitt DC, et al. **Cancer Chemother Pharmacol** 1999;43(2):126–32
Inhibition of multidrug resistance-associated protein (MRP) activity by rifampicin in human multidrug-resistant lung tumor cells. Courtois A, et al. **Cancer Lett** 1999 May 3; 139(1):97–104
Comparative effects of rifabutin and rifampicin on cytochromes P450 and UDP-glucuronosyl-transferases expression in fresh and cryopreserved human hepatocytes. Reinach B, et al. **Chem Biol Interact** 1999 Jun 1; 121(1):37–48
The effects of rifampin and rifabutin on the pharmacokinetics and pharmacodynamics of a combination oral contraceptive. Barditch-Crovo P, et al. **Clin Pharmacol Ther** 1999 Apr;65(4):428–38
Tamoxifen and toremifene concentrations in plasma are greatly decreased by rifampin. Kivistö KT, et al. **Clin Pharmacol Ther** 1998 Dec;64(6):648–54
The effect of rifampin on the pharmacokinetics of oral and intravenous ondansetron. Villikka K, et al. **Clin Pharmacol Ther** 1999 Apr;65(4):377–81
Sitafloxacin (DU-6859a) and trovafloxacin: postantibiotic effect and in vitro interactions with rifampin on methicillin-resistant Staphylococcus aureus. Giamarellou-Bourboulis EJ, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):301–7
Repeated oral rifampicin decreases the jejunal permeability of R/S-verapamil in rats. Sandström R, et al. **Drug Metab Dispos** 1999 Aug;27(8):951–5
A RNA polymerase with transcriptional activity at 0 degrees C from the Antarctic bacterium Pseudomonas syringae. Uma S, et al. **FEBS Lett** 1999 Jun 25;453(3):313–7
Differential inhibition of transcription from sigma70- and sigma32-dependent promoters by rifampicin. Węgrzyn A, et al. **FEBS Lett** 1998 Nov 27;440(1-2):172–4
Report of workshop on new tools for diagnosis and epidemiology. Gillis TP, et al. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):594–5
Evaluation of a colorimetric assay based on 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide (MTT) for rapid detection of rifampicin resistance in Mycobacterium tuberculosis. Abate G, et al. **Int J Tuberc Lung Dis** 1998 Dec;2(12):1011–6
Outcome of chemotherapy in 107 patients with pulmonary tuberculosis resistant to isoniazid and rifampin [see comments] Park SK, et al. **Int J Tuberc Lung Dis** 1998 Nov;2(11):877–84. Comment in: Int J Tuberc Lung Dis 1998 Nov;2(11):867.
Universal pattern of RpoB gene mutations among multidrug-resistant isolates of Mycobacterium tuberculosis complex from Africa. Schilke K, et al. **Int J Tuberc Lung Dis** 1999 Jul;3(7):620–6
Extracellular and intracellular killing in neutrophil granulocytes of Staphylococcus aureus with rifampicin in combination with dicloxacillin or fusidic acid. Nielsen SL, et al. **J Antimicrob Chemother** 1999 Mar;43(3):407–10
The role of intestinal P-glycoprotein in the interaction of digoxin and rifampin. Greiner B, et al. **J Clin Invest** 1999 Jul;104(2):147–53
Isolation of rifampin-resistant mutants of Listeria monocytogenes and their characterization by rpoB gene sequencing, temperature sensitivity for growth, and interaction with an epithelial cell line. Morse R, et al. **J Clin Microbiol** 1999 Sep;37(9):2913–9
Mycobacterium species identification and rifampin resistance testing with high-density DNA probe arrays. Troesch A, et al. **J Clin Microbiol** 1999 Jan;37(1):49–55
Effects of rifampin on tacrolimus pharmacokinetics in healthy volunteers. Hebert MF, et al. **J Clin Pharmacol** 1999 Jan; 39(1):91–6
Effects of rifabutin and rifampicin on the pharmacokinetics of ethinylestradiol and norethindrone. LeBel M, et al. **J Clin Pharmacol** 1998 Nov;38(11):1042–50
CYP 3A proteins are expressed in human neutrophils and lymphocytes but are not induced by rifampicin. Stärkel P, et al. **Life Sci** 1999;64(8):643–53
Comparison of PCR-heteroduplex characterization by automated DNA sequencing and line probe assay for the detection of rifampicin resistance in Mycobacterium tuberculosis isolates from KwaZulu-Natal, South Africa. Kiepiela P, et al. **Microb Drug Resist** 1998 Winter; 4(4):263–9
Solid-phase sequence scanning for drug resistance detection in tuberculosis. Head SR, et al. **Mol Cell Probes** 1999 Apr; 13(2):81–7
Rifampicin is not an activator of the glucocorticoid receptor in A549 human alveolar cells. Jaffuel D, et al. **Mol Pharmacol** 1999 May;55(5):841–6
Interactions of buspirone with itraconazole and rifampicin: effects on the pharmacokinetics of the active 1-(2-pyrimidinyl)-piperazine metabolite of buspirone. Kivistö KT, et al. **Pharmacol Toxicol** 1999 Feb;84(2):94–7
Use of rifampicin in T7 RNA polymerase-driven expression of a plant enzyme: rifampicin improves yield and assembly. Kuderová A, et al. **Protein Expr Purif** 1999 Aug; 16(3):405–9
Rapid detection of rifampin-resistant Mycobacterium tuberculosis by sequencing and line probe assay. Marttila HJ, et al. **Scand J Infect Dis** 1998;30(2):129–32
[Molecular basis of rifampin resistance in mycobacterium tuberculosis] Cheng S, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Jun; 20(3):183–6 (16 ref.) **(Chi)**
[Rifampicin] Simon F, et al. **Med Trop (Mars)** 1998; 58(3):229–30 **(Fre)**
[Attributable factors to the emergence of multidrug-resistant Mycobacterium tuberculosis based on the observation of consecutive drug resistance test results] Fujino T, et al. **Kekkaku** 1998 Jul;73(7):471–6 (Eng. Abstr.) **(Jpn)**
[Detection and characteristics of rpoB gene mutations in rifampicin-resistant clinical strains of M. tuberculosis] Generozov EV, et al. **Probl Tuberk** 1999;(2):39–42 (Eng. Abstr.) **(Rus)**
[Characterization of the rpoB gene mutations in clinical isolates of rifampicin-resistant Mycobacterium tuberculosis] González N, et al. **Enferm Infecc Microbiol Clin** 1998 Nov;16(9):404–7 (Eng. Abstr.) **(Spa)**

POISONING

[Acute renal failure, intravascular hemodialysis and toxic hepatitis caused by repeated use of rifampicin (case report)] Sefer S, et al. **Lijec Vjesn** 1999 Apr-May;121(4-5):126–8 (Eng. Abstr.) **(Scr)**

THERAPEUTIC USE

Twice weekly tuberculosis preventive therapy in HIV infection in Zambia. Mwinga A, et al. **AIDS** 1998 Dec 24; 12(18):2447–57
Decrease in serum concentrations of Helicobacter pylori IgG antibodies during antituberculosis therapy: the possible eradication by rifampicin and streptomycin [letter] Sanaka M, et al. **Am J Gastroenterol** 1999 Jul;94(7):1983–4
Risk factors for rifampin-monoresistant tuberculosis: A case-control study. Sandman L, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):468–72
Effect of azithromycin plus rifampin versus that of azithromycin alone on the eradication of Chlamydia pneumoniae from lung tissue in experimental pneumonitis. Wolf K, et al. **Antimicrob Agents Chemother** 1999 Jun; 43(6):1491–3
In vivo efficacies of combinations of beta-lactams, beta-lactamase inhibitors, and rifampin against Acinetobacter baumannii in a mouse pneumonia model. Wolff M, et al. **Antimicrob Agents Chemother** 1999 Jun; 43(6):1406–11
Database study of antibiotic resistant tuberculosis in the United Kingdom, 1994-6. Irish C, et al. **BMJ** 1999 Feb 20;318(7182):497–8
From the Clinical Effectiveness Committee. Use of rifampicin and contraceptive steroids. **Br J Fam Plann** 1999 Jan; 24(4):169–70
Early results of a randomized trial of rifampicin-bonded Dacron grafts for extra-anatomic vascular reconstruction. Joint Vascular Research Group. Braithwaite BD, et al. **Br J Surg** 1998 Oct;85(10):1378–81
Treatment of malaria tropica with a fixed combination of rifampicin, co-trimoxazole and isoniazid: a clinical study. Goerg H, et al. **Chemotherapy** 1999 Jan-Feb;45(1):68–76
Meningococcal disease in siblings caused by rifampicin sensitive and rifampicin resistant strains. Dawson SJ, et al. **Commun Dis Public Health** 1999 Sep;2(3):215–6
Clostridium difficile associated with acute colitis in mares when their foals are treated with erythromycin and rifampicin for Rhodococcus equi pneumonia [see comments] Båverud V, et al. **Equine Vet J** 1998 Nov; 30(6):482–8. Comment in: Equine Vet J 1998 Nov;30(6):450–1.
Treatment options for chronic prostatitis due to vancomycin-resistant Enterococcus faecium. Taylor SE, et al. **Eur J Clin Microbiol Infect Dis** 1998 Nov; 17(11):798–800

RIFAMPIN

Haemophilic synovitis: is rifampicin an alternative? Caviglia H, et al. **Haemophilia** 1998 Jul;4(4):514–7 (54 ref.)
Treatment of acute and chronic synovitis by non-surgical means. Fernandez-Palazzi F. **Haemophilia** 1998 Jul; 4(4):518–23 (21 ref.)
Relapse of multibacillary leprosy after treatment with daily rifampin plus ofloxacin for four weeks [letter; comment] Ji B. **Int J Lepr Other Mycobact Dis** 1998 Sep;66(3):391–2 . Comment on: Int J Lepr Other Mycobact Dis 1998 Mar;66(1):56–8.
Efficacy of WHO regimens in the management of leprosy patients with G6PD deficiency. Mysore V, et al. **Int J Lepr Other Mycobact Dis** 1999 Jun;67(2):159–61
Good news and not such good news [editorial; comment] Iseman MD. **Int J Tuberc Lung Dis** 1999 Feb;3(2):87. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):119–25. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):126–32.
Five-year assessment of controlled trials of short-course chemotherapy regimens of 6, 9 or 18 months' duration for spinal tuberculosis in patients ambulatory from the start or undergoing radical surgery. Fourteenth report of the Medical Research Council Working Party on Tuberculosis of the Spine. **Int Orthop** 1999;23(2):73–81
Efficacy and safety of teicoplanin plus rifampicin in the treatment of bacteraemic infections caused by Staphylococcus aureus. Yzerman EP, et al. **J Antimicrob Chemother** 1998 Aug;42(2):233–9
Rifampin reduces early mortality in experimental Streptococcus pneumoniae meningitis. Nau R, et al. **J Infect Dis** 1999 Jun;179(6):1557–60
From the Centers for Disease Control and Prevention. Use of short-course tuberculosis preventive therapy regimens in HIV-seronegative persons. **JAMA** 1998 Nov 25; 280(20):1736
Successful treatment of acquired perforating dermatosis with rifampicin in an Asian patient with sclerosing cholangitis. Skiba G, et al. **Liver** 1999 Apr;19(2):160–3
Perinatal transmission of human granulocytic ehrlichiosis [letter; comment] Edlow JA. **N Engl J Med** 1998 Dec 24; 339(26):1942–3. Comment on: N Engl J Med 1998 Aug 6;339(6):375–8.
Management of B. henselae neuroretinitis in cat-scratch disease [letter; comment] Rosen B. **Ophthalmology** 1999 Jan;106(1):1–2. Comment on: Ophthalmology 1998 Mar;105(3):459–66.
Azithromycin compared with rifampin for eradication of nasopharyngeal colonization by Neisseria meningitidis. Girgis N, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):816–9
Uses of rifampin for infections other than tuberculosis. Loeffler AM. **Pediatr Infect Dis J** 1999 Jul;18(7):631–2 (14 ref.)
Successful treatment of peritonitis in CAPD with intraperitoneal rifampin [letter] Paiva A, et al. **Perit Dial Int** 1998 Sep-Oct;18(5):543–4
Rifampicin as treatment for pruritus in malignant cholestasis: an example of an improper indication for anti-infective drugs [letter] Castagnola E, et al. **Support Care Cancer** 1999 May;7(3):160
Rifampicin as treatment for pruritus in malignant cholestasis. Price TJ, et al. **Support Care Cancer** 1998 Nov;6(6):533–5
Effects of rifampin on cyclosporine disposition in kidney recipients with tuberculosis. Kim YH, et al. **Transplant Proc** 1998 Nov;30(7):3570–2
[How should leprosy be treated? (editorial)] Mahé A. **Ann Dermatol Venereol** 1998 Dec;125(12):881–3 **(Fre)**
[Multi-organ tuberculosis in a child: diagnosis and therapeutic problems] Kurylak D, et al. **Wiad Lek** 1998; 51(7–8):378–82 (Eng. Abstr.) **(Pol)**

TOXICITY

Effect of pyridoxine on rifampicin toxicity. Yun YP, et al. **Arch Pharm Res** 1991 Mar;14(1):73–7
Subchronic toxicity of human immunodeficiency virus and tuberculosis combination therapies in B6C3F1 mice. Rao GN, et al. **Toxicol Sci** 1998 Sep;45(1):113–27

URINE

Rifampicin cross-reacts with opiate immunoassay [letter] van As H, et al. **J Anal Toxicol** 1999 Jan-Feb;23(1):71

RIFAMYCINS

[Current status and perspectives on the development of rifamycin derivative antibiotics] Hidaka T. **Kekkaku** 1999 Jan;74(1):53–61 (41 ref.) (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Evaluation of once-weekly therapy for tuberculosis using isoniazid plus rifamycins in the mouse aerosol infection model. Brooks JV, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):3047–8
[Efficiency of otoph and polydex ear drops in otitis treatment] Luchikhin LA, et al. **Vestn Otorinolaringol** 1999;(4):32–4 **(Rus)**

ADVERSE EFFECTS

Phase I pharmacokinetic study of a new 3-azinomethyl-rifamycin (rifametane) as compared to rifampicin. Potkar C, et al. **Chemotherapy** 1999 May-Jun; 45(3):147–53
Anaphylactic reaction to rifamycin SV: presence of specific IgE antibodies. Magnan A, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):954–6
[Rifamycin-induced cholangitis with positive rechallenge test] Weber FX, et al. **Gastroenterol Clin Biol** 1998 Oct; 22(10):834–5 **(Fre)**

BIOSYNTHESIS

Direct evidence that the rifamycin polyketide synthase assembles polyketide chains processively. Yu TW, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9051–6

CHEMISTRY

3-(Carboxyalkylthio) rifamycin S and SV derivatives inhibit human neutrophil functions. Spisani S, et al. **Inflammation** 1998 Oct;22(5):459–69
Conformational variety for the ansa chain of rifamycins: comparison of observed crystal structures and molecular dynamics simulations. Bacchi A, et al. **J Comput Aided Mol Des** 1999 Jul;13(4):385–96

PHARMACOKINETICS

Phase I pharmacokinetic study of a new 3-azinomethyl-rifamycin (rifametane) as compared to rifampicin. Potkar C, et al. **Chemotherapy** 1999 May-Jun; 45(3):147–53
Therapeutic implications of drug interactions in the treatment of human immunodeficiency virus-related tuberculosis. Burman WJ, et al. **Clin Infect Dis** 1999 Mar;28(3):419–29; quiz 430 (108 ref.)
Pharmacokinetic profile of a new 3-azinomethyl rifamycin (SPA-S-565) in volunteers as compared with conventional rifampicin. Kelkar MS, et al. **Int J Clin Pharmacol Res** 1998;18(3):137–43

PHARMACOLOGY

In vitro anti-Helicobacter pylori activities of new rifamycin derivatives, KRM-1648 and KRM-1657. Akada JK, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1072–6
Caspase-mediated activation of a 36-kDa myelin basic protein kinase during anticancer drug-induced apoptosis. Kakeya H, et al. **Cancer Res** 1998 Nov 1;58(21):4888–94
3-(Carboxyalkylthio) rifamycin S and SV derivatives inhibit human neutrophil functions. Spisani S, et al. **Inflammation** 1998 Oct;22(5):459–69
Antimicrobial activities of benzoxazinorifamycin (KRM-1648) and clarithromycin against Mycobacterium avium-intracellulare complex within murine peritoneal macrophages, human macrophage-like cells and human alveolar epithelial cells. Sato K, et al. **J Antimicrob Chemother** 1999 Mar;43(3):351–7
Effect of a new rifamycin derivative, rifalazil, on liver microsomal enzyme induction in rat and dog. Mae T, et al. **Xenobiotica** 1998 Aug;28(8):759–66
[MICs and MBCs of levofloxacin, clarithromycin, and KRM-1648 for Mycobacterium tuberculosis and M. avium complex residing in MONO-MAC-6 human macrophage-like cell and A-549 human type II alveolar epithelial cell lines] Sato K, et al. **Kekkaku** 1999 Jul; 74(7):571–7 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Antibiotic combination therapy in patients with chronic, treatment-resistant pouchitis. Gionchetti P, et al. **Aliment Pharmacol Ther** 1999 Jun;13(6):713–8
Therapeutic effects of benzoxazinorifamycin KRM-1648 administered alone or in combination with a half-sized secretory leukocyte protease inhibitor or the nonsteroidal anti-inflammatory drug diclofenac sodium against Mycobacterium avium complex infection in mice. Sano C, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):360–4
Effects of the Chinese traditional medicine mao-bushi-saishin-to on therapeutic efficacy of a new benzoxazinorifamycin, KRM-1648, against Mycobacterium avium infection in mice. Shimizu T, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):514–9
Rifaximin in patients with moderate or severe ulcerative colitis refractory to steroid-treatment: a double-blind, placebo-controlled trial [letter] Gionchetti P, et al. **Dig Dis Sci** 1999 Jun;44(6):1220–1
Rifaximin: a nonabsorbed antimicrobial in the therapy of travelers' diarrhea. DuPont HL, et al. **Digestion** 1998 Nov-Dec;59(6):708–14
Effects of Yokuinin on the therapeutic efficacy of a new benzoxazinorifamycin KRM-1648 against Mycobacterium avium infection. Shimizu T, et al. **Int J Antimicrob Agents** 1999 Jan;11(1):69–74
[Effects of half-sized secretory leukocyte protease inhibitor and Chinese traditional medicines, yokuinin and mao-bushi-saishin-to, on therapeutic efficacies of benzoxazinorifamycin KRM-1648 against Mycobacterium avium complex infection induced in mice] Sato K, et al. **Kekkaku** 1998 Aug;73(8):501–6 (Eng. Abstr.) **(Jpn)**
[Chemotherapeutic agents under study] Kawahara S. **Nippon Rinsho** 1998 Dec;56(12):3096–9 (19 ref.) (Eng. Abstr.) **(Jpn)**

RIFLES see **FIREARMS**

RIFOMYCINS see **RIFAMYCINS**

RIFT VALLEY FEVER

EPIDEMIOLOGY

Origin of 1997–98 Rift Valley fever outbreak in East Africa [letter] Sall AA, et al. **Lancet** 1998 Nov 14;352(9140):1596–7
Molecular epidemiology and emergence of Rift Valley fever. Sall AA, et al. **Mem Inst Oswaldo Cruz** 1998 Sep-Oct; 93(5):609–14
Disease prevention and preparedness in cases of animal health emergencies in the Middle East. Shimshony A. **Rev Sci Tech** 1999 Apr;18(1):66–75 (22 ref.)
Climate and health [comment] Epstein PR. **Science** 1999 Jul 16;285(5426):347–8. Comment on: Science 1999 Jul 16;285(5426):397–400.
Climate and satellite indicators to forecast Rift Valley fever epidemics in Kenya [see comments] Linthicum KJ, et al. **Science** 1999 Jul 16;285(5426):397–400. Comment in: Science 1999 Jul 16;285(5426):347–8.
Rift valley fever surveillance in the lower Senegal river basin: update 10 years after the epidemic. Thonnon J, et al. **Trop Med Int Health** 1999 Aug;4(8):580–5

RIFT VALLEY FEVER VIRUS

CHEMISTRY

The carboxy-terminal acidic domain of Rift Valley Fever virus NSs protein is essential for the formation of filamentous structures but not for the nuclear localization of the protein. Yadani FZ, et al. **J Virol** 1999 Jun; 73(6):5018–25

GENETICS

Genetic reassortment of Rift Valley fever virus in nature. Sall AA, et al. **J Virol** 1999 Oct;73(10):8196–200
Origin of 1997–98 Rift Valley fever outbreak in East Africa [letter] Sall AA, et al. **Lancet** 1998 Nov 14;352(9140):1596–7
Molecular epidemiology and emergence of Rift Valley fever. Sall AA, et al. **Mem Inst Oswaldo Cruz** 1998 Sep-Oct; 93(5):609–14

IMMUNOLOGY

Rift valley fever surveillance in the lower Senegal river basin: update 10 years after the epidemic. Thonnon J, et al. **Trop Med Int Health** 1999 Aug;4(8):580–5

ISOLATION & PURIFICATION

Could bats act as reservoir hosts for Rift Valley fever virus? Oelofsen MJ, et al. **Onderstepoort J Vet Res** 1999 Mar; 66(1):51–4

PHYSIOLOGY

Effect of environmental temperature on the susceptibility of Culex pipiens (Diptera: Culicidae) to Rift Valley fever virus. Brubaker JF, et al. **J Med Entomol** 1998 Nov; 35(6):918–21

RIGHT ATRIAL FUNCTION see **ATRIAL FUNCTION, RIGHT**

RIGHT HEART BYPASS see **HEART BYPASS, RIGHT**

RIGHT TO DIE

see related
SUICIDE, ASSISTED

Exit association-mediated suicide: toxicologic and forensic aspects. Giroud C, et al. **Am J Forensic Med Pathol** 1999 Mar;20(1):40–4 (9 ref.)
"Death with dignity" [letter; comment] Coppens M. **Am J Nurs** 1998 Dec;98(12):23. Comment on: Am J Nurs 1998 Aug;98(8):54–5.
Every death is different. **Camb Q Healthc Ethics** 1998 Fall; 7(4):443–7
When death is no longer the enemy. McCutcheon S. **CMAJ** 1999 Jul 27;161(2):176
Arranging the death of a dog. Kelleher MJ. **Crisis** 1998; 19(2):58–9
Depression and the right to die. Leeman CP. **Gen Hosp Psychiatry** 1999 Mar-Apr;21(2):112–5
The price of dignity. Solovy A. **Hosp Health Netw** 1999 Mar; 73(3):30
Acts, omissions, intentions and motives: a philosophical examination of the moral distinction between killing and letting die. Begley AM. **J Adv Nurs** 1998 Oct;28(4):865–73
The dementia dilemma. Frankel S. **Perspect Biol Med** 1999 Winter;42(2):174–8
A dying man asking for a dignified end. Tate P, et al. **Practitioner** 1998 Jul;242(1588):505–8, 510, 515 (0 ref.)
Let him pass. Sobel RJ, et al. **Public Health Rev** 1998; 26(3):293–303
Assisted suicide in Switzerland for patients with psychiatric disorders: act first, think later? [news] Stiefel F. **Support Care Cancer** 1999 Jul;7(4):219
An analysis of "dignity". Johnson PR. **Theor Med Bioeth** 1998 Aug;19(4):337–52 (35 ref.)
In re Edna MF: case law confusion in surrogate decision making. Shapiro RS. **Theor Med Bioeth** 1999 Jan; 20(1):45–54
[Medical decisions at the end of life. Aid to the dying--how

valid are the main pro- and contra- arguments?] Gordijn B. **Fortschr Med** 1999 Mar 30;117(9):22-4 **(Ger)**
[When life is ending, there is the right to death with dignity] Muñoz-de Alba Medrano M, et al. **Gac Med Mex** 1998 May-Jun;134(3):369-71 **(Spa)**
[Life-sustaining therapy and dignified death. Myths and realities] Gherardi CR. **Medicina (B Aires)** 1998; 58(6):755-62 (Eng. Abstr.) **(Spa)**
[About being a physician when the patient will die] Eckerdal G. **Lakartidningen** 1999 Jan 6;96(1-2):30-2 **(Swe)**
[Psychosocial factors are limiting the possibility of dying at home] Thorén-Todoulos E. **Lakartidningen** 1999 Feb 3; 96(5):472-5 (Eng. Abstr.) **(Swe)**

LEGISLATION & JURISPRUDENCE

"Physician assisted living" [letter; comment] Schoen EK. **Conn Med** 1998 Aug;62(8):503. Comment on: Conn Med 1997 Dec;61(12):795.
Preserving end-of-life autonomy: the Patient Self-Determination Act and the Uniform Health Care Decisions Act. Galambos CM. **Health Soc Work** 1998 Nov; 23(4):275-81 (21 ref.)
The Oregon Death with Dignity Act. **Issues Law Med** 1998 Winter;14(3):325-40
Three strikes: is an assisted suicide right out? Bopp J Jr, et al. **Issues Law Med** 1999 Summer;15(1):3-86
Suing health care providers for saving lives. Liability for providing unwanted life-sustaining treatment. Rodriguez KF. **J Leg Med** 1999 Mar;20(1):1-66 (331 ref.)
Do not resuscitate (DNR): analysis of the DNR act. Koehler S, et al. **J Okla State Med Assoc** 1999 Jul;92(7):316-9 (9 ref.)
A terminally ill patient wants to die--can you be the judge? [news] **J Psychosoc Nurs Ment Health Serv** 1999 Aug; 37(8):6
Seven deaths in Darwin: case studies under the Rights of the Terminally Ill Act, Northern Territory, Australia [see comments] Kissane DW, et al. **Lancet** 1998 Oct 3; 352(9134):1097-102. Comment in: Lancet 1998 Dec 5;352(9143):1863-4. Comment in: Lancet 1999 Mar 27;353(9158):1098.
The right to die and physician-assisted suicide medical, legal, and ethical aspects (Part I). Wecht CH. **Med Law** 1998; 17(3):477-91
The right to die and physician-assisted suicide: medical, legal, and ethical aspects (Part II). Wecht CH. **Med Law** 1998; 17(4):581-601 (27 ref.)
The northeast Tennessee Spirituality and End of Life Issues Survey. Ginn DR, et al. **Tenn Med** 1998 Nov;91(11):425-30 (13 ref.)
Dying with dignity [letter] Luthra R. **World Health Forum** 1998;19(4):429-30
[Assisted suicide in dementia. Ethical considerations between paternalism and autonomy (see comments)] Karger A, et al. **Nervenarzt** 1997 Nov;68(11):907-13 (Eng. Abstr.). Comment in: Nervenarzt 1998 Jul;69(7):632-3. **(Ger)**

RIGHT TO TREATMENT see **PATIENT ADVOCACY**

RIGHT VENTRICULAR DYSFUNCTION see **VENTRICULAR DYSFUNCTION, RIGHT**

RIGHT VENTRICULAR DYSPLASIA, ARRHYTHMOGENIC see **ARRHYTHMOGENIC RIGHT VENTRICULAR DYSPLASIA**

RIGHT VENTRICULAR FUNCTION see **VENTRICULAR FUNCTION, RIGHT**

RIGHT VENTRICULAR HYPERTROPHY see **HYPERTROPHY, RIGHT VENTRICULAR**

RIGHT WHALE see **WHALES**

RIGHT WHALE DOLPHINS see **DOLPHINS**

RIGHT WHALES see **WHALES**

RIGHTSIZING see **PERSONNEL DOWNSIZING**

RIGIDITY, DECEREBRATE see **DECEREBRATE STATE**

RIGOR MORTIS

Bleedout efficiency, carcass damage, and rigor mortis development following electrical stunning or carbon dioxide stunning on a shackle line. Kang IS, et al. **Poult Sci** 1999 Jan;78(1):139-43

METABOLISM

Does the sequence of onset of rigor mortis depend on the proportion of muscle fibre types and on intra-muscular glycogen content? Kobayashi M, et al. **Int J Legal Med** 1999;112(3):167-71
Thiophosphorylation of myosin light chain increases rigor stiffness of rabbit smooth muscle. Khromov AS, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):345-50

PATHOLOGY

Does the sequence of onset of rigor mortis depend on the proportion of muscle fibre types and on intra-muscular glycogen content? Kobayashi M, et al. **Int J Legal Med** 1999;112(3):167-71

VETERINARY

Rapid postmortem pH decline and delayed chilling reduce quality of turkey breast meat. Rathgeber BM, et al. **Poult Sci** 1999 Mar;78(3):477-84
Commercial implementation of postmortem electrical stimulation. Sams A. **Poult Sci** 1999 Feb;78(2):290-4
Postmortem pH, myofibrillar fragmentation, and calpain activity in Pectoralis from electrically stimulated and muscle tensioned broiler carcasses. Veeramuthu GI, et al. **Poult Sci** 1999 Feb;78(2):272-6

RILEY-DAY SYNDROME see **DYSAUTONOMIA, FAMILIAL**

RILEY VIRUS see **LACTATE DEHYDROGENASE VIRUS**

RILUZOLE

ADVERSE EFFECTS

A comparison of the pharmacokinetics and tolerability of riluzole after repeat dose administration in healthy elderly and young volunteers. Le Liboux A, et al. **J Clin Pharmacol** 1999 May;39(5):480-6
Acute hepatitis after riluzole administration. Remy AJ, et al. **J Hepatol** 1999 Mar;30(3):527-30
Riluzole-induced pancreatitis. Drory VE, et al. **Neurology** 1999 Mar 10;52(4):892-3
Renal tubular impairment during riluzole therapy. Poloni TE, et al. **Neurology** 1999 Feb;52(3):670

ANALOGS & DERIVATIVES

Riluzole series. Synthesis and in vivo "antiglutamate" activity of 6-substituted-2-benzothiazolamines and 3-substituted-2-imino-benzothiazolines. Jimonet P, et al. **J Med Chem** 1999 Jul 29;42(15):2828-43

CHEMICAL SYNTHESIS

Riluzole series. Synthesis and in vivo "antiglutamate" activity of 6-substituted-2-benzothiazolamines and 3-substituted-2-imino-benzothiazolines. Jimonet P, et al. **J Med Chem** 1999 Jul 29;42(15):2828-43

ECONOMICS

ALS/MND and the perspective of health economics. Gray AM. **J Neurol Sci** 1998 Oct;160 Suppl 1:S2-5

PHARMACOKINETICS

Use of the repeated cross-over design in assessing bioequivalence: (within and between subjects variability - Schuirmann Confidence Intervals estimation). Le Roux Y, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr-Jun; 23(2):339-45
A comparison of the pharmacokinetics and tolerability of riluzole after repeat dose administration in healthy elderly and young volunteers. Le Liboux A, et al. **J Clin Pharmacol** 1999 May;39(5):480-6

PHARMACOLOGY

Riluzole improves functional recovery after ischemia in the rat retina. Ettaiche M, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):729-36
Antioxidative and proapoptotic effects of riluzole on cultured cortical neurons. Koh JY, et al. **J Neurochem** 1999 Feb; 72(2):716-23
Riluzole has no acute effect on motor unit parameters in ALS. Desai J, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S69-72
Tirilazad widens the therapeutic window for riluzole-induced attenuation of progressive cortical degeneration in an infant rat model of the shaken baby syndrome. Smith SL, et al. **J Neurotrauma** 1998 Sep; 15(9):707-19
Ouabain-induced increase in dopamine release from mouse striatal slices is antagonized by riluzole. Boireau A, et al. **J Pharm Pharmacol** 1998 Nov;50(11):1293-7
Riluzole, a glutamate release inhibitor, and motor behavior. Kretschmer BD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):181-90
Decreased striatal dopamine-receptor binding in sporadic ALS: glutamate hyperactivity? Vogels OJ, et al. **Neurology** 1999 Apr 12;52(6):1275-7
Electrophysiology of the neuroprotective agent riluzole on striatal spiny neurons. Centonze D, et al. **Neuropharmacology** 1998 Aug;37(8):1063-70
Neuroprotective effects of riluzole: an electrophysiological and histological analysis in an in vitro model of ischemia. Siniscalchi A, et al. **Synapse** 1999 Jun 1;32(3):147-52

THERAPEUTIC USE

Neuroprotective effects of riluzole in neurotrauma models: a review. Wahl F, et al. **Acta Neurochir Suppl (Wien)** 1999; 73:103-10
Riluzole: a potential therapy for HIV dementia? [letter] McKinley GF. **Ann Pharmacother** 1999 Jan;33(1):114-5
Riluzole delayed appearance of parkinsonian motor abnormalities in a chronic MPTP monkey model. Bezard E, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):101-4
Management of amyotrophic lateral sclerosis with riluzole. Neatherlin JS. **J Neurosci Nurs** 1998 Aug;30(4):257-60 (14 ref.)
Effect of riluzole on the neurological and neuropathological changes in an animal model of cardiac arrest-induced movement disorder. Kanthasamy AG, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1340-8
Riluzole prevents ischemic spinal cord injury caused by aortic crossclamping. Lang-Lazdunski L, et al. **J Thorac Cardiovasc Surg** 1999 May;117(5):881-9
Riluzole for levodopa-induced dyskinesias in advanced Parkinson's disease [letter] Merims D, et al. **Lancet** 1999 May 22;353(9166):1764-5
Drug treatments of levodopa-induced dyskinesias [letter] Vale S. **Lancet** 1999 Aug 7;354(9177):511
Riluzole therapy in Huntington's disease (HD). Rosas HD, et al. **Mov Disord** 1999 Mar;14(2):326-30
Renal tubular impairment during riluzole therapy. Poloni TE, et al. **Neurology** 1999 Feb;52(3):670
[Amyotrophic lateral sclerosis] Iwanowski L. **Neurol Neurochir Pol** 1999 Mar-Apr;33(2):445-50 (38 ref.) (Eng. Abstr.) **(Pol)**
[Riluzole as a treatment for amyotrophic lateral sclerosis] Borrás-Blasco J, et al. **Rev Neurol** 1998 Dec;27(160):1021-7 (47 ref.) (Eng. Abstr.) **(Spa)**

RIMANTADINE

CHEMISTRY

Long-term stability of the anti-influenza A compounds--amantadine and rimantadine. Scholtissek C, et al. **Antiviral Res** 1998 Jun;38(3):213-5

PHARMACOKINETICS

Pharmacokinetics and therapeutic efficacy of rimantadine in horses experimentally infected with influenza virus A2. Rees WA, et al. **Am J Vet Res** 1999 Jul;60(7):888-94

PHARMACOLOGY

The anti-influenza virus drug rimantadine has trypanocidal activity. Kelly JM, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):985-7
[Change in the sensitivity of influenza virus, replicating in the presence of rimantadine, to antiviral agents] Boreko EI, et al. **Vopr Virusol** 1999 May-Jun;44(3):115-9 (Eng. Abstr.) **(Rus)**
[Polypeptides from influenza virus, obtained in the presence of high concentrations of rimantadine] Boreko EI, et al. **Vopr Virusol** 1998 Nov-Dec;43(6):270-4 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

A pilot study of rimantadine for patients with chronic hepatitis C unresponsive to interferon therapy. Fong TL, et al. **Am J Gastroenterol** 1999 Apr;94(4):990-3
A pilot study on the motor effects of rimantadine in Parkinson's disease. Evidente VG, et al. **Clin Neuropharmacol** 1999 Jan-Feb;22(1):30-2
Evidence for cytokine mediation of disease expression in adults experimentally infected with influenza A virus. Skoner DP, et al. **J Infect Dis** 1999 Jul;180(1):10-4
Rimantadine for treatment of hepatitis C infection in liver transplant recipients. Sherman KE, et al. **Liver Transpl Surg** 1999 Jan;5(1):25-8
Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). **MMWR Morb Mortal Wkly Rep** 1999 Apr 30; 48(RR-4):1-28
The roles of amantadine, rimantadine, ursodeoxycholic acid, and NSAIDs, alone or in combination with alpha interferons, in the treatment of chronic hepatitis C. Younossi ZM, et al. **Semin Liver Dis** 1999;19 Suppl 1:95-102 (32 ref.)
[Chemotherapeutics for treatment of influenza and other viral respiratory tract infections in children] Drinevskii VP, et al. **Antibiot Khimioter** 1998;43(9):29-34 (Eng. Abstr.) **(Rus)**

RINDERPEST

EPIDEMIOLOGY

Seroepidemiology of rinderpest in bovids in Sri Lanka using the enzyme linked immunosorbent assay (ELISA) technique. Silva I, et al. **Prev Vet Med** 1998 Dec 1; 37(1-4):69-75
Recommended standards for epidemiological surveillance systems for rinderpest. Office International des Epizooties. **Rev Sci Tech** 1998 Dec;17(3):825-38 **(Eng, Fre, Spa)**
Guide to epidemiological surveillance for rinderpest. Office International des Epizooties. James AD. **Rev Sci Tech** 1998 Dec;17(3):796-824 **(Eng, Fre)**
Rinderpest antibody detected in sheep and goats before an outbreak of rinderpest reported in cattle in northern Tanzania. Wambura PN, et al. **Trop Anim Health Prod** 1999 Feb;31(1):9-14
Investigations of a rinderpest outbreak in buffaloes in Pakistan. Hussain M, et al. **Vet Rec** 1998 Aug 1;143(5):145

RINDERPEST

PREVENTION & CONTROL

Protection of rabbits against lapinized rinderpest virus with purified envelope glycoproteins of peste-des-petits-ruminants and rinderpest viruses. Devireddy LR, et al. **Acta Virol** 1998 Nov;42(5):299-306

Disease prevention and preparedness: the Food and Agriculture Organization Emergency Prevention System. Cheneau Y, et al. **Rev Sci Tech** 1999 Apr;18(1):122-34 (16 ref.)

Rinderpest: a case study of animal health emergency management. Mukhopadhyay AK, et al. **Rev Sci Tech** 1999 Apr;18(1):164-78 (23 ref.)

Eradication of rinderpest from Ethiopia. Abraham G, et al. **Trop Anim Health Prod** 1998 Oct;30(5):269-72

Rinderpest vaccination and the incidence and development of trypanosomosis in cattle. Stevenson P, et al. **Trop Anim Health Prod** 1999 Apr;31(2):65-73

[Cost analysis of an official campaign for animal disease control: the example of Senegal in 1996] Ly C, et al. **Rev Sci Tech** 1998 Dec;17(3):767-76 (Eng. Abstr.) **(Fre)**

RINDERPEST VIRUS

GENETICS

Expression in cattle of epitopes of a heterologous virus using a recombinant rinderpest virus. Baron MD, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2031-9

Molecular cloning and sequence analysis of the phosphoprotein (P) gene of the lapinized rinderpest virus. Nakamura K, et al. **Virus Genes** 1999;18(2):175-8

IMMUNOLOGY

Protection of rabbits against lapinized rinderpest virus with purified envelope glycoproteins of peste-des-petits-ruminants and rinderpest viruses. Devireddy LR, et al. **Acta Virol** 1998 Nov;42(5):299-306

Preparation of monoclonal antibodies to N protein of rinderpest virus and their use in viral antigen detection [letter] Joseph MC, et al. **Acta Virol** 1998 Nov;42(5):355-6

Use of prokaryotically expressed nucleocapsid protein as positive antigen in ELISA. Kumar SS, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1093-100

Eradication of rinderpest from Ethiopia. Abraham G, et al. **Trop Anim Health Prod** 1998 Oct;30(5):269-72

METABOLISM

Domains of Rinderpest virus phosphoprotein involved in interaction with itself and the nucleocapsid protein. Shaji D, et al. **Virology** 1999 Jun 5;258(2):415-24

RING CHROMOSOMES

Phenotypic variability in the chromosome 9 ring. Cavaliere ML, et al. **Acta Biomed Ateneo Parmense** 1997;68 Suppl 1:85-9 (10 ref.)

Retinal detachment in an infant with the ring chromosome 13 syndrome. Filous A, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):739-41

Small supernumerary ring X chromosome in a four-month-old girl [letter] Huang B, et al. **Am J Med Genet** 1999 Jul 16;85(2):191-3

Ring 2 chromosome: ten-year follow-up report. Lacassie Y, et al. **Am J Med Genet** 1999 Jul 16;85(2):117-22 (14 ref.)

Ring chromosomes in a malignant mesenchymoma. Geurts van Kessel A, et al. **Cancer Genet Cytogenet** 1999 Mar; 109(2):119-22

Identification of a ring chromosome in a myxoid malignant fibrous histiocytoma with chromosome microdissection and fluorescence in situ hybridization. Meloni-Ehrig AM, et al. **Cancer Genet Cytogenet** 1999 Feb;109(1):81-5

Deletion of HMG17 in uterine leiomyomas with ring chromosome 1. Polito P, et al. **Cancer Genet Cytogenet** 1999 Jan 15;108(2):107-9

Torsional state of DNA in a transcriptionally hyperactive Balbiani ring of polytene chromosomes. Gruzdev AD, et al. **Chromosome Res** 1998 Aug;6(5):367-78

Ring chromosome 13 in an infant with multiple congenital anomalies and penoscrotal transposition [letter] Boduroglu K, et al. **Clin Dysmorphol** 1998 Oct;7(4):299-301

Characteristic EEG findings in ring 20 syndrome as a diagnostic clue. Kobayashi K, et al. **Electroencephalogr Clin Neurophysiol** 1998 Oct; 107(4):258-62

Prenatal diagnosis and fetopathological findings in a fetus with ring chromosome 18. Thies U, et al. **Fetal Diagn Ther** 1998 Sep-Oct;13(5):315-20

COL1A1-PDGFB fusion in a ring chromosome 4 found in a dermatofibrosarcoma protuberans. Navarro M, et al. **Genes Chromosomes Cancer** 1998 Nov;23(3):263-6

Structure of the supernumerary ring and giant rod chromosomes in adipose tissue tumors. Pedeutour F, et al. **Genes Chromosomes Cancer** 1999 Jan;24(1):30-41

The structure and dynamics of ring chromosomes in human neoplastic and non-neoplastic cells. Gisselsson D, et al. **Hum Genet** 1999 Apr;104(4):315-25

Insulin dependent diabetes mellitus (IDDM) and autoimmune thyroiditis in a boy with a ring chromosome 18: additional evidence of autoimmunity or IDDM gene(s) on chromosome 18. Dacou-Voutetakis C, et al. **J Med Genet** 1999 Feb;36(2):156-8

Ring 22 duplication/deletion mosaicism: clinical, cytogenetic, and molecular characterisation. Frizzley JK, et al. **J Med Genet** 1999 Mar;36(3):237-41

Mosaic supernumerary ring chromosome 19 identified by comparative genomic hybridisation. Ghaffari SR, et al. **J Med Genet** 1998 Oct;35(10):836-40

Simultaneous occurrence of two supernumerary autosomal ring chromosomes r(1) and r(16) in twins. Shanske AL, et al. **J Med Genet** 1999 Aug;36(8):625-8

Severe phenotype resulting from an active ring X chromosome in a female with a complex karyotype: characterisation and replication study. Stavropoulou C, et al. **J Med Genet** 1998 Nov;35(11):932-8

45,X/46,X,r(Y) karyotype transmitted by father to son after intracytoplasmic sperm injection for oligospermia. A case report. Bofinger MK, et al. **J Reprod Med** 1999 Jul; 44(7):645-8

Ring chromosome 14 complicated with complex partial seizures and hypoplastic corpus callosum. Ono J, et al. **Pediatr Neurol** 1999 Jan;20(1):70-2

Ring chromosome 22 resulting in partial monosomy in a mentally retarded boy. Gibbons B, et al. **Singapore Med J** 1999 Apr;40(4):273-5

[A new epileptic syndrome: ring chromosome 20--interhemispheric peak delay of spikes] Kamuro K, et al. **No To Hattatsu** 1998 Sep;30(5):431-2 **(Jpn)**

RING CONSTRICTIONS, INTRAUTERINE see **AMNIOTIC BAND SYNDROME**

RINGWORM see **TINEA**

RIOTS

see related
VIOLENCE

Plastic bullet injuries in Northern Ireland: experiences during a week of civil disturbance. Steele JA, et al. **J Trauma** 1999 Apr;46(4):711-4

RISK

Diet and health risk: risk patterns and disease-specific associations. Marshall JR, et al. **Am J Clin Nutr** 1999 Jun; 69(6):1351S-1356S (21 ref.)

Underestimation of risk associations due to regression dilution in long-term follow-up of prospective studies. Clarke R, et al. **Am J Epidemiol** 1999 Aug 15;150(4):341-53

Presenting statistical uncertainty in trends and dose-response relations. Greenland S, et al. **Am J Epidemiol** 1999 Jun 15;149(12):1077-86

Re: "Combined analysis of matched and unmatched case-control studies: comparison of risk estimates from different studies" [letter; comment] Huberman M, et al. **Am J Epidemiol** 1999 Jul 15;150(2):219-20. Comment on: Am J Epidemiol 1996 Feb 1;143(3):293-300.

Relative excess risk: an alternative measure of comparative risk. Suissa S. **Am J Epidemiol** 1999 Aug 1;150(3):279-82

Genetic polymorphisms in methylenetetrahydrofolate reductase and methionine synthase, folate levels in red blood cells, and risk of neural tube defects. Christensen B, et al. **Am J Med Genet** 1999 May 21;84(2):151-7

Relation of probability of causation to relative risk and doubling dose: a methodologic error that has become a social problem. Greenland S. **Am J Public Health** 1999 Aug;89(8):1166-9

Age-dependent U-shaped risk functions and Aalen's additive risk model. Martinussen T, et al. **Biometrics** 1998 Sep; 54(3):989-1001

Risk revisited. Beck JD. **Community Dent Oral Epidemiol** 1998 Aug;26(4):220-5

Statistical methods in epidemiology. III. The odds ratio as an approximation to the relative risk. Rigby AS. **Disabil Rehabil** 1999 Apr;21(4):145-51

Biological interpretation of relative risk. Lanes SF. **Drug Saf** 1999 Aug;21(2):75-9 (21 ref.)

Effects of misclassification on estimates of relative risk in family history studies. Szatmari P, et al. **Genet Epidemiol** 1999;16(4):368-81 (32 ref.)

An empirical investigation of exposure measurement bias and its components in case-control studies. Marshall RJ. **J Clin Epidemiol** 1999 Jun;52(6):547-50

Correcting the odds ratio in cohort studies of common outcomes [letter] McNutt LA, et al. **JAMA** 1999 Aug 11; 282(6):529

What's the relative risk? A method of correcting the odds ratio in cohort studies of common outcomes. Zhang J, et al. **JAMA** 1998 Nov 18;280(19):1690-1

Effect of measurement error on epidemiological studies of environmental and occupational exposures. Armstrong BG. **Occup Environ Med** 1998 Oct;55(10):651-6 (7 ref.)

Communicating health risk. Nicholson PJ. **Occup Med (Lond)** 1999 May;49(4):253-6

Are decisions under risk malleable? Fong C, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10927-32

Evaluating risk communication: examining target audience perceptions about four presentation formats for fish consumption health advisory information. Connelly NA, et al. **Risk Anal** 1998 Oct;18(5):649-59

Public reliance on risk communication channels in the wake of a cryptosporidium outbreak. Griffin RJ, et al. **Risk Anal** 1998 Aug;18(4):367-75

Gender differences in risk perception: theoretical and methodological perspectives. Gustafson PE. **Risk Anal** 1998 Dec;18(6):805-11 (34 ref.)

Information and risk perception: a dynamic adjustment process. Liu S, et al. **Risk Anal** 1998 Dec;18(6):689-99

A quantitative test of the cultural theory of risk perceptions: comparison with the psychometric paradigm. Marris C, et al. **Risk Anal** 1998 Oct;18(5):635-47

Rating threat mitigators: faith in experts, governments, and individuals themselves to create a safer world. O'Connor RE, et al. **Risk Anal** 1998 Oct;18(5):547-56

Variation in baseline risk as an explanation of heterogeneity in meta-analysis by S. D. Walter, Statistics in Medicine, 16, 2883-2900 (1997) [letter; comment] Bernsen RM, et al. **Stat Med** 1999 Jan 30;18(2):233-8. Comment on: Stat Med 1997 Dec 30;16(24):2883-900.

Modelling risk from a disease in time and space. Knorr-Held L, et al. **Stat Med** 1998 Sep 30;17(18):2045-2060

Investigating underlying risk as a source of heterogeneity in meta-analysis [letter; comment] van Houwelingen H, et al. **Stat Med** 1999 Jan 15;18(1):110-5. Comment on: Stat Med 1997 Dec 15;16(23):2741-58.

Multivariate competing risks. Wohlfahrt J, et al. **Stat Med** 1999 May 15;18(9):1023-30

A new method for risk analysis of vaccines. Poirriez J. **Vaccine** 1999 May 14;17(19):2335

[Odds ration and relative risk: confounded effects?] Immich H. **Versicherungsmedizin** 1999 Jun 1;51(2):83-6 (Eng. Abstr.) **(Ger)**

RISK ADJUSTMENT

Comparison of outcome from intensive care admission after adjustment for case mix by the APACHE III prognostic system [see comments] Pappachan JV, et al. **Chest** 1999 Mar;115(3):802-10. Comment in: Chest 1999 Mar;115(3):614-6.

International comparisons of outcomes in intensive care units [editorial; comment] Sachdeva RC, et al. **Crit Care Med** 1999 Sep;27(9):2032-3. Comment on: Crit Care Med 1999 Sep;27(9):1754-9.

Risk adjustment and the trade-off between efficiency and risk selection: an application of the theory of fair compensation. Schokkaert E, et al. **Health Econ** 1998 Aug; 7(5):465-80

Commentary: improving risk-adjustment models for capitation payment and global budgeting [see comments] Hornbrook MC. **Health Serv Res** 1999 Feb;33(6):1745-51 . Comment in: Health Serv Res 1999 Feb;33(6):1727-44.

Risk-adjusted capitation based on the Diagnostic Cost Group Model: an empirical evaluation with health survey information [see comments] Lamers LM. **Health Serv Res** 1999 Feb;33(6):1727-44. Comment in: Health Serv Res 1999 Feb;33(6):1745-51.

Frailty bias in comorbidity risk adjustments of community-dwelling elderly populations. Pressley JC, et al. **J Clin Epidemiol** 1999 Aug;52(8):753-60

Interpreting risk-adjusted length of stay patterns for VA hospitals. Thomas JW, et al. **Med Care** 1998 Dec; 36(12):1660-75

Physicians' perceptions of risk adjustment and health policy formation in Minnesota. Oberstar JV, et al. **Minn Med** 1999 Mar;82(3):43-8

Risk adjustment for Medicare [letter; comment] Blumberg MS. **N Engl J Med** 1999 May 13;340(19):1514-5. Comment on: N Engl J Med 1998 Dec 24;339(26):1933-8.

Comparing hospitals [letter; comment] Hartz A, et al. **N Engl J Med** 1999 Jun 24;340(25):2006-7; discussion 2007 . Comment on: N Engl J Med 1999 Jan 28;340(4):286-92.

Paying more fairly for Medicare capitated care [see comments] Iezzoni LI, et al. **N Engl J Med** 1998 Dec 24; 339(26):1933-8. Comment in: N Engl J Med 1998 Dec 24;339(26):1925-6. Comment in: N Engl J Med 1999 May 13;340(19):1514-5.

Risk adjustment or risk avoidance? [editorial; comment] Kassirer JP, et al. **N Engl J Med** 1998 Dec 24; 339(26):1925-6. Comment on: N Engl J Med 1998 Dec 24;339(26):1852-6. Comment on: N Engl J Med 1998 Dec 24;339(26):1933-8.

The risk-adjustment debate [see comments] Kuttner R. **N Engl J Med** 1998 Dec 24;339(26):1952-6. Comment in: N Engl J Med 1998 Dec 24;339(26):1925-6.

Risk adjustment for interhospital comparison of primary cesarean rates. Bailit JL, et al. **Obstet Gynecol** 1999 Jun; 93(6):1025-30

Risk adjustment for quality improvement. Richardson D, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):255-65 (76 ref.)

Case mix adjustment in nursing systems research: the case of resident outcomes in nursing homes. Anderson RA, et al. **Res Nurs Health** 1999 Aug;22(4):271-83

Risk adjustment and hospital cost-based resource allocation, with an application to El Salvador. Fiedler JL, et al. **Soc Sci Med** 1999 Jan;48(2):197-212

Influence of follow-up response on risk-factor analysis. Osswald BR, et al. **Thorac Cardiovasc Surg** 1999 Feb; 47(1):32-7

ECONOMICS

Pharmacy costs groups: a risk-adjuster for capitation payments based on the use of prescribed drugs. Lamers LM. **Med Care** 1999 Aug;37(8):824-30

METHODS

Population choice and variable selection in the estimation and application of risk models. Dudley RA, et al. **Inquiry** 1999 Summer;36(2):200–11

Laboratory values improve predictions of hospital mortality [see comments] Pine M, et al. **Int J Qual Health Care** 1998 Dec;10(6):491–501. Comment in: Int J Qual Health Care 1998 Dec;10(6):463–5.

Estimation of failure probabilities in the presence of competing risks: new representations of old estimators. Gooley TA, et al. **Stat Med** 1999 Mar 30;18(6):695–706 (20 ref.)

ORGANIZATION & ADMINISTRATION

Risk-adjusted outcome models for public mental health outpatient programs. Hendryx MS, et al. **Health Serv Res** 1999 Apr;34(1 Pt 1):171–95

Risk-adjusted in-hospital death rates for peer hospitals in rural and urban regions. Glenn LL, et al. **J Rural Health** 1999 Winter;15(1):94–107

STATISTICS & NUMERICAL DATA

Building health plan databases to risk adjust outcomes and payments. Hornbrook MC, et al. **Int J Qual Health Care** 1998 Dec;10(6):531–8

Validation of risk adjustment models for in-hospital percutaneous transluminal coronary angioplasty mortality on an independent data set. Moscucci M, et al. **J Am Coll Cardiol** 1999 Sep;34(3):692–7

Research evidence on the validity of risk-adjusted mortality rate as a measure of hospital quality of care [published erratum appears in Med Care Res Rev 1999 Mar;56(1):118] Thomas JW, et al. **Med Care Res Rev** 1998 Dec; 55(4):371–404 (67 ref.)

RISK ASSESSMENT

Individual harmful and protective effects of alcohol. Medical Research Council, Spring 1997. **Alcohol Clin Exp Res** 1998 Oct;22(7 Suppl):365S–373S

Alcohol consumption and stroke: benefits and risks. Hillbom M. **Alcohol Clin Exp Res** 1998 Oct;22(7 Suppl):352S–358S (87 ref.)

Risk perception of alcohol consumption. Sjöberg L. **Alcohol Clin Exp Res** 1998 Oct;22(7 Suppl):277S–284S (94 ref.)

An overview of health risks and benefits of alcohol consumption. Thakker KD. **Alcohol Clin Exp Res** 1998 Oct; 22(7 Suppl):285S–298S (131 ref.)

Methods for health risk assessment of chemicals: are they relevant for alcohol? Victorin K, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7 Suppl):270S–276S (26 ref.)

Relative contributions of a single-admission 12-lead electrocardiogram and early 24-hour continuous electrocardiographic monitoring for early risk stratification in patients with unstable coronary artery disease. Holmvang L, et al. **Am J Cardiol** 1999 Mar 1;83(5):667–74

Risk assessment of contact allergens. Jayjock MA. **Am J Contact Dermat** 1998 Sep;9(3):155–61

Use of two-segmented logistic regression to estimate change-points in epidemiologic studies. Pastor R, et al. **Am J Epidemiol** 1998 Oct 1;148(7):631–42

Epidemiology and risk assessment. Samet JM, et al. **Am J Epidemiol** 1998 Nov 15;148(10):929–36 (32 ref.)

Standardized lifetime risk. Sasieni PD, et al. **Am J Epidemiol** 1999 May 1;149(9):869–75

Performance and potential impact of a chest pain prediction rule in a large public hospital [see comments] Reilly B, et al. **Am J Med** 1999 Mar;106(3):285–91. Comment in: Am J Med 1999 Mar;106(3):378–9.

Validation of Tu's cardiac surgical risk prediction index in a Western Australian population. Leonard RC, et al. **Anaesth Intensive Care** 1999 Apr;27(2):182–4

Benefits and risks of elimination diets. Arvola T, et al. **Ann Med** 1999 Aug;31(4):293–8 (42 ref.)

Assessment of cardiac risk before aortic reconstruction: noninvasive work-up using clinical examination, exercise testing, and dobutamine stress echocardiography versus routine coronary arteriography. Therre T, et al. **Ann Vasc Surg** 1999 Sep;13(5):501–8

Lessons from 12 years of comparative risk projects. Jones K, et al. **Annu Rev Public Health** 1999;20:159–72 (34 ref.)

The ability of non-ergonomists in the health care setting to make manual handling risk assessments and implement changes. Jones JA, et al. **Appl Ergon** 1999 Apr;30(2):159–66

Estimation of target hazard quotients and potential health risks for metals by consumption of seafood in Taiwan. Han B, et al. **Arch Environ Contam Toxicol** 1998 Nov; 35(4):711–20

Observations: Risk, reason, and regulation in contemporary medical devices. Lysaght MJ, et al. **ASAIO J** 1999 May-Jun;45(3):226–8 (18 ref.)

Developing profiles of risk for parental abduction of children from a comparison of families victimized by abduction with families litigating custody. Johnston JR, et al. **Behav Sci Law** 1999;17(3):305–22

The dangerous nature of intimate relationship stalking: threats, violence, and associated risk factors. Palarea RE, et al. **Behav Sci Law** 1999;17(3):269–83

Equipment management risk rating system based on engineering endpoints. James PJ. **Biomed Instrum Technol** 1999 Mar-Apr;33(2):115–20

Communicating risk reductions. Researchers should present results with both relative and absolute risks [letter] Edwards A, et al. **BMJ** 1999 Feb 27;318(7183):603; discussion 603–4

Communicating risk reductions. Data were selectively used [letter; comment] McMurray J. **BMJ** 1999 Feb 27; 318(7183):602; discussion 603–4. Comment on: BMJ 1998 Jun 27;316(7149):1956–8.

Communication and interpretation of risk. Eiser JR. **Br Med Bull** 1998;54(4):779–90 (27 ref.)

Rate of incidence of hepatocellular carcinoma in patients with compensated viral cirrhosis. Chiaramonte M, et al. **Cancer** 1999 May 15;85(10):2132–7

Beta-benzene hexachloride in breast adipose tissue and risk of breast carcinoma. Zheng T, et al. **Cancer** 1999 May 15; 85(10):2212–8

Risky business [editorial; comment] Block PC. **Catheter Cardiovasc Interv** 1999 Mar;46(3):263–4. Comment on: Catheter Cardiovasc Interv 1999 Mar;46(3):257–62.

Report of the WHO working group on the assessment of health risks for human infants from exposure to PCDDs, PCDFs and PCBs. Brouwer A, et al. **Chemosphere** 1998 Oct-Nov;37(9–12):1627–43

Time trends in human dietary exposure to PCDDs, PCDFs and PCBs in the UK. Harrison N, et al. **Chemosphere** 1998 Oct-Nov;37(9–12):1657–70

Balancing risks versus benefits in drug therapy decisions. Lasagna L. **Clin Ther** 1998;20 Suppl C:C72–9 (17 ref.)

Should physicians assess lifestyle risk factors routinely? [editorial; comment] Herbert CP. **CMAJ** 1999 Jun 29; 160(13):1849–50. Comment on: CMAJ 1999 Jun 29;160(13):1830–4.

Using the Internet to calculate clinical action thresholds. Hozo I, et al. **Comput Biomed Res** 1999 Apr;32(2):168–85

Interobserver variability in data collection of the APACHE II score in teaching and community hospitals. Chen LM, et al. **Crit Care Med** 1999 Sep;27(9):1999–2004

Biological effect markers for exposure to carcinogenic compound and their relevance for risk assessment. van Delft JH, et al. **Crit Rev Toxicol** 1998 Sep;28(5):477–510 (176 ref.)

EMF working group [letter] Boorman GA. **Environ Health Perspect** 1998 Dec;106(12):A584

Absence of certainty is not synonymous with absence of risk [editorial] Cairns J Jr. **Environ Health Perspect** 1999 Feb; 107(2):A56–7

A public health context for residual risk assessment and risk management under the clean air act. Charnley G, et al. **Environ Health Perspect** 1998 Sep;106(9):519–21

Independent review of industry-generated data [letter; comment] Davis DL, et al. **Environ Health Perspect** 1998 Dec;106(12):A583–4. Comment on: Environ Health Perspect 1998 Jun;106(6):299–301. Comment on: Environ Health Perspect 1998 Jun;106(6):303–6. Comment on: Environ Health Perspect 1998 Nov;106(11):725–31.

Human exposure assessment and the National Toxicology Program. Lucier GW, et al. **Environ Health Perspect** 1998 Oct;106(10):623–7

Environmental health 2000 [news] Schmidt CW. **Environ Health Perspect** 1998 Dec;106(12):A600–3

Inhalation health risk assessment of MMT. Davis JM, et al. **Environ Res** 1999 Feb;80(2 Pt 1):103–4

Learning to predict human error: issues of acceptability, reliability and validity. Stanton NA, et al. **Ergonomics** 1998 Nov;41(11):1737–56

Risk assessment and risk-based therapy in febrile neutropenic patients [editorial] Rolston KV. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):461–3

Prediction of the survival of patients with advanced ovarian cancer according to a risk model based on a scoring system. Schneider D, et al. **Eur J Gynaecol Oncol** 1998;19(6):547–52

Communication about risk: diversity among primary care professionals. Edwards A, et al. **Fam Pract** 1998 Aug; 15(4):296–300

Communication about risk: the responses of primary care professionals to standardizing the 'language of risk' and communication tools. Edwards A, et al. **Fam Pract** 1998 Aug;15(4):301–7

A review of the studies of the safety of polydextrose in food. Burdock GA, et al. **Food Chem Toxicol** 1999 Feb-Mar; 37(2–3):233–64 (21 ref.)

The risks of risk assessment in foods. Smith MR, et al. **Food Chem Toxicol** 1999 Feb-Mar;37(2–3):183–9

Blood Pressure Variability in Health and Disease. Proceedings of a satellite symposium to the 17th scientific meeting of the International Society of Hypertension. Nancy, France, 5 June 1998. **Fundam Clin Pharmacol** 1998; 12 Suppl 1:1s–80s

Endoscopic surveillance of Barrett's esophagus: risk stratification and cancer risk. Falk GW. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S29–34 (45 ref.)

Statistical issues in biological radiation dosimetry for risk assessment using stable chromosome aberrations. Cologne JB, et al. **Health Phys** 1998 Nov;75(5):518–29

Risk assessment and MRSA [letter] Teare EL. **Hosp Med** 1999 Jan;60(1):70

Mechanistic model predicts a U-shaped relation of radon exposure to lung cancer risk reflected in combined occupational and US residential data [see comments] Bogen KT. **Hum Exp Toxicol** 1998 Dec;17(12):691–6; discussion 701–4, 708–18 (31 ref.). Comment in: Hum Exp Toxicol 1998 Dec;17(12):705–7; discussion 716–8.

Hormesis as a default parameter in RfD derivation. Calabrese EJ, et al. **Hum Exp Toxicol** 1998 Aug;17(8):444–7

A cancer risk model with adaptive repair [see comments] Downs T, et al. **Hum Exp Toxicol** 1998 Dec; 17(12):697–700; discussion 701–4, 711–8 (3 ref.). Comment in: Hum Exp Toxicol 1998 Dec;17(12):705–7; discussion 716–8.

Risk assessment and risk management implications of hormesis. Paperiello CJ. **Hum Exp Toxicol** 1998 Aug; 17(8):460–2

U-shaped dose-response curves for carcinogens [comment] Portier CJ, et al. **Hum Exp Toxicol** 1998 Dec;17(12):705–7; discussion 716–8 (10 ref.). Comment on: Hum Exp Toxicol 1998 Dec;17(12):683–90;discussion 701–4, 708–18. Comment on: Hum Exp Toxicol 1998 Dec;17(12):691–6; discussion 701–4, 708–18. Comment on: Hum Exp Toxicol 1998 Dec;17(12):697–700; discussion 701–4, 711–8.

Hormesis--implications for risk assessment caloric intake (body weight) as an exemplar. Turturro A, et al. **Hum Exp Toxicol** 1998 Aug;17(8):454–9

Risk assessment and critical control points from the production perspective. Serra JA, et al. **Int J Food Microbiol** 1999 Jan 12;46(1):9–26

Predicting cytomegalovirus disease after renal transplantation: an artificial neural network approach. Sheppard D, et al. **Int J Med Inf** 1999 Apr;54(1):55–76

Analysis of intensive care populations to select possible candidates for high dependency care [published erratum appears in J Accid Emerg Med 1999 May;16(3):240] Pappachan JV, et al. **J Accid Emerg Med** 1999 Jan; 16(1):13–7

Mortality one-year postdischarge from a Veterans Affairs geriatric evaluation and management unit: assessing mortality risks. Williams AR, et al. **J Am Geriatr Soc** 1999 Jul;47(7):860–3

Microbial risk assessment, economics, and food safety. Morales RA. **J Am Vet Med Assoc** 1998 Dec 15; 213(12):1746–9 (8 ref.)

FDA: antimicrobial risk assessment model near completion [news] Nolen S. **J Am Vet Med Assoc** 1999 Jun 15; 214(12):1743

Epidemiology: bridges over (and across) roaring levels. Porta M, et al. **J Epidemiol Community Health** 1998 Oct; 52(10):605

GIS-based measures of environmental equity: exploring their sensitivity and significance. Sheppard E, et al. **J Expo Anal Environ Epidemiol** 1999 Jan-Feb;9(1):18–28

Tolerance limits and methodology: effect on international trade. Lupien JR, et al. **J Food Prot** 1998 Nov; 61(11):1571–8

A general framework illustrating an approach to quantitative microbial food safety risk assessment. McNab WB. **J Food Prot** 1998 Sep;61(9):1216–28 (28 ref.)

Using microcomputers to improve capital decision making. Holmes RL, et al. **J Health Care Finance** 1999 Spring; 25(3):52–9

Should we be doing more to prevent Group C meningococcal infection in school age children? How can we decide? Round A, et al. **J Public Health Med** 1999 Mar;21(1):8–13

Toxicokinetics and safety factors in risk assessment. Sinhaseni P, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:209–13

Prophylactic inferior vena cava filters in trauma patients at high risk: follow-up examination and risk/benefit assessment. Langan EM 3rd, et al. **J Vasc Surg** 1999 Sep; 30(3):484–88

Perils, pitfalls, and possibilities in talking about medical risk. Bogardus ST Jr, et al. **JAMA** 1999 Mar 17;281(11):1037–41

From the Food and Drug Administration. Nightingale SL. **JAMA** 1999 Jul 7;282(1):19

Goodness-of-fit tests for the additive risk model with ($p >$ 2)-dimensional time-invariant covariates. Kim J, et al. **Lifetime Data Anal** 1998;4(4):405–15

Backpropagation and adaptive resonance theory in predicting suicidal risk. Modai I, et al. **Med Inform (Lond)** 1998 Oct-Dec;23(4):325–30

Residential exposure to magnetic fields: an empirical examination of alternative measurement strategies. Baris D, et al. **Occup Environ Med** 1999 Aug;56(8):562–6

Editorial commentary on Roebuck DJ:"Risk and benefit in paediatric radiology" [editorial] Berdon WE. **Pediatr Radiol** 1999 Sep;29(9):721

Commentary on Roebuck DJ: "Risk and benefit in paediatric radiology". Hall E. **Pediatr Radiol** 1999 Sep;29(9):721–2

Prognostication and certainty in the pediatric intensive care unit. Marcin JP, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):868–73

Perception of dioxin and other risks in Japan: replication and extension. Yamagishi K, et al. **Percept Mot Skills** 1999 Jun; 88(3 Pt 1):1009–18

The Impact of Biology on Risk Assessment--workshop of the National Research Council's Board on Radiation Effects Research. July 21–22, 1997, National Academy of Sciences, Washington, DC. Fry RJ, et al. **Radiat Res** 1998 Dec;150(6):695–705

Are societal judgments being incorporated into the uncertainty factors used in toxicological risk assessment? Illing HP. **Regul Toxicol Pharmacol** 1999 Jun;29(3):300–8

Health risks of energy systems. Krewitt W, et al. **Risk Anal** 1998 Aug;18(4):377–83

Risk analysis and management of dam safety. Lave LB, et

al. **Risk Anal** 1998 Aug;18(4):455–62

Judgments of chemical risks: comparisons among senior managers, toxicologists, and the public. Mertz CK, et al. **Risk Anal** 1998 Aug;18(4):391–404

Estimation of unit risk for coke oven emissions. Moolgavkar SH, et al. **Risk Anal** 1998 Dec;18(6):813–25

Modelling age-specific risk: application to dementia. Commenges D, et al. **Stat Med** 1998 Sep 15;17(17):1973–88

The estimation of lifetime risk and average age at onset of a disease using a multivariate exponential hazard rate model. Fraser GE, et al. **Stat Med** 1999 Feb 28; 18(4):397–410

Biostatistical considerations in pharmacovigilance and pharmacoepidemiology: linking quantitative risk assessment in pre-market licensure application safety data, post-market alert reports and formal epidemiological studies. O'Neill RT. **Stat Med** 1998 Aug 15–30;17(15–16):1851–8; discussion 1859–62 (6 ref.)

Utilization of developmental basic science principles in the evaluation of reproductive risks from pre- and postconception environmental radiation exposures. Brent RL. **Teratology** 1999 Apr;59(4):182–204 (125 ref.)

Biological monitoring in occupational and environmental toxicology. Proceedings of the 4th International Symposium on Biological Monitoring. Seoul, Korea, 23–25 September 1998. **Toxicol Lett** 1999 Sep 5;108(2–3):77–339

Biochemical and molecular neurotoxicology: relevance to biomarker development, neurotoxicity testing and risk assessment. Costa LG. **Toxicol Lett** 1998 Dec 28; 102–103:417–21 (19 ref.)

Carcinogen risk assessment. Can we harmonise? Di Marco PN, et al. **Toxicol Lett** 1998 Dec 28;102–103:241–6 (16 ref.)

Risk assessment of pollution with pesticides in food in the Eastern Romania area (1996–1997). Hura C, et al. **Toxicol Lett** 1999 Jun 30;107(1–3):103–7

Risk assessment and management of occupational exposure to pesticides. Maroni M, et al. **Toxicol Lett** 1999 Jun 30; 107(1–3):145–53

Healthy volunteer studies in toxicology. Meulenbelt J, et al. **Toxicol Lett** 1998 Dec 28;102–103:35–9

Hazard identification and risk assessment of pyrethroids in the indoor environment. Pauluhn J. **Toxicol Lett** 1999 Jun 30;107(1–3):193–9

Genetic susceptibility: significance in risk assessment. Portier CJ, et al. **Toxicol Lett** 1998 Dec 28;102–103:185–9

Risk assessment and immunotoxicology. Van Loveren H, et al. **Toxicol Lett** 1998 Dec 28;102–103:261–5 (13 ref.)

Use of immunotoxicity data in health risk assessments: uncertainties and research to improve the process. Selgrade MK. **Toxicology** 1999 Mar 1;133(1):59–72

[Risk assessment being more important in epidemiological study] Graham JD.
Chung Hua Liu Hsing Ping Hsueh Tsa Chih 1997 Dec; 18(6):356–8 (11 ref.) **(Chi)**

[From science to clinical practice. Risk assessment in relation to treatment and prevention] Lauritzen T, et al.
Ugeskr Laeger 1999 Jun 14;161(24):3633–8 **(Dan)**

[Assessment of occupational environment of pregnant women by general practitioners and specialists in occupational medicine] Tophøj A. **Ugeskr Laeger** 1999 Sep 6; 161(36):5019–23 (Eng. Abstr.) **(Dan)**

[Assessment of risks associated with multiple events] Com-Nougué C, et al. **Rev Epidemiol Sante Publique** 1999 Mar;47(1):75–85 (Eng. Abstr.) **(Fre)**

[Absolute risk and treatment decisions in hypertensive patients] Cambou JP. **Rev Prat** 1999 Mar 1;49(5):503–9 (Eng. Abstr.) **(Fre)**

[The problem of interactions in perioperative prophylaxis: reducing the risk or increasing the risk?] Lorenz W, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:647–54 (Eng. Abstr.) **(Ger)**

[Drug therapy of imaginary health] Hunskår S.
Tidsskr Nor Laegeforen 1998 Oct 20;118(25):3919 **(Nor)**

[Are electromagnetic fields created by electric means hazardous to health?] Tynes T. **Tidsskr Nor Laegeforen** 1999 Feb 10;119(4):490 **(Nor)**

[Analysis of risks: social and ecologic aspects] Nikonorova EV. **Med Tr Prom Ekol** 1999;(3):10–3 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Changes in the classification of carcinogenic chemicals in the work area. (Section III of the German List of MAK and BAT values). Neumann HG, et al.
J Cancer Res Clin Oncol 1998;124(12):661–9

HISTORY

[The risk in epidemiology and in public health: risk management. 1988 (classical article)] Schwartz D.
Rev Epidemiol Sante Publique 1998 Dec;46(6):541–4 **(Fre)**

METHODS

Standardized risk comparisons of neurological disorders in different populations [letter] Mirjana J, et al.
Acta Neurol Scand 1998 Dec;98(6):466–7

The acceptability of a computer HIV/AIDS risk assessment to not-in-treatment drug users. Williams ML, et al.
AIDS Care 1998 Dec;10(6):701–11

Predicting the risk of pressure ulcers in critically ill patients. Carlson EV, et al. **Am J Crit Care** 1999 Jul;8(4):262–9

A new method for estimating the risk ratio in studies using case–parental control design [see comments] Sun F, et al. **Am J Epidemiol** 1998 Nov 1;148(9):902–9. Comment in: Am J Epidemiol 1999 Aug 15;150(4):428–9.

Application of risk analysis and geographic information system technologies to the prevention of diarrheal diseases in Nigeria. Njemanze PC, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):356–60

Development of a draft British standard: the assessment of heat strain for workers wearing personal protective equipment. Hanson MA. **Ann Occup Hyg** 1999 Jul; 43(5):309–19 (38 ref.)

The role of performance tests, manikins and test houses in defining clothing characteristics relevant to risk assessment. Holmér I. **Ann Occup Hyg** 1999 Jul;43(5):353–6 (15 ref.)

Strategy for evaluation and prevention of risk due to work in thermal environments. Malchaire J, et al.
Ann Occup Hyg 1999 Jul;43(5):367–76 (15 ref.)

International standards for the assessment of the risk of thermal strain on clothed workers in hot environments. Parsons KC. **Ann Occup Hyg** 1999 Jul;43(5):297–308 (28 ref.)

Applying the BeSafe method to product safety evaluation. Benedyk R, et al. **Appl Ergon** 1998 Feb;29(1):5–13 (16 ref.)

Threat assessment: defining an approach for evaluating risk of targeted violence. Borum R, et al. **Behav Sci Law** 1999; 17(3):323–37 (52 ref.)

Suicide and violence risk in law enforcement: practical guidelines for risk assessment, prevention, and intervention. Mohandie K, et al. **Behav Sci Law** 1999;17(3):357–76 (56 ref.)

Assessing threats of targeted group violence: contributions from social psychology. Pynchon MR, et al.
Behav Sci Law 1999;17(3):339–55 (52 ref.)

Differentiating stranger murders: profiling offender characteristics from behavioral styles. Salfati CG, et al. **Behav Sci Law** 1999;17(3):391–406

Empirically identifying factors related to violence risk in corrections. Wang EW, et al. **Behav Sci Law** 1999; 17(3):377–89

Number needed to harm should be measured for treatments [letter] Zermansky A. **BMJ** 1998 Oct 10;317(7164):1014

Clinical pharmacology and drug regulation. Breckenridge A. **Br J Clin Pharmacol** 1999 Jan;47(1):11–2

Risk scoring in surgical patients. Jones HJ, et al.
Br J Surg 1999 Feb;86(2):149–57 (72 ref.)

Estimation of mortality and morbidity risk in vascular surgery using POSSUM and the Portsmouth predictor equation. Midwinter MJ, et al. **Br J Surg** 1999 Apr;86(4):471–4

Comparison of POSSUM and the Portsmouth predictor equation for predicting death following vascular surgery [letter; comment] Tekkis P, et al. **Br J Surg** 1999 May; 86(5):713–4. Comment on: Br J Surg 1998 Feb;85(2):209–12.

A study of the relationship between family history of breast cancer and knowledge of breast cancer genetic testing prerequisites. Mouchawar J, et al. **Cancer Detect Prev** 1999; 23(1):22–30

Tick-borne encephalitis and Lyme borreliosis: comparison of habitat risk assessments using satellite data (an experience from the Central Bohemian region of the Czech Republic). Daniel M, et al. **Cent Eur J Public Health** 1999 Feb; 7(1):35–9

Reporting risks and benefits of therapy by use of the concepts of unqualified success and unmitigated failure: applications to highly cited trials in cardiovascular medicine. Mancini GB, et al. **Circulation** 1999 Jan 26;99(3):377–83

Do physicians assess lifestyle health risks during general medical examinations? A survey of general practitioners and obstetrician-gynecologists in Quebec [see comments] Maheux B, et al. **CMAJ** 1999 Jun 29;160(13):1830–4. Comment in: CMAJ 1999 Jun 29;160(13):1849–50.

Identifying and mapping community vulnerability. Morrow BH. **Disasters** 1999 Mar;23(1):1–18 (126 ref.)

Physiological modeling of toxicokinetic interactions: implications for mixture risk assessment. Haddad S, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1377–84 (31 ref.)

Wavelet decomposition analysis of the signal averaged electrocardiogram used for risk stratification of patients with hypertrophic cardiomyopathy. Englund A, et al.
Eur Heart J 1998 Sep;19(9):1383–90

Ambulatory system to aid in decision making and risk stratification in postinfarction patients. Pascual M, et al. **Front Med Biol Eng** 1997;8(4):269–86

To what extent are biomonitoring data available in chemical risk assessment? Brondeau MT, et al. **Hum Exp Toxicol** 1999 May;18(5):322–6

A general classification of U-shaped dose-response relationships in toxicology and their mechanistic foundations. Calabrese EJ, et al. **Hum Exp Toxicol** 1998 Jul;17(7):353–64

Evaluation of the SENIC risk index in a Spanish university hospital. Valls V, et al. **Infect Control Hosp Epidemiol** 1999 Mar;20(3):196–9

Ergonomic exposure assessment: an application of the PATH systematic observation method to retail workers. Postures, Activities, Tools and Handling. Pan CS, et al.
Int J Occup Environ Health 1999 Apr–Jun;5(2):79–87

The clinical relevance of the Waterlow pressure sore risk scale in the ICU. Weststrate JT, et al.
Intensive Care Med 1998 Aug;24(8):815–20

The child suicide potential scale: inter-rater reliability and validity in Israeli in-patient adolescents. Ofek H, et al.
Isr J Psychiatry Relat Sci 1998;35(4):253–61

Assessment of HIV risk. Chawarski MC, et al.
J Addict Dis 1998;17(4):49–59

Integrating cancer risk assessment into a community health nursing course. Phillips JM, et al. **J Cancer Educ** 1999 Spring;14(1):47–51

Consecutive screening and enrollment in clinical trials: the way to representative patient samples? [see comments] Bjørn M, et al. **J Card Fail** 1998 Sep;4(3):225–30; discussion 231. Comment in: J Card Fail 1998 Sep;4(3):233. Comment in: J Card Fail 1998 Sep;4(3):235–6. Comment in: J Card Fail 1998 Sep;4(3):237–8. Comment in: J Card Fail 1998 Sep;4(3):239–41. Comment in: J Card Fail 1998 Sep;4(3):243–7.

Strategies for patient recruitment into clinical trials [editorial; comment] Yusuf S. **J Card Fail** 1998 Sep;4(3):235–6. Comment on: J Card Fail 1998 Sep;4(3):225–30; discussion 231.

Do measures of externalising behaviour in normal populations predict later outcome?: Implications for targeted interventions to prevent conduct disorder. Bennett KJ, et al. **J Child Psychol Psychiatry** 1998 Nov;39(8):1059–70 (64 ref.)

Risk-informed selection of a highway trajectory in the neighborhood of an oil-refinery. Papazoglou IA, et al.
J Hazard Mater 1999 Jun 11;67(2):111–44

Help with HACCP. Worsfold D. **J R Soc Health** 1998 Oct; 118(5):295–9

Indications for cholesterol-lowering medication: comparison of risk-assessment methods [see comments] [published erratum appears in Lancet 1999 Jul 10;354(9173):166] Durrington PN, et al. **Lancet** 1999 Jan 23;353(9149):278–81 . Comment in: Lancet 1999 Jan 23;353(9149):254–5. Comment in: Lancet 1999 mar 27;353(9158):1095; discussion 1096– 7.

Coronary risk assessment methods and cholesterol lowering [letter; comment] Ramsay LE, et al. **Lancet** 1999 Mar 27; 353(9158):1095; discussion 1096–7. Comment on: Lancet 1999 Jan 23;353(9149):278–81.

Assessing violence risk among discharged psychiatric patients: toward an ecological approach. Silver E, et al.
Law Hum Behav 1999 Apr;23(2):237–55

When asked, patients tell: disclosure of sensitive health-risk behaviors. Gerbert B, et al. **Med Care** 1999 Jan;37(1):104–11

Testing for the BRCA1 and BRCA2 breast-ovarian cancer susceptibility genes: a decision analysis. Tengs TO, et al.
Med Decis Making 1998 Oct–Dec;18(4):365–75

Analysis methods for new work cell standards. Risk analysis and risk reduction help in dealing with the revised Robot Standard. Steinmann J. **Occup Health Saf** 1998 Dec; 67(12):24–7

Evaluation of risk assessment questions used to target blood lead screening in Illinois. Binns HJ, et al. **Pediatrics** 1999 Jan;103(1):100–6

Can low accuracy disease risk predictor models improve health care using decision support systems? Benn DK, et al. **Proc AMIA Symp** 1998;:577–81

The use of hematological effects in the development of minimal risk levels. Abadin HG, et al.
Regul Toxicol Pharmacol 1998 Aug;28(1):61–6 (34 ref.)

Overestimation bias and other pitfalls associated with the estimated 99.9th percentile in acute dietary exposure assessments. Chaisson CF, et al.
Regul Toxicol Pharmacol 1999 Apr;29(2 Pt 1):102–27

Veterinary drugs no longer need testing for carcinogenicity in rodent bioassays. Galer DM, et al.
Regul Toxicol Pharmacol 1998 Oct;28(2):115–23 (53 ref.)

Procedures for calculating benchmark doses for health risk assessment. Gaylor D, et al. **Regul Toxicol Pharmacol** 1998 Oct;28(2):150–64 (62 ref.)

Recent bioassay results on coal tars and benzo(a)pyrene: implications for risk assessment. Gaylor DW, et al.
Regul Toxicol Pharmacol 1998 Oct;28(2):178–9

Regulatory cancer risk assessment based on a quick estimate of a benchmark dose derived from the maximum tolerated dose. Gaylor DW, et al. **Regul Toxicol Pharmacol** 1998 Dec;28(3):222–5

A unified approach to risk assessment for cancer and noncancer endpoints based on benchmark doses and uncertainty/safety factors. Gaylor DW, et al.
Regul Toxicol Pharmacol 1999 Apr;29(2 Pt 1):151–7

Uncertainty analysis methods for comparing predictive models and biomarkers: A case study of dietary methyl mercury exposure. Ponce RA, et al.
Regul Toxicol Pharmacol 1998 Oct;28(2):96–105 (36 ref.)

Linear extrapolation models of lung cancer risk associated with exposure to environmental tobacco smoke. Rosenbaum WL, et al. **Regul Toxicol Pharmacol** 1998 Oct; 28(2):106–14 (30 ref.)

Aggregate exposures under the Food Quality Protection Act: An approach using chlorpyrifos. Shurdut BA, et al.
Regul Toxicol Pharmacol 1998 Oct;28(2):165–77 (65 ref.)

Exposure endpoint selection in acute dietary risk assessment. Wolt JD. **Regul Toxicol Pharmacol** 1999 Jun;29(3):279–86

"Toxicologists: have we been honest with the public?" [letter; comment] Boekelheide K. **Toxicol Sci** 1998 Dec; 46(2):418–9. Comment on: Toxicol Sci 1998 Feb;41(2):153–4.

Stimulating research to improve the scientific basis of risk assessment. Conolly RB, et al. **Toxicol Sci** 1999 May; 49(1):1–4 (11 ref.)

[Roaming through methodology. V. The prevention paradox: few with a high risk versus many with a moderate risk (see comments)] Gunning-Schepers LJ.
Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1870-3 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 7;142(45):2488. **(Dut)**

[Epidemiological aspects and surveillance of risky environments] Grivegnée A. **Rev Med Brux** 1998 Sep; 19(4):A342-5 (Eng. Abstr.) **(Fre)**

[Concept of acceptable risk in space flight medical support system] Petrov VM. **Aviakosm Ekolog Med** 1998; 32(5):46-51 (3 ref.) (Eng. Abstr.) **(Rus)**

[Obstetric risk: evaluation of existing indices and criteria] Aranda JM, et al. **Aten Primaria** 1998 Sep 15;22(4):205-14 (Eng. Abstr.) **(Spa)**

STANDARDS

Standardized risk comparisons of neurological disorders in different populations [letter] Mirjana J, et al.
Acta Neurol Scand 1998 Dec;98(6):466-7

Development of a draft British standard: the assessment of heat strain for workers wearing personal protective equipment. Hanson MA. **Ann Occup Hyg** 1999 Jul; 43(5):309-19 (38 ref.)

International standards for the assessment of the risk of thermal strain on clothed workers in hot environments. Parsons KC. **Ann Occup Hyg** 1999 Jul;43(5):297-308 (28 ref.)

How good are experienced interventional cardiologists in predicting the risk and difficulty of a coronary angioplasty procedure? A prospective study to optimize surgical standby [see comments] Brueren BR, et al.
Catheter Cardiovasc Interv 1999 Mar;46(3):257-62. Comment in: Catheter Cardiovasc Interv 1999 Mar;46(3):263-4.

Cancer risk assessment of extremely low frequency electric and magnetic fields: a critical review of methodology. McCann J. **Environ Health Perspect** 1998 Nov; 106(11):701-17 (197 ref.)

A procedure for the safety evaluation of flavouring substances. Joint FAO/WHO Expert Committee on Food Additives. Munro IC, et al. **Food Chem Toxicol** 1999 Feb-Mar;37(2-3):207-32 (111 ref.)

Updating of hygiene standards for carbon disulfide based on health risk assessment. Stetkiewicz J, et al.
Int J Occup Med Environ Health 1998;11(2):129-43 (93 ref.)

Nosocomial infection, indices of intrinsic infection risk, and in-hospital mortality in general surgery.
Delgado-Rodriguez M, et al. **J Hosp Infect** 1999 Mar; 41(3):203-11

Indications for cholesterol-lowering medication: comparison of risk-assessment methods [see comments] [published erratum appears in Lancet 1999 Jul 10;354(9173):166] Durrington PN, et al. **Lancet** 1999 Jan 23;353(9149):278-81 . Comment in: Lancet 1999 Jan 23;353(9149):254-5. Comment in: Lancet 1999 mar 27;353(9158):1095; discussion 1096- 7.

Risky business: health risk assessment and public health policy on environmental carcinogens. Sim MR, et al.
Med J Aust 1999 Apr 19;170(8):372-4 (15 ref.)

Biostatistical considerations in pharmacovigilance and pharmacoepidemiology: linking quantitative risk assessment in pre-market licensure application safety data, post-market alert reports and formal epidemiological studies. O'Neill RT. **Stat Med** 1998 Aug 15-30;17(15-16):1851-8; discussion 1859-62 (6 ref.)

STATISTICS & NUMERICAL DATA

Methods for correcting risk estimates [letter] Luostarinen T.
Methods Inf Med 1999 Mar;38(1):74

A probabilistic approach for deriving acceptable human intake limits and human health risks from toxicological studies: general framework. Slob W, et al. **Risk Anal** 1998 Dec;18(6):787-98

Case-control isotonic regression for investigation of elevation in risk around a point source. Diggle P, et al.
Stat Med 1999 Jul 15;18(13):1605-13

RISK BEHAVIOR see **RISK-TAKING**

RISK-BENEFIT ASSESSMENT see **RISK ASSESSMENT**

RISK FACTORS

Eye and hair colour, skin type and constitutive skin pigmentation as risk factors for basal cell carcinoma and cutaneous malignant melanoma. A Danish case-control study. Lock-Andersen J, et al. **Acta Derm Venereol** 1999 Jan;79(1):74-80

RISK MANAGEMENT

Problems associated with nursing staff shortage: an analysis of the first 3600 incident reports submitted to the Australian Incident Monitoring Study (AIMS-ICU). Beckmann U, et al. **Anaesth Intensive Care** 1998 Aug;26(4):396-400

Incident reporting in acute pain management. Chen PP, et al. **Anaesthesia** 1998 Aug;53(8):730-5

Critical incidents [letter; comment] Lack A. **Anaesthesia** 1998 Oct;53(10):1035. Comment on: Anaesthesia 1998 Jun;53(6):595-8.

Arterial grafting: techniques and conduits [see comments] Barner HB. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S2-5; discussion S25-8 (19 ref.). Comment in: Ann Thorac Surg 1999 Aug;68(2):631-2.

Inflammatory response to cardiopulmonary bypass. Edmunds LH Jr. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S12-6; discussion S25-8 (13 ref.)

The efficacy and safety of aprotinin use in cardiac surgery. Rich JB. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S6-11; discussion S25-8 (20 ref.)

Central nervous system effects of cardiopulmonary bypass. Taylor KM. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S20-4; discussion S25-8 (11 ref.)

Endothelial response to cardiopulmonary bypass surgery. Verrier ED, et al. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S17-9; discussion S25-8 (12 ref.)

Some hopes and concerns regarding medical event-reporting systems: lessons from the NASA Aviation Safety Reporting System [editorial; comment] Billings CE.
Arch Pathol Lab Med 1998 Mar;122(3):214-5. Comment on: Arch Pathol Lab Med 1998 Mar;122(3):231-8.

Clinical risk management: principles of consent and patient information. McIlwain JC. **Clin Otolaryngol** 1999 Aug; 24(4):255-61

SOGC sounds ALARM on legal pitfalls facing ob/gyns. Sibbald B. **CMAJ** 1999 Sep 7;161(5):565-6

The wrong diagnosis: identifying causes of potentially adverse events in general practice using incident monitoring. Bhasale A. **Fam Pract** 1998 Aug;15(4):308-18

Talisman or taboo: the controversy of the suicide-prevention contract. Miller MC, et al. **Harv Rev Psychiatry** 1998 Jul-Aug;6(2):78-87 (64 ref.)

Carbon monoxide exposures during inhalation anesthesia: the interaction between halogenated anesthetic agents and carbon dioxide absorbents. **Health Devices** 1998 Nov; 27(11):402-4

Undetected venous line needle dislodgment during hemodialysis. **Health Devices** 1998 Nov;27(11):404-6

Is nurse-supervised exercise stress testing safe practice? Zecchin RP, et al. **Heart Lung** 1999 May-Jun;28(3):175-85

Communication and coordination of care among providers. Keyes C. **Int J Qual Health Care** 1999 Apr;11(2):169-70

Accidental drug dosage error. Keyes C.
Int J Qual Health Care 1998 Aug;10(4):357

Altered prescriptions? It happens! **Iowa Med** 1999 Jul-Aug; 89(4):15

A web-based risk management and medical-legal curriculum for graduate medical education. Balcezak TJ, et al.
J Biocommun 1998;25(4):2-5

Why should we report adverse incidents? [editorial; comment] Leape LL. **J Eval Clin Pract** 1999 Feb;5(1):1-4 . Comment on: J Eval Clin Pract 1999 Feb;5(1):5-12. Comment on: J Eval Clin Pract 1999 Feb;5(1):13-21. Comment on: J Eval Clin Pract 1999 Feb;5(1):23-32.

Looking at environmental justice from an environmental health perspective. Sexton K, et al.
J Expo Anal Environ Epidemiol 1999 Jan-Feb;9(1):3-8

Risk assessment and economic analysis for managing risks to human health from pathogenic microorganisms in the food supply. Morales RA, et al. **J Food Prot** 1998 Nov; 61(11):1567-70

Towards the safer use of warfarin I: an overview. Gallus AS. **J Qual Clin Pract** 1999 Mar;19(1):55-9 (22 ref.)

Incident monitoring in psychiatry. Wright M, et al.
J Qual Clin Pract 1998 Dec;18(4):249-61

Promoting patient safety by preventing medical error [editorial] [see comments] Leape LL, et al. **JAMA** 1998 Oct 28;280(16):1444-7. Comment in: JAMA 1999 Apr 7;281(13):1174.

Reporting patients to driver-licensing authorities [letter] Black AB. **Med J Aust** 1999 Apr 19;170(8):395, 398

Angered patients and the medical profession [editorial; comment] Nisselle P. **Med J Aust** 1999 Jun 21; 170(12):576-7. Comment on: Med J Aust 1999 Jun 21;170(12):598-602.

Introduction of a new medical procedure: a novel approach. Livnat AA. **Med Law** 1998;17(4):507-10

Critical incident reports. Qadir N, et al.
Middle East J Anesthesiol 1998 Oct;14(6):425-32

The Stent report, one year on. Christchurch Hospital's Medical Specialists Association. Foate J, et al.
N Z Med J 1999 Jul 23;112(1092):278-9

Risk reduction for exposure to blood-borne pathogens in EMS. National Association of Emergency Medical Services Physicians. Rinnert KJ, et al.
Prehosp Emerg Care 1998 Jan-Mar;2(1):62-6

Violence and aggression in psychiatric units. Owen C, et al. **Psychiatr Serv** 1998 Nov;49(11):1452-7

A conversation on medical injury. Leape LL, et al.
Public Health Rep 1999 Jul-Aug;114(4):302-17

Anticoagulation and neuraxial block: historical perspective, anesthetic implications, and risk management. Horlocker TT, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6 Suppl 2):129-34 (21 ref.)

Risk management lessons from a review of 168 cataract surgery claims. Brick DC. **Surv Ophthalmol** 1999 Jan-Feb; 43(4):356-60 (0 ref.)

Risk assessment and management of occupational exposure to pesticides. Maroni M, et al. **Toxicol Lett** 1999 Jun 30; 107(1-3):145-53

Regulating pesticides in the UK: a case study of risk management problems relating to the organophosphate diazinon. Watterson AE. **Toxicol Lett** 1999 Jun 30; 107(1-3):241-8

Microbiology & risk management. Emmerson AM.
Ulster Med J 1998 Jun;67 Suppl 1:70-2

[Guide for filling out the transfusion incident report (paper). National Conference of Regional Hemosurveillance Coordinators. March 1998] **Transfus Clin Biol** 1999 Jun; 6(3):201-7 **(Fre)**

[Risk management as a means of quality assurance in the hospital] Bergmann KO, et al.
Z Arztl Fortbild Qualitatssich 1999 Jan;93(1):57-62 (Eng. Abstr.) **(Ger)**

[Quality assurance and risk management in gynecology and obstetrics] Ulsenheimer K. **Zentralbl Gynakol** 1998; 120(12):593-7 (4 ref.) (Eng. Abstr.) **(Ger)**

[Methods of lessening operational risks: juridical aspects (lecture)] Kuznetsov NA. **Khirurgiia (Mosk)** 1998;(11):52-4 **(Rus)**

[Make the medical risk management a subject in medical training (letter)] Ternov S. **Lakartidningen** 1999 May 26; 96(21):2584 **(Swe)**

CLASSIFICATION

A classification for incidents and accidents in the health-care system. Runciman WB, et al. **J Qual Clin Pract** 1998 Sep; 18(3):199-211

ECONOMICS

Adverse events in health care: setting priorities based on economic evaluation. Rigby K, et al. **J Qual Clin Pract** 1999 Mar;19(1):7-12

LEGISLATION & JURISPRUDENCE

Restraint reduction and legal risk management. Kapp MB.
J Am Geriatr Soc 1999 Mar;47(3):375-6

[New principles of reporting in occupational health services--bureaucracy or an effective marker instruments?] Durasiewicz Z. **Med Pr** 1998;49(2):191-200 (Eng. Abstr.) **(Pol)**

METHODS

Strategic risk management: reducing malpractice claims through more effective patient-doctor communication. Virshup BB, et al. **Am J Med Qual** 1999 Jul-Aug; 14(4):153-9 (26 ref.)

Latex allergy: a strategy for management [see comments] Dakin MJ, et al. **Anaesthesia** 1998 Aug;53(8):774-81. Comment in: Anaesthesia 1998 Dec;53(12):1236.

Building a successful risk-based competency assessment model. Parsons EC, et al. **AORN J** 1997 Dec;66(6):1065-71

The attributes of medical event-reporting systems: experience with a prototype medical event-reporting system for transfusion medicine [see comments] Battles JB, et al.
Arch Pathol Lab Med 1998 Mar;122(3):231-8. Comment in: Arch Pathol Lab Med 1998 Mar;122(3):214-5.

Clinical engineers have a role to play in risk management. Shepherd M. **Biomed Instrum Technol** 1998 Nov-Dec; 32(6):605-6

Why are patients discharged by review boards? O'Reilly RL, et al. **Can J Psychiatry** 1999 Apr;44(3):259-63

Year 2000 contingency planning. **Health Devices** 1999 Aug; 28(8):293-317

From whodunit to what happened. Greene J.
Hosp Health Netw 1999 Apr;73(4):50-2, 54

Reducing the risk of malpractice claims. Lichtstein DM, et al. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):69-72, 75-6, 79

Issues in the management of resistant bacteria in long-term-care facilities. Bradley SF.
Infect Control Hosp Epidemiol 1999 May;20(5):362-6 (47 ref.)

Use of initial risk assessment and recording as the main nursing intervention in identifying risk of falls. Udén G, et al. **J Adv Nurs** 1999 Jan;29(1):145-52

The assessment and management of risk in adolescents. Sheldrick C. **J Child Psychol Psychiatry** 1999 May; 40(4):507-18 (73 ref.)

Screening for adverse events [see comments] Karson AS, et al. **J Eval Clin Pract** 1999 Feb;5(1):23-32. Comment in: J Eval Clin Pract 1999 Feb;5(1):1-4.

Managing risk in a risky world. Eastaugh SR.
J Health Care Finance 1999 Spring;25(3):10-6

Legal issues in neonatal nursing: considerations for staff nurses and advanced practice nurses. Enzman Hagedorn MI, et al. **J Obstet Gynecol Neonatal Nurs** 1999 May-Jun; 28(3):320-30 (29 ref.)

Strategies for reducing the risk of malpractice litigation in perinatal nursing. Koniak-Griffin D.
J Obstet Gynecol Neonatal Nurs 1999 May-Jun;28(3):291-9 (33 ref.)

Fetal surveillance and monitoring legal issues revisited. McRae MJ. **J Obstet Gynecol Neonatal Nurs** 1999 May-Jun;28(3):310-9 (28 ref.)

Professional accountability and legal liability for the team leader and charge nurse. Mahlmeister L.
J Obstet Gynecol Neonatal Nurs 1999 May-Jun;28(3):300-9 (23 ref.)

Frequency, consequences and prevention of adverse drug events. Bates DW. **J Qual Clin Pract** 1999 Mar;19(1):13-7

Towards system-wide strategies for reducing adverse drug events. Clark RB, et al. **J Qual Clin Pract** 1999 Mar;

19(1):37-40
The Australian Medication Safety Working Group: developing a strategy for reducing adverse drug events in the Australian health system [editorial] [see comments] Doecke CJ. **J Qual Clin Pract** 1999 Mar;19(1):5. Comment in: J Qual Clin Pract 1999 Mar;19(1):1-2.
Towards the safer use of warfarin II: results of a workshop. Halstead PJ, et al. **J Qual Clin Pract** 1999 Mar;19(1):61-2
Towards safer blood transfusion practice. Hodgkinson B, et al. **J Qual Clin Pract** 1999 Mar;19(1):63-7
An analysis of Australian adverse drug events. Malpass A, et al. **J Qual Clin Pract** 1999 Mar;19(1):27-30 (7 ref.)
A classification for adverse drug events. Malpass A, et al. **J Qual Clin Pract** 1999 Mar;19(1):23-6
Towards safer drug prescribing, dispensing and administration in hospitals. Thornton PD, et al. **J Qual Clin Pract** 1999 Mar;19(1):41-5
Examination of gavage tube placement in children. Ellett ML, et al. **J Soc Pediatr Nurs** 1999 Apr-Jun;4(2):51-60
Methods of responding to healthcare security incidents. Furnell S, et al. **Medinfo** 1998;9 Pt 2:1138-42
Risk management and data: managed care company perspective. Kanwit SW. **Oncology (Huntingt)** 1998 Nov; 12(11A):162-5
Safer security pages [letter] Eshelman M, et al. **Psychiatr Serv** 1999 Mar;50(3):418
The impact of a token economy on injuries and negative events on an acute psychiatric unit. LePage JP. **Psychiatr Serv** 1999 Jul;50(7):941-4
Biomarkers in the identification of risks, especially with regard to susceptible persons and subgroups [editorial] Vainio H. **Scand J Work Environ Health** 1999 Feb;25(1):1-3
The pursuit of effective neuroprotection during infant cardiac surgery. du Plessis AJ, et al. **Semin Pediatr Neurol** 1999 Mar;6(1):55-63 (123 ref.)
Loss prevention case of the month. Inattentive to essential details. Avery JK. **Tenn Med** 1999 Apr;92(4):132-3
Identification and classification of the causes of events in transfusion medicine [see comments] Kaplan HS, et al. **Transfusion** 1998 Nov-Dec;38(11-12):1071-81. Comment in: Transfusion 1998 Nov-Dec;38(11-12):999-1003.
Resting assured: risk management in the prescription of controlled substances. Longo LP. **WMJ** 1999 Jan-Feb; 98(1):23-9

ORGANIZATION & ADMINISTRATION

Risk management and medical devices. Dolan AM. **Biomed Instrum Technol** 1999 Jul-Aug;33(4):331-3
IEC 60601-1, the 3rd edition: what will change? Sidebottom C. **Biomed Instrum Technol** 1999 Jul-Aug;33(4):334-6
Preparing hospital medical devices for year 2000: a risk analysis approach. Tsitlik JE, et al. **Biomed Instrum Technol** 1999 Jan-Feb;33(1):18-23
Access to justice--implications of the Woolf report. Tearle P. **Commun Dis Public Health** 1999 Sep;2(3):227-8
Incidents and accidents in health care: it's time! [editorial; comment] Runciman WB. **J Qual Clin Pract** 1999 Mar; 19(1):1-2. Comment on: J Qual Clin Pract 1999 Mar;19(1):5.
Employer-provider partnerships in advanced managed care: human assets risk management. Comstock ML. **Occup Med** 1998 Oct-Dec;13(4):645-61, iii (28 ref.)
American Academy of Pediatrics. Committee on Injury and Poison Prevention. Safe transportation of newborns at hospital discharge. Bull M, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):986-7
Interactions between science, government and media on selection and testing of donors. Sazama K. **Vox Sang** 1998; 74 Suppl 2:503-6 (24 ref.)
Risk management in blood transfusion services. Whyte G. **Vox Sang** 1998;74 Suppl 2:105-9 (37 ref.)
[What is the use of hemovigilance?] Quaranta JF, et al. **Transfus Clin Biol** 1998 Dec;5(6):415-21 (Eng. Abstr.) **(Fre)**
[The management of the risk due to the manual lifting of patients in a hospital risk-management program] Margonari M, et al. **Med Lav** 1999 Mar-Apr;90(2):351-61 (Eng. Abstr.) **(Ita)**
[The experience of managing the risk due to the manual lifting of patients in the hospital reality of Local Health Screening Unit Enterprise 18, the Veneto region] Torri P, et al. **Med Lav** 1999 Mar-Apr;90(2):362-80 (Eng. Abstr.) **(Ita)**

STANDARDS

Who will protect mentally ill individuals from themselves? [letter] Melamed Y, et al. **Can J Psychiatry** 1999 May; 44(4):392-3
Medical device problem reporting for the betterment of healthcare. **Health Devices** 1998 Aug;27(8):277-92
Varicella serological status of healthcare workers as a guide to whom to test or immunize. Brunell PA, et al. **Infect Control Hosp Epidemiol** 1999 May;20(5):355-7
A risk management audit: are we complying with the national guidelines for sedation by non-anaesthetists? Nicol MF. **J Accid Emerg Med** 1999 Mar;16(2):120-2
Analysing potential harm in Australian general practice: an incident-monitoring study [letter; comment] Flaherty GN. **Med J Aust** 1999 Mar 15;170(6):287-8. Comment on: Med J Aust 1998 Jul 20;169(2):67-8. Comment on: Med J Aust 1998 Jul 20;169(2):73-6.
A review of infection control practices, risk reduction, and legislative regulations for blood-borne disease: applications for emergency medical services. Rinnert KJ. **Prehosp Emerg Care** 1998 Jan-Mar;2(1):70-5 (40 ref.)
Assessment of psychiatric patients' risk of violence toward others. Thienhaus OJ, et al. **Psychiatr Serv** 1998 Sep; 49(9):1129-30, 1147

STATISTICS & NUMERICAL DATA

Prevalence of nonreporting behavior of sharps injuries in Taiwanese health care workers. Shiao JS, et al. **Am J Infect Control** 1999 Jun;27(3):254-7
Understanding why medication administration errors may not be reported. Wakefield DS, et al. **Am J Med Qual** 1999 Mar-Apr;14(2):81-8
Understanding and comparing differences in reported medication administration error rates. Wakefield DS, et al. **Am J Med Qual** 1999 Mar-Apr;14(2):73-80
Risk management for plausibly hormetic environmental carcinogens: the case of radon. Bogen KT, et al. **Hum Exp Toxicol** 1998 Aug;17(8):463-7
Risk assessment and risk management implications of hormesis. Paperiello CJ. **Hum Exp Toxicol** 1998 Aug; 17(8):460-2
A survey of percutaneous/mucocutaneous injury reporting in a public teaching hospital [published erratum appears in J Hosp Infect 1999 May;42(1):83] Haiduven DJ, et al. **J Hosp Infect** 1999 Feb;41(2):151-4
Nurses' perceptions: when is it a medication error? Osborne J, et al. **J Nurs Adm** 1999 Apr;29(4):33-8
Repeated assaults by patients in VA hospital and clinic settings. Blow FC, et al. **Psychiatr Serv** 1999 Mar; 50(3):390-4
[Aggression in the psychiatric hospital. A psychiatric basic documentation based 6-year study of 17,943 inpatient admissions] Spiessl H, et al. **Psychiatr Prax** 1998 Sep; 25(5):227-30 (Eng. Abstr.) **(Ger)**

UTILIZATION

Glove usage and reporting of needlestick injuries by junior hospital medical staff. Hettiaratchy S, et al. **Ann R Coll Surg Engl** 1998 Nov;80(6):439-41
An evaluation of adverse incident reporting [see comments] Stanhope N, et al. **J Eval Clin Pract** 1999 Feb;5(1):5-12 . Comment in: J Eval Clin Pract 1999 Feb;5(1):1-4.
Reasons for not reporting adverse incidents: an empirical study [see comments] Vincent C, et al. **J Eval Clin Pract** 1999 Feb;5(1):13-21. Comment in: J Eval Clin Pract 1999 Feb;5(1):1-4.

RISK RATIO see **ODDS RATIO**

RISK SHARING, FINANCIAL

see related
MANAGED CARE PROGRAMS

Capitation payment rates and implications for the general pediatrician. Anderson GF, et al. **Curr Opin Pediatr** 1998 Oct;10(5):480-5 (32 ref.)
Risk sharing in managed behavioral health care. Rosenthal MB. **Health Aff (Millwood)** 1999 Sep-Oct;18(5):204-13
Risk, trust, and the HMO [editorial] Flood AB. **J Health Soc Behav** 1998 Sep;39(3):187-8
Trust me: technical and institutional determinants of health maintenance organizations shifting risk to physicians. Sleeper S, et al. **J Health Soc Behav** 1998 Sep;39(3):189-200
Ethical guidelines for physician payment based on capitation [letter; comment] Criscione JR Jr. **N Engl J Med** 1999 Jan 28;340(4):322; discussion 322-3. Comment on: N Engl J Med 1998 Sep 3;339(10):689-93.
Paying more fairly for Medicare capitated care [see comments] Iezzoni LI, et al. **N Engl J Med** 1998 Dec 24; 339(26):1933-8. Comment in: N Engl J Med 1998 Dec 24;339(26):1925-6. Comment in: N Engl J Med 1999 May 13;340(19):1514-5.
Risk adjustment or risk avoidance? [editorial; comment] Kassirer JP, et al. **N Engl J Med** 1998 Dec 24; 339(26):1925-6. Comment on: N Engl J Med 1998 Dec 24;339(26):1852-6. Comment on: N Engl J Med 1998 Dec 24;339(26):1933-8.
The risk-adjustment debate [see comments] Kuttner R. **N Engl J Med** 1998 Dec 24;339(26):1952-6. Comment in: N Engl J Med 1998 Dec 24;339(26):1925-6.
Ethical guidelines for physician payment based on capitation [letter; comment] Robbins D. **N Engl J Med** 1999 Jan 28; 340(4):322; discussion 322-3. Comment on: N Engl J Med 1998 Sep 3;339(10):689-93.
Ethical guidelines for physician payment based on capitation [letter; comment] Woolhandler S, et al. **N Engl J Med** 1999 Jan 28;340(4):321-2; discussion 322-3. Comment on: N Engl J Med 1998 Sep 3;339(10):689-93.
Mandatory pooling as a supplement to risk-adjusted capitation payments in a competitive health insurance market. Van Barneveld EM, et al. **Soc Sci Med** 1998 Jul; 47(2):223-32

METHODS

Methods of reducing the financial risk of physicians under capitation. Anderson GF, et al. **Arch Fam Med** 1999 Mar-Apr;8(2):149-55 (33 ref.)
Managing risk in a risky world. Eastaugh SR. **J Health Care Finance** 1999 Spring;25(3):10-6
Implementing publicly funded risk contracts with community mental health organizations. Young AS, et al. **Psychiatr Serv** 1998 Dec;49(12):1579-84

ORGANIZATION & ADMINISTRATION

Recent determinants of new entry of HMOs into a Medicare risk contract: a diversification strategy. Pai CW, et al. **Inquiry** 1999 Spring;36(1):78-89

STATISTICS & NUMERICAL DATA

Risk-sharing integration efforts in the hospital sector. Jantzen R, et al. **Health Care Manage Rev** 1999 Spring;24(2):83-92

RISK-TAKING

Pedestrian environment and behavior in Karachi, Pakistan. Khan FM, et al. **Accid Anal Prev** 1999 Jul;31(4):335-9
Risky behavior of bus commuters and bus drivers in Karachi, Pakistan. Mirza S, et al. **Accid Anal Prev** 1999 Jul; 31(4):329-33
Abuse history and health risk behaviors in pregnancy. Grimstad H, et al. **Acta Obstet Gynecol Scand** 1998 Oct; 77(9):893-7
A short questionnaire (IRQ) to assess injecting risk behaviour. Stimson GV, et al. **Addiction** 1998 Mar;93(3):337-47
High rates of drug use, but low rates of HIV risk behaviours among injecting drug users during incarceration in Dutch prisons. van Haastrecht HJ, et al. **Addiction** 1998 Sep; 93(9):1417-25
Patterns of sexual and injecting risk behaviours in French intravenous drug users not reporting HIV and hepatitis C virus seropositivities. Vidal-Trécan G, et al. **Addiction** 1998 Nov;93(11):1657-68
Cross-cultural issues in prevention, health promotion, and risk reduction in adolescence. Bell DL, et al. **Adolesc Med** 1999 Feb;10(1):57-69, vi (55 ref.)
Assessing attitudes and behaviors of high-risk adolescents: an evaluation of the self-report method. Brown RA. **Adolescence** 1999 Spring;34(133):25-32
Early sexual experiences among pregnant and parenting adolescents. Kellogg ND, et al. **Adolescence** 1999 Summer; 34(134):293-303
Sexual risk behaviour among gay men in a relationship. Elford J, et al. **AIDS** 1999 Jul 30;13(11):1407-11
Self-reported sexual behaviour and HIV risk taking among men who have sex with men in Fortaleza, Brazil. Kerr-Pontes LR, et al. **AIDS** 1999 Apr 16;13(6):709-17
Reductions in risk behaviour provide the most consistent explanation for declining HIV-1 prevalence in Uganda. Kilian AH, et al. **AIDS** 1999 Feb 25;13(3):391-8
Applying social, behavioral and evaluation research to developing country HIV prevention programs. MacNeil JM, et al. **AIDS** 1998;12 Suppl 2:S99-108
HIV risk behavioral surveillance: a methodology for monitoring behavioral trends. Mills S, et al. **AIDS** 1998;12 Suppl 2:S37-46
Who may be engaging in high-risk sex due to medical treatment advances? [letter] Remien RH, et al. **AIDS** 1998 Aug 20;12(12):1560-1
Social network dynamics and HIV transmission. Rothenberg RB, et al. **AIDS** 1998 Aug 20;12(12):1529-36
Increased protected sex and abstinence among Namibian youth following a HIV risk-reduction intervention: a randomized, longitudinal study. Stanton BF, et al. **AIDS** 1998 Dec 24;12(18):2473-80
Factors associated with gay men's sexual behaviours and risk on holiday. Clift SM, et al. **AIDS Care** 1999 Jun; 11(3):281-95
HIV risk behaviours among male-to-female transgenders in comparison with homosexual or bisexual males and heterosexual females. Nemoto T, et al. **AIDS Care** 1999 Jun;11(3):297-312
HIV risk behaviours of current sex workers attending syringe exchange: the experiences of women in five US cities. Paone D, et al. **AIDS Care** 1999 Jun;11(3):269-80
Condom use in sexual exchange relationships among young single adults in Ghana. Ankomah A. **AIDS Educ Prev** 1998 Aug;10(4):303-16
HIV-related attitudes and risk behavior of young adolescent mothers. Brown LK, et al. **AIDS Educ Prev** 1998 Dec; 10(6):565-73
Psychosocial correlates of unprotected anal sex in a cohort of gay men attending an HIV-negative support group. Dilley JW, et al. **AIDS Educ Prev** 1998 Aug;10(4):317-26
Sexual and drug use behaviors among women crack users: implications for prevention. Logan TK, et al. **AIDS Educ Prev** 1998 Aug;10(4):327-40
Effects of an HIV risk reduction project on sexual risk behavior of low-income STD patients. O'Leary A, et al. **AIDS Educ Prev** 1998 Dec;10(6):483-92
Maintenance of safe sex behavior by HIV-serodiscordant heterosexual couples. Skurnick JH, et al. **AIDS Educ Prev** 1998 Dec;10(6):493-505
HIV risk behaviors, intentions, and perceptions among Namibian youth as assessed by a theory-based questionnaire. Stanton BF, et al. **AIDS Educ Prev** 1999 Apr;11(2):132-49
Substance use, injury, and risk-taking dispositions in the general population. Cherpitel CJ. **Alcohol Clin Exp Res** 1999 Jan;23(1):121-6
Reducing HIV risk-associated sexual behavior among

African American adolescents: testing the generality of intervention effects. Jemmott JB 3rd, et al. **Am J Community Psychol** 1999 Apr;27(2):161-87

Introduction: adolescent risk behavior: linking theory and action--a community psychology agenda. Mason CA, et al. **Am J Community Psychol** 1999 Apr;27(2):107-10

The risk and protective functions of perceived family and peer microsystems among urban adolescents in poverty. Seidman E, et al. **Am J Community Psychol** 1999 Apr; 27(2):211-37

Women inmates' risky sex and drug behaviors: are they related? Cotten-Oldenburg NU, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):129-49

Depressive symptoms, drug network, and their synergistic effect on needle-sharing behavior among street injection drug users. Mandell W, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):117-27

Methamphetamine use and sexual and injection risk behaviors among out-of-treatment injection drug users. Molitor F, et al. **Am J Drug Alcohol Abuse** 1999 Aug;25(3):475-93

An ethnographic comparison of HIV risk behaviors among heroin and methamphetamine injectors. Zule WA, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):1-23

Re: "Invited commentary: le mystère de Montréal" [letter; comment] Fisher DG, et al. **Am J Epidemiol** 1998 Oct 1; 148(7):714-5; discussion 715-7. Comment on: Am J Epidemiol 1997 Dec 15;146(12):1003-6; discussion 1007-10.

Gambling, drinking, smoking and other health risk activities among casino employees. Shaffer HJ, et al. **Am J Ind Med** 1999 Sep;36(3):365-78

A brief HIV intervention for adolescents and young adults. Rotheram-Borus MJ, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):553-64

Risk moderation of parent and child outcomes in a preventive intervention: a test and replication. Spoth R, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):565-79

Gender differences in chronic disease risk behaviors through the transition out of high school. Cullen KW, et al. **Am J Prev Med** 1999 Jul;17(1):1-7

Development and testing of an HIV-risk screening instrument for use in health care settings. Gerbert B, et al. **Am J Prev Med** 1998 Aug;15(2):103-13

Assessment of health risk behaviors. A tool to inform consumers, providers, health care organizations, and purchasers [see comments] Thompson BL, et al. **Am J Prev Med** 1999 Jan;16(1):48-59. Comment in: Am J Prev Med 1999 Jan;16(1):70-4.

Commentary on assessment of health risk behaviors. A tool to inform consumers, providers, health care organizations, and purchasers [comment] Thompson RS. **Am J Prev Med** 1999 Jan;16(1):70-4. Comment on: Am J Prev Med 1999 Jan;16(1):48-59.

Effects of HIV counseling and testing on sexual risk behavior: a meta-analytic review of published research, 1985-1997. Weinhardt LS, et al. **Am J Public Health** 1999 Sep; 89(9):1397-405

Universal HIV screening at a major metropolitan TB clinic: HIV prevalence and high-risk behaviors among TB patients. Weis SE, et al. **Am J Public Health** 1999 Jan; 89(1):73-5

Toward a psychology of harm reduction. MacCoun RJ. **Am Psychol** 1998 Nov;53(11):1199-208

Does risk perception affect behaviour and exposure? A pilot study amongst asbestos workers. Stewart-Taylor AJ, et al. **Ann Occup Hyg** 1998 Nov;42(8):565-9

The experience of relapse to unsafe sexual behavior among HIV-positive, heterosexual, minority men. Sherman DW, et al. **Appl Nurs Res** 1999 May;12(2):91-100

Preventive services received by adolescents with cystic fibrosis and sickle cell disease. Britto MT, et al. **Arch Pediatr Adolesc Med** 1999 Jan;153(1):27-32

The relationship between early age of onset of initial substance use and engaging in multiple health risk behaviors among young adolescents. DuRant RH, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):286-91

Preventing adolescent health-risk behaviors by strengthening protection during childhood. Hawkins JD, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):226-34

Clueless: parental knowledge of risk behaviors of middle school students. Young TL, et al. **Arch Pediatr Adolesc Med** 1998 Nov;152(11):1137-9

Consumer attitudes and behaviours--key risk factors in an outbreak of Salmonella typhimurium phage type 12 infection sourced to chicken nuggets. Kenny B, et al. **Aust N Z J Public Health** 1999 Apr;23(2):164-7

Safer sex at holiday centres: providing contraceptive services to seasonal workers. Hennink M, et al. **Br J Fam Plann** 1999 Jul;25(2):45-54

Predictors of health risk behaviours among young adults: analysis of the National Population Health Survey. Allison KR, et al. **Can J Public Health** 1999 Mar-Apr;90(2):85-9

Hepatitis B virus infection among street youths in Montreal. Roy E, et al. **CMAJ** 1999 Sep 21;161(6):689-93

Human immunodeficiency virus-related risk behavior among Italian psychiatric inpatients. Grassi L, et al. **Compr Psychiatry** 1999 Mar-Apr;40(2):126-30

HIV prevalence and risk behaviors among new initiates into injection drug use over the age of 40 years old. Carneiro M, et al. **Drug Alcohol Depend** 1999 Mar 1;54(1):83-6

Non-injection substance use correlates with risky sex among men having sex with men: data from HIVNET. Woody GE, et al. **Drug Alcohol Depend** 1999 Feb 1;53(3):197-205

Assessment of behavioural risk factors associated with HIV infection among youth in Moshi rural district, Tanzania. Tengia-Kessy A, et al. **East Afr Med J** 1998 Sep; 75(9):528-32

Perception of risk, sexual behaviour and STD/HIV prevalence in western Kenya. Wools KK, et al. **East Afr Med J** 1998 Dec;75(12):679-83

Proposed model of the relationship of risk information seeking and processing to the development of preventive behaviors. Griffin RJ, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S230-S245

Ethnic differences in cancer risk behaviors through the transition out of high school. Baranowski T, et al. **Ethn Dis** 1999 Winter;9(1):94-103

Gender and ethnic differences in some risk behaviors in high school students in the United States. Israili ZH. **Ethn Dis** 1998 Autumn;8(3):413-4

The Health Belief Model and HIV risk behaviours: a causal model analysis among Anglos, African-Americans and Mexican-Americans. Neff JA, et al. **Ethn Health** 1998 Nov; 3(4):283-99

Condom use and HIV risk behaviors among U.S. adults: data from a national survey. Anderson JE, et al. **Fam Plann Perspect** 1999 Jan-Feb;31(1):24-8

Sex, contraception and childbearing among high-risk youth: do different factors influence males and females? Kowaleski-Jones L, et al. **Fam Plann Perspect** 1998 Jul-Aug;30(4):163-9

Sexual behavior among U.S. high school students, 1990-1995. Warren CW, et al. **Fam Plann Perspect** 1998 Jul-Aug; 30(4):170-2, 200

Measuring self-efficacy in the context of HIV risk reduction: research challenges and recommendations. Forsyth AD, et al. **Health Psychol** 1998 Nov;17(6):559-68 (91 ref.)

Multiple-risk behaviour in adolescents and young adults. Galambos NL, et al. **Health Rep** 1998 Autumn;10(2):9-20 (Eng); 9-21 (Fre) **(Eng, Fre)**

New Zealand children's involvement in home activities that carry a burn or scald risk. Harré N, et al. **Inj Prev** 1998 Dec;4(4):266-71

Young driver involvement in fatal motor vehicle crashes and trends in risk behaviors, United States, 1988-95. Phebo L, et al. **Inj Prev** 1998 Dec;4(4):284-7

One too many: alcohol and risk of injury. Rivara FP. **Inj Prev** 1998 Dec;4(4):249

Youth risk behavior survey: the Alaskan perspective. Hansen MA, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:642-7

Developing and conducting a health risk behavior survey among school-aged students. Schiffkorn-Hansen MA, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:648-51

Risk behaviours and AIDS knowledge in a rural community of Senegal: relationship with sources of AIDS information. Lagarde E, et al. **Int J Epidemiol** 1998 Oct;27(5):890-6

Transsexual orientation in HIV risk behaviours in an adult male prison. Stephens T, et al. **Int J STD AIDS** 1999 Jan; 10(1):28-31

HIV infection and related risk behaviours in a disadvantaged youth institution of São Paulo, Brazil. Zanetta DM, et al. **Int J STD AIDS** 1999 Feb;10(2):98-104

Young injectors: a comparative analysis of risk behaviour. Cassin S, et al. **Ir J Med Sci** 1998 Oct-Dec;167(4):234-7

Prevalence of sexual and drug-related HIV risk behaviors in the U.S. adult population: results of the 1996 National Household Survey on Drug Abuse. Anderson JE, et al. **J Acquir Immune Defic Syndr** 1999 Jun 1;21(2):148-56

Trends in injection risk behaviors in a sample of New York City injection drug users: 1992-1995. Beardsley M, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):283-9

Risk behavior and HIV infection among new drug injectors in the era of AIDS in New York City. Des Jarlais DC, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Jan 1;20(1):67-72

Predictors and risk-taking consequences of drug use among HIV-infected women. Novotná L, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):502-7

Temporal trends in HIV risk behaviors of out-of-treatment injection drug users and injection drug users who smoke crack. Semaan S, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Nov 1;19(3):274-81

Evaluation of behavioral and social issues among Thai HIV vaccine trial volunteers. Thapinta D, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):308-14

AIDS risk behavior in opioid dependent patients treated with community reinforcement approach and relationships with psychiatric disorders. Abbott PJ, et al. **J Addict Dis** 1998; 17(4):33-48

Assessment of HIV risk. Chawarski MC, et al. **J Addict Dis** 1998;17(4):49-59

Does intensive outpatient cocaine treatment reduce AIDS risky behaviors? Gottheil E, et al. **J Addict Dis** 1998; 17(4):61-9

The problem of HIV/AIDS as related to drug abuse: an introduction [editorial] Gottheil E. **J Addict Dis** 1998; 17(4):1-7

HIV/AIDS and drug abuse: epidemiology and prevention. Haverkos HW. **J Addict Dis** 1998;17(4):91-103

Drug abuse treatment as HIV prevention: changes in social drug use patterns might also reduce risk. Iguchi MY. **J Addict Dis** 1998;17(4):9-18

Changes in HIV risk behaviors among cocaine-using methadone patients. Magura S, et al. **J Addict Dis** 1998; 17(4):71-90

Substance use and risky sexual behavior among homeless and runaway youth. Bailey SL, et al. **J Adolesc Health** 1998 Dec;23(6):378-88

Risky sexual behaviors among adolescents with alcohol use disorders. Bailey SL, et al. **J Adolesc Health** 1999 Sep; 25(3):179-81

Reproductive health risk behavior survey of Colombian high school students. Becher JC, et al. **J Adolesc Health** 1999 Mar;24(3):220-5

Integrative research review of risk behaviors among adolescents in rural, suburban, and urban areas. Fahs PS, et al. **J Adolesc Health** 1999 Apr;24(4):230-43 (82 ref.)

Use of Western-based HIV risk-reduction interventions targeting adolescents in an African setting. Fitzgerald AM, et al. **J Adolesc Health** 1999 Jul;25(1):52-61

Longitudinal health endangering behavior risk among resilient and nonresilient early adolescents. Gordon Rouse KA, et al. **J Adolesc Health** 1998 Nov;23(5):297-302

Patterns of sexual partnerships among adolescent females [see comments] Howard MM, et al. **J Adolesc Health** 1999 May; 24(5):300-3. Comment in: J Adolesc Health 1999 May;24(5):299.

Violence of French adolescents toward their parents: characteristics and contexts. Laurent A, et al. **J Adolesc Health** 1999 Jul;25(1):21-6

Hepatitis infection among adolescents resident in Melbourne Juvenile Justice Centre: risk factors and challenges. Ogilvie EL, et al. **J Adolesc Health** 1999 Jul;25(1):46-51

Adolescent males involved in pregnancy: associations of forced sexual contact and risk behaviors. Pierre N, et al. **J Adolesc Health** 1998 Dec;23(6):364-9

Gender differences in health and risk behaviors among bisexual and homosexual adolescents. Saewyc EM, et al. **J Adolesc Health** 1998 Sep;23(3):181-8

Prevention of high-risk behaviors in adolescent women. Sarigiani PA, et al. **J Adolesc Health** 1999 Aug;25(2):109-19

Preventing the high-risk sexual behavior of adolescents: focus on HIV/AIDS transmission, unintended pregnancy, or both? Whaley AL. **J Adolesc Health** 1999 Jun; 24(6):376-82 (49 ref.)

The high prevalence of bipolar II and associated cyclothymic and hyperthymic temperaments in HIV-patients. Perretta P, et al. **J Affect Disord** 1998 Sep;50(2-3):215-24

Reproductive health needs: comparing women at high, drug-related risk of HIV with a national sample. Armstrong KA, et al. **J Am Med Womens Assoc** 1999 Spring;54(2):65-70, 78

Health concerns and risk behaviors of rural adolescents. Puskar KR, et al. **J Community Health Nurs** 1999; 16(2):109-19

A randomized trial of a brief HIV risk reduction counseling intervention for women. Belcher L, et al. **J Consult Clin Psychol** 1998 Oct;66(5):856-61

Forced sexual intercourse and associated health-risk behaviors among female college students in the United States. Brener ND, et al. **J Consult Clin Psychol** 1999 Apr; 67(2):252-9

Psychosocial factors associated with the stages of change for condom use among women at risk for HIV and STDs: implications for intervention development. Stark MJ, et al. **J Consult Clin Psychol** 1998 Dec;66(6):967-78

Self-efficacy for refusal mediated by outcome expectancies in the prediction of alcohol-dependence amongst young adults. Williams RJ, et al. **J Drug Educ** 1998;28(4):347-59

The use of alcohol by Miami's adolescent public school students 1992: peers, risk-taking, and availability as central forces. Yarnold BM. **J Drug Educ** 1998;28(3):211-33

Delay or probability discounting in a model of impulsive behavior: effect of alcohol. Richards JB, et al. **J Exp Anal Behav** 1999 Mar;71(2):121-43

Social network characteristics associated with risky behaviors among runaway and homeless youth. Ennett ST, et al. **J Health Soc Behav** 1999 Mar;40(1):63-78

Sexual risk behavior among youth: modeling the influence of prosocial activities and socioeconomic factors. Ramirez-Valles J, et al. **J Health Soc Behav** 1998 Sep; 39(3):237-53

Prevalence of high-risk behaviors and obesity among low-income patients attending primary care clinics in Louisiana. Brantley PJ, et al. **J La State Med Soc** 1999 Mar;151(3):126-35

Factors related to family therapists' breaking confidence when clients disclose high-risks-to-HIV/AIDS sexual behaviors. Pais S, et al. **J Marital Fam Ther** 1998 Oct; 24(4):457-72

Understanding HIV-related risk among persons with a severe and persistent mental illness: insights from qualitative inquiry. Gordon CM, et al. **J Nerv Ment Dis** 1999 Apr; 187(4):208-16

The influence of education and personality on risk propensity in nurse managers. Smith SL, et al. **J Nurs Adm** 1998 Dec; 28(12):22-7

Individual, family, and relationship predictors of young women's sexual risk perceptions. Hutchinson MK. **J Obstet Gynecol Neonatal Nurs** 1999 Jan-Feb;28(1):60-7

Relationship between perceived parental monitoring and young adolescent girls' sexual and substance use behaviors. Baker JG, et al. **J Pediatr Adolesc Gynecol** 1999 Feb;

12(1):17-22
The impact of mortality salience on reckless driving: a test of terror management mechanisms. Ben-Ari OT, et al. **J Pers Soc Psychol** 1999 Jan;76(1):35-45
Motivations for sex and risky sexual behavior among adolescents and young adults: a functional perspective. Cooper ML, et al. **J Pers Soc Psychol** 1998 Dec; 75(6):1528-58
Effectiveness of HIV risk reduction initiatives among out-of-treatment non-injection drug users. Cottler LB, et al. **J Psychoactive Drugs** 1998 Jul-Sep;30(3):279-90
HIV serostatus and risk behaviors in a multisite sample of drug users. Deren S, et al. **J Psychoactive Drugs** 1998 Jul-Sep;30(3):239-45
Drug use and HIV risks among African-American, Mexican-American, and Puerto Rican drug injectors. Estrada AL. **J Psychoactive Drugs** 1998 Jul-Sep; 30(3):247-53
Postscript: where do we go from here? Sloboda Z, et al. **J Psychoactive Drugs** 1998 Jul-Sep;30(3):307-14
HIV prevention protocols: adaptation to evolving trends in drug use. Wechsberg WM, et al. **J Psychoactive Drugs** 1998 Jul-Sep;30(3):291-8
Impact of lifestyle choices on female infertility. Silva PD, et al. **J Reprod Med** 1999 Mar;44(3):288-96 (121 ref.)
A replication study of Reducing the Risk, a theory-based sexuality curriculum for adolescents. Hubbard BM, et al. **J Sch Health** 1998 Aug;68(6):243-7
Youth Risk Behavior Surveillance--United States, 1997. State and Local YRBSS Coordinators. Kann L, et al. **J Sch Health** 1998 Nov;68(9):355-69
Health risk behaviors of Texas students attending dropout prevention/recovery schools in 1997. Weller NF, et al. **J Sch Health** 1999 Jan;69(1):22-8
Intoxicated sexual risk taking: an expectancy or cognitive impairment explanation? Fromme K, et al. **J Stud Alcohol** 1999 Jan;60(1):54-63
Self-reports of alcohol use, drug use and sexual behavior: expanding the Timeline Follow-back technique. Midanik LT, et al. **J Stud Alcohol** 1998 Nov;59(6):681-9
Factors associated with planned avoidance of alcohol-impaired driving in high-risk men. Nelson TF, et al. **J Stud Alcohol** 1999 May;60(3):407-12
Adolescents, bush parties and drinking-driving. Stoduto G, et al. **J Stud Alcohol** 1998 Sep;59(5):544-8
HIV-risk behaviors in adolescent substance abusers. Deas-Nesmith D, et al. **J Subst Abuse Treat** 1999 Mar; 16(2):169-72
Risky choice and Weber's Law. Kacelnik A, et al. **J Theor Biol** 1998 Sep 21;194(2):289-98
Reduction in recidivism of incarcerated women through primary care, peer counseling, and discharge planning. Vigilante KC, et al. **J Womens Health** 1999 Apr;8(3):409-15
From the Centers for Disease Control and Prevention. Trends in sexual risk behaviors among high school students--United States, 1991-1997. **JAMA** 1998 Dec 2; 280(21):1819-20
From the Centers for Disease Control and Prevention. Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994-1997. **JAMA** 1999 Feb 24;281(8):696-7
From the Centers for Disease Control and Prevention. Trends in HIV-related sexual risk behaviors among high school students--selected US cities, 1991-1997. **JAMA** 1999 Jul 21;282(3):228-30
Public health targets teens' private acts [news] Mitka M. **JAMA** 1999 Jan 6;281(1):21-2
Differences in sexual risk behaviour between young men and women travelling abroad from the UK [see comments] Bloor M, et al. **Lancet** 1998 Nov 21;352(9141):1664-8. Comment in: Lancet 1999 Feb 13;353(9152):595. Comment in: Lancet 1999 Feb 13;353(9152):595-6.
Audio-computer interviewing to measure risk behaviour for HIV among injecting drug users: a quasi-randomised trial. Des Jarlais DC, et al. **Lancet** 1999 May 15; 353(9165):1657-61
Audio-computer interviewing to measure HIV-risk behaviour [letter] Taylor A, et al. **Lancet** 1999 Aug 21; 354(9179):678-9
When asked, patients tell: disclosure of sensitive health-risk behaviors. Gerbert B, et al. **Med Care** 1999 Jan;37(1):104-11
Decision making under time pressure: an independent test of sequential sampling models. Dror IE, et al. **Mem Cognit** 1999 Jul;27(4):713-25
An examination of body weight standards and the association between weight and health behaviors in the United States Air Force. Haddock CK, et al. **Mil Med** 1999 Jan; 164(1):51-4
Human immunodeficiency virus (HIV) education and HIV risk behavior: a survey of rapid deployment troops. Nannis ED, et al. **Mil Med** 1998 Oct;163(10):672-6
Trends in HIV-related sexual risk behaviors among high school students--selected U.S. cities, 1991-1997. **MMWR Morb Mortal Wkly Rep** 1999 Jun 4;48(21):440-3
Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994-1997. **MMWR Morb Mortal Wkly Rep** 1999 Jan 29;48(3):45-8
Innovation: the mindset of risk taking [editorial] Cooper DL. **Mol Diagn** 1999 Mar;4(1):1-3
Risk behaviour in an urban and a rural male adolescent population. Kishore J, et al. **Natl Med J India** 1999 May-Jun;12(3):107-10
Neurotransmitters, neuroendocrine correlates of sensation-seeking temperament in normal humans. Gerra G, et al. **Neuropsychobiology** 1999 May;39(4):207-13
Selected cigarette smoking initiation and quitting behaviors among high school students--United States, 1997. **Oncology (Huntingt)** 1998 Oct;12(10):1420, 1423
Suicidality and risk-taking behaviors: an ecological study of youth behaviors in 29 states. Lester D. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1299-300
Tobacco use and other risk behaviors among adolescents in an STD clinic. MacKenzie TD, et al. **Prev Med** 1998 Nov-Dec;27(6):792-7
Frontal reactivity and sensation seeking an ERP study in skydivers. Pierson A, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):447-63
HIV-risk behaviour and knowledge about HIV/AIDS among patients with schizophrenia. Grassi L, et al. **Psychol Med** 1999 Jan;29(1):171-9
Engaging in "illusory control" during repeated risk-taking. Dixon MR, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):959-62
Risk perception: unrealistic optimism or realistic expectancy. Todesco P, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):731-8
Health risk behaviors of rural sixth graders. Felton GM, et al. **Res Nurs Health** 1998 Dec;21(6):475-85
Test of the Fishbein and Ajzen models as predictors of health care workers' glove use. Levin PF. **Res Nurs Health** 1999 Aug;22(4):295-307
Hazards mean luck: counterfactual thinking in reports of dangerous situations and careless behavior. Teigen KH. **Scand J Psychol** 1998 Dec;39(4):235-48
Gender differences in risk behaviors among HIV+ persons with an IDU history. The link between partner characteristics and women's higher drug-sex risks. The Manif 2000 Study Group. Gollub EL, et al. **Sex Transm Dis** 1998 Oct;25(9):483-8
Sexually transmitted diseases and gynecologic symptoms and signs in women with a history of induced abortion. Hellberg D, et al. **Sex Transm Dis** 1999 Apr;26(4):197-200
Patterns of general health care and STD services use among high-risk youth in Denver participating in community-based urine chlamydia screening. Rietmeijer CA, et al. **Sex Transm Dis** 1998 Oct;25(9):457-63
Concurrent sex partners and risk for sexually transmitted diseases among adolescents. Rosenberg MD, et al. **Sex Transm Dis** 1999 Apr;26(4):208-12
A geographic relation between alcohol availability and gonorrhea rates. Scribner RA, et al. **Sex Transm Dis** 1998 Nov;25(10):544-8
Gender difference in persistent at-risk sexual behavior after a diagnosed sexually transmitted disease. ACSF-Investigators. Warszawski J, et al. **Sex Transm Dis** 1998 Sep;25(8):437-42
Sexual regimes and sexual networking: the risk of an HIV/AIDS epidemic in Bangladesh. Caldwell B, et al. **Soc Sci Med** 1999 Apr;48(8):1103-16
HIV-related sexual risk assessment among Asian/Pacific Islander American women: an inductive model. Chin D. **Soc Sci Med** 1999 Jul;49(2):241-51
HIV/AIDS in nonurban Alabama: risk activities and access to services among HIV-infected persons. Beltrami JF, et al. **South Med J** 1999 Jul;92(7):677-83
Drug use and HIV risks among migrant workers on the DelMarVa Peninsula. Inciardi JA, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):653-66
AIDS susceptibility in a migrant population: perception and behavior. McBride DC, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):633-52
HIV seroprevalence across the rural/urban continuum. McCoy CB, et al. **Subst Use Misuse** 1999 Mar-Apr; 34(4-5):595-615
HIV risk behaviors associated with the injection process: multiperson use of drug injection equipment and paraphernalia in injection drug user networks. Needle RH, et al. **Subst Use Misuse** 1998 Oct;33(12):2403-23
Gambling and risk-taking behavior among university students. Powell J, et al. **Subst Use Misuse** 1999 Jun; 34(8):1167-84
Effect of motorcycle rider education on changes in risk behaviours and motorcycle-related injuries in rural Thailand. Swaddiwudhipong W, et al. **Trop Med Int Health** 1998 Oct;3(10):767-70
Partner violence and sexual HIV-risk behaviors among women in an inner-city emergency department. El-Bassel N, et al. **Violence Vict** 1998 Winter;13(4):377-93
Drug use, sexual behaviour and HIV risk of the homeless in Port-of-Spain, Trinidad. Reid SD. **West Indian Med J** 1999 Jun;48(2):57-60
Critical adolescent health issues: results of the 1997 Wisconsin Youth Risk Behavior Survey. White D, et al. **WMJ** 1998 Sep;97(8):23-4
Sexual risk behavior changes among HIV+ and HIV-female injecting drug users over 4 years. Dolezal C, et al. **Women Health** 1998;27(4):1-17
At-risk behaviors with regard to HIV and addiction among women in prison. Guyon L, et al. **Women Health** 1999; 29(3):49-66
[Relationship between risk-taking behavior and knowledge for HIV infection among young men in Longchuan, Yunnan of China] Wu Z, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 May; 32(3):171-3 (Eng. Abstr.) **(Chi)**
[Risk taking users of an anonymous HIV screening center: trying to understand the psychodynamics] Ventura X, et al. **Rev Med Suisse Romande** 1999 Jan;119(1):75-8 (Eng. Abstr.) **(Fre)**
[Acceptance: scientific cultural aspects] Lübbe H. **Schweiz Med Wochenschr** 1998 Aug 15;128(33):1202-11 (Eng. Abstr.) **(Fre)**
[Risk behavior among blood donors: efficacy of a new questionnaire] Courtois F, et al. **Transfus Clin Biol** 1999 Jul;6(4):227-35 (Eng. Abstr.) **(Fre)**
[Effects of personality, cognitive, and situational variables on risk taking behavior] Ueichi H, et al. **Shinrigaku Kenkyu** 1998 Jun;69(2):81-8 (Eng. Abstr.) **(Jpn)**
[Is life more? (letter)] Lehmann V. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3832 **(Nor)**
[The prevention of HIV infection in abusers of psychoactive substances as a social behavioral problem] Dolzhanskaia NA. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan-Feb; (1):98-100 (Eng. Abstr.) **(Rus)**
[The behavioral risk factors for contracting HIV infection in the intravenous administration of narcotics in abusers of psychoactive substances in the city of Rostov-on-Don] Saukhat SR, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan-Feb;(1):97-8 (Eng. Abstr.) **(Rus)**
[Risk behaviours and seroprevalence to HIV, HBV and HCV in patients of the AIDS information and prevention center in Valencia, Spain] Alfonso Gil R, et al. **Gac Sanit** 1999 Jan-Feb;13(1):16-21 (Eng. Abstr.) **(Spa)**
[The persistence of risky conduct for HIV transmission among intravenous drug users in Madrid, Seville, and Valencia. The Working Group of the Médicos del Mundo for the Monitoring of HIV Infection and the Risk Practices of Intravenous Drug Users (see comments)] Bravo MJ, et al. **Gac Sanit** 1999 Mar-Apr;13(2):109-18 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar-Apr;13(2):79-81. **(Spa)**
[Evaluation of the law of communicable disease control: compulsory isolation can reduce the high-risk behavior of HIV-positive individuals] Sylvan S, et al. **Lakartidningen** 1999 Jul 14;96(28-29):3244-7 (Eng. Abstr.) **(Swe)**

RISPERIDONE

ADMINISTRATION & DOSAGE

Individualized risperidone dosing [letter; comment] Pies R. **Am J Psychiatry** 1999 Jul;156(7):1123-4. Comment on: Am J Psychiatry 1998 Mar;155(3):365-6.
Unique activation of extracellular striato-pallidal neurotransmitters in rats following acute risperidone. Grimm JW, et al. **Brain Res** 1998 Aug 10;801(1-2):182-9
Risperidone for insomnia in PDDs [letter] Doan RJ. **Can J Psychiatry** 1998 Dec;43(10):1050-1
Risperidone and olanzapine: optimal dosing for efficacy and tolerability in patients with schizophrenia. Kasper S. **Int Clin Psychopharmacol** 1998 Nov;13(6):253-62 (51 ref.)
Long-term treatment of chronic schizophrenia with risperidone: an open-label, multicenter study of 386 patients. Möller HJ, et al. **Int Clin Psychopharmacol** 1998 May;13(3):99-106
Atypical antipsychotics [letter] Jefferson AM, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Dec; 37(12):1243-4
Risperidone augmentation of serotonin reuptake inhibitor treatment of pediatric obsessive compulsive disorder. Fitzgerald KD, et al. **J Child Adolesc Psychopharmacol** 1999;9(2):115-23
Risperidone versus haloperidol on secondary memory: can newer medications aid learning? Kern RS, et al. **Schizophr Bull** 1999;25(2):223-32
The effects of clozapine, risperidone, and olanzapine on cognitive function in schizophrenia. Meltzer HY, et al. **Schizophr Bull** 1999;25(2):233-55 (115 ref.)
[Atypical neuroleptics in the child and adolescent] Naja WJ, et al. **Encephale** 1998 Jul-Aug;24(4):378-85 (67 ref.) (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Catatonia under medication with risperidone in a 61-year-old patient. Bahro M, et al. **Acta Psychiatr Scand** 1999 Mar; 99(3):223-4; discussion 224-6
A combined analysis of double-blind studies with risperidone vs. placebo and other antipsychotic agents: factors associated with extrapyramidal symptoms. Lemmens P, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):160-70
Prolactogenic effects of risperidone in male patients--a preliminary study. Shiwach RS, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):81-3
Risperidone-induced tardive dyskinesia [letter] Hong KS, et al. **Am J Psychiatry** 1999 Aug;156(8):1290
Experience with the atypical antipsychotics--risperidone and olanzapine in the elderly. Madhusoodanan S, et al. **Ann Clin Psychiatry** 1999 Sep;11(3):113-8
Risperidone-induced mania [letter] Zolezzi M, et al. **Ann Pharmacother** 1999 Mar;33(3):380-1
Differential sensitivities to risperidone and olanzapine in a human immunodeficiency virus patient. Meyer JM, et al. **Biol Psychiatry** 1998 Oct 15;44(8):791-4
Risperidone-induced rabbit syndrome [letter] Schwartz M, et al. **Br J Psychiatry** 1998 Sep;173:267-8

A possible tetracycline-risperidone-sertraline interaction in an adolescent. Steele M, et al. **Can J Clin Pharmacol** 1999 Spring;6(1):15-7

Risperidone-induced rabbit syndrome: an unusual movement disorder caused by an atypical antipsychotic. Levin T, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):137-9

Olanzapine treatment in patients with typical and atypical neuroleptic-associated agranulocytosis. Finkel B, et al. **Int Clin Psychopharmacol** 1998 May;13(3):133-5

Movement disorders in children with developmental disabilities taking risperidone [letter] Demb HB, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jan;38(1):5-6

Diet and the atypical neuroleptics [letter] Horrigan JP, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1126-7

Is liver function monitoring warranted during risperidone treatment? [letter; comment] Landau J, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Oct; 37(10):1007-8. Comment on: J Am Acad Child Adolesc Psychiatry 1997 May;36(5):701-5. Comment on: J Am Acad Child Adolesc Psychiatry 1998 Mar;37(3):246-7.

Risperdal and parkinsonian tremor [letter] Roberts MD. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):230

Lower incidence of tardive dyskinesia with risperidone compared with haloperidol in older patients. Jeste DV, et al. **J Am Geriatr Soc** 1999 Jun;47(6):716-9

Weight gain in adolescents treated with risperidone and conventional antipsychotics over six months. Kelly DL, et al. **J Child Adolesc Psychopharmacol** 1998;8(3):151-9

Risperidone-induced hepatotoxicity in children and adolescents? A chart review study. Szigethy E, et al. **J Child Adolesc Psychopharmacol** 1999;9(2):93-8

Chorea and tardive dyskinesia in a patient taking risperidone [letter] Carroll NB, et al. **J Clin Psychiatry** 1999 Jul; 60(7):485-7

Hyperprolactinemia and male sexual dysfunction [letter] Dickson RA, et al. **J Clin Psychiatry** 1999 Feb;60(2):125

Risperidone and associated amenorrhea: a report of 5 cases. Kim YK, et al. **J Clin Psychiatry** 1999 May;60(5):315-7

Manic and psychotic symptoms following risperidone withdrawal in a schizophrenic patient [letter; comment] Lane HY, et al. **J Clin Psychiatry** 1998 Nov;59(11):620-1 . Comment on: J Clin Psychiatry 1996;57 Suppl 3:14-26; discussion 47-9.

Obsessive-compulsive symptoms with risperidone [letter; comment] Mahendran R. **J Clin Psychiatry** 1999 Apr; 60(4):261-3. Comment on: J Clin Psychiatry 1998 May;59(5):255-6.

Edema associated with addition of risperidone to valproate treatment [letter] Sanders RD, et al. **J Clin Psychiatry** 1998 Dec;59(12):689-90

Is there a role for the alpha2 antagonism in the exacerbation of hallucinogen-persisting perception disorder with risperidone? [letter; comment] Alcántara AG. **J Clin Psychopharmacol** 1998 Dec;18(6):487-8. Comment on: J Clin Psychopharmacol 1996 Jun;16(3):238-41. Comment on: J Clin Psychopharmacol 1997 Aug;17(4):327-8.

Risperidone-induced tardive dyskinesia in first-episode psychotic patients [letter] Campbell M. **J Clin Psychopharmacol** 1999 Jun;19(3):276-7

Return of menstruation after switching from risperidone to olanzapine [letter] Gazzola LR, et al. **J Clin Psychopharmacol** 1998 Dec;18(6):486-7

Prolactin levels and adverse events in patients treated with risperidone. Kleinberg DL, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):57-61

Opioid withdrawal during risperidone treatment. Wines JD Jr, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):265-7

Herbal medicine (Shakuyaku-kanzo-to) in the treatment of risperidone-induced amenorrhea [letter] Yamada K, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):380-1

High-dose vitamin E plus vitamin B6 treatment of risperidone-related neuroleptic malignant syndrome. Dursun SM, et al. **J Psychopharmacol** 1998;12(2):220-1

Risperidone-induced tardive dystonia and psychosis [letter] Vercueil L, et al. **Lancet** 1999 Mar 20;353(9157):981

Neurologic side effects in neuroleptic-naive patients treated with haloperidol or risperidone. Rosebush PI, et al. **Neurology** 1999 Mar 10;52(4):782-5

Catatonia-like events after valproic acid with risperidone and sertraline. Lauterbach EC. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Jul; 11(3):157-63

Gynecomastia with risperidone-fluoxetine combination. Benazzi F. **Pharmacopsychiatry** 1999 Jan;32(1):41

Risperidone-induced hepatotoxicity. Benazzi F. **Pharmacopsychiatry** 1998 Nov;31(6):241

Efficacy and extrapyramidal side-effects of the new antipsychotics olanzapine, quetiapine, risperidone, and sertindole compared to conventional antipsychotics and placebo. A meta-analysis of randomized controlled trials. Leucht S, et al. **Schizophr Res** 1999 Jan 4;35(1):51-68

[Severe tardive dyskinesia during treatment with risperidone and fluoxetine] Dubbelman YD, et al. **Ned Tijdschr Geneeskd** 1998 Jun 27;142(26):1508-11 (Eng. Abstr.) **(Dut)**

[Risperidone-induced tardive dystonia: a case of torticollis] Fdhil H, et al. **Encephale** 1998 Nov-Dec;24(6):581-3 (Eng. Abstr.) **(Fre)**

[Risperidone in the treatment of psychotic, affective and behavioral symptoms associated to Alzheimer's disease] Barcia D, et al. **Actas Esp Psiquiatr** 1999 May-Jun; 27(3):185-90 (Eng. Abstr.) **(Spa)**

[The risperidone-associated neuroleptic malignant syndrome in a pediatric patient (letter)] Villanueva Lamas J, et al. **An Esp Pediatr** 1998 Dec;49(6):652-3 **(Spa)**

BLOOD

Serum concentrations and clinical effects of risperidone in schizophrenic patients in Singapore--a preliminary report [letter] Lee HS, et al. **Br J Clin Pharmacol** 1999 Apr; 47(4):460-1

ECONOMICS

Rehospitalization rates for depot antipsychotics and pharmacoeconomic implications: comparison with risperidone. Moore DB, et al. **Am J Health Syst Pharm** 1998 Dec 15;55(24 Suppl 4):S17-9

Drug utilization patterns and outcomes associated with in-hospital treatment with risperidone or olanzapine. Procyshyn RM, et al. **Clin Ther** 1998 Nov-Dec; 20(6):1203-17; discussion 1192-3

Treatment costs and patient outcomes with use of risperidone in a public mental health setting. Schiller MJ, et al. **Psychiatr Serv** 1999 Feb;50(2):228-32

Economic outcomes of antipsychotic agents in a Medicaid population: traditional agents vs. risperidone. Nightengale BS, et al. **Psychopharmacol Bull** 1998;34(3):373-82

Pharmacoeconomic studies of atypical antipsychotic drugs for the treatment of schizophrenia. Revicki DA. **Schizophr Res** 1999 Mar 1;35 Suppl:S101-9 (31 ref.)

METABOLISM

Clinical and theoretical implications of 5-HT2 and D2 receptor occupancy of clozapine, risperidone, and olanzapine in schizophrenia. Kapur S, et al. **Am J Psychiatry** 1999 Feb;156(2):286-93

A pilot study on risperidone metabolism: the role of cytochromes P450 2D6 and 3A. Bork JA, et al. **J Clin Psychiatry** 1999 Jul;60(7):469-76

Metabolism of risperidone to 9-hydroxyrisperidone by human cytochromes P450 2D6 and 3A4. Fang J, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):147-51

PHARMACOKINETICS

Effect of venlafaxine on the pharmacokinetics of risperidone. Amchin J, et al. **J Clin Pharmacol** 1999 Mar;39(3):297-309

Distribution after repeated oral administration of different dose levels of risperidone and 9-hydroxy-risperidone in the brain and other tissues of rat. Aravagiri M, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):356-63

Pharmacokinetic-pharmacodynamic modeling of risperidone effects on electroencephalography in healthy volunteers. Lee DY, et al. **Psychopharmacology (Berl)** 1999 Jun; 144(3):272-8

Therapeutic drug monitoring of risperidone using a new, rapid HPLC method: reappraisal of interindividual variability factors. Balant-Gorgia AE, et al. **Ther Drug Monit** 1999 Feb;21(1):105-15

PHARMACOLOGY

Effects of risperidone on conditioned avoidance responding in male mice. Aguilar MA, et al. **Behav Pharmacol** 1997 Dec;8(8):669-76

Risperidone vs. haloperidol on reaction time, manual dexterity, and motor learning in treatment-resistant schizophrenia patients. Kern RS, et al. **Biol Psychiatry** 1998 Oct 15;44(8):726-32

Unique activation of extracellular striato-pallidal neurotransmitters in rats following acute risperidone. Grimm JW, et al. **Brain Res** 1998 Aug 10;801(1-2):182-9

The effect of acute administration of risperidone on local cerebral glucose utilization in the rat. Huang YH, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):257-61

The antipsychotic drug risperidone interacts with auto- and hetero-receptors regulating serotonin output in the rat frontal cortex. Hertel P, et al. **Neuropharmacology** 1999 Aug;38(8):1175-84

Effects of atypical antipsychotic drug treatment on amphetamine-induced striatal dopamine release in patients with psychotic disorders. Breier A, et al. **Neuropsychopharmacology** 1999 Apr;20(4):340-5

Modulation of central serotonergic neurotransmission by risperidone: underlying mechanism(s) and significance of action. Hertel P, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):815-34

Risperidone versus haloperidol for perception of emotion in treatment-resistant schizophrenia: preliminary findings. Kee KS, et al. **Schizophr Res** 1998 May 25;31(2-3):159-65

[Treatment with risperidone of a case of spontaneous orgasm] Pastrana JI, et al. **Actas Esp Psiquiatr** 1999 Mar-Apr; 27(2):133-5 (Eng. Abstr.) **(Spa)**

POISONING

A case of risperidone overdose in early schizophrenia: a review of potential complications. Kopala LC, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):305-8

THERAPEUTIC USE

Risperidone and clozapine combination for the treatment of refractory schizophrenia. Morera AL, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):305-6; discussion 306-7

Use of risperidone in psychosis associated with Huntington's disease [letter] Madhusoodanan S, et al. **Am J Geriatr Psychiatry** 1998 Fall;6(4):347-9

Clozapine and risperidone in chronic schizophrenia: effects on symptoms, parkinsonian side effects, and neuroendocrine response. Breier AF, et al. **Am J Psychiatry** 1999 Feb; 156(2):294-8

Rehospitalization rates of patients recently discharged on a regimen of risperidone or clozapine. Conley RR, et al. **Am J Psychiatry** 1999 Jun;156(6):863-8

Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Dunayevich E, et al. **Am J Psychiatry** 1999 Jul;156(7):1127; discussion 1127-8. Comment on: Am J Psychiatry 1998 Apr;155(4):499-504.

Risperidone monotherapy for mania and depression [letter] Lane HY, et al. **Am J Psychiatry** 1999 Jul;156(7):1115

Risperidone for exclusively negative symptoms [letter] Lane HY, et al. **Am J Psychiatry** 1999 Feb;156(2):335

Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Meltzer HY. **Am J Psychiatry** 1999 Jul;156(7):1126-7; discussion 1127-8 . Comment on: Am J Psychiatry 1998 Apr;155(4):499-504.

Suggested minimal effective dose of risperidone based on PET-measured D2 and 5-HT2A receptor occupancy in schizophrenic patients. Nyberg S, et al. **Am J Psychiatry** 1999 Jun;156(6):869-75

Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Rubin E. **Am J Psychiatry** 1999 Jul;156(7):1127; discussion 1127-8. Comment on: Am J Psychiatry 1998 Apr;155(4):499-504.

Risperidone in treatment-refractory schizophrenia. Wirshing DA, et al. **Am J Psychiatry** 1999 Sep;156(9):1374-9

Treatment of nonpsychotic relatives of patients with schizophrenia: four case studies. Tsuang MT, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1412-8

5-HT2A receptor blockade in patients with schizophrenia treated with risperidone or clozapine. A SPET study using the novel 5-HT2A ligand 123I-5-I-R-91150. Travis MJ, et al. **Br J Psychiatry** 1998 Sep;173:236-41

Phase-IV multicentre clinical study of risperidone in the treatment of outpatients with schizophrenia. The RIS-CAN-3 Study Group. Chouinard G, et al. **Can J Psychiatry** 1998 Dec;43(10):1018-25

Risperidone treatment for a patient suffering from schizophrenia and IDDM [letter] Melamed Y, et al. **Can J Psychiatry** 1998 Nov;43(9):956

Risperidone as an adjunct to valproic acid [letter] Waring EW, et al. **Can J Psychiatry** 1999 Mar;44(2):189

Drug utilization patterns and outcomes associated with in-hospital treatment with risperidone or olanzapine [letter] Edgell ET, et al. **Clin Ther** 1999 May;21(5):917-30

Switching from therapy with typical antipsychotic agents to risperidone: long-term impact on patient outcome. Malla AK, et al. **Clin Ther** 1999 May;21(5):806-17

Drug utilization patterns and outcomes associated with in-hospital treatment with risperidone or olanzapine. Procyshyn RM, et al. **Clin Ther** 1998 Nov-Dec; 20(6):1203-17; discussion 1192-3

Health resource utilization and clinical outcomes with risperidone therapy in patients with serious mental illness. Sajatovic M, et al. **Compr Psychiatry** 1999 May-Jun; 40(3):198-202

Treatment with risperidone of an acute psychotic episode in a patient with AIDS [letter; comment] Zilikis N, et al. **Gen Hosp Psychiatry** 1998 Nov;20(6):384-5. Comment on: Gen Hosp Psychiatry 1997 May;19(3):223-8.

Risperidone is associated with blunting of D-fenfluramine evoked serotonergic responses in schizophrenia. Jones H, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):199-203

Risperidone and olanzapine: optimal dosing for efficacy and tolerability in patients with schizophrenia. Kasper S. **Int Clin Psychopharmacol** 1998 Nov;13(6):253-62 (51 ref.)

Beneficial effect of risperidone on sleep disturbance and psychosis following traumatic brain injury. Schreiber S, et al. **Int Clin Psychopharmacol** 1998 Nov;13(6):273-5

P50 suppression in recent-onset schizophrenia: clinical correlates and risperidone effects. Yee CM, et al. **J Abnorm Psychol** 1998 Nov;107(4):691-8

Is bipolar disorder still underdiagnosed? Are antidepressants overutilized? Ghaemi SN, et al. **J Affect Disord** 1999 Jan-Mar;52(1-3):135-44

Risperidone treatment for juvenile bipolar disorder: a retrospective chart review. Frazier JA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):960-5

Risperdal advertising in JAGS. Journal of the American Geriatrics Society [letter] Beers MH. **J Am Geriatr Soc** 1999 Mar;47(3):377

Brief report: two-year control of behavioral symptoms with risperidone in two profoundly retarded adults with autism. Dartnall NA, et al. **J Autism Dev Disord** 1999 Feb; 29(1):87-91

Risperidone addition in serotonin reuptake inhibitor-resistant trichotillomania: three cases. Epperson CN, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):43-9

Risperidone augmentation of paroxetine in a case of severe, treatment-refractory obsessive-compulsive disorder without comorbid psychopathology [letter] Agid O, et al.

J Clin Psychiatry 1999 Jan;60(1):55–6

Risperidone for the treatment of monosymptomatic hypochondriacal psychosis [letter] Cetin M, et al. **J Clin Psychiatry** 1999 Aug;60(8):554

Risperidone use at a state hospital: a clinical audit 2 years after the first wave of risperidone prescriptions. Chengappa KN, et al. **J Clin Psychiatry** 1999 Jun;60(6):373–8

Risperidone treatment of tardive dyskinesia and dystonia [letter] Chong SA, et al. **J Clin Psychiatry** 1999 May; 60(5):340–1

Methamphetamine-associated obsessional symptoms and effective risperidone treatment: a case report [letter] Iyo M, et al. **J Clin Psychiatry** 1999 May;60(5):337–8

Comparison of risperidone and placebo for psychosis and behavioral disturbances associated with dementia: a randomized, double-blind trial. Risperidone Study Group. Katz IR, et al. **J Clin Psychiatry** 1999 Feb;60(2):107–15

Risperidone monotherapy for psychotic depression unresponsive to other treatments [letter] Lane HY, et al. **J Clin Psychiatry** 1998 Nov;59(11):624

Clozapine versus risperidone in treatment-refractory schizophrenia: possible impact of dosing strategies [letter; comment] Lane HY, et al. **J Clin Psychiatry** 1999 Jul; 60(7):487–8. Comment on: J Clin Psychiatry 1998 Oct;59(10):521–7.

Clinical and neurocognitive effects of clozapine and risperidone in treatment-refractory schizophrenic patients: a prospective study [see comments] Lindenmayer JP, et al. **J Clin Psychiatry** 1998 Oct;59(10):521–7. Comment in: J Clin Psychiatry 1999 Jul;60(7):487–8.

The Risperidone Outcomes Study of Effectiveness (ROSE): a model for evaluating treatment strategies in typical psychiatric practice. Mahmoud R, et al. **J Clin Psychiatry** 1999;60 Suppl 3:42–7; discussion 48

Treatment of inhalant abuse with risperidone [letter] Misra LK, et al. **J Clin Psychiatry** 1999 Sep;60(9):620

Risperidone augmentation of selective serotonin reuptake inhibitors in major depression. Ostroff RB, et al. **J Clin Psychiatry** 1999 Apr;60(4):256–9

Prolactin levels in premenopausal women treated with risperidone compared with those of women treated with typical neuroleptics [letter] Caracci G, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):194–6

Effectiveness of risperidone in Huntington chorea patients [letter] Dallocchio C, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):101–3

Comments on "Double-blind comparison of olanzapine versus risperidone in the treatment of schizophrenia and other psychotic disorders" by Tran and Associates [letter; comment] Kasper S, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):353–6. Comment on: J Clin Psychopharmacol 1997 Oct;17(5):407–18.

Risperidone effects on irritable aggression in posttraumatic stress disorder [letter] Monnelly EP, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):377–8

Should risperidone be used in Parkinson's disease? [letter; comment] Friedman JH, et al. **J Neuropsychiatry Clin Neurosci** 1998 Fall;10(4):473–5. Comment on: J Neuropsychiatry Clin Neurosci 1997 Fall;9(4):594–7.

The Canadian experience with risperidone for the treatment of schizophrenia: an overview. Iskedjian M, et al. **J Psychiatry Neurosci** 1998 Sep;23(4):229–39 (80 ref.)

Risperidone as an adjunct therapy for post-traumatic stress disorder. Krashin D, et al. **Mil Med** 1999 Aug;164(8):605–6

Risperidone is effective in severe hemichorea/hemiballismus. Evidente VG, et al. **Mov Disord** 1999 Mar;14(2):377–9

Neurologic side effects in neuroleptic-naive patients treated with haloperidol or risperidone. Rosebush PI, et al. **Neurology** 1999 Mar 10;52(4):782–5

Comparison of risperidone and mosapramine addition to neuroleptic treatment in chronic schizophrenia. Takahashi N, et al. **Neuropsychobiology** 1999;39(2):81–5

A naturalistic study of risperidone maintenance treatment of outpatients with severe mental illness. Megna JL, et al. **Psychiatr Serv** 1999 Aug;50(8):1084–6

Use of risperidone and olanzapine in outpatient clinics at six Veterans Affairs hospitals. Voris JC, et al. **Psychiatr Serv** 1999 Feb;50(2):163–4, 168

Economic outcomes of antipsychotic agents in a Medicaid population: traditional agents vs. risperidone. Nightengale BS, et al. **Psychopharmacol Bull** 1998;34(3):373–82

Gonadal axis hormones in male schizophrenic patients during treatment with haloperidol and after switch to risperidone. Markianos M, et al. **Psychopharmacology (Berl)** 1999 Apr; 143(3):270–2

Clinical evaluation of risperidone in Asian patients with schizophrenia in Singapore. Chong SA, et al. **Singapore Med J** 1999 Jan;40(1):41–3

[A new drug risperidone for treatment of psychosis] Tiihonen J. **Duodecim** 1995;111(20):1911–2 **(Fin)**

[Cognitive dysfunction in schizophrenia--new therapeutic possibilities. 11th ECNP. 31 October–4 November 1998, Paris] **Fortschr Neurol Psychiatr** 1998 Dec;66(12 Suppl):1–4 **(Ger)**

[Treatment with risperidone of a case of spontaneous orgasm] Pastrana JI, et al. **Actas Esp Psiquiatr** 1999 Mar–Apr; 27(2):133–5 (Eng. Abstr.) **(Spa)**

[Combination of risperidone and serotonergic antidepressants in refractory obsessive-compulsive disorder] Salmerón JM, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Nov–Dec;26(6):399–402 (Eng. Abstr.) **(Spa)**

RISSO'S DOLPHIN see **DOLPHINS**

RISTOCETIN

PHARMACOLOGY

Ristocetin- and thrombin-induced platelet aggregation at physiological shear rates: differential roles for GPIb and GPIIb-IIIa receptor. Kasirer-Friede A, et al. **Thromb Haemost** 1998 Sep;80(3):428–36

RISTOMYCIN see **RISTOCETIN**

RITANSERIN

PHARMACOLOGY

Blockade of 5-hydroxytryptamine (serotonin)-2 receptors alters interleukin-1-induced changes in rat sleep. Imeri L, et al. **Neuroscience** 1999;92(2):745–9

Open-field and LPS-induced sickness behavior in young chickens: effects of embryonic cocaine and/or ritanserin. Schrott LM, et al. **Pharmacol Biochem Behav** 1998 Sep; 61(1):9–17

The motivation for beer in rats: effects of ritanserin, naloxone and SR 141716. Gallate JE, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):302–8

THERAPEUTIC USE

Ritanserin in relapse prevention in abstinent alcoholics: results from a placebo-controlled double-blind international multicenter trial. Ritanserin in Alcoholism Work Group. Wiesbeck GA, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):230–5

Ritanserin, a 5-HT2 receptor antagonist, increases subcortical blood flow following photothrombotic middle cerebral artery occlusion in rats. Back T, et al. **Neurol Res** 1998 Oct;20(7):643–7

TOXICITY

Late embryonic ritanserin exposure fails to alter normal responses to immune system stimulation in young chicks. Schrott LM, et al. **Pharmacol Biochem Behav** 1999 Sep; 64(1):81–8

RITODRINE

ADMINISTRATION & DOSAGE

[Pharmacology of ritodrine] Mangrella M, et al. **Minerva Ginecol** 1999 Jun;51(6):233–44 (52 ref.) (Eng. Abstr.) **(Ita)**

ADVERSE EFFECTS

Pulmonary edema as an acute complication of ritodrine therapy in the presence of maternal intrauterine infection. Takeuchi K, et al. **Clin Exp Obstet Gynecol** 1998; 25(3):99–100

Ritodrine-related liver injury. Case reports and review of the literature [see comments] Ceriani R, et al. **Ital J Gastroenterol Hepatol** 1998 Jun;30(3):315–7 (8 ref.) . Comment in: Ital J Gastroenterol Hepatol 1998 Jun;30(3):318–9.

Ritodrine-induced pustular eruption in a pregnant woman with psoriasis [letter] D'Incan M, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):91–3

[Acute hepatitis due to ritodrine (letter)] Castro Fernández M, et al. **Med Clin (Barc)** 1999 Sep 4;113(6):239 (9 ref.) **(Spa)**

ANALYSIS

Fluorimetric and spectrophotometric determination of ritodrine hydrochloride in bulk and pharmaceutical formulations. Razak OA. **J Pharm Biomed Anal** 1998 Nov; 18(3):359–65

PHARMACOLOGY

Contribution of nitric oxide to beta2-adrenoceptor mediated vasodilatation in human forearm arterial vasculature. Majmudar NG, et al. **Br J Clin Pharmacol** 1999 Feb; 47(2):173–7

Effects of tocolytic treatment with ritodrine on cardiovascular autonomic regulation. Vesalainen RK, et al. **Br J Obstet Gynaecol** 1999 Mar;106(3):238–43

Effects of beta3-adrenoceptor agonist SR 58611A on gastric acid secretion and histamine release in the dog: comparison with ritodrine. Bertini S, et al. **Gen Pharmacol** 1998 Oct; 31(4):625–31

THERAPEUTIC USE

Glyceryl trinitrate and ritodrine in tocolysis: an international multicenter randomized study. GTN Preterm Labour Investigation Group. Lees CC, et al. **Obstet Gynecol** 1999 Sep;94(3):403–8

RITONAVIR

ADMINISTRATION & DOSAGE

Ritonavir combination therapy restores intestinal function in children with advanced HIV disease. Canani RB, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1;21(4):307–12

ADVERSE EFFECTS

Acute hepatitis in HIV-infected patients during ritonavir treatment [letter] Arribas JR, et al. **AIDS** 1998 Sep 10; 12(13):1722–4

Is treatment with ritonavir a risk factor for myocardial infarction in HIV-infected patients? [letter] Eriksson U, et al. **AIDS** 1998 Oct 22;12(15):2079–80

Marked hypertriglyceridaemia associated with ritonavir therapy [letter] Sullivan AK, et al. **AIDS** 1998 Jul 30; 12(11):1393–4

Interaction between ritonavir and levothyroxine [letter] Tseng A, et al. **AIDS** 1998 Nov 12;12(16):2235–6

Renal insufficiency induced by ritonavir in HIV-infected patients [letter] Bochet MV, et al. **Am J Med** 1998 Nov; 105(5):457

Leg ischemia in a patient receiving ritonavir and ergotamine [letter] Montero A, et al. **Ann Intern Med** 1999 Feb 16;130(4 Pt 1):329–30

Parotid lipomatosis in HIV positive patients: a new clinical disorder associated with protease inhibitors [letter] Olivé A, et al. **Ann Rheum Dis** 1998 Dec;57(12):749

Drug points: severe ergotism associated with interaction between ritonavir and ergotamine. Liaudet L, et al. **BMJ** 1999 Mar 20;318(7186):771

Two episodes of acute renal failure, rhabdomyolysis, and severe hepatitis in an AIDS patient successively treated with ritonavir and indinavir. Benveniste O, et al. **Clin Infect Dis** 1999 May;28(5):1180–1

Ritonavir, triglycerides, and pancreatitis. Perry RC, et al. **Clin Infect Dis** 1999 Jan;28(1):161–2

Acute pancreatitis as a complication of ritonavir therapy in a patient with AIDS. Mirete G, et al. **Eur J Clin Microbiol Infect Dis** 1998 Nov;17(11):810–1

Painful hyperaesthesia caused by protease inhibitors? [letter] Colebunders R, et al. **Infection** 1998 Jul–Aug;26(4):250–1

Acute hepatitis in a patient treated with saquinavir and ritonavir: absence of cross-toxicity with indinavir [letter] Vandercam B, et al. **Infection** 1998 Sep–Oct;26(5):313

Extensive impairment of triazolam and alprazolam clearance by short-term low-dose ritonavir: the clinical dilemma of concurrent inhibition and induction [editorial] Greenblatt DJ, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):293–6 (51 ref.)

Hypermenorrhea associated with ritonavir [letter] Nielsen H. **Lancet** 1999 Mar 6;353(9155):811–2

Itraconazole and HIV protease inhibitors: an important interaction [letter] MacKenzie-Wood AR, et al. **Med J Aust** 1999 Jan 4;170(1):46–7

Spontaneous bleeding associated with the use of the protease inhibitor ritonavir in a hemophiliac patient with human immunodeficiency virus infection. Hagerty SL, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):929–30

[Nephrotoxicity of ritonavir] Deray G, et al. **Presse Med** 1998 Nov 14;27(35):1801–3 (Eng. Abstr.) **(Fre)**

[Focal mycobacterial lymphadenitis after starting highly active antiretroviral therapy] Schwietert M, et al. **Dtsch Med Wochenschr** 1999 Jan 22;124(3):45–8 (Eng. Abstr.) **(Ger)**

[Potential opiate withdrawal syndrome after ritonavir administration in a patient treated with methadone (letter)] Jiménez-Lerma JM, et al. **Rev Clin Esp** 1999 Mar; 199(3):188–9 **(Spa)**

BLOOD

Single daily doses of saquinavir achieve HIV-inhibitory concentrations when combined with baby-dose ritonavir. Kurowski M, et al. **Eur J Med Res** 1999 Mar 26;4(3):101–4

Simultaneous determination of ritonavir and saquinavir, two human immunodeficiency virus protease inhibitors, in human serum by high-performance liquid chromatography. Frappier S, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):384–9

METABOLISM

Potent inhibition of the cytochrome P-450 3A-mediated human liver microsomal metabolism of a novel HIV protease inhibitor by ritonavir: A positive drug-drug interaction. Kumar GN, et al. **Drug Metab Dispos** 1999 Aug;27(8):902–8

PHARMACOKINETICS

Poor penetration of the male genital tract by HIV-1 protease inhibitors [letter] Taylor S, et al. **AIDS** 1999 May 7; 13(7):859–60

Ritonavir-fluoxetine interaction [letter; comment] Eralp Bellibas S. **Antimicrob Agents Chemother** 1999 Jul; 43(7):1815. Comment on: Antimicrob Agents Chemother 1998 Dec;42(12):3107–12.

Effect of fluoxetine on pharmacokinetics of ritonavir. Ouellet D, et al. **Antimicrob Agents Chemother** 1998 Dec; 42(12):3107–12

Ritonavir. Clinical pharmacokinetics and interactions with other anti-HIV agents [published erratum appears in Clin Pharmacokinet 1998 Dec;35(6):473] Hsu A, et al. **Clin Pharmacokinet** 1998 Oct;35(4):275–91 (129 ref.)

Pharmacokinetic interaction between ritonavir and clarithromycin. Ouellet D, et al. **Clin Pharmacol Ther** 1998

Oct;64(4):355–62
Interactions of HIV protease inhibitors with ATP-dependent drug export proteins. Gutmann H, et al. **Mol Pharmacol** 1999 Aug;56(2):383–9

PHARMACOLOGY

Ritonavir has paradoxical effects on lipid metabolism and insulin sensitivity in rats compared with humans [letter] Ye JM, et al. **AIDS** 1998 Nov 12;12(16):2236–7
Ritonavir's role in reducing fentanyl clearance and prolonging its half-life. Olkkola KT, et al. **Anesthesiology** 1999 Sep;91(3):681–5
Lack of ritonavir antifungal effect in vitro [letter] Diz P, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):997
Pharmacokinetic interaction between ritonavir and indinavir in healthy volunteers. Hsu A, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):2784–91
Human immunodeficiency virus type 1 protease inhibitor modulates activation of peripheral blood CD4(+) T cells and decreases their susceptibility to apoptosis in vitro and in vivo. Sloand EM, et al. **Blood** 1999 Aug 1;94(3):1021–7
Effect of ritonavir on the pharmacokinetics of ethinyl oestradiol in healthy female volunteers. Ouellet D, et al. **Br J Clin Pharmacol** 1998 Aug;46(2):111–6
Potent inhibition of the cytochrome P-450 3A-mediated human liver microsomal metabolism of a novel HIV protease inhibitor by ritonavir: A positive drug-drug interaction. Kumar GN, et al. **Drug Metab Dispos** 1999 Aug;27(8):902–8
In vitro and in vivo anticandidal activity of human immunodeficiency virus protease inhibitors. Cassone A, et al. **J Infect Dis** 1999 Aug;180(2):448–53
Inhibition of desipramine hydroxylation (Cytochrome P450-2D6) in vitro by quinidine and by viral protease inhibitors: relation to drug interactions in vivo. von Moltke LL, et al. **J Pharm Sci** 1998 Oct;87(10):1184–9
An inhibitor of HIV-1 protease modulates proteasome activity, antigen presentation, and T cell responses. André P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):13120–4

POISONING

Fatal interaction between ritonavir and MDMA [letter] [see comments] Henry JA, et al. **Lancet** 1998 Nov 28; 352(9142):1751–2. Comment in: Lancet 1999 Feb 13;353(9152):593. Comment in: Lancet 1999 Feb 13;353(9152):593–4.

THERAPEUTIC USE

Protease inhibitors in antiviral therapy of paediatric HIV disease [letter] Manfredi R, et al. **Acta Paediatr** 1998 Jul; 87(7):814–6
Ritonavir and saquinavir combination therapy for the treatment of HIV infection. Cameron DW, et al. **AIDS** 1999 Feb 4;13(2):213–24
Predictors of long-term response to protease inhibitor therapy in a cohort of HIV-infected patients. Casado JL, et al. **AIDS** 1998 Jul 30;12(11):F131–5
A randomized trial of the effect of ritonavir in maintaining quality of life in advanced HIV disease. Advanced HIV Disease Ritonavir Study Group. Cohen C, et al. **AIDS** 1998 Aug 20;12(12):1495–502
Clinical outcome and predictive factors of failure of highly active antiretroviral therapy in antiretroviral-experienced patients in advanced stages of HIV-1 infection. d'Arminio Monforte A, et al. **AIDS** 1998 Sep 10;12(13):1631–7
Salvage therapy with ritonavir-saquinavir plus two nucleoside reverse transcriptase inhibitors in patients failing with amprenavir-zidovudine-lamivudine [letter] De Wit S, et al. **AIDS** 1999 May 7;13(7):864–5
Efficacy of salvage therapy containing ritonavir and saquinavir after failure of single protease inhibitor-containing regimens. Hall CS, et al. **AIDS** 1999 Jul 9;13(10):1207–12
Treatment response and durability of a double protease inhibitor therapy with saquinavir and ritonavir in an observational cohort of HIV-1-infected individuals. Kaufmann GR, et al. **AIDS** 1998 Sep 10;12(13):1625–30
Combination therapy containing ritonavir plus saquinavir has superior short-term antiretroviral efficacy: a randomized trial. Kirk O, et al. **AIDS** 1999 Jan 14;13(1):F9–16
Ritonavir promotes increased growth in HIV-infected children. Paediatric AIDS Group of Switzerland [letter] Nadal D, et al. **AIDS** 1998 Dec 3;12(17):2356–7
Virologic responses to a ritonavir--saquinavir-containing regimen in patients who had previously failed nelfinavir. Tebas P, et al. **AIDS** 1999 Feb 4;13(2):F23–8
Combination antiretroviral therapy including ritonavir in children infected with human immunodeficiency. Thuret I, et al. **AIDS** 1999 Jan 14;13(1):81–7
The rabbit study: ritonavir and saquinavir in combination in saquinavir-experienced and previously untreated patients. Churchill DR, et al. **AIDS Res Hum Retroviruses** 1999 Sep 1;15(13):1181–9
Phenotypic analysis of CD8+ T lymphocytes in a cohort of HIV type 1-infected patients treated with saquinavir, ritonavir, and two nucleoside analogs for 1 year, and association with plasma HIV type 1 RNA. Kaufmann GR, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20; 15(11):963–72
Potential interaction involving warfarin and ritonavir. Knoell KR, et al. **Ann Pharmacother** 1998 Dec;32(12):1299–302
Discontinuation rates for protease inhibitor regimens containing ritonavir 600 mg versus ritonavir 400 mg plus saquinavir 400 mg. Rublein JC, et al. **Ann Pharmacother** 1999 Sep;33(9):899–905
Prospective follow-up of 67 indinavir-experienced human immunodeficiency virus-infected and AIDS patients treated with the ritonavir/saquinavir combination. Lallemand F, et al. **Clin Infect Dis** 1999 May;28(5):1184–5
Safety and efficacy of ritonavir and saquinavir in combination with zidovudine and lamivudine. Michelet C, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):661–71
Beneficial effect of highly active antiretroviral therapy (HAART) in reducing both HIV viral load and monoclonal gammopathy [letter] Cauda R, et al. **Eur J Haematol** 1999 Aug;63(2):134–5
Preliminary experiences with ritonavir in children with advanced HIV infection. Horneff G, et al. **Infection** 1999 Mar-Apr;27(2):103–7
Cerebrospinal fluid HIV RNA and drug levels with combination ritonavir and saquinavir. Kravcik S, et al. **J Acquir Immune Defic Syndr** 1999 Aug 15;21(5):371–5
The effect of commencing combination antiretroviral therapy soon after human immunodeficiency virus type 1 infection on viral replication and antiviral immune responses [published erratum appears in J Infect Dis 1999 May;179(5):1315] Markowitz M, et al. **J Infect Dis** 1999 Mar;179(3):527–37
Immunoreconstitution after ritonavir therapy in children with human immunodeficiency virus infection involves multiple lymphocyte lineages. Sleasman JW, et al. **J Pediatr** 1999 May;134(5):597–606
Some state space models of HIV pathogenesis under treatment by anti-viral drugs in HIV-infected individuals. Tan WY, et al. **Math Biosci** 1999 Mar 1;156(1-2):69–94
Resolution of chronic hepatitis B after ritonavir treatment in an HIV-infected patient [letter] Velasco M, et al. **N Engl J Med** 1999 Jun 3;340(22):1765–6
A one year experience: T cell responses and viral replication in children with advanced human immunodeficiency virus type 1 disease treated with combination therapy including ritonavir. Pelton SI, et al. **Pediatr Infect Dis J** 1999 Jul; 18(7):650–2
Stochastic processes strongly influence HIV-1 evolution during suboptimal protease-inhibitor therapy. Nijhuis M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14441–6
Immunological changes in human immunodeficiency virus (HIV)-infected individuals during HIV-specific protease inhibitor treatment. Ullum H, et al. **Scand J Immunol** 1999 May;49(5):539–47
[Edema of the lower extremities in a HIV seropositive patient: secondary effect of ritonavir? (letter)] Dol L, et al. **Presse Med** 1999 Jan 16;28(2):75 **(Fre)**
[Discontinuation of antiretroviral treatment containing a protease inhibitor. Failure and tolerance] Michelet C. **Presse Med** 1999 Feb 27;28(8):402–4 **(Fre)**

RITTER DISEASE see **STAPHYLOCOCCAL SCALDED SKIN SYNDROME**

RIVER BLINDNESS see **ONCHOCERCIASIS, OCULAR**

RIVER DOLPHIN see **DOLPHINS**

RIVER DOLPHINS see **DOLPHINS**

RIVER OTTERS see **OTTERS**

RNA

Yeast nuclear PET127 gene can suppress deletions of the SUV3 or DSS1 genes: an indication of a functional interaction between 3' and 5' ends of mitochondrial mRNAs. Wegierski T, et al. **Acta Biochim Pol** 1998; 45(4):935–40
Multiplexed screening of neutral mass-tagged RNA targets against ligand libraries with electrospray ionization FTICR MS: a paradigm for high-throughput affinity screening. Hofstadler SA, et al. **Anal Chem** 1999 Aug 15; 71(16):3436–40
Evolution of the U-insertion/deletion RNA editing in mitochondria of kinetoplastid protozoa. Simpson L, et al. **Ann N Y Acad Sci** 1999 May 18;870:190–205 (64 ref.)
Trading places on DNA--a three-point switch underlies primer handoff from primase to the replicative DNA polymerase. Yuzhakov A, et al. **Cell** 1999 Jan 8; 96(1):153–63
Aptamers as tools in molecular biology and immunology. Famulok M, et al. **Curr Top Microbiol Immunol** 1999; 243:123–36 (74 ref.)
Primer mixture enhances PCR detection of Mycoplasma/Acholeplasma contaminants in cell cultures [letter] Tang J, et al. **In Vitro Cell Dev Biol Anim** 1999 Jan;35(1):1–3 (16 ref.)
Temporal coordination between initiation of HIV (+)-strand DNA synthesis and primer removal. Götte M, et al. **J Biol Chem** 1999 Apr 16;274(16):11159–69
The fidelity of reverse transcription differs in reactions primed with RNA versus DNA primers. Oude Essink BB, et al. **J Biomed Sci** 1999 Mar-Apr;6(2):121–32
Replication and pathogenicity of primer binding site mutants of SL3-3 murine leukemia viruses. Lund AH, et al. **J Virol** 1999 Jul;73(7):6117–22
Association of guide RNA binding protein gBP21 with active RNA editing complexes in Trypanosoma brucei. Allen TE, et al. **Mol Cell Biol** 1998 Oct;18(10):6014–22
RNA mimetics: oligoribonucleotide N3'-->P5' phosphoramidates. Gryaznov SM, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4160–7
The antibiotic viomycin as a model peptide for the origin of the co-evolution of RNA and proteins. Wank H, et al. **Orig Life Evol Biosph** 1999 Aug;29(4):391–404
The origin of life--a review of facts and speculations. Orgel LE. **Trends Biochem Sci** 1998 Dec;23(12):491–5 (43 ref.)

ADMINISTRATION & DOSAGE

Nucleotide exchange in genomic DNA of rat hepatocytes using RNA/DNA oligonucleotides. Targeted delivery of liposomes and polyethyleneimine to the asialoglycoprotein receptor. Bandyopadhyay P, et al. **J Biol Chem** 1999 Apr 9;274(15):10163–72

ANALYSIS

Effect of dietary zinc deficiency on alkaline phosphatase and nucleic acids in rats. Okegbile EO, et al. **Afr J Med Med Sci** 1998 Sep-Dec;27(3-4):189–92
A modified orcinol test for the specific determination of RNA. Almog R, et al. **Anal Biochem** 1978 Nov;91(1):130–7
RNA quantitation by fluorescence-based solution assay: RiboGreen reagent characterization. Jones LJ, et al. **Anal Biochem** 1998 Dec 15;265(2):368–74
Rayleigh light scattering study on the reaction of nucleic acids and methyl violet. Liu Y, et al. **Anal Biochem** 1999 Mar 15;268(2):187–92
Direct comparison of GAPDH, beta-actin, cyclophilin, and 28S rRNA as internal standards for quantifying RNA levels under hypoxia. Zhong H, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):523–6
Highly sensitive northern hybridization using a rapid protocol for downward alkaline blotting of RNA. Ingelbrecht IL, et al. **Biotechniques** 1998 Sep;25(3):420–3, 425–6
Normalization of RNA hybridization signals by means of SYBR green II-stained 28S or 18S ribosomal RNA and a phosphor imager. Spiess AN, et al. **Biotechniques** 1999 Jan;26(1):46–8, 50
The RNA component of telomerase as a marker of biologic potential and clinical outcome in childhood neuroblastic tumors. Maitra A, et al. **Cancer** 1999 Feb 1;85(3):741–9
Remarks on the usefulness of toluidine blue staining for RNA cytophotometry in plastic embedded tissues [letter] Meyer W, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Jun; 45(4):379–82
Isotype-specific changes in the amount of beta-tubulin RNA in synchronized tobacco BY2 cells. Okamura S, et al. **Cell Struct Funct** 1999 Jun;24(3):117–22
Reducing the impact of endogenous ribonucleases on reverse transcription-PCR assay systems [editorial; comment] O'Leary TJ. **Clin Chem** 1999 Apr;45(4):449–50. Comment on: Clin Chem 1999 Apr;45(4):465–71.
Quantitative reverse transcription-PCR assay of the RNA component of human telomerase using the TaqMan fluorogenic detection system. Yajima T, et al. **Clin Chem** 1998 Dec;44(12):2441–5
Expression of the imp[illegible]d H19 oncofetal RNA in epithelial ovarian cancer. T[illegible]os V, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jul;85(1):7–11
In situ hybridization for telomerase RNA in routine cytologic brushings for the diagnosis of pancreaticobiliary malignancies. Morales CP, et al. **Gastrointest Endosc** 1998 Oct;48(4):402–5
Extremely-rapid RNA detection in dot blots with digoxigenin-labeled RNA probes. Huang CY, et al. **Genet Anal** 1998 Oct;14(4):109–12
RNA content differs in slow and fast muscle fibers: implications for interpretation of changes in muscle gene expression. Habets PE, et al. **J Histochem Cytochem** 1999 Aug;47(8):995–1004
Recombinant single-chain Fv antibody fragment-alkaline phosphatase conjugate for one-step immunodetection in molecular hybridization. Muller BH, et al. **J Immunol Methods** 1999 Jul 30;227(1-2):177–85
Modifications of RNase protection assay for neuroscience applications. Ilyin SE, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):139–41
Molecular biology and reproduction. McDonough PG. **Keio J Med** 1999 Mar;48(1):12–21 (13 ref.)
Use of circular permutation and end modification to position photoaffinity probes for analysis of RNA structure. Harris ME, et al. **Methods** 1999 May;18(1):51–9
Protein and RNA affinity selection techniques using HIV-1 Tat. Garber ME, et al. **Methods Enzymol** 1999;306:352–64
Preparation of double/single-stranded DNA and RNA molecules for electron microscopy. Hajibagheri MA. **Methods Mol Biol** 1999;117:209–27 (26 ref.)
In situ hybridization of radioactive riboprobes to RNA in tissue sections. Mahmood R, et al. **Methods Mol Biol** 1999; 97:611–21
In situ hybridization to RNA in whole embryos. Shamim H, et al. **Methods Mol Biol** 1999;97:623–33
Evidence for the presence of 5S rRNA in mammalian mitochondria. Magalhães PJ, et al. **Mol Biol Cell** 1998 Sep; 9(9):2375–82

Differential RNA display identifies novel genes associated with decreased vitamin D receptor expression. Dabrowski M, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1-2):131-9

Different strategies of differential display: areas of application. Matz MV, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5537-43 (38 ref.)

Detection of mutations by automated fluorescence/RNA-based dideoxy fingerprinting (ARddF) [published erratum appears in Oncogene 1999 May 20;18(20):3186] Martincic D, et al. **Oncogene** 1999 Jan 21; 18(3):617-21

Reciprocal subtraction differential RNA display: an efficient and rapid procedure for isolating differentially expressed gene sequences. Kang DC, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13788-93

Noncovalent RNA-peptide complexes detected by matrix-assisted laser desorption/ionization mass spectrometry. Thiede B, et al. **Rapid Commun Mass Spectrom** 1998;12(23):1889-94

A novel 5$displacement spin-labeling technique for electron paramagnetic resonance spectroscopy of RNA. Macosko JC, et al. **RNA** 1999 Sep;5(9):1158-66

Enzyme-linked immunosorbent assay detection of prostate-specific antigen messenger ribonucleic acid in prostate cancer. Hoshi S, et al. **Urology** 1999 Jan; 53(1):228-35

[Fluorescent spectral study of synthetic activity of animal blood lymphocytes under continuous gamma-irradiation] Karnaukhova NA, et al. **Radiats Biol Radioecol** 1998 Jul-Aug;38(4):552-9 (Eng. Abstr.) **(Rus)**

ANTAGONISTS & INHIBITORS

Cisplatin-DNA adducts inhibit ribosomal RNA synthesis by hijacking the transcription factor human upstream binding factor. Zhai X, et al. **Biochemistry** 1998 Nov 17; 37(46):16307-15

BIOSYNTHESIS

Tissue-specific changes in RNA synthesis in vivo during anoxia in crucian carp. Smith RW, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R690-7

RNA processing in evolution. The logic of soft-wired genomes. Herbert A, et al. **Ann N Y Acad Sci** 1999 May 18;870:119-32 (45 ref.)

Cisplatin-DNA adducts inhibit ribosomal RNA synthesis by hijacking the transcription factor human upstream binding factor. Zhai X, et al. **Biochemistry** 1998 Nov 17; 37(46):16307-15

Prebiotic synthesis on minerals: bridging the prebiotic and RNA worlds. Ferris JP. **Biol Bull** 1999 Jun;196(3):311-4 (14 ref.)

Influence of sodium selenite and selenomethionine on DNA/RNA synthesis and BaP binding to spleen lymphocytes in culture. Bansal MP, et al. **Biol Trace Elem Res** 1999 Oct;70(1):21-8

RNA enzymes with two small-molecule substrates. Huang F, et al. **Chem Biol** 1998 Nov;5(11):669-78

Chimeric DNA-RNA hammerhead ribozyme to proliferating cell nuclear antigen reduces stent-induced stenosis in a porcine coronary model. Frimerman A, et al. **Circulation** 1999 Feb 9;99(5):697-703

Inhibition of protein synthesis by zinc: comparison between protein synthesis and RNA synthesis. Walther UI, et al. **Hum Exp Toxicol** 1998 Dec;17(12):661-7

Involvement of beta1 and beta2 integrin stimulation in RNA synthesis in an eosinophilic cell line (EoL-1). Tsuda A, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:44-7

Rickettsia prowazekii transports UMP and GMP, but not CMP, as building blocks for RNA synthesis. Winkler HH, et al. **J Bacteriol** 1999 May;181(10):3238-41

Terminator-specific recycling of a B1-Alu transcription complex by RNA polymerase III is mediated by the RNA terminus-binding protein La. Goodier JL, et al. **J Biol Chem** 1998 Oct 2;273(40):26110-6

Modeling of repeated-batch transcription for production of RNA. Davis RH, et al. **J Biotechnol** 1999 May 28; 71(1-3):25-37

Cisplatin-induced apoptosis of HeLa cells. Effect of RNA and protein synthesis inhibitors, Ca2+ chelators and zinc. Velázquez M, et al. **J Exp Clin Cancer Res** 1998 Sep; 17(3):277-84

A minimal RNA promoter for minus-strand RNA synthesis by the brome mosaic virus polymerase complex. Chapman MR, et al. **J Mol Biol** 1999 Feb 26;286(3):709-20

A set of plasmids constitutively producing different RNA levels in Escherichia coli. Gabriel K, et al. **J Mol Biol** 1999 Jul 9;290(2):385-9

Direct regulation of mitochondrial RNA synthesis by thyroid hormone. Enriquez JA, et al. **Mol Cell Biol** 1999 Jan; 19(1):657-70

Macromolecular synthesis contributes to nociceptive response to subcutaneous formalin injection in mice. Kim SJ, et al. **Neuropharmacology** 1998 Aug;37(8):1091-3

Effect of integration host factor of RNA II synthesis in replication of plasmid containing orip 15A. Hiszczyńska-Sawicka E, et al. **Plasmid** 1998 Sep; 40(2):150-7

More mistakes by T7 RNA polymerase at the 5' ends of in vitro-transcribed RNAs [letter] Helm M, et al. **RNA** 1999 May;5(5):618-21

Modification of nucleic acid synthesis in regenerating liver by azathioprine. Gonzalez EM, et al. **Surgery** 1970 Jul; 68(1):254-8; discussion 258-9

Induction of apoptosis and changes in nuclear G-actin are mediated by different pathways: the effect of inhibitors of protein and RNA synthesis in isolated rat hepatocytes. Meijerman I, et al. **Toxicol Appl Pharmacol** 1999 Apr 1; 156(1):46-55

Subgenomic RNA promoters dictate the mode of recognition by bromoviral RNA-dependent RNA polymerases. Adkins S, et al. **Virology** 1998 Dec 5;252(1):1-8

BLOOD

[Class M immunoglobulins from blood serum of patients with systemic lupus erythematosus effectively cleave RNA] Andrievskaia OA, et al. **Mol Biol (Mosk)** 1998 Sep-Oct; 32(5):908-15 **(Rus)**

CHEMICAL SYNTHESIS

Ternary conjugates of guanosine monophosphate as initiator nucleotides for the enzymatic synthesis of 5'-modified RNAs. Seelig B, et al. **Bioconjug Chem** 1999 May-Jun; 10(3):371-8

In vitro selection of phosphorothiolated aptamers. Jhaveri S, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2285-90

Derivation of RNA aptamer inhibitors of human complement C5. Biesecker G, et al. **Immunopharmacology** 1999 May; 42(1-3):219-30

Continuous-flow cell-free translation, transcription-translation, and replication-translation systems. Ryabova LA, et al. **Methods Mol Biol** 1998; 77:179-93 (31 ref.)

A simple and efficient method to reduce nontemplated nucleotide addition at the 3terminus of RNAs transcribed by T7 RNA polymerase. Kao C, et al. **RNA** 1999 Sep; 5(9):1268-72

CHEMISTRY

1.76 A structure of a pyrimidine start alternating A-RNA hexamer r(CGUAC)dG. Biswas R, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):570-6

Preliminary crystallographic characterization of an in vitro evolved biotin-binding RNA pseudoknot. Nix JC, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):323-5

Preliminary characterization of crystals of an in vitro evolved cyanocobalamin (vitamin B12) binding RNA. Sussman D, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):326-8

RNA folds: insights from recent crystal structures. Ferré-D'Amaré AR, et al. **Annu Rev Biophys Biomol Struct** 1999;28:57-73 (63 ref.)

Endonucleolytic cleavage of RNA at 5' endogenous stem structures by human flap endonuclease 1. Stevens A. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):501-8

Structural characterization of DNA and RNA sequences recognized by the gene 5 protein of bacteriophage fd. Oliver AW, et al. **Biochem J** 1999 May 1;339 (Pt 3):525-31

Crystal structure of a brominated RNA helix with four mismatched base pairs: An investigation into RNA conformational variability. Anderson AC, et al. **Biochemistry** 1999 Sep 28;38(39):12577-85

Selectivity of polyamines on the stability of RNA-DNA hybrids containing phosphodiester and phosphorothioate oligodeoxyribonucleotides. Antony T, et al. **Biochemistry** 1999 Aug 17;38(33):10775-84

RNA secondary structure: an important cis-element in rat calcitonin/CGRP pre-messenger RNA splicing. Coleman TP, et al. **Biochemistry** 1998 Nov 10;37(45):15941-50

Selection and characterization of an RNA decoy for transcription factor NF-kappa B. Lebruska LL, et al. **Biochemistry** 1999 Mar 9;38(10):3168-74

Crystal structure of an RNA 16-mer duplex R(GCAGAGUUAAAUCUGC)2 with nonadjacent G(syn).A+(anti) mispairs. Pan B, et al. **Biochemistry** 1999 Mar 2;38(9):2826-31

Inhibition of restriction endonuclease cleavage by triple helix formation with RNA and 2'-O-methyl RNA oligonucleotides containing 8-oxo-adenosine in place of cytidine. Ushijima K, et al. **Biochemistry** 1999 May 18; 38(20):6570-5

Functional requirements for specific ligand recognition by a biotin-binding RNA pseudoknot. Wilson C, et al. **Biochemistry** 1998 Oct 13;37(41):14410-9

Thermodynamic parameters for an expanded nearest-neighbor model for formation of RNA duplexes with Watson-Crick base pairs. Xia T, et al. **Biochemistry** 1998 Oct 20;37(42):14719-35

NMR structure of an antisense DNA.RNA hybrid duplex containing a 3'-CH(2)N(CH(3))-O-5' or an MMI backbone linker. Yang X, et al. **Biochemistry** 1999 Sep 28; 38(39):12586-96

Duplex recognition by oligonucleotides containing 2'-deoxy-2'-fluoro-D-arabinose and 2'-deoxy-2'-fluoro-D-ribose. Intermolecular 2'-OH-phosphate contacts versus sugar puckering in the stabilization of triple-helical complexes. Wilds CJ, et al. **Bioconjug Chem** 1999 Mar-Apr;10(2):299-305

Electric pulse-induced precipitation of biological macromolecules in electroporation. Stapulionis R. **Bioelectrochem Bioenerg** 1999 Feb;48(1):249-54

RNA movies: visualizing RNA secondary structure spaces. Evers D, et al. **Bioinformatics** 1999 Jan;15(1):32-7

A vector-based method for drawing RNA secondary structure. Han K, et al. **Bioinformatics** 1999 Apr; 15(4):286-97

Stem Trace: an interactive visual tool for comparative RNA structure analysis. Kasprzak W, et al. **Bioinformatics** 1999 Jan;15(1):16-31

RNA secondary structure prediction using stochastic context-free grammars and evolutionary history. Knudsen B, et al. **Bioinformatics** 1999 Jun;15(6):446-54

Fast evaluation of internal loops in RNA secondary structure prediction. Lyngsø RB, et al. **Bioinformatics** 1999 Jun; 15(6):440-5

An RNA folding method capable of identifying pseudoknots and base triples. Tabaska JE, et al. **Bioinformatics** 1998; 14(8):691-9

Prediction of RNA secondary structure based on helical regions distribution. WuJu L, et al. **Bioinformatics** 1998; 14(8):700-6

A 'retro-inverso' PNA: structural implications for DNA and RNA binding. Krotz AH, et al. **Bioorg Med Chem** 1998 Nov;6(11):1983-92

Properties of nicked and circular dumbbell RNA/DNA chimeric oligonucleotides containing antisense phosphodiester oligodeoxynucleotides. Yamakawa H, et al. **Bioorg Med Chem** 1998 Jul;6(7):1025-32

RNA-aminoglycoside antibiotic interactions: fluorescence detection of binding and conformational change. Llano-Sotelo B, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):213-6

The RNA folding problem: a variational problem within an adiabatic approximation. Fernández A, et al. **Biophys Chem** 1998 Aug 24;74(2):89-98

Comparison of the crystal and solution structures of two RNA oligonucleotides. Rife JP, et al. **Biophys J** 1999 Jan; 76(1 Pt 1):65-75

Unrestrained stochastic dynamics simulations of the UUCG tetraloop using an implicit solvation model. Williams DJ, et al. **Biophys J** 1999 Jun;76(6):3192-205

Saccharide-RNA recognition. Hermann T, et al. **Biopolymers** 1998;48(2-3):155-65 (80 ref.)

New developments in structure determination of pseudoknots. Hilbers CW, et al. **Biopolymers** 1998; 48(2-3):137-53 (47 ref.)

On the role of magnesium ions in RNA stability. Misra VK, et al. **Biopolymers** 1998;48(2-3):113-35 (142 ref.)

Thermodynamics of stabilization of RNA pseudoknots by cobalt(III) hexaammine. Nixon PL, et al. **Biopolymers** 1999 Oct 5;50(4):443-58

Molecular insights into the RNA world [editorial] Patel DJ. **Biopolymers** 1998;48(2-3):97-100

A molecular dynamics simulation of the flavin mononucleotide-RNA aptamer complex. Schneider C, et al. **Biopolymers** 1999 Sep;50(3):287-302

Complete suboptimal folding of RNA and the stability of secondary structures. Wuchty S, et al. **Biopolymers** 1999 Feb;49(2):145-65

Structure-based and combinatorial search for new RNA-binding drugs. Afshar M, et al. **Curr Opin Biotechnol** 1999 Feb;10(1):59-63 (47 ref.)

Oligonucleotide libraries--variatio delectat. Famulok M, et al. **Curr Opin Chem Biol** 1998 Jun;2(3):320-7 (69 ref.)

RNA-protein complexes. Cusack S. **Curr Opin Struct Biol** 1999 Feb;9(1):66-73 (34 ref.)

A chemogenetic approach to RNA function/structure analysis. Strobel SA. **Curr Opin Struct Biol** 1999 Jun; 9(3):346-52 (36 ref.)

Exposing the kinetic traps in RNA folding. Treiber DK, et al. **Curr Opin Struct Biol** 1999 Jun;9(3):339-45 (47 ref.)

Defining functional groups, core structural features and inter-domain tertiary contacts essential for group II intron self-splicing: a NAIM analysis. Boudvillain M, et al. **EMBO J** 1998 Dec 1;17(23):7091-104

Spontaneous rearrangements in RNA sequences. Chetverina HV, et al. **FEBS Lett** 1999 Apr 30;450(1-2):89-94

Isolation and characterization of fluorophore-binding RNA aptamers. Holeman LA, et al. **Fold Des** 1998;3(6):423-31

Identification of stable RNA hairpins causing band compression in transcriptional sequencing and their elimination by use of inosine triphosphate. Sasaki N, et al. **Gene** 1998 Nov 5;222(1):17-23

RNA structure inhibits the TRAP (trp RNA-binding attenuation protein)-RNA interaction. Xirasagar S, et al. **J Biol Chem** 1998 Oct 16;273(42):27146-53

3D HCCH-COSY-TOCSY experiment for the assignment of ribose and amino acid side chains in 13C labeled RNA and protein. Hu W, et al. **J Biomol NMR** 1998 Nov; 12(4):559-64

Hydration of RNA base pairs. Auffinger P, et al. **J Biomol Struct Dyn** 1998 Dec;16(3):693-707

Continuum solvent studies of the stability of RNA hairpin loops and helices. Srinivasan J, et al. **J Biomol Struct Dyn** 1998 Dec;16(3):671-82

A polyhedral approach to RNA sequence structure alignment. Lenhof HP, et al. **J Comput Biol** 1998 Fall; 5(3):517-30

Docking of cationic antibiotics to negatively charged pockets in RNA folds. Hermann T, et al. **J Med Chem** 1999 Apr 8;42(7):1250-61

Structural studies of the RNA pseudoknot required for readthrough of the gag-termination codon of murine

leukemia virus. Alam SL, et al. **J Mol Biol** 1999 May 21; 288(5):837–52

RNase P RNA structure and cleavage reflect the primary structure of tRNA genes. Brännvall M, et al. **J Mol Biol** 1998 Nov 6;283(4):771–83

Thermodynamics of unpaired terminal nucleotides on short RNA helixes correlates with stacking at helix termini in larger RNAs. Burkard ME, et al. **J Mol Biol** 1999 Jul 30; 290(5):967–82

Stepping through an RNA structure: A novel approach to conformational analysis. Duarte CM, et al. **J Mol Biol** 1998 Dec 18;284(5):1465–78

Determination of the angle between the acceptor and anticodon stems of a truncated mitochondrial tRNA. Frazer-Abel AA, et al. **J Mol Biol** 1999 Jan 15; 285(2):581–93

Structural effect of complete [Rp]-phosphorothioate and phosphorodithioate substitutions in the DNA strand of a model antisense inhibitor–target RNA complex. Furrer P, et al. **J Mol Biol** 1999 Jan 29;285(4):1609–22

Solution structure and thermodynamics of a divalent metal ion binding site in an RNA pseudoknot. Gonzalez RL Jr, et al. **J Mol Biol** 1999 Jun 25;289(5):1267–82

RNA secondary structure prediction based on free energy and phylogenetic analysis. Juan V, et al. **J Mol Biol** 1999 Jun 18;289(4):935–47

A complete conformational map for RNA. Murthy VL, et al. **J Mol Biol** 1999 Aug 13;291(2):313–27

Structure and interactions with RNA of the N-terminal UUAG-specific RNA-binding domain of hnRNP D0. Nagata T, et al. **J Mol Biol** 1999 Mar 26;287(2):221–37

Structure of a 16-mer RNA duplex r(GCAGACUUAAAUCUGC)2 with wobble C.A+ mismatches. Pan B, et al. **J Mol Biol** 1998 Nov 13; 283(5):977–84

Alignment of the two domains of the hairpin ribozyme-substrate complex defined by interdomain photoaffinity crosslinking. Pinard R, et al. **J Mol Biol** 1999 Mar 26;287(2):239–51

A dynamic programming algorithm for RNA structure prediction including pseudoknots. Rivas E, et al. **J Mol Biol** 1999 Feb 5;285(5):2053–68

The 1.8 A crystal structure of a statically disordered 17 base-pair RNA duplex: principles of RNA crystal packing and its effect on nucleic acid structure. Shah SA, et al. **J Mol Biol** 1999 Jan 29;285(4):1577–88

Conformational analysis of single-base bulges in A-form DNA and RNA using a hierarchical approach and energetic evaluation with a continuum solvent model. Zacharias M, et al. **J Mol Biol** 1999 Jun 4;289(2):261–75

The prebiotic synthesis of modified purines and their potential role in the RNA world. Levy M, et al. **J Mol Evol** 1999 Jun;48(6):631–7

Estimating the contributions of selection and self-organization in RNA secondary structure. Schultes EA, et al. **J Mol Evol** 1999 Jul;49(1):76–83

Site-specific derivatization of RNA with photocrosslinkable groups. Konarska MM. **Methods** 1999 May;18(1):22–8

Thiol-containing RNA for the study of structure and function of ribozymes. Sigurdsson ST. **Methods** 1999 May; 18(1):71–7

Construction of 4-thiouridine site-specifically substituted RNAs for cross-linking studies. Yu YT. **Methods** 1999 May;18(1):13–21

Following the folding of RNA with time-resolved synchrotron X-ray footprinting. Sclavi B, et al. **Methods Enzymol** 1998;295:379–402

Mapping of pseudouridine residues in RNA to nucleotide resolution. Bakin AV, et al. **Methods Mol Biol** 1998; 77:297–309 (24 ref.)

RNA analysis. Size and 3' end group determination. Shanks M, et al. **Methods Mol Biol** 1998;81:243–9

The structural basis for terminator recognition by the Rho transcription termination factor. Bogden CE, et al. **Mol Cell** 1999 Apr;3(4):487–93

Two inactive fragments of the integral RNA cooperate to assemble active telomerase with the human protein catalytic subunit (hTERT) in vitro. Tesmer VM, et al. **Mol Cell Biol** 1999 Sep;19(9):6207–16

The modern RNA world [editorial] **Nat Struct Biol** 1999 Jul;6(7):595–6

RNA shows its metal [news] [comment] Draper DE, et al. **Nat Struct Biol** 1998 Nov;5(11):927–30. Comment on: Nat Struct Biol 1998 Nov;5(11):986–92.

Crystal structure of an 82-nucleotide RNA-DNA complex formed by the 10-23 DNA enzyme. Nowakowski J, et al. **Nat Struct Biol** 1999 Feb;6(2):151–6

Crystal structures of a series of RNA aptamers complexed to the same protein target. Rowsell S, et al. **Nat Struct Biol** 1998 Nov;5(11):970–5

Structure of the most conserved internal loop in SRP RNA. Schmitz U, et al. **Nat Struct Biol** 1999 Jul;6(7):634–8

Structure of the trp RNA-binding attenuation protein, TRAP, bound to RNA. Antson AA, et al. **Nature** 1999 Sep 16;401(6750):235–42

Recognition of nucleic acid double helices by homopyrimidine 2', 5'-linked RNA. Damha MJ, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5152–6

Conserved features of Y RNAs revealed by automated phylogenetic secondary structure analysis. Farris AD, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1070–8

3'-Terminal RNA structures and poly(U) tracts inhibit initiation by a 3'-->5' exonuclease in vitro. Ford LP, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1159–67

The fragmented mitochondrial ribosomal RNAs of Plasmodium falciparum have short A tails. Gillespie DE, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2416–22

Crystal structure of an RNA octamer duplex r(CCCIUGGG)2 incorporating tandem I.U wobbles. Pan B, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5699–706

Selective detection of ribose-methylated nucleotides in RNA by a mass spectrometry-based method. Qiu F, et al. **Nucleic Acids Res** 1999 Sep 15;27(18):e20

The RNA Modification Database: 1999 update. Rozenski J, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):196–7

Crystal structure of a 14 bp RNA duplex with non-symmetrical tandem GxU wobble base pairs. Trikha J, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1728–39

Structural properties of DNA:RNA duplexes containing 2'-O-methyl and 2'-S-methyl substitutions: a molecular dynamics investigation. Venkateswarlu D, et al. **Nucleic Acids Res** 1999 May 15;27(10):2189–95

Direct identification of NH...N hydrogen bonds in non-canonical base pairs of RNA by NMR spectroscopy. Wöhnert J, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3104–10

Tc-99m-labeling of modified RNA. Hilger CS, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6–7):1479–81

Nucleoside phosphorylation: a feasible step in the prebiotic pathway to RNA. Reimann R, et al. **Orig Life Evol Biosph** 1999 May;29(3):229–47

Prediction and visualization of structural switches in RNA. Giegerich R, et al. **Pac Symp Biocomput** 1999;:126–37

Two-dimensional reaction of biological molecules studied by Weighted-Ensemble Brownian dynamics. Shkel IA, et al. **Pac Symp Biocomput** 1999;:468–79

Laser-mediated, site-specific inactivation of RNA transcripts. Grate D, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6131–6

Ligand-induced conformational changes observed in single RNA molecules. Ha T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9077–82

Specific, rapid synthesis of Phe-RNA by RNA. Illangasekare M, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5470–5

Testing ancient RNA-protein interactions. Landweber LF. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11067–8

Highly efficient endonucleolytic cleavage of RNA by a Cys(2)His(2) zinc-finger peptide. Lima WF, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10010–5

RNA aptamers as effective protein antagonists in a multicellular organism. Shi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10033–8

Engineering precision RNA molecular switches. Soukup GA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3584–9

Molecular dynamics study displays near in-line attack conformations in the hammerhead ribozyme self-cleavage reaction. Torres RA, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11077–82

RNA and protein interactions modulated by protein arginine methylation. Gary JD, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:65–131 (250 ref.)

Influence of specific mutations on the thermal stability of the td group I intron in vitro and on its splicing efficiency in vivo: a comparative study. Brion P, et al. **RNA** 1999 Jul;5(7):947–58

Crystallographic studies of RNA hairpins in complexes with recombinant MS2 capsids: implications for binding requirements. Grahn E, et al. **RNA** 1999 Jan;5(1):131–8

An approximation of loop free energy values of RNA H-pseudoknots [letter] Gultyaev AP, et al. **RNA** 1999 May; 5(5):609–17

In vitro selection of RNAs with increased tertiary structure stability. Juneau K, et al. **RNA** 1999 Aug;5(8):1119–29

Molecular dynamics studies of U1A-RNA complexes. Reyes CM, et al. **RNA** 1999 Feb;5(2):235–44

The folding of large RNAs studied by hybridization to arrays of complementary oligonucleotides. Sohail M, et al. **RNA** 1999 May;5(5):646–55

Chemical etiology of nucleic acid structure: comparing pentopyranosyl-(2'-->4') oligonucleotides with RNA. Beier M, et al. **Science** 1999 Jan 29;283(5402):699–703

Chemical etiology of nucleic acid structure. Eschenmoser A. **Science** 1999 Jun 25;284(5423):2118–24 (62 ref.)

Exploration of metal ion binding sites in RNA folds by Brownian-dynamics simulations. Hermann T, et al. **Structure** 1998 Oct 15;6(10):1303–14

Crystal structure and conformation of a DNA-RNA hybrid duplex with a polypurine RNA strand: d(TTCTTBr5CTTC)-r(GAAGAAGAA). Xiong Y, et al. **Structure** 1998 Dec 15;6(12):1493–501

New tricks for modelers from the crystallography toolkit: the particle mesh Ewald algorithm and its use in nucleic acid simulations. Darden T, et al. **Structure Fold Des** 1999 Mar 15;7(3):R55–60 (54 ref.)

Saccharide-RNA recognition in a complex formed between neomycin B and an RNA aptamer. Jiang L, et al. **Structure Fold Des** 1999 Jul 15;7(7):817–27

Kissing and RNA stability in antisense control of plasmid replication. Gerhart E, et al. **Trends Biochem Sci** 1998 Dec; 23(12):451–4 (33 ref.)

[New aspects is stable-isotope-assisted NMR techniques: application to be structural analysis of larger complexes between proteins and nucleic acids] Ohki S, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):574–81 (56 ref.) **(Jpn)**

[Covalent binding of RNA with peptides in the structure of a specific complex using N-oxybenzotriazole oligoribonucleotide esters] Taran EA, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):832–9 **(Rus)**

CLASSIFICATION

A novel type of non-coding RNA expressed in the rat brain. Komine Y, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1–2):1–13

DRUG EFFECTS

Selection of a high activity ribozyme against cytostatic drug resistance-associated glypican-3 using an in vitro assay containing total tumor RNA. Wichert A, et al. **Cancer Gene Ther** 1999 May-Jun;6(3):263–70

Attenuation of telomerase activity by a hammerhead ribozyme targeting the template region of telomerase RNA in endometrial carcinoma cells. Yokoyama Y, et al. **Cancer Res** 1998 Dec 1;58(23):5406–10

Cell proliferation induced by 8-oxoguanosine and 8-methylguanosine, two adducts produced by free radical attack on ribonucleosides and RNA. Kwee JK, et al. **Chem Biol Interact** 1998 Nov 6;116(1–2):61–77

Effect of prostacyclin on gastric mucosal RNA-content in the rat. Balint GA. **Exp Toxicol Pathol** 1999 May; 51(3):207–8

Effects of Fusarium moniliforme culture extracts and fumonisin B1 on DNA, RNA and protein synthesis by baby hamster kidney cells. Abeywickrama K, et al. **Mycopathologia** 1998;143(1):59–63

Protein and RNA of human telomerase as targets for modified oligonucleotides. von Janta-Lipinski M, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6–7):1719–20

GENETICS

Sequence analysis of the small RNA segment of guinea pig-passaged Pichinde virus variants. Zhang L, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):220–5

Epilepsia partialis continua associated with a homoplasmic mitochondrial tRNA(Ser(UCN)) mutation. Schuelke M, et al. **Ann Neurol** 1998 Oct;44(4):700–4

Sequence and secondary structure of the mitochondrial small-subunit rRNA V4, V6, and V9 domains reveal highly species-specific variations within the genus Agrocybe. Gonzalez P, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4149–60

Human S100A11 exhibits differential steady-state RNA levels in various tissues and a distinct subcellular localization. Inada H, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):135–8

The 3' untranslated region of manganese superoxide dismutase RNA contains a translational enhancer element. Chung DJ, et al. **Biochemistry** 1998 Nov 17; 37(46):16298–306

A computer-driven approach to PCR-based differential screening, alternative to differential display. Consalez GG, et al. **Bioinformatics** 1999 Feb;15(2):93–105

Generation of RNA ladders by rolling circle transcription of small circular oligodeoxyribonucleotides. Diegelman AM, et al. **Biotechniques** 1998 Nov;25(5):754–8

Combination of cross-species RNA solution hybridization and immunoprecipitation aids in the cloning of RT-PCR products. Pootanakit K, et al. **Biotechniques** 1999 Apr; 26(4):616–8

Automated RNA selection. Cox JC, et al. **Biotechnol Prog** 1998 Nov-Dec;14(6):845–50

Nucleic acid targeting: therapeutic strategies for the 21st century. Thurston DE. **Br J Cancer** 1999 Jul;80 Suppl 1:65–85 (114 ref.)

In vitro evolution of molecular cooperation in CATCH, a cooperatively coupled amplification system. Ellinger T, et al. **Chem Biol** 1998 Dec;5(12):729–41

RNA enzymes with two small-molecule substrates. Huang F, et al. **Chem Biol** 1998 Nov;5(11):669–78

Genetics: a touch of elegance with RNAi. Hunter CP. **Curr Biol** 1999 Jun 17;9(12):R440–2 (20 ref.)

Meiosis: MeiRNA hits the spot. Ohno M, et al. **Curr Biol** 1999 Jan 28;9(2):R66–9 (12 ref.)

Confirmation of predicted edits and demonstration of unpredicted edits in Acanthamoeba castellanii mitochondrial tRNAs. Price DH, et al. **Curr Genet** 1999 Feb;35(1):23–9

A chemogenetic approach to RNA function/structure analysis. Strobel SA. **Curr Opin Struct Biol** 1999 Jun; 9(3):346–52 (36 ref.)

Tight binding of the 5' exon to domain I of a group II self-splicing intron requires completion of the intron active site. Costa M, et al. **EMBO J** 1999 Feb 15;18(4):1025–37

Kinetoplastid RNA-editing-associated protein 1 (REAP-1): a novel editing complex protein with repetitive domains. Madison-Antenucci S, et al. **EMBO J** 1998 Nov 2; 17(21):6368–76

Identification of beta-amyloid-responsive genes by RNA differential display: early induction of a DNA damage-inducible gene, gadd45. Santiard-Baron D, et al. **Exp Neurol** 1999 Jul;158(1):206–13

Molecular cloning and phylogenetic analysis of the small cytoplasmic RNA from Listeria monocytogenes. Barry T, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):47–53

Identification and characterization of G90, a novel mouse RNA that lacks an extensive open reading frame. Krause R, et al. **Gene** 1999 May 17;232(1):35–42

Sequencing and exon mapping of the inositol 1,4,5-trisphosphate receptor cDNA from Drosophila embryos suggests the presence of differentially regulated forms of RNA and protein. Sinha M, et al. **Gene** 1999 Jun 11;233(1–2):271–6

Molecular cloning of bovine telomerase RNA. Tsao DA, et al. **Gene** 1998 Oct 9;221(1):51–8

RNA expression from a site-specific non-LTR retrotransposon microinjected into Xenopus oocytes. Pont-Kingdon G, et al. **Genetica** 1998;104(1):67–76

Cardiac elav-type RNA-binding protein (ETR-3) binds to RNA CUG repeats expanded in myotonic dystrophy. Lu X, et al. **Hum Mol Genet** 1999 Jan;8(1):53–60

Circular dystrophin RNAs consisting of exons that were skipped by alternative splicing. Surono A, et al. **Hum Mol Genet** 1999 Mar;8(3):493–500

Characterization and primary structure of a base non-specific and acid ribonuclease from Dictyostelium discoideum. Inokuchi N, et al. **J Biochem (Tokyo)** 1998 Oct; 124(4):848–56

RNA editing associated with the generation of two distinct conformations of the trypanosomatid Leptomonas collosoma 7SL RNA. Ben-Shlomo H, et al. **J Biol Chem** 1999 Sep 3;274(36):25642–50

The Drosophila modifier of variegation modulo gene product binds specific RNA sequences at the nucleolus and interacts with DNA and chromatin in a phosphorylation-dependent manner. Perrin L, et al. **J Biol Chem** 1999 Mar 5; 274(10):6315–23

Alterations of per RNA in noncoding regions affect periodicity of circadian behavioral rhythms. Chen Y, et al. **J Biol Rhythms** 1998 Oct;13(5):364–79

Enhanced expression of inducible nitric oxide synthase in chronic gastritis with intestinal metaplasia. Tatemichi M, et al. **J Clin Gastroenterol** 1998 Oct;27(3):240–5

Mitochondrial myopathy with predominant respiratory dysfunction in a patient with A3243G mutation in the mitochondrial tRNA(Leu(UUR))gene. Yang CC, et al. **J Formos Med Assoc** 1998 Oct;97(10):715–9

Different frequency of gene targeting events by the RNA-DNA oligonucleotide among epithelial cells. Santana E, et al. **J Invest Dermatol** 1998 Dec;111(6):1172–7

Higher-order structure and thermal instability of bovine mitochondrial tRNASerUGA investigated by proton NMR spectroscopy. Hayashi I, et al. **J Mol Biol** 1998 Nov 20; 284(1):57–69

The BC200 RNA gene and its neural expression are conserved in Anthropoidea (Primates). Skryabin BV, et al. **J Mol Evol** 1998 Dec;47(6):677–85

Plant mitochondrial RNA editing. Steinhauser S, et al. **J Mol Evol** 1999 Mar;48(3):303–12

Analysis of ruminant respiratory syncytial virus isolates by RNAse protection of the G glycoprotein transcripts. Alansari H, et al. **J Vet Diagn Invest** 1999 May;11(3):215–20

Postdifferential display: parallel processing of candidates using small amounts of RNA. Poirier GM, et al. **Methods** 1998 Dec;16(4):444–52

Knockout of the glutamate dehydrogenase gene in bloodstream Trypanosoma brucei in culture has no effect on editing of mitochondrial mRNAs. Estévez AM, et al. **Mol Biochem Parasitol** 1999 May 15;100(1):5–17

Effects of fixation on RNA extraction and amplification from laser capture microdissected tissue. Goldsworthy SM, et al. **Mol Carcinog** 1999 Jun;25(2):86–91

Splicing factor Prp8 governs U4/U6 RNA unwinding during activation of the spliceosome. Kuhn AN, et al. **Mol Cell** 1999 Jan;3(1):65–75

Linear mitochondrial plasmids of F. oxysporum are novel, telomere-like retroelements. Walther TC, et al. **Mol Cell** 1999 Aug;4(2):229–38

Insertional editing of mitochondrial tRNAs of Physarum polycephalum and Didymium nigripes. Antes T, et al. **Mol Cell Biol** 1998 Dec;18(12):7521–7

Interactions of TLC1 (which encodes the RNA subunit of telomerase), TEL1, and MEC1 in regulating telomere length in the yeast Saccharomyces cerevisiae. Ritchie KB, et al. **Mol Cell Biol** 1999 Sep;19(9):6065–75

Highly conserved RNA sequences that are sensors of environmental stress. Spicher A, et al. **Mol Cell Biol** 1998 Dec;18(12):7371–82

Mitochondrial RNA processing and translation: link between mitochondrial mutations and hearing loss? Fischel-Ghodsian N. **Mol Genet Metab** 1998 Oct; 65(2):97–104 (67 ref.)

The mouse formin (Fmn) gene: abundant circular RNA transcripts and gene-targeted deletion analysis. Chao CW, et al. **Mol Med** 1998 Sep;4(9):614–28

Relationships among the cyclostome braconid (Hymenoptera: Braconidae) subfamilies inferred from a mitochondrial tRNA gene rearrangement. Dowton M. **Mol Phylogenet Evol** 1999 Mar;11(2):283–7

A novel mutation (8342G-->A) in the mitochondrial tRNA(Lys) gene associated with progressive external ophthalmoplegia and myoclonus. Tiranti V, et al. **Neuromuscul Disord** 1999 Mar;9(2):66–71

Targeted gene repair directed by the chimeric RNA/DNA oligonucleotide in a mammalian cell-free extract. Cole-Strauss A, et al. **Nucleic Acids Res** 1999 Mar 1; 27(5):1323–30

Collection of mRNA-like non-coding RNAs. Erdmann VA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):192–5

The double-stranded RNA-binding protein X1rbpa promotes RNA strand annealing. Hitti E, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4382–8

Effect of substrate RNA sequence on the cleavage reaction by a short ribozyme. Ohmichi T, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5655–61

Co-transcriptional commitment to alternative splice site selection. Roberts GC, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5568–72

Rapid determination and quantitation of the accessibility to native RNAs by antisense oligodeoxynucleotides in murine cell extracts. Scherr M, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5079–85

RNA molecules containing exons originating from different members of the cytochrome P450 2C gene subfamily (CYP2C) in human epidermis and liver. Zaphiropoulos PG. **Nucleic Acids Res** 1999 Jul 1;27(13):2585–90

Prediction and visualization of structural switches in RNA. Giegerich R, et al. **Pac Symp Biocomput** 1999;:126–37

Transient expression of DNA and RNA in parasitic helminths by using particle bombardment. Davis RE, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8687–92

Laser-mediated, site-specific inactivation of RNA transcripts. Grate D, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6131–6

Double-stranded RNA specifically disrupts gene expression during planarian regeneration. Sánchez Alvarado A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5049–54

RNA aptamers as effective protein antagonists in a multicellular organism. Shi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10033–8

Structure of tau exon 10 splicing regulatory element RNA and destabilization by mutations of frontotemporal dementia and parkinsonism linked to chromosome 17. Varani L, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6; 96(14):8229–34

Targeted manipulation of maize genes in vivo using chimeric RNA/DNA oligonucleotides [see comments] Zhu T, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8768–73 . Comment in: Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8321–3.

In vitro selection of RNA aptamers that bind special elongation factor SelB, a protein with multiple RNA-binding sites, reveals one major interaction domain at the carboxyl terminus. Klug SJ, et al. **RNA** 1999 Sep; 5(9):1180–90

RNA–protein interactions in the human RNase MRP ribonucleoprotein complex. Pluk H, et al. **RNA** 1999 Apr; 5(4):512–24

Photocrosslinking of 4-thio uracil-containing RNAs supports a side-by-side arrangement of domains 5 and 6 of a group II intron. Podar M, et al. **RNA** 1999 Feb;5(2):318–29

A novel nucleotide incorporation activity implicated in the editing of mitochondrial transfer RNAs in Acanthamoeba castellanii. Price DH, et al. **RNA** 1999 Feb;5(2):302–17

Gene repair using chimeric RNA/DNA oligonucleotides. Kren BT, et al. **Semin Liver Dis** 1999;19(1):93–104 (44 ref.)

In situ detection of Escherichia coli cells containing ColE1-related plasmids by hybridization to regulatory RNA II. Juretschko S, et al. **Syst Appl Microbiol** 1999 Feb; 22(1):1–8

Dynamic diversity and small-molecule evolution: a new paradigm for ligand identification. Klekota B, et al. **Trends Biotechnol** 1999 May;17(5):205–9 (21 ref.)

The origin of the genetic code: amino acids as cofactors in an RNA world. Szathmáry E. **Trends Genet** 1999 Jun; 15(6):223–9 (65 ref.)

Subgenomic RNA promoters dictate the mode of recognition by bromoviral RNA-dependent RNA polymerases. Adkins S, et al. **Virology** 1998 Dec 5;252(1):1–8

Accumulation and localisation of maternal RNA in oocytes of Japanese quail. Malewska A, et al. **Zygote** 1999 Feb; 7(1):51–9

[The export and absorption of the prosome-like RNP (alphaRNP) displaying the activity of immunomodulation in cell cultures] Pleskach VA, et al. **Dokl Akad Nauk** 1999 Apr;365(5):700–3 **(Rus)**

HISTORY

E.B. Wilson Lecture, 1998. Eukaryotic RNAs: once more from the beginning. Darnell JE Jr. **Mol Biol Cell** 1999 Jun; 10(6):1685–92

IMMUNOLOGY

Production of recombinant subunit vaccines: protein immunogens, live delivery systems and nucleic acid vaccines. Liljeqvist S, et al. **J Biotechnol** 1999 Jul 30; 73(1):1–33 (365 ref.)

ISOLATION & PURIFICATION

Detection of genomic DNA fragmentation during apoptosis (DNA ladder) and the simultaneous isolation of RNA from low cell numbers. Daniel PT, et al. **Anal Biochem** 1999 Jan 1;266(1):110–5

High-resolution preparative-scale purification of RNA using the Prep Cell. Nguyen TH, et al. **Anal Biochem** 1999 Apr 10;269(1):216–8

Combination of cross-species RNA solution hybridization and immunoprecipitation aids in the cloning of RT-PCR products. Pootanakit K, et al. **Biotechniques** 1999 Apr; 26(4):616–8

Application of a fed-batch system to produce RNA by in vitro transcription. Kern JA, et al. **Biotechnol Prog** 1999 Mar-Apr;15(2):174–84

Automation of the polymerase chain reaction. Part 2. Extraction--the foundation for success. Clewley JP. **Commun Dis Public Health** 1999 Jun;2(2):147–8

Localization of mitochondrial large ribosomal RNA in the myoplasm of the early ascidian embryo. Oka T, et al. **Dev Growth Differ** 1999 Feb;41(1):1–8

Purification of total RNA from human stool samples. Alexander RJ, et al. **Dig Dis Sci** 1998 Dec;43(12):2652–8

Influences of DNA isolation and RNA contamination on carcinogen-DNA adduct analysis by 32P-postlabeling. Godschalk RW, et al. **Environ Mol Mutagen** 1998; 32(4):344–50

RNA isolation from human skin tissues for colorimetric differential display. Hipfel R, et al. **J Biochem Biophys Methods** 1998 Nov 18;37(3):131–5

Purification of a highly modified RNA-aptamer. Effect of complete denaturation during chromatography on product recovery and specific activity. Bridonneau P, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1–2):237–47

Extraction of cellular and tissue RNA. Millican DS, et al. **Methods Mol Biol** 1998;105:315–24 (6 ref.)

Effects of fixation on RNA extraction and amplification from laser capture microdissected tissue. Goldsworthy SM, et al. **Mol Carcinog** 1999 Jun;25(2):86–91

Purification of plasmid DNA using selective precipitation by compaction agents. Murphy JC, et al. **Nat Biotechnol** 1999 Aug;17(8):822–3

Optimisation of DNA and RNA extraction from archival formalin-fixed tissue. Coombs NJ, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):e12

High-performance liquid chromatography purification of homogenous-length RNA produced by trans cleavage with a hammerhead ribozyme. Shields TP, et al. **RNA** 1999 Sep; 5(9):1259–67

RT-PCR amplification of various canine cytokines and so-called house-keeping genes in a species-specific macrophage cell line (DH82) and canine peripheral blood leukocytes. Gröne A, et al. **Zentralbl Veterinarmed [B]** 1999 Jun;46(5):301–10

METABOLISM

Preliminary crystallographic characterization of an in vitro evolved biotin-binding RNA pseudoknot. Nix JC, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):323–5

Preliminary characterization of crystals of an in vitro evolved cyanocobalamin (vitamin B12) binding RNA. Sussman D, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):326–8

RNA sequestration to pathological lesions of neurodegenerative diseases. Ginsberg SD, et al. **Acta Neuropathol (Berl)** 1998 Nov;96(5):487–94

Parkinson's disease is associated with oxidative damage to cytoplasmic DNA and RNA in substantia nigra neurons. Zhang J, et al. **Am J Pathol** 1999 May;154(5):1423–9

RNA-binding properties of in vitro expressed histidine-tagged RB69 RegA translational repressor protein. Allen SV, et al. **Anal Biochem** 1999 Apr 10; 269(1):32–7

Nuclease-resistant external guide sequence-induced cleavage of target RNA by human ribonuclease P. Ma MY, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):415–26

Detection of proteins binding to short RNA.DNA hybrids or short antisense oligonucleotides in Xenopus laevis oocytes and human macrophage cell extracts by photoaffinity radiolabeling. Revers F, et al. **Antisense Nucleic Acid Drug Dev** 1999 Aug;9(4):317–31

Hammerhead ribozymes that selectively cleave the NPY Y1, Y4, and Y5 receptor full-length RNA. Wieland HA, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):435–40

Human S100A11 exhibits differential steady-state RNA levels in various tissues and a distinct subcellular localization. Inada H, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):135–8

Endonucleolytic cleavage of RNA at 5' endogenous stem structures by human flap endonuclease 1. Stevens A. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):501–8

Changes of nuclear membrane lipid composition affect RNA nucleocytoplasmic transport. Tomassoni ML, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):476–81

Human ribosomal protein L7 carries two nucleic acid-binding domains with distinct specificities. von Mikecz A, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):530–6

Depletion of Bacillus subtilis histone-like protein, HBsu, causes defective protein translocation and induces upregulation of small cytoplasmic RNA. Yamazaki T, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):211–4

p21WAF1 expression by an activator of protein kinase C is regulated mainly at the post-transcriptional level in cells lacking p53: important role of RNA stabilization. Akashi M, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):607–16

Demonstration of a RNA-dependent nuclear interaction between the promyelocytic leukaemia protein and glyceraldehyde-3-phosphate dehydrogenase. Carlile GW, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):691–6

Mapping of the RNA-binding and endoribonuclease domains of NIPP1, a nuclear targeting subunit of protein phosphatase 1. Jin Q, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):13–9

Spectroscopic studies on the interaction of aristololactam-beta-D-glucoside with DNA and RNA double and triple helices: A comparative study. Ray A, et al. **Biochemistry** 1999 May 11;38(19):6239–47

Functional requirements for specific ligand recognition by a biotin-binding RNA pseudoknot. Wilson C, et al. **Biochemistry** 1998 Oct 13;37(41):14410–9

The PUMILIO–RNA interaction: a single RNA-binding domain monomer recognizes a bipartite target sequence. Zamore PD, et al. **Biochemistry** 1999 Jan 12;38(2):596–604

Polyclonal antibodies from blood and cerebrospinal fluid of patients with multiple sclerosis effectively hydrolyze DNA and RNA. Baranovskii AG, et al. **Biochemistry (Mosc)** 1998 Nov;63(11):1239–48

Absence of 60-Hz, 0.1-mT magnetic field-induced changes in oncogene transcription rates or levels in CEM-CM3 cells. Jahreis GP, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):334–42

Evidence for ovarian granulosa stem cells: telomerase activity and localization of the telomerase ribonucleic acid component in bovine ovarian follicles. Lavranos TC, et al. **Biol Reprod** 1999 Aug;61(2):358–66

Enhanced RNA binding of dimerized aminoglycosides. Michael K, et al. **Bioorg Med Chem** 1999 Jul;7(7):1361–71

Impact of mixed-backbone oligonucleotides on target binding affinity and target cleaving specificity and selectivity by Escherichia coli RNase H. Shen LX, et al. **Bioorg Med Chem** 1998 Oct;6(10):1695–705

Selective photocleavage of single-stranded nucleic acids by cyclobisintercaland molecules. Blacker AJ, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):601–6

Discrimination between ribonuclease H- and ribonuclease L-mediated RNA degradation by 2'-O-methylated 2-5A-antisense oligonucleotides. Cramer H, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1049–54

5'-Peptidyl substituents allow a tuning of the affinity of oligodeoxyribonucleotides for RNA. Sarracino DA, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2511–6

Attenuation of telomerase activity by a hammerhead ribozyme targeting the template region of telomerase RNA in endometrial carcinoma cells. Yokoyama Y, et al. **Cancer Res** 1998 Dec 1;58(23):5406–10

The destinies and destinations of RNAs. Hazelrigg T. **Cell** 1998 Nov 13;95(4):451–60 (87 ref.)

Epigenetic spreading of the Drosophila dosage compensation complex from roX RNA genes into flanking chromatin. Kelley RL, et al. **Cell** 1999 Aug 20;98(4):513–22

Expression of the RNA component of telomerase during human development and differentiation. Yashima K, et al. **Cell Growth Differ** 1998 Sep;9(9):805–13

The recognition of a noncanonical RNA base pair by a zinc finger protein. Blancafort P, et al. **Chem Biol** 1999 Aug; 6(8):585–97

Rhyme or reason: RNA-arginine interactions and the genetic code. Knight RD, et al. **Chem Biol** 1998 Sep;5(9):R215–20 (23 ref.)

Deciphering RNA recognition: aminoglycoside binding to the hammerhead ribozyme. Tor Y, et al. **Chem Biol** 1998 Nov;5(11):R277–83 (39 ref.)

Spinal muscular atrophy: a disease of altered RNA metabolism? Wellington C. **Clin Genet** 1998 Jul;54(1):23–5

Localization of mitochondrial large ribosomal RNA in germ plasm of Xenopus embryos. Kobayashi S, et al. **Curr Biol** 1998 Oct 8;8(20):1117–20

RNA unwinding in U4/U6 snRNPs requires ATP hydrolysis and the DEIH-box splicing factor Brr2. Raghunathan PL, et al. **Curr Biol** 1998 Jul 16;8(15):847–55

Structure-based and combinatorial search for new RNA-binding drugs. Afshar M, et al. **Curr Opin Biotechnol** 1999 Feb;10(1):59–63 (47 ref.)

Expression of ribozymes in gene transfer systems to modulate target RNA levels. Welch PJ, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):486–96 (107 ref.)

Transport pathways of macromolecules between the nucleus and the cytoplasm. Adam SA. **Curr Opin Cell Biol** 1999 Jun;11(3):402–6 (41 ref.)

RNA-protein complexes. Cusack S. **Curr Opin Struct Biol** 1999 Feb;9(1):66–73 (34 ref.)

The role of star in the production of an activated ligand for the EGF receptor signaling pathway. Pickup AT, et al. **Dev Biol** 1999 Jan 15;205(2):254–9

Mitochondrial small ribosomal RNA is present on polar granules in early cleavage embryos of Drosophila melanogaster. Kashikawa M, et al. **Dev Growth Differ** 1999 Aug;41(4):495–502

The detection of oligonucleotide N3'-->P5' phosphoramidate/RNA duplexes with capillary gel electrophoresis. DeDionisio L, et al. **Electrophoresis** 1998 Jun;19(8–9):1265–9

Solution structures of the first and second RNA-binding domains of human U2 small nuclear ribonucleoprotein particle auxiliary factor (U2AF(65)). Ito T, et al. **EMBO J** 1999 Aug 16;18(16):4523–34

Hammerhead ribozyme-mediated cleavage of the human insulin-like growth factor-II ribonucleic acid in vitro and in prostate cancer cells. Xu ZD, et al. **Endocrinology** 1999 May;140(5):2134–44

Preferential degradation of polyadenylated and polyuridinylated RNAs by the bacterial exoribonuclease polynucleotide phosphorylase. Lisitsky I, et al. **Eur J Biochem** 1999 Apr;261(2):468–74

Reconsidering the energetics of ribonuclease catalysed RNA hydrolysis. Loverix S, et al. **Eur J Biochem** 1998 Oct 1; 257(1):286–90

Two posttranscriptional pathways that regulate p21(Cip1/Waf1/Sdi1) are identified by HPV16-E6 interaction and correlate with life span and cellular senescence. Burkhart BA, et al. **Exp Cell Res** 1999 Feb 25;247(1):168–75

RNA localization [comment] Etkin LD, et al. **FASEB J** 1999 Mar;13(3):419–20. Comment on: FASEB J 1999 Mar;13(3):421–33. Comment on: FASEB J 1999 Mar;13(3):435–45. Comment on: FASEB J 1999 Mar;13(3):447–54. Comment on: FASEB J 1999 Mar;13(3):455–66.

RNA-cytoskeletal associations [see comments] Jansen RP. **FASEB J** 1999 Mar;13(3):455–66 (107 ref.). Comment in: FASEB J 1999 Mar;13(3):419–20.

RNA sorting in Drosophila oocytes and embryos [see comments] Lasko P. **FASEB J** 1999 Mar;13(3):421–33 (110 ref.). Comment in: FASEB J 1999 Mar;13(3):419–20.

RNA sorting in Xenopus oocytes and embryos [see comments] Mowry KL, et al. **FASEB J** 1999 Mar; 13(3):435–45 (98 ref.). Comment in: FASEB J 1999 Mar;13(3):419–20.

RNA aptamers that specifically bind to the Ras-binding domain of Raf-1. Kimoto M, et al. **FEBS Lett** 1998 Dec 18;441(2):322–6

A role for RNA metabolism in inducing the heat shock response. Carlson T, et al. **Gene Expr** 1999;7(4–6):283–91

Interaction of a nascent RNA structure with RNA polymerase is required for hairpin-dependent transcriptional pausing but not for transcript release. Artsimovitch I, et al. **Genes Dev** 1998 Oct 1;12(19):3110–22

Expression of hepatitis C virus NS5B protein: characterization of its RNA polymerase activity and RNA binding. Ishii K, et al. **Hepatology** 1999 Apr;29(4):1227–35

Ribonuclease-gold labels proteoglycan-containing cytoplasmic granules and ribonucleic acid-containing organelles--a survey. Dvorak AM, et al. **Histol Histopathol** 1999 Apr;14(2):597–626 (166 ref.)

Interference between effector RNAs expressed from conventional dual-function anti-HIV retroviral vectors can be circumvented using dual-effector-cassette retroviral vectors. Peng H, et al. **Hum Gene Ther** 1999 Feb 10; 10(3):449–62

Myotonic dystrophy is associated with a reduced level of RNA from the DMWD allele adjacent to the expanded repeat. Alwazzan M, et al. **Hum Mol Genet** 1999 Aug; 8(8):1491–7

H4 acetylation, XIST RNA and replication timing are coincident and define x;autosome boundaries in two abnormal X chromosomes. Keohane AM, et al. **Hum Mol Genet** 1999 Feb;8(2):377–83

Cardiac elav-type RNA-binding protein (ETR-3) binds to RNA CUG repeats expanded in myotonic dystrophy. Lu X, et al. **Hum Mol Genet** 1999 Jan;8(1):53–60

Circular dystrophin RNAs consisting of exons that were skipped by alternative splicing. Surono A, et al. **Hum Mol Genet** 1999 Mar;8(3):493–500

Down-regulation of liver RNA breakdown by turpentine administration in the starved rat: autophagy and relevant factors. Saadane A, et al. **Inflamm Res** 1999 Apr;48(4):210–7

Y bind RNA for spermatogenesis? Ruggiu M, et al. **Int J Androl** 1999 Feb;22(1):19–27 (73 ref.)

Characterization and primary structure of a base non-specific and acid ribonuclease from Dictyostelium discoideum. Inokuchi N, et al. **J Biochem (Tokyo)** 1998 Oct; 124(4):848–56

Activation of Rho-dependent transcription termination by NusG. Dependence on terminator location and acceleration of RNA release. Burns CM, et al. **J Biol Chem** 1999 Feb 19;274(8):5245–51

Accurate 3' end processing and adenylation of human signal recognition particle RNA and alu RNA in vitro. Chen Y, et al. **J Biol Chem** 1998 Dec 25;273(52):35023–31

Identification and characterization of the RNA chaperone activity of hepatitis delta antigen peptides. Huang ZS, et al. **J Biol Chem** 1998 Oct 9;273(41):26455–61

A new heat shock protein that binds nucleic acids. Korber P, et al. **J Biol Chem** 1999 Jan 1;274(1):249–56

Bacillus subtilis histone-like protein, HBsu, is an integral component of a SRP-like particle that can bind the Alu domain of small cytoplasmic RNA. Nakamura K, et al. **J Biol Chem** 1999 May 7;274(19):13569–76

Thioredoxin activation of iron regulatory proteins. Redox regulation of RNA binding after exposure to nitric oxide. Oliveira L, et al. **J Biol Chem** 1999 Jan 1;274(1):516–21

Residues in the alphaH and alphaI helices of the HIV-1 reverse transcriptase thumb subdomain required for the specificity of RNase H-catalyzed removal of the polypurine tract primer. Powell MD, et al. **J Biol Chem** 1999 Jul 9;274(28):19885–93

Human exonuclease 1 functionally complements its yeast homologues in DNA recombination, RNA primer removal, and mutation avoidance. Qiu J, et al. **J Biol Chem** 1999 Jun 18;274(25):17893–900

Rapid nucleolytic degradation of the small cytoplasmic Y RNAs during apoptosis. Rutjes SA, et al. **J Biol Chem** 1999 Aug 27;274(35):24799–807

DnaB helicase is unable to dissociate RNA-DNA hybrids. Its implication in the polar pausing of replication forks at ColE1 origins. Santamaria D, et al. **J Biol Chem** 1998 Dec 11;273(50):33386–96

The bovine mimecan gene. Molecular cloning and characterization of two major RNA transcripts generated by alternative use of two splice acceptor sites in the third exon. Tasheva ES, et al. **J Biol Chem** 1999 Jun 25; 274(26):18693–701

Stimulated activity of human topoisomerases IIalpha and IIbeta on RNA-containing substrates. Wang Y, et al. **J Biol Chem** 1999 Aug 6;274(32):22839–46

RNA structure inhibits the TRAP (trp RNA-binding attenuation protein)-RNA interaction. Xirasagar S, et al. **J Biol Chem** 1998 Oct 16;273(42):27146–53

Interaction of cis- and trans-RuCl2(DMSO)4 with the nucleotides GpA, d(GpA), ApG, d(ApG) and d(CCTGGTCC): high-field NMR characterization of the reaction products. Anagnostopoulou A, et al. **J Biol Inorg Chem** 1999 Apr;4(2):199–208

HIV-1 Rev promotes the nuclear export of unspliced and singly spliced RNAs in a mammalian cell-free export system. Huffman KM, et al. **J Biomed Sci** 1999 May-Jun; 6(3):194–205

Identification of the RNA-binding sites of the triple gene block protein 1 of bamboo mosaic potexvirus. Wung CH, et al. **J Gen Virol** 1999 May;80 (Pt 5):1119–26

Manganese ions induce miscleavage in the Escherichia coli RNase P RNA-catalyzed reaction. Brännvall M, et al. **J Mol Biol** 1999 Sep 10;292(1):53–63

Characterization of structural features important for T7 RNAP elongation complex stability reveals competing complex conformations and a role for the non-template strand in RNA displacement. Gopal V, et al. **J Mol Biol** 1999 Jul 9;290(2):411–31

RNA recognition by the human U1A protein is mediated by a network of local cooperative interactions that create the optimal binding surface. Kranz JK, et al. **J Mol Biol** 1999 Jan 8;285(1):215–31

Structure, backbone dynamics and interactions with RNA of the C-terminal RNA-binding domain of a mouse neural RNA-binding protein, Musashi1. Nagata T, et al. **J Mol Biol** 1999 Mar 26;287(2):315–30

The role of RNA pseudoknot stem 1 length in the promotion of efficient -1 ribosomal frameshifting. Napthine S, et al. **J Mol Biol** 1999 May 7;288(3):305–20

The prebiotic synthesis of modified purines and their potential role in the RNA world. Levy M, et al. **J Mol Evol** 1999 Jun;48(6):631–7

Steroidogenic acute regulatory protein (StAR) transcripts constitutively expressed in the adult rat central nervous system: colocalization of StAR, cytochrome P-450SCC (CYP XIA1), and 3beta-hydroxysteroid dehydrogenase in the rat brain. Furukawa A, et al. **J Neurochem** 1998 Dec; 71(6):2231–8

Rapid and sensitive vasopressin heteronuclear RNA responses to changes in plasma osmolality. Arima H, et al. **J Neuroendocrinol** 1999 May;11(5):337–41

RNA oxidation is a prominent feature of vulnerable neurons in Alzheimer's disease. Nunomura A, et al. **J Neurosci** 1999 Mar 15;19(6):1959–64

Changes in Rous sarcoma virus RNA secondary structure near the primer binding site upon tRNATrp primer annealing. Morris S, et al. **J Virol** 1999 Aug;73(8):6307–18

RNA-binding and capping activities of proteins in rotavirus open cores. Patton JT, et al. **J Virol** 1999 Feb;73(2):1382–91

Identification of the RNA-binding, dimerization, and eIF4GI-binding domains of rotavirus nonstructural protein NSP3. Piron M, et al. **J Virol** 1999 Jul;73(7):5411–21

RNA binding and modulation of PKR activity. Gunnery S, et al. **Methods** 1998 Jul;15(3):189–98

Directed cleavage of RNA with protein-tethered EDTA-Fe. Hall KB, et al. **Methods** 1999 May;18(1):78–84

Site-specific labeling of RNA with fluorophores and other structural probes. Qin PZ, et al. **Methods** 1999 May; 18(1):60–70

Identification of RNA-protein contacts within functional ribonucleoprotein complexes by RNA site-specific labeling and UV crosslinking. Reed R, et al. **Methods** 1999 May; 18(1):3–12

Yeast three-hybrid system to detect and analyze interactions between RNA and protein. Zhang B, et al. **Methods Enzymol** 1999;306:93–113 (19 ref.)

Organization of highly acetylated chromatin around sites of heterogeneous nuclear RNA accumulation. Hendzel MJ, et al. **Mol Biol Cell** 1998 Sep;9(9):2491–507

Microtubule-dependent recruitment of Staufen-green fluorescent protein into large RNA-containing granules and subsequent dendritic transport in living hippocampal neurons. Köhrmann M, et al. **Mol Biol Cell** 1999 Sep; 10(9):2945–53

Interactions of TLC1 (which encodes the RNA subunit of telomerase), TEL1, and MEC1 in regulating telomere length in the yeast Saccharomyces cerevisiae. Ritchie KB, et al. **Mol Cell Biol** 1999 Sep;19(9):6065–75

Two inactive fragments of the integral RNA cooperate to assemble active telomerase with the human protein catalytic subunit (hTERT) in vitro. Tesmer VM, et al. **Mol Cell Biol** 1999 Sep;19(9):6207–16

Mitochondrial RNA processing and translation: link between mitochondrial mutations and hearing loss? Fischel-Ghodsian N. **Mol Genet Metab** 1998 Oct;

65(2):97-104 (67 ref.)
Stable and inheritable changes in genotype and phenotype of albino melanocytes induced by an RNA-DNA oligonucleotide [see comments] Alexeev V, et al. **Nat Biotechnol** 1998 Dec;16(13):1343-6. Comment in: Nat Biotechnol 1998 Dec;16(13):1312-3.
Catalytic DNA: in training and seeking employment [news; comment] Breaker RR. **Nat Biotechnol** 1999 May; 17(5):422-3. Comment on: Nat Biotechnol 1999 May;17(5):480-6.
Target site selection for an RNA-cleaving catalytic DNA [see comments] Cairns MJ, et al. **Nat Biotechnol** 1999 May; 17(5):480-6
Simulations of the dynamics at an RNA-protein interface. Hermann T, et al. **Nat Struct Biol** 1999 Jun;6(6):540-4
Two domains and one RNA: a molecular threesome [news] Hughson FM, et al. **Nat Struct Biol** 1999 Jun;6(6):499-502
Protein-RNA interactions in the regulation of PTH gene expression by calcium and phosphate [editorial] Naveh-Many T, et al. **Nephrol Dial Transplant** 1999 Apr; 14(4):811-3 (17 ref.)
Candidate editases for GluR channels in single neurons of rat hippocampus and cerebellum. Köhr G, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1411-7
Ischemia induces a selective biphasic response in brain mitochondrial mRNA levels. Bruckner BA, et al. **Neuroreport** 1999 May 14;10(7):1593-8
Anomeric inversion (from beta to alpha) in methylphosphonate oligonucleosides enhances their affinity for DNA and RNA. Debart F, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4551-6
3'-Terminal RNA structures and poly(U) tracts inhibit initiation by a 3'-->5' exonuclease in vitro. Ford LP, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1159-67
The double-stranded RNA-binding protein X1rbpa promotes RNA strand annealing. Hitti E, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4382-8
Combinatorial selection of high affinity RNA ligands to live African trypanosomes. Homann M, et al. **Nucleic Acids Res** 1999 May 1;27(9):2006-14
A conserved motif in group IC3 introns is a new class of GNRA receptor. Ikawa Y, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1859-65
Effect of substrate RNA sequence on the cleavage reaction by a short ribozyme. Ohmichi T, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5655-61
Heavy de novo methylation at symmetrical and non-symmetrical sites is a hallmark of RNA-directed DNA methylation. Pélissier T, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1625-34
Exposition of a family of RNA m(5)C methyltransferases from searching genomic and proteomic sequences. Reid R, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3138-45
Rapid determination and quantitation of the accessibility to native RNAs by antisense oligodeoxynucleotides in murine cell extracts. Scherr M, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5079-85
Mechanism and specificity of RNA cleavage by chemical ribonucleases. Beloglazova N, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1463-5
Influence of pregnancy on gene expression in rabbit articular cartilage. Hellio Le Graverand MP, et al. **Osteoarthritis Cartilage** 1998 Sep;6(5):341-50
Distribution profile and in vivo RNA association of cytoplasmic AU-rich sequence binding proteins in various mammalian cells: effect of the organizational state of cellular architecture. Soós H, et al. **Physiol Chem Phys Med NMR** 1998;30(2):163-74
Ligand-induced conformational changes observed in single RNA molecules. Ha T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9077-82
RNAs that bind and change the permeability of phospholipid membranes. Khvorova A, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10649-54
Inhibition of RNase P RNA cleavage by aminoglycosides. Mikkelsen NE, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6155-60
Double-stranded RNA induces mRNA degradation in Trypanosoma brucei. Ngô H, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14687-92
In vitro selection of RNA molecules that displace cocaine from the membrane-bound nicotinic acetylcholine receptor. Ulrich H, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14051-6
Mammalian capping enzyme binds RNA and uses protein tyrosine phosphatase mechanism. Wen Y, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12226-31
Subcellular RNA compartmentalization. Mohr E. **Prog Neurobiol** 1999 Apr;57(5):507-25 (102 ref.)
RNA and protein interactions modulated by protein arginine methylation. Gary JD, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:65-131 (250 ref.)
Solution structure and RNA-binding activity of the N-terminal leucine-repeat region of hepatitis delta antigen. Lin IJ, et al. **Proteins** 1999 Oct 1;37(1):121-9
Dissecting FMR1, the protein responsible for fragile X syndrome, in its structural and functional domains. Adinolfi S, et al. **RNA** 1999 Sep;5(9):1248-58
Dimerization of HIV-1 genomic RNA of subtypes A and B: RNA loop structure and magnesium binding. Jossinet F, et al. **RNA** 1999 Sep;5(9):1222-34
In vitro selection of RNA aptamers that bind special elongation factor SelB, a protein with multiple RNA-binding sites, reveals one major interaction domain at the carboxyl terminus. Klug SJ, et al. **RNA** 1999 Sep; 5(9):1180-90
The influence of junction conformation on RNA cleavage by the hairpin ribozyme in its natural junction form. Thomson JB, et al. **RNA** 1999 Feb;5(2):180-7
Ribozymes in the nucleolus. Rossi JJ. **Science** 1999 Sep 10; 285(5434):1685
Controlling gene expression in living cells through small molecule-RNA interactions. Werstuck G, et al. **Science** 1998 Oct 9;282(5387):296-8
Stimulation of liver RNA and protein breakdown in endotoxemic rats: role of glucocorticoids. Saadane A, et al. **Shock** 1999 Jun;11(6):429-35
Spectrofluorometric determination of DNA and RNA with berberine [letter] Gong GQ, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Aug; 55A(9):1903-7
Exploration of metal ion binding sites in RNA folds by Brownian-dynamics simulations. Hermann T, et al. **Structure** 1998 Oct 15;6(10):1303-14
Kissing and RNA stability in antisense control of plasmid replication. Gerhart E, et al. **Trends Biochem Sci** 1998 Dec; 23(12):451-4 (33 ref.)
The cauliflower mosaic virus capsid protein: assembly and nucleic acid binding in vitro. Chapdelaine Y, et al. **Virus Genes** 1998;17(2):139-50
[RNA recognition by RNA-binding protein] Katahira M. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):506-17 (31 ref.) **(Jpn)**

PHARMACOLOGY

Specific inhibition of hepatitis B virus replication by sense RNA. zu Putlitz J, et al. **Antisense Nucleic Acid Drug Dev** 1999 Jun;9(3):241-52
Primer tRNA(Trp) of RSV-transformed or RAV-1-infected cells up-regulates the antiribosomal activity of gelonin. Brigotti M, et al. **Biochimie** 1998 Jul;80(7):575-8
A simple assay system for examination of the inhibitory potential in vivo of decoy RNAs, ribozymes and other drugs by measuring the Tat-mediated transcription of a fusion gene composed of the long terminal repeat of HIV-1 and a gene for luciferase. Koseki S, et al. **J Controlled Release** 1998 Apr 30;53(1-3):159-73
Acceleration of the refolding of Arc repressor by nucleic acids and other polyanions. Rentzeperis D, et al. **Nat Struct Biol** 1999 Jun;6(6):569-73
In vitro selection of RNA molecules that displace cocaine from the membrane-bound nicotinic acetylcholine receptor. Ulrich H, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14051-6

PHYSIOLOGY

Myotonic dystrophy: the role of RNA CUG triplet repeats. Timchenko LT. **Am J Hum Genet** 1999 Feb;64(2):360-4 (34 ref.)
The destinies and destinations of RNAs. Hazelrigg T. **Cell** 1998 Nov 13;95(4):451-60 (87 ref.)
A steroid receptor coactivator, SRA, functions as an RNA and is present in an SRC-1 complex. Lanz RB, et al. **Cell** 1999 Apr 2;97(1):17-27
Boundaries for an RNA world. Yarus M. **Curr Opin Chem Biol** 1999 Jun;3(3):260-7 (72 ref.)
New insights into the function of noncoding RNA and its potential role in disease pathogenesis. Askew DS, et al. **Histol Histopathol** 1999 Jan;14(1):235-41 (60 ref.)
Self-association of Puralpha is mediated by RNA. Gallia GL, et al. **J Cell Biochem** 1999 Sep 1;74(3):334-48
Shaping space: the possible and the attainable in RNA genotype-phenotype mapping. Fontana W, et al. **J Theor Biol** 1998 Oct 21;194(4):491-515
On the function of modified nucleosides in the RNA world. Martínez Giménez JA, et al. **J Theor Biol** 1998 Oct 21; 194(4):485-90
The actin cytoskeleton is required for maintenance of posterior pole plasm components in the Drosophila embryo. Lantz VA, et al. **Mech Dev** 1999 Jul;85(1-2):111-22
Both transcriptional and posttranscriptional mechanisms regulate human telomerase template RNA levels. Yi X, et al. **Mol Cell Biol** 1999 Jun;19(6):3989-97
Collection of mRNA-like non-coding RNAs. Erdmann VA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):192-5
Essential role of mitochondrially encoded large rRNA for germ-line formation in Drosophila embryos. Iida T, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11274-8
RNAs that bind and change the permeability of phospholipid membranes. Khvorova A, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10649-54

URINE

Simple and broadly applicable sample preparation by use of magnetic glass particles. Bartl K, et al. **Clin Chem Lab Med** 1998 Aug;36(8):557-9

7S RNA see **RNA, SMALL NUCLEAR**

RNA, ANTISENSE

Cloning of 1-aminocyclopropane-1-carboxylate (ACC) synthetase cDNA and the inhibition of fruit ripening by its antisense RNA in transgenic tomato plants. Liu C, et al. **Chin J Biotechnol** 1998;14(2):75-84
Adenoviral-mediated expression of antisense RNA to fibroblast growth factors disrupts murine vascular development. Leconte I, et al. **Dev Dyn** 1998 Dec; 213(4):421-30
Inhibition of human telomerase by a retrovirus expressing telomeric antisense RNA. Bisoffi M, et al. **Eur J Cancer** 1998 Jul;34(8):1242-9
Antisense expression of a desmocollin gene in MDCK cells alters desmosome plaque assembly but does not affect desmoglein expression. Roberts GA, et al. **Eur J Cell Biol** 1998 Jul;76(3):192-203
Induction of apoptosis due to lowering the level of eukaryotic initiation factor 2-associated protein, p67, from mammalian cells by antisense approach. Datta B, et al. **Exp Cell Res** 1999 Feb 1;246(2):376-83
Potentiation of E7 antisense RNA-induced antitumor immunity by co-delivery of IL-12 gene in HPV16 DNA-positive mouse tumor. He YK, et al. **Gene Ther** 1998 Nov;5(11):1462-71
Stress-induced membrane association of the Streptococcus mutans GTP-binding protein, an essential G protein, and investigation of its physiological role by utilizing an antisense RNA strategy. Baev D, et al. **Infect Immun** 1999 Sep;67(9):4510-6
Antiviral effects of antisense RNA on hepatitis C virus RNA translation and expression. Wakita T, et al. **J Med Virol** 1999 Mar;57(3):217-22
CNS interleukin-3 (IL-3) expression and neurological syndrome in antisense-IL-3 transgenic mice. Sugita Y, et al. **J Neuropathol Exp Neurol** 1999 May;58(5):480-8
Using antisense technology to study mitosis. Wordeman L, et al. **Methods Cell Biol** 1999;61:245-66 (100 ref.)
Kissing and RNA stability in antisense control of plasmid replication. Gerhart E, et al. **Trends Biochem Sci** 1998 Dec; 23(12):451-4 (33 ref.)
Antisense downregulation of a mouse mammary tumor virus activated protooncogene in mouse mammary tumor cells reverses the malignant phenotype. Li YX, et al. **Virology** 1999 Mar 1;255(1):138-49

ADMINISTRATION & DOSAGE

Inhibition of insulin-like growth factor I receptor expression in neuroblastoma cells induces the regression of established tumors in mice. Liu X, et al. **Cancer Res** 1998 Dec 1; 58(23):5432-8

BIOSYNTHESIS

Antisense expression of the human pro-melanin-concentrating hormone genes. Miller CL, et al. **Brain Res** 1998 Aug 24;803(1-2):86-94
Antisense expression of protein kinase C alpha improved sensitivity to anticancer drugs in human lung cancer LTEPa-2 cells. Wang XY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):265-8
Synthesis of FinP RNA by plasmids F and pSLT is regulated by DNA adenine methylation. Torreblanca J, et al. **Genetics** 1999 May;152(1):31-45
Co-suppression of the hydrophobin gene HCf-1 is correlated with antisense RNA biosynthesis in Cladosporium fulvum. Hamada W, et al. **Mol Gen Genet** 1998 Oct;259(6):630-8
[Transfer and expression of antisense genes of hepatitis B virus (HBV) and their anti-HBV effects] Ji W, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jun;77(6):425-9 (Eng. Abstr.) **(Chi)**
[The inhibitory effect of antisense interleukin-6 on the growth of human lung carcinoma cells in vivo] Fu J, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug; 26(4):214-7 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Length variation of helix III in a hammerhead ribozyme and its influence on cleavage activity. Hammann C, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):25-31
Analysis of elements involved in pseudoknot-dependent expression and regulation of the repA gene of an IncL/M plasmid. Athanasopoulos V, et al. **J Bacteriol** 1999 Mar; 181(6):1811-9
Molecular events after antisense inhibition of hMSH2 in a HeLa cell line. Qian Y, et al. **Mutat Res** 1998 Oct 12; 418(2-3):61-71
Crystal structure and improved antisense properties of 2'-O-(2-methoxyethyl)-RNA. Teplova M, et al. **Nat Struct Biol** 1999 Jun;6(6):535-9

GENETICS

Telomerase inhibition by induced expression of antisense RNA. Müller A, et al. **Adv Exp Med Biol** 1998;451:23-6
Lack of evidence for antisense suppression in the fungal plant pathogen Ustilago maydis. Keon JP, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):101-4
Targeting RNase L to human immunodeficiency virus RNA with 2-5A-antisense. Player MR, et al. **Antivir Chem Chemother** 1998 May;9(3):225-31
Antisense RNA strategies for metabolic engineering of Clostridium acetobutylicum. Desai RP, et al. **Appl Environ Microbiol** 1999 Mar;65(3):936-45
Lack of reciprocal genomic imprinting of sense and antisense RNA of mouse insulin-like growth factor II receptor in

the central nervous system. Hu JF, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):604–8

Molecular cloning of antisense transcripts of the mouse Xist gene. Mise N, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):537–41

Effect of antisense human telomerase RNA transfection on the growth of human gastric cancer cell lines. Naka K, et al. **Biochem Biophys Res Commun** 1999 Feb 24; 255(3):753–8

An antisense transcript to SMAD5 expressed in fetal and tumor tissues. Zavadil J, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):668–72

Amplification of mRNAs from single, fixed, TUNEL-positive cells. O'Dell DM, et al. **Biotechniques** 1998 Oct;25(4):566–8, 570

Chinese hamster ovary cells with constitutively expressed sialidase antisense RNA produce recombinant DNase in batch culture with increased sialic acid. Ferrari J, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):589–95

Anti-beta s-ribozyme reduces beta s mRNA levels in transgenic mice: potential application to the gene therapy of sickle cell anemia. Alami R, et al. **Blood Cells Mol Dis** 1999 Apr;25(2):110–9

Diminution of 37-kDa laminin binding protein expression reduces tumour formation of murine lung cancer cells. Satoh K, et al. **Br J Cancer** 1999 Jun;80(8):1115–22

CREB mediates the cAMP-responsiveness of the tyrosine hydroxylase gene: use of an antisense RNA strategy to produce CREB-deficient PC12 cell lines. Piech-Dumas KM, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):219–30

Inhibition of neural crest migration in Xenopus using antisense slug RNA. Carl TF, et al. **Dev Biol** 1999 Sep 1;213(1):101–15

Ectopic Msx2 overexpression inhibits and Msx2 antisense stimulates calvarial osteoblast differentiation. Dodig M, et al. **Dev Biol** 1999 May 15;209(2):298–307

Inhibition of protein kinase C alpha expression by antisense RNA in transfected Jurkat cells. López-Lago MA, et al. **Eur J Immunol** 1999 Feb;29(2):466–76

LIT1, an imprinted antisense RNA in the human KvLQT1 locus identified by screening for differentially expressed transcripts using monochromosomal hybrids. Mitsuya K, et al. **Hum Mol Genet** 1999 Jul;8(7):1209–17

Analysis of elements involved in pseudoknot-dependent expression and regulation of the repA gene of an IncL/M plasmid. Athanasopoulos V, et al. **J Bacteriol** 1999 Mar; 181(6):1811–9

trans-complementation of a Staphylococcus aureus agr mutant by Staphylococcus lugdunensis agr RNAIII. Benito Y, et al. **J Bacteriol** 1998 Nov;180(21):5780–3

The plasmid ColIb-P9 antisense Inc RNA controls expression of the RepZ replication protein and its positive regulator repY with different mechanisms. Asano K, et al. **J Biol Chem** 1999 Jun 18;274(25):17924–33

In vitro analysis of the interaction between the FinO protein and FinP antisense RNA of F-like conjugative plasmids. Jerome LJ, et al. **J Biol Chem** 1999 Apr 9;274(15):10356–62

Characterization of the promoter for the human antisense fibroblast growth factor-2 gene; regulation by Ets in Jurkat T cells. Gagnon ML, et al. **J Cell Biochem** 1999 Mar 15; 72(4):492–506

Antisense-mediated repression of DNA topoisomerase II expression leads to an impairment of HIV-1 replicative cycle. Bouillé P, et al. **J Mol Biol** 1999 Jan 22;285(3):945–54

Antisense WT1 transcription parallels sense mRNA and protein expression in fetal kidney and can elevate protein levels in vitro. Moorwood K, et al. **J Pathol** 1998 Aug; 185(4):352–9

Regulation of the Wilms' tumour suppressor (WT1) gene by an antisense RNA: a link with genomic imprinting? [editorial] Ward A, et al. **J Pathol** 1998 Aug;185(4):342–4

Rapid evaluation in Escherichia coli of antisense RNAs and ribozymes. Tatout C, et al. **Lett Appl Microbiol** 1998 Nov; 27(5):297–301

Evolutionary conservation and tissue-specific processing of Hoxa 11 antisense transcripts. Potter SS, et al. **Mamm Genome** 1998 Oct;9(10):799–806

Antisense RNA to ahpC, an oxidative stress defence gene involved in isoniazid resistance, indicates that AhpC of Mycobacterium bovis has virulence properties. Wilson T, et al. **Microbiology** 1998 Oct;144 (Pt 10):2687–95

A rearrangement of the CDD gene at the 5' UTR produces two types of transcripts that contain a natural antisense region. Jung-Ha H, et al. **Mol Biol Rep** 1998 Nov; 25(4):205–10

Reversible tumorigenesis induced by deficiency of vasodilator-stimulated phosphoprotein. Liu K, et al. **Mol Cell Biol** 1999 May;19(5):3696–703

Anti-Xistentialism [news; comment] Heard E, et al. **Nat Genet** 1999 Apr;21(4):343–4. Comment on: Nat Genet 1999 Apr;21(4):400–4.

Tsix, a gene antisense to Xist at the X-inactivation centre [see comments] Lee JT, et al. **Nat Genet** 1999 Apr; 21(4):400–4. Comment in: Nat Genet 1999 Apr;21(4):343–4.

Modulation of in vivo growth of thyroid tumor-derived cell lines by sense and antisense vascular endothelial growth factor gene. Belletti B, et al. **Oncogene** 1999 Aug 26; 18(34):4860–9

Antisense bcl-2 retrovirus vector increases the sensitivity of a human gastric adenocarcinoma cell line to photodynamic therapy. Zhang WG, et al. **Photochem Photobiol** 1999 May; 69(5):582–6

Antisense suppression of tomato endo-1,4-beta-glucanase Cel2 mRNA accumulation increases the force required to break fruit abscission zones but does not affect fruit softening. Brummell DA, et al. **Plant Mol Biol** 1999 Jul; 40(4):615–22

Blood pressure reduction and diabetes insipidus in transgenic rats deficient in brain angiotensinogen. Schinke M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3975–80

RNAi in C. elegans: soaking in the genome sequence. Tabara H, et al. **Science** 1998 Oct 16;282(5388):430–1

Hepatic cytochrome P450 and flavin-containing monooxygenase in male Nts:Mini rat, a transgenic rat carrying antisense RNA transgene for rat growth hormone. Tani Y, et al. **Toxicol Lett** 1999 Jun 1;106(2-3):159–69

IMMUNOLOGY

An experimental vaccine that targets staphylococcal virulence. Lee JC. **Trends Microbiol** 1998 Dec;6(12):461–3

METABOLISM

Length variation of helix III in a hammerhead ribozyme and its influence on cleavage activity. Hammann C, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):25–31

The antisense sequence of the HIV-1 TAR stem-loop structure covalently linked to the hairpin ribozyme enhances its catalytic activity against two artificial substrates. Pérez-Ruiz M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):33–42

Antisense RNA crossing mitochondrial membrane? [letter; comment] Hofhaus G, et al. **Blood** 1998 Oct 15;92(8):2994–5 . Comment on: Blood 1997 Dec 1;90(11):4567–77.

Effects of mutant and antisense RNA of phospholamban on SR Ca(2+)-ATPase activity and cardiac myocyte contractility. He H, et al. **Circulation** 1999 Aug 31; 100(9):974–80

Ribonuclease III processing of coaxially stacked RNA helices. Franch T, et al. **J Biol Chem** 1999 Sep 10; 274(37):26572–8

Expression of uroporphyrinogen decarboxylase or coproporphyrinogen oxidase antisense RNA in tobacco induces pathogen defense responses conferring increased resistance to tobacco mosaic virus. Mock HP, et al. **J Biol Chem** 1999 Feb 12;274(7):4231–8

Degradation of FinP antisense RNA from F-like plasmids: the RNA-binding protein, FinO, protects FinP from ribonuclease E. Jerome LJ, et al. **J Mol Biol** 1999 Jan 29; 285(4):1457–73

Evolutionary conservation and tissue-specific processing of Hoxa 11 antisense transcripts. Potter SS, et al. **Mamm Genome** 1998 Oct;9(10):799–806

Mapping of a protein-RNA kissing hairpin interface: Rom and Tar-Tar*. Comolli LR, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4688–95

PHARMACOLOGY

First international conference on new molecular targets for anticancer therapy, Naples, 22-23 June 1998. Budillon A, et al. **Anticancer Drugs** 1999 Feb;10(2):249–56

Stable antisense RNA expression neutralizes the activity of low-density lipoprotein receptor-related protein and promotes urokinase accumulation in the medium of an astrocytic tumor cell line. Hussaini IM, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):183–90

Antisense RNA gene therapy for studying and modulating biological processes. Weiss B, et al. **Cell Mol Life Sci** 1999 Mar;55(3):334–58 (164 ref.)

Inhibition of neural crest migration in Xenopus using antisense slug RNA. Carl TF, et al. **Dev Biol** 1999 Sep 1;213(1):101–15

Antisense-mediated depletion of potato leaf omega3 fatty acid desaturase lowers linolenic acid content and reduces gene activation in response to wounding. Martin M, et al. **Eur J Biochem** 1999 Jun;262(2):283–90

Antisense strategies: functions and applications in immunology. Varga LV, et al. **Immunol Lett** 1999 Aug 3;69(2):217–24 (45 ref.)

Targeted reduction of nucleoside triphosphate hydrolase by antisense RNA inhibits Toxoplasma gondii proliferation. Nakaar V, et al. **J Biol Chem** 1999 Feb 19;274(8):5083–7

RNA antisense abrogation of MAT1 induces G1 phase arrest and triggers apoptosis in aortic smooth muscle cells. Wu L, et al. **J Biol Chem** 1999 Feb 26;274(9):5564–72

Neuronal expression of neural nitric oxide synthase (nNOS) protein is suppressed by an antisense RNA transcribed from an NOS pseudogene. Korneev SA, et al. **J Neurosci** 1999 Sep 15;19(18):7711–20

Suppression of T1-receptor expression by antisense RNA abrogates differentiation of osteogenic osteosarcoma cells. Werenskiold AK, et al. **Lab Invest** 1999 May;79(5):529–36

Inhibition of glucose transporter gene expression by antisense nucleic acids in HL-60 leukemia cells. Chan JY, et al. **Life Sci** 1999;65(1):63–70

Inhibition of oncogene expression using vector-generated RNA antisense. Whitesell L, et al. **Methods** 1999 Jul; 18(3):296–303

Limited inhibition of 5-HT1A receptor expression in the rat brain by antisense RNA and oligodesoxynucleotides. Sari Y, et al. **Neurosci Lett** 1999 Jan 15;259(3):191–5

Kinetic selection of HPV 16 E6/E7-directed antisense nucleic acids: anti-proliferative effects on HPV 16-transformed cells. Venturini F, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1585–92

Examination of antisense RNA and oligodeoxynucleotides as potential inhibitors of avian leukosis virus replication in RP30 cells. Kim KE, et al. **Poult Sci** 1998 Sep; 77(9):1400–10

Targeted disruption of gene function in Drosophila by RNA interference (RNA-i): a role for nautilus in embryonic somatic muscle formation. Misquitta L, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1451–6

[Inhibitory effect of IGF-II antisense RNA on malignant phenotype of hepatocellular carcinoma] Yang D, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar;7(1):39–41 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Antisense inhibition of expression of cysteine proteinases affects Entamoeba histolytica-induced formation of liver abscess in hamsters. Ankri S, et al. **Infect Immun** 1999 Jan; 67(1):421–2

Antisense RNA: function and fate of duplex RNA in cells of higher eukaryotes. Kumar M, et al. **Microbiol Mol Biol Rev** 1998 Dec;62(4):1415–34 (342 ref.)

Antisense-mediated silencing of a gene encoding a major ryegrass pollen allergen. Bhalla PL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11676–80

THERAPEUTIC USE

Ex vivo and in vivo IGF-I antisense RNA strategies for treatment of cancer in humans. Anthony DD, et al. **Adv Exp Med Biol** 1998;451:27–34

Antitumor effects elicited by antisense-mediated downregulation of the insulin-like growth factor I receptor (review). Resnicoff M. **Int J Mol Med** 1998 May;1(5):883–8 (44 ref.)

Antisense therapeutics. Persidis A. **Nat Biotechnol** 1999 Apr; 17(4):403–4

RNA, ARCHAEAL

BIOSYNTHESIS

Archaeal aminoacyl-tRNA synthesis: unique determinants of a universal genetic code? Ibba M, et al. **Biol Bull** 1999 Jun;196(3):335–6; discussion 336–7 (10 ref.)

CHEMISTRY

Structural compensation in an archaeal selenocysteine transfer RNA. Ioudovitch A, et al. **J Mol Biol** 1999 Jul 9;290(2):365–71

GENETICS

Sequence and transcriptional studies of five clustered flagellin genes from hyperthermophilic archaeon Pyrococcus kodakaraensis KOD1. Nagahisa K, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):183–90

METABOLISM

Substrate requirements for a novel archaeal endonuclease that cleaves within the 5' external transcribed spacer of Sulfolobus acidocaldarius precursor rRNA. Russell AG, et al. **Genetics** 1999 Aug;152(4):1373–85

Transfer RNA modification enzymes from Pyrococcus furiosus: detection of the enzymatic activities in vitro. Constantinesco F, et al. **Nucleic Acids Res** 1999 Mar 1; 27(5):1308–15

RNase P RNAs from some Archaea are catalytically active. Pannucci JA, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7803–8

RNA, BACTERIAL

Suppression of nonsense mutations induced by expression of an RNA complementary to a conserved segment of 23S rRNA. Chernyaeva NS, et al. **J Bacteriol** 1999 Sep; 181(17):5257–62

Distinct types of rRNA operons exist in the genome of the actinomycete Thermomonospora chromogena and evidence for horizontal transfer of an entire rRNA operon. Yap WH, et al. **J Bacteriol** 1999 Sep;181(17):5201–9

The high-pathogenicity island of Yersinia pseudotuberculosis can be inserted into any of the three chromosomal asn tRNA genes. Buchrieser C, et al. **Mol Microbiol** 1998 Dec; 30(5):965–78

Post-transcriptional regulation of the Bacillus subtilis dnaK operon. Homuth G, et al. **Mol Microbiol** 1999 Jun; 32(6):1183–97

Translational control of mRNA processing in the F1845 fimbrial operon of Escherichia coli. Loomis WP, et al. **Mol Microbiol** 1998 Nov;30(4):843–53

Thermodynamics of RNA hairpins containing single internal mismatches. Merouch M, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1118–25

The tmRNA website. Williams KP. **Nucleic Acids Res** 1999 Jan 1;27(1):165–6

The tmRNA database (tmRDB). Wower J, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):167

Small RNAs in Escherichia coli. Wassarman KM, et al. **Trends Microbiol** 1999 Jan;7(1):37–45 (47 ref.)

RNA, BACTERIAL

ANALYSIS

Chlamydia trachomatis nucleic acids can be found in the synovium of some asymptomatic subjects. Schumacher HR Jr, et al. **Arthritis Rheum** 1999 Jun;42(6):1281–4

Quantification of the human granulocytic ehrlichiosis agent based on analysis of rRNA isolated from control and infected HL-60 cells. Wu JM, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):7–13

The use of polymerase chain reaction to detect septicemia in critically ill patients [see comments] Cursons RT, et al. **Crit Care Med** 1999 May;27(5):937–40. Comment in: Crit Care Med 1999 May;27(5):860–1.

Helicobacter pylori in the oral cavity reflects handling of contaminants but not gastric infection. Doré-Davin C, et al. **Digestion** 1999;60(3):196–202

Specific PCR primers from the 16S–23S rRNA spacer region for the rapid detection and identification of Actinobacillus seminis. Appuhamy S, et al. **J Appl Microbiol** 1998 Dec; 85(6):941–8

Development and use of 16S rRNA gene targeted PCR primers for the identification of Escherichia coli cells in water. Tsen HY, et al. **J Appl Microbiol** 1998 Sep; 85(3):554–60

Analysis of rpoS mRNA in Salmonella dublin: identification of multiple transcripts with growth-phase-dependent variation in transcript stability. Paesold G, et al. **J Bacteriol** 1999 Feb;181(4):1264–8

Detection of Staphylococcus aureus and Staphylococcus epidermidis in clinical samples by 16S rRNA-directed in situ hybridization. Krimmer V, et al. **J Clin Microbiol** 1999 Aug;37(8):2667–73

Rapid identification of clinically relevant Nocardia species to genus level by 16S rRNA gene PCR. Laurent FJ, et al. **J Clin Microbiol** 1999 Jan;37(1):99–102

Monitoring of Chlamydia trachomatis infections after antibiotic treatment using RNA detection by nucleic acid sequence based amplification. Morré SA, et al. **Mol Pathol** 1998 Jun;51(3):149–54

Critical appraisal of molecular biology techniques for detecting bacteria in synovial specimens. Kuipers JG, et al. **Rev Rhum Engl Ed** 1999 Jan 30;66(1 Suppl):3S–8S (25 ref.)

Molecular identification of Photorhabdus luminescens strains by amplification of specific fragments of the 16S ribosomal DNA. Ehlers RU, et al. **Syst Appl Microbiol** 1998 Dec; 21(4):509–19

Analysis of LMW RNA profiles of Frankia strains by staircase electrophoresis. Velázquez E, et al. **Syst Appl Microbiol** 1998 Dec;21(4):539–45

Nearly identical 16S rRNA sequences recovered from lakes in North America and Europe indicate the existence of clades of globally distributed freshwater bacteria. Zwart G, et al. **Syst Appl Microbiol** 1998 Dec;21(4):546–56

BIOSYNTHESIS

Roles of multiple promoters in transcription of ribosomal DNA: effects of growth conditions on precursor rRNA synthesis in mycobacteria. Gonzalez-y-Merchand JA, et al. **J Bacteriol** 1998 Nov;180(21):5756–61

Determinants of the stability of transcription elongation complexes: interactions of the nascent RNA with the DNA template and the RNA polymerase. Wilson KS, et al. **J Mol Biol** 1999 Jun 25;289(5):1179–94

Effect of integration host factor of RNA II synthesis in replication of plasmid containing orip 15A. Hiszczyńska-Sawicka E, et al. **Plasmid** 1998 Sep; 40(2):150–7

Identification of Mycobacterium tuberculosis RNAs synthesized in response to phagocytosis by human macrophages by selective capture of transcribed sequences (SCOTS). Graham JE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11554–9

CHEMISTRY

Crystals of Thermus thermophilus tRNAAsp complexed with its cognate aspartyl-tRNA synthetase have a solvent content of 75%. Comparison with other aminoacylation systems. Briand C, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1382–6

Mutational analysis of 23S ribosomal RNA structure and function in Escherichia coli. Triman KL. **Adv Genet** 1999; 41:157–95 (154 ref.)

Mapping RNA-protein interactions in ribonuclease P from Escherichia coli using electron paramagnetic resonance spectroscopy. Gopalan V, et al. **Biochemistry** 1999 Feb 9; 38(6):1705–14

Protein-RNA sequence covariation in a ribosomal protein-rRNA complex. GuhaThakurta D, et al. **Biochemistry** 1999 Mar 23;38(12):3633–40

Structural analysis of ternary complexes of Escherichia coli RNA polymerase: ribonuclease footprinting of the nascent RNA in complexes. Milan S, et al. **Biochemistry** 1999 Jan 5;38(1):218–25

Directe · hydroxyl radical probing of 16S ribosomal RNA in 70S ribosomes from internal positions of the RNA. Newcomb LF, et al. **Biochemistry** 1999 Jan 19;38(3):945–51

Mutant analysis of Prevotella sp. plaA-lacZ fusion protein expression in Escherichia coli: support for an essential role of the stem-loop. Manch-Citron JN, et al. **Can J Microbiol** 1999 Feb;45(2):153–61

A detailed view of a ribosomal active site: the structure of the L11-RNA complex [see comments] Wimberly BT, et al. **Cell** 1999 May 14;97(4):491–502. Comment in: Cell 1999 May 14;97(4):423–6.

Crystal structure of methionyl-tRNAfMet transformylase complexed with the initiator formyl-methionyl-tRNAfMet. Schmitt E, et al. **EMBO J** 1998 Dec 1;17(23):6819–26

Ribotyping as an identification tool for Clostridium botulinum strains causing human botulism. Hielm S, et al. **Int J Food Microbiol** 1999 Mar 1;47(1-2):121–31

Analysis of elements involved in pseudoknot-dependent expression and regulation of the repA gene of an IncL/M plasmid. Athanasopoulos V, et al. **J Bacteriol** 1999 Mar; 181(6):1811–9

A 5' RNA stem-loop participates in the transcription attenuation mechanism that controls expression of the Bacillus subtilis trpEDCFBA operon. Sudershana S, et al. **J Bacteriol** 1999 Sep;181(18):5742–9

Two distinct mechanisms cause heterogeneity of 16S rRNA. Ueda K, et al. **J Bacteriol** 1999 Jan;181(1):78–82

Probing the rRNA environment of ribosomal protein S5 across the subunit interface and inside the 30 S subunit using tethered Fe(II). Culver GM, et al. **J Mol Biol** 1999 Feb 19;286(2):355–64

Erythromycin resistance mutations in ribosomal proteins L22 and L4 perturb the higher order structure of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jun 18; 289(4):827–34

Mutations in the conserved P loop perturb the conformation of two structural elements in the peptidyl transferase center of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jan 29;285(4):1475–83

A common motif organizes the structure of multi-helix loops in 16 S and 23 S ribosomal RNAs. Leontis NB, et al. **J Mol Biol** 1998 Oct 30;283(3):571–83

Nucleotides in 16S rRNA protected by the association of 30S and 50S ribosomal subunits. Merryman C, et al. **J Mol Biol** 1999 Jan 8;285(1):97–105

Nucleotides in 23S rRNA protected by the association of 30S and 50S ribosomal subunits. Merryman C, et al. **J Mol Biol** 1999 Jan 8;285(1):107–13

ErmE methyltransferase recognizes features of the primary and secondary structure in a motif within domain V of 23 S rRNA. Villsen ID, et al. **J Mol Biol** 1999 Feb 19; 286(2):365–74

Three-dimensional placement of the conserved 530 loop of 16 S rRNA and of its neighboring components in the 30 S subunit. Wang R, et al. **J Mol Biol** 1999 Feb 19; 286(2):521–40

Comparative sequence analysis of tmRNA. Zwieb C, et al. **Nucleic Acids Res** 1999 May 15;27(10):2063–71 (64 ref.)

Crystal structure of acceptor stem of tRNA(Ala) from Escherichia coli shows unique G.U wobble base pair at 1.16 A resolution. Mueller U, et al. **RNA** 1999 May; 5(5):670–7

Crystal structure of a conserved ribosomal protein-RNA complex. Conn GL, et al. **Science** 1999 May 14; 284(5417):1171–4

Identification of an RNA-protein bridge spanning the ribosomal subunit interface [see comments] Culver GM, et al. **Science** 1999 Sep 24;285(5436):2133–6. Comment in: Science 1999 Sep 24;285(5436):2077–8.

Determination of the nucleotide sequence of the 23S ribosomal RNA and flanking spacers of an Enterococcus faecium strain, reveals insertion-deletion events in the ribosomal spacer 1 of enterococci. Naimi A, et al. **Syst Appl Microbiol** 1999 Feb;22(1):9–21

[Comparative analysis of interaction sites of Thermus thermophilus and Escherichia coli tRNA(Tyr) with homologous aminoacyl-tRNA synthetases by means of chemical modification and nuclease hydrolysis] Egorova SP, et al. **Bioorg Khim** 1998 Aug;24(8):593–600 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Measurement of sputum Mycobacterium tuberculosis messenger RNA as a surrogate for response to chemotherapy. Desjardin LE, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):203–10

Knocking out a specific tRNA species within unfractionated Escherichia coli tRNA by using antisense (complementary) oligodeoxyribonucleotides. Kanda T, et al. **FEBS Lett** 1998 Dec 4;440(3):273–6

GENETICS

Mutational analysis of 23S ribosomal RNA structure and function in Escherichia coli. Triman KL. **Adv Genet** 1999; 41:157–95 (154 ref.)

Explaining the bias in the 23S rRNA gene mutations associated with clarithromycin resistance in clinical isolates of Helicobacter pylori. Debets-Ossenkopp YJ, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2749–51

Analysis of 16S-23S rRNA intergenic spacer regions of Vibrio cholerae and Vibrio mimicus. Chun J, et al. **Appl Environ Microbiol** 1999 May;65(5):2202–8

Optimization of differential display of prokaryotic mRNA: application to pure culture and soil microcosms. Fleming JT, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3698–706

In situ, real-time catabolic gene expression: extraction and characterization of naphthalene dioxygenase mRNA transcripts from groundwater. Wilson MS, et al. **Appl Environ Microbiol** 1999 Jan;65(1):80–7

High genetic and physiological diversity of sulfate-reducing bacteria isolated from an oligotrophic lake sediment. Sass H, et al. **Arch Microbiol** 1998 Oct;170(4):243–51

Affinity modification of phenylalanyl-tRNA synthetase from Thermus thermophilus by tRNAPhe transcripts containing 4-thiouridine. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1044–50

Eubacterial tmRNAs: everywhere except the alpha-proteobacteria? Felden B, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):145–8

A genomically modified marker strain of Escherichia coli. Ammons D, et al. **Curr Microbiol** 1998 Nov;37(5):341–6

Small subunit rRNA gene sequences of Aeromonas salmonicida subsp. smithia and Haemophilus piscium reveal pronounced similarities with A. salmonicida subsp. salmonicida. Thornton JM, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):155–8

The 10Sa RNA gene of Thermus thermophilus. Op De Bekke A, et al. **DNA Seq** 1998 Mar;9(1):31–5

Diagnosis and follow-up of Whipple's disease by amplification of the 16S rRNA gene of Tropheryma whippelii. Pron B, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan;18(1):62–5

Molecular cloning and phylogenetic analysis of the small cytoplasmic RNA from Listeria monocytogenes. Barry T, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):47–53

Transcriptional analysis of the cyclophilin A gene (cypA) of Streptomyces chrysomallus. Berger R, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):39–45

Physical and genetic chromosomal maps of Streptococcus agalactiae, serotypes II and III; rRNA operon organization. Dmitriev A, et al. **FEMS Microbiol Lett** 1998 Oct 1; 167(1):33–9

Molecular cloning and comparative sequence analyses of rRNA operons in Streptomyces nodosus ATCC 14899. Yap WH, et al. **Gene** 1999 May 17;232(1):77–85

Application of the ribonuclease P (RNase P) RNA gene sequence for phylogenetic analysis of the genus Saccharomonospora. Cho M, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1223–30

Analysis of elements involved in pseudoknot-dependent expression and regulation of the repA gene of an IncL/M plasmid. Athanasopoulos V, et al. **J Bacteriol** 1999 Mar; 181(6):1811–9

trans-complementation of a Staphylococcus aureus agr mutant by Staphylococcus lugdunensis agr RNAIII. Benito Y, et al. **J Bacteriol** 1998 Nov;180(21):5780–3

A 5' RNA stem-loop participates in the transcription attenuation mechanism that controls expression of the Bacillus subtilis trpEDCFBA operon. Sudershana S, et al. **J Bacteriol** 1999 Sep;181(18):5742–9

Two distinct mechanisms cause heterogeneity of 16S rRNA. Ueda K, et al. **J Bacteriol** 1999 Jan;181(1):78–82

Sequence-based classification scheme for the genus Legionella targeting the 5S rRNA gene [letter; comment] Murdoch DR, et al. **J Clin Microbiol** 1999 Jan;37(1):281 . Comment on: J Clin Microbiol 1998 Jun;36(6):1560–7.

Determination of 16S rRNA sequences of enterococci and application to species identification of nonmotile Enterococcus gallinarum isolates. Patel R, et al. **J Clin Microbiol** 1998 Nov;36(11):3399–407

Detection of prosthetic hip infection at revision arthroplasty by immunofluorescence microscopy and PCR amplification of the bacterial 16S rRNA gene. Tunney MM, et al. **J Clin Microbiol** 1999 Oct;37(10):3281–90

An evaluation of intergenic rRNA gene sequence length polymorphism analysis for the identification of Legionella species. Fry NK, et al. **J Med Microbiol** 1998 Aug; 47(8):667–78

Conformational changes of the upstream DNA mediated by H-NS and FIS regulate E. coli RrnB P1 promoter activity. Afflerbach H, et al. **J Mol Biol** 1999 Feb 19;286(2):339–53

Mutations in the conserved P loop perturb the conformation of two structural elements in the peptidyl transferase center of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jan 29;285(4):1475–83

Functional and structural analysis of a pseudoknot upstream of the tag-encoded sequence in E. coli tmRNA. Nameki N, et al. **J Mol Biol** 1999 Feb 26;286(3):733–44

Pathway modulation, circular permutation and rapid RNA folding under kinetic control. Pan T, et al. **J Mol Biol** 1999 Feb 26;286(3):721–31

In vitro amplification of the 16S rRNA genes from Mycoplasma bovirhinis, Mycoplasma alkalescens and Mycoplasma bovigenitalium by PCR. Kobayashi H, et al. **J Vet Med Sci** 1998 Dec;60(12):1299–303

A novel tRNA-associated locus (trl) from Helicobacter pylori is co-transcribed with tRNA(Gly) and reveals genetic diversity. Dundon WG, et al. **Microbiology** 1999 Jun;145 (Pt 6):1289–98

Networks and groups within the genus Neisseria: analysis of argF, recA, rho, and 16S rRNA sequences from human Neisseria species. Smith NH, et al. **Mol Biol Evol** 1999 Jun;16(6):773–83

Comparative sequence analysis of tmRNA. Zwieb C, et al. **Nucleic Acids Res** 1999 May 15;27(10):2063–71 (64 ref.)

Identification of a new gene in the streptococcal plasmid pLS1: the rnal gene. Acebo P, et al. **Plasmid** 1998 Nov; 40(3):214–24

Isolation of a derivative of Escherichia coli-Enterococcus

faecalis shuttle vector pAM401 temperature sensitive for maintenance in E. faecalis and its use in evaluating the mechanism of pAD1 par-dependent plasmid stabilization. Weaver KE, et al. **Plasmid** 1998 Nov;40(3):225-32

An Escherichia coli strain with all chromosomal rRNA operons inactivated: complete exchange of rRNA genes between bacteria [see comments] Asai T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1971-6. Comment in: Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1820-2.

Functional topography of nascent RNA in elongation intermediates of RNA polymerase. Komissarova N, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14699-704

Engineering of bacterial ribosomes: replacement of all seven Escherichia coli rRNA operons by a single plasmid-encoded operon [see comments] Nomura M. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1820-2 (25 ref.). Comment in: Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1971-6.

Phylogeny, ribosomal RNA gene typing and relative abundance of new Pseudomonas species (sensu stricto) isolated from two pinyon-juniper woodland soils of the arid southwest U.S. Kuske CR, et al. **Syst Appl Microbiol** 1999 May;22(2):300-11

Transfer RNAs and pathogenicity islands. Hou YM. **Trends Biochem Sci** 1999 Aug;24(8):295-8 (27 ref.)

Polymerase chain reaction amplification of bacterial 16s rRNA genes in prostate biopsies from men without chronic prostatitis. Keay S, et al. **Urology** 1999 Mar;53(3):487-91

Variations in the 16S rRNA gene sequence of Yersinia enterocolitica isolates influence the specificity of molecular identification systems. Neubauer H, et al. **Zentralbl Bakteriol** 1999 Jul;289(3):329-37

IMMUNOLOGY

An experimental vaccine that targets staphylococcal virulence. Lee JC. **Trends Microbiol** 1998 Dec;6(12):461-3

Host immune responses to ribosome, ribosomal proteins, and RNA from Mycobacterium bovis bacille de Calmette-Guerin. Miyazaki C, et al. **Vaccine** 1999 Jan 21; 17(3):245-51

ISOLATION & PURIFICATION

In situ, real-time catabolic gene expression: extraction and characterization of naphthalene dioxygenase mRNA transcripts from groundwater. Wilson MS, et al. **Appl Environ Microbiol** 1999 Jan;65(1):80-7

Application of ribotyping and IS200 fingerprinting to distinguish the five Salmonella serotype O6,7:c:1,5 groups: Choleraesuis sensu stricto, Choleraesuis var. Kunzendorf, Choleraesuis var. Decatur, Paratyphi C, and Typhisuis. Uzzau S, et al. **Epidemiol Infect** 1999 Aug;123(1):37-46

Recovery of total microbial RNA from lactic acid fermented foods with a high starch content. Ampe F, et al. **Lett Appl Microbiol** 1998 Nov;27(5):270-4

Extraction of RNA from mycobacteria. Mahenthiralingam E. **Methods Mol Biol** 1998;101:65-75

METABOLISM

The quiescent-cell expression system for protein synthesis in Escherichia coli. Rowe DC, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2710-5

Recognition of a pre-tRNA substrate by the Bacillus subtilis RNase P holoenzyme. Loria A, et al. **Biochemistry** 1998 Nov 3;37(44):15466-73

RNA and protein catalysis in group II intron splicing and mobility reactions using purified components. Saldanha R, et al. **Biochemistry** 1999 Jul 13;38(28):9069-83

Kinetic analysis of the RNA-dependent adenosinetriphosphatase activity of DbpA, an Escherichia coli DEAD protein specific for 23S ribosomal RNA. Tsu CA, et al. **Biochemistry** 1998 Dec 1;37(48):16989-96

Localization of the binding site for the 3'-terminal sequence of tRNAPhe in subunits of phenylalanyl-tRNA synthetase from Thermus thermophilus. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1051-6

Affinity modification of phenylalanyl-tRNA synthetase from Thermus thermophilus by tRNAPhe transcripts containing 4-thiouridine. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1044-50

Differential stability of E. coli ribosomal particles and free RNA towards thermal degradation studied by microcalorimetry. Bonincontro A, et al. **Biophys Chem** 1998 Nov 16;75(2):97-103

Synthesis and automated detection of fluorescently labeled primer extension products. Altermann E, et al. **Biotechniques** 1999 Jan;26(1):96-8, 101

Copy number control of IncIalpha plasmid ColIb-P9 by competition between pseudoknot formation and antisense RNA binding at a specific RNA site. Asano K, et al. **EMBO J** 1998 Sep 1;17(17):5201-13

SsrA-mediated peptide tagging caused by rare codons and tRNA scarcity. Roche ED, et al. **EMBO J** 1999 Aug 16; 18(16):4579-89

Depletion of Escherichia coli 4.5S RNA leads to an increase in the amount of protein elongation factor EF-G associated with ribosomes. Nakamura K, et al. **Eur J Biochem** 1999 Jan;259(1-2):543-50

Non-random fragmentation of ribosomal RNA in Helicobacter pylori during conversion to the coccoid form. Monstein HJ, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):217-24

A comparative analysis of the citrate permease P mRNA stability in Lactococcus lactis biovar diacetylactis and Escherichia coli. Drider D, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):115-22

Translational induction of heat shock transcription factor sigma32: evidence for a built-in RNA thermosensor. Morita MT, et al. **Genes Dev** 1999 Mar 15;13(6):655-65

An RNA thermometer. Storz G. **Genes Dev** 1999 Mar 15; 13(6):633-6

Decay of ermC mRNA in a polynucleotide phosphorylase mutant of Bacillus subtilis. Bechhofer DH, et al. **J Bacteriol** 1998 Nov;180(22):5968-77

16S rRNA is bound to era of Streptococcus pneumoniae. Meier TI, et al. **J Bacteriol** 1999 Sep;181(17):5242-9

The Bacillus subtilis nucleotidyltransferase is a tRNA CCA-adding enzyme. Raynal LC, et al. **J Bacteriol** 1998 Dec;180(23):6276-82

Polyadenylation promotes degradation of 3'-structured RNA by the Escherichia coli mRNA degradosome in vitro. Blum E, et al. **J Biol Chem** 1999 Feb 12;274(7):4009-16

In vitro analysis of the interaction between the FinO protein and FinP antisense RNA of F-like conjugative plasmids. Jerome LJ, et al. **J Biol Chem** 1999 Apr 9;274(15):10356-62

Species barrier to RNA recognition overcome with nonspecific RNA binding domains. Wang CC, et al. **J Biol Chem** 1999 Jun 4;274(23):16508-12

In vitro selection of RNAs aminoacylated by Escherichia coli leucyl-tRNA synthetase. Asahara H, et al. **J Mol Biol** 1998 Oct 30;283(3):605-18

E. coli RpsO mRNA decay: RNase E processing at the beginning of the coding sequence stimulates poly(A)-dependent degradation of the mRNA. Hajnsdorf E, et al. **J Mol Biol** 1999 Mar 5;286(4):1033-43

Degradation of FinP antisense RNA from F-like plasmids: the RNA-binding protein, FinO, protects FinP from ribonuclease E. Jerome LJ, et al. **J Mol Biol** 1999 Jan 29; 285(4):1457-73

Amino acid acceptor identity switch of Escherichia coli tmRNA from alanine to histidine in vitro. Nameki N, et al. **J Mol Biol** 1999 May 28;289(1):1-7

Assembly of proteins and 5 S rRNA to transcripts of the major structural domains of 23 S rRNA. Ostergaard P, et al. **J Mol Biol** 1998 Nov 27;284(2):227-40

A novel mutation in the KH domain of polynucleotide phosphorylase affects autoregulation and mRNA decay in Escherichia coli. Garcia-Mena J, et al. **Mol Microbiol** 1999 Jul;33(2):235-48

Characterization of a novel RNA regulator of Erwinia carotovora ssp. carotovora that controls production of extracellular enzymes and secondary metabolites. Liu Y, et al. **Mol Microbiol** 1998 Jul;29(1):219-34

The C-terminal half of RNase E, which organizes the Escherichia coli degradosome, participates in mRNA degradation but not rRNA processing in vivo. Lopez PJ, et al. **Mol Microbiol** 1999 Jul;33(1):188-99

Sequence-selective interactions with RNA by CspB, CspC and CspE, members of the CspA family of Escherichia coli. Phadtare S, et al. **Mol Microbiol** 1999 Sep; 33(5):1004-14

In vitro analysis of processing at the 3'-end of precursors of M1 RNA, the catalytic subunit of Escherichia coli RNase P: multiple pathways and steps for the processing. Kim S, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):895-902

The environment of 5S rRNA in the ribosome: cross-links to 23S rRNA from sites within helices II and III of the 5S molecule. Osswald M, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2283-90

Riboregulation in Escherichia coli: DsrA RNA acts by RNA:RNA interactions at multiple loci. Lease RA, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12456-61

DsrA RNA regulates translation of RpoS message by an anti-antisense mechanism, independent of its action as an antisilencer of transcription. Majdalani N, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12462-7

Folding of a large ribozyme during transcription and the effect of the elongation factor NusA. Pan T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9545-50

Peptidyl transferase activity catalyzed by protein-free 23S ribosomal RNA remains elusive [letter; comment] Khaitovich P, et al. **RNA** 1999 May;5(5):605-8. Comment on: RNA 1998 Mar;4(3):257-67.

Aminoacylated tmRNA from Escherichia coli interacts with prokaryotic elongation factor Tu [letter] Rudinger-Thirion J, et al. **RNA** 1999 Aug;5(8):989-92

A cytotoxic ribonuclease targeting specific transfer RNA anticodons. Ogawa T, et al. **Science** 1999 Mar 26; 283(5410):2097-100

PHYSIOLOGY

The Escherichia coli OxyS regulatory RNA represses fhlA translation by blocking ribosome binding. Altuvia S, et al. **EMBO J** 1998 Oct 15;17(20):6069-75

SmpB, a unique RNA-binding protein essential for the peptide-tagging activity of SsrA (tmRNA). Karzai AW, et al. **EMBO J** 1999 Jul 1;18(13):3793-9

The OxyS regulatory RNA represses rpoS translation and binds the Hfq (HF-I) protein. Zhang A, et al. **EMBO J** 1998 Oct 15;17(20):6061-8

Analysis of the role of trans-translation in the requirement of tmRNA for lambdaimmP22 growth in Escherichia coli. Withey J, et al. **J Bacteriol** 1999 Apr;181(7):2148-57

[A bacterial RNA that functions both as a tRNA and an mRNA] Muto A, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(11):1433-42 (30 ref.) **(Jpn)**

RADIATION EFFECTS

rRNA stability in heat-killed and UV-irradiated enterotoxigenic Staphylococcus aureus and Escherichia coli O157:H7. McKillip JL, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4264-8

RNA-BINDING PROTEINS

Purification, redox sensitivity, and RNA binding properties of SECIS-binding protein 2, a protein involved in selenoprotein biosynthesis. Copeland PR, et al. **J Biol Chem** 1999 Sep 3;274(36):25447-54

[RNA recognition by RNA-binding protein] Katahira M. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):506-17 (31 ref.) **(Jpn)**

[mRNA CAP binding protein] Matsuo H, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):518-29 (44 ref.) **(Jpn)**

ANALYSIS

Cytotoxic protein expression in non-Hodgkin's lymphomas and Hodgkin's disease. Kanavaros P, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1209-16

Identification of the poly(C) binding protein in the complex associated with the 3' untranslated region of erythropoietin messenger RNA. Czyzyk-Krzeska MF, et al. **Blood** 1999 Mar 15;93(6):2111-20

Neuron-specific hel-N1 and HuD as novel molecular markers of neuroblastoma: a correlation of HuD messenger RNA levels with favorable prognostic features. Ball NS, et al. **Clin Cancer Res** 1997 Oct;3(10):1859-65

Biphasic subcellular localization of the DAZL-related protein boule in Drosophila spermatogenesis. Cheng MH, et al. **Dev Biol** 1998 Dec 15;204(2):567-76

A novel isoform ratio switch of the polypyrimidine tract binding protein. Wagner EJ, et al. **Electrophoresis** 1999 Apr-May;20(4-5):1082-6

Colocalization within the nucleolus of two highly related IFN-induced human nuclear phosphoproteins with nucleolin. Welsh GI, et al. **Exp Cell Res** 1999 Jul 10; 250(1):62-74

Three-dimensional visualization of transcription sites and their association with splicing factor-rich nuclear speckles. Wei X, et al. **J Cell Biol** 1999 Aug 9;146(3):543-58

The mammalian staufen protein localizes to the somatodendritic domain of cultured hippocampal neurons: implications for its involvement in mRNA transport. Kiebler MA, et al. **J Neurosci** 1999 Jan 1;19(1):288-97

QKI expression is regulated during neuron-glial cell fate decisions. Hardy RJ. **J Neurosci Res** 1998 Oct 1;54(1):46-57

T-cell receptor analysis in anti-Hu associated paraneoplastic encephalomyelitis. Voltz R, et al. **Neurology** 1998 Oct; 51(4):1146-50

ANTAGONISTS & INHIBITORS

Inhibitors of protein-RNA complexation that target the RNA: specific recognition of human immunodeficiency virus type 1 TAR RNA by small organic molecules. Mei HY, et al. **Biochemistry** 1998 Oct 6;37(40):14204-12

Inhibition of nucleolar protein nucleolin by electroporation with anti-nucleolin antibodies results in an increase of the nucleolar size. Abadia-Molina F, et al. **Biol Cell** 1998 Jul; 90(4):355-61

BIOSYNTHESIS

Effects of autoantigen and dexamethasone treatment on expression of endothelial-monocyte activating polypeptide II and allograft-inflammatory factor-1 by activated macrophages and microglial cells in lesions of experimental autoimmune encephalomyelitis, neuritis and uveitis. Schluesener HJ, et al. **Acta Neuropathol (Berl)** 1999 Feb; 97(2):119-26

Expression of cytotoxic proteins by neoplastic T cells in mycosis fungoides increases with progression from plaque stage to tumor stage disease. Vermeer MH, et al. **Am J Pathol** 1999 Apr;154(4):1203-10

Expression of spliceosome-associated protein 49 is required for early embryogenesis in Caenorhabditis elegans. Fujita M, et al. **Biochem Biophys Res Commun** 1998 Dec 9; 253(1):80-4

A sequence-specific splicing activator, tra2beta, is up-regulated in response to nerve injury. Kiryu-Seo S, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):220-3

Molecular characterization of the hnRNP A2/B1 proteins: tissue-specific expression and novel isoforms. Kamma H, et al. **Exp Cell Res** 1999 Feb 1;246(2):399-411

The expression of TIA-1+ cytolytic-type granules and other cytolytic lymphocyte-associated markers in CD30+ anaplastic large cell lymphomas (ALCL): correlation with morphology, immunophenotype, ultrastructure, and clinical features. Felgar RE, et al. **Hum Pathol** 1999 Feb; 30(2):228-36

Regulation of the Bacillus subtilis GlcT antiterminator protein by components of the phosphotransferase system. Bachem S, et al. **J Bacteriol** 1998 Oct;180(20):5319-26

Significant expression of G-CSF-induced gene-1 (GIG-1)

protein in myeloid cells and NK cells. Shimane M, et al. **J Leukoc Biol** 1999 Jan;65(1):109–16

Expression of FMR1, FXR1, and FXR2 genes in human prenatal tissues. Agulhon C, et al. **J Neuropathol Exp Neurol** 1999 Aug;58(8):867–80

Identification of PSF, the polypyrimidine tract–binding protein–associated splicing factor, as a developmentally regulated neuronal protein. Chanas-Sacré G, et al. **J Neurosci Res** 1999 Jul 1;57(1):62–73

Two distinct forms of the 64,000 Mr protein of the cleavage stimulation factor are expressed in mouse male germ cells. Wallace AM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6763–8

Apoptosis and expression of cytotoxic T lymphocyte effector molecules in renal allografts. Olive C, et al. **Transpl Immunol** 1999 Mar;7(1):27–36

CHEMISTRY

Meaningful refinement of polyalanine models using rigid-body simulated annealing: application to the structure determination of the A31P Rop mutant. Glykos NM, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jul;55 (Pt 7):1301–8

Structural parameters for proteins derived from the atomic resolution (1.09 A) structure of a designed variant of the ColE1 ROP protein. Vlassi M, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1245–60

Analysis of the RNA recognition motifs of human neuronal ELAV-like proteins in binding to a cytokine mRNA. Sakai K, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):263–8

High-resolution solution NMR structure of the minimal active domain of the human immunodeficiency virus type-2 nucleocapsid protein. Kodera Y, et al. **Biochemistry** 1998 Dec 22;37(51):17704–13

MEARA sequence repeat of human CstF-64 polyadenylation factor is helical in solution. A spectroscopic and calorimetric study. Richardson JM, et al. **Biochemistry** 1999 Sep 28;38(39):12869–75

NMR structure and dynamics of an RNA motif common to the spliceosome branch-point helix and the RNA-binding site for phage GA coat protein. Smith JS, et al. **Biochemistry** 1998 Sep 29;37(39):13486–98

Refolding studies on the tetrameric loop deletion mutant RM6 of ROP protein. Lassalle MW, et al. **Biol Chem** 1999 Apr;380(4):459–72

Molecular dynamics simulations of the complex between human U1A protein and hairpin II of U1 small nuclear RNA and of free RNA in solution. Tang Y, et al. **Biophys J** 1999 Sep;77(3):1284–305

Novel RNA-binding motif: the KH module. Adinolfi S, et al. **Biopolymers** 1999;51(2):153–64

RNA recognition by arginine-rich peptide motifs. Weiss MA, et al. **Biopolymers** 1998;48(2–3):167–80 (71 ref.)

In vivo interaction of nucleophosmin/B23 and protein C23 during cell cycle progression in HeLa cells. Liu HT, et al. **Cancer Lett** 1999 Sep 20;144(1):45–54

Recognition of polyadenylate RNA by the poly(A)-binding protein. Deo RC, et al. **Cell** 1999 Sep 17;98(6):835–45

RNA-protein complexes. Cusack S. **Curr Opin Struct Biol** 1999 Feb;9(1):66–73 (34 ref.)

Expression of DjY1, a protein containing a cold shock domain and RG repeat motifs, is targeted to sites of regeneration in planarians. Salvetti A, et al. **Dev Biol** 1998 Sep 15;201(2):217–29

Structure and interactions of the translation initiation factor eIF1. Fletcher CM, et al. **EMBO J** 1999 May 4; 18(9):2631–7

Molecular basis of double-stranded RNA-protein interactions: structure of a dsRNA-binding domain complexed with dsRNA. Ryter JM, et al. **EMBO J** 1998 Dec 15;17(24):7505–13

Chemical shift perturbation studies of the interactions of the second RNA-binding domain of the Drosophila sex-lethal protein with the transformer pre-mRNA polyuridine tract and 3' splice-site sequences. Chi SW, et al. **Eur J Biochem** 1999 Mar;260(3):649–60

Slow unfolding and refolding kinetics of the mesophilic Rop wild-type protein in the transition range. Rosengarth A, et al. **Eur J Biochem** 1999 Sep;264(3):989–95

The human Musashi homolog 1 (MSI1) gene encoding the homologue of Musashi/Nrp-1, a neural RNA-binding protein putatively expressed in CNS stem cells and neural progenitor cells. Good P, et al. **Genomics** 1998 Sep 15; 52(3):382–4

Characterization of the dimerization domain in BglG, an RNA-binding transcriptional antiterminator from Escherichia coli. Boss A, et al. **J Bacteriol** 1999 Mar; 181(6):1755–66

Human cytoplasmic aconitase (Iron regulatory protein 1) is converted into its [3Fe-4S] form by hydrogen peroxide in vitro but is not activated for iron-responsive element binding. Brazzolotto X, et al. **J Biol Chem** 1999 Jul 30; 274(31):21625–30

Ligand-induced structural alterations in human iron regulatory protein-1 revealed by protein footprinting. Gegout V, et al. **J Biol Chem** 1999 May 21;274(21):15052–8

Secondary structure mapping of an RNA ligand that has high affinity for the MetJ repressor protein and interference modification analysis of the protein-RNA complex. McGregor A, et al. **J Biol Chem** 1999 Jan 22;274(4):2255–62

Asymmetric contributions to RNA binding by the Thr(45) residues of the MS2 coat protein dimer. Peabody DS, et al. **J Biol Chem** 1999 Sep 3;274(36):25403–10

1H, 13C, 15N resonance assignment of the 20 kDa double stranded RNA binding domain of PKR. Nanduri S, et al. **J Biomol NMR** 1998 Aug;12(2):349–51

Self-association of Puralpha is mediated by RNA. Gallia GL, et al. **J Cell Biochem** 1999 Sep 1;74(3):334–48

Structure and functions of nucleolin. Ginisty H, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):761–72 (179 ref.)

Two non-structural rotavirus proteins, NSP2 and NSP5, form viroplasm-like structures in vivo. Fabbretti E, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):333–9

Regulatory features of the trp operon and the crystal structure of the trp RNA-binding attenuation protein from Bacillus stearothermophilus. Chen Xp, et al. **J Mol Biol** 1999 Jun 18;289(4):1003–16

Structure, backbone dynamics and interactions with RNA of the C-terminal RNA-binding domain of a mouse neural RNA-binding protein, Musashi1. Nagata T, et al. **J Mol Biol** 1999 Mar 26;287(2):315–30

A correlation between the loss of hydrophobic core packing interactions and protein stability. Vlassi M, et al. **J Mol Biol** 1999 Jan 15;285(2):817–27

A role for the GSG domain in localizing Sam68 to novel nuclear structures in cancer cell lines. Chen T, et al. **Mol Biol Cell** 1999 Sep;10(9):3015–33

Two domains and one RNA: a molecular threesome [news] Hughson FM, et al. **Nat Struct Biol** 1999 Jun;6(6):499–502

Crystal structures of a series of RNA aptamers complexed to the same protein target. Rowsell S, et al. **Nat Struct Biol** 1998 Nov;5(11):970–5

Structure of the trp RNA-binding attenuation protein, TRAP, bound to RNA. Antson AA, et al. **Nature** 1999 Sep 16;401(6750):235–42

Structural basis for recognition of the tra mRNA precursor by the Sex-lethal protein. Handa N, et al. **Nature** 1999 Apr 15;398(6728):579–85

Function driven protein evolution. A possible proto-protein for the RNA-binding proteins. Fetrow JS, et al. **Pac Symp Biocomput** 1998;:485–96

Novel role of phosphorylation in Fe-S cluster stability revealed by phosphomimetic mutations at Ser-138 of iron regulatory protein 1. Brown NM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15235–40

Absence of interdomain contacts in the crystal structure of the RNA recognition motifs of Sex-lethal. Crowder SM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4892–7

HNS, a nuclear-cytoplasmic shuttling sequence in HuR. Fan XC, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15293–8

Human nucleotide excision repair protein XPA: extended X-ray absorption fine-structure evidence for a metal-binding domain. Hess NJ, et al. **Protein Sci** 1998 Sep;7(9):1970–5

Effects of core-packing on the structure, function, and mechanics of a four-helix-bundle protein ROP. Ceruso MA, et al. **Proteins** 1999 Sep 1;36(4):436–46

Exploring protein interiors: the role of a buried histidine in the KH module fold. Fraternali F, et al. **Proteins** 1999 Mar 1;34(4):484–96

Homology modeling of an RNP domain from a human RNA-binding protein: Homology-constrained energy optimization provides a criterion for distinguishing potential sequence alignments. Sahasrabudhe PV, et al. **Proteins** 1998 Dec 1;33(4):558–66

Finding the right RNA: identification of cellular mRNA substrates for RNA-binding proteins. Trifillis P, et al. **RNA** 1999 Aug;5(8):1071–82

RNA binding by the novel helical domain of the influenza virus NS1 protein requires its dimer structure and a small number of specific basic amino acids. Wang W, et al. **RNA** 1999 Feb;5(2):195–205

Cbf5p, a potential pseudouridine synthase, and Nhp2p, a putative RNA-binding protein, are present together with Gar1p in all H BOX/ACA-motif snoRNPs and constitute a common bipartite structure. Watkins NJ, et al. **RNA** 1998 Dec;4(12):1549–68

The crystal structure of ribosomal protein L22 from Thermus thermophilus: insights into the mechanism of erythromycin resistance. Unge J, et al. **Structure** 1998 Dec 15; 6(12):1577–86

Protein plasticity to the extreme: changing the topology of a 4-alpha-helical bundle with a single amino acid substitution. Glykos NM, et al. **Structure Fold Des** 1999 Jun 15;7(6):597–603

Crystal structures of Nova-1 and Nova-2 K-homology RNA-binding domains. Lewis HA, et al. **Structure Fold Des** 1999 Feb 15;7(2):191–203

G-patch: a new conserved domain in eukaryotic RNA-processing proteins and type D retroviral polyproteins. Aravind L, et al. **Trends Biochem Sci** 1999 Sep;24(9):342–4

The PWI motif: a new protein domain in splicing factors. Blencowe BJ, et al. **Trends Biochem Sci** 1999 May; 24(5):179–80

[Covalent binding of RNA with peptides in the structure of a specific complex using N-oxybenzotriazole oligoribonucleotide esters] Taran EA, et al. **Mol Biol (Mosk)** 1998 Sep–Oct;32(5):832–9 **(Rus)**

GENETICS

DNA vaccination against HuD antigen elicits antitumor activity in a small-cell lung cancer murine model. Ohwada A, et al. **Am J Respir Cell Mol Biol** 1999 Jul;21(1):37–43

The porcine poly(rC)-binding protein 2 (PCBP2) gene maps to chromosome 5. Davoli R, et al. **Anim Genet** 1999 Apr; 30(2):165–6

Deletion of Y chromosome involving the DAZ (deleted in azoospermia) gene in XX males. Tateno T, et al. **Arch Androl** 1999 May–Jun;42(3):179–83

Neuronal expression of a Caenorhabditis elegans elav-like gene and the effect of its ectopic expression. Fujita M, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):646–52

Mammalian male and female germ cells express a germ cell-specific Y-Box protein, MSY2. Gu W, et al. **Biol Reprod** 1998 Nov;59(5):1266–74

Sensitization of tumor necrosis factor alpha-resistant human melanoma by tumor-specific in vivo transfer of the gene encoding endothelial monocyte-activating polypeptide II using recombinant vaccinia virus. Gnant MF, et al. **Cancer Res** 1999 Sep 15;59(18):4668–74

In vivo sensitivity of human melanoma to tumor necrosis factor (TNF)-alpha is determined by tumor production of the novel cytokine endothelial-monocyte activating polypeptide II (EMAPII). Wu PC, et al. **Cancer Res** 1999 Jan 1;59(1):205–12

Epigenetic spreading of the Drosophila dosage compensation complex from roX RNA genes into flanking chromatin. Kelley RL, et al. **Cell** 1999 Aug 20;98(4):513–22

Expression of axolotl RNA-binding protein during development of the Mexican axolotl. Bhatia R, et al. **Cell Tissue Res** 1999 Aug;297(2):283–90

Fibre-fluorescence in situ hybridization unravels apparently seven DAZ genes or pseudogenes clustered within a Y-chromosome region frequently deleted in azoospermic males. Gläser B, et al. **Chromosome Res** 1998 Sep;6(6):481–6

The circadian system of Arabidopsis thaliana: forward and reverse genetic approaches. Staiger D, et al. **Chronobiol Int** 1999 Jan;16(1):1–16 (67 ref.)

Cloning, characterization, and chromosome assignment of Zfp146 the mouse ortholog of human ZNF146, a gene amplified and overexpressed in pancreatic cancer, and Zfp260 a closely related gene. Blottière L, et al. **Cytogenet Cell Genet** 1999;85(3–4):297–300

Suppression of distinct ovo phenotypes in the Drosophila female germline by maleless- and Sex-lethal. Oliver B, et al. **Dev Genet** 1998;23(4):335–46

RNA-binding proteins in mouse oocytes and embryos: expression of genes encoding Y box, DEAD box RNA helicase, and polyA binding proteins. Paynton BV. **Dev Genet** 1998;23(4):285–98

The N-terminal domain of Sxl protein disrupts Sxl autoregulation in females and promotes female-specific splicing of tra in males. Deshpande G, et al. **Development** 1999 Jul;126(13):2841–53

Direct activation of Sex-lethal transcription by the Drosophila runt protein. Kramer SG, et al. **Development** 1999 Jan;126(1):191–200

Mutational analysis of the coding regions of the genes encoding protein kinase B-alpha and -beta, phosphoinositide-dependent protein kinase-1, phosphatase targeting to glycogen, protein phosphatase inhibitor-1, and glycogenin: lessons from a search for genetic variability of the insulin-stimulated glycogen synthesis pathway of skeletal muscle in NIDDM patients. Hansen L, et al. **Diabetes** 1999 Feb;48(2):403–7

Genomic organization of mouse gene zfp162. Wrehlke C, et al. **DNA Cell Biol** 1999 May;18(5):419–28

The yeast U2A'/U2B complex is required for pre-spliceosome formation. Caspary F, et al. **EMBO J** 1998 Nov 2;17(21):6348–58

The splicing factor-associated protein, p32, regulates RNA splicing by inhibiting ASF/SF2 RNA binding and phosphorylation. Petersen-Mahrt SK, et al. **EMBO J** 1999 Feb 15;18(4):1014–24

Domain structure, GTP-hydrolyzing activity and 7S RNA binding of Acidianus ambivalens ffh-homologous protein suggest an SRP-like complex in archaea. Moll R, et al. **Eur J Biochem** 1999 Jan;259(1–2):441–8

Organization and alternate splice products of the gene encoding nuclear inhibitor of protein phosphatase-1 (NIPP-1). Van Eynde A, et al. **Eur J Biochem** 1999 Apr; 261(1):291–300

A comparison of genomic structures and expression patterns of two closely related flanking genes in a critical lung cancer region at 3p21.3. Timmer T, et al. **Eur J Hum Genet** 1999 May–Jun;7(4):478–86

Identification of a novel mRNA-associated protein in oocytes of Pleurodeles waltl and Xenopus laevis. Lieb B, et al. **Exp Cell Res** 1998 Dec 15;245(2):272–81

Overexpression of poly(A)-binding protein down-regulates the translation or the abundance of its own mRNA. Hornstein E, et al. **FEBS Lett** 1999 Aug 27;457(2):209–13

Transmission of de novo mutations of the deleted in azoospermia genes from a severely oligozoospermic male to a son via intracytoplasmic sperm injection. Jiang MC, et al. **Fertil Steril** 1999 Jun;71(6):1029–32

Microdeletion of the DAZ (deleted in azoospermia) gene or the YRRM (Y chromosome ribonucleic acid recognition motif) gene does not occur in patients with Klinefelter's syndrome with and without spermatogenesis. Tateno T, et al. **Fertil Steril** 1999 Apr;71(4):746–9

Characterisation and mitochondrial localisation of AUH, an AU-specific RNA-binding enoyl-CoA hydratase. Brennan LE, et al. **Gene** 1999 Mar 4;228(1-2):85-91

Fluorescent differential display analysis of gene expression in apoptotic neuroblastoma cells. Choi DK, et al. **Gene** 1998 Nov 26;223(1-2):21-31

Identification of ZFR, an ancient and highly conserved murine chromosome-associated zinc finger protein. Meagher MJ, et al. **Gene** 1999 Mar 4;228(1-2):197-211

Identification, characterization and mapping of the human ZIS (zinc-finger, splicing) gene. Nakano M, et al. **Gene** 1998 Dec 28;225(1-2):59-65

ELAV tumor antigen, Hel-N1, increases translation of neurofilament M mRNA and induces formation of neurites in human teratocarcinoma cells. Antic D, et al. **Genes Dev** 1999 Feb 15;13(4):449-61

unr, a cellular cytoplasmic RNA-binding protein with five cold-shock domains, is required for internal initiation of translation of human rhinovirus RNA. Hunt SL, et al. **Genes Dev** 1999 Feb 15;13(4):437-48

Interaction of the U1 snRNP with nonconserved intronic sequences affects 5' splice site selection. Puig O, et al. **Genes Dev** 1999 Mar 1;13(5):569-80

Genetic and molecular analysis of fox-1, a numerator element involved in Caenorhabditis elegans primary sex determination. Skipper M, et al. **Genetics** 1999 Feb; 151(2):617-31

Contrasting effects of ENU induced embryonic lethal mutations of the quaking gene. Cox RD, et al. **Genomics** 1999 May 1;57(3):333-41

Novel proteins interacting with the leucine-rich repeat domain of human flightless-I identified by the yeast two-hybrid system. Fong KS, et al. **Genomics** 1999 Jun 1;58(2):146-57

The human Musashi homolog 1 (MSI1) gene encoding the homologue of Musashi/Nrp-1, a neural RNA-binding protein putatively expressed in CNS stem cells and neural progenitor cells. Good P, et al. **Genomics** 1998 Sep 15; 52(3):382-4

Alternative splicing in the murine and human FXR1 genes. Kirkpatrick LL, et al. **Genomics** 1999 Jul 15;59(2):193-202

Mapping of the KHSRP gene to a region of conserved synteny on human chromosome 19p13.3 and mouse chromosome 17. Ring HZ, et al. **Genomics** 1999 Mar 15; 56(3):350-2

The RNA-binding properties of SMN: deletion analysis of the zebrafish orthologue defines domains conserved in evolution. Bertrandy S, et al. **Hum Mol Genet** 1999 May; 8(5):775-82

Novel isoforms of the fragile X related protein FXR1P are expressed during myogenesis. Khandjian EW, et al. **Hum Mol Genet** 1998 Dec;7(13):2121-8

T-STAR/ETOILE: a novel relative of SAM68 that interacts with an RNA-binding protein implicated in spermatogenesis. Venables JP, et al. **Hum Mol Genet** 1999 Jun;8(6):959-69

Absence of testicular DAZ gene expression in idiopathic severe testiculopathies. Ferlin A, et al. **Hum Reprod** 1999 Sep;14(9):2286-92

Transmission of a Y chromosomal deletion involving the deleted in azoospermia (DAZ) and chromodomain (CDY1) genes from father to son through intracytoplasmic sperm injection: case report. Kamischke A, et al. **Hum Reprod** 1999 Sep;14(9):2320-2

A rat gene homologous to human granule membrane protein 17 is expressed by natural killer cells, CD8(+) T cells, and a mast cell line. Berg SF, et al. **Immunogenetics** 1999 Aug;49(9):815-8

An atypical iron-responsive element (IRE) within crayfish ferritin mRNA and an iron regulatory protein 1 (IRP1)-like protein from crayfish hepatopancreas. Huang TS, et al. **Insect Biochem Mol Biol** 1999 Jan;29(1):1-9

Y bind RNA for spermatogenesis? Ruggiu M, et al. **Int J Androl** 1999 Feb;22(1):19-27 (73 ref.)

Amplification and over-expression of OZF, a gene encoding a zinc finger protein, in human pancreatic carcinomas. Ferbus D, et al. **Int J Cancer** 1999 Jan 29;80(3):369-72

Misexpression of the RNA-binding protein ELRB in Xenopus presumptive neurectoderm induces proliferation arrest and programmed cell death. Perron M, et al. **Int J Dev Biol** 1999 Jul;43(4):295-303

Polymerase chain reaction analysis of the Y chromosome long arm in azoospermic patients: lack of the Y chromosome recognition motif (YRRM1) gene. Baba K, et al. **Int J Urol** 1998 Sep;5(5):507-9

Contrin, the human homologue of a germ-cell Y-box-binding protein: cloning, expression, and chromosomal localization. Tekur S, et al. **J Androl** 1999 Jan-Feb;20(1):135-44

Detection of azoospermic factor genes in Chinese men with azoospermia or severe oligozoospermia. Chang SY, et al. **J Assist Reprod Genet** 1999 May;16(5):259-62

The expression of poly(A)-binding protein gene is translationally regulated in a growth-dependent fashion through a 5'-terminal oligopyrimidine tract motif. Hornstein E, et al. **J Biol Chem** 1999 Jan 15;274(3):1708-14

RAX, a cellular activator for double-stranded RNA-dependent protein kinase during stress signaling. Ito T, et al. **J Biol Chem** 1999 May 28;274(22):15427-32

A set of highly conserved RNA-binding proteins, alphaCP-1 and alphaCP-2, implicated in mRNA stabilization, are coexpressed from an intronless gene and its intron-containing paralog. Makeyev AV, et al. **J Biol Chem** 1999 Aug 27;274(35):24849-57

The Drosophila modifier of variegation modulo gene product binds specific RNA sequences at the nucleolus and interacts with DNA and chromatin in a phosphorylation-dependent manner. Perrin L, et al. **J Biol Chem** 1999 Mar 5; 274(10):6315-23

Negative control of the poly(A)-binding protein mRNA translation is mediated by the adenine-rich region of its 5'-untranslated region. Wu J, et al. **J Biol Chem** 1998 Dec 18;273(51):34535-42

Amplification of ColE1 related plasmids in recombinant cultures of Escherichia coli after IPTG induction. Teich A, et al. **J Biotechnol** 1998 Oct 8;64(2-3):197-210

Translational control of viral and host protein synthesis during the course of herpes simplex virus type 1 infection: evidence that initiation of translation is the limiting step. Laurent AM, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2765-75

Regulatory features of the trp operon and the crystal structure of the trp RNA-binding attenuation protein from Bacillus stearothermophilus. Chen Xp, et al. **J Mol Biol** 1999 Jun 18;289(4):1003-16

Erythromycin resistance mutations in ribosomal proteins L22 and L4 perturb the higher order structure of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jun 18; 289(4):827-34

Novel predicted RNA-binding domains associated with the translation machinery. Aravind L, et al. **J Mol Evol** 1999 Mar;48(3):291-302

The mouse gene encoding the testis-specific isoform of Poly(A) binding protein (Pabp2) is an expressed retroposon: intimations that gene expression in spermatogenic cells facilitates the creation of new genes. Kleene KC, et al. **J Mol Evol** 1998 Sep;47(3):275-81

Transcriptional regulation of the human cytomegalovirus US11 early gene. Chau NH, et al. **J Virol** 1999 Feb; 73(2):863-70

Interaction of poly(rC) binding protein 2 with the 5' noncoding region of hepatitis A virus RNA and its effects on translation. Graff J, et al. **J Virol** 1998 Dec; 72(12):9668-75

A herpesvirus ribosome-associated, RNA-binding protein confers a growth advantage upon mutants deficient in a GADD34-related function. Mulvey M, et al. **J Virol** 1999 Apr;73(4):3375-85

Mutational analysis of the Hel-N1 gene in childhood acute lymphoblastic leukemia with LOH at 9p21 [letter] Takeuchi C, et al. **Leukemia** 1999 Apr;13(4):650-1

Cloning and characterization of the mouse interleukin enhancer binding factor 3 (Ilf3) homolog in a screen for RNA binding proteins. Buaas FW, et al. **Mamm Genome** 1999 May;10(5):451-6

Genomic organization and expression analysis of the mouse qkI locus. Kondo T, et al. **Mamm Genome** 1999 Jul; 10(7):662-9

The suppressor of forked gene of Drosophila, which encodes a homologue of human CstF-77K involved in mRNA 3'-end processing, is required for progression through mitosis. Audibert A, et al. **Mech Dev** 1999 Apr; 82(1-2):41-50

Characterization of the zebrafish Orb/CPEB-related RNA binding protein and localization of maternal components in the zebrafish oocyte. Bally-Cuif L, et al. **Mech Dev** 1998 Sep;77(1):31-47

Maternal mRNA localization of zebrafish DAZ-like gene. Maegawa S, et al. **Mech Dev** 1999 Mar;81(1-2):223-6

Xenopus elav-like genes are differentially expressed during neurogenesis. Perron M, et al. **Mech Dev** 1999 Jun; 84(1-2):139-42

Trypanosoma brucei poly(A) binding protein I cDNA cloning, expression, and binding to 5untranslated region sequence elements. Hotchkiss TL, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):117-29

Identification of a nuclear protein in Trypanosoma brucei with homology to RNA-binding proteins from cis-splicing systems. Manger ID, et al. **Mol Biochem Parasitol** 1998 Nov 30;97(1-2):1-11

The rox1 and rox2 RNAs are essential components of the compensasome, which mediates dosage compensation in Drosophila. Franke A, et al. **Mol Cell** 1999 Jul;4(1):117-22

Pbp1p, a factor interacting with Saccharomyces cerevisiae poly(A)-binding protein, regulates polyadenylation. Mangus DA, et al. **Mol Cell Biol** 1998 Dec;18(12):7383-96

A family of insulin-like growth factor II mRNA-binding proteins represses translation in late development. Nielsen J, et al. **Mol Cell Biol** 1999 Feb;19(2):1262-70

Inhibition of double-stranded RNA-dependent protein kinase PKR by vaccinia virus E3: role of complex formation and the E3 N-terminal domain. Romano PR, et al. **Mol Cell Biol** 1998 Dec;18(12):7304-16

Isolation of a mammalian homologue of a fission yeast differentiation regulator. Yamamoto H, et al. **Mol Cell Biol** 1999 May;19(5):3829-41

An N-terminal truncation uncouples the sex-transforming and dosage compensation functions of sex-lethal. Yanowitz JL, et al. **Mol Cell Biol** 1999 Apr;19(4):3018-28

Circadian clock-regulated expression of an RNA-binding protein in Arabidopsis: characterisation of a minimal promoter element. Staiger D, et al. **Mol Gen Genet** 1999 Jun;261(4-5):811-9

Mutations in the predicted aspartyl tRNA synthetase of Drosophila are lethal and function as dosage-sensitive maternal modifiers of the sex determination gene Sex-lethal. Stitzinger SM, et al. **Mol Gen Genet** 1999 Feb; 261(1):142-51

Expression of DAZ (deleted in azoospermia), DAZL1 (DAZ-like) and protamine-2 in testis and its application for diagnosis of spermatogenesis in non-obstructive azoospermia. Lee JH, et al. **Mol Hum Reprod** 1998 Sep; 4(9):827-34

Y chromosome microdeletions, in azoospermic or near-azoospermic subjects, are located in the AZFc (DAZ) subregion. Liow SL, et al. **Mol Hum Reprod** 1998 Aug; 4(8):763-8

A double-stranded RNA binding protein required for activation of repressed messages in mammalian germ cells. Zhong J, et al. **Nat Genet** 1999 Jun;22(2):171-4

Inhibition of HIV replication by dominant negative mutants of Sam68, a functional homolog of HIV-1 Rev [published erratum appears in Nat Med 1999 Jul;5(7):849] Reddy TR, et al. **Nat Med** 1999 Jun;5(6):635-42

The c-myc coding region determinant-binding protein: a member of a family of KH domain RNA-binding proteins. Doyle GA, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5036-44

The double-stranded RNA-binding protein X1rbpa promotes RNA strand annealing. Hitti E, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4382-8

Srp2, an SR protein family member of fission yeast: in vivo characterization of its modular domains. Lützelberger M, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2618-26

Conservation of structure and cold-regulation of RNA-binding proteins in cyanobacteria: probable convergent evolution with eukaryotic glycine-rich RNA-binding proteins. Maruyama K, et al. **Nucleic Acids Res** 1999 May 1;27(9):2029-36

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3534-42

DEF-3(g16/NY-LU-12), an RNA binding protein from the 3p21.3 homozygous deletion region in SCLC. Drabkin HA, et al. **Oncogene** 1999 Apr 22;18(16):2589-97

Function driven protein evolution. A possible proto-protein for the RNA-binding proteins. Fetrow JS, et al. **Pac Symp Biocomput** 1998;:485-96

Increased placental iron regulatory protein-1 expression in diabetic pregnancies complicated by fetal iron deficiency. Georgieff MK, et al. **Placenta** 1999 Jan;20(1):87-93

A novel family of plant splicing factors with a Zn knuckle motif: examination of RNA binding and splicing activities. Lopato S, et al. **Plant Mol Biol** 1999 Mar;39(4):761-73

Characterization of Sam68-like mammalian proteins SLM-1 and SLM-2: SLM-1 is a Src substrate during mitosis. Di Fruscio M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2710-5

Serine-arginine (SR)-rich splicing factors have an exon-independent function in pre-mRNA splicing. Hertel KJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):2651-5

Structure-based design of an RNA-binding zinc finger. McColl DJ, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9521-6

Regulation of eukaryotic protein synthesis: selective influenza viral mRNA translation is mediated by the cellular RNA-binding protein GRSF-1. Park YW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6694-9

A human DAZ transgene confers partial rescue of the mouse Dazl null phenotype. Slee R, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8040-5

The neuronal RNA-binding protein Nova-2 is implicated as the autoantigen targeted in POMA patients with dementia. Yang YY, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13254-9

The splicing factors 9G8 and SRp20 transactivate splicing through different and specific enhancers. Cavaloc Y, et al. **RNA** 1999 Mar;5(3):468-83

The identification and characterization of a novel splicing protein, Isy1p, of Saccharomyces cerevisiae. Dix I, et al. **RNA** 1999 Mar;5(3):360-8

Polypyrimidine-tract binding protein (PTB) is necessary, but not sufficient, for efficient internal initiation of translation of human rhinovirus-2 RNA. Hunt SL, et al. **RNA** 1999 Mar;5(3):344-59

Dual roles of p82, the clam CPEB homolog, in cytoplasmic polyadenylation and translational masking. Minshall N, et al. **RNA** 1999 Jan;5(1):27-38

Identification of RNAs that bind to a specific protein using the yeast three-hybrid system. Sengupta DJ, et al. **RNA** 1999 Apr;5(4):596-601

The clam 3' UTR masking element-binding protein p82 is a member of the CPEB family. Walker J, et al. **RNA** 1999 Jan;5(1):14-26

Coordinate repression of a trio of neuron-specific splicing events by the splicing regulator PTB. Zhang L, et al. **RNA** 1999 Jan;5(1):117-30

Coordinated regulation of iron-controlling genes, H-ferritin and IRP2, by c-MYC. Wu KJ, et al. **Science** 1999 Jan 29; 283(5402):676-9

Mammalian reovirus L3 gene sequences and evidence for a distinct amino-terminal region of the lambda1 protein. Harrison SJ, et al. **Virology** 1999 May 25;258(1):54-64

Posttranscriptional regulation of US11 in cells infected with

a herpes simplex virus 1 recombinant lacking both 222-bp domains containing S-component origins of DNA synthesis. McCormick L, et al. **Virology** 1999 Jul 5; 259(2):286-98

Orf virus encodes a homolog of the vaccinia virus interferon-resistance gene E3L. McInnes CJ, et al. **Virus Genes** 1998;17(2):107-15

Decapping of stabilized, polyadenylated mRNA in yeast pab1 mutants. Morrissey JP, et al. **Yeast** 1999 Jun 15; 15(8):687-702

IMMUNOLOGY

DNA vaccination against HuD antigen elicits antitumor activity in a small-cell lung cancer murine model. Ohwada A, et al. **Am J Respir Cell Mol Biol** 1999 Jul;21(1):37-43

Cell-mediated autoimmunity in paraneoplastic neurological syndromes with anti-Hu antibodies [see comments] Benyahia B, et al. **Ann Neurol** 1999 Feb;45(2):162-7. Comment in: Ann Neurol 1999 Feb;45(2):143-5.

Utility of anti-Hu antibodies in the diagnosis of paraneoplastic sensory neuropathy. Molinuevo JL, et al. **Ann Neurol** 1998 Dec;44(6):976-80

Epilepsia partialis continua: a new manifestation of anti-Hu-associated paraneoplastic encephalomyelitis. Shavit YB, et al. **Ann Neurol** 1999 Feb;45(2):255-8

DNA vaccination with HuD inhibits growth of a neuroblastoma in mice. Carpentier AF, et al. **Clin Cancer Res** 1998 Nov;4(11):2819-24

A novel cytoplasmic protein with RNA-binding motifs is an autoantigen in human hepatocellular carcinoma. Zhang JY, et al. **J Exp Med** 1999 Apr 5;189(7):1101-10

Pattern of epitopic reactivity of the anti-Hu antibody on HuD with and without paraneoplastic syndrome. Sodeyama N, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):97-9

Cytotoxic T lymphocyte-mediated cell death in paraneoplastic sensory neuronopathy with anti-Hu antibody. Tanaka K, et al. **J Neurol Sci** 1999 Mar 1; 163(2):159-62

[Paraneoplastic intestinal pseudo-obstruction revealing small cell lung carcinoma: "the anti-Hu syndrome"] Cuillerier E, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):346-8 (Eng. Abstr.) **(Fre)**

ISOLATION & PURIFICATION

Purification and characterization of an RNA dodecamer sequence binding protein from mitochondria of Saccharomyces cerevisiae. Li H, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):740-5

Purification and RNA binding properties of the polycytidylate-binding proteins alphaCP1 and alphaCP2. Kiledjian M, et al. **Methods** 1999 Jan;17(1):84-91

Identification and characterization of proteins binding A + U-rich elements. Wilson GM, et al. **Methods** 1999 Jan; 17(1):74-83

DSEF-1 is a member of the hnRNP H family of RNA-binding proteins and stimulates pre-mRNA cleavage and polyadenylation in vitro. Bagga PS, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5343-50

METABOLISM

Iron in synovial fluid. Removal by lactoferrin and relationship to iron regulatory protein (IRP) activity. Guillen C, et al. **Adv Exp Med Biol** 1998;443:161-5

Cell proteins bind to a 67 nucleotide sequence within the 3' noncoding region (NCR) of simian hemorrhagic fever virus (SHFV) negative-strand RNA. Hwang YK, et al. **Adv Exp Med Biol** 1998;440:235-40

Cellular protein hnRNP-A1 interacts with the 3'-end and the intergenic sequence of mouse hepatitis virus negative-strand RNA to form a ribonucleoprotein complex. Zhang X, et al. **Adv Exp Med Biol** 1998; 440:227-34

The C domain of HIV-1 gp41 binds the putative cellular receptor protein P62. Chen YH, et al. **AIDS** 1999 Jun 18; 13(9):1021-4

RNA-binding properties of in vitro expressed histidine-tagged RB69 RegA translational repressor protein. Allen SV, et al. **Anal Biochem** 1999 Apr 10; 269(1):32-7

Nitric oxide and peroxynitrite-dependent aconitase inactivation and iron-regulatory protein-1 activation in mammalian fibroblasts. Castro LA, et al. **Arch Biochem Biophys** 1998 Nov 15;359(2):215-24

Biochemical and functional interactions between HIV-1 Tat protein and TAR RNA. Rana TM, et al. **Arch Biochem Biophys** 1999 May 15;365(2):175-85 (99 ref.)

In vitro evidence for RNA binding properties of the coat protein of prunus necrotic ringspot ilarvirus and their comparison to related and unrelated viruses. Pallás V, et al. **Arch Virol** 1999;144(4):797-803

Heterogeneous nuclear ribonucleoprotein I (hnRNP-I/PTB) selectively binds the conserved 3' terminus of hepatitis C viral RNA. Chung RT, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):351-62

Binding properties of the artificial zinc fingers coding gene Sint1. Corbi N, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):686-92

The influence of mRNA stability on glucose transporter (GLUT1) gene expression. Qi C, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):265-9 (75 ref.)

Analysis of the RNA recognition motifs of human neuronal ELAV-like proteins in binding to a cytokine mRNA. Sakai K, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):263-8

Analysis of RNA-protein interactions of mouse liver cytochrome P4502A5 mRNA. Tilloy-Ellul A, et al. **Biochem J** 1999 May 1;339 (Pt 3):695-703

The different functions of BglF, the E. coli beta-glucoside permease and sensor of the bgl system, have different structural requirements. Chen Q, et al. **Biochemistry** 1998 Dec 1;37(48):17040-7

Subsets of the zinc finger motifs in dsRBP-ZFa can bind double-stranded RNA. Finerty PJ Jr, et al. **Biochemistry** 1999 Mar 30;38(13):4001-7

High-resolution solution NMR structure of the minimal active domain of the human immunodeficiency virus type-2 nucleocapsid protein. Kodera Y, et al. **Biochemistry** 1998 Dec 22;37(51):17704-13

Metal and RNA binding properties of the hdm2 RING finger domain. Lai Z, et al. **Biochemistry** 1998 Dec 1; 37(48):17005-15

Metal and RNA binding properties of the hdm2 RING finger domain. Lai Z, et al. **Biochemistry** 1998 Dec 1;37(48): 7005-15

Nuclear factor-90 of activated T-cells: A double-stranded RNA-binding protein and substrate for the double-stranded RNA-dependent protein kinase, PKR. Langland JO, et al. **Biochemistry** 1999 May 11; 38(19):6361-8

The RRM domain of MINT, a novel Msx2 binding protein, recognizes and regulates the rat osteocalcin promoter. Newberry EP, et al. **Biochemistry** 1999 Aug 17; 38(33):10678-90

Protein-protein interactions between the testis brain RNA-binding protein and the transitional endoplasmic reticulum ATPase, a cytoskeletal gamma actin and Trax in male germ cells and the brain. Wu XQ, et al. **Biochemistry** 1999 Aug 31;38(35):11261-70

Characterisation of the enzymatic and RNA-binding properties of the Rhodobacter sphaeroides 2.4.1. Rho homologue. Ingham CJ. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):115-25

A SECIS binding protein (SBP) is distinct from selenocysteyl-tRNA protecting factor (SePF). Fujiwara T, et al. **Biochimie** 1999 Mar;81(3):213-8

Activities of cold-shock domain proteins in translation control. Sommerville J. **Bioessays** 1999 Apr;21(4):319-25 (57 ref.)

Inhibition of nucleolar protein nucleolin by electroporation with anti-nucleolin antibodies results in an increase of the nucleolar size. Abadía-Molina F, et al. **Biol Cell** 1998 Jul; 90(4):355-61

Protein-RNA recognition. De Guzman RN, et al. **Biopolymers** 1998;48(2-3):181-95 (52 ref.)

Testis-brain RNA-binding protein (Translin) is primarily expressed in neurons of the mouse brain. Wu XQ, et al. **Brain Res** 1999 Feb 20;819(1-2):174-8

Squid hnRNP protein promotes apical cytoplasmic transport and localization of Drosophila pair-rule transcripts. Lall S, et al. **Cell** 1999 Jul 23;98(2):171-80

RNA-assisted nuclear transport of the meiotic regulator Mei2p in fission yeast. Yamashita A, et al. **Cell** 1998 Oct 2;95(1):115-23

Nitrosative and oxidative modulation of iron regulatory proteins. Bouton C. **Cell Mol Life Sci** 1999 Jul; 55(8-9):1043-53 (102 ref.)

Linkage of a nucleolin-related protein and casein kinase II with the detergent-stable photoreceptor cytoskeleton. Hollander BA, et al. **Cell Motil Cytoskeleton** 1999; 43(2):114-27

The puff-specific RRM protein NonA is a single-stranded nucleic acid binding protein. Reim I, et al. **Chromosoma** 1999 Jul;108(3):162-72

Regulation of endothelial NO synthase mRNA stability: RNA-binding proteins crowd on the 3'-untranslated region [editorial; comment] Bloch KD. **Circ Res** 1999 Oct 1; 85(7):653-5 (10 ref.). Comment on: Circ Res 1999 Oct 1;85(7):588-95.

Tyrosine kinase Pyk2 mediates G-protein-coupled receptor regulation of the Ewing sarcoma RNA-binding protein EWS. Felsch JS, et al. **Curr Biol** 1999 May 6;9(9):485-8

Meiosis: MeiRNA hits the spot. Ohno M, et al. **Curr Biol** 1999 Jan 28;9(2):R66-9 (12 ref.)

RNA unwinding in U4/U6 snRNPs requires ATP hydrolysis and the DEIH-box splicing factor Brr2. Raghunathan PL, et al. **Curr Biol** 1998 Jul 16;8(15):847-55

Determinants of SR protein specificity. Tacke R, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):358-62 (42 ref.)

Iron metabolism. Aisen P, et al. **Curr Opin Chem Biol** 1999 Apr;3(2):200-6 (78 ref.)

RNA-protein complexes. Cusack S. **Curr Opin Struct Biol** 1999 Feb;9(1):66-73 (34 ref.)

Ca2+ is required for phosphorylation of clam p82/CPEB in vitro: implications for dual and independent roles of MAP and Cdc2 kinases. Katsu Y, et al. **Dev Biol** 1999 May 1;209(1):186-99

Identification of mRNA-binding proteins during development: characterization of Bufo arenarum cellular nucleic acid binding protein. Calcaterra NB, et al. **Dev Growth Differ** 1999 Apr;41(2):183-91

An alternatively spliced gene encoding a Y-box protein showing maternal expression and tissue-specific zygotic expression in the ascidian embryo. Wada MR, et al. **Dev Growth Differ** 1998 Dec;40(6):631-40

Apontic binds the translational repressor Bruno and is implicated in regulation of oskar mRNA translation. Lie YS, et al. **Development** 1999 Mar;126(6):1129-38

miranda localizes staufen and prospero asymmetrically in mitotic neuroblasts and epithelial cells in early Drosophila embryogenesis. Matsuzaki F, et al. **Development** 1998 Oct; 125(20):4089-98

Identification of human autoantigen La/SS-B as BC1/BC200 RNA-binding protein. Kremerskothen J, et al. **DNA Cell Biol** 1998 Sep;17(9):751-9

Cytoplasmic proteins interact with a translational control element in the protein-coding region of proopiomelanocortin mRNA. Spencer CM, et al. **DNA Cell Biol** 1999 Jan;18(1):39-49

Proteome analysis of factor for inversion stimulation (Fis) overproduction in Escherichia coli. Choe LH, et al. **Electrophoresis** 1999 Apr-May;20(4-5):798-805

Partial purification of the yeast U2 snRNP reveals a novel yeast pre-mRNA splicing factor required for pre-spliceosome assembly. Caspary F, et al. **EMBO J** 1999 Jun 15;18(12):3463-74

Influenza A virus NS1 protein targets poly(A)-binding protein II of the cellular 3'-end processing machinery. Chen Z, et al. **EMBO J** 1999 Apr 15;18(8):2273-83

Catabolite control of Escherichia coli regulatory protein BglG activity by antagonistically acting phosphorylations. Görke B, et al. **EMBO J** 1999 Jun 15;18(12):3370-9

A newly identified N-terminal amino acid sequence of human eIF4G binds poly(A)-binding protein and functions in poly(A)-dependent translation. Imataka H, et al. **EMBO J** 1998 Dec 15;17(24):7480-9

SmpB, a unique RNA-binding protein essential for the peptide-tagging activity of SsrA (tmRNA). Karzai AW, et al. **EMBO J** 1999 Jul 1;18(13):3793-9

The Mex67p-mediated nuclear mRNA export pathway is conserved from yeast to human. Katahira J, et al. **EMBO J** 1999 May 4;18(9):2593-609

RNA-dependent activation of primer RNA production by influenza virus polymerase: different regions of the same protein subunit constitute the two required RNA-binding sites. Li ML, et al. **EMBO J** 1998 Oct 1;17(19):5844-52

Purification and characterization of human RNPS1: a general activator of pre-mRNA splicing. Mayeda A, et al. **EMBO J** 1999 Aug 16;18(16):4560-70

Characterization of Sm-like proteins in yeast and their association with U6 snRNA. Mayes AE, et al. **EMBO J** 1999 Aug 2;18(15):4321-31

Structure-specific tRNA-binding protein from the extreme thermophile Aquifex aeolicus. Morales AJ, et al. **EMBO J** 1999 Jun 15;18(12):3475-83

The yeast poly(A)-binding protein Pab1p stimulates in vitro poly(A)-dependent and cap-dependent translation by distinct mechanisms. Otero LJ, et al. **EMBO J** 1999 Jun 1;18(11):3153-63

Rotavirus RNA-binding protein NSP3 interacts with eIF4GI and evicts the poly(A) binding protein from eIF4F. Piron M, et al. **EMBO J** 1998 Oct 1;17(19):5811-21

Repressor binding to a dorsal regulatory site traps human eIF4E in a high cap-affinity state. Ptushkina M, et al. **EMBO J** 1999 Jul 15;18(14):4068-75

The interaction of p62 with RIP links the atypical PKCs to NF-kappaB activation. Sanz L, et al. **EMBO J** 1999 Jun 1;18(11):3044-53

Dbp5, a DEAD-box protein required for mRNA export, is recruited to the cytoplasmic fibrils of nuclear pore complex via a conserved interaction with CAN/Nup159p. Schmitt C, et al. **EMBO J** 1999 Aug 2;18(15):4332-47

Phosphorylation of splicing factor SF1 on Ser20 by cGMP-dependent protein kinase regulates spliceosome assembly. Wang X, et al. **EMBO J** 1999 Aug 16; 18(16):4549-59

Preferential activation of iron regulatory protein-2 in cell lines as a result of higher sensitivity to iron. Recalcati S, et al. **Eur J Biochem** 1999 Jan;259(1-2):304-9

Iron regulatory protein as an endogenous sensor of iron in rat intestinal mucosa. Possible implications for the regulation of iron absorption. Schümann K, et al. **Eur J Biochem** 1999 Mar;260(2):362-72

SF2 and SRp55 regulation of CD45 exon 4 skipping during T cell activation. Lemaire R, et al. **Eur J Immunol** 1999 Mar;29(3):823-37

Identification of a novel mRNA-associated protein in oocytes of Pleurodeles waltl and Xenopus laevis. Lieb B, et al. **Exp Cell Res** 1998 Dec 15;245(2):272-81

Identification of (CAG)(n) and (CGG)(n) repeat-binding proteins, CAGERs expressed in mature neurons of the mouse brain. Yano H, et al. **Exp Cell Res** 1999 Sep 15; 251(2):388-400

Identification of a Torpedo homolog of Sam68 that interacts with the synapse organizing protein rapsyn. Fung ET, et al. **FEBS Lett** 1998 Oct 16;437(1-2):29-33

N-terminal domain, residues 1-91, of ribosomal protein TL5 from Thermus thermophilus binds specifically and strongly to the region of 5S rRNA containing loop E. Gongadze GM, et al. **FEBS Lett** 1999 May 14;451(1):51-5

Binding of neuronal ELAV-like proteins to the uridine-rich sequence in the 3'-untranslated region of tumor necrosis factor-alpha messenger RNA. Sakai K, et al. **FEBS Lett** 1999 Mar 5;446(1):157-62

p68 Sam is a substrate of the insulin receptor and associates with the SH2 domains of p85 PI3K. Sánchez-Margalet V, et al. **FEBS Lett** 1999 Jul 23;455(3):307–10

Poly(ADP-ribose) polymerase interacts with novel Drosophila ribosomal proteins, L22 and l23a, with unique histone-like amino-terminal extensions. Koyama Y, et al. **Gene** 1999 Jan 21;226(2):339–45

Regulation of the iron regulatory proteins by reactive nitrogen and oxygen species. Hanson ES, et al. **Gene Expr** 1999;7(4–6):367–76 (100 ref.)

mRNA stabilization by poly(A) binding protein is independent of poly(A) and requires translation. Coller JM, et al. **Genes Dev** 1998 Oct 15;12(20):3226–35

Specific isoforms of squid, a Drosophila hnRNP, perform distinct roles in Gurken localization during oogenesis. Norvell A, et al. **Genes Dev** 1999 Apr 1;13(7):864–76

Developmental regulation of SR protein phosphorylation and activity. Sanford JR, et al. **Genes Dev** 1999 Jun 15; 13(12):1513–8

Nucleolin, defective for MPF phosphorylation, localizes normally during mitosis and nucleologenesis. Zhu Y, et al. **Histochem Cell Biol** 1999 Jun;111(6):477–87

Cardiac elav-type RNA-binding protein (ETR-3) binds to RNA CUG repeats expanded in myotonic dystrophy. Lu X, et al. **Hum Mol Genet** 1999 Jan;8(1):53–60

Different targets for the fragile X-related proteins revealed by their distinct nuclear localizations. Tamanini F, et al. **Hum Mol Genet** 1999 May;8(5):863–9

Assessment and diagnostic utility of the cytotoxic T-lymphocyte phenotype using the specific markers granzyme-B and TIA-1 in esophageal mucosal biopsies. Resnick MB, et al. **Hum Pathol** 1999 Apr;30(4):397–402

Ehrlichia chaffeensis and E. sennetsu, but not the human granulocytic ehrlichiosis agent, colocalize with transferrin receptor and up-regulate transferrin receptor mRNA by activating iron-responsive protein 1. Barnewall RE, et al. **Infect Immun** 1999 May;67(5):2258–65

PKR, apoptosis and cancer. Jagus R, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):123–38 (192 ref.)

Characterization of the dimerization domain in BglG, an RNA-binding transcriptional antiterminator from Escherichia coli. Boss A, et al. **J Bacteriol** 1999 Mar; 181(6):1755–66

Elements involved in catabolite repression and substrate induction of the lactose operon in Lactobacillus casei. Gosalbes MJ, et al. **J Bacteriol** 1999 Jul;181(13):3928–34

Parathyroid hormone-related protein interacts with RNA. Aarts MM, et al. **J Biol Chem** 1999 Feb 19;274(8):4832–8

Molecular determinants of nuclear protein phosphatase-1 regulation by NIPP-1. Beullens M, et al. **J Biol Chem** 1999 May 14;274(20):14053–61

Human cytoplasmic aconitase (Iron regulatory protein 1) is converted into its [3Fe-4S] form by hydrogen peroxide in vitro but is not activated for iron-responsive element binding. Brazzolotto X, et al. **J Biol Chem** 1999 Jul 30; 274(31):21625–30

A specific isoform of hnRNP D interacts with DNA in the LR1 heterodimer: canonical RNA binding motifs in a sequence-specific duplex DNA binding protein. Dempsey LA, et al. **J Biol Chem** 1998 Oct 30;273(44):29224–9

G4 DNA binding by LR1 and its subunits, nucleolin and hnRNP D, A role for G-G pairing in immunoglobulin switch recombination. Dempsey LA, et al. **J Biol Chem** 1999 Jan 8;274(2):1066–71

The identification of two Drosophila K homology domain proteins. Kep1 and SAM are members of the Sam68 family of GSG domain proteins. Di Fruscio M, et al. **J Biol Chem** 1998 Nov 13;273(46):30122–30

Quantitative assessment of EF-1alpha.GTP binding to aminoacyl-tRNAs, aminoacyl-viral RNA, and tRNA shows close correspondence to the RNA binding properties of EF-Tu. Dreher TW, et al. **J Biol Chem** 1999 Jan 8; 274(2):666–72

The association of initiation factor 4F with poly(A)-binding protein is enhanced in serum-stimulated Xenopus kidney cells. Fraser CS, et al. **J Biol Chem** 1999 Jan 1; 274(1):196–204

Inactivation of both RNA binding and aconitase activities of iron regulatory protein-1 by quinone-induced oxidative stress. Gehring NH, et al. **J Biol Chem** 1999 Mar 5; 274(10):6219–25

Identification of TIAR as a protein binding to the translational regulatory AU-rich element of tumor necrosis factor alpha mRNA. Gueydan C, et al. **J Biol Chem** 1999 Jan 22;274(4):2322–6

High affinity interactions of nucleolin with G-G-paired rDNA. Hanakahi LA, et al. **J Biol Chem** 1999 May 28; 274(22):15908–12

Hypoxia post-translationally activates iron-regulatory protein 2. Hanson ES, et al. **J Biol Chem** 1999 Feb 19; 274(8):5047–52

Trypanosoma brucei RBP16 is a mitochondrial Y-box family protein with guide RNA binding activity. Hayman ML, et al. **J Biol Chem** 1999 Apr 23;274(17):12067–74

Mammalian Hsp70 and Hsp110 proteins bind to RNA motifs involved in mRNA stability. Henics T, et al. **J Biol Chem** 1999 Jun 11;274(24):17318–24

The eukaryotic polypeptide chain releasing factor (eRF3/GSPT) carrying the translation termination signal to the 3'-Poly(A) tail of mRNA. Direct association of erf3/GSPT with polyadenylate-binding protein. Hoshino S, et al. **J Biol Chem** 1999 Jun 11;274(24):16677–80

Molecular cloning of mouse glycolate oxidase. High evolutionary conservation and presence of an iron-responsive element-like sequence in the mRNA [published erratum appears in J Biol Chem 1999 May 28;274(22):15966] Kohler SA, et al. **J Biol Chem** 1999 Jan 22;274(4):2401–7

Bacillus subtilis histone-like protein, HBsu, is an integral component of a SRP-like particle that can bind the Alu domain of small cytoplasmic RNA. Nakamura K, et al. **J Biol Chem** 1999 May 7;274(19):13569–76

PIPPin is a brain-specific protein that contains a cold-shock domain and binds specifically to H1 degrees and H3.3 mRNAs. Nastasi T, et al. **J Biol Chem** 1999 Aug 20; 274(34):24087–93

Thioredoxin activation of iron regulatory proteins. Redox regulation of RNA binding after exposure to nitric oxide. Oliveira L, et al. **J Biol Chem** 1999 Jan 1;274(1):516–21

Modulation of the RNA binding and protein processing activities of poliovirus polypeptide 3CD by the viral RNA polymerase domain. Parsley TB, et al. **J Biol Chem** 1999 Apr 30;274(18):12867–76

DRBP76, a double-stranded RNA-binding nuclear protein, is phosphorylated by the interferon-induced protein kinase, PKR. Patel RC, et al. **J Biol Chem** 1999 Jul 16; 274(29):20432–7

Asymmetric contributions to RNA binding by the Thr(45) residues of the MS2 coat protein dimer. Peabody DS, et al. **J Biol Chem** 1999 Sep 3;274(36):25403–10

Regulation of human vascular endothelial growth factor mRNA stability in hypoxia by heterogeneous nuclear ribonucleoprotein L. Shih SC, et al. **J Biol Chem** 1999 Jan 15;274(3):1359–65

Unusual sites of arginine methylation in Poly(A)-binding protein II and in vitro methylation by protein arginine methyltransferases PRMT1 and PRMT3. Smith JJ, et al. **J Biol Chem** 1999 May 7;274(19):13229–34

The RNA-splicing factor PSF/p54 controls DNA-topoisomerase I activity by a direct interaction. Straub T, et al. **J Biol Chem** 1998 Oct 9;273(41):26261–4

Protein kinase A stimulates binding of multiple proteins to a U-rich domain in the 3'-untranslated region of lactate dehydrogenase A mRNA that is required for the regulation of mRNA stability. Tian D, et al. **J Biol Chem** 1998 Oct 23;273(43):28454–60

Cyclic nucleotide regulation of PAI-1 mRNA stability. Identification of cytosolic proteins that interact with an a-rich sequence. Tillmann-Bogush M, et al. **J Biol Chem** 1999 Jan 8;274(2):1172–9

Hypoxia alters iron-regulatory protein-1 binding capacity and modulates cellular iron homeostasis in human hepatoma and erythroleukemia cells. Toth I, et al. **J Biol Chem** 1999 Feb 12;274(7):4467–73

Highly differentiated motifs responsible for two cytokine activities of a split human tRNA synthetase. Wakasugi K, et al. **J Biol Chem** 1999 Aug 13;274(33):23155–9

Order of assembly of human DNA repair excision nuclease. Wakasugi M, et al. **J Biol Chem** 1999 Jun 25; 274(26):18759–68

Species barrier to RNA recognition overcome with nonspecific RNA binding domains. Wang CC, et al. **J Biol Chem** 1999 Jun 4;274(23):16508–12

RNA structure inhibits the TRAP (trp RNA-binding attenuation protein)-RNA interaction. Xirasagar S, et al. **J Biol Chem** 1998 Oct 16;273(42):27146–53

Serine phosphorylation of SR proteins is required for their recruitment to sites of transcription in vivo. Misteli T, et al. **J Cell Biol** 1998 Oct 19;143(2):297–307

Nuclear organisation of NIPP1, a regulatory subunit of protein phosphatase 1 that associates with pre-mRNA splicing factors. Trinkle-Mulcahy L, et al. **J Cell Sci** 1999 Jan;112 (Pt 2):157–68

A cytotoxic phenotype does not predict clinical outcome in anaplastic large cell lymphomas. Dukers DF, et al. **J Clin Pathol** 1999 Feb;52(2):129–36

Rotavirus NSP5 phosphorylation is up-regulated by interaction with NSP2. Afrikanova I, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2679–86

Two non-structural rotavirus proteins, NSP2 and NSP5, form viroplasm-like structures in vivo. Fabbretti E, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):333–9

VPg, coat protein and five non-structural proteins of potato A potyvirus bind RNA in a sequence-unspecific manner. Merits A, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3123–7

Poly(C)-binding protein interacts with the hepatitis C virus 5' untranslated region. Spångberg K, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1371–6

Identification of the RNA-binding sites of the triple gene block protein 1 of bamboo mosaic potexvirus. Wung CH, et al. **J Gen Virol** 1999 May;80 (Pt 5):1119–26

HIV-1 regulatory protein tat induces RNA binding proteins in central nervous system cells that associate with the viral trans-acting-response regulatory motif. Kundu M, et al. **J Hum Virol** 1999 Mar-Apr;2(2):72–80

Fyn membrane localization is necessary to induce the constitutive tyrosine phosphorylation of Sam68 in the nucleus of T lymphocytes. Lang V, et al. **J Immunol** 1999 Jun 15;162(12):7224–32

Degradation of FinP antisense RNA from F-like plasmids: the RNA-binding protein, FinO, protects FinP from ribonuclease E. Jerome LJ, et al. **J Mol Biol** 1999 Jan 29; 285(4):1457–73

RNA recognition by the human U1A protein is mediated by a network of local cooperative interactions that create the optimal binding surface. Kranz JK, et al. **J Mol Biol** 1999 Jan 8;285(1):215–31

Synergistic stimulation of HIV-1 rev-dependent export of unspliced mRNA to the cytoplasm by hnRNP A1. Najera I, et al. **J Mol Biol** 1999 Feb 5;285(5):1951–64

A branched stem-loop structure in the M-site of bacteriophage Qbeta RNA is important for template recognition by Qbeta replicase holoenzyme. Schuppli D, et al. **J Mol Biol** 1998 Oct 30;283(3):585–93

Binding properties of the human immunodeficiency virus type 1 nucleocapsid protein p7 to a model RNA: elucidation of the structural determinants for function. Urbaneja MA, et al. **J Mol Biol** 1999 Mar 19;287(1):59–75

The mouse gene encoding the testis-specific isoform of Poly(A) binding protein (Pabp2) is an expressed retroposon: intimations that gene expression in spermatogenic cells facilitates the creation of new genes. Kleene KC, et al. **J Mol Evol** 1998 Sep;47(3):275–81

HuR, a novel target of anti-Hu antibodies, is expressed in non-neural tissues. Nabors LB, et al. **J Neuroimmunol** 1998 Dec 1;92(1–2):152–9

Endothelial monocyte-activating polypeptide-2 is increased in pregnancy but is not further increased in preeclampsia. Wellings RP, et al. **J Soc Gynecol Investig** 1999 May-Jun; 6(3):142–6

The herpes simplex virus US11 protein effectively compensates for the gamma1(34.5) gene if present before activation of protein kinase R by precluding its phosphorylation and that of the alpha subunit of eukaryotic translation initiation factor 2. Cassady KA, et al. **J Virol** 1998 Nov;72(11):8620–6

Interaction of poly(rC) binding protein 2 with the 5' noncoding region of hepatitis A virus RNA and its effects on translation. Graff J, et al. **J Virol** 1998 Dec; 72(12):9668–75

RNA-binding activity of the E1B 55-kilodalton protein from human adenovirus type 5. Horridge JJ, et al. **J Virol** 1998 Nov;72(11):9374–9

Cleavage of poly(A)-binding protein by enterovirus proteases concurrent with inhibition of translation in vitro. Joachims M, et al. **J Virol** 1999 Jan;73(1):718–27

Cleavage of Poly(A)-binding protein by coxsackievirus 2A protease in vitro and in vivo: another mechanism for host protein synthesis shutoff? Kerekatte V, et al. **J Virol** 1999 Jan;73(1):709–17

RNA-binding and capping activities of proteins in rotavirus open cores. Patton JT, et al. **J Virol** 1999 Feb;73(2):1382–91

Interaction of eukaryotic initiation factor eIF4B with the internal ribosome entry site of foot-and-mouth disease virus is independent of the polypyrimidine tract-binding protein. Rust RC, et al. **J Virol** 1999 Jul;73(7):6111–3

The inhibitory activity of the AU-rich RNA element in the human papillomavirus type 1 late 3' untranslated region correlates with its affinity for the elav-like HuR protein. Sokolowski M, et al. **J Virol** 1999 Feb;73(2):1080–91

The RNA-binding protein gene, hermes, is expressed at high levels in the developing heart. Gerber WV, et al. **Mech Dev** 1999 Jan;80(1):77–86

RNA binding and modulation of PKR activity. Gunnery S, et al. **Methods** 1998 Jul;15(3):189–98

Characterization of viral double-stranded RNA-binding proteins. Jacobs BL, et al. **Methods** 1998 Jul;15(3):225–32

Yeast three-hybrid system to detect and analyze interactions between RNA and protein. Zhang B, et al. **Methods Enzymol** 1999;306:93–113 (19 ref.)

Cytotoxic granular protein expression, Epstein-Barr virus strain type, and latent membrane protein-1 oncogene deletions in nasal T-lymphocyte/natural killer cell lymphomas from Mexico. Elenitoba-Johnson KS, et al. **Mod Pathol** 1998 Aug;11(8):754–61

Trypanosoma brucei poly(A) binding protein I cDNA cloning, expression, and binding to 5untranslated region sequence elements. Hotchkiss TL, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):117–29

The stem-loop binding protein (SLBP1) is present in coiled bodies of the Xenopus germinal vesicle. Abbott J, et al. **Mol Biol Cell** 1999 Feb;10(2):487–99

A role for the GSG domain in localizing Sam68 to novel nuclear structures in cancer cell lines. Chen T, et al. **Mol Biol Cell** 1999 Sep;10(9):3015–33

A general RNA-binding protein complex that includes the cytoskeleton-associated protein MAP 1A. DeFranco C, et al. **Mol Biol Cell** 1998 Jul;9(7):1695–708

Microtubule-dependent recruitment of Staufen-green fluorescent protein into large RNA-containing granules and subsequent dendritic transport in living hippocampal neurons. Köhrmann M, et al. **Mol Biol Cell** 1999 Sep; 10(9):2945–53

Smaug, a novel RNA-binding protein that operates a translational switch in Drosophila. Dahanukar A, et al. **Mol Cell** 1999 Aug;4(2):209–18

IRP-1 binding to ferritin mRNA prevents the recruitment of the small ribosomal subunit by the cap-binding complex eIF4F. Muckenthaler M, et al. **Mol Cell** 1998 Sep; 2(3):383–8

Association of guide RNA binding protein gBP21 with active RNA editing complexes in Trypanosoma brucei. Allen TE, et al. **Mol Cell Biol** 1998 Oct;18(10):6014–22

Assembly of the alpha-globin mRNA stability complex reflects binary interaction between the pyrimidine-rich 3' untranslated region determinant and poly(C) binding

protein alphaCP. Chkheidze AN, et al. **Mol Cell Biol** 1999 Jul;19(7):4572–81

Stem-loop binding protein facilitates 3'-end formation by stabilizing U7 snRNP binding to histone pre-mRNA. Dominski Z, et al. **Mol Cell Biol** 1999 May;19(5):3561–70

Gbp1p, a protein with RNA recognition motifs, binds single-stranded telomeric DNA and changes its binding specificity upon dimerization. Johnston SD, et al. **Mol Cell Biol** 1999 Jan;19(1):923–33

Requirement of RBP9, a Drosophila Hu homolog, for regulation of cystocyte differentiation and oocyte determination during oogenesis. Kim-Ha J, et al. **Mol Cell Biol** 1999 Apr;19(4):2505–14

Polypyrimidine tract-binding protein positively regulates inclusion of an alternative 3'-terminal exon. Lou H, et al. **Mol Cell Biol** 1999 Jan;19(1):78–85

A human sequence homologue of Staufen is an RNA-binding protein that is associated with polysomes and localizes to the rough endoplasmic reticulum. Marión RM, et al. **Mol Cell Biol** 1999 Mar;19(3):2212–9

A family of insulin-like growth factor II mRNA-binding proteins represses translation in late development. Nielsen J, et al. **Mol Cell Biol** 1999 Feb;19(2):1262–70

Ribosomal pausing and scanning arrest as mechanisms of translational regulation from cap-distal iron-responsive elements. Paraskeva E, et al. **Mol Cell Biol** 1999 Jan; 19(1):807–16

Nuclear mRNA export requires complex formation between Mex67p and Mtr2p at the nuclear pores. Santos-Rosa H, et al. **Mol Cell Biol** 1998 Nov;18(11):6826–38

Selection and characterization of pre-mRNA splicing enhancers: identification of novel SR protein-specific enhancer sequences. Schaal TD, et al. **Mol Cell Biol** 1999 Mar;19(3):1705–19

Polypyrimidine tract binding protein functions as a repressor to regulate alternative splicing of alpha-actinin mutally exclusive exons. Southby J, et al. **Mol Cell Biol** 1999 Apr; 19(4):2699–711

An mRNA stability complex functions with poly(A)-binding protein to stabilize mRNA in vitro. Wang Z, et al. **Mol Cell Biol** 1999 Jul;19(7):4552–60

Two Xenopus proteins that bind the 3'end of histone mRNA: implications for translational control of histone synthesis during oogenesis. Wang ZF, et al. **Mol Cell Biol** 1999 Jan; 19(1):835–45

Regulation of AUF1 expression via conserved alternatively spliced elements in the 3' untranslated region. Wilson GM, et al. **Mol Cell Biol** 1999 Jun;19(6):4056–64

Processivity of the Saccharomyces cerevisiae poly(A) polymerase requires interactions at the carboxyl-terminal RNA binding domain. Zhelkovsky A, et al. **Mol Cell Biol** 1998 Oct;18(10):5942–51

A type 2 diabetes-associated polymorphic ARE motif affecting expression of PPP1R3 is involved in RNA-protein interactions. Xia J, et al. **Mol Genet Metab** 1999 Sep;68(1):48–55

Global regulation by the small RNA-binding protein CsrA and the non-coding RNA molecule CsrB. Romeo T. **Mol Microbiol** 1998 Sep;29(6):1321–30 (53 ref.)

A double-stranded RNA binding protein required for activation of repressed messages in mammalian germ cells. Zhong J, et al. **Nat Genet** 1999 Jun;22(2):171–4

Inhibition of HIV replication by dominant negative mutants of Sam68, a functional homolog of HIV-1 Rev [published erratum appears in Nat Med 1999 Jul;5(7):849] Reddy TR, et al. **Nat Med** 1999 Jun;5(6):635–42

Simulations of the dynamics at an RNA-protein interface. Hermann T, et al. **Nat Struct Biol** 1999 Jun;6(6):540–4

Two domains and one RNA: a molecular threesome [news] Hughson FM, et al. **Nat Struct Biol** 1999 Jun;6(6):499–502

Identification of AUF-1 ligands reveals vast diversity of early response gene mRNAs. Bhattacharya S, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1464–72

Mapping of a protein-RNA kissing hairpin interface: Rom and Tar-Tar*. Comolli LR, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4688–95

The c-myc coding region determinant-binding protein: a member of a family of KH domain RNA-binding proteins. Doyle GA, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5036–44

Interaction of influenza virus NS1 protein and the human homologue of Staufen in vivo and in vitro. Falcón AM, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2241–7

hnRNP C and polypyrimidine tract-binding protein specifically interact with the pyrimidine-rich region within the 3'NTR of the HCV RNA genome. Gontarek RR, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1457–63

Specific binding of Drosophila nuclear protein PEP (protein on ecdysone puffs) to hsp70 DNA and RNA. Hamann S, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4108–15

The mouse Y-box protein, MSY2, is associated with a kinase on non-polysomal mouse testicular mRNAs. Herbert TP, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1747–53

The double-stranded RNA-binding protein X1rbpa promotes RNA strand annealing. Hitti E, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4382–8

Combinatorial selection of high affinity RNA ligands to live African trypanosomes. Homann M, et al. **Nucleic Acids Res** 1999 May 1;27(9):2006–14

The ability of the HIV-1 AAUAAA signal to bind polyadenylation factors is controlled by local RNA structure. Klasens BI, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):446–54

Recognition of exonic splicing enhancer sequences by the Drosophila splicing repressor RSF1. Labourier E, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2377–86

The involvement of gRNA-binding protein gBP21 in RNA editing-an in vitro and in vivo analysis. Lambert L, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1429–36

RNA bulge entropies in the unbound state correlate with peptide binding strengths for HIV-1 and BIV TAR RNA because of improved conformational access. Lustig B, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5212–7

An AU-rich sequence in the 3'-UTR of plasminogen activator inhibitor type 2 (PAI-2) mRNA promotes PAI-2 mRNA decay and provides a binding site for nuclear HuR. Maurer F, et al. **Nucleic Acids Res** 1999 Apr 1; 27(7):1664–73

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3534–42

Immunological analysis of potato leafroll luteovirus (PLRV) P1 expression identifies a 25 kDa RNA-binding protein derived via P1 processing. Prüfer D, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):421–5

RNA binding specificity of Unr, a protein with five cold shock domains. Triqueneaux G, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1926–34

Evidence for SH3 domain directed binding and phosphorylation of Sam68 by Src. Shen Z, et al. **Oncogene** 1999 Aug 19;18(33):4647–53

Stage-specific changes in SR splicing factors and alternative splicing in mammary tumorigenesis. Stickeler E, et al. **Oncogene** 1999 Jun 17;18(24):3574–82

Expression of cytotoxic molecule TIA-1 in malignant lymphomas mimicking fulminant hepatitis. Sadahira Y, et al. **Pathol Int** 1998 Sep;48(9):695–704

Distribution profile and in vivo RNA association of cytoplasmic AU-rich sequence binding proteins in various mammalian cells: effect of the organizational state of cellular architecture. Soós H, et al. **Physiol Chem Phys Med NMR** 1998;30(2):163–74

A novel family of plant splicing factors with a Zn knuckle motif: examination of RNA binding and splicing activities. Lopato S, et al. **Plant Mol Biol** 1999 Mar;39(4):761–73

Bacillus subtilis aconitase is an RNA-binding protein. Alén C, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31; 96(18):10412–7

Novel role of phosphorylation in Fe-S cluster stability revealed by phosphomimetic mutations at Ser-138 of iron regulatory protein 1. Brown NM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15235–40

The SRm160/300 splicing coactivator is required for exon-enhancer function. Eldridge AG, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6125–30

HNS, a nuclear-cytoplasmic shuttling sequence in HuR. Fan XC, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15293–8

Why is Hu where? Shuttling of early-response-gene messenger RNA subsets. Keene JD. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):5–7

Regulation of endothelial monocyte-activating polypeptide II release by apoptosis. Knies UE, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12322–7

Increase in the 64-kDa subunit of the polyadenylation/cleavage stimulatory factor during the G0 to S phase transition. Martincic K, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11095–100

BglG, the transcriptional antiterminator of the bgl system, interacts with the beta'subunit of the Escherichia coli RNA polymerase. Nussbaum-Shochat A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4336–41

Ultraviolet A radiation induces immediate release of iron in human primary skin fibroblasts: the role of ferritin. Pourzand C, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6751–6

The cytosolic tail of class I MHC heavy chain is required for its dislocation by the human cytomegalovirus US2 and US11 gene products. Story CM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8516–21

Host factor I, Hfq, binds to Escherichia coli ompA mRNA in a growth rate-dependent fashion and regulates its stability. Vytvytska O, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14118–23

Mammalian capping enzyme binds RNA and uses protein tyrosine phosphatase mechanism. Wen Y, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12226–31

Regulation of the Bacillus subtilis pyrimidine biosynthetic operon by transcriptional attenuation: control of gene expression by an mRNA-binding protein. Switzer RL, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:329–67 (82 ref.)

Effects of core-packing on the structure, function, and mechanics of a four-helix-bundle protein ROP. Ceruso MA, et al. **Proteins** 1999 Sep 1;36(4):436–46

The snRNP-free U1A (SF-A) complex(es): identification of the largest subunit as PSF, the polypyrimidine-tract binding protein-associated splicing factor. Lutz CS, et al. **RNA** 1998 Dec;4(12):1493–9

Transient interaction of BBP/ScSF1 and Mud2 with the splicing machinery affects the kinetics of spliceosome assembly. Rutz B, et al. **RNA** 1999 Jun;5(6):819–31

Separable roles in vivo for the two RNA binding domains of Drosophila A1-hnRNP homolog. Zu K, et al. **RNA** 1998 Dec;4(12):1585–98

Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. Kleiman FE, et al. **Science** 1999 Sep 3;285(5433):1576–9

Control of mRNA decay by heat shock-ubiquitin-proteasome pathway. Laroia G, et al. **Science** 1999 Apr 16;284(5413):499–502

Viral RNA replication. With a little help from the host. Strauss JH, et al. **Science** 1999 Feb 5;283(5403):802–4

Two distinct cytokines released from a human aminoacyl-tRNA synthetase [see comments] Wakasugi K, et al. **Science** 1999 Apr 2;284(5411):147–51. Comment in: Science 1999 Apr 2;284(5411):63–4.

A deadly double life [comment] [published erratum appears in Science 1999 May 28;284(5419):1468] Weiner AM, et al. **Science** 1999 Apr 2;284(5411):63–4. Comment on: Science 1999 Apr 2;284(5411):147–51.

The PWI motif: a new protein domain in splicing factors. Blencowe BJ, et al. **Trends Biochem Sci** 1999 May; 24(5):179–80

ARMed and even more dangerous? Waters AP. **Trends Microbiol** 1999 Apr;7(4):135–7

An internal polypyrimidine-tract-binding protein-binding site in the hepatitis C virus RNA attenuates translation, which is relieved by the 3'-untranslated sequence. Ito T, et al. **Virology** 1999 Feb 15;254(2):288–96

Cellular proteins bind to the poly(U) tract of the 3' untranslated region of hepatitis C virus RNA genome. Luo G. **Virology** 1999 Mar 30;256(1):105–18

In vivo detection, RNA-binding properties and characterization of the RNA-binding domain of the p7 putative movement protein from carnation mottle carmovirus (CarMV). Marcos JF, et al. **Virology** 1999 Mar 15;255(2):354–65

A 110-kDa nuclear shuttle protein, nucleolin, specifically binds to adeno-associated virus type 2 (AAV-2) capsid. Qiu J, et al. **Virology** 1999 May 10;257(2):373–82

The vaccinia virus E3L gene product interacts with both the regulatory and the substrate binding regions of PKR: implications for PKR autoregulation. Sharp TV, et al. **Virology** 1998 Oct 25;250(2):302–15

Self-interaction of the herpes simplex virus type 1 regulatory protein ICP27. Zhi Y, et al. **Virology** 1999 May 10; 257(2):341–51

Rhinovirus 2A proteinase mediated stimulation of rhinovirus RNA translation is additive to the stimulation effected by cellular RNA binding proteins. Hunt SL, et al. **Virus Res** 1999 Aug;62(2):119–28

[Ribosomal structure: RNA-protein and protein-protein interactions] Nikonov SV, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):773–81 (75 ref.) **(Rus)**

PHYSIOLOGY

EMAP II: a modulator of neovascularization in the developing lung. Schwarz M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L365–75

Expression of spliceosome-associated protein 49 is required for early embryogenesis in Caenorhabditis elegans. Fujita M, et al. **Biochem Biophys Res Commun** 1998 Dec 9; 253(1):80–4

WT1: what has the last decade told us? Little M, et al. **Bioessays** 1999 Mar;21(3):191–202 (87 ref.)

Sensitization of tumor necrosis factor alpha-resistant human melanoma by tumor-specific in vivo transfer of the gene encoding endothelial monocyte-activating polypeptide II using recombinant vaccinia virus. Gnant MF, et al. **Cancer Res** 1999 Sep 15;59(18):4668–74

Nuclear orphan receptors control cholesterol catabolism. Russell DW. **Cell** 1999 May 28;97(5):539–42 (17 ref.)

Nucleolin: a multifunctional major nucleolar phosphoprotein. Tuteja R, et al. **Crit Rev Biochem Mol Biol** 1998; 33(6):407–36 (164 ref.)

hnRNP complexes: composition, structure, and function. Krecic AM, et al. **Curr Opin Cell Biol** 1999 Jun; 11(3):363–71 (62 ref.)

The role of star in the production of an activated ligand for the EGF receptor signaling pathway. Pickup AT, et al. **Dev Biol** 1999 Jan 15;205(2):254–9

mRNA stabilization by poly(A) binding protein is independent of poly(A) and requires translation. Coller JM, et al. **Genes Dev** 1998 Oct 15;12(20):3226–35

Cellular adhesion mediated by factor J, a complement inhibitor. Evidence for nucleolin involvement. Larrucea S, et al. **J Biol Chem** 1998 Nov 27;273(48):31718–25

The nuclear cap-binding complex is a novel target of growth factor receptor-coupled signal transduction. Wilson KF, et al. **J Biol Chem** 1999 Feb 12;274(7):4166–73

Identification and characterization of a novel protein that regulates RNA-protein interaction. Hod Y, et al. **J Cell Biochem** 1999 Mar 1;72(3):435–44

Nuclear import and the evolution of a multifunctional RNA-binding protein. Rosenblum JS, et al. **J Cell Biol** 1998 Nov 16;143(4):887–99

Structure and functions of nucleolin. Ginisty H, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):761–72 (179 ref.)

Endothelial-monocyte activating polypeptide II, a novel antitumor cytokine that suppresses primary and metastatic tumor growth and induces apoptosis in growing endothelial cells. Schwarz MA, et al. **J Exp Med** 1999 Aug 2; 190(3):341–54

NasR, a novel RNA-binding protein, mediates nitrate-responsive transcription antitermination of the

Klebsiella oxytoca M5al nasF operon leader in vitro. Chai W, et al. **J Mol Biol** 1998 Oct 23;283(2):339–51

Embryonic lethal abnormal vision–like RNA–binding proteins regulate neurite outgrowth and tau expression in PC12 cells. Aranda–Abreu GE, et al. **J Neurosci** 1999 Aug 15;19(16):6907–17

Iron regulatory proteins, iron responsive elements and iron homeostasis. Eisenstein RS, et al. **J Nutr** 1998 Dec; 128(12):2295–8 (27 ref.)

Hepatitis B virus RNA–binding proteins associated with cytokine–induced clearance of viral RNA from the liver of transgenic mice. Heise T, et al. **J Virol** 1999 Jan; 73(1):474–81

Levels of polyadenylation factor CstF–64 control IgM heavy chain mRNA accumulation and other events associated with B cell differentiation. Takagaki Y, et al. **Mol Cell** 1998 Dec;2(6):761–71

GCD14p, a repressor of GCN4 translation, cooperates with Gcd10p and Lhp1p in the maturation of initiator methionyl–tRNA in Saccharomyces cerevisiae. Calvo O, et al. **Mol Cell Biol** 1999 Jun;19(6):4167–81

The cleavage and polyadenylation specificity factor in Xenopus laevis oocytes is a cytoplasmic factor involved in regulated polyadenylation. Dickson KS, et al. **Mol Cell Biol** 1999 Aug;19(8):5707–17

RNA splicing. Running rings around RNA [news] Lamond AI. **Nature** 1999 Feb 25;397(6721):655–6

Making proteins at the synapse: activity–regulated translation and CPEB [see comments] Worley P. **Neuron** 1998 Nov; 21(5):936–8 (12 ref.). Comment in: Neuron 1998 Nov;21(5):1129–39.

CPEB–mediated cytoplasmic polyadenylation and the regulation of experience–dependent translation of alpha–CaMKII mRNA at synapses [see comments] Wu L, et al. **Neuron** 1998 Nov;21(5):1129–39. Comment in: Neuron 1998 Nov;21(5):936–8.

DSEF–1 is a member of the hnRNP H family of RNA–binding proteins and stimulates pre–mRNA cleavage and polyadenylation in vitro. Bagga PS, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5343–50

HuD, a neuronal–specific RNA–binding protein, is a putative regulator of N–myc pre–mRNA processing/stability in malignant human neuroblasts. Lazarova DL, et al. **Oncogene** 1999 Apr 29;18(17):2703–10

Mammalian ELAV–like neuronal RNA–binding proteins HuB and HuC promote neuronal development in both the central and the peripheral nervous systems. Akamatsu W, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9885–90

Dual roles of p82, the clam CPEB homolog, in cytoplasmic polyadenylation and translational masking. Minshall N, et al. **RNA** 1999 Jan;5(1):27–38

A superfamily of proteins that contain the cold–shock domain. Graumann PL, et al. **Trends Biochem Sci** 1998 Aug;23(8):286–90 (48 ref.)

Cytoplasmic regulatory functions of the KH–domain proteins hnRNPs K and E1/E2. Ostareck–Lederer A, et al. **Trends Biochem Sci** 1998 Nov;23(11):409–11 (36 ref.)

Gene regulation by Y–box proteins: coupling control of transcription and translation. Matsumoto K, et al. **Trends Cell Biol** 1998 Aug;8(8):318–23 (53 ref.)

RNA CAP ANALOGS

CHEMISTRY

Quantitative assessment of mRNA cap analogues as inhibitors of in vitro translation. Cai A, et al. **Biochemistry** 1999 Jun 29;38(26):8538–47

PHARMACOLOGY

Guanosine nucleotide analogs as inhibitors of alphavirus mRNA capping enzyme. Lampio A, et al. **Antiviral Res** 1999 May;42(1):35–46

Quantitative assessment of mRNA cap analogues as inhibitors of in vitro translation. Cai A, et al. **Biochemistry** 1999 Jun 29;38(26):8538–47

RNA CAPS

Self–capping RNA catalysts derived from selection–amplification. Huang F, et al. **Biol Bull** 1999 Jun; 196(3):320–1

Nuclear snRNA and nuclear function (discovery of 5' cap structures in RNA). Ro–Choi TS. **Crit Rev Eukaryot Gene Expr** 1999;9(2):107–58 (304 ref.)

Virus–specific capping of tobacco mosaic virus RNA: methylation of GTP prior to formation of covalent complex p126–m7GMP. Merits A, et al. **FEBS Lett** 1999 Jul 16; 455(1–2):45–8

Transcription elongation factor hSPT5 stimulates mRNA capping. Wen Y, et al. **Genes Dev** 1999 Jul 15;13(14):1774–9

A conserved domain of yeast RNA triphosphatase flanking the catalytic core regulates self–association and interaction with the guanylyltransferase component of the mRNA capping apparatus. Lehman K, et al. **J Biol Chem** 1999 Aug 6;274(32):22668–78

RNA–binding and capping activities of proteins in rotavirus open cores. Patton JT, et al. **J Virol** 1999 Feb;73(2):1382–91

A new 34–kilodalton isoform of human fibroblast growth factor 2 is cap dependently synthesized by using a non–AUG start codon and behaves as a survival factor. Arnaud E, et al. **Mol Cell Biol** 1999 Jan;19(1):505–14

Modifications of the 5' cap of mRNAs during Xenopus oocyte maturation: independence from changes in poly(A) length and impact on translation. Gillian–Daniel DL, et al. **Mol Cell Biol** 1998 Oct;18(10):6152–63

Novel regulatory factors interacting with the promoter of the gene encoding the mRNA cap binding protein (eIF4E) and their function in growth regulation. Johnston KA, et al. **Mol Cell Biol** 1998 Oct;18(10):5621–33

Ribosomal pausing and scanning arrest as mechanisms of translational regulation from cap–distal iron–responsive elements. Paraskeva E, et al. **Mol Cell Biol** 1999 Jan; 19(1):807–16

Phosphorylation of the cap–binding protein eukaryotic translation initiation factor 4E by protein kinase Mnk1 in vivo. Waskiewicz AJ, et al. **Mol Cell Biol** 1999 Mar; 19(3):1871–80

Conversion of a DNA ligase into an RNA capping enzyme. Doherty AJ. **Nucleic Acids Res** 1999 Aug 15;27(16):3253–8

CapSelect: a highly sensitive method for 5' CAP–dependent enrichment of full–length cDNA in PCR–mediated analysis of mRNAs. Schmidt WM, et al. **Nucleic Acids Res** 1999 Nov 1;27(21):e31

Hydrolysis of some mRNA 5'–cap analogs catalyzed by the human Fhit protein––and lupin AppppA hydrolases. Bojarska E, et al. **Nucleosides Nucleotides** 1999 Apr–May; 18(4–5):1125–6

Oxygen deprivation stimulates Ca2+–mediated phosphorylation of mRNA cap–binding protein eIF4E in maize roots. Manjunath S, et al. **Plant J** 1999 Jul; 19(1):21–30

High–efficiency cloning of Arabidopsis full–length cDNA by biotinylated CAP trapper. Seki M, et al. **Plant J** 1998 Sep;15(5):707–20

Cap–independent polysomal association of natural mRNAs encoding c–myc, BiP, and eIF4G conferred by internal ribosome entry sites. Johannes G, et al. **RNA** 1998 Dec; 4(12):1500–13

A potential mechanism for selective control of cap–independent translation by a viral RNA sequence in cis and in trans. Wang S, et al. **RNA** 1999 Jun;5(6):728–38

Barley yellow dwarf virus RNA requires a cap–independent translation sequence because it lacks a 5' cap. Allen E, et al. **Virology** 1999 Jan 20;253(2):139–44

ANALOGS & DERIVATIVES see RNA CAP ANALOGS

BIOSYNTHESIS

Kinetics at a multifunctional RNA active site. Huang F, et al. **J Mol Biol** 1998 Nov 27;284(2):255–67

CHEMISTRY

mRNA cap recognition: dominant role of enhanced stacking interactions between methylated bases and protein aromatic side chains. Hu G, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7149–54

Fluorescence studies on association of human translation initiation factor eIF4E with mRNA cap–analogues. Wieczorek Z, et al. **Z Naturforsch [C]** 1999 Mar–Apr; 54(3–4):278–84

GENETICS

Influence of a cap site element on tissue–restricted expression of the glycoprotein hormone alpha–subunit gene. Cox GS, et al. **Biochem Biophys Res Commun** 1999 Jul 14; 260(3):752–9

Cloning and characterization of three human cDNAs encoding mRNA (guanine–7–)–methyltransferase, an mRNA cap methylase. Tsukamoto T, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):27–34

Alfalfa mosaic virus RNAs serve as cap donors for tomato spotted wilt virus transcription during coinfection of Nicotiana benthamiana. Duijsings D, et al. **J Virol** 1999 Jun;73(6):5172–5

Cap–dependent translation initiation in eukaryotes is regulated by a molecular mimic of eIF4G. Marcotrigiano J, et al. **Mol Cell** 1999 Jun;3(6):707–16

The pre–mRNA 5' cap determines whether U6 small nuclear RNA succeeds U1 small nuclear ribonucleoprotein particle at 5' splice sites. O'Mullane L, et al. **Mol Cell Biol** 1998 Dec;18(12):7510–20

Mutations in translation initiation factors lead to increased rates of deadenylation and decapping of mRNAs in Saccharomyces cerevisiae. Schwartz DC, et al. **Mol Cell Biol** 1999 Aug;19(8):5247–56

The N–terminal half of the brome mosaic virus 1a protein has RNA capping–associated activities: specificity for GTP and S–adenosylmethionine. Kong F, et al. **Virology** 1999 Jun 20;259(1):200–10

METABOLISM

Guanosine nucleotide analogs as inhibitors of alphavirus mRNA capping enzyme. Lampio A, et al. **Antiviral Res** 1999 May;42(1):35–46

Repressor binding to a dorsal regulatory site traps human eIF4E in a high cap–affinity state. Ptushkina M, et al. **EMBO J** 1999 Jul 15;18(14):4068–75

eIF4E activity is regulated at multiple levels. Raught B, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):43–57 (111 ref.)

Monitoring mRNA decapping activity. Zhang S, et al. **Methods** 1999 Jan;17(1):46–51

IRP–1 binding to ferritin mRNA prevents the recruitment of the small ribosomal subunit by the cap–binding complex eIF4F. Muckenthaler M, et al. **Mol Cell** 1998 Sep; 2(3):383–8

Oligonucleotide–europium complex conjugate designed to cleave the 5' cap structure of the ICAM–1 transcript potentiates antisense activity in cells. Baker BF, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1547–51

Decapping of stabilized, polyadenylated mRNA in yeast pab1 mutants. Morrissey JP, et al. **Yeast** 1999 Jun 15; 15(8):687–702

Fluorescence studies on association of human translation initiation factor eIF4E with mRNA cap–analogues. Wieczorek Z, et al. **Z Naturforsch [C]** 1999 Mar–Apr; 54(3–4):278–84

[mRNA CAP binding protein] Matsuo H, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):518–29 (44 ref.) **(Jpn)**

PHYSIOLOGY

The yeast poly(A)–binding protein Pab1p stimulates in vitro poly(A)–dependent and cap–dependent translation by distinct mechanisms. Otero LJ, et al. **EMBO J** 1999 Jun 1;18(11):3153–63

The nuclear cap–binding complex is a novel target of growth factor receptor–coupled signal transduction. Wilson KF, et al. **J Biol Chem** 1999 Feb 12;274(7):4166–73

RNA, CATALYTIC

Creation and evolution of new ribozymes. Bartel DP. **Biol Bull** 1999 Jun;196(3):322–3

In vitro selection of nucleic acid enzymes. Kurz M, et al. **Curr Top Microbiol Immunol** 1999;243:137–58 (88 ref.)

Ribozymes: the characteristics and properties of catalytic RNAs. Tanner NK. **FEMS Microbiol Rev** 1999 Jun; 23(3):257–75 (105 ref.)

RNA repair as a novel approach to genetic therapy [editorial] Sullenger BA. **Gene Ther** 1999 Apr;6(4):461–2

The Ribonuclease P Database. Brown JW. **Nucleic Acids Res** 1999 Jan 1;27(1):314

[Ribozyme targeting as gene therapy method for treatment of malignant tumors] Juhl H, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1474–7 (Eng. Abstr.) **(Ger)**

ADMINISTRATION & DOSAGE

Antisense technologies have a future fighting neurodegenerative diseases. Seidman S, et al. **Antisense Nucleic Acid Drug Dev** 1999 Aug;9(4):333–40 (69 ref.)

Specific inhibition of macrophage TNF–alpha expression by in vivo ribozyme treatment. Kisich KO, et al. **J Immunol** 1999 Aug 15;163(4):2008–16

ANTAGONISTS & INHIBITORS

Enhanced RNA binding of dimerized aminoglycosides. Michael K, et al. **Bioorg Med Chem** 1999 Jul;7(7):1361–71

Mechanism for allosteric inhibition of an ATP–sensitive ribozyme. Tang J, et al. **Nucleic Acids Res** 1998 Sep 15; 26(18):4214–21

BIOSYNTHESIS

The design and construction of a new nucleozyme. Zhang J, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:636–9

RNA enzymes with two small–molecule substrates. Huang F, et al. **Chem Biol** 1998 Nov;5(11):669–78

[The reversion of multidrug resistance in tumour cell line MCF–7/Adr by ribozyme] Yuan Y, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jul;77(7):494–6 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Capillary electrophoresis of RNA oligonucleotides: catalytic activity of a hammerhead ribozyme. Saevels J, et al. **Anal Biochem** 1999 Jan 1;266(1):93–101

Length variation of helix III in a hammerhead ribozyme and its influence on cleavage activity. Hammann C, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):25–31

A hammerhead ribozyme targeted to the human chemokine receptor CCR5. González MA, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):592–6

Substitution of the 2'–hydroxyl group at position 2.1 by an amino group interferes with Mg(2+) binding and efficient cleavage by hammerhead ribozyme. Sioud M, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):461–6

Novel configurations of the hammerhead ribozyme: increased activity and reduced magnesium ion requirement. Wang L, et al. **Biochem Biophys Res Commun** 1998 Sep 29; 250(3):711–9

RNA folding and misfolding of the hammerhead ribozyme. Bassi GS, et al. **Biochemistry** 1999 Mar 16;38(11):3345–54

Critical nature of a specific uridine O2–carbonyl for cleavage by the hammerhead ribozyme. Bevers S, et al. **Biochemistry** 1999 Jun 15;38(24):7710–8

Assembly of an exceptionally stable RNA tertiary interface in a group I ribozyme. Doherty EA, et al. **Biochemistry** 1999 Mar 9;38(10):2982–90

Tertiary structure stabilization promotes hairpin ribozyme

ligation. Fedor MJ. **Biochemistry** 1999 Aug 24; 38(34):11040–50

Mapping RNA–protein interactions in ribonuclease P from Escherichia coli using electron paramagnetic resonance spectroscopy. Gopalan V, et al. **Biochemistry** 1999 Feb 9; 38(6):1705–14

The solvent-protected core of the hairpin ribozyme–substrate complex. Hampel KJ, et al. **Biochemistry** 1998 Oct 20; 37(42):14672–82

Electron paramagnetic resonance spectroscopic measurement of Mn2+ binding affinities to the hammerhead ribozyme and correlation with cleavage activity. Horton TE, et al. **Biochemistry** 1998 Dec 22;37(51):18094–101

The cleavage step of ribonuclease P catalysis is determined by ribozyme–substrate interactions both distal and proximal to the cleavage site. Loria A, et al. **Biochemistry** 1999 Jul 6;38(27):8612–20

Probing the role of metal ions in RNA catalysis: kinetic and thermodynamic characterization of a metal ion interaction with the 2'-moiety of the guanosine nucleophile in the Tetrahymena group I ribozyme. Shan SO, et al. **Biochemistry** 1999 Aug 24;38(34):10958–75

Identification of adenosine functional groups involved in substrate binding by the ribonuclease P ribozyme. Siew D, et al. **Biochemistry** 1999 Feb 9;38(6):1873–83

Folding of the four-way RNA junction of the hairpin ribozyme. Walter F, et al. **Biochemistry** 1998 Dec 15; 37(50):17629–36

Structure and activity of the hairpin ribozyme in its natural junction conformation: effect of metal ions. Walter F, et al. **Biochemistry** 1998 Oct 6;37(40):14195–203

Optimizing the substrate specificity of a group I intron ribozyme. Zarrinkar PP, et al. **Biochemistry** 1999 Mar 16; 38(11):3426–32

Partial characterization of the ribonuclease P from Tetrahymena pyriformis. Vainauskas S, et al. **Biochimie** 1998 Jul;80(7):595–604

Self-capping RNA catalysts derived from selection-amplification. Huang F, et al. **Biol Bull** 1999 Jun; 196(3):320–1

Nuclease resistant hammerhead motif: from '5-ribo' to '3-ribo' model. Matulic-Adamic J, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):157–60

Hammerhead ribozyme design and application. Amarzguioui M, et al. **Cell Mol Life Sci** 1998 Nov;54(11):1175–202 (248 ref.)

A hydrogen-bonding triad stabilizes the chemical transition state of a group I ribozyme. Strobel SA, et al. **Chem Biol** 1999 Mar;6(3):153–65

Structure, folding and catalysis of the small nucleolytic ribozymes. Lilley DM. **Curr Opin Struct Biol** 1999 Jun; 9(3):330–8 (69 ref.)

A map of the binding site for catalytic domain 5 in the core of a group II intron ribozyme. Konforti BB, et al. **EMBO J** 1998 Dec 1;17(23):7105–17

Hammerhead ribozyme-mediated cleavage of the human insulin-like growth factor-II ribonucleic acid in vitro and in prostate cancer cells. Xu ZD, et al. **Endocrinology** 1999 May;140(5):2134–44

Sequence specific cleavage of the HIV-1 coreceptor CCR5 gene by a hammer-head ribozyme and a DNA-enzyme: inhibition of the coreceptor function by DNA-enzyme. Goila R, et al. **FEBS Lett** 1998 Oct 2;436(2):233–8

CTAB-mediated enrichment for active forms of novel dimeric maxizymes. Nakayama A, et al. **FEBS Lett** 1999 Apr 1;448(1):67–74

Functional reconstitution of RNase P activity from a plastid RNA subunit and a cyanobacterial protein subunit. Pascual A, et al. **FEBS Lett** 1999 Jan 8;442(1):7–10

Cellular delivery of hammerhead ribozymes conjugated to a transferrin receptor antibody. Hudson AJ, et al. **Int J Pharm** 1999 May 10;182(1):49–58

Localization in the nucleolus and coiled bodies of protein subunits of the ribonucleoprotein ribonuclease P. Jarrous N, et al. **J Cell Biol** 1999 Aug 9;146(3):559–72

RNase P RNA structure and cleavage reflect the primary structure of tRNA genes. Brännvall M, et al. **J Mol Biol** 1998 Nov 6;283(4):771–83

Structure and thermodynamics of metal binding in the P5 helix of a group I intron ribozyme. Colmenarejo G, et al. **J Mol Biol** 1999 Jul 2;290(1):119–35

Cyanelle RNase P: RNA structure analysis and holoenzyme properties of an organellar ribonucleoprotein enzyme. Cordier A, et al. **J Mol Biol** 1999 May 28;289(1):9–20

NMR solution structure of the lead-dependent ribozyme: evidence for dynamics in RNA catalysis. Hoogstraten CG, et al. **J Mol Biol** 1998 Nov 27;284(2):337–50

Order, dynamics and metal-binding in the lead-dependent ribozyme. Legault P, et al. **J Mol Biol** 1998 Nov 27; 284(2):325–35

Sequential folding of the genomic ribozyme of the hepatitis delta virus: structural analysis of RNA transcription intermediates. Matysiak M, et al. **J Mol Biol** 1999 Aug 13;291(2):283–94

The internal equilibrium of the hairpin ribozyme: temperature, ion and pH effects. Nesbitt SM, et al. **J Mol Biol** 1999 Mar 5;286(4):1009–24

Alignment of the two domains of the hairpin ribozyme–substrate complex defined by interdomain photoaffinity crosslinking. Pinard R, et al. **J Mol Biol** 1999 Mar 26;287(2):239–51

Global structure and flexibility of hairpin ribozymes with extended terminal helices. Porschke D, et al. **J Mol Biol** 1999 Jun 18;289(4):799–813

New pathways in folding of the Tetrahymena group I RNA enzyme. Russell R, et al. **J Mol Biol** 1999 Sep 3; 291(5):1155–67

Nucleotide analog interference mapping of the hairpin ribozyme: implications for secondary and tertiary structure formation. Ryder SP, et al. **J Mol Biol** 1999 Aug 13; 291(2):295–311

Identification of phosphate groups involved in metal binding and tertiary interactions in the core of the Neurospora VS ribozyme. Sood VD, et al. **J Mol Biol** 1998 Oct 2; 282(4):741–50

Thiol-containing RNA for the study of structure and function of ribozymes. Sigurdsson ST. **Methods** 1999 May; 18(1):71–7

In vitro selection of an allosteric ribozyme that transduces analytes to amplicons. Robertson MP, et al. **Nat Biotechnol** 1999 Jan;17(1):62–6

A specific monovalent metal ion integral to the AA platform of the RNA tetraloop receptor [see comments] Basu S, et al. **Nat Struct Biol** 1998 Nov;5(11):986–92. Comment in: Nat Struct Biol 1998 Nov;5(11):927–30.

Solution structure of the loop B domain from the hairpin ribozyme. Butcher SE, et al. **Nat Struct Biol** 1999 Mar; 6(3):212–6

Stability of hairpin ribozyme tertiary structure is governed by the interdomain junction. Walter NG, et al. **Nat Struct Biol** 1999 Jun;6(6):544–9

Crystal structure of a lead-dependent ribozyme revealing metal binding sites relevant to catalysis. Wedekind JE, et al. **Nat Struct Biol** 1999 Mar;6(3):261–8

A new metal ion interaction in the Tetrahymena ribozyme reaction revealed by double sulfur substitution. Yoshida A, et al. **Nat Struct Biol** 1999 Apr;6(4):318–21

Crystal structure of a hepatitis delta virus ribozyme [see comments] Ferré-D'Amaré AR, et al. **Nature** 1998 Oct 8;395(6702):567–74. Comment in: Nature 1998 Oct 8;395(6702):548–9.

Ribozyme crevices and catalysis [news; comment] Herschlag D. **Nature** 1998 Oct 8;395(6702):548–9. Comment on: Nature 1998 Oct 8;395(6702):567–74.

Hairpin ribozyme cleavage catalyzed by aminoglycoside antibiotics and the polyamine spermine in the absence of metal ions. Earnshaw DJ, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5551–61

Sequence specificity of the hammerhead ribozyme revisited; the NHH rule. Kore AR, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4116–20

Design, characterization and testing of tRNA3Lys-based hammerhead ribozymes. Medina MF, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1698–708

Detailed analysis of stem I and its 5' and 3' neighbor regions in the trans-acting HDV ribozyme. Nishikawa F, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):403–10

Mechanism for allosteric inhibition of an ATP-sensitive ribozyme. Tang J, et al. **Nucleic Acids Res** 1998 Sep 15; 26(18):4214–21

Recent developments in the hammerhead ribozyme field. Vaish NK, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5237–42 (79 ref.)

hPop4: a new protein subunit of the human RNase MRP and RNase P ribonucleoprotein complexes. van Eenennaam H, et al. **Nucleic Acids Res** 1999 Jun 15;27(12):2465–72

Mapping the molecular determinant of pathogenicity in a hammerhead viroid: a tetraloop within the in vivo branched RNA conformation. de la Peña M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9960–5

tRNAVal-heterodimeric maxizymes with high potential as geneinactivating agents: simultaneous cleavage at two sites in HIV-1 Tat mRNA in cultured cells. Kuwabara T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1886–91

Inhibition of RNase P RNA cleavage by aminoglycosides. Mikkelsen NE, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6155–60

Protein component of the ribozyme ribonuclease P alters substrate recognition by directly contacting precursor tRNA. Niranjanakumari S, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15212–7

Magnesium-dependent folding of self-splicing RNA: exploring the link between cooperativity, thermodynamics, and kinetics. Pan J, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6149–54

Verification of phylogenetic predictions in vivo and the importance of the tetraloop motif in a catalytic RNA. Pomeranz Krummel DA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11200–5

Engineering precision RNA molecular switches. Soukup GA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3584–9

An important base triple anchors the substrate helix recognition surface within the Tetrahymena ribozyme active site. Szewczak AA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11183–8

Molecular dynamics study displays near in-line attack conformations in the hammerhead ribozyme self-cleavage reaction. Torres RA, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11077–82

Identification and characterization of a novel high affinity metal-binding site in the hammerhead ribozyme. Hansen MR, et al. **RNA** 1999 Aug;5(8):1099–104

Guanosine 2-NH2 groups of Escherichia coli RNase P RNA involved in intramolecular tertiary contacts and direct interactions with tRNA. Heide C, et al. **RNA** 1999 Jan; 5(1):102–16

Structure-function relationships in the hammerhead ribozyme probed by base rescue. Peracchi A, et al. **RNA** 1998 Nov;4(11):1332–46

A preorganized active site in the crystal structure of the Tetrahymena ribozyme [see comments] Golden BL, et al. **Science** 1998 Oct 9;282(5387):259–64. Comment in: Science 1998 Oct 9;282(5387):251–2.

Imidazole rescue of a cytosine mutation in a self-cleaving ribozyme [see comments] Perrotta AT, et al. **Science** 1999 Oct 1;286(5437):123–6. Comment in: Science 1999 Oct 1;286(5437):61–2.

Chemical diversity in RNA cleavage [comment] Westhof E. **Science** 1999 Oct 1;286(5437):61–2. Comment on: Science 1999 Oct 1;286(5437):123–6.

Ribozyme architectural diversity made visible [comment] Westhof E, et al. **Science** 1998 Oct 9;282(5387):251–2. Comment on: Science 1998 Oct 9;282(5387):259–64.

Design of allosteric hammerhead ribozymes activated by ligand-induced structure stabilization. Soukup GA, et al. **Structure Fold Des** 1999 Jul 15;7(7):783–91

Designing ribozymes for the inhibition of gene expression. Bramlage B, et al. **Trends Biotechnol** 1998 Oct;16(10):434–8 (59 ref.)

DRUG EFFECTS

Synthesis of 2'-C-alpha-difluoromethylarauridine and its 3'-O-phosphoramidite incorporation into a hammerhead ribozyme. Dunkel M, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):787–92

GENETICS

The design and construction of a new nucleozyme. Zhang J, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:636–9

Inhibition of influenza A virus reproduction by a ribozyme targeted against PB1 mRNA. Lazarev VN, et al. **Antiviral Res** 1999 May;42(1):47–57

Complementation of the growth defect of an rnpA49 mutant of Escherichia coli by overexpression of arginine tRNA(CCG). Kim MS, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1153–60

A core folding model for catalysis by the hammerhead ribozyme accounts for its extraordinary sensitivity to abasic mutations. Peracchi A, et al. **Biochemistry** 1998 Oct 20; 37(42):14765–75

Probing the interplay between the two steps of group I intron splicing: competition of exogenous guanosine with omega G. Zarrinkar PP, et al. **Biochemistry** 1998 Dec 22; 37(51):18056–63

Ribozyme chemogenetics. Strobel SA. **Biopolymers** 1998; 48(1):65–81 (108 ref.)

Modulation of granulocyte-macrophage colony-stimulating factor gene expression by a tumor necrosis factor specific ribozyme in juvenile myelomonocytic leukemic cells. Iversen PO, et al. **Blood** 1998 Dec 1;92(11):4263–8

Anti-beta s-ribozyme reduces beta s mRNA levels in transgenic mice: potential application to the gene therapy of sickle cell anemia. Alami R, et al. **Blood Cells Mol Dis** 1999 Apr;25(2):110–9

S100A4 involvement in metastasis: deregulation of matrix metalloproteinases and tissue inhibitors of matrix metalloproteinases in osteosarcoma cells transfected with an anti-S100A4 ribozyme. Bjørnland K, et al. **Cancer Res** 1999 Sep 15;59(18):4702–8

Hammerhead ribozyme-mediated inactivation of mutant RET in medullary thyroid carcinoma. Parthasarathy R, et al. **Cancer Res** 1999 Aug 15;59(16):3911–4

RNA enzymes with two small-molecule substrates. Huang F, et al. **Chem Biol** 1998 Nov;5(11):669–78

Novel therapeutic strategy for atherosclerosis: ribozyme oligonucleotides against apolipoprotein(a) selectively inhibit apolipoprotein(a) but not plasminogen gene expression. Morishita R, et al. **Circulation** 1998 Nov 3; 98(18):1898–904

Ribozyme gene therapy for hepatitis C virus infection. Welch PJ, et al. **Clin Diagn Virol** 1998 Jul 15;10(2–3):163–71

Expression of ribozymes in gene transfer systems to modulate target RNA levels. Welch PJ, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):486–96 (107 ref.)

Ribozyme processed tRNA transcripts with unfriendly internal promoter for T7 RNA polymerase: production and activity [published erratum appears in FEBS Lett 1998 Dec 18;441(2):342] Fechter P, et al. **FEBS Lett** 1998 Sep 25; 436(1):99–103

Expression of a p16INK4a-specific ribozyme downmodulates p16INK4a abundance and accelerates cell proliferation. Nylandsted J, et al. **FEBS Lett** 1998 Sep 25;436(1):41–5

Effective reversal of a transformed phenotype by retrovirus-mediated transfer of a ribozyme directed against mutant N-ras [published erratum appears in Gene Ther 1999 Jan;6(1):148] Scherr M, et al. **Gene Ther** 1998 Sep; 5(9):1227–34

A novel SV40-based vector successfully transduces and expresses an alpha 1-antitrypsin ribozyme in a human hepatoma-derived cell line. Zern MA, et al. **Gene Ther** 1999 Jan;6(1):114–20

Growth inhibition by a triple ribozyme targeted to repetitive B2 transcripts. Crone TM, et al. **Hepatology** 1999 Apr; 29(4):1114–23

A marker study of therapeutically transduced CD4+

peripheral blood lymphocytes in HIV discordant identical twins. Cooper D, et al. **Hum Gene Ther** 1999 May 20; 10(8):1401–21

Retrovirus–mediated transfer of anti–MDR1 ribozymes fully restores chemosensitivity of P–glycoprotein–expressing human lymphoma cells. Wang FS, et al. **Hum Gene Ther** 1999 May 1;10(7):1185–95

Ribozymes as therapeutic tools for genetic disease. Phylactou LA, et al. **Hum Mol Genet** 1998;7(10):1649–53 (54 ref.)

Retrovirus–mediated transfer of anti–MDR1 hammerhead ribozymes into multidrug–resistant human leukemia cells: screening for effective target sites. Kobayashi H, et al. **Int J Cancer** 1999 Jun 11;81(6):944–50

Application of the ribonuclease P (RNase P) RNA gene sequence for phylogenetic analysis of the genus Saccharomonospora. Cho M, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1223–30

Pathway modulation, circular permutation and rapid RNA folding under kinetic control. Pan T, et al. **J Mol Biol** 1999 Feb 26;286(3):721–31

Reversion of human glioblastoma malignancy by U1 small nuclear RNA/ribozyme targeting of scatter factor/hepatocyte growth factor and c–met expression. Abounader R, et al. **J Natl Cancer Inst** 1999 Sep 15; 91(18):1548–56

Towards an RNA–based therapy for Marfan syndrome. Kilpatrick MW, et al. **Mol Med Today** 1998 Sep;4(9):376–81 (30 ref.)

Enzymatic and antisense effects of a specific anti–Ki–ras ribozyme in vitro and in cell culture. Giannini CD, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2737–44

Evolutionary variation in bacterial RNase P RNAs. Haas ES, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4093–9

Trans–activation of the Tetrahymena group I intron ribozyme via a non–native RNA–RNA interaction. Ikawa Y, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1650–5

A conserved motif in group IC3 introns is a new class of GNRA receptor. Ikawa Y, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1859–65

Bioactivity of anti–angiogenic ribozymes targeting Flt–1 and KDR mRNA. Parry TJ, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2569–77

A conserved bulged adenosine in a peripheral duplex of the antigenomic HDV self–cleaving RNA reduceskinetic trapping of inactive conformations. Perrotta AT, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):795–802

Construction of a directed hammerhead ribozyme library: towards the identification of optimal target sites for antisense–mediated gene inhibition. Pierce ML, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5093–101

Ribozymes targeted to stearoyl–ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603–22

Design of highly specific cytotoxins by using trans–splicing ribozymes. Ayre BG, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3507–12

Unexpected abundance of self–splicing introns in the genome of bacteriophage Twort: introns in multiple genes, a single gene with three introns, and exon skipping by group I ribozymes. Landthaler M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7005–10

Emergence of a dual–catalytic RNA with metal–specific cleavage and ligase activities: the spandrels of RNA evolution. Landweber LF, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):173–8

In vitro suicide inhibition of self–splicing of a group I intron from Pneumocystis carinii by an N3' –> P5' phosphoramidate hexanucleotide. Testa SM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2734–9

Rpp14 and Rpp29, two protein subunits of human ribonuclease P. Jarrous N, et al. **RNA** 1999 Feb;5(2):153–7

UV cross–link mapping of the substrate–binding site of an RNase P ribozyme to a target mRNA sequence. Kilani AF, et al. **RNA** 1999 Sep;5(9):1235–47

mRNA localization signals can enhance the intracellular effectiveness of hammerhead ribozymes. Lee NS, et al. **RNA** 1999 Sep;5(9):1200–9

Specificity from steric restrictions in the guanosine binding pocket of a group I ribozyme. Russell R, et al. **RNA** 1999 Feb;5(2):158–66

Ribozyme cleavage of a 2,5–phosphodiester linkage: mechanism and a restricted divalent metal–ion requirement. Shih IH, et al. **RNA** 1999 Sep;5(9):1140–8

[Effect of inhibition of expression PCNA with ribozyme on the proliferation of HeLa cells] Jin ZY, et al. **Shih Yen Sheng Wu Hsueh Pao** 1996 Dec;29(4):351–6 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Tumor–specific expression of anti–mdr1 ribozyme selectively restores chemosensitivity in multidrug–resistant colon–adenocarcinoma cells. Gao Z, et al. **Int J Cancer** 1999 Jul 30;82(3):346–52

ISOLATION & PURIFICATION

Fast and simple purification of chemically modified hammerhead ribozymes using a lipophilic capture tag. Sproat BS, et al. **Nucleic Acids Res** 1999 Apr 15; 27(8):1950–5

METABOLISM

Capillary electrophoresis of RNA oligonucleotides: catalytic activity of a hammerhead ribozyme. Saevels J, et al. **Anal Biochem** 1999 Jan 1;266(1):93–101

Ribonuclease P: unity and diversity in a tRNA processing ribozyme. Frank DN, et al. **Annu Rev Biochem** 1998; 67:153–80 (157 ref.)

Unusual interactions between cleavage products of a cis–cleaving hammerhead ribozyme. Castanotto D, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):499–506

Length variation of helix III in a hammerhead ribozyme and its influence on cleavage activity. Hammann C, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):25–31

The antisense sequence of the HIV–1 TAR stem–loop structure covalently linked to the hairpin ribozyme enhances its catalytic activity against two artificial substrates. Pérez–Ruiz M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):33–42

Targeted cleavage of RNA molecules by human RNase P using minimized external guide sequences. Werner M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):81–8

Hammerhead ribozymes that selectively cleave the NPY Y1, Y4, and Y5 receptor full–length RNA. Wieland HA, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):435–40

Inhibition of influenza A virus reproduction by a ribozyme targeted against PB1 mRNA. Lazarev VN, et al. **Antiviral Res** 1999 May;42(1):47–57

Hairpin ribozyme specificity in vivo: a case of promiscuous cleavage. Denman RB. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):356–60

A hammerhead ribozyme targeted to the human chemokine receptor CCR5. González MA, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):592–6

Repression of hepatitis B virus X gene expression by hammerhead ribozymes [published erratum appears in Biochem Biophys Res Commun 1999 May 27;259(1):231] Kim YK, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):759–65

Characterization in vitro and in vivo of hammerhead ribozymes directed against murine tumor necrosis factoralpha. MacKay SL, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):390–7

Inosine(15.1) hammerhead ribozymes for targeting the transthyretin–30 mutation. Pröpsting MJ, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):313–7

Substitution of the 2'–hydroxyl group at position 2.1 by an amino group interferes with Mg(2+) binding and efficient cleavage by hammerhead ribozyme. Sioud M, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):461–6

Identification of individual nucleotides in the bacterial ribonuclease P ribozyme adjacent to the pre–tRNA cleavage site by short–range photo–cross–linking. Christian EL, et al. **Biochemistry** 1998 Dec 15;37(50):17618–28

The track of the pre–tRNA 5' leader in the ribonuclease P ribozyme–substrate complex. Christian EL, et al. **Biochemistry** 1999 Sep 28;38(39):12629–38

Tertiary structure stabilization promotes hairpin ribozyme ligation. Fedor MJ. **Biochemistry** 1999 Aug 24; 38(34):11040–50

Thermodynamic dissection of the substrate–ribozyme interaction in the hammerhead ribozyme. Hertel KJ, et al. **Biochemistry** 1998 Dec 1;37(48):16983–8

Electron paramagnetic resonance spectroscopic measurement of Mn2+ binding affinities to the hammerhead ribozyme and correlation with cleavage activity. Horton TE, et al. **Biochemistry** 1998 Dec 22;37(51):18094–101

Hammerhead ribozyme mechanism: a ribonucleotide 5' to the substrate cleavage site is not essential. Kore AR, et al. **Biochemistry** 1999 Aug 24;38(34):10915–8

Recognition of a pre–tRNA substrate by the Bacillus subtilis RNase P holoenzyme. Loria A, et al. **Biochemistry** 1998 Nov 3;37(44):15466–73

The cleavage step of ribonuclease P catalysis is determined by ribozyme–substrate interactions both distal and proximal to the cleavage site. Loria A, et al. **Biochemistry** 1999 Jul 6;38(27):8612–20

Kinetic analysis of delta ribozyme cleavage. Mercure S, et al. **Biochemistry** 1998 Dec 1;37(48):16975–82

A core folding model for catalysis by the hammerhead ribozyme accounts for its extraordinary sensitivity to abasic mutations. Peracchi A, et al. **Biochemistry** 1998 Oct 20; 37(42):14765–75

Protonated 2'–aminoguanosine as a probe of the electrostatic environment of the active site of the Tetrahymena group I ribozyme. Shan SO, et al. **Biochemistry** 1999 Aug 24; 38(34):10976–88

Identification of adenosine functional groups involved in substrate binding by the ribonuclease P ribozyme. Siew D, et al. **Biochemistry** 1999 Feb 9;38(6):1873–83

Bimodal action of alkaline earth cations on Dictyostelium discoideum ribonuclease P activity. Tekos A, et al. **Biochemistry** 1998 Nov 3;37(44):15474–80

A Y form of hammerhead ribozyme trapped by photo–cross–links retains full cleavage activity. Bravo C, et al. **Biochimie** 1999 Mar;81(3):201–12

Viroids with hammerhead ribozymes: some unique structural and functional aspects with respect to other members of the group. Flores R, et al. **Biol Chem** 1999 Jul–Aug; 380(7–8):849–54 (36 ref.)

Induction of apoptosis in myeloid leukaemic cells by ribozymes targeted against AML1/MTG8. Matsushita H, et al. **Br J Cancer** 1999 Mar;79(9–10):1325–31

S100A4 involvement in metastasis: deregulation of matrix metalloproteinases and tissue inhibitors of matrix metalloproteinases in osteosarcoma cells transfected with an anti–S100A4 ribozyme. Bjørnland K, et al. **Cancer Res** 1999 Sep 15;59(18):4702–8

Mimicry of the hepatitis delta virus replication cycle mediated by synthetic circular oligodeoxynucleotides. Diegelman AM, et al. **Chem Biol** 1999 Aug;6(8):569–76

The hammerhead, hairpin and VS ribozymes are catalytically proficient in monovalent cations alone. Murray JB, et al. **Chem Biol** 1998 Oct;5(10):587–95

A small catalytic RNA motif with Diels–Alderase activity. Seelig B, et al. **Chem Biol** 1999 Mar;6(3):167–76

Deciphering RNA recognition: aminoglycoside binding to the hammerhead ribozyme. Tor Y, et al. **Chem Biol** 1998 Nov;5(11):R277–83 (39 ref.)

Peptidyl–transferase ribozymes: trans reactions, structural characterization and ribosomal RNA–like features. Zhang B, et al. **Chem Biol** 1998 Oct;5(10):539–53

Ribozyme gene therapy for hepatitis C virus infection. Welch PJ, et al. **Clin Diagn Virol** 1998 Jul 15;10(2–3):163–71

Expression of ribozymes in gene transfer systems to modulate target RNA levels. Welch PJ, et al. **Curr Opin Biotechnol** 1998 Oct;9(5):486–96 (107 ref.)

Nucleic acid enzymes. Carola C, et al. **Curr Opin Chem Biol** 1999 Jun;3(3):274–83 (77 ref.)

DNA enzymes. Sen D, et al. **Curr Opin Chem Biol** 1998 Dec; 2(6):680–7 (52 ref.)

RNA catalysis. Scott WG. **Curr Opin Struct Biol** 1998 Dec; 8(6):720–6 (46 ref.)

Hammerhead ribozyme–mediated cleavage of the human insulin–like growth factor–II ribonucleic acid in vitro and in prostate cancer cells. Xu ZD, et al. **Endocrinology** 1999 May;140(5):2134–44

Sequence specific cleavage of the HIV–1 coreceptor CCR5 gene by a hammer–head ribozyme and a DNA–enzyme: inhibition of the coreceptor function by DNA–enzyme. Goila R, et al. **FEBS Lett** 1998 Oct 2;436(2):233–8

Folding and catalysis by the hairpin ribozyme. Lilley DM. **FEBS Lett** 1999 Jun 4;452(1–2):26–30 (33 ref.)

CTAB–mediated enrichment for active forms of novel dimeric maxizymes. Nakayama A, et al. **FEBS Lett** 1999 Apr 1;448(1):67–74

Expression of a p16INK4a–specific ribozyme downmodulates p16INK4a abundance and accelerates cell proliferation. Nylandsted J, et al. **FEBS Lett** 1998 Sep 25;436(1):41–5

Enhancement of RNA self–cleavage by micellar catalysis. Riepe A, et al. **FEBS Lett** 1999 Aug 27;457(2):193–9

The effect of Lp3 enlargement on the folding and catalysis of hepatitis delta virus cis–cleaving ribozyme. Wu HN, et al. **FEBS Lett** 1998 Nov 20;439(3):312–6

Ribonuclease P: the diversity of a ubiquitous RNA processing enzyme. Schön A. **FEMS Microbiol Rev** 1999 Jun; 23(3):391–406 (128 ref.)

Metal ion catalysis during group II intron self–splicing: parallels with the spliceosome. Sontheimer EJ, et al. **Genes Dev** 1999 Jul 1;13(13):1729–41

Growth inhibition by a triple ribozyme targeted to repetitive B2 transcripts. Crone TM, et al. **Hepatology** 1999 Apr; 29(4):1114–23

Efficient ex vivo inhibition of perforin and Fas ligand expression by chimeric tRNA–hammerhead ribozymes [see comments] Du Z, et al. **Hum Gene Ther** 1998 Jul 20; 9(11):1551–60. Comment in: Hum Gene Ther 1998 Jul 20;9(11):1528–9.

A recombinant defective adenoviral agent expressing anti–bcl–2 ribozyme promotes apoptosis of bcl–2–expressing human prostate cancer cells. Dorai T, et al. **Int J Cancer** 1999 Sep 9;82(6):846–52

Modification and application of self–trimming hairpin ribozymes to targeting a transcribed RNA in vitro. Komatsu Y, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):986–91

Localization in the nucleolus and coiled bodies of protein subunits of the ribonucleoprotein ribonuclease P. Jarrous N, et al. **J Cell Biol** 1999 Aug 9;146(3):559–72

Ribozyme–mediated specific gene replacement of the alpha1–antitrypsin gene in human hepatoma cells. Ozaki I, et al. **J Hepatol** 1999 Jul;31(1):53–60

Manganese ions induce miscleavage in the Escherichia coli RNase P RNA–catalyzed reaction. Brännvall M, et al. **J Mol Biol** 1999 Sep 10;292(1):53–63

Cyanelle RNase P: RNA structure analysis and holoenzyme properties of an organellar ribonucleoprotein enzyme. Cordier A, et al. **J Mol Biol** 1999 May 28;289(1):9–20

NMR solution structure of the lead–dependent ribozyme: evidence for dynamics in RNA catalysis. Hoogstraten CG, et al. **J Mol Biol** 1998 Nov 27;284(2):337–50

Kinetics at a multifunctional RNA active site. Huang F, et al. **J Mol Biol** 1998 Nov 27;284(2):255–67

The internal equilibrium of the hairpin ribozyme: temperature, ion and pH effects. Nesbitt SM, et al. **J Mol Biol** 1999 Mar 5;286(4):1009–24

Antagonistic substrate binding by a group II intron ribozyme. Qin PZ, et al. **J Mol Biol** 1999 Aug 6;291(1):15–27

New pathways in folding of the Tetrahymena group I RNA enzyme. Russell R, et al. **J Mol Biol** 1999 Sep 3; 291(5):1155–67

Role of metal ions in the hydrolysis reaction catalyzed by RNase P RNA from Bacillus subtilis. Warnecke JM, et al. **J Mol Biol** 1999 Jul 9;290(2):433–45

Factors governing the activity in vivo of ribozymes

transcribed by RNA polymerase III. Koseki S, et al. **J Virol** 1999 Mar;73(3):1868-77

Adenovirus-mediated expression of a ribozyme to c-myb mRNA inhibits smooth muscle cell proliferation and neointima formation in vivo. Macejak DG, et al. **J Virol** 1999 Sep;73(9):7745-51

Combinatorial screening and intracellular antiviral activity of hairpin ribozymes directed against hepatitis B virus. zu Putlitz J, et al. **J Virol** 1999 Jul;73(7):5381-7

Generation and application of asymmetric hammerhead ribozymes. Hammann C, et al. **Methods** 1999 Jul; 18(3):273-80

Use of ribozymes to inhibit gene expression. Krüger M, et al. **Methods Enzymol** 1999;306:207-25

Strategies to express structural and catalytic RNAs in mammalian cells. Thompson JD. **Methods Enzymol** 1999; 306:241-60 (71 ref.)

A novel allosterically trans-activated ribozyme, the maxizyme, with exceptional specificity in vitro and in vivo. Kuwabara T, et al. **Mol Cell** 1998 Nov;2(5):617-27

Catalytic cleavage of the androgen receptor messenger RNA and functional inhibition of androgen receptor activity by a hammerhead ribozyme. Chen S, et al. **Mol Endocrinol** 1998 Oct;12(10):1558-66

Ribozyme-mediated cleavage of the estrogen receptor messenger RNA and inhibition of receptor function in target cells. Lavrovsky Y, et al. **Mol Endocrinol** 1999 Jun; 13(6):925-34

Formation of a catalytically active dimer by tRNA(Val)-driven short ribozymes. Kuwabara T, et al. **Nat Biotechnol** 1998 Oct;16(10):961-5

In vitro selection of an allosteric ribozyme that transduces analytes to amplicons. Robertson MP, et al. **Nat Biotechnol** 1999 Jan;17(1):62-6

Leadzyme RNA catalysis [news] Westhof E, et al. **Nat Struct Biol** 1999 Mar;6(3):208-9

A new metal ion interaction in the Tetrahymena ribozyme reaction revealed by double sulfur substitution. Yoshida A, et al. **Nat Struct Biol** 1999 Apr;6(4):318-21

Mutational analysis of the antigenomic trans-acting delta ribozyme: the alterations of the middle nucleotides located on the P1 stem. Ananvoranich S, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1473-9

Inhibition of luciferase expression by synthetic hammerhead ribozymes and their cellular uptake. Bramlage B, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3159-67

Selected classes of minimised hammerhead ribozyme have very high cleavage rates at low Mg2+ concentration. Conaty J, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2400-7

In vitro analysis of processing at the 3'-end of precursors of M1 RNA, the catalytic subunit of Escherichia coli RNase P: multiple pathways and steps for the processing. Kim S, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):895-902

Sequence specificity of the hammerhead ribozyme revisited; the NHH rule. Kore AR, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4116-20

Presence of a coordinated metal ion in a trans-acting antigenomic delta ribozyme. Lafontaine DA, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3236-43

Effect of substrate RNA sequence on the cleavage reaction by a short ribozyme. Ohmichi T, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5655-61

Origins of the temperature dependence of hammerhead ribozyme catalysis. Peracchi A. **Nucleic Acids Res** 1999 Jul 15;27(14):2875-82

Intracellular metabolism of a 2'-O-methyl-stabilized ribozyme after uptake by DOTAP transfection or aafree ribozyme. A study by capillary electrophoresis. Prasmickaite L, et al. **Nucleic Acids Res** 1998 Sep 15; 26(18):4241-8

Delta ribozyme has the ability to cleave in transan mRNA. Roy G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):942-8

A re-investigation of the thio effect at the hammerhead cleavage site. Scott EC, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):479-84

Ribozymes targeted to stearoyl-ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603-22

Design of highly specific cytotoxins by using trans-splicing ribozymes. Ayre BG, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3507-12

tRNAVal-heterodimeric maxizymes with high potential as geneinactivating agents: simultaneous cleavage at two sites in HIV-1 Tat mRNA in cultured cells. Kuwabara T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1886-91

Inhibition of RNase P RNA cleavage by aminoglycosides. Mikkelsen NE, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6155-60

Protein component of the ribozyme ribonuclease P alters substrate recognition by directly contacting precursor tRNA. Niranjanakumari S, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15212-7

Magnesium-dependent folding of self-splicing RNA: exploring the link between cooperativity, thermodynamics, and kinetics. Pan J, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6149-54

Folding of a large ribozyme during transcription and the effect of the elongation factor NusA. Pan T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9545-50

RNase P RNAs from some Archaea are catalytically active. Pannucci JA, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7803-8

Substrate binding and catalysis by ribonuclease P from cyanobacteria and Escherichia coli are affected differently by the 3' terminal CCA in tRNA precursors. Pascual A, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6672-7

A small nucleolar RNA:ribozyme hybrid cleaves a nucleolar RNA target in vivo with near-perfect efficiency. Samarsky DA, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6609-14

Engineering precision RNA molecular switches. Soukup GA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3584-9

In vitro selection of the Naegleria GIR1 ribozyme identifies three base changes that dramatically improve activity. Jabri E, et al. **RNA** 1998 Dec;4(12):1481-92

Inhibition of viral gene expression by human ribonuclease P. Kawa D, et al. **RNA** 1998 Nov;4(11):1397-406

UV cross-link mapping of the substrate-binding site of an RNase P ribozyme to a target mRNA sequence. Kilani AF, et al. **RNA** 1999 Sep;5(9):1235-47

Structure-function relationships in the hammerhead ribozyme probed by base rescue. Peracchi A, et al. **RNA** 1998 Nov;4(11):1332-46

Multiple binding modes of substrate to the catalytic RNA subunit of RNase P from Escherichia coli. Pomeranz Krummel DA, et al. **RNA** 1999 Aug;5(8):1021-33

High-performance liquid chromatography purification of homogenous-length RNA produced by trans cleavage with a hammerhead ribozyme. Shields TP, et al. **RNA** 1999 Sep; 5(9):1259-67

Ribozyme cleavage of a 2,5-phosphodiester linkage: mechanism and a restricted divalent metal-ion requirement. Shih IH, et al. **RNA** 1999 Sep;5(9):1140-8

The influence of junction conformation on RNA cleavage by the hairpin ribozyme in its natural junction form. Thomson JB, et al. **RNA** 1999 Feb;5(2):180-7

A nested double pseudoknot is required for self-cleavage activity of both the genomic and antigenomic hepatitis delta virus ribozymes. Wadkins TS, et al. **RNA** 1999 Jun; 5(6):720-7

Imidazole rescue of a cytosine mutation in a self-cleaving ribozyme [see comments] Perrotta AT, et al. **Science** 1999 Oct 1;286(5437):123-6. Comment in: Science 1999 Oct 1;286(5437):61-2.

Ribozymes in the nucleolus. Rossi JJ. **Science** 1999 Sep 10; 285(5434):1685

Chemical diversity in RNA cleavage [comment] Westhof E. **Science** 1999 Oct 1;286(5437):61-2. Comment on: Science 1999 Oct 1;286(5437):123-6.

[New classes of ribozymes isolated by in vitro selection. RNA ligases] Zhenodarova SM, et al. **Mol Biol (Mosk)** 1998 Nov-Dec;32(6):948-54 (23 ref.) **(Rus)**

PHARMACOKINETICS

Pharmacokinetics of an antiangiogenic ribozyme (ANGIOZYME) in the mouse. Sandberg JA, et al. **Antisense Nucleic Acid Drug Dev** 1999 Jun;9(3):271-7

Cellular delivery of hammerhead ribozymes conjugated to a transferrin receptor antibody. Hudson AJ, et al. **Int J Pharm** 1999 May 10;182(1):49-58

PHARMACOLOGY

Ribozyme-mediated decrease in mumps virus nucleocapsid mRNA level and progeny in infected vero cells. Albuquerque-Silva J, et al. **Antisense Nucleic Acid Drug Dev** 1999 Jun;9(3):279-88

Transient transfection of a synthetic hammerhead ribozyme targeted against human MGMT gene to cells in culture potentiates the genotoxicity of the alkylation damage induced by mitozolomide. Citti L, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):125-33

Synthetic 2'-O-methyl-modified hammerhead ribozymes targeted to the RNA component of telomerase as sequence-specific inhibitors of telomerase activity. Wan MS, et al. **Antisense Nucleic Acid Drug Dev** 1998 Aug; 8(4):309-17

Phosphorothioate hammerhead ribozymes targeting a conserved sequence in the V3 loop region inhibit HIV-1 entry. Zhang X, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):441-50

Function and biological applications of catalytic nucleic acids. Gaughan DJ, et al. **Biochim Biophys Acta** 1999 Apr 14;1445(1):1-20 (104 ref.)

Ribozyme inhibition of the protein kinase C alpha triggers apoptosis in glioma cells. Leirdal M, et al. **Br J Cancer** 1999 Jul;80(10):1558-64

Attenuation of telomerase activity by a hammerhead ribozyme targeting the template region of telomerase RNA in endometrial carcinoma cells. Yokoyama Y, et al. **Cancer Res** 1998 Dec 1;58(23):5406-10

A controlled, Phase I clinical trial to evaluate the safety and effects in HIV-1 infected humans of autologous lymphocytes transduced with a ribozyme that cleaves HIV-1 RNA. Wong-Staal F, et al. **Hum Gene Ther** 1998 Nov 1;9(16):2407-25

Application of preformed hammerhead ribozymes in the gene therapy of cancer (review). Sioud M. **Int J Mol Med** 1999 Apr;3(4):381-4 (384 ref.)

Expression of p120 nucleolar proliferating antigen in human gliomas and growth suppression of glioma cells by p120 ribozyme vector. Sato K, et al. **Int J Oncol** 1999 Mar; 14(3):417-24

A simple assay system for examination of the inhibitory potential in vivo of decoy RNAs, ribozymes and other drugs by measuring the Tat-mediated transcription of a fusion gene composed of the long terminal repeat of HIV-1 and a gene for luciferase. Koseki S, et al. **J Controlled Release** 1998 Apr 30;53(1-3):159-73

Designing ribozymes for the inhibition of gene expression. Bramlage B, et al. **Trends Biotechnol** 1998 Oct;16(10):434-8 (59 ref.)

[Study on telomerase inhibition by ribozyme targeted to telomerase RNA component] Qu Y, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Jun; 16(3):133-7 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

3'-End modification of the adenoviral VA1 gene affects its expression in human cells: consequences for the design of chimeric VA1 RNA ribozymes. Barcellini-Couget S, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):379-90

Nuclease-resistant external guide sequence-induced cleavage of target RNA by human ribonuclease P. Ma MY, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):415-26

Hammerhead ribozyme specifically inhibits mutant K-ras mRNA of human pancreatic cancer cells. Tsuchida T, et al. **Biochem Biophys Res Commun** 1998 Dec 18; 253(2):368-73

Function and biological applications of catalytic nucleic acids. Gaughan DJ, et al. **Biochim Biophys Acta** 1999 Apr 14;1445(1):1-20 (104 ref.)

Ribozymes, genomics and therapeutics. Rossi JJ. **Chem Biol** 1999 Feb;6(2):R33-7 (30 ref.)

Boundaries for an RNA world. Yarus M. **Curr Opin Chem Biol** 1999 Jun;3(3):260-7 (72 ref.)

Hammerhead ribozyme cleavage of apolipoprotein B mRNA generates a truncated protein. Wang JP, et al. **J Biol Chem** 1999 Aug 20;274(34):24161-70

Trans-splicing ribozymes for targeted gene delivery. Köhler U, et al. **J Mol Biol** 1999 Feb 5;285(5):1935-50

The role of essential pyrimidines in the hairpin ribozyme-catalysed reaction. Young KJ, et al. **J Mol Biol** 1999 May 21;288(5):853-66

The versatility of RNA: let's shoot the deputy. Luft FC. **J Mol Med** 1998 Nov-Dec;76(12):791-3

Thiol-containing RNA for the study of structure and function of ribozymes. Sigurdsson ST. **Methods** 1999 May; 18(1):71-7

[Study of transcription and cleavage in vitro of HDV with HBV-specific hammerhead ribozyme] Wen S, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar;7(1):11-2 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Therapeutic efficacy of an adenovirus-mediated anti-H-ras ribozyme in experimental bladder cancer. Irie A, et al. **Antisense Nucleic Acid Drug Dev** 1999 Aug;9(4):341-9

Antisense technologies have a future fighting neurodegenerative diseases. Seidman S, et al. **Antisense Nucleic Acid Drug Dev** 1999 Aug;9(4):333-40 (69 ref.)

Selection of a high activity ribozyme against cytostatic drug resistance-associated glypican-3 using an in vitro assay containing total tumor RNA. Wichert A, et al. **Cancer Gene Ther** 1999 May-Jun;6(3):263-70

Chimeric DNA-RNA hammerhead ribozyme to proliferating cell nuclear antigen reduces stent-induced stenosis in a porcine coronary model. Frimerman A, et al. **Circulation** 1999 Feb 9;99(5):697-703

Gene therapy: repairing haemoglobin disorders with ribozymes. Weatherall DJ. **Curr Biol** 1998 Sep 24; 8(19):R696-8 (13 ref.)

Ribozymes in gene therapy of HIV-1. Macpherson JL, et al. **Front Biosci** 1999 Jun 1;4:D497-505 (80 ref.)

Ribozymes as therapeutic tools for genetic disease. Phylactou LA, et al. **Hum Mol Genet** 1998;7(10):1649-53 (54 ref.)

Application of preformed hammerhead ribozymes in the gene therapy of cancer (review). Sioud M. **Int J Mol Med** 1999 Apr;3(4):381-4 (384 ref.)

The potential application of ribozymes for the treatment of hematological disorders. James HA. **J Leukoc Biol** 1999 Sep;66(3):361-8 (125 ref.)

Use of ribozymes to inhibit gene expression. Krüger M, et al. **Methods Enzymol** 1999;306:207-25

[Therapeutic application for leukemia with ribozyme] Matsushita H, et al. **Rinsho Ketsueki** 1998 Aug;39(8):553-64 (63 ref.) **(Jpn)**

TOXICITY

Cytotoxic hammerhead ribozymes. Levitz R, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):117-23

RNA, CHLOROPLAST

METABOLISM

Polyadenylation and degradation of mRNA in the chloroplast. Schuster G, et al. **Plant Physiol** 1999 Aug; 120(4):937-44 (33 ref.)

RNA, CHROMOSOMAL see **RNA, NUCLEAR**

RNA, COMPLEMENTARY

Single-nucleotide resolution of RNA strands in the presence of their RNA complements. Arnold JJ, et al. **Biotechniques** 1999 Sep;27(3):450-2, 454, 456

ANALYSIS

Hepatitis cRNA quasispecies complexity in patients with alcoholic liver disease. Sherman KE, et al. **Hepatology** 1999 Jul;30(1):265-70

Optimized visualization and PCR reamplification of differentially displayed cDNA bands detected by silver staining in polyacrylamide gels as established in the model of dithranol-treated keratinocytes. Böckelmann R, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan-Apr; 12(1-2):54-63

DIAGNOSTIC USE

Chronic ethanol exposure enhances signaling through muscarinic receptors expressed by cRNA injection in Xenopus oocytes: implications for mechanism of action. Hönemann CW, et al. **Alcohol Clin Exp Res** 1999 May; 23(5):791-8

GENETICS

Distinct regions of influenza virus PB1 polymerase subunit recognize vRNA and cRNA templates. González S, et al. **EMBO J** 1999 Jul 1;18(13):3767-75

METABOLISM

The mitochondrial RNA ligase from Leishmania tarentolae can join RNA molecules bridged by a complementary RNA. Blanc V, et al. **J Biol Chem** 1999 Aug 20; 274(34):24289-96

Mapping of a protein-RNA kissing hairpin interface: Rom and Tar-Tar*. Comolli LR, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4688-95

2'-Pyrene modified oligonucleotide provides a highly sensitive fluorescent probe of RNA. Yamana K, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2387-92

RNA-DEPENDENT DNA POLYMERASE see **RNA-DIRECTED DNA POLYMERASE**

RNA-DEPENDENT PROTEIN KINASE see **EIF-2 KINASE**

RNA-DEPENDENT RNA POLYMERASE see **RNA REPLICASE**

RNA-DIRECTED DNA POLYMERASE

[Optimization of HIV diagnosis using the RT-PCR (gag) method with various dilutions of cDNA and MgCl2 molarity] Subašić D, et al. **Med Arh** 1999;53(2):73-6 (Eng. Abstr.) **(Scr)**

ANALYSIS

Soft shell clams Mya arenaria with disseminated neoplasia demonstrate reverse transcriptase activity. House ML, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):187-92

A colorimetric reverse transcriptase assay optimized for Moloney murine leukemia virus, and its use for characterization of reverse transcriptases of unknown identity. Malmsten A, et al. **J Virol Methods** 1998 Nov; 75(1):9-20

ANTAGONISTS & INHIBITORS see REVERSE TRANSCRIPTASE INHIBITORS

BIOSYNTHESIS

Telomerase reverse transcriptase gene is a direct target of c-Myc but is not functionally equivalent in cellular transformation. Greenberg RA, et al. **Oncogene** 1999 Feb 4;18(5):1219-26

CHEMISTRY

Template-directed base pairing of 2-chloro-2'-deoxyadenosine catalyzed by AMV reverse transcriptase. Bukowska-Maciejewska AM, et al. **Acta Biochim Pol** 1998;45(2):587-93

Intramolecular chimeras of the p51 subunit between HIV-1 and FIV reverse transcriptases suggest a stabilizing function for the p66 subunit in the heterodimeric enzyme. Tasara T, et al. **Biochemistry** 1999 Feb 2;38(5):1633-42

Mapping of the hepatitis B virus reverse transcriptase TP and RT domains by transcomplementation for nucleotide priming and by protein-protein interaction. Lanford RE, et al. **J Virol** 1999 Mar;73(3):1885-93

A comparative analysis of computational motif-detection methods. Hudak J, et al. **Pac Symp Biocomput** 1999;:138-49

Folding the ribonuclease H domain of Moloney murine leukemia virus reverse transcriptase requires metal binding or a short N-terminal extension. Goedken ER, et al. **Proteins** 1998 Oct 1;33(1):135-43

DRUG EFFECTS

Biaryl acids: novel non-nucleoside inhibitors of HIV reverse transcriptase types 1 and 2. Milton J, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2623-8 (11 ref.)

GENETICS

The hepatitis B virus M539V polymerase variation responsible for 3TC resistance also confers cross-resistance to other nucleoside analogues. Ladner SK, et al. **Antivir Chem Chemother** 1998 Jan;9(1):65-72

Intramolecular chimeras of the p51 subunit between HIV-1 and FIV reverse transcriptases suggest a stabilizing function for the p66 subunit in the heterodimeric enzyme. Tasara T, et al. **Biochemistry** 1999 Feb 2;38(5):1633-42

Telomerase activity and human telomerase reverse transcriptase mRNA expression in soft tissue tumors: correlation with grade, histology, and proliferative activity. Yan P, et al. **Cancer Res** 1999 Jul 1;59(13):3166-70

DNA synthesis exhibited by the reverse transcriptase of mouse mammary tumor virus: processivity and fidelity of misinsertion and mispair extension. Taube R, et al. **Eur J Biochem** 1998 Dec 15;258(3):1032-9

Functional analysis of mutations conferring lamivudine resistance on hepatitis B virus. Ling R, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):601-6

Absence of mutations in the YMDD motif/B region of the hepatitis B virus polymerase in famciclovir therapy failure. Günther S, et al. **J Hepatol** 1999 May;30(5):749-54

Group II intron reverse transcriptase in yeast mitochondria. Stabilization and regulation of reverse transcriptase activity by the intron RNA. Zimmerly S, et al. **J Mol Biol** 1999 Jun 11;289(3):473-90

Identification of an active reverse transcriptase enzyme encoded by a human endogenous HERV-K retrovirus. Berkhout B, et al. **J Virol** 1999 Mar;73(3):2365-75

Effect of distance between homologous sequences and 3' homology on the frequency of retroviral reverse transcriptase template switching. Delviks KA, et al. **J Virol** 1999 Oct;73(10):7923-32

Evidence of avian leukosis virus subgroup E and endogenous avian virus in measles and mumps vaccines derived from chicken cells: investigation of transmission to vaccine recipients. Tsang SX, et al. **J Virol** 1999 Jul;73(7):5843-51

Evolutionary dynamics of Ty1-copia group retrotransposons in grass shown by reverse transcriptase domain analysis. Matsuoka Y, et al. **Mol Biol Evol** 1999 Feb;16(2):208-17

Intra-tRNA distance measurements for nucleocapsid proteindependent tRNA unwinding during priming of HIV reverse transcription. Chan B, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):459-64

Natural selection of the Pol gene of bovine immunodeficiency virus. Cooper CR, et al. **Virology** 1999 Mar 15; 255(2):294-301

Catalytic features of the recombinant reverse transcriptase of bovine leukemia virus expressed in bacteria. Perach M, et al. **Virology** 1999 Jun 20;259(1):176-89

[Expression of reverse transcriptase coded by LINE-1 mobile element in human genome using the baculovirus system] Shmatchenko VV, et al. **Dokl Akad Nauk** 1999 Feb; 364(4):556-9 **(Rus)**

IMMUNOLOGY

Generation of HIV-1/HIV-2 cross-reactive peptide antisera by small sequence changes in HIV-1 reverse transcriptase and integrase immunizing peptides. Klutch M, et al. **J Biomed Sci** 1998;5(3):192-202

Properties of monoclonal antibodies directed against hepatitis B virus polymerase protein. zu Putlitz J, et al. **J Virol** 1999 May;73(5):4188-96

METABOLISM

Reverse transcriptase activity and particle production in B lymphoblastoid cell lines established from lymphocytes of patients with multiple sclerosis. Christensen T, et al. **AIDS Res Hum Retroviruses** 1999 Feb 10;15(3):285-91

Cell cycle control of reverse transcriptase activity for the yeast retrotransposon Ty3. Karst SM, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):679-84

Tyrosine 222, a member of the YXDD motif of MuLV RT, is catalytically essential and is a major component of the fidelity center. Kaushik N, et al. **Biochemistry** 1999 Mar 2;38(9):2617-27

Telomerase activity and human telomerase reverse transcriptase mRNA expression in soft tissue tumors: correlation with grade, histology, and proliferative activity. Yan P, et al. **Cancer Res** 1999 Jul 1;59(13):3166-70

DNA synthesis exhibited by the reverse transcriptase of mouse mammary tumor virus: processivity and fidelity of misinsertion and mispair extension. Taube R, et al. **Eur J Biochem** 1998 Dec 15;258(3):1032-9

The connection domain is implicated in metalloporphyrin binding and inhibition of HIV reverse transcriptase. Argyris EG, et al. **J Biol Chem** 1999 Jan 15;274(3):1549-56

Analysis of the role of glutamine 190 in the catalytic mechanism of murine leukemia virus reverse transcriptase. Jin J, et al. **J Biol Chem** 1999 Jul 23;274(30):20861-8

Akt protein kinase enhances human telomerase activity through phosphorylation of telomerase reverse transcriptase subunit. Kang SS, et al. **J Biol Chem** 1999 May 7;274(19):13085-90

Soluble Rous sarcoma virus reverse transcriptases alpha, alphabeta, and beta purified from insect cells are processive DNA polymerases that lack an RNase H 3'--> 5'directed processing activity. Werner S, et al. **J Biol Chem** 1999 Sep 10;274(37):26329-36

Improved Mg2+-based reverse transcriptase assay for detection of primate retroviruses. Sears JF, et al. **J Clin Microbiol** 1999 Jun;37(6):1704-8

The reverse transcriptase activity in cell-free medium of chicken embryo fibroblast cultures is not associated with a replication-competent retrovirus [see comments] Khan AS, et al. **J Clin Virol** 1998 Jul 24;11(1):7-18. Comment in: J Clin Virol 1998 Jul 24;11(1):3-6.

Analysis of a coded panel of licensed vaccines by polymerase chain reaction-based reverse transcriptase assays: a collaborative study [seecomments] Maudru T, et al. **J Clin Virol** 1998 Jul 24;11(1):19-28

ONg retroviral particles in chick cell grown vaccines [comment] Weiss RA. **J Clin Virol** 1998 Jul 24;11(1):3-6 . Comment on: J Clin Virol 1998 Jul 24;11(1):7-18. Comment on: J Clin Virol 1998 Jul 24;11(1):19-28.

Group II intron reverse transcriptase in yeast mitochondria. Stabilization and regulation of reverse transcriptase activity by the intron RNA. Zimmerly S, et al. **J Mol Biol** 1999 Jun 11;289(3):473-90

Toeprinting assays. Mapping by blocks to reverse transcriptase primer extension. Ringquist S, et al. **Methods Mol Biol** 1998;77:283-95 (58 ref.)

A reverse transcriptase/maturase promotes splicing by binding at its own coding segment in a group II intron RNA. Wank H, et al. **Mol Cell** 1999 Aug;4(2):239-50

Human DNA polymerases and retroviral reverse transcriptases: selectivity in respect to dNTPs modified at triphosphate residues. Victorova LS, et al. **Nucleosides Nucleotides** 1999 Apr-May;18(4-5):1031-2

RADIATION EFFECTS

[Molecular mechanisms of the biological effects of weak magnetic fields. V. Inactivation in vitro of recombinant Rous sarcoma virus reverse transcriptase under the combined action of weak direct and low-frequency alternating magnetic fields, adjusted to the cyclotron resonance of polar amino acid ions] Shvetsov IuP, et al. **Biofizika** 1998 Nov-Dec;43(6):977-80 (Eng. Abstr.) **(Rus)**

RNA, DOUBLE-STRANDED

A comparison of six cypovirus isolates by cross-hybridisation of their dsRNA genome segments. Mertens PP, et al. **Arch Virol** 1999;144(3):561-76

Type I interferon gene expression: differential expression of IFN-A genes induced by viruses and double-stranded RNA. Bragança J, et al. **Biochimie** 1998 Aug-Sep; 80(8-9):673-87 (93 ref.)

Iron modulates phenotypic variation and phosphorylation of P270 in double-stranded RNA virus-infected Trichomonas vaginalis. Alderete JF. **Infect Immun** 1999 Aug; 67(8):4298-302

Molecular characterization of double-stranded RNA segments encoding the major capsid proteins of a Palyam serogroup orbivirus that caused an epizootic of congenital abnormalities in cattle. Yamakawa M, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):205-8

The structure of a cypovirus and the functional organization of dsRNA viruses. Hill CL, et al. **Nat Struct Biol** 1999 Jun;6(6):565-8

Regulatable expression of the interferon-induced double-stranded RNA dependent protein kinase PKR induces apoptosis and fas receptor expression. Donzé O, et al. **Virology** 1999 Apr 10;256(2):322-9

Nascent flavivirus RNA colocalized in situ with double-stranded RNA in stable replication complexes. Westaway EG, et al. **Virology** 1999 May 25;258(1):108-17

ANALYSIS

Cleavage of double-stranded copy RNA by RNase I and RNase T1 provides a robust means to detect p53 gene mutations in clinical specimens. Prescott J, et al. **Electrophoresis** 1999 Jun;20(6):1149-61

BIOSYNTHESIS

The RNase L inhibitor (RLI) is induced by double-stranded RNA. Martinand C, et al. **J Interferon Cytokine Res** 1998 Dec;18(12):1031-8

CHEMISTRY

The highly ordered double-stranded RNA genome of bluetongue virus revealed by crystallography. Gouet P, et al. **Cell** 1999 May 14;97(4):481-90

Structure of the double-stranded RNA-binding domain of the protein kinase PKR reveals the molecular basis of its dsRNA-mediated activation. Nanduri S, et al. **EMBO J** 1998 Sep 15;17(18):5458-65

Molecular basis of double-stranded RNA-protein interactions: structure of a dsRNA-binding domain complexed with dsRNA. Ryter JM, et al. **EMBO J** 1998 Dec 15;17(24):7505-13

A modified version of the Cornell et al. force field with improved sugar pucker phases and helical repeat. Cheatham TE 3rd, et al. **J Biomol Struct Dyn** 1999 Feb;16(4):845-62

Comparative sequence analysis of American, European and Asian isolates of viruses in the genus Coltivirus. Attoui H, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2481-9

Nucleotide sequence, genetic organization and expression strategy of the double-stranded RNA associated with the '447' cytoplasmic male sterility trait in Vicia faba. Pfeiffer P. **J Gen Virol** 1998 Oct;79 (Pt 10):2349–58

Crystal structure of an RNA duplex r(G GCGC CC)2 with non-adjacent G*U base pairs. Shi K, et al. **Nucleic Acids Res** 1999 May 15;27(10):2196–201

A'-form RNA double helix in the single crystal structure of r(UGAGCUUCGGCUC). Tanaka Y, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):949–55

Binding of chemically-modified oligonucleotides to the double-stranded stem of an RNA hairpin. Aupeix K, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6–7):1647–50

The first ATPase domain of the yeast 246-kDa protein is required for in vivo unwinding of the U4/U6 duplex. Kim DH, et al. **RNA** 1999 Jul;5(7):959–71

GENETICS

Nucleotide sequence of seed- and pollen-transmitted double-stranded RNA, which encodes a putative RNA-dependent RNA polymerase, detected from Japanese pear. Osaki H, et al. **Biosci Biotechnol Biochem** 1998 Nov; 62(11):2101–6

Use of dsRNA-mediated genetic interference to demonstrate that frizzled and frizzled 2 act in the wingless pathway. Kennerdell JR, et al. **Cell** 1998 Dec 23;95(7):1017–26

A new double-stranded RNA mycovirus from Botrytis cinerea. Castro M, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):95–9

Intra- and interspecies virus transfer in Aspergilli via protoplast fusion. van Diepeningen AD, et al. **Fungal Genet Biol** 1998 Dec;25(3):171–80

RNAi and double-strand RNA. Sharp PA. **Genes Dev** 1999 Jan 15;13(2):139–41 (19 ref.)

The [KIL-d] cytoplasmic genetic element of yeast results in epigenetic regulation of viral M double-stranded RNA gene expression. Tallóczy Z, et al. **Genetics** 1998 Sep; 150(1):21–30

Isolation of additional bacteriophages with genomes of segmented double-stranded RNA. Mindich L, et al. **J Bacteriol** 1999 Aug;181(15):4505–8

Molecular characterization of two endogenous double-stranded RNAs in rice and their inheritance by interspecific hybrids. Moriyama H, et al. **J Biol Chem** 1999 Mar 12;274(11):6882–8

Identification by two-dimensional gel electrophoresis of vaccinia virus and cellular phosphoproteins modified after inducible expression of the dsRNA-activated protein kinase. Pavón M, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):589–99

The human 2',5'-oligoadenylate synthetase family: interferon-induced proteins with unique enzymatic properties. Rebouillat D, et al. **J Interferon Cytokine Res** 1999 Apr;19(4):295–308 (108 ref.)

Antisense RNA: function and fate of duplex RNA in cells of higher eukaryotes. Kumar M, et al. **Microbiol Mol Biol Rev** 1998 Dec;62(4):1415–34 (342 ref.)

Precise packaging of the three genomic segments of the double-stranded-RNA bacteriophage phi6. Mindich L. **Microbiol Mol Biol Rev** 1999 Mar;63(1):149–60 (88 ref.)

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3534–42

The double-stranded RNA activated protein kinase PKR physically associates with the tumor suppressor p53 protein and phosphorylates human p53 on serine 392 in vitro. Cuddihy AR, et al. **Oncogene** 1999 Apr 29;18(17):2690–702

RNA-dependent RNA polymerase activity associated with virus-like dsRNA in Eimeria maxima and E. necatrix of the domestic fowl. Lee S, et al. **Parasitol Res** 1999 Jan; 85(1):25–9

Unusual inheritance of evolutionarily-related double-stranded RNAs in interspecific hybrid between rice plants Oryza sativa and Oryza rufipogon. Moriyama H, et al. **Plant Mol Biol** 1999 Apr;39(6):1127–36

RNA as a target of double-stranded RNA-mediated genetic interference in Caenorhabditis elegans. Montgomery MK, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15502–7

Packaging and replication regulation revealed by chimeric genome segments of double-stranded RNA bacteriophage phi6. Poranen MM, et al. **RNA** 1999 Mar;5(3):446–54

RNA-triggered gene silencing. Fire A. **Trends Genet** 1999 Sep;15(9):358–63 (50 ref.)

Isolation of a mutant that changes genomic packaging specificity in phi6. Onodera S, et al. **Virology** 1998 Dec 20;252(2):438–42

Coinfection of a fungal pathogen by two distinct double-stranded RNA viruses. Preisig O, et al. **Virology** 1998 Dec 20;252(2):399–406

Genetic interrelationships and genome organization of double-stranded RNA elements of Fusarium poae. Compel P, et al. **Virus Genes** 1999;18(1):49–56

IMMUNOLOGY

Maturation, activation, and protection of dendritic cells induced by double-stranded RNA. Cella M, et al. **J Exp Med** 1999 Mar 1;189(5):821–9

ISOLATION & PURIFICATION

Detection of double-stranded RNA molecules and virus-like particles in different Mucor species. Vágvölgyi C, et al. **Antonie Van Leeuwenhoek** 1998 Feb;73(2):207–10

Single-nucleotide resolution of RNA strands in the presence of their RNA complements. Arnold JJ, et al. **Biotechniques** 1999 Sep;27(3):450–2, 454, 456

A comparison of two RNA isolation methods for double-stranded RNA of infectious bursal disease virus. Akin A, et al. **J Virol Methods** 1998 Oct;74(2):179–84

Rapid isolation of both double-stranded RNA and PCR-suitable DNA from the obligate biotrophic phytopathogenic fungus Uncinula necator using a commercially available reagent. Délye C, et al. **J Virol Methods** 1998 Oct;74(2):149–53

METABOLISM

Subsets of the zinc finger motifs in dsRBP-ZFa can bind double-stranded RNA. Finerty PJ Jr, et al. **Biochemistry** 1999 Mar 30;38(13):4001–7

Identification and requirement of three ribosome binding domains in dsRNA-dependent protein kinase (PKR). Wu S, et al. **Biochemistry** 1998 Sep 29;37(39):13816–26

Binding of oligopyrimidines to the RNA hairpin responsible for the ribosome gag-pol frameshift in HIV-1. Aupeix K, et al. **FEBS Lett** 1999 Apr 23;449(2–3):169–74

Serotonin-2C receptor pre-mRNA editing in rat brain and in vitro by splice site variants of the interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Jun 25; 274(26):18351–8

The importance of internal loops within RNA substrates of ADAR1. Lehmann KA, et al. **J Mol Biol** 1999 Aug 6; 291(1):1–13

RNA-dependent RNA polymerase activity associated with Eimeria necatrix virus particles containing either double-stranded or single-stranded RNA. Lee S, et al. **J Parasitol** 1999 Apr;85(2):208–12

Visualization of protein-RNA interactions in cytoplasmic polyhedrosis virus. Zhang H, et al. **J Virol** 1999 Feb; 73(2):1624–9

Characterization of viral double-stranded RNA-binding proteins. Jacobs BL, et al. **Methods** 1998 Jul;15(3):225–32

Double-stranded RNA-activated protein kinase (PKR) is negatively regulated by 60S ribosomal subunit protein L18. Kumar KU, et al. **Mol Cell Biol** 1999 Feb;19(2):1116–25

Inhibition of double-stranded RNA- and tumor necrosis factor alpha-mediated apoptosis by tetratricopeptide repeat protein and cochaperone P58(IPK). Tang NM, et al. **Mol Cell Biol** 1999 Jul;19(7):4757–65

Mammalian staufen is a double-stranded-RNA- and tubulin-binding protein which localizes to the rough endoplasmic reticulum. Wickham L, et al. **Mol Cell Biol** 1999 Mar;19(3):2220–30

Visualization of double-stranded RNAs from the myotonic dystrophy protein kinase gene and interactions with CUG-binding protein. Michalowski S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3534–42

Synthetic substrate analogs for the RNA-editing adenosine deaminase ADAR-2. Yi-Brunozzi HY, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2912–7

PHARMACOLOGY

Double-stranded RNA inhibits beta-cell function and induces islet damage by stimulating beta-cell production of nitric oxide. Heitmeier MR, et al. **J Biol Chem** 1999 Apr 30;274(18):12531–6

Requirement of PKR dimerization mediated by specific hydrophobic residues for its activation by double-stranded RNA and its antigrowth effects in yeast. Patel RC, et al. **Mol Cell Biol** 1998 Dec;18(12):7009–19

Specific interference by ingested dsRNA [letter] Timmons L, et al. **Nature** 1998 Oct 29;395(6705):854

PHYSIOLOGY

Antisense RNA: function and fate of duplex RNA in cells of higher eukaryotes. Kumar M, et al. **Microbiol Mol Biol Rev** 1998 Dec;62(4):1415–34 (342 ref.)

Ebola virus inhibits induction of genes by double-stranded RNA in endothelial cells. Harcourt BH, et al. **Virology** 1998 Dec 5;252(1):179–88

SECRETION

Spontaneous release of stable viral double-stranded RNA into the extracellular medium by influenza virus-infected MDCK epithelial cells: implications for the viral acute phase response. Majde JA, et al. **Arch Virol** 1998; 143(12):2371–80

TOXICITY

Double-stranded RNA induces specific developmental defects in zebrafish embryos. Wargelius A, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):156–61

RNA EDITING

Identification and characterization of RNA editing events within the 5-HT2C receptor. Niswender CM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:38–48 (34 ref.)

Evolution of the U-insertion/deletion RNA editing in mitochondria of kinetoplastid protozoa. Simpson L, et al. **Ann N Y Acad Sci** 1999 May 18;870:190–205 (64 ref.)

Sequence elements required for apolipoprotein B mRNA editing enhancement activity from chicken enterocytes. Nakamuta M, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):744–50

Tissue-specific differences in the role of RNA 3' of the apolipoprotein B mRNA mooring sequence in editosome assembly. Steinburg MF, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):81–6

Inhibition of the apolipoprotein B mRNA editing enzyme-complex by hnRNP C1 protein and 40S hnRNP complexes. Greeve J, et al. **Biol Chem** 1998 Aug-Sep; 379(8–9):1063–73

Recent advances in mammalian RNA editing. Niswender CM. **Cell Mol Life Sci** 1998 Sep;54(9):946–64 (183 ref.)

Molecular modelling of the biosynthesis of the RNA-editing enzyme APOBEC-1, responsible for generating the alternative forms of apolipoprotein B. Scott J, et al. **Exp Physiol** 1999 Jul;84(4):791–800

RNA editing in an untranslated region of the Ginkgo chloroplast genome. Kudla J, et al. **Gene** 1999 Jun 24; 234(1):81–6

RNA editing associated with the generation of two distinct conformations of the trypanosomatid Leptomonas collosoma 7SL RNA. Ben-Shlomo H, et al. **J Biol Chem** 1999 Sep 3;274(36):25642–50

A cis-acting A-U sequence element induces kinetoplastid U-insertions. Brown LM, et al. **J Biol Chem** 1999 Mar 5;274(10):6295–304

Serotonin-2C receptor pre-mRNA editing in rat brain and in vitro by splice site variants of the interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Jun 25; 274(26):18351–8

Editing of glutamate receptor subunit B pre-mRNA by splice-site variants of interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Feb 19;274(8):5070–7

Specific expression of activation-induced cytidine deaminase (AID), a novel member of the RNA-editing deaminase family in germinal center B cells. Muramatsu M, et al. **J Biol Chem** 1999 Jun 25;274(26):18470–6

RNA editing of the human serotonin 5-hydroxytryptamine 2C receptor silences constitutive activity. Niswender CM, et al. **J Biol Chem** 1999 Apr 2;274(14):9472–8

RNA determinants for translational editing. Mischarging a minihelix substrate by a tRNA synthetase. Nordin BE, et al. **J Biol Chem** 1999 Mar 12;274(11):6835–8

Processing and editing of overlapping tRNAs in human mitochondria. Reichert A, et al. **J Biol Chem** 1998 Nov 27;273(48):31977–84

Secondary structure for the apolipoprotein B mRNA editing site. Au-binding proteins interact with a stem loop. Richardson N, et al. **J Biol Chem** 1998 Nov 27; 273(48):31707–17

Editing of cytochrome b mRNA in physarum mitochondria. Wang SS, et al. **J Biol Chem** 1999 Jan 29;274(5):2725–31

The RNA-editing enzyme ADAR1 is localized to the nascent ribonucleoprotein matrix on Xenopus lampbrush chromosomes but specifically associates with an atypical loop. Eckmann CR, et al. **J Cell Biol** 1999 Feb 22; 144(4):603–15

The reversible change of GluR2 RNA editing in gerbil hippocampus in course of ischemic tolerance. Yamaguchi K, et al. **J Cereb Blood Flow Metab** 1999 Apr;19(4):370–5

RNA editing-like phenomenon in paramyxovirus V gene mRNA observed in insect cells infected with a recombinant baculovirus. Matsumura H, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):117–23

RNA editing site recognition in higher plant mitochondria. Mulligan RM, et al. **J Hered** 1999 May-Jun;90(3):338–44 (65 ref.)

A unique two-gene gametophytic male sterility system in sorghum involving a possible role of RNA editing in fertility restoration. Pring DR, et al. **J Hered** 1999 May-Jun;90(3):386–93

Mutational analysis of apolipoprotein B mRNA editing enzyme (APOBEC1). structure-function relationships of RNA editing and dimerization. Teng BB, et al. **J Lipid Res** 1999 Apr;40(4):623–35

Plant mitochondrial RNA editing. Steinhauser S, et al. **J Mol Evol** 1999 Mar;48(3):303–12

Serotonin 5-HT2C receptor RNA editing alters receptor basal activity: implications for serotonergic signal transduction. Herrick-Davis K, et al. **J Neurochem** 1999 Oct;73(4):1711–7

Two nucleotides immediately upstream of the essential A6G3 slippery sequence modulate the pattern of G insertions during Sendai virus mRNA editing. Hausmann S, et al. **J Virol** 1999 Jan;73(1):343–51

Knockout of the glutamate dehydrogenase gene in bloodstream Trypanosoma brucei in culture has no effect on editing of mitochondrial mRNAs. Estévez AM, et al. **Mol Biochem Parasitol** 1999 May 15;100(1):5–17

Association of guide RNA binding protein gBP21 with active RNA editing complexes in Trypanosoma brucei. Allen TE, et al. **Mol Cell Biol** 1998 Oct;18(10):6014–22

The cox2 locus of the primitive angiosperm plant Acorus calamus: molecular structure, transcript processing and RNA editing. Albertazzi FJ, et al. **Mol Gen Genet** 1998 Oct;259(6):591–600

Messenger RNA editing of the human serotonin 5-HT2C receptor. Fitzgerald LW, et al.

Neuropsychopharmacology 1999 Aug;21(2 Suppl):82S-90S

C-->U editing of apolipoprotein B mRNA in marsupials: identification and characterisation of APOBEC-1 from the American opossum Monodelphus domestica. Fujino T, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2662-71

The involvement of gRNA-binding protein gBP21 in RNA editing-an in vitro and in vivo analysis. Lambert L, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1429-36

Mapping contacts between gRNA and mRNA in trypanosome RNA editing. Leung SS, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):778-87

Coordination of kRNA editing and polyadenylation in Trypanosoma brucei mitochondria: complete editing is not required for long poly(A) tract addition. Militello KT, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1377-85

Synthetic substrate analogs for the RNA-editing adenosine deaminase ADAR-2. Yi-Brunozzi HY, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2912-7

Lactone-ring-cleaving enzyme: genetic analysis, novel RNA editing, and evolutionary implications. Kobayashi M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12787-92

Identification and characterization of a human tRNA-specific adenosine deaminase related to the ADAR family of pre-mRNA editing enzymes. Maas S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8895-900

Kinetoplastid RNA editing does not require the terminal 3' hydroxyl of guide RNA, but modifications to the guide RNA terminus can inhibit in vitro U insertion. Burgess ML, et al. **RNA** 1999 Jul;5(7):883-92

In vitro uridine insertion RNA editing mediated by cis-acting guide RNAs. Kapushoc ST, et al. **RNA** 1999 May; 5(5):656-69

Insertional RNA editing in metazoan mitochondria: the cytochrome b gene in the nematode Teratocephalus lirellus [letter] Vanfleteren JR, et al. **RNA** 1999 May;5(5):622-4

DRUG EFFECTS

Ethanol increases apolipoprotein B mRNA editing in rat primary hepatocytes and McArdle cells. Van Mater D, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):334-9

GENETICS

RNA editing of a Drosophila sodium channel gene. Hanrahan CJ, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:51-66 (54 ref.)

Detection of apolipoprotein B mRNA editing by peptide nucleic acid mediated PCR clamping. Zhong S, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):311-3

Rapeseed mitochondrial ccb206, a gene involved in cytochrome c biogenesis, is co-transcribed with the nad3 and rps12 genes: organization, transcription, and RNA editing of the nad3/rps12/ccb206 locus. Itani K, et al. **Curr Genet** 1998 Oct;34(4):318-25

Confirmation of predicted edits and demonstration of unpredicted edits in Acanthamoeba castellanii mitochondrial tRNAs. Price DH, et al. **Curr Genet** 1999 Feb;35(1):23-9

Editing and translation of ribosomal protein S13 transcripts: unedited translation products are not detectable in maize mitochondria. Williams MA, et al. **Curr Genet** 1998 Sep; 34(3):221-6

Kinetoplastid RNA-editing-associated protein 1 (REAP-1): a novel editing complex protein with repetitive domains. Madison-Antenucci S, et al. **EMBO J** 1998 Nov 2; 17(21):6368-76

Editing of messenger RNA precursors and of tRNAs by adenosine to inosine conversion. Keller W, et al. **FEBS Lett** 1999 Jun 4;452(1-2):71-6 (44 ref.)

The ATPase subunit 6 gene sequence predicts that RNA editing is conserved between lizard- and human-infecting Leishmania. Brewster S, et al. **Gene** 1999 Jul 22; 235(1-2):77-84

Ectopic transcription and the possibility of RNA editing of the human arrestin gene. Wada Y, et al. **Jpn J Ophthalmol** 1999 Jul-Aug;43(4):295-9

Insertional editing of mitochondrial tRNAs of Physarum polycephalum and Didymium nigripes. Antes T, et al. **Mol Cell Biol** 1998 Dec;18(12):7521-7

A novel nucleotide incorporation activity implicated in the editing of mitochondrial transfer RNAs in Acanthamoeba castellanii. Price DH, et al. **RNA** 1999 Feb;5(2):302-17

[Mechanisms of nuclear mRNA editing] Kostyrko A, et al. **Postepy Biochem** 1998;44(2):94-101 (53 ref.) **(Pol)**

IMMUNOLOGY

Models for antigen receptor gene rearrangement. I. Biased receptor editing in B cells: implications for allelic exclusion. Mehr R, et al. **J Immunol** 1999 Aug 15;163(4):1793-8

PHYSIOLOGY

Goldfish brain GluR2: multiple forms, RNA editing, and alternative splicing. Li Z, et al. **Brain Res Mol Brain Res** 1999 Apr 20;67(2):211-20

Q/R editing of the rat GluR5 and GluR6 kainate receptors in vivo and in vitro: evidence for independent developmental, pathological and cellular regulation. Bernard A, et al. **Eur J Neurosci** 1999 Feb;11(2):604-16

RNA editing. Brennicke A, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):297-316 (56 ref.)

Diversification of Drosophila chloride channel gene by multiple posttranscriptional mRNA modifications. Semenov EP, et al. **J Neurochem** 1999 Jan;72(1):66-72

Regulation of alternative splicing by RNA editing. Rueter SM, et al. **Nature** 1999 May 6;399(6731):75-80

Candidate editases for GluR channels in single neurons of rat hippocampus and cerebellum. Köhr G, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1411-7

RNA, FUNGAL

tRNA prefers to kiss. Scarabino D, et al. **EMBO J** 1999 Aug 16;18(16):4571-8

In vivo mutational analysis of ribosomal RNA in Saccharomyces cerevisiae. Venema J, et al. **Methods Mol Biol** 1998;77:257-70 (32 ref.)

Transcriptional activity and chromatin structure of enhancer-deleted rRNA genes in Saccharomyces cerevisiae. Banditt M, et al. **Mol Cell Biol** 1999 Jul; 19(7):4953-60

NMD3 encodes an essential cytoplasmic protein required for stable 60S ribosomal subunits in Saccharomyces cerevisiae. Ho JH, et al. **Mol Cell Biol** 1999 Mar;19(3):2389-99

A novel genetic screen for snRNP assembly factors in yeast identifies a conserved protein, Sad1p, also required for pre-mRNA splicing. Lygerou Z, et al. **Mol Cell Biol** 1999 Mar;19(3):2008-20

Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142-54

ANALYSIS

Correlation between protein and mRNA abundance in yeast. Gygi SP, et al. **Mol Cell Biol** 1999 Mar;19(3):1720-30

A computational screen for methylation guide snoRNAs in yeast. Lowe TM, et al. **Science** 1999 Feb 19; 283(5405):1168-71

CHEMISTRY

A distinctive RNA fold: the solution structure of an analogue of the yeast tRNAPhe T Psi C domain. Koshlap KM, et al. **Biochemistry** 1999 Jul 6;38(27):8647-56

Divalent cations stabilize unstacked conformations of DNA and RNA by interacting with base pi systems. McFail-Isom L, et al. **Biochemistry** 1998 Dec 8;37(49):17105-11

Conformational transitions of an unmodified tRNA: implications for RNA folding. Maglott EJ, et al. **Biochemistry** 1998 Nov 17;37(46):16349-59

RNA:pseudouridine synthetase Pus1 from Saccharomyces cerevisiae: oligomerization property and stoichiometry of the complex with yeast tRNA(Phe). Arluison V, et al. **Biochimie** 1999 Jul;81(7):751-6

Molecular dynamics simulations of solvated yeast tRNA(Asp). Auffinger P, et al. **Biophys J** 1999 Jan;76(1 Pt 1):50-64

Electron crystal structure of an RNA polymerase II transcription elongation complex [see comments] Poglitsch CL, et al. **Cell** 1999 Sep 17;98(6):791-8. Comment in: Cell 1999 Sep 17;98(6):687-90.

Structural elements required for the localization of ASH1 mRNA and of a green fluorescent protein reporter particle in vivo. Chartrand P, et al. **Curr Biol** 1999 Mar 25; 9(6):333-6

ASH1 mRNA localization in yeast involves multiple secondary structural elements and Ash1 protein translation. Gonzalez I, et al. **Curr Biol** 1999 Mar 25;9(6):337-40

Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761-73

Conserved core structure in the internal transcribed spacer 1 of the Schizosaccharomyces pombe precursor ribosomal RNA. Lalev AI, et al. **J Mol Biol** 1998 Dec 18; 284(5):1341-51

Comparative analyses of the secondary structures of synthetic and intracellular yeast MFA2 mRNAs. Doktycz MJ, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14614-21

The 5' end of the 18S rRNA can be positioned from within the mature rRNA. Sharma K, et al. **RNA** 1999 May; 5(5):678-86

DRUG EFFECTS

Modified RNAs as potential drug targets. Guenther R, et al. **Acta Biochim Pol** 1998;45(1):13-8

GENETICS

Sequence and secondary structure of the mitochondrial small-subunit rRNA V4, V6, and V9 domains reveal highly species-specific variations within the genus Agrocybe. Gonzalez P, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4149-60

Sequence analysis of 18S-28S rRNA spacer regions from Saccharomyces kunashirensis, S. martiniae, S. rosinii, and S. transvaalensis. Oda Y, et al. **Curr Microbiol** 1999 Jan; 38(1):61-3

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315-25

The [KIL-d] cytoplasmic genetic element of yeast results in epigenetic regulation of viral M double-stranded RNA gene expression. Tallóczy Z, et al. **Genetics** 1998 Sep; 150(1):21-30

In situ detection of Aspergillus 18S ribosomal RNA in invasive pulmonary aspergillosis. Kobayashi M, et al. **Intern Med** 1999 Jul;38(7):563-9

A Group I intron in the nuclear small subunit rRNA gene of Cryptendoxyla hypophloia, an ascomycetous fungus: evidence for a new major class of Group I introns. Suh SO, et al. **J Mol Evol** 1999 May;48(5):493-500

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al. **Mol Cell Biol** 1999 Feb;19(2):1144-58

Interactions of TLC1 (which encodes the RNA subunit of telomerase), TEL1, and MEC1 in regulating telomere length in the yeast Saccharomyces cerevisiae. Ritchie KB, et al. **Mol Cell Biol** 1999 Sep;19(9):6065-75

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012-9

Genomic detection of new yeast pre-mRNA 3'-end-processing signals. Graber JH, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):888-94

The fission yeast prp10(+) gene involved in pre-mRNA splicing encodes a homologue of highly conserved splicing factor, SAP155. Habara Y, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5662-9

A comprehensive database for the small nucleolar RNAs from Saccharomyces cerevisiae. Samarsky DA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):161-4

The cis acting sequences responsible for the differential decay of the unstable MFA2 and stable PGK1 transcripts in yeast include the context of the translational start codon. LaGrandeur T, et al. **RNA** 1999 Mar;5(3):420-33

Photocrosslinking of 4-thio uracil-containing RNAs supports a side-by-side arrangement of domains 5 and 6 of a group II intron. Podar M, et al. **RNA** 1999 Feb;5(2):318-29

Unwinding RNA in Saccharomyces cerevisiae: DEAD-box proteins and related families. de la Cruz J, et al. **Trends Biochem Sci** 1999 May;24(5):192-8 (54 ref.)

ISOLATION & PURIFICATION

Improved isolation of nucleic acids from basidiomycete fungi. Baldrian P, et al. **Biotechniques** 1999 Sep;27(3):458-60, 462

Boronate affinity adsorption of RNA: possible role of conformational changes. Singh N, et al. **J Chromatogr A** 1999 Apr 30;840(2):205-13

METABOLISM

Endonucleolytic cleavage of RNA at 5' endogenous stem structures by human flap endonuclease 1. Stevens A. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):501-8

RNA-assisted nuclear transport of the meiotic regulator Mei2p in fission yeast. Yamashita A, et al. **Cell** 1998 Oct 2;95(1):115-23

Localization and anchoring of mRNA in budding yeast. Beach DL, et al. **Curr Biol** 1999 Jun 3;9(11):569-78

The role of exportin-t in selective nuclear export of mature tRNAs. Arts GJ, et al. **EMBO J** 1998 Dec 15; 17(24):7430-41

Control of cleavage site selection during mRNA 3' end formation by a yeast hnRNP. Minvielle-Sebastia L, et al. **EMBO J** 1998 Dec 15;17(24):7454-68

Metal ion catalysis during group II intron self-splicing: parallels with the spliceosome. Sontheimer EJ, et al. **Genes Dev** 1999 Jul 1;13(13):1729-41

Identification of eight proteins that cross-link to pre-mRNA in the yeast commitment complex. Zhang D, et al. **Genes Dev** 1999 Mar 1;13(5):581-92

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315-25

In situ detection of Aspergillus 18S ribosomal RNA in invasive pulmonary aspergillosis. Kobayashi M, et al. **Intern Med** 1999 Jul;38(7):563-9

Species barrier to RNA recognition overcome with nonspecific RNA binding domains. Wang CC, et al. **J Biol Chem** 1999 Jun 4;274(23):16508-12

A factor required for nonsense-mediated mRNA decay in yeast is exported from the nucleus to the cytoplasm by a nuclear export signal sequence. Shirley RL, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3129-43

Yeast RNase III as a key processing enzyme in small nucleolar RNAs metabolism. Chanfreau G, et al. **J Mol Biol** 1998 Dec 11;284(4):975-88

Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761-73

Group II intron reverse transcriptase in yeast mitochondria. Stabilization and regulation of reverse transcriptase activity by the intron RNA. Zimmerly S, et al. **J Mol Biol** 1999 Jun 11;289(3):473-90

tRNA nuclear export in saccharomyces cerevisiae: in situ hybridization analysis. Sarkar S, et al. **Mol Biol Cell** 1998 Nov;9(11):3041–55

Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre–18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441–52

Mutations in RNA polymerase II and elongation factor SII severely reduce mRNA levels in Saccharomyces cerevisiae. Lennon JC 3rd, et al. **Mol Cell Biol** 1998 Oct;18(10):5771–9

Myb-related fission yeast cdc5p is a component of a 40S snRNP-containing complex and is essential for pre-mRNA splicing. McDonald WH, et al. **Mol Cell Biol** 1999 Aug; 19(8):5352–62

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al. **Mol Cell Biol** 1999 Feb;19(2):1144–58

Interactions of TLC1 (which encodes the RNA subunit of telomerase), TEL1, and MEC1 in regulating telomere length in the yeast Saccharomyces cerevisiae. Ritchie KB, et al. **Mol Cell Biol** 1999 Sep;19(9):6065–75

Mutations in translation initiation factors lead to increased rates of deadenylation and decapping of mRNAs in Saccharomyces cerevisiae. Schwartz DC, et al. **Mol Cell Biol** 1999 Aug;19(8):5247–56

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9

Processivity of the Saccharomyces cerevisiae poly(A) polymerase requires interactions at the carboxyl-terminal RNA binding domain. Zhelkovsky A, et al. **Mol Cell Biol** 1998 Oct;18(10):5942–51

Saccharomyces cerevisiae telomerase is an Sm small nuclear ribonucleoprotein particle. Seto AG, et al. **Nature** 1999 Sep 9;401(6749):177–80

A specific RNA-protein interaction at yeast polyadenylation efficiency elements. Chen S, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4965–74

Transfer RNA modification enzymes from Pyrococcus furiosus: detection of the enzymatic activities in vitro. Constantinesco F, et al. **Nucleic Acids Res** 1999 Mar 1; 27(5):1308–15

U1 snRNA is cleaved by RNase III and processed through an Sm site-dependent pathway. Seipelt RL, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):587–95

Mutations in the MOF2/SUI1 gene affect both translation and nonsense-mediated mRNA decay. Cui Y, et al. **RNA** 1999 Jun;5(6):794–804

The roles of Rrp5p in the synthesis of yeast 18S and 5.8S rRNA can be functionally and physically separated. Eppens NA, et al. **RNA** 1999 Jun;5(6):779–93

The structure of the ITS2-proximal stem is required for pre-rRNA processing in yeast. Peculis BA, et al. **RNA** 1998 Dec;4(12):1610–22

Unwinding RNA in Saccharomyces cerevisiae: DEAD-box proteins and related families. de la Cruz J, et al. **Trends Biochem Sci** 1999 May;24(5):192–8 (54 ref.)

Decapping of stabilized, polyadenylated mRNA in yeast pab1 mutants. Morrissey JP, et al. **Yeast** 1999 Jun 15; 15(8):687–702

[The optimization of a method for determining RNAse activity by using high-polymer RNA] Kolpakov AI, et al. **Klin Lab Diagn** 1999 May;(5):14–6 (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

[Study of the inhibiting effect of the molecular complex yeast RNA–tilorone on HIV-1 reproduction in vitro] Karpov AV, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):433–5 **(Rus)**

PHYSIOLOGY

Inhibition of internal entry site (IRES)-mediated translation by a small yeast RNA: a novel strategy to block hepatitis C virus protein synthesis. Das S, et al. **Front Biosci** 1998 Dec 1;3:D1241–52 (61 ref.)

Specific telomerase RNA residues distant from the template are essential for telomerase function. Roy J, et al. **Genes Dev** 1998 Oct 15;12(20):3286–300

RAD50 and RAD51 define two pathways that collaborate to maintain telomeres in the absence of telomerase. Le S, et al. **Genetics** 1999 May;152(1):143–52

RNA, GUIDE

see related
RNA EDITING

The guide RNA database (3.0). Hinz S, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):168

GENETICS

A cis-acting A-U sequence element induces kinetoplastid U-insertions. Brown LM, et al. **J Biol Chem** 1999 Mar 5;274(10):6295–304

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al. **Mol Cell Biol** 1999 Feb;19(2):1144–58

Kinetoplastid RNA editing does not require the terminal 3' hydroxyl of guide RNA, but modifications to the guide RNA terminus can inhibit in vitro U insertion. Burgess ML, et al. **RNA** 1999 Jul;5(7):883–92

METABOLISM

Targeted cleavage of RNA molecules by human RNase P using minimized external guide sequences. Werner M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):81–8

Trypanosoma brucei RBP16 is a mitochondrial Y-box family protein with guide RNA binding activity. Hayman ML, et al. **J Biol Chem** 1999 Apr 23;274(17):12067–74

Association of guide RNA binding protein gBP21 with active RNA editing complexes in Trypanosoma brucei. Allen TE, et al. **Mol Cell Biol** 1998 Oct;18(10):6014–22

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al. **Mol Cell Biol** 1999 Feb;19(2):1144–58

Mapping contacts between gRNA and mRNA in trypanosome RNA editing. Leung SS, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):778–87

Inhibition of viral gene expression by human ribonuclease P. Kawa D, et al. **RNA** 1998 Nov;4(11):1397–406

PHYSIOLOGY

In vitro uridine insertion RNA editing mediated by cis-acting guide RNAs. Kapushoc ST, et al. **RNA** 1999 May; 5(5):656–69

RNA HELICASES

Crystallization and preliminary X-ray crystallographic analysis of the helicase domain of hepatitis C virus NS3 protein. Kang LW, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):121–3

The protein family of RNA helicases. Lüking A, et al. **Crit Rev Biochem Mol Biol** 1998;33(4):259–96 (202 ref.)

ANALYSIS

An ELISA for RNA helicase activity: application as an assay of the NS3 helicase of hepatitis C virus. Hsu CC, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):594–9

DEAD-box protein HEL64 from Trypanosoma brucei: subcellular localization and gene knockout analysis. Missel A, et al. **Parasitol Res** 1999 Apr;85(4):324–30

BIOSYNTHESIS

A cold shock-induced cyanobacterial RNA helicase. Chamot D, et al. **J Bacteriol** 1999 Mar;181(6):1728–32

CHEMISTRY

Characterisation of the human central MHC gene, BAT1: genomic structure and expression. Allcock RJ, et al. **Exp Clin Immunogenet** 1999;16(2):98–106

Characterization of DP103, a novel DEAD box protein that binds to the Epstein–Barr virus nuclear proteins EBNA2 and EBNA3C. Grundhoff AT, et al. **J Biol Chem** 1999 Jul 2;274(27):19136–44

Bacterial helicases. Egelman EH. **J Struct Biol** 1998 Dec 15;124(2-3):123–8 (66 ref.)

RNA-Stimulated ATPase and RNA helicase activities and RNA binding domain of hepatitis G virus nonstructural protein 3. Gwack Y, et al. **J Virol** 1999 Apr;73(4):2909–15

Functional interactions between conserved motifs of the hepatitis C virus RNA helicase protein NS3. Min KH, et al. **Virus Genes** 1999;19(1):33–43

GENETICS

A human putative Suv3-like RNA helicase is conserved between Rhodobacter and all eukaryotes. Dmochowska A, et al. **Acta Biochim Pol** 1999;46(1):155–62

Yeast nuclear PET127 gene can suppress deletions of the SUV3 or DSS1 genes: an indication of a functional interaction between 3' and 5' ends of mitochondrial mRNAs. Wegierski T, et al. **Acta Biochim Pol** 1998; 45(4):935–40

RNA helicase-related genes of Plasmodium falciparum and Plasmodium cynomolgi. Song P, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):312–6

Identification of a differentially expressed RNA helicase by gene trapping. Wagner DS, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):677–84

Expression of two dead box genes (DDX1 and DDX6) is independent of that of MYCN in human neuroblastoma cell lines. Akiyama K, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):563–8

Isolation of a novel gene, moc2, encoding a putative RNA helicase as a suppressor of sterile strains in Schizosaccharomyces pombe. Kawamukai M. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):93–101

Assignment1 of SUPV3L1 to human chromosome band 10q22.1 by in situ hybridization. Dmochowska A, et al. **Cytogenet Cell Genet** 1998;83(1-2):84–5

Expression of vasa(vas)-related genes in germline cells and totipotent somatic stem cells of planarians. Shibata N, et al. **Dev Biol** 1999 Feb 1;206(1):73–87

Suppression of distinct ovo phenotypes in the Drosophila female germline by maleless- and Sex-lethal. Oliver B, et al. **Dev Genet** 1998;23(4):335–46

A multigene locus containing the Manx and bobcat genes is required for development of chordate features in the ascidian tadpole larva. Swalla BJ, et al. **Development** 1999 Apr;126(8):1643–53

A Drosophila RNA helicase gene, pitchoune, is required for cell growth and proliferation and is a potential target of d-Myc. Zaffran S, et al. **Development** 1998 Sep; 125(18):3571–84

Mapping and characterization of the functional domains of the nucleolar protein RNA helicase II/Gu. Ou Y, et al. **Exp Cell Res** 1999 Mar 15;247(2):389–98

Characterisation of the human central MHC gene, BAT1: genomic structure and expression. Allcock RJ, et al. **Exp Clin Immunogenet** 1999;16(2):98–106

Molecular characterization of a prokaryotic translation factor homologous to the eukaryotic initiation factor eIF4A. Lu J, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):215–29

Hepatitis C virus core protein interacts with cellular putative RNA helicase. You LR, et al. **J Virol** 1999 Apr; 73(4):2841–53

The Caenorhabditis elegans sex determination gene mog-1 encodes a member of the DEAH-Box protein family. Puoti A, et al. **Mol Cell Biol** 1999 Mar;19(3):2189–97

The carboxyl terminus of RNA helicase A contains a bidirectional nuclear transport domain. Tang H, et al. **Mol Cell Biol** 1999 May;19(5):3540–50

The DEAD box RNA helicase family in Arabidopsis thaliana. Aubourg S, et al. **Nucleic Acids Res** 1999 Jan 15; 27(2):628–36

DEAD-box protein HEL64 from Trypanosoma brucei: subcellular localization and gene knockout analysis. Missel A, et al. **Parasitol Res** 1999 Apr;85(4):324–30

RNA helicase A is essential for normal gastrulation. Lee CG, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13709–13

A relationship betweena DNA-repair/recombination nuclease family and archaeal helicases. Sgouros J, et al. **Trends Biochem Sci** 1999 Mar;24(3):95–7

ISOLATION & PURIFICATION

Purification and identification of p68 RNA helicase acting as a transcriptional coactivator specific for the activation function 1 of human estrogen receptor alpha. Endoh H, et al. **Mol Cell Biol** 1999 Aug;19(8):5363–72

METABOLISM

Identification of a differentially expressed RNA helicase by gene trapping. Wagner DS, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):677–84

Kinetic analysis of the RNA-dependent adenosinetriphosphatase activity of DbpA, an Escherichia coli DEAD protein specific for 23S ribosomal RNA. Tsu CA, et al. **Biochemistry** 1998 Dec 1;37(48):16989–96

Unraveling the role of helicases in transcription. Eisen A, et al. **Bioessays** 1998 Aug;20(8):634–41 (81 ref.)

RNA helicase activity of Semliki Forest virus replicase protein NSP2. Gomez de Cedrón M, et al. **FEBS Lett** 1999 Apr 1;448(1):19–22

DNA binding protein dbpA binds Cdk5 and inhibits its activity. Moorthamer M, et al. **FEBS Lett** 1999 Mar 12; 446(2-3):343–50

Polyadenylation promotes degradation of 3'-structured RNA by the Escherichia coli mRNA degradosome in vitro. Blum E, et al. **J Biol Chem** 1999 Feb 12;274(7):4009–16

Characterization of DP103, a novel DEAD box protein that binds to the Epstein–Barr virus nuclear proteins EBNA2 and EBNA3C. Grundhoff AT, et al. **J Biol Chem** 1999 Jul 2;274(27):19136–44

Ded1p, a DEAD-box protein required for translation initiation in Saccharomyces cerevisiae, is an RNA helicase. Iost I, et al. **J Biol Chem** 1999 Jun 18;274(25):17677–83

Solution structure of substrate-based ligands when bound to hepatitis C virus NS3 protease domain. LaPlante SR, et al. **J Biol Chem** 1999 Jun 25;274(26):18618–24

Hepatitis C virus core protein binds to a DEAD box RNA helicase. Mamiya N, et al. **J Biol Chem** 1999 May 28; 274(22):15751–6

Biochemical and kinetic characterization of the RNA helicase activity of eukaryotic initiation factor 4A. Rogers GW Jr, et al. **J Biol Chem** 1999 Apr 30;274(18):12236–44

The putative helicase of the coronavirus mouse hepatitis virus is processed from the replicase gene polyprotein and localizes in complexes that are active in viral RNA synthesis. Denison MR, et al. **J Virol** 1999 Aug; 73(8):6862–71

Linking mRNA turnover and translation: assessing the polyribosomal association of mRNA decay factors and degradative intermediates. Mangus DA, et al. **Methods** 1999 Jan;17(1):28–37

RanGTP-regulated interactions of CRM1 with nucleoporins and a shuttling DEAD-box helicase. Askjaer P, et al. **Mol Cell Biol** 1999 Sep;19(9):6276–85

The yeast nuclear gene DSS1, which codes for a putative RNase II, is necessary for the function of the mitochondrial degradosome in processing and turnover of RNA. Dziembowski A, et al. **Mol Gen Genet** 1998 Oct; 260(1):108–14

The C-terminal half of RNase E, which organizes the Escherichia coli degradosome, participates in mRNA degradation but not rRNA processing in vivo. Lopez PJ, et al. **Mol Microbiol** 1999 Jul;33(1):188–99

Autoaggregation of Lactobacillus reuteri is mediated by a

putative DEAD-box helicase. Roos S, et al. **Mol Microbiol** 1999 Apr;32(2):427-36

A chicken embryo protein related to the mammalian DEAD box protein p68 is tightly associated with the highly purified protein-RNA complex of 5-MeC-DNA glycosylase. Jost JP, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3245-52

ATP hydrolysis activity of the DEAD box protein Rok1p is required for in vivo ROK1 function. Oh JY, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2753-9

The helicase domain of the TMV replicase proteins induces the N-mediated defence response in tobacco. Erickson FL, et al. **Plant J** 1999 Apr;18(1):67-75

A role for RNA helicase A in post-transcriptional regulation of HIV type 1. Li J, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):709-14

A novel recombinant single-chain hepatitis C virus NS3-NS4A protein with improved helicase activity. Howe AY, et al. **Protein Sci** 1999 Jun;8(6):1332-41

Overexpression of truncated Nmd3p inhibits protein synthesis in yeast. Belk JP, et al. **RNA** 1999 Aug;5(8):1055-70

The first ATPase domain of the yeast 246-kDa protein is required for in vivo unwinding of the U4/U6 duplex. Kim DH, et al. **RNA** 1999 Jul;5(7):959-71

Unwinding RNA in Saccharomyces cerevisiae: DEAD-box proteins and related families. de la Cruz J, et al. **Trends Biochem Sci** 1999 May;24(5):192-8 (54 ref.)

Hepatitis C virus core protein interacts with a human DEAD box protein DDX3. Owsianka AM, et al. **Virology** 1999 May 10;257(2):330-40

Internal processing of hepatitis C virus NS3 protein. Shoji I, et al. **Virology** 1999 Feb 15;254(2):315-23

Nucleoside triphosphatase and RNA helicase activities associated with GB virus B nonstructural protein 3. Zhong W, et al. **Virology** 1999 Sep 1;261(2):216-26

Evolution of bamboo mosaic virus in a nonsystemic host results in mutations in the helicase-like domain that cause reduced RNA accumulation. Huang CY, et al. **Virus Res** 1998 Nov;58(1-2):127-36

RNA, HELMINTH

SL1 trans splicing and 3'-end formation in a novel class of Caenorhabditis elegans operon. Williams C, et al. **Mol Cell Biol** 1999 Jan;19(1):376-83

CHEMISTRY

Common secondary structures for the second internal transcribed spacer pre-rRNA of two subfamilies of trichostrongylid nematodes. Chilton NB, et al. **Int J Parasitol** 1998 Nov;28(11):1765-73

Trematode and monogenean rRNA ITS2 secondary structures support a four-domain model. Morgan JA, et al. **J Mol Evol** 1998 Oct;47(4):406-19

GENETICS

The timing of lin-4 RNA accumulation controls the timing of postembryonic developmental events in Caenorhabditis elegans. Feinbaum R, et al. **Dev Biol** 1999 Jun 1; 210(1):87-95

ITS2 sequences of Dictyocaulus species from cattle, roe deer and moose in Sweden: molecular evidence for a new species. Höglund J, et al. **Int J Parasitol** 1999 Apr; 29(4):607-11

Phylogenetic relationships of the family Campulidae (Trematoda) based on 18S rRNA sequences. Fernandez M, et al. **Parasitology** 1998 Oct;117 (Pt 4):383-91

RNA as a target of double-stranded RNA-mediated genetic interference in Caenorhabditis elegans. Montgomery MK, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15502-7

RNAi in C. elegans: soaking in the genome sequence. Tabara H, et al. **Science** 1998 Oct 16;282(5388):430-1

METABOLISM

The levels of the RoRNP-associated Y RNA are dependent upon the presence of ROP-1, the Caenorhabditis elegans Ro60 protein. Labbé JC, et al. **Genetics** 1999 Jan; 151(1):143-50

SMG-2 is a phosphorylated protein required for mRNA surveillance in Caenorhabditis elegans and related to Upf1p of yeast. Page MF, et al. **Mol Cell Biol** 1999 Sep; 19(9):5943-51

Insertional RNA editing in metazoan mitochondria: the cytochrome b gene in the nematode Teratocephalus lirellus [letter] Vanfleteren JR, et al. **RNA** 1999 May;5(5):622-4

RNA, HETEROGENEOUS NUCLEAR

BIOSYNTHESIS

Parathyroid hormone induces interleukin-6 heterogeneous nuclear and messenger RNA expression in murine calvarial organ cultures. Huang YF, et al. **Bone** 1998 Oct; 23(4):327-32

GENETICS

Ultrastructural analysis of transcription and splicing in the cell nucleus after bromo-UTP microinjection. Cmarko D, et al. **Mol Biol Cell** 1999 Jan;10(1):211-23

METABOLISM

Unraveling a cytoplasmic role for hnRNP D in the in vivo mRNA destabilization directed by the AU-rich element. Loflin P, et al. **Genes Dev** 1999 Jul 15;13(14):1884-97

Regulated interaction of protein kinase Cdelta with the heterogeneous nuclear ribonucleoprotein K protein. Schullery DS, et al. **J Biol Chem** 1999 May 21; 274(21):15101-9

Regulation of human vascular endothelial growth factor mRNA stability in hypoxia by heterogeneous nuclear ribonucleoprotein L. Shih SC, et al. **J Biol Chem** 1999 Jan 15;274(3):1359-65

Ultrastructural analysis of transcription and splicing in the cell nucleus after bromo-UTP microinjection. Cmarko D, et al. **Mol Biol Cell** 1999 Jan;10(1):211-23

Control of 3' splice site choice in vivo by ASF/SF2 and hnRNP A1. Bai Y, et al. **Nucleic Acids Res** 1999 Feb 15; 27(4):1126-34

PHYSIOLOGY

Cytoplasmic regulatory functions of the KH-domain proteins hnRNPs K and E1/E2. Ostareck-Lederer A, et al. **Trends Biochem Sci** 1998 Nov;23(11):409-11 (36 ref.)

RNA LIGASE (ATP)

CHEMISTRY

Tertiary structure stabilization promotes hairpin ribozyme ligation. Fedor MJ. **Biochemistry** 1999 Aug 24; 38(34):11040-50

METABOLISM

Tertiary structure stabilization promotes hairpin ribozyme ligation. Fedor MJ. **Biochemistry** 1999 Aug 24; 38(34):11040-50

T4 RNA ligase catalyzes the synthesis of dinucleoside polyphosphates. Atencia EA, et al. **Eur J Biochem** 1999 May;261(3):802-11

In vitro selection of an allosteric ribozyme that transduces analytes to amplicons. Robertson MP, et al. **Nat Biotechnol** 1999 Jan;17(1):62-6

PHYSIOLOGY

The mitochondrial RNA ligase from Leishmania tarentolae can join RNA molecules bridged by a complementary RNA. Blanc V, et al. **J Biol Chem** 1999 Aug 20; 274(34):24289-96

RNA, MESSENGER

Mouse hepatitis virus nucleocapsid protein as a translational effector of viral mRNAs. Tahara SM, et al. **Adv Exp Med Biol** 1998;440:313-8

RNA localization in development. Bashirullah A, et al. **Annu Rev Biochem** 1998;67:335-94 (254 ref.)

Identification and characterization of mRNAs differentially expressed in thyroid cells stimulated by a mitogenic treatment. Pirson I, et al. **Biochimie** 1999 Apr;81(4):309-14 (38 ref.)

Nitric oxide synthase 1 mRNA: tissue-specific variants from rat with alternative first exons. Oberbäumer I, et al. **Biol Chem** 1998 Jul;379(7):913-9

Two alternatively spliced Meig1 messenger RNA species are differentially expressed in the somatic and in the germ-cell compartments of the testis. Ever L, et al. **Cell Growth Differ** 1999 Jan;10(1):19-26

Acetylcholine receptor alpha subunit mRNA expression in human thymus: augmented expression in myasthenia gravis and upregulation by interferon-gamma. Zheng Y, et al. **Clin Immunol** 1999 May;91(2):170-7

Control of messenger RNA stability during development. Fontes AM, et al. **Curr Top Dev Biol** 1999;44:171-202 (154 ref.)

Unique 5'-end of a Na(+)-K(+)-2Cl- cotransporter-like mRNA expressed in rat skeletal muscle. Fu L, et al. **DNA Seq** 1999;10(2):127-32

SsrA-mediated peptide tagging caused by rare codons and tRNA scarcity. Roche ED, et al. **EMBO J** 1999 Aug 16; 18(16):4579-89

Cloning, mRNA localization and evolutionary conservation of a human 5-HT7 receptor pseudogene. Olsen MA, et al. **Gene** 1999 Feb 4;227(1):63-9

Calcium-induced stabilization of AU-rich short-lived mRNAs is a common default response. Klein N, et al. **Gene Expr** 1999;7(4-6):357-65

Translational control elements in the major human transforming growth factor-beta 1 mRNA. Allison RS, et al. **Growth Factors** 1998;16(2):89-100

Ligand-induced structural alterations in human iron regulatory protein-1 revealed by protein footprinting. Gegout V, et al. **J Biol Chem** 1999 May 21;274(21):15052-8

The E2 protein of human papillomavirus type 16 is translated from a variety of differentially spliced polycistronic mRNAs. Alloul N, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):29-37

A novel internal open reading frame product expressed from a polycistronic mRNA of porcine epidemic diarrhoea virus may not contribute to virus attenuation. Singh M. **J Gen Virol** 1999 Aug;80 (Pt 8):1959-63

An 84 bp insertion found in a propionic acidaemia patient is not a disease-causing mutation but a product of cryptic mRNA. Ohura T, et al. **J Inherit Metab Dis** 1999 Jun; 22(5):676-7

Resistance of ribosomal protein mRNA translation to protein synthesis shutoff induced by poliovirus. Cardinali B, et al. **J Virol** 1999 Aug;73(8):7070-6

Polyvalent Rev decoys act as artificial Rev-responsive elements. Symensma TL, et al. **J Virol** 1999 May; 73(5):4341-9

Internal ribosome entry sites tests with circular mRNAs. Chen CY, et al. **Methods Mol Biol** 1998;77:355-63 (15 ref.)

The mitogen-activated protein kinase signaling pathway stimulates mos mRNA cytoplasmic polyadenylation during Xenopus oocyte maturation. Howard EL, et al. **Mol Cell Biol** 1999 Mar;19(3):1990-9

Two Xenopus proteins that bind the 3'end of histone mRNA: implications for translational control of histone synthesis during oogenesis. Wang ZF, et al. **Mol Cell Biol** 1999 Jan; 19(1):835-45

Misled by sequence complementarity: does the DB-anti-DB interaction withstand scientific scrutiny? [letter] Bläsi U, et al. **Mol Microbiol** 1999 Jul;33(2):439-41

DB or not DB in translation? [letter] Etchegaray JP, et al. **Mol Microbiol** 1999 Jul;33(2):438-9

Translation initiation factor 3 antagonizes authentic start codon selection on leaderless mRNAs. Tedin K, et al. **Mol Microbiol** 1999 Jan;31(1):67-77

Homologous and heterologous ligands downregulate follicle-stimulating hormone receptor mRNA in porcine granulosa cells. Murphy BD, et al. **Mol Reprod Dev** 1999 Jun;53(2):198-207

Detection of several mRNA species in rice phloem sap. Sasaki T, et al. **Plant Cell Physiol** 1998 Aug;39(8):895-7

Multiple transcripts of the killer cell immunoglobulin-like receptor family, KIR3DL1 (NKB1), are expressed by natural killer cells of a single individual. Vyas Y, et al. **Tissue Antigens** 1998 Dec;52(6):510-9

[A bacterial RNA that functions both as a tRNA and an mRNA] Muto A, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(11):1433-42 (30 ref.) **(Jpn)**

ANALYSIS

Expression of BMP-4 mRNA during distraction osteogenesis in rabbits. Li G, et al. **Acta Orthop Scand** 1998 Aug; 69(4):420-5

Incorporation of cortical bone allografts and autografts in rats: expression patterns of mRNAs for the TGF-betas. Virolainen P, et al. **Acta Orthop Scand** 1998 Oct; 69(5):537-44

Branched DNA signal amplification for direct quantitation of nucleic acid sequences in clinical specimens. Nolte FS. **Adv Clin Chem** 1998;33:201-35 (87 ref.)

Early expression of all components of the renin-angiotensin system in human development. Corvol P, et al. **Adv Nephrol Necker Hosp** 1998;28:195-212

Comparison of the proopiomelanocortin and proenkephalin opioid peptide systems in brain regions of the alcohol-preferring C57BL/6 and alcohol-avoiding DBA/2 mice. Jamensky NT, et al. **Alcohol** 1999 Jun-Jul; 18(2-3):177-87

Detection of SYT-SSX fusion transcript in synovial sarcoma using archival cytologic specimens. Inagaki H, et al. **Am J Clin Pathol** 1999 Apr;111(4):528-33

Expression of adenosine triphosphate-sensitive potassium channel subunits in female rat reproductive tissues: overlapping distribution of messenger ribonucleic acid for weak inwardly rectifying potassium channel subunit 6.1 and sulfonylurea-binding regulatory subunit 2. Chien EK, et al. **Am J Obstet Gynecol** 1999 May;180(5):1121-6

Myometrial nitric oxide synthase messenger ribonucleic acid expression does not change throughout gestation or with the onset of labor. Dennes WJ, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):387-92

Differential effects of natural and synthetic glucocorticoids on cytochrome 17alpha-hydroxylase (P-45017alpha) and cytochrome P-450 side-chain cleavage (P-450scc) messenger ribonucleic acid in the sheep placenta. Ma XH, et al. **Am J Obstet Gynecol** 1999 May;180(5):1215-21

Immuno-LCM: laser capture microdissection of immunostained frozen sections for mRNA analysis. Fend F, et al. **Am J Pathol** 1999 Jan;154(1):61-6

Expression of the costimulatory molecule BB-1, the ligands CTLA-4 and CD28, and their mRNA in inflammatory myopathies. Murata K, et al. **Am J Pathol** 1999 Aug; 155(2):453-60

CD34(+)/interleukin-5Ralpha messenger RNA+ cells in the bronchial mucosa in asthma: potential airway eosinophil progenitors. Robinson DS, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):9-13

Peripheral primitive neuroectodermal tumor of the ovary confirmed by CD99 immunostaining, karyotypic analysis, and RT-PCR for EWS/FLI-1 chimeric mRNA. Kawauchi S, et al. **Am J Surg Pathol** 1998 Nov;22(11):1417-22

Prevention of heteroduplex formation in mRNA quantitation by reverse transcription-polymerase chain reaction. Chen Z, et al. **Anal Biochem** 1999 Jan 15;266(2):230-2

Nonradioactive Northern blot analysis of plant RNA and the application of different haptens for reprobing. Peterhaensel C, et al. **Anal Biochem** 1998 Nov 15; 264(2):279-83

High-throughput screening for ligand-induced c-fos mRNA expression by branched DNA assay in Chinese hamster

ovary cells. Shyamala V, et al. **Anal Biochem** 1999 Jan 1;266(1):140–7

Quantification of endothelin ETA and ETB receptor mRNA by competitive reverse transcription–polymerase chain reaction: development of a multispecies assay. Smith PJ, et al. **Anal Biochem** 1999 Jun 15;271(1):93–6

Simultaneous measurement of multiple mRNAs with a single control by quantitative competitive reverse transcriptase–polymerase chain reaction: glucose transporters Glut1 and Glut4. Welch RD, et al. **Anal Biochem** 1999 Mar 1;268(1):102–9

Nicotinic receptor subunit mRNA expression in dopaminergic neurons of the rat brain. Sgard F, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:633–5

Predominance of neuronal mRNAs in individual Alzheimer's disease senile plaques. Ginsberg SD, et al. **Ann Neurol** 1999 Feb;45(2):174–81

Hippocampal N-methyl-D-aspartate receptor subunit mRNA levels in temporal lobe epilepsy patients. Mathern GW, et al. **Ann Neurol** 1999 Sep;46(3):343–58

Decreased interleukin-10 and increased interleukin-12p40 mRNA are associated with disease activity and characterize different disease stages in multiple sclerosis [see comments] van Boxel-Dezaire AH, et al. **Ann Neurol** 1999 Jun; 45(6):695–703. Comment in: Ann Neurol 1999 Jun;45(6):689–92.

The detection of minimal numbers of contaminating epithelial tumor cells in blood or bone marrow: use, limitations and future of RNA-based methods. Lambrechts AC, et al. **Ann Oncol** 1998 Dec;9(12):1269–76 (60 ref.)

Induction of gamma-glutamylcysteine synthetase gene expression by platinum drugs in peripheral mononuclear cells of lung cancer patients. Oguri T, et al. **Ann Oncol** 1999 Apr;10(4):455–60

Mucin gene expression in the rat middle ear: an improved method for RNA harvest. Lin J, et al. **Ann Otol Rhinol Laryngol** 1999 Aug;108(8):762–8 (36 ref.)

Detection of micrometastases in histologically negative lymph nodes in esophageal cancer. Luketich JD, et al. **Ann Thorac Surg** 1998 Nov;66(5):1715–8

MUC1 mucin mRNA expression in stage I lung adenocarcinoma and its association with early recurrence. Ohgami A, et al. **Ann Thorac Surg** 1999 Mar;67(3):810–4

CK20 gene expression: technical limits for the detection of circulating tumor cells. Champelovier P, et al. **Anticancer Res** 1999 May-Jun;19(3A):2073–8

A PCR-aided transcript titration assay (PATTY) to measure topoisomerase I gene expression in human tumor specimens. Meersma GJ, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1309–15

RT-PCR analysis of immune-modulating factors in PBMCs from patients with cancer: reduced IL-2 and increased IL-2-receptor (p55) expression characterize gastroenteric neoplasms. Piancatelli D, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1187–91

Rapid, transient fluconazole resistance in Candida albicans is associated with increased mRNA levels of CDR [published erratum appears in Antimicrob Agents Chemother 1999 Feb;43(2):438] Marr KA, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2584–9

beta-tubulin mRNA as a marker of Cryptosporidium parvum oocyst viability. Widmer G, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1584–8

Analysis of oestrogen receptor mRNA by reverse transcriptase-polymerase chain reaction in human periodontal ligament cells. Morishita M, et al. **Arch Oral Biol** 1999 Sep;44(9):781–3

Granulocyte-macrophage colony-stimulating factor (GM-CSF) modulates the expression of type VIII collagen mRNA in vascular smooth muscle cells and both are codistributed during atherogenesis. Plenz G, et al. **Arterioscler Thromb Vasc Biol** 1999 Jul;19(7):1658–68

Alpha-tocopherol down-regulates scavenger receptor activity in macrophages. Teupser D, et al. **Atherosclerosis** 1999 May;144(1):109–15

Identification of three alternatively spliced variants of human CD28 mRNA. Magistrelli G, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):34–7

A differentially expressed prion gene mRNA is found in prion-infected mouse brains and in N2A cells but not in uninfected mice. Schröder B, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):423–8

Relationship between mRNA levels quantified by reverse transcription-competitive PCR and metabolic activity of CYP3A4 and CYP2E1 in human liver. Sumida A, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):499–503

Differential priming of RNA templates during cDNA synthesis markedly affects both accuracy and reproducibility of quantitative competitive reverse-transcriptase PCR. Zhang J, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):231–41

A multiplex RT-PCR assay for analysis of relative transcript levels of different members of multigene families: application to Arabidopsis calmodulin gene family. Verma PK, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):699–706

Early modulation of genes encoding peroxisomal and mitochondrial beta-oxidation enzymes by 3-thia fatty acids. Vaagenes H, et al. **Biochem Pharmacol** 1998 Dec 15; 56(12):1571–82

memA/DRS, a putative mediator of multiprotein complexes, is overexpressed in the metastasizing human melanoma cell lines BLM and MV3. Degen WG, et al. **Biochim Biophys Acta** 1999 Mar 19;1444(3):384–94

Systematic genomic screening and analysis of mRNA in untranslated regions and mRNA precursors: combining experimental and computational approaches. Dandekar T, et al. **Bioinformatics** 1998;14(3):271–8

Expression of macrophage migration inhibitory factor transcript and protein by first-trimester human trophoblasts. Arcuri F, et al. **Biol Reprod** 1999 Jun; 60(6):1299–303

Quantification of prolactin messenger ribonucleic acid, pituitary content and plasma levels of prolactin, and detection of immunoreactive isoforms of prolactin in pituitaries from turkey embryos during ontogeny. Bédécarrats G, et al. **Biol Reprod** 1999 Sep;61(3):757–63

Expression of messenger ribonucleic acid splice variants for vascular endothelial growth factor in the penis of adult rats and humans. Burchardt M, et al. **Biol Reprod** 1999 Feb;60(2):398–404

Temporal and tissue-specific expression of kallikrein (Klk) genes and identification of a novel Klk messenger ribonucleic acid transcript during early development in the mouse. Chan CS, et al. **Biol Reprod** 1999 Sep;61(3):621–8

Identification and expression of Go1 and Go2 alpha-subunit transcripts in human myometrium in relation to pregnancy. Duc-Goiran P, et al. **Biol Reprod** 1999 Jun;60(6):1528–35

MUC4 and MUC5B transcripts are the prevalent mucin messenger ribonucleic acids of the human endocervix. Gipson IK, et al. **Biol Reprod** 1999 Jan;60(1):58–64

Distribution of estrogen receptor-beta messenger ribonucleic acid in the male sheep hypothalamus. Hileman SM, et al. **Biol Reprod** 1999 Jun;60(6):1279–84

Localization of sodium bicarbonate cotransporter (NBC) protein and messenger ribonucleic acid in rat epididymis. Jensen LJ, et al. **Biol Reprod** 1999 Mar;60(3):573–9

Follicle-stimulating hormone receptor and its messenger ribonucleic acid are present in the bovine cervix and can regulate cervical prostanoid synthesis. Mizrachi D, et al. **Biol Reprod** 1999 Sep;61(3):776–84

Fas and Fas ligand messenger ribonucleic acid and protein expression in the rat corpus luteum during apoptosis-mediated luteolysis. Roughton SA, et al. **Biol Reprod** 1999 Apr;60(4):797–804

D1 and D2 dopamine receptor messenger ribonucleic acid in brain and pituitary during the reproductive cycle of the turkey hen. Schnell SA, et al. **Biol Reprod** 1999 Jun; 60(6):1378–83

Cloning and sequence analysis of a Trypanosoma cruzi alpha-tubulin cDNA. Gonzalez-Pino MJ, et al. **Biol Res** 1997;30(4):161–6

Quantitative RT-PCR: pitfalls and potential. Freeman WM, et al. **Biotechniques** 1999 Jan;26(1):112–22, 124–5 (66 ref.)

Stability of RNA molecules stored in GITC. Gilleland RC, et al. **Biotechniques** 1998 Dec;25(6):944–6, 948

Differential display combined with a regulated transient expression system. Kanamori H, et al. **Biotechniques** 1999 Jun;26(6):1018–20

lambda RNA internal standards quantify sensitivity and amplification efficiency of mammalian gene expression profiling. Madison RD, et al. **Biotechniques** 1998 Sep; 25(3):504–8, 510, 512, passim

Absolute quantitation of specific mRNAs in cell and tissue samples by comparative PCR. Martorana AM, et al. **Biotechniques** 1999 Jul;27(1):136–44

Amplification of mRNAs from single, fixed, TUNEL-positive cells. O'Dell DM, et al. **Biotechniques** 1998 Oct;25(4):566–8, 570

Double FISH and FISH-fluorescence immunolocalization procedures for whole-mount Drosophila ovaries. Saunders C, et al. **Biotechniques** 1999 Feb;26(2):186–8

Nonlethal detection of transgene expression in the CNS of founder mice. Wakabayashi T, et al. **Biotechniques** 1999 Feb;26(2):302–4, 306–7

Patients with essential thrombocythemia do not express BCR-ABL transcripts [letter; comment] Hackwell S, et al. **Blood** 1999 Apr 1;93(7):2420–1. Comment on: Blood 1997 Oct 1;90(7):2768–71. Comment on: Blood 1998 Apr 15;91(8):3084–5.

Characterization of beta-adrenoceptor mediated smooth muscle relaxation and the detection of mRNA for beta1-, beta2- and beta3-adrenoceptors in rat ileum. Roberts SJ, et al. **Br J Pharmacol** 1999 Jun;127(4):949–61

Expression of BDNF and trkB as a function of age and cognitive performance. Croll SD, et al. **Brain Res** 1998 Nov 23;812(1-2):200–8

Regional distribution of a novel calcium/calmodulin-dependent protein kinase mRNA in the rat brain. Engels BM, et al. **Brain Res** 1999 Jul 24; 835(2):365–8

Identification of kainate-preferring glutamate receptor subunit GluR7 mRNA and protein in the rat median eminence. Eyigor O, et al. **Brain Res** 1998 Dec 14; 814(1-2):231–5

Distribution of neurturin mRNA and immunoreactivity in the peripheral tissues of adult rats. Xian CJ, et al. **Brain Res** 1999 Jul 24;835(2):247–58

Tangled areas of Alzheimer brain have upregulated levels of exon 10 containing tau mRNA. Yasojima K, et al. **Brain Res** 1999 Jun 12;831(1-2):301–5

Distribution of cyclooxygenase-1 and cyclooxygenase-2 mRNAs and proteins in human brain and peripheral organs. Yasojima K, et al. **Brain Res** 1999 Jun 5;830(2):226–36

Highly sensitive radioactive in situ hybridization using full length hydrolyzed riboprobes to detect alpha 2 adrenoceptor subtype mRNAs in adult and developing rat brain. Winzer-Serhan UH, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):229–41

Ovine genomic urocortin: cloning, pharmacologic characterization, and distribution of central mRNA. Cepoi D, et al. **Brain Res Mol Brain Res** 1999 May 7; 68(1-2):109–18

Differences in gene expression between sleep and waking as revealed by mRNA differential display. Cirelli C, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):293–305

Increased abundance of GABAA receptor subunit mRNAs in the brain of Long-Evans Cinnamon rats, an animal model of Wilson's disease. Follesa P, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):268–75

NMDA receptor subunit gene expression in the rat brain: a quantitative analysis of endogenous mRNA levels of NR1Com, NR2A, NR2B, NR2C, NR2D and NR3A. Goebel DJ, et al. **Brain Res Mol Brain Res** 1999 Jun 8; 69(2):164–70

Chronic amitriptyline treatment induces hippocampal, NGFI-A, glucocorticoid receptor and mineralocorticoid receptor mRNA expression in rats. Johansson IM, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):92–5

Localization of mRNAs for synaptojanin isoforms in the brain of developing and mature rats. Kudo M, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):179–85

Serotonin transporter (SERT) mRNA and binding site densities in male rat brain affected by sex steroids. McQueen JK, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):241–7

GABAA receptor beta 2 and beta 3 subunits mRNA in the hippocampal formation of aged human brain with Alzheimer-related neuropathology. Mizukami K, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):268–72

The levels of retinal mRNA for gefiltin, a neuronal intermediate filament protein, are regulated by the tectum during optic fiber regeneration in the goldfish. Niloff MS, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):78–89

Temporal profiles of vasoactive intestinal polypeptide precursor mRNA and its receptor mRNA in the rat suprachiasmatic nucleus. Shinohara K, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):262–7

Differential effects of electroconvulsive shock on the glutamate receptor mRNAs for NR2A, NR2B and mGluR5b. Watkins CJ, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1-2):108–13

Quantitation of estrogen receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):47–55

Quantitation of progesterone receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):57–62

Expression of epidermal growth factor receptor mRNA and protein in primary breast carcinomas. Walker RA, et al. **Breast Cancer Res Treat** 1999 Jan;53(2):167–76

Early differential expression of two glutaminase mRNAs in mouse spleen after tumor implantation. Aledo JC, et al. **Cancer Lett** 1998 Nov 13;133(1):95–9

Detection of cerebroside sulfotransferase mRNA in human gastric mucosa and adenocarcinoma. Kobayashi T, et al. **Cancer Lett** 1999 Apr 26;138(1-2):45–51

High telomerase reverse transcriptase (hTERT) messenger RNA level correlates with tumor recurrence in patients with favorable histology Wilms' tumor. Dome JS, et al. **Cancer Res** 1999 Sep 1;59(17):4301–7

Accurate and objective preoperative diagnosis of thyroid papillary carcinomas by reverse transcription-PCR detection of oncofetal fibronectin messenger RNA in fine-needle aspiration biopsies. Takano T, et al. **Cancer Res** 1998 Nov 1;58(21):4913–7

Preoperative diagnosis of thyroid papillary and anaplastic carcinomas by real-time quantitative reverse transcription-polymerase chain reaction of oncofetal fibronectin messenger RNA. Takano T, et al. **Cancer Res** 1999 Sep 15;59(18):4542–5

Estrogen-responsive RING finger mRNA induction in gastrointestinal carcinoma cells following bile acid treatment. Jung B, et al. **Carcinogenesis** 1998 Nov; 19(11):1901–6

Decreased type VI adenylyl cyclase mRNA concentration and Mg(2+)-dependent adenylyl cyclase activities and unchanged type V adenylyl cyclase mRNA concentration and Mn(2+)-dependent adenylyl cyclase activities in the left ventricle of rats with myocardial infarction and longstanding heart failure. Espinasse I, et al. **Cardiovasc Res** 1999 Apr;42(1):87–98

Identification of mRNA for 5-HT1 and 5-HT2 receptor subtypes in human coronary arteries. Ishida T, et al. **Cardiovasc Res** 1999 Jan;41(1):267–74

Rod-type cyclic nucleotide-gated cation channel is expressed in vascular endothelium and vascular smooth muscle cells. Yao X, et al. **Cardiovasc Res** 1999 Jan;41(1):282–90

Sheep 5HT2A receptors: partial cloning of the coding sequence and mRNA localization by in situ hybridization in the ewe hypothalamus. Pelletier J, et al. **Cell Tissue Res** 1999 Feb;295(2):231–9

Prediction of aryl hydrocarbon receptor-mediated enzyme induction of drugs and chemicals by mRNA quantification. Frötschl R, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1447–52

Detection of PAX3-FKHR and PAX7-FKHR fusion

transcripts in rhabdomyosarcoma by reverse transcriptase-polymerase chain reaction using paraffin-embedded tissue. Chen BF, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Feb;62(2):86–91

Excessive expression of the tumor necrosis factor-alpha gene in the kidneys of patients with membranous glomerulonephritis. Wu TH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Sep; 61(9):524–30

An alternative transcript of the rat renin gene can result in a truncated prorenin that is transported into adrenal mitochondria. Clausmeyer S, et al. **Circ Res** 1999 Feb 19; 84(3):337–44

Cyclin D1 and estrogen receptor messenger RNA levels are positively correlated in primary breast cancer. Hui R, et al. **Clin Cancer Res** 1996 Jun;2(6):923–8

Multiparametric in situ messenger RNA hybridization analysis to detect metastasis-related genes in surgical specimens of human colon carcinomas. Kitadai Y, et al. **Clin Cancer Res** 1995 Oct;1(10):1095–102

Accuracy of histone H3 messenger RNA in situ hybridization for the assessment of cell proliferation in human tissues. Kotelnikov V, et al. **Clin Cancer Res** 1997 May;3(5):669–73

Significance of vascular endothelial growth factor messenger RNA expression in primary lung cancer. Ohta Y, et al. **Clin Cancer Res** 1996 Aug;2(8):1411–6

High levels of messenger RNAs for tissue inhibitors of metalloproteinases (TIMP-1 and TIMP-2) in primary breast carcinomas are associated with development of distant metastases. Ree AH, et al. **Clin Cancer Res** 1997 Sep;3(9):1623–8

Elevated tissue inhibitor of metalloproteinase 1 RNA in colorectal cancer stroma correlates with lymph node and distant metastases. Zeng ZS, et al. **Clin Cancer Res** 1995 Aug;1(8):899–906

Direct reverse transcription-PCR on oligo(dT)-immobilized polypropylene microplates after capturing total mRNA from crude cell lysates. Hamaguchi Y, et al. **Clin Chem** 1998 Nov;44(11):2256–63

Reverse transcription-competitive multiplex PCR improves quantification of mRNA in clinical samples--application to the low abundance CFTR mRNA. Loitsch SM, et al. **Clin Chem** 1999 May;45(5):619–24

Quantitative reverse transcription-PCR assay with an internal standard for the detection of prostate-specific antigen mRNA. Ylikoski A, et al. **Clin Chem** 1999 Sep; 45(9):1397–407

Advances in reverse transcription polymerase chain reaction analysis of cellular mRNA levels of transforming growth factor-beta1 by capillary electrophoresis with laser-induced fluorescence detection. Beck A, et al. **Clin Chem Lab Med** 1999 May;37(5):527–32

Quanititation of gene expression by means of HPLC analysis of RT-PCR products. Bachmair F, et al. **Clin Chim Acta** 1999 Jan;279(1–2):25–34

Low level of glucocorticoid receptor messenger ribonucleic acid in pituitary adenomas manifesting Cushing's disease with resistance to a high dose-dexamethasone suppression test. Mu YM, et al. **Clin Endocrinol (Oxf)** 1998 Sep; 49(3):301–6

Increased levels of endothelin ETB receptor mRNA in human omental arteries after organ culture: quantification by competitive reverse transcription-polymerase chain reaction. Möller S, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):788–94

A method for examining differential mRNA expression along the crypt-villus axis of the human small intestine. Chua E, et al. **Clin Sci (Colch)** 1998 Aug;95(2):171–7

Expression of gamma-IFN mRNA in bronchoalveolar lavage fluid correlates with early acute allograft rejection in lung transplant recipients. Moudgil A, et al. **Clin Transplant** 1999 Apr;13(2):201–7

Cytokine mRNA profiles in Epstein-Barr virus-associated post-transplant lymphoproliferative disorders. Nalesnik MA, et al. **Clin Transplant** 1999 Feb;13(1 Pt 1):39–44

Freeze-induced alterations of translatable mRNA populations in wood frog organs. White D, et al. **Cryobiology** 1999 Jun;38(4):353–62

Detection of messenger RNA transcribed from genes encoding enzymes of amino acid biosynthesis in Buchnera aphidicola (endosymbiont of aphids). Baumann L, et al. **Curr Microbiol** 1999 Feb;38(2):135–6

Dendritic localization of mRNAs [published erratum appears in Curr Opin Neurobiol 1999 Feb;9(1):142] Kuhl D, et al. **Curr Opin Neurobiol** 1998 Oct;8(5):600–6 (75 ref.)

Simultaneous detection of IFN-gamma and IL-4 mRNAs using RT-PCR and time-resolved fluorometry. Halminen M, et al. **Cytokine** 1999 Jan;11(1):87–93

Quantification of murine cytokine mRNAs using real time quantitative reverse transcriptase PCR. Overbergh L, et al. **Cytokine** 1999 Apr;11(4):305–12

Techniques for quantification of cytokine mRNAs. Benveniste O, et al. **Cytokines Cell Mol Ther** 1998 Sep; 4(3):207–14 (50 ref.)

Quantitative method to determine mRNA levels by reverse transcriptase-polymerase chain reaction from leukocyte subsets purified by fluorescence-activated cell sorting: application to peripheral cannabinoid receptors. Marchand J, et al. **Cytometry** 1999 Mar 1;35(3):227–34

The IDDMK(1,2)22 retrovirus is not detectable in either mRNA or genomic DNA from patients with type 1 diabetes. Muir A, et al. **Diabetes** 1999 Jan;48(1):219–22

Diagnostic implications of albumin messenger RNA detection and cytokeratin pattern in benign hepatic lesions and biliary cystadenocarcinoma. D'Errico A, et al. **Diagn Mol Pathol** 1998 Dec;7(6):289–94

Polymerase chain reaction-based diagnosis of rhabdomyosarcomas: comparison of fetal type acetylcholine receptor subunits and myogenin. Gattenlöhner S, et al. **Diagn Mol Pathol** 1998 Jun; 7(3):129–34

Diagnosis of synovial sarcoma with the reverse transcriptase-polymerase chain reaction: analyses of 84 soft tissue and bone tumors. Hiraga H, et al. **Diagn Mol Pathol** 1998 Apr;7(2):102–10

Detection of TLS/FUS-CHOP fusion transcripts in myxoid and round cell liposarcomas by nested reverse transcription-polymerase chain reaction using archival paraffin-embedded tissues. Hisaoka M, et al. **Diagn Mol Pathol** 1998 Apr;7(2):96–101

Expression pattern of mammalian cochlea outer hair cell (OHC) mRNA: screening of a rat OHC cDNA library. Harter C, et al. **DNA Cell Biol** 1999 Jan;18(1):1–10

Oxytocin-neurophysin I mRNA abundance in equine uterine endometrium. Behrendt-Adam CY, et al. **Domest Anim Endocrinol** 1999 Apr;16(3):183–92

Cannabinoid receptor binding and mRNA levels in several brain regions of adult male and female rats perinatally exposed to delta9-tetrahydrocannabinol. Garcia-Gil L, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1–2):127–36

Localization of fos, jun, kit and SCF mRNA in human placenta throughout gestation using in situ RT-PCR. Doneda L, et al. **Early Pregnancy** 1997 Dec;3(4):265–71

Ultrastructural simultaneous identification of growth hormone and its messenger ribonucleic acid. Matsuno A, et al. **Endocr J** 1998 Apr;45 Suppl:S101–4

Acute and chronic regulation of ob mRNA levels by beta3-adrenoceptor agonists in obese Yellow KK mice. Sakane N, et al. **Endocr J** 1998 Oct;45(5):647–51

Function of stem cell factor as a survival factor of spermatogonia and localization of messenger ribonucleic acid in the rat seminiferous epithelium. Hakovirta H, et al. **Endocrinology** 1999 Mar;140(3):1492–8

Expression of three distinct somatostatin messenger ribonucleic acids (mRNAs) in goldfish brain: characterization of the complementary deoxyribonucleic acids, distribution and seasonal variation of the mRNAs, and action of a somatostatin-14 variant. Lin X, et al. **Endocrinology** 1999 May;140(5):2089–99

Characterization of unique truncated prolactin receptor transcripts, corresponding to the intracellular domain, in the testis of the sexually mature chicken. Mao JN, et al. **Endocrinology** 1999 Mar;140(3):1165–74

The regulation of prolactin receptor messenger ribonucleic acid levels in the sheep liver before birth: relative roles of the fetal hypothalamus, cortisol, and the external photoperiod. Phillips ID, et al. **Endocrinology** 1999 May; 140(5):1966–71

Regional expression of mRNA encoding a second form of gonadotropin-releasing hormone in the macaque brain. Urbanski HF, et al. **Endocrinology** 1999 Apr;140(4):1945–8

Hippocampal AMPA and NMDA mRNA levels and subunit immunoreactivity in human temporal lobe epilepsy patients and a rodent model of chronic mesial limbic epilepsy. Mathern GW, et al. **Epilepsy Res** 1998 Sep;32(1–2):154–71

Elements of the interleukin-1 signaling system show hair cycle-dependent gene expression in murine skin. Hoffmann R, et al. **Eur J Dermatol** 1998 Oct-Nov;8(7):475–7

A robust method for isotopic riboprobe in situ hybridisation to localise mRNAs in routine pathology specimens. Poulsom R, et al. **Eur J Histochem** 1998;42(2):121–32

Comparison of isotopic and non-isotopic labelling for in situ hybridisation of various mRNA targets with cRNA probes. Steel JH, et al. **Eur J Histochem** 1998;42(2):143–50

A kinetic analysis of the expression of mast cell protease mRNA in the intestines of Nippostrongylus brasiliensis-infected rats. Lützelschwab C, et al. **Eur J Immunol** 1998 Nov;28(11):3730–7

Genomic structure of the human pre-T cell receptor alpha chain and expression of two mRNA isoforms. Saint-Ruf C, et al. **Eur J Immunol** 1998 Nov;28(11):3824–31

Cloning and characterization of alternative mRNA forms for the rat metabotropic glutamate receptors mGluR7 and mGluR8. Corti C, et al. **Eur J Neurosci** 1998 Dec; 10(12):3629–41

Regional distribution of Y-receptor subtype mRNAs in rat brain. Parker RM, et al. **Eur J Neurosci** 1999 Apr; 11(4):1431–48

Expression of leptin receptor mRNA and the long form splice variant in human anterior pituitary and pituitary adenoma. Dieterich KD, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(6):522–5

Quantification of insulin-like growth factor-1 (IGF-1) mRNA: development and validation of an internally standardised competitive reverse transcription-polymerase chain reaction. Pfaffl M, et al. **Exp Clin Endocrinol Diabetes** 1998;106(6):506–13

Quantification of insulin-like growth factor-1 (IGF-1) mRNA: modulation of growth intensity by feeding results in inter- and intra-tissue-specific differences of IGF-1 mRNA expression in steers. Pfaffl M, et al. **Exp Clin Endocrinol Diabetes** 1998;106(6):514–21

Expression of HGF, KGF, EGF and receptor messenger RNAs following corneal epithelial wounding. Wilson SE, et al. **Exp Eye Res** 1999 Apr;68(4):377–97

Integrity and distribution of HMG CoA reductase mRNA in lens: relationship to cessation of membrane formation [letter] Zhu XL, et al. **Exp Eye Res** 1999 Mar;68(3):371–3

Novel form of L-aromatic amino acid decarboxylase mRNA in rat antral mucosa. Djali PK, et al. **Exp Physiol** 1998 Sep;83(5):617–27

Proteinase 3 mRNA expression is induced in monocytes but not in neutrophils of patients with cystic fibrosis. Just J, et al. **FEBS Lett** 1999 Sep 3;457(3):437–40

Distribution of orexin receptor mRNA in the rat brain [published erratum appears in FEBS Lett 1999 Jan 8;442(1):122] Trivedi P, et al. **FEBS Lett** 1998 Oct 30; 438(1–2):71–5

Quantification of bacterial mRNA involved in degradation of 1,2,4-trichlorobenzene by Pseudomonas sp. strain P51 from liquid culture and from river sediment by reverse transcriptase PCR (RT/PCR). Meckenstock R, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):123–9

Expression of P450c17 messenger ribonucleic acid in postmenopausal human ovary tissues. José M, et al. **Fertil Steril** 1999 Mar;71(3):528–35

No mRNAs for the LH/hCG receptor in human endometrium? [letter] Rao CV. **Fertil Steril** 1999 Aug; 72(2):374–5

Messenger ribonucleic acid for the gonadal luteinizing hormone/human chorionic gonadotropin receptor is not present in human endometrium. Stewart EA, et al. **Fertil Steril** 1999 Feb;71(2):368–72

Effect of selenium deficiency on cellular and extracellular glutathione peroxidases: immunochemical detection and mRNA analysis in rat kidney and serum. Nakane T, et al. **Free Radic Biol Med** 1998 Sep;25(4–5):504–11

Mixed-lineage leukemia with t(10;11)(p13;q21): an analysis of AF10-CALM and CALM-AF10 fusion mRNAs and clinical features. Kumon K, et al. **Genes Chromosomes Cancer** 1999 May;25(1):33–9

Inventory of high-abundance mRNAs in skeletal muscle of normal men. Welle S, et al. **Genome Res** 1999 May; 9(5):506–13

Localisation and semiquantitative assessment of hepatic procollagen mRNA in primary biliary cirrhosis. Goddard CJ, et al. **Gut** 1998 Sep;43(3):433–40

Disappearance of PML/RAR alpha acute promyelocytic leukemia-associated transcript during consolidation chemotherapy. Martinelli G, et al. **Haematologica** 1998 Nov;83(11):985–8

Identification of mRNA transcripts and immunohistochemical localization of Na/H exchanger isoforms in gerbil inner ear. Bond BR, et al. **Hear Res** 1998 Sep;123(1–2):1–9

Evidence for differential regulation of calcium by outer versus inner hair cells: plasma membrane Ca-ATPase gene expression [published erratum appears in Hear Res 1998 Dec;126(1–2):214] Furuta H, et al. **Hear Res** 1998 Sep; 123(1–2):10–26

Presence of mRNA for vasoactive intestinal polypeptide (VIP) and its receptor in the rat inner ear. Kitano H, et al. **Hear Res** 1998 Jul;121(1–2):109–11

Detection of transcripts for delayed rectifier potassium channels in the Xenopus laevis inner ear. Varela-Ramirez A, et al. **Hear Res** 1998 May;119(1–2):125–34

Reciprocal change in angiotensinogen mRNA expression in rat myocardium and liver after myocardial infarction. Kim HS, et al. **Heart Vessels** 1998;13(1):1–8

Localization in situ of type VI collagen protein and its mRNA in mesangial proliferative glomerulonephritis using renal biopsy sections. Razzaque MS, et al. **Histochem Cell Biol** 1999 Jan;111(1):1–6

Fluorescence in situ hybridization using horseradish peroxidase-labeled oligodeoxynucleotides and tyramide signal amplification for sensitive DNA and mRNA detection. van de Corput MP, et al. **Histochem Cell Biol** 1998 Oct;110(4):431–7

Interleukin-15 differentially enhances the expression of interferon-gamma and interleukin-4 in activated human (CD4+) T lymphocytes. Borger P, et al. **Immunology** 1999 Feb;96(2):207–14

Human B and T lymphocytes have similar amounts of CD21 mRNA, but differ in surface expression of the CD21 glycoprotein. Braun M, et al. **Int Immunol** 1998 Aug; 10(8):1197–202

Differential display analysis of murine encephalitogenic mRNA. Jeong MC, et al. **Int Immunol** 1998 Dec; 10(12):1819–23

Monocyte-chemo-attractant-protein-1 (MCP-1)-gene expression in cervical intra-epithelial neoplasias and cervical carcinomas. Kleine-Lowinski K, et al. **Int J Cancer** 1999 Jul 2;82(1):6–11

Microsatellite instability and clonal heterogeneity of MDR1 messenger RNA expression in trimetrexate-resistant human leukemia MOLT-3 cells developed in thymidine. Miyachi H, et al. **Int J Cancer** 1999 Jul 2;82(1):63–9

Retinal pigment epithelial cell-based gene therapy against hemoglobin toxicity. Abraham NG, et al. **Int J Mol Med** 1998 Apr;1(4):657–63

Quantitation by competitive PCR assay of vascular endothelial growth factor in non-small cell lung carcinomas. Boldrini L, et al. **Int J Oncol** 1999 Jan; 14(1):161–8

Expression of SET, an inhibitor of protein phosphatase 2A, in renal development and Wilms' tumor. Carlson SG, et

al. **J Am Soc Nephrol** 1998 Oct;9(10):1873–80
Dietary sulfate regulates the expression of the renal brush border Na/Si cotransporter NaSi-1. Markovich D, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1568–73
Regulation of aquaporin mRNA expression in rat kidney by water intake. Murillo-Carretero MI, et al. **J Am Soc Nephrol** 1999 Apr;10(4):696–703
Tissue-specific responses of branched-chain alpha-ketoacid dehydrogenase activity in metabolic acidosis. Price SR, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1892–8
Downregulation of neuronal nitric oxide synthase in the rat remnant kidney. Rozcniak A, et al. **J Am Soc Nephrol** 1999 Apr;10(4):704–13
Upregulation of atrial natriuretic peptide gene expression in remnant kidney of rats with reduced renal mass. Totsune K, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1613–9
Function and expression of a novel rat salt-tolerant protein: evidence of a role in cellular sodium metabolism. Tsuji E, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1574–80
Angiotensin II receptor type 1 gene expression in human glomerulonephritis and diabetes mellitus. Wagner J, et al. **J Am Soc Nephrol** 1999 Mar;10(3):545–51
Th1 and Th2 cytokine mRNA profiles in childhood nephrotic syndrome: evidence for increased IL-13 mRNA expression in relapse. Yap HK, et al. **J Am Soc Nephrol** 1999 Mar; 10(3):529–37
Metalloproteinases and their tissue inhibitors in multiple sclerosis. Ozenci V, et al. **J Autoimmun** 1999 Jun; 12(4):297–303
Analysis of rpoS mRNA in Salmonella dublin: identification of multiple transcripts with growth-phase-dependent variation in transcript stability. Paesold G, et al. **J Bacteriol** 1999 Feb;181(4):1264–8
Using non-radioactive probes on plants: a few examples. Accotto GP, et al. **J Biolumin Chemilumin** 1998 Sep-Oct; 13(5):295–301
Analysis of changes during subclone development and ageing of human antibody-producing heterohybridoma cells by northern blot and flow cytometry. Borth N, et al. **J Biotechnol** 1999 Jan 8;67(1):57–66
Parathyroid hormone-related protein mRNA and protein expression in multiple myeloma: a case report. Schneider HG, et al. **J Bone Miner Res** 1998 Oct;13(10):1640–3
Angiotensin-converting enzyme gene expression in skeletal muscle in patients with chronic heart failure. Schaufelberger M, et al. **J Card Fail** 1998 Sep;4(3):185–91
Gene expression of the natriuretic peptide system in atrial tissue of patients with paroxysmal and persistent atrial fibrillation. Tuinenburg AE, et al. **J Cardiovasc Electrophysiol** 1999 Jun;10(6):827–35
Effects of amlodipine on nitric oxide synthase mRNA expression and coronary microcirculation in prolonged nitric oxide blockade-induced hypertensive rats. Kobayashi N, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):173–81
Thyroid hormone alpha1 and beta1 receptor mRNA are downregulated by amiodarone in mouse myocardium. Shahrara S, et al. **J Cardiovasc Pharmacol** 1999 Aug; 34(2):261–7
Decreased steady-state insulin-like growth factor binding protein-3 (IGFBP-3) mRNA level is associated with differentiation of cultured porcine myogenic cells. Johnson BJ, et al. **J Cell Physiol** 1999 May;179(2):237–43
Detection of alternative splicing of fibronectin mRNA in a single cell. Kumazaki T, et al. **J Cell Sci** 1999 May;112 (Pt 10):1449–53
Expression of the galanin receptor subtype Gal-R2 mRNA in the rat hypothalamus. Mitchell V, et al. **J Chem Neuroanat** 1999 Jun;16(4):265–77
Coexpression of alternatively spliced estrogen and progesterone receptor transcripts in human breast cancer. Balleine RL, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1370–7
Impact of gsp oncogene on the expression of genes coding for Gsalpha, Pit-1, Gi2alpha, and somatostatin receptor 2 in human somatotroph adenomas: involvement in octreotide sensitivity. Barlier A, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2759–65
Leptin and neuropeptide Y gene expression in human placenta: ontogeny and evidence for similarities to hypothalamic regulation. Dötsch J, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2755–8
Serum leptin concentrations and expression of leptin transcripts in placental trophoblast with advancing baboon pregnancy. Henson MC, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2543–9
Perivascular interleukin-8 messenger ribonucleic acid expression in human endometrium varies across the menstrual cycle and in early pregnancy decidua. Milne SA, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2563–7
The effect of estrogen on aromatase and vascular endothelial growth factor messenger ribonucleic acid in the normal nonhuman primate mammary gland. Nakamura J, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1432–7
Characterization of Prophet of Pit-1 gene expression in normal pituitary and pituitary adenomas in humans. Nakamura Y, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1414–9
Messenger ribonucleic acid in situ hybridization analysis of estrogen receptors alpha and beta in human breast carcinoma. Sasano H, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):781–5
High gastrin and cholecystokinin (CCK) gene expression in human neuronal, renal, and myogenic stem cell tumors: comparison with CCK-A and CCK-B receptor contents. Schaer JC, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):233–9
Quantitative analysis of mRNA as a marker for viability of Mycobacterium tuberculosis. Hellyer TJ, et al. **J Clin Microbiol** 1999 Feb;37(2):290–5
One-step reverse transcriptase PCR method for detection of Borrelia burgdorferi mRNA in mouse Lyme arthritis tissue samples. Limbach FX, et al. **J Clin Microbiol** 1999 Jun;37(6):2037–9
Localization of orphanin FQ (nociceptin) peptide and messenger RNA in the central nervous system of the rat. Neal CR Jr, et al. **J Comp Neurol** 1999 Apr 19; 406(4):503–47
Alteration of skin protein kinase C alpha protein and mRNA levels during induced mouse hair growth. Li LF, et al. **J Dermatol** 1999 Apr;26(4):203–9
Differential expression of two pro-opiomelanocortin mRNAs during temperature stress in common carp (Cyprinus carpio L.). Arends RJ, et al. **J Endocrinol** 1998 Oct;159(1):85–91
Gestational age-dependent changes in the levels of mRNAs encoding cortisol biosynthetic enzymes and IGF-II in the adrenal gland of fetal sheep during prolonged hypoxemia. Braems GA, et al. **J Endocrinol** 1998 Nov;159(2):257–64
Cloning and expression of a novel chicken sulfotransferase cDNA regulated by GH. Cao H, et al. **J Endocrinol** 1999 Mar;160(3):491–500
Effects of GH, prolactin and cortisol on hepatic heat shock protein 70 expression in a marine teleost Sparus sarba. Deane EE, et al. **J Endocrinol** 1999 Jun;161(3):413–21
A question of faith--or the philosophy of RNA controls. Ivell R. **J Endocrinol** 1998 Nov;159(2):197–200
Interactions between oestradiol and glucocorticoid regulatory effects on liver-specific glucocorticoid-inducible genes: possible evidence for a role of hepatic 11beta-hydroxysteroid dehydrogenase type 1. Jamieson PM, et al. **J Endocrinol** 1999 Jan;160(1):103–9
Vascular endothelial growth factor gene and protein: strong expression in thyroiditis and thyroid carcinoma. Klein M, et al. **J Endocrinol** 1999 Apr;161(1):41–9
Expression and localization of the renin-angiotensin system in the rat pancreas. Leung PS, et al. **J Endocrinol** 1999 Jan;160(1):13–9
Spatiotemporal expression of alternatively spliced IGF-I mRNA in the rat costochondral growth plate. Lin WW, et al. **J Endocrinol** 1999 Mar;160(3):461–7
Tissue-specific response of IGF-I mRNA expression to obesity-associated GH decline in the male Zucker fatty rat. Melián E, et al. **J Endocrinol** 1999 Jan;160(1):49–56
Expression of 17beta-hydroxysteroid dehydrogenase types 1, 2, 3 and 4 in the human temporal lobe. Stoffel-Wagner B, et al. **J Endocrinol** 1999 Jan;160(1):119–26
Somatostatin receptor subtype expression in cells of the rat immune system during adjuvant arthritis. ten Bokum AM, et al. **J Endocrinol** 1999 Apr;161(1):167–75
Involvement of gonadal steroid hormone disturbance in altered prolactin receptor gene expression in the liver of diabetic mice. Yasui T, et al. **J Endocrinol** 1999 Apr; 161(1):33–40
p53 protein and its messenger ribonucleic acid in human adrenal tumors. Adleff V, et al. **J Endocrinol Invest** 1998 Dec;21(11):753–7
Demonstration of thyrotropin receptor mRNA in orbital fat and eye muscle tissues from patients with Graves' ophthalmopathy by in situ hybridization. Wu SL, et al. **J Endocrinol Invest** 1999 Apr;22(4):289–95
Identification and expression analysis of two developmentally regulated myosin heavy chain gene transcripts in carp (Cyprinus carpio). Ennion S, et al. **J Exp Biol** 1999 May; 202 (Pt 9):1081–90
Pathogenesis of pneumovirus infections in mice: detection of pneumonia virus of mice and human respiratory syncytial virus mRNA in lungs of infected mice by in situ hybridization. Cook PM, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2411–7
Effects of lifelong moderate caloric restriction on levels of neuropeptide Y, proopiomelanocortin, and galanin mRNA. McShane TM, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jan;54(1):B14–21
Comparison of detection techniques for cytokine reverse transcriptase polymerase chain reaction; digoxigenin-labeled polymerase chain reaction permits sensitive detection of cytokine mRNA in rat heart allografts. Damoiseaux JG, et al. **J Immunol Methods** 1998 Aug 1;217(1-2):185–93
Semiquantitation of human chemokine mRNA levels with a newly constructed multispecific competitor fragment. Dumoulin FL, et al. **J Immunol Methods** 1999 Apr 22; 224(1-2):61–7
Development of a direct in situ RT-PCR method using labeled primers to detect cytokine mRNA inside cells. Gey A, et al. **J Immunol Methods** 1999 Jul 30;227(1-2):149–60
A novel high-purity isolation method for human peripheral blood neutrophils permitting polymerase chain reaction-based mRNA studies. Lichtenberger C, et al. **J Immunol Methods** 1999 Jul 30;227(1-2):75–84
Cytokine mRNA profiles in trypanotolerant and trypanosusceptible cattle infected with the protozoan parasite Trypanosoma congolense: protective role for interleukin-4? Mertens B, et al. **J Interferon Cytokine Res** 1999 Jan;19(1):59–65
Counterregulation of interleukin-18 mRNA and protein expression during cutaneous wound repair in mice. Kämpfer H, et al. **J Invest Dermatol** 1999 Sep;113(3):369–74
The mRNA for protease nexin-1 is expressed in human dermal papilla cells and its level is affected by androgen. Sonoda T, et al. **J Invest Dermatol** 1999 Sep;113(3):308–13
flaA mRNA transcription level correlates with Helicobacter pylori colonisation efficiency in gnotobiotic piglets. Mankoski R, et al. **J Med Microbiol** 1999 Apr;48(4):395–9
Persistent effects of doxorubicin on cardiac gene expression. Boucek RJ Jr, et al. **J Mol Cell Cardiol** 1999 Aug; 31(8):1435–46
Predominant expression of Fas ligand mRNA in CD8+ T lymphocytes in patients with HTLV-1 associated myelopathy. Kawahigashi N, et al. **J Neuroimmunol** 1998 Oct 1;90(2):199–206
The porcine mu opioid receptor: molecular cloning and mRNA distribution in lymphoid tissues. Pampusch MS, et al. **J Neuroimmunol** 1998 Oct 1;90(2):192–8
Distribution of brain-derived neurotrophic factor (BDNF) protein and mRNA in the normal adult rat CNS: evidence for anterograde axonal transport. Conner JM, et al. **J Neurosci** 1997 Apr 1;17(7):2295–313
Quantitation of changes in P0 mRNA by polymerase chain reaction in primary cultured Schwann cells stimulated by axolemma-enriched fraction. Clive DR, et al. **J Neurosci Methods** 1998 Jun 1;81(1-2):25–34
Comparative analysis of multiple receptor subunit mRNA in micropunches obtained from different brain regions using a competitive RT-PCR method. Durgam VR, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):33–40
Imaging with radiolabeled antisense oligonucleotides for the detection of intracellular messenger RNA and cardiovascular disease. Dewanjee MK, et al. **J Nucl Cardiol** 1999 May-Jun;6(3):345–56 (10 ref.)
mRNA quantitation techniques: considerations for experimental design and application. Reue K. **J Nutr** 1998 Nov;128(11):2038–44 (31 ref.)
Effect of continuous administration of a cholinergic agonist on [3H]4-DAMP binding and m3 mRNA expression in cultured human ciliary muscle cells. Zhang X, et al. **J Ocul Pharmacol Ther** 1999 Apr;15(2):153–63
Trophectoderm differentiation in the bovine embryo: characterization of a polarized epithelium. Barcroft LC, et al. **J Reprod Fertil** 1998 Nov;114(2):327–39
Follicular and luteal expression of insulin-like growth factors I and II and the type 1 IGF receptor in the bovine ovary. Perks CM, et al. **J Reprod Fertil** 1999 May;116(1):157–65
Simultaneous in vivo quantitation of vascular endothelial growth factor mRNA splice variants. Renner W, et al. **J Vasc Res** 1999 Mar-Apr;36(2):133–8
Diminished production of human immunodeficiency virus type 1 in astrocytes results from inefficient translation of gag, env, and nef mRNAs despite efficient expression of Tat and Rev. Gorry PR, et al. **J Virol** 1999 Jan;73(1):352–61
Human immunodeficiency virus type 2 produces a defect in CD3-gamma gene transcripts similar to that observed for human immunodeficiency virus type 1. Segura I, et al. **J Virol** 1999 Jun;73(6):5207–13
Molecular staging of malignant melanoma: correlation with clinical outcome. Shivers SC, et al. **JAMA** 1998 Oct 28; 280(16):1410–5
Combined effects of probucol and benzafibrate on lipoprotein metabolism and liver cholesteryl ester transfer protein mRNA in cholesterol-fed rabbits. Ou J, et al. **Jpn Circ J** 1999 Jun;63(6):471–7
Abnormalities of the FHIT transcripts in osteosarcoma and Ewing sarcoma. Hinohara S, et al. **Jpn J Cancer Res** 1998 Sep;89(9):887–94
Detection of occult lymph node metastases in esophageal cancer by minimally invasive staging combined with molecular diagnostic techniques. Kassis ES, et al. **JSLS** 1998 Oct-Dec;2(4):331–6
mRNAs coding for the calcium-sensing receptor along the rat nephron: effect of a low-phosphate diet. Caride AJ, et al. **Kidney Blood Press Res** 1998;21(5):305–9
In situ analysis of C-C chemokine mRNA in human glomerulonephritis. Cockwell P, et al. **Kidney Int** 1998 Sep; 54(3):827–36
Differential upregulation of rat Na-K-Cl cotransporter, rBSC1, mRNA in the thick ascending limb of Henle in different pathological conditions. Marumo R, et al. **Kidney Int** 1998 Sep;54(3):877–88
Abnormal regulation of proximal tubule renin mRNA in the Dahl/Rapp salt-sensitive rat. Tank JE, et al. **Kidney Int** 1998 Nov;54(5):1608–16
Inhibition by lysophosphatidylcholine of nitric oxide production in interleukin 1 beta-stimulated vascular smooth muscle cells. Okamoto Y, et al. **Kobe J Med Sci** 1998 Aug; 44(4):169–89
Preferential involvement of excitatory neurons in medial temporal lobe in schizophrenia [see comments] [published erratum appears in Lancet 1999 Jan 9;353(9147):154] Harrison PJ, et al. **Lancet** 1998 Nov 21;352(9141):1669–73 . Comment in: Lancet 1998 Nov 21;352(9141):1643.
A new PCR MIMIC strategy to quantify low mdr1 mRNA levels in drug resistant cell lines and AML blast samples. Illmer T, et al. **Leuk Res** 1999 Jul;23(7):653–63
Detection of BCR-ABL transcripts in chronic myeloid leukaemia by nested PCR. Otazú IB, et al. **Leuk Res** 1999 Feb;23(2):185–90
Detection of BCR-ABL transcripts in chronic myeloid

leukemia (CML) using an in situ RT-PCR assay. Preudhomme C, et al. **Leukemia** 1999 May;13(5):818-23
Genetic, phenotypic and clinical features of acute lymphoblastic leukemias expressing myeloperoxidase mRNA detected by RT-PCR. Serrano J, et al. **Leukemia** 1999 Feb;13(2):175-80
Detection of inducible nitric oxide synthase (iNOS) mRNA by RT-PCR in ATL patients and HTLV-I infected cell lines: clinical features and apoptosis by NOS inhibitor. Sonoki T, et al. **Leukemia** 1999 May;13(5):713-8
Increased steady state mRNA levels of DNA-repair genes XRCC1, ERCC2 and ERCC3 in brain of patients with Down syndrome. Fang-Kircher SG, et al. **Life Sci** 1999; 64(18):1689-99
Increase in cardiac P2X1-and P2Y2-receptor mRNA levels in congestive heart failure. Hou M, et al. **Life Sci** 1999; 65(11):1195-206
Genes involved in the pathophysiology of perinatal asphyxia. Labudova O, et al. **Life Sci** 1999;64(20):1831-8
Analysis of immunomodulating cytokine mRNAs in the mouse induced by mushroom polysaccharides. Liu F, et al. **Life Sci** 1999;64(12):1005-11
Differential expression of c-fos mRNA in the rat neocortex by in situ hybridization. Onodera H, et al. **Life Sci** 1999; 64(13):1127-35
Human ovary and placenta express messenger RNA for multiple activin receptors. Peng C, et al. **Life Sci** 1999; 64(12):983-94
Detection of bikunin mRNA in limited portions of rat brain. Takano M, et al. **Life Sci** 1999;65(8):757-62
Identification and mapping of 26 human testis mRNAs containing CAG/CTG repeats. Pawlak A, et al. **Mamm Genome** 1998 Sep;9(9):745-8
Quantitation of heme oxygenase (HO-1) copies in human tissues by competitive RT/PCR. Abraham NG. **Methods Mol Biol** 1998;108:199-209
Optimization of a reverse transcription-polymerase chain reaction (RT-PCR) mass assay for low-abundance mRNA. Cale JM, et al. **Methods Mol Biol** 1998;105:351-71 (4 ref.)
Quantification of mRNA by polymerase chain reaction (PCR) using an internal standard and a nonradioactive detection method. Karge WH 3rd, et al. **Methods Mol Biol** 1998;110:43-61 (9 ref.)
mRNA: detection by in Situ and northern hybridization. Parker RM, et al. **Methods Mol Biol** 1999;106:247-83 (30 ref.)
Techniques for the measurement of lipoprotein lipase messenger RNA. Ranganathan G, et al. **Methods Mol Biol** 1999;109:329-35 (7 ref.)
Differential display of eukaryotic mRNA. Tugores A, et al. **Methods Mol Biol** 1999;97:575-90
Detection and quantification of transcript RNA in transgenic plants using digoxigenin-labeled cDNA probes. Webster KD, et al. **Methods Mol Biol** 1998;81:437-45
Differential display of mRNA. Zhang JS, et al. **Mol Biotechnol** 1998 Oct;10(2):155-65 (61 ref.)
Quantitative aspects of an in situ hybridization procedure for detecting mRNAs in cells using 96-well microplates. Zreiqat H, et al. **Mol Biotechnol** 1998 Oct;10(2):107-13
Expression of aberrant functional and nonfunctional transcripts of the FHIT gene in Burkitt's lymphomas. Ferrer M, et al. **Mol Carcinog** 1999 May;25(1):55-63
Localization of ASH1 mRNA particles in living yeast. Bertrand E, et al. **Mol Cell** 1998 Oct;2(4):437-45
Correlation between protein and mRNA abundance in yeast. Gygi SP, et al. **Mol Cell Biol** 1999 Mar;19(3):1720-30
Cloning of zebrafish activin type IIB receptor (ActRIIB) cDNA and mRNA expression of ActRIIB in embryos and adult tissues. Garg RR, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):169-81
Putative estrogen receptor beta and alpha mRNA expression in male and female rhesus macaques. Pau CY, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):59-68
Cytochrome P450 2E1 mRNA in the rat prostate: detection and quantitation by competitive reverse transcription and polymerase chain reaction. Jiang Y, et al. **Mol Cell Probes** 1998 Oct;12(5):263-71
Quantitation of glutaminase mRNA in enterocytes using competitive RT-PCR. Kong SE, et al. **Mol Cell Probes** 1998 Oct;12(5):339-41
Semi-quantitative RT-PCR for comparison of mRNAs in cells with different amounts of housekeeping gene transcripts. Serazin-Leroy V, et al. **Mol Cell Probes** 1998 Oct;12(5):283-91
A novel method for analysis of nuclear receptor function at natural promoters: peroxisome proliferator-activated receptor gamma agonist actions on aP2 gene expression detected using branched DNA messenger RNA quantitation. Burris TP, et al. **Mol Endocrinol** 1999 Mar; 13(3):410-7
Differentially expressed messenger RNA isoforms of the human estrogen receptor-alpha gene are generated by alternative splicing and promoter usage. Flouriot G, et al. **Mol Endocrinol** 1998 Dec;12(12):1939-54
A quantitative sucrose gradient analysis of the translational activity of 18 mRNA species in testes from adult mice. Cataldo L, et al. **Mol Hum Reprod** 1999 Mar;5(3):206-13
Expression of mRNA for vascular endothelial growth factor transmembraneous receptors Flt1 and KDR, and the soluble receptor sflt in cycling human endometrium. Krüssel JS, et al. **Mol Hum Reprod** 1999 May;5(5):452-8
Expression of intercellular adhesion molecule (ICAM)-1 mRNA and protein is enhanced in endometriosis versus endometrial stromal cells in culture. Viganò P, et al. **Mol Hum Reprod** 1998 Dec;4(12):1150-6
Subcellular localization of mRNA in neuronal cells. Contributions of high-resolution in situ hybridization techniques. Martone ME, et al. **Mol Neurobiol** 1998 Dec; 18(3):227-46 (122 ref.)
Detection of immunoglobulin light chain mRNA by in situ hybridisation using biotinylated tyramine signal amplification. King G, et al. **Mol Pathol** 1999 Feb; 52(1):47-50
A novel, rapid in cell RNA amplification technique for the detection of low copy mRNA transcripts. Uhlmann V, et al. **Mol Pathol** 1998 Jun;51(3):160-3
Growth-associated protein (GAP-43), its mRNA, and protein kinase C (PKC) isoenzymes in brain regions of depressed suicides. Hrdina P, et al. **Mol Psychiatry** 1998 Sep;3(5):411-8
Developmental stage- and germ cell-regulated expression of a calcium-binding protein mRNA in mouse Sertoli cells. Kraszucka K, et al. **Mol Reprod Dev** 1999 Nov;54(3):232-43
Detection of carcinoembryonic antigen messenger RNA in lymph nodes from patients with colorectal cancer [letter; comment] Bostick PJ, et al. **N Engl J Med** 1998 Nov 26; 339(22):1643-4. Comment on: N Engl J Med 1998 Jul 23;339(4):223-8.
Accurate determination of relative messenger RNA levels by RT-PCR. Stenman J, et al. **Nat Biotechnol** 1999 Jul; 17(7):720-2
Differential expression of muscarinic subtype mRNAs after exposure to neurotoxic pesticides. Talts U, et al. **Neurobiol Aging** 1998 Nov-Dec;19(6):553-9
GFAPbeta mRNA expression in the normal rat brain and after neuronal injury. Condorelli DF, et al. **Neurochem Res** 1999 May;24(5):709-14
Ontogenic development of prolactin immunoreactive neurons in the rat lateral hypothalamus. Grillon S, et al. **Neuropeptides** 1998 Aug;32(4):327-32
NMDA NR1 subunit mRNA and glutamate NMDA-sensitive binding are differentially affected in the striatum and pre-frontal cortex of Parkinson's disease patients. Meoni P, et al. **Neuropharmacology** 1999 May; 38(5):625-33
Quantitation of 5HT2A receptor mRNA in human postmortem brain using competitive RT-PCR. Dwivedi Y, et al. **Neuroreport** 1998 Dec 1;9(17):3761-5
Identification of mammalian GFRalpha-2 splice isoforms. Wong YW, et al. **Neuroreport** 1998 Dec 1;9(17):3767-73
Identification of macrophage migration inhibitory factor mRNA expression in neural cells of the rat brain by in situ hybridization. Ogata A, et al. **Neurosci Lett** 1998 May 1;246(3):173-7
In situ localization of neuronal nitric oxide synthase (nNOS) mRNA in the rat retina. Shin DH, et al. **Neurosci Lett** 1999 Jul 23;270(1):53-5
Distinct regional distribution in the brain of messenger RNAs for the two isoforms of synaphin associated with the docking/fusion complex. Ishizuka T, et al. **Neuroscience** 1999 Jan;88(1):295-306
Distribution and cellular localization of the serotonin type 2C receptor messenger RNA in human brain. Pasqualetti M, et al. **Neuroscience** 1999;92(2):601-11
Differential distribution of N-methyl-D-aspartate receptor-2 subunit messenger RNA in the rat superior olivary complex. Sato K, et al. **Neuroscience** 1999 Mar;89(3):839-53
Localization of inducible nitric oxide synthase mRNA in inflamed gastrointestinal mucosa by in situ reverse transcriptase-polymerase chain reaction. Zhang XJ, et al. **Nitric Oxide** 1998;2(3):187-92
Expression profiling of single cells using 3 prime end amplification (TPEA) PCR. Dixon AK, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4426-31
Single-tube nested competitive PCR with homologous competitor for quantitation of DNA target sequences: theoretical description of heteroduplex formation, evaluation of sensitivity, precision and linear range of the method. Serth J, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4401-8
A novel quantitative multiplex NASBA method: application to measuring tissue factor and CD14 mRNA levels in human monocytes. van Deursen PB, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):e15
Genetic diagnostic test of hepatocellular carcinoma by telomerase catalytic subunit mRNA. Wada E, et al. **Oncol Rep** 1998 Nov-Dec;5(6):1407-12
Identification of carbonic anhydrase IV and VI mRNA expression in human pancreas and salivary glands. Fujikawa-Adachi K, et al. **Pancreas** 1999 May;18(4):329-35
Cytokine mRNA levels in the hearts of inbred mice that develop different degrees of cardiomyopathy during infection with Trypanosoma cruzi. Powell MR, et al. **Parasite Immunol** 1998 Oct;20(10):463-71
HbF synthesis during stress erythropoiesis as determined by gamma-mRNA/non-alpha-mRNA quantification. Bard H, et al. **Pediatr Res** 1999 May;45(5 Pt 1):684-6
Somatostatin decreases somatostatin messenger ribonucleic acid levels in the rat periventricular nucleus. Aguila MC. **Peptides** 1998;19(9):1573-9
Interleukin-8 mRNA expression in circulating leucocytes during cardiopulmonary bypass. John AE, et al. **Perfusion** 1998 Nov;13(6):409-17
Chronical haloperidol and clozapine treatment in rats: differential RNA display analysis, behavioral studies and serum level determination. Fischer V, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1129-39
Insulin-like growth factor II (IGF-II) mRNA expression during skeletal muscle development of double-muscled and normal bovine foetuses. Listrat A, et al. **Reprod Nutr Dev** 1999 Jan-Feb;39(1):113-24
Expression of the tissue inhibitor of metalloproteinases (TIMP) gene family in normal and osteoarthritic joints. Su S, et al. **Rheumatol Int** 1999;18(5-6):183-91
Quantification of mRNA levels of endothelin receptor subtypes and preproEndothelin-1 in renal needle biopsies by competitive reverse transcriptase polymerase chain reaction. Asberg A, et al. **Scand J Clin Lab Invest** 1998 Jul;58(4):299-306
Increases in mRNA levels for synapsin I but not synapsin II in the hippocampus of the rat kindling model of epilepsy. Morimoto K, et al. **Seizure** 1998 Jun;7(3):229-35
Discordant tumor necrosis factor-alpha superfamily gene expression in bacterial peritonitis and endotoxemic shock. Tannahill CL, et al. **Surgery** 1999 Aug;126(2):349-57
Analysis of cannabinoid receptor binding and mRNA expression and endogenous cannabinoid contents in the developing rat brain during late gestation and early postnatal period. Berrendero F, et al. **Synapse** 1999 Sep 1;33(3):181-91
Flip and flop variants of AMPA receptor subunits in the human cerebellum: implication for the selective vulnerability of Purkinje cells. Tomiyama M, et al. **Synapse** 1999 Feb;31(2):163-7
Measurement of thrombomodulin mRNA expression in brain capillaries by polymerase chain reaction. Tran ND, et al. **Thromb Res** 1998 Aug 15;91(4):191-7
Adipose S14 mRNA is abnormally regulated in obese subjects. Kirschner LS, et al. **Thyroid** 1999 Feb;9(2):143-8
Effects of cadmium on metallothionein-I and metallothionein-II mRNA expression in rat ventral, lateral, and dorsal prostatic lobes: quantification by competitive RT-PCR. Lee KF, et al. **Toxicol Appl Pharmacol** 1999 Jan 1;154(1):20-7
Transcriptional activation of avian CYP1A4 and CYP1A5 by 2,3,7, 8-tetrachlorodibenzo-p-dioxin: differences in gene expression and regulation compared to mammalian CYP1A1 and CYP1A2. Mahajan SS, et al. **Toxicol Appl Pharmacol** 1999 Feb 15;155(1):96-106
A reliable and sensitive method for assessment of low copies of cytokine mRNA within individual cells. Wang L, et al. **Transplant Proc** 1998 Nov;30(7):2925-6
Human endogenous retrovirus (HERV)-K transcripts in gonadoblastomas and gonadoblastoma-derived germ cell tumours. Herbst H, et al. **Virchows Arch** 1999 Jan; 434(1):11-5
Overexpression of human telomerase RNA is an early event in oesophageal carcinogenesis. Hiyama T, et al. **Virchows Arch** 1999 Jun;434(6):483-7
5'-Cytosine DNA-methyltransferase mRNA levels in hereditary colon carcinoma. Jakob CA, et al. **Virchows Arch** 1999 Jan;434(1):57-62
Expression of inducible nitric oxide synthase in macrophages and smooth muscle cells in various types of human atherosclerotic lesions. Luoma JS, et al. **Virchows Arch** 1999 Jun;434(6):561-8
Fibroblast growth factor receptors regulate the ability for hindlimb regeneration in Xenopus laevis. D'Jamoos CA, et al. **Wound Repair Regen** 1998 Jul-Aug;6(4):388-97
[Detection of NV-HB/s DNA and c-myc mRNA in mice inoculated with hepatitis B nucleic acid vaccine--NV-HB/s] Qin S, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar;7(1):6-7 (Eng. Abstr.) **(Chi)**
[Molecular mechanism of diapause in Bombyx mori. 2. Diapause determination and expression of diapause hormone gene in pupal stage] Xu WH. **I Chuan Hsueh Pao** 1999;26(2):107-11 (Eng. Abstr.) **(Chi)**
[Ovarian mucinous tumor of gastric and intestinal type associated with Peutz-Jeghers syndrome: in situ hybridization study of apomucin gene transcripts] Wacrenier A, et al. **Ann Pathol** 1998 Dec;18(6):497-501 (Eng. Abstr.) **(Fre)**
[Detection of receptor mRNAs using nonradioactive in situ hybridization] Shin M, et al. **Nippon Rinsho** 1998 Jul; 56(7):1667-73 (20 ref.) (Eng. Abstr.) **(Jpn)**
[Localization of transcripts corresponding to different regions of the "cut" locus in Drosophila embryos] Churikov NA, et al. **Genetika** 1999 May;35(5):716-20 (Eng. Abstr.) **(Rus)**
[Molecular bases of prion diseases] Pokrovskiĭ VI, et al. **Vestn Ross Akad Med Nauk** 1998;(10):45-55 (31 ref.) (Eng. Abstr.) **(Rus)**

ANTAGONISTS & INHIBITORS

Antisense inhibition of Bax mRNA increases survival of terminally differentiated HL60 cells. Manfredini R, et al. **Antisense Nucleic Acid Drug Dev** 1998 Aug;8(4):341-50
Hammerhead ribozyme specifically inhibits mutant K-ras mRNA of human pancreatic cancer cells. Tsuchida T, et al. **Biochem Biophys Res Commun** 1998 Dec 18; 253(2):368-73
2',5'-Oligoadenylate-antisense chimeras cause RNase L to selectively degrade bcr/abl mRNA in chronic myelogenous

leukemia cells. Maran A, et al. **Blood** 1998 Dec 1; 92(11):4336–43

Hypothalamic agouti-related protein messenger ribonucleic acid is inhibited by leptin and stimulated by fasting. Mizuno TM, et al. **Endocrinology** 1999 Feb;140(2):814–7

Effects of anti-sense oligonucleotides directed toward dihydrofolate reductase RNA in mammalian cultured cells. Rodriguez M, et al. **Int J Cancer** 1999 May 31;81(5):785–92

TNF-alpha suppresses IFN-gamma-induced MHC class II expression in HT1080 cells by destabilizing class II trans-activator mRNA. Han Y, et al. **J Immunol** 1999 Aug 1;163(3):1435–40

Glucocorticosteroids inhibit mRNA expression for eotaxin, eotaxin-2, and monocyte-chemotactic protein-4 in human airway inflammation with eosinophilia. Jahnsen FL, et al. **J Immunol** 1999 Aug 1;163(3):1545–51

Tracheal ligation increases mitogen-activated protein kinase activity and attenuates surfactant protein B mRNA in fetal sheep lungs. Islam S, et al. **J Surg Res** 1999 Jun 1; 84(1):19–23

Adenosine induces apoptosis by inhibiting mRNA and protein synthesis in chick embryonic sympathetic neurons. Kulkarni JS, et al. **Neurosci Lett** 1998 Jun 5;248(3):187–90

BIOSYNTHESIS

Expression of myosin heavy chain mRNA in rat laryngeal muscles. Jung HH, et al. **Acta Otolaryngol** 1999; 119(3):396–402

Induction of KGF, basic FGF, and TGFalpha mRNA expression during healing of experimental TM perforations. Ishibashi T, et al. **Acta Otolaryngol (Stockh)** 1998 Sep; 118(5):701–4

Fibre-type specific expression of fast and slow essential myosin light chain mRNAs in trained human skeletal muscles. Jostarndt-Fögen K, et al. **Acta Physiol Scand** 1998 Nov;164(3):299–308

Modulation of caspase-3 activity and Fas ligand mRNA expression in rat liver cells in vivo by alcohol and lipopolysaccharide. Deaciuc IV, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):349–56

Heat shock protein 70 and heat shock cognate protein 70 messenger ribonucleic acid induction in the brains, hearts, and livers of neonatal rats after hypoxic stress. Ikeda T, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):457–61

Effect of human seminal fluid on production of messenger ribonucleic acid for metalloproteinase 2 and metalloproteinase 9 in cervical epithelial carcinoma cells. Jeremias J, et al. **Am J Obstet Gynecol** 1999 Sep; 181(3):591–5

Human interleukin-10 expression in T/natural killer-cell lymphomas: association with anaplastic large cell lymphomas and nasal natural killer-cell lymphomas. Boulland ML, et al. **Am J Pathol** 1998 Oct;153(4):1229–37

Multiple intron retention occurs in tumor cell CD44 mRNA processing. Goodison S, et al. **Am J Pathol** 1998 Oct; 153(4):1221–8

Murine acid alpha-glucosidase: cell-specific mRNA differential expression during development and maturation. Ponce E, et al. **Am J Pathol** 1999 Apr;154(4):1089–96

Ontogeny of hepatocyte growth factor (HGF) and its receptor (c-met) in human placenta: reduced HGF expression in intrauterine growth restriction. Somerset DA, et al. **Am J Pathol** 1998 Oct;153(4):1139–47

Modulation of endothelial cell function by normal polyspecific human intravenous immunoglobulins: a possible mechanism of action in vascular diseases. Xu C, et al. **Am J Pathol** 1998 Oct;153(4):1257–66

Specific regional transcription of apolipoprotein E in human brain neurons. Xu PT, et al. **Am J Pathol** 1999 Feb; 154(2):601–11

Transcriptional regulation of smooth muscle contractile apparatus expression. Solway J, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 3):S100–8 (98 ref.)

Rapid and simultaneous activation of Stat3 and production of interleukin 6 in resuscitated hemorrhagic shock. Hierholzer C, et al. **Arch Orthop Trauma Surg** 1999; 119(5–6):332–6

Inhibition of lipopolysaccharide-induced inducible nitric oxide (iNOS) mRNA expression and nitric oxide production by higenamine in murine peritoneal macrophages. Lee HY, et al. **Arch Pharm Res** 1999 Feb; 22(1):55–9

Association of the course of collagen-induced arthritis with distinct patterns of cytokine and chemokine messenger RNA expression. Thornton S, et al. **Arthritis Rheum** 1999 Jun;42(6):1109–18

Acquisition of fear conditioning in rats requires the synthesis of mRNA in the amygdala. Bailey DJ, et al. **Behav Neurosci** 1999 Apr;113(2):276–82

Changes in dopamine receptor mRNA expression following chronic mild stress and chronic antidepressant treatment. Dziedzicka-Wasylewska M, et al. **Behav Pharmacol** 1997 Nov;8(6–7):607–18

Antiphase circadian expression between BMAL1 and period homologue mRNA in the suprachiasmatic nucleus and peripheral tissues of rats. Oishi K, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):199–203

Downregulation of mRNA expression of Edg-3, a putative sphingosine 1-phosphate receptor coupled to Ca2+ signaling, during differentiation of HL-60 leukemia cells. Sato K, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):253–6

Induction of gadd153 mRNA by nutrient deprivation is overcome by glutamine. Huang Q, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):225–31

Activity of human 11-cis-retinol dehydrogenase (Rdh5) with steroids and retinoids and expression of its mRNA in extra-ocular human tissue. Wang J, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):23–7

Aldosterone directly induces Na, K-ATPase alpha 1-subunit mRNA in the renal cortex of rat. Seok JH, et al. **Biochem Mol Biol Int** 1999 Feb;47(2):251–4

Characterization of G protein-coupled receptor regulation in antisense mRNA-expressing cells with reduced arrestin levels. Mundell SJ, et al. **Biochemistry** 1999 Jul 6; 38(27):8723–32

Induction of metalloelastase mRNA in murine peritoneal macrophages by diethylmaleate. Kawane T, et al. **Biochim Biophys Acta** 1999 Apr 19;1427(2):155–60

Down-regulation of beta1,4-galactosyltransferase gene expression by cell-cycle suppressor gene p16. Zhang SW, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):49–54

Evaluation of induction of CYP3A mRNA using the HepG2 cell line and reverse transcription-PCR. Sumida A, et al. **Biol Pharm Bull** 1999 Jan;22(1):61–5

Androgen receptor messenger ribonucleic acid in brains and pituitaries of male rhesus monkeys: studies on distribution, hormonal control, and relationship to luteinizing hormone secretion. Abdelgadir SE, et al. **Biol Reprod** 1999 May; 60(5):1251–6

Expression of steroidogenic acute regulatory protein messenger ribonucleic acid is limited to theca of healthy bovine follicles collected during recruitment, selection, and dominance of follicles of the first follicular wave. Bao B, et al. **Biol Reprod** 1998 Oct;59(4):953–9

Regulation of inducible nitric oxide synthase messenger ribonucleic acid expression in pregnant rat uterus. Dong YL, et al. **Biol Reprod** 1998 Oct;59(4):933–40

Ontogeny of stem cell factor receptor (c-kit) messenger ribonucleic acid in the ovine corpus luteum. Gentry PC, et al. **Biol Reprod** 1998 Oct;59(4):983–90

Tissue-specific expression of messenger ribonucleic acids for insulin-like growth factors and insulin-like growth factor-binding proteins during perinatal development of the rat uterus. Gu Y, et al. **Biol Reprod** 1999 May; 60(5):1172–82

Beta transforming growth factors (TGFss) at the porcine conceptus-maternal interface. Part I: expression of TGFbeta1, TGFbeta2, and TGFbeta3 messenger ribonucleic acids. Gupta A, et al. **Biol Reprod** 1998 Oct; 59(4):905–10

Beta transforming growth factors (TGFbeta) at the porcine conceptus-maternal interface. Part II: uterine TGFbeta bioactivity and expression of immunoreactive TGFbetas (TGFbeta1, TGFbeta2, and TGFbeta3) and their receptors (type I and type II). Gupta A, et al. **Biol Reprod** 1998 Oct; 59(4):911–7

Developmental changes in the expression of the growth hormone receptor messenger ribonucleic acid and protein in the bovine ovary. Kölle S, et al. **Biol Reprod** 1998 Oct; 59(4):836–42

Expression and localization of messenger ribonucleic acid for the vitellogenin receptor in ovarian follicles throughout oogenesis in the rainbow trout, Oncorhynchus mykiss. Perazzolo LM, et al. **Biol Reprod** 1999 May;60(5):1057–68

Calcium/phospholipid-dependent protein kinases in rat Sertoli cells: regulation of androgen receptor messenger ribonucleic acid. Ree AH, et al. **Biol Reprod** 1999 May; 60(5):1257–62

Accumulation of caspase-3 messenger ribonucleic acid and induction of caspase activity in the ovine corpus luteum following prostaglandin F2alpha treatment in vivo. Rueda BR, et al. **Biol Reprod** 1999 May;60(5):1087–92

Characterization of inhibin/activin subunit, activin receptor, and follistatin messenger ribonucleic acid in human and mouse oocytes: evidence for activin's paracrine signaling from granulosa cells to oocytes. Sidis Y, et al. **Biol Reprod** 1998 Oct;59(4):807–12

Erythropoietin mRNA expression in human fetal and neonatal tissue. Dame C, et al. **Blood** 1998 Nov 1; 92(9):3218–25

Thrombopoietin production is inhibited by a translational mechanism. Ghilardi N, et al. **Blood** 1998 Dec 1; 92(11):4023–30

Coinduction of embryonic and adult-type globin mRNAs by sodium butyrate and trichostatin A in two murine interleukin-3-dependent bone marrow-derived cell lines. Ishiguro K, et al. **Blood** 1998 Dec 1;92(11):4383–93

von Willebrand factor elevates plasma factor VIII without induction of factor VIII messenger RNA in the liver. Kaufman RJ, et al. **Blood** 1999 Jan 1;93(1):193–7

Parathyroid hormone induces interleukin-6 heterogeneous nuclear and messenger RNA expression in murine calvarial organ cultures. Huang YF, et al. **Bone** 1998 Oct; 23(4):327–32

Heme oxygenase isozymes in bone: induction of HO-1 mRNA following physiological levels of mechanical loading in vivo. Rawlinson SC, et al. **Bone** 1998 Nov; 23(5):433–6

Expression of vascular endothelial growth factor (VEGF) and its mRNA in uterine cervical cancers. Fujimoto J, et al. **Br J Cancer** 1999 May;80(5–6):827–33

Altered expression of exon 6 deleted progesterone receptor variant mRNA between normal human breast and breast tumour tissues. Leygue E, et al. **Br J Cancer** 1999 May; 80(3–4):379–82

Overexpression of metastasis-associated MTA1 mRNA in invasive oesophageal carcinomas. Toh Y, et al. **Br J Cancer** 1999 Apr;79(11–12):1723–6

Gi-Protein alpha-subunit mRNA antisense oligonucleotide inhibition of Gi-coupled receptor contractile activity in the epididymis of the guinea-pig. Haynes JM, et al. **Br J Pharmacol** 1999 May;127(1):85–90

Circadian changes of type II adenylyl cyclase mRNA in the rat suprachiasmatic nuclei. Cagampang FR, et al. **Brain Res** 1998 Nov 9;810(1–2):279–82

Circadian changes in PACAP type 1 (PAC1) receptor mRNA in the rat suprachiasmatic and supraoptic nuclei. Cagampang FR, et al. **Brain Res** 1998 Nov 30;813(1):218–22

Regulation of CCK mRNA expression in the rat brain by stress and treatment with sertraline, a selective serotonin re-uptake inhibitor. Giardino L, et al. **Brain Res** 1999 Apr 10;824(2):304–7

Behavioral changes and expression of heat shock protein hsp-70 mRNA, brain-derived neurotrophic factor mRNA, and cyclooxygenase-2 mRNA in rat brain following seizures induced by systemic administration of kainic acid. Hashimoto K, et al. **Brain Res** 1998 Sep 7;804(2):212–23

Neuron-specific expression of cationic amino acid transporter 3 in the adult rat brain. Hosokawa H, et al. **Brain Res** 1999 Aug 14;838(1–2):158–65

Differential temporal expression of mRNAs for ciliary neurotrophic factor (CNTF), leukemia inhibitory factor (LIF), interleukin-6 (IL-6), and their receptors (CNTFR alpha, LIFR beta, IL-6R alpha and gp130) in injured peripheral nerves. Ito Y, et al. **Brain Res** 1998 May 18; 793(1–2):321–7

Altered expression levels of G protein subclass mRNAs in various seizure stages of the kindling model. Iwasa H, et al. **Brain Res** 1999 Feb 13;818(2):570–4

Photoperiodic dependent changes in the number of neurons containing mRNA encoding neuropeptide Y in the intergeniculate leaflet of the Syrian hamster. Jacob N, et al. **Brain Res** 1998 Nov 30;813(1):160–6

Age- and region-specific expressions of the messenger RNAs encoding for steroidogenic enzymes p450scc, P450c17 and 3beta-HSD in the postnatal rat brain. Kohchi C, et al. **Brain Res** 1998 Aug 10;801(1–2):233–8

The increase in angiotensin type-2 receptor mRNA level by glutamate stimulation in cultured rat cortical cells. Makino I, et al. **Brain Res** 1998 Sep 7;804(2):296–305

Transient MRI-detected water apparent diffusion coefficient reduction correlates with c-fos mRNA but not hsp70 mRNA induction during focal cerebral ischemia in rats. Mancuso A, et al. **Brain Res** 1999 Aug 21;839(1):7–22

Influence of serum-free culture conditions on steroid 5alpha-reductase mRNA expression in rat C6 glioma cells. Morita K, et al. **Brain Res** 1999 May 29;830(1):179–82

Upregulation of GABAA-receptor alpha1- and alpha2-subunit mRNAs following ischemic cortical lesions in rats. Neumann-Haefelin T, et al. **Brain Res** 1999 Jan 16;816(1):234–7

Estrogen attenuates over-expression of beta-amyloid precursor protein messager RNA in an animal model of focal ischemia. Shi J, et al. **Brain Res** 1998 Nov 9; 810(1–2):87–92

Increased expression of zif268 mRNA in rat retrosplenial cortex following administration of phencyclidine. Shirayama Y, et al. **Brain Res** 1999 Aug 21;839(1):180–5

Characterization of the neuropeptide Y5 receptor in the human hypothalamus: a lack of correlation between Y5 mRNA levels and binding sites. Statnick MA, et al. **Brain Res** 1998 Nov 9;810(1–2):16–26

Effects of halothane, ketamine and nitrous oxide on dynorphin mRNA expression in dorsal horn neurons after peripheral tissue injury. Tanimoto M, et al. **Brain Res** 1998 Nov 16;811(1–2):88–95

Injury induces neuropsin mRNA in the central nervous system. Tomizawa K, et al. **Brain Res** 1999 Apr 10; 824(2):308–11

Recombinant CART peptide induces c-Fos expression in central areas involved in control of feeding behaviour. Vrang N, et al. **Brain Res** 1999 Feb 13;818(2):499–509

Biphasic expression of TGF-beta1 mRNA in the rat brain following permanent occlusion of the middle cerebral artery. Yamashita K, et al. **Brain Res** 1999 Jul 31; 836(1–2):139–45

Suppression of post-ischemic-induced fos protein expression by an antisense oligonucleotide to c-fos mRNA leads to increased tissue damage. Zhang Y, et al. **Brain Res** 1999 Jun 19;832(1–2):112–7

Advantage of double labeled in situ hybridization for detecting the effects of glucocorticoids on the mRNAs of protooncogenes and neural peptides (TRH) in cultured hypothalamic neurons. Luo LG, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):201–8

Modulation of TNF-alpha mRNA production in rat C6 glioma cells by TNF-alpha, IL-1beta, IL-6, and IFN-alpha: in vitro analysis of cytokine-cytokine interactions. Gayle D, et al. **Brain Res Bull** 1998 Oct; 47(3):231–5

Connexin43 mRNA and protein expression during postnatal development of defined brain regions. Aberg ND, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):97–101

Development of GAP-43 mRNA in the macaque cerebral

cortex. Oishi T, et al. **Brain Res Dev Brain Res** 1998 Jul 1;109(1):87–97

Postnatal developmental regulation of neuronal nicotinic receptor subunit alpha 7 and multiple alpha 4 and beta 2 mRNA species in the rat. Shacka JJ, et al. **Brain Res Dev Brain Res** 1998 Jul 1;109(1):67–75

Regulation of metallothionein-3 mRNA by thyroid hormone in developing rat brain and primary cultures of rat astrocytes and neurons. Yeiser EC, et al. **Brain Res Dev Brain Res** 1999 Jun 2;115(2):195–200

Increased striatal proenkephalin mRNA subsequent to production of spreading depression in rat cerebral cortex: activation of corticostriatal pathways? Arabia AM, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):195–202

Differential regulation of angiotensinogen and AT1A receptor mRNA within the rat subfornical organ during dehydration. Barth SW, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):151–64

Mu-opioid receptor mRNA expression in proopiomelanocortin neurons of the rat arcuate nucleus. Bouret S, et al. **Brain Res Mol Brain Res** 1999 Jun 18; 70(1):155–8

Up-regulation of GDNFR-alpha and c-ret mRNA in facial motor neurons following facial nerve injury in the rat. Burazin TC, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):331–6

Expression of the thymosin beta10 gene in normal and kainic acid-treated rat forebrain. Carpintero P, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):141–6

Circadian expression of tryptophan hydroxylase mRNA in the chicken retina. Chong NW, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):243–50

Perinatal cocaine decreases the expression of prodynorphin mRNA in nucleus accumbens shell in the adult rat. Dow-Edwards DL, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):82–5

Changes in the gene expression of GABAA receptor subunit mRNAs in the septum of rats subjected to pentylenetetrazol-induced kindling. Follesa P, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):1–8

Differential regulation of alpha- and beta-CGRP mRNAs within oculomotor, trochlear, abducens, and trigeminal motoneurons in response to axotomy. Fukuoka T, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):304–15

Basal and IL-1beta-stimulated cytokine and neuropeptide mRNA expression in brain regions of young and old Long-Evans rats. Gayle D, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):92–100

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125–34

Ovarian steroid effects on serotonin 1A, 2A and 2C receptor mRNA in macaque hypothalamus. Gundlah C, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):325–39

Cultured astrocytes express messenger RNA for multiple serotonin receptor subtypes, without functional coupling of 5-HT1 receptor subtypes to adenylyl cyclase. Hirst WD, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):90–9

Chronic amitriptyline treatment induces hippocampal NGFI-A, glucocorticoid receptor and mineralocorticoid receptor mRNA expression in rats. Johansson IM, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):92–5

Expression patterns of voltage-dependent calcium channel alpha 1 subunits (alpha 1A–alpha 1E) mRNA in rat retina. Kamphuis W, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):209–20

Continuous treatment with nicotine increases diazepam binding inhibitor (DBI) and its mRNA in the mouse brain. Katsura M, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):345–9

Locomotor-activity-induced changes in striatal levels of preprotachykinin and preproenkephalin mRNA. Regulation by the dopaminergic and glutamatergic systems. Liste I, et al. **Brain Res Mol Brain Res** 1999 Jun 18; 70(1):74–83

Expression of glutamate receptor subunit/subtype messenger RNAS for NMDAR1, GLuR1, GLuR2 and mGLuR5 by accumbal projection neurons. Lu XY, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):287–96

Alterations in calmodulin mRNA expression and calmodulin content in rat brain after repeated, intermittent amphetamine. Michelhaugh SK, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):35–42

Selective expression of serotonin receptor transcripts in the mammalian cochlea and its subdivisions. Oh CK, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):135–40

MAP kinase phosphatase-1 mRNA is expressed in embryonic sympathetic neurons and is upregulated after NGF stimulation. Peinado-Ramón P, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):256–67

Multiple splice patterns of cyclic AMP response element-binding protein mRNA in the central nervous system of the rat. Pietruck C, et al. **Brain Res Mol Brain Res** 1999 Jun 8;69(2):286–9

NGF-induction of the expression of ChAT mRNA in PC12 cells and primary cultures of embryonic rat basal forebrain. Pongrac JL, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):25–34

Increased expression of dendritic mRNA following the induction of long-term potentiation. Roberts LA, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):38–44

Effects of prolactin on expression of the mRNAs encoding the immediate early genes zif/268 (NGF1-A), nur/77 (NGF1-B), c-fos and c-jun in the hypothalamus. Sagrillo CA, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1–2):62–8

Expression of neurotrophin mRNAs in the dorsal root ganglion after spinal nerve injury. Shen H, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):186–92

Highest trkB mRNA expression in the entorhinal cortex among hippocampal subregions in the adult rat: contrasting pattern with BDNF mRNA expression. Tokuyama W, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):206–15

Priming with L-DOPA differently affects dynorphin and substance P mRNA levels in the striatum of 6-hydroxydopamine-lesioned rats after challenge with dopamine D1-receptor agonist. van de Witte SV, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):219–23

Melatonin receptor RNA expression in Xenopus retina. Wiechmann AF, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):297–303

Prostaglandin E2 increases proenkephalin mRNA level in rat astrocyte-enriched culture. Won JS, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):203–14

Effects of long-term exposure to delta9-THC on expression of cannabinoid receptor (CB1) mRNA in different rat brain regions. Zhuang S, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):141–9

Expression of the mRNA for types I and II interleukin-1 receptors in dental tissues of mice during tooth development. Xu LX, et al. **Calcif Tissue Int** 1998 Oct; 63(4):351–6

Fragile histidine triad transcription abnormalities and human papillomavirus E6-E7 mRNA expression in the development of cervical carcinoma. Segawa T, et al. **Cancer** 1999 May 1;85(9):2001–10

Gene amplification of human cytidine deaminase proviral cDNA and increased levels of its mRNA produces enhanced drug resistance to cytosine arabinoside in retroviral-transduced murine fibroblasts. Beauséjour CM, et al. **Cancer Lett** 1999 Jan 8;135(1):29–36

Interleukin-1 receptor antagonist mRNA expression and the progression of gastric carcinoma. Iizuka N, et al. **Cancer Lett** 1999 Aug 3;142(2):179–84

Telomerase enzyme activity and RNA expression in adriamycin-resistant human breast carcinoma MCF-7 cells. Ishikawa T, et al. **Cancer Lett** 1999 Jul 1;141(1–2):187–94

D-type cyclins complex with the androgen receptor and inhibit its transcriptional transactivation ability. Knudsen KE, et al. **Cancer Res** 1999 May 15;59(10):2297–301

Differential expression of estrogen receptor-alpha and -beta messenger RNAs as a potential marker of ovarian carcinogenesis. Pujol P, et al. **Cancer Res** 1998 Dec 1; 58(23):5367–73

Recovery of RNA synthesis from the DHFR gene following UV-irradiation precedes the removal of photolesions from the transcribed strand. Ljungman M. **Carcinogenesis** 1999 Mar;20(3):395–9

Effect of diltiazem on cardiac remodeling in rats assessed by Doppler echocardiography and mRNA expression. Yoshiyama M, et al. **Cardiovasc Drugs Ther** 1999 May; 13(3):249–58

Phorbol ester exposure activates an AP-1-mediated increase in ERCC-1 messenger RNA expression in human ovarian tumor cells. Li Q, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):456–66

Beta-adrenergic receptors mediate a stress-induced decrease in IGF-II mRNA in the rat cerebellum. Tritos N, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):525–34

Expression of mRNAs for type-I collagen, bone sialoprotein, osteocalcin, and osteopontin at different stages of osteoblastic differentiation and their regulation by 1,25 dihydroxyvitamin D3. Bellows CG, et al. **Cell Tissue Res** 1999 Aug;297(2):249–59

An immunohistochemical and in situ hybridisation study of the postnatal development of uncoupling protein-1 and uncoupling protein-1 mRNA in lamb perirenal adipose tissue. Finn D, et al. **Cell Tissue Res** 1998 Dec;294(3):461–6

Cellular localization and distribution of glucocorticoid receptor immunoreactivity and the expression of glucocorticoid receptor messenger RNA in rat pituitary gland. A combined double immunohistochemistry study and in situ hybridization histochemical analysis. Ozawa H, et al. **Cell Tissue Res** 1999 Feb;295(2):207–14

Quantitative non-radioactive in situ hybridization study of GAP-43 and SCG10 mRNAs in the cerebral cortex of adult and infant macaque monkeys. Higo N, et al. **Cereb Cortex** 1999 Jun;9(4):317–31

Reciprocal up- and down-regulation of BDNF mRNA in tetanus toxin-induced epileptic focus and inhibitory surround in cerebral cortex. Liang F, et al. **Cereb Cortex** 1998 Sep;8(6):481–91

Localization of cells expressing AChE mRNA in rat striatum using nonradioactive in situ hybridization. Mis K, et al. **Chem Biol Interact** 1999 May 14;119–120:327–31

Prediction of aryl hydrocarbon receptor-mediated enzyme induction of drugs and chemicals by mRNA quantification. Frötschl R, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1447–52

Laminar shear stress-induced GRO mRNA and protein expression in endothelial cells. Hagiwara H, et al. **Circulation** 1998 Dec 8;98(23):2584–90

Molecular basis of transient outward potassium current downregulation in human heart failure: a decrease in Kv4.3 mRNA correlates with a reduction in current density. Kääb S, et al. **Circulation** 1998 Oct 6;98(14):1383–93

Differential expression of tissue inhibitors of metalloproteinases in the failing human heart. Li YY, et al. **Circulation** 1998 Oct 27;98(17):1728–34

Regulation of 6-pyruvoyltetrahydropterin synthase activity and messenger RNA abundance in human vascular endothelial cells. Linscheid P, et al. **Circulation** 1998 Oct 27;98(17):1703–6

Neuron-specific hel-N1 and HuD as novel molecular markers of neuroblastoma: a correlation of HuD messenger RNA levels with favorable prognostic features. Ball NS, et al. **Clin Cancer Res** 1997 Oct;3(10):1859–65

Thrombospondins I and II messenger RNA expression in lung carcinoma: relationship with p53 alterations, angiogenic growth factors, and vascular density. Fontanini G, et al. **Clin Cancer Res** 1999 Jan;5(1):155–61

Allergen challenge primes for IL-5 mRNA production and abrogates beta-adrenergic function in peripheral blood T lymphocytes from asthmatics. Borger P, et al. **Clin Exp Allergy** 1999 Jul;29(7):933–40

Interstrain differences in angiotensin I-converting enzyme mRNA and activity levels. Comparison between stroke-prone spontaneously hypertensive rats and Wistar-Kyoto rats. Costerousse O, et al. **Clin Exp Hypertens** 1999 May;21(4):377–93

Increased levels in vivo of mRNAs for IL-8 and macrophage inflammatory protein-1 alpha (MIP-1 alpha), but not of RANTES mRNA in peripheral blood mononuclear cells of patients with atopic dermatitis (AD). Hatano Y, et al. **Clin Exp Immunol** 1999 Aug;117(2):237–43

Regulation of human IL-18 mRNA expression. Marshall JD, et al. **Clin Immunol** 1999 Jan;90(1):15–21

Reperfusion accelerates the distribution of type I and III collagen messenger RNA expression after acute myocardial infarction: in situ hybridization in experimental infarction in rats. Moritani H, et al. **Coron Artery Dis** 1999;10(2):89–96

Totally in vitro protein selection using mRNA-protein fusions and ribosome display. Roberts RW. **Curr Opin Chem Biol** 1999 Jun;3(3):268–73 (39 ref.)

Early modifications of chemokine production and mRNA expression during rush venom immunotherapy. Akoum H, et al. **Cytokine** 1998 Sep;10(9):706–12

Quantification of human interleukin 18 mRNA expression by competitive reverse transcriptase polymerase chain reaction. Klein SA, et al. **Cytokine** 1999 Jun;11(6):451–8

Differentially increased IL-6 mRNA expression in liver and spleen following injection of liposome-encapsulated haemoglobin. Zhu XL, et al. **Cytokine** 1999 Sep; 11(9):696–703

Cytokeratin expression in breast cancer: phenotypic changes associated with disease progression. Brotherick I, et al. **Cytometry** 1998 Aug 1;32(4):301–8

Randomness of spatial distributions of two proteins in the cell nucleus involved in mRNA synthesis and their relationship. Noordmans HJ, et al. **Cytometry** 1998 Nov 1;33(3):297–309

Increased nerve growth factor mRNA in lateral calf skin biopsies from diabetic patients. Diemel LT, et al. **Diabet Med** 1999 Feb;16(2):113–8

Determination of mRNA expression for IFN-gamma and IL-4 in lymphocytes from children with IDDM by RT-PCR technique. Karlsson MG, et al. **Diabetes Res Clin Pract** 1998 Apr;40(1):21–30

Cytochrome P-450 mRNAs are modulated by dehydroepiandrosterone, nafenopin, and triiodothyronine. Singleton DW, et al. **Drug Metab Dispos** 1999 Feb; 27(2):193–200

Control of cleavage site selection during mRNA 3' end formation by a yeast hnRNP. Minvielle-Sebastia L, et al. **EMBO J** 1998 Dec 15;17(24):7454–68

Expression of truncated pro-opiomelanocortin gene transcript in human leukemia cell lines. Murao K, et al. **Endocr J** 1998 Jun;45(3):399–405

Endometrial ISG17 mRNA and a related mRNA are induced by interferon-tau and localized to glandular epithelial and stromal cells from pregnant cows. Johnson GA, et al. **Endocrine** 1999 Jun;10(3):243–52

Thyroid hormone and follicle-stimulating hormone regulate Müllerian-inhibiting substance messenger ribonucleic acid expression in cultured neonatal rat Sertoli cells. Arambepola NK, et al. **Endocrinology** 1998 Nov; 139(11):4489–95

Acute regulation by corticosteroids of channel-inducing factor gene messenger ribonucleic acid in the distal colon. Brennan FE, et al. **Endocrinology** 1999 Mar;140(3):1213–8

Insulin, but not glucose lowering corrects the hyperglucagonemia and increased proglucagon messenger ribonucleic acid levels observed in insulinopenic diabetes. Dumonteil E, et al. **Endocrinology** 1998 Nov;139(11):4540–6

Identification of novel chicken estrogen receptor-alpha messenger ribonucleic acid isoforms generated by alternative splicing and promoter usage. Griffin C, et al. **Endocrinology** 1998 Nov;139(11):4614–25

Pretranslational regulation of rhythmic type II iodothyronine deiodinase expression by beta-adrenergic mechanism in the rat pineal gland. Kamiya Y, et al. **Endocrinology** 1999 Mar; 140(3):1272–8

Regulation of pituitary corticotropin-releasing hormone-binding protein messenger ribonucleic acid levels

by restraint stress and adrenalectomy. McClennen SJ, et al. **Endocrinology** 1998 Nov;139(11):4435–41

Insulin-induced up-regulation of lipoprotein lipase messenger ribonucleic acid and activity in mammary gland. Ramos P, et al. **Endocrinology** 1999 Mar;140(3):1089–93

Photoneural regulation of rat pineal hydroxyindole-O-methyltransferase (HIOMT) messenger ribonucleic acid expression: an analysis of its complex relationship with HIOMT activity. Ribelayga C, et al. **Endocrinology** 1999 Mar;140(3):1375–84

Centrally administered adrenomedullin increases plasma oxytocin level with induction of c-fos messenger ribonucleic acid in the paraventricular and supraoptic nuclei of the rat. Serino R, et al. **Endocrinology** 1999 May; 140(5):2334–42

Reduction of hepatic insulin-like growth factor I (IGF-I) messenger ribonucleic acid (mRNA) during fasting is associated with diminished splicing of IGF-I pre-mRNA and decreased stability of cytoplasmic IGF-I mRNA. Zhang J, et al. **Endocrinology** 1998 Nov;139(11):4523–30

Combined effect of cigarette smoke and mineral fibers on the gene expression of cytokine mRNA. Morimoto Y, et al. **Environ Health Perspect** 1999 Jun;107(6):495–500

Increased expression of tumor necrosis factor-alpha and decreased expression of thyroglobulin and thyroid peroxidase mRNA levels in the thyroids of iodide-treated BB/Wor rats. Mori K, et al. **Eur J Endocrinol** 1998 Nov; 139(5):539–45

Expression of menin gene mRNA in pituitary tumours. Satta MA, et al. **Eur J Endocrinol** 1999 Apr;140(4):358–61

Novel translational repressor (NAT-1) expression is modified by thyroid state and age in brain and liver. Shah GN, et al. **Eur J Endocrinol** 1998 Dec;139(6):649–53

Islet amyloid polypeptide/amylin messenger RNA and protein expression in human insulinomas in relation to amyloid formation. van Hulst KL, et al. **Eur J Endocrinol** 1999 Jan;140(1):69–78

Additional NO2 exposure induces a decrease in cytokine specific mRNA expression and cytokine release of particle and fibre exposed human alveolar macrophages. Drumm K, et al. **Eur J Med Res** 1999 Feb 25;4(2):59–66

Absence of the dopamine D2 receptor leads to a decreased expression of GDNF and NT-4 mRNAs in restricted brain areas. Bozzi Y, et al. **Eur J Neurosci** 1999 Apr; 11(4):1275–84

Expression of TrkB and TrkC but not BDNF mRNA in neurochemically identified interneurons in rat visual cortex in vivo and in organotypic cultures. Gorba T, et al. **Eur J Neurosci** 1999 Apr;11(4):1179–90

Psychotomimetic-induction of tissue plasminogen activator mRNA in corticostriatal neurons in rat brain. Hashimoto T, et al. **Eur J Neurosci** 1998 Nov;10(11):3387–99

Expression of the mRNA for the beta 2 subunit of the voltage-dependent sodium channel in rat CNS. Levy-Mozziconacci A, et al. **Eur J Neurosci** 1998 Sep; 10(9):2757–67

The specificity of tyrosine kinase inhibitors: their effect on insulin release (short-term effect) and insulin mRNA (long-term effect) in an insulin-secreting cell line (INS-1). Neye H, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(4):292–8

Granulocyte colony-stimulating factor mobilized peripheral blood stem cells enter into G1 of the cell cycle and express higher levels of amphotropic retrovirus receptor mRNA. Horwitz ME, et al. **Exp Hematol** 1999 Jul;27(7):1160–7

Localization of metallothionein-I and -III expression in the CNS of transgenic mice with astrocyte-targeted expression of interleukin 6. Carrasco J, et al. **Exp Neurol** 1998 Oct; 153(2):184–94

Multiple cadherin mRNA expression and developmental regulation of a novel cadherin in the developing mouse eye. Faulkner-Jones BE, et al. **Exp Neurol** 1999 Apr; 156(2):316–25

Denervation of the skin following section of the inferior alveolar nerve leads to increased NGF accumulation without change in NGF mRNA expression. Harper SJ, et al. **Exp Neurol** 1999 Feb;155(2):327–30

Effect of repeated L-DOPA, bromocriptine, or lisuride administration on preproenkephalin-A and preproenkephalin-B mRNA levels in the striatum of the 6-hydroxydopamine-lesioned rat. Henry B, et al. **Exp Neurol** 1999 Feb;155(2):204–20

Long-term estrogen replacement coordinately decreases trkA and beta-PPT mRNA levels in dorsal root ganglion neurons. Liuzzi FJ, et al. **Exp Neurol** 1999 Feb;155(2):260–7

Application of cryopreserved precision-cut liver slices in pharmacotoxicology--principles, literature data and own investigations with special reference to CYP1A1-mRNA induction. Glöckner R, et al. **Exp Toxicol Pathol** 1998 Sep; 50(4–6):440–9 (35 ref.)

Monooxygenation, cytochrome P450-mRNA expression and other functions in precision-cut rat liver slices. Müller D, et al. **Exp Toxicol Pathol** 1998 Sep;50(4–6):507–13

Translocon-associated protein alpha transcripts are induced by granulocyte-macrophage colony-stimulating factor and exhibit complex alternative polyadenylation. Hirama T, et al. **FEBS Lett** 1999 Jul 23;455(3):223–7

Expression of integrin messenger ribonucleic acid in human endometrium: a quantitative reverse transcription polymerase chain reaction study. Dou Q, et al. **Fertil Steril** 1999 Feb;71(2):347–53

Presence of angiotensin II and expression of angiotensin II type-2 receptor in human fallopian tube. Johnson MC, et al. **Fertil Steril** 1998 Oct;70(4):740–6

Changes in neurotensin mRNA by estrogen in the female rat preoptic area during aging: an in situ hybridization histochemistry study. Funabashi T, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):364–71

Characterization of teleost insulin receptor family members. Greene MW, et al. **Gen Comp Endocrinol** 1999 Aug; 115(2):254–69

Characterization of teleost insulin receptor family members. II. Developmental expression of insulin-like growth factor type I receptor messenger RNAs in rainbow trout. Greene MW, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):270–81

Quantitative in situ hybridization of three gonadotropin-releasing hormone-encoding mRNAs in castrated and progesterone-treated male tilapia. Parhar IS, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):406–14

Seasonal changes in mRNA levels of gonadotropin and thyrotropin subunits in the goldfish, Carassius auratus. Sohn YC, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):436–44

mRNA expression of gonadotropin-releasing hormones (GnRHs) and GnRH receptor in goldfish. Yu KL, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):303–11

Cloning and phylogenetic relationship of red drum somatolactin cDNA and effects of light on pituitary somatolactin mRNA expression. Zhu Y, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):69–79

Detecting selective expression of genes and proteins. Greller LD, et al. **Genome Res** 1999 Mar;9(3):282–96

Regulation of K+ channel mRNA expression by stimulation of adenosine A2a-receptors in cultured rat microglia. Küst BM, et al. **Glia** 1999 Jan 15;25(2):120–30

Expression of estrogen receptor alpha mRNA and protein variants in human endometrial carcinoma. Jazaeri O, et al. **Gynecol Oncol** 1999 Jul;74(1):38–47

Oxidative stress increases adrenomedullin mRNA levels in cultured rat vascular smooth muscle cells. Ando K, et al. **Hypertens Res** 1998 Sep;21(3):187–91

Developmental changes in expression of angiotensinogen mRNA in rat nephron segments. Yamaguchi S, et al. **Hypertens Res** 1998 Sep;21(3):155–61

Human renin mRNA stability is increased in response to cAMP in Calu-6 cells. Sinn PL, et al. **Hypertension** 1999 Mar;33(3):900–5

Generation of 'truncated' interleukin-6 receptor (IL-6R) mRNA by alternative splicing: a possible source of soluble IL-6R. Holub MC, et al. **Immunol Lett** 1999 May 3; 68(1):121–4

Developmental regulation of immunoglobulin mRNA processing and the IgA response: establishing a paradigm. Lebman DA, et al. **Immunol Res** 1999;20(1):43–53 (55 ref.)

Induction of human B2 bradykinin receptor mRNA and membrane receptors by IFNgamma. Lung CC, et al. **Immunopharmacology** 1998 Jun;39(3):243–53

Involvement of protein kinase A in histamine-mediated inhibition of IL-2 mRNA expression in mouse splenocytes. Poluektova LY, et al. **Immunopharmacology** 1999 Feb; 41(2):77–87

Multiple cytochrome P450-isoenzymes mRNA are expressed in dendritic cells. Sieben S, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2–4):358–61

Differential expression of the hepatic transcript of beta-galactoside alpha2,6-sialyltransferase in human colon cancer cell lines. Dall'Olio F, et al. **Int J Cancer** 1999 Apr 12;81(2):243–7

Molecular expression of PSMA mRNA and protein in primary renal tumors. Dumas F, et al. **Int J Cancer** 1999 Mar 15;80(6):799–803

Altered expression of mRNAs for apoptosis-modulating proteins in a low level multidrug resistant variant of a human lung carcinoma cell line that also expresses mdr1 mRNA. NicAmhlaoibh R, et al. **Int J Cancer** 1999 Jul 30; 82(3):368–76

Ca2+ channel alpha 1-subunit transcripts are differentially expressed in rat pheochromocytoma (PC12) cells following nerve growth factor treatment. Colston JT, et al. **Int J Dev Neurosci** 1998 Aug;16(5):379–89

Expression of c-MET/HGF receptor mRNA and protein in human non-malignant and malignant prostate tissues. Tsuka H, et al. **Int J Oncol** 1998 Nov;13(5):927–34

Effects of 50 Hz magnetic field exposure on the rate of RNA synthesis by normal human fibroblasts. Cridland NA, et al. **Int J Radiat Biol** 1999 May;75(5):647–54

Heightened induction of c-jun mRNA by PMA, EGF and IL-1 in ataxia telangiectasia lymphoblasts. Sikpi MO, et al. **Int J Radiat Biol** 1999 Jul;75(7):893–901

Estrogen receptor in the human eye: influence of gender and age on gene expression. Ogueta SB, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1906–11

Developmental expression of mucin genes ASGP (rMuc4) and rMuc5ac by the rat ocular surface epithelium. Tei M, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1944–51

Increase in IL-8, IL-10, IL-13, and RANTES mRNA levels (in situ hybridization) in the nasal mucosa after nasal allergen provocation. KleinJan A, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):441–50

IL-4 and IL-5 mRNA expression in induced sputum of asthmatic subjects: comparison with bronchial wash. Olivenstein R, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):238–45

Eotaxin and monocyte chemotactic protein-4 mRNA expression in small airways of asthmatic and nonasthmatic individuals. Taha RA, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):476–83

Down-regulation of L-type calcium channel and sarcoplasmic reticular Ca(2+)-ATPase mRNA in human atrial fibrillation without significant change in the mRNA of ryanodine receptor, calsequestrin and phospholamban: an insight into the mechanism of atrial electrical remodeling. Lai LP, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1231–7

Serum response factor mRNA induction in the hypertrophying chicken patagialis muscle. Carson JA, et al. **J Appl Physiol** 1999 Jan;86(1):377–82

Expression of acetylcholine receptor mRNAs in atrophying and nonatrophying skeletal muscles of old rats. Gomes RR Jr, et al. **J Appl Physiol** 1998 Nov;85(5):1903–8

Prolonged hypoxia increases vascular endothelial growth factor mRNA and protein in adult mouse brain. Kuo NT, et al. **J Appl Physiol** 1999 Jan;86(1):260–4

Angiogenic growth factor mRNA responses to passive and contraction-induced hyperperfusion in skeletal muscle. Roca J, et al. **J Appl Physiol** 1998 Sep;85(3):1142–9

Messenger molecules and receptor mRNA in the human trigeminal ganglion. Tajti J, et al. **J Auton Nerv Syst** 1999 May 28;76(2–3):176–83

Constitutive expression and induction of CYP1B1 mRNA in the mouse. Ryu DY, et al. **J Biochem Mol Toxicol** 1999; 13(5):249–51

Translation of the alzheimer amyloid precursor protein mRNA is up-regulated by interleukin-1 through 5'-untranslated region sequences. Rogers JT, et al. **J Biol Chem** 1999 Mar 5;274(10):6421–31

Expression of human fibroblast growth factor 2 mRNA is post-transcriptionally controlled by a unique destabilizing element present in the 3'-untranslated region between alternative polyadenylation sites. Touriol C, et al. **J Biol Chem** 1999 Jul 23;274(30):21402–8

Expression of colony-stimulating factor-1 in vivo during the formation of osteoclasts. Halasy-Nagy J, et al. **J Bone Miner Res** 1998 Aug;13(8):1267–74

Parathyroid hormone regulates the expression of fibroblast growth factor-2 mRNA and fibroblast growth factor receptor mRNA in osteoblastic cells. Hurley MM, et al. **J Bone Miner Res** 1999 May;14(5):776–83

The integrin alphavbeta5 is expressed on avian osteoclast precursors and regulated by retinoic acid. Sago K, et al. **J Bone Miner Res** 1999 Jan;14(1):32–8

Expression of bone matrix proteins mRNA during distraction osteogenesis. Sato M, et al. **J Bone Miner Res** 1998 Aug; 13(8):1221–31

Differential kinetics for induction of interleukin-6 mRNA expression in murine peritoneal macrophages: evidence for calcium-dependent and independent-signalling pathways. Marriott I, et al. **J Cell Physiol** 1998 Nov;177(2):232–40

Differential expressions of glycine transporter 1 and three glutamate transporter mRNA in the hippocampus of gerbils with transient forebrain ischemia. Fujita H, et al. **J Cereb Blood Flow Metab** 1999 Jun;19(6):604–15

The vitamin D receptor (VDR) start codon polymorphism in primary hyperparathyroidism and parathyroid VDR messenger ribonucleic acid levels. Correa P, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1690–4

Spatial distribution of GABA(B)R1 receptor mRNA and binding sites in the rat brain. Bischoff S, et al. **J Comp Neurol** 1999 Sep 13;412(1):1–16

GABA, GABA transporters, GABA(A) receptor subunits, and GAD mRNAs in the rat parabrachial and Kölliker-Fuse nuclei. Guthmann A, et al. **J Comp Neurol** 1998 Oct 19;400(2):229–43

Temporal and spatial patterns of c-fos mRNA induced by intravenous interleukin-1: a cascade of non-neuronal cellular activation at the blood-brain barrier. Herkenham M, et al. **J Comp Neurol** 1998 Oct 19;400(2):175–96

Preprocholecystokinin mRNA-expressing neurons in the rat parabrachial nucleus: subnuclear localization, efferent projection, and expression of nociceptive-related intracellular signaling substances. Hermanson O, et al. **J Comp Neurol** 1998 Oct 19;400(2):255–70

Preprotachykinin-A mRNA expression in the human and monkey brain: An in situ hybridization study. Hurd YL, et al. **J Comp Neurol** 1999 Aug 16;411(1):56–72

Differential expression of SNAP-25a and SNAP-25b RNA transcripts in cranial nerve nuclei. Jacobsson G, et al. **J Comp Neurol** 1999 Sep 6;411(4):591–600

Development of sexually dimorphic vasotocinergic system in the bed nucleus of stria terminalis in chickens. Jurkevich A, et al. **J Comp Neurol** 1999 May 24;408(1):46–60

Spiny calretinin-immunoreactive neurons in the hilus and CA3 region of the rat hippocampus: local axon circuits, synaptic connections, and glutamic acid decarboxylase 65/67 mRNA expression. Martínez A, et al. **J Comp Neurol** 1999 Feb 22;404(4):438–48

Opioid receptor-like (ORL1) receptor distribution in the rat central nervous system: comparison of ORL1 receptor mRNA expression with (125)I-[(14)Tyr]-orphanin FQ binding. Neal CR Jr, et al. **J Comp Neurol** 1999 Oct 4; 412(4):563–605

Quantitative evaluation of neurotrophin and trk mRNA expression in visual and limbic areas along the occipito-temporo-hippocampal pathway in adult macaque monkeys. Okuno H, et al. **J Comp Neurol** 1999 Jun 7; 408(3):378–98

Tectorin mRNA expression is spatially and temporally

restricted during mouse inner ear development. Rau A, et al. **J Comp Neurol** 1999 Mar 8;405(2):271–80

Telomerase reverse transcriptase mRNA expression and telomerase activity in hepatocellular carcinoma. Nagao K, et al. **J Gastroenterol** 1999 Feb;34(1):83–7

Temporal changes of preproenkephalin mRNA and leu-enkephalin-like immunoreactivity in the neurons of the caudal spinal trigeminal nucleus and upper cervical cord after noxious stimuli. Wu SX, et al. **J Hirnforsch** 1998; 39(2):217–22

Effects of two calcium channel blockers on messenger RNA expression of endothelin-1 and nitric oxide synthase in cardiovascular tissue of hypertensive rats. Naruse M, et al. **J Hypertens** 1999 Jan;17(1):53–60

Renin-angiotensin system and fibronectin gene expression in Dahl Iwai salt-sensitive and salt-resistant rats. Tamura K, et al. **J Hypertens** 1999 Jan;17(1):81–9

Cutting edge: clonally restricted production of the neurotrophins brain-derived neurotrophic factor and neurotrophin-3 mRNA by human immune cells and Th1/Th2-polarized expression of their receptors. Besser M, et al. **J Immunol** 1999 Jun 1;162(11):6303–6

Decreased expression of Th2 type cytokine mRNA contributes to the lack of allergic bronchial inflammation in aged rats. Ide K, et al. **J Immunol** 1999 Jul 1; 163(1):396–402

Regulation of hepatitis B virus mRNA expression in a hepatitis B surface antigen transgenic mouse model by IFN-gamma-secreting T cells after DNA-based immunization. Mancini M, et al. **J Immunol** 1998 Nov 15; 161(10):5564–70

Intracellular signaling of gp34, the OX40 ligand: induction of c-jun and c-fos mRNA expression through gp34 upon binding of its receptor, OX40. Matsumura Y, et al. **J Immunol** 1999 Sep 15;163(6):3007–11

Correlation of interferon-induced expression of MxA mRNA in peripheral blood mononuclear cells with the response of patients with chronic active hepatitis C to IFN-alpha therapy. Antonelli G, et al. **J Interferon Cytokine Res** 1999 Mar;19(3):243–51

Quantitative PCR reveals increased levels of tumor necrosis factor-alpha mRNA in peripheral blood mononuclear cells of multiple sclerosis patients during relapses. Bertolotto A, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):575–81

Differential regulation of interleukin-1alpha and interleukin-1beta in K-562 cells. Ichiki AT, et al. **J Interferon Cytokine Res** 1998 Dec;18(12):1045–50

Estrogen inhibits interleukin-1beta-induced interleukin-6 production by human osteoblast-like cells. Koka S, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):479–83

Hypophysectomy enhances interleukin-1beta, tumor necrosis factor-alpha, and interleukin-10 mRNA expression in the rat brain. Mustafa M, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):583–7

Sleep-associated changes in interleukin-1beta mRNA in the brain. Taishi P, et al. **J Interferon Cytokine Res** 1998 Sep; 18(9):793–8

Expression of interleukin-18 in murine contact hypersensitivity. Xu B, et al. **J Interferon Cytokine Res** 1998 Sep;18(9):653–9

Increased neutrophil adherence and adhesion molecule mRNA expression in endothelial cells during selenium deficiency. Maddox JF, et al. **J Leukoc Biol** 1999 May; 65(5):658–64

MCP-1 is selectively expressed in the late phase by cytokine-stimulated human neutrophils: TNF-alpha plays a role in maximal MCP-1 mRNA expression. Yamashiro S, et al. **J Leukoc Biol** 1999 May;65(5):671–9

Dietary vitamin A supplementation in rats: suppression of leptin and induction of UCP1 mRNA. Kumar MV, et al. **J Lipid Res** 1999 May;40(5):824–9

Olfactory receptors, Golf alpha and adenylyl cyclase mRNA expressions in the rat heart during ontogenic development. Ferrand N, et al. **J Mol Cell Cardiol** 1999 May; 31(5):1137–42

Insulin-glucocorticoid interactions in the regulation of acetyl-CoA carboxylase-alpha transcript diversity in ovine adipose tissue. Travers MT, et al. **J Mol Endocrinol** 1999 Feb;22(1):71–9

Alpha and beta glucocorticoid receptor mRNA expression in skeletal muscle. Korn SH, et al. **J Muscle Res Cell Motil** 1998 Oct;19(7):757–65

Proopiomelanocortin mRNA levels in ovine hypothalamus are not reduced at the time of the preovulatory luteinising hormone surge. Walsh JP, et al. **J Neuroendocrinol** 1998 Oct;10(10):803–8

Increased expression of glial cell line-derived neurotrophic factor mRNA in muscle biopsies from patients with amyotrophic lateral sclerosis. Grundström E, et al. **J Neurol Sci** 1999 Jan 15;162(2):169–73

Placenta growth factor (PlGF) mRNA expression in brain tumors. Nomura M, et al. **J Neurooncol** 1998 Nov; 40(2):123–30

Quantitative decrease in synaptophysin message expression and increase in cathepsin D message expression in Alzheimer disease neurons containing neurofibrillary tangles. Callahan LM, et al. **J Neuropathol Exp Neurol** 1999 Mar;58(3):275–87

Discordant expression of utrophin and its transcript in human and mouse skeletal muscles. Gramolini AO, et al. **J Neuropathol Exp Neurol** 1999 Mar;58(3):235–44

Increased interleukin-1beta converting enzyme expression and activity in Alzheimer disease. Zhu SG, et al. **J Neuropathol Exp Neurol** 1999 Jun;58(6):582–7

Properties and sex-specific differences of GABAA receptors in neurons expressing gamma1 subunit mRNA in the preoptic area of the rat. Nett ST, et al. **J Neurophysiol** 1999 Jan;81(1):192–203

T-lymphocyte activation increases hypothalamic and amygdaloid expression of CRH mRNA and emotional reactivity to novelty. Kusnecov AW, et al. **J Neurosci** 1999 Jun 1;19(11):4533–43

Nature of the retrograde signal from injured nerves that induces interleukin-6 mRNA in neurons. Murphy PG, et al. **J Neurosci** 1999 May 15;19(10):3791–800

Differential expression of alpha1, alpha2, alpha3, and alpha5 GABAA receptor subunits in seizure-prone and seizure-resistant rat models of temporal lobe epilepsy. Poulter MO, et al. **J Neurosci** 1999 Jun 1;19(11):4654–61

Nuclear factor kappaB nuclear translocation upregulates c-Myc and p53 expression during NMDA receptor-mediated apoptosis in rat striatum. Qin ZH, et al. **J Neurosci** 1999 May 15;19(10):4023–33

Quantitation of dopamine D2 receptor mRNA in a mesencephalic cell culture using a nonradioactive competitive reverse transcription polymerase chain reaction method. Gross J, et al. **J Neurosci Methods** 1998 Aug 1;82(2):187–94

Ciliary neurotrophic factor induces expression of the IGF type I receptor and FGF receptor 1 mRNAs in adult rat brain oligodendrocytes. Jiang F, et al. **J Neurosci Res** 1999 Aug 15;57(4):447–57

Sequential changes in glial fibrillary acidic protein and gene expression following parasagittal fluid-percussion brain injury in rats. Dietrich WD, et al. **J Neurotrauma** 1999 Jul;16(7):567–81

Differential effects of traumatic brain injury on vesicular acetylcholine transporter and M2 muscarinic receptor mRNA and protein in rat. Shao L, et al. **J Neurotrauma** 1999 Jul;16(7):555–66

Dynorphin mRNA expression in dorsal horn neurons after traumatic spinal cord injury: temporal and spatial analysis using in situ hybridization. Tachibana T, et al. **J Neurotrauma** 1998 Jul;15(7):485–94

Intraarticular variability of synovial membrane histology, immunohistology, and cytokine mRNA expression in patients with rheumatoid arthritis. Kirkham B, et al. **J Rheumatol** 1999 Apr;26(4):777–84

Differential RNA expression of the pS2 gene in the human benign and malignant prostatic tissue. Colombel M, et al. **J Urol** 1999 Sep;162(3 Pt 1):927–30

Expression of bikunin mRNA in renal epithelial cells after oxalate exposure. Iida S, et al. **J Urol** 1999 Oct; 162(4):1480–6

Expression of messenger RNAs for membrane-type 1, 2, and 3 matrix metalloproteinases in human renal cell carcinomas. Kitagawa Y, et al. **J Urol** 1999 Sep;162(3 Pt 1):905–9

Expression of TGF-beta-1 mRNA and ultrastructural alterations in pharmacologically induced prolonged penile erection in a canine model. Ul-Hasan M, et al. **J Urol** 1998 Dec;160(6 Pt 1):2263–6

Expression pattern of mitochondrial capsule selenoprotein mRNA in the hamster testis. Nam SY, et al. **J Vet Med Sci** 1998 Nov;60(11):1175–9

Characterization of the 5' ends for polyadenylated RNAs synthesized during the replication of hepatitis delta virus. Gudima S, et al. **J Virol** 1999 Aug;73(8):6533–9

The major attenuating mutations of the respiratory syncytial virus vaccine candidate cpts530/1009 specify temperature-sensitive defects in transcription and replication and a non-temperature-sensitive alteration in mRNA termination. Juhasz K, et al. **J Virol** 1999 Jun; 73(6):5176–80

A hairpin loop at the 5' end of influenza A virus virion RNA is required for synthesis of poly(A)+ mRNA in vitro. Pritlove DC, et al. **J Virol** 1999 Mar;73(3):2109–14

Expression profile of hyaluronidase mRNA transcripts in the kidney and in renal cells. Sun L, et al. **Kidney Blood Press Res** 1998;21(6):413–8

Tumor cells are the source of osteopontin and bone sialoprotein expression in human breast cancer. Sharp JA, et al. **Lab Invest** 1999 Jul;79(7):869–77

A stimulus paradigm inducing long-term desensitization of AMPA receptors evokes a specific increase in BDNF mRNA in cerebellar slices. Yuzaki M, et al. **Learn Mem** 1994 Nov-Dec;1(4):230–42

Chronic myeloid leukemia with expression of ALL-type BCR/ABL transcript: a case-report and review of the literature. Solves P, et al. **Leuk Res** 1999 Sep;23(9):851–4 (17 ref.)

Retrovirus receptor mRNA expression correlates with gene transfer efficiency in pluripotent hematopoietic stem cells. Orlic D, et al. **Leukemia** 1999 Apr;13 Suppl 1:S52–4

Human herpesvirus-8 (HHV-8) gene expression in Kaposi's sarcoma (KS) primary lesions: an in situ hybridization study. Stürzl M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S110–2

Skeletal and smooth muscle alpha-actin mRNA in endomyocardial biopsy samples of dilated cardiomyopathy patients. Adachi S, et al. **Life Sci** 1998;63(20):1779–91

Regulation of muscarinic receptor expression by changes in mRNA stability. Fraser CM, et al. **Life Sci** 1995; 56(11-12):899–906

Calphostin C induces expression of amphiregulin mRNA via reactive oxygen species in IEC-6 cells. Miyazaki Y, et al. **Life Sci** 1998;63(25):PL361–5

Expression of mRNA for type IV collagen alpha1, alpha5 and alpha6 chains by cultured dermal fibroblasts from patients with X-linked Alport syndrome. Sasaki S, et al. **Matrix Biol** 1998 Aug;17(4):279–91

Collagen mRNA expression during tissue development: the temporospacial order coordinates bone morphogenesis with collagen fiber formation. Wurtz T, et al. **Matrix Biol** 1998 Oct;17(5):349–60

Long-term exposure of isolated rat islets of Langerhans to supraphysiologic glucose concentrations decreases insulin mRNA levels. Briaud I, et al. **Metabolism** 1999 Mar; 48(3):319–23

Antioxidant regulation of gene expression: analysis of differentially expressed mRNAs. Gohil K, et al. **Methods Enzymol** 1999;300:402–10

Cytoplasmic polyadenylation in development and beyond. Richter JD. **Microbiol Mol Biol Rev** 1999 Jun;63(2):446–56 (111 ref.)

Formation of mRNA 3' ends in eukaryotes: mechanism, regulation, and interrelationships with other steps in mRNA synthesis. Zhao J, et al. **Microbiol Mol Biol Rev** 1999 Jun;63(2):405–45 (518 ref.)

Identical variant TSG101 transcripts in soft tissue sarcomas and various non-neoplastic tissues. Willeke F, et al. **Mol Carcinog** 1998 Dec;23(4):195–200

Lithostathine messenger RNA expression in different types of chronic pancreatitis. Cavallini G, et al. **Mol Cell Biochem** 1998 Aug;185(1-2):147–52

Utilization of splicing elements and polyadenylation signal elements in the coupling of polyadenylation and last-intron removal. Cooke C, et al. **Mol Cell Biol** 1999 Jul; 19(7):4971–9

The cleavage and polyadenylation specificity factor in Xenopus laevis oocytes is a cytoplasmic factor involved in regulated polyadenylation. Dickson KS, et al. **Mol Cell Biol** 1999 Aug;19(8):5707–17

Regulation of fibronectin EDA exon alternative splicing: possible role of RNA secondary structure for enhancer display. Muro AF, et al. **Mol Cell Biol** 1999 Apr; 19(4):2657–71

In vitro induction of UCP1 mRNA in preadipocytes from rabbit considered as a model of large mammals brown adipose tissue development: importance of PPARgamma agonists for cells isolated in the postnatal period. Cambon B, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):49–58

Cyclin A2 and c-myc mRNA expression in ethinyl estradiol induced liver proliferation. Payraudeau V, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1-2):107–16

Estrogen stimulates expression of adenine nucleotide translocator ANT1 messenger RNA in female rat hearts. Too CK, et al. **Mol Cell Endocrinol** 1999 Apr 25; 150(1-2):161–7

Application of a rapid method (targeted display) for the identification of differentially expressed mRNAs following NGF-induced neuronal differentiation in PC12 cells. Brown AJ, et al. **Mol Cell Neurosci** 1999 Feb;13(2):119–30

Expression of rat homeobox gene, rHOX, in developing and adult tissues in mice and regulation of its mRNA expression in osteoblasts by bone morphogenetic protein 2 and parathyroid hormone-related protein. Hu YS, et al. **Mol Endocrinol** 1998 Nov;12(11):1721–32

Data on cytokine mRNA expression in CSF and peripheral blood mononuclear cells from MS patients as detected by PCR. Monteyne P, et al. **Mult Scler** 1998 Jun;4(3):143–6

Subunit and region-specific decreases in nicotinic acetylcholine receptor mRNA in the aged rat brain. Ferrari R, et al. **Neurobiol Aging** 1999 Jan-Feb;20(1):37–46

Up-regulation of alpha1D Ca2+ channel subunit mRNA expression in the hippocampus of aged F344 rats. Herman JP, et al. **Neurobiol Aging** 1998 Nov-Dec;19(6):581–7

Prolonged noxious stimulation increases periaqueductal gray NMDA mRNA expression: a hybridization study using two different rat models for nociception. Renno WM. **Neurobiology (Bp)** 1998;6(3):333–57

SPARC/osteonectin mRNA is induced in blood vessels following injury to the adult rat cerebral cortex. Mendis DB, et al. **Neurochem Res** 1998 Aug;23(8):1117–23

Developmental sex differences in estrogen receptor-beta mRNA expression in the mouse hypothalamus/preoptic region. Karolczak M, et al. **Neuroendocrinology** 1998 Oct; 68(4):229–34

Dexamethasone rapidly regulates TRH mRNA levels in hypothalamic cell cultures: interaction with the cAMP pathway. Pérez-Martínez L, et al. **Neuroendocrinology** 1998 Nov;68(5):345–54

Reduction of the DM-associated homeo domain protein (DMAHP) mRNA in different brain areas of myotonic dystrophy patients. Gennarelli M, et al. **Neuromuscul Disord** 1999 Jun;9(4):215–9

mRNA trafficking and local protein synthesis at the synapse [comment] Schuman EM. **Neuron** 1999 Aug;23(4):645–8 (20 ref.). Comment on: Neuron 1999 Aug;23(4):641–4.

The expression of myelin protein mRNAs during remyelination of lysolecithin-induced demyelination. Woodruff RH, et al. **Neuropathol Appl Neurobiol** 1999 Jun; 25(3):226–35

Nicotinic acetylcholine subunit mRNA expression in dopaminergic neurons of the rat substantia nigra and ventral tegmental area. Charpantier E, et al. **Neuroreport** 1998 Sep 14;9(13):3097–101

Mineralocorticoid receptors regulate bcl-2 and p53 mRNA expression in hippocampus. McCullers DL, et al. **Neuroreport** 1998 Sep 14;9(13):3085-9

3-Nitropropionic acid-induced changes in the expression of metabolic and astrocyte mRNAs. Page KJ, et al. **Neuroreport** 1998 Aug 24;9(12):2881-6

Chemokine receptor mRNA expression at the in vitro blood-brain barrier during HIV infection. Shaw KT, et al. **Neuroreport** 1999 Jan 18;10(1):53-6

Muscarinic acetylcholine receptor-mediated increase of angiotensin type 2 receptor mRNA in PC12 cells. Shibata K, et al. **Neuroreport** 1998 Dec 1;9(17):3783-9

In situ localization of p53, bcl-2 and bax mRNAs in rat ocular tissue. Shin DH, et al. **Neuroreport** 1999 Jul 13; 10(10):2165-7

GDNF, RET and GFRalpha-1-3 mRNA expression in the developing human spinal cord and ganglia. Widenfalk J, et al. **Neuroreport** 1999 May 14;10(7):1433-9

Differentiation-specific mRNA expression of a mouse bipotential glial cell line. Asakura K, et al. **Neurosci Lett** 1998 Dec 11;258(1):21-4

The mouse cpp32 mRNA transcript is early up-regulated in axotomized motoneurons following facial nerve transection. de Bilbao F, et al. **Neurosci Lett** 1999 Apr 30; 266(1):65-8

Constitutive expression of mRNA for the same choline acetyltransferase as that in the nervous system, an acetylcholine-synthesizing enzyme, in human leukemic T-cell lines. Fujii T, et al. **Neurosci Lett** 1999 Jan 8; 259(2):71-4

Capsaicin sensitivity is associated with the expression of the vanilloid (capsaicin) receptor (VR1) mRNA in adult rat sensory ganglia. Helliwell RJ, et al. **Neurosci Lett** 1998 Jul 10;250(3):177-80

Growth associated protein 43 (GAP-43) mRNA is upregulated in the rat superior cervical ganglia after preganglionic transection. Hou XE, et al. **Neurosci Lett** 1998 Jul 24;251(2):73-6

Cellular localization of prolactin-releasing peptide messenger RNA in the rat brain. Minami S, et al. **Neurosci Lett** 1999 Apr 30;266(1):73-5

Expression of the nicotinic acetylcholine receptor alpha4 subunit mRNA in the rat cerebellar cortex. Nakayama H, et al. **Neurosci Lett** 1998 Nov 13;256(3):177-9

Modification of superoxide dismutase (SOD) mRNA and activity by a transient hypoxic stress in cultured glial cells. Niu CS, et al. **Neurosci Lett** 1998 Jul 31;251(3):145-8

Identification of macrophage migration inhibitory factor mRNA expression in neural cells of the rat brain by in situ hybridization. Ogata A, et al. **Neurosci Lett** 1998 May 1;246(3):173-7

Circadian expression of serotonin N-acetyltransferase mRNA in the rat retina. Sakamoto K, et al. **Neurosci Lett** 1998 Apr 3;245(2):113-6

Diversity of mRNA expression for muscarinic acetylcholine receptor subtypes and neuronal nicotinic acetylcholine receptor subunits in human mononuclear leukocytes and leukemic cell lines. Sato KZ, et al. **Neurosci Lett** 1999 Apr 30;266(1):17-20

Synthesis of apolipoprotein E (ApoE) mRNA by human neuronal-type SK N SH-SY 5Y cells and its regulation by nerve growth factor and ApoE. Soulié C, et al. **Neurosci Lett** 1999 Apr 16;265(2):147-50

Differential regulation of brain-derived neurotrophic factor messenger RNA cellular expression in the adult rat visual cortex. Capsoni S, et al. **Neuroscience** 1999;93(3):1033-40

Environmental enrichment alters nerve growth factor-induced gene A and glucocorticoid receptor messenger RNA expression after middle cerebral artery occlusion in rats. Dahlqvist P, et al. **Neuroscience** 1999; 93(2):527-35

Detection and quantification of hippocampal synaptophysin messenger RNA in schizophrenia using autoclaved, formalin-fixed, paraffin wax-embedded sections. Eastwood SL, et al. **Neuroscience** 1999;93(1):99-106

The octadecaneuropeptide-induced response of corticotropin-releasing hormone messenger RNA levels is mediated by GABA(A) receptors and modulated by endogenous steroids. Givalois L, et al. **Neuroscience** 1998 Jul;85(2):557-67

Expression of alpha3, beta3 and gamma1 GABA(A) receptor subunit messenger RNAs in visual cortex and lateral geniculate nucleus of normal and monocularly deprived monkeys. Huntsman MM, et al. **Neuroscience** 1998 Nov; 87(2):385-400

Immune challenge-stimulated hypophysiotropic corticotropin-releasing hormone messenger RNA expression is associated with an induction of neurotensin messenger RNAs without alteration of vasopressin messenger RNAs. Juaneda C, et al. **Neuroscience** 1999; 93(1):393-400

Regulation of nitric oxide synthase messenger RNA expression in the rat hippocampus by glucocorticoids. López-Figueroa MO, et al. **Neuroscience** 1998 Nov; 87(2):439-46

Central and peripheral expression of neurokinin-1 and neurokinin-3 receptor and substance P-encoding messenger RNAs: peripheral regulation during formalin-induced inflammation and lack of neurokinin receptor expression in primary afferent sensory neurons. McCarson KE. **Neuroscience** 1999;93(1):361-70

Developmental localization of semaphorin H messenger RNA acting as a collapsing factor on sensory axons in the mouse brain. Miyazaki N, et al. **Neuroscience** 1999; 93(1):401-8

Measurement of GABAergic parameters in the prefrontal cortex in schizophrenia: focus on GABA content, GABA(A) receptor alpha-1 subunit messenger RNA and human GABA transporter-1 (HGAT-1) messenger RNA expression. Ohnuma T, et al. **Neuroscience** 1999;93(2):441-8

Dopamine D1 receptor modulation of glutamate receptor messenger RNA levels in the neocortex and neostriatum of unilaterally 6-hydroxydopamine-lesioned rats. Rodriguez-Puertas R, et al. **Neuroscience** 1999 Mar; 89(3):781-97

Temporal and regional regulation of alpha1, beta2 and beta3, but not alpha2, alpha4, alpha5, alpha6, beta1 or gamma2 GABA(A) receptor subunit messenger RNAs following one-week oral flurazepam administration. Tietz EI, et al. **Neuroscience** 1999;91(1):327-41

Identification of differentially expressed mRNAs in human fetal liver across gestation. Malhotra K, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):839-47

Serotonin-2A receptor mRNA expression in rat retinal pigment epithelial cells. Nash M, et al. **Ophthalmic Res** 1999;31(1):1-4

Determination of estrogen receptor in primary breast cancer using two different monoclonal antibodies, and correlation with its mRNA expression. Hori M, et al. **Pathol Int** 1999 Mar;49(3):191-7

Expression of adrenomedullin mRNA in adrenocortical tumors and secretion of adrenomedullin by cultured adrenocortical carcinoma cells. Takahashi K, et al. **Peptides** 1998;19(10):1719-24

Partial deafferentation of the developing rat spinal cord delays the spontaneous repression of GAD67 mRNAs in spinal cells. Feldblum S, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):131-43

Developmental expression of cerebellar GABAA-receptor subunit mRNAs. Nature versus nurture. Siegel RE. **Perspect Dev Neurobiol** 1998;5(2-3):207-17 (52 ref.)

Expression of aldose reductase, sorbitol dehydrogenase and Na+/myo-inositol and Na+/Cl-/betaine transporter mRNAs in individual cells of the kidney during changes in the diuretic state. Burger-Kentischer A, et al. **Pflugers Arch** 1999 Jan;437(2):248-54

Localization of aquaporin-3 mRNA and protein along the gastrointestinal tract of Wistar rats. Ramirez-Lorca R, et al. **Pflugers Arch** 1999 Jun;438(1):94-100

UVB and gamma-radiation induce the expression of mRNAs encoding the ribosomal subunit L13A in rat keratinocytes. Shahmoltky N, et al. **Photochem Photobiol** 1999 Sep; 70(3):341-7

Sites of mRNA expression of the cystic fibrosis (CF) and multidrug resistance (MDR1) genes in the human placenta of early pregnancy: No evidence for complementary expression. Mylona P, et al. **Placenta** 1999 Jul-Aug; 20(5-6):493-6

Inhibition of growth, production of insulin-like growth factor-II (IGF-II), and expression of IGF-II mRNA of human cancer cell lines by antagonistic analogs of growth hormone-releasing hormone in vitro. Csernus VJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3098-103

Identification of Mycobacterium tuberculosis RNAs synthesized in response to phagocytosis by human macrophages by selective capture of transcribed sequences (SCOTS). Graham JE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11554-9

Production of beta-defensins by human airway epithelia [published erratum appears in Proc Natl Acad Sci U S A 1999 Mar 2;96(5):2569] Singh PK, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14961-6

Bupropion and desipramine increase dopamine transporter mRNA expression in the ventral tegmental area/substantia nigra of rat brain. Petrie EC, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):845-56

Prognostic significance of beta-microseminoprotein mRNA expression in prostate cancer. Sakai H, et al. **Prostate** 1999 Mar 1;38(4):278-84

Expression of gonadotropin-releasing hormone receptor mRNA in the rat ventral prostate and dunning R3327 PAP adenocarcinoma before and after castration. Tieva A, et al. **Prostate** 1999 May;39(2):101-7

Oxytocin receptor mRNA expression in rat brain: implications for behavioral integration and reproductive success. Ostrowski NL. **Psychoneuroendocrinology** 1998 Nov;23(8):989-1004

Is increased IL-1 beta mRNA expression in spleen of tumor-bearing mice relevant to cancer cachexia? Nakatani S, et al. **Res Commun Mol Pathol Pharmacol** 1998 Dec; 102(3):241-9

Cytokine mRNA expression in lymphoid organs associated with the expression of IgA response in the rat. Petitprez K, et al. **Scand J Immunol** 1999 Jan;49(1):14-20

Decreased expression of calcium-sensing receptor messenger ribonucleic acids in parathyroid adenomas. Farnebo F, et al. **Surgery** 1998 Dec;124(6):1094-8; discussion 1098-9

Dopamine D3 receptor antisense administration reduces basal c-fos and NGFI-B mRNA levels in the rat forebrain. Tremblay M, et al. **Synapse** 1999 Apr;32(1):51-7

Native atherosclerosis and vein graft arterialization: association with increased urokinase receptor expression in vitro and in vivo. Okada SS, et al. **Thromb Haemost** 1998 Jul;80(1):140-7

Beta2-glycoprotein-I mRNA transcripts are expressed by hepatocytes but not by resting or activated human endothelial cells. Alvarado-de la Barrera C, et al. **Thromb Res** 1998 Jun 1;90(5):239-43

Quantitative PCR analysis reveals novel expression of prothrombin mRNA and regulation of its levels in developing mouse muscle. Citron BA, et al. **Thromb Res** 1997 Aug 1;87(3):303-13

Differential localization of mRNAs for mammalian trps, presumptive capacitative calcium entry channels, in the adult mouse brain. Otsuka Y, et al. **Tohoku J Exp Med** 1998 Jun;185(2):139-46

Analysis of interleukin 12 protein production and mRNA expression in mice exposed topically to chemical allergens. Warbrick EV, et al. **Toxicology** 1999 Jan 1;132(1):57-66

Regulation of alternative processing of the sarco/endoplasmic reticulum Ca2+ ATPase (SERCA2) gene transcripts during muscle differentiation. van den Bosch L. **Verh K Acad Geneeskd Belg** 1998;60(5):441-61

Quantitation of equine cytokine mRNA expression by reverse transcription-competitive polymerase chain reaction. Giguère S, et al. **Vet Immunol Immunopathol** 1999 Jan 4; 67(1):1-15

Up-regulation of inducible nitric oxide synthase mRNA in dogs experimentally infected with Borrelia burgdorferi. Härter L, et al. **Vet Immunol Immunopathol** 1999 Feb 22; 67(3):271-84

[Induction of synthesis specific for females of variants growth hormone receptor mRNA in liver of male rats] Babasian SA, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):830-1 **(Rus)**

[Expression af early genes in memory mechanisms] Anokhin KV. **Vestn Ross Akad Med Nauk** 1998;(12):58-61 (33 ref.) **(Rus)**

BLOOD

Effect of hemoperfusion with polymyxin B-immobilized fiber on plasma endothelin-1 and endothelin-1 mRNA in monocytes from patients with sepsis. Ebihara I, et al. **Am J Kidney Dis** 1998 Dec;32(6):953-61

Modulation of plasma metalloproteinase-9 concentrations and peripheral blood monocyte mRNA levels in patients with septic shock: effect of fiber-immobilized polymyxin B treatment. Nakamura T, et al. **Am J Med Sci** 1998 Dec; 316(6):355-60

Cytidine triphosphate synthase activity and mRNA expression in normal human blood cells. Verschuur AC, et al. **Biol Chem** 1999 Jan;380(1):41-6

Improved methods using the reverse transcriptase polymerase chain reaction to detect tumour cells. Burchill SA, et al. **Br J Cancer** 1999 Feb;79(5-6):971-7

Haematogenous cytokeratin 20 mRNA as a predictive marker for recurrence in oral cancer patients. Kawamata H, et al. **Br J Cancer** 1999 May;80(3-4):448-52

Detection of melanoma cells in the blood of melanoma patients by melanoma-inhibitory activity (MIA) reverse transcription-PCR. Mühlbauer M, et al. **Clin Cancer Res** 1999 May;5(5):1099-105

Cytochrome P450 1B1 mRNA measured in blood mononuclear cells by quantitative reverse transcription-PCR. Dassi C, et al. **Clin Chem** 1998 Dec; 44(12):2416-21

Quantitative reverse transcription-PCR measurement of thyroglobulin mRNA in peripheral blood of healthy subjects. Wingo ST, et al. **Clin Chem** 1999 Jun;45(6 Pt 1):785-9

Simultaneous analysis of tyrosinase mRNA and markers of tyrosinase activity in the blood of patients with metastatic melanoma. Le Bricon T, et al. **Clin Chim Acta** 1999 Apr; 282(1-2):101-13

Growth hormone (GH) receptor and IGF-I receptor messenger RNA expression in peripheral lymphocytes from patients with GH deficiency and acromegaly. Fukuda I, et al. **Endocr J** 1998 Apr;45 Suppl:S109-12

New prognostic factors in melanoma: mRNA tumour markers. Keilholz U. **Eur J Cancer** 1998 Jul;34 Suppl 3:S37-41 (37 ref.)

Clinical significance of alpha-fetoprotein mRNA during perioperative period in HCC. Okuda N, et al. **Hepatogastroenterology** 1999 Jan-Feb;46(25):381-6

Perioperative change in albumin messenger RNA levels in patients with hepatocellular carcinoma. Gion T, et al. **Hepatology** 1998 Dec;28(6):1663-8

Non-specificity of messenger RNA of alpha-fetoprotein in peripheral blood in detecting early spread of hepatocellular carcinoma in black Africans. Kedda MA, et al. **J Gastroenterol Hepatol** 1998 Sep;13(9):885-91

Presence of alpha-fetoprotein mRNA in blood correlates with outcome in patients with hepatocellular carcinoma. Matsumura M, et al. **J Hepatol** 1999 Aug;31(2):332-9

Peripheral blood monocytes of rheumatoid arthritis patients do not express elevated TNF alpha, IL-1beta, and IL-8 mRNA levels. A comparison of monocyte isolation procedures. Rodenburg RJ, et al. **J Immunol Methods** 1998 Dec 1;221(1-2):169-75

Quantitative measurement of equine cytokine mRNA expression by polymerase chain reaction using target-specific standard curves. Swiderski CE, et al. **J Immunol Methods** 1999 Jan 1;222(1-2):155-69

Prostate-specific membrane antigen-derived primers in a nested reverse transcription polymerase chain reaction for

detecting prostatic cancer cells. Saimoto A, et al. **Jpn J Cancer Res** 1999 Feb;90(2):233–9

Transforming growth factor beta1 (TGFbeta1) mRNA level correlates with magnetic resonance imaging disease activity in multiple sclerosis patients. Bertolotto A, et al. **Neurosci Lett** 1999 Mar 19;263(1):21–4

[RT-PCR assay for detecting PSA mRNA in peripheral blood of prostate cancer patients] Okubo Y, et al. **Hinyokika Kiyo** 1999 Jan;45(1):25–30 (Eng. Abstr.) **(Jpn)**

CHEMISTRY

Nucleotide sequences of the 26S mRNAs of the viruses defining the Venezuelan equine encephalitis antigenic complex. Kinney RM, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):952–64

Stabilization and translation of immobilized mRNA on latex beads for cell-free protein synthesis system. Kobatake E, et al. **Appl Biochem Biotechnol** 1999 Mar;76(3):217–27

Aminoglycoside antibiotics are able to specifically bind the 5'-untranslated region of thymidylate synthase messenger RNA. Tok JB, et al. **Biochemistry** 1999 Jan 5;38(1):199–206

Accurate mRNA size determination in northern analysis using individual lane size markers. Doran JJ, et al. **Biotechniques** 1999 Aug;27(2):280–2

Prediction of antisense oligonucleotide binding affinity to a structured RNA target. Walton SP, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):1–9

Library of synthetic 5' secondary structures to manipulate mRNA stability in Escherichia coli. Carrier TA, et al. **Biotechnol Prog** 1999 Jan–Feb;15(1):58–64

Mutant analysis of Prevotella sp. plaA–lacZ fusion protein expression in Escherichia coli: support for an essential role of the stem–loop. Manch–Citron JN, et al. **Can J Microbiol** 1999 Feb;45(2):153–61

Recognition of polyadenylate RNA by the poly(A)–binding protein. Deo RC, et al. **Cell** 1999 Sep 17;98(6):835–45

Electron crystal structure of an RNA polymerase II transcription elongation complex [see comments] Poglitsch CL, et al. **Cell** 1999 Sep 17;98(6):791–8. Comment in: Cell 1999 Sep 17;98(6):687–90.

Novel CD44 messenger RNA isoforms in human thyroid and breast tissues feature unusual sequence rearrangements. Ermak G, et al. **Clin Cancer Res** 1996 Aug;2(8):1251–4

Structural elements required for the localization of ASH1 mRNA and of a green fluorescent protein reporter particle in vivo. Chartrand P, et al. **Curr Biol** 1999 Mar 25; 9(6):333–6

Regulation of the Escherichia coli secA gene is mediated by two distinct RNA structural conformations. Kiser KB, et al. **Curr Microbiol** 1999 Feb;38(2):113–21

Preservation of nucleic acids for polymerase chain reaction after prolonged storage at room temperature. Tuttle RM, et al. **Diagn Mol Pathol** 1998 Dec;7(6):302–9

Assaying RNA chaperone activity in vivo using a novel RNA folding trap. Clodi E, et al. **EMBO J** 1999 Jul 1; 18(13):3776–82

Eukaryotic mRNAs encoding abundant and scarce proteins are statistically dissimilar in many structural features. Kochetov AV, et al. **FEBS Lett** 1998 Dec 4;440(3):351–5

Discrimination of 5'-terminal start codons by translation initiation factor 3 is mediated by ribosomal protein S1. Moll I, et al. **FEBS Lett** 1998 Oct 2;436(2):213–7

Heat-induced synthesis of sigma32 in Escherichia coli: structural and functional dissection of rpoH mRNA secondary structure. Morita M, et al. **J Bacteriol** 1999 Jan; 181(2):401–10

Secondary structure for the apolipoprotein B mRNA editing site. Au–binding proteins interact with a stem loop. Richardson N, et al. **J Biol Chem** 1998 Nov 27; 273(48):31707–17

A premature stopcodon in thyroglobulin messenger RNA results in familial goiter and moderate hypothyroidism. van de Graaf SA, et al. **J Clin Endocrinol Metab** 1999 Jul; 84(7):2537–42

Cutting edge: clustered AU–rich elements are the target of IL–10–mediated mRNA destabilization in mouse macrophages. Kishore R, et al. **J Immunol** 1999 Mar 1; 162(5):2457–61

Major groove binding of the tRNA/mRNA complex to the 16 S ribosomal RNA decoding site. VanLoock MS, et al. **J Mol Biol** 1999 Feb 5;285(5):2069–78

Characterization of the cDNA coding for rat brain cysteine sulfinate decarboxylase: brain and liver enzymes are identical proteins encoded by two distinct mRNAs. Tappaz M, et al. **J Neurochem** 1999 Sep;73(3):903–12

A hairpin structure in the R region of the human immunodeficiency virus type 1 RNA genome is instrumental in polyadenylation site selection. Das AT, et al. **J Virol** 1999 Jan;73(1):81–91

Assaying the polyadenylation state of mRNAs. Sallés FJ, et al. **Methods** 1999 Jan;17(1):38–45

Reverse transcription of a self-primed retrotransposon requires an RNA structure similar to the U5–IR stem–loop of retroviruses. Lin JH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6859–69

An ACTH-producing small cell lung cancer expresses aberrant glucocorticoid receptor transcripts from a normal gene. Parks LL, et al. **Mol Cell Endocrinol** 1998 Jul 25; 142(1–2):175–81

Minor groove RNA triplex in the crystal structure of a ribosomal frameshifting viral pseudoknot. Su L, et al. **Nat Struct Biol** 1999 Mar;6(3):285–92

mRNAs have greater negative folding free energies than shuffled or codon choice randomized sequences. Seffens W, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1578–84

The two subunits of human molybdopterin synthase: evidence for a bicistronic messenger RNA with overlapping reading frames. Sloan J, et al. **Nucleic Acids Res** 1999 Feb 1; 27(3):854–8

Dissociation of mRNA cytoplasmic polyadenylation from translational activation by structural modification of the 5'-UTR. Verrotti AC, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3417–23

Monkey leptin receptor mRNA: sequence, tissue distribution, and mRNA expression in the adipose tissue of normal, hyperinsulinemic, and type 2 diabetic rhesus monkeys. Hotta K, et al. **Obes Res** 1998 Sep;6(5):353–60

Clustering and detection of 5' splice sites of mRNA by k weight–matrices model. Murakami K, et al. **Pac Symp Biocomput** 1999;:171–81

Comparative analyses of the secondary structures of synthetic and intracellular yeast MFA2 mRNAs. Doktycz MJ, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14614–21

A cytosine analog that confers enhanced potency to antisense oligonucleotides. Flanagan WM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3513–8

The poly(A)–limiting element is a conserved cis–acting sequence that regulates poly(A) tail length on nuclear pre–mRNAs. Gu H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8943–8

Long RNA hairpins that contain inosine are present in Caenorhabditis elegans poly(A)+ RNA. Morse DP, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6048–53

Enhancement of translation by the downstream box does not involve base pairing of mRNA with the penultimate stem sequence of 16S rRNA. O'Connor M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8973–8

Single–nucleotide polymorphisms can cause different structural folds of mRNA. Shen LX, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7871–6

An examination of coaxial stacking of helical stems in a pseudoknot motif: the gene 32 messenger RNA pseudoknot of bacteriophage T2. Holland JA, et al. **RNA** 1999 Feb; 5(2):257–71

Finding the right RNA: identification of cellular mRNA substrates for RNA–binding proteins. Trifillis P, et al. **RNA** 1999 Aug;5(8):1071–82

The solution structure of an RNA loop–loop complex: the ColE1 inverted loop sequence. Lee AJ, et al. **Structure** 1998 Aug 15;6(8):993–1005

The versatility of RNA structure and function. Jacques Monod Conference: New insights into the mechanism of mRNA translation: the significance of RNA structure, Aussois, France, 22–26 March 1999. Linder P, et al. **Trends Genet** 1999 Aug;15(8):302–3

A 43–nucleotide RNA cis–acting element governs the site–specific formation of the 3' end of a poxvirus late mRNA. Howard ST, et al. **Virology** 1999 Mar 1; 255(1):190–204

[Stabilized reaction mixture for in vitro mRNA translation] Shaloiko LA, et al. **Bioorg Khim** 1998 Jul;24(7):539–43 (Eng. Abstr.) **(Rus)**

[Photoaffinity modification of human 80S ribosome using an analog of the mRNA–derivative of the hexaribonucleotide pUUUGUU, bearing an arylazide group on the guanine residue] Graifer DM, et al. **Mol Biol (Mosk)** 1999 Mar–Apr; 33(2):174–82 **(Rus)**

DRUG EFFECTS

Effect of calcitriol on growth, differentiation, chemokine mRNA expression of cultured keratinocytes and on keratinocyte–T cell binding. de Haan P, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:52–4

Effects of ethanol on the stress–induced expression of NGFI–A mRNA in the rat brain. Ueyama T, et al. **Alcohol** 1999 Jun–Jul;18(2–3):171–6

Effects of ethanol on gene expression in rat bone: transient dose–dependent changes in mRNA levels for matrix proteins, skeletal growth factors, and cytokines are followed by reductions in bone formation. Turner RT, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7):1591–9

Localization and expression of oxytocin receptor and its messenger ribonucleic acid in peri–implantation phase human endometrium during control and clomiphene–treated cycles. Dawood MY, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):50–6

Sustained elevated levels of VCAM–1 in cultured fibroblast–like synoviocytes can be achieved by TNF–alpha in combination with either IL–4 or IL–13 through increased mRNA stability. Croft D, et al. **Am J Pathol** 1999 Apr;154(4):1149–58

Measurement of sputum Mycobacterium tuberculosis messenger RNA as a surrogate for response to chemotherapy. Desjardin LE, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):203–10

Differential knockdown of delta–opioid receptor subtypes in the rat brain by antisense oligodeoxynucleotides targeting mRNA. Negri L, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):203–11

Somatotropin–dependent decrease in fatty acid synthase mRNA abundance in 3T3–F442A adipocytes is the result of a decrease in both gene transcription and mRNA stability. Yin D, et al. **Biochem J** 1998 May 1;331 (Pt 3):815–20

Chronic fluoxetine administration increases the serotonin N–acetyltransferase messenger RNA content in rat hippocampus. Uz T, et al. **Biol Psychiatry** 1999 Jan 15; 45(2):175–9

Effects of androgens on the expression of nitric oxide synthase mRNAs in rat corpus cavernosum. Park KH, et al. **BJU Int** 1999 Feb;83(3):327–33

Effects of systemic resiniferatoxin treatment on substance P mRNA in rat dorsal root ganglia and substance P receptor mRNA in the spinal dorsal horn. Szallasi A, et al. **Brain Res** 1999 Jan 9;815(2):177–84

Desipramine treatment decreases 3H–nisoxetine binding and norepinephrine transporter mRNA in SK–N–SHSY5Y cells. Zavosh A, et al. **Brain Res Bull** 1999 Jul 1;49(4):291–5

Acute administration of cocaine, but not amphetamine, increases the level of synaptotagmin IV mRNA in the dorsal striatum of rat. Denovan–Wright EM, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):350–4

Perinatal cocaine decreases the expression of prodynorphin mRNA in nucleus accumbens shell in the adult rat. Dow–Edwards DL, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):82–5

Alterations in calmodulin mRNA expression and calmodulin content in rat brain after repeated, intermittent amphetamine. Michelhaugh SK, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):35–42

Effect of chronic haloperidol treatment on synaptic protein mRNAs in the rat brain. Nakahara T, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):238–42

NGF–induction of the expression of ChAT mRNA in PC12 cells and primary cultures of embryonic rat basal forebrain. Pongrac JL, et al. **Brain Res Mol Brain Res** 1998 Nov 12;62(1):25–34

Effects of prolactin on expression of the mRNAs encoding the immediate early genes zif/268 (NGF1–A), nur/77 (NGF1–B), c–fos and c–jun in the hypothalamus. Sagrillo CA, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1–2):62–8

Priming with L–DOPA differently affects dynorphin and substance P mRNA levels in the striatum of 6–hydroxydopamine–lesioned rats after challenge with dopamine D1–receptor agonist. van de Witte SV, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):219–23

Wy–14,643, a peroxisome proliferator, inhibits compensative cell proliferation and hepatocyte growth factor mRNA expression in the rat liver. Motoki Y, et al. **Cancer Lett** 1999 Jan 29;135(2):145–50

Stabilization of mammary–derived growth inhibitor messenger RNA by antiestrogens. Huynh H, et al. **Clin Cancer Res** 1997 Nov;3(11):2151–6

Diesel exhaust particulates upregulate histamine receptor mRNA and increase histamine–induced IL–8 and GM–CSF production in nasal epithelial cells and endothelial cells [see comments] Terada N, et al. **Clin Exp Allergy** 1999 Jan;29(1):52–9. Comment in: Clin Exp Allergy 1999 Jan;29(1):4–8.

Gene therapy: repairing haemoglobin disorders with ribozymes. Weatherall DJ. **Curr Biol** 1998 Sep 24; 8(19):R696–8 (13 ref.)

[D–Ala2, D–Leu5]enkephalin blocks the methamphetamine–induced c–fos mRNA increase in mouse striatum. Hayashi T, et al. **Eur J Pharmacol** 1999 Feb 5; 366(2–3):R7–8

Protein synthesis and transcriptional inhibitors control N–methyl–N'–nitro–N–nitrosoguanidine–induced levels of APC mRNA in a p53–dependent manner. Jaiswal AS, et al. **Int J Oncol** 1998 Oct;13(4):733–40

Suppression of smooth muscle cell proliferation by a c–myc RNA–cleaving deoxyribozyme. Sun LQ, et al. **J Biol Chem** 1999 Jun 11;274(24):17236–41

Cyclic nucleotide regulation of PAI–1 mRNA stability. Identification of cytosolic proteins that interact with an a–rich sequence. Tillmann–Bogush M, et al. **J Biol Chem** 1999 Jan 8;274(2):1172–9

Alteration of mRNA levels of delta–aminolevulinic acid synthase, ferrochelatase and heme oxygenase–1 in griseofulvin induced protoporphyria mice. Inafuku K, et al. **J Dermatol Sci** 1999 Apr;19(3):189–98

Effect of gadolinium chloride treatment on concanavalin A–induced cytokine mRNA expression in mouse liver. Okamoto T, et al. **Jpn J Pharmacol** 1998 Sep;78(1):101–3

Effects of concanavalin A treatment on CD8 mRNA expression in mouse liver. Okamoto T, et al. **Jpn J Pharmacol** 1998 Sep;78(1):97–9

Enhancement of serotonin 2C receptor mRNA expression by antidepressants possessing the receptor–blocking activity in the rat brain. Tohda M, et al. **Jpn J Pharmacol** 1998 Dec;78(4):515–7

Identification of neuroendocrine–specific protein as an ethanol–regulated gene with mRNA differential display. Schafer GL, et al. **Mamm Genome** 1998 Dec;9(12):979–82

Differential effects of biotin deficiency and replenishment on rat liver pyruvate and propionyl–CoA carboxylases and on their mRNAs. Rodriguez–Meléndez R, et al. **Mol Genet Metab** 1999 Jan;66(1):16–23

Brain–derived peptides increase blood–brain barrier GLUT1 glucose transporter gene expression via mRNA stabilization. Boado RJ. **Neurosci Lett** 1998 Oct 23; 255(3):147–50

Effects of clozapine and haloperidol on 5–HT6 receptor mRNA levels in rat brain. Frederick JA, et al.

Schizophr Res 1999 Jul 27;38(1):7–12

[Effect of thyroid hormones on the modulation of genetic expression of liver cytosolic malic enzyme, in rats poisoned with hexachlorobenzene] Loaiza Perez AI, et al.
Acta Physiol Pharmacol Ther Latinoam 1998;48(3):125–36 (Eng. Abstr.) **(Spa)**

GENETICS

High numbers of perforin mRNA expressing CSF cells in multiple sclerosis patients with gadolinium-enhancing brain MRI lesions. Kivisäkk P, et al. **Acta Neurol Scand** 1999 Jul;100(1):18–24

Expression of IsK protein mRNA in cultured rat strial marginal cells. Tu TY, et al. **Acta Otolaryngol** 1999; 119(5):544–9

Related expression of vascular endothelial growth factor and hypoxia-inducible factor-1 mRNAs in human skeletal muscle. Gustafsson T, et al. **Acta Physiol Scand** 1999 Mar; 165(3):335–6

Defective intracellular processing of lactase-phlorizin hydrolase protein in rats prenatally exposed to ethanol. Estrada G, et al. **Alcohol Clin Exp Res** 1998 Aug; 22(5):1177–83

The potential mechanism of induction of inducible nitric oxide synthase mRNA in alveolar macrophages by lipopolysaccharide and its suppression by ethanol, in vivo. Greenberg SS, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5 Suppl):260S–265S (80 ref.)

Chemokine and cell adhesion molecule mRNA expression and neutrophil infiltration in lipopolysaccharide-induced hepatitis in ethanol-fed rats. Pennington HL, et al.
Alcohol Clin Exp Res 1998 Nov;22(8):1713–8

Prenatal ethanol exposure selectively reduces the mRNA encoding alpha-1 thyroid hormone receptor in fetal rat brain. Scott HC, et al. **Alcohol Clin Exp Res** 1998 Dec; 22(9):2111–7

Effects of chronic ethanol consumption and aging on proenkephalin and neurotensin. Tajuddin NF, et al.
Alcohol Clin Exp Res 1998 Aug;22(5):1152–60

Vasoactive hormones induce nitric oxide synthase mRNA expression and nitric oxide production in human endothelial cells and monocytes. Schena M, et al. **Am J Hypertens** 1999 Apr;12(4 Pt 1):388–97

Reduced mRNA for G3BP in fragile X cells: evidence of FMR1 gene regulation. Zhong N, et al.
Am J Med Genet 1999 May 28;84(3):268–71

Isolation and characterization of the human gene encoding Ito: further diversity by alternative mRNA splicing. Kong W, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H1963–70

Mechanical activity in heart regulates translation of alpha-myosin heavy chain mRNA but not its localization. Nikcevic G, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2013–9

Superoxide mediates cigarette smoke-induced infiltration of neutrophils into the airways through nuclear factor-kappaB activation and IL-8 mRNA expression in guinea pigs in vivo. Nishikawa M, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):189–98

Relation between alpha, beta, and gamma human amiloride-sensitive epithelial Na+ channel mRNA levels and nasal epithelial potential difference in healthy men. Otulakowski G, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1213–20

Cyclooxygenase-2 mRNA is downexpressed in nasal polyps from aspirin-sensitive asthmatics. Picado C, et al.
Am J Respir Crit Care Med 1999 Jul;160(1):291–6

Quantification of endothelin ETA and ETB receptor mRNA by competitive reverse transcription-polymerase chain reaction: development of a multispecies assay. Smith PJ, et al. **Anal Biochem** 1999 Jun 15;271(1):93–6

Detection of c-erbB-2 mRNAs using dig-labelled oligonucleotide probe with in situ hybridisation in human breast carcinoma: comparison with immunohistochemical results. Oztürk M, et al. **Anal Cell Pathol** 1998;16(4):201–9

Imidazoline receptor antisera-selected cDNA clone and mRNA distribution. Piletz JE, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:1–7

Overexpression of four-repeat tau mRNA isoforms in progressive supranuclear palsy but not in Alzheimer's disease. Chambers CB, et al. **Ann Neurol** 1999 Sep; 46(3):325–32

Sequence-specific cleavage of Huntingtin mRNA by catalytic DNA. Yen L, et al. **Ann Neurol** 1999 Sep; 46(3):366–73

Keratinocyte growth factor and its receptor messenger RNA expression in nasal mucosa and nasal polyps. Ishibashi T, et al. **Ann Otol Rhinol Laryngol** 1998 Oct;107(10 Pt 1):885–90

Ribozyme-mediated decrease in mumps virus nucleocapsid mRNA level and progeny in infected vero cells. Albuquerque-Silva J, et al.
Antisense Nucleic Acid Drug Dev 1999 Jun;9(3):279–83

Effect of antisense oligodeoxynucleotides directed to individual calmodulin gene transcripts on the proliferation and differentiation of PC12 cells. Hou WF, et al.
Antisense Nucleic Acid Drug Dev 1998 Aug;8(4):295–308

Optimization of differential display of prokaryotic mRNA: application to pure culture and soil microcosms. Fleming JT, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3698–706

In situ, real-time catabolic gene expression: extraction and characterization of naphthalene dioxygenase mRNA transcripts from groundwater. Wilson MS, et al.
Appl Environ Microbiol 1999 Jan;65(1):80–7

adapt78, a stress-inducible mRNA, is related to the glucose-regulated protein family of genes. Leahy KP, et al. **Arch Biochem Biophys** 1999 Aug 1;368(1):67–74

Expression of nitric oxide synthase III (eNOS) mRNA by human skin cells: melanocytes but not keratinocytes express eNOS mRNA. Jackson M, et al. **Arch Dermatol Res** 1998 Jun;290(6):350–2

Characterization of an internal ribosome entry site within mRNA 5 of murine hepatitis virus. Jendrach M, et al.
Arch Virol 1999;144(5):921–33

Feline peripheral blood mononuclear cells express message for both CXC and CC type chemokine receptors. Kovacs EM, et al. **Arch Virol** 1999;144(2):273–85

Structure analysis of the rice yellow stunt rhabdovirus glycoprotein gene and its mRNA. Luo ZL, et al.
Arch Virol 1998;143(12):2453–9

Identification of multiple, differentially expressed messenger RNAs in dermal fibroblasts from patients with systemic sclerosis. Feghali CA, et al. **Arthritis Rheum** 1999 Jul; 42(7):1451–7

Species-specific alternative splicing of transgenic RNA in the mammary glands of pigs, rabbits, and mice. Aigner B, et al. **Biochem Biophys Res Commun** 1999 Apr 21; 257(3):843–50

Etomoxir, sodium
2-[6-(4-chlorophenoxy)hexyl]oxirane-2-carboxylate, up-regulates uncoupling protein-3 mRNA levels in primary culture of rat preadipocytes. Cabrero A, et al.
Biochem Biophys Res Commun 1999 Sep 16;263(1):87–93

Characterization of two human beta1-adrenergic receptor transcripts: cloning and alterations in the failing heart. Ellis CE, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):552–8

The effects of the beta3-adrenoceptor agonist BRL 35135 on UCP isoform mRNA expression. Emilsson V, et al.
Biochem Biophys Res Commun 1998 Nov 18;252(2):450–4

Multiple alternative transcripts of the human homologue of the mouse TRAD/R51H3/RAD51D gene, a member of the rec A/RAD51 gene family. Kawabata M, et al.
Biochem Biophys Res Commun 1999 Apr 2;257(1):156–62

Expression of transposon LINE-1 is relatively human-specific and function of the transcripts may be proliferation-essential. Kuo KW, et al.
Biochem Biophys Res Commun 1998 Dec 30;253(3):566–70

Identification of various exon-deleted progesterone receptor mRNAs in human endometrium and ovarian endometriosis. Misao R, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):302–6

Molecular cloning of antisense transcripts of the mouse Xist gene. Mise N, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):537–41

Agonist-mediated destabilization of human beta1-adrenergic receptor mRNA: role of the 3' untranslated translated region. Mitchusson KD, et al.
Biochem Biophys Res Commun 1998 Nov 18;252(2):357–62

Sequence elements required for apolipoprotein B mRNA editing enhancement activity from chicken enterocytes. Nakamuta M, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):744–50

Two proteins translated by alternative usage of initiation codons in mRNA encoding a JunD transcriptional regulator. Okazaki S, et al.
Biochem Biophys Res Commun 1998 Sep 18;250(2):347–53

Lactation-dependent expression of an mRNA splice variant with an exon for a multiply O-glycosylated domain of mouse milk fat globule glycoprotein MFG-E8. Oshima K, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):522–8

Search for genes potentially involved in Mycobacterium tuberculosis virulence by mRNA differential display. Rindi L, et al. **Biochem Biophys Res Commun** 1999 Apr 29; 258(1):94–101

Tissue-specific differences in the role of RNA 3' of the apolipoprotein B mRNA mooring sequence in editosome assembly. Steinburg MF, et al.
Biochem Biophys Res Commun 1999 Sep 16;263(1):81–6

Overexpression of GLUT4 in mice causes up-regulation of UCP3 mRNA in skeletal muscle. Tsuboyama-Kasaoka N, et al. **Biochem Biophys Res Commun** 1999 Apr 29; 258(1):187–93

Ethanol increases apolipoprotein B mRNA editing in rat primary hepatocytes and McArdle cells. Van Mater D, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):334–9

Structure, genetic localization, and identification of the cardiac and skeletal muscle transcripts of the human integrin alpha7 gene (ITGA7). Vignier N, et al.
Biochem Biophys Res Commun 1999 Jul 5;260(2):357–64

cDNA cloning and cadmium-induced expression of metallothionein mRNA in the zebra mussel Dreissena polymorpha. Engelken J, et al. **Biochem Cell Biol** 1999; 77(3):237–41

Transcripts encoding the sperm surface protein tMDC II are non-functional in the human. Frayne J, et al.
Biochem J 1999 Aug 1;341 (Pt 3):771–5

Muscle-specific mRNA isoform encodes a protein composed mainly of the N-terminal 175 residues of type 2 Ins(1,4,5)P3 receptor. Futatsugi A, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):559–63

Alternatively spliced mRNA variants of chloroplast ascorbate peroxidase isoenzymes in spinach leaves. Yoshimura K, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):41–8

Mechanism of ubiquitous expression of mouse uncoupling protein 2 mRNA: control by cis-acting DNA element in 5'-flanking region. Yoshitomi H, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):397–404

Vitamin D receptor 3'-untranslated region polymorphisms: lack of effect on mRNA stability. Durrin LK, et al.
Biochim Biophys Acta 1999 Mar 30;1453(3):311–20

Identification, cloning and analysis of expression of a new alternatively spliced form of the metabotropic glutamate receptor mGluR1 mRNA1. Soloviev MM, et al.
Biochim Biophys Acta 1999 Jul 7;1446(1–2):161–6

Alteration of heart uncoupling protein-2 mRNA regulated by sympathetic nerve and triiodothyronine during postnatal period in rats. Teshima Y, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):409–15

Should we kill the messenger? The role of the surveillance complex in translation termination and mRNA turnover. Czaplinski K, et al. **Bioessays** 1999 Aug;21(8):685–96 (81 ref.)

Systematic genomic screening and analysis of mRNA in untranslated regions and mRNA precursors: combining experimental and computational approaches. Dandekar T, et al. **Bioinformatics** 1998;14(3):271–8

Differential expression of a conserved new mRNA in lymphoid cells. Illges H, et al. **Biol Chem** 1998 Oct; 379(10):1289–93

Chronic fluoxetine administration increases the serotonin N-acetyltransferase messenger RNA content in rat hippocampus. Uz T, et al. **Biol Psychiatry** 1999 Jan 15; 45(2):175–9

Compilation of mRNA sequences surrounding the AUG translation initiation codon in the green alga Chlamydomonas reinhardtii. Ikeda K, et al.
Biosci Biotechnol Biochem 1998 Dec;62(12):2457–9

Amplification of FADD mRNA using RT-PCR results in an artifact. Alonso M, et al. **Biotechniques** 1999 May; 26(5):828–30, 832, 834

Reduction of false positives in prokaryotic mRNA differential display. Nagel A, et al. **Biotechniques** 1999 Apr;26(4):641–3, 648

Anti-beta s-ribozyme reduces beta s mRNA levels in transgenic mice: potential application to the gene therapy of sickle cell anemia. Alami R, et al.
Blood Cells Mol Dis 1999 Apr;25(2):110–9

A quantitative analysis of the reduction in oxygen levels required to induce up-regulation of vascular endothelial growth factor (VEGF) mRNA in cervical cancer cell lines. Chiarotto JA, et al. **Br J Cancer** 1999 Jul;80(10):1518–24

Semi-quantitative reverse-transcriptase polymerase chain reaction: an approach for the measurement of target gene expression in human brain. Chen L, et al.
Brain Res Brain Res Protoc 1999 Jul;4(2):132–9

Persistent Borna disease virus infection of neonatal rats causes brain regional changes of mRNAs for cytokines, cytokine receptor components and neuropeptides. Plata-Salamán CR, et al. **Brain Res Bull** 1999 Aug;49(6):441–51

Differential regulation of glucocorticoid receptor messenger RNA (GR-mRNA) by maternal deprivation in immature rat hypothalamus and limbic regions. Avishai-Eliner S, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):265–8

Regulated expression of estrogen receptor alpha and beta mRNA in granule cells during development of the rat cerebellum. Belcher SM. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):57–69

Distribution of mRNA encoding a nitrobenzylthioinosine-insensitive nucleoside transporter (ENT2) in rat brain. Anderson CM, et al.
Brain Res Mol Brain Res 1999 Jul 5;70(2):293–7

Amplification of gene expression using both 5'- and 3'-untranslated regions of GLUT1 glucose transporter mRNA. Boado RJ, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):371–4

cis-acting regulatory elements in the GAP-43 mRNA 3'-untranslated region can function in trans to suppress endogenous GAP-43 gene expression. Neve RL, et al.
Brain Res Mol Brain Res 1999 Feb 19;65(1):52–60

Alpha1-adrenergic receptors in human spinal cord: specific localized expression of mRNA encoding alpha1-adrenergic receptor subtypes at four distinct levels. Smith MS, et al.
Brain Res Mol Brain Res 1999 Jan 8;63(2):254–61

Antisense oligonucleotides to the epidermal growth factor receptor. Witters L, et al. **Breast Cancer Res Treat** 1999 Jan;53(1):41–50

Predictive value of the polymerase chain reaction for the partially duplicated MLL gene transcript in acute myeloid leukemia [letter; comment] Kwong YL.
Cancer Genet Cytogenet 1999 Jan 15;108(2):178–9. Comment on: Cancer Genet Cytogenet 1997 Jul 1;96(1):26–9.

Evidence for mRNA expression of vascular endothelial growth factor by X-ray irradiation in a lung squamous carcinoma cell line. Ando S, et al. **Cancer Lett** 1998 Oct 23;132(1–2):75–80

Reactive oxygen species participate in mdr1b mRNA and P-glycoprotein overexpression in primary rat hepatocyte cultures. Ziemann C, et al. **Carcinogenesis** 1999 Mar; 20(3):407–14

Identification of two novel mRNA splice variants of bax [letter] Thomas AL, et al. **Cell Death Differ** 1999 Feb; 6(2):97–8

Rat renal expression of mRNA coding for aldose reductase

and sorbitol dehydrogenase and its osmotic regulation in inner medullary collecting duct cells. Grunewald RW, et al. **Cell Physiol Biochem** 1998;8(6):293–303

Heat shock activates the I-kappaBalpha promoter and increases I-kappaBalpha mRNA expression. Wong HR, et al. **Cell Stress Chaperones** 1999 Mar;4(1):1–7

Localization of calcitonin gene-related peptide mRNA in developing olfactory axons. Denis-Donini S, et al. **Cell Tissue Res** 1998 Oct;294(1):81–91

Desensitization and sensitization of cells to fluoropyrimidines with different antisenses directed against thymidylate synthase messenger RNA. Ju J, et al. **Clin Cancer Res** 1998 Sep;4(9):2229–36

Relationship of clone 4 estrogen receptor variant messenger RNA expression to some known prognostic variables in human breast cancer. Murphy LC, et al. **Clin Cancer Res** 1995 Feb;1(2):155–9

Loss of KAI1 messenger RNA expression in both high-grade and invasive human bladder cancers. Yu Y, et al. **Clin Cancer Res** 1997 Jul;3(7):1045–9

Highly sensitive and specific fluorescence reverse transcription-PCR assay for the pseudogene-free detection of beta-actin transcripts as quantitative reference. Kreuzer KA, et al. **Clin Chem** 1999 Feb;45(2):297–300

Expression of histidine decarboxylase messenger RNA and histamine N-methyltransferase messenger RNA in nasal allergy [see comments] Hirata N, et al. **Clin Exp Allergy** 1999 Jan;29(1):76–83. Comment in: Clin Exp Allergy 1999 Jan;29(1):9–11.

Imbalance of IL-1 beta and IL-1 receptor antagonist mRNA in liver tissue from hepatitis C virus (HCV)-related chronic hepatitis. Gramantieri L, et al. **Clin Exp Immunol** 1999 Mar; 115(3):515–20

Expression of CD30 mRNA, CD30L mRNA and a variant form of CD30 mRNA in restimulated peripheral blood mononuclear cells (PBMC) of patients with helminthic infections resembling a Th2 disease. Kilwinski J, et al. **Clin Exp Immunol** 1999 Jan;115(1):114–9

Discordance between IgA switching at the DNA level and IgA expression at the mRNA level in IgA-deficient patients. Wang Z, et al. **Clin Immunol** 1999 Jun;91(3):263–70

Differential expression of mRNA in human thyroid cells depleted of mitochondrial DNA by ethidium bromide treatment. Thomas AW, et al. **Clin Sci (Colch)** 1999 Aug; 97(2):207–13

Role of RNA polymerase II carboxy-terminal domain in coordinating transcription with RNA processing. McCracken S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:301–9

Role of retinoic acid in regulation of mRNA expression of CaBP-D28k in the cerebellum of the chicken. Matsumoto K, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun;120(2):237–42

Lipoprotein lipase activity and mRNA levels in bovine tissues. Hocquette JF, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):201–12

Expression of obese mRNA in genetically lean and fat selection lines of sheep. Kumar B, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):543–8

Nitric oxide synthase inhibition and the induction of cytochrome P-450 affect heme oxygenase-1 messenger RNA expression after partial hepatectomy and acute inflammation in rats [see comments] Lyoumi S, et al. **Crit Care Med** 1998 Oct;26(10):1683–9. Comment in: Crit Care Med 1998 Oct;26(10):1630–1.

Editing and translation of ribosomal protein S13 transcripts: unedited translation products are not detectable in maize mitochondria. Williams MA, et al. **Curr Genet** 1998 Sep; 34(3):221–6

Quantification of murine cytokine mRNAs using real time quantitative reverse transcriptase PCR. Overbergh L, et al. **Cytokine** 1999 Apr;11(4):305–12

RNA-Mediated interference of a cdc25 homolog in Caenorhabditis elegans results in defects in the embryonic cortical membrane, meiosis, and mitosis. Ashcroft NR, et al. **Dev Biol** 1999 Feb 1;206(1):15–32

Juvenile hormone prevents ecdysteroid-induced expression of broad complex RNAs in the epidermis of the tobacco hornworm, Manduca sexta. Zhou B, et al. **Dev Biol** 1998 Nov 15;203(2):233–44

Neurturin mRNA expression suggests roles in trigeminal innervation of the first branchial arch and in tooth formation. Luukko K, et al. **Dev Dyn** 1998 Oct; 213(2):207–19

Slug mRNA is expressed by specific mesodermal derivatives during rodent organogenesis. Savagner P, et al. **Dev Dyn** 1998 Oct;213(2):182–7

Role for mRNA localization in translational activation but not spatial restriction of nanos RNA. Bergsten SE, et al. **Development** 1999 Feb;126(4):659–69

Expression of mRNAs encoding uncoupling proteins in human skeletal muscle: effects of obesity and diabetes. Bao S, et al. **Diabetes** 1998 Dec;47(12):1935–40

Identification of novel mRNA transcripts of the nm23-M1 gene that are modulated during mouse embryo development and are differently expressed in adult murine tissues. Gervasi F, et al. **DNA Cell Biol** 1998 Dec; 17(12):1047–55

Regulated splicing of an alternative exon of beta-tropomyosin pre-mRNAs in myogenic cells depends on the strength of pyrimidine-rich intronic enhancer elements. Pret AM, et al. **DNA Cell Biol** 1999 Sep; 18(9):671–83

Gene and cDNA structures of flounder insulin-like growth factor-I (IGF-I): multiple mRNA species encode a single short mature IGF-I. Tanaka M, et al. **DNA Cell Biol** 1998 Oct;17(10):859–68

A systematic analysis of the factors that determine the strength of pre-mRNA splicing enhancers. Graveley BR, et al. **EMBO J** 1998 Nov 16;17(22):6747–56

Telomere shortening in mTR-/- embryos is associated with failure to close the neural tube. Herrera E, et al. **EMBO J** 1999 Mar 1;18(5):1172–81

Sequence interval within the PEST motif of Bicoid is important for translational repression of caudal mRNA in the anterior region of the Drosophila embryo. Niessing D, et al. **EMBO J** 1999 Apr 1;18(7):1966–73

In situ amplification of the cytochrome P-450 cholesterol side-chain cleavage enzyme mRNA in single porcine granulosa cells by IGF-1 and FSH acting alone or in concert. Winters TA, et al. **Endocrine** 1998 Aug;9(1):57–63

Methoxychlor stimulates estrogen-responsive messenger ribonucleic acids in mouse uterus through a non-estrogen receptor (non-ER) alpha and non-ER beta mechanism. Ghosh D, et al. **Endocrinology** 1999 Aug;140(8):3526–33

Identification of novel chicken estrogen receptor-alpha messenger ribonucleic acid isoforms generated by alternative splicing and promoter usage. Griffin C, et al. **Endocrinology** 1998 Nov;139(11):4614–25

Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581–6

Frog chromogranin A messenger ribonucleic acid encodes three highly conserved peptides. Coordinate regulation of proopiomelanocortin and chromogranin A gene expression in the pars intermedia of the pituitary during background color adaptation. Turquier V, et al. **Endocrinology** 1999 Sep;140(9):4104–12

The role of interferon regulatory factor-1 in cytokine-induced mRNA expression and cell death in murine pancreatic beta-cells. Pavlovic D, et al. **Eur Cytokine Netw** 1999 Sep;10(3):403–12

Proteasome-dependent cyst formation and stage-specific ubiquitin mRNA accumulation in Entamoeba invadens. Gonzalez J, et al. **Eur J Biochem** 1999 Sep;264(3):897–904

Sex-specific transcripts of the Dstpk61 serine/threonine kinase gene in Drosophila melanogaster. MacDougall CN, et al. **Eur J Biochem** 1999 Jun;262(2):456–66

Effects of contractile activity and hypothyroidism on nuclear hormone receptor mRNA isoforms in rat skeletal muscle. Schuler MJ, et al. **Eur J Biochem** 1999 Sep;264(3):982–8

Expression in vitro of alternatively spliced variants of the messenger RNA for human apolipoprotein E receptor-2 identified in human tissues by ribonuclease protection assays. Sun XM, et al. **Eur J Biochem** 1999 May; 262(1):230–9

A novel isoform of the low molecular weight phosphotyrosine phosphatase, LMPTP-C, arising from alternative mRNA splicing. Tailor P, et al. **Eur J Biochem** 1999 Jun;262(2):277–82

mRNA stability and selenocysteine insertion sequence efficiency rank gastrointestinal glutathione peroxidase high in the hierarchy of selenoproteins. Wingler K, et al. **Eur J Biochem** 1999 Jan;259(1-2):149–57

Inhibition of human telomerase by a retrovirus expressing telomeric antisense RNA. Bisoffi M, et al. **Eur J Cancer** 1998 Jul;34(8):1242–9

A tale of tags: report on a HUGO/EU SAGE workshop, 29 January–1 February 1999, Hilversum, The Netherlands. Baas F, et al. **Eur J Hum Genet** 1999 May-Jun;7(4):510–2

Integrated physical and transcript map of 5q31.3-qter. Kostrzewa M, et al. **Eur J Hum Genet** 1998 May-Jun; 6(3):266–74

Reactive oxygen intermediate-release of fibre-exposed monocytes increases inflammatory cytokine-mRNA level, protein tyrosine kinase and NF-kappaB activity in co-cultured bronchial epithelial cells (BEAS-2B). Drumm K, et al. **Eur J Med Res** 1999 Jul 28;4(7):257–63

Matrix-assisted laser desorption/ionization time of flight mass spectrometric analysis of the pattern of peptide expression in single neurons resulting from alternative mRNA splicing of the FMRFamide gene. Worster BM, et al. **Eur J Neurosci** 1998 Nov;10(11):3498–507

Long-term effects on serotonin transporter mRNA expression of chronic neonatal exposure to a serotonin reuptake inhibitor. Hansen HH, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):307–15

Flesinoxan treatment reduces 5-HT1A receptor mRNA in the dentate gyrus independently of high plasma corticosterone levels. Sibug RM, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):207–14

Region specific expression of NMDA receptor NR1 subunit mRNA in hypothalamus and pons following chronic morphine treatment. Zhu H, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):47–54

Thiol regulation of the production of TNF-alpha, IL-6 and IL-8 by human alveolar macrophages. Gosset P, et al. **Eur Respir J** 1999 Jul;14(1):98–105

Laminin alpha chains in colon carcinoma cell lines: detection of a truncated laminin alpha1 mRNA in Caco-2 cells. Velling T, et al. **Exp Cell Res** 1999 May 1;248(2):627–33

Mechanisms of age-related changes in gonadotropin-releasing hormone receptor messenger ribonucleic acid content in the anterior pituitary of male rats. Shinkai T, et al. **Exp Gerontol** 1999 Apr;34(2):267–73

mRNA differential display analysis of nephrotic kidney glomeruli. Haltia A, et al. **Exp Nephrol** 1999 Jan-Feb; 7(1):52–8

mRNA expression of renal urea transporters in normal and Brattleboro rats: effect of dietary protein intake. Hu MC, et al. **Exp Nephrol** 1999 Jan-Feb;7(1):44–51

TOP mRNAs are translationally inhibited by a titratable repressor in both wheat germ extract and reticulocyte lysate. Biberman Y, et al. **FEBS Lett** 1999 Aug 13; 456(3):357–60

Identification of a splice variant mRNA of p40phox, an NADPH oxidase component of phagocytes. Hasebe T, et al. **FEBS Lett** 1999 Jul 23;455(3):257–61

Translocon-associated protein alpha transcripts are induced by granulocyte-macrophage colony-stimulating factor and exhibit complex alternative polyadenylation. Hirama T, et al. **FEBS Lett** 1999 Jul 23;455(3):223–7

Identification of a long variant of mRNA encoding the NR3 subunit of the NMDA receptor: its regional distribution and developmental expression in the rat brain. Sun L, et al. **FEBS Lett** 1998 Dec 28;441(3):392–6

Differentiation elicits negative regulation of human beta-galactoside alpha2,6-sialyltransferase at the mRNA level in the HL-60 cell line. Taniguchi A, et al. **FEBS Lett** 1998 Dec 18;441(2):191–4

Transcriptional analysis of the cyclophilin A gene (cypA) of Streptomyces chrysomallus. Berger R, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):39–45

Transcription of cspA, the gene for the major cold-shock protein of Escherichia coli, is negatively regulated at 37 degrees C by the 5'-untranslated region of its mRNA. Fang L, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):39–43

Increased expression of messenger ribonucleic acid encoding cytochrome P450 cholesterol side-chain cleavage and P450 17alpha-hydroxylase enzymes in ovarian hyperthecosis. Nagamani M, et al. **Fertil Steril** 1999 Feb;71(2):328–33

Oxidative stress and aging reduce COX I RNA and cytochrome oxidase activity in Drosophila. Schwarze SR, et al. **Free Radic Biol Med** 1998 Oct;25(6):740–7

Multiple 5'-untranslated exons in the nuclear respiratory factor 1 gene span 47 kb and contribute to transcript heterogeneity and translational efficiency. Huo L, et al. **Gene** 1999 Jun 11;233(1-2):213–24

Characterization of the chicken interleukin-1beta converting enzyme (caspase-1) cDNA and expression of caspase-1 mRNA in the hen. Johnson AL, et al. **Gene** 1998 Sep 28; 219(1-2):55–62

Identification of an attenuating region in the bovine follicle-stimulating hormone beta subunit mRNA that decreases its expression in E. coli. Samaddar M, et al. **Gene** 1999 Mar 4;228(1-2):253–60

A novel mouse gene, HemT, encoding an hematopoietic cell-specific transcript. Xue H, et al. **Gene** 1999 Apr 29; 231(1-2):49–58

Molecular cloning of a cDNA encoding 14-3-3 protein from the protozoan Tetrahymena pyriformis and its mRNA expression during synchronous division. Zhao Y, et al. **Gene** 1999 Jul 8;234(2):209–15

RNA repair as a novel approach to genetic therapy [editorial] Sullenger BA. **Gene Ther** 1999 Apr;6(4):461–2

Trans-acting factors required for inclusion of regulated exons in the Ultrabithorax mRNAs of Drosophila melanogaster. Burnette JM, et al. **Genetics** 1999 Apr;151(4):1517–29

smg-7 is required for mRNA surveillance in Caenorhabditis elegans. Cali BM, et al. **Genetics** 1999 Feb;151(2):605–16

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315–25

Accumulation of mRNA coding for the ctf13p kinetochore subunit of Saccharomyces cerevisiae depends on the same factors that promote rapid decay of nonsense mRNAs. Dahlseid JN, et al. **Genetics** 1998 Nov;150(3):1019–35

The Genexpress IMAGE knowledge base of the human brain transcriptome: a prototype integrated resource for functional and computational genomics. Piétu G, et al. **Genome Res** 1999 Feb;9(2):195–209

Guinea pig p53 mRNA: identification of new elements in coding and untranslated regions and their functional and evolutionary implications. D'erchia AM, et al. **Genomics** 1999 May 15;58(1):50–64

Cloning of ARE-containing genes by AU-motif-directed display. Dominguez O, et al. **Genomics** 1998 Dec 1; 54(2):278–86

Potassium channel ether à go-go mRNA expression in the spiral ligament of the rat. Lecain E, et al. **Hear Res** 1999 Jul;133(1-2):133–8

Increase in glutamate-aspartate transporter (GLAST) mRNA during kanamycin-induced cochlear insult in rats. Matsuda K, et al. **Hear Res** 1999 Jul;133(1-2):10–6

A transcript map of an 800-kb region on human chromosome 11q13, part of the candidate region for SCA5 and BBS1. Zhu S, et al. **Hum Genet** 1998 Dec;103(6):674–80

Detection of a normally rare transcript in propionic acidemia patients with mRNA destabilizing mutations in the PCCA gene. Campeau E, et al. **Hum Mol Genet** 1999 Jan;

8(1):107-13
Reliable and sensitive detection of premature termination mutations using a protein truncation test designed to overcome problems of nonsense-mediated mRNA instability. Bateman JF, et al. **Hum Mutat** 1999;13(4):311-7
335-base deletion in the mRNA coding for a dibasic amino acid transporter-like protein (SLC3A1) isolated from a patient with cystinuria. Gitomer WL, et al. **Hum Mutat** 1998;Suppl 1:S69-71
Rhodopsin splice site sequence changes in retinitis pigmentosa and their effect at the mRNA level. Whitehead JL, et al. **Hum Mutat** 1998;Suppl 1:S295-7
Insulin-like growth factor binding protein-3 mRNA expression in endothelial cells of the primate corpus luteum. Fraser HM, et al. **Hum Reprod** 1998 Aug;13(8):2180-5
Expression of interleukin-1 system mRNA in single blastomeres from human preimplantation embryos. Krüssel JS, et al. **Hum Reprod** 1998 Aug;13(8):2206-11
Estrogen regulation of angiotensin-converting enzyme mRNA. Gallagher PE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):323-8
Conservation of 3' untranslated region elements in tammar wallaby (Macropus eugenii) TNF-alpha mRNA. Harrison GA, et al. **Immunogenetics** 1999 May;49(5):464-7
Generation of 'truncated' interleukin-6 receptor (IL-6R) mRNA by alternative splicing: a possible source of soluble IL-6R. Holub MC, et al. **Immunol Lett** 1999 May 3; 68(1):121-4
Immunomodulatory effects of IFNbeta-1b on the mRNA-expression of TGFbeta-1 and TNFalpha in vitro. Ossege LM, et al. **Immunopharmacology** 1999 Jun; 43(1):39-46
Hepatocyte growth factor regulates activin betaA mRNA in submandibular gland [letter] Furue M, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul-Aug;34(7):520-3
Ehrlichia chaffeensis and E. sennetsu, but not the human granulocytic ehrlichiosis agent, colocalize with transferrin receptor and up-regulate transferrin receptor mRNA by activating iron-responsive protein 1. Barnewall RE, et al. **Infect Immun** 1999 May;67(5):2258-65
The role of the 5' untranslated region of an mRNA in translation regulation during development. van der Velden AW, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):87-106 (102 ref.)
Detection of mutations in the DNA polymerase delta gene of human sporadic colorectal cancers and colon cancer cell lines. Flohr T, et al. **Int J Cancer** 1999 Mar 15; 80(6):919-29
Identification of a novel cytokeratin 19 pseudogene that may interfere with reverse transcriptase-polymerase chain reaction assays used to detect micrometastatic tumor cells. Ruud P, et al. **Int J Cancer** 1999 Jan 5;80(1):119-25
Expression of cytokeratin 19 mRNA in human lung cancer cell lines. Ueda Y, et al. **Int J Cancer** 1999 Jun 11; 81(6):939-43
Identification and characterization of maternally expressed genes with mRNAs that are segregated with the endoplasm of early ascidian embryos. Imai K, et al. **Int J Dev Biol** 1999 Mar;43(2):125-33
Differential expression of sea urchin Otx isoform (hpOtxE and HpOtxL) mRNAs during early development. Mitsunaga-Nakatsubo K, et al. **Int J Dev Biol** 1998 Jul; 42(5):645-51
Enhancement of XPG mRNA transcription by human interferon-beta in Cockayne syndrome cells with complementation group B. Suzuki Y, et al. **Int J Mol Med** 1999 Jan;3(1):87-9
Heightened induction of c-jun mRNA by PMA, EGF and IL-1 in ataxia telangiectasia lymphoblasts. Sikpi MO, et al. **Int J Radiat Biol** 1999 Jul;75(7):893-901
Osteogenic protein-1 mRNA expression is selectively modulated after acute ischemic renal injury. Almanzar MM, et al. **J Am Soc Nephrol** 1998 Aug;9(8):1456-63
Heparin-binding EGF-like growth factor mRNA is upregulated in the peri-infarct region of the remnant kidney model: in vitro evidence suggests a regulatory role in myofibroblast transformation. Kirkland G, et al. **J Am Soc Nephrol** 1998 Aug;9(8):1464-73
mRNA levels for alpha-subunit of prolyl 4-hydroxylase and fibrillar collagens in immobilized rat skeletal muscle. Han XY, et al. **J Appl Physiol** 1999 Jul;87(1):90-6
Stimulation of myofibrillar synthesis by exercise is mediated by more efficient translation of mRNA. Welle S, et al. **J Appl Physiol** 1999 Apr;86(4):1220-5
Mutations in T cell receptor zeta chain mRNA of peripheral T cells from systemic lupus erythematosus patients. Tsuzaka K, et al. **J Autoimmun** 1998 Oct;11(5):381-5
Importance of cis determinants and nitrogenase activity in regulated stability of the Klebsiella pneumoniae nitrogenase structural gene mRNA. Simon HM, et al. **J Bacteriol** 1999 Jun;181(12):3751-60
Sequence analysis of cDNA and genomic DNA, and mRNA expression of the medaka fish homolog of mammalian guanylyl cyclase C. Mantoku T, et al. **J Biochem (Tokyo)** 1999 Mar;125(3):476-86
Identification of a principal mRNA species for human 3alpha-hydroxysteroid dehydrogenase isoform (AKR1C3) that exhibits high prostaglandin D2 11-ketoreductase activity. Matsuura K, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):940-6
Multiple novel transcripts for apolipoprotein(a)-related gene II generated by alternative splicing in tissue- and cell type-specific manners. Takabatake N, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):540-6
Novel messenger RNA and alternative promoter for murine acetylcholinesterase. Atanasova E, et al. **J Biol Chem** 1999 Jul 23;274(30):21078-84
The predominant protein on the surface of maize pollen is an endoxylanase synthesized by a tapetum mRNA with a long 5' leader. Bih FY, et al. **J Biol Chem** 1999 Aug 6;274(32):22884-94
The 3'-untranslated region of human type 2 iodothyronine deiodinase mRNA contains a functional selenocysteine insertion sequence element. Buettner C, et al. **J Biol Chem** 1998 Dec 11;273(50):33374-8
Differential reactivity of the rat S100A4(p9Ka) gene to sodium bisulfite is associated with differential levels of the S100A4 (p9Ka) mRNA in rat mammary epithelial cells. Chen D, et al. **J Biol Chem** 1999 Jan 22;274(4):2483-91
p38 mitogen-activated protein kinase regulates cyclooxygenase-2 mRNA stability and transcription in lipopolysaccharide-treated human monocytes. Dean JL, et al. **J Biol Chem** 1999 Jan 1;274(1):264-9
Regulation of human thioredoxin reductase expression and activity by 3'-untranslated region selenocysteine insertion sequence and mRNA instability elements. Gasdaska JR, et al. **J Biol Chem** 1999 Sep 3;274(36):25379-85
A premature termination codon in either exon of minute virus of mice P4 promoter-generated pre-mRNA can inhibit nuclear splicing of the intervening intron in an open reading frame-dependent manner. Gersappe A, et al. **J Biol Chem** 1999 Aug 6;274(32):22452-8
Identification of TIAR as a protein binding to the translational regulatory AU-rich element of tumor necrosis factor alpha mRNA. Gueydan C, et al. **J Biol Chem** 1999 Jan 22;274(4):2322-6
Mutations in a peptidylprolyl-cis/trans-isomerase gene lead to a defect in 3'-end formation of a pre-mRNA in Saccharomyces cerevisiae. Hani J, et al. **J Biol Chem** 1999 Jan 1;274(1):108-16
Role of mitogen-activated protein kinases and c-Jun/AP-1 trans-activating activity in the regulation of protease mRNAs and the malignant phenotype in NIH 3T3 fibroblasts. Janulis M, et al. **J Biol Chem** 1999 Jan 8; 274(2):801-13
Leucine regulates translation of specific mRNAs in L6 myoblasts through mTOR-mediated changes in availability of eIF4E and phosphorylation of ribosomal protein S6. Kimball SR, et al. **J Biol Chem** 1999 Apr 23; 274(17):11647-52
Molecular cloning of mouse glycolate oxidase. High evolutionary conservation and presence of an iron-responsive element-like sequence in the mRNA [published erratum appears in J Biol Chem 1999 May 28;274(22):15966] Kohler SA, et al. **J Biol Chem** 1999 Jan 22;274(4):2401-7
The dynamic role of GRP78/BiP in the coordination of mRNA translation with protein processing. Laitusis AL, et al. **J Biol Chem** 1999 Jan 1;274(1):486-93
Developmental regulation of spliced leader RNA gene in Leishmania donovani amastigotes is mediated by specific polyadenylation. Lamontagne J, et al. **J Biol Chem** 1999 Mar 5;274(10):6602-9
Human acyl-CoA:cholesterol acyltransferase-1 (ACAT-1) gene organization and evidence that the 4.3-kilobase ACAT-1 mRNA is produced from two different chromosomes. Li BL, et al. **J Biol Chem** 1999 Apr 16; 274(16):11060-71
The H19 transcript is associated with polysomes and may regulate IGF2 expression in trans. Li YM, et al. **J Biol Chem** 1998 Oct 23;273(43):28247-52
Functional conservation of the human homolog of the yeast pre-mRNA splicing factor Prp17p. Lindsey LA, et al. **J Biol Chem** 1998 Dec 4;273(49):32771-5
Editing of glutamate receptor subunit B pre-mRNA by splice-site variants of interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Feb 19;274(8):5070-7
Antimicrobial activity spectrum, cDNA cloning, and mRNA expression of a newly isolated member of the cecropin family from the mosquito vector Aedes aegypti. Lowenberger C, et al. **J Biol Chem** 1999 Jul 16; 274(29):20092-7
Characterization of the entire transcription unit of the mouse fibroblast growth factor 1 (FGF-1) gene. Tissue-specific expression of the FGF-1.A mRNA. Madiai F, et al. **J Biol Chem** 1999 Apr 23;274(17):11937-44
A set of highly conserved RNA-binding proteins, alphaCP-1 and alphaCP-2, implicated in mRNA stabilization, are coexpressed from an intronless gene and its intron-containing paralog. Makeyev AV, et al. **J Biol Chem** 1999 Aug 27;274(35):24849-57
Regulation by pH of the alternative splicing of the stem cell factor pre-mRNA in the testis. Mauduit C, et al. **J Biol Chem** 1999 Jan 8;274(2):770-5
The inhibitory upstream open reading frame from mammalian S-adenosylmethionine decarboxylase mRNA has a strict sequence specificity in critical positions. Mize GJ, et al. **J Biol Chem** 1998 Dec 4;273(49):32500-5
Molecular cloning of a major mRNA species in murine 3T3 adipocyte lineage. differentiation-dependent expression, regulation, and identification as semicarbazide-sensitive amine oxidase. Moldes M, et al. **J Biol Chem** 1999 Apr 2;274(14):9515-23
A ribosomal protein is required for translational regulation of GCN4 mRNA. Evidence for involvement of the ribosome in eIF2 recycling. Mueller PP, et al. **J Biol Chem** 1998 Dec 4;273(49):32870-7
Repression of cyclooxygenase-2 and prostaglandin E2 release by dexamethasone occurs by transcriptional and post-transcriptional mechanisms involving loss of polyadenylated mRNA. Newton R, et al. **J Biol Chem** 1998 Nov 27;273(48):32312-21
Antisense inhibition of hyaluronan synthase-2 in human articular chondrocytes inhibits proteoglycan retention and matrix assembly. Nishida Y, et al. **J Biol Chem** 1999 Jul 30;274(31):21893-9
An alternatively spliced fibroblast growth factor (FGF)-5 mRNA is abundant in brain and translates into a partial agonist/antagonist for FGF-5 neurotrophic activity. Ozawa K, et al. **J Biol Chem** 1998 Oct 30;273(44):29262-71
Regulation of tyrosine hydroxylase mRNA stability by protein-binding, pyrimidine-rich sequence in the 3'-untranslated region. Paulding WR, et al. **J Biol Chem** 1999 Jan 22;274(4):2532-8
Secondary structure for the apolipoprotein B mRNA editing site. Au-binding proteins interact with a stem loop. Richardson N, et al. **J Biol Chem** 1998 Nov 27; 273(48):31707-17
Helicobacter pylori up-regulates cyclooxygenase-2 mRNA expression and prostaglandin E2 synthesis in MKN 28 gastric mucosal cells in vitro. Romano M, et al. **J Biol Chem** 1998 Oct 30;273(44):28560-3
TAF25p, a non-histone-like subunit of TFIID and SAGA complexes, is essential for total mRNA gene transcription in vivo. Sanders SL, et al. **J Biol Chem** 1999 Jul 2; 274(27):18847-50
Overlapping cis sites used for splicing of HIV-1 env/nef and rev mRNAs. Swanson AK, et al. **J Biol Chem** 1998 Dec 18;273(51):34551-7
mRNAs encoding a von Ebner's-like protein and the Huntington disease protein are induced in rat male germ cells by Sertoli cells. Syed V, et al. **J Biol Chem** 1999 Apr 16;274(16):10737-42
Cig30 and Pitx3 genes are arranged in a partially overlapping tail-to-tail array resulting in complementary transcripts. Tvrdik P, et al. **J Biol Chem** 1999 Sep 10;274(37):26387-92
Negative control of the poly(A)-binding protein mRNA translation is mediated by the adenine-rich region of its 5'-untranslated region. Wu J, et al. **J Biol Chem** 1998 Dec 18;273(51):34535-42
Molecular cloning and biochemical characterization of a novel anthocyanin 5-O-glucosyltransferase by mRNA differential display for plant forms regarding anthocyanin. Yamazaki M, et al. **J Biol Chem** 1999 Mar 12; 274(11):7405-11
Effect of 1,25(OH)2D3 on bone morphogenetic protein-3 mRNA expression. Faucheux C, et al. **J Cell Biochem** 1999 Apr 1;73(1):11-9
Expression of SET is modulated as a function of cell proliferation. Shin KS, et al. **J Cell Biochem** 1999 Jul 1; 74(1):119-26
Involvement of intracellular signaling factors in the serum-enhanced Ca2+-binding protein regucalcin mRNA expression in the cloned rat hepatoma cells (H4-II-E). Yamaguchi M, et al. **J Cell Biochem** 1999 Jul 1;74(1):81-9
Effect of insulin-like growth factor (IGF)-I and Des (1-3) IGF-I on the level of IGF binding protein-3 and IGF binding protein-3 mRNA in cultured porcine embryonic muscle cells. Yang F, et al. **J Cell Physiol** 1999 Feb; 178(2):227-34
Molecular diagnosis of residual and recurrent thyroid cancer by amplification of thyroglobulin messenger ribonucleic acid in peripheral blood [see comments] Ringel MD, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4435-42. Comment in: J Clin Endocrinol Metab 1998 Dec;83(12):4189-90.
Clinical significance of expression of human cytomegalovirus pp67 late transcript in heart, lung, and bone marrow transplant recipients as determined by nucleic acid sequence-based amplification. Gerna G, et al. **J Clin Microbiol** 1999 Apr;37(4):902-11
Detection of viable Mycobacterium tuberculosis by reverse transcriptase-strand displacement amplification of mRNA. Hellyer TJ, et al. **J Clin Microbiol** 1999 Mar;37(3):518-23
Molecular cloning, characterization of cDNA, and distribution of mRNA encoding the frog prohormone convertase PC1. Gangnon F, et al. **J Comp Neurol** 1999 Mar 8;405(2):160-72
Ontogeny of angiotensin II type 2 receptor mRNA expression in fetal and neonatal rat brain. Nuyt AM, et al. **J Comp Neurol** 1999 May 3;407(2):193-206
Two types of mRNA encoding myosin regulatory light chain in carp fast skeletal muscle differ in their 3' non-coding regions and expression patterns following temperature acclimation. Hirayama Y, et al. **J Exp Biol** 1998 Oct;201 (Pt 20):2815-20
The encapsidation signal of hepatitis B virus facilitates preC AUG recognition resulting in inefficient translation of the downstream genes. Hwang WL, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1769-76
Age-related adipose tissue mRNA expression of ADD1/SREBP1, PPARgamma, lipoprotein lipase, and GLUT4 glucose transporter in rhesus monkeys [see comments] Hotta K, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):B183-8.

Comment in: J Gerontol A Biol Sci Med Sci 1999 May;54(5):B189–90; discussion B191.
Molecular studies in flexor tendon wound healing: the role of basic fibroblast growth factor gene expression. Chang J, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1052–8
Insulin receptor exon 11+/– isoform mRNA in spontaneously hypertensive and adrenocorticotropin-hypertensive rats. Lou Y, et al. **J Hypertens** 1998 Jul;16(7):1009–14
Pressure-induced expression of heat shock protein 70 mRNA in adult rat heart is coupled both to protein kinase A-dependent and protein kinase C-dependent systems. Osaki J, et al. **J Hypertens** 1998 Aug;16(8):1193–200
IL-18 up-regulates perforin-mediated NK activity without increasing perforin messenger RNA expression by binding to constitutively expressed IL-18 receptor. Hyodo Y, et al. **J Immunol** 1999 Feb 1;162(3):1662–8
CD28-Mediated regulation of mRNA stability requires sequences within the coding region of the IL-2 mRNA. Ragheb JA, et al. **J Immunol** 1999 Jul 1;163(1):120–9
The inflammatory response to nonfatal Sindbis virus infection of the nervous system is more severe in SJL than in BALB/c mice and is associated with low levels of IL-4 mRNA and high levels of IL-10-producing CD4+ T cells. Rowell JF, et al. **J Immunol** 1999 Feb 1;162(3):1624–32
In vivo IL-12 production and IL-12 receptors beta1 and beta2 mRNA expression in the spleen are differentially up-regulated in resistant B6 and susceptible A/J mice during early blood-stage Plasmodium chabaudi AS malaria. Sam H, et al. **J Immunol** 1999 Feb 1;162(3):1582–9
Depressed IL-12-mediated signal transduction in T cells from patients with Sézary syndrome is associated with the absence of IL-12 receptor beta 2 mRNA and highly reduced levels of STAT4. Showe LC, et al. **J Immunol** 1999 Oct 1;163(7):4073–9
Dietary vitamin A supplementation in rats: suppression of leptin and induction of UCP1 mRNA. Kumar MV, et al. **J Lipid Res** 1999 May;40(5):824–9
A three-way junction and constituent stem-loops as the stimulator for programmed -1 frameshifting in bacterial insertion sequence IS911. Rettberg CC, et al. **J Mol Biol** 1999 Mar 12;286(5):1365–78
mRNA expression in mitochondria of the red alga chondrus crispus requires a unique RNA-processing mechanism, internal cleavage of upstream tRNAs at pyrimidine 48. Richard O, et al. **J Mol Biol** 1999 May 14;288(4):579–84
Parathyroid hormone-related protein (PTHrP) mRNA splicing and parathyroid hormone/PTHrP receptor mRNA expression in human placenta and fetal membranes. Curtis NE, et al. **J Mol Endocrinol** 1998 Oct;21(2):225–34
Alternative splicing of the prolactin receptor gene generates a 1.7 kb RNA transcript that is linked to prolactin function in the red deer testis. Jabbour HN, et al. **J Mol Endocrinol** 1998 Aug;21(1):51–9
Glycodelin mRNA is expressed in the genital tract of male and female rats (Rattus norvegicus). Keil C, et al. **J Mol Endocrinol** 1999 Aug;23(1):57–66
Characterization of inositol 1,4,5-trisphosphate receptor isoform mRNA expression and regulation in rat pancreatic islets, RINm5F cells and betaHC9 cells. Lee B, et al. **J Mol Endocrinol** 1998 Aug;21(1):31–9
Relaxin protein and gene expression in ovarian follicles of immature pigs. Ohleth KM, et al. **J Mol Endocrinol** 1998 Oct;21(2):179–87
Increased expression of both short and long forms of prolactin receptor mRNA in hypothalamic nuclei of lactating rats. Pi XJ, et al. **J Mol Endocrinol** 1999 Aug;23(1):13–22
Vasoactive intestinal peptide stimulates turkey prolactin gene expression by increasing transcription rate and enhancing mRNA stability. Tong Z, et al. **J Mol Endocrinol** 1998 Dec;21(3):259–66
Diversification of Drosophila chloride channel gene by multiple posttranscriptional mRNA modifications. Semenov EP, et al. **J Neurochem** 1999 Jan;72(1):66–72
Glucocorticoids decrease phenylethanolamine N-methyltransferase mRNA expression in the immature foetal sheep adrenal. Adams MB, et al. **J Neuroendocrinol** 1999 Jul;11(7):569–75
Differential expression of c-fos mRNA within neurocircuits of male hamsters exposed to acute or chronic defeat. Kollack-Walker S, et al. **J Neuroendocrinol** 1999 Jul;11(7):547–59
Leptin effects on the expression of type-2 CRH receptor mRNA in the ventromedial hypothalamus in the rat. Nishiyama M, et al. **J Neuroendocrinol** 1999 Apr;11(4):307–14
Significance of growth hormone-releasing hormone receptor mRNA in non-neoplastic pituitary and pituitary adenomas: a study by RT-PCR and in situ hybridization. Oka H, et al. **J Neurooncol** 1999 Feb;41(3):197–204
Human neuronal gamma-aminobutyric acid(A) receptors: coordinated subunit mRNA expression and functional correlates in individual dentate granule cells. Brooks-Kayal AR, et al. **J Neurosci** 1999 Oct 1;19(19):8312–8
Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13
A synthetic standard for competitive RT-PCR quantitation of 13 GABA receptor type A subunit mRNAs in rats and mice. Liu ZF, et al. **J Neurosci Methods** 1998 Nov 1;85(1):89–98
Differential mRNA display cloning and characterization of a Cryptosporidium parvum gene expressed during intracellular development. Schroeder AA, et al. **J Parasitol** 1999 Apr;85(2):213–20
Antisense to MDR1 mRNA reduces P-glycoprotein expression, swelling-activated Cl- current and volume regulation in bovine ciliary epithelial cells. Wang L, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):33–44
Differences in brain gene expression between sleep and waking as revealed by mRNA differential display and cDNA microarray technology. Cirelli C, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:44–52 (66 ref.)
Expression of sex hormone-binding globulin exon 7 splicing variant mRNA in secondary spreading lesions of gynecological cancers. Misao R, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):103–9
Expression of exon 5 deleted estrogen receptor variant messenger RNA in human uterine myometrium and leiomyoma. Mito K, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):9–16
Hormonal regulation and expression of the jun-D protooncogene in specific cell types of the rat uterus. Nephew KP, et al. **J Steroid Biochem Mol Biol** 1993 Sep;46(3):281–7
The ski7 antiviral protein is an EF1-alpha homolog that blocks expression of non-Poly(A) mRNA in Saccharomyces cerevisiae. Benard L, et al. **J Virol** 1999 Apr;73(4):2893–900
Direct evidence that the poly(A) tail of influenza A virus mRNA is synthesized by reiterative copying of a U track in the virion RNA template. Poon LL, et al. **J Virol** 1999 Apr;73(4):3473–6
Human papillomavirus type 18 E1 protein is translated from polycistronic mRNA by a discontinuous scanning mechanism. Remm M, et al. **J Virol** 1999 Apr;73(4):3062–70
Mta has properties of an RNA export protein and increases cytoplasmic accumulation of Epstein-Barr virus replication gene mRNA. Semmes OJ, et al. **J Virol** 1998 Dec;72(12):9526–34
Translation from the 5' untranslated region (UTR) of mRNA 1 is repressed, but that from the 5' UTR of mRNA 7 is stimulated in coronavirus-infected cells. Senanayake SD, et al. **J Virol** 1999 Oct;73(10):8003–9
In situ mRNA hybridization technique for analysis of human telomerase RNA in gastric precancerous and cancerous lesions. Hiyama T, et al. **Jpn J Cancer Res** 1998 Nov;89(11):1187–94
Induction of Fas ligand and Fas antigen mRNA expressions in interferon-gamma transgenic mouse liver. Okamoto T, et al. **Jpn J Pharmacol** 1998 Oct;78(2):233–5
Expression of cytokine mRNA in extrahepatic organs in a mouse concanavalin A-hepatitis model. Okamoto T, et al. **Jpn J Pharmacol** 1998 Jul;77(3):219–25
Effects of immunosuppressants on concanavalin A-induced interleukin-2 mRNA expression in mouse liver. Okamoto T, et al. **Jpn J Pharmacol** 1998 Jul;77(3):261–3
IGF-I binding proteins, IGF-I binding protein mRNA and IGF-I receptor mRNA in rats with acute renal failure given IGF-1. Bohé J, et al. **Kidney Int** 1998 Oct;54(4):1070–82
Intrarenal distribution of the colonic H,K-ATPase mRNA in rabbit. Fejes-Tóth G, et al. **Kidney Int** 1999 Sep;56(3):1029–36
cDNA cloning and embryonic expression of mouse nuclear pore membrane glycoprotein 210 mRNA. Olsson M, et al. **Kidney Int** 1999 Sep;56(3):827–38
Effects of phosphate intake on distribution of type II Na/Pi cotransporter mRNA in rat kidney. Ritthaler T, et al. **Kidney Int** 1999 Mar;55(3):976–83
Changes in the pattern of fibronectin mRNA alternative splicing in acute experimental mesangioproliferative nephritis. Alonso J, et al. **Lab Invest** 1999 Feb;79(2):185–94
Identification of multiple mRNA and DNA sequences from small tissue samples isolated by laser-assisted microdissection. Bernsen MR, et al. **Lab Invest** 1998 Oct;78(10):1267–73
Thrombopoietin expression in normal and hypobaric hypoxia-induced thrombocytopenic rats. Nakanishi K, et al. **Lab Invest** 1999 Jun;79(6):679–88
Amplification of RNA from archival human temporal bone sections. Ohtani F, et al. **Laryngoscope** 1999 Apr;109(4):617–20
ALL- and CML-type BCR/ABL mRNA transcripts in chronic myelogenous leukemia and related disorders. Yokohama A, et al. **Leuk Res** 1999 May;23(5):477–81
Expression patterns of the JEM-1 gene in normal and tumor cells: ubiquity contrasting with a faint, but retinoid-induced, mRNA expression in promyelocytic NB4 cells. Tong JH, et al. **Leukemia** 1998 Nov;12(11):1733–40
Liver mRNA expression of IGF-I and IGFBPs in adult undernourished diabetic rats. Goya L, et al. **Life Sci** 1999;64(24):2255–71
Presence of opioid receptor-like (ORL1) receptor mRNA splice variants in peripheral sensory and sympathetic neuronal ganglia. Xie GX, et al. **Life Sci** 1999;64(22):2029–37
Effect of dietary cholesterol on low density lipoprotein-receptor, 3-hydroxy-3-methylglutaryl-CoA reductase, and low density lipoprotein receptor-related protein mRNA expression in healthy humans. Boucher P, et al. **Lipids** 1998 Dec;33(12):1177–86
Cloning and expression of hbves, a novel and highly conserved mRNA expressed in the developing and adult heart and skeletal muscle in the human. Reese DE, et al. **Mamm Genome** 1999 Sep;10(9):913–5
Xcat2 RNA is a translationally sequestered germ plasm component in Xenopus. MacArthur H, et al. **Mech Dev** 1999 Jun;84(1–2):75–88
Targeted display: a new technique for the analysis of differential gene expression. Brown AJ, et al. **Methods Enzymol** 1999;303:392–408
Construction and analysis of arrayed cDNA libraries. Clark MD, et al. **Methods Enzymol** 1999;303:205–33
cDNA screening by array hybridization. Drmanac R, et al. **Methods Enzymol** 1999;303:165–78
DNA arrays for analysis of gene expression. Eisen MB, et al. **Methods Enzymol** 1999;303:179–205
cDNA representational difference analysis: a sensitive and flexible method for identification of differentially expressed genes. Hubank M, et al. **Methods Enzymol** 1999;303:325–49
Fluorescent differential display: a fast and reliable method for message display polymerase chain reaction. Ito T, et al. **Methods Enzymol** 1999;303:298–309
Preparation of cDNA from single cells and subcellular regions. Kacharmina JE, et al. **Methods Enzymol** 1999;303:3–18
Preparation and analysis of cDNA from a small number of hematopoietic cells. Liu M, et al. **Methods Enzymol** 1999;303:45–55
Principles of differential display. Martin KJ, et al. **Methods Enzymol** 1999;303:234–58
Identification of differentially expressed genes using RNA fingerprinting by arbitrarily primed polymerase chain reaction. Mathieu-Daudé F, et al. **Methods Enzymol** 1999;303:309–24
A modified method for the display of 3'-end restriction fragments of cDNAs: molecular profiling of gene expression in neutrophils. Subrahmanyam YV, et al. **Methods Enzymol** 1999;303:272–97
Quantitation of heme oxygenase (HO-1) copies in human tissues by competitive RT/PCR. Abraham NG. **Methods Mol Biol** 1998;108:199–209
The low level expression of chloramphenicol acetyltransferase (CAT) mRNA in Escherichia coli is not dependent on either Shine-Dalgarno or the downstream boxes in the CAT gene. Odjakova M, et al. **Microbiol Res** 1998 Aug;153(2):173–8
Identification of the transcription initiation site of the asexually expressed rRNA genes of the malaria parasite Plasmodium berghei. van Spaendonk RM, et al. **Mol Biochem Parasitol** 1999 Apr 30;99(2):193–205
Infrequent translation of a nonsense codon is sufficient to decrease mRNA level. Buzina A, et al. **Mol Biol Cell** 1999 Mar;10(3):515–24
Hypoxic regulation of vascular endothelial growth factor mRNA stability requires the cooperation of multiple RNA elements. Dibbens JA, et al. **Mol Biol Cell** 1999 Apr;10(4):907–19
Regulation of ribosome biogenesis by the rapamycin-sensitive TOR-signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000
Deficient expression of mRNA for the putative inductive factor bone morphogenetic protein-7 in chemically initiated rat nephroblastomas. Higinbotham KG, et al. **Mol Carcinog** 1998 Oct;23(2):53–61
The rox1 and rox2 RNAs are essential components of the compensasome, which mediates dosage compensation in Drosophila. Franke A, et al. **Mol Cell** 1999 Jul;4(1):117–22
Specific transcriptional pausing activates polyadenylation in a coupled in vitro system. Yonaha M, et al. **Mol Cell** 1999 May;3(5):593–600
Identification of stretch-responsive genes in pulmonary artery smooth muscle cells by a two arbitrary primer-based mRNA differential display approach. Chaqour B, et al. **Mol Cell Biochem** 1999 Jul;197(1–2):87–96
Down regulation of kidney neutral endopeptidase mRNA, protein and activity during acute renal failure: possible mechanism for ischemia-induced acute renal failure in rats? Nambi P, et al. **Mol Cell Biochem** 1999 Jul;197(1–2):53–9
Embryo deadenylation element-dependent deadenylation is enhanced by a cis element containing AUU repeats. Audic Y, et al. **Mol Cell Biol** 1998 Dec;18(12):6879–84
Thymidylate synthase protein and p53 mRNA form an in vivo ribonucleoprotein complex. Chu E, et al. **Mol Cell Biol** 1999 Feb;19(2):1582–94
Two independent internal ribosome entry sites are involved in translation initiation of vascular endothelial growth factor mRNA. Huez I, et al. **Mol Cell Biol** 1998 Nov;18(11):6178–90
A family of insulin-like growth factor II mRNA-binding proteins represses translation in late development. Nielsen J, et al. **Mol Cell Biol** 1999 Feb;19(2):1262–70
The Saccharomyces cerevisiae hyperrecombination mutant hpr1Delta is synthetically lethal with two conditional alleles of the acetyl coenzyme A carboxylase gene and causes a defect in nuclear export of polyadenylated RNA. Schneiter R, et al. **Mol Cell Biol** 1999 May;19(5):3415–22
Differentiation-induced internal translation of c-sis mRNA: analysis of the cis elements and their differentiation-linked binding to the hnRNP C protein. Sella O, et al. **Mol Cell Biol** 1999 Aug;19(8):5429–40
AUUUA sequences direct mRNA deadenylation uncoupled from decay during Xenopus early development. Voeltz GK, et al. **Mol Cell Biol** 1998 Dec;18(12):7537–45

Cloning and expression of two proopiomelanocortin mRNAs in the common carp (Cyprinus carpio L.). Arends RJ, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1-2):23-31

Ovarian estrogen receptor alpha and beta mRNA expression: impact of development and estrogen. Drummond AE, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):153-61

Control of FSH receptor mRNA expression in rat granulosa cells by 3',5'-cyclic adenosine monophosphate, activin, and follistatin. Minegishi T, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):71-7

Ligand regulation of juvenile hormone binding protein mRNA in mutant Manduca sexta. Orth AP, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):61-9

Semi-quantitative RT-PCR for comparison of mRNAs in cells with different amounts of housekeeping gene transcripts. Serazin-Leroy V, et al. **Mol Cell Probes** 1998 Oct;12(5):283-91

Two species of mRNAs for the fyn proto-oncogene are produced by an alternative polyadenylation. Lee C, et al. **Mol Cells** 1998 Dec 31;8(6):746-9

mRNA expression of netrin-1, an axon guidance protein in chick and rat embryos. Sim HJ, et al. **Mol Cells** 1999 Jun 30;9(3):245-51

Expressed sequence tags of fruits, peels, and carpels and analysis of mRNA expression levels of the tagged cDNAs of fruits from the Fuji apple. Sung SK, et al. **Mol Cells** 1998 Oct 31;8(5):565-77

Insulin downregulates pyruvate dehydrogenase kinase (PDK) mRNA: potential mechanism contributing to increased lipid oxidation in insulin-resistant subjects. Majer M, et al. **Mol Genet Metab** 1998 Oct;65(2):181-6

A quantitative sucrose gradient analysis of the translational activity of 18 mRNA species in testes from adult mice. Cataldo L, et al. **Mol Hum Reprod** 1999 Mar;5(3):206-13

Detection of mRNA transcripts of cyclic nucleotide phosphodiesterase subtypes in ejaculated human spermatozoa. Richter W, et al. **Mol Hum Reprod** 1999 Aug; 5(8):732-6

A downstream CA repeat sequence increases translation from leadered and unleadered mRNA in Escherichia coli. Martin-Farmer J, et al. **Mol Microbiol** 1999 Feb; 31(4):1025-38

Making sense of the multiple MAP-2 transcripts and their role in the neuron. Shafit-Zagardo B, et al. **Mol Neurobiol** 1998 Apr;16(2):149-62 (105 ref.)

Abnormal G protein alpha(s) - and alpha(i2)-subunit mRNA expression in bipolar affective disorder. Spleiss O, et al. **Mol Psychiatry** 1998 Nov;3(6):512-20

Changes in poly(A) tail length of maternal transcripts during in vitro maturation of bovine oocytes and their relation with developmental competence. Brevini-Gandolfi TA, et al. **Mol Reprod Dev** 1999 Apr;52(4):427-33

gamma-Glutamyl transferase (GGT) deficiency in the GGTenu1 mouse results from a single point mutation that leads to a stop codon in the first coding exon of GGT mRNA. Jean JC, et al. **Mutagenesis** 1999 Jan;14(1):31-6

Finding DNA regulatory motifs within unaligned noncoding sequences clustered by whole-genome mRNA quantitation [see comments] Roth FP, et al. **Nat Biotechnol** 1998 Oct; 16(10):939-45. Comment in: Nat Biotechnol 1998 Oct;16(10):907-8.

Gene expression analysis by transcript profiling coupled to a gene database query. Shimkets RA, et al. **Nat Biotechnol** 1999 Aug;17(8):798-803

Hybridization prediction gets to first base [news] Stein CA. **Nat Biotechnol** 1999 Aug;17(8):751-2

Differential effects of acute and chronic treatment with typical and atypical neuroleptics on c-fos mRNA expression in rat forebrain regions using non-radioactive in situ hybridization. Semba J, et al. **Neurochem Int** 1999 Apr;34(4):269-77

Expression of GDNF and GDNFR-alpha mRNAs in muscles of patients with motor neuron diseases. Yamamoto M, et al. **Neurochem Res** 1999 Jun;24(6):785-90

Changes in messenger ribonucleic acid species in gerbil brain perturbation. Kobayashi H, et al. **Neurol Med Chir (Tokyo)** 1998;38 Suppl:263-7

Specific removal of the nonsense mutation from the mdx dystrophin mRNA using antisense oligonucleotides. Wilton SD, et al. **Neuromuscul Disord** 1999 Jul;9(5):330-8

Gene expression of oligodendrocyte markers in human amniotic epithelial cells using neural cell-type-specific expression system. Ishii T, et al. **Neurosci Lett** 1999 Jun 25;268(3):131-4

Environmental enrichment alters nerve growth factor-induced gene A and glucocorticoid receptor messenger RNA expression after middle cerebral artery occlusion in rats. Dahlqvist P, et al. **Neuroscience** 1999; 93(2):527-35

GABA(A) receptor subunit messenger RNA expression in the enteric nervous system of the rat: implications for functional diversity of enteric GABA(A) receptors. Poulter MO, et al. **Neuroscience** 1999;93(3):1159-65

Regional distribution of presenilin-1 messenger RNA in the embryonic rat brain: comparison with beta-amyloid precursor protein messenger RNA localization. Tanimukai H, et al. **Neuroscience** 1999 Apr;90(1):27-39

Hybridization of a 99Tcm-labelled oligodeoxynucleotide to CAPL RNA. Hjelstuen OK, et al. **Nucl Med Commun** 1998 Aug;19(8):803-12

TransTerm, the translational signal database, extended to include full coding sequences and untranslated regions. Dalphin ME, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):293-4

Expression profiling of single cells using 3 prime end amplification (TPEA) PCR. Dixon AK, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4426-31

Identification of differentially expressed 5'-end mRNA variants by an improved RACE technique (PEETA). Flouriot G, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):e8

Mammalian polyadenylation sites: implications for differential display. Frost MR, et al. **Nucleic Acids Res** 1999 Mar 1; 27(5):1386-91

C-->U editing of apolipoprotein B mRNA in marsupials: identification and characterisation of APOBEC-1 from the American opossum Monodelphus domestica. Fujino T, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2662-71

Caenorhabditis elegans mRNAs that encode a protein similar to ADARs derive from an operon containing six genes. Hough RF, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3424-32

Genetic characterization of the mRNAs encoding alpha-bungarotoxin: isoforms and RNA editing in Bungarus multicinctus gland cells. Liu LF, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5624-9

Differential subtraction chain, a method for identifying differences in genomic DNA and mRNA. Luo JH, et al. **Nucleic Acids Res** 1999 Oct 1;27(19):e24

An AU-rich sequence in the 3'-UTR of plasminogen activator inhibitor type 2 (PAI-2) mRNA promotes PAI-2 mRNA decay and provides a binding site for nuclear HuR. Maurer F, et al. **Nucleic Acids Res** 1999 Apr 1; 27(7):1664-73

The nuclear export signal-dependent localization of oligonucleopeptides enhances the inhibition of the protein expression from a gene transcribed in cytosol. Meunier L, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2730-6

Increased specificity of reverse transcription priming by trehalose and oligo-blockers allows high-efficiency window separation of mRNA display. Mizuno Y, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1345-9

FBI-1, a factor that binds to the HIV-1 inducer of short transcripts (IST), is a POZ domain protein. Morrison DJ, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1251-62

CapSelect: a highly sensitive method for 5' CAP-dependent enrichment of full-length cDNA in PCR-mediated analysis of mRNAs. Schmidt WM, et al. **Nucleic Acids Res** 1999 Nov 1;27(21):e31

Single-tube nested competitive PCR with homologous competitor for quantitation of DNA target sequences: theoretical description of heteroduplex formation, evaluation of sensitivity, precision and linear range of the method. Serth J, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4401-8

Sequence-specific RNase H cleavage of gag mRNA from HIV-1 infected cells by an antisense oligonucleotide in vitro. Veal GJ, et al. **Nucleic Acids Res** 1998 Dec 15; 26(24):5670-5

Identification of genes regulated by muscarinic acetylcholine receptors: application of an improved and statistically comprehensive mRNA differential display technique. von der Kammer H, et al. **Nucleic Acids Res** 1999 May 15; 27(10):2211-8

Antisense oligodeoxynucleotide complementary to CXCR4 mRNA block replication of HIV-1 in COS cells. Kusunoki A, et al. **Nucleosides Nucleotides** 1999 Jun-Jul; 18(6-7):1705-8

A single base mutation in the 5' splice site of intron 7 of the lck gene is responsible for the deletion of exon 7 in lck mRNA of the JCaM1 cell line. Rouer E, et al. **Oncogene** 1999 Jul 22;18(29):4262-8

Linear modeling of mRNA expression levels during CNS development and injury. D'Haeseleer P, et al. **Pac Symp Biocomput** 1999;:41-52

Clustering and detection of 5' splice sites of mRNA by k weight-matrices model. Murakami K, et al. **Pac Symp Biocomput** 1999;:171-81

In situ detection of human monocyte/macrophage serine esterase-1 mRNA expression in human tissues. Satoh T, et al. **Pathobiology** 1999 May-Jun;67(3):158-62

Ribozymes targeted to stearoyl-ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603-22

rbcL Transcript levels in tobacco plastids are independent of light: reduced dark transcription rate is compensated by increased mRNA stability. Shiina T, et al. **Plant Cell** 1998 Oct;10(10):1713-22

Identification of genes expressed during early Arabidopsis carpel development by mRNA differential display: characterisation of ATCEL2, a novel endo-1,4-beta-D-glucanase gene. Yung MH, et al. **Plant J** 1999 Jan;17(2):203-8

Coordinate modulation of maize sulfate permease and ATP sulfurylase mRNAs in response to variations in sulfur nutritional status: stereospecific down-regulation by L-cysteine. Bolchi A, et al. **Plant Mol Biol** 1999 Feb; 39(3):527-37

Isolation and characterization of mRNAs differentially expressed during ripening of wild strawberry (Fragaria vesca L.) fruits. Nam YW, et al. **Plant Mol Biol** 1999 Feb; 39(3):629-36

Isolation and characterization of cDNA clones corresponding with mRNAs that accumulate during auxin-induced lateral root formation. Neuteboom LW, et al. **Plant Mol Biol** 1999 Jan;39(2):273-87

Cloning of genes by mRNA differential display induced during the hypersensitive reaction of soybean after inoculation with Pseudomonas syringae pv. glycinea. Seehaus K, et al. **Plant Mol Biol** 1998 Dec;38(6):1225-34

Isolation of lipoxygenase cDNA clones from pea nodule mRNA. Wisniewski JP, et al. **Plant Mol Biol** 1999 Mar; 39(4):775-83

Symbiotic root nodules of the actinorhizal plant Datisca glomerata express Rubisco activase mRNA. Okubara PA, et al. **Plant Physiol** 1999 Jun;120(2):411-20

Regulation of nitrate reductase transcript levels by glutamine accumulating in the leaves of a ferredoxin-dependent glutamate synthase-deficient gluS mutant of Arabidopsis thaliana, and by glutamine provided via the roots. Dzuibany C, et al. **Planta** 1998 Nov;206(4):515-22

Prenatal diagnosis of Lowe syndrome by OCRL1 messenger RNA analysis. Tsuru T, et al. **Prenat Diagn** 1999 Mar; 19(3):269-70

Identification of differentially expressed mRNA in prokaryotic organisms by customized amplification libraries (DECAL): the effect of isoniazid on gene expression in Mycobacterium tuberculosis. Alland D, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13227-32

Autoregulation at the level of mRNA 3' end formation of the suppressor of forked gene of Drosophila melanogaster is conserved in Drosophila virilis. Audibert A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14302-7

Natural trans-splicing in carnitine octanoyltransferase pre-mRNAs in rat liver. Caudevilla C, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12185-90

Exon repetition in mRNA. Frantz SA, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5400-5

The poly(A)-limiting element is a conserved cis-acting sequence that regulates poly(A) tail length on nuclear pre-mRNAs. Gu H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8943-8

Virus-inducible expression of a host chemokine gene relies on replication-linked mRNA stabilization. Koga T, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5680-5

An exon that prevents transport of a mature mRNA. MacMorris MA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3813-8

Regulation of eukaryotic protein synthesis: selective influenza viral mRNA translation is mediated by the cellular RNA-binding protein GRSF-1. Park YW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6694-9

The role of alternative mRNA splicing in generating heterogeneity within the Anopheles gambiae class I glutathione S-transferase family. Ranson H, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14284-9

Blood pressure reduction and diabetes insipidus in transgenic rats deficient in brain angiotensinogen. Schinke M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3975-80

Single-nucleotide polymorphisms can cause different structural folds of mRNA. Shen LX, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7871-6

RNA aptamers as effective protein antagonists in a multicellular organism. Shi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10033-8

rRNA complementarity within mRNAs: a possible basis for mRNA-ribosome interactions and translational control. Tranque P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12238-43

Messenger RNA translation state: the second dimension of high-throughput expression screening. Zong Q, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10632-6

Developmental regulation of hepatic ceruloplasmin mRNA and serum activity by exogenous thyroxine and dexamethasone. Fitch CA, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):27-31

Degradation of mRNA in Escherichia coli: an old problem with some new twists. Coburn GA, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:55-108 (208 ref.)

The search for trans-acting factors controlling messenger RNA decay. Wilson GM, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:257-91 (146 ref.)

Differential expression of prostaglandin receptor mRNAs during adipose cell differentiation. Børglum JD, et al. **Prostaglandins Other Lipid Mediat** 1999 Jul;57(5-6):305-17

Messenger RNA in dormant cells of Sterkiella histriomuscorum (Oxytrichiade): indentification of putative regulatory gene transcripts. Tourancheau AB, et al. **Protist** 1999 Aug;150(2):137-47

Cloning and characterization of 5'-end alternatively spliced human cholecystokinin-B receptor mRNAs. Monstein HJ, et al. **Receptors Channels** 1998;6(3):165-77

NPY messenger RNA is increased in medial hypothalamus of anorectic tumor-bearing rats. Chance WT, et al. **Regul Pept** 1998 Sep 25;75-76:347-53

Effects of an antisense oligodeoxynucleotide for neuropeptide Y mRNA on in vivo luteinizing hormone-releasing hormone release in ovariectomized female rhesus monkeys. Kasuya E, et al. **Regul Pept** 1998 Sep 25;75-76:319-25

Hypothalamic neuropeptide Y content and mRNA expression in weanling rats subjected to dietary manipulations during fetal and neonatal life. Kozak R, et al. **Regul Pept** 1998 Sep 25;75-76:397-402

NPY-induced overfeeding suppresses hypothalamic NPY mRNA expression: potential roles of plasma insulin and leptin. McMinn JE, et al. **Regul Pept** 1998 Sep 25;

75-76:425-31
Topographic localization of neuropeptide Y mRNA in the monkey brainstem. Pau KY, et al. **Regul Pept** 1998 Sep 25;75-76:145-53
Suppressed neuropeptide Y (NPY) mRNA in rat amygdala following restraint stress. Thorsell A, et al. **Regul Pept** 1998 Sep 25;75-76:247-54
A handful of intron-containing genes produces the lion's share of yeast mRNA [letter] Ares M Jr, et al. **RNA** 1999 Sep;5(9):1138-9
Trans-complementation of the second step of pre-mRNA splicing by exogenous 5' exons. Chanfreau G, et al. **RNA** 1999 Jul;5(7):876-82
Two distinct SECIS structures capable of directing selenocysteine incorporation in eukaryotes. Grundner-Culemann E, et al. **RNA** 1999 May;5(5):625-35
Cap-independent polysomal association of natural mRNAs encoding c-myc, BiP, and eIF4G conferred by internal ribosome entry sites. Johannes G, et al. **RNA** 1998 Dec; 4(12):1500-13
In vitro uridine insertion RNA editing mediated by cis-acting guide RNAs. Kapushoc ST, et al. **RNA** 1999 May; 5(5):656-69
The cis acting sequences responsible for the differential decay of the unstable MFA2 and stable PGK1 transcripts in yeast include the context of the translational start codon. LaGrandeur T, et al. **RNA** 1999 Mar;5(3):420-33
mRNA localization signals can enhance the intracellular effectiveness of hammerhead ribozymes. Lee NS, et al. **RNA** 1999 Sep;5(9):1200-9
Dual roles of p82, the clam CPEB homolog, in cytoplasmic polyadenylation and translational masking. Minshall N, et al. **RNA** 1999 Jan;5(1):27-38
In vivo and in vitro processing of the Bacillus subtilis transcript coding for glutamyl-tRNA synthetase, serine acetyltransferase, and cysteinyl-tRNA synthetase. Pelchat M, et al. **RNA** 1999 Feb;5(2):281-9
Poly(A)-tail-promoted translation in yeast: implications for translational control. Preiss T, et al. **RNA** 1998 Nov; 4(11):1321-31
A minor fraction of basic fibroblast growth factor mRNA is deaminated in Xenopus stage VI and matured oocytes. Saccomanno L, et al. **RNA** 1999 Jan;5(1):39-48
Arginine methylation and binding of Hrp1p to the efficiency element for mRNA 3'-end formation. Valentini SR, et al. **RNA** 1999 Feb;5(2):272-80
The clam 3' UTR masking element-binding protein p82 is a member of the CPEB family. Walker J, et al. **RNA** 1999 Jan;5(1):14-26
Purine-rich enhancers function in the AT-AC pre-mRNA splicing pathway and do so independently of intact U1 snRNP. Wu Q, et al. **RNA** 1998 Dec;4(12):1664-73
Subgenomic mRNA regulation by a distal RNA element in a (+)-strand RNA virus. Zhang G, et al. **RNA** 1999 Apr; 5(4):550-61
Measurement of vitellogenin-mRNA expression in primary cultures of rainbow trout hepatocytes in a non-radioactive dot blot/RNAse protection-assay. Islinger M, et al. **Sci Total Environ** 1999 Aug 15;233(1-3):109-22
Dirty transcripts from clean DNA [comment] Bridges BA. **Science** 1999 Apr 2;284(5411):62-3. Comment on: Science 1999 Apr 2;284(5411):159-62.
Phenotypic change caused by transcriptional bypass of uracil in nondividing cells [see comments] Viswanathan A, et al. **Science** 1999 Apr 2;284(5411):159-62. Comment in: Science 1999 Apr 2;284(5411):62-3.
The effect of thyroid hormone on size of fat depots accounts for most of the changes in leptin mRNA and serum levels in the rat. Syed MA, et al. **Thyroid** 1999 May;9(5):503-12
Internal ribosome entry sites (IRESs): reality and use. Houdebine LM, et al. **Transgenic Res** 1999 Jun;8(3):157-77 (200 ref.)
Overexpression of growth hormone affects alternatively spliced IGF-I mRNA expression in oMt1a-oGH transgenic mice. Lin WW, et al. **Transgenic Res** 1998 Jul; 7(4):295-302
Effect of 15-deoxyspergualine on coronary arteriosclerosis and platelet-derived growth factor-A mRNA expression in the transplanted heart. Zhang X, et al. **Transplant Proc** 1999 May;31(3):1706-9
Whatever turns you on? Henthorn D, et al. **Trends Genet** 1999 Apr;15(4):140
Molecular evolutionary evidence that H19 mRNA is functional. Hurst LD, et al. **Trends Genet** 1999 Apr; 15(4):134-5 (16 ref.)
Mutations in RNA: a first example of molecular misreading in Alzheimer's disease. van Leeuwen FW, et al. **Trends Neurosci** 1998 Aug;21(8):331-5 (48 ref.)
Cytokine mRNA expression in whole blood samples from dogs with natural canine distemper virus infection. Gröne A, et al. **Vet Immunol Immunopathol** 1998 Sep 16; 65(1):11-27
Expression of surfactant protein mRNA in normal and neoplastic lung of B6C3F1 mice as demonstrated by in situ hybridization. Pilling AM, et al. **Vet Pathol** 1999 Jan; 36(1):57-63
Characterization of mRNA for hepatitis delta antigen: exclusion of the full-length antigenomic RNA as an mRNA. Lo K, et al. **Virology** 1998 Oct 10;250(1):94-105
Identification of a subgenomic mRNA encoding the capsid protein of mushroom bacilliform virus, a single-stranded RNA mycovirus. Revill PA, et al. **Virology** 1999 Aug 1; 260(2):273-6
A novel spliced transcript of influenza A/WSN/33 virus. Shih SR, et al. **Virus Genes** 1998;17(2):179-83
Transient mRNA responses in chemostat cultures as a method of defining putative regulatory elements: application to genes involved in Saccharomyces cerevisiae acetyl-coenzyme A metabolism. van den Berg MA, et al. **Yeast** 1998 Sep 15;14(12):1089-104
[Fas/Fas ligand mRNA are expressed in Helicobacter pylori infected mucosa] Meyer F, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1150-2 (Eng. Abstr.) **(Ger)**
[Mechanisms of nuclear mRNA editing] Kostyrko A, et al. **Postepy Biochem** 1998;44(2):94-101 (53 ref.) **(Pol)**
[Post-transcriptional regulation of gene expression in eukaryotes: effect of stressors on mRNA stability in vitro] Plotnikov VK, et al. **Genetika** 1998 Sep;34(9):1205-11 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

In situ, real-time catabolic gene expression: extraction and characterization of naphthalene dioxygenase mRNA transcripts from groundwater. Wilson MS, et al. **Appl Environ Microbiol** 1999 Jan;65(1):80-7
Sequencing of two alternatively spliced mRNAs corresponding to the extracellular domain of the rat receptor for advanced glycosylation end products (RAGE). Girón MD, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):230-4
Use of long RT-PCR to characterize splice variant mRNAs. Hu Y, et al. **Biotechniques** 1998 Aug;25(2):224-9
Identification of the pro-oncogene stathmin/op18 mRNA in the brain of mitochondrial Mn-superoxide dismutase-deficient mice by a modified differential display PCR. Li Y, et al. **Brain Res Mol Brain Res** 1998 Apr; 55(2):277-84
posterior end mark 3 (pem-3), an ascidian maternally expressed gene with localized mRNA encodes a protein with Caenorhabditis elegans MEX-3-like KH domains. Satou Y. **Dev Biol** 1999 Aug 15;212(2):337-50
Abnormal FHIT transcripts found in both lung cancer and normal lung tissue. Tokuchi Y, et al. **Genes Chromosomes Cancer** 1999 Feb;24(2):105-11
Nerve growth factor gene locus explains elevated renal nerve growth factor mRNA in young spontaneously hypertensive rats. Charchar FJ, et al. **Hypertension** 1998 Oct;32(4):705-9
Expression and localization of histamine H2 receptor messenger RNA in human nasal mucosa. Hirata N, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):944-9
Detection of human papillomavirus types 16 and 18 mRNA in peripheral blood of advanced cervical cancer patients and its association with prognosis. Tseng CJ, et al. **J Clin Oncol** 1999 May;17(5):1391-6
Little evidence of HLA-G mRNA polymorphism in Caucasian or Afro-Caribbean populations. Bainbridge DR, et al. **J Immunol** 1999 Aug 15;163(4):2023-7
Magnetic capture-hybridization method for purification and probing of mRNA for neutral protease of Bacillus cereus. Bach HJ, et al. **J Microbiol Methods** 1999 Aug;37(2):187-92
Impact of human endogenous retroviral elements on cellular genes: strategy for isolation of LTR-driven chimeric transcripts. Seifarth W, et al. **Leukemia** 1999 Apr;13 Suppl 1:S97-8
Size separation and quantification of mRNA by northern analysis. Bird IM. **Methods Mol Biol** 1998;105:325-36 (3 ref.)
Determination of phospholipase A2s expression in mast cells by reverse-transcriptase polymerase chain reaction. Fonteh AN, et al. **Methods Mol Biol** 1999;120:91-105
Assessment of cyclooxygenase RNA expression by northern hybridization. Guan Z, et al. **Methods Mol Biol** 1999; 120:25-33
A simple method to enrich mRNA from total prokaryotic RNA. Su C, et al. **Mol Biotechnol** 1998 Aug;10(1):83-5
Identification of alternative splicing forms of GLT-1 mRNA in the spinal cord of amyotrophic lateral sclerosis patients. Nagai M, et al. **Neurosci Lett** 1998 Mar 20;244(3):165-8
Combining SSH and cDNA microarrays for rapid identification of differentially expressed genes. Yang GP, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1517-23

METABOLISM

Switch of osteonectin and osteopontin mRNA expression in the process of cartilage-to-bone transition during fracture repair. Nakase T, et al. **Acta Histochem** 1998 Jul; 100(3):287-95
Messenger RNA levels for genes involved in extracellular matrix from human corneal scrapings before and after photorefractive keratectomy. Tomas-Barberan S, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):568-72
Expression of substance P (NK1) receptor mRNA in human nose. Shirasaki H, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):717-22
Related expression of vascular endothelial growth factor and hypoxia-inducible factor-1 mRNAs in human skeletal muscle. Gustafsson T, et al. **Acta Physiol Scand** 1999 Mar; 165(3):335-6
Cytokine mRNA expression in human epidermis after patch treatment with rhus and sodium lauryl sulfate. Ryan CA, et al. **Am J Contact Dermat** 1999 Sep;10(3):127-35
Plasma insulin rise precedes rise in ob mRNA expression and plasma leptin in gold thioglucose-obese mice. Bryson JM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E358-64
Skeletal muscle myostatin mRNA expression is fiber-type specific and increases during hindlimb unloading. Carlson CJ, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R601-6
Hyperoxia increases keratinocyte growth factor mRNA expression in neonatal rabbit lung. Charafeddine L, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L105-13
Cytochrome c transcriptional activation and mRNA stability during contractile activity in skeletal muscle. Freyssenet D, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E26-32
Changes in surfactant-associated protein mRNA profile in growth-restricted fetal sheep. Gagnon R, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L459-65
Differing temporal roles of Ca2+ and cAMP in nicotine-elicited elevation of tyrosine hydroxylase mRNA. Gueorguiev VD, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C54-65
Cafeteria feeding induces interleukin-1beta mRNA expression in rat liver and brain. Hansen MK, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2): R1734-9
Cell-cell contact between adult rat cardiac myocytes regulates Kv1.5 and Kv4.2 K+ channel mRNA expression. Hershman KM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1473-80
Sepsis is associated with increased ubiquitinconjugating enzyme E214k mRNA in skeletal muscle. Hobler SC, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R468-73
T(3) stimulates resting metabolism and UCP-2 and UCP-3 mRNA but not nonphosphorylating mitochondrial respiration in mice. Jekabsons MB, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E380-9
Alterations in lung expansion affect surfactant protein A, B, and C mRNA levels in fetal sheep. Lines A, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L239-45
Hyperlactatemia reduces muscle glucose uptake and GLUT-4 mRNA while increasing (E1alpha)PDH gene expression in rat. Lombardi AM, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E922-9
EGF precursor mRNA and membrane-associated EGF precursor protein in rat exorbital lacrimal gland. Maréchal H, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C734-46
Mechanical activity in heart regulates translation of alpha-myosin heavy chain mRNA but not its localization. Nikcevic G, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2013-9
Characterization of the Hsp110/SSE gene family response to hyperosmolality and other stresses. Santos BC, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1054-61
Expression of bone morphogenetic protein-7 mRNA in normal and ischemic adult rat kidney. Simon M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F382-9
Paracrine upregulation of VEGF receptor mRNA in endothelial cells by hypoxia-exposed hep G2 cells. Suzuki H, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G92-7
Cx32 mRNA in rat liver: effects of inflammation on poly(A) tail distribution and mRNA degradation. Theodorakis NG, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1249-57
Neutrophil elastase increases MUC5AC mRNA and protein expression in respiratory epithelial cells. Voynow JA, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L833-43
Developmental regulation of epithelial sodium channel subunit mRNA expression in rat colon and lung. Watanabe S, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1227-35
Flow regulation of ecNOS and Cu/Zn SOD mRNA expression in porcine coronary arterioles. Woodman CR, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H1058-63
Zinc deficiency decreases plasma level and hepatic mRNA abundance of apolipoprotein A-I in rats and hamsters. Wu JY, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1516-25
Transcriptional and posttranscriptional regulation of beta(2)-adrenergic receptor gene in rat liver during sepsis. Yang J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R132-9
Localization of rat CLC-K2 chloride channel mRNA in the kidney. Yoshikawa M, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F552-8
Sleep deprivation increases rat hypothalamic growth hormone-releasing hormone mRNA. Zhang J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1755-61
Brief exposure to 95% oxygen alters surfactant protein D and mRNA in adult rat alveolar and bronchiolar epithelium. Aderibigbe AO, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):219-27
Expression and inducibility of alpha, pi, and Mu glutathione S-transferase protein and mRNA in murine lung. Forkert PG, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):143-52
Interleukin (IL)-5 downregulates tumor necrosis factor (TNF)-induced eotaxin messenger RNA (mRNA) expression in eosinophils. Induction of eotaxin mRNA by TNF and IL-5 in eosinophils. Han SJ, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):303-10
Variable levels of normal RNA in different fetal organs carrying a cystic fibrosis transmembrane conductance regulator splicing mutation. Chiba-Falek O, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1998-2002
Determination of the protooncogene ets-2 gene transcript in human brain at the atto-gram-level by the use of competitive RT/PCR. Schatzmann-Turhani D, et al. **Amino Acids** 1999;16(1):13-9
Fluorescence quenching and dequenching analysis of RNA interactions in vitro and in vivo. Kwon S, et al. **Anal Biochem** 1998 Nov 15;264(2):133-40

Distribution of peptide transporter PEPT2 mRNA in the rat nervous system. Berger UV, et al. **Anat Embryol (Berl)** 1999 May;199(5):439–49

Specific expression of the mRNA for 25 kDA heat-shock protein in the spermatocytes of mouse seminiferous tubules. Wakayama T, et al. **Anat Embryol (Berl)** 1999 May; 199(5):419–25

Expression of mRNA encoding muscarinic receptor subtypes in neutrophils of patients with rheumatoid arthritis. Bany U, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:301–4

Expression of somatostatin messenger RNA and receptor in cultured brain tumor cells. Hirota N, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3295–7

Repression of human thymidylate synthase mRNA translation by antisense 2'–O–methyl oligoribonucleotides. Schmitz JC, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):371–8

Inhibition of influenza A virus reproduction by a ribozyme targeted against PB1 mRNA. Lazarev VN, et al. **Antiviral Res** 1999 May;42(1):47–57

Alpha,beta-unsaturated aldehydes increase glutathione S-transferase mRNA and protein: correlation with activation of the antioxidant response element. Tjalkens RB, et al. **Arch Biochem Biophys** 1998 Nov 1;359(1):42–50

LDL stimulates mitogen-activated protein kinase phosphatase-1 expression, independent of LDL receptors, in vascular smooth muscle cells. Metzler B, et al. **Arterioscler Thromb Vasc Biol** 1999 Aug;19(8):1862–71

Endotoxin and interleukin-1 decrease hepatic lipase mRNA levels. Feingold KR, et al. **Atherosclerosis** 1999 Feb; 142(2):379–87

Paraoxonase activity in the serum and hepatic mRNA levels decrease during the acute phase response. Feingold KR, et al. **Atherosclerosis** 1998 Aug;139(2):307–15

Relationship of adipose tissue cholesteryl ester transfer protein (CETP) mRNA to plasma concentrations of CETP in man. Radeau T, et al. **Atherosclerosis** 1998 Aug; 139(2):369–76

Relative abundance of thrombospondin 2 and thrombospondin 3 mRNAs in human tissues. Adolph KW. **Biochem Biophys Res Commun** 1999 May 19;258(3):792–6

Indian hedgehog in the late-phase differentiation in mouse chondrogenic EC cells, ATDC5: upregulation of type X collagen and osteoprotegerin ligand mRNAs. Akiyama H, et al. **Biochem Biophys Res Commun** 1999 Apr 21; 257(3):814–20

Uncoupling protein-3 mRNA levels are increased in white adipose tissue and skeletal muscle of bezafibrate-treated rats. Cabrero A, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):547–56

Etomoxir, sodium 2-[6-(4-chlorophenoxy)hexyl]oxirane-2-carboxylate, up-regulates uncoupling protein-3 mRNA levels in primary culture of rat preadipocytes. Cabrero A, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):87–93

Hairpin ribozyme specificity in vivo: a case of promiscuous cleavage. Denman RB. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):356–60

Expression of TRAIL and its receptors in human brain tumors [published erratum appears in Biochem Biophys Res Commun 1999 May 27;259(1):230] Frank S, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):454–9

Hyperglycemia increases vascular adrenomedullin expression. Hayashi M, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):453–6

Colocalization of leptin receptor (OB-R) mRNA and placental lactogen-II in rat trophoblast cells: gestational profile of OB-R mRNA expression in placentae. Kawai M, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):425–30

Low intensity pulsed ultrasound exposure increases prostaglandin E2 production via the induction of cyclooxygenase-2 mRNA in mouse osteoblasts. Kokubu T, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):284–7

Requirement for geranylgeranyl transferase I and acyl transferase in the TGF-beta-stimulated pathway leading to elastin mRNA stabilization. Kucich U, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):111–6

Maize transposable element Ds is differentially spliced from primary transcripts in endosperm and suspension cells. Lal SK, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):798–801

Identification of various exon-deleted progesterone receptor mRNAs in human endometrium and ovarian endometriosis. Misao R, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):302–6

Agonist-mediated destabilization of human beta1-adrenergic receptor mRNA: role of the 3' untranslated translated region. Mitchusson KD, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):357–62

Transforming growth factor-beta1 increases mRNA levels of osteoclastogenesis inhibitory factor in osteoblastic/stromal cells and inhibits the survival of murine osteoclast-like cells. Murakami T, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):747–52

Induction of heme oxygenase-1 in the rat brain by kainic acid-mediated excitotoxicity: the dissociation of mRNA and protein expression in hippocampus. Nakaso K, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):91–6

The human retina and retinal pigment epithelium are abundant sources of vitronectin mRNA. Ozaki S, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):524–9

Temporal alterations in mRNA levels for proteinases and inhibitors and their potential regulators in the healing medial collateral ligament. Reno C, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):757–63

Denervation of chicken skeletal muscle causes an increase in acetylcholinesterase mRNA synthesis. Rimer M, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):251–5

Analysis of the RNA recognition motifs of human neuronal ELAV-like proteins in binding to a cytokine mRNA. Sakai K, et al. **Biochem Biophys Res Commun** 1999 Mar 16; 256(2):263–8

In vivo effects of pioglitazone on uncoupling protein-2 and -3 mRNA levels in skeletal muscle of hyperglycemic KK mice. Shimokawa T, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):374–8

Tissue-specific differences in the role of RNA 3' of the apolipoprotein B mRNA mooring sequence in editosome assembly. Steinburg MF, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):81–6

CHOP/GADD153 and methionyl-tRNA synthetase (MetRS) genes overlap in a conserved region that controls mRNA stability. Ubeda M, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):31–8

Ethanol increases apolipoprotein B mRNA editing in rat primary hepatocytes and McArdle cells. Van Mater D, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):334–9

Detection of apolipoprotein B mRNA editing by peptide nucleic acid mediated PCR clamping. Zhong S, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):311–3

Localization of a cyclopentenone prostaglandin to the endoplasmic reticulum and induction of BiP mRNA. Takahashi S, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):35–42

Analysis of RNA-protein interactions of mouse liver cytochrome P4502A5 mRNA. Tilloy-Ellul A, et al. **Biochem J** 1999 May 1;339 (Pt 3):695–703

A comparison of 2 PCR-based methods for the quantitation of mRNA levels of putative membrane receptors in transfected mammalian cell clones. Murdock PR, et al. **Biochem Soc Trans** 1998 Nov;26(4):S362

Alteration of heart uncoupling protein-2 mRNA regulated by sympathetic nerve and triiodothyronine during postnatal period in rats. Teshima Y, et al. **Biochim Biophys Acta** 1999 Jan 11;1448(3):409–15

Should we kill the messenger? The role of the surveillance complex in translation termination and mRNA turnover. Czaplinski K, et al. **Bioessays** 1999 Aug;21(8):685–96 (81 ref.)

Parallel acceleration of phosphoenolpyruvate carboxykinase mRNA degradation and increase in ribonuclease activity induced by insulin in cultured rat hepatocytes. Heise T, et al. **Biol Chem** 1998 Jul;379(7):875–83

Structure and expression of a non-polyadenylated ribosome bound transcript carrying the sequence of human ribosomal protein L7 mRNA in antisense orientation. Hohlbaum AM, et al. **Biol Chem** 1998 Aug–Sep;379(8–9):1193–200

Small angle scattering in ribosomal structure research: localization of the messenger RNA within ribosomal elongation states. Jünemann R, et al. **Biol Chem** 1998 Jul; 379(7):807–18

Identification of progesterone-dependent messenger ribonucleic acid regulatory patterns in the rhesus monkey endometrium by differential-display reverse transcription-polymerase chain reaction. Ace CI, et al. **Biol Reprod** 1999 Apr;60(4):1029–35

Restricted expression of WT1 messenger ribonucleic acid in immature ovarian follicles: uniformity in mammalian and avian species and maintenance during reproductive senescence. Chun SY, et al. **Biol Reprod** 1999 Feb; 60(2):365–73

Prostaglandin F(2alpha) induces a rapid decline in progesterone production and steroidogenic acute regulatory protein expression in isolated rat corpus luteum without altering messenger ribonucleic acid expression. Fiedler EP, et al. **Biol Reprod** 1999 Sep;61(3):643–50

Accumulation of cyclooxygenase-2 gene transcripts in uterine tissues of pregnant and parturient cows: stimulation by oxytocin. Fuchs AR, et al. **Biol Reprod** 1999 Feb; 60(2):341–8

Estradiol up-regulates estrogen receptor-alpha messenger ribonucleic acid in sheep endometrium by increasing its stability. Ing NH, et al. **Biol Reprod** 1999 Jan;60(1):134–9

Involvement of polyomavirus enhancer activator 3 in the regulation of expression of gamma-glutamyl transpeptidase messenger ribonucleic acid-IV in the rat epididymis. Lan ZJ, et al. **Biol Reprod** 1999 Mar;60(3):664–73

11beta-hydroxysteroid dehydrogenase type 2 is the predominant isozyme in the guinea pig placenta: decreases in messenger ribonucleic acid and activity at term. Sampath-Kumar R, et al. **Biol Reprod** 1998 Dec; 59(6):1378–84

Hormonal control of H-type alpha(1-2)fucosyltransferase messenger ribonucleic acid in the mouse uterus. Sidhu SS, et al. **Biol Reprod** 1999 Jan;60(1):147–57

Up-regulation of oxytocin receptor messenger ribonucleic acid and protein by estradiol in the cervix of ovariectomized rat. Umscheid CA, et al. **Biol Reprod** 1998 Nov;59(5):1131–8

Hypoxia-ischemia-induced apoptotic cell death correlates with IGF-I mRNA decrease in neonatal rat brain. Clawson TF, et al. **Biol Signals Recept** 1999 Jul–Oct;8(4–5):281–93

Comparison of methods for quantitation of radioactivity in protected hybrids in RNase protection assays. Pham K, et al. **Biotechniques** 1998 Aug;25(2):198–200, 202, 204 passim

Prediction of antisense oligonucleotide binding affinity to a structured RNA target. Walton SP, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):1–9

Distribution of alpha1-adrenoceptor subtype mRNAs in human renal cortex. Kurooka Y, et al. **BJU Int** 1999 Feb; 83(3):299–304

Expression of platelet-derived endothelial cell growth factor (PD-ECGF) and its mRNA in uterine cervical cancers. Fujimoto J, et al. **Br J Cancer** 1999 Mar;79(7–8):1249–54

Tissue inhibitor of metalloproteinases-1 (TIMP-1) mRNA is elevated in advanced stages of thyroid carcinoma. Shi Y, et al. **Br J Cancer** 1999 Mar;79(7–8):1234–9

Elevated expression of epidermal ornithine decarboxylase mRNA in scleroderma. Ohtsuka T, et al. **Br J Dermatol** 1998 Dec;139(6):1047–8

The molecular basis of glucocorticoid-induced skin atrophy: topical glucocorticoid apparently decreases both collagen synthesis and the corresponding collagen mRNA level in human skin in vivo. Oikarinen A, et al. **Br J Dermatol** 1998 Dec;139(6):1106–10

Regulatory signals in messenger RNA: determinants of nutrient-gene interaction and metabolic compartmentation [see comments] Hesketh JE, et al. **Br J Nutr** 1998 Oct; 80(4):307–21 (114 ref.). Comment in: Br J Nutr 1998 Oct;80(4):305–6.

Downregulation of oxidative phosphorylation in Alzheimer disease: loss of cytochrome oxidase subunit mRNA in the hippocampus and entorhinal cortex. Chandrasekaran K, et al. **Brain Res** 1998 Jun 15;796(1–2):13–9

Cyclic AMP increases hydroxyindole-O-methyltransferase mRNA levels in the chicken pineal gland, but is not required for circadian rhythmicity of this transcript. Grechez-Cassiau A, et al. **Brain Res** 1999 Jul 24; 835(2):97–103

Chronic ethanol exposure and withdrawal influence NMDA receptor subunit and splice variant mRNA expression in the rat cerebral cortex. Hardy PA, et al. **Brain Res** 1999 Feb 20;819(1–2):33–9

Focal cerebral ischaemia induces a decrease in activity and a shift in ouabain affinity of Na+, K+-ATPase isoforms without modifications in mRNA and protein expression. Jamme I, et al. **Brain Res** 1999 Feb 20;819(1–2):132–42

In situ mRNA hybridization study of the distribution of choline acetyltransferase in the human brain. Kasashima S, et al. **Brain Res** 1998 Sep 21;806(1):8–15

Differences in delta opioid receptor antinociception, binding, and mRNA levels between BALB/c and CXBK mice. Kest B, et al. **Brain Res** 1998 Sep 14;805(1–2):131–7

Mu and delta opioid receptor analgesia, binding density, and mRNA levels in mice selectively bred for high and low analgesia. Kest B, et al. **Brain Res** 1999 Jan 23;816(2):381–9

Effects of palatability-induced hyperphagia and food restriction on mRNA levels of neuropeptide-Y in the arcuate nucleus. Kim EM, et al. **Brain Res** 1998 Sep 21; 806(1):117–21

Age- and region-specific expressions of the messenger RNAs encoding for steroidogenic enzymes p450scc, P450c17 and 3beta-HSD in the postnatal rat brain. Kohchi C, et al. **Brain Res** 1998 Aug 10;801(1–2):233–8

Expression of GDNF receptor (RET and GDNFR-alpha) mRNAs in the spinal cord of patients with amyotrophic lateral sclerosis. Mitsuma N, et al. **Brain Res** 1999 Feb 27; 820(1–2):77–85

Distribution and levels of insulin-like growth factor I mRNA across the life span in the Brown Norway x Fischer 344 rat brain. Niblock MM, et al. **Brain Res** 1998 Aug 31; 804(1):79–86

Cyclooxygenase 2 mRNA expression in rat brain after peripheral injection of lipopolysaccharide. Quan N, et al. **Brain Res** 1998 Aug 17;802(1–2):189–97

Decreased expression of bcl-2 and bcl-x mRNA coincides with apoptosis following intracerebral administration of 3-nitropropionic acid. Sato S, et al. **Brain Res** 1998 Oct 12;808(1):56–64

Downregulation of BDNF mRNA and protein in the rat hippocampus by corticosterone. Schaaf MJ, et al. **Brain Res** 1998 Nov 30;813(1):112–20

Long-lasting c-fos and NGF mRNA expressions and loss of perikaryal parvalbumin immunoreactivity in the development of epileptogenesis after ethacrynic acid-induced seizure. Suzukawa J, et al. **Brain Res** 1999 Jul 10;834(1–2):89–102

Expression of muscarinic m2 receptor mRNA in dorsal root ganglia of neonatal rat. Tata AM, et al. **Brain Res** 1999 Apr 3;824(1):63–70

Combination of immunohistochemical and in situ hybridization methods to reveal tyrosine hydroxylase and oxytocin and vasopressin mRNAs in magnocellular neurons of obese Zucker rats. Fetissov SO, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):36–43

Non-isotopic in situ hybridization of CD44 transcript in formalin-fixed paraffin-embedded sections. Suzuki SO, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):29–35

Quantitation of nicotinic acetylcholine receptor subunits alpha 4 and beta 2 messenger RNA in postmortem human brain using a non-radioactive RT-PCR and CCD imaging system. Utsugisawa K, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):92–6

Accurate quantification of the mRNA of NMDAR1 splice variants measured by competitive RT-PCR. Winkler A, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):69-81

Localization of the Norrie disease gene mRNA by in situ hybridization. Hartzer MK, et al. **Brain Res Bull** 1999 Jul 15;49(5):355-8

Acute "binge" cocaine increases mu-opioid receptor mRNA levels in areas of the rat mesolimbic mesocortical dopamine system. Yuferov V, et al. **Brain Res Bull** 1999 Jan 1; 48(1):109-12

Serotonin 2A receptor mRNA levels in the neonatal dopamine-depleted rat striatum remain upregulated following suppression of serotonin hyperinnervation. Basura GJ, et al. **Brain Res Dev Brain Res** 1999 Aug 5; 116(1):111-7

Distribution and developmental changes in metabotropic glutamate receptor messenger RNA expression in the rat lumbar spinal cord. Berthele A, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):39-53

Changes in mRNA levels for group I metabotropic glutamate receptors following in utero hypoxia-ischemia. Simonyi A, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):31-7

Birth-related expression of c-fos, c-jun and substance P mRNAs in the rat brainstem and pia mater: possible relationship to changes in central chemosensitivity. Wickström HR, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):255-66

Effects of transient cerebral ischemia on hsp40 mRNA levels in rat brain. Paschen W, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):341-4

Distribution of the 5-HT5A serotonin receptor mRNA in the human brain. Pasqualetti M, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):1-8

Localization and seizure-regulation of integrin beta 1 mRNA in adult rat brain. Pinkstaff JK, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):265-76

Increased nerve growth factor mRNA stability may underlie elevated nerve growth factor secretion from hypertensive vascular smooth muscle cells. Sherer TB, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):167-74

Dissociation of changes in hypothalamic corticotropin-releasing hormone and pituitary proopiomelanocortin mRNA levels after prolonged stress exposure. Skultétyová I, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1-2):190-2

Specific reductions of striatal prodynorphin and D1 dopamine receptor messenger RNAs during cocaine abstinence. Svensson P, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):162-8

Changes in IP3R1 and SERCA2b mRNA levels in the gerbil brain after chronic ethanol administration and transient cerebral ischemia-reperfusion. Xia J, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):22-8

mRNA differential display of 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine-induced rat mammary gland tumors. Roberts-Thomson SJ, et al. **Breast Cancer Res Treat** 1998 Sep;51(2):99-107

Transforming growth factor-beta2 mRNA level in unloaded bone analyzed by quantitative in situ hybridization. Zhang R, et al. **Calcif Tissue Int** 1999 Jun;64(6):522-6

Enhanced expression of ELAM-1 on endothelium of renal cell carcinoma compared to the corresponding normal renal tissue. Brenner W, et al. **Cancer Lett** 1999 Aug 23; 143(1):15-21

Expressions of vascular endothelial growth factor (VEGF) and its mRNA in uterine endometrial cancers. Fujimoto J, et al. **Cancer Lett** 1998 Dec 11;134(1):15-22

Comparative analysis of epidermal growth factor receptor mRNA levels in normal, benign hyperplastic and carcinomatous prostate. Kumar VL, et al. **Cancer Lett** 1998 Dec 25;134(2):177-80

Estrogen receptor-beta messenger RNA expression in human breast tumor biopsies: relationship to steroid receptor status and regulation by progestins. Dotzlaw H, et al. **Cancer Res** 1999 Feb 1;59(3):529-32

Enhanced levels of several mitochondrial mRNA transcripts and mitochondrial superoxide production during ethinyl estradiol-induced hepatocarcinogenesis and after estrogen treatment of HepG2 cells. Chen J, et al. **Carcinogenesis** 1998 Dec;19(12):2187-93

Pulmonary and cardiac expression of preproendothelin-1 mRNA are increased in heart failure after myocardial infarction in rats. Localization of preproendothelin-1 mRNA and endothelin peptide. Tønnessen T, et al. **Cardiovasc Res** 1998 Sep;39(3):633-43

Motors driving mRNA localization: new insights from in vivo imaging. Arn EA, et al. **Cell** 1998 Oct 16;95(2):151-4 (18 ref.)

A perfect message: RNA surveillance and nonsense-mediated decay. Hentze MW, et al. **Cell** 1999 Feb 5;96(3):307-10 (20 ref.)

Intracisternal A-particle (IAP)-mediated leukemogenesis: levels and stability of IAP mRNA in FDC-P1 cells exposed to the conditions of an irradiated environment. Blumenstein M, et al. **Cell Biol Int** 1998;22(7-8):563-74

Expression and cellular localization of the mRNA for the 25-kDa heat-shock protein in the mouse. Wakayama T, et al. **Cell Biol Int** 1998;22(4):295-304

Poly(A) mRNA is attached to insect ovarian microtubules in vivo in a nucleotide-sensitive manner. Stephen S, et al. **Cell Motil Cytoskeleton** 1999;43(2):159-66

Expression of cytokine mRNA during immuno-modulation of murine suppressor macrophages. Feng WG, et al. **Cell Res** 1998 Dec;8(4):317-22

Heat shock activates the I-kappaBalpha promoter and increases I-kappaBalpha mRNA expression. Wong HR, et al. **Cell Stress Chaperones** 1999 Mar;4(1):1-7

Localization of cytoplasmic dynein light-intermediate chain mRNA in the rat testis using in situ hybridization. Maeda S, et al. **Cell Struct Funct** 1998 Feb;23(1):9-15

Localization of calcitonin gene-related peptide mRNA in developing olfactory axons. Denis-Donini S, et al. **Cell Tissue Res** 1998 Oct;294(1):81-91

Oxidation of guanines in the iron-responsive element RNA: similar structures from chemical modification and recent NMR studies. Ciftan SA, et al. **Chem Biol** 1998 Dec; 5(12):679-87

Regulation of endothelial NO synthase mRNA stability: RNA-binding proteins crowd on the 3'-untranslated region [editorial; comment] Bloch KD. **Circ Res** 1999 Oct 1; 85(7):653-5 (10 ref.). Comment on: Circ Res 1999 Oct 1;85(7):588-95.

Thyroid hormone regulates hyperpolarization-activated cyclic nucleotide-gated channel (HCN2) mRNA in the rat heart. Pachucki J, et al. **Circ Res** 1999 Sep 17;85(6):498-503

Variant estrogen and progesterone receptor messages in human vascular smooth muscle. Hodges YK, et al. **Circulation** 1999 May 25;99(20):2688-93

Dilated cardiomyopathy is associated with significant changes in collagen type I/III ratio. Pauschinger M, et al. **Circulation** 1999 Jun 1;99(21):2750-6

Endothelin-1 and its mRNA in the wall layers of human arteries ex vivo. Rossi GP, et al. **Circulation** 1999 Mar 9; 99(9):1147-55

Dihydropyrimidine dehydrogenase activity and messenger RNA level may be related to the antitumor effect of 5-fluorouracil on human tumor xenografts in nude mice. Ishikawa Y, et al. **Clin Cancer Res** 1999 Apr;5(4):883-9

Expression profile of prostate-specific antigen messenger RNA assessed by in situ hybridization is a novel prognostic marker for patients with untreated prostate cancer. Tsurusaki T, et al. **Clin Cancer Res** 1998 Sep;4(9):2187-94

Allele-specific differences in apolipoprotein C-III mRNA expression in human liver. Esterbauer H, et al. **Clin Chem** 1999 Mar;45(3):331-9

Cloning and sequence of partial cDNAs encoding the human type V and VI adenylyl cyclases and subsequent RNA-quantification in various tissues. Raimundo S, et al. **Clin Chim Acta** 1999 Jul;285(1-2):155-61

Regulation and tissue distribution of the human sodium iodide symporter gene. Ajjan RA, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):517-23

Expression of the androgen metabolizing enzyme UGT2B15 in adipose tissue and relative expression measurement using a competitive RT-PCR method. Tchernof A, et al. **Clin Endocrinol (Oxf)** 1999 May;50(5):637-42

Peripheral blood T lymphocytes from asthmatic patients are primed for enhanced expression of interleukin (IL)-4 and IL-5 mRNA: associations with lung function and serum IgE. Borger P, et al. **Clin Exp Allergy** 1999 Jun;29(6):772-9

GM-CSF, IL-5 and RANTES immunoreactivity and mRNA expression in chronic hyperplastic sinusitis with nasal polyposis (NP). Hamilos DL, et al. **Clin Exp Allergy** 1998 Sep;28(9):1145-52

The interleukin-5 messenger RNA expression in a patient with idiopathic hypereosinophilic syndrome. Ho KK, et al. **Clin Exp Allergy** 1998 Jul;28(7):889-92

Imbalance of IL-1 beta and IL-1 receptor antagonist mRNA in liver tissue from hepatitis C virus (HCV)-related chronic hepatitis. Gramantieri L, et al. **Clin Exp Immunol** 1999 Mar; 115(3):515-20

Anti-proliferative effects of unmodified antisense oligodeoxynucleotides targeted against c-raf mRNA: use of poly (lysine/serine) copolymers or cationic lipopolyamines. Aoki Y, et al. **Clin Exp Pharmacol Physiol** 1998 Sep;25(9):702-5

Uncoupling protein mRNA, mitochondrial GTP-binding, and T4 5'-deiodinase activity of brown adipose tissue in Daurian ground squirrel during hibernation and arousal. Liu XT, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Aug; 120(4):745-52

Lipoprotein lipase activity and mRNA levels in bovine tissues. Hocquette JF, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):201-12

Effect of pentoxifylline on survival and intestinal cytokine messenger RNA transcription in a rat model of ongoing peritoneal sepsis [see comments] Nelson JL, et al. **Crit Care Med** 1999 Jan;27(1):113-9. Comment in: Crit Care Med 1999 Jan;27(1):19-20.

Localization and anchoring of mRNA in budding yeast. Beach DL, et al. **Curr Biol** 1999 Jun 3;9(11):569-78

ASH1 mRNA localization in yeast involves multiple secondary structural elements and Ash1 protein translation. Gonzalez I, et al. **Curr Biol** 1999 Mar 25;9(6):337-40

Movement of nuclear poly(A) RNA throughout the interchromatin space in living cells. Politz JC, et al. **Curr Biol** 1999 Mar 25;9(6):285-91

Defensin gene expression in the cornea. Gottsch JD, et al. **Curr Eye Res** 1998 Nov;17(11):1082-6

Expression of pI(Cln) mRNA in cultured bovine lens epithelial cells: response to changes in cell volume. Reeves RE, et al. **Curr Eye Res** 1998 Sep;17(9):861-9

Expression of vascular endothelial growth factor and its receptor (KDR/flk-1) mRNA in experimental choroidal neovascularization. Wada M, et al. **Curr Eye Res** 1999 Mar; 18(3):203-13

mRNA polyadenylation and its coupling to other RNA processing reactions and to transcription. Minvielle-Sebastia L, et al. **Curr Opin Cell Biol** 1999 Jun; 11(3):352-7 (52 ref.)

RNA trafficking in myelinating cells. Carson JH, et al. **Curr Opin Neurobiol** 1998 Oct;8(5):607-12 (44 ref.)

IP-10 mRNA expression in cultured keratinocytes is suppressed by inhibition of protein kinase-C and tyrosine kinase and elevation of cAMP. Boorsma DM, et al. **Cytokine** 1999 Jul;11(7):469-75

Ingested interferon alpha induces Mx mRNA. Brod SA, et al. **Cytokine** 1999 Jul;11(7):492-9

Elastic nevus with normal expression of elastin and elastin-related proteins mRNAs. Ohnishi Y, et al. **Dermatology** 1999;198(3):307-9

Translational recruitment of Xenopus maternal mRNAs in response to poly(A) elongation requires initiation factor eIF4G-1. Keiper BD, et al. **Dev Biol** 1999 Feb 1; 206(1):1-14

Neurturin mRNA expression suggests roles in trigeminal innervation of the first branchial arch and in tooth formation. Luukko K, et al. **Dev Dyn** 1998 Oct; 213(2):207-19

Slug mRNA is expressed by specific mesodermal derivatives during rodent organogenesis. Savagner P, et al. **Dev Dyn** 1998 Oct;213(2):182-7

Identification of mRNA-binding proteins during development: characterization of Bufo arenarum cellular nucleic acid binding protein. Calcaterra NB, et al. **Dev Growth Differ** 1999 Apr;41(2):183-91

An alternatively spliced gene encoding a Y-box protein showing maternal expression and tissue-specific zygotic expression in the ascidian embryo. Wada MR, et al. **Dev Growth Differ** 1998 Dec;40(6):631-40

IDDM patients neither show humoral reactivities against endogenous retroviral envelope protein nor do they differ in retroviral mRNA expression from healthy relatives or normal individuals. Badenhoop K, et al. **Diabetes** 1999 Jan; 48(1):215-8

Leptin receptor mRNA identifies a subpopulation of neuropeptide Y neurons activated by fasting in rat hypothalamus. Baskin DG, et al. **Diabetes** 1999 Apr; 48(4):828-33

Downregulation of uncoupling protein 2 mRNA in white adipose tissue and uncoupling protein 3 mRNA in skeletal muscle during the early stages of leptin treatment. Combatsiaris TP, et al. **Diabetes** 1999 Jan;48(1):128-33

Intra- and extrahepatic leukocytes and cytokine mRNA expression during liver regeneration after partial hepatectomy in rats. Sato Y, et al. **Dig Dis Sci** 1999 Apr; 44(4):806-16

Maternal transcripts of mitotic checkpoint gene, Xbub3, are accumulated in the animal blastomeres of Xenopus early embryo. Goto T, et al. **DNA Cell Biol** 1999 Mar; 18(3):227-34

Cytoplasmic proteins interact with a translational control element in the protein-coding region of proopiomelanocortin mRNA. Spencer CM, et al. **DNA Cell Biol** 1999 Jan;18(1):39-49

Leptin mRNA expression and serum leptin concentrations as influenced by age, weight, and estradiol in pigs. Qian H, et al. **Domest Anim Endocrinol** 1999 Feb;16(2):135-43

Joint action of two RNA degradation pathways controls the timing of maternal transcript elimination at the midblastula transition in Drosophila melanogaster. Bashirullah A, et al. **EMBO J** 1999 May 4;18(9):2610-20

TAP binds to the constitutive transport element (CTE) through a novel RNA-binding motif that is sufficient to promote CTE-dependent RNA export from the nucleus. Braun IC, et al. **EMBO J** 1999 Apr 1;18(7):1953-65

hnRNP A/B proteins are required for inhibition of HIV-1 pre-mRNA splicing. Caputi M, et al. **EMBO J** 1999 Jul 15;18(14):4060-7

Assaying RNA chaperone activity in vivo using a novel RNA folding trap. Clodi E, et al. **EMBO J** 1999 Jul 1; 18(13):3776-82

Cytoplasmic polyadenylation elements mediate masking and unmasking of cyclin B1 mRNA. de Moor CH, et al. **EMBO J** 1999 Apr 15;18(8):2294-303

Polyadenylation accelerates the degradation of the mitochondrial mRNA associated with cytoplasmic male sterility in sunflower. Gagliardi D, et al. **EMBO J** 1999 Jul 1;18(13):3757-66

Intronless mRNA transport elements may affect multiple steps of pre-mRNA processing. Huang Y, et al. **EMBO J** 1999 Mar 15;18(6):1642-52

A newly identified N-terminal amino acid sequence of human eIF4G binds poly(A)-binding protein and functions in poly(A)-dependent translation. Imataka H, et al. **EMBO J** 1998 Dec 15;17(24):7480-9

The Mex67p-mediated nuclear mRNA export pathway is conserved from yeast to human. Katahira J, et al. **EMBO J** 1999 May 4;18(9):2593-609

The deadenylating nuclease (DAN) is involved in poly(A) tail removal during the meiotic maturation of Xenopus oocytes. Körner CG, et al. **EMBO J** 1998 Sep 15; 17(18):5427-37

c-jun N-terminal kinase is involved in AUUUA-mediated

interleukin-3 mRNA turnover in mast cells. Ming XF, et al. **EMBO J** 1998 Oct 15;17(20):6039–48
The NES-Crm1p export pathway is not a major mRNA export route in Saccharomyces cerevisiae. Neville M, et al. **EMBO J** 1999 Jul 1;18(13):3746–56
A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. Pannone BK, et al. **EMBO J** 1998 Dec 15;17(24):7442–53
Involvement of Arabidopsis thaliana ribosomal protein S27 in mRNA degradation triggered by genotoxic stress. Revenkova E, et al. **EMBO J** 1999 Jan 15;18(2):490–9
Dbp5, a DEAD-box protein required for mRNA export, is recruited to the cytoplasmic fibrils of nuclear pore complex via a conserved interaction with CAN/Nup159p. Schmitt C, et al. **EMBO J** 1999 Aug 2;18(15):4332–47
Post-termination ribosome interactions with the 5'UTR modulate yeast mRNA stability. Vilela C, et al. **EMBO J** 1999 Jun 1;18(11):3139–52
Changes in interleukin-1beta mRNA expression in the rat ovary during the estrous cycle in response to lipopolysaccharide. Nakamura Y, et al. **Endocr J** 1999 Apr; 46(2):293–300
ACTH receptor mRNA in human adrenocortical tumors: overexpression in aldosteronomas. Arnaldi G, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):845–9
Regulation of p75kip2 and steroidogenic enzyme mRNA during adrenal regeneration. Fraticelli AI, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):975–6
ACTH regulates LDL receptor and CLA-1 mRNA in the rat adrenal cortex. Heikkilä P, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):591–3
Effects of ACTH and cytokines on dehydroepiandrosterone sulfotransferase messenger RNA in human adrenal cells. Parker CR Jr, et al. **Endocr Res** 1998 Aug-Nov; 24(3-4):669–73
Progesterone regulates beta-catenin mRNA levels in human endometrial stromal cells in vitro. Chen GT, et al. **Endocrine** 1998 Dec;9(3):263–7
Ovine prostaglandin F2alpha receptor: steroid influence on steady-state levels of luteal mRNA. Hoyer PB, et al. **Endocrine** 1999 Apr;10(2):105–11
Luteal expression of steroidogenic factor-1 mRNA during the estrous cycle and in response to luteotropic and luteolytic stimuli in ewes. Juengel JL, et al. **Endocrine** 1998 Dec;9(3):227–32
Expression and hormonal regulation of the high-density lipoprotein (HDL) receptor scavenger receptor class B type I messenger ribonucleic acid in the rat ovary. McLean MP, et al. **Endocrine** 1998 Dec;9(3):243–52
Regulation of prostaglandin F2alpha-receptor mRNA in human granulosa-luteal cells by human chorionic gonadotrophin and prostaglandin F2alpha. Väänänen JE, et al. **Endocrine** 1998 Jun;8(3):261–7
Effect of transforming growth factor-beta1 on parathyroid hormone-related protein secretion and mRNA expression by normal human keratinocytes in vitro. Werkmeister JR, et al. **Endocrine** 1998 Jun;8(3):291–9
Changes in mediobasal hypothalamic gonadotropin-releasing hormone messenger ribonucleic acid levels induced by mating or ovariectomy in a reflex ovulator, the ferret. Bakker J, et al. **Endocrinology** 1999 Feb;140(2):595–602
Activation of SOCS-3 messenger ribonucleic acid in the hypothalamus by ciliary neurotrophic factor. Bjørbaek C, et al. **Endocrinology** 1999 May;140(5):2035–43
Gamma-aminobutyric acid up-regulates the expression of a novel secretogranin-II messenger ribonucleic acid in the goldfish pituitary. Blázquez M, et al. **Endocrinology** 1998 Dec;139(12):4870–80
Dual regulation of promoter II- and promoter If-derived cytochrome P450 aromatase transcripts in equine granulosa cells during human chorionic gonadotropin-induced ovulation: a novel model for the study of aromatase promoter switching. Boerboom D, et al. **Endocrinology** 1999 Sep;140(9):4133–41
Transient expression of c-erbAbeta1 messenger ribonucleic acid and beta1 thyroid hormone receptor early in adipogenesis of Ob 17 cells. Dace A, et al. **Endocrinology** 1999 Jul;140(7):2983–90
Chronic exposure to high glucose concentrations increases proglucagon messenger ribonucleic acid levels and glucagon release from InR1G9 cells. Dumonteil E, et al. **Endocrinology** 1999 Oct;140(10):4644–50
Human chorionic gonadotropin induces an inverse regulation of steroidogenic acute regulatory protein messenger ribonucleic acid in theca interna and granulosa cells of equine preovulatory follicles. Kerban A, et al. **Endocrinology** 1999 Feb;140(2):667–74
Studies of the hormonal regulation of type 2 5'-iodothyronine deiodinase messenger ribonucleic acid in pituitary tumor cells using semiquantitative reverse transcription-polymerase chain reaction. Kim SW, et al. **Endocrinology** 1998 Dec;139(12):4895–905
Reduced growth hormone receptor (GHR) messenger ribonucleic acid in liver of periparturient cattle is caused by a specific down-regulation of GHR 1A that is associated with decreased insulin-like growth factor I. Kobayashi Y, et al. **Endocrinology** 1999 Sep;140(9):3947–54
Concerted regulation of low density lipoprotein receptor gene expression by follicle-stimulating hormone and insulin-like growth factor I in porcine granulosa cells: promoter activation, messenger ribonucleic acid stability, and sterol feedback. LaVoie HA, et al. **Endocrinology** 1999 Jan;140(1):178–86
Gonadotropin stimulation of pituitary adenylate cyclase-activating polypeptide (PACAP) messenger ribonucleic acid in the rat ovary and the role of PACAP as a follicle survival factor. Lee J, et al. **Endocrinology** 1999 Feb;140(2):818–26
Regulation of androgen receptor messenger ribonucleic acid expression in the developing rat forebrain. McAbee MD, et al. **Endocrinology** 1999 Apr;140(4):1807–14
Expression of steroid receptor coactivator-1 mRNA in the developing mouse embryo: a possible role in olfactory epithelium development. Misiti S, et al. **Endocrinology** 1999 Apr;140(4):1957–60
Characterization of estrogen receptor-beta (ERbeta) messenger ribonucleic acid and protein expression in rat granulosa cells. O'Brien ML, et al. **Endocrinology** 1999 Oct; 140(10):4530–41
Expression of insulin-like growth factor I messenger ribonucleic acid in developing osteophytes in murine experimental osteoarthritis and in rats inoculated with growth hormone-secreting tumor. Okazaki K, et al. **Endocrinology** 1999 Oct;140(10):4821–30
Parathyroid hormone increases mac25/insulin-like growth factor-binding protein-related protein-1 expression in cultured osteoblasts. Pereira RC, et al. **Endocrinology** 1999 May;140(5):1998–2003
Expression of cytokine messenger ribonucleic acids in the bovine corpus luteum. Petroff MG, et al. **Endocrinology** 1999 Feb;140(2):1018–21
The effects of estrogen and progesterone on corticotropin-releasing hormone and arginine vasopressin messenger ribonucleic acid levels in the paraventricular nucleus and supraoptic nucleus of the rhesus monkey. Roy BN, et al. **Endocrinology** 1999 May;140(5):2191–8
Expression of peroxisome proliferator-activated receptor alpha messenger ribonucleic acid and protein in human and rat testis. Schultz R, et al. **Endocrinology** 1999 Jul; 140(7):2968–75
Evidence for the colocalization of estrogen receptor-beta mRNA and estrogen receptor-alpha immunoreactivity in neurons of the rat forebrain. Shughrue PJ, et al. **Endocrinology** 1998 Dec;139(12):5267–70
Discovery and characterization of endometrial epithelial messenger ribonucleic acids using the ovine uterine gland knockout model. Spencer TE, et al. **Endocrinology** 1999 Sep;140(9):4070–80
Regional expression of the type 3 iodothyronine deiodinase messenger ribonucleic acid in the rat central nervous system and its regulation by thyroid hormone. Tu HM, et al. **Endocrinology** 1999 Feb;140(2):784–90
Comparative distribution of vasopressin V1b and oxytocin receptor messenger ribonucleic acids in brain. Vaccari C, et al. **Endocrinology** 1998 Dec;139(12):5015–33
Estrogen receptor-beta messenger ribonucleic acid expression in the pituitary gland. Wilson ME, et al. **Endocrinology** 1998 Dec;139(12):5151–6
Quantitative analysis of oxytocin and vasopressin messenger ribonucleic acids in single magnocellular neurons isolated from supraoptic nucleus of rat hypothalamus. Xi D, et al. **Endocrinology** 1999 Oct;140(10):4677–82
The effect of tissue expansion on the expression of collagen type I and type III mRNA in distinct areas of skin in the dog as an animal model. Plenz G, et al. **Eur Arch Otorhinolaryngol** 1998;255(9):473–7
Cellular distribution and relative amounts of vascular endothelium growth factor mRNA in granulosa cells from human preovulatory follicles. Machelon V, et al. **Eur Cytokine Netw** 1999 Sep;10(3):393–402
The TNF-alpha system in heart failure and after heart transplantation: plasma protein levels, mRNA expression, soluble receptors and plasma buffer capacity. van Riemsdijk-van Overbeeke IC, et al. **Eur Heart J** 1999 Jun; 20(11):833–40
Proteasome-dependent cyst formation and stage-specific ubiquitin mRNA accumulation in Entamoeba invadens. Gonzalez J, et al. **Eur J Biochem** 1999 Sep;264(3):897–904
Preferential degradation of polyadenylated and polyuridinylated RNAs by the bacterial exoribonuclease polynucleotide phosphorylase. Lisitsky I, et al. **Eur J Biochem** 1999 Apr;261(2):468–74
Effects of contractile activity and hypothyroidism on nuclear hormone receptor mRNA isoforms in rat skeletal muscle. Schuler MJ, et al. **Eur J Biochem** 1999 Sep;264(3):982–8
Na,K-ATPase mRNA beta 1 expression in rat myocardium--effect of thyroid status. Shao Y, et al. **Eur J Biochem** 1999 Feb;260(1):1–8
Differences in cytokine mRNA profiles between premalignant and malignant lesions of the uterine cervix. de Gruijl TD, et al. **Eur J Cancer** 1999 Mar;35(3):490–7
Vascular endothelial growth factor is implicated in early invasion in cervical cancer. Kodama J, et al. **Eur J Cancer** 1999 Mar;35(3):485–9
bcl-2 expression is reciprocal to p53 and c-myc expression in metastatic human colorectal cancer. Popescu RA, et al. **Eur J Cancer** 1998 Jul;34(8):1268–73
High gastrin releasing peptide receptor mRNA level is related to tumour dedifferentiation and lymphatic vessel invasion in human colon cancer. Saurin JC, et al. **Eur J Cancer** 1999 Jan;35(1):125–32
Norepinephrine, tri-iodothyronine and insulin upregulate glyceraldehyde-3-phosphate dehydrogenase mRNA during Brown adipocyte differentiation. Barroso I, et al. **Eur J Endocrinol** 1999 Aug;141(2):169–79
IL-8 mRNA expression by in situ hybridisation in human pituitary adenomas. Suliman ME, et al. **Eur J Endocrinol** 1999 Feb;140(2):155–8
A tale of tags: report on a HUGO/EU SAGE workshop, 29 January-1 February 1999, Hilversum, The Netherlands. Baas F, et al. **Eur J Hum Genet** 1999 May-Jun;7(4):510–2
Distribution of the voltage-dependent calcium channel alpha1G subunit mRNA and protein throughout the mature rat brain. Craig PJ, et al. **Eur J Neurosci** 1999 Aug; 11(8):2949–64
Expression of the GABA(A) receptor gamma 4-subunit gene: anatomical distribution of the corresponding mRNA in the domestic chick forebrain and the effect of imprinting training. Harvey RJ, et al. **Eur J Neurosci** 1998 Sep; 10(9):3024–8
Rhythmic variation in beta1-adrenergic receptor mRNA levels in the rat pineal gland: circadian and developmental regulation. Pfeffer M, et al. **Eur J Neurosci** 1998 Sep; 10(9):2896–904
Patterns of expression for the mRNA corresponding to the four isoforms of phospholipase Cbeta in mouse brain. Watanabe M, et al. **Eur J Neurosci** 1998 Jun;10(6):2016–25
Gender difference in levels of alpha2-adrenoceptor mRNA in the rat tail artery. McNeill AM, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):233–6
Altered ratio of endothelin ET(A)- and ET(B) receptor mRNA in bronchial biopsies from patients with asthma and chronic airway obstruction. Möller S, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):R1–3
GABAergic inhibition in the rat pontine nuclei is exclusively extrinsic: evidence from an in situ hybridization study for GAD67 mRNA. Möck M, et al. **Exp Brain Res** 1999 Feb; 124(4):529–32
Modulation of mRNA expression of the neurotrophins of the nerve-growth-factor family and their receptors in the septum and hippocampus of rats after transient postnatal thyroxine treatment. II. Effects on p75 and trk receptor expression. Roskoden T, et al. **Exp Brain Res** 1999 Aug; 127(3):307–13
Mechanisms of age-related changes in gonadotropin-releasing hormone receptor messenger ribonucleic acid content in the anterior pituitary of male rats. Shinkai T, et al. **Exp Gerontol** 1999 Apr;34(2):267–73
Chemokine mRNA alterations in newborn and adult mouse lung during acute hyperoxia. D'Angio CT, et al. **Exp Lung Res** 1998 Sep-Oct;24(5):685–702
Differential effects in vivo of thyroid hormone on the expression of surfactant phospholipid, surfactant protein mRNA and antioxidant enzyme mRNA in fetal rat lung. Ramadurai SM, et al. **Exp Lung Res** 1998 Sep-Oct; 24(5):641–57
Glucose decreases steady state mRNA content of hydrophobic surfactant proteins B and C in fetal rat lung explants. Rayani HH, et al. **Exp Lung Res** 1999 Jan-Feb; 25(1):69–79
A comparative kinetic RT/-PCR strategy for the quantitation of mRNAs in microdissected human renal biopsy specimens. Del Prete D, et al. **Exp Nephrol** 1998 Nov-Dec;6(6):563–7
mRNA expression of renal urea transporters in normal and Brattleboro rats: effect of dietary protein intake. Hu MC, et al. **Exp Nephrol** 1999 Jan-Feb;7(1):44–51
Acute and chronic effects of hyperosmolality on mRNA and protein expression and the activity of Na-K-ATPase in the IMCD. Takayama M, et al. **Exp Nephrol** 1999 Jul-Aug; 7(4):295–305
Glycoprotein 330/megalin (LRP-2) has low prevalence as mRNA and protein in brain microvessels and choroid plexus. Chun JT, et al. **Exp Neurol** 1999 May; 157(1):194–201
The Guam cycad toxin methylazoxymethanol damages neuronal DNA and modulates tau mRNA expression and excitotoxicity. Esclaire F, et al. **Exp Neurol** 1999 Jan; 155(1):11–21
Streptozotocin-induced diabetes mellitus causes changes in primary sensory neuronal cytoskeletal mRNA levels that mimic those caused by axotomy. Liuzzi FJ, et al. **Exp Neurol** 1998 Dec;154(2):381–8
Molecular modelling of the biosynthesis of the RNA-editing enzyme APOBEC-1, responsible for generating the alternative forms of apolipoprotein B. Scott J, et al. **Exp Physiol** 1999 Jul;84(4):791–800
The travels of mRNAs through all cells large and small [see comments] Bassell GJ, et al. **FASEB J** 1999 Mar; 13(3):447–54 (79 ref.). Comment in: FASEB J 1999 Mar;13(3):419–20.
Acute hyperglycemia regulates transcription and posttranscriptional stability of PKCbetaII mRNA in vascular smooth muscle cells. Patel NA, et al. **FASEB J** 1999 Jan;13(1):103–13
Identification of a splice variant mRNA of p40phox, an NADPH oxidase component of phagocytes. Hasebe T, et al. **FEBS Lett** 1999 Jul 23;455(3):257–61
Overexpression of poly(A)-binding protein down-regulates the translation or the abundance of its own mRNA. Hornstein E, et al. **FEBS Lett** 1999 Aug 27;457(2):209–13
Increased uncoupling protein-2 and -3 gene expressions in skeletal muscle of STZ-induced diabetic rats. Kageyama H, et al. **FEBS Lett** 1998 Dec 4;440(3):450–3
Drosophila ferritin mRNA: alternative RNA splicing

regulates the presence of the iron-responsive element. Lind MI, et al. **FEBS Lett** 1998 Oct 9;436(3):476–82

Discrimination of 5'-terminal start codons by translation initiation factor 3 is mediated by ribosomal protein S1. Moll I, et al. **FEBS Lett** 1998 Oct 2;436(2):213–7

A p38 MAP kinase inhibitor regulates stability of interleukin-1-induced cyclooxygenase-2 mRNA. Ridley SH, et al. **FEBS Lett** 1998 Nov 13;439(1–2):75–80

Binding of neuronal ELAV-like proteins to the uridine-rich sequence in the 3'-untranslated region of tumor necrosis factor-alpha messenger RNA. Sakai K, et al. **FEBS Lett** 1999 Mar 5;446(1):157–62

Alternative splicing generates multiple mRNA forms of the acetylcholine receptor gamma-subunit in rat muscle. Villarroel A. **FEBS Lett** 1999 Jan 29;443(3):381–4

A comparative analysis of the citrate permease P mRNA stability in Lactococcus lactis biovar diacetylactis and Escherichia coli. Drider D, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):115–22

mRNA degradation in bacteria. Rauhut R, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):353–70 (113 ref.)

3'-End processing of pre-mRNA in eukaryotes. Wahle E, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):277–95 (141 ref.)

Expression of cell cycle regulating factor mRNA in small cell lung cancer xenografts. Krarup M, et al. **Folia Microbiol (Praha)** 1998;43(5):501–3

Functional, endogenously expressed corticotropin-releasing factor receptor type 1 (CRF1) and CRF1 receptor mRNA expression in human neuroblastoma SH-SY5Y cells. Schoeffter P, et al. **Fundam Clin Pharmacol** 1999; 13(4):484–9

An alternatively spliced form of apobec-1 messenger RNA is overexpressed in human colon cancer. Lee RM, et al. **Gastroenterology** 1998 Nov;115(5):1096–103

Effects of photoperiod on salmon GnRH mRNA levels in brain of castrated underyearling precocious male masu salmon. Amano M, et al. **Gen Comp Endocrinol** 1999 Jul; 115(1):70–5

Post-transcriptional control of the level of mRNA by hepatitis B virus X gene in the transient expression system using human hepatic cells. Shimazu T, et al. **Genes Cells** 1998 Jul;3(7):477–84

Involvement of CRM1, a nuclear export receptor, in mRNA export in mammalian cells and fission yeast. Watanabe M, et al. **Genes Cells** 1999 May;4(5):291–7

The RNA cleavage activity of RNA polymerase III is mediated by an essential TFIIS-like subunit and is important for transcription termination. Chédin S, et al. **Genes Dev** 1998 Dec 15;12(24):3857–71

mRNA stabilization by poly(A) binding protein is independent of poly(A) and requires translation. Coller JM, et al. **Genes Dev** 1998 Oct 15;12(20):3226–35

ELAV proteins stabilize deadenylated intermediates in a novel in vitro mRNA deadenylation/degradation system. Ford LP, et al. **Genes Dev** 1999 Jan 15;13(2):188–201

The human Tap protein is a nuclear mRNA export factor that contains novel RNA-binding and nucleocytoplasmic transport sequences. Kang Y, et al. **Genes Dev** 1999 May 1;13(9):1126–39

Uncoupling of the hnRNP Npl3p from mRNAs during the stress-induced block in mRNA export. Krebber H, et al. **Genes Dev** 1999 Aug 1;13(15):1994–2004

Unraveling a cytoplasmic role for hnRNP D in the in vivo mRNA destabilization directed by the AU-rich element. Loflin P, et al. **Genes Dev** 1999 Jul 15;13(14):1884–97

Transcription elongation factor hSPT5 stimulates mRNA capping. Wen Y, et al. **Genes Dev** 1999 Jul 15;13(14):1774–9

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315–25

Characterization of the ptr6(+) gene in fission yeast: a possible involvement of a transcriptional coactivator TAF in nucleocytoplasmic transport of mRNA. Shibuya T, et al. **Genetics** 1999 Jul;152(3):869–80

Cosegregation of single genes associated with fertility restoration and transcript processing of sorghum mitochondrial orf107 and urf209. Tang HV, et al. **Genetics** 1998 Sep;150(1):383–91

Regulation of mRNA export by nutritional status in fission yeast. Whalen WA, et al. **Genetics** 1999 Jul;152(3):827–38

Effect of TPA on aquaporin 4 mRNA expression in cultured rat astrocytes. Nakahama K, et al. **Glia** 1999 Feb 1; 25(3):240–6

Mucin gene expression in human embryonic and fetal intestine. Buisine MP, et al. **Gut** 1998 Oct;43(4):519–24

bax, but not bcl-2, influences the prognosis of human pancreatic cancer. Friess H, et al. **Gut** 1998 Sep; 43(3):414–21

Potassium channel ether à go-go mRNA expression in the spiral ligament of the rat. Lecain E, et al. **Hear Res** 1999 Jul;133(1–2):133–8

Increase in glutamate-aspartate transporter (GLAST) mRNA during kanamycin-induced cochlear insult in rats. Matsuda K, et al. **Hear Res** 1999 Jul;133(1–2):10–6

Spatial representation of frequency in the rat dorsal nucleus of the lateral lemniscus as revealed by acoustically induced c-fos mRNA expression. Saint Marie RL, et al. **Hear Res** 1999 Feb;128(1–2):70–4

Association between the degree of platelet-derived growth factor-A chain mRNA expression and coronary arteriosclerosis in the transplanted heart. Hachida M, et al. **Heart Vessels** 1998;13(1):24–9

DNA hypermethylation at the D17S5 locus and reduced HIC-1 mRNA expression are associated with hepatocarcinogenesis. Kanai Y, et al. **Hepatology** 1999 Mar; 29(3):703–9

Altered microtubule-associated tau messenger RNA isoform expression in livers of griseofulvin- and 3,5-diethoxycarbonyl-1, 4-dihydrocollidine-treated mice. Kenner L, et al. **Hepatology** 1999 Mar;29(3):793–800

Differential expression of apolipoprotein E messenger RNA within the rat liver lobule determined by in situ hybridization. Massimi M, et al. **Hepatology** 1999 May; 29(5):1549–55

Neurons with choline acetyltransferase immunoreactivity and mRNA are present in the human cerebral cortex. Kasashima S, et al. **Histochem Cell Biol** 1999 Mar; 111(3):197–207

Improved mRNA in situ hybridization on formaldehyde-fixed and paraffin-embedded tissue using signal amplification with different haptenized tyramides. Speel EJ, et al. **Histochem Cell Biol** 1998 Dec;110(6):571–7

Investigation of tissue preparation conditions for non-radioactive in situ hybridization: localization of transforming growth factor-alpha message in rat kidney. Liu JY, et al. **Histochem J** 1998 Nov;30(11):793–8

Expression of transforming growth factor-beta1 and transforming growth factor-beta Type-II receptor mRNA in papillary thyroid carcinoma. Matoba H, et al. **Horm Metab Res** 1998 Oct;30(10):624–8

Age- and sex-related changes in type-1 iodothyronine deiodinase messenger ribonucleic acid in rat liver and kidney. Ogawa Y, et al. **Horm Metab Res** 1999 May; 31(5):295–9

Steroid receptor mRNA levels in human corpus luteum. Misao R, et al. **Horm Res** 1998 Sep;50(3):155–9

Detection of a normally rare transcript in propionic acidemia patients with mRNA destabilizing mutations in the PCCA gene. Campeau E, et al. **Hum Mol Genet** 1999 Jan; 8(1):107–13

Detection of EWS-WT1 fusion mRNA in ascites of a patient with desmoplastic small round cell tumor by RT-PCR. Perez RP, et al. **Hum Pathol** 1999 Feb;30(2):239–42

Insulin-like growth factor binding protein-3 mRNA expression in endothelial cells of the primate corpus luteum. Fraser HM, et al. **Hum Reprod** 1998 Aug;13(8):2180–5

Expression of interleukin-1 system mRNA in single blastomeres from human preimplantation embryos. Krüssel JS, et al. **Hum Reprod** 1998 Aug;13(8):2206–11

Genetic disruption of the murine complement C3 promoter region generates deficient mice with extrahepatic expression of C3 mRNA. Circolo A, et al. **Immunopharmacology** 1999 May;42(1–3):135–49

Immunomodulatory effects of IFNbeta-1b on the mRNA-expression of TGFbeta-1 and TNFalpha in vitro. Ossege LM, et al. **Immunopharmacology** 1999 Jun; 43(1):39–46

Matrix mRNA levels in ligament tissue versus cells [letter] Donnelly NI, et al. **In Vitro Cell Dev Biol Anim** 1998 Sep; 34(8):617–8

1,25-dihydroxyvitamin D3 inhibits parathyroid hormone-related peptide mRNA expression in fetal rat long bones in culture. Karmali R, et al. **In Vitro Cell Dev Biol Anim** 1999 May;35(5):296–8

Induction of heat shock protein expression in cervical epithelial cells by human semen. Jeremias JC, et al. **Infect Dis Obstet Gynecol** 1999;7(1–2):17–22

Ehrlichia chaffeensis and E. sennetsu, but not the human granulocytic ehrlichiosis agent, colocalize with transferrin receptor and up-regulate transferrin receptor mRNA by activating iron-responsive protein 1. Barnewall RE, et al. **Infect Immun** 1999 May;67(5):2258–65

Human beta-defensin-1 mRNA is transcribed in tympanic membrane and adjacent auditory canal epithelium. Bøe R, et al. **Infect Immun** 1999 Sep;67(9):4843–6

A truncated form of mannose-binding lectin-associated serine protease (MASP)-2 expressed by alternative polyadenylation is a component of the lectin complement pathway. Takahashi M, et al. **Int Immunol** 1999 May; 11(5):859–63

Control of mRNA turnover as a mechanism of glucose repression in Saccharomyces cerevisiae. Scheffler IE, et al. **Int J Biochem Cell Biol** 1998 Nov;30(11):1175–93 (113 ref.)

Determination of mRNA, and protein levels of p53, MDM2 and protein kinase CK2 subunits in F9 cells after treatment with the apoptosis-inducing drugs cisplatin and carboplatin. Siemer S, et al. **Int J Biochem Cell Biol** 1999 Jun;31(6):661–70

Overexpression of sense or antisense human gastrin mRNA does not affect proliferation of normal rat kidney fibroblasts. Yang Z, et al. **Int J Biochem Cell Biol** 1999 Mar-Apr;31(3–4):509–18

Expression of alternatively spliced mdm2 transcripts correlates with stabilized wild-type p53 protein in human glioblastoma cells. Kraus A, et al. **Int J Cancer** 1999 Mar 15;80(6):930–4

Posttranscriptional regulation of oligodendroglial thyroid hormone (T3) receptor beta 1 by T3. Baas D, et al. **Int J Dev Neurosci** 1998 Oct;16(6):461–7

Neuroreceptor mRNA expression in the rat mesenteric artery develops independently of innervation. Phillips JK, et al. **Int J Dev Neurosci** 1999 Jul;17(4):377–86

Tissue-specific alternative mRNA splicing of phenylethanolamine N-methyltransferase (PNMT) during development by intron retention. Unsworth BR, et al. **Int J Dev Neurosci** 1999 Feb;17(1):45–55

Time-dependent expression of interleukin-10 (IL-10) mRNA during the early phase of skin wound healing as a possible indicator of wound vitality. Ohshima T, et al. **Int J Legal Med** 1998;111(5):251–5

Effects of dietary deprivation, obesity and exercise on UCP3 mRNA levels. Giacobino JP. **Int J Obes Relat Metab Disord** 1999 Jun;23 Suppl 6:S60–3 (20 ref.)

Relationships of PPARgamma and PPARgamma2 mRNA levels to obesity, diabetes and hyperinsulinaemia in rhesus monkeys. Hotta K, et al. **Int J Obes Relat Metab Disord** 1998 Oct;22(10):1000–10

Brain distribution of UCP2 mRNA: in situ hybridization histochemistry studies. Richard D, et al. **Int J Obes Relat Metab Disord** 1999 Jun;23 Suppl 6:S53–5 (11 ref.)

Detection of basic fibroblast growth factor mRNA in urinary bladder cancer: correlation with local relapses. Gazzaniga P, et al. **Int J Oncol** 1999 Jun;14(6):1123–7

Protein synthesis inhibitor-mediated stability of adenomatous polyposis coli mRNA levels in HCT-116 colon cancer cells. Jaiswal AS, et al. **Int J Oncol** 1999 Jun;14(6):1045–8

Alternative splicing, but not allelic loss, of the FHIT gene increases with development of lung cancer. Sato H, et al. **Int J Oncol** 1999 Jul;15(1):81–8

Constitutive expression of VEGF, VEGFR-1, and VEGFR-2 in normal eyes. Kim I, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2115–21

Inhibition of endotoxin-induced uveitis and potentiation of local TNF-alpha and interleukin-6 mRNA expression by interleukin-13. Marie O, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2275–82

Pancreatic lipase-related protein 1 mRNA in female mouse lacrimal gland. Remington SG, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1081–90

Modulation of myocilin/TIGR expression in human trabecular meshwork. Tamm ER, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2577–82

Lacrimal gland HGF, KGF, and EGF mRNA levels increase after corneal epithelial wounding. Wilson SE, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2185–90

Expression of alternatively spliced growth factor receptor isoforms in the human trabecular meshwork. Wordinger RJ, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):242–7

Selective degradation of nonsense beta-phosphodiesterase mRNA in the heterozygous rd mouse. Yan W, et al. **Invest Ophthalmol Vis Sci** 1998 Dec;39(13):2529–36

Prolonged noxious stimulation increases periaqueductal gray NMDA mRNA expression: a hybridization study using two different rat models for nociception. Renno WM. **Ir J Med Sci** 1998 Jul–Sep;167(3):181–92

Expression and localization of histamine H2 receptor messenger RNA in human nasal mucosa. Hirata N, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):944–9

Nasal eosinophilia and IL-5 mRNA expression in seasonal allergic rhinitis induced by natural allergen exposure: effect of topical corticosteroids. Masuyama K, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):610–7

Osteogenic protein-1 mRNA expression is selectively modulated after acute ischemic renal injury. Almanzar MM, et al. **J Am Soc Nephrol** 1998 Aug;9(8):1456–63

Temporal changes in mRNA expression for bikunin in the kidneys of rats during calcium oxalate nephrolithiasis. Iida S, et al. **J Am Soc Nephrol** 1999 May;10(5):986–96

Heparin-binding EGF-like growth factor mRNA is upregulated in the peri-infarct region of the remnant kidney model: in vitro evidence suggests a regulatory role in myofibroblast transformation. Kirkland G, et al. **J Am Soc Nephrol** 1998 Aug;9(8):1464–73

Angiotensin II inhibits inducible nitric oxide synthase in tubular MCT cells by a posttranscriptional mechanism. Wolf G, et al. **J Am Soc Nephrol** 1997 Apr;8(4):551–7

Tissue distribution of a peptide transporter mRNA in sheep, dairy cows, pigs, and chickens. Chen H, et al. **J Anim Sci** 1999 May;77(5):1277–83

Quantification of ovine and bovine calpain I, calpain II, and calpastatin mRNA by ribonuclease protection assay. Ilian MA, et al. **J Anim Sci** 1999 Apr;77(4):853–64

mRNA levels for alpha-subunit of prolyl 4-hydroxylase and fibrillar collagens in immobilized rat skeletal muscle. Han XY, et al. **J Appl Physiol** 1999 Jul;87(1):90–6

Importance of a 5' stem-loop for longevity of papA mRNA in Escherichia coli. Bricker AL, et al. **J Bacteriol** 1999 Jun;181(11):3587–90

Modification and application of self-trimming hairpin ribozymes to targeting a transcribed RNA in vitro. Komatsu Y, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):986–91

Biosynthesis of osteogenic growth peptide via alternative translational initiation at AUG85 of histone H4 mRNA. Bab I, et al. **J Biol Chem** 1999 May 14;274(20):14474–81

Polyadenylation promotes degradation of 3'-structured RNA by the Escherichia coli mRNA degradosome in vitro. Blum E, et al. **J Biol Chem** 1999 Feb 12;274(7):4009–16

Human cytoplasmic aconitase (Iron regulatory protein 1) is converted into its [3Fe-4S] form by hydrogen peroxide in vitro but is not activated for iron-responsive element

binding. Brazzolotto X, et al. **J Biol Chem** 1999 Jul 30; 274(31):21625–30

Evidence for a 3'–5' decay pathway for c–myc mRNA in mammalian cells. Brewer G. **J Biol Chem** 1999 Jun 4; 274(23):16174–9

Characterization of c–myc 3' to 5' mRNA decay activities in an in vitro system. Brewer G. **J Biol Chem** 1998 Dec 25;273(52):34770–4

The phosphorylation of protein S6 modulates the interaction of the 40 S ribosomal subunit with the 5'–untranslated region of a dictyostelium pre–spore–specific mRNA and controls its stability. Chiaberge S, et al. **J Biol Chem** 1998 Oct 16;273(42):27070–5

Translational control by an upstream open reading frame in the HER–2/neu transcript. Child SJ, et al. **J Biol Chem** 1999 Aug 20;274(34):24335–41

Antisense oligonucleotides containing modified bases inhibit in vitro translation of Leishmania amazonensis mRNAs by invading the mini–exon hairpin. Compagno D, et al. **J Biol Chem** 1999 Mar 19;274(12):8191–8

Reverse transcription–polymerase chain reaction products of alternatively spliced mRNAs form DNA heteroduplexes and heteroduplex complexes. Eckhart L, et al. **J Biol Chem** 1999 Jan 29;274(5):2613–5

Accumulation in marine sponge grafts of the mRNA encoding the main proteins of the cell adhesion system. Fernàndez–Busquets X, et al. **J Biol Chem** 1998 Nov 6; 273(45):29545–53

Mammalian Hsp70 and Hsp110 proteins bind to RNA motifs involved in mRNA stability. Henics T, et al. **J Biol Chem** 1999 Jun 11;274(24):17318–24

Identification of a large region of secondary structure in the 3'–untranslated region of chicken elastin mRNA with implications for the regulation of mRNA stability. Hew Y, et al. **J Biol Chem** 1999 May 14;274(20):14415–21

The eukaryotic polypeptide chain releasing factor (eRF3/GSPT) carrying the translation termination signal to the 3'–Poly(A) tail of mRNA. Direct association of erf3/GSPT with polyadenylate–binding protein. Hoshino S, et al. **J Biol Chem** 1999 Jun 11;274(24):16677–80

Possible involvement of proteasomes (prosomes) in AUUUA–mediated mRNA decay. Jarrousse AS, et al. **J Biol Chem** 1999 Feb 26;274(9):5925–30

Splicing of 5' introns dictates alternative splice selection of acetylcholinesterase pre–mRNA and specific expression during myogenesis. Luo ZD, et al. **J Biol Chem** 1998 Oct 23;273(43):28486–95

Human pancreatic islets express mRNA species encoding two distinct catalytically active isoforms of group VI phospholipase A2 (iPLA2) that arise from an exon–skipping mechanism of alternative splicing of the transcript from the iPLA2 gene on chromosome 22q13.1. Ma Z, et al. **J Biol Chem** 1999 Apr 2;274(14):9607–16

PIPPin is a brain–specific protein that contains a cold–shock domain and binds specifically to H1 degrees and H3.3 mRNAs. Nastasi T, et al. **J Biol Chem** 1999 Aug 20; 274(34):24087–93

Characterization of the translation–dependent step during iron–regulated decay of transferrin receptor mRNA. Posch M, et al. **J Biol Chem** 1999 Jun 4;274(23):16611–8

Regulation of human vascular endothelial growth factor mRNA stability in hypoxia by heterogeneous nuclear ribonucleoprotein L. Shih SC, et al. **J Biol Chem** 1999 Jan 15;274(3):1359–65

Increased high density lipoprotein (HDL), defective hepatic catabolism of ApoA–I and ApoA–II, and decreased ApoA–I mRNA in ob/ob mice. Possible role of leptin in stimulation of HDL turnover. Silver DL, et al. **J Biol Chem** 1999 Feb 12;274(7):4140–6

Hammerhead ribozyme cleavage of apolipoprotein B mRNA generates a truncated protein. Wang JP, et al. **J Biol Chem** 1999 Aug 20;274(34):24161–70

Editing of cytochrome b mRNA in physarum mitochondria. Wang SS, et al. **J Biol Chem** 1999 Jan 29;274(5):2725–31

TNF–alpha increases expression of IL–6 and ICAM–1 genes through activation of NF–kappaB in osteoblast–like ROS17/2.8 cells. Kurokouchi K, et al. **J Bone Miner Res** 1998 Aug;13(8):1290–9

A PCR analysis of ERalpha and ERbeta mRNA abundance in rats and the effect of ovariectomy. Lim SK, et al. **J Bone Miner Res** 1999 Jul;14(7):1189–96

Measurement of funny current (I(f)) channel mRNA in human atrial tissue: correlation with left atrial filling pressure and atrial fibrillation. Lai LP, et al. **J Cardiovasc Electrophysiol** 1999 Jul;10(7):947–53

Palmitoyl ascorbate: selective augmentation of procollagen mRNA expression compared with L–ascorbate in human intestinal smooth muscle cells. Rosenblat G, et al. **J Cell Biochem** 1999 Jun 1;73(3):312–20

Functional analysis of Tpr: identification of nuclear pore complex association and nuclear localization domains and a role in mRNA export. Bangs P, et al. **J Cell Biol** 1998 Dec 28;143(7):1801–12

RAE1 is a shuttling mRNA export factor that binds to a GLEBS–like NUP98 motif at the nuclear pore complex through multiple domains. Pritchard CE, et al. **J Cell Biol** 1999 Apr 19;145(2):237–54

Increased expression of the distal, but not of the proximal, Gata1 transcripts during differentiation of primary erythroid cells. Vannucchi AM, et al. **J Cell Physiol** 1999 Sep;180(3):390–401

Effect of insulin–like growth factor (IGF)–I and Des (1–3) IGF–I on the level of IGF binding protein–3 and IGF binding protein–3 mRNA in cultured porcine embryonic muscle cells. Yang F, et al. **J Cell Physiol** 1999 Feb; 178(2):227–34

Regulation of mRNA localization by transmembrane signalling: local interaction of HB–GAM (heparin–binding growth–associated molecule) with the cell surface localizes beta–actin mRNA. Fages C, et al. **J Cell Sci** 1998 Oct;111 (Pt 20):3073–80

Association of the class V myosin Myo4p with a localised messenger RNA in budding yeast depends on She proteins. Münchow S, et al. **J Cell Sci** 1999 May;112 (Pt 10):1511–8

A factor required for nonsense–mediated mRNA decay in yeast is exported from the nucleus to the cytoplasm by a nuclear export signal sequence. Shirley RL, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3129–43

Pre–mRNA and mRNA binding of human nuclear DNA helicase II (RNA helicase A). Zhang S, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1055–64

Expression of neuropeptide Y receptors mRNA and protein in human brain vessels and cerebromicrovascular cells in culture. Abounader R, et al. **J Cereb Blood Flow Metab** 1999 Feb;19(2):155–63

Experimental axonal injury triggers interleukin–6 mRNA, protein synthesis and release into cerebrospinal fluid. Hans VH, et al. **J Cereb Blood Flow Metab** 1999 Feb;19(2):184–94

Attenuated c–fos mRNA induction after middle cerebral artery occlusion in CREB knockout mice does not modulate focal ischemic injury. Hata R, et al. **J Cereb Blood Flow Metab** 1998 Dec;18(12):1325–35

Effect of cortical spreading depression on the levels of mRNA coding for putative neuroprotective proteins in rat brain. Karikó K, et al. **J Cereb Blood Flow Metab** 1998 Dec;18(12):1308–15

RET/PTC and RET tyrosine kinase expression in adult papillary thyroid carcinomas [see comments] Learoyd DL, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3631–5. Comment in: J Clin Endocrinol Metab 1999 Jun;84(6):2257–8.

Acute and short–term effects of growth hormone on insulin–like growth factors and their binding proteins: serum levels and hepatic messenger ribonucleic acid responses in humans. Olivecrona H, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):553–60

Reduced growth hormone receptor messenger ribonucleic acid in an aged man with chronic malnutrition and growth hormone resistance. Shuto Y, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2320–3

Widespread expression in adult rat forebrain of mRNA encoding high–affinity neurotensin receptor. Alexander MJ, et al. **J Comp Neurol** 1998 Dec 28;402(4):475–500

Distribution of glutamic acid decarboxylase mRNA in the forebrain of the rainbow trout as studied by in situ hybridization. Anglade I, et al. **J Comp Neurol** 1999 Jul 26;410(2):277–89

Cochlear ablation alters acoustically induced c–fos mRNA expression in the adult rat auditory brainstem. Luo L, et al. **J Comp Neurol** 1999 Feb 8;404(2):271–83

Distribution of the uncoupling protein 2 mRNA in the mouse brain. Richard D, et al. **J Comp Neurol** 1998 Aug 10; 397(4):549–60

Effects of stimulus frequency and intensity on c–fos mRNA expression in the adult rat auditory brainstem. Saint Marie RL, et al. **J Comp Neurol** 1999 Feb 8;404(2):258–70

Molecular cloning and tissue distribution of an avian D2 dopamine receptor mRNA from the domestic turkey (Maleagris gallopavo). Schnell SA, et al. **J Comp Neurol** 1999 May 17;407(4):543–54

Evidence for glycinergic respiratory neurons: Bötzinger neurons express mRNA for glycinergic transporter 2. Schreihofer AM, et al. **J Comp Neurol** 1999 May 17; 407(4):583–97

Different expressions of alpha–amino–3–hydroxy–5–methyl–4–isoxazole propionic acid and N–methyl–D–aspartate receptor subunit mRNAs between visceromotor and somatomotor neurons of the rat lumbosacral spinal cord. Shibata T, et al. **J Comp Neurol** 1999 Feb 8;404(2):172–82

Distribution of glutamic acid decarboxylase mRNA–containing neurons in rat medulla projecting to thoracic spinal cord in relation to monoaminergic brainstem neurons. Stornetta RL, et al. **J Comp Neurol** 1999 May 10;407(3):367–80

Molecular cloning of the cDNAs and distribution of the mRNAs encoding two somatostatin precursors in the African lungfish Protopterus annectens. Trabucchi M, et al. **J Comp Neurol** 1999 Aug 9;410(4):643–52

Mu– and delta–opioid receptor mRNAs are expressed in spinally projecting serotonergic and nonserotonergic neurons of the rostral ventromedial medulla. Wang H, et al. **J Comp Neurol** 1999 Feb 8;404(2):183–96

Distinct and interactive effects of d–amphetamine and haloperidol on levels of neurotensin and its mRNA in subterritories in the dorsal and ventral striatum of the rat. Zahm DS, et al. **J Comp Neurol** 1998 Nov 2;400(4):487–503

Regulation of messenger ribonucleic acid expression for gluconeogenic enzymes during glucagon infusions into lactating cows. She P, et al. **J Dairy Sci** 1999 Jun; 82(6):1153–63

Expression of Th1 and Th2 cytokine mRNAs in freshly isolated peripheral blood mononuclear cells of a patient with cutaneous paragonimiasis. Hatano Y, et al. **J Dermatol Sci** 1999 Feb;19(2):144–7

Effect of fasting on insulin receptor–related receptor messenger ribonucleic acid in rat kidney. Chrysis D, et al. **J Endocrinol** 1998 Nov;159(2):R9–R12

Tissue–specific changes of type I angiotensin II receptor and angiotensin–converting enzyme mRNA in angiotensinogen gene–knockout mice. Tamura K, et al. **J Endocrinol** 1999 Mar;160(3):401–8

Experimental cryptorchidism induces a change in the pattern of expression of LH receptor mRNA in rat testis after selective Leydig cell destruction by ethylene dimethane sulfonate. Tena–Sempere M, et al. **J Endocrinol** 1999 Apr; 161(1):131–41

Temporal changes in inhibin subunit mRNAs during atresia of preovulatory follicles in the rat. Uilenbroek JT, et al. **J Endocrinol** 1998 Nov;159(2):331–40

Effects of lactic acid bacteria ingestion of basal cytokine mRNA and immunoglobulin levels in the mouse. Tejada–Simon MV, et al. **J Food Prot** 1999 Mar; 62(3):287–91

PrP (prion) gene expression in sheep may be modulated by alternative polyadenylation of its messenger RNA. Goldmann W, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2275–83

Chronic stress associated with spousal caregiving of patients with Alzheimer's dementia is associated with downregulation of B–lymphocyte GH mRNA. Wu H, et al. **J Gerontol A Biol Sci Med Sci** 1999 Apr;54(4):M212–5

Mitochondrial transcript processing and restoration of male fertility in T–cytoplasm maize. Wise RP, et al. **J Hered** 1999 May–Jun;90(3):380–5

An optimized method for in situ hybridization with signal amplification that allows the detection of rare mRNAs. Yang H, et al. **J Histochem Cytochem** 1999 Apr; 47(4):431–46

Isoform–specific regulation of nitric oxide synthase mRNA in the kidney by sodium and blood pressure. Nadaud S, et al. **J Hypertens** 1998 Sep;16(9):1315–23

IL–4 and IFN–gamma increase steady state levels of polymeric Ig receptor mRNA in human airway and intestinal epithelial cells. Ackermann LW, et al. **J Immunol** 1999 May 1;162(9):5112–8

Regulation of CD154 (CD40 ligand) mRNA stability during T cell activation. Ford GS, et al. **J Immunol** 1999 Apr 1;162(7):4037–44

CD28 costimulation augments IL–2 secretion of activated lamina propria T cells by increasing mRNA stability without enhancing IL–2 gene transactivation. Gonsky R, et al. **J Immunol** 1999 Jun 1;162(11):6621–9

IL–18 up–regulates perforin–mediated NK activity without increasing perforin messenger RNA expression by binding to constitutively expressed IL–18 receptor. Hyodo Y, et al. **J Immunol** 1999 Feb 1;162(3):1662–8

Human endothelial cells augment early CD40 ligand expression in activated CD4+ T cells through LFA–3–mediated stabilization of mRNA. Murakami K, et al. **J Immunol** 1999 Sep 1;163(5):2667–73

The destabilization of IL–2 mRNA by a premature stop codon and its differential stabilization by trans–acting inhibitors of protein synthesis do not support a role for active translation in mRNA stability. Ragheb JA, et al. **J Immunol** 1999 Sep 15;163(6):3321–30

CD28–Mediated regulation of mRNA stability requires sequences within the coding region of the IL–2 mRNA. Ragheb JA, et al. **J Immunol** 1999 Jul 1;163(1):120–9

A non–AUG–defined alternative open reading frame of the intestinal carboxyl esterase mRNA generates an epitope recognized by renal cell carcinoma–reactive tumor–infiltrating lymphocytes in situ. Ronsin C, et al. **J Immunol** 1999 Jul 1;163(1):483–90

The inflammatory response to nonfatal Sindbis virus infection of the nervous system is more severe in SJL than in BALB/c mice and is associated with low levels of IL–4 mRNA and high levels of IL–10–producing CD4+ T cells. Rowell JF, et al. **J Immunol** 1999 Feb 1;162(3):1624–32

In vivo IL–12 production and IL–12 receptors beta1 and beta2 mRNA expression in the spleen are differentially up–regulated in resistant B6 and susceptible A/J mice during early blood–stage Plasmodium chabaudi AS malaria. Sam H, et al. **J Immunol** 1999 Feb 1;162(3):1582–9

Mechanism of catecholamine–mediated destabilization of messenger RNA encoding Thy–1 protein in T–lineage cells. Wajeman–Chao SA, et al. **J Immunol** 1998 Nov 1; 161(9):4825–33

Effective stimulation for IL–12 p35 mRNA accumulation and bioactive IL–12 production of antigen–presenting cells interacted with Th cells. Yamane H, et al. **J Immunol** 1999 Jun 1;162(11):6433–41

Expression and regulation of mRNA for putative fatty acid transport related proteins and fatty acyl CoA synthase in murine epidermis and cultured human keratinocytes. Harris IR, et al. **J Invest Dermatol** 1998 Nov;111(5):722–6

Modulation of irritation–induced increase of E–selectin mRNA in vivo by topically applied corticosteroids. Kukutsch NA, et al. **J Invest Dermatol** 1999 Aug; 113(2):170–4

Demonstration of iNOS–mRNA and iNOS in human monocytes stimulated with cancer cells in vitro. Siedlar M, et al. **J Leukoc Biol** 1999 May;65(5):597–604

Perinatal expression of genes that may participate in lipid metabolism by lipid–laden lung fibroblasts. Chen H, et al. **J Lipid Res** 1998 Dec;39(12):2483–92

Mutational analysis of apolipoprotein B mRNA editing enzyme (APOBEC1). structure-function relationships of RNA editing and dimerization. Teng BB, et al. **J Lipid Res** 1999 Apr;40(4):623–35

A polyadenylylation-specific RNA-contact site on the surface of the bifunctional vaccinia virus RNA modifying protein VP39 that is distinct from the mRNA 5' end-binding "cleft". Deng L, et al. **J Mol Biol** 1999 Jan 29;285(4):1417–27

Binding of U1A protein to the 3' untranslated region of its pre-mRNA. Grainger RJ, et al. **J Mol Biol** 1999 May 14; 288(4):585–94

E. coli RpsO mRNA decay: RNase E processing at the beginning of the coding sequence stimulates poly(A)-dependent degradation of the mRNA. Hajnsdorf E, et al. **J Mol Biol** 1999 Mar 5;286(4):1033–43

Decay of rplN and lacZ mRNA in Escherichia coli. Liang ST, et al. **J Mol Biol** 1999 May 14;288(4):521–38

Synergistic stimulation of HIV-1 rev-dependent export of unspliced mRNA to the cytoplasm by hnRNP A1. Najera I, et al. **J Mol Biol** 1999 Feb 5;285(5):1951–64

Post-transcriptional control of bacteriophage T4 gene 25 expression: mRNA secondary structure that enhances translational initiation. Nivinskas R, et al. **J Mol Biol** 1999 May 7;288(3):291–304

Major groove binding of the tRNA/mRNA complex to the 16 S ribosomal RNA decoding site. VanLoock MS, et al. **J Mol Biol** 1999 Feb 5;285(5):2069–78

Microtubules are needed for dispersal of alpha-myosin heavy chain mRNA in rat neonatal cardiac myocytes. Perhonen M, et al. **J Mol Cell Cardiol** 1998 Sep;30(9):1713–22

Increase in the expression of biglycan mRNA expression Co-localized closely with that of type I collagen mRNA in the infarct zone after experimentally-induced myocardial infarction in rats. Yamamoto K, et al. **J Mol Cell Cardiol** 1998 Sep;30(9):1749–56

Effect of growth hormone administration on IGF binding protein-3 mRNA levels in porcine tissues. Dunaiski V, et al. **J Mol Endocrinol** 1999 Jun;22(3):261–72

Levels of corticotrophin-releasing hormone receptor subtype 1 mRNA in pregnancy and during labour in human myometrium measured by quantitative competitive PCR. Rodriguez-Liñares B, et al. **J Mol Endocrinol** 1998 Oct; 21(2):201–8

Vasoactive intestinal peptide stimulates turkey prolactin gene expression by increasing transcription rate and enhancing mRNA stability. Tong Z, et al. **J Mol Endocrinol** 1998 Dec;21(3):259–66

Stability of RNA transcripts in post-mortem psychiatric brains. Schramm M, et al. **J Neural Transm** 1999; 106(3–4):329–35

Regional distribution and cellular expression of tryptophan hydroxylase messenger RNA in postmortem human brainstem and pineal gland. Austin MC, et al. **J Neurochem** 1999 May;72(5):2065–73

Hormonal regulation of the mRNA encoding the ketogenic enzyme mitochondrial 3-hydroxy-3-methylglutaryl-CoA synthase in neonatal primary cultures of cortical astrocytes and meningeal fibroblasts. Cullingford TE, et al. **J Neurochem** 1998 Nov;71(5):1804–12

Cyclic AMP regulation of G(i alpha2) and G(i alpha3) mRNAs and proteins in astroglial cells. El Jamali A, et al. **J Neurochem** 1998 Dec;71(6):2271–7

Continuous treatment with morphine increases diazepam binding inhibitor mRNA in mouse brain. Katsura M, et al. **J Neurochem** 1998 Dec;71(6):2638–41

Stimulation of adenylyl cyclase and induction of brain-derived neurotrophic factor and TrkB mRNA by NKH477, a novel and potent forskolin derivative. Morinobu S, et al. **J Neurochem** 1999 May;72(5):2198–205

The levels of leukemia inhibitory factor mRNA in a Schwann cell line are regulated by multiple second messenger pathways. Nagamoto-Combs K, et al. **J Neurochem** 1999 May;72(5):1871–81

Expression of NMDAR1, GluR1, GluR7, and KA1 glutamate receptor mRNAs is decreased in frontal cortex of "neuroleptic-free" schizophrenics: evidence on reversible up-regulation by typical neuroleptics. Sokolov BP. **J Neurochem** 1998 Dec;71(6):2454–64

Regulation of plasminogen activator inhibitor-1 mRNA accumulation by basic fibroblast growth factor and transforming growth factor-beta1 in cultured rat astrocytes. Treichel JA, et al. **J Neurochem** 1998 Nov; 71(5):1944–52

Effects of ageing and dehydroepiandrosterone administration on pro-opiomelanocortin mRNA expression in the anterior and intermediate lobes of the rat pituitary. Givalois L, et al. **J Neuroendocrinol** 1999 Sep;11(9):737–42

Corticotropin releasing factor mRNA expression in the hypothalamic paraventricular nucleus and the central nucleus of the amygdala is modulated by repeated acute stress in the immature rat. Hatalski CG, et al. **J Neuroendocrinol** 1998 Sep;10(9):663–9

Photoperiod affects the ability of testosterone to alter proopiomelanocortin mRNA, but not luteinizing hormone-releasing hormone mRNA, levels in male sheep. Hileman SM, et al. **J Neuroendocrinol** 1998 Aug; 10(8):587–92

Growth hormone-releasing hormone receptor (GHRH-R) and growth hormone secretagogue receptor (GHS-R) mRNA levels during postnatal development in male and female rats. Kamegai J, et al. **J Neuroendocrinol** 1999 Apr; 11(4):299–306

Differential regulation of hippocampal glucocorticoid receptors mRNA and fast feedback: relevance to post-traumatic stress disorder. Liberzon I, et al. **J Neuroendocrinol** 1999 Jan;11(1):11–7

Detection of melanocortin-3 receptor mRNA in immature rat pituitary: functional relation to gamma3-MSH-induced changes in intracellular Ca2+ concentration? Lorsignol A, et al. **J Neuroendocrinol** 1999 Mar;11(3):171–9

Correlation of hypothalamic somatostatin mRNA expression and peptide content with secretion: sexual dimorphism and differential regulation by gonadal factors. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):27–33

GnRH mRNA increases with puberty in the male Syrian hamster brain. Parfitt DB, et al. **J Neuroendocrinol** 1999 Aug;11(8):621–7

Localization of vasopressin (V1a) receptor binding and mRNA in the rhesus monkey brain. Young LJ, et al. **J Neuroendocrinol** 1999 Apr;11(4):291–7

Neuroblastoma cells can express the hematopoietic progenitor cell antigen CD34 as detected at surface protein and mRNA level. Häfer R, et al. **J Neuroimmunol** 1999 May 3;96(2):201–6

Cytokine and chemokine mRNA expressing cells in muscle tissues of experimental autoimmune myasthenia gravis. Li H, et al. **J Neurol Sci** 1998 Nov 26;161(1):40–6

Gp-41-mediated astrocyte inducible nitric oxide synthase mRNA expression: involvement of interleukin-1beta production by microglia. Hu S, et al. **J Neurosci** 1999 Aug 1;19(15):6468–74

Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13

Expression and branch-specific export of mRNA are regulated by synapse formation and interaction with specific postsynaptic targets. Schacher S, et al. **J Neurosci** 1999 Aug 1;19(15):6338–47

Quantitation of changes in P0 mRNA by polymerase chain reaction in primary cultured Schwann cells stimulated by axolemma-enriched fraction. Clive DR, et al. **J Neurosci Methods** 1998 Jun 1;81(1–2):25–34

Turnover rates of the AMPA-type glutamate receptor GluR1 measured by transient gene expression. Horikawa HP, et al. **J Neurosci Methods** 1998 Oct 1;84(1–2):173–9

Effect of dexamethasone on elevated cytokine mRNA levels in chemical-induced hippocampal injury. Bruccoleri A, et al. **J Neurosci Res** 1999 Sep 15;57(6):916–26

Detection of dopamine D2 receptor mRNA and binding sites in monkey amniotic epithelial cells. Elwan MA, et al. **J Neurosci Res** 1999 May 1;56(3):316–22

Hippocampal AMPA and NMDA mRNA levels correlate with aberrant fascia dentata mossy fiber sprouting in the pilocarpine model of spontaneous limbic epilepsy. Mathern GW, et al. **J Neurosci Res** 1998 Dec 15;54(6):734–53

Cysteine sulfinic acid decarboxylase mRNA abundance decreases in rats fed a high-protein diet. Jerkins AA, et al. **J Nutr** 1998 Nov;128(11):1890–5

Liver alpha-tocopherol transfer protein and its mRNA are differentially altered by dietary vitamin E deficiency and protein insufficiency in rats. Shaw HM, et al. **J Nutr** 1998 Dec;128(12):2348–54

p53-dependent X-ray-induced modulation of cytokine mRNA levels in vivo. Kerr NC, et al. **J Pathol** 1998 Sep; 186(1):24–30

Altered insulin-like growth factor I mRNA expression in human hypoplastic lung in congenital diaphragmatic hernia. Miyazaki E, et al. **J Pediatr Surg** 1998 Oct; 33(10):1476–9

Distribution of glial cell line-derived neurotrophic factor mRNA in human colon suggests roles for muscularis mucosae in innervation. Wartiovaara K, et al. **J Pediatr Surg** 1998 Oct;33(10):1501–6

Day/night variation of tryptophan hydroxylase and serotonin N-acetyltransferase mRNA levels in the ovine pineal gland and retina. Privat K, et al. **J Pineal Res** 1999 May; 26(4):193–203

End-to-side neurorrhaphy: evaluation of axonal response and upregulation of IGF-I and IGF-II in a non-injury model. Fortes WM, et al. **J Reconstr Microsurg** 1999 Aug; 15(6):449–57

Maintenance of oestradiol production and expression of cytochrome P450 aromatase enzyme mRNA in long-term serum-free cultures of pig granulosa cells. Picton HM, et al. **J Reprod Fertil** 1999 Jan;115(1):67–77

Local expression of acute phase serum amyloid A mRNA in rheumatoid arthritis synovial tissue and cells. Kumon Y, et al. **J Rheumatol** 1999 Apr;26(4):785–90

Evidence that an endothelial cytosolic protein binds to the 3'-untranslated region of endothelial nitric oxide synthase mRNA. Sánchez de Miguel L, et al. **J Vasc Res** 1999 May-Jun;36(3):201–8

Cold-induced mRNA expression of angiogenic factors in rat brown adipose tissue. Asano A, et al. **J Vet Med Sci** 1999 Apr;61(4):403–9

RNA-binding activity of the E1B 55-kilodalton protein from human adenovirus type 5. Horridge JJ, et al. **J Virol** 1998 Nov;72(11):9374–9

Mta has properties of an RNA export protein and increases cytoplasmic accumulation of Epstein-Barr virus replication gene mRNA. Semmes OJ, et al. **J Virol** 1998 Dec; 72(12):9526–34

Influenza A virus RNA polymerase has the ability to stutter at the polyadenylation site of a viral RNA template during RNA replication. Zheng H, et al. **J Virol** 1999 Jun; 73(6):5240–3

IGF-I binding proteins, IGF-I binding protein mRNA and IGF-I receptor mRNA in rats with acute renal failure given IGF-I. Bohé J, et al. **Kidney Int** 1998 Oct; 54(4):1070–82

Intrarenal distribution of the colonic H,K-ATPase mRNA in rabbit. Fejes-Tóth G, et al. **Kidney Int** 1999 Sep; 56(3):1029–36

cDNA cloning and embryonic expression of mouse nuclear pore membrane glycoprotein 210 mRNA. Olsson M, et al. **Kidney Int** 1999 Sep;56(3):827–38

Effects of phosphate intake on distribution of type II Na/Pi cotransporter mRNA in rat kidney. Ritthaler T, et al. **Kidney Int** 1999 Mar;55(3):976–83

Differential tissular expression and localization of type IV collagen alpha1(IV), alpha2(IV), alpha5(IV), and alpha6(IV) chains and their mRNA in normal breast and in benign and malignant breast tumors. Nakano S, et al. **Lab Invest** 1999 Mar;79(3):281–92

Concentrations of leptin in the serum of pregnant, lactating, and cycling rats and of leptin messenger ribonucleic acid in rat placental tissue. Amico JA, et al. **Life Sci** 1998; 63(16):1387–95

Northern analysis of type II iodothyronine deiodinase mRNA in rat Harderian gland. Araki O, et al. **Life Sci** 1998; 63(21):1843–8

Differential regulation of vasopressin gene expression in the hypothalamus of endotoxin-treated 14-day-old rat. Boros A, et al. **Life Sci** 1999;65(4):PL47–52

Distribution of GABA(B) receptor mRNAs in the rat brain and peripheral organs. Castelli MP, et al. **Life Sci** 1999; 64(15):1321–8

Hormonal modulation of branchial Na+-K+-ATPase subunit mRNA in a marine teleost Sparus sarba. Deane EE, et al. **Life Sci** 1999;64(20):1819–29

Liver mRNA expression of IGF-I and IGFBPs in adult undernourished diabetic rats. Goya L, et al. **Life Sci** 1999; 64(24):2255–71

Expression of prolactin messenger ribonucleic acid in the mouse gonads during sexual maturation. Imaoka T, et al. **Life Sci** 1998;63(25):2251–8

Semiquantitative evaluation of alpha1A-adrenoceptor subtype mRNA in human hypertrophied and non-hypertrophied prostates: regional comparison. Moriyama N, et al. **Life Sci** 1999;64(3):201–10

Effects of PAMP on mRNAs coding for catecholamine-synthesizing enzymes in PC12 cells. Takekoshi K, et al. **Life Sci** 1999;65(8):771–81

Reserpine modulates serotonin transporter mRNA levels in the rat brain. Xiao Q, et al. **Life Sci** 1999;64(1):63–8

Presence of opioid receptor-like (ORL1) receptor mRNA splice variants in peripheral sensory and sympathetic neuronal ganglia. Xie GX, et al. **Life Sci** 1999; 64(22):2029–37

Expression of pancreatic alpha-amylase protein and messenger RNA in hilar primitive bile ducts and hepatocytes during human fetal liver organogenesis: an immunohistochemical and in situ hybridization study. Terada T, et al. **Liver** 1998 Oct;18(5):313–9

Altered levels of extracellular matrix molecule mRNA in healing rabbit ligaments. Boykiw R, et al. **Matrix Biol** 1998 Oct;17(5):371–8

Contribution of METRO pathway localized molecules to the organization of the germ cell lineage. Kloc M, et al. **Mech Dev** 1998 Jul;75(1–2):81–93

Maternal mRNA localization of zebrafish DAZ-like gene. Maegawa S, et al. **Mech Dev** 1999 Mar;81(1–2):223–6

GLUT3 protein and mRNA in autopsy muscle specimens. Stuart CA, et al. **Metabolism** 1999 Jul;48(7):876–80

An in vitro system using HeLa cytoplasmic extracts that reproduces regulated mRNA stability. Ford LP, et al. **Methods** 1999 Jan;17(1):21–7

Analysis of mRNA decay pathways in Saccharomyces cerevisiae. He W, et al. **Methods** 1999 Jan;17(1):3–10

Tools for turnover: methods for analysis of mRNA stability in eukaryotic cells [editorial] Jacobson A, et al. **Methods** 1999 Jan;17(1):1–2

Purification and RNA binding properties of the polycytidylate-binding proteins alphaCP1 and alphaCP2. Kiledjian M, et al. **Methods** 1999 Jan;17(1):84–91

Transcriptional pulsing approaches for analysis of mRNA turnover in mammalian cells. Loflin PT, et al. **Methods** 1999 Jan;17(1):11–20

Linking mRNA turnover and translation: assessing the polyribosomal association of mRNA decay factors and degradative intermediates. Mangus DA, et al. **Methods** 1999 Jan;17(1):28–37

Interactions between a herpes simplex virus regulatory protein and cellular mRNA processing pathways. Sandri-Goldin RM. **Methods** 1998 Sep;16(1):95–104

Characterization of mRNA endonucleases. Schoenberg DR, et al. **Methods** 1999 Jan;17(1):60–73

Identification and characterization of proteins binding A + U-rich elements. Wilson GM, et al. **Methods** 1999 Jan; 17(1):74–83

Expression of CD44 variant isoforms in leukocytes of the joint fluid of rheumatoid arthritis patients and the effect of steroids. Endo K, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):709–17

Intracellular gene expression. Analysis of RNA from

mycobacteria in macrophages using RT-PCR. Butcher PD, et al. **Methods Mol Biol** 1998;101:285-306
Analysis of mycobacterial differential gene expression by RAP-PCR. Mangan JA, et al. **Methods Mol Biol** 1998; 101:307-22
Gel retardation and UV-crosslinking assays to detect specific RNA-protein interactions in the 5' or 3' UTRs of translationally regulated mRNAs. Walker J, et al. **Methods Mol Biol** 1998;77:365-78 (30 ref.)
Protein synthesis in Giardia lamblia may involve interaction between a downstream box (DB) in mRNA and an anti-DB in the 16S-like ribosomal RNA. Yu DC, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1-2):151-65
The regulation of ribonucleoside diphosphate reductase by the tumor promoter orotic acid in normal rat liver in vivo. Manjeshwar S, et al. **Mol Carcinog** 1999 Mar;24(3):188-96
Localization of ASH1 mRNA particles in living yeast. Bertrand E, et al. **Mol Cell** 1998 Oct;2(4):437-45
Terminal exon definition occurs cotranscriptionally and promotes termination of RNA polymerase II. Dye MJ, et al. **Mol Cell** 1999 Mar;3(3):371-8
A novel allosterically trans-activated ribozyme, the maxizyme, with exceptional specificity in vitro and in vivo. Kuwabara T, et al. **Mol Cell** 1998 Nov;2(5):617-27
IRP-1 binding to ferritin mRNA prevents the recruitment of the small ribosomal subunit by the cap-binding complex eIF4F. Muckenthaler M, et al. **Mol Cell** 1998 Sep; 2(3):383-8
EM visualization of transcription by RNA polymerase II: downstream termination requires a poly(A) signal but not transcript cleavage. Osheim YN, et al. **Mol Cell** 1999 Mar; 3(3):379-87
The role of oocyte transcription, the 5'UTR, and translation repression and derepression in Drosophila gurken mRNA and protein localization. Saunders C, et al. **Mol Cell** 1999 Jan;3(1):43-54
Levels of polyadenylation factor CstF-64 control IgM heavy chain mRNA accumulation and other events associated with B cell differentiation. Takagaki Y, et al. **Mol Cell** 1998 Dec;2(6):761-71
No role of the 5' untranslated region of ornithine decarboxylase mRNA in the feedback control of the enzyme. Wallström EL, et al. **Mol Cell Biochem** 1999 Jul; 197(1-2):71-8
Identification of novel import and export signals of human TAP, the protein that binds to the constitutive transport element of the type D retrovirus mRNAs. Bear J, et al. **Mol Cell Biol** 1999 Sep;19(9):6306-17
Poly(A) tail length control in Saccharomyces cerevisiae occurs by message-specific deadenylation. Brown CE, et al. **Mol Cell Biol** 1998 Nov;18(11):6548-59
Assembly of the cleavage and polyadenylation apparatus requires about 10 seconds in vivo and is faster for strong than for weak poly(A) sites. Chao LC, et al. **Mol Cell Biol** 1999 Aug;19(8):5588-600
Assembly of the alpha-globin mRNA stability complex reflects binary interaction between the pyrimidine-rich 3' untranslated region determinant and poly(C) binding protein alphaCP. Chkheidze AN, et al. **Mol Cell Biol** 1999 Jul;19(7):4572-81
Thymidylate synthase protein and p53 mRNA form an in vivo ribonucleoprotein complex. Chu E, et al. **Mol Cell Biol** 1999 Feb;19(2):1582-94
The beta subunit of eukaryotic translation initiation factor 2 binds mRNA through the lysine repeats and a region comprising the C2-C2 motif [published erratum appears in Mol Cell Biol 1999 Apr;19(4):3224] Laurino JP, et al. **Mol Cell Biol** 1999 Jan;19(1):173-81
A family of insulin-like growth factor II mRNA-binding proteins represses translation in late development. Nielsen J, et al. **Mol Cell Biol** 1999 Feb;19(2):1262-70
SMG-2 is a phosphorylated protein required for mRNA surveillance in Caenorhabditis elegans and related to Upf1p of yeast. Page MF, et al. **Mol Cell Biol** 1999 Sep; 19(9):5943-51
Nuclear mRNA export requires complex formation between Mex67p and Mtr2p at the nuclear pores. Santos-Rosa H, et al. **Mol Cell Biol** 1998 Nov;18(11):6826-38
Sequence-independent assembly of spermatid mRNAs into messenger ribonucleoprotein particles. Schmidt EE, et al. **Mol Cell Biol** 1999 May;19(5):3904-15
p70(S6K) controls selective mRNA translation during oocyte maturation and early embryogenesis in Xenopus laevis. Schwab MS, et al. **Mol Cell Biol** 1999 Apr;19(4):2485-94
Mutations in translation initiation factors lead to increased rates of deadenylation and decapping of mRNAs in Saccharomyces cerevisiae. Schwartz DC, et al. **Mol Cell Biol** 1999 Aug;19(8):5247-56
An mRNA stability complex functions with poly(A)-binding protein to stabilize mRNA in vitro. Wang Z, et al. **Mol Cell Biol** 1999 Jul;19(7):4552-60
Evidence for differential regulation of multiple transcripts of the gonadotropin releasing hormone receptor in the ovine pituitary gland; effect of estrogen. Cowley MA, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):141-9
Ovarian estrogen receptor alpha and beta mRNA expression: impact of development and estrogen. Drummond AE, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):153-61
Interleukin-1 regulation of corticotropin-releasing factor (CRF), glucocorticoid receptor, c-fos and c-jun messenger RNA in the NPLC-KC cell line. Gill PS, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):31-9
Control of FSH receptor mRNA expression in rat granulosa cells by 3',5'-cyclic adenosine monophosphate, activin, and follistatin. Minegishi T, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):71-7
Tissue-specific modulation of rat glucagon receptor mRNA by thyroid status. Morales A, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):71-81
Ligand regulation of juvenile hormone binding protein mRNA in mutant Manduca sexta. Orth AP, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1-2):61-9
Discordant expression of insulin-like growth factors and their receptor messenger ribonucleic acids in endometrial carcinomas relative to normal endometrium. Roy RN, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1-2):19-27
Placental iodothyronine deiodinase III and II ratios, mRNA expression compared to enzyme activity. Stulp MR, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1-2):67-73
Ribosome association contributes to restricting mRNAs to the cell body of hippocampal neurons. Lu Z, et al. **Mol Cell Neurosci** 1998 Dec;12(6):363-75
mRNA expression of netrin-1, an axon guidance protein in chick and rat embryos. Sim HJ, et al. **Mol Cells** 1999 Jun 30;9(3):245-51
Ribozyme-mediated cleavage of the estrogen receptor messenger RNA and inhibition of receptor function in target cells. Lavrovsky Y, et al. **Mol Endocrinol** 1999 Jun; 13(6):925-34
Isolation and characterization of a novel transcript embedded within HIRA, a gene deleted in DiGeorge syndrome. Pizzuti A, et al. **Mol Genet Metab** 1999 Jul;67(3):227-35
A type 2 diabetes-associated polymorphic ARE motif affecting expression of PPP1R3 is involved in RNA-protein interactions. Xia J, et al. **Mol Genet Metab** 1999 Sep;68(1):48-55
Detection of mRNA transcripts of cyclic nucleotide phosphodiesterase subtypes in ejaculated human spermatozoa. Richter W, et al. **Mol Hum Reprod** 1999 Aug; 5(8):732-6
Differential regulation of leucine-rich primary response gene 1 (LRPR1) mRNA expression in rat testis and ovary. Slegtenhorst-Eegdeman KE, et al. **Mol Hum Reprod** 1998 Jul;4(7):649-56
Relaxin stimulates glycodelin mRNA and protein concentrations in human endometrial glandular epithelial cells. Tseng L, et al. **Mol Hum Reprod** 1999 Apr;5(4):372-5
A single gene for human TRAF-3 at chromosome 14q32.3 encodes a variety of mRNA species by alternative polyadenylation, mRNA splicing and transcription initiation. van Eyndhoven WG, et al. **Mol Immunol** 1998 Dec;35(18):1189-206
Yersinia enterocolitica type III secretion: an mRNA signal that couples translation and secretion of YopQ. Anderson DM, et al. **Mol Microbiol** 1999 Feb;31(4):1139-48
A novel mutation in the KH domain of polynucleotide phosphorylase affects autoregulation and mRNA decay in Escherichia coli. Garcia-Mena J, et al. **Mol Microbiol** 1999 Jul;33(2):235-48
The C-terminal half of RNase E, which organizes the Escherichia coli degradosome, participates in mRNA degradation but not rRNA processing in vivo. Lopez PJ, et al. **Mol Microbiol** 1999 Jul;33(1):188-99
Introns are necessary for mRNA accumulation in Schizophyllum commune. Lugones LG, et al. **Mol Microbiol** 1999 May;32(4):681-9
Poly(A) polymerase I of Escherichia coli: characterization of the catalytic domain, an RNA binding site and regions for the interaction with proteins involved in mRNA degradation. Raynal LC, et al. **Mol Microbiol** 1999 May; 32(4):765-75
Relationship between internalization and mRNA decay in down-regulation of recombinant type 1 angiotensin II receptor (AT1) expression in smooth muscle cells. Adams B, et al. **Mol Pharmacol** 1999 Jun;55(6):1028-36
Calcium channel activation stabilizes a neuronal calcium channel mRNA. Schorge S, et al. **Nat Neurosci** 1999 Sep; 2(9):785-90
Atrial fibrillation after coronary artery bypass surgery: association with changes in G protein levels in mononuclear leukocytes. Tittelbach V, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):204-11
Differential effect of nephrectomy on renal expressions of IGF-I and IGFBPs mRNA in selective growth hormone-deficient rats. Kobayashi S, et al. **Nephron** 1998 Dec;80(4):468-75
Differential regulation of the expression of nerve growth factor, brain-derived neurotrophic factor, and neurotrophin-3 after excitotoxicity in a rat model of Huntington's disease. Canals JM, et al. **Neurobiol Dis** 1998 Nov;5(5):357-64
Serotonin transporter on rat platelets: levels of mRNA underlie inherited differences in uptake kinetics. Jernej B, et al. **Neurochem Int** 1998 Dec;33(6):519-23
Increases in levels of brain-derived neurotrophic factor mRNA and its promoters after transient forebrain ischemia in the rat brain. Tsukahara T, et al. **Neurochem Int** 1998 Aug;33(2):201-7
Changes in NMDAR2 subunit mRNA levels during pentobarbital tolerance/withdrawal in the rat brain: an in situ hybridization study. Jang CG, et al. **Neurochem Res** 1998 Nov;23(11):1371-7
Growth hormone-dependent regulation of pituitary GH secretagogue receptor (GHS-R) mRNA levels in the spontaneous dwarf Rat. Kamegai J, et al. **Neuroendocrinology** 1998 Nov;68(5):312-8
Food deprivation decreases mRNA and activity of the rat dopamine transporter. Patterson TA, et al. **Neuroendocrinology** 1998 Jul;68(1):11-20
Synaptic activation causes the mRNA for the IEG Arc to localize selectively near activated postsynaptic sites on dendrites. Steward O, et al. **Neuron** 1998 Oct;21(4):741-51
CPEB-mediated cytoplasmic polyadenylation and the regulation of experience-dependent translation of alpha-CaMKII mRNA at synapses [see comments] Wu L, et al. **Neuron** 1998 Nov;21(5):1129-39. Comment in: Neuron 1998 Nov;21(5):936-8.
Reduced mRNA expression of neuropeptide Y in the limbic system of tenascin gene disrupted mouse brain. Fukamauchi F, et al. **Neuropeptides** 1998 Jun;32(3):265-8
Messenger RNA editing of the human serotonin 5-HT2C receptor. Fitzgerald LW, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):82S-90S
Ionotropic glutamate receptor modulation of 5-HT6 and 5-HT7 mRNA expression in rat brain. Healy DJ, et al. **Neuropsychopharmacology** 1999 Sep;21(3):341-51
Localization of mRNA for CHRNA7 in human fetal brain. Agulhon C, et al. **Neuroreport** 1999 Aug 2;10(11):2223-7
Limbic seizures increase pronociceptin mRNA levels in the thalamic reticular nucleus. Bregola G, et al. **Neuroreport** 1999 Feb 25;10(3):541-6
Ischemia induces a selective biphasic response in brain mitochondrial mRNA levels. Bruckner BA, et al. **Neuroreport** 1999 May 14;10(7):1593-8
Expression of mRNA encoding alpha1E and alpha1G subunit in the brain of a rat model of absence epilepsy. de Borman B, et al. **Neuroreport** 1999 Feb 25;10(3):569-74
Induction of Rheb mRNA following middle cerebral artery occlusion in the rat. Kinouchi H, et al. **Neuroreport** 1999 Apr 6;10(5):1055-9
Chronic treatment with the antidepressant amitriptyline decreases CRF-R1 receptor mRNA levels in the rat amygdala. Aubry JM, et al. **Neurosci Lett** 1999 May 14; 266(3):197-200
Co-localization of 5-HT1B- and 5-HT1D receptor mRNA in serotonergic cell bodies in guinea pig dorsal raphé nucleus: a double labeling in situ hybridization histochemistry study. Bonaventure P, et al. **Neurosci Lett** 1998 Sep 25;254(2):113-6
Tryptophan hydroxylase mRNA levels are elevated by repeated immobilization stress in rat raphe nuclei but not in pineal gland. Chamas F, et al. **Neurosci Lett** 1999 Jun 4;267(3):157-60
Hilar somatostatin-mRNA containing neurons are preserved after perforant path kindling in the rat. Dalby NO, et al. **Neurosci Lett** 1998 Oct 9;255(1):45-8
Evidence for the presence of dopamine D1 receptor mRNA and binding sites in monkey amniotic epithelial cells. Elwan MA, et al. **Neurosci Lett** 1999 Feb 26;262(1):9-12
Increased expression of phospholipase D1 mRNA during cAMP- or NGF-induced differentiation in PC12 cells. Hayakawa K, et al. **Neurosci Lett** 1999 Apr 16; 265(2):127-30
Quantification of dopamine D3 receptor mRNA level associated with the development of amphetamine-induced behavioral sensitization in the rat brain. Hondo H, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):69-72
Expression of vascular endothelial growth factor mRNA following transient forebrain ischemia in rats. Lee MY, et al. **Neurosci Lett** 1999 Apr 16;265(2):107-10
Transforming growth factor beta2 is able to modify mRNA levels and release of luteinizing hormone-releasing hormone in a immortalized hypothalamic cell line (GT1-1). Messi E, et al. **Neurosci Lett** 1999 Aug 6;270(3):165-8
Ontogeny of a diurnal rhythm in arylalkylamine-N-acetyltransferase mRNA in rat pineal gland. Pfeffer M, et al. **Neurosci Lett** 1998 Jun 5; 248(3):163-6
Prodynorphin and proenkephalin mRNAs are increased in rat brain after acute and chronic administration of gamma-hydroxybutyrate. Schmidt-Mutter C, et al. **Neurosci Lett** 1999 Feb 26;262(1):65-8
Reduced tyrosine kinase receptor C mRNA levels in the frontal cortex of patients with schizophrenia. Schramm M, et al. **Neurosci Lett** 1998 Nov 27;257(2):65-8
MK-801, a non-competitive NMDA receptor antagonist, prevents postischemic decrease of inositol 1,4,5-trisphosphate receptor mRNA expression in mongolian gerbil brain. Uhm CS, et al. **Neurosci Lett** 1998 Oct 16;255(2):111-4
Changes with aging and ischemia in nicotinic acetylcholine receptor subunit alpha7 mRNA expression in postmortem human frontal cortex and putamen. Utsugisawa K, et al. **Neurosci Lett** 1999 Aug 6;270(3):145-8
Distribution of the nociceptin and nocistatin precursor transcript in the mouse central nervous system. Boom A, et al. **Neuroscience** 1999;91(3):991-1007
Circadian regulation of prion protein messenger RNA in the rat forebrain: a widespread and synchronous rhythm. Cagampang FR, et al. **Neuroscience** 1999;91(4):1201-4
Expression of thymosin beta4 messenger RNA in normal and kainate-treated rat forebrain. Carpintero P, et al. **Neuroscience** 1999;90(4):1433-44
Psychophysiological stress induces heat shock cognate protein 70 messenger RNA in the hippocampus of rats.

Fukudo S, et al. **Neuroscience** 1999;91(4):1205–8

Serotonin–2 receptor stimulation normalizes striatal preprotachykinin messenger RNA in an animal model of Parkinson's disease. Gresch PJ, et al. **Neuroscience** 1999; 93(3):831–41

Localization of central cannabinoid CB1 receptor messenger RNA in neuronal subpopulations of rat dorsal root ganglia: a double–label in situ hybridization study. Hohmann AG, et al. **Neuroscience** 1999 Mar;90(3):923–31

Localization of cytosolic phospholipase A2 messenger RNA mainly in neurons in the rat brain. Kishimoto K, et al. **Neuroscience** 1999;92(3):1061–77

Expression of mu, kappa, and delta opioid receptor messenger RNA in the human CNS: a 33P in situ hybridization study. Peckys D, et al. **Neuroscience** 1999;88(4):1093–135

Modulation by pathophysiological stimuli of the shear stress–induced up–regulation of endothelial nitric oxide synthase expression in endothelial cells. Malek AM, et al. **Neurosurgery** 1999 Aug;45(2):334–44; discussion 344–5

A peptide nucleic acid (PNA) is more rapidly internalized in cultured neurons when coupled to a retro–inverso delivery peptide. The antisense activity depresses the target mRNA and protein in magnocellular oxytocin neurons. Aldrian–Herrada G, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4910–6

DSEF–1 is a member of the hnRNP H family of RNA–binding proteins and stimulates pre–mRNA cleavage and polyadenylation in vitro. Bagga PS, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5343–50

Identification of AUF–1 ligands reveals vast diversity of early response gene mRNAs. Bhattacharya S, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1464–72

A single point mutation in the yeast TRP4 gene affects efficiency of mRNA 3' end processing and alters selection of the poly(A) site. Düvel K, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1289–95

Specific binding of Drosophila nuclear protein PEP (protein on ecdysone puffs) to hsp70 DNA and RNA. Hamann S, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4108–15

A chicken embryo protein related to the mammalian DEAD box protein p68 is tightly associated with the highly purified protein–RNA complex of 5–MeC–DNA glycosylase. Jost JP, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3245–52

The ability of the HIV–1 AAUAAA signal to bind polyadenylation factors is controlled by local RNA structure. Klasens BI, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):446–54

Primer extension analysis of eukaryotic ribosome–mRNA complexes. Kozak M. **Nucleic Acids Res** 1998 Nov 1; 26(21):4853–9

Mapping contacts between gRNA and mRNA in trypanosome RNA editing. Leung SS, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):778–87

Identification of a stem–loop structure important for polyadenylation at the murine IgM secretory poly(A) site. Phillips C, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):429–38

Delta ribozyme has the ability to cleave in transan mRNA. Roy G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):942–8

Regulation of poly(A) site choice of several yeast mRNAs. Sparks KA, et al. **Nucleic Acids Res** 1998 Oct 15; 26(20):4676–87

Dissociation of mRNA cytoplasmic polyadenylation from translational activation by structural modification of the 5'–UTR. Verrotti AC, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3417–23

Hydrolysis of some mRNA 5'–cap analogs catalyzed by the human Fhit protein—and lupin ApppA hydrolases. Bojarska E, et al. **Nucleosides Nucleotides** 1999 Apr–May; 18(4–5):1125–6

Localization and sex steroid regulation of androgen receptor gene expression in rhesus monkey uterus. Adesanya–Famuyiwa OO, et al. **Obstet Gynecol** 1999 Feb; 93(2):265–70

Differential regulation of nitric oxide synthase–II mRNA by growth factors in rat, bovine, and human retinal pigmented epithelial cells. Faure V, et al. **Ocul Immunol Inflamm** 1999 Mar;7(1):27–34

Differential stability of the DNA–activated protein kinase catalytic subunit mRNA in human glioma cells. Galloway AM, et al. **Oncogene** 1999 Feb 11;18(6):1361–8

Regulation of mRNA splicing and transport by the tyrosine kinase activity of src. Gondran P, et al. **Oncogene** 1999 Apr 22;18(16):2547–55

The polyadenylation inhibitor cordycepin (3'dA) causes a decline in c–MYC mRNA levels without affecting c–MYC protein levels. Ioannidis P, et al. **Oncogene** 1999 Jan 7; 18(1):117–25

Tissue–specific alternative splicing in the human INK4a/ARF cell cycle regulatory locus. Robertson KD, et al. **Oncogene** 1999 Jul 1;18(26):3810–20

C–myc and c–fos in human osteosarcoma: prognostic value of mRNA and protein expression. Gamberi G, et al. **Oncology** 1998 Nov–Dec;55(6):556–63

Upregulation of retinal vascular endothelial growth factor mRNAs in spontaneously diabetic rats without ophthalmoscopic retinopathy. A possible participation of advanced glycation end products in the development of the early phase of diabetic retinopathy. Segawa Y, et al. **Ophthalmic Res** 1998;30(6):333–9

Collagen type I antisense and collagen type IIA messenger RNA is expressed in adult murine articular cartilage. van der Kraan PM, et al. **Osteoarthritis Cartilage** 1998 Nov; 6(6):417–26

Change in mRNAs for neuropeptides and the GABA(A) receptor in dorsal root ganglion neurons in a rat experimental neuropathic pain model. Fukuoka T, et al. **Pain** 1998 Oct;78(1):13–26

Localization of the preprosomatostatin–mRNA by in situ hybridization in the ewe hypothalamus. Bruneau G, et al. **Peptides** 1998;19(10):1749–58

beta2–adrenergic but not vasopressin V2 receptor mRNAs are expressed in the stria vascularis of the rat inner ear. de Minteguiaga C, et al. **Pflugers Arch** 1998 Nov; 436(6):940–7

Increased mRNAs for procollagens and key regulating enzymes in rat skeletal muscle following downhill running. Han XY, et al. **Pflugers Arch** 1999 May;437(6):857–64

Regulation of cytochrome P4501A metabolism by glutathione. Otto DM, et al. **Pharmacol Toxicol** 1999 May; 84(5):201–10

GABAA receptor subunit mRNAs in rat superior cervical ganglia. Liu ZF, et al. **Pharmacology** 1999 Jan;58(1):51–8

Age–related expression of renal thrombospondin 1 mRNA in F344 rats: resemblance to diabetes–induced expression in obese Zucker rats. Olson BA, et al. **Pharmacology** 1999 Apr;58(4):200–8

Degradation of Bowman–Birk protease inhibitor mRNA with a cell–free extract. Cheng Y, et al. **Phytochemistry** 1999 Sep;52(2):233–8

Ribozymes targeted to stearoyl–ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603–22

rbcL Transcript levels in tobacco plastids are independent of light: reduced dark transcription rate is compensated by increased mRNA stability. Shiina T, et al. **Plant Cell** 1998 Oct;10(10):1713–22

Alfalfa (Medicago sativa L.) resistance to the root–lesion nematode, Pratylenchus penetrans: defense–response gene mRNA and isoflavonoid phytoalexin levels in roots. Baldridge GD, et al. **Plant Mol Biol** 1998 Dec; 38(6):999–1010

Antisense suppression of tomato endo–1,4–beta–glucanase Cel2 mRNA accumulation increases the force required to break fruit abscission zones but does not affect fruit softening. Brummell DA, et al. **Plant Mol Biol** 1999 Jul; 40(4):615–22

Degradation of oat mRNAs during seed development. Johnson RR, et al. **Plant Mol Biol** 1999 Mar;39(4):823–33

Altering the 3wUTR endonucleolytic cleavage site of a Chlamydomonas chloroplast mRNA affects 3–end maturation in vitro but not in vivo. Rott R, et al. **Plant Mol Biol** 1999 Jul;40(4):679–86

Involvement of a maize proline–rich protein in secondary cell wall formation as deduced from its specific mRNA localization. Vignols F, et al. **Plant Mol Biol** 1999 Mar; 39(5):945–52

Symbiotic root nodules of the actinorhizal plant Datisca glomerata express Rubisco activase mRNA. Okubara PA, et al. **Plant Physiol** 1999 Jun;120(2):411–20

Polyadenylation and degradation of mRNA in the chloroplast. Schuster G, et al. **Plant Physiol** 1999 Aug; 120(4):937–44 (33 ref.)

Oligoribonuclease is an essential component of the mRNA decay pathway. Ghosh S, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4372–7

rRNA–complementarity in the 5' untranslated region of mRNA specifying the Gtx homeodomain protein: evidence that base– pairing to 18S rRNA affects translational efficiency. Hu MC, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1339–44

Two yeast nuclear pore complex proteins involved in mRNA export form a cytoplasmically oriented subcomplex. Hurwitz ME, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11241–5

Why is Hu where? Shuttling of early–response–gene messenger RNA subsets. Keene JD. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):5–7

A Crm1p–independent nuclear export path for the mRNA–associated protein, Npl3p/Mtr13p. Liu Y, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6739–44

Long RNA hairpins that contain inosine are present in Caenorhabditis elegans poly(A)+ RNA. Morse DP, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6048–53

Double–stranded RNA induces mRNA degradation in Trypanosoma brucei. Ngô H, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14687–92

Enhancement of translation by the downstream box does not involve base pairing of mRNA with the penultimate stem sequence of 16S rRNA. O'Connor M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8973–8

Capping and methylation of mRNA by purified recombinant VP4 protein of bluetongue virus. Ramadevi N, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13537–42

Host factor I, Hfq, binds to Escherichia coli ompA mRNA in a growth rate–dependent fashion and regulates its stability. Vytvytska O, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14118–23

Messenger RNA translation state: the second dimension of high–throughput expression screening. Zong Q, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10632–6

Hormone–dependent regulation of GABAA receptor gamma subunit mRNAs in sexually dimorphic regions of the rat brain. Clark AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1853–9

Developmental regulation of hepatic ceruloplasmin mRNA and serum activity by exogenous thyroxine and dexamethasone. Fitch CA, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):27–31

Estrogen receptor mRNA in uteri of normal estrous cycling and ovariectomized rats by in situ hybridization. Katsuda SI, et al. **Proc Soc Exp Biol Med** 1999 Jul;221(3):207–14

Subcellular RNA compartmentalization. Mohr E. **Prog Neurobiol** 1999 Apr;57(5):507–25 (102 ref.)

Regulation of the Bacillus subtilis pyrimidine biosynthetic operon by transcriptional attenuation: control of gene expression by an mRNA–binding protein. Switzer RL, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:329–67 (82 ref.)

NPY messenger RNA is increased in medial hypothalamus of anorectic tumor–bearing rats. Chance WT, et al. **Regul Pept** 1998 Sep 25;75–76:347–53

Hypothalamic neuropeptide Y content and mRNA expression in weanling rats subjected to dietary manipulations during fetal and neonatal life. Kozak R, et al. **Regul Pept** 1998 Sep 25;75–76:397–402

NPY–induced overfeeding suppresses hypothalamic NPY mRNA expression: potential roles of plasma insulin and leptin. McMinn JE, et al. **Regul Pept** 1998 Sep 25; 75–76:425–31

Topographic localization of neuropeptide Y mRNA in the monkey brainstem. Pau KY, et al. **Regul Pept** 1998 Sep 25;75–76:145–53

Suppressed neuropeptide Y (NPY) mRNA in rat amygdala following restraint stress. Thorsell A, et al. **Regul Pept** 1998 Sep 25;75–76:247–54

Glucocorticoid receptor mRNA levels in bronchial epithelial cells of patients with COPD: influence of glucocorticoids. Korn SH, et al. **Respir Med** 1998 Sep;92(9):1102–9

Overexpression of truncated Nmd3p inhibits protein synthesis in yeast. Belk JP, et al. **RNA** 1999 Aug;5(8):1055–70

A polysomal ribonuclease involved in the destabilization of albumin mRNA is a novel member of the peroxidase gene family. Chernokalskaya E, et al. **RNA** 1998 Dec; 4(12):1537–48

Roles of polyadenylation and nucleolytic cleavage in the filamentous phage mRNA processing and decay pathways in Escherichia coli. Goodrich AF, et al. **RNA** 1999 Jul; 5(7):972–85

mRNA surveillance in eukaryotes: kinetic proofreading of proper translation termination as assessed by mRNP domain organization? Hilleren P, et al. **RNA** 1999 Jun; 5(6):711–9 (67 ref.)

Inhibition of viral gene expression by human ribonuclease P. Kawa D, et al. **RNA** 1998 Nov;4(11):1397–406

UV cross–link mapping of the substrate–binding site of an RNase P ribozyme to a target mRNA sequence. Kilani AF, et al. **RNA** 1999 Sep;5(9):1235–47

mRNA localization signals can enhance the intracellular effectiveness of hammerhead ribozymes. Lee NS, et al. **RNA** 1999 Sep;5(9):1200–9

Finding the right RNA: identification of cellular mRNA substrates for RNA–binding proteins. Trifillis P, et al. **RNA** 1999 Aug;5(8):1071–82

Identification of RNA sequences and structures involved in site–specific cleavage of IGF–II mRNAs. van Dijk EL, et al. **RNA** 1998 Dec;4(12):1623–35

Insertional RNA editing in metazoan mitochondria: the cytochrome b gene in the nematode Teratocephalus lirellus [letter] Vanfleteren JR, et al. **RNA** 1999 May;5(5):622–4

Measurement of vitellogenin–mRNA expression in primary cultures of rainbow trout hepatocytes in a non–radioactive dot blot/RNAse protection–assay. Islinger M, et al. **Sci Total Environ** 1999 Aug 15;233(1–3):109–22

Functional interaction of BRCA1–associated BARD1 with polyadenylation factor CstF–50. Kleiman FE, et al. **Science** 1999 Sep 3;285(5433):1576–9

Shifting RNA polymerase into overdrive [comment] Landick R. **Science** 1999 Apr 23;284(5414):598–9. Comment on: Science 1999 Apr 23;284(5414):611–5.

Control of mRNA decay by heat shock–ubiquitin–proteasome pathway. Laroia G, et al. **Science** 1999 Apr 16;284(5413):499–502

RNA molecules may carry long–distance signals in plants [news; comment] Strauss E. **Science** 1999 Jan 1; 283(5398):12–3. Comment on: Science 1999 Jan 1;283(5398):94–8.

RNA, whither goest thou? Tiedge H, et al. **Science** 1999 Jan 8;283(5399):186–7

Plant paralog to viral movement protein that potentiates transport of mRNA into the phloem. Xoconostle–Cázares B, et al. **Science** 1999 Jan 1;283(5398):94–8

Mechanism of intrinsic transcription termination and antitermination [see comments] Yarnell WS, et al. **Science** 1999 Apr 23;284(5414):611–5. Comment in: Science 1999 Apr 23;284(5414):598–9.

A phospholipase C–dependent inositol polyphosphate kinase pathway required for efficient messenger RNA export. York JD, et al. **Science** 1999 Jul 2;285(5424):96–100

Effect of gamma knife radiosurgery on rat brain sodium channel subunit mRNA expression. Bartolomei F, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:237–42

Expression of cyclooxygenase–2 mRNA after global ischemia is regulated by AMPA receptors and glucocorticoids. Koistinaho J, et al. **Stroke** 1999 Sep;30(9):1900–5; discussion 1905–6

Altered levels of mRNA of apoptosis-mediating genes after mid-term mechanical ventricular support in dilative cardiomyopathy--first results of the Halle Assist Induced Recovery Study (HAIR). Milting H, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):48-50

Left-ventricular expression of interleukin-6 messenger-RNA higher in idiopathic dilated than in ischemic cardiomyopathy. Plenz G, et al. **Thorac Cardiovasc Surg** 1998 Aug;46(4):213-6

Effects of cytokines on expression of thyrotropin receptor mRNA in rat preadipocytes. Haraguchi K, et al. **Thyroid** 1998 Aug;8(8):687-92

In vivo expression of thyroid transcription factor-1 RNA and its relation to thyroid function and follicular heterogeneity: identification of follicular thyroglobulin as a feedback suppressor of thyroid transcription factor-1 RNA levels and thyroglobulin synthesis. Suzuki K, et al. **Thyroid** 1999 Apr;9(4):319-31

Tissue distribution of the mRNA for a rhesus monkey major histocompatibility class Ib molecule, Mamu-AG. Slukvin II, et al. **Tissue Antigens** 1999 Mar;53(3):282-91

Ah receptor and ARNT protein and mRNA concentrations in rat prostate: effects of stage of development and 2,3,7,8-tetrachlorodibenzo-p-dioxin treatment. Sommer RJ, et al. **Toxicol Appl Pharmacol** 1999 Mar 1;155(2):177-89

Analysis of hsp70 mRNA levels in HepG2 cells exposed to various metals differing in toxicity. Steiner E, et al. **Toxicol Lett** 1998 Aug;96-97:169-76

Erythropoietin mRNA in hepatocellular carcinomas and kidney in male B6C3F1 mice with secondary polycythemia. Horinouchi A, et al. **Toxicol Pathol** 1998 Sep-Oct; 26(5):682-6

Pulmonary cytokine and chemokine mRNA levels after inhalation of lipopolysaccharide in C57BL/6 mice. Johnston CJ, et al. **Toxicol Sci** 1998 Dec;46(2):300-7

Quantitative polymerase chain reaction using an external control mRNA for determination of gene expression in a heterogeneous cell population. Shibata M, et al. **Toxicol Sci** 1999 Jun;49(2):290-6

Internal ribosome entry sites (IRESs): reality and use. Houdebine LM, et al. **Transgenic Res** 1999 Jun;8(3):157-77 (200 ref.)

Preliminary study on the expression of HLA-G mRNA in normal placenta and placenta with RSA after immunotherapy. Fan L, et al. **Transplant Proc** 1999 Jun; 31(4):1854-6

Effect of 15-deoxyspergualine on coronary arteriosclerosis and platelet-derived growth factor-A mRNA expression in the transplanted heart. Zhang X, et al. **Transplant Proc** 1999 May;31(3):1706-9

Degrading chloroplast mRNA: the role of polyadenylation. Hayes R, et al. **Trends Biochem Sci** 1999 May;24(5):199-202 (39 ref.)

RNA localization: different zipcodes, same postman? Oleynikov Y, et al. **Trends Cell Biol** 1998 Oct;8(10):381-3 (30 ref.)

mRNA degradation. A tale of poly(A) and multiprotein machines. Carpousis AJ, et al. **Trends Genet** 1999 Jan; 15(1):24-8 (45 ref.)

RNA surveillance. Unforeseen consequences for gene expression, inherited genetic disorders and cancer. Culbertson MR. **Trends Genet** 1999 Feb;15(2):74-80 (59 ref.)

Up-regulation of tumor necrosis factor alpha mRNA is associated with bovine-leukemia virus (BLV) elimination in the early phase of infection. Kabeya H, et al. **Vet Immunol Immunopathol** 1999 May;68(2-4):255-65

Posttranscriptional regulation of US11 in cells infected with a herpes simplex virus 1 recombinant lacking both 222-bp domains containing S-component origins of DNA synthesis. McCormick L, et al. **Virology** 1999 Jul 5; 259(2):286-98

Vaccinia virus serpin-1 deletion mutant exhibits a host range defect characterized by low levels of intermediate and late mRNAs. Shisler JL, et al. **Virology** 1999 Sep 30; 262(2):298-311

Distinct export pathway utilized by the hepatitis B virus posttranscriptional regulatory element. Zang WQ, et al. **Virology** 1999 Jul 5;259(2):299-304

Gelatinase A and membrane-type 1 matrix metalloproteinase mRNA: expressed in adrenocortical cancers but not in adenomas. Kjellman M, et al. **World J Surg** 1999 Mar; 23(3):237-42

Effect of partial hepatectomy on the expression of seven rat sulphotransferase mRNAs. Dunn RT 2nd, et al. **Xenobiotica** 1999 Jun;29(6):583-93

Decapping of stabilized, polyadenylated mRNA in yeast pab1 mutants. Morrissey JP, et al. **Yeast** 1999 Jun 15; 15(8):687-702

Transcript analysis of 250 novel yeast genes from chromosome XIV. Planta RJ, et al. **Yeast** 1999 Mar 15; 15(4):329-50

[Concentration of mRNA of alpha-2A-adrenergic receptors and the number of specific binding sites for their agonists in regions of the brain] Dygalo NN, et al. **Dokl Akad Nauk** 1999 Jan;364(3):417-9 **(Rus)**

[Analysis of lymphoma-specific transcripts in B-cell non-Hodgkin's lymphoma patients, infected by the human immunodeficiency virus type 1] Nikolaev AI, et al. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):252-60 **(Rus)**

PHARMACOLOGY

Injection of Xenopus oocytes with mRNA from cultured neurons induces new currents and susceptibility to the damaging action of ruthenium red. Velasco I, et al. **Brain Res Bull** 1999 Mar 1;48(4):383-6

PHYSIOLOGY

Transcriptional activation of the alpha1(I) procollagen gene and up-regulation of alpha1(I) and alpha1(III) procollagen messenger RNA in dermal fibroblasts from tight skin 2 mice. Christner PJ, et al. **Arthritis Rheum** 1998 Dec; 41(12):2132-42

mRNA stability and plasmid copy number effects on gene expression from an inducible promoter system. Carrier T, et al. **Biotechnol Bioeng** 1998 Sep 20;59(6):666-72

A perfect message: RNA surveillance and nonsense-mediated decay. Hentze MW, et al. **Cell** 1999 Feb 5;96(3):307-10 (20 ref.)

The insulin-like growth factors (IGF) and IGF type I receptor during postnatal growth of the murine mammary gland: sites of messenger ribonucleic acid expression and potential functions. Richert MM, et al. **Endocrinology** 1999 Jan;140(1):454-61

mRNA surveillance mitigates genetic dominance in Caenorhabditis elegans. Cali BM, et al. **Mol Gen Genet** 1998 Nov;260(2-3):176-84

Making sense of the multiple MAP-2 transcripts and their role in the neuron. Shafit-Zagardo B, et al. **Mol Neurobiol** 1998 Apr;16(2):149-62 (105 ref.)

Identifying mRNAs involved potentially in corticopontine projection by modified differential display. Takami T, et al. **Osaka City Med J** 1998 Jun;44(1):17-33

Do unintended antisense transcripts contribute to sense cosuppression in plants? [letter; comment] Jorgensen RA, et al. **Trends Genet** 1999 Jan;15(1):11-2 (14 ref.). Comment on: Trends Genet 1998 Jul;14(7):255-8.

SECRETION

Apolipoprotein B mRNA and lipoprotein secretion are increased in McArdle RH-7777 cells by expression of betaine-homocysteine S-methyltransferase. Sowden MP, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):639-45

Arterial nerve growth factor (NGF) mRNA, protein, and vascular smooth muscle cell NGF secretion in hypertensive and hyperactive rats. Clemow DB, et al. **Exp Cell Res** 1998 Oct 10;244(1):196-205

THERAPEUTIC USE

Induction of carcinoembryonic antigen (CEA)-specific cytotoxic T-lymphocyte responses in vitro using autologous dendritic cells loaded with CEA peptide or CEA RNA in patients with metastatic malignancies expressing CEA. Nair SK, et al. **Int J Cancer** 1999 Jul 2;82(1):121-4

URINE

Detection of human telomerase reverse transcriptase messenger RNA in voided urine samples as a useful diagnostic tool for bladder cancer. Ito H, et al. **Clin Cancer Res** 1998 Nov;4(11):2807-10

Detection of messenger RNA for the beta-subunit of chorionic gonadotropin in urinary cells from patients with transitional cell carcinoma of the bladder by reverse transcription-polymerase chain reaction. Hotakainen K, et al. **Int J Cancer** 1999 Jun 21;84(3):304-8

RNA, MESSENGER, EDITING see **RNA EDITING**

RNA, MESSENGER, POLYADENYLATED see **RNA, MESSENGER**

RNA, MESSENGER, PRECURSORS see **RNA PRECURSORS**

RNA, MESSENGER, SPLICING see **RNA SPLICING**

RNA METHYLASES see **TRNA METHYLTRANSFERASES**

RNA, NEOPLASM

ANALYSIS

Molecular pathology of leukemia and lymphoma. Bagg A, et al. **Am J Clin Pathol** 1999 Jul;112(1 Suppl 1):S76-92 (115 ref.)

The detection of minimal numbers of contaminating epithelial tumor cells in blood or bone marrow: use, limitations and future of RNA-based methods. Lambrechts AC, et al. **Ann Oncol** 1998 Dec;9(12):1269-76 (60 ref.)

CK20 gene expression: technical limits for the detection of circulating tumor cells. Champelovier P, et al. **Anticancer Res** 1999 May-Jun;19(3A):2073-8

Quantitation of estrogen receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):47-55

Quantitation of progesterone receptor mRNA in breast carcinoma by branched DNA assay. Nargessi RD, et al. **Breast Cancer Res Treat** 1998 Jul;50(1):57-62

Multiparametric in situ messenger RNA hybridization analysis to detect metastasis-related genes in surgical specimens of human colon carcinomas. Kitadai Y, et al. **Clin Cancer Res** 1995 Oct;1(10):1095-102

Bivariate RNA and DNA content analysis in breast carcinoma: biological significance of RNA content. El-Naggar AK, et al. **Clin Cancer Res** 1996 Feb;2(2):419-26

High levels of messenger RNAs for tissue inhibitors of metalloproteinases (TIMP-1 and TIMP-2) in primary breast carcinomas are associated with development of distant metastases. Ree AH, et al. **Clin Cancer Res** 1997 Sep;3(9):1623-8

Quanititation of gene expression by means of HPLC analysis of RT-PCR products. Bachmair F, et al. **Clin Chim Acta** 1999 Jan;279(1-2):25-34

Diagnostic implications of albumin messenger RNA detection and cytokeratin pattern in benign hepatic lesions and biliary cystadenocarcinoma. D'Errico A, et al. **Diagn Mol Pathol** 1998 Dec;7(6):289-94

Diagnosis of synovial sarcoma with the reverse transcriptase-polymerase chain reaction: analyses of 84 soft tissue and bone tumors. Hiraga H, et al. **Diagn Mol Pathol** 1998 Apr;7(2):102-10

Detection of TLS/FUS-CHOP fusion transcripts in myxoid and round cell liposarcomas by nested reverse transcription-polymerase chain reaction using archival paraffin-embedded tissues. Hisaoka M, et al. **Diagn Mol Pathol** 1998 Apr;7(2):96-101

RNA from decades-old archival tissue blocks for retrospective studies. Mizuno T, et al. **Diagn Mol Pathol** 1998 Aug;7(4):202-8

Identification of true differentially expressed mRNAs in a pair of human bladder transitional cell carcinomas using an improved differential display procedure. Gromova I, et al. **Electrophoresis** 1999 Feb;20(2):241-8

Cleavage of double-stranded copy RNA by RNase 1 and RNase T1 provides a robust means to detect p53 gene mutations in clinical specimens. Prescott J, et al. **Electrophoresis** 1999 Jun;20(6):1149-61

Disappearance of PML/RAR alpha acute promyelocytic leukemia-associated transcript during consolidation chemotherapy. Martinelli G, et al. **Haematologica** 1998 Nov;83(11):985-8

The role of the detection of hematogenous micrometastasis in prostate adenocarcinoma and malignant melanoma by RT-PCR. Sardi I, et al. **Int J Mol Med** 1999 Apr;3(4):417-9

Expression of manganese superoxide dismutase in esophageal and gastric cancers. Izutani R, et al. **J Gastroenterol** 1998 Dec;33(6):816-22

In situ mRNA hybridization technique for analysis of human telomerase RNA in gastric precancerous and cancerous lesions. Hiyama T, et al. **Jpn J Cancer Res** 1998 Nov; 89(11):1187-94

Detection of occult lymph node metastases in esophageal cancer by minimally invasive staging combined with molecular diagnostic techniques. Kassis ES, et al. **JSLS** 1998 Oct-Dec;2(4):331-6

A new PCR MIMIC strategy to quantify low mdr1 mRNA levels in drug resistant cell lines and AML blast samples. Illmer T, et al. **Leuk Res** 1999 Jul;23(7):653-63

Detection of BCR-ABL transcripts in chronic myeloid leukemia (CML) using a 'real time' quantitative RT-PCR assay. Preudhomme C, et al. **Leukemia** 1999 Jun; 13(6):957-64

EBER oligonucleotide RNA in situ hybridization in EBV associated neoplasms. Tornóczky T, et al. **Pathol Oncol Res** 1998;4(3):201-5

Ultrastructural nucleolar alterations induced by an ametantrone--poly r(A-U) complex. Jamison JM, et al. **Tissue Cell** 1998 Aug;30(4):475-84

BIOSYNTHESIS

Transforming growth factor betas and their signaling receptors in human hepatocellular carcinoma. Abou-Shady M, et al. **Am J Surg** 1999 Mar;177(3):209-15

Phorbol ester exposure activates an AP-1-mediated increase in ERCC-1 messenger RNA expression in human ovarian tumor cells. Li Q, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):456-66

Neuron-specific hel-N1 and HuD as novel molecular markers of neuroblastoma: a correlation of HuD messenger RNA levels with favorable prognostic features. Ball NS, et al. **Clin Cancer Res** 1997 Oct;3(10):1859-65

Impact of 9-(2-phosphonylmethoxyethyl)adenine on (deoxy)ribonucleotide metabolism and nucleic acid synthesis in tumor cells. Hatse S, et al. **FEBS Lett** 1999 Feb 19;445(1):92-7

Molecular expression of PSMA mRNA and protein in primary renal tumors. Dumas F, et al. **Int J Cancer** 1999 Mar 15;80(6):799-803

Aclarubicin inhibits etoposide induced apoptosis through inhibition of RNA synthesis in P388 murine leukemic cells. Nagata T, et al. **J Exp Clin Cancer Res** 1998 Dec; 17(4):435-42

Placenta growth factor (PlGF) mRNA expression in brain tumors. Nomura M, et al. **J Neurooncol** 1998 Nov; 40(2):123-30

Identical variant TSG101 transcripts in soft tissue sarcomas and various non-neoplastic tissues. Willeke F, et al. **Mol Carcinog** 1998 Dec;23(4):195-200

Cloning of breakpoints in and downstream the IGF2 gene that are associated with overexpression of IGF2 transcripts in colorectal tumours. Hodzic D, et al. **Oncogene** 1999 Aug

19;18(33):4710–7
Effects of benzohydroxamic acids on L1210 lymphoid leukemia cell nucleic acid metabolism. Hall IH, et al. **Pharmazie** 1998 Nov;53(11):794–9

BLOOD

Improved methods using the reverse transcriptase polymerase chain reaction to detect tumour cells. Burchill SA, et al. **Br J Cancer** 1999 Feb;79(5–6):971–7
Detection of melanoma cells in the blood of melanoma patients by melanoma-inhibitory activity (MIA) reverse transcription-PCR. Mühlbauer M, et al. **Clin Cancer Res** 1999 May;5(5):1099–105
New prognostic factors in melanoma: mRNA tumour markers. Keilholz U. **Eur J Cancer** 1998 Jul;34 Suppl 3:S37–41 (37 ref.)
A strategy to identify genes associated with circulating solid tumor cell survival in peripheral blood. Fournier MV, et al. **Mol Med** 1999 May;5(5):313–9
[RT-PCR assay for detecting PSA mRNA in peripheral blood of prostate cancer patients] Okubo Y, et al. **Hinyokika Kiyo** 1999 Jan;45(1):25–30 (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Proliferating cell nuclear antigen as a predictor of therapeutic effect of continuous 5-fluorouracil administration in gastric cancer. Iwatani Y, et al. **Int J Oncol** 1999 May;14(5):965–70
Making sense: therapy targeting RNA continues to advance [news] Volkers N. **J Natl Cancer Inst** 1999 Aug 18; 91(16):1359–60

GENETICS

Detection of c-erbB-2 mRNAs using dig-labelled oligonucleotide probe with in situ hybridisation in human breast carcinoma: comparison with immunohistochemical results. Oztürk M, et al. **Anal Cell Pathol** 1998;16(4):201–9
Expression of transposon LINE-1 is relatively human-specific and function of the transcripts may be proliferation-essential. Kuo KW, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):566–70
An antisense transcript to SMAD5 expressed in fetal and tumor tissues. Zavadil J, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):668–72
Polymerase chain reaction-based diagnosis of rhabdomyosarcomas: comparison of fetal type acetylcholine receptor subunits and myogenin. Gattenlöhner S, et al. **Diagn Mol Pathol** 1998 Jun; 7(3):129–34
Expression of MDR1 mRNA and encoding P-glycoprotein in archival formalin-fixed paraffin-embedded gall bladder cancer tissues. Cao L, et al. **Eur J Cancer** 1998 Sep; 34(10):1612–7
Enhanced therapeutic efficacy of tumor RNA-pulsed dendritic cells after genetic modification with lymphotactin. Zhang W, et al. **Hum Gene Ther** 1999 May 1;10(7):1151–61
Detection of mutations in the DNA polymerase delta gene of human sporadic colorectal cancers and colon cancer cell lines. Flohr T, et al. **Int J Cancer** 1999 Mar 15; 80(6):919–29
Detection of differential gene expression in human osteoblastic cells by non-radioactive RNA arbitrarily primed PCR. Schnabel M, et al. **Int J Mol Med** 1998 Mar; 1(3):593–5
Selective histocompatibility leukocyte antigen (HLA)-A2 loss caused by aberrant pre-mRNA splicing in 624MEL28 melanoma cells. Wang Z, et al. **J Exp Med** 1999 Jul 19; 190(2):205–15
Identification of multiple mRNA and DNA sequences from small tissue samples isolated by laser-assisted microdissection. Bernsen MR, et al. **Lab Invest** 1998 Oct; 78(10):1267–73
A single base mutation in the 5' splice site of intron 7 of the lck gene is responsible for the deletion of exon 7 in lck mRNA of the JCaM1 cell line. Rouer E, et al. **Oncogene** 1999 Jul 22;18(29):4262–8

ISOLATION & PURIFICATION

Purification of total RNA from human stool samples. Alexander RJ, et al. **Dig Dis Sci** 1998 Dec;43(12):2652–8
Isolation of protein kinase C-alpha-regulated cDNAs associated with breast tumor aggressiveness by differential mRNA display. Carey I, et al. **Int J Oncol** 1999 May; 14(5):951–6
RNA isolation from human skin tissues for colorimetric differential display. Hipfel R, et al. **J Biochem Biophys Methods** 1998 Nov 18;37(3):131–5

METABOLISM

Chain-terminating mutations in the APC gene lead to alterations in APC RNA and protein concentration. Gismondi V, et al. **Genes Chromosomes Cancer** 1998 Aug; 22(4):278–86
Expression of alternatively spliced mdm2 transcripts correlates with stabilized wild-type p53 protein in human glioblastoma cells. Kraus A, et al. **Int J Cancer** 1999 Mar 15;80(6):930–4
Alternative splicing, but not allelic loss, of the FHIT gene increases with development of lung cancer. Sato H, et al. **Int J Oncol** 1999 Jul;15(1):81–8
Characterization of c-myc 3' to 5' mRNA decay activities in an in vitro system. Brewer G. **J Biol Chem** 1998 Dec 25;273(52):34770–4
Reversion of human glioblastoma malignancy by U1 small nuclear RNA/ribozyme targeting of scatter factor/hepatocyte growth factor and c-met expression. Abounader R, et al. **J Natl Cancer Inst** 1999 Sep 15; 91(18):1548–56
Human RNase H-mediated RNA cleavage from DNA-RNA duplexes is inhibited by 6-deoxythioguanosine incorporation into DNA. Krynetskaia NF, et al. **Mol Pharmacol** 1999 Oct;56(4):841–8
Differential stability of the DNA-activated protein kinase catalytic subunit mRNA in human glioma cells. Galloway AM, et al. **Oncogene** 1999 Feb 11;18(6):1361–8

RNA, NON-POLYADENYLATED see **RNA**

RNA, NUCLEAR

ANALYSIS

Stoichiometric analysis of protein- and nucleic acid-based structures in the cell nucleus. Bazett-Jones DP, et al. **Micron** 1999 Apr;30(2):151–7

METABOLISM

Trypanosoma brucei: improved detection of nuclear transcripts reveals a genomic position effect on nuclearly accumulating NEO RNAs visualized in stably transformed cells. Köhler S. **Exp Parasitol** 1999 Aug;92(4):249–62
Nuclear RNA export in yeast. Strässer K, et al. **FEBS Lett** 1999 Jun 4;452(1–2):77–81 (64 ref.)
Association of the rat heterogeneous nuclear RNA-ribonucleoprotein F with TATA-binding protein. Yoshida T, et al. **FEBS Lett** 1999 Aug 27;457(2):251–4
Nuclear RNA export. Stutz F, et al. **Genes Dev** 1998 Nov 1;12(21):3303–19 (166 ref.)

PHYSIOLOGY

Specific telomerase RNA residues distant from the template are essential for telomerase function. Roy J, et al. **Genes Dev** 1998 Oct 15;12(20):3286–300

RNA NUCLEOTIDYLTRANSFERASES

BIOSYNTHESIS

Overexpression of rck/p54, a DEAD box protein, in human colorectal tumours. Nakagawa Y, et al. **Br J Cancer** 1999 May;80(5–6):914–7

CHEMISTRY

Unexpected metal ion requirements specific for catalysis of the branching reaction in a group II intron. Dème E, et al. **Biochemistry** 1999 Mar 9;38(10):3157–67

GENETICS

Expression of two dead box genes (DDX1 and DDX6) is independent of that of MYCN in human neuroblastoma cell lines. Akiyama K, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):563–8
An RNA switch at the 5' splice site requires ATP and the DEAD box protein Prp28p. Staley JP, et al. **Mol Cell** 1999 Jan;3(1):55–64

METABOLISM

New evidence for the genomic tag hypothesis: archaeal CCA-adding enzymes and tDNA substrates. Maizels N, et al. **Biol Bull** 1999 Jun;196(3):331–3; discussion 333–4 (20 ref.)
The Bacillus subtilis nucleotidyltransferase is a tRNA CCA-adding enzyme. Raynal LC, et al. **J Bacteriol** 1998 Dec;180(23):6276–82
The CCA-adding enzyme has a single active site. Yue D, et al. **J Biol Chem** 1998 Nov 6;273(45):29693–700

RNA PHAGES

CHEMISTRY

NMR structure and dynamics of an RNA motif common to the spliceosome branch-point helix and the RNA-binding site for phage GA coat protein. Smith JS, et al. **Biochemistry** 1998 Sep 29;37(39):13486–98

RNA, PLANT

Chromosomal localization of 5S rRNA gene loci and the implications for relationships within the Allium complex. Lee SH, et al. **Chromosome Res** 1999;7(2):89–93
Inclusion of polyvinylpyrrolidone in the polymerase chain reaction reverses the inhibitory effects of polyphenolic contamination of RNA. Koonjul PK, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):915–6
Detection of several mRNA species in rice phloem sap. Sasaki T, et al. **Plant Cell Physiol** 1998 Aug;39(8):895–7

ANALYSIS

Nonradioactive Northern blot analysis of plant RNA and the application of different haptens for reprobing. Peterhaensel C, et al. **Anal Biochem** 1998 Nov 15; 264(2):279–83
Nuclear expressed sequence Tag (NEST) analysis: a novel means to study transcription through amplification of nuclear RNA. Macas J, et al. **Cytometry** 1998 Dec 1; 33(4):460–8
Detection and quantification of transcript RNA in transgenic plants using digoxigenin-labeled cDNA probes. Webster KD, et al. **Methods Mol Biol** 1998;81:437–45

BIOSYNTHESIS

Transcriptional activities of the chloroplast-nuclei and proplastid-nuclei isolated from tobacco exhibit different sensitivities to tagetitoxin: implication of the presence of distinct RNA polymerases. Sakai A, et al. **Plant Cell Physiol** 1998 Sep;39(9):928–34
[Effect of Cu2+ and Ni2+ on the intensity of RNA synthesis in corn seedlings] Iazlovyts'ka LS, et al. **Ukr Biokhim Zh** 1999 Jan-Feb;71(1):56–60 (Eng. Abstr.) **(Ukr)**

CHEMISTRY

Functional reconstitution of RNase P activity from a plastid RNA subunit and a cyanobacterial protein subunit. Pascual A, et al. **FEBS Lett** 1999 Jan 8;442(1):7–10
Nucleotide sequence, genetic organization and expression strategy of the double-stranded RNA associated with the '447' cytoplasmic male sterility trait in Vicia faba. Pfeiffer P. **J Gen Virol** 1998 Oct;79 (Pt 10):2349–58

GENETICS

A comparison of gel-based, nylon filter and microarray techniques to detect differential RNA expression in plants. Baldwin D, et al. **Curr Opin Plant Biol** 1999 Apr; 2(2):96–103 (71 ref.)
Phylogenetic relationships among Fagopyrum species revealed by the nucleotide sequences of the ITS region of the nuclear rRNA gene. Yasui Y, et al. **Genes Genet Syst** 1998 Aug;73(4):201–10
The 5S rRNA gene in sea barley (Hordeum marinum Hudson sensu lato): sequence variation among repeat units and relationship to the X haplome in barley (Hordeum). Baum BR, et al. **Genome** 1998 Oct;41(5):652–61
The mitochondrial genome of Chlorogonium elongatum inferred from the complete sequence. Kroymann J, et al. **J Mol Evol** 1998 Oct;47(4):431–40
The cox2 locus of the primitive angiosperm plant Acorus calamus: molecular structure, transcript processing and RNA editing. Albertazzi FJ, et al. **Mol Gen Genet** 1998 Oct;259(6):591–600
Identity elements and aminoacylation of plant tRNATrp. Ulmasov B, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5139–41
Silencing of beta-1,3-glucanase genes in tobacco correlates with an increased abundance of RNA degradation intermediates. van Eldik GJ, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5176–81
Ribozymes targeted to stearoyl-ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603–22
Identification of cis-acting RNA leader elements required for chloroplast psbD gene expression in Chlamydomonas. Nickelsen J, et al. **Plant Cell** 1999 May;11(5):957–70
rbcL Transcript levels in tobacco plastids are independent of light: reduced dark transcription rate is compensated by increased mRNA stability. Shiina T, et al. **Plant Cell** 1998 Oct;10(10):1713–22
Intergenic sequences of clustered tRNA genes: new type of genetic marker for phylogenetic studies, with application to the taxonomy of liverworts. Fiedorow P, et al. **Plant Mol Biol** 1998 Dec;38(6):1257–61
Transcript accumulation and utilization of alternate and non-consensus splice sites in rice granule-bound starch synthase are temperature-sensitive and controlled by a single-nucleotide polymorphism. Larkin PD, et al. **Plant Mol Biol** 1999 Jul;40(4):719–27
Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. Leader DJ, et al. **Plant Mol Biol** 1999 Apr;39(6):1091–100
Unusual inheritance of evolutionarily-related double-stranded RNAs in interspecific hybrid between rice plants Oryza sativa and Oryza rufipogon. Moriyama H, et al. **Plant Mol Biol** 1999 Apr;39(6):1127–36
Symbiotic root nodules of the actinorhizal plant Datisca glomerata express Rubisco activase mRNA. Okubara PA, et al. **Plant Physiol** 1999 Jun;120(2):411–20
A tool for functional plant genomics: chimeric RNA/DNA oligonucleotides cause in vivo gene-specific mutations [see comments] Beetham PR, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8774–8. Comment in: Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8321–3.
Characterization of cucumber mosaic virus. VI. Generation of deletions in defective RNA 3s during passage in transgenic tobacco expressing the 3a gene. Kaplan IB, et al. **Virology** 1998 Nov 25;251(2):279–87

RNA, PLANT

ISOLATION & PURIFICATION

Preservation of algal and higher plant ribosomal RNA integrity during extraction and electrophoretic quantitation. McIntosh L, et al. **Anal Biochem** 1978 Dec;91(2):600–12

Isolation of total RNA from Arabidopsis thaliana seeds. Vicient CM, et al. **Anal Biochem** 1999 Mar 15;268(2):412–3

RNA extraction from virus-diseased sweet potato for reverse transcriptase polymerase chain reaction analysis. Fenby NS, et al. **Mol Biotechnol** 1998 Oct;10(2):187–90

METABOLISM

Systemic spread of sequence-specific transgene RNA degradation in plants is initiated by localized introduction of ectopic promoterless DNA. Voinnet O, et al. **Cell** 1998 Oct 16;95(2):177–87

Connections between virus movement, macromolecular signaling and assimilate allocation. Lucas WJ, et al. **Curr Opin Plant Biol** 1999 Jun;2(3):192–7 (51 ref.)

Involvement of Arabidopsis thaliana ribosomal protein S27 in mRNA degradation triggered by genotoxic stress. Revenkova E, et al. **EMBO J** 1999 Jan 15;18(2):490–9

Enhancement of RNA self-cleavage by micellar catalysis. Riepe A, et al. **FEBS Lett** 1999 Aug 27;457(2):193–9

Identity elements and aminoacylation of plant tRNATrp. Ulmasov B, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5139–41

Silencing of beta-1,3-glucanase genes in tobacco correlates with an increased abundance of RNA degradation intermediates. van Eldik GJ, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5176–81

Stochastic and nonstochastic post-transcriptional silencing of chitinase and beta-1,3-glucanase genes involves increased RNA turnover-possible role for ribosome-independent RNA degradation. Holtorf H, et al. **Plant Cell** 1999 Mar;11(3):471–84

Ribozymes targeted to stearoyl-ACP delta9 desaturase mRNA produce heritable increases of stearic acid in transgenic maize leaves. Merlo AO, et al. **Plant Cell** 1998 Oct;10(10):1603–22

rbcL Transcript levels in tobacco plastids are independent of light: reduced dark transcription rate is compensated by increased mRNA stability. Shiina T, et al. **Plant Cell** 1998 Oct;10(10):1713–22

The 3' untranslated region of a rice alpha-amylase gene mediates sugar-dependent abundance of mRNA. Chan MT, et al. **Plant J** 1998 Sep;15(5):685–95

Symbiotic root nodules of the actinorhizal plant Datisca glomerata express Rubisco activase mRNA. Okubara PA, et al. **Plant Physiol** 1999 Jun;120(2):411–20

Proline accumulation in developing grapevine fruit occurs independently of changes in the levels of delta1-pyrroline-5-carboxylate synthetase mRNA or protein. Stines AP, et al. **Plant Physiol** 1999 Jul;120(3):923

RNA molecules may carry long-distance signals in plants [news; comment] Strauss E. **Science** 1999 Jan 1; 283(5398):12–3. Comment on: Science 1999 Jan 1;283(5398):94–8.

Plant paralog to viral movement protein that potentiates transport of mRNA into the phloem. Xoconostle-Cázares B, et al. **Science** 1999 Jan 1;283(5398):94–8

PHYSIOLOGY

Gene silencing: plants and viruses fight it out. Smyth DR. **Curr Biol** 1999 Feb 11;9(3):R100–2 (17 ref.)

Do unintended antisense transcripts contribute to sense cosuppression in plants? [letter; comment] Jorgensen RA, et al. **Trends Genet** 1999 Jan;15(1):11–2 (14 ref.). Comment on: Trends Genet 1998 Jul;14(7):255–8.

RNA, POLYADENYLATED see **RNA, MESSENGER**

RNA POLYMERASE I

GENETICS

RNA polymerase I transcription in a Brassica interspecific hybrid and its progenitors: Tests of transcription factor involvement in nucleolar dominance. Frieman M, et al. **Genetics** 1999 May;152(1):451–60

Regulation of RNA polymerase I transcription in response to F9 embryonal carcinoma stem cell differentiation. Alzuherri HM, et al. **J Biol Chem** 1999 Feb 12; 274(7):4328–34

Reconstitution of yeast RNA polymerase I transcription in vitro from purified components. TATA-binding protein is not required for basal transcription. Keener J, et al. **J Biol Chem** 1998 Dec 11;273(50):33795–802

I-PpoI, the endonuclease encoded by the group I intron PpLSU3, is expressed from an RNA polymerase I transcript. Lin J, et al. **Mol Cell Biol** 1998 Oct; 18(10):5809–17

Regulation of RNA polymerase I-dependent promoters by the hepatitis B virus X protein via activated Ras and TATA-binding protein. Wang HD, et al. **Mol Cell Biol** 1998 Dec;18(12):7086–94

The fission yeast rpa17+ gene encodes a functional homolog of AC19, a subunit of RNA polymerases I and III of Saccharomyces cerevisiae. Imai K, et al. **Mol Gen Genet** 1999 Mar;261(2):364–73

[Molecular cloning and characteristics of rpc19+ and rpc40+ Schizosaccharomyces pombe genes, coding for common subunits of nuclear RNA polymerase I and III] Shpakovskii GV, et al. **Bioorg Khim** 1998 Dec;24(12):933–7 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

[DNA-dependent RNA polymerase I from human placental nuclei] Balashova MV, et al. **Tsitologiia** 1998;40(11):943–7 (Eng. Abstr.) **(Rus)**

METABOLISM

Mitotic silencing of human rRNA synthesis: inactivation of the promoter selectivity factor SL1 by cdc2/cyclin B-mediated phosphorylation. Heix J, et al. **EMBO J** 1998 Dec 15;17(24):7373–81

Developmental changes in RNA polymerase I and TATA box-binding protein during early Xenopus embryogenesis. Bell P, et al. **Exp Cell Res** 1999 Apr 10;248(1):122–35

Expansion and contraction of ribosomal DNA repeats in Saccharomyces cerevisiae: requirement of replication fork blocking (Fob1) protein and the role of RNA polymerase I. Kobayashi T, et al. **Genes Dev** 1998 Dec 15; 12(24):3821–30

Mutants in ABC10beta, a conserved subunit shared by all three yeast RNA polymerases, specifically affect RNA polymerase I assembly. Gadal O, et al. **J Biol Chem** 1999 Mar 26;274(13):8421–7

Human transcription release factor 2 dissociates RNA polymerases I and II stalled at a cyclobutane thymine dimer. Hara R, et al. **J Biol Chem** 1999 Aug 27; 274(35):24779–86

Histone acetyltransferase and protein kinase activities copurify with a putative Xenopus RNA polymerase I holoenzyme self-sufficient for promoter-dependent transcription. Albert AC, et al. **Mol Cell Biol** 1999 Jan; 19(1):796–806

Terminator element mutations affect both the efficiency and position of RNA polymerase I termination in Schizosaccharomyces pombe. Shwed PS, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2883–8

Cell cycle-dependent regulation of RNA polymerase I transcription: the nucleolar transcription factor UBF is inactive in mitosis and early G1. Klein J, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6096–101

RNA polymerase subunit RPB5 plays a role in transcriptional activation. Miyao T, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15281–6

Regulation of mammalian ribosomal gene transcription by RNA polymerase I. Grummt I. **Prog Nucleic Acid Res Mol Biol** 1999;62:109–54 (232 ref.)

Regulation of RNA polymerase I transcription in yeast and vertebrates. Reeder RH. **Prog Nucleic Acid Res Mol Biol** 1999;62:293–327 (212 ref.)

[Structural-functional characteristics of the Schizosaccharomyces pombe rpb8+ gene, coding the subunit of RNA polymerase I–III, specific only for eukaryotes] Shpakovskii GV, et al. **Bioorg Khim** 1998 Feb; 24(2):119–25 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

p53 represses ribosomal gene transcription. Budde A, et al. **Oncogene** 1999 Jan 28;18(4):1119–24

RNA POLYMERASE II

Transcription by RNA polymerase II during Acanthamoeba differentiation. Orfeo T, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):297–304

RNA polymerase II holoenzymes and subcomplexes. Myer VE, et al. **J Biol Chem** 1998 Oct 23;273(43):27757–60 (96 ref.)

Physical interaction and functional antagonism between the RNA polymerase II elongation factor ELL and p53. Shinobu N, et al. **J Biol Chem** 1999 Jun 11;274(24):17003–10

ANALYSIS

Randomness of spatial distributions of two proteins in the cell nucleus involved in mRNA synthesis and their relationship. Noordmans HJ, et al. **Cytometry** 1998 Nov 1;33(3):297–309

Quantitation of RNA polymerase II and its transcription factors in an HeLa cell: little soluble holoenzyme but significant amounts of polymerases attached to the nuclear substructure. Kimura H, et al. **Mol Cell Biol** 1999 Aug; 19(8):5383–92

ANTAGONISTS & INHIBITORS

NELF, a multisubunit complex containing RD, cooperates with DSIF to repress RNA polymerase II elongation. Yamaguchi Y, et al. **Cell** 1999 Apr 2;97(1):41–51

Transcriptional repression by the Caenorhabditis elegans germ-line protein PIE-1. Batchelder C, et al. **Genes Dev** 1999 Jan 15;13(2):202–12

3-D organization of ribosomal transcription units after DRB inhibition of RNA polymerase II transcription. Panse SL, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2145–54

Inhibition of RNA polymerase II as a trigger for the p53 response. Ljungman M, et al. **Oncogene** 1999 Jan 21; 18(3):583–92

Inhibition of RNA polymerase II transcription in human cells by synthetic DNA-binding ligands [see comments] Dickinson LA, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12890–5. Comment in: Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12739–41.

Inhibition of host RNA polymerase II-dependent transcription by vesicular stomatitis virus results from inactivation of TFIID. Yuan H, et al. **Virology** 1998 Nov 25;251(2):383–92

BIOSYNTHESIS

Anti-repression of RNA polymerase II transcription by pyrrole-imidazole polyamides. Dickinson LA, et al. **Biochemistry** 1999 Aug 17;38(33):10801–7

Isolation and characterization of temperature-sensitive mutations in the gene (rpb3) for subunit 3 of RNA polymerase II in the fission yeast Schizosaccharomyces pombe. Mitobe J, et al. **Mol Gen Genet** 1999 Aug; 262(1):73–84

CHEMISTRY

Yeast RNA polymerase II at 5 A resolution [see comments] Fu J, et al. **Cell** 1999 Sep 17;98(6):799–810. Comment in: Cell 1999 Sep 17;98(6):687–90.

Electron crystal structure of an RNA polymerase II transcription elongation complex [see comments] Poglitsch CL, et al. **Cell** 1999 Sep 17;98(6):791–8. Comment in: Cell 1999 Sep 17;98(6):687–90.

RNA polymerase-DNA interaction: structures of intermediate, open, and elongation complexes. Ebright RH. **Cold Spring Harb Symp Quant Biol** 1998;63:11–20 (78 ref.)

Arabidopsis thaliana RNA polymerase II subunits related to yeast and human RPB5. Larkin RM, et al. **Gene** 1999 Apr 29;231(1–2):41–7

Rpb4, a subunit of RNA polymerase II, enables the enzyme to transcribe at temperature extremes in vitro. Rosenheck S, et al. **J Bacteriol** 1998 Dec;180(23):6187–92

Protein crystallization on lipid layers and structure determination of the RNA polymerase II transcription initiation complex. Asturias FJ, et al. **J Biol Chem** 1999 Mar 12;274(11):6813–6 (29 ref.)

Topological localization of the carboxyl-terminal domain of RNA polymerase II in the initiation complex. Douziech M, et al. **J Biol Chem** 1999 Jul 9;274(28):19868–73

Identification of new mediator subunits in the RNA polymerase II holoenzyme from Saccharomyces cerevisiae. Gustafsson CM, et al. **J Biol Chem** 1998 Nov 20; 273(47):30851–4

Structural characterization of RNA polymerase II complexes arrested by a cyclobutane pyrimidine dimer in the transcribed strand of template DNA. Tornaletti S, et al. **J Biol Chem** 1999 Aug 20;274(34):24124–30

Direct evidence that HIV-1 Tat stimulates RNA polymerase II carboxyl-terminal domain hyperphosphorylation during transcriptional elongation. Isel C, et al. **J Mol Biol** 1999 Jul 30;290(5):929–41

DNA bending and wrapping around RNA polymerase: a "revolutionary" model describing transcriptional mechanisms. Coulombe B, et al. **Microbiol Mol Biol Rev** 1999 Jun;63(2):457–78 (169 ref.)

Ubiquitination of RNA polymerase II large subunit signaled by phosphorylation of carboxyl-terminal domain. Mitsui A, et al. **Proc Natl Acad Sci U S A** 1999 May 25; 96(11):6054–9

[Function and structural biology of general transcription factors and RNA polymerase II in eukaryotes] Ohkuma Y. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):438–56 (99 ref.) **(Jpn)**

DEFICIENCY

Nucleosome structure of the yeast CHA1 promoter: analysis of activation-dependent chromatin remodeling of an RNA-polymerase-II-transcribed gene in TBP and RNA pol II mutants defective in vivo in response to acidic activators. Moreira JM, et al. **EMBO J** 1998 Oct 15; 17(20):6028–38

GENETICS

Med8, a subunit of the mediator CTD complex of RNA polymerase II, directly binds to regulatory elements of SUC2 and HXK2 genes. Chaves RS, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):345–50

Heterogeneous nuclear ribonucleoprotein I (hnRNP-I/PTB) selectively binds the conserved 3' terminus of hepatitis C viral RNA. Chung RT, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):351–62

Anti-repression of RNA polymerase II transcription by pyrrole-imidazole polyamides. Dickinson LA, et al. **Biochemistry** 1999 Aug 17;38(33):10801–7

The role of TAFs in RNA polymerase II transcription. Hahn S. **Cell** 1998 Nov 25;95(5):579–82 (26 ref.)

Requirement of the carboxy-terminal domain of RNA polymerase II for the transcriptional activation of chromosomal c-fos and hsp70A genes. Meininghaus M, et al. **FEBS Lett** 1999 Mar 5;446(1):173–6

Identification of the gene and the protein of RNA polymerase II subunit 9 (Rpb9) from the fission yeast Schizosacharomyces pombe. Sakurai H, et al. **Gene** 1998 Oct 9;221(1):11–6

RNA polymerase II transcription complex assembly in nuclear extracts. Bral CM, et al. **Gene Expr** 1998; 7(3):191–204

Allosteric interactions between capping enzyme subunits and the RNA polymerase II carboxy-terminal domain. Cho EJ, et al. **Genes Dev** 1998 Nov 15;12(22):3482-7

Intermediates in formation and activity of the RNA polymerase II preinitiation complex: holoenzyme recruitment and a postrecruitment role for the TATA box and TFIIB. Ranish JA, et al. **Genes Dev** 1999 Jan 1; 13(1):49-63

Synonymous rates at the RpII215 gene of Drosophila: variation among species and across the coding region. Llopart A, et al. **Genetics** 1999 May;152(1):269-80

A human RNA polymerase II transcription termination factor is a SWI2/SNF2 family member. Liu M, et al. **J Biol Chem** 1998 Oct 2;273(40):25541-4

hTFIIIB-beta stably binds to pol II promoters and recruits RNA polymerase !II in a hTFIIIC1 dependent way. Kober I, et al. **J Mol Biol** 1998 Nov 20;284(1):7-20

The Werner syndrome protein is involved in RNA polymerase II transcription. Balajee AS, et al. **Mol Biol Cell** 1999 Aug;10(8):2655-68

Coupling of transcription with alternative splicing: RNA pol II promoters modulate SF2/ASF and 9G8 effects on an exonic splicing enhancer. Cramer P, et al. **Mol Cell** 1999 Aug;4(2):251-8

An unusual eukaryotic protein phosphatase required for transcription by RNA polymerase II and CTD dephosphorylation in S. cerevisiae. Kobor MS, et al. **Mol Cell** 1999 Jul;4(1):55-62

Elongator, a multisubunit component of a novel RNA polymerase II holoenzyme for transcriptional elongation. Otero G, et al. **Mol Cell** 1999 Jan;3(1):109-18

RMP, a novel RNA polymerase II subunit 5-interacting protein, counteracts transactivation by hepatitis B virus X protein. Dorjsuren D, et al. **Mol Cell Biol** 1998 Dec; 18(12):7546-55

The general transcription factors IIA, IIB, IIF, and IIE are required for RNA polymerase II transcription from the human U1 small nuclear RNA promoter. Kuhlman TC, et al. **Mol Cell Biol** 1999 Mar;19(3):2130-41

Mutations in RNA polymerase II and elongation factor SII severely reduce mRNA levels in Saccharomyces cerevisiae. Lennon JC 3rd, et al. **Mol Cell Biol** 1998 Oct;18(10):5771-9

Growth retardation and neonatal lethality in mice with a homozygous deletion in the C-terminal domain of RNA polymerase II. Litingtung Y, et al. **Mol Gen Genet** 1999 Feb;261(1):100-5

A discrimination study of human core-promoters. Zhang MQ. **Pac Symp Biocomput** 1998;:240-51

TATA sequence requirements for the initiation of transcription for an RNA polymerase II in vitro transcription system from Nicotiana tabacum. Yamaguchi Y, et al. **Plant Mol Biol** 1998 Dec;38(6):1247-52

The Med1 subunit of the yeast mediator complex is involved in both transcriptional activation and repression [published erratum appears in Proc Natl Acad Sci U S A 1999 Mar 16;96(6):3330] Balciunas D, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):376-81

Microsporidia are related to Fungi: evidence from the largest subunit of RNA polymerase II and other proteins. Hirt RP, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):580-5

Human immunodeficiency virus type 1 Tat-dependent activation of an arrested RNA polymerase II elongation complex. Liu Y, et al. **Virology** 1999 Mar 15;255(2):337-46

IMMUNOLOGY

A hyperphosphorylated form of RNA polymerase II is the major interphase antigen of the phosphoprotein antibody MPM-2 and interacts with the peptidyl-prolyl isomerase Pin1. Albert A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2493-500

METABOLISM

Med8, a subunit of the mediator CTD complex of RNA polymerase II, directly binds to regulatory elements of SUC2 and HXK2 genes. Chaves RS, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):345-50

Heterogeneous nuclear ribonucleoprotein I (hnRNP-I/PTB) selectively binds the conserved 3' terminus of hepatitis C viral RNA. Chung RT, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):351-62

Recruitment of TBP or TFIIB to a promoter proximal position leads to stimulation of RNA polymerase II transcription without activator proteins both in vivo and in vitro. Huh JR, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):45-51

Inhibition of RNA polymerase II transcription in human cell extracts by cisplatin DNA damage. Cullinane C, et al. **Biochemistry** 1999 May 11;38(19):6204-12

Unraveling the role of helicases in transcription. Eisen A, et al. **Bioessays** 1998 Aug;20(8):634-41 (81 ref.)

Recruitment of the RNA polymerase II holoenzyme and its implications in gene regulation. Barberis A, et al. **Biol Chem** 1998 Dec;379(12):1397-405 (82 ref.)

Activation of DNA replication in yeast by recruitment of the RNA polymerase II transcription complex. Stagljar I, et al. **Biol Chem** 1999 May;380(5):525-30

Dissecting the regulatory circuitry of a eukaryotic genome. Holstege FC, et al. **Cell** 1998 Nov 25;95(5):717-28

Nuclear c-Abl is a COOH-terminal repeated domain (CTD)-tyrosine (CTD)-tyrosine kinase-specific for the mammalian RNA polymerase II: possible role in transcription elongation. Baskaran R, et al. **Cell Growth Differ** 1999 Jun;10(6):387-96

Phosphorylation of RNA polymerase II C-terminal domain (CTD): a new control for heat shock gene expression? Dubois MF, et al. **Cell Stress Chaperones** 1998 Sep; 3(3):147-51 (52 ref.)

Mechanism of promoter escape by RNA polymerase II. Conaway JW, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:357-64

RNA polymerase-DNA interaction: structures of intermediate, open, and elongation complexes. Ebright RH. **Cold Spring Harb Symp Quant Biol** 1998;63:11-20 (78 ref.)

Cooperative assembly of RNA polymerase II transcription complexes. Ellwood K, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:253-61 (36 ref.)

Activation and the role of reinitiation in the control of transcription by RNA polymerase II. Hahn S. **Cold Spring Harb Symp Quant Biol** 1998;63:181-8 (91 ref.)

Crossing the line between RNA polymerases: transcription of human snRNA genes by RNA polymerases II and III. Henry RW, et al. **Cold Spring Harb Symp Quant Biol** 1998; 63:111-20 (54 ref.)

Mechanism and regulation of yeast RNA polymerase II transcription. Kornberg RD. **Cold Spring Harb Symp Quant Biol** 1998;63:229-32 (26 ref.)

The transition from initiation to elongation by RNA polymerase II. Luse DS, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:289-300 (34 ref.)

Role of RNA polymerase II carboxy-terminal domain in coordinating transcription with RNA processing. McCracken S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:301-9

RNA polymerase II elongation control. Peng J, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:365-70

The RNA polymerase II general transcription factors: past, present, and future. Reinberg D, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:83-103 (168 ref.)

Polarity of transcription on Pol II and archaeal promoters: where is the "one-way sign" and how is it read? Tsai FT, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:53-61 (25 ref.)

Fractions to functions: RNA polymerase II thirty years later. Woychik NA. **Cold Spring Harb Symp Quant Biol** 1998; 63:311-7 (97 ref.)

Coupling RNA polymerase II transcription with pre-mRNA processing. Bentley D. **Curr Opin Cell Biol** 1999 Jun; 11(3):347-51 (51 ref.)

Activation of RNA polymerase II transcription. Berk AJ. **Curr Opin Cell Biol** 1999 Jun;11(3):330-5 (51 ref.)

Mechanism and regulation of transcriptional elongation by RNA polymerase II. Reines D, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):342-6 (56 ref.)

RNA polymerase II as a control panel for multiple coactivator complexes. Hampsey M, et al. **Curr Opin Genet Dev** 1999 Apr;9(2):132-9 (79 ref.)

Regulatory targets in the RNA polymerase II holoenzyme. Parvin JD, et al. **Curr Opin Genet Dev** 1998 Oct;8(5):565-70 (58 ref.)

Regulation of c-myc and immunoglobulin kappa gene transcription by promoter-proximal pausing of RNA polymerase II. Schneider EE, et al. **Curr Top Microbiol Immunol** 1999;246:225-31 (32 ref.)

A novel RNA polymerase II-containing complex potentiates Tat-enhanced HIV-1 transcription. Parada CA, et al. **EMBO J** 1999 Jul 1;18(13):3688-701

Evidence that P-TEFb alleviates the negative effect of DSIF on RNA polymerase II-dependent transcription in vitro. Wada T, et al. **EMBO J** 1998 Dec 15;17(24):7395-403

Ligand-free RAR can interact with the RNA polymerase II subunit hsRPB7 and repress transcription. Shen XQ, et al. **Endocrine** 1999 Jun;10(3):281-9

Factors regulating the transcriptional elongation activity of RNA polymerase II. Shilatifard A. **FASEB J** 1998 Nov; 12(14):1437-46 (84 ref.)

The RNA polymerase II core subunit 11 interacts with keratin 19, a component of the intermediate filament proteins. Bruno T, et al. **FEBS Lett** 1999 Jun 25; 453(3):273-7

A protein phosphatase functions to recycle RNA polymerase II. Cho H, et al. **Genes Dev** 1999 Jun 15;13(12):1540-52

Dynamics of RNA polymerase II localization during the cell cycle. Dirks RW, et al. **Histochem Cell Biol** 1999 May; 111(5):405-10

Direct stimulatory effects of insulin-like growth factor-I (IGF-I) on nuclear RNA polymerase II activity and overall protein synthesis in immature rat Sertoli cells. Palmero S, et al. **Ital J Biochem** 1998 Sep;47(3):163-9

Rpb4, a subunit of RNA polymerase II, enables the enzyme to transcribe at temperature extremes in vitro. Rosenheck S, et al. **J Bacteriol** 1998 Dec;180(23):6187-92

FCP1, the RAP74-interacting subunit of a human protein phosphatase that dephosphorylates the carboxyl-terminal domain of RNA polymerase IIO. Archambault J, et al. **J Biol Chem** 1998 Oct 16;273(42):27593-601

The transcriptional inhibitors, actinomycin D and alpha-amanitin, activate the HIV-1 promoter and favor phosphorylation of the RNA polymerase II C-terminal domain. Cassé C, et al. **J Biol Chem** 1999 Jun 4; 274(23):16097-106

Human transcription release factor 2 dissociates RNA polymerases I and II stalled at a cyclobutane thymine dimer. Hara R, et al. **J Biol Chem** 1999 Aug 27; 274(35):24779-86

Template end-to-end transposition by RNA polymerase II. Izban MG, et al. **J Biol Chem** 1998 Oct 9;273(41):27009-16

Initially transcribed sequences strongly affect the extent of abortive initiation by RNA polymerase II. Keene RG, et al. **J Biol Chem** 1999 Apr 23;274(17):11526-34

Immunoaffinity purification and functional characterization of human transcription factor IIH and RNA polymerase II from clonal cell lines that conditionally express epitope-tagged subunits of the multiprotein complexes. Kershnar E, et al. **J Biol Chem** 1998 Dec 18; 273(51):34444-53

Protein kinase inhibitor H7 blocks the induction of immediate-early genes zif268 and c-fos by a mechanism unrelated to inhibition of protein kinase C but possibly related to inhibition of phosphorylation of RNA polymerase II. Kumahara E, et al. **J Biol Chem** 1999 Apr 9;274(15):10430-8

Rpb4p is necessary for RNA polymerase II activity at high temperature. Maillet I, et al. **J Biol Chem** 1999 Aug 6; 274(32):22586-90

Regulation of carboxyl-terminal domain phosphatase by HIV-1 tat protein. Marshall NF, et al. **J Biol Chem** 1998 Nov 27;273(48):31726-30

A role for the TFIIH XPB DNA helicase in promoter escape by RNA polymerase II. Moreland RJ, et al. **J Biol Chem** 1999 Aug 6;274(32):22127-30

Mechanism of action of RNA polymerase II elongation factor Elongin. Maximal stimulation of elongation requires conversion of the early elongation complex to an Elongin-activable form. Moreland RJ, et al. **J Biol Chem** 1998 Oct 9;273(41):26610-7

Regulation of RNA polymerase II-dependent transcription by poly(ADP-ribosyl)ation of transcription factors. Oei SL, et al. **J Biol Chem** 1998 Nov 27;273(48):31644-7

Transcriptional properties of RNA polymerase II within triplet repeat-containing DNA from the human myotonic dystrophy and fragile X loci. Parsons MA, et al. **J Biol Chem** 1998 Oct 9;273(41):26998-7008

Promoter structure and transcriptional activation with chromatin templates assembled in vitro. A single Gal4-VP16 dimer binds to chromatin or to DNA with comparable affinity. Pazin MJ, et al. **J Biol Chem** 1998 Dec 18;273(51):34653-60

An eukaryotic RuvB-like protein (RUVBL1) essential for growth. Qiu XB, et al. **J Biol Chem** 1998 Oct 23; 273(43):27786-93

RNA polymerase-specific nucleosome disruption by transcription in vivo. Sathyanarayana UG, et al. **J Biol Chem** 1999 Jun 4;274(23):16431-6

Cloning and characterization of the EAP30 subunit of the ELL complex that confers derepression of transcription by RNA polymerase II. Schmidt AE, et al. **J Biol Chem** 1999 Jul 30;274(31):21981-5

RNA polymerase II elongation complexes containing the Cockayne syndrome group B protein interact with a molecular complex containing the transcription factor IIH components xeroderma pigmentosum B and p62. Tantin D. **J Biol Chem** 1998 Oct 23;273(43):27794-9

Rad26, the yeast homolog of the cockayne syndrome B gene product, counteracts inhibition of DNA repair due to RNA polymerase II transcription. Tijsterman M, et al. **J Biol Chem** 1999 Jan 15;274(3):1199-202

Functional organization of two large subunits of the fission yeast Schizosaccharomyces pombe RNA polymerase II. Location of the catalytic sites. Wlassoff WA, et al. **J Biol Chem** 1999 Feb 19;274(8):5104-13

The human homologue of Drosophila TRF-proximal protein is associated with an RNA polymerase II-SRB complex. Xiao H, et al. **J Biol Chem** 1999 Feb 12;274(7):3937-40

A hyperphosphorylated form of RNA polymerase II is the major interphase antigen of the phosphoprotein antibody MPM-2 and interacts with the peptidyl-prolyl isomerase Pin1. Albert A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2493-500

Active transgenes in zebrafish are enriched in acetylated histone H4 and dynamically associate with RNA Pol II and splicing complexes. Collas P, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1045-54

RNA polymerase II localizes at sites of human cytomegalovirus immediate-early RNA synthesis and processing. Snaar SP, et al. **J Histochem Cytochem** 1999 Feb;47(2):245-54

Direct evidence that HIV-1 Tat stimulates RNA polymerase II carboxyl-terminal domain hyperphosphorylation during transcriptional elongation. Isel C, et al. **J Mol Biol** 1999 Jul 30;290(5):929-41

hTFIIIB-beta stably binds to pol II promoters and recruits RNA polymerase III in a hTFIIIC1 dependent way. Kober I, et al. **J Mol Biol** 1998 Nov 20;284(1):7-20

ICP22 and the UL13 protein kinase are both required for herpes simplex virus-induced modification of the large subunit of RNA polymerase II. Long MC, et al. **J Virol** 1999 Jul;73(7):5593-604

Human and rodent transcription elongation factor P-TEFb: interactions with human immunodeficiency virus type 1 tat and carboxy-terminal domain substrate. Ramanathan Y, et al. **J Virol** 1999 Jul;73(7):5448-58

Terminal exon definition occurs cotranscriptionally and promotes termination of RNA polymerase II. Dye MJ, et

al. **Mol Cell** 1999 Mar;3(3):371–8
GAL4 is regulated by the RNA polymerase II holoenzyme-associated cyclin-dependent protein kinase SRB10/CDK8. Hirst M, et al. **Mol Cell** 1999 May; 3(5):673–8
Distinct roles for CTD Ser-2 and Ser-5 phosphorylation in the recruitment and allosteric activation of mammalian mRNA capping enzyme. Ho CK, et al. **Mol Cell** 1999 Mar; 3(3):405–11
RNA polymerase II targets pre-mRNA splicing factors to transcription sites in vivo. Misteli T, et al. **Mol Cell** 1999 Jun;3(6):697–705
yTAFII61 has a general role in RNA polymerase II transcription and is required by Gcn4p to recruit the SAGA coactivator complex. Natarajan K, et al. **Mol Cell** 1998 Nov;2(5):683–92
EM visualization of transcription by RNA polymerase II: downstream termination requires a poly(A) signal but not transcript cleavage. Osheim YN, et al. **Mol Cell** 1999 Mar; 3(3):379–87
Wrapping of promoter DNA around the RNA polymerase II initiation complex induced by TFIIF. Robert F, et al. **Mol Cell** 1998 Sep;2(3):341–51
A novel histone acetyltransferase is an integral subunit of elongating RNA polymerase II holoenzyme. Wittschieben BO, et al. **Mol Cell** 1999 Jul;4(1):123–8
Specific transcriptional pausing activates polyadenylation in a coupled in vitro system. Yonaha M, et al. **Mol Cell** 1999 May;3(5):593–600
A Ras-dependent pathway regulates RNA polymerase II phosphorylation in cardiac myocytes: implications for cardiac hypertrophy. Abdellatif M, et al. **Mol Cell Biol** 1998 Nov;18(11):6729–36
A complex containing RNA polymerase II, Paf1p, Cdc73p, Hpr1p, and Ccr4p plays a role in protein kinase C signaling. Chang M, et al. **Mol Cell Biol** 1999 Feb;19(2):1056–67
Multiple layers of cooperativity regulate enhanceosome-responsive RNA polymerase II transcription complex assembly. Ellwood K, et al. **Mol Cell Biol** 1999 Apr;19(4):2613–23
An activator binding module of yeast RNA polymerase II holoenzyme. Lee YC, et al. **Mol Cell Biol** 1999 Apr; 19(4):2967–76
An RNA polymerase II complex containing all essential initiation factors binds to the activation domain of PAR leucine zipper transcription factor thyroid embryonic factor. Ossipow V, et al. **Mol Cell Biol** 1999 Feb; 19(2):1242–50
Rpb7 can interact with RNA polymerase II and support transcription during some stresses independently of Rpb4. Sheffer A, et al. **Mol Cell Biol** 1999 Apr;19(4):2672–80
Transcriptional cofactor CA150 regulates RNA polymerase II elongation in a TATA-box-dependent manner. Suñé C, et al. **Mol Cell Biol** 1999 Jul;19(7):4719–28
RNA polymerase II transcription suppresses nucleosomal modulation of UV-induced (6–4) photoproduct and cyclobutane pyrimidine dimer repair in yeast. Tijsterman M, et al. **Mol Cell Biol** 1999 Jan;19(1):934–40
Characterization and properties of heteromeric plant protein complexes that interact with tef cis-acting elements in both RNA polymerase II-dependent promoters and rDNA spacer sequences. Manevski A, et al. **Mol Gen Genet** 1999 Jul;261(6):892–900
Developmental changes in RNA polymerase II in bovine oocytes, early embryos, and effect of alpha-amanitin on embryo development. Memili E, et al. **Mol Reprod Dev** 1998 Dec;51(4):381–9
Heat shock of HeLa cells inactivates a nuclear protein phosphatase specific for dephosphorylation of the C-terminal domain of RNA polymerase II. Dubois MF, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1338–44
Transcriptional pause, arrest and termination sites for RNA polymerase II in mammalian N- and c-myc genes. Keene RG, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3173–82
Sequence divergence of the RNA polymerase shared subunit ABC14.5 (Rpb8) selectively affects RNA polymerase III assembly in Saccharomyces cerevisiae. Voutsina A, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1047–55
Cyclin C/CDK8 and cyclin H/CDK7/p36 are biochemically distinct CTD kinases. Rickert P, et al. **Oncogene** 1999 Jan 28;18(4):1093–102
Automatic extraction of position specific cooccurrence of transcription factor bindings on promoters. Tsunoda T, et al. **Pac Symp Biocomput** 1998;:252–63
A discrimination study of human core-promoters. Zhang MQ. **Pac Symp Biocomput** 1998;:240–51
A rice homolog of Cdk7/MO15 phosphorylates both cyclin-dependent protein kinases and the carboxy-terminal domain of RNA polymerase II. Yamaguchi M, et al. **Plant J** 1998 Dec;16(5):613–9
A novel yeast protein influencing the response of RNA polymerase II to transcriptional activators. Emili A, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11122–7
Transcriptional regulation: contending with complexity [comment] Holstege FCP, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):2–4. Comment on: Proc Natl Acad Sci U S A 1999 Jan 5;96(1):67–72.
Efficient recruitment of TFIIB and CBP-RNA polymerase II holoenzyme by an interferon-beta enhanceosome in vitro. Kim TK, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12191–6
Ubiquitination of RNA polymerase II large subunit signaled by phosphorylation of carboxyl-terminal domain. Mitsui A, et al. **Proc Natl Acad Sci U S A** 1999 May 25; 96(11):6054–9
RNA polymerase subunit RPB5 plays a role in transcriptional activation. Miyao T, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15281–6
RNA polymerase switch in transcription of yeast rDNA: role of transcription factor UAF (upstream activation factor) in silencing rDNA transcription by RNA polymerase II. Vu L, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13; 96(8):4390–5
Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. Kleiman FE, et al. **Science** 1999 Sep 3;285(5433):1576–9
[Structural-functional characteristics of the Schizosaccharomyces pombe rpb8+ gene, coding the subunit of RNA polymerase I–III, specific only for eukaryotes] Shpakovskii GV, et al. **Bioorg Khim** 1998 Feb; 24(2):119–25 (Eng. Abstr.) **(Rus)**
[RNA polymerase II] Knoppe DG. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):156–62 (41 ref.) **(Rus)**

PHYSIOLOGY

Transcription-coupled repair of DNA damage: unanticipated players, unexpected complexities. Leadon SA. **Am J Hum Genet** 1999 May;64(5):1259–63 (39 ref.)
A variety of RNA polymerases II and III-dependent promoter classes is repressed by factors containing the Krüppel-associated/finger preceding box of zinc finger proteins. Senatore B, et al. **Gene** 1999 Jul 8;234(2):381–94
Phosphorylated RNA polymerase II stimulates pre-mRNA splicing. Hirose Y, et al. **Genes Dev** 1999 May 15; 13(10):1234–9
The Eukaryotic Promoter Database (EPD): recent developments. Périer RC, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):307–9
[Function and structural biology of general transcription factors and RNA polymerase II in eukaryotes] Ohkuma Y. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):438–56 (99 ref.) **(Jpn)**

RNA POLYMERASE III

ANTAGONISTS & INHIBITORS

Inhibition of RNA polymerase III transcription by a ribosome-associated kinase activity. Westmark CJ, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4758–64

BIOSYNTHESIS

A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. Pannone BK, et al. **EMBO J** 1998 Dec 15;17(24):7442–53

CHEMISTRY

A protein-protein interaction map of yeast RNA polymerase III. Flores A, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7815–20
A preliminary CD and NMR study of the Escherichia coli DNA polymerase III theta subunit. Li D, et al. **Proteins** 1999 Jul 1;36(1):111–6

GENETICS

Termination sequence requirements vary among genes transcribed by RNA polymerase III. Gunnery S, et al. **J Mol Biol** 1999 Feb 26;286(3):745–57
RNA polymerase III transcription factor IIIB is a target for repression by pocket proteins p107 and p130. Sutcliffe JE, et al. **Mol Cell Biol** 1999 Jun;19(6):4255–61
The fission yeast rpa17+ gene encodes a functional homolog of AC19, a subunit of RNA polymerases I and III of Saccharomyces cerevisiae. Imai K, et al. **Mol Gen Genet** 1999 Mar;261(2):364–73
The activity binding to the termination region of several pol III genes represents a separate entity and is distinct from a novel component enhancing U6 snRNA transcription. Oettel S, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4324–31
[Molecular cloning and characteristics of rpc19+ and rpc40+ Schizosaccharomyces pombe genes, coding for common subunits of nuclear RNA polymerase I and III] Shpakovskii GV, et al. **Bioorg Khim** 1998 Dec;24(12):933–7 (Eng. Abstr.) **(Rus)**

METABOLISM

The yeast RNA polymerase III transcription machinery: a paradigm for eukaryotic gene activation. Chédin S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:381–9 (103 ref.)
Crossing the line between RNA polymerases: transcription of human snRNA genes by RNA polymerases II and III. Henry RW, et al. **Cold Spring Harb Symp Quant Biol** 1998; 63:111–20 (54 ref.)
Transcription factor IIIB: the architecture of its DNA complex, and its roles in initiation of transcription by RNA polymerase III. Kumar A, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:121–9 (60 ref.)
Regional specialization in human nuclei: visualization of discrete sites of transcription by RNA polymerase III. Pombo A, et al. **EMBO J** 1999 Apr 15;18(8):2241–53
A novel human DNA-binding protein with sequence similarity to a subfamily of redox proteins which is able to repress RNA-polymerase-III-driven transcription of the Alu-family retroposons in vitro. Kropotov A, et al. **Eur J Biochem** 1999 Mar;260(2):336–46
The RNA cleavage activity of RNA polymerase III is mediated by an essential TFIIS-like subunit and is important for transcription termination. Chédin S, et al. **Genes Dev** 1998 Dec 15;12(24):3857–71
Abortive initiation by Saccharomyces cerevisiae RNA polymerase III. Bhargava P, et al. **J Biol Chem** 1999 Sep 10;274(37):26550–6
Mutational analysis of the hydrolytic activity of yeast RNA polymerase III. Bobkova EV, et al. **J Biol Chem** 1999 Jul 23;274(30):21342–8
Terminator-specific recycling of a B1-Alu transcription complex by RNA polymerase III is mediated by the RNA terminus-binding protein La. Goodier JL, et al. **J Biol Chem** 1998 Oct 2;273(40):26110–6
Mutagenesis of yeast TFIIIB70 reveals C-terminal residues critical for interaction with TBP and C34. Andrau JC, et al. **J Mol Biol** 1999 May 14;288(4):511–20
The RNA polymerase III-recruiting factor TFIIIB induces a DNA bend between the TATA box and the transcriptional start site. Grove A, et al. **J Mol Biol** 1999 Jan 29;285(4):1429–40
hTFIIIB-beta stably binds to pol II promoters and recruits RNA polymerase III in a hTFIIIC1 dependent way. Kober I, et al. **J Mol Biol** 1998 Nov 20;284(1):7–20
Factors governing the activity in vivo of ribozymes transcribed by RNA polymerase III. Koseki S, et al. **J Virol** 1999 Mar;73(3):1868–77
RNA polymerase III-based two-hybrid system. Marsolier MC, et al. **Methods Enzymol** 1999;303:411–22
A review of progress towards elucidating the role of protein kinase CK2 in polymerase III transcription: regulation of the TATA binding protein. Ghavidel A, et al. **Mol Cell Biochem** 1999 Jan;191(1-2):143–8
Cloning and characterization of two evolutionarily conserved subunits (TFIIIC102 and TFIIIC63) of human TFIIIC and their involvement in functional interactions with TFIIIB and RNA polymerase III. Hsieh YJ, et al. **Mol Cell Biol** 1999 Jul;19(7):4944–52
Human TFIIIC relieves chromatin-mediated repression of RNA polymerase III transcription and contains an intrinsic histone acetyltransferase activity. Kundu TK, et al. **Mol Cell Biol** 1999 Feb;19(2):1605–15
Activation of RNA polymerase III transcription in cells transformed by simian virus 40. Larminie CG, et al. **Mol Cell Biol** 1999 Jul;19(7):4927–34
Enhancer of RNA polymerase III gene transcription. Sturges MR, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):690–4
Sequence divergence of the RNA polymerase shared subunit ABC14.5 (Rpb8) selectively affects RNA polymerase III assembly in Saccharomyces cerevisiae. Voutsina A, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1047–55
A protein-protein interaction map of yeast RNA polymerase III. Flores A, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7815–20
RNA polymerase subunit RPB5 plays a role in transcriptional activation. Miyao T, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15281–6
[Structural-functional characteristics of the Schizosaccharomyces pombe rpb8+ gene, coding the subunit of RNA polymerase I–III, specific only for eukaryotes] Shpakovskii GV, et al. **Bioorg Khim** 1998 Feb; 24(2):119–25 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

A variety of RNA polymerases II and III-dependent promoter classes is repressed by factors containing the Krüppel-associated/finger preceding box of zinc finger proteins. Senatore B, et al. **Gene** 1999 Jul 8;234(2):381–94

RNA POLYMERASES see **DNA-DIRECTED RNA POLYMERASE**

RNA PRECURSORS

A downstream splicing enhancer is essential for in vitro pre-mRNA splicing. Yue BG, et al. **FEBS Lett** 1999 May 14;451(1):10–4
Identification of eight proteins that cross-link to pre-mRNA in the yeast commitment complex. Zhang D, et al. **Genes Dev** 1999 Mar 1;13(5):581–92
Aberrant splicing of the Drosophila melanogaster phenylalanine hydroxylase pre-mRNA caused by the insertion of a B104/roo transposable element in the Henna locus. Ruiz-Vázquez P, et al. **Insect Biochem Mol Biol** 1999 Apr;29(4):311–8
Partially processed pre-rRNA is preserved in association with processing components in nucleolus-derived foci during mitosis. Dundr M, et al. **Mol Biol Cell** 1998 Sep; 9(9):2407–22
The deafness-associated mitochondrial DNA mutation at position 7445, which affects tRNASer(UCN) precursor processing, has long-range effects on NADH dehydrogenase subunit ND6 gene expression. Guan MX, et al. **Mol Cell Biol** 1998 Oct;18(10):5868–79
A novel genetic screen for snRNP assembly factors in yeast identifies a conserved protein, Sad1p, also required for pre-mRNA splicing. Lygerou Z, et al. **Mol Cell Biol** 1999 Mar;19(3):2008–20

Substrate specificities of SR proteins in constitutive splicing are determined by their RNA recognition motifs and composite pre-mRNA exonic elements. Mayeda A, et al. **Mol Cell Biol** 1999 Mar;19(3):1853–63

Multiple distinct splicing enhancers in the protein-coding sequences of a constitutively spliced pre-mRNA. Schaal TD, et al. **Mol Cell Biol** 1999 Jan;19(1):261–73

A human U2 RNA mutant stalled in 3' end processing is impaired in nuclear import. Huang Q, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1025–31

BIOSYNTHESIS

Reduction of hepatic insulin-like growth factor I (IGF-I) messenger ribonucleic acid (mRNA) during fasting is associated with diminished splicing of IGF-I pre-mRNA and decreased stability of cytoplasmic IGF-I mRNA. Zhang J, et al. **Endocrinology** 1998 Nov;139(11):4523–30

Effects of growth conditions on expression of mycobacterial murA and tyrS genes and contributions of their transcripts to precursor rRNA synthesis. Gonzalez-y-Merchand JA, et al. **J Bacteriol** 1999 Aug;181(15):4617–27

Roles of multiple promoters in transcription of ribosomal DNA: effects of growth conditions on precursor rRNA synthesis in mycobacteria. Gonzalez-y-Merchand JA, et al. **J Bacteriol** 1998 Nov;180(21):5756–61

p53 represses ribosomal gene transcription. Budde A, et al. **Oncogene** 1999 Jan 28;18(4):1119–24

CHEMISTRY

RNA secondary structure: an important cis-element in rat calcitonin/CGRP pre-messenger RNA splicing. Coleman TP, et al. **Biochemistry** 1998 Nov 10;37(45):15941–50

Chemical shift perturbation studies of the interactions of the second RNA-binding domain of the Drosophila sex-lethal protein with the transformer pre-mRNA polyuridine tract and 3' splice-site sequences. Chi SW, et al. **Eur J Biochem** 1999 Mar;260(3):649–60

Common secondary structures for the second internal transcribed spacer pre-rRNA of two subfamilies of trichostrongylid nematodes. Chilton NB, et al. **Int J Parasitol** 1998 Nov;28(11):1765–73

Conserved core structure in the internal transcribed spacer 1 of the Schizosaccharomyces pombe precursor ribosomal RNA. Lalev AI, et al. **J Mol Biol** 1998 Dec 18; 284(5):1341–51

Regulation of fibronectin EDA exon alternative splicing: possible role of RNA secondary structure for enhancer display. Muro AF, et al. **Mol Cell Biol** 1999 Apr; 19(4):2657–71

Structural basis for recognition of the tra mRNA precursor by the Sex-lethal protein. Handa N, et al. **Nature** 1999 Apr 15;398(6728):579–85

Structural equivalence in the transcribed spacers of pre-rRNA transcripts in Schizosaccharomyces pombe. Lalev AI, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3071–8

Evolutionarily conserved structural features in the ITS2 of mammalian pre-rRNAs and potential interactions with the snoRNA U8 detected by comparative analysis of new mouse sequences. Michot B, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2271–82

DRUG EFFECTS

Antisense oligonucleotides with different backbones. Modification of splicing pathways and efficacy of uptake. Schmajuk G, et al. **J Biol Chem** 1999 Jul 30;274(31):21783–9

GENETICS

Induction of multiple pituitary adenylate cyclase activating polypeptide (PACAP) transcripts through alternative cleavage and polyadenylation of proPACAP precursor mRNA. Harakall SA, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:367–74

Acidic stimulation induces a negative regulatory factor that affects alternative exon selection in vitro in human ATP synthase gamma-subunit pre-mRNA. Hayakawa M, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):603–8

Recombination of nonreplicative RNA precursors of Sindbis virus in infected cells overexpressing murine-inducible nitric oxide synthase. Herrmann A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):524–31

A novel Arg362Ser mutation in the sterol 27-hydroxylase gene (CYP27): its effects on pre-mRNA splicing and enzyme activity. Chen W, et al. **Biochemistry** 1998 Oct 27;37(43):15050–6

Flipping the switch to an active spliceosome. Murray HL, et al. **Cell** 1999 Mar 5;96(5):599–602 (14 ref.)

A novel function for SMN, the spinal muscular atrophy disease gene product, in pre-mRNA splicing. Pellizzoni L, et al. **Cell** 1998 Nov 25;95(5):615–24

Cell-division-cycle defects associated with fission yeast pre-mRNA splicing mutants. Potashkin J, et al. **Curr Genet** 1998 Sep;34(3):153–63

Coupling RNA polymerase II transcription with pre-mRNA processing. Bentley D. **Curr Opin Cell Biol** 1999 Jun; 11(3):347–51 (51 ref.)

A systematic analysis of the factors that determine the strength of pre-mRNA splicing enhancers. Graveley BR, et al. **EMBO J** 1998 Nov 16;17(22):6747–56

Novel processing in a mammalian nuclear 28S pre-rRNA: tissue-specific elimination of an 'intron' bearing a hidden break site. Melen GJ, et al. **EMBO J** 1999 Jun 1; 18(11):3107–18

Neural precursor differentiation following transplantation into neocortex is dependent on intrinsic developmental state and receptor competence. Sheen VL, et al. **Exp Neurol** 1999 Jul;158(1):47–62

Editing of messenger RNA precursors and of tRNAs by adenosine to inosine conversion. Keller W, et al. **FEBS Lett** 1999 Jun 4;452(1–2):71–6 (44 ref.)

3'-End processing of pre-mRNA in eukaryotes. Wahle E, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):277–95 (141 ref.)

Pre-mRNA splicing of IgM exons M1 and M2 is directed by a juxtaposed splicing enhancer and inhibitor. Kan JL, et al. **Genes Dev** 1999 Feb 15;13(4):462–71

The type 2C Ser/Thr phosphatase PP2Cgamma is a pre-mRNA splicing factor. Murray MV, et al. **Genes Dev** 1999 Jan 1;13(1):87–97

A transcript map of an 800-kb region on human chromosome 11q13, part of the candidate region for SCA5 and BBS1. Zhu S, et al. **Hum Genet** 1998 Dec;103(6):674–80

A premature termination codon in either exon of minute virus of mice P4 promoter-generated pre-mRNA can inhibit nuclear splicing of the intervening intron in an open reading frame-dependent manner. Gersappe A, et al. **J Biol Chem** 1999 Aug 6;274(32):22452–8

Mutations in a peptidylprolyl-cis/trans-isomerase gene lead to a defect in 3'-end formation of a pre-mRNA in Saccharomyces cerevisiae. Hani J, et al. **J Biol Chem** 1999 Jan 1;274(1):108–16

A nuclear encoded and mitochondrial imported dicistronic tRNA precursor in Trypanosoma brucei. LeBlanc AJ, et al. **J Biol Chem** 1999 Jul 23;274(30):21071–7

Editing of glutamate receptor subunit B pre-mRNA by splice-site variants of interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Feb 19;274(8):5070–7

Regulation by pH of the alternative splicing of the stem cell factor pre-mRNA in the testis. Mauduit C, et al. **J Biol Chem** 1999 Jan 8;274(2):770–5

Processing of endogenous pre-mRNAs in association with SC-35 domains is gene specific. Smith KP, et al. **J Cell Biol** 1999 Feb 22;144(4):617–29

Phosphorylation regulates in vivo interaction and molecular targeting of serine/arginine-rich pre-mRNA splicing factors. Yeakley JM, et al. **J Cell Biol** 1999 May 3; 145(3):447–55

Selective histocompatibility leukocyte antigen (HLA)-A2 loss caused by aberrant pre-mRNA splicing in 624MEL28 melanoma cells. Wang Z, et al. **J Exp Med** 1999 Jul 19; 190(2):205–15

Essential structural features in the Schizosaccharomyces pombe pre-rRNA 5' external transcribed spacer. Intine RV, et al. **J Mol Biol** 1999 Feb 26;286(3):695–708

Function of a bovine papillomavirus type 1 exonic splicing suppressor requires a suboptimal upstream 3' splice site. Zheng ZM, et al. **J Virol** 1999 Jan;73(1):29–36

A link between secretion and pre-mRNA processing defects in Saccharomyces cerevisiae and the identification of a novel splicing gene, RSE1. Chen EJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7139–46

Stem-loop binding protein facilitates 3'-end formation by stabilizing U7 snRNP binding to histone pre-mRNA. Dominski Z, et al. **Mol Cell Biol** 1999 May;19(5):3561–70

Detection of a novel ATP-dependent cross-linked protein at the 5' splice site-U1 small nuclear RNA duplex by methylene blue-mediated photo-cross-linking. Liu ZR, et al. **Mol Cell Biol** 1998 Dec;18(12):6910–20

The pre-mRNA 5' cap determines whether U6 small nuclear RNA succeeds U1 small nuclear ribonucleoprotein particle at 5' splice sites. O'Mullane L, et al. **Mol Cell Biol** 1998 Dec;18(12):7510–20

AT-AC pre-mRNA splicing mechanisms and conservation of minor introns in voltage-gated ion channel genes. Wu Q, et al. **Mol Cell Biol** 1999 May;19(5):3225–36 (130 ref.)

Cooperative interaction of branch signals in the actin intron of Saccharomyces cerevisiae. Castanotto D, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4137–45

Genomic detection of new yeast pre-mRNA 3'-end-processing signals. Graber JH, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):888–94

The fission yeast prp10(+) gene involved in pre-mRNA splicing encodes a homologue of highly conserved splicing factor, SAP155. Habara Y, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5662–9

A conditional U5 snRNA mutation affecting pre-mRNA splicing and nuclear pre-mRNA retention identifies SSD1/SRK1 as a general splicing mutant suppressor. Luukkonen BG, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3455–65

Long 5'leaders inhibit removal of a 3't railer from a precursor tRNA by mammalian tRNA 3' processing endoribonuclease. Nashimoto M, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2770–6

Preferential cleavage in pre-ribosomal RNA byprotein B23 endoribonuclease. Savkur RS, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4508–15

Natural trans-splicing in carnitine octanoyltransferase pre-mRNAs in rat liver. Caudevilla C, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12185–90

Snt309p modulates interactions of Prp19p with its associated components to stabilize the Prp19p-associated complex essential for pre-mRNA splicing. Chen HR, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5406–11

The poly(A)-limiting element is a conserved cis-acting sequence that regulates poly(A) tail length on nuclear pre-mRNAs. Gu H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8943–8

Serine-arginine (SR)-rich splicing factors have an exon-independent function in pre-mRNA splicing. Hertel KJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):2651–5

The role of alternative pre-mRNA splicing in regulating the structure and function of skeletal protein 4.1. Conboy J. **Proc Soc Exp Biol Med** 1999 Feb;220(2):73–8 (44 ref.)

Nonsense mutations in the alcohol dehydrogenase gene of Drosophila melanogaster correlate with an abnormal 3'end processing of the corresponding pre-mRNA. Brogna S. **RNA** 1999 Apr;5(4):562–73

Trans-complementation of the second step of pre-mRNA splicing by exogenous 5' exons. Chanfreau G, et al. **RNA** 1999 Jul;5(7):876–82

Donor site competition is involved in the regulation of alternative splicing of the rat beta-tropomyosin pre-mRNA. Chen CD, et al. **RNA** 1999 Feb;5(2):290–301

The stability and fate of a spliced intron from vertebrate cells. Clement JQ, et al. **RNA** 1999 Feb;5(2):206–20

Exonic splicing enhancers contribute to the use of both 3' and 5' splice site usage of rat beta-tropomyosin pre-mRNA. Selvakumar M, et al. **RNA** 1999 Mar; 5(3):378–94

Purine-rich enhancers function in the AT-AC pre-mRNA splicing pathway and do so independently of intact U1 snRNP. Wu Q, et al. **RNA** 1998 Dec;4(12):1664–73

METABOLISM

Alternative splicing of pre-mRNA: developmental consequences and mechanisms of regulation. Lopez AJ. **Annu Rev Genet** 1998;32:279–305 (149 ref.)

Identification of individual nucleotides in the bacterial ribonuclease P ribozyme adjacent to the pre-tRNA cleavage site by short-range photo-cross-linking. Christian EL, et al. **Biochemistry** 1998 Dec 15;37(50):17618–28

The track of the pre-tRNA 5' leader in the ribonuclease P ribozyme-substrate complex. Christian EL, et al. **Biochemistry** 1999 Sep 28;38(39):12629–38

Recognition of a pre-tRNA substrate by the Bacillus subtilis RNase P holoenzyme. Loria A, et al. **Biochemistry** 1998 Nov 3;37(44):15466–73

Minimum requirements for substrates of mammalian tRNA 3' processing endoribonuclease. Nashimoto M, et al. **Biochemistry** 1999 Sep 14;38(37):12089–96

Processing of precursor rRNA in Euglena gracilis: identification of intermediates in the pathway to a highly fragmented large subunit rRNA. Greenwood SJ, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1–2):128–38

Yeast ribosomal proteins L4, L17, L20, and L25 exhibit different binding characteristics for the yeast 35S precursor rRNA. Yeh LC, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1–2):139–48

RNA splicing: What has phosphorylation got to do with it? Misteli T. **Curr Biol** 1999 Mar 25;9(6):R198–200 (12 ref.)

Nuclear organization of pre-mRNA splicing factors. Sleeman JE, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):372–7 (61 ref.)

Guided tours: from precursor snoRNA to functional snoRNP. Weinstein LB, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):378–84 (56 ref.)

The role of exportin-t in selective nuclear export of mature tRNAs. Arts GJ, et al. **EMBO J** 1998 Dec 15; 17(24):7430–41

Inefficient processing impairs release of RNA from the site of transcription. Custódio N, et al. **EMBO J** 1999 May 17;18(10):2855–66

Intronless mRNA transport elements may affect multiple steps of pre-mRNA processing. Huang Y, et al. **EMBO J** 1999 Mar 15;18(6):1642–52

Control of cleavage site selection during mRNA 3' end formation by a yeast hnRNP. Minvielle-Sebastia L, et al. **EMBO J** 1998 Dec 15;17(24):7454–68

3'-End processing of pre-mRNA in eukaryotes. Wahle E, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):277–95 (141 ref.)

Phosphorylated RNA polymerase II stimulates pre-mRNA splicing. Hirose Y, et al. **Genes Dev** 1999 May 15; 13(10):1234–9

Substrate requirements for a novel archaeal endonuclease that cleaves within the 5' external transcribed spacer of Sulfolobus acidocaldarius precursor rRNA. Russell AG, et al. **Genetics** 1999 Aug;152(4):1373–85

Functional conservation of the human homolog of the yeast pre-mRNA splicing factor Prp17p. Lindsey LA, et al. **J Biol Chem** 1998 Dec 4;273(49):32771–5

Serotonin-2C receptor pre-mRNA editing in rat brain and in vitro by splice site variants of the interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Jun 25; 274(26):18351–8

Splicing of 5' introns dictates alternative splice selection of acetylcholinesterase pre-mRNA and specific expression during myogenesis. Luo ZD, et al. **J Biol Chem** 1998 Oct 23;273(43):28486–95

Chicken histone deacetylase-2 controls the amount of the IgM H-chain at the steps of both transcription of its gene and alternative processing of its pre-mRNA in the DT40

cell line. Takami Y, et al. **J Biol Chem** 1999 Aug 20; 274(34):23977-90

Cef1p is a component of the Prp19p-associated complex and essential for pre-mRNA splicing. Tsai WY, et al. **J Biol Chem** 1999 Apr 2;274(14):9455-62

Assembly of 5S ribosomal RNA is required at a specific step of the pre-rRNA processing pathway. Dechampesme AM, et al. **J Cell Biol** 1999 Jun 28;145(7):1369-80

Processing of endogenous pre-mRNAs in association with SC-35 domains is gene specific. Smith KP, et al. **J Cell Biol** 1999 Feb 22;144(4):617-29

Nuclear organisation of NIPP1, a regulatory subunit of protein phosphatase 1 that associates with pre-mRNA splicing factors. Trinkle-Mulcahy L, et al. **J Cell Sci** 1999 Jan;112 (Pt 2):157-68

Pre-mRNA and mRNA binding of human nuclear DNA helicase II (RNA helicase A). Zhang S, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1055-64

U3 small nucleolar RNA is essential for cleavage at sites 1, 2 and 3 in pre-rRNA and determines which rRNA processing pathway is taken in Xenopus oocytes. Borovjagin AV, et al. **J Mol Biol** 1999 Mar 12; 286(5):1347-63

Binding of U1A protein to the 3' untranslated region of its pre-mRNA. Grainger RJ, et al. **J Mol Biol** 1999 May 14; 288(4):585-94

The Epstein-Barr virus (EBV) SM protein enhances pre-mRNA processing of the EBV DNA polymerase transcript. Key SC, et al. **J Virol** 1998 Nov;72(11):8485-92

Bridging sulfur substitutions in the analysis of pre-mRNA splicing. Sontheimer EJ. **Methods** 1999 May;18(1):29-37

Phosphoinositide signaling pathways in nuclei are associated with nuclear speckles containing pre-mRNA processing factors. Boronenkov IV, et al. **Mol Biol Cell** 1998 Dec; 9(12):3547-60

An RNA switch at the 5' splice site requires ATP and the DEAD box protein Prp28p. Staley JP, et al. **Mol Cell** 1999 Jan;3(1):55-64

The cleavage and polyadenylation specificity factor in Xenopus laevis oocytes is a cytoplasmic factor involved in regulated polyadenylation. Dickson KS, et al. **Mol Cell Biol** 1999 Aug;19(8):5707-17

Ribosomal protein S14 of Saccharomyces cerevisiae regulates its expression by binding to RPS14B pre-mRNA and to 18S rRNA. Fewell SW, et al. **Mol Cell Biol** 1999 Jan; 19(1):826-34

Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441-52

Myb-related fission yeast cdc5p is a component of a 40S snRNP-containing complex and is essential for pre-mRNA splicing. McDonald WH, et al. **Mol Cell Biol** 1999 Aug; 19(8):5352-62

A specific RNA-protein interaction at yeast polyadenylation efficiency elements. Chen S, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4965-74

In vitro analysis of processing at the 3'-end of precursors of M1 RNA, the catalytic subunit of Escherichia coli RNase P: multiple pathways and steps for the processing. Kim S, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):895-902

Synthetic substrate analogs for the RNA-editing adenosine deaminase ADAR-2. Yi-Brunozzi HY, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2912-7

Evidence for the function of an exonic splicing enhancer after the first catalytic step of pre-mRNA splicing. Chew SL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10655-60

Polyadenylation of stable RNA precursors in vivo. Li Z, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12158-62

Protein component of the ribozyme ribonuclease P alters substrate recognition by directly contacting precursor tRNA. Niranjanakumari S, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15212-7

Substrate binding and catalysis by ribonuclease P from cyanobacteria and Escherichia coli are affected differently by the 3' terminal CCA in tRNA precursors. Pascual A, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6672-7

The role of alternative pre-mRNA splicing in regulating the structure and function of skeletal protein 4.1. Conboy J. **Proc Soc Exp Biol Med** 1999 Feb;220(2):73-8 (44 ref.)

Functions of SR and Tra2 proteins in pre-mRNA splicing regulation. Tacke R, et al. **Proc Soc Exp Biol Med** 1999 Feb;220(2):59-63 (29 ref.)

Yeast Rnt1p is required for cleavage of the pre-ribosomal RNA in the 3' ETS but not the 5' ETS. Kufel J, et al. **RNA** 1999 Jul;5(7):909-17

Combinatorial control of a neuron-specific exon. Modafferi EF, et al. **RNA** 1999 May;5(5):687-706

The structure of the ITS2-proximal stem is required for pre-rRNA processing in yeast. Peculis BA, et al. **RNA** 1998 Dec;4(12):1610-22

Nuclear functions charge ahead [comment] Hopper AK. **Science** 1998 Dec 11;282(5396):2003-4. Comment on: Science 1998 Dec 11;282(5396):2082-5.

Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. Kleiman FE, et al. **Science** 1999 Sep 3;285(5433):1576-9

Proofreading and aminoacylation of tRNAs before export from the nucleus [see comments] Lund E, et al. **Science** 1998 Dec 11;282(5396):2082-5. Comment in: Science 1998 Dec 11;282(5396):2003-4.

Influenza virus inhibits cleavage of the HSP70 pre-mRNAs at the polyadenylation site. Shimizu K, et al. **Virology** 1999 Feb 15;254(2):213-9

PHYSIOLOGY

DSEF-1 is a member of the hnRNP H family of RNA-binding proteins and stimulates pre-mRNA cleavage and polyadenylation in vitro. Bagga PS, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5343-50

RNA PROBES

Nonradioactive Northern blot analysis of plant RNA and the application of different haptens for reprobing. Peterhaensel C, et al. **Anal Biochem** 1998 Nov 15; 264(2):279-83

Nonradioactive Northern blotting with biotinylated and digoxigenin-labeled RNA probes. Meltzer JC, et al. **Electrophoresis** 1998 Jun;19(8-9):1351-5

Comparison of isotopic and non-isotopic labelling for in situ hybridisation of various mRNA targets with cRNA probes. Steel JH, et al. **Eur J Histochem** 1998;42(2):143-50

Extremely-rapid RNA detection in dot blots with digoxigenin-labeled RNA probes. Huang CY, et al. **Genet Anal** 1998 Oct;14(4):109-12

Fluorochrome-labeled RNA as a sensitive, strand-specific probe for direct fluorescence in situ hybridization. Egger D, et al. **Histochem Cell Biol** 1999 Apr;111(4):319-24

An optimized method for in situ hybridization with signal amplification that allows the detection of rare mRNAs. Yang H, et al. **J Histochem Cytochem** 1999 Apr; 47(4):431-46

In situ hybridization of radioactive riboprobes to RNA in tissue sections. Mahmood R, et al. **Methods Mol Biol** 1999; 97:611-21

Rapid detection of mecA in methicillin resistant Staphylococcus aureus using cycling probe technology. Cloney L, et al. **Mol Cell Probes** 1999 Jun;13(3):191-7

Detection of vancomycin resistant genes vanA and vanB by cycling probe technology. Modrusan Z, et al. **Mol Cell Probes** 1999 Jun;13(3):223-31

Probe generation by PCR coupled with ligation. Ilyin SE, et al. **Nat Biotechnol** 1999 Jun;17(6):608-9

ANALYSIS

Fluorescence quenching and dequenching analysis of RNA interactions in vitro and in vivo. Kwon S, et al. **Anal Biochem** 1998 Nov 15;264(2):133-40

CHEMISTRY

Probing the environment of nascent RNA in Escherichia coli transcription elongation complexes utilizing a new fluorescent ribonucleotide analog. Hanna MM, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1369-76

GENETICS

Nonradioactive detection of differentially expressed genes using complex RNA or DNA hybridization probes. Ross R, et al. **Biotechniques** 1999 Jan;26(1):150-5

In situ hybridization with 33P-labeled RNA probes for determination of cellular expression patterns of liver transcription factors in mouse embryos [published erratum appears in Methods 1998 Nov;16(3):359-60] Rausa FM, et al. **Methods** 1998 Sep;16(1):29-41

METABOLISM

Altered subcellular localization patterns of ferritin and beta-actin mRNAs in muscle cultures, resulting from incomplete penetration of digoxigenin-labelled riboprobes. Lu Z, et al. **J Neurocytol** 1998 Jun;27(6):411-8

RNA PROCESSING, POST-TRANSCRIPTIONAL

Transcriptional and posttranscriptional regulation of beta(2)-adrenergic receptor gene in rat liver during sepsis. Yang J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R132-9

RNA processing in evolution. The logic of soft-wired genomes. Herbert A, et al. **Ann N Y Acad Sci** 1999 May 18;870:119-32 (45 ref.)

Ribonuclease P: unity and diversity in a tRNA processing ribozyme. Frank DN, et al. **Annu Rev Biochem** 1998; 67:153-80 (157 ref.)

The influence of mRNA stability on glucose transporter (GLUT1) gene expression. Qi C, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):265-9 (75 ref.)

Minimum requirements for substrates of mammalian tRNA 3' processing endoribonuclease. Nashimoto M, et al. **Biochemistry** 1999 Sep 14;38(37):12089-96

Regulatory signals in messenger RNA: determinants of nutrient-gene interaction and metabolic compartmentation [see comments] Hesketh JE, et al. **Br J Nutr** 1998 Oct; 80(4):307-21 (114 ref.). Comment in: Br J Nutr 1998 Oct;80(4):305-6.

Increased nerve growth factor mRNA stability may underlie elevated nerve growth factor secretion from hypertensive vascular smooth muscle cells. Sherer TB, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):167-74

Posttranscriptional regulation of the c-myb proto-oncogene in estrogen receptor-positive breast cancer cells. Gudas JM, et al. **Clin Cancer Res** 1995 Feb;1(2):235-43

Role of RNA polymerase II carboxy-terminal domain in coordinating transcription with RNA processing. McCracken S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:301-9

Activation of systemic acquired silencing by localised introduction of DNA. Palauqui JC, et al. **Curr Biol** 1999 Jan 28;9(2):59-66

Gene silencing: plants and viruses fight it out. Smyth DR. **Curr Biol** 1999 Feb 11;9(3):R100-2 (17 ref.)

Coupling RNA polymerase II transcription with pre-mRNA processing. Bentley D. **Curr Opin Cell Biol** 1999 Jun; 11(3):347-51 (51 ref.)

mRNA polyadenylation and its coupling to other RNA processing reactions and to transcription. Minvielle-Sebastia L, et al. **Curr Opin Cell Biol** 1999 Jun; 11(3):352-7 (52 ref.)

Post-transcriptional regulation of Xwnt-8 expression is required for normal myogenesis during vertebrate embryonic development. Tian Q, et al. **Development** 1999 Aug;126(15):3371-80

Intronless mRNA transport elements may affect multiple steps of pre-mRNA processing. Huang Y, et al. **EMBO J** 1999 Mar 15;18(6):1642-52

Control of cleavage site selection during mRNA 3' end formation by a yeast hnRNP. Minvielle-Sebastia L, et al. **EMBO J** 1998 Dec 15;17(24):7454-68

SsrA-mediated peptide tagging caused by rare codons and tRNA scarcity. Roche ED, et al. **EMBO J** 1999 Aug 16; 18(16):4579-89

Modifications of U2 snRNA are required for snRNP assembly and pre-mRNA splicing. Yu YT, et al. **EMBO J** 1998 Oct 1;17(19):5783-95

Two posttranscriptional pathways that regulate p21(Cip1/Waf1/Sdi1) are identified by HPV16-E6 interaction and correlate with life span and cellular senescence. Burkhart BA, et al. **Exp Cell Res** 1999 Feb 25;247(1):168-75

Effects of anti-PM-Scl 100 (Rrp6p exonuclease) antibodies on prenucleolar body dynamics at the end of mitosis. Fomproix N, et al. **Exp Cell Res** 1999 Sep 15;251(2):452-64

3'-End processing of pre-mRNA in eukaryotes. Wahle E, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):277-95 (141 ref.)

The essential Gcd10p-Gcd14p nuclear complex is required for 1-methyladenosine modification and maturation of initiator methionyl-tRNA. Anderson J, et al. **Genes Dev** 1998 Dec 1;12(23):3650-62

ELAV proteins stabilize deadenylated intermediates in a novel in vitro mRNA deadenylation/degradation system. Ford LP, et al. **Genes Dev** 1999 Jan 15;13(2):188-201

Substrate requirements for a novel archaeal endonuclease that cleaves within the 5' external transcribed spacer of Sulfolobus acidocaldarius precursor rRNA. Russell AG, et al. **Genetics** 1999 Aug;152(4):1373-85

Cosegregation of single genes associated with fertility restoration and transcript processing of sorghum mitochondrial orf107 and urf209. Tang HV, et al. **Genetics** 1998 Sep;150(1):383-91

Developmental regulation of immunoglobulin mRNA processing and the IgA response: establishing a paradigm. Lebman DA, et al. **Immunol Res** 1999;20(1):43-53 (55 ref.)

Evolutionary variation of immunoglobulin mu heavy chain RNA processing pathways: origins, effects, and implications. Ross DA, et al. **Immunol Rev** 1998 Dec; 166:143-51 (37 ref.)

Posttranscriptional regulation of oligodendroglial thyroid hormone (T3) receptor beta 1 by T3. Baas D, et al. **Int J Dev Neurosci** 1998 Oct;16(6):461-7

Angiotensin II inhibits inducible nitric oxide synthase in tubular MCT cells by a posttranscriptional mechanism. Wolf G, et al. **J Am Soc Nephrol** 1997 Apr;8(4):551-7

Posttranscriptional control mediates cell type-specific localization of catalase A during Aspergillus nidulans development. Navarro RE, et al. **J Bacteriol** 1998 Nov; 180(21):5733-8

Expression of trans-sialidase and 85-kDa glycoprotein genes in Trypanosoma cruzi is differentially regulated at the post-transcriptional level by labile protein factors. Abuin G, et al. **J Biol Chem** 1999 May 7;274(19):13041-7

Role of post-transcriptional modifications of primer tRNALys,3 in the fidelity and efficacy of plus strand DNA transfer during HIV-1 reverse transcription. Auxilien S, et al. **J Biol Chem** 1999 Feb 12;274(7):4412-20

Accurate 3' end processing and adenylation of human signal recognition particle RNA and alu RNA in vitro. Chen Y, et al. **J Biol Chem** 1998 Dec 25;273(52):35023-31

Ribonuclease III processing of coaxially stacked RNA helices. Franch T, et al. **J Biol Chem** 1999 Sep 10; 274(37):26572-8

Interleukin-1-induced nuclear factor-kappaB-IkappaBalpha autoregulatory feedback loop in hepatocytes. A role for protein kinase calpha in post-transcriptional regulation of ikappabalpha resynthesis. Han Y, et al. **J Biol Chem** 1999 Jan 8;274(2):939-47

Processing and editing of overlapping tRNAs in human mitochondria. Reichert A, et al. **J Biol Chem** 1998 Nov 27;273(48):31977-84

Posttranscriptional control of adipocyte differentiation through activation of phosphoinositide 3-kinase. Sakaue H, et al. **J Biol Chem** 1998 Oct 30;273(44):28945-52

Overexpression of ErbB2 impairs ligand-dependent downregulation of epidermal growth factor receptors via a post-transcriptional mechanism. Huang G, et al. **J Cell Biochem** 1999 Jul 1;74(1):23-30

The nucleolar antigen Nop52, the human homologue of the yeast ribosomal RNA processing RRP1, is recruited at late stages of nucleologenesis. Savino TM, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):1889-900

A factor required for nonsense-mediated mRNA decay in yeast is exported from the nucleus to the cytoplasm by a nuclear export signal sequence. Shirley RL, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3129-43

Mitochondrial transcript processing and restoration of male fertility in T-cytoplasm maize. Wise RP, et al. **J Hered** 1999 May-Jun;90(3):380-5

U3 small nucleolar RNA is essential for cleavage at sites 1, 2 and 3 in pre-rRNA and determines which rRNA processing pathway is taken in Xenopus oocytes. Borovjagin AV, et al. **J Mol Biol** 1999 Mar 12; 286(5):1347-63

Post-transcriptional control of bacteriophage T4 gene 25 expression: mRNA secondary structure that enhances translational initiation. Nivinskas R, et al. **J Mol Biol** 1999 May 7;288(3):291-304

mRNA expression in mitochondria of the red alga chondrus crispus requires a unique RNA-processing mechanism, internal cleavage of upstream tRNAs at pyrimidine 48. Richard O, et al. **J Mol Biol** 1999 May 14;288(4):579-84

Transcription initiation and RNA processing in the mitochondria of the red alga Chondrus crispus: convergence in the evolution of transcription mechanisms in mitochondria. Richard O, et al. **J Mol Biol** 1998 Oct 30;283(3):549-57

Posttranscriptional control of gene expression in yeast. McCarthy JEG. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1492-553 (620 ref.)

Partially processed pre-rRNA is preserved in association with processing components in nucleolus-derived foci during mitosis. Dundr M, et al. **Mol Biol Cell** 1998 Sep; 9(9):2407-22

Transcriptional and posttranscriptional silencing of rodent alpha1(I) collagen by a homologous transcriptionally self-silenced transgene. Bahramian MB, et al. **Mol Cell Biol** 1999 Jan;19(1):274-83

Assembly of the cleavage and polyadenylation apparatus requires about 10 seconds in vivo and is faster for strong than for weak poly(A) sites. Chao LC, et al. **Mol Cell Biol** 1999 Aug;19(8):5588-600

The deafness-associated mitochondrial DNA mutation at position 7445, which affects tRNASer(UCN) precursor processing, has long-range effects on NADH dehydrogenase subunit ND6 gene expression. Guan MX, et al. **Mol Cell Biol** 1998 Oct;18(10):5868-79

Expression and functional characteristics of calpain 3 isoforms generated through tissue-specific transcriptional and posttranscriptional events. Herasse M, et al. **Mol Cell Biol** 1999 Jun;19(6):4047-55

Differential and inefficient splicing of a broadly expressed Drosophila erect wing transcript results in tissue-specific enrichment of the vital EWG protein isoform. Koushika SP, et al. **Mol Cell Biol** 1999 Jun;19(6):3998-4007

The yeast nuclear gene DSS1, which codes for a putative RNase II, is necessary for the function of the mitochondrial degradosome in processing and turnover of RNA. Dziembowski A, et al. **Mol Gen Genet** 1998 Oct; 260(1):108-14

Post-transcriptional regulation of the Bacillus subtilis dnaK operon. Homuth G, et al. **Mol Microbiol** 1999 Jun; 32(6):1183-97

Translational control of mRNA processing in the F1845 fimbrial operon of Escherichia coli. Loomis WP, et al. **Mol Microbiol** 1998 Nov;30(4):843-53

The function of CreA, the carbon catabolite repressor of Aspergillus nidulans, is regulated at the transcriptional and post-transcriptional level. Strauss J, et al. **Mol Microbiol** 1999 Apr;32(1):169-78

RNA processing and the evolution of eukaryotes. Herbert A, et al. **Nat Genet** 1999 Mar;21(3):265-9 (57 ref.)

Effect of upstream RNA processing on selection of mu S versus mu M poly(A) sites. Abuodeh R, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5417-24

The orphan nuclear receptor, COUP-TF II, inhibits myogenesis by post-transcriptional regulation of MyoD function: COUP-TF II directly interacts with p300 and myoD. Bailey P, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5501-10

A single point mutation in the yeast TRP4 gene affects efficiency of mRNA 3' end processing and alters selection of the poly(A) site. Düvel K, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1289-95

Genomic detection of new yeast pre-mRNA 3'-end-processing signals. Graber JH, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):888-94

Two 5'-ETS regions implicated in interactions with U3 snoRNA are required for small subunit rRNA maturation in Trypanosoma brucei. Hartshorne T, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3300-9

Group II intron splicing in Escherichia coli: phenotypes of cis-acting mutations resemble splicing defects observed in organelle RNA processing. Holländer V, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2339-44

A human U2 RNA mutant stalled in 3' end processing is impaired in nuclear import. Huang Q, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1025-31

In vitro analysis of processing at the 3'-end of precursors of M1 RNA, the catalytic subunit of Escherichia coli RNase P: multiple pathways and steps for the processing. Kim S, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):895-902

Identification of a stem-loop structure important for polyadenylation at the murine IgM secretory poly(A) site. Phillips C, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):429-38

The RNA Modification Database: 1999 update. Rozenski J, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):196-7

U1 snRNA is cleaved by RNase III and processed through an Sm site-dependent pathway. Seipelt RL, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):587-95

Regulation of poly(A) site choice of several yeast mRNAs. Sparks KA, et al. **Nucleic Acids Res** 1998 Oct 15; 26(20):4676-87

Transcription and RNA processing of mammalian genes in Saccharomyces cerevisiae. Trachtulec Z, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):526-31

HuD, a neuronal-specific RNA-binding protein, is a putative regulator of N-myc pre-mRNA processing/stability in malignant human neuroblasts. Lazarova DL, et al. **Oncogene** 1999 Apr 29;18(17):2703-10

Post-transcriptional regulation of human microsomal epoxide hydrolase. Laurenzana EM, et al. **Pharmacogenetics** 1998 Apr;8(2):157-67

Post-transcriptional and developmental regulation of a CMS-associated mitochondrial gene region by a nuclear restorer gene. Menassa R, et al. **Plant J** 1999 Mar; 17(5):491-9

Polyadenylation and degradation of mRNA in the chloroplast. Schuster G, et al. **Plant Physiol** 1999 Aug; 120(4):937-44 (33 ref.)

Transcriptional and posttranscriptional regulation of proteoglycan gene expression. Iozzo RV, et al. **Prog Nucleic Acid Res Mol Biol** 1999;62:19-53 (134 ref.)

Roles of polyadenylation and nucleolytic cleavage in the filamentous phage mRNA processing and decay pathways in Escherichia coli. Goodrich AF, et al. **RNA** 1999 Jul; 5(7):972-85

The structure of the ITS2-proximal stem is required for pre-rRNA processing in yeast. Peculis BA, et al. **RNA** 1998 Dec;4(12):1610-22

The 5' end of the 18S rRNA can be positioned from within the mature rRNA. Sharma K, et al. **RNA** 1999 May; 5(5):678-86

Synthetic lethal interactions with conditional poly(A) polymerase alleles identify LCP5, a gene involved in 18S rRNA maturation. Wiederkehr T, et al. **RNA** 1998 Nov; 4(11):1357-72

Nuclear functions charge ahead [comment] Hopper AK. **Science** 1998 Dec 11;282(5396):2003-4. Comment on: Science 1998 Dec 11;282(5396):2082-5.

RNA surveillance. Unforeseen consequences for gene expression, inherited genetic disorders and cancer. Culbertson MR. **Trends Genet** 1999 Feb;15(2):74-80 (59 ref.)

Regulation of alternative processing of the sarco/endoplasmic reticulum Ca2+ ATPase (SERCA2) gene transcripts during muscle differentiation. van den Bosch L. **Verh K Acad Geneeskd Belg** 1998;60(5):441-61

Distinct export pathway utilized by the hepatitis B virus posttranscriptional regulatory element. Zang WQ, et al. **Virology** 1999 Jul 5;259(2):299-304

[Post-transcriptional regulation of gene expression in eukaryotes: effect of stressors on mRNA stability in vitro] Plotnikov VK, et al. **Genetika** 1998 Sep;34(9):1205-11 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Overexpression of spermidine/spermine N1-acetyltransferase under the control of mouse metallothionein I promoter in transgenic mice: evidence for a striking post-transcriptional regulation of transgene expression by a polyamine analogue. Suppola S, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):311-6

Repression of cyclooxygenase-2 and prostaglandin E2 release by dexamethasone occurs by transcriptional and post-transcriptional mechanisms involving loss of polyadenylated mRNA. Newton R, et al. **J Biol Chem** 1998 Nov 27;273(48):32312-21

GENETICS

Dissecting the mechanisms of posttranscriptional gene silencing: divide and conquer. Grant SR. **Cell** 1999 Feb 5;96(3):303-6 (24 ref.)

Confirmation of predicted edits and demonstration of unpredicted edits in Acanthamoeba castellanii mitochondrial tRNAs. Price DH, et al. **Curr Genet** 1999 Feb;35(1):23-9

Inefficient processing impairs release of RNA from the site of transcription. Custódio N, et al. **EMBO J** 1999 May 17;18(10):2855-66

In the nucleus and cytoplasm of chicken erythroleukemic cells, prosomes containing the p23K subunit are found in centers of globin (pre-)mRNA processing and accumulation. De Conto F, et al. **Exp Cell Res** 1999 Aug 1;250(2):569-75

The RNA cleavage activity of RNA polymerase III is mediated by an essential TFIIS-like subunit and is important for transcription termination. Chédin S, et al. **Genes Dev** 1998 Dec 15;12(24):3857-71

Assembly of 5S ribosomal RNA is required at a specific step of the pre-rRNA processing pathway. Dechampesme AM, et al. **J Cell Biol** 1999 Jun 28;145(7):1369-80

Woodchuck hepatitis virus posttranscriptional regulatory element enhances expression of transgenes delivered by retroviral vectors. Zufferey R, et al. **J Virol** 1999 Apr; 73(4):2886-92

Embryo deadenylation element-dependent deadenylation is enhanced by a cis element containing AUU repeats. Audic Y, et al. **Mol Cell Biol** 1998 Dec;18(12):6879-84

A link between secretion and pre-mRNA processing defects in Saccharomyces cerevisiae and the identification of a novel splicing gene, RSE1. Chen EJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7139-46

AUUUA sequences direct mRNA deadenylation uncoupled from decay during Xenopus early development. Voeltz GK, et al. **Mol Cell Biol** 1998 Dec;18(12):7537-45

Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. Leader DJ, et al. **Plant Mol Biol** 1999 Apr;39(6):1091-100

A role for RNA helicase A in post-transcriptional regulation of HIV type 1. Li J, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):709-14

Maturation of 23S ribosomal RNA requires the exoribonuclease RNase T. Li Z, et al. **RNA** 1999 Jan; 5(1):139-46

Coordination of tRNA nuclear export with processing of tRNA. Lipowsky G, et al. **RNA** 1999 Apr;5(4):539-49

The 3' end CCA of mature tRNA is an antideterminant for eukaryotic 3'-tRNase. Mohan A, et al. **RNA** 1999 Feb; 5(2):245-56

IMMUNOLOGY

Cutting edge: silencing virus-specific cytotoxic T cell-mediated immune recognition by differential splicing: a novel implication of RNA processing for antigen presentation. Kienzle N, et al. **J Immunol** 1999 Jun 15; 162(12):6963-6

PHYSIOLOGY

Leukaemia inhibitory factor expression is inhibited by glucocorticoids through post-transcriptional mechanisms. Grosset C, et al. **Cytokine** 1999 Jan;11(1):29-36

Mutation in neurofilament transgene implicates RNA processing in the pathogenesis of neurodegenerative disease. Cañete-Soler R, et al. **J Neurosci** 1999 Feb 15; 19(4):1273-83

Specific transcriptional pausing activates polyadenylation in a coupled in vitro system. Yonaha M, et al. **Mol Cell** 1999 May;3(5):593-600

Poly(A) tail length control in Saccharomyces cerevisiae occurs by message-specific deadenylation. Brown CE, et al. **Mol Cell Biol** 1998 Nov;18(11):6548-59

The cleavage and polyadenylation specificity factor in Xenopus laevis oocytes is a cytoplasmic factor involved in regulated polyadenylation. Dickson KS, et al. **Mol Cell Biol** 1999 Aug;19(8):5707-17

Both transcriptional and posttranscriptional mechanisms regulate human telomerase template RNA levels. Yi X, et al. **Mol Cell Biol** 1999 Jun;19(6):3989-97

Post-transcriptional control of gene expression during spermatogenesis. Braun RE. **Semin Cell Dev Biol** 1998 Aug; 9(4):483-9 (50 ref.)

A role for RNA processing in regulating expression from transfected genes. McBurney MW, et al. **Somat Cell Mol Genet** 1998 Jul;24(4):203-15

RNA, PROTOZOAN

Evolution of the U-insertion/deletion RNA editing in mitochondria of kinetoplastid protozoa. Simpson L, et al. **Ann N Y Acad Sci** 1999 May 18;870:190-205 (64 ref.)

Phylogenetic diversity of parabasalian symbionts from termites, including the phylogenetic position of Pseudotrypanosoma and Trichonympha. Keeling PJ, et al. **J Eukaryot Microbiol** 1998 Nov-Dec;45(6):643-50

Small subunit ribosomal RNA sequence of Henneguya exilis (class Myxosporea) identifies the actinosporean stage from an oligochaete host. Lin D, et al. **J Eukaryot Microbiol** 1999 Jan-Feb;46(1):66-8

Association of guide RNA binding protein gBP21 with active RNA editing complexes in Trypanosoma brucei. Allen TE, et al. **Mol Cell Biol** 1998 Oct;18(10):6014-22

Heterogeneous ribosome populations are present in Plasmodium berghei during development in its vector. Thompson J, et al. **Mol Microbiol** 1999 Jan;31(1):253-60

In vivo transcriptional analysis of the spliced leader RNA gene in the trypanosomatid Leptomonas seymouri. Crenshaw-Williams K, et al. **Parasitol Res** 1999 Aug; 85(8-9):700-6

ANALYSIS

Rapid method for fluorescent in situ ribosomal RNA labelling of Cryptosporidium parvum. Deere D, et al. **J Appl Microbiol** 1998 Nov;85(5):807-18

A candidate U1 small nuclear RNA for trypanosomatid protozoa. Schnare MN, et al. **J Biol Chem** 1999 Aug 20; 274(34):23691-4

RNA, PROTOZOAN

BIOSYNTHESIS

Mammalian cell expression of malaria merozoite surface proteins and experimental DNA and RNA immunisation. Ramasamy R, et al. **Biochim Biophys Acta** 1999 Jan 6; 1453(1):1–13

Influence of growth conditions on RNA levels in relation to activity of core metabolic enzymes in the parasitic protists Trypanosoma brucei and Trichomonas vaginalis. ter Kuile BH, et al. **Microbiology** 1999 Mar;145 (Pt 3):755–65

CHEMISTRY

Assembly of an exceptionally stable RNA tertiary interface in a group I ribozyme. Doherty EA, et al. **Biochemistry** 1999 Mar 9;38(10):2982–90

Divalent cations stabilize unstacked conformations of DNA and RNA by interacting with base pi systems. McFail-Isom L, et al. **Biochemistry** 1998 Dec 8;37(49):17105–11

Energetics and cooperativity of tertiary hydrogen bonds in RNA structure. Silverman SK, et al. **Biochemistry** 1999 Jul 6;38(27):8691–702

The secondary structure of Nosema apis large subunit ribosomal RNA. De Rijk P, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):326–8

New pathways in folding of the Tetrahymena group I RNA enzyme. Russell R, et al. **J Mol Biol** 1999 Sep 3; 291(5):1155–67

A minor groove RNA triple helix within the catalytic core of a group I intron. Szewczak AA, et al. **Nat Struct Biol** 1998 Dec;5(12):1037–42

The fragmented mitochondrial ribosomal RNAs of Plasmodium falciparum have short A tails. Gillespie DE, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2416–22

Antisense effects of oligonucleotides complementary to the hairpin of the Leishmania mini-exon RNA. Compagno D, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1701–4

GENETICS

Proteasome-dependent cyst formation and stage-specific ubiquitin mRNA accumulation in Entamoeba invadens. Gonzalez J, et al. **Eur J Biochem** 1999 Sep;264(3):897–904

Trypanosoma rangeli: discrimination from Trypanosoma cruzi based on a variable domain from the large subunit ribosomal RNA gene. Souto RP, et al. **Exp Parasitol** 1999 Apr;91(4):306–14

Plastids are widespread and ancient in parasites of the phylum Apicomplexa. Lang-Unnasch N, et al. **Int J Parasitol** 1998 Nov;28(11):1743–54

RNA editing associated with the generation of two distinct conformations of the trypanosomatid Leptomonas collosoma 7SL RNA. Ben-Shlomo H, et al. **J Biol Chem** 1999 Sep 3;274(36):25642–50

A cis-acting A-U sequence element induces kinetoplastid U-insertions. Brown LM, et al. **J Biol Chem** 1999 Mar 5;274(10):6295–304

Theileria sp. Infections associated with bovine fatalities in the United States confirmed by small-subunit rRNA gene analyses of blood and tick samples. Chae Js, et al. **J Clin Microbiol** 1999 Sep;37(9):3037–40

Insights on the diversity within a "species" of Thalassicolla (Spumellarida) based on 16S-like ribosomal RNA gene sequencing. Zettler LA, et al. **J Eukaryot Microbiol** 1998 Sep–Oct;45(5):488–96

On the possibility of constructive neutral evolution. Stoltzfus A. **J Mol Evol** 1999 Aug;49(2):169–81

Identification of the transcription initiation site of the asexually expressed rRNA genes of the malaria parasite Plasmodium berghei. van Spaendonk RM, et al. **Mol Biochem Parasitol** 1999 Apr 30;99(2):193–205

Single nucleotide resolution of promoter activity and protein binding for the Leishmania tarentolae spliced leader RNA gene. Yu MC, et al. **Mol Biochem Parasitol** 1998 Aug 1; 94(2):265–81

Insertional editing of mitochondrial tRNAs of Physarum polycephalum and Didymium nigripes. Antes T, et al. **Mol Cell Biol** 1998 Dec;18(12):7521–7

Transcription termination and 3'-End processing of the spliced leader RNA in kinetoplastids. Sturm NR, et al. **Mol Cell Biol** 1999 Feb;19(2):1595–604

Coordination of kRNA editing and polyadenylation in Trypanosoma brucei mitochondria: complete editing is not required for long poly(A) tract addition. Militello KT, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1377–85

Theileria parva ribosomal internal transcribed spacer sequences exhibit extensive polymorphism and mosaic evolution: application to the characterization of parasites from cattle and buffalo. Collins NE, et al. **Parasitology** 1999 Jun;118 (Pt 6):541–51

Messenger RNA in dormant cells of Sterkiella histriomuscorum (Oxytrichiade): indentification of putative regulatory gene transcripts. Tourancheau AB, et al. **Protist** 1999 Aug;150(2):137–47

Kinetoplastid RNA editing does not require the terminal 3' hydroxyl of guide RNA, but modifications to the guide RNA terminus can inhibit in vitro U insertion. Burgess ML, et al. **RNA** 1999 Jul;5(7):883–92

In vitro uridine insertion RNA editing mediated by cis-acting guide RNAs. Kapushoc ST, et al. **RNA** 1999 May; 5(5):656–69

ISOLATION & PURIFICATION

Validation of a rapid method for extraction of total RNA applied to Leishmania promastigotes. Pérez JA, et al. **J Parasitol** 1999 Aug;85(4):757–8

METABOLISM

Proteasome-dependent cyst formation and stage-specific ubiquitin mRNA accumulation in Entamoeba invadens. Gonzalez J, et al. **Eur J Biochem** 1999 Sep;264(3):897–904

Trypanosoma brucei: improved detection of nuclear transcripts reveals a genomic position effect on nuclearly accumulating NEO RNAs visualized in stably transformed cells. Köhler S. **Exp Parasitol** 1999 Aug;92(4):249–62

Telomerase RNA function in recombinant Tetrahymena telomerase. Licht JD, et al. **Genes Dev** 1999 May 1; 13(9):1116–25

Antisense oligonucleotides containing modified bases inhibit in vitro translation of Leishmania amazonensis mRNAs by invading the mini-exon hairpin. Compagno D, et al. **J Biol Chem** 1999 Mar 19;274(12):8191–8

New pathways in folding of the Tetrahymena group I RNA enzyme. Russell R, et al. **J Mol Biol** 1999 Sep 3; 291(5):1155–67

Protein synthesis in Giardia lamblia may involve interaction between a downstream box (DB) in mRNA and an anti-DB in the 16S-like ribosomal RNA. Yu DC, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1–2):151–65

tRNAs and proteins are imported into mitochondria of Trypanosoma brucei by two distinct mechanisms. Nabholz CE, et al. **Mol Biol Cell** 1999 Aug;10(8):2547–57

Transcription termination and 3'-End processing of the spliced leader RNA in kinetoplastids. Sturm NR, et al. **Mol Cell Biol** 1999 Feb;19(2):1595–604

Expression of mutated Paramecium telomerase RNAs in vivo leads to templating errors that resemble those made by retroviral reverse transcriptase. Ye AJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2887–94

In vitro import of a nuclearly encoded tRNA into the mitochondrion of Trypanosoma brucei. Yermovsky-Kammerer AE, et al. **Mol Cell Biol** 1999 Sep; 19(9):6253–9

Two 5'-ETS regions implicated in interactions with U3 snoRNA are required for small subunit rRNA maturation in Trypanosoma brucei. Hartshorne T, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3300–9

Trans-activation of the Tetrahymena group I intron ribozyme via a non-native RNA-RNA interaction. Ikawa Y, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1650–5

Mapping contacts between gRNA and mRNA in trypanosome RNA editing. Leung SS, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):778–87

RNA REPLICASE

Self-reproducing system can behave as Maxwell's demon: theoretical illustration under prebiotic conditions. Otsuka J, et al. **J Theor Biol** 1998 Sep 21;194(2):205–21

ANALYSIS

Why is the interferon sensitivity-determining region (ISDR) system useful in Japan? [see comments] Nakano I, et al. **J Hepatol** 1999 Jun;30(6):1014–22. Comment in: J Hepatol 1999 Jun;30(6):1152–4.

CHEMISTRY

PB2 polymerase subunit of Thogoto virus (Orthomyxoviridae family). Weber F, et al. **Arch Virol** 1999;144(8):1601–9

HCV NS5A 2209–2248 amino acid substitutions affect serum 2,5AS activities [letter] Murashima S, et al. **J Hepatol** 1999 Aug;31(2):382

A suggested extension of the HCV ISDR does not alter our former conclusions on its predictive value for IFN response [letter; comment] Rispeter K, et al. **J Hepatol** 1999 Jun; 30(6):1163–4. Comment on: J Hepatol 1999 Jun;30(6):1152–4.

The putative polymerase sequence of infectious salmon anemia virus suggests a new genus within the Orthomyxoviridae. Krossøy B, et al. **J Virol** 1999 Mar; 73(3):2136–42

Identification and characterization of an RNA-dependent RNA polymerase activity within the nonstructural protein 5B region of bovine viral diarrhea virus. Zhong W, et al. **J Virol** 1998 Nov;72(11):9365–9

Synthesis of new photocross-linking 5-C-base-substituted UTP analogs and their application in highly selective affinity labelling of the tick-borne encephalitis virus RNA replicase proteins. Morozova OV, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1513–4

Analysis of RNA-dependent RNA polymerase structure and function as guided by known polymerase structures and computer predictions of secondary structure. O'Reilly EK, et al. **Virology** 1998 Dec 20;252(2):287–303 (80 ref.)

DRUG EFFECTS

Efficacy and changes of the nonstructural 5A GENE by prolonged interferon therapy for patients with hepatitis C virus genotype 1b and a high level of serum HCV-RNA. Arase Y, et al. **Intern Med** 1999 Jun;38(6):461–6

GENETICS

The C12 mutant of MHV-A59 is very weakly demyelinating and has five amino acid substitutions restricted to the spike and replicase genes. Leparc-Goffart I, et al. **Adv Exp Med Biol** 1998;440:627–33

Response to retreatment with interferon-alpha plus ribavirin in chronic hepatitis C patients is independent of the NS5A gene nucleotide sequence. Ibarrola N, et al. **Am J Gastroenterol** 1999 Sep;94(9):2487–95

Inhibition of influenza A virus reproduction by a ribozyme targeted against PB1 mRNA. Lazarev VN, et al. **Antiviral Res** 1999 May;42(1):47–57

Nucleotide sequence of the putative replicase gene of the sour cherry strain of plum pox potyvirus. Nemchinov L, et al. **Arch Virol** 1998;143(11):2247–52

Rice ragged stunt oryzavirus genome segment S4 could encode an RNA dependent RNA polymerase and a second protein of unknown function. Upadhyaya NM, et al. **Arch Virol** 1998;143(9):1815–22

Nucleotide sequence of seed- and pollen-transmitted double-stranded RNA, which encodes a putative RNA-dependent RNA polymerase, detected from Japanese pear. Osaki H, et al. **Biosci Biotechnol Biochem** 1998 Nov; 62(11):2101–6

Mutations in the retinoblastoma protein-binding LXCXE motif of rubella virus putative replicase affect virus replication. Forng RY, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):327–32

Improved correlation between multiple mutations within the NS5A region and virological response in European patients chronically infected with hepatitis C virus type 1b undergoing combination therapy [see comments] Sarrazin C, et al. **J Hepatol** 1999 Jun;30(6):1004–13. Comment in: J Hepatol 1999 Jun;30(6):1152–4.

Long-term response to interferon alpha is unrelated to "interferon sensitivity determining region" variability in patients with chronic hepatitis C virus-1b infection [see comments] Squadrito G, et al. **J Hepatol** 1999 Jun; 30(6):1023–7. Comment in: J Hepatol 1999 Jun;30(6):1152–4.

Mutations in the N terminus of the brome mosaic virus polymerase affect genetic RNA-RNA recombination. Figlerowicz M, et al. **J Virol** 1998 Nov;72(11):9192–200

Identification and characterization of the Escherichia coli-expressed RNA-dependent RNA polymerase of bamboo mosaic virus. Li YI, et al. **J Virol** 1998 Dec; 72(12):10093–9

Open reading frame 1a-encoded subunits of the arterivirus replicase induce endoplasmic reticulum-derived double-membrane vesicles which carry the viral replication complex. Pedersen KW, et al. **J Virol** 1999 Mar; 73(3):2016–26

Mitotic stability of infection-induced resistance to plum pox potyvirus associated with transgene silencing and DNA methylation. Guo HS, et al. **Mol Plant Microbe Interact** 1999 Feb;12(2):103–11

Resistance to rice yellow mottle virus (RYMV) in cultivated African rice varieties containing RYMV transgenes. Pinto YM, et al. **Nat Biotechnol** 1999 Jul;17(7):702–7

Cancer therapy using a self-replicating RNA vaccine. Ying H, et al. **Nat Med** 1999 Jul;5(7):823–7

Gene silencing in Neurospora crassa requires a protein homologous to RNA-dependent RNA polymerase. Cogoni C, et al. **Nature** 1999 May 13;399(6732):166–9

RNA-dependent RNA polymerase activity associated with virus-like dsRNA in Eimeria maxima and E. necatrix of the domestic fowl. Lee S, et al. **Parasitol Res** 1999 Jan; 85(1):25–9

Isolation of an RNA-directed RNA polymerase-specific cDNA clone from tomato. Schiebel W, et al. **Plant Cell** 1998 Dec;10(12):2087–101

Sequence comparison of the large genomic RNA segments of two strains of lymphocytic choriomeningitis virus differing in pathogenic potential for guinea pigs. Djavani M, et al. **Virus Genes** 1998;17(2):151–5

IMMUNOLOGY

Characterization of the effects of hepatitis C virus nonstructural 5A protein expression in human cell lines and on interferon-sensitive virus replication. Polyak SJ, et al. **Hepatology** 1999 Apr;29(4):1262–71

METABOLISM

The arterivirus replicase. The road from RNA to protein(s), and back again. Snijder EJ. **Adv Exp Med Biol** 1998; 440:97–108 (54 ref.)

Metal ion catalysis of RNA cleavage by the influenza virus endonuclease. Doan L, et al. **Biochemistry** 1999 Apr 27; 38(17):5612–9

Affinity labelling of the tick-borne encephalitis virus RNA replicase proteins by 4-N-exo-base-substituted photoreactive CTP analogs. Morozova OV, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):787–92

Expression of hepatitis C virus NS5B protein: characterization of its RNA polymerase activity and RNA binding. Ishii K, et al. **Hepatology** 1999 Apr;29(4):1227–35

Characterization of the effects of hepatitis C virus nonstructural 5A protein expression in human cell lines and on interferon-sensitive virus replication. Polyak SJ, et al. **Hepatology** 1999 Apr;29(4):1262–71

Selective stimulation of hepatitis C virus and pestivirus NS5B

RNA polymerase activity by GTP. Lohmann V, et al. **J Biol Chem** 1999 Apr 16;274(16):10807-15

Proteolytic processing of tomato ringspot nepovirus 3C-like protease precursors: definition of the domains for the VPg, protease and putative RNA-dependent RNA polymerase. Wang A, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):799-809

RNA-dependent RNA polymerase activity associated with Eimeria necatrix virus particles containing either double-stranded or single-stranded RNA. Lee S, et al. **J Parasitol** 1999 Apr;85(2):208-12

Specific interaction between the hepatitis C virus NS5B RNA polymerase and the 3' end of the viral RNA. Cheng JC, et al. **J Virol** 1999 Aug;73(8):7044-9

Functional analysis of the interaction between VPg-proteinase (NIa) and RNA polymerase (NIb) of tobacco etch potyvirus, using conditional and suppressor mutants. Daròs JA, et al. **J Virol** 1999 Oct;73(10):8732-40

The putative helicase of the coronavirus mouse hepatitis virus is processed from the replicase gene polyprotein and localizes in complexes that are active in viral RNA synthesis. Denison MR, et al. **J Virol** 1999 Aug; 73(8):6862-71

Characterization of soluble hepatitis C virus RNA-dependent RNA polymerase expressed in Escherichia coli. Ferrari E, et al. **J Virol** 1999 Feb;73(2):1649-54

Characterization of influenza virus PB1 protein binding to viral RNA: two separate regions of the protein contribute to the interaction domain. González S, et al. **J Virol** 1999 Jan;73(1):631-7

Intracellular distribution of rubella virus nonstructural protein P150. Kujala P, et al. **J Virol** 1999 Sep; 73(9):7805-11

VP1, the putative RNA-dependent RNA polymerase of infectious bursal disease virus, forms complexes with the capsid protein VP3, leading to efficient encapsidation into virus-like particles. Lombardo E, et al. **J Virol** 1999 Aug; 73(8):6973-83

A recombinant hepatitis C virus RNA-dependent RNA polymerase capable of copying the full-length viral RNA. Oh JW, et al. **J Virol** 1999 Sep;73(9):7694-702

Use of DNA, RNA, and chimeric templates by a viral RNA-dependent RNA polymerase: evolutionary implications for the transition from the RNA to the DNA world. Siegel RW, et al. **J Virol** 1999 Aug;73(8):6424-9

Initiation of genomic plus-strand RNA synthesis from DNA and RNA templates by a viral RNA-dependent RNA polymerase. Sivakumaran K, et al. **J Virol** 1999 Aug; 73(8):6415-23

Proteolytic processing of the open reading frame 1b-encoded part of arterivirus replicase is mediated by nsp4 serine protease and Is essential for virus replication. van Dinten LC, et al. **J Virol** 1999 Mar;73(3):2027-37

Characterization of an equine arteritis virus replicase mutant defective in subgenomic mRNA synthesis. van Marle G, et al. **J Virol** 1999 Jul;73(7):5274-81

Identification and characterization of an RNA-dependent RNA polymerase activity within the nonstructural protein 5B region of bovine viral diarrhea virus. Zhong W, et al. **J Virol** 1998 Nov;72(11):9365-9

Processing of the human coronavirus 229E replicase polyproteins by the virus-encoded 3C-like proteinase: identification of proteolytic products and cleavage sites common to pp1a and pp1ab. Ziebuhr J, et al. **J Virol** 1999 Jan;73(1):177-85

Mitotic stability of infection-induced resistance to plum pox potyvirus associated with transgene silencing and DNA methylation. Guo HS, et al. **Mol Plant Microbe Interact** 1999 Feb;12(2):103-11

Gene silencing in Neurospora crassa requires a protein homologous to RNA-dependent RNA polymerase. Cogoni C, et al. **Nature** 1999 May 13;399(6732):166-9

The helicase domain of the TMV replicase proteins induces the N-mediated defence response in tobacco. Erickson FL, et al. **Plant J** 1999 Apr;18(1):67-75

Subgenomic RNA promoters dictate the mode of recognition by bromoviral RNA-dependent RNA polymerases. Adkins S, et al. **Virology** 1998 Dec 5;252(1):1-8

Sequences 5' of the conserved tRNA-like promoter modulate the initiation of minus-strand synthesis by the brome mosaic virus RNA-dependent RNA polymerase. Chapman MR, et al. **Virology** 1998 Dec 20;252(2):458-67

De novo initiation of RNA synthesis by a recombinant flaviviridae RNA-dependent RNA polymerase. Kao CC, et al. **Virology** 1999 Jan 5;253(1):1-7

Analysis of RNA-dependent RNA polymerase structure and function as guided by known polymerase structures and computer predictions of secondary structure. O'Reilly EK, et al. **Virology** 1998 Dec 20;252(2):287-303 (80 ref.)

PHYSIOLOGY

Alphavirus replicase protein NSP1 induces filopodia and rearrangement of actin filaments. Laakkonen P, et al. **J Virol** 1998 Dec;72(12):10265-9

Genetic interaction of flavivirus nonstructural proteins NS1 and NS4A as a determinant of replicase function. Lindenbach BD, et al. **J Virol** 1999 Jun;73(6):4611-21

Spatial perturbations within an RNA promoter specifically recognized by a viral RNA-dependent RNA polymerase (RdRp) reveal that RdRp can adjust its promoter binding sites. Stawicki SS, et al. **J Virol** 1999 Jan;73(1):198-204

THERAPEUTIC USE

Cancer therapy using a self-replicating RNA vaccine. Ying H, et al. **Nat Med** 1999 Jul;5(7):823-7

RNA, RIBOSOMAL

Multiple functions of the transcribed spacers in ribosomal RNA operons. Liiv A, et al. **Biol Chem** 1998 Jul; 379(7):783-93

Gene transfer using a disabled herpes virus vector containing the EMCV IRES allows multiple gene expression in vitro and in vivo. Wagstaff MJ, et al. **Gene Ther** 1998 Nov; 5(11):1566-70

Authentication of two cell lines developed from the larval and pupal ovaries of Spodoptera litura by rRNA based methods [letter] Shouche YS, et al. **In Vitro Cell Dev Biol Anim** 1999 May;35(5):244-5

Phylogenetic diversity of parabasalian symbionts from termites, including the phylogenetic position of Pseudotrypanosoma and Trichonympha. Keeling PJ, et al. **J Eukaryot Microbiol** 1998 Nov-Dec;45(6):643-50

Small subunit ribosomal RNA sequence of Henneguya exilis (class Myxosporea) identifies the actinosporean stage from an oligochaete host. Lin D, et al. **J Eukaryot Microbiol** 1999 Jan-Feb;46(1):66-8

Self-reproducing system can behave as Maxwell's demon: theoretical illustration under prebiotic conditions. Otsuka J, et al. **J Theor Biol** 1998 Sep 21;194(2):205-21

Analysis of rRNA function using specialized ribosomes. Brink MF, et al. **Methods Mol Biol** 1998;77:117-28 (11 ref.)

Allele-specific priming in the mapping of rRNA. Douthwaite S. **Methods Mol Biol** 1998;77:11-21 (28 ref.)

In vivo mutational analysis of ribosomal RNA in Saccharomyces cerevisiae. Venema J, et al. **Methods Mol Biol** 1998;77:257-70 (32 ref.)

Transcriptional activity and chromatin structure of enhancer-deleted rRNA genes in Saccharomyces cerevisiae. Banditt M, et al. **Mol Cell Biol** 1999 Jul; 19(7):4953-60

Heterogeneous ribosome populations are present in Plasmodium berghei during development in its vector. Thompson J, et al. **Mol Microbiol** 1999 Jan;31(1):253-60

A new version of the RDP (Ribosomal Database Project). Maidak BL, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):171-3

Evolutionary affinities of the enigmatic saola (Pseudoryx nghetinhensis) in the context of the molecular phylogeny of Bovidae. Hassanin A, et al. **Proc R Soc Lond B Biol Sci** 1999 May 7;266(1422):893-900

ANALYSIS

Quantification of the human granulocytic ehrlichiosis agent based on analysis of rRNA isolated from control and infected HL-60 cells. Wu JM, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):7-13

MIAH: automatic alignment of eukaryotic SSU rRNAs. Thébault P, et al. **Bioinformatics** 1999 Apr;15(4):341-2

Rapid spread of the new clone of Vibrio cholerae O1 biotype El Tor in cholera endemic areas in India. Bag PK, et al. **Epidemiol Infect** 1998 Oct;121(2):245-51

Phenotypic and molecular characterization of Vibrio cholerae O1 isolated in Samutsakorn, Thailand before, during and after the emergence of V. cholerae O139. Dalsgaard A, et al. **Epidemiol Infect** 1998 Oct;121(2):259-68

Rapid method for fluorescent in situ ribosomal RNA labelling of Cryptosporidium parvum. Deere D, et al. **J Appl Microbiol** 1998 Nov;85(5):807-18

An Eimeriid origin of isosporoid coccidia with Stieda bodies as shown by phylogenetic analysis of small subunit ribosomal RNA gene sequences. Carreno RA, et al. **J Parasitol** 1999 Feb;85(1):77-83

Molecular study of similar Biomphalaria species. Spatz L, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:169-70

Species and strain-specific typing of Cryptosporidium parasites in clinical and environmental samples. Xiao L, et al. **Mem Inst Oswaldo Cruz** 1998 Sep-Oct;93(5):687-91

BIOSYNTHESIS

Processing of precursor rRNA in Euglena gracilis: identification of intermediates in the pathway to a highly fragmented large subunit rRNA. Greenwood SJ, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1-2):128-38

Molecular origins and the null hypothesis: motifs from our maker? Ellington AD. **Biol Bull** 1999 Jun;196(3):315-7; discussion 318-9 (14 ref.)

Mitotic silencing of human rRNA synthesis: inactivation of the promoter selectivity factor SL1 by cdc2/cyclin B-mediated phosphorylation. Heix J, et al. **EMBO J** 1998 Dec 15;17(24):7373-81

Ribosomal RNAs synthesized by isolated squid nerves and ganglia differ from native ribosomal RNAs. Perrone-Capano C, et al. **J Neurochem** 1999 Mar; 72(3):910-8

Histone H1o ribosomal RNA synthesis and cell differentiation. Flickinger RA. **J Theor Biol** 1999 Feb 21; 196(4):521-5

A genetic screen for ribosomal DNA silencing defects identifies multiple DNA replication and chromatin-modulating factors. Smith JS, et al. **Mol Cell Biol** 1999 Apr;19(4):3184-97

A light-activated DNA-binding factor stimulates transcription of the rrnA operon in the cyanobacterium Synechococcus sp. PCC 6301. Asato Y. **Mol Gen Genet** 1998 Oct;260(1):69-74

The nature of the 'nucleolus precursor body' in early preimplantation embryos: a review of fine-structure cytochemical, immunocytochemical and autoradiographic data related to nucleolar function. Fléchon JE, et al. **Zygote** 1998 May;6(2):183-91 (50 ref.)

CHEMISTRY

The secondary structure of Nosema apis large subunit ribosomal RNA. De Rijk P, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2-3):326-8

Free energy determinants of binding the rRNA substrate and small ligands to ricin A-chain. Olson MA, et al. **Biophys J** 1999 Jan;76(1 Pt 1):28-39

Conformational variability in Escherichia coli 70S ribosome as revealed by 3D cryo-electron microscopy. Agrawal RK, et al. **Int J Biochem Cell Biol** 1999 Jan;31(1):243-54

Ribotyping as an identification tool for Clostridium botulinum strains causing human botulism. Hielm S, et al. **Int J Food Microbiol** 1999 Mar 1;47(1-2):121-31

Probing the rRNA environment of ribosomal protein S5 across the subunit interface and inside the 30 S subunit using tethered Fe(II). Culver GM, et al. **J Mol Biol** 1999 Feb 19;286(2):355-64

Conserved core structure in the internal transcribed spacer 1 of the Schizosaccharomyces pombe precursor ribosomal RNA. Lalev AI, et al. **J Mol Biol** 1998 Dec 18; 284(5):1341-51

Trematode and monogenean rRNA ITS2 secondary structures support a four-domain model. Morgan JA, et al. **J Mol Evol** 1998 Oct;47(4):406-19

Primary and secondary structure of the small-subunit ribosomal RNA of the naked, marine amoeba Vannella anglica: phylogenetic implications. Sims GP, et al. **J Mol Evol** 1999 Jun;48(6):740-9

Distinguishing species and populations of rhipicephaline ticks with its 2 ribosomal RNA. Barker SC. **J Parasitol** 1998 Oct;84(5):887-92

Placement of protein and RNA structures into a 5 A-resolution map of the 50S ribosomal subunit [see comments] Ban N, et al. **Nature** 1999 Aug 26; 400(6747):841-7. Comment in: Nature 1999 Aug 26;400(6747):811-2.

Structure of a bacterial 30S ribosomal subunit at 5.5 A resolution [see comments] Clemons WM Jr, et al. **Nature** 1999 Aug 26;400(6747):833-40. Comment in: Nature 1999 Aug 26;400(6747):811-2.

Mechanics of the ribosome [news; comment] Garrett R. **Nature** 1999 Aug 26;400(6747):811-2. Comment on: Nature 1999 Aug 26;400(6747):833-40. Comment on: Nature 1999 Aug 26;400(6747):841-7.

Database on the structure of large subunit ribosomal RNA. De Rijk P, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):174-8

The fragmented mitochondrial ribosomal RNAs of Plasmodium falciparum have short A tails. Gillespie DE, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2416-22

Molecular gene organisation and secondary structure of the mitochondrial large subunit ribosomal RNA from the cultivated Basidiomycota Agrocybe aegerita: a 13 kb gene possessing six unusual nucleotide extensions and eight introns. Gonzalez P, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1754-61

Structural equivalence in the transcribed spacers of pre-rRNA transcripts in Schizosaccharomyces pombe. Lalev AI, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3071-8

Database on the structure of small subunit ribosomal RNA. Van de Peer Y, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):179-83

X-ray crystal structures of 70S ribosome functional complexes [see comments] Cate JH, et al. **Science** 1999 Sep 24;285(5436):2095-104. Comment in: Science 1999 Sep 24;285(5436):2048-51. Comment in: Science 1999 Sep 24;285(5436):2077-8.

Crystal structure of a conserved ribosomal protein-RNA complex. Conn GL, et al. **Science** 1999 May 14; 284(5417):1171-4

A nonhyperthermophilic common ancestor to extant life forms [see comments] Galtier N, et al. **Science** 1999 Jan 8;283(5399):220-1. Comment in: Science 1999 Jan 8;283(5399):155, 157. Comment in: Science 1999 Feb 5;283(5403):792.

Ribosome finally begins to yield its complete structure [news] Pennisi E. **Science** 1999 Aug 27;285(5432):1343

RNA study suggests cool cradle of life [news; comment] [see comments] Vogel G. **Science** 1999 Jan 8;283(5399):155,157. Comment on: Science 1999 Jan 8;283(5399):220-1. Comment in: Science 1999 Feb 5;283(5403):792.

[Computerized ribosomal RNA secondary structure modeling of mutants found in Rett syndrome patients and their mothers] Qi Y, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Jun; 16(3):153-5 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Ribosomal RNA is the target for oxazolidinones, a novel class of translational inhibitors. Matassova NB, et al. **RNA** 1999 Jul;5(7):939-46

RNA, RIBOSOMAL

GENETICS

Maternally inherited cardiomyopathy: an atypical presentation of the mtDNA 12S rRNA gene A1555G mutation [letter] Santorelli FM, et al. **Am J Hum Genet** 1999 Jan;64(1):295–300

A test of Archonta monophyly and the phylogenetic utility of the mitochondrial gene 12S rRNA. McNiff BE, et al. **Am J Phys Anthropol** 1998 Nov;107(3):225–41 (78 ref.)

Species-specific repeat units in the intergenic spacer of the ribosomal RNA cistron of Anopheles aquasalis Curry. Perera OP, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):673–8

Mitochondrial control region and 12S rRNA variation in Przewalski's horse (Equus przewalskii). Oakenfull EA, et al. **Anim Genet** 1998 Dec;29(6):456–9

RecA-Mediated gene conversion and aminoglycoside resistance in strains heterozygous for rRNA. Prammananan T, et al. **Antimicrob Agents Chemother** 1999 Mar; 43(3):447–53

Candida arabinofermentans, a new L-arabinose fermenting yeast. Kurtzman CP, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):237–43

Identification and phylogeny of ascomycetous yeasts from analysis of nuclear large subunit (26S) ribosomal DNA partial sequences. Kurtzman CP, et al. **Antonie Van Leeuwenhoek** 1998 May;73(4):331–71

Implications of rRNA operon copy number and ribosome content in the marine oligotrophic ultramicrobacterium Sphingomonas sp. strain RB2256. Fegatella F, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4433–8

Sequence and secondary structure of the mitochondrial small-subunit rRNA V4, V6, and V9 domains reveal highly species-specific variations within the genus Agrocybe. Gonzalez P, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4149–60

In situ identification of cyanobacteria with horseradish peroxidase-labeled, rRNA-targeted oligonucleotide probes. Schönhuber W, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1259–67

Expression of a gene trap reporter construct in a subset of cells in embryonic sites of hematopoiesis: evidence for alternative rRNA production in hematopoietic cells. Wagner DS, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):674–81

Empirical estimation of the reliability of ribosomal RNA alignments. O'Brien EA, et al. **Bioinformatics** 1998; 14(10):830–8

Ribosomal RNA expression in the developing rat olfactory bulb. Fiske BK, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1-2):55–60

New ribosomal RNA gene locations in Gossypium hirsutum mapped by meiotic FISH. Ji Y, et al. **Chromosoma** 1999 Jul;108(3):200–7

Chromosomal localization and heterochromatin association of ribosomal RNA gene loci and silver-stained nucleolar organizer regions in salmonid fishes. Fujiwara A, et al. **Chromosome Res** 1998 Sep;6(6):463–71

Ribotyping of clinical Vibrio vulnificus isolates. Yang SF, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1995 Nov;28(4):270–9

Strength and regulation without transcription factors: lessons from bacterial rRNA promoters. Gourse RL, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:131–9 (63 ref.)

A long open reading frame in the mitochondrial LSU rRNA group-I intron of Cryphonectria parasitica encodes a putative S5 ribosomal protein fused to a maturase. Hausner G, et al. **Curr Genet** 1999 Mar;35(2):109–17

Small subunit rRNA gene sequences of Aeromonas salmonicida subsp. smithia and Haemophilus piscium reveal pronounced similarities with A. salmonicida subsp. salmonicida. Thornton JM, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):155–8

The interferon-inducible nucleolar p204 protein binds the ribosomal RNA-specific UBF1 transcription factor and inhibits ribosomal RNA transcription. Liu CJ, et al. **EMBO J** 1999 May 17;18(10):2845–54

Trypanosoma rangeli: discrimination from Trypanosoma cruzi based on a variable domain from the large subunit ribosomal RNA gene. Souto RP, et al. **Exp Parasitol** 1999 Apr;91(4):306–14

A 69 bp fragment in the pyrroline-5-carboxylate reductase promoter of Arabidopsis thaliana activates minimal CaMV 35S promoter in a tissue-specific manner. Hua X, et al. **FEBS Lett** 1999 Sep 17;458(2):193–6

A pseudoknot-compatible universal site is located in the large ribosomal RNA in the peptidyltransferase center. Ivanov VI, et al. **FEBS Lett** 1999 Mar 5;446(1):60–4

Taxonomic status of putative Verticillum alboatrum isolates. Carder JH, et al. **FEMS Microbiol Lett** 1999 Jan 1; 170(1):211–9

Physical and genetic chromosomal maps of Streptococcus agalactiae, serotypes II and III; rRNA operon organization. Dmitriev A, et al. **FEMS Microbiol Lett** 1998 Oct 1; 167(1):33–9

Phylogenetic relationships among Fagopyrum species revealed by the nucleotide sequences of the ITS region of the nuclear rRNA gene. Yasui Y, et al. **Genes Genet Syst** 1998 Aug;73(4):201–10

Molecular characterization of ribosomal gene variation within and among NORs segregating in specialized populations of chicken. Delany ME, et al. **Genome** 1999 Feb;42(1):60–71

Characterization of chromosomes and genome organization of Thapsia garganica L. by localizations of rRNA genes using fluorescent in situ hybridization. Rasmussen SK, et al. **Hereditas** 1998;129(3):231–9

ITS2 sequences of Dictyocaulus species from cattle, roe deer and moose in Sweden: molecular evidence for a new species. Höglund J, et al. **Int J Parasitol** 1999 Apr; 29(4):607–11

Construction and initial characterization of Escherichia coli strains with few or no intact chromosomal rRNA operons. Asai T, et al. **J Bacteriol** 1999 Jun;181(12):3803–9

Increased rrn gene dosage causes intermittent transcription of rRNA in Escherichia coli. Voulgaris J, et al. **J Bacteriol** 1999 Jul;181(14):4170–5

Theileria sp. Infections associated with bovine fatalities in the United States confirmed by small-subunit rRNA gene analyses of blood and tick samples. Chae Js, et al. **J Clin Microbiol** 1999 Sep;37(9):3037–40

Ribosomal RNA transcriptional activation and processing in hamster facial motoneurons: effects of axotomy with or without exposure to testosterone. Kinderman NB, et al. **J Comp Neurol** 1998 Nov 16;401(2):205–16

The phylogenetic position of Amoebophrya sp. infecting Gymnodinium sanguineum. Gunderson JH, et al. **J Eukaryot Microbiol** 1999 Mar-Apr;46(2):194–7

Molecular phylogeny of microsporidians with particular reference to species that infect the muscles of fish. Nilsen F, et al. **J Eukaryot Microbiol** 1998 Sep-Oct;45(5):535–43

Small subunit ribosomal RNA genes of tabanids and hippoboscids (Diptera: Brachycera): evolutionary relationships and comparison with other Diptera. Carreno RA, et al. **J Med Entomol** 1998 Nov;35(6):1002–6

Genomic DNA restriction site heterogeneity in bovine Pasteurella multocida serogroup A isolates detected with an rRNA probe. Dabo SM, et al. **J Med Microbiol** 1999 Mar;48(3):279–86

Conformational changes of the upstream DNA mediated by H-NS and FIS regulate E. coli RrnB P1 promoter activity. Afflerbach H, et al. **J Mol Biol** 1999 Feb 19;286(2):339–53

Mitotic phosphorylation of the TBP-containing factor SL1 represses ribosomal gene transcription. Kuhn A, et al. **J Mol Biol** 1998 Nov 20;284(1):1–5

The small-subunit rRNA gene sequences of venerids and the phylogeny of bivalvia. Canapa A, et al. **J Mol Evol** 1999 Apr;48(4):463–8

Multiple substitutions affect the phylogenetic utility of cytochrome b and 12S rDNA data: examining a rapid radiation in leporid (Lagomorpha) evolution. Halanych KM, et al. **J Mol Evol** 1999 Mar;48(3):369–79

Phylogeny of organisms investigated by the base-pair changes in the stem regions of small and large ribosomal subunit RNAs. Otsuka J, et al. **J Mol Evol** 1999 Feb; 48(2):218–35

Primary and secondary structure of the small-subunit ribosomal RNA of the naked, marine amoeba Vannella anglica: phylogenetic implications. Sims GP, et al. **J Mol Evol** 1999 Jun;48(6):740–9

A Group I intron in the nuclear small subunit rRNA gene of Cryptendoxyla hypophloia, an ascomycetous fungus: evidence for a new major class of Group I introns. Suh SO, et al. **J Mol Evol** 1999 May;48(5):493–500

Partial sequence of a sponge mitochondrial genome reveals sequence similarity to Cnidaria in cytochrome oxidase subunit II and the large ribosomal RNA subunit. Watkins RF, et al. **J Mol Evol** 1999 May;48(5):542–54

Isolation of a new variant of Vibrio cholerae O1: V. cholerae O1 ribotype B27 toxinogenotype TB31 during the last cholera epidemic in Senegal. Aidara-Kane A, et al. **Jpn J Med Sci Biol** 1997 Dec;50(6):227–32

Presence of a 20 bp insertion/deletion in the ITS1 region of Verticillium lecanii. Zare R, et al. **Lett Appl Microbiol** 1999 Apr;28(4):258–62

Molecular characterisation of intermediate snail hosts and the search for resistance genes. Rollinson D, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:111–6

Genetic selection of rRNA mutations. Gregory ST, et al. **Methods Mol Biol** 1998;77:271–81 (14 ref.)

In situ detection of bacteria in continuous-flow cultures of seawater sediment suspensions with fluorescently labelled rRNA-directed oligonucleotide probes. Bruns A, et al. **Microbiology** 1998 Oct;144 (Pt 10):2783–90

Regulation of ribosome biogenesis by the rapamycin-sensitive TOR-signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000

In vitro analysis of alpha-amanitin-resistant transcription from the rRNA, procyclic acidic repetitive protein, and variant surface glycoprotein gene promoters in Trypanosoma brucei. Laufer G, et al. **Mol Cell Biol** 1999 Aug;19(8):5466–73

Putative secondary structures of unusually long strepsipteran SSU rRNAs and its phylogenetic implications. Choe CP, et al. **Mol Cells** 1999 Apr 30;9(2):191–9

Ribosomal small subunit sequence variation within spores of an arbuscular mycorrhizal fungus, Scutellospora sp. Clapp JP, et al. **Mol Ecol** 1999 Jun;8(6):915–21

Evidence of multiple transcription initiation and termination sites within the rDNA intergenic spacer and rRNA readthrough transcription in the urochordate Herdmania curvata. Degnan BM, et al. **Mol Mar Biol Biotechnol** 1998 Dec;7(4):294–302

Phylogenetic utility of the external transcribed spacer (ETS) of 18S-26S rDNA: congruence of ETS and ITS trees of Calycadenia (Compositae). Baldwin BG, et al. **Mol Phylogenet Evol** 1998 Dec;10(3):449–63

Evolution of the ribosomal RNA internal transcribed spacer one (ITS-1) in cichlid fishes of the Lake Victoria region. Booton GC, et al. **Mol Phylogenet Evol** 1999 Mar; 11(2):273–82

Mitochondrial 12S rDNA indicates that the Rhipicephalinae (Acari: Ixodida) is paraphyletic [letter; comment] Murrell A, et al. **Mol Phylogenet Evol** 1999 Jun;12(1):83–6. Comment on: Mol Phylogenet Evol 1997 Feb;7(1):129–44.

Large-subunit ribosomal RNA systematics of symbiotic dinoflagellates: morphology does not recapitulate phylogeny. Wilcox TP. **Mol Phylogenet Evol** 1998 Dec; 10(3):436–48

Phylogenetic relationships of Central European wolf spiders (Araneae: lycosidae) inferred from 12S ribosomal DNA sequences. Zehethofer K, et al. **Mol Phylogenet Evol** 1998 Dec;10(3):391–8

Construction of a variability map for eukaryotic large subunit ribosomal RNA. Ali AB, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2825–31

Preferential cleavage in pre-ribosomal RNA byprotein B23 endoribonuclease. Savkur RS, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4508–15

Terminator element mutations affect both the efficiency and position of RNA polymerase I termination in Schizosaccharomyces pombe. Shwed PS, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2883–8

Modification of universal 12S rDNA primers for specific amplification of contaminated Taenia spp. (Cestoda) gDNA enabling phylogenetic studies. von Nickisch-Rosenegk M, et al. **Parasitol Res** 1999 Oct;85(10):819–25

Theileria parva ribosomal internal transcribed spacer sequences exhibit extensive polymorphism and mosaic evolution: application to the characterization of parasites from cattle and buffalo. Collins NE, et al. **Parasitology** 1999 Jun;118 (Pt 6):541–51

Visualization of the Brassica self-incompatibility S-locus on identified oilseed rape chromosomes. Kamisugi Y, et al. **Plant Mol Biol** 1998 Dec;38(6):1081–7

Ribosomal RNA gene copy number and nucleolar-size polymorphisms within and among chicken lines selected for enhanced growth. Su MH, et al. **Poult Sci** 1998 Dec; 77(12):1748–54

An Escherichia coli strain with all chromosomal rRNA operons inactivated: complete exchange of rRNA genes between bacteria [see comments] Asai T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1971–6. Comment in: Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1820–2.

Gene dosage and stochastic effects determine the severity and direction of uniparental ribosomal RNA gene silencing (nucleolar dominance) in Arabidopsis allopolyploids. Chen ZJ, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8; 95(25):14891–6

Basonuclin, a zinc finger protein of keratinocytes and reproductive germ cells, binds to the rRNA gene promoter. Iuchi S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9628–32

Phosphorylation of the rRNA transcription factor upstream binding factor promotes its association with TATA binding protein. Kihm AJ, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14816–20

Engineering of bacterial ribosomes: replacement of all seven Escherichia coli rRNA operons by a single plasmid-encoded operon [see comments] Nomura M. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1820–2 (25 ref.). Comment in: Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1971–6.

rRNA complementarity within mRNAs: a possible basis for mRNA-ribosome interactions and translational control. Tranque P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13; 95(21):12238–43

Core sequence in the RNA motif recognized by the ErmE methyltransferase revealed by relaxing the fidelity of the enzyme for its target. Hansen LH, et al. **RNA** 1999 Jan; 5(1):93–101

Molecular phylogenetic studies on Theileria parasites based on small subunit ribosomal RNA gene sequences. Chansiri K, et al. **Vet Parasitol** 1999 Jun 15;83(2):99–105

[Human ribosomal genes contain proteins, strongly bound with DNA, in the transcribed area] Veĭko NN, et al. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):629–34 **(Rus)**

HISTORY

Eukaryotic rRNA methylation: the calm before the Sno storm. Maden BE. **Trends Biochem Sci** 1998 Nov; 23(11):447–50

ISOLATION & PURIFICATION

Preservation of algal and higher plant ribosomal RNA integrity during extraction and electrophoretic quantitation. McIntosh L, et al. **Anal Biochem** 1978 Dec;91(2):600–12

METABOLISM

Nonenzymatic hydrolysis of oligoribonucleotides. V. The elements affecting the process of self-hydrolysis. Bibillo A, et al. **Acta Biochim Pol** 1999;46(1):145–53

Efficient 50S ribosome-catalyzed peptide bond synthesis with an aminoacyl minihelix. Sardesai NY, et al.

Biochemistry 1999 Sep 14;38(37):12080–8
Structure of the decoding center of the ribosome. Sergiev PV, et al. **Biochemistry (Mosc)** 1998 Aug;63(8):963–76
Yeast ribosomal proteins L4, L17, L20, and L25 exhibit different binding characteristics for the yeast 35S precursor rRNA. Yeh LC, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1–2):139–48
Probing ribosome structure by europium-induced RNA cleavage. Dorner S, et al. **Biol Chem** 1999 Feb; 380(2):243–51
Differential stability of E. coli ribosomal particles and free RNA towards thermal degradation studied by microcalorimetry. Bonincontro A, et al. **Biophys Chem** 1998 Nov 16;75(2):97–103
Free energy determinants of binding the rRNA substrate and small ligands to ricin A-chain. Olson MA, et al. **Biophys J** 1999 Jan;76(1 Pt 1):28–39
Yeast proteins related to the p40/laminin receptor precursor are required for 20S ribosomal RNA processing and the maturation of 40S ribosomal subunits. Ford CL, et al. **Cancer Res** 1999 Feb 1;59(3):704–10
Peptidyl-transferase ribozymes: trans reactions, structural characterization and ribosomal RNA-like features. Zhang B, et al. **Chem Biol** 1998 Oct;5(10):539–53
Localization of mitochondrial large ribosomal RNA in germ plasm of Xenopus embryos. Kobayashi S, et al. **Curr Biol** 1998 Oct 8;8(20):1117–20
Mitochondrial small ribosomal RNA is present on polar granules in early cleavage embryos of Drosophila melanogaster. Kashikawa M, et al. **Dev Growth Differ** 1999 Aug;41(4):495–502
Elements essential for accumulation and function of small nucleolar RNAs directing site-specific pseudouridylation of ribosomal RNAs. Bortolin ML, et al. **EMBO J** 1999 Jan 15;18(2):457–69
Non-random fragmentation of ribosomal RNA in Helicobacter pylori during conversion to the coccoid form. Monstein HJ, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):217–24
Nuclear export of the small ribosomal subunit requires the ran-GTPase cycle and certain nucleoporins. Moy TI, et al. **Genes Dev** 1999 Aug 15;13(16):2118–33
Mycobacterium tuberculosis rrn promoters: differential usage and growth rate-dependent control. Verma A, et al. **J Bacteriol** 1999 Jul;181(14):4326–33
U3 small nucleolar RNA is essential for cleavage at sites 1, 2 and 3 in pre-rRNA and determines which rRNA processing pathway is taken in Xenopus oocytes. Borovjagin AV, et al. **J Mol Biol** 1999 Mar 12; 286(5):1347–63
The C-terminal half of RNase E, which organizes the Escherichia coli degradosome, participates in mRNA degradation but not rRNA processing in vivo. Lopez PJ, et al. **Mol Microbiol** 1999 Jul;33(1):188–99
The Database of Ribosomal Cross-links: an update. Baranov PV, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):184–5
RNA binding strategies of ribosomal proteins. Draper DE, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):381–8 (59 ref.)
Two 5'-ETS regions implicated in interactions with U3 snoRNA are required for small subunit rRNA maturation in Trypanosoma brucei. Hartshorne T, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3300–9
Pokeweed antiviral protein cleaves double-stranded supercoiled DNA using the same active site required to depurinate rRNA. Wang P, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1900–5
The exosome subunit Rrp43p is required for the efficient maturation of 5.8S, 18S and 25S rRNA. Zanchin NI, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1283–8
Brain cell RNA: sexual differences in the rat. Sterc J, et al. **Physiol Res** 1998;47(6):477–87
Yeast Rnt1p is required for cleavage of the pre-ribosomal RNA in the 3' ETS but not the 5' ETS. Kufel J, et al. **RNA** 1999 Jul;5(7):909–17
The structure of the ITS2-proximal stem is required for pre-rRNA processing in yeast. Peculis BA, et al. **RNA** 1998 Dec;4(12):1610–22
A computational screen for methylation guide snoRNAs in yeast. Lowe TM, et al. **Science** 1999 Feb 19; 283(5405):1168–71
[Ribosomal structure: RNA-protein and protein-protein interactions] Nikonov SV, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):773–81 (75 ref.) **(Rus)**

PHYSIOLOGY

Functional role of rRNAs in plant translation system tested with antisense strategy. Nawrot M, et al. **Acta Biochim Pol** 1998;45(4):1053–66
Essential role of mitochondrially encoded large rRNA for germ-line formation in Drosophila embryos. Iida T, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11274–8
[Two recent topics in ribosome research] Endo Y. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(15):2199–205 (22 ref.) **(Jpn)**

RADIATION EFFECTS

rRNA stability in heat-killed and UV-irradiated enterotoxigenic Staphylococcus aureus and Escherichia coli O157:H7. McKillip JL, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4264–8

RNA, RIBOSOMAL, PRECURSORS see **RNA PRECURSORS**

RNA, RIBOSOMAL, SELF-SPLICING see **RNA, CATALYTIC**

RNA, RIBOSOMAL, 5S

Chromosomal localization of 5S rRNA gene loci and the implications for relationships within the Allium complex. Lee SH, et al. **Chromosome Res** 1999;7(2):89–93
FISH landmarks for barley chromosomes (Hordeum vulgare L.). Brown SE, et al. **Genome** 1999 Apr;42(2):274–81

ANALYSIS

Seasonal dynamics of bacterioplankton community structure in a eutrophic lake as determined by 5S rRNA analysis. Höfle MG, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):3164–74
Evidence for the presence of 5S rRNA in mammalian mitochondria. Magalhães PJ, et al. **Mol Biol Cell** 1998 Sep; 9(9):2375–82
Ontogeny of Ro hYRNAs in human heart. Fraire-Velázquez S, et al. **Scand J Rheumatol** 1999;28(2):100–5

BIOSYNTHESIS

Enhancer of RNA polymerase III gene transcription. Sturges MR, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):690–4

CHEMISTRY

Paramagnetic oligonucleotides: contrast agents for magnetic resonance imaging with proton relaxation enhancement effects. Hines JV, et al. **Bioconjug Chem** 1999 Mar-Apr; 10(2):155–8
A bayesian statistical algorithm for RNA secondary structure prediction. Ding Y, et al. **Comput Chem** 1999 Jun 15; 23(3–4):387–400
Structural determinants in 5S RNA and TFIIIA for 7S RNP formation. Theunissen O, et al. **Eur J Biochem** 1998 Dec 1;258(2):758–67
Identification of a minimal domain of 5 S ribosomal RNA sufficient for high affinity interactions with the RNA-specific zinc fingers of transcription factor IIIA. Neely LS, et al. **J Mol Biol** 1999 Aug 20;291(3):549–60
RNA phylogeny. Smith T. **Nat Struct Biol** 1999 Jun;6(6):505
5S Ribosomal RNA Data Bank. Szymanski M, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):158–60

GENETICS

Reconstitution of functionally active Thermus aquaticus large ribosomal subunits with in vitro-transcribed rRNA. Khaitovich P, et al. **Biochemistry** 1999 Feb 9;38(6):1780–8
How do linker histones mediate differential gene expression? Crane-Robinson C. **Bioessays** 1999 May;21(5):367–71 (21 ref.)
DNA profiling of Acorus calamus chemotypes differing in essential oil composition. Sugimoto N, et al. **Biol Pharm Bull** 1999 May;22(5):481–5
Assignment of FRA1H common fragile site to human chromosome band 1q42.1 proximal to the nuclear NAD+ ADP-ribosyltransferase gene (ADPRT) and to the main 5S rRNA gene locus. Pelliccia F, et al. **Cytogenet Cell Genet** 1998;82(1–2):121–2
Tight correlation between inhibition of DNA repair in vitro and transcription factor IIIA binding in a 5S ribosomal RNA gene. Conconi A, et al. **EMBO J** 1999 Mar 1; 18(5):1387–96
Replication of 5 S ribosomal genes precedes the appearance of early nuclear replication complexes. Cuadrado A, et al. **Eur J Cell Biol** 1998 Nov;77(3):247–52
The 5S rRNA gene in sea barley (Hordeum marinum Hudson sensu lato): sequence variation among repeat units and relationship to the X haplome in barley (Hordeum). Baum BR, et al. **Genome** 1998 Oct;41(5):652–61
Mutational analysis of the structure and localization of the nucleolus in the yeast Saccharomyces cerevisiae. Oakes M, et al. **J Cell Biol** 1998 Oct 5;143(1):23–34
Sequence-based classification scheme for the genus Legionella targeting the 5S rRNA gene [letter; comment] Murdoch DR, et al. **J Clin Microbiol** 1999 Jan;37(1):281 . Comment on: J Clin Microbiol 1998 Jun;36(6):1560–7.
Physical mapping and characterization of 5S rRNA genes in Douglas-fir. Amarasinghe V, et al. **J Hered** 1998 Nov-Dec;89(6):495–500
Genetic analysis of Xenopus transcription factor IIIA. Bumbulis MJ, et al. **J Mol Biol** 1998 Dec 18;284(5):1307–22
Termination sequence requirements vary among genes transcribed by RNA polymerase III. Gunnery S, et al. **J Mol Biol** 1999 Feb 26;286(3):745–57
Spacer 2 region and 5S rDNA variation of Wolbachia strains involved in cytoplasmic incompatibility or sex-ratio distortion in arthropods. van Meer MM, et al. **Lett Appl Microbiol** 1999 Jan;28(1):17–22
5S rRNA gene deletions cause an unexpectedly high fitness loss in Escherichia coli. Ammons D, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):637–42
5S Ribosomal RNA Data Bank. Szymanski M, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):158–60
Both the 5S rRNA gene and the AT-rich flanks of xenopus laevis oocyte-type 5S rDNA repeat are required for histone H1-dependent repression of transcription of pol III-type genes in in vitro reconstituted chromatin. Tomaszewski R, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5596–601
Molecular diversity of 5S-rRNA spacer domain in Fritillaria species revealed by PCR analysis. Cai ZH, et al. **Planta Med** 1999 May;65(4):360–4
16S-23S and 23S-5S intergenic spacer regions of lactobacilli: nucleotide sequence, secondary structure and comparative analysis. Nour M. **Res Microbiol** 1998 Jun;149(6):433–48

METABOLISM

Phosphorylation of ribosomal protein L5 by protein kinase CKII decreases its 5S rRNA binding activity. Park JW, et al. **Biochem Biophys Res Commun** 1999 Sep 24; 263(2):475–81
N-terminal domain, residues 1–91, of ribosomal protein TL5 from Thermus thermophilus binds specifically and strongly to the region of 5S rRNA containing loop E. Gongadze GM, et al. **FEBS Lett** 1999 May 14;451(1):51–5
Assembly of 5S ribosomal RNA is required at a specific step of the pre-rRNA processing pathway. Dechampesme AM, et al. **J Cell Biol** 1999 Jun 28;145(7):1369–80
Genetic analysis of Xenopus transcription factor IIIA. Bumbulis MJ, et al. **J Mol Biol** 1998 Dec 18;284(5):1307–22
Effect of antibiotics on large ribosomal subunit assembly reveals possible function of 5 S rRNA. Khaitovich P, et al. **J Mol Biol** 1999 Sep 3;291(5):1025–34
Identification of a minimal domain of 5 S ribosomal RNA sufficient for high affinity interactions with the RNA-specific zinc fingers of transcription factor IIIA. Neely LS, et al. **J Mol Biol** 1999 Aug 20;291(3):549–60
Assembly of proteins and 5 S rRNA to transcripts of the major structural domains of 23 S rRNA. Ostergaard P, et al. **J Mol Biol** 1998 Nov 27;284(2):227–40
The environment of 5S rRNA in the ribosome: cross-links to 23S rRNA from sites within helices II and III of the 5S molecule. Osswald M, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2283–90

PHYSIOLOGY

Functional role of rRNAs in plant translation system tested with antisense strategy. Nawrot M, et al. **Acta Biochim Pol** 1998;45(4):1053–66

RNA, RIBOSOMAL, 5.8S

BIOSYNTHESIS

The roles of Rrp5p in the synthesis of yeast 18S and 5.8S rRNA can be functionally and physically separated. Eppens NA, et al. **RNA** 1999 Jun;5(6):779–93

CHEMISTRY

Common secondary structures for the second internal transcribed spacer pre-rRNA of two subfamilies of trichostrongylid nematodes. Chilton NB, et al. **Int J Parasitol** 1998 Nov;28(11):1765–73

GENETICS

Diversity and affinities among species and strains of Lipomyces. Gouliamova DE, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):283–91
Characterization of chromosomes and genome organization of Thapsia garganica L. by localizations of rRNA genes using fluorescent in situ hybridization. Rasmussen SK, et al. **Hereditas** 1998;129(3):231–9
Systematic relationships of some members of the genera Oesophagostomum and Chabertia (Nematoda: Chabertiidae) based on ribosomal DNA sequence data. Newton LA, et al. **Int J Parasitol** 1998 Nov;28(11):1781–9
Identification of yeasts by RFLP analysis of the 5.8S rRNA gene and the two ribosomal internal transcribed spacers. Esteve-Zarzoso B, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:329–37
Analysis of intraspecific sequence variation among eight isolates of the rumen symbiont, Isotricha prostoma (Ciliophora), from two continents. Wright AD. **J Eukaryot Microbiol** 1999 Jul-Aug;46(4):445–6
Exophiala dermatitidis and Sarcinomyces phaeomuriformis: ITS1-sequencing and nutritional physiology. Uijthof JM, et al. **Med Mycol** 1998 Jun;36(3):143–51
Intrasporal variability of ribosomal sequences in the endomycorrhizal fungus Gigaspora margarita. Lanfranco L, et al. **Mol Ecol** 1999 Jan;8(1):37–45
Comparative sequence analysis of 5.8S rRNA genes and internal transcribed spacer (ITS) regions of trichomonadid protozoa. Felleisen RS. **Parasitology** 1997 Aug;115 (Pt 2):111–9
[Molecular phylogeny of the nuclear 5.8S ribosomal RNA genes in 37 species of Nicotiana genus] Komarnitskii SI, et al. **Genetika** 1998 Jul;34(7):883–9 (Eng. Abstr.) **(Rus)**

METABOLISM

The exosome subunit Rrp43p is required for the efficient maturation of 5.8S, 18S and 25S rRNA. Zanchin NI, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1283–8

RNA, RIBOSOMAL, 16S

Novel archaeal phylotypes from an East African alkaline

saltern. Grant S, et al. **Extremophiles** 1999 May;3(2):139–45
Specific PCR primers from the 16S–23S rRNA spacer region for the rapid detection and identification of Actinobacillus seminis. Appuhamy S, et al. **J Appl Microbiol** 1998 Dec; 85(6):941–8
Genetic relationships among mycoplasmas based on the 16S–23S rRNA spacer sequence. Harasawa R. **Microbiol Immunol** 1999;43(2):127–32
Phylogenetic analysis of the genus Bifidobacterium and related genera based on 16S rDNA sequences. Miyake T, et al. **Microbiol Immunol** 1998;42(10):661–7
Molecular probing of deep secrets [news; comment] Summons R. **Nature** 1999 Apr 29;398(6730):752–3. Comment on: Nature 1999 Apr 29;398(6730):802–5.

ANALYSIS

Identification of clinical isolates of Mycobacterium spp. by sequence analysis of the 16S ribosomal RNA gene. Experience from a clinical laboratory. Holberg-Petersen M, et al. **APMIS** 1999 Feb;107(2):231–9
Temperature gradient gel electrophoresis analysis of 16S rRNA from human fecal samples reveals stable and host-specific communities of active bacteria. Zoetendal EG, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3854–9
T-cloning vector for plasmid-based 16S rDNA analysis. Pitulle C, et al. **Biotechniques** 1999 Feb;26(2):222–4
The use of polymerase chain reaction to detect septicemia in critically ill patients [see comments] Cursons RT, et al. **Crit Care Med** 1999 May;27(5):937–40. Comment in: Crit Care Med 1999 May;27(5):860–1.
Rapid identification of clinically relevant Nocardia species to genus level by 16S rRNA gene PCR. Laurent FJ, et al. **J Clin Microbiol** 1999 Jan;37(1):99–102
Identification of Leptospira biflexa by real-time homogeneous detection of rapid cycle PCR product. Woo TH, et al. **J Microbiol Methods** 1999 Feb;35(1):23–30
Identification of bacteria using two degenerate 16S rDNA sequencing primers. Boye K, et al. **Microbiol Res** 1999 May; 154(1):23–6
rRNA-targeted fluorescent in situ hybridization analysis of bacterial community structure in river water. Kenzaka T, et al. **Microbiology** 1998 Aug;144 (Pt 8):2085–93
Molecular identification of Photorhabdus luminescens strains by amplification of specific fragments of the 16S ribosomal DNA. Ehlers RU, et al. **Syst Appl Microbiol** 1998 Dec; 21(4):509–19
Nearly identical 16S rRNA sequences recovered from lakes in North America and Europe indicate the existence of clades of globally distributed freshwater bacteria. Zwart G, et al. **Syst Appl Microbiol** 1998 Dec;21(4):546–56

CHEMISTRY

Flow cytometric analysis of the in situ accessibility of Escherichia coli 16S rRNA for fluorescently labeled oligonucleotide probes. Fuchs BM, et al. **Appl Environ Microbiol** 1998 Dec;64(12):4973–82
Directed hydroxyl radical probing of 16S ribosomal RNA in 70S ribosomes from internal positions of the RNA. Newcomb LF, et al. **Biochemistry** 1999 Jan 19;38(3):945–51
Dependence of the 16S rRNA decoding region structure on Mg2+, subunit association, and temperature. Noah JW, et al. **Biochemistry** 1998 Nov 3;37(44):15442–8
Purification, cloning, and characterization of the 16S RNA m5C967 methyltransferase from Escherichia coli. Tscherne JS, et al. **Biochemistry** 1999 Feb 9;38(6):1884–92
Taxonomic relationships of the [Pasteurella] haemolytica complex as evaluated by DNA–DNA hybridizations and 16S rRNA sequencing with proposal of Mannheimia haemolytica gen. nov., comb. nov., Mannheimia granulomatis comb. nov., Mannheimia glucosida sp. nov., Mannheimia ruminalis sp. nov. and Mannheimia varigena sp. nov. Angen O, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:67–86
Two distinct mechanisms cause heterogeneity of 16S rRNA. Ueda K, et al. **J Bacteriol** 1999 Jan;181(1):78–82
Purification, cloning, and characterization of the 16 S RNA m2G1207 methyltransferase from Escherichia coli. Tscherne JS, et al. **J Biol Chem** 1999 Jan 8;274(2):924–9
To knot or not to knot? Examination of 16S ribosomal RNA models. VanLoock MS, et al. **J Biomol Struct Dyn** 1998 Dec;16(3):709–13
A common motif organizes the structure of multi-helix loops in 16 S and 23 S ribosomal RNAs. Leontis NB, et al. **J Mol Biol** 1998 Oct 30;283(3):571–83
Nucleotides in 16S rRNA protected by the association of 30S and 50S ribosomal subunits. Merryman C, et al. **J Mol Biol** 1999 Jan 8;285(1):97–105
Major groove binding of the tRNA/mRNA complex to the 16 S ribosomal RNA decoding site. VanLoock MS, et al. **J Mol Biol** 1999 Feb 5;285(5):2069–78
Three-dimensional placement of the conserved 530 loop of 16 S rRNA and of its neighboring components in the 30 S subunit. Wang R, et al. **J Mol Biol** 1999 Feb 19; 286(2):521–40
Determinants of aminoglycoside-binding specificity for rRNA by using mass spectrometry. Griffey RH, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10129–33
Enhancement of translation by the downstream box does not involve base pairing of mRNA with the penultimate stem sequence of 16S rRNA. O'Connor M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8973–8
Site-directed hydroxyl radical probing of 30S ribosomal subunits by using Fe(II) tethered to an interruption in the 16S rRNA chain. Samaha RR, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):366–70
Directed hydroxyl radical probing of 16S ribosomal RNA in ribosomes containing Fe(II) tethered to ribosomal protein S20. Culver GM, et al. **RNA** 1998 Dec; 4(12):1471–80
Analysis of the conformation of the 3' major domain of Escherichia coli16S ribosomal RNA using site-directed photoaffinity crosslinking. Montpetit A, et al. **RNA** 1998 Nov;4(11):1455–66
Positions in the 30S ribosomal subunit proximal to the 790 loop as determined by phenanthroline cleavage. Muth GW, et al. **RNA** 1999 Jul;5(7):856–64
Directed hydroxyl radical probing of 16S rRNA in the ribosome: spatial proximity of RNA elements of the 3'and 5'domains. Newcomb LF, et al. **RNA** 1999 Jul;5(7):849–55

CLASSIFICATION

Species identification of Streptococcus porcinus by restriction fragment length polymorphism analysis of 16S ribosomal DNA. Abdulmawjood A, et al. **Res Vet Sci** 1998 Jul–Aug;65(1):85–6

DRUG EFFECTS

Effect of mutations in the A site of 16 S rRNA on aminoglycoside antibiotic-ribosome interaction. Recht MI, et al. **J Mol Biol** 1999 Feb 12;286(1):33–43

GENETICS

Persistence of maternal antibodies against Mycoplasma agassizii in desert tortoise hatchlings. Schumacher IM, et al. **Am J Vet Res** 1999 Jul;60(7):826–31
Diversity of free-living and attached bacteria in offshore Western Mediterranean waters as depicted by analysis of genes encoding 16S rRNA. Acinas SG, et al. **Appl Environ Microbiol** 1999 Feb;65(2):514–22
Prevalence of the Rhizobium etli-like allele in genes coding for 16S rRNA among the indigenous rhizobial populations found associated with wild beans from the Southern Andes in Argentina. Aguilar OM, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3520–4
Comparative diversity of ammonia oxidizer 16S rRNA gene sequences in native, tilled, and successional soils. Bruns MA, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2994–3000
Counting and size classification of active soil bacteria by fluorescence in situ hybridization with an rRNA oligonucleotide probe. Christensen H, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1753–61
Analysis of 16S–23S rRNA intergenic spacer regions of Vibrio cholerae and Vibrio mimicus. Chun J, et al. **Appl Environ Microbiol** 1999 May;65(5):2202–8
Analysis of subfossil molecular remains of purple sulfur bacteria in a lake sediment. Coolen MJ, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4513–21
Levels of bacterial community diversity in four arid soils compared by cultivation and 16S rRNA gene cloning. Dunbar J, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1662–9
Species-specific oligonucleotides for enumeration of Pseudomonas putida F1, Burkholderia sp. strain JS150, and Bacillus subtilis ATCC 7003 in biodegradation experiments. DuTeau NM, et al. **Appl Environ Microbiol** 1998 Dec; 64(12):4994–9
Effect of phenylurea herbicides on soil microbial communities estimated by analysis of 16S rRNA gene fingerprints and community-level physiological profiles. el Fantroussi S, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):982–8
Quantification of 16S rRNAs in complex bacterial communities by multiple competitive reverse transcription-PCR in temperature gradient gel electrophoresis fingerprints. Felske A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4581–7
PCR-ribotyping of Xenorhabdus and Photorhabdus isolates from the Caribbean region in relation to the taxonomy and geographic distribution of their nematode hosts. Fischer-Le Saux M, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4246–54
Variations of bacterial populations in human feces measured by fluorescent in situ hybridization with group-specific 16S rRNA-targeted oligonucleotide probes. Franks AH, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3336–45
Flow cytometric analysis of the in situ accessibility of Escherichia coli 16S rRNA for fluorescently labeled oligonucleotide probes. Fuchs BM, et al. **Appl Environ Microbiol** 1998 Dec;64(12):4973–82
Two intracellular symbiotic bacteria from the mulberry psyllid Anomoneura mori (Insecta, Homoptera). Fukatsu T, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3599–606
Polynucleotide probes that target a hypervariable region of 16S rRNA genes to identify bacterial isolates corresponding to bands of community fingerprints. Heuer H, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1045–9
Changes in bacterial species composition in enrichment cultures with various dilutions of inoculum as monitored by denaturing gradient gel electrophoresis. Jackson CR, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5046–8
Quantitative selective PCR of 16S ribosomal DNA correlates well with selective agar plating in describing population dynamics of indigenous Pseudomonas spp. in soil hot spots. Johnsen K, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1786–8
Identification of lactic acid bacteria from chili bo, a Malaysian food ingredient. Leisner JJ, et al. **Appl Environ Microbiol** 1999 Feb;65(2):599–605
Photosynthetic bradyrhizobia from Aeschynomene spp. are specific to stem-nodulated species and form a separate 16S ribosomal DNA restriction fragment length polymorphism group. Molouba F, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):3084–94
Phenotypic and phylogenetic characterization of ruminal tannin-tolerant bacteria. Nelson KE, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3824–30
Combined microautoradiography-16S rRNA probe technique for determination of radioisotope uptake by specific microbial cell types in situ. Ouverney CC, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1746–52
Bias in template-to-product ratios in multitemplate PCR. Polz MF, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3724–30
A new approach to utilize PCR-single-strand-conformation polymorphism for 16S rRNA gene-based microbial community analysis. Schwieger F, et al. **Appl Environ Microbiol** 1998 Dec;64(12):4870–6
Molecular detection, isolation, and physiological characterization of functionally dominant phenol-degrading bacteria in activated sludge. Watanabe K, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4396–402
Estimation of the relative abundance of different Bacteroides and Prevotella ribotypes in gut samples by restriction enzyme profiling of PCR-amplified 16S rRNA gene sequences. Wood J, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3683–9
Specific detection of different phylogenetic groups of chemocline bacteria based on PCR and denaturing gradient gel electrophoresis of 16S rRNA gene fragments. Overmann J, et al. **Arch Microbiol** 1999 Aug;172(2):83–94
High genetic and physiological diversity of sulfate-reducing bacteria isolated from an oligotrophic lake sediment. Sass H, et al. **Arch Microbiol** 1998 Oct;170(4):243–51
Escherichia coli cafA gene encodes a novel RNase, designated as RNase G, involved in processing of the 5' end of 16S rRNA. Wachi M, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):483–8
Studies on the large subunit rRNA genes and their flanking regions of Leuconostocs. Nour M. **Can J Microbiol** 1998 Sep;44(9):807–18
Identification of Shigella boydii in colonic malacoplakia by universal bacterial 16S ribosomal DNA-based amplification in a human immunodeficiency virus-infected patient. Raguin G, et al. **Clin Infect Dis** 1999 Jan;28(1):142–3
Terminal restriction fragment length polymorphism (T-RFLP): an emerging method for characterizing diversity among homologous populations of amplification products. Marsh TL. **Curr Opin Microbiol** 1999 Jun; 2(3):323–7 (33 ref.)
Phylogenetic analysis of Piscirickettsia salmonis by 16S, internal transcribed spacer (ITS) and 23S ribosomal DNA sequencing. Mauel MJ, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):115–23
RNase G (CafA protein) and RNase E are both required for the 5' maturation of 16S ribosomal RNA. Li Z, et al. **EMBO J** 1999 May 17;18(10):2878–85
Evaluation of 16S, map1 and pCS20 probes for detection of Cowdria and Ehrlichia species. Allsopp MT, et al. **Epidemiol Infect** 1999 Apr;122(2):323–8
Diagnosis and follow-up of Whipple's disease by amplification of the 16S rRNA gene of Tropheryma whippelii. Pron B, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan;18(1):62–5
Development of a new PCR-ribotyping method for Clostridium difficile based on ribosomal RNA gene sequencing. Bidet P, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):261–6
Characterisation of rhizobia from African acacias and other tropical woody legumes using Biolog and partial 16S rRNA sequencing. McInroy SG, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):111–7
Rapid identification of human intestinal bifidobacteria by 16S rRNA-targeted species- and group-specific primers. Matsuki T, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):113–21
Design of cluster-specific 16S rDNA oligonucleotide probes to identify bacteria of the Bacteroides subgroup harbored in human feces. Miyamoto Y, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):143–9
Nucleotide changes in mitochondrial 16S rRNA gene from different mammalian cell lines. Hashiguchi K, et al. **Genes Genet Syst** 1998 Oct;73(5):317–21
Complete DNA sequence analysis for 16S ribosomal RNA gene of the leproma-derived, cultivable and nerve-invading mycobacterium HI-75. Sakai T, et al. **Int J Lepr Other Mycobact Dis** 1999 Mar;67(1):52–9
RFLP of rRNA genes and sequencing of the 16S–23S rDNA intergenic spacer region of ammonia-oxidizing bacteria: a phylogenetic approach. Aakra A, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:123–30
Phylogenetic relationships of three amino-acid-utilizing anaerobes, Selenomonas acidaminovorans, Selenomonas acidaminophila' and Eubacterium acidaminophilum, as inferred from partial 16S rDNA nucleotide sequences and

proposal of Thermanaerovibrio acidaminovorans gen. nov., comb. nov. and Anaeromusa acidaminophila gen. nov., comb. nov. Baena S, et al. **Int J Syst Bacteriol** 1999 Jul; 49 Pt 3:969–74

Reclassification of Pseudomonas echinoides Heumann 1962, 343AL, in the genus Sphingomonas as Sphingomonas echinoides comb. nov. Denner EB, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1103–9

Extensive 16S rRNA gene sequence diversity in Campylobacter hyointestinalis strains: taxonomic and applied implications. Harrington CS, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1171–5

Phylogenetic analysis of Formivibrio citricus, Propionivibrio dicarboxylicus, Anaerobiospirillum thomasii, Succinimonas amylolytica and Succinivibrio dextrinosolvens and proposal of Succinivibrionaceae fam. nov. Hippe H, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:779–82

Rapid identification of hyperthermophilic methanococci isolated from deep-sea hydrothermal vents. Jeanthon C, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:591–4

Reclassification of Amycolatopsis rugosa Lechevalier et al. 1986 as Prauserella rugosa gen. nov., comb. nov. Kim SB, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:507–12

Patterns of sequence variation in two regions of the 16S rRNA multigene family of Escherichia coli. Martínez-Murcia AJ, et al. **Int J Syst Bacteriol** 1999 Apr; 49 Pt 2:601–10

Phylogenetic relationships of 38 taxa of the genus Staphylococcus based on 16S rRNA gene sequence analysis. Takahashi T, et al. **Int J Syst Bacteriol** 1999 Apr; 49 Pt 2:725–8

The family Coriobacteriaceae: reclassification of Eubacterium exiguum (Poco et al. 1996) and Peptostreptococcus heliotrinreducens (Lanigan 1976) as Slackia exigua gen. nov., comb. nov. and Slackia heliotrinireducens gen. nov., comb. nov., and Eubacterium lentum (Prevot 1938) as Eggerthella lenta gen. nov., comb. nov. Wade WG, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:595–600

Culture-independent quantification of physiologically-active microbial groups in fermented foods using rRNA-targeted oligonucleotide probes: application to pozol, a Mexican lactic acid fermented maize dough. Ampe F, et al. **J Appl Microbiol** 1999 Jul;87(1):131–40

Amylase and 16S rRNA genes from a hyperthermophilic archaebacterium. Jones RA, et al. **J Appl Microbiol** 1999 Jan;86(1):93–107

Effects of growth conditions on expression of mycobacterial murA and tyrS genes and contributions of their transcripts to precursor rRNA synthesis. Gonzalez-y-Merchand JA, et al. **J Bacteriol** 1999 Aug;181(15):4617–27

Correlation of 16S ribosomal DNA signature sequences with temperature-dependent growth rates of mesophilic and psychrotolerant strains of the Bacillus cereus group. Prüss BM, et al. **J Bacteriol** 1999 Apr;181(8):2624–30

Helicobacter pylori: a eubacterium lacking the stringent response. Scoarughi GL, et al. **J Bacteriol** 1999 Jan; 181(2):552–5

Two distinct mechanisms cause heterogeneity of 16S rRNA. Ueda K, et al. **J Bacteriol** 1999 Jan;181(1):78–82

Simultaneous detection of Bacteroides forsythus and Prevotella intermedia by 16S rRNA gene-directed multiplex PCR. Conrads G, et al. **J Clin Microbiol** 1999 May;37(5):1621–4

Evaluation of AMPLICOR Neisseria gonorrhoeae PCR using cppB nested PCR and 16S rRNA PCR. Farrell DJ. **J Clin Microbiol** 1999 Feb;37(2):386–90

Improved amplification of microbial DNA from blood cultures by removal of the PCR inhibitor sodium polyanetholesulfonate. Fredricks DN, et al. **J Clin Microbiol** 1998 Oct;36(10):2810–6

Diverse restriction fragment length polymorphism patterns of the PCR-amplified 16S rRNA genes in Aeromonas veronii strains and possible misidentification of Aeromonas species. Graf J. **J Clin Microbiol** 1999 Oct;37(10):3194–7

Detection of Helicobacter pylori DNA in fecal samples from infected individuals. Gramley WA, et al. **J Clin Microbiol** 1999 Jul;37(7):2236–40

Development of amplified 16S ribosomal DNA restriction analysis for identification of Actinomyces species and comparison with pyrolysis-mass spectrometry and conventional biochemical tests. Hall V, et al. **J Clin Microbiol** 1999 Jul;37(7):2255–61

Homogeneity of 16S–23S ribosomal intergenic spacer regions of Tropheryma whippelii in Swiss patients with Whipple's disease. Hinrikson HP, et al. **J Clin Microbiol** 1999 Jan; 37(1):152–6

Unexpected cross-reaction with Fusobacterium necrophorum in a PCR for detection of mycoplasmas. Jensen JS, et al. **J Clin Microbiol** 1999 Mar;37(3):828–9

16S ribosomal DNA typing for identification of pathogens in patients with bacterial keratitis. Knox CM, et al. **J Clin Microbiol** 1998 Dec;36(12):3492–6

Development of rRNA-based PCR assays for identification of Burkholderia cepacia complex isolates recovered from cystic fibrosis patients. LiPuma JJ, et al. **J Clin Microbiol** 1999 Oct;37(10):3167–70

PCR amplification from fixed tissue indicates frequent involvement of Brachyspira aalborgi in human intestinal spirochetosis. Mikosza AS, et al. **J Clin Microbiol** 1999 Jun;37(6):2093–8

Determination of 16S rRNA sequences of enterococci and application to species identification of nonmotile Enterococcus gallinarum isolates. Patel R, et al. **J Clin Microbiol** 1998 Nov;36(11):3399–407

Optimal detection and identification of Mycobacterium haemophilum in specimens from pediatric patients with cervical lymphadenopathy. Samra Z, et al. **J Clin Microbiol** 1999 Mar;37(3):832–4

Differentiation of Burkholderia species by PCR-restriction fragment length polymorphism analysis of the 16S rRNA gene and application to cystic fibrosis isolates. Segonds C, et al. **J Clin Microbiol** 1999 Jul;37(7):2201–8

Prevalence of corynebacterial 16S rRNA sequences in patients with bacterial and "nonbacterial" prostatitis. Tanner MA, et al. **J Clin Microbiol** 1999 Jun;37(6):1863–70

Detection of prosthetic hip infection at revision arthroplasty by immunofluorescence microscopy and PCR amplification of the bacterial 16S rRNA gene. Tunney MM, et al. **J Clin Microbiol** 1999 Oct;37(10):3281–90

Insights on the diversity within a "species" of Thalassicolla (Spumellarida) based on 16S-like ribosomal RNA gene sequencing. Zettler LA, et al. **J Eukaryot Microbiol** 1998 Sep–Oct;45(5):488–96

Identification of the cause of a brain abscess by direct 16S ribosomal DNA sequencing. Logan JM, et al. **J Infect** 1999 Jan;38(1):45–7

An evaluation of intergenic rRNA gene sequence length polymorphism analysis for the identification of Legionella species. Fry NK, et al. **J Med Microbiol** 1998 Aug; 47(8):667–78

Phylogenetic analysis of Calymmatobacterium granulomatis based on 16S rRNA gene sequences. Kharsany AB, et al. **J Med Microbiol** 1999 Sep;48(9):841–7

Identification of Helicobacter in gastric biopsies by PCR based on 16S rDNA sequences: a matter of little significance for the prediction of H. pylori-associated gastritis? Tiveljung A, et al. **J Med Microbiol** 1998 Aug; 47(8):695–704

Presence of eubacteria in biopsies from Crohn's disease inflammatory lesions as determined by 16S rRNA gene-based PCR. Tiveljung A, et al. **J Med Microbiol** 1999 Mar;48(3):263–8

Reviewing the DA001-files: a 16S rRNA chase on suspect #X99967, a Bacillus and Dutch underground activist. Felske A. **J Microbiol Methods** 1999 May;36(1–2):77–93

Use of the 16S—23S ribosomal genes spacer region in studies of prokaryotic diversity. García-Martínez J, et al. **J Microbiol Methods** 1999 May;36(1–2):55–64

Identification of enterococci by ribotyping with horseradish-peroxidase-labelled 16S rDNA probes. Pryce TM, et al. **J Microbiol Methods** 1999 Jun;36(3):147–55

Molecular monitoring of an uncultured group of the class Actinobacteria in two terrestrial environments. Rheims H, et al. **J Microbiol Methods** 1999 May;36(1–2):65–75

Analysis of bacterial communities on historical glass by denaturing gradient gel electrophoresis of PCR-amplified gene fragments coding for 16S rRNA. Rölleke S, et al. **J Microbiol Methods** 1999 May;36(1–2):107–14

Effect of mutations in the A site of 16 S rRNA on aminoglycoside antibiotic-ribosome interaction. Recht MI, et al. **J Mol Biol** 1999 Feb 12;286(1):33–43

Detection of seven major evolutionary lineages in cyanobacteria based on the 16S rRNA gene sequence analysis with new sequences of five marine Synechococcus strains. Honda D, et al. **J Mol Evol** 1999 Jun;48(6):723–39

Taxon-specific content of oligonucleotide triplets in 16S rRNAs of anoxygenic phototrophic and nitrifying bacteria. Abella CA, et al. **J Theor Biol** 1999 Feb 7;196(3):289–96

Polymerase chain reaction amplification of bacterial 16S rRNA genes from cold-cup biopsy forceps. Keay S, et al. **J Urol** 1998 Dec;160(6 Pt 1):2229–31

Development and evaluation of a polymerase chain reaction assay using the 16S rRNA gene for detection of Eperythrozoon suis infection. Messick JB, et al. **J Vet Diagn Invest** 1999 May;11(3):229–36

In vitro amplification of the 16S rRNA genes from Mycoplasma bovirhinis, Mycoplasma alkalescens and Mycoplasma bovigenitalium by PCR. Kobayashi H, et al. **J Vet Med Sci** 1998 Dec;60(12):1299–303

Structure and organization of the rrnD operon of 'Brevibacterium lactofermentum': analysis of the 16S rRNA gene. Amador E, et al. **Microbiology** 1999 Apr;145 (Pt 4):915–24

Differentiation of Campylobacter coli and C. jejuni by length and DNA sequence of the 16S–23S rRNA internal spacer region. Christensen H, et al. **Microbiology** 1999 Jan;145 (Pt 1):99–105

16S rRNA gene sequences of 'Candidatus Campylobacter hominis', a novel uncultivated species, are found in the gastrointestinal tract of healthy humans. Lawson AJ, et al. **Microbiology** 1998 Aug;144 (Pt 8):2063–71

Monitoring a widespread bacterial group: in situ detection of planctomycetes with 16S rRNA-targeted probes. Neef A, et al. **Microbiology** 1998 Dec;144 (Pt 12):3257–66

Phylogenetic diversity of mesophilic and thermophilic granular sludges determined by 16S rRNA gene analysis. Sekiguchi Y, et al. **Microbiology** 1998 Sep;144 (Pt 9):2655–65

Networks and groups within the genus Neisseria: analysis of argF, recA, rho, and 16S rRNA sequences from human Neisseria species. Smith NH, et al. **Mol Biol Evol** 1999 Jun;16(6):773–83

Hierarchical analysis of variation in the mitochondrial 16S rRNA gene among Hymenoptera. Whitfield JB, et al. **Mol Biol Evol** 1998 Dec;15(12):1728–43

Analysis of the 16S rRNA gene sequence of the coryneform bacterium associated with hyperkeratotic dermatitis of athymic nude mice and development of a PCR-based detection assay. Duga S, et al. **Mol Cell Probes** 1998 Aug; 12(4):191–9

Ecological parallelism and cryptic species in the genus Ophiothrix derived from mitochondrial DNA sequences. Baric S, et al. **Mol Phylogenet Evol** 1999 Feb;11(1):157–62

Phylogenetic analysis of southern hemisphere flat oysters based on partial mitochondrial 16S rDNA gene sequences. Jozefowicz CJ, et al. **Mol Phylogenet Evol** 1998 Dec; 10(3):426–35

Phylogenetic relationships of terrestrial Australo-Papuan elapid snakes (subfamily Hydrophiinae) based on cytochrome b and 16S rRNA sequences. Keogh JS, et al. **Mol Phylogenet Evol** 1998 Aug;10(1):67–81

Molecular characterization of an n-alkane-degrading bacterial community and identification of a new species, Acinetobacter venetianus. Di Cello F, et al. **Res Microbiol** 1997 Mar–Apr;148(3):237–49

PCR-amplified 16S and 23S rDNA restriction analysis for the identification of Acinetobacter strains at the DNA group level. García-Arata MI, et al. **Res Microbiol** 1997 Dec;148(9):777–84

Strategy for the detection of Helicobacter species by amplification of 16S rRNA genes and identification of H. felis in a human gastric biopsy. Germani Y, et al. **Res Microbiol** 1997 May;148(4):315–26

16S–23S and 23S–5S intergenic spacer regions of lactobacilli: nucleotide sequence, secondary structure and comparative analysis. Nour M. **Res Microbiol** 1998 Jun;149(6):433–48

Mycobacterium avium complex strains from AIDS patients belong to a homogeneous group ascribed by rRNA typing methods. Peillon R, et al. **Res Microbiol** 1997 Nov; 148(8):683–90

A DNA probe for the detection and identification of Bacillus sporothermodurans using the 16S–23S rDNA spacer region and phylogenetic analysis of some field isolates of Bacillus which form highly heat resistant spores. de Silva S, et al. **Syst Appl Microbiol** 1998 Aug;21(3):398–407

Differentiation of Actinobacillus pleuropneumoniae strains by sequence analysis of 16S rDNA and ribosomal intergenic regions, and development of a species specific oligonucleotide for in situ detection. Fussing V, et al. **Syst Appl Microbiol** 1998 Aug;21(3):408–18

Phylogeny, ribosomal RNA gene typing and relative abundance of new Pseudomonas species (sensu stricto) isolated from two pinyon-juniper woodland soils of the arid southwest U.S. Kuske CR, et al. **Syst Appl Microbiol** 1999 May;22(2):300–11

Identification of classical Propionibacterium species using 16S rDNA-restriction fragment length polymorphisms. Riedel KH, et al. **Syst Appl Microbiol** 1998 Aug; 21(3):419–28

Characterization of the koala biovar of Chlamydia pneumoniae at four gene loci—ompAVD4, ompB, 16S rRNA, groESL spacer region. Wardrop S, et al. **Syst Appl Microbiol** 1999 Feb;22(1):22–7

Polymerase chain reaction amplification of bacterial 16s rRNA genes in prostate biopsies from men without chronic prostatitis. Keay S, et al. **Urology** 1999 Mar;53(3):487–91

Development of a PCR test for identification of Haemophilus somnus in pure and mixed cultures. Angen O, et al. **Vet Microbiol** 1998 Aug 28;63(1):39–48

Variations in the 16S rRNA gene sequence of Yersinia enterocolitica isolates influence the specificity of molecular identification systems. Neubauer H, et al. **Zentralbl Bakteriol** 1999 Jul;289(3):329–37

Detection and identification of Mycoplasma conjunctivae in infectious keratoconjunctivitis by PCR based on the 16S rRNA gene. Giacometti M, et al. **Zentralbl Veterinarmed [B]** 1999 Apr;46(3):173–80

[Species diversity of picoplankton from Lake Baikal by comparative analysis of 5'-terminal segments of 16S rRNA genes] Semenova EA, et al. **Mol Biol (Mosk)** 1998 Sep–Oct; 32(5):895–901 **(Rus)**

METABOLISM

Identification of the 16S rRNA m5C967 methyltransferase from Escherichia coli. Gu XR, et al. **Biochemistry** 1999 Mar 30;38(13):4053–7

Probing ribosome structure by europium-induced RNA cleavage. Dorner S, et al. **Biol Chem** 1999 Feb; 380(2):243–51

Oxidative stress induces differential gene expression in a human lens epithelial cell line. Carper DA, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):400–6

16S rRNA is bound to era of Streptococcus pneumoniae. Meier TI, et al. **J Bacteriol** 1999 Sep;181(17):5242–9

Protein synthesis in Giardia lamblia may involve interaction between a downstream box (DB) in mRNA and an anti-DB in the 16S-like ribosomal RNA. Yu DC, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1–2):151–65

Enhancement of translation by the downstream box does not involve base pairing of mRNA with the penultimate stem sequence of 16S rRNA. O'Connor M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8973–8

Neighborhood of 16S rRNA nucleotides U788/U789 in the 30S ribosomal subunit determined by site-directed crosslinking. Mundus D, et al. **RNA** 1998 Nov;

4(11):1373–85
Recognition of the codon–anticodon helix by ribosomal RNA. Yoshizawa S, et al. **Science** 1999 Sep 10; 285(5434):1722–5

ULTRASTRUCTURE

Effects of tetracycline and spectinomycin on the tertiary structure of ribosomal RNA in the Escherichia coli 30 S ribosomal subunit. Noah JW, et al. **J Biol Chem** 1999 Jun 4;274(23):16576–81

RNA, RIBOSOMAL, 18S

FISH landmarks for barley chromosomes (Hordeum vulgare L.). Brown SE, et al. **Genome** 1999 Apr;42(2):274–81
Typing of sandflies from Greece and Cyprus by DNA polymorphism of 18S rRNA gene. Aransay AM, et al. **Insect Mol Biol** 1999 May;8(2):179–84
Ribosomal RNA in Alzheimer's disease and aging. Payão SL, et al. **Mech Ageing Dev** 1998 Nov 16;105(3):265–72

ANALYSIS

RNA chip: quality assessment of RNA by microchannel linear gel electrophoresis in injection-molded plastic chips. Ogura M, et al. **Clin Chem** 1998 Nov;44(11):2249–55
The evolution of trypanosomes infecting humans and primates. Stevens J, et al. **Mem Inst Oswaldo Cruz** 1998 Sep–Oct;93(5):669–76

BIOSYNTHESIS

The roles of Rrp5p in the synthesis of yeast 18S and 5.8S rRNA can be functionally and physically separated. Eppens NA, et al. **RNA** 1999 Jun;5(6):779–93

CHEMISTRY

Characterization of a single group I intron in the 18S rRNA gene of the pathogenic fungus Histoplasma capsulatum. Lasker BA, et al. **Med Mycol** 1998 Aug;36(4):205–12
On the molecular taxonomy of Trypanosoma cruzi using riboprinting. Stothard JR, et al. **Parasitology** 1998 Sep;117 (Pt 3):243–7
Temperature gradient gel electrophoresis (TGGE) analysis of riboprints from Trypanosoma cruzi. Stothard JR, et al. **Parasitology** 1998 Sep;117 (Pt 3):249–53
Determinants of aminoglycoside-binding specificity for rRNA by using mass spectrometry. Griffey RH, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10129–33
The 5' end of the 18S rRNA can be positioned from within the mature rRNA. Sharma K, et al. **RNA** 1999 May; 5(5):678–86
[Protein environment of the nucleotide U–1061 in the "790 stem–look" region of 18S rRNA in human ribosomal 40S subunit] Malygin AA, et al. **Mol Biol (Mosk)** 1999 Mar–Apr;33(2):183–9 **(Rus)**

GENETICS

Analysis of fungal diversity in the wheat rhizosphere by sequencing of cloned PCR-amplified genes encoding 18S rRNA and temperature gradient gel electrophoresis. Smit E, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2614–21
The phylogeny of the cactophilic yeasts based on the 18S ribosomal RNA gene sequences: the proposals of Phaffomyces antillensis and Starmera caribaea, new combinations. Yamada Y, et al. **Biosci Biotechnol Biochem** 1999 May;63(5):827–32
Sequence analysis of 18S–28S rRNA spacer regions from Saccharomyces kunashirensis, S. martiniae, S. rosinii, and S. transvaalensis. Oda Y, et al. **Curr Microbiol** 1999 Jan; 38(1):61–3
Characterization of chromosomes and genome organization of Thapsia garganica L. by localizations of rRNA genes using fluorescent in situ hybridization. Rasmussen SK, et al. **Hereditas** 1998;129(3):231–9
In situ detection of Aspergillus 18S ribosomal RNA in invasive pulmonary aspergillosis. Kobayashi M, et al. **Intern Med** 1999 Jul;38(7):563–9
Phylogenetic analysis of Rhinosporidium seeberi's 18S small-subunit ribosomal DNA groups this pathogen among members of the protoctistan Mesomycetozoa clade. Herr RA, et al. **J Clin Microbiol** 1999 Sep;37(9):2750–4
Fluorescent oligonucleotide probes for clinical and environmental detection of Acanthamoeba and the T4 18S rRNA gene sequence type. Stothard DR, et al. **J Clin Microbiol** 1999 Aug;37(8):2687–93
Molecular characterization of Cyclospora-like organisms from baboons. Lopez FA, et al. **J Infect Dis** 1999 Mar; 179(3):670–6
Limitations of metazoan 18S rRNA sequence data: implications for reconstructing a phylogeny of the animal kingdom and inferring the reality of the Cambrian explosion. Abouheif E, et al. **J Mol Evol** 1998 Oct; 47(4):394–405
Origin and evolution of paralogous rRNA gene clusters within the flatworm family Dugesiidae (Platyhelminthes, Tricladida). Carranza S, et al. **J Mol Evol** 1999 Aug; 49(2):250–9
Phylogenetic position of the Phacotaceae within the Chlamydophyceaeas revealed by analysis of 18S rDNA and rbcL sequences. Hepperle D, et al. **J Mol Evol** 1998 Oct;47(4):420–30
A group I intron in the 18S ribosomal DNA from the parasitic fungus Isaria japonica. Ito Y, et al. **J Mol Evol** 1999 Mar;48(3):337–40
Performance of 18S rRNA in littorinid phylogeny (Gastropoda: Caenogastropoda). Winnepenninckx BM, et al. **J Mol Evol** 1998 Nov;47(5):586–96
Relationships among members of the genus Myxobolus (Myxozoa: Bilvalvidae) based on small subunit ribosomal DNA sequences. Andree KB, et al. **J Parasitol** 1999 Feb; 85(1):68–74
Phylogenetic analysis of Cryptosporidium isolates from captive reptiles using 18S rDNA sequence data and random amplified polymorphic DNA analysis. Morgan UM, et al. **J Parasitol** 1999 Jun;85(3):525–30
Constitutive expression of small subunit ribosomal RNA transcripts in Cryptosporidium parvum oocysts and intracellular stages. Widmer G, et al. **J Parasitol** 1999 Apr; 85(2):229–33
Characterization of a single group I intron in the 18S rRNA gene of the pathogenic fungus Histoplasma capsulatum. Lasker BA, et al. **Med Mycol** 1998 Aug;36(4):205–12
Specific identification of Penicillium marneffei by a polymerase chain reaction/hybridization technique. Vanittanakom N, et al. **Med Mycol** 1998 Jun;36(3):169–75
28S and 18S rDNA sequences support the monophyly of lampreys and hagfishes. Mallatt J, et al. **Mol Biol Evol** 1998 Dec;15(12):1706–18
Molecular phylogenetic analysis among bryophytes and tracheophytes based on combined data of plastid coded genes and the 18S rRNA gene. Nishiyama T, et al. **Mol Biol Evol** 1999 Aug;16(8):1027–36
Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9
Phylogenetic utility of the external transcribed spacer (ETS) of 18S–26S rDNA: congruence of ETS and ITS trees of Calycadenia (Compositae). Baldwin BG, et al. **Mol Phylogenet Evol** 1998 Dec;10(3):449–63
Phylogenetic relationships of platyhelminthes based on 18S ribosomal gene sequences. Campos A, et al. **Mol Phylogenet Evol** 1998 Aug;10(1):1–10
Phylogeny of the hard ticks (Ixodidae) inferred from 18S rRNA indicates that the genus Aponomma is paraphyletic. Dobson SJ, et al. **Mol Phylogenet Evol** 1999 Mar; 11(2):288–95
Phylogenetic relationships of the Acanthocephala inferred from 18S ribosomal DNA sequences. Near TJ, et al. **Mol Phylogenet Evol** 1998 Dec;10(3):287–98
Patterns of evolutionary change in Baikalian gammarids inferred from DNA sequences (Crustacea, Amphipoda). Sherbakov DY, et al. **Mol Phylogenet Evol** 1998 Oct; 10(2):160–7
Isolation and identification by partial sequencing of the 18S ribosomal gene of free-living amoebae from necrotic tissue of Basilliscus plumifrons (Sauria: Iguanidae). Walochnik J, et al. **Parasitol Res** 1999 Jul;85(7):601–3
Phylogenetic relationships of the family Campulidae (Trematoda) based on 18S rRNA sequences. Fernandez M, et al. **Parasitology** 1998 Oct;117 (Pt 4):383–91
'Total evidence' refutes the inclusion of Perkinsus species in the phylum Apicomplexa. Siddall ME, et al. **Parasitology** 1997 Aug;115 (Pt 2):165–76
Evaluating multiple alternative hypotheses for the origin of Bilateria: an analysis of 18S rRNA molecular evidence. Collins AG. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15458–63
rRNA-complementarity in the 5' untranslated region of mRNA specifying the Gtx homeodomain protein: evidence that base- pairing to 18S rRNA affects translational efficiency. Hu MC, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1339–44
Diversity of Holocene life forms in fossil glacier ice. Willerslev E, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8017–21
Two mutant forms of the S1/TPR-containing protein Rrp5p affect the 18S rRNA synthesis in Saccharomyces cerevisiae. Torchet C, et al. **RNA** 1998 Dec;4(12):1636–52
Synthetic lethal interactions with conditional poly(A) polymerase alleles identify LCP5, a gene involved in 18S rRNA maturation. Wiederkehr T, et al. **RNA** 1998 Nov; 4(11):1357–72
[Group I introns in the fungal 18S rDNA of the lichen family Umbilicariaceae] Ivanova NV, et al. **Doki Akad Nauk** 1998 Nov;363(3):400–4 **(Rus)**
[Secondary structure of hairpin 17 of the lower multicellular animal Rhopalura ophiocomae (Mesozoa: Orthonectida) as an example of "punctuated equilibrium" in the evolution of 18S ribosomal RNA] Aleshin VV, et al. **Mol Biol (Mosk)** 1999 Mar–Apr;33(2):319–29 **(Rus)**
[Phylogenetic position of the diatomic algae species Aulacoseira from Lake Baikal from results of comparing nucleotide sequences of segments of the 19S rRNA gene] Shcherbakova TA, et al. **Mol Biol (Mosk)** 1998 Jul–Aug; 32(4):735–40 **(Rus)**

METABOLISM

Normalization of RNA hybridization signals by means of SYBR green II-stained 28S or 18S ribosomal RNA and a phosphor imager. Spiess AN, et al. **Biotechniques** 1999 Jan;26(1):46–8, 50
In situ detection of Aspergillus 18S ribosomal RNA in invasive pulmonary aspergillosis. Kobayashi M, et al. **Intern Med** 1999 Jul;38(7):563–9
Hormonal regulation of 18S RNA, leptin mRNA, and leptin release in adipocytes from hypothyroid rats. Fain JN, et al. **Metabolism** 1998 Dec;47(12):1455–61
Ribosomal protein S14 of Saccharomyces cerevisiae regulates its expression by binding to RPS14B pre-mRNA and to 18S rRNA. Fewell SW, et al. **Mol Cell Biol** 1999 Jan; 19(1):826–34
Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441–52
Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9
The exosome subunit Rrp43p is required for the efficient maturation of 5.8S, 18S and 25S rRNA. Zanchin NI, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1283–8
rRNA-complementarity in the 5' untranslated region of mRNA specifying the Gtx homeodomain protein: evidence that base- pairing to 18S rRNA affects translational efficiency. Hu MC, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1339–44

RNA, RIBOSOMAL, 23S

Multiple functions of the transcribed spacers in ribosomal RNA operons. Liiv A, et al. **Biol Chem** 1998 Jul; 379(7):783–93
Specific PCR primers from the 16S–23S rRNA spacer region for the rapid detection and identification of Actinobacillus seminis. Appuhamy S, et al. **J Appl Microbiol** 1998 Dec; 85(6):941–8
Suppression of nonsense mutations induced by expression of an RNA complementary to a conserved segment of 23S rRNA. Chernyaeva NS, et al. **J Bacteriol** 1999 Sep; 181(17):5257–62
Genetic relationships among mycoplasmas based on the 16S–23S rRNA spacer sequence. Harasawa R. **Microbiol Immunol** 1999;43(2):127–32

ANALYSIS

Estimation of growth rates of Escherichia coli BJ4 in streptomycin-treated and previously germfree mice by in situ rRNA hybridization. Rang CU, et al. **Clin Diagn Lab Immunol** 1999 May;6(3):434–6
An unspliced group I intron in 23S rRNA links Chlamydiales, chloroplasts, and mitochondria. Everett KD, et al. **J Bacteriol** 1999 Aug;181(16):4734–40
rRNA-targeted fluorescent in situ hybridization analysis of bacterial community structure in river water. Kenzaka T, et al. **Microbiology** 1998 Aug;144 (Pt 8):2085–93

CHEMISTRY

Mutational analysis of 23S ribosomal RNA structure and function in Escherichia coli. Triman KL. **Adv Genet** 1999; 41:157–95 (154 ref.)
Detection of Ralstonia solanacearum, which causes brown rot of potato, by fluorescent in situ hybridization with 23S rRNA-targeted probes. Wullings BA, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4546–54
Protein–RNA sequence covariation in a ribosomal protein–rRNA complex. GuhaThakurta D, et al. **Biochemistry** 1999 Mar 23;38(12):3633–40
Cloning and characterization of the 23S RNA pseudouridine 2633 synthase from Bacillus subtilis. Niu L, et al. **Biochemistry** 1999 Jan 12;38(2):629–35
Ribosomal mechanics, antibiotics, and GTP hydrolysis [comment] Porse BT, et al. **Cell** 1999 May 14;97(4):423–6 (16 ref.). Comment on: Cell 1999 May 14;97(4):491–502.
A detailed view of a ribosomal active site: the structure of the L11–RNA complex [see comments] Wimberly BT, et al. **Cell** 1999 May 14;97(4):491–502. Comment in: Cell 1999 May 14;97(4):423–6.
The three-dimensional structure of the RNA-binding domain of ribosomal protein L2; a protein at the peptidyl transferase center of the ribosome. Nakagawa A, et al. **EMBO J** 1999 Mar 15;18(6):1459–67
Erythromycin resistance mutations in ribosomal proteins L22 and L4 perturb the higher order structure of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jun 18; 289(4):827–34
Mutations in the conserved P loop perturb the conformation of two structural elements in the peptidyl transferase center of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jan 29;285(4):1475–83
Mapping the ribosomal RNA neighborhood of protein L11 by directed hydroxyl radical probing. Holmberg L, et al. **J Mol Biol** 1999 Jun 4;289(2):223–33
A common motif organizes the structure of multi-helix loops in 16 S and 23 S ribosomal RNAs. Leontis NB, et al. **J Mol Biol** 1998 Oct 30;283(3):571–83
Ribosomal protein L15 as a probe of 50 S ribosomal subunit structure. Lieberman KR, et al. **J Mol Biol** 1998 Dec 18; 284(5):1367–78
Nucleotides in 23S rRNA protected by the association of 30S and 50S ribosomal subunits. Merryman C, et al. **J Mol Biol** 1999 Jan 8;285(1):107–13
Sites of interaction of streptogramin A and B antibiotics in the peptidyl transferase loop of 23 S rRNA and the synergism of their inhibitory mechanisms. Porse BT, et al.

J Mol Biol 1999 Feb 19;286(2):375–87

ErmE methyltransferase recognizes features of the primary and secondary structure in a motif within domain V of 23 S rRNA. Villsen ID, et al. **J Mol Biol** 1999 Feb 19; 286(2):365–74

The macrolide–ketolide antibiotic binding site is formed by structures in domains II and V of 23S ribosomal RNA. Hansen LH, et al. **Mol Microbiol** 1999 Jan;31(2):623–31

Identification of an RNA–protein bridge spanning the ribosomal subunit interface [see comments] Culver GM, et al. **Science** 1999 Sep 24;285(5436):2133–6. Comment in: Science 1999 Sep 24;285(5436):2077–8.

Determination of the nucleotide sequence of the 23S ribosomal RNA and flanking spacers of an Enterococcus faecium strain, reveals insertion–deletion events in the ribosomal spacer 1 of enterococci. Naimi A, et al. **Syst Appl Microbiol** 1999 Feb;22(1):9–21

DRUG EFFECTS

Peptidyl transferase antibiotics perturb the relative positioning of the 3'-terminal adenosine of P/P'-site-bound tRNA and 23S rRNA in the ribosome. Kirillov SV, et al. **RNA** 1999 Aug;5(8):1003–13

GENETICS

Mutational analysis of 23S ribosomal RNA structure and function in Escherichia coli. Triman KL. **Adv Genet** 1999; 41:157–95 (154 ref.)

Explaining the bias in the 23S rRNA gene mutations associated with clarithromycin resistance in clinical isolates of Helicobacter pylori. Debets–Ossenkopp YJ, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2749–51

Mutations in 23S rRNA in Helicobacter pylori conferring resistance to erythromycin do not always confer resistance to clarithromycin. Garcia–Arata MI, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):374–6

Rapid detection, by PCR and reverse hybridization, of mutations in the Helicobacter pylori 23S rRNA gene, associated with macrolide resistance. van Doorn LJ, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1779–82

Analysis of 16S–23S rRNA intergenic spacer regions of Vibrio cholerae and Vibrio mimicus. Chun J, et al. **Appl Environ Microbiol** 1999 May;65(5):2202–8

Detection of Ralstonia solanacearum, which causes brown rot of potato, by fluorescent in situ hybridization with 23S rRNA–targeted probes. Wullings BA, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4546–54

Reconstitution of functional 50S ribosomes from in vitro transcripts of Bacillus stearothermophilus 23S rRNA. Green R, et al. **Biochemistry** 1999 Feb 9;38(6):1772–9

Reconstitution of functionally active Thermus aquaticus large ribosomal subunits with in vitro–transcribed rRNA. Khaitovich P, et al. **Biochemistry** 1999 Feb 9;38(6):1780–8

Studies on the large subunit rRNA genes and their flanking regions of Leuconostocs. Nour M. **Can J Microbiol** 1998 Sep;44(9):807–18

Group–specific differentiation of Rhizobium from clover species by PCR amplification of 23S rDNA sequences. Tesfaye M, et al. **Can J Microbiol** 1998 Nov;44(11):1102–5

Occurence of resistance mutation and clonal expansion in Helicobacter pylori multiple–strain infection: a potential risk in clarithromycin–based therapy. Enroth H, et al. **Clin Infect Dis** 1999 Jun;28(6):1305–7

Sequence analysis of 18S–28S rRNA spacer regions from Saccharomyces kunashirensis, S. martiniae, S. rosinii, and S. transvaalensis. Oda Y, et al. **Curr Microbiol** 1999 Jan; 38(1):61–3

Phylogenetic analysis of Piscirickettsia salmonis by 16S, internal transcribed spacer (ITS) and 23S ribosomal DNA sequencing. Mauel MJ, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):115–23

Development of a new PCR–ribotyping method for Clostridium difficile based on ribosomal RNA gene sequencing. Bidet P, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):261–6

Fragmentation heterogeneity of 23S ribosomal RNA in Haemophilus species. Song XM, et al. **Gene** 1999 Apr 16; 230(2):287–93

Helicobacter pylori specific nested PCR assay for the detection of 23S rRNA mutation associated with clarithromycin resistance. Maeda S, et al. **Gut** 1998 Sep; 43(3):317–21

RFLP of rRNA genes and sequencing of the 16S–23S rDNA intergenic spacer region of ammonia–oxidizing bacteria: a phylogenetic approach. Aakra A, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:123–30

Intraspecific diversity of the 23S rRNA gene and the spacer region downstream in Escherichia coli. Antón AI, et al. **J Bacteriol** 1999 May;181(9):2703–9

Functional effect of deletion and mutation of the Escherichia coli ribosomal RNA and tRNA pseudouridine synthase RluA. Raychaudhuri S, et al. **J Biol Chem** 1999 Jul 2; 274(27):18880–6

Homogeneity of 16S–23S ribosomal intergenic spacer regions of Tropheryma whippelii in Swiss patients with Whipple's disease. Hinrikson HP, et al. **J Clin Microbiol** 1999 Jan; 37(1):152–6

Development of rRNA–based PCR assays for identification of Burkholderia cepacia complex isolates recovered from cystic fibrosis patients. LiPuma JJ, et al. **J Clin Microbiol** 1999 Oct;37(10):3167–70

An evaluation of intergenic rRNA gene sequence length polymorphism analysis for the identification of Legionella species. Fry NK, et al. **J Med Microbiol** 1998 Aug; 47(8):667–78

Use of the 16S–-23S ribosomal genes spacer region in studies of prokaryotic diversity. Garcia–Martinez J, et al. **J Microbiol Methods** 1999 May;36(1–2):55–64

Mutations in the conserved P loop perturb the conformation of two structural elements in the peptidyl transferase center of 23 S ribosomal RNA. Gregory ST, et al. **J Mol Biol** 1999 Jan 29;285(4):1475–83

The phenotype of mutations of G2655 in the sarcin/ricin domain of 23 S ribosomal RNA. Macbeth MR, et al. **J Mol Biol** 1999 Jan 22;285(3):965–75

Evaluation of a molecular identification scheme based on 23S rRNA gene polymorphisms for differentiating canine and feline gastric Helicobacter spp. Jalava K, et al. **Lett Appl Microbiol** 1999 Apr;28(4):269–74

Differentiation of Campylobacter coli and C. jejuni by length and DNA sequence of the 16S–23S rRNA internal spacer region. Christensen H, et al. **Microbiology** 1999 Jan;145 (Pt 1):99–105

Molecular phylogeny and rearrangement of rRNA genes in Rickettsia species. Andersson SG, et al. **Mol Biol Evol** 1999 Jul;16(7):987–95

PCR–amplified 16S and 23S rDNA restriction analysis for the identification of Acinetobacter strains at the DNA group level. Garcia–Arata MI, et al. **Res Microbiol** 1997 Dec;148(9):777–84

16S–23S and 23S–5S intergenic spacer regions of lactobacilli: nucleotide sequence, secondary structure and comparative analysis. Nour M. **Res Microbiol** 1998 Jun;149(6):433–48

UV–induced modifications in the peptidyl transferase loop of 23S rRNA dependent on binding of the streptogramin B antibiotic, pristinamycin IA. Porse BT, et al. **RNA** 1999 Apr;5(4):585–95

A pseudouridine synthase required for the formation of two universally conserved pseudouridines in ribosomal RNA is essential for normal growth of Escherichia coli. Raychaudhuri S, et al. **RNA** 1998 Nov;4(11):1407–17

A DNA probe for the detection and identification of Bacillus sporothermodurans using the 16S–23S rDNA spacer region and phylogenetic analysis of some field isolates of Bacillus which form highly heat resistant spores. de Silva S, et al. **Syst Appl Microbiol** 1998 Aug;21(3):398–407

Application of 23S rDNA–targeted oligonucleotide probes specific for enterococci to water hygiene control. Frahm E, et al. **Syst Appl Microbiol** 1998 Aug;21(3):450–3

METABOLISM

Identification of two Escherichia coli pseudouridine synthases that show multisite specificity for 23S RNA. Huang L, et al. **Biochemistry** 1998 Nov 10;37(45):15951–7

Kinetic analysis of the RNA–dependent adenosinetriphosphatase activity of DbpA, an Escherichia coli DEAD protein specific for 23S ribosomal RNA. Tsu CA, et al. **Biochemistry** 1998 Dec 1;37(48):16989–96

Protein folding in Escherichia coli: role of 23S ribosomal RNA. Chattopadhyay S, et al. **Biochim Biophys Acta** 1999 Jan 11;1429(2):293–8

Identification by site–directed mutagenesis of amino acid residues in ribosomal protein L2 that are essential for binding to 23S ribosomal RNA. Harada N, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):176–86

The three–dimensional structure of the RNA–binding domain of ribosomal protein L2; a protein at the peptidyl transferase center of the ribosome. Nakagawa A, et al. **EMBO J** 1999 Mar 15;18(6):1459–67

Interaction of the sarcin/ricin domain of 23 S ribosomal RNA with proteins L3 and L6. Uchiumi T, et al. **J Biol Chem** 1999 Jan 8;274(2):681–6

Mapping the ribosomal RNA neighborhood of protein L11 by directed hydroxyl radical probing. Holmberg L, et al. **J Mol Biol** 1999 Jun 4;289(2):223–33

Assembly of proteins and 5 S rRNA to transcripts of the major structural domains of 23 S rRNA. Ostergaard P, et al. **J Mol Biol** 1998 Nov 27;284(2):227–40

The macrolide–ketolide antibiotic binding site is formed by structures in domains II and V of 23S ribosomal RNA. Hansen LH, et al. **Mol Microbiol** 1999 Jan;31(2):623–31

A ketolide resistance mutation in domain II of 23S rRNA reveals the proximity of hairpin 35 to the peptidyl transferase centre. Xiong L, et al. **Mol Microbiol** 1999 Jan; 31(2):633–9

Cleavage of a 23S rRNA pseudoknot by phenanthroline–Cu(II). Muth GW, et al. **Nucleic Acids Res** 1999 Apr 15;27(8):1906–11

The environment of 5S rRNA in the ribosome: cross–links to 23S rRNA from sites within helices II and III of the 5S molecule. Osswald M, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2283–90

Direct crosslinking of the antitumor antibiotic sparsomycin, and its derivatives, to A2602 in the peptidyl transferase center of 23S–like rRNA within ribosome–tRNA complexes. Porse BT, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9003–8

Peptidyl transferase activity catalyzed by protein–free 23S ribosomal RNA remains elusive [letter; comment] Khaitovich P, et al. **RNA** 1999 May;5(5):605–8. Comment on: RNA 1998 Mar;4(3):257–67.

Maturation of 23S ribosomal RNA requires the exoribonuclease RNase T. Li Z, et al. **RNA** 1999 Jan; 5(1):139–46

Negative in vitro selection identifies the rRNA recognition motif for ErmE methyltransferase. Nielsen AK, et al. **RNA** 1999 Aug;5(8):1034–41

RNA, RIBOSOMAL, 28S

Ribosomal RNA in Alzheimer's disease and aging. Payão SL, et al. **Mech Ageing Dev** 1998 Nov 16;105(3):265–72

ANALYSIS

RNA chip: quality assessment of RNA by microchannel linear gel electrophoresis in injection–molded plastic chips. Ogura M, et al. **Clin Chem** 1998 Nov;44(11):2249–55

Site–specific cleavage of 28S rRNA as a marker of traumatic brain injury. Fan L, et al. **J Neurotrauma** 1999 May; 16(5):357–64

CHEMISTRY

Direct comparison of GAPDH, beta–actin, cyclophilin, and 28S rRNA as internal standards for quantifying RNA levels under hypoxia. Zhong H, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):523–6

Common secondary structures for the second internal transcribed spacer pre–rRNA of two subfamilies of trichostrongylid nematodes. Chilton NB, et al. **Int J Parasitol** 1998 Nov;28(11):1765–73

Crystal structure of the ribosomal RNA domain essential for binding elongation factors. Correll CC, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13436–41

GENETICS

A morphological and molecular perspective of Trichoderma viride: is it one or two species? Lieckfeldt E, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2418–28

Sequence analysis of 18S–28S rRNA spacer regions from Saccharomyces kunashirensis, S. martiniae, S. rosinii, and S. transvaalensis. Oda Y, et al. **Curr Microbiol** 1999 Jan; 38(1):61–3

Novel processing in a mammalian nuclear 28S pre–rRNA: tissue–specific elimination of an 'intron' bearing a hidden break site. Melen GJ, et al. **EMBO J** 1999 Jun 1; 18(11):3107–18

A new pair of primers designed for amplification of the ITS region in Tuber species. Bertini L, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):239–45

Structure of the large subunit rDNA from a diatom, and comparison between small and large subunit ribosomal RNA for studying stramenopile evolution. Van der Auwera G, et al. **J Eukaryot Microbiol** 1998 Sep–Oct;45(5):521–7

Origin and evolution of paralogous rRNA gene clusters within the flatworm family Dugesiidae (Platyhelminthes, Tricladida). Carranza S, et al. **J Mol Evol** 1999 Aug; 49(2):250–9

28S and 18S rDNA sequences support the monophyly of lampreys and hagfishes. Mallatt J, et al. **Mol Biol Evol** 1998 Dec;15(12):1706–18

Comparison of the intergenic spacers and 3' end regions of the large subunit (28S) ribosomal RNA gene from three species of Schistosoma. Kane RA, et al. **Parasitology** 1998 Sep;117 (Pt 3):235–42

Identification of the endonuclease domain encoded by R2 and other site–specific, non–long terminal repeat retrotransposable elements. Yang J, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7847–52

METABOLISM

Normalization of RNA hybridization signals by means of SYBR green II–stained 28S or 18S ribosomal RNA and a phosphor imager. Spiess AN, et al. **Biotechniques** 1999 Jan;26(1):46–8, 50

Characterization of in vitro and in vivo mutations in non–conserved nucleotides in the ribosomal RNA recognition domain for the ribotoxins ricin and sarcin and the translation elongation factors. Macbeth MR, et al. **J Mol Biol** 1999 Jan 15;285(2):567–80

Detection of 28S RNA with the FGF–2 cDNA at high stringency through related G/C–rich sequences. Cattini PA, et al. **Mol Cell Biochem** 1998 Dec;189(1–2):33–9

RNA RODENT VIRUSES see **RNA VIRUSES**

RNA, SATELLITE

see related
HELPER VIRUSES
SATELLITE VIRUSES

Encapsidated circular viroid–like satellite RNAs (virusoids) of plants. Symons RH, et al. **Curr Top Microbiol Immunol** 1999;239:81–105 (73 ref.)

Satellite RNA is essential for encapsidation of groundnut rosette umbravirus RNA by groundnut rosette assistor luteovirus coat protein. Robinson DJ, et al. **Virology** 1999 Feb 1;254(1):105–14

CHEMISTRY

Structure and functional relationships of satellite RNAs of cucumber mosaic virus. Garcia–Arenal F, et al. **Curr Top Microbiol Immunol** 1999;239:37–63 (142 ref.)

RNA, SATELLITE

GENETICS

Large satellite RNA: molecular parasitism or molecular symbiosis. Mayo MA, et al.
Curr Top Microbiol Immunol 1999;239:65–79 (58 ref.)

Replication, recombination, and symptom-modulation properties of the satellite RNAs of turnip crinkle virus. Simon AE. **Curr Top Microbiol Immunol** 1999;239:19–36 (49 ref.)

Bamboo mosaic potexvirus satellite RNA (satBaMV RNA)-encoded P20 protein preferentially binds to satBaMV RNA. Tsai MS, et al. **J Virol** 1999 Apr; 73(4):3032–9

ISOLATION & PURIFICATION

Detection of each of the causal agents of groundnut rosette disease in plants and vector aphids by RT-PCR. Naidu RA, et al. **J Virol Methods** 1998 Dec;76(1–2):9–18

PHYSIOLOGY

Structure and functional relationships of satellite RNAs of cucumber mosaic virus. Garcia-Arenal F, et al.
Curr Top Microbiol Immunol 1999;239:37–63 (142 ref.)

Symptom attenuation by a satellite RNA in vivo is dependent on reduced levels of virus coat protein. Wang J, et al.
Virology 1999 Jun 20;259(1):234–45

RNA SEQUENCE see **BASE SEQUENCE**

RNA SEQUENCE ANALYSIS see **SEQUENCE ANALYSIS, RNA**

RNA, SMALL NUCLEAR

The general transcription factors IIA, IIB, IIF, and IIE are required for RNA polymerase II transcription from the human U1 small nuclear RNA promoter. Kuhlman TC, et al. **Mol Cell Biol** 1999 Mar;19(3):2130–41

Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142–54

A box H/ACA small nucleolar RNA-like domain at the human telomerase RNA 3' end. Mitchell JR, et al.
Mol Cell Biol 1999 Jan;19(1):567–76

A human U2 RNA mutant stalled in 3' end processing is impaired in nuclear import. Huang Q, et al.
Nucleic Acids Res 1999 Feb 15;27(4):1025–31

Evolutionarily conserved structural features in the ITS2 of mammalian pre-rRNAs and potential interactions with the snoRNA U8 detected by comparative analysis of new mouse sequences. Michot B, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2271–82

A comprehensive database for the small nucleolar RNAs from Saccharomyces cerevisiae. Samarsky DA, et al.
Nucleic Acids Res 1999 Jan 1;27(1):161–4

ANALYSIS

A candidate U1 small nuclear RNA for trypanosomatid protozoa. Schnare MN, et al. **J Biol Chem** 1999 Aug 20; 274(34):23691–4

A computational screen for methylation guide snoRNAs in yeast. Lowe TM, et al. **Science** 1999 Feb 19; 283(5405):1168–71

BIOSYNTHESIS

The putative nucleic acid helicase Sen1p is required for formation and stability of termini and for maximal rates of synthesis and levels of accumulation of small nucleolar RNAs in Saccharomyces cerevisiae [published erratum appears in Mol Cell Biol 1999 Jul;19(7):5235] Rasmussen TP, et al. **Mol Cell Biol** 1998 Dec;18(12):6885–96

CHEMISTRY

Molecular dynamics simulations of the complex between human U1A protein and hairpin II of U1 small nuclear RNA and of free RNA in solution. Tang Y, et al.
Biophys J 1999 Sep;77(3):1284–305

Nucleolar localization elements of Xenopus laevis U3 small nucleolar RNA. Lange TS, et al. **Mol Biol Cell** 1998 Oct; 9(10):2973–85

Role of the box C/D motif in localization of small nucleolar RNAs to coiled bodies and nucleoli. Narayanan A, et al.
Mol Biol Cell 1999 Jul;10(7):2131–47

A comprehensive database for the small nucleolar RNAs from Saccharomyces cerevisiae. Samarsky DA, et al.
Nucleic Acids Res 1999 Jan 1;27(1):161–4

Protein-RNA interactions in the U5 snRNP of Saccharomyces cerevisiae [corrected and republished article originally printed in RNA 1998 Oct; 4(10):1239–50] Dix I, et al. **RNA** 1998 Dec;4(12):1675–86

CLASSIFICATION

[Small nucleolar RNA] Pieńkowska J, et al.
Postepy Biochem 1998;44(2):102–13 (61 ref.) **(Pol)**

GENETICS

Evidence for effective suppression of recombination in the chromosome 17q21 segment spanning RNU2-BRCA1. Liu X, et al. **Am J Hum Genet** 1999 May;64(5):1427–39

Suppression of the 5' splice site mutation in the Nagase analbuminemic rat with mutated U1snRNA. Hitomi Y, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):11–6

Crossing the line between RNA polymerases: transcription of human snRNA genes by RNA polymerases II and III. Henry RW, et al. **Cold Spring Harb Symp Quant Biol** 1998; 63:111–20 (54 ref.)

Trans-splicing and cis-splicing in the colourless Euglenoid, Entosiphon sulcatum. Ebel C, et al. **Curr Genet** 1999 Jun; 35(5):542–50

Assignment of the human BC200 RNA gene (BCYRN1) to chromosome 2p16 by radiation hybrid mapping. Basile V, et al. **Cytogenet Cell Genet** 1998;82(3–4):271–2

Concerted evolution of the tandem array encoding primate U2 snRNA (the RNU2 locus) is accompanied by dramatic remodeling of the junctions with flanking chromosomal sequences. Pavelitz T, et al. **EMBO J** 1999 Jul 1; 18(13):3783–92

The Oct-1 POU domain activates snRNA gene transcription by contacting a region in the SNAPc largest subunit that bears sequence similarities to the Oct-1 coactivator OBF-1. Ford E, et al. **Genes Dev** 1998 Nov 15;12(22):3528–40

Flexible zinc finger requirement for binding of the transcriptional activator staf to U6 small nuclear RNA and tRNA(Sec) promoters. Schaub M, et al. **J Biol Chem** 1999 Aug 20;274(34):24241–9

Maximization of selenocysteine tRNA and U6 small nuclear RNA transcriptional activation achieved by flexible utilization of a Staf zinc finger. Schaub M, et al.
J Biol Chem 1999 Aug 27;274(35):25042–50

Reversion of human glioblastoma malignancy by U1 small nuclear RNA/ribozyme targeting of scatter factor/hepatocyte growth factor and c-met expression. Abounader R, et al. **J Natl Cancer Inst** 1999 Sep 15; 91(18):1548–56

Coiled bodies preferentially associate with U4, U11, and U12 small nuclear RNA genes in interphase HeLa cells but not with U6 and U7 genes. Jacobs EY, et al.
Mol Biol Cell 1999 May;10(5):1653–63

Nucleolar localization elements of Xenopus laevis U3 small nucleolar RNA. Lange TS, et al. **Mol Biol Cell** 1998 Oct; 9(10):2973–85

Splicing factor Prp8 governs U4/U6 RNA unwinding during activation of the spliceosome. Kuhn AN, et al.
Mol Cell 1999 Jan;3(1):65–75

Detection of a novel ATP-dependent cross-linked protein at the 5' splice site-U1 small nuclear RNA duplex by methylene blue-mediated photo-cross-linking. Liu ZR, et al. **Mol Cell Biol** 1998 Dec;18(12):6910–20

The pre-mRNA 5'cap determines whether U6 small nuclear RNA succeeds U1 small nuclear ribonucleoprotein particle at 5' splice sites. O'Mullane L, et al. **Mol Cell Biol** 1998 Dec;18(12):7510–20

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al.
Mol Cell Biol 1999 Feb;19(2):1144–58

Conserved loop I of U5 small nuclear RNA is dispensable for both catalytic steps of pre-mRNA splicing in HeLa nuclear extracts. Ségault V, et al. **Mol Cell Biol** 1999 Apr; 19(4):2782–90

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9

Classification of gas5 as a multi-small-nucleolar-RNA (snoRNA) host gene and a member of the 5'-terminal oligopyrimidine gene family reveals common features of snoRNA host genes. Smith CM, et al. **Mol Cell Biol** 1998 Dec;18(12):6897–909

A conditional U5 snRNA mutation affecting pre-mRNA splicing and nuclear pre-mRNA retention identifies SSD1/SRK1 as a general splicing mutant suppressor. Luukkonen BG, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3455–65

The activity binding to the termination region of several pol III genes represents a separate entity and is distinct from a novel component enhancing U6 snRNA transcription. Oettel S, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4324–31

Molecular cloning of a cDNA encoding human SPH-binding factor, a conserved protein that binds to the enhancer-like region of the U6 small nuclear RNA gene promoter. Rincon JC, et al. **Nucleic Acids Res** 1998 Nov 1; 26(21):4846–52

Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. Leader DJ, et al.
Plant Mol Biol 1999 Apr;39(6):1091–100

U1 small nuclear RNA and spliceosomal introns in Euglena gracilis. Breckenridge DG, et al.
Proc Natl Acad Sci U S A 1999 Feb 2;96(3):852–6

Nop58p is a common component of the box C+D snoRNPs that is required for snoRNA stability. Lafontaine DL, et al. **RNA** 1999 Mar;5(3):455–67

Conservation of functional features of U6atac and U12 snRNAs between vertebrates and higher plants. Shukla GC, et al. **RNA** 1999 Apr;5(4):525–38

Pac1p, an RNase III homolog, is required for formation of the 3' end of U2 snRNA in Schizosaccharomyces pombe. Zhou D, et al. **RNA** 1999 Aug;5(8):1083–98

HISTORY

Eukaryotic rRNA methylation: the calm before the Sno storm. Maden BE. **Trends Biochem Sci** 1998 Nov; 23(11):447–50

METABOLISM

Nuclear snRNA and nuclear function (discovery of 5' cap structures in RNA). Ro-Choi TS.
Crit Rev Eukaryot Gene Expr 1999;9(2):107–58 (304 ref.)

Association of snRNA genes with coiled bodies is mediated by nascent snRNA transcripts. Frey MR, et al.
Curr Biol 1999 Feb 11;9(3):126–35

Guided tours: from precursor snoRNA to functional snoRNP. Weinstein LB, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):378–84 (56 ref.)

Elements essential for accumulation and function of small nucleolar RNAs directing site-specific pseudouridylation of ribosomal RNAs. Bortolin ML, et al. **EMBO J** 1999 Jan 15;18(2):457–69

Characterization of Sm-like proteins in yeast and their association with U6 snRNA. Mayes AE, et al.
EMBO J 1999 Aug 2;18(15):4321–31

Modifications of U2 snRNA are required for snRNP assembly and pre-mRNA splicing. Yu YT, et al.
EMBO J 1998 Oct 1;17(19):5783–95

Domain structure, GTP-hydrolyzing activity and 7S RNA binding of Acidianus ambivalens ffh-homologous protein suggest an SRP-like complex in archaea. Moll R, et al.
Eur J Biochem 1999 Jan;259(1–2):441–8

U3 small nucleolar RNA is essential for cleavage at sites 1, 2 and 3 in pre-rRNA and determines which rRNA processing pathway is taken in Xenopus oocytes. Borovjagin AV, et al. **J Mol Biol** 1999 Mar 12; 286(5):1347–63

Yeast RNase III as a key processing enzyme in small nucleolar RNAs metabolism. Chanfreau G, et al.
J Mol Biol 1998 Dec 11;284(4):975–88

Experimental models of protein-RNA interaction: isolation and analyses of tRNA(Phe) and U1 snRNA-binding peptides from bacteriophage display libraries. Agris PF, et al. **J Protein Chem** 1999 May;18(4):425–35

Role of the box C/D motif in localization of small nucleolar RNAs to coiled bodies and nucleoli. Narayanan A, et al.
Mol Biol Cell 1999 Jul;10(7):2131–47

Modification of U6 spliceosomal RNA is guided by other small RNAs. Tycowski KT, et al. **Mol Cell** 1998 Nov; 2(5):629–38

Seven novel methylation guide small nucleolar RNAs are processed from a common polycistronic transcript by Rat1p and RNase III in yeast. Qu LH, et al.
Mol Cell Biol 1999 Feb;19(2):1144–58

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9

U1 snRNA is cleaved by RNase III and processed through an Sm site-dependent pathway. Seipelt RL, et al.
Nucleic Acids Res 1999 Jan 15;27(2):587–95

A small nucleolar RNA:ribozyme hybrid cleaves a nucleolar RNA target in vivo with near-perfect efficiency. Samarsky DA, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6609–14

The Rev protein is able to transport to the cytoplasm small nucleolar RNAs containing a Rev binding element. Buonomo SB, et al. **RNA** 1999 Aug;5(8):993–1002

Target discrimination by RNA-binding proteins: role of the ancillary protein U2A' and a critical leucine residue in differentiating the RNA-binding specificity of spliceosomal proteins U1A and U2B". Rimmele ME, et al. **RNA** 1998 Nov;4(11):1386–96

Ribozymes in the nucleolus. Rossi JJ. **Science** 1999 Sep 10; 285(5434):1685

Birth of the snoRNPs: the evolution of the modification-guide snoRNAs. Lafontaine DL, et al.
Trends Biochem Sci 1998 Oct;23(10):383–8 (50 ref.)

PHARMACOLOGY

Effect of transforming RNA on the synthesis of a protein with a secretory signal sequence in vitro. Hamada K, et al. **J Biol Chem** 1999 May 28;274(22):15786–96

RNA, SMALL NUCLEAR, PRECURSORS see **RNA PRECURSORS**

RNA, SPLICED LEADER

see related
TRANS-SPLICING

Alterations in the conserved SL1 trans-spliced leader of Caenorhabditis elegans demonstrate flexibility in length and sequence requirements in vivo. Ferguson KC, et al.
Mol Cell Biol 1999 Mar;19(3):1892–900

SL1 trans splicing and 3'-end formation in a novel class of Caenorhabditis elegans operon Williams C, et al.
Mol Cell Biol 1999 Jan;19(1):376–83

In vivo transcriptional analysis of the spliced leader RNA gene in the trypanosomatid Leptomonas seymouri. Crenshaw-Williams K, et al. **Parasitol Res** 1999 Aug; 85(8–9):700–6

GENETICS

Trypanosomatidae: Phytomonas detection in plants and phytophagous insects by PCR amplification of a genus-specific sequence of the spliced leader gene. Serrano

MG, et al. **Exp Parasitol** 1999 Mar;91(3):268–79
PCR amplification of the spliced leader gene for the diagnosis of trypanosomatid parasites of plants and insects in methanol-fixed smears. Serrano MG, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):241–6
Developmental regulation of spliced leader RNA gene in Leishmania donovani amastigotes is mediated by specific polyadenylation. Lamontagne J, et al. **J Biol Chem** 1999 Mar 5;274(10):6602–9
Single nucleotide resolution of promoter activity and protein binding for the Leishmania tarentolae spliced leader RNA gene. Yu MC, et al. **Mol Biochem Parasitol** 1998 Aug 1; 94(2):265–81
Transcription termination and 3'-End processing of the spliced leader RNA in kinetoplastids. Sturm NR, et al. **Mol Cell Biol** 1999 Feb;19(2):1595–604

METABOLISM

Purification of the spliced leader ribonucleoprotein particle from Leptomonas collosoma revealed the existence of an Sm protein in trypanosomes. Cloning the SmE homologue. Goncharov I, et al. **J Biol Chem** 1999 Apr 30; 274(18):12217–21
The role of intron structures in trans-splicing and cap 4 formation for the Leishmania spliced leader RNA. Sturm NR, et al. **J Biol Chem** 1999 Jul 2;274(27):19361–7
Transcription termination and 3'-End processing of the spliced leader RNA in kinetoplastids. Sturm NR, et al. **Mol Cell Biol** 1999 Feb;19(2):1595–604

RNA SPLICING

see related
RNA PRECURSORS
SPLICEOSOMES

Implications of a novel cryptic splice site in the BRCA1 gene [published erratum appears in Am J Med Genet 1999 Jan 1;82(1):101] Hoffman JD, et al. **Am J Med Genet** 1998 Nov 2;80(2):140–4
Donor splice mutation (665 + 1 G—T) in familial hypobetalipoproteinemia with no detectable apoB truncation. Pulai JI, et al. **Am J Med Genet** 1998 Nov 16; 80(3):218–20
Splicing of a retained intron within ROMK K+ channel RNA generates a novel set of isoforms in rat kidney. Beesley AH, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C585–92
A mutation screen of the TSC1 gene reveals 26 protein truncating mutations and 1 splice site mutation in a panel of 79 tuberous sclerosis patients. Young JM, et al. **Ann Hum Genet** 1998 May;62 (Pt 3):203–13
Multiple splicing variants of cdc25B regulate G2/M progression. Forrest AR, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):510–5
A splice mutation in the human canalicular multispecific organic anion transporter gene causes Dubin-Johnson syndrome. Kajihara S, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):454–7
Maize transposable element Ds is differentially spliced from primary transcripts in endosperm and suspension cells. Lal SK, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):798–801
A heterozygous splice site mutation in COL6A1 leading to an in-frame deletion of the alpha1(VI) collagen chain in an italian family affected by bethlem myopathy. Pepe G, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):802–7
Compensatory expression of p73 in PARP-deficient mouse fibroblasts as response to a reduced level of regularly spliced wild-type p53 protein. Schmid G, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):399–405
RNA and protein catalysis in group II intron splicing and mobility reactions using purified components. Saldanha R, et al. **Biochemistry** 1999 Jul 13;38(28):9069–83
Probing the interplay between the two steps of group I intron splicing: competition of exogenous guanosine with omega G. Zarrinkar PP, et al. **Biochemistry** 1998 Dec 22; 37(51):18056–63
RNA splicing of bacterial genes in eukaryotes. Lorbach E, et al. **Biol Chem** 1998 Nov;379(11):1355–8
An alternatively spliced form of CD79b gene may account for altered B-cell receptor expression in B-chronic lymphocytic leukemia. Alfarano A, et al. **Blood** 1999 Apr 1;93(7):2327–35
A novel spliced form of SH2-containing inositol phosphatase is expressed during myeloid development. Lucas DM, et al. **Blood** 1999 Mar 15;93(6):1922–33
A sequence-specific splicing activator, tra2beta, is up-regulated in response to nerve injury. Kiryu-Seo S, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):220–3
Glioblastoma cell-specific expression of fibroblast growth factor receptor-1beta requires an intronic repressor of RNA splicing. Jin W, et al. **Cancer Res** 1999 Jan 15; 59(2):316–9
A novel function for SMN, the spinal muscular atrophy disease gene product, in pre-mRNA splicing. Pellizzoni L, et al. **Cell** 1998 Nov 25;95(5):615–24
Splice mutations in KVLQT1? [letter; comment] Tyson J, et al. **Circulation** 1999 May 11;99(18):2476–7. Comment on: Circulation 1998 Apr 7;97(13):1264–9.
Splice-site mutations in atherosclerosis candidate genes: relating individual information to phenotype. von Kodolitsch Y, et al. **Circulation** 1999 Aug 17;100(7):693–9
A multi-agent system simulating human splice site recognition. Vignal L, et al. **Comput Chem** 1999 Jun 15; 23(3–4):219–31
Spliceosome assembly: the unwinding role of DEAD-box proteins. Hamm J, et al. **Curr Biol** 1998 Jul 16;8(15):R532–4 (9 ref.)
RNA splicing: more clues from spinal muscular atrophy. Matera AG. **Curr Biol** 1999 Feb 25;9(4):R140–2 (16 ref.)
RNA splicing: What has phosphorylation got to do with it? Misteli T. **Curr Biol** 1999 Mar 25;9(6):R198–200 (12 ref.)
Trans-splicing and cis-splicing in the colourless Euglenoid, Entosiphon sulcatum. Ebel C, et al. **Curr Genet** 1999 Jun; 35(5):542–50
Nuclear organization of pre-mRNA splicing factors. Sleeman JE, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):372–7 (61 ref.)
Characterization of a splice variant of metastasis-associated h-mts1 (S100A4) gene expressed in human infiltrating carcinomas of the breast. Albertazzi E, et al. **DNA Cell Biol** 1998 Dec;17(12):1003–8
Identification of a novel splice variant of C3G which shows tissue-specific expression. Shivakrupa, et al. **DNA Cell Biol** 1999 Sep;18(9):701–8
Defining functional groups, core structural features and inter-domain tertiary contacts essential for group II intron self-splicing: a NAIM analysis. Boudvillain M, et al. **EMBO J** 1998 Dec 1;17(23):7091–104
hnRNP A/B proteins are required for inhibition of HIV-1 pre-mRNA splicing. Caputi M, et al. **EMBO J** 1999 Jul 15;18(14):4060–7
A systematic analysis of the factors that determine the strength of pre-mRNA splicing enhancers. Graveley BR, et al. **EMBO J** 1998 Nov 16;17(22):6747–56
Purification and characterization of human RNPS1: a general activator of pre-mRNA splicing. Mayeda A, et al. **EMBO J** 1999 Aug 16;18(16):4560–70
Phosphorylation of splicing factor SF1 on Ser20 by cGMP-dependent protein kinase regulates spliceosome assembly. Wang X, et al. **EMBO J** 1999 Aug 16; 18(16):4549–59
Modifications of U2 snRNA are required for snRNP assembly and pre-mRNA splicing. Yu YT, et al. **EMBO J** 1998 Oct 1;17(19):5783–95
Structure and splice products of the human gene encoding sds22, a putative mitotic regulator of protein phosphatase-1. Ceulemans H, et al. **Eur J Biochem** 1999 May;262(1):36–42
Shedding of the soluble IL-6 receptor is triggered by Ca2+ mobilization, while basal release is predominantly the product of differential mRNA splicing in THP-1 cells. Jones SA, et al. **Eur J Immunol** 1998 Nov;28(11):3514–22
The splice-pattern of CD44 is altered in chronic pancreatitis exhibiting dysplastic changes. Gansauge F, et al. **Eur J Med Res** 1998 Sep 17;3(9):419–26
Organization of splicing factors in adenovirus-infected cells reflects changes in gene expression during the early to late phase transition. Aspegren A, et al. **Exp Cell Res** 1998 Nov 25;245(1):203–13
Dynamic interactions between splicing snRNPs, coiled bodies and nucleoli revealed using snRNP protein fusions to the green fluorescent protein. Sleeman J, et al. **Exp Cell Res** 1998 Sep 15;243(2):290–304
Expression of leptin receptor mRNA and the long form splice variant in human anterior pituitary and pituitary adenoma. Dieterich KD, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(6):522–5
Evolutionarily conserved, alternative splicing of reelin during brain development. Lambert de Rouvroit C, et al. **Exp Neurol** 1999 Apr;156(2):229–38
Definition of the correct sequence in the donor splice site of intron 2 in the human glucose 6-phosphate translocase gene [comment] Lam CW, et al. **FEBS Lett** 1999 Feb 26; 445(2–3):449–50. Comment on: FEBS Lett 1997 Dec 15;419(2–3):235–8.
A downstream splicing enhancer is essential for in vitro pre-mRNA splicing. Yue BG, et al. **FEBS Lett** 1999 May 14;451(1):10–4
Characterization of a self-splicing mini-intein and its conversion into autocatalytic N- and C-terminal cleavage elements: facile production of protein building blocks for protein ligation. Mathys S, et al. **Gene** 1999 Apr 29; 231(1–2):1–13
Antagonism between RSF1 and SR proteins for both splice-site recognition in vitro and Drosophila development. Labourier E, et al. **Genes Dev** 1999 Mar 15; 13(6):740–53
Interaction of the U1 snRNP with nonconserved intronic sequences affects 5' splice site selection. Puig O, et al. **Genes Dev** 1999 Mar 1;13(5):569–80
Developmental regulation of SR protein phosphorylation and activity. Sanford JR, et al. **Genes Dev** 1999 Jun 15; 13(12):1513–8
Intergenic splicing between a HERV-H endogenous retrovirus and two adjacent human genes. Kowalski PE, et al. **Genomics** 1999 May 1;57(3):371–9
Porcine alpha-1,3-galactosyltransferase: full length cDNA cloning, genomic organization, and analysis of splicing variants. Katayama A, et al. **Glycoconj J** 1998 Jun; 15(6):583–9
Different somatic and germline HPRT1 mutations promote use of a common, cryptic intron 1 splice site. Mutation in brief no. 259. Online [corrected and republished article originally printed in Hum Mutat 1999;13(6):504–5] Colgin LM, et al. **Hum Mutat** 1999;14(1):92
Novel exonic mutation (5319 G to A) resulting in two aberrantly spliced transcripts of the ATM gene in a Japanese patient with ataxia-telangiectasia. Fukao T, et al. **Hum Mutat** 1998;Suppl 1:S223–5
Reported in vivo splice-site mutations in the factor IX gene: severity of splicing defects and a hypothesis for predicting deleterious splice donor mutations. Ketterling RP, et al. **Hum Mutat** 1999;13(3):221–31
Ialpha exon-replacement mice synthesize a spliced HPRT-C(alpha) transcript which may explain their ability to switch to IgA. Inhibition of switching to IgG in these mice. Qiu G, et al. **Int Immunol** 1999 Jan;11(1):37–46
Expression of alternatively spliced mdm2 transcripts correlates with stabilized wild-type p53 protein in human glioblastoma cells. Kraus A, et al. **Int J Cancer** 1999 Mar 15;80(6):930–4
Tissue-specific alternative mRNA splicing of phenylethanolamine N-methyltransferase (PNMT) during development by intron retention. Unsworth BR, et al. **Int J Dev Neurosci** 1999 Feb;17(1):45–55
Alternative splicing, but not allelic loss, of the FHIT gene increases with development of lung cancer. Sato H, et al. **Int J Oncol** 1999 Jul;15(1):81–8
An unspliced group I intron in 23S rRNA links Chlamydiales, chloroplasts, and mitochondria. Everett KD, et al. **J Bacteriol** 1999 Aug;181(16):4734–40
Natural splicing of exon 2 of human interleukin-15 receptor alpha-chain mRNA results in a shortened form with a distinct pattern of expression. Dubois S, et al. **J Biol Chem** 1999 Sep 17;274(38):26978–84
A premature termination codon in either exon of minute virus of mice P4 promoter-generated pre-mRNA can inhibit nuclear splicing of the intervening intron in an open reading frame-dependent manner. Gersappe A, et al. **J Biol Chem** 1999 Aug 6;274(32):22452–8
Functional conservation of the human homolog of the yeast pre-mRNA splicing factor Prp17p. Lindsey LA, et al. **J Biol Chem** 1998 Dec 4;273(49):32771–5
Serotonin-2C receptor pre-mRNA editing in rat brain and in vitro by splice site variants of the interferon-inducible double-stranded RNA-specific adenosine deaminase ADAR1. Liu Y, et al. **J Biol Chem** 1999 Jun 25; 274(26):18351–8
Transient ADP-ribosylation of a 2'-phosphate implicated in its removal from ligated tRNA during splicing in yeast. Spinelli SL, et al. **J Biol Chem** 1999 Jan 29;274(5):2637–44
The role of intron structures in trans-splicing and cap 4 formation for the Leishmania spliced leader RNA. Sturm NR, et al. **J Biol Chem** 1999 Jul 2;274(27):19361–7
Cef1p is a component of the Prp19p-associated complex and essential for pre-mRNA splicing. Tsai WY, et al. **J Biol Chem** 1999 Apr 2;274(14):9455–62
Oncoprotein TLS interacts with serine-arginine proteins involved in RNA splicing. Yang L, et al. **J Biol Chem** 1998 Oct 23;273(43):27761–4
Activation of a cryptic splice donor in human immunodeficiency virus type-1. Borg KT, et al. **J Biomed Sci** 1999 Jan;6(1):45–52
The E2 protein of human papillomavirus type 16 is translated from a variety of differentially spliced polycistronic mRNAs. Alloul N, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):29–37
The gene product encoded by ORF 57 of herpesvirus saimiri regulates the redistribution of the splicing factor SC-35. Cooper M, et al. **J Gen Virol** 1999 May;80 (Pt 5):1311–6
Novel donor splice site mutations of AGL gene in glycogen storage disease type IIIa. Hadjigeorgiou GM, et al. **J Inherit Metab Dis** 1999 Aug;22(6):762–3
Functional and structural characterization of the prp3 binding domain of the yeast prp4 splicing factor. Ayadi L, et al. **J Mol Biol** 1998 Dec 4;284(3):673–87
Synergistic stimulation of HIV-1 rev-dependent export of unspliced mRNA to the cytoplasm by hnRNP A1. Najera I, et al. **J Mol Biol** 1999 Feb 5;285(5):1951–64
Structure-activity relationships of omega-conotoxins MVIIA, MVIIC and 14 loop splice hybrids at N and P/Q-type calcium channels. Nielsen KJ, et al. **J Mol Biol** 1999 Jun 25;289(5):1405–21
Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13
Identification of PSF, the polypyrimidine tract-binding protein-associated splicing factor, as a developmentally regulated neuronal protein. Chanas-Sacré G, et al. **J Neurosci Res** 1999 Jul 1;57(1):62–73
Genomic organization and expression of the CXCR4 gene in mouse and man: absence of a splice variant corresponding to mouse CXCR4-B in human tissues. Frodl R, et al. **J Recept Signal Transduct Res** 1998 Jul-Nov; 18(4–6):321–44
Aberrant splicing of the TSG101 tumor suppressor gene in human breast and ovarian cancers. Carney ME, et al. **J Soc Gynecol Investig** 1998 Sep-Oct;5(5):281–5
Genetic studies exposing the splicing events involved in herpes simplex virus type 1 latency-associated transcript production during lytic and latent infection. Alvira MR, et al. **J Virol** 1999 May;73(5):3866–76
The C-terminal region but not the Arg-X-Pro repeat of Epstein-Barr virus protein EB2 is required for its effect

on RNA splicing and transport. Buisson M, et al. **J Virol** 1999 May;73(5):4090–100

Interaction between the negative regulator of splicing element and a 3' splice site: requirement for U1 small nuclear ribonucleoprotein and the 3' splice site branch point/pyrimidine tract. Cook CR, et al. **J Virol** 1999 Mar; 73(3):2394–400

Contributions of viral splice sites and cis-regulatory elements to lentivirus vector function. Cui Y, et al. **J Virol** 1999 Jul;73(7):6171–6

Intracisternal type A particle-mediated activation of the Notch4/int3 gene in a mouse mammary tumor: generation of truncated Notch4/int3 mRNAs by retroviral splicing events. Lee JS, et al. **J Virol** 1999 Jun;73(6):5166–71

Spliced mRNA encoding the murine cytomegalovirus chemokine homolog predicts a beta chemokine of novel structure. MacDonald MR, et al. **J Virol** 1999 May; 73(5):3682–91

U1 small nuclear ribonucleoprotein and splicing inhibition by the rous sarcoma virus negative regulator of splicing element. McNally LM, et al. **J Virol** 1999 Mar; 73(3):2385–93

Function of a bovine papillomavirus type 1 exonic splicing suppressor requires a suboptimal upstream 3' splice site. Zheng ZM, et al. **J Virol** 1999 Jan;73(1):29–36

Ultrastructural analysis of transcription and splicing in the cell nucleus after bromo-UTP microinjection. Cmarko D, et al. **Mol Biol Cell** 1999 Jan;10(1):211–23

A novel splice variant of HER2 with increased transformation activity. Kwong KY, et al. **Mol Carcinog** 1998 Oct;23(2):62–8

A novel transcriptional coactivator, p52, functionally interacts with the essential splicing factor ASF/SF2. Ge H, et al. **Mol Cell** 1998 Dec;2(6):751–9

A reverse transcriptase/maturase promotes splicing by binding at its own coding segment in a group II intron RNA. Wank H, et al. **Mol Cell** 1999 Aug;4(2):239–50

Utilization of splicing elements and polyadenylation signal elements in the coupling of polyadenylation and last-intron removal. Cooke C, et al. **Mol Cell Biol** 1999 Jul; 19(7):4971–9

hnRNP A1 recruited to an exon in vivo can function as an exon splicing silencer. Del Gatto-Konczak F, et al. **Mol Cell Biol** 1999 Jan;19(1):251–60

Alterations in the conserved SL1 trans-spliced leader of Caenorhabditis elegans demonstrate flexibility in length and sequence requirements in vivo. Ferguson KC, et al. **Mol Cell Biol** 1999 Mar;19(3):1892–900

A premature termination codon interferes with the nuclear function of an exon splicing enhancer in an open reading frame-dependent manner. Gersappe A, et al. **Mol Cell Biol** 1999 Mar;19(3):1640–50

CA- and purine-rich elements form a novel bipartite exon enhancer which governs inclusion of the minute virus of mice NS2-specific exon in both singly and doubly spliced mRNAs. Gersappe A, et al. **Mol Cell Biol** 1999 Jan; 19(1):364–75

Elevated levels of a U4/U6.U5 snRNP-associated protein, Spp381p, rescue a mutant defective in spliceosome maturation. Lybarger S, et al. **Mol Cell Biol** 1999 Jan; 19(1):577–84

A novel genetic screen for snRNP assembly factors in yeast identifies a conserved protein, Sad1p, also required for pre-mRNA splicing. Lygerou Z, et al. **Mol Cell Biol** 1999 Mar;19(3):2008–20

Substrate specificities of SR proteins in constitutive splicing are determined by their RNA recognition motifs and composite pre-mRNA exonic elements. Mayeda A, et al. **Mol Cell Biol** 1999 Mar;19(3):1853–63

Multiple distinct splicing enhancers in the protein-coding sequences of a constitutively spliced pre-mRNA. Schaal TD, et al. **Mol Cell Biol** 1999 Jan;19(1):261–73

Conserved loop I of U5 small nuclear RNA is dispensable for both catalytic steps of pre-mRNA splicing in HeLa nuclear extracts. Ségault V, et al. **Mol Cell Biol** 1999 Apr; 19(4):2782–90

SL1 trans splicing and 3'-end formation in a novel class of Caenorhabditis elegans operon. Williams C, et al. **Mol Cell Biol** 1999 Jan;19(1):376–83

Two species of mRNAs for the fyn proto-oncogene are produced by an alternative polyadenylation. Lee C, et al. **Mol Cells** 1998 Dec 31;8(6):746–9

A truncated human peroxisome proliferator-activated receptor alpha splice variant with dominant negative activity. Gervois P, et al. **Mol Endocrinol** 1999 Sep; 13(9):1535–49

Efficient initiation of S-phase in yeast requires Cdc40p, a protein involved in pre-mRNA splicing. Boger-Nadjar E, et al. **Mol Gen Genet** 1998 Nov;260(2-3):232–41

Insulin-inducible changes in the relative ratio of PTP1B splice variants. Sell SM, et al. **Mol Genet Metab** 1999 Mar; 66(3):189–92

Mutations that alter RNA splicing of the human HPRT gene: a review of the spectrum. O'Neill JP, et al. **Mutat Res** 1998 Nov;411(3):179–214 (98 ref.)

RNA splicing. Running rings around RNA [news] Lamond AI. **Nature** 1999 Feb 25;397(6721):655–6

Preferential expression of sst2A over sst2B somatostatin receptor splice variant in rat brain and pituitary. Sarret P, et al. **Neuroendocrinology** 1998 Jul;68(1):37–43

Cooperative interaction of branch signals in the actin intron of Saccharomyces cerevisiae. Castanotto D, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4137–45

Group II intron splicing in chloroplasts: identificationof mutations determining intron stability and fate of exon RNA. Holländer V, et al. **Nucleic Acids Res** 1999 Jun 1; 27(11):2345–53

Recognition of exonic splicing enhancer sequences by the Drosophila splicing repressor RSF1. Labourier E, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2377–86

A conditional U5 snRNA mutation affecting pre-mRNA splicing and nuclear pre-mRNA retention identifies SSD1/SRK1 as a general splicing mutant suppressor. Luukkonen BG, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3455–65

A clean data set of EST-confirmed splice sites from Homo sapiens and standards for clean-up procedures. Thanaraj TA. **Nucleic Acids Res** 1999 Jul 1;27(13):2627–37

RNA molecules containing exons originating from different members of the cytochrome P450 2C gene subfamily (CYP2C) in human epidermis and liver. Zaphiropoulos PG. **Nucleic Acids Res** 1999 Jul 1;27(13):2585–90

Expression of a new isoform of the tumor susceptibility TSG101 protein lacking a leucine zipper domain in Burkitt lymphoma cell lines. Ferrer M, et al. **Oncogene** 1999 Apr 1;18(13):2253–9

Regulation of mRNA splicing and transport by the tyrosine kinase activity of src. Gondran P, et al. **Oncogene** 1999 Apr 22;18(16):2547–55

Tissue-specific alternative splicing in the human INK4a/ARF cell cycle regulatory locus. Robertson KD, et al. **Oncogene** 1999 Jul 1;18(26):3810–20

A single base mutation in the 5' splice site of intron 7 of the lck gene is responsible for the deletion of exon 7 in lck mRNA of the JCaM1 cell line. Rouer E, et al. **Oncogene** 1999 Jul 22;18(29):4262–8

Clustering and detection of 5' splice sites of mRNA by k weight-matrices model. Murakami K, et al. **Pac Symp Biocomput** 1999;:171–81

Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. Leader DJ, et al. **Plant Mol Biol** 1999 Apr;39(6):1091–100

A novel family of plant splicing factors with a Zn knuckle motif: examination of RNA binding and splicing activities. Lopato S, et al. **Plant Mol Biol** 1999 Mar;39(4):761–73

Design of highly specific cytotoxins by using trans-splicing ribozymes. Ayre BG, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3507–12

The SRm160/300 splicing coactivator is required for exon-enhancer function. Eldridge AG, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6125–30

Serine-arginine (SR)-rich splicing factors have an exon-independent function in pre-mRNA splicing. Hertel KJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16; 96(6):2651–5

RNA aptamers as effective protein antagonists in a multicellular organism. Shi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10033–8

A functional homolog of a yeast tRNA splicing enzyme is conserved in higher eukaryotes and in Escherichia coli. Spinelli SL, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14136–41

In vitro suicide inhibition of self-splicing of a group I intron from Pneumocystis carinii by an N3' --> P5' phosphoramidate hexanucleotide. Testa SM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2734–9

Influence of specific mutations on the thermal stability of the td group I intron in vitro and on its splicing efficiency in vivo: a comparative study. Brion P, et al. **RNA** 1999 Jul;5(7):947–58

Trans-complementation of the second step of pre-mRNA splicing by exogenous 5' exons. Chanfreau G, et al. **RNA** 1999 Jul;5(7):876–82

Genomic-scale quantitative analysis of yeast pre-mRNA splicing: implications for splice-site recognition [letter] Lopez PJ, et al. **RNA** 1999 Sep;5(9):1135–7

Trans-splicing group II introns in plant mitochondria: the complete set of cis-arranged homologs in ferns, fern allies, and a hornwort. Malek O, et al. **RNA** 1998 Dec; 4(12):1599–609

Transient interaction of BBP/ScSF1 and Mud2 with the splicing machinery affects the kinetics of spliceosome assembly. Rutz B, et al. **RNA** 1999 Jun;5(6):819–31

SR proteins are required for nematode trans-splicing in vitro. Sanford JR, et al. **RNA** 1999 Jul;5(7):918–28

Purine-rich enhancers function in the AT-AC pre-mRNA splicing pathway and do so independently of intact U1 snRNP. Wu Q, et al. **RNA** 1998 Dec;4(12):1664–73

Molecular studies of trophoblast HLA-G: polymorphism, isoforms, imprinting and expression in preimplantation embryo. Hiby SE, et al. **Tissue Antigens** 1999 Jan;53(1):1–13

The PWI motif: a new protein domain in splicing factors. Blencowe BJ, et al. **Trends Biochem Sci** 1999 May; 24(5):179–80

[Splicing and stability of intron in the expression retroviral vector with human clotting factor IX] Xing YN, et al. **I Chuan Hsueh Pao** 1998 Dec;25(6):471–7 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Antisense morpholino oligonucleotide analog induces missplicing of C-myc mRNA. Giles RV, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):213–20

Modification of splicing in the dystrophin gene in cultured Mdx muscle cells by antisense oligoribonucleotides. Dunckley MG, et al. **Hum Mol Genet** 1998 Jul;7(7):1083–90

Bacterial lipopolysaccharide causes rapid shedding, followed by inhibition of mRNA expression, of the IL-1 type II receptor, with concomitant up-regulation of the type I receptor and induction of incompletely spliced transcripts. Penton-Rol G, et al. **J Immunol** 1999 Mar 1;162(5):2931–8

Neomycin B inhibits splicing of the td intron indirectly by interfering with translation and enhances missplicing in vivo. Waldsich C, et al. **RNA** 1998 Dec;4(12):1653–63

GENETICS

Redefinition of exon 7 in the COL1A1 gene of type I collagen by an intron 8 splice-donor-site mutation in a form of osteogenesis imperfecta: influence of intron splice order on outcome of splice-site mutation. Schwarze U, et al. **Am J Hum Genet** 1999 Aug;65(2):336–44

Splicing defects in the ataxia-telangiectasia gene, ATM: underlying mutations and consequences. Teraoka SN, et al. **Am J Hum Genet** 1999 Jun;64(6):1617–31

BRCA1 IVS16+6T-->C is a deleterious mutation that creates an aberrant transcript by activating a cryptic splice donor site. Scholl T, et al. **Am J Med Genet** 1999 Jul 16; 85(2):113–6

A splicing mutation of the RHAG gene associated with the Rhnull phenotype. Kawano M, et al. **Ann Hum Genet** 1998 Mar;62 (Pt 2):107–13

Suppression of the 5' splice site mutation in the Nagase analbuminemic rat with mutated U1snRNA. Hitomi Y, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):11–6

Reduced stability of regularly spliced but not alternatively spliced p53 protein in PARP-deficient mouse fibroblasts. Węsierska-Gądek J, et al. **Cancer Res** 1999 Jan 1; 59(1):28–34

Identification of two novel mRNA splice variants of bax [letter] Thomas AL, et al. **Cell Death Differ** 1999 Feb; 6(2):97–8

Cell-division-cycle defects associated with fission yeast pre-mRNA splicing mutants. Potashkin J, et al. **Curr Genet** 1998 Sep;34(3):153–63

The N-terminal domain of Sxl protein disrupts Sxl autoregulation in females and promotes female-specific splicing of tra in males. Deshpande G, et al. **Development** 1999 Jul;126(13):2841–53

Partial purification of the yeast U2 snRNP reveals a novel yeast pre-mRNA splicing factor required for pre-spliceosome assembly. Caspary F, et al. **EMBO J** 1999 Jun 15;18(12):3463–74

Tight binding of the 5' exon to domain I of a group II self-splicing intron reouires completion of the intron active site. Costa M, et al. **EMBO J** 1999 Feb 15;18(4):1025–37

Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway. Gonzalez TN, et al. **EMBO J** 1999 Jun 1;18(11):3119–32

Novel processing in a mammalian nuclear 28S pre-rRNA: tissue-specific elimination of an 'intron' bearing a hidden break site. Melen GJ, et al. **EMBO J** 1999 Jun 1; 18(11):3107–18

The splicing factor-associated protein, p32, regulates RNA splicing by inhibiting ASF/SF2 RNA binding and phosphorylation. Petersen-Mahrt SK, et al. **EMBO J** 1999 Feb 15;18(4):1014–24

Phosphorylation-dephosphorylation differentially affects activities of splicing factor ASF/SF2. Xiao SH, et al. **EMBO J** 1998 Nov 2;17(21):6359–67

The rainbow trout Oncorhynchus mykiss interleukin-1 beta gene has a differ organization to mammals and undergoes incomplete splicing. Zou J, et al. **Eur J Biochem** 1999 Feb; 259(3):901–8

The Sm core domain mediates targeting of U1 snRNP to subnuclear compartments involved in transcription and splicing. Malatesta M, et al. **Exp Cell Res** 1999 Jun 15; 249(2):189–98

Intron splice sites of Papilio glaucus PglRh3 corroborate insect opsin phylogeny. Briscoe AD. **Gene** 1999 Apr 1; 230(1):101–9

Transcript splicing is essential for functional Histoplasma capsulatum URA5 expression. Retallack DM, et al. **Gene** 1999 Apr 16;230(2):181–5

Pre-mRNA splicing of IgM exons M1 and M2 is directed by a juxtaposed splicing enhancer and inhibitor. Kan JL, et al. **Genes Dev** 1999 Feb 15;13(4):462–71

The type 2C Ser/Thr phosphatase PP2Cgamma is a pre-mRNA splicing factor. Murray MV, et al. **Genes Dev** 1999 Jan 1;13(1):87–97

Functional interactions of Prp8 with both splice sites at the spliceosomal catalytic center. Siatecka M, et al. **Genes Dev** 1999 Aug 1;13(15):1983–93

Length variations of the poly(T) tract at the exon 3 splice acceptor site of the choroideremia gene. Beaufrère L, et al. **Genet Couns** 1998;9(4):255–7

The molecular basis of disease variability among cystic fibrosis patients carrying the 3849+10 kb C-->T mutation. Chiba-Falek O, et al. **Genomics** 1998 Nov 1; 53(3):276–83

Exon 1 donor splice site mutations in the porphobilinogen deaminase gene in the non-erythroid variant form of acute intermittent porphyria. Puy H, et al. **Hum Genet** 1998 Nov; 103(5):570–5

A novel splice site mutation in the tissue inhibitor of the metalloproteinases-3 gene in Sorsby's fundus dystrophy with unusual clinical features. Tabata Y, et al.

Hum Genet 1998 Aug;103(2):179–82
A mutation (IVS8+0.6kbdelTC) creating a new donor splice site activates a cryptic exon in an Alu-element in intron 8 of the human beta-glucuronidase gene. Vervoort R, et al. **Hum Genet** 1998 Dec;103(6):686–93
The same mutation affecting the splicing of WT1 gene is present on Frasier syndrome patients with or without Wilms' tumor. Barbosa AS, et al. **Hum Mutat** 1999; 13(2):146–53
Cystic fibrosis patients with the 3272-26A-->G mutation have mild disease, leaky alternative mRNA splicing, and CFTR protein at the cell membrane. Beck S, et al. **Hum Mutat** 1999;14(2):133–44
Novel splice site mutation at IVS8 nt 5 of HEXB responsible for a Greek-Cypriot case of Sandhoff disease. Furihata K, et al. **Hum Mutat** 1999;13(1):38–43
Phenotype of an X-linked retinitis pigmentosa family with a novel splice defect in the RPGR gene. Bauer S, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2470–4
Three-dimensional visualization of transcription sites and their association with splicing factor-rich nuclear speckles. Wei X, et al. **J Cell Biol** 1999 Aug 9;146(3):543–58
Processing of switch transcripts is required for targeting of antibody class switch recombination. Hein K, et al. **J Exp Med** 1998 Dec 21;188(12):2369–74
Splice donor site mutations in the 3-hydroxy-3-methylglutaryl coenzyme A reductase gene cause a deficiency of the endoplasmic reticulum 3-hydroxy-3-methylglutaryl coenzyme A reductase protein in UT2 cells. Engfelt WH, et al. **J Lipid Res** 1998 Nov;39(11):2182–91
Expression of aberrant functional and nonfunctional transcripts of the FHIT gene in Burkitt's lymphomas. Ferrer M, et al. **Mol Carcinog** 1999 May;25(1):55–63
Splicing factor Prp8 governs U4/U6 RNA unwinding during activation of the spliceosome. Kuhn AN, et al. **Mol Cell** 1999 Jan;3(1):65–75
An RNA switch at the 5' splice site requires ATP and the DEAD box protein Prp28p. Staley JP, et al. **Mol Cell** 1999 Jan;3(1):55–64
A link between secretion and pre-mRNA processing defects in Saccharomyces cerevisiae and the identification of a novel splicing gene, RSE1. Chen EJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7139–46
Detection of a novel ATP-dependent cross-linked protein at the 5' splice site-U1 small nuclear RNA duplex by methylene blue-mediated photo-cross-linking. Liu ZR, et al. **Mol Cell Biol** 1998 Dec;18(12):6910–20
Myb-related fission yeast cdc5p is a component of a 40S snRNP-containing complex and is essential for pre-mRNA splicing. McDonald WH, et al. **Mol Cell Biol** 1999 Aug; 19(8):5352–62
The pre-mRNA 5' cap determines whether U6 small nuclear RNA succeeds U1 small nuclear ribonucleoprotein particle at 5' splice sites. O'Mullane L, et al. **Mol Cell Biol** 1998 Dec;18(12):7510–20
AT-AC pre-mRNA splicing mechanisms and conservation of minor introns in voltage-gated ion channel genes. Wu Q, et al. **Mol Cell Biol** 1999 May;19(5):3225–36 (130 ref.)
Late infantile neuronal ceroid lipofuscinosis is due to splicing mutations in the CLN2 gene. Hartikainen JM, et al. **Mol Genet Metab** 1999 Jun;67(2):162–8
Splicing variants in sheep CLN3, the gene underlying juvenile neuronal ceroid lipofuscinosis. Oswald MJ, et al. **Mol Genet Metab** 1999 Jun;67(2):169–75
In vivo selection for intronic splicing signals from a randomized pool. Bouck J, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4516–23
Prediction of locally optimal splice sites in plant pre-mRNA with applications to gene identification in Arabidopsis thaliana genomic DNA. Brendel V, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4748–57
Cryptic intron activation within the large exon of the mouse polymeric immunoglobulin receptor gene: cryptic splice sites correspond to protein domain boundaries. Bruce SR, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3446–54
The fission yeast prp10(+) gene involved in pre-mRNA splicing encodes a homologue of highly conserved splicing factor, SAP155. Habara Y, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5662–9
In vivo import of unspliced tRNATyr containing synthetic introns of variable length into mitochondria of Leishmania tarentolae. Sbicego S, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5251–5
Temperature-sensitive splicing in the floral homeotic mutant apetala3-1. Sablowski RW, et al. **Plant Cell** 1998 Sep; 10(9):1453–63
An intragenic suppressor of the Arabidopsis floral organ identity mutant apetala3-1 functions by suppressing defects in splicing. Yi Y, et al. **Plant Cell** 1998 Sep;10(9):1465–77
Snt309p modulates interactions of Prp19p with its associated components to stabilize the Prp19p-associated complex essential for pre-mRNA splicing. Chen HR, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5406–11
An exon that prevents transport of a mature mRNA. MacMorris MA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3813–8
Conservation in budding yeast of a kinase specific for SR splicing factors. Siebel CW, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5440–5
The splicing factors 9G8 and SRp20 transactivate splicing through different and specific enhancers. Cavaloc Y, et al. **RNA** 1999 Mar;5(3):468–83
The stability and fate of a spliced intron from vertebrate cells. Clement JQ, et al. **RNA** 1999 Feb;5(2):206–20
The identification and characterization of a novel splicing protein, Isy1p, of Saccharomyces cerevisiae. Dix I, et al. **RNA** 1999 Mar;5(3):360–8
The role of overlapping U1 and U11 5' splice site sequences in a negative regulator of splicing. Hibbert CS, et al. **RNA** 1999 Mar;5(3):333–43
Combinatorial control of a neuron-specific exon. Modafferi EF, et al. **RNA** 1999 May;5(5):687–706
Photocrosslinking of 4-thio uracil-containing RNAs supports a side-by-side arrangement of domains 5 and 6 of a group II intron. Podar M, et al. **RNA** 1999 Feb;5(2):318–29
The C-terminal region of hPrp8 interacts with the conserved GU dinucleotide at the 5' splice site. Reyes JL, et al. **RNA** 1999 Feb;5(2):167–79
Sequence specificity of in vivo reverse splicing of the Tetrahymena group I intron. Roman J, et al. **RNA** 1999 Jan;5(1):1–13
Exonic splicing enhancers contribute to the use of both 3' and 5' splice site usage of rat beta-tropomyosin pre-mRNA. Selvakumar M, et al. **RNA** 1999 Mar; 5(3):378–94
Sensitivity of splice sites to antisense oligonucleotides in vivo. Sierakowska H, et al. **RNA** 1999 Mar;5(3):369–77
Coordinate repression of a trio of neuron-specific splicing events by the splicing regulator PTB. Zhang L, et al. **RNA** 1999 Jan;5(1):117–30
A novel splice acceptor site mutation which produces multiple splicing abnormalities resulting in protein S deficiency type I. Tatewaki H, et al. **Thromb Haemost** 1999 Jul;82(1):65–71

IMMUNOLOGY

Cell-mediated suppression of human interleukin-2 gene expression at splicing of mRNA. Ketzinel M, et al. **Immunol Lett** 1999 May 3;68(1):161–6
Cutting edge: silencing virus-specific cytotoxic T cell-mediated immune recognition by differential splicing: a novel implication of RNA processing for antigen presentation. Kienzle N, et al. **J Immunol** 1999 Jun 15; 162(12):6963–6

PHYSIOLOGY

Expression of an embryonic fibronectin splicing variant in human masseter muscle [published erratum appears in Arch Oral Biol 1999 Jan;44(1):I] Price N, et al. **Arch Oral Biol** 1998 Nov;43(11):911–5
Molecular analysis of AMPA-specific receptors: subunit composition, editing, and calcium influx determination in small amounts of tissue. Lee JC, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):142–54
Flipping the switch to an active spliceosome. Murray HL, et al. **Cell** 1999 Mar 5;96(5):599–602 (14 ref.)
RNA splicing. Newman A. **Curr Biol** 1998 Dec 17–31; 8(25):R903–5 (6 ref.)
Reduction of hepatic insulin-like growth factor I (IGF-I) messenger ribonucleic acid (mRNA) during fasting is associated with diminished splicing of IGF-I pre-mRNA and decreased stability of cytoplasmic IGF-I mRNA. Zhang J, et al. **Endocrinology** 1998 Nov;139(11):4523–30
GABAB-receptor splice variants GB1a and GB1b in rat brain: developmental regulation, cellular distribution and extrasynaptic localization. Fritschy JM, et al. **Eur J Neurosci** 1999 Mar;11(3):761–8
Human step II splicing factor hSlu7 functions in restructuring the spliceosome between the catalytic steps of splicing. Chua K, et al. **Genes Dev** 1999 Apr 1;13(7):841–50
Initial recognition of U12-dependent introns requires both U11/5' splice-site and U12/branchpoint interactions. Frilander MJ, et al. **Genes Dev** 1999 Apr 1;13(7):851–63
Phosphorylated RNA polymerase II stimulates pre-mRNA splicing. Hirose Y, et al. **Genes Dev** 1999 May 15; 13(10):1234–9
Metal ion catalysis during group II intron self-splicing: parallels with the spliceosome. Sontheimer EJ, et al. **Genes Dev** 1999 Jul 1;13(13):1729–41
Germline mutations in the multiple endocrine neoplasia type 1 gene: evidence for frequent splicing defects. Mutch MG, et al. **Hum Mutat** 1999;13(3):175–85
Mutant transcripts of the LDL receptor gene: mRNA structure and quantity. Rødningen OK, et al. **Hum Mutat** 1999;13(3):186–96
Serine phosphorylation of SR proteins is required for their recruitment to sites of transcription in vivo. Misteli T, et al. **J Cell Biol** 1998 Oct 19;143(2):297–307
Phosphorylation regulates in vivo interaction and molecular targeting of serine/arginine-rich pre-mRNA splicing factors. Yeakley JM, et al. **J Cell Biol** 1999 May 3; 145(3):447–55
Active transgenes in zebrafish are enriched in acetylated histone H4 and dynamically associate with RNA Pol II and splicing complexes. Collas P, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1045–54
Immunohistochemical localization of the mGluR1beta metabotropic glutamate receptor in the adult rodent forebrain: evidence for a differential distribution of mGluR1 splice variants. Ferraguti F, et al. **J Comp Neurol** 1998 Oct 26;400(3):391–407
Characterization of a novel serotonin receptor from Caenorhabditis elegans: cloning and expression of two splice variants. Hamdan FF, et al. **J Neurochem** 1999 Apr; 72(4):1372–83
Detection of multiple vascular endothelial growth factor splice isoforms in single glomerular podocytes. Kretzler M, et al. **Kidney Int Suppl** 1998 Sep;67:S159–61
Bridging sulfur substitutions in the analysis of pre-mRNA splicing. Sontheimer EJ. **Methods** 1999 May;18(1):29–37
A new routine in molecular gymnastics [news; comment] Kole R. **Nat Biotechnol** 1999 Mar;17(3):223–4. Comment on: Nat Biotechnol 1999 Mar;17(3):246–52.
Spliceosome-mediated RNA trans-splicing as a tool for gene therapy [see comments] [published erratum appears in Nat Biotechnol 1999 Jun;17(6):602] Puttaraju M, et al. **Nat Biotechnol** 1999 Mar;17(3):246–52. Comment in: Nat Biotechnol 1999 Mar;17(3):223–4.
Truncated presenilin 2 derived from differentially spliced mRNA does not affect the ratio of amyloid beta-peptide 1-42/1-40. Grünberg J, et al. **Neuroreport** 1998 Oct 5; 9(14):3293–9
Evidence for the function of an exonic splicing enhancer after the first catalytic step of pre-mRNA splicing. Chew SL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10655–60
[Variable region of the Ca2+/calmodulin-dependent protein kinase II generated by alternative mRNA splicing: its role in the intracellular localization of different isoforms] Yamamoto H, et al. **Seikagaku** 1998 Nov;70(11):1349–54 (16 ref.) **(Jpn)**

RNA SPLICING, ALTERNATIVE see **ALTERNATIVE SPLICING**

RNA SYNTHESIS INHIBITORS see **NUCLEIC ACID SYNTHESIS INHIBITORS**

RNA TRANS-SPLICING see **TRANS-SPLICING**

RNA, TRANSFER

Multiple functions of the transcribed spacers in ribosomal RNA operons. Liiv A, et al. **Biol Chem** 1998 Jul; 379(7):783–93
Mutual orientation of tRNAs and interactions between the codon-anticodon duplexes within the ribosome: a stereochemical analysis. Lim VI, et al. **Biol Chem** 1998 Jul; 379(7):773–81 (44 ref.)
Transfer RNA reduces the formation of primer artifacts during quantitative PCR. Stürzenbaum SR. **Biotechniques** 1999 Jul;27(1):50–2
tRNA-mediated protein engineering. Rothschild KJ, et al. **Curr Opin Biotechnol** 1999 Feb;10(1):64–70 (46 ref.)
SsrA-mediated peptide tagging caused by rare codons and tRNA scarcity. Roche ED, et al. **EMBO J** 1999 Aug 16; 18(16):4579–89
An improved system for selection of forward mutations in an Escherichia coli supF gene carried by plasmids. Obata F, et al. **J Radiat Res (Tokyo)** 1998 Dec;39(4):263–70
The non-monophyletic origin of the tRNA molecule. Di Giulio M. **J Theor Biol** 1999 Apr 7;197(3):403–14
In vitro engineering using synthetic tRNAs with altered anticodons including four-nucleotide anticodons. Kramer G, et al. **Methods Mol Biol** 1998;77:105–16 (22 ref.)
In vitro engineering using acyl-derivatized tRNAs. Odom OW, et al. **Methods Mol Biol** 1998;77:93–103 (14 ref.)
Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142–54
The high-pathogenicity island of Yersinia pseudotuberculosis can be inserted into any of the three chromosomal asn tRNA genes. Buchrieser C, et al. **Mol Microbiol** 1998 Dec; 30(5):965–78
Complementarity between 3' terminal nucleotides of tRNA and primer binding site is a major determinant for selection of the tRNA primer used for initiation of HIV-1 reverse transcription. Yu Q, et al. **Virology** 1999 Feb 1;254(1):160–8
[A bacterial RNA that functions both as a tRNA and an mRNA] Muto A, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(11):1433–42 (30 ref.) **(Jpn)**
[Protein-RNA molecular mimicry] Nakamura Y. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(11):1421–32 (45 ref.) **(Jpn)**

ANALYSIS

Molar absorbance of tRNA. Guéron M, et al. **Anal Biochem** 1978 Dec;91(2):691–5

BIOSYNTHESIS

Molecular origins and the null hypothesis: motifs from our maker? Ellington AD. **Biol Bull** 1999 Jun;196(3):315–7; discussion 318–9 (14 ref.)
New evidence for the genomic tag hypothesis: archaeal CCA-adding enzymes and tDNA substrates. Maizels N, et al. **Biol Bull** 1999 Jun;196(3):331–3; discussion 333–4 (20 ref.)
A nuclear encoded and mitochondrial imported dicistronic tRNA precursor in Trypanosoma brucei. LeBlanc AJ, et al. **J Biol Chem** 1999 Jul 23;274(30):21071–7

CHEMISTRY

Dimer formation by tRNAs. Kholod NS.
Biochemistry (Mosc) 1999 Mar;64(3):298–306 (17 ref.)
Conformational structure and binding mode of glyceraldehyde-3-phosphate dehydrogenase to tRNA studied by Raman and CD spectroscopy. Carmona P, et al. **Biochim Biophys Acta** 1999 Jul 13;1432(2):222–33
NMR structure of the chimeric hybrid duplex r(gcaguggc).r(gcca)d(CTGC) comprising the tRNA-DNA junction formed during initiation of HIV-1 reverse transcription. Szyperski T, et al. **J Biomol NMR** 1999 Apr; 13(4):343–55
The effect of queuosine on tRNA structure and function. Morris RC, et al. **J Biomol Struct Dyn** 1999 Feb; 16(4):757–74
Pseudouridine synthetase Pus1 of Saccharomyces cerevisiae: kinetic characterisation, tRNA structural requirement and real-time analysis of its complex with tRNA. Arluison V, et al. **J Mol Biol** 1999 Jun 11;289(3):491–502
Major groove binding of the tRNA/mRNA complex to the 16 S ribosomal RNA decoding site. VanLoock MS, et al. **J Mol Biol** 1999 Feb 5;285(5):2069–78
X-ray crystal structures of 70S ribosome functional complexes [see comments] Cate JH, et al. **Science** 1999 Sep 24;285(5436):2095–104. Comment in: Science 1999 Sep 24;285(5436):2048–51. Comment in: Science 1999 Sep 24;285(5436):2077–8.

DRUG EFFECTS

Cobaltous chloride-induced mutagenesis in the supF tRNA gene of Escherichia coli. Ogawa HI, et al. **Mutagenesis** 1999 Mar;14(2):249–53

GENETICS

Mutagenesis patterns in a tRNA mutation marker gene altered to include repetitive sequence replicated in mutS E. coli. Levy DD, et al. **Ann N Y Acad Sci** 1999 May 18;870:392–5
Modulation of HPV16 E7 translation by tRNAs in eukaryotic cell-free translation systems. De Pasquale C, et al. **Biochem Mol Biol Int** 1998 Aug;45(5):1005–9
Quinol-glutathione conjugate-induced mutation spectra in the supF gene replicated in human AD293 cells and bacterial MBL50 cells. Jeong JK, et al. **Cancer Res** 1999 Aug 1;59(15):3641–5
Transcription of plastid-derived tRNA genes in rice mitochondria. Miyata S, et al. **Curr Genet** 1998 Sep; 34(3):216–20
Confirmation of predicted edits and demonstration of unpredicted edits in Acanthamoeba castellanii mitochondrial tRNAs. Price DH, et al. **Curr Genet** 1999 Feb;35(1):23–9
Hormonal induction of mouse selenocysteine transfer ribonucleic acid (tRNA) gene transcription-activating factor and its functional importance in the selenocysteine tRNA gene transcription in mouse mammary gland. Adachi K, et al. **Endocrinology** 1999 Feb;140(2):618–23
Decreased ATP synthesis is phenotypically expressed during increased energy demand in fibroblasts containing mitochondrial tRNA mutations. James AM, et al. **Eur J Biochem** 1999 Jan;259(1–2):462–9
The trials and travels of tRNA. Wolin SL, et al. **Genes Dev** 1999 Jan 1;13(1):1–10 (76 ref.)
A subset of conserved tRNA genes in plastid DNA of nongreen plants. Lohan AJ, et al. **Genetics** 1998 Sep; 150(1):425–33
A nuclear encoded and mitochondrial imported dicistronic tRNA precursor in Trypanosoma brucei. LeBlanc AJ, et al. **J Biol Chem** 1999 Jul 23;274(30):21071–7
RNase P RNA structure and cleavage reflect the primary structure of tRNA genes. Brännvall M, et al. **J Mol Biol** 1998 Nov 6;283(4):771–83
mRNA expression in mitochondria of the red alga chondrus crispus requires a unique RNA-processing mechanism, internal cleavage of upstream tRNAs at pyrimidine 48. Richard O, et al. **J Mol Biol** 1999 May 14;288(4):579–84
Relationships among isoacceptor tRNAs seems to support the coevolution theory of the origin of the genetic code. Chaley MB, et al. **J Mol Evol** 1999 Feb;48(2):168–77
A novel mitochondrial tRNA(Ile) point mutation in chronic progressive external ophthalmoplegia [letter] Franceschina L, et al. **J Neurol** 1998 Nov;245(11):755–8
Characterization and comparison of Escherichia coli transfer RNAs by graph theory based on secondary structure. Bermúdez CI, et al. **J Theor Biol** 1999 Mar 21; 197(2):193–205
Evolutionary dynamics of a mitochondrial rearrangement "hot spot" in the Hymenoptera. Dowton M, et al. **Mol Biol Evol** 1999 Feb;16(2):298–309
Insertional editing of mitochondrial tRNAs of Physarum polycephalum and Didymium nigripes. Antes T, et al. **Mol Cell Biol** 1998 Dec;18(12):7521–7
Relationships among the cyclostome braconid (Hymenoptera: Braconidae) subfamilies inferred from a mitochondrial tRNA gene rearrangement. Dowton M. **Mol Phylogenet Evol** 1999 Mar;11(2):283–7
Molecular phylogenetics, tRNA evolution, and historical biogeography in anguid lizards and related taxonomic families. Macey JR, et al. **Mol Phylogenet Evol** 1999 Aug; 12(3):250–72
Specificity of mutations induced by riboflavin mediated photosensitization in the supF gene of Escherichia coli. Tano K, et al. **Mutat Res** 1998 Dec 3;420(1–3):7–13
Hybridization prediction gets to first base [news] Stein CA. **Nat Biotechnol** 1999 Aug;17(8):751–2
Transmutation of tRNA over time [news] Brosius J. **Nat Genet** 1999 May;22(1):8–9
PLMItRNA, a database for higher plant mitochondrial tRNAs and tRNA genes. Ceci LR, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):156–7
Transfer RNA mimicry among tymoviral genomic RNAs ranges from highly efficient to vestigial. Dreher TW, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4356–64
Cross-species aminoacylation of tRNA with a long variable arm between Escherichia coli and Saccharomyces cerevisiae. Soma A, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4374–81
The p53 tumor suppressor protein reduces point mutation frequency of a shuttle vector modified by the chemical mutagens (+/–)7, 8-dihydroxy-9,10-epoxy-7,8,9,10-tetrahydrobenzo[a]pyrene, aflatoxin B1 and meta-chloroperoxybenzoic acid. Courtemanche C, et al. **Oncogene** 1999 Aug 19;18(33):4672–80
Progress toward the evolution of an organism with an expanded genetic code. Liu DR, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4780–5
Genetic code origins: tRNAs older than their synthetases? Ribas de Pouplana L, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11295–300
A functional homolog of a yeast tRNA splicing enzyme is conserved in higher eukaryotes and in Escherichia coli. Spinelli SL, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14136–41
Orientation of the tRNA anticodon in the ribosomal P-site: quantitative footprinting with U33-modified, anticodon stem and loop domains. Ashraf SS, et al. **RNA** 1999 Sep; 5(9):1191–9
The yeast Saccharomyces cerevisiae YDL112w ORF encodes the putative 2'-O-ribose methyltransferase catalyzing the formation of Gm18 in tRNAs. Cavaillé J, et al. **RNA** 1999 Jan;5(1):66–81
Coordination of tRNA nuclear export with processing of tRNA. Lipowsky G, et al. **RNA** 1999 Apr;5(4):539–49
Screening by tRNA primer extension analysis of porcine kidney mRNA libraries defines a novel endogenous porcine retroviral long terminal repeat. Hoopes CW, et al. **Transplantation** 1999 Jun 15;67(11):1391–5
Transfer RNAs and pathogenicity islands. Hou YM. **Trends Biochem Sci** 1999 Aug;24(8):295–8 (27 ref.)
[Amber-suppressive tRNA from bacteriophage T5: construction of genes and determination of the effectiveness of suppression in vivo] Pan'kova NV, et al. **Mol Biol (Mosk)** 1998 Nov–Dec;32(6):1004–12 **(Rus)**

ISOLATION & PURIFICATION

Direct physical measurements on substituted agarose gels: evidence for intercalation of gel-bound ethidium into transfer RNA. Thomas KA, et al. **Anal Biochem** 1978 Nov; 91(1):209–23
Identification and sequencing of two isopentenyladenosine-modified transfer RNAs from Chinese hamster ovary cells. Warner GJ, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5533–5

METABOLISM

The effectiveness of the bonding of amino acid by tRNA of livers of rats experimentally exposed to cadmium and barium. Pasternak K. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:161–5
Ribonuclease P: unity and diversity in a tRNA processing ribozyme. Frank DN, et al. **Annu Rev Biochem** 1998; 67:153–80 (157 ref.)
Mapping the active site of the Haemophilus influenzae methionyl-tRNA formyltransferase: residues important for catalysis and tRNA binding. Newton DT, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):63–9
Identification of individual nucleotides in the bacterial ribonuclease P ribozyme adjacent to the pre-tRNA cleavage site by short-range photo-cross-linking. Christian EL, et al. **Biochemistry** 1998 Dec 15;37(50):17618–28
The track of the pre-tRNA 5' leader in the ribonuclease P ribozyme-substrate complex. Christian EL, et al. **Biochemistry** 1999 Sep 28;38(39):12629–38
A pseudoknotted tRNA variant is a substrate for tRNA (cytosine-5)-methyltransferase from Xenopus laevis. Brulé H, et al. **Biochimie** 1998 Dec;80(12):977–85
Expression of Vitreoscilla hemoglobin in Escherichia coli enhances ribosome and tRNA levels: a flow field-flow fractionation study. Nilsson M, et al. **Biotechnol Prog** 1999 Mar-Apr;15(2):158–63
Transfer RNA biogenesis: A visa to leave the nucleus. Simos G, et al. **Curr Biol** 1999 Apr 8;9(7):R238–41 (12 ref.)
The role of exportin-t in selective nuclear export of mature tRNAs. Arts GJ, et al. **EMBO J** 1998 Dec 15; 17(24):7430–41
Structure-specific tRNA-binding protein from the extreme thermophile Aquifex aeolicus. Morales AJ, et al. **EMBO J** 1999 Jun 15;18(12):3475–83
Transfer RNA modification: influence on translational frameshifting and metabolism. Björk GR, et al. **FEBS Lett** 1999 Jun 4;452(1–2):47–51 (41 ref.)
Multiple tRNA attachment sites in prothymosin alpha. Lukashev DE, et al. **FEBS Lett** 1999 May 21;451(2):118–24
Concatemerization of tRNA molecules in the presence of trivaline derivative. Streltsov SA, et al. **FEBS Lett** 1999 Feb 12;444(2–3):231–4
Dynamics of translation on the ribosome: molecular mechanics of translocation. Rodnina MV, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):317–33 (97 ref.)
Efficient ex vivo inhibition of perforin and Fas ligand expression by chimeric tRNA-hammerhead ribozymes [see comments] Du Z, et al. **Hum Gene Ther** 1998 Jul 20; 9(11):1551–60. Comment in: Hum Gene Ther 1998 Jul 20;9(11):1528–9.
The Bacillus subtilis nucleotidyltransferase is a tRNA CCA-adding enzyme. Raynal LC, et al. **J Bacteriol** 1998 Dec;180(23):6276–82
Examination of the role of DNA polymerase proofreading in the mutator effect of miscoding tRNAs. Slupska MM, et al. **J Bacteriol** 1998 Nov;180(21):5712–7
Protection patterns of tRNAs do not change during ribosomal translocation. Dabrowski M, et al. **J Biol Chem** 1998 Dec 4;273(49):32793–800
Transient ADP-ribosylation of a 2'-phosphate implicated in its removal from ligated tRNA during splicing in yeast. Spinelli SL, et al. **J Biol Chem** 1999 Jan 29;274(5):2637–44
Pseudouridine synthetase Pus1 of Saccharomyces cerevisiae: kinetic characterisation, tRNA structural requirement and real-time analysis of its complex with tRNA. Arluison V, et al. **J Mol Biol** 1999 Jun 11;289(3):491–502
Major groove binding of the tRNA/mRNA complex to the 16 S ribosomal RNA decoding site. VanLoock MS, et al. **J Mol Biol** 1999 Feb 5;285(5):2069–78
Papillomavirus capsid protein expression level depends on the match between codon usage and tRNA availability. Zhou J, et al. **J Virol** 1999 Jun;73(6):4972–82
Synthesis and site-specific binding of thioated tRNAs to probe ribosome-tRNA interactions. Dabrowski M, et al. **Methods Mol Biol** 1998;77:413–26 (17 ref.)
tRNAs and proteins are imported into mitochondria of Trypanosoma brucei by two distinct mechanisms. Nabholz CE, et al. **Mol Biol Cell** 1999 Aug;10(8):2547–57
tRNA nuclear export in saccharomyces cerevisiae: in situ hybridization analysis. Sarkar S, et al. **Mol Biol Cell** 1998 Nov;9(11):3041–55
Yeast Los1p has properties of an exportin-like nucleocytoplasmic transport factor for tRNA. Hellmuth K, et al. **Mol Cell Biol** 1998 Nov;18(11):6374–86
In vitro import of a nuclearly encoded tRNA into the mitochondrion of Trypanosoma brucei. Yermovsky-Kammerer AE, et al. **Mol Cell Biol** 1999 Sep; 19(9):6253–9
Determination of queuosine modification system deficiencies in cultured human cells. Morris RC, et al. **Mol Genet Metab** 1999 Sep;68(1):56–67
Universal rules and idiosyncratic features in tRNA identity. Giegé R, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5017–35 (280 ref.)
Cross-species aminoacylation of tRNA with a long variable arm between Escherichia coli and Saccharomyces cerevisiae. Soma A, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4374–81
Identification and sequencing of two isopentenyladenosine-modified transfer RNAs from Chinese hamster ovary cells. Warner GJ, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5533–5
Direct crosslinking of the antitumor antibiotic sparsomycin, and its derivatives, to A2602 in the peptidyl transferase center of 23S-like rRNA within ribosome-tRNA complexes. Porse BT, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9003–8
Orientation of the tRNA anticodon in the ribosomal P-site: quantitative footprinting with U33-modified, anticodon stem and loop domains. Ashraf SS, et al. **RNA** 1999 Sep; 5(9):1191–9
Guanosine 2-NH2 groups of Escherichia coli RNase P RNA involved in intramolecular tertiary contacts and direct interactions with tRNA. Heide C, et al. **RNA** 1999 Jan; 5(1):102–16
A novel nucleotide incorporation activity implicated in the editing of mitochondrial transfer RNAs in Acanthamoeba castellanii. Price DH, et al. **RNA** 1999 Feb;5(2):302–17
Nuclear functions charge ahead [comment] Hopper AK. **Science** 1998 Dec 11;282(5396):2003–4. Comment on: Science 1998 Dec 11;282(5396):2082–5.
Proofreading and aminoacylation of tRNAs before export from the nucleus [see comments] Lund E, et al. **Science** 1998 Dec 11;282(5396):2082–5. Comment in: Science 1998 Dec 11;282(5396):2003–4.

PHYSIOLOGY

The genomic tag hypothesis: modern viruses as molecular fossils of ancient strategies for genomic replication, and clues regarding the origin of protein synthesis. Weiner AM, et al. **Biol Bull** 1999 Jun;196(3):327–8; discussion 329–30 (5 ref.)
Back to Camelot: defining the specific role of tRNA in protein synthesis. Weisblum B. **Trends Biochem Sci** 1999 Jun;24(6):247–50 (24 ref.)
Global protein synthesis shutdown in Autographa californica nucleopolyhedrovirus-infected Ld652Y cells is rescued by tRNA from uninfected cells. Mazzacano CA, et al. **Virology** 1999 Aug 1;260(2):222–31

ULTRASTRUCTURE

Effect of buffer conditions on the position of tRNA on the 70 S ribosome as visualized by cryoelectron microscopy. Agrawal RK, et al. **J Biol Chem** 1999 Mar 26; 274(13):8723–9

RNA, TRANSFER, ALA

Thermodynamics of RNA hairpins containing single internal mismatches. Merouch M, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1118–25

CHEMISTRY

Disorder and twin refinement of RNA heptamer double helices. Mueller U, et al.
Acta Crystallogr D Biol Crystallogr 1999 Aug;55 (Pt 8):1405–13

Secondary structure dimorphism and interconversion between hairpin and duplex form of oligoribonucleotides. Kirchner R, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):507–16

A bayesian statistical algorithm for RNA secondary structure prediction. Ding Y, et al. **Comput Chem** 1999 Jun 15; 23(3–4):387–400

Functional analysis of peptide motif for RNA microhelix binding suggests new family of RNA–binding domains. Ribas de Pouplana L, et al. **EMBO J** 1998 Sep 15; 17(18):5449–57

Thermodynamics of site–specific variant tRNA(Ala) acceptor stem microhairpins. Biala E, et al.
Nucleosides Nucleotides 1999 Jun–Jul;18(6–7):1575–6

Inosine and N1–methylinosine within a synthetic oligomer mimicking the anticodon loop of human tRNA(Ala) are major epitopes for anti–PL–12 myositis autoantibodies. Becker HF, et al. **RNA** 1999 Jul;5(7):865–75

Crystal structure of acceptor stem of tRNA(Ala) from Escherichia coli shows unique G.U wobble base pair at 1.16 A resolution. Mueller U, et al. **RNA** 1999 May; 5(5):670–7

GENETICS

Identification of the sex chromosomes of the medaka, Oryzias latipes, by fluorescence in situ hybridization. Matsuda M, et al. **Cytogenet Cell Genet** 1998;82(3–4):257–62

A spider tRNA(Ala) requires a far upstream sequence element for expression. Cintrón I, et al. **Gene** 1999 Apr 29;231(1–2):195–201

A TATA element is required for tRNA promoter activity and confers TATA–binding protein responsiveness in Drosophila Schneider–2 cells. Trivedi A, et al.
J Biol Chem 1999 Apr 16;274(16):11369–75

The site–specific recombination locus of mycobacteriophage Ms6 determines DNA integration at the tRNA(Ala) gene of Mycobacterium spp. Freitas–Vieira A, et al.
Microbiology 1998 Dec;144 (Pt 12):3397–406

METABOLISM

Efficient 50S ribosome–catalyzed peptide bond synthesis with an aminoacyl minihelix. Sardesai NY, et al.
Biochemistry 1999 Sep 14;38(37):12080–8

The reliability of in vivo structure–function analysis of tRNA aminoacylation. McClain WH, et al. **J Mol Biol** 1999 Jul 9;290(2):391–409

Amino acid acceptor identity switch of Escherichia coli tmRNA from alanine to histidine in vitro. Nameki N, et al. **J Mol Biol** 1999 May 28;289(1):1–7

Identification and characterization of a human tRNA–specific adenosine deaminase related to the ADAR family of pre–mRNA editing enzymes. Maas S, et al.
Proc Natl Acad Sci U S A 1999 Aug 3;96(16):8895–900

RNA, TRANSFER, AMINO ACID–SPECIFIC

BIOSYNTHESIS

Overproduction of selenocysteine tRNA in Chinese hamster ovary cells following transfection of the mouse tRNA[Ser]Sec gene. Moustafa ME, et al. **RNA** 1998 Nov; 4(11):1436–43

CHEMISTRY

Crystallization and X–ray diffraction data of a tRNASec acceptor–stem helix. Förster C, et al.
Acta Crystallogr D Biol Crystallogr 1999 Mar;55 (Pt 3):664–6

Structural compensation in an archaeal selenocysteine transfer RNA. Ioudovitch A, et al. **J Mol Biol** 1999 Jul 9;290(2):365–71

The dual identities of mammalian tRNA(Sec) for SerRS and selenocysteine synthase. Mizutani T, et al.
Mol Biol Rep 1998 Nov;25(4):211–6

GENETICS

Selenocysteine inserting tRNAs: an overview. Commans S, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):335–51 (83 ref.)

Processing and editing of overlapping tRNAs in human mitochondria. Reichert A, et al. **J Biol Chem** 1998 Nov 27;273(48):31977–84

Maximization of selenocysteine tRNA and U6 small nuclear RNA transcriptional activation achieved by flexible utilization of a Staf zinc finger. Schaub M, et al.
J Biol Chem 1999 Aug 27;274(35):25042–50

Flexible zinc finger requirement for binding of the transcriptional activator staf to U6 small nuclear RNA and tRNA(Sec) promoters. Schaub M, et al. **J Biol Chem** 1999 Aug 20;274(34):24241–9

Complete mitochondrial genome suggests diapsid affinities of turtles. Zardoya R, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14226–31

The peculiar architectural framework of tRNASec is fully recognized by yeast AspRS. Rudinger–Thirion J, et al.
RNA 1999 Apr;5(4):495–502

[Gly380Arg and Asn540Lys mutations of fibroblast growth factor receptor 3 in achondroplasia and hypochndroplasia in the Spanish population] Ezquieta Zubicaray B, et al.
Med Clin (Barc) 1999 Mar 6;112(8):290–3 (Eng. Abstr.) **(Spa)**

METABOLISM

Selenocysteine inserting tRNAs: an overview. Commans S, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):335–51 (83 ref.)

Selenium metabolism in Drosophila. Characterization of the selenocysteine tRNA population. Zhou X, et al.
J Biol Chem 1999 Jun 25;274(26):18729–34

A cytotoxic ribonuclease targeting specific transfer RNA anticodons. Ogawa T, et al. **Science** 1999 Mar 26; 283(5410):2097–100

RNA, TRANSFER, AMINO ACYL

The role of Pr55(gag) in the annealing of tRNA3Lys to human immunodeficiency virus type 1 genomic RNA. Cen S, et al. **J Virol** 1999 May;73(5):4485–8

The human immunodeficiency virus type 1 Gag polyprotein has nucleic acid chaperone activity: possible role in dimerization of genomic RNA and placement of tRNA on the primer binding site. Feng YX, et al. **J Virol** 1999 May;73(5):4251–6

BIOSYNTHESIS

Human phenylalanyl–tRNA synthetase: cloning, characterization of the deduced amino acid sequences in terms of the structural domains and coordinately regulated expression of the alpha and beta subunits in chronic myeloid leukemia cells. Rodova M, et al.
Biochem Biophys Res Commun 1999 Feb 24;255(3):765–73

Archaeal aminoacyl–tRNA synthesis: unique determinants of a universal genetic code? Ibba M, et al. **Biol Bull** 1999 Jun;196(3):335–6; discussion 336–7 (10 ref.)

tRNA recognition and evolution of determinants in seryl–tRNA synthesis. Lenhard B, et al.
Nucleic Acids Res 1999 Feb 1;27(3):721–9 (96 ref.)

CHEMISTRY

The structure of threonyl–tRNA synthetase–tRNA(Thr) complex enlightens its repressor activity and reveals an essential zinc ion in the active site. Sankaranarayanan R, et al. **Cell** 1999 Apr 30;97(3):371–81

Stabilization of the anticodon stem–loop of tRNALys,3 by an A+–C base–pair and by pseudouridine. Durant PC, et al. **J Mol Biol** 1999 Jan 8;285(1):115–31

Exploring three–dimensional structures of the HIV–1 RNA/tRNALys3 initiation complex. Elgavish T, et al.
J Mol Biol 1999 Jan 15;285(2):449–53

Functional compensation by particular nucleotide substitutions of a critical G•U wobble base–pair during aminoacylation of transfer RNA. McClain WH, et al.
J Mol Biol 1999 Mar 5;286(4):1025–32

GENETICS

Epilepsia partialis continua associated with a homoplasmic mitochondrial tRNA(Ser(UCN)) mutation. Schuelke M, et al. **Ann Neurol** 1998 Oct;44(4):700–4

Nucleotide sequences of genes for ribosomal protein L41 and tRNAThr(AGU) from Coprinus cinereus. Aimi T, et al.
Biochim Biophys Acta 1999 Jun 15;1432(1):137–41

The zebrafish genome contains two distinct selenocysteine tRNA[Ser]sec genes. Xu XM, et al. **FEBS Lett** 1999 Jul 2;454(1–2):16–20

A systematic mutation screen of 10 nuclear and 25 mitochondrial candidate genes in 21 patients with cytochrome c oxidase (COX) deficiency shows tRNA(Ser)(UCN) mutations in a subgroup with syndromal encephalopathy. Jaksch M, et al. **J Med Genet** 1998 Nov; 35(11):895–900

Substrate recognition by class I lysyl–tRNA synthetases: a molecular basis for gene displacement. Ibba M, et al.
Proc Natl Acad Sci U S A 1999 Jan 19;96(2):418–23

Aminoacylation of tRNA in the evolution of an aminoacyl–tRNA synthetase. Lipman RS, et al.
Proc Natl Acad Sci U S A 1998 Nov 10;95(23):13495–500

METABOLISM

Aminoacyl–tRNA and tissue free amino acid pools are equilibrated after a flooding dose of phenylalanine. Davis TA, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E103–9

Effects of domain exchanges between Escherichia coli and mammalian mitochondrial EF–Tu on interactions with guanine nucleotides, aminoacyl–tRNA and ribosomes. Bullard JM, et al. **Biochim Biophys Acta** 1999 Jul 7; 1446(1–2):102–14

Efficient in vitro translational termination in Escherichia coli is constrained by the orientations of the release factor, stop signal and peptidyl–tRNA within the termination complex. McCaughan KK, et al. **Biol Chem** 1998 Jul;379(7):857–66

The structure of threonyl–tRNA synthetase–tRNA(Thr) complex enlightens its repressor activity and reveals an essential zinc ion in the active site. Sankaranarayanan R, et al. **Cell** 1999 Apr 30;97(3):371–81

Complete kinetic mechanism of elongation factor Tu–dependent binding of aminoacyl–tRNA to the A site of the E. coli ribosome. Pape T, et al. **EMBO J** 1998 Dec 15;17(24):7490–7

Interaction between a mutant release factor one and P–site peptidyl–tRNA is influenced by the identity of the two bases downstream of the stop codon UAG. Zhang S, et al. **FEBS Lett** 1999 Jul 23;455(3):355–8

Quantitative assessment of EF–1alpha.GTP binding to aminoacyl–tRNAs, aminoacyl–viral RNA, and tRNA shows close correspondence to the RNA binding properties of EF–Tu. Dreher TW, et al. **J Biol Chem** 1999 Jan 8; 274(2):666–72

Amino acid–dependent control of p70(s6k). Involvement of tRNA aminoacylation in the regulation. Iiboshi Y, et al.
J Biol Chem 1999 Jan 8;274(2):1092–9

The reliability of in vivo structure–function analysis of tRNA aminoacylation. McClain WH, et al. **J Mol Biol** 1999 Jul 9;290(2):391–409

Functional compensation by particular nucleotide substitutions of a critical G•U wobble base–pair during aminoacylation of transfer RNA. McClain WH, et al.
J Mol Biol 1999 Mar 5;286(4):1025–32

A site in the dinucleotide–fold domain contributes to the accuracy of tRNA selection by Escherichia coli methionyl–tRNA synthetase. Kim HY, et al. **Mol Cells** 1998 Oct 31;8(5):623–8

Mutations in the highly conserved GGQ motif of class 1 polypeptide release factors abolish ability of human eRF1 to trigger peptidyl–tRNA hydrolysis. Frolova LY, et al.
RNA 1999 Aug;5(8):1014–20

Aminoacylated tmRNA from Escherichia coli interacts with prokaryotic elongation factor Tu [letter] Rudinger–Thirion J, et al. **RNA** 1999 Aug;5(8):989–92

Nuclear functions charge ahead [comment] Hopper AK.
Science 1998 Dec 11;282(5396):2003–4. Comment on: Science 1998 Dec 11;282(5396):2082–5.

Proofreading and aminoacylation of tRNAs before export from the nucleus [see comments] Lund E, et al. **Science** 1998 Dec 11;282(5396):2082–5. Comment in: Science 1998 Dec 11;282(5396):2003–4.

PHYSIOLOGY

Identification of a human immunodeficiency virus type 1 that stably uses tRNALys1,2 rather than tRNALys,3 for initiation of reverse transcription. Kang SM, et al.
Virology 1999 Apr 25;257(1):95–105

RNA, TRANSFER, ARG

BIOSYNTHESIS

High–level expression of murine terminal deoxynucleotidyl transferase in Escherichia coli grown at low temperature and overexpressing argU tRNA. Boulé JB, et al.
Mol Biotechnol 1998 Dec;10(3):199–208

GENETICS

Complementation of the growth defect of an rnpA49 mutant of Escherichia coli by overexpression of arginine tRNA(CCG). Kim MS, et al. **Biochem Mol Biol Int** 1998 Dec;46(6):1153–60

Genes for tRNA(Arg) located in the upstream region of the Shiga toxin II operon in enterohemorrhagic Escherichia coli O157:H7. Kanjo N, et al. **DNA Res** 1999 Feb 26; 6(1):71–3

High level expression of Thermococcus litoralis 4–alpha–glucanotransferase in a soluble form in Escherichia coli with a novel expression system involving minor arginine tRNAs and GroELS. Imamura H, et al.
FEBS Lett 1999 Sep 3;457(3):393–6

Sporadic distribution of tRNA(Arg)CCU introns among alpha–purple bacteria: evidence for horizontal transmission and transposition of a group I intron. Paquin B, et al.
J Bacteriol 1999 Feb;181(3):1049–53

METABOLISM

Minimum requirements for substrates of mammalian tRNA 3' processing endoribonuclease. Nashimoto M, et al.
Biochemistry 1999 Sep 14;38(37):12089–96

Selection of cleavage site by mammalian tRNA 3' processing endoribonuclease. Nashimoto M, et al. **J Mol Biol** 1999 Apr 9;287(4):727–40

RNA, TRANSFER, ASN

Transfer RNA modification status influences retroviral ribosomal frameshifting. Carlson BA, et al. **Virology** 1999 Mar 1;255(1):2–8

RNA, TRANSFER, ASN

GENETICS

Suppression of a mitochondrial tRNA gene mutation phenotype associated with changes in the nuclear background. Hao H, et al. **Hum Mol Genet** 1999 Jun; 8(6):1117-24

METABOLISM

Thermus thermophilus: a link in evolution of the tRNA-dependent amino acid amidation pathways. Becker HD, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12832-7

RNA, TRANSFER, ASP

CHEMISTRY

Crystals of Thermus thermophilus tRNAAsp complexed with its cognate aspartyl-tRNA synthetase have a solvent content of 75%. Comparison with other aminoacylation systems. Briand C, et al.
Acta Crystallogr D Biol Crystallogr 1998 Nov 1;54(2 (Pt 6)):1382-6

Mimics of yeast tRNAAsp and their recognition by aspartyl-tRNA synthetase. Wolfson AD, et al.
Biochemistry 1999 Sep 14;38(37):11926-32

Molecular dynamics simulations of solvated yeast tRNA(Asp). Auffinger P, et al. **Biophys J** 1999 Jan;76(1 Pt 1):50-64

The identity determinants required for the discrimination between tRNAGlu and tRNAAsp by glutamyl-tRNA synthetase from Escherichia coli. Sekine S, et al.
Eur J Biochem 1999 Apr;261(2):354-60

Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761-73

DRUG EFFECTS

Knocking out a specific tRNA species within unfractionated Escherichia coli tRNA by using antisense (complementary) oligodeoxyribonucleotides. Kanda T, et al. **FEBS Lett** 1998 Dec 4;440(3):273-6

METABOLISM

Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761-73

Thermus thermophilus: a link in evolution of the tRNA-dependent amino acid amidation pathways. Becker HD, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27; 95(22):12832-7

Determination of 2'-hydroxyl and phosphate groups important for aminoacylation of Escherichia coli tRNAAsp: a nucleotide analogue interference study. Vörtler CS, et al. **RNA** 1998 Nov;4(11):1444-54

RNA, TRANSFER, CYS

CHEMISTRY

The crystal structure of Cys-tRNACys-EF-Tu-GDPNP reveals general and specific features in the ternary complex and in tRNA. Nissen P, et al. **Structure Fold Des** 1999 Feb 15;7(2):143-56

GENETICS

Processing and editing of overlapping tRNAs in human mitochondria. Reichert A, et al. **J Biol Chem** 1998 Nov 27;273(48):31977-84

The hypotrichous ciliate Euplotes octocarinatus has only one type of tRNACys with GCA anticodon encoded on a single macronuclear DNA molecule. Grimm M, et al.
Nucleic Acids Res 1998 Oct 15;26(20):4557-65

RNA, TRANSFER, GLN

CHEMISTRY

An engineered class I transfer RNA with a class II tertiary fold. Nissan TA, et al. **RNA** 1999 Mar;5(3):434-45

GENETICS

Major identity element of glutamine tRNAs from Bacillus subtilis and Escherichia coli in the reaction with B. subtilis glutamyl-tRNA synthetase. Kim SI, et al. **Mol Cells** 1998 Aug 31;8(4):459-65

Nucleotide sequences and functional characterization of two tobacco UAG suppressor tRNA(Gln) isoacceptors and their genes. Grimm M, et al. **Plant Mol Biol** 1998 Nov; 38(5):689-97

tRNA(2Gln) mutants that translate the CGA arginine codon as glutamine in Escherichia coli. Tsai F, et al. **RNA** 1998 Dec;4(12):1514-22

RNA, TRANSFER, GLU

CHEMISTRY

The identity determinants required for the discrimination between tRNAGlu and tRNAAsp by glutamyl-tRNA synthetase from Escherichia coli. Sekine S, et al.
Eur J Biochem 1999 Apr;261(2):354-60

The modification of the wobble base of tRNAGlu modulates the translation rate of glutamic acid codons in vivo. Krüger MK, et al. **J Mol Biol** 1998 Dec 4;284(3):621-31

Magnesium-dependent alternative foldings of active and inactive Escherichia coli tRNA(Glu) revealed by chemical probing. Madore E, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3583-8

GENETICS

Control of nitrogen catabolite repression is not affected by the tRNAGln-CUU mutation, which results in constitutive pseudohyphal growth of Saccharomyces cerevisiae. Beeser AE, et al. **J Bacteriol** 1999 Apr;181(8):2472-6

Genealogy of families of SINEs in cetaceans and artiodactyls: the presence of a huge superfamily of tRNA(Glu)-derived families of SINEs. Shimamura M, et al. **Mol Biol Evol** 1999 Aug;16(8):1046-60

METABOLISM

Aminoacylation of hypomodified tRNAGlu in vivo. Krüger MK, et al. **J Mol Biol** 1998 Dec 4;284(3):609-20

RNA, TRANSFER, GLY

GENETICS

Mutations which alter the elbow region of tRNA2Gly reduce T4 gene 60 translational bypassing efficiency. Herr AJ, et al. **EMBO J** 1999 May 17;18(10):2886-96

Repopulation of rho0 cells with mitochondria from a patient with a mitochondrial DNA point mutation in tRNA(Gly) results in respiratory chain dysfunction. Raha S, et al.
Hum Mutat 1999;13(3):245-54

A novel tRNA-associated locus (trl) from Helicobacter pylori is co-transcribed with tRNA(Gly) and reveals genetic diversity. Dundon WG, et al. **Microbiology** 1999 Jun;145 (Pt 6):1289-98

The mutA mistranslator tRNA-induced mutator phenotype requires recA and recB genes, but not the derepression of lexA-regulated functions. Ren L, et al.
Mol Microbiol 1999 May;32(3):607-15

METABOLISM

Functional interaction between tRNA2Gly2 at the ribosomal P-site and RF1 during termination at UAG. Zhang S, et al. **J Mol Biol** 1998 Dec 18;284(5):1243-6

Differential import of nuclear-encoded tRNAGly isoacceptors into solanum Tuberosum mitochondria. Brubacher-Kauffmann S, et al. **Nucleic Acids Res** 1999 May 1;27(9):2037-42

An extra tRNAGly(U*CU) found in ascidian mitochondria responsible for decoding non-universal codons AGA/AGG as glycine. Kondow A, et al.
Nucleic Acids Res 1999 Jun 15;27(12):2554-9

RNA, TRANSFER, HIS

GENETICS

Histidine operon deattenuation in dnaA mutants of Salmonella typhimurium correlates with a decrease in the gene dosage ratio between tRNA(His) and histidine biosynthetic loci. Blanc-Potard AB, et al. **J Bacteriol** 1999 May;181(9):2938-41

The 3' end CCA of mature tRNA is an antideterminant for eukaryotic 3'-tRNase. Mohan A, et al. **RNA** 1999 Feb; 5(2):245-56

METABOLISM

Amino acid acceptor identity switch of Escherichia coli tmRNA from alanine to histidine in vitro. Nameki N, et al. **J Mol Biol** 1999 May 28;289(1):1-7

RNA, TRANSFER, ILE

CHEMISTRY

Insights into editing from an ile-tRNA synthetase structure with tRNAile and mupirocin. Silvian LF, et al. **Science** 1999 Aug 13;285(5430):1074-7

GENETICS

Use of the polymerase chain reaction for rapid detection of high-level mupirocin resistance in staphylococci. Anthony RM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan; 18(1):30-4

METABOLISM

Insights into editing from an ile-tRNA synthetase structure with tRNAile and mupirocin. Silvian LF, et al. **Science** 1999 Aug 13;285(5430):1074-7

RNA, TRANSFER, LEU

CHEMISTRY

Modified nucleosides in the first positions of the anticodons of tRNA(Leu)4 and tRNA(Leu)5 from Escherichia coli. Horie N, et al. **Biochemistry** 1999 Jan 5;38(1):207-17

GENETICS

Discrimination of tRNALeu isoacceptors by the insertion mutant of Escherichia coli leucyl-tRNA synthetase. Li T, et al. **Biochemistry** 1999 Jul 13;38(28):9084-8

Does mitochondrial genome mutation in subjects with maternally inherited diabetes and deafness decrease severity of diabetic retinopathy? Holmes-Walker DJ, et al.
Diabet Med 1998 Nov;15(11):946-52

Renal complications in patients with diabetes mellitus associated with an A to G mutation of mitochondrial DNA at the 3243 position of leucine tRNA. Nakamura S, et al.
Diabetes Res Clin Pract 1999 Jun;44(3):183-9

Functional and morphological abnormalities of mitochondria harbouring the tRNA(Leu)(UUR) mutation in mitochondrial DNA derived from patients with maternally inherited diabetes and deafness (MIDD) and progressive kidney disease. van den Ouweland JM, et al.
Diabetologia 1999 Apr;42(4):485-92

Mitochondrial tRNALeu isoforms in lung carcinoma cybrid cells containing the np 3243 mtDNA mutation. El Meziane A, et al. **Hum Mol Genet** 1998 Dec;7(13):2141-7

Mitochondrial myopathy, encephalopathy, lactic acidosis, and stroke-like episodes with deterioration during pregnancy. Yanagawa T, et al. **Intern Med** 1998 Sep; 37(9):780-3

Multiple mechanisms are used for growth rate and stringent control of leuV transcriptional initiation in Escherichia coli. Pokholok DK, et al. **J Bacteriol** 1999 Sep;181(18):5771-82

Activation of Escherichia coli leuV transcription by FIS. Ross W, et al. **J Bacteriol** 1999 Jun;181(12):3864-8

Complex evolutionary patterns of tRNA Leu/UAA group I introns in cyanobacterial radiation. Rudi K, et al.
J Bacteriol 1999 Jun;181(11):3445-51

Processing and editing of overlapping tRNAs in human mitochondria. Reichert A, et al. **J Biol Chem** 1998 Nov 27;273(48):31977-84

Single-cell analysis of mitochondrial DNA in patients and a carrier of the tRNA(Leu)(UUR) gene mutation. Saitoh S, et al. **J Inherit Metab Dis** 1999 Jun;22(5):608-14

A new mitochondrial DNA mutation (A3288G) in the tRNA(Leu(UUR)) gene associated with familial myopathy. Hadjigeorgiou GM, et al. **J Neurol Sci** 1999 Apr 1; 164(2):153-7

The mitochondrial DNA A3243G mutation in Portugal: clinical and molecular studies in 5 families. Vilarinho L, et al. **J Neurol Sci** 1999 Mar 1;163(2):168-74

Rapid progression of cardiomyopathy in mitochondrial diabetes. Momiyama Y, et al. **Jpn Circ J** 1999 Feb; 63(2):130-2

Cochlear histopathology associated with mitochondrial transfer RNA(Leu(UUR)) gene mutation. Yamasoba T, et al. **Neurology** 1999 May 12;52(8):1705-7

Search for differences in post-transcriptional modification patterns of mitochondrial DNA-encoded wild-type and mutant human tRNALys and tRNALeu(UUR). Helm M, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):756-63

Prevalence of macular pattern dystrophy in maternally inherited diabetes and deafness. GEDIAM Group. Massin P, et al. **Ophthalmology** 1999 Sep;106(9):1821-7

Pigmentary retinal dystrophy and the syndrome of maternally inherited diabetes and deafness caused by the mitochondrial DNA 3243 tRNA(Leu) A to G mutation. Smith PR, et al. **Ophthalmology** 1999 Jun;106(6):1101-8

Maternally inherited mitochondrial cardiomyopathy associated with a C-to-T transition at nucleotide 3303 of mitochondrial DNA in the tRNA(Leu(UUR)) gene. Goldstein JD, et al. **Pediatr Dev Pathol** 1999 Jan-Feb; 2(1):78-85 (14 ref.)

Hereditary glomerulopathy associated with a mitochondrial tRNA(Leu) gene mutation. Cheong HI, et al.
Pediatr Nephrol 1999 Aug;13(6):477-80

Intergenic sequences of clustered tRNA genes: new type of genetic marker for phylogenetic studies, with application to the taxonomy of liverworts. Fiedorow P, et al.
Plant Mol Biol 1998 Dec;38(6):1257-61

[Comparison of clinical pictures of mitochondrial encephalomyopathy with tRNA(Leu(UUR)) mutation in 3243 with that in 3254] Mitsuoka T, et al.
No To Shinkei 1998 Dec;50(12):1089-92 (8 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Induced fit in initial selection and proofreading of aminoacyl-tRNA on the ribosome. Pape T, et al.
EMBO J 1999 Jul 1;18(13):3800-7

RNA, TRANSFER, LYS

CHEMISTRY

Misacylation of tRNALys with noncognate amino acids by lysyl-tRNA synthetase. Jakubowski H. **Biochemistry** 1999 Jun 22;38(25):8088-93

Design, characterization and testing of tRNA3Lys-based hammerhead ribozymes. Medina MF, et al. **Nucleic Acids Res** 1999 Apr 1;27(7):1698–708

Nucleoside modifications affect the structure and stability of the anticodon of tRNA(Lys,3). Davis DR, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1579–81

GENETICS

Impaired insulin secretion in Japanese diabetic subjects with an A–to–G mutation at nucleotide 8296 of the mitochondrial DNA in tRNA(Lys) [letter] Kameoka K, et al. **Diabetes Care** 1998 Nov;21(11):2034–5

Structural basis for the specificity of the initiation of HIV–1 reverse transcription. Isel C, et al. **EMBO J** 1999 Feb 15; 18(4):1038–48

Identification in Portugal and Brazil of a mtDNA lineage containing a 9–bp triplication of the intergenic COII/tRNALys region. Alves–Silva J, et al. **Hum Hered** 1999 Jan;49(1):56–8

A novel heteroplasmic point mutation in the mitochondrial tRNA(Lys) gene in a sporadic case of mitochondrial encephalomyopathy: de novo mutation and no transmission to the offspring. Houshmand M, et al. **Hum Mutat** 1999; 13(3):203–9

Reduced misreading of asparagine codons by Escherichia coli tRNALys with hypomodified derivatives of 5–methylaminomethyl–2–thiouridine in the wobble position. Hagervall TG, et al. **J Mol Biol** 1998 Nov 20; 284(1):33–42

A double mutation (A8296G and G8363A) in the mitochondrial DNA tRNA (Lys) gene associated with myoclonus epilepsy with ragged–red fibers. Arenas J, et al. **Neurology** 1999 Jan 15;52(2):377–82

Expanding the phenotype of the 8344 transfer RNAlysine mitochondrial DNA mutation. Austin SA, et al. **Neurology** 1998 Nov;51(5):1447–50

A novel mutation (8342G–>A) in the mitochondrial tRNA(Lys) gene associated with progressive external ophthalmoplegia and myoclonus. Tiranti V, et al. **Neuromuscul Disord** 1999 Mar;9(2):66–71

Search for differences in post–transcriptional modification patterns of mitochondrial DNA–encoded wild–type and mutant human tRNALys and tRNALeu(UUR). Helm M, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):756–63

Intra–tRNA distance measurements for nucleocapsid proteindependent tRNA unwinding during priming of HIV reverse transcription. Chan B, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):459–64

Forty million years of mutualism: evidence for eocene origin of the yucca–yucca moth association. Pellmyr O, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9178–83

Single atom modification (O–>S) of tRNA confers ribosome binding. Ashraf SS, et al. **RNA** 1999 Feb; 5(2):188–94

METABOLISM

Different adaptations of the same peptide motif for tRNA functional contacts by closely homologous tRNA synthetases. Steer BA, et al. **Biochemistry** 1999 Apr 20; 38(16):4965–71

The aminoacceptor stem of the yeast tRNA(Lys) contains determinants of mitochondrial import selectivity. Kazakova HA, et al. **FEBS Lett** 1999 Jan 15;442(2–3):193–7

Role of post–transcriptional modifications of primer tRNALys,3 in the fidelity and efficacy of plus strand DNA transfer during HIV–1 reverse transcription. Auxilien S, et al. **J Biol Chem** 1999 Feb 12;274(7):4412–20

Cross–linking localization of a HIV–1 reverse transcriptase peptide involved in the binding of primer tRNALys3. Dufour E, et al. **J Mol Biol** 1999 Jan 29;285(4):1339–46

Detection of anticodon nuclease residues involved in tRNALys cleavage specificity. Meidler R, et al. **J Mol Biol** 1999 Apr 2;287(3):499–510

PHYSIOLOGY

Implication of the tRNA initiation step for human immunodeficiency virus type 1 reverse transcriptase in the mechanism of 3'–azido–3'–deoxythymidine (AZT) resistance. Vaccaro JA, et al. **Biochemistry** 1998 Oct 6; 37(40):14189–94

Identification of a human immunodeficiency virus type 1 that stably uses tRNALys1,2 rather than tRNALys,3 for initiation of reverse transcription. Kang SM, et al. **Virology** 1999 Apr 25;257(1):95–105

RNA, TRANSFER, MET

CHEMISTRY

Preliminary characterization by X–ray diffraction and Raman spectroscopy of a crystalline complex of Bacillus stearothermophilus initiation factor 2 C–domain and fMet–tRNAfMet. Förster C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):712–6

Crystallization and preliminary X–ray analysis of Escherichia coli methionyl–tRNAMet(f) formyltransferase complexed with formyl–methionyl–tRNAMet(f). Schmitt E, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):332–4

Crystal structure of methionyl–tRNAfMet transformylase complexed with the initiator formyl–methionyl–tRNAfMet. Schmitt E, et al. **EMBO J** 1998 Dec 1;17(23):6819–26

Genetic analysis of a unique human immunodeficiency virus type 1 (HIV–1) with a primer binding site complementary to tRNAMet supports a role for U5–PBS stem–loop RNA structures in initiation of HIV–1 reverse transcription. Kang SM, et al. **J Virol** 1999 Mar;73(3):1818–27

Induced fit of a peptide loop of methionyl–tRNA formyltransferase triggered by the initiator tRNA substrate. Ramesh V, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):875–80

GENETICS

The first pathogenic mitochondrial methionine tRNA point mutation is discovered in splenic lymphoma. Lombes A, et al. **Hum Mutat** 1998;Suppl 1:S175–83

The yeast retrotransposon Ty5 uses the anticodon stem–loop of the initiator methionine tRNA as a primer for reverse transcription. Ke N, et al. **RNA** 1999 Jul;5(7):929–38

ISOLATION & PURIFICATION

Crystallization and preliminary X–ray analysis of Escherichia coli methionyl–tRNAMet(f) formyltransferase complexed with formyl–methionyl–tRNAMet(f). Schmitt E, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):332–4

METABOLISM

The essential Gcd10p–Gcd14p nuclear complex is required for 1–methyladenosine modification and maturation of initiator methionyl–tRNA. Anderson J, et al. **Genes Dev** 1998 Dec 1;12(23):3650–62

Formylation is not essential for initiation of protein synthesis in all eubacteria. Newton DT, et al. **J Biol Chem** 1999 Aug 6;274(32):22143–6

Activation of microhelix charging by localized helix destabilization. Alexander RW, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12214–9

Induced fit of a peptide loop of methionyl–tRNA formyltransferase triggered by the initiator tRNA substrate. Ramesh V, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):875–80

PHYSIOLOGY

GCD14p, a repressor of GCN4 translation, cooperates with Gcd10p and Lhp1p in the maturation of initiator methionyl–tRNA in Saccharomyces cerevisiae. Calvo O, et al. **Mol Cell Biol** 1999 Jun;19(6):4167–81

RNA, TRANSFER, METHYLTRANSFERASES see **TRNA METHYLTRANSFERASES**

RNA, TRANSFER, PHE

tRNA prefers to kiss. Scarabino D, et al. **EMBO J** 1999 Aug 16;18(16):4571–8

Transfer RNA modification status influences retroviral ribosomal frameshifting. Carlson BA, et al. **Virology** 1999 Mar 1;255(1):2–8

CHEMISTRY

Thermodynamic contribution of nucleoside modifications to yeast tRNA(Phe) anticodon stem loop analogs. Agris PF, et al. **Acta Biochim Pol** 1999;46(1):163–72

A distinctive RNA fold: the solution structure of an analogue of the yeast tRNAPhe T Psi C domain. Koshlap KM, et al. **Biochemistry** 1999 Jul 6;38(27):8647–56

Conformational transitions of an unmodified tRNA: implications for RNA folding. Maglott EJ, et al. **Biochemistry** 1998 Nov 17;37(46):16349–59

RNA:pseudouridine synthetase Pus1 from Saccharomyces cerevisiae: oligomerization property and stoichiometry of the complex with yeast tRNA(Phe). Arluison V, et al. **Biochimie** 1999 Jul;81(7):751–6

Dynamical structure of transfer RNA studied by normal mode analysis. Matsumoto A, et al. **Eur Biophys J** 1999; 28(5):369–79

Determining the influence of structure on hybridization using oligonucleotide arrays. Mir KU, et al. **Nat Biotechnol** 1999 Aug;17(8):788–92

Structural and functional roles of the N1– and N3–protons of psi at tRNA's position 39. Yarian CS, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3543–9

Interaction of complementary oligonucleotides with the 3'–end of yeast tRNA(Phe). Petyuk V, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1459–61

[Unfolding of the tRNA(Phe) structure by complementary oligonucleotides] Zenkova MA, et al. **Dokl Akad Nauk** 1998 Jul;361(2):260–3 **(Rus)**

DRUG EFFECTS

Peptidyl transferase antibiotics perturb the relative positioning of the 3'–terminal adenosine of P/P'–site–bound tRNA and 23S rRNA in the ribosome. Kirillov SV, et al. **RNA** 1999 Aug;5(8):1003–13

GENETICS

Affinity modification of phenylalanyl–tRNA synthetase from Thermus thermophilus by tRNAPhe transcripts containing 4–thiouridine. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1044–50

Hybridization of antisense oligonucleotides with the 3'part of tRNA(Phe). Petyuk VA, et al. **FEBS Lett** 1999 Feb 12;444(2–3):217–21

METABOLISM

Recognition of a pre–tRNA substrate by the Bacillus subtilis RNase P holoenzyme. Loria A, et al. **Biochemistry** 1998 Nov 3;37(44):15466–73

Affinity modification of phenylalanyl–tRNA synthetase from Thermus thermophilus by tRNAPhe transcripts containing 4–thiouridine. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1044–50

Localization of the binding site for the 3'–terminal sequence of tRNAPhe in subunits of phenylalanyl–tRNA synthetase from Thermus thermophilus. Moor NA, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1051–6

Experimental models of protein–RNA interaction: isolation and analyses of tRNA(Phe) and U1 snRNA–binding peptides from bacteriophage display libraries. Agris PF, et al. **J Protein Chem** 1999 May;18(4):425–35

The uridine in "U–turn": contributions to tRNA–ribosomal binding. Ashraf SS, et al. **RNA** 1999 Apr;5(4):503–11

[Imidazole compounds simulated active center of ribonuclease A. Synthesis and RNA cleaving activity] Sil'nikov VN, et al. **Dokl Akad Nauk** 1999 Feb;364(5):690–4 **(Rus)**

RNA, TRANSFER, PRECURSORS see **RNA PRECURSORS**

RNA, TRANSFER, PRO

GENETICS

Isolation and characterization of Synechococcus PCC7942 promoters: tRNApro gene functions as a promoter. Chungjatupornchai W, et al. **Curr Microbiol** 1999 Apr; 38(4):210–6

RNA, TRANSFER, SER

The deafness–associated mitochondrial DNA mutation at position 7445, which affects tRNASer(UCN) precursor processing, has long–range effects on NADH dehydrogenase subunit ND6 gene expression. Guan MX, et al. **Mol Cell Biol** 1998 Oct;18(10):5868–79

CHEMISTRY

Determination of the angle between the acceptor and anticodon stems of a truncated mitochondrial tRNA. Frazer–Abel AA, et al. **J Mol Biol** 1999 Jan 15; 285(2):581–93

Higher–order structure and thermal instability of bovine mitochondrial tRNASerUGA investigated by proton NMR spectroscopy. Hayashi I, et al. **J Mol Biol** 1998 Nov 20; 284(1):57–69

GENETICS

In vitro codon–reading specificities of unmodified tRNA molecules with different anticodons on the sequence background of Escherichia coli tRNASer. Takai K, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):662–7

Hearing impairment and neurological dysfunction associated with a mutation in the mitochondrial tRNASer(UCN) gene. Verhoeven K, et al. **Eur J Hum Genet** 1999 Jan;7(1):45–51

A single uridine modification at the wobble position of an artificial tRNA enhances wobbling in an Escherichia coli cell–free translation system. Takai K, et al. **FEBS Lett** 1999 Mar 19;447(1):1–4

Mytilus mitochondrial DNA contains a functional gene for a tRNASer(UCN) with a dihydrouridine arm–replacement loop and a pseudo–tRNASer(UCN) gene. Beagley CT, et al. **Genetics** 1999 Jun;152(2):641–52

Maternally inherited hearing loss in a large kindred with a novel T7511C mutation in the mitochondrial DNA tRNA(Ser(UCN)) gene. Sue CM, et al. **Neurology** 1999 Jun 10;52(9):1905–8

METABOLISM

C–terminal truncation of yeast SerRS is toxic for Saccharomyces cerevisiae due to altered mechanism of substrate recognition. Lenhard B, et al. **FEBS Lett** 1998 Nov 20;439(3):235–40

RNA, TRANSFER, THR

Pitfalls in the diagnosis of mtDNA mutations [letter] Seneca S, et al. **J Med Genet** 1998 Nov;35(11):963–4

RNA, TRANSFER, TRP

tRNATrp as a key element of antitermination in the Lactococcus lactis trp operon. van de Guchte M, et al. **Mol Microbiol** 1998 Jul;29(1):61–74

GENETICS

Primer tRNA(Trp) of RSV–transformed or RAV–1–infected

RNA, TRANSFER, TRP

cells up-regulates the antiribosomal activity of gelonin. Brigotti M, et al. **Biochimie** 1998 Jul;80(7):575–8

Identity elements and aminoacylation of plant tRNATrp. Ulmasov B, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5139–41

METABOLISM

Changes in Rous sarcoma virus RNA secondary structure near the primer binding site upon tRNATrp primer annealing. Morris S, et al. **J Virol** 1999 Aug;73(8):6307–18

Identity elements and aminoacylation of plant tRNATrp. Ulmasov B, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5139–41

RNA, TRANSFER, TYR

CHEMISTRY

[Comparative analysis of interaction sites of Thermus thermophilus and Escherichia coli tRNA(Tyr) with homologous aminoacyl-tRNA synthetases by means of chemical modification and nuclease hydrolysis] Egorova SP, et al. **Bioorg Khim** 1998 Aug;24(8):593–600 (Eng. Abstr.) **(Rus)**

GENETICS

Ribozyme processed tRNA transcripts with unfriendly internal promoter for T7 RNA polymerase: production and activity [published erratum appears in FEBS Lett 1998 Dec 18;441(2):342] Fechter P, et al. **FEBS Lett** 1998 Sep 25; 436(1):99–103

Co-expression of yeast amber suppressor tRNATyr and tyrosyl-tRNA synthetase in Escherichia coli: possibility to expand the genetic code. Ohno S, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1065–8

Minor groove DNA-protein contacts upstream of a tRNA gene detected with a synthetic DNA binding ligand. McBryant SJ, et al. **J Mol Biol** 1999 Mar 5;286(4):973–81

In vivo import of unspliced tRNATyr containing synthetic introns of variable length into mitochondria of Leishmania tarentolae. Sbicego S, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5251–5

METABOLISM

Functional characterization of the D-Tyr-tRNATyr deacylase from Escherichia coli. Soutourina J, et al. **J Biol Chem** 1999 Jul 2;274(27):19109–14

RNA, TRANSFER, VAL

CHEMISTRY

Synthetase recognition determinants of E. coli valine transfer RNA. Horowitz J, et al. **Biochemistry** 1999 Jun 15; 38(24):7737–46

GENETICS

tRNAVal-heterodimeric maxizymes with high potential as geneinactivating agents: simultaneous cleavage at two sites in HIV-1 Tat mRNA in cultured cells. Kuwabara T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1886–91

METABOLISM

Factors governing the activity in vivo of ribozymes transcribed by RNA polymerase III. Koseki S, et al. **J Virol** 1999 Mar;73(3):1868–77

Formation of a catalytically active dimer by tRNA(Val)-driven short ribozymes. Kuwabara T, et al. **Nat Biotechnol** 1998 Oct;16(10):961–5

tRNAVal-heterodimeric maxizymes with high potential as geneinactivating agents: simultaneous cleavage at two sites in HIV-1 Tat mRNA in cultured cells. Kuwabara T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1886–91

RNA TUMOR VIRUSES see **RETROVIRIDAE**

RNA, VIRAL

RNA recombination in brome mosaic virus, a model plus strand RNA virus. Figlerowicz M, et al. **Acta Biochim Pol** 1998;45(4):847–68 (113 ref.)

Sequence elements involved in the rescue of IBV defective RNA CD-91. Dalton K, et al. **Adv Exp Med Biol** 1998; 440:253–7

Utilising a defective IBV RNA for heterologous gene expression with potential prophylactic application. Evans SA, et al. **Adv Exp Med Biol** 1998;440:687–92

Subgenomic RNA7 is transcribed with different leader-body junction sites in PRRSV (strain VR2332) infection of CL2621 cells. Faaberg KS, et al. **Adv Exp Med Biol** 1998; 440:275–9

Inhibitory effects of modified oligonucleotides complementary to the leader RNA on the multiplication of mouse hepatitis virus. Hayashi M, et al. **Adv Exp Med Biol** 1998;440:701–5

Sequence determination and genetic analysis of the leader region of various equine arteritis virus isolates. Kheyar A, et al. **Adv Exp Med Biol** 1998;440:805–12

Characterization of coronavirus DI RNA packaging. Kim KH, et al. **Adv Exp Med Biol** 1998;440:347–53

Regulation of mRNA 1 expression by the 5'-untranslated region (5'-UTR) of the coronavirus infectious bronchitis virus (IBV). Liu DX, et al. **Adv Exp Med Biol** 1998; 440:303–11

Quasispecies development by high frequency RNA recombination during MHV persistence. Rowe CL, et al. **Adv Exp Med Biol** 1998;440:759–65

Rescue of IBV D-RNA by heterologous helper virus strains. Stirrups K, et al. **Adv Exp Med Biol** 1998;440:259–64

Mouse hepatitis virus nucleocapsid protein as a translational effector of viral mRNAs. Tahara SM, et al. **Adv Exp Med Biol** 1998;440:313–8

HIV-1 RNA response to antiretroviral treatment in 1280 participants in the Delta Trial: an extended virology study. Delta Coordinating Committee and Delta Virology Committee. **AIDS** 1999 Jan 14;13(1):57–65

Sequences downstream of the RNA initiation site of the HTLV type I long terminal repeat are sufficient for trans-activation by human cytomegalovirus immediate-early proteins. Kim JM, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):545–50

HIV-1: fifteen proteins and an RNA. Frankel AD, et al. **Annu Rev Biochem** 1998;67:1–25 (134 ref.)

Classification of reverse transcribing elements: a discussion document [news] Hull R. **Arch Virol** 1999;144(1):209–13; discussion 213–4

A comparison of six cypovirus isolates by cross-hybridisation of their dsRNA genome segments. Mertens PP, et al. **Arch Virol** 1999;144(3):561–76

Genetic analysis of large-sized RNA 2 species of a TCM-like tobacco rattle virus source from spinach. Schmidt K, et al. **Arch Virol** 1999;144(3):503–11

Encapsidated circular viroid-like satellite RNAs (virusoids) of plants. Symons RH, et al. **Curr Top Microbiol Immunol** 1999;239:81–105 (73 ref.)

Arginine-aminoglycoside conjugates that bind to HIV transactivation responsive element RNA in vitro. Litovchick A, et al. **FEBS Lett** 1999 Feb 19;445(1):73–9

Direct in situ reverse transcriptase-linked polymerase chain reaction with biotinylated primers for the detection of hepatitis C virus RNA in liver biopsies. Bettinger D, et al. **J Clin Virol** 1999 May;12(3):233–41

Variations in HIV-RNA viral load and CD4 counts of infants and children receiving antiretroviral drug therapy [letter] Sever JL, et al. **J Clin Virol** 1999 Jan;12(1):71–4

The E2 protein of human papillomavirus type 16 is translated from a variety of differentially spliced polycistronic mRNAs. Alloul N, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):29–37

Evolutionary pattern of the G glycoprotein of human respiratory syncytial viruses from antigenic group B: the use of alternative termination codons and lineage diversification. Martinez I, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):125–30

RNA editing-like phenomenon in paramyxovirus V gene mRNA observed in insect cells infected with a recombinant baculovirus. Matsumura H, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):117–23

'Primer alignment-and-extension': a novel mechanism of viral RNA recombination responsible for the rescue of inactivated poliovirus cDNA clones. Pierangeli A, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):1889–97

A short open reading frame terminating in front of a stable hairpin is the conserved feature in pregenomic RNA leaders of plant pararetroviruses. Pooggin MM, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2217–28

A novel internal open reading frame product expressed from a polycistronic mRNA of porcine epidemic diarrhoea virus may not contribute to virus attenuation. Singh M. **J Gen Virol** 1999 Aug;80 (Pt 8):1959–63

Co-expression of a trans-dominant negative mutant of the human immunodeficiency virus type 1 (HIV-1) Rev protein affects the Rev-dependent splicing pattern and expression of HIV-1 RNAs. Szilvay AM, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):1965–74

A naturally occurring deleted form of RNA 2 of Potato mop-top virus. Torrance L, et al. **J Gen Virol** 1999 Aug; 80 (Pt 8):2211–5

Molecular characterization of double-stranded RNA segments encoding the major capsid proteins of a Palyam serogroup orbivirus that caused an epizootic of congenital abnormalities in cattle. Yamakawa M, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):205–8

The minor coat protein of beet yellows closterovirus encapsidates the 5' terminus of RNA in virions. Zinovkin RA, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):269–72

Antiviral effects of antisense RNA on hepatitis C virus RNA translation and expression. Wakita T, et al. **J Med Virol** 1999 Mar;57(3):217–22

Equilibrium unfolding pathway of an H-type RNA pseudoknot which promotes programmed -1 ribosomal frameshifting. Theimer CA, et al. **J Mol Biol** 1999 Jun 25;289(5):1283–99

Degree and distribution of variability in the 5' untranslated, E1, E2/NS1 and NS5 regions of the hepatitis C virus (HCV). Vizmanos JL, et al. **J Viral Hepat** 1998 Jul; 5(4):227–40

Genetic studies exposing the splicing events involved in herpes simplex virus type 1 latency-associated transcript production during lytic and latent infection. Alvira MR, et al. **J Virol** 1999 May;73(5):3866–76

Point mutations in the avian sarcoma/leukosis virus 3' untranslated region result in a packaging defect. Aschoff JM, et al. **J Virol** 1999 Sep;73(9):7421–9

Proteolytic activity, the carboxy terminus of Gag, and the primer binding site are not required for Pol incorporation into foamy virus particles. Baldwin DN, et al. **J Virol** 1999 Aug;73(8):6387–93

Expression of mouse mammary tumor virus superantigen mRNA in the thymus correlates with kinetics of self-reactive T-cell loss. Barnett A, et al. **J Virol** 1999 Aug; 73(8):6634–45

Nonhomologous RNA recombination in bovine viral diarrhea virus: molecular characterization of a variety of subgenomic RNAs isolated during an outbreak of fatal mucosal disease. Becher P, et al. **J Virol** 1999 Jul; 73(7):5646–53

The role of Pr55(gag) in the annealing of tRNA3Lys to human immunodeficiency virus type 1 genomic RNA. Cen S, et al. **J Virol** 1999 May;73(5):4485–8

Mutagenic analysis of the 3'cis-acting elements of the rubella virus genome. Chen MH, et al. **J Virol** 1999 Apr; 73(4):3386–403

Contributions of viral splice sites and cis-regulatory elements to lentivirus vector function. Cui Y, et al. **J Virol** 1999 Jul;73(7):6171–6

The human immunodeficiency virus type 1 Gag polyprotein has nucleic acid chaperone activity: possible role in dimerization of genomic RNA and placement of tRNA on the primer binding site. Feng YX, et al. **J Virol** 1999 May;73(5):4251–6

An intact TAR element and cytoplasmic localization are necessary for efficient packaging of human immunodeficiency virus type 1 genomic RNA. Helga-Maria C, et al. **J Virol** 1999 May;73(5):4127–35

Replication and packaging of transmissible gastroenteritis coronavirus-derived synthetic minigenomes. Izeta A, et al. **J Virol** 1999 Feb;73(2):1535–45

Intron retention may regulate expression of Epstein-Barr virus nuclear antigen 3 family genes. Kienzle N, et al. **J Virol** 1999 Feb;73(2):1195–204

The gag domains required for avian retroviral RNA encapsidation determined by using two independent assays. Lee Eg, et al. **J Virol** 1999 Aug;73(8):6282–92

Mechanism of suppression of hepatitis B virus precore RNA transcription by a frequent double mutation. Li J, et al. **J Virol** 1999 Feb;73(2):1239–44

Mutations within four distinct gag proteins are required to restore replication of human immunodeficiency virus type 1 after deletion mutagenesis within the dimerization initiation site. Liang C, et al. **J Virol** 1999 Aug; 73(8):7014–20

Deletion mutagenesis within the dimerization initiation site of human immunodeficiency virus type 1 results in delayed processing of the p2 peptide from precursor proteins. Liang C, et al. **J Virol** 1999 Jul;73(7):6147–51

Spliced mRNA encoding the murine cytomegalovirus chemokine homolog predicts a beta chemokine of novel structure. MacDonald MR, et al. **J Virol** 1999 May; 73(5):3682–91

Translation initiation factor eIF4B interacts with a picornavirus internal ribosome entry site in both 48S and 80S initiation complexes independently of initiator AUG location. Ochs K, et al. **J Virol** 1999 Sep;73(9):7505–14

Studies of the genomic RNA of leukosis viruses: implications for RNA dimerization. Ortiz-Conde BA, et al. **J Virol** 1999 Sep;73(9):7165–74

Rearrangements in the 5' nontranslated region and phylogenetic analyses of cucumber mosaic virus RNA 3 indicate radial evolution of three subgroups. Roossinck MJ, et al. **J Virol** 1999 Aug;73(8):6752–8

Transcript initiation and 5'-end modifications are separable events during vesicular stomatitis virus transcription. Stillman EA, et al. **J Virol** 1999 Sep;73(9):7199–209

Polyvalent Rev decoys act as artificial Rev-responsive elements. Symensma TL, et al. **J Virol** 1999 May; 73(5):4341–9

Recombination between two identical sequences within the same retroviral RNA molecule. Zhang J, et al. **J Virol** 1999 Jul;73(7):5912–7

Poliovirus/Hepatitis C virus (internal ribosomal entry site-core) chimeric viruses: improved growth properties through modification of a proteolytic cleavage site and requirement for core RNA sequences but not for core-related polypeptides. Zhao WD, et al. **J Virol** 1999 Feb;73(2):1546–54

Mechanisms of RNA-mediated resistance to plant viruses. de Haan P. **Methods Mol Biol** 1998;81:533–46

Genetic variation in the 5'end and NS5B regions of classical swine fever virus genome among Japanese isolates. Harasawa R, et al. **Microbiol Immunol** 1999;43(4):373–9

CA- and purine-rich elements form a novel bipartite exon enhancer which governs inclusion of the minute virus of mice NS2-specific exon in both singly and doubly spliced mRNAs. Gersappe A, et al. **Mol Cell Biol** 1999 Jan; 19(1):364–75

Innovative immunity [news] Beardsley T. **Sci Am** 1999 Feb; 280(2):42, 44

Effect of rev on the cytoplasmic localization of intron-containing human immunodeficiency virus type 1 RNA. Favaro JP, et al. **Virology** 1999 Mar 15;255(2):237–49

Sequence of the genomic RNA of nudaurelia beta virus (Tetraviridae) defines a novel virus genome organization. Gordon KH, et al. **Virology** 1999 May 25;258(1):42–53

Inclusion of the NS2-specific exon in minute virus of mice mRNA is facilitated by an intronic splicing enhancer that affects definition of the downstream small intron. Haut DD, et al. **Virology** 1999 May 25;258(1):84–94

Multiple mitochondrial viruses in an isolate of the Dutch Elm disease fungus Ophiostoma novo-ulmi. Hong Y, et al. **Virology** 1999 May 25;258(1):118–27

Involvement of the aphthovirus RNA region located between the two functional AUGs in start codon selection. López de Quinto S, et al. **Virology** 1999 Mar 15;255(2):324–36

Mapping sequences active in homologous RNA recombination in brome mosaic virus: prediction of recombination hot spots. Nagy PD, et al. **Virology** 1999 Feb 1;254(1):92–104

Internal initiation of translation of bovine viral diarrhea virus RNA. Pestova TV, et al. **Virology** 1999 Jun 5;258(2):249–56

Both RNA rearrangement and point mutation contribute to repair of defective chimeric viral genomes to form functional hybrid viruses in plants. Reade R, et al. **Virology** 1999 Jun 5;258(2):217–31

Satellite RNA is essential for encapsidation of groundnut rosette umbravirus RNA by groundnut rosette assistor luteovirus coat protein. Robinson DJ, et al. **Virology** 1999 Feb 1;254(1):105–14

The cleavable carboxyl-terminus of the small coat protein of cowpea mosaic virus is involved in RNA encapsidation. Taylor KM, et al. **Virology** 1999 Mar 1;255(1):129–37

Noncytopathic flavivirus replicon RNA-based system for expression and delivery of heterologous genes. Varnavski AN, et al. **Virology** 1999 Mar 15;255(2):366–75

Minimal sequence and structural requirements of a subgenomic RNA promoter for turnip crinkle virus. Wang J, et al. **Virology** 1999 Jan 20;253(2):327–36

Transcript mapping and transregulatory behavior of varicella-zoster virus gene 21, a latency-associated gene. Xia D, et al. **Virology** 1999 Jun 5;258(2):304–13

Complementarity between 3' terminal nucleotides of tRNA and primer binding site is a major determinant for selection of the tRNA primer used for initiation of HIV-1 reverse transcription. Yu Q, et al. **Virology** 1999 Feb 1;254(1):160–8

Genetic analysis of pestiviruses at the 3' end of the genome. Vilcek S, et al. **Virus Genes** 1999;18(2):107–14

A defective RNA associated with bamboo mosaic virus and the possible common mechanisms for RNA recombination in potexviruses. Yeh TY, et al. **Virus Genes** 1999; 18(2):121–8

Identification of enterovirus 71 isolates from an outbreak of hand, foot and mouth disease (HFMD) with fatal cases of encephalomyelitis in Malaysia. AbuBakar S, et al. **Virus Res** 1999 May;61(1):1–9

Identification of the 5' terminal structure of influenza virus genome RNA by a newly developed enzymatic method. Honda A, et al. **Virus Res** 1998 Jun;55(2):199–206

The E116 isolate of Dutch pea early-browning virus is a recombinant virus. Swanson MM, et al. **Virus Res** 1999 Mar;60(1):87–94

In vivo reconstitution of active Thogoto virus polymerase: assays for the compatibility with other orthomyxovirus core proteins and template RNAs. Weber F, et al. **Virus Res** 1998 Nov;58(1-2):13–20

ADMINISTRATION & DOSAGE

Comparative analysis of humoral immune responses to HIV type 1 envelope glycoproteins in mice immunized with a DNA vaccine, recombinant Semliki Forest virus RNA, or recombinant Semliki Forest virus particles. Brand D, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1369–77

Generation of monoclonal antibodies to native human immunodeficiency virus type 1 envelope glycoprotein by immunization of mice with naked RNA. Giraud A, et al. **J Virol Methods** 1999 Apr;79(1):75–84

ANALYSIS

Evaluation of sperm washing as a potential method of reducing HIV transmission in HIV-discordant couples wishing to have children. Kim LU, et al. **AIDS** 1999 Apr 16;13(6):645–51

Detection of HIV-1 nucleic acid and HIV-1 antibodies in needles and syringes used for non-intravenous injection. Rich JD, et al. **AIDS** 1998 Dec 3;12(17):2345–50

HCV RNA levels in serum, liver, and peripheral blood mononuclear cells of chronic hepatitis C patients and their relationship to liver injury. Adinolfi LE, et al. **Am J Gastroenterol** 1998 Nov;93(11):2162–6

ISA assay for retroviruses [news] **Anal Chem** 1999 Aug 1; 71(15):512A

Low prevalence of hepatitis C virus antibodies and RNA in patients with myocarditis and dilated cardiomyopathy. Grumbach IM, et al. **Cardiology** 1998 Oct;90(2):75–8

Detection of GB virus C/hepatitis G virus RNA by reverse-transcription polymerase chain reaction. Chang J, et al. **Clin Chem Lab Med** 1999 Jan;37(1):33–6

RNA from decades-old archival tissue blocks for retrospective studies. Mizuno T, et al. **Diagn Mol Pathol** 1998 Aug;7(4):202–8

High performance DNA sequencing, and the detection of mutations and polymorphisms, on the Clipper sequencer. Yager TD, et al. **Electrophoresis** 1999 Jun;20(6):1280–300

The persistence of swine vesicular disease virus infection in pigs. Lin F, et al. **Epidemiol Infect** 1998 Oct;121(2):459–72

GBV-C RNA presence in several high-risk groups of Spain. Quirós E, et al. **Eur J Epidemiol** 1998 Sep;14(6):617–9

In situ reverse transcriptase-polymerase chain reaction: an innovative tool for hepatitis C virus RNA detection and localisation, and for quantification of infected cells. Muratori L. **Eur J Histochem** 1998;42(2):133–6 (20 ref.)

Gen-Probe, Chiron and US Red Cross to investigate new technology to provide an extra layer of safety to the blood supply. **Front Med Biol Eng** 1999;9(1):96–8

Search for hepatitis C virus extrahepatic replication sites in patients with acquired immunodeficiency syndrome: specific detection of negative-strand viral RNA in various tissues. Laskus T, et al. **Hepatology** 1998 Nov; 28(5):1398–401

Comparative evaluation of hepatitis C virus RNA quantitation by branched DNA, NASBA, and monitor assays. Lunel F, et al. **Hepatology** 1999 Feb;29(2):528–35

Detection of genomic- and minus-strand of hepatitis C virus RNA in the liver of chronic hepatitis C patients by strand-specific semiquantitative reverse-transcriptase polymerase chain reaction. Negro F, et al. **Hepatology** 1999 Feb;29(2):536–42

Prospective study of interferon therapy for compensated cirrhotic patients with chronic hepatitis C by monitoring serum hepatitis C RNA. Shiratori Y, et al. **Hepatology** 1999 May;29(5):1573–80

Evaluation of a disinfection procedure for hysteroscopes contaminated by hepatitis C virus. Sartor C, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):434–6

Monitoring rotavirus environmental contamination in a pediatric unit using polymerase chain reaction. Soule H, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):432–4

Epstein-Barr virus study in malignant lymphoma in Sjögren's syndrome. Hirose Y, et al. **Int J Hematol** 1999 Apr; 69(3):174–9

Clinical trials using HIV-1 RNA-based primary endpoints: statistical analysis and potential biases. Marschner IC, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):220–7

HIV viral loads reach steady state in the United States [letter] Peter JB. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Jan 1;20(1):99–100

Absence of human astrovirus RNA in sewage and environmental samples. Egglestone SI, et al. **J Appl Microbiol** 1999 Apr;86(4):709–14

The use of molecular technologies for the detection of enteroviral ribonucleic acid in myocarditis. Micevski V. **J Cardiovasc Nurs** 1999 Jul;13(4):78–90 (31 ref.)

Second generation of the automated Cobas Amplicor HCV assay improves sensitivity of hepatitis C virus RNA detection and yields results that are more clinically relevant. Doglio A, et al. **J Clin Microbiol** 1999 May; 37(5):1567–9

Highly sensitive methods for quantitation of human immunodeficiency virus type 1 RNA from plasma, cells, and tissues. Fischer M, et al. **J Clin Microbiol** 1999 May; 37(5):1260–4

Detection of dengue virus RNA in patients after primary or secondary dengue infection by using the TaqMan automated amplification system. Laue T, et al. **J Clin Microbiol** 1999 Aug;37(8):2543–7

No confirmation of pestivirus RNA in human virus vaccines [letter; comment] Vilcek S, et al. **J Clin Microbiol** 1999 May;37(5):1653. Comment on: J Clin Microbiol 1994 Jun;32(6):1604–5.

Application of PCR for various neurotropic viruses on the diagnosis of viral meningitis. Hosoya M, et al. **J Clin Virol** 1998 Aug 20;11(2):117–24

High-throughput extraction, amplification, and detection (HEAD) of HCV-RNA in individual blood donations. Legler TJ, et al. **J Clin Virol** 1999 Jun;13(1-2):95–103

Amplicor HIV monitor, NASBA HIV-1 RNA QT and quantiplex HIV RNA version 2.0 viral load assays: a Canadian evaluation. Prud'homme IT, et al. **J Clin Virol** 1998 Dec;11(3):189–202

Predictive value of different hepatitis C serological assays in the treatment of chronic hepatitis C with interferon alpha. Kobayashi M, et al. **J Gastroenterol** 1999 Feb; 34(1):94–9

Diagnostic value of anti-hepatitis D virus (HDV) antibodies revisited: a study of total and IgM anti-HDV compared with detection of HDV-RNA by polymerase chain reaction. Huang YH, et al. **J Gastroenterol Hepatol** 1998 Jan;13(1):57–61

Pathogenesis of pneumovirus infections in mice: detection of pneumonia virus of mice and human respiratory syncytial virus mRNA in lungs of infected mice by in situ hybridization. Cook PM, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2411–7

Characteristics of patients sero-positive for hepatitis C virus (HCV) antibodies but negative for HCV-RNA by polymerase chain reaction [letter] Hashimoto E, et al. **J Hepatol** 1998 Nov;29(5):856–7

Quantitative analysis of GBV-C RNA in liver and serum by strand-specific reverse transcription-polymerase chain reaction. Kanda T, et al. **J Hepatol** 1998 Nov;29(5):707–14

Absence of the negative strand of GBV-C/HGV RNA from the liver. Laras A, et al. **J Hepatol** 1999 Mar;30(3):383–8

Differential expression and localization of EBER-1 and EBER-2 in Epstein-Barr virus-carrying cells. Teramoto N, et al. **J Hum Virol** 1998 Jul-Aug;1(5):307–13

Monitoring of human cytomegalovirus infections in pediatric bone marrow transplant recipients by nucleic acid sequence-based amplification. Aono T, et al. **J Infect Dis** 1998 Nov;178(5):1244–9

Effect of inhibitors in clinical specimens on Taq and Tth DNA polymerase-based PCR amplification of influenza A virus. Poddar SK, et al. **J Med Microbiol** 1998 Dec; 47(12):1131–5

Prevalence, implication, and viral nucleotide sequence analysis of GB virus-C/hepatitis G virus infection in acute fulminant and nonfulminant hepatitis. Wu JC, et al. **J Med Virol** 1998 Oct;56(2):118–22

Porcine rubulavirus LPMV RNA persists in the central nervous system of pigs after recovery from acute infection. Wiman AC, et al. **J Neurovirol** 1998 Oct;4(5):545–52

Preliminary description of a polymerase chain reaction test for bluetongue and epizootic hemorrhagic disease viral RNA in bovine semen. Wilson WC. **J Vet Diagn Invest** 1999 Jul;11(4):377–9

Reverse transcription-nested polymerase chain reaction for detecting p40 RNA of Borna disease virus, without risk of plasmid contamination. Mizutani T, et al. **J Vet Med Sci** 1999 Jan;61(1):77–80

An international collaborative study on the detection of an HIV-1 genotype B field isolate by nucleic acid amplification techniques. Bootman J, et al. **J Virol Methods** 1999 Mar;78(1-2):21–34

Flow cytometric detection of EBV (EBER snRNA) using peptide nucleic acid probes. Just T, et al. **J Virol Methods** 1998 Aug;73(2):163–74

A competitive reverse transcription-polymerase chain reaction assay for quantitation of GB virus C/hepatitis G virus RNA that circumvents heteroduplex artifact. Liu F, et al. **J Virol Methods** 1999 May;79(2):149–59

Quantitative sense-specific determination of murine coronavirus RNA by reverse transcription polymerase chain reaction. Schoenike B, et al. **J Virol Methods** 1999 Mar;78(1-2):35–49

Use of citric acid for neutralizing polymerase chain reaction inhibition by chlorogenic acid in potato extracts. Singh RP, et al. **J Virol Methods** 1998 Oct;74(2):231–5

A single-tube RT-PCR method for the detection of Borna disease viral genomic RNA. Mizutani T, et al. **Jpn J Vet Res** 1998 Nov;46(2-3):73–81

Single-step reverse transcriptase-polymerase chain reaction for detection of Borna disease virus RNA in vitro and in vivo. Mizutani T, et al. **Jpn J Vet Res** 1999 Feb;46(4):165–9

Polymerase chain reaction detection of Puumala virus RNA in formaldehyde-fixed biopsy material. Heiske A, et al. **Kidney Int** 1999 May;55(5):2062–9

Visualization of enteroviral replication in myocardial tissue by ultrastructural in situ hybridization: identification of target cells and cytopathic effects. Klingel K, et al. **Lab Invest** 1998 Oct;78(10):1227–37

Detection of hepatitis C virus RNA in more than 20-year-old paraffin-embedded liver tissue. Soguero C, et al. **Lab Invest** 1999 Mar;79(3):365–6

Lack of sex difference in CD4 to HIV-1 RNA viral load ratio [letter] Moore RD, et al. **Lancet** 1999 Feb 6; 353(9151):463–4

Relationship of hepatitis C viremia to HIV state and to infection by specific hepatitis C genotypes. Pérez-Gracia T, et al. **Liver** 1999 Aug;19(4):288–93

Persistent infection of hepatitis C virus in the elderly: a clinical and quantitative pathological study of autopsy cases. Sawabe M, et al. **Liver** 1999 Aug;19(4):335–42

Comparative study of 5' UTR and NS3R primers for the detection of GB virus C/hepatitis G virus RNA in Japanese. Tanaka H, et al. **Liver** 1998 Dec;18(6):378–82

Viral kinetics can predict early response to alpha-interferon in chronic hepatitis C. Walsh KM, et al. **Liver** 1998 Jun; 18(3):191–5

Clearance of HCV RNA in a chronic hepatitis C virus-infected patient during acute hepatitis B virus superinfection. Wietzke P, et al. **Liver** 1999 Aug; 19(4):348–53

Reverse transcriptase-polymerase chain reaction fails to detect peripheral-blood hepatitis C RNA in formalin-fixed liver tissue. Guerrero RB, et al. **Liver Transpl Surg** 1998 Nov;4(6):455–60

Prevalence of hepatitis G virus RNA and anti-E2 in a Japanese haemodialysis population. Shibuya A, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2033–6

Proof of hepatitis A virus negative-sense RNA by RNA/DNA-hybrid detection: a method for specific detection of both viral negative- and positive-strand RNA species. Schmitz G, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5230–2

Intracellular localization of viral RNA in Eimeria necatrix of the domestic fowl. Lee S, et al. **Parasitol Res** 1998 Aug; 84(8):601–6

EBER oligonucleotide RNA in situ hybridization in EBV associated neoplasms. Tornóczky T, et al. **Pathol Oncol Res** 1998;4(3):201–5

Hepatitis G virus infection in haemodialysis patients and its relationship with hepatitis C virus RNA positivity. Hizel N, et al. **Scand J Infect Dis** 1998;30(5):451–4

Comparison of 3 quantitative HCV RNA assays--accuracy of baseline viral load to predict treatment outcome in chronic hepatitis C. Reichard O, et al. **Scand J Infect Dis** 1998;30(5):441–6

Hepatitis C virus-infected, HCV-RNA-negative patients with bleeding disorders--relationship to age, HIV and

treatment. Schulman S, et al. **Scand J Infect Dis** 1998; 30(5):455–8

Sustained virologic response is associated with improved health-related quality of life in relapsed chronic hepatitis C patients. Neary MP, et al. **Semin Liver Dis** 1999;19 Suppl 1:77–85

Hepatitis GBV-C infection in intravenous drug users. Vimolket T, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):491–6

Quantitation of hepatitis C virus RNA in liver tissue of allografts: correlation with histologic features and liver function tests. Aardema KL, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):477–8

Pretransplant anti-hepatitis C virus antibody and HCV-RNA-polymerase chain reaction as predictor of posttransplant liver dysfunction. Kim MS, et al. **Transplant Proc** 1998 Nov;30(7):3216–7

Detection of Epstein-Barr virus (EBV) in hepatocellular carcinoma tissue: a novel EBV latency characterized by the absence of EBV-encoded small RNA expression. Sugawara Y, et al. **Virology** 1999 Apr 10;256(2):196–202

Complete nucleotide sequence of bean pod mottle virus RNA1: sequence comparisons and evolutionary relationships to other comoviruses. Di R, et al. **Virus Genes** 1999;18(2):129–37

[Serological character of hepatitis E virus mutants] Wang Y, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Mar; 7(1):24–5 (Eng. Abstr.) **(Chi)**

[Relationship between enteroviral infection and dilated cardiomyopathy] Li Y, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jun;36(6):377–9 (Eng. Abstr.) **(Chi)**

[Association of epstein-barr virus with lymphoepithelioma-like carcinoma of the lung] Han A, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug; 26(4):222–4 (Eng. Abstr.) **(Chi)**

[The significance of detecting EB virus and its products in benign and malignant lymphoepithelial lesions of the salivary glands] Lin H, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug;26(4):225–8 (Eng. Abstr.) **(Chi)**

[Studies on GBV-C infection in blood donors in four provinces of China] Wang X, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Nov; 31(6):349–51 (Eng. Abstr.) **(Chi)**

[Evaluation of a PCR assay commercial kit for quantification of human immunodeficiency virus type-1 RNA] Kawata K, et al. **Kansenshogaku Zasshi** 1998 Oct;72(10):1041–5 (Eng. Abstr.) **(Jpn)**

[An outbreak caused by hepatitis A virus in an institution for the mentally handicapped—detection of hepatitis A virus RNA using CTAB method] Kitahashi T, et al. **Kansenshogaku Zasshi** 1998 Aug;72(8):794–800 (Eng. Abstr.) **(Jpn)**

[Prevalence of hepatitis G virus RNA and antibodies to HGV envelope protein (anti-E2) in patients with liver injury in Japan] Matsushita E, et al. **Nippon Rinsho** 1999 Jun; 57(6):1274–8 (9 ref.) (Eng. Abstr.) **(Jpn)**

ANTAGONISTS & INHIBITORS

Inhibitors of protein-RNA complexation that target the RNA: specific recognition of human immunodeficiency virus type 1 TAR RNA by small organic molecules. Mei HY, et al. **Biochemistry** 1998 Oct 6;37(40):14204–12

BIOSYNTHESIS

Studies of murine coronavirus DI RNA replication from negative-strand transcripts. Banerjee S, et al. **Adv Exp Med Biol** 1998;440:241–6

A strategy for the generation of infectious RNAs and autonomously replicating RNAs based on the HCV 229E genome. Herold J, et al. **Adv Exp Med Biol** 1998;440:265–8

The spike protein of transmissible gastroenteritis coronavirus controls the tropism of pseudorecombinant virions engineered using synthetic minigenomes. Izeta A, et al. **Adv Exp Med Biol** 1998;440:207–14

Progress towards the construction of a transmissible gastroenteritis coronavirus self-replicating RNA using a two-layer expression system. Pénzes Z, et al. **Adv Exp Med Biol** 1998;440:319–25

The effect of deletion of a conserved 11 nucleotide sequence on mouse hepatitis virus RNA replication. Repass JF, et al. **Adv Exp Med Biol** 1998;440:247–52

Role of the nonstructural polyproteins in alphavirus RNA synthesis. Sawicki DL, et al. **Adv Exp Med Biol** 1998; 440:187–98 (58 ref.)

Replication and transcription of HCV 229E replicons. p6 Thiel V, et al. **Adv Exp Med Biol** 1998;440:109–13

Negative strand RNA synthesis by temperature-sensitive mutants of mouse hepatitis virus. Younker DR, et al. **Adv Exp Med Biol** 1998;440:221–6

Further characterization of HIV RNA synthesis early after cell-to-cell transmission infection. Kok TW, et al. **Arch Virol** 1998;143(10):1911–26

Influenza C virus persistence depends on exceptional steps in viral RNA synthesis and transport. Zach A, et al. **Arch Virol** 1999;144(3):463–78

In vitro selective RNA synthesis with L-A virus nanoparticles. Ebihara T, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):23–7

Fragile histidine triad transcription abnormalities and human papillomavirus E6-E7 mRNA expression in the development of cervical carcinoma. Segawa T, et al. **Cancer** 1999 May 1;85(9):2001–10

Detection of hepatitis C virus in paraffin-embedded liver biopsies of patients negative for viral RNA in serum. Dries V, et al. **Hepatology** 1999 Jan;29(1):223–9

Identification of a new element for RNA replication within the internal ribosome entry site of poliovirus RNA. Ishii T, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):917–20

RNA polymerase II localizes at sites of human cytomegalovirus immediate-early RNA synthesis and processing. Snaar SP, et al. **J Histochem Cytochem** 1999 Feb;47(2):245–54

Regulation of hepatitis B virus mRNA expression in a hepatitis B surface antigen transgenic mouse model by IFN-gamma-secreting T cells after DNA-based immunization. Mancini M, et al. **J Immunol** 1998 Nov 15; 161(10):5564–70

The putative helicase of the coronavirus mouse hepatitis virus is processed from the replicase gene polyprotein and localizes in complexes that are active in viral RNA synthesis. Denison MR, et al. **J Virol** 1999 Aug; 73(8):6862–71

Selection of RNA replicons capable of persistent noncytopathic replication in mammalian cells. Frolov I, et al. **J Virol** 1999 May;73(5):3854–65

Characterization of the 5' ends for polyadenylated RNAs synthesized during the replication of hepatitis delta virus. Gudima S, et al. **J Virol** 1999 Aug;73(8):6533–9

The major attenuating mutations of the respiratory syncytial virus vaccine candidate cpts530/1009 specify temperature-sensitive defects in transcription and replication and a non-temperature-sensitive alteration in mRNA termination. Juhasz K, et al. **J Virol** 1999 Jun; 73(6):5176–80

Genetic interaction of flavivirus nonstructural proteins NS1 and NS4A as a determinant of replicase function. Lindenbach BD, et al. **J Virol** 1999 Jun;73(6):4611–21

A single amino acid substitution in the phosphoprotein of respiratory syncytial virus confers thermosensitivity in a reconstituted RNA polymerase system. Marriott AC, et al. **J Virol** 1999 Jun;73(6):5162–5

Temperature-sensitive lesions in two influenza A viruses defective for replicative transcription disrupt RNA binding by the nucleoprotein. Medcalf L, et al. **J Virol** 1999 Sep; 73(9):7349–56

Mutational analysis of influenza A virus nucleoprotein: identification of mutations that affect RNA replication. Mena I, et al. **J Virol** 1999 Feb;73(2):1186–94

Cytopathogenic and noncytopathogenic RNA replicons of classical swine fever virus. Moser C, et al. **J Virol** 1999 Sep;73(9):7787–94

RNA replication for the paramyxovirus simian virus 5 requires an internal repeated (CGNNNN) sequence motif. Murphy SK, et al. **J Virol** 1999 Jan;73(1):805–9

Functional coupling between replication and packaging of poliovirus replicon RNA. Nugent CI, et al. **J Virol** 1999 Jan;73(1):427–35

A recombinant hepatitis C virus RNA-dependent RNA polymerase capable of copying the full-length viral RNA. Oh JW, et al. **J Virol** 1999 Sep;73(9):7694–702

Colocalization and membrane association of murine hepatitis virus gene 1 products and De novo-synthesized viral RNA in infected cells. Shi ST, et al. **J Virol** 1999 Jul; 73(7):5957–69

Use of DNA, RNA, and chimeric templates by a viral RNA-dependent RNA polymerase: evolutionary implications for the transition from the RNA to the DNA world. Siegel RW, et al. **J Virol** 1999 Aug;73(8):6424–9

Initiation of genomic plus-strand RNA synthesis from DNA and RNA templates by a viral RNA-dependent RNA polymerase. Sivakumaran K, et al. **J Virol** 1999 Aug; 73(8):6415–23

Spatial perturbations within an RNA promoter specifically recognized by a viral RNA-dependent RNA polymerase (RdRp) reveal that RdRp can adjust its promoter binding sites. Stawicki SS, et al. **J Virol** 1999 Jan;73(1):198–204

Regulation of human papillomavirus type 31 polyadenylation during the differentiation-dependent life cycle. Terhune SS, et al. **J Virol** 1999 Sep;73(9):7185–92

Localization of mouse hepatitis virus nonstructural proteins and RNA synthesis indicates a role for late endosomes in viral replication. van der Meer Y, et al. **J Virol** 1999 Sep; 73(9):7641–57

Regulation of RNA synthesis by the genomic termini of vesicular stomatitis virus: identification of distinct sequences essential for transcription but not replication. Whelan SPJ, et al. **J Virol** 1999 Jan;73(1):297–306

Phosphorylation of rabies virus nucleoprotein regulates viral RNA transcription and replication by modulating leader RNA encapsidation. Yang J, et al. **J Virol** 1999 Feb; 73(2):1661–4

Influenza A virus RNA polymerase has the ability to stutter at the polyadenylation site of a viral RNA template during RNA replication. Zheng H, et al. **J Virol** 1999 Jun; 73(6):5240–3

Human herpesvirus-8 (HHV-8) gene expression in Kaposi's sarcoma (KS) primary lesions: an in situ hybridization study. Stürzl M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S110–2

Replication of tobacco mosaic virus RNA. Buck KW. **Philos Trans R Soc Lond B Biol Sci** 1999 Mar 29; 354(1383):613–27 (145 ref.)

The M2-2 protein of human respiratory syncytial virus is a regulatory factor involved in the balance between RNA replication and transcription. Bermingham A, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11259–64

Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line [see comments] Lohmann V, et al. **Science** 1999 Jul 2;285(5424):110–3. Comment in: Science 1999 Jul 2;285(5424):26–30.

Viral RNA replication. With a little help from the host. Strauss JH, et al. **Science** 1999 Feb 5;283(5403):802–4

Limitation of Tat-associated transcriptional processivity in HIV-infected PBMC. Adams M, et al. **Virology** 1999 May 10;257(2):397–405

De novo initiation of RNA synthesis by a recombinant flaviviridae RNA-dependent RNA polymerase. Kao CC, et al. **Virology** 1999 Jan 5;253(1):1–7

Cis-acting functions of alfalfa mosaic virus proteins involved in replication and encapsidation of viral RNA. Neeleman L, et al. **Virology** 1999 Feb 15;254(2):324–33

Mutations in conserved domain II of the large (L) subunit of the Sendai virus RNA polymerase abolish RNA synthesis. Smallwood S, et al. **Virology** 1999 Sep 30; 262(2):375–83

Nascent flavivirus RNA colocalized in situ with double-stranded RNA in stable replication complexes. Westaway EG, et al. **Virology** 1999 May 25;258(1):108–17

A core promoter hairpin is essential for subgenomic RNA synthesis in alfalfa mosaic alfamovirus and is conserved in other Bromoviridae. Jaspars EM. **Virus Genes** 1998; 17(3):233–42 (62 ref.)

Paradoxes of the replication of picornaviral genomes. Agol VI, et al. **Virus Res** 1999 Aug;62(2):129–47 (170 ref.)

Interference by a non-defective variant of influenza A virus is due to enhanced RNA synthesis and assembly. Bailly JE, et al. **Virus Res** 1998 Sep;57(1):81–100

Importance of coronavirus negative-strand genomic RNA synthesis prior to subgenomic RNA transcription. Maeda A, et al. **Virus Res** 1998 Sep;57(1):35–42

[Transfer and expression of antisense genes of hepatitis B virus (HBV) and their anti-HBV effects] Ji W, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jun;77(6):425–9 (Eng. Abstr.) **(Chi)**

[Detection and characterization of gastric carcinoma associated with epstein-barr herpes virus] Gurtsevich VE, et al. **Vestn Ross Akad Med Nauk** 1999;(3):56–9 (Eng. Abstr.) **(Rus)**

BLOOD

Cerebrospinal fluid and plasma HIV-1 RNA stability at 4 degrees C [letter] Ahmad M, et al. **AIDS** 1999 Jul 9; 13(10):1281–2

Antiphospholipid antibodies are an epiphenomenon in HIV-infected patients [letter] Ankri A, et al. **AIDS** 1999 Jul 9;13(10):1282–3

Plasma HIV viral load in relation to season and to Plasmodium falciparum parasitaemia [letter] Ariyoshi K, et al. **AIDS** 1999 Jun 18;13(9):1145–6

HIV RNA and CD4 cell count response to protease inhibitor therapy in an urban AIDS clinic: response to both initial and salvage therapy. Deeks SG, et al. **AIDS** 1999 Apr 16; 13(6):F35–43

Immune activation and plasma viral load in HIV-infected African individuals [letter] Dyer JR, et al. **AIDS** 1999 Jul 9;13(10):1283–5

Patients with HIV-1 RNA below 1000 copies/ml after 48 weeks on dual nucleoside combination therapy. Delta Coordinating Committee [letter] Flandre P. **AIDS** 1999 Feb 25;13(3):430–1

Rate of HIV-1 RNA rebound upon stopping antiretroviral therapy. Harrigan PR, et al. **AIDS** 1999 May 28; 13(8):F59–62

CD4+ and CD8+ lymphocytes and HIV RNA in HIV infection: high baseline counts and in particular rapid decrease of CD8+ lymphocytes predict AIDS. Kvale D, et al. **AIDS** 1999 Feb 4;13(2):195–201

Expansion of CD57 and CD62L-CD45RA+ CD8 T lymphocytes correlates with reduced viral plasma RNA after primary HIV infection. Lieberman J, et al. **AIDS** 1999 May 28;13(8):891–9

Prognostic value of plasma HIV RNA in the natural history of Pneumocystis carinii pneumonia, cytomegalovirus and Mycobacterium avium complex. Multicenter AIDS Cohort Study. Lyles RH, et al. **AIDS** 1999 Feb 25;13(3):341–9

Improved estimates for HIV-1 clearance rate and intracellular delay [letter] Mittler JE, et al. **AIDS** 1999 Jul 30;13(11):1415–7

The use of plasma HIV RNA as a study endpoint in efficacy trials of antiretroviral drugs. Murray JS, et al. **AIDS** 1999 May 7;13(7):797–804 (24 ref.)

Inaccurate HIV-1 viral load quantification by three major commercially available methods [letter] Oelrichs RB, et al. **AIDS** 1999 Apr 16;13(6):727–8

Use of dried whole blood spots for quantification of HIV-1 RNA [letter] O'Shea S, et al. **AIDS** 1999 Apr 1;13(5):630–1

Detectable HIV-1 RNA at levels below quantifiable limits by amplicor HIV-1 monitor is associated with virologic relapse on antiretroviral therapy. Pilcher CD, et al. **AIDS** 1999 Jul 30;13(11):1337–42

Sensitivity and specificity of a qualitative RNA detection assay to diagnose HIV infection in young infants. Perinatal

AIDS Collaborative Transmission Study. Simonds RJ, et al. **AIDS** 1998 Aug 20;12(12):1545–9

Effects of age at seroconversion and baseline HIV RNA level on the loss of CD4+ cells among persons with hemophilia. Multicenter Hemophilia Cohort Study. Touloumi G, et al. **AIDS** 1998 Sep 10;12(13):1691–7

Joint effects of HIV-1 RNA levels and CD4 lymphocyte cells on the risk of specific opportunistic infections. Williams PL, et al. **AIDS** 1999 Jun 18;13(9):1035–44

Why are the decay rates in plasma HIV-1 different for different treatments and in different patient populations? [letter; comment] Wu H, et al. **AIDS** 1999 Feb 25; 13(3):429–30. Comment on: AIDS 1998 Aug 20;12(12):1483–90.

Assay of plasma samples representing different HIV-1 genetic subtypes: an evaluation of new versions of the amplicor HIV-1 monitor assay. Alaeus A, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):889–94

Phenotypic analysis of CD8+ T lymphocytes in a cohort of HIV type 1–infected patients treated with saquinavir, ritonavir, and two nucleoside analogs for 1 year, and association with plasma HIV type 1 RNA. Kaufmann GR, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20; 15(11):963–72

Sustained suppression of plasma HIV RNA is associated with an increase in the production of mitogen-induced MIP-1alpha and MIP-1beta. Kumar D, et al. **AIDS Res Hum Retroviruses** 1999 Aug 10;15(12):1073–7

Quantification of RNA in HIV type 1 subtypes D and G by NucliSens and Amplicor assays in Abidjan, Ivory Coast. Nkengasong JN, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):495–8

Retroviral RNA related to ERV9/MSRV in a human serum: a new sequence variant. Olsson P, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):591–3

Impact of HIV type 1 subtype variation on viral RNA quantitation. Parekh B, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):133–42

Cell-associated viral RNA expression during acute infection with HIV type 1. Riggs NL, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1141–9

Hepatitis C virus genotypes and quantification of serum hepatitis C RNA in liver transplant recipients. Relationship with histologic outcome of recurrent hepatitis C. Costes V, et al. **Am J Clin Pathol** 1999 Feb;111(2):252–8

Late disappearance of hepatitis C virus RNA from peripheral blood mononuclear cells in patients with chronic hepatitis C in sustained response after alpha-interferon therapy. Garcia-Bengoechea M, et al. **Am J Gastroenterol** 1999 Jul; 94(7):1902–5

Use of reverse transcriptase-polymerase chain reaction (RT-PCR) and dot-blot hybridisation for the detection and identification of African horse sickness virus nucleic acids. Zientara S, et al. **Arch Virol Suppl** 1998;14:317–27

Hepatitis A virus sequence detected in clotting factor concentrates associated with disease transmission. Robertson BH, et al. **Biologicals** 1998 Jun;26(2):95–9 (26 ref.)

Analysis of cell-free Epstein-Barr virus associated RNA in the plasma of patients with nasopharyngeal carcinoma. Lo KW, et al. **Clin Chem** 1999 Aug;45(8 Pt 1):1292–4

Automation of polymerase chain reaction-based systems for detection of hepatitis C virus RNA. Kessler HH, et al. **Clin Chem Lab Med** 1998 Aug;36(8):583–6

Assay for hepatitis C virus in peripheral blood mononuclear cells enhances sensitivity of diagnosis and monitoring of HCV-associated hepatitis. El-Awady MK, et al. **Clin Chim Acta** 1999 May;283(1-2):1–14

Decreased dipeptidyl peptidase IV enzyme activity of plasma soluble CD26 and its inverse correlation with HIV-1 RNA in HIV-1 infected individuals. Hosono O, et al. **Clin Immunol** 1999 Jun;91(3):283–95

Influenza vaccination of human immunodeficiency virus (HIV)-infected adults: impact on plasma levels of HIV type 1 RNA and determinants of antibody response [see comments] Fuller JD, et al. **Clin Infect Dis** 1999 Mar; 28(3):541–7. Comment in: Clin Infect Dis 1999 Mar;28(3):548–51.

A high prevalence of serum GB virus C/hepatitis G virus RNA in children with and without liver disease. Halasz R, et al. **Clin Infect Dis** 1999 Mar;28(3):537–40

Enterovirus variants in the serum of children at the onset of Type 1 diabetes mellitus. Nairn C, et al. **Diabet Med** 1999 Jun;16(6):509–13

Enteroviral RNA and IgM antibodies in early pregnancy and risk for childhood-onset IDDM in offspring [letter] Dahlquist GG, et al. **Diabetes Care** 1999 Feb;22(2):364–5

Early HCV RNA values after interferon predict response. Wiley TE, et al. **Dig Dis Sci** 1998 Oct;43(10):2169–72

Prevalence of hepatitis C virus RNA in patients with chronic renal diseases. Shaker O, et al. **East Mediterr Health J** 1998 Dec;4(3):548–53

Hepatitis C virus RNA viremia in Central Africa [letter] Cancré N, et al. **Emerg Infect Dis** 1999 May-Jun;5(3):484–5

Comparison of three different commercial methods for measuring plasma viraemia in patients infected with non-B HIV-1 subtypes. Holguin A, et al. **Eur J Clin Microbiol Infect Dis** 1999 Apr;18(4):256–9

Partial nucleotide sequencing of the NS3/helicase region of hepatitis G virus to prove vertical transmission. Takayama S, et al. **FEMS Microbiol Lett** 1999 Jun 15;175(2):273–9

Real-time detection system for quantification of hepatitis C virus genome [see comments] Takeuchi T, et al. **Gastroenterology** 1999 Mar;116(3):636–42. Comment in: Gastroenterology 1999 Mar;116(3):763–5.

HIV-HCV RNA loads and liver failure in coinfected patients with coagulopathy. Dragoni F, et al. **Haematologica** 1999 Jun;84(6):525–9

Quantitative hepatitis C RNA-polymerase chain reaction and detection with DNA-ELISA. Heintges T, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1684–9

Quantitative antibody responses to structural (Core) and nonstructural (NS3, NS4, and NS5) hepatitis C virus proteins among seroconverting injecting drug users: impact of epitope variation and relationship to detection of HCV RNA in blood. Beld M, et al. **Hepatology** 1999 Apr; 29(4):1288–98

Quantification of serum hepatitis C virus RNA [letter] Fang JW, et al. **Hepatology** 1999 Mar;29(3):997–8

Sequential serum hepatitis C viral RNA levels longitudinally assessed by branched DNA signal amplification [published erratum appears in Hepatology 1999 Feb;29(2):616] Gordon SC, et al. **Hepatology** 1998 Dec;28(6):1702–6

Early hepatitis C virus-RNA responses predict interferon treatment outcomes in chronic hepatitis C. The Consensus Interferon Study Group. Lee WM, et al. **Hepatology** 1998 Nov;28(5):1411–5

Hepatitis C virus RNA profiles in chronically infected individuals: do they relate to disease activity? Pontisso P, et al. **Hepatology** 1999 Feb;29(2):585–9

Effect of interferon therapy on hepatitis C virus RNA in whole blood, plasma, and peripheral blood mononuclear cells. Schmidt WN, et al. **Hepatology** 1998 Oct;28(4):1110–6

Hepatitis cRNA quasispecies complexity in patients with alcoholic liver disease. Sherman KE, et al. **Hepatology** 1999 Jul;30(1):265–70

Higher detection rate of hepatitis G and C virus RNA in liver tissue than in serum of deceased injection drug users. Seidl S, et al. **Int J Legal Med** 1999;112(1):35–8

Efficacy and changes of the nonstructural 5A GENE by prolonged interferon therapy for patients with hepatitis C virus genotype 1b and a high level of serum HCV-RNA. Arase Y, et al. **Intern Med** 1999 Jun;38(6):461–6

Amantadine hydrochloride decreases serum ALT activity without effects on serum HCV-RNA in chronic hepatitis C patients. Tabone M, et al. **Ital J Gastroenterol Hepatol** 1998 Dec;30(6):611–3

Decreased peripheral circulation of HIV-infected cells in a subset of long-term nonprogressors. The French ALT Study Group [letter] Candotti D, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1;21(3):253–5

Hepatitis G virus RNA is common in AIDS patients' plasma but is not associated with abnormal liver function tests or other clinical syndromes. Woolley I, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):408–12

How frequently should viral load be monitored to evaluate antiretroviral therapies in AIDS clinical trials? [letter] Wu H. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Jan 1;20(1):97–9

Effect of a single bout of acute exercise on plasma human immunodeficiency virus RNA levels. Roubenoff R, et al. **J Appl Physiol** 1999 Apr;86(4):1197–201

Changes in serum hepatitis C virus RNA in interferon nonresponders retreated with interferon plus ribavirin: a preliminary report. Nyberg L, et al. **J Clin Gastroenterol** 1999 Jun;28(4):313–6

Hepatitis C virus RNA in dried serum spotted onto filter paper is stable at room temperature. Abe K, et al. **J Clin Microbiol** 1998 Oct;36(10):3070–2

Design and evaluation of a human immunodeficiency virus type 1 RNA assay using nucleic acid sequence-based amplification technology able to quantify both group M and O viruses by using the long terminal repeat as target. de Baar MP, et al. **J Clin Microbiol** 1999 Jun;37(6):1813–8

Comparison of NucliSens and Roche Monitor assays for quantitation of levels of human immunodeficiency virus type 1 RNA in plasma. Dyer JR, et al. **J Clin Microbiol** 1999 Feb;37(2):447–9

Evaluation of the ultrasensitive Roche Amplicor HIV-1 monitor assay for quantitation of human immunodeficiency virus type 1 RNA. Erali M, et al. **J Clin Microbiol** 1999 Mar;37(3):792–5

Comparison of levels of human immunodeficiency virus type 1 RNA in plasma as measured by the NucliSens nucleic acid sequence-based amplification and Quantiplex branched-DNA assays. Ginocchio CC, et al. **J Clin Microbiol** 1999 Apr;37(4):1210–2

Comparison of two measures of human immunodeficiency virus (HIV) type 1 load in HIV risk groups. Lyles CM, et al. **J Clin Microbiol** 1998 Dec;36(12):3647–52

High-throughput real-time reverse transcription-PCR quantitation of hepatitis C virus RNA. Martell M, et al. **J Clin Microbiol** 1999 Feb;37(2):327–32

Reproducibility and performance of the second-generation branched-DNA assay in routine quantification of human immunodeficiency virus type 1 RNA in plasma. Murphy DG, et al. **J Clin Microbiol** 1999 Mar;37(3):812–4

Comparison of costs of strategies for measuring levels of human immunodeficiency virus type 1 RNA in plasma by using Amplicor and Ultra Direct assays. Raboud JM, et al. **J Clin Microbiol** 1998 Nov;36(11):3369–71

Evaluation of the Nuclisens HIV-1 QT assay for quantitation of human immunodeficiency virus type 1 RNA levels in plasma. Segondy M, et al. **J Clin Microbiol** 1998 Nov; 36(11):3372–4

Comparison of the QUANTIPLEX HIV-1 RNA 2.0 assay with the AMPLICOR HIV-1 MONITOR 1.0 assay for quantitation of levels of human immunodeficiency virus type 1 RNA in plasma of patients receiving stavudine-didanosine combination therapy. Segondy M, et al. **J Clin Microbiol** 1998 Nov;36(11):3392–5

Prospective comparison of whole-blood- and plasma-based hepatitis C virus RNA detection systems: improved detection using whole blood as the source of viral RNA. Stapleton JT, et al. **J Clin Microbiol** 1999 Mar;37(3):484–9

Ultrasensitive reverse transcription-PCR assay for quantitation of human immunodeficiency virus type 1 RNA in plasma. Sun R, et al. **J Clin Microbiol** 1998 Oct; 36(10):2964–9

Clinical evaluation of an in-house reverse transcription-competitive PCR for quantitation of human immunodeficiency virus type 1 RNA in plasma. Zazzi M, et al. **J Clin Microbiol** 1999 Feb;37(2):333–8

Constant mean viral copy number per infected cell in tissues regardless of high, low, or undetectable plasma HIV RNA. Hockett RD, et al. **J Exp Med** 1999 May 17; 189(10):1545–54

Disappearance of serum HCV-RNA after short-term prednisolone therapy in a patient with chronic hepatitis C associated with autoimmune hepatitis-like serological manifestations. Yoshikawa M, et al. **J Gastroenterol** 1999 Apr;34(2):269–74

Relationships between serum aminotransferase levels, liver histologies and virological status in patients with chronic hepatitis C in Taiwan. Luo JC, et al. **J Gastroenterol Hepatol** 1998 Jul;13(7):685–90

Should patients with early loss of serum HCV-RNA during alpha interferon therapy for chronic hepatitis C be treated for 6 or 12 months? Bellobuono A, et al. **J Hepatol** 1999 Jan;30(1):8–13

Infection with an unenveloped DNA virus (TTV) in patients with acute or chronic liver disease of unknown etiology and in those positive for hepatitis C virus RNA. Ikeda H, et al. **J Hepatol** 1999 Feb;30(2):205–12

Possible association between serum GB virus C RNA level and disease activity in fulminant hepatitis type G. Inoue K, et al. **J Hepatol** 1999 May;30(5):801–6

Low peripheral blood viral HIV-2 RNA in individuals with high CD4 percentage differentiates HIV-2 from HIV-1 infection. Berry N, et al. **J Hum Virol** 1998 Nov-Dec; 1(7):457–68

Evaluation of molecular parameters for routine assessment of viremia in patients with chronic hepatitis C who are undergoing antiviral therapy. Kessler HH, et al. **J Hum Virol** 1998 Jul-Aug;1(5):314–9

Prevalence of hepatitis G virus RNA in human immunodeficiency virus type 1–positive intravenous drug users. Zehender G, et al. **J Hum Virol** 1998 Jan-Feb; 1(2):96–100

Measurement of plasma HIV viral load—clinical applications. Churchill D, et al. **J Infect** 1999 May;38(3):147–50 (38 ref.)

HIV-1 viral load testing. Clarke JR, et al. **J Infect** 1999 May; 38(3):141–6 (32 ref.)

Variability in repeated consecutive measurements of plasma human immunodeficiency virus RNA in persons receiving stable nucleoside reverse transcriptase inhibitor therapy or no treatment. Bartlett JA, et al. **J Infect Dis** 1998 Dec; 178(6):1803–5

Prevalence, incidence, and clinical characteristics of hepatitis G virus/GB virus C infection in Scottish blood donors. Blair CS, et al. **J Infect Dis** 1998 Dec;178(6):1779–82

Longitudinal quantification of human immunodeficiency virus type 1 DNA and RNA in long-term nonprogressors. Broström C, et al. **J Infect Dis** 1999 Jun;179(6):1542–8

Shorter survival in advanced human immunodeficiency virus type 1 infection is more closely associated with T lymphocyte activation than with plasma virus burden or virus chemokine coreceptor usage. Giorgi JV, et al. **J Infect Dis** 1999 Apr;179(4):859–70

Association of plasma levels of human immunodeficiency virus type 1 RNA and oropharyngeal Candida colonization. Gottfredsson M, et al. **J Infect Dis** 1999 Aug;180(2):534–7

Correlation of human immunodeficiency virus type 1 RNA levels in blood and the female genital tract. Hart CE, et al. **J Infect Dis** 1999 Apr;179(4):871–82

Serum level of maternal human immunodeficiency virus (HIV) RNA, infant mortality, and vertical transmission of HIV in Zimbabwe. Katzenstein DA, et al. **J Infect Dis** 1999 Jun;179(6):1382–7

Plasma human immunodeficiency virus RNA below 40 Copies/mL is rare in untreated persons even in the first years of infection. Lefrère JJ, et al. **J Infect Dis** 1999 Aug; 180(2):526–9

Association of human papillomavirus infection and disease with magnitude of human immunodeficiency virus type 1 (HIV-1) RNA plasma level among women with HIV-1 infection. Luque AE, et al. **J Infect Dis** 1999 Jun; 179(6):1405–9

Activation and cell cycle antigens in CD4+ and CD8+ T cells correlate with plasma human immunodeficiency virus (HIV-1) RNA level in HIV-1 infection. Orendi JM, et al. **J Infect Dis** 1998 Nov;178(5):1279–87

Virologic and immunologic response to nucleoside reverse-transcriptase inhibitor therapy among human immunodeficiency virus-infected infants and children.

Palumbo PE, et al. **J Infect Dis** 1999 Mar;179(3):576–83

Evaluation of cell-free and cell-associated peripheral blood human immunodeficiency virus type 1 RNA response to antiretroviral therapy. Romano L, et al. **J Infect Dis** 1999 Feb;179(2):361–6

Sex differences in longitudinal human immunodeficiency virus type 1 RNA levels among seroconverters. Sterling TR, et al. **J Infect Dis** 1999 Sep;180(3):666–72

The effect of acute infectious illnesses on plasma human immunodeficiency virus (HIV) type 1 load and the expression of serologic markers of immune activation among HIV-infected adults. Sulkowski MS, et al. **J Infect Dis** 1998 Dec;178(6):1642–8

Analysis of hepatitis G virus (HGV) RNA, antibody to HGV envelope protein, and risk factors for blood donors coinfected with HGV and hepatitis C virus. Tan D, et al. **J Infect Dis** 1999 May;179(5):1055–61

Cell-associated HIV-1 RNA in blood as indicator of virus load in lymph nodes. The Swiss HIV Cohort Study. Yerly S, et al. **J Infect Dis** 1999 Sep;180(3):850–3

GBV-C/HGV coinfection in HIV-1-positive men: frequent detection of viral RNA in blood plasma but absence from seminal fluid plasma. Hollingsworth RC, et al. **J Med Virol** 1998 Dec;56(4):321–6

Quantification of hepatitis C virus by TaqMan PCR: comparison with HCV Amplicor Monitor assay. Kawai S, et al. **J Med Virol** 1999 Jun;58(2):121–6

GBV-C/hepatitis G virus (HGV) RNA load in immunodeficient individuals and in immunocompetent individuals. Lefrère JJ, et al. **J Med Virol** 1999 Sep; 59(1):32–7

Ultracentrifugation and concentration of a large volume of serum for HCV RNA during treatment may predict sustained and relapse response in chronic HCV infection. McHutchison JG, et al. **J Med Virol** 1999 Apr;57(4):351–5

Hepatitis C and human immunodeficiency virus RNA degradation by methylene blue/light treatment of human plasma. Müller-Breitkreutz K, et al. **J Med Virol** 1998 Nov; 56(3):239–45

Comparative study of a modified competitive RT-PCR and Amplicor HCV monitor assays for quantitation of hepatitis C virus RNA in serum. Olmedo E, et al. **J Med Virol** 1999 May;58(1):35–43

Correlation of interferon treatment response with GBV-C/HGV genomic RNA and anti-envelope 2 protein antibody. Tanaka T, et al. **J Med Virol** 1999 Apr; 57(4):370–5

Serum levels of hepatitis C virus RNA in infants and children with chronic hepatitis C. Azzari C, et al. **J Pediatr Gastroenterol Nutr** 1999 Sep;29(3):314–7

Hepatitis G virus infection in acute fulminant hepatitis: prevalence of HGV infection and sequence analysis of a specific viral strain. Sheng L, et al. **J Viral Hepat** 1998 Sep;5(5):301–6

Detection and sequence analysis of borna disease virus p24 RNA from peripheral blood mononuclear cells of patients with mood disorders or schizophrenia and of blood donors. Iwata Y, et al. **J Virol** 1998 Dec;72(12):10044–9

Effect of potentially interfering substances on the measurement of HIV-1 viral load by the bDNA assay. Alonso R, et al. **J Virol Methods** 1999 Mar;78(1–2):149–52

Detection of GB virus C RNA by GBV-C LCx and two PCR assays with primers from the 5'non-coding and NS5B region. Berg ES, et al. **J Virol Methods** 1998 Dec; 76(1–2):43–9

Isolation of HIV-1 RNA from plasma: evaluation of seven different methods for extraction (part two). Fransen K, et al. **J Virol Methods** 1998 Dec;76(1–2):153–7

Simultaneous screening for HBV DNA and HCV RNA genomes in blood donations using a novel TaqMan PCR assay. Mercier B, et al. **J Virol Methods** 1999 Jan;77(1):1–9

Quantification of hepatitis C virus RNA in serum by branched DNA-based signal amplification assays. Pawlotsky JM, et al. **J Virol Methods** 1999 May; 79(2):227–35

Multicyclic reverse transcription-polymerase chain reaction assay system for quantification of GB virus-C/hepatitis G virus RNA in serum. Saito T, et al. **J Virol Methods** 1998 Oct;74(2):185–91

GBV-C/HGV-RNA in serum and peripheral blood mononuclear cells in hemodialysis patients. Cabrerizo M, et al. **Kidney Int** 1999 Sep;56(3):1120–8

Serum HCV RNA titer does not predict the severity of liver damage in HCV carriers with normal aminotransferase levels. Puoti C, et al. **Liver** 1999 Apr;19(2):104–9

Single-step reverse transcription-polymerase chain reaction for the detection of hepatitis C virus RNA. Mizutani T, et al. **Microbiol Immunol** 1998;42(8):549–53

A multiplex PCR for Massachusetts and Arkansas serotypes of infectious bronchitis virus. Wang X, et al. **Mol Cell Probes** 1999 Feb;13(1):1–7

Maternal levels of plasma human immunodeficiency virus type 1 RNA and the risk of perinatal transmission. Women and Infants Transmission Study Group [see comments] Garcia PM, et al. **N Engl J Med** 1999 Aug 5;341(6):394–402 . Comment in: N Engl J Med 1999 Aug 5;341(6):441–3.

Risk factors for perinatal transmission of human immunodeficiency virus type 1 in women treated with zidovudine. Pediatric AIDS Clinical Trials Group Study 185 Team [see comments] Mofenson LM, et al. **N Engl J Med** 1999 Aug 5;341(6):385–93. Comment in: N Engl J Med 1999 Aug 5;341(6):441–3.

Reducing the risk of maternal-infant transmission of HIV by attacking the virus [editorial; comment] Rogers MF, et al. **N Engl J Med** 1999 Aug 5;341(6):441–3. Comment on: N Engl J Med 1999 Aug 5;341(6):385–93. Comment on: N Engl J Med 1999 Aug 5;341(6):394–402.

Acute HIV infection among patients tested for mononucleosis [letter] Rosenberg ES, et al. **N Engl J Med** 1999 Mar 25; 340(12):969

Quantitative assessment of HCV load in chronic hemodialysis patients: a cross-sectional survey. Fabrizi F, et al. **Nephron** 1998 Dec;80(4):428–33

Evaluation of three different commercial procedures for quantifying human immunodeficiency virus type-1 RNA levels. Aschbacher R, et al. **New Microbiol** 1999 Jan; 22(1):1–9

A comparison of immunocomplex-dissociated serum HIV-1 p24 antigenemia and plasma HIV-1 viral load: assessment of 3,129 paired assays. Manfredi R, et al. **New Microbiol** 1999 Jul;22(3):269–75

Comparison of human immunodeficiency virus 1 DNA polymerase chain reaction and qualitative and quantitative RNA polymerase chain reaction in human immunodeficiency virus 1-exposed infants. Cunningham CK, et al. **Pediatr Infect Dis J** 1999 Jan;18(1):30–5

A quantitative HCV-PCR test for routine diagnostics. Krarup HB, et al. **Scand J Clin Lab Invest** 1998 Aug; 58(5):415–22

HCV-RNA levels increase during pregnancy in women with chronic hepatitis C. Wejstål R, et al. **Scand J Infect Dis** 1998;30(2):111–3

Serological and histological features of anti-HCV-positive individuals without serum HCV RNA. Kanno A, et al. **Tohoku J Exp Med** 1998 Dec;186(4):303–11

Hepatitis G virus or hepatitis GB virus type C infection in thalassemic patients [letter] Papaevangelou V, et al. **Transfusion** 1999 Mar;39(3):336–7

Summary of a Food and Drug Administration workshop on nucleic acid testing to screen donations of blood and plasma for the hepatitis C virus [letter] Tabor E, et al. **Transfusion** 1999 Aug;39(8):912–3

The use of polymerase chain reaction in plasma pools for the concomitant detection of hepatitis C virus and HIV type 1 RNA. Yerly S, et al. **Transfusion** 1998 Oct; 38(10):908–14

In situ enzymatic oligonucleotide amplification of hepatitis C virus-RNA in liver biopsy specimens (reverse transcriptase in situ polymerase chain reaction) after orthotopic liver transplantation for hepatitis C-related liver disease. Fragulidis GP, et al. **Transplantation** 1998 Dec 15; 66(11):1472–6

Detection of viral genomas in serum samples from potential organ donors [letter] Lefrère JJ, et al. **Transplantation** 1999 Feb 27;67(4):639–40

Prevalence of GB virus C/hepatitis G virus among blood donors in north-eastern Brazil. Goubau P, et al. **Trop Med Int Health** 1999 May;4(5):365–7

Detection of feline coronaviruses by culture and reverse transcriptase-polymerase chain reaction of blood samples from healthy cats and cats with clinical feline infectious peritonitis. Gunn-Moore DA, et al. **Vet Microbiol** 1998 Jul;62(3):193–205

Viral burden and disease progression in rhesus monkeys infected with chimeric simian-human immunodeficiency viruses. Reimann KA, et al. **Virology** 1999 Mar 30; 256(1):15–21

Does HCV screening of blood donors affect transmission of hepatitis G virus in dialysed patients? [letter] Gérard C, et al. **Vox Sang** 1998;75(1):77

Genomic screening for blood-borne viruses in transfusion settings. Lee HH, et al. **Vox Sang** 1998;74 Suppl 2:119–23 (22 ref.)

Prevalence of GBV C/HGV RNA and GBV C/HGV antibodies in French volunteer blood donors: results of a collaborative study. Mercier B, et al. **Vox Sang** 1999; 76(3):166–9

Large-scale HCV RNA screening in first-time blood donors: the first step towards genomic screening of blood donations. HCV RNA Screening Study Group. Petrik J, et al. **Vox Sang** 1999;76(3):159–62

Persistence of HCV-RNA in a blood donor with negative antibody assays [letter] Rapicetta M, et al. **Vox Sang** 1999; 76(3):192–3

Sensitivity of PCR assays for the determination of hepatitis A virus RNA in plasma pools. A collaborative study [see comments] Saldanha J. **Vox Sang** 1999;76(3):163–5. Comment in: Vox Sang 1999 ;76(3):135–7.

Supplementary anti-hepatitis C virus (HCV) testing with 2nd and 3rd generation recombinant immunoblot assay and matrix applied to enzyme immunoassay positive sera and comparison with HCV-RNA detection. Engel PM, et al. **Zentralbl Bakteriol** 1998 Oct;288(2):267–75

[Detection of HGV RNA in sera from patients with fulminant hepatitis in Shenyang] Shu B, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Jun; 19(3):168–9 (Eng. Abstr.) **(Chi)**

[A study on viremia in patients with hepatitis E] Ruan B, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Nov; 31(6):352–4 (Eng. Abstr.) **(Chi)**

[New biological monitoring of HIV infection] Morand-Joubert L. **Rev Prat** 1998 Mar 1;48(5):472–7 **(Fre)**

[The use of a method for the quantitative determination of HIV-1 RNA for assessing the severity and prognosis of the development of the disease] Smol'skaia TT, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan-Feb;(1):57–9 (Eng. Abstr.) **(Rus)**

CEREBROSPINAL FLUID

Cerebrospinal fluid and plasma HIV-1 RNA stability at 4 degrees C [letter] Ahmad M, et al. **AIDS** 1999 Jul 9; 13(10):1281–2

Time course of cerebrospinal fluid responses to antiretroviral therapy: evidence for variable compartmentalization of infection. Staprans S, et al. **AIDS** 1999 Jun 18;13(9):1051–61

Cerebrospinal fluid HIV RNA and drug levels with combination ritonavir and saquinavir. Kravcik S, et al. **J Acquir Immune Defic Syndr** 1999 Aug 15;21(5):371–5

HIV infection of the central nervous system is characterized by rapid turnover of viral RNA in cerebrospinal fluid. Eggers CC, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Mar 1;20(3):259–64

Cerebrospinal fluid beta chemokine concentrations in neurocognitively impaired individuals infected with human immunodeficiency virus type 1. Letendre SL, et al. **J Infect Dis** 1999 Aug;180(2):310–9

Cerebrospinal-fluid HIV-1 RNA and drug concentrations after treatment with lamivudine plus zidovudine or stavudine. Foudraine NA, et al. **Lancet** 1998 May 23; 351(9115):1547–51

Interpretation of high levels of HIV-1 RNA in the cerebrospinal fluid (CSF) using amplicor HIV-1 monitor test. Honderlick P, et al. **Pathol Biol (Paris)** 1999 May; 47(5):560–2

Lack of GB virus C/hepatitis G virus sequences in cerebrospinal fluid in patients with central nervous system infections [letter] Radkowski M, et al. **Scand J Infect Dis** 1998;30(5):539

[DuPont-Pharma Laboratories. Sustiva (news)] **Allerg Immunol (Paris)** 1998 Nov;30(9):302 **(Fre)**

[Clinical importance of the quantification of HIV-1 RNA in cerebrospinal fluid for the diagnosis of HIV encephalitis] Bossi P, et al. **Pathol Biol (Paris)** 1998 Jun;46(6):423–5 (Eng. Abstr.) **(Fre)**

CHEMICAL SYNTHESIS

In vitro-synthesized infectious RNA as an attenuated live vaccine in a flavivirus model [see comments] Mandl CW, et al. **Nat Med** 1998 Dec;4(12):1438–40. Comment in: Nat Med 1998 Dec;4(12):1357–8.

CHEMISTRY

Detection and treatment of twinning: an improvement and new results. Dumas P, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1179–87

Crystallization of the dimerization-initiation site of genomic HIV-1 RNA: preliminary crystallographic results. Yusupov M, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):281–4

An essential secondary structure in the 3'untranslated region of the mouse hepatitis virus genome. Hsue B, et al. **Adv Exp Med Biol** 1998;440:297–302

Nucleotide sequences of the 26S mRNAs of the viruses defining the Venezuelan equine encephalitis antigenic complex. Kinney RM, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):952–64

Oligonucleotide-mediated inhibition of genomic RNA dimerization of HIV-1 strains MAL and LAI: a comparative analysis. Lodmell JS, et al. **Antisense Nucleic Acid Drug Dev** 1998 Dec;8(6):517–29

Sequence analysis of RNA-2 of different isolates of broad bean wilt virus confirms the existence of two distinct species. Kobayashi YO, et al. **Arch Virol** 1999; 144(7):1429–38

Complete nucleotide sequence and analysis of the putative polyprotein of maize dwarf mosaic virus genomic RNA (Bulgarian isolate). Kong P, et al. **Arch Virol** 1998; 143(9):1791–9

Evidence for three groups of sequence variants of beet necrotic yellow vein virus RNA 5. Miyanishi M, et al. **Arch Virol** 1999;144(5):879–92

Circular dichroism studies of CMV-D and CMV-S: two strains of cucumber mosaic cucumovirus with a different biological behaviour. Piazzolla P, et al. **Arch Virol** 1998; 143(12):2305–12

Nucleotide sequence of the 3'terminal region of the genome of four lettuce mosaic virus isolates from Greece and Yemen. Revers F, et al. **Arch Virol** 1999;144(8):1619–26

Nucleotide sequence analysis of the 3'terminal region of a wasabi strain of crucifer tobamovirus genomic RNA: subgrouping of crucifer tobamoviruses. Shimamoto I, et al. **Arch Virol** 1998;143(9):1801–13

Sequence analysis of Australian infectious bursal disease viruses. Proffitt JM, et al. **Aust Vet J** 1999 Mar;77(3):186–8

Thermodynamic analysis of an RNA combinatorial library contained in a short hairpin. Bevilacqua JM, et al. **Biochemistry** 1998 Nov 10;37(45):15877–84

Effects of secondary structure on DNA and RNA cleavage by diplatinum(II). Carter PJ, et al. **Biochemistry** 1998 Sep 29;37(39):13736–43

The dimerization domain of potato spindle tuber viroid, a possible hallmark for infectious RNA. Gast FU, et al.

Biochemistry 1998 Oct 6;37(40):14098–107
Variant effects of non–native kissing–loop hairpin palindromes on HIV replication and HIV RNA dimerization: role of stem–loop B in HIV replication and HIV RNA dimerization. Laughrea M, et al. **Biochemistry** 1999 Jan 5;38(1):226–34
Equilibrium unfolding (folding) pathway of a model H–type pseudoknotted RNA: the role of magnesium ions in stability. Nixon PL, et al. **Biochemistry** 1998 Nov 17; 37(46):16116–29
NMR structure and dynamics of an RNA motif common to the spliceosome branch–point helix and the RNA–binding site for phage GA coat protein. Smith JS, et al. **Biochemistry** 1998 Sep 29;37(39):13486–98
Folding of the four–way RNA junction of the hairpin ribozyme. Walter F, et al. **Biochemistry** 1998 Dec 15; 37(50):17629–36
The effect of template RNA structure on elongation by HIV–1 reverse transcriptase. Klasens BI, et al. **Biochim Biophys Acta** 1999 Mar 19;1444(3):355–70
Photoinduced cross–linking of RNA by cis–Rh(phen)2Cl2+ and cis–Rh(phen)(phi)Cl2+: a new family of light activatable nucleic acid cross–linking agents. Mohammad T, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1703–8
The highly ordered doub'e–stranded RNA genome of bluetongue virus revealed by crystallography. Gouet P, et al. **Cell** 1999 May 14;97(4):481–90
RNA architecture dictates the conformations of a bound peptide. Ye X, et al. **Chem Biol** 1999 Sep;6(9):657–69
Adaptive recognition in RNA complexes with peptides and protein modules. Patel DJ. **Curr Opin Struct Biol** 1999 Feb; 9(1):74–87 (59 ref.)
Assaying RNA chaperone activity in vivo using a novel RNA folding trap. Clodi E, et al. **EMBO J** 1999 Jul 1; 18(13):3776–82
Structure of the 3'–hairpin of the TYMV pseudoknot: preformation in RNA folding. Kolk MH, et al. **EMBO J** 1998 Dec 15;17(24):7498–504
Genetic analysis of type O viruses responsible for epidemics of foot–and–mouth disease in North Africa. Samuel AR, et al. **Epidemiol Infect** 1999 Jun;122(3):529–38
Polymorphism of turnip yellow mosaic virus empty shells and evidence for conformational changes occurring after release of the viral RNA. A differential scanning calorimetric study. Michels B, et al. **Eur J Biochem** 1999 Sep;264(3):965–72
NMR structure of the chimeric hybrid duplex r(gcaguggc).r(gcca)d(CTGC) comprising the tRNA–DNA junction formed during initiation of HIV–1 reverse transcription. Szyperski T, et al. **J Biomol NMR** 1999 Apr; 13(4):343–55
Dimer initiation sequence of HIV–1Lai genomic RNA: NMR solution structure of the extended duplex. Girard F, et al. **J Biomol Struct Dyn** 1999 Jun;16(6):1145–57
Ion–RNA interactions in the RNA pseudoknot of a ribosomal frameshifting site: molecular modeling studies. Le SY, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):1–11
Effect of multiple freeze–thaw cycles on hepatitis B virus DNA and hepatitis C virus RNA quantification as measured with branched–DNA technology. Krajden M, et al. **J Clin Microbiol** 1999 Jun;37(6):1683–6
Comparative sequence analysis of American, European and Asian isolates of viruses in the genus Coltivirus. Attoui H, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2481–9
Diversity among isolates of squash mosaic virus. Haudenshield JS, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2331–41
Nucleotide sequences of the trailer, nucleocapsid protein gene and intergenic regions of Newcastle disease virus strain Beaudette C and completion of the entire genome sequence. Krishnamurthy S, et al. **J Gen Virol** 1998 Oct; 79 (Pt 10):2419–24
Isolation and characterization of a transfectant influenza B virus altered in RNA segment 6. Rowley KV, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2353–9
HCV NS5A 2209–2248 amino acid substitutions affect serum 2,5AS activities [letter] Murashima S, et al. **J Hepatol** 1999 Aug;31(2):382
Structural and functional analysis of the 3' untranslated region of bamboo mosaic potexvirus genomic RNA. Cheng CP, et al. **J Mol Biol** 1999 May 14;288(4):555–65
Exploring three–dimensional structures of the HIV–1 RNA/tRNALys3 initiation complex. Elgavish T, et al. **J Mol Biol** 1999 Jan 15;285(2):449–53
Sequential folding of the genomic ribozyme of the hepatitis delta virus: structural analysis of RNA transcription intermediates. Matysiak M, et al. **J Mol Biol** 1999 Aug 13;291(2):283–94
Stem–loop structure in the 5' region of potato virus X genome required for plus–strand RNA accumulation. Miller ED, et al. **J Mol Biol** 1998 Dec 4;284(3):591–608
An additional dimer linkage structure in Moloney murine leukemia virus RNA. Oroudjev EM, et al. **J Mol Biol** 1999 Aug 20;291(3):603–13
Three–dimensional folding of an RNA hairpin required for packaging HIV–1. Pappalardo L, et al. **J Mol Biol** 1998 Oct 2;282(4):801–18
A branched stem–loop structure in the M–site of bacteriophage Qbeta RNA is important for template recognition by Qbeta replicase holoenzyme. Schuppli D, et al. **J Mol Biol** 1998 Oct 30;283(3):585–93
Imaging RNA and dynamic protein segments with low–resolution virus crystallography: experimental design. data processing and implications of electron density maps. Tsuruta H, et al. **J Mol Biol** 1998 Dec 18;284(5):1439–52
A hairpin structure in the R region of the human immunodeficiency virus type 1 RNA genome is instrumental in polyadenylation site selection. Das AT, et al. **J Virol** 1999 Jan;73(1):81–91
A phylogenetically conserved stem–loop structure at the 5' border of the internal ribosome entry site of hepatitis C virus is required for cap–independent viral translation. Honda M, et al. **J Virol** 1999 Feb;73(2):1165–74
Genetic analysis of a unique human immunodeficiency virus type 1 (HIV–1) with a primer binding site complementary to tRNAMet supports a role for U5–PBS stem–loop RNA structures in initiation of HIV–1 reverse transcription. Kang SM, et al. **J Virol** 1999 Mar;73(3):1818–27
Primary and secondary structural elements required for synthesis of barley yellow dwarf virus subgenomic RNA1. Koev G, et al. **J Virol** 1999 Apr;73(4):2876–85
Changes in Rous sarcoma virus RNA secondary structure near the primer binding site upon tRNATrp primer annealing. Morris S, et al. **J Virol** 1999 Aug;73(8):6307–18
A hairpin loop at the 5' end of influenza A virus virion RNA is required for synthesis of poly(A)+ mRNA in vitro. Pritlove DC, et al. **J Virol** 1999 Mar;73(3):2109–14
Alterations to both the primary and predicted secondary structure of stem–loop IIIc of the hepatitis C virus 1b 5' untranslated region (5'UTR) lead to mutants severely defective in translation which cannot be complemented in trans by the wild–type 5'UTR sequence. Tang S, et al. **J Virol** 1999 Mar;73(3):2359–64
Sequence and structural elements at the 3' terminus of bovine viral diarrhea virus genomic RNA: functional role during RNA replication. Yu H, et al. **J Virol** 1999 May; 73(5):3638–48
RNA fractionation by density gradient centrifugation. Shanks M. **Methods Mol Biol** 1998;81:251–4
Formation of a functional hepatitis B virus replication initiation complex involves a major structural alteration in the RNA template. Beck J, et al. **Mol Cell Biol** 1998 Nov;18(11):6265–72
HIV–1 A–rich RNA loop mimics the tRNA anticodon structure. Puglisi EV, et al. **Nat Struct Biol** 1998 Dec; 5(12):1033–6
Minor groove RNA triplex in the crystal structure of a ribosomal frameshifting viral pseudoknot. Su L, et al. **Nat Struct Biol** 1999 Mar;6(3):285–92
Crystal structure of a hepatitis delta virus ribozyme [see comments] Ferré–D'Amaré AR, et al. **Nature** 1998 Oct 8;395(6702):567–74. Comment in: Nature 1998 Oct 8;395(6702):548–9.
Structure of influenza virus panhandle RNA studied by NMR spectroscopy and molecular modeling. Cheong HK, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1392–7
Folding of pyrimidine–enriched RNA fragments from the vicinity of the internal ribosomal entry site of hepatitis A virus. Hardin CC, et al. **Nucleic Acids Res** 1999 Jan 15; 27(2):665–73
Visualizing tertiary folding of RNA and RNA–protein interactions by a tethered iron chelate: analysis ofHIV–1 Tat–TAR complex. Huq I, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1084–93
RNA bulge entropies in the unbound state correlate with peptide binding strengths for HIV–1 and BIV TAR RNA because of improved conformational access. Lustig B, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5212–7
Detailed analysis of stem I and its 5' and 3' neighbor regions in the trans–acting HDV ribozyme. Nishikawa F, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):403–10
A conserved bulged adenosine in a peripheral duplex of the antigenomic HDV self–cleaving RNA reduceskinetic trapping of inactive conformations. Perrotta AT, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):795–802
The hepatitis B virus post–transcriptional regulatory element contains two conserved RNA stem–loops which are required for function. Smith GJ 3rd, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4818–27
RNA structure adjacent to the attenuation determinant in the 5'–non–coding region influences poliovirus viability. Stewart SR, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5318–26
Structural requirements of the higher order RNA kissing element in the enteroviral 3'UTR. Wang J, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):485–90
Mapping the molecular determinant of pathogenicity in a hammerhead viroid: a tetraloop within the in vivo branched RNA conformation. de la Peña M, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9960–5
A coding RNA sequence acts as a replication signal in cardioviruses. Lobert PE, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11560–5
Long–distance RNA–RNA interactions and conserved sequence elements affect potato virus X plus–strand RNA accumulation. Kim KH, et al. **RNA** 1999 May;5(5):636–45
Formation of metastable RNA structures by sequential folding during transcription: time–resolved structural analysis of potato spindle tuber viroid (–)–stranded RNA by temperature–gradient gel electrophoresis. Repsilber D, et al. **RNA** 1999 Apr;5(4):574–84
Assembly and analysis of conical models for the HIV–1 core. Ganser BK, et al. **Science** 1999 Jan 1;283(5398):80–3
Deletion of internal sequences results in tobacco mosaic virus defective RNAs that accumulate to high levels without interfering with replication of the helper virus. Lewandowski DJ, et al. **Virology** 1998 Nov 25; 251(2):427–37
Restoration of a stem–loop structure required for potato virus X RNA accumulation indicates selection for a mismatch and a GNRA tetraloop. Miller ED, et al. **Virology** 1999 Aug 1;260(2):342–53
Phylogenetic evidence for the improved RNA higher–order structure in internal ribosome entry sequences of HCV and pestiviruses. Le SY, et al. **Virus Genes** 1998;17(3):279–95
Nucleotide sequence and phylogenetic analysis of the medium (M) genomic RNA segments of three hantaviruses isolated in China. Shi X, et al. **Virus Res** 1998 Jul; 56(1):69–76

DRUG EFFECTS

Follow–up of hepatitis C virus RNA in peripheral blood mononuclear cells during interferon therapy. Cribier B, et al. **Arch Virol** 1999;144(2):355–64
Deguanylation of human immunodeficiency virus (HIV–1) RNA by recombinant pokeweed antiviral protein. Rajamohan F, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):419–24
Pokeweed antiviral protein isoforms PAP–I, PAP–II, and PAP–III depurinate RNA of human immunodeficiency virus (HIV)–1. Rajamohan F, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):453–8
Molecular basis of HIV–1 TAR RNA specific recognition by an acridine tat–antagonist. Gelus N, et al. **Bioorg Med Chem** 1999 Jun;7(6):1075–9
Inhibition of HIV–1 Tat–TAR interaction by diphenylfuran derivatives: effects of the terminal basic side chains. Gelus N, et al. **Bioorg Med Chem** 1999 Jun;7(6):1089–96
Initial daily interferon administration can gain more eradication of HCV–RNA in patients with chronic hepatitis C, especially with serum intermediate viral load. Nakamura H, et al. **Hepatogastroenterology** 1999 Mar–Apr; 46(26):1131–9
Modeling of the interaction between new ethidium derivatives and TAR RNA of HIV–1. Terreux R, et al. **J Chem Inf Comput Sci** 1999 Mar–Apr;39(2):413–9
Elimination of duck hepatitis B virus RNA–containing capsids in duck interferon–alpha–treated hepatocytes. Schultz U, et al. **J Virol** 1999 Jul;73(7):5459–65
Influence of delayed viral production on viral dynamics in HIV–1 infected patients. Mittler JE, et al. **Math Biosci** 1998 Sep;152(2):143–63
[High viral content in men's semen during highly active antiretroviral therapy] **Hautarzt** 1999 Apr;50(4):317 **(Ger)**

GENETICS

EBER in situ hybridization differentiates carcinomas originating from the sinonasal region and the nasopharynx. Hwang TZ, et al. **Anticancer Res** 1998 Nov–Dec; 18(6B):4581–4
Quantification of hepatitis A virus in shellfish by competitive reverse transcription–PCR with coextraction of standard RNA. Arnal C, et al. **Appl Environ Microbiol** 1999 Jan; 65(1):322–6
Banana bunchy top virus DNA–2 to 6 are monocistronic. Beetham PR, et al. **Arch Virol** 1999;144(1):89–105
Characterization of a bovine herpesvirus 4(BHV–4) 1.1–kb RNA and its transactivation by BHV–4 immediate–early 2 gene product. Bermudez–Cruz R, et al. **Arch Virol** 1998; 143(12):2391–412
Complete nucleotide sequence of the genomic RNA of a Japanese yam mosaic virus, a new potyvirus in Japan. Fuji S, et al. **Arch Virol** 1999;144(2):231–40
Characterization of the large (L) RNA of peanut bud necrosis tospovirus. Gowda S, et al. **Arch Virol** 1998; 143(12):2381–90
Complete nucleotide sequence of the genome organization of RNA2 of patchouli mild mosaic virus, a new favavirus. Ikegami M, et al. **Arch Virol** 1998;143(12):2431–4
Characterization of an internal ribosome entry site within mRNA 5 of murine hepatitis virus. Jendrach M, et al. **Arch Virol** 1999;144(5):921–33
Effects of structural modifications upon the accumulation in planta of replicons derived from beet necrotic yellow vein virus RNA 3. Lauber E, et al. **Arch Virol** 1999; 144(6):1201–8
Structure analysis of the rice yellow stunt rhabdovirus glycoprotein gene and its mRNA. Luo ZL, et al. **Arch Virol** 1998;143(12):2453–9
Evidence for three groups of sequence variants of beet necrotic yellow vein virus RNA 5. Miyanishi M, et al. **Arch Virol** 1999;144(5):879–92
Molecular characterization of the RNA3 of asparagus virus 2. Rafael–Martin M, et al. **Arch Virol** 1999;144(1):185–92
Recombination of nonreplicative RNA precursors of Sindbis virus in infected cells overexpressing murine–inducible nitric oxide synthase. Herrmann A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):524–31
Mutational analysis of two unstructured domains of the 5' untranslated region of HCV RNA. Varaklioti A, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):678–85
Nucleotide sequencing of S–RNA segment and sequence analysis of the nucleocapsid protein gene of the newly isolated Akabane virus PT–17 strain. Chang CW, et al.

Biochem Mol Biol Int 1998 Aug;45(5):979–87

RNA recognition and regulation of HIV–1 gene expression by viral factor Tat. Naryshkin NA, et al.
Biochemistry (Mosc) 1998 May;63(5):489–503 (98 ref.)

Comparison of three RNA amplification methods as sources of DNA for sequencing. Chadwick N, et al.
Biotechniques 1998 Nov;25(5):818–20, 822

Defective and defective interfering RNAs of monopartite plus–strand RNA plant viruses. White KA, et al.
Curr Top Microbiol Immunol 1999;239:1–17 (66 ref.)

Yellow head virus from Thailand and gill–associated virus from Australia are closely related but distinct prawn viruses. Cowley JA, et al. **Dis Aquat Organ** 1999 May 12; 36(2):153–7

Reverse transcription polymerase chain reaction (RT–PCR) used for the detection of Taura syndrome virus (TSV) in experimentally infected shrimp. Nunan LM, et al.
Dis Aquat Organ 1998 Oct 8;34(2):87–91

Distinct regions of influenza virus PB1 polymerase subunit recognize vRNA and cRNA templates. González S, et al.
EMBO J 1999 Jul 1;18(13):3767–75

Virus–specific capping of tobacco mosaic virus RNA: methylation of GTP prior to formation of covalent complex p126–m7GMP. Merits A, et al. **FEBS Lett** 1999 Jul 16; 455(1–2):45–8

Mutational analysis of a conserved tetraloop in the 5' untranslated region of hepatitis C virus identifies a novel RNA element essential for the internal ribosome entry site function. Psaridi L, et al. **FEBS Lett** 1999 Jun 18; 453(1–2):49–53

The Tat protein of equine infectious anemia virus (EIAV) activates cellular gene expression by read–through transcription. Rosin–Arbesfeld R, et al. **Gene** 1998 Sep 28; 219(1–2):25–35

unr, a cellular cytoplasmic RNA–binding protein with five cold–shock domains, is required for internal initiation of translation of human rhinovirus RNA. Hunt SL, et al.
Genes Dev 1999 Feb 15;13(4):437–48

Processive antitermination. Weisberg RA, et al.
J Bacteriol 1999 Jan;181(2):359–67 (105 ref.)

Overlapping cis sites used for splicing of HIV–1 env/nef and rev mRNAs. Swanson AK, et al. **J Biol Chem** 1998 Dec 18;273(51):34551–7

Characterization of La Crosse virus RNA in autopsied central nervous system tissues. Chandler LJ, et al.
J Clin Microbiol 1998 Nov;36(11):3332–6

Clinical significance of expression of human cytomegalovirus pp67 late transcript in heart, lung, and bone marrow transplant recipients as determined by nucleic acid sequence–based amplification. Gerna G, et al.
J Clin Microbiol 1999 Apr;37(4):902–11

Comparison of levels of human immunodeficiency virus type 1 RNA in plasma as measured by the NucliSens nucleic acid sequence–based amplification and Quantiplex branched–DNA assays. Ginocchio CC, et al.
J Clin Microbiol 1999 Apr;37(4):1210–2

Genotype dependence of hepatitis C virus load measurement in commercially available quantitative assays. Mellor J, et al. **J Clin Microbiol** 1999 Aug;37(8):2525–32

Isolation of a human rotavirus strain with a super–short RNA pattern and a new P2 subtype. Nakagomi T, et al.
J Clin Microbiol 1999 Apr;37(4):1213–6

Viral RNA and evolved mutational robustness. Wagner A, et al. **J Exp Zool** 1999 Aug 15;285(2):119–27 (54 ref.)

New defective RNAs from citrus tristeza virus: evidence for a replicase–driven template switching mechanism in their generation. Aylón MA, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):817–21

Novel retroviral sequences are expressed in the epididymis and uterus of Syrian hamsters. DeHaven JE, et al.
J Gen Virol 1998 Nov;79 (Pt 11):2687–94

Complete sequence and genome properties of Chinese wheat mosaic virus, a new furovirus from China. Diao A, et al.
J Gen Virol 1999 May;80 (Pt 5):1141–5

The nucleotide sequence of sacbrood virus of the honey bee: an insect picorna–like virus. Ghosh RC, et al.
J Gen Virol 1999 Jun;80 (Pt 6):1541–9

The encapsidation signal of hepatitis B virus facilitates preC AUG recognition resulting in inefficient translation of the downstream genes. Hwang WL, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1769–76

Completion of the Tula hantavirus genome sequence: properties of the L segment and heterogeneity found in the 3' termini of S and L genome RNAs. Kukkonen SK, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2615–22

Prevalence of GBV–C/hepatitis G virus RNA and E2 antibody among subjects infected with human immunodeficiency virus type 1 after parenteral or sexual exposure. Bourlet T, et al. **J Med Virol** 1999 Aug; 58(4):373–7

Detection of influenza virus RNA by reverse transcription–PCR and proinflammatory cytokines in influenza–virus–associated encephalopathy. Ito Y, et al.
J Med Virol 1999 Aug;58(4):420–5

Divergent evolution of hepatitis C virus in liver and peripheral blood mononuclear cells of infected patients. Maggi F, et al. **J Med Virol** 1999 Jan;57(1):57–63

Cyclin T1 domains involved in complex formation with Tat and TAR RNA are critical for tat–activation. Ivanov D, et al. **J Mol Biol** 1999 Apr 23;288(1):41–56

Secondary structure and mutational analysis of the ribosomal frameshift signal of rous sarcoma virus. Marczinke B, et al. **J Mol Biol** 1998 Nov 27;284(2):205–25

Coronavirus transcription early in infection. An S, et al.
J Virol 1998 Nov;72(11):8517–24

Intracellular localization of poliovirus plus– and minus–strand RNA visualized by strand–specific fluorescent In situ hybridization. Bolten R, et al. **J Virol** 1998 Nov; 72(11):8578–85

Alfalfa mosaic virus RNAs serve as cap donors for tomato spotted wilt virus transcription during coinfection of Nicotiana benthamiana. Duijsings D, et al. **J Virol** 1999 Jun;73(6):5172–5

Mutations in the N terminus of the brome mosaic virus polymerase affect genetic RNA–RNA recombination. Figlerowicz M, et al. **J Virol** 1998 Nov;72(11):9192–200

Interaction of poly(rC) binding protein 2 with the 5' noncoding region of hepatitis A virus RNA and its effects on translation. Graff J, et al. **J Virol** 1998 Dec; 72(12):9668–75

Epstein–Barr virus small RNA (EBER) genes: differential regulation during lytic viral replication. Greifenegger N, et al. **J Virol** 1998 Nov;72(11):9323–8

Specific interaction of heterogeneous nuclear ribonucleoprotein particle U with the leader RNA sequence of vesicular stomatitis virus. Gupta AK, et al.
J Virol 1998 Nov;72(11):8532–40

Two nucleotides immediately upstream of the essential A6G3 slippery sequence modulate the pattern of G insertions during Sendai virus mRNA editing. Hausmann S, et al.
J Virol 1999 Jan;73(1):343–51

The 3'–untranslated region of hepatitis C virus RNA enhances translation from an internal ribosomal entry site. Ito T, et al. **J Virol** 1998 Nov;72(11):8789–96

Detection and sequence analysis of borna disease virus p24 RNA from peripheral blood mononuclear cells of patients with mood disorders or schizophrenia and of blood donors. Iwata Y, et al. **J Virol** 1998 Dec;72(12):10044–9

Induction and maintenance of autonomous flock house virus RNA1 replication. Johnson KL, et al. **J Virol** 1999 Oct; 73(10):7933–42

Evidence that the genomic RNA of hepatitis E virus is capped. Kabrane–Lazizi Y, et al. **J Virol** 1999 Oct; 73(10):8848–50

Human immunodeficiency virus types 1 and 2 differ in the predominant mechanism used for selection of genomic RNA for encapsidation. Kaye JF, et al. **J Virol** 1999 Apr; 73(4):3023–31

Primary and secondary structural elements required for synthesis of barley yellow dwarf virus subgenomic RNA1. Koev G, et al. **J Virol** 1999 Apr;73(4):2876–85

Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of retroviral vectors. López–Lastra M, et al. **J Virol** 1999 Oct;73(10):8393–402

Splicing–independent expression of the herpes simplex virus type 1 thymidine kinase gene is mediated by three cis–acting RNA subelements. Otero GC, et al. **J Virol** 1998 Dec;72(12):9889–96

Molecular evidence for mother–to–child transmission of multiple variants by analysis of RNA and DNA sequences of human immunodeficiency virus type 1. Pasquier C, et al. **J Virol** 1998 Nov;72(11):8493–501

Direct evidence that the poly(A) tail of influenza A virus mRNA is synthesized by reiterative copying of a U track in the virion RNA template. Poon LL, et al. **J Virol** 1999 Apr;73(4):3473–6

Human papillomavirus type 18 E1 protein is translated from polycistronic mRNA by a discontinuous scanning mechanism. Remm M, et al. **J Virol** 1999 Apr;73(4):3062–70

Control of human immunodeficiency virus type 1 RNA metabolism: role of splice sites and intron sequences in unspliced viral RNA subcellular distribution. Séguin B, et al. **J Virol** 1998 Dec;72(12):9503–13

Mta has properties of an RNA export protein and increases cytoplasmic accumulation of Epstein–Barr virus replication gene mRNA. Semmes OJ, et al. **J Virol** 1998 Dec; 72(12):9526–34

A brome mosaic virus intergenic RNA3 replication signal functions with viral replication protein 1a to dramatically stabilize RNA in vivo. Sullivan ML, et al. **J Virol** 1999 Apr;73(4):2622–32

R region sequences in the long terminal repeat of a murine retrovirus specifically increase expression of unspliced RNAs. Trubetskoy AM, et al. **J Virol** 1999 Apr; 73(4):3477–83

Sufficient length of a poly(A) tail for the formation of a potential pseudoknot is required for efficient replication of bamboo mosaic potexvirus RNA. Tsai CH, et al.
J Virol 1999 Apr;73(4):2703–9

Bamboo mosaic potexvirus satellite RNA (satBaMV RNA)–encoded P20 protein preferentially binds to satBaMV RNA. Tsai MS, et al. **J Virol** 1999 Apr; 73(4):3032–9

Isolation from tobacco mosaic virus–infected tobacco of a solubilized template–specific RNA–dependent RNA polymerase containing a 126K/183K protein heterodimer. Watanabe T, et al. **J Virol** 1999 Apr;73(4):2633–40

A phylogenetically conserved hairpin–type 3' untranslated region pseudoknot functions in coronavirus RNA replication. Williams GD, et al. **J Virol** 1999 Oct; 73(10):8349–55

Formation and amplification of a novel tombusvirus defective RNA which lacks the 5' nontranslated region of the viral genome. Wu B, et al. **J Virol** 1998 Dec;72(12):9897–905

Secondary structure of the hepatitis C virus 5' untranslated region and efficacy of interferon therapy for chronic hepatitis C. Suzuki K, et al. **Liver** 1998 Oct;18(5):331–6

Molecular epidemiology of DEN–2 virus in Brazil. Miagostovich MP, et al. **Mem Inst Oswaldo Cruz** 1998 Sep–Oct;93(5):625–6

Precise packaging of the three genomic segments of the double–stranded–RNA bacteriophage phi6. Mindich L.
Microbiol Mol Biol Rev 1999 Mar;63(1):149–60 (88 ref.)

The 5' noncoding region of grapevine chrome mosaic nepovirus RNA–2 triggers a necrotic response on three Nicotiana spp. Fernandez I, et al.
Mol Plant Microbe Interact 1999 Apr;12(4):337–44

PCR–mediated recombination: a general method applied to construct chimeric infectious molecular clones of plasma–derived HIV–1 RNA. Fang G, et al. **Nat Med** 1999 Feb;5(2):239–42

The Holy Grail of influenza virologists [news] Oxford JS, et al. **Nat Med** 1999 May;5(5):484–5

In vivo selection for intronic splicing signals from a randomized pool. Bouck J, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4516–23

Transfer RNA mimicry among tymoviral genomic RNAs ranges from highly efficient to vestigial. Dreher TW, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4356–64

The viroid and viroid–like RNA database. Lafontaine DA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):186–7

Proof of hepatitis A virus negative–sense RNA by RNA/DNA–hybrid detection: a method for specific detection of both viral negative– and positive–strand RNA species. Schmitz G, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5230–2

The hepatitis B virus post–transcriptional regulatory element contains two conserved RNA stem–loops which are required for function. Smith GJ 3rd, et al.
Nucleic Acids Res 1998 Nov 1;26(21):4818–27

Thermodynamic studies on hairpin forming antisense–oligodeoxynucleotides directed against hepatitis C virus RNA. Lehmann TJ, et al.
Nucleosides Nucleotides 1999 Jun–Jul;18(6–7):1689–91

Upstream and downstream sequence elements determine the specificity of the rice tungro bacilliform virus promoter and influence RNA production after transcription initiation. Klöti A, et al. **Plant Mol Biol** 1999 May;40(2):249–66

Noncytopathic Sindbis virus RNA vectors for heterologous gene expression [see comments] Agapov EV, et al.
Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12989–94. Comment in: Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12750–2.

Recruitment of cyclin T1/P–TEFb to an HIV type 1 long terminal repeat promoter proximal RNA target is both necessary and sufficient for full activation of transcription. Bieniasz PD, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7791–6

Cytoplasmic RNA modulators of an inside–out signal–transduction cascade. Blind M, et al.
Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3606–10

Generation of influenza A viruses entirely from cloned cDNAs [see comments] Neumann G, et al.
Proc Natl Acad Sci U S A 1999 Aug 3;96(16):9345–50. Comment in: Proc Natl Acad Sci U S A 1999 Aug 3;96(16):8804–6.

Reverse genetics of negative–strand RNA viruses: closing the circle [comment] Pekosz A, et al.
Proc Natl Acad Sci U S A 1999 Aug 3;96(16):8804–6 (41 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Aug 3;96(16):9345–50.

An engineered closterovirus RNA replicon and analysis of heterologous terminal sequences for replication. Satyanarayana T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7433–8

cis–acting RNA elements required for replication of bovine viral diarrhea virus–hepatitis C virus 5' nontranslated region chimeras. Frolov I, et al. **RNA** 1998 Nov; 4(11):1418–35

Polypyrimidine–tract binding protein (PTB) is necessary, but not sufficient, for efficient internal initiation of translation of human rhinovirus–2 RNA. Hunt SL, et al. **RNA** 1999 Mar;5(3):344–59

Features of the autonomous function of the translational enhancer domain of satellite tobacco necrosis virus. Meulewaeter F, et al. **RNA** 1998 Nov;4(11):1347–56

Formation of metastable RNA structures by sequential folding during transcription: time–resolved structural analysis of potato spindle tuber viroid (–)–stranded RNA by temperature–gradient gel electrophoresis. Repsilber D, et al. **RNA** 1999 Apr;5(4):574–84

A selection system for functional internal ribosome entry site (IRES) elements: analysis of the requirement for a conserved GNRA tetraloop in the encephalomyocarditis virus IRES. Robertson ME, et al. **RNA** 1999 Sep; 5(9):1167–79

A potential mechanism for selective control of cap–independent translation by a viral RNA sequence in cis and in trans. Wang S, et al. **RNA** 1999 Jun;5(6):728–38

Subgenomic mRNA regulation by a distal RNA element in a (+)–strand RNA virus. Zhang G, et al. **RNA** 1999 Apr; 5(4):550–61

Barley yellow dwarf virus RNA requires a cap–independent translation sequence because it lacks a 5' cap. Allen E, et al. **Virology** 1999 Jan 20;253(2):139–44

A human liver cell line exhibits efficient translation of HCV RNAs produced by a recombinant adenovirus expressing T7 RNA polymerase. Aoki Y, et al. **Virology** 1998 Oct 10;250(1):140–50

The native structure of the human immunodeficiency virus type 1 RNA genome is required for the first strand transfer of reverse transcription. Berkhout B, et al. **Virology** 1998 Sep 30;249(2):211–8

Transgenically expressed cucumber mosaic virus RNA 1 simultaneously complements replication of cucumber mosaic virus RNAs 2 and 3 and confers resistance to systemic infection. Canto T, et al. **Virology** 1998 Oct 25; 250(2):325–36

Sequences 5' of the conserved tRNA-like promoter modulate the initiation of minus-strand synthesis by the brome mosaic virus RNA-dependent RNA polymerase. Chapman MR, et al. **Virology** 1998 Dec 20;252(2):458–67

Carboxy-terminal five amino acids of the nucleocapsid protein of vesicular stomatitis virus are required for encapsidation and replication of genome RNA. Das T, et al. **Virology** 1999 Jun 20;259(1):219–27

Effect of Rev on the intranuclear localization of HIV-1 unspliced RNA. Favaro JP, et al. **Virology** 1998 Sep 30; 249(2):286–96

Sequence element required for efficient -1 ribosomal frameshifting in red clover necrotic mosaic dianthovirus. Kim KH, et al. **Virology** 1998 Oct 10;250(1):50–9

Characterization of mRNA for hepatitis delta antigen: exclusion of the full-length antigenomic RNA as an mRNA. Lo K, et al. **Virology** 1998 Oct 10;250(1):94–105

In vitro characterization of late steps of RNA recombination in turnip crinkle virus. I. Role of motif1-hairpin structure. Nagy PD, et al. **Virology** 1998 Sep 30;249(2):379–92

In vitro characterization of late steps of RNA recombination in turnip crinkle virus.II. The role of the priming stem and flanking sequences. Nagy PD, et al. **Virology** 1998 Sep 30; 249(2):393–405

Enhancer-like properties of an RNA element that modulates Tombusvirus RNA accumulation. Ray D, et al. **Virology** 1999 Mar 30;256(1):162–71

Identification of a subgenomic mRNA encoding the capsid protein of mushroom bacilliform virus, a single-stranded RNA mycovirus. Revill PA, et al. **Virology** 1999 Aug 1; 260(2):273–6

Mushroom bacilliform virus RNA: the initiation of translation at the 5' end of the genome and identification of the VPg. Revill PA, et al. **Virology** 1998 Sep 30;249(2):231–7

Sequence comparison of the large genomic RNA segments of two strains of lymphocytic choriomeningitis virus differing in pathogenic potential for guinea pigs. Djavani M, et al. **Virus Genes** 1998;17(2):151–5

A novel spliced transcript of influenza A/WSN/33 virus. Shih SR, et al. **Virus Genes** 1998;17(2):179–83

Sequence comparisons of medium RNA segment among 15 California serogroup viruses. Campbell WP, et al. **Virus Res** 1999 Jun;61(2):137–44

Establishment of the first international standard for nucleic acid amplification technology (NAT) assays for HCV RNA. WHO Collaborative Study Group. Saldanha J, et al. **Vox Sang** 1999;76(3):149–58

[An investigation on genotypes of hepatitis C virus in Anhui province] Su H, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):205–7 (Eng. Abstr.) **(Chi)**

[Viral hepatitis: molecular diagnosis] Blum HE. **Schweiz Rundsch Med Prax** 1998 Oct 14;87(42):1381–8 (56 ref.) (Eng. Abstr.) **(Ger)**

[Amber-suppressive tRNA from bacteriophage T5: construction of genes and determination of the effectiveness of suppression in vivo] Pan'kova NV, et al. **Mol Biol (Mosk)** 1998 Nov-Dec;32(6):1004–12 **(Rus)**

IMMUNOLOGY

The differential infectivity and staged progression models for the transmission of HIV. Hyman JM, et al. **Math Biosci** 1999 Feb;155(2):77–109

ISOLATION & PURIFICATION

Comparison of different methods of RNA isolation for plum pox virus detection by reverse transcription-polymerase chain reaction. Faggioli F, et al. **Acta Virol** 1998 Sep; 42(4):219–21

RNA virus of hepatitis G (GB virus) prevalence in health care personnel [letter] Quirós E, et al. **Am J Infect Control** 1999 Apr;27(2):176–7

EBER1 in situ hybridization as an adjuvant for diagnosis of recurrent nasopharyngeal carcinoma. Hsiao JR, et al. **Anticancer Res** 1998 Nov-Dec;18(6B):4585–9

Quantification of hepatitis A virus in shellfish by competitive reverse transcription-PCR with coextraction of standard RNA. Arnal C, et al. **Appl Environ Microbiol** 1999 Jan; 65(1):322–6

Rapid isolation of HCV RNA from Catrimox-lysed whole blood using QIAamp spin columns [published erratum appears in Biotechniques 1999 Apr;26(4):716] Ali SA, et al. **Biotechniques** 1998 Dec;25(6):975–8

Tracheal aspirate as a substrate for polymerase chain reaction detection of viral genome in childhood pneumonia and myocarditis. Akhtar N, et al. **Circulation** 1999 Apr 20; 99(15):2011–8

Monitoring of inhibitors of enzymatic amplification in polymerase chain reaction and evaluation of efficacy of RNA extraction for the detection of hepatitis C virus using the internal control. Miyachi H, et al. **Clin Chem Lab Med** 1998 Aug;36(8):571–5

Epstein-Barr virus-associated gastric carcinoma and atrophic gastritis [see comments] Yanai H, et al. **J Clin Gastroenterol** 1999 Jul;29(1):39–43. Comment in: J Clin Gastroenterol 1999 Jul;29(1):3–5.

Isolation of DNA after extraction of RNA To detect the presence of Borrelia burgdorferi and expression of host cellular genes from the same tissue sample. Amemiya K, et al. **J Clin Microbiol** 1999 Jun;37(6):2087–9

Characterization of La Crosse virus RNA in autopsied central nervous system tissues. Chandler LJ, et al. **J Clin Microbiol** 1998 Nov;36(11):3332–6

Detection of human papillomavirus types 16 and 18 mRNA in peripheral blood of advanced cervical cancer patients and its association with prognosis. Tseng CJ, et al. **J Clin Oncol** 1999 May;17(5):1391–6

Detection of enteroviral RNA in end-stage dilated cardiomyopathy in children and adolescents. Arola A, et al. **J Med Virol** 1998 Dec;56(4):364–71

High prevalence of GB virus C/hepatitis G virus RNA in patients infected with human immunodeficiency virus. Rey D, et al. **J Med Virol** 1999 Jan;57(1):75–9

Re: Cell and molecular biology of simian virus 40: implications for human infections and disease [letter] Durie BG, et al. **J Natl Cancer Inst** 1999 Jul 7;91(13):1166–7

Hepatitis E virus RNA detection in serum and feces specimens with the use of microspin columns. Aggarwal R, et al. **J Virol Methods** 1998 Oct;74(2):209–13

A comparison of two RNA isolation methods for double-stranded RNA of infectious bursal disease virus. Akin A, et al. **J Virol Methods** 1998 Oct;74(2):179–84

Comparison of seven RNA extraction methods on stool and shellfish samples prior to hepatitis A virus amplification. Arnal C, et al. **J Virol Methods** 1999 Jan;77(1):17–26

Comparison of specific and random priming in the reverse transcriptase polymerase chain reaction for genotyping group A rotaviruses. Iturriza-Gomara M, et al. **J Virol Methods** 1999 Mar;78(1–2):93–103

Detection of Epstein-Barr virus EBER sequence in post-transplant lymphoma patients with DNA dendrimers. Orentas RJ, et al. **J Virol Methods** 1999 Feb;77(2):153–63

Detection and quantification of Epstein-Barr virus EBER1 in EBV-infected cells by fluorescent in situ hybridization and flow cytometry. Stowe RP, et al. **J Virol Methods** 1998 Nov;75(1):83–91

Techniques for the evaluation of nucleic acid amplification technology performance with specimens containing interfering substances: efficacy of boom methodology for extraction of HIV-1 RNA. Witt DJ, et al. **J Virol Methods** 1999 Apr;79(1):97–111

Potexvirus isolation and RNA extraction. AbouHaidar MG, et al. **Methods Mol Biol** 1998;81:131–43

Potyvirus isolation and RNA extraction. Berger PH, et al. **Methods Mol Biol** 1998;81:151–60

Furovirus isolation and RNA extraction. Bouzoubaa SE. **Methods Mol Biol** 1998;81:107–14

Bromovirus isolation and RNA extraction. Bujarski JJ. **Methods Mol Biol** 1998;81:183–8

Tombusvirus isolation and RNA extraction. Burgyán J, et al. **Methods Mol Biol** 1998;81:225–30

Tobamovirus isolation and RNA extraction. Chapman SN. **Methods Mol Biol** 1998;81:123–9

Carmovirus isolation and RNA extraction. Díez J, et al. **Methods Mol Biol** 1998;81:211–7

Carlavirus isolation and RNA extraction. Foster GD. **Methods Mol Biol** 1998;81:145–50

Trichovirus isolation and RNA extraction. German-Retana S, et al. **Methods Mol Biol** 1998;81:161–70

Tymovirus isolation and genomic RNA extraction. Gibbs A, et al. **Methods Mol Biol** 1998;81:219–24

Ilarvirus isolation and RNA extraction. Guo D, et al. **Methods Mol Biol** 1998;81:171–81

Hordeivirus isolation and RNA extraction. Lawrence DM, et al. **Methods Mol Biol** 1998;81:99–106

Luteovirus isolation and RNA extraction. Perry KL, et al. **Methods Mol Biol** 1998;81:231–9

Cucumovirus isolation and RNA extraction. Roossinck MJ, et al. **Methods Mol Biol** 1998;81:189–96

Tobravirus isolation and RNA extraction. Taylor SC. **Methods Mol Biol** 1998;81:115–21

Reovirus isolation and RNA extraction. Uyeda I, et al. **Methods Mol Biol** 1998;81:65–75

Comovirus isolation and RNA extraction. Wellink J. **Methods Mol Biol** 1998;81:205–9

Nepovirus isolation and RNA extraction. Wood KR. **Methods Mol Biol** 1998;81:197–204

GBV-RNA detection by polymerase chain reaction with several primer pairs. Quirós E, et al. **Microbios** 1998; 95(381):125–30

RNA extraction from virus-diseased sweet potato for reverse transcriptase polymerase chain reaction analysis. Fenby NS, et al. **Mol Biotechnol** 1998 Oct;10(2):187–90

Prevalence of GB virus C/hepatitis G virus ribonucleic acid and anti-hepatitis G virus-E2 antibodies among Japanese children with histories of transfusions or with liver diseases. Goto K, et al. **Pediatr Res** 1999 Jan;45(1):128–32

Detection of avian reovirus RNA and comparison of a portion of genome segment S3 by polymerase chain reaction and restriction enzyme fragment length polymorphism. Lee LH, et al. **Res Vet Sci** 1998 Jul-Aug; 65(1):11–5

Establishment of a highly specific detection system for GB virus C (GBV-C) minus-strand RNA. Seipp S, et al. **Virus Res** 1998 Aug;56(2):183–9

METABOLISM

Coronavirus nucleocapsid protein. RNA interactions. Cologna R, et al. **Adv Exp Med Biol** 1998;440:355–9

Cell proteins bind to a 67 nucleotide sequence within the 3' noncoding region (NCR) of simian hemorrhagic fever virus (SHFV) negative-strand RNA. Hwang YK, et al. **Adv Exp Med Biol** 1998;440:235–40

The arterivirus replicase. The road from RNA to protein(s), and back again. Snijder EJ. **Adv Exp Med Biol** 1998; 440:97–108 (54 ref.)

Cellular protein hnRNP-A1 interacts with the 3'-end and the intergenic sequence of mouse hepatitis virus negative-strand RNA to form a ribonucleoprotein complex. Zhang X, et al. **Adv Exp Med Biol** 1998; 440:227–34

Interactions of HIV-1 TAR RNA with Tat-derived peptides discriminated by on-line acoustic wave detector. Furtado LM, et al. **Anal Chem** 1999 Mar 15;71(6):1167–75

Bone marrow metastasis in nasopharyngeal cancer: early detection using EBER1 in situ hybridization. Chen TY, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):885–8

Targeted cleavage of RNA molecules by human RNase P using minimized external guide sequences. Werner M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):81–8

Targeting RNase L to human immunodeficiency virus RNA with 2-5A-antisense. Player MR, et al. **Antivir Chem Chemother** 1998 May;9(3):225–31

2-5A-DNA conjugate inhibition of respiratory syncytial virus replication: effects of oligonucleotide structure modifications and RNA target site selection. Barnard DL, et al. **Antiviral Res** 1999 Apr;41(3):119–34

Biochemical and functional interactions between HIV-1 Tat protein and TAR RNA. Rana TM, et al. **Arch Biochem Biophys** 1999 May 15;365(2):175–85 (99 ref.)

Characterization and in vitro translation analysis of pelargonium flower break virus. Díez J, et al. **Arch Virol** 1999;144(8):1627–37

Analysis of a translational enhancer present within the 5'-terminal sequence of the genomic RNA of potato virus S. Turner RL, et al. **Arch Virol** 1999;144(7):1451–61

Heterogeneous nuclear ribonucleoprotein I (hnRNP-I/PTB) selectively binds the conserved 3' terminus of hepatitis C viral RNA. Chung RT, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):351–62

Specificity in the binding of aminoglycosides to HIV-RRE RNA. Cho J, et al. **Biochemistry** 1999 Jun 29; 38(26):8548–54

Metal ion catalysis of RNA cleavage by the influenza virus endonuclease. Doan L, et al. **Biochemistry** 1999 Apr 27; 38(17):5612–9

Characterization of the solution conformations of unbound and Tat peptide-bound forms of HIV-1 TAR RNA. Long KS, et al. **Biochemistry** 1999 Aug 3;38(31):10059–69

Kinetic analysis of delta ribozyme cleavage. Mercure S, et al. **Biochemistry** 1998 Dec 1;37(48):16975–82

Kinetic analysis of the effect of HIV nucleocapsid protein (NCp) on internal strand transfer reactions. Raja A, et al. **Biochemistry** 1999 Apr 20;38(16):5178–84

Monomer-dimer equilibrium constants of RNA in the dimer initiation site of human immunodeficiency virus type 1. Shubsda MF, et al. **Biochemistry** 1999 Aug 3; 38(31):10147–57

RNA recognition and regulation of HIV-1 gene expression by viral factor Tat. Naryshkin NA, et al. **Biochemistry (Mosc)** 1998 May;63(5):489–503 (98 ref.)

Oligonucleotide inhibition of the interaction of HIV-1 Tat protein with the trans-activation responsive region (TAR) of HIV RNA. Mestre B, et al. **Biochim Biophys Acta** 1999 Apr 14;1445(1):86–98

A pseudoknotted tRNA variant is a substrate for tRNA (cytosine-5)-methyltransferase from Xenopus laevis. Brulé H, et al. **Biochimie** 1998 Dec;80(12):977–85

Proximity of a Tat peptide to the HIV-1 TAR RNA loop region determined by site-specific photo-cross-linking. Wang Z, et al. **Bioconjug Chem** 1999 May-Jun;10(3):512–9

Synthesis and automated detection of fluorescently labeled primer extension products. Altermann E, et al. **Biotechniques** 1999 Jan;26(1):96–8, 101

Mimicry of the hepatitis delta virus replication cycle mediated by synthetic circular oligodeoxynucleotides. Diegelman AM, et al. **Chem Biol** 1999 Aug;6(8):569–76

Adaptive recognition in RNA complexes with peptides and protein modules. Patel DJ. **Curr Opin Struct Biol** 1999 Feb; 9(1):74–87 (59 ref.)

IDDM patients neither show humoral reactivities against endogenous retroviral envelope protein nor do they differ in retroviral mRNA expression from healthy relatives or normal individuals. Badenhoop K, et al. **Diabetes** 1999 Jan; 48(1):215–8

Persistence of heterologous nucleic acids after uptake by mammalian cells. Graeber I, et al. **DNA Cell Biol** 1998 Nov;17(11):945–9

hnRNP A/B proteins are required for inhibition of HIV-1 pre-mRNA splicing. Caputi M, et al. **EMBO J** 1999 Jul 15;18(14):4060–7

RNA-dependent activation of primer RNA production by

influenza virus polymerase: different regions of the same protein subunit constitute the two required RNA-binding sites. Li ML, et al. **EMBO J** 1998 Oct 1;17(19):5844–52

Binding of oligopyrimidines to the RNA hairpin responsible for the ribosome gag-pol frameshift in HIV-1. Aupeix K, et al. **FEBS Lett** 1999 Apr 23;449(2-3):169–74

Inhibition of infection of incoming HIV-1 virus by RNA-cleaving DNA enzyme. Zhang X, et al. **FEBS Lett** 1999 Sep 17;458(2):151–6

RNA levels of human retrovirus receptors Pit1 and Pit2 do not correlate with infectibility by three retroviral vector pseudotypes. Uckert W, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2619–27

DNA aptamers selected against the HIV-1 trans-activation-responsive RNA element form RNA-DNA kissing complexes. Boiziau C, et al. **J Biol Chem** 1999 Apr 30;274(18):12730–7

Quantitative assessment of EF-1alpha.GTP binding to aminoacyl-tRNAs, aminoacyl-viral RNA, and tRNA shows close correspondence to the RNA binding properties of EF-Tu. Dreher TW, et al. **J Biol Chem** 1999 Jan 8; 274(2):666–72

Asymmetric contributions to RNA binding by the Thr(45) residues of the MS2 coat protein dimer. Peabody DS, et al. **J Biol Chem** 1999 Sep 3;274(36):25403–10

HIV-1 Rev promotes the nuclear export of unspliced and singly spliced RNAs in a mammalian cell-free export system. Huffman KM, et al. **J Biomed Sci** 1999 May–Jun; 6(3):194–205

Lower concentration of La protein required for internal ribosome entry on hepatitis C virus RNA than on poliovirus RNA. Isoyama T, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2319–27

VPg, coat protein and five non-structural proteins of potato A potyvirus bind RNA in a sequence-unspecific manner. Merits A, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3123–7

Identification of nucleocapsid protein residues required for Sendai virus nucleocapsid formation and genome replication. Myers TM, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1383–91

HIV-1 regulatory protein tat induces RNA binding proteins in central nervous system cells that associate with the viral trans-acting-response regulatory motif. Kundu M, et al. **J Hum Virol** 1999 Mar–Apr;2(2):72–80

Specific in vitro association between the hepatitis C viral genome and core protein. Fan Z, et al. **J Med Virol** 1999 Oct;59(2):131–4

A polyadenylylation-specific RNA-contact site on the surface of the bifunctional vaccinia virus RNA modifying protein VP39 that is distinct from the mRNA 5' end-binding "cleft". Deng L, et al. **J Mol Biol** 1999 Jan 29;285(4):1417–27

Role of the human and murine cyclin T proteins in regulating HIV-1 tat-activation. Kwak YT, et al. **J Mol Biol** 1999 Apr 23;288(1):57–69

Evidence for an RNA pseudoknot loop-helix interaction essential for efficient -1 ribosomal frameshifting. Liphardt J, et al. **J Mol Biol** 1999 May 7;288(3):321–35

The DNA/RNA non-specific Serratia nuclease prefers double-stranded A-form nucleic acids as substrates. Meiss G, et al. **J Mol Biol** 1999 May 7;288(3):377–90

RNA-dependent RNA polymerase activity associated with Eimeria necatrix virus particles containing either double-stranded or single-stranded RNA. Lee S, et al. **J Parasitol** 1999 Apr;85(2):208–12

Coronavirus transcription early in infection. An S, et al. **J Virol** 1998 Nov;72(11):8517–24

Anti-Rex aptamers as mimics of the Rex-binding element. Baskerville S, et al. **J Virol** 1999 Jun;73(6):4962–71

Analysis of the effect of natural sequence variation in Tat and in cyclin T on the formation and RNA binding properties of Tat-cyclin T complexes. Bieniasz PD, et al. **J Virol** 1999 Jul;73(7):5777–86

Intracellular localization of poliovirus plus- and minus-strand RNA visualized by strand-specific fluorescent In situ hybridization. Bolten R, et al. **J Virol** 1998 Nov; 72(11):8578–85

Specific interaction between the hepatitis C virus NS5B RNA polymerase and the 3' end of the viral RNA. Cheng JC, et al. **J Virol** 1999 Aug;73(8):7044–9

Identification of amino acid residues of influenza virus nucleoprotein essential for RNA binding. Elton D, et al. **J Virol** 1999 Sep;73(9):7357–67

The P236L delavirdine-resistant human immunodeficiency virus type 1 mutant is replication defective and demonstrates alterations in both RNA 5'-end- and DNA 3'-end-directed RNase H activities. Gerondelis P, et al. **J Virol** 1999 Jul;73(7):5803–13

Characterization of influenza virus PB1 protein binding to viral RNA: two separate regions of the protein contribute to the interaction domain. González S, et al. **J Virol** 1999 Jan;73(1):631–7

Interaction of poly(rC) binding protein 2 with the 5' noncoding region of hepatitis A virus RNA and its effects on translation. Graff J, et al. **J Virol** 1998 Dec; 72(12):9668–75

Specific interaction of heterogeneous nuclear ribonucleoprotein particle U with the leader RNA sequence of vesicular stomatitis virus. Gupta AK, et al. **J Virol** 1998 Nov;72(11):8532–40

Hepatitis B virus RNA-binding proteins associated with cytokine-induced clearance of viral RNA from the liver of transgenic mice. Heise T, et al. **J Virol** 1999 Jan; 73(1):474–81

La autoantigen specifically recognizes a predicted stem-loop in hepatitis B virus RNA. Heise T, et al. **J Virol** 1999 Jul; 73(7):5767–76

Natural variation in translational activities of the 5' nontranslated RNAs of hepatitis C virus genotypes 1a and 1b: evidence for a long-range RNA-RNA interaction outside of the internal ribosomal entry site. Honda M, et al. **J Virol** 1999 Jun;73(6):4941–51

RNA-binding activity of the E1B 55-kilodalton protein from human adenovirus type 5. Horridge JJ, et al. **J Virol** 1998 Nov;72(11):9374–9

The Epstein-Barr virus (EBV) SM protein enhances pre-mRNA processing of the EBV DNA polymerase transcript. Key SC, et al. **J Virol** 1998 Nov;72(11):8485–92

Formation of an RNA heterodimer upon heating of nodavirus particles. Krishna NK, et al. **J Virol** 1999 Feb; 73(2):1699–703

Polypyrimidine tract-binding protein binds to the leader RNA of mouse hepatitis virus and serves as a regulator of viral transcription. Li HP, et al. **J Virol** 1999 Jan; 73(1):772–7

Moloney murine sarcoma virus genomic RNAs dimerize via a two-step process: a concentration-dependent kissing-loop interaction is driven by initial contact between consecutive guanines. Ly H, et al. **J Virol** 1999 Sep; 73(9):7255–61

In vivo addition of poly(A) tail and AU-rich sequences to the 3' terminus of the Sindbis virus RNA genome: a novel 3'-end repair pathway. Raju R, et al. **J Virol** 1999 Mar; 73(3):2410–9

Specific encapsidation of nodavirus RNAs is mediated through the C terminus of capsid precursor protein alpha. Schneemann A, et al. **J Virol** 1998 Nov;72(11):8738–46

Control of human immunodeficiency virus type 1 RNA metabolism: role of splice sites and intron sequences in unspliced viral RNA subcellular distribution. Séguin B, et al. **J Virol** 1998 Dec;72(12):9503–13

Mta has properties of an RNA export protein and increases cytoplasmic accumulation of Epstein-Barr virus replication gene mRNA. Semmes OJ, et al. **J Virol** 1998 Dec; 72(12):9526–34

The inhibitory activity of the AU-rich RNA element in the human papillomavirus type 1 late 3' untranslated region correlates with its affinity for the elav-like HuR protein. Sokolowski M, et al. **J Virol** 1999 Feb;73(2):1080–91

Visualization of protein-RNA interactions in cytoplasmic polyhedrosis virus. Zhang H, et al. **J Virol** 1999 Feb; 73(2):1624–9

Combinatorial screening and intracellular antiviral activity of hairpin ribozymes directed against hepatitis B virus. zu Putlitz J, et al. **J Virol** 1999 Jul;73(7):5381–7

Relationships between proteasomes and viral gene products. Jarrousse AS, et al. **Mol Biol Rep** 1999 Apr;26(1–2):113–7 (54 ref.)

Identification of novel import and export signals of human TAP, the protein that binds to the constitutive transport element of the type D retrovirus mRNAs. Bear J, et al. **Mol Cell Biol** 1999 Sep;19(9):6306–17

hnRNP C and polypyrimidine tract-binding protein specifically interact with the pyrimidine-rich region within the 3'NTR of the HCV RNA genome. Gontarek RR, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1457–63

RNA binding characteristics and overall topology of the vaccinia poly(A) polymerase-processivity factor-primer complex. Johnson L, et al. **Nucleic Acids Res** 1999 Jul 1; 27(13):2708–21

The ability of the HIV-1 AAUAAA signal to bind polyadenylation factors is controlled by local RNA structure. Klasens BI, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):446–54

RNA bulge entropies in the unbound state correlate with peptide binding strengths for HIV-1 and BIV TAR RNA because of improved conformational access. Lustig B, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5212–7

Delta ribozyme has the ability to cleave in transan mRNA. Roy G, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):942–8

Titration of cellular export factors, but not heteromultimerization, is the molecular mechanism of trans-dominant HTLV-1 rex mutants. Heger P, et al. **Oncogene** 1999 Jul 15;18(28):4080–90

Association of HIV-1 Tat with the cellular protein, Puralpha, is mediated by RNA. Gallia GL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11572–7

Roles of polyadenylation and nucleolytic cleavage in the filamentous phage mRNA processing and decay pathways in Escherichia coli. Goodrich AF, et al. **RNA** 1999 Jul; 5(7):972–85

A selection system for functional internal ribosome entry site (IRES) elements: analysis of the requirement for a conserved GNRA tetraloop in the encephalomyocarditis virus IRES. Robertson ME, et al. **RNA** 1999 Sep; 5(9):1167–79

A nested double pseudoknot is required for self-cleavage activity of both the genomic and antigenomic hepatitis delta virus ribozymes. Wadkins TS, et al. **RNA** 1999 Jun; 5(6):720–7

Retroviruses as model systems for the study of nuclear RNA export pathways. Cullen BR. **Virology** 1998 Sep 30; 249(2):203–10 (39 ref.)

Effect of Rev on the intranuclear localization of HIV-1 unspliced RNA. Favaro JP, et al. **Virology** 1998 Sep 30; 249(2):286–96

Roles of the three major phosphorylation sites of hepatitis B virus core protein in viral replication. Lan YT, et al. **Virology** 1999 Jul 5;259(2):342–8

Restoration of a stem-loop structure required for potato virus X RNA accumulation indicates selection for a mismatch and a GNRA tetraloop. Miller ED, et al. **Virology** 1999 Aug 1;260(2):342–53

Enhancer-like properties of an RNA element that modulates Tombusvirus RNA accumulation. Ray D, et al. **Virology** 1999 Mar 30;256(1):162–71

Activation of the interferon-inducible (2'-5') oligoadenylate synthetase by the Epstein-Barr virus RNA, EBER-1. Sharp TV, et al. **Virology** 1999 May 10;257(2):303–13

Evolution of bamboo mosaic virus in a nonsystemic host results in mutations in the helicase-like domain that cause reduced RNA accumulation. Huang CY, et al. **Virus Res** 1998 Nov;58(1-2):127–36

PHYSIOLOGY

Inhibition of internal entry site (IRES)-mediated translation by a small yeast RNA: a novel strategy to block hepatitis C virus protein synthesis. Das S, et al. **Front Biosci** 1998 Dec 1;3:D1241–52 (61 ref.)

Brome mosaic virus defective RNAs generated during infection of barley plants. Damayanti TA, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2511–8

Specific inclusion bodies are associated with replication of lettuce infectious yellows virus RNAs in Nicotiana benthamiana protoplasts. Medina V, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2325–9

Role of the 3' untranslated region of baculovirus p10 mRNA in high-level expression of foreign genes. van Oers MM, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2253–62

Human immunodeficiency virus type 1 Gag polyprotein multimerization requires the nucleocapsid domain and RNA and is promoted by the capsid-dimer interface and the basic region of matrix protein. Burniston MT, et al. **J Virol** 1999 Oct;73(10):8527–40

The 5' RNA terminus of spleen necrosis virus contains a novel posttranscriptional control element that facilitates human immunodeficiency virus Rev/RRE-independent Gag production. Butsch M, et al. **J Virol** 1999 Jun; 73(6):4847–55

Human T-cell leukemia virus type 2 Rex protein increases stability and promotes nuclear to cytoplasmic transport of gag/pol and env RNAs. Kusuhara K, et al. **J Virol** 1999 Oct;73(10):8112–9

Broad-spectrum protection against tombusviruses elicited by defective interfering RNAs in transgenic plants. Rubio T, et al. **J Virol** 1999 Jun;73(6):5070–8

The 5' terminal trailer region of vesicular stomatitis virus contains a position-dependent cis-acting signal for assembly of RNA into infectious particles. Whelan SP, et al. **J Virol** 1999 Jan;73(1):307–15

RNA structure adjacent to the attenuation determinant in the 5'-non-coding region influences poliovirus viability. Stewart SR, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5318–26

Virus reconstitution and the proof of the existence of genomic RNA. Fraenkel-Conrat H, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Mar 29; 354(1383):583–6 (24 ref.)

The rhinovirus type 14 genome contains an internally located RNA structure that is required for viral replication. McKnight KL, et al. **RNA** 1998 Dec;4(12):1569–84

Identification of a human immunodeficiency virus type 1 that stably uses tRNALys1,2 rather than tRNALys,3 for initiation of reverse transcription. Kang SM, et al. **Virology** 1999 Apr 25;257(1):95–105

Symptom attenuation by a satellite RNA in vivo is dependent on reduced levels of virus coat protein. Wang J, et al. **Virology** 1999 Jun 20;259(1):234–45

SECRETION

Spontaneous release of stable viral double-stranded RNA into the extracellular medium by influenza virus-infected MDCK epithelial cells: implications for the viral acute phase response. Majde JA, et al. **Arch Virol** 1998; 143(12):2371–80

STANDARDS

Armored RNA technology for production of ribonuclease-resistant viral RNA controls and standards. Pasloske BL, et al. **J Clin Microbiol** 1998 Dec;36(12):3590–4

ULTRASTRUCTURE

Elucidation of the genome organization of tobacco mosaic virus. Zaitlin M. **Philos Trans R Soc Lond B Biol Sci** 1999 Mar 29;354(1383):587–91 (40 ref.)

RNA VIRUS INFECTIONS

COMPLICATIONS

[Exanthema in childhood. I: Exanthema induced by viral infections] Fölster-Holst R, et al. **Hautarzt** 1999 Jul; 50(7):515–31 (69 ref.) **(Ger)**

DRUG THERAPY

Treatment of visna virus infection in lambs with the acyclic nucleoside phosphonate analogue 9-(2-phosphonylmethoxyethyl)adenine (PMEA). Thormar H, et al. **Antivir Chem Chemother** 1998 May;9(3):245-52

IMMUNOLOGY

[Dysfunction of host defence systems caused by virus infection] Fujii N, et al. **Tanpakushitsu Kakusan Koso** 1999 Jan;44(1):8-18 (35 ref.) **(Jpn)**

TRANSMISSION

Zoonoses and haemorrhagic fever. Mahy BW. **Dev Biol Stand** 1998;93:31-6 (9 ref.)

VETERINARY

An improved enzyme linked immunosorbent assay for detection of anti-ranavirus antibodies in the serum of the giant toad (Bufo marinus). Zupanovic Z, et al. **Dev Comp Immunol** 1998 Sep-Dec;22(5-6):573-85

Transmission of viral encephalopathy and retinopathy (VER) to yolk-sac larvae of the Atlantic halibut Hippoglossus hippoglossus: occurrence of nodavirus in various organs and a possible route of infection. Grotmol S, et al. **Dis Aquat Organ** 1999 May 12;36(2):95-106

Comparative study of viral encephalopathy and retinopathy in juvenile sea bass Dicentrarchus labrax infected in different ways. Péducasse S, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):11-20

VIROLOGY

Quasispecies and the implications for virus persistence and escape. Domingo E. **Clin Diagn Virol** 1998 Jul 15; 10(2-3):97-101 (34 ref.)

Pathogenesis of borna disease virus: granulocyte fractions of psychiatric patients harbor infectious virus in the absence of antiviral antibodies. Planz O, et al. **J Virol** 1999 Aug; 73(8):6251-6

RNA VIRUSES

Population dynamics in the evolution of RNA viruses. Domingo E, et al. **Adv Exp Med Biol** 1998;440:721-7 (33 ref.)

Ribosomal protein L3 mutants alter translational fidelity and promote rapid loss of the yeast killer virus. Peltz SW, et al. **Mol Cell Biol** 1999 Jan;19(1):384-91

Microbiology. Millennium bug [news] Siew RS. **Nature** 1999 Apr 1;398(6726):376

[Lassa fever: its virological and clinical aspects] Hirabayashi Y. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):80-4 (23 ref.) **(Jpn)**

CHEMISTRY

Structure determination of Nudaurelia capensis omega virus. Munshi S, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1295-305

CLASSIFICATION

Virus taxonomy--1999. The universal system of virus taxonomy, updated to include the new proposals ratified by the International Committee on Taxonomy of Viruses during 1998 [news] Pringle CR. **Arch Virol** 1999; 144(2):421-9

Yellow head virus from Thailand and gill-associated virus from Australia are closely related but distinct prawn viruses. Cowley JA, et al. **Dis Aquat Organ** 1999 May 12; 36(2):153-7

Genetic variation of Cryphonectria hypoviruses (CHV1) in Europe, assessed using restriction fragment length polymorphism (RFLP) markers. Allemann C, et al. **Mol Ecol** 1999 May;8(5):843-54

DRUG EFFECTS

[Virus reproduction in cell cultures synchronized by macromolecular platinum complexes] Hyrin VM, et al. **Mikrobiol Z** 1999 May-Jun;61(3):37-45 (Eng. Abstr.) **(Ukr)**

ENZYMOLOGY

RNA-dependent RNA polymerase activity associated with Eimeria necatrix virus particles containing either double-stranded or single-stranded RNA. Lee S, et al. **J Parasitol** 1999 Apr;85(2):208-12

Analysis of RNA-dependent RNA polymerase structure and function as guided by known polymerase structures and computer predictions of secondary structure. O'Reilly EK, et al. **Virology** 1998 Dec 20;252(2):287-303 (80 ref.)

GENETICS

Nonsegmented negative-strand RNA viruses: genetics and manipulation of viral genomes. Conzelmann KK. **Annu Rev Genet** 1998;32:123-62 (186 ref.)

Genetic analysis of large-sized RNA 2 species of a TCM-like tobacco rattle virus source from spinach. Schmidt K, et al. **Arch Virol** 1999;144(3):503-11

Quasispecies and the implications for virus persistence and escape. Domingo E. **Clin Diagn Virol** 1998 Jul 15; 10(2-3):97-101 (34 ref.)

Automatic detection of conserved base pairing patterns in RNA virus genomes. Hofacker IL, et al. **Comput Chem** 1999 Jun 15;23(3-4):401-14

Defective and defective interfering RNAs of monopartite plus-strand RNA plant viruses. White KA, et al. **Curr Top Microbiol Immunol** 1999;239:1-17 (66 ref.)

De novo methylation and co-suppression induced by a cytoplasmically replicating plant RNA virus. Jones AL, et al. **EMBO J** 1998 Nov 2;17(21):6385-93

The [KIL-d] cytoplasmic genetic element of yeast results in epigenetic regulation of viral M double-stranded RNA gene expression. Tallóczy Z, et al. **Genetics** 1998 Sep; 150(1):21-30

Viral RNA and evolved mutational robustness. Wagner A, et al. **J Exp Zool** 1999 Aug 15;285(2):119-27 (54 ref.)

Recombination in RNA viruses and in virus-resistant transgenic plants. Aaziz R, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1339-46 (85 ref.)

Similarities in the genome organization of tobacco rattle virus and pea early-browning virus isolates that are transmitted by the same vector nematode. MacFarlane SA, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):273-6

A naturally occurring deleted form of RNA 2 of Potato mop-top virus. Torrance L, et al. **J Gen Virol** 1999 Aug; 80 (Pt 8):2211-5

Red queen dynamics, competition and critical points in a model of RNA virus quasispecies. Solé RV, et al. **J Theor Biol** 1999 May 7;198(1):47-59

Infectious cDNA clone of hypovirus CHV1-Euro7: a comparative virology approach to investigate virus-mediated hypovirulence of the chestnut blight fungus Cryphonectria parasitica. Chen B, et al. **J Virol** 1999 Feb; 73(2):985-92

Induction and maintenance of autonomous flock house virus RNA1 replication. Johnson KL, et al. **J Virol** 1999 Oct; 73(10):7933-42

Formation of an RNA heterodimer upon heating of nodavirus particles. Krishna NK, et al. **J Virol** 1999 Feb; 73(2):1699-703

Structural constraints on RNA virus evolution. Simmonds P, et al. **J Virol** 1999 Jul;73(7):5787-94

Virus maturation by budding. Garoff H, et al. **Microbiol Mol Biol Rev** 1998 Dec;62(4):1171-90 (313 ref.)

Genetic variation of Cryphonectria hypoviruses (CHV1) in Europe, assessed using restriction fragment length polymorphism (RFLP) markers. Allemann C, et al. **Mol Ecol** 1999 May;8(5):843-54

Resistance to rice yellow mottle virus (RYMV) in cultivated African rice varieties containing RYMV transgenes. Pinto YM, et al. **Nat Biotechnol** 1999 Jul;17(7):702-7

Transmission bottlenecks as determinants of virulence in rapidly evolving pathogens. Bergstrom CT, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5095-100

RNA virus vectors: where are we and where do we need to go? [comment] Palese P. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12750-2 (39 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12989-94.

Reverse genetics of negative-strand RNA viruses: closing the circle [comment] Pekosz A, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8804-6 (41 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Aug 3;96(16):9345-50.

Getting a handle on RNA virus recombination. Miller WA, et al. **Trends Microbiol** 1998 Nov;6(11):421-3 (16 ref.)

Sequence of the genomic RNA of nudaurelia beta virus (Tetraviridae) defines a novel virus genome organization. Gordon KH, et al. **Virology** 1999 May 25;258(1):42-53

Multiple mitochondrial viruses in an isolate of the Dutch Elm disease fungus Ophiostoma novo-ulmi. Hong Y, et al. **Virology** 1999 May 25;258(1):118-27

Identification of a subgenomic mRNA encoding the capsid protein of mushroom bacilliform virus, a single-stranded RNA mycovirus. Revill PA, et al. **Virology** 1999 Aug 1; 260(2):273-6

Mushroom bacilliform virus RNA: the initiation of translation at the 5' end of the genome and identification of the VPg. Revill PA, et al. **Virology** 1998 Sep 30;249(2):231-7

Movement of hordeivirus hybrids with exchanges in the triple gene block. Solovyev AG, et al. **Virology** 1999 Jan 20; 253(2):278-87

Genetic interrelationships and genome organization of double-stranded RNA elements of Fusarium poae. Compel P, et al. **Virus Genes** 1999;18(1):49-56

The E116 isolate of Dutch pea early-browning virus is a recombinant virus. Swanson MM, et al. **Virus Res** 1999 Mar;60(1):87-94

The S gene of canine coronavirus, strain UCD-1, is more closely related to the S gene of transmissible gastroenteritis virus than to that of feline infectious peritonitis virus. Wesley RD. **Virus Res** 1999 Jun;61(2):145-52

GROWTH & DEVELOPMENT

Virus maturation by budding. Garoff H, et al. **Microbiol Mol Biol Rev** 1998 Dec;62(4):1171-90 (313 ref.)

ISOLATION & PURIFICATION

A new double-stranded RNA mycovirus from Botrytis cinerea. Castro M, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):95-9

Iron modulates phenotypic variation and phosphorylation of P270 in double-stranded RNA virus-infected Trichomonas vaginalis. Alderete JF. **Infect Immun** 1999 Aug; 67(8):4298-302

Rapid isolation of both double-stranded RNA and PCR-suitable DNA from the obligate biotrophic phytopathogenic fungus Uncinula necator using a commercially available reagent. Délye C, et al. **J Virol Methods** 1998 Oct;74(2):149-53

Detection of each of the causal agents of groundnut rosette disease in plants and vector aphids by RT-PCR. Naidu RA, et al. **J Virol Methods** 1998 Dec;76(1-2):9-18

Trichovirus isolation and RNA extraction. German-Retana S, et al. **Methods Mol Biol** 1998;81:161-70

Hordeivirus isolation and RNA extraction. Lawrence DM, et al. **Methods Mol Biol** 1998;81:99-106

Detection of plant RNA viruses by nonisotopic dot-blot hybridization. Pallás V, et al. **Methods Mol Biol** 1998; 81:461-8

Tobravirus isolation and RNA extraction. Taylor SC. **Methods Mol Biol** 1998;81:115-21

Genetic interrelationships and genome organization of double-stranded RNA elements of Fusarium poae. Compel P, et al. **Virus Genes** 1999;18(1):49-56

METABOLISM

An animal virus-derived peptide switches membrane morphology: possible relevance to nodaviral transfection processes. Janshoff A, et al. **Biochemistry** 1999 Apr 27; 38(17):5328-36

MxA GTPase: oligomerization and GTP-dependent interaction with viral RNP target structures. Kochs G, et al. **Methods** 1998 Jul;15(3):255-63

PATHOGENICITY

A highly membrane-active peptide in Flock House virus: implications for the mechanism of nodavirus infection. Bong DT, et al. **Chem Biol** 1999 Jul;6(7):473-81

Transmission bottlenecks as determinants of virulence in rapidly evolving pathogens. Bergstrom CT, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5095-100

PHYSIOLOGY

In vitro selective RNA synthesis with L-A virus nanoparticles. Ebihara T, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):23-7

Transmission of viral encephalopathy and retinopathy (VER) to yolk-sac larvae of the Atlantic halibut Hippoglossus hippoglossus: occurrence of nodavirus in various organs and a possible route of infection. Grotmol S, et al. **Dis Aquat Organ** 1999 May 12;36(2):95-106

Comparative study of viral encephalopathy and retinopathy in juvenile sea bass Dicentrarchus labrax infected in different ways. Péducasse S, et al. **Dis Aquat Organ** 1999 Apr 15;36(1):11-20

Quasispecies structure and persistence of RNA viruses. Domingo E, et al. **Emerg Infect Dis** 1998 Oct-Dec; 4(4):521-7 (44 ref.)

Intra- and interspecies virus transfer in Aspergilli via protoplast fusion. van Diepeningen AD, et al. **Fungal Genet Biol** 1998 Dec;25(3):171-80

Association of a cellular 21-kDa transmembrane protein (VAP21) with enveloped viruses. Yamamoto K, et al. **Microbiol Immunol** 1999;43(5):449-59

Viral RNA replication. With a little help from the host. Strauss JH, et al. **Science** 1999 Feb 5;283(5403):802-4

Satellite RNA is essential for encapsidation of groundnut rosette umbravirus RNA by groundnut rosette assistor luteovirus coat protein. Robinson DJ, et al. **Virology** 1999 Feb 1;254(1):105-14

Movement of hordeivirus hybrids with exchanges in the triple gene block. Solovyev AG, et al. **Virology** 1999 Jan 20; 253(2):278-87

[Dysfunction of host defence systems caused by virus infection] Fujii N, et al. **Tanpakushitsu Kakusan Koso** 1999 Jan;44(1):8-18 (35 ref.) **(Jpn)**

ULTRASTRUCTURE

Detection of double-stranded RNA molecules and virus-like particles in different Mucor species. Vágvölgyi C, et al. **Antonie Van Leeuwenhoek** 1998 Feb;73(2):207-10

A strategy for determining the orientations of refractory particles for reconstruction from cryo-electron micrographs with particular reference to round, smooth-surfaced, icosahedral viruses. Castón JR, et al. **J Struct Biol** 1999 Apr-May;125(2-3):209-15

The structure of a cypovirus and the functional organization of dsRNA viruses. Hill CL, et al. **Nat Struct Biol** 1999 Jun;6(6):565-8

RNASE see **RIBONUCLEASES**

RNASE A see **RIBONUCLEASE, PANCREATIC**

RNASE H see **RIBONUCLEASE H, CALF THYMUS**

RNASE T1 see **RIBONUCLEASE T1**

RO 4–1284

PHARMACOLOGY

Treatment with a polyunsaturated fatty acid prevents deleterious effects of Ro4–1284. Yehuda S, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):27–34

RO 4–4602 see **BENSERAZIDE**

RO 7–0207 see **ORNIDAZOLE**

RO 7–0582 see **MISONIDAZOLE**

RO 10–9359 see **ETRETINATE**

RO 15–1788 see **FLUMAZENIL**

RO 20–1724

METABOLISM

Imaging of cAMP-specific phosphodiesterase-IV: comparison of [11C]rolipram and [11C]Ro 20–1724 in rats. Lourenco CM, et al. **Synapse** 1999 Jan;31(1):41–50

PHARMACOLOGY

Effects of type IV phosphodiesterase inhibition on cardiac function in the presence and absence of catecholamines. Herzer WA, et al. **J Cardiovasc Pharmacol** 1998 Nov; 32(5):769–76

The type IV phosphodiesterase inhibitors, Ro 20–1724 and rolipram, block the initiation of cocaine self-administration. Knapp CM, et al. **Pharmacol Biochem Behav** 1999 Jan; 62(1):151–8

ROACH (FISH) see **CYPRINIDAE**

ROBINS see **SONGBIRDS**

ROBOTICS

Laparoscopic adrenalectomy with the aid of the AESOP 2000 robot. Hubens G, et al. **Acta Chir Belg** 1999 May–Jun; 99(3):125–7; discussion 127–9

An experimental approach to image guided skull base surgery employing a microscope-based neuronavigation system. Brinker T, et al. **Acta Neurochir (Wien)** 1998;140(9):883–9

Staff attitudes about the use of robots in pharmacy before implementation of a robotic dispensing system. Crawford SY, et al. **Am J Health Syst Pharm** 1998 Sep 15; 55(18):1907–14

Self-guided robotic camera control for laparoscopic surgery compared with human camera control. Omote K, et al. **Am J Surg** 1999 Apr;177(4):321–4

A sensing system for odor plumes. Nakamoto T, et al. **Anal Chem** 1999 Aug 1;71(15):531A–537A (20 ref.)

Computer-assisted endoscopic coronary artery bypass anastomoses: a chronic animal study. Stephenson ER Jr, et al. **Ann Thorac Surg** 1999 Sep;68(3):838–43

Selection, the impersonal engineer. Braitenberg V. **Artif Life** 1998 Fall;4(4):309–10

Embodied artificial life [editorial] Lund HH, et al. **Artif Life** 1998 Fall;4(4):303–7

New release of the Boonpong laparoscopic camera holder. Kornsuthisopon S. **Aust N Z J Surg** 1999 Feb;69(2):141–3

Achieving robust behavior by using proprioceptive activity patterns. Salomon R. **Biosystems** 1998 Aug;47(3):193–206

Automated RNA selection. Cox JC, et al. **Biotechnol Prog** 1998 Nov–Dec;14(6):845–50

Robotic automation of coagulation analysis. Graves S, et al. **Clin Chim Acta** 1998 Dec;278(2):269–79

Robot-assisted surgery system with kinesthetic feedback. Urban V, et al. **Comput Aided Surg** 1998;3(4):205–9

A new framework for vision-enabled and robotically assisted minimally invasive surgery. Wang YF, et al. **Comput Med Imaging Graph** 1998 Nov–Dec;22(6):429–37

Quality of computer enhanced totally endoscopic coronary bypass graft anastomosis--comparison to conventional technique. Falk V, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):260–4; discussion 264–5

The evolution of minimally invasive valve surgery--2 year experience. Mohr FW, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):233–8; discussion 238–9

Segmentation of endpoint trajectories does not imply segmented control. Sternad D, et al. **Exp Brain Res** 1999 Jan;124(1):118–36

Discharge correlates of hippocampal complex spike neurons in behaving rats passively displaced on a mobile robot. Gavrilov VV, et al. **Hippocampus** 1998;8(5):475–90

Telepresence. Draper JV, et al. **Hum Factors** 1998 Sep; 40(3):354–75

One year of experience working with the aid of a robotic assistant (the voice-controlled optic holder AESOP) in gynaecological endoscopic surgery. Mettler L, et al. **Hum Reprod** 1998 Oct;13(10):2748–50

Three-dimensional reconstruction of live embryos using robotic macroscope images. Brodland GW, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1173–81

Anatomy-based registration of CT-scan and intraoperative X-ray images for guiding a surgical robot. Guéziec A, et al. **IEEE Trans Med Imaging** 1998 Oct;17(5):715–28

A biomimetic controller for a multifinger prosthesis. Abboudi RL, et al. **IEEE Trans Rehabil Eng** 1999 Jun;7(2):121–9

Performance statistics of a head-operated force-reflecting rehabilitation robot system. Chen S, et al. **IEEE Trans Rehabil Eng** 1998 Dec;6(4):406–14

Robotic assistance of an active upper limb exercise in neurologically impaired patients. Cozens JA. **IEEE Trans Rehabil Eng** 1999 Jun;7(2):254–6

Guidance-based quantification of arm impairment following brain injury: a pilot study. Reinkensmeyer DJ, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):1–11

Motion planning with complete knowledge using a colored SOM. Vleugels J, et al. **Int J Neural Syst** 1997 Oct–Dec; 8(5–6):613–28

Robotic transcranial Doppler sonography probes and acupuncture. Litscher G, et al. **Int J Neurosci** 1998 Jul; 95(1–2):1–15

Meat quality variation in the robotic sorting of pork loins. Swatland HJ, et al. **J Anim Sci** 1998 Oct;76(10):2614–8

Full robotic assistance for laparoscopic tubal anastomosis: a case report. Falcone T, et al. **J Laparoendosc Adv Surg Tech A** 1999 Feb;9(1):107–13

Computer-enhanced coronary artery bypass surgery. Mohr FW, et al. **J Thorac Cardiovasc Surg** 1999 Jun;117(6):1212–4

Robotics and the future of laparoscopy. Semm K. **JSLS** 1999 Jan–Mar;3(1):87–8 (0 ref.)

The science of haptics gets in touch with prosthetics [news] Birchard K. **Lancet** 1999 Jul 3;354(9172):52

Automated prostate recognition: a key process for clinically effective robotic prostatectomy. Arambula Cosio F, et al. **Med Biol Eng Comput** 1999 Mar;37(2):236–43

The operating microscope guided by a neuronavigation system: a technical note. Gumprecht H, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):141–3

Neuronavigation using an articulated arm with a bayonet probe on a computer graphic composite of magnetic resonance and computerized tomography images. Hayashi N, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):144–8

Experience with a new multifunctional articulated instrument holder in minimally invasive navigated neurosurgery. Reinges MH, et al. **Minim Invasive Neurosurg** 1998 Sep; 41(3):149–51

Real-time control of a robot arm using simultaneously recorded neurons in the motor cortex [see comments] Chapin JK, et al. **Nat Neurosci** 1999 Jul;2(7):664–70. Comment in: Nat Neurosci 1999 Jul;2(7):583–4.

Real-time control of a robotic arm by neuronal ensembles [news; comment] Fetz EE. **Nat Neurosci** 1999 Jul; 2(7):583–4. Comment on: Nat Neurosci 1999 Jul;2(7):664–70.

A tactile feedback hexapod operating robot for endoscopic procedures. Urban V, et al. **Neurol Res** 1999 Jan; 21(1):28–30

BrainLab VectorVision Neuronavigation System: technology and clinical experiences in 131 cases. Gumprecht HK, et al. **Neurosurgery** 1999 Jan;44(1):97–104; discussion 104–5

Intraoperative brain shift and deformation: a quantitative analysis of cortical displacement in 28 cases. Roberts DW, et al. **Neurosurgery** 1998 Oct;43(4):749–58; discussion 758–60

The world's first obesity surgery performed by a surgeon at a distance. Cadiere GB, et al. **Obes Surg** 1999 Apr; 9(2):206–9

Vista and robotics: new technologies, new frontiers. Wismer JM. **Perfusion** 1998 Jul;13(4):273–7

Conformal intensity-modulated radiotherapy (IMRT) delivered by robotic linac--testing IMRT to the limit? Webb S. **Phys Med Biol** 1999 Jul;44(7):1639–54

Neuroscience. A machine with a fly's-eye view [news] Bains S. **Science** 1999 Sep 3;285(5433):1472

Video-assisted and robotic mitral valve surgery: toward an endoscopic surgery. Chitwood WR Jr. **Semin Thorac Cardiovasc Surg** 1999 Jul;11(3):194–205 (39 ref.)

Minimally invasive mitral valve surgery using three-dimensional video and robotic assistance. Reichenspurner H, et al. **Semin Thorac Cardiovasc Surg** 1999 Jul;11(3):235–43

Video-assisted Port-Access mitral valve surgery: from debut to routine surgery. Will Trocar-Port-Access cardiac surgery ultimately lead to robotic cardiac surgery? Vanermen H, et al. **Semin Thorac Cardiovasc Surg** 1999 Jul;11(3):223–34

Human vs robotic organ retraction during laparoscopic Nissen fundoplication. Poulose BK, et al. **Surg Endosc** 1999 May;13(5):461–5

Trocar and instrument positioning system TISKA. An assist device for endoscopic solo surgery. Schurr MO, et al. **Surg Endosc** 1999 May;13(5):528–31

Robotic-assisted laparoscopic pyeloplasty: a pilot study. Sung GT, et al. **Urology** 1999 Jun;53(6):1099–103

Chemotyping of yeast mutants using robotics. Rieger KJ, et al. **Yeast** 1999 Jul;15(10B):973–86

The representation of space and the hippocampus in rats, robots and humans. Burgess N, et al. **Z Naturforsch [C]** 1998 Jul–Aug;53(7–8):504–9

[Voice-controlled robot: a new surgical aide? Thoughts of a user] Johanet H. **Ann Chir** 1998;52(9):918–21 (Eng. Abstr.) **(Fre)**

[Informatics, robotics and medicine] Carpentier A. **Bull Acad Natl Med** 1999;183(3):523–30 (Eng. Abstr.) **(Fre)**

[The Virtual University applied to telesurgery: from tele-education to tele-manipulation] Marescaux J, et al. **Bull Acad Natl Med** 1999;183(3):509–21; discussion 521–2 (10 ref.) (Eng. Abstr.) **(Fre)**

[Liquid dispense check] Neumann E. **Biomed Tech (Berl)** 1998;43 Suppl:68–9 **(Ger)**

[Calibration of roentgen image intensification in computer-assisted orthopedic surgery] Schauer D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:524–5 **(Ger)**

[Intraoperative monitoring of a robot-assisted minimal invasive mitral valve solo-surgery] Stein H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:186–7 **(Ger)**

[Validation of a robot for determination of regional perfusion with fluorescent microspheres] Thein E, et al. **Biomed Tech (Berl)** 1998;43 Suppl:536–7 **(Ger)**

[Development of a modular robot system for microsurgery] Wapler M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:188–9 **(Ger)**

[Increasing the quality of preoperative planning and intraoperative application of computer-assisted systems and surgical robots--an experimental study] Jerosch J, et al. **Chirurg** 1998 Sep;69(9):973–6 (Eng. Abstr.) **(Ger)**

[Micro-robot laboratory and computer-assisted work station with laser technology--a paradigm change for the clinical laboratory (comment)] Scherbaum WA. **Med Klin** 1998 Dec 15;93(12):738. Comment on: Med Klin 1998 Dec 15;93(12):739–40. **(Ger)**

[Computer-assisted surgery for hip endoprosthesis] Börner M, et al. **Z Arztl Fortbild Qualitatssich** 1999 Jun;93(4):253–8 (Eng. Abstr.) **(Ger)**

[Computer-assisted orthopedic surgery (CAOS) in hip joint prosthetics (editorial)] Niethard FU. **Z Orthop Ihre Grenzgeb** 1999 Mar–Apr;137(2):99–100 **(Ger)**

[Voice-directed robotic cystoscopy] Jiménez Garrido A, et al. **Arch Esp Urol** 1999 May;52(4):374–8 (Eng. Abstr.) **(Spa)**

INSTRUMENTATION

Development and in vitro testing of a miniature robotic system for computer-assisted colonoscopy. Dario P, et al. **Comput Aided Surg** 1999;4(1):1–14

Evaluation of a telerobotic system to assist surgeons in microsurgery. Das H, et al. **Comput Aided Surg** 1999; 4(1):15–25

Voice-controlled robotic arm in laparoscopic surgery. Bacá I, et al. **Croat Med J** 1999 Sep;40(3):409–12

An in vitro study of implant--tooth-supported connections using a robot test system. Wang L, et al. **J Biomech Eng** 1999 Jun;121(3):290–7

Improving accuracy of bone resections using robotics tool holder and a high speed milling cutting tool. Fadda M, et al. **J Med Eng Technol** 1998 Nov–Dec;22(6):280–4

Robotic computer-assisted telemanipulation enhances coronary artery bypass. Shennib H, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):310–3

The Cyberknife: a frameless robotic system for radiosurgery. Adler JR Jr, et al. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):124–8

Robotic multimodality stereotactic brain tissue identification: work in progress. Andrews R, et al. **Stereotact Funct Neurosurg** 1997;68(1–4 Pt 1):72–9

Laparoscopic visual field. Voice vs foot pedal interfaces for control of the AESOP robot. Allaf ME, et al. **Surg Endosc** 1998 Dec;12(12):1415–8

Manual vs robotically assisted laparoscopic surgery in the performance of basic manipulation and suturing tasks. Kim CA, et al. **Surg Endosc** 1999 Jul;13(7):723

[Robotics in neurosurgery: current status and future prospects] Benabid AL, et al. **Chirurgie** 1998 Feb; 123(1):25–31 (Eng. Abstr.) **(Fre)**

[A new concept in surgery of the digestive tract: surgical procedure assisted by computer, from virtual reality to telemanipulation] Marescaux J, et al. **Chirurgie** 1998 Feb; 123(1):16–24 (Eng. Abstr.) **(Fre)**

[Progress in molecular medicine: "laser capture microdissection" (see comments)] Bornstein SR, et al. **Med Klin** 1998 Dec 15;93(12):739–43 (29 ref.) (Eng. Abstr.) . Comment in: Med Klin 1998 Dec 15;93(12):738. **(Ger)**

METHODS

A robotics-based automated assay for inorganic and organic phosphates. Cogan EB, et al. **Anal Biochem** 1999 Jun 15; 271(1):29–35

Evolutionary body building: adaptive physical designs for robots. Funes P, et al. **Artif Life** 1998 Fall;4(4):337–57 (40 ref.)

Online evolution for a self-adapting robotic navigation system using evolvable hardware. Keymeulen D, et al. **Artif Life** 1998 Fall;4(4):359–93 (54 ref.)

Coevolving predator and prey robots: do "arms races" arise in artificial evolution? Nolfi S, et al. **Artif Life** 1998 Fall; 4(4):311–35 (22 ref.)

Machining and accuracy studies for a tibial knee implant using a force-controlled robot. Van Ham G, et al. **Comput Aided Surg** 1998;3(3):123–33

Biorobotic approaches to the study of motor systems. Beer RD, et al. **Curr Opin Neurobiol** 1998 Dec;8(6):777–82 (54 ref.)

Robotic recovery of highly radioactive resin. Miller DC. **Health Phys** 1999 Feb;76(2 Suppl):S3–6

Semiautomated preparation of 3,5,6-trichloro-2-pyridinol in human urine using a Zymate XP laboratory robot with quantitative determination by gas chromatography-negative-ion chemical ionization mass spectrometry. Ormand JR, et al. **J Anal Toxicol** 1999 Jan-Feb;23(1):35-40

Endoscopic robotic coronary surgery is this reality or fantasy? [editorial; comment] Chitwood WR Jr. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):1-3. Comment on: J Thorac Cardiovasc Surg 1999 Jul;118(1):4-10. Comment on: J Thorac Cardiovasc Surg 1999 Jul;118(1):11-6.

Endoscopic coronary artery bypass grafting with the aid of robotic assisted instruments [see comments] Loulmet D, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):4-10. Comment in: J Thorac Cardiovasc Surg 1999 Jul;118(1):1-3.

Use of the voice-controlled and computer-assisted surgical system ZEUS for endoscopic coronary artery bypass grafting [see comments] Reichenspurner H, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):11-6. Comment in: J Thorac Cardiovasc Surg 1999 Jul;118(1):1-3.

Use of a semi-automated, robotic radioimmunoassay to measure cAMP generated by activation of DP-, EP2-, and IP-prostaglandin receptors in human ocular and other cell types. Crider JY, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jul; 59(1):77-82

[Nissen fundoplication done by remotely controlled robotic technique] Cadière GB, et al. **Ann Chir** 1999;53(2):137-41 (Eng. Abstr.) **(Fre)**

STANDARDS

Comparison of position repeatability of a human operator and an industrial manipulating robot. Zupančič J, et al. **Comput Biol Med** 1998 Jul;28(4):415-21

Analysis methods for new work cell standards. Risk analysis and risk reduction help in dealing with the revised Robot Standard. Steinmann J. **Occup Health Saf** 1998 Dec; 67(12):24-7

TRENDS

[Neuronavigation. Methods and prospects] Wirtz CR, et al. **Nervenarzt** 1998 Dec;69(12):1029-36 (29 ref.) (Eng. Abstr.) **(Ger)**

[Networked robotics: its present status and future prospect] Tachi S. **Nippon Geka Gakkai Zasshi** 1999 Apr;100(4):294-8 (Eng. Abstr.) **(Jpn)**

UTILIZATION

Robots in medicine and surgery. Davies B. **Trans Med Soc Lond** 1996-97;113:6-10

ROC ANALYSIS see **ROC CURVE**

ROC CURVE

Design and analysis of ROC studies: discriminating between diet and regular soft drinks. Ackerman SJ, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S259-63

Monte Carlo validation of a multireader method for receiver operating characteristic discrete rating data: factorial experimental design. Dorfman DD, et al. **Acad Radiol** 1998 Sep;5(9):591-602

Slopes of a receiver operating characteristic curve and likelihood ratios for a diagnostic test. Choi BC. **Am J Epidemiol** 1998 Dec 1;148(11):1127-32

An anthropomorphic phantom for receiver operating characteristic studies in CT imaging of liver lesions. Olerud HM, et al. **Br J Radiol** 1999 Jan;72(853):35-43

Sialyl Lewis X-i antigen in pleural effusion [letter] Satoh H, et al. **Chest** 1999 Aug;116(2):582-3

Of bombers, radiologists, and cardiologists: time to ROC [see comments] Collinson P. **Heart** 1998 Sep;80(3):215-7. Comment in: Heart 1999 Jul;82(1):114.

Of bombers, radiologists, and cardiologists: time to ROC [letter; comment] West R. **Heart** 1999 Jul;82(1):114. Comment on: Heart 1998 Sep;80(3):215-7.

Statistical textural features for detection of microcalcifications in digitized mammograms. Kim JK, et al. **IEEE Trans Med Imaging** 1999 Mar;18(3):231-8

An evaluation of the role of ROC plots in the prediction of heroin use from total codeine and total morphine concentrations in urine. O'Neal CL, et al. **J Anal Toxicol** 1998 Oct;22(6):487-92

Validation of logistic regression models in small samples: application to calvarial lesions diagnosis. Bautista D, et al. **J Clin Epidemiol** 1999 Mar;52(3):237-41

Meta-analysis of diagnostic tests with imperfect reference standards. Walter SD, et al. **J Clin Epidemiol** 1999 Oct; 52(10):943-51

A Bayesian approach to a general regression model for ROC curves. Hellmich M, et al. **Med Decis Making** 1998 Oct-Dec;18(4):436-43

Bayesian approaches to meta-analysis of ROC curves. Hellmich M, et al. **Med Decis Making** 1999 Jul-Sep; 19(3):252-64

Plotting ROC curves: giving us fits [editorial; comment] Mossman D. **Med Decis Making** 1999 Apr-Jun;19(2):214-5 . Comment on: Med Decis Making 1999 Apr-Jun;19(2):193-201.

Three-way ROCs. Mossman D. **Med Decis Making** 1999 Jan-Mar;19(1):78-89

Goodness-of-fit issues in ROC curve estimation [comment] [see comments] Walsh SJ. **Med Decis Making** 1999 Apr-Jun;19(2):193-201. Comment on: Med Decis Making 1995 Jul-Sep;15(3):276-82. Comment in: Med Decis Making 1999 Apr-Jun;19(2):214-5.

Review of the new methodology of analyzing receiver operating characteristic curves. Ikeda M, et al. **Medinfo** 1998;9 Pt 2:837-40

Calculation and display of confidence bounds for receiver operator characteristics [letter] Kestler HA. **Methods Inf Med** 1999 Mar;38(1):74

ROC analysis of statistical methods used in functional MRI: individual subjects. Skudlarski P, et al. **Neuroimage** 1999 Mar;9(3):311-29

An area theorem for the same-different experiment. Irwin RJ, et al. **Percept Psychophys** 1999 May;61(4):766-9

Analysis of clustered data in receiver operating characteristic studies. Beam CA. **Stat Methods Med Res** 1998 Dec; 7(4):324-36 (30 ref.)

ROCHALIMAEA see **BARTONELLA**

ROCHALIMAEA HENSELAE see **BARTONELLA HENSELAE**

ROCHALIMAEA INFECTIONS see **BARTONELLA INFECTIONS**

ROCHALIMAEA QUINTANA see **BARTONELLA QUINTANA**

ROCKY MOUNTAIN SPOTTED FEVER

Rocky mountain spotted fever. Thorner AR, et al. **Clin Infect Dis** 1998 Dec;27(6):1353-9; quiz 1360 (50 ref.)

Rocky Mountain spotted fever. Abramson JS, et al. **Pediatr Infect Dis J** 1999 Jun;18(6):539-40

[Rocky Mountain spotted fever] Fujii T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):260-3 (14 ref.) **(Jpn)**

BLOOD

Hemostatic changes in Rocky Mountain spotted fever and Mediterranean spotted fever. Elghetany MT, et al. **Am J Clin Pathol** 1999 Aug;112(2):159-68 (91 ref.)

COMPLICATIONS

Dual infection with Ehrlichia chaffeensis and a spotted fever group rickettsia: a case report [letter; comment] Sulzer AJ. **Emerg Infect Dis** 1998 Oct-Dec;4(4):705-6. Comment on: Emerg Infect Dis 1998 Apr-Jun;4(2):311-6.

Acute disseminated encephalomyelitis after Rocky Mountain spotted fever. Wei TY, et al. **Pediatr Neurol** 1999 Jul; 21(1):503-5

DIAGNOSIS

Hidden mortality attributable to Rocky Mountain spotted fever: immunohistochemical detection of fatal, serologically unconfirmed disease. Paddock CD, et al. **J Infect Dis** 1999 Jun;179(6):1469-76

Life-threatening rashes: dermatologic signs of four infectious diseases. Drage LA. **Mayo Clin Proc** 1999 Jan;74(1):68-72 (10 ref.)

Probable actinic Rocky Mountain spotted fever [letter] Barson WJ. **Pediatr Infect Dis J** 1998 Sep;17(9):850-2

Index of suspicion. Case 2. Agyepong MK. **Pediatr Rev** 1999 Apr;20(4):137-9

DRUG THERAPY

Efficacy of doxycycline, azithromycin, or trovafloxacin for treatment of experimental Rocky Mountain spotted fever in dogs. Breitschwerdt EB, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):813-21

EPIDEMIOLOGY

Evidence of rickettsial spotted fever and ehrlichial infections in a subtropical territory of Jujuy, Argentina. Ripoll CM, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):350-4

Tickborne diseases in Arkansas, 1994-1998. **J Ark Med Soc** 1999 Sep;96(4):137

HISTORY

Rocky Mountain spotted fever research at Wake Forest University School of Medicine. Harrell's miracle on Hawthorne Hill. Loeser CS. **N C Med J** 1998 Sep-Oct; 59(5):318-22

MORTALITY

Hidden mortality attributable to Rocky Mountain spotted fever: immunohistochemical detection of fatal, serologically unconfirmed disease. Paddock CD, et al. **J Infect Dis** 1999 Jun;179(6):1469-76

PATHOLOGY

Rickettsia rickettsii infection of the EA.hy 926 endothelial cell line: morphological response to infection and evidence for oxidative injury. Eremeeva ME, et al. **Microbiology** 1998 Aug;144 (Pt 8):2037-48

PHYSIOPATHOLOGY

Rickettsia rickettsii infection of the EA.hy 926 endothelial cell line: morphological response to infection and evidence for oxidative injury. Eremeeva ME, et al. **Microbiology** 1998 Aug;144 (Pt 8):2037-48

TRANSMISSION

An investigation into the possibility of transmission of tick-borne pathogens via blood transfusion. Transfusion-Associated Tick-Borne Illness Task Force. Arguin PM, et al. **Transfusion** 1999 Aug;39(8):828-33

ROD-CONE DYSTROPHY see **RETINITIS PIGMENTOSA**

ROD MYOPATHY see **NEMALINE MYOPATHY**

ROD-OPSIN see **OPSIN**

ROD OUTER SEGMENTS

[Rhegmatogenous retinal detachment and hypertension: Schwartz-Matsuo syndrome] Majo F, et al. **J Fr Ophtalmol** 1998 Nov;21(9):707-11 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Temperature and pH dependence of the metarhodopsin I-metarhodopsin II equilibrium and the binding of metarhodopsin II to G protein in rod disk membranes. Parkes JH, et al. **Biochemistry** 1999 May 25;38(21):6862-78

The unique lipid composition of gecko (Gekko Gekko) photoreceptor outer segment membranes. Yuan C, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug; 120(4):785-9

DRUG EFFECTS

Antioxidant activity of retinol, glutathione, and taurine in bovine photoreceptor cell membranes. Keys SA, et al. **Exp Eye Res** 1999 Jun;68(6):693-702

The effect of alpha tocopherol, all-trans retinol and retinyl palmitate on the non enzymatic lipid peroxidation of rod outer segments. Guajardo M, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):173-8

ENZYMOLOGY

Regulation of photoreceptor phosphodiesterase catalysis by its non-catalytic cGMP-binding sites. D'Amours MR, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):863-9

Suppression of GTP/T alpha-dependent activation of cGMP phosphodiesterase by ADP-ribosylation by its gamma subunit in amphibian rod photoreceptor membranes. Bondarenko VA, et al. **Biochemistry** 1999 Jun 15; 38(24):7755-63

Functional consequences of a rod outer segment membrane guanylate cyclase (ROS-GC1) gene mutation linked with Leber's congenital amaurosis. Duda T, et al. **Biochemistry** 1999 Jan 12;38(2):509-15

A second calcium regulator of rod outer segment membrane guanylate cyclase, ROS-GC1: neurocalcin. Kumar VD, et al. **Biochemistry** 1999 Sep 28;38(39):12614-20

Identification of a guanylyl cyclase-activating protein-binding site within the catalytic domain of retinal guanylyl cyclase 1. Sokal I, et al. **Biochemistry** 1999 Feb 2;38(5):1387-93

Light inhibition of bovine retinal rod guanylyl cyclase mediated by beta gamma-transducin. Wolbring G, et al. **Biochemistry** 1999 Mar 2;38(9):2611-6

cGMP binding to noncatalytic sites on mammalian rod photoreceptor phosphodiesterase is regulated by binding of its gamma and delta subunits. Mou H, et al. **J Biol Chem** 1999 Jun 25;274(26):18813-20

Rod outer segment membrane guanylate cyclase type 1 (ROS-GC1) gene: structure, organization and regulation by phorbol ester, a protein kinase C activator. Duda T, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):63-70

GROWTH & DEVELOPMENT

Rod photoreceptor maturation does not vary with retinal eccentricity in mammalian retina. Timmers AM, et al. **Curr Eye Res** 1999 Jun;18(6):393-402

METABOLISM

Pharmacological characterization of the effects of taurine on calcium uptake in the rat retina. Militante JD, et al. **Amino Acids** 1998;15(1-2):99-108

Suppression of GTP/T alpha-dependent activation of cGMP phosphodiesterase by ADP-ribosylation by its gamma subunit in amphibian rod photoreceptor membranes. Bondarenko VA, et al. **Biochemistry** 1999 Jun 15; 38(24):7755-63

Kinetics of the light-induced proton translocation associated with the pH-dependent formation of the metarhodopsin I/II equilibrium of bovine rhodopsin. Dickopf S, et al. **Biochemistry** 1998 Dec 1;37(48):16888-97

Role of carboxyl-terminal charges on S-modulin membrane affinity and inhibition of rhodopsin phosphorylation.

ROD OUTER SEGMENTS

Matsuda S, et al. **Biochemistry** 1999 Jan 26;38(4):1310–5

Temperature and pH dependence of the metarhodopsin I–metarhodopsin II equilibrium and the binding of metarhodopsin II to G protein in rod disk membranes. Parkes JH, et al. **Biochemistry** 1999 May 25;38(21):6862–78

Three residues predicted by molecular modeling to interact with the purine moiety alter ligand binding and channel gating in cyclic nucleotide–gated channels. Scott SP, et al. **Biochemistry** 1998 Dec 8;37(49):17239–52

Phosphorylation of rod outer segment proteins modulates phosphatidylethanolamine N–methyltransferase and phospholipase A2 activities in photoreceptor membranes. Castagnet PI, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 Aug; 120(4):683–91

Spectrum of ABCR gene mutations in autosomal recessive macular dystrophies [published erratum appears in Eur J Hum Genet 1999 Jan;7(1):102] Rozet JM, et al.
Eur J Hum Genet 1998 May–Jun;6(3):291–5

Obtaining and characterization of EF–hand mutants of recoverin. Alekseev AM, et al. **FEBS Lett** 1998 Nov 27; 440(1–2):116–8

Tracing of benzidine–reactive substances in ROS, RPE and choroid after light–induced peroxidation. Kayatz P, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Sep;237(9):763–74

Retinal stimulates ATP hydrolysis by purified and reconstituted ABCR, the photoreceptor–specific ATP–binding cassette transporter responsible for Stargardt disease. Sun H, et al. **J Biol Chem** 1999 Mar 19; 274(12):8269–81

Stimulatory effect of taurine on calcium ion uptake in rod outer segments of the rat retina is independent of taurine uptake. Militante JD, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):383–9

Allelic variation in ABCR associated with Stargardt disease but not age–related macular degeneration [letter] Stone EM, et al. **Nat Genet** 1998 Dec;20(4):328–9

The GTPase activating factor for transducin in rod photoreceptors is the complex between RGS9 and type 5 G protein beta subunit. Makino ER, et al.
Proc Natl Acad Sci U S A 1999 Mar 2;96(5):1947–52

PATHOLOGY

A novel ABCR nonsense mutation responsible for late–onset fundus flavimaculatus. Souied EH, et al.
Invest Ophthalmol Vis Sci 1999 Oct;40(11):2740–4

Analysis of the Stargardt disease gene (ABCR) in age–related macular degeneration. De La Paz MA, et al.
Ophthalmology 1999 Aug;106(8):1531–6

PHYSIOLOGY

Neither functional rod photoreceptors nor rod or cone outer segments are required for the photic inhibition of pineal melatonin. Lucas RJ, et al. **Endocrinology** 1999 Apr; 140(4):1520–4

Phagocytosis of rod outer segments by human iris pigment epithelial cells in vitro. Thumann G, et al.
Graefes Arch Clin Exp Ophthalmol 1998 Oct;236(10):753–7

Protein kinase C and IP3 in photoresponses of functionally intact rod outer segments: constraints about their role. Jindrová H, et al. **Physiol Res** 1998;47(4):285–90 (39 ref.)

Effect of rhodopsin C–terminal peptide on photoresponses in functionally intact rod outer segments. Jindrová H, et al. **Physiol Res** 1998;47(4):279–84

PHYSIOPATHOLOGY

Insights into the function of Rim protein in photoreceptors and etiology of Stargardt's disease from the phenotype in abcr knockout mice. Weng J, et al. **Cell** 1999 Jul 9; 98(1):13–23

RADIATION EFFECTS

Influence of UVA light stress on photoreceptor cell metabolism: decreased rates of rhodopsin regeneration and opsin synthesis. Rapp LM, et al. **Exp Eye Res** 1999 Jun; 68(6):757–64

Effect of rhodopsin C–terminal peptide on photoresponses in functionally intact rod outer segments. Jindrová H, et al. **Physiol Res** 1998;47(4):279–84

ULTRASTRUCTURE

Investigation of luminal surface structures of rod photoreceptor outer segments by lectin cytochemistry combined with freeze–etching. Ishikawa M, et al.
Ophthalmic Res 1999;31(4):267–72

ROD PHOTORECEPTORS see **RODS (RETINA)**

RODENT CONTROL

see related
RODENTICIDES

[The experience of winter field deratization in a focus of hemorrhagic fever with renal syndrome] Matrosov AN, et al. **Gig Sanit** 1999 Mar–Apr;(2):57–9 **(Rus)**

METHODS

Mapping rodent complaints. Casey NM, et al.
Public Health Rep 1999 Jul–Aug;114(4):361

[An effective system of measures to protect children's groups from attack by blood–sucking arthropods and the extermination of rodents in the area of children's institutions] Dremova VP, et al. **Med Parazitol (Mosk)** 1998 Jul–Sep;(3):54–5 **(Rus)**

[The efficacy of Salmocumarin rodenticide in livestock–raising and urban sites] Villafaña F, et al.
Rev Cubana Med Trop 1995;47(2):83–7 (Eng. Abstr.) **(Spa)**

RODENT DISEASES

CEREBROSPINAL FLUID

A new technique: serial puncture of the cisterna magna for obtaining cerebrospinal fluid in the mouse––application in a model of herpes simplex virus encephalitis. Meyding–Lamadé U, et al. **J Exp Anim Sci** 1996–97; 38(2):77–81

CONGENITAL

Lectin histochemistry of dorsal skin of Wistar–derived hypotrichotic WBN/Ila–Ht rats. Iwamoto S, et al.
Exp Anim 1998 Jul;47(3):183–7

Airway responsiveness to acetylcholine in congenitally bronchial–hypersensitive (BHS) and bronchial–hyposensitive (BHR) guinea pigs in vivo and in vitro. Yagi Y, et al. **Exp Anim** 1998 Jul;47(3):173–81

Optic nerve dysplasia associated with meningeal defect in Sprague–Dawley rats. Shibuya K, et al. **Vet Pathol** 1998 Sep;35(5):323–9

DIAGNOSIS

Detection of Pasteurellaceae in rodents by polymerase chain reaction analysis. Bootz F, et al. **Lab Anim Sci** 1998 Oct; 48(5):542–6

Characterization of mouse parvovirus infection among BALB/c mice from an enzootically infected colony. Shek WR, et al. **Lab Anim Sci** 1998 Jun;48(3):294–7

[Dental problems in rabbits and rodents. I. Anatomy, physiology, symptomatology, diagnosis] van Foreest AW. **Tijdschr Diergeneeskd** 1998 Dec 1;123(23):698–706 (30 ref.) (Eng. Abstr.) **(Dut)**

DRUG THERAPY

Effective eradication of pinworms (Syphaciamuris, Syphacia obvelata and Aspiculuris tetraptera) from a rodent breeding colony by oral anthelmintic therapy. Zenner L.
Lab Anim 1998 Jul;32(3):337–42

EPIDEMIOLOGY

Hantavirus (Bunyaviridae) infections in rodents from Orange and San Diego counties, California. Bennett SG, et al.
Am J Trop Med Hyg 1999 Jan;60(1):75–84

Identification of a novel strain of Borrelia hermsii in a previously undescribed northern California focus. Cleary M, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):883–7

Longitudinal study of infection with Borrelia burgdorferi in a population of Peromyscus leucopus at a Lyme disease–enzootic site in Maryland. Hofmeister EK, et al.
Am J Trop Med Hyg 1999 Apr;60(4):598–609

Short report: a focus of Leishmania mexicana near Tucson, Arizona. Kerr SF, et al. **Am J Trop Med Hyg** 1999 Sep; 61(3):378–9

Long–term hantavirus persistence in rodent populations in central Arizona. Abbott KD, et al. **Emerg Infect Dis** 1999 Jan–Feb;5(1):102–12

A longitudinal study of Sin Nombre virus prevalence in rodents, southeastern Arizona. Kuenzi AJ, et al.
Emerg Infect Dis 1999 Jan–Feb;5(1):113–7

Long–term studies of hantavirus reservoir populations in the southwestern United States: rationale, potential, and methods. Mills JN, et al. **Emerg Infect Dis** 1999 Jan–Feb; 5(1):95–101

Prevalence of "orphan" parvovirus infections in mice and rats. Ueno Y, et al. **Exp Anim** 1998 Jul;47(3):207–10

Clinical and diagnostic findings from a large barrier–maintained SCID mouse colony (1993–1996). Knudsen D, et al. **Folia Microbiol (Praha)** 1998;43(5):495–6

A serosurvey of Borna disease virus infection in wild rats by a capture ELISA. Tsujimura K, et al.
J Vet Med Sci 1999 Feb;61(2):113–7

Emmonsiosis of wild rodents and insectivores in Czechland. Hubálek Z. **J Wildl Dis** 1999 Apr;35(2):243–9

Antibodies to granulocytic ehrlichiae in white–footed and cotton mice in eastern United States. Magnarelli LA, et al. **J Wildl Dis** 1999 Apr;35(2):259–65

Murine viruses in an island population of introduced house mice and endemic short–tailed mice in Western Australia. Moro D, et al. **J Wildl Dis** 1999 Apr;35(2):301–10

Relationships of deer mouse movement, vegetative structure, and prevalence of infection with Sin Nombre virus. Root JJ, et al. **J Wildl Dis** 1999 Apr;35(2):311–8

Epidemiology and genetic variability of two species of nematodes (Heligmosomoides polygyrus and Syphacia stroma) of Apodemus spp. Müller–Graf CD, et al.
Parasitology 1999 Apr;118 (Pt 4):425–32

Incidence from coincidence: patterns of tick infestations on rodents facilitate transmission of tick–borne encephalitis virus. Randolph SE, et al. **Parasitology** 1999 Feb;118 (Pt 2):177–86

ETIOLOGY

Obstructive uropathy and hydronephrosis in male KK–Ay mice: a report of cases. Ninomiya H, et al.
J Vet Med Sci 1999 Jan;61(1):53–7

Rat hypoplastic kidney (hpk/hpk) induces renal anemia, hyperparathyroidism, and osteodystrophy at the end stage of renal failure. Suzuki H, et al. **J Vet Med Sci** 1998 Oct; 60(10):1051–8

GENETICS

Equine SCID: mechanistic analysis and comparison with murine SCID. Leber R, et al.
Vet Immunol Immunopathol 1998 Sep 16;65(1):1–9

Expression of surfactant protein mRNA in normal and neoplastic lung of B6C3F1 mice as demonstrated by in situ hybridization. Pilling AM, et al. **Vet Pathol** 1999 Jan; 36(1):57–63

IMMUNOLOGY

Immunology and biochemistry of Hymenolepis diminuta. Andreassen J, et al. **Adv Parasitol** 1999;42:223–75 (250 ref.)

Interleukin–12 has a role in mediating resistance of murine strains to Tyzzer's disease. Van Andel RA, et al.
Infect Immun 1998 Oct;66(10):4942–6

Comparative infectivity of Toxoplasma gondii bradyzoites in rats and mice. Dubey JP. **J Parasitol** 1998 Dec; 84(6):1279–82

Humoral immunity and protection of mice challenged with homotypic or heterotypic parvovirus. Hansen GM, et al.
Lab Anim Sci 1999 Aug;49(4):380–4

Antigenic analyses of cilia–associated respiratory (CAR) bacillus isolates by use of monoclonal antibodies. Hook RR Jr, et al. **Lab Anim Sci** 1998 Jun;48(3):234–9

Effects of aging on resistance to Trichinella spiralis infection in rodents exposed to 2,3,7,8–tetrachlorodibenzo–p–dioxin. Luebke RW, et al. **Toxicology** 1999 Aug 13;136(1):15–26

Experimental infection of inbred mouse strains with Spironucleus muris. Baker DG, et al. **Vet Parasitol** 1998 Jun 30;77(4):305–10

IgG isotype specific immune response in rats infected with Fasciola hepatica. Paz A, et al. **Vet Parasitol** 1998 Nov 16;79(3):229–37

MICROBIOLOGY

Pathology, diagnosis and epidemiology of the rodent Helicobacter infection. Zenner L.
Comp Immunol Microbiol Infect Dis 1999 Jan;22(1):41–61 (64 ref.)

Bartonella tribocorum sp. nov., a new Bartonella species isolated from the blood of wild rats. Heller R, et al.
Int J Syst Bacteriol 1998 Oct;48 Pt 4:1333–9

Experimental infection of cotton rats with three naturally occurring Bartonella species. Kosoy MY, et al.
J Wildl Dis 1999 Apr;35(2):275–84

Adiaspiromycosis in a European beaver from Sweden. Mörner T, et al. **J Wildl Dis** 1999 Apr;35(2):367–70

Detection of cilia–associated respiratory (CAR) bacillus in nasal–swab specimens from infected rats by use of polymerase chain reaction. Franklin CL, et al.
Lab Anim Sci 1999 Feb;49(1):114–7

Enterohepatic lesions in SCID mice infected with Helicobacter bilis. Franklin CL, et al. **Lab Anim Sci** 1998 Aug;48(4):334–9

Corynebacterium bovis infection in waltzing mice [letter; comment] Gobbi A, et al. **Lab Anim Sci** 1999 Apr; 49(2):132–3. Comment on: Lab Anim Sci 1999 Apr;49(2):209–11.

Corynebacterium bovis infection in immunocompetent hirsute mice [see comments] Gobbi A, et al.
Lab Anim Sci 1999 Apr;49(2):209–11. Comment in: Lab Anim Sci 1999 Apr;49(2):132–3.

Rodent quarantine programs: purpose, principles, and practice. Rehg JE, et al. **Lab Anim Sci** 1998 Oct; 48(5):438–47 (54 ref.)

Experimentally induced infection of gerbils with cilia–associated respiratory bacillus. St. Clair MB, et al.
Lab Anim Sci 1999 Aug;49(4):421–3

Helicobacter bilis/Helicobacter rodentium co–infection associated with diarrhea in a colony of scid mice. Shomer NH, et al. **Lab Anim Sci** 1998 Oct;48(5):455–9

Study of diseases of the grey squirrel (Sciurus carolinensis) in Italy. First isolation of the dermatophyte Microsporum cookei. Caffara M, et al. **Med Mycol** 1999 Feb;37(1):75–7

Emmonsiosis of rodents in an agroecosystem. Hubálek Z, et al. **Med Mycol** 1998 Dec;36(6):387–90

Analysis of the 16S rRNA gene sequence of the coryneform bacterium associated with hyperkeratotic dermatitis of athymic nude mice and development of a PCR–based detection assay. Duga S, et al. **Mol Cell Probes** 1998 Aug; 12(4):191–9

Preference of mice to consume Microcystis aeruginosa (toxin–producing cyanobacteria): a possible explanation for numerous fatalities of livestock and wildlife. Lopez Rodas V, et al. **Res Vet Sci** 1999 Aug;67(1):107–10

PARASITOLOGY

Reproductivity of nine Trichinella isolates in guinea pigs and mice. Webster P, et al. **Acta Vet Scand** 1999;40(1):93–5

A polymorphism in a DNA polymerase alpha gene intron differentiates between murine virulent and avirulent strains of Toxoplasma gondii. Biñas M, et al. **Int J Parasitol** 1998 Jul;28(7):1033–40

Advances in the life cycle of Toxoplasma gondii. Dubey JP. **Int J Parasitol** 1998 Jul;28(7):1019–24 (38 ref.)

Thysanotaenia congolensis n. sp. (Cestoda: Anoplocephalidae) in the lesser savanna cane rat, Thryonomys gregorianus from Democratic Republic of Congo, Africa. Dronen NO, et al. **J Parasitol** 1999 Feb; 85(1):90–2

A second record of adult Ascarops strongylina (Rudolphi, 1819) (Nematoda: Spirocercidae) in a rodent host. Ganzorig S, et al. **J Parasitol** 1999 Apr;85(2):283–5

Six new nematodes of the Heligmonellidae (Trichostrongylina) collected from endemic murines of Sulawesi, Indonesia. Hasegawa H, et al. **J Parasitol** 1999 Jun;85(3):513–24

A new Eimeria species (Apicomplexa: Eimeriidae) infecting Onychomys species (Rodentia: Muridae) in New Mexico and Arizona. Hnida JA, et al. **J Parasitol** 1998 Dec; 84(6):1207–9

Ultrastructure of spermiogenesis and the spermatozoon of Anoplocephaloides dentata (Cestoda, Cyclophyllidea, Anoplocephalidae), an intestinal parasite of Arvicolidae rodents. Miquel J, et al. **J Parasitol** 1998 Dec;84(6):1128–36

Mesostigmatid mite infestations of rodents in diverse biotopes of central and southern India. Saxena VK. **J Parasitol** 1999 Feb;85(1):147–9

Host preferences and temporal trends of the tick Ixodes angustus in north-central Alberta. Sorensen TC, et al. **J Parasitol** 1998 Oct;84(5):902–6

Interrelationship between ectoparasites and wild rodents from Tijucas do Sul, state of Paraná, Brazil. Barros-Battesti DM, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec; 93(6):719–25

Biological parameters of Trichostrongylus colubriformis in Meriones unguiculatus. Ziam H, et al. **Vet Parasitol** 1999 Mar 15;81(4):309–22

PATHOLOGY

Spontaneous pinealoma in a male Crj:CD (SD) IGS rat. Furukawa S, et al. **J Vet Med Sci** 1999 Jan;61(1):41–4

Malignant basal cell tumor in a Djungarian hamster. Nakao K, et al. **J Vet Med Sci** 1999 Feb;61(2):191–3

Gongylonema macrogubernaculum in captive African squirrels (Funisciurus substriatus and Xerus erythropus) and lion-tailed macaques (Macaca silenus). Craig LE, et al. **J Zoo Wildl Med** 1998 Sep;29(3):331–7

Spontaneous ophthalmic lesions in young Swiss mice. Hubert MF, et al. **Lab Anim Sci** 1999 Jun;49(3):232–40

Alpha-mannosidosis in a guinea pig. Muntz FH, et al. **Lab Anim Sci** 1999 Aug;49(4):424–6

Neuroendocrine (ECL cell) differentiation of spontaneous gastric carcinomas of cotton rats (Sigmodon hispidus). Waldum HL, et al. **Lab Anim Sci** 1999 Jun;49(3):241–7

Ito cell tumor: immunohistochemical investigations of a rare lesion in the liver of mice. Tillmann T, et al. **Toxicol Pathol** 1999 May-Jun;27(3):364–9

Histology and tissue chemistry of tidemark separation in hamsters. Otterness IG, et al. **Vet Pathol** 1999 Mar; 36(2):138–45

PHYSIOPATHOLOGY

Time of day and stress response to different stressors in experimental animals. Part I: Golden hamster (Mesocricetus auratus Waterhouse, 1839). Gattermann R, et al. **J Exp Anim Sci** 1996–97;38(2):66–76

Physiological responses of deer mice (Peromyscus maniculatus) to infection with Capillaria hepatica (Nematoda). Meagher S. **J Parasitol** 1998 Dec;84(6):1112–8

PREVENTION & CONTROL

Lifelong treatment with oral DHEA sulfate does not preserve immune function, prevent disease, or improve survival in genetically heterogeneous mice. Miller RA, et al. **J Am Geriatr Soc** 1999 Aug;47(8):960–6

THERAPY

[Dental problems in rabbits and rodents. II. Dental treatment] van Foreest AW. **Tijdschr Diergeneeskd** 1998 Dec 1; 123(23):707–13 (30 ref.) (Eng. Abstr.) **(Dut)**

TRANSMISSION

Rodents, their seasonal activity, ecto- and blood-parasites in Saint Catherine area, South Sinai Governorate, Egypt. el-Kady GA, et al. **J Egypt Soc Parasitol** 1998 Dec; 28(3):815–26

Identification of pseudocysts of Tritrichomonas muris in Armenian hamsters and their transmission to mice. Lipman NS, et al. **Lab Anim Sci** 1999 Jun;49(3):313–5

Threat to U.S. mouse colonies [letter] Lipman NS, et al. **Science** 1999 May 14;284(5417):1123

Field evidence for mechanical transmission of rabbit haemorrhagic disease virus (RHDV) by flies (Diptera:Calliphoridae) among wild rabbits in Australia. Asgari S, et al. **Virus Res** 1998 Apr;54(2):123–32

ULTRASONOGRAPHY

Ultrasonic diagnosis of ovarian cysts in ten guinea pigs. Beregi A, et al. **Vet Radiol Ultrasound** 1999 Jan-Feb; 40(1):74–6

VIROLOGY

Adenovirus pneumonia in guinea pigs. Finnie JW, et al. **Aust Vet J** 1999 Mar;77(3):191–2

Genetics of susceptibility to Theiler's virus infection. Brahic M, et al. **Bioessays** 1998 Aug;20(8):627–33 (56 ref.)

Navigational instinct: a reason not to live trap deer mice in residences [letter] Calisher CH, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):175–6

Natural history of Sin Nombre virus in western Colorado. Calisher CH, et al. **Emerg Infect Dis** 1999 Jan-Feb; 5(1):126–34

A longitudinal study of Sin Nombre virus prevalence in rodents, southeastern Arizona. Kuenzi AJ, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):113–7

Long-term studies of hantavirus reservoir populations in the southwestern United States: a synthesis. Mills JN, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):135–42

RODENT ULCER see **CARCINOMA, BASAL CELL**

RODENTIA

Making the most of rodent tumour systems in cancer drug discovery. Bibby MC. **Br J Cancer** 1999 Apr; 79(11-12):1633–40 (86 ref.)

Note on the fleas of small mammals in Beed district, Maharashtra State, India. Geevarghese G, et al. **J Commun Dis** 1997 Dec;29(4):361–2

Biochronological implications of the Arvicolidae (Rodentia, Mammalia) from the Lower Pleistocene hominid-bearing level of Trinchera Dolina 6 (TD6, Atapuerca, Spain). Cuenca-Bescós G, et al. **J Hum Evol** 1999 Sep-Oct; 37(3-4):353–73

Adiaspiromycosis in a European beaver from Sweden. Mörner T, et al. **J Wildl Dis** 1999 Apr;35(2):367–70

International standards for rodent quality [editorial] Jacoby RO, et al. **Lab Anim Sci** 1999 Jun;49(3):230

Groups sue to tighten oversight of rodents [news] [see comments] Malakoff D. **Science** 1999 Feb 5;283(5403):767, 769. Comment in: Science 1999 Apr 2;284(5411):49–50.

More regulation of rodents [editorial] Trull FL, et al. **Science** 1999 May 28;284(5419):1463

Serological evidence of natural infection of wild rodents (Rattus spp and Tupaia glis) with rickettsiae in Malaysia. Tay ST, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):560–2 (10 ref.)

[The experience of winter field deratization in a focus of hemorrhagic fever with renal syndrome] Matrosov AN, et al. **Gig Sanit** 1999 Mar-Apr;(2):57–9 **(Rus)**

[The ecological connections of dispersal in small mammal populations] Luk'ianov OA. **Zh Obshch Biol** 1999 Mar-Apr;60(2):164–76 (Eng. Abstr.) **(Rus)**

[The dynamics of the spatial organization of communities of small mammals (exemplified by rodents of the trans-Altai Gobi of Mongolia)] Rogovin KA. **Zh Obshch Biol** 1998 Sep-Oct;59(5):477–97 (Eng. Abstr.) **(Rus)**

[An error in determining the number of migrants during the trapping of small mammals with weighted lines] Smirnov VS. **Zh Obshch Biol** 1998 Jul-Aug;59(4):438–48 (Eng. Abstr.) **(Rus)**

[The efficacy of Salmocumarin rodenticide in livestock-raising and urban sites] Villafaña F, et al. **Rev Cubana Med Trop** 1995;47(2):83–7 (Eng. Abstr.) **(Spa)**

ANATOMY & HISTOLOGY

Anatomicohistological characteristics of the ovary of the coypu (Myocastor coypus). Felipe A, et al. **Anat Histol Embryol** 1999 May;28(2):89–95

Macro-anatomical investigations on the skeletons of porcupine (Hystrix cristata). Part III: skeleton axiale. Yilmaz S. **Anat Histol Embryol** 1998 Oct;27(5):293–6

Structural specializations of the eye in the vizcacha (Lagostomus maximus maximus). Lascano C, et al. **Anat Rec** 1999 May 1;255(1):34–43

Conservation biology: genes are not enough. Lehman N. **Curr Biol** 1998 Oct 8;8(20):R722–4 (9 ref.)

The presence of lymphatic stomata in the ovarian bursa on the European beaver as shown by scanning electron microscopy study. Dobroszyńska T, et al. **Folia Morphol (Warsz)** 1998;57(4):349–55

[Novel data on porcupine quill structure (Hystricomorpha, Rodentia)] Sokolov VE, et al. **Dokl Akad Nauk** 1998 Nov; 363(3):429–32 **(Rus)**

EMBRYOLOGY

Gene transfer to the rodent embryo by retroviral vectors. Pavlath GK, et al. **Methods Mol Biol** 1999;97:519–38 (19 ref.)

GENETICS

Conservation biology: genes are not enough. Lehman N. **Curr Biol** 1998 Oct 8;8(20):R722–4 (9 ref.)

Deleterious mutations at the mitochondrial ND3 gene in South American marsh rats (Holochilus). Kennedy P, et al. **Genetics** 1998 Sep;150(1):359–68

The causes of synonymous rate variation in the rodent genome. Can substitution rates be used to estimate the sex bias in mutation rate? Smith NG, et al. **Genetics** 1999 Jun; 152(2):661–73

The evolutionary position of dormice (Gliridae) in Rodentia determined by a novel short retroposon [letter] Kramerov D, et al. **Mol Biol Evol** 1999 May;16(5):715–7

Major histocompatibility complex (MHC) class II polymorphism and paternity in the monogamous Hypogeomys antimena, the endangered, largest endemic Malagasy rodent. Sommer S, et al. **Mol Ecol** 1999 Aug; 8(8):1259–72

Characterization of polymorphic microsatellites from current and historic populations of North American pocket gophers (Geomyidae: Thomomys). Steinberg EK. **Mol Ecol** 1999 Jun;8(6):1075–6

[The evidence of close phylogenetic relationship between Gliridae and Sciuridae families based on the study of short retroposon B1-dID] Kramerov DA. **Dokl Akad Nauk** 1999 Jan;364(2):277–80 **(Rus)**

METABOLISM

Small mammal populations and community under conditions of extremely high thallium contamination in the environment. Dmowski K, et al. **Ecotoxicol Environ Saf** 1998 Sep;41(1):2–7

Differential distribution of endomorphin 1- and endomorphin 2-like immunoreactivities in the CNS of the rodent. Martin-Schild S, et al. **J Comp Neurol** 1999 Mar 22; 405(4):450–71

Distribution of lithium in different CNS areas and other tissues of adult male and female vizcacha (Lagostomus maximus maximus). García S, et al. **J Trace Elem Med Biol** 1999 Apr;12(4):217–20

MICROBIOLOGY

Survey of Bartonella species infecting intradomicillary animals in the Huayllacallán Valley, Ancash, Peru, a region endemic for human bartonellosis. Birtles RJ, et al. **Am J Trop Med Hyg** 1999 May;60(5):799–805

Lyme disease in Taiwan: primary isolation of Borrelia burgdorferi-like spirochetes from rodents in the Taiwan area. Shih CM, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):687–92

Characteristics of garden dormice that contribute to their capacity as reservoirs for lyme disease spirochetes. Matuschka FR, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):707–11

Genospecies identification and characterization of Lyme disease spirochetes of genospecies Borrelia burgdorferi sensu lato isolated from rodents in Taiwan. Shih CM, et al. **J Clin Microbiol** 1998 Nov;36(11):3127–32

Murine typhus in metropolitan Perth [letter] Beaman MH, et al. **Med J Aust** 1999 Jan 18;170(2):93–4

Antibiotic resistance found in wild rodents. Gilliver MA, et al. **Nature** 1999 Sep 16;401(6750):233–4

Selective isolation of Pseudomonas stutzeri from vertebrate faeces on Rambach agar. Hubálek Z, et al. **Zentralbl Bakteriol** 1998 Nov;288(3):343–9

[Epidemiology and epizootiology of plague: the major role of the surveillance of reservoir populations of wild rodents in the control of permanent foci] Alonso JM. **Med Trop (Mars)** 1998;58(2 Suppl):21–4 (Eng. Abstr.) **(Fre)**

PARASITOLOGY

Echinococcus multilocularis (Cestoda: Taeniidae) in the Czech Republic: the first detection of metacestodes in a naturally infected rodent. Martínek K, et al. **Folia Parasitol (Praha)** 1998;45(4):332–3

Outbreak of rat mite dermatitis in medical students. Chung SL, et al. **Int J Dermatol** 1998 Aug;37(8):591–4

Dermacentor hunteri (Acari: Ixodidae): seasonal variation in questing adults and on-host juvenile stages, and host associations and feeding behavior of larvae and nymphs. Crosbie PR, et al. **J Med Entomol** 1998 Nov;35(6):1034–43

Thysanotaenia congolensis n. sp. (Cestoda: Anoplocephalidae) in the lesser savanna cane rat, Thryonomys gregorianus from Democratic Republic of Congo, Africa. Dronen NO, et al. **J Parasitol** 1999 Feb; 85(1):90–2

The prevalence of Balantidium coli infection in fifty-six mammalian species. Nakauchi K. **J Vet Med Sci** 1999 Jan; 61(1):63–5

A new enzymatic variant of Leishmania (Leishmania) forattinii isolated from Proechimys iheringi (Rodentia, Echimydae) in Espírito Santo, Brazil. Falqueto A, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec;93(6):795–8

Effects of schistosomal mansoni infection on Calomys callosus coelom-associated lymphomyeloid tissue (milky spots). Lenzi JA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:13–23

PHYSIOLOGY

Experience-dependent changes in vibrissae evoked responses in the rodent barrel cortex. Glazewski S. **Acta Neurobiol Exp (Warsz)** 1998;58(4):309–20 (70 ref.)

RODENTIA

Photoperiodic responses of four wild-trapped desert rodent species. El-Bakry HA, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2012-22

Locomotor and feeding activity rhythms in a light-entrained diurnal rodent, Octodon degus. García-Allegue R, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R523-31

Stages of the cycle of the seminiferous epithelium of the viscacha (Lagostomus maximus maximus). Muñoz EM, et al. **Anat Rec** 1998 Sep;252(1):8-16

Characteristics of garden dormice that contribute to their capacity as reservoirs for lyme disease spirochetes. Matuschka FR, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):707-11

Photic responses of suprachiasmatic area neurons in diurnal degus (Octodon degus) and nocturnal rats (Rattus norvegicus). Jiao YY, et al. **Brain Res** 1999 Jan 30; 817(1-2):93-103

The associative parietal cortex and spatial processing in rodents. Thinus-Blanc C, et al. **C R Acad Sci III** 1998 Feb-Mar;321(2-3):179-83 (45 ref.)

Photic entrainment of circadian rhythms in rodents. Rea MA. **Chronobiol Int** 1998 Sep;15(5):395-423 (227 ref.)

Thermoregulatory responses of mesic and xeric rodent species to photoperiod manipulations. Haim A, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 May; 120(1):187-91

Test of the adaptive modulation hypothesis in rodents: dietary flexibility and enzyme plasticity. Sabat P, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 May; 123(1):83-7

The influence of fibre in the diet on growth rates and the digestibility of nutrients in the greater cane rat (Thryonomys swinderianus). van Zyl A, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):129-35

Statistical sensitivity for detection of spatial and temporal patterns in rodent population densities. Parmenter CA, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):118-25

Can GABAA conductances explain the fast oscillation frequency of absence seizures in rodents? Destexhe A. **Eur J Neurosci** 1999 Jun;11(6):2175-81

Relation of glucocorticosteroids and testosterone to the annual cycle of free-living degus in semiarid central Chile. Kenagy GJ, et al. **Gen Comp Endocrinol** 1999 Aug; 115(2):236-43

Energy expenditure and efficiency of energy use in rodents: desert and non-desert species. Degen AA. **J Basic Clin Physiol Pharmacol** 1998;9(1):29-49 (39 ref.)

Osmoregulation and water balance in the springhare (Pedetes capensis). Peinke DM, et al. **J Comp Physiol [B]** 1999 Feb; 169(1):1-10

Rodents, their seasonal activity, ecto- and blood-parasites in Saint Catherine area, South Sinai Governorate, Egypt. el-Kady GA, et al. **J Egypt Soc Parasitol** 1998 Dec; 28(3):815-26

A nonphotic stimulus inverts the diurnal-nocturnal phase preference in Octodon degus. Kas MJH, et al. **J Neurosci** 1999 Jan 1;19(1):328-33

Restraint of the paca (Agouti paca) with ketamine hydrochloride, acetylpromazine maleate, and atropine sulfate. Pachaly JR, et al. **J Zoo Wildl Med** 1998 Sep; 29(3):303-6

Molecular evolution of the nuclear von Willebrand factor gene in mammals and the phylogeny of rodents. Huchon D, et al. **Mol Biol Evol** 1999 May;16(5):577-89

Macronutrient-specific dietary selection in rodents and its neural bases. Thibault L, et al. **Neurosci Biobehav Rev** 1999 Mar;23(4):457-528 (151 ref.)

Neuronal activity in the mediobasal hypothalamus of hibernating jerboas (Jaculus orientalis). El Quezzani S, et al. **Neurosci Lett** 1999 Jan 22;260(1):13-6

Suprachiasmatic nucleus and intergeniculate leaflet in the diurnal rodent Octodon degus: retinal projections and immunocytochemical characterization. Goel N, et al. **Neuroscience** 1999;92(4):1491-509

Sleep patterns of the volcano mouse (Neotomodon alstoni alstoni). Ayala-Guerrero F, et al. **Physiol Behav** 1998 Jun 15;64(4):577-80

Flavor avoidance learning and its implications in reducing strychnine baiting hazards to nontarget animals. El Hani A, et al. **Physiol Behav** 1998 Jul;64(5):585-9

Daily rhythms of food intake and feces reingestion in the degu, an herbivorous Chilean rodent: optimizing digestion through coprophagy. Kenagy GJ, et al. **Physiol Biochem Zool** 1999 Jan-Feb;72(1):78-86

Apneic oxygen uptake in the torpid pocket mouse Perognathus parvus. Sullivan SG, et al. **Physiol Zool** 1998 Nov-Dec;71(6):624-32

Seminiferous epithelium cycle and its duration in capybaras (Hydrochoerus hydrochaeris). Paula TA, et al. **Tissue Cell** 1999 Jun;31(3):327-34

[The role of behavioral hyperactivation in the formation of anxiety in rodents] Kaluev AV. **Zh Obshch Biol** 1999 Mar-Apr;60(2):207-12 (32 ref.) (Eng. Abstr.) **(Rus)**

PSYCHOLOGY

Evidence for rodent-common and species-typical limb and digit use in eating, derived from a comparative analysis of ten rodent species. Whishaw IQ, et al. **Behav Brain Res** 1998 Nov;96(1-2):79-91

URINE

Identification of the source of reagent variability in the xanthydrol/urea method. Biles PV, et al. **J AOAC Int** 1998 Nov-Dec;81(6):1155-61

VIROLOGY

Natural rodent host associations of Guanarito and pirital viruses (Family Arenaviridae) in central Venezuela. Fulhorst CF, et al. **Am J Trop Med Hyg** 1999 Aug; 61(2):325-30

Isolation of tick-borne encephalitis virus from wild rodents and a seroepizootiologic survey in Hokkaido, Japan. Takeda T, et al. **Am J Trop Med Hyg** 1999 Feb;60(2):287-91

Long-term studies of hantavirus reservoir populations in the southwestern United States: a synthesis. Mills JN, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):135-42

A midcourse assessment of hantavirus pulmonary syndrome. Shope RE. **Emerg Infect Dis** 1999 Jan-Feb;5(1):172-4

Genetic diversities of hantaviruses among rodents in Hokkaido, Japan and Far East Russia. Kariwa H, et al. **Virus Res** 1999 Feb;59(2):219-28

RODENTICIDES

Comparison of the half-lives and regeneration rates of blood clotting factors II, VII, and X in anticoagulant-resistant and susceptible Norway rats (Rattus norvegicus Berk.). Kerins GM, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Mar;122(3):307-16

[The efficacy of Salmocumarin rodenticide in livestock-raising and urban sites] Villafaña F, et al. **Rev Cubana Med Trop** 1995;47(2):83-7 (Eng. Abstr.) **(Spa)**

CHEMISTRY

[Determination of fluoroacetatamide and fluoroacetic acid by capillary gas chromatography] Yun K, et al. **Fa I Hsueh Tsa Chih** 1997;13(2):77-8, inside back cover (Eng. Abstr.) **(Chi)**

PHARMACOKINETICS

Degradation of sodium monofluoroacetate (1080) and fluorocitrate in water. Booth LH, et al. **Bull Environ Contam Toxicol** 1999 Jan;62(1):34-9

Environmental behavior of explosives in groundwater from the Milan Army Ammunition Plant in aquatic and wetland plant treatments. Removal, mass balances and fate in groundwater of TNT and RDX. Best EP, et al. **Chemosphere** 1999 Jun;38(14):3383-96

Residues depletion in egg after warfarin ingestion by laying hens [published erratum appears in Vet Hum Toxicol 1999 Apr;41(2):78] Kammerer M, et al. **Vet Hum Toxicol** 1998 Oct;40(5):273-5

POISONING

Brodifacoum [letter; comment] Gallo J. **Anaesth Intensive Care** 1998 Dec;26(6):708-9. Comment on: Anaesth Intensive Care 1997 Dec;25(6):707-9.

Hemodynamic abnormalities in sodium monofluoroacetate intoxication. Chi CH, et al. **Hum Exp Toxicol** 1999 Jun; 18(6):351-3

What is your diagnosis? Rodenticide poisoning in a dog. McGuire NC, et al. **J Am Vet Med Assoc** 1999 Apr 15; 214(8):1157-8

Pericardial effusion and cardiac tamponade secondary to brodifacoum toxicosis in a dog. Petrus DJ, et al. **J Am Vet Med Assoc** 1999 Sep 1;215(5):647-8

Fatal brodifacoum rodenticide poisoning: autopsy and toxicologic findings. Palmer RB, et al. **J Forensic Sci** 1999 Jul;44(4):851-5

Poisoning of wildlife with anticoagulant rodenticides in New York. Stone WB, et al. **J Wildl Dis** 1999 Apr;35(2):187-93

Brodifacoum toxicity and treatment in a white-winged wood duck (Cairina scutulata). James SB, et al. **J Zoo Wildl Med** 1998 Sep;29(3):324-7

[Voluntary poisoning with a rodenticide in an adolescent] Neguin C, et al. **Arch Pediatr** 1999 Aug;6(8):855-8 (Eng. Abstr.) **(Fre)**

RODS (RETINA)

Electroretinogram in withdrawn cocaine-dependent subjects. Relationship to cue-elicited craving. Smelson DA, et al. **Br J Psychiatry** 1998 Jun;172:537-9

Structure and upstream region characterization of the human gene encoding rod photoreceptor cGMP phosphodiesterase alpha-subunit. Mohamed MK, et al. **J Mol Neurosci** 1998 Jun;10(3):235-50

Rescue from photoreceptor degeneration in the rd mouse by human immunodeficiency virus vector-mediated gene transfer. Takahashi M, et al. **J Virol** 1999 Sep;73(9):7812-6

[Identification of 2 allelic mutations of the gene of the phosphodiesterase beta subunit in a Spanish family with recessive autosomic retinitis pigmentosa] Baiget M, et al. **Med Clin (Barc)** 1998 Oct 10;111(11):420-2 (Eng. Abstr.) **(Spa)**

ANATOMY & HISTOLOGY

Graft-host connections in long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):126-32

CHEMISTRY

Primary structure of a visual pigment in bullfrog green rods. Hisatomi O, et al. **FEBS Lett** 1999 Mar 19;447(1):44-8

Opening mechanism of a cyclic nucleotide-gated channel based on analysis of single channels locked in each liganded state. Ruiz M, et al. **J Gen Physiol** 1999 Jun;113(6):873-95

A diffusible factor from normal retinal cells promotes rod photoreceptor survival in an in vitro model of retinitis pigmentosa. Streichert LC, et al. **J Neurobiol** 1999 Jun 15; 39(4):475-90

Immunocytochemical localization of the postsynaptic density protein PSD-95 in the mammalian retina. Koulen P, et al. **J Neurosci** 1998 Dec 1;18(23):10136-49

Opsin localization and rhodopsin photochemistry in a transgenic mouse model of retinitis pigmentosa. Wu TH, et al. **Neuroscience** 1998 Dec;87(3):709-17

CYTOLOGY

Photoreceptor morphogenesis in the human retina: a scanning electron microscopic study. Narayanan K, et al. **Anat Rec** 1998 Sep;252(1):133-9

Costratification of a population of bipolar cells with the direction-selective circuitry of the rabbit retina. Brown SP, et al. **J Comp Neurol** 1999 May 24;408(1):97-106

The role of NeuroD as a differentiation factor in the mammalian retina. Ahmad I, et al. **J Mol Neurosci** 1998 Oct;11(2):165-78

A transient role for ciliary neurotrophic factor in chick photoreceptor development. Fuhrmann S, et al. **J Neurobiol** 1998 Dec;37(4):672-83

A diffusible factor from normal retinal cells promotes rod photoreceptor survival in an in vitro model of retinitis pigmentosa. Streichert LC, et al. **J Neurobiol** 1999 Jun 15; 39(4):475-90

Anti-recoverin antibodies cause the apoptotic death of mammalian photoreceptor cells in vitro. Chen W, et al. **J Neurosci Res** 1999 Sep 1;57(5):706-18

Birth and death in the retina: more related than we thought? [comment] Zack DJ. **Neuron** 1999 Jul;23(3):411-2 (10 ref.) . Comment on: Neuron 1999 Jul;23(3):549-57.

Retinoic acid promotes rod photoreceptor differentiation in rat retina in vivo. Kelley MW, et al. **Neuroreport** 1999 Aug 2;10(11):2389-94

Distribution of photoreceptor types in the retina of a marsupial, the tammar wallaby (Macropus eugenii). Hemmi JM, et al. **Vis Neurosci** 1999 Mar-Apr;16(2):291-302

Identification and distribution of photoreceptor subtypes in the neotenic tiger salamander retina. Sherry DM, et al. **Vis Neurosci** 1998 Nov-Dec;15(6):1175-87

DRUG EFFECTS

Fourth module of Xenopus interphotoreceptor retinoid-binding protein: activity in retinoid transfer between the retinal pigment epithelium and rod photoreceptors. Gonzalez-Fernandez F, et al. **Curr Eye Res** 1998 Dec;17(12):1150-7

Glial cell line-derived neurotrophic factor induces histologic and functional protection of rod photoreceptors in the rd/rd mouse. Frasson M, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2724-34

Rod photoreceptors in infant rats with a history of oxygen exposure. Fulton AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):168-74

Blockade of a retinal cGMP-gated channel by polyamines. Lu Z, et al. **J Gen Physiol** 1999 Jan;113(1):35-43

Retinitis pigmentosa: rod photoreceptor rescue by a calcium-channel blocker in the rd mouse. Frasson M, et al. **Nat Med** 1999 Oct;5(10):1183-7

Retinoic acid promotes rod photoreceptor differentiation in rat retina in vivo. Kelley MW, et al. **Neuroreport** 1999 Aug 2;10(11):2389-94

Delivery of 9-Cis retinal to photoreceptors from bovine serum albumin. Li Z, et al. **Photochem Photobiol** 1999 Apr; 69(4):500-4

Lead-induced alterations in retinal cGMP phosphodiesterase trigger calcium overload, mitochondrial dysfunction and rod photoreceptor apoptosis. Fox DA, et al. **Toxicol Lett** 1998 Dec 28;102-103:359-61

Serotonin receptors modulate rod signals: a neuropharmacological comparison of light- and dark-adapted retinas. Jin XT, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):891-902

Effects of blocking the hyperpolarization-activated current (Ih) on the cat electroretinogram. Gargini C, et al. **Vision Res** 1999 May;39(10):1767-74

EMBRYOLOGY

Photoreceptor morphogenesis in the human retina: a scanning electron microscopic study. Narayanan K, et al. **Anat Rec** 1998 Sep;252(1):133-9

Cell death precedes rod neurogenesis in embryonic teleost retinal development. Hoke KL, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):143-6

ENZYMOLOGY

Association of kinesin with microtubules in diverse cytoskeletal systems in the outer segments of rods and

cones. Eckmiller MS, et al. **Acta Anat (Basel)** 1998; 162(2-3):133-41

Adaptation-dependent plasticity of rod bipolar cell axon terminal morphology in the rat retina. Behrens UD, et al. **Cell Tissue Res** 1998 Nov;294(2):243-51

Frequency of mutations in the gene encoding the alpha subunit of rod cGMP-phosphodiesterase in autosomal recessive retinitis pigmentosa. Dryja TP, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1859-65

Mechanism of allosteric regulation of the rod cGMP phosphodiesterase activity by the helical domain of transducin alpha subunit. Liu W, et al. **J Biol Chem** 1998 Dec 18;273(51):34284-92

Light-induced cGMP-phosphodiesterase activity in intact rat retinal rod cells as revealed by rapid-freezing enzyme cytochemistry. Takizawa T, et al. **J Electron Microsc (Tokyo)** 1998;47(5):527-33

Activity-dependent modulation of rod photoreceptor cyclic nucleotide-gated channels mediated by phosphorylation of a specific tyrosine residue. Molokanova E, et al. **J Neurosci** 1999 Jun 15;19(12):4786-95

The localization of glutathione peroxidase in the photoreceptor cells and the retinal pigment epithelial cells of Wistar and Royal College of Surgeons dystrophic rats. Akeo K, et al. **Pigment Cell Res** 1999 Apr;12(2):107-17

The retinitis pigmentosa GTPase regulator, RPGR, interacts with the delta subunit of rod cyclic GMP phosphodiesterase. Linari M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1315-20

GROWTH & DEVELOPMENT

Spatial and temporal expression of AP-1 responsive rod photoreceptor genes and bZIP transcription factors during development of the rat retina. He L, et al. **Mol Vis** 1998 Dec 31;4:32

Retinal rod photoreceptor-specific gene mutation perturbs cone pathway development [see comments] Banin E, et al. **Neuron** 1999 Jul;23(3):549-57. Comment in: Neuron 1999 Jul;23(3):411-2.

Developmental expression of the rat rod photoreceptor cGMP-gated cation channel. Chiang RK, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):823-9

METABOLISM

The single-channel dose-response relation is consistently steep for rod cyclic nucleotide-gated channels: implications for the interpretation of macroscopic dose-response relations. Ruiz M, et al. **Biochemistry** 1999 Aug 17; 38(33):10642-8

Altered rhodopsin regeneration in diabetic mice caused by acid conditions within the rod photoreceptors. Ostroy SE. **Curr Eye Res** 1998 Oct;17(10):979-85

Rapid detection of rod photoreceptor apoptosis by flow cytometry. Carmody RJ, et al. **Cytometry** 1998 Sep 1; 33(1):89-92

Control of rhodopsin activity in vision. Baylor DA, et al. **Eye** 1998;12 (Pt 3b):521-5 (22 ref.)

Post-Golgi trafficking of rhodopsin in retinal photoreceptors. Deretic D. **Eye** 1998;12 (Pt 3b):526-30 (40 ref.)

Immediate upstream sequence of arrestin directs rod-specific expression in Xenopus. Mani SS, et al. **J Biol Chem** 1999 May 28;274(22):15590-7

Indoleamine-accumulating amacrine cells are presynaptic to rod bipolar cells through GABA(C) receptors. Fletcher EL, et al. **J Comp Neurol** 1999 Oct 11;413(1):155-67

Divalent cation selectivity is a function of gating in native and recombinant cyclic nucleotide-gated ion channels from retinal photoreceptors [see comments] Hackos DH, et al. **J Gen Physiol** 1999 Jun;113(6):799-818. Comment in: J Gen Physiol 1999 Jun;113(6):795-7.

Spatial and temporal expression of AP-1 responsive rod photoreceptor genes and bZIP transcription factors during development of the rat retina. He L, et al. **Mol Vis** 1998 Dec 31;4:32

Interaction of glutamic-acid-rich proteins with the cGMP signalling pathway in rod photoreceptors. Körschen HG, et al. **Nature** 1999 Aug 19;400(6746):761-6

Delivery of 9-Cis retinal to photoreceptors from bovine serum albumin. Li Z, et al. **Photochem Photobiol** 1999 Apr; 69(4):500-4

Perfusion system components release agents that distort functional properties of rod cyclic nucleotide-gated ion channels. Crary JI, et al. **Vis Neurosci** 1998 Nov-Dec; 15(6):1189-93

The rod photoreceptor ATP-binding cassette transporter gene, ABCR, and retinal disease: from monogenic to multifactorial. Shroyer NF, et al. **Vision Res** 1999 Jul; 39(15):2537-44 (52 ref.)

PATHOLOGY

Mutations in the retinal guanylate cyclase (RETGC-1) gene in dominant cone-rod dystrophy. Kelsell RE, et al. **Hum Mol Genet** 1998 Jul;7(7):1179-84

PHYSIOLOGY

Variation in sensitivity, absorption and density of the central rod distribution with eccentricity. Tornow RP, et al. **Acta Anat (Basel)** 1998;162(2-3):163-8

Origin of reproducibility in the responses of retinal rods to single photons. Rieke F, et al. **Biophys J** 1998 Oct; 75(4):1836-57

Time-resolved rhodopsin activation currents in a unicellular expression system [see comments] Sullivan JM, et al. **Biophys J** 1999 Sep;77(3):1333-57. Comment in: Biophys J 1999 Sep;77(3):1189-91.

Neither functional rod photoreceptors nor rod or cone outer segments are required for the photic inhibition of pineal melatonin. Lucas RJ, et al. **Endocrinology** 1999 Apr; 140(4):1520-4

Discrimination of cone contrast changes as evidence for colour constancy in cerebral achromatopsia. Hurlbert AC, et al. **Exp Brain Res** 1998 Nov;123(1-2):136-44

Molecular basis of dark adaptation in rod photoreceptors. Leibrock CS, et al. **Eye** 1998;12 (Pt 3b):511-20 (36 ref.)

Structural and functional rescue of murine rod photoreceptors by human rhodopsin transgene. McNally N, et al. **Hum Mol Genet** 1999 Jul;8(7):1309-12

The course of maturation of rod-mediated visual thresholds in infants. Hansen RM, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1883-6

Dopamine D2 receptor-mediated modulation of rod-cone coupling in the Xenopus retina. Krizaj D, et al. **J Comp Neurol** 1998 Sep 7;398(4):529-38

Occupancy of the chromophore binding site of opsin activates visual transduction in rod photoreceptors. Kefalov VJ, et al. **J Gen Physiol** 1999 Mar;113(3):491-503

In intact cone photoreceptors, a Ca2+-dependent, diffusible factor modulates the cGMP-gated ion channels differently than in rods. Rebrik TI, et al. **J Gen Physiol** 1998 Nov; 112(5):537-48

Mechanism of allosteric modulation of rod cyclic nucleotide-gated channels. Sunderman ER, et al. **J Gen Physiol** 1999 May;113(5):601-20

Sequence of events underlying the allosteric transition of rod cyclic nucleotide-gated channels. Sunderman ER, et al. **J Gen Physiol** 1999 May;113(5):621-40

A single amino acid in the second transmembrane domain of GABA rho subunits is a determinant of the response kinetics of GABAC receptors. Qian H, et al. **J Neurobiol** 1999 Jul;40(1):67-76

Reciprocal synaptic interactions between rod bipolar cells and amacrine cells in the rat retina. Hartveit E. **J Neurophysiol** 1999 Jun;81(6):2923-36

Intraocular gene transfer of ciliary neurotrophic factor prevents death and increases responsiveness of rod photoreceptors in the retinal degeneration slow mouse. Cayouette M, et al. **J Neurosci** 1998 Nov 15;18(22):9282-93

Caffeine-sensitive calcium stores regulate synaptic transmission from retinal rod photoreceptors. Krizaj D, et al. **J Neurosci** 1999 Sep 1;19(17):7249-61

Disruption of a retinal guanylyl cyclase gene leads to cone-specific dystrophy and paradoxical rod behavior. Yang RB, et al. **J Neurosci** 1999 Jul 15;19(14):5889-97

Effect of the S-cone mosaic and rods on red/green equilibria. Nerger JL, et al. **J Opt Soc Am A Opt Image Sci Vis** 1998 Nov;15(11):2816-26

Chromatic rod-cone interaction during dark adaptation. Stabell B, et al. **J Opt Soc Am A Opt Image Sci Vis** 1998 Nov;15(11):2809-15

Properties and functional roles of hyperpolarization-gated currents in guinea-pig retinal rods. Demontis GC, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):813-28

Sensitivity and kinetics of mouse rod flash responses determined in vivo from paired-flash electroretinograms. Hetling JR, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):593-609

Membrane current noise in dark-adapted and light-adapted isolated retinal rods of the larval tiger salamander. Jones GJ. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):903-13

A rise in intracellular Ca2+ underlies light adaptation in dogfish retinal 'on' bipolar cells. Shiells RA, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):343-50

Light adaptation and dark adaptation of human rod photoreceptors measured from the a-wave of the electroretinogram. Thomas MM, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):479-96

Seeing movement in the dark [letter] Gegenfurtner KR, et al. **Nature** 1999 Apr 8;398(6727):475-6

Optimal detection of flash intensity differences using rod photocurrent observations. Steinmetz PN, et al. **Neural Comput** 1999 Jul 1;11(5):1097-111

Retinal rod photoreceptor-specific gene mutation perturbs cone pathway development [see comments] Banin E, et al. **Neuron** 1999 Jul;23(3):549-57. Comment in: Neuron 1999 Jul;23(3):411-2.

Photoreceptor "retinoid pumps" in health and disease. Bok D. **Neuron** 1999 Jul;23(3):412-4 (11 ref.)

Stoichiometry and arrangement of subunits in rod cyclic nucleotide-gated channels. Shammat IM, et al. **Neuron** 1999 Aug;23(4):809-19

A novel signaling pathway from rod photoreceptors to ganglion cells in mammalian retina. Soucy E, et al. **Neuron** 1998 Sep;21(3):481-93

Molecular cloning of the cone-rod homeobox gene (Crx) from the rat and its temporal expression pattern in the retina under a daily light-dark cycle. Sakamoto K, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):101-4

Transgenic ablation of rod photoreceptors alters the circadian phenotype of mice. Lupi D, et al. **Neuroscience** 1999 Mar; 89(2):363-74

Opsin localization and rhodopsin photochemistry in a transgenic mouse model of retinitis pigmentosa. Wu TH, et al. **Neuroscience** 1998 Dec;87(3):709-17

Scotopic sensitivity: relation to age, dietary patterns, and smoking status. Hammond BR Jr, et al. **Optom Vis Sci** 1998 Dec;75(12):867-72

Abnormal photoresponses and light-induced apoptosis in rods lacking rhodopsin kinase. Chen CK, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3718-22

New clues to movement control and vision [news] Wickelgren I. **Science** 1998 Oct 9;282(5387):224-5

Richard W. Young: and the band marched on. Fliesler SJ, et al. **Trends Cell Biol** 1999 Jul;9(7):280-3

The d-wave of the rod electroretinogram of rat originates in the cone pathway. Naarendorp F, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):91-105

Does rod phototransduction involve the delayed transition of activated rhodopsin to a second, more active catalytic state? Pepperberg DR. **Vis Neurosci** 1998 Nov-Dec; 15(6):1067-78

Contribution of rod, on-bipolar, and horizontal cell light responses to the ERG of dogfish retina. Shiells RA, et al. **Vis Neurosci** 1999 May-Jun;16(3):503-11

Noise removal at the rod synapse of mammalian retina. van Rossum MC, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):809-21

Interaction between rod and cone signals in responses of lateral geniculate neurons in dichromatic marmosets (Callithrix jacchus). Weiss S, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):931-43

Effects of inhibiting glutamine synthetase and blocking glutamate uptake on b-wave generation in the isolated rat retina. Winkler BS, et al. **Vis Neurosci** 1999 Mar-Apr; 16(2):345-53

Is the rod visual field temporally homogeneous? Allen D, et al. **Vision Res** 1998 Dec;38(24):3927-31

Rod influence on hue-scaling functions. Buck SL, et al. **Vision Res** 1998 Nov;38(21):3259-63

Rods affect S-cone discrimination on the Farnsworth-Munsell 100-hue test. Knight R, et al. **Vision Res** 1998 Nov;38(21):3477-81

[Physiology of photopic and scotopic vision] Schäfer SS. **Ultraschall Med** 1998 Dec;19(6):M86-9 **(Ger)**

PHYSIOPATHOLOGY

Human immunodeficiency virus-associated vision loss: electroretinogram attenuation. Donahue SP. **Am J Ophthalmol** 1998 Nov;126(5):729-31

Evidence supportive of a functional discrimination between photopic oscillatory potentials as revealed with cone and rod mediated retinopathies. Lachapelle P, et al. **Doc Ophthalmol** 1998;95(1):35-54

Rods induce transient tritanopia in blue cone monochromats. Haegerstrom-Portnoy G, et al. **Vision Res** 1999 Jun; 39(13):2275-84

RADIATION EFFECTS

Photoreceptor autophagy: effects of light history on number and opsin content of degradative vacuoles. Remé CE, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2398-404

Light-dependent activation of rod transducin by pineal opsin. Max M, et al. **J Biol Chem** 1998 Oct 9;273(41):26820-6

TRANSPLANTATION

Photoreceptor layer reconstruction in a rodent model of retinal degeneration. Kwan AS, et al. **Exp Neurol** 1999 Sep;159(1):21-33

ULTRASTRUCTURE

Photoreceptor fine structure in Oreochromis niloticus L. (Cichlidae; Teleostei) in light- and dark-adaptation. Braekevelt CR, et al. **Anat Rec** 1998 Nov;252(3):453-61

Modelling the mosaic organization of rod and cone photoreceptors with a minimal-spacing rule. Galli-Resta L, et al. **Eur J Neurosci** 1999 Apr;11(4):1461-9

Rod photoreceptors in infant rats with a history of oxygen exposure. Fulton AB, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):168-74

Long-term full-thickness embryonic rabbit retinal transplants. Ghosh F, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):133-42

RODS AND CONES see **PHOTORECEPTORS, VERTEBRATE**

ROENTGEN RAYS see **X-RAYS**

ROENTGENOGRAPHY see **RADIOGRAPHY**

ROENTGENOTHERAPY see **X-RAY THERAPY**

ROGERIAN THERAPY see **NONDIRECTIVE THERAPY**

ROHYPNOL see **FLUNITRAZEPAM**

ROLANDS EPILEPSY see **EPILEPSY, ROLANDIC**

ROLE

Drug scene roles and HIV risk. Friedman SR, et al. **Addiction** 1998 Sep;93(9):1403-16

Comprehending role conflicts in the coaching of children, adolescents, and young adults. Transference,

countertransference, and achievement by proxy distortion paradigms. Ogilvie BC, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):879–90 (31 ref.)

The appropriateness of western models of parent involvement in Calcutta, India. Part 2: Implications of family roles and responsibilities. Goldbart J, et al. **Child Care Health Dev** 1999 Sep;25(5):348–58

Role behaviours among urban women as revealed by time allocation. Mukhopadhyay S. **Coll Antropol** 1998 Jun; 22(1):241–6

Effect of maltreatment on preschoolers' narrative representations of responses to relieve distress and of role reversal. Macfie J, et al. **Dev Psychol** 1999 Mar;35(2):460–5

The role of the chair's spouse in academic departments of family medicine. Taylor AD. **Fam Med** 1999 Jan;31(1):34–8

Couple-responsible therapy process: positive proximal outcomes. Butler MH, et al. **Fam Process** 1999 Spring; 38(1):27–54

Social relationships of Latino grandparent caregivers: a role theory perspective. Burnette D. **Gerontologist** 1999 Feb; 39(1):49–58

The authority of the clinical ethicist. Casarett DJ, et al. **Hastings Cent Rep** 1998 Nov–Dec;28(6):6–11 (19 ref.)

'Excellence for all children' a redefinition of the role of the speech and language therapist. Topping CT, et al. **Int J Lang Commun Disord** 1998;33 Suppl:608–13

The role of the triage nurse practitioner in general medical practice: an analysis of the role. Reveley S. **J Adv Nurs** 1998 Sep;28(3):584–91

Revisiting the "teach/treat" boundary in psychoanalytic supervision: when the supervisee is or is not in concurrent treatment [see comments] Frawley-O'Dea MG. **J Am Acad Psychoanal** 1998 Winter;26(4):513–27. Comment in: J Am Acad Psychoanal 1998 Winter;26(4):545–52.

Discussion of Frawley-O'Dea and Sarnat: emotional and interactional factors in the supervisory relationship [comment] Hirsch I. **J Am Acad Psychoanal** 1998 Winter; 26(4):545–52. Comment on: J Am Acad Psychoanal 1998 Winter;26(4):513–27. Comment on: J Am Acad Psychoanal 1998 Winter;26(4):529–43.

Stress and the devaluation of highly salient roles in late life. Krause N. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar; 54(2):S99–108

Downsizing, role demands, and job stress. Reissman DB, et al. **J Occup Environ Med** 1999 Apr;41(4):289–93

Increasing the salience of one's best selves can undermine inspiration by outstanding role models. Lockwood P, et al. **J Pers Soc Psychol** 1999 Feb;76(2):214–28

Role strain of clinical nursing faculty. Oermann MH. **J Prof Nurs** 1998 Nov–Dec;14(6):329–34

Nurses in surgery--opportunity or threat? A personal view [see comments] Murray WJ. **J R Coll Surg Edinb** 1998 Dec; 43(6):372–3. Comment in: J R Coll Surg Edinb 1999 Apr;44(2):135.

The patient's role in the improvement of care. van Overstraten AR. **Mult Scler** 1999 Aug;5(4):302–5

Change in role perception, role conflict, and psychological health of working mothers. Oster KA, et al. **Psychol Rep** 1999 Feb;84(1):221–30

Role models of the female persuasion [editorial] Thomison JB. **Tenn Med** 1999 Sep;92(9):323–4

Swedish nursing students' transition into nursing during education. Fagerberg I, et al. **West J Nurs Res** 1998 Oct; 20(5):602–20

Nonfamilial roles of alcoholic women in treatment. Gomberg ES, et al. **Women Health** 1999;29(1):73–88

The promise of a multiple roles paradigm for women's health research [editorial] Repetti RL. **Womens Health** 1998 Winter;4(4):273–80 (32 ref.)

ROLE CONCEPT see **ROLE**

ROLE PLAYING

Substance refusal skills in a population of adolescents diagnosed with conduct disorder and substance abuse. Donohue B, et al. **Addict Behav** 1999 Jan–Feb;24(1):37–46

Role-played interpersonal interaction: ecological validity and cardiovascular reactivity. Waldstein SR, et al. **Ann Behav Med** 1998 Fall;20(4):302–9

The effect of role-taking ability on caregiver-resident mealtime interaction. Schell ES, et al. **Appl Nurs Res** 1999 Feb;12(1):38–44

Promoting generalized social interactions using puppets and script training in an integrated preschool. A single-case study using multiple baseline design. Gronna SS, et al. **Behav Modif** 1999 Jul;23(3):419–40

Scripted role play: a technique for teaching sexual history taking. Schweickert EA, et al. **J Am Osteopath Assoc** 1999 May;99(5):275–6

Changing attitudes about persons with disabilities: effects of a simulation. Goddard L, et al. **J Neurosci Nurs** 1998 Oct; 30(5):307–13

Role play. Providing care to children and their families in the emergency center. Kemp VH. **J Soc Pediatr Nurs** 1998 Oct–Dec;3(4):167–9

Emotional stability pertaining to the game Vampire: The Masquerade. Simón A. **Psychol Rep** 1998 Oct;83(2):732–4

ROMALEIDAE see **GRASSHOPPERS**

ROMAN EMPIRE see **ROMAN WORLD**

ROMAN WORLD

Janus, Roman god of doorways [letter] Lyketsos GC. **Am J Psychiatry** 1999 Sep;156(9):1473

HISTORY

Roman ruins in the basement of the Institute of Physiology of the University of Pisa. Pompeiano O. **Arch Ital Biol** 1999 May;137(2–3):227–34

Physicians and the Roman imperial aristocracy: the patronage of therapeutics. Mattern SP. **Bull Hist Med** 1999 Spring; 73(1):1–18

The penal conceptions of the emperor Marcus Aurelius in respect of lunatics. Reflections on D. 1, 18, 14. Spruit JE. **Int J Law Psychiatry** 1998 Fall;21(4):315–33

Brother-sister marriage in Roman Egypt. Scheidel W. **J Biosoc Sci** 1997 Jul;29(3):361–71

Medical warriors: fighting corporate socialized medicine in America. Faria MA Jr. **Surg Neurol** 1999 May;51(5):473–6

ROMANO-WARD SYNDROME see **LONG QT SYNDROME**

ROMANOMERMIS see **MERMITHOIDEA**

ROMBERG DISEASE see **FACIAL HEMIATROPHY**

ROOMING-IN CARE

[Family-centered obstetrics in Hungary] Hagymássy L. **Orv Hetil** 1999 Mar 28;140(13):691–5 (Eng. Abstr.) **(Hun)**

ROOMS, PATIENT see **PATIENTS' ROOMS**

ROOT CANAL see **DENTAL PULP CAVITY**

ROOT CANAL FILLING MATERIALS

Considerations in the selection of a root-end filling material. Johnson BR. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):398–404 (40 ref.)

CHEMISTRY

Release of formaldehyde by 4 endodontic sealers. Leonardo MR, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):221–5

THERAPEUTIC USE

Mineral trioxide aggregate: a new material for endodontics. Schwartz RS, et al. **J Am Dent Assoc** 1999 Jul; 130(7):967–75 (33 ref.)

TOXICITY

Effects of six endodontic cements on the cells of the murine immune system in vitro. Molina-Guarneros JA, et al. **Proc West Pharmacol Soc** 1998;41:47–50

ROOT CANAL IRRIGANTS

ADVERSE EFFECTS

Inadvertent injection of sodium hypochlorite into the maxillary sinus. Kavanagh CP, et al. **Br Dent J** 1998 Oct 10;185(7):336–7

PHARMACOLOGY

Effect of endodontic irrigation solutions on microhardness of root canal dentine. Saleh AA, et al. **J Dent** 1999 Jan; 27(1):43–6

Dentin penetration of 2 calcium hydroxide combinations. Alaçam T, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Oct;86(4):469–72

Bactericidal effect of electrolyzed neutral water on bacteria isolated from infected root canals. Horiba N, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):83–7

[Alpha-hemolytic streptococci and root canal irrigants. An evaluation of the bactericidal efficacy of sodium hypochlorite and chlorhexidine gluconate plus cetrimide] D'Arcangelo C, et al. **Minerva Stomatol** 1998 Sep; 47(9):367–71 (Eng. Abstr.) **(Ita)**

[A comparative in-vitro study of the bactericidal efficacy of sodium hypochlorite and chlorhexidine gluconate plus cetrimide on root canal anaerobic bacterial flora] D'Arcangelo C, et al. **Minerva Stomatol** 1998 Sep; 47(9):381–6 (Eng. Abstr.) **(Ita)**

THERAPEUTIC USE

[Application of phytotherapy in odontology: the case of Euphorbia balsamifera. Endodontic clinical trial] Yam AA, et al. **Dakar Med** 1997;42(2):169–71 (Eng. Abstr.) **(Fre)**

ROOT CANAL MEDICAMENTS see **ROOT CANAL IRRIGANTS**

ROOT CANAL OBTURATION

METHODS

Additional studies on the distribution of stresses during vertical compaction of gutta-percha in the root canal. Telli C, et al. **Br Dent J** 1999 Jul 10;187(1):32–7

[Evaluation of two root canal preparation and obturation methods: the Mc Spadden method and the use of ProFile-Thermafil] Rapisarda E, et al. **Minerva Stomatol** 1999 Jan–Feb;48(1–2):29–38 (Eng. Abstr.) **(Ita)**

ROOT CANAL PREPARATION

[SEM (Scanning Electron Microscopy) study of the deterioration of ProFile .04 and .06] Rapisarda E, et al. **Minerva Stomatol** 1998 Nov;47(11):597–603 (Eng. Abstr.) **(Ita)**

ADVERSE EFFECTS

Straight-line access [letter; comment] Rybicki RM, et al. **J Am Dent Assoc** 1999 Apr;130(4):470, 472. Comment on: J Am Dent Assoc 1998 Dec;129(12):1746–7.

Use of a hydroxylapatite-based material and calcium sulfate as artificial floors to repair furcal perforations. Alhadainy HA, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Dec;86(6):723–9

INSTRUMENTATION

Changes in root canal morphology in simulated curved canals over-instrumented with a variety of stainless steel and nickel titanium files. Lam TV, et al. **Aust Dent J** 1999 Mar; 44(1):12–9

Root-end cavity preparation after apicoectomy using a new type of sonic and diamond-surfaced retrotip: a 1-year follow-up study. von Arx T, et al. **J Oral Maxillofac Surg** 1999 Jun;57(6):656–61

Effect of sterilization on the cutting efficiency of rotary nickel-titanium endodontic files. Rapisarda E, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Sep;88(3):343–7

Success and failure in periradicular surgery: a longitudinal retrospective analysis. Testori T, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):493–8

[The effect of root canal irrigantion and variance of apical foramen pressure by use of casing aspiration needle system in vitro] Huang J, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(3):268–70 (Eng. Abstr.) **(Chi)**

METHODS

Effect of chloroform, xylene, and halothane on enamel and dentin microhardness of human teeth. Rotstein I, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):366–8

[Evaluation of two root canal preparation and obturation methods: the Mc Spadden method and the use of ProFile-Thermafil] Rapisarda E, et al. **Minerva Stomatol** 1999 Jan–Feb;48(1–2):29–38 (Eng. Abstr.) **(Ita)**

ROOT CANAL SEALANTS see **ROOT CANAL FILLING MATERIALS**

ROOT CANAL THERAPY

Endoesthetics. Rehabilitation of the endodontically treated tooth. Glassman GD, et al. **Dent Clin North Am** 1998 Oct; 42(4):799–811, xii

Anesthesia for endodontic practice. Saxen MA, et al. **Dent Clin North Am** 1999 Apr;43(2):247–61, vi (22 ref.)

Chronic factitial ulcer of chin cured by endodontic (root-canal) surgery for underlying periapical abscess. Shelley WB, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):802–4

Antibiotics not always necessary [news] **J Am Dent Assoc** 1999 Jun;130(6):782

Post removal techniques used in nonsurgical endodontic retreatment. Foroughi K, et al. **N Y State Dent J** 1999 May;65(5):28–9

Applications for guided bone regeneration in endodontic surgery. Mastromihalis N, et al. **N Y State Dent J** 1999 May;65(5):30–2

Dens invaginatus. Review of formation and morphology with 2 case reports. Chen YH, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Sep;86(3):347–52

An evaluation of root canal treatment in patients who have received irradiation to the mandible and maxilla. Lilly JP, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):224–6

Dentinogenesis imperfecta: endodontic implications. Case report. Pettiette MT, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Dec;86(6):733–7

[SEM (Scanning Electron Microscopy) study of the deterioration of ProFile .04 and .06] Rapisarda E, et al.

Minerva Stomatol 1998 Nov;47(11):597–603 (Eng. Abstr.) **(Ita)**

ADVERSE EFFECTS

Inadvertent injection of sodium hypochlorite into the maxillary sinus. Kavanagh CP, et al. **Br Dent J** 1998 Oct 10;185(7):336–7

INSTRUMENTATION

A simplified approach to isolating a single tooth before endodontic therapy. Estafan DJ, et al. **J Am Dent Assoc** 1999 Jun;130(6):846–7

Using a copper band to isolate severely broken teeth before endodontic procedures. Linden R. **J Am Dent Assoc** 1999 Jul;130(7):1095

Perforation repairs. Bruder GA 3rd, et al. **N Y State Dent J** 1999 May;65(5):26–7

[Laser technologies for the making of dentures, orthodontic appliances, metallic and sapphire implants and root pins] Prokhonchukov AA, et al. **Stomatologiia (Mosk)** 1999; 78(3):43–51 (Eng. Abstr.) **(Rus)**

METHODS

A clinical guide to the endodontic treatment of non-vital immature permanent teeth. Mackie IC, et al. **Br Dent J** 1999 Jan 23;186(2):54–8

Providing endodontic care for teeth with ceramic crowns [see comments] Davis MW. **J Am Dent Assoc** 1998 Dec; 129(12):1746–7. Comment in: J Am Dent Assoc 1999 Apr;130(4):470, 472.

Mineral trioxide aggregate: a new material for endodontics. Schwartz RS, et al. **J Am Dent Assoc** 1999 Jul; 130(7):967–75 (33 ref.)

Pulp therapy in the primary dentition. Razi RS. **N Y State Dent J** 1999 Mar;65(3):18–22 (30 ref.)

Apexification of a primary central incisor: 6-year follow-up. Trairatvorakul C. **Pediatr Dent** 1998 Nov–Dec;20(7):425–7

PSYCHOLOGY

Barriers to improving endodontic care: the views of NHS practitioners. McColl E, et al. **Br Dent J** 1999 Jun 12; 186(11):564–8

STANDARDS

Barriers to improving endodontic care: the views of NHS practitioners. McColl E, et al. **Br Dent J** 1999 Jun 12; 186(11):564–8

UTILIZATION

Nonsurgical root canal therapy treatment with apparent indications for root-end surgery. Moiseiwitsch JR, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Sep;86(3):335–40

VETERINARY

Newer endodontic therapeutic treatment. Anthony JM. **Vet Clin North Am Small Anim Pract** 1998 Sep; 28(5):1237–60 (36 ref.)

Endodontic therapy in the veterinary patient. Lyon KF. **Vet Clin North Am Small Anim Pract** 1998 Sep; 28(5):1203–36, vii (100 ref.)

ROOT CARIES

COMPLICATIONS

Dissolution of cement, root caries, fracture, and retrofit of post and cores. Rosen H. **J Prosthet Dent** 1998 Oct; 80(4):511–3

ETIOLOGY

Active and inactive caries lesions in a selected elderly institutionalised French population. Guivante-Nabet C, et al. **Int Dent J** 1998 Apr;48(2):111–22

A cross-sectional study into the prevalence of root caries in periodontal maintenance patients. Reiker J, et al. **J Clin Periodontol** 1999 Jan;26(1):26–32

MICROBIOLOGY

The predominant Actinomyces spp. isolated from infected dentin of active root caries lesions. Brailsford SR, et al. **J Dent Res** 1999 Sep;78(9):1525–34

PATHOLOGY

Carious lesions in the heroin addicted patient. A case report. Shen EC, et al. **J Periodontol** 1998 Aug;69(8):938–40

PREVENTION & CONTROL

Artificial caries formation around fluoride-releasing restorations in roots. Dionysopoulos P, et al. **J Oral Rehabil** 1998 Nov;25(11):814–20

ROOT PLANING

The effect of cleaning on blood contamination in the dental surgery following periodontal procedures. Edmunds LM, et al. **Aust Dent J** 1998 Oct;43(5):349–53

Evaluation of tetracycline fiber therapy with digital image analysis. Fourmousis I, et al. **J Clin Periodontol** 1998 Sep; 25(9):737–45

Two multi-center studies evaluating locally delivered doxycycline hyclate, placebo control, oral hygiene, and scaling and root planing in the treatment of periodontitis. Garrett S, et al. **J Periodontol** 1999 May;70(5):490–503

Adjunctive use of a subgingival controlled-release chlorhexidine chip reduces probing depth and improves attachment level compared with scaling and root planing alone. Jeffcoat MK, et al. **J Periodontol** 1998 Sep; 69(9):989–97

Effectiveness of a sanguinarine regimen after scaling and root planing. Tenenbaum H, et al. **J Periodontol** 1999 Mar; 70(3):307–11

Bone regeneration in advanced periodontitis lesions after a single episode of root planing--case report with ten-years of follow-up. Ho KY, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Mar; 14(3):186–91

ADVERSE EFFECTS

Easing the pain [letter; comment] Wolfsohn RS. **J Am Dent Assoc** 1999 Aug;130(8):1160. Comment on: J Am Dent Assoc 1999 Jun;130(6):801–7.

INSTRUMENTATION

Root debridement of single-rooted teeth with a diamond-coated sonic scaler insert during flap surgery. A pilot study. Kocher T, et al. **J Clin Periodontol** 1999 Apr; 26(4):201–5

ROOT RESORPTION

ENZYMOLOGY

Production of matrix-degrading enzymes and inhibition of osteoclast-like cell differentiation by fibroblast-like cells from the periodontal ligament of human primary teeth. Wu YM, et al. **J Dent Res** 1999 Feb;78(2):681–9

ETIOLOGY

Root resorption: why, where, and when? [letter; comment] Hickham JJ. **Am J Orthod Dentofacial Orthop** 1999 Mar; 115(3):17A–8A. Comment on: Am J Orthod Dentofacial Orthop 1998 Dec;114(6):677–83.

Are dental anomalies risk factors for apical root resorption in orthodontic patients? Lee RY, et al. **Am J Orthod Dentofacial Orthop** 1999 Aug;116(2):187–95

Directions of orthodontic tooth movements associated with external apical root resorption of the maxillary central incisor [see comments] Parker RJ, et al. **Am J Orthod Dentofacial Orthop** 1998 Dec;114(6):677–83 . Comment in: Am J Orthod Dentofacial Orthop 1999 Mar;115(3):17A–8A.

Continuous vs. discontinuous force application and root resorption. Acar A, et al. **Angle Orthod** 1999 Apr; 69(2):159–63; discussion 163–4

Root resorption of mandibular second molar teeth associated with the presence of the third molars. Yamaoka M, et al. **Aust Dent J** 1999 Jun;44(2):112–6

PATHOLOGY

Histological and histochemical quantification of root resorption incident to the application of intrusive force to rat molars. Lu LH, et al. **Eur J Orthod** 1999 Feb; 21(1):57–63

PHYSIOPATHOLOGY

Changes in root length from early to mid-adulthood: resorption or apposition? Bishara SE, et al. **Am J Orthod Dentofacial Orthop** 1999 May;115(5):563–8

The early reparative process of orthodontically induced root resorption in adolescents--location and type of tissue. Owman-Moll P, et al. **Eur J Orthod** 1998 Dec;20(6):727–32

SURGERY

Root resorption: another long-term outcome. Desai HM. **Am J Orthod Dentofacial Orthop** 1999 Aug;116(2):184–6

THERAPY

A new approach in restorative treatment of external root resorption. A case report. Dumfahrt H, et al. **J Periodontol** 1998 Aug;69(8):941–7

VETERINARY

Risk factors for odontoclastic resorptive lesions in cats. Scarlett JM, et al. **J Am Anim Hosp Assoc** 1999 May-Jun; 35(3):188–92

Feline immunodeficiency virus (FIV) infection leads to increased incidence of feline odontoclastic resorptive lesions (FORL). Hofmann-Lehmann R, et al. **Vet Immunol Immunopathol** 1998 Oct 23;65(2–4):299–308

ROOT SCALING see **DENTAL SCALING**

RORQUALS see **WHALES**

RORSCHACH TEST

Characteristics and possible significance of the answers to Rorschach from patients suffering from psoriasis. Andreoli E, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:154–7

Rorschach patterns of response in Vietnam veterans with posttraumatic stress disorder versus combat and normal controls. Goldfinger DA, et al. **Depress Anxiety** 1998; 8(3):104–11

Psychophysiologic responses to the Rorschach in PTSD patients, noncombat and combat controls. Goldfinger DA, et al. **Depress Anxiety** 1998;8(3):112–20

A Rorschach exploration of the DSM-IV Borderline Personality Disorder. Blais MA, et al. **J Clin Psychol** 1999 May;55(5):563–72

The Rorschach Egocentricity Index in subjects with intellectual disability: a study on the incidence of different psychological pathologies. Colucci G, et al. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):354–9

Rorschach aggression variables: a study of reliability and validity. Baity MR, et al. **J Pers Assess** 1999 Feb; 72(1):93–110

Rorschach protocols of children and adolescents with severe burns: a follow-up study. Holaday M. **J Pers Assess** 1998 Dec;71(3):306–21

The convergent validity of MMPI and Rorschach scales: an extension using profile scores to define response and character styles on both methods and a reexamination of simple Rorschach response frequency. Meyer GJ. **J Pers Assess** 1999 Feb;72(1):1–35

Rorschach assessment of malevolence in sexually abused girls. Ornduff SR, et al. **J Pers Assess** 1999 Aug;73(1):100–9

STANDARDS

Detection of minimization of psychopathology on the Rorschach in cleric and noncleric alleged sex offenders. Wasyliw OE, et al. **Assessment** 1998 Dec;5(4):389–97

Methodological issues in evaluating Rorschach validity: a comment on Burns and Viglione (1996), Weiner (1996), and Ganellen (1996). Wood JM, et al. **Assessment** 1999 Jun; 6(2):115–29 (79 ref.)

STATISTICS & NUMERICAL DATA

Rorschach indicators of dissociative identity disorders: clinical utility and theoretical implications. Leavitt F, et al. **J Clin Psychol** 1998 Oct;54(6):803–10

TRAUT: a Rorschach index for screening thought disorder. Tripartite Classification of Autisms. Wagner EE. **J Clin Psychol** 1998 Oct;54(6):719–62

The Rorschach Schizophrenia Index (SCZI): an examination of reliability, validity, and diagnostic efficiency. Hilsenroth MJ, et al. **J Pers Assess** 1998 Jun;70(3):514–34

ROSA see **ROSALES**

ROSACEA see **ACNE ROSACEA**

ROSAI-DORFMAN DISEASE see **HISTIOCYTOSIS, SINUS**

ROSALES

Proanthocyanidins from grape seeds promote proliferation of mouse hair follicle cells in vitro and convert hair cycle in vivo. Takahashi T, et al. **Acta Derm Venereol** 1998 Nov; 78(6):428–32

A novel proanthocyanidin IH636 grape seed extract increases in vivo Bcl-XL expression and prevents acetaminophen-induced programmed and unprogrammed cell death in mouse liver. Ray SD, et al. **Arch Biochem Biophys** 1999 Sep 1;369(1):42–58

Proanthocyanidin-rich extract from grape seeds attenuates the development of aortic atherosclerosis in cholesterol-fed rabbits. Yamakoshi J, et al. **Atherosclerosis** 1999 Jan; 142(1):139–49

Protective effect of Crataegus oxyacantha against reperfusion arrhythmias after global no-flow ischemia in the rat heart. al Makdessi S, et al. **Basic Res Cardiol** 1999 Apr;94(2):71–7

Rapid detection of Escherichia coli O157:H7 using immuno-magnetic flow cytometry in ground beef, apple juice, and milk. Seo KH, et al. **Int J Food Microbiol** 1998 Oct 20;44(1–2):115–23

Analysis of underivatizated patulin by a GC-MS technique. Llovera M, et al. **J Food Prot** 1999 Feb;62(2):202–5

Grape juice but not orange or grapefruit juice inhibits platelet activity in dogs and monkeys. Osman HE, et al. **J Nutr** 1998 Dec;128(12):2307–12

An unusual foreign body in the bowel lumen causing obstruction in a neonate. Tander B, et al. **J Pediatr Surg** 1999 Aug;34(8):1289–90

Apple juice inhibits human low density lipoprotein oxidation. Pearson DA, et al. **Life Sci** 1999;64(21):1913–20

Mealiness assessment in apples using MRI techniques. Barreiro P, et al. **Magn Reson Imaging** 1999 Feb; 17(2):275–81

The cytotoxic effects of a novel IH636 grape seed proanthocyanidin extract on cultured human cancer cells. Ye X, et al. **Mol Cell Biochem** 1999 Jun;196(1–2):99–108

The effect of dried tomato, grape and apple pomace on the cholesterol metabolism and antioxidative enzymatic system in rats with hypercholesterolemia. Bobek P, et al.

ROSALES

Nahrung 1998 Oct;42(5):317–20

ADVERSE EFFECTS

Allergy to pomegranate (Punica granatum). Gaig P, et al. **Allergy** 1999 Mar;54(3):287–8

Oral allergy syndrome (OAS) to grapes [letter; comment] Guinnepain MT, et al. **Allergy** 1998 Dec;53(12):1225. Comment on: Allergy 1998 Apr;53(4):451–2.

Adult onset grape hypersensitivity causing life threatening anaphylaxis. Vaswani SK, et al. **Ann Allergy Asthma Immunol** 1999 Jul;83(1):25–6

CHEMISTRY

Mineral nutrition of plum trees as an important factor of protection against plum pox virus disease. Král'ovič J, et al. **Acta Virol** 1998 Sep;42(4):238–40

Comparative studies of adriamycin and 28-deacetyl sendanin on in vitro growth inhibition of human cancer cell lines. Kim HM, et al. **Arch Pharm Res** 1994 Apr;17(2):100–3

Antioxidative flavonoids from the leaves of Morus alba. Kim SY, et al. **Arch Pharm Res** 1999 Feb;22(1):81–5

High protection by grape seed proanthocyanidins (GSPC) of polyunsaturated fatty acids against UV-C induced peroxidation. Bouhamidi R, et al. **C R Acad Sci III** 1998 Jan;321(1):31–8

Inhibition of TPA-induced tumor promotion in CD-1 mouse epidermis by a polyphenolic fraction from grape seeds. Bomser JA, et al. **Cancer Lett** 1999 Jan 29;135(2):151–7

Anti-tumor promoting activity of polyphenols from Cowania mexicana and Coleogyne ramosissima. Ito H, et al. **Cancer Lett** 1999 Aug 23;143(1):5–13

Crataegus oxyacantha and heart failure [letter; comment] Gildor A. **Circulation** 1998 Nov 10;98(19):2098. Comment on: Circulation 1997 Jun 3;95(11):2591–3.

Stilbene compounds: from the grapevine to wine. Bavaresco L, et al. **Drugs Exp Clin Res** 1999;25(2–3):57–63 (56 ref.)

Stability of resveratrol over time and in the various stages of grape transformation. Bertelli AA, et al. **Drugs Exp Clin Res** 1998;24(4):207–11

Advances in the study of secondary metabolites occurring in grapes and wines. Di Stefano R. **Drugs Exp Clin Res** 1999;25(2–3):53–6 (6 ref.)

Radical modulation activity of lignins from a mangrove plant, Ceriops decandra (Griff.) Ding Hou. Sakagami H, et al. **In Vivo** 1998 May–Jun;12(3):327–32

Effect of Prunus amygdalus seeds on lipid profile. Teotia S, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):383–9

Role of Ca2+ on uterine force stimulated by a glycoside from the root of Dalbergia saxatilis. Uchendu CN. **Indian J Physiol Pharmacol** 1999 Apr;43(2):171–8

In vitro effect of the extract and the 1,7-dihydroxy-2,3-dimethoxy xanthone from Polygala cyparissias on the contractions induced by inflammatory mediators and ovalbumin in normal and actively sensitised trachea from guinea pig. El Sayah M, et al. **Inflamm Res** 1999 Apr;48(4):218–23

Gas chromatographic determination of azoxystrobin, fluazinam, kresoxim-methyl, mepanipyrim, and tetraconazole in grapes, must, and wine. Cabras P, et al. **J AOAC Int** 1998 Nov–Dec;81(6):1185–9

Degradation of parathion methyl on field-sprayed apples and stored apples. Pappas CJ, et al. **J AOAC Int** 1999 Mar–Apr; 82(2):359–63

Presence of a glycosylphosphatidylinositol lipid anchor on rose arabinogalactan proteins. Svetek J, et al. **J Biol Chem** 1999 May 21;274(21):14724–33

High-performance liquid chromatography with diode-array detection for the determination of phenolic compounds in peel and pulp from different apple varieties. Escarpa A, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):331–7

Quantitative determination of 2-methoxy-3-isobutylpyrazine in red wines and grapes of Bordeaux using a stable isotope dilution assay. Kotseridis Y, et al. **J Chromatogr A** 1999 May 14;841(2):229–37

Quantitative determination of free and hydrolytically liberated beta-damascenone in red grapes and wines using a stable isotope dilution assay. Kotseridis Y, et al. **J Chromatogr A** 1999 Jul 16;849(1):245–54

High-performance liquid chromatographic determination of benzoylurea insecticides residues in grapes and wine using liquid and solid-phase extraction. Miliadis GE, et al. **J Chromatogr A** 1999 Mar 12;835(1–2):113–20

Determination of chlorpyrifos, penconazole, fenarimol, vinclozolin and metalaxyl in grapes, must and wine by on-line microextraction and gas chromatography. Oliva J, et al. **J Chromatogr A** 1999 Feb 12;833(1):43–51

An evaluation of the antioxidant activity of a standardized grape seed extract, Leucoselect [see comments] Nuttall SL, et al. **J Clin Pharm Ther** 1998 Oct;23(5):385–9. Comment in: J Clin Pharm Ther 1998 Oct;23(5):323–5.

Herbicide residues in grapes and wine. Ying GG, et al. **J Environ Sci Health B** 1999 May;34(3):397–411

Medicinal plants from Nepal; II. Evaluation as inhibitors of lipid peroxidation in biological membranes. Kumar KC S, et al. **J Ethnopharmacol** 1999 Feb;64(2):135–9

Evaluation of the anticonvulsant activity of the essential oil of Eugenia caryophyllata in male mice. Pourgholami MH, et al. **J Ethnopharmacol** 1999 Feb;64(2):167–71

A new antibiotic nortriterpene quinone methide from Maytenus catingarum. Alvarenga NL, et al. **J Nat Prod** 1999 May;62(5):750–1

Sesquiterpene esters from Celastrus orbiculatus and their structure-activity relationship on the modulation of multidrug resistance. Kim SE, et al. **J Nat Prod** 1999 May; 62(5):697–700

Pyranocoumarins from tropical species of the genus Calophyllum: a chemotaxonomic study of extracts in the National Cancer Institute collection. McKee TC, et al. **J Nat Prod** 1998 Oct;61(10):1252–6

Revision of the structure of fagaridine based on the comparison of UV and NMR data of synthetic compounds. Nakanishi T, et al. **J Nat Prod** 1998 Oct;61(10):1263–7

Four new triterpenoidal saponins acylated with one monoterpenic acid from Gleditsia sinensis. Zhang Z, et al. **J Nat Prod** 1999 May;62(5):740–5

Endothelium-dependent relaxation induced by hawthorn extract in rat mesenteric artery. Chen ZY, et al. **Life Sci** 1998;63(22):1983–91

Purification and characterization of a mannose/glucose-specific lectin from Castanea crenata. Nomura K, et al. **Phytochemistry** 1998 Oct;49(3):667–73

A cysteine proteinase inhibitor purified from apple fruit. Ryan SN, et al. **Phytochemistry** 1998 Oct;49(4):957–63

Chitin synthase II inhibitory activity of ursolic acid, isolated from Crataegus pinnatifida [letter] Jeong TS, et al. **Planta Med** 1999 Apr;65(3):261–3

Inhibitory effect of triterpenes from Crataegus pinatifida on HIV-1 protease [letter] Min BS, et al. **Planta Med** 1999 May;65(4):374–5

Crataegus extract blocks potassium currents in guinea pig ventricular cardiac myocytes. Müller A, et al. **Planta Med** 1999 May;65(4):335–9

[New ellagic glycosides and known triterpenoids from Duchesnea indica Focke] Ye L, et al. **Yao Hsueh Hsueh Pao** 1996;31(11):844–8 (Eng. Abstr.) **(Chi)**

[Enterosorption by nonstarch polysaccharides as a method of treatment of children with mercury poisoning] Sobolev MB, et al. **Vopr Pitan** 1999;68(1):28–30 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Molecular phylogeny of the Ceratosolen species pollinating Ficus of the subgenus Sycomorus sensu stricto: biogeographical history and origins of the species-specificity breakdown cases. Kerdelhue C, et al. **Mol Phylogenet Evol** 1999 Apr;11(3):401–14

ENZYMOLOGY

Unfolding and refolding of active apple polyphenol oxidase. Mari S, et al. **Phytochemistry** 1998 Nov;49(5):1213–7

Grapevine protoplasts as a transient expression system for comparison of stilbene synthase genes containing cGMP-responsive promoter elements. Brehm I, et al. **Z Naturforsch [C]** 1999 Mar–Apr;54(3–4):220–9

GENETICS

Breeding of plums and prunes resistant to plum pox virus. Hartmann W. **Acta Virol** 1998 Sep;42(4):230–2

Identification of regions in which positive selection may operate in S-RNase of Rosaceae: implication for S-allele-specific recognition sites in S-RNase. Ishimizu T, et al. **FEBS Lett** 1998 Dec 4;440(3):337–42

ITS sequence data resolve higher level relationships among the eucalypts. Steane DA, et al. **Mol Phylogenet Evol** 1999 Jul;12(2):215–23

Cloning of NAD-dependent sorbitol dehydrogenase from apple fruit and gene expression. Yamada K, et al. **Plant Cell Physiol** 1998 Dec;39(12):1375–9

Identification and cDNA cloning of a protein abundantly expressed during apple fruit development. Yamada K, et al. **Plant Cell Physiol** 1999 Feb;40(2):198–204

Gene encoding polygalacturonase inhibitor in apple fruit is developmentally regulated and activated by wounding and fungal infection. Yao C, et al. **Plant Mol Biol** 1999 Apr; 39(6):1231–41

Cloning and expression of a hexose transporter gene expressed during the ripening of grape berry. Fillion L, et al. **Plant Physiol** 1999 Aug;120(4):1083–94

Characterization of MdMADS2, a member of the SQUAMOSA subfamily of genes, in apple. Sung SK, et al. **Plant Physiol** 1999 Aug;120(4):969–78

IMMUNOLOGY

Rhinoconjunctivitis and asthma caused by vine pollen: a case report. Feo Brito F, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):262–6

METABOLISM

Proline accumulation in developing grapevine fruit occurs independently of changes in the levels of delta1-pyrroline-5-carboxylate synthetase mRNA or protein. Stines AP, et al. **Plant Physiol** 1999 Jul;120(3):923

Yeast vitality during cider fermentation: assessment by energy metabolism. Dinsdale MG, et al. **Yeast** 1999 Mar 15;15(4):285–93

MICROBIOLOGY

Specific detection of Xylella fastidiosa Pierce's disease strains. Banks D, et al. **Curr Microbiol** 1999 Aug;39(2):85–8

Chromosomal organization and nucleotide sequence of the genes coding for the elongation factors G and Tu of the apple proliferation phytoplasma. Berg M, et al. **Gene** 1999 Jan 8;226(1):103–9

Erwinia pyrifoliae sp. nov., a novel pathogen that affects Asian pear trees (Pyrus pyrifolia Nakai). Kim WS, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:899–905

Characterization of plasmids that encode streptomycin-resistance in bacterial epiphytes of apple. Huang TC, et al. **J Appl Microbiol** 1999 May;86(5):741–51

Efficacy of spray application of chlorinated water in killing pathogenic bacteria on raw apples, tomatoes, and lettuce. Beuchat LR, et al. **J Food Prot** 1998 Oct;61(10):1305–11

Contamination of intact apples after immersion in an aqueous environment containing Escherichia coli O157:H7. Buchanan RL, et al. **J Food Prot** 1999 May;62(5):444–50

Biological control of Botrytis cinerea growth on apples stored under modified atmospheres. Dock LL, et al. **J Food Prot** 1998 Dec;61(12):1661–5

Fate of Escherichia coli O157:H7 in ground apples used in cider production. Fisher TL, et al. **J Food Prot** 1998 Oct; 61(10):1372–4

On the origins of wine yeast. Mortimer R, et al. **Res Microbiol** 1999 Apr;150(3):199–204

VIROLOGY

Relationship between concentration of plum pox virus and content of pigments in virus-infected symptomatic apricot leaves. Baumgartnerová H, et al. **Acta Virol** 1998 Sep; 42(4):216–8

Investigation on the plum pox virus resistance in different apricot genotypes. Fuchs E, et al. **Acta Virol** 1998 Sep; 42(4):222–5

Characterization of plum pox virus isolates from Slovakia. Glasa M, et al. **Acta Virol** 1998 Sep;42(4):226–9

Breeding of plums and prunes resistant to plum pox virus. Hartmann W. **Acta Virol** 1998 Sep;42(4):230–2

Aphid species--vectors of plum pox virus. Isac M, et al. **Acta Virol** 1998 Sep;42(4):233–4

Some results of 50 years of research on the resistance to plum pox virus. Kegler H, et al. **Acta Virol** 1998 Sep; 42(4):200–15 (270 ref.)

Mineral nutrition of plum trees as an important factor of protection against plum pox virus disease. Král'ovič J, et al. **Acta Virol** 1998 Sep;42(4):238–40

Preliminary report on the apparent breaking of resistance of a transgenic plum by chip bud inoculation of plum pox virus PPV-S. Malinowski T, et al. **Acta Virol** 1998 Sep; 42(4):241–3

New results concerning the plum pox virus epidemiology and resistance of plum cultivars, hybrids and rootstocks. Minoiu N, et al. **Acta Virol** 1998 Sep;42(4):244–7

Detection and serotyping of Mediterranean plum pox virus isolates by means of strain-specific monoclonal antibodies. Myrta A, et al. **Acta Virol** 1998 Sep;42(4):251–3

Testing of plum germplasm for sensitivity to plum pox. Paprštein F, et al. **Acta Virol** 1998 Sep;42(4):257–9

Detection of plum pox virus in apricot seeds. Pasquini G, et al. **Acta Virol** 1998 Sep;42(4):260–3

Relative concentration of plum pox virus in leaves and flowers of some Prunus species and cultivars. Polák J. **Acta Virol** 1998 Sep;42(4):264–7

Restriction fragment length polymorphism differentiation of plum pox virus isolates. Poncarová Z, et al. **Acta Virol** 1998 Sep;42(4):268–9

Characterization of phenotype resistance to plum pox of transgenic plums expressing plum pox virus capsid gene. Ravelonandro M, et al. **Acta Virol** 1998 Sep;42(4):270–2

Agroclimatical analysis of plum pox virus spread in Slovakia. Spánik F, et al. **Acta Virol** 1998 Sep;42(4):273–5

Detection of plum pox virus by enzyme-linked immunosorbent assay in some apricot and peach varieties and hybrids in Romania. Toma S, et al. **Acta Virol** 1998 Sep;42(4):276–7

The nine C-terminal residues of the grapevine fanleaf nepovirus movement protein are critical for systemic virus spread. Belin C, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1347–56

ROSANILINE DYES

Comparison of blue dye and probe-assisted intraoperative lymphatic mapping in melanoma to identify sentinel nodes in 100 lymphatic basins. Bostick P, et al. **Arch Surg** 1999 Jan;134(1):43–9

Astra blue and basic fuchsin double staining of plant materials. Kraus JE, et al. **Biotech Histochem** 1998 Sep; 73(5):235–43

Sentinel node localization in cutaneous melanoma: lymphoscintigraphy with colloids and antibody fragments versus blue dye mapping. Bartolomei M, et al. **Eur J Nucl Med** 1998 Nov;25(11):1489–94

Sequential enhanced tyrosine phosphorylation during progressive malachite green induced malignant transformation of Syrian hamster embryo cells in culture is associated with no change in the activity levels of tyrosine phosphatases. Mahudawala DM, et al. **Indian J Exp Biol** 1999 May;37(5):423–8

Fuchsin fluorescence and autofluorescence in Cryptosporidium, Isospora and Cyclospora oocysts. Varea M, et al. **Int J Parasitol** 1998 Dec;28(12):1881–3

Experimental staining of the anterior lens capsule in albino

rabbits. Gamal Eldin SA, et al. **J Cataract Refract Surg** 1999 Sep;25(9):1289–94

Carbon dye as an adjunct to isosulfan blue dye for sentinel lymph node dissection. Lucci A, et al. **Surgery** 1999 Jul; 126(1):48–53

ADMINISTRATION & DOSAGE

Subareolar versus peritumoral injection for location of the sentinel lymph node. Klimberg VS, et al. **Ann Surg** 1999 Jun;229(6):860–4; discussion 864–5

ADVERSE EFFECTS

Glenohumeral osteoarthritis following a "color test" during rotator cuff repair. A case report and a review of the literature. Nakagawa Y, et al. **Bull Hosp Jt Dis** 1998; 57(4):216–8 (12 ref.)

Anapylaxis to patent blue [letter] Quiliquini A, et al. **Dermatology** 1998;197(4):400

[Anaphylactic shock due to "patent blue" used to search for the sentinel node] Salvat J, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jul;28(4):393–4 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Heat mediated quick Coomassie blue protein staining and destaining of SDS-PAGE gels. Kurien BT, et al. **Indian J Biochem Biophys** 1998 Dec;35(6):385–9

Ion chromatographic determination of bromate in drinking water by post-column reaction with fuchsin. Achilli M, et al. **J Chromatogr A** 1999 Jun 25;847(1–2):271–7

A method for counterstaining tissues in conjunction with the glyoxylic acid condensation reaction for detection of biogenic amines. Guidry G. **J Histochem Cytochem** 1999 Feb;47(2):261–4

DIAGNOSTIC USE

Subareolar versus peritumoral injection for location of the sentinel lymph node. Klimberg VS, et al. **Ann Surg** 1999 Jun;229(6):860–4; discussion 864–5

Unexplained decrease in measured oxygen saturation by pulse oximetry following injection of Lymphazurin 1% (isosulfan blue) during a lymphatic mapping procedure. Coleman RL, et al. **J Surg Oncol** 1999 Feb;70(2):126–9

Thigh isosulfan blue injection in the treatment of postoperative lymphatic complications. Blebea J, et al. **J Vasc Surg** 1999 Aug;30(2):350–4

Experience with lymphatic mapping in breast cancer using isosulfan blue dye. Ratanawichitrasin A, et al. **J Womens Health** 1998 Sep;7(7):873–7

Detection of sentinel lymph nodes with lymphazurin in cervical, uterine, and vulvar malignancies. Echt ML, et al. **South Med J** 1999 Feb;92(2):204–8

[Identification of axillary sentinel node by lymphotropic dye in breast cancer. Feasibility study apropos of 128 cases] Rodier JF, et al. **Chirurgie** 1998 Jun;123(3):239–46 (Eng. Abstr.) **(Fre)**

[Preoperative angiographic landmarks of the gluteal muscle regions using Patent Blue V] Qanadli SD, et al. **J Radiol** 1999 Mar;80(3):319–21 (Eng. Abstr.) **(Fre)**

[Identification of sentinel lymph node with patent blue V in patients with cutaneous melanoma] Gallegos-Hernández JF, et al. **Gac Med Mex** 1998 Jul–Aug;134(4):419–22 (Eng. Abstr.) **(Spa)**

PHARMACOKINETICS

Analysis of malachite green and metabolites in fish using liquid chromatography atmospheric pressure chemical ionization mass spectrometry. Doerge DR, et al. **Rapid Commun Mass Spectrom** 1998;12(21):1625–34

PHARMACOLOGY

Photosensitization of Staphylococcus aureus with malachite green isothiocyanate: inactivation efficiency and spectroscopic analysis. Golding PS, et al. **J Photochem Photobiol B** 1998 Dec;47(2–3):202–10

TOXICITY

Malignant transformation of Syrian hamster embryo (SHE) cells in primary culture by malachite green: transformation is associated with abrogation of G2/M checkpoint control. Rao KV, et al. **Cell Biol Int** 1998;22(7–8):581–9

ROSE BENGAL

DIAGNOSTIC USE

Diagnosis of Theodore's superior limbic keratoconjunctivitis [letter] Bainbridge JW, et al. **Eye** 1998;12 (Pt 4):748–9

PHARMACOLOGY

Retinal spreading depression induced by photoactivation: involvement of free radicals and potassium. Netto M, et al. **Brain Res** 1999 May 8;827(1–2):221–4

Sonodynamically induced effect of rose bengal on isolated sarcoma 180 cells. Umemura S, et al. **Cancer Chemother Pharmacol** 1999;43(5):389–93

Phototoxicity of rose bengal in mycological media--implications for laboratory practice. Chilvers KF, et al. **Lett Appl Microbiol** 1999 Feb;28(2):103–7

GH3 cells, ionic currents and cell killing: photomodification sensitized by Rose Bengal. Valenzeno DP, et al. **Photochem Photobiol** 1998 Oct;68(4):519–26

TOXICITY

Evaluation of the effect of lissamine green and rose bengal on human corneal epithelial cells. Kim J, et al. **Cornea** 1999 May;18(3):328–32

ROSEMARY see **LAMIACEAE**

ROSENTHAL SYNDROME see **FACTOR XI DEFICIENCY**

ROSEOLA INFANTUM see **EXANTHEMA SUBITUM**

ROSETTE FORMATION

Autologous rosette formation by human blood monocyte-derived macrophages and lymphocytes. Cabral HR, et al. **Am J Hematol** 1999 Apr;60(4):285–8

Age-related buildup of humoral immunity against epitopes for rosette formation and agglutination in African areas of malaria endemicity. Barragan A, et al. **Infect Immun** 1998 Oct;66(10):4783–7

Plasmodium falciparum-isolates from Cameroonian pregnant women do not rosette. Maubert B, et al. **Parasite** 1998 Sep; 5(3):281–3

Lack of significant association between rosette formation and parasitized erythrocyte adherence to purified CD36. Angkasekwinai P, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):41–5

All four species of human malaria parasites form rosettes. Lowe BS, et al. **Trans R Soc Trop Med Hyg** 1998 Sep–Oct; 92(5):526

[In vitro study of the modulating effect of antitubercular agents on the rosette formation response in patients with pulmonary tuberculosis] Insanov AB, et al. **Probl Tuberk** 1998;(4):44–6 (Eng. Abstr.) **(Rus)**

ROSIDAE see **ROSALES**

ROSS RIVER VIRUS

A case of encephalitis in central Australia due to Ross River virus? Lucas RE, et al. **Aust N Z J Med** 1999 Apr; 29(2):268–70

Health impact assessments of malaria and Ross River virus infection in the Southern Highlands Province of Papua New Guinea. Hii J, et al. **P N G Med J** 1997 Mar; 40(1):14–25

[Persistent arthralgias in Ross-River-Virus disease after travel to the South Pacific] Pröll S, et al. **Dtsch Med Wochenschr** 1999 Jun 18;124(24):759–62 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

In vitro assembly of alphavirus cores by using nucleocapsid protein expressed in Escherichia coli. Tellinghuisen TL, et al. **J Virol** 1999 Jul;73(7):5309–19

ROTATION

see related
CENTRIFUGATION
GRAVITY, ALTERED

'Sideways' laryngeal mask airways [letter] Sellers WF, et al. **Anaesthesia** 1999 Jun;54(6):603

Otolith-canal interaction during pitch while rotating. Haslwanter T, et al. **Ann N Y Acad Sci** 1999 May 28; 871:410–3

Signal processing related to the vestibulo-ocular reflex during combined angular rotation and linear translation of the head. McCrea RA, et al. **Ann N Y Acad Sci** 1999 May 28;871:65–80

Centrifugal force affects perception but not nystagmus in passive rotation. Mittelstaedt ML, et al. **Ann N Y Acad Sci** 1999 May 28;871:435–8

Canal and otolith afferent activity underlying eye velocity responses to pitching while rotating. Raphan T, et al. **Ann N Y Acad Sci** 1999 May 28;871:181–94

Treatment of benign positional vertigo using heels-over-head rotation. Furman JM, et al. **Ann Otol Rhinol Laryngol** 1998 Dec;107(12):1046–53

Systematic investigation of physiological correlates of motion sickness induced by viewing an optokinetic rotating drum. Hu S, et al. **Aviat Space Environ Med** 1999 Aug; 70(8):759–65

Kinematic response of the neck to voluntary and involuntary flexion. Margulies SS, et al. **Aviat Space Environ Med** 1998 Sep;69(9):896–903

Rotated drawing: the range of performance and anatomical correlates in a series of 16 patients. Solms M, et al. **Brain Cogn** 1998 Dec;38(3):358–68

The effect of rotational head and neck movements on the afferent cerebral blood flow. Mawera G, et al. **Cent Afr J Med** 1998 Jun;44(6):148–52

Young children's awareness of their mental activity: the case of mental rotation. Estes D. **Child Dev** 1998 Oct; 69(5):1345–60

Assessment of thoracolumbar rotation in ankylosing spondylitis: a simple tape method. Viitanen JV, et al. **Clin Rheumatol** 1999;18(2):152–7

Mental rotation within linguistic and non-linguistic domains in users of American sign language. Emmorey K, et al. **Cognition** 1998 Sep;68(3):221–46

Cortical distribution of EEG activity for component processes during mental rotation. Gill HS, et al. **Cortex** 1998 Dec;34(5):707–18

Latency of voluntary cancellation of the human vestibulo-ocular reflex during transient yaw rotation. Crane BT, et al. **Exp Brain Res** 1999 Jul;127(1):67–74

Relationship between foot pronation and rotation of the tibia and femur during walking. Reischl SF, et al. **Foot Ankle Int** 1999 Aug;20(8):513–20

Muscular resistance to varus and valgus loads at the elbow. Buchanan TS, et al. **J Biomech Eng** 1998 Oct;120(5):634–9

In vivo determination of the direction of rotation and moment-angle relationship of individual elbow muscles. Zhang L, et al. **J Biomech Eng** 1998 Oct;120(5):625–33

Effect of continuous lateral rotational therapy on lung mucus transport in mechanically ventilated patients. Dolovich M, et al. **J Crit Care** 1998 Sep;13(3):119–25

Spectral parameters of trunk muscles during fatiguing isometric axial rotation in neutral posture. Kumar S, et al. **J Electromyogr Kinesiol** 1998 Aug;8(4):257–67

Changes and implications of blood flow velocity of the vertebral artery during rotation and extension of the head. Li YK, et al. **J Manipulative Physiol Ther** 1999 Feb; 22(2):91–5

Visual environmental rotation: a novel disorder of visiospatial integration. Girkin CA, et al. **J Neuroophthalmol** 1999 Mar; 19(1):13–6

"Torso Rotation" experiments. 4: the role of vision and the cervico-ocular reflex in compensation for a deficient VOR. Bouyer LJ, et al. **J Vestib Res** 1999;9(2):89–101

Effects of body orientation and rotation axis on pitch visual-vestibular interaction. Clément G, et al. **J Vestib Res** 1999;9(1):1–11

Somatosensory cuing of head-only rotational testing. Furman JM, et al. **J Vestib Res** 1999;9(3):189–95

Head-only rotational testing in the elderly. Furmen JM, et al. **J Vestib Res** 1998 Sep–Oct;8(5):355–61

Comparison of two head autorotation tests. Hirvonen TP, et al. **J Vestib Res** 1999;9(2):119–25

Does habitual, vigorous optokinetic stimulation alter optokinetic nystagmus and sensitivity to circularvection? McDermott KH, et al. **J Vestib Res** 1999;9(1):59–61

Effects of varying acceleration of platform translation and toes-up rotations on the pattern and magnitude of balance reactions in humans. Szturm T, et al. **J Vestib Res** 1998 Sep–Oct;8(5):381–97

Spatial updating during rotation: the role of vestibular information and mental activity. Yardley L, et al. **J Vestib Res** 1998 Nov–Dec;8(6):435–42

Trendelenburg positioning and continuous lateral rotation improve oxygenation in hepatopulmonary syndrome after liver transplantation. Meyers C, et al. **Liver Transpl Surg** 1998 Nov;4(6):510–2

Structural constraints on the coordination of concurrent rotations of the head and a steering device. Heuer H, et al. **Motor Control** 1999 Jan;3(1):39–66

Topographical organization of inferior olive cells projecting to translation and rotation zones in the vestibulocerebellum of pigeons. Lau KL, et al. **Neuroscience** 1998 Jul; 85(2):605–14

[Three-dimensional analysis of eye movements induced by off-vertical axis rotation] Kamura E, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Jan;102(1):42–9 (Eng. Abstr.) **(Jpn)**

[The benefit of head rotation on pharyngoesophageal dysphagia from three cases of paraganglioma in the parapharyngeal space] Kawai S, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Mar;102(3):311–6 (Eng. Abstr.) **(Jpn)**

[Leg length inequality and rotational deformity after traction treatment of femoral shaft fractures in children] Nordbø T, et al. **Tidsskr Nor Laegeforen** 1998 Sep 20; 118(22):3419–23 (Eng. Abstr.) **(Nor)**

[On the role of technogenic rotating electrical fields in inner and outer ecologic relations (literature review)] Belkin AD. **Med Tr Prom Ekol** 1999;(6):27–30 (17 ref.) **(Rus)**

ADVERSE EFFECTS

The role of forceps rotation in maternal and neonatal injury. Hankins GDV, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):231–4

ROTATIONAL ATHERECTOMY see **ATHERECTOMY, CORONARY**

ROTATOR CUFF

see related
SHOULDER IMPINGEMENT SYNDROME

Surgical management of calcific tendinitis of the shoulder: an analysis of 26 cases. Rochwerger A, et al. **Clin Rheumatol** 1999;18(4):313–6

Ultrasound therapy for calcific tendinitis of the shoulder [see comments] Ebenbichler GR, et al. **N Engl J Med** 1999 May 20;340(20):1533–8. Comment in: N Engl J Med 1999 May 20;340(20):1582–4.

Calcific tendinitis of the shoulder [editorial; comment] Speed CA, et al. **N Engl J Med** 1999 May 20;340(20):1582–4. Comment on: N Engl J Med 1999 May 20;340(20):1533–8.

ANATOMY & HISTOLOGY

Anatomy of the scapulothoracic articulation. Williams GR Jr, et al. **Clin Orthop** 1999 Feb;(359):237–46

A technique for determining the spatial relationship between the rotator cuff and the subacromial space in arm abduction using MRI and 3D image processing. Graichen H, et al. **Magn Reson Med** 1998 Oct;40(4):640–3

INJURIES

Ultrasonographic analysis of shoulder rotator cuff tears. Masaoka S, et al. **Acta Med Okayama** 1999 Apr;53(2):81–9

Function of the rabbit supraspinatus muscle after detachment of its tendon from the greater tubercle. Observations up to 6 months. Fabis J, et al. **Acta Orthop Scand** 1998 Dec; 69(6):570–4

Electromyographic activities of the biceps during arm elevation in shoulders with rotator cuff tears. Kido T, et al. **Acta Orthop Scand** 1998 Dec;69(6):575–9

Cystic changes of the humeral head on MR imaging. Relation to age and cuff-tears. Sano A, et al. **Acta Orthop Scand** 1998 Aug;69(4):397–400

Greater tuberosity changes as revealed by radiography: lack of clinical usefulness in patients with rotator cuff disease. Huang LF, et al. **AJR Am J Roentgenol** 1999 May; 172(5):1381–8

MR imaging for traumatic tears of the rotator cuff: high prevalence of greater tuberosity fractures and subscapularis tendon tears. Zanetti M, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):463–7

The effects of overuse combined with intrinsic or extrinsic alterations in an animal model of rotator cuff tendinosis. Carpenter JE, et al. **Am J Sports Med** 1998 Nov-Dec; 26(6):801–7

Postoperative ossifications of the shoulder. Incidence and clinical impact. Erggelet C, et al. **Arch Orthop Trauma Surg** 1999;119(3–4):168–70

A multicenter study of 210 rotator cuff tears treated by arthroscopic acromioplasty. Kempf JF, et al. **Arthroscopy** 1999 Jan-Feb;15(1):56–66

Type II SLAP lesions: three subtypes and their relationships to superior instability and rotator cuff tears. Morgan CD, et al. **Arthroscopy** 1998 Sep;14(6):553–65

Magnetic resonance imaging assessment of the rotator cuff: is it really accurate? [letter; comment] Skib RA. **Arthroscopy** 1998 Sep;14(6):656–8. Comment on: Arthroscopy 1997 Dec;13(6):710–9.

Arthroscopic "interval slide" in the repair of large rotator cuff tears. Tauro JC. **Arthroscopy** 1999 Jul–Aug; 15(5):527–30

Arthroscopic debridement and acromioplasty versus mini-open repair in the treatment of significant partial-thickness rotator cuff tears. Weber SC. **Arthroscopy** 1999 Mar;15(2):126–31

You're the flight surgeon. C-130 pilot with supraspinalus muscle tear. Kapp EZ. **Aviat Space Environ Med** 1998 Dec; 69(12):1219–20

Glenohumeral osteoarthritis following a "color test" during rotator cuff repair. A case report and a review of the literature. Nakagawa Y, et al. **Bull Hosp Jt Dis** 1998; 57(4):216–8 (12 ref.)

Diagnostic and therapeutic impact of MRI and arthrography in the investigation of full-thickness rotator cuff tears. Blanchard TK, et al. **Eur Radiol** 1999;9(4):638–42

Incidence and symptoms of clinically manifest rotator cuff lesions. Fuchs S, et al. **Int J Sports Med** 1999 Apr; 20(3):201–5

Indirect MR arthrography of the unexercised glenohumeral joint in patients with rotator cuff tears. Allmann KH, et al. **Invest Radiol** 1999 Jun;34(6):435–40

Partial-thickness tears of the rotator cuff: evaluation and management. McConville OR, et al. **J Am Acad Orthop Surg** 1999 Jan;7(1):32–43 (37 ref.)

The rotator cuff-deficient arthritic shoulder: diagnosis and surgical management. Zeman CA, et al. **J Am Acad Orthop Surg** 1998 Nov-Dec;6(6):337–48 (34 ref.)

Experimental rotator cuff repair. A preliminary study. Gerber C, et al. **J Bone Joint Surg Am** 1999 Sep;81(9):1281–90

Rotator cuff tear arthropathy. Jensen KL, et al. **J Bone Joint Surg Am** 1999 Sep;81(9):1312–24 (101 ref.)

Transfer of the latissimus dorsi muscle after failed repair of a massive tear of the rotator cuff. A two to five-year review. Miniaci A, et al. **J Bone Joint Surg Am** 1999 Aug; 81(8):1120–7

Long-term functional outcome of repair of large and massive chronic tears of the rotator cuff. Rokito AS, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):991–7

Open acromioplasty does not prevent the progression of an impingement syndrome to a tear [letter] Bernstein J. **J Bone Joint Surg Br** 1999 Jul;81(4):743

Isolated and combined lesions of the axillary nerve. A review of 146 cases. Bonnard C, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):212–7 (25 ref.)

Evaluation of chronic tears of the rotator cuff by ultrasound. A new index. Wallny T, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):675–8

Increased substance P in subacromial bursa and shoulder pain in rotator cuff diseases. Gotoh M, et al. **J Orthop Res** 1998 Sep;16(5):618–21

Is sonography performed by the rheumatologist as useful as arthrography executed by the radiologist for the assessment of full thickness rotator cuff tears? Swen WA, et al. **J Rheumatol** 1998 Sep;25(9):1800–6

Spontaneous detachment of the deltoid muscle origin. Blazar PE, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):389–92

Rotator cuff defect healing: a biomechanical and histologic analysis in an animal model. Carpenter JE, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):599–605

Transplantation of teres major muscle for infraspinatus muscle in irreparable rotator cuff tears. Celli L, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):485–90

The influence of acromioclavicular joint morphology on rotator cuff tears. Cuomo F, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):555–9

Self-assessment questionnaires document substantial variability in the clinical expression of rotator cuff tears. Duckworth DG, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):330–3

Aseptic wound dehiscence after rotator cuff surgery: early revision recommended. Ekelund AL, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):640–2

Passive tension in the supraspinatus musculotendinous unit after long-standing rupture of its tendon: a preliminary report. Hersche O, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):393–6

Supraspinatus rupture at the musculotendinous junction. Hertel R, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug; 7(4):432–5

Mechanical environment associated with rotator cuff tears. Luo ZP, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec; 7(6):616–20

Acromioclavicular joint cyst and rotator cuff tear. Marino AJ, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):435–7

Skin temperature of the shoulder: circadian rhythms in normal and pathologic shoulders. Miyakoshi N, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):625–8

Bilateral osteochondromatosis of the subacromial bursae with incomplete rotator cuff tears. Ogawa K, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):78–81

Incomplete tears of the subscapularis tendon associated with tears of the supraspinatus tendon: cadaveric and clinical studies. Sakurai G, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):510–5

Age-related prevalence of rotator cuff tears in asymptomatic shoulders. Tempelhof S, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):296–9

Repair of massive rotator cuff tears in patients older than 70 years. Worland RL, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):26–30

MR imaging of rotator interval, long biceps, and associated injuries in the overhead-throwing athlete. Ho CP. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):23–37 (18 ref.)

Arthroscintigraphy in suspected rotator cuff rupture. Gratz S, et al. **Nuklearmedizin** 1998;37(8):272–8

Rotator cuff imaging using bursography coupled to helical computed arthrotomography. Fermand M, et al. **Rev Rhum Engl Ed** 1999 Mar;66(3):131–5

Subacromial-subdeltoid lipoma arborescens associated with a rotator cuff tear. Nisolle JF, et al. **Skeletal Radiol** 1999 May;28(5):283–5

[Influence of muscular degeneration of the supra- and infra-spinatus on the prognosis of surgical repair of the rotator cuff] Goutallier D, et al. **Acta Orthop Belg** 1998; 64 Suppl 2:42–5 **(Fre)**

[Arthroplasty with a mobile cup for shoulder arthrosis with irreparable rotator cuff rupture: preliminary results and cineradiographic study] Petroff E, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jun; 85(3):245–56 (Eng. Abstr.) **(Fre)**

[Primary tensile strength of the tendon of the supraspinatus muscle in the human--a biomechanical study (letter; comment)] Ludolph E. **Unfallchirurg** 1999 Jan;102(1):77–8 . Comment on: Unfallchirurg 1998 Apr;101(4):265–70. Comment on: Unfallchirurg 1999 Apr;102(4):335–6. **(Ger)**

[The inherent tear resistance of the tendon of M. supraspinatus in humans. A biomechanical study. A response to a letter by E. Ludolph, Emergency surgery (1999) 102.77–78 (letter; comment)] Rickert M. **Unfallchirurg** 1999 Apr;102(4):335–6. Comment on: Unfallchirurg 1999 Jan;102(1):77–8. **(Ger)**

[The phenomena of irradiating pain in rotator cuff tear: quantitative analysis] Fabiś J, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):237–41 (Eng. Abstr.) **(Pol)**

[The sensitivity and specificity of sonographic examination in detection of rotator cuff tear] Fabiś J, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(1):19–23 (Eng. Abstr.) **(Pol)**

INNERVATION

Neural response of mechanoreceptors to acute inflammation in the rotator cuff of the shoulder joint in rabbits. Yamashita T, et al. **Acta Orthop Scand** 1999 Apr;70(2):137–40

Isolated and combined lesions of the axillary nerve. A review of 146 cases. Bonnard C, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):212–7 (25 ref.)

METABOLISM

Lysylhydroxylation and non-reducible crosslinking of human supraspinatus tendon collagen: changes with age and in chronic rotator cuff tendinitis. Bank RA, et al. **Ann Rheum Dis** 1999 Jan;58(1):35–41

PATHOLOGY

Magnetic resonance imaging assessment of the rotator cuff: is it really accurate? [letter; comment] Skib RA. **Arthroscopy** 1998 Sep;14(6):656–8. Comment on: Arthroscopy 1997 Dec;13(6):710–9.

Lesions of the reflection pulley of the long biceps tendon. MR arthrographic findings. Weishaupt D, et al. **Invest Radiol** 1999 Jul;34(7):463–9

Primary anterior shoulder dislocation and rotator cuff tears. Berbig R, et al. **J Shoulder Elbow Surg** 1999 May–Jun; 8(3):220–5

Structural changes of the rotator cuff caused by experimental subacromial impingement in the rat. Schneeberger AG, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):375–80

Effect of steroid injections on the rotator cuff: an experimental study in rats. Tillander B, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):271–4

PHYSIOLOGY

The effects of concentric versus eccentric isokinetic strength training of the rotator cuff in the plane of the scapula at various speeds. Bast SC, et al. **Bull Hosp Jt Dis** 1998; 57(3):139–44

The mechanism of creation of superior labrum, anterior, and posterior lesions in a dynamic biomechanical model of the shoulder: the role of inferior subluxation. Bey MJ, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):397–401

Contribution of the passive properties of the rotator cuff to glenohumeral stability during anterior-posterior loading. Debski RE, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug; 8(4):324–9

Suprascapular nerve rotator cuff compression syndrome in volleyball players. Sandow MJ, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):516–21

The static rotator cuff does not affect inferior translation of the humerus at the glenohumeral joint. Itoi E, et al. **J Trauma** 1999 Jul;47(1):55–9

Electromyography of the shoulder: an analysis of passive modes of exercise. Dockery ML, et al. **Orthopedics** 1998 Nov;21(11):1181–4

[Treatment of fresh humeral diaphysis fractures by Seidel intramedullary locked nailing. A study of 23 initial cases after 2.5 years with rotator cuff evaluation] Gaullier O, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jul; 85(4):349–61 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Passive tension in the supraspinatus musculotendinous unit after long-standing rupture of its tendon: a preliminary report. Hersche O, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):393–6

RADIOGRAPHY

Is sonography performed by the rheumatologist as useful as arthrography executed by the radiologist for the assessment of full thickness rotator cuff tears? Swen WA, et al. **J Rheumatol** 1998 Sep;25(9):1800–6

Rotator cuff imaging using bursography coupled to helical computed arthrotomography. Fermand M, et al. **Rev Rhum Engl Ed** 1999 Mar;66(3):131–5

RADIONUCLIDE IMAGING

Arthroscintigraphy in suspected rotator cuff rupture. Gratz S, et al. **Nuklearmedizin** 1998;37(8):272–8

SURGERY

Totally intra-articular arthroscopic knot: push and twist technique. Carro LP, et al. **Arthroscopy** 1999 Jan-Feb; 15(1):106–9

Arthroscopic rotator interval repair in glenohumeral instability: description of an operative technique. Gartsman GM, et al. **Arthroscopy** 1999 Apr;15(3):330–2

A multicenter study of 210 rotator cuff tears treated by arthroscopic acromioplasty. Kempf JF, et al. **Arthroscopy** 1999 Jan-Feb;15(1):56–66

Arthroscopic "interval slide" in the repair of large rotator cuff tears. Tauro JC. **Arthroscopy** 1999 Jul–Aug; 15(5):527–30

Glenohumeral osteoarthritis following a "color test" during rotator cuff repair. A case report and a review of the literature. Nakagawa Y, et al. **Bull Hosp Jt Dis** 1998; 57(4):216–8 (12 ref.)

Geographic variations in the rates of operative procedures involving the shoulder, including total shoulder replacement, humeral head replacement, and rotator cuff repair. Vitale MG, et al. **J Bone Joint Surg Am** 1999 Jun; 81(6):763–72

A simple suture shuttle in rotator cuff repairs: a technical note. Cyprien JM, et al. **J Shoulder Elbow Surg** 1999 Mar–Apr;8(2):159–61

Aseptic wound dehiscence after rotator cuff surgery: early revision recommended. Ekelund AL, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):640–2

Surgical treatment of full-thickness rotator cuff tears in patients 40 years of age or younger. Hawkins RJ, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):259-65
Functional and magnetic resonance imaging evaluation after single-tendon rotator cuff reconstruction. Knudsen HB, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):242-6
Arthroscopic subacromial decompression: results and factors affecting outcome. Patel VR, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):231-7
Infection after rotator cuff repair. Settecerri JJ, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):1-5
Repair of massive rotator cuff tears in patients older than 70 years. Worland RL, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):26-30
[Influence of muscular degeneration of the supra- and infra-spinatus on the prognosis of surgical repair of the rotator cuff] Goutallier D, et al. **Acta Orthop Belg** 1998; 64 Suppl 2:42-5 **(Fre)**

ULTRASONOGRAPHY

Ultrasonographic analysis of shoulder rotator cuff tears. Masaoka S, et al. **Acta Med Okayama** 1999 Apr;53(2):81-9
The value of ultrasonography in the diagnosis of labral lesions in patients with anterior shoulder dislocation. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):107-13
Ultrasonographic examination of the glenoid labrum of healthy volunteers. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):85-9
Evaluation of chronic tears of the rotator cuff by ultrasound. A new index. Wallny T, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):675-8
Sonographically detected subacromial/subdeltoid bursal effusion and biceps tendon sheath fluid: reliable signs of rotator cuff tear? Arslan G, et al. **J Clin Ultrasound** 1999 Jul-Aug;27(6):335-9
Sonography of the rotator cuff and biceps tendon: technique, normal anatomy, and pathology. Thain LM, et al. **J Clin Ultrasound** 1999 Oct;27(8):446-58 (8 ref.)
Is sonography performed by the rheumatologist as useful as arthrography executed by the radiologist for the assessment of full thickness rotator cuff tears? Swen WA, et al. **J Rheumatol** 1998 Sep;25(9):1800-6
Rotator cuff: evaluation with US and MR imaging. Seibold CJ, et al. **Radiographics** 1999 May-Jun;19(3):685-705
[The sensitivity and specificity of sonographic examination in detection of rotator cuff tear] Fabiś J, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(1):19-23 (Eng. Abstr.) **(Pol)**

ROTAVIRUS

Time series and (S)ARMA models [comment] Kestens E. **J Diarrhoeal Dis Res** 1998 Jun;16(2):84-6. Comment on: J Diarrhoeal Dis Res 1998 Jun;16(2):74-83.
Time series analysis of patients with rotavirus diarrhoea in Pune, India [see comments] Purohit SG, et al. **J Diarrhoeal Dis Res** 1998 Jun;16(2):74-83. Comment in: J Diarrhoeal Dis Res 1998 Jun;16(2):84-6.
An outbreak of group C rotavirus gastroenteritis among adults living in Valentim Gentil, São Paulo State, Brazil [published erratum appears in J Diarrhoeal Dis Res 1998 Sep;16(3):following x] Souza DF, et al. **J Diarrhoeal Dis Res** 1998 Jun;16(2):59-65
Ruth Bishop: rotaviruses and vaccines [interview by Amanda Tattam] Bishop R. **Lancet** 1999 May 29;353(9167):1860
[Genome and proteins of rotavirus] Taniguchi K. **Uirusu** 1998 Dec;48(2):137-51 (63 ref.) **(Jpn)**

CHEMISTRY

Encapsulation of rotavirus into poly(lactide-co-glycolide) microspheres. Sturesson C, et al. **J Controlled Release** 1999 Jun 2;59(3):377-89
Biochemical and immunologic comparison of virus-like particles for a rotavirus subunit vaccine. Madore HP, et al. **Vaccine** 1999 May 14;17(19):2461-71

CLASSIFICATION

Distribution of rotavirus VP4 genotype and VP7 serotype among Chinese children. Adhikary AK, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):641-3
Seasonality and diversity of Group A rotaviruses in Europe. Koopmans M, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):14-9 (37 ref.)
Characterization of VP6 subgroup, VP7 and VP4 genotype of rotavirus strains in Lusaka, Zambia. Steele AD, et al. **Ann Trop Paediatr** 1998 Jun;18(2):111-6
First detection of bovine group B rotavirus in Japan and sequence of its VP7 gene. Tsunemitsu H, et al. **Arch Virol** 1999;144(4):805-15
Analysis of human rotavirus serotypes in children with acute diarrhoea in Chennai by monoclonal antibody based ELISA. Ananthan S, et al. **Indian J Med Res** 1998 Aug; 108:58-61
Nucleotide sequence of the VP7 gene of human rotavirus isolated in Calcutta, India: possible emergence of a new subtype of serotype I. Chakladar A, et al. **Intervirology** 1998;41(2-3):127-31
Distribution of human rotavirus G types circulating in Paris, France, during the 1997-1998 epidemic: high prevalence of type G4. Gault E, et al. **J Clin Microbiol** 1999 Jul; 37(7):2373-5
Detection and characterization of novel rotavirus strains in the United States [letter; comment] Gouvea V, et al. **J Clin Microbiol** 1999 Jul;37(7):2385-6. Comment on: J Clin Microbiol 1994 Jul;32(7):1820-2. Comment on: J Clin Microbiol 1998 Nov;36(11):3223-9.
Relative frequencies of G and P types among rotaviruses from Indian diarrheic cow and buffalo calves. Gulati BR, et al. **J Clin Microbiol** 1999 Jun;37(6):2074-6
Isolation of a human rotavirus strain with a super-short RNA pattern and a new P2 subtype. Nakagomi T, et al. **J Clin Microbiol** 1999 Apr;37(4):1213-6
Detection and characterization of novel rotavirus strains in the United States [published erratum appears in J Clin Microbiol 1999 Jul;37(7):2392] [see comments] Ramachandran M, et al. **J Clin Microbiol** 1998 Nov; 36(11):3223-9. Comment in: J Clin Microbiol 1999 Jul;37(7):2385-6.
Rotavirus G and P types in children from Belém, northern Brazil, as determined by RT-PCR: occurrence of mixed P type infections. Mascarenhas JD, et al. **J Diarrhoeal Dis Res** 1998 Mar;16(1):8-14
Rotavirus G and P types in children with acute diarrhea in Blantyre, Malawi, from 1997 to 1998: predominance of novel P[6]G8 strains. Cunliffe NA, et al. **J Med Virol** 1999 Mar;57(3):308-12
Rotavirus subgroups, G serotypes, and electrophoretypes in cases of nosocomial infantile diarrhoea in Belém, Brazil. Gusmão RH, et al. **J Trop Pediatr** 1999 Apr;45(2):81-6
Comparison of specific and random priming in the reverse transcriptase polymerase chain reaction for genotyping group A rotaviruses. Iturriza-Gomara M, et al. **J Virol Methods** 1999 Mar;78(1-2):93-103
Serotypes of human rotaviruses in 7 regions of Japan from 1984 to 1997. Zhou Y, et al. **Kansenshogaku Zasshi** 1999 Jan;73(1):35-42
Characterization by polymerase chain reaction of ruminant rotaviruses isolated in Italy. Pratelli A, et al. **New Microbiol** 1999 Apr;22(2):105-9
Rotavirus serotype G5: an emerging cause of epidemic childhood diarrhea [letter] Gouvea V, et al. **Vaccine** 1999 Mar 17;17(11-12):1291-2
Genetic and antigenic characterization of a serotype P[6]G9 human rotavirus strain isolated in the United States. Kirkwood CD, et al. **Virology** 1999 Mar 30;256(1):45-53
[Important factors in rotavirus infections] Dupont C. **Arch Pediatr** 1999;6 Suppl 2:327s-329s **(Fre)**
[Prevalence of subgroups, serotypes, and electropherotypes of human rotavirus in Cumanaá, Venezuela] Maldonado AJ, et al. **Invest Clin** 1998 Sep;39(3):39-51 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

A high-Mr glycoprotein fraction from cow's milk potent in inhibiting replication of human rotavirus in vitro. Kanamaru Y, et al. **Biosci Biotechnol Biochem** 1999 Jan; 63(1):246-9
Effect of prostaglandin A and tunicamycin on rotavirus assembly [letter; comment] Suzuki H, et al. **J Infect Dis** 1999 Feb;179(2):522. Comment on: J Infect Dis 1998 Aug;178(2):564-8.
An in vitro study of theaflavins extracted from black tea to neutralize bovine rotavirus and bovine coronavirus infections. Clark KJ, et al. **Vet Microbiol** 1998 Oct; 63(2-4):147-57

GENETICS

Characterization of a rotavirus rearranged gene 11 by gene reassortment. Chnaiderman J, et al. **Arch Virol** 1998; 143(9):1711-22
Rotavirus strains bearing the VP4P[14] genotype recovered from South African children with diarrhoea. Mphahlele MJ, et al. **Arch Virol** 1999;144(5):1027-34
Analysis on reassortment of rotavirus NSP1 genes lacking coding region for cysteine-rich zinc finger motif. Okada J, et al. **Arch Virol** 1999;144(2):345-53
Functional analysis of the heterologous NSP1 genes in the genetic background of simian rotavirus SA11. Okada J, et al. **Arch Virol** 1999;144(7):1439-49
Synthesis of rotavirus-like particles in insect cells: comparative and quantitative analysis. Jiang B, et al. **Biotechnol Bioeng** 1998 Nov 5;60(3):369-74
Monitoring rotavirus environmental contamination in a pediatric unit using polymerase chain reaction. Soule H, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):432-4
Nucleotide sequence of the VP7 gene of human rotavirus isolated in Calcutta, India: possible emergence of a new subtype of serotype I. Chakladar A, et al. **Intervirology** 1998;41(2-3):127-31
Identification of human rotavirus strains with the P[14] genotype by PCR. Arista S, et al. **J Clin Microbiol** 1999 Aug;37(8):2706-8
Isolation of a human rotavirus strain with a super-short RNA pattern and a new P2 subtype. Nakagomi T, et al. **J Clin Microbiol** 1999 Apr;37(4):1213-6
VP4 and VP7 genotyping of rotavirus samples recovered from infected children in Ireland over a 3-year period. O'Mahony J, et al. **J Clin Microbiol** 1999 Jun; 37(6):1699-703
Detection of porcine rotavirus type G9 and of a mixture of types G1 and G5 associated with Wa-like VP4 specificity: evidence for natural human-porcine genetic reassortment. Santos N, et al. **J Clin Microbiol** 1999 Aug; 37(8):2734-6
Evidence of high-frequency genomic reassortment of group A rotavirus strains in Bangladesh: emergence of type G9 in 1995. Unicomb LE, et al. **J Clin Microbiol** 1999 Jun; 37(6):1885-91
Genetic and antigenic variation of capsid protein VP7 of serotype G1 human rotavirus isolates. Diwakarla CS, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):341-4
Sequence analysis and in vitro expression of genes 6 and 11 of an ovine group B rotavirus isolate, KB63: evidence for a non-defective, C-terminally truncated NSP1 and a phosphorylated NSP5. Shen S, et al. **J Gen Virol** 1999 Aug; 80 (Pt 8):2077-85
Sequence analysis of VP1 and VP7 genes suggests occurrence of a reassortant of G2 rotavirus responsible for an epidemic of gastroenteritis. Zao CL, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1407-15
Epidemiological study of the G serotype distribution of group A rotaviruses in Kenya from 1991 to 1994. Nakata S, et al. **J Med Virol** 1999 Jul;58(3):296-303
Comparison of specific and random priming in the reverse transcriptase polymerase chain reaction for genotyping group A rotaviruses. Iturriza-Gomara M, et al. **J Virol Methods** 1999 Mar;78(1-2):93-103
Genetic variation in the VP4 and NSP4 genes of human rotavirus serotype 3 (G3 type) isolated in China and Japan. Cao XR, et al. **Microbiol Immunol** 1999;43(2):171-5
Relationship among serotype G3P5A rotavirus strains isolated from different host species. Santos N, et al. **Mol Cell Probes** 1998 Dec;12(6):379-86
Characterization by polymerase chain reaction of ruminant rotaviruses isolated in Italy. Pratelli A, et al. **New Microbiol** 1999 Apr;22(2):105-9
Genetic and antigenic characterization of a serotype P[6]G9 human rotavirus strain isolated in the United States. Kirkwood CD, et al. **Virology** 1999 Mar 30;256(1):45-53
Comparisons of nucleotide and deduced amino acid sequences of NSP4 genes of virulent and attenuated pairs of group A and C rotaviruses. Chang KO, et al. **Virus Genes** 1999;18(3):229-33
Sequence analysis of the gene encoding VP4 of a bovine group C rotavirus: molecular evidence for a new P genotype. Jiang B, et al. **Virus Genes** 1999;19(1):85-8
Identification of two lineages (WA-like and F45-like) within the major rotavirus genotype P[8]. Gouvea V, et al. **Virus Res** 1999 Feb;59(2):141-7
[VP4 protein of simian rotavirus strain SA11 expressed by a baculovirus recombinant] Sun M, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):48-53 (Eng. Abstr.) **(Chi)**

GROWTH & DEVELOPMENT

Rotavirus RNA-binding protein NSP3 interacts with eIF4GI and evicts the poly(A) binding protein from eIF4F. Piron M, et al. **EMBO J** 1998 Oct 1;17(19):5811-21
Attachment and growth of human rotaviruses RV-3 and S12/85 in Caco-2 cells depend on VP4. Kirkwood CD, et al. **J Virol** 1998 Nov;72(11):9348-52

IMMUNOLOGY

Rotavirus Gastroenteritis in Europe. Proceedings of the Workshop on Rotavirus Surveillance in Europe. Geneva, 28-29 October 1996. **Acta Paediatr Suppl** 1999 Jan; 88(426):1-76
First rotavirus vaccine licensed: is there really a need? Glass RI, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):2-8 (47 ref.)
Rotavirus vaccine studies in Europe. Vesikari T. **Acta Paediatr Suppl** 1999 Jan;88(426):9-13 (45 ref.)
FDA licenses rotavirus vaccine for infants [news] **Am J Health Syst Pharm** 1998 Nov 1;55(21):2226, 2228
Rotavirus vaccines: development and use for the prevention of diarrhoeal disease. Vesikari T. **Ann Med** 1999 Feb; 31(1):79-85 (51 ref.)
Intussusception among recipients of rotavirus vaccine--US, 1998-1999 [news] **Ann Pharmacother** 1999 Sep;33(9):1020-1
Tetravalent rotavirus vaccine. Wandstrat TL, et al. **Ann Pharmacother** 1999 Jul-Aug;33(7-8):833-9 (26 ref.)
Rotavirus: a new vaccine for the UK? Ramsay M. **Arch Dis Child** 1999 Aug;81(2):101-2
Longitudinal studies of neutralizing antibody responses to rotavirus in stools and sera of children following severe rotavirus gastroenteritis. Coulson BS. **Clin Diagn Lab Immunol** 1998 Nov;5(6):897-901
Development of a fluorescent focus identification assay using serotype-specific monoclonal antibodies for detection and quantitation of rotaviruses in a tetravalent rotavirus vaccine. Yang DP, et al. **Clin Diagn Lab Immunol** 1998 Nov;5(6):780-3
Economic evaluation of rotavirus vaccinations in Finland: randomized, double-blind, placebo-controlled trial of tetravalent rhesus rotavirus vaccine. Takala AK, et al. **Clin Infect Dis** 1998 Aug;27(2):272-82
The rotavirus vaccine. Offit PA, et al. **Curr Opin Pediatr** 1999 Feb;11(1):9-13 (39 ref.)
Cross immunity and vaccination against multiple microparasite strains. White LJ, et al. **IMA J Math Appl Med Biol** 1998 Sep;15(3):211-33
Recombinant human monoclonal Fab fragments against rotavirus from phage display combinatorial libraries. Itoh K, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):123-9

ROTAVIRUS

Enzyme-linked immunosorbent assay based on recombinant human group C rotavirus inner capsid protein (VP6) To detect human group C rotaviruses in fecal samples. James VL, et al. **J Clin Microbiol** 1998 Nov;36(11):3178-81

The rotavirus vaccine. Offit PA. **J Clin Virol** 1998 Dec; 11(3):155-9 (31 ref.)

Effect of heat treatment on anti-rotavirus activity of bovine colostrum. Mainer G, et al. **J Dairy Res** 1999 Feb; 66(1):131-7

Universal rotavirus immunizations: should rotavirus vaccine be recommended for universal use? An opposing view. Ganiats TG. **J Fam Pract** 1999 Feb;48(2):147-8

Universal rotavirus immunizations: should rotavirus vaccine be recommended for universal use? An affirmative view. Zimmerman RK. **J Fam Pract** 1999 Feb;48(2):146-7

Genetic and antigenic variation of capsid protein VP7 of serotype G1 human rotavirus isolates. Diwakarla CS, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):341-4

Serum and intestinal isotype antibody responses to Wa human rotavirus in gnotobiotic pigs are modulated by maternal antibodies. Parreño V, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1417-28

Serum and intestinal isotype antibody responses and correlates of protective immunity to human rotavirus in a gnotobiotic pig model of disease. Tô TL, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2661-72

The memory B cell subset responsible for the secretory IgA response and protective humoral immunity to rotavirus expresses the intestinal homing receptor, alpha4beta7. Williams MB, et al. **J Immunol** 1998 Oct 15;161(8):4227-35

Effect of rhesus rotavirus vaccine on enteric adenovirus--associated diarrhea in children. Pang XL, et al. **J Pediatr Gastroenterol Nutr** 1999 Sep;29(3):366-9

Antibody-independent protection against rotavirus infection of mice stimulated by intranasal immunization with chimeric VP4 or VP6 protein. Choi AH, et al. **J Virol** 1999 Sep;73(9):7574-81

Subunit rotavirus vaccine administered parenterally to rabbits induces active protective immunity. Ciarlet M, et al. **J Virol** 1998 Nov;72(11):9233-46

Heterotypic protection and induction of a broad heterotypic neutralization response by rotavirus-like particles. Crawford SE, et al. **J Virol** 1999 Jun;73(6):4813-22

Effects of maternal antibodies on protection and development of antibody responses to human rotavirus in gnotobiotic pigs. Hodgins DC, et al. **J Virol** 1999 Jan;73(1):186-97

Antibody-dependent and -independent protection following intranasal immunization of mice with rotavirus particles. McNeal MM, et al. **J Virol** 1999 Sep;73(9):7565-73

Development of a rapid and sensitive quantitative assay for rotavirus based on flow cytometry. Barardi CR, et al. **J Virol Methods** 1998 Sep;74(1):31-8

From the Centers for Disease Control and Prevention. Intussusception among recipients of rotavirus vaccine--United States, 1998-1999. **JAMA** 1999 Aug 11; 282(6):520-1

From the Centers for Disease Control and Prevention. Recommended childhood immunization schedule--United States, 1999. **JAMA** 1999 Feb 17;281(7):601-3

Rotavirus vaccination and intussusception [letter] Gay N, et al. **Lancet** 1999 Sep 11;354(9182):956

Rotavirus vaccine for the prevention of rotavirus gastroenteritis among children. Recommendations of the Advisory Committee on Immunization Practices (ACIP). **MMWR Morb Mortal Wkly Rep** 1999 Mar 19; 48(RR-2):1-20

Recommended childhood immunization schedule--United States, 1999. **MMWR Morb Mortal Wkly Rep** 1999 Jan 15;48(1):12-6

Intussusception among recipients of rotavirus vaccine--United States, 1998-1999. **MMWR Morb Mortal Wkly Rep** 1999 Jul 16;48(27):577-81

Oral tetravalent rotavirus vaccine can be successfully coadministered with oral poliovirus vaccine and a combined diphtheria, tetanus, pertussis and Haemophilus influenzae type b vaccine. US Rhesus Rotavirus Vaccine Study Group. Markwick AJ, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):913-8

Human calicivirus-associated sporadic gastroenteritis in Finnish children less than two years of age followed prospectively during a rotavirus vaccine trial. Pang XL, et al. **Pediatr Infect Dis J** 1999 May;18(5):420-6

Lack of an apparent association between intussusception and wild or vaccine rotavirus infection. Rennels MB, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):924-5

Prevention of rotavirus disease: guidelines for use of rotavirus vaccine. American Academy of Pediatrics. **Pediatrics** 1998 Dec;102(6):1483-91

Comparative structural analysis of transcriptionally competent and incompetent rotavirus-antibody complexes. Lawton JA, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5428-33

Current status and future priorities for rotavirus vaccine development, evaluation and implementation in developing countries. Bresee JS, et al. **Vaccine** 1999 May 4; 17(18):2207-22 (148 ref.)

Safety and immunogenicity of live attenuated human-bovine (UK) reassortant rotavirus vaccines with VP7-specificity for serotypes 1, 2, 3 or 4 in adults, children and infants. Clements-Mann ML, et al. **Vaccine** 1999 Jun 4; 17(20-21):2715-25

The current status of the rotavirus vaccine. Jacobson RM. **Vaccine** 1999 Mar 26;17(13-14):1690-9 (150 ref.)

Heterotypic protection from rotavirus infection in mice vaccinated with virus-like particles. Jiang B, et al. **Vaccine** 1999 Feb 26;17(7-8):1005-13

Antibody responses and protection stimulated by sequential oral-parenteral immunization of mice with rotavirus. McNeal MM, et al. **Vaccine** 1999 Feb 26;17(7-8):639-45

Effects of different adjuvants on rotavirus antibody responses and protection in mice following intramuscular immunization with inactivated rotavirus. McNeal MM, et al. **Vaccine** 1999 Mar 17;17(11-12):1573-80

Biochemical and immunologic comparison of virus-like particles for a rotavirus subunit vaccine. Madore HP, et al. **Vaccine** 1999 May 14;17(19):2461-71

Bacterial expression of the major antigenic regions of porcine rotavirus VP7 induces a neutralizing immune response in mice. Wang L, et al. **Vaccine** 1999 Jun 4;17(20-21):2636-45

Studies with an inactivated pheasant rotavirus vaccine [letter] Gough RE, et al. **Vet Rec** 1999 Apr 10;144(15):423-4

Rotavirus-specific cytotoxic T lymphocytes recognize overlapping epitopes in the amino-terminal region of the VP7 glycoprotein. Buesa J, et al. **Virology** 1999 May 10; 257(2):424-37

Particle-bombardment-mediated DNA vaccination with rotavirus VP4 or VP7 induces high levels of serum rotavirus IgG but fails to protect mice against challenge. Choi AH, et al. **Virology** 1998 Oct 10;250(1):230-40

Immune responses and protection obtained by oral immunization with rotavirus VP4 and VP7 DNA vaccines encapsulated in microparticles. Herrmann JE, et al. **Virology** 1999 Jun 20;259(1):148-53

New vaccines for infectious diseases. Waterman S, et al. **West J Med** 1998 Dec;169(6):370-1

Rotavirus vaccines. **Wkly Epidemiol Rec** 1999 Feb 5; 74(5):33-8 **(Eng, Fre)**

[Rotavirus vaccines] Gault E, et al. **Arch Pediatr** 1999;6 Suppl 3:639s-642s (15 ref.) **(Fre)**

[Rotavirus vaccines as a model vaccine against enteric viral infections] Nakagomi O, et al. **Uirusu** 1998 Dec; 48(2):189-200 (68 ref.) **(Jpn)**

[Vaccine against rotavirus] Pérez-Trallero E, et al. **Enferm Infecc Microbiol Clin** 1998 Aug-Sep;16(7):334-8 (52 ref.) (Eng. Abstr.) **(Spa)**

ISOLATION & PURIFICATION

Group A rotavirus as a cause of neonatal calf enteritis in Sweden. de Verdier Klingenberg K, et al. **Acta Vet Scand** 1998;39(2):195-9

Characterization of unusual G8 rotavirus strains isolated from Egyptian children. Holmes JL, et al. **Arch Virol** 1999; 144(7):1381-96

Human group C rotavirus in children with diarrhea in the Federal District, Brazil. Teixeira JM, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1397-403

Rotavirus G-type restriction, persistence, and herd type specificity in Swedish cattle herds. de Verdier Klingenberg K, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):181-5

Development of a fluorescent focus identification assay using serotype-specific monoclonal antibodies for detection and quantitation of rotaviruses in a tetravalent rotavirus vaccine. Yang DP, et al. **Clin Diagn Lab Immunol** 1998 Nov;5(6):780-3

Flow cytometry and RT-PCR for rotavirus detection in artificially seeded oyster meat. Barardi CR, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):9-18

Improvement of the specificity of enzyme immunoassays for the detection of rotavirus and adenovirus in fecal specimens. Rabenau H, et al. **Intervirology** 1998; 41(2-3):55-62

Comparison of enzyme immunoassay and reverse transcriptase PCR for identification of serotype G9 rotaviruses. Coulson BS, et al. **J Clin Microbiol** 1999 Oct; 37(10):3187-93

Evaluation of the ImmunoCardSTAT! rotavirus assay for detection of group A rotavirus in fecal specimens. Dennehy PH, et al. **J Clin Microbiol** 1999 Jun;37(6):1977-9

Detection and characterization of novel rotavirus strains in the United States [letter; comment] Gouvea V, et al. **J Clin Microbiol** 1999 Jul;37(7):2385-6. Comment on: J Clin Microbiol 1994 Jul;32(7):1820-2. Comment on: J Clin Microbiol 1998 Nov;36(11):3223-9.

Enzyme-linked immunosorbent assay based on recombinant human group C rotavirus inner capsid protein (VP6) To detect human group C rotaviruses in fecal samples. James VL, et al. **J Clin Microbiol** 1998 Nov;36(11):3178-81

Characterization of group C rotaviruses associated with diarrhea outbreaks in feeder pigs. Kim Y, et al. **J Clin Microbiol** 1999 May;37(5):1484-8

Rotaviruses detected by reverse transcription polymerase chain reaction in acute gastroenteritis during a trial of rhesus-human reassortant rotavirus tetravalent vaccine: implications for vaccine efficacy analysis. Pang XL, et al. **J Clin Virol** 1999 Jun;13(1-2):9-16

Evaluation of quantitative latex agglutination for detection of Cryptosporidium parvum, E. coli K99, and rotavirus in calf feces. Nussbaum DJ, et al. **J Vet Diagn Invest** 1999 Jul;11(4):314-8

Culture amplification in human colon adenocarcinoma cell line (CaCo-2) combined with an ELISA as a supplementary assay for accurate diagnosis of rotavirus. Cumino AC, et al. **J Virol Methods** 1998 Dec;76(1-2):81-5

The CNS symptoms of rotavirus infections under the age of two. Schumacher RF, et al. **Klin Padiatr** 1999 Mar-Apr; 211(2):61-4

Emergence of adult diarrhoea rotavirus in Calcutta, India [letter] Krishnan T, et al. **Lancet** 1999 Jan 30; 353(9150):380-1

In vitro studies on the use of clay, clay minerals and charcoal to adsorb bovine rotavirus and bovine coronavirus. Clark KJ, et al. **Vet Microbiol** 1998 Oct;63(2-4):137-46

[Use of a fast test to detect rotavirus in feces] Otto P, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct; 110(10):397-400 (Eng. Abstr.) **(Ger)**

[The role of rotaviruses in digestive tract infections of hospitalized children with diarrhoea at the Health Care Consortium in Sokol Podlaski] Niemińska-Gromada B, et al. **Med Dosw Mikrobiol** 1998;50(1-2):77-87 (Eng. Abstr.) **(Pol)**

METABOLISM

Rotavirus NSP5 phosphorylation is up-regulated by interaction with NSP2. Afrikanova I, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2679-86

A new cysteine in rotavirus VP4 participates in the formation of an alternate disulfide bond. Cuadras MA, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2673-7

Two non-structural rotavirus proteins, NSP2 and NSP5, form viroplasm-like structures in vivo. Fabbretti E, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):333-9

The molecular chaperone calnexin interacts with the NSP4 enterotoxin of rotavirus in vivo and in vitro. Mirazimi A, et al. **J Virol** 1998 Nov;72(11):8705-9

RNA-binding and capping activities of proteins in rotavirus open cores. Patton JT, et al. **J Virol** 1999 Feb;73(2):1382-91

Identification of the RNA-binding, dimerization, and eIF4GI-binding domains of rotavirus nonstructural protein NSP3. Piron M, et al. **J Virol** 1999 Jul;73(7):5411-21

PATHOGENICITY

Development of a heterologous model in germfree suckling rats for studies of rotavirus diarrhea. Guerin-Danan C, et al. **J Virol** 1998 Nov;72(11):9298-302

Attachment and growth of human rotaviruses RV-3 and S12/85 in Caco-2 cells depend on VP4. Kirkwood CD, et al. **J Virol** 1998 Nov;72(11):9348-52

Structure and function of a ganglioside receptor for porcine rotavirus. Rolsma MD, et al. **J Virol** 1998 Nov; 72(11):9079-91

BiP (GRP78) and endoplasmin (GRP94) are induced following rotavirus infection and bind transiently to an endoplasmic reticulum-localized virion component. Xu A, et al. **J Virol** 1998 Dec;72(12):9865-72

Prevalence of calf diarrhea caused by bovine group A rotavirus carrying G serotype 8 specificity. Fukai K, et al. **Vet Microbiol** 1999 May;66(4):301-11

Diarrhea induction by rotavirus NSP4 in the homologous mouse model system. Horie Y, et al. **Virology** 1999 Sep 30;262(2):398-407

PHYSIOLOGY

A high-Mr glycoprotein fraction from cow's milk potent in inhibiting replication of human rotavirus in vitro. Kanamaru Y, et al. **Biosci Biotechnol Biochem** 1999 Jan; 63(1):246-9

Human and most animal rotavirus strains do not require the presence of sialic acid on the cell surface for efficient infectivity. Ciarlet M, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):943-8

Rotavirus capsid protein VP5* permeabilizes membranes. Denisova E, et al. **J Virol** 1999 Apr;73(4):3147-53

Characterization of a membrane calcium pathway induced by rotavirus infection in cultured cells. Pérez JF, et al. **J Virol** 1999 Mar;73(3):2481-90

Structure and function of a ganglioside receptor for porcine rotavirus. Rolsma MD, et al. **J Virol** 1998 Nov; 72(11):9079-91

ROTAVIRUS INFECTIONS

Rotavirus diarrhea. Bclhorn T. **Curr Probl Pediatr** 1999 Aug; 29(7):198-207 (97 ref.)

Ruth Bishop: rotaviruses and vaccines [interview by Amanda Tattam] Bishop R. **Lancet** 1999 May 29;353(9167):1860

Rotavirus vaccine for the prevention of rotavirus gastroenteritis among children. Recommendations of the Advisory Committee on Immunization Practices (ACIP). **MMWR Morb Mortal Wkly Rep** 1999 Mar 19; 48(RR-2):1-20

[Rotavirus infection] Tajima T. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):34-7 (14 ref.) **(Jpn)**

[Rotavirus vaccines as a model vaccine against enteric viral infections] Nakagomi O, et al. **Uirusu** 1998 Dec; 48(2):189-200 (68 ref.) **(Jpn)**

COMPLICATIONS

Is prolonged rotavirus infection a common cause of protracted diarrhoea? Sood M, et al. **Arch Dis Child** 1999 Apr;80(4):309-10

Is prolonged rotavirus infection a common cause of protracted diarrhoea? [letter] Walker-Smith JA, et al. **Arch Dis Child** 1999 Aug;81(2):189

Neonatal hypocalcaemia associated with rotavirus diarrhoea. Foldenauer A, et al. **Eur J Pediatr** 1998 Oct;157(10):838–42

Encephalopathy associated with haemophagocytic lymphohistiocytosis following rotavirus infection. Takahashi S, et al. **Eur J Pediatr** 1999 Feb;158(2):133–7 (23 ref.)

Prevalence of rotavirus diarrhoea among hospitalized children in Pune, India. Kelkar SD, et al. **Indian J Med Res** 1999 Apr;109:131–5

Rotavirus infection and rates of hospitalisation for acute gastroenteritis in young children in Australia, 1993–1996 [letter; comment] Holmes WR. **Med J Aust** 1999 Feb 15; 170(4):189–90. Comment on: Med J Aust 1998 Sep 7;169(5):252–6.

Gianotti–Crosti syndrome related to rotavirus infection [letter] Di Lernia V. **Pediatr Dermatol** 1998 Nov–Dec; 15(6):485–6

Lack of an apparent association between intussusception and wild or vaccine rotavirus infection. Rennels MB, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):924–5

[Rotavirus infection associated with adult thrombotic microangiopathy] Klisnick A, et al. **Presse Med** 1999 Jul 3–10;28(24):1287–9 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

Acute gastroenteritis in children. Sturmberg JP, et al. **Aust Fam Physician** 1999 Apr;28(4):329–32 (8 ref.)

Human group C rotavirus in children with diarrhea in the Federal District, Brazil. Teixeira JM, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1397–403

Evaluation of the ImmunoCardSTAT! rotavirus assay for detection of group A rotavirus in fecal specimens. Dennehy PH, et al. **J Clin Microbiol** 1999 Jun;37(6):1977–9

Enzyme-linked immunosorbent assay based on recombinant human group C rotavirus inner capsid protein (VP6) To detect human group C rotaviruses in fecal samples. James VL, et al. **J Clin Microbiol** 1998 Nov;36(11):3178–81

Evidence of high-frequency genomic reassortment of group A rotavirus strains in Bangladesh: emergence of type G9 in 1995. Unicomb LE, et al. **J Clin Microbiol** 1999 Jun; 37(6):1885–91

Culture amplification in human colon adenocarcinoma cell line (CaCo–2) combined with an ELISA as a supplementary assay for accurate diagnosis of rotavirus. Cumino AC, et al. **J Virol Methods** 1998 Dec;76(1–2):81–5

The CNS symptoms of rotavirus infections under the age of two. Schumacher RF, et al. **Klin Padiatr** 1999 Mar–Apr; 211(2):61–4

Emergence of adult diarrhoea rotavirus in Calcutta, India [letter] Krishnan T, et al. **Lancet** 1999 Jan 30; 353(9150):380–1

Rotavirus associated with poliomyelitis–like syndrome. Chou IC, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):930–1

[Children hospitalized with acute gastroenteritis. II. No relation between clinical symptoms and causative agents isolated from feces] Tjon A Ten WE. **Ned Tijdschr Geneeskd** 1999 Feb 6;143(6):306–8 (Eng. Abstr.) **(Dut)**

[Evaluation of the effectiveness of substance for diagnosing rotaviral infection under field conditions] Karpovich LG, et al. **Vopr Virusol** 1999 Mar–Apr;44(2):82–5 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Successful treatment of rotavirus diarrhea in children with immunoglobulin from immunized bovine colostrum. Sarker SA, et al. **Pediatr Infect Dis J** 1998 Dec;17(12):1149–54

[Progress in the study on the treatment of rotaviral enteritis with traditional Chinese medicine] Xu WC, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Aug; 17(8):511–2 (17 ref.) **(Chi)**

EPIDEMIOLOGY

Occurrence and impact of community–acquired and nosocomial rotavirus infections––a hospital–based study over 10 y. Berner R, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):48–52

Diarrhoea–related morbidity and rotavirus infection in France. Desenclos JC, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):42–7

An estimate of the proportion of diarrhoeal disease episodes seen by general practitioners attributable to rotavirus in children under 5 y of age in England and Wales. Djuretic T, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):38–41

Incidence and estimates of the disease burden of rotavirus in Sweden. Johansen K, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):20–3

Seasonality and diversity of Group A rotaviruses in Europe. Koopmans M, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):14–9 (37 ref.)

Epidemiology of rotavirus infections in The Netherlands. Koopmans M, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):31–7

Epidemiology and impact of rotavirus diarrhoea in Poland. Mrukowicz JZ, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):53–60

Rotavirus infection among children with diarrhoea in Italy. Ruggeri FM, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):66–71

Burden of human rotavirus–associated hospitalizations in three geographic regions of Hungary. Szücs G, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):61–5

Rotavirus gastroenteritis in Finland: burden of disease and epidemiological features. Vesikari T, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):24–30

Impact of rotavirus disease in Spain: an estimate of hospital admissions due to rotavirus. Visser LE, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):72–6

Epidemiology of rotavirus diarrhea in Egyptian children and implications for disease control. Naficy AB, et al. **Am J Epidemiol** 1999 Oct 1;150(7):770–7

Epidemiology of rotavirus diarrhoea in Africa: a review to assess the need for rotavirus immunization. Cunliffe NA, et al. **Bull World Health Organ** 1998;76(5):525–37 (117 ref.)

Rotavirus G–type restriction, persistence, and herd type specificity in Swedish cattle herds. de Verdier Klingenberg K, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):181–5

Rotavirus diversity: what surveillance will tell us. Masendycz PJ, et al. **Commun Dis Intell** 1999 Jul 8;23(7):198–9

Prevalence of group A rotavirus, human calicivirus, astrovirus, and adenovirus type 40 and 41 infections among children with acute gastroenteritis in Dijon, France. Bon F, et al. **J Clin Microbiol** 1999 Sep;37(9):3055–8

Distribution of human rotavirus G types circulating in Paris, France, during the 1997–1998 epidemic: high prevalence of type G4. Gault E, et al. **J Clin Microbiol** 1999 Jul; 37(7):2373–5

Detection and characterization of novel rotavirus strains in the United States [letter; comment] Gouvea V, et al. **J Clin Microbiol** 1999 Jul;37(7):2385–6. Comment on: J Clin Microbiol 1994 Jul;32(7):1820–2. Comment on: J Clin Microbiol 1998 Nov;36(11):3223–9.

Relative frequencies of G and P types among rotaviruses from Indian diarrheic cow and buffalo calves. Gulati BR, et al. **J Clin Microbiol** 1999 Jun;37(6):2074–6

Detection and characterization of novel rotavirus strains in the United States [published erratum appears in J Clin Microbiol 1999 Jul;37(7):2392] [see comments] Ramachandran M, et al. **J Clin Microbiol** 1998 Nov; 36(11):3223–9. Comment in: J Clin Microbiol 1999 Jul;37(7):2385–6.

Time series and (S)ARMA models [comment] Kestens E. **J Diarrhoeal Dis Res** 1998 Jun;16(2):84–6. Comment on: J Diarrhoeal Dis Res 1998 Jun;16(2):74–83.

Time series analysis of patients with rotavirus diarrhoea in Pune, India [see comments] Purohit SG, et al. **J Diarrhoeal Dis Res** 1998 Jun;16(2):74–83. Comment in: J Diarrhoeal Dis Res 1998 Jun;16(2):84–6.

Enteropathogens and other factors associated with severe disease in children with acute watery diarrhea in Lima, Peru. Cama RI, et al. **J Infect Dis** 1999 May;179(5):1139–44

The protective effectiveness of natural rotavirus infection in an American Indian population. Moulton LH, et al. **J Infect Dis** 1998 Dec;178(6):1562–6

Epidemiological study of the G serotype distribution of group A rotaviruses in Kenya from 1991 to 1994. Nakata S, et al. **J Med Virol** 1999 Jul;58(3):296–303

Rotavirus subgroups, G serotypes, and electrophoretypes in cases of nosocomial infantile diarrhoea in Belém, Brazil. Gusmão RH, et al. **J Trop Pediatr** 1999 Apr;45(2):81–6

Rotavirus infection and rates of hospitalisation for acute gastroenteritis in young children in Australia, 1993–1996 [letter; comment] Holmes WR. **Med J Aust** 1999 Feb 15; 170(4):189–90. Comment on: Med J Aust 1998 Sep 7;169(5):252–6.

Laboratory–based surveillance for rotavirus––United States, July 1997–June 1998. **MMWR Morb Mortal Wkly Rep** 1998 Nov 20;47(45):978–80

Rotavirus vaccine. Nyquist AC. **Pediatr Ann** 1999 Aug; 28(8):533–9

Trends in hospitalization and mortality from rotavirus disease in New Zealand infants. Ardern–Holmes SL, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):614–9

Lack of an apparent association between intussusception and wild or vaccine rotavirus infection. Rennels MB, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):924–5

Perinatal risk factors for infant hospitalization with viral gastroenteritis. Newman RD, et al. **Pediatrics** 1999 Jan; 103(1):E3

Use of state hospital discharge data to assess the morbidity from rotavirus diarrhea and to monitor the impact of a rotavirus immunization program: A pilot study in Connecticut. Parashar UD, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):489–94

Infection with group C rotavirus in a suburban community in Brazil. Cox MJ, et al. **Trop Med Int Health** 1998 Nov; 3(11):891–5

Epidemiology of rotavirus in infants and protection against symptomatic illness afforded by primary infection and vaccination. Mrukowicz JZ, et al. **Vaccine** 1999 Feb 26; 17(7–8):745–53

Rotavirus vaccines. **Wkly Epidemiol Rec** 1999 Feb 5; 74(5):33–8 **(Eng, Fre)**

[Coincidental outbreaks of rotavirus and respiratory syncytial virus in Paris: a survey from 1993 to 1998] Gendrel D, et al. **Arch Pediatr** 1999 Jul;6(7):735–9 (Eng. Abstr.) **(Fre)**

[Rotavirus and other viruses of diarrhea] Bajolet O, et al. **Bull Soc Pathol Exot** 1998;91(5 Pt 1–2):432–7 (Eng. Abstr.) **(Fre)**

[The role of rotaviruses in digestive tract infections of hospitalized children with diarrhoea at the Health Care Consortium in Sokoł Podlaski] Niemińska–Gromada B, et al. **Med Dosw Mikrobiol** 1998;50(1–2):77–87 (Eng. Abstr.) **(Pol)**

[A small outbreak of rotavirus gastroenteritis in a preschool institution] Tibekin AT, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):113–4 **(Rus)**

[Effect of climatic factors on the epidemiology of rotavirus infection in children under 5 years of age in the city of Maracaibo, Venezuela] Callejas D, et al. **Invest Clin** 1999 Jun;40(2):81–94 (Eng. Abstr.) **(Spa)**

[Rotavirus infection in children seen at a greater Buenos Aires hospital] Uriarte S, et al. **Rev Argent Microbiol** 1999 Apr–Jun;31(2):87–9 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Development of a heterologous model in germfree suckling rats for studies of rotavirus diarrhea. Guerin–Danan C, et al. **J Virol** 1998 Nov;72(11):9298–302

IMMUNOLOGY

Human astrovirus–associated gastroenteritis in children under 2 years of age followed prospectively during a rotavirus vaccine trial. Pang XL, et al. **Acta Paediatr** 1999 May; 88(5):532–6

The immunology of rotavirus infection in the mouse. Rosé J, et al. **Adv Virus Res** 1998;51:203–35 (82 ref.)

Longitudinal studies of neutralizing antibody responses to rotavirus in stools and sera of children following severe rotavirus gastroenteritis. Coulson BS. **Clin Diagn Lab Immunol** 1998 Nov;5(6):897–901

Cost–effectiveness analysis of a rotavirus immunization program for the United States. Steele RW. **Clin Pediatr (Phila)** 1998 Dec;37(12):758–9

Serum and intestinal isotype antibody responses to Wa human rotavirus in gnotobiotic pigs are modulated by maternal antibodies. Parreño V, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1417–28

Serum and intestinal isotype antibody responses and correlates of protective immunity to human rotavirus in a gnotobiotic pig model of disease. Tô TL, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2661–72

The memory B cell subset responsible for the secretory IgA response and protective humoral immunity to rotavirus expresses the intestinal homing receptor, alpha4beta7. Williams MB, et al. **J Immunol** 1998 Oct 15;161(8):4227–35

Immunity to rotavirus infection in mice. Franco MA, et al. **J Infect Dis** 1999 May;179 Suppl 3:S466–9 (20 ref.)

The protective effectiveness of natural rotavirus infection in an American Indian population. Moulton LH, et al. **J Infect Dis** 1998 Dec;178(6):1562–6

Subunit rotavirus vaccine administered parenterally to rabbits induces active protective immunity. Ciarlet M, et al. **J Virol** 1998 Nov;72(11):9233–46

Measles vaccine failure and infections [letter] Bennett J, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):850

Antibody responses and protection stimulated by sequential oral–parenteral immunization of mice with rotavirus. McNeal MM, et al. **Vaccine** 1999 Feb 26;17(7–8):639–45

Epidemiology of rotavirus in infants and protection against symptomatic illness afforded by primary infection and vaccination. Mrukowicz JZ, et al. **Vaccine** 1999 Feb 26; 17(7–8):745–53

Rotavirus disease, but not infection and development of intestinal histopathological lesions, is age restricted in rabbits. Ciarlet M, et al. **Virology** 1998 Nov 25; 251(2):343–60

[Rotavirus vaccines] Gault E, et al. **Arch Pediatr** 1999;6 Suppl 3:639s–642s (15 ref.) **(Fre)**

METABOLISM

Effect of rotavirus infection on small gut pathophysiology in a mouse model. Katyal R, et al. **J Gastroenterol Hepatol** 1999 Aug;14(8):779–84

Malnutrition modifies pig small intestinal inflammatory responses to rotavirus. Zijlstra RT, et al. **J Nutr** 1999 Apr; 129(4):838–43

BiP (GRP78) and endoplasmin (GRP94) are induced following rotavirus infection and bind transiently to an endoplasmic reticulum–localized virion component. Xu A, et al. **J Virol** 1998 Dec;72(12):9865–72

Oncosis in MA104 cells is induced by rotavirus infection through an increase in intracellular Ca2+ concentration. Pérez JF, et al. **Virology** 1998 Dec 5;252(1):17–27

PHYSIOPATHOLOGY

Lack of a role for type I and type II interferons in the resolution of rotavirus–induced diarrhea and infection in mice. Angel J, et al. **J Interferon Cytokine Res** 1999 Jun; 19(6):655–9

[Important factors in rotavirus infections] Dupont C. **Arch Pediatr** 1999;6 Suppl 2:327s–329s **(Fre)**

PREVENTION & CONTROL

Human astrovirus–associated gastroenteritis in children under 2 years of age followed prospectively during a rotavirus vaccine trial. Pang XL, et al. **Acta Paediatr** 1999 May; 88(5):532–6

Rotavirus Gastroenteritis in Europe. Proceedings of the Workshop on Rotavirus Surveillance in Europe. Geneva, 28–29 October 1996. **Acta Paediatr Suppl** 1999 Jan;

88(426):1-76
First rotavirus vaccine licensed: is there really a need? Glass RI, et al. **Acta Paediatr Suppl** 1999 Jan;88(426):2-8 (47 ref.)
Epidemiology of rotavirus diarrhea in Egyptian children and implications for disease control. Naficy AB, et al. **Am J Epidemiol** 1999 Oct 1;150(7):770-7
FDA licenses rotavirus vaccine for infants [news] **Am J Health Syst Pharm** 1998 Nov 1;55(21):2226, 2228
Rotavirus vaccines: development and use for the prevention of diarrhoeal disease. Vesikari T. **Ann Med** 1999 Feb; 31(1):79-85 (51 ref.)
Intussusception among recipients of rotavirus vaccine--US, 1998-1999 [news] **Ann Pharmacother** 1999 Sep;33(9):1020-1
Tetravalent rotavirus vaccine. Wandstrat TL, et al. **Ann Pharmacother** 1999 Jul-Aug;33(7-8):833-9 (26 ref.)
Rotavirus: a new vaccine for the UK? Ramsay M. **Arch Dis Child** 1999 Aug;81(2):101-2
Economic evaluation of rotavirus vaccinations in Finland: randomized, double-blind, placebo-controlled trial of tetravalent rhesus rotavirus vaccine. Takala AK, et al. **Clin Infect Dis** 1998 Aug;27(2):272-82
Vaccination against enteric pathogens: from science to vaccine trials. Lindberg AA. **Curr Opin Microbiol** 1998 Feb;1(1):116-24 (35 ref.)
The rotavirus vaccine. Offit PA, et al. **Curr Opin Pediatr** 1999 Feb;11(1):9-13 (39 ref.)
Rotavirus. Parashar UD, et al. **Emerg Infect Dis** 1998 Oct-Dec;4(4):561-70 (52 ref.)
Getting rid of rotavirus [news] **Environ Health Perspect** 1998 Mar;106(3):A128-31
Cross immunity and vaccination against multiple microparasite strains. White LJ, et al. **IMA J Math Appl Med Biol** 1998 Sep;15(3):211-33
The rotavirus vaccine. Offit PA. **J Clin Virol** 1998 Dec; 11(3):155-9 (31 ref.)
Universal rotavirus immunizations: should rotavirus vaccine be recommended for universal use? An opposing view. Ganiats TG. **J Fam Pract** 1999 Feb;48(2):147-8
Universal rotavirus immunizations: should rotavirus vaccine be recommended for universal use? An affirmative view. Zimmerman RK. **J Fam Pract** 1999 Feb;48(2):146-7
Antibody-independent protection against rotavirus infection of mice stimulated by intranasal immunization with chimeric VP4 or VP6 protein. Choi AH, et al. **J Virol** 1999 Sep;73(9):7574-81
Subunit rotavirus vaccine administered parenterally to rabbits induces active protective immunity. Ciarlet M, et al. **J Virol** 1998 Nov;72(11):9233-46
Rotavirus vaccination and intussusception [letter] Gay N, et al. **Lancet** 1999 Sep 11;354(9182):956
Rotavirus vaccine in Japan and Australia [letter] Nakagomi O, et al. **Lancet** 1999 Apr 10;353(9160):1275
A vaccine for rotavirus. **Med Lett Drugs Ther** 1999 May 21;41(1053):50
Prevention of rotavirus disease: guidelines for use of rotavirus vaccine. American Academy of Pediatrics. **Pediatrics** 1998 Dec;102(6):1483-91
Possible association of intussusception with rotavirus vaccination. American Academy of Pediatrics. Committee on Infectious Diseases. Abramson JS, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):575
Use of state hospital discharge data to assess the morbidity from rotavirus diarrhea and to monitor the impact of a rotavirus immunization program: A pilot study in Connecticut. Parashar UD, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):489-94
New vaccines. Heins JR. **S D J Med** 1999 Jan;52(1):21-2
Heterotypic protection from rotavirus infection in mice vaccinated with virus-like particles. Jiang B, et al. **Vaccine** 1999 Feb 26;17(7-8):1005-13
Antibody responses and protection stimulated by sequential oral-parenteral immunization of mice with rotavirus. McNeal MM, et al. **Vaccine** 1999 Feb 26;17(7-8):639-45
Immune responses and protection obtained by oral immunization with rotavirus VP4 and VP7 DNA vaccines encapsulated in microparticles. Herrmann JE, et al. **Virology** 1999 Jun 20;259(1):148-53
New vaccines for infectious diseases. Waterman S, et al. **West J Med** 1998 Dec;169(6):370-1
[Vaccination against diarrheal diseases and typhoid fever. Current status and prospects] Ivanoff B, et al. **Ann Med Interne (Paris)** 1998 Oct;149(6):340-50 (54 ref.) (Eng. Abstr.) **(Fre)**
[Rotavirus vaccines] Gault E, et al. **Arch Pediatr** 1999;6 Suppl 3:639s-642s (15 ref.) **(Fre)**
[Prevention of rotavirus diarrhea by vaccination] Glass RI, et al. **Arch Pediatr** 1999;6 Suppl 2:323s-326s **(Fre)**
[Vaccines for rotavirus infections: efficacy and eventual role of vaccination programs] Ivanoff B, et al. **Arch Pediatr** 1999;6 Suppl 2:330s-331s **(Fre)**
[Trial of oral administration of Bifidobacterium breve for the prevention of rotavirus infections] Araki K, et al. **Kansenshogaku Zasshi** 1999 Apr;73(4):305-10 (Eng. Abstr.) **(Jpn)**
[Vaccine against rotavirus] Pérez-Trallero E, et al. **Enferm Infecc Microbiol Clin** 1998 Aug-Sep;16(7):334-8 (52 ref.) (Eng. Abstr.) **(Spa)**
[Rotavirus laboratory network: results after one year of observation] Bok K, et al. **Rev Argent Microbiol** 1999 Jan-Mar;31(1):1-12 (Eng. Abstr.) **(Spa)**
[The first rotavirus vaccine approved in the USA and Europe] Svensson L, et al. **Lakartidningen** 1999 Jun 30; 96(26-27):3158-60 (18 ref.) (Eng. Abstr.) **(Swe)**

THERAPY

Acute gastroenteritis in children. Sturmberg JP, et al. **Aust Fam Physician** 1999 Apr;28(4):329-32 (8 ref.)

TRANSMISSION

[Human rotavirus infection in perinatal transmission] Zhong M, et al. **Chung Hua Fu Chan Ko Tsa Chih** 1997 Dec; 32(12):735-7 (Eng. Abstr.) **(Chi)**

VETERINARY

Group A rotavirus as a cause of neonatal calf enteritis in Sweden. de Verdier Klingenberg K, et al. **Acta Vet Scand** 1998;39(2):195-9
Enteric viral infections of pigs and strategies for induction of mucosal immunity. Saif LJ. **Adv Vet Med** 1999;41:429-46 (54 ref.)
First detection of bovine group B rotavirus in Japan and sequence of its VP7 gene. Tsunemitsu H, et al. **Arch Virol** 1999;144(4):805-15
Relative frequencies of G and P types among rotaviruses from Indian diarrheic cow and buffalo calves. Gulati BR, et al. **J Clin Microbiol** 1999 Jun;37(6):2074-6
Evaluation of quantitative latex agglutination for detection of Cryptosporidium parvum, E. coli K99, and rotavirus in calf feces. Nussbaum DJ, et al. **J Vet Diagn Invest** 1999 Jul;11(4):314-8
Characterization by polymerase chain reaction of ruminant rotaviruses isolated in Italy. Pratelli A, et al. **New Microbiol** 1999 Apr;22(2):105-9
Characterisation of the primary local and systemic immune response in gnotobiotic lambs against rotavirus infection. van Pinxteren LA, et al. **Vet Immunol Immunopathol** 1998 Aug 31;64(4):349-65
An in vitro study of theaflavins extracted from black tea to neutralize bovine rotavirus and bovine coronavirus infections. Clark KJ, et al. **Vet Microbiol** 1998 Oct; 63(2-4):147-57
Prevalence of calf diarrhea caused by bovine group A rotavirus carrying G serotype 8 specificity. Fukai K, et al. **Vet Microbiol** 1999 May;66(4):301-11
Studies with an inactivated pheasant rotavirus vaccine [letter] Gough RE, et al. **Vet Rec** 1999 Apr 10;144(15):423-4
Rotavirus disease, but not infection and development of intestinal histopathological lesions, is age restricted in rabbits. Ciarlet M, et al. **Virology** 1998 Nov 25; 251(2):343-60
[Use of a fast test to detect rotavirus in feces] Otto P, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct; 110(10):397-400 (Eng. Abstr.) **(Ger)**

VIROLOGY

Interferon-alpha in viral and bacterial gastroenteritis: a comparison with C-reactive protein and interleukin-6. Mangiarotti P, et al. **Acta Paediatr** 1999 Jun;88(6):592-4
Rotavirus strains bearing the VP4P[14] genotype recovered from South African children with diarrhoea. Mphahlele MJ, et al. **Arch Virol** 1999;144(5):1027-34
Distribution of human rotavirus G types circulating in Paris, France, during the 1997-1998 epidemic: high prevalence of type G4. Gault E, et al. **J Clin Microbiol** 1999 Jul; 37(7):2373-5
VP4 and VP7 genotyping of rotavirus samples recovered from infected children in Ireland over a 3-year period. O'Mahony J, et al. **J Clin Microbiol** 1999 Jun; 37(6):1699-703
Detection and characterization of novel rotavirus strains in the United States [published erratum appears in J Clin Microbiol 1999 Jul;37(7):2392] [see comments] Ramachandran M, et al. **J Clin Microbiol** 1998 Nov; 36(11):3223-9. Comment in: J Clin Microbiol 1999 Jul;37(7):2385-6.
Rotavirus G and P types in children from Belém, northern Brazil, as determined by RT-PCR: occurrence of mixed P type infections. Mascarenhas JD, et al. **J Diarrhoeal Dis Res** 1998 Mar;16(1):8-14
Sequence analysis of VP1 and VP7 genes suggests occurrence of a reassortant of G2 rotavirus responsible for an epidemic of gastroenteritis. Zao CL, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1407-15
Comparison of specific and random priming in the reverse transcriptase polymerase chain reaction for genotyping group A rotaviruses. Iturriza-Gomara M, et al. **J Virol Methods** 1999 Mar;78(1-2):93-103
[Prevalence of subgroups, serotypes, and electropherotypes of human rotavirus in Cumanaá, Venezuela] Maldonado AJ, et al. **Invest Clin** 1998 Sep;39(3):39-51 (Eng. Abstr.) **(Spa)**

ROTENONE

METABOLISM

Interaction of alpha-phenyl-N-tert-butyl nitrone and alternative electron acceptors with complex I indicates a substrate reduction site upstream from the rotenone binding site. Hensley K, et al. **J Neurochem** 1998 Dec;71(6):2549-57

PHARMACOLOGY

Inhibitors of mitochondrial energy production prevent DNA internucleosomal fragmentation in thymocytes. Galitovsky VE, et al. **Biochemistry (Mosc)** 1998 Dec;63(12):1374-7
Rotenone and pyruvate prevent the tert-butylhydroperoxide-induced necrosis of U937 cells and allow them to proliferate. Sestili P, et al. **FEBS Lett** 1999 Aug 20;457(1):139-43
NADH: ubiquinone oxidoreductase inhibitors block induction of ornithine decarboxylase activity in MCF-7 human breast cancer cells. Rowlands JC, et al. **Pharmacol Toxicol** 1998 Nov;83(5):214-9

ROTHMUND-THOMSON SYNDROME see **POIKILODERMA CONGENITALE**

ROTIFERA

DRUG EFFECTS

Hsp60-induced tolerance in the rotifer Brachionus plicatilis exposed to multiple environmental contaminants. Wheelock CE, et al. **Arch Environ Contam Toxicol** 1999 Apr; 36(3):281-7

GENETICS

Isolation and characterization of microsatellite loci in a cyclically parthenogenetic rotifer, Brachionus plicatilis. Gómez A, et al. **Mol Ecol** 1998 Nov;7(11):1619-21

GROWTH & DEVELOPMENT

Combined effects of Chlorella density and methyl parathion concentration on the population growth of Brachionus calyciflorus (Rotifera). Gama Flores JL, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):769-75
Growth differences in cultured populations of Brachionus plicatilis Müller caused by heavy metal stress as function of microalgal diet. Moreno-Garrido I, et al. **Bull Environ Contam Toxicol** 1999 Sep;63(3):392-8

ROTOR SYNDROME see **HYPERBILIRUBINEMIA, HEREDITARY**

ROUGET CELLS see **PERICYTES**

ROUGH-TOOTHED DOLPHIN see **DOLPHINS**

ROUGHAGE see **DIETARY FIBER**

ROUND LIGAMENT

Leiomyoma of the round ligament in a postmenopausal woman. Lösch A, et al. **Maturitas** 1999 Jan 4;31(2):133-5

ABNORMALITIES

Left-sided gallbladder on the basis of a right-sided round ligament. Fujita N, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1482-4

INJURIES

Partial detachment of round ligament found at laparoscopy for chronic pelvic pain in a female adolescent. Baraldi R, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):189-90

PATHOLOGY

MRI of round ligament leiomyoma associated with Mayer-Rokitansky-Kuster-Hauser syndrome. Rhee CS, et al. **Abdom Imaging** 1999 Mar-Apr;24(2):202-4
Ovary in hernia sac: prolapsed or a descended gonad? Ozbey H, et al. **J Pediatr Surg** 1999 Jun;34(6):977-80

ROUND WINDOW

Direct round window membrane application of gentamicin in the treatment of Meniere's disease. Silverstein H, et al. **Otolaryngol Head Neck Surg** 1999 May;120(5):649-55

ANATOMY & HISTOLOGY

[Variability of the round window niche entry in children and adults] Wysocki J. **Otolaryngol Pol** 1998;52(4):463-6 (Eng. Abstr.) **(Pol)**

DRUG EFFECTS

Ototoxicity of sodium nitroprusside is not due to nitric oxide. Ruan RS, et al. **Exp Neurol** 1999 Jul;158(1):192-201
Round window administration of gentamicin: a new method for the study of ototoxicity of cochlear hair cells. Hussmann KR, et al. **Hear Res** 1998 Nov;125(1-2):109-19
Responses of auditory nerve fibers innervating regenerated hair cells after local application of gentamicin at the round window of the cochlea in the pigeon. Müller M, et al. **Hear Res** 1999 May;131(1-2):153-69
Experimental model of cisplatin ototoxicity in chinchillas. Janning MH, et al. **Otolaryngol Head Neck Surg** 1998 Dec; 119(6):574-80

INJURIES

Combined rupture of Reissner's membrane and round window: an experimental study in guinea pigs: experimental

double-membrane rupture. Kobayashi T, et al. **Am J Otol** 1999 Mar;20(2):179–82

[Round window membrane defect in divers] Böhm F, et al. **Laryngorhinootologie** 1999 Apr;78(4):169–75 (50 ref.) (Eng. Abstr.) **(Ger)**

METABOLISM

Regulation of inner ear fluid in the guinea pig cochlea after the application of saturated NaCl solution to the round window membrane. Hisashi K, et al. **Eur Arch Otorhinolaryngol** 1999;256 Suppl 1:S2–5

PATHOLOGY

Combined rupture of Reissner's membrane and round window: an experimental study in guinea pigs: experimental double-membrane rupture. Kobayashi T, et al. **Am J Otol** 1999 Mar;20(2):179–82

Mesothelial cell proliferation in the scala tympani: a reaction to the rupture of the round window membrane. Sone M. **Nagoya J Med Sci** 1998 Oct;61(3–4):125–30

PHYSIOLOGY

Involvement of round and oval windows in the vestibular response to pressure changes in the middle ear of guinea pigs. Suzuki M, et al. **Acta Otolaryngol (Stockh)** 1998 Sep; 118(5):712–6

ROUS-ASSOCIATED VIRUS see **LEUKOSIS VIRUS, AVIAN**

ROUS SARCOMA see **SARCOMA, AVIAN**

ROUS SARCOMA VIRUS see **SARCOMA VIRUSES, AVIAN**

ROUSSY-LEVY SYNDROME see **CHARCOT-MARIE DISEASE**

ROUTINE DIAGNOSTIC TESTS see **DIAGNOSTIC TESTS, ROUTINE**

ROUX-EN-Y ANASTOMOSIS see **ANASTOMOSIS, ROUX-EN-Y**

ROUX-EN-Y DIVERSION see **ANASTOMOSIS, ROUX-EN-Y**

ROUX-EN-Y LOGP see **ANASTOMOSIS, ROUX-EN-Y**

ROWSON-PARR VIRUS see **FRIEND VIRUS**

ROXARSONE

PHARMACOLOGY

Effects of dietary roxarsone supplementation, lighting program, and season on the incidence of leg abnormalities in broiler chickens. Laster CP, et al. **Poult Sci** 1999 Feb; 78(2):197–203

ROXITHROMYCIN

ADMINISTRATION & DOSAGE

A new quadruple therapy for Helicobacter pylori: influence of resistant strains on treatment outcome. Okada M, et al. **Aliment Pharmacol Ther** 1999 Jun;13(6):769–74

Treatment with the antibiotic roxithromycin in patients with acute non-Q-wave coronary syndromes. The final report of the ROXIS Study [see comments] Gurfinkel E, et al. **Eur Heart J** 1999 Jan;20(2):121–7. Comment in: Eur Heart J 1999 Jan;20(2):89–92.

ADVERSE EFFECTS

[Parietal abdominal hematoma after combined acenocoumarol and roxithromycin treatment (letter)] Chassany O, et al. **Presse Med** 1998 Jun 20;27(22):1103 **(Fre)**

BLOOD

Determination of roxithromycin in human plasma by high-performance liquid chromatography with spectrophotometric detection. Macek J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):233–8

METABOLISM

Formation in vitro of an inhibitory cytochrome P450 x Fe2+-metabolite complex with roxithromycin and its decladinosyl, O-dealkyl and N-demethyl metabolites in rat liver microsomes. Yamazaki H, et al. **Xenobiotica** 1998 Oct; 28(10):995–1004

PHARMACOKINETICS

Characteristic difference in gastrointestinal excretion of clarithromycin and roxithromycin. Arimori K, et al. **Biopharm Drug Dispos** 1998 Oct;19(7):433–8

PHARMACOLOGY

Roxythromycin reinforces epithelial defence function in rabbit trachea. Nakano T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:233–8

Effect of roxithromycin on IL-8 synthesis and proliferation of nasal polyp fibroblasts. Nonaka M, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:71–5

Inhibition of tumor angiogenesis by roxithromycin, a 14-membered ring macrolide antibiotic. Yatsunami J, et al. **Cancer Lett** 1998 Sep 25;131(2):137–43

Inhibitory effects of roxithromycin on tumor angiogenesis, growth and metastasis of mouse B16 melanoma cells. Yatsunami J, et al. **Clin Exp Metastasis** 1999 Mar; 17(2):119–24

Comparative in vitro and in vivo efficacy of roxithromycin and erythromycin against a strain of methicillin-susceptible Staphylococcus epidermidis. Danias PG, et al. **Diagn Microbiol Infect Dis** 1998 Sep;32(1):51–4

Comparative studies of in vitro inhibition of cytochrome P450 3A4-dependent testosterone 6beta-hydroxylation by roxithromycin and its metabolites, troleandomycin, and erythromycin. Yamazaki H, et al. **Drug Metab Dispos** 1998 Nov;26(11):1053–7

A comparative investigation of the restorative effects of roxithromycin on neutrophil activities. Noma T, et al. **Int J Immunopharmacol** 1998 Nov;20(11):615–24

[Antimicrobial activities of roxithromycin against recently obtained clinical isolates] Igari J, et al. **Jpn J Antibiot** 1997 Jul;50(7):640–9 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Eradication of Helicobacter pylori with lansoprazole, roxithromycin and metronidazole--an open pilot study. Pohle T, et al. **Aliment Pharmacol Ther** 1998 Dec; 12(12):1273–8

Anti-inflammatory effect of roxithromycin in patients with aspirin-intolerant asthma. Shoji T, et al. **Clin Exp Allergy** 1999 Jul;29(7):950–6

Antibiotics for acute coronary syndromes: are we ready for megatrials? [editorial; comment] Maseri A. **Eur Heart J** 1999 Jan;20(2):89–92 (22 ref.). Comment on: Eur Heart J 1999 Jan;20(2):121–7.

Clinical and immunoregulatory effects of roxithromycin therapy for chronic respiratory tract infection. Nakamura H, et al. **Eur Respir J** 1999 Jun;13(6):1371–9

[Rehabilitation of patients with chronic purulent otitis media] Enin IP. **Vestn Otorinolaringol** 1999;(2):5–7 (Eng. Abstr.) **(Rus)**

ROYAL FREE DISEASE see **FATIGUE SYNDROME, CHRONIC**

RRNA GENES see **GENES, RRNA**

RRNA OPERON

see related

GENES, RRNA

Molecular cloning and comparative sequence analyses of rRNA operons in Streptomyces nodosus ATCC 14899. Yap WH, et al. **Gene** 1999 May 17;232(1):77–85

Specific PCR primers from the 16S-23S rRNA spacer region for the rapid detection and identification of Actinobacillus seminis. Appuhamy S, et al. **J Appl Microbiol** 1998 Dec; 85(6):941–8

Distinct types of rRNA operons exist in the genome of the actinomycete Thermomonospora chromogena and evidence for horizontal transfer of an entire rRNA operon. Yap WH, et al. **J Bacteriol** 1999 Sep;181(17):5201–9

GENETICS

Resurgent Vibrio cholerae O139: rearrangement of cholera toxin genetic elements and amplification of rrn operon. Khetawat G, et al. **Infect Immun** 1999 Jan;67(1):148–54

Mycobacterium tuberculosis rrn promoters: differential usage and growth rate-dependent control. Verma A, et al. **J Bacteriol** 1999 Jul;181(14):4326–33

Structure and organization of the rrnD operon of 'Brevibacterium lactofermentum': analysis of the 16S rRNA gene. Amador E, et al. **Microbiology** 1999 Apr;145 (Pt 4):915–24

Genotyping of Lactobacillus delbrueckii subsp. bulgaricus and determination of the number and forms of rrn operons in L. delbrueckii and its subspecies. Moschetti G, et al. **Res Microbiol** 1997 Jul-Aug;148(6):501–10

RRNA PROMOTER see **PROMOTER REGIONS (GENETICS)**

RSH SYNDROME see **SMITH-LEMLI-OPITZ SYNDROME**

RT-PCR see **REVERSE TRANSCRIPTASE POLYMERASE CHAIN REACTION**

RT7 ANTIGENS see **ANTIGENS, CD45**

RU-486 see **MIFEPRISTONE**

RUBBER

Elevated mortality from nonalcohol-related chronic liver disease among female rubber workers: is it associated with exposure to nitrosamines? Straif K, et al. **Am J Ind Med** 1999 Mar;35(3):264–71

The global ethics of latex gloves: reflections on natural resource use in healthcare. Pierce J, et al. **Camb Q Healthc Ethics** 1999 Winter;8(1):98–107

Compatibility evaluation of metered-dose inhaler valve elastomers with tetrafluoroethane (P134a), a non-CFC propellant. Tiwari D, et al. **Drug Dev Ind Pharm** 1998 Apr; 24(4):345–52

A comparative in vitro study of the frictional characteristics of two types of self-ligating brackets and two types of pre-adjusted edgewise brackets tied with elastomeric ligatures. Thomas S, et al. **Eur J Orthod** 1998 Oct; 20(5):589–96

Inexpensive, semi-automated system for measuring mechanical properties of soft tissues. Alexander DE, et al. **J Exp Zool** 1999 Sep 1;284(4):374–8

Effect of environmental stress on the ability of Listeria monocytogenes Scott A to attach to food contact surfaces. Smoot LM, et al. **J Food Prot** 1998 Oct;61(10):1293–8

Influence of environmental stress on the kinetics and strength of attachment of Listeria monocytogenes Scott A to Buna-N rubber and stainless steel. Smoot LM, et al. **J Food Prot** 1998 Oct;61(10):1286–92

Procedure to prevent cast breakage during separation from elastomeric impressions. Galindo D, et al. **J Prosthet Dent** 1999 Jan;81(1):37–8

Elastic retracted oral appliance to treat sleep apnea in mentally impaired patients and patients with neuromuscular disabilities. Yoshida K. **J Prosthet Dent** 1999 Feb; 81(2):196–201

Comparison of early deflation rate of detachable latex and silicone balloons and observations on persistent varicocele. Perälä JM, et al. **J Vasc Interv Radiol** 1998 Sep-Oct; 9(5):761–5

Powder-free protein-poor natural rubber latex gloves and latex sensitization [letter] Levy D, et al. **JAMA** 1999 Mar 17;281(11):988

Exposure to mutagenic airborne particulate in a rubber manufacturing plant. Fracasso ME, et al. **Mutat Res** 1999 Apr 26;441(1):43–51

When a rubber hand 'feels' what the real hand cannot. Rorden C, et al. **Neuroreport** 1999 Jan 18;10(1):135–8

Cancer risk in the rubber industry: a review of recent epidemiological evidence [letter; comment] Straughan JK. **Occup Environ Med** 1998 Sep;55(9):646–7. Comment on: Occup Environ Med 1998 Jan;55(1):1–12.

ADVERSE EFFECTS

Incidence rates of occupational contact urticaria caused by natural rubber latex. Jolanki R, et al. **Contact Dermatitis** 1999 Jun;40(6):329–31

Eyelid dermatitis caused by delayed-type hypersensitivity to natural rubber latex. Katoh N, et al. **Contact Dermatitis** 1999 Jun;40(6):336–7

Banana hair conditioner and natural rubber latex allergy. Smith HR, et al. **Contact Dermatitis** 1998 Oct;39(4):202

Sickness absence in a rubber plant in Poland. Szubert Z, et al. **Int J Occup Med Environ Health** 1998;11(2):179–88

Prevalence of latex sensitivity among patients with chronic renal failure--a new risk group? [letter] Kalpaklioğlu AF, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1899–900

[Sensitivity to latex and other rubber substances--an important occupational risk for health personnel (case report)] Kanceljak-Macan B, et al. **Lijec Vjesn** 1998 Jul-Aug;120(7–8):213–4 (Eng. Abstr.) **(Scr)**

CHEMISTRY

Biotechnological possibilities for waste tyre-rubber treatment. Holst O, et al. **Biodegradation** 1998;9(3–4):301–10

An investigation into the behavioural characteristics of orthodontic elastomeric modules. Dowling PA, et al. **Br J Orthod** 1998 Aug;25(3):197–202

Skeletal myogenesis on elastomeric substrates: implications for tissue engineering. Mulder MM, et al. **J Biomater Sci Polym Ed** 1998;9(7):731–48

Natural rubber base matrix containing Calendula officinalis plant as a source of molluscicdal saponin. Helaly FM, et al. **J Controlled Release** 1999 Jan 4;57(1):1–7

Effect of disinfectant agents on dimensional stability of elastomeric impression materials. Adabo GL, et al. **J Prosthet Dent** 1999 May;81(5):621–4

Butyl & Viton hand protection. Groce DF. **Occup Health Saf** 1999 Jul;68(7):42–5

Perfluorocarbon liquid manipulation of high-density intraocular foreign bodies. Sudhalkar HA, et al. **Retina** 1998;18(5):460–5

Proton residual dipolar couplings by NMR magnetization exchange in cross-linked elastomers: determination and imaging. Gasper L, et al. **Solid State Nucl Magn Reson** 1999 Jul;14(2):105–16

Selective residual dipolar couplings in cross-linked elastomers by 1H double-quantum NMR spectroscopy. Graf R, et al. **Solid State Nucl Magn Reson** 1998 Sep; 12(2–3):139–52

Characterization of cross-link density in technical elastomers by the NMR-MOUSE. Zimmer G, et al.

RUBBER

Solid State Nucl Magn Reson 1998 Sep;12(2-3):183-90

METABOLISM

Isolation, characterization, and functional analysis of a novel cDNA clone encoding a small rubber particle protein from Hevea brasiliensis. Oh SK, et al. **J Biol Chem** 1999 Jun 11;274(24):17132-8

TOXICITY

Toxicity study of a rubber antioxidant, mixture of 2-mercaptomethylbenzimidazoles, by repeated oral administration to rats. Saitoh M, et al. **Food Chem Toxicol** 1999 Jul;37(7):777-87

RUBBER ALLERGY see **LATEX ALLERGY**

RUBBER DAMS

Effect of rubber dam on mercury exposure during amalgam removal. Kremers L, et al. **Eur J Oral Sci** 1999 Jun; 107(3):202-7

Expanded polytetrafluoroethylene and dental rubber dam barrier membranes in the treatment of periodontal intrabony defects. A comparative clinical trial. Paolantonio M, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):920-8

[Drainage and isolation of the work field in pediatric dentistry (I). A market overview and suitability study: isolation of the work field without dams] Langerweger C, et al. **Schweiz Monatsschr Zahnmed** 1998;108(11):1080-9 **(Ger, Fre)**

[Drainage and isolation of the work field in pediatric dentistry (II). A market overview and suitability study: the dam system and its use in pediatric dentistry] Langerweger C, et al. **Schweiz Monatsschr Zahnmed** 1998;108(11):1097-1108 **(Ger, Fre)**

RUBBER SILICONE see **SILICONE ELASTOMERS**

RUBBER TREE see **EUPHORBIACEAE**

RUBEFACIENTS see **IRRITANTS**

RUBELLA

Rubella and rubeola. Rosa C. **Semin Perinatol** 1998 Aug; 22(4):318-22 (14 ref.)

[Rubella and measles] Kurashige T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):169-72 (15 ref.) **(Jpn)**

[Acute rubella encephalitis] Matsui M. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):31-3 (10 ref.) **(Jpn)**

[Progressive rubella panencephalitis] Matsui M. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):34-7 (15 ref.) **(Jpn)**

BLOOD

[Seroprevalence of antibodies against measles, rubella, mumps and varicella among school children in Madrid] Gil Miguel A, et al. **An Esp Pediatr** 1999 May;50(5):459-62 (Eng. Abstr.) **(Spa)**

COMPLICATIONS

Virus-associated haemophagocytic syndrome caused by rubella in an adult. Takenaka H, et al. **Br J Dermatol** 1998 Nov;139(5):877-80

The ocular manifestations of congenital infection: a study of the early effect and long-term outcome of maternally transmitted rubella and toxoplasmosis. O'Neill JF. **Trans Am Ophthalmol Soc** 1998;96:813-79

[A case report of post-rubella myelitis in an adult] Cecille A, et al. **Pathol Biol (Paris)** 1999 May;47(5):531-3 (Eng. Abstr.) **(Fre)**

[Severe forms of rubella encephalitis: arguments for a better vaccination policy] Merrer J, et al. **Presse Med** 1999 Feb 27;28(8):395-7 (Eng. Abstr.) **(Fre)**

[Encephalitis as a severe complication of rubella--case report] Garlicki A, et al. **Przegl Lek** 1998;55(9):488-9 (Eng. Abstr.) **(Pol)**

[Acute hemolytic anemia associated with postnatal rubella (letter)] Calvo Villas JM, et al. **Rev Clin Esp** 1998 Sep; 198(9):630 **(Spa)**

CONGENITAL

Surveillance of congenital rubella in Great Britain, 1971-96. Tookey PA, et al. **BMJ** 1999 Mar 20;318(7186):769-70

Congenital rubella syndrome. How can we do better? Bar-Oz B, et al. **Can Fam Physician** 1999 Aug;45:1865-9 (18 ref.)

A model-based evaluation of the national immunization programme against rubella infection and congenital rubella syndrome in The Netherlands. van der Heijden OG, et al. **Epidemiol Infect** 1998 Dec;121(3):653-71

DIAGNOSIS

Surveillance of congenital rubella in Great britain. Rubella can be mistaken for parvovirus b19 infection [letter] Turner AJ. **BMJ** 1999 Jul 3;319(7201):57-8

Evaluation of rubella screening in pregnant women [see comments] Gyorkos TW, et al. **CMAJ** 1998 Nov 3; 159(9):1091-7. Comment in: CMAJ 1998 Nov 3;159(9):1117-8.

Following up on unfinished business--prenatal rubella screening and postpartum vaccination [editorial; comment] Tam TW. **CMAJ** 1998 Nov 3;159(9):1117-8. Comment on: CMAJ 1998 Nov 3;159(9):1091-7.

Rubella virus genome diagnosis during pregnancy and mechanism of congenital rubella. Katow S. **Intervirology** 1998;41(4-5):163-9

Predictive value of serological tests in rubella virus infection during pregnancy. Pustowoit B, et al. **Intervirology** 1998; 41(4-5):170-7

Reliability of low-avidity IgG and of IgA in the diagnosis of primary infection by rubella virus with adaptation of a commercial test. Gutiérrez J, et al. **J Clin Lab Anal** 1999; 13(1):1-4

[RT-PCR in the prenatal diagnosis of rubella. Report of 2 cases] Segondy M, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Nov; 27(7):708-13 (Eng. Abstr.) **(Fre)**

[A case report of rubella embryopathy in pregnancy complicated by placental insufficiency] Rudnicki J, et al. **Ginekol Pol** 1998 Dec;69(12):1041-5 (Eng. Abstr.) **(Pol)**

[Immunoglobulin avidity in the diagnosis acute infectious processes] Maroto Vela MC. **An R Acad Nac Med (Madr)** 1998;115(2):519-30; discussion 530-7 **(Spa)**

[Usefulness of determining low-avidity IgG antibodies in the diagnosis of primary rubella infection in pregnant women] Lafarga B, et al. **Enferm Infecc Microbiol Clin** 1998 Nov; 16(9):413-8 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

Seasonal variation of chickenpox, mumps and rubella in Taiwanese children estimated by pediatric clinics. Liu SC, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Dec;31(4):217-24

The epidemiology of rubella and congenital rubella in Australia, 1992 to 1997. Sullivan EM, et al. **Commun Dis Intell** 1999 Aug 5;23(8):209-14

Rubella in university students. **Commun Dis Rep CDR Wkly** 1999 Mar 26;9(13):113, 116

Rubella outbreaks among Hispanics in North Carolina: lessons learned from a field investigation. Rangel MC, et al. **Ethn Dis** 1999 Spring-Summer;9(2):230-6

Detection of rubella virus-specific immunoglobulin G in saliva by an amplification-based enzyme-linked immunosorbent assay using monoclonal antibody to fluorescein isothiocyanate. Vyse AJ, et al. **J Clin Microbiol** 1999 Feb;37(2):391-5

Rubella outbreak--Westchester County, New York, 1997-1998. **MMWR Morb Mortal Wkly Rep** 1999 Jul 9; 48(26):560-3

Rubella seroprevalence in an unvaccinated population in Izmir: recommendations for rubella vaccination in Turkey [see comments] Aksit S, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):577-80. Comment in: Pediatr Infect Dis J 1999 Jul;18(7):575-6.

Where rubella is still a problem [comment] Plotkin SA. **Pediatr Infect Dis J** 1999 Jul;18(7):575-6. Comment on: Pediatr Infect Dis J 1999 Jul;18(7):577-80.

Rubella eradication: the countdown begins [editorial] Irons B. **West Indian Med J** 1998 Sep;47(3):75-6

[The re-emergence in 1997 of rubella infections during pregnancy. 11 cases in Clermont-Ferrand] Henquell C, et al. **Presse Med** 1999 Apr 17;28(15):777-80 (Eng. Abstr.) **(Fre)**

[Rubella in 1997] Czarkowski MP, et al. **Przegl Epidemiol** 1999;53(1-2):49-55 (Eng. Abstr.) **(Pol)**

[The determination of susceptibility to measles, rubella, mumps and chickenpox in students of health-related areas] Oliveira J, et al. **Acta Med Port** 1999 Apr-Jun; 12(4-6):155-60 (Eng. Abstr.) **(Por)**

[The prevalence of antibodies to the rubella virus in pregnant women at a health center] Ferrer Gómez C, et al. **Aten Primaria** 1999 Apr 30;23(7):429-33 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Etiology of measles- and rubella-like illnesses in measles, mumps, and rubella-vaccinated children. Davidkin I, et al. **J Infect Dis** 1998 Dec;178(6):1567-70

IMMUNOLOGY

Rubella antibody in antenatal clinic patients [letter] Sintchenko V, et al. **Aust N Z J Med** 1999 Apr;29(2):284

Intrauterine rubella virus infection despite expected maternal immunity. Bossart W, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):597-9

Rubella immunity in a cohort of pregnant women. McElhaney RD Jr, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):64-6

Placental transfer of maternal rubella antibodies to full-term and preterm infants. Linder N, et al. **Infection** 1999 May-Jun;27(3):203-7

Rubella immunity in pregnant Turkish women. Aksit S, et al. **Int J Gynaecol Obstet** 1999 Jul;66(1):33-4

Rubella immune status among healthcare workers in the Department of Obstetrics and Gynaecology of a regional hospital in Hong Kong: the need for a vaccination policy. Chan PK, et al. **J Hosp Infect** 1999 Jul;42(3):239-42

Maintenance of high-avidity rubella-specific IgG antibody and titres in recent HIV seroconvertors and in patients progressing to the AIDS-related complex and AIDS. Thomas HI, et al. **J Med Virol** 1999 Jul;58(3):273-9

Natural rubella infection with CD8+ T cell expansion and failure to detect viral genome in synovial fluid [letter; comment] Ueno Y, et al. **J Rheumatol** 1999 Jan; 26(1):229-31. Comment on: J Rheumatol 1995 Jan;22(1):8-15.

Previous exposure to measles, mumps, and rubella--but not vaccination during adolescence--correlates to the prevalence of pancreatic and thyroid autoantibodies. Lindberg B, et al. **Pediatrics** 1999 Jul;104(1):e12

Influence of socioeconomic status on behavioral, emotional and cognitive effects of rubella vaccination: a prospective, double blind study. Morag M, et al. **Psychoneuroendocrinology** 1998 May;23(4):337-51

[Seroprevalence of antibodies against measles, rubella, mumps and varicella among school children in Madrid] Gil Miguel A, et al. **An Esp Pediatr** 1999 May;50(5):459-62 (Eng. Abstr.) **(Spa)**

[Immune status against measles and rubella among 4 Chilean groups of different ages] Valenzuela MT, et al. **Rev Med Chil** 1999 Mar;127(3):359-65 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Intrauterine rubella virus infection despite expected maternal immunity. Bossart W, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):597-9

Rubella virus-induced cytopathic effect in vitro is caused by apoptosis. Hofmann J, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1657-64

Involvement of a p53-dependent pathway in rubella virus-induced apoptosis. Megyeri K, et al. **Virology** 1999 Jun 20;259(1):74-84

PREVENTION & CONTROL

ACIP issues recommendations to eliminate measles, rubella and congenital rubella syndrome and to control mumps. Rose VL. **Am Fam Physician** 1998 Nov 1;58(7):1682, 1685-6

The impact of rubella immunisation on the incidence of rubella, congenital rubella syndrome and rubella-related terminations of pregnancy in South Australia. Cheffins T, et al. **Br J Obstet Gynaecol** 1998 Sep;105(9):998-1004

Rubella and congenital rubella syndrome. Reef SE. **Bull World Health Organ** 1998;76 Suppl 2:156-7

Congenital rubella syndrome. How can we do better? Bar-Oz B, et al. **Can Fam Physician** 1999 Aug;45:1865-9 (18 ref.)

Measles, mumps, and rubella vaccine coverage in 2 year old children in East Lancashire--better than it looks. Clark A, et al. **Commun Dis Public Health** 1999 Jan;2(1):50-3

Sentinel surveillance shows small decline in MMR coverage. **Commun Dis Rep CDR Wkly** 1998 Sep 4;8(36):317, 320

A model-based evaluation of the national immunization programme against rubella infection and congenital rubella syndrome in The Netherlands. van der Heijden OG, et al. **Epidemiol Infect** 1998 Dec;121(3):653-71

Modeling measles, mumps, and rubella: implications for the design of vaccination programs. Gay NJ. **Infect Control Hosp Epidemiol** 1998 Aug;19(8):570-3

The eradication of rubella. Plotkin SA, et al. **JAMA** 1999 Feb 10;281(6):561-2

Rubella outbreak, Fort Bragg, North Carolina, 1995: a clash of two preventive strategies. Craig SC, et al. **Mil Med** 1999 Sep;164(9):616-8

Identification of rubella virus T-cell epitopes recognized in anamnestic response to RA27/3 vaccine: associations with boost in neutralizing antibody titer. Mitchell LA, et al. **Vaccine** 1999 May 14;17(19):2356-65

[Immune response of rubella vaccine in the populations with different age groups] Xiong XW, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):227-9 (Eng. Abstr.) **(Chi)**

[A serological study on the immunization schedule at first dose of domestic BRD II strain rubella vaccine] Xu AQ, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Jun;18(3):156-9 (Eng. Abstr.) **(Chi)**

[Increasing the immunization rate against measles, mumps, and rubella in medical students at the University of Berne] Germann D, et al. **Schweiz Med Wochenschr** 1999 Apr 3; 129(13):499-507 (Eng. Abstr.) **(Ger)**

[Measles, mumps and rubella: vaccination rate and seroprevalence in 8th grade students of 8 different sites in Switzerland 1995/96] Stohrer-Draxl P, et al. **Schweiz Rundsch Med Prax** 1999 Jun 10;88(24):1069-77 (Eng. Abstr.) **(Ger)**

[The immunological efficacy of the combined vaccine Trimovax intended for the prevention of measles, mumps and rubella] Samoilovich EO, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):36-40 (Eng. Abstr.) **(Rus)**

[Vaccine prophylaxis of measles, rubella and epidemic parotitis] Zverev VV. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):48-52 **(Rus)**

[Effect of vaccination on immune status in pregnancy] Topolovec J. **Lijec Vjesn** 1999 Mar;121(3):73-8 (Eng. Abstr.) **(Scr)**

TRANSMISSION

The ocular manifestations of congenital infection: a study of the early effect and long-term outcome of maternally transmitted rubella and toxoplasmosis. O'Neill JF. **Trans Am Ophthalmol Soc** 1998;96:813-79

VIROLOGY

Secretion of rubella virions and virus-like particles in cultured epithelial cells. Garbutt M, et al. **Virology** 1999 Sep 1;261(2):340-6

RUBELLA SYNDROME, CONGENITAL

[TORCH syndrome] Hidaka Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):85-8 (7 ref.) **(Jpn)**

[Congenital rubella syndrome] Kadoya R, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):93-6 (15 ref.) **(Jpn)**

COMPLICATIONS

Idiopathic keratoconus in a patient with congenital rubella syndrome [letter] Pinna A, et al. **Br J Ophthalmol** 1998 Oct;82(10):1215

CD4+ and CD8+ T-cell clones from congenital rubella syndrome patients with IDDM recognize overlapping GAD65 protein epitopes. Implications for HLA class I and II allelic linkage to disease susceptibility. Ou D, et al. **Hum Immunol** 1999 Aug;60(8):652-64

DIAGNOSIS

Rubella virus genome diagnosis during pregnancy and mechanism of congenital rubella. Katow S. **Intervirology** 1998;41(4-5):163-9

Predictive value of serological tests in rubella virus infection during pregnancy. Pustowoit B, et al. **Intervirology** 1998; 41(4-5):170-7

PCR in the first oropharynx aspirate of the newborn: a possible source for identification of congenital infection agents. Pedreira DA, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov-Dec;39(6):363-4

EPIDEMIOLOGY

The epidemiology of rubella and congenital rubella in Australia, 1992 to 1997. Sullivan EM, et al. **Commun Dis Intell** 1999 Aug 5;23(8):209-14

Rubella seroprevalence in an unvaccinated population in Izmir: recommendations for rubella vaccination in Turkey [see comments] Aksit S, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):577-80. Comment in: Pediatr Infect Dis J 1999 Jul;18(7):575-6.

Where rubella is still a problem [comment] Plotkin SA. **Pediatr Infect Dis J** 1999 Jul;18(7):575-6. Comment on: Pediatr Infect Dis J 1999 Jul;18(7):577-80.

Rational use of rubella vaccine for prevention of congenital rubella syndrome in the Americas. Hinman AR, et al. **Rev Panam Salud Publica** 1998 Sep;4(3):156-60 (36 ref.)

Rubella eradication: the countdown begins [editorial] Irons B. **West Indian Med J** 1998 Sep;47(3):75-6

PATHOLOGY

Circumscribed scleroderma in congenital rubella syndrome with hypogammaglobulinemia. Español T, et al. **Allergy** 1998 Oct;53(10):1005-6

PREVENTION & CONTROL

Rubella and congenital rubella syndrome. Reef SE. **Bull World Health Organ** 1998;76 Suppl 2:156-7

Evaluation of rubella screening in pregnant women [see comments] Gyorkos TW, et al. **CMAJ** 1998 Nov 3; 159(9):1091-7. Comment in: CMAJ 1998 Nov 3;159(9):1117-8.

Following up on unfinished business--prenatal rubella screening and postpartum vaccination [editorial; comment] Tam TW. **CMAJ** 1998 Nov 3;159(9):1117-8. Comment on: CMAJ 1998 Nov 3;159(9):1091-7.

VIROLOGY

Rubella gene sequencing as a clinician's tool. Peltola H, et al. **Lancet** 1998 Dec 5;352(9143):1799-800

RUBELLA VACCINE

A retrospective cohort study of risk factors for missing preschool booster immunisation. Evans MR, et al. **Arch Dis Child** 1998 Aug;79(2):141-4

The impact of rubella immunisation on the incidence of rubella, congenital rubella syndrome and rubella-related terminations of pregnancy in South Australia. Cheffins T, et al. **Br J Obstet Gynaecol** 1998 Sep;105(9):998-1004

Measles, mumps, and rubella vaccine coverage in 2 year old children in East Lancashire--better than it looks. Clark A, et al. **Commun Dis Public Health** 1999 Jan;2(1):50-3

MMR vaccine coverage falls in the United Kingdom. **Commun Dis Rep CDR Wkly** 1999 Jan 29;9(5):37

MMR vaccine coverage shows signs of recovery. **Commun Dis Rep CDR Wkly** 1999 Sep 24;9(39):345

Immunisation and type 1 diabetes mellitus: is there a link? Hiltunen M, et al. **Drug Saf** 1999 Mar;20(3):207-12 (36 ref.)

Etiology of measles- and rubella-like illnesses in measles, mumps, and rubella-vaccinated children. Davidkin I, et al. **J Infect Dis** 1998 Dec;178(6):1567-70

The eradication of rubella. Plotkin SA, et al. **JAMA** 1999 Feb 10;281(6):561-2

Rubella seroprevalence in an unvaccinated population in Izmir: recommendations for rubella vaccination in Turkey [see comments] Aksit S, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):577-80. Comment in: Pediatr Infect Dis J 1999 Jul;18(7):575-6.

Where rubella is still a problem [comment] Plotkin SA. **Pediatr Infect Dis J** 1999 Jul;18(7):575-6. Comment on: Pediatr Infect Dis J 1999 Jul;18(7):577-80.

[Drug clinics. Drug of the month. A new measles-rubella-mumps vaccine (Priorix)] Senterre J. **Rev Med Liege** 1999 Feb;54(2):122-4 (Eng. Abstr.) **(Fre)**

[Vaccine prophylaxis of measles, rubella and epidemic parotitis] Zverev VV. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):48-52 **(Rus)**

ADMINISTRATION & DOSAGE

Minimum time interval adjustment for 4-3-1 immunization rates among two-year-old children. Steiner RP, et al. **Am J Prev Med** 1999 Apr;16(3):189-94

Rubella and congenital rubella syndrome. Reef SE. **Bull World Health Organ** 1998;76 Suppl 2:156-7

Comparison of immunogenicity of simultaneous and nonsimultaneous vaccination with MMR and JE vaccine among 15-month-old children. Tseng CY, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 May-Jun;40(3):161-5

MMR vaccine coverage at 24 months stabilises in the UK. **Commun Dis Rep CDR Wkly** 1999 Mar 26;9(13):113, 116

Sentinel surveillance shows small decline in MMR coverage. **Commun Dis Rep CDR Wkly** 1998 Sep 4;8(36):317, 320

Are vaccination rates higher if providers receive free vaccines and follow contraindication guidelines? Zimmerman RK, et al. **Fam Med** 1999 May;31(5):317-23

Increased protections during a measles outbreak of children previously vaccinated with a second dose of measles-mumps-rubella vaccine. Vitek CR, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):620-3

Rational use of rubella vaccine for prevention of congenital rubella syndrome in the Americas. Hinman AR, et al. **Rev Panam Salud Publica** 1998 Sep;4(3):156-60 (36 ref.)

[Vaccination strategies of tomorrow... is it necessary to revaccinate rubella, mumps and rubeola, and when?] Guérin N, et al. **Arch Pediatr** 1998;5 Suppl 2:187s-190s **(Fre)**

[Severe forms of rubella encephalitis: arguments for a better vaccination policy] Merrer J, et al. **Presse Med** 1999 Feb 27;28(8):395-7 (Eng. Abstr.) **(Fre)**

[Measles, mumps and rubella: vaccination rate and seroprevalence in 8th grade students of 8 different sites in Switzerland 1995/96] Stohrer-Draxl P, et al. **Schweiz Rundsch Med Prax** 1999 Jun 10;88(24):1069-77 (Eng. Abstr.) **(Ger)**

[A seroconversion study of the measles component of the MMR vaccine in adolescents of the town of Sabrosa] Gonçalves G, et al. **Acta Med Port** 1998 Dec; 11(12):1079-84 (Eng. Abstr.) **(Por)**

ADVERSE EFFECTS

Another media scare about MMR vaccine hits Britain [news] Anderson P. **BMJ** 1999 Jun 12;318(7198):1578

New research demolishes link between MMR vaccine and autism [news] Bower H. **BMJ** 1999 Jun 19;318(7199):1643

Gianotti-Crosti syndrome after measles, mumps and rubella vaccination [letter] Velangi SS, et al. **Br J Dermatol** 1998 Dec;139(6):1122-3

Measles-mumps-rubella immunisation, autism and inflammatory bowel disease: update. Amin J, et al. **Commun Dis Intell** 1999 Aug 5;23(8):222

Fall in MMR vaccine coverage reported as further evidence of vaccine safety is published. **Commun Dis Rep CDR Wkly** 1999 Jun 25;9(26):227, 230

Re: V. Usonis et al.: Comparative study of reactogenicity and immunogenicity of new and established measles, mumps and rubella vaccines in healthy children (Infection 26 [1998] 222-226) [letter; comment] Nalin D. **Infection** 1999 Mar-Apr;27(2):134-5. Comment on: Infection 1998 Jul-Aug;26(4):222-6.

The gelatin story [editorial; comment] Kelso JM. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):200-2. Comment on: J Allergy Clin Immunol 1999 Feb;103(2 Pt 1):276-81. Comment on: J Allergy Clin Immunol 1999 Feb;103(2 Pt 1):321-5. Comment on: J Allergy Clin Immunol 1999 Feb;103(2 Pt 1):349-50.

A clinical analysis of gelatin allergy and determination of its causal relationship to the previous administration of gelatin-containing acellular pertussis vaccine combined with diphtheria and tetanus toxoids [see comments] Nakayama T, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):321-5. Comment in: J Allergy Clin Immunol 1999 Feb;103(2 Pt 1):200-2.

Peripheral neuropathy associated with anti-myelin basic protein antibodies in a woman vaccinated with rubella virus vaccine. Cusi MG, et al. **J Neurovirol** 1999 Apr;5(2):209-14

Inflammatory bowel disease, autism, and the measles, mumps, and rubella vaccine. Akobeng AK, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar;28(3):351-2

Negative association between MMR and autism [comment] DeStefano F, et al. **Lancet** 1999 Jun 12;353(9169):1987-8 . Comment on: Lancet 1999 Jun 12;353(9169):2026-9.

MMR vaccination and autism [letter] Roberts GT. **Lancet** 1999 Sep 11;354(9182):951

Autism and measles, mumps, and rubella vaccine: no epidemiological evidence for a causal association [see comments] Taylor B, et al. **Lancet** 1999 Jun 12; 353(9169):2026-9. Comment in: Lancet 1999 Jun 12;353(9169):1987-8.

MMR vaccination and autism [letter] Wakefield AJ. **Lancet** 1999 Sep 11;354(9182):949-50

What is the cause of a rash after measles-mumps-rubella vaccination? Jenkin GA, et al. **Med J Aust** 1999 Aug 16; 171(4):194-5

Reactogenicity and immunogenicity of a new live attenuated combined measles, mumps and rubella vaccine in healthy children. Usonis V, et al. **Pediatr Infect Dis J** 1999 Jan; 18(1):42-8

Acute disseminated encephalomyelitis with probable measles vaccine failure. Nagai K, et al. **Pediatr Neurol** 1999 May; 20(5):399-402

[MMR-vaccination of children allergic to eggs] Christensen M, et al. **Ugeskr Laeger** 1999 Mar 1;161(9):1270-2 (Eng. Abstr.) **(Dan)**

CONTRAINDICATIONS

Measles immunization in HIV-infected children. American Academy of Pediatrics. Committee on Infectious Diseases and Committee on Pediatric AIDS. **Pediatrics** 1999 May; 103(5 Pt 1):1057-60

IMMUNOLOGY

Serologic responses to measles, mumps, and rubella (MMR) vaccine in healthy infants: failure to respond to measles and mumps components may influence decisions on timing of the second dose of MMR. Mitchell LA, et al. **Can J Public Health** 1998 Sep-Oct;89(5):325-8

Decline in rates of seropositivity for measles, mumps, and rubella antibodies among previously immunized children treated for acute leukemia. Feldman S, et al. **Clin Infect Dis** 1998 Aug;27(2):388-90

A model-based evaluation of the national immunization programme against rubella infection and congenital rubella syndrome in The Netherlands. van der Heijden OG, et al. **Epidemiol Infect** 1998 Dec;121(3):653-71

Re: V. Usonis et al.: Comparative study of reactogenicity and immunogenicity of new and established measles, mumps and rubella vaccines in healthy children (Infection 26 [1998] 222-226) [letter; comment] Nalin D. **Infection** 1999 Mar-Apr;27(2):134-5. Comment on: Infection 1998 Jul-Aug;26(4):222-6.

Comparative study of reactogenicity and immunogenicity of new and established measles, mumps and rubella vaccines in healthy children [see comments] Usonis V, et al. **Infection** 1998 Jul-Aug;26(4):222-6. Comment in: Infection 1999 Mar-Apr;27(2):134-5.

Safety, tolerability and immunogenicity of concomitant injections in separate locations of M-M-R II, VARIVAX and TETRAMUNE in healthy children vs. concomitant injections of M-M-R II and TETRAMUNE followed six weeks later by VARIVAX. Shinefield HR, et al. **Pediatr Infect Dis J** 1998 Nov;17(11):980-5

Reactogenicity and immunogenicity of a new live attenuated combined measles, mumps and rubella vaccine in healthy children. Usonis V, et al. **Pediatr Infect Dis J** 1999 Jan; 18(1):42-8

Previous exposure to measles, mumps, and rubella--but not vaccination during adolescence--correlates to the prevalence of pancreatic and thyroid autoantibodies. Lindberg B, et al. **Pediatrics** 1999 Jul;104(1):e12

Influence of socioeconomic status on behavioral, emotional and cognitive effects of rubella vaccination: a prospective, double blind study. Morag M, et al. **Psychoneuroendocrinology** 1998 May;23(4):337-51

Response to measles revaccination among toddlers in Saudi Arabia by the use of two different trivalent measles-mumps-rubella vaccines. Khalil M, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr;93(2):214-9

Immune response and vaccine efficacy [letter; comment] Afzal MA, et al. **Vaccine** 1999 Apr 9;17(15-16):1813. Comment on: Vaccine 1998 Jan-Feb;16(2-3):298-304. Comment on: Vaccine 1998 Aug;16(13):1256.

Vaccine-induced measles virus antibodies after two doses of combined measles, mumps and rubella vaccine: a 12-year follow-up in two cohorts. Davidkin I, et al. **Vaccine** 1998 Dec;16(20):2052-7

Identification of rubella virus T-cell epitopes recognized in anamnestic response to RA27/3 vaccine: associations with boost in neutralizing antibody titer. Mitchell LA, et al. **Vaccine** 1999 May 14;17(19):2356-65

Comparing immunogenicity of two measles, mumps and rubella vaccines [letter; comment] Nalin DR. **Vaccine** 1999 Feb 5;17(5):508. Comment on: Vaccine 1998 Jan-Feb;16(2-3):298-304.

Development of a rubella virus DNA vaccine. Pougatcheva SO, et al. **Vaccine** 1999 Apr 9;17(15-16):2104-12

Expression of interleukin-2 receptor alpha and CD45RO antigen on T lymphocytes cultured with rubella virus antigen, compared with humoral immunity in rubella

RUBELLA VACCINE

vaccinees. Toyoda M, et al. **Vaccine** 1999 Apr 9; 17(15-16):2051-8

Mumps component in combined measles, mumps, and rubella vaccines [letter; comment] Wandel G. **Vaccine** 1999 Feb 12;17(6):511. Comment on: Vaccine 1998 Aug;16(13):1256.

[Immune response of rubella vaccine in the populations with different age groups] Xiong XW, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):227-9 (Eng. Abstr.) **(Chi)**

[A serological study on the immunization schedule at first dose of domestic BRD II strain rubella vaccine] Xu AQ, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Jun;18(3):156-9 (Eng. Abstr.) **(Chi)**

[The immunological efficacy of the combined vaccine Trimovax intended for the prevention of measles, mumps and rubella] Samoilovich EO, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):36-40 (Eng. Abstr.) **(Rus)**

[Effect of vaccination on immune status in pregnancy] Topolovec J. **Lijec Vjesn** 1999 Mar;121(3):73-8 (Eng. Abstr.) **(Scr)**

THERAPEUTIC USE

Rubella eradication: the countdown begins [editorial] Irons B. **West Indian Med J** 1998 Sep;47(3):75-6

RUBELLA VIRUS

Rubella virus-induced cytopathic effect in vitro is caused by apoptosis. Hofmann J, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1657-64

Involvement of a p53-dependent pathway in rubella virus-induced apoptosis. Megyeri K, et al. **Virology** 1999 Jun 20;259(1):74-84

ENZYMOLOGY

Intracellular distribution of rubella virus nonstructural protein P150. Kujala P, et al. **J Virol** 1999 Sep; 73(9):7805-11

GENETICS

Rubella virus genome diagnosis during pregnancy and mechanism of congenital rubella. Katow S. **Intervirology** 1998;41(4-5):163-9

Mutations in the retinoblastoma protein-binding LXCXE motif of rubella virus putative replicase affect virus replication. Forng RY, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):327-32

Mutagenic analysis of the 3'cis-acting elements of the rubella virus genome. Chen MH, et al. **J Virol** 1999 Apr; 73(4):3386-403

Effects of mutations in the rubella virus E1 glycoprotein on E1-E2 interaction and membrane fusion activity. Yang D, et al. **J Virol** 1998 Nov;72(11):8747-55

Rubella gene sequencing as a clinician's tool. Peltola H, et al. **Lancet** 1998 Dec 5;352(9143):1799-800

IMMUNOLOGY

Decline in rates of seropositivity for measles, mumps, and rubella antibodies among previously immunized children treated for acute leukemia. Feldman S, et al. **Clin Infect Dis** 1998 Aug;27(2):388-90

Intrauterine rubella virus infection despite expected maternal immunity. Bossart W, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):597-9

Predictive value of serological tests in rubella virus infection during pregnancy. Pustowoit B, et al. **Intervirology** 1998; 41(4-5):170-7

Reliability of low-avidity IgG and of IgA in the diagnosis of primary infection by rubella virus with adaptation of a commercial test. Gutiérrez J, et al. **J Clin Lab Anal** 1999; 13(1):1-4

Detection of rubella virus-specific immunoglobulin G in saliva by an amplification-based enzyme-linked immunosorbent assay using monoclonal antibody to fluorescein isothiocyanate. Vyse AJ, et al. **J Clin Microbiol** 1999 Feb;37(2):391-5

Rubella seroprevalence in an unvaccinated population in Izmir: recommendations for rubella vaccination in Turkey [see comments] Aksit S, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):577-80. Comment in: Pediatr Infect Dis J 1999 Jul;18(7):575-6.

An evaluation of oral-fluid collection devices for the determination of rubella antibody status in a rural Ethiopian community. Nokes DJ, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):679-85

Development of a rubella virus DNA vaccine. Pougatcheva SO, et al. **Vaccine** 1999 Apr 9;17(15-16):2104-12

Expression of interleukin-2 receptor alpha and CD45RO antigen on T lymphocytes cultured with rubella virus antigen, compared with humoral immunity in rubella vaccinees. Toyoda M, et al. **Vaccine** 1999 Apr 9; 17(15-16):2051-8

Point mutation of a rubella virus E1 protein T-cell epitope by substitution of single amino acid reversed the restrictive HLA-DR polymorphism: a possible mechanism maintaining HLA polymorphism. Ou D, et al. **Viral Immunol** 1998;11(2):93-102

[Serum antibodies to rubella virus in healthy individuals with indirect immunofluorescent method] Nanpoh Y, et al. **Kansenshogaku Zasshi** 1999 Aug;73(8):734-42 (Eng. Abstr.) **(Jpn)**

[The prevalence of antibodies to the rubella virus in pregnant women at a health center] Ferrer Gómez C, et al. **Aten Primaria** 1999 Apr 30;23(7):429-33 (Eng. Abstr.) **(Spa)**

[Usefulness of determining low-avidity IgG antibodies in the diagnosis of primary rubella infection in pregnant women] Lafarga B, et al. **Enferm Infecc Microbiol Clin** 1998 Nov; 16(9):413-8 (Eng. Abstr.) **(Spa)**

ISOLATION & PURIFICATION

Intrauterine rubella virus infection despite expected maternal immunity. Bossart W, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):597-9

Rubella virus and chronic joint disease: is there an association? Bosma TJ, et al. **J Clin Microbiol** 1998 Dec; 36(12):3524-6

Natural rubella infection with CD8+ T cell expansion and failure to detect viral genome in synovial fluid [letter; comment] Ueno Y, et al. **J Rheumatol** 1999 Jan; 26(1):229-31. Comment on: J Rheumatol 1995 Jan;22(1):8-15.

[Ultrastructure of human L-68 diploid cells, infected with rubella virus] Getmanova TN, et al. **Vopr Virusol** 1999 May-Jun;44(3):126-30 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Mutations in the retinoblastoma protein-binding LXCXE motif of rubella virus putative replicase affect virus replication. Forng RY, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):327-32

Role of rubella virus glycoprotein domains in assembly of virus-like particles. Garbutt M, et al. **J Virol** 1999 May; 73(5):3524-33

Effects of mutations in the rubella virus E1 glycoprotein on E1-E2 interaction and membrane fusion activity. Yang D, et al. **J Virol** 1998 Nov;72(11):8747-55

Mutational analysis, using a full-length rubella virus cDNA clone, of rubella virus E1 transmembrane and cytoplasmic domains required for virus release. Yao J, et al. **J Virol** 1999 Jun;73(6):4622-30

Rubella virus-induced apoptosis varies among cell lines and is modulated by Bcl-XL and caspase inhibitors. Duncan R, et al. **Virology** 1999 Mar 1;255(1):117-28

Secretion of rubella virions and virus-like particles in cultured epithelial cells. Garbutt M, et al. **Virology** 1999 Sep 1;261(2):340-6

Rubella virus induces apoptosis in culture cells. Pugachev KV, et al. **Virology** 1998 Oct 25;250(2):359-70

RUBEOLA see **MEASLES**

RUBIACEAE

Comparison of the antioxidant action of the alcoholic extract of Rubia cordifolia with rubiadin. Tripathi YB, et al. **Indian J Biochem Biophys** 1998 Oct;35(5):313-6

Uncaria tomentosa (Willd.) D.C.: cat's claw, uña de gato, or saventaro. Reinhard KH. **J Altern Complement Med** 1999 Apr;5(2):143-51 (36 ref.)

Hepatoprotective properties in the rat of Mitracarpus scaber (Rubiaceae). Germano MP, et al. **J Pharm Pharmacol** 1999 Jun;51(6):729-34

CHEMISTRY

Uncarinic acids: phospholipase Cgamma1 inhibitors from hooks of Uncaria rhynchophylla. Lee JS, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1429-32

Stimulation of interleukin-1 and -6 production in alveolar macrophages by the neotropical liana, Uncaria tomentosa (uña de gato) Lemaire I, et al. **J Ethnopharmacol** 1999 Feb; 64(2):109-15

Pyrrolidinoindoline alkaloids from Psychotria oleoides and Psychotria lyciiflora. Jannic V, et al. **J Nat Prod** 1999 Jun; 62(6):838-43

Iridoid and seco-iridoid glucosides from Chioccoca alba (Rubiaceae). Carbonezi CA, et al. **Phytochemistry** 1999 Jul; 51(6):781-5

A cytotoxic chalcone from Faramea salicifolia. Ross SA, et al. **Planta Med** 1999 Mar;65(2):194

Structure-activity studies: in vitro antileishmanial and antimalarial activities of anthraquinones from Morinda lucida [letter] Sittie AA, et al. **Planta Med** 1999 Apr; 65(3):259-61

Pentacyclic oxindole alkaloids from Uncaria tomentosa induce human endothelial cells to release a lymphocyte-proliferation-regulating factor. Wurm M, et al. **Planta Med** 1998 Dec;64(8):701-4

RUBIDIUM

see related
RUBIDIUM RADIOISOTOPES

Rubidium marking of Anopheles stephensi (Diptera: Culicidae). Solberg VB, et al. **J Med Entomol** 1999 Mar; 36(2):141-3

BLOOD

Stimulation of Na+-K+-2Cl- cotransport by arsenite in ferret erythrocytes. Flatman PW, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:143-52

METABOLISM

Functional analysis of native and recombinant ion channels using a high-capacity nonradioactive rubidium efflux assay. Terstappen GC. **Anal Biochem** 1999 Aug 1;272(2):149-55

Temperature dependence of monovalent cation fluxes in isolated rat hearts: a magnetic resonance study. Gruwel MLH, et al. **Biochim Biophys Acta** 1998 Dec 9; 1415(1):41-55

Are the states that occlude rubidium obligatory intermediates of the Na(+)/K(+)-ATPase reaction? Kaufman SB, et al. **J Biol Chem** 1999 Jul 23;274(30):20779-90

Two pharmacologically distinct components of nicotinic receptor-mediated rubidium efflux in mouse brain require the beta2 subunit. Marks MJ, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1090-103

Abnormal function of potassium channels in platelets of patients with Alzheimer's disease [see comments] de Silva HA, et al. **Lancet** 1998 Nov 14;352(9140):1590-3. Comment in: Lancet 1999 Jan 23;353(9149):325-6. Comment in: Lancet 1999 Jan 23;353(9149):326.

PHARMACOLOGY

The effects of long-term administration of rubidium or lithium on reactivity to stress and on dopamine output in the nucleus accumbens in rats. Gambarana C, et al. **Brain Res** 1999 May 1;826(2):200-9

STANDARDS

Manufacture of strontium-82/rubidium-82 generators and quality control of rubidium-82 chloride for myocardial perfusion imaging in patients using positron emission tomography. Alvarez-Diez TM, et al. **Appl Radiat Isot** 1999 Jun;50(6):1015-23

RUBIDIUM RADIOISOTOPES

Manufacture of strontium-82/rubidium-82 generators and quality control of rubidium-82 chloride for myocardial perfusion imaging in patients using positron emission tomography. Alvarez-Diez TM, et al. **Appl Radiat Isot** 1999 Jun;50(6):1015-23

ANALYSIS

Cation MR spectroscopy (7Li, 23Na, 39K and 87Rb). Clarke K, et al. **MAGMA** 1998 Sep;6(2-3):105-6

DIAGNOSTIC USE

Three-dimensional 87Rb imaging of isolated pig hearts: effects of regional ischemia. Kupriyanov VV, et al. **Magn Reson Med** 1998 Aug;40(2):175-9

METABOLISM

Ca2+ changes and 86Rb efflux activated by hyposmolarity in cerebellar granule neurons. Morales-Mulia S, et al. **J Neurosci Res** 1998 Sep 1;53(5):626-35

RUBIDOMYCIN see **DAUNORUBICIN**

RUBINSTEIN-TAYBI SYNDROME

COMPLICATIONS

Rubinstein--Taybi syndrome and ulerythema ophryogenes in a 9-year-old boy. Gómez Centeno P, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):134-6

DIAGNOSIS

Rubinstein-Taybi syndrome: a girl with a history of neuroblastoma and premature thelarche. Ihara K, et al. **Am J Med Genet** 1999 Apr 23;83(5):365-6

GENETICS

Two sisters with different chromosomal microdeletions: Rubinstein-Taybi syndrome and 22q deletion syndrome [letter] Can B, et al. **Clin Genet** 1998 Oct;54(4):371-2

Rubinstein-Taybi syndrome. Review of 732 cases and analysis of the typical traits. Cantani A, et al. **Eur Rev Med Pharmacol Sci** 1998 Mar-Apr;2(2):81-7

Truncated CBP protein leads to classical Rubinstein-Taybi syndrome phenotypes in mice: implications for a dominant-negative mechanism. Oike Y, et al. **Hum Mol Genet** 1999 Mar;8(3):387-96

Rubinstein-Taybi syndrome and psychiatric disorders. Levitas AS, et al. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):284-92

PSYCHOLOGY

Brief report: treatment of echolalia in a girl with Rubinstein-Taybi syndrome: functional assessment of minimizing chances to provoke echolalia. Chung BI. **J Autism Dev Disord** 1998 Dec;28(6):573-8

RADIOGRAPHY

Bilateral extra tarsal bones in Rubinstein-Taybi syndrome: the fourth cuneiform bones. Sener RN. **Eur Radiol** 1999;

9(3):483–4

SURGERY

Duplicated longitudinal bracketed epiphysis "kissing delta phalanx" in Rubinstein–Taybi syndrome. Wood VE, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):603–6

RUBISCO see **RIBULOSE-BISPHOSPHATE CARBOXYLASE**

RUBOMYCIN see **DAUNORUBICIN**

RUBREDOXINS

CHEMISTRY

STEP—a trial-and-error procedure for crystal structure determination. II. The determination of two small protein structures. Lipu L, et al.
Acta Crystallogr D Biol Crystallogr 1998 Sep 1;54 (Pt 5):828–33

Rubredoxin from Clostridium pasteurianum. Structures of G10A, G43A and G10VG43A mutant proteins. Mutation of conserved glycine 10 to valine causes the 9–10 peptide link to invert. Maher MJ, et al.
Acta Crystallogr D Biol Crystallogr 1999 May;55(5):962–8

Structure determination of rubredoxin from Desulfovibrio vulgaris Miyazaki F in two crystal forms. Misaki S, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Feb;55 (Pt 2):408–13

Ab initio structure determination of a small protein, rubredoxin, by direct methods. Mukherjee M.
Acta Crystallogr D Biol Crystallogr 1999 Apr;55 (Pt 4):820–5

Redox properties of mesophilic and hyperthermophilic rubredoxins as a function of pressure and temperature. Gillès de Pélichy LD, et al. **Biochemistry** 1999 Jun 15; 38(24):7874–80

Hyperthermophilic redox chemistry: a re-evaluation. Hagedoorn PL, et al. **FEBS Lett** 1998 Dec 4;440(3):311–4

Filling the missing cone in protein electron crystallography. Dorset DL. **Microsc Res Tech** 1999 Jul 15;46(2):98–103

The de novo design of a rubredoxin-like Fe site. Farinas E, et al. **Protein Sci** 1998 Sep;7(9):1939–46

GENETICS

Rubredoxin from Clostridium pasteurianum. Structures of G10A, G43A and G10VG43A mutant proteins. Mutation of conserved glycine 10 to valine causes the 9–10 peptide link to invert. Maher MJ, et al.
Acta Crystallogr D Biol Crystallogr 1999 May;55(5):962–8

Distribution of the rubredoxin gene among the Clostridium butyricum species. Gérard P, et al. **Curr Microbiol** 1999 May;38(5):264–7

The genes rubA and rubB for alkane degradation in Acinetobacter sp. strain ADP1 are in an operon with estB, encoding an esterase, and oxyR. Geissdörfer W, et al. **J Bacteriol** 1999 Jul;181(14):4292–8

METABOLISM

Electron transfer from flavin to iron in the Pseudomonas oleovorans rubredoxin reductase-rubredoxin electron transfer complex. Lee HJ, et al. **Biochemistry** 1998 Nov 3;37(44):15513–22

RUBULAVIRUS

Studies on influenza- and Newcastle disease virus at the University's Institute of Microbiology (Budapest) in 1948–50. Sinkovics JG. **Acta Microbiol Immunol Hung** 1999;46(1):21–3

IMMUNOLOGY

Development of a blocking ELISA for screening antibodies to porcine rubulavirus, La Piedad Michoacan Virus. Nordengrahn A, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):319–23

Immunity to porcine rubulavirus infection in adult swine. Hernández J, et al. **Vet Immunol Immunopathol** 1998 Aug 31;64(4):367–81

ISOLATION & PURIFICATION

Porcine rubulavirus LPMV RNA persists in the central nervous system of pigs after recovery from acute infection. Wiman AC, et al. **J Neurovirol** 1998 Oct;4(5):545–52

RUBULAVIRUS INFECTIONS

VETERINARY

Development of a blocking ELISA for screening antibodies to porcine rubulavirus, La Piedad Michoacan Virus. Nordengrahn A, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):319–23

Immunity to porcine rubulavirus infection in adult swine. Hernández J, et al. **Vet Immunol Immunopathol** 1998 Aug 31;64(4):367–81

VIROLOGY

Porcine rubulavirus LPMV RNA persists in the central nervous system of pigs after recovery from acute infection. Wiman AC, et al. **J Neurovirol** 1998 Oct;4(5):545–52

RUFFINI'S CORPUSCLES see **MECHANORECEPTORS**

RUFOCROMOMYCIN see **STREPTONIGRIN**

RUGBY see **FOOTBALL**

RUMEN

Technical note: a device for obtaining time-integrated samples of ruminal fluid. Corley RN 3rd, et al.
J Anim Sci 1999 Sep;77(9):2540–4

Comparison of mathematical models to describe disappearance curves obtained using the polyester bag technique for incubating feeds in the rumen. López S, et al. **J Anim Sci** 1999 Jul;77(7):1875–88

Effects of ruminal administration of supplemental degradable intake protein and starch on utilization of low-quality warm-season grass hay by beef steers. Olson KC, et al. **J Anim Sci** 1999 Apr;77(4):1016–25

Nutrient-specific preferences by lambs conditioned with intraruminal infusions of starch, casein, and water. Villalba JJ, et al. **J Anim Sci** 1999 Feb;77(2):378–87

Diagnostic methods for the detection of subacute ruminal acidosis in dairy cows. Garrett EF, et al. **J Dairy Sci** 1999 Jun;82(6):1170–8

Histamine affects growth of sheep ruminal epithelial cells kept in primary culture. Aschenbach JR, et al.
Zentralbl Veterinarmed A 1998 Sep;45(6–7):411–6

CHEMISTRY

Association of excess sulfur intake and an increase in hydrogen sulfide concentrations in the ruminal gas cap of recently weaned beef calves with polioencephalomalacia. Loneragan GH, et al. **J Am Vet Med Assoc** 1998 Dec 1; 213(11):1599–604, 1571

DRUG EFFECTS

Effect of virginiamycin on ruminal fermentation in cattle during adaptation to a high concentrate diet and during an induced acidosis. Coe ML, et al. **J Anim Sci** 1999 Aug; 77(8):2259–68

Glucose metabolism and milk yield of cows infused abomasally or ruminally with starch. Knowlton KF, et al. **J Dairy Sci** 1998 Dec;81(12):3248–58

Inhibition of sulfate reduction to sulfide by 9,10-anthraquinone in in vitro ruminal fermentations. Kung L Jr, et al. **J Dairy Sci** 1998 Aug;81(8):2251–6

[Effect of acetazolamide on sodium and potassium absorption from the rumen of the reindeer Rangifer tarandus] Chalyshev AV. **Zh Evol Biokhim Fiziol** 1998 Nov–Dec; 34(6):732–6 **(Rus)**

EMBRYOLOGY

Distribution of cytokeratin polypeptides detected by monoclonal antibodies K8.13 and K8.12 in the fetal bovine ruminal epithelium. Amasaki H, et al. **J Vet Med Sci** 1999 Mar;61(3):261–5

ENZYMOLOGY

Activity of cellulolytic enzymes in the contents of reticulorumen and caecocolon of roe deer (Capreolus capreolus). Deutsch A, et al.
Comp Biochem Physiol A Mol Integr Physiol 1998 Apr; 119(4):925–30

Degradability of forage proteins by in situ and in vitro enzymatic methods. Coblentz WK, et al. **J Dairy Sci** 1999 Feb;82(2):343–54

GROWTH & DEVELOPMENT

Influence of dietary concentrate to forage ratio on the development of rumen mucosa in calves. Zitňan R, et al. **Arch Tierernahr** 1998;51(4):279–91

INNERVATION

Antagonist of nitric oxide synthesis inhibits nerve-mediated relaxation of isolated strips of rumen and reticulum. Schneider DA, et al. **J Dairy Sci** 1998 Oct;81(10):2588–94

METABOLISM

Changes of plasma insulin, urea, amino acids and rumen metabolites in somatotropin treated dairy cows. Cheli F, et al. **Amino Acids** 1998;15(3):187–94

Research note: investigation on the metabolism of glycerol in the rumen of bulls. Kijora C, et al. **Arch Tierernahr** 1998; 51(4):341–8

Influence of sodium fumarate addition on rumen fermentation in vitro. López S, et al. **Br J Nutr** 1999 Jan;81(1):59–64

Regulatory role of cAMP in transport of Na+, Cl- and short-chain fatty acids across sheep ruminal epithelium. Gäbel G, et al. **Exp Physiol** 1999 Mar;84(2):333–45

Determination of 13C/12C-ratios in rumen produced methane and CO2 of cows, sheep and camels. Schulze E, et al. **Isotopes Environ Health Stud** 1998;34(1–2):75–9

Evaluation of selected mathematical approaches to the kinetics of protein degradation in situ. Bach A, et al.
J Anim Sci 1998 Nov;76(11):2885–93

Effects of bovine somatotropin and ruminally undegraded protein on feed intake, live weight gain, and mohair production by yearling Angora wethers. Davis JJ, et al.
J Anim Sci 1999 May;77(5):1029–36

Ruminal and total tract digestibilities in steers fed diets containing liquefied or prilled saturated fatty acids. Elizalde JC, et al. **J Anim Sci** 1999 Jul;77(7):1930–9

Effect of dietary or abomasal supplementation of exogenous polysaccharide-degrading enzymes on rumen fermentation and nutrient digestibility. Hristov AN, et al.
J Anim Sci 1998 Dec;76(12):3146–56

Effect of Yucca schidigera on ruminal fermentation and nutrient digestion in heifers. Hristov AN, et al.
J Anim Sci 1999 Sep;77(9):2554–63

Effects of increasing ruminally degraded nitrogen and abomasal casein infusion on net portal flux of nutrients in yearling heifers consuming a high-grain diet. Krehbiel CR, et al. **J Anim Sci** 1999 May;77(5):1295–305

Effects of DL-malate on ruminal metabolism and performance of cattle fed a high-concentrate diet. Martin SA, et al. **J Anim Sci** 1999 Apr;77(4):1008–15

Fermentation substrate and dilution rate interact to affect microbial growth and efficiency. Meng Q, et al.
J Anim Sci 1999 Jan;77(1):206–14

Relationship between ruminal starch degradation and the physical characteristics of corn grain. Philippeau C, et al. **J Anim Sci** 1999 Jan;77(1):238–43

Influence of mass and volume of ruminal contents on voluntary intake and digesta passage of a forage diet in steers. Schettini MA, et al. **J Anim Sci** 1999 Jul; 77(7):1896–904

The effect of forage source and particle size on finishing yearling steer performance and ruminal metabolism. Shain DH, et al. **J Anim Sci** 1999 May;77(5):1082–92

Ruminally undegraded intake protein in sheep fed low-quality forage: effect on weight, growth, cell proliferation, and morphology of visceral organs. Swanson KC, et al. **J Anim Sci** 1999 Jan;77(1):198–205

Effects of level of feeding and ruminally undegraded protein on ruminal bacterial protein synthesis, escape of dietary protein, intestinal amino acid profile, and performance of dairy cows. Volden H. **J Anim Sci** 1999 Jul;77(7):1905–18

Effects of calcium soaps and rumen undegradable protein on the milk production and composition of dairy ewes. Casals R, et al. **J Dairy Res** 1999 May;66(2):177–91

Influence of soybean oil in high fiber diets fed to nonlactating cows on ruminal unsaturated fatty acids and nutrient digestibility. Bateman HG 2nd, et al. **J Dairy Sci** 1998 Sep; 81(9):2451–8

Influence of short- and long-term exposure to a hot environment on rumen passage rate and diet digestibility by Friesian heifers. Bernabucci U, et al. **J Dairy Sci** 1999 May;82(5):967–73

Effect of ruminally protected amino acids on milk yield and composition of Jersey cows fed whole cottonseed. Bertrand JA, et al. **J Dairy Sci** 1998 Aug;81(8):2215–20

Milk production and plasma gossypol of cows fed cottonseed and oilseed meals with or without rumen-undegradable protein. Blackwelder JT, et al. **J Dairy Sci** 1998 Nov; 81(11):2934–41

Synchronization of carbohydrate and protein sources on fermentation and passage rates in dairy cows. Casper DP, et al. **J Dairy Sci** 1999 Aug;82(8):1779–90

Different techniques to study rumen fermentation characteristics of maturing grass and grass silage. Cone JW, et al. **J Dairy Sci** 1999 May;82(5):957–66

Modeling ruminal digestibility of carbohydrates and microbial protein flow to the duodenum. Firkins JL, et al. **J Dairy Sci** 1998 Dec;81(12):3350–69 (145 ref.)

Predicting the effect of proteolysis on ruminal crude protein degradation of legume and grass silages using near-infrared reflectance spectroscopy. Hoffman PC, et al.
J Dairy Sci 1999 Apr;82(4):756–63

Supplementation of rumen-undegradable protein to the diets of early lactation Holstein cows on grass pasture. Hongerholt DD, et al. **J Dairy Sci** 1998 Aug;81(8):2204–14

Metabolic and yield responses of multiparous Holstein cows to prepartum rumen-undegradable protein. Huyler MT, et al. **J Dairy Sci** 1999 Mar;82(3):527–36

Effect of added dietary fat on performance, rumen characteristics, and plasma metabolites of midlactation dairy cows. Khorasani GR, et al. **J Dairy Sci** 1998 Sep; 81(9):2459–68

Ruminal escape, gastrointestinal absorption, and response of serum methionine to supplementation of liquid methionine hydroxy analog in dairy cows. Koenig KM, et al.
J Dairy Sci 1999 Feb;82(2):355–61

Inhibition of sulfate reduction to sulfide by 9,10-anthraquinone in in vitro ruminal fermentations. Kung L Jr, et al. **J Dairy Sci** 1998 Aug;81(8):2251–6

Effects of rumen-undegradable protein and feed intake on purine derivative and urea nitrogen: comparison with predictions from the Cornell Net Carbohydrate and Protein System. Moscardini S, et al. **J Dairy Sci** 1998 Sep; 81(9):2421–9

Effect of amount of dietary supplement and source of protein on milk production, ruminal fermentation, and nutrient flows in dairy cows. O'Mara FP, et al. **J Dairy Sci** 1998 Sep;81(9):2430–9

Influence of genotype and ensiling of corn grain on in situ degradation of starch in the rumen. Philippeau C, et al. **J Dairy Sci** 1998 Aug;81(8):2178–84

Biogenic amines in silage, apparent postruminal passage, and the relationship between biogenic amines and digestive function and intake by steers. Phuntsok T, et al. **J Dairy Sci** 1998 Aug;81(8):2193–203

The importance of pH in the regulation of ruminal acetate to propionate ratio and methane production in vitro [published erratum appears in J Dairy Sci 1999 Apr;82(4):830] Russell JB. **J Dairy Sci** 1998 Dec; 81(12):3222–30

Effects of rumen-undegradable protein on dairy cow performance: a 12-year literature review. Santos FA, et al. **J Dairy Sci** 1998 Dec;81(12):3182–213 (128 ref.)

Effects of extrusion of grain and feeding frequency on rumen fermentation, nutrient digestibility, and milk yield and composition in dairy cows. Shabi Z, et al. **J Dairy Sci** 1999 Jun;82(6):1252–60

Diet choice by dairy cows. 2. Selection for metabolizable protein or for ruminally degradable protein? Tolkamp BJ, et al. **J Dairy Sci** 1998 Oct;81(10):2670–80

Ruminal escape and apparent degradation of amino acids administered intraruminally in mixtures to cows. Velle W, et al. **J Dairy Sci** 1998 Dec;81(12):3231–8

Use of in vitro gas production models in ruminal kinetics. Pitt RE, et al. **Math Biosci** 1999 Jul;159(2):145–63

In vitro ruminal disappearance of fumonisin B1 and its effects on in vitro dry matter disappearance. Gurung NK, et al. **Vet Hum Toxicol** 1999 Aug;41(4):196–9

The role of phosphate on the rates of mineral absorption from the forestomach of sheep. Dua K, et al. **Vet J** 1999 Jan;157(1):51–5

Comparative disposition kinetics of albendazole in sheep following oral and intraruminal administration. Swarnkar CP, et al. **Vet Res Commun** 1998 Dec;22(8):545–51

Pharmacokinetics of indomethacin after intraruminal administration to sheep. Vinagre E, et al. **Zentralbl Veterinarmed A** 1999 Aug;46(6):361–6

MICROBIOLOGY

Influence of 1-[(E)-2-(2-methyl-4-nitrophenyl)diaz-1-enyl]pyrrolidine-2-carboxylic acid and diphenyliodonium chloride on ruminal protein metabolism and ruminal microorganisms. Floret F, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3258–60

Genetically modified ruminal bacteria protect sheep from fluoroacetate poisoning. Gregg K, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3496–8

A cold-active glucanase from the ruminal bacterium Fibrobacter succinogenes S85. Iyo AH, et al. **Appl Environ Microbiol** 1999 Mar;65(3):995–8

Cellobiose transport by mixed ruminal bacteria from a Cow. Kajikawa H, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2565–9

Assessment of reductive acetogenesis with indigenous ruminal bacterium populations and Acetitomaculum ruminis. Le Van TD, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3429–36

Isolation and characterization of proteolytic ruminal bacteria from sheep and goats fed the tannin-containing shrub legume Calliandra calothyrsus. McSweeney CS, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3075–83

Phenotypic and phylogenetic characterization of ruminal tannin-tolerant bacteria. Nelson KE, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3824–30

Estimation of the relative abundance of different Bacteroides and Prevotella ribotypes in gut samples by restriction enzyme profiling of PCR-amplified 16S rRNA gene sequences. Wood J, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3683–9

GC-MS analysis of diaminopimelic acid stereoisomers and amino acid enantiomers in rumen bacteria. Schieber A, et al. **Biomed Chromatogr** 1999 Feb;13(1):46–50

News & notes: paper digestion by the cellulolytic ruminal bacterium Fibrobacter succinogenes. Martin SA, et al. **Curr Microbiol** 1998 Dec;37(6):431–2

Sequence analysis of small cryptic plasmids isolated from Selenomonas ruminantium S20. Nakamura M, et al. **Curr Microbiol** 1999 Feb;38(2):107–12

Phylogenetic study of methanogens associated with rumen ciliates. Tokura M, et al. **Curr Microbiol** 1999 Sep; 39(3):123–8

Actinobacillus succinogenes sp. nov., a novel succinic-acid-producing strain from the bovine rumen. Guettler MV, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:207–16

Effect of ruminal cellulolytic bacterial concentrations on in situ digestion of forage cellulose. Dehority BA, et al. **J Anim Sci** 1998 Nov;76(11):2905–11

Effects of laidlomycin propionate and monensin on the in vitro mixed ruminal microorganism fermentation. Domescik EJ, et al. **J Anim Sci** 1999 Aug;77(8):2305–12

Influence of sampling site on concentrations and carbohydrate-degrading enzyme activities of protozoa and bacteria in the rumen. Martin C, et al. **J Anim Sci** 1999 Apr;77(4):979–87

Manipulation of ruminal fermentation with organic acids: a review. Martin SA. **J Anim Sci** 1998 Dec;76(12):3123–32 (50 ref.)

Fermentation substrate and dilution rate interact to affect microbial growth and efficiency. Meng Q, et al. **J Anim Sci** 1999 Jan;77(1):206–14

Manipulating ruminal fermentation: a microbial ecological perspective. Weimer PJ. **J Anim Sci** 1998 Dec; 76(12):3114–22 (57 ref.)

Fermentation extract effects on the morphology and metabolism of the rumen fungus Neocallimastix frontalis EB188. Chang JS, et al. **J Appl Microbiol** 1999 Mar; 86(3):389–98

Effect of the addition of fumarate on methane production by ruminal microorganisms in vitro. Asanuma N, et al. **J Dairy Sci** 1999 Apr;82(4):780–7

Effects of type of carbohydrate supplementation to lush pasture on microbial fermentation in continuous culture. Bach A, et al. **J Dairy Sci** 1999 Jan;82(1):153–60

Different mathematical approaches to estimating microbial protein supply in ruminants. Dijkstra J, et al. **J Dairy Sci** 1998 Dec;81(12):3370–84 (89 ref.)

Estimation of the flow of microbial nitrogen to the duodenum using urinary uric acid or allantoin. Johnson LM, et al. **J Dairy Sci** 1998 Sep;81(9):2408–20

Effect of diet on populations of three species of ruminal cellulolytic bacteria in lactating dairy cows. Weimer PJ, et al. **J Dairy Sci** 1999 Jan;82(1):122–34

Fecal shedding and rumen growth of Escherichia coli O157:H7 in fasted calves. Harmon BG, et al. **J Food Prot** 1999 Jun;62(6):574–9

Rumen bacteria are involved in the onset of onion-induced hemolytic anemia in sheep. Selim HM, et al. **J Vet Med Sci** 1999 Apr;61(4):369–74

A bacteriocin-mediated antagonism by Enterococcus faecium BC25 against ruminal Streptococcus bovis. Morovský M, et al. **Microbiol Res** 1998 Nov;153(3):277–81

Lysogenic bacteriophage M1 from Selenomonas ruminantium: isolation, characterization and DNA sequence analysis of the integration site. Cheong JP, et al. **Microbiology** 1998 Aug;144 (Pt 8):2195–202

Vancomycin-resistant enterococci isolates from the rumen content of deer. Lauková A. **Microbios** 1999;97(387):95–101

The effects of starch and protein degradation rates, hay sources, and feeding frequency on rumen microbial fermentation in a continuous culture system. Chen CY, et al. **Proc Natl Sci Counc Repub China B** 1998 Oct; 22(4):159–65

Effects of minerals on feed degradation and protein synthesis by rumen micro-organisms in a dual effluent fermenter. Broudiscou LP, et al. **Reprod Nutr Dev** 1999 Mar-Apr; 39(2):255–68

Glycoside hydrolase production by an anaerobic rumen fungus Caecomyces communis. Bata J, et al. **Res Microbiol** 1997 Mar-Apr;148(3):263–9

Cellulolytic enzymes of rumen anaerobic fungi Orpinomyces joyonii and Caecomyces communis. Hodrová B, et al. **Res Microbiol** 1998 Jun;149(6):417–27

[Cellulosolytic bacteria of the genus Ruminococcus from cattle rumen] Tarakanov BV, et al. **Mikrobiologiia** 1998 Jul-Aug;67(4):518–21 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Rumen ciliates of white-tailed deer (Odocoileus virginianus), axis deer (Axis axis), sika deer (Cervus nippon) and fallow deer (Dama dama) from Texas. Dehority BA, et al. **J Eukaryot Microbiol** 1999 Mar-Apr;46(2):125–31

Analysis of intraspecific sequence variation among eight isolates of the rumen symbiont, Isotricha prostoma (Ciliophora), from two continents. Wright AD. **J Eukaryot Microbiol** 1999 Jul-Aug;46(4):445–6

Rumen ciliate protozoal fauna of native sheep, friesian cattle and dromedary camel in Libya. Selim HM, et al. **J Vet Med Sci** 1999 Mar;61(3):303–5

PHYSIOLOGY

The comparison of in vitro fermentation kinetics estimated by three different methods. Váradyová Z, et al. **Arch Tierernahr** 1998;51(4):319–26

Passage through the rumen and the large intestine of sheep estimated from faecal marker excretion curves and slaughter trials. de Vega A, et al. **Br J Nutr** 1998 Oct; 80(4):381–9

The relaxant effects of parathyroid hormone(1-34) and parathyroid hormone-related protein(1-34) on ovine reticulo-ruminal smooth muscle in vivo. Care AD, et al. **Exp Physiol** 1999 Jul;84(4):665–75

Pancreatic juice and duodenal fluid flow rate in cow calves from birth to early ruminant state. Christi KS, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):231–8

The effect of in vitro fermentation on specific gravity and sedimentation measurements of forage particles. Bailoni L, et al. **J Anim Sci** 1998 Dec;76(12):3095–103

Fibrolytic enzyme treatment of barley grain and source of forage in high-grain diets fed to growing cattle. Krause M, et al. **J Anim Sci** 1998 Nov;76(11):2912–20

Influence of malic acid supplementation on ruminal pH, lactic acid utilization, and digestive function in steers fed high-concentrate finishing diets. Montaño MF, et al. **J Anim Sci** 1999 Mar;77(3):780–4

Influence of grain source on ruminal characteristics and rate, site, and extent of digestion in beef steers. Philippeau C, et al. **J Anim Sci** 1999 Jun;77(6):1587–96

Standardization of in situ techniques for ruminant feedstuff evaluation. Vanzant ES, et al. **J Anim Sci** 1998 Oct; 76(10):2717–29 (68 ref.)

Effects of feeding virginiamycin and sodium bicarbonate to grazing lactating dairy cows. Clayton EH, et al. **J Dairy Sci** 1999 Jul;82(7):1545–54

Interaction of tallow and hay particle size on ruminal parameters. Lewis WD, et al. **J Dairy Sci** 1999 Jul; 82(7):1532–7

The effect of Saccharomyces cerevisiae and Aspergillus oryzae on the digestion of the cell wall fraction of a mixed diet in defaunated and refaunated sheep rumen. Jouany JP, et al. **Reprod Nutr Dev** 1998 Jul-Aug;38(4):401–16

Morphology and enzyme activities of the small intestine are modulated by dietary protein source in the preruminant calf. Montagne L, et al. **Reprod Nutr Dev** 1999 Jul-Aug; 39(4):455–66

Tremorgenic mycotoxins paxilline, penitrem and lolitrem B, the non-tremorgenic 31-epilolitrem B and electromyographic activity of the reticulum and rumen of sheep. McLeay LM, et al. **Res Vet Sci** 1999 Apr; 66(2):119–27

PHYSIOPATHOLOGY

Rumen motility during induced hyper- and hypocalcaemia. Jørgensen RJ, et al. **Acta Vet Scand** 1998;39(3):331–8

RUMINANTIA see **RUMINANTS**

RUMINANTS

Prospects for vaccines of helminth parasites of grazing ruminants. Smith WD. **Int J Parasitol** 1999 Jan;29(1):17–24 (54 ref.)

Screening nitrate in forages with a test strip: collaborative study. Jain AV, et al. **J AOAC Int** 1999 Jan-Feb;82(1):9–15

Combining isotopic and ecomorphological data to refine bovid paleodietary reconstruction: a case study from the Makapansgat Limeworks hominin locality. Sponheimer M, et al. **J Hum Evol** 1999 Jun;36(6):705–18

Safe handling of large animals. Grandin T. **Occup Med** 1999 Apr-Jun;14(2):195–212 (55 ref.)

Copper poisoning in wild ruminants in the Kruger National Park: geobotanical and environmental investigation. Grobler DG. **Onderstepoort J Vet Res** 1999 Jun;66(2):81–93

Pyrrolizidine alkaloid poisoning in yak. Mondal DB, et al. **Vet Rec** 1999 May 1;144(18):508–9

[Malignant catarrhal fever in zoo ruminants] Hänichen T, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Sep; 26(5):294–300 (Eng. Abstr.) **(Ger)**

ANATOMY & HISTOLOGY

Identification of cell types in the developing goat mammary gland. Li P, et al. **Histochem J** 1999 Jun;31(6):379–93

BLOOD

Augmented water binding and low cellular water content in erythrocytes of camel and camelids. Bogner P, et al. **Biophys J** 1998 Dec;75(6):3085–91

CLASSIFICATION

Reliable noninvasive genotyping based on excremental PCR of nuclear DNA purified with a magnetic bead protocol. Flagstad O, et al. **Mol Ecol** 1999 May;8(5):879–83

Mitochondrial DNA sequence relationships of the newly described enigmatic Vietnamese bovid, Pseudonovibos spiralis. Hammer SE, et al. **Naturwissenschaften** 1999 Jun; 86(6):279–80

Evolutionary affinities of the enigmatic saola (Pseudoryx nghetinhensis) in the context of the molecular phylogeny of Bovidae. Hassanin A, et al. **Proc R Soc Lond B Biol Sci** 1999 May 7;266(1422):893–900

GENETICS

Partial nuclear localization of a bovine phosphoprotein, BCNT, that includes a region derived from a LINE repetitive sequence in Ruminantia. Iwashita S, et al. **Biochim Biophys Acta** 1999 May 24;1427(3):408–16

Assignment1 of the gene of mitochondrial branched chain aminotransferase (BCAT2) to sheep chromosome band 14q24 and to cattle and goat chromosome bands 18q24 by in situ hybridization. Faure M, et al. **Cytogenet Cell Genet** 1998;83(1-2):96–7

Seminal-type ribonuclease genes in ruminants, sequence conservation without protein expression? Kleineidam RG, et al. **Gene** 1999 Apr 29;231(1-2):147–53

Comparative gene mapping: a fine-scale survey of chromosome rearrangements between ruminants and humans. Schibler L, et al. **Genome Res** 1998 Sep;8(9):901–15

Microsatellite variation in Scandinavian Cervidae using primers derived from Bovidae. Røed KH. **Hereditas** 1998; 129(1):19–25

Monomorphism and polymorphism at Mhc DRB loci in domestic and wild ruminants. Mikko S, et al. **Immunol Rev** 1999 Feb;167:169–78 (60 ref.)

The complete mitochondrial DNA sequence of the domestic sheep (Ovis aries) and comparison with the other major ovine haplotype. Hiendleder S, et al. **J Mol Evol** 1998 Oct; 47(4):441–8

Phylogenetic relationships in the bovid subfamily Antilopinae based on mitochondrial DNA sequences. Rebholz W, et al. **Mol Phylogenet Evol** 1999 Jul;12(2):87–94

Mitochondrial DNA sequence relationships of the newly described enigmatic Vietnamese bovid, Pseudonovibos spiralis. Hammer SE, et al. **Naturwissenschaften** 1999 Jun; 86(6):279–80

Evolutionary affinities of the enigmatic saola (Pseudoryx nghetinhensis) in the context of the molecular phylogeny of Bovidae. Hassanin A, et al.
Proc R Soc Lond B Biol Sci 1999 May 7;266(1422):893–900

IMMUNOLOGY

Monomorphism and polymorphism at Mhc DRB loci in domestic and wild ruminants. Mikko S, et al.
Immunol Rev 1999 Feb;167:169–78 (60 ref.)

METABOLISM

The differential pattern of tissue-specific expression of ruminant pancreatic type ribonucleases may help to understand the evolutionary history of their genes. Sasso MP, et al. **Gene** 1999 Feb 18;227(2):205–12

Splanchnic tissue energy use in ruminants that consume forage-based diets ad libitum. Goetsch AL. **J Anim Sci** 1998 Oct;76(10):2737–46 (92 ref.)

Manipulation of ruminal fermentation with organic acids: a review. Martin SA. **J Anim Sci** 1998 Dec;76(12):3123–32 (50 ref.)

Manipulating ruminal fermentation: a microbial ecological perspective. Weimer PJ. **J Anim Sci** 1998 Dec; 76(12):3114–22 (57 ref.)

Current concepts of amino acid and protein metabolism in the mammary gland of the lactating ruminant. Bequette BJ, et al. **J Dairy Sci** 1998 Sep;81(9):2540–59 (116 ref.)

Different mathematical approaches to estimating microbial protein supply in ruminants. Dijkstra J, et al.
J Dairy Sci 1998 Dec;81(12):3370–84 (89 ref.)

Use of in vitro gas production models in ruminal kinetics. Pitt RE, et al. **Math Biosci** 1999 Jul;159(2):145–63

MICROBIOLOGY

Hydration of linoleic acid by bacteria isolated from ruminants. Hudson JA, et al. **FEMS Microbiol Lett** 1998 Dec 15;169(2):277–82

Differentiation between Streptococcus gallolyticus strains of human clinical and veterinary origins and Streptococcus bovis strains from the intestinal tracts of ruminants. Devriese LA, et al. **J Clin Microbiol** 1998 Dec; 36(12):3520–3

Tuberculosis in Kafue lechwe (Kobus leche kafuensis) and in a bushbuck (Tragelaphus scriptus) on a game ranch in central province, Zambia. Zieger U, et al.
J S Afr Vet Assoc 1998 Sep;69(3):98–101

PARASITOLOGY

The role of epidemiological knowledge and grazing management for helminth control in small ruminants. Barger IA. **Int J Parasitol** 1999 Jan;29(1):41–7; discussion 49–50 (24 ref.)

Anthelmintic resistance revisited: under-dosing, chemoprophylactic strategies, and mating probabilities. Smith G, et al. **Int J Parasitol** 1999 Jan;29(1):77–91; discussion 93–4 (41 ref.)

International approaches to the concept of integrated control of nematode parasites of livestock. Waller PJ.
Int J Parasitol 1999 Jan;29(1):155–64; discussion 183–4 (36 ref.)

Differences in the second internal transcribed spacer (ITS-2) of eight species of gastrointestinal nematodes of ruminants. Heise M, et al. **J Parasitol** 1999 Jun;85(3):431–5

Importance of the mutation of amino acid 200 of the isotype 1 beta-tubulin gene in the benzimidazole resistance of the small-ruminant parasite Teladorsagia circumcincta. Elard L, et al. **Parasitol Res** 1999 Jun;85(6):452–6

Heligmosomoides polygyrus and Trypanosoma congolense infections in mice: effect of immunisation by abbreviated larval infection. Fakae BB, et al. **Vet Parasitol** 1999 Aug 16;85(1):13–23

PHYSIOLOGY

Standardization of in situ techniques for ruminant feedstuff evaluation. Vanzant ES, et al. **J Anim Sci** 1998 Oct; 76(10):2717–29 (68 ref.)

Locoweeds: effects on reproduction in livestock. Panter KE, et al. **J Nat Toxins** 1999 Feb;8(1):53–62 (49 ref.)

Intestinal absorption, blood transport and hepatic and muscle metabolism of fatty acids in preruminant and ruminant animals. Hocquette JF, et al. **Reprod Nutr Dev** 1999 Jan–Feb;39(1):27–48 (122 ref.)

[The role of the forestomachs in the adaptation of the alimentary function in ruminants] Chalyshev AV.
Usp Fiziol Nauk 1998 Jul–Sep;29(3):92–104 (92 ref.) (Eng. Abstr.) **(Rus)**

URINE

Nortestosterone: endogenous in urine of goats, sheep and mares? Sterk S, et al. **Analyst** 1998 Dec;123(12):2633–6

VIROLOGY

The prevalence of antibody to the viruses of bovine virus diarrhoea, bovine herpes virus 1, rift valley fever, ephemeral fever and bluetongue and to Leptospira sp in free-ranging wildlife in Zimbabwe. Anderson EC, et al. **Epidemiol Infect** 1998 Oct;121(2):441–9

Characterization by polymerase chain reaction of ruminant rotaviruses isolated in Italy. Pratelli A, et al.
New Microbiol 1999 Apr;22(2):105–9

RUMINATION DISORDERS see **FEEDING AND EATING DISORDERS OF CHILDHOOD**

RUNAWAY BEHAVIOR

The impact of home background on the decision of children to run away: the case of Yaounde City street children in Cameroon. Matchinda B. **Child Abuse Negl** 1999 Mar; 23(3):245–55

Association between drug use patterns and HIV risks among homeless, runaway, and street youth in northern California. Gleghorn AA, et al. **Drug Alcohol Depend** 1998 Aug 1; 51(3):219–27

Missing children. Lewit EM, et al. **Future Child** 1998 Summer–Fall;8(2):141–51 (35 ref.)

Social network characteristics associated with risky behaviors among runaway and homeless youth. Ennett ST, et al. **J Health Soc Behav** 1999 Mar;40(1):63–78

PREVENTION & CONTROL

A family systems approach for preventing adolescent runaway behavior. Coco EL, et al. **Adolescence** 1998 Summer;33(130):485–96

PSYCHOLOGY

A proactive approach to youth who run. English ND, et al. **Child Abuse Negl** 1999 Jul;23(7):693–8

Service utilization among homeless and runaway youth in Los Angeles, California: rates and reasons [corrected and republished article originally printed in J Adolesc Health 1999 Mar;24(3):190–200] De Rosa CJ, et al.
J Adolesc Health 1999 Jun;24(6):449–58

Commentary: lessons from a teendoc: the joys and challenges of adolescent medicine. Clark LR. **J Pediatr Psychol** 1998 Dec;23(6):389–91

Comparing suicide attempters, suicide ideators, and nonsuicidal homeless and runaway adolescents. Yoder KA. **Suicide Life Threat Behav** 1999 Spring;29(1):25–36

RUNNING

Anterior-posterior knee laxity increased by exercise. Quantitative evaluation of physiologic changes. Nawata K, et al. **Acta Orthop Scand** 1999 Jun;70(3):261–4

Reversible ischemic colitis in a high endurance athlete. Lucas W, et al. **Am J Gastroenterol** 1998 Nov;93(11):2231–4

Gastrointestinal symptoms in long-distance runners, cyclists, and triathletes: prevalence, medication, and etiology. Peters HP, et al. **Am J Gastroenterol** 1999 Jun;94(6):1570–81

Treatment of panic disorder [letter; comment] Marks I.
Am J Psychiatry 1999 Jul;156(7):1129–30. Comment on: Am J Psychiatry 1998 May;155(5):603–9.

Changes in plasma taurine levels after different endurance events. Ward RJ, et al. **Amino Acids** 1999;16(1):71–7

Acute changes in serum lipids and lipoprotein subclasses in triathletes as assessed by proton nuclear magnetic resonance spectroscopy. Yu HH, et al.
Arterioscler Thromb Vasc Biol 1999 Aug;19(8):1945–9

Combined caffeine and ephedrine ingestion improves run times of Canadian Forces Warrior Test. Bell DG, et al.
Aviat Space Environ Med 1999 Apr;70(4):325–9

Having advanced resuscitation facilities at end of marathons does not guarantee survival [letter] Luke LC. **BMJ** 1999 Aug 28;319(7209):581

Haemochromatosis and exercise related joint pains. McCurdie I, et al. **BMJ** 1999 Feb 13;318(7181):449–51

Runner's knee: what is it and what helps? [editorial] Arroll B, et al. **Br J Gen Pract** 1999 Feb;49(439):92–3

Three miles high and one hundred miles from the nearest road. Buckler D. **Br J Sports Med** 1998 Sep;32(3):262–3

Low bone mass density at multiple skeletal sites, including the appendicular skeleton in amenorrheic runners. Pettersson U, et al. **Calcif Tissue Int** 1999 Feb;64(2):117–25

Galloping exercise induces regional changes in bone density within the third and radial carpal bones of Thoroughbred horses [see comments] Firth EC, et al. **Equine Vet J** 1999 Mar;31(2):111–5. Comment in: Equine Vet J 1999 Mar;31(2):94–5.

Changes in performance, muscle metabolites, enzymes and fibre types after short sprint training. Dawson B, et al.
Eur J Appl Physiol 1998 Jul;78(2):163–9

Effect of sex steroids on beta-endorphin levels at rest and during submaximal treadmill exercise in anovulatory and ovulatory runners. Meyer WR, et al. **Fertil Steril** 1999 Jun; 71(6):1085–91

Effect of combined coenzyme Q10 and d-alpha-tocopheryl acetate supplementation on exercise-induced lipid peroxidation and muscular damage: a placebo-controlled double-blind study in marathon runners. Kaikkonen J, et al. **Free Radic Res** 1998 Jul;29(1):85–92

Metabolic effects of a protein-supplemented carbohydrate drink in marathon runners. Colombani PC, et al.
Int J Sport Nutr 1999 Jun;9(2):181–201

Delayed onset muscle soreness in long-distance runners [letter; comment] Fisher P. **J Altern Complement Med** 1999 Apr;5(2):119. Comment on: J Altern Complement Med 1998 Winter;4(4):389–98.

Determinants of the center of mass trajectory in human walking and running. Lee CR, et al. **J Exp Biol** 1998 Nov; 201 (Pt 21):2935–44

Mild to moderate asthmatics and free running. Arias Irigoyen J. **J Investig Allergol Clin Immunol** 1999 Jan–Feb;9(1):50–4

18F-FDG PET imaging of muscle activity in runners. Tashiro M, et al. **J Nucl Med** 1999 Jan;40(1):70–6

Heatstroke in runners in Oklahoma. Coniglione T.
J Okla State Med Assoc 1998 Nov;91(8):446–8

The effect of a prophylactic dose of flurbiprofen on muscle soreness and sprinting performance in trained subjects. Semark A, et al. **J Sports Sci** 1999 Mar;17(3):197–203

Perceived discomfort in running: scale development and theoretical considerations. Tenenbaum G, et al.
J Sports Sci 1999 Mar;17(3):183–96

Measuring running speed using photocells. Yeadon MR, et al. **J Sports Sci** 1999 Mar;17(3):249–57

A 45-year-old man with low back pain and a numb left foot, 1 year later [comment] Daley J, et al. **JAMA** 1999 Apr 28;281(16):1540. Comment on: JAMA 1998 Aug 26;280(8):730–6.

Bone mass and muscle strength in female college athletes (runners and swimmers). Emslander HC, et al.
Mayo Clin Proc 1998 Dec;73(12):1151–60

Medical care at The Sun-Herald City to Surf fun run 1971–1998 [letter] Richards DA, et al. **Med J Aust** 1999 Apr 19;170(8):400

Ground reaction forces, bone characteristics, and tibial stress fracture in male runners. Crossley K, et al.
Med Sci Sports Exerc 1999 Aug;31(8):1088–93

Investigation of the side pain "stitch" induced by running after fluid ingestion. Plunkett BT, et al.
Med Sci Sports Exerc 1999 Aug;31(8):1169–75

A comparison of maximum oxygen consumption, aerobic performance, and endurance in young and active male smokers and nonsmokers. Song EY, et al. **Mil Med** 1998 Nov;163(11):770–4

Bioenergetics. One price to run, swim or fly? [news] Alexander RM. **Nature** 1999 Feb 25;397(6721):651–3

Rhabdomyolysis in DOMS. Martinez Carsi C, et al.
Nuklearmedizin 1999;38(5):164–8

Short-term vitamin E supplementation before marathon running: a placebo-controlled trial. Buchman AL, et al.
Nutrition 1999 Apr;15(4):278–83

Aetiology of running-related gastrointestinal dysfunction. How far is the finishing line? Gil SM, et al.
Sports Med 1998 Dec;26(6):365–78 (163 ref.)

Pronation in runners. Implications for injuries. Hintermann B, et al. **Sports Med** 1998 Sep;26(3):169–76 (65 ref.)

Headache occurrence and classification among distance runners. Swain R, et al. **W V Med J** 1999 Mar–Apr; 95(2):76–9

[Equipment, methods of constraint and other aids in horse racing] Pick M. **DTW Dtsch Tierarztl Wochenschr** 1999 Apr;106(4):179–82 (Eng. Abstr.) **(Ger)**

[High tech athletic shoes. Foot form and running style determine the shoe] Schlünsen C.
Z Orthop Ihre Grenzgeb 1998 Jul–Aug;136(4):Oa18–22 **(Ger)**

INJURIES

Occult gastrointestinal bleeding with anorexia nervosa [letter] Ferron SM. **Am J Psychiatry** 1999 May;156(5):801

Straddle pelvic stress fracture in a female marathon runner. A case report. Eren OT, et al. **Am J Sports Med** 1998 Nov–Dec;26(6):850–1

Femoral neck stress fracture presenting as gluteal pain in a marathon runner: case report. Scott MP, et al.
Arch Phys Med Rehabil 1999 Feb;80(2):236–8

The prevalence of chronic knee injury in triathletes. Clements K, et al. **Br J Sports Med** 1999 Jun;33(3):214–6

Risk factors for injuries and other health problems sustained in a marathon. Satterthwaite P, et al. **Br J Sports Med** 1999 Feb;33(1):22–6

Displaced avulsion of the ischial apophysis: a hamstring injury requiring internal fixation. Servant CT, et al.
Br J Sports Med 1998 Sep;32(3):255–7

Provision of physiotherapy at the Tsing Ma Bridge international marathon and 10 km race in Hong Kong. Yeung SS, et al. **Br J Sports Med** 1998 Dec;32(4):336–7

Injuries in runners: a prospective study of alignment. Wen DY, et al. **Clin J Sport Med** 1998 Jul;8(3):187–94

Partial detachment of round ligament found at laparoscopy for chronic pelvic pain in a female adolescent. Baraldi R, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):189–90

Muscular soreness following prolonged intermittent high-intensity shuttle running. Thompson D, et al.
J Sports Sci 1999 May;17(5):387–95

MR imaging of stress reactions, muscle injuries, and other overuse injuries in runners. Bergman AG, et al.
Magn Reson Imaging Clin N Am 1999 Feb;7(1):151–74, ix (114 ref.)

Renal papillary necrosis in a marathon runner [letter] Ducloux D, et al. **Nephrol Dial Transplant** 1999 Jan; 14(1):247–8

["Tennis leg": ultrasound differential diagnosis and follow-up] Gaulrapp H. **Sportverletz Sportschaden** 1999 Jun;13(2):53–8 (Eng. Abstr.) **(Ger)**

[Resorbable interference screws. Histologic study 4.5 years postoperative] Lajtai G, et al. **Unfallchirurg** 1998 Nov; 101(11):866–9 (Eng. Abstr.) **(Ger)**

RUNNING

LEGISLATION & JURISPRUDENCE

Medical rules are needed in marathons in the United Kingdom [letter] Loyley P, et al. **BMJ** 1999 May 8; 318(7193):1285–6

PHYSIOLOGY

Measurement of the muscle power of the toes in female marathon runners using a toe dynamometer. Senda M, et al. **Acta Med Okayama** 1999 Aug;53(4):189–91

Power output and muscle metabolism during and following recovery from 10 and 20 s of maximal sprint exercise in humans. Bogdanis GC, et al. **Acta Physiol Scand** 1998 Jul; 163(3):261–72

A marathon run increases the susceptibility of LDL to oxidation in vitro and modifies plasma antioxidants. Liu ML, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1083–91

Hepatic blood flow in horses during the recuperative period from maximal exercise. Dyke TM, et al. **Am J Vet Res** 1998 Nov;59(11):1476–80

Assessment of long-distance running performance in elite male runners using onset of blood lactate accumulation. Abe D, et al. **Appl Human Sci** 1999 Mar;18(2):25–9

Maximal physiological responses to deep water running at thermoneutral temperature. Nakanishi Y, et al. **Appl Human Sci** 1999 Mar;18(2):31–5

Physiological responses to maximal treadmill and deep water running in the young and the middle aged males. Nakanishi Y, et al. **Appl Human Sci** 1999 May;18(3):81–6

One-mile run performance and cardiovascular fitness in children. Rowland T, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):845–9

Sprint kinematics of athletes with lower-limb amputations. Buckley JG. **Arch Phys Med Rehabil** 1999 May;80(5):501–8

Electromyographic effects of foot orthotics on selected lower extremity muscles during running. Nawoczenski DA, et al. **Arch Phys Med Rehabil** 1999 May;80(5):540–4

Maximal aerobic velocity measured by the 5-min running field test on two different fitness level groups. Berthon P, et al. **Arch Physiol Biochem** 1997 Dec;105(7):633–9

High level runners are able to maintain a VO2 steady-state below VO2max in an all-out run over their critical velocity. Billat V, et al. **Arch Physiol Biochem** 1998 Feb; 106(1):38–45

The effect of 13 weeks of running training followed by 9 d of detraining on postprandial lipaemia. Herd SL, et al. **Br J Nutr** 1998 Jul;80(1):57–66

Changes in haematological parameters and iron metabolism associated with a 1600 kilometre ultramarathon. Fallon KE, et al. **Br J Sports Med** 1999 Feb;33(1):27–31; discussion 32

Cognitive orientations in marathon running [letter; comment] Livingstone-Learmonth G. **Br J Sports Med** 1999 Apr; 33(2):142. Comment on: Br J Sports Med 1998 Sep;32(3):229–34; discussion 234–5.

Effect of a carbohydrate-electrolyte drink on endurance capacity during prolonged intermittent high intensity running. Nassis GP, et al. **Br J Sports Med** 1998 Sep; 32(3):248–52

"Living high and training low" can improve sea level performance in endurance athletes. Stray-Gundersen J, et al. **Br J Sports Med** 1999 Jun;33(3):150–1

Neurons in the deep layers of superior colliculus play a critical role in the neuronal network for audiogenic seizures: mechanisms for production of wild running behavior. Faingold CL, et al. **Brain Res** 1999 Jan 9; 815(2):250–8

Severe loss of vasopressin-immunoreactive cells in the suprachiasmatic nucleus of aging voles coincides with reduced circadian organization of running wheel activity. Van der Zee EA, et al. **Brain Res** 1999 Jan 23;816(2):572–9

Transient dissociation of bone metabolism induced by high performance exercise: a study in elite marathon runners. Crespo R, et al. **Calcif Tissue Int** 1999 Apr;64(4):287–90

Markers of excessive exercise. McKenzie DC. **Can J Appl Physiol** 1999 Feb;24(1):66–73 (36 ref.)

The effects of endurance training on muscle fibre types and enzyme activities. Taylor AW, et al. **Can J Appl Physiol** 1999 Feb;24(1):41–53 (76 ref.)

Homeopathic Arnica 30x is ineffective for muscle soreness after long-distance running: a randomized, double-blind, placebo-controlled trial. Vickers AJ, et al. **Clin J Pain** 1998 Sep;14(3):227–31

Injuries in runners: a prospective study of alignment. Wen DY, et al. **Clin J Sport Med** 1998 Jul;8(3):187–94

Bowel function in runners after ingestion of sweeteners. D'Alessandro A, et al. **Clin Ter** 1999 Jan-Feb;150(1):29–32

Anaerobic threshold measurement using dynamic neural network models. Ringwood JV. **Comput Biol Med** 1999 Jul;29(4):259–71

Increase of decorin content in articular cartilage following running. Visser NA, et al. **Connect Tissue Res** 1998; 37(3-4):295–302

Is it poor or loss of performance?: the science of explanation [editorial; comment] Pilsworth R, et al. **Equine Vet J** 1998 Sep;30(5):364–5. Comment on: Equine Vet J 1998 Sep;30(5):374–81. Comment on: Equine Vet J 1998 Sep;30(5):390–5.

Muscle characteristics and plasma lactate and ammonia response after racing in Standardbred trotters: relation to performance. Ronéus N, et al. **Equine Vet J** 1999 Mar; 31(2):170–3

Maximal physiological responses to deep and shallow water running. Dowzer CN, et al. **Ergonomics** 1999 Feb; 42(2):275–81

An echocardiographic study of right and left ventricular adaptation to physical exercise in elite female orienteers. Henriksen E, et al. **Eur Heart J** 1999 Feb;20(4):309–16

Implications of moderate altitude training for sea-level endurance in elite distance runners. Bailey DM, et al. **Eur J Appl Physiol** 1998 Sep;78(4):360–8

Training theory and taper: validation in triathlon athletes. Banister EW, et al. **Eur J Appl Physiol** 1999 Jan; 79(2):182–91

Influence of the oxygen uptake slow component on the aerobic energy cost of high-intensity submaximal treadmill running in humans. Bernard O, et al. **Eur J Appl Physiol** 1998 Nov;78(6):578–85

Physiological determinants of best performances in human locomotion. Capelli C. **Eur J Appl Physiol** 1999 Sep; 80(4):298–307

Advantages of a smaller bodymass in humans when distance-running in warm, humid conditions. Dennis SC, et al. **Eur J Appl Physiol** 1999 Feb;79(3):280–4

The concept of critical velocity: a brief analysis [see comments] di Prampero PE. **Eur J Appl Physiol** 1999 Jul; 80(2):162–4. Comment in: Eur J Appl Physiol 1999 Jul;80(2):159–61.

Vascular volumes and hematology in male and female runners and cyclists. Green HJ, et al. **Eur J Appl Physiol** 1999 Feb;79(3):244–50

An alternative method to determine maximal accumulated O2 deficit in runners. Hill DW, et al. **Eur J Appl Physiol** 1998 Dec;79(1):114–7

Oxygen uptake during high-intensity running: response following a single bout of interval training. James DV, et al. **Eur J Appl Physiol** 1999 Feb;79(3):237–43

Metabolic and cardioventilatory responses during a graded exercise test before and 24 h after a triathlon. Le Gallais D, et al. **Eur J Appl Physiol** 1999 Jan;79(2):176–81

The effect of exercise intensity on hematuria in healthy male runners. McInnis MD, et al. **Eur J Appl Physiol** 1998 Dec; 79(1):99–105

Effect of increasing running velocity on electroencephalogram in a field test. Mechau D, et al. **Eur J Appl Physiol** 1998 Sep;78(4):340–5

Does erythrocyte infusion improve 3.2-km run performance at high altitude? Pandolf KB, et al. **Eur J Appl Physiol** 1998 Dec;79(1):1–6

Blood glucose responses in humans mirror lactate responses for individual anaerobic threshold and for lactate minimum in track tests. Simões HG, et al. **Eur J Appl Physiol** 1999 Jun;80(1):34–40

Effect of carbohydrate ingestion and hormonal responses on ratings of perceived exertion during prolonged cycling and running. Utter AC, et al. **Eur J Appl Physiol** 1999 Jul; 80(2):92–9

Visuomotor adaptation without vision? Durgin FH, et al. **Exp Brain Res** 1999 Jul;127(1):12–8

Does arch height affect impact loading at the lower back level in running? Ogon M, et al. **Foot Ankle Int** 1999 Apr; 20(4):263–6

Leg stiffness and foot orientations during running. Viale F, et al. **Foot Ankle Int** 1998 Nov;19(11):761–5

The coordinated movement of the lumbo-pelvic-hip complex during running: a literature review. Schache AG, et al. **Gait Posture** 1999 Sep;10(1):30–47 (138 ref.)

Comparison of pulmonary function amongst Ladakhi, Delhi, Vanvasi and Siddi female athletes. Lakhera SC, et al. **Indian J Physiol Pharmacol** 1997 Jan;41(1):52–6

The effect of arginine or glycine supplementation on gastrointestinal function, muscle injury, serum amino acid concentrations and performance during a marathon run. Buchman AL, et al. **Int J Sports Med** 1999 Jul;20(5):315–21

Improved bone metabolism in female elite athletes after vitamin K supplementation. Craciun AM, et al. **Int J Sports Med** 1998 Oct;19(7):479–84

Intensive training during a twin pregnancy. A case report. Davies B, et al. **Int J Sports Med** 1999 Aug;20(6):415–8

Effects of branched-chain amino acids and carbohydrate on fatigue during intermittent, high-intensity running. Davis JM, et al. **Int J Sports Med** 1999 Jul;20(5):309–14

Cardiovascular and metabolic responses during 30 minutes of treadmill exercise shortly after consuming a small, high-carbohydrate meal. Diboll DC, et al. **Int J Sports Med** 1999 Aug;20(6):384–9

VO2 kinetics determined by PRBS techniques differentiate elite endurance runners from elite sprinters. Edwards AM, et al. **Int J Sports Med** 1999 Jan;20(1):1–6

Upper body power comparison between groups of cross-country skiers and runners. Gaskill SE, et al. **Int J Sports Med** 1999 Jul;20(5):290–4

Substantial influence of level of endurance capacity on the association of perceived exertion with blood lactate accumulation. Held T, et al. **Int J Sports Med** 1999 Jan; 20(1):34–9

Carbohydrate supplementation and the lymphocyte proliferative response to long endurance running. Henson DA, et al. **Int J Sports Med** 1998 Nov;19(8):574–80

Effects of summer camp endurance training on non-specific immunity in long-distance runners. Kumae T, et al. **Int J Sports Med** 1999 Aug;20(6):390–5

Effect of "living high-training low" on the cardiac functions at sea level. Liu Y, et al. **Int J Sports Med** 1998 Aug; 19(6):380–4

Intestinal IgA- and IgM-producing cells are not decreased in marathon runners. Nilssen DE, et al. **Int J Sports Med** 1998 Aug;19(6):425–31

Cardiac responses to exercise in child distance runners. Rowland T, et al. **Int J Sports Med** 1998 Aug;19(6):385–90

Differential white cell count after two bouts of downhill running. Smith LL, et al. **Int J Sports Med** 1998 Aug; 19(6):432–7

Neuroendocrine system and mental function in sedentary and endurance-trained elderly males. Strüder HK, et al. **Int J Sports Med** 1999 Apr;20(3):159–66

Influence of one bout of intensive running on lymphocyte micronucleus frequencies in endurance-trained and untrained men. Umegaki K, et al. **Int J Sports Med** 1998 Nov;19(8):581–5

Kinematics and electromyography of lower limb muscles in overground and treadmill running. Wank V, et al. **Int J Sports Med** 1998 Oct;19(7):455–61

Muscle glycogen accumulation after a marathon: roles of fiber type and pro- and macroglycogen. Asp S, et al. **J Appl Physiol** 1999 Feb;86(2):474–8

Reduced reflex sensitivity persists several days after long-lasting stretch-shortening cycle exercise. Avela J, et al. **J Appl Physiol** 1999 Apr;86(4):1292–300

Metabolic cost of generating horizontal forces during human running. Chang YH, et al. **J Appl Physiol** 1999 May; 86(5):1657–62

Individual variation in response to altitude training. Chapman RF, et al. **J Appl Physiol** 1998 Oct;85(4):1448–56

Explosive-strength training improves 5-km running time by improving running economy and muscle power. Paavolainen L, et al. **J Appl Physiol** 1999 May; 86(5):1527–33

Validity of the heart rate deflection point as a predictor of lactate threshold during running. Vachon JA, et al. **J Appl Physiol** 1999 Jul;87(1):452–9

African runners exhibit greater fatigue resistance, lower lactate accumulation, and higher oxidative enzyme activity. Weston AR, et al. **J Appl Physiol** 1999 Mar;86(3):915–23

High-speed running performance is largely unaffected by hypoxic reductions in aerobic power. Weyand PG, et al. **J Appl Physiol** 1999 Jun;86(6):2059–64

Runners adjust leg stiffness for their first step on a new running surface. Ferris DP, et al. **J Biomech** 1999 Aug; 32(8):787–94

The effect of muscle stiffness and damping on simulated impact force peaks during running. Nigg BM, et al. **J Biomech** 1999 Aug;32(8):849–56

The bioenergetics of optimal performances in middle-distance and long-distance track running. Ward-Smith AJ. **J Biomech** 1999 May;32(5):461–5

Urinary excretion of nitric oxide metabolites in runners, sedentary individuals and patients with coronary artery disease: effects of 42 km marathon, 15 km race and a cardiac rehabilitation program. Rodriguez-Plaza LG, et al. **J Cardiovasc Risk** 1997 Oct-Dec;4(5-6):367–72

High frequency of luteal phase deficiency and anovulation in recreational women runners: blunted elevation in follicle-stimulating hormone observed during luteal-follicular transition. De Souza MJ, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4220–32

Dynamic gearing in running dogs. Carrier DR, et al. **J Exp Biol** 1998 Dec;201 (Pt 23):3185–95

External work and potential for elastic storage at the limb joints of running dogs. Gregersen CS, et al. **J Exp Biol** 1998 Dec;201 (Pt 23):3197–210

Energetics of bipedal running. II. Limb design and running mechanics. Roberts TJ, et al. **J Exp Biol** 1998 Oct;201 (Pt 19):2753–62

Energetics of bipedal running. I. Metabolic cost of generating force. Roberts TJ, et al. **J Exp Biol** 1998 Oct;201 (Pt 19):2745–51

Running, breathing and visceral motion in the domestic rabbit (Oryctolagus cuniculus): testing visceral displacement hypotheses. Simons RS. **J Exp Biol** 1999 Mar;202 (Pt 5):563–77

A nonphotic stimulus inverts the diurnal-nocturnal phase preference in Octodon degus. Kas MJH, et al. **J Neurosci** 1999 Jan 1;19(1):328–33

A trauma-like elevation of plasma cytokines in humans in response to treadmill running. Ostrowski K, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):889–94

Amplitude of the human soleus H reflex during walking and running. Simonsen EB, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):929–39

Anthropometric profiles of elite triathletes. Ackland TR, et al. **J Sci Med Sport** 1998 Jan;1(1):52–6

The dynamic loading response of surfaces encountered in beach running. Barrett RS, et al. **J Sci Med Sport** 1998 Jan;1(1):1–11

Physical performance differences between weight-trained sprinters and weight trainers. Blazevich AJ, et al. **J Sci Med Sport** 1998 Jan;1(1):12–21

The relationship between repeated sprint ability and the aerobic and anaerobic energy systems. Wadley G, et al. **J Sci Med Sport** 1998 Jun;1(2):100–10

Fluid replacement needs of well-trained male and female athletes during indoor and outdoor steady state running. White JA, et al. **J Sci Med Sport** 1998 Sep;1(3):131–42

Correlations between peak power output, muscular strength and cycle time trial performance in triathletes. Bentley DJ,

et al. **J Sports Med Phys Fitness** 1998 Sep;38(3):201–7
Relationship of somatotype and physical characteristics to distance running performance in middle age runners. Berg K, et al. **J Sports Med Phys Fitness** 1998 Sep;38(3):253–7
Validity of the Université de Montréal Track Test to assess the velocity associated with peak oxygen uptake for adolescents. Berthoin S, et al.
J Sports Med Phys Fitness 1999 Jun;39(2):107–12
Anthropometric, strength, and power predictors of sprinting performance. Kukolj M, et al.
J Sports Med Phys Fitness 1999 Jun;39(2):120–2
Lumbar bone mineral density in adolescent female runners. Moen SM, et al. **J Sports Med Phys Fitness** 1998 Sep; 38(3):234–9
Use of heart rate monitors by endurance athletes: lessons from triathletes. O'Toole ML, et al.
J Sports Med Phys Fitness 1998 Sep;38(3):181–7 (21 ref.)
Bench stepping and running in women. Changes in fitness and injury status. Williford HN, et al.
J Sports Med Phys Fitness 1998 Sep;38(3):221–6
Muscular soreness following prolonged intermittent high–intensity shuttle running. Thompson D, et al.
J Sports Sci 1999 May;17(5):387–95
New insights into the effect of wind assistance on sprinting performance. Ward–Smith AJ. **J Sports Sci** 1999 Apr; 17(4):325–34
A modified incremental shuttle run test for the determination of peak shuttle running speed and the prediction of maximal oxygen uptake. Wilkinson DM, et al. **J Sports Sci** 1999 May;17(5):413–9
Thermoregulatory responses to acute heat loads in rats following spontaneous running. Sugimoto N, et al.
Jpn J Physiol 1999 Feb;49(1):47–53
You are better off running than walking with acute vestibulopathy [letter] Brandt T, et al. **Lancet** 1999 Aug 28;354(9180):746
The kinetics of anaerobic metabolism following the initiation of high–intensity exercise. Ward–Smith AJ. **Math Biosci** 1999 Jun;159(1):33–45
Interval training at VO2max: effects on aerobic performance and overtraining markers. Billat VL, et al.
Med Sci Sports Exerc 1999 Jan;31(1):156–63
Effects of acute exercise on plasma erythropoietin levels in trained runners. Bodary PF, et al.
Med Sci Sports Exerc 1999 Apr;31(4):543–6
Biofeedback and relaxation techniques improves running economy in sub–elite long distance runners. Caird SJ, et al. **Med Sci Sports Exerc** 1999 May;31(5):717–22
Effect of incremental test protocol on the lactate minimum speed. Carter H, et al. **Med Sci Sports Exerc** 1999 Jun; 31(6):837–45
Elevated serum antioxidant capacity and plasma malondialdehyde concentration in response to a simulated half–marathon run. Child RB, et al.
Med Sci Sports Exerc 1998 Nov;30(11):1603–7
Relationship between 800–m running performance and accumulated oxygen deficit in middle–distance runners. Craig IS, et al. **Med Sci Sports Exerc** 1998 Nov; 30(11):1631–6
Measurement of maximal oxygen uptake from two different laboratory protocols in runners and squash players. Gibson AS, et al. **Med Sci Sports Exerc** 1999 Aug;31(8):1226–9
Effects of cycling alone or in a sheltered position on subsequent running performance during a triathlon. Hausswirth C, et al. **Med Sci Sports Exerc** 1999 Apr; 31(4):599–604
The prediction of speed and incline in outdoor running in humans using accelerometry. Herren R, et al.
Med Sci Sports Exerc 1999 Jul;31(7):1053–9
Heart attacks and lower–limb function in master endurance athletes. Kujala UM, et al. **Med Sci Sports Exerc** 1999 Jul; 31(7):1041–6
Knee joint kinematics during the sidestep cutting maneuver: potential for injury in women. McLean SG, et al.
Med Sci Sports Exerc 1999 Jul;31(7):959–68
Intermittent running: muscle metabolism in the heat and effect of hypohydration. Maxwell NS, et al.
Med Sci Sports Exerc 1999 May;31(5):675–83
Neuromuscular characteristics and muscle power as determinants of 5–km running performance. Paavolainen LM, et al. **Med Sci Sports Exerc** 1999 Jan;31(1):124–30
Running and ovulation positively change cancellous bone in premenopausal women. Petit MA, et al.
Med Sci Sports Exerc 1999 Jun;31(6):780–7
Predicting competition performance in long–distance running by means of a treadmill test [published erratum appears in Med Sci Sports Exerc 1998 Dec;30(12):1750] Roecker K, et al. **Med Sci Sports Exerc** 1998 Oct;30(10):1552–7
Marathons in altitude. Roi GS, et al.
Med Sci Sports Exerc 1999 May;31(5):723–8
Neuroendocrine responses to running in women after zinc and vitamin E supplementation. Singh A, et al.
Med Sci Sports Exerc 1999 Apr;31(4):536–42
Effects of 4–wk training using Vmax/Tmax on VO2max and performance in athletes. Smith TP, et al.
Med Sci Sports Exerc 1999 Jun;31(6):892–6
The gender difference in distance running performance has plateaued: an analysis of world rankings from 1980 to 1996. Sparling PB, et al. **Med Sci Sports Exerc** 1998 Dec; 30(12):1725–9
Effect of severe exercise on plasma catecholamines in differently trained athletes. Strobel G, et al.
Med Sci Sports Exerc 1999 Apr;31(4):560–5
Effect of carbohydrate ingestion on sprint performance following continuous and intermittent exercise. Sugiura K, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1624–30
An analysis of hip joint loading during walking, running, and skiing. van den Bogert AJ, et al.
Med Sci Sports Exerc 1999 Jan;31(1):131–42
The energy cost of horizontal walking and running in adolescents. Walker JL, et al. **Med Sci Sports Exerc** 1999 Feb;31(2):311–22
Influence of high and low glycemic index meals on endurance running capacity. Wee SL, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):393–9
Running increases cell proliferation and neurogenesis in the adult mouse dentate gyrus [see comments] van Praag H, et al. **Nat Neurosci** 1999 Mar;2(3):266–70. Comment in: Nat Neurosci 1999 Mar;2(3):203–5.
Apoptosis of myofibres and satellite cells: exercise–induced damage in skeletal muscle of the mouse.
Podhorska–Okolow M, et al.
Neuropathol Appl Neurobiol 1998 Dec;24(6):518–31
Decreased neuroendocrine responses to meta–chlorophenylpiperazine (m–CPP) but normal responses to ipsapirone in marathon runners. Broocks A, et al. **Neuropsychopharmacology** 1999 Feb;20(2):150–61
Changes to the gait initiation programme following a running exercise in human subjects. Lepers R, et al.
Neurosci Lett 1999 Jan 22;260(1):69–73
Timing in relay running. Boyadjian A, et al.
Percept Mot Skills 1999 Jun;88(3 Pt 2):1223–30
Validation of several methods of estimating maximal oxygen uptake in young men. McNaughton L, et al.
Percept Mot Skills 1998 Oct;87(2):575–84
A field study of the effects of incline on the escape locomotion of a bipedal lizard, Callisaurus draconoides. Irschick DJ, et al. **Physiol Biochem Zool** 1999 Jan–Feb; 72(1):44–56
Reliability of a protocol for testing endurance performance in runners and cyclists. Doyle JA, et al.
Res Q Exerc Sport 1998 Sep;69(3):304–7
Prediction of VO2max before, during, and after 16 weeks of endurance training. Vehrs P, et al.
Res Q Exerc Sport 1998 Sep;69(3):297–303
A comparison of peak heart rates elicited by the 1–mile run/walk and the progressive aerobic cardiovascular endurance run. Vincent SD, et al. **Res Q Exerc Sport** 1999 Mar;70(1):75–8
Creatine supplementation delays onset of fatigue during repeated bouts of sprint running. Aaserud R, et al.
Scand J Med Sci Sports 1998 Oct;8(5 Pt 1):247–51
Haematological and plasma electrolyte changes after long distance running in high heat and humidity. Singh R, et al. **Singapore Med J** 1999 Feb;40(2):84–7
Does psychological stress improve physical performance? Takemura Y, et al. **Tohoku J Exp Med** 1999 Feb; 187(2):111–20
[Method for recovering and concentrating lactic acid during interval training] Faye J, et al. **Dakar Med** 1996;41(1):37–40 (Eng. Abstr.) **(Fre)**
[Effect if 6–week nutritional intervention with enzymatic yeast cells and antioxidants on exercise stress and antioxidant status] König D, et al.
Wien Med Wochenschr 1999;149(1):13–8 (Eng. Abstr.) **(Ger)**
[The behavior of FEV1 and PEFR in the free running test for the detection of exercise–induced asthma in childhood] García de la Rubia S, et al. **An Esp Pediatr** 1998 Sep; 49(3):237–40 (Eng. Abstr.) **(Spa)**
[The effect of a race 4 hours in duration on the production of beta–endorphin and adrenocorticotropic hormone] Estorch M, et al. **Med Clin (Barc)** 1998 Dec 12; 111(20):770–3 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Illness behaviour in elite middle and long distance runners. Currie A, et al. **Br J Sports Med** 1999 Feb;33(1):19–21
Cognitive orientations in marathon running and "hitting the wall" [see comments] Stevinson CD, et al.
Br J Sports Med 1998 Sep;32(3):229–34; discussion 234–5 . Comment in: Br J Sports Med 1999 Apr;33(2):142.
Self–perception in elite collegiate female gymnasts, cross–country runners, and track–and–field athletes. Saint–Phard D, et al. **Mayo Clin Proc** 1999 Aug;74(8):770–4
Strategic aspects of reaction time in world–class sprinters. Collet C. **Percept Mot Skills** 1999 Feb;88(1):65–75

STATISTICS & NUMERICAL DATA

Power laws and athletic performance. Katz JS, et al.
J Sports Sci 1999 Jun;17(6):467–76

RUNT DISEASE see **GRAFT VS HOST DISEASE**

RURAL HEALTH

see related

AGRICULTURAL WORKERS' DISEASES

The potential impact of rural mayday systems on vehicular crash fatalities. Evanco WM. **Accid Anal Prev** 1999 Sep; 31(5):455–62
Contrasting influence of the living environment and gender on systemic hypertension in Saudi population of Gassim, Saudi Arabia. Soyannwo MA, et al.
Afr J Med Med Sci 1997 Sep–Dec;26(3–4):145–52
Adolescent pregnancy and reproductive health in Transkei (rural South Africa). Makiwane MB.
Afr J Reprod Health 1998 Apr;2(1):41–8
Antiretroviral drugs as a public health intervention for pregnant HIV–infected women in rural South Africa: an issue of cost–effectiveness and capacity [see comments] Wilkinson D, et al. **AIDS** 1998 Sep 10;12(13):1675–82. Comment in: AIDS 1998 Sep 10;12(13):1571–80.
Foundations for effective strategies to control sexually transmitted infections: voices from rural Kenya. Moss W, et al. **AIDS Care** 1999 Feb;11(1):95–113
Gallstone disease in high–altitude Peruvian rural populations [see comments] Moro PL, et al. **Am J Gastroenterol** 1999 Jan;94(1):153–8. Comment in: Am J Gastroenterol 1999 Aug;94(8):2320.
What's driving an epidemic? The spread of syphilis along an interstate highway in rural North Carolina. Cook RL, et al. **Am J Public Health** 1999 Mar;89(3):369–73
Ultrasonography as an aid to diagnosis and treatment in a rural African hospital: a prospective study of 1,119 cases. Steinmetz JP, et al. **Am J Trop Med Hyg** 1999 Jan; 60(1):119–23
Rural realities [letter; comment] [published erratum appears in Anesthesiology 1999 Mar;90(3):937] Aldrete JA, et al. **Anesthesiology** 1998 Dec;89(6):1597–8. Comment on: Anesthesiology 1998 Mar;88(3):568–71.
Major medical and social needs of disabled rural inhabitants. Karwat ID. **Ann Agric Environ Med** 1998;5(2):117–26
Working environment conditions in rural areas according to psychosocial indices. Thelin AG.
Ann Agric Environ Med 1998;5(2):139–45
Study of growth in rural school children from Buenos Aires, Argentina using upper arm muscle area by height and other anthropometric dimensions of body composition. Bolzan A, et al. **Ann Hum Biol** 1999 Mar–Apr;26(2):185–93
An analysis of the determinants of anaemia in pregnant women in rural Malawi—a basis for action. Verhoeff FH, et al. **Ann Trop Med Parasitol** 1999 Mar;93(2):119–33
Association of ambient air quality with children's lung function in urban and rural Iran. Asgari MM, et al.
Arch Environ Health 1998 May–Jun;53(3):222–30
Rural health professionals' satisfaction with a rehabilitation mobile outreach program. Wilson KG, et al.
Arch Phys Med Rehabil 1999 Mar;80(3):332–8
Effect of abuse on self–perception of rural Mexican–American and non–Hispanic white adolescents. Champion JD. **Arch Psychiatr Nurs** 1999 Feb;13(1):12–8
Screening and predicting adolescent depressive symptoms in rural settings. Puskar KR, et al. **Arch Psychiatr Nurs** 1999 Feb;13(1):3–11
Drug abundance: situation of drugs and drug distribution in the villages of rural Thailand. Sri–Ngernyuang L.
Asia Pac J Public Health 1996–97;9:18–23
Fifth disease in a small rural community. What are the consequences? Kelly HA, et al. **Aust Fam Physician** 1999 Feb;28(2):139–44
Rural public health matters [editorial] Keleher H.
Aust N Z J Public Health 1999 Aug;23(4):342
Differences in growth among remote and town–dwelling aboriginal children in the Kimberley region of Western Australia. Rousham EK, et al.
Aust N Z J Public Health 1998 Oct;22(6):690–4
Incidence of low birth weight in three selected communities of Bangladesh. Nahar N, et al.
Bangladesh Med Res Counc Bull 1998 Aug;24(2):49–54
Childhood malaria in the Lao People's Democratic Republic. Anothay O, et al. **Bull World Health Organ** 1998;76 Suppl 1:29–34
The relationship between E. coli indicator bacteria in well–water and gastrointestinal illnesses in rural families. Raina PS, et al. **Can J Public Health** 1999 May–Jun; 90(3):172–5
Syphilis in Murewa District, Zimbabwe: an old problem that rages on. Kambarami RA, et al. **Cent Afr J Med** 1998 Sep; 44(9):229–32
Rural thoracotomy that had to be done [letter] Mhaka RJ. **Cent Afr J Med** 1998 Aug;44(8):208–10
Distributional patterns of bacterial diarrhoeagenic agents and antibiograms of isolates from diarrhoeaic and non–diarrhoeaic patients in urban and rural areas of Nigeria. Obi CL, et al. **Cent Afr J Med** 1998 Sep; 44(9):223–9
Orthodontic treatment demand—differences between urban and rural areas. Bergström K, et al.
Community Dent Health 1998 Dec;15(4):272–6
Standardized comparison of glucose intolerance in west African–origin populations of rural and urban Cameroon, Jamaica, and Caribbean migrants to Britain. Mbanya JC, et al. **Diabetes Care** 1999 Mar;22(3):434–40
Endemic goitre and urinary iodine levels in rural communities in the Bolgatanga and Builsa districts of the upper east region of Ghana. Asibey–Berko E, et al.
East Afr Med J 1998 Sep;75(9):501–3
Community perceptions and treatment seeking for malaria in Baringo district, Kenya: implications for disease control. Munguti KJ. **East Afr Med J** 1998 Dec;75(12):687–91
Assessment of behavioural risk factors associated with HIV infection among youth in Moshi rural district, Tanzania. Tengia–Kessy A, et al. **East Afr Med J** 1998 Sep; 75(9):528–32

RURAL HEALTH

A focus on farming health in Iowa [news] Barrett J. **Environ Health Perspect** 1999 Mar;107(3):A142-3

Psychosocial assessment of lathyrism patients in rural Estie district of South Gondar, northern Ethiopia. Getahun H, et al. **Ethiop Med J** 1998 Jan;36(1):9-18

Physical activity patterns of rural Senegalese adolescent girls during the dry and rainy seasons measured by movement registration and direct observation methods. Benefice E, et al. **Eur J Clin Nutr** 1999 Aug;53(8):636-43

Rural surgery, caring for developing communities. Banerjee JK. **Eur J Surg** 1999 Jan;165(1):69-71

Enhancing the family medicine curriculum in deliveries and emergency medicine as a way of developing a rural teaching site. Rodney WM, et al. **Fam Med** 1998 Nov-Dec; 30(10):712-9

Building a regional clinical campus: experience with preclinical students [letter; comment] Todini CR, et al. **Fam Med** 1999 Jan;31(1):6-7. Comment on: Fam Med 1998 Jul-Aug;30(7):472.

Assessment of vaccine coverage of schoolchildren in three primary health care areas in rural Crete, Greece. Lionis C, et al. **Fam Pract** 1998 Oct;15(5):443-8

Estimation of health state and physical efficiency of children from rural area of Lubin-Glogow copper-basin and lead levels in blood serum. Preliminary results. Ignasiak Z, et al. **Folia Morphol (Warsz)** 1998;57(3):257-62

Improving a system of care for elderly persons in rural areas. Harris D, et al. **Gerontologist** 1999 Jun;39(3):362-7

Pathways to mental health services among inhabitants of a Mexican village. Salgado de Snyder VN, et al. **Health Soc Work** 1998 Nov;23(4):249-61

Pre-operational health status of a rural community living around the Kakrapar Atomic Power Station. Gadhia PK, et al. **Indian J Public Health** 1998 Oct-Dec;42(4):136-7, 140

Sociomedical problems of aged population in a rural area of Wardha district. Kishore S, et al. **Indian J Public Health** 1997 Apr-Jun;41(2):43-8

Pregnancy wastage in rural Varanasi: relationship with maternal nutrition and sociodemographic characteristics. Agarwal DK, et al. **Indian Pediatr** 1998 Nov;35(11):1071-9

The nutrient density of present-day and traditional diets and their health aspects: the Sami- and lumberjack families living in rural areas of Northern Sweden. Håglin L. **Int J Circumpolar Health** 1999 Jan;58(1):30-43

Dietary intake of primary school children in relation to food production in a rural area in KwaZulu-Natal, South Africa. Faber M, et al. **Int J Food Sci Nutr** 1999 Jan;50(1):57-64

Nutrient intake of rural pregnant women of Haryana state, northern India: relationship between income and education. Panwar B, et al. **Int J Food Sci Nutr** 1998 Sep;49(5):391-5

Drinking water source and spontaneous abortion: A cross-sectional study in a rural Chinese population. Cho SI, et al. **Int J Occup Environ Health** 1999 Jul-Sep; 5(3):164-9

Birth weight and environmental pollution in the county of Telemark, Norway. Hansteen IL, et al. **Int J Occup Environ Health** 1998 Apr-Jun;4(2):63-70

Nutritional status of rural elderly Malays: dietary and biochemical findings. Shahar S, et al. **Int J Vitam Nutr Res** 1999 Jul;69(4):277-84

Beliefs about children's illness. Pebley A, et al. **J Biosoc Sci** 1999 Apr;31(2):195-219

Older rural adults and the decision to stop driving: the influence of family and friends. Johnson JE. **J Community Health Nurs** 1998;15(4):205-16

Nursing assessment of older rural drivers. Johnson JE. **J Community Health Nurs** 1998;15(4):217-24

Recipient and provider perspectives of barriers to rural prenatal care. Omar MA, et al. **J Community Health Nurs** 1998;15(4):237-49

Listening to migrant voices: focus groups on health issues in south Georgia. Perilla JL, et al. **J Community Health Nurs** 1998;15(4):251-63

Health concerns and risk behaviors of rural adolescents. Puskar KR, et al. **J Community Health Nurs** 1999; 16(2):109-19

Preexisting medical conditions in adult day services: an examination of nonmetropolitan and metropolitan admissions. Travis SS, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):M262-6

Managed care in rural markets: availability and enrollment. Wysong JA, et al. **J Health Care Poor Underserved** 1999 Feb;10(1):72-84

Prepregnancy body mass index, weight gain during pregnancy, and perinatal outcome in a rural black population. Ogunyemi D, et al. **J Matern Fetal Med** 1998 Jul-Aug;7(4):190-3

Undergraduate preparation for primary health care roles in an academic nursing center. Tyree EA, et al. **J Nurs Educ** 1998 Nov;37(8):337-44

Urban-rural variations in suicides and undetermined deaths in England and Wales. Saunderson T, et al. **J Public Health Med** 1998 Sep;20(3):261-7

Clergy perspectives and practices regarding intimate violence: a rural view. Strickland GA, et al. **J Rural Health** 1998 Fall;14(4):305-11 (29 ref.)

Rural junior high school students' risk factors for and perceptions of teen-age parenthood. Robinson KL, et al. **J Sch Health** 1998 Oct;68(8):334-8

Infant feeding practices in rural Bangladesh: policy implications. Ahmed S, et al. **J Trop Pediatr** 1999 Feb; 45(1):37-41

Income characteristics of rural older women and implications for health status. Barnes ND, et al. **J Women Aging** 1999; 11(1):27-37

Subjective realities of rural older women's lives: a case study [see comments] Shenk D. **J Women Aging** 1998;10(4):7-24 . Comment in: J Women Aging 1998 ;10(4):81-90.

Childhood malnutrition and postwar reconstruction in rural El Salvador: a community-based survey. Brentlinger PE, et al. **JAMA** 1999 Jan 13;281(2):184-90

An office on Main Street [editorial] **Lancet** 1999 Sep 11; 354(9182):877

Improving cervical cytology screening in a remote, high risk population. Shield PW, et al. **Med J Aust** 1999 Mar 15; 170(6):255-8

Maternity and family leave policies in rural family practices. Mainguy S, et al. **Minn Med** 1998 Sep;81(9):22-4

Burnout in rural general practitioners [letter] Jenkins D. **N Z Med J** 1998 Aug 28;111(1072):328

Development and evaluation of the Rural Trauma and Emergency Care Roadshow. Tracey J, et al. **N Z Med J** 1999 Apr 23;112(1086):144-7

Utility of produce ratios to track fruit and vegetable consumption in a rural community, church-based 5 A Day intervention project. Demark-Wahnefried W, et al. **Nutr Cancer** 1999;33(2):213-7

An intervention to decrease cancer fatalism among rural elders. Powe BD, et al. **Oncol Nurs Forum** 1999 Apr; 26(3):583-8

Determinants of bone loss in a rural Japanese community: the Taiji Study. Yoshimura N, et al. **Osteoporos Int** 1998; 8(6):604-10

Health impact assessments of malaria and Ross River virus infection in the Southern Highlands Province of Papua New Guinea. Hii J, et al. **P N G Med J** 1997 Mar; 40(1):14-25

Changing epidemiology of injury-related pediatric mortality in a rural state: implications for injury control. Rausch TK, et al. **Pediatr Emerg Care** 1998 Dec;14(6):388-92

The impact of paramedics on out-of-hospital cardiac arrests in a rural community. Kriegsman WE Jr, et al. **Prehosp Emerg Care** 1998 Oct-Dec;2(4):274-9

Domestic violence among patients at two rural health care clinics: prevalence and social correlates. Van Hightower NR, et al. **Public Health Nurs** 1998 Oct;15(5):355-62

Stroke in rural South Africa--contributing to the little known about a big problem. Kahn K, et al. **S Afr Med J** 1999 Jan;89(1):63-5

The relationship between tobacco access and use among adolescents: a four community study [see comments] Altman DG, et al. **Soc Sci Med** 1999 Mar;48(6):759-75. Comment in: Soc Sci Med 1999 Mar;48(6):757-8.

Attaining health for all through community partnerships: principles of the census-based, impact-oriented (CBIO) approach to primary health care developed in Bolivia, South America. Perry H, et al. **Soc Sci Med** 1999 Apr; 48(8):1053-67

NGOs in community health insurance schemes: examples from Guatemala and the Philippines. Ron A. **Soc Sci Med** 1999 Apr;48(7):939-50

HIV/AIDS in nonurban Alabama: risk activities and access to services among HIV-infected persons. Beltrami JF, et al. **South Med J** 1999 Jul;92(7):677-83

Prevalence of hepatitis B and C infection markers among adult women in urban and rural areas in Shaanxi Province, China. Shimbo S, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):263-8

Rural attitudes, opinions, and drug use. Logan TK, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):545-65

Readiness for drug use prevention in rural minority communities. Plested B, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):521-44

Child labour [news] **Trop Doct** 1999 Jan;29(1):57-8

Snake bites in rural area of Maharashtra State, India. Bakshi SA. **Trop Doct** 1999 Apr;29(2):104-5

Who dies from what? Determining cause of death in South Africa's rural north-east. Kahn K, et al. **Trop Med Int Health** 1999 Jun;4(6):433-41

Community prevalence study of taeniasis and cysticerosis in Bali, Indonesia. Sutisna IP, et al. **Trop Med Int Health** 1999 Apr;4(4):288-94

Microorganisms associated with wound infection in Ekpoma, Nigeria. Emele FE, et al. **West Afr J Med** 1999 Apr-Jun; 18(2):97-100

Hepatitis E virus seroprevalence in children living in rural Ghana. Martinson FE, et al. **West Afr J Med** 1999 Apr-Jun; 18(2):76-9

[Vaccination and pathologic status of children in a rural area in Senegal (Khombole) (letter)] Diouf S, et al. **Arch Pediatr** 1999 Aug;6(8):903 **(Fre)**

[Agricultural workers' health] Herland OB. **Tidsskr Nor Laegeforen** 1999 Jun 20;119(16):2371 **(Nor)**

[The population-demographic structure and the prevalence of multifactorial diseases affecting the viability of the population of Kursk region] Ivanov VP, et al. **Genetika** 1998 Aug;34(8):1163-7 (Eng. Abstr.) **(Rus)**

[East European gene pool and diseases in the rural population of European Russia] Rychkov IuG, et al. **Genetika** 1998 Aug;34(8):1138-50 (Eng. Abstr.) **(Rus)**

[Sanitary quality of water for human consumption a in rural community of Mexico] Isaac Márquez AP, et al. **Acta Cient Venez** 1998;49(3):187-92 (Eng. Abstr.) **(Spa)**

[Rural environment: a challenge for the future (editorial)] Reguant i Fosas M. **Aten Primaria** 1998 Nov 15; 22(8):479-80 **(Spa)**

[Calcium and phosphorus balance in rural lactating women in Mexico] DeSantiago S, et al. **Rev Invest Clin** 1998 Jul-Aug;50(4):293-300 (Eng. Abstr.) **(Spa)**

[Free amino acids in plasma and milk of mexican rural lactating women] DeSantiago S, et al. **Rev Invest Clin** 1998 Sep-Oct;50(5):405-12 (Eng. Abstr.) **(Spa)**

[Popular education and child nutrition: experience with women in a rural area of Mexico] Arenas-Monreal L, et al. **Rev Saude Publica** 1999 Apr;33(2):113-21 (Eng. Abstr.) **(Spa)**

HISTORY

[Zemstvo medicine in the Olonets region] Kashin VI. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):45-6 **(Rus)**

[Early history of zemstvo medicine in the northern districts of Russia] Kukoviakin SA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):42-3 **(Rus)**

[Zemstvo reform and zemstvo medicine in the middle Volga region] Kuz'min V1u. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):43-5 **(Rus)**

STANDARDS

Is anterior chamber lens implantation after intracapsular cataract extraction safe in rural black patients in Africa? A pilot study in KwaZulu-Natal, South Africa. Cook CD, et al. **Eye** 1998;12 (Pt 5):821-5

Washington policy makers and rural health: do they get it? Ambrose PW. **Fam Med** 1999 Apr;31(4):237-8

Old, female, and rural. Introduction [editorial] McCulloch BJ. **J Women Aging** 1998;10(4):1-5 (15 ref.)

Rural health and human rights [letter; comment] Larsen J. **S Afr Med J** 1998 Dec;88(12):1533. Comment on: S Afr Med J 1998 Aug;88(8):980-2.

[Evaluation of food consumption patterns and nutrition in 4 rural communities] Aguirre-Arenas J, et al. **Salud Publica Mex** 1998 Sep-Oct;40(5):398-407 (Eng. Abstr.) **(Spa)**

STATISTICS & NUMERICAL DATA

Ocular morbidity survey in an opthalmically underserved rural area of Nigeria. Fafowora OF, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):35-8

Adolescent pregnancy and reproductive health in Transkei (rural South Africa). Makiwane MB. **Afr J Reprod Health** 1998 Apr;2(1):41-8

Rural epidemiology: insights from a rural population laboratory. Pearson TA, et al. **Am J Epidemiol** 1998 Nov 15;148(10):949-57

Tissue burden of asbestos in nonoccupationally exposed individuals from east Texas. Dodson RF, et al. **Am J Ind Med** 1999 Mar;35(3):281-6

The impact of short stature on child morbidity in a rural African community. Ibrahim MM, et al. **Ann Trop Paediatr** 1998 Jun;18(2):145-54

Washing machine usage in remote aboriginal communities. Lloyd CR. **Aust N Z J Public Health** 1998 Oct;22(6):695-9

Disease patterns among Canadian aboriginal children. Study in a remote rural setting. Harris SB, et al. **Can Fam Physician** 1998 Sep;44:1869-77

Dental fluorosis and nutritional status of 6- to 11-year-old children living in rural areas of Paraiba, Brazil. Correia Sampaio F, et al. **Caries Res** 1999;33(1):66-73

Prevalence of hay fever and allergic sensitization in farmer's children and their peers living in the same rural community. SCARPOL team. Swiss Study on Childhood Allergy and Respiratory Symptoms with Respect to Air Pollution. Braun-Fahrländer C, et al. **Clin Exp Allergy** 1999 Jan; 29(1):28-34

Human enteric pathogens identified in a London teaching hospital and a rural public health laboratory: 1994. Barrett SP, et al. **Commun Dis Public Health** 1998 Sep;1(3):152-5

Prevalence of some risk factors of coronary heart disease in a rural Nigerian population. Okesina AB, et al. **East Afr Med J** 1999 Apr;76(4):212-6

Cancer mortality in agricultural regions of Minnesota. Schreinemachers DM, et al. **Environ Health Perspect** 1999 Mar;107(3):205-11

Relationship of national highway with injecting drug abuse and HIV in rural Manipur, India. Sarkar K, et al. **Indian J Public Health** 1997 Apr-Jun;41(2):49-51

Trauma on rural roads: the role of a peripheral hospital. Street JT, et al. **Injury** 1999 Jun;30(5):337-40

Education attainment as a predictor of HIV risk in rural Uganda: results from a population-based study. Smith J, et al. **Int J STD AIDS** 1999 Jul;10(7):452-9

Headaches and psychopathology in children and adolescents. Egger HL, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Sep;37(9):951-8

The prevalence of diabetes and associated coronary risk factors in urban and rural older Mexican populations. Lerman IG, et al. **J Am Geriatr Soc** 1998 Nov; 46(11):1387-95

Evaluation of a campaign to improve immunization in a rural headstart program. Mayer JP, et al. **J Community Health** 1999 Feb;24(1):13-27

Prevalence of anti-hepatitis C antibodies in a rural community without high mortality from liver disease in Niigata prefecture. Kayaba K, et al. **J Epidemiol** 1998 Oct; 8(4):250–5

Urban–rural variations in health in The Netherlands: does selective migration play a part? Verheij RA, et al. **J Epidemiol Community Health** 1998 Aug;52(8):487–93

Paediatric hearing loss in rural Pakistan. Elahi MM, et al. **J Otolaryngol** 1998 Dec;27(6):348–53

Prevalence of Alzheimer's disease and other dementias in rural India: the Indo–US study [see comments] Chandra V, et al. **Neurology** 1998 Oct;51(4):1000–8. Comment in: Neurology 1999 Apr 22;52(7):1517.

HIV risk factors among people with severe mental illness in urban and rural areas. Brunette MF, et al. **Psychiatr Serv** 1999 Apr;50(4):556–8

Abuse against women in rural Minnesota. Kershner M, et al. **Public Health Nurs** 1998 Dec;15(6):422–31

Rural and urban problem drinkers in six Southern states. Booth BM, et al. **Subst Use Misuse** 1999 Mar–Apr; 34(4–5):471–93

Differences in drug use among rural and suburban high school students in Ohio. Falck RS, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):567–77

Opportunities for AIDS prevention in a rural state in criminal justice and drug treatment settings. Farabee D, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):617–31

Drug use and HIV risks among migrant workers on the DelMarVa Peninsula. Inciardi JA, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):653–66

HIV seroprevalence across the rural/urban continuum. McCoy CB, et al. **Subst Use Misuse** 1999 Mar–Apr; 34(4–5):595–615

Tooth loss and periodontal bone level in individuals of Jönköping County. A comparison between two adult populations living in the city and in the surrounding area. Norderyd O, et al. **Swed Dent J** 1998;22(4):165–74

Prevalence of exercise induced bronchospasm in Kenyan school children: an urban–rural comparison [see comments] Ng'ang'a LW, et al. **Thorax** 1998 Nov;53(11):919–26 (30 ref.). Comment in: Thorax 1998 Nov;53(11):909–10.

The burden of mucocutaneous conditions and the association with HIV–1 infection in a rural community in Uganda. Mayanja B, et al. **Trop Med Int Health** 1999 May; 4(5):349–54

[Prevalence of arterial hypertension and related factors in a marginated rural population] Guerrero–Romero JF, et al. **Salud Publica Mex** 1998 Jul–Aug;40(4):339–46 (Eng. Abstr.) **(Spa)**

TRENDS

The provision of general surgical services in rural South Australia: a new model for rural surgery. Bruening MH, et al. **Aust N Z J Surg** 1998 Nov;68(11):764–8

RURAL HEALTH SERVICES

see related
SUBURBAN HEALTH SERVICES

Only if she has a fishing rod! Towey R, et al. **BMJ** 1998 Dec 19–26;317(7174):1711

Barriers to rural physician use of a digital health sciences library. D'Alessandro DM, et al. **Bull Med Libr Assoc** 1998 Oct;86(4):583–93

Symposium: The University of Iowa Digital Library Project. Introduction: Reaching rural. Kienzle MG, et al. **Bull Med Libr Assoc** 1998 Oct;86(4):552

Packaged treatment for first–line care in cerebral malaria and meningitis. Cullinan TR, et al. **Bull World Health Organ** 1998;76(3):257–64

Confidential inquiry into malaria deaths. Dürrheim DN, et al. **Bull World Health Organ** 1999;77(3):263–6

Northern British Columbia chronicle. Tales of a flown–in doctor. Deagle G. **Can Fam Physician** 1999 Feb;45:277–9

No more Band–Aid solutions for rural medicine [letter] McCaffrey M. **CMAJ** 1998 Oct 6;159(7):761

Computerized documentation for a rural nursing intervention project. Yancey R, et al. **Comput Nurs** 1998 Sep–Oct; 16(5):275–84

An office on Main Street. Health care dilemmas in small communities. Roberts LW, et al. **Hastings Cent Rep** 1999 Jul–Aug;29(4):28–37

A mobile unit: an effective service for cervical cancer screening among rural Thai women. Swaddiwudhipong W, et al. **Int J Epidemiol** 1999 Feb;28(1):35–9

Maximising the world wide web for high quality educational and clinical support to health and medical professionals in rural areas. Walker J, et al. **Int J Med Inf** 1998 Jun; 50(1–3):287–91

Detection and treatment of depressive syndromes in a rural island clinic. Thompson MA, et al. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):120–7

Assessing community attitude towards home–based care for people with AIDS (PWAs) in Kenya. Olenja JM. **J Community Health** 1999 Jun;24(3):187–99

Accessibility and perceived value of health services in five western Illinois rural communities. Watts PR, et al. **J Community Health** 1999 Apr;24(2):147–57

Cognition and utilization of Papanicolaou testing after the implementation of National Health Insurance in rural Taiwan. Huang CP, et al. **J Formos Med Assoc** 1999 Jan; 98(1):19–23

Screening assessment of persons 40–59 years of age in rural Thailand by a mobile health unit. Swaddiwudhipong W, et al. **J Med Assoc Thai** 1999 Feb;82(2):131–9

Tele–education in a telemedicine environment: implications for rural health care and academic medical centers. Zollo SA, et al. **J Med Syst** 1999 Apr;23(2):107–22

Development of an instrument to measure community acceptance of nurse practitioners and physician assistants. Baer LC, et al. **J Nurs Meas** 1999 Spring;7(1):63–77

Building a research agenda: responding to the needs of Community and Migrant Health Centers. Mueller KJ, et al. **J Rural Health** 1998 Fall;14(4):289–94

The effects of community and migrant health centers on rural communities [editorial] Ricketts TC. **J Rural Health** 1998 Fall;14(4):287–8

Effective health education in rural Gambia. Hoare K, et al. **J Trop Pediatr** 1999 Aug;45(4):208–14

Modern health services versus traditional engozi system in Uganda [letter] Katabarwa M. **Lancet** 1999 Jul 24; 354(9175):343

Biomedicine on the spatial periphery: the (re)production of a metaphorical landscape by rural health care practitioners in northern California. Lockhart C. **Med Anthropol Q** 1999 Jun;13(2):163–85

Future of medical training in Australia [letter; comment] Craven JA. **Med J Aust** 1998 Sep 21;169(6):342. Comment on: Med J Aust 1998 May 18;168(10:504–5.

Rural Eastern Carolina Health (REACH). A model community health improvement program. Cummings DM, et al. **N C Med J** 1999 Jan–Feb;60(1):26–8

Networking rural health resources. The woman who cried wolf. Ferenz L, et al. **N C Med J** 1998 Nov–Dec; 59(6):354–6

Initiation of capnography in a rural EMS system. Thaxton JN, et al. **Prehosp Emerg Care** 1999 Jan–Mar;3(1):23–6

Experience with a rural telepsychiatry clinic for children and adolescents. Ermer DJ. **Psychiatr Serv** 1999 Feb; 50(2):260–1

A rural vision of a healthy community. Hornberger CA, et al. **Public Health Nurs** 1998 Oct;15(5):363–9

Community service [letter] Couper ID. **S Afr Med J** 1999 Feb;89(2):106, 108

Adolescent smoking prevention––primary health care in cooperation with local schools. A controlled intervention study. Svoen N, et al. **Scand J Prim Health Care** 1999 Mar; 17(1):54–8

Primary–care delivery for sickle cell patients in rural Georgia using telemedicine. Woods K, et al. **Telemed J** 1998 Winter; 4(4):353–61

Colonoscopy in rural family practice––response [letter; comment] [see comments] Carr KW, et al. **Tenn Med** 1999 Jan;92(1):28. Comment on: Tenn Med 1998 Dec;91(12):474. Comment in: Tenn Med 1999 May;92(5):157.

Colonoscopy in rural family practice––rebuttal to response [letter; comment] Frakes JT, et al. **Tenn Med** 1999 May; 92(5):157. Comment on: Tenn Med 1998 Jan;91(1):21–6. Comment on: Tenn Med 1998 Dec;91(12):474. Comment on: Tenn Med 1999 Jan;92(1):28.

Medicare rural hospital flexibility program. Jolley B. **Tenn Med** 1999 Sep;92(9):345–6

Practice patterns of rural Texas physicians trained in a full–service family practice residency program. Young RA, et al. **Tex Med** 1999 Feb;95(2):64–8

Traditional birth attendants' advice toward breast–feeding, immunization and oral rehydration among mothers in rural Bangladesh. Rashid M, et al. **Women Health** 1999; 28(3):33–44

Evaluation of rural ambulance services. Doherty J, et al. **World Health Forum** 1998;19(3):315–9

[Primary health care in Thailand with community participation special reference to Japanese assistance] Rakue Y, et al. **Nippon Koshu Eisei Zasshi** 1998 Jun; 45(6):578–85 (11 ref.) (Eng. Abstr.) **(Jpn)**

[Physicians in primary health care in Northern Norway 1995–97] Andersen F, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1296–8 (Eng. Abstr.) **(Nor)**

[Rural internship in dentistry in Rio de Janeiro, Brazil] de Oliveira BH. **Rev Panam Salud Publica** 1998 Aug; 4(2):121–5 (Eng. Abstr.) **(Por)**

ECONOMICS

Solutions prove elusive as Ontario seeks alternatives to FFS in remote areas. OReilly M. **CMAJ** 1998 Oct 6;159(7):840–1

Impact of the BBA on Medicare HMO payments for rural areas. Schoenman JA. **Health Aff (Millwood)** 1999 Jan–Feb; 18(1):244–54

Medical cost for disability: a longitudinal observation of national health insurance beneficiaries in Japan. Tsuji I, et al. **J Am Geriatr Soc** 1999 Apr;47(4):470–6

General practice deprivation payments: are rural practices disadvantaged? O'Reilly D, et al. **J Epidemiol Community Health** 1998 Aug;52(8):530–1

Tracking the response to the Balanced Budget Act of 1997: impact on Medicare managed care enrollment in rural counties. McBride TD, et al. **J Rural Health** 1999 Winter; 15(1):67–77

Use of a cost accounting system to evaluate costs of a VA special program. Menke TJ, et al. **Med Care** 1999 Apr;37(4 Suppl Va):AS45–53

Defending telepsychiatry [letter; comment] Chen DT, et al. **Psychiatr Serv** 1999 Feb;50(2):266; discussion 267–8. Comment on: Psychiatr Serv 1998 Oct;49(10):1287–90.

Defending telepsychiatry [letter; comment] Smith HA. **Psychiatr Serv** 1999 Feb;50(2):266–7; discussion 267–8. Comment on: Psychiatr Serv 1998 Oct;49(10):1287–90.

Rural telepsychiatry is economically unsupportable: the Concorde crashes in a cornfield [see comments] Werner A, et al. **Psychiatr Serv** 1998 Oct;49(10):1287–90. Comment in: Psychiatr Serv 1999 Feb;50(2):266; discussion 267–8. Comment in: Psychiatr Serv 1999 Feb;50(2):266–7; discussion 267–8. Comment in: Psychiatr Serv 1999 Feb;50(2):267–8.

Rural health prepayment schemes in China: towards a more active role for government. Bloom G, et al. **Soc Sci Med** 1999 Apr;48(7):951–60 (36 ref.)

Treatment costs and loss of work time to individuals with chronic lymphatic filariasis in rural communities in south India. Ramaiah KD, et al. **Trop Med Int Health** 1999 Jan; 4(1):19–25

HISTORY

Pioneering community–oriented primary care. Susser M. **Bull World Health Organ** 1999;77(5):436–8

Replacing the company doctor: Pruden Valley, Tennessee, and the development of the miners' clinics. Mulcahy R. **Tenn Med** 1999 Mar;92(3):91–5

MANPOWER

CD–ROM use by rural physicians. Short MW. **Bull Med Libr Assoc** 1999 Apr;87(2):206–10

Proper training in rural medicine [letter] Dunlop PE. **Can Fam Physician** 1999 May;45:1148–9

Unsympathetic to physician shortage [letter] Fenje P Jr. **Can Fam Physician** 1999 Jun;45:144]–2

Physician supply to rural areas challenged [letter] Thorogood W. **Can Fam Physician** 1999 May;45:1148

Rural background and clinical rural rotations during medical training: effect on practice location [see comments] Easterbrook M, et al. **CMAJ** 1999 Apr 20;160(8):1159–63 . Comment in: CMAJ 1999 Apr 20;160(8):1173–4.

Newfoundland angers its MDs by seeking medical help from armed forces. Ryan B. **CMAJ** 1998 Sep 22;159(6):705–6

Recruiting rural doctors: ending a Sisyphean task [editorial; comment] Tepper JD, et al. **CMAJ** 1999 Apr 20; 160(8):1173–4. Comment on: CMAJ 1999 Apr 20;160(8):1159–63.

Smoky Hill is good example of how RRTs work [letter; comment] Allred C, et al. **Fam Med** 1998 Sep;30(8):543–4 . Comment on: Fam Med 1998 Feb;30(2):90–3. Comment on: Fam Med 1998 Feb;30(2):94–9. Comment on: Fam Med 1998 Feb;30(2):100–2.

Interdisciplinary rural health training for health professional students: strategies for curriculum design. Lilley SH, et al. **J Allied Health** 1998 Fall–Winter;27(4):208–12

Availability of primary care providers and pharmacists in the United States. Knapp KK, et al. **J Am Pharm Assoc (Wash)** 1999 Mar–Apr;39(2):127–35

The Balanced Budget Act of 1997 and rural training supported by Medicare graduate medical education funds. Crittenden RA. **J Rural Health** 1999 Winter;15(1):21–5

Multi–method assessment of access to primary medical care in rural Colorado. Fryer GE Jr, et al. **J Rural Health** 1999 Winter;15(1):113–21

Proposed changes to designations of medically underserved populations and health professional shortage areas: effects on rural areas. Goldsmith LJ, et al. **J Rural Health** 1999 Winter;15(1):44–54

Are there need–based geographical differences between international medical graduates and U.S. medical graduates in rural U.S. counties? Mick SS, et al. **J Rural Health** 1999 Winter;15(1):26–43

Physician practice characteristics and satisfaction: a rural–urban comparison of medical directors at U.S. Community and Migrant Health Centers. Shi L, et al. **J Rural Health** 1998 Fall;14(4):346–56

A program to increase the number of family physicians in rural and underserved areas: impact after 22 years. Rabinowitz HK, et al. **JAMA** 1999 Jan 20;281(3):255–60

Do international medical graduates reduce rural physician shortages? Baer LD, et al. **Med Care** 1998 Nov; 36(11):1534–44

The rural health care workforce implications of practice guideline implementation. Yawn BP, et al. **Med Care** 1999 Mar;37(3):259–69

A profile of rural surgeons in Australia [see comments] Bruening MH, et al. **Med J Aust** 1998 Sep 21;169(6):324–6 . Comment in: Med J Aust 1998 Sep 21;169(6):293–4.

Retaining a medical workforce in rural Australia [editorial; comment] Cameron I. **Med J Aust** 1998 Sep 21;169(6):293–4 . Comment on: Med J Aust 1998 Sep 21;169(6):318–21. Comment on: Med J Aust 1998 Sep 21;169(6):324–6.

Loss of rural practitioners [letter] Harding JG. **Med J Aust** 1999 Jan 18;170(2):96

Staying in or leaving rural practice: 1996 outcomes of rural doctors' 1986 intentions [see comments] Kamien M. **Med J Aust** 1998 Sep 21;169(6):318–21. Comment in: Med J Aust 1998 Sep 21;169(6):293–4.

Fulfilling regional needs for specialty nurses through limited–cohort graduate education. Block DE, et al. **Nurs Outlook** 1999 Jan–Feb;47(1):23–9

Acceptance of nurse practitioners and physician assistants in meeting the perceived needs of rural communities. Baldwin KA, et al. **Public Health Nurs** 1998 Dec;

15(6):389–97
[How to solve the shortage of physicians in the rural districts? (letter; comment)] Finholt E. **Tidsskr Nor Laegeforen** 1999 Mar 10;119(7):1002. Comment on: Tidsskr Nor Laegeforen 1999 Feb 10;119(4):487. **(Nor)**

ORGANIZATION & ADMINISTRATION

An inter-network approach to providing mental health care to older persons: the case of Oneida County. Laditka SB, et al. **Adm Policy Ment Health** 1999 Mar;26(4):297–302
Eye care outreach to an underserved rural population in Oyo State. Fafowora OF, et al. **Afr J Med Med Sci** 1996 Sep; 25(3):303–6
Cancer prevention in rural primary care. An academic-practice partnership. Greene PG, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):58–62
Evaluation of a community-based program to improve infant immunization rates in rural Minnesota. Hellerstedt WL, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):50–7
Rural health care delivery [letter] Gerard WA, et al. **Ann Emerg Med** 1999 Jun;33(6):725–6
The Cardiovascular Health Education Program: assessing the impact on rural and urban adolescents' health knowledge. MacDonald SA. **Appl Nurs Res** 1999 May;12(2):86–90
Care provision and community adjustment of rural consumers with serious mental illness. Kane C, et al. **Arch Psychiatr Nurs** 1999 Feb;13(1):19–29
School screening in remote aboriginal communities--results of an evaluation. Paterson B, et al. **Aust N Z J Public Health** 1998 Oct;22(6):685–9
Evaluation of visual outcome of cataract surgery in an Indian eye camp. Kapoor H, et al. **Br J Ophthalmol** 1999 Mar; 83(3):343–6
The Pholela Health Centre. A progress report. 1952 [classical article] Kark SL, et al. **Bull World Health Organ** 1999; 77(5):439–47
Multi-victim sexual assault: a case study in rural Australia. Clapton S, et al. **Child Abuse Negl** 1999 Apr;23(4):395–404
Psychiatric treatment of children and adolescents in rural communities. Myths and realities. Cook AD, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Jul;7(3):673–90 (45 ref.)
Rural medicine needs cradle-to-grave strategy: blueprint. Sibbald B. **CMAJ** 1999 Mar 9;160(5):705
Telemedicine precepting in a family practice center [see comments] Mills OF, et al. **Fam Med** 1999 Apr;31(4):239–43 . Comment in: Fam Med 1999 Apr;31(4):244–5. Comment in: Fam Med 1999 Apr;31(4):246–7.
Medicaid managed care in rural areas: a ten-state follow-up study. Felt-Lisk S, et al. **Health Aff (Millwood)** 1999 Mar-Apr;18(2):238–45
Rural integrated systems in California: preparing for managed care. Weisgrau S, et al. **Health Aff (Millwood)** 1999 Sep-Oct;18(5):237–41
Tuberculosis patient care decentralised to district clinics with community-based directly observed treatment in a rural district of South Africa. Edginton ME. **Int J Tuberc Lung Dis** 1999 May;3(5):445–50
A report on home visiting practices conducted in remote districts of Nepal in an NGO-run tuberculosis control programme. White AJ, et al. **Int J Tuberc Lung Dis** 1999 Jun;3(6):534–6
Community Health Centers: part of the health care safety net. Wilson N. **J Ark Med Soc** 1998 Dec;95(7):295–6
Health professions students as research partners in community oriented primary care. Doyle DB, et al. **J Community Health** 1998 Oct;23(5):337–46
Health status and access to care among rural minorities. Mueller KJ, et al. **J Health Care Poor Underserved** 1999 May;10(2):230–49 (193 ref.)
Report from the front lines: rural Medicaid primary care providers as gatekeepers of rural health service networks. Butcher AH, et al. **J La State Med Soc** 1998 Aug; 150(8):372–83
Missouri Advantage. Casey M, et al. **J Rural Health** 1998 Summer;14(3):257–67
United Health Care of North Carolina. Casey M, et al. **J Rural Health** 1998 Summer;14(3):200–10
Regence HMO Oregon. Casey M, et al. **J Rural Health** 1998 Summer;14(3):244–56
NorthMed HMO. Christianson J, et al. **J Rural Health** 1998 Summer;14(3):233–43
Potential effects of managed care organizations in rural communities: a framework. Christianson J. **J Rural Health** 1998 Summer;14(3):169–79 (2 ref.)
Preparing rural communities for managed care: lessons learned. Fasciano NJ, et al. **J Rural Health** 1999 Winter; 15(1):78–86
AHCPR-funded rural managed care centers: report from the field. Hartley D, et al. **J Rural Health** 1999 Winter; 15(1):87–93
Research on managed care organizations in rural communities. Krein S, et al. **J Rural Health** 1998 Summer; 14(3):180–99 (84 ref.)
Policies for rural health care: they work ... sometimes [editorial] Ricketts TC. **J Rural Health** 1999 Winter; 15(1):7–10
Rocky Mountain HMO. Wellever A, et al. **J Rural Health** 1998 Summer;14(3):211–23
Medical Associates HMO. Wellever A, et al. **J Rural Health** 1998 Summer;14(3):224–32
Implications of HMOs for rural providers and consumers. Wellever A. **J Rural Health** 1998 Summer;14(3):268–73
Pediatric tuberculosis in rural South Africa--value of directly observed therapy. Wilkinson D, et al. **J Trop Pediatr** 1998 Oct;44(5):266–9
WHO's DOTS strategy. Directly observed therapy [letter; comment] Proctor MH. **Lancet** 1999 Feb 27;353(9154):755 . Comment on: Lancet 1998 Dec 12;352(9144):1886–91.
Community-based nursing: continence care for older rural women. Dougherty MC, et al. **Nurs Outlook** 1998 Sep-Oct; 46(5):233–44
A comparison of urban versus rural experiences of nurses volunteering to promote health in churches. Chase-Ziolek M, et al. **Public Health Nurs** 1999 Aug;16(4):270–9
Is there a role for the obstetric flying squad in Peninsula Malaysia? Monga D, et al. **Singapore Med J** 1999 Feb; 40(2):78–80
The reform of the rural cooperative medical system in the People's Republic of China: interim experience in 14 pilot counties. Carrin G, et al. **Soc Sci Med** 1999 Apr; 48(7):961–72
Compulsory medical service in Ecuador: the physician's perspective. Cavender A, et al. **Soc Sci Med** 1998 Dec; 47(12):1937–46
Effectiveness of community-directed diabetes prevention and control in a rural Aboriginal population in British Columbia, Canada. Daniel M, et al. **Soc Sci Med** 1999 Mar; 48(6):815–32
Drug policy in China: pharmaceutical distribution in rural areas. Dong H, et al. **Soc Sci Med** 1999 Mar;48(6):777–86
Developing a rural therapy with big city approaches. Leukefeld CG, et al. **Subst Use Misuse** 1999 Mar-Apr; 34(4-5):747–62

STANDARDS

Ultrasound-guided fine needle aspiration cytology of impalpable breast lesions in a rural setting. Comparison of cytology with imaging and final outcome. Zardawi IM, et al. **Acta Cytol** 1999 Mar-Apr;43(2):163–8
Improving quality in general practice: qualitative case study of barriers faced by health authorities. Marshall MN. **BMJ** 1999 Jul 17;319(7203):164–7
A qualitative assessment of the referral system at district level in Zimbabwe: implications on efficiency and effective delivery of health services. Hongoro C, et al. **Cent Afr J Med** 1998 Apr;44(4):93–7
Quality, accessibility, and contraceptive use in rural Tanzania. Mroz TA, et al. **Demography** 1999 Feb; 36(1):23–40
The only answer to the dilemma of the health care industry: total emphasis on rural health care in America [editorial] Fiser RH Jr. **J Ark Med Soc** 1998 Dec;95(7):268–9
Frontier ethics: mental health care needs and ethical dilemmas in rural communities. Roberts LW, et al. **Psychiatr Serv** 1999 Apr;50(4):497–503
Improving client outcomes through differentiated practice: a rural nursing center model. Anderko L, et al. **Public Health Nurs** 1999 Jun;16(3):168–75
Rural health and human rights--summary of a submission to the Truth and Reconciliation Commission Health Sector Hearings, 17 June 1997 [see comments] Reid S, et al. **S Afr Med J** 1998 Aug;88(8):980–2. Comment in: S Afr Med J 1998 Dec;88(12):1533.
[Community emergency medical service. Epidemiology and quality of treatment in a rural district] Donner-Banzhoff N, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Mar; 34(3):140–5 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Rural epidemiology: insights from a rural population laboratory. Pearson TA, et al. **Am J Epidemiol** 1998 Nov 15;148(10):949–57
Systematic review of cancer treatment programmes in remote and rural areas. Campbell NC, et al. **Br J Cancer** 1999 Jun;80(8):1275–80
Medicaid managed care programs in rural areas: a fifty-state overview. Slifkin RT, et al. **Health Aff (Millwood)** 1998 Nov-Dec;17(6):217–27
Dr B. C. Dasgupta Memorial Oration. Rural health services and human resources development in India--an overview. Dutta PK. **Indian J Public Health** 1998 Jul-Sep; 42(3):66–70, 87 (7 ref.)

SUPPLY & DISTRIBUTION

Barriers to care among persons living with HIV/AIDS in urban and rural areas. Heckman TG, et al. **AIDS Care** 1998 Jun;10(3):365–75
Dollars for dialysis. The height of helping out. Castrey M. **Hosp Health Netw** 1998 Nov 20;72(22):46
Evaluation of a continuing medical education programme for rural and remote health-care professionals [letter] Crowe BL, et al. **J Telemed Telecare** 1998;4(4):241–2
Rural women's satisfaction and stress as family health care gatekeepers. Hemard JB, et al. **Women Health** 1998; 28(2):55–77

TRENDS

The growing presence of managed care in rural areas. Christianson J. **J Rural Health** 1998 Summer;14(3):166–8
Do targeted efforts for the rural underserved help kill comprehensive reform? Taylor DH Jr. **J Rural Health** 1999 Winter;15(1):55–60 (27 ref.)
Future rural managed care issues. Wellever A. **J Rural Health** 1998 Summer;14(3):274–7
[Quality of care of patients with diabetes mellitus living in a rural area of Germany] Schiel R, et al. **Med Klin** 1999 Mar 15;94(3):127–32 (Eng. Abstr.) **(Ger)**

UTILIZATION

The impact of case management on utilization of community support services in a rural state. Rohland BM, et al. **Adm Policy Ment Health** 1998 Nov;26(2):125–35
Acceptability of voluntary HIV testing with counselling in a rural village in Kagera, Tanzania. Killewo JZ, et al. **AIDS Care** 1998 Aug;10(4):431–9
Utilization of mental health services among rural elderly. Neese JB, et al. **Arch Psychiatr Nurs** 1999 Feb;13(1):30–40
Household health care facility utilization in the Philippines. Russo G, et al. **Asia Pac J Public Health** 1996–97;9:6–12
Private business: the uptake of confidential HIV testing in remote aboriginal communities on the Anangu Pitjantjatjara Lands. Miller PJ, et al. **Aust N Z J Public Health** 1998 Oct;22(6):700–3
Community based study of treatment seeking among subjects with symptoms of sexually transmitted disease in rural Uganda. Paxton LA, et al. **BMJ** 1998 Dec 12; 317(7173):1630–1
Household survey of access to and utilisation of emergency oral health care services in rural Tanzania. Ntabaye MK, et al. **East Afr Med J** 1998 Nov;75(11):649–53
Differences in the use of health care facilities and patterns of general risk factors in farmers with and without occupational health care programs. Thelin A, et al. **Int J Occup Environ Health** 1999 Jul-Sep;5(3):170–6
Medical cost for disability: a longitudinal observation of national health insurance beneficiaries in Japan. Tsuji I, et al. **J Am Geriatr Soc** 1999 Apr;47(4):470–6
The health status of veterans using mobile clinics in rural areas. Wray NP, et al. **J Health Care Poor Underserved** 1999 Aug;10(3):338–48
Multi-method assessment of access to primary medical care in rural Colorado. Fryer GE Jr, et al. **J Rural Health** 1999 Winter;15(1):113–21
Primary cesarean section rates in uninsured, Medicaid and insured populations of predominantly rural northern New England. Onion DK, et al. **J Rural Health** 1999 Winter; 15(1):108–12
Physician visits in a farming-dependent county. Rohrer JE, et al. **J Rural Health** 1998 Fall;14(4):338–45
Residential differences in attitudes about barriers to using community-based services among older adults. Schoenberg NE, et al. **J Rural Health** 1998 Fall;14(4):295–304
"Staying close to shore": a context for older rural widows' use of health care [see comments] Porter EJ. **J Women Aging** 1998;10(4):25–39. Comment in: J Women Aging 1998 ;10(4):81–90.
Preventive health care among rural American Indians in New Mexico. Gilliland FD, et al. **Prev Med** 1999 Feb; 28(2):194–202
[Community emergency medical service. Epidemiology and quality of treatment in a rural district] Donner-Banzhoff N, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Mar; 34(3):140–5 (Eng. Abstr.) **(Ger)**
[The repercussions of a displaced population on a rural health center (letter)] Bachiller Pérez JM, et al. **Aten Primaria** 1999 May 31;23(9):553–4 **(Spa)**
[The pediatric prescription according to its origin and the motive for the consultation in a basic rural health area] Pérez MT, et al. **Aten Primaria** 1999 May 31;23(9):515–9 (Eng. Abstr.) **(Spa)**

RURAL HOSPITALS see **HOSPITALS, RURAL**

RURAL POPULATION

Preparing and retaining rural physicians through medical education. Pathman DE, et al. **Acad Med** 1999 Jul; 74(7):810–20
Composition of long chain polyunsaturated fatty acids in human milk and growth of young infants in rural areas of northern China. Xiang M, et al. **Acta Paediatr** 1999 Feb; 88(2):126–31
Rural and urban adolescents' perceptions of mental health. Chimonides KM, et al. **Adolescence** 1998 Winter; 33(132):823–32
Effects of a unit of instruction in mental health on rural adolescents' conceptions of mental illness and attitudes about seeking help. Esters IG, et al. **Adolescence** 1998 Summer;33(130):469–76
Improving quality of sexually transmitted disease case management in rural South Africa. Harrison A, et al. **AIDS** 1998 Dec 3;12(17):2329–35
Allergic disease in teenagers in relation to urban or rural residence at various stages of childhood. Nilsson L, et al. **Allergy** 1999 Jul;54(7):716–21
Teacher, parent, and youth report of problem behaviors among rural American Indian and Caucasian adolescents. Fisher PA, et al. **Am Indian Alsk Native Ment Health Res** 1998;8(2):1–23
Role of schools in the transmission of measles in rural Senegal: implications for measles control in developing

countries [see comments] Cisse B, et al. **Am J Epidemiol** 1999 Feb 15;149(4):295–301. Comment in: Am J Epidemiol 1999 Feb 15;149(4):302–3.

Rural epidemiology: insights from a rural population laboratory. Pearson TA, et al. **Am J Epidemiol** 1998 Nov 15;148(10):949–57

Invited commentary: vaccine failure or failure to vaccinate? [comment] [see comments] Strebel P, et al. **Am J Epidemiol** 1999 Feb 15;149(4):302–3. Comment on: Am J Epidemiol 1999 Feb 15;149(4):295–301. Comment in: Am J Epidemiol 1999 Feb 15;149(4):304–5.

Rural realities [letter; comment] [published erratum appears in Anesthesiology 1999 Mar;90(3):937] Aldrete JA, et al. **Anesthesiology** 1998 Dec;89(6):1597–8. Comment on: Anesthesiology 1998 Mar;88(3):568–71.

Aspects of dental health in adult rural population in Poland. Szymańska J, et al. **Ann Agric Environ Med** 1998;5(2):103–8 (32 ref.)

Use of a handheld, battery-operated chemistry analyzer for evaluation of heat-related symptoms in the backcountry of Grand Canyon National Park: a brief report. Backer HD, et al. **Ann Emerg Med** 1999 Apr;33(4):418–22

Blood pressure at age 3–24 years in a rural community in Anhui, China. Wang X, et al. **Ann Epidemiol** 1998 Nov; 8(8):504–12

Use of focus groups with rural women of lower socioeconomic status. Williams RD. **Appl Nurs Res** 1999 Feb;12(1):45–50

Rural service delivery: unique challenges, creative solutions. Coleman TJ, et al. **ASHA** 1999 Jan–Feb;41(1):40–5

Perceptions of care access: the experience of rural and urban women following brain injury. Sample PL, et al. **Brain Inj** 1998 Oct;12(10):855–74

Clinical, cytogenetic and toxicological studies in rural workers exposed to pesticides in Botucatu, São Paulo, Brazil. Bréga SM, et al. **Cad Saude Publica** 1998;14 Suppl 3:109–15

Levels of organochlorine pesticides in the blood serum of agricultural workers from Rio de Janeiro, Brazil. Paumgartten FJ, et al. **Cad Saude Publica** 1998;14 Suppl 3:33–9

Public opinion and knowledge about childhood sexual abuse in a rural community. Calvert JF Jr, et al. **Child Abuse Negl** 1999 Jul;23(7):671–82

Preliminary validation of a parental adjustment measure for use with families of disabled children in rural India. Pal DK, et al. **Child Care Health Dev** 1998 Jul;24(4):315–24

An adolescent vampire cult in rural America: clinical issues and case study. Miller TW, et al. **Child Psychiatry Hum Dev** 1999 Spring;29(3):209–19

Research notes on social order and subjectivity: individuals' experience of susto and fallen fontanelle in a rural community in central Mexico. Castro R, et al. **Cult Med Psychiatry** 1998 Jun;22(2):203–30

High levels of circulating proinflammatory cytokines and leptin in urban, but not rural, Indians. A potential explanation for increased risk of diabetes and coronary heart disease [letter] Yudkin JS, et al. **Diabetes Care** 1999 Feb;22(2):363–4

Health-related quality of life for rural American Indians in New Mexico. Gilliland FD, et al. **Ethn Health** 1998 Aug; 3(3):223–9

Food intake, serum lipids and amino acids of school children in agricultural communities in Japan. Fukushima T, et al. **Eur J Clin Nutr** 1999 Mar;53(3):207–10

Iron status of middle-aged women in five counties of rural China. Root MM, et al. **Eur J Clin Nutr** 1999 Mar; 53(3):199–206

Response to health insurance by previously uninsured rural children. Tilford JM, et al. **Health Serv Res** 1999 Aug; 34(3):761–75

Potential for abusive parenting by rural mothers with low-birth-weight children. Sachs B, et al. **Image J Nurs Sch** 1999;31(1):21–5

Diet & nutrition situation in rural India. Vijayaraghavan K, et al. **Indian J Med Res** 1998 Nov;108:243–53 (19 ref.)

Study of 'at risk' factors in rural under five children. Aswar NR, et al. **Indian J Med Sci** 1998 Oct;52(10):438–41

Obesity: as rural females perceive it. Tiwari RR, et al. **Indian J Med Sci** 1998 Jun;52(6):248–52

Nutritional status, psychosocial development and the home environment of Indian rural children. Vazir S, et al. **Indian Pediatr** 1998 Oct;35(10):959–66

Risk behaviours and AIDS knowledge in a rural community of Senegal: relationship with sources of AIDS information. Lagarde E, et al. **Int J Epidemiol** 1998 Oct;27(5):890–6

The effect of distance from home on attendance at a small rural health centre in Papua New Guinea. Müller I, et al. **Int J Epidemiol** 1998 Oct;27(5):878–84

Food diversity versus breastfeeding choice in determining anthropometric status in rural Kenyan toddlers. Onyango A, et al. **Int J Epidemiol** 1998 Jun;27(3):484–9

Mothers prolong breastfeeding of undernourished children in rural Senegal. Simondon KB, et al. **Int J Epidemiol** 1998 Jun;27(3):490–4

Perceptions and patterns of reproductive tract infections in a young rural population in North-West Namibia. Harms G, et al. **Int J STD AIDS** 1998 Dec;9(12):744–50

Chlamydia trachomatis infection in a rural population: the importance of screening men. Michelson KN, et al. **Int J STD AIDS** 1999 Jan;10(1):32–7

Malaria is associated with reduced serum retinol levels in rural Zambian children. Hautvast JL, et al. **Int J Vitam Nutr Res** 1998;68(6):384–8

Epidemiology of obesity: an epidemiological study in rural communities of Hokkaido, Japan. Saitoh S, et al. **Intern Med** 1999 Feb;38(2):195–7 (3 ref.)

Current zinc intake and risk of diabetes and coronary artery disease and factors associated with insulin resistance in rural and urban populations of North India [see comments] Singh RB, et al. **J Am Coll Nutr** 1998 Dec;17(6):564–70. Comment in: J Am Coll Nutr 1998 Dec;17(6):542–3.

Indicators of nutritional risk in a rural elderly Hispanic and non-Hispanic white population: San Luis Valley Health and Aging Study. Marshall JA, et al. **J Am Diet Assoc** 1999 Mar;99(3):315–22

Knowledge, attitude and practices related to dengue in rural and slum areas of Delhi after the dengue epidemic of 1996. Gupta P, et al. **J Commun Dis** 1998 Jun;30(2):107–12

A follow-up comparison of study participants and refusers within a rural elderly population. Ganguli M, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M465–70

Prevalence and determinants of hypertension in an un-industrialised rural population of North India. Malhotra P, et al. **J Hum Hypertens** 1999 Jul;13(7):467–72

Awareness of hypertension among a north Indian population. Gupta AK, et al. **J Indian Med Assoc** 1998 Oct; 96(10):298–9, 311

The epidemiology of viral hepatitis in children in South Texas: increased prevalence of hepatitis A along the Texas–Mexico border. Leach CT, et al. **J Infect Dis** 1999 Aug;180(2):509–13

Cluster of Machado–Joseph disease in a small rural town near Nagasaki City, Japan: clinical and genetic studies of two families [letter] Seto M, et al. **J Neurol** 1999 May; 246(5):405–7

Psychometric assessment of four fatigue scales with a sample of rural cancer patients. Winstead-Fry P. **J Nurs Meas** 1998 Winter;6(2):111–22

Caregiver behaviors and resources influence child height-for-age in rural Chad. Bégin F, et al. **J Nutr** 1999 Mar;129(3):680–6

Lymphocyte subset profile of young healthy children residing in a rural area: possible role of recurrent gastrointestinal infections. Granot E, et al. **J Pediatr Gastroenterol Nutr** 1999 Feb;28(2):147–51

Prevalence of antinuclear antibodies in a rural population. Rosenberg AM, et al. **J Toxicol Environ Health** 1999 Jun 25;57(4):225–36

Serum trace elements and fat-soluble vitamins A and E in healthy pre-school children from a Venezuelan rural community. Brunetto MR, et al. **J Trace Elem Med Biol** 1999 Jul;13(1–2):40–50

Rural-urban women's experience of symptoms of depression related to economic hardship. Craft BJ, et al. **J Women Aging** 1998;10(3):3–18

The role of the family: disability and rehabilitation in rural Jamaica. Thorburn MJ. **Lancet** 1999 Aug 28; 354(9180):762–3

Effect of subclinical infection on maintaining immunity against measles in vaccinated children in West Africa. Whittle HC, et al. **Lancet** 1999 Jan 9;353(9147):98–102

Age and bronchial hyperresponsiveness are associated with failure to perform the single breath N2 test in a rural female population. Teculescu D, et al. **Lung** 1999;177(3):151–9

Urban-rural differences in employer-based health insurance coverage of workers. Coburn AF, et al. **Med Care Res Rev** 1998 Dec;55(4):484–96

Urban-rural differences in Medicare in Missouri. Sheikh K, et al. **Mo Med** 1999 Feb;96(2):67–73

Comparing the severity of obstructive sleep apnea in patients referred by urban and rural physicians. McCall WV, et al. **N C Med J** 1998 Nov–Dec;59(6):358–61

Family recruitment issues and strategies: caregiving in rural African Americans. Eaves YD. **Nurs Res** 1999 May–Jun; 48(3):183–7

The prevalence of obesity and its determinants in urban and rural aging Mexican populations. Lerman-Garber I, et al. **Obes Res** 1999 Jul;7(4):402–6

Aldehyde dehydrogenase genotypes and male alcohol use disorders: a case-control study in Khon Kaen, north-east Thailand. Nanakorn S, et al. **Psychiatry Clin Neurosci** 1999 Jun;53(3):397–405

Love styles among Guatemalans in a local village. Parra F, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1199–202

AIDS awareness of secondary school pupils in the northern province of South Africa. Peltzer K, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):955–8

Use of the SF-36 to identify community dwelling rural elderly at risk for hospitalization. Benjamin-Coleman R, et al. **Public Health Nurs** 1999 Jun;16(3):223–7

Residential status and birth outcomes: is the rural/urban distinction adequate? Hulme PA, et al. **Public Health Nurs** 1999 Jun;16(3):176–81

A cholesterol intervention program for public health nurses in the rural southeast: description of the intervention, study design, and baseline results. Keyserling TC, et al. **Public Health Nurs** 1999 Jun;16(3):156–67

Trace elements total content and particle sizes distribution in the air particulate matter of a rural-residential area in north Italy investigated by instrumental neutron activation analysis. Rizzio E, et al. **Sci Total Environ** 1999 Feb 2; 226(1):47–56

Women's strategies to alleviate nutritional stress in a rural African society. Bentley GR, et al. **Soc Sci Med** 1999 Jan; 48(2):149–62

Predictors of childhood immunization completion in a rural population. Gore P, et al. **Soc Sci Med** 1999 Apr; 48(8):1011–27

Risk analysis of poor health and growth failure of children in the central highlands of Guatemala. Immink MD, et al. **Soc Sci Med** 1999 Apr;48(8):997–1009

Things ain't what they ought to be: social forces underlying racial disparities in rates of sexually transmitted diseases in a rural North Carolina county. Thomas JC, et al. **Soc Sci Med** 1999 Oct;49(8):1075–84

Recommendations to bridge rural/urban drug-use(r) research and practice. Leukefeld CG, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):785–93

Colonoscopy in rural family practice [letter; comment] [see comments] Frakes JT, et al. **Tenn Med** 1998 Dec;91(12):474 . Comment on: Tenn Med 1998 Jan;91(1):21–6. Comment in: Tenn Med 1999 Jan;92(1):28. Comment in: Tenn Med 1999 May;92(5):157.

Health-promoting behaviors of rural adolescent women. Felton GM, et al. **Women Health** 1998;27(4):67–80

Health status of urban and rural elders in Korea. Yoo IY, et al. **Yonsei Med J** 1998 Oct;39(5):417–23

[The physical development of children living in a settlement with a high nitrate content in the drinking water] Gatseva P, et al. **Probl Khig** 1997;22:108–14 (Eng. Abstr.) **(Bul)**

[Vaccination and pathologic status of children in a rural area in Senegal (Khombole) (letter)] Diouf S, et al. **Arch Pediatr** 1999 Aug;6(8):903 **(Fre)**

[Malaria in infants in a rural area of maritime Guinea (Guinea Conakry). II. Development of antimalarial antibodies and malaria during the first year of life] Diallo P, et al. **Bull Soc Pathol Exot** 1998;91(4):291–6 (Eng. Abstr.) **(Fre)**

[Malaria in the infant in a rural area of maritime Guinea (Guinea Conakry). I. Immune and parasitic status of the mother and the newborn] Sylla A, et al. **Bull Soc Pathol Exot** 1998;91(4):287–90 (Eng. Abstr.) **(Fre)**

[Physicians help children with skin diseases in Africa] Kohl PK. **Hautarzt** 1998 Nov;49(11):867–9 **(Ger)**

[Food habits and cardiovascular risk factors in 2 population samples of western Sicily] Avellone G, et al. **Ann Ital Med Int** 1997 Oct–Dec;12(4):210–6 (Eng. Abstr.) **(Ita)**

[Prevalence of dementia and its subtypes in a rural area in Japan] Nakajima K, et al. **Nippon Ronen Igakkai Zasshi** 1998 Jul;35(7):530–4 (Eng. Abstr.) **(Jpn)**

[Dietary assessment of adults in three villages in Warsaw, Radom and Biała Podlaska districts] Pietruszka B, et al. **Rocz Panstw Zakl Hig** 1998;49(2):219–29 (Eng. Abstr.) **(Pol)**

[Distribution of ABO and Rhesus phenotypes and genes in the population of Kursk region] Ivanov VP, et al. **Genetika** 1998 Dec;34(12):1686–91 (Eng. Abstr.) **(Rus)**

[Population-demographic structure of the population of Kursk region: anthropometric profile of newborn children] Ivanov VP, et al. **Genetika** 1998 Dec;34(12):1692–8 (Eng. Abstr.) **(Rus)**

[Distribution of family names in rural populations of Kursk region] Ivanov VP, et al. **Genetika** 1998 Aug;34(8):1114–9 (Eng. Abstr.) **(Rus)**

[Lactation performance in rural women with low bioavailability of nutrients from the regular diet] Alonso L, et al. **Arch Latinoam Nutr** 1998 Jun;48(2):122–8 (Eng. Abstr.) **(Spa)**

[The efficacy of a physiotherapy program in the treatment of stress urinary incontinence in a female rural population (see comments)] Bretones Alcaraz JJ, et al. **Aten Primaria** 1998 Sep 30;22(5):302–7 (Eng. Abstr.). Comment in: Aten Primaria 1999 Feb 15;23(2):103–4. **(Spa)**

[The consumption of drugs and natural remedies in the older population of a rural area] Gri E, et al. **Aten Primaria** 1999 May 15;23(8):455–60 (Eng. Abstr.) **(Spa)**

[The efficacy of a physiotherapy program in treating stress urinary incontinence in a rural female population, some nuances (letter; comment)] Vila-Coll MA, et al. **Aten Primaria** 1999 Feb 15;23(2):103–4. Comment on: Aten Primaria 1998 Sep 30;22(5):302–7. **(Spa)**

[The evidence for higher blood pressures in children and adolescents of the rural interior of Galicia than in other locations in Spain] Muñiz J, et al. **Rev Esp Cardiol** 1998 Oct;51(10):823–31 (Eng. Abstr.) **(Spa)**

STATISTICS & NUMERICAL DATA

Machinery-related injuries: regional rural injury study--I (RRIS--I). Gerberich SG, et al. **Accid Anal Prev** 1998 Nov; 30(6):793–804

Seasonal affective disorders among rural Finns and Lapps. Saarijärvi S, et al. **Acta Psychiatr Scand** 1999 Feb; 99(2):95–101

Urban-rural comparisons of drink-driving behaviour among late teens: a preliminary investigation. Dunsire M, et al. **Alcohol Alcohol** 1999 Jan–Feb;34(1):59–64

Prevalence and subtypes of dementia in a rural Chinese population. Liu HC, et al. **Alzheimer Dis Assoc Disord** 1998 Sep;12(3):127–34

HIV-1 incidence among opiate users in northern Thailand. Celentano DD, et al. **Am J Epidemiol** 1999 Mar 15; 149(6):558–64

RURAL POPULATION

Re: Moro et al.: gallstone disease in high altitude Peruvian rural populations [letter; comment] Kyriacou E. **Am J Gastroenterol** 1999 Aug;94(8):2320. Comment on: Am J Gastroenterol 1999 Jan;94(1):153–8.

Prevalence of epilepsy in Silivri, a rural area of Turkey. Karaagaç N, et al. **Epilepsia** 1999 May;40(5):637–42

Project 4: substance use, abuse and dependence among the adult population in a rural and urban region of northern Germany. Hapke U, et al. **Eur Addict Res** 1998 Dec; 4(4):208–9

Asthma and respiratory symptoms in urban and rural Saudi Arabia. Hijazi N, et al. **Eur Respir J** 1998 Jul;12(1):41–4

Survival from cervical cancer in Barshi registry, rural India. Jayant K, et al. **IARC Sci Publ** 1998;(145):69–77

Nutritional status of rural non-pregnant non-lactating women in reproductive age. Srivastava M, et al. **Indian Pediatr** 1998 Oct;35(10):975–83

Hospital separation rates from osteoporotic and non-osteoporotic fractures in metropolitan and rural Australia. Peach HG, et al. **Injury** 1999 Mar;30(2):101–3

Indoor biofuel air pollution and respiratory health: the role of confounding factors among women in highland Guatemala. Bruce N, et al. **Int J Epidemiol** 1998 Jun; 27(3):454–8

Nematode intestinal parasites of children in rural Guinea, Africa: prevalence and relationship to geophagia. Glickman LT, et al. **Int J Epidemiol** 1999 Feb;28(1):169–74

The present situation of the use of hearing aids in rural areas of Sri Lanka: problems and future prospects. Furuta H, et al. **Int J Rehabil Res** 1998 Mar;21(1):103–7

Clinical profile of hypertrophic cardiomyopathy identified de novo in rural communities. Maron BJ, et al. **J Am Coll Cardiol** 1999 May;33(6):1590–5

Trauma deaths in a rural area. Trevillyan J, et al. **J Ark Med Soc** 1998 Dec;95(7):290–3

Inequalities in mortality and illness in Trent NHS Region. Huff N, et al. **J Public Health Med** 1999 Mar;21(1):81–7

Suicide among young Australians, 1964–1993: an interstate comparison of metropolitan and rural trends [letter; comment] Christie LE. **Med J Aust** 1998 Nov 2;169(9):500 . Comment on: Med J Aust 1998 Jul 20;169(2):77–80.

Suicide among young Australians, 1964–1993: an interstate comparison of metropolitan and rural trends [letter; comment] Samuels AH. **Med J Aust** 1998 Nov 2; 169(9):500–1. Comment on: Med J Aust 1998 Jul 20;169(2):77–80. Comment on: Med J Aust 1998 Jul 20;169(2):100–2.

Prevalence of dementia in the rural village of Hanazono-mura, Japan. Shiba M, et al. **Neuroepidemiology** 1999;18(1):32–6

Epidemiology of eye injuries in rural Tanzania. Abraham DI, et al. **Ophthalmic Epidemiol** 1999 Jun;6(2):85–94

Dental caries and fluorosis among children in a rural Georgia area. Adair SM, et al. **Pediatr Dent** 1999 Mar–Apr; 21(2):81–5

Changing epidemiology of injury-related pediatric mortality in a rural state: implications for injury control. Rausch TK, et al. **Pediatr Emerg Care** 1998 Dec;14(6):388–92

Prevalence of minor psychiatric disorders in an adult African rural community in South Africa. Bhagwanjee A, et al. **Psychol Med** 1998 Sep;28(5):1137–47

Water management practices in rural and urban homes: a case study from Bangladesh on ingestion of polluted water. Ahmed SA, et al. **Public Health** 1998 Sep;112(5):317–21

Family demography in a remote rural community in Zambia. Ashworth TG. **Public Health** 1998 Sep;112(5):313–6

Geographical variation in rate of schizophrenia in rural Ireland by place at birth vs place at onset. Youssef HA, et al. **Schizophr Res** 1999 Jun 22;37(3):233–43

Tanzania 1996: results from the demographic and health survey. **Stud Fam Plann** 1998 Sep;29(3):324–8

The effect of child mortality on fertility regulation in rural Bangladesh. Rahman M. **Stud Fam Plann** 1998 Sep; 29(3):268–81

Short birth intervals don't kill women: evidence from Matlab, Bangladesh. Ronsmans C, et al. **Stud Fam Plann** 1998 Sep; 29(3):282–90 (34 ref.)

Drug treatment experiences: rural and urban comparisons. Metsch LR, et al. **Subst Use Misuse** 1999 Mar–Apr; 34(4–5):763–84

Patterns of drug use among nonmetropolitan and rural adults. Robertson E, et al. **Subst Use Misuse** 1998 Aug; 33(10):2109–29

Drug use in very rural Alaska villages. Stillner V, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):579–93

[Incidence of neural tube defects in the Magdeburg administrative district] Rösch C, et al. **Gesundheitswesen** 1998 Oct;60(10):563–6 (Eng. Abstr.) **(Ger)**

[Prevalence and treatment of depressive syndromes in homes for the aged. Survey of a rural catchment area] Mönking HS, et al. **Psychiatr Prax** 1998 Jul;25(4):183–5 (Eng. Abstr.) **(Ger)**

[Changes in mortality in Switzerland since 1950. II. Regional differences within Switzerland] Bopp M, et al. **Schweiz Med Wochenschr** 1999 May 29;129(21):799–809 (Eng. Abstr.) **(Ger)**

[Preventive iodine administration and iodine excretion in the Vienna area and in the forest quarter] Wagner B, et al. **Wien Klin Wochenschr** 1998 Nov 13;110(21):751–4 (Eng. Abstr.) **(Ger)**

[Cardiovascular risk and social classes: a comparison between adult female populations in rural and urban areas] Celentano E, et al. **G Ital Cardiol** 1999 Jun;29(6):692–7 (Eng. Abstr.) **(Ita)**

[Respiratory and skin diseases among school children in the industrial and rural regions] Obtułowicz K, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):351–3 (Eng. Abstr.) **(Pol)**

[The prevalence of respiratory symptoms, bronchial asthma and chronic bronchitis (simple and obstructive) in a representative sample of the adult rural population] Duțu S, et al. **Pneumoftiziologia** 1998 Jul–Sep;47(3):151–60 (Eng. Abstr.) **(Rum)**

TRENDS

Wealth flow and fertility decline in rural Kenya, 1981–92: a reassessment of the evidence. Dow TE Jr, et al. **Afr J Reprod Health** 1997 Sep;1(2):41–66

RUSSELL'S VIPER

Crystallization and preliminary X-ray diffraction studies of the neurotoxic, heterodimeric phospholipase A2 from the Taiwan viper (Vipera russelli formosensis). Rajashankar KR, et al. **Acta Crystallogr D Biol Crystallogr** 1999 May; 55(5):1064–5

A new monospecific ovine Fab fragment antivenom for treatment of envenoming by the Sri Lankan Russell's viper (Daboia Russelii Russelii): a preliminary dose-finding and pharmacokinetic study. Ariaratnam CA, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):259–65

Comparative characterisation of Russell's viper (Daboia/Vipera russelli) venoms from different regions of the Indian peninsula. Prasad NB, et al. **Biochim Biophys Acta** 1999 Aug 5;1428(2–3):121–36

Renal involvement in Russell's viper bite patients without disseminated intravascular coagulation. Win-Aung, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):322–4

RUSSELL'S VIPER VENOM TIME see **PROTHROMBIN TIME**

RUTABAGA see **BRASSICA**

RUTHENIUM

Chromatographic detection using tris(2,2'-bipyridyl)ruthenium(III) as a fluorogenic electron-transfer reagent. Woltman SJ, et al. **Anal Chem** 1999 Apr 15;71(8):1504–12

CHEMISTRY

Structures of ruthenium-modified Pseudomonas aeruginosa azurin and [Ru(2,2'-bipyridine)2(imidazole)2]SO4 x 10H2O. Faham S, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Feb;55 (Pt 2):379–85

Synthesis and immunosuppressive activity of ruthenium complexes. Bastos CM, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):147–50

Studies on the interactions between human serum albumin and imidazolium [trans-tetrachlorobis(imidazol)ruthenate(III)]. Trynda-Lemiesz L, et al. **J Inorg Biochem** 1999 Mar; 73(3):123–8

A 2,2'-bipyridine ligand for incorporation into oligodeoxynucleotides: synthesis, stability and fluorescence properties of ruthenium-DNA complexes. Wiederholt K, et al. **Nucleic Acids Res** 1999 Jun 15;27(12):2487–93

METABOLISM

Solution studies of the antitumor complex dichloro 1,2-propylendiaminetetraacetate ruthenium (III) and of its interactions with proteins. Gonzalez Vilchez F, et al. **J Inorg Biochem** 1998 Aug;71(1–2):45–51

Molecular interactions of ruthenium complexes in isolated mammalian nuclei and cytotoxicity on V79 cells in culture. Barca A, et al. **Mutat Res** 1999 Jan 25;423(1–2):171–81

Spectral studies on the interaction of DNA and Ru(bipy)2(dppx)2+ [letter] Ling LS, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Jun; 55A(6):1297–302

TOXICITY

Molecular interactions of ruthenium complexes in isolated mammalian nuclei and cytotoxicity on V79 cells in culture. Barca A, et al. **Mutat Res** 1999 Jan 25;423(1–2):171–81

RUTHENIUM COMPOUNDS

CHEMISTRY

Electrostatic interactions of redox cations with surface-immobilized and solution DNA. Steel AB, et al. **Bioconjug Chem** 1999 May–Jun;10(3):419–23

Trans-pyridine tetraammine complexes of RuII and RuIII with N7-coordinated purine nucleosides. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):318–24

Effects of trans-pyridine ligands on the interactions of RuII and RuIII ammine complexes N7-coordinated to purine nucleosides and DNA. Zhao M, et al. **J Biol Inorg Chem** 1999 Jun;4(3):325–40

METABOLISM

Spectrophotometric kinetic study and analytical implications of the glucose oxidase-catalyzed reduction of [MIII(LL)2Cl2]+ complexes by D-glucose (M = Os and Ru, LL = 2,2'-bipyridine and 1,10-phenanthroline type ligands). Ryabov AD, et al. **J Biol Inorg Chem** 1999 Apr; 4(2):175–82

PHARMACOLOGY

Structure of d(CACGCG).d(CGCGTG) in crystals grown in the presence of ruthenium III hexammine chloride. Karthe P, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):501–9

Antibacterial and antifungal activities of complexes of ruthenium (II). Cetinkaya B, et al. **Arzneimittelforschung** 1999 Jun;49(6):538–40

Inhibition of topoisomerase II catalytic activity by two ruthenium compounds: a ligand-dependent mode of action. Gopal YN, et al. **Biochemistry** 1999 Apr 6;38(14):4382–8

Antinociceptive properties and nitric oxide synthase inhibitory action of new ruthenium complexes. Beirith A, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):289–97

RUTHENIUM RADIOISOTOPES

ANALYSIS

Dynamic modeling of the cesium, strontium and ruthenium transfer to grass and vegetables. Renaud P, et al. **Health Phys** 1999 May;76(5):495–501

THERAPEUTIC USE

Long-term survival after ruthenium plaque radiotherapy for uveal melanoma. A meta-analysis of studies including 1,066 patients. Seregard S. **Acta Ophthalmol Scand** 1999 Aug; 77(4):414–7

Comparison of episcleral plaque and proton beam radiation therapy for the treatment of choroidal melanoma. Wilson MW, et al. **Ophthalmology** 1999 Aug;106(8):1579–87

Monte Carlo calculation of the dose distributions of two 106Ru eye applicators [published erratum appears in Radiother Oncol 1999 Mar;50(3):373] Sánchez-Reyes A, et al. **Radiother Oncol** 1998 Nov;49(2):191–6

RUTHENIUM RED

Ruthenium red preserves glycoprotein peplomers of C-type retroviruses for transmission electron microscopy. Fassel TA, et al. **Biotech Histochem** 1998 Jul;73(4):222–7

Ruthenium red as measure of mast cell activation. Kubes P. **Methods Enzymol** 1999;301:22–7

METABOLISM

A gel diffusion assay for quantification of pectin methylesterase activity. Downie B, et al. **Anal Biochem** 1998 Nov 15;264(2):149–57

A dye binding assay for the quantification of soluble and cell-bound acidic polysaccharides produced by red algae. Hoffmann EM, et al. **Anal Biochem** 1999 Feb 15; 267(2):245–51

PHARMACOLOGY

Ca2+ sensitization of smooth muscle contractility induced by ruthenium red. Yamada A, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C566–75

Selective inhibition of potassium-stimulated rat adrenal glomerulosa cells by ruthenium red. Szabadkai G, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):209–18

Injection of Xenopus oocytes with mRNA from cultured neurons induces new currents and susceptibility to the damaging action of ruthenium red. Velasco I, et al. **Brain Res Bull** 1999 Mar 1;48(4):383–6

Capsaicin-induced desensitization is prevented by capsazepine but not by ruthenium red in guinea pig bronchi. Jung YS, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):193–8

Control of the phasic and tonic contractions of guinea pig stomach by a ryanodine-sensitive Ca2+ store. Petkov GV, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):335–41

Facilitation of miniature GABAergic currents by ruthenium red in neonatal rat hippocampal neurons. Sciancalepore M, et al. **J Neurophysiol** 1998 Nov;80(5):2316–22

Block by ruthenium red of cloned neuronal voltage-gated calcium channels. Cibulsky SM, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1447–53

Ruthenium red-mediated inhibition of large-conductance Ca2+-activated K+ channels in rat pituitary GH3 cells. Wu SN, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):998–1005

Studies on human porin XVIII: the multicompartment effector ruthenium red reduces the voltage dependence of human VDAC in planar lipid bilayers. Siadat S, et al. **Mol Genet Metab** 1998 Nov;65(3):246–9

Ruthenium red inhibits cytosolic Ca2+ oscillations induced by vasopressin in primary cultured hepatocytes. Takemura H, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jul; 101(1):35–42

RUTIN

ADMINISTRATION & DOSAGE

Orally administered proteases in aesthetic surgery. Dusková M, et al. **Aesthetic Plast Surg** 1999 Jan-Feb;23(1):41-4

[Systemic enzyme therapy in the treatment of supracondylar fractures of the humerus in children] Gál P, et al. **Rozhl Chir** 1998 Dec;77(12):574-6 (Eng. Abstr.) **(Cze)**

ANALOGS & DERIVATIVES

Treatment of progressive pigmented purpura with oral bioflavonoids and ascorbic acid: an open pilot study in 3 patients. Reinhold U, et al. **J Am Acad Dermatol** 1999 Aug; 41(2 Pt 1):207-8

Prevention of murine EAE by oral hydrolytic enzyme treatment. Targoni OS, et al. **J Autoimmun** 1999 May; 12(3):191-8

METABOLISM

Deoxycholate-hydrogels: novel drug carrier systems for topical use. Valenta C, et al. **Int J Pharm** 1999 Aug 5; 185(1):103-11

PHARMACOLOGY

Dietary flavonoids protect human colonocyte DNA from oxidative attack in vitro. Duthie SJ, et al. **Eur J Nutr** 1999 Feb;38(1):28-34

THERAPEUTIC USE

Use of rutin for medical management of idiopathic chylothorax in four cats. Thompson MS, et al. **J Am Vet Med Assoc** 1999 Aug 1;215(3):345-8, 339

[The use of enzymes in treating patients with malignant lymphoma with a large tumor mass] Gubareva AA. **Lik Sprava** 1998 Aug;(6):141-3 (Eng. Abstr.) **(Rus)**

[Wobenzym in the combined pathogenetic therapy of chronic urethrogenic prostatitis] Martynenko AV. **Lik Sprava** 1998 Aug;(6):118-20 (Eng. Abstr.) **(Rus)**

[The pathogenetic basis for and clinical use of systemic enzyme therapy in traumatology and orthopedics] Neverov VA, et al. **Vestn Khir Im I I Grek** 1999;158(1):41-4 (Eng. Abstr.) **(Rus)**

TOXICITY

The influence of rutin on the weight, metastasis and melanin content of B16 melanotic melanoma in C57BL/6 mice. Drewa G, et al. **Neoplasma** 1998;45(4):266-71

RYANODINE

DIAGNOSTIC USE

Comparison of European and North American malignant hyperthermia diagnostic protocol outcomes for use in genetic studies [see comments] Fletcher JE, et al. **Anesthesiology** 1999 Mar;90(3):654-61. Comment in: Anesthesiology 1999 Mar;90(3):645-8.

METABOLISM

Effects of hindlimb suspension on cytosolic Ca2+ and [3H]ryanodine binding in cardiac myocytes. Halet G, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1131-6

Modification of sulfhydryls of the skeletal muscle calcium release channel by organic mercurial compounds alters Ca2+ affinity of regulatory Ca2+ sites in single channel recordings and [3H]ryanodine binding. Suko J, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):435-50

Characterization of recombinant rabbit cardiac and skeletal muscle Ca2+ release channels (ryanodine receptors) with a novel [3H]ryanodine binding assay. Du GG, et al. **J Biol Chem** 1998 Dec 11;273(50):33259-66

The cardiac content of sarcoplasmic reticulum in the rat determined by calcium uptake rate, calcium oxalate capacity, ryanodine binding and thapsigargin titration. Feher JJ. **J Mol Cell Cardiol** 1998 Sep;30(9):1763-72

Alterations in the ryanodine receptor calcium release channel correlate with Alzheimer's disease neurofibrillary and beta-amyloid pathologies. Kelliher M, et al. **Neuroscience** 1999;92(2):499-513

PHARMACOLOGY

Gap junction change in supporting cells of the organ of Corti with ryanodine and caffeine. Sato Y, et al. **Acta Otolaryngol (Stockh)** 1998 Nov;118(6):821-5

Pregnant rat myometrial cells show heterogeneous ryanodine- and caffeine-sensitive calcium stores. Martin C, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C243-52

ATX II, a sodium channel toxin, sensitizes skeletal muscle to halothane, caffeine, and ryanodine. Fletcher JE, et al. **Anesthesiology** 1999 May;90(5):1294-301

Intracellular calcium stores modulation in lymph vessels depends on wall stretch. Atchison DJ, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):367-72

Ryanodine and the left ventricular force-interval and relaxation-interval relations in closed-chest dogs: insights on calcium handling. Prabhu SD. **Cardiovasc Res** 1998 Dec; 40(3):483-91

Control of the phasic and tonic contractions of guinea pig stomach by a ryanodine-sensitive Ca2+ store. Petkov GV, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):335-41

Caffeine causes glycerophosphorylcholine accumulation through ryanodine-inhibitable increase of cellular calcium and activation of phospholipase A2 in cultured MDCK cells. Kim DK, et al. **Exp Mol Med** 1998 Sep 30;30(3):151-8

Different actions in the rat prostatic and epididymal vas deferens of cyclopiazonic acid or ryanodine on noradrenaline-induced contractions. Amobi NI, et al. **Gen Pharmacol** 1999 Feb;32(2):271-8

The role of a ryanodine-sensitive Ca(2+)-store in the regulation of smooth muscle tone of the cat gastric fundus. Petkov GV, et al. **Gen Physiol Biophys** 1998 Sep; 17(3):225-37

Electromechanical coupling in human vas deferens: effects of agents that modulate intracellular release of calcium. Amobi NI, et al. **J Auton Pharmacol** 1998 Jun;18(3):157-65

Ryanodine- and cyclopiazonic acid-sensitive components in human vas deferens contractions to noradrenaline. Amobi NI, et al. **J Auton Pharmacol** 1998 Jun;18(3):167-76

Frequency-dependent changes in contribution of SR Ca2+ to Ca2+ transients in failing human myocardium assessed with ryanodine. Schlotthauer K, et al. **J Mol Cell Cardiol** 1998 Jul;30(7):1285-94

Stealth ryanodine-sensitive Ca2+ release contributes to activity of capacitative Ca2+ entry and nitric oxide synthase in bovine endothelial cells. Paltauf-Doburzynska J, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):369-79

Ca2+ influx in resting rat sensory neurones that regulates and is regulated by ryanodine-sensitive Ca2+ stores. Usachev YM, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:115-30

Caffeine and ryanodine may act on the plasma membrane of the circular muscle at the flexure region in the guinea-pig colon. Chowdhury JU, et al. **J Smooth Muscle Res** 1997 Dec;33(6):223-30

Ryanodine-sensitive, thapsigargin-insensitive calcium uptake in rat ventricle homogenates. Feher JJ, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):9-17

The actions of ryanodine on Ca2+-activated conductances in rat cultured DRG neurones; evidence for Ca2+-induced Ca2+ release. Ayar A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):81-91

[Effects of myocardial protection with ryanodine, measured with the intracellular calcium fluprescent indicator Fura-2] Sekiguchi S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul; 46(7):622-8 (Eng. Abstr.) **(Jpn)**

RYANODINE RECEPTOR CALCIUM RELEASE CHANNEL

BIOSYNTHESIS

Expression and subcellular localization of the ryanodine receptor in rat pancreatic acinar cells. Leite MF, et al. **Biochem J** 1999 Jan 15;337 (Pt 2):305-9

Cellular distribution of Ca2+ pumps and Ca2+ release channels in rat cardiac hypertrophy induced by aortic stenosis. Anger M, et al. **Circulation** 1998 Dec 1; 98(22):2477-86

Functional characteristics of ES cell-derived cardiac precursor cells identified by tissue-specific expression of the green fluorescent protein. Kolossov E, et al. **J Cell Biol** 1998 Dec 28;143(7):2045-56

Expression of excitation-contraction coupling proteins during muscle differentiation. Park MY, et al. **Mol Cells** 1998 Oct 31;8(5):513-7

CHEMISTRY

Crystallization and preliminary X-ray crystallographic studies of the D2 region of the skeletal muscle ryanodine receptor. Kim S, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Sep;55 (Pt 9):1601-3

Ryanodine receptor isoforms in excitation-contraction coupling. Ogawa Y, et al. **Adv Biophys** 1999;36:27-64 (209 ref.)

Modification of ryanodine receptor/Ca2+ release channel with dinitrofluorobenzene. Hadad N, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):239-48

Functional consequences of mutations of conserved, polar amino acids in transmembrane sequences of the Ca2+ release channel (ryanodine receptor) of rabbit skeletal muscle sarcoplasmic reticulum. Du GG, et al. **J Biol Chem** 1998 Nov 27;273(48):31867-72

Luminal loop of the ryanodine receptor: a pore-forming segment? [comment] Balshaw D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3345-7 (35 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):4164-9.

DEFICIENCY

Morphological abnormalities of adrenal gland and hypertrophy of liver in mutant mice lacking ryanodine receptors. Komazaki S, et al. **Cell Tissue Res** 1998 Dec; 294(3):467-73

Voltage-controlled Ca2+ release in normal and ryanodine receptor type 3 (RyR3)-deficient mouse myotubes. Dietze B, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):3-9

DRUG EFFECTS

Inhibition of the ryanodine receptor calcium channel in the sarcoplasmic reticulum of skeletal muscle by an ADP/ATP translocase inhibitor, atractyloside. Yamaguchi N, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):247-51

A new scorpion toxin (BmK-PL) stimulates Ca2+-release channel activity of the skeletal-muscle ryanodine receptor by an indirect mechanism. Kuniyasu A, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):343-50

Modification of sulfhydryls of the skeletal muscle calcium release channel by organic mercurial compounds alters Ca2+ affinity of regulatory Ca2+ sites in single channel recordings and [3H]ryanodine binding. Suko J, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):435-50

Effects of ryanodine receptor agonist 4-chloro-m-cresol on myoplasmic free Ca2+ concentration and force of contraction in mouse skeletal muscle. Westerblad H, et al. **Cell Calcium** 1998 Aug;24(2):105-15

Different effects of two gold compounds on muscle contraction, membrane potential and ryanodine receptor. Oba T, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):477-87

2-Hydroxycarbazole induces Ca2+ release from sarcoplasmic reticulum by activating the ryanodine receptor. Tovey SC, et al. **Eur J Pharmacol** 1998 Aug 7; 354(2-3):245-51

Cardiac ryanodine receptor activity is altered by oxidizing reagents in either the luminal or cytoplasmic solution. Eager KR, et al. **J Membr Biol** 1999 Feb 1;167(3):205-14

Mechanisms of delta-hexachlorocyclohexane toxicity: I. Relationship between altered ventricular myocyte contractility and ryanodine receptor function. Buck ED, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):477-85

Mechanisms of delta-hexachlorocyclohexane toxicity: II. Evidence for Ca2+-dependent K+-selective ionophore activity. Buck ED, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):486-93

One calcium ion may suffice to open the tetrameric cardiac ryanodine receptor in rat ventricular myocytes. Fan JS, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):769-80

GENETICS

Two highly polymorphic microsatellites within the porcine ryanodine receptor 3 gene (RYR3). Leeb T, et al. **Anim Genet** 1999 Aug;30(4):321-2

Expression and functional characterization of the cardiac muscle ryanodine receptor Ca(2+) release channel in Chinese hamster ovary cells. Bhat MB, et al. **Biophys J** 1999 Aug;77(2):808-16

Morphological abnormalities of adrenal gland and hypertrophy of liver in mutant mice lacking ryanodine receptors. Komazaki S, et al. **Cell Tissue Res** 1998 Dec; 294(3):467-73

Failure to identify the ryanodine receptor G1021A mutation in a large North American population with malignant hyperthermia. Stewart SL, et al. **Clin Genet** 1998 Oct; 54(4):358-61

Assignment of the porcine ryanodine receptor 3 gene (RYR3) to chromosome 7q22-->q23. Leeb T, et al. **Cytogenet Cell Genet** 1998;83(3-4):244-5

A case of discordance between genotype and phenotype in a malignant hyperthermia family. Fortunato G, et al. **Eur J Hum Genet** 1999 May-Jun;7(4):415-20

Genetic analysis with calcium-induced calcium release test in Japanese malignant hyperthermia susceptible (MHS) families. Maehara Y, et al. **Hiroshima J Med Sci** 1999 Mar; 48(1):9-15

Down-regulation of L-type calcium channel and sarcoplasmic reticular Ca(2+)-ATPase mRNA in human atrial fibrillation without significant change in the mRNA of ryanodine receptor, calsequestrin and phospholamban: an insight into the mechanism of atrial electrical remodeling. Lai LP, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1231-7

Genetic analysis of voltage-dependent calcium channels. Fletcher CF, et al. **J Bioenerg Biomembr** 1998 Aug; 30(4):387-98 (88 ref.)

Mutation screening of the RYR1 gene and identification of two novel mutations in Italian malignant hyperthermia families. Barone V, et al. **J Med Genet** 1999 Feb;36(2):115-8

Effect of calmodulin on Ca2+-induced Ca2+ release of skeletal muscle from mutant mice expressing either ryanodine receptor type 1 or type 3. Ikemoto T, et al. **Pflugers Arch** 1998 Dec;437(1):43-8

A mutation in the transmembrane/luminal domain of the ryanodine receptor is associated with abnormal Ca2+ release channel function and severe central core disease [see comments] Lynch PJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4164-9. Comment in: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3345-7.

Expression of the ryanodine receptor type 3 in skeletal muscle. A new partner in excitation-contraction coupling? Sorrentino V, et al. **Trends Cardiovasc Med** 1999 Jan-Feb; 9(1-2):54-61 (41 ref.)

[Discordance and cosegregation of swine halothane susceptibility and 1843 C-T mutation of their RYR1 locus responsible for the ryanodine receptor] Kniazev SP, et al. **Genetika** 1998 Dec;34(12):1648-54 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Autoimmune antigen megalin displays similarities with

skeletal muscle ryanodine receptor/Ca2+ release channel. Mackrill JJ, et al. **Int J Mol Med** 1999 Jun;3(6):625–32

Spontaneous thymoma rat as a model for myasthenic weakness caused by anti-ryanodine receptor antibodies. Iwasa K, et al. **Muscle Nerve** 1998 Dec;21(12):1655–60

ISOLATION & PURIFICATION

Further characterization of the type 3 ryanodine receptor (RyR3) purified from rabbit diaphragm. Murayama T, et al. **J Biol Chem** 1999 Jun 11;274(24):17297–308

Localisation of inositol trisphosphate and ryanodine receptors during mouse spermatogenesis: possible functional implications. Treviño CL, et al. **Zygote** 1998 May; 6(2):159–72

METABOLISM

Ryanodine receptor isoforms in excitation–contraction coupling. Ogawa Y, et al. **Adv Biophys** 1999;36:27–64 (209 ref.)

Oxidation of the skeletal muscle Ca2+ release channel alters calmodulin binding. Zhang JZ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C46–53

Modification of ryanodine receptor/Ca2+ release channel with dinitrofluorobenzene. Hadad N, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):239–48

Calexcitin interaction with neuronal ryanodine receptors. Nelson TJ, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):423–33

Ryanodine and inositol trisphosphate receptors are differentially distributed and expressed in rat parotid gland. Zhang X, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):519–27

Location of ryanodine receptor binding site on skeletal muscle triadin. Caswell AH, et al. **Biochemistry** 1999 Jan 5;38(1):90–7

Apocalmodulin and Ca2+ calmodulin bind to the same region on the skeletal muscle Ca2+ release channel. Moore CP, et al. **Biochemistry** 1999 Jun 29;38(26):8532–7

Binding of the catalytic subunit of protein phosphatase-1 to the ryanodine-sensitive calcium release channel protein. Zhao S, et al. **Biochemistry** 1998 Dec 22;37(51):18102–9

Expression and functional characterization of the cardiac muscle ryanodine receptor Ca(2+) release channel in Chinese hamster ovary cells. Bhat MB, et al. **Biophys J** 1999 Aug;77(2):808–16

Activation and inhibition of skeletal RyR channels by a part of the skeletal DHPR II–III loop: effects of DHPR Ser687 and FKBP12. Dulhunty AF, et al. **Biophys J** 1999 Jul; 77(1):189–203

Regulation of the cardiac ryanodine receptor channel by luminal Ca2+ involves luminal Ca2+ sensing sites. Györke I, et al. **Biophys J** 1998 Dec;75(6):2801–10

AMP is a partial agonist at the sheep cardiac ryanodine receptor. Ching LL, et al. **Br J Pharmacol** 1999 May; 127(1):161–71

Evidence for novel caffeine and Ca2+ binding sites on the lobster skeletal ryanodine receptor. Zhang JJ, et al. **Br J Pharmacol** 1999 Feb;126(4):1066–74

Growth hormone preserves cardiac sarcoplasmic reticulum Ca2+ release channels (ryanodine receptors) and enhances cardiac function in cardiomyopathic hamsters. Ueyama T, et al. **Cardiovasc Res** 1998 Oct;40(1):64–73

Reduced subendocardial ryanodine receptors and consequent effects on cardiac function in conscious dogs with left ventricular hypertrophy. Hittinger L, et al. **Circ Res** 1999 May 14;84(9):999–1006

Ryanodine receptors in human bladder smooth muscle. Chambers P, et al. **Exp Physiol** 1999 Jan;84(1):41–6

Characterization of sheep brain ryanodine receptor ATP binding site by photoaffinity labeling. Hadad N, et al. **FEBS Lett** 1999 Jul 23;455(3):251–6

Conversion of an inactive cardiac dihydropyridine receptor II–III loop segment into forms that activate skeletal ryanodine receptors. Zhu X, et al. **FEBS Lett** 1999 May 7;450(3):221–6

Alterations in cardiac sarcoplasmic reticulum Ca2+ regulatory proteins in the atrial tissue of patients with chronic atrial fibrillation. Ohkusa T, et al. **J Am Coll Cardiol** 1999 Jul;34(1):255–63

Characterization of recombinant rabbit cardiac and skeletal muscle Ca2+ release channels (ryanodine receptors) with a novel [3H]ryanodine binding assay. Du GG, et al. **J Biol Chem** 1998 Dec 11;273(50):33259–66

Ca(2+) inactivation sites are located in the COOH-terminal quarter of recombinant rabbit skeletal muscle Ca(2+) release channels (ryanodine receptors). Du GG, et al. **J Biol Chem** 1999 Sep 10;274(37):26120–6

Functional interaction of the cytoplasmic domain of triadin with the skeletal ryanodine receptor. Groh S, et al. **J Biol Chem** 1999 Apr 30;274(18):12278–83

Activation of ryanodine receptors by imperatoxin A and a peptide segment of the II–III loop of the dihydropyridine receptor. Gurrola GB, et al. **J Biol Chem** 1999 Mar 19; 274(12):7879–86

cAMP-dependent mobilization of intracellular Ca2+ stores by activation of ryanodine receptors in pancreatic beta-cells. A Ca2+ signaling system stimulated by the insulinotropic hormone glucagon-like peptide-1-(7–37). Holz GG, et al. **J Biol Chem** 1999 May 14;274(20):14147–56

The cytoplasmic loops between domains II and III and domains III and IV in the skeletal muscle dihydropyridine receptor bind to a contiguous site in the skeletal muscle ryanodine receptor. Leong P, et al. **J Biol Chem** 1998 Nov 6;273(45):29958–64

Further characterization of the type 3 ryanodine receptor (RyR3) purified from rabbit diaphragm. Murayama T, et al. **J Biol Chem** 1999 Jun 11;274(24):17297–308

FK-binding protein is associated with the ryanodine receptor of skeletal muscle in vertebrate animals. Qi Y, et al. **J Biol Chem** 1998 Dec 25;273(52):34813–9

Skeletal muscle type ryanodine receptor is involved in calcium signaling in human B lymphocytes. Sei Y, et al. **J Biol Chem** 1999 Feb 26;274(9):5995–6002

Three amino acid residues determine selective binding of FK506-binding protein 12.6 to the cardiac ryanodine receptor. Xin HB, et al. **J Biol Chem** 1999 May 28; 274(22):15315–9

Molecular identification of the ryanodine receptor pore-forming segment. Zhao M, et al. **J Biol Chem** 1999 Sep 10;274(37):25971–4

Type 3 and type 1 ryanodine receptors are localized in triads of the same mammalian skeletal muscle fibers. Flucher BE, et al. **J Cell Biol** 1999 Aug 9;146(3):621–30

Three-dimensional location of the imperatoxin A binding site on the ryanodine receptor. Samsó M, et al. **J Cell Biol** 1999 Jul 26;146(2):493–9

Ryanodine receptor permeation and gating: glowing cinders that underlie the Ca2+ spark [letter] Fill M, et al. **J Gen Physiol** 1999 Jul;114(1):159–61

Ca2+ spark termination: inactivation and adaptation may be manifestations of the same mechanism [letter] Györke S. **J Gen Physiol** 1999 Jul;114(1):163–6

Unitary Ca2+ current through cardiac ryanodine receptor channels under quasi-physiological ionic conditions. Mejía-Alvarez R, et al. **J Gen Physiol** 1999 Feb; 113(2):177–86

Functional coupling of ryanodine receptors to KCa channels in smooth muscle cells from rat cerebral arteries. Pérez GJ, et al. **J Gen Physiol** 1999 Feb;113(2):229–38

Cardiac ryanodine receptor activity is altered by oxidizing reagents in either the luminal or cytoplasmic solution. Eager KR, et al. **J Membr Biol** 1999 Feb 1;167(3):205–14

Cyclic stretch down-regulates calcium transporter gene expression in neonatal rat ventricular myocytes. Cadre BM, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2247–59

Comparison of properties of Ca2+ release channels between rabbit and frog skeletal muscles. Ogawa Y, et al. **Mol Cell Biochem** 1999 Jan;190(1-2):191–201 (80 ref.)

Site-selective modification of hyperreactive cysteines of ryanodine receptor complex by quinones. Feng W, et al. **Mol Pharmacol** 1999 May;55(5):821–31

Suramin and suramin analogs activate skeletal muscle ryanodine receptor via a calmodulin binding site. Klinger M, et al. **Mol Pharmacol** 1999 Mar;55(3):462–72

Modulation of the calcium release channel/ryanodine receptor from skeletal muscle by energy charge. Butanda-Ochoa A, et al. **Neurobiology (Bp)** 1998;6(1):1–12

Circadian modulation of the ryanodine receptor type 2 in the SCN of rodents. Díaz-Muñoz M, et al. **Neuroreport** 1999 Feb 25;10(3):481–6

Ca2+ resting current and Ca2+-induced Ca2+ release in insect neurosecretory neurons. Heine M, et al. **Neuroreport** 1998 Oct 5;9(14):3309–14

Alterations in the ryanodine receptor calcium release channel correlate with Alzheimer's disease neurofibrillary and beta-amyloid pathologies. Kelliher M, et al. **Neuroscience** 1999;92(2):499–513

Changes in ryanodine receptor-mediated calcium release during skeletal muscle differentiation. Wingertzahn MA, et al. **Proc Soc Exp Biol Med** 1999 Jul;221(3):234–41

Role of Ca2+ release from ryanodine stores in generation of NMDA-induced Ca2+ signal in rabbit hippocampus. Salińska E, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan;85(1):212–9

Time domains of neuronal Ca2+ signaling and associative memory: steps through a calexcitin, ryanodine receptor, K+ channel cascade. Alkon DL, et al. **Trends Neurosci** 1998 Dec;21(12):529–37 (97 ref.)

PHYSIOLOGY

Ca2+ channels, ryanodine receptors and Ca(2+)-activated K+ channels: a functional unit for regulating arterial tone. Jaggar JH, et al. **Acta Physiol Scand** 1998 Dec; 164(4):577–87 (69 ref.)

Signal transmission and transduction in excitation–contraction coupling. Ikemoto N, et al. **Adv Exp Med Biol** 1998;453:199–207

BAY K 8644 modifies Ca2+ cross signaling between DHP and ryanodine receptors in rat ventricular myocytes. Adachi-Akahane S, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1178–89

Norepinephrine-induced Ca(2+) waves depend on InsP(3) and ryanodine receptor activation in vascular myocytes. Boittin FX, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):C139–51

Complex interactions between skeletal muscle ryanodine receptor and dihydropyridine receptor proteins. Leong P, et al. **Biochem Cell Biol** 1998;76(5):681–94 (188 ref.)

Protein–protein interactions in intracellular Ca2+-release channel function. MacKrill JJ. **Biochem J** 1999 Feb 1;337 (Pt 3):345–61 (220 ref.)

Blockade of ryanodine receptors stimulates neurite outgrowth in embryos of Spisula solidissima. Jessen-Eller K, et al. **Biol Bull** 1998 Oct;195(2):206–7

Contribution of ryanodine receptor type 3 to Ca(2+) sparks in embryonic mouse skeletal muscle. Conklin MW, et al. **Biophys J** 1999 Sep;77(3):1394–403

Regulation of cardiac muscle Ca2+ release channel by sarcoplasmic reticulum lumenal Ca2+. Xu L, et al. **Biophys J** 1998 Nov;75(5):2302–12

Ryanodine receptor modulation of in vitro associative learning in Hermissenda crassicornis. Blackwell KT, et al. **Brain Res** 1999 Mar 20;822(1-2):114–25

Role of the ryanodine receptor in ischemic brain damage--localized reduction of ryanodine receptor binding during ischemia in hippocampus CA1. Nozaki H, et al. **Cell Mol Neurobiol** 1999 Feb;19(1):119–31 (74 ref.)

Functional consequences of mutations of conserved, polar amino acids in transmembrane sequences of the Ca2+ release channel (ryanodine receptor) of rabbit skeletal muscle sarcoplasmic reticulum. Du GG, et al. **J Biol Chem** 1998 Nov 27;273(48):31867–72

The II–III loop of the skeletal muscle dihydropyridine receptor is responsible for the Bi-directional coupling with the ryanodine receptor. Grabner M, et al. **J Biol Chem** 1999 Jul 30;274(31):21913–9

Muscle-specific functions of ryanodine receptor channels in Caenorhabditis elegans. Maryon EB, et al. **J Cell Sci** 1998 Oct;111 (Pt 19):2885–95

Local control models of cardiac excitation–contraction coupling. A possible role for allosteric interactions between ryanodine receptors. Stern MD, et al. **J Gen Physiol** 1999 Mar;113(3):469–89

Similarities in the effects of DIDS, DBDS and suramin on cardiac ryanodine receptor function. Sitsapesan R. **J Membr Biol** 1999 Mar 15;168(2):159–68

Effects of 2,3-butanedione 2-monoxime on Ca2+ release channels (ryanodine receptors) of cardiac and skeletal muscle. Tripathy A, et al. **J Membr Biol** 1999 Jun 1; 169(3):189–98

Effects of ivermectin and nidecamycin on ryanodine receptors and the Ca2+-ATPase in sarcoplasmic reticulum of rabbit and rat skeletal muscle. Ahern GP, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):313–26

The role of ryanodine receptors in the cyclic ADP ribose modulation of the M-like current in rodent m1 muscarinic receptor-transformed NG108-15 cells. Bowden SE, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:23–34

Effects of tetracaine on sarcoplasmic calcium release in mammalian skeletal muscle fibres. Csernoch L, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):843–57

Cross-coupling between voltage-dependent Ca2+ channels and ryanodine receptors in developing ascidian muscle blastomeres. Nakajo K, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):695–710

Ca2+ influx in resting rat sensory neurones that regulates and is regulated by ryanodine-sensitive Ca2+ stores. Usachev YM, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:115–30

Evidence for functional ryanodine receptors in Schistosoma mansoni and their putative role in the control of calcium homeostasis. Silva CL, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:269–70

Modal gating transitions in cardiac ryanodine receptors during increases of Ca2+ concentration produced by photolysis of caged Ca2+. Zahradníková A, et al. **Pflugers Arch** 1999 Aug;438(3):283–8

Novel mechanisms of calcium handling by the osteoclast: A review-hypothesis. Zaidi M, et al. **Proc Assoc Am Physicians** 1999 Jul-Aug;111(4):319–27 (82 ref.)

Luminal loop of the ryanodine receptor: a pore-forming segment? [comment] Balshaw D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3345–7 (35 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):4164–9.

A mutation in the transmembrane/luminal domain of the ryanodine receptor is associated with abnormal Ca2+ release channel function and severe central core disease [see comments] Lynch PJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4164–9. Comment in: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3345–7.

Termination of Ca2+ release by a local inactivation of ryanodine receptors in cardiac myocytes. Sham JS, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15096–101

Dual mechanisms of Mg2+ block of ryanodine receptor Ca2+ release channel from cardiac sarcoplasmic reticulum. Kawano S. **Receptors Channels** 1998;5(6):405–16

[Ca+ metabolism in the sarcoplasmic reticulum and the role of ryanodine and IP3 receptors in the nervous system] Nagata E, et al. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2522–9 (30 ref.) **(Jpn)**

[Role of ryanodine receptors in hydrogen peroxide-induced DNA fragmentation and thymidine incorporation in cultured rat astrocytes] Tanaka K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:108P–112P (Eng. Abstr.) **(Jpn)**

[Ryanodine receptor] Takeshima H. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1603–9 (50 ref.) **(Jpn)**

ULTRASTRUCTURE

Three-dimensional location of the imperatoxin A binding site on the ryanodine receptor. Samsó M, et al. **J Cell Biol** 1999 Jul 26;146(2):493–9

RYANODINE RECEPTORS see **RYANODINE RECEPTOR CALCIUM RELEASE CHANNEL**

RYE

Effects of soy or rye supplementation of high-fat diets on colon tumour development in azoxymethane-treated rats. Davies MJ, et al. **Carcinogenesis** 1999 Jun;20(6):927-31

CHEMISTRY

Pharmacologic effects of cocoa and rye flour extracts on isolated guinea pig trachea. Schachter EN, et al. **J Toxicol Environ Health** 1999 May 28;57(2):137-48

ENZYMOLOGY

The activity of the root vacuolar H(+)-pyrophosphatase in rye plants grown under conditions deficient in mineral nutrients. Kasai M, et al. **Plant Cell Physiol** 1998 Aug; 39(8):890-4

GENETICS

The chromosomal organization of simple sequence repeats in wheat and rye genomes. Cuadrado A, et al. **Chromosoma** 1998 Dec;107(8):587-94

Microdissection and microcloning of rye (Secale cereale L.) chromosome 1R. Zhou Y, et al. **Chromosoma** 1999 Aug; 108(4):250-5

Rye chromosome variability in wheat-rye addition and substitution lines. Alkhimova AG, et al. **Chromosome Res** 1999;7(3):205-12

A novel repetitive sequence, termed the JNK repeat family, located on an extra heterochromatic region of chromosome 2R of Japanese rye. Nagaki K, et al. **Chromosome Res** 1999; 7(2):95-101

METABOLISM

Intestinal degradation in pigs of rye dietary fibre with different structural characteristics. Glitsø LV, et al. **Br J Nutr** 1998 Nov;80(5):457-68

Rye bread decreases postprandial insulin response but does not alter glucose response in healthy Finnish subjects. Leinonen K, et al. **Eur J Clin Nutr** 1999 Apr;53(4):262-7

MICROBIOLOGY

A polyphasic study on the taxonomic position of industrial sour dough yeasts. Mäntynen VH, et al. **Syst Appl Microbiol** 1999 Feb;22(1):87-96

[Vascular ergotism through inhalation of grain dust] Stange K, et al. **Dtsch Med Wochenschr** 1998 Dec 18; 123(51-52):1547-50 (Eng. Abstr.) **(Ger)**

RYEGRASS see **LOLIUM**

RYR1 see **RYANODINE RECEPTOR CALCIUM RELEASE CHANNEL**

S6 KINASE see **RIBOSOMAL PROTEIN S6 KINASE**

S-ANTIGEN, RETINAL see **ARRESTIN**

S CELLS (INTESTINE) see **ENDOCRINE CELLS OF GUT**

S PHASE

Prognostic value of lymphoma-specific S-phase fraction compared with that of other cell proliferation markers. Holte H, et al. **Acta Oncol** 1999;38(4):495-503

Prognostic significance of the S-phase fraction of light-chain-restricted cytoplasmic immunoglobulin (clg) positive plasma cells in patients with newly diagnosed multiple myeloma enrolled on Eastern Cooperative Oncology Group treatment trial E9486. Trendle MC, et al. **Am J Hematol** 1999 Aug;61(4):232-7

Comparison of proliferation activity in breast carcinoma by flow cytometry analysis of S-phase and quantitative analysis of MIB-1. Masood S, et al. **Ann Clin Lab Sci** 1998 Nov-Dec;28(6):315-23

Lack of prognostic significance of ploidy and S-phase measurements in advanced ovarian cancer. Coley HM, et al. **Anticancer Res** 1999 May-Jun;19(3A):2111-6

cAMP-dependent positive control of cyclin A2 expression during G1/S transition in primary hepatocytes. Desdouets C, et al. **Biochem Biophys Res Commun** 1999 Jul 22; 261(1):118-22

73-kDa heat shock cognate protein interacts directly with P27Kip1, a cyclin-dependent kinase inhibitor, during G1/S transition. Nakamura S, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):340-3

S-phase-dependent action of cycloheximide in relieving chromatin-mediated general transcriptional repression. Cesari M, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):619-24

CLN3 expression is sufficient to restore G1-to-S-phase progression in Saccharomyces cerevisiae mutants defective in translation initiation factor eIF4E. Danaie P, et al. **Biochem J** 1999 May 15;340 (Pt 1):135-41

S-phase DNA damage checkpoint in budding yeast. Foiani M, et al. **Biol Chem** 1998 Aug-Sep;379(8-9):1019-23 (25 ref.)

Prognostic and predictive value of thymidine labelling index in breast cancer. Amadori D, et al. **Breast Cancer Res Treat** 1998;51(3):267-81 (70 ref.)

S-phase fraction combined with other patient and tumor characteristics for the prognosis of node-negative, estrogen-receptor-positive breast cancer. Bryant J, et al. **Breast Cancer Res Treat** 1998;51(3):239-53

S-phase fraction and breast cancer--a decade of experience. Wenger CR, et al. **Breast Cancer Res Treat** 1998; 51(3):255-65 (84 ref.)

The clinical relevance of ploidy and S-phase fraction determination in salivary gland tumors: a flow cytometric study of 97 cases. Pinto AE, et al. **Cancer** 1999 Jan 15; 85(2):273-81

S-phase accumulation precedes apoptosis induced by preoperative treatment with 5-fluorouracil in human colorectal carcinoma cells. Yamane N, et al. **Cancer** 1999 Jan 15;85(2):309-17

Helicobacter pylori inhibits the G1 to S transition in AGS gastric epithelial cells. Shirin H, et al. **Cancer Res** 1999 May 15;59(10):2277-81

Differential modulation of G1-S-phase cyclin-dependent kinase 2/cyclin complexes occurs during the acquisition of a polyploid DNA content. Datta NS, et al. **Cell Growth Differ** 1998 Aug;9(8):639-50

Sequence of DNA replication in Allium fistulosum chromosomes during S-phase. Fujishige I, et al. **Chromosome Res** 1998 Dec;6(8):611-9

Conformation of replicated segments of chromosome fibres in human S-phase nucleus. Solovjeva L, et al. **Chromosome Res** 1998 Dec;6(8):595-602

Prognostic value of Ki-67 compared to S-phase fraction in axillary node-negative breast cancer. Brown RW, et al. **Clin Cancer Res** 1996 Mar;2(3):585-92

Cdc18 transcription and proteolysis couple S phase to passage through mitosis. Baum B, et al. **EMBO J** 1998 Oct 1; 17(19):5689-98

Xenopus Cdc45-dependent loading of DNA polymerase alpha onto chromatin under the control of S-phase Cdk. Mimura S, et al. **EMBO J** 1998 Oct 1;17(19):5699-707

Residues phosphorylated by TFIIH are required for E2F-1 degradation during S-phase. Vandel L, et al. **EMBO J** 1999 Aug 2;18(15):4280-91

DNA ploidy, S phase fraction and telomerase activity in gastric cancer. Caldini A, et al. **Eur J Histochem** 1997;41 Suppl 2:123-4

Flow cytometric S-phase fraction as an independent prognostic indicator in colorectal liver metastases. Migliavacca M, et al. **Eur J Histochem** 1997;41 Suppl 2:137-8

Ki67 index and S-phase fraction on fine-needle aspirates from breast carcinomas. Naldi N, et al. **Eur J Histochem** 1997;41 Suppl 2:79-80

Identification of chromosomal bands replicating early in the S phase of normal human fibroblasts. Cohen SM, et al. **Exp Cell Res** 1998 Dec 15;245(2):321-9

DNA content and S-phase fraction in epithelial ovarian cancer: what information do they really add? [editorial; comment] Braly P. **Gynecol Oncol** 1998 Oct;71(1):1-2. Comment on: Gynecol Oncol 1998 Oct;71(1):3-13.

Prognostic significance of DNA content and S-phase fraction in epithelial ovarian carcinomas analyzed by image cytometry [see comments] Reles AE, et al. **Gynecol Oncol** 1998 Oct;71(1):3-13. Comment in: Gynecol Oncol 1998 Oct;71(1):1-2.

S-phase fraction related to prognosis in localised prostate cancer. No specific significance of chromosome 7 gain or deletion of 7q31.1. Aström L, et al. **Int J Cancer** 1998 Dec 18;79(6):553-9

Protein kinase Cdelta inhibition of S-phase transition in capillary endothelial cells involves the cyclin-dependent kinase inhibitor p27(Kip1). Ashton AW, et al. **J Biol Chem** 1999 Jul 23;274(30):20805-11

Role of the putative zinc finger domain of Saccharomyces cerevisiae DNA polymerase epsilon in DNA replication and the S/M checkpoint pathway. Dua R, et al. **J Biol Chem** 1998 Nov 6;273(45):30046-55

Control of the cell morphology and the S phase entry by mitogen-activated protein kinase kinase. A regulatory role of its n-terminal region. Gotoh I, et al. **J Biol Chem** 1999 Apr 23;274(17):11874-80

Recovery of the yeast cell cycle from heat shock-induced G(1) arrest involves a positive regulation of G(1) cyclin expression by the S phase cyclin Clb5. Li X, et al. **J Biol Chem** 1999 Aug 20;274(34):24220-31

Auxin induction of cell cycle regulated activity of tobacco telomerase. Tamura K, et al. **J Biol Chem** 1999 Jul 23; 274(30):20997-1002

Modulation of E2F complexes during G0 to S phase transition in human primary B-lymphocytes. van der Sman J, et al. **J Biol Chem** 1999 Apr 23;274(17):12009-16

Hormone replacement therapy and high S phase in breast cancer. Cobleigh MA, et al. **JAMA** 1999 Apr 28; 281(16):1528-30

S-phase induction by interleukin-6 followed by chemotherapy in patients with refractory multiple myeloma. de Nully Brown P, et al. **Leuk Res** 1998 Nov; 22(11):983-9

DNA adduct levels associated with p53 induction and delay of MCF-7 cells in S phase after exposure to benzo[g]chrysene dihydrodiol epoxide enantiomers. Khan QA, et al. **Mol Carcinog** 1998 Oct;23(2):115-20

Cdc4, a protein required for the onset of S phase, serves an essential function during G(2)/M transition in Saccharomyces cerevisiae. Goh PY, et al. **Mol Cell Biol** 1999 Aug;19(8):5512-22

Effect of Salmonella assay negative and positive carcinogens on intrachromosomal recombination in S-phase arrested yeast cells. Galli A, et al. **Mutat Res** 1998 Nov 9; 419(1-3):53-68

Activity and nature of p21(WAF1) complexes during the cell cycle. Cai K, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12254-9

Collaborative role of E2F transcriptional activity and G1 cyclindependent kinase activity in the induction of S phase. Leone G, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6626-31

Requirement of Cdk2-cyclin E activity for repeated centrosome reproduction in Xenopus egg extracts [see comments] Hinchcliffe EH, et al. **Science** 1999 Feb 5; 283(5403):851-4. Comment in: Science 1999 Feb 5;283(5403):770-1.

Coupling of mitosis to the completion of S phase through Cdc34-mediated degradation of Wee1 [published errata appear in Science 1999 Jan 1;283(5398):35 and 1999 Mar 26;283(5410):2102] Michael WM, et al. **Science** 1998 Dec 4;282(5395):1886-9

Quantitative analysis of the lobular distribution of S-phase in rat liver following dietary administration of di(2-ethylhexyl)phthalate. Soames AR, et al. **Toxicol Pathol** 1999 Jul-Aug;27(4):436-40

[Replication licensing and S-phase CDK] Mimura S, et al. **Seikagaku** 1999 Apr;71(4):255-68 (63 ref.) **(Jpn)**

[Organization of DNA replication domains in S-phase nuclei of human cells] Solovjeva LV, et al. **Tsitologiia** 1998; 40(8-9):779-85 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Genistein induces p21(Cip1/WAF1) expression and blocks the G1 to S phase transition in mouse fibroblast and melanoma cells. Kuzumaki T, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):291-5

Landomycin A inhibits DNA synthesis and G1/S cell cycle progression. Crow RT, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1663-6

Butyrate augments interferon-alpha-induced S phase accumulation and persistent tyrosine phosphorylation of cdc2 in K562 cells. Miyachi T, et al. **Br J Cancer** 1999 Mar;79(7-8):1018-24

The limiting radiosensitisation of tumours by S-phase sensitisers. Fowler JF, et al. **Br J Cancer Suppl** 1996 Jul; 27:S294-6

Opposite effects of TPA on G1/S transition and on cell size in the low metastatic B16F1 with respect to high metastatic BL6 murine melanoma cells. La Porta CA, et al. **Cancer Lett** 1998 Oct 23;132(1-2):159-64

Overexpression of c-Myc inhibits p21WAF1/CIP1 expression and induces S-phase entry in 12-O-tetradecanoylphorbol-13-acetate (TPA)-sensitive human cancer cells. Mitchell KO, et al. **Cell Growth Differ** 1999 Apr;10(4):223-30

STAT3 orchestrates contradictory signals in cytokine-induced G1 to S cell-cycle transition. Fukada T, et al. **EMBO J** 1998 Nov 16;17(22):6670-7

Werner syndrome lymphoblastoid cells are sensitive to camptothecin-induced apoptosis in S-phase. Poot M, et al. **Hum Genet** 1999 Jan;104(1):10-4

TGF-beta2 in aqueous humor suppresses S-phase entry in cultured corneal endothelial cells. Chen KH, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2513-9

Antisense oligonucleotide complementary to the BamHI-H gene family of Marek's disease virus induced growth arrest of MDCC-MSB1 cells in the S-phase. Hayashi M, et al. **J Vet Med Sci** 1999 Apr;61(4):389-94

S-phase induction by interleukin-6 followed by chemotherapy in patients with chronic lymphocytic leukemia and non-Hodgkin's lymphoma. Brown PD, et al. **Leuk Lymphoma** 1999 Jul;34(3-4):325-33

Distribution of camptothecin-induced break points in Chinese hamster cells treated in late S and G2 phases of the cell cycle. Bassi L, et al. **Mutagenesis** 1998 May; 13(3):257-61

Synthetic retinoid CD437 induces S-phase arrest and apoptosis in human prostate cancer cells LNCaP and PC-3. Liang JY, et al. **Prostate** 1999 Feb 15;38(3):228-36

GENETICS

The juxtaposition of ABL with BCR and risk for fusion may come at the time of BCR replication in late S-phase [letter] Anastasi J, et al. **Blood** 1999 Aug 1;94(3):1137-8

Prognostic implications of various models for calculation of S-phase fraction in 259 patients with soft tissue sarcoma. Gustafson P, et al. **Br J Cancer** 1999 Mar;79(7-8):1205-9

Uncoupling of S phase and mitosis in cardiomyocytes and hepatocytes lacking the winged-helix transcription factor Trident. Korver W, et al. **Curr Biol** 1998 Dec 3; 8(24):1327-30

Normal human telomeres are not late replicating. Wright WE, et al. **Exp Cell Res** 1999 Sep 15;251(2):492-9

S phase and differential DNA replication during Drosophila oogenesis. Royzman I, et al. **Genes Cells** 1998 Dec; 3(12):767-76 (30 ref.)

Rereplication phenomenon in fission yeast requires MCM proteins and other S phase genes. Snaith HA, et al. **Genetics** 1999 Jul;152(3):839-51

S PHASE

The S phase: beginning, middle, and end: a perspective. Ford HL, et al. **J Cell Biochem Suppl** 1998;30-31:1-7 (37 ref.)
Reduced dosage of a single fission yeast MCM protein causes genetic instability and S phase delay. Liang DT, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):559-67
Chorion gene amplification in Drosophila: A model for metazoan origins of DNA replication and S-phase control. Calvi BR, et al. **Methods** 1999 Jul;18(3):407-17
Efficient initiation of S-phase in yeast requires Cdc40p, a protein involved in pre-mRNA splicing. Boger-Nadjar E, et al. **Mol Gen Genet** 1998 Nov;260(2-3):232-41
The S/M checkpoint at 37 degrees C and the recovery of viability of the mutant poldeltats3 require the crb2+/rhp9+ gene in fission yeast. Grenon M, et al. **Mol Gen Genet** 1999 Jan;260(6):522-34
Growth arrest failure, G1 restriction point override, and S phase death of sensory precursor cells in the absence of neurotrophin-3. ElShamy WM, et al. **Neuron** 1998 Nov; 21(5):1003-15
The value of S-phase and DNA ploidy analysis as prognostic markers for node-negative breast cancer in the Australian setting. Wong SW, et al. **Pathology** 1999 May;31(2):90-4
[Standardization and quality control in the evaluation of proliferation parameters in T1T2, N0N1, M0 breast cancer: multicentric retrospective study II. DNA-ploidy and S-phase fraction] Chassevent A, et al. **Bull Cancer** 1999 Jul-Aug;86(7-8):685-91 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Diacylglycerol kinase inhibition prevents IL-2-induced G1 to S transition through a phosphatidylinositol-3 kinase-independent mechanism. Flores I, et al. **J Immunol** 1999 Jul 15;163(2):708-14
Anchorage dependence of mitogen-induced G1 to S transition in primary T lymphocytes. Geginat J, et al. **J Immunol** 1999 May 1;162(9):5085-93
Immunologic proliferation marker Ki-S2 as prognostic indicator for lymph node-negative breast cancer. Rudolph P, et al. **J Natl Cancer Inst** 1999 Feb 3;91(3):271-8

PHYSIOLOGY

Oxygen induces S-phase growth arrest and increases p53 and p21(WAF1/CIP1) expression in human bronchial smooth-muscle cells. Shenberger JS, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):395-402
Restricted distribution of S-phase cells in the anterior subventricular zone of the postnatal mouse forebrain. Menezes JR, et al. **Anat Embryol (Berl)** 1998 Sep; 198(3):205-11
An early S phase checkpoint is regulated by the E2F1 transcription factor. Stubbs MC, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):77-80
Hypoxia induces p53 accumulation in the S-phase and accumulation of hypophosphorylated retinoblastoma protein in all cell cycle phases of human melanoma cells. Danielsen T, et al. **Br J Cancer** 1998 Dec;78(12):1547-58
Adenovirus-mediated gene transfer of MMAC1/PTEN to glioblastoma cells inhibits S phase entry by the recruitment of p27Kip1 into cyclin E/CDK2 complexes. Cheney IW, et al. **Cancer Res** 1999 May 15;59(10):2318-23
Defective G1-S cell cycle checkpoint function sensitizes cells to microtubule inhibitor-induced apoptosis. Stewart ZA, et al. **Cancer Res** 1999 Aug 1;59(15):3831-7
The apparent linkage between centriole replication and the S phase of the cell cycle. Sluder G, et al. **Cell Biol Int** 1998;22(1):3-5 (25 ref.)
Overproduction of MDM2 in vivo disrupts S phase independent of E2F1. Reinke V, et al. **Cell Growth Differ** 1999 Mar;10(3):147-54
Double labelling to obtain S phase subpopulations: application to determine cell kinetics of diploid cells in an aneuploid tumour. White RA, et al. **Cell Prolif** 1994 Mar;27(3):123-37
The Pds1 anaphase inhibitor and Mec1 kinase define distinct checkpoints coupling S phase with mitosis in budding yeast. Clarke DJ, et al. **Curr Biol** 1999 Apr 8;9(7):365-8
Uncoupling of S phase and mitosis in cardiomyocytes and hepatocytes lacking the winged-helix transcription factor Trident. Korver W, et al. **Curr Biol** 1998 Dec 3; 8(24):1327-30
Cdc6 protein causes premature entry into S phase in a mammalian cell-free system. Stoeber K, et al. **EMBO J** 1998 Dec 15;17(24):7219-29
Late signals from the PDGF receptors leading to the activation of the p70S6-kinase are necessary for the transition from G1 to S phase in AKR-2B cells. Simm A, et al. **Exp Cell Res** 1998 Nov 1;244(2):379-93
Kinase-independent activity of Cdc2/cyclin A prevents the S phase in the Drosophila cell cycle. Hayashi S, et al. **Genes Cells** 1999 Feb;4(2):111-22
Faithful anaphase is ensured by Mis4, a sister chromatid cohesion molecule required in S phase and not destroyed in G1 phase. Furuya K, et al. **Genes Dev** 1998 Nov 1; 12(21):3408-18
Synchronization of the G1/S transition in response to corneal debridement. Chung EH, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):1952-8
Geranylgeranylpyrophosphate plays a key role for the G1 to S transition in vascular smooth muscle cells. Terano T, et al. **J Atheroscler Thromb** 1998;5(1):1-6
sst2 somatostatin receptor mediates cell cycle arrest and induction of p27(Kip1). Evidence for the role of SHP-1. Pagès P, et al. **J Biol Chem** 1999 May 21;274(21):15186-93
The S phase: beginning, middle, and end: a perspective. Ford HL, et al. **J Cell Biochem Suppl** 1998;30-31:1-7 (37 ref.)
Role of diacylglycerol (DAG) in hormonal induction of S phase in hepatocytes: the DAG-dependent protein kinase C pathway is not activated by epidermal growth factor (EGF), but is involved in mediating the enhancement of responsiveness to EGF by vasopressin, angiotensin II, and norepinephrine. Dajani OF, et al. **J Cell Physiol** 1999 Aug; 180(2):203-14
A novel growth- and cell cycle-regulated protein, ASK, activates human Cdc7-related kinase and is essential for G1/S transition in mammalian cells. Kumagai H, et al. **Mol Cell Biol** 1999 Jul;19(7):5083-95
C/EBPalpha regulates formation of S-phase-specific E2F-p107 complexes in livers of newborn mice. Timchenko NA, et al. **Mol Cell Biol** 1999 Apr; 19(4):2936-45
CDC25A phosphatase is a target of E2F and is required for efficient E2F-induced S phase. Vigo E, et al. **Mol Cell Biol** 1999 Sep;19(9):6379-95
pRB phosphorylation mutants reveal role of pRB in regulating S phase completion by a mechanism independent of E2F. Chew YP, et al. **Oncogene** 1998 Oct 29; 17(17):2177-86
Primary keratinocytes have an adhesion dependent S phase checkpoint that is absent in immortalized cell lines. Hauser PJ, et al. **Oncogene** 1998 Dec 17;17(24):3083-92
Cyclin E2: a novel CDK2 partner in the late G1 and S phases of the mammalian cell cycle. Lauper N, et al. **Oncogene** 1998 Nov 19;17(20):2637-43
Prognostic and predictive evaluation of DNA content, S-phase fraction and immunophenotyping in non-Hodgkin's lymphomas in adults. A prospective study. Lackowska B, et al. **Pol J Pathol** 1999;50(1):23-9
A p53-dependent S-phase checkpoint helps to protect cells from DNA damage in response to starvation for pyrimidine nucleotides. Agarwal ML, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14775-80
Increase in the 64-kDa subunit of the polyadenylation/cleavage stimulatory factor during the G0 to S phase transition. Martincic K, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11095-100
Induced repair of DNA double-strand breaks at the G1/S-phase border. Whisnant-Hurst N, et al. **Radiat Res** 1999 Mar;151(3):257-62
TP53 is not required for the constitutive or induced repair of DNA damage produced by ionizing radiation at the G1/S-phase border. Whisnant-Hurst N, et al. **Radiat Res** 1999 Mar;151(3):263-9

RADIATION EFFECTS

S-phase arrest in mouse keratinocytes exposed to multiple doses of ultraviolet B/A radiation. Neades R, et al. **Mol Carcinog** 1998 Nov;23(3):159-67
Radiation down-regulates replication origin activity throughout the S phase in mammalian cells. Larner JM, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):803-9
The radiation-induced S-phase checkpoint is independent of CDKN1A. Guo CY, et al. **Radiat Res** 1999 Feb; 151(2):125-32

SABIN VACCINE see **POLIOVIRUS VACCINE, ORAL**

SABLES see **CARNIVORA**

SABO VIRUS see **SIMBU GROUP VIRUSES**

SACCADES

Gap effect and reaction time distribution: simple vs choice manual responses. Machado-Pinheiro W, et al. **Braz J Med Biol Res** 1998 Oct;31(10):1313-8 (19 ref.)
Familial congenital saccade initiation failure and isolated cerebellar vermis hypoplasia. Harris CM, et al. **Dev Med Child Neurol** 1998 Nov;40(11):775-9
Vertical latent nystagmus component and vertical saccadic asymmetries in subjects with dissociated vertical deviation [letter] Hertle RW, et al. **J Aapos** 1999 Aug;3(4):257-8
Components of visual search in childhood-onset schizophrenia and attention-deficit/hyperactivity disorder. Karatekin C, et al. **J Abnorm Child Psychol** 1998 Oct; 26(5):367-80
The contributions of eye movements to the efficacy of brief exposure treatment for reducing fear of public speaking. Carrigan MH, et al. **J Anxiety Disord** 1999 Jan-Apr; 13(1-2):101-18
The cognitive dismantling of Eye Movement Desensitization and Reprocessing (EMDR) treatment of Posttraumatic Stress Disorder (PTSD). Cusack K, et al. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):87-99
Treatment of specific phobias with Eye Movement Desensitization and Reprocessing (EMDR): protocol, empirical status, and conceptual issues. De Jongh A, et al. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):69-85 (54 ref.)
What psychological testing and neuroimaging tell us about the treatment of Posttraumatic Stress Disorder by Eye Movement Desensitization and Reprocessing. Levin P, et al. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):159-72
Traumatic memories, eye movements, phobia, and panic: a critical note on the proliferation of EMDR. Muris P, et al. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):209-23 (63 ref.)
A single session, group study of exposure and Eye Movement Desensitization and Reprocessing in treating Posttraumatic Stress Disorder among Vietnam War veterans: preliminary data. Rogers S, et al. **J Anxiety Disord** 1999 Jan-Apr; 13(1-2):119-30
Treatment fidelity and research on Eye Movement Desensitization and Reprocessing (EMDR). Rosen GM. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):173-84
Eye Movement Desensitization and Reprocessing (EMDR) and the anxiety disorders: clinical and research implications of an integrated psychotherapy treatment. Shapiro F. **J Anxiety Disord** 1999 Jan-Apr;13(1-2):35-67 (130 ref.)
Ocular microtremor in patients with idiopathic Parkinson's disease. Bolger C, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):528-31
Memory guided saccade deficit after caudate nucleus lesion. Vermersch AI, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):524-7
Bedside tests of saccades after head injury. Mulhall LE, et al. **J Neuroophthalmol** 1999 Sep;19(3):160-5
Saccadic eye movement and working memory deficits following damage to human prefrontal cortex. Walker R, et al. **Neuropsychologia** 1998 Nov;36(11):1141-59
Immediate post-saccadic information mediates space constancy. Deubel H, et al. **Vision Res** 1998 Oct; 38(20):3147-59
Accuracy of visually and memory-guided antisaccades in man [published erratum appears in Vision Res 1999 Aug;39(16):2794] Krappmann P, et al. **Vision Res** 1998 Oct; 38(19):2979-85

DRUG EFFECTS

Drug therapy of nystagmus and saccadic intrusions. Büttner U, et al. **Adv Otorhinolaryngol** 1999;55:195-227 (165 ref.)
Ethanol impairs saccadic and smooth pursuit eye movements without producing self-reports of sedation. Holdstock L, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):664-72
Effects of low-dose isoflurane on saccadic eye movement generation. Khan O, et al. **Anaesthesia** 1999 Feb;54(2):142-5
Edrophonium-induced macrosaccadic oscillations in myasthenia gravis. Komiyama A, et al. **Ann Neurol** 1999 Apr;45(4):522-5
The effects of chlorpromazine and lorazepam on abnormal antisaccade and no-saccade distractibility. Green JF, et al. **Biol Psychiatry** 1998 Oct 15;44(8):709-15
Internally and externally guided voluntary saccades in unmedicated and medicated schizophrenic patients. Part II. Saccadic latency, gain, and fixation suppression errors. Müller N, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(1):7-14
Internally and externally guided voluntary saccades in unmedicated and medicated schizophrenic patients. Part I. Saccadic velocity. Straube A, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(1):1-6
The effect of oral ethanol consumption on eye movements in healthy volunteers. Moser A, et al. **J Neurol** 1998 Aug; 245(8):542-50
Frontal cognitive impairments and saccadic deficits in low-dose MPTP-treated monkeys. Slovin H, et al. **J Neurophysiol** 1999 Feb;81(2):858-74
Residual effect of zolpidem 10 mg and zopiclone 7.5 mg versus flunitrazepam 1 mg and placebo on driving performance and ocular saccades. Bocca ML, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):373-9
Alcohol and visually guided saccades: gap effect and predictability of target location. Wegner AJ, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):24-32

GENETICS

Saccadic eye movements in families multiply affected with schizophrenia: the Maudsley Family Study. Crawford TJ, et al. **Am J Psychiatry** 1998 Dec;155(12):1703-10

PHYSIOLOGY

The Gap effect for spatially oriented responses. Pratt J, et al. **Acta Psychol (Amst)** 1999 Jul;102(1):1-12
Saccades and antisaccades in parkinsonian syndromes. Vidailhet M, et al. **Adv Neurol** 1999;80:377-82
Saccadic eye movements in families multiply affected with schizophrenia: the Maudsley Family Study. Crawford TJ, et al. **Am J Psychiatry** 1998 Dec;155(12):1703-10
Quantification analysis for saccadic eye movements. Chen T, et al. **Ann Biomed Eng** 1998 Nov-Dec;26(6):1065-71
Comparison of tilt estimates based on line settings, saccadic pointing, and verbal reports. Van Beuzekom AD, et al. **Ann N Y Acad Sci** 1999 May 28;871:451-4
Slow vertical saccades in motor neuron disease: correlation of structure and function. Averbuch-Heller L, et al. **Ann Neurol** 1998 Oct;44(4):641-8
Fixation errors and timing in sequences of memory-guided saccades. Ditterich J, et al. **Behav Brain Res** 1998 Oct; 95(2):205-17
The effects of incentive on antisaccades: is a dopaminergic mechanism involved? Duka T, et al. **Behav Pharmacol** 1997 Oct;8(5):373-82
Neural network simulations of the primate oculomotor system. III. An one-dimensional, one-directional model of the superior colliculus. Bozis A, et al. **Biol Cybern** 1998 Sep;79(3):215-30
Smooth pursuit performance in families with multiple

occurrence of schizophrenia and nonpsychotic families. Lencer R, et al. **Biol Psychiatry** 1999 Mar 15;45(6):694–703
Differences in cerebral activation during smooth pursuit and saccadic eye movements using positron–emission tomography. O'Driscoll GA, et al. **Biol Psychiatry** 1998 Oct 15;44(8):685–9
Anticipatory saccades during smooth pursuit eye movements and familial transmission of schizophrenia. Ross RG, et al. **Biol Psychiatry** 1998 Oct 15;44(8):690–7
Patients with premenstrual syndrome have decreased saccadic eye velocity compared to control subjects. Sundström I, et al. **Biol Psychiatry** 1998 Oct 15; 44(8):755–64
Video–oculography as part of the ENG battery. Eckert AM, et al. **Br J Audiol** 1998 Dec;32(6):411–6
Impaired analysis of moving objects due to deficient smooth pursuit eye movements. Haarmeier T, et al. **Brain** 1999 Aug;122 (Pt 8):1495–505
Motoric response inhibition in finger movement and saccadic eye movement: a comparative study. Van 't Ent D, et al. **Clin Neurophysiol** 1999 Jun;110(6):1058–72
Predictive saccade behavior is enhanced in schizophrenia. Karoumi B, et al. **Cognition** 1998 Sep;68(3):B81–91
Manual asymmetries and saccadic eye movements in right–handers during single and reciprocal aiming movements. Helsen WF, et al. **Cortex** 1998 Sep; 34(4):513–29
Neurology of saccades and smooth pursuit. Gaymard B, et al. **Curr Opin Neurol** 1999 Feb;12(1):13–9 (56 ref.)
'Saccadic strategies in children with hemianopia' [letter; comment] Coats DK, et al. **Dev Med Child Neurol** 1999 Jun;41(6):429–30. Comment on: Dev Med Child Neurol 1998 Sep;40(9):626–30.
EOG correction: a new perspective. Croft RJ, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec; 107(6):387–94
Behavioural conditions affecting saccadic eye movements elicited electrically from the frontal lobes of primates. Tehovnik EJ, et al. **Eur J Neurosci** 1999 Jul;11(7):2431–43
Ocular perturbations and retinal/extraretinal information: the coordination of saccadic and manual movements. Binsted G, et al. **Exp Brain Res** 1999 Jul;127(2):193–206
Visually evoked cortical potentials in awake cats during saccadic eye movements. Chakraborty S, et al. **Exp Brain Res** 1998 Sep;122(2):203–13
Saccades to mentally rotated targets. de'Sperati C. **Exp Brain Res** 1999 Jun;126(4):563–77
Visuomotor mental rotation of saccade direction. Fischer MH, et al. **Exp Brain Res** 1999 Jul;127(2):224–32
Cortical control of saccades. Gaymard B, et al. **Exp Brain Res** 1998 Nov;123(1–2):159–63 (36 ref.)
Combined deficits of saccades and visuo–spatial orientation after cortical lesions. Heide W, et al. **Exp Brain Res** 1998 Nov;123(1–2):164–71
Disconjugate memory–guided saccades to disparate targets: evidence for 3D sensitivity. Kapoula Z, et al. **Exp Brain Res** 1998 Oct;122(4):413–23
Oculomotor sequence learning: a positron emission tomography study. Kawashima R, et al. **Exp Brain Res** 1998 Sep;122(1):1–8
Effects of short–term adaptation of saccadic gaze amplitude on hand–pointing movements. Kröller J, et al. **Exp Brain Res** 1999 Feb;124(3):351–62
Microsaccades differentially modulate neural activity in the striate and extrastriate visual cortex. Leopold DA, et al. **Exp Brain Res** 1998 Dec;123(3):341–5
Eye–head coordination in labyrinthine–defective humans. Maurer C, et al. **Exp Brain Res** 1998 Oct;122(3):260–74
The recognition and correction of involuntary prosaccades in an antisaccade task. Mokler A, et al. **Exp Brain Res** 1999 Apr;125(4):511–6
Age–related performance of human subjects on saccadic eye movement tasks. Munoz DP, et al. **Exp Brain Res** 1998 Aug;121(4):391–400
Integration of visual and somatosensory target information in goal–directed eye and arm movements. Neggers SF, et al. **Exp Brain Res** 1999 Mar;125(1):97–107
Saccades and multisaccadic gaze shifts are gated by different pontine omnipause neurons in head–fixed cats. Petit J, et al. **Exp Brain Res** 1999 Apr;125(3):287–301
Assessment of the perception of verticality and horizontality with self–paced saccades. Pettorossi VE, et al. **Exp Brain Res** 1998 Jul;121(1):46–50
Response fields of intraparietal neurons quantified with multiple saccadic targets. Platt ML, et al. **Exp Brain Res** 1998 Jul;121(1):65–75
Neural circuits underlying ketamine–induced oculomotor behavior in the rat: 2–deoxyglucose studies. Porro CA, et al. **Exp Brain Res** 1999 Jan;124(1):8–16
Reversible inactivation of macaque dorsomedial frontal cortex: effects on saccades and fixations. Sommer MA, et al. **Exp Brain Res** 1999 Feb;124(4):429–46
Event–related potentials and saccadic reaction times: effects of fixation point offset or change. Spantekow A, et al. **Exp Brain Res** 1999 Aug;127(3):291–7
Amplitude of human head movements associated with horizontal saccades. Stahl JS. **Exp Brain Res** 1999 May; 126(1):41–54
Presaccadic omnidirectional burst activity in the basal interstitial nucleus in the monkey cerebellum. Takikawa Y, et al. **Exp Brain Res** 1998 Aug;121(4):442–50
Latency of saccades during smooth–pursuit eye movement in man. Directional asymmetries. Tanaka M, et al. **Exp Brain Res** 1998 Jul;121(1):92–8
Integrated effect of stimulation at fixation points on EFRP (eye–fixation related brain potentials). Kazai K, et al. **Int J Psychophysiol** 1999 Jun;32(3):193–203
Conjugate ocular oscillations during shifts of the direction and depth of visual fixation. Ramat S, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1681–6
The effect of direction on saccadic eye movement parameters. Beydagi H, et al. **J Basic Clin Physiol Pharmacol** 1999;10(1):73–7
Projections from the superior colliculus motor map to omnipause neurons in monkey. Büttner–Ennever JA, et al. **J Comp Neurol** 1999 Oct 11;413(1):55–67
Gaze shifts in three–dimensional space: A closer look at the superior colliculus [comment] Guitton D. **J Comp Neurol** 1999 Oct 11;413(1):77–82 (52 ref.). Comment on: J Comp Neurol 1999 Oct 11;413(1):68–70.
Divergent axon collaterals from the rostral superior colliculus to the pretectal accommodation–related areas and the omnipause neuron area in the cat [see comments] Ohtsuka K, et al. **J Comp Neurol** 1999 Oct 11;413(1):68–76. Comment in: J Comp Neurol 1999 Oct 11;413(1):77–82.
Estimation of spatiotemporal neural activity using radial basis function networks. Anderson RW, et al. **J Comput Neurosci** 1998 Dec;5(4):421–41
CAG repeat length and clinical features in three Italian families with spinocerebellar ataxia type 2 (SCA2): early impairment of Wisconsin Card Sorting Test and saccade velocity. Gambardella A, et al. **J Neurol** 1998 Oct; 245(10):647–52
Saccadic slowing in myotonic dystrophy and CTG repeat expansion. Osanai R, et al. **J Neurol** 1998 Oct; 245(10):674–80
Saccadic performance characteristics and the behavioural neurology of Tourette's syndrome. Farber RH, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar;66(3):305–12
Primate antisaccades. I. Behavioral characteristics. Amador N, et al. **J Neurophysiol** 1998 Oct;80(4):1775–86
Perturbation of combined saccade–vergence movements by microstimulation in monkey superior colliculus. Chaturvedi V, et al. **J Neurophysiol** 1999 May;81(5):2279–96
Three–dimensional eye–head coordination during gaze saccades in the primate. Crawford JD, et al. **J Neurophysiol** 1999 Apr;81(4):1760–82
Muscimol–induced inactivation of monkey frontal eye field: effects on visually and memory–guided saccades. Dias EC, et al. **J Neurophysiol** 1999 May;81(5):2191–214
Influence of previous visual stimulus or saccade on saccadic reaction times in monkey. Dorris MC, et al. **J Neurophysiol** 1999 May;81(5):2429–36
Dependence on target configuration of express saccade–related activity in the primate superior colliculus. Edelman JA, et al. **J Neurophysiol** 1998 Sep;80(3):1407–26
Oculomotor tracking in two dimensions. Engel KC, et al. **J Neurophysiol** 1999 Apr;81(4):1597–602
Reflex suppression in the anti–saccade task is dependent on prestimulus neural processes. Everling S, et al. **J Neurophysiol** 1998 Sep;80(3):1584–9
Responses to auditory stimuli in macaque lateral intraparietal area. I. Effects of training. Grunewald A, et al. **J Neurophysiol** 1999 Jul;82(1):330–42
Human head–free gaze saccades to targets flashed before gaze–pursuit are spatially accurate. Herter TM, et al. **J Neurophysiol** 1998 Nov;80(5):2785–9
Human oculomotor system accounts for 3–D eye orientation in the visual–motor transformation for saccades. Klier EM, et al. **J Neurophysiol** 1998 Nov;80(5):2274–94
Role of the oculomotor vermis in generating pursuit and saccades: effects of microstimulation. Krauzlis RJ, et al. **J Neurophysiol** 1998 Oct;80(4):2046–62
Proprioceptive and retinal afference modify postsaccadic ocular drift. Lewis RF, et al. **J Neurophysiol** 1999 Aug; 82(2):551–63
Effect of reversible inactivation of macaque lateral intraparietal area on visual and memory saccades. Li CS, et al. **J Neurophysiol** 1999 Apr;81(4):1827–38
Responses to auditory stimuli in macaque lateral intraparietal area. II. Behavioral modulation. Linden JF, et al. **J Neurophysiol** 1999 Jul;82(1):343–58
New mechanism that accounts for position sensitivity of saccades evoked in response to stimulation of superior colliculus. Moschovakis AK, et al. **J Neurophysiol** 1998 Dec;80(6):3373–9
Characteristics of simian adaptation fields produced by behavioral changes in saccade size and direction. Noto CT, et al. **J Neurophysiol** 1999 Jun;81(6):2798–813
Contribution of the rostral fastigial nucleus to the control of orienting gaze shifts in the head–unrestrained cat. Pélisson D, et al. **J Neurophysiol** 1998 Sep;80(3):1180–96
Functional anatomy of pursuit eye movements in humans as revealed by fMRI. Petit L, et al. **J Neurophysiol** 1999 Jul;82(1):463–71
Action of the brain stem saccade generator during horizontal gaze shifts. I. Discharge patterns of omnidirectional pause neurons. Phillips JO, et al. **J Neurophysiol** 1999 Mar; 81(3):1284–95
Errors of memory–guided saccades in humans with lesions of the frontal eye field and the dorsolateral prefrontal cortex. Ploner CJ, et al. **J Neurophysiol** 1999 Aug; 82(2):1086–90
Model of the control of saccades by superior colliculus and cerebellum. Quaia C, et al. **J Neurophysiol** 1999 Aug; 82(2):999–1018
Effects of lesions of the oculomotor vermis on eye movements in primate: saccades. Takagi M, et al. **J Neurophysiol** 1998 Oct;80(4):1911–31
Effects of focal inactivation of dorsal or ventral layers of the lateral geniculate nucleus on cats' ability to see and fixate small targets. Tate AK, et al. **J Neurophysiol** 1998 Oct;80(4):2206–9
Electrical microstimulation distinguishes distinct saccade–related areas in the posterior parietal cortex. Thier P, et al. **J Neurophysiol** 1998 Oct;80(4):1713–35
Saccadic gain modification: visual error drives motor adaptation. Wallman J, et al. **J Neurophysiol** 1998 Nov; 80(5):2405–16
Lateralized human cortical activity for shifting visuospatial attention and initiating saccades. Wauschkuhn B, et al. **J Neurophysiol** 1998 Dec;80(6):2900–10
Role of primate superior colliculus in preparation and execution of anti–saccades and pro–saccades. Everling S, et al. **J Neurosci** 1999 Apr 1;19(7):2740–54
An anatomical substrate for the spatiotemporal transformation. Moschovakis AK, et al. **J Neurosci** 1998 Dec 1;18(23):10219–29
Cortical visuomotor integration during eye pursuit and eye–finger pursuit. Nishitani N, et al. **J Neurosci** 1999 Apr 1;19(7):2647–57
On the optimal control of behaviour: a stochastic perspective. Harris CM. **J Neurosci Methods** 1998 Aug 31;83(1):73–88
Independent control of head and gaze movements during head–free pursuit in humans. Collins CJ, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):299–314
Monocularly programmed human saccades during vergence changes? Enright JT. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):235–50
Suppression of reflexive saccades in younger and older adults: age comparisons on an antisaccade task. Butler KM, et al. **Mem Cognit** 1999 Jul;27(4):584–91
Remembered saccades with variable delay in Parkinson's disease. Shaunak S, et al. **Mov Disord** 1999 Jan;14(1):80–6
Functional anatomy of saccadic adaptation in humans [published erratum appears in Nat Neurosci 1998 Dec;1(8):743] Desmurget M, et al. **Nat Neurosci** 1998 Oct; 1(6):524–8
The effects of frontal eye field and dorsomedial frontal cortex lesions on visually guided eye movements. Schiller PH, et al. **Nat Neurosci** 1998 Jul;1(3):248–53
Illusory shifts in visual direction accompany adaptation of saccadic eye movements. Bahcall DO, et al. **Nature** 1999 Aug 26;400(6747):864–6
Square–wave jerks induced by pallidotomy in parkinsonian patients. Averbuch–Heller L, et al. **Neurology** 1999 Jan 1; 52(1):185–8
A common network of functional areas for attention and eye movements. Corbetta M, et al. **Neuron** 1998 Oct; 21(4):761–73
Poor saccadic control correlates with dyslexia. Biscaldi M, et al. **Neuropsychologia** 1998 Nov;36(11):1189–202
The antisaccade: a review of basic research and clinical studies. Everling S, et al. **Neuropsychologia** 1998 Sep; 36(9):885–99 (133 ref.)
Role of the prefrontal cortex in the control of express saccades. A transcranial magnetic stimulation study. Müri RM, et al. **Neuropsychologia** 1999 Feb;37(2):199–206
Localization of the human frontal eye fields and motor hand area with transcranial magnetic stimulation and magnetic resonance imaging. Ro T, et al. **Neuropsychologia** 1999 Feb; 37(2):225–31
Does auditory attention shift in the direction of an upcoming saccade? Rorden C, et al. **Neuropsychologia** 1999 Mar; 37(3):357–77
Activity of prefrontal neurons during location and color delayed matching tasks. Ferrera VP, et al. **Neuroreport** 1999 Apr 26;10(6):1315–22
Involuntary eye movements in response to first– and second–order motion. Guo K, et al. **Neuroreport** 1998 Oct 26;9(15):3543–8
Electroencephalographic cortical oscillations and saccadic eye movements in humans. Skrandies W, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):57–60
Reaction times of head movements occurring in association with express saccades during human gaze shifts. Suzuki T, et al. **Neurosci Lett** 1998 Sep 18;254(1):61–4
Short–latency vergence eye movements elicited by looming step in monkeys. Inoue Y, et al. **Neurosci Res** 1998 Oct; 32(2):185–8
Adaptive modifications of post–saccadic smooth pursuit eye movements and their interaction with saccades and the vestibulo–ocular reflex in the primate. Nagao S, et al. **Neurosci Res** 1998 Oct;32(2):157–69
Velocity profile of smooth pursuit eye movements in humans: pursuit velocity increase linked with the initial saccade occurrence. Ogawa T, et al. **Neurosci Res** 1998 Jul; 31(3):201–9
A key role for the caudoventral pontine tegmentum in the simultaneous generation of eye saccades in bursts and associated ponto–geniculo–occipital waves during paradoxical sleep in the cat. Vanni–Mercier G, et al. **Neuroscience** 1998 Sep;86(2):571–85
Vergence control across saccades in dyslexic adults. Moores E, et al. **Ophthalmic Physiol Opt** 1998 Sep;18(5):452–62
Smooth pursuit and saccadic eye movements as possible

indicators of nighttime sleepiness. Porcu S, et al. **Physiol Behav** 1998 Dec 1;65(3):437–43

Aging and movement: variability of force pulses for saccadic eye movements. Abrams RA, et al. **Psychol Aging** 1998 Sep;13(3):387–95

Eye movements in reading and information processing: 20 years of research. Rayner K. **Psychol Bull** 1998 Nov; 124(3):372–422 (927 ref.)

Saccadic and attentional abnormalities in patients with schizophrenia. Maruff P, et al. **Psychol Med** 1998 Sep; 28(5):1091–100

Measuring liability for schizophrenia using optimized antisaccade stimulus parameters. McDowell JE, et al. **Psychophysiology** 1999 Jan;36(1):138–41

Amplitude criteria and anticipatory saccades during smooth pursuit eye movements in schizophrenia. Ross RG, et al. **Psychophysiology** 1999 Jul;36(4):464–8

Antisaccade task performance in questionnaire-identified schizotypes. Gooding DC. **Schizophr Res** 1999 Jan 11; 35(2):157–66

Separate signals for target selection and movement specification in the superior colliculus. Horwitz GD, et al. **Science** 1999 May 14;284(5417):1158–61

Shape representations and visual guidance of saccadic eye movements. Moore T. **Science** 1999 Sep 17; 285(5435):1914–7

Unilateral saccadic pursuit in patients with sensory stroke: sign of a pontine tegmentum lesion. Johkura K, et al. **Stroke** 1998 Nov;29(11):2377–80

Saccade target selection in macaque during feature and conjunction visual search. Bichot NP, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):81–9

Peripheral shift reduces visual sensitivity in cat geniculate neurones. Derrington AM, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):875–80

Idiosyncratic characteristics of saccadic eye movements when viewing different visual environments. Andrews TJ, et al. **Vision Res** 1999 Aug;39(17):2947–53

Disconjugate adaptation of saccades: contribution of binocular and monocular mechanisms. Averbuch-Heller L, et al. **Vision Res** 1999 Jan;39(2):341–52

Different motor systems use similar damped extraretinal eye position information. Bockisch CJ, et al. **Vision Res** 1999 Mar;39(5):1025–38

Spatial attention and latencies of saccadic eye movements. Clark JJ. **Vision Res** 1999 Feb;39(3):585–602

The oculomotor gap effect without a foveal fixation point. Fendrich R, et al. **Vision Res** 1999 Feb;39(4):833–41

Saccade selection in visual search: evidence for spatial frequency specific between-item interactions. Gilchrist ID, et al. **Vision Res** 1999 Apr;39(7):1373–83

Countermanding saccades in humans. Hanes DP, et al. **Vision Res** 1999 Aug;39(16):2777–91

Modification of saccade-contingent visual mislocalization by the presence of a visual frame of reference. Honda H. **Vision Res** 1999 Jan;39(1):51–7

Peripheral vision and oculomotor control during visual search. Hooge IT, et al. **Vision Res** 1999 Apr;39(8):1567–75

Spatial characteristics of visual-auditory summation in human saccades. Hughes HC, et al. **Vision Res** 1998 Dec; 38(24):3955–63

Memory-guided saccadic eye movements: effects of cerebellar disease. Kori AA, et al. **Vision Res** 1998 Oct; 38(20):3181–92

Saccades require focal attention and are facilitated by a short-term memory system. McPeek RM, et al. **Vision Res** 1999 Apr;39(8):1555–66

Shapes, surfaces and saccades. Melcher D, et al. **Vision Res** 1999 Aug;39(17):2929–46

Dynamics of horizontal vergence movements: interaction with horizontal and vertical saccades and relation with monocular preferences. van Leeuwen AF, et al. **Vision Res** 1998 Dec;38(24):3943–54

Detecting saccades with jerk. Wyatt HJ. **Vision Res** 1998 Jul;38(14):2147–53

[Changes in saccades in endocrine orbitopathy. Clarification of the contribution by H. D. Schworm et al. "Functional eye muscle changes in endocrine orbitopathy" (letter; comment)] Schworm HD, et al. **Ophthalmologe** 1998 Aug; 95(8):578–80. Comment on: Ophthalmologe 1997 Apr;94(9):290–4. **(Ger)**

[The presaccadic potentials of the human brain during the stimulation of the leading and nonleading eyes] Slavbutskaia MV, et al. **Fiziol Cheloveka** 1998 Nov-Dec; 24(6):5–13 **(Rus)**

[The effect of the visual stimulation of the leading and nonleading eye on the value of the saccadic latency period and on the peak latency of rapid presaccadic potentials] Moiseeva VV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Jan-Feb; 49(1):113–7 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

[Microperimetry and reading saccades in retinopathia solaris. Follow-up with the scanning laser ophthalmoscope] Ehrt O, et al. **Ophthalmologe** 1999 May;96(5):325–31 (Eng. Abstr.) **(Ger)**

SACCADIC EYE MOVEMENTS see **SACCADES**

SACCHARIDE-MEDIATED CELL ADHESION MOLECULES see **CELL ADHESION MOLECULES**

SACCHARIN

ADMINISTRATION & DOSAGE

Ethanol consumption in rats selectively bred for differential saccharin intake. Dess NK, et al. **Alcohol** 1998 Nov; 16(4):275–8

Quantitative trait loci associated with short-term intake of sucrose, saccharin and quinine solutions in laboratory mice. Blizard DA, et al. **Chem Senses** 1999 Aug;24(4):373–85

Regulatory role of nucleus accumbens in the ingestion of sucrose and saccharine. Ramaswamy C, et al. **Indian J Exp Biol** 1998 Aug;36(8):820–3

ADVERSE EFFECTS

[Health risk caused by sugar substitutes] Schwabe U. **Internist (Berl)** 1998 Aug;39(8):869 **(Ger)**

ANALOGS & DERIVATIVES

Design and synthesis of N-alkylated saccharins as selective alpha-1a adrenergic receptor antagonists. Nerenberg JB, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2467–72

Hepatic kinetics of SCP-1 (N-[alpha-(1,2-benzisothiazol-3(2H)-ona-1, 1-dioxide-2-yl)-acetyl]-p-aminophenol) compared with acetaminophen in isolated rat liver. González-Martín G, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):293–7

ANALYSIS

Investigations of the cross reactivity of isothiazol-3(2H)-one 1,1-dioxides. Unterhalt B, et al. **Pharmazie** 1998 Nov; 53(11):764–6

CHEMISTRY

Alkoxide-catalyzed ring-opening of a novel homosaccharin derivative: synthesis of potent, selective P3-lactam thrombin inhibitors containing P4-o-alkoxycarbonylbenzylsulfonamide residues. Owens TD, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3683–8

PHARMACOLOGY

Association between preference for sweets and excessive alcohol intake: a review of animal and human studies. Kampov-Polevoy AB, et al. **Alcohol Alcohol** 1999 May-Jun;34(3):386–95

Succinimide and saccharin-based enzyme-activated inhibitors of serine proteases. Martyn DC, et al. **Curr Pharm Des** 1999 Jun;5(6):405–15 (49 ref.)

Aspartame consumption in rats selectively bred for high versus low saccharin intake. De Francisco JC, et al. **Physiol Behav** 1998 Nov 15;65(2):393–6

The inhibition of bovine carbonic anhydrase by saccharin and 2- and 4-carbobenzoxybenzene sulfonamide Wilson JM, et al. **Physiol Chem Phys Med NMR** 1998;30(2):149–62

Naltrexone pretreatment decreases the reinforcing effectiveness of ethanol and saccharin but not PCP or food under concurrent progressive-ratio schedules in rhesus monkeys. Rodefer JS, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):436–46

SACCHAROMYCES

Saccharomyces boulardii upgrades cellular adaptation after proximal enterectomy in rats. Buts JP, et al. **Gut** 1999 Jul; 45(1):89–96

Comment on 'The lack of therapeutic effect of Saccharomyces boulardii in the prevention of antibiotic-related diarrhoea in elderly patients' [letter; comment] Elmer GW, et al. **J Infect** 1998 Nov;37(3):307–8 . Comment on: J Infect 1998 Mar;36(2):171–4.

Adherence of Escherichia coli serogroup O 157 and the Salmonella typhimurium mutant DT 104 to the surface of Saccharomyces boulardii. Gedek BR. **Mycoses** 1999; 42(4):261–4

CLASSIFICATION

Genetic and phenotypic diversity of Saccharomyces sensu stricto strains isolated from Amarone wine. Diversity of Saccharomyces strains from Amarone wine. Torriani S, et al. **Antonie Van Leeuwenhoek** 1999 Apr;75(3):207–15

New hybrids between Saccharomyces sensu stricto yeast species found among wine and cider production strains. Masneuf I, et al. **Appl Environ Microbiol** 1998 Oct; 64(10):3887–92

Saccharomyces uvarum, a distinct group within Saccharomyces sensu stricto. Rainieri S, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):177–85

[Divergent populations od Saccharomyces paradoxus in Hawaii: species in statu nascendi] Naumov GI. **Dokl Akad Nauk** 1999 Jan;364(2):281–3 **(Rus)**

CYTOLOGY

A novel method for hybridization of Saccharomyces species without genetic markers. Kucsera J, et al. **Can J Microbiol** 1998 Oct;44(10):959–64

ENZYMOLOGY

Saccharomyces boulardii protease inhibits the effects of Clostridium difficile toxins A and B in human colonic mucosa. Castagliuolo I, et al. **Infect Immun** 1999 Jan; 67(1):302–7

Determination of neutral lactase activity in industrial enzyme preparations by a colorimetric enzymatic method: collaborative study. Engelen AJ, et al. **J AOAC Int** 1999 Jan-Feb;82(1):112–8

A novel esterase from Saccharomyces carlsbergensis, a possible function for the yeast TIP1 gene. Horsted MW, et al. **Yeast** 1998 Jun 30;14(9):793–803

[Optimization of hydrolysis of protein substrates by yeast proteases from Saccharomyces carlsbergenis] Nekliudov AD, et al. **Prikl Biokhim Mikrobiol** 1998 Jul-Aug; 34(4):394–7 (Eng. Abstr.) **(Rus)**

GENETICS

Genetic and phenotypic diversity of Saccharomyces sensu stricto strains isolated from Amarone wine. Diversity of Saccharomyces strains from Amarone wine. Torriani S, et al. **Antonie Van Leeuwenhoek** 1999 Apr;75(3):207–15

Ibd1p, a possible spindle pole body associated protein, regulates nuclear division and bud separation in Saccharomyces cerevisiae. Lee J, et al. **Biochim Biophys Acta** 1999 Apr 1;1449(3):239–53

Identification of the orotidine-5'-phosphate decarboxylase gene and development of a transformation system in the yeast Saccharomyces exiguus Yp74L-3. Hisatomi T, et al. **Biosci Biotechnol Biochem** 1998 Nov;62(11):2280–2

Construction of an effective host-vector system for the yeast Saccharomyces exiguus Yp74L-3. Hisatomi T, et al. **Biosci Biotechnol Biochem** 1999 May;63(5):847–50

The autonomously replicating sequence (ARS) of the yeast Saccharomyces exiguus Yp74L-3. Hisatomi T, et al. **Curr Microbiol** 1999 Feb;38(2):122–5

A short region from the LEU2 gene of Saccharomyces cerevisiae functions as an ARS in the yeast Saccharomyces exiguus Yp74L-3. Hisatomi T, et al. **Curr Microbiol** 1998 Dec;37(6):426–30

Sequence analysis of 18S-28S rRNA spacer regions from Saccharomyces kunashirensis, S. martiniae, S. rosinii, and S. transvaalensis. Oda Y, et al. **Curr Microbiol** 1999 Jan; 38(1):61–3

DNA sequence and functional analysis of homologous ARS elements of Saccharomyces cerevisiae and S. carlsbergensis. Theis JF, et al. **Genetics** 1999 Jul; 152(3):943–52

Conservation of ARS elements and chromosomal DNA replication origins on chromosomes III of Saccharomyces cerevisiae and S. carlsbergensis. Yang C, et al. **Genetics** 1999 Jul;152(3):933–41

A cytoplasmic dynein heavy chain is required for oscillatory nuclear movement of meiotic prophase and efficient meiotic recombination in fission yeast. Yamamoto A, et al. **J Cell Biol** 1999 Jun 14;145(6):1233–49

Overexpression of multisubunit replication factors in yeast. Burgers PM. **Methods** 1999 Jul;18(3):349–55

Repair of cellular radiation damage in space under microgravity conditions. Pross HD, et al. **Radiat Environ Biophys** 1999 Jul;38(2):133–8

Mix and match in the tree of life. Lake JA, et al. **Science** 1999 Mar 26;283(5410):2027–8

Chemotyping of yeast mutants using robotics. Rieger KJ, et al. **Yeast** 1999 Jul;15(10B):973–86

Co-existence of two types of chromosome in the bottom fermenting yeast, Saccharomyces pastorianus. Tamai Y, et al. **Yeast** 1998 Jul;14(10):923–33

Isolation and characterization of the ATF2 gene encoding alcohol acetyltransferase II in the bottom fermenting yeast Saccharomyces pastorianus. Yoshimoto H, et al. **Yeast** 1999 Mar 30;15(5):409–17

ISOLATION & PURIFICATION

Saccharomyces paradoxus and Saccharomyces cerevisiae are associated with exudates of North American oaks. Naumov GI, et al. **Can J Microbiol** 1998 Nov;44(11):1045–50

Saccharomyces keratitis and endophthalmitis. Kirsch LS, et al. **Can J Ophthalmol** 1999 Jun;34(4):229–32

Identification of contaminating fungal DNA sequences in Zymolyase. Rimek D, et al. **J Clin Microbiol** 1999 Mar; 37(3):830–1

METABOLISM

Secretion of lysine in a broth medium by lactic bacteria and yeasts associated with garri production using a synthetic gene. Okafor N, et al. **Lett Appl Microbiol** 1999 Jun; 28(6):419–22

PATHOGENICITY

Are live saccharomyces yeasts harmful to patients? [letter] Piarroux R, et al. **Lancet** 1999 May 29;353(9167):1851–2

PHYSIOLOGY

Cell-cell recognition and pheromone response of the yeast Saccharomyces globosus. Fujimura H. **FEMS Microbiol Lett** 1999 Apr 1;173(1):63–8

Yeast cell mortality related to a high-pressure shift: occurrence of cell membrane permeabilization. Perrier-Cornet JM, et al. **J Appl Microbiol** 1999 Jul; 87(1):1–7

Dose effect of oral Saccharomyces boulardii treatments on morbidity and mortality in immunosuppressed mice. Peret

Filho LA, et al. **J Med Microbiol** 1998 Feb;47(2):111–6

SACCHAROMYCES CEREVISIAE

see related
YEAST, DRIED

Randomized clinical trial of enteral yeast–selenium supplementation in preterm infants. Bogye G, et al. **Biofactors** 1998;8(1–2):139–42

Yeast cells allow high–level expression and formation of polyomavirus–like particles. Sasnauskas K, et al. **Biol Chem** 1999 Mar;380(3):381–6

Highly divergent amino termini of the homologous human ALR and yeast scERV1 gene products define species specific differences in cellular localization. Hofhaus G, et al. **Eur J Cell Biol** 1999 May;78(5):349–56

Preliminary investigation of some polysaccharides as a carrier for cell entrapment. Sriamornsak P. **Eur J Pharm Biopharm** 1998 Sep;46(2):233–6

Sir3p domains involved in the initiation of telomeric silencing in Saccharomyces cerevisiae. Park Y, et al. **Genetics** 1998 Nov;150(3):977–86

Deletion of GPI7, a yeast gene required for addition of a side chain to the glycosylphosphatidylinositol (GPI) core structure, affects GPI protein transport, remodeling, and cell wall integrity. Benachour A, et al. **J Biol Chem** 1999 May 21;274(21):15251–61

Effect of a Saccharomyces cerevisiae culture on nutrient digestion in lactating dairy cows. Doreau M, et al. **J Dairy Sci** 1998 Dec;81(12):3214–21

Dry matter intake and milk yield and composition of cows fed yeast prepartum and postpartum. Soder KJ, et al. **J Dairy Sci** 1999 Mar;82(3):605–10

Microencapsulation in yeast cells. Bishop JR, et al. **J Microencapsul** 1998 Nov–Dec;15(6):761–73

Isolation and characterization of highly purified mitochondrial outer membranes of the yeast Saccharomyces cerevisiae (method). de Kroon AI, et al. **Mol Membr Biol** 1999 Apr–Jun;16(2):205–11

[Epidemiology of fungemia in a university hospital; therapeutic incidence] Pavese P, et al. **Pathol Biol (Paris)** 1999 May;47(5):579–83 (Eng. Abstr.) **(Fre)**

[Inositol phospholipid function in yeast] Kagiwada S. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1194–9 (21 ref.) **(Jpn)**

[Effect of biologically active food additives containing autolysate of baker's yeast and spirulina on intestinal permeability in an experiment] Mazo VK, et al. **Vopr Pitan** 1999;68(1):17–9 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Synthesis of 1,3–dithianes and 1,3–dithiolanes. Baker's yeast reduction and lipase–catalyzed resolution for synthesis of enantiopure derivatives. Anthonsen T, et al. **Acta Chem Scand** 1999 May;53(5):360–5

Crystallization and preliminary X–ray analysis of Saccharomyces cerevisiae Ypd1p, a key intermediate in phosphorelay signal transduction. Lee MG, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1219–21

Purification, crystallization and preliminary X–ray crystallographic studies of S. cerevisiae Hsp40 Sis1. Sha B, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1234–6

Detection of metallothionein isoforms from three different species using on–line capillary electrophoresis–mass spectrometry. Knudsen CB, et al. **Anal Biochem** 1998 Dec 1;265(1):167–75

Smt3, a SUMO–1 homolog, is conjugated to Cdc3, a component of septin rings at the mother–bud neck in budding yeast. Takahashi Y, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):582–7

A conserved motif in the yeast nucleolar protein Nop2p contains an essential cysteine residue. King M, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):29–35

Dimer dissociation and thermosensitivity kinetics of the Saccharomyces cerevisiae and human TATA binding proteins. Jackson–Fisher AJ, et al. **Biochemistry** 1999 Aug 31;38(35):11340–8

A distinctive RNA fold: the solution structure of an analogue of the yeast tRNAPhe T Psi C domain. Koshlap KM, et al. **Biochemistry** 1999 Jul 6;38(27):8647–56

Synthesis, biological activity, and conformational analysis of peptidomimetic analogues of the Saccharomyces cerevisiae alpha–factor tridecapeptide. Zhang YL, et al. **Biochemistry** 1998 Sep 8;37(36):12465–76

The contribution of cell wall proteins to the organization of the yeast cell wall. Kapteyn JC, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):373–83 (81 ref.)

Total synthesis of an antioxidant isolated from yeast via palladium–catalyzed coupling and its application for related compounds. Jinno S, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1029–32

Polysaccharide mannan components of Candida albicans and Saccharomyces cerevisiae cell wall produce fever by intracerebroventricular injection in rats. Doğan MD, et al. **Brain Res Bull** 1999 Mar 15;48(5):509–12

Mapping cell wall polysaccharides of living microbial cells using atomic force microscopy. Gad M, et al. **Cell Biol Int** 1997 Nov;21(11):697–706

Effect of beta–glucan from oats and yeast on serum lipids. Bell S, et al. **Crit Rev Food Sci Nutr** 1999 Mar;39(2):189–202 (33 ref.)

Expression of the copper metallothionein CUP1 from Saccharomyces cerevisiae in the cyanobacterium Synechococcus R2–PIM8(smtA). McCormick PM, et al. **Curr Microbiol** 1999 Mar;38(3):155–62

Comparison of yeast cell protein solubilization procedures for two–dimensional electrophoresis. Harder A, et al. **Electrophoresis** 1999 Apr–May;20(4–5):826–9

Identification of yeast proteins from two–dimensional gels: working out spot cross–contamination. Parker KC, et al. **Electrophoresis** 1998 Aug;19(11):1920–32

Identification by mass spectrometry and functional analysis of novel proteins of the yeast [U4/U6.U5] tri–snRNP. Gottschalk A, et al. **EMBO J** 1999 Aug 16;18(16):4535–48

Identification of a copper–induced intramolecular interaction in the transcription factor Mac1 from Saccharomyces cerevisiae. Jensen LT, et al. **EMBO J** 1998 Sep 15; 17(18):5400–8

Molecular and pharmacological characterization of recombinant rat/mice N–methyl–D–aspartate receptor subtypes in the yeast Saccharomyces cerevisiae. Becker J, et al. **Eur J Biochem** 1998 Sep 1;256(2):427–35

Biochemical and structural characterization of recombinant copper–metallothionein from Saccharomyces cerevisiae. Sayers Z, et al. **Eur J Biochem** 1999 Jun;262(3):858–65

Glycan engineering of proteins with whole living yeast cells expressing rat liver alpha2,3–sialytransferase in the porous cell wall. Sievi E, et al. **FEBS Lett** 1998 Dec 18; 441(2):177–80

Arabidopsis thaliana RNA polymerase II subunits related to yeast and human RPB5. Larkin RM, et al. **Gene** 1999 Apr 29;231(1–2):41–7

In vivo analysis of the domains of yeast Rvs167p suggests Rvs167p function is mediated through multiple protein interactions. Colwill K, et al. **Genetics** 1999 Jul; 152(3):881–93

Characterization of a human homologue of the Saccharomyces cerevisiae transcription factor spt3 (SUPT3H). Yu J, et al. **Genomics** 1998 Oct 1;53(1):90–6

Characterization of oligosaccharides from an antigenic mannan of Saccharomyces cerevisiae. Young M, et al. **Glycoconj J** 1998 Aug;15(8):815–22

Factors and processes involved in membrane potential build–up in yeast: diS–C3(3) assay. Gášková D, et al. **Int J Biochem Cell Biol** 1999 May;31(5):575–84

Identification of two mannoproteins released from cell walls of a Saccharomyces cerevisiae mnn1 mnn9 double mutant by reducing agents. Moukadiri I, et al. **J Bacteriol** 1999 Aug;181(16):4741–5

Analysis of phosphorylated sphingolipid long–chain bases reveals potential roles in heat stress and growth control in Saccharomyces. Skrzypek MS, et al. **J Bacteriol** 1999 Feb;181(4):1134–40

The carboxyl–terminal region of the yeast ATPase inhibitor is indispensable for the stability of the protein in mitochondria. Ichikawa N, et al. **J Biochem (Tokyo)** 1998 Nov;124(5):886–91

Characterization of a new hemoprotein in the yeast Saccharomyces cerevisiae. Sartori G, et al. **J Biol Chem** 1999 Feb 19;274(8):5032–7

Structural characterization of Saccharomyces cerevisiae prion–like protein Ure2. Thual C, et al. **J Biol Chem** 1999 May 7;274(19):13666–74

Rapid and highly automated determination of adenine and pyridine nucleotides in extracts of Saccharomyces cerevisiae using a micro robotic sample preparation–HPLC system. Mailinger W, et al. **J Biotechnol** 1998 Aug 12; 63(2):155–66

Molecular architecture of the yeast nuclear pore complex: localization of Nsp1p subcomplexes. Fahrenkrog B, et al. **J Cell Biol** 1998 Nov 2;143(3):577–88

Saccharomyces cerevisiae Duo1p and Dam1p, novel proteins involved in mitotic spindle function. Hofmann C, et al. **J Cell Biol** 1998 Nov 16;143(4):1029–40

Synaptojanin family members are implicated in endocytic membrane traffic in yeast. Singer–Krüger B, et al. **J Cell Sci** 1998 Nov;111 (Pt 22):3347–56

Chromatographic determination of flavin derivatives in baker's yeast. Gliszczyńska A, et al. **J Chromatogr A** 1998 Sep 25;822(1):59–66

Immobilised metal ion affinity chromatography purification of alcohol dehydrogenase from baker's yeast using an expanded bed adsorption system. Willoughby NA, et al. **J Chromatogr A** 1999 Apr 30;840(2):195–204

Determination of N–linked glycosylation of yeast external invertase by matrix–assisted laser desorption/ionization time–of–flight mass spectrometry. Zeng C, et al. **J Mass Spectrom** 1999 Apr;34(4):311–29

NMR structure of the N–terminal domain of Saccharomyces cerevisiae RNase HI reveals a fold with a strong resemblance to the N–terminal domain of ribosomal protein L9. Evans SP, et al. **J Mol Biol** 1999 Aug 20;291(3):661–9

Equilibrium folding properties of the yeast prion protein determinant Ure2. Perrett S, et al. **J Mol Biol** 1999 Jul 2;290(1):331–45

An evaluation of the bioavailability of selenium in high–selenium yeast. Yoshida M, et al. **J Nutr Sci Vitaminol (Tokyo)** 1999 Jan;45(1):119–28

Analysis of the lipid moiety of GPI anchor in the yeast Saccharomyces cerevisiae. Reggiori F, et al. **Methods Mol Biol** 1999;116:91–105 (22 ref.)

Preparing 2–D protein extracts from yeast. Schieltz DM. **Methods Mol Biol** 1999;112:31–4 (3 ref.)

Direct analysis of protein complexes using mass spectrometry. Link AJ, et al. **Nat Biotechnol** 1999 Jul; 17(7):676–82

X–ray structural analysis of the yeast cell cycle regulator Swi6 reveals variations of the ankyrin fold and has implications for Swi6 function. Foord R, et al. **Nat Struct Biol** 1999 Feb;6(2):157–65

ISSD Version 2.0: taxonomic range extended. Adzhubei IA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):268–71

NMR observation of T–tetrads in a parallel stranded DNA quadruplex formed by Saccharomyces cerevisiae telomere repeats. Patel PK, et al. **Nucleic Acids Res** 1999 Jun 15; 27(12):2457–64

An autonomous folding unit mediates the assembly of two–stranded coiled coils. Kammerer RA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13419–24

Simple sequence is abundant in eukaryotic proteins. Golding GB. **Protein Sci** 1999 Jun;8(6):1358–61

Domain structure analysis of elongation factor–3 from Saccharomyces cerevisiae by limited proteolysis and differential scanning calorimetry. Ladror US, et al. **Protein Sci** 1998 Dec;7(12):2595–601

Protein–RNA interactions in the U5 snRNP of Saccharomyces cerevisiae [corrected and republished article originally printed in RNA 1998 Oct; 4(10):1239–50] Dix I, et al. **RNA** 1998 Dec;4(12):1675–86

Comparison of the complete protein sets of worm and yeast: orthology and divergence. Chervitz SA, et al. **Science** 1998 Dec 11;282(5396):2022–8 (44 ref.)

Crystal structure of the ATPase domain of translation initiation factor 4A from Saccharomyces cerevisiae–the prototype of the DEAD box protein family. Benz J, et al. **Structure Fold Des** 1999 Jun 15;7(6):671–9

A new method for quantitative determination of polysaccharides in the yeast cell wall. Application to the cell wall defective mutants of Saccharomyces cerevisiae. Dallies N, et al. **Yeast** 1998 Oct;14(14):1297–306

Quantitative imaging of TATA–binding protein in living yeast cells. Patterson GH, et al. **Yeast** 1998 Jun 30; 14(9):813–25

CLASSIFICATION

Isolation of an osmotolerant ale strain of Saccharomyces cerevisiae. Pironcheva G. **Cytobios** 1998;95(380):167–71

Detection and identification of wild yeasts in lager breweries. van der Aa Kühle A, et al. **Int J Food Microbiol** 1998 Sep 8;43(3):205–13

Characterization of Saccharomyces cerevisiae strains from spontaneously fermented maize dough by profiles of assimilation, chromosome polymorphism, PCR and MAL genotyping. Hayford AE, et al. **J Appl Microbiol** 1999 Feb; 86(2):284–94

Comparison of the API Candida system with the AUXACOLOR system for identification of common yeast pathogens. Campbell CK, et al. **J Clin Microbiol** 1999 Mar; 37(3):821–3

Characterization of Saccharomyces cerevisiae CBS 7764 isolated from rainbow trout intestine. Andlid T, et al. **Syst Appl Microbiol** 1999 Feb;22(1):145–55

Differentiation of brewing yeast strains by pyrolysis mass spectrometry and Fourier transform infrared spectroscopy. Timmins EM, et al. **Yeast** 1998 Jul;14(10):885–93

CYTOLOGY

Mitochondrial superoxide decreases yeast survival in stationary phase. Longo VD, et al. **Arch Biochem Biophys** 1999 May 1;365(1):131–42

Shs1p: a novel member of septin that interacts with spa2p, involved in polarized growth in saccharomyces cerevisiae. Mino A, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):732–6

CLN3 expression is sufficient to restore G1–to–S–phase progression in Saccharomyces cerevisiae mutants defective in translation initiation factor eIF4E. Danaie P, et al. **Biochem J** 1999 May 15;340 (Pt 1):135–41

Real–time monitoring of yeast cell division by dielectric spectroscopy. Asami K, et al. **Biophys J** 1999 Jun; 76(6):3345–8

Genetically controlled cell lysis in the yeast Saccharomyces cerevisiae. Zhang N, et al. **Biotechnol Bioeng** 1999 Sep 5; 64(5):607–15

Cell extensions in PKC1 mutants of Saccharomyces cerevisiae. Azuma M, et al. **Can J Microbiol** 1999 Jan; 45(1):38–44

A central role for cohesins in sister chromatid cohesion, formation of axial elements, and recombination during yeast meiosis. Klein F, et al. **Cell** 1999 Jul 9;98(1):91–103

MEC1–dependent redistribution of the Sir3 silencing protein from telomeres to DNA double–strand breaks. Mills KD, et al. **Cell** 1999 May 28;97(5):609–20

Mapping cell wall polysaccharides of living microbial cells using atomic force microscopy. Gad M, et al. **Cell Biol Int** 1997 Nov;21(11):697–706

Resumption of rapid proliferation from lag phase in cultures of Saccharomyces cerevisiae in poor nutrient conditions. Effect of surface and intracellular signalling mechanisms. Overgaard AK, et al. **Cell Biol Int** 1998;22(9–10):709–14

Effect of microtubule–associated protein MHP1 on microtubule assembly and cell cycle progression in

Saccharomyces cerevisiae. Irminger-Finger I, et al. **Cell Struct Funct** 1998 Aug;23(4):209-19
Meiotic pairing and segregation of translocation quadrivalents in yeast. Loidl J, et al. **Chromosoma** 1998 Sep;107(4):247-54
Actin cytoskeleton organization regulated by the PAK family of protein kinases. Eby JJ, et al. **Curr Biol** 1998 Aug 27; 8(17):967-70
Interaction of yeast Rvs167 and Pho85 cyclin-dependent kinase complexes may link the cell cycle to the actin cytoskeleton. Lee J, et al. **Curr Biol** 1998 Dec 3; 8(24):1310-21
Microbial asymmetric cell division: localization of cell fate determinants. Jacobs C, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):386-91 (46 ref.)
G1 cyclins block the Ime1 pathway to make mitosis and meiosis incompatible in budding yeast. Colomina N, et al. **EMBO J** 1999 Jan 15;18(2):320-9
A Bub2p-dependent spindle checkpoint pathway regulates the Dbf2p kinase in budding yeast. Fesquet D, et al. **EMBO J** 1999 May 4;18(9):2424-34
RAD53, DUN1 and PDS1 define two parallel G2/M checkpoint pathways in budding yeast. Gardner R, et al. **EMBO J** 1999 Jun 1;18(11):3173-85
Clathrin functions in the absence of heterotetrameric adaptors and AP180-related proteins in yeast. Huang KM, et al. **EMBO J** 1999 Jul 15;18(14):3897-908
DNA damage checkpoint in budding yeast. Longhese MP, et al. **EMBO J** 1998 Oct 1;17(19):5525-8 (29 ref.)
Cell-cycle arrest and inhibition of G1 cyclin translation by iron in AFT1-1(up) yeast. Philpott CC, et al. **EMBO J** 1998 Sep 1;17(17):5026-36
The budding yeast Rad9 checkpoint protein is subjected to Mec1/Tel1-dependent hyperphosphorylation and interacts with Rad53 after DNA damage. Vialard JE, et al. **EMBO J** 1998 Oct 1;17(19):5679-88
Chromosome separation and exit from mitosis in budding yeast: dependence on growth revealed by cAMP-mediated inhibition. Anghileri P, et al. **Exp Cell Res** 1999 Aug 1; 250(2):510-23
Nuclear and nucleolar localization of Saccharomyces cerevisiae ribosomal proteins S22 and S25. Timmers AC, et al. **FEBS Lett** 1999 Jun 11;452(3):335-40
Effect of Cu,Zn superoxide dismutase disruption mutation on replicative senescence in Saccharomyces cerevisiae. Barker MG, et al. **FEMS Microbiol Lett** 1999 Aug 15; 177(2):199-204
Nim1-related kinases coordinate cell cycle progression with the organization of the peripheral cytoskeleton in yeast. Barral Y, et al. **Genes Dev** 1999 Jan 15;13(2):176-87
Nuclear export of Far1p in response to pheromones requires the export receptor Msn5p/Ste21p. Blondel M, et al. **Genes Dev** 1999 Sep 1;13(17):2284-300
Pds1p of budding yeast has dual roles: inhibition of anaphase initiation and regulation of mitotic exit. Cohen-Fix O, et al. **Genes Dev** 1999 Aug 1;13(15):1950-9
Proper metaphase spindle length is determined by centromere proteins Mis12 and Mis6 required for faithful chromosome segregation. Goshima G, et al. **Genes Dev** 1999 Jul 1; 13(13):1664-77
Localization of bud2p, a GTPase-activating protein necessary for programming cell polarity in yeast to the presumptive bud site. Park HO, et al. **Genes Dev** 1999 Aug 1;13(15):1912-7
Function of trehalose and glycogen in cell cycle progression and cell viability in Saccharomyces cerevisiae. Sillje HHW, et al. **J Bacteriol** 1999 Jan;181(2):396-400
Interaction of Bnr1p with a novel Src homology 3 domain-containing Hof1p. Implication in cytokinesis in Saccharomyces cerevisiae. Kamei T, et al. **J Biol Chem** 1998 Oct 23;273(43):28341-5
Recovery of the yeast cell cycle from heat shock-induced G(1) arrest involves a positive regulation of G(1) cyclin expression by the S phase cyclin Clb5. Li X, et al. **J Biol Chem** 1999 Aug 20;274(34):24220-31
The Cdc42p GTPase is involved in a G2/M morphogenetic checkpoint regulating the apical-isotropic switch and nuclear division in yeast. Richman TJ, et al. **J Biol Chem** 1999 Jun 11;274(24):16861-70
Cell cycle- and Cln2p-Cdc28p-dependent phosphorylation of the yeast Ste20p protein kinase. Wu C, et al. **J Biol Chem** 1998 Oct 23;273(43):28107-15
Expression of the 180-kD ribosome receptor induces membrane proliferation and increased secretory activity in yeast. Becker F, et al. **J Cell Biol** 1999 Jul 26;146(2):273-84
The GTP-binding protein Rho1p is required for cell cycle progression and polarization of the yeast cell. Drgonová J, et al. **J Cell Biol** 1999 Jul 26;146(2):373-87
A role for ubiquitination in mitochondrial inheritance in Saccharomyces cerevisiae. Fisk HA, et al. **J Cell Biol** 1999 Jun 14;145(6):1199-208
Ctf19p: A novel kinetochore protein in Saccharomyces cerevisiae and a potential link between the kinetochore and mitotic spindle. Hyland KM, et al. **J Cell Biol** 1999 Apr 5;145(1):15-28
Morphogenesis beyond cytokinetic arrest in Saccharomyces cerevisiae. Jiménez J, et al. **J Cell Biol** 1998 Dec 14; 143(6):1617-34
Control of mitotic spindle position by the Saccharomyces cerevisiae formin Bni1p. Lee L, et al. **J Cell Biol** 1999 Mar 8;144(5):947-61
Dual function of Cyk2, a cdc15/PSTPIP family protein, in regulating actomyosin ring dynamics and septin distribution. Lippincott J, et al. **J Cell Biol** 1998 Dec 28; 143(7):1947-60
Microtubule dynamics from mating through the first zygotic division in the budding yeast Saccharomyces cerevisiae. Maddox P, et al. **J Cell Biol** 1999 Mar 8;144(5):977-87
The cortical localization of the microtubule orientation protein, Kar9p, is dependent upon actin and proteins required for polarization. Miller RK, et al. **J Cell Biol** 1999 Mar 8;144(5):963-75
Tropomyosin-containing actin cables direct the Myo2p-dependent polarized delivery of secretory vesicles in budding yeast. Pruyne DW, et al. **J Cell Biol** 1998 Dec 28;143(7):1931-45
O-Glycosylation of Axl2/Bud10p by Pmt4p is required for its stability, localization, and function in daughter cells. Sanders SL, et al. **J Cell Biol** 1999 Jun 14;145(6):1177-88
Clb5-associated kinase activity is required early in the spindle pathway for correct preanaphase nuclear positioning in Saccharomyces cerevisiae. Segal M, et al. **J Cell Biol** 1998 Oct 5;143(1):135-45
The role of actin in spindle orientation changes during the Saccharomyces cerevisiae cell cycle. Theesfeld CL, et al. **J Cell Biol** 1999 Sep 6;146(5):1019-32
Slk19p is a centromere protein that functions to stabilize mitotic spindles. Zeng X, et al. **J Cell Biol** 1999 Jul 26; 146(2):415-25
Carbon source-dependent regulation of cell growth by murine protein kinase C epsilon expression in Saccharomyces cerevisiae. Parissenti AM, et al. **J Cell Physiol** 1999 Feb;178(2):216-26
High-resolution video and digital-enhanced differential interference contrast light microscopy of cell division in budding yeast. Salmon ED, et al. **Methods Enzymol** 1998; 298:317-31
Preparation of yeast cells for confocal microscopy. Atkin AL. **Methods Mol Biol** 1999;122:131-9 (17 ref.)
Cell integrity and morphogenesis in a budding yeast septin mutant. Cid VJ, et al. **Microbiology** 1998 Dec;144 (Pt 12):3463-74
Three-dimensional imaging of the yeast actin cytoskeleton through the budding cell cycle. Amberg DC. **Mol Biol Cell** 1998 Dec;9(12):3259-62
Multiple functions for actin during filamentous growth of Saccharomyces cerevisiae. Cali BM, et al. **Mol Biol Cell** 1998 Jul;9(7):1873-89
Comprehensive identification of cell cycle-regulated genes of the yeast Saccharomyces cerevisiae by microarray hybridization. Spellman PT, et al. **Mol Biol Cell** 1998 Dec; 9(12):3273-97
Esa1p is an essential histone acetyltransferase required for cell cycle progression. Clarke AS, et al. **Mol Cell Biol** 1999 Apr;19(4):2515-26
Cdc4, a protein required for the onset of S phase, serves an essential function during G(2)/M transition in Saccharomyces cerevisiae. Goh PY, et al. **Mol Cell Biol** 1999 Aug;19(8):5512-22
Phosphorylation-independent inhibition of Cdc28p by the tyrosine kinase Swe1p in the morphogenesis checkpoint. McMillan JN, et al. **Mol Cell Biol** 1999 Sep;19(9):5981-90
Deletion of SFI1, a novel suppressor of partial Ras-cAMP pathway deficiency in the yeast Saccharomyces cerevisiae, causes G(2) arrest. Ma P, et al. **Yeast** 1999 Aug; 15(11):1097-109
Two-dimensional analysis of proteins secreted by Saccharomyces cerevisiae regenerating protoplasts: a novel approach to study the cell wall. Pardo M, et al. **Yeast** 1999 Apr;15(6):459-72

DRUG EFFECTS

Cisplatin sensitivity in cAMP-dependent protein kinase mutants of Saccharomyces cerevisiae. Cvijic ME, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3187-92
Sensitivity of spermidine-deficient Saccharomyces cerevisiae to paromomycin. Balasundaram D, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1314-6
LY303366 exhibits rapid and potent fungicidal activity in flow cytometric assays of yeast viability. Green LJ, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):830-5
Effect of a Teucrium polium L. extract on the growth and fatty acid composition of Saccharomyces cerevisiae and Yarrowia lipolytica. Aggelis G, et al. **Antonie Van Leeuwenhoek** 1998 Feb;73(2):195-8
Discrimination between ethanol inhibition models in a continuous alcoholic fermentation process using flocculating yeast. Oliveira SC, et al. **Appl Biochem Biotechnol** 1998 Sep;74(3):161-72
Effect of compressed carbon dioxide on microbial cell viability. Debs-Louka E, et al. **Appl Environ Microbiol** 1999 Feb;65(2):626-31
N-glycosylation is involved in the sensitivity of Saccharomyces cerevisiae to HM-1 killer toxin secreted from Hansenula mrakii IFO 0895. Kimura T, et al. **Appl Microbiol Biotechnol** 1999 Feb;51(2):176-84
Activation of the H+-ATPase in the plasma membrane of cells of Saccharomyces cerevisiae grown under mild copper stress. Fernandes AR, et al. **Arch Microbiol** 1998 Dec;171(1):6-12
Effect of 2,2'-dipyridyl on accumulation of protoporphyrin IX and its derivatives in yeast mitochondria and plasma membranes. Strakhovskaya MG, et al. **Biochemistry (Mosc)** 1999 Feb;64(2):213-6
Impairment by hexoses of the utilization of maltose by Saccharomyces cerevisiae. Heredia CF. **Biochim Biophys Acta** 1998 Sep 16;1425(1):151-8
Nystatin-induced changes in yeast monitored by time-resolved automated single cell electrorotation. Hölzel R. **Biochim Biophys Acta** 1998 Oct 23;1425(2):311-8
Alkyl side-chain derivatives of sordaricin as potent antifungal agents against yeast. Tse B, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2269-72
Generation of free radicals during the death of Saccharomyces cerevisiae caused by lipid hydroperoxide. Aoshima H, et al. **Biosci Biotechnol Biochem** 1999 Jun; 63(6):1025-31
Functional analysis of the promoter of the yeast SNQ2 gene encoding a multidrug resistance transporter that confers the resistance to 4-nitroquinoline N-oxide. Cui Z, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):162-7
Influence of furfural on anaerobic glycolytic kinetics of Saccharomyces cerevisiae in batch culture. Palmqvist E, et al. **Biotechnol Bioeng** 1999 Feb 20;62(4):447-54
Glucose repression on RIM1, a gene encoding a mitochondrial single-stranded DNA-binding protein, in Saccharomyces cerevisiae: a possible regulation at pre-mRNA splicing. Li Z, et al. **Curr Genet** 1998 Dec; 34(5):351-9
In yeast, upc2-1 confers a decrease in tolerance to LiCl and NaCl, which can be suppressed by the P-type ATPase encoded by ENA2. Leak FW Jr, et al. **DNA Cell Biol** 1999 Feb;18(2):133-9
Toxicity of organic and inorganic mercury to Saccharomyces cerevisiae. Kungolos A, et al. **Ecotoxicol Environ Saf** 1999 Jun;43(2):149-55
Defects in base excision repair combined with elevated intracellular dCTP levels dramatically reduce mutation induction in yeast by ethyl methanesulfonate and N-methyl-N'-nitro-N-nitrosoguanidine. Kunz BA, et al. **Environ Mol Mutagen** 1998;32(2):173-8
C-terminal truncation of yeast SerRS is toxic for Saccharomyces cerevisiae due to altered mechanism of substrate recognition. Lenhard B, et al. **FEBS Lett** 1998 Nov 20;439(3):235-40
Overexpression of L-glutamine:D-fructose-6-phosphate amidotransferase provides resistance to methylmercury in Saccharomyces cerevisiae. Miura N, et al. **FEBS Lett** 1999 Sep 17;458(2):215-8
Weak organic acid treatment causes a trehalose accumulation in low-pH cultures of Saccharomyces cerevisiae, not displayed by the more preservative-resistant Zygosaccharomyces bailii. Cheng L, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):89-95
Acquisition of aluminum tolerance in Saccharomyces cerevisiae by expression of the BCB or NtGDI1 gene derived from plants. Ezaki B, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):81-7
Flow cytometric investigation of heterogeneous copper-sensitivity in asynchronously grown Saccharomyces cerevisiae. Howlett NG, et al. **FEMS Microbiol Lett** 1999 Jul 15;176(2):379-86
Enrichment with a polyunsaturated fatty acid enhances the survival of Saccharomyces cerevisiae in the presence of tributyltin. Masia A, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):321-6
Role of ergosterol in growth inhibition of Saccharomyces cerevisiae by syringomycin E. Wangspa R, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):215-20
L-proline as a nitrogen source increases the susceptibility of Saccharomyces cerevisiae S288c to fluconazole. Stella CA, et al. **Folia Microbiol (Praha)** 1998;43(4):403-5
Treatment of the budding yeast Saccharomyces cerevisiae with the lipid peroxidation product 4-HNE provokes a temporary cell cycle arrest in G1 phase. Wonisch W, et al. **Free Radic Biol Med** 1998 Oct;25(6):682-7
Comparison of the inhibitory effect of sorbic acid and amphotericin B on Saccharomyces cerevisiae: is growth inhibition dependent on reduced intracellular pH? Bracey D, et al. **J Appl Microbiol** 1998 Dec;85(6):1056-66
Relationship between lipid composition, frequency of ethanol-induced respiratory deficient mutants, and ethanol tolerance in Saccharomyces cerevisiae. Chi Z, et al. **J Appl Microbiol** 1999 Jun;86(6):1047-52
Weak-acid preservatives: modelling microbial inhibition and response. Lambert RJ, et al. **J Appl Microbiol** 1999 Jan; 86(1):157-64
Toxicity of copper, cobalt, and nickel salts is dependent on histidine metabolism in the yeast Saccharomyces cerevisiae. Pearce DA, et al. **J Bacteriol** 1999 Aug;181(16):4774-9
Isolation of a putative Candida albicans transcriptional regulator involved in pleiotropic drug resistance by functional complementation of a pdr1 pdr3 mutation in Saccharomyces cerevisiae. Talibi D, et al. **J Bacteriol** 1999 Jan;181(1):231-40
EmrE, a small Escherichia coli multidrug transporter, protects Saccharomyces cerevisiae from toxins by sequestration in the vacuole. Yelin R, et al. **J Bacteriol** 1999 Feb;181(3):949-56
Cyclic AMP can decrease expression of genes subject to catabolite repression in Saccharomyces cerevisiae. Zaragoza O, et al. **J Bacteriol** 1999 Apr;181(8):2640-2
Mutations in ribosomal protein L10e confer resistance to the fungal-specific eukaryotic elongation factor 2 inhibitor sordarin. Justice MC, et al. **J Biol Chem** 1999 Feb 19; 274(8):4869-75

NH4+-induced down-regulation of the Saccharomyces cerevisiae Gap1p permease involves its ubiquitination with lysine-63-linked chains. Springael JY, et al. **J Cell Sci** 1999 May;112 (Pt 9):1375–83

Fungicidal properties of meso-arylglycosylporphyrins: influence of sugar substituents on photoinduced damage in the yeast Saccharomyces cerevisiae. Carré V, et al. **J Photochem Photobiol B** 1999 Jan;48(1):57–62

Endogenous porphyrin accumulation and photosensitization in the yeast Saccharomyces cerevisiae in the presence of 2,2'-dipyridyl. Strakhovskaya MG, et al. **J Photochem Photobiol B** 1999 Mar;49(1):18–22

Phototoxicity of rose bengal in mycological media--implications for laboratory practice. Chilvers KF, et al. **Lett Appl Microbiol** 1999 Feb;28(2):103–7

Molybdate induces thermotolerance in yeast. Tiligada E, et al. **Lett Appl Microbiol** 1999 Aug;29(2):77–80

In vitro activity of five antifungal agents against clinical isolates of Saccharomyces cerevisiae. Barchiesi F, et al. **Med Mycol** 1998 Dec;36(6):437–40

Polyamine metabolism in Saccharomyces cerevisiae exposed to ethanol. Walters D, et al. **Microbiol Res** 1998 Aug; 153(2):179–84

The yeast multidrug resistance pump, Pdr5p, confers reduced drug resistance in erg mutants of Saccharomyces cerevisiae. Kaur R, et al. **Microbiology** 1999 Apr;145 (Pt 4):809–18

Farnesol-induced growth inhibition in Saccharomyces cerevisiae by a cell cycle mechanism. Machida K, et al. **Microbiology** 1999 Feb;145 (Pt 2):293–9

Brefeldin A acts to stabilize an abortive ARF-GDP-Sec7 domain protein complex: involvement of specific residues of the Sec7 domain. Peyroche A, et al. **Mol Cell** 1999 Mar; 3(3):275–85

Growth inhibition of Saccharomyces cerevisiae by the immunosuppressant leflunomide is due to the inhibition of uracil uptake via Fur4p. Fujimura H. **Mol Gen Genet** 1998 Oct;260(1):102–7

Bleomycin genotoxicity alteration by glutathione and cytochrome P-450 cellular content in respiratory proficient and deficient strains of Saccharomyces cerevisiae. Poli P, et al. **Mutagenesis** 1999 Mar;14(2):233–8

Cisplatin-modification of DNA repair and ionizing radiation lethality in yeast, Saccharomyces cerevisiae. Dolling JA, et al. **Mutat Res** 1999 Mar 10;433(2):127–36

Effect of Salmonella assay negative and positive carcinogens on intrachromosomal recombination in S-phase arrested yeast cells. Galli A, et al. **Mutat Res** 1998 Nov 9; 419(1-3):53–68

Cisplatin DNA cross-links do not inhibit S-phase and cause only a G2/M arrest in Saccharomyces cerevisiae. Grossmann KF, et al. **Mutat Res** 1999 May 14;434(1):29–39

Genomic profiling of drug sensitivities via induced haploinsufficiency [see comments] Giaever G, et al. **Nat Genet** 1999 Mar;21(3):278–83. Comment in: Nat Genet 1999 Mar;21(3):245–6.

Mutant yeast on drugs [news; comment] Lockhart DJ. **Nat Med** 1998 Nov;4(11):1235–6. Comment on: Nat Med 1998 Nov;4(11):1293–301.

A single nucleotide change in the MNR1 (VCX1/HUM1) gene determines resistance to manganese in Saccharomyces cerevisiae. del Pozo L, et al. **Yeast** 1999 Mar 30;15(5):371–5

Mutations in the Saccharomyces cerevisiae gene SAC1 cause multiple drug sensitivity. Hughes WE, et al. **Yeast** 1999 Aug;15(11):1111–24

[Effect of 2,4-dinitrophenol on stability of a turbidostat yeast culture to heat shock] Kaliuzhin VA. **Mikrobiologiia** 1998 Jul-Aug;67(4):476–82 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

A human putative Suv3-like RNA helicase is conserved between Rhodobacter and all eukaryotes. Dmochowska A, et al. **Acta Biochim Pol** 1999;46(1):155–62

Crystallization and preliminary X-ray diffraction studies of homoserine dehydrogenase from Saccharomyces cerevisiae. DeLaBarre B, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):413–5

Crystallization and preliminary crystallographic analysis of glyceraldehyde 3-phosphate dehydrogenase from Sacchromyces cerevisiae (baker's yeast). Gilboa R, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1467–70

Crystallization and preliminary diffraction studies of the RNA polymerase subunit RPB5 from Saccharomyces cerevisiae. Hodach M, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jul;55 (Pt 7):1373–5

Crystallization and preliminary X-ray diffraction analysis of aspartate aminotransferase from Saccharomyces cerevisiae. Jeffery CJ, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jul 1;54 (Pt 4):659–61

Crystallization and preliminary X-ray analysis of the 12S form of phosphofructokinase from Saccharomyces cerevisiae. Obmolova G, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):96–8

Crystallogenesis studies on yeast aspartyl-tRNA synthetase: use of phase diagram to improve crystal quality. Sauter C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):149–56

Crystallization and preliminary X-ray analysis of 3-deoxy-D-arabino-heptulosonate-7-phosphate synthase (tyrosine inhibitable) from Saccharomyces cerevisiae. Schneider TR, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Sep;55 (Pt 9):1586–8

Tandem mass spectrometry of alcohol dehydrogenase and related biomolecules. Griffiths WJ. **Adv Exp Med Biol** 1999; 463:305–10

The roles of acetaldehyde dehydrogenases in Saccharomyces cerevisiae. Tessier W, et al. **Adv Exp Med Biol** 1999; 463:243–7

Conformation changes of alcohol dehydrogenase from baker's yeast (YADH) induced by hydrostatic pressure. Dallet S, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:379–82

EXO1 of Saccharomyces cerevisiae functions in mutagenesis during double-strand break repair. Holbeck SL, et al. **Ann N Y Acad Sci** 1999 May 18;870:375–7

Molecular breeding of polysaccharide-utilizing yeast cells by cell surface engineering. Ueda M, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:528–37

L-asparaginase II of saccharomyces cerevisiae. Activity profile during growth using an ure2 mutant P40-3C and a P40-3C + URE2p strain. Oliveira EM, et al. **Appl Biochem Biotechnol** 1999 Spring;77-79:311–6

Expression of the Escherichia coli pntA and pntB genes, encoding nicotinamide nucleotide transhydrogenase, in Saccharomyces cerevisiae and its effect on product formation during anaerobic glucose fermentation. Anderlund M, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2333–40

Purification and properties of an esterase from the yeast Saccharomyces cerevisiae and identification of the encoding gene. Degrassi G, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3470–2

Balance of activities of alcohol acetyltransferase and esterase in Saccharomyces cerevisiae is important for production of isoamyl acetate. Fukuda K, et al. **Appl Environ Microbiol** 1998 Oct;64(10):4076–8

Overexpression of the Saccharomyces cerevisiae mannosylphosphodolichol synthase-encoding gene in Trichoderma reesei results in an increased level of protein secretion and abnormal cell ultrastructure. Kruszewska JS, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2382–7

A variant of Saccharomyces cerevisiae pep4 strain with improved oligotrophic proliferation, cell survival and heterologous secretion of alpha-amylase. Chen DC, et al. **Appl Microbiol Biotechnol** 1999 Feb;51(2):185–92

Construction of a flocculent Saccharomyces cerevisiae fermenting lactose. Domingues L, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):621–6

Carbon catabolite repression of invertase during batch cultivations of Saccharomyces cerevisiae: the role of glucose, fructose, and mannose. Dynesen J, et al. **Appl Microbiol Biotechnol** 1998 Nov;50(5):579–82

Efficient production of intact human parathyroid hormone in a Saccharomyces cerevisiae mutant deficient in yeast aspartic protease 3 (YAP3). Kang HA, et al. **Appl Microbiol Biotechnol** 1998 Aug;50(2):187–92

Development of an arming yeast strain for efficient utilization of starch by co-display of sequential amylolytic enzymes on the cell surface. Murai T, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):65–70

Effects of oxygen on invertase expression in continuous culture of recombinant Saccharomyces cerevisiae containing the SUC2 gene. Pyun YR, et al. **Appl Microbiol Biotechnol** 1999 Mar;51(3):334–9

Probing the affinity and specificity of yeast alcohol dehydrogenase I for coenzymes. Fan F, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):240–9

Activity and cellular location in Saccharomyces cerevisiae of chimeric mouse/yeast and Bacillus subtilis/yeast ferrochelatases. Góra M, et al. **Arch Biochem Biophys** 1999 Jan 15;361(2):231–40

Mechanism of inhibition of yeast squalene synthase by substrate analog inhibitors. Kalinowski SS, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):338–46

Thermosensitive phenotype of yeast mutant lacking thioredoxin peroxidase. Lee SM, et al. **Arch Biochem Biophys** 1998 Nov 1;359(1):99–106

Glyoxalase II in Saccharomyces cerevisiae: in situ kinetics using the 5,5'-dithiobis(2-nitrobenzoic acid) assay. Martins AM, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):15–20

Comparative effects of Saccharomyces cerevisiae cultivation under copper stress on the activity and kinetic parameters of plasma-membrane-bound H(+)-ATPases PMA1 and PMA2. Fernandes AR, et al. **Arch Microbiol** 1999 Mar; 171(4):273–8

Functional expression of the tandem-repeated homodimer of the mitochondrial ADP/ATP carrier in Saccharomyces cerevisiae. Hatanaka T, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):726–30

Cell cycle control of reverse transcriptase activity for the yeast retrotransposon Ty3. Karst SM, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):679–84

Electrostatic interaction between cytochrome P450 and NADPH-P450 reductase: comparison of mixed and fused systems consisting of rat cytochrome P450 1A1 and yeast NADPH-P450 reductase. Kondo S, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):273–8

Role of Suc1 in the activation of the cyclosome by protein kinase Cdk1/cyclin B. Shteinberg M, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):12–8

The yeast Npi1/Rsp5 ubiquitin ligase lacking its N-terminal C2 domain is competent for ubiquitination but not for subsequent endocytosis of the gap1 permease. Springael JY, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):561–6

Metabolic control analysis of the bc1 complex of Saccharomyces cerevisiae: effect on cytochrome c oxidase, respiration and growth rate. Boumans H, et al. **Biochem J** 1998 May 1;331 (Pt 3):877–83

A single point mutation leads to an instability of the hetero-octameric structure of yeast phosphofructokinase. Kirchberger J, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):15–23

Only one of the charged amino acids located in membrane-spanning regions is important for the function of the Saccharomyces cerevisiae uracil permease. Pinson B, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):37–42

Mammalian PIG-L and its yeast homologue Gpi12p are N-acetylglucosaminylphosphatidylinositol de-N-acetylases essential in glycosylphosphatidylinositol biosynthesis. Watanabe R, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):185–92

Cytochrome c oxidase from eucaryotes but not from procaryotes is allosterically inhibited by ATP. Follmann K, et al. **Biochem Mol Biol Int** 1998 Aug;45(5):1047–55

Constitutive nitric oxide synthase in Saccharomyces cerevisiae. Kanadia RN, et al. **Biochem Mol Biol Int** 1998 Sep;45(6):1081–7

Stress-activated MAP kinase (mitogen-activated protein kinase) pathways of budding and fission yeasts. Millar JB. **Biochem Soc Symp** 1999;64:49–62 (53 ref.)

Interactions of the human, plant and yeast ornithine decarboxylase subunits and human antizyme. Illingworth C, et al. **Biochem Soc Trans** 1998 Nov;26(4):601–6

Yeast iso-1-cytochrome c met80X mutants: the pKa of the spin state transition as a probe for haem pocket flexibility. Silkstone G, et al. **Biochem Soc Trans** 1998 Nov;26(4):S348

Role of lysine 240 in the mechanism of yeast pyruvate kinase catalysis. Bollenbach TJ, et al. **Biochemistry** 1999 Jul 13; 38(28):9137–45

Effects of pressure on the kinetics of capture by yeast alcohol dehydrogenase. Cho YK, et al. **Biochemistry** 1999 Jun 8; 38(23):7470–5

Lysine biosynthesis in Saccharomyces cerevisiae: mechanism of alpha-aminoadipate reductase (Lys2) involves posttranslational phosphopantetheinylation by Lys5. Ehmann DE, et al. **Biochemistry** 1999 May 11; 38(19):6171–7

Purification and characterization of a second type thioredoxin peroxidase (type II TPx) from Saccharomyces cerevisiae. Jeong JS, et al. **Biochemistry** 1999 Jan 12;38(2):776–83

Effects of substitution of tryptophan 412 in the substrate activation pathway of yeast pyruvate decarboxylase. Li H, et al. **Biochemistry** 1999 Aug 3;38(31):10004–12

Role of glutamate 91 in information transfer during substrate activation of yeast pyruvate decarboxylase. Li H, et al. **Biochemistry** 1999 Aug 3;38(31):9992–10003

Calcium binding to the class I alpha-1,2-mannosidase from Saccharomyces cerevisiae occurs outside the EF hand motif. Lipari F, et al. **Biochemistry** 1999 Jan 19;38(3):1111–8

Expression, purification, characterization, and reconstitution of the large and small subunits of yeast acetohydroxyacid synthase. Pang SS, et al. **Biochemistry** 1999 Apr 20; 38(16):5222–31

Identification of Ser424 as the protein kinase A phosphorylation site in CTP synthetase from Saccharomyces cerevisiae. Park TS, et al. **Biochemistry** 1999 Jul 6;38(27):8839–48

Ubiquitin binding interface mapping on yeast ubiquitin hydrolase by NMR chemical shift perturbation. Rajesh S, et al. **Biochemistry** 1999 Jul 20;38(29):9242–53

An NMR analysis of ubiquitin recognition by yeast ubiquitin hydrolase: evidence for novel substrate recognition by a cysteine protease. Sakamoto T, et al. **Biochemistry** 1999 Sep 7;38(36):11634–42

Redox potentials for yeast, Escherichia coli and human glutathione reductase relative to the NAD+/NADH redox couple: enzyme forms active in catalysis. Veine DM, et al. **Biochemistry** 1998 Nov 3;37(44):15575–82

Role of His159 in yeast enolase catalysis. Vinarov DA, et al. **Biochemistry** 1999 Sep 14;38(37):12138–49

pH dependence of the reaction catalyzed by yeast Mg-enolase. Vinarov DA, et al. **Biochemistry** 1998 Oct 27;37(43):15238–46

Dynamic mobility of genetically expressed fusion protein between cytochrome P4501A1 and NADPH-cytochrome P450 reductase in yeast microsomes. Yamada M, et al. **Biochemistry** 1999 Jul 20;38(29):9465–70

Saccharomyces cerevisiae Ntg1p and Ntg2p: broad specificity N-glycosylases for the repair of oxidative DNA damage in the nucleus and mitochondria. You HJ, et al. **Biochemistry** 1999 Aug 31;38(35):11298–306

Kinetic investigation of cooperativity in coenzyme binding by transketolase active sites. Kovina MV, et al. **Biochemistry (Mosc)** 1998 Aug;63(8):988–95

Adenylosuccinate synthetase of the yeast Saccharomyces cerevisiae: purification and properties. Ryzhova TA, et al. **Biochemistry (Mosc)** 1998 Jun;63(6):650–6

Inactivation and conformational changes of yeast alcohol dehydrogenase in trifluoroethanol solutions. Yang Y, et al. **Biochemistry (Mosc)** 1998 Nov;63(11):1307–11

Interaction of adenosine nucleotide analogs with Saccharomyces cerevisiae phosphoenolpyruvate carboxykinase. Carrasco L, et al. **Biochim Biophys Acta**

1998 Dec 8;1429(1):93-101
Modification of the N-terminal polyserine cluster alters stability of the plasma membrane H(+)-ATPase from Saccharomyces cerevisiae. Hasper A, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1-2):214-22
Processing glycosidases of Saccharomyces cerevisiae. Herscovics A. **Biochim Biophys Acta** 1999 Jan 6; 1426(2):275-85 (72 ref.)
D-arabinose dehydrogenase and its gene from Saccharomyces cerevisiae. Kim ST, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):29-39
The oligosaccharyltransferase complex from yeast. Knauer R, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):259-73 (114 ref.)
The KTR and MNN1 mannosyltransferase families of Saccharomyces cerevisiae. Lussier M, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):323-34 (40 ref.)
Functional assessment of surface loops: deletion of eukaryote-specific peptide inserts in thymidylate synthase of Saccharomyces cerevisiae. Munro EM, et al. **Biochim Biophys Acta** 1999 Feb 10;1430(1):1-13
The Saccharomyces cerevisiae succinate dehydrogenase anchor subunit, Sdh4p: mutations at the C-terminal lys-132 perturb the hydrophobic domain. Oyedotun KS, et al. **Biochim Biophys Acta** 1999 Apr 21;1411(1):170-9
Yeast as a model organism for studying the actions of DNA topoisomerase-targeted drugs. Reid RJ, et al. **Biochim Biophys Acta** 1998 Oct 1;1400(1-3):289-300 (49 ref.)
Evidence of a subunit 4 (subunit b) dimer in favor of the proximity of ATP synthase complexes in yeast inner mitochondrial membrane. Spannagel C, et al. **Biochim Biophys Acta** 1998 Nov 11;1414(1-2):260-4
RNA:pseudouridine synthetase Pus1 from Saccharomyces cerevisiae: oligomerization property and stoichiometry of the complex with yeast tRNA(Phe). Arluison V, et al. **Biochimie** 1999 Jul;81(7):751-6
Binding and catalysis by yeast aldose reductase: a substrate-analog approach with new aldose derivatives. Hadwiger P, et al. **Bioorg Med Chem Lett** 1999 Jun 21; 9(12):1683-6
Purification and characterization of an endo-polygalacturonase from a mutant of Saccharomyces cerevisiae. Hirose N, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1100-3
Hemiacetal dehydrogenation activity of alcohol dehydrogenases in Saccharomyces cerevisiae. Kusano M, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1956-61
Cloning and nucleotide sequence of the alcohol acetyltransferase II gene (ATF2) from Saccharomyces cerevisiae Kyokai No. 7. Nagasawa N, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1852-7
Expression of Aspergillus aculeatus No. F-50 cellobiohydrolase I (cbhI) and beta-glucosidase 1 (bgl1) genes by Saccharomyces cerevisiae. Takada G, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1615-8
Ribose-5-phosphate isomerase from Saccharomyces cerevisiae: purification and molecular analysis of the enzyme. Reuter R, et al. **Bioseparation** 1998;7(2):107-15
Quantitation of beta-galactosidase from yeast cells using a chemiluminescent substrate. Nevels M, et al. **Biotechniques** 1999 Jan;26(1):57-8
Rapid screening of textile dyes employed as affinity ligands to purify enzymes from yeast. Raya-Tonetti G, et al. **Biotechnol Appl Biochem** 1999 Apr;29 (Pt 2):151-6
Yeast (Saccharomyces cerevisiae) methionine aminopeptidase I: rapid purification and improved activity assay. Walker KW, et al. **Biotechnol Appl Biochem** 1999 Apr;29 (Pt 2):157-63
Inulase-secreting strain of Saccharomyces cerevisiae produces fructose. Brevnova EE, et al. **Biotechnol Bioeng** 1998 Nov 20;60(4):492-7
Allocation of ATP to synthesis of cells and hydrolytic enzymes in cellulolytic fermentative microorganisms: bioenergetics, kinetics, and bioprocessing. van Walsum GP, et al. **Biotechnol Bioeng** 1998 Apr 20-May 5;58(2-3):316-20
Esterase activity and release of ethyl esters of medium-chain fatty acids by Saccharomyces cerevisiae during anaerobic growth. Bardi L, et al. **Can J Microbiol** 1998 Dec; 44(12):1171-6
PKA from Saccharomyces cerevisiae can be activated by cyclic AMP and cyclic GMP. Cytryńska M, et al. **Can J Microbiol** 1999 Jan;45(1):31-7
Clues to the origin of high external invertase activity in immobilized growing yeast: prolonged SUC2 transcription and less susceptibility of the enzyme to endogenous proteolysis. de Alteriis E, et al. **Can J Microbiol** 1999 May; 45(5):413-7
Yeast cells expressing differential levels of human or yeast DNA topoisomerase II: a potent tool for identification and characterization of topoisomerase II-targeting antitumour agents. van Hille B, et al. **Cancer Chemother Pharmacol** 1998;42(5):345-56
Yeast RNA polymerase II at 5 A resolution [see comments] Fu J, et al. **Cell** 1999 Sep 17;98(6):799-810. Comment in: Cell 1999 Sep 17;98(6):687-90.
Electron crystal structure of an RNA polymerase II transcription elongation complex [see comments] Poglitsch CL, et al. **Cell** 1999 Sep 17;98(6):791-8. Comment in: Cell 1999 Sep 17;98(6):687-90.
The yeast RNA polymerase III transcription machinery: a paradigm for eukaryotic gene activation. Chédin S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:381-9 (103 ref.)
Structure of the yeast histone acetyltransferase Hat1: insights into substrate specificity and implications for the Gcn5-related N-acetyltransferase superfamily. Dutnall RN, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:501-7 (51 ref.)
Mechanism and regulation of yeast RNA polymerase II transcription. Kornberg RD. **Cold Spring Harb Symp Quant Biol** 1998;63:229-32 (26 ref.)
Genetic analysis of the yeast NUD1 endo-exonuclease: a role in the repair of DNA double-strand breaks. Asefa B, et al. **Curr Genet** 1998 Dec;34(5):360-7
Phosphatidylglycerolphosphate synthase encoded by the PEL1/PGS1 gene in Saccharomyces cerevisiae is localized in mitochondria and its expression is regulated by phospholipid precursors. Dzugasová V, et al. **Curr Genet** 1998 Oct;34(4):297-302
YNT20, a bypass suppressor of yme1 yme2, encodes a putative 3'-5' exonuclease localized in mitochondria of Saccharomyces cerevisiae. Hanekamp T, et al. **Curr Genet** 1999 Jan;34(6):438-48
Molecular and biochemical analysis of Saccharomyces cerevisiae cox1 mutants. Lemaire C, et al. **Curr Genet** 1998 Aug;34(2):138-45
Increased activity of wall hydrolytic enzymes may explain the phenotype of Saccharomyces cerevisiae fragile mutants. Ruiz-Herrera J, et al. **Curr Microbiol** 1998 Dec;37(6):365-7
Progress and variations in two-hybrid and three-hybrid technologies. Drees BL. **Curr Opin Chem Biol** 1999 Feb; 3(1):64-70 (47 ref.)
Reg1p targets protein phosphatase 1 to dephosphorylate hexokinase II in Saccharomyces cerevisiae: characterizing the effects of a phosphatase subunit on the yeast proteome. Alms GR, et al. **EMBO J** 1999 Aug 2;18(15):4157-68
Eukaryotic 20S proteasome catalytic subunit propeptides prevent active site inactivation by N-terminal acetylation and promote particle assembly. Arendt CS, et al. **EMBO J** 1999 Jul 1;18(13):3575-85
Yeast mitochondrial F1F0-ATP synthase exists as a dimer: identification of three dimer-specific subunits. Arnold I, et al. **EMBO J** 1998 Dec 15;17(24):7170-8
L-arginine recognition by yeast arginyl-tRNA synthetase. Cavarelli J, et al. **EMBO J** 1998 Sep 15;17(18):5438-48
Structural basis for the specificity of ubiquitin C-terminal hydrolases. Johnston SC, et al. **EMBO J** 1999 Jul 15; 18(14):3877-87
A map of the binding site for catalytic domain 5 in the core of a group II intron ribozyme. Konforti BB, et al. **EMBO J** 1998 Dec 1;17(23):7105-17
Epistatic interactions of deletion mutants in the genes encoding the F1-ATPase in yeast Saccharomyces cerevisiae. Lai-Zhang J, et al. **EMBO J** 1999 Jan 4; 18(1):58-64
Identification of subunit g of yeast mitochondrial F1F0-ATP synthase, a protein required for maximal activity of cytochrome c oxidase. Boyle GM, et al. **Eur J Biochem** 1999 Jun;262(2):315-23
Molecular analysis of Chs3p participation in chitin synthase III activity. Cos T, et al. **Eur J Biochem** 1998 Sep 1; 256(2):419-26
Autoregulation of yeast pyruvate decarboxylase gene expression requires the enzyme but not its catalytic activity. Eberhardt I, et al. **Eur J Biochem** 1999 May;262(1):191-201
In Saccharomyces cerevisae, feedback inhibition of homocitrate synthase isoenzymes by lysine modulates the activation of LYS gene expression by Lys14p. Feller A, et al. **Eur J Biochem** 1999 Apr;261(1):163-70
Evidence for a dynamic role for proline376 in the purine-cytosine permease of Saccharomyces cerevisiae. Ferreira T, et al. **Eur J Biochem** 1999 Jul;263(1):57-64
Comparison of the chemical mechanisms of action of yeast and equine liver alcohol dehydrogenase. Leskovac V, et al. **Eur J Biochem** 1999 Sep;264(3):840-7
Site-directed mutagenesis of proline 204 in the 'hinge' region of yeast phosphoglycerate kinase. McHarg J, et al. **Eur J Biochem** 1999 Feb;259(3):939-45
Bioenergetic and structural consequences of allotopic expression of subunit 8 of yeast mitochondrial ATP synthase. The hydrophobic character of residues 23 and 24 is essential for maximal activity and structural stability of the enzyme complex. Roucou X, et al. **Eur J Biochem** 1999 Apr;261(2):444-51
Primary structure and biochemical characterization of yeast GTPase-activating proteins with substrate preference for the transport GTPase Ypt7p. Vollmer P, et al. **Eur J Biochem** 1999 Feb;260(1):284-90
Mutational analysis of chitin synthase 2 of Saccharomyces cerevisiae. Identification of additional amino acid residues involved in its catalytic activity. Yabe T, et al. **Eur J Biochem** 1998 Dec 15;258(3):941-7
The processing alpha1,2-mannosidase of Saccharomyces cerevisiae depends on Rer1p for its localization in the endoplasmic reticulum. Massaad MJ, et al. **Eur J Cell Biol** 1999 Jul;78(7):435-40
Purification of Saccharomyces cerevisiae RNase H(70) and identification of the corresponding gene. Frank P, et al. **FEBS Lett** 1999 May 7;450(3):251-6
Thiamine repression and pyruvate decarboxylase autoregulation independently control the expression of the Saccharomyces cerevisiae PDC5 gene. Muller EH, et al. **FEBS Lett** 1999 Apr 23;449(2-3):245-50
The Saccharomyces cerevisiae succinate-ubiquinone reductase contains a stoichiometric amount of cytochrome b562. Oyedotun KS, et al. **FEBS Lett** 1999 Jan 15; 442(2-3):203-7
Telomerase from Saccharomyces cerevisiae contains several protein subunits and may have different activities depending on the protein content. Petrov AV, et al. **FEBS Lett** 1998 Sep 25;436(1):35-40
Evidence that the gene YLR070c of Saccharomyces cerevisiae encodes a xylitol dehydrogenase. Richard P, et al. **FEBS Lett** 1999 Aug 20;457(1):135-8
R73A and H144Q mutants of the yeast mitochondrial cyclophilin Cpr3 exhibit a low prolyl isomerase activity in both peptide and protein-folding assays. Scholz C, et al. **FEBS Lett** 1999 Jan 29;443(3):367-9
The SNF1 kinase complex from Saccharomyces cerevisiae phosphorylates the transcriptional repressor protein Mig1p in vitro at four sites within or near regulatory domain 1. Smith FC, et al. **FEBS Lett** 1999 Jun 18;453(1-2):219-23
NADH reoxidation does not control glycolytic flux during exposure of respiring Saccharomyces cerevisiae cultures to glucose excess. Brambilla L, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):133-40
Enolase is present in the cell wall of Saccharomyces cerevisiae. Edwards SR, et al. **FEMS Microbiol Lett** 1999 Aug 15;177(2):211-6
Functional analysis of the hemK gene product involvement in protoporphyrinogen oxidase activity in yeast. Le Guen L, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):175-82
Transport of acetate in mutants of Saccharomyces cerevisiae defective in monocarboxylate permeases. Paiva S, et al. **FEMS Microbiol Lett** 1999 Jan 15;170(2):301-6
Defects in Saccharomyces cerevisiae protein phosphatase type 1 activate the spindle/kinetochore checkpoint. Bloecher A, et al. **Genes Dev** 1999 Mar 1;13(5):517-22
Allosteric interactions between capping enzyme subunits and the RNA polymerase II carboxy-terminal domain. Cho EJ, et al. **Genes Dev** 1998 Nov 15;12(22):3482-7
Identification of APN2, the Saccharomyces cerevisiae homolog of the major human AP endonuclease HAP1, and its role in the repair of abasic sites. Johnson RE, et al. **Genes Dev** 1998 Oct 1;12(19):3137-43
Cell cycle-regulated histone acetylation required for expression of the yeast HO gene. Krebs JE, et al. **Genes Dev** 1999 Jun 1;13(11):1412-21
Regulation of Saccharomyces cerevisiae kinetochores by the type 1 phosphatase Glc7p. Sassoon I, et al. **Genes Dev** 1999 Mar 1;13(5):545-55
Suppression of a nuclear aep2 mutation in Saccharomyces cerevisiae by a base substitution in the 5'-untranslated region of the mitochondrial oli1 gene encoding subunit 9 of ATP synthase. Ellis TP, et al. **Genetics** 1999 Apr; 151(4):1353-63
Mutations in the membrane anchor of yeast cytochrome c1 compensate for the absence of Oxa1p and generate carbonate-extractable forms of cytochrome c1. Hamel P, et al. **Genetics** 1998 Oct;150(2):601-11
A genetic study of signaling processes for repression of PHO5 transcription in Saccharomyces cerevisiae. Lau WW, et al. **Genetics** 1998 Dec;150(4):1349-59
A general requirement for the Sin3-Rpd3 histone deacetylase complex in regulating silencing in Saccharomyces cerevisiae. Sun ZW, et al. **Genetics** 1999 Jul;152(3):921-32
Analysis of mutations in the yeast mRNA decapping enzyme. Tharun S, et al. **Genetics** 1999 Apr;151(4):1273-85
Saccharomyces cerevisiae Mod5p-II contains sequences antagonistic for nuclear and cytosolic locations. Tolerico LH, et al. **Genetics** 1999 Jan;151(1):57-75
Single cell studies of enzymatic hydrolysis of a tetramethylrhodamine labeled triglucoside in yeast. Le XC, et al. **Glycobiology** 1999 Mar;9(3):219-25
Glycosylation of the overlapping sequons in yeast external invertase: effect of amino acid variation on site selectivity in vivo and in vitro. Reddy A, et al. **Glycobiology** 1999 Jun;9(6):547-55
Expression and characterization of rat UDP-N-acetylglucosamine: alpha-3-D-mannoside beta-1,2-N-acetylglucosaminyltransferase I in Saccharomyces cerevisiae. Yoshida S, et al. **Glycobiology** 1999 Jan;9(1):53-8
Hereditary spastic paraplegia: mitochondrial metalloproteases of yeast. Pearce DA. **Hum Genet** 1999 Jun;104(6):443-8 (54 ref.)
Harmaline interactions with yeast invertase. Gill RK, et al. **Indian J Biochem Biophys** 1998 Apr;35(2):86-90
Phosphofructokinase-1 from Saccharomyces cerevisiae: analysis of molecular structure and function by electron microscopy and self-catalysed affinity labelling. Kuicke J, et al. **Int J Biol Macromol** 1999 Jan;24(1):27-35
APT1, but not APT2, codes for a functional adenine phosphoribosyltransferase in Saccharomyces cerevisiae. Alfonzo JD, et al. **J Bacteriol** 1999 Jan;181(1):347-52
Redundant systems of phosphatidic acid biosynthesis via acylation of glycerol-3-phosphate or dihydroxyacetone phosphate in the yeast Saccharomyces cerevisiae. Athenstaedt K, et al. **J Bacteriol** 1999 Mar;181(5):1458-63
PRS5, the fifth member of the phosphoribosyl pyrophosphate synthetase gene family in Saccharomyces cerevisiae, is essential for cell viability in the absence of either PRS1 or PRS3. Hernando Y, et al. **J Bacteriol** 1998 Dec; 180(23):6404-7
Cloning and characterization of a sulfonate/alpha-ketoglutarate dioxygenase from

Saccharomyces cerevisiae. Hogan DA, et al. **J Bacteriol** 1999 Sep;181(18):5876–9

The extracellular domain of the Saccharomyces cerevisiae Sln1p membrane osmolarity sensor is necessary for kinase activity. Ostrander DB, et al. **J Bacteriol** 1999 Apr; 181(8):2527–34

Toxicity of copper, cobalt, and nickel salts is dependent on histidine metabolism in the yeast Saccharomyces cerevisiae. Pearce DA, et al. **J Bacteriol** 1999 Aug;181(16):4774–9

DNA helicase III of Saccharomyces cerevisiae, encoded by YER176w (HEL1), highly unwinds covalently closed, circular DNA in the presence of a DNA topoisomerase and yRF–A. Kamimura YI, et al. **J Biochem (Tokyo)** 1999 Feb;125(2):236–44

Subunit f of the yeast mitochondrial ATP synthase: topological and functional studies. Roudeau S, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):85–94

Activation and deactivation of F0F1–ATPase in yeast mitochondria. Schouppe C, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):105–17

The role of the amino–terminal beta–barrel domain of the alpha and beta subunits in the yeast F1–ATPase. Yao B, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):95–104

ATP synthase of yeast mitochondria. Isolation of subunit j and disruption of the ATP18 gene. Arnold I, et al. **J Biol Chem** 1999 Jan 1;274(1):36–40

A role for Saccharomyces cerevisiae fatty acid activation protein 4 in regulating protein N–myristoylation during entry into stationary phase. Ashrafi K, et al. **J Biol Chem** 1998 Oct 2;273(40):25864–74

Structure/function of the beta–barrel domain of F1–ATPase in the yeast Saccharomyces cerevisiae. Bakhtiari N, et al. **J Biol Chem** 1999 Jun 4;274(23):16363–9

Single copies of subunits d, oligomycin–sensitivity conferring protein, and b are present in the Saccharomyces cerevisiae mitochondrial ATP synthase. Bateson M, et al. **J Biol Chem** 1999 Mar 12;274(11):7462–6

Composition and functional analysis of the Saccharomyces cerevisiae trehalose synthase complex. Bell W, et al. **J Biol Chem** 1998 Dec 11;273(50):33311–9

Abortive initiation by Saccharomyces cerevisiae RNA polymerase III. Bhargava P, et al. **J Biol Chem** 1999 Sep 10;274(37):26550–6

A mitochondrial pyruvate dehydrogenase bypass in the yeast Saccharomyces cerevisiae. Boubekeur S, et al. **J Biol Chem** 1999 Jul 23;274(30):21044–8

A novel membrane–bound glutathione S–transferase functions in the stationary phase of the yeast Saccharomyces cerevisiae. Choi JH, et al. **J Biol Chem** 1998 Nov 6;273(45):29915–22

The Saccharomyces cerevisiae TCM62 gene encodes a chaperone necessary for the assembly of the mitochondrial succinate dehydrogenase (complex II). Dibrov E, et al. **J Biol Chem** 1998 Nov 27;273(48):32042–8

Contribution of proteasomal beta–subunits to the cleavage of peptide substrates analyzed with yeast mutants. Dick TP, et al. **J Biol Chem** 1998 Oct 2;273(40):25637–46

Role of the putative zinc finger domain of Saccharomyces cerevisiae DNA polymerase epsilon in DNA replication and the S/M checkpoint pathway. Dua R, et al. **J Biol Chem** 1998 Nov 6;273(45):30046–55

Functional expression of human PP2Ac in yeast permits the identification of novel C–terminal and dominant–negative mutant forms. Evans DR, et al. **J Biol Chem** 1999 Aug 20;274(34):24038–46

The LPP1 and DPP1 gene products account for most of the isoprenoid phosphate phosphatase activities in Saccharomyces cerevisiae. Faulkner A, et al. **J Biol Chem** 1999 May 21;274(21):14831–7

Molecular characterization of Saccharomyces cerevisiae Delta3, Delta2–enoyl–CoA isomerase. Geisbrecht BV, et al. **J Biol Chem** 1998 Dec 11;273(50):33184–91

Evidence for a salt bridge between transmembrane segments 5 and 6 of the yeast plasma–membrane H+–ATPase. Gupta SS, et al. **J Biol Chem** 1998 Dec 18;273(51):34328–34

Alternatives to the isomerase–dependent pathway for the beta–oxidation of oleic acid are dispensable in Saccharomyces cerevisiae. Identification of YOR180c/DCI1 encoding peroxisomal delta(3,5)–delta(2,4)–dienoyl–CoA isomerase. Gurvitz A, et al. **J Biol Chem** 1999 Aug 27;274(35):24514–21

Identification of new mediator subunits in the RNA polymerase II holoenzyme from Saccharomyces cerevisiae. Gustafsson CM, et al. **J Biol Chem** 1998 Nov 20; 273(47):30851–4

Yeast and viral RNA 5' triphosphatases comprise a new nucleoside triphosphatase family. Ho CK, et al. **J Biol Chem** 1998 Dec 18;273(51):34151–6

Genetic analysis of glutathione peroxidase in oxidative stress response of Saccharomyces cerevisiae. Inoue Y, et al. **J Biol Chem** 1999 Sep 17;274(38):27002–9

Ded1p, a DEAD–box protein required for translation initiation in Saccharomyces cerevisiae, is an RNA helicase. Iost I, et al. **J Biol Chem** 1999 Jun 18;274(25):17677–83

Requirement of DNA polymerase activity of yeast Rad30 protein for its biological function. Johnson RE, et al. **J Biol Chem** 1999 Jun 4;274(23):15975–7

Identification of peroxisomal acyl–CoA thioesterases in yeast and humans. Jones JM, et al. **J Biol Chem** 1999 Apr 2; 274(14):9216–23

Cascades of mammalian caspase activation in the yeast Saccharomyces cerevisiae. Kang JJ, et al. **J Biol Chem** 1999 Jan 29;274(5):3189–98

Reconstitution of yeast RNA polymerase I transcription in vitro from purified components. TATA–binding protein is not required for basal transcription. Keener J, et al. **J Biol Chem** 1998 Dec 11;273(50):33795–802

Isolation and characterization of the Saccharomyces cerevisiae EKI1 gene encoding ethanolamine kinase. Kim K, et al. **J Biol Chem** 1999 May 21;274(21):14857–66

Phosphorylation and regulation of choline kinase from Saccharomyces cerevisiae by protein kinase A. Kim KH, et al. **J Biol Chem** 1999 Apr 2;274(14):9531–8

Import into mitochondria, folding and retrograde movement of fumarase in yeast. Knox C, et al. **J Biol Chem** 1998 Oct 2;273(40):25587–93

Purification and characterization of the yeast glycosylphosphatidylinositol–anchored, monobasic–specific aspartyl protease yapsin 2 (Mkc7p). Komano H, et al. **J Biol Chem** 1999 Aug 20;274(34):24431–7

Involvement of cell surface glycosyl–phosphatidylinositol–linked aspartyl proteases in alpha–secretase–type cleavage and ectodomain solubilization of human Alzheimer beta–amyloid precursor protein in yeast. Komano H, et al. **J Biol Chem** 1998 Nov 27;273(48):31648–51

Bivalent inhibitor of the N–end rule pathway. Kwon YT, et al. **J Biol Chem** 1999 Jun 18;274(25):18135–9

Identification of the human YVH1 protein–tyrosine phosphatase orthologue reveals a novel zinc binding domain essential for in vivo function. Muda M, et al. **J Biol Chem** 1999 Aug 20;274(34):23991–5

The inactive form of a yeast casein kinase I suppresses the secretory defect of the sec12 mutant. Implication of negative regulation by the Hrr25 kinase in the vesicle budding from the endoplasmic reticulum. Murakami A, et al. **J Biol Chem** 1999 Feb 5;274(6):3804–10

Protein kinase C enables the regulatory circuit that connects membrane synthesis to ribosome synthesis in Saccharomyces cerevisiae. Nierras CR, et al. **J Biol Chem** 1999 May 7;274(19):13235–41

Catalysis of ATP hydrolysis by two NH(2)–terminal fragments of yeast DNA topoisomerase II. Olland S, et al. **J Biol Chem** 1999 Jul 30;274(31):21688–94

The Saccharomyces cerevisiae succinate–ubiquinone oxidoreductase. Identification of Sdh3p amino acid residues involved in ubiquinone binding. Oyedotun KS, et al. **J Biol Chem** 1999 Aug 20;274(34):23956–62

Complementation of the Saccharomyces cerevisiae plasma membrane H+–ATPase by a plant H+–ATPase generates a highly abundant fusicoccin binding site. Piotrowski M, et al. **J Biol Chem** 1998 Nov 6;273(45):30018–23

Yeast and rat Coq3 and Escherichia coli UbiG polypeptides catalyze both O–methyltransferase steps in coenzyme Q biosynthesis. Poon WW, et al. **J Biol Chem** 1999 Jul 30; 274(31):21665–72

Human exonuclease 1 functionally complements its yeast homologues in DNA recombination, RNA primer removal, and mutation avoidance. Qiu J, et al. **J Biol Chem** 1999 Jun 18;274(25):17893–900

Biosynthesis of inositol phosphoceramides and remodeling of glycosylphosphatidylinositol anchors in Saccharomyces cerevisiae are mediated by different enzymes. Reggiori F, et al. **J Biol Chem** 1998 Nov 13;273(46):30550–9

Subcellular localization, stoichiometry, and protein levels of 26 S proteasome subunits in yeast. Russell SJ, et al. **J Biol Chem** 1999 Jul 30;274(31):21943–52

A mutant yeast topoisomerase II (top2G437S) with differential sensitivity to anticancer drugs in the presence and absence of ATP. Sabourin M, et al. **J Biol Chem** 1998 Oct 30;273(44):29086–92

The diadenosine hexaphosphate hydrolases from Schizosaccharomyces pombe and Saccharomyces cerevisiae are homologues of the human diphosphoinositol polyphosphate phosphohydrolase. Overlapping substrate specificities in a MutT–type protein. Safrany ST, et al. **J Biol Chem** 1999 Jul 30;274(31):21735–40

Half of Saccharomyces cerevisiae carbamoyl phosphate synthetase produces and channels carbamoyl phosphate to the fused aspartate transcarbamoylase domain. Serre V, et al. **J Biol Chem** 1999 Aug 20;274(34):23794–801

Genetic probing of the stalk segments associated with M2 and M3 of the plasma membrane H+–ATPase from Saccharomyces cerevisiae. Soteropoulos P, et al. **J Biol Chem** 1998 Oct 9;273(41):26426–31

Transient ADP–ribosylation of a 2'–phosphate implicated in its removal from ligated tRNA during splicing in yeast. Spinelli SL, et al. **J Biol Chem** 1999 Jan 29;274(5):2637–44

Transmembrane topology of pmt1p, a member of an evolutionarily conserved family of protein O–mannosyltransferases. Strahl–Bolsinger S, et al. **J Biol Chem** 1999 Mar 26;274(13):9068–75

Cytochrome c heme lyase activity of yeast mitochondria. Tong J, et al. **J Biol Chem** 1998 Oct 2;273(40):25695–702

Regulated degradation of yeast ornithine decarboxylase. Toth C, et al. **J Biol Chem** 1999 Sep 3;274(36):25921–6

Isolation of supernumerary yeast ATP synthase subunits e and i. Characterization of subunit i and disruption of its structural gene ATP18. Vaillier J, et al. **J Biol Chem** 1999 Jan 1;274(1):543–8

Yeast methionine aminopeptidase I. Alteration of substrate specificity by site–directed mutagenesis. Walker KW, et al. **J Biol Chem** 1999 May 7;274(19):13403–9

Y'–Help1, a DNA helicase encoded by the yeast subtelomeric Y'element, is induced in survivors defective for telomerase. Yamada M, et al. **J Biol Chem** 1998 Dec 11;273(50):33360–6

The Ost1p subunit of yeast oligosaccharyl transferase recognizes the peptide glycosylation site sequence, -Asn–X–Ser/Thr–. Yan Q, et al. **J Biol Chem** 1999 Feb 19;274(8):5021–5

Overexpression and simple purification of human superoxide dismutase (SOD1) in yeast and its resistance to oxidative stress. Yoo HY, et al. **J Biotechnol** 1999 Feb 5;68(1):29–35

Starvation induces vacuolar targeting and degradation of the tryptophan permease in yeast. Beck T, et al. **J Cell Biol** 1999 Sep 20;146(6):1227–38

The GTP–binding protein Rho1p is required for cell cycle progression and polarization of the yeast cell. Drgonová J, et al. **J Cell Biol** 1999 Jul 26;146(2):373–87

Mitochondrial fusion in yeast requires the transmembrane GTPase Fzo1p. Hermann GJ, et al. **J Cell Biol** 1998 Oct 19;143(2):359–73

The dynamin–related GTPase, Dnm1p, controls mitochondrial morphology in yeast. Otsuga D, et al. **J Cell Biol** 1998 Oct 19;143(2):333–49

Localization and regulation of the cdk–activating kinase (Cak1p) from budding yeast. Kaldis P, et al. **J Cell Sci** 1998 Dec 18;111 (Pt 24):3585–96

Three–dimensional analysis of protein aggregate body in Saccharomyces cerevisiae cells. Kamasawa N, et al. **J Electron Microsc (Tokyo)** 1999;48(2):173–6

Influence of Tris(hydroxymethyl)aminomethane on kinetic mechanism of yeast alcohol dehydrogenase. Trivić S, et al. **J Enzyme Inhib** 1998 Feb;13(1):57–68

Active site mapping of yeast aspartyl–tRNA synthetase by in vivo selection of enzyme mutations lethal for cell growth. Ador L, et al. **J Mol Biol** 1999 Apr 30; 288(2):231–42

NMR structure of the N–terminal domain of Saccharomyces cerevisiae RNase H1 reveals a fold with a strong resemblance to the N–terminal domain of ribosomal protein L9. Evans SP, et al. **J Mol Biol** 1999 Aug 20;291(3):661–9

Structure of catalase–A from Saccharomyces cerevisiae. Maté MJ, et al. **J Mol Biol** 1999 Feb 12;286(1):135–49

Polyanionic inhibitors of phosphoglycerate mutase: combined structural and biochemical analysis. Rigden DJ, et al. **J Mol Biol** 1999 Jun 18;289(4):691–9

Sulphate ions observed in the 2.12 A structure of a new crystal form of S. cerevisiae phosphoglycerate mutase provide insights into understanding the catalytic mechanism. Rigden DJ, et al. **J Mol Biol** 1999 Mar 12; 286(5):1507–17

The R78K and D117E active–site variants of Saccharomyces cerevisiae soluble inorganic pyrophosphatase: structural studies and mechanistic implications. Tuominen V, et al. **J Mol Biol** 1998 Dec 18;284(5):1565–80

Functional properties of the two redox–active sites in yeast protein disulphide isomerase in vitro and in vivo. Westphal V, et al. **J Mol Biol** 1999 Mar 5;286(4):1229–39

Sacrosidase therapy for congenital sucrase–isomaltase deficiency. Treem WR, et al. **J Pediatr Gastroenterol Nutr** 1999 Feb;28(2):137–42

Lysophosphatidylcholine acyltransferase activity in Saccharomyces cerevisiae: regulation by a high–affinity Zn2+ binding site. Richard MG, et al. **Lipids** 1998 Dec; 33(12):1229–34

Analysis of eIF–2 alpha kinases in yeast. Dever TE. **Methods Mol Biol** 1998;77:167–78 (16 ref.)

Reconstitution of yeast farnesyltransferase from individually purified subunits. Urano J, et al. **Methods Mol Biol** 1999; 116:145–59 (24 ref.)

MAP kinase pathways in the yeast Saccharomyces cerevisiae. Gustin MC, et al. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1264–300 (527 ref.)

Regulation of Cdc28 cyclin–dependent protein kinase activity during the cell cycle of the yeast Saccharomyces cerevisiae. Mendenhall MD, et al. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1191–243 (642 ref.)

Overexpression of Candida albicans secretory aspartyl proteinase 2 and its expression in Saccharomyces cerevisiae do not augment virulence in mice. Dubois N, et al. **Microbiology** 1998 Aug;144 (Pt 8):2299–310

Cloning and sequencing of the Candida albicans homologue of SRB1/PSA1/VIG9, the essential gene encoding GDP–mannose pyrophosphorylase in Saccharomyces cerevisiae. Warit S, et al. **Microbiology** 1998 Sep;144 (Pt 9):2417–26

Sequence determinants for regulated degradation of yeast 3–hydroxy–3–methylglutaryl–CoA reductase, an integral endoplasmic reticulum membrane protein [published erratum appears in Mol Biol Cell 1999 Mar;10(3):preceding table of contents] Gardner R, et al. **Mol Biol Cell** 1998 Sep;9(9):2611–26

The Yck2 yeast casein kinase 1 isoform shows cell cycle–specific localization to sites of polarized growth and is required for proper septin organization. Robinson LC, et al. **Mol Biol Cell** 1999 Apr;10(4):1077–92

Functional analysis of the proteasome regulatory particle. Glickman MH, et al. **Mol Biol Rep** 1999 Apr;26(1–2):21–8 (44 ref.)

An unusual eukaryotic protein phosphatase required for transcription by RNA polymerase II and CTD dephosphorylation in S. cerevisiae. Kobor MS, et al. **Mol Cell** 1999 Jul;4(1):55–62

The 19S regulatory complex of the proteasome functions independently of proteolysis in nucleotide excision repair.

Russell SJ, et al. **Mol Cell** 1999 Jun;3(6):687–95

The phosphatase Cdc14 triggers mitotic exit by reversal of Cdk-dependent phosphorylation. Visintin R, et al. **Mol Cell** 1998 Dec;2(6):709–18

The Saccharomyces cerevisiae homologues of endonuclease III from Escherichia coli, Ntg1 and Ntg2, are both required for efficient repair of spontaneous and induced oxidative DNA damage in yeast. Alseth I, et al. **Mol Cell Biol** 1999 May;19(5):3779–87

The Saccharomyces cerevisiae ETH1 gene, an inducible homolog of exonuclease III that provides resistance to DNA-damaging agents and limits spontaneous mutagenesis. Bennett RA. **Mol Cell Biol** 1999 Mar; 19(3):1800–9

Cell cycle regulation of the Saccharomyces cerevisiae polo-like kinase cdc5p. Cheng L, et al. **Mol Cell Biol** 1998 Dec;18(12):7360–70

The yeast ser/thr phosphatases sit4 and ppz1 play opposite roles in regulation of the cell cycle. Clotet J, et al. **Mol Cell Biol** 1999 Mar;19(3):2408–15

Control of Saccharomyces cerevisiae filamentous growth by cyclin-dependent kinase Cdc28. Edgington NP, et al. **Mol Cell Biol** 1999 Feb;19(2):1369–80

Removal of frameshift intermediates by mismatch repair proteins in Saccharomyces cerevisiae. Harfe BD, et al. **Mol Cell Biol** 1999 Jul;19(7):4766–73

Activating phosphorylation of the Kin28p subunit of yeast TFIIH by Cak1p. Kimmelman J, et al. **Mol Cell Biol** 1999 Jul;19(7):4774–87

Glycogen synthase phosphatase interacts with heat shock factor to activate CUP1 gene transcription in Saccharomyces cerevisiae. Lin JT, et al. **Mol Cell Biol** 1999 May;19(5):3237–45

Phosphorylation-independent inhibition of Cdc28p by the tyrosine kinase Swe1p in the morphogenesis checkpoint. McMillan JN, et al. **Mol Cell Biol** 1999 Sep;19(9):5981–90

Cns1 is an essential protein associated with the hsp90 chaperone complex in Saccharomyces cerevisiae that can restore cyclophilin 40-dependent functions in cpr7Delta cells. Marsh JA, et al. **Mol Cell Biol** 1998 Dec; 18(12):7353–9

The nuclease activity of Mre11 is required for meiosis but not for mating type switching, end joining, or telomere maintenance. Moreau S, et al. **Mol Cell Biol** 1999 Jan; 19(1):556–66

Reversible association between the V1 and V0 domains of yeast vacuolar H+-ATPase is an unconventional glucose-induced effect. Parra KJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7064–74

Repressors and upstream repressing sequences of the stress-regulated ENA1 gene in Saccharomyces cerevisiae: bZIP protein Sko1p confers HOG-dependent osmotic regulation. Proft M, et al. **Mol Cell Biol** 1999 Jan; 19(1):537–46

The putative nucleic acid helicase Sen1p is required for formation and stability of termini and for maximal rates of synthesis and levels of accumulation of small nucleolar RNAs in Saccharomyces cerevisiae [published erratum appears in Mol Cell Biol 1999 Jul;19(7):5235] Rasmussen TP, et al. **Mol Cell Biol** 1998 Dec;18(12):6885–96

The yeast RER2 gene, identified by endoplasmic reticulum protein localization mutations, encodes cis-prenyltransferase, a key enzyme in dolichol synthesis. Sato M, et al. **Mol Cell Biol** 1999 Jan;19(1):471–83

Active-site mutations in the Xrn1p exoribonuclease of Saccharomyces cerevisiae reveal a specific role in meiosis. Solinger JA, et al. **Mol Cell Biol** 1999 Sep;19(9):5930–42

The 3'-->5' exonucleases of DNA polymerases delta and epsilon and the 5'-->3'exonuclease Exo1 have major roles in postreplication mutation avoidance in Saccharomyces cerevisiae. Tran HT, et al. **Mol Cell Biol** 1999 Mar; 19(3):2000–7

Processivity of the Saccharomyces cerevisiae poly(A) polymerase requires interactions at the carboxyl-terminal RNA binding domain. Zhelkovsky A, et al. **Mol Cell Biol** 1998 Oct;18(10):5942–51

Trifluoroleucine resistance and regulation of alpha-isopropyl malate synthase in Saccharomyces cerevisiae. Cavalieri D, et al. **Mol Gen Genet** 1999 Feb;261(1):152–60

The fission yeast rpa17+ gene encodes a functional homolog of AC19, a subunit of RNA polymerases I and III of Saccharomyces cerevisiae. Imai K, et al. **Mol Gen Genet** 1999 Mar;261(2):364–73

Oligomers of the Cdc7/Dbf4 protein kinase exist in the yeast cell. Shellman YG, et al. **Mol Gen Genet** 1998 Sep; 259(4):429–36

The protein kinase C-mediated MAP kinase pathway involved in the maintenance of cellular integrity in Saccharomyces cerevisiae. Heinisch JJ, et al. **Mol Microbiol** 1999 May;32(4):671–80 (64 ref.)

D-Erythroascorbic acid is an important antioxidant molecule in Saccharomyces cerevisiae. Huh WK, et al. **Mol Microbiol** 1998 Nov;30(4):895–903

Cardiolipin synthase expression is essential for growth at elevated temperature and is regulated by factors affecting mitochondrial development. Jiang F, et al. **Mol Microbiol** 1999 Jan;31(1):373–9

Genetic redundancy and gene fusion in the genome of the Baker's yeast Saccharomyces cerevisiae: functional characterization of a three-member gene family involved in the thiamine biosynthetic pathway. Llorente B, et al. **Mol Microbiol** 1999 Jun;32(6):1140–52

A mutation in Saccharomyces cerevisiae adenylate cyclase, Cyr1K1876M, specifically affects glucose- and acidification-induced cAMP signalling and not the basal cAMP level. Vanhalewyn M, et al. **Mol Microbiol** 1999 Jul;33(2):363–76

The effect of the Saccharomyces cerevisiae endo-exonuclease NUD1 gene expression on the resistance of HeLa cells to DNA-damaging agents. Semionov A, et al. **Mutat Res** 1999 Apr 9;433(3):169–81

Protease helps yeast find mating partners [letter] Barkai N, et al. **Nature** 1998 Dec 3;396(6710):422–3

A new protease required for cell-cycle progression in yeast. Li SJ, et al. **Nature** 1999 Mar 18;398(6724):246–51

Saccharomyces cerevisiae telomerase is an Sm small nuclear ribonucleoprotein particle. Seto AG, et al. **Nature** 1999 Sep 9;401(6749):177–80

Point and deletion mutations eliminate one or both methyl group transfers catalysed by the yeast TRM1 encoded tRNA (m22G26)dimethyltransferase. Liu J, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5102–8

Sequence-specific and conformation-dependent binding of yeast telomerase RNA to single-stranded telomeric DNA. Lue NF. **Nucleic Acids Res** 1999 Jun 15;27(12):2560–7

A Saccharomyces cerevisiae RNA 5'-triphosphatase related to mRNA capping enzyme. Rodriguez CR, et al. **Nucleic Acids Res** 1999 May 15;27(10):2181–8

The Saccharomyces cerevisiae Sgs1 helicase efficiently unwinds G-G paired DNAs. Sun H, et al. **Nucleic Acids Res** 1999 May 1;27(9):1978–84

Sequence divergence of the RNA polymerase shared subunit ABC14.5 (Rpb8) selectively affects RNA polymerase III assembly in Saccharomyces cerevisiae. Voutsina A, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1047–55

Relationships between yeast Rad27 and Apn1 in response to apurinic/apyrimidinic (AP) sites in DNA. Wu X, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):956–62

Effect of glucose on the conformation of ADPMg(II) bound at the active site of yeast hexokinase PI. Maity H, et al. **Physiol Chem Phys Med NMR** 1998;30(1):49–62

Mitogen-activated protein kinase: conservation of a three-kinase module from yeast to human. Widmann C, et al. **Physiol Rev** 1999 Jan;79(1):143–80 (409 ref.)

The two major types of plant plasma membrane H+-ATPases show different enzymatic properties and confer differential pH sensitivity of yeast growth. Luo H, et al. **Plant Physiol** 1999 Feb;119(2):627–34

A Selaginella lepidophylla trehalose-6-phosphate synthase complements growth and stress-tolerance defects in a yeast tps1 mutant. Zentella R, et al. **Plant Physiol** 1999 Apr; 119(4):1473–82

A protein-protein interaction map of yeast RNA polymerase III. Flores A, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7815–20

A highly conserved kinase is an essential component for stress tolerance in yeast and plant cells. Lee JH, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5873–7

Overexpression of peptide-methionine sulfoxide reductase in Saccharomyces cerevisiae and human T cells provides them with high resistance to oxidative stress. Moskovitz J, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14071–5

Cleavage motifs of the yeast 20S proteasome beta subunits deduced from digests of enolase 1. Nussbaum AK, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12504–9

The three yeast A kinases have specific signaling functions in pseudohyphal growth. Robertson LS, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13783–7

Endoplasmic reticulum membrane localization of Rce1p and Ste24p, yeast proteases involved in carboxyl-terminal CAAX protein processing and amino-terminal a-factor cleavage. Schmidt WK, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11175–80

Conservation in budding yeast of a kinase specific for SR splicing factors. Siebel CW, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5440–5

Expression of a soybean cytochrome P450 monooxygenase cDNA in yeast and tobacco enhances the metabolism of phenylurea herbicides. Siminszky B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1750–5

A functional homolog of a yeast tRNA splicing enzyme is conserved in higher eukaryotes and in Escherichia coli. Spinelli SL, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14136–41

Mitochondrial Lon of Saccharomyces cerevisiae is a ring-shaped protease with seven flexible subunits. Stahlberg H, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6787–90

RNA polymerase switch in transcription of yeast rDNA: role of transcription factor UAF (upstream activation factor) in silencing rDNA transcription by RNA polymerase II. Vu L, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13; 96(8):4390–5

Production, purification, and luminometric analysis of recombinant Saccharomyces cerevisiae MET3 adenosine triphosphate sulfurylase expressed in Escherichia coli. Karamohamed S, et al. **Protein Expr Purif** 1999 Apr; 15(3):381–8

The Schiff base complex of yeast 5-aminolaevulinic acid dehydratase with laevulinic acid. Erskine PT, et al. **Protein Sci** 1999 Jun;8(6):1250–6

The Ubp6 family of deubiquitinating enzymes contains a ubiquitin-like domain: SUb. Wyndham AM, et al. **Protein Sci** 1999 Jun;8(6):1268–75

The yeast Saccharomyces cerevisiae YDL112w ORF encodes the putative 2'-O-ribose methyltransferase catalyzing the formation of Gm18 in tRNAs. Cavaillé J, et al. **RNA** 1999 Jan;5(1):66–81

Multisite-specific tRNA:m5C-methyltransferase (Trm4) in yeast Saccharomyces cerevisiae: identification of the gene and substrate specificity of the enzyme. Motorin Y, et al. **RNA** 1999 Aug;5(8):1105–18

Efficient bypass of a thymine-thymine dimer by yeast DNA polymerase, Poleta. Johnson RE, et al. **Science** 1999 Feb 12;283(5404):1001–4

Mutations that cause threonine sensitivity identify catalytic and regulatory regions of the aspartate kinase of Saccharomyces cerevisiae. Arévalo-Rodriguez M, et al. **Yeast** 1999 Sep 30;15(13):1331–45

Signalling between mitochondria and the nucleus regulates the expression of a new D-lactate dehydrogenase activity in yeast. Chelstowska A, et al. **Yeast** 1999 Sep 30; 15(13):1377–91

Regulated expression of the Saccharomyces cerevisiae Fre1p/Fre2p Fe/Cu reductase related genes. Georgatsou E, et al. **Yeast** 1999 May;15(7):573–84

Cloning, sequence analysis and overexpression of a Saccharomyces cerevisiae endopolygalacturonase-encoding gene (PGL1). Gognies S, et al. **Yeast** 1999 Jan 15;15(1):11–22

Deletion of the carbonic anhydrase-like gene NCE103 of the yeast Saccharomyces cerevisiae causes an oxygen-sensitive growth defect. Götz R, et al. **Yeast** 1999 Jul;15(10A):855–64

A proposal for nomenclature of aldehyde dehydrogenases in Saccharomyces cerevisiae and characterization of the stress-inducible ALD2 and ALD3 genes. Navarro-Aviño JP, et al. **Yeast** 1999 Jul;15(10A):829–42

A spheroplast rate assay for determination of cell wall integrity in yeast. Ovalle R, et al. **Yeast** 1998 Sep 30; 14(13):1159–66

Identification and characterization of individual cyclin-dependent kinase complexes from Saccharomyces cerevisiae. Shellman YG, et al. **Yeast** 1999 Mar 15; 15(4):295–309

Systematic identification, classification, and characterization of the open reading frames which encode novel helicase-related proteins in Saccharomyces cerevisiae by gene disruption and Northern analysis. Shiratori A, et al. **Yeast** 1999 Feb;15(3):219–53

The three copies of the ATP1 gene are arranged in tandem on chromosome II of Saccharomyces cerevisiae S288C. Takeda M, et al. **Yeast** 1999 Jul;15(10A):873–8

Identification of lysine350 of yeast deoxyhypusine synthase as the site of enzyme intermediate formation. Wolff EC, et al. **Yeast** 1999 Jan 15;15(1):43–50

Phosphorylase phosphatase activity in Saccharomyces cerevisiae 257. Christova N, et al. **Z Naturforsch [C]** 1998 Nov-Dec;53(11-12):951–6

Guanosine 3':5'-cyclic monophosphate-dependent particulate protein kinase activity from yeast (Saccharomyces cerevisiae). Eckstein H, et al. **Z Naturforsch [C]** 1999 Jan-Feb;54(1-2):84–93

Effects of trehalose and ethanol on yeast cytosolic pyrophosphatase. Lopes DH, et al. **Z Naturforsch [C]** 1999 Mar-Apr;54(3-4):186–90

[Effect if 6-week nutritional intervention with enzymatic yeast cells and antioxidants on exercise stress and antioxidant status] König D, et al. **Wien Med Wochenschr** 1999;149(1):13–8 (Eng. Abstr.) **(Ger)**

[Mechanism of stress response and gene expression of glyoxalase I in yeast] Inoue Y. **Seikagaku** 1998 Oct; 70(10):1278–83 (18 ref.) **(Jpn)**

[Structure and function of the yeast 26S proteasome] Tohe A. **Seikagaku** 1999 Mar;71(3):173–81 (51 ref.) **(Jpn)**

[The cloning and expression of the gene for beta-galactosidase from Candida pseudotropicalis yeasts in Saccharomyces cerevisiae cells] Tretiak KA, et al. **Mikrobiol Z** 1998 Jul-Aug;60(4):57–66 (Eng. Abstr.) **(Rus)**

GENETICS

Sequencing and functional analysis of the yeast genome. Zagulski M, et al. **Acta Biochim Pol** 1998;45(3):627–43 (52 ref.)

The yeast connection to Friedreich ataxia. Knight SA, et al. **Am J Hum Genet** 1999 Feb;64(2):365–71 (32 ref.)

Quantitative aspects of the use of bacterial chloramphenicol acetyltransferase as a reporter system in the yeast Saccharomyces cerevisiae. Alipour H, et al. **Anal Biochem** 1999 May 15;270(1):153–8

Fidelity of retrotransposon replication. Gabriel A, et al. **Ann N Y Acad Sci** 1999 May 18;870:108–18 (35 ref.)

EXO1 of Saccharomyces cerevisiae functions in mutagenesis during double-strand break repair. Holbeck SL, et al. **Ann N Y Acad Sci** 1999 May 18;870:375–7

Mating-type gene switching in Saccharomyces cerevisiae. Haber JE. **Annu Rev Genet** 1998;32:561–99 (226 ref.)

Genetic and fermentation properties of the K2 killer yeast, Saccharomyces cerevisiae T206. Franken DB, et al. **Antonie Van Leeuwenhoek** 1998 Apr;73(3):263–9

Expression of the Escherichia coli pntA and pntB genes, encoding nicotinamide nucleotide transhydrogenase, in Saccharomyces cerevisiae and its effect on product formation during anaerobic glucose fermentation.

Anderlund M, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2333–40

Elevated growth of Saccharomyces cerevisiae ATH1 null mutants on glucose is an artifact of nonmatching auxotrophies of mutant and reference strains. Chopra R, et al. **Appl Environ Microbiol** 1999 May;65(5):2267–8

Purification and properties of an esterase from the yeast Saccharomyces cerevisiae and identification of the encoding gene. Degrassi G, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3470–2

Threonine overproduction in yeast strains carrying the HOM3–R2 mutant allele under the control of different inducible promoters. Farfán MJ, et al. **Appl Environ Microbiol** 1999 Jan;65(1):110–6

Expression of an Aspergillus niger phytase gene (phyA) in Saccharomyces cerevisiae. Han Y, et al. **Appl Environ Microbiol** 1999 May;65(5):1915–8

Genetic evidence that high noninduced maltase and maltose permease activities, governed by MALx3–encoded transcriptional regulators, determine efficiency of gas production by baker's yeast in unsugared dough. Higgins VJ, et al. **Appl Environ Microbiol** 1999 Feb;65(2):680–5

Analysis and dynamics of the chromosomal complements of wild sparkling–wine yeast strains. Nadal D, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1688–95

Stress tolerance in doughs of Saccharomyces cerevisiae trehalase mutants derived from commercial Baker's yeast. Shima J, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):2841–6

Construction of a flocculent Saccharomyces cerevisiae fermenting lactose. Domingues L, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):621–6

Efficient production of intact human parathyroid hormone in a Saccharomyces cerevisiae mutant deficient in yeast aspartic protease 3 (YAP3). Kang HA, et al. **Appl Microbiol Biotechnol** 1998 Aug;50(2):187–92

Development of an arming yeast strain for efficient utilization of starch by co–display of sequential amylolytic enzymes on the cell surface. Murai T, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):65–70

Anaerobic growth and improved fermentation of Pichia stipitis bearing a URA1 gene from Saccharomyces cerevisiae. Shi NQ, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):339–45

Yeast mutants of glucose metabolism with defects in the coordinate regulation of carbon assimilation. Dennis RA, et al. **Arch Biochem Biophys** 1999 May 15;365(2):279–88

A region of the cellobiohydrolase I promoter from the filamentous fungus Trichoderma reesei mediates glucose repression in Saccharomyces cerevisiae, dependent on mitochondrial activity. Carraro DM, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):407–14

Med8, a subunit of the mediator CTD complex of RNA polymerase II, directly binds to regulatory elements of SUC2 and HXK2 genes. Chaves RS, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):345–50

Preliminary characterization of Yor180Cp: identification of a novel peroxisomal protein of saccharomyces cerevisiae involved in fatty acid metabolism. Geisbrecht BV, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):28–34

Functional expression of the tandem–repeated homodimer of the mitochondrial ADP/ATP carrier in Saccharomyces cerevisiae. Hatanaka T, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):726–30

Identification of a site of Hsp27 binding with Hsp27 and alpha B–crystallin as indicated by the yeast two–hybrid system. Liu C, et al. **Biochem Biophys Res Commun** 1999 Feb 16; 255(2):256–61

Complementation of the fol2 deletion in Saccharomyces cerevisiae by human and Escherichia coli genes encoding GTP cyclohydrolase I. Mancini R, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):521–7

Heterologous expression of Mucor rouxii delta(12)–desaturase gene in Saccharomyces cerevisiae. Passorn S, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):47–51

Adenylosuccinate synthase from Saccharomyces cerevisiae: homologous overexpression, purification and characterization of the recombinant protein. Lipps G, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):537–43

Identification and characterization of Saccharomyces cerevisiae yapsin 3, a new member of the yapsin family of aspartic proteases encoded by the YPS3 gene. Olsen V, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):407–11

Functional production and reconstitution of the human equilibrative nucleoside transporter (hENT1) in Saccharomyces cerevisiae. Interaction of inhibitors of nucleoside transport with recombinant hENT1 and a glycosylation–defective derivative (hENT1/N48Q). Vickers MF, et al. **Biochem J** 1999 Apr 1;339 (Pt 1):21–32

Transcription factor GCN4 for control of amino acid biosynthesis also regulates the expression of the gene for lipoamide dehydrogenase. Zaman Z, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):855–62

Expression of the divergent transcription unit containing the yeast PET122 and OXA1 genes. Marathe SV, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):971–7

Amyloid fibres of Sup35 support a prion–like mechanism of inheritance in yeast. Lindquist S, et al. **Biochem Soc Trans** 1998 Aug;26(3):486–90 (24 ref.)

Nucleotide sequences surrounding the nonanucleotide promoter motif influence the activity of yeast mitochondrial promoter. Biswas TK. **Biochemistry** 1999 Jul 27;38(30):9693–703

Evidence for altered ion transport in Saccharomyces cerevisiae overexpressing human MDR 1 protein. Fritz F, et al. **Biochemistry** 1999 Mar 30;38(13):4214–26

The PLB2 gene of Saccharomyces cerevisiae confers resistance to lysophosphatidylcholine and encodes a phospholipase B/lysophospholipase. Fyrst H, et al. **Biochemistry** 1999 May 4;38(18):5864–71

DNA ligation during excision repair in yeast cell–free extracts is specifically catalyzed by the CDC9 gene product. Wu X, et al. **Biochemistry** 1999 Mar 2; 38(9):2628–35

Purification and characterization of P33 protein of Candida utilis homologous to bgl2p of Saccharomyces cerevisiae; comparative analysis of the role of these proteins in molecular organization of the yeast cell walls. Kalebina TS, et al. **Biochemistry (Mosc)** 1998 Dec;63(12):1419–23

The PLC1 encoded phospholipase C in the yeast Saccharomyces cerevisiae is essential for glucose–induced phosphatidylinositol turnover and activation of plasma membrane H+–ATPase. Coccetti P, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1–3):147–54

Saccharomyces cerevisiae MLF3/YNL074C gene, encoding a serine–rich protein of unknown function, determines the level of resistance to the novel immunosuppressive drug leflunomide. Fujimura HA. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):415–8

Transcriptional regulation of the squalene synthase gene (ERG9) in the yeast Saccharomyces cerevisiae. Kennedy MA, et al. **Biochim Biophys Acta** 1999 Apr 14; 1445(1):110–22

ALG gene expression and cell cycle progression. Kukuruzinska MA, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):359–72 (79 ref.)

Identification of a gene, SOO1, which complements osmo–sensitivity and defect in in vitro beta1,3–glucan synthase activity in Saccharomyces cerevisiae. Lee DW, et al. **Biochim Biophys Acta** 1999 Jun 8;1450(2):145–54

Ibd1p, a possible spindle pole body associated protein, regulates nuclear division and bud separation in Saccharomyces cerevisiae. Lee J, et al. **Biochim Biophys Acta** 1999 Apr 1;1449(3):239–53

Characterization of non–dominant lethal mutations in the yeast plasma membrane H+–ATPase gene. Martin–Castillo B, et al. **Biochim Biophys Acta** 1999 Feb 4;1417(1):32–6

The involvement of mnn4 and mnn6 mutations in mannosylphosphorylation of O–linked oligosaccharide in yeast Saccharomyces cerevisiae. Nakayama K, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):255–62

Modulation of oxidative phosphorylation of human kidney 293 cells by transfection with the internal rotenone–insensitive NADH–quinone oxidoreductase (NDI1) gene of Saccharomyces cerevisiae. Seo BB, et al. **Biochim Biophys Acta** 1999 May 26;1412(1):56–65

A yeast strain defective in oleic acid utilization has a mutation in the RML2 gene. Trotter PJ, et al. **Biochim Biophys Acta** 1999 May 18;1438(2):223–38

How do yeast cells sense glucose? Kruckeberg AL, et al. **Bioessays** 1998 Dec;20(12):972–6 (36 ref.)

Characterization of Saccharomyces cerevisiae ubiquinone–deficient mutants. Schultz JR, et al. **Biofactors** 1999;9(2–4):121–9

Activation of DNA replication in yeast by recruitment of the RNA polymerase II transcription complex. Stagljar I, et al. **Biol Chem** 1999 May;380(5):525–30

Selective A1–adenosine receptor antagonists identified using yeast Saccharomyces cerevisiae functional assays. Campbell RM, et al. **Bioorg Med Chem Lett** 1999 Aug 16; 9(16):2413–8

Functional analysis of the promoter of the yeast SNQ2 gene encoding a multidrug resistance transporter that confers the resistance to 4–nitroquinoline N–oxide. Cui Z, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):162–7

Development of a green fluorescent protein reporter for a yeast genotoxicity biosensor. Billinton N, et al. **Biosens Bioelectron** 1998 Oct 1;13(7–8):831–8

Shuttle–vector system for Saccharomyces cerevisiae designed to produce C–terminal–Myc–tagged fusion proteins. Iha H, et al. **Biotechniques** 1998 Dec;25(6):936–8

Application of the green fluorescent protein as a reporter for Ace1–based, two–hybrid studies. Mayer G, et al. **Biotechniques** 1999 Jul;27(1):86–8, 92–4

Nonselective colony–color assays for HIS3, LEU2, LYS2, TRP1 and URA3 in ade2 yeast strains using media with limiting nutrients. Myers TA, et al. **Biotechniques** 1999 May;26(5):850–4

Cryopreserved yeast cells suitable for routine, small–scale transformations [published erratum appears in Biotechniques 1999 Apr;26(4):716] Tan SL, et al. **Biotechniques** 1998 Nov;25(5):792–4, 796

Catabolite repression mutants of Saccharomyces cerevisiae show altered fermentative metabolism as well as cell cycle behavior in glucose–limited chemostat cultures. Aon MA, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):203–13

Enhanced secretion of human granulocyte colony–stimulating factor directed by a novel hybrid fusion peptide from recombinant Saccharomyces cerevisiae at high cell concentration. Bae CS, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):600–9

Simple generic model for dynamic experiments with Saccharomyces cerevisiae in continuous culture: decoupling between anabolism and catabolism. Duboc P, et al. **Biotechnol Bioeng** 1998 Oct 20;60(2):180–9

Virus–like particle analysis in yeast homogenate using a laser light–scattering assay. Tsoka S, et al. **Biotechnol Bioeng** 1999 May 5;63(3):290–7

Stable high–copy–number integration of Aspergillus oryzae alpha–AMYLASE cDNA in an industrial baker's yeast strain. Nieto A, et al. **Biotechnol Prog** 1999 May–Jun; 15(3):459–66

Quantitative model for Gal4p–mediated expression of the galactose/melibiose regulon in Saccharomyces cerevisiae. Venkatesh KV, et al. **Biotechnol Prog** 1999 Jan–Feb; 15(1):51–7

First characterization of the gene RGD1 in the yeast Saccharomyces cerevisiae. Barthe C, et al. **C R Acad Sci III** 1998 Jun;321(6):453–62

HRad17, a human homologue of the Schizosaccharomyces pombe checkpoint gene rad17, is overexpressed in colon carcinoma. Bao S, et al. **Cancer Res** 1999 May 1; 59(9):2023–8

Tethering a type IB topoisomerase to a DNA site by enzyme fusion to a heterologous site–selective DNA–binding protein domain. Beretta GL, et al. **Cancer Res** 1999 Aug 1;59(15):3689–97

The human p53 negative regulatory domain mediates inhibition of reporter gene transactivation in yeast lacking thioredoxin reductase. Merrill GF, et al. **Cancer Res** 1999 Jul 1;59(13):3175–9

Ordered recruitment of transcription and chromatin remodeling factors to a cell cycle– and developmentally regulated promoter. Cosma MP, et al. **Cell** 1999 Apr 30; 97(3):299–311

Double–strand break repair in yeast requires both leading and lagging strand DNA polymerases. Holmes AM, et al. **Cell** 1999 Feb 5;96(3):415–24

A central role for cohesins in sister chromatid cohesion, formation of axial elements, and recombination during yeast meiosis. Klein F, et al. **Cell** 1999 Jul 9;98(1):91–103

Relocalization of telomeric Ku and SIR proteins in response to DNA strand breaks in yeast. Martin SG, et al. **Cell** 1999 May 28;97(5):621–33

MEC1–dependent redistribution of the Sir3 silencing protein from telomeres to DNA double–strand breaks. Mills KD, et al. **Cell** 1999 May 28;97(5):609–20

Pch2 links chromatin silencing to meiotic checkpoint control. San–Segundo PA, et al. **Cell** 1999 Apr 30;97(3):313–24

Identification of cohesin association sites at centromeres and along chromosome arms. Tanaka T, et al. **Cell** 1999 Sep 17;98(6):847–58

Complex formation and functional versatility of Mre11 of budding yeast in recombination. Usui T, et al. **Cell** 1998 Nov 25;95(5):705–16

A disrupted homologue of the human CLN3 or juvenile neuronal ceroid lipofuscinosis gene in Saccharomyces cerevisiae: a model to study Batten disease. Guo WX, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):671–80

Telomerase, Ku, and telomeric silencing in Saccharomyces cerevisiae. Evans SK, et al. **Chromosoma** 1998 Dec; 107(6–7):352–8

The ZDS1 and ZDS2 proteins require the Sir3p component of yeast silent chromatin to enhance the stability of short linear centromeric plasmids. Roy N, et al. **Chromosoma** 1999 Jul;108(3):146–61

Regulation of tubulin polypeptides and microtubule function: Luv1p [correction of Rki1p] interacts with the beta–tubulin binding protein Rbl2p [published erratum appears in Chromosoma 1999 Apr;108(1):72] Smith AM, et al. **Chromosoma** 1998 Dec;107(6–7):471–8

The yeast genome and clinical genetics. Hieter P. **Clin Genet** 1998 Aug;54(2):113–6 (17 ref.)

The yeast RNA polymerase III transcription machinery: a paradigm for eukaryotic gene activation. Chédin S, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:381–9 (103 ref.)

Targeting Sir proteins to sites of action: a general mechanism for regulated repression. Cockell M, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:401–12 (59 ref.)

In vivo functions of histone acetylation/deacetylation in Tup1p repression and Gcn5p activation. Edmondson DG, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:459–68

Specificity of ATP–dependent chromatin remodeling at the yeast PHO5 promoter. Haswell ES, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:563–7

Mechanism and regulation of yeast RNA polymerase II transcription. Kornberg RD. **Cold Spring Harb Symp Quant Biol** 1998;63:229–32 (26 ref.)

Activation and repression mechanisms in yeast. Struhl K, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:413–21 (66 ref.)

Gene regulation by the yeast Ssn6–Tup1 corepressor. Wahi M, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:447–57

The SAGA of Spt proteins and transcriptional analysis in yeast: past, present, and future. Winston F, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:553–61 (59 ref.)

Promoter analysis of co–regulated genes in the yeast genome. Zhang MQ. **Comput Chem** 1999 Jun 15;23(3–4):233–50

Localization and anchoring of mRNA in budding yeast. Beach DL, et al. **Curr Biol** 1999 Jun 3;9(11):569–78

Functional counterparts of mammalian protein kinases PDK1 and SGK in budding yeast. Casamayor A, et al. **Curr Biol** 1999 Feb 25;9(4):186–97

Replication conrol: choreographing replication origins.

Diffley JF. **Curr Biol** 1998 Oct 22;8(21):R771–3 (10 ref.)

The essential schizosaccharomyces pombe cdc23 DNA replication gene shares structural and functional homology with the Saccharomyces cerevisiae DNA43 (MCM10) gene. Aves SJ, et al. **Curr Genet** 1998 Sep;34(3):164–71

Involvement of the Saccharomyces cerevisiae UTH1 gene in the oxidative-stress response. Bandara PD, et al. **Curr Genet** 1998 Oct;34(4):259–68

Genetic and functional relationship between Rvsp, myosin and actin in Saccharomyces cerevisiae. Breton AM, et al. **Curr Genet** 1998 Oct;34(4):280–6

Molecular cloning and genetic characterization of the Saccharomyces cerevisiae NGS1/MRE11 gene. Chamankhah M, et al. **Curr Genet** 1998 Dec;34(5):368–74

Gene-conversion tract directionality is influenced by the chromosome environment. Cho JW, et al. **Curr Genet** 1998 Oct;34(4):269–79

A calcium-dependent ergosterol mutant of Saccharomyces cerevisiae. Crowley JH, et al. **Curr Genet** 1998 Aug; 34(2):93–9

The PNM2 mutation in the prion protein domain of SUP35 has distinct effects on different variants of the [PSI+] prion in yeast. Derkatch IL, et al. **Curr Genet** 1999 Mar; 35(2):59–67

RPD3 (REC3) mutations affect mitotic recombination in Saccharomyces cerevisiae. Dora EG, et al. **Curr Genet** 1999 Mar;35(2):68–76

The influence of mutation rad57-1 on the fidelity of DNA double-strand gap repair in Saccharomyces cerevisiae. Glasunov AV, et al. **Curr Genet** 1999 Jan;34(6):430–7

YNT20, a bypass suppressor of yme1 yme2, encodes a putative 3'-5' exonuclease localized in mitochondria of Saccharomyces cerevisiae. Hanekamp T, et al. **Curr Genet** 1999 Jan;34(6):438–48

Leu343Phe substitution in the Malx3 protein of Saccharomyces cerevisiae increases the constitutivity and glucose insensitivity of MAL gene expression. Higgins VJ, et al. **Curr Genet** 1999 Jun;35(5):491–8

Identification and functional analysis of a Kluyveromyces lactis homologue of the SPT4 gene of Saccharomyces cerevisiae. Hikkel I, et al. **Curr Genet** 1998 Dec;34(5):375–8

GRC5 and NMD3 function in translational control of gene expression and interact genetically. Karl T, et al. **Curr Genet** 1999 Jan;34(6):419–29

Ace2p, a regulator of CTS1 (chitinase) expression, affects pseudohyphal production in Saccharomyces cerevisiae. King L, et al. **Curr Genet** 1998 Sep;34(3):183–91

C-terminal truncation of the Sup35 protein increases the frequency of de novo generation of a prion-based [PSI+] determinant in Saccharomyces cerevisiae. Kochneva-Pervukhova NV, et al. **Curr Genet** 1998 Aug; 34(2):146–51

Molecular and biochemical analysis of Saccharomyces cerevisiae cox1 mutants. Lemaire C, et al. **Curr Genet** 1998 Aug;34(2):138–45

Starvation in yeast increases non-adaptive mutation. Marini A, et al. **Curr Genet** 1999 Mar;35(2):77–81

The Saccharomyces cerevisiae gene PSO5/RAD16 is involved in the regulation of DNA damage-inducible genes RNR2 and RNR3. Paesi-Toresan SO, et al. **Curr Genet** 1998 Aug;34(2):124–7

Expression of MFA1 and STE6 is sufficient for mating type-independent secretion of yeast a-factor, but not mating competence. Quinby GE, et al. **Curr Genet** 1999 Feb;35(1):1–7

Azf1p is a nuclear-localized zinc-finger protein that is preferentially expressed under non-fermentative growth conditions in Saccharomyces cerevisiae. Stein T, et al. **Curr Genet** 1998 Oct;34(4):287–96

Strand interruptions confer strand preference during intracellular correction of a plasmid-borne mismatch in Saccharomyces cerevisiae. Yang Y, et al. **Curr Genet** 1999 Jun;35(5):499–505

Quantitation of the effects of disruption of catabolite (de)repression genes on the cell cycle behavior of Saccharomyces cerevisiae. Aon MA, et al. **Curr Microbiol** 1999 Jan;38(1):57–60

The Saccharomyces cerevisiae mevalonate diphosphate decarboxylase (erg19p) forms homodimers in vivo, and a single substitution in a structurally conserved region impairs dimerization. Cordier H, et al. **Curr Microbiol** 1999 May;38(5):290–4

Increased activity of wall hydrolytic enzymes may explain the phenotype of Saccharomyces cerevisiae fragile mutants. Ruiz-Herrera J, et al. **Curr Microbiol** 1998 Dec;37(6):365–7

Production of G-protein-coupled receptors in yeast. Reiländer H, et al. **Curr Opin Biotechnol** 1998 Oct; 9(5):510–7 (46 ref.)

Progress and variations in two-hybrid and three-hybrid technologies. Drees BL. **Curr Opin Chem Biol** 1999 Feb; 3(1):64–70 (47 ref.)

Identification and characterization of STK12/Aik2: a human gene related to aurora of Drosophila and yeast IPL1. Kimura M, et al. **Cytogenet Cell Genet** 1998;82(3–4):147–52

Identifying sites of replication initiation in yeast chromosomes: looking for origins in all the right places. van Brabant AJ, et al. **Electrophoresis** 1998 Jun; 19(8–9):1239–46

Sister chromatid-based DNA repair is mediated by RAD54, not by DMC1 or TID1. Arbel A, et al. **EMBO J** 1999 May 4;18(9):2648–58

Multiple transcriptional activation complexes tether the yeast activator Met4 to DNA. Blaiseau PL, et al. **EMBO J** 1998 Nov 2;17(21):6327–36

The yeast U2A'/U2B complex is required for pre-spliceosome formation. Caspary F, et al. **EMBO J** 1998 Nov 2;17(21):6348–58

Partial purification of the yeast U2 snRNP reveals a novel yeast pre-mRNA splicing factor required for pre-spliceosome assembly. Caspary F, et al. **EMBO J** 1999 Jun 15;18(12):3463–74

Translation termination efficiency can be regulated in Saccharomyces cerevisiae by environmental stress through a prion-mediated mechanism. Eaglestone SS, et al. **EMBO J** 1999 Apr 1;18(7):1974–81

Cohabitation of insulators and silencing elements in yeast subtelomeric regions. Fourel G, et al. **EMBO J** 1999 May 4;18(9):2522–37

Distinct roles of two separable in vitro activities of yeast Mre11 in mitotic and meiotic recombination. Furuse M, et al. **EMBO J** 1998 Nov 2;17(21):6412–25

Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway. Gonzalez TN, et al. **EMBO J** 1999 Jun 1;18(11):3119–32

Identification and analysis of PH domain-containing targets of phosphatidylinositol 3-kinase using a novel in vivo assay in yeast. Isakoff SJ, et al. **EMBO J** 1998 Sep 15; 17(18):5374–87

Mechanism of inhibition of Psi+ prion determinant propagation by a mutation of the N-terminus of the yeast Sup35 protein. Kochneva-Pervukhova NV, et al. **EMBO J** 1998 Oct 1;17(19):5805–10

Epistatic interactions of deletion mutants in the genes encoding the F1-ATPase in yeast Saccharomyces cerevisiae. Lai-Zhang J, et al. **EMBO J** 1999 Jan 4; 18(1):58–64

DNA damage checkpoint in budding yeast. Longhese MP, et al. **EMBO J** 1998 Oct 1;17(19):5525–8 (29 ref.)

Progressive cis-inhibition of telomerase upon telomere elongation. Marcand S, et al. **EMBO J** 1999 Jun 15; 18(12):3509–19

Transcriptional repression of the yeast CHA1 gene requires the chromatin-remodeling complex RSC. Moreira JM, et al. **EMBO J** 1999 May 17;18(10):2836–44

The yeast poly(A)-binding protein Pab1p stimulates in vitro poly(A)-dependent and cap-dependent translation by distinct mechanisms. Otero LJ, et al. **EMBO J** 1999 Jun 1;18(11):3153–63

A role for a replicator dominance mechanism in silencing. Palacios DeBeer MA, et al. **EMBO J** 1999 Jul 1; 18(13):3808–19

Limitations of silencing at native yeast telomeres. Pryde FE, et al. **EMBO J** 1999 May 4;18(9):2538–50

Mutations in both the structured domain and N-terminus of histone H2B bypass the requirement for Swi-Snf in yeast. Recht J, et al. **EMBO J** 1999 Jan 4;18(1):229–40

MAP kinase and cAMP filamentation signaling pathways converge on the unusually large promoter of the yeast FLO11 gene. Rupp S, et al. **EMBO J** 1999 Mar 1; 18(5):1257–69

Sm and Sm-like proteins assemble in two related complexes of deep evolutionary origin. Salgado-Garrido J, et al. **EMBO J** 1999 Jun 15;18(12):3451–62

Accumulation of mitochondrially synthesized Saccharomyces cerevisiae Cox2p and Cox3p depends on targeting information in untranslated portions of their mRNAs. Sanchirico ME, et al. **EMBO J** 1998 Oct 1; 17(19):5796–804

tRNA prefers to kiss. Scarabino D, et al. **EMBO J** 1999 Aug 16;18(16):4571–8

Srb/mediator proteins interact functionally and physically with transcriptional repressor Sfl1. Song W, et al. **EMBO J** 1998 Oct 1;17(19):5757–65

The nucleosome remodeling complex, Snf/Swi, is required for the maintenance of transcription in vivo and is partially redundant with the histone acetyltransferase, Gcn5. Sudarsanam P, et al. **EMBO J** 1999 Jun 1;18(11):3101–6

Post-termination ribosome interactions with the 5'UTR modulate yeast mRNA stability. Vilela C, et al. **EMBO J** 1999 Jun 1;18(11):3139–52

Sporulation-specific expression of the yeast DIT1/DIT2 promoter is controlled by a newly identified repressor element and the short form of Rim101p. Bogengruber E, et al. **Eur J Biochem** 1998 Dec 1;258(2):430–6

In Saccharomyces cerevisae, feedback inhibition of homocitrate synthase isoenzymes by lysine modulates the activation of LYS gene expression by Lys14p. Feller A, et al. **Eur J Biochem** 1999 Apr;261(1):163–70

Screening of an intragenic second-site suppressor of purine-cytosine permease from Saccharomyces cerevisiae. Possible role of Ser272 in the base translocation process. Ferreira T, et al. **Eur J Biochem** 1999 Feb;260(1):22–30

Isolation of a cDNA from Arabidopsis thaliana that complements the sec14 mutant of yeast. Jouannic N, et al. **Eur J Biochem** 1998 Dec 1;258(2):402–10

The influence of 5' codon context on translation termination in Saccharomyces cerevisiae. Mottagui-Tabar S, et al. **Eur J Biochem** 1998 Oct 1;257(1):249–54

Polyproline binding is an essential function of human profilin in yeast. Ostrander DB, et al. **Eur J Biochem** 1999 May; 262(1):26–35

Genes of succinyl-CoA ligase from Saccharomyces cerevisiae. Przybyla-Zawislak B, et al. **Eur J Biochem** 1998 Dec 1;258(2):736–43

Identification of Delta12-fatty acid desaturase from arachidonic acid-producing mortierella fungus by heterologous expression in the yeast Saccharomyces cerevisiae and the fungus Aspergillus oryzae. Sakuradani E, et al. **Eur J Biochem** 1999 May;261(3):812–20

Functional complementation analysis of yeast bc1 mutants. A study of the mitochondrial import of heterologous and hybrid proteins. van Wilpe S, et al. **Eur J Biochem** 1999 Sep;264(3):825–32

Transcriptional activation by the Werner syndrome gene product in yeast. Ye L, et al. **Exp Gerontol** 1998 Nov–Dec; 33(7–8):805–12

Identification and characterization of YLR328W, the Saccharomyces cerevisiae structural gene encoding NMN adenylyltransferase. Expression and characterization of the recombinant enzyme. Emanuelli M, et al. **FEBS Lett** 1999 Jul 16;455(1–2):13–7

The complete sequence of the mitochondrial genome of Saccharomyces cerevisiae. Foury F, et al. **FEBS Lett** 1998 Dec 4;440(3):325–31

Low iron concentration and aconitase deficiency in a yeast frataxin homologue deficient strain. Foury F. **FEBS Lett** 1999 Aug 6;456(2):281–4

Cloning of an alpha-glucosidase gene from Thermococcus hydrothermalis by functional complementation of a Saccharomyces cerevisiae mal11 mutant strain. Galichet A, et al. **FEBS Lett** 1999 Sep 17;458(2):188–92

The aminoacceptor stem of the yeast tRNA(Lys) contains determinants of mitochondrial import selectivity. Kazakova HA, et al. **FEBS Lett** 1999 Jan 15;442(2–3):193–7

Overexpression of L-glutamine:D-fructose-6-phosphate amidotransferase provides resistance to methylmercury in Saccharomyces cerevisiae. Miura N, et al. **FEBS Lett** 1999 Sep 17;458(2):215–8

Mutational analysis of two Arabidopsis thaliana cyclin-dependent kinases in fission yeast [published erratum appears in FEBS Lett 1999 Jul 2;454(1–2):172] Porceddu A, et al. **FEBS Lett** 1999 Mar 5;446(1):182–8

Comparison of the effects of bax-expression in yeast under fermentative and respiratory conditions: investigation of the role of adenine nucleotides carrier and cytochrome c. Priault M, et al. **FEBS Lett** 1999 Aug 6;456(2):232–8

Multiple regulatory elements control the expression of the yeast ACR1 gene. Redruello B, et al. **FEBS Lett** 1999 Feb 26;445(2–3):246–50

Evidence that the gene YLR070c of Saccharomyces cerevisiae encodes a xylitol dehydrogenase. Richard P, et al. **FEBS Lett** 1999 Aug 20;457(1):135–8

Nuclear RNA export in yeast. Strässer K, et al. **FEBS Lett** 1999 Jun 4;452(1–2):77–81 (64 ref.)

The product of the mammalian orthologue of the Saccharomyces cerevisiae HBS1 gene is phylogenetically related to eukaryotic release factor 3 (eRF3) but does not carry eRF3-like activity. Wallrapp C, et al. **FEBS Lett** 1998 Dec 4;440(3):387–92

The Drosophila gene 2A5 complements the defect in mitochondrial F1-ATPase assembly in yeast lacking the molecular chaperone Atp11p. Wang ZG, et al. **FEBS Lett** 1999 Jun 11;452(3):305–8

Caspase-3 inhibits growth in Saccharomyces cerevisiae without causing cell death. Wright ME, et al. **FEBS Lett** 1999 Mar 5;446(1):9–14

NADH reoxidation does not control glycolytic flux during exposure of respiring Saccharomyces cerevisiae cultures to glucose excess. Brambilla L, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):133–40

Functional conservation between the argininosuccinate lyase of the archaeon Methanococcus maripaludis and the corresponding bacterial and eukaryal genes. Cohen-Kupiec R, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):231–8

Acquisition of aluminum tolerance in Saccharomyces cerevisiae by expression of the BCB or NtGDI1 gene derived from plants. Ezaki B, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):81–7

Degradation of Candida albicans Can1 permease expressed in Saccharomyces cerevisiae. Matějčková-Forejtová A, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):257–62

Saccharomyces cerevisiae ACR2 gene encodes an arsenate reductase. Mukhopadhyay R, et al. **FEMS Microbiol Lett** 1998 Nov 1;168(1):127–36

Fine structure of hepatitis B virus surface antigen produced by recombinant yeast: comparison with HBsAg of human origin. Yamaguchi M, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):363–7

Expression and secretion of Bacillus polymyxa neopullulanase in Saccharomyces cerevisiae. Yebra MJ, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):41–9

Chromatin and transcription in Saccharomyces cerevisiae. Pérez-Martín J. **FEMS Microbiol Rev** 1999 Jul; 23(4):503–23 (155 ref.)

Characterization of a human gene with sequence homology to Saccharomyces cerevisiae SIR2. Afshar G, et al. **Gene** 1999 Jun 24;234(1):161–8

YAH1 of Saccharomyces cerevisiae: a new essential gene that codes for a protein homologous to human adrenodoxin. Barros MH, et al. **Gene** 1999 Jun 11;233(1–2):197–203

Isolation of an Arabidopsis thaliana cDNA by complementation of a yeast abc1 deletion mutant deficient in complex III respiratory activity. Cardazzo B, et al. **Gene** 1998 Oct 9;221(1):117–25

'Mass-murder' of ORFs from three regions of chromosome XI from Saccharomyces cerevisiae. Fairhead C, et al.

Gene 1998 Nov 26;223(1-2):33-46

Cis-regulation of inter-allelic exchanges in mutation at human minisatellite MS205 in yeast. He Q, et al. **Gene** 1999 May 31;232(2):143-53

Functional expression of human and Arabidopsis protein phosphatase 2A in Saccharomyces cerevisiae and isolation of dominant-defective mutants. Lizotte DL, et al. **Gene** 1999 Jun 24;234(1):35-44

Expression cloning in Fe2+ transport defective yeast of a novel maize MYC transcription factor. Loulergue C, et al. **Gene** 1998 Dec 28;225(1-2):47-57

Overlapping 3'-end formation signals and ARS elements: tightly linked but functionally separable. Magrath C, et al. **Gene** 1998 Nov 5;222(1):69-75

Monitoring dynamics of gene expression in yeast during stationary phase. Paz I, et al. **Gene** 1999 Aug 5;236(1):33-42

Characterization of the biotin biosynthesis pathway in Saccharomyces cerevisiae and evidence for a cluster containing BIO5, a novel gene involved in vitamer uptake. Phalip V, et al. **Gene** 1999 May 17;232(1):43-51

Cloning, characterisation, and functional expression of the Mus musculus SKD1 gene in yeast demonstrates that the mouse SKD1 and the yeast VPS4 genes are orthologues and involved in intracellular protein trafficking. Scheuring S, et al. **Gene** 1999 Jun 24;234(1):149-59

Yeast tom1 mutant exhibits pleiotropic defects in nuclear division, maintenance of nuclear structure and nucleocytoplasmic transport at high temperatures. Utsugi T, et al. **Gene** 1999 Jul 8;234(2):285-95

NCL1, a novel gene for a non-essential nuclear protein in Saccharomyces cerevisiae. Wu P, et al. **Gene** 1998 Oct 5; 220(1-2):109-17

Mass-murdering: deletion of twenty-three ORFs from Saccharomyces cerevisiae chromosome XI reveals five genes essential for growth and three genes conferring detectable mutant phenotype. Wysocki R, et al. **Gene** 1999 Mar 18;229(1-2):37-45

DNA unwinding in the CYC1 and DED1 yeast promoters. Yagil G, et al. **Gene** 1998 Dec 28;225(1-2):153-62

The PY-motif of Bul1 protein is essential for growth of Saccharomyces cerevisiae under various stress conditions. Yashiroda H, et al. **Gene** 1998 Dec 28;225(1-2):39-46

Cre/loxP-mediated in vivo excision of large segments from yeast genome and their amplification based on the 2micron plasmid-derived system. Yoon YG, et al. **Gene** 1998 Nov 26;223(1-2):67-76

Deletion of 24 open reading frames from chromosome XI from Saccharomyces cerevisiae and phenotypic analysis of the deletants. Zúñiga S, et al. **Gene** 1999 Jun 11; 233(1-2):141-50

New cloning tools for the design of better transgenes. Vassaux G. **Gene Ther** 1999 Mar;6(3):307-8

Cell cycle dependent topological changes of chromosomal replication origins in Saccharomyces cerevisiae. Fujita M, et al. **Genes Cells** 1998 Nov;3(11):737-49

Meiotic behaviours of chromosomes and microtubules in budding yeast: relocalization of centromeres and telomeres during meiotic prophase. Hayashi A, et al. **Genes Cells** 1998 Sep;3(9):587-601

Nps1/Sth1p, a component of an essential chromatin-remodeling complex of Saccharomyces cerevisiae, is required for the maximal expression of early meiotic genes. Yukawa M, et al. **Genes Cells** 1999 Feb; 4(2):99-110

Synaptonemal complex morphogenesis and sister-chromatid cohesion require Mek1-dependent phosphorylation of a meiotic chromosomal protein. Bailis JM, et al. **Genes Dev** 1998 Nov 15;12(22):3551-63

UASrpg can function as a heterochromatin boundary element in yeast. Bi X, et al. **Genes Dev** 1999 May 1;13(9):1089-101

Collisions between yeast chromosomal loci in vivo are governed by three layers of organization. Burgess SM, et al. **Genes Dev** 1999 Jul 15;13(14):1871-83

Somatic pairing of homologs in budding yeast: existence and modulation. Burgess SM, et al. **Genes Dev** 1999 Jun 15; 13(12):1627-41

The RNA cleavage activity of RNA polymerase III is mediated by an essential TFIIS-like subunit and is important for transcription termination. Chédin S, et al. **Genes Dev** 1998 Dec 15;12(24):3857-71

Allele-specific genetic interactions between Prp8 and RNA active site residues suggest a function for Prp8 at the catalytic core of the spliceosome. Collins CA, et al. **Genes Dev** 1999 Aug 1;13(15):1970-82

The boundaries of the silenced HMR domain in Saccharomyces cerevisiae. Donze D, et al. **Genes Dev** 1999 Mar 15;13(6):698-708

Expansion and contraction of ribosomal DNA repeats in Saccharomyces cerevisiae: requirement of replication fork blocking (Fob1) protein and the role of RNA polymerase I. Kobayashi T, et al. **Genes Dev** 1998 Dec 15; 12(24):3821-30

Uncoupling of the hnRNP Npl3p from mRNAs during the stress-induced block in mRNA export. Krebber H, et al. **Genes Dev** 1999 Aug 1;13(15):1994-2004

Interaction of the U1 snRNP with nonconserved intronic sequences affects 5' splice site selection. Puig O, et al. **Genes Dev** 1999 Mar 1;13(5):569-80

Functional interactions of Prp8 with both splice sites at the spliceosomal catalytic center. Siatecka M, et al. **Genes Dev** 1999 Aug 1;13(15):1983-93

Metal ion catalysis during group II intron self-splicing: parallels with the spliceosome. Sontheimer EJ, et al. **Genes Dev** 1999 Jul 1;13(13):1729-41

Yeast telomeres exert a position effect on recombination between internal tracts of yeast telomeric DNA. Stavenhagen JB, et al. **Genes Dev** 1998 Oct 1; 12(19):3044-58

Telomeric chromatin modulates replication timing near chromosome ends. Stevenson JB, et al. **Genes Dev** 1999 Jan 15;13(2):146-51

Characterization of the imitation switch subfamily of ATP-dependent chromatin-remodeling factors in Saccharomyces cerevisiae. Tsukiyama T, et al. **Genes Dev** 1999 Mar 15;13(6):686-97

Isolation and characterization of the yeast las21 mutants, which are sensitive to a local anestheticum, tetracaine. Tohe A, et al. **Genes Genet Syst** 1998 Dec;73(6):365-75

Chromosome break-induced DNA replication leads to nonreciprocal translocations and telomere capture. Bosco G, et al. **Genetics** 1998 Nov;150(3):1037-47

Alteration of N-terminal phosphoesterase signature motifs inactivates Saccharomyces cerevisiae Mre11. Bressan DA, et al. **Genetics** 1998 Oct;150(2):591-600

The role of the mismatch repair machinery in regulating mitotic and meiotic recombination between diverged sequences in yeast. Chen W, et al. **Genetics** 1999 Apr; 151(4):1299-313

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315-25

Fus3p and Kss1p control G1 arrest in Saccharomyces cerevisiae through a balance of distinct arrest and proliferative functions that operate in parallel with Far1p. Cherkasova V, et al. **Genetics** 1999 Mar;151(3):989-1004

Removal of one nonhomologous DNA end during gene conversion by a RAD1- and MSH2-independent pathway. Colaiácovo MP, et al. **Genetics** 1999 Apr;151(4):1409-23

Accumulation of mRNA coding for the ctf13p kinetochore subunit of Saccharomyces cerevisiae depends on the same factors that promote rapid decay of nonsense mRNAs. Dahlseid JN, et al. **Genetics** 1998 Nov;150(3):1019-35

The anatomy of a hypoxic operator in Saccharomyces cerevisiae. Deckert J, et al. **Genetics** 1998 Dec; 150(4):1429-41

RAD53 regulates DBF4 independently of checkpoint function in Saccharomyces cerevisiae. Dohrmann PR, et al. **Genetics** 1999 Mar;151(3):965-77

Sth1p, a Saccharomyces cerevisiae Snf2p/Swi2p homolog, is an essential ATPase in RSC and differs from Snf/Swi in its interactions with histones and chromatin-associated proteins. Du J, et al. **Genetics** 1998 Nov;150(3):987-1005

Specific components of the SAGA complex are required for Gcn4- and Gcr1-mediated activation of the his4-912delta promoter in Saccharomyces cerevisiae. Dudley AM, et al. **Genetics** 1999 Apr;151(4):1365-78

Suppression of a nuclear aep2 mutation in Saccharomyces cerevisiae by a base substitution in the 5'-untranslated region of the mitochondrial oli1 gene encoding subunit 9 of ATP synthase. Ellis TP, et al. **Genetics** 1999 Apr; 151(4):1353-63

The yeast protein complex containing cdc68 and pob3 mediates core-promoter repression through the cdc68 N-terminal domain. Evans DR, et al. **Genetics** 1998 Dec; 150(4):1393-405

Relative dependence of different outputs of the Saccharomyces cerevisiae pheromone response pathway on the MAP kinase Fus3p. Farley FW, et al. **Genetics** 1999 Apr;151(4):1425-44

Radiosensitive and mitotic recombination phenotypes of the Saccharomyces cerevisiae dun1 mutant defective in DNA damage-inducible gene expression. Fasullo M, et al. **Genetics** 1999 Jul;152(3):909-19

Dna2 mutants reveal interactions with Dna polymerase alpha and Ctf4, a Pol alpha accessory factor, and show that full Dna2 helicase activity is not essential for growth. Formosa T, et al. **Genetics** 1999 Apr;151(4):1459-70

Spe3, which encodes spermidine synthase, is required for full repression through NRE(DIT) in Saccharomyces cerevisiae. Friesen H, et al. **Genetics** 1998 Sep;150(1):59-73

Role of Saccharomyces cerevisiae chromatin assembly factor-I in repair of ultraviolet radiation damage in vivo. Game JC, et al. **Genetics** 1999 Feb;151(2):485-97

A region of the Sir1 protein dedicated to recognition of a silencer and required for interaction with the Orc1 protein in saccharomyces cerevisiae. Gardner KA, et al. **Genetics** 1999 Jan;151(1):31-44

Lesions in many different spindle components activate the spindle checkpoint in the budding yeast Saccharomyces cerevisiae. Hardwick KG, et al. **Genetics** 1999 Jun; 152(2):509-18

Host genes that affect the target-site distribution of the yeast retrotransposon Ty1. Huang H, et al. **Genetics** 1999 Apr; 151(4):1393-407

Coordination of the initiation of recombination and the reductional division in meiosis in Saccharomyces cerevisiae. Jiao K, et al. **Genetics** 1999 May;152(1):117-28

Genetic interactions in yeast between Ypt GTPases and Arf guanine nucleotide exchangers. Jones S, et al. **Genetics** 1999 Aug;152(4):1543-56

Tempo and mode of Ty element evolution in Saccharomyces cerevisiae. Jordan IK, et al. **Genetics** 1999 Apr; 151(4):1341-51

Chromosome size-dependent control of meiotic reciprocal recombination in Saccharomyces cerevisiae: the role of crossover interference. Kaback DB, et al. **Genetics** 1999 Aug;152(4):1475-86

A mutation of the yeast gene encoding PCNA destabilizes both microsatellite and minisatellite DNA sequences. Kokoska RJ, et al. **Genetics** 1999 Feb;151(2):511-9

Repair of endonuclease-induced double-strand breaks in Saccharomyces cerevisiae: essential role for genes associated with nonhomologous end-joining. Lewis LK, et al. **Genetics** 1999 Aug;152(4):1513-29

POG1, a novel yeast gene, promotes recovery from pheromone arrest via the G1 cyclin CLN2. Leza MA, et al. **Genetics** 1999 Feb;151(2):531-43

Characterization of the Wsc1 protein, a putative receptor in the stress response of Saccharomyces cerevisiae. Lodder AL, et al. **Genetics** 1999 Aug;152(4):1487-99

Characterization of three related glucose repressors and genes they regulate in Saccharomyces cerevisiae. Lutfiyya LL, et al. **Genetics** 1998 Dec;150(4):1377-91

A mutation in GRS1, a glycyl-tRNA synthetase, affects 3'-end formation in Saccharomyces cerevisiae. Magrath C, et al. **Genetics** 1999 May;152(1):129-41

Novel mutations in the RAD3 and SSL1 genes perturb genome stability by stimulating recombination between short repeats in Saccharomyces cerevisiae. Maines S, et al. **Genetics** 1998 Nov;150(3):963-76

Characterization of an allele-nonspecific intragenic suppressor in the yeast plasma membrane H+-ATPase gene (Pma1). Maldonado AM, et al. **Genetics** 1998 Sep; 150(1):11-9

HMR-I is an origin of replication and a silencer in Saccharomyces cerevisiae. Rivier DH, et al. **Genetics** 1999 Feb;151(2):521-9

Suppressor analysis of the Saccharomyces cerevisiae gene REC104 reveals a genetic interaction with REC102. Salem L, et al. **Genetics** 1999 Apr;151(4):1261-72

Suppressor analysis of fimbrin (Sac6p) overexpression in yeast. Sandrock TM, et al. **Genetics** 1999 Apr; 151(4):1287-97

The effect of DNA replication mutations on CAG tract stability in yeast. Schweitzer JK, et al. **Genetics** 1999 Jul; 152(3):953-63

Evidence for the involvement of the Glc7-Reg1 phosphatase and the Snf1-Snf4 kinase in the regulation of INO1 transcription in Saccharomyces cerevisiae. Shirra MK, et al. **Genetics** 1999 May;152(1):73-87

The MSN1 and NHP6A genes suppress SWI6 defects in Saccharomyces cerevisiae. Sidorova J, et al. **Genetics** 1999 Jan;151(1):45-55

Identification of high-copy disruptors of telomeric silencing in Saccharomyces cerevisiae. Singer MS, et al. **Genetics** 1998 Oct;150(2):613-32

An allele of RFA1 suppresses RAD52-dependent double-strand break repair in Saccharomyces cerevisiae. Smith J, et al. **Genetics** 1999 Feb;151(2):447-58

A general requirement for the Sin3-Rpd3 histone deacetylase complex in regulating silencing in Saccharomyces cerevisiae. Sun ZW, et al. **Genetics** 1999 Jul;152(3):921-32

The [KIL-d] cytoplasmic genetic element of yeast results in epigenetic regulation of viral M double-stranded RNA gene expression. Tallóczy Z, et al. **Genetics** 1998 Sep; 150(1):21-30

Analysis of mutations in the yeast mRNA decapping enzyme. Tharun S, et al. **Genetics** 1999 Apr;151(4):1273-85

DNA sequence and functional analysis of homologous ARS elements of Saccharomyces cerevisiae and S. carlsbergensis. Theis JF, et al. **Genetics** 1999 Jul; 152(3):943-52

Genetic factors affecting the impact of DNA polymerase delta proofreading activity on mutation avoidance in yeast. Tran HT, et al. **Genetics** 1999 May;152(1):47-59

Interaction between the MEC1-dependent DNA synthesis checkpoint and G1 cyclin function in Saccharomyces cerevisiae. Vallen EA, et al. **Genetics** 1999 Feb; 151(2):459-71

CYS3, a hotspot of meiotic recombination in Saccharomyces cerevisiae. Effects of heterozygosity and mismatch repair functions on gene conversion and recombination intermediates. Vedel M, et al. **Genetics** 1999 Apr; 151(4):1245-59

Distinct steps in yeast spore morphogenesis require distinct SMK1 MAP kinase thresholds. Wagner M, et al. **Genetics** 1999 Apr;151(4):1327-40

Characterization of the repeat-tract instability and mutator phenotypes conferred by a Tn3 insertion in RFC1, the large subunit of the yeast clamp loader. Xie Y, et al. **Genetics** 1999 Feb;151(2):499-509

MGA2 or SPT23 is required for transcription of the delta9 fatty acid desaturase gene, OLE1, and nuclear membrane integrity in Saccharomyces cerevisiae. Zhang S, et al. **Genetics** 1999 Feb;151(2):473-83

Homologs of the yeast longevity gene LAG1 in Caenorhabditis elegans and human. Jiang JC, et al. **Genome Res** 1998 Dec;8(12):1259-72

Compositional heterogeneity within, and uniformity between, DNA sequences of yeast chromosomes. Li W, et al. **Genome Res** 1998 Sep;8(9):916-28

Large-scale taxonomic profiling of eukaryotic model organisms: a comparison of orthologous proteins encoded by the human, fly, nematode, and yeast genomes.

Mushegian AR, et al. **Genome Res** 1998 Jun;8(6):590–8

Isolation and characterization of human SGT and identification of homologues in Saccharomyces cerevisiae and Caenorhabditis elegans. Kordes E, et al. **Genomics** 1998 Aug 15;52(1):90–4

Novel human and mouse homologs of Saccharomyces cerevisiae DNA polymerase eta. McDonald JP, et al. **Genomics** 1999 Aug 15;60(1):20–30

Cloning and characterization of the human and Caenorhabditis elegans homologs of the Saccharomyces cerevisiae MSH5 gene. Winand NJ, et al. **Genomics** 1998 Oct 1;53(1):69–80

The Saccharomyces cerevisiae CWH8 gene is required for full levels of dolichol-linked oligosaccharides in the endoplasmic reticulum and for efficient N-glycosylation. van Berkel MA, et al. **Glycobiology** 1999 Mar;9(3):243–53

Expression and characterization of rat UDP-N-acetylglucosamine: alpha-3-D-mannoside beta-1,2-N-acetylglucosaminyltransferase I in Saccharomyces cerevisiae. Yoshida S, et al. **Glycobiology** 1999 Jan;9(1):53–8

Hereditary spastic paraplegia: mitochondrial metalloproteases of yeast. Pearce DA. **Hum Genet** 1999 Jun;104(6):443–8 (54 ref.)

Demonstration of the interaction of thioredoxin with p40phox, a phagocyte oxidase component, using a yeast two-hybrid system. Nishiyama A, et al. **Immunol Lett** 1999 May 3;68(1):155–9

Control of mRNA turnover as a mechanism of glucose repression in Saccharomyces cerevisiae. Scheffler IE, et al. **Int J Biochem Cell Biol** 1998 Nov;30(11):1175–93 (113 ref.)

Aroma improving in microvinification processes by the use of a recombinant wine yeast strain expressing the Aspergillus nidulans xlnA gene. Ganga MA, et al. **Int J Food Microbiol** 1999 Mar 15;47(3):171–8

The petite mutation in yeasts: 50 years on. Chen XJ, et al. **Int Rev Cytol** 2000;194:197–238 (256 ref.)

Characterization of Saccharomyces cerevisiae strains from spontaneously fermented maize dough by profiles of assimilation, chromosome polymorphism, PCR and MAL genotyping. Hayford AE, et al. **J Appl Microbiol** 1999 Feb; 86(2):284–94

Differentiation between brewing and non-brewing yeasts using a combination of PCR and RFLP. Yamagishi H, et al. **J Appl Microbiol** 1999 Mar;86(3):505–13

APT1, but not APT2, codes for a functional adenine phosphoribosyltransferase in Saccharomyces cerevisiae. Alfonzo JD, et al. **J Bacteriol** 1999 Jan;181(1):347–52

IncP plasmids are unusually effective in mediating conjugation of Escherichia coli and Saccharomyces cerevisiae: involvement of the tra2 mating system. Bates S, et al. **J Bacteriol** 1998 Dec;180(24):6538–43

Suppression of an Hsp70 mutant phenotype in Saccharomyces cerevisiae through loss of function of the chromatin component Sin1p/Spt2p. Baxter BK, et al. **J Bacteriol** 1998 Dec;180(24):6484–92

Control of nitrogen catabolite repression is not affected by the tRNAGln-CUU mutation, which results in constitutive pseudohyphal growth of Saccharomyces cerevisiae. Beeser AE, et al. **J Bacteriol** 1999 Apr;181(8):2472–6

The lactate-proton symport of Saccharomyces cerevisiae is encoded by JEN1. Casal M, et al. **J Bacteriol** 1999 Apr; 181(8):2620–3

Isolation and characterization of the Saccharomyces cerevisiae XPT1 gene encoding xanthine phosphoribosyl transferase. Guetsova ML, et al. **J Bacteriol** 1999 May; 181(9):2984–6

PRS5, the fifth member of the phosphoribosyl pyrophosphate synthetase gene family in Saccharomyces cerevisiae, is essential for cell viability in the absence of either PRS1 or PRS3. Hernando Y, et al. **J Bacteriol** 1998 Dec; 180(23):6404–7

Cloning and characterization of a sulfonate/alpha-ketoglutarate dioxygenase from Saccharomyces cerevisiae. Hogan DA, et al. **J Bacteriol** 1999 Sep;181(18):5876–9

SSB, encoding a ribosome-associated chaperone, is coordinately regulated with ribosomal protein genes. Lopez N, et al. **J Bacteriol** 1999 May;181(10):3136–43

Identification of two mannoproteins released from cell walls of a Saccharomyces cerevisiae mnn1 mnn9 double mutant by reducing agents. Moukadiri I, et al. **J Bacteriol** 1999 Aug;181(16):4741–5

The highly conserved, coregulated SNO and SNZ gene families in Saccharomyces cerevisiae respond to nutrient limitation [published erratum appears in J Bacteriol 1998 Dec;180(24):6794] Padilla PA, et al. **J Bacteriol** 1998 Nov; 180(21):5718–26

AGT1, encoding an alpha-glucoside transporter involved in uptake and intracellular accumulation of trehalose in Saccharomyces cerevisiae. Plourde-Owobi L, et al. **J Bacteriol** 1999 Jun;181(12):3830–2

Isolation of a putative Candida albicans transcriptional regulator involved in pleiotropic drug resistance by functional complementation of a pdr1 pdr3 mutation in Saccharomyces cerevisiae. Talibi D, et al. **J Bacteriol** 1999 Jan;181(1):231–40

Glucose metabolism in gcr mutants of Saccharomyces cerevisiae. Uemura H, et al. **J Bacteriol** 1999 Aug; 181(15):4719–23

Regulation of gene expression by glucose in Saccharomyces cerevisiae: a role for ADA2 and ADA3/NGG1. Wu M, et al. **J Bacteriol** 1999 Aug;181(16):4755–60

Transformation of a flocculating Saccharomyces cerevisiae using lithium acetate and pYAC4. Venâncio A, et al. **J Basic Microbiol** 1999;39(1):37–41

Molecular cloning of mouse p47, a second group mammalian RuvB DNA helicase-like protein: homology with those from human and Saccharomyces cerevisiae. Gohshi T, et al. **J Biochem (Tokyo)** 1999 May;125(5):939–46

Disruption of the YRB2 gene retards nuclear protein export, causing a profound mitotic delay, and can be rescued by overexpression of XPO1/CRM1. Noguchi E, et al. **J Biochem (Tokyo)** 1999 Mar;125(3):574–85

Activities of mutant Sar1 proteins in guanine nucleotide binding, GTP hydrolysis, and cell-free transport from the endoplasmic reticulum to the Golgi apparatus. Saito Y, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):816–23

Null mutation in IRE1 gene inhibits overproduction of microsomal cytochrome P450Alk1 (CYP 52A3) and proliferation of the endoplasmic reticulum in Saccharomyces cerevisiae. Takewaka T, et al. **J Biochem (Tokyo)** 1999 Mar;125(3):507–14

Mutations in the voltage-dependent anion channel of the mitochondrial outer membrane cause a dominant nonlethal growth impairment. Angeles R, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):143–51

Functional analysis of the Zn(2)Cys(6) transcription factors Oaf1p and Pip2p. Different roles in fatty acid induction of beta-oxidation in Saccharomyces cerevisiae. Baumgartner U, et al. **J Biol Chem** 1999 Aug 6; 274(32):22208–16

The Saccharomyces cerevisiae TSC10/YBR265w gene encoding 3-ketosphinganine reductase is identified in a screen for temperature-sensitive suppressors of the Ca2+-sensitive csg2Delta mutant. Beeler T, et al. **J Biol Chem** 1998 Nov 13;273(46):30688–94

Aquaporins in Saccharomyces. Genetic and functional distinctions between laboratory and wild-type strains. Bonhivers M, et al. **J Biol Chem** 1998 Oct 16; 273(42):27565–72

The Saccharomyces cerevisiae YOR163w gene encodes a diadenosine 5',5''-P1,P6-hexaphosphate (Ap6A) hydrolase member of the MutT motif (Nudix hydrolase) family. Cartwright JL, et al. **J Biol Chem** 1999 Mar 26; 274(13):8604–10

The Saccharomyces cerevisiae FAT1 gene encodes an acyl-CoA synthetase that is required for maintenance of very long chain fatty acid levels. Choi JY, et al. **J Biol Chem** 1999 Feb 19;274(8):4671–83

A novel family of yeast chaperons involved in the distribution of V-ATPase and other membrane proteins. Cohen A, et al. **J Biol Chem** 1999 Sep 17;274(38):26885–93

MTO1 codes for a mitochondrial protein required for respiration in paromomycin-resistant mutants of Saccharomyces cerevisiae. Colby G, et al. **J Biol Chem** 1998 Oct 23;273(43):27945–52

Correction of large mispaired DNA loops by extracts of Saccharomyces cerevisiae. Corrette-Bennett SE, et al. **J Biol Chem** 1999 Jun 18;274(25):17605–11

The Saccharomyces cerevisiae TCM62 gene encodes a chaperone necessary for the assembly of the mitochondrial succinate dehydrogenase (complex II). Dibrov E, et al. **J Biol Chem** 1998 Nov 27;273(48):32042–8

Analysis of the essential functions of the C-terminal protein/protein interaction domain of Saccharomyces cerevisiae pol epsilon and its unexpected ability to support growth in the absence of the DNA polymerase domain. Dua R, et al. **J Biol Chem** 1999 Aug 6;274(32):22283–8

Mak21p of Saccharomyces cerevisiae, a homolog of human CAATT-binding protein, is essential for 60 S ribosomal subunit biogenesis. Edskes HK, et al. **J Biol Chem** 1998 Oct 30;273(44):28912–20

In vivo characterization of chimeric phytochromes in yeast. Eichenberg K, et al. **J Biol Chem** 1999 Jan 1;274(1):354–9

A new family of human histone deacetylases related to Saccharomyces cerevisiae HDA1p. Fischle W, et al. **J Biol Chem** 1999 Apr 23;274(17):11713–20

Mutants in ABC10beta, a conserved subunit shared by all three yeast RNA polymerases, specifically affect RNA polymerase I assembly. Gadal O, et al. **J Biol Chem** 1999 Mar 26;274(13):8421–7

SAC1-like domains of yeast SAC1, INP52, and INP53 and of human synaptojanin encode polyphosphoinositide phosphatases. Guo S, et al. **J Biol Chem** 1999 May 7; 274(19):12990–5

Peroxisomal Delta3-cis-Delta2-trans-enoyl-CoA isomerase encoded by ECI1 is required for growth of the yeast Saccharomyces cerevisiae on unsaturated fatty acids. Gurvitz A, et al. **J Biol Chem** 1998 Nov 20; 273(47):31366–74

Characterization of the p33 subunit of eukaryotic translation initiation factor-3 from Saccharomyces cerevisiae. Hanachi P, et al. **J Biol Chem** 1999 Mar 26;274(13):8546–53

Mutations in a peptidylprolyl-cis/trans-isomerase gene lead to a defect in 3'-end formation of a pre-mRNA in Saccharomyces cerevisiae. Hani J, et al. **J Biol Chem** 1999 Jan 1;274(1):108–16

Functional characterization of multiple transactivating elements in beta-catenin, some of which interact with the TATA-binding protein in vitro. Hecht A, et al. **J Biol Chem** 1999 Jun 18;274(25):18017–25

Heterologous expression of the vanadium-containing chloroperoxidase from Curvularia inaequalis in Saccharomyces cerevisiae and site-directed mutagenesis of the active site residues His(496), Lys(353), Arg(360), and Arg(490). Hemrika W, et al. **J Biol Chem** 1999 Aug 20; 274(34):23820–7

Genetic analysis and enzyme activity suggest the existence of more than one minimal functional unit capable of synthesizing phosphoribosyl pyrophosphate in Saccharomyces cerevisiae. Hernando Y, et al. **J Biol Chem** 1999 Apr 30;274(18):12480–7

A mammalian lysosomal membrane protein confers multidrug resistance upon expression in Saccharomyces cerevisiae. Hogue DL, et al. **J Biol Chem** 1999 Apr 30; 274(18):12877–82

Control of expression of one-carbon metabolism genes of Saccharomyces cerevisiae is mediated by a tetrahydrofolate-responsive protein binding to a glycine regulatory region including a core 5'-CTTCTT-3' motif. Hong SP, et al. **J Biol Chem** 1999 Apr 9;274(15):10523–32

Characterization of a novel ADP-ribosylation factor-like protein (yARL3) in Saccharomyces cerevisiae. Huang CF, et al. **J Biol Chem** 1999 Feb 5;274(6):3819–27

Identification of a compound origin of replication at the HMR-E locus in Saccharomyces cerevisiae. Hurst ST, et al. **J Biol Chem** 1999 Feb 12;274(7):4155–9

The oligosaccharyltransferase complex from Saccharomyces cerevisiae. Isolation of the OST6 gene, its synthetic interaction with OST3, and analysis of the native complex. Knauer R, et al. **J Biol Chem** 1999 Jun 11;274(24):17249–56

Nup192p is a conserved nucleoporin with a preferential location at the inner site of the nuclear membrane. Kosova B, et al. **J Biol Chem** 1999 Aug 6;274(32):22646–51

Identification of highly conserved amino-terminal segments of dTAFII230 and yTAFII145 that are functionally interchangeable for inhibiting TBP-DNA interactions in vitro and in promoting yeast cell growth in vivo. Kotani T, et al. **J Biol Chem** 1998 Nov 27;273(48):32254–64

The Saccharomyces cerevisiae SOP1 and SOP2 genes, which act in cation homeostasis, can be functionally substituted by the Drosophila lethal(2)giant larvae tumor suppressor gene. Larsson K, et al. **J Biol Chem** 1998 Dec 11; 273(50):33610–8

A new antioxidant with alkyl hydroperoxide defense properties in yeast. Lee J, et al. **J Biol Chem** 1999 Feb 19;274(8):4537–44

Base excision repair of N-methylpurines in a yeast minichromosome. Effects of transcription, dna sequence, and nucleosome positioning. Li S, et al. **J Biol Chem** 1999 Apr 30;274(18):12201–4

Distinct regions of the Swi5 and Ace2 transcription factors are required for specific gene activation. McBride HJ, et al. **J Biol Chem** 1999 Jul 23;274(30):21029–36

Disruption of YHC8, a member of the TSR1 gene family, reveals its direct involvement in yeast protein translocation. Mamoun CB, et al. **J Biol Chem** 1999 Apr 16; 274(16):11296–302

Biochemical characterization of the interaction between the Saccharomyces cerevisiae MSH2-MSH6 complex and mispaired bases in DNA. Marsischky GT, et al. **J Biol Chem** 1999 Sep 17;274(38):26668–82

Saccharomyces cerevisiae GNA1, an essential gene encoding a novel acetyltransferase involved in UDP-N-acetylglucosamine synthesis. Mio T, et al. **J Biol Chem** 1999 Jan 1;274(1):424–9

A new protein conjugation system in human. The counterpart of the yeast Apg12p conjugation system essential for autophagy. Mizushima N, et al. **J Biol Chem** 1998 Dec 18;273(51):33889–92

Starved Saccharomyces cerevisiae cells have the capacity to support internal initiation of translation. Paz I, et al. **J Biol Chem** 1999 Jul 30;274(31):21741–5

An eukaryotic RuvB-like protein (RUVBL1) essential for growth. Qiu XB, et al. **J Biol Chem** 1998 Oct 23; 273(43):27786–93

The yeast RAD7 and RAD16 genes are required for postincision events during nucleotide excision repair. In vitro and in vivo studies with rad7 and rad16 mutants and purification of a Rad7/Rad16-containing protein complex. Reed SH, et al. **J Biol Chem** 1998 Nov 6;273(45):29481–8

Affinity purification and partial characterization of a yeast multiprotein complex for nucleotide excision repair using histidine-tagged Rad14 protein. Rodriguez K, et al. **J Biol Chem** 1998 Dec 18;273(51):34180–9

Loss of Drs2p does not abolish transfer of fluorescence-labeled phospholipids across the plasma membrane of Saccharomyces cerevisiae. Siegmund A, et al. **J Biol Chem** 1998 Dec 18;273(51):34399–405

Transient ADP-ribosylation of a 2'-phosphate implicated in its removal from ligated tRNA during splicing in yeast. Spinelli SL, et al. **J Biol Chem** 1999 Jan 29;274(5):2637–44

Mutations in the AF-2/hormone-binding domain of the chimeric activator GAL4.estrogen receptor.VP16 inhibit hormone-dependent transcriptional activation and chromatin remodeling in yeast. Stafford GA, et al. **J Biol Chem** 1998 Dec 18;273(51):34240–6

SEC14-dependent secretion in Saccharomyces cerevisiae. Nondependence on sphingolipid synthesis-coupled diacylglycerol production. Stock SD, et al. **J Biol Chem** 1999 May 7;274(19):12979–83

Identification of the plasma membrane H+-biotin symporter of Saccharomyces cerevisiae by rescue of a fatty acid-auxotrophic mutant. Stolz J, et al. **J Biol Chem** 1999

Jun 25;274(26):18741–6
The fenpropimorph resistance gene FEN2 from Saccharomyces cerevisiae encodes a plasma membrane H+–pantothenate symporter. Stolz J, et al. **J Biol Chem** 1999 Jun 25;274(26):18747–52
Suppressors of superoxide dismutase (SOD1) deficiency in Saccharomyces cerevisiae. Identification of proteins predicted to mediate iron–sulfur cluster assembly. Strain J, et al. **J Biol Chem** 1998 Nov 20;273(47):31138–44
Rad26, the yeast homolog of the cockayne syndrome B gene product, counteracts inhibition of DNA repair due to RNA polymerase II transcription. Tijsterman M, et al. **J Biol Chem** 1999 Jan 15;274(3):1199–202
Identification of a gene for a polyamine transport protein in yeast. Tomitori H, et al. **J Biol Chem** 1999 Feb 5; 274(6):3265–7
Transcriptional factor mutations reveal regulatory complexities of heat shock and newly identified stress genes in Saccharomyces cerevisiae. Treger JM, et al. **J Biol Chem** 1998 Oct 9;273(41):26875–9
PDR16 and PDR17, two homologous genes of Saccharomyces cerevisiae, affect lipid biosynthesis and resistance to multiple drugs. van den Hazel HB, et al. **J Biol Chem** 1999 Jan 22;274(4):1934–41
Heterochromatin organization of a natural yeast telomere. Recruitment of Sir3p through interaction with histone H4 N terminus is required for the establishment of repressive structures. Venditti S, et al. **J Biol Chem** 1999 Jan 22; 274(4):1928–33
A 110-kilodalton subunit of translation initiation factor eIF3 and an associated 135-kilodalton protein are encoded by the Saccharomyces cerevisiae TIF32 and TIF31 genes. Vornlocher HP, et al. **J Biol Chem** 1999 Jun 11; 274(24):16802–12
Cloning and functional expression of UGT genes encoding sterol glucosyltransferases from Saccharomyces cerevisiae, Candida albicans, Pichia pastoris, and Dictyostelium discoideum. Warnecke D, et al. **J Biol Chem** 1999 May 7;274(19):13048–59
Prions of yeast and fungi. Proteins as genetic material. Wickner RB, et al. **J Biol Chem** 1999 Jan 8;274(2):555–8 (40 ref.)
Efficient processing of DNA ends during yeast nonhomologous end joining. Evidence for a DNA polymerase beta (Pol4)-dependent pathway. Wilson TE, et al. **J Biol Chem** 1999 Aug 13;274(33):23599–609
Cloning of murine translation initiation factor 6 and functional analysis of the homologous sequence YPR016c in Saccharomyces cerevisiae. Wood LC, et al. **J Biol Chem** 1999 Apr 23;274(17):11653–9
Characterization of a p53-related activation domain in Adr1p that is sufficient for ADR1-dependent gene expression. Young ET, et al. **J Biol Chem** 1998 Nov 27;273(48):32080–7
Xylitol production using recombinant Saccharomyces cerevisiae containing multiple xylose reductase genes at chromosomal delta-sequences. Kim YS, et al. **J Biotechnol** 1999 Jan 22;67(2–3):159–71
The isolation of strains of Saccharomyces cerevisiae showing altered plasmid stability characteristics by means of selective continuous culture. O'Kennedy RD, et al. **J Biotechnol** 1999 Apr 15;69(2–3):203–14
Assembly of 5S ribosomal RNA is required at a specific step of the pre-rRNA processing pathway. Dechampesme AM, et al. **J Cell Biol** 1999 Jun 28;145(7):1369–80
Interaction of ZPR1 with translation elongation factor-1alpha in proliferating cells. Gangwani L, et al. **J Cell Biol** 1998 Dec 14;143(6):1471–84
Fab1p is essential for PtdIns(3)P 5-kinase activity and the maintenance of vacuolar size and membrane homeostasis. Gary JD, et al. **J Cell Biol** 1998 Oct 5;143(1):65–79
Morphogenesis beyond cytokinetic arrest in Saccharomyces cerevisiae. Jiménez J, et al. **J Cell Biol** 1998 Dec 14; 143(6):1617–34
Sli15 associates with the ipl1 protein kinase to promote proper chromosome segregation in Saccharomyces cerevisiae. Kim JH, et al. **J Cell Biol** 1999 Jun 28; 145(7):1381–94
Mgm101p is a novel component of the mitochondrial nucleoid that binds DNA and is required for the repair of oxidatively damaged mitochondrial DNA. Meeusen S, et al. **J Cell Biol** 1999 Apr 19;145(2):291–304
Mutational analysis of the structure and localization of the nucleolus in the yeast Saccharomyces cerevisiae. Oakes M, et al. **J Cell Biol** 1998 Oct 5;143(1):23–34
RAE1 is a shuttling mRNA export factor that binds to a GLEBS-like NUP98 motif at the nuclear pore complex through multiple domains. Pritchard CE, et al. **J Cell Biol** 1999 Apr 19;145(2):237–54
Nuclear import and the evolution of a multifunctional RNA-binding protein. Rosenblum JS, et al. **J Cell Biol** 1998 Nov 16;143(4):887–99
Phosphorylation regulates in vivo interaction and molecular targeting of serine/arginine-rich pre-mRNA splicing factors. Yeakley JM, et al. **J Cell Biol** 1999 May 3; 145(3):447–55
New actin mutants allow further characterization of the nucleotide binding cleft and drug binding sites. Belmont LD, et al. **J Cell Sci** 1999 May;112 (Pt 9):1325–36
Antagonistic effects of NES and NLS motifs determine S. cerevisiae Rna1p subcellular distribution. Feng W, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):339–47
The S. cerevisiae CLU1 and D. discoideum cluA genes are functional homologues that influence mitochondrial morphology and distribution. Fields SD, et al. **J Cell Sci** 1998 Jun;111 (Pt 12):1717–27
Depolarization of the actin cytoskeleton is a specific phenotype in Saccharomyces cerevisiae. Karpova TS, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2689–96
Functionally homologous DNA replication genes in fission and budding yeast. Sánchez M, et al. **J Cell Sci** 1999 Jul; 112 (Pt 14):2381–90
The nucleolar antigen Nop52, the human homologue of the yeast ribosomal RNA processing RRP1, is recruited at late stages of nucleologenesis. Savino TM, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):1889–900
Localisation and interaction of the protein components of the yeast 2 mu circle plasmid partitioning system suggest a mechanism for plasmid inheritance. Scott-Drew S, et al. **J Cell Sci** 1998 Jul;111 (Pt 13):1779–89
Bouquet formation in budding yeast: initiation of recombination is not required for meiotic telomere clustering. Trelles-Sticken E, et al. **J Cell Sci** 1999 Mar; 112 (Pt 5):651–8
Co-expression of human eIF-4G and poliovirus 2Apro in Saccharomyces cerevisiae: effects on gene expression. Barco A, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2651–60
Comprehensive evaluation of isoprenoid biosynthesis regulation in Saccharomyces cerevisiae utilizing the Genome Reporter Matrix. Dimster-Denk D, et al. **J Lipid Res** 1999 May;40(5):850–60
Binding specificity determines polarity of DNA unwinding by the Sgs1 protein of S. cerevisiae. Bennett RJ, et al. **J Mol Biol** 1999 Jun 4;289(2):235–48
Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761–73
Yeast Ty retrotransposons assemble into virus-like particles whose T-numbers depend on the C-terminal length of the capsid protein. Al-Khayat HA, et al. **J Mol Biol** 1999 Sep 10;292(1):65–73
Eukaryotic signalling domain homologues in archaea and bacteria. Ancient ancestry and horizontal gene transfer. Ponting CP, et al. **J Mol Biol** 1999 Jun 18;289(4):729–45
Reverse transcription of the yeast Ty1 retrotransposon: the mode of first strand transfer is either intermolecular or intramolecular. Wilhelm M, et al. **J Mol Biol** 1999 May 14;288(4):505–10
Identification of the first fungal annexin: analysis of annexin gene duplications and implications for eukaryotic evolution. Braun EL, et al. **J Mol Evol** 1998 Nov;47(5):531–43
An evaluation of measures of synonymous codon usage bias. Comeron JM, et al. **J Mol Evol** 1998 Sep;47(3):268–74
Relationships between transcriptional and translational control of gene expression in Saccharomyces cerevisiae: a multiple regression analysis. Pavesi A. **J Mol Evol** 1999 Feb;48(2):133–41
Evolution of microsatellites in the yeast Saccharomyces cerevisiae: role of length and number of repeated units. Pupko T, et al. **J Mol Evol** 1999 Mar;48(3):313–6
The ski7 antiviral protein is an EF1-alpha homolog that blocks expression of non-Poly(A) mRNA in Saccharomyces cerevisiae. Benard L, et al. **J Virol** 1999 Apr;73(4):2893–900
Mutational analysis of Vpr-induced G2 arrest, nuclear localization, and cell death in fission yeast. Chen M, et al. **J Virol** 1999 Apr;73(4):3236–45
Comparison of melibiose utilizing baker's yeast strains produced by genetic engineering and classical breeding. Vincent SF, et al. **Lett Appl Microbiol** 1999 Feb; 28(2):148–52
Identification of yeast meiosis-specific genes by differential display. Nag DK, et al. **Methods** 1998 Dec;16(4):423–33
In vitro DNA replication in yeast nuclear extracts. Pasero P, et al. **Methods** 1999 Jul;18(3):368–76, 323
Genetic dissection of histone function. Smith MM, et al. **Methods** 1998 Aug;15(4):269–81 (76 ref.)
Minichromosome maintenance as a genetic assay for defects in DNA replication. Tye BK. **Methods** 1999 Jul; 18(3):329–34
Methods of assaying Bcl-2 and Bax family proteins in yeast. Xu Q, et al. **Methods** 1999 Apr;17(4):292–304
Isolation of minichromosomes from yeast cells. Alfieri JA, et al. **Methods Enzymol** 1999;304:35–49
Screening for protein-protein interactions. Germino FJ, et al. **Methods Enzymol** 1999;303:422–50
Analysis of nuclear organization in Saccharomyces cerevisiae. Gotta M, et al. **Methods Enzymol** 1999; 304:663–72
Mapping chromatin structure in yeast. Gregory PD, et al. **Methods Enzymol** 1999;304:365–76
Mapping DNA interaction sites of chromosomal proteins using immunoprecipitation and polymerase chain reaction. Hecht A, et al. **Methods Enzymol** 1999;304:399–414
DNA methyltransferases as probes of chromatin structure in vivo. Kladde MP, et al. **Methods Enzymol** 1999; 304:431–47
Copper ion inducible and repressible promoter systems in yeast. Labbé S, et al. **Methods Enzymol** 1999;306:145–53
Mapping cyclobutane-pyrimidine dimers in DNA and using DNA-repair by photolyase for chromatin analysis in yeast. Suter B, et al. **Methods Enzymol** 1999;304:447–61
Physical monitoring of HO-induced homologous recombination. Holmes A, et al. **Methods Mol Biol** 1999; 113:403–15
In vivo mutational analysis of ribosomal RNA in Saccharomyces cerevisiae. Venema J, et al. **Methods Mol Biol** 1998;77:257–70 (32 ref.)
Nucleotide excision repair in Saccharomyces cerevisiae whole-cell extracts. Wong JM, et al. **Methods Mol Biol** 1999;113:317–26
Microbial genescapes: a prokaryotic view of the yeast genome. Ragan MA, et al. **Microb Comp Genomics** 1998; 3(4):219–35
In vivo characterization of the drug resistance profile of the major ABC transporters and other components of the yeast pleiotropic drug resistance network. Kolaczkowski M, et al. **Microb Drug Resist** 1998 Fall;4(3):143–58
MAP kinase pathways in the yeast Saccharomyces cerevisiae. Gustin MC, et al. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1264–300 (527 ref.)
Posttranscriptional control of gene expression in yeast. McCarthy JEG. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1492–553 (620 ref.)
Multiple pathways of recombination induced by double-strand breaks in Saccharomyces cerevisiae. Pâques F, et al. **Microbiol Mol Biol Rev** 1999 Jun;63(2):349–404 (575 ref.)
Candida albicans SSD1 can suppress multiple mutations in Saccharomyces cerevisiae. Chen CY, et al. **Microbiology** 1998 Nov;144 (Pt 11):2941–50
Overexpression of Candida albicans secretory aspartyl proteinase 2 and its expression in Saccharomyces cerevisiae do not augment virulence in mice. Dubois N, et al. **Microbiology** 1998 Aug;144 (Pt 8):2299–310
Novel alleles of yeast hexokinase PII with distinct effects on catalytic activity and catabolite repression of SUC2. Hohmann S, et al. **Microbiology** 1999 Mar;145 (Pt 3):703–14
Reconstitution of a bacterial/plant polyamine biosynthesis pathway in Saccharomyces cerevisiae. Klein RD, et al. **Microbiology** 1999 Feb;145 (Pt 2):301–7
Siderophore-mediated iron uptake in Saccharomyces cerevisiae: the SIT1 gene encodes a ferrioxamine B permease that belongs to the major facilitator superfamily. Lesuisse E, et al. **Microbiology** 1998 Dec;144 (Pt 12):3455–62
KNR4, a suppressor of Saccharomyces cerevisiae cwh mutants, is involved in the transcriptional control of chitin synthase genes. Martin H, et al. **Microbiology** 1999 Jan;145 (Pt 1):249–58
A Candida albicans chaperonin subunit (CaCct8p) as a suppressor of morphogenesis and Ras phenotypes in C. albicans and Saccharomyces cerevisiae. Rademacher F, et al. **Microbiology** 1998 Nov;144 (Pt 11):2951–60
Stress induction of HSP30, the plasma membrane heat shock protein gene of Saccharomyces cerevisiae, appears not to use known stress-regulated transcription factors. Seymour IJ, et al. **Microbiology** 1999 Jan;145 (Pt 1):231–9
Cloning and sequencing of the Candida albicans homologue of SRB1/PSA1/VIG9, the essential gene encoding GDP-mannose pyrophosphorylase in Saccharomyces cerevisiae. Warit S, et al. **Microbiology** 1998 Sep;144 (Pt 9):2417–26
Two endoplasmic reticulum (ER) membrane proteins that facilitate ER-to-Golgi transport of glycosylphosphatidylinositol-anchored proteins. Barz WP, et al. **Mol Biol Cell** 1999 Apr;10(4):1043–59
Genetic interactions between KAR7/SEC71, KAR8/JEM1, KAR5, and KAR2 during nuclear fusion in Saccharomyces cerevisiae. Brizzio V, et al. **Mol Biol Cell** 1999 Mar; 10(3):609–26
A novel fluorescence-based genetic strategy identifies mutants of Saccharomyces cerevisiae defective for nuclear pore complex assembly. Bucci M, et al. **Mol Biol Cell** 1998 Sep;9(9):2439–61
A role for Tlg1p in the transport of proteins within the Golgi apparatus of Saccharomyces cerevisiae. Coe JG, et al. **Mol Biol Cell** 1999 Jul;10(7):2407–23
A late mitotic regulatory network controlling cyclin destruction in Saccharomyces cerevisiae. Jaspersen SL, et al. **Mol Biol Cell** 1998 Oct;9(10):2803–17
Dynamics of gene expression revealed by comparison of serial analysis of gene expression transcript profiles from yeast grown on two different carbon sources. Kal AJ, et al. **Mol Biol Cell** 1999 Jun;10(6):1859–72
The PDE1-encoded low-affinity phosphodiesterase in the yeast Saccharomyces cerevisiae has a specific function in controlling agonist-induced cAMP signaling. Ma P, et al. **Mol Biol Cell** 1999 Jan;10(1):91–104
A mutation in a novel yeast proteasomal gene, RPN11/MPR1, produces a cell cycle arrest, overreplication of nuclear and mitochondrial DNA, and an altered mitochondrial morphology. Rinaldi T, et al. **Mol Biol Cell** 1998 Oct;9(10):2917–31
The conserved core of a human SIR2 homologue functions in yeast silencing. Sherman JM, et al. **Mol Biol Cell** 1999 Sep;10(9):3045–59
Comprehensive identification of cell cycle-regulated genes of the yeast Saccharomyces cerevisiae by microarray hybridization. Spellman PT, et al. **Mol Biol Cell** 1998 Dec; 9(12):3273–97
G+C content variation along and among Saccharomyces cerevisiae chromosomes. Bradnam KR, et al. **Mol Biol Evol** 1999 May;16(5):666–75

Phylogenetic perspective reveals abundant Ty1/Ty2 hybrid elements in the Saccharomyces cerevisiae genome [letter] Jordan IK, et al. **Mol Biol Evol** 1999 Mar;16(3):419–22

Broad, but not universal, transcriptional requirement for yTAFII17, a histone H3-like TAFII present in TFIID and SAGA. Apone LM, et al. **Mol Cell** 1998 Nov;2(5):653–61

Chromosomal ARS1 has a single leading strand start site. Bielinsky AK, et al. **Mol Cell** 1999 Apr;3(4):477–86

Two actin-related proteins are shared functional components of the chromatin-remodeling complexes RSC and SWI/SNF. Cairns BR, et al. **Mol Cell** 1998 Nov;2(5):639–51

Specialization and targeting of B-type cyclins. Cross FR, et al. **Mol Cell** 1999 Jul;4(1):11–9

Elimination of replication block protein Fob1 extends the life span of yeast mother cells. Defossez PA, et al. **Mol Cell** 1999 Apr;3(4):447–55

A role for transcriptional repressors in targeting the yeast Swi/Snf complex. Dimova D, et al. **Mol Cell** 1999 Jul; 4(1):75–83

SGT1 encodes an essential component of the yeast kinetochore assembly pathway and a novel subunit of the SCF ubiquitin ligase complex. Kitagawa K, et al. **Mol Cell** 1999 Jul;4(1):21–33

Splicing factor Prp8 governs U4/U6 RNA unwinding during activation of the spliceosome. Kuhn AN, et al. **Mol Cell** 1999 Jan;3(1):65–75

A conserved motif present in a class of helix-loop-helix proteins activates transcription by direct recruitment of the SAGA complex. Massari ME, et al. **Mol Cell** 1999 Jul; 4(1):63–73

Histone-like TAFs are essential for transcription in vivo. Michel B, et al. **Mol Cell** 1998 Nov;2(5):663–73

The histone H3-like TAF is broadly required for transcription in yeast. Moqtaderi Z, et al. **Mol Cell** 1998 Nov;2(5):675–82

yTAFII61 has a general role in RNA polymerase II transcription and is required by Gcn4p to recruit the SAGA coactivator complex. Natarajan K, et al. **Mol Cell** 1998 Nov;2(5):683–92

Elongator, a multisubunit component of a novel RNA polymerase II holoenzyme for transcriptional elongation. Otero G, et al. **Mol Cell** 1999 Jan;3(1):109–18

Yeast Sec14p deficient in phosphatidylinositol transfer activity is functional in vivo. Phillips SE, et al. **Mol Cell** 1999 Aug;4(2):187–97

An RNA switch at the 5' splice site requires ATP and the DEAD box protein Prp28p. Staley JP, et al. **Mol Cell** 1999 Jan;3(1):55–64

A novel histone acetyltransferase is an integral subunit of elongating RNA polymerase II holoenzyme. Wittschieben BO, et al. **Mol Cell** 1999 Jul;4(1):123–8

A suppressor of two essential checkpoint genes identifies a novel protein that negatively affects dNTP pools. Zhao X, et al. **Mol Cell** 1998 Sep;2(3):329–40

Transcriptional regulation of the S. cerevisiae ENA1 gene by casein kinase II. Tenney KA, et al. **Mol Cell Biochem** 1999 Jan;191(1-2):161–7

Binding of Gal4p and bicoid to nucleosomal sites in yeast in the absence of replication. Balasubramanian B, et al. **Mol Cell Biol** 1999 Apr;19(4):2977–85

Transcriptional activity and chromatin structure of enhancer-deleted rRNA genes in Saccharomyces cerevisiae. Banditt M, et al. **Mol Cell Biol** 1999 Jul; 19(7):4953–60

The Saccharomyces cerevisiae ETH1 gene, an inducible homolog of exonuclease III that provides resistance to DNA-damaging agents and limits spontaneous mutagenesis. Bennett RA. **Mol Cell Biol** 1999 Mar; 19(3):1800–9

Use of a recombination reporter insert to define meiotic recombination domains on chromosome III of Saccharomyces cerevisiae. Borde V, et al. **Mol Cell Biol** 1999 Jul;19(7):4832–42

GCD14p, a repressor of GCN4 translation, cooperates with Gcd10p and Lhp1p in the maturation of initiator methionyl-tRNA in Saccharomyces cerevisiae. Calvo O, et al. **Mol Cell Biol** 1999 Jun;19(6):4167–81

Mutations in elongation factor 1beta, a guanine nucleotide exchange factor, enhance translational fidelity. Carr-Schmid A, et al. **Mol Cell Biol** 1999 Aug; 19(8):5257–66

A link between secretion and pre-mRNA processing defects in Saccharomyces cerevisiae and the identification of a novel splicing gene, RSE1. Chen EJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7139–46

CNS1 encodes an essential p60/Sti1 homolog in Saccharomyces cerevisiae that suppresses cyclophilin 40 mutations and interacts with Hsp90. Dolinski KJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7344–52

Functional analysis of the yeast Glc7-binding protein Reg1 identifies a protein phosphatase type 1-binding motif as essential for repression of ADH2 expression. Dombek KM, et al. **Mol Cell Biol** 1999 Sep;19(9):6029–40

Involvement of DNA end-binding protein Ku in Ty element retrotransposition. Downs JA, et al. **Mol Cell Biol** 1999 Sep;19(9):6260–8

Cooperative binding of heat shock factor to the yeast HSP82 promoter in vivo and in vitro [published erratum appears in Mol Cell Biol 1999 May;19(5):3929] Erkine AM, et al. **Mol Cell Biol** 1999 Mar;19(3):1627–39

Ribosomal protein S14 of Saccharomyces cerevisiae regulates its expression by binding to RPS14B pre-mRNA and to 18S rRNA. Fewell SW, et al. **Mol Cell Biol** 1999 Jan; 19(1):826–34

A novel role in DNA metabolism for the binding of Fen1/Rad27 to PCNA and implications for genetic risk. Gary R, et al. **Mol Cell Biol** 1999 Aug;19(8):5373–82

Functional characterization of the N terminus of Sir3p. Gotta M, et al. **Mol Cell Biol** 1998 Oct;18(10):6110–20

Transcription factor TFIIH is required for promoter melting in vivo. Guzmán E, et al. **Mol Cell Biol** 1999 Aug; 19(8):5652–8

Correlation between protein and mRNA abundance in yeast. Gygi SP, et al. **Mol Cell Biol** 1999 Mar;19(3):1720–30

Activator-specific requirement of yeast mediator proteins for RNA polymerase II transcriptional activation. Han SJ, et al. **Mol Cell Biol** 1999 Feb;19(2):979–88

An in vitro system recapitulates chromatin remodeling at the PHO5 promoter. Haswell ES, et al. **Mol Cell Biol** 1999 Apr;19(4):2817–27

NDT80 and the meiotic recombination checkpoint regulate expression of middle sporulation-specific genes in Saccharomyces cerevisiae. Hepworth SR, et al. **Mol Cell Biol** 1998 Oct;18(10):5750–61

Regulation of transcription at the Saccharomyces cerevisiae start transition by Stb1, a Swi6-binding protein. Ho Y, et al. **Mol Cell Biol** 1999 Aug;19(8):5267–78

Homology search and choice of homologous partner during mitotic recombination. Inbar O, et al. **Mol Cell Biol** 1999 Jun;19(6):4134–42

Transcriptional induction by aromatic amino acids in Saccharomyces cerevisiae. Iraqui I, et al. **Mol Cell Biol** 1999 May;19(5):3360–71

Amino acid signaling in Saccharomyces cerevisiae: a permease-like sensor of external amino acids and F-Box protein Grr1p are required for transcriptional induction of the AGP1 gene, which encodes a broad-specificity amino acid permease. Iraqui I, et al. **Mol Cell Biol** 1999 Feb;19(2):989–1001

Sld2, which interacts with Dpb11 in Saccharomyces cerevisiae, is required for chromosomal DNA replication. Kamimura Y, et al. **Mol Cell Biol** 1998 Oct;18(10):6102–9

cDNA of the yeast retrotransposon Ty5 preferentially recombines with substrates in silent chromatin. Ke N, et al. **Mol Cell Biol** 1999 Jan;19(1):484–94

Role for Hsp90-associated cochaperone p23 in estrogen receptor signal transduction. Knoblauch R, et al. **Mol Cell Biol** 1999 May;19(5):3748–59

ADR1-mediated transcriptional activation requires the presence of an intact TFIID complex. Komarnitsky PB, et al. **Mol Cell Biol** 1998 Oct;18(10):5861–7

Role of a complex containing Rad17, Mec3, and Ddc1 in the yeast DNA damage checkpoint pathway. Kondo T, et al. **Mol Cell Biol** 1999 Feb;19(2):1136–43

An activator binding module of yeast RNA polymerase II holoenzyme. Lee YC, et al. **Mol Cell Biol** 1999 Apr; 19(4):2967–76

Mutations in RNA polymerase II and elongation factor SII severely reduce mRNA levels in Saccharomyces cerevisiae. Lennon JC 3rd, et al. **Mol Cell Biol** 1998 Oct;18(10):5771–9

Transcriptional elements involved in the repression of ribosomal protein synthesis. Li B, et al. **Mol Cell Biol** 1999 Aug;19(8):5393–404

Yeast mutants affecting possible quality control of plasma membrane proteins. Li Y, et al. **Mol Cell Biol** 1999 May; 19(5):3588–99

NDD1, a high-dosage suppressor of cdc28-1N, is essential for expression of a subset of late-S-phase-specific genes in Saccharomyces cerevisiae. Loy CJ, et al. **Mol Cell Biol** 1999 May;19(5):3312–27

A novel genetic screen for snRNP assembly factors in yeast identifies a conserved protein, Sad1p, also required for pre-mRNA splicing. Lygerou Z, et al. **Mol Cell Biol** 1999 Mar;19(3):2008–20

Pbp1p, a factor interacting with Saccharomyces cerevisiae poly(A)-binding protein, regulates polyadenylation. Mangus DA, et al. **Mol Cell Biol** 1998 Dec;18(12):7383–96

Interaction between the product of the breast cancer susceptibility gene BRCA2 and DSS1, a protein functionally conserved from yeast to mammals. Marston NJ, et al. **Mol Cell Biol** 1999 Jul;19(7):4633–42

Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142–54

A trans-activation domain in yeast heat shock transcription factor is essential for cell cycle progression during stress. Morano KA, et al. **Mol Cell Biol** 1999 Jan;19(1):402–11

Eukaryotic translation initiation factors 4G and 4A from Saccharomyces cerevisiae interact physically and functionally. Neff CL, et al. **Mol Cell Biol** 1999 Aug; 19(8):5557–64

Accumulation of single-stranded DNA and destabilization of telomeric repeats in yeast mutant strains carrying a deletion of RAD27. Parenteau J, et al. **Mol Cell Biol** 1999 Jun;19(6):4143–52

Effects of mutations in DNA repair genes on formation of ribosomal DNA circles and life span in Saccharomyces cerevisiae. Park PU, et al. **Mol Cell Biol** 1999 May; 19(5):3848–56

Nrg1 is a transcriptional repressor for glucose repression of STA1 gene expression in Saccharomyces cerevisiae. Park SH, et al. **Mol Cell Biol** 1999 Mar;19(3):2044–50

Transcriptional regulation of the SMK1 mitogen-activated protein kinase gene during meiotic development in Saccharomyces cerevisiae. Pierce M, et al. **Mol Cell Biol** 1998 Oct;18(10):5970–80

Mid2 is a putative sensor for cell integrity signaling in Saccharomyces cerevisiae. Rajavel M, et al. **Mol Cell Biol** 1999 Jun;19(6):3969–76

The yeast telomere length counting machinery is sensitive to sequences at the telomere-nontelomere junction. Ray A, et al. **Mol Cell Biol** 1999 Jan;19(1):31–45

Osmotic stress-induced gene expression in Saccharomyces cerevisiae requires Msn1p and the novel nuclear factor Hot1p. Rep M, et al. **Mol Cell Biol** 1999 Aug;19(8):5474–85

Std1 and Mth1 proteins interact with the glucose sensors to control glucose-regulated gene expression in Saccharomyces cerevisiae. Schmidt MC, et al. **Mol Cell Biol** 1999 Jul;19(7):4561–71

The Saccharomyces cerevisiae hyperrecombination mutant hpr1Delta is synthetically lethal with two conditional alleles of the acetyl coenzyme A carboxylase gene and causes a defect in nuclear export of polyadenylated RNA. Schneiter R, et al. **Mol Cell Biol** 1999 May;19(5):3415–22

Mutations in translation initiation factors lead to increased rates of deadenylation and decapping of mRNAs in Saccharomyces cerevisiae. Schwartz DC, et al. **Mol Cell Biol** 1999 Aug;19(8):5247–56

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9

Mutator phenotypes conferred by MLH1 overexpression and by heterozygosity for mlh1 mutations. Shcherbakova PV, et al. **Mol Cell Biol** 1999 Apr;19(4):3177–83

The Saccharomyces cerevisiae homologue of mammalian translation initiation factor 6 does not function as a translation initiation factor. Si K, et al. **Mol Cell Biol** 1999 Feb;19(2):1416–26

A genetic screen for ribosomal DNA silencing defects identifies multiple DNA replication and chromatin-modulating factors. Smith JS, et al. **Mol Cell Biol** 1999 Apr;19(4):3184–97

Active-site mutations in the Xrn1p exoribonuclease of Saccharomyces cerevisiae reveal a specific role in meiosis. Solinger JA, et al. **Mol Cell Biol** 1999 Sep;19(9):5930–42

Saccharomyces cerevisiae Msh2p and Msh6p ATPase activities are both required during mismatch repair. Studamire B, et al. **Mol Cell Biol** 1998 Dec;18(12):7590–601

Overlapping specificities of base excision repair, nucleotide excision repair, recombination, and translesion synthesis pathways for DNA base damage in Saccharomyces cerevisiae. Swanson RL, et al. **Mol Cell Biol** 1999 Apr; 19(4):2929–35

RNA polymerase II transcription suppresses nucleosomal modulation of UV-induced (6-4) photoproduct and cyclobutane pyrimidine dimer repair in yeast. Tijsterman M, et al. **Mol Cell Biol** 1999 Jan;19(1):934–40

The 3'—>5' exonucleases of DNA polymerases delta and epsilon and the 5'—>3' exonuclease Exo1 have major roles in postreplication mutation avoidance in Saccharomyces cerevisiae. Tran HT, et al. **Mol Cell Biol** 1999 Mar; 19(3):2000–7

Snf1 protein kinase regulates phosphorylation of the Mig1 repressor in Saccharomyces cerevisiae. Treitel MA, et al. **Mol Cell Biol** 1998 Nov;18(11):6273–80

SWM1, a developmentally regulated gene, is required for spore wall assembly in Saccharomyces cerevisiae. Ufano S, et al. **Mol Cell Biol** 1999 Mar;19(3):2118–29

Activation of silent replication origins at autonomously replicating sequence elements near the HML locus in budding yeast. Vujcic M, et al. **Mol Cell Biol** 1999 Sep; 19(9):6098–109

Stability of the human fragile X (CGG)(n) triplet repeat array in Saccharomyces cerevisiae deficient in aspects of DNA metabolism. White PJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5675–84

Chromatin opening and transactivator potentiation by RAP1 in Saccharomyces cerevisiae. Yu L, et al. **Mol Cell Biol** 1999 Aug;19(8):5279–88

Hec1p, an evolutionarily conserved coiled-coil protein, modulates chromosome segregation through interaction with SMC proteins. Zheng L, et al. **Mol Cell Biol** 1999 Aug;19(8):5417–28

Sequence analysis of DNA randomly amplified from the Saccharomyces cerevisiae genome. McGrath A, et al. **Mol Cell Probes** 1998 Dec;12(6):397–405

Functional interaction between the estrogen receptor and CTF1: analysis of the vitellogenin gene B1 promoter in yeast. Tsai-Pflugfelder M, et al. **Mol Endocrinol** 1998 Oct; 12(10):1525–41

Genetic interactions between a null allele of the RIT1 gene encoding an initiator tRNA-specific modification enzyme and genes encoding translation factors in Saccharomyces cerevisiae. Aström SU, et al. **Mol Gen Genet** 1999 Jul; 261(6):967–76

Function of hybrid human-yeast cyclin-dependent kinases in Saccharomyces cerevisiae. Bitter GA. **Mol Gen Genet** 1998 Oct;260(1):120–30

Efficient initiation of S-phase in yeast requires Cdc40p, a protein involved in pre-mRNA splicing. Boger-Nadjar E, et al. **Mol Gen Genet** 1998 Nov;260(2-3):232–41

The succinate/fumarate transporter Acr1p of Saccharomyces cerevisiae is part of the gluconeogenic pathway and its expression is regulated by Cat8p. Bojunga N, et al.

Mol Gen Genet 1998 Dec;260(5):453–61

GRISEA, a copper-modulated transcription factor from Podospora anserina involved in senescence and morphogenesis, is an ortholog of MAC1 in Saccharomyces cerevisiae. Borghouts C, et al. **Mol Gen Genet** 1998 Dec; 260(5):492–502

The yeast nuclear gene DSS1, which codes for a putative RNase II, is necessary for the function of the mitochondrial degradosome in processing and turnover of RNA. Dziembowski A, et al. **Mol Gen Genet** 1998 Oct; 260(1):108–14

Replication-dependent and selection-induced mutations in respiration-competent and respiration-deficient strains of Saccharomyces cerevisiae. Heidenreich E, et al. **Mol Gen Genet** 1998 Nov;260(4):395–400

Isolation of an extragenic suppressor of the rna1-1 mutation in Saccharomyces cerevisiae. Hong SJ, et al. **Mol Gen Genet** 1998 Sep;259(4):404–13

The Saccharomyces cerevisiae protein YJR043C (Pol32) interacts with the catalytic subunit of DNA polymerase alpha and is required for cell cycle progression in G2/M. Huang ME, et al. **Mol Gen Genet** 1999 Jan;260(6):541–50

Dominant negative mutations in the alpha-factor receptor, a G protein-coupled receptor encoded by the STE2 gene of the yeast Saccharomyces cerevisiae. Leavitt LM, et al. **Mol Gen Genet** 1999 Jul;261(6):917–32

Characterization of the ORF YBR264c in Saccharomyces cerevisiae, which encodes a new yeast Ypt that is degraded by a proteasome-dependent mechanism. Louvet O, et al. **Mol Gen Genet** 1999 Jun;261(4–5):589–600

Chromatin structure of the 5' flanking region of the yeast LEU2 gene. Martinez-Garcia, et al. **Mol Gen Genet** 1989 Jun;217(2–3):464–70

Multiple Ty-mediated chromosomal translocations lead to karyotype changes in a wine strain of Saccharomyces cerevisiae. Rachidi N, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):841–50

Double-strand break repair can lead to high frequencies of deletions within short CAG/CTG trinucleotide repeats. Richard GF, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):871–82

The MCM16 gene of the yeast Saccharomyces cerevisiae is required for chromosome segregation. Sanyal K, et al. **Mol Gen Genet** 1998 Nov;260(2–3):242–50

A human gene, hSGT1, can substitute for GCR2, which encodes a general regulatory factor of glycolytic gene expression in Saccharomyces cerevisiae. Sato T, et al. **Mol Gen Genet** 1999 Jan;260(6):535–40

Genetic evidence for interactions between yeast importin alpha (Srp1p) and its nuclear export receptor, Cse1p. Schroeder AJ, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):788–95

Genetic evidence for interaction between components of the yeast 26S proteasome: combination of a mutation in RPN12 (a lid component gene) with mutations in RPT1 (an ATPase gene) causes synthetic lethality. Takeuchi J, et al. **Mol Gen Genet** 1999 Aug;262(1):145–53

A novel role for the mating type (MAT) locus in the maintenance of cell wall integrity in Saccharomyces cerevisiae. Verna J, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):681–9

Functional analysis of multiple AUG codons in the transcripts of the STA2 glucoamylase gene from Saccharomyces cerevisiae. Vivier MA, et al. **Mol Gen Genet** 1999 Feb;261(1):11–20

The topoisomerase II-associated protein, Pat1p, is required for maintenance of rDNA locus stability in Saccharomyces cerevisiae. Wang X, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):831–40

Analysis of yeast pms1, msh2, and mlh1 mutators points to differences in mismatch correction efficiencies between prokaryotic and eukaryotic cells. Yang Y, et al. **Mol Gen Genet** 1999 Jun;261(4–5):777–87

Functional implications of genetic interactions between genes encoding small GTPases involved in vesicular transport in yeast. Yoo JS, et al. **Mol Gen Genet** 1999 Feb; 261(1):80–91

A nonameric core sequence is required upstream of the LYS genes of Saccharomyces cerevisiae for Lys14p-mediated activation and apparent repression by lysine. Becker B, et al. **Mol Microbiol** 1998 Jul;29(1):151–63

Overexpression of yeast karyopherin Pse1p/Kap121p stimulates the mitochondrial import of hydrophobic proteins in vivo. Corral-Debrinski M, et al. **Mol Microbiol** 1999 Mar;31(5):1499–511

Yeast gene YRR1, which is required for resistance to 4-nitroquinoline N-oxide, mediates transcriptional activation of the multidrug resistance transporter gene SNQ2. Cui Z, et al. **Mol Microbiol** 1998 Sep;29(5):1307–15

Regulation of expression of the amino acid transporter gene BAP3 in Saccharomyces cerevisiae. De Boer M, et al. **Mol Microbiol** 1998 Nov;30(3):603–13

Role of the myb-like protein bas1p in Saccharomyces cerevisiae: a proteome analysis. Denis V, et al. **Mol Microbiol** 1998 Nov;30(3):557–66

Putative membrane components of signal transduction pathways for ambient pH regulation in Aspergillus and meiosis in saccharomyces are homologous. Denison SH, et al. **Mol Microbiol** 1998 Oct;30(2):259–64

The product of the SNF2/SWI2 paralogue INO80 of Saccharomyces cerevisiae required for efficient expression of various yeast structural genes is part of a high-molecular-weight protein complex. Ebbert R, et al. **Mol Microbiol** 1999 May;32(4):741–51

The C-terminus of eRF1 defines a functionally important domain for translation termination in Saccharomyces cerevisiae. Eurwilaichitr L, et al. **Mol Microbiol** 1999 May; 32(3):485–96

Msn1p/Mss10p, Mss11p and Muc1p/Flo11p are part of a signal transduction pathway downstream of Mep2p regulating invasive growth and pseudohyphal differentiation in Saccharomyces cerevisiae. Gagiano M, et al. **Mol Microbiol** 1999 Jan;31(1):103–16

The WD protein Cpc2p is required for repression of Gcn4 protein activity in yeast in the absence of amino-acid starvation. Hoffmann B, et al. **Mol Microbiol** 1999 Feb; 31(3):807–22

Genetic redundancy and gene fusion in the genome of the Baker's yeast Saccharomyces cerevisiae: functional characterization of a three-member gene family involved in the thiamine biosynthetic pathway. Llorente B, et al. **Mol Microbiol** 1999 Jun;32(6):1140–52

The yeast inositol monophosphatase is a lithium- and sodium-sensitive enzyme encoded by a non-essential gene pair. Lopez F, et al. **Mol Microbiol** 1999 Feb;31(4):1255–64

Stress factors acting at the level of the plasma membrane induce transcription via the stress response element (STRE) of the yeast Saccharomyces cerevisiae. Moskvina E, et al. **Mol Microbiol** 1999 Jun;32(6):1263–72

MCM21 and MCM22, two novel genes of the yeast Saccharomyces cerevisiae are required for chromosome transmission. Poddar A, et al. **Mol Microbiol** 1999 Jan; 31(1):349–60

Heat-induced cell cycle arrest of Saccharomyces cerevisiae: involvement of the RAD6/UBC2 and WSC2 genes in its reversal. Raboy B, et al. **Mol Microbiol** 1999 May; 32(4):729–39

Multiple independent regulatory pathways control UBI4 expression after heat shock in Saccharomyces cerevisiae. Simon JR, et al. **Mol Microbiol** 1999 Feb;31(3):823–32

A co-activator of nitrogen-regulated transcription in Saccharomyces cerevisiae. Soussi-Boudekou S, et al. **Mol Microbiol** 1999 Feb;31(3):753–62

P-type ATPase spf1 mutants show a novel resistance mechanism for the killer toxin SMKT. Suzuki C, et al. **Mol Microbiol** 1999 May;32(4):813–23

In budding yeast, reactive oxygen species induce both RAS-dependent and RAS-independent cell cycle-specific arrest. Wanke V, et al. **Mol Microbiol** 1999 May; 32(4):753–64

Nickel enhances telomeric silencing in Saccharomyces cerevisiae. Broday L, et al. **Mutat Res** 1999 Apr 6; 440(2):121–30

Expression of Saccharomyces cerevisiae MATa and MAT alpha enhances the HO endonuclease-stimulation of chromosomal rearrangements directed by his3 recombinational substrates. Fasullo M, et al. **Mutat Res** 1999 Jan 26;433(1):33–44

Cell division transforms mutagenic lesions into deletion-recombinagenic lesions in yeast cells. Galli A, et al. **Mutat Res** 1999 Aug 11;429(1):13–26

The N-degron protein degradation strategy for investigating the function of essential genes: requirement for replication protein A and proliferating cell nuclear antigen proteins for nucleotide excision repair in yeast extracts. Huang W, et al. **Mutat Res** 1998 Sep 11;408(3):183–94

The effect of the Saccharomyces cerevisiae endo-exonuclease NUD1 gene expression on the resistance of HeLa cells to DNA-damaging agents. Semionov A, et al. **Mutat Res** 1999 Apr 9;433(3):169–81

Yeasty brew yields novel calcium channel inhibitor [news; comment] Catterall WA. **Nat Biotechnol** 1998 Oct; 16(10):906. Comment on: Nat Biotechnol 1998 Oct;16(10):946–50.

Genomic-scale analysis goes upstream? [news; comment] Goffeau A. **Nat Biotechnol** 1998 Oct;16(10):907–8. Comment on: Nat Biotechnol 1998 Oct;16(10):939–45.

Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast. Klein C, et al. **Nat Biotechnol** 1998 Dec;16(13):1334–7

Identification of a calcium channel modulator using a high throughput yeast two-hybrid screen [see comments] [published erratum appears in Nat Biotechnol 1998 Nov;16(11):1074] Young K, et al. **Nat Biotechnol** 1998 Oct; 16(10):946–50. Comment in: Nat Biotechnol 1998 Oct;16(10):906.

Gross chromosomal rearrangements in Saccharomyces cerevisiae replication and recombination defective mutants. Chen C, et al. **Nat Genet** 1999 Sep;23(1):81–5

Genomic profiling of drug sensitivities via induced haploinsufficiency [see comments] Giaever G, et al. **Nat Genet** 1999 Mar;21(3):278–83. Comment in: Nat Genet 1999 Mar;21(3):245–6.

Redundancy reveals drugs in action [news; comment] Oliver S. **Nat Genet** 1999 Mar;21(3):245–6. Comment on: Nat Genet 1999 Mar;21(3):278–83.

Action of BTN1, the yeast orthologue of the gene mutated in Batten disease. Pearce DA, et al. **Nat Genet** 1999 May; 22(1):55–8

Mutant yeast on drugs [news; comment] Lockhart DJ. **Nat Med** 1998 Nov;4(11):1235–6. Comment on: Nat Med 1998 Nov;4(11):1293–301.

Drug target validation and identification of secondary drug target effects using DNA microarrays [see comments] Marton MJ, et al. **Nat Med** 1998 Nov;4(11):1293–301. Comment in: Nat Med 1998 Nov;4(11):1235–6.

Yeast cell-type regulation of DNA repair [letter] Aström SU, et al. **Nature** 1999 Jan 28;397(6717):310

Oligopeptide-repeat expansions modulate 'protein-only' inheritance in yeast. Liu JJ, et al. **Nature** 1999 Aug 5; 400(6744):573–6

FASAY: a simple functional assay in yeast for identification of p53 mutation in tumors. Smardová J. **Neoplasma** 1999; 46(2):80–8 (91 ref.)

The yeast FBP1 poly(A) signal functions in both orientations and overlaps with a gene promoter. Aranda A, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4588–96

All 16 centromere DNAs from Saccharomyces cerevisiae show DNA curvature. Bechert T, et al. **Nucleic Acids Res** 1999 Mar 15;27(6):1444–9

Cooperative interaction of branch signals in the actin intron of Saccharomyces cerevisiae. Castanotto D, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4137–45

Using the Saccharomyces Genome Database (SGD) for analysis of protein similarities and structure. Chervitz SA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):74–8

MitBASE pilot: a database on nuclear genes involved in mitochondrial biogenesis and its regulation in Saccharomyces cerevisiae. de Pinto B, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):147–9

A role for the yeast SWI/SNF complex in DNA replication. Flanagan JF, et al. **Nucleic Acids Res** 1999 May 1; 27(9):2022–8

Genomic detection of new yeast pre-mRNA 3'-end-processing signals. Graber JH, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):888–94

The yeast inositol-sensitive upstream activating sequence, UASINO, responds to nitrogen availability. Griac P, et al. **Nucleic Acids Res** 1999 May 1;27(9):2043–50

The Yeast Proteome Database (YPD): a model for the organization and presentation of genome-wide functional data. Hodges PE, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):69–73

Yeast artificial chromosome segregation from host chromosomes with similar lengths. Izvolsky KI, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):5011–2

A role for Ctr9p and Paf1p in the regulation G1 cyclin expression in yeast. Koch C, et al. **Nucleic Acids Res** 1999 May 15;27(10):2126–34

Nucleotide excision repair in a constitutive and inducible gene of a yeast minichromosome in intact cells. Li S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3610–20

Point and deletion mutations eliminate one or both methyl group transfers catalysed by the yeast TRM1 encoded tRNA (m22G26)dimethyltransferase. Liu J, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5102–8

Excision repair of nitrogen mustard-DNA adducts in Saccharomyces cerevisiae. McHugh PJ, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3259–66

Origin and properties of non-coding ORFs in the yeast genome. Mackiewicz P, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3503–9

Spontaneous and photosensitiser-induced DNA single-strand breaks and formamidopyrimidine-DNA glycosylase sensitive sites at nucleotide resolutionin the nuclear and mitochondrial DNA of Saccharomyces cerevisiae. Meniel V, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):822–30

New yeast genes important for chromosome integrity and segregation identified by dosage effects on genome stability. Ouspenski II, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3001–8

Random exploration of the Kluyveromyces lactis genome and comparison with that of Saccharomyces cerevisiae. Ozier-Kalogeropoulos O, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5511–24

Biochemical and genetic characterization of the DNA ligase encoded by Saccharomyces cerevisiae open reading frame YOR005c, a homolog of mammalian DNA ligase IV. Ramos W, et al. **Nucleic Acids Res** 1998 Dec 15; 26(24):5676–83

A comprehensive database for the small nucleolar RNAs from Saccharomyces cerevisiae. Samarsky DA, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):161–4

Biochemical and genetic characterization of the dominant positive element driving transcription ofthe yeast TBP-encoding gene, SPT15. Schroeder SC, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4186–95

Substrate specificities of the ntg1 and ntg2 proteins of Saccharomyces cerevisiae for oxidized DNA bases are not identical. Sentürker S, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5270–6

Cross-species aminoacylation of tRNA with a long variable arm between Escherichia coli and Saccharomyces cerevisiae. Soma A, et al. **Nucleic Acids Res** 1998 Oct 1; 26(19):4374–81

Regulation of poly(A) site choice of several yeast mRNAs. Sparks KA, et al. **Nucleic Acids Res** 1998 Oct 15; 26(20):4676–87

Homologous recombination is required for the viability of rad27 mutants. Symington LS. **Nucleic Acids Res** 1998 Dec 15;26(24):5589–95

Transcription and RNA processing of mammalian genes in Saccharomyces cerevisiae. Trachtulec Z, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):526–31

Structure and function of a small RNA that selectively inhibits internal ribosome entry site-mediated translation.

Venkatesan A, et al. **Nucleic Acids Res** 1999 Jan 15; 27(2):562–72

Differential regulation of two closely clustered yeast genes, MAG1 and DDI1, by cell-cycle checkpoints. Zhu Y, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5402–8

Interaction of complementary oligonucleotides with the 3'-end of yeast tRNA(Phe). Petyuk V, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6–7):1459–61

A comparative analysis of computational motif-detection methods. Hudak J, et al. **Pac Symp Biocomput** 1999;:138–49

Whole genome genetic-typing in yeast using high-density oligonucleotide arrays. Winzeler EA, et al. **Parasitology** 1999;118 Suppl:S73–80

Functional complementation of yeast vma1 delta cells by a plant subunit A homolog rescues the mutant phenotype and partially restores vacuolar H(+)-ATPase activity. Kim W, et al. **Plant J** 1999 Mar;17(5):501–10

Molecular characterization of higher plant NAD-dependent isocitrate dehydrogenase: evidence for a heteromeric structure by the complementation of yeast mutants. Lancien M, et al. **Plant J** 1998 Nov;16(3):325–33

Cloning and characterisation of PGA1 and PGA2: two G protein alpha-subunits from pea that promote growth in the yeast Saccharomyces cerevisiae. Marsh JF 3rd, et al. **Plant J** 1999 Aug;19(3):237–47

Heterologous expression in Saccharomyces cerevisiae of an Arabidopsis thaliana cDNA encoding mevalonate diphosphate decarboxylase. Cordier H, et al. **Plant Mol Biol** 1999 Mar;39(5):953–67

A Selaginella lepidophylla trehalose-6-phosphate synthase complements growth and stress-tolerance defects in a yeast tps1 mutant. Zentella R, et al. **Plant Physiol** 1999 Apr; 119(4):1473–82

Persistence of an alternate chromatin structure at silenced loci in vitro. Ansari A, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):343–8

Differential assembly of Cdc45p and DNA polymerases at early and late origins of DNA replication. Aparicio OM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9130–5

The Med1 subunit of the yeast mediator complex is involved in both transcriptional activation and repression [published erratum appears in Proc Natl Acad Sci U S A 1999 Mar 16;96(6):3330] Balciunas D, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):376–81

Differential regulation of transcription: repression by unactivated mitogen-activated protein kinase Kss1 requires the Dig1 and Dig2 proteins. Bardwell L, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15400–5

Physical interaction between components of DNA mismatch repair and nucleotide excision repair. Bertrand P, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14278–83

GCN5-dependent histone H3 acetylation and RPD3-dependent histone H4 deacetylation have distinct, opposing effects on IME2 transcription, during meiosis and during vegetative growth, in budding yeast. Burgess SM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6835–40

Histidine-tagged wild-type yeast actin: its properties and use in an approach for obtaining yeast actin mutants. Buzan J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2823–7

Altered dosage of the Saccharomyces cerevisiae spindle pole body duplication gene, NDC1, leads to aneuploidy and polyploidy. Chial HJ, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10200–5

The fission yeast homologue of Orc4p binds to replication origin DNA via multiple AT-hooks. Chuang RY, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2656–61

Mutator phenotypes of yeast strains heterozygous for mutations in the MSH2 gene. Drotschmann K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2970–5

The role of mismatch repair in the prevention of base pair mutations in Saccharomyces cerevisiae. Earley MC, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15487–91

The [URE3] prion is an aggregated form of Ure2p that can be cured by overexpression of Ure2p fragments. Edskes HK, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1498–503

Cluster analysis and display of genome-wide expression patterns. Eisen MB, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14863–8

Systematic changes in gene expression patterns following adaptive evolution in yeast. Ferea TL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9721–6

The Saccharomyces cerevisiae MLH3 gene functions in MSH3-dependent suppression of frameshift mutations. Flores-Rozas H, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12404–9

Hsl7p, a negative regulator of Ste20p protein kinase in the Saccharomyces cerevisiae filamentous growth-signaling pathway. Fujita A, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8522–7

Characterization of the Saccharomyces cerevisiae ERG26 gene encoding the C-3 sterol dehydrogenase (C-4 decarboxylase) involved in sterol biosynthesis [published erratum appears in Proc Natl Acad Sci U S A 1999 Feb 16;96(4):1810] Gachotte D, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13794–9

Transcriptional activation by artificial recruitment in yeast is influenced by promoter architecture and downstream sequences. Gaudreau L, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2668–73

Detecting patterns of protein distribution and gene expression in silico. Geraghty MT, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2937–42

"Mutagenesis" by peptide aptamers identifies genetic network members and pathway connections. Geyer CR, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8567–72

Trapping of megabase-sized DNA molecules during agarose gel electrophoresis. Gurrieri S, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):453–8

A cloning method to identify caspases and their regulators in yeast: identification of Drosophila IAP1 as an inhibitor of the Drosophila caspase DCP-1. Hawkins CJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2885–90

Global response of Saccharomyces cerevisiae to an alkylating agent. Jelinsky SA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1486–91

Oxygen sensing in yeast: evidence for the involvement of the respiratory chain in regulating the transcription of a subset of hypoxic genes. Kwast KE, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5446–51

Orientation-dependent and sequence-specific expansions of CTG/CAG trinucleotide repeats in Saccharomyces cerevisiae. Miret JJ, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12438–43

RNA polymerase subunit RPB5 plays a role in transcriptional activation. Miyao T, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15281–6

Triplet repeats form secondary structures that escape DNA repair in yeast. Moore H, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1504–9

Identification of SSF1, CNS1, and HCH1 as multicopy suppressors of a Saccharomyces cerevisiae Hsp90 loss-of-function mutation. Nathan DF, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1409–14

Phenotypic reversal of the btn1 defects in yeast by chloroquine: a yeast model for Batten disease [see comments] Pearce DA, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11341–5. Comment in: Proc Natl Acad Sci U S A 1999 Sep 28;96(20):10945–7.

Yeast and human genes that affect the Escherichia coli SOS response. Perkins EL, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2204–9

Probing the Saccharomyces cerevisiae centromeric DNA (CEN DNA)-binding factor 3 (CBF3) kinetochore complex by using atomic force microscopy. Pietrasanta LI, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3757–62

Large-scale protein structure modeling of the Saccharomyces cerevisiae genome. Sánchez R, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13597–602

Protein footprinting at cysteines: probing ATP-modulated contacts in cysteine-substitution mutants of yeast DNA topoisomerase II. Tu BP, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4862–7

RNA polymerase switch in transcription of yeast rDNA: role of transcription factor UAF (upstream activation factor) in silencing rDNA transcription by RNA polymerase II. Vu L, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13; 96(8):4390–5

DRC1, DNA replication and checkpoint protein 1, functions with DPB11 to control DNA replication and the S-phase checkpoint in Saccharomyces cerevisiae. Wang H, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3824–9

Stability of the mitochondrial genome requires an amino-terminal domain of yeast mitochondrial RNA polymerase. Wang Y, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8046–51

Genetic dissection of the budding yeast Arp2/3 complex: a comparison of the in vivo and structural roles of individual subunits. Winter DC, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7288–93

An activation-specific role for transcription factor TFIIB in vivo. Wu WH, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2764–9

A role for FEN-1 in nonhomologous DNA end joining: the order of strand annealing and nucleolytic processing events. Wu X, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1303–8

Phospholipase D activity is required for suppression of yeast phosphatidylinositol transfer protein defects. Xie Z, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12346–51

Genetic regulation of phospholipid metabolism: yeast as a model eukaryote. Henry SA, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:133–79 (276 ref.)

Regulation of RNA polymerase I transcription in yeast and vertebrates. Reeder RH. **Prog Nucleic Acid Res Mol Biol** 1999;62:293–327 (212 ref.)

Heterologously expressed polypeptide from the yeast meiotic gene HOP1 binds preferentially to yeast DNA. Alché JD, et al. **Protein Expr Purif** 1999 Jul;16(2):251–60

Saccharomyces cerevisiae cells harboring the gene encoding sarcotoxin IA secrete a peptide that is toxic to plant pathogenic bacteria. Aly R, et al. **Protein Expr Purif** 1999 Jun;16(1):120–4

Overexpression in Escherichia coli, purification, and characterization of recombinant 60S ribosomal acidic proteins from Saccharomyces cerevisiae. Tchórzewski M, et al. **Protein Expr Purif** 1999 Feb;15(1):40–7

Genetic and biochemical characterization of Saccharomyces cerevisiae mutants resistant to trifluoroleucine. Casalone E, et al. **Res Microbiol** 1997 Sep-Oct;148(7):613–23

Trinucleotide repeats in yeast. Richard GF, et al. **Res Microbiol** 1997 Dec;148(9):731–44

A handful of intron-containing genes produces the lion's share of yeast mRNA [letter] Ares M Jr, et al. **RNA** 1999 Sep;5(9):1138–9

Yeast ortholog of the Drosophila crooked neck protein promotes spliceosome assembly through stable U4/U6.U5 snRNP addition. Chung S, et al. **RNA** 1999 Aug; 5(8):1042–54

The identification and characterization of a novel splicing protein, Isy1p, of Saccharomyces cerevisiae. Dix I, et al. **RNA** 1999 Mar;5(3):360–8

The yeast retrotransposon Ty5 uses the anticodon stem-loop of the initiator methionine tRNA as a primer for reverse transcription. Ke N, et al. **RNA** 1999 Jul;5(7):929–38

Genomic-scale quantitative analysis of yeast pre-mRNA splicing: implications for splice-site recognition [letter] Lopez PJ, et al. **RNA** 1999 Sep;5(9):1135–7

The structure of the ITS2-proximal stem is required for pre-rRNA processing in yeast. Peculis BA, et al. **RNA** 1998 Dec;4(12):1610–22

Poly(A)-tail-promoted translation in yeast: implications for translational control. Preiss T, et al. **RNA** 1998 Nov; 4(11):1321–31

Transient interaction of BBP/ScSF1 and Mud2 with the splicing machinery affects the kinetics of spliceosome assembly. Rutz B, et al. **RNA** 1999 Jun;5(6):819–31

Identification of RNAs that bind to a specific protein using the yeast three-hybrid system. Sengupta DJ, et al. **RNA** 1999 Apr;5(4):596–601

Genome-wide bioinformatic and molecular analysis of introns in Saccharomyces cerevisiae. Spingola M, et al. **RNA** 1999 Feb;5(2):221–34

Two mutant forms of the S1/TPR-containing protein Rrp5p affect the 18S rRNA synthesis in Saccharomyces cerevisiae. Torchet C, et al. **RNA** 1998 Dec;4(12):1636–52

Arginine methylation and binding of Hrp1p to the efficiency element for mRNA 3'-end formation. Valentini SR, et al. **RNA** 1999 Feb;5(2):272–80

Synthetic lethal interactions with conditional poly(A) polymerase alleles identify LCP5, a gene involved in 18S rRNA maturation. Wiederkehr T, et al. **RNA** 1998 Nov; 4(11):1357–72

The transcriptional program of sporulation in budding yeast [published erratum appears in Science 1998 Nov 20;282(5393):1421] Chu S, et al. **Science** 1998 Oct 23; 282(5389):699–705

Ploidy regulation of gene expression [see comments] Galitski T, et al. **Science** 1999 Jul 9;285(5425):251–4. Comment in: Science 1999 Jul 9;285(5425):210–1.

Polyploidy--more is more or less [see comments] Hieter P, et al. **Science** 1999 Jul 9;285(5425):210–1. Comment in: Science 1999 Jul 9;285(5425):251–4.

A computational screen for methylation guide snoRNAs in yeast. Lowe TM, et al. **Science** 1999 Feb 19; 283(5405):1168–71

A functional assay for centromere-associated sister chromatid cohesion. Megee PC, et al. **Science** 1999 Jul 9; 285(5425):254–7

Functional characterization of the S. cerevisiae genome by gene deletion and parallel analysis. Winzeler EA, et al. **Science** 1999 Aug 6;285(5429):901–6

Unwinding RNA in Saccharomyces cerevisiae: DEAD-box proteins and related families. de la Cruz J, et al. **Trends Biochem Sci** 1999 May;24(5):192–8 (54 ref.)

Engineering baker's yeast: room for improvement. Randez-Gil F, et al. **Trends Biotechnol** 1999 Jun; 17(6):237–44

The best yeast? Forsburg SL. **Trends Genet** 1999 Sep; 15(9):340–4 (64 ref.)

Chromosomes in the Rocky Mountains. Yeast chromosome structure, replication and segregation, Snowmass, CO, USA, 8–13 August 1998. Sclafani RA. **Trends Genet** 1998 Nov;14(11):441–2

Fzf1p of Saccharomyces cerevisiae is a positive regulator of SSU1 transcription and its first zinc finger region is required for DNA binding. Avram D, et al. **Yeast** 1999 Apr;15(6):473–80

Quantitative analysis of yeast gene function using competition experiments in continuous culture. Baganz F, et al. **Yeast** 1998 Nov;14(15):1417–27

Functional analysis of yeast essential genes using a promoter-substitution cassette and the tetracycline-regulatable dual expression system. Belli G, et al. **Yeast** 1998 Sep 15;14(12):1127–38

How to bring orphan genes into functional families. Bianchi MM, et al. **Yeast** 1999 Apr;15(6):513–26

ade9 is an allele of SER1 and plays an indirect role in purine biosynthesis. Buc PS, et al. **Yeast** 1999 Sep 30; 15(13):1347–55

Specific negative effects resulting from elevated levels of the recombinational repair protein Rad54p in Saccharomyces cerevisiae. Clever B, et al. **Yeast** 1999 Jun 30;15(9):721–40

Suppression of sdh1 mutations by the SDH1b gene of Saccharomyces cerevisiae. Colby G, et al. **Yeast** 1998 Aug; 14(11):1001–6

Genome-wide transcriptional analysis in S. cerevisiae by mini-array membrane hybridization. Cox KH, et al. **Yeast** 1999 Jun 15;15(8):703–13

Systematic analysis of yeast strains with possible defects in lipid metabolism. Daum G, et al. **Yeast** 1999 May; 15(7):601–14

Biochemistry, cell biology and molecular biology of lipids of Saccharomyces cerevisiae. Daum G, et al. **Yeast** 1998 Dec;14(16):1471–510 (310 ref.)

A single nucleotide change in the MNR1 (VCX1/HUM1) gene determines resistance to manganese in Saccharomyces cerevisiae. del Pozo L, et al. **Yeast** 1999 Mar 30;15(5):371–5

Generation of null alleles for the functional analysis of six genes from the right arm of Saccharomyces cerevisiae chromosome II. Dueñas E, et al. **Yeast** 1999 May; 15(7):615–23

Disruption and basic phenotypic analysis of six novel genes from the left arm of chromosome XIV of Saccharomyces cerevisiae. Dueñas E, et al. **Yeast** 1999 Jan 15;15(1):63–72

Functional analysis of HO gene in delayed homothallism in Saccharomyces cerevisiae wy2. Ekino K, et al. **Yeast** 1999 Apr;15(6):451–8

Disruption of six open reading frames on chromosome X of Saccharomyces cerevisiae reveals a cluster of four essential genes. Esser K, et al. **Yeast** 1999 Jul; 15(10B):921–33

Three genes whose expression is induced by stress in Saccharomyces cerevisiae. Garay-Arroyo A, et al. **Yeast** 1999 Jul;15(10A):879–92

Regulated expression of the Saccharomyces cerevisiae Fre1p/Fre2p Fe/Cu reductase related genes. Georgatsou E, et al. **Yeast** 1999 May;15(7):573–84

Cloning, sequence analysis and overexpression of a Saccharomyces cerevisiae endopolygalacturonase-encoding gene (PGL1). Gognies S, et al. **Yeast** 1999 Jan 15;15(1):11–22

Heterologous URA3MX cassettes for gene replacement in Saccharomyces cerevisiae. Goldstein AL, et al. **Yeast** 1999 Apr;15(6):507–11

Deletion of the carbonic anhydrase-like gene NCE103 of the yeast Saccharomyces cerevisiae causes an oxygen-sensitive growth defect. Götz R, et al. **Yeast** 1999 Jul;15(10A):855–64

A selection system for human apoptosis inhibitors using yeast. Greenhalf W, et al. **Yeast** 1999 Sep 30;15(13):1307–21

Disruption and phenotypic analysis of seven ORFs from the left arm of chromosome XV of Saccharomyces cerevisiae. Hajji K, et al. **Yeast** 1999 Mar 30;15(5):435–41

Single-read sequence tags of a limited number of genomic DNA fragments provide an inexpensive tool for comparative genome analysis. Hartung K, et al. **Yeast** 1998 Oct;14(14):1327–32

Transcriptional profiling on all open reading frames of Saccharomyces cerevisiae. Hauser NC, et al. **Yeast** 1998 Sep 30;14(13):1209–21

A fast method to diagnose chromosome and plasmid loss in Saccharomyces cerevisiae strains. Hegemann JH, et al. **Yeast** 1999 Jul;15(10B):1009–19

Mutations in the Saccharomyces cerevisiae gene SAC1 cause multiple drug sensitivity. Hughes WE, et al. **Yeast** 1999 Aug;15(11):1111–24

Characterization of a second gene (ZSOD22) of Na+/H+ antiporter from salt-tolerant yeast Zygosaccharomyces rouxii and functional expression of ZSOD2 and ZSOD22 in Saccharomyces cerevisiae. Iwaki T, et al. **Yeast** 1998 Sep 30;14(13):1167–74

Disruption and basic functional analysis of five chromosome X novel ORFs of Saccharomyces cerevisiae reveals YJL125c as an essential gene for vegetative growth. Jaquet L, et al. **Yeast** 1999 Jan 15;15(1):51–61

Cloning and characterization of the Hansenula polymorpha homologue of the Saccharomyces cerevisiae PMR1 gene. Kang HA, et al. **Yeast** 1998 Sep 30;14(13):1233–40

A positive selection for plasmid loss in Saccharomyces cerevisiae using galactose-inducible growth inhibitory sequences. Kawahata M, et al. **Yeast** 1999 Jan 15;15(1):1–10

The Hansenula polymorpha PDD1 gene product, essential for the selective degradation of peroxisomes, is a homologue of Saccharomyces cerevisiae Vps34p. Kiel JA, et al. **Yeast** 1999 Jun 30;15(9):741–54

Epitope tagging of yeast genes using a PCR-based strategy: more tags and improved practical routines. Knop M, et al. **Yeast** 1999 Jul;15(10B):963–72

Total number of coding open reading frames in the yeast genome. Kowalczuk M, et al. **Yeast** 1999 Aug; 15(11):1031–4

Disruption of six novel yeast genes located on chromosome II reveals one gene essential for vegetative growth and two required for sporulation and conferring hypersensitivity to various chemicals. Kucharczyk R, et al. **Yeast** 1999 Jul;15(10B):987–1000

Disruption and basic functional analysis of six novel ORFs of chromosome XV from Saccharomyces cerevisiae. Lafuente MJ, et al. **Yeast** 1999 Jul;15(10B):935–43

Drug-induced phenotypes provide a tool for the functional analysis of yeast genes. Launhardt H, et al. **Yeast** 1998 Jul; 14(10):935–42

Genetic interaction between YPT6 and YPT1 in Saccharomyces cerevisiae. Li B, et al. **Yeast** 1998 Jul; 14(10):915–22

Additional modules for versatile and economical PCR-based gene deletion and modification in Saccharomyces cerevisiae. Longtine MS, et al. **Yeast** 1998 Jul;14(10):953–61

Disruption of six Saccharomyces cerevisiae genes from chromosome IV and basic phenotypic analysis of deletion mutants. López MC, et al. **Yeast** 1998 Sep 30; 14(13):1199–208

Construction and genetic analysis of S. cerevisiae deletants of six novel ORFs from chromosome II. Malagón F, et al. **Yeast** 1999 Jul;15(10B):955–61

ARH1 of Saccharomyces cerevisiae: a new essential gene that codes for a protein homologous to the human adrenodoxin reductase. Manzella L, et al. **Yeast** 1998 Jun 30;14(9):839–46

A highly conserved intraspecies homolog of the Saccharomyces cerevisiae elongation factor-3 encoded by the HEF3 gene. Maurice TC, et al. **Yeast** 1998 Sep 15; 14(12):1105–13

The positive relationship between codon usage bias and translation initiation AUG context in Saccharomyces cerevisiae. Miyasaka H. **Yeast** 1999 Jun 15;15(8):633–7

Analysis of genetic interactions between DHH1, SSD1 and ELM1 indicates their involvement in cellular morphology determination in Saccharomyces cerevisiae. Moriya H, et al. **Yeast** 1999 Apr;15(6):481–96

Decapping of stabilized, polyadenylated mRNA in yeast pab1 mutants. Morrissey JP, et al. **Yeast** 1999 Jun 15; 15(8):687–702

A search in the genome of Saccharomyces cerevisiae for genes regulated via stress response elements. Moskvina E, et al. **Yeast** 1998 Aug;14(11):1041–50

A proposal for nomenclature of aldehyde dehydrogenases in Saccharomyces cerevisiae and characterization of the stress-inducible ALD2 and ALD3 genes. Navarro-Aviño JP, et al. **Yeast** 1999 Jul;15(10A):829–42

Identification and characterization of the genes for two topoisomerase I-interacting proteins from Saccharomyces cerevisiae. Park H, et al. **Yeast** 1999 Jan 15;15(1):35–41

Transcript analysis of 250 novel yeast genes from chromosome XIV. Planta RJ, et al. **Yeast** 1999 Mar 15; 15(4):329–50

New constructs and strategies for efficient PCR-based gene manipulations in yeast. Puig O, et al. **Yeast** 1998 Sep 15; 14(12):1139–46

Initial characterization of the nascent polypeptide-associated complex in yeast. Reimann B, et al. **Yeast** 1999 Mar 30; 15(5):397–407

Designer deletion and prototrophic strains derived from Saccharomyces cerevisiae strain W303-1a. Replogle K, et al. **Yeast** 1999 Aug;15(11):1141–9

Functional analysis of 12 ORFs from Saccharomyces cerevisiae chromosome II. Rodriguez-Navarro S, et al. **Yeast** 1999 Jul;15(10B):913–9

The deletion of six ORFs of unknown function from Saccharomyces cerevisiae chromosome VII reveals two essential genes: YGR195w and YGR198w. Rodriguez-Peña JM, et al. **Yeast** 1998 Jun 30;14(9):853–60

Highly efficient assimilation of lactose by a metabolically engineered strain of Saccharomyces cerevisiae. Rubio-Texeira M, et al. **Yeast** 1998 Jun 30;14(9):827–37

Disruption of six unknown open reading frames from Saccharomyces cerevisiae reveals two genes involved in vacuolar morphogenesis and one gene required for sporulation. Saiz JE, et al. **Yeast** 1999 Jan 30;15(2):155–64

Basic phenotypic analysis of six novel yeast genes reveals two essential genes and one which affects the growth rate. Sanjuan R, et al. **Yeast** 1999 Mar 15;15(4):351–60

The development of bactericidal yeast strains by expressing the Pediococcus acidilactici pediocin gene (pedA) in Saccharomyces cerevisiae. Schoeman H, et al. **Yeast** 1999 Jun 15;15(8):647–56

Spontaneous mutation, oxidative DNA damage, and the roles of base and nucleotide excision repair in the yeast Saccharomyces cerevisiae. Scott AD, et al. **Yeast** 1999 Feb; 15(3):205–18

Disruption of six novel genes from the left arm of chromosome XV of Saccharomyces cerevisiae and basic phenotypic analysis of the generated mutants. Séron K, et al. **Yeast** 1999 Jan 15;15(1):73–9

Mouse CAF1, a mouse homologue of the yeast POP2 gene, complements the yeast pop2 null mutation. Shimizu-Yoshida Y, et al. **Yeast** 1999 Sep 30; 15(13):1357–64

A 2-microm DNA-based marker recycling system for multiple gene disruption in the yeast Saccharomyces cerevisiae. Storici F, et al. **Yeast** 1999 Mar 15;15(4):271–83

The three copies of the ATP1 gene are arranged in tandem on chromosome II of Saccharomyces cerevisiae S288C. Takeda M, et al. **Yeast** 1999 Jul;15(10A):873–8

Co-existence of two types of chromosome in the bottom fermenting yeast, Saccharomyces pastorianus. Tamai Y, et al. **Yeast** 1998 Jul;14(10):923–33

Characterization of deletion mutations in the carboxy-terminal peptide-binding domain of the Kar2 protein in Saccharomyces cerevisiae. Tokunaga M, et al. **Yeast** 1998 Oct;14(14):1285–95

Curing Saccharomyces cerevisiae of the 2 micron plasmid by targeted DNA damage. Tsalik EL, et al. **Yeast** 1998 Jun 30;14(9):847–52

Transcription of the HXT4 gene is regulated by Gcr1p and Gcr2p in the yeast S. cerevisiae. Türkel S, et al. **Yeast** 1999 Aug;15(11):1045–57

Isolation and sequence of the GCR3 homologue from Candida albicans by complementation of (delta)gcr3 strain of Saccharomyces cerevisiae. Uemura H, et al. **Yeast** 1999 Mar 15;15(4):323–7

Disruption of six ORFs on Saccharomyces cerevisiae chromosome X: the YJL069c gene of unknown function is essential to cell viability. Vandenbol M, et al. **Yeast** 1999 Sep 30;15(13):1411–7

Overproduction of the Opi1 repressor inhibits transcriptional activation of structural genes required for phospholipid biosynthesis in the yeast Saccharomyces cerevisiae. Wagner C, et al. **Yeast** 1999 Jul;15(10A):843–54

Functional analysis of three adjacent open reading frames from the right arm of yeast chromosome XVI. Waśkiewicz-Staniorowska B, et al. **Yeast** 1998 Aug; 14(11):1027–39

The open reading frame YAL048c affects the secretion of proteinase A in S. cerevisiae. Wolff AM, et al. **Yeast** 1999 Mar 30;15(5):427–34

Multiple regulatory proteins mediate repression and activation by interaction with the yeast Mig1 binding site. Wu J, et al. **Yeast** 1998 Aug;14(11):985–1000

Schizosaccharomyces pombe stt3+ is a functional homologue of Saccharomyces cerevisiae STT3 which regulates oligosaccharyltransferase activity. Yoshida S, et al. **Yeast** 1999 Apr;15(6):497–505

Disruption of six Saccharomyces cerevisiae novel genes and phenotypic analysis of the deletants. Zúñiga S, et al. **Yeast** 1999 Jul;15(10B):945–53

[Biosynthesis and transport of sterols in the yeast Saccharomyces cerevisiae] Soustre I, et al. **C R Seances Soc Biol Fil** 1998;192(5):977–90 (70 ref.) (Eng. Abstr.) **(Fre)**

[Systematic research on the function of yeast genes] Dujon B. **Pathol Biol (Paris)** 1998 Feb;46(2):113–4 **(Fre)**

[The yeast genome] Goffeau A. **Pathol Biol (Paris)** 1998 Feb; 46(2):96–7 (Eng. Abstr.) **(Fre)**

[Phylogenetic preservation of genetic study stocks of Saccharomyces cerevisiae] Harashima S, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(3):278–82 (28 ref.) **(Jpn)**

[SUP35 gene in Pichia methanolica is a recessive suppressor in Saccharomyces cerevisiae] Zadorskii SP, et al. **Dokl Akad Nauk** 1998 Aug;361(6):825–9 **(Rus)**

[Regularities of the induction of point mutation in the yeast Saccharomyces cerevisiae after exposure to gamma-radiation] Liubimova KA, et al. **Genetika** 1998 Sep; 34(9):1228–32 (Eng. Abstr.) **(Rus)**

[Cloning and determination of the structure of a new human gene, homologous to Saccharomyces cerevisiae rad proteins] Loseva EF, et al. **Genetika** 1999 Jun;35(6):744–50 (Eng. Abstr.) **(Rus)**

[Cryptic heterokaryons in Saccharomyces cerevisiae strains: pseudopleiotropic suppression in the multiple marked YPH857 strain] Nevzgliadova OV, et al. **Genetika** 1998 Dec;34(12):1597–602 (Eng. Abstr.) **(Rus)**

[Cryptic heterokaryons in Saccharomyces cerevisiae strains. Model experiments] Nevzgliadova OV, et al. **Genetika** 1998 Dec;34(12):1603–9 (Eng. Abstr.) **(Rus)**

[The cloning and expression of the gene for beta-galactosidase from Candida pseudotropicalis yeasts in Saccharomyces cerevisiae cells] Tretiak KA, et al. **Mikrobiol Z** 1998 Jul–Aug;60(4):57–66 (Eng. Abstr.) **(Rus)**

[Genetics of yeasts in Institute of Molecular Genetics of the Russian Academy of Sciences (1958–1998). Some results and perspectives] Arman IP, et al. **Mol Biol (Mosk)** 1999 Jan–Feb;33(1):48–54 (39 ref.) **(Rus)**

[Stereospecific anomalies in the structure of five completely sequenced yeast chromosomes] Soidla TR, et al. **Tsitologiia** 1998;40(7):661–76 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Role of small G proteins in yeast cell polarization and wall biosynthesis. Cabib E, et al. **Annu Rev Biochem** 1998; 67:307–33 (159 ref.)

Development of bacterial contamination during production of yeast extracts. Barrette J, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3261–3

Elevated growth of Saccharomyces cerevisiae ATH1 null mutants on glucose is an artifact of nonmatching auxotrophies of mutant and reference strains. Chopra R, et al. **Appl Environ Microbiol** 1999 May;65(5):2267–8

The spheroplast lysis assay for yeast in microtiter plate format. Ovalle R, et al. **Appl Environ Microbiol** 1999 Aug; 65(8):3325–7

Effect of specific growth rate on fermentative capacity of baker's yeast. Van Hoek P, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4226–33

A variant of Saccharomyces cerevisiae pep4 strain with improved oligotrophic proliferation, cell survival and heterologous secretion of alpha-amylase. Chen DC, et al. **Appl Microbiol Biotechnol** 1999 Feb;51(2):185–92

Evaluation of cell recycling in continuous fermentation of enzymatic hydrolysates of spruce with Saccharomyces cerevisiae and on-line monitoring of glucose and ethanol. Palmqvist E, et al. **Appl Microbiol Biotechnol** 1998 Nov; 50(5):545–51

Comparative effects of Saccharomyces cerevisiae cultivation under copper stress on the activity and kinetic parameters of plasma-membrane-bound H(+)-ATPases PMA1 and PMA2. Fernandes AR, et al. **Arch Microbiol** 1999 Mar; 171(4):273–8

Growth-dependent change of the 26S proteasome in budding yeast. Fujimuro M, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):818–23

The p16(INK4A) protein and flavopiridol restore yeast cell growth inhibited by Cdk4. Moorthamer M, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):791–7

Oligomerized Ced-4 kills budding yeast through a caspase-independent mechanism. Tao W, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):799–805

HIV-1 Nef protein causes death in stressed yeast cells due

to determinants near the N-terminus and elsewhere in Nef. Macreadie I, et al. **Biochem Mol Biol Int** 1998 Oct; 46(2):277–86

NO+, but not NO., inhibits respiratory oscillations in ethanol-grown chemostat cultures of Saccharomyces cerevisiae. Murray DB, et al. **Biochem Soc Trans** 1998 Nov; 26(4):S339

Breeding of yeast strains able to grow at 42 degrees C. Kawamura D. **Biosci Biotechnol Biochem** 1999 Mar; 63(3):560–2

Nonselective colony-color assays for HIS3, LEU2, LYS2, TRP1 and URA3 in ade2 yeast strains using media with limiting nutrients. Myers TA, et al. **Biotechniques** 1999 May;26(5):850–4

Oxygen, pH value, and carbon source induced changes of the mode of oscillation in synchronous continuous culture of Saccharomyces cerevisiae. Beuse M, et al. **Biotechnol Bioeng** 1999 May 20;63(4):410–7

In situ microscopy for on-line determination of biomass. Bittner C, et al. **Biotechnol Bioeng** 1998 Oct 5;60(1):24–35

Simple generic model for dynamic experiments with Saccharomyces cerevisiae in continuous culture: decoupling between anabolism and catabolism. Duboc P, et al. **Biotechnol Bioeng** 1998 Oct 20;60(2):180–9

Systematic errors in data evaluation due to ethanol stripping and water vaporization. Duboc P, et al. **Biotechnol Bioeng** 1998 May 20;58(4):428–39

Quantification of microbial productivity via multi-angle light scattering and supervised learning. Jones A, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):131–43 (70 ref.)

Use of an ethanol sensor for feedback control of growth and expression of TBV25H in Saccharomyces cerevisiae. Noronha SB, et al. **Biotechnol Bioeng** 1999 May 5; 63(3):285–9

Main and interaction effects of acetic acid, furfural, and p-hydroxybenzoic acid on growth and ethanol productivity of yeasts. Palmqvist E, et al. **Biotechnol Bioeng** 1999 Apr 5;63(1):46–55

Growth and energy metabolism in aerobic fed-batch cultures of Saccharomyces cerevisiae: simulation and model verification. Pham HT, et al. **Biotechnol Bioeng** 1998 Nov 20;60(4):474–82

On-line estimation of biomass through pH control analysis in aerobic yeast fermentation systems. Vicente A, et al. **Biotechnol Bioeng** 1998 May 20;58(4):445–50

Comparison of ultra- and microfiltration in the presence and absence of secondary flow with polysaccharides, proteins, and yeast suspensions. Gehlert G, et al. **Biotechnol Prog** 1998 Nov-Dec;14(6):931–42

Polarity and division site specification in yeast. Palmieri SJ, et al. **Curr Opin Microbiol** 1998 Dec;1(6):678–86 (84 ref.)

Efficient transition to growth on fermentable carbon sources in Saccharomyces cerevisiae requires signaling through the Ras pathway. Jiang Y, et al. **EMBO J** 1998 Dec 1; 17(23):6942–51

Growth requirements of pyruvate-decarboxylase-negative Saccharomyces cerevisiae. Flikweert MT, et al. **FEMS Microbiol Lett** 1999 May 1;174(1):73–9

Saccharomyces cerevisiae viability is strongly dependant on rehydration kinetics and the temperature of dried cells. Poirier I, et al. **J Appl Microbiol** 1999 Jan;86(1):87–92

Control of nitrogen catabolite repression is not affected by the tRNAGln-CUU mutation, which results in constitutive pseudohyphal growth of Saccharomyces cerevisiae. Beeser AE, et al. **J Bacteriol** 1999 Apr;181(8):2472–6

Saccharomyces cerevisiae mid2p is a potential cell wall stress sensor and upstream activator of the PKC1-MPK1 cell integrity pathway. Ketela T, et al. **J Bacteriol** 1999 Jun; 181(11):3330–40

Growth and glucose repression are controlled by glucose transport in Saccharomyces cerevisiae cells containing only one glucose transporter. Ye L, et al. **J Bacteriol** 1999 Aug; 181(15):4673–5

Mutations in the voltage-dependent anion channel of the mitochondrial outer membrane cause a dominant nonlethal growth impairment. Angeles R, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):143–51

Identification of highly conserved amino-terminal segments of dTAFII230 and yTAFII145 that are functionally interchangeable for inhibiting TBP-DNA interactions in vitro and in promoting yeast cell growth in vivo. Kotani T, et al. **J Biol Chem** 1998 Nov 27;273(48):32254–64

Cybernetic model of the growth dynamics of Saccharomyces cerevisiae in batch and continuous cultures. Jones KD, et al. **J Biotechnol** 1999 May 28;71(1-3):105–31

Principal component ANN for modelling and control of baker's yeast production. Kurtanjek Z. **J Biotechnol** 1998 Oct 19;65(1):23–35

High hydrostatic pressure come-up time and yeast viability. Palou E, et al. **J Food Prot** 1998 Dec;61(12):1657–60

Pseudohyphal variations of yeasts exposed to specific space flight parameters. Volz PA, et al. **Microbios** 1998; 95(380):25–34

Space flight micro-fungi after 27 years storage in water and in continuous culture. Volz PA, et al. **Microbios** 1998; 96(384):111–25

Multiple functions for actin during filamentous growth of Saccharomyces cerevisiae. Cali BM, et al. **Mol Biol Cell** 1998 Jul;9(7):1873–89

The syntaxin Tlg1p mediates trafficking of chitin synthase III to polarized growth sites in yeast. Holthuis JCM, et al. **Mol Biol Cell** 1998 Dec;9(12):3383–97

Crosstalk between the Ras2p-controlled mitogen-activated protein kinase and cAMP pathways during invasive growth of Saccharomyces cerevisiae. Mösch HU, et al. **Mol Biol Cell** 1999 May;10(5):1325–35

The Yck2 yeast casein kinase 1 isoform shows cell cycle-specific localization to sites of polarized growth and is required for proper septin organization. Robinson LC, et al. **Mol Biol Cell** 1999 Apr;10(4):1077–92

Dominant negative alleles of SEC10 reveal distinct domains involved in secretion and morphogenesis in yeast. Roth D, et al. **Mol Biol Cell** 1998 Jul;9(7):1725–39

The yeast ser/thr phosphatases sit4 and ppz1 play opposite roles in regulation of the cell cycle. Clotet J, et al. **Mol Cell Biol** 1999 Mar;19(3):2408–15

Control of Saccharomyces cerevisiae filamentous growth by cyclin-dependent kinase Cdc28. Edgington NP, et al. **Mol Cell Biol** 1999 Feb;19(2):1369–80

Cyclic AMP-dependent protein kinase regulates pseudohyphal differentiation in Saccharomyces cerevisiae. Pan X, et al. **Mol Cell Biol** 1999 Jul;19(7):4874–87

Growth-regulated formation of heteromeric complexes of the centromere and promoter factor, Cbf1p, in yeast. Oechsner U, et al. **Mol Gen Genet** 1998 Dec;260(5):417–25

Msn1p/Mss10p, Mss11p and Muc1p/Flo11p are part of a signal transduction pathway downstream of Mep2p regulating invasive growth and pseudohyphal differentiation in Saccharomyces cerevisiae. Gagiano M, et al. **Mol Microbiol** 1999 Jan;31(1):103–16

Cloning and characterisation of PGA1 and PGA2: two G protein alpha-subunits from pea that promote growth in the yeast Saccharomyces cerevisiae. Marsh JF 3rd, et al. **Plant J** 1999 Aug;19(3):237–47

Passage through stationary phase advances replicative aging in Saccharomyces cerevisiae. Ashrafi K, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9100–5

The three yeast A kinases have specific signaling functions in pseudohyphal growth. Robertson LS, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13783–7

DRC1, DNA replication and checkpoint protein 1, functions with DPB11 to control DNA replication and the S-phase checkpoint in Saccharomyces cerevisiae. Wang H, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3824–9

Identification of different daughter and parent subpopulations in an asynchronously growing Saccharomyces cerevisiae population. Porro D, et al. **Res Microbiol** 1997 Mar-Apr; 148(3):205–15

Molecular mechanisms of yeast longevity. Jazwinski SM. **Trends Microbiol** 1999 Jun;7(6):247–52 (53 ref.)

Mathematical description of combined action of ultrasound and hyperthermia on yeast cells. Petin VG, et al. **Ultrasonics** 1999 Jan;37(1):79–83

Disruption and basic functional analysis of five chromosome X novel ORFs of Saccharomyces cerevisiae reveals YJL125c as an essential gene for vegetative growth. Jaquet L, et al. **Yeast** 1999 Jan 15;15(1):51–61

Functional analysis of 12 ORFs from Saccharomyces cerevisiae chromosome II. Rodriguez-Navarro S, et al. **Yeast** 1999 Jul;15(10B):913–9

Basic phenotypic analysis of six novel yeast genes reveals two essential genes and one which affects the growth rate. Sanjuan R, et al. **Yeast** 1999 Mar 15;15(4):351–60

Disruption of six novel Saccharomyces cerevisiae genes reveals that YGL129c is necessary for growth in non-fermentable carbon sources, YGL128c for growth at low or high temperatures and YGL125w is implicated in the biosynthesis of methionine. Tizón B, et al. **Yeast** 1999 Jan 30;15(2):145–54

[Growth of a turbidostat culture of yeasts in the presence of a high concentration of compounds in a stationary mode and under osmotic shock conditions] Kaliuzhin VA. **Mikrobiologiia** 1998 Sep-Oct;67(5):607–12 (Eng. Abstr.) **(Rus)**

[The use of pancreatic RNAse in the production of baker's yeast] Lutskaia AIu, et al. **Prikl Biokhim Mikrobiol** 1998 Sep-Oct;34(5):588–91 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

ASCA test is commercially available! Anti-Saccharomyces cerevisiae mannan antibodies [letter] Alic M. **Am J Gastroenterol** 1999 Aug;94(8):2316

Antigen-specific response of murine immune system toward a yeast beta-glucan preparation, zymosan. Miura T, et al. **FEMS Immunol Med Microbiol** 1999 Jun;24(2):131–9

The utility of ANCA and ASCA in inflammatory bowel disease. Targan SR. **Inflamm Bowel Dis** 1999 Feb;5(1):61–3; discussion 66–7 (7 ref.)

Circulating antibodies to Saccharomyces cerevisiae (bakers'/brewers' yeast) in gastrointestinal disease. Darroch CJ, et al. **J Clin Pathol** 1999 Jan;52(1):47–53

A yeast surface display system for the discovery of ligands that trigger cell activation. Cho BK, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):179–88

Serologic testing for inflammatory bowel disease. Hoffenberg EJ, et al. **J Pediatr** 1999 Apr;134(4):447–52

ISOLATION & PURIFICATION

Saccharomyces paradoxus and Saccharomyces cerevisiae are associated with exudates of North American oaks. Naumov GI, et al. **Can J Microbiol** 1998 Nov;44(11):1045–50

Isolation of an osmotolerant ale strain of Saccharomyces cerevisiae. Pironcheva G. **Cytobios** 1998;95(380):167–71

Differentiation between brewing and non-brewing yeasts using a combination of PCR and RFLP. Yamagishi H, et al. **J Appl Microbiol** 1999 Mar;86(3):505–13

The isolation of strains of Saccharomyces cerevisiae showing altered plasmid stability characteristics by means of selective continuous culture. O'Kennedy RD, et al. **J Biotechnol** 1999 Apr 15;69(2-3):203–14

Molecular and epidemiological characterization of vaginal Saccharomyces cerevisiae isolates. Posteraro B, et al. **J Clin Microbiol** 1999 Jul;37(7):2230–5

Saccharomyces cerevisiae infections in children. Fiore NF, et al. **Pediatr Infect Dis J** 1998 Dec;17(12):1177–9

On the origins of wine yeast. Mortimer R, et al. **Res Microbiol** 1999 Apr;150(3):199–204

METABOLISM

Cytochemical images of secretion in Saccharomyces cerevisiae and animal cells are different. Voříšek J. **Acta Histochem** 1998 Nov;100(4):419–38 (99 ref.)

Triatoma infestans can be captured under natural climatic conditions using yeast-baited traps. Lorenzo MG, et al. **Acta Trop** 1998 Jul 30;70(3):277–84

Yeast culture volatiles as attractants for Rhodnius prolixus: electroantennogram responses and captures in yeast-baited traps. Lorenzo MG, et al. **Acta Trop** 1999 Jan 15; 72(1):119–24

The effect of Saccharomyces cerevisiae1026 used alone or with vitamin-mineral premix on milk yield and milk composition in dairy cows. Iwańska S, et al. **Acta Vet Hung** 1999;47(1):41–52

The effect of Saccharomyces cerevisiae1026 used alone or with vitamin-mineral premix on biochemical parameters of blood and milk in dairy cows. Iwańska S, et al. **Acta Vet Hung** 1999;47(1):53–63

Identification and quantitation of phosphorus metabolites in yeast neutral pH extracts by nuclear magnetic resonance spectroscopy. Teleman A, et al. **Anal Biochem** 1999 Jul 15;272(1):71–9

Vanadium uptake by yeasts. Zoroddu MA. **Ann N Y Acad Sci** 1999 Jun 30;879:288–91

Sphingolipid functions in Saccharomyces cerevisiae: comparison to mammals. Dickson RC. **Annu Rev Biochem** 1998;67:27–48 (138 ref.)

Stimulation of strontium accumulation in linoleate-enriched Saccharomyces cerevisiae is a result of reduced Sr2+ efflux. Avery SV, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):1191–7

The carboxy-terminal portion of the aflatoxin pathway regulatory protein AFLR of Aspergillus parasiticus activates GAL1::lacZ gene expression in Saccharomyces cerevisiae. Chang PK, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2508–12

Threonine overproduction in yeast strains carrying the HOM3-R2 mutant allele under the control of different inducible promoters. Farfán MJ, et al. **Appl Environ Microbiol** 1999 Jan;65(1):110–6

Genetic evidence that high noninduced maltase and maltose permease activities, governed by MALx3-encoded transcriptional regulators, determine efficiency of gas production by baker's yeast in unsugared dough. Higgins VJ, et al. **Appl Environ Microbiol** 1999 Feb;65(2):680–5

Evidence for the interplay between trehalose metabolism and Hsp104 in yeast. Iwahashi H, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4614–7

Continuous alcoholic fermentation of glucose/xylose mixtures by co-immobilized Saccharomyces cerevisiae and Candida shehatae. Lebeau T, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):309–13

Evaluation of cell recycling in continuous fermentation of enzymatic hydrolysates of spruce with Saccharomyces cerevisiae and on-line monitoring of glucose and ethanol. Palmqvist E, et al. **Appl Microbiol Biotechnol** 1998 Nov; 50(5):545–51

Improved ethanol production by glycerol-3-phosphate dehydrogenase mutants of Saccharomyces cerevisiae. Valadi H, et al. **Appl Microbiol Biotechnol** 1998 Oct; 50(4):434–9

Yeast mutants of glucose metabolism with defects in the coordinate regulation of carbon assimilation. Dennis RA, et al. **Arch Biochem Biophys** 1999 May 15;365(2):279–88

Cloned prokaryotic iron superoxide dismutase protects yeast cells against oxidative stress depending on mitochondrial location. Balzan R, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):63–7

Glutathione and catalase provide overlapping defenses for protection against hydrogen peroxide in the yeast Saccharomyces cerevisiae. Grant CM, et al. **Biochem Biophys Res Commun** 1998 Dec 30;253(3):893–8

Protein-protein interactions of the yeast Golgi t-SNARE Sed5 protein distinct from its neural plasma membrane cognate syntaxin 1. Kosodo Y, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):212–6

Molecular and functional study of AQY1 from Saccharomyces cerevisiae: role of the C-terminal domain. Laizé V, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):139–44

Regulation of protein phosphatase 2A catalytic activity by alpha4 protein and its yeast homolog Tap42. Nanahoshi M, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):520–6

Involvement of Spt7p in vacuolar polyphosphate level of Saccharomyces cerevisiae. Nishimura K, et al.

Biochem Biophys Res Commun 1999 Apr 21;257(3):835–8
A family of mammalian proteins homologous to yeast Sec24p. Tang BL, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):679–84
Expression of a mammalian Na+/H+ antiporter in Saccharomyces cerevisiae. Montero-Lomelí M, et al. **Biochem Cell Biol** 1999;77(1):25–31
Proton stoichiometry of the overexpressed uracil symport of the yeast Saccharomyces cerevisiae. Eddy AA, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):125–30
Characterization of the interaction domains of Ure2p, a prion-like protein of yeast. Fernandez-Bellot E, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):403–7
Inositol acylation of glycosylphosphatidylinositols in the pathogenic fungus Cryptococcus neoformans and the model yeast Saccharomyces cerevisiae. Franzot SP, et al. **Biochem J** 1999 May 15;340 (Pt 1):25–32
Endocytic delivery of intramolecularly quenched substrates and inhibitors to the intracellular yeast Kex2 protease1. Henkel MK, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):445–52
Functional expression, quantification and cellular localization of the Hxt2 hexose transporter of Saccharomyces cerevisiae tagged with the green fluorescent protein. Kruckeberg AL, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):299–307
The role of Saccharomyces cerevisiae Met1p and Met8p in sirohaem and cobalamin biosynthesis. Raux E, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):701–8
ATP-dependent transport of reduced glutathione in yeast secretory vesicles. Rebbeor JF, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):723–9
Identification of centaurin-alpha1 as a potential in vivo phosphatidylinositol 3,4,5-trisphosphate-binding protein that is functionally homologous to the yeast ADP-ribosylation factor (ARF) GTPase-activating protein, Gcs1. Venkateswarlu K, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):359–63
Different sources of acidity in glucose-elicited extracellular acidification in the yeast Saccharomyces cerevisiae. Lapathitis G, et al. **Biochem Mol Biol Int** 1998 Dec; 46(5):973–8
The 32- and 14-kilodalton subunits of replication protein A are responsible for species-specific interactions with single-stranded DNA. Sibenaller ZA, et al. **Biochemistry** 1998 Sep 8;37(36):12496–506
Spt16 and Pob3 of Saccharomyces cerevisiae form an essential, abundant heterodimer that is nuclear, chromatin-associated, and copurifies with DNA polymerase alpha. Wittmeyer J, et al. **Biochemistry** 1999 Jul 13;38(28):8961–71
Mutations affecting ligand specificity of the G-protein-coupled receptor for the Saccharomyces cerevisiae tridecapeptide pheromone. Abel MG, et al. **Biochim Biophys Acta** 1998 Nov 19;1448(1):12–26
The PLC1 encoded phospholipase C in the yeast Saccharomyces cerevisiae is essential for glucose-induced phosphatidylinositol turnover and activation of plasma membrane H+-ATPase. Coccetti P, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1–3):147–54
Multiple sorting pathways between the late Golgi and the vacuole in yeast. Conibear E, et al. **Biochim Biophys Acta** 1998 Aug 14;1404(1–2):211–30 (135 ref.)
Asparagine-linked glycosylation in the yeast Golgi. Dean N. **Biochim Biophys Acta** 1999 Jan 6;1426(2):309–22 (98 ref.)
Yeast sphingolipids. Dickson RC, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):347–57 (99 ref.)
Metabolism and selected functions of sphingolipids in the yeast Saccharomyces cerevisiae. Dickson RC, et al. **Biochim Biophys Acta** 1999 Jun 10;1438(3):305–21 (125 ref.)
Potassium ion efflux induced by cationic compounds in yeast. Enriquez-Freire E, et al. **Biochim Biophys Acta** 1999 Apr 14;1418(1):147–57
Structure of the glucan-binding sugar chain of Tip1p, a cell wall protein of Saccharomyces cerevisiae. Fujii T, et al. **Biochim Biophys Acta** 1999 Apr 19;1427(2):133–44
Impairment by hexoses of the utilization of maltose by Saccharomyces cerevisiae. Heredia CF. **Biochim Biophys Acta** 1998 Sep 16;1425(1):151–8
Mannosylphosphate transfer to yeast mannan. Jigami Y, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):335–45 (52 ref.)
Accelerated secretion of mutant beta-lactoglobulin in Saccharomyces cerevisiae resulting from a single amino acid substitution. Katakura Y, et al. **Biochim Biophys Acta** 1999 Jul 13;1432(2):302–12
Dependence of yeast mitochondrial unselective channel activity on the respiratory chain. Manon S. **Biochim Biophys Acta** 1999 Jan 27;1410(1):85–90
The involvement of mnn4 and mnn6 mutations in mannosylphosphorylation of O-linked oligosaccharide in yeast Saccharomyces cerevisiae. Nakayama K, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):255–62
The Gas1 glycoprotein, a putative wall polymer cross-linker. Popolo L, et al. **Biochim Biophys Acta** 1999 Jan 6; 1426(2):385–400 (77 ref.)
Protein O-mannosylation. Strahl-Bolsinger S, et al. **Biochim Biophys Acta** 1999 Jan 6;1426(2):297–307 (98 ref.)
Incorporation of extracellular phospholipids and their effect on the growth and lipid metabolism of the Saccharomyces cerevisiae cho1/pss mutant. Yon JO, et al. **Biochim Biophys Acta** 1998 Oct 2;1394(1):23–32
DNA-binding requirements of the yeast protein Rap1p as selected in silico from ribosomal protein gene promoter sequences. Lascaris RF, et al. **Bioinformatics** 1999 Apr; 15(4):267–77
Enhanced expression of the yeast Ure2 protein in Escherichia coli: the effect of synonymous codon substitutions at a selected place in the gene. Komar AA, et al. **Biol Chem** 1998 Oct;379(10):1295–300
S-(1,2-Dicarboxyethyl)glutathione in yeast: partial purification of its synthesizing enzyme. Tsuboi S, et al. **Biol Pharm Bull** 1999 Jan;22(1):21–5
Structure of segments of a G protein-coupled receptor: CD and NMR analysis of the Saccharomyces cerevisiae tridecapeptide pheromone receptor. Arshava B, et al. **Biopolymers** 1998 Nov;46(6):343–57
Generation of free radicals during the death of Saccharomyces cerevisiae caused by lipid hydroperoxide. Aoshima H, et al. **Biosci Biotechnol Biochem** 1999 Jun; 63(6):1025–31
Glutathione transport systems of the budding yeast Saccharomyces cerevisiae. Miyake T, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1858–64
Multi-enzymatic glucosylation using Eucalyptus UDP-glucosyltransferase coupled UDPglucose-fermentation by bakers' yeast. Nakajima N, et al. **Biosci Biotechnol Biochem** 1999 May;63(5):934–6
Purification and characterization of recombinant Mortierella vinacea alpha-galactosidases I and II expressed in Saccharomyces cerevisiae. Shibuya H, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1096–9
Catabolite repression mutants of Saccharomyces cerevisiae show altered fermentative metabolism as well as cell cycle behavior in glucose-limited chemostat cultures. Aon MA, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):203–13
Simple approach to reducing proteolysis during secretory production of human parathyroid hormone in Saccharomyces cerevisiae. Chung BH, et al. **Biotechnol Bioeng** 1998 Jan 20;57(2):245–9
Continuous ethanol fermentation of lactose by a recombinant flocculating Saccharomyces cerevisiae strain. Domingues L, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):692–7
Identification and control of oxidative metabolism in Ssaccharomyces cerevisiae during transient growth using calorimetric measurements. Duboc P, et al. **Biotechnol Bioeng** 1998 Mar 5;57(5):610–9
Slow heat rate increases yeast thermotolerance by maintaining plasma membrane integrity. Martínez de Marañón I, et al. **Biotechnol Bioeng** 1999 Oct 20; 65(2):176–81
Main and interaction effects of acetic acid, furfural, and p-hydroxybenzoic acid on growth and ethanol productivity of yeasts. Palmqvist E, et al. **Biotechnol Bioeng** 1999 Apr 5;63(1):46–55
Influence of furfural on anaerobic glycolytic kinetics of Saccharomyces cerevisiae in batch culture. Palmqvist E, et al. **Biotechnol Bioeng** 1999 Feb 20;62(4):447–54
On-line metabolic pathway analysis based on metabolic signal flow diagram. Shi H, et al. **Biotechnol Bioeng** 1998 Apr 20–May 5;58(2–3):139–48
Transmembrane distribution of substrate and product during the bioreduction of acetophenone with resting cells of Saccharomyces cerevisiae. Zhao Y, et al. **Biotechnol Bioeng** 1999 Aug 20;64(4):434–41
A predictive thermodynamic model for the bioreduction of acetophenone to phenethyl alcohol using resting cells of Saccharomyces cerevisiae. Zhao Y, et al. **Biotechnol Bioeng** 1999 Aug 20;64(4):442–51
NMR-Observed phosphate trafficking and polyphosphate dynamics in wild-type and vph1-1 mutant Saccharomyces cerevisae in response to stresses. Castrol CD, et al. **Biotechnol Prog** 1999 Jan–Feb;15(1):65–73
Yeast proteins related to the p40/laminin receptor precursor are required for 20S ribosomal RNA processing and the maturation of 40S ribosomal subunits. Ford CL, et al. **Cancer Res** 1999 Feb 1;59(3):704–10
BiP acts as a molecular ratchet during posttranslational transport of prepro-alpha factor across the ER membrane. Matlack KE, et al. **Cell** 1999 May 28;97(5):553–64
Net1, a Sir2-associated nucleolar protein required for rDNA silencing and nucleolar integrity. Straight AF, et al. **Cell** 1999 Apr 16;97(2):245–56
The protein import motor of mitochondria: unfolding and trapping of preproteins are distinct and separable functions of matrix Hsp70. Voisine C, et al. **Cell** 1999 May 28; 97(5):565–74
Elevated expression of chitinase 1 and chitin synthesis in myosin II-deficient Saccharomyces cerevisiae. Rodríguez-Medina JR, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep;44(6):919–25
The SH3 domain of the S. cerevisiae Cdc25p binds adenylyl cyclase and facilitates Ras regulation of cAMP signalling. Mintzer KA, et al. **Cell Signal** 1999 Feb;11(2):127–35
Direct evidence for the intracellular localization of Hsp104 in Saccharomyces cerevisiae by immunoelectron microscopy. Kawai R, et al. **Cell Stress Chaperones** 1999 Mar;4(1):46–53
The effect of environmental conditions and glucose feeding in shaking flask on glutathione (GSH) production. Li Y, et al. **Chin J Biotechnol** 1998;14(2):85–91
Study on kinetics of ergosterol fermentation. Luo H, et al. **Chin J Biotechnol** 1998;14(1):53–7
Functional compartmentalization of the nucleus in the budding yeast Saccharomyces cerevisiae. Léger-Silvestre I, et al. **Chromosoma** 1999 May;108(2):103–13
Biochemistry and molecular biology of sterol synthesis in Saccharomyces cerevisiae. Lees ND, et al. **Crit Rev Biochem Mol Biol** 1999;34(1):33–47 (96 ref.)
A dual role for intracellular trehalose in the resistance of yeast cells to water stress. Sano F, et al. **Cryobiology** 1999 Aug;39(1):80–7
Structural elements required for the localization of ASH1 mRNA and of a green fluorescent protein reporter particle in vivo. Chartrand P, et al. **Curr Biol** 1999 Mar 25; 9(6):333–6
ASH1 mRNA localization in yeast involves multiple secondary structural elements and Ash1 protein translation. Gonzalez I, et al. **Curr Biol** 1999 Mar 25;9(6):337–40
Interaction of yeast Rvs167 and Pho85 cyclin-dependent kinase complexes may link the cell cycle to the actin cytoskeleton. Lee J, et al. **Curr Biol** 1998 Dec 3; 8(24):1310–21
Vac1p coordinates Rab and phosphatidylinositol 3-kinase signaling in Vps45p-dependent vesicle docking/fusion at the endosome. Peterson MR, et al. **Curr Biol** 1999 Feb 11;9(3):159–62
The BRCT domain of the S. cerevisiae checkpoint protein Rad9 mediates a Rad9-Rad9 interaction after DNA damage. Soulier J, et al. **Curr Biol** 1999 May 20;9(10):551–4
A calcium-dependent ergosterol mutant of Saccharomyces cerevisiae. Crowley JH, et al. **Curr Genet** 1998 Aug; 34(2):93–9
The influence of mutation rad57-1 on the fidelity of DNA double-strand gap repair in Saccharomyces cerevisiae. Glasunov AV, et al. **Curr Genet** 1999 Jan;34(6):430–7
Leu343Phe substitution in the Malx3 protein of Saccharomyces cerevisiae increases the constitutivity and glucose insensitivity of MAL gene expression. Higgins VJ, et al. **Curr Genet** 1999 Jun;35(5):491–8
C-terminal truncation of the Sup35 protein increases the frequency of de novo generation of a prion-based [PSI+] determinant in Saccharomyces cerevisiae. Kochneva-Pervukhova NV, et al. **Curr Genet** 1998 Aug; 34(2):146–51
Mitochondrial copper metabolism in yeast: mutational analysis of Sco1p involved in the biogenesis of cytochrome c oxidase. Rentzsch A, et al. **Curr Genet** 1999 Mar; 35(2):103–8
Production of G-protein-coupled receptors in yeast. Reiländer H, et al. **Curr Opin Biotechnol** 1998 Oct; 9(5):510–7 (46 ref.)
Protein traffic in the yeast endocytic and vacuolar protein sorting pathways. Wendland B, et al. **Curr Opin Cell Biol** 1998 Aug;10(4):513–22 (69 ref.)
Signal transduction by MAP kinase cascades in budding yeast. Posas F, et al. **Curr Opin Microbiol** 1998 Apr; 1(2):175–82 (66 ref.)
Cell wall dynamics in yeast. Smits GJ, et al. **Curr Opin Microbiol** 1999 Aug;2(4):348–52 (55 ref.)
Zeroing in on zinc uptake in yeast and plants. Guerinot ML, et al. **Curr Opin Plant Biol** 1999 Jun;2(3):244–9 (49 ref.)
The effect of magnesium ions during beer fermentation. Pironcheva GL. **Cytobios** 1998;94(377):135–9
Studies of quantitative analysis of protein expression in Saccharomyces cerevisiae. Yan JX, et al. **Electrophoresis** 1999 Apr–May;20(4–5):738–42
Tolerance to toxic metals by a gene family of phytochelatin synthases from plants and yeast. Clemens S, et al. **EMBO J** 1999 Jun 15;18(12):3325–33
Got1p and Sft2p: membrane proteins involved in traffic to the Golgi complex. Conchon S, et al. **EMBO J** 1999 Jul 15;18(14):3934–46
Subcellular distribution of proteasomes implicates a major location of protein degradation in the nuclear envelope-ER network in yeast. Enenkel C, et al. **EMBO J** 1998 Nov 2;17(21):6144–54
Role of the essential yeast protein PSU1 in p6anscriptional enhancement by the ligand-dependent activation function AF-2 of nuclear receptors. Gaudon C, et al. **EMBO J** 1999 Apr 15;18(8):2229–40
The exocyst is an effector for Sec4p, targeting secretory vesicles to sites of exocytosis. Guo W, et al. **EMBO J** 1999 Feb 15;18(4):1071–80
Efficient transition to growth on fermentable carbon sources in Saccharomyces cerevisiae requires signaling through the Ras pathway. Jiang Y, et al. **EMBO J** 1998 Dec 1; 17(23):6942–51
Tor proteins and protein phosphatase 2A reciprocally regulate Tap42 in controlling cell growth in yeast. Jiang Y, et al. **EMBO J** 1999 May 17;18(10):2782–92
The mitochondrial proteins Atm1p and Nfs1p are essential for biogenesis of cytosolic Fe/S proteins. Kispal G, et al. **EMBO J** 1999 Jul 15;18(14):3981–9
Sac1p plays a crucial role in microsomal ATP transport, which is distinct from its function in Golgi phospholipid metabolism. Kochendörfer KU, et al. **EMBO J** 1999 Mar 15;18(6):1506–15
The yeast histidine protein kinase, Sln1p, mediates phosphotransfer to two response regulators, Ssk1p and Skn7p. Li S, et al. **EMBO J** 1998 Dec 1;17(23):6952–62
Characterization of Sm-like proteins in yeast and their association with U6 snRNA. Mayes AE, et al. **EMBO J** 1999 Aug 2;18(15):4321–31
The NES-Crm1p export pathway is not a major mRNA export route in Saccharomyces cerevisiae. Neville M, et

al. **EMBO J** 1999 Jul 1;18(13):3746–56

Recognition specificity of individual EH domains of mammals and yeast. Paoluzi S, et al. **EMBO J** 1998 Nov 16;17(22):6541–50

Interaction of the yeast gamma-tubulin complex-binding protein Spc72p with Kar1p is essential for microtubule function during karyogamy. Pereira G, et al. **EMBO J** 1999 Aug 2;18(15):4180–95

Retrograde transport from the yeast Golgi is mediated by two ARF GAP proteins with overlapping function. Poon PP, et al. **EMBO J** 1999 Feb 1;18(3):555–64

Mutations in both the structured domain and N-terminus of histone H2B bypass the requirement for Swi-Snf in yeast. Recht J, et al. **EMBO J** 1999 Jan 4;18(1):229–40

The TOR nutrient signalling pathway phosphorylates NPR1 and inhibits turnover of the tryptophan permease. Schmidt A, et al. **EMBO J** 1998 Dec 1;17(23):6924–31

Compartmentation of protein folding in vivo: sequestration of non-native polypeptide by the chaperonin-GimC system. Siegers K, et al. **EMBO J** 1999 Jan 4;18(1):75–84

A novel complex of membrane proteins required for formation of a spherical nucleus. Siniossoglou S, et al. **EMBO J** 1998 Nov 16;17(22):6449–64

A trans-acting peptide activates the yeast a1 repressor by raising its DNA-binding affinity. Stark MR, et al. **EMBO J** 1999 Mar 15;18(6):1621–9

Sip4, a Snf1 kinase-dependent transcriptional activator, binds to the carbon source-responsive element of gluconeogenic genes. Vincent O, et al. **EMBO J** 1998 Dec 1;17(23):7002–8

Yeast epsins contain an essential N-terminal ENTH domain, bind clathrin and are required for endocytosis. Wendland B, et al. **EMBO J** 1999 Aug 16;18(16):4383–93

Phosphoinositide signaling and turnover: PtdIns(3)P, a regulator of membrane traffic, is transported to the vacuole and degraded by a process that requires lumenal vacuolar hydrolase activities. Wurmser AE, et al. **EMBO J** 1998 Sep 1;17(17):4930–42

Association between the endoplasmic reticulum and mitochondria of yeast facilitates interorganelle transport of phospholipids through membrane contact. Achleitner G, et al. **Eur J Biochem** 1999 Sep;264(2):545–53

ATP-regulation of cytochrome oxidase in yeast mitochondria: role of subunit VIa. Beauvoit B, et al. **Eur J Biochem** 1999 Jul;263(1):118–27

Pregnenolone esterification in Saccharomyces cerevisiae. A potential detoxification mechanism. Cauet G, et al. **Eur J Biochem** 1999 Apr;261(1):317–24

Under respiratory growth conditions, Bcl-x(L) and Bcl-2 are unable to overcome yeast cell death triggered by a mutant Bax protein lacking the membrane anchor. Clow A, et al. **Eur J Biochem** 1998 Nov 15;258(1):19–28

Protein interactions of Gts1p of Saccharomyces cerevisiae throughout a region similar to a cytoplasmic portion of some ATP-binding cassette transporters. Kawabata K, et al. **Eur J Biochem** 1999 Jan;259(1–2):112–9

Rapid transbilayer movement of fluorescent phospholipid analogues in the plasma membrane of endocytosis-deficient yeast cells does not require the Drs2 protein. Marx U, et al. **Eur J Biochem** 1999 Jul;263(1):254–63

Transport of arginine and ornithine into isolated mitochondria of Saccharomyces cerevisiae. Soetens O, et al. **Eur J Biochem** 1998 Dec 1;258(2):702–9

Functional complementation analysis of yeast bc1 mutants. A study of the mitochondrial import of heterologous and hybrid proteins. van Wilpe S, et al. **Eur J Biochem** 1999 Sep;264(3):825–32

Analysis of intracellular pH in the yeast Saccharomyces cerevisiae under elevated hydrostatic pressure: a study in baro- (piezo-) physiology. Abe F, et al. **Extremophiles** 1998 Aug;2(3):223–8 (35 ref.)

The presumed potassium carrier Trk2p in Saccharomyces cerevisiae determines an H+-dependent, K+-independent current. Bihler H, et al. **FEBS Lett** 1999 Mar 19; 447(1):115–20

A RING-H2 finger motif is essential for the function of Der3/Hrd1 in endoplasmic reticulum associated protein degradation in the yeast Saccharomyces cerevisiae. Bordallo J, et al. **FEBS Lett** 1999 Apr 9;448(2–3):244–8

Identification of a human mitochondrial ABC transporter, the functional orthologue of yeast Atm1p. Csere P, et al. **FEBS Lett** 1998 Dec 18;441(2):266–70

Targeting of tail-anchored proteins to yeast mitochondria in vivo. Egan B, et al. **FEBS Lett** 1999 May 28;451(3):243–8

Low iron concentration and aconitase deficiency in a yeast frataxin homologue deficient strain. Foury F. **FEBS Lett** 1999 Aug 6;456(2):281–4

Recombinant human uncoupling protein-3 increases thermogenesis in yeast cells. Hinz W, et al. **FEBS Lett** 1999 Apr 1;448(1):57–61

Catabolite inactivation of the high-affinity hexose transporters Hxt6 and Hxt7 of Saccharomyces cerevisiae occurs in the vacuole after internalization by endocytosis. Krampe S, et al. **FEBS Lett** 1998 Dec 28;441(3):343–7

Mammalian Bax triggers apoptotic changes in yeast. Ligr M, et al. **FEBS Lett** 1998 Oct 30;438(1–2):61–5

Induction of vacuolar Ca2+-ATPase and H+/Ca2+ exchange activity in yeast mutants lacking Pmr1, the Golgi Ca2+-ATPase. Marchi V, et al. **FEBS Lett** 1999 Jul 9; 454(3):181–6

Re-entering the translocon from the lumenal side of the endoplasmic reticulum. Studies on mutated carboxypeptidase yscY species. Plemper RK, et al. **FEBS Lett** 1999 Jan 29;443(3):241–5

Role of the C-terminal domain of Bax and Bcl-XL in their localization and function in yeast cells. Priault M, et al. **FEBS Lett** 1999 Jan 25;443(2):225–8

Comparison of the effects of bax-expression in yeast under fermentative and respiratory conditions: investigation of the role of adenine nucleotides carrier and cytochrome c. Priault M, et al. **FEBS Lett** 1999 Aug 6;456(2):232–8

Imaging fluorescence resonance energy transfer between two green fluorescent proteins in living yeast. Sagot I, et al. **FEBS Lett** 1999 Mar 19;447(1):53–7

Mcx1p, a ClpX homologue in mitochondria of Saccharomyces cerevisiae. van Dyck L, et al. **FEBS Lett** 1998 Nov 6;438(3):250–4

Investigation of steroid receptor function in the budding yeast Saccharomyces cerevisiae. McEwan IJ. **FEMS Microbiol Lett** 1999 Jul 1;176(1):1–9 (35 ref.)

Catabolite inactivation of the maltose transporter in nitrogen-starved yeast could be due to the stimulation of general protein turnover. Peñalver E, et al. **FEMS Microbiol Lett** 1998 Sep 15;166(2):317–24

Active alpha-glucoside transport in Saccharomyces cerevisiae. Stambuk BU, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):105–10

Involvement of Nha1 antiporter in regulation of intracellular pH in Saccharomyces cerevisiae. Sychrová H, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):167–72

Fine structure of hepatitis B virus surface antigen produced by recombinant yeast: comparison with HBsAg of human origin. Yamaguchi M, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):363–7

Extracellular acidification by Saccharomyces cerevisiae in normal and in heavy water. Kotyk A, et al. **Folia Microbiol (Praha)** 1998;43(6):623–5

Synthesis and secretion of Providencia rettgeri and Escherichia coli heterodimeric penicillin amidases in Saccharomyces cerevisiae. Ljubijankić G, et al. **Gene** 1999 Mar 4;228(1–2):225–32

Incorporation of Drosophila TAF110 into the yeast TFIID complex does not permit the Sp1 glutamine-rich activation domain to function in vivo. Keaveney M, et al. **Genes Cells** 1999 Apr;4(4):197–203

Crm1 (Xpo1) dependent nuclear export of the budding yeast transcription factor yAP-1 is sensitive to oxidative stress. Kuge S, et al. **Genes Cells** 1998 Aug;3(8):521–32

The yeast exosome and human PM-Scl are related complexes of 3' --> 5' exonucleases. Allmang C, et al. **Genes Dev** 1999 Aug 15;13(16):2148–58

Cyclin-dependent kinase and Cks/Suc1 interact with the proteasome in yeast to control proteolysis of M-phase targets. Kaiser P, et al. **Genes Dev** 1999 May 1; 13(9):1190–202

A putative protein complex consisting of Ctf19, Mcm21, and Okp1 represents a missing link in the budding yeast kinetochore. Ortiz J, et al. **Genes Dev** 1999 May 1; 13(9):1140–55

Yeast calcineurin regulates nuclear localization of the Crz1p transcription factor through dephosphorylation. Stathopoulos-Gerontides A, et al. **Genes Dev** 1999 Apr 1;13(7):798–803

Roles of prenyl protein proteases in maturation of Saccharomyces cerevisiae a-factor. Boyartchuk VL, et al. **Genetics** 1998 Sep;150(1):95–101

An arf1Delta synthetic lethal screen identifies a new clathrin heavy chain conditional allele that perturbs vacuolar protein transport in Saccharomyces cerevisiae. Chen CY, et al. **Genetics** 1998 Oct;150(2):577–89

Suppressor analysis of mutations in the 5'-untranslated region of COB mRNA identifies components of general pathways for mitochondrial mRNA processing and decay in Saccharomyces cerevisiae. Chen W, et al. **Genetics** 1999 Apr;151(4):1315–25

Mapping of a yeast G protein betagamma signaling interaction. Dowell SJ, et al. **Genetics** 1998 Dec; 150(4):1407–17

Dna2 mutants reveal interactions with Dna polymerase alpha and Ctf4, a Pol alpha accessory factor, and show that full Dna2 helicase activity is not essential for growth. Formosa T, et al. **Genetics** 1999 Apr;151(4):1459–70

Identification of a calcineurin-independent pathway required for sodium ion stress response in Saccharomyces cerevisiae. Ganster RW, et al. **Genetics** 1998 Sep;150(1):31–42

Saccharomyces cerevisiae putative G protein, Gtr1p, which forms complexes with itself and a novel protein designated as Gtr2p, negatively regulates the Ran/Gsp1p G protein cycle through Gtr2p. Nakashima N, et al. **Genetics** 1999 Jul;152(3):853–67

Identification of functional connections between calmodulin and the yeast actin cytoskeleton. Sekiya-Kawasaki M, et al. **Genetics** 1998 Sep;150(1):43–58

Mitochondrial intermediate peptidase and the yeast frataxin homolog together maintain mitochondrial iron homeostasis in Saccharomyces cerevisiae. Branda SS, et al. **Hum Mol Genet** 1999 Jun;8(6):1099–110

Channeling of TCA cycle intermediates in Saccharomyces cerevisiae. Ira, et al. **Indian J Biochem Biophys** 1998 Oct; 35(5):260–5

Comparative behaviour of yeast strains for ethanolic fermentation of culled apple juice. Modi DR, et al. **Indian J Exp Biol** 1998 Jul;36(7):728–31

Agar immobilized yeast cells in tubular reactor for ethanol production. Nigam JN, et al. **Indian J Exp Biol** 1998 Aug; 36(8):816–9

Control of mRNA turnover as a mechanism of glucose repression in Saccharomyces cerevisiae. Scheffler IE, et al. **Int J Biochem Cell Biol** 1998 Nov;30(11):1175–93 (113 ref.)

Saccharomyces cerevisiae cell fatty acid composition and release during fermentation without aeration and in absence of exogenous lipids. Bardi L, et al. **Int J Food Microbiol** 1999 Mar 1;47(1–2):133–40

Effect of yeast culture (Saccharomyces cerevisiae) on adaptation of cows to postpartum diets and on lactational performance. Robinson PH, et al. **J Anim Sci** 1999 Apr; 77(4):988–99

Identification of radicicol as an inhibitor of in vivo Ras/Raf interaction with the yeast two-hybrid screening system. Ki SW, et al. **J Antibiot (Tokyo)** 1998 Oct;51(10):936–44

Combined use of immobilized Candida stellata cells and Saccharomyces cerevisiae to improve the quality of wines. Ciani M, et al. **J Appl Microbiol** 1998 Aug;85(2):247–54

Water transport across yeast vacuolar and plasma membrane-targeted secretory vesicles occurs by passive diffusion. Coury LA, et al. **J Bacteriol** 1999 Jul; 181(14):4437–40

Amino acid residues in the omega-minus region participate in cellular localization of yeast glycosylphosphatidylinositol-attached proteins. Hamada K, et al. **J Bacteriol** 1999 Jul;181(13):3886–9

The Saccharomyces cerevisiae weak-acid-inducible ABC transporter Pdr12 transports fluorescein and preservative anions from the cytosol by an energy-dependent mechanism. Holyoak CD, et al. **J Bacteriol** 1999 Aug; 181(15):4644–52

Differential stabilities of phosphorylated response regulator domains reflect functional roles of the yeast osmoregulatory SLN1 and SSK1 proteins. Janiak-Spens F, et al. **J Bacteriol** 1999 Jan;181(2):411–7

Deletion of new covalently linked cell wall glycoproteins alters the electrophoretic mobility of phosphorylated wall components of Saccharomyces cerevisiae. Mrsa V, et al. **J Bacteriol** 1999 May;181(10):3076–86

Clathrin and two components of the COPII complex, Sec23p and Sec24p, could be involved in endocytosis of the Saccharomyces cerevisiae maltose transporter. Peñalver E, et al. **J Bacteriol** 1999 Apr;181(8):2555–63

AGT1, encoding an alpha-glucoside transporter involved in uptake and intracellular accumulation of trehalose in Saccharomyces cerevisiae. Plourde-Owobi L, et al. **J Bacteriol** 1999 Jun;181(12):3830–2

A Saccharomyces cerevisiae mutant lacking a K+/H+ exchanger. Ramirez J, et al. **J Bacteriol** 1998 Nov; 180(22):5860–5

Divalent cation block of inward currents and low-affinity K+ uptake in Saccharomyces cerevisiae. Roberts SK, et al. **J Bacteriol** 1999 Jan;181(1):291–7

Uracil-induced down-regulation of the yeast uracil permease. Séron K, et al. **J Bacteriol** 1999 Mar; 181(6):1793–800

The Saccharomyces cerevisiae GATA factors Dal80p and Deh1p can form homo- and heterodimeric complexes. Svetlov VV, et al. **J Bacteriol** 1998 Nov;180(21):5682–8

Glucose metabolism in gcr mutants of Saccharomyces cerevisiae. Uemura H, et al. **J Bacteriol** 1999 Aug; 181(15):4719–23

Growth and glucose repression are controlled by glucose transport in Saccharomyces cerevisiae cells containing only one glucose transporter. Ye L, et al. **J Bacteriol** 1999 Aug; 181(15):4673–5

Activities of mutant Sar1 proteins in guanine nucleotide binding, GTP hydrolysis, and cell-free transport from the endoplasmic reticulum to the Golgi apparatus. Saito Y, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):816–23

Binding of rat brain hexokinase to recombinant yeast mitochondria: effect of environmental factors and the source of porin. Aflalo C, et al. **J Bioenerg Biomembr** 1998 Jun;30(3):245–55

An interaction between the N-terminal region and the core domain of yeast TFIIB promotes the formation of TATA-binding protein-TFIIB-DNA complexes. Bangur CS, et al. **J Biol Chem** 1999 Aug 13;274(33):23203–9

The bacterial magnesium transporter CorA can functionally substitute for its putative homologue Mrs2p in the yeast inner mitochondrial membrane. Bui DM, et al. **J Biol Chem** 1999 Jul 16;274(29):20438–43

Site-directed mutagenesis of yeast eEF1A. Viable mutants with altered nucleotide specificity. Cavallius J, et al. **J Biol Chem** 1998 Oct 30;273(44):28752–8

Production of human compatible high mannose-type (Man5GlcNAc2) sugar chains in Saccharomyces cerevisiae. Chiba Y, et al. **J Biol Chem** 1998 Oct 9;273(41):26298–304

An investigation of the metabolism of valine to isobutyl alcohol in Saccharomyces cerevisiae. Dickinson JR, et al. **J Biol Chem** 1998 Oct 2;273(40):25751–6

Glucose uptake kinetics and transcription of HXT genes in chemostat cultures of Saccharomyces cerevisiae. Diderich JA, et al. **J Biol Chem** 1999 May 28;274(22):15350–9

Interaction of translation initiation factor eIF4G with eIF4A in the yeast Saccharomyces cerevisiae. Dominguez D, et al. **J Biol Chem** 1999 Sep 17;274(38):26720–6

YND1, a homologue of GDA1, encodes membrane-bound apyrase required for Golgi N- and O-glycosylation in Saccharomyces cerevisiae. Gao XD, et al. **J Biol Chem** 1999 Jul 23;274(30):21450–6

Exo84p is an exocyst protein essential for secretion. Guo W, et al. **J Biol Chem** 1999 Aug 13;274(33):23558–64

Amino acid sequence requirement for efficient incorporation of glycosylphosphatidylinositol-associated proteins into the cell wall of Saccharomyces cerevisiae. Hamada K, et al. **J Biol Chem** 1998 Oct 9;273(41):26946–53

Control of expression of one-carbon metabolism genes of Saccharomyces cerevisiae is mediated by a tetrahydrofolate-responsive protein binding to a glycine regulatory region including a core 5'-CTTCTT-3' motif. Hong SP, et al. **J Biol Chem** 1999 Apr 9;274(15):10523–32

The yeast transcription factor Mac1 binds to DNA in a modular fashion. Jamison McDaniels CP, et al. **J Biol Chem** 1999 Sep 17;274(38):26962–7

Preferential binding of yeast Rad4.Rad23 complex to damaged DNA. Jansen LE, et al. **J Biol Chem** 1998 Dec 11;273(50):33111–4

The Saccharomyces cerevisiae protein Mnn10p/Bed1p is a subunit of a Golgi mannosyltransferase complex. Jungmann J, et al. **J Biol Chem** 1999 Mar 5;274(10):6579–85

The difference in recognition of terminal tripeptides as peroxisomal targeting signal 1 between yeast and human is due to different affinities of their receptor Pex5p to the cognate signal and to residues adjacent to it. Lametschwandtner G, et al. **J Biol Chem** 1998 Dec 11; 273(50):33635–43

The DNA helicase, Hmi1p, is transported into mitochondria by a C-terminal cleavable targeting signal. Lee CM, et al. **J Biol Chem** 1999 Jul 23;274(30):20937–42

Targeting to the endoplasmic reticulum in yeast cells by determinants present in transmembrane domains. Letourneur F, et al. **J Biol Chem** 1998 Dec 11; 273(50):33273–8

Functional conservation of the human homolog of the yeast pre-mRNA splicing factor Prp17p. Lindsey LA, et al. **J Biol Chem** 1998 Dec 4;273(49):32771–5

Post-translation control of Nramp metal transport in yeast. Role of metal ions and the BSD2 gene. Liu XF, et al. **J Biol Chem** 1999 Feb 19;274(8):4863–8

Saccharomyces cerevisiae MSH2/6 complex interacts with Holliday junctions and facilitates their cleavage by phage resolution enzymes. Marsischky GT, et al. **J Biol Chem** 1999 Mar 12;274(11):7200–6

The role of ubiquitin conjugation in glucose-induced proteolysis of Saccharomyces maltose permease. Medintz I, et al. **J Biol Chem** 1998 Dec 18;273(51):34454–62

The Golgi apparatus plays a significant role in the maintenance of Ca2+ homeostasis in the vps33Delta vacuolar biogenesis mutant of Saccharomyces cerevisiae. Miseta A, et al. **J Biol Chem** 1999 Feb 26;274(9):5939–47

Stable association of 70-kDa heat shock protein induces latent multisite specificity of a unisite-specific endonuclease in yeast mitochondria. Mizumura H, et al. **J Biol Chem** 1999 Sep 3;274(36):25682–90

Intermediate length Rieske iron-sulfur protein is present and functionally active in the cytochrome bc1 complex of Saccharomyces cerevisiae. Nett JH, et al. **J Biol Chem** 1999 Apr 2;274(14):9253–7

S-Adenosylmethionine-dependent methylation in Saccharomyces cerevisiae. Identification of a novel protein arginine methyltransferase. Niewmierzycka A, et al. **J Biol Chem** 1999 Jan 8;274(2):814–24

Loss of Hsp70-Hsp40 chaperone activity causes abnormal nuclear distribution and aberrant microtubule formation in M-phase of Saccharomyces cerevisiae. Oka M, et al. **J Biol Chem** 1998 Nov 6;273(45):29727–37

Importance of phenylalanine residues of yeast calmodulin for target binding and activation. Okano H, et al. **J Biol Chem** 1998 Oct 9;273(41):26375–82

Identification of the yeast mitochondrial transporter for oxaloacetate and sulfate. Palmieri L, et al. **J Biol Chem** 1999 Aug 6;274(32):22184–90

Identification and functional characterization of a novel mitochondrial thioredoxin system in Saccharomyces cerevisiae. Pedrajas JR, et al. **J Biol Chem** 1999 Mar 5; 274(10):6366–73

Domain organization and functional properties of yeast transcription factor IIIA species with different zinc stoichiometries. Pizzi S, et al. **J Biol Chem** 1999 Jan 22; 274(4):2539–48

Regulation of transition metal transport across the yeast plasma membrane. Radisky D, et al. **J Biol Chem** 1999 Feb 19;274(8):4481–4 (42 ref.)

Identification of the MNN2 and MNN5 mannosyltransferases required for forming and extending the mannose branches of the outer chain mannans of Saccharomyces cerevisiae. Rayner JC, et al. **J Biol Chem** 1998 Oct 9;273(41):26836–43

Affinity purification and partial characterization of a yeast multiprotein complex for nucleotide excision repair using histidine-tagged Rad14 protein. Rodriguez K, et al. **J Biol Chem** 1998 Dec 18;273(51):34180–9

Tra1p is a component of the yeast Ada.Spt transcriptional regulatory complexes. Saleh A, et al. **J Biol Chem** 1998 Oct 9;273(41):26559–65

The Cdc6 protein is ubiquitinated in vivo for proteolysis in Saccharomyces cerevisiae. Sánchez M, et al. **J Biol Chem** 1999 Mar 26;274(13):9092–7

A nuclear export signal prevents Saccharomyces cerevisiae Hsp70 Ssb1p from stimulating nuclear localization signal-directed nuclear transport. Shulga N, et al. **J Biol Chem** 1999 Jun 4;274(23):16501–7

Loss of Drs2p does not abolish transfer of fluorescence-labeled phospholipids across the plasma membrane of Saccharomyces cerevisiae. Siegmund A, et al. **J Biol Chem** 1998 Dec 18;273(51):34399–405

Mutations in the AF-2/hormone-binding domain of the chimeric activator GAL4.estrogen receptor.VP16 inhibit hormone-dependent transcriptional activation and chromatin remodeling in yeast. Stafford GA, et al. **J Biol Chem** 1998 Dec 18;273(51):34240–6

Intracellular glycerol levels modulate the activity of Sln1p, a Saccharomyces cerevisiae two-component regulator. Tao W, et al. **J Biol Chem** 1999 Jan 1;274(1):360–7

Topology and functional domains of the yeast pore membrane protein Pom152p. Tcheperegine SE, et al. **J Biol Chem** 1999 Feb 19;274(8):5252–8

The essential role of Saccharomyces cerevisiae CDC6 nucleotide-binding site in cell growth, DNA synthesis, and Orc1 association. Wang B, et al. **J Biol Chem** 1999 Mar 19;274(12):8291–8

Mitochondrial respiratory mutants in yeast inhibit glycogen accumulation by blocking activation of glycogen synthase. Yang R, et al. **J Biol Chem** 1998 Nov 20;273(47):31337–44

delta-N-methylarginine is a novel posttranslational modification of arginine residues in yeast proteins. Zobel-Thropp P, et al. **J Biol Chem** 1998 Nov 6; 273(45):29283–6

Cybernetic modeling of spontaneous oscillations in continuous cultures of Saccharomyces cerevisiae. Kompala DS. **J Biotechnol** 1999 May 28;71(1-3):267–74

Non-linear optimization of biotechnological processes by stochastic algorithms: application to the maximization of the production rate of ethanol, glycerol and carbohydrates by Saccharomyces cerevisiae. Rodriguez-Acosta F, et al. **J Biotechnol** 1999 Feb 5;68(1):15–28

Modeling and optimization of alpha-amylase production in a recombinant yeast fed-batch culture taking account of the cell cycle population distribution. Uchiyama K, et al. **J Biotechnol** 1999 May 28;71(1-3):133–41

A novel nuclear import pathway for the transcription factor TFIIS. Albertini M, et al. **J Cell Biol** 1998 Dec 14; 143(6):1447–55

Expression of the 180-kD ribosome receptor induces membrane proliferation and increased secretory activity in yeast. Becker F, et al. **J Cell Biol** 1999 Jul 26;146(2):273–84

Novel protein kinases Ark1p and Prk1p associate with and regulate the cortical actin cytoskeleton in budding yeast. Cope MJ, et al. **J Cell Biol** 1999 Mar 22;144(6):1203–18

Involvement of long chain fatty acid elongation in the trafficking of secretory vesicles in yeast. David D, et al. **J Cell Biol** 1998 Nov 30;143(5):1167–82

Yeast homologues of tomosyn and lethal giant larvae function in exocytosis and are associated with the plasma membrane SNARE, Sec9. Lehman K, et al. **J Cell Biol** 1999 Jul 12; 146(1):125–40

Oxygen stress: a regulator of apoptosis in yeast. Madeo F, et al. **J Cell Biol** 1999 May 17;145(4):757–67

Specific binding of the karyopherin Kap121p to a subunit of the nuclear pore complex containing Nup53p, Nup59p, and Nup170p. Marelli M, et al. **J Cell Biol** 1998 Dec 28; 143(7):1813–30

A Cdc24p-Far1p-Gbetagamma protein complex required for yeast orientation during mating. Nern A, et al. **J Cell Biol** 1999 Mar 22;144(6):1187–202

Nuclear import of the TATA-binding protein: mediation by the karyopherin Kap114p and a possible mechanism for intranuclear targeting. Pemberton LF, et al. **J Cell Biol** 1999 Jun 28;145(7):1407–17

RAE1 is a shuttling mRNA export factor that binds to a GLEBS-like NUP98 motif at the nuclear pore complex through multiple domains. Pritchard CE, et al. **J Cell Biol** 1999 Apr 19;145(2):237–54

Aip1p interacts with cofilin to disassemble actin filaments. Rodal AA, et al. **J Cell Biol** 1999 Jun 14;145(6):1251–64

Chs7p, a new protein involved in the control of protein export from the endoplasmic reticulum that is specifically engaged in the regulation of chitin synthesis in Saccharomyces cerevisiae [published erratum appears in J Cell Biol 1999 Jul 12;146(1):following 264] Trilla JA, et al. **J Cell Biol** 1999 Jun 14;145(6):1153–63

A cell-free assay allows reconstitution of Vps33p-dependent transport to the yeast vacuole/lysosome. Vida T, et al. **J Cell Biol** 1999 Jul 12;146(1):85–98

Carbon source-dependent regulation of cell growth by murine protein kinase C epsilon expression in Saccharomyces cerevisiae. Parissenti AM, et al. **J Cell Physiol** 1999 Feb;178(2):216–26

Antagonistic effects of NES and NLS motifs determine S. cerevisiae Rna1p subcellular distribution. Feng W, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):339–47

Yel013p (Vac8p), an armadillo repeat protein related to plakoglobin and importin alpha is associated with the yeast vacuole membrane. Fleckenstein D, et al. **J Cell Sci** 1998 Oct;111 (Pt 20):3109–18

N-terminal domain of Gpa1 (G protein alpha) subunit) is sufficient for plasma membrane targeting in yeast Saccharomyces cerevisiae. Gillen KM, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3235–44

A factor required for nonsense-mediated mRNA decay in yeast is exported from the nucleus to the cytoplasm by a nuclear export signal sequence. Shirley RL, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3129–43

SPC72: a spindle pole component required for spindle orientation in the yeast Saccharomyces cerevisiae. Soues S, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2809–18

Identification of the vitamers of vitamin B6 excreted by a yeast mutant growing in a glucose minimal culture medium. Argoudelis CJ. **J Chromatogr B Biomed Sci Appl** 1999 Jan 8;721(1):21–9

Surface characterization and on-line activity measurements of microorganisms by capillary zone electrophoresis. Torimura M, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jan 8;721(1):31–7

Comprehensive evaluation of isoprenoid biosynthesis regulation in Saccharomyces cerevisiae utilizing the Genome Reporter Matrix. Dimster-Denk D, et al. **J Lipid Res** 1999 May;40(5):850–60

Potassium uptake through the TOK1 K+ channel in the budding yeast. Fairman C, et al. **J Membr Biol** 1999 Mar 15;168(2):149–57

Mutagenesis of yeast TFIIIB70 reveals C-terminal residues critical for interaction with TBP and C34. Andrau JC, et al. **J Mol Biol** 1999 May 14;288(4):511–20

Pseudouridine synthetase Pus1 of Saccharomyces cerevisiae: kinetic characterisation, tRNA structural requirement and real-time analysis of its complex with tRNA. Arluison V, et al. **J Mol Biol** 1999 Jun 11;289(3):491–502

Functional and structural characterization of the prp3 binding domain of the yeast prp4 splicing factor. Ayadi L, et al. **J Mol Biol** 1998 Dec 4;284(3):673–87

Binding specificity determines polarity of DNA unwinding by the Sgs1 protein of S. cerevisiae. Bennett RJ, et al. **J Mol Biol** 1999 Jun 4;289(2):235–48

Yeast RNase III as a key processing enzyme in small nucleolar RNAs metabolism. Chanfreau G, et al. **J Mol Biol** 1998 Dec 11;284(4):975–88

Yeast aspartyl-tRNA synthetase residues interacting with tRNA(Asp) identity bases connectively contribute to tRNA(Asp) binding in the ground and transition-state complex and discriminate against non-cognate tRNAs. Eriani G, et al. **J Mol Biol** 1999 Aug 27;291(4):761–73

Mutational analysis of Saccharomyces cerevisiae Smf1p, a member of the Nramp family of metal transporters. Liu XF, et al. **J Mol Biol** 1999 Jun 18;289(4):885–91

Comparison of melibiose utilizing baker's yeast strains produced by genetic engineering and classical breeding. Vincent SF, et al. **Lett Appl Microbiol** 1999 Feb; 28(2):148–52

Analysis of mRNA decay pathways in Saccharomyces cerevisiae. He W, et al. **Methods** 1999 Jan;17(1):3–10

Chromatin assembly in yeast cell-free extracts. Schultz MC. **Methods** 1999 Feb;17(2):161–72

In vitro assays for studying Saccharomyces cerevisiae kinetochore activity. Severin F, et al. **Methods Cell Biol** 1999;61:145–53 (13 ref.)

Purification and biochemical properties of yeast SWI/SNF complex. Logie C, et al. **Methods Enzymol** 1999;304:726–41

Posttranscriptional control of gene expression in yeast. McCarthy JEG. **Microbiol Mol Biol Rev** 1998 Dec; 62(4):1492–553 (620 ref.)

The Nha1 antiporter of Saccharomyces cerevisiae mediates sodium and potassium efflux. Bañuelos MA, et al. **Microbiology** 1998 Oct;144 (Pt 10):2749–58

Pleiotropic effects of the opi1 regulatory mutation of yeast: its effects on growth and on phospholipid and inositol metabolism. Jiranek V, et al. **Microbiology** 1998 Oct;144 (Pt 10):2739–48

Protein targeting to the endoplasmic reticulum in yeast. 1997 Fleming Lecture. Stirling CJ. **Microbiology** 1999 May;145 (Pt 5):991–8 (65 ref.)

The role of glucosidase I (Cwh41p) in the biosynthesis of cell wall beta-1,6-glucan is indirect. Abeijon C, et al. **Mol Biol Cell** 1998 Oct;9(10):2729–38

Three-dimensional imaging of the yeast actin cytoskeleton through the budding cell cycle. Amberg DC. **Mol Biol Cell** 1998 Dec;9(12):3259–62

Two endoplasmic reticulum (ER) membrane proteins that facilitate ER-to-Golgi transport of glycosylphosphatidylinositol-anchored proteins. Barz WP, et al. **Mol Biol Cell** 1999 Apr;10(4):1043–59

GCS1, an Arf guanosine triphosphatase-activating protein in Saccharomyces cerevisiae, is required for normal actin cytoskeletal organization in vivo and stimulates actin polymerization in vitro. Blader IJ, et al. **Mol Biol Cell** 1999 Mar;10(3):581–96

Uridine diphosphate-glucose transport into the endoplasmic reticulum of Saccharomyces cerevisiae: in vivo and in vitro evidence. Castro O, et al. **Mol Biol Cell** 1999 Apr; 10(4):1019–30

Characterization of Fus3 localization: active Fus3 localizes in complexes of varying size and specific activity. Choi KY, et al. **Mol Biol Cell** 1999 May;10(5):1553–68

A role for Tlg1p in the transport of proteins within the Golgi apparatus of Saccharomyces cerevisiae. Coe JG, et al. **Mol Biol Cell** 1999 Jul;10(7):2407–23

Detection of transient in vivo interactions between substrate and transporter during protein translocation into the endoplasmic reticulum. Dünnwald M, et al. **Mol Biol Cell** 1999 Feb;10(2):329–44

The Saccharomyces cerevisiae v-SNARE Vti1p is required for multiple membrane transport pathways to the vacuole. Fischer von Mollard G, et al. **Mol Biol Cell** 1999 Jun; 10(6):1719–32

The nuclear actin-related protein of Saccharomyces cerevisiae, Act3p/Arp4, interacts with core histones. Harata M, et al. **Mol Biol Cell** 1999 Aug;10(8):2595–605

SACCHAROMYCES CEREVISIAE

The syntaxin Tlg1p mediates trafficking of chitin synthase III to polarized growth sites in yeast. Holthuis JCM, et al. **Mol Biol Cell** 1998 Dec;9(12):3383–97

Import into and degradation of cytosolic proteins by isolated yeast vacuoles. Horst M, et al. **Mol Biol Cell** 1999 Sep; 10(9):2879–89

Identification of regulators for Ypt1 GTPase nucleotide cycling. Jones S, et al. **Mol Biol Cell** 1998 Oct; 9(10):2819–37

Dynamics of gene expression revealed by comparison of serial analysis of gene expression transcript profiles from yeast grown on two different carbon sources. Kal AJ, et al. **Mol Biol Cell** 1999 Jun;10(6):1859–72

Hsp90 is required for pheromone signaling in yeast. Louvion JF, et al. **Mol Biol Cell** 1998 Nov;9(11):3071–83

The PDE1-encoded low-affinity phosphodiesterase in the yeast Saccharomyces cerevisiae has a specific function in controlling agonist-induced cAMP signaling. Ma P, et al. **Mol Biol Cell** 1999 Jan;10(1):91–104

Specific molecular chaperone interactions and an ATP-dependent conformational change are required during posttranslational protein translocation into the yeast ER. McClellan AJ, et al. **Mol Biol Cell** 1998 Dec; 9(12):3533–45

Saccharomyces cerevisiae MPS2 encodes a membrane protein localized at the spindle pole body and the nuclear envelope. Muñoz-Centeno MC, et al. **Mol Biol Cell** 1999 Jul;10(7):2393–406

Identification of potential regulatory elements for the transport of Emp24p. Nakamura N, et al. **Mol Biol Cell** 1998 Dec;9(12):3493–503

Sec61p serves multiple roles in secretory precursor binding and translocation into the endoplasmic reticulum membrane. Pilon M, et al. **Mol Biol Cell** 1998 Dec; 9(12):3455–73

tRNA nuclear export in saccharomyces cerevisiae: in situ hybridization analysis. Sarkar S, et al. **Mol Biol Cell** 1998 Nov;9(11):3041–55

The multiple roles of Cyk1p in the assembly and function of the actomyosin ring in budding yeast. Shannon KB, et al. **Mol Biol Cell** 1999 Feb;10(2):283–96

The Doa4 deubiquitinating enzyme is required for ubiquitin homeostasis in yeast. Swaminathan S, et al. **Mol Biol Cell** 1999 Aug;10(8):2583–94

Structural and functional analysis of a novel coiled-coil protein involved in Ypt6 GTPase-regulated protein transport in yeast. Tsukada M, et al. **Mol Biol Cell** 1999 Jan;10(1):63–75

Functional characterization of the interaction of Ste50p with Ste11p MAPKKK in Saccharomyces cerevisiae. Wu C, et al. **Mol Biol Cell** 1999 Jul;10(7):2425–40

Endoplasmic reticulum degradation. Reverse protein transport and its end in the proteasome. Plemper RK, et al. **Mol Biol Rep** 1999 Apr;26(1–2):125–30

A suppressor of two essential checkpoint genes identifies a novel protein that negatively affects dNTP pools. Zhao X, et al. **Mol Cell** 1998 Sep;2(3):329–40

Ubiquitination and degradation of the substrate recognition subunits of SCF ubiquitin-protein ligases. Zhou P, et al. **Mol Cell** 1998 Nov;2(5):571–80

Yeast mitochondrial metabolism: from in vitro to in situ quantitative study. Avéret N, et al. **Mol Cell Biochem** 1998 Jul;184(1–2):67–79

Long-chain fatty acid transport in bacteria and yeast. Paradigms for defining the mechanism underlying this protein-mediated process. DiRusso CC, et al. **Mol Cell Biochem** 1999 Feb;192(1–2):41–52 (86 ref.)

A strange calmodulin of yeast. Yazawa M, et al. **Mol Cell Biochem** 1999 Jan;190(1–2):47–54 (46 ref.)

Testing for DNA tracking by MOT1, a SNF2/SWI2 protein family member. Auble DT, et al. **Mol Cell Biol** 1999 Jan; 19(1):412–23

Identification and characterization of the fourth single-stranded-DNA binding domain of replication protein A. Brill SJ, et al. **Mol Cell Biol** 1998 Dec; 18(12):7225–34

Oxidative stress-induced destruction of the yeast C-type cyclin Ume3p requires phosphatidylinositol-specific phospholipase C and the 26S proteasome. Cooper KF, et al. **Mol Cell Biol** 1999 May;19(5):3338–48

Functional analysis of the yeast Glc7-binding protein Reg1 identifies a protein phosphatase type 1-binding motif as essential for repression of ADH2 expression. Dombek KM, et al. **Mol Cell Biol** 1999 Sep;19(9):6029–40

The yeast trimeric guanine nucleotide-binding protein alpha subunit, Gpa2p, controls the meiosis-specific kinase Ime2p activity in response to nutrients. Donzeau M, et al. **Mol Cell Biol** 1999 Sep;19(9):6110–9

Involvement of DNA end-binding protein Ku in Ty element retrotransposition. Downs JA, et al. **Mol Cell Biol** 1999 Sep;19(9):6260–8

Cyclin B-cdk1 kinase stimulates ORC- and Cdc6-independent steps of semiconservative plasmid replication in yeast nuclear extracts. Duncker BP, et al. **Mol Cell Biol** 1999 Feb;19(2):1226–41

Cer1p functions as a molecular chaperone in the endoplasmic reticulum of Saccharomyces cerevisiae. Hamilton TG, et al. **Mol Cell Biol** 1999 Aug;19(8):5298–307

Activator-specific requirement of yeast mediator proteins for RNA polymerase II transcriptional activation. Han SJ, et al. **Mol Cell Biol** 1999 Feb;19(2):979–88

The yeast C-type cyclin Ctk2p is phosphorylated and rapidly degraded by the ubiquitin-proteasome pathway. Hautbergue G, et al. **Mol Cell Biol** 1999 Apr;19(4):2527–34

NMD3 encodes an essential cytoplasmic protein required for stable 60S ribosomal subunits in Saccharomyces cerevisiae. Ho JH, et al. **Mol Cell Biol** 1999 Mar;19(3):2389–99

Amino acid signaling in Saccharomyces cerevisiae: a permease-like sensor of external amino acids and F-Box protein Grr1p are required for transcriptional induction of the AGP1 gene, which encodes a broad-specificity amino acid permease. Iraqui I, et al. **Mol Cell Biol** 1999 Feb;19(2):989–1001

The yeast a1 and alpha2 homeodomain proteins do not contribute equally to heterodimeric DNA binding. Jin Y, et al. **Mol Cell Biol** 1999 Jan;19(1):585–93

Mutational disruption of plasma membrane trafficking of Saccharomyces cerevisiae Yor1p, a homologue of mammalian multidrug resistance protein. Katzmann DJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2998–3009

Ssy1p and Ptr3p are plasma membrane components of a yeast system that senses extracellular amino acids. Klasson H, et al. **Mol Cell Biol** 1999 Aug;19(8):5405–16

Role of a complex containing Rad17, Mec3, and Ddc1 in the yeast DNA damage checkpoint pathway. Kondo T, et al. **Mol Cell Biol** 1999 Feb;19(2):1136–43

Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Lee SJ, et al. **Mol Cell Biol** 1999 Aug; 19(8):5441–52

A novel mechanism of ion homeostasis and salt tolerance in yeast: the Hal4 and Hal5 protein kinases modulate the Trk1–Trk2 potassium transporter. Mulet JM, et al. **Mol Cell Biol** 1999 May;19(5):3328–37

Antagonistic interactions between yeast chaperones Hsp104 and Hsp70 in prion curing. Newnam GP, et al. **Mol Cell Biol** 1999 Feb;19(2):1325–33

Rho3 of Saccharomyces cerevisiae, which regulates the actin cytoskeleton and exocytosis, is a GTPase which interacts with Myo2 and Exo70. Robinson NG, et al. **Mol Cell Biol** 1999 May;19(5):3580–7

Heat shock element architecture is an important determinant in the temperature and transactivation domain requirements for heat shock transcription factor. Santoro N, et al. **Mol Cell Biol** 1998 Nov;18(11):6340–52

Nuclear mRNA export requires complex formation between Mex67p and Mtr2p at the nuclear pores. Santos-Rosa H, et al. **Mol Cell Biol** 1998 Nov;18(11):6826–38

Base pairing between U3 small nucleolar RNA and the 5' end of 18S rRNA is required for pre-rRNA processing. Sharma K, et al. **Mol Cell Biol** 1999 Sep;19(9):6012–9

The Saccharomyces cerevisiae homologue of mammalian translation initiation factor 6 does not function as a translation initiation factor. Si K, et al. **Mol Cell Biol** 1999 Feb;19(2):1416–26

Prohibitins regulate membrane protein degradation by the m-AAA protease in mitochondria. Steglich G, et al. **Mol Cell Biol** 1999 May;19(5):3435–42

The succinate/fumarate transporter Acr1p of Saccharomyces cerevisiae is part of the gluconeogenic pathway and its expression is regulated by Cat8p. Bojunga N, et al. **Mol Gen Genet** 1998 Dec;260(5):453–61

Involvement of histidine permease (Hip1p) in manganese transport in Saccharomyces cerevisiae. Farcasanu IC, et al. **Mol Gen Genet** 1998 Sep;259(5):541–8

Dbf2 is implicated in a Cbt1-dependent pathway following a shift from glucose to galactose or non-fermentable carbon sources in Saccharomyces cerevisiae. Grandin N, et al. **Mol Gen Genet** 1999 Mar;261(2):402–7

Lic4, a nuclear phosphoprotein that cooperates with calcineurin to regulate cation homeostasis in Saccharomyces cerevisiae. Hemenway CS, et al. **Mol Gen Genet** 1999 Mar;261(2):388–401

Yeast Skn7p activity is modulated by the Sln1p-Ypd1p osmosensor and contributes to regulation of the HOG pathway. Ketela T, et al. **Mol Gen Genet** 1998 Sep; 259(4):372–8

Four hydrophobic amino acid residues in the C-terminal effector domain of the yeast Mig1p repressor are important for its in vivo activity. Ostling J, et al. **Mol Gen Genet** 1998 Nov;260(2–3):269–79

A human gene, hSGT1, can substitute for GCR2, which encodes a general regulatory factor of glycolytic gene expression in Saccharomyces cerevisiae. Sato T, et al. **Mol Gen Genet** 1999 Jan;260(6):535–40

Galactose induction in yeast involves association of Gal80p with Gal1p or Gal3p. Vollenbroich V, et al. **Mol Gen Genet** 1999 Apr;261(3):495–507

PTR3, a novel gene mediating amino acid–inducible regulation of peptide transport in Saccharomyces cerevisiae. Barnes D, et al. **Mol Microbiol** 1998 Jul; 29(1):297–310

Ssa1p chaperone interacts with the guanine nucleotide exchange factor of ras Cdc25p and controls the cAMP pathway in Saccharomyces cerevisiae. Geymonat M, et al. **Mol Microbiol** 1998 Nov;30(4):855–64

The contribution of the O-glycosylated protein Pir2p/Hsp150 to the construction of the yeast cell wall in wild-type cells and beta 1,6-glucan-deficient mutants. Kapteyn JC, et al. **Mol Microbiol** 1999 Mar;31(6):1835–44

A Saccharomyces cerevisiae G-protein coupled receptor, Gpr1, is specifically required for glucose activation of the cAMP pathway during the transition to growth on glucose. Kraakman L, et al. **Mol Microbiol** 1999 Jun;32(5):1002–12

The prepropeptide of vacuolar aminopeptidase I is necessary and sufficient to target the fluorescent reporter protein GFP to the vacuole of yeast by the Ccvt pathway. Martinez E, et al. **Mol Microbiol** 1999 Jul;33(1):52–62

Fps1p controls the accumulation and release of the compatible solute glycerol in yeast osmoregulation. Tamás MJ, et al. **Mol Microbiol** 1999 Feb;31(4):1087–104

Novel sensing mechanisms and targets for the cAMP-protein kinase A pathway in the yeast Saccharomyces cerevisiae. Thevelein JM, et al. **Mol Microbiol** 1999 Sep;33(5):904–18 (101 ref.)

Formation of the yeast Mre11-Rad50-Xrs2 complex is correlated with DNA repair and telomere maintenance. Chamankhah M, et al. **Nucleic Acids Res** 1999 May 15; 27(10):2072–9

A specific RNA-protein interaction at yeast polyadenylation efficiency elements. Chen S, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):4965–74

Nucleotide excision repair in a constitutive and inducible gene of a yeast minichromosome in intact cells. Li S, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3610–20

Reduction of some toxicants in Icacina mannii by fermentation with Saccharomyces cerevisiae. Antai SP, et al. **Plant Foods Hum Nutr** 1999;53(2):103–11

Differential assembly of Cdc45p and DNA polymerases at early and late origins of DNA replication. Aparicio OM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9130–5

GCN5-dependent histone H3 acetylation and RPD3-dependent histone H4 deacetylation have distinct, opposing effects on IME2 transcription, during meiosis and during vegetative growth, in budding yeast. Burgess SM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6835–40

Chloride is an allosteric effector of copper assembly for the yeast multicopper oxidase Fet3p: an unexpected role for intracellular chloride channels. Davis-Kaplan SR, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13641–5

The [URE3] prion is an aggregated form of Ure2p that can be cured by overexpression of Ure2p fragments. Edskes HK, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1498–503

A novel yeast protein influencing the response of RNA polymerase II to transcriptional activators. Emili A, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11122–7

The Arabidopsis thaliana proton transporters, AtNhx1 and Avp1, can function in cation detoxification in yeast. Gaxiola RA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1480–5

Pathways of As(III) detoxification in Saccharomyces cerevisiae. Ghosh M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5001–6

Folding in vivo of a newly translated yeast cytosolic enzyme is mediated by the SSA class of cytosolic yeast Hsp70 proteins. Kim S, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12860–5

The biochemical properties of the ATPase activity of a 70-kDa heat shock protein (Hsp70) are governed by the C-terminal domains. Lopez-Buesa P, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15253–8

Chitin synthase III: synthetic lethal mutants and "stress related" chitin synthesis that bypasses the CSD3/CHS6 localization pathway. Osmond BC, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11206–10

Interaction of 5-lipoxygenase with cellular proteins. Provost P, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1881–5

A small nucleolar RNA:ribozyme hybrid cleaves a nucleolar RNA target in vivo with near-perfect efficiency. Samarsky DA, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6609–14

The charged region of Hsp90 modulates the function of the N-terminal domain. Scheibel T, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1297–302

Efficient export of the glucose transporter Hxt1p from the endoplasmic reticulum requires Gsf2p. Sherwood PW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7415–20

Purification of the yeast U4/U6.U5 small nuclear ribonucleoprotein particle and identification of its proteins. Stevens SW, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7226–31

Yeast flavin-containing monooxygenase generates oxidizing equivalents that control protein folding in the endoplasmic reticulum. Suh JK, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2687–91

Crystal structure and mechanism of histone acetylation of the yeast GCN5 transcriptional coactivator [see comments] Trievel RC, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8931–6. Comment in: Proc Natl Acad Sci U S A 1999 Aug 3;96(16):8807–8.

The Cdc6p nucleotide-binding motif is required for loading mcm proteins onto chromatin. Weinreich M, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):441–6

Domain structure and lipid interaction of recombinant yeast Tim44. Weiss C, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8890–4

Genetic regulation of phospholipid metabolism: yeast as a model eukaryote. Henry SA, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:133–79 (276 ref.)

Saccharomyces cerevisiae cells harboring the gene encoding sarcotoxin IA secrete a peptide that is toxic to plant pathogenic bacteria. Aly R, et al. **Protein Expr Purif** 1999 Jun;16(1):120–4

Functional expression of rat VPAC1 receptor in Saccharomyces cerevisiae. Hansen MK, et al.

Receptors Channels 1999;6(4):271–81

Genetic and biochemical characterization of Saccharomyces cerevisiae mutants resistant to trifluoroleucine. Casalone E, et al. **Res Microbiol** 1997 Sep–Oct;148(7):613–23

Comparison of secretion of a hepatitis C virus glycoprotein in Saccharomyces cerevisiae and Kluyveromyces lactis. Mustilli AC, et al. **Res Microbiol** 1999 Apr;150(3):179–87

Models for oxygen sensing in yeast: implications for oxygen-regulated gene expression in higher eucaryotes. Poyton RO. **Respir Physiol** 1999 Apr 1;115(2):119–33 (70 ref.)

Overexpression of truncated Nmd3p inhibits protein synthesis in yeast. Belk JP, et al. **RNA** 1999 Aug;5(8):1055–70

Est1 and Cdc13 as comediators of telomerase access. Evans SK, et al. **Science** 1999 Oct 1;286(5437):117–20

Roles of phosphorylation sites in regulating activity of the transcription factor Pho4. Komeili A, et al. **Science** 1999 May 7;284(5416):977–80

Free copper ions in the cell? [comment] Lippard SJ. **Science** 1999 Apr 30;284(5415):748–9. Comment on: Science 1999 Apr 30;284(5415):805–8.

Genetic selection of peptide inhibitors of biological pathways. Norman TC, et al. **Science** 1999 Jul 23;285(5427):591–5

Control of the terminal step of intracellular membrane fusion by protein phosphatase 1. Peters C, et al. **Science** 1999 Aug 13;285(5430):1084–7

Undetectable intracellular free copper: the requirement of a copper chaperone for superoxide dismutase [see comments] Rae TD, et al. **Science** 1999 Apr 30; 284(5415):805–8. Comment in: Science 1999 Apr 30;284(5415):748–9.

A phospholipase C-dependent inositol polyphosphate kinase pathway required for efficient messenger RNA export. York JD, et al. **Science** 1999 Jul 2;285(5424):96–100

Control of cyclin ubiquitination by CDK-regulated binding of Hct1 to the anaphase promoting complex. Zachariae W, et al. **Science** 1998 Nov 27;282(5394):1721–4

Glycolysis, turbo design and the endocrine pancreatic beta cell [letter; comment] Iynedjian PB. **Trends Biochem Sci** 1998 Dec;23(12):467–8. Comment on: Trends Biochem Sci 1998 May;23(5):162–9.

Feasting, fasting and fermenting. Glucose sensing in yeast and other cells. Johnston M. **Trends Genet** 1999 Jan; 15(1):29–33 (82 ref.)

Starting up yeast glycolysis [see comments] Gonçalves P, et al. **Trends Microbiol** 1998 Aug;6(8):314–9 (31 ref.). Comment in: Trends Microbiol 1998 Dec;6(12):472–3.

Studies on the structures and antigenic properties of rabies virus glycoprotein analogues produced in yeast cells. Sakamoto S, et al. **Vaccine** 1999 Jan 21;17(3):205–18

Activation of Ste20 by Nef from human immunodeficiency virus induces cytoskeletal rearrangements and downstream effector functions in Saccharomyces cerevisiae. Plemenitas A, et al. **Virology** 1999 Jun 5;258(2):271–81

Construction of a lactose-assimilating strain of baker's yeast. Adam AC, et al. **Yeast** 1999 Sep 30;15(13):1299–305

Biochemistry, cell biology and molecular biology of lipids of Saccharomyces cerevisiae. Daum G, et al. **Yeast** 1998 Dec;14(16):1471–510 (310 ref.)

Systematic analysis of yeast strains with possible defects in lipid metabolism. Daum G, et al. **Yeast** 1999 May; 15(7):601–14

Yeast vitality during cider fermentation: assessment by energy metabolism. Dinsdale MG, et al. **Yeast** 1999 Mar 15;15(4):285–93

Disruption and basic functional analysis of six novel ORFs of chromosome XV from Saccharomyces cerevisiae. Lafuente MJ, et al. **Yeast** 1999 Jul;15(10B):935–43

Effects of weak acids on cation accumulation, delta pH and delta psi in yeast. López R, et al. **Yeast** 1999 May; 15(7):553–62

Role of NaOH-extractable cell wall proteins Ccw5p, Ccw6p, Ccw7p and Ccw8p (members of the Pir protein family) in stability of the Saccharomyces cerevisiae cell wall. Mrsa V, et al. **Yeast** 1999 Jul;15(10A):813–20

Cysteine biosynthesis in Saccharomyces cerevisiae: a new outlook on pathway and regulation. Ono BI, et al. **Yeast** 1999 Sep 30;15(13):1365–75

Dynamic responses of reserve carbohydrate metabolism under carbon and nitrogen limitations in Saccharomyces cerevisiae. Parrou JL, et al. **Yeast** 1999 Feb;15(3):191–203

Initial characterization of the nascent polypeptide-associated complex in yeast. Reimann B, et al. **Yeast** 1999 Mar 30; 15(5):397–407

Highly efficient assimilation of lactose by a metabolically engineered strain of Saccharomyces cerevisiae. Rubio-Texeira M, et al. **Yeast** 1998 Jun 30;14(9):827–37

Disruption of six novel Saccharomyces cerevisiae genes reveals that YGL129c is necessary for growth in non-fermentable carbon sources, YGL128c for growth at low or high temperatures and YGL125w is implicated in the biosynthesis of methionine. Tizón B, et al. **Yeast** 1999 Jan 30;15(2):145–54

Isolation and sequence of the GCR3 homologue from Candida albicans by complementation of (delta)gcr3 strain of Saccharomyces cerevisiae. Uemura H, et al. **Yeast** 1999 Mar 15;15(4):323–7

Overproduction of the Opi1 repressor inhibits transcriptional activation of structural genes required for phospholipid biosynthesis in the yeast Saccharomyces cerevisiae. Wagner C, et al. **Yeast** 1999 Jul;15(10A):843–54

Over-expression of Candida albicans mitochondrial ribosomal protein S9 (MrpS9p) disturbs mitochondrial function in Saccharomyces cerevisiae. Wiltshire C, et al. **Yeast** 1999 Jan 30;15(2):139–43

[Erythropoietin gene cloning and expression in S. cerevisiae] Zhang X, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Oct; 19(5):389–94 (Eng. Abstr.) **(Chi)**

[Biosynthesis and transport of sterols in the yeast Saccharomyces cerevisiae] Soustre I, et al. **C R Seances Soc Biol Fil** 1998;192(5):977–90 (70 ref.) (Eng. Abstr.) **(Fre)**

[Biosynthesis of triacylglycerol and related intracellular lipid transport in fungi and yeasts] Kamisaka Y. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1207–12 (35 ref.) **(Jpn)**

PHYSIOLOGY

Baker's yeast in Crohn's disease--can it kill you? [letter] Alic M. **Am J Gastroenterol** 1999 Jun;94(6):1711

Mitochondrial dynamics in yeast. Hermann GJ, et al. **Annu Rev Cell Dev Biol** 1998;14:265–303 (155 ref.)

Aging in Saccharomyces cerevisiae. Sinclair D, et al. **Annu Rev Microbiol** 1998;52:533–60 (137 ref.)

Physiological characterisation of a pyruvate-carboxylase-negative Saccharomyces cerevisiae mutant in batch and chemostat cultures. de Jong-Gubbels P, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):253–63

Specific cell wall proteins confer resistance to nisin upon yeast cells. Dielbandhoesing SK, et al. **Appl Environ Microbiol** 1998 Oct;64(10):4047–52

Improvement of nitrogen assimilation and fermentation kinetics under enological conditions by derepression of alternative nitrogen-assimilatory pathways in an industrial Saccharomyces cerevisiae strain. Salmon JM, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3831–7

Stress tolerance in doughs of Saccharomyces cerevisiae trehalase mutants derived from commercial Baker's yeast. Shima J, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):2841–6

Gpr1p, a putative G-protein coupled receptor, regulates glucose-dependent cellular cAMP level in yeast Saccharomyces cerevisiae. Yun CW, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):29–33

Biochemical analysis of the Saccharomyces cerevisiae SEC18 gene product: implications for the molecular mechanism of membrane fusion. Steel GJ, et al. **Biochemistry** 1999 Jun 15;38(24):7764–72

Topography of the yeast ATP synthase F0 sector. Velours J, et al. **Biochimie** 1998 Oct;80(10):793–801

Microelectronic sensors for measurement of electromagnetic fields of living cells and experimental results. Jelinek F, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):261–6

Examination of the relationship between parameters to determine electropermeability of Saccharomyces cerevisiae. Muraji M, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):485–8

Characterization of Saccharomyces cerevisiae ubiquinone-deficient mutants. Schultz JR, et al. **Biofactors** 1999;9(2–4):121–9

Quantitating secretion rates of individual cells: design of secretion assays. Frykman S, et al. **Biotechnol Bioeng** 1998 Jul 20;59(2):214–26

Yeast suspension filtration: flux enhancement using an upward gas/liquid slug flow-application to continuous alcoholic fermentation with cell recycle. Mercier M, et al. **Biotechnol Bioeng** 1998 Apr 5;58(1):47–57

Stress tolerance in a yeast lipid mutant: membrane lipids influence tolerance to heat and ethanol independently of heat shock proteins and trehalose. Swan TM, et al. **Can J Microbiol** 1999 Jun;45(6):472–9

Noncanonical MMS2-encoded ubiquitin-conjugating enzyme functions in assembly of novel polyubiquitin chains for DNA repair. Hofmann RM, et al. **Cell** 1999 Mar 5; 96(5):645–53

A novel ubiquitination factor, E4, is involved in multiubiquitin chain assembly. Koegl M, et al. **Cell** 1999 Mar 5;96(5):635–44

Nuclear shuttling of yeast scaffold Ste5 is required for its recruitment to the plasma membrane and activation of the mating MAPK cascade. Mahanty SK, et al. **Cell** 1999 Aug 20;98(4):501–12

The role of Saccharomyces cerevisiae coronin in the actin and microtubule cytoskeletons. Heil-Chapdelaine RA, et al. **Curr Biol** 1998 Nov 19;8(23):1281–4

The WASp homologue Las17p functions with the WIP homologue End5p/verprolin and is essential for endocytosis in yeast. Naqvi SN, et al. **Curr Biol** 1998 Aug 27;8(17):959–62

Control of mitotic events by the Cdc42 GTPase, the Clb2 cyclin and a member of the PAK kinase family. Tjandra H, et al. **Curr Biol** 1998 Sep 10;8(18):991–1000

Action at the ends of microtubules. Saunders WS. **Curr Opin Cell Biol** 1999 Feb;11(1):129–33 (35 ref.)

Regulation of glucose utilization in yeast. Carlson M. **Curr Opin Genet Dev** 1998 Oct;8(5):560–4

Glucose repression in yeast. Carlson M. **Curr Opin Microbiol** 1999 Apr;2(2):202–7 (55 ref.)

Vicious circles: a mechanism for yeast aging. Defossez PA, et al. **Curr Opin Microbiol** 1998 Dec;1(6):707–11 (45 ref.)

Protein chaperones and the heat shock response in Saccharomyces cerevisiae. Morano KA, et al. **Curr Opin Microbiol** 1998 Apr;1(2):197–203 (44 ref.)

G1 cyclins block the Ime1 pathway to make mitosis and meiosis incompatible in budding yeast. Colomina N, et al. **EMBO J** 1999 Jan 15;18(2):320–9

The essential role of yeast topoisomerase III in meiosis depends on recombination. Gangloff S, et al. **EMBO J** 1999 Mar 15;18(6):1701–11

Apg16p is required for the function of the Apg12p-Apg5p conjugate in the yeast autophagy pathway. Mizushima N, et al. **EMBO J** 1999 Jul 15;18(14):3888–96

SNAREs and the secretory pathway-lessons from yeast. Pelham HR. **Exp Cell Res** 1999 Feb 25;247(1):1–8 (26 ref.)

Role of RAS2 in recovery from chronic stress: effect on yeast life span. Shama S, et al. **Exp Cell Res** 1998 Dec 15; 245(2):368–78

Heat stress-induced life span extension in yeast. Shama S, et al. **Exp Cell Res** 1998 Dec 15;245(2):379–88

Mitochondrial assembly in yeast. Grivell LA, et al. **FEBS Lett** 1999 Jun 4;452(1–2):57–60 (40 ref.)

Cyc2p is required for maintaining ionic stability and efficient cytochrome c import and mitochondrial function in Saccharomyces cerevisiae. Pearce DA, et al. **FEBS Lett** 1998 Nov 20;439(3):307–11

Enlargement of the endoplasmic reticulum membrane in Saccharomyces cerevisiae is not necessarily linked to the unfolded protein response via Ire1p. Stroobants AK, et al. **FEBS Lett** 1999 Jun 18;453(1–2):210–4

An EPR investigation of surfactant action on bacterial membranes. Glover RE, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):57–62

Stress tolerance in a yeast sterol auxotroph: role of ergosterol, heat shock proteins and trehalose. Swan TM, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):191–7

Monitoring dynamics of gene expression in yeast during stationary phase. Paz I, et al. **Gene** 1999 Aug 5;236(1):33–42

Cooperation of two actin-binding proteins, cofilin and Aip1, in Saccharomyces cerevisiae. Iida K, et al. **Genes Cells** 1999 Jan;4(1):21–32

Stress-activated signalling pathways in yeast. Toone WM, et al. **Genes Cells** 1998 Aug;3(8):485–98 (110 ref.)

Nuclear export of Far1p in response to pheromones requires the export receptor Msn5p/Ste21p. Blondel M, et al. **Genes Dev** 1999 Sep 1;13(17):2284–300

Fus3p and Kss1p control G1 arrest in Saccharomyces cerevisiae through a balance of distinct arrest and proliferative functions that operate in parallel with Far1p. Cherkasova V, et al. **Genetics** 1999 Mar;151(3):989–1004

RAD53 regulates DBF4 independently of checkpoint function in Saccharomyces cerevisiae. Dohrmann PR, et al. **Genetics** 1999 Mar;151(3):965–77

Relative dependence of different outputs of the Saccharomyces cerevisiae pheromone response pathway on the MAP kinase Fus3p. Farley FW, et al. **Genetics** 1999 Apr;151(4):1425–44

Interorganelle signaling is a determinant of longevity in Saccharomyces cerevisiae. Kirchman PA, et al. **Genetics** 1999 May;152(1):179–90

Unpredictable fitness transitions between haploid and diploid strains of the genetically loaded yeast Saccharomyces cerevisiae. Korona R. **Genetics** 1999 Jan;151(1):77–85

Regulators of pseudohyphal differentiation in Saccharomyces cerevisiae identified through multicopy suppressor analysis in ammonium permease mutant strains. Lorenz MC, et al. **Genetics** 1998 Dec;150(4):1443–57

Distinct steps in yeast spore morphogenesis require distinct SMK1 MAP kinase thresholds. Wagner M, et al. **Genetics** 1999 Apr;151(4):1327–40

The SFP1 gene product of Saccharomyces cerevisiae regulates G2/M transitions during the mitotic cell cycle and DNA-damage response. Xu Z, et al. **Genetics** 1998 Dec;150(4):1419–28

The dual-specificity protein phosphatase Yvh1p acts upstream of the protein kinase mck1p in promoting spore development in Saccharomyces cerevisiae. Beeser AE, et al. **J Bacteriol** 1999 Sep;181(17):5219–24

Function of trehalose and glycogen in cell cycle progression and cell viability in Saccharomyces cerevisiae. Sillje HHW, et al. **J Bacteriol** 1999 Jan;181(2):396–400

Transformation of a flocculating Saccharomyces cerevisiae using lithium acetate and pYAC4. Venâncio A, et al. **J Basic Microbiol** 1999;39(1):37–41

Mutation of K234 and K236 in the voltage-dependent anion channel 1 impairs its insertion into the mitochondrial outer membrane. Angeles R, et al. **J Bioenerg Biomembr** 1999 Apr;31(2):137–42

The GTPase center protein L12 is required for correct ribosomal stalk assembly but not for Saccharomyces cerevisiae viability. Briones E, et al. **J Biol Chem** 1998 Nov 27;273(48):31956–61

Sources of NADPH and expression of mammalian NADP+-specific isocitrate dehydrogenases in Saccharomyces cerevisiae. Minard KI, et al. **J Biol Chem** 1998 Nov 20;273(47):31486–93

Coiled-coil interaction of N-terminal 36 residues of cyclase-associated protein with adenylyl cyclase is sufficient for its function in Saccharomyces cerevisiae ras pathway. Nishida Y, et al. **J Biol Chem** 1998 Oct 23; 273(43):28019–24

Investigation of the impact of MIG1 and MIG2 on the physiology of Saccharomyces cerevisiae. Klein CJ, et al. **J Biotechnol** 1999 Feb 19;68(2–3):197–212

Localization of core spindle pole body (SPB) components during SPB duplication in Saccharomyces cerevisiae.

Adams IR, et al. **J Cell Biol** 1999 May 17;145(4):809–23

A role for a protease in morphogenic responses during yeast cell fusion. Elia L, et al. **J Cell Biol** 1998 Sep 21; 142(6):1473–85

Budding yeast Bub2 is localized at spindle pole bodies and activates the mitotic checkpoint via a different pathway from Mad2. Fraschini R, et al. **J Cell Biol** 1999 May 31; 145(5):979–91

Interaction of ZPR1 with translation elongation factor-1alpha in proliferating cells. Gangwani L, et al. **J Cell Biol** 1998 Dec 14;143(6):1471–84

Assembly and function of the actin cytoskeleton of yeast: relationships between cables and patches. Karpova TS, et al. **J Cell Biol** 1998 Sep 21;142(6):1501–17

A morphogenesis checkpoint monitors the actin cytoskeleton in yeast. McMillan JN, et al. **J Cell Biol** 1998 Sep 21; 142(6):1487–99

The J-related segment of tim44 is essential for cell viability: a mutant Tim44 remains in the mitochondrial import site, but inefficiently recruits mtHsp70 and impairs protein translocation. Merlin A, et al. **J Cell Biol** 1999 May 31; 145(5):961–72

Identification of Kel1p, a kelch domain-containing protein involved in cell fusion and morphology in Saccharomyces cerevisiae. Philips J, et al. **J Cell Biol** 1998 Oct 19; 143(2):375–89

Pex18p and Pex21p, a novel pair of related peroxins essential for peroxisomal targeting by the PTS2 pathway. Purdue PE, et al. **J Cell Biol** 1998 Dec 28;143(7):1859–69

Clb5-associated kinase activity is required early in the spindle pathway for correct preanaphase nuclear positioning in Saccharomyces cerevisiae. Segal M, et al. **J Cell Biol** 1998 Oct 5;143(1):135–45

Yeast Bim1p promotes the G1-specific dynamics of microtubules. Tirnauer JS, et al. **J Cell Biol** 1999 May 31; 145(5):993–1007

Rvs167p, the budding yeast homolog of amphiphysin, colocalizes with actin patches. Balguerie A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2529–37

Depolarization of the actin cytoskeleton is a specific phenotype in Saccharomyces cerevisiae. Karpova TS, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2689–96

Two distinct mechanisms operate in the reactivation of heat-denatured proteins by the mitochondrial Hsp70/Mdj1p/Yge1p chaperone system. Kubo Y, et al. **J Mol Biol** 1999 Feb 19;286(2):447–64

Cytoskeletal dynamics in yeast. Carminati JL, et al. **Methods Cell Biol** 1999;58:87–105 (33 ref.)

Different signalling pathways contribute to the control of GPD1 gene expression by osmotic stress in Saccharomyces cerevisiae. Rep M, et al. **Microbiology** 1999 Mar;145 (Pt 3):715–27

Down-regulation of the expression of PKC1 and SRB1/PSA1/VIG9, two genes involved in cell wall integrity in Saccharomyces cerevisiae, causes flocculation. Zhang N, et al. **Microbiology** 1999 Feb;145 (Pt 2):309–16

Sla1p is a functionally modular component of the yeast cortical actin cytoskeleton required for correct localization of both Rho1p-GTPase and Sla2p, a protein with talin homology. Ayscough KR, et al. **Mol Biol Cell** 1999 Apr; 10(4):1061–75

A modulatory role for clathrin light chain phosphorylation in Golgi membrane protein localization during vegetative growth and during the mating response of Saccharomyces cerevisiae. Chu DS, et al. **Mol Biol Cell** 1999 Mar; 10(3):713–26

MCD4 encodes a conserved endoplasmic reticulum membrane protein essential for glycosylphosphatidylinositol anchor synthesis in yeast. Gaynor EC, et al. **Mol Biol Cell** 1999 Mar;10(3):627–48

A late mitotic regulatory network controlling cyclin destruction in Saccharomyces cerevisiae. Jaspersen SL, et al. **Mol Biol Cell** 1998 Oct;9(10):2803–17

Ste6p mutants defective in exit from the endoplasmic reticulum (ER) reveal aspects of an ER quality control pathway in Saccharomyces cerevisiae. Loayza D, et al. **Mol Biol Cell** 1998 Oct;9(10):2767–84

Distinct domains within Vps35p mediate the retrieval of two different cargo proteins from the yeast prevacuolar/endosomal compartment. Nothwehr SF, et al. **Mol Biol Cell** 1999 Apr;10(4):875–90

Regulation of ribosome biogenesis by the rapamycin-sensitive TOR-signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000

The tail of a yeast class V myosin, myo2p, functions as a localization domain. Reck-Peterson SL, et al. **Mol Biol Cell** 1999 Apr;10(4):1001–17

Kinase activity-dependent nuclear export opposes stress-induced nuclear accumulation and retention of Hog1 mitogen-activated protein kinase in the budding yeast Saccharomyces cerevisiae. Reiser V, et al. **Mol Biol Cell** 1999 Apr;10(4):1147–61

Dominant negative alleles of SEC10 reveal distinct domains involved in secretion and morphogenesis in yeast. Roth D, et al. **Mol Biol Cell** 1998 Jul;9(7):1725–39

A yeast t-SNARE involved in endocytosis. Séron K, et al. **Mol Biol Cell** 1998 Oct;9(10):2873–89

Yeast Sec14p deficient in phosphatidylinositol transfer activity is functional in vivo. Phillips SE, et al. **Mol Cell** 1999 Aug;4(2):187–97

Residues in the Swi5 zinc finger protein that mediate cooperative DNA binding with the Pho2 homeodomain protein. Bhoite LT, et al. **Mol Cell Biol** 1998 Nov; 18(11):6436–46

Poly(A) tail length control in Saccharomyces cerevisiae occurs by message-specific deadenylation. Brown CE, et al. **Mol Cell Biol** 1998 Nov;18(11):6548–59

Mismatch repair proteins regulate heteroduplex formation during mitotic recombination in yeast. Chen W, et al. **Mol Cell Biol** 1998 Nov;18(11):6525–37

Preprotein translocase of the outer mitochondrial membrane: molecular dissection and assembly of the general import pore complex. Dekker PJ, et al. **Mol Cell Biol** 1998 Nov; 18(11):6515–24

Identification of a polar region in transmembrane domain 6 that regulates the function of the G protein-coupled alpha-factor receptor. Dube P, et al. **Mol Cell Biol** 1998 Dec;18(12):7205–15

Cak1 is required for Kin28 phosphorylation and activation in vivo. Espinoza FH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6365–73

Differential protein S-thiolation of glyceraldehyde-3-phosphate dehydrogenase isoenzymes influences sensitivity to oxidative stress. Grant CM, et al. **Mol Cell Biol** 1999 Apr;19(4):2650–6

Yeast Los1p has properties of an exportin-like nucleocytoplasmic transport factor for tRNA. Hellmuth K, et al. **Mol Cell Biol** 1998 Nov;18(11):6374–86

Global regulatory functions of Oaf1p and Pip2p (Oaf2p), transcription factors that regulate genes encoding peroxisomal proteins in Saccharomyces cerevisiae. Karpichev IV, et al. **Mol Cell Biol** 1998 Nov; 18(11):6560–70

Mitogen-activated protein kinases: specific messages from ubiquitous messengers. Schaeffer HJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2435–44 (145 ref.)

Phosphorylation of TFIIA stimulates TATA binding protein-TATA interaction and contributes to maximal transcription and viability in yeast. Solow SP, et al. **Mol Cell Biol** 1999 Apr;19(4):2846–52

Cse1p is involved in export of yeast importin alpha from the nucleus. Solsbacher J, et al. **Mol Cell Biol** 1998 Nov; 18(11):6805–15

The oxidative stress response mediated via Pos9/Skn7 is negatively regulated by the Ras/PKA pathway in Saccharomyces cerevisiae. Charizanis C, et al. **Mol Gen Genet** 1999 Jun;261(4–5):740–52

The protease activity of a calpain-like cysteine protease in Saccharomyces cerevisiae is required for alkaline adaptation and sporulation. Futai E, et al. **Mol Gen Genet** 1999 Jan;260(6):559–68

The cyclin-dependent kinase inhibitory domain of the yeast Sic1 protein is contained within the C-terminal 70 amino acids. Hodge A, et al. **Mol Gen Genet** 1999 Aug; 262(1):55–64

The Saccharomyces cerevisiae RAD54 gene is important but not essential for natural homothallic mating-type switching. Schmuckli-Maurer J, et al. **Mol Gen Genet** 1999 Jan;260(6):551–8

Overexpression of MID2 suppresses the profilin-deficient phenotype of yeast cells. Marcoux N, et al. **Mol Microbiol** 1998 Jul;29(2):515–26

Sister-chromatid separation at anaphase onset is promoted by cleavage of the cohesin subunit Scc1 [see comments] Uhlmann F, et al. **Nature** 1999 Jul 1;400(6739):37–42. Comment in: Nature 1999 Jul 1;400(6739):19, 21.

Electrophysiology in the eukaryotic model cell Saccharomyces cerevisiae. Bertl A, et al. **Pflugers Arch** 1998 Nov;436(6):999–1013 (145 ref.)

The wheat LEA protein Em functions as an osmoprotective molecule in Saccharomyces cerevisiae. Swire-Clark GA, et al. **Plant Mol Biol** 1999 Jan;39(1):117–28

Histone modification governs the cell cycle regulation of a replication-independent chromatin assembly pathway in Saccharomyces cerevisiae. Altheim BA, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1345–50

Spc29p is a component of the Spc110p subcomplex and is essential for spindle pole body duplication. Elliott S, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6205–10

Ubiquitin-dependent degradation of multiple F-box proteins by an autocatalytic mechanism. Galan JM, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9124–9

SEM1, a homologue of the split hand/split foot malformation candidate gene Dss1, regulates exocytosis and pseudohyphal differentiation in yeast. Jäntti J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):909–14

A protein required for nuclear-protein import, Mog1p, directly interacts with GTP-Gsp1p, the Saccharomyces cerevisiae ran homologue. Oki M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15388–93

Specific interaction of the yeast cis-Golgi syntaxin Sed5p and the coat protein complex II component Sec24p of endoplasmic reticulum-derived transport vesicles. Peng R, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3751–6

Evidence for a conserved system for iron metabolism in the mitochondria of Saccharomyces cerevisiae. Schilke B, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10206–11

Role for yeast inhibitor of apoptosis (IAP)-like proteins in cell division. Uren AG, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10170–5

Prepro-leaders lacking N-linked glycosylation for secretory expression in the yeast Saccharomyces cerevisiae. Kjeldsen T, et al. **Protein Expr Purif** 1998 Dec;14(3):309–16

The effect of Saccharomyces cerevisiae and Aspergillus oryzae on the digestion of the cell wall fraction of a mixed diet in defaunated and refaunated sheep rumen. Jouany JP, et al. **Reprod Nutr Dev** 1998 Jul-Aug;38(4):401–16

The roles of Rrp5p in the synthesis of yeast 18S and 5.8S rRNA can be functionally and physically separated. Eppens NA, et al. **RNA** 1999 Jun;5(6):779–93

The role of Far1p in linking the heterotrimeric G protein to polarity establishment proteins during yeast mating. Butty AC, et al. **Science** 1998 Nov 20;282(5393):1511–6

Novel pathways, membrane coats and PI kinase regulation in yeast lysosomal trafficking. Burd CG, et al. **Semin Cell Dev Biol** 1998 Oct;9(5):527–33 (77 ref.)

Thermotolerance in Saccharomyces cerevisiae: the Yin and Yang of trehalose. Singer MA, et al. **Trends Biotechnol** 1998 Nov;16(11):460–8 (71 ref.)

New lines of host defense: inhibition of Ty1 retrotransposition by Fus3p and NER/TFIIH. Curcio MJ, et al. **Trends Genet** 1999 Feb;15(2):43–5 (20 ref.)

Fluorescent probing of membrane potential in walled cells: diS-C3(3) assay in Saccharomyces cerevisiae. Gášková D, et al. **Yeast** 1998 Sep 30;14(13):1189–97

Combining mutations in the incoming and outgoing pheromone signal pathways causes a synergistic mating defect in Saccharomyces cerevisiae. Giot L, et al. **Yeast** 1999 Jun 30;15(9):765–80

Control of division arrest and entry into meiosis by extracellular alkalisation in Saccharomyces cerevisiae. Hayashi M, et al. **Yeast** 1998 Jul;14(10):905–13

Oxidative stress responses of the yeast Saccharomyces cerevisiae. Jamieson DJ. **Yeast** 1998 Dec;14(16):1511–27 (155 ref.)

Saccharomyces cerevisiae IRR1 protein is indirectly involved in colony formation. Kurlandzka A, et al. **Yeast** 1999 Jan 15;15(1):23–33

Stabilization of two families of critical targets for hyperthermic cell killing and acquired thermotolerance of yeast cells. Obuchi K, et al. **Yeast** 1998 Oct;14(14):1249–55

Disruption of six unknown open reading frames from Saccharomyces cerevisiae reveals two genes involved in vacuolar morphogenesis and one gene required for sporulation. Saiz JE, et al. **Yeast** 1999 Jan 30;15(2):155–64

Disruption and basic phenotypic analysis of 18 novel genes from the yeast Saccharomyces cerevisiae. Wysocki R, et al. **Yeast** 1999 Jan 30;15(2):165–71

Adhesion of Helicobacter pylori to yeast cells. Ansorg R, et al. **Zentralbl Bakteriol** 1998 Dec;288(4):501–8

[Sugar chain remodeling through the molecular breeding of yeast saccharomyces cerevisiae] Jigami Y, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2604–10 (24 ref.) **(Jpn)**

RADIATION EFFECTS

Role of Saccharomyces cerevisiae chromatin assembly factor-I in repair of ultraviolet radiation damage in vivo. Game JC, et al. **Genetics** 1999 Feb;151(2):485–97

The Saccharomyces cerevisiae RAD9, RAD17, RAD24 and MEC3 genes are required for tolerating irreparable, ultraviolet-induced DNA damage. Paulovich AG, et al. **Genetics** 1998 Sep;150(1):75–93

Pseudohyphal variations of yeasts exposed to specific space flight parameters. Volz PA, et al. **Microbios** 1998; 95(380):25–34

Cisplatin-modification of DNA repair and ionizing radiation lethality in yeast, Saccharomyces cerevisiae. Dolling JA, et al. **Mutat Res** 1999 Mar 10;433(2):127–36

ULTRASTRUCTURE

The yeast mitochondrial intermembrane space: purification and analysis of two distinct fractions. Martin H, et al. **Anal Biochem** 1998 Dec 1;265(1):123–8

Purification and characterization of an RNA dodecamer sequence binding protein from mitochondria of Saccharomyces cerevisiae. Li H, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):740–5

Nystatin effects on vacuolar function in Saccharomyces cerevisiae. Bhuiyan MS, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1075–82

Direct evidence for the intracellular localization of Hsp104 in Saccharomyces cerevisiae by immunoelectron microscopy. Kawai R, et al. **Cell Stress Chaperones** 1999 Mar;4(1):46–53

Dependence of the regulation of telomere length on the type of subtelomeric repeat in the yeast Saccharomyces cerevisiae. Craven RJ, et al. **Genetics** 1999 Aug; 152(4):1531–41

Saccharomyces cerevisiae Ndc1p is a shared component of nuclear pore complexes and spindle pole bodies. Chial HJ, et al. **J Cell Biol** 1998 Dec 28;143(7):1789–800

Fab1p is essential for PtdIns(3)P 5-kinase activity and the maintenance of vacuolar size and membrane homeostasis. Gary JD, et al. **J Cell Biol** 1998 Oct 5;143(1):65–79

Mutational analysis of the structure and localization of the nucleolus in the yeast Saccharomyces cerevisiae. Oakes M, et al. **J Cell Biol** 1998 Oct 5;143(1):23–34

Golgi structure correlates with transitional endoplasmic reticulum organization in Pichia pastoris and Saccharomyces cerevisiae. Rossanese OW, et al. **J Cell Biol** 1999 Apr 5;145(1):69–81

Electrospray ionization tandem mass spectrometry (ESI-MS/MS) analysis of the lipid molecular species composition of yeast subcellular membranes reveals acyl

chain-based sorting/remodeling of distinct molecular species en route to the plasma membrane. Schneiter R, et al. **J Cell Biol** 1999 Aug 23;146(4):741-54
Yeast Bim1p promotes the G1-specific dynamics of microtubules. Tirnauer JS, et al. **J Cell Biol** 1999 May 31; 145(5):993-1007
Rvs167p, the budding yeast homolog of amphiphysin, colocalizes with actin patches. Balguerie A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2529-37
SPC72: a spindle pole component required for spindle orientation in the yeast Saccharomyces cerevisiae. Souès S, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2809-18
Bouquet formation in budding yeast: initiation of recombination is not required for meiotic telomere clustering. Trelles-Sticken E, et al. **J Cell Sci** 1999 Mar; 112 (Pt 5):651-8
Isolation of minichromosomes from yeast cells. Alfieri JA, et al. **Methods Enzymol** 1999;304:35-49
Analysis of nuclear organization in Saccharomyces cerevisiae. Gotta M, et al. **Methods Enzymol** 1999; 304:663-72
Mapping chromatin structure in yeast. Gregory PD, et al. **Methods Enzymol** 1999;304:365-76
Immunological analysis of yeast chromatin. Meluh PB, et al. **Methods Enzymol** 1999;304:414-30
Assays for nucleosome positioning in yeast. Ryan MP, et al. **Methods Enzymol** 1999;304:376-99
High-voltage electron tomography of spindle pole bodies and early mitotic spindles in the yeast Saccharomyces cerevisiae. O'Toole ET, et al. **Mol Biol Cell** 1999 Jun; 10(6):2017-31
Altered dosage of the Saccharomyces cerevisiae spindle pole body duplication gene, NDC1, leads to aneuploidy and polyploidy. Chial HJ, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10200-5
Probing the Saccharomyces cerevisiae centromeric DNA (CEN DNA)-binding factor 3 (CBF3) kinetochore complex by using atomic force microscopy. Pietrasanta LI, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3757-62
Pictures in cell biology. Autophagosomes in yeast. Ohsumi Y. **Trends Cell Biol** 1999 Apr;9(4):162

VIROLOGY

Virus-like particle analysis in yeast homogenate using a laser light-scattering assay. Tsoka S, et al. **Biotechnol Bioeng** 1999 May 5;63(3):290-7
Mutational analysis of Vpr-induced G2 arrest, nuclear localization, and cell death in fission yeast. Chen M, et al. **J Virol** 1999 Apr;73(4):3236-45
Mutations in nonconserved domains of Ty3 integrase affect multiple stages of the Ty3 life cycle. Nymark-McMahon MH, et al. **J Virol** 1999 Jan;73(1):453-65
Ribosomal protein L3 mutants alter translational fidelity and promote rapid loss of the yeast killer virus. Peltz SW, et al. **Mol Cell Biol** 1999 Jan;19(1):384-91

SACCHAROMYCETALES

Improvement of heterologous protein productivity using recombinant Yarrowia lipolytica and cyclic fed-batch process strategy. Chang CC, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):379-85

CLASSIFICATION

Diversity and affinities among species and strains of Lipomyces. Gouliamova DE, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):283-91
Candida ipomoeae, a new yeast species related to large-spored Metschnikowia species. Lachance MA, et al. **Can J Microbiol** 1998 Aug;44(8):718-22
Wickerhamiella australiensis, Wickerhamiella cacticola, Wickerhamiella occidentalis, Candida drosophilae and Candida lipophila, five new related yeast species from flowers and associated insects. Lachance MA, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1431-43
The yeast genus Starmerella gen. nov. and Starmerella bombicola sp. nov., the teleomorph of Candida bombicola (Spencer, Gorin & Tullock) Meyer & Yarrow. Rosa CA, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1413-7
Rapid identification of Debaryomyces hansenii/Candida famata by polymerase chain reaction. Nishikawa A, et al. **Med Mycol** 1999 Apr;37(2):101-4

CYTOLOGY

Bifurcation of the mitotic checkpoint pathway in budding yeast. Li R. **Proc Natl Acad Sci U S A** 1999 Apr 27; 96(9):4989-94
[Genetic diagnosis of familial colorectal tumor by using a budding yeast cells] Kanamaru R, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Feb;96(2):131-6 **(Jpn)**

DRUG EFFECTS

Effect of a Teucrium polium L. extract on the growth and fatty acid composition of Saccharomyces cerevisiae and Yarrowia lipolytica. Aggelis G, et al. **Antonie Van Leeuwenhoek** 1998 Feb;73(2):195-8

ENZYMOLOGY

Isocitrate lyase of Ashbya gossypii--transcriptional regulation and peroxisomal localization. Maeting I, et al. **FEBS Lett** 1999 Feb 5;444(1):15-21
Genetic and enzymatic characterisation of glucoamylases from yeast. Hostinová E. **Gen Physiol Biophys** 1998 Jun; 17 Suppl 1:19-21
Multiple p450alk (cytochrome P450 alkane hydroxylase) genes from the halotolerant yeast Debaryomyces hansenii. Yadav JS, et al. **Gene** 1999 Jan 21;226(2):139-46
The conserved protein kinase Ipl1 regulates microtubule binding to kinetochores in budding yeast. Biggins S, et al. **Genes Dev** 1999 Mar 1;13(5):532-44
Expression of two glutathione S-transferase genes in the yeast Issatchenkia orientalis is induced by o-dinitrobenzene during cell growth arrest. Tamaki H, et al. **J Bacteriol** 1999 May;181(9):2958-62
Evaluation of acyl coenzyme A oxidase (Aox) isozyme function in the n-alkane-assimilating yeast Yarrowia lipolytica. Wang HJ, et al. **J Bacteriol** 1999 Sep; 181(17):5140-8
A conserved domain of yeast RNA triphosphatase flanking the catalytic core regulates self-association and interaction with the guanylyltransferase component of the mRNA capping apparatus. Lehman K, et al. **J Biol Chem** 1999 Aug 6;274(32):22668-78
A single external enzyme confers alternative NADH:ubiquinone oxidoreductase activity in Yarrowia lipolytica. Kerscher SJ, et al. **J Cell Sci** 1999 Jul;112 (Pt 14):2347-54

GENETICS

Diversity and affinities among species and strains of Lipomyces. Gouliamova DE, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):283-91
Dipodascus capitatus, Dipodascus spicifer and Geotrichum clavatum: genomic characterization. Smith MT, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):229-35
Two novel gene expression systems based on the yeasts Schwanniomyces occidentalis and Pichia stipitis. Piontek M, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):331-8
The molecular biology of Schwanniomyces occidentalis klocker. Wang TT, et al. **Crit Rev Biotechnol** 1999; 19(2):113-43 (172 ref.)
UASrpg can function as a heterochromatin boundary element in yeast. Bi X, et al. **Genes Dev** 1999 May 1;13(9):1089-101
Functional analysis of upstream regulating regions from the Yarrowia lipolytica XPR2 promoter. Madzak C, et al. **Microbiology** 1999 Jan;145 (Pt 1):75-87
Short DNA fragments without sequence similarity are initiation sites for replication in the chromosome of the yeast Yarrowia lipolytica. Vernis L, et al. **Mol Biol Cell** 1999 Mar;10(3):757-69
A mutation in the secretion pathway of the yeast Yarrowia lipolytica that displays synthetic lethality in combination with a mutation affecting the signal recognition particle. Boisramé A, et al. **Mol Gen Genet** 1999 Jun;261(4-5):601-9
The MATA locus of the dimorphic yeast Yarrowia lipolytica consists of two divergently oriented genes. Kurischko C, et al. **Mol Gen Genet** 1999 Aug;262(1):180-8
Development of a transformation system for the multinuclear yeast Dipodascus (Endomyces) magnusii. Adamíková L, et al. **Yeast** 1998 Jun 30;14(9):805-12
Cloning and characterization of an n-alkane-inducible cytochrome P450 gene essential for n-decane assimilation by Yarrowia lipolytica. Iida T, et al. **Yeast** 1998 Nov; 14(15):1387-97
Comparison of expression systems in the yeasts Saccharomyces cerevisiae, Hansenula polymorpha, Klyveromyces lactis, Schizosaccharomyces pombe and Yarrowia lipolytica. Cloning of two novel promoters from Yarrowia lipolytica. Müller S, et al. **Yeast** 1998 Oct; 14(14):1267-83
Cloning and characterization of the peroxisomal acyl CoA oxidase ACO3 gene from the alkane-utilizing yeast Yarrowia lipolytica. Wang H, et al. **Yeast** 1998 Nov; 14(15):1373-86

GROWTH & DEVELOPMENT

Cell polarity and morphogenesis in budding yeast. Madden K, et al. **Annu Rev Microbiol** 1998;52:687-744 (333 ref.)
MHY1 encodes a C2H2-type zinc finger protein that promotes dimorphic transition in the yeast Yarrowia lipolytica. Hurtado CA, et al. **J Bacteriol** 1999 May; 181(10):3051-7
Distribution of the actin cytoskeleton during the cell cycle of Yarrowia lipolytica and the visualization of the tubulin cytoskeleton by immunofluorescence. Gausmann U, et al. **Yeast** 1999 Aug;15(11):1079-86

ISOLATION & PURIFICATION

Invasive infections due to Clavispora lusitaniae. Krcmery V Jr, et al. **FEMS Immunol Med Microbiol** 1999 Jan; 23(1):75-8 (6 ref.)
Infection of an intravenous port system with Metschnikowia pulcherrima Pitt et Miller. Mohl W, et al. **Mycoses** 1998 Nov;41(9-10):425-6

METABOLISM

Metabolic characterization of Kloeckera apiculata strains from star fruit fermentation. Romano P, et al. **Antonie Van Leeuwenhoek** 1998 May;73(4):321-5
Transport and utilization of hexoses and pentoses in the halotolerant yeast Debaryomyces hansenii. Nobre A, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3594-8
Selective peroxisome degradation in Yarrowia lipolytica after a shift of cells from acetate/oleate/ethylamine into glucose/ammonium sulfate-containing media. Gunkel K, et al. **FEBS Lett** 1999 May 14;451(1):1-4
Yarrowia lipolytica cell wall architecture: interaction of Ywp1, a mycelial protein, with other wall components and the effect of its depletion. Ramon AM, et al. **Res Microbiol** 1999 Mar;150(2):95-103

PHYSIOLOGY

The Pds1 anaphase inhibitor and Mec1 kinase define distinct checkpoints coupling S phase with mitosis in budding yeast. Clarke DJ, et al. **Curr Biol** 1999 Apr 8;9(7):365-8
Time-lapse microscopy reveals unique roles for kinesins during anaphase in budding yeast. Straight AF, et al. **J Cell Biol** 1998 Nov 2;143(3):687-94
Nuclear and spindle dynamics in budding yeast. Shaw SL, et al. **Mol Biol Cell** 1998 Jul;9(7):1627-31
Evidence that a free-running oscillator drives G1 events in the budding yeast cell cycle. Haase SB, et al. **Nature** 1999 Sep 23;401(6751):394-7
Monovalent cation fluxes and physiological changes of Debaryomyces hansenii grown at high concentrations of KCl and NaCl. Thomé-Ortiz PE, et al. **Yeast** 1998 Nov; 14(15):1355-71

ULTRASTRUCTURE

Organelle purification and selective permeabilisation of the plasma membrane: two different approaches to study vacuoles of the filamentous fungus Ashbya gossypii. Förster C, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):209-14

SACCHAROMYCOPSIS

ENZYMOLOGY

Structure-function relationships in glucoamylases encoded by variant Saccharomycopsis fibuligera genes. Solovicová A, et al. **Eur J Biochem** 1999 Sep;264(3):756-64
Genetic and enzymatic characterisation of glucoamylases from yeast. Hostinová E. **Gen Physiol Biophys** 1998 Jun; 17 Suppl 1:19-21
X-ray analysis of yeast glucoamylases prepared by gene engineering techniques. Solovicová A, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:16-8

GENETICS

Structure-function relationships in glucoamylases encoded by variant Saccharomycopsis fibuligera genes. Solovicová A, et al. **Eur J Biochem** 1999 Sep;264(3):756-64
X-ray analysis of yeast glucoamylases prepared by gene engineering techniques. Solovicová A, et al. **Gen Physiol Biophys** 1998 Jun;17 Suppl 1:16-8

SACCHAROPOLYSPORA

DRUG EFFECTS

[Isolation and characterization of Saccharopolyspora erythraea mutants, resistant to chloramphenicol] Nastasiak IN, et al. **Antibiot Khimioter** 1999;44(3):5-10 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Unique primary structure of a thermostable multimetal beta-galactosidase from Saccharopolyspora rectivirgula. Inohara-Ochiai M, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):77-83

GENETICS

Improved erythromycin production in a genetically engineered industrial strain of Saccharopolyspora erythraea. Minas W, et al. **Biotechnol Prog** 1998 Jul-Aug; 14(4):561-6
Structural elucidation of a novel erythromycin, 13-cyclopentyl-13-desethyl-erythromycin B, from a recombinant Saccharopolyspora erythraea strain, NRRL 2338 pIG/1. Parsons IC, et al. **J Antibiot (Tokyo)** 1999 Feb;52(2):190-2
Genetic engineering of an industrial strain of Saccharopolyspora erythraea for stable expression of the Vitreoscilla haemoglobin gene (vhb). Brünker P, et al. **Microbiology** 1998 Sep;144 (Pt 9):2441-8
Physical-genetic map of the erythromycin-producing organism Saccharopolyspora erythraea. Reeves AR, et al. **Microbiology** 1998 Aug;144 (Pt 8):2151-9

ISOLATION & PURIFICATION

Airborne microflora in Quebec dairy farms: lack of effect of bacterial hay preservatives. Duchaine C, et al. **Am Ind Hyg Assoc J** 1999 Jan-Feb;60(1):89-95
New genus-specific primers for the PCR identification of members of the genera Pseudonocardia and Saccharopolyspora. Morón R, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:149-62
Saccharopolyspora rectivirgula from Quebec dairy barns:

SACCHAROPOLYSPORA

application of simplified criteria for the identification of an agent responsible for farmer's lung disease. Duchaine C, et al. **J Med Microbiol** 1999 Feb;48(2):173–80

METABOLISM

Structural elucidation of a novel erythromycin, 13-cyclopentyl-13-desethyl-erythromycin B, from a recombinant Saccharopolyspora erythraea strain, NRRL 2338 pIG/1. Parsons IC, et al. **J Antibiot (Tokyo)** 1999 Feb;52(2):190–2

PHYSIOLOGY

Respiratory epithelial cells release interleukin-8 in response to a thermophilic bacteria that causes hypersensitivity pneumonitis. Gudmundsson G, et al. **Exp Lung Res** 1999 Apr-May;25(3):217–28

SACCHAROPOLYSPORA ERYTHRAEA see **SACCHAROPOLYSPORA**

SACCULE AND UTRICLE

Chemical composition of saccular endolymph and otolith in fish inner ear: lack of spatial uniformity. Payan P, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R123–31

ABNORMALITIES

Everted laryngeal saccules: ultrasonographic findings in a young Lakeland terrier. Rudorf H, et al. **J Small Anim Pract** 1999 Jul;40(7):338–9

ANATOMY & HISTOLOGY

Relationship of the utriculus and sacculus to the stapes footplate: anatomic implications for sound-and/or pressure-induced otolith activation. Backous DD, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):548–53

CHEMISTRY

Localization of myosin-Ibeta near both ends of tip links in frog saccular hair cells. Garcia JA, et al. **J Neurosci** 1998 Nov 1;18(21):8637–47

CYTOLOGY

Synaptic vesicle populations in saccular hair cells reconstructed by electron tomography. Lenzi D, et al. **J Neurosci** 1999 Jan 1;19(1):119–32

DRUG EFFECTS

Streptomycin ototoxicity and hair cell regeneration in the adult pigeon utricle. Frank TC, et al. **Laryngoscope** 1999 Mar;109(3):356–61

GROWTH & DEVELOPMENT

Ionic currents and current-clamp depolarisations of type I and type II hair cells from the developing rat utricle. Lennan GW, et al. **Pflugers Arch** 1999 Jun;438(1):40–6

INNERVATION

Development of synaptic innervation in the rodent utricle. Lysakowski A. **Ann N Y Acad Sci** 1999 May 28;871:422–5

Dendritic arbors and central projections of physiologically characterized auditory fibers from the saccule of the toadfish, Opsanus tau. Edds-Walton PL, et al. **J Comp Neurol** 1999 Aug 23;411(2):212–38

PHYSIOLOGY

Stimulus processing by type II hair cells in the mouse utricle. Holt JR, et al. **Ann N Y Acad Sci** 1999 May 28;871:15–26

Unilateral testing of utricular function. Clarke AH, et al. **Exp Brain Res** 1998 Aug;121(4):457–64

Distribution and time course of hair cell regeneration in the pigeon utricle. Dye BJ, et al. **Hear Res** 1999 Jul; 133(1-2):17–26

Ionic currents and current-clamp depolarisations of type I and type II hair cells from the developing rat utricle. Lennan GW, et al. **Pflugers Arch** 1999 Jun;438(1):40–6

PHYSIOPATHOLOGY

Saccular dysfunction in Meniere's disease. de Waele C, et al. **Am J Otol** 1999 Mar;20(2):223–32

Saccular dysfunction in Ménière's patients. A vestibular-evoked myogenic potential study. de Waele C, et al. **Ann N Y Acad Sci** 1999 May 28;871:392–7

Patients with CHARGE association: a model to study saccular function in the human. Guyot JP, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):151–5

Saccular and utricular inputs to sternocleidomastoid motoneurons of decerebrate cats. Kushiro K, et al. **Exp Brain Res** 1999 Jun;126(3):410–6

SURGERY

Surgical treatment of vertigo by utriculostomy: an experimental study in sheep. Lavinsky L, et al. **Acta Otolaryngol** 1999;119(5):522–7

SACRAL PLEXUS see **LUMBOSACRAL PLEXUS**

SACRAL REGION see **SACROCOCCYGEAL REGION**

SACROCOCCYGEAL REGION

Subcutaneous sacrococcygeal myxopapillary ependymoma. Chung JY, et al. **AJNR Am J Neuroradiol** 1999 Feb; 20(2):344–6

Presacral cysts: transrectal excision in select patients. Pidala MJ, et al. **Am Surg** 1999 Feb;65(2):112–5

Case of the month: June 1998--2 year old boy with lumbosacral mass. Ibrahim AE, et al. **Brain Pathol** 1998 Oct;8(4):817–8

Sacrococcygeal teratoma in adults: case reports and a review of the literature. Ng EW, et al. **Cancer** 1999 Oct 1; 86(7):1198–202 (25 ref.)

In utero decompression of a cystic grade IV sacrococcygeal teratoma. Garcia AM, et al. **Fetal Diagn Ther** 1998 Sep-Oct;13(5):305–8

Case report: a preterm infant with an extradural myxopapillary ependymoma component of a teratoma and high levels of alpha-fetoprotein. Hany MA, et al. **Pediatr Hematol Oncol** 1998 Sep-Oct;15(5):437–41

Sacrococcygeal and transsacral epidural anesthesia in the laboratory pig: a model for experimental surgery. Richer JP, et al. **Surg Radiol Anat** 1998;20(6):431–5

ABNORMALITIES

[Caudal regression syndrome] Hortelano M, et al. **Rev Neurol** 1998 Oct;27(158):613–5 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Paraspinal abscess following facet joint injection. Cook NJ, et al. **Clin Rheumatol** 1999;18(1):52–3

Fine-needle aspiration of a presacral myelolipoma: a case presentation with flow cytometry and immunohistochemical studies. Saboorian MH, et al. **Diagn Cytopathol** 1999 Jan;20(1):47–51

Subversion of antigenic expression in neoplasia: lessons from immunohistology of teratomas. Goel A, et al. **Pathol Int** 1999 Feb;49(2):141–6

Adenocarcinoma arising in a tailgut cyst: report of a case. Maruyama A, et al. **Surg Today** 1998;28(12):1319–22

SURGERY

Sacrococcygeal germ-cell tumours--the Red Cross War Memorial Children's Hospital experience, 1980–1996. Daubenton JD, et al. **S Afr Med J** 1998 Dec;88(12):1592–4

SACROILIAC JOINT

Practice tips. Intracutaneous sterile water injections for low back pain during labour. Reynolds JL. **Can Fam Physician** 1998 Nov;44:2391–2

Sacroiliac joint tuberculosis. Classification and treatment. Kim NH, et al. **Clin Orthop** 1999 Jan;(358):215–22

Coexistence of familial Mediterranean fever with sacroiliitis and Behçet's disease: a rare occurrence. Birlik M, et al. **Clin Rheumatol** 1998;17(5):397–9

Unilateral sacroiliitis as an unusual complication of acupuncture. Lau SM, et al. **Clin Rheumatol** 1998; 17(4):357–8

Acute brucella sacroiliitis: clinical features. Ozgül A, et al. **Clin Rheumatol** 1998;17(6):521–3

Pyogenic sacroiliitis in pregnancy. Jedwab M, et al. **Int J Gynaecol Obstet** 1999 Jun;65(3):303–4

Sacroiliac joint diagnostics in the Hamburg Construction Workers Study. Toussaint R, et al. **J Manipulative Physiol Ther** 1999 Mar-Apr;22(3):139–43

Atrial and venous thrombosis secondary to septic arthritis of the sacroiliac joint in a child with hereditary protein C deficiency. Letts M, et al. **J Pediatr Orthop** 1999 Mar-Apr;19(2):156–60

Pain provocation tests for the assessment of sacroiliac joint dysfunction [letter] Bogduk N. **J Spinal Disord** 1999 Aug; 12(4):357–8

CT-guided sacroiliac joint injections. Pulisetti D, et al. **J Spinal Disord** 1999 Aug;12(4):310–2

Inter-examiner and intra-examiner reliability of the standing flexion test. Vincent-Smith B, et al. **Man Ther** 1999 May; 4(2):87–93

Viscosupplementation: a new concept in the treatment of sacroiliac joint syndrome: a preliminary report of four cases. Srejic U, et al. **Reg Anesth Pain Med** 1999 Jan-Feb; 24(1):84–8

Systemic amyloidosis and sacroiliitis in a patient with systemic lupus erythematosus. Düzgün N, et al. **Rheumatol Int** 1999;18(4):153–5

Ewing's sarcoma of the ilium mimicking sacroiliitis [letter] Al-Adsani A, et al. **Rheumatology (Oxford)** 1999 Aug; 38(8):792–3

Studying patients with inflammatory back pain and arthritis of the lower limbs clinically and by magnetic resonance imaging: many, but not all patients with sacroiliitis have spondyloarthropathy. Brandt J, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):831–6

Acute anterior uveitis in a patient with sacroiliitis and acne conglobata [letter] Villaverde V, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):797–8

[Psoas abscess in pyogenic sacroiliitis] Haug M, et al. **Ugeskr Laeger** 1999 Feb 22;161(8):1123–4 (Eng. Abstr.) **(Dan)**

[What is it? Bilateral sacroiliitis and avascular necrosis of the left hip in Crohn's disease treated with corticoids] Fleurent D, et al. **J Radiol** 1998 Apr;79(4):351–2 (Eng. Abstr.) **(Fre)**

[Pyogenic sacroiliitis in children] Handrick W, et al. **Klin Padiatr** 1999 Jan-Feb;211(1):27–9 (Eng. Abstr.) **(Ger)**

[Imaging diagnosis in suspected inflammatory rheumatoid axial skeleton diseases (sacroiliitis)] Bollow M, et al. **Z Rheumatol** 1999 Apr;58(2):61–70 (40 ref.) (Eng. Abstr.) **(Ger)**

[Disseminated tuberculosis manifesting as a clinical picture of sacroiliitis (letter)] Maestre JR, et al. **Enferm Infecc Microbiol Clin** 1999 Feb;17(2):99–101 **(Spa)**

[Septic arthritis caused by S. pneumoniae. Report of 2 cases with unusual location] Ruiz Martin JM, et al. **Rev Clin Esp** 1998 Sep;198(9):596–7 (13 ref.) (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Transitional lumbosacral vertebral anomaly in the dog: a radiographic study. Morgan JP. **J Small Anim Pract** 1999 Apr;40(4):167–72

ANATOMY & HISTOLOGY

Age-related changes in the articular cartilage of human sacroiliac joint. Kampen WU, et al. **Anat Embryol (Berl)** 1998 Dec;198(6):505–13

DRUG EFFECTS

Periarticular corticosteroid treatment of the sacroiliac joint in patients with seronegative spondylarthropathy. Luukkainen R, et al. **Clin Exp Rheumatol** 1999 Jan-Feb; 17(1):88–90

IMMUNOLOGY

Sacroiliitis, hyperostosis sternoclavicularis, and psoriasis palmoplantaris in monozygotic twins. Hoffmann A, et al. **Arthritis Rheum** 1999 Mar;42(3):574–6

INJURIES

Unusual stress fracture in an athlete. Stewart IE, et al. **Clin Nucl Med** 1999 Apr;24(4):280–1

Bone scintigraphy in the diagnosis of sacroiliac injury in twelve horses [see comments] Tucker RL, et al. **Equine Vet J** 1998 Sep;30(5):390–5. Comment in: Equine Vet J 1998 Sep;30(5):364–5.

Closed reduction and lag screw fixation of sacroiliac luxations and fractures. Tomlinson JL, et al. **Vet Surg** 1999 May-Jun; 28(3):188–93

MICROBIOLOGY

Group G streptococcus sacroiliitis with sepsis in a 15-y-old adolescent. Konrad D, et al. **Scand J Infect Dis** 1999; 31(1):100–2

PARASITOLOGY

Sacroiliitis associated with Cryptosporidium parvum in an HLA-B27-negative patient [letter] Ozgül A, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):288–9

PATHOLOGY

Acute sacroiliitis as a manifestation of calcium pyrophosphate dihydrate crystal deposition disease. el Maghraoui A, et al. **Clin Exp Rheumatol** 1999 Jul-Aug;17(4):477–8

Antiquity of arthritis: spondyloarthropathy identified in the Paleocene of North America. off Rothschild BM, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):573–5

Magnetic resonance imaging in the early diagnosis of brucellar sacroiliitis [letter] García-Porrúa C, et al. **J Rheumatol** 1999 Jun;26(6):1422–4

Early detection of sacroiliitis on magnetic resonance imaging and subsequent development of sacroiliitis on plain radiography. A prospective, longitudinal study. Oostveen J, et al. **J Rheumatol** 1999 Sep;26(9):1953–8

The sacroiliac joint. Nothing is sacred. Swezey RL. **Phys Med Rehabil Clin N Am** 1998 May;9(2):515–9, x (31 ref.)

Radiologic diagnosis and pathology of the spondyloarthropathies. Braun J, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):697–735 (178 ref.)

Use of contrast-enhanced MR imaging to detect sacroiliitis in children. Bollow M, et al. **Skeletal Radiol** 1998 Nov; 27(11):606–16

[Comparison of radiographs and magnetic resonance imaging in the detection of sacroiliitis in patients with ankylosing spondylitis] Feng F, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Jun; 19(3):185–91 (Eng. Abstr.) **(Chi)**

[Septic sacroiliitis with a horseshoe-shaped abscess diagnosed by MR scanning] Rosenbeck J. **Ugeskr Laeger** 1999 Mar 22;161(12):1776–7 (Eng. Abstr.) **(Dan)**

[Sacro-iliac involvement in he course of Paget disease. Report of 6 cases] Bezza A, et al. **Presse Med** 1999 Jun 19;28(22):1157–9 (Eng. Abstr.) **(Fre)**

[Magnetic resonance imaging of seronegative sacroiliitis] Iovane A, et al. **Radiol Med (Torino)** 1998 Sep;96(3):185–9

(Eng. Abstr.) **(Ita)**

PHYSIOLOGY

EMG recordings of abdominal and back muscles in various standing postures: validation of a biomechanical model on sacroiliac joint stability. Snijders CJ, et al. **J Electromyogr Kinesiol** 1998 Aug;8(4):205–14

The effect of upper cervical or sacroiliac manipulation on hip flexion range of motion. Pollard H, et al. **J Manipulative Physiol Ther** 1998 Nov–Dec;21(9):611–6

Sacroiliac joint dysfunction in elite rowers. Timm KE. **J Orthop Sports Phys Ther** 1999 May;29(5):288–93

Sacroiliac joint involvement in activation of the porcine spinal and gluteal musculature. Indahl A, et al. **J Spinal Disord** 1999 Aug;12(4):325–30

Reproducibility of manual pressure force on provocation of the sacroiliac joint. Levin U, et al. **Physiother Res Int** 1998; 3(1):1–14

PHYSIOPATHOLOGY

Can an external frame fixation reduce the movements in the sacroiliac joint? A radiostereometric analysis of 10 patients. Sturesson B, et al. **Acta Orthop Scand** 1999 Feb;70(1):42–6

Measurement of sacroiliac joint stiffness in peripartum pelvic pain patients with Doppler imaging of vibrations (DIV). Buyruk HM, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Apr;83(2):159–63

Sacroiliac joint dysfunction in patients with imaging-proven lumbar disc herniation. Galm R, et al. **Eur Spine J** 1998; 7(6):450–3

Why yet another diagnostic sign of sacroiliac movement restriction? Lewit K, et al. **J Manipulative Physiol Ther** 1999 Mar–Apr;22(3):154–60

Intraexaminer and interexaminer reliability of the Gillet test. Meijne W, et al. **J Manipulative Physiol Ther** 1999 Jan; 22(1):4–9

Decrease in quadriceps inhibition after sacroiliac joint manipulation in patients with anterior knee pain. Suter E, et al. **J Manipulative Physiol Ther** 1999 Mar–Apr; 22(3):149–53

Sacroiliac dysfunction in construction workers. Toussaint R, et al. **J Manipulative Physiol Ther** 1999 Mar–Apr; 22(3):134–8

Clinical usefulness of a cluster of sacroiliac joint tests in patients with and without low back pain. Cibulka MT, et al. **J Orthop Sports Phys Ther** 1999 Feb;29(2):83–9; discussion 90–2

Pain provocation tests for the assessment of sacroiliac joint dysfunction. Broadhurst NA, et al. **J Spinal Disord** 1998 Aug;11(4):341–5

RADIOGRAPHY

Variation in the appearance of the normal sacroiliac joint on pelvic CT. Faflia CP, et al. **Clin Radiol** 1998 Oct; 53(10):742–6

Dense bone around the sacroiliac joint: a radiological review of the differential diagnosis. Dihlmann W, et al. **Eur J Radiol** 1998 Jul;27(3):241–9

Sacroiliac joint pneumatocysts: prevalence on CT examinations [letter; comment] Prassopoulos PK, et al. **Eur Radiol** 1999;9(3):572. Comment on: Eur Radiol 1997;7(9):1449–51.

Sacroiliac joints: anatomical variants on CT. Prassopoulos PK, et al. **J Comput Assist Tomogr** 1999 Mar–Apr; 23(2):323–7

Radiographic diagnosis of sacroiliitis—are sacroiliac views really better? Battistone MJ, et al. **J Rheumatol** 1998 Dec; 25(12):2395–401

Early detection of sacroiliitis on magnetic resonance imaging and subsequent development of sacroiliitis on plain radiography. A prospective, longitudinal study. Oostveen J, et al. **J Rheumatol** 1999 Sep;26(9):1953–8

Should radiologists image and report sacroiliac joints in patients referred for examination of the lumbar spine? [letter] Matthews IP, et al. **Lancet** 1999 Aug 7; 354(9177):483–4

The prevalence of sacroiliitis in psoriatic arthritis: new perspectives from a large, multicenter cohort. A Department of Veterans Affairs Cooperative Study. Battistone MJ, et al. **Skeletal Radiol** 1999 Apr;28(4):196–201

The orientation of the sacroiliac joint portions influence their radiologic appearance [letter] Faflia CP, et al. **Spine** 1999 Jul 1;24(13):1390–1

RADIONUCLIDE IMAGING

Value of quantitative radionuclide bone scanning in the diagnosis of sacroiliac joint syndrome in 32 patients with low back pain. Maigne JY, et al. **Eur Spine J** 1998; 7(4):328–31

[Lumbago in a young patient] Zapico Fernández MI, et al. **Rev Clin Esp** 1999 Feb;199(2):99–100 **(Spa)**

SURGERY

Can an external frame fixation reduce the movements in the sacroiliac joint? A radiostereometric analysis of 10 patients. Sturesson B, et al. **Acta Orthop Scand** 1999 Feb;70(1):42–6

Iliosacral screw insertion using computer-assisted CT image guidance: a laboratory study. Barrick EF, et al. **Comput Aided Surg** 1998;3(6):289–96

ULTRASONOGRAPHY

Duplex and color Doppler sonographic findings in active sacroiliitis. Arslan H, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):677–80

Measurement of sacroiliac joint stiffness in peripartum pelvic pain patients with Doppler imaging of vibrations (DIV). Buyruk HM, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Apr;83(2):159–63

SACRUM

A case of chordoma in association with rectal carcinoma. Bozbora A, et al. **Acta Chir Belg** 1999 Feb;99(1):41–3

A persistent sinus tract from the vagina to the sacrum after treatment of mesh erosion by partial removal of a GORE-TEX soft tissue patch. Unger JB. **Am J Obstet Gynecol** 1999 Sep;181(3):762–3

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1998 Aug;15(8):503–5

Heterogeneity and susceptibility to apoptosis of human renal carcinoma cells in vitro. Dell'Antonio G, et al. **Eur J Histochem** 1998;42(4):327–32

MR imaging of a malignant schwannoma and an osteoblastoma with fluid-fluid levels. Report of two new cases. Vilanova JC, et al. **Eur Radiol** 1998;8(8):1359–62

Sacrospinous fixation for the prolapsed vaginal vault. Ozcan U, et al. **Gynecol Obstet Invest** 1999;47(1):65–8

Ochronotic arthropathy: case report and review of the literature. Hamdi N, et al. **Int Orthop** 1999;23(2):122–5 (13 ref.)

Lumbar agenesis with sacral sparing: a case report. Goldberg BS, et al. **J Neuroimaging** 1999 Jul;9(3):184–7

Transiliac exposure of the sacrum: a new surgical approach. Peterson HA. **J Pediatr Orthop** 1999 Mar–Apr;19(2):194–7

L5–S1 disc origin for a pyramidal syndrome? [letter] Fautrel B, et al. **Lancet** 1998 Nov 21;352(9141):1679

Spinal lipoma controversy [clinical conference] Chapman P, et al. **Neurosurgery** 1999 Jan;44(1):186–92; discussion 192–3

Sacral chordoma: 40-year experience at a major cancer center. York JE, et al. **Neurosurgery** 1999 Jan;44(1):74–9; discussion 79–80

A case of incomplete Currarino triad with malignant transformation. Tander B, et al. **Pediatr Surg Int** 1999 Jul; 15(5–6):409–10

A physiological approach to the evaluation of lumbosacral spinal stenosis. Kraft GH. **Phys Med Rehabil Clin N Am** 1998 May;9(2):381–9, viii (19 ref.)

Cryptococcoma of the sacrum. Noh HM, et al. **Skeletal Radiol** 1999 Jan;28(1):49–51

Sacral hydatidosis: value of MRI in the diagnosis. Singh S, et al. **Skeletal Radiol** 1998 Sep;27(9):518–21

Traumatic L5–S1 spondylolisthesis. Hodges SD, et al. **South Med J** 1999 Mar;92(3):316–20

Lumbosacral chordoma. Prognostic factors and treatment. Cheng EY, et al. **Spine** 1999 Aug 15;24(16):1639–45

One-stage decompression and posterolateral and interbody fusion for severe spondylolisthesis. An analysis of 14 patients. Roca J, et al. **Spine** 1999 Apr 1;24(7):709–14

Anterior disc protrusion as a cause for abdominal symptoms in childhood discitis. A case report. Wong-Chung JK, et al. **Spine** 1999 May 1;24(9):918–20

[Pain in one leg in patients with cancer (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2674)] Koot RW, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2129–32 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2593–4. **(Dut)**

[Physical diagnosis—signs of lumbosacral irritation (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1400)] Oosterhuis HJ. **Ned Tijdschr Geneeskd** 1999 Mar 20;143(12):617–20 (26 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1393–4. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1394. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1394–5. **(Dut)**

[A case of hyalinizing spindle cell tumor with giant rosettes in the presacral region. Immunohistochemical and ultrastructural study] de Pinieux G, et al. **Ann Pathol** 1998 Dec;18(6):488–91 (Eng. Abstr.) **(Fre)**

[Giants schwannoma of the sacrum. Apropos of 3 cases and review of the literature] Anract P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):239–46 (18 ref.) (Eng. Abstr.) **(Fre)**

[L5 sciatica caused by the compression of the lumbo-sacral trunk of osseous origin at the sacro-iliac level. Treatment by an antero-lateral subperitoneal approach] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):377–80 (Eng. Abstr.) **(Fre)**

[Importance of long-term follow-up of infants operated of sacro-coccygeal teratoma] Oury AP, et al. **Rev Med Liege** 1998 Sep;53(9):537–40 (Eng. Abstr.) **(Fre)**

[Anterior sacral meningocele associated with lumbar spondylodiscitis: contribution of images] Nagi S, et al. **Tunis Med** 1998 Mar;76(3):51–3 **(Fre)**

[Perinatal and perianesthetic management of the sacrococcygeal teratoma in a neonate] Sasaoka N, et al. **Masui** 1998 Dec;47(12):1482–5 (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Caudal regression syndrome: MR appearance. Hirano H, et al. **Comput Med Imaging Graph** 1998 Jan–Feb;22(1):73–6

Exclusion of the Sonic Hedgehog gene as responsible for Currarino syndrome and anorectal malformations with sacral hypodevelopment. Seri M, et al. **Hum Genet** 1999 Jan;104(1):108–10

A genetic study of the human T gene and its exclusion as a major candidate gene for sacral agenesis with anorectal atresia. Papapetrou C, et al. **J Med Genet** 1999 Mar; 36(3):208–13

Laparoscopic assisted reconstructive surgery. Hedican SP, et al. **J Urol** 1999 Jan;161(1):267–70

A homeobox gene, HLXB9, is the major locus for dominantly inherited sacral agenesis. Ross AJ, et al. **Nat Genet** 1998 Dec;20(4):358–61

An unusual case of the complete Currarino triad: case report, discussion of the literature and the embryogenic implications. Gegg CA, et al. **Neurosurgery** 1999 Mar; 44(3):658–62 (17 ref.)

Numerical variations in human vertebral column: a case report. Cimen M, et al. **Okajimas Folia Anat Jpn** 1999 Mar; 75(6):297–303

A novel embryogenetic mechanism for Currarino's triad: inadequate dorsoventral separation of the caudal eminence from hindgut endoderm. Dias MS, et al. **Pediatr Neurosurg** 1998 May;28(5):223–9

[Caudal regression syndrome associated with Klippel-Feil syndrome] Ly-Ba A, et al. **Dakar Med** 1997;42(2):152–5 (Eng. Abstr.) **(Fre)**

[Significance of prenatal diagnosis in interdisciplinary treatment of sacrococcygeal teratoma] Schaarschmidt K, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1168–71 (Eng. Abstr.) **(Ger)**

ANATOMY & HISTOLOGY

Differences in sacral angulation and lumbosacral curvature in black and white young men and women. Hanson P, et al. **Acta Anat (Basel)** 1998;162(4):226–31

Numerical variations in human vertebral column: a case report. Cimen M, et al. **Okajimas Folia Anat Jpn** 1999 Mar; 75(6):297–303

INJURIES

The external spinal fixator does not reduce anterior column motion under axial compressive loads. A mechanical in vitro study. Lund T, et al. **Acta Orthop Scand** 1999 Feb; 70(1):37–41

Sacral stress fracture in an elite college basketball player after the use of a jumping machine. Crockett HC, et al. **Am J Sports Med** 1999 Jul–Aug;27(4):526–8

Insufficiency fractures, an often unrecognized diagnosis. Verhaegen MJ, et al. **Arch Orthop Trauma Surg** 1999; 119(1–2):115–6

Transverse fracture of the second sacral vertebra: description of a clinical case. Rotini R, et al. **Chir Organi Mov** 1998 Jul–Sep;83(3):309–14 **(Eng, Ita)**

Imaging diagnosis of insufficiency fracture of the sacrum. Chen CK, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Sep;62(9):591–7

Stress fractures of the vertebral lamina and pelvis in Thoroughbred racehorses [see comments] Haussler KK, et al. **Equine Vet J** 1998 Sep;30(5):374–81. Comment in: Equine Vet J 1998 Sep;30(5):364–5.

Salter-Harris type I fracture of the sacro-coccygeal joint. Gutierrez PR, et al. **Pediatr Radiol** 1998 Sep;28(9):734

Fracture dislocation of the sacro-coccygeal joint: MRI evaluation [letter] Raissaki MT, et al. **Pediatr Radiol** 1999 Aug;29(8):642–3 (6 ref.)

Neurological complications in insufficiency fractures of the sacrum. Three case-reports. Jacquot JM, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):109–14

Sacral insufficiency fractures: an unsuspected cause of low back pain [letter; comment] Isdale AH. **Rheumatology (Oxford)** 1999 Jan;38(1):90. Comment on: Br J Rheumatol 1998 Jul;37(7):789–93.

Sacral insufficiency fractures as an unsuspected cause of low back pain [letter; comment] Weber M, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):90–1. Comment on: Br J Rheumatol 1998 Jul;37(7):789–93.

Erectile dysfunction caused by sacral gun-shot injury. Werner T, et al. **Scand J Urol Nephrol** 1999 Feb;33(1):69–70

Traumatic open anterior lumbosacral fracture dislocation. A report of two cases. Carlson JR, et al. **Spine** 1999 Jan 15; 24(2):184–8

[Insufficiency fractures of the sacrum] Kos CB, et al. **Ned Tijdschr Geneeskd** 1999 Feb 13;143(7):329–33 (Eng. Abstr.) **(Dut)**

[Fractures of the sacrum and neurologic lesions. Apropos of a case] Bédat B, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):281–4 (Eng. Abstr.) **(Fre)**

[Pseudarthrosis of an occult fracture in zone III of the sacrum] Westphal T, et al. **Unfallchirurg** 1999 Jun; 102(6):493–6 (Eng. Abstr.) **(Ger)**

METABOLISM

[The effect of soft care mattresses on subcutaneous tissue pressure and pO2 over the os sacrum] Völker HU, et al. **Unfallchirurg** 1999 Jun;102(6):439–46 (Eng. Abstr.) **(Ger)**

SACRUM

PATHOLOGY

MR myelography of sacral meningeal cysts. Tsuchiya K, et al. **Acta Radiol** 1999 Jan;40(1):95-9

Pathologic changes in the lumbosacral vertebrae and pelvis in Thoroughbred racehorses. Haussler KK, et al. **Am J Vet Res** 1999 Feb;60(2):143-55

Anterior sacral meningocele completely occupied by an epidermoid tumor. Shamoto H, et al. **Childs Nerv Syst** 1999 Apr;15(4):209-11

Sonographically guided fine-needle aspiration biopsy of lytic lesions of the spine: technique and indications. Gupta S, et al. **J Clin Ultrasound** 1999 Mar-Apr;27(3):123-9

Anterior sacral meningocele associated with a rectal fistula. Case report and review of the literature. Fitzpatrick MO, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):124-7 (26 ref.)

MR evaluation of stenosis involving the neural foramina, lateral recesses, and central canal of the lumbosacral spine. Jinkins JR. **Magn Reson Imaging Clin N Am** 1999 Aug; 7(3):493-511, viii (43 ref.)

Sacral haemangioma as a cause of coccydynia. Lath R, et al. **Neuroradiology** 1998 Aug;40(8):524-6

An unusual case of the complete Currarino triad: case report, discussion of the literature and the embryogenic implications. Gegg CA, et al. **Neurosurgery** 1999 Mar; 44(3):658-62 (17 ref.)

Sacral chordoma in early childhood: clinicopathological and immunohistochemical study. Iwasa Y, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):420-6

Hydatid cyst of the sacrum. Report of a case. Akhaddar A, et al. **Rev Rhum Engl Ed** 1999 May;66(5):289-91

Osteochondrosis of the sacral bone in a mastiff dog. Snaps FR, et al. **Vet Rec** 1998 Oct 24;143(17):476-7

[The role of surgery in comprehensive treatment of spinal neoplasms] Haftek J, et al. **Neurol Neurochir Pol** 1998 Sep-Oct;32(5):1147-64 (Eng. Abstr.) **(Pol)**

[Magnetic resonance imaging in the complex radiation diagnosis of tuberculous spondylitis in adults] Mitusova GM, et al. **Probl Tuberk** 1999;(3):19-22 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Lumbosacral loads in bedmaking. Milburn PD, et al. **Appl Ergon** 1999 Jun;30(3):263-73

Influences of walking speed change on the lumbosacral joint force distribution. Cheng CK, et al. **Biomed Mater Eng** 1998;8(3-4):155-65

When is a lifting movement too asymmetric to identify low-back loading by 2-D analysis? Kingma I, et al. **Ergonomics** 1998 Oct;41(10):1453-61

Biomechanical testing of the lumbosacral spine. Kostuik JP, et al. **Spine** 1998 Aug 15;23(16):1721-8

PHYSIOPATHOLOGY

[Pseudarthrosis of an occult fracture in zone III of the sacrum] Westphal T, et al. **Unfallchirurg** 1999 Jun; 102(6):493-6 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Plain radiography of the lumbosacral spine. An audit of referrals from general practitioners. Espeland A, et al. **Acta Radiol** 1999 Jan;40(1):52-9

Utilization of lumbosacral spine radiographs for the evaluation of low back pain in the emergency department. Weiner AL, et al. **J Emerg Med** 1999 Mar-Apr; 17(2):229-33

Volumetric change of the graft bone after intertransverse fusion. Kim KW, et al. **Spine** 1999 Mar 1;24(5):428-33

[The cauda equina syndrome and a sacral lithic mass] Zambrana Garcia JL, et al. **Rev Clin Esp** 1999 Jul; 199(7):471-2 (7 ref.) **(Spa)**

RADIONUCLIDE IMAGING

Bone scintigraphy in the diagnosis of sacroiliac injury in twelve horses [see comments] Tucker RL, et al. **Equine Vet J** 1998 Sep;30(5):390-5. Comment in: Equine Vet J 1998 Sep;30(5):364-5.

SURGERY

Surgery for anterior sacral meningoradiculocele controlled by MR imaging. Keris V, et al. **Acta Neurochir (Wien)** 1999; 141(5):541-3

The surgical management of sacrococcygeal chordoma. Yonemoto T, et al. **Cancer** 1999 Feb 15;85(4):878-83

Extension to the sacrum of previous adolescent scoliosis fusions in adult life. Kostuik JP, et al. **Clin Orthop** 1999 Jul;(364):53-60

Lumbosacral fusion in children and adolescents using the modified sacral bar technique. Widmann RF, et al. **Clin Orthop** 1999 Jul;(364):85-91

Abdominosacral resection of recurrent rectal cancer in the sacrum. Zacherl J, et al. **Dis Colon Rectum** 1999 Aug; 42(8):1035-9; discussion 1039-40

Sacrococcygeal teratoma: a series of 19 cases with long-term follow-up. Uchiyama M, et al. **Eur J Pediatr Surg** 1999 Jun;9(3):158-62

Surgical treatment of malignant tumours of the sacrum. Ozdemir MH, et al. **Eur J Surg Oncol** 1999 Feb;25(1):44-9

The stability of bone screws in the os sacrum. von Strempel A, et al. **Eur Spine J** 1998;7(4):313-20

Long-term survival following total sacrectomy with reconstruction for the treatment of primary osteosarcoma of the sacrum. A case report. Spiegel DA, et al. **J Bone Joint Surg Am** 1999 Jun;81(6):848-55 (52 ref.)

Laminectomy compared with laparoscopic diskectomy and outpatient laparoscopic diskectomy for herniated L5-S1 intervertebral disks. Slotman GJ, et al. **J Laparoendosc Adv Surg Tech A** 1998 Oct;8(5):261-7

Influence of ligation of the internal iliac veins on the venous plexuses around the sacrum. Hata M, et al. **J Orthop Sci** 1998;3(5):264-71

Pedicle screw placement at the sacrum: anatomical characterization and limitations at S1. Robertson PA, et al. **J Spinal Disord** 1999 Jun;12(3):227-33

A prospective study of 342 patients using transpedicular fixation instrumentation for lumbosacral spine arthrodesis. Simmons JW, et al. **J Spinal Disord** 1998 Oct;11(5):367-74

Laparoscopic assisted reconstructive surgery. Hedican SP, et al. **J Urol** 1999 Jan;161(1):267-70

A paramedian tangential approach to lumbosacral extraforaminal disc herniations. Müller A, et al. **Neurosurgery** 1998 Oct;43(4):854-61; discussion 861-2

Process measures and patient/parent evaluation of surgical management of spinal deformities in patients with progressive flaccid neuromuscular scoliosis (Duchenne's muscular dystrophy and spinal muscular atrophy). Bridwell KH, et al. **Spine** 1999 Jul 1;24(13):1300-9

The transition zone above a lumbosacral fusion. Hambly MF, et al. **Spine** 1998 Aug 15;23(16):1785-92

The use of recombinant human bone morphogenetic protein 2 (rhBMP-2) to promote spinal fusion in a nonhuman primate anterior interbody fusion model. Hecht BP, et al. **Spine** 1999 Apr 1;24(7):629-36

Management of degenerative disc disease above an L5-S1 segment requiring arthrodesis. Herkowitz HN, et al. **Spine** 1999 Jun 15;24(12):1268-70 (15 ref.)

Comparison of the strengths of lumbosacral fixation achieved with techniques using one and two triangulated sacral screws. Leong JC, et al. **Spine** 1998 Nov 1;23(21):2289-94

The ideal position of sacral transpedicular endplate screws in Jackson's intrasacral fixation. An anatomic study of 50 sacral specimens. Mazda K, et al. **Spine** 1998 Oct 1; 23(19):2123-6

Temporary external transpedicular fixation of the lumbosacral spine. van der Schaaf DB, et al. **Spine** 1999 Mar 1;24(5):481-4; discussion 484-5

[Results of interdisciplinary sacrum resection in sacral recurrence of rectal carcinoma] Teleky B, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1400-3 (Eng. Abstr.) **(Ger)**

[Primary malignant tumors of the sacrum] Wirbel RJ, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1324-7 (Eng. Abstr.) **(Ger)**

[Lumbosacral fusion using a femoro-cortical allograft ring] Liljenqvist U, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug; 136(4):358-63 (Eng. Abstr.) **(Ger)**

[Results of treatment of unilateral sacralization of transverse process of the fifth lumbar vertebrae] Malawski S, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(5):487-94 (Eng. Abstr.) **(Pol)**

[Malignant teratoma of the sacrococcygeal area in a fetus unrecognized in pregnancy] Sobczyk Z, et al. **Ginekol Pol** 1998 Sep;69(9):711-3 (Eng. Abstr.) **(Pol)**

[The role of surgery in comprehensive treatment of spinal neoplasms] Haftek J, et al. **Neurol Neurochir Pol** 1998 Sep-Oct;32(5):1147-64 (Eng. Abstr.) **(Pol)**

[Sacro-colpoplexy using mersilene: report of 12 cases at the General Hospital Zone 7, Monclova, Coahuila] Dominguez Vázquez RH, et al. **Ginecol Obstet Mex** 1999 Jan;67:13-7 (Eng. Abstr.) **(Spa)**

[Colposuspension of the sacrospinal ligament] Neri Ruz ES, et al. **Ginecol Obstet Mex** 1998 Oct;66:407-10 (Eng. Abstr.) **(Spa)**

[Abdominosacral resection for locoregional recurrence rectal cancer] Meneu JC, et al. **Rev Esp Enferm Dig** 1999 May; 91(5):374-9 (30 ref.) (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

[Usefulness of ultrasonographic measurement for fetal sacrum length in assessment of gestational age in physiologic pregnancy] Pająk J, et al. **Ginekol Pol** 1998 Jul;69(7):563-9 (Eng. Abstr.) **(Pol)**

SADDLEBACK DOLPHIN see **DOLPHINS**

SADISM

S/M (sadomasochistic) interactions in semi-public settings. Moser C. **J Homosex** 1998;36(2):19-29

DIAGNOSIS

Sadistic personality disorder in sex offenders: relationship to antisocial personality disorder and sexual sadism. Berger P, et al. **J Personal Disord** 1999 Summer;13(2):175-86

PSYCHOLOGY

Sadism and psychopathy in violent and sexually violent offenders. Holt SE, et al. **J Am Acad Psychiatry Law** 1999; 27(1):23-32

Instinctual sadism: a recurrent myth about human nature. Marmor J, et al. **J Am Acad Psychoanal** 1999 Spring; 27(1):1-6

An application of the concept of the therapeutic alliance to sadomasochistic pathology. Novick KK, et al. **J Am Psychoanal Assoc** 1998;46(3):813-46

Sadistic personality disorder in sex offenders: relationship to antisocial personality disorder and sexual sadism. Berger P, et al. **J Personal Disord** 1999 Summer;13(2):175-86

SAETHRE-CHOTZEN SYNDROME see **ACROCEPHALOSYNDACTYLIA**

SAFETY

Car occupant safety in frontal crashes: a parameter study of vehicle mass, impact speed, and inherent vehicle protection. Buzeman DG, et al. **Accid Anal Prev** 1998 Nov; 30(6):713-22

The effects on accidents of studded tires and laws banning their use: a meta-analysis of evaluation studies. Elvik R. **Accid Anal Prev** 1999 Jan-Mar;31(1-2):125-34

The efficacy of safety policies on traffic fatalities in Singapore. Jessie WS, et al. **Accid Anal Prev** 1998 Nov; 30(6):745-54

Trends in safe driving behaviors and in relation to trends in health maintenance behaviors in the USA: 1985-1995. Shinar D, et al. **Accid Anal Prev** 1999 Sep;31(5):497-503

Impacts of culture on driver knowledge and safety device usage among Hispanic farm workers. Stiles MC, et al. **Accid Anal Prev** 1999 May;31(3):235-41

A collision model for safety evaluation of autonomous intelligent cruise control. Touran A, et al. **Accid Anal Prev** 1999 Sep;31(5):567-78

Drivers' speed behaviour at a zebra crossing: a case study. Várhelyi A. **Accid Anal Prev** 1998 Nov;30(6):731-43

An exploration of the perceptions of the average driver's speed compared to perceived driver safety and driving skill. Walton D, et al. **Accid Anal Prev** 1998 Nov;30(6):821-30

Driving safety: motivating messages [letter] Cox BS, et al. **Age Ageing** 1999 May;28(3):329-30

Protecting the health and safety of working teenagers. Rubenstein H, et al. **Am Fam Physician** 1999 Aug; 60(2):575-80, 587-8 (07 ref.)

Evaluating the relative status of health and safety programs for minority academic and research institutions. Emery R, et al. **Am Ind Hyg Assoc J** 1998 Dec;59(12):882-8

Quality of HMO vaccination databases used to monitor childhood vaccine safety. Vaccine Safety DataLink Team. Mullooly J, et al. **Am J Epidemiol** 1999 Jan 15;149(2):186-94

Contractor safety practices and injury rates in construction of the Denver International Airport. Glazner JE, et al. **Am J Ind Med** 1999 Feb;35(2):175-85

National highway traffic safety administration (NHTSA) notes [news] **Ann Emerg Med** 1999 Apr;33(4):469-70

Commentary. Older drivers: growth industry for the future [news] Jolly BT. **Ann Emerg Med** 1999 Apr;33(4):470

Radiation safety considerations for sentinel node techniques [editorial; comment] Glass EC, et al. **Ann Surg Oncol** 1999 Jan-Feb;6(1):10-1. Comment on: Ann Surg Oncol 1999 Jan-Feb;6(1):75-62.

Guidelines for the safe use of radioactive materials during localization and resection of the sentinel lymph node [see comments] Miner TJ, et al. **Ann Surg Oncol** 1999 Jan-Feb; 6(1):75-82. Comment in: Ann Surg Oncol 1999 Jan-Feb;6(1):10-1.

Electrosurgical safety. Hutchisson B, et al. **AORN J** 1998 Nov;68(5):830-7; quiz 838-40, 843-4 (4 ref.)

Critical thinking's role in perioperative patient safety outcomes [published erratum appears in AORN J 1999 Jan;69(1):21] Reavis CW, et al. **AORN J** 1998 Nov; 68(5):758-62, 764, 767-8 passim

Connotation of hazard for signal words and their associated panels. Young SL. **Appl Ergon** 1998 Apr;29(2):101-10

Wellbeing in a New Zealand secondary college--an evaluation [letter] Kriechbaum AJ. **Aust N Z J Public Health** 1998 Oct;22(6):734-6

How should the safety and efficacy of platelet transfusions be assured? Williamson LM. **Blood Rev** 1998 Dec; 12(4):203-14 (104 ref.)

Staying safe during the eclipse. Turn your back on the sun [editorial] Dowler J. **BMJ** 1999 Aug 7;319(7206):329-30

US conference looks at improving patient safety [news] MacReady N. **BMJ** 1999 May 8;318(7193):1233

Food safety in the 21st century. Käferstein F, et al. **Bull World Health Organ** 1999;77(4):347-51 (15 ref.)

Are the new SSRIs safe for pregnant women? Kulin NA, et al. **Can Fam Physician** 1998 Oct;44:2081-3

Firearm safety courses for elementary school-age children. Leonard KA. **Can J Public Health** 1999 Jan-Feb;90(1):35-6

Physician, protect thyself [see comments] Sibbald B. **CMAJ** 1998 Oct 20;159(8):987-9. Comment in: CMAJ 1999 Apr 20;160(8):1127.

Fire awareness in the office and laboratory. Tearle P. **Commun Dis Public Health** 1998 Dec;1(4):290-2

Safety issues of animal products used in serum-free media. Merten OW. **Dev Biol Stand** 1999;99:167-80 (69 ref.)

Task analysis for the investigation of human error in safety-critical software design: a convergent methods approach. Shryane NM, et al. **Ergonomics** 1998 Nov; 41(11):1719-36

Air rescue. Unfriendly skies. Haugh R. **Hosp Health Netw** 1998 Sep 20;72(18):46, 48

Embryo cryopreservation and development: facts, questions

and responsibility [comment] [see comments] Dulioust E, et al. **Hum Reprod** 1999 May;14(5):1141–5. Comment on: Hum Reprod 1998 Apr;13(4):783–5. Comment on: Hum Reprod 1998 Apr;13(4):786–7. Comment on: Hum Reprod 1998 Apr;13(4):787–8. Comment in: Hum Reprod 1999 Jun;14(6):1665.

Maintaining client safety and scientific integrity in research with battered women. Lutz KF. **Image J Nurs Sch** 1999; 31(1):89–93 (40 ref.)

Health risks from the use of laser pointers [news] **Indian Pediatr** 1998 Nov;35(11):1155–8

Babywalkers: prevalence of use and relationship with other safety practices. Kendrick D, et al. **Inj Prev** 1998 Dec; 4(4):295–8

Alarm communication network to help carers of the elderly for safety purposes: a survey of a project. Chan M, et al. **Int J Rehabil Res** 1999 Jun;22(2):131–6

Improving the safety profile of long-term PUVA therapy [editorial; comment] Hobbs J, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):496–7 (20 ref.) . Comment on: J Am Acad Dermatol 1999 Sep;41(3 Pt 1):408–13.

Function, flying, and the Age–60 rule [editorial; comment] Odenheimer G. **J Am Geriatr Soc** 1999 Jul;47(7):910–1 (14 ref.). Comment on: J Am Geriatr Soc 1999 Jul;47(7):819–23.

Safety of emergency contraception. Glasier A. **J Am Med Womens Assoc** 1998;53(5 Suppl 2):219–21 (21 ref.)

Is outpatient surgery safe for the higher risk patient? Voitk AJ, et al. **J Gastrointest Surg** 1998 Mar–Apr;2(2):156–8

Global call to action on MR safety [editorial] Ordidge R, et al. **J Magn Reson Imaging** 1999 May;9(5):629

Safe motherhood--a journey. Peters M. **J Nurse Midwifery** 1999 Mar–Apr;44(2):145–50

Safe motherhood USA [editorial] Lowe NK. **J Obstet Gynecol Neonatal Nurs** 1998 Sep–Oct;27(5):491

The submission from the Royal Society for the Promotion of Health on the proposed Food Standards Agency. **J R Soc Health** 1998 Jun;118(3):185–6

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: development and technical content. Webb GA. **J Radiol Prot** 1998 Dec;18(4):265–75

Handgun safety features: a review for physicians. Milne JS, et al. **J Trauma** 1999 Jul;47(1):145–50 (49 ref.)

Safety of mefloquine and other antimalarial agents in the first trimester of pregnancy. Phillips-Howard PA, et al. **J Travel Med** 1998 Sep;5(3):121–6

From the Centers for Disease Control and Prevention. Motor-vehicle safety: a 20th century public health achievement. **JAMA** 1999 Jun 9;281(22):2080–2

From the Centers for Disease Control and Prevention. Neighborhood safety and the prevalence of physical inactivity--selected states, 1996. **JAMA** 1999 Apr 21; 281(15):1373

From the Centers for Disease Control and Prevention. Improvements in workplace safety--United States, 1900–1999. **JAMA** 1999 Jul 28;282(4):319–21

Hot butter and cheese dispensers at the movie theater: a real sizzler? [letter] Freshwater MF. **JAMA** 1998 Dec 16; 280(23):1994

"New Look" reflects changing style of patient safety enhancement [news] Phillips DF. **JAMA** 1999 Jan 20; 281(3):217–9

Promoting patient safety by preventing medical error [letter; comment] Pierce EC Jr. **JAMA** 1999 Apr 7;281(13):1174 . Comment on: JAMA 1998 Oct 28;280(16):1444–7.

Buckle up! Is not enough: enhancing protection of the restrained child. Winston FK, et al. **JAMA** 1999 Jun 9; 281(22):2070–2

International cooperation in food safety. Chen SK. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999;15 Suppl:S86–8

Thought for safety of aid workers in dangerous places [editorial] **Lancet** 1999 Aug 21;354(9179):609

Biologic effects of low-level electromagnetic fields: current issues and controversies. Beers GJ, et al. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):749–74 (242 ref.)

Safety aspects of switched gradient fields. Schaefer DJ. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):731–48 (51 ref.)

Safety aspects of radiofrequency power deposition in magnetic resonance. Schaefer DJ. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):775–89 (47 ref.)

MR safety at high magnetic fields. Schenck JF. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):715–30 (128 ref.)

Army aeromedical crash rates. De Lorenzo RA, et al. **Mil Med** 1999 Feb;164(2):116–8

Improvements in workplace safety--United States, 1900–1999. **MMWR Morb Mortal Wkly Rep** 1999 Jun 11; 48(22):461–9

Neighborhood safety and the prevalence of physical inactivity--selected states, 1996. **MMWR Morb Mortal Wkly Rep** 1999 Feb 26;48(7):143–6

Playground safety--United States, 1998–1999. **MMWR Morb Mortal Wkly Rep** 1999 Apr 30; 48(16):329–32

Motor-vehicle safety: a 20th century public health achievement [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Jun 11;48(22):473] **MMWR Morb Mortal Wkly Rep** 1999 May 14; 48(18):369–74

Is science dangerous? Wolpert L. **Nature** 1999 Mar 25; 398(6725):281–2

Welding safety. Pankratz M. **Occup Health Saf** 1999 May; 68(5):46–8, 50, 52 passim

FDA treads delicate line between safety and speed. **Oncology (Huntingt)** 1999 Jan;13(1):16 (0 ref.)

Dad, may I have the keys? Factors influencing which vehicles teenagers drive. Rivara FP, et al. **Pediatrics** 1998 Nov;102(5):E57

Tips for a safe trip. **Postgrad Med** 1999 Jul;106(1):149–50

Advising patients about international travel. What they can do to protect their health and safety. Bratton RL. **Postgrad Med** 1999 Jul;106(1):57–64; quiz 143 (14 ref.)

Violence in the emergency department. Managing aggressive patients in a high-stress environment. Kuhn W. **Postgrad Med** 1999 Jan;105(1):143–8, 154 (30 ref.)

Keeping America secure for the 21st century. Lederberg J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3486–8

Sun-safety behavior among elementary school children: the role of knowledge, social norms, and parental involvement. Donavan DT, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):831–6

Scales for teachers' assessment of inhibition and security seeking in kindergarten children. Koomen HM, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):767–72

Risk analysis and management of dam safety. Lave LB, et al. **Risk Anal** 1998 Aug;18(4):455–62

Consuming fears [news] Firth P. **Sci Am** 1999 Jan;280(1):41–3

Laboratory safety [letter; comment] Collins CH, et al. **Science** 1998 Nov 20;282(5393):1419–20. Comment on: Science 1998 Oct 9;282(5387):213, 215.

Court hears fight over safety of lab [news] [see comments] Normile D. **Science** 1998 Oct 9;282(5387):213, 215. Comment in: Science 1998 Nov 20;282(5393):1419–20.

The safety of pharmaceutical excipients. de Jong HJ. **Therapie** 1999 Jan–Feb;54(1):11–4 (9 ref.)

Safety of the donor operation in living-related liver transplantation: analysis of 22 donors. Kawagishi N, et al. **Transplant Proc** 1998 Nov;30(7):3279–80

MAFF review of antimicrobial resistance in the food chain [news] **Vet Rec** 1998 Sep 12;143(11):290–1

[Protection of children in cars: integrating the specifics (editorial)] Floret D. **Arch Pediatr** 1999 Mar;6(3):247–50 (21 ref.) **(Fre)**

[The installation of security in pathologic anatomy: the impact of prions (editorial)] Hauw JJ. **Clin Exp Pathol** 1999; 47(3–4):119–21 **(Fre)**

[Health safety from the point of view of a physician (editorial)] Houssin D. **J Chir (Paris)** 1998 Nov;135(5):202 **(Fre)**

[Refractive surgery and flight safety] Draeger J. **Ophthalmologe** 1998 Sep;95(9):639–44 (8 ref.) (Eng. Abstr.) **(Ger)**

[Health of the pilots and flight safety] Arva PH. **Tidsskr Nor Laegeforen** 1998 Sep 30;118(23):3643–5 (Eng. Abstr.) **(Nor)**

[Spinal analgesia and perioperative low molecular weight heparin (LMWH) prophylaxis of thrombosis. Safety aspect] Cyrkowicz A, et al. **Ginekol Pol** 1997 Nov;68(11):523–7 (Eng. Abstr.) **(Pol)**

[Adaptation of the terminology of chemicals included in the list of maximum allowable concentrations in work environment to the principles which meet the requirements of the IUPAC guidelines] Czerczak S, et al. **Med Pr** 1998; 49(4):393–406 (Eng. Abstr.) **(Pol)**

[Report from the conference on "safe and hygienic learning conditions as indispensable elements of elementary schools' functioning"] Ignar-Golinowska B, et al. **Rocz Panstw Zakl Hig** 1998;49(4):515–20 (Eng. Abstr.) **(Pol)**

[The safety of anesthesia of patients operated at the age over 80] Podwinska E, et al. **Wiad Lek** 1998;51(11–12):492–6 (Eng. Abstr.) **(Pol)**

[Minor blunt abdominal trauma can be dangerous] Prowans P, et al. **Wiad Lek** 1999;52(1–2):81–4 (Eng. Abstr.) **(Pol)**

[Biological safety problems on the brink of the 21st century] Kalinin IuT, et al. **Vestn Ross Akad Med Nauk** 1999;(8):3–8 (13 ref.) (Eng. Abstr.) **(Rus)**

[Health care safety should be focused on prevention. Lessons to be learned from aviation, nuclear power plants and offshore industries] Odegård S. **Lakartidningen** 1999 Jun 23;96(25):3068–73 (19 ref.) (Eng. Abstr.) **(Swe)**

HISTORY

MR safety: past, present, and future from a historical perspective. Budinger TF. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):701–14

LEGISLATION & JURISPRUDENCE

Changes in motor vehicle occupant fatalities after repeal of the national maximum speed limit. Farmer CM, et al. **Accid Anal Prev** 1999 Sep;31(5):537–43

Biosafety and regulation. Francisco M. **Nat Biotechnol** 1999 Jan;17(1):89

[The role of occupational medicine in the development of current and future legal documents on women's work safety and women's health] Volkova ZA, et al. **Med Tr Prom Ekol** 1998;(8):32–5 (Eng. Abstr.) **(Rus)**

STANDARDS

FDA regulation of the safety of MR devices: past, present, and future. Athey TW. **Magn Reson Imaging Clin N Am** 1998 Nov;6(4):791–5

Treating a sick process [editorial; comment] McClelland DB. **Transfusion** 1998 Nov–Dec;38(11–12):999–1003. Comment on: Transfusion 1998 Nov–Dec;38(11–12):1030–6. Comment on: Transfusion 1998 Nov–Dec;38(11–12):1071–81.

STATISTICS & NUMERICAL DATA

A population-based study of environmental hazards in the homes of older persons. Gill TM, et al. **Am J Public Health** 1999 Apr;89(4):553–6

Surgery aboard ship: is it safe? Fontana M, et al. **Mil Med** 1999 Sep;164(9):613–5

SAFETY, CONSUMER PRODUCT see **CONSUMER PRODUCT SAFETY**

SAFETY DEVICES see **PROTECTIVE DEVICES**

SAFETY, EQUIPMENT see **EQUIPMENT SAFETY**

SAFETY GLASSES see **EYE PROTECTIVE DEVICES**

SAFETY LENSES see **EYE PROTECTIVE DEVICES**

SAFETY MANAGEMENT

A survey on management perspectives of the state of workplace health and safety practices in Kenya. Mbakaya CF, et al. **Accid Anal Prev** 1999 Jul;31(4):305–12

Surface contamination with antineoplastic agents in six cancer treatment centers in Canada and the United States [see comments] Connor TH, et al. **Am J Health Syst Pharm** 1999 Jul 15;56(14):1427–32. Comment in: Am J Health Syst Pharm 1999 Jul 15;56(14):1403.

Exposure to hazardous drugs: time to reevaluate your program? [editorial; comment] Harrison BR. **Am J Health Syst Pharm** 1999 Jul 15;56(14):1403. Comment on: Am J Health Syst Pharm 1999 Jul 15;56(14):1427–32. Comment on: Am J Health Syst Pharm 1999 Jul 15;56(14):1433–6.

Barrier isolators as an alternative to a cleanroom [see comments] Tillett L. **Am J Health Syst Pharm** 1999 Jul 15;56(14):1433–6. Comment in: Am J Health Syst Pharm 1999 Jul 15;56(14):1403.

Workplace violence. Carroll V. **Am J Nurs** 1999 Mar;99(3):60

Control of exposure to perchloroethylene in commercial drycleaning. **Appl Occup Environ Hyg** 1999 Jun;14(6):365–6

Control of nitrous oxide in dental operatories. National Institute for Occupational Safety and Health. **Appl Occup Environ Hyg** 1999 Apr;14(4):218–20

Control of exposure to perchloroethylene in commercial drycleaning (substitution). National Institute for Occupational Safety and Health. **Appl Occup Environ Hyg** 1999 Jul;14(7):433–5

Evaluation of a new universal jettison mechanism for helicopter underwater escape. Brooks CJ, et al. **Aviat Space Environ Med** 1999 Aug;70(8):752–8

Reducing errors in medicine [editorial] Berwick DM, et al. **BMJ** 1999 Jul 17;319(7203):136–7

Accident investigation. Tearle P. **Commun Dis Public Health** 1998 Sep;1(3):214–6

Roles and responsibilities of safety officers and advisers. Tearle P. **Commun Dis Public Health** 1999 Jun;2(2):151–2

Do workplace interventions prevent low-back disorders? If so, why?: a methodologic commentary. Volinn E. **Ergonomics** 1999 Jan;42(1):258–72 (65 ref.)

Entrapment of PICC lines in mechanical heart valves can be fatal. **Health Devices** 1999 Sep;28(9):369–70

Falling x-ray collimators highlight general weakness in coupling design. **Health Devices** 1999 Sep;28(9):371

User experience network. Overheating connector in Fisher & Paykel MR700 series humidifier. **Health Devices** 1999 Sep;28(9):374–5

Time and tides [interview by Chris Serb] Pecoraro J. **Hosp Health Netw** 1999 Jul;73(7):30

Towards integrated hygiene and food safety management systems: the Hygieneomic approach. Armstrong GD. **Int J Food Microbiol** 1999 Sep 15;50(1–2):19–24 (0 ref.)

Computerised controllers for safety critical medical applications. Halang WA, et al. **Int J Med Inf** 1998 Apr; 49(2):139–55

Training in the radiation sciences: opportunities in the United States and internationally. Seligman P. **Int J Occup Environ Health** 1998 Jul–Sep;4(3):196–8

Reduction of unsafe eating in a patient with esophageal stricture. Shore BA, et al. **J Appl Behav Anal** 1999 Summer; 32(2):225–8

Safe touch temperatures for hot plates. Subramanian B, et al. **J Biomech Eng** 1998 Dec;120(6):727–36

National waste management infrastructure in Ghana. Darko EO, et al. **J Radiol Prot** 1998 Dec;18(4):293–9

A nuclear inspector's perspective on decommissioning at UK nuclear sites. Robinson IF. **J Radiol Prot** 1999 Sep; 19(3):203–12

Promoting patient safety by preventing medical error [editorial] [see comments] Leape LL, et al. **JAMA** 1998

Oct 28;280(16):1444-7. Comment in: JAMA 1999 Apr 7;281(13):1174.
North Carolina firefighter deaths. A progress report and safety inquiry. Bullard SL. **N C Med J** 1998 Sep-Oct; 59(5):298-301
Four weeks of safety. Carroll G. **Occup Health Saf** 1999 May; 68(5):34, 38
Photo(chemo)therapy in private practice in Belgium, France and The Netherlands. Faguer K, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):59-63
Outreach workers' experiences in a homeless outreach project: issues of boundaries, ethics and staff safety. Fisk D, et al. **Psychiatr Q** 1999 Fall;70(3):231-46
Management of health and safety in the organization of worktime at the local level. Jeppesen HJ, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:81-7
From a unidimensional to a bidimensional concept and measurement of workers' safety behavior. Marchand A, et al. **Scand J Work Environ Health** 1998 Aug;24(4):293-9
Nitrobenzene carcinogenicity in animals and human hazard evaluation. Holder JW. **Toxicol Ind Health** 1999 Aug; 15(5):445-57 (117 ref.)

ECONOMICS

An economic evaluation of incremental resources to road safety programmes in New Zealand. Guria J. **Accid Anal Prev** 1999 Jan-Mar;31(1-2):91-9

LEGISLATION & JURISPRUDENCE

Regulatory requirements for biocides on the market in the European Union according to Directive 98/8/EC. Rasmussen K, et al. **J Hazard Mater** 1999 Jun 30; 67(3):237-51
The OSPAR Commission and Ministerial Meeting, 20-24 July 1998, Sintra Lisbon [news] Gray J. **J Radiol Prot** 1998 Dec;18(4):306-10
Dangerous goods safety advisers [news] Guest RM. **J Radiol Prot** 1998 Dec;18(4):302-3

METHODS

The validity of the TR safety observation method on building construction. Laitinen H, et al. **Accid Anal Prev** 1999 Sep; 31(5):463-72
Surveillance the key to firearm injury prevention. Rosenberg ML, et al. **Am J Prev Med** 1998 Oct;15(3 Suppl):1
Checklist for anaesthesia machines [letter; comment] Cartwright DP. **Anaesthesia** 1999 Jan;54(1):89-90. Comment on: Anaesthesia 1998 Sep;53(9):887-90.
Revised checklist for anaesthetic machines [see comments] Kendell J, et al. **Anaesthesia** 1998 Sep;53(9):887-90. Comment in: Anaesthesia 1999 Jan;54(1):89-90.
Effective presentation of radiation safety training--risk communication: an important function of radiation safety training. Johnson RH Jr. **Health Phys** 1999 Feb;76(2 Suppl):S10-5 (7 ref.)
Radiation safety instruction for non-radiation workers. Michel R, et al. **Health Phys** 1999 Feb;76(2 Suppl):S7-9
The Penn State Safety Floor: Part I--Design parameters associated with walking deflections. Casalena JA, et al. **J Biomech Eng** 1998 Aug;120(4):518-26
The Penn State Safety Floor: Part II--Reduction of fall-related peak impact forces on the femur. Casalena JA, et al. **J Biomech Eng** 1998 Aug;120(4):527-32
Risk-informed selection of a highway trajectory in the neighborhood of an oil-refinery. Papazoglou IA, et al. **J Hazard Mater** 1999 Jun 11;67(2):111-44
Potential for violence toward psychiatric nursing students: risk reduction techniques. Echternacht MR. **J Psychosoc Nurs Ment Health Serv** 1999 Mar;37(3):36-9 (9 ref.)
Initial assessment of children's ability to climb stair guarding. Riley JE, et al. **J R Soc Health** 1998 Dec;118(6):331-7
Help with HACCP. Worsfold D. **J R Soc Health** 1998 Oct; 118(5):295-9
Safe cycling [letter; comment] Nehoda H, et al. **Lancet** 1999 Apr 3;353(9159):1192. Comment on: Lancet 1998 Jan 31;351(9099):342.
Biosafety protocol. New confrontations. Hodson-de-Jaramillo E, et al. **Nat Biotechnol** 1999 Jun; 17(6):512-3
Dealing with drugs. **Occup Health Saf** 1999 Jul;68(7):78-80
Group therapy. Ambridge J. **Occup Health Saf** 1999 Jul; 68(7):75-7
Where the buck stops. Johnson LF. **Occup Health Saf** 1999 Jul;68(7):54-6, 58, 60-2
Analysis methods for new work cell standards. Risk analysis and risk reduction help in dealing with the revised Robot Standard. Steinmann J. **Occup Health Saf** 1998 Dec; 67(12):24-7
[A new method for improving the visibility of the rolling stock in railroad transportation] Sosnova TL. **Gig Sanit** 1999 Jan-Feb;(1):48-51 **(Rus)**

ORGANIZATION & ADMINISTRATION

Health and safety in clinical laboratory practice in Ibadan, Nigeria. Omokhodion FO. **Afr J Med Med Sci** 1998 Sep-Dec;27(3-4):201-4
Motor vehicle safety: current concepts and challenges for emergency physicians. Peterson TD, et al. **Ann Emerg Med** 1999 Sep;34(3):384-93 (28 ref.)
Preventing injuries in public playgrounds through partnership between health services and local authority: community intervention study. Sibert JR, et al. **BMJ** 1999 Jun 12;318(7198):1595
Reorganization and consolidation of a safety program. Classic KL, et al. **Health Phys** 1999 Feb;76(2 Suppl):S27-31
The control of major accident hazards: the land-use planning issue. Christou MD, et al. **J Hazard Mater** 1999 Mar 1; 65(1-2):151-78 (59 ref.)
Precautions against industrial accidents: experience in applying the Seveso II Directive in central and eastern European countries. Kaiser W, et al. **J Hazard Mater** 1999 Mar 1;65(1-2):59-75 (8 ref.)
Application of the Seveso Directive in France. Pineau JP. **J Hazard Mater** 1999 Mar 1;65(1-2):49-57 (7 ref.)
Delegates face many challenges negotiating Biosafety Protocol [news] Fox JL. **Nat Biotechnol** 1999 Feb;17(2):123
Biosafety protocol. "Biosafety" to assure underdevelopment. Rangel-Aldao R. **Nat Biotechnol** 1999 Jun;17(6):515-6
To save a life. Higby K. **Occup Health Saf** 1998 Dec; 67(12):32-5
Monitoring data and safety in the WHO Antenatal Care Trial. Bergsjø P, et al. **Paediatr Perinat Epidemiol** 1998 Oct;12 Suppl 2:156-64
The WHO safe community program for injury prevention: evaluation of the impact on injury severity. Lindqvist K, et al. **Public Health** 1998 Nov;112(6):385-91

STANDARDS

An evaluation of the effectiveness of lead paint hazard reduction when conducted by homeowners and landlords. Etre LA, et al. **Appl Occup Environ Hyg** 1999 Aug; 14(8):522-9
Are safety committees really safe? Bergqvist D, et al. **Scott Med J** 1998 Apr;43(2):42-4
[The possibility of using risk assessments of the development of diagnostically different body states for setting hygienic standards] Shimonov TE, et al. **Gig Sanit** 1999 Jan-Feb; (1):73-6 **(Rus)**

UTILIZATION

Anaesthetic machine alarm use [letter] Sanders GM, et al. **Anaesthesia** 1999 Jan;54(1):90-1

SAFFLOWER OIL

Effect of "siljo" fermentation on growth of Staphylococcus aureus, Bacillus cereus and Listeria monocytogenes. Dessie G, et al. **Ethiop Med J** 1997 Oct;35(4):215-23

ADMINISTRATION & DOSAGE

Comparative effects of short- and long-term feeding of safflower oil and perilla oil on lipid metabolism in rats. Ihara M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):223-31

PHARMACOLOGY

A modified high-fat diet induces insulin resistance in rat skeletal muscle but not adipocytes. Wilkes JJ, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E679-86
Differential effects of safflower oil versus fish oil feeding on insulin-stimulated glycogen synthesis, glycolysis, and pyruvate dehydrogenase flux in skeletal muscle: a 13C nuclear magnetic resonance study. Jucker BM, et al. **Diabetes** 1999 Jan;48(1):134-40
Effects of dietary coconut oil, butter and safflower oil on plasma lipids, lipoproteins and lathosterol levels. Cox C, et al. **Eur J Clin Nutr** 1998 Sep;52(9):650-4
Alcohol-induced pancreatic oxidative stress: protection by phospholipid repletion. Aleynik SI, et al. **Free Radic Biol Med** 1999 Mar;26(5-6):609-19

SAFFRON see **LILIACEAE**

SAFROLE

ANALOGS & DERIVATIVES

Synthesis and antiplatelet evaluation of novel aryl-sulfonamide derivatives, from natural safrole. Lima LM, et al. **Pharm Acta Helv** 1999 Jun;73(6):281-92

CHEMISTRY

Synthesis and pharmacological evaluation of new flosulide analogues, synthesized from natural safrole. Lages AS, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):183-8

PHARMACOLOGY

Interaction of isosafrole, beta-naphthoflavone and other CYP1A inducers in liver of rainbow trout (Oncorhynchus mykiss) and eelpout (Zoarces viviparus). Ronisz D, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Nov;121(1-3):289-96
Synthesis and antiplatelet evaluation of novel aryl-sulfonamide derivatives, from natural safrole. Lima LM, et al. **Pharm Acta Helv** 1999 Jun;73(6):281-92

TOXICITY

Safrole-induced oxidative damage in the liver of Sprague-Dawley rats. Liu TY, et al. **Food Chem Toxicol** 1999 Jul;37(7):697-702

SAGE see **LAMIACEAE**

SAGUINUS

Opportunistic Pneumocystis carinii infection in red-bellied tamarins (Saguinus labiatus). Kobayashi R, et al. **Exp Anim** 1999 Jan;48(1):55-7
Novel intestinal Helicobacter species isolated from cotton-top tamarins (Saguinus oedipus) with chronic colitis. Saunders KE, et al. **J Clin Microbiol** 1999 Jan; 37(1):146-51
Adrenal cortical epithelial cysts in two saddleback tamarins (Saguinus fuscicollis). Brack M. **J Comp Pathol** 1998 Aug; 119(2):183-8

ANATOMY & HISTOLOGY

Cranial and mandibular morphometry in Leontopithecus Lesson, 1840 (Callitrichidae, primates). Burity CH, et al. **Am J Primatol** 1999;48(3):185-96

GENETICS

Historical biogeography of tamarins, genus Saguinus: the molecular phylogenetic evidence. Cropp SJ, et al. **Am J Phys Anthropol** 1999 Jan;108(1):65-89
Description of a new kind of MHC DNA sequence in Saguinus oedipus (cotton-top tamarin). Alvarez M, et al. **Eur J Immunogenet** 1998 Aug;25(4):287-92
MHC class I genes in a New World primate, the cotton-top tamarin (Saguinus oedipus), have evolved by an active process of loci turnover. Cadavid LF, et al. **Immunogenetics** 1999 Mar;49(3):196-205

IMMUNOLOGY

Three different MHC class I molecules bind the same CTL epitope of the influenza virus in a primate species with limited MHC class I diversity. Evans DT, et al. **J Immunol** 1999 Apr 1;162(7):3970-7

PARASITOLOGY

A possible case of myiasis in a wild moustached tamarin, Saguinus mystax (Callitrichinae, Cebidae) [letter] Tirado Herrera ER, et al. **J Med Primatol** 1998 Oct;27(5):271-2

PHYSIOLOGY

Costs of infant-carrying in the cotton-top tamarin (Saguinus oedipus). Sánchez S, et al. **Am J Primatol** 1999;48(2):99-111
The insectivorous-frugivorous diet of the golden-handed tamarin (Saguinus midas midas) in French Guiana. Pack KS, et al. **Folia Primatol (Basel)** 1999 Jan-Feb;70(1):1-7

PSYCHOLOGY

Food transfers in wild and reintroduced golden lion tamarins, Leontopithecus rosalia. Ruiz-Miranda CR, et al. **Am J Primatol** 1999;48(4):305-20

VIROLOGY

Toward a surrogate model for hepatitis C virus: An infectious molecular clone of the GB virus-B hepatitis agent. Bukh J, et al. **Virology** 1999 Sep 30;262(2):470-8

SAIDS see **SIMIAN ACQUIRED IMMUNODEFICIENCY SYNDROME**

SAIDS RETROVIRUS see **RETROVIRUSES TYPE D, SIMIAN**

SAIDS VACCINES

Prechallenge high neutralizing antibodies and long-lasting immune reactivity to gp41 correlate with protection of rhesus monkeys against productive simian immunodeficiency virus infection or disease development. Petry H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):441-50
Protection by live, attenuated simian immunodeficiency virus against heterologous challenge. Wyand MS, et al. **J Virol** 1999 Oct;73(10):8356-63
Live attenuated, multiply deleted simian immunodeficiency virus causes AIDS in infant and adult macaques [see comments] [published erratum appears in Nat Med 199 May;5(5):590] Baba TW, et al. **Nat Med** 1999 Feb; 5(2):194-203. Comment in: Nat Med 1999 Feb;5(2):154-5.

ADMINISTRATION & DOSAGE

Beta-chemokine production in macaques vaccinated with live attenuated virus correlates with protection against simian immunodeficiency virus (SIVsm) challenge. Ahmed RK, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1569-74
Oral immunization of macaques with attenuated vaccine virus induces protection against vaginally transmitted AIDS. Joag SV, et al. **J Virol** 1998 Nov;72(11):9069-78

IMMUNOLOGY

Live attenuated simian immunodeficiency virus (SIV)mac in macaques can induce protection against mucosal infection with SIVsm. Nilsson C, et al. **AIDS** 1998 Dec 3; 12(17):2261–70

Alternative interpretation of lymphocyte depletion studies using monoclonal antibodies in animals previously vaccinated with attenuated retroviral vaccines [letter] Dittmer U, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):785

Passively administered neutralizing serum that protected macaques against infection with parenterally inoculated pathogenic simian–human immunodeficiency virus failed to protect against mucosally inoculated virus. Joag SV, et al. **AIDS Res Hum Retroviruses** 1999 Mar 1;15(4):391–4

Production and characterization of SIV envelope-specific rhesus monoclonal antibodies from a macaque asymptomatically infected with a live SIV vaccine. Robinson JE, et al. **AIDS Res Hum Retroviruses** 1998 Sep 20;14(14):1253–62

Mechanisms of protection induced by attenuated simian immunodeficiency virus. II. Lymphocyte depletion does not abrogate protection. Stebbings R, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1187–98

Live attenuated SIV--a model of a vaccine for AIDS. Almond N, et al. **Immunol Lett** 1999 Mar;66(1–3):167–70 (30 ref.)

Protection from pathogenic SIV challenge using multigenic DNA vaccines. Haigwood NL, et al. **Immunol Lett** 1999 Mar;66(1–3):183–8

SIVmac vaccine studies using whole inactivated virus antigen sequentially depleted of viral proteins. Norley S, et al. **J Med Primatol** 1998 Aug;27(4):184–92

Factors associated with slow disease progression in macaques immunized with an adenovirus–simian immunodeficiency virus (SIV) envelope priming–gp120 boosting regimen and challenged vaginally with SIVmac251. Buge SL, et al. **J Virol** 1999 Sep;73(9):7430–40

Highly attenuated vaccine strains of simian immunodeficiency virus protect against vaginal challenge: inverse relationship of degree of protection with level of attenuation. Johnson RP, et al. **J Virol** 1999 Jun; 73(6):4952–61

Limited protection from a pathogenic chimeric simian–human immunodeficiency virus challenge following immunization with attenuated simian immunodeficiency virus. Lewis MG, et al. **J Virol** 1999 Feb;73(2):1262–70

Type 1 CD4(+) T-cell help is required for induction of antipeptide multispecific cytotoxic T lymphocytes by a lipopeptidic vaccine in rhesus macaques. Mortara L, et al. **J Virol** 1999 May;73(5):4447–51

Limited breadth of the protective immunity elicited by simian immunodeficiency virus SIVmne gp160 vaccines in a combination immunization regimen. Polacino P, et al. **J Virol** 1999 Jan;73(1):618–30

Role of immune responses against the envelope and the core antigens of simian immunodeficiency virus SIVmne in protection against homologous cloned and uncloned virus challenge in Macaques. Polacino PS, et al. **J Virol** 1999 Oct;73(10):8201–15

Immunization with a live, attenuated simian immunodeficiency virus vaccine leads to restriction of viral diversity in Rhesus macaques not protected from pathogenic challenge. Sodora DL, et al. **J Virol** 1999 May; 73(5):4443–6

Acute effects of pathogenic simian–human immunodeficiency virus challenge on vaccine-induced cellular and humoral immune responses to Gag in rhesus macaques. Steger KK, et al. **J Virol** 1999 Mar;73(3):1853–9

The effect of immunization on chemokines and CCR5 and CXCR4 coreceptor functions in SIV binding and chemotaxis. Wang Y, et al. **Vaccine** 1999 Apr 9; 17(15–16):1826–36

SAILORS see **MILITARY PERSONNEL**

SAIMIRI

A cerebral primitive neuroectodermal tumor in a squirrel monkey (Saimiri sciureus). Johnson EH, et al. **J Med Primatol** 1999 Apr;28(2):91–6

Glucocorticoid-resistant B-lymphoblast cell line derived from the Bolivian squirrel monkey (Saimiri boliviensis boliviensis). Reynolds PD, et al. **Lab Anim Sci** 1998 Aug; 48(4):364–70

ANATOMY & HISTOLOGY

The pallidofugal projection system in primates: evidence for neurons branching ipsilaterally and contralaterally to the thalamus and brainstem. Parent M, et al. **J Chem Neuroanat** 1999 May;16(3):153–65 (36 ref.)

Neurochemical organization of inferior pulvinar complex in squirrel monkeys and macaques revealed by acetylcholinesterase histochemistry, calbindin and Cat-301 immunostaining, and Wisteria floribunda agglutinin binding. Gray D, et al. **J Comp Neurol** 1999 Jul 5; 409(3):452–68

EMBRYOLOGY

Determination of fetal biparietal diameter without the use of ultrasound in squirrel monkeys. Brady AG, et al. **J Med Primatol** 1998 Oct;27(5):266–70

GENETICS

Microsatellite polymorphisms in Bolivian squirrel monkeys (Saimiri boliviensis). Witte SM, et al. **Am J Primatol** 1999; 47(1):75–84

Molecular characterization of cDNAs encoding squirrel monkey (Saïmiri sciureus) CD8 alpha and beta chains. Ureta-Vidal A, et al. **Immunogenetics** 1999 Jul; 49(7–8):718–21

IMMUNOLOGY

Presence of anti-ovalbumin IgE antibody in the sera of laboratory-reared squirrel monkeys (Saimiri sciureus) fed quail eggs. Imaoka K, et al. **Exp Anim** 1998 Jul;47(3):195–7

Analysis on reactivity of human lymphocyte and monocyte-specific antibodies with peripheral blood mononuclear cells from squirrel monkeys (Saimiri sciureus) [letter; comment] Garraud O, et al. **J Med Primatol** 1998 Aug;27(4):220–2. Comment on: J Med Primatol 1997 Jun;26(3):164–71.

MICROBIOLOGY

Experimentally induced infection with Helicobacter pylori in squirrel monkeys (Saimiri spp.): clinical, microbiological, and histopathologic findings. Stadtländer CT, et al. **Lab Anim Sci** 1998 Jun;48(3):303–9

PARASITOLOGY

Haemobartonellosis in squirrel monkeys (Saimiri sciureus): antagonism between Haemobartonella sp. and experimental Plasmodium falciparum malaria. Contamin H, et al. **Exp Parasitol** 1999 Apr;91(4):297–305

Adaptation of the AMRU-1 strain of Plasmodium vivax to Aotus and Saimiri monkeys and to four species of anopheline mosquitoes. Sullivan JS, et al. **J Parasitol** 1999 Aug;85(4):672–7

PHYSIOLOGY

Odor structure–activity relationships of carboxylic acids correspond between squirrel monkeys and humans. Laska M, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1639–45

Light masking of circadian rhythms of heat production, heat loss, and body temperature in squirrel monkeys. Robinson EL, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R298–307

Incorporation of a GnRH agonist, leuprolide acetate, into regimens with exogenous gonadotropins to produce ovarian stimulation and ovulation in the nonpregnant squirrel monkey. Kuehl TJ, et al. **Am J Primatol** 1999 Oct; 49(2):153–64

Annual physiological changes in individually housed squirrel monkeys (Saimiri sciureus). Schiml PA, et al. **Am J Primatol** 1999;47(2):93–103

Elevated ovarian expression and serum concentration of alpha inhibin in the luteal phase during follicular development in the squirrel monkey (Saimiri boliviensis) compared to the human. Yeoman RR, et al. **Am J Primatol** 1999;47(2):165–79

Cortical connections of the dorsomedial visual area in new world owl monkeys (Aotus trivirgatus) and squirrel monkeys (Saimiri sciureus). Beck PD, et al. **J Comp Neurol** 1998 Oct 12;400(1):18–34

Functional organization of tactile inputs from the hand in the cuneate nucleus and its relationship to organization in the somatosensory cortex. Xu J, et al. **J Comp Neurol** 1999 Aug 30;411(3):369–89

Reorganization in primary motor cortex of primates with long-standing therapeutic amputations. Wu CW, et al. **J Neurosci** 1999 Sep 1;19(17):7679–97

Evidence for brainstem and supra-brainstem contributions to rapid cortical plasticity in adult monkeys. Xu J, et al. **J Neurosci** 1999 Sep 1;19(17):7578–90

Neuronal control of mammalian vocalization, with special reference to the squirrel monkey. Jürgens U. **Naturwissenschaften** 1998 Aug;85(8):376–88 (53 ref.)

PSYCHOLOGY

Egg-eating behaviour in laboratory squirrel monkeys (Saimiri scuireus). Odagiri K, et al. **J Vet Med Sci** 1999 Jun;61(6):595–601

SAIMIRINE HERPESVIRUS 2 see **HERPESVIRUS 2, SAIMIRINE**

SAINTS

HISTORY

Saint Marina: the protectress of nephrology. Eftychiadis AC, et al. **Am J Nephrol** 1999;19(2):107–10

SALAAM SEIZURES see **SPASMS, INFANTILE**

SALAMANDERS see **URODELA**

SALAMANDRA

ANATOMY & HISTOLOGY

The lingual epithelium of Salamandra salamandra: metamorphotic changes during its ontogenesis. Opolka A, et al. **Anat Anz** 1998 Dec;180(6):537–45

SALAMANDRIDAE

ANATOMY & HISTOLOGY

Survey of the oviduct of salamandrids with special reference to the viviparous species. Greven H. **J Exp Zool** 1998 Nov–Dec 1;282(4–5):507–25 (80 ref.)

EMBRYOLOGY

Production of otoconia in the endolymphatic sac in the Japanese red-bellied newt, Cynops pyrrhogaster: light and transmission electron microscopic study. Gao W, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):540–8

Timing and mechanisms of mesodermal and neural determination revealed by secondary embryo formation in Cynops and Xenopus. Imoh H, et al. **Dev Growth Differ** 1998 Aug;40(4):439–48

Degradation of yolk platelets in the early amphibian embryo is regulated by fusion with late endosomes. Komazaki S, et al. **Dev Growth Differ** 1999 Apr;41(2):173–81

Expression of five novel T-box genes and brachyury during embryogenesis, and in developing and regenerating limbs and tails of newts. Sone K, et al. **Dev Growth Differ** 1999 Jun;41(3):321–33

A critical role for the optic vesicle in lens development; a reinvestigation of free lens formation in Cynops pyrrhogaster. Mizuno N, et al. **Differentiation** 1998 Sep; 63(5):247–52

FSH-initiated differentiation of newt spermatogonia to primary spermatocytes in germ–somatic cell reaggregates cultured within a collagen matrix. Ito R, et al. **Int J Dev Biol** 1999 Mar;43(2):111–6

GENETICS

Expression of genes of type I and type II collagen in the formation and development of the blastema of regenerating newt limb. Asahina K, et al. **Dev Dyn** 1999 Sep;216(1):59–71

Newt RAD51: cloning of cDNA and analysis of gene expression during spermatogenesis. Yamamoto T, et al. **Dev Growth Differ** 1999 Aug;41(4):401–6

Molecular cloning of newt sex pheromone precursor cDNAs: evidence for the existence of species-specific forms of pheromones. Iwata T, et al. **FEBS Lett** 1999 Sep 3; 457(3):400–4

Cloning of cDNAs for the pituitary glycoprotein hormone alpha subunit precursor molecules in three amphibian species, Bufo japonicus, Rana catesbeiana, and Cynops pyrrhogaster. Arai Y, et al. **Gen Comp Endocrinol** 1998 Oct;112(1):46–53

GROWTH & DEVELOPMENT

Cloning of cDNA for newt WT1 and the differential expression during spermatogenesis of the Japanese newt, Cynops pyrrhogaster. Nakayama Y, et al. **Dev Growth Differ** 1998 Dec;40(6):599–608

Newt RAD51: cloning of cDNA and analysis of gene expression during spermatogenesis. Yamamoto T, et al. **Dev Growth Differ** 1999 Aug;41(4):401–6

IGF-I, IGF-II and insulin promote differentiation of spermatogonia to primary spermatocytes in organ culture of newt testes. Nakayama Y, et al. **Int J Dev Biol** 1999 Jul;43(4):343–7

METABOLISM

Proteoglycans (PGs) in the larval amphibian tooth as visualized by cuprolinic blue. Hillman G, et al. **Acta Histochem** 1998 Jul;100(3):271–8

PHYSIOLOGY

Expression of genes of type I and type II collagen in the formation and development of the blastema of regenerating newt limb. Asahina K, et al. **Dev Dyn** 1999 Sep;216(1):59–71

Lens formation by pigmented epithelial cell reaggregate from dorsal iris implanted into limb blastema in the adult newt. Ito M, et al. **Dev Growth Differ** 1999 Aug;41(4):429–40

Sperm surface heparin/heparan sulfate is responsible for sperm binding to the uterine envelope in the newt, Cynops pyrrhogaster. Nakai S, et al. **Dev Growth Differ** 1999 Feb; 41(1):101–7

Origin of renewed spinal ganglia during tail regeneration in urodeles. Koussoulakos S, et al. **Dev Neurosci** 1999; 21(2):134–9

Elevation of plasma prolactin concentrations by low temperature is the cause of spermatogonial cell death in the newt, Cynops pyrrhogaster. Yazawa T, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):302–11

Rapid, corticosterone-induced disruption of medullary sensorimotor integration related to suppression of amplectic clasping in behaving roughskin newts (Taricha granulosa). Rose JD, et al. **Horm Behav** 1998 Dec;34(3):268–82

Survey of the oviduct of salamandrids with special reference to the viviparous species. Greven H. **J Exp Zool** 1998 Nov–Dec 1;282(4–5):507–25 (80 ref.)

Axolotl/newt. Maden M. **Methods Mol Biol** 1999;97:415–28 (30 ref.)

Sodefrin: a novel sex pheromone in a newt. Kikuyama S, et al. **Rev Reprod** 1999 Jan;4(1):1–4 (18 ref.)

SALARIES AND FRINGE BENEFITS

Predicting likelihood of seeking help through the employee assistance program among salaried and union hourly employees. Delaney W, et al. **Addiction** 1998 Mar; 93(3):399–410

Pharmacist positions in Saudi Arabia [letter] **Am J Health Syst Pharm** 1999 Jan 15;56(2):179

Moving from an hourly pay model to a professional salary model. Avigne G, et al. **AORN J** 1998 Sep;68(3):400–2, 405–8

The effects of impairments on employment and wages: estimates from the 1984 and 1990 SIPP. Baldwin ML. **Behav Sci Law** 1999;17(1):7–27

Wellcome Trust boosts pay to keep researchers in Britain [news] Bower H. **BMJ** 1999 Jun 26;318(7200):1718

Will the NHS pay awards help recruitment? [editorial] Machin S. **BMJ** 1999 Apr 10;318(7189):958

A historical review of salaried plus bonus (Woodside terms) primary care dentists in Glasgow 1967–1997. Kippen A. **Br Dent J** 1998 Sep 26;185(6):267–9

Payment by salary or fee-for-service. Effect on health care resource use in the last year of life. Lee S, et al. **Can Fam Physician** 1999 Sep;45:2091–6

Retirement patterns and employee benefits: do benefits matter? Fronstin P. **Gerontologist** 1999 Feb;39(1):37–47

Is variable compensation always win-win? [letter; comment] Melbo T. **J Am Vet Med Assoc** 1999 Jul 15;215(2):188–9 . Comment on: J Am Vet Med Assoc 1999 May 15;214(10):1485–8.

Employment, starting salaries, and educational indebtedness of 1998 graduates of US veterinary medical colleges. Wise JK, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):488–90

Rewarding teaching faculty with a reimbursement plan [see comments] Rouan GW, et al. **J Gen Intern Med** 1999 Jun; 14(6):327–32. Comment in: J Gen Intern Med 1999 Jun;14(6):386–7.

UK hospital pays dearly to cut waiting lists [news] Green N. **Lancet** 1999 Aug 21;354(9179):660

Plan for compensating full-time physicians involved in medical education. Milad MP, et al. **Obstet Gynecol** 1999 Apr;93(4):614–8

Farm workers in South Africa--the challenge of eradicating alcohol abuse and the legacy of the 'dop' system [editorial] London L, et al. **S Afr Med J** 1998 Sep;88(9):1092–5

The 'dop' system around Stellenbosch--results of a farm survey. te Water Naude J, et al. **S Afr Med J** 1998 Sep; 88(9):1102–5

Pension integration and Social Security reform. Slusher C. **Soc Secur Bull** 1998;61(3):20–7 (10 ref.)

[Remuneration and productivity: the case of the Minas Gerais Hospital Foundation, Brazil, 1992–1995] Cherchiglia ML, et al. **Rev Panam Salud Publica** 1998 Aug;4(2):112–20 (Eng. Abstr.) **(Spa)**

ECONOMICS

Free Internet access for community preceptors [letter] Usatine RP, et al. **Acad Med** 1999 Mar;74(3):204–5

Changing supply and earning patterns of the mental health workforce. Scheffler RM, et al. **Adm Policy Ment Health** 1998 Nov;26(2):85–99

Military set to offer large signing bonuses, higher pay in face of unprecedented MD staffing crisis [see comments] Sullivan P. **CMAJ** 1999 Mar 23;160(6):889–91. Comment in: CMAJ 1999 Jun 1;160(11):1556.

How should we pay doctors? A systematic review of salary payments and their effect on doctor behaviour. Gosden T, et al. **QJM** 1999 Jan;92(1):47–55 (44 ref.)

HISTORY

From socialist principles to motorcycle maintenance: the origin and development of the salaried physician model in the Israeli Public Health Services, 1918 to 1998. Shvarts S, et al. **Am J Public Health** 1999 Feb;89(2):248–53

STATISTICS & NUMERICAL DATA

1995–1996 SAEM emergency medicine faculty salary/benefits survey. Kristal SL, et al. **Acad Emerg Med** 1998 Dec;5(12):1177–86

The impact of welfare reform on parents' ability to care for their children's health [see comments] Heymann SJ, et al. **Am J Public Health** 1999 Apr;89(4):502–5. Comment in: Am J Public Health 1999 Apr;89(4):477–9.

The new labor market: immigrants and wages after IRCA. Phillips JA, et al. **Demography** 1999 May;36(2):233–46

Class and benefits at the workplace. Gabel J, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):144–50

1999 salary survey. Is this the future of your bonus? Flannery TP, et al. **Hosp Health Netw** 1999 Sep;73(9):36–8, 40, 42–4

Rewards and incentives for nonsalaried clinical faculty who teach medical students [see comments] Kumar A, et al. **J Gen Intern Med** 1999 Jun;14(6):370–2. Comment in: J Gen Intern Med 1999 Jun;14(6):386–7.

Salary changes among psychologists by gender and years of work. Williams S, et al. **Psychiatr Serv** 1998 Sep; 49(9):1155

TRENDS

Employment, wages of nurses perform poorly during 1994–97. Study points to managed care as cause [news] Kepple SR. **Am J Health Syst Pharm** 1999 Apr 1;56(7):609

Trouble in the nurse labor market? Recent trends and future outlook. Buerhaus PI, et al. **Health Aff (Millwood)** 1999 Jan–Feb;18(1):214–22

Physicians. Doctor pay stalls [news] **Hosp Health Netw** 1998 Dec 5–20;72(23–24):18, 20

Variable compensation and the veterinary profession [see comments] Lynch TA. **J Am Vet Med Assoc** 1999 May 15;214(10):1485–8. Comment in: J Am Vet Med Assoc 1999 Jul 15;215(2):188–9.

Recent changes in earnings distributions in the United States. Utendorf KR. **Soc Secur Bull** 1998;61(2):12–28

SALBUTAMOL see **ALBUTEROL**

SALDINO-NOONAN SYNDROME see **SHORT RIB-POLYDACTYLY SYNDROME**

SALICYLAMIDES

BLOOD

Simultaneous determination of salicylamide and salsalate in serum and urine by first derivative variable-angle synchronous fluorescence spectrometry. Pulgarin JA, et al. **Anal Biochem** 1998 Dec 15;265(2):331–9

CHEMICAL SYNTHESIS

An alternative synthesis of [11C]raclopride for routine use. Ishiwata K, et al. **Ann Nucl Med** 1999 Jun;13(3):195–7

CHEMISTRY

Lactose as a low molecular weight carrier of solid dispersions for carbamazepine and ethenzamide. Hirasawa N, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):417–20

DIAGNOSTIC USE

Mapping of central D2 dopamine receptors in man using [11C]raclopride: PET with anatomic standardization technique. Ito H, et al. **Neuroimage** 1999 Feb;9(2):235–42

Striatal dopaminergic function in restless legs syndrome: 18F-dopa and 11C-raclopride PET studies. Turjanski N, et al. **Neurology** 1999 Mar 23;52(5):932–7

N-[11C]methylspiperone PET, in contrast to [11C]raclopride, fails to detect D2 receptor occupancy by an atypical neuroleptic. Hagberg G, et al. **Psychiatry Res** 1998 Jun 30;82(3):147–60

METABOLISM

Binding of salicylhydroxamic acid and several aromatic donor molecules to Arthromyces ramosus peroxidase, investigated by X-ray crystallography, optical difference spectroscopy, NMR relaxation, molecular dynamics, and kinetics. Tsukamoto K, et al. **Biochemistry** 1999 Sep 28; 38(39):12558–68

Quantitation of extrastriatal D2 receptors using a very high-affinity ligand (FLB 457) and the multi-injection approach. Delforge J, et al. **J Cereb Blood Flow Metab** 1999 May;19(5):533–46

Measurement of striatal D2 dopamine receptor density and affinity with [11C]-raclopride in vivo: a test-retest analysis. Hietala J, et al. **J Cereb Blood Flow Metab** 1999 Feb; 19(2):210–7

Enhancement of 3H-N-methylspiperone binding but not 3H-raclopride binding in mouse striatum by MK-801: evidence that factors other than competition by endogenous dopamine are responsible for changes in D2 receptor binding in vivo. Short communication. Inoue O, et al. **J Neural Transm** 1999;106(2):131–7

Changes in apparent in vivo binding of [3H]raclopride and [3H]N-methylspiperone induced by oxotremorine. Kobayashi K, et al. **J Neural Transm** 1998; 105(10–12):1193–7

Reproducibility of repeated measures of endogenous dopamine competition with [11C]raclopride in the human brain in response to methylphenidate. Wang GJ, et al. **J Nucl Med** 1999 Aug;40(8):1285–91

Acute and chronic citalopram treatment differently modulates rat exploratory behavior in the exploration box test: no evidence for increased anxiety or changes in the [3H]raclopride binding. Matto V, et al. **Pharmacology** 1999 Feb;58(2):59–69

PHARMACOKINETICS

Rapid release of antipsychotic drugs from dopamine D2 receptors: an explanation for low receptor occupancy and early clinical relapse upon withdrawal of clozapine or quetiapine. Seeman P, et al. **Am J Psychiatry** 1999 Jun; 156(6):876–84

Comparison of three PET dopamine D2-like receptor ligands, [11C]raclopride, [11C]nemonapride and [11C]N-methylspiperone, in rats. Ishiwata K, et al. **Ann Nucl Med** 1999 Jun;13(3):161–7

Assessment of dynamic neurotransmitter changes with bolus or infusion delivery of neuroreceptor ligands. Endres CJ, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1196–210

Effects of the substituted (S)-3-phenylpiperidine (-)-OSU6162 on PET measurements of [11C]SCH23390 and [11C]raclopride binding in primate brains. Ekesbo A, et al. **Neuropharmacology** 1999 Mar;38(3):331–8

5-HT modulation of dopamine release in basal ganglia in psilocybin-induced psychosis in man--a PET study with [11C]raclopride. Vollenweider FX, et al. **Neuropsychopharmacology** 1999 May;20(5):424–33

GBR12909 attenuates amphetamine-induced striatal dopamine release as measured by [(11)C]raclopride continuous infusion PET scans. Villemagne VL, et al. **Synapse** 1999 Sep 15;33(4):268–73

PHARMACOLOGY

Effects of microinjection of the D2 dopamine antagonist raclopride into the ventral tegmental area on ethanol and sucrose self-administration. Samson HH, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):421–6

Salicylhydroxamic acid inhibits delta6 desaturation in the microalga Porphyridium cruentum. Khozin-Goldberg I, et al. **Biochim Biophys Acta** 1999 Aug 18;1439(3):384–94

Enhancement of antipsychoticlike properties of raclopride in rats using the selective serotonin2A receptor antagonist MDL 100,907. Wadenberg ML, et al. **Biol Psychiatry** 1998 Sep 15;44(6):508–15

Partial antagonism of 8-OH-DPAT'S effects on male rat sexual behavior with a D2, but not a 5-HT1A, antagonist. Matuszewich L, et al. **Brain Res** 1999 Feb 27; 820(1–2):55–62

Clozapine pre-treatment enhances raclopride catalepsy. Wadenberg ML, et al. **Eur J Pharmacol** 1999 Jul 14; 377(1):R1–2

Striatal neuronal activity and responsiveness to dopamine and glutamate after selective blockade of D1 and D2 dopamine receptors in freely moving rats. Kiyatkin EA, et al. **J Neurosci** 1999 May 1;19(9):3594–609

Differential effects of N-methyl-D-aspartate receptor blockade on eticlopride-induced immediate early gene expression in the medial and lateral striatum. Keefe KA, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1076–83

S 18126 ([2-[4-(2,3-dihydrobenzo[1,4]dioxin-6-yl)piperazin-1-yl methyl]indan-2-yl]), a potent, selective and competitive antagonist at dopamine D4 receptors: an in vitro and in vivo comparison with L 745,870 (3-(4-[4-chlorophenyl]piperazin-1-yl)methyl-1H-pyrrolo[2, 3b]pyridine) and raclopride. Millan MJ, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):167–86

Raclopride and chlorpromazine, but not clozapine, increase muscle rigidity in the rat: relationship with D2 dopamine receptor occupancy. Hemsley KM, et al. **Neuropsychopharmacology** 1999 Jul;21(1):101–9

Effect of dopamine receptor anatagonists on the calcium-dependent central function that reduces blood pressure in spontaneously hypertensive rats. Sutoo D, et al. **Neurosci Lett** 1999 Jul 16;269(3):133–6

Enkephalin regulates acute D2 dopamine receptor antagonist-induced immediate-early gene expression in striatal neurons. Steiner H, et al. **Neuroscience** 1999; 88(3):795–810

Intraaccumbens raclopride attenuates amphetamine-induced locomotion, but fails to prevent the response-reinstating properties of food reinforcement. Chausmer A, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):299–305

Effects of SCH 23390, raclopride, and haloperidol on morphine withdrawal-induced aggression in male mice. Rodriguez-Arias M, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):123–30

Effects of SCH23390 and raclopride on anxiety-like behavior in rats tested in the black-white box. Timothy C, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):323–7

Effects of dopamine receptor antagonists (D1 and D2) on the demand for smoked cocaine base in rhesus monkeys. Campbell UC, et al. **Psychopharmacology (Berl)** 1999 Jun; 144(4):381–8

Haloperidol, raclopride, and eticlopride induce microcatalepsy during operant performance in rats, but clozapine and SCH 23390 do not. Fowler SC, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):81–90

Enhanced cortical dopamine output and antipsychotic-like effects of raclopride by alpha2 adrenoceptor blockade. Hertel P, et al. **Science** 1999 Oct 1;286(5437):105–7

Plasticity of responses to synaptic inputs in rat ventral striatal neurons after repeated administration of the dopamine D2 antagonist raclopride. Finch DM. **Synapse** 1999 Mar 15; 31(4):297–301

THERAPEUTIC USE

Plasma prolactin and central D2 receptor occupancy in antipsychotic drug-treated patients. Nordström AL, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):305–10

URINE

Simultaneous determination of salicylamide and salsalate in serum and urine by first derivative variable-angle synchronous fluorescence spectrometry. Pulgarin JA, et al. **Anal Biochem** 1998 Dec 15;265(2):331–9

SALICYLANILIDES

ANALYSIS

Quantitative determination of Closantel residues in milk by high-performance liquid chromatography with fluorescence detection. Stoev G, et al. **J Chromatogr A**

1999 Jun 18;846(1-2):383-6

PHARMACOLOGY

Novel inhibitors of bacterial two-component systems with gram positive antibacterial activity: pharmacophore identification based on the screening hit closantel. Hlasta DJ, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1923-8

Photohapten TCSA painting plus UVA irradiation of murine skin augments the expression of MHC class II molecules and CD86 on Langerhans cells. Nishijima T, et al. **J Dermatol Sci** 1999 Apr;19(3):202-7

Comparative in vitro effects of closantel and selected beta-ketoamide anthelmintics on a gastrointestinal nematode and vertebrate liver cells. Bacon JA, et al. **J Vet Pharmacol Ther** 1998 Jun;21(3):190-8

THERAPEUTIC USE

Efficacy of closantel plus albendazole liquid suspension against natural infection of gastrointestinal parasites in camels. Al-Qudah KM, et al. **Vet Parasitol** 1999 Mar 31; 82(2):173-8

Treatment of bovine demodecosis with closantel. Meeus PF. **Vet Rec** 1998 Oct 17;143(16):451-2

TOXICITY

Optic neuropathy and retinopathy in closantel toxicosis of sheep and goats. Gill PA, et al. **Aust Vet J** 1999 Apr; 77(4):259-61

SALICYLATES

ADVERSE EFFECTS

Salicylate toxicity masquerading as malignant hyperthermia. Candy JM, et al. **Paediatr Anaesth** 1998;8(5):421-3

A case of photoallergic drug eruption caused by triflusal (Disgren). Lee AY, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):85-6

Airway morphology and function of rats following dermal sensitization and respiratory challenge with low molecular weight chemicals. Arts JH, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):66-76

[The risk of hemorrhage in long-term use of aspirin and triflusal] Alvarez Sabin J, et al. **Rev Neurol** 1998 Dec; 27(160):951-5 (43 ref.) (Eng. Abstr.) **(Spa)**

ANALYSIS

Simultaneous quantitative analysis of methyl salicylate, ethyl salicylate and salicylic acid from biological fluids using gas chromatography-mass spectrometry. Kakkar T, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):69-75

BLOOD

Sensitive and selective gas chromatographic methods for the quantitation of camphor, menthol and methyl salicylate from human plasma. Valdez JS, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):163-71

The identification of salicylates as normal constituents of serum: a link between diet and health? Paterson JR, et al. **J Clin Pathol** 1998 Jul;51(7):502-5

CHEMISTRY

Measurement of hydroxyl radical by salicylate in striatum of intact brain. Hiramatsu M, et al. **Methods Enzymol** 1999; 300:252-5

METABOLISM

Superoxide dismutase activity of the salicylate-iron complex. Jay D, et al. **Arch Med Res** 1999 Mar-Apr;30(2):93-6

Early elevation of cochlear reactive oxygen species following noise exposure. Ohlemiller KK, et al. **Audiol Neurootol** 1999 Sep-Oct;4(5):229-36

Involvement of cytochromes P-450 2E1 and 3A4 in the 5-hydroxylation of salicylate in humans. Dupont I, et al. **Drug Metab Dispos** 1999 Mar;27(3):322-6

Catechol is the major product of salicylate hydroxylation in 1-methyl-4-phenylpyridinium ion treated rats. Sam E, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr-Jun; 23(2):137-42

NahW, a novel, inducible salicylate hydroxylase involved in mineralization of naphthalene by Pseudomonas stutzeri AN10. Bosch R, et al. **J Bacteriol** 1999 Apr;181(8):2315-22

Salsalate and salicylate binding to and their displacement of thyroxine from thyroxine-binding globulin, transthyrin, and albumin. Wang R, et al. **Thyroid** 1999 Apr;9(4):359-64

PHARMACOKINETICS

Self promotion of deep tissue penetration and distribution of methylsalicylate after topical application. Cross SE, et al. **Pharm Res** 1999 Mar;16(3):427-33

PHARMACOLOGY

Growth in the presence of salicylate increases fluoroquinolone resistance in Staphylococcus aureus. Gustafson JE, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):990-2

Enhancing effects of salicylate on tonic and phasic block of Na+ channels by class I antiarrhythmic agents in the ventricular myocytes and the guinea pig papillary muscle. Tanaka Y, et al. **Biochim Biophys Acta** 1999 May 12; 1418(2):320-34

Induction of apoptosis by salicylates in B-cell chronic lymphocytic leukemiak [letter; comment] Guereño MT, et al. **Blood** 1999 Feb 1;93(3):1123-4. Comment on: Blood 1998 Aug 15;92(4):1406-14.

4-trifluoromethyl derivatives of salicylate, triflusal and its main metabolite 2-hydroxy-4-trifluoromethylbenzoic acid, are potent inhibitors of nuclear factor kappaB activation. Bayón Y, et al. **Br J Pharmacol** 1999 Mar;126(6):1359-66

Modulation of base hydroxylation by bile acids and salicylates in a model of human colonic mucosal DNA: putative implications in colonic cancer. Allgayer H, et al. **Dig Dis Sci** 1999 Apr;44(4):761-7

Evaluation of effects of ethyl alcohol and bismuth subsalicylate on gastric mucosal barrier in man. Dy RM, et al. **Dig Dis Sci** 1999 Feb;44(2):286-9

Comparative antimicrobial activity of an essential oil and an amine fluoride/stannous fluoride mouthrinse in vitro. Pan PH, et al. **J Clin Periodontol** 1999 Jul;26(7):474-6

Alterations in average spectrum of cochleoneural activity by long-term salicylate treatment in the guinea pig: a plausible index of tinnitus. Cazals Y, et al. **J Neurophysiol** 1998 Oct;80(4):2113-20

Prevention of DNA photodamage by vitamin E compounds and sunscreens: roles of ultraviolet absorbance and cellular uptake. McVean M, et al. **Mol Carcinog** 1999 Mar; 24(3):169-76

Inhibition of cyclooxygenase-2 expression by 4-trifluoromethyl derivatives of salicylate, triflusal, and its deacetylated metabolite, 2-hydroxy-4-trifluoromethylbenzoic acid. Fernández de Arriba A, et al. **Mol Pharmacol** 1999 Apr;55(4):753-60

Euglena gracilis: inhibition of chloroplast mutagenesis by some commercial salicylates. Foltínová P. **Pharmazie** 1998 Sep;53(9):649-50

Rapid Avr9- and Cf-9 -dependent activation of MAP kinases in tobacco cell cultures and leaves: convergence of resistance gene, elicitor, wound, and salicylate responses. Romeis T, et al. **Plant Cell** 1999 Feb;11(2):273-87

Salicylates and sulfasalazine, but not glucocorticoids, inhibit leukocyte accumulation by an adenosine-dependent mechanism that is independent of inhibition of prostaglandin synthesis and p105 of NFkappaB. Cronstein BN, et al. **Proc Natl Acad Sci U S A** 1999 May 25; 96(11):6377-81

POISONING

Anesthesia in a patient with undiagnosed salicylate poisoning presenting as intraabdominal sepsis. Chui PT. **J Clin Anesth** 1999 May;11(3):251-3

The mortality rate of salicylate poisoning [letter] Schmidt P, et al. **J Toxicol Clin Toxicol** 1998;36(6):639

[Acute poisoning by barbiturates, tranquilizers, tricyclics, paracetamol, salicylates. Diagnosis, treatment] Flesch F, et al. **Rev Prat** 1998 Jun 1;48(11):1257-61 (0 ref.) **(Fre)**

THERAPEUTIC USE

Effects of acid suppression and bismuth medications on the performance of diagnostic tests for Helicobacter pylori infection. Bravo LE, et al. **Am J Gastroenterol** 1999 Sep; 94(9):2380-3

Bismuth binds... Surawicz C. **Am J Gastroenterol** 1999 Feb; 94(2):535

Effects of triflusal on arteriosclerosis progression assessed with high-resolution arterial ultrasound. Cesarone MR, et al. **Angiology** 1999 Jun;50(6):455-63

Intriguing gastrointestinal properties of bismuth: a folk remedy brought into the realm of clinical and investigative medicine. Mishkin S. **Can J Gastroenterol** 1998 Nov-Dec; 12(8):569-70 (12 ref.)

Oral contraceptive use and the clinical course of Crohn's disease: a prospective cohort study [see comments] Cosnes J, et al. **Gut** 1999 Aug;45(2):218-22. Comment in: Gut 1999 Aug;45(2):165-6.

Comparative antiplaque effectiveness of an essential oil and an amine fluoride/stannous fluoride mouthrinse. Riep BG, et al. **J Clin Periodontol** 1999 Mar;26(3):164-8

Acute and chronic stress-induced oxidative gastrointestinal mucosal injury in rats and protection by bismuth subsalicylate. Bagchi D, et al. **Mol Cell Biochem** 1999 Jun; 196(1-2):109-16

SALICYLAZOSULFAPYRIDINE see **SULFASALAZINE**

SALICYLIC ACID

Aromatic hydroxylation. Salicylic acid as a probe for measuring hydroxyl radical production. Ghiselli A. **Methods Mol Biol** 1998;108:89-100

The Arabidopsis extensin gene is developmentally regulated, is induced by wounding, methyl jasmonate, abscisic and salicylic acid, and codes for a protein with unusual motifs. Merkouropoulos G, et al. **Planta** 1999 Apr;208(2):212-9

ADMINISTRATION & DOSAGE

The safety and efficacy of salicylic acid chemical peels in darker racial-ethnic groups. Grimes PE. **Dermatol Surg** 1999 Jan;25(1):18-22

Iontophoretic transdermal delivery of salicylic acid dissolved in ethanol-water mixture in rats. Murakami T, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul-Aug; 12(4):221-6

ANALOGS & DERIVATIVES see SALICYLIC ACIDS

ANALYSIS

Determination of betamethasone dipropionate and salicylic acid in pharmaceutical preparations by high-performance liquid chromatography. Kedor-Hackmann ER, et al. **Drug Dev Ind Pharm** 1998 Jun;24(6):553-5

Simultaneous quantitative analysis of methyl salicylate, ethyl salicylate and salicylic acid from biological fluids using gas chromatography-mass spectrometry. Kakkar T, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):69-75

Assay of acetylsalicylic acid and three of its metabolites in human plasma and urine using non-aqueous capillary electrophoresis with reversed electroosmotic flow. Hansen SH, et al. **J Pharm Biomed Anal** 1998 Sep 1;17(6-7):1155-60

Simultaneous determination of salicylic acid and acetylsalicylic acid in aspirin delayed-release tablet formulations by second-derivative UV spectrophotometry. Kokot Z, et al. **J Pharm Biomed Anal** 1998 Dec; 18(4-5):871-5

ANTAGONISTS & INHIBITORS

Salicylate-induced kidney mitochondrial permeability transition is prevented by cyclosporin A. Al-Nasser IA. **Toxicol Lett** 1999 Mar 8;105(1):1-8

CHEMICAL SYNTHESIS

Synthesis of [11C]salicylic acid and related compounds and their biodistribution in mice. Sasaki T, et al. **Appl Radiat Isot** 1999 May;50(5):905-9

CHEMISTRY

LC/MS analysis of hydroxylation products of salicylate as an indicator of in vivo oxidative stress. Tabatabaei AR, et al. **Free Radic Biol Med** 1999 Apr;26(7-8):1054-8

METABOLISM

Inverse relationship between systemic resistance of plants to microorganisms and to insect herbivory. Felton GW, et al. **Curr Biol** 1999 Mar 25;9(6):317-20

SA, JA, ethylene, and disease resistance in plants. Dong X. **Curr Opin Plant Biol** 1998 Aug;1(4):316-23 (67 ref.)

Jasmonate and salicylate as global signals for defense gene expression. Reymond P, et al. **Curr Opin Plant Biol** 1998 Oct;1(5):404-11 (76 ref.)

Two tobacco genes induced by infection, elicitor and salicylic acid encode glucosyltransferases acting on phenylpropanoids and benzoic acid derivatives, including salicylic acid. Fraissinet-Tachet L, et al. **FEBS Lett** 1998 Oct 23;437(3):319-23

Salicylate inhibits LDL oxidation initiated by superoxide/nitric oxide radicals. Hermann M, et al. **FEBS Lett** 1999 Feb 19;445(1):212-4

A functional 4-hydroxysalicylate/hydroxyquinol degradative pathway gene cluster is linked to the initial dibenzo-p-dioxin pathway genes in Sphingomonas sp. strain RW1. Armengaud J, et al. **J Bacteriol** 1999 Jun; 181(11):3452-61

Determination of free radical reaction products and metabolites of salicylic acid using capillary electrophoresis and micellar electrokinetic chromatography. Coolen SA, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 9; 717(1-2):119-24

Nanogram amounts of salicylic acid produced by the rhizobacterium Pseudomonas aeruginosa 7NSK2 activate the systemic acquired resistance pathway in bean. De Meyer G, et al. **Mol Plant Microbe Interact** 1999 May; 12(5):450-8

Non-toxic concentrations of cadmium inhibit systemic movement of turnip vein clearing virus by a salicylic acid-independent mechanism. Citovsky V, et al. **Plant J** 1998 Oct;16(1):13-20

Ozone-induced cell death occurs via two distinct mechanisms in Arabidopsis: the role of salicylic acid. Rao MV, et al. **Plant J** 1999 Mar;17(6):603-14

Involvement of specific calmodulin isoforms in salicylic acid-independent activation of plant disease resistance responses. Heo WD, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):766-71

PHARMACOKINETICS

Synthesis of [11C]salicylic acid and related compounds and their biodistribution in mice. Sasaki T, et al. **Appl Radiat Isot** 1999 May;50(5):905-9

Percutaneous absorption of salicylic acid in man after topical administration of three different formulations. Schwarb FP, et al. **Dermatology** 1999;198(1):44-51

Distribution kinetics of salicylic acid in the dual-perfused rat liver preparation. Sahin S, et al. **Drug Metab Dispos** 1999 Mar;27(3):373-8

Carrier-mediated absorption of salicylic acid from hamster cheek pouch mucosa. Utoguchi N, et al. **J Pharm Sci** 1999 Jan;88(1):142-6

SALICYLIC ACID

PHARMACOLOGY

An early salicylic acid-, pathogen- and elicitor-inducible tobacco glucosyltransferase: role in compartmentalization of phenolics and H2O2 metabolism. Chong J, et al. **FEBS Lett** 1999 Sep 17;458(2):204–8

Two tobacco genes induced by infection, elicitor and salicylic acid encode glucosyltransferases acting on phenylpropanoids and benzoic acid derivatives, including salicylic acid. Fraissinet-Tachet L, et al. **FEBS Lett** 1998 Oct 23;437(3):319–23

Salicylate promotes myeloperoxidase-initiated LDL oxidation: antagonization by its metabolite gentisic acid. Hermann M, et al. **Free Radic Biol Med** 1999 May; 26(9–10):1253–60

Inactivation of brassinosteroid biological activity by a salicylate-inducible steroid sulfotransferase from Brassica napus. Rouleau M, et al. **J Biol Chem** 1999 Jul 23; 274(30):20925–30

Is arcA3 a possible mediator in the signal transduction pathway during agonist cell cycle arrest by salicylic acid and UV irradiation? Perennes C, et al. **J Cell Sci** 1999 Apr; 112 (Pt 8):1181–90

Coordinated expression of defense-related genes by TMV infection or salicylic acid treatment in tobacco. Kang MK, et al. **Mol Cells** 1998 Aug 31;8(4):388–92

The Arabidopsis ssi1 mutation restores pathogenesis-related gene expression in npr1 plants and renders defensin gene expression salicylic acid dependent. Shah J, et al. **Plant Cell** 1999 Feb;11(2):191–206

Comparison of local and systemic induction of acquired disease resistance in cucumber plants treated with benzothiadiazoles or salicylic acid. Narusaka Y, et al. **Plant Cell Physiol** 1999 Apr;40(4):388–95

The promoter of the plant defensin gene PDF1.2 from Arabidopsis is systemically activated by fungal pathogens and responds to methyl jasmonate but not to salicylic acid. Manners JM, et al. **Plant Mol Biol** 1998 Dec;38(6):1071–80

Interaction of NPR1 with basic leucine zipper protein transcription factors that bind sequences required for salicylic acid induction of the PR-1 gene. Zhang Y, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6523–8

Salicylic acid-induced lipid peroxidation in rat liver microsomes. Doi H, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jun;100(3):265–71

Modulation of human stratum corneum properties by salicylic acid and all-trans-retinoic acid. Piérard-Franchimont C, et al. **Skin Pharmacol Appl Skin Physiol** 1998; 11(4–5):266–72

Antimicrobial activity in vitro and in vivo of a canine ear cleanser. Lloyd DH, et al. **Vet Rec** 1998 Jul 25;143(4):111–2

POISONING

[Acute salicylate intoxication after trancutaneous absorption] Pertoldi F, et al. **Minerva Anestesiol** 1999 Jul-Aug; 65(7–8):571–3 (Eng. Abstr.) **(Ita)**

THERAPEUTIC USE

Calcipotriol: clinical trial versus betamethasone dipropionate + salicylic acid. Scarpa C. **Acta Derm Venereol Suppl (Stockh)** 1994;186:47

How to manage warts. Verbov J. **Arch Dis Child** 1999 Jan; 80(1):97–9

Localized hyperhidrosis treated with aluminum chloride in a salicylic acid gel base. Benohanian A, et al. **Int J Dermatol** 1998 Sep;37(9):701–3

The role of salicylic acid in the treatment of psoriasis. Lebwohl M. **Int J Dermatol** 1999 Jan;38(1):16–24 (60 ref.)

Interaction of salicylic acid with verrucae assessed by FT-Raman spectroscopy. Lawson EE, et al. **J Drug Target** 1998;5(5):343–51

Salicylate attenuates gentamicin-induced ototoxicity. Sha SH, et al. **Lab Invest** 1999 Jul;79(7):807–13

[Trypsin inhibitors of wheat seedlings infected and treated with salicylic acid] Molodchenkova OO, et al. **Ukr Biokhim Zh** 1998 Jan-Feb;70(1):30–7 (Eng. Abstr.) **(Rus)**

TOXICITY

Developmental toxicity interactions of salicylic acid and radiofrequency radiation or 2-methoxyethanol in rats. Nelson BK, et al. **Reprod Toxicol** 1999 Mar-Apr; 13(2):137–45

Salicylate-induced kidney mitochondrial permeability transition is prevented by cyclosporin A. Al-Nasser IA. **Toxicol Lett** 1999 Mar 8;105(1):1–8

SALICYLIC ACIDS

Photochemical labeling of HL-60 cell membrane proteins with radioiodinated, 4-azidosalicylic acid acylated derivatives of gangliosides. Pacuszka T, et al. **Acta Biochim Pol** 1998;45(2):403–15

ADVERSE EFFECTS

Lingual lesions secondary to prolonged contact with salsalate tablets. Ruscin JM, et al. **Ann Pharmacother** 1998 Nov; 32(11):1248

ANALYSIS

Immobilized artificial membrane (IAM)-HPLC for partition studies of neutral and ionized acids and bases in comparison with the liposomal partition system. Ottiger C, et al. **Pharm Res** 1999 May;16(5):643–50

BLOOD

Simultaneous determination of salicylamide and salsalate in serum and urine by first derivative variable-angle synchronous fluorescence spectrometry. Pulgarin JA, et al. **Anal Biochem** 1998 Dec 15;265(2):331–9

IMMUNOLOGY

The sensitizing capacity of ginkgolic acids in guinea pigs. Hausen BM. **Am J Contact Dermat** 1998 Sep;9(3):146–8

METABOLISM

Salsalate and salicylate binding to and their displacement of thyroxine from thyroxine-binding globulin, transthyrin, and albumin. Wang R, et al. **Thyroid** 1999 Apr;9(4):359–64

PHARMACOKINETICS

Hepatic structure-pharmacokinetic relationships: the hepatic disposition and metabolite kinetics of a homologous series of O-acyl derivatives of salicylic acid. Hung DY, et al. **Br J Pharmacol** 1998 Aug;124(7):1475–83

PHARMACOLOGY

4-trifluoromethyl derivatives of salicylate, triflusal and its main metabolite 2-hydroxy-4-trifluoromethylbenzoic acid, are potent inhibitors of nuclear factor kappaB activation. Bayón Y, et al. **Br J Pharmacol** 1999 Mar;126(6):1359–66

Antimycobacterial activity of lichen metabolites in vitro. Ingólfsdóttir K, et al. **Eur J Pharm Sci** 1998 Apr;6(2):141–4

Growth inhibition of ras-dependent tumors in nude mice by a potent ras-dislodging antagonist. Egozi Y, et al. **Int J Cancer** 1999 Mar 15;80(6):911–8

Inhibitory activity of unsaturated fatty acids and anacardic acids toward soluble tissue factor-factor VIIa complex. Wang D, et al. **J Nat Prod** 1998 Nov;61(11):1352–5

Changes in thyroid function tests during short-term salsalate use. McConnell RJ. **Metabolism** 1999 Apr;48(4):501–3

Inhibition of cyclooxygenase-2 expression by 4-trifluoromethyl derivatives of salicylate, triflusal, and its deacetylated metabolite, 2-hydroxy-4-trifluoromethylbenzoic acid. Fernández de Arriba A, et al. **Mol Pharmacol** 1999 Apr;55(4):753–60

THERAPEUTIC USE

Calcipotriol ointment in nail psoriasis: a controlled double-blind comparison with betamethasone dipropionate and salicylic acid. Tosti A, et al. **Br J Dermatol** 1998 Oct; 139(4):655–9

A new functional Ras antagonist inhibits human pancreatic tumor growth in nude mice. Weisz B, et al. **Oncogene** 1999 Apr 22;18(16):2579–88

[Diprosalic in the therapy of psoriasis and atopic dermatitis] Krivosheev BN. **Voen Med Zh** 1999 Mar;320(3):39–40 **(Rus)**

URINE

Simultaneous determination of salicylamide and salsalate in serum and urine by first derivative variable-angle synchronous fluorescence spectrometry. Pulgarin JA, et al. **Anal Biochem** 1998 Dec 15;265(2):331–9

SALIENTIA see **ANURA**

SALINE see **SODIUM CHLORIDE**

SALINE FRAGILITY see **OSMOTIC FRAGILITY**

SALINE SOLUTION, HYPERTONIC

The tolerability of lactated Ringer's solution and BSS plus for ocular irrigation with and without the Morgan therapeutic lens. Jones JB, et al. **Acad Emerg Med** 1998 Dec;5(12):1150–6

ADMINISTRATION & DOSAGE

Treatment of elevated intracranial pressure by infusions of 10% saline in severely head injured patients. Schatzmann C, et al. **Acta Neurochir Suppl (Wien)** 1998;71:31–3

Ultrasonic nebulization of hypertonic solution: a new method for obtaining specimens from nasal mucosa for morphologic and biochemical analysis in allergic rhinitis. Melillo G, et al. **Allergy** 1998 Aug;53(8):794–7

Hepatic denervation does not affect plasma vasopressin response to intragastric hypertonic saline in conscious rats. Carlson SH, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):E161–7

Central Fos expression in fetal and adult sheep after intraperitoneal hypertonic saline. Caston-Balderrama A, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H725–35

Hypertonic 3% saline infusion by nasogastric tube for the treatment of severe symptomatic hyponatremia. Hoover B, et al. **Clin Pediatr (Phila)** 1999 Jan;38(1):55–7

Hypertonic saline without or with dextran-70 in the treatment of experimental acute myocardial ischemia and reperfusion [see comments] Waagstein LM, et al. **Crit Care Med** 1999 Mar;27(3):605–16. Comment in: Crit Care Med 1999 Mar;27(3):475–6.

Between a rock and a hard place: myocardial ischemia in the worst of times [editorial; comment] Zvara DA, et al. **Crit Care Med** 1999 Mar;27(3):475–6. Comment on: Crit Care Med 1999 Mar;27(3):605–16.

Comparison of the hemostatic efficacy of the endoscopic hemoclip method with hypertonic saline-epinephrine injection and a combination of the two for the management of bleeding peptic ulcers. Chung IK, et al. **Gastrointest Endosc** 1999 Jan;49(1):13–8

Parallel conductance estimation by hypertonic dilution method with conductance catheter: effects of the bolus concentration and temperature. Herrera MC, et al. **IEEE Trans Biomed Eng** 1999 Jul;46(7):830–7

Vascular permeability increase and plasma volume loss induced by endotoxin was attenuated by hypertonic saline with or without dextran. de Carvalho H, et al. **Shock** 1999 Jul;12(1):75–80

Effect of hypertonic saline solution and dextran on ventricular blood flow and heart-lung interaction after hemorrhagic shock. Diebel LN, et al. **Surgery** 1998 Oct; 124(4):642–9; discussion 649–50

[Low-volume infusion therapy with hyperosmolar sodium chloride solutions in the treatment of acute massive blood loss] Tsybuliak GN, et al. **Vestn Khir Im I I Grek** 1999; 158(2):73–6 (31 ref.) **(Rus)**

[Does prehospital hypertonic infusion therapy improve the survival of trauma patients?] Haljamäe H. **Lakartidningen** 1999 Mar 3;96(9):1014–7 (21 ref.) (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Extrapontine myelinolysis and behavioral change after transsphenoidal pituitary surgery: case report. Tosaka M, et al. **Neurosurgery** 1998 Oct;43(4):933–6

DIAGNOSTIC USE

Hypertonic saline nasal provocation stimulates nociceptive nerves, substance P release, and glandular mucous exocytosis in normal humans. Baraniuk JN, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):655–62

Hypertonic saline test for the investigation of posterior pituitary function. Mohn A, et al. **Arch Dis Child** 1998 Nov; 79(5):431–4

Both inhaled histamine and hypertonic saline increase airway reactivity in non-sensitised rabbits. Högman M, et al. **Respiration** 1999;66(4):349–54

PHARMACOLOGY

The area postrema modulates hypothalamic fos responses to intragastric hypertonic saline in conscious rats. Carlson SH, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1921–7

Sodium lactate and hypertonic sodium chloride induce equivalent panic incidence, panic symptoms, and hypernatremia in panic disorder. Peskind ER, et al. **Biol Psychiatry** 1998 Nov 15;44(10):1007–16

Hyperosmolarity reduces the relaxing potency of nitric oxide donors in guinea-pig trachea. Hjoberg J, et al. **Br J Pharmacol** 1999 May;127(2):391–6

Transcriptional responses of the vasopressin and corticotropin-releasing hormone genes to acute and repeated intraperitoneal hypertonic saline injection in rats. Ma XM, et al. **Brain Res Mol Brain Res** 1999 May 7; 68(1–2):129–40

Airway endothelin levels in asthma: influence of endobronchial hypertonic saline challenge. Makker HK, et al. **Clin Exp Allergy** 1999 Feb;29(2):241–7

Hyperosmolar saline induces airway resistance changes and neuropeptide release: a comparison with the effect of capsaicin, potassium and histamine. Högman M, et al. **Eur J Clin Invest** 1999 Mar;29(3):264–9

Hyperosmolar saline induces reflex nasal secretions, evincing neural hyperresponsiveness in allergic rhinitis. Sanico AM, et al. **J Appl Physiol** 1999 Apr;86(4):1202–10

Immunomodulatory effects of hypertonic resuscitation on the development of lung inflammation following hemorrhagic shock. Rizoli SB, et al. **J Immunol** 1998 Dec 1; 161(11):6288–96

Increase in vasopressin concentration and cardiodepressant activity in the blood dialysates after NMDA and hypertonic saline administration. Gorąca A. **J Physiol Pharmacol** 1998 Dec;49(4):561–75

Hypertonic saline induces prostacyclin production via extracellular signal-regulated kinase (ERK) activation. Arbabi S, et al. **J Surg Res** 1999 May 15;83(2):141–6

Effect of intravenous infusion of a 7.2% hypertonic saline solution on serum electrolytes and osmotic pressure in healthy beagles. Ajito T, et al. **J Vet Med Sci** 1999 Jun; 61(6):637–41

Effect of a 7.2% hypertonic saline solution infusion on arterial blood pressure, serum sodium concentration and osmotic pressure in normovolemic heifers. Suzuki K, et al. **J Vet Med Sci** 1998 Jul;60(7):799–803

Nonspecific microvascular vasodilation during iontophoresis is attenuated by application of hyperosmolar saline. Asberg A, et al. **Microvasc Res** 1999 Jul;58(1):41–8

Neurokinin B receptor (NK3)-containing neurons in the paraventricular and supraoptic nuclei of the rat hypothalamus synthesize vasopressin and express Fos following intravenous injection of hypertonic saline. Ding YQ, et al. **Neuroscience** 1999;91(3):1077–85

H2 histaminergic control of inhibition of eating induced by

intragastric NaCl in rats. Kraly FS, et al. **Physiol Behav** 1998 Aug;65(1):105–13

Hemodynamic and metabolic responses to repeated hemorrhage and resuscitation with hypertonic saline dextran in conscious swine. O'Benar JD, et al. **Shock** 1998 Sep;10(3):223–8

Effects of hypertonic saline infusion on the adrenocortical response to thiopental–halothane anesthesia in sheep after premedication with acepromazine. Taylor PM. **Vet Surg** 1999 Jan–Feb;28(1):77–82

POISONING

A case of fatal salt water intoxication following an exorcism session. Hédouin V, et al. **Forensic Sci Int** 1999 Jan 4; 99(1):1–4

THERAPEUTIC USE

TCA overdose [letter] Dick WF, et al. **Ann Emerg Med** 1999 Jun;33(6):723–4

Administration of hypertonic (3%) sodium chloride/acetate in hyponatremic patients with symptomatic vasospasm following subarachnoid hemorrhage. Suarez JI, et al. **J Neurosurg Anesthesiol** 1999 Jul;11(3):178–84

Hypertonic immunomodulation is reversible and accompanied by changes in CD11b expression. Rizoli SB, et al. **J Surg Res** 1999 May 15;83(2):130–5

Controlled resuscitation for uncontrolled hemorrhagic shock. Burris D, et al. **J Trauma** 1999 Feb;46(2):216–23

Evaluation of lidocaine as an analgesic when added to hypertonic saline for sclerotherapy. Bukhari RH, et al. **J Vasc Surg** 1999 Mar;29(3):479–83

Hypertonic saline resuscitation. Rocha e Silva M. **Medicina (B Aires)** 1998;58(4):393–402 (186 ref.)

Treatment of elevated intracranial pressure in experimental intracerebral hemorrhage: comparison between mannitol and hypertonic saline. Qureshi AI, et al. **Neurosurgery** 1999 May;44(5):1055–63; discussion 1063–4

Central and regional hemodynamics during uncontrolled bleeding using hypertonic saline dextran for resuscitation. Riddez L, et al. **Shock** 1998 Sep;10(3):176–81

Effect of hypertonic saline on leukocyte activity after spinal cord injury. Spera PA, et al. **Spine** 1998 Nov 15; 23(22):2444–8; discussion 2448–9

The therapeutic effect of hypertonic solutions on the changes in the effective circulating plasma volume in acute necrotizing pancreatitis in rats. Kondo Y, et al. **Surg Today** 1998;28(12):1247–53

Hypertonic saline prevents early bacterial translocation in hemorrhagic shock. Topaloğlu U, et al. **Surg Today** 1999; 29(1):47–50

[Practice of spinal anesthesia in a developing country: usefulness of vascular preloading with a 7.5% hypertonic saline solution (see comments)] Durasnel P, et al. **Ann Fr Anesth Reanim** 1999 Jun;18(6):631–5 (Eng. Abstr.) . Comment in: Ann Fr Anesth Reanim 1999 Jun;18(6):619–20. Comment in: Ann Fr Anesth Reanim 1999 Jun;18(6):621–2. **(Fre)**

[Loading with hypertonic saline solution during pregnancy toxemia (letter; comment)] Mion G, et al. **Ann Fr Anesth Reanim** 1997;16(8):1046–7. Comment on: Ann Fr Anesth Reanim 1997;16(3):282–91. **(Fre)**

[Evaluation of two methods to avoid the nephropathy associated with radiologic contrast] Diez T, et al. **Medicina (B Aires)** 1999;59(1):55–8 (Eng. Abstr.) **(Spa)**

TOXICITY

Physiologic and hypertonic saline solutions impair ciliary activity in vitro. Boek WM, et al. **Laryngoscope** 1999 Mar; 109(3):396–9

SALIVA

Potential DNA mixtures introduced through kissing. Banaschak S, et al. **Int J Legal Med** 1998;111(5):284–5

Saliva from cheese bite yields DNA profile of burglar: a case report. Sweet D, et al. **Int J Legal Med** 1999;112(3):201–3

Saliva ejectors in dentistry [letter; comment] Daschner F. **J Hosp Infect** 1999 May;42(1):78–9. Comment on: J Hosp Infect 1998 Dec;40(4):303–11.

The expression of secreted aspartyl proteinases of Candida species in human whole saliva. Wu T, et al. **J Med Microbiol** 1999 Aug;48(8):711–20

Removing saliva contamination from porcelain veneers before bonding. Aboush YE. **J Prosthet Dent** 1998 Dec; 80(6):649–53

Salivary IgA levels and infection risk in elite swimmers. Gleeson M, et al. **Med Sci Sports Exerc** 1999 Jan; 31(1):67–73

[Simple determination methods for blood grouping from biological stains. 2. Immunochromatographic determination of ABO blood groups from saliva specimens] Morita K, et al. **Nippon Hoigaku Zasshi** 1998 Jun;52(3):191–5 (Eng. Abstr.) **(Jpn)**

[A method for the accelerated preparation of cotton rolls for the isolation of the operating field from saliva] Glazov MN. **Stomatologiia (Mosk)** 1999;78(4):32 **(Rus)**

CHEMISTRY

Differences in saliva composition among three Brazilian populations of Panstrongylus megistus (Hemiptera, Reduviidae). Barbosa SE, et al. **Acta Trop** 1999 Jan 15; 72(1):91–8

Changes in the composition of human unstimulated whole saliva with age. Salvolini E, et al. **Aging (Milano)** 1999 Apr;11(2):119–22

Serum and saliva levels of sialic acid are elevated in alcoholics. Pönniö M, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):1060–4

Minor physical anomalies, dermatoglyphic asymmetries, and cortisol levels in adolescents with schizotypal personality disorder. Weinstein DD, et al. **Am J Psychiatry** 1999 Apr; 156(4):617–23

Sensitive reversed–phase liquid chromatographic determination of fluoride based on its ternary systems with zirconium(IV) or hafnium(IV) and 2–(5–bromo–2–pyridylazo)–5–diethylaminophenol. Oszwałdowski S, et al. **Analyst** 1998 Jul;123(7):1529–33

Measurement of platinum in saliva of patients treated with cisplatin. Holding JD, et al. **Ann Clin Biochem** 1999 Sep; 36 (Pt 5):655–9

Analysis of glycolysis relevant compounds in saliva by microbiosensors. Yoda K, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:600–4

Salivary and serum hyaluronic acid concentrations in patients with Sjögren's syndrome. Tishler M, et al. **Ann Rheum Dis** 1998 Aug;57(8):506–8

Defensin–1, a peptide detected in the saliva of oral squamous cell carcinoma patients. Mizukawa N, et al. **Anticancer Res** 1998 Nov–Dec;18(6B):4645–9

Isolation of human salivary mucin MG2 by a novel method and characterization of its interactions with oral bacteria. Liu B, et al. **Arch Biochem Biophys** 1999 Apr 15; 364(2):286–93

Variation of salivary calcium, phosphate and buffering capacity in adolescents. Kavanagh DA, et al. **Arch Oral Biol** 1998 Dec;43(12):1023–7

Saliva collection technique for cytologic, microbiologic and viral evaluation in pediatric HIV infection. Flaitz CM, et al. **ASDC J Dent Child** 1998 Sep–Oct;65(5):318–24, 355

Total reactive antioxidant potential in human saliva of smokers and non–smokers. Kondakova I, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):911–20

Salivary cortisol responses in prepubertal boys: the effects of parental substance abuse and association with drug use behavior during adolescence. Moss HB, et al. **Biol Psychiatry** 1999 May 15;45(10):1293–9

Trace elements and electrolytes in human resting mixed saliva after exercise. Chicharro JL, et al. **Br J Sports Med** 1999 Jun;33(3):204–7

Human salivary tea catechin levels and catechin esterase activities: implication in human cancer prevention studies. Yang CS, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jan;8(1):83–9

Human salivary sugar clearance after sugar rinses and intake of foodstuffs. Luke GA, et al. **Caries Res** 1999;33(2):123–9

High–performance liquid chromatographic analysis of chlorhexidine in saliva after mouthrinsing. Tsuchiya H, et al. **Caries Res** 1999;33(2):156–63

Fluoride concentration in whole saliva and separate gland secretions in schoolchildren after intake of fluoridated milk. Twetman S, et al. **Caries Res** 1998;32(6):412–6

Induction of salivary gurmarin–binding proteins in rats fed gymnema–containing diets. Katsukawa H, et al. **Chem Senses** 1999 Aug;24(4):387–92

Assessing salivary cortisol in studies of child development. Schwartz EB, et al. **Child Dev** 1998 Dec;69(6):1503–13

Social behavior correlates of cortisol activity in child care: gender differences and time–of–day effects. Tout K, et al. **Child Dev** 1998 Oct;69(5):1247–62

The relationship between serum and saliva erythropoietin concentrations in adults, full–term and premature infants. Hung GY, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1998 Nov–Dec;39(6):380–5

A necessary adjustment of protocol for use of DPC coat–a–count total testosterone assay with saliva. Campbell KL, et al. **Clin Biochem** 1999 Feb;32(1):83–5

Reproducibility of the low dose dexamethasone suppression test: comparison between direct plasma and salivary cortisol assays. Reynolds RM, et al. **Clin Endocrinol (Oxf)** 1998 Sep;49(3):307–10

Endocrine assays to predict preterm delivery. Jackson M, et al. **Clin Perinatol** 1998 Dec;25(4):837–57, vi (77 ref.)

Inflammatory mediators in saliva of patients with rapidly progressive periodontitis during war stress induced incidence increase. Aurer A, et al. **Coll Antropol** 1999 Jun; 23(1):117–24

Role of epidermal growth factor (EGF) in oesophageal mucosal integrity. Marcinkiewicz M, et al. **Curr Med Res Opin** 1998;14(3):145–53 (69 ref.)

Salivary nitrate, nitrite and nitrate reductase activity in relation to risk of oral cancer in Egypt. Badawi AF, et al. **Dis Markers** 1998 Oct;14(2):91–7

Lectin binding studies of parotid salivary glycoproteins in Sjögren's syndrome. Carpenter GH, et al. **Electrophoresis** 1999 Jul;20(10):2124–32

Effects of amount of training on the saliva concentrations of cortisol, dehydroepiandrosterone and on the dehydroepiandrosterone: cortisol concentration ratio in women over 16 weeks of training. Filaire E, et al. **Eur J Appl Physiol** 1998 Oct;78(5):466–71

A regular contribution from Lars Ovesen, which we hope will help the busy scientist in keeping up with the literature. Proper chewing. Ovesen L. **Eur J Cancer Prev** 1999 Apr; 8(2):171–2

Assessment of a hepatitis C virus antibody assay in saliva for epidemiological studies. Bello PY, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):570–2

Grapefruit juice increases the bioavailability of artemether. van Agtmael MA, et al. **Eur J Clin Pharmacol** 1999 Jul; 55(5):405–10

Glucose concentration in parotid saliva after glucose/food intake in individuals with glucose intolerance and diabetes mellitus. Borg Andersson A, et al. **Eur J Oral Sci** 1998 Oct;106(5):931–7

Salivary contribution to exhaled nitric oxide. Zetterquist W, et al. **Eur Respir J** 1999 Feb;13(2):327–33

Fibronectin in saliva inhibits Porphyromonas gingivalis fimbria–induced expression of inflammatory cytokine gene in mouse macrophages. Murakami Y, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):257–62

Migration of di–(2–ethylhexyl) phthalate from PVC child articles into saliva and saliva simulant. Steiner I, et al. **Food Addit Contam** 1998 Oct;15(7):812–7

Antioxidant status and dialysis: plasma and saliva antioxidant activity in patients with fluctuating urate levels. Meucci E, et al. **Free Radic Res** 1998 Nov;29(5):367–76

Salivary mucin MG1 is comprised almost entirely of different glycosylated forms of the MUC5B gene product. Thornton DJ, et al. **Glycobiology** 1999 Mar;9(3):293–302

Effects of video–relayed social support on hemodynamic reactivity and salivary cortisol during laboratory–based behavioral challenge. Thorsteinsson EB, et al. **Health Psychol** 1998 Sep;17(5):436–44

Salivary testosterone determination in studies of child health and development. Granger DA, et al. **Horm Behav** 1999 Feb;35(1):18–27

Low level saliva cotinine determination and its application as a biomarker for environmental tobacco smoke exposure. Phillips K, et al. **Hum Exp Toxicol** 1999 Apr;18(4):291–6

Assessment of the exposure of children to environmental tobacco smoke (ETS) by different methods. Scherer G, et al. **Hum Exp Toxicol** 1999 Apr;18(4):297–301

Perspiration versus saliva—basic aspects concerning their use in roadside drug testing. Skopp G, et al. **Int J Legal Med** 1999;112(4):213–21 (74 ref.)

The effect of exercising to exhaustion at different intensities on saliva immunoglobulin A, protein and electrolyte secretion. Blannin AK, et al. **Int J Sports Med** 1998 Nov; 19(8):547–52

Q.E.D. Alcohol test: a simple and quick method to detect ethanol in saliva of patients in emergency departments. Comparison with the conventional determination in blood. Smolle KH, et al. **Intensive Care Med** 1999 May;25(5):492–5

The effect of stress on salivary cortisol in panic disorder patients. Stones A, et al. **J Affect Disord** 1999 Jan–Mar; 52(1–3):197–201

The effect of shot biopsy on behavior, salivary cortisol, and heart rate in slaughter pigs. Geverink NA, et al. **J Anim Sci** 1999 Jul;77(7):1614–9

Validation of an assay for the determination of cotinine and 3–hydroxycotinine in human saliva using automated solid–phase extraction and liquid chromatography with tandem mass spectrometric detection. Bentley MC, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):185–94

Determination of sialic acids in biological fluids using reversed–phase ion–pair high–performance liquid chromatography. Siskos PA, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):205–12

Salivary lactoferrin and low–Mr mucin MG2 in Actinobacillus actinomycetemcomitans–associated periodontitis. Groenink J, et al. **J Clin Periodontol** 1999 May;26(5):269–75

Associations between salivary calcium and oral health. Sewón LA, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):915–9

Bioactivity of pseudowollastonite in human saliva. De Aza PN, et al. **J Dent** 1999 Feb;27(2):107–13

Salivary sialic acid, protein, salivary flow rate, pH, buffering capacity and caries indices in subjects with Down's syndrome. Yarat A, et al. **J Dent** 1999 Feb;27(2):115–8

Detection and quantification of MUC7 in submandibular, sublingual, palatine, and labial saliva by anti–peptide antiserum. Bolscher JG, et al. **J Dent Res** 1999 Jul; 78(7):1362–9

Cumulative correlations of lysozyme, lactoferrin, peroxidase, S–IgA, amylase, and total protein concentrations with adherence of oral viridans streptococci to microplates coated with human saliva. Rudney JD, et al. **J Dent Res** 1999 Mar;78(3):759–68

Purification and cloning of the salivary nitrophorin from the hemipteran Cimex lectularius. Valenzuela JG, et al. **J Exp Biol** 1998 Sep;201 (Pt 18):2659–64

Personal exposure to environmental tobacco smoke: salivary cotinine, airborne nicotine, and nonsmoker misclassification. Jenkins RA, et al. **J Expo Anal Environ Epidemiol** 1999 Jul–Aug;9(4):352–63

Analysis of salivary DNA evidence from a bite mark on a body submerged in water. Sweet D, et al. **J Forensic Sci** 1999 Sep;44(5):1069–72

Multicomponent evaluations of the oxidising actions and status of a peroxoborate–containing tooth–whitening

system in whole human saliva using high resolution proton NMR spectroscopy. Lynch E, et al. **J Inorg Biochem** 1999 Jan-Feb;73(1-2):65-84

Elevated levels of human salivary epidermal growth factor after oral and juxtaoral surgery. Oxford GE, et al. **J Oral Maxillofac Surg** 1999 Feb;57(2):154-8; discussion 158-9

Examining the secretor status in the saliva of patients with oral pre-cancerous lesions. Vidas I, et al. **J Oral Rehabil** 1999 Feb;26(2):177-82

The pharmacokinetic profile of a biodegradable controlled-release delivery system containing doxycycline compared to systemically delivered doxycycline in gingival crevicular fluid, saliva, and serum [published erratum appears in J Periodontol 1999 Feb;70(2):238] Stoller NH, et al. **J Periodontol** 1998 Oct;69(10):1085-91

Differential effects of harassment on cardiovascular and salivary cortisol stress reactivity and recovery in women and men. Earle TL, et al. **J Psychosom Res** 1999 Feb; 46(2):125-41

Chronic burnout, somatic arousal and elevated salivary cortisol levels. Melamed S, et al. **J Psychosom Res** 1999 Jun;46(6):591-8

The effects of high-intensity intermittent exercise on saliva IgA, total protein and alpha-amylase. Walsh NP, et al. **J Sports Sci** 1999 Feb;17(2):129-34

Opiate detection in saliva and urine--a prospective comparison by gas chromatography-mass spectrometry. Speckl IM, et al. **J Toxicol Clin Toxicol** 1999;37(4):441-5

Determination of nickel in saliva by electrothermal atomic absorption spectrometry using various chemical modifiers with Zeeman-effect background correction. Burguera E, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):115-20

Technique for continuous monitoring of salivary cortisol concentration in pigs. Schönreiter S, et al. **Lab Anim Sci** 1999 Aug;49(4):429-32

Biochemical markers for preterm labor and birth: what is their role in the care of pregnant women? Moore ML. **MCN Am J Matern Child Nurs** 1999 Mar-Apr;24(2):80-6 (25 ref.)

Effects of modified pellicles on Candida biofilm formation on acrylic surfaces. Nikawa H, et al. **Mycoses** 1999 Apr; 42(1-2):37-40

Effect of saliva dilution on the release of diacetyl and 2-heptanone from cream style dressings. Odake S, et al. **Nahrung** 1998 Dec;42(6):385-91

Raised salivary endotoxin concentration as a predictor of infection in pediatric leukemia patients. Millns B, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jul;88(1):50-5

Development of a highly sensitive nonisotopic immunoassay for the determination of salivary 17-hydroxyprogesterone: reference ranges throughout childhood and adolescence. Dressendorfer RA, et al. **Pediatr Res** 1998 Nov;44(5):650-5

Effect of music and auditory stimuli on secretory immunoglobulin A (IgA). Charnetski CJ, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1163-70

A pilot investigation into the neuroendocrine correlates of personality in the workplace. Senior C, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):794

The relationship between salivary cortisol concentrations in frozen versus mailed samples. Clements AD, et al. **Psychoneuroendocrinology** 1998 Aug;23(6):613-6

Assessing dehydroepiandrosterone in saliva: a simple radioimmunoassay for use in studies of children, adolescents and adults. Granger DA, et al. **Psychoneuroendocrinology** 1999 Jul;24(5):567-79

Increased salivary cortisol reliably induced by a protein-rich midday meal. Gibson EL, et al. **Psychosom Med** 1999 Mar-Apr;61(2):214-24

Validity of the saliva ferning test for the diagnosis of dry mouth in Sjögren's syndrome. el-Miedany YM, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):73-8

Increased salivary interleukin-6 levels in patients with primary Sjögren's syndrome. Tishler M, et al. **Rheumatol Int** 1999;18(4):125-7

Blunted cortisol response to a psychosocial stressor in schizophrenia. Jansen LM, et al. **Schizophr Res** 1998 Sep 7;33(1-2):87-94

Saliva composition and exercise. Chicharro JL, et al. **Sports Med** 1998 Jul;26(1):17-27 (103 ref.)

Secretion of magnesium and calcium in the total saliva of sheep and its relevance to hypomagnesaemia. Dua K, et al. **Vet J** 1998 Nov;156(3):217-21

[The value of salivary beta 2 microglobulin concentration for diagnosis of Sjögren's syndrome] Du D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):72-4 (Eng. Abstr.) **(Chi)**

[Evaluation of six rapid tests for screening of cannabis in sweat, saliva and tears] Mura P, et al. **Acta Clin Belg Suppl** 1999;1:35-8 (Eng. Abstr.) **(Fre)**

[Salivary cortisol as a stress parameter in piglets] Schönreiter S, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 May;27(3):175-9 (Eng. Abstr.) **(Ger)**

[Analysis of secretion into the saliva of cefoxitin (Mefoxin), imipenem (Tienam) and meropenem (Meronem)] Kelentey B, et al. **Fogorv Sz** 1999 Jan;92(1):3-10 (Eng. Abstr.) **(Hun)**

[Saliva level of free-3-methoxy-4-hydroxyphenylglycol in patients with anxiety disorders] Yamada S, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Apr; 19(2):67-71 (Eng. Abstr.) **(Jpn)**

[The monitoring of delayed-release theophylline therapy in bronchial asthma in children by determining the salivary concentration] Panta P, et al. **Pneumoftiziologia** 1998 Jan-Mar;47(1):15-9 (Eng. Abstr.) **(Rum)**

[Crystallization of oral fluid. Composition and purity of the feeder surface] Barer GM, et al. **Biull Eksp Biol Med** 1998 Dec;126(12):693-6 **(Rus)**

[The effect of hyperbaric oxygenation on the urea content of the saliva in acute and chronic soft-tissue inflammation in the maxillofacial area] Volozhin AI, et al. **Patol Fiziol Eksp Ter** 1998 Oct-Dec;(4):20-2 (Eng. Abstr.) **(Rus)**

[Changes in the structural properties of the saliva with pH changes] Leont'ev VK, et al. **Stomatologiia (Mosk)** 1999; 78(2):22-4 (Eng. Abstr.) **(Rus)**

[The determination of the coagulation threshold of the electrolyte potassium chloride in human mixed saliva] Leont'ev VK, et al. **Stomatologiia (Mosk)** 1999;78(3):4-6 (Eng. Abstr.) **(Rus)**

[The immunoglobulin content in the saliva of children living under different radioecological conditions] Mel'nichenko EM, et al. **Stomatologiia (Mosk)** 1999;78(2):12-4 (Eng. Abstr.) **(Rus)**

[Exposure to tobacco and cotinine levels in children] Suárez López de Vergara RG, et al. **Rev Clin Esp** 1999 Jun; 199(6):362-5 (Eng. Abstr.) **(Spa)**

[Devices for saliva collection from the major salivary glands. Results in normal subjects (published erratum appears in Rev Med Chil 1998 Jul;126(7):887)] Morales I, et al. **Rev Med Chil** 1998 May;126(5):538-47 (Eng. Abstr.) **(Spa)**

CYTOLOGY

Milk-borne transmission of HIV. Characterization of productively infected cells in breast milk and interactions between milk and saliva. Southern SO. **J Hum Virol** 1998 Jul-Aug;1(5):328-37

DRUG EFFECTS

Effects of mouth rinses with xylitol and fluoride on dental plaque and saliva. Giertsen E, et al. **Caries Res** 1999; 33(1):23-31

6-month use of 0.2% delmopinol hydrochloride in comparison with 0.2% chlorhexidine digluconate and placebo (II). Effect on plaque and salivary microflora. Hase JC, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):841-9

Salivary secretions: narcolepsy and central nervous system stimulants. Nordgarden H, et al. **J Dent Res** 1998 Oct; 77(10):1817-22

Statistical analysis of salivary pH changes after the intake of black tea and yerba maté supplemented with sweeteners. López de Bocanera ME, et al. **J Oral Sci** 1999 Jun; 41(2):81-5

(+/-)-cis-2-methylspiro[1,3-oxathiolane-5,3'-quinuclidine] hydrochloride, hemihydrate (SNI-2011, cevimeline hydrochloride) induces saliva and tear secretions in rats and mice: the role of muscarinic acetylcholine receptors. Iga Y, et al. **Jpn J Pharmacol** 1998 Nov;78(3):373-80

Salivary amylase activity of rats fed a low calcium diet. Wang PL, et al. **Jpn J Pharmacol** 1998 Nov;78(3):279-83

[Kallikrein concentration in mixed saliva after contraceptive administration or postmenopausal hormone replacement] Meyer P, et al. **Laryngorhinootologie** 1998 Sep;77(9):521-4 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Preferential salivary-type hypoamylasemia in obese children. Mizuuchi H, et al. **Acta Med Okayama** 1999 Jun; 53(3):119-22

Enzyme activity in parotid and mandibular saliva from red kangaroos, Macropus rufus. Beal AM. **Arch Oral Biol** 1998 Sep;43(9):695-9

The roles of histidine residues at the starch-binding site in streptococcal-binding activities of human salivary amylase. Tseng CC, et al. **Arch Oral Biol** 1999 Feb;44(2):119-27

A low concentration of carbonic anhydrase isoenzyme VI in whole saliva is associated with caries prevalence. Kivelä J, et al. **Caries Res** 1999 May-Jun;33(3):178-84

Salivary carbonic anhydrase isoenzyme VI is located in the human enamel pellicle. Leinonen J, et al. **Caries Res** 1999 May-Jun;33(3):185-90

Identification of a class 3 aldehyde dehydrogenase in human saliva and increased levels of this enzyme, glutathione S-transferases, and DT-diaphorase in the saliva of subjects who continually ingest large quantities of coffee or broccoli. Sreerama L, et al. **Clin Cancer Res** 1995 Oct; 1(10):1153-63

Hydrophobic interaction chromatography and capillary zone electrophoresis to explore the correlation between the isoenzymes of salivary alpha-amylase and dental caries. Liang H, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19;724(2):381-8

Deoxyribonuclease I phenotyping from saliva stains. Iida R, et al. **J Forensic Sci** 1999 Jan;44(1):175-8

Influence of secretin and caerulein on acid phosphatase activity in human saliva. Marcinkiewicz M, et al. **J Oral Sci** 1999 Mar;41(1):29-34

A novel and simple immunocapture assay for determination of gelatinase-B (MMP-9) activities in biological fluids: saliva from patients with Sjögren's syndrome contain increased latent and active gelatinase-B levels. Hanemaaijer R, et al. **Matrix Biol** 1998 Dec;17(8-9):657-65

Estimation of cytochrome P-450 CYP1A2 activity in 863 healthy Caucasians using a saliva-based caffeine test. Tantcheva-Poór I, et al. **Pharmacogenetics** 1999 Apr; 9(2):131-44

IMMUNOLOGY

Saliva ELISA: a method for the diagnosis of chronic Chagas disease in endemic areas. Pinho RT, et al. **Acta Trop** 1999 Jan 15;72(1):31-8

Mucosal host defence response to hysterectomy assessed by saliva analyses: a comparison of propofol and isoflurane anaesthesia. Lähteenmäki M, et al. **Anaesthesia** 1998 Nov; 53(11):1067-73

Hydroxychloroquine treatment for primary Sjögren's syndrome: its effect on salivary and serum inflammatory markers. Tishler M, et al. **Ann Rheum Dis** 1999 Apr; 58(4):253-6

Why is HIV rarely transmitted by oral secretions? Saliva can disrupt orally shed, infected leukocytes. Baron S, et al. **Arch Intern Med** 1999 Feb 8;159(3):303-10

Salivary and serum soluble interleukin-2 receptor in primary Sjögren's syndrome. Tishler M, et al. **Arch Oral Biol** 1999 Apr;44(4):305-8

Bright light exposure during the daytime affects circadian rhythms of urinary melatonin and salivary immunoglobulin A. Park SJ, et al. **Chronobiol Int** 1999 May;16(3):359-71

A simple saliva-based test for detecting antibodies to human immunodeficiency virus. Schramm W, et al. **Clin Diagn Lab Immunol** 1999 Jul;6(4):577-80

Mucosal immunity in extrinsic allergic alveolitis: salivary immunoglobulins and antibody against inhaled avian antigens among pigeon breeders. McSharry C, et al. **Clin Exp Allergy** 1999 Jul;29(7):957-64

Soluble HLA in human body fluids. Aultman D, et al. **Hum Immunol** 1999 Mar;60(3):239-44

Saliva as DNA source for HLA typing. Terasaki P, et al. **Hum Immunol** 1998 Sep;59(9):597-8

Salivary IgA subclasses and infection risk in elite swimmers. Gleeson M, et al. **Immunol Cell Biol** 1999 Aug;77(4):351-5

A streptococcal adhesion system for salivary pellicle and platelets. Gong K, et al. **Infect Immun** 1998 Nov; 66(11):5388-92

p53 antibodies in the saliva of patients with squamous cell carcinoma of the oral cavity [letter] Tavassoli M, et al. **Int J Cancer** 1998 Oct 29;78(3):390-1

Salivary SIgA and SIgA 1 in coeliac disease, inflammatory bowel disease and controls. Warner RH, et al. **Ir J Med Sci** 1999 Jan-Mar;168(1):33-5

Salivary sIgA response in HIV-1 infection. Skott P, et al. **J Acquir Immune Defic Syndr** 1999 Jun 1;21(2):73-80

Th1/Th2 cytokine expression in saliva of HIV-positive and HIV-negative individuals: a pilot study in HIV-positive individuals with oropharyngeal candidiasis. Leigh JE, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 1;19(4):373-80

Performance characteristics of an enzyme-linked immunosorbent assay for determining salivary immunoglobulin G response to Helicobacter pylori. De Pascalis R, et al. **J Clin Microbiol** 1999 Feb;37(2):430-2

Detection of rubella virus-specific immunoglobulin G in saliva by an amplification-based enzyme-linked immunosorbent assay using monoclonal antibody to fluorescein isothiocyanate. Vyse AJ, et al. **J Clin Microbiol** 1999 Feb;37(2):391-5

Modulation of murine lymphocyte responsiveness by the saliva of Rhodnius prolixus (Hemiptera: Reduviidae). Kalvachová P, et al. **J Med Entomol** 1999 May;36(3):341-4

Periodontal conditions and salivary immunoglobulins in individuals with Down syndrome. Barr-Agholme M, et al. **J Periodontol** 1998 Oct;69(10):1119-23

Serum antibody levels and avidities to Escherichia coli O antigens and poliovirus type 1 antigen are increased in children treated for malignant disease. Abrahamsson J, et al. **Med Pediatr Oncol** 1999 Jun;32(6):416-20

Salivary immunoglobulin A levels of persons who have stopped smoking. Griesel AG, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):170-3

Serum and salivary antiendomysium antibodies in the screening of coeliac disease. Di Leo M, et al. **Panminerva Med** 1999 Mar;41(1):68-71

Secretory immune response in patients with intestinal amoebiasis. Ortiz-Ortiz L, et al. **Parasite Immunol** 1998 Oct;20(10):503-7

An evaluation of oral-fluid collection devices for the determination of rubella antibody status in a rural Ethiopian community. Nokes DJ, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):679-85

Salivary diagnosis of measles for surveillance: a clinic-based study in Niterói, state of Rio de Janeiro, Brazil. Oliveira SA, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec; 92(6):636-8

Mucosal administration of a chimera composed of Pseudomonas exotoxin and the gp120 V3 loop sequence of HIV-1 induces both salivary and serum antibody responses. Mrsny RJ, et al. **Vaccine** 1999 Mar 17; 17(11-12):1425-33

Determination of salivary and serum immunoglobulin concentrations in the cat. Harley R, et al. **Vet Immunol Immunopathol** 1998 Oct 23;65(2-4):99-112

METABOLISM

Relation of salivary cotinine to blood pressure in middle-aged cigarette smokers. Istvan JA, et al. **Am Heart J** 1999 May; 137(5):928-31

Accuracy of salivary estriol testing compared to traditional risk factor assessment in predicting preterm birth. Heine RP, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S214-8

Serial betamethasone administration: effect on maternal salivary estriol levels. Hendershott CM, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S219-22

Diurnal variation in saliva estriol level during pregnancy: a pilot study. McGregor JA, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S223-5

Saliva as a fluid for measurement of estriol levels. Voss HF. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S226-31 (34 ref.)

An unusual parotid gland in the tent-building bat, Uroderma bilobatum: possible correlation of interspecific ultrastructural differences with differences in salivary pH and buffering capacity. Nagato T, et al. **Anat Rec** 1998 Oct;252(2):290-300

Phosphorus-31 nuclear magnetic resonance study of healthy human saliva. Nosaka AY, et al. **Arch Oral Biol** 1998 Apr; 43(4):341-6

Effect of smoking one cigarette on antioxidant metabolites in the saliva of healthy smokers. Zappacosta B, et al. **Arch Oral Biol** 1999 Jun;44(6):485-8

Monthly measures of salivary testosterone predict sexual activity in adolescent males. Halpern CT, et al. **Arch Sex Behav** 1998 Oct;27(5):445-65

Expression of saliva-binding epitopes of the Porphyromonas gingivalis FimA protein on the surface of Streptococcus gordonii. Sharma A, et al. **Biochem Biophys Res Commun** 1999 Apr 29;258(1):222-6

Gustin from human parotid saliva is carbonic anhydrase VI. Thatcher BJ, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):635-41

Salivary prolactin as a marker for central serotonin turnover. Lindell SG, et al. **Biol Psychiatry** 1999 Aug 15;46(4):568-72

Kinetics of 4-fluoroquinolones permeation into saliva. Kozjek F, et al. **Biopharm Drug Dispos** 1999 May; 20(4):183-91

Direct assessment of peripheral pharmacokinetics in humans: comparison between cantharides blister fluid sampling, in vivo microdialysis and saliva sampling. Brunner M, et al. **Br J Clin Pharmacol** 1998 Nov;46(5):425-31

Physical and chemical transformations of cereal food during oral digestion in human subjects. Hoebler C, et al. **Br J Nutr** 1998 Nov;80(5):429-36

Interactions of Streptococcus mutans fimbria-associated surface proteins with salivary components. Ray CA, et al. **Clin Diagn Lab Immunol** 1999 May;6(3):400-4

Therapeutic drug concentration monitoring using saliva samples. Focus on anticonvulsants. Liu H, et al. **Clin Pharmacokinet** 1999 Jun;36(6):453-70 (121 ref.)

Clinical pharmacokinetics of encapsulated oral 9-aminocamptothecin in plasma and saliva. de Jonge MJ, et al. **Clin Pharmacol Ther** 1999 May;65(5):491-9

Plasma and salivary pharmacokinetics of 5-fluorouracil (5-FU) in patients with metastatic colorectal cancer receiving 5-FU bolus plus continuous infusion with high-dose folinic acid. Joulia JM, et al. **Eur J Cancer** 1999 Feb;35(2):296-301

Saliva-resistant coating of tablets prevents oral release of penicillin: plasma but not saliva equivalence. Quiding H, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):749-52

A pilot study of the disposition of pilocarpine in plasma, saliva and urine after a single oral dose. Aromdee C, et al. **Eur J Pharm Sci** 1999 May;8(2):81-3

Pituitary-adrenal reactivity in a child psychiatric population: salivary cortisol response to stressors. Jansen LM, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):67-75

Salivary estradiol and progesterone levels in conception and nonconception cycles in women: evaluation of a new assay for salivary estradiol. Lu Y, et al. **Fertil Steril** 1999 May; 71(5):863-8

Measuring the quantity of phosphor in the saliva after application of fluoride gel. Kukleva M, et al. **Folia Med (Plovdiv)** 1999;41(1):136-7

Quality of salivary tears following autologous submandibular gland transplantation for severe dry eye. Geerling G, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Jul; 237(7):546-53

Correlations among salivary testosterone, mood, and selective attention to threat in humans. van Honk J, et al. **Horm Behav** 1999 Aug;36(1):17-24

Saliva level of free 3-methoxy-4-hydroxyphenylglycol in psychiatric outpatients with anxiety. Yamada S, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):213-7

The relationship between salivary secretory immunoglobulin A and cortisol: neuroendocrine response to awakening and the diurnal cycle. Hucklebridge F, et al. **Int J Psychophysiol** 1998 Dec;31(1):69-76

Effectiveness in learning complex problem solving and salivary ion indices of psychological stress and activation. Richter P, et al. **Int J Psychophysiol** 1998 Nov;30(3):329-37

Saliva cortisol, testosterone and T/C ratio variations during a wrestling competition and during the post-competitive recovery period. Passelergue P, et al. **Int J Sports Med** 1999 Feb;20(2):109-13

Psychological corrclates of salivary cortisol secretion among unemployed men and women. Grossi G, et al. **Integr Physiol Behav Sci** 1998 Jul-Sep;33(3):249-63

Rapid determination of methadone and its major metabolite in biological fluids by gas-liquid chromatography with thermionic detection for maintenance treatment of opiate addicts. Chikhi-Chorfi N, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 6;718(2):278-84

Out-patient screening for Cushing's syndrome: the sensitivity of the combination of circadian rhythm and overnight dexamethasone suppression salivary cortisol tests. Castro M, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):878-82

Light affects morning salivary cortisol in humans. Scheer FA, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3395-8

Whole saliva and plasma levels of clozapine and desmethylclozapine. Dumortier G, et al. **J Clin Pharm Ther** 1998 Feb;23(1):35-40

Abnormally high levels of cystatin S in submandibular glands, saliva, and gingiva of plaque-resistant rats. Abe K, et al. **J Dent Res** 1998 Nov;77(11):1913-9

Salivary antiepileptic drug levels in Thai children. Kankirawatana P. **J Med Assoc Thai** 1999 Jan;82(1):80-8

Vascular endothelial growth factor is constitutively expressed in normal human salivary glands and is secreted in the saliva of healthy individuals. Pammer J, et al. **J Pathol** 1998 Oct;186(2):186-91

Excretion of ofloxacin into saliva in rats with renal failure. Ding G, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):31-6

The influence of nerves on the secretion of immunoglobulin A into submandibular saliva in rats. Carpenter GH, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):567-73

Salivary cortisol in women with and without perimenstrual mood changes. Odber J, et al. **J Psychosom Res** 1998 Dec; 45(6):557-68

Kininogen-kallikrein-kinin system in plasma and saliva of patients with Sjögren's syndrome. Hernández CC, et al. **J Rheumatol** 1998 Dec;25(12):2381-4

Saliva test as ovulation predictor [letter] Braat DD, et al. **Lancet** 1998 Oct 17;352(9136):1283-4

Sensory stimulation (acupuncture) increases the release of vasoactive intestinal polypeptide in the saliva of xerostomia sufferers. Dawidson I, et al. **Neuropeptides** 1998 Dec; 32(6):543-8

Minimum light intensity required to suppress nocturnal melatonin concentration in human saliva. Aoki H, et al. **Neurosci Lett** 1998 Aug 14;252(2):91-4

The paraxanthine:caffeine ratio in serum or in saliva as a measure of CYP1A2 activity: when should the sample be obtained? Spigset O, et al. **Pharmacogenetics** 1999 Jun; 9(3):409-12

Effects of heavy physical exercise and adaptogens on nitric oxide content in human saliva. Panossian AG, et al. **Phytomedicine** 1999 Mar;6(1):17-26

Stressors and mood measured on a momentary basis are associated with salivary cortisol secretion. Smyth J, et al. **Psychoneuroendocrinology** 1998 May;23(4):353-70

Baseline salivary cortisol levels and preconscious selective attention for threat. A pilot study. van Honk J, et al. **Psychoneuroendocrinology** 1998 Oct;23(7):741-7

Role of acid and salivary epidermal growth factor in gastric mucosal adaptation to naproxen in man. Lipscomb GR, et al. **Scand J Gastroenterol** 1998 Aug;33(8):790-4

Biologic variation of serum and salivary lithium. Moody JP. **Ther Drug Monit** 1999 Feb;21(1):97-101

MICROBIOLOGY

Correlation of histology, CLO, dental plaque, and saliva in patients undergoing upper GI endoscopy [letter] Qureshi H, et al. **Am J Gastroenterol** 1999 Mar;94(3):861-2

Fate of free DNA and transformation of the oral bacterium Streptococcus gordonii DL1 by plasmid DNA in human saliva. Mercer DK, et al. **Appl Environ Microbiol** 1999 Jan; 65(1):6-10

Candidacidal activity prompted by N-terminus histatin-like domain of human salivary mucin (MUC7)1. Gururaja TL, et al. **Biochim Biophys Acta** 1999 Apr 12;1431(1):107-19

Associations between microbiological and salivary caries activity tests and caries experience in Hungarian adolescents. Gábris K, et al. **Caries Res** 1999 May-Jun; 33(3):191-5

Transmission of mutans streptococci between mothers and children with cleft lip and/or palate. de Soet JJ, et al. **Cleft Palate Craniofac J** 1998 Sep;35(5):460-4

Quantitative determination of Streptococcus mutans by using competitive polymerase chain reaction. Rupf S, et al. **Eur J Oral Sci** 1999 Apr;107(2):75-81

6-month use of 0.2% delmopinol hydrochloride in comparison with 0.2% chlorhexidine digluconate and placebo (II). Effect on plaque and salivary microflora. Hase JC, et al. **J Clin Periodontol** 1998 Nov;25(11 Pt 1):841-9

The effect of parabens in a mouthwash and incorporated into a sustained release varnish on salivary bacteria. Steinberg D, et al. **J Dent** 1999 Feb;27(2):101-6

Cross-contamination potential of saliva ejectors used in dentistry [see comments] Barbeau J, et al. **J Hosp Infect** 1998 Dec;40(4):303-11. Comment in: J Hosp Infect 1999 May;42(1):78-9.

Foot infection with Prevotella bivia, P. oralis and P. loescheii after wound licking [letter] Schindl A, et al. **J Med Microbiol** 1999 Jan;48(1):109

Risk indicators for harboring periodontal pathogens. Umeda M, et al. **J Periodontol** 1998 Oct;69(10):1111-8

Prevalence and antimicrobial susceptibility of staphylococci isolated from saliva of clinically normal cats. Lilenbaum W, et al. **Lett Appl Microbiol** 1999 Jun;28(6):448-52

Effect of chlorhexidine varnish mouthguards on the levels of selected oral microorganisms in pediatric patients. Achong RA, et al. **Pediatr Dent** 1999 May-Jun; 21(3):169-75

[Detection and differentiation of Helicobacter pylori from gastric biopsy and saliva by PCR-SSCP] Zhang Y, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jul;36(7):446-9 (Eng. Abstr.) **(Chi)**

[Relationship between dental status and salivary microbiology in adolescents] Gábris K, et al. **Fogorv Sz** 1998 Dec;91(12):374-82 (Eng. Abstr.) **(Hun)**

[Count of salivary Streptococci mutans in pregnant women of the metropolitan region of Chile: cross-sectional study] Villagrán E, et al. **Rev Med Chil** 1999 Feb;127(2):165-70 (Eng. Abstr.) **(Spa)**

PARASITOLOGY

Development of a natural model of cutaneous leishmaniasis: powerful effects of vector saliva and saliva preexposure on the long-term outcome of Leishmania major infection in the mouse ear dermis. Belkaid Y, et al. **J Exp Med** 1998 Nov 16;188(10):1941-53

The evolution of salivarian trypanosomes. Stevens J, et al. **Mem Inst Oswaldo Cruz** 1999 Mar-Apr;94(2):225-8

PHYSIOLOGY

Viscosity of whole saliva. Rantonen PJ, et al. **Acta Odontol Scand** 1998 Aug;56(4):210-4

Antimicrobial function of human saliva--how important is it for oral health? Tenovuo J. **Acta Odontol Scand** 1998 Oct;56(5):250-6 (89 ref.)

Saliva and esophageal protection. Kongara KR, et al. **Am J Gastroenterol** 1999 Jun;94(6):1446-52 (49 ref.)

Adherence of Streptococcus mutans to orthodontic brackets. Fournier A, et al. **Am J Orthod Dentofacial Orthop** 1998 Oct;114(4):414-7

Individual variations of pH, buffer capacity, and concentrations of calcium and phosphate in unstimulated whole saliva. Larsen MJ, et al. **Arch Oral Biol** 1999 Feb; 44(2):111-7

Influence of in vivo formed salivary pellicle on enamel erosion. Hannig M, et al. **Caries Res** 1999 Sep-Oct; 33(5):372-9

Dr. Slavkin on saliva [letter; comment] Simpson SP. **J Am Dent Assoc** 1998 Oct;129(10):1376. Comment on: J Am Dent Assoc 1998 Aug;129(8):1138-43.

The effect of saliva on enamel and dentine erosion. Hall AF, et al. **J Dent** 1999 Jul;27(5):333-9

Spit is "it". Azen EA. **J Dent Res** 1999 Aug;78(8):1388-92

The effect of saliva on fluoride release by a glass-ionomer filling material. Bell A, et al. **J Oral Rehabil** 1999 May; 26(5):407-12

The relationship of dental calculus to caries, gingivitis, and selected salivary factors in 11- to 13-year-old children in Chiang Mai, Thailand. Pattanaporn K, et al. **J Periodontol** 1998 Sep;69(9):955-61

Saliva of Rhipicephalus sanguineus tick impairs T cell proliferation and IFN-gamma-induced macrophage microbicidal activity. Ferreira BR, et al. **Vet Immunol Immunopathol** 1998 Jul 31;64(3):279-93

[Saliva: natural protection against caries] Lagerlöf F. **Rev Belge Med Dent** 1998;53(1):337-48 (Eng. Abstr.) **(Fre)**

[Components of antibacterial and fibrinolytic activity of human saliva in normal and disordered wound healing] Göcke R, et al. **Mund Kiefer Gesichtschir** 1999 Jan; 3(1):38-42 (Eng. Abstr.) **(Ger)**

SECRETION

Localization of zinc in the rat submandibular gland and the effect of its deficiency on salivary secretion. Ishii K, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):300-8

Study of saliva secretion and the salivary fluoride concentration of the human minor labial glands by a new method. Boros I, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S59-62

The flow rate and composition of human labial gland saliva. Ferguson DB. **Arch Oral Biol** 1999 May;44 Suppl 1:S11-4 (30 ref.)

The effect of repeated sampling on paraffin-stimulated salivary flow rates in menopausal women. Laine M, et al. **Arch Oral Biol** 1999 Jan;44(1):93-5

Modulation by somatostatin of rat parotid salivary secretion stimulated by cholinergic, adrenergic and peptidergic agents. Ostuni MA, et al. **Arch Oral Biol** 1999 Jul; 44(7):549-56

Role of epidermal growth factor (EGF) in oesophageal mucosal integrity. Marcinkiewicz M, et al. **Curr Med Res Opin** 1998;14(3):145-53 (69 ref.)

Inhibition of salivary fluid secretion by occlusion of the intercellular space. Nakahari T, et al. **Eur J Morphol** 1998 Aug;36 Suppl:107-11

Non-adrenergic, non-cholinergic reflex secretion of parotid saliva in rats elicited by mastication and acid applied on the tongue. Ekström J. **Exp Physiol** 1998 Sep;83(5):697-700

Effects of reducing submandibular blood flow on secretory responses to parasympathetic stimulation in anaesthetized cats. Hanna SJ, et al. **Exp Physiol** 1999 Jul;84(4):677-87

Defective secretion of saliva in transgenic mice lacking aquaporin-5 water channels. Ma T, et al. **J Biol Chem** 1999

Jul 16;274(29):20071-4

Salivary secretions: narcolepsy and central nervous system stimulants. Nordgarden H, et al. **J Dent Res** 1998 Oct; 77(10):1817-22

Primary Sjögren's syndrome (pSS): subjective symptoms and salivary findings. Pedersen AM, et al. **J Oral Pathol Med** 1999 Aug;28(7):303-11

The influence of nerves on the secretion of immunoglobulin A into submandibular saliva in rats. Carpenter GH, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):567-73

Role of nitric oxide in salivary secretion. Lomniczi A, et al. **Neuroimmunomodulation** 1998 Sep-Oct;5(5):226-33

Oral manifestations and salivary flow rate, pH, and buffer capacity in patients with end-stage renal disease undergoing hemodialysis. Kho HS, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Sep;88(3):316-9

[Saliva production in patients with diffuse lung disease] Kurumagawa T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jun;37(6):443-8 (Eng. Abstr.) **(Jpn)**

[Changes in the mixed salivary indices during orthodontic treatment] Lipasova TB, et al. **Stomatologiia (Mosk)** 1999; 78(2):42-3 (Eng. Abstr.) **(Rus)**

VIROLOGY

Oral transmission of HIV [editorial] Rothenberg RB, et al. **AIDS** 1998 Nov 12;12(16):2095-105 (126 ref.)

Endogenous salivary inhibitors of human immunodeficiency virus. Shugars DC, et al. **Arch Oral Biol** 1999 Jun; 44(6):445-53 (68 ref.)

High prevalence of HCV-RNA in the saliva cell fraction of patients with chronic hepatitis C but no evidence of HCV transmission among sexual partners. Fabris P, et al. **Infection** 1999 Mar-Apr;27(2):86-91

Detection of specific antibodies in saliva during dengue infection. Cuzzubbo AJ, et al. **J Clin Microbiol** 1998 Dec; 36(12):3737-9

Detection of TT virus DNA in specimens other than blood. Ross RS, et al. **J Clin Virol** 1999 Aug;13(3):181-4

Human submandibular saliva inhibits human immunodeficiency virus type 1 infection by displacing envelope glycoprotein gp120 from the virus. Nagashunmugam T, et al. **J Infect Dis** 1998 Dec; 178(6):1635-41

Endogenous mucosal antiviral factors of the oral cavity. Shugars DC. **J Infect Dis** 1999 May;179 Suppl 3:S431-5 (33 ref.)

Diagnosis of dengue infection by detecting specific immunoglobulin M antibodies in saliva samples. Artimos de Oliveira S, et al. **J Virol Methods** 1999 Jan;77(1):81-6

SALIVA, ARTIFICIAL

ADVERSE EFFECTS

Artificial saliva versus pilocarpine for xerostomia [letter; comment] Stone P, et al. **Palliat Med** 1999 Jan;13(1):81-3 . Comment on: Palliat Med 1998 Mar;12(2):105-11.

CHEMISTRY

Corrosion behaviour of dental metals and alloys in different media. Kedici SP, et al. **J Oral Rehabil** 1998 Oct; 25(10):800-8

Effect of water and artificial saliva on the low cycle fatigue resistance of cobalt-chromium dental alloy. Lassila LV, et al. **J Prosthet Dent** 1998 Dec;80(6):708-13

SALIVARY DUCT CALCULI

DIAGNOSIS

Multiple bilateral sialoliths of the submandibular ducts. Orlian AI, et al. **N Y State Dent J** 1998 Aug-Sep;64(7):42-3

[The diameter of the Stenon and Wharton ducts. Significance for diagnosis and therapy] Zenk J, et al. **HNO** 1998 Dec; 46(12):980-5 (Eng. Abstr.) **(Ger)**

PATHOLOGY

Parotid sialolithiasis. Bodner L. **J Laryngol Otol** 1999 Mar; 113(3):266-7 (15 ref.)

Multiple sialoliths and a sialolith of unusual size in the submandibular duct: a case report. Leung AK, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):331-3

SURGERY

Conservative surgical removal of a submandibular duct calculus following interventional sialography. Nixon PP, et al. **Clin Radiol** 1999 May;54(5):337-8

Interventional sialendoscopy [letter] Marchal F, et al. **N Engl J Med** 1999 Oct 14;341(16):1242-3

[Ambulatory surgery--salivary calculi, retention cysts, and ranula] Komune S. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):286-9 **(Jpn)**

THERAPY

[The lithotripsy of salivary stones] Afanas'ev VV, et al. **Stomatologiia (Mosk)** 1999;78(4):30-2 (Eng. Abstr.) **(Rus)**

SALIVARY DUCT STONES see **SALIVARY DUCT CALCULI**

SALIVARY DUCTS

Cytologic diagnosis of salivary duct carcinoma: a review of seven cases. Garcia-Bonafé M, et al. **Diagn Cytopathol** 1998 Aug;19(2):120-3

ANATOMY & HISTOLOGY

Ultrastructure of major intraglandular ducts in the parotid gland of the African mole-rat. Tandler B, et al. **Eur J Morphol** 1998 Aug;36 Suppl:27-30

CHEMISTRY

Expression of androgen receptor, gross cystic disease fluid protein, and CD44 in salivary duct carcinoma. Kapadia SB, et al. **Mod Pathol** 1998 Nov;11(11):1033-8

CYTOLOGY

Topographical distribution of cells in the rat submandibular gland duct system with special reference to dark cells and tuft cells. Sato A, et al. **Anat Rec** 1998 Oct;252(2):159-64

Increasing frequency of occurrence of tuft cells in the main excretory duct during postnatal development of the rat submandibular gland. Sato A, et al. **Anat Rec** 1998 Oct; 252(2):276-80

Cells in the duct system of the rat submandibular gland. Sato A, et al. **Eur J Morphol** 1998 Aug;36 Suppl:61-6

DRUG EFFECTS

Neuropeptide TPep action on salivary duct ciliary beating rate in the nudibranch mollusc Tritonia diomedea. Gaston MR. **Invert Neurosci** 1998 Mar;3(4):327-33

EMBRYOLOGY

The Drosophila Pax gene eye gone is required for embryonic salivary duct development. Jones NA, et al. **Development** 1998 Nov;125(21):4163-74

INJURIES

Parotid duct laceration repair in two horses. Olivier A, et al. **J S Afr Vet Assoc** 1998 Sep;69(3):108-11

[Microsurgical reanastomosis of the parotid duct] Gehrking E, et al. **HNO** 1999 Apr;47(4):283-6 (Eng. Abstr.) **(Ger)**

METABOLISM

Control of Na+ transport in salivary duct epithelial cells by cytosolic Cl- and Na+. Cook DI, et al. **Eur J Morphol** 1998 Aug;36 Suppl:67-73 (20 ref.)

PATHOLOGY

Salivary duct carcinoma. Is a specific diagnosis possible by fine needle aspiration cytology? Gilcrease MZ, et al. **Acta Cytol** 1998 Nov-Dec;42(6):1389-96

MR sialography in patients with Sjögren syndrome [see comments] Tonami H, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1199-203. Comment in: AJNR Am J Neuroradiol 1998 Aug;19(7):1183.

Salivary duct carcinoma in the mandible: report of a case with immunohistochemical studies. Suzuki H, et al. **Br J Oral Maxillofac Surg** 1999 Feb;37(1):67-9

Salivary duct carcinoma ex pleomorphic adenoma: analysis of the findings in fine-needle aspiration cytology and histology. Ersöz C, et al. **Diagn Cytopathol** 1998 Sep; 19(3):201-4

Mounting evidence against current histogenetic concepts for salivary gland tumorigenesis. Dardick I. **Eur J Morphol** 1998 Aug;36 Suppl:257-61 (47 ref.)

Primary sialoangiectasia--a diagnostic pitfall in Sjögren's syndrome: case report. Kalk WW, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):568-71

Malignant tumors of Stensen's duct. Steiner M, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):73-7 (24 ref.)

Lymphoepithelial duct lesions in Sjögren-type sialadenitis. Ihrler S, et al. **Virchows Arch** 1999 Apr;434(4):315-23

[The diameter of the Stenon and Wharton ducts. Significance for diagnosis and therapy] Zenk J, et al. **HNO** 1998 Dec; 46(12):980-5 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY see SIALOGRAPHY

RADIONUCLIDE IMAGING

Wharton duct pseudodiverticulum: an unusual cause of misdiagnosis with salivary gland scintigraphy. Ilgan S, et al. **Clin Nucl Med** 1999 Jan;24(1):74-5

SURGERY

Four-duct ligation: a simple and effective treatment for chronic aspiration from sialorrhea. Klem C, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jul;125(7):796-800

Microsurgical repair of Stensen's & Wharton's ducts with autogenous venous grafts. An experimental study on dogs. Chudakov O, et al. **Int J Oral Maxillofac Surg** 1999 Feb; 28(1):70-3

Microsurgical repair of Stensen's duct using an interposition vein graft. Heymans O, et al. **J Reconstr Microsurg** 1999 Feb;15(2):105-7; discussion 107-8

Parotid duct laceration repair in two horses. Olivier A, et al. **J S Afr Vet Assoc** 1998 Sep;69(3):108-11

ULTRASTRUCTURE

Comparative ultrastructure of intercalated ducts in major salivary glands: a review. Tandler B, et al. **Anat Rec** 1998 Sep;252(1):64-91 (282 ref.)

SALIVARY GLAND CALCULI

[Salivary lithiasis: diagnosis, principles of the treatment] Favre E, et al. **Rev Prat** 1998 Sep 1;48(13):1449-52 **(Fre)**

COMPLICATIONS

A megalith of the parotid salivary gland. Kesse WK, et al. **J Laryngol Otol** 1998 Aug;112(8):784-5 (6 ref.)

ECONOMICS

Symptomatic sialoadenitis and sialolithiasis in the English population, an estimate of the cost of hospital treatment. Escudier MP, et al. **Br Dent J** 1999 May 8;186(9):463-6

EPIDEMIOLOGY

Symptomatic sialoadenitis and sialolithiasis in the English population, an estimate of the cost of hospital treatment. Escudier MP, et al. **Br Dent J** 1999 May 8;186(9):463-6

RADIOGRAPHY

[Description of an original method of interventional treatment of sialolithiasis to complement surgery, and report of a case] Salerno S, et al. **Radiol Med (Torino)** 1998 Dec;96(6):599-601 **(Ita)**

SURGERY

[Description of an original method of interventional treatment of sialolithiasis to complement surgery, and report of a case] Salerno S, et al. **Radiol Med (Torino)** 1998 Dec;96(6):599-601 **(Ita)**

THERAPY

Extracorporeal shock wave lithotripsy of parotid stones. Results of a prospective clinical trial. Iro H, et al. **Ann Otol Rhinol Laryngol** 1998 Oct;107(10 Pt 1):860-4

The management of sialolithiasis in 2 children through use of extracorporeal shock wave lithotripsy. Escudier MP, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jul;88(1):44-9

[Long-term results of extracorporeal peizoelectric shock wave lithotripsy of parotid stones] Iro H, et al. **Dtsch Med Wochenschr** 1998 Oct 2;123(40):1161-5 (Eng. Abstr.) **(Ger)**

[Lithotripsy of salivary calculi] Iro H. **HNO** 1999 May; 47(5):508-9 **(Ger)**

[The lithotripsy of salivary stones] Afanas'ev VV, et al. **Stomatologiia (Mosk)** 1999;78(4):30-2 (Eng. Abstr.) **(Rus)**

SALIVARY GLAND DISEASES

Minor labial salivary glands. Proceedings of a satellite symposium to the XVth Jubilee Arkovy Congress of Hungarian Dentists. Budapest, Hungary, August 28, 1998. **Arch Oral Biol** 1999 May;44 Suppl 1:S1-71

Proceedings of the 2nd Symposium on Salivary Glands. Cagliari, Italy, May 23-25, 1997. Dedicated to Niels Steensen (Niccolò Stenone). **Eur J Morphol** 1998 Aug;36 Suppl:1-266

CHEMICALLY INDUCED

Side effects of olanzapine [letter] Wahid Z, et al. **Am J Psychiatry** 1999 May;156(5):800-1

Salivary gland enlargement caused by chemical agents [letter; comment] Bhavani-Shankar K. **Anesth Analg** 1999 Sep; 89(3):804. Comment on: Anesth Analg 1998 Dec;87(6):1443-5.

COMPLICATIONS

Parotid and central nervous system relapse during complete hematologic remission in acute promyelocytic leukemia [letter] Mesa JR, et al. **Haematologica** 1999 Jun;84(6):565-6

[Late onset of type I familial amyloid neuropathy: results of biopsy from accessory salivary glands] Mackowiak A, et al. **Rev Neurol (Paris)** 1999 Feb;155(2):155-7 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

MR sialography? [editorial; comment] Dillon WP. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1183. Comment on: AJNR Am J Neuroradiol 1998 Aug;19(7):1199-203.

Salivary gland disorders. Neoplastic and nonneoplastic. Rice DH. **Med Clin North Am** 1999 Jan;83(1):197-218, xi (52 ref.)

ETIOLOGY

Sialadenopathy with the laryngeal mask airway [letter; comment] Brimacombe J, et al. **Anesth Analg** 1999 Jul;

89(1):261–2. Comment on: Anesth Analg 1998 Dec;87(6):1438–40.

IMMUNOLOGY

New concepts for the development of autoimmune exocrinopathy derived from studies with the NOD mouse model. Humphreys-Beher MG, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S21–5 (38 ref.)

[Selected immunological studies of chronic purulent and hypertrophic otolaryngological diseases] Olszewski J, et al. **Otolaryngol Pol** 1997;51 Suppl 25:320–3 (Eng. Abstr.) **(Pol)**

METABOLISM

Cytokine expression in human labial minor salivary gland epithelial cells in health and disease. Fox PC, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S49–52

Primary localization amyloidosis of the sublingual gland. Kurokawa H, et al. **Fukuoka Igaku Zasshi** 1998 Jul; 89(7):216–20

PATHOLOGY

Sublingual gland: MR features of normal and diseased states. Sumi M, et al. **AJR Am J Roentgenol** 1999 Mar; 172(3):717–22

Salivary cyst with crystalloids and oncocytic metaplasia [letter] Jayaram G. **Diagn Cytopathol** 1998 Aug;19(2):147–8

Crystalloids and crystals in salivary gland lesions [letter] López-Ríos F, et al. **Hum Pathol** 1999 Sep;30(9):1119–20

PHYSIOPATHOLOGY

Evidence for decreased salivary function in patients with reflux esophagitis. Kao CH, et al. **Digestion** 1999; 60(3):191–5

PREVENTION & CONTROL

Parotid and central nervous system relapse during complete hematologic remission in acute promyelocytic leukemia [letter] Mesa JR, et al. **Haematologica** 1999 Jun;84(6):565–6

RADIONUCLIDE IMAGING

Quantitative salivary gland scintigraphy. Klutmann S, et al. **J Nucl Med Technol** 1999 Mar;27(1):20–6

SURGERY

Surgical pearl: removal of a large labial mucocele. Tran TA, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):760–2

VETERINARY

Calcinosis circumscripta in the salivary gland of a dog. Movassaghi AR. **Vet Rec** 1999 Jan 9;144(2):52

VIROLOGY

The detection of Epstein-Barr virus in the lesions of salivary glands. Kim KI, et al. **Pathol Res Pract** 1999;195(6):407–12

SALIVARY GLAND FISTULA

PREVENTION & CONTROL

Use of a parotid fascia flap to prevent postoperative fistula. Jianjun Y, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jun;87(6):673–5

A device for applying postsurgical pressure to the lateral face. Jianjun Y, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Sep;88(3):303–6

THERAPY

Postparotidectomy fistula: a different treatment for an old problem. Cavanaugh K, et al. **Int J Pediatr Otorhinolaryngol** 1999 Mar 15;47(3):265–8

SALIVARY GLAND NEOPLASMS

Papillary cystadenoma: a rare tumor of the minor salivary glands. Mahler V, et al. **Eur J Dermatol** 1999 Jul–Aug; 9(5):387–9

BLOOD SUPPLY

Expression of p53 oncoprotein increases intratumoral microvessel formation in human salivary gland carcinomas. Doi R, et al. **J Oral Pathol Med** 1999 Jul;28(6):259–63

CHEMISTRY

Immunohistochemical detection of oestrogen and progesterone receptors in salivary tumours. Jeannon JP, et al. **Clin Otolaryngol** 1999 Feb;24(1):52–4

Immunohistochemical demonstration of bone morphogenetic protein-2 and type II collagen in pleomorphic adenoma of salivary glands. Zhao M, et al. **J Oral Pathol Med** 1998 Aug;27(7):293–6

Presence of endothelin-1 in human salivary glands and tumors. Nakamizo M, et al. **Nippon Ika Daigaku Zasshi** 1998 Dec;65(6):471–7

Basal cell adenocarcinoma of the salivary gland: an ultrastructural and immunohistochemical study. Quddus MR, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):485–92

Localization of prostate-specific antigen-like immunoreactivity in human salivary gland and salivary gland tumors. Tazawa K, et al. **Pathol Int** 1999 Jun; 49(6):500–5

DIAGNOSIS

Neuroradiology case of the day. Polymorphous low-grade adenocarcinoma of a minor salivary gland in the right buccal space. Kwong MD, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):805, 808–9

The significance of CT scan or MRI in the evaluation of salivary gland tumors. Kim KH, et al. **Auris Nasus Larynx** 1998 Dec;25(4):397–402

Unusual presentation of a salivary pleomorphic adenoma: a case report and review of the literature. Murphy RJ, et al. **Cutis** 1999 Mar;63(3):167–8 (8 ref.)

Lipomatosis of the minor salivary glands. Saleh HA, et al. **J Laryngol Otol** 1998 Sep;112(9):895–7 (19 ref.)

Salivary gland disorders. Neoplastic and nonneoplastic. Rice DH. **Med Clin North Am** 1999 Jan;83(1):197–218, xi (52 ref.)

[Pleomorphic adenoma of the parapharyngeal space: a case report] Chmurzyńska A, et al. **Otolaryngol Pol** 1998; 52(6):723–6 (Eng. Abstr.) **(Pol)**

[Cases of pleomorphic adenoma originating in the minor salivary glands] Gierek T, et al. **Otolaryngol Pol** 1999; 53(3):323–5 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Vinorelbine treatment of recurrent salivary gland carcinomas. Airoldi M, et al. **Bull Cancer** 1998 Oct;85(10):892–4

EPIDEMIOLOGY

Histological subtypes of pleomorphic adenoma and age-frequency distribution [letter] Farina A, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):154–5

Big hair news [news] **Environ Health Perspect** 1998 Feb; 106(2):A59

National Cancer Data Base report on cancer of the head and neck: acinic cell carcinoma. Hoffman HT, et al. **Head Neck** 1999 Jul;21(4):297–309

Incidence rates of salivary gland tumors: results from a population-based study. Pinkston JA, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):834–40

[Salivary gland tumors. Apropos of 48 surgical cases] Ouoba K, et al. **Dakar Med** 1998;43(1):60–4 (17 ref.) (Eng. Abstr.) **(Fre)**

ETIOLOGY

MMTV-Fgf8 transgenic mice develop mammary and salivary gland neoplasia and ovarian stromal hyperplasia. Daphna-Iken D, et al. **Oncogene** 1998 Nov 26; 17(21):2711–7

GENETICS

DNA analysis of malignant salivary gland carcinomas: comparison of different tissue preparations and measuring techniques. Nordgård S, et al. **Acta Otolaryngol** 1999; 119(4):510–5

Family with low-grade neuroendocrine carcinoma of salivary glands, severe sensorineural hearing loss, and enamel hypoplasia. Michaels L, et al. **Am J Med Genet** 1999 Mar 19;83(3):183–6

The clinical relevance of ploidy and S-phase fraction determination in salivary gland tumors: a flow cytometric study of 97 cases. Pinto AE, et al. **Cancer** 1999 Jan 15; 85(2):273–81

Cytogenetic analysis of a primary salivary gland myoepithelioma. el-Naggar AK, et al. **Cancer Genet Cytogenet** 1999 Aug;113(1):49–53

Pleomorphic adenomas of the salivary glands: absence of HMGIY rearrangements. Rohen C, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):178–81

Conserved mechanism of PLAG1 activation in salivary gland tumors with and without chromosome 8q12 abnormalities: identification of SII as a new fusion partner gene. Astrom AK, et al. **Cancer Res** 1999 Feb 15;59(4):918–23

In vitro transformation of cell lines from human salivary gland tumors. Queimado L, et al. **Int J Cancer** 1999 May 31;81(5):793–8

Pleomorphic adenoma gene 1 is expressed in cultured benign and malignant salivary gland tumor cells. Queimado L, et al. **Lab Invest** 1999 May;79(5):583–9

IMMUNOLOGY

Immunohistochemical detection of DNA topoisomerase type II alpha and Ki-67 in adenoid cystic carcinoma and pleomorphic adenoma of the salivary gland. Hirabayashi S. **J Oral Pathol Med** 1999 Mar;28(3):131–6

METABOLISM

Reduced E-cadherin expression correlates with unfavorable prognosis in adenoid cystic carcinoma of salivary glands of the oral cavity. Franchi A, et al. **Am J Clin Pathol** 1999 Jan;111(1):43–50

The myoepithelial immunophenotype in 135 benign and malignant salivary gland tumors other than pleomorphic adenoma. Prasad AR, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):801–6

Reduced expression of p27(Kip1) protein in relation to salivary adenoid cystic carcinoma metastasis. Takata T, et al. **Cancer** 1999 Sep 15;86(6):928–35

Proliferating cell nuclear antigen and c-erbB-2 oncoprotein expression in adenoid cystic carcinomas of the salivary glands. Cho KJ, et al. **Head Neck** 1999 Aug;21(5):414–9

Laminin and collagen IV in pleomorphic adenoma and carcinoma ex-pleomorphic adenoma: an immunohistochemical study. Félix A, et al. **Hum Pathol** 1999 Aug;30(8):964–9

Expression of p53 oncoprotein increases intratumoral microvessel formation in human salivary gland carcinomas. Doi R, et al. **J Oral Pathol Med** 1999 Jul;28(6):259–63

Immunohistochemical localization of fibroblast growth factors (FGFs) and FGF receptor-1 in human normal salivary glands and pleomorphic adenomas. Kusafuka K, et al. **J Oral Pathol Med** 1998 Aug;27(7):287–92

Vascular endothelial growth factor is constitutively expressed in normal human salivary glands and is secreted in the saliva of healthy individuals. Pammer J, et al. **J Pathol** 1998 Oct;186(2):186–91

Expression of androgen receptor, gross cystic disease fluid protein, and CD44 in salivary duct carcinoma. Kapadia SB, et al. **Mod Pathol** 1998 Nov;11(11):1033–8

[Bcl-2 gene protein expression in salivary gland tumors] Yáñez M, et al. **Rev Med Chil** 1999 Feb;127(2):139–42 (Eng. Abstr.) **(Spa)**

MORTALITY

Multivariate survival analysis of 128 cases of oral cavity minor salivary gland carcinomas. Lopes MA, et al. **Head Neck** 1998 Dec;20(8):699–706

PATHOLOGY

Primary pleomorphic adenoma of the external auditory canal diagnosed by fine needle aspiration cytology. A case report. Gerber C, et al. **Acta Cytol** 1999 May-Jun;43(3):489–91

Fine needle aspiration cytology of epithelial-myoepithelial carcinoma of salivary glands. A report of three cases. Ng WK, et al. **Acta Cytol** 1999 Jul-Aug;43(4):675–80

Salivary gland carcinomas--prognostic factors. Therkildsen MH, et al. **Acta Oncol** 1998;37(7-8):701–13

Myoepithelium in salivary and mammary neoplasms is host-friendly. Batsakis JG, et al. **Adv Anat Pathol** 1999 Jul;6(4):218–26

Sialoblastoma and epithelial tumors in children: their morphologic spectrum and distribution by age. Luna MA. **Adv Anat Pathol** 1999 Sep;6(5):287–92

Lymphoid proliferations of the salivary glands. Harris NL. **Am J Clin Pathol** 1999 Jan;111(1 Suppl 1):S94–103

Histologic transformation of polymorphous low-grade adenocarcinoma of salivary gland. Pelkey TJ, et al. **Am J Clin Pathol** 1999 Jun;111(6):785–91

Sialoblastoma: clinicopathological/immunohistochemical study. Brandwein M, et al. **Am J Surg Pathol** 1999 Mar; 23(3):342–8 (23 ref.)

Dedifferentiation in adenoid cystic carcinoma of salivary gland: an uncommon complication associated with an accelerated clinical course. Cheuk W, et al. **Am J Surg Pathol** 1999 Apr;23(4):465–72

Oncocytic mucoepidermoid carcinoma of the salivary glands. Jahan-Parwar B, et al. **Am J Surg Pathol** 1999 May; 23(5):523–9 (47 ref.)

Clear cell neoplasms in salivary glands: clearly a diagnostic challenge. Ellis GL. **Ann Diagn Pathol** 1998 Feb;2(1):61–78 (99 ref.)

Advances in clinical investigations of salivary gland tumorigenesis. el-Naggar AK, et al. **Ann Pathol** 1999 Mar; 19(1):19–22 (39 ref.)

Immunohistochemical detection of cytokeratins in the irradiated rat mandibular gland. Bartel-Friedrich S, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2405–9

TNM staging, histopathological grading, and tumor-associated antigens in patients with a history of mucoepidermoid carcinoma of the salivary glands. Plambeck K, et al. **Anticancer Res** 1999 Jul-Aug; 19(4A):2397–404

Hybrid carcinomas of salivary glands. Report of 4 cases and review of the literature. Croitoru CM, et al. **Arch Pathol Lab Med** 1999 Aug;123(8):698–702 (11 ref.)

Malignant myoepithelioma of the salivary glands: clinicopathological and immunohistochemical features. Dean A, et al. **Br J Oral Maxillofac Surg** 1999 Feb; 37(1):64–6

Salivary duct carcinoma in the mandible: report of a case with immunohistochemical studies. Suzuki H, et al. **Br J Oral Maxillofac Surg** 1999 Feb;37(1):67–9

Polymorphous low grade adenocarcinoma: a clinicopathologic study of 164 cases. Castle JT, et al. **Cancer** 1999 Jul 15;86(2):207–19

Diagnosis of hepatic metastasis of adenoid cystic carcinoma of the salivary gland by fine needle aspiration [letter] Mehrotra R, et al. **Cytopathology** 1999 Jun;10(3):216–7

Atypical plasmacytoid monomorphic adenoma of salivary glands of the tongue: cytologic, histologic, immunohistochemical, and ultrastructural findings. Drut R, et al. **Diagn Cytopathol** 1999 Jan;20(1):29–33

Salivary duct carcinoma ex pleomorphic adenoma: analysis of the findings in fine-needle aspiration cytology and histology. Ersöz C, et al. **Diagn Cytopathol** 1998 Sep; 19(3):201–4

Cytologic diagnosis of salivary duct carcinoma: a review of seven cases. García-Bonafé M, et al. **Diagn Cytopathol** 1998 Aug;19(2):120–3

Fine-needle sampling of salivary gland lesions. VII. Cytology and histology correlation of five cases of epithelial-myoepithelial carcinoma. Klijanienko J, et al. **Diagn Cytopathol** 1998 Dec;19(6):405–9

Comparative cytologic and histologic study of fifteen salivary basal-cell tumors: differential diagnostic considerations. Klijanienko J, et al. **Diagn Cytopathol** 1999 Jul;21(1):30–4

Cytologic characteristics and histomorphologic correlations of 21 salivary duct carcinomas. Klijanienko J, et al. **Diagn Cytopathol** 1998 Nov;19(5):333–7

Salivary carcinomas with papillae: cytology and histology analysis of polymorphous low-grade adenocarcinoma and papillary cystadenocarcinoma. Klijanienko J, et al. **Diagn Cytopathol** 1998 Oct;19(4):244–9

Cytologic diagnosis of adenoid cystic carcinoma of salivary glands. Nagel H, et al. **Diagn Cytopathol** 1999 Jun; 20(6):358–66

Mounting evidence against current histogenetic concepts for salivary gland tumorigenesis. Dardick I. **Eur J Morphol** 1998 Aug;36 Suppl:257–61 (47 ref.)

Polymorphous low-grade adenocarcinoma of the parotid gland. Puxeddu R, et al. **Eur J Morphol** 1998 Aug;36 Suppl:262–6

Metastasizing pleomorphic adenoma: a report of three cases. Hoorweg JJ, et al. **Eur J Surg Oncol** 1998 Oct;24(5):452–5

Central hyalinizing clear cell carcinoma of the mandible and the maxilla a clinicopathologic study of two cases with an analysis of the literature. Berho M, et al. **Hum Pathol** 1999 Jan;30(1):101–5

Crystalloids and crystals in salivary gland lesions [letter] López-Ríos F, et al. **Hum Pathol** 1999 Sep;30(9):1119–20

Telomerase components as a diagnostic tool in human oral lesions. Sumida T, et al. **Int J Cancer** 1999 Jan 5;80(1):1–4

Sialadenoma papilliferum of the palate: case report and literature review. Argyres MI, et al. **J Cutan Pathol** 1999 May;26(5):259–62 (34 ref.)

Pleomorphic adenoma of the nasal septum. Jassar P, et al. **J Laryngol Otol** 1999 May;113(5):483–5

A clinicopathologic study of 196 intraoral minor salivary gland tumours. Lopes MA, et al. **J Oral Pathol Med** 1999 Jul;28(6):264–7

Immunohistochemical evaluation of the small and large proteoglycans in pleomorphic adenoma of salivary glands. Zhao M, et al. **J Oral Pathol Med** 1999 Jan;28(1):37–42

Myoepithelioma of the gingiva. Report of a case. Piattelli A, et al. **J Periodontol** 1999 Jun;70(6):683–7

The specific distribution of dendritic interstitial cells at the tumor border of major salivary gland pleomorphic adenomas. Nakayama H, et al. **Mod Pathol** 1999 May; 12(5):445–9

Metastasizing mixed tumor of the parotid gland: a rare tumor with unusually rapid progression in a cardiac transplant recipient. Sampson BA, et al. **Mod Pathol** 1998 Nov; 11(11):1142–5

Characterization of the cellular component of polymorphous low-grade adenocarcinoma by immunohistochemistry and electron microscopy. Araújo V, et al. **Oral Oncol** 1999 Mar; 35(2):164–72

Hybrid tumors or salivary gland tumors sharing common differentiation pathways? Reexamining adenoid cystic and epithelial-myoepithelial carcinomas. Grenko RT, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Aug;86(2):188–95

Acinic cell carcinoma and PAS-positive granules [letter] Slater LJ. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):507–8

Pleomorphic adenoma of the minor salivary gland with pseudoepitheliomatous hyperplasia of the overlying oral mucosa: report of two cases. Takeda Y, et al. **Pathol Int** 1998 May;48(5):389–95

Epithelial-myoepithelial carcinoma of the salivary gland--a low grade malignant neoplasm? Report of two cases and review of the literature. Kasper HU, et al. **Pathol Res Pract** 1999;195(3):189–92 (27 ref.)

Oncocytic and oncocytoid tumors of the salivary glands. Paulino AF, et al. **Semin Diagn Pathol** 1999 May; 16(2):98–104 (31 ref.)

Reconstruction of pleomorphic adenoma of the salivary glands in three-dimensional collagen gel matrix culture. Fujita Y, et al. **Virchows Arch** 1999 Feb;434(2):137–43

Oncocytic myoepithelioma and pleomorphic adenoma of the salivary glands. Skálová A, et al. **Virchows Arch** 1999 Jun; 434(6):537–46

[A case of very late malignant degeneration of pleomorphic adenoma] Darche V, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Dec;115(6):373–7 (Eng. Abstr.) **(Fre)**

[Epithelial-myoepithelial carcinoma of the salivary glands: report of a case] Thiébault S, et al. **Ann Pathol** 1999 Mar; 19(1):30–2 (Eng. Abstr.) **(Fre)**

[Salivary gland lesions: cytopathologic difficulties and genotypic promises (editorial)] Vielh P. **Ann Pathol** 1999 Mar;19(1):10–1 **(Fre)**

[Proliferative activity in recurrent and nonrecurrent pleomorphic adenoma of the salivary glands] Bankamp DG, et al. **Laryngorhinootologie** 1999 Feb;78(2):77–80 (Eng. Abstr.) **(Ger)**

[Basal cell adenocarcinoma of the minor salivary glands of the palate. Case report and review of the literature] Plath T, et al. **Mund Kiefer Gesichtschir** 1998 Sep;2(5):275–8 (22 ref.) (Eng. Abstr.) **(Ger)**

[Adenolymphoma (Warthin's tumor) of the larynx: coexistence with the bilateral laryngocele. Contribution to differential diagnosis with oncocytic papillary cystadenoma] Jordan J, et al. **Otolaryngol Pol** 1999; 53(2):213–6 (Eng. Abstr.) **(Pol)**

RADIOGRAPHY

[CT densitometry for the grading of subcutaneous fibrosis after the photon-neutron therapy of malignant salivary gland tumors] Eich HT, et al. **Strahlenther Onkol** 1999 Mar; 175(3):128–32 (Eng. Abstr.) **(Ger)**

[Adenolymphoma (Warthin's tumor) of the larynx: coexistence with the bilateral laryngocele. Contribution to differential diagnosis with oncocytic papillary cystadenoma] Jordan J, et al. **Otolaryngol Pol** 1999; 53(2):213–6 (Eng. Abstr.) **(Pol)**

RADIONUCLIDE IMAGING

Spurious metastasis on whole body scans in a patient with thyroid carcinoma. Bajramovic S, et al. **J Endocrinol Invest** 1998 Sep;21(8):541–3

RADIOTHERAPY

Neutron radiotherapy for the treatment of locally advanced major salivary gland tumors. Douglas JG, et al. **Head Neck** 1999 May;21(3):255–63

Role of radiotherapy for mucoepidermoid carcinoma of salivary gland. Hosokawa Y, et al. **Oral Oncol** 1999 Jan; 35(1):105–11

The role of high-LET radiotherapy compared to conformal photon radiotherapy in adenoid cystic carcinoma. Debus J, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:63–5 (12 ref.)

Results of fast neutron therapy of adenoid cystic carcinoma of the salivary glands. Pötter R, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:65–8

[CT densitometry for the grading of subcutaneous fibrosis after the photon-neutron therapy of malignant salivary gland tumors] Eich HT, et al. **Strahlenther Onkol** 1999 Mar; 175(3):128–32 (Eng. Abstr.) **(Ger)**

SECONDARY

Spurious metastasis on whole body scans in a patient with thyroid carcinoma. Bajramovic S, et al. **J Endocrinol Invest** 1998 Sep;21(8):541–3

[Docetaxel in the treatment of metastatic carcinoma of the salivary glands: report of a case] Belli F, et al. **Clin Ter** 1999 Jan-Feb;150(1):77–9 (Eng. Abstr.) **(Ita)**

SURGERY

Parotid gland carcinoma: analysis of prognostic factors. Calearo C, et al. **Ann Otol Rhinol Laryngol** 1998 Nov; 107(11 Pt 1):969–73

Metastasizing pleomorphic adenoma: a report of three cases. Hoorweg JJ, et al. **Eur J Surg Oncol** 1998 Oct;24(5):452–5

Neck dissection in the treatment of cancer of major salivary glands. Medina JE. **Otolaryngol Clin North Am** 1998 Oct; 31(5):815–22 (21 ref.)

[Surgical management of a pleiomorphic adenoma of unusual location] Gyuris R, et al. **Fogorv Sz** 1999 Jan;92(1):17–22 (Eng. Abstr.) **(Hun)**

[Neck Dissection for salivary gland carcinoma] Ishinaga H, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul; 101(7):895–9 (Eng. Abstr.) **(Jpn)**

[Atypical localization of polymorphic adenoma] Chmurzyńska A, et al. **Otolaryngol Pol** 1997;51 Suppl 25:90–4 (Eng. Abstr.) **(Pol)**

[Salivary gland tumor in authors' material] Markucki S, et al. **Otolaryngol Pol** 1997;51 Suppl 25:70–2 (Eng. Abstr.) **(Pol)**

THERAPY

Salivary gland carcinomas--prognostic factors. Therkildsen MH, et al. **Acta Oncol** 1998;37(7–8):701–13

ULTRASONOGRAPHY

Ultrasonography in the diagnosis of palatal tumors. Ishii J, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):39–43

[Evaluation of the diagnostic value of color Doppler ultrasound examination of salivary gland neoplasms and metastatic tumors from the facial bones] Falkowski A. **Ann Acad Med Stetin** 1998;44:209–21 (Eng. Abstr.) **(Pol)**

ULTRASTRUCTURE

Basal cell adenocarcinoma of the salivary gland: an ultrastructural and immunohistochemical study. Quddus MR, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):485–92

VIROLOGY

Human papillomavirus, Epstein-Barr virus, human herpesvirus 8 and human cytomegalovirus involvement in salivary gland tumours. Atula T, et al. **Oral Oncol** 1998 Sep;34(5):391–5

EBER oligonucleotide RNA in situ hybridization in EBV associated neoplasms. Tornóczky T, et al. **Pathol Oncol Res** 1998;4(3):201–5

The detection of Epstein-Barr virus in the lesions of salivary glands. Kim KI, et al. **Pathol Res Pract** 1999;195(6):407–12

[The significance of detecting EB virus and its products in benign and malignant lymphoepithelial lesions of the salivary glands] Lin H, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Aug;26(4):225–8 (Eng. Abstr.) **(Chi)**

SALIVARY GLAND TUMOR, MIXED see **ADENOMA, PLEOMORPHIC**

SALIVARY GLAND VIRUS DISEASE see **CYTOMEGALOVIRUS INFECTIONS**

SALIVARY GLAND VIRUSES see **CYTOMEGALOVIRUS**

SALIVARY GLANDS

consider also terms at SIAL-

see related

SIALOGRAPHY

Proceedings of the 2nd Symposium on Salivary Glands. Cagliari, Italy, May 23–25, 1997. Dedicated to Niels Steensen (Niccolò Stenone). **Eur J Morphol** 1998 Aug;36 Suppl:1–266

A review of heterotopia and associated salivary gland neoplasms of the head and neck. Ferlito A, et al. **J Laryngol Otol** 1999 Apr;113(4):299–303 (54 ref.)

ABNORMALITIES

Salivary gland aplasia with cleft lip and palate: a case report and review of the literature. Matsuda C, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):594–9 (43 ref.)

ANATOMY & HISTOLOGY

Salivary gland sexual dimorphism: a brief review. Pinkstaff CA. **Eur J Morphol** 1998 Aug;36 Suppl:31–4 (22 ref.)

Historical note: Giuseppe Oronzo Giannuzzi and the discovery of the serous demilunes and of the intercellular canaliculi. Riva A, et al. **Eur J Morphol** 1998 Aug;36 Suppl:15–8

Morphological and biochemical analyses of the salivary glands of the malaria vector, Anopheles darlingi. Moreira-Ferro CK, et al. **Tissue Cell** 1999 Jun;31(3):264–73

CHEMISTRY

Salivary heme proteins distinguish Rhodnius prolixus from Rhodnius robustus (Hemiptera: Reduviidae: Triatominae). Soares RP, et al. **Acta Trop** 1998 Nov 30;71(3):285–91

MUC5B is a major gel-forming, oligomeric mucin from human salivary gland, respiratory tract and endocervix: identification of glycoforms and C-terminal cleavage. Wickström C, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):685–93

Aquaporin-5 (AQP5), a water channel protein, in the rat salivary and lacrimal glands: immunolocalization and effect of secretory stimulation. Matsuzaki T, et al. **Cell Tissue Res** 1999 Mar;295(3):513–21

Salivary gland cytokine expression in NOD and normal BALB/c mice. Yamano S, et al. **Clin Immunol** 1999 Sep; 92(3):265–75

Localisation of P2X receptors in human salivary gland epithelial cells and human embryonic kidney cells by sodium dodecyl sulfate-polyacrylamide gel electrophoresis/Western blotting and immunofluorescence. Worthington RA, et al. **Electrophoresis** 1999 Jul; 20(10):2065–70

New insights into the upregulation and function of the salivary Na+-K+-2Cl- cotransporter. Evans RL, et al. **Eur J Morphol** 1998 Aug;36 Suppl:142–6 (14 ref.)

Snare proteins essential for cyclic AMP-regulated exocytosis in salivary glands. Fujita-Yoshigaki J, et al. **Eur J Morphol** 1998 Aug;36 Suppl:46–9 (24 ref.)

Salivary gland nucleotide receptors: evidence for functional expression of both P2X and P2Y subtypes. Turner JT, et al. **Eur J Morphol** 1998 Aug;36 Suppl:170–5

Cloning, nucleotide sequence and expression of the gene encoding factor Xa inhibitor from the salivary glands of the tick, Ornithodoros savignyi. Joubert AM, et al. **Exp Appl Acarol** 1998 Oct;22(10):603–19

Differential expression of laminin chains in the human major salivary gland. Strassburger S, et al. **Histochem J** 1998 Feb; 30(2):81–8

Delineation of conformational preferences in human salivary statherin by 1H, 31P NMR and CD studies: sequential assignment and structure-function correlations. Naganagowda GA, et al. **J Biomol Struct Dyn** 1998 Aug; 16(1):91–107

Salivary glands of the sand fly Phlebotomus papatasi contain pharmacologically active amounts of adenosine and 5'-AMP. Ribeiro JM, et al. **J Exp Biol** 1999 Jun;202 (Pt

11):1551-9
Presence of endothelin-1 in human salivary glands and tumors. Nakamizo M, et al. **Nippon Ika Daigaku Zasshi** 1998 Dec;65(6):471-7
[Caragana arborescens lectin--a marker of myoepitheliocytes of salivary glands] Iashchenko AM, et al. **Morfologiia** 1999; 116(4):48-51 (Eng. Abstr.) **(Rus)**

CYTOLOGY

Evidence of a phenotypically determined ductal cell lineage in mouse salivary glands. Denny PC, et al. **Anat Rec** 1999 Sep 1;256(1):84-90
Membrane stretch and salivary glands - facts and theories. Zelles T, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S67-71 (42 ref.)
Detection of anti-Ro/SSA and anti-La/SSB autoantibody-producing cells in salivary glands from patients with Sjögren's syndrome. Tengner P, et al. **Arthritis Rheum** 1998 Dec;41(12):2238-48
Extracellular matrix protein-induced changes in human salivary epithelial cell organization and proliferation on a model biological substratum. Wang S, et al. **Biomaterials** 1999 Jun;20(11):1043-9
In vivo repair during G1 of DNA lesions eliciting sister chromatid exchanges induced by methylnitrosourea or ethylnitrosourea in BrdU substituted or unsubstituted DNA in murine salivary gland cells. González-Beltrán F, et al. **Mutat Res** 1999 Apr 6;425(2):239-47
Cytokeratin immunostaining in normal dog major and minor salivary glands. Sozmen M, et al. **Vet Res** 1998 Sep-Oct; 29(5):457-65
[Histochemical study with lectins submucous glands of the hamster's tongue] Melgarejo Moreno P, et al. **An Otorrinolaringol Ibero Am** 1999;26(3):249-55 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Purines, a new class of agonists in salivary glands? Dehaye JP, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S39-43 (23 ref.)
Extracellular matrix protein-induced changes in human salivary epithelial cell organization and proliferation on a model biological substratum. Wang S, et al. **Biomaterials** 1999 Jun;20(11):1043-9
Influence of 2-acetylaminofluorene (2-AAF) on biotransformation and lipid peroxidation in salivary glands and liver from male rats. Jahn F, et al. **Exp Toxicol Pathol** 1998 Sep;50(4-6):465-71
Radioprotection of salivary glands by S-2-(3-aminopropylamino)-ethylphosphorothioic (amifostine) obtained in a rabbit animal model. Bohuslavizki KH, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1; 45(1):181-6
Preemptive pharmacologic intervention in radiation-induced salivary dysfunction. Taylor SE, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):14-26 (154 ref.)
Salivary gland protection by amifostine in high-dose radioiodine therapy of differentiated thyroid cancer. Bohuslavizki KH, et al. **Strahlenther Onkol** 1999 Feb; 175(2):57-61

EMBRYOLOGY

Cell fate specification in the Drosophila salivary gland: the integration of homeotic gene function with the DPP signaling cascade. Henderson KD, et al. **Dev Biol** 1999 Jan 1;205(1):10-21
saliva, a new Drosophila gene expressed in the embryonic salivary glands with homologues in plants and vertebrates. Artero RD, et al. **Mech Dev** 1998 Jul;75(1-2):159-62
WRS-85D: A tryptophanyl-tRNA synthetase expressed to high levels in the developing Drosophila salivary gland. Seshaiah P, et al. **Mol Biol Cell** 1999 May;10(5):1595-608

ENZYMOLOGY

Renin in exocrine glands of different mouse strains. Kon Y, et al. **Anat Histol Embryol** 1999 Aug;28(4):239-42
Expression of mitogen activated protein kinases in labial salivary glands of patients with Sjögren's syndrome. Nakamura H, et al. **Ann Rheum Dis** 1999 Jun;58(6):382-5
Immunoelectron microscopic identification of lysozyme-expressing cells in human labial salivary glands. Miyazaki T, et al. **Arch Histol Cytol** 1998 Aug; 61(3):199-214
Distribution of V-ATPase in rat salivary glands. Roussa E, et al. **Eur J Morphol** 1998 Aug;36 Suppl:147-52
Promoter-directed expression of recombinant fire-fly luciferase in the salivary glands of Hermes-transformed Aedes aegypti. Coates CJ, et al. **Gene** 1999 Jan 21; 226(2):317-25
Double-sided staining with a gold probe and silver enhancement to detect alpha-amylase and sugar moieties in the mouse salivary glands. Menghi G, et al. **Histol Histopathol** 1999 Jul;14(3):687-95
Characterization of apyrase activity from the salivary glands of the cat flea Ctenocephalides felis. Cheeseman MT. **Insect Biochem Mol Biol** 1998 Dec;28(12):1025-30
Alpha-amylase functions as a salivary gland-specific self T cell epitope in patients with Sjögren's syndrome. Matsumoto I, et al. **Int J Mol Med** 1999 May;3(5):485-90
Protein kinase C delta is essential for etoposide-induced apoptosis in salivary gland acinar cells. Reyland ME, et al. **J Biol Chem** 1999 Jul 2;274(27):19115-23
High levels of GM1-ganglioside beta-galactosidase in the salivary glands and GM1-like-ganglioside storage in parotids of deficient mice. Nowroozi N, et al. **J Craniofac Genet Dev Biol** 1999 Jan-Mar;19(1):41-7
Purification and cloning of the salivary peroxidase/catechol oxidase of the mosquito Anopheles albimanus. Ribeiro JM, et al. **J Exp Biol** 1999 Apr;202 (Pt 7):809-16
WRS-85D: A tryptophanyl-tRNA synthetase expressed to high levels in the developing Drosophila salivary gland. Seshaiah P, et al. **Mol Biol Cell** 1999 May;10(5):1595-608
Tear lysozyme activity in frozen Schirmer strips and salivary gland biopsy as parameters of lacrimal gland function. Klaeger AJ, et al. **Ocul Immunol Inflamm** 1999 Mar;7(1):3-6
Identification of carbonic anhydrase IV and VI mRNA expression in human pancreas and salivary glands. Fujikawa-Adachi K, et al. **Pancreas** 1999 May;18(4):329-35

GROWTH & DEVELOPMENT

HGF controls branched morphogenesis in tubular glands. Maffe A, et al. **Eur J Morphol** 1998 Aug;36 Suppl:74-81 (55 ref.)

IMMUNOLOGY

L11, a unique anti-CD43 monoclonal antibody, inhibits the adoptive transfer of diabetes and pancreatic islet, salivary gland, and lacrimal gland inflammation in NOD/scid mice. Mikulowska A, et al. **Cell Immunol** 1999 May 25; 194(1):112-7
Abundance of NKT cells in the salivary glands but absence thereof in the liver and thymus of aly/aly mice with Sjögren syndrome. Narita J, et al. **Cell Immunol** 1999 Mar 15;192(2):149-58
Salivary gland changes in the NOD mouse model for Sjögren's syndrome: is there a non-immune genetic trigger? Humphreys-Beher MG, et al. **Eur J Morphol** 1998 Aug; 36 Suppl:247-51
Molecular characterization of a Haemaphysalis longicornis tick salivary gland-associated 29-kilodalton protein and its effect as a vaccine against tick infestation in rabbits. Mulenga A, et al. **Infect Immun** 1999 Apr;67(4):1652-8
Alpha-amylase functions as a salivary gland-specific self T cell epitope in patients with Sjögren's syndrome. Matsumoto I, et al. **Int J Mol Med** 1999 May;3(5):485-90
Phlebotomus papatasi sand fly salivary gland lysate down-regulates a Th1, but up-regulates a Th2, response in mice infected with Leishmania major. Mbow ML, et al. **J Immunol** 1998 Nov 15;161(10):5571-7
Extrahepatic manifestations of chronic hepatitis C infection and the interrelationship between primary Sjögren's syndrome and hepatitis C in Swedish patients. Verbaan H, et al. **J Intern Med** 1999 Feb;245(2):127-32
T(H)1 cytokines are produced in labial salivary glands in Sjögren's syndrome, but also in healthy individuals. Konttinen YT, et al. **Scand J Rheumatol** 1999;28(2):106-12

INNERVATION

Neural activity of the superior salivatory nucleus in rats. Matsuo R, et al. **Eur J Morphol** 1998 Aug;36 Suppl:203-7

METABOLISM

Localization and expression of AQP5 in cornea, serous salivary glands, and pulmonary epithelial cells. Funaki H, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1151-7
Endogenous salivary inhibitors of human immunodeficiency virus. Shugars DC, et al. **Arch Oral Biol** 1999 Jun; 44(6):445-53 (68 ref.)
Fas (APO-1/CD95)-assisted suicide in NOD exocrine glands [editorial; comment] Elkon KB. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):659-61 (23 ref.). Comment on: Clin Exp Rheumatol 1998 Nov-Dec;16(6):659-61.
Inappropriate apoptosis of salivary and lacrimal gland epithelium of immunodeficient NOD-scid mice. Kong L, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):675-81
New insights into the upregulation and function of the salivary Na+-K+-2Cl- cotransporter. Evans RL, et al. **Eur J Morphol** 1998 Aug;36 Suppl:142-6 (14 ref.)
NMR studies of salivary glands: from energy metabolism to morphology. Seo Y, et al. **Eur J Morphol** 1998 Aug;36 Suppl:98-102 (20 ref.)
TGF-beta1 inhibits NF-kappaB activity through induction of IkappaB-alpha expression in human salivary gland cells: a possible mechanism of growth suppression by TGF-beta1. Azuma M, et al. **Exp Cell Res** 1999 Jul 10; 250(1):213-22
In-situ hybridization localized MUC7 mucin gene expression to the mucous acinar cells of human and MUC7-transgenic mouse salivary glands. Khan SH, et al. **Glycoconj J** 1998 Dec;15(12):1125-32
Cellular localization of kallistatin and tissue kallikrein in human pancreas and salivary glands. Wolf WC, et al. **Histochem Cell Biol** 1998 Nov;110(5):477-84
Radioautographic studies on radiosulfate incorporation in the digestive organs of mice. Nagata T, et al. **Histol Histopathol** 1999 Jul;14(3):813-20
Adenoassociated virus-mediated transfer of a functional water channel into salivary epithelial cells in vitro and in vivo. Braddon VR, et al. **Hum Gene Ther** 1998 Dec 10; 9(18):2777-85
Production of beta-defensin antimicrobial peptides by the oral mucosa and salivary glands. Mathews M, et al. **Infect Immun** 1999 Jun;67(6):2740-5
Identification of surface molecules on salivary glands of the mosquito, Aedes aegypti, by a panel of monoclonal antibodies. Barreau C, et al. **Insect Biochem Mol Biol** 1999 Jun;29(6):515-26
Profile of the ecdysteroid hormone and its receptor in the salivary gland of the adult female tick, Amblyomma hebraeum. Mao H, et al. **Insect Biochem Mol Biol** 1999 Jan;29(1):33-42
Salivary clearance and urinary metabolic pattern of caffeine in healthy children and in pediatric patients with hepatocellular diseases. el-Yazigi A, et al. **J Clin Pharmacol** 1999 Apr;39(4):366-72
Immunohistochemical localization of fibroblast growth factors (FGFs) and FGF receptor-1 in human normal salivary glands and pleomorphic adenomas. Kusafuka K, et al. **J Oral Pathol Med** 1998 Aug;27(7):287-92
Elevated production of salivary nitric oxide in oral mucosal diseases. Ohashi M, et al. **J Oral Pathol Med** 1999 Sep; 28(8):355-9
Vascular endothelial growth factor is constitutively expressed in normal human salivary glands and is secreted in the saliva of healthy individuals. Pammer J, et al. **J Pathol** 1998 Oct;186(2):186-91
Expression of CD40/CD40 ligand and Bcl-2 family proteins in labial salivary glands of patients with Sjögren's syndrome. Nakamura H, et al. **Lab Invest** 1999 Mar; 79(3):261-9
Pleomorphic adenoma gene 1 is expressed in cultured benign and malignant salivary gland tumor cells. Queimado L, et al. **Lab Invest** 1999 May;79(5):583-9
Trapping cDNAs encoding secreted proteins from the salivary glands of the malaria vector Anopheles gambiae. Arcá B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1516-21
Tsetse thrombin inhibitor: bloodmeal-induced expression of an anticoagulant in salivary glands and gut tissue of Glossina morsitans. Cappello M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14290-5
Na(+)-H(+) exchange in salivary secretory cells is controlled by an intracellular Na(+) receptor. Ishibashi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9949-53
[Histochemical study with lectins submucous glands of the hamster's tongue] Melgarejo Moreno P, et al. **An Otorrinolaringol Ibero Am** 1999;26(3):249-55 (Eng. Abstr.) **(Spa)**

MICROBIOLOGY

Comparison of surface proteins of Anaplasma marginale grown in tick cell culture, tick salivary glands, and cattle. Barbet AF, et al. **Infect Immun** 1999 Jan;67(1):102-7

PARASITOLOGY

The modified DNA base beta-D-glucosyl-hydroxymethyluracil is not found in the tsetse fly stages of Trypanosoma brucei. van Leeuwen F, et al. **Mol Biochem Parasitol** 1998 Jul 1;94(1):127-30
Direct comparison of microscopy and polymerase chain reaction for the detection of Plasmodium sporozoites in salivary glands of mosquitoes. Wilson MD, et al. **Trans R Soc Trop Med Hyg** 1998 Sep-Oct;92(5):482-3

PATHOLOGY

MR sialography? [editorial; comment] Dillon WP. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1183. Comment on: AJNR Am J Neuroradiol 1998 Aug;19(7):1199-203.
Salivary gland enlargement and elevated serum amylase in bulimia nervosa. Metzger ED, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1520-2
Apoptosis in labial salivary glands from Sjögren's syndrome (SS) patients: comparison with human T lymphotropic virus-I (HTLV-I)-seronegative and -seropositive SS patients. Nakamura H, et al. **Clin Exp Immunol** 1998 Oct; 114(1):106-12
Fine-needle sampling of salivary gland lesions. VII. Cytology and histology correlation of five cases of epithelial-myoepithelial carcinoma. Klijanienko J, et al. **Diagn Cytopathol** 1998 Dec;19(6):405-9
Lymphoid complement of the human salivary glands: function and pathology. Ciccone E, et al. **Eur J Morphol** 1998 Aug;36 Suppl:252-6 (13 ref.)
Salivary gland changes in the NOD mouse model for Sjögren's syndrome: is there a non-immune genetic trigger? Humphreys-Beher MG, et al. **Eur J Morphol** 1998 Aug; 36 Suppl:247-51
Does a parasite have a better chance of survival if an Inuit or a Mayan spits on it? Shields ED. **J Craniofac Genet Dev Biol** 1998 Jul-Sep;18(3):171-81
Low prevalence of clinicopathologic and sialographic changes in salivary glands of men with Sjögren's syndrome. Saito T, et al. **J Oral Pathol Med** 1999 Aug;28(7):312-6
Is labial salivary gland biopsy useful? [letter; comment] Paccalin M, et al. **J Rheumatol** 1999 Jan;26(1):231. Comment on: J Rheumatol 1998 Feb;25(2):247-53.
Quantitation of histochemical staining of salivary gland mucin using image analysis in cats and dogs. Sozmen M, et al. **Vet Res** 1999 Jan-Feb;30(1):99-108

SALIVARY GLANDS

PHYSIOLOGY

Re-engineering the functions of a terminally differentiated epithelial cell in vivo. Baum BJ, et al. **Ann N Y Acad Sci** 1999 Jun 18;875:294–300 (30 ref.)

Lymphoid complement of the human salivary glands: function and pathology. Ciccone E, et al. **Eur J Morphol** 1998 Aug;36 Suppl:252–6 (13 ref.)

Preclinical and biological studies using recombinant adenoviruses encoding aquaporins 1 and 5. Delporte C, et al. **Eur J Morphol** 1998 Aug;36 Suppl:118–22 (17 ref.)

In memoriam, Nils Emmelin 1914–1997. Garrett JR. **Eur J Morphol** 1998 Aug;36 Suppl:5–14

HGF controls branched morphogenesis in tubular glands. Maffe A, et al. **Eur J Morphol** 1998 Aug;36 Suppl:74–81 (55 ref.)

Salivary gland nucleotide receptors: evidence for functional expression of both P2X and P2Y subtypes. Turner JT, et al. **Eur J Morphol** 1998 Aug;36 Suppl:170–5

Stress-induced morphohistochemical and functional changes in rat adrenal cortex, testis and major salivary glands. Pellegrini A, et al. **Histochem J** 1998 Oct;30(10):695–701

[The demonstration of steady-state Ca2+ influx into the cells of the salivary glands in Chironomus plumosus L. larvae and its role in basal secretion] Fedirko NV, et al. **Fiziol Zh** 1999;45(4):84–91 (Eng. Abstr.) **(Ukr)**

PHYSIOPATHOLOGY

Evidence for decreased salivary function in patients with reflux esophagitis. Kao CH, et al. **Digestion** 1999; 60(3):191–5

RADIATION EFFECTS

Salivary gland protection by amifostine in high-dose radioiodine treatment: results of a double-blind placebo-controlled study. Bohuslavizki KH, et al. **J Clin Oncol** 1998 Nov;16(11):3542–9

Is radiation-induced degranulation of mast cells in salivary glands induced by substance P? Aalto Y, et al. **Oral Oncol** 1998 Sep;34(5):332–9

Preemptive pharmacologic intervention in radiation-induced salivary dysfunction. Taylor SE, et al. **Proc Soc Exp Biol Med** 1999 May;221(1):14–26 (154 ref.)

RADIOGRAPHY see SIALOGRAPHY

RADIONUCLIDE IMAGING

Diagnostic accuracy of salivary scintigraphic indices in xerostomic populations. Hermann GA, et al. **Clin Nucl Med** 1999 Mar;24(3):167–72

NMR studies of salivary glands: from energy metabolism to morphology. Seo Y, et al. **Eur J Morphol** 1998 Aug;36 Suppl:98–102 (20 ref.)

Does salivary gland scintigraphy predict response to pilocarpine in patients with post-radiotherapy xerostomia? Cooper RA, et al. **Eur J Nucl Med** 1999 Mar;26(3):220–5

Quantitative evaluation of salivary gland scintigraphy in Sjörgen's syndrome. Umehara I, et al. **J Nucl Med** 1999 Jan;40(1):64–9

Quantitative salivary gland scintigraphy. Klutmann S, et al. **J Nucl Med Technol** 1999 Mar;27(1):20–6

[Radionuclide scan of the salivary glands] Vallejo Casas JA, et al. **Rev Esp Med Nucl** 1998;17(6):450–4 (39 ref.) **(Spa)**

SECRETION

Impact of aging on human salivary gland function: a community-based study. Yeh CK, et al. **Aging (Milano)** 1998 Oct;10(5):421–8

Fluoride concentration in whole saliva and separate gland secretions in schoolchildren after intake of fluoridated milk. Twetman S, et al. **Caries Res** 1998;32(6):412–6

The DNA puff BhB10-1 gene encodes a glycine-rich protein secreted by the late stage larval salivary glands of Bradysia hygida. Fontes AM, et al. **Gene** 1999 Apr 29;231(1–2):67–75

Longitudinal evaluation of salivary cortisol levels in full-term and preterm neonates. Bettendorf M, et al. **Horm Res** 1998; 50(6):303–8

Nitric oxide modulates salivary amylase and fluid, but not epidermal growth factor secretion in conscious rats. Lohinai Z, et al. **Life Sci** 1999;64(11):953–63

Role of nitric oxide in salivary secretion. Lomniczi A, et al. **Neuroimmunomodulation** 1998 Sep–Oct;5(5):226–33

Lack of immunological cross-reactivity of 36-kDa secretory salivary gland antigen of Hyalomma anatolicum anatolicum with Hyalomma dromedarii and Boophilus microplus ticks. Kumar S, et al. **Zentralbl Veterinarmed [B]** 1999 Aug; 46(6):405–10

[The stimulating effect of destabilase, a component of Hirudo medicinalis salivary gland secretion, on sensory neuron neurite growth in organotypic culture] Chalisova NI, et al. **Tsitologiia** 1999;41(1):48–52 (Eng. Abstr.) **(Rus)**

[Devices for saliva collection from the major salivary glands. Results in normal subjects (published erratum appears in Rev Med Chil 1998 Jul;126(7):887)] Morales I, et al. **Rev Med Chil** 1998 May;126(5):538–47 (Eng. Abstr.) **(Spa)**

SURGERY

Secretion from minor salivary glands following ablation of the major salivary glands in rats. Blazsek J, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S45–8

Gompertzian re-evaluation of the growth patterns of transplantable mammary tumours in sialoadenectomized mice. Bassukas ID. **Cell Prolif** 1994 Apr;27(4):201–11

ULTRASONOGRAPHY

[Comparative sonographic, x-ray and morphological studies of the salivary glands in Sjögren's syndrome] Varshavskii AI, et al. **Ter Arkh** 1999;71(5):61–7 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

Immunogold labeling of peroxidase in salivary gland acinar cells using an improved tissue preparation procedure: rapid freezing and Lowicryl embedding. Takano K, et al. **Eur J Morphol** 1998 Aug;36 Suppl:235–9

Ultrastructural changes of Drosophila larval and prepupal salivary glands cultured in vitro with ecdysone. Farkas R, et al. **In Vitro Cell Dev Biol Anim** 1998 Nov–Dec; 34(10):813–23

Differences in the width of the intercellular spaces in the epithelial basal infolding and the renal glomerular filtration site between freeze-substitution and conventional fixation. Iwasa H, et al. **J Anat** 1999 Feb;194 (Pt 2):215–21

VIROLOGY

Accumulation of human T lymphotropic virus type I-infected T cells in the salivary glands of patients with human T lymphotropic virus type I-associated Sjögren's syndrome. Ohyama Y, et al. **Arthritis Rheum** 1998 Nov; 41(11):1972–8

SV40 rodent tumour models as paradigms of human disease: transgenic mouse models. Furth PA. **Dev Biol Stand** 1998; 94:281–7 (15 ref.)

Human T cell leukemia virus type I expression in salivary glands of infected patients. Tangy F, et al. **J Infect Dis** 1999 Feb;179(2):497–502

Low copy numbers of human T-cell lymphotropic virus type I (HTLV-I) tax-like DNA detected in the salivary gland of seronegative patients with Sjögren's syndrome in an HTLV-I endemic area. Mizokami A, et al. **Scand J Rheumatol** 1998;27(6):435–40

Allogeneic immune responses augment rat cytomegalovirus replication in rats. Tamura K, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1376–7

SALIVARY GLANDS, MINOR

Minor labial salivary glands. Proceedings of a satellite symposium to the XVth Jubilee Arkovy Congress of Hungarian Dentists. Budapest, Hungary, August 28, 1998. **Arch Oral Biol** 1999 May;44 Suppl 1:S1–71

Lipomatosis of the minor salivary glands. Saleh HA, et al. **J Laryngol Otol** 1998 Sep;112(9):895–7 (19 ref.)

Gingival salivary gland choristoma. A case report. Ledesma-Montes C, et al. **J Periodontol** 1998 Oct; 69(10):1164–6 (12 ref.)

Pleomorphic adenoma of the minor salivary gland with pseudoepitheliomatous hyperplasia of the overlying oral mucosa: report of two cases. Takeda Y, et al. **Pathol Int** 1998 May;48(5):389–95

[Cases of pleomorphic adenoma originating in the minor salivary glands] Gierek T, et al. **Otolaryngol Pol** 1999; 53(3):323–5 (Eng. Abstr.) **(Pol)**

ANATOMY & HISTOLOGY

Morphological features of the minor salivary glands. Hand AR, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S3–10 (63 ref.)

CHEMISTRY

Localization of prostate-specific antigen-like immunoreactivity in human salivary gland and salivary gland tumors. Tazawa K, et al. **Pathol Int** 1999 Jun; 49(6):500–5

CYTOLOGY

Ro/SS-A-reactive B lymphocytes in salivary glands and peripheral blood of patients with Sjögren's syndrome. Halse A, et al. **Clin Exp Immunol** 1999 Jan;115(1):203–7

ENZYMOLOGY

Expression of metalloproteinase-2 (gelatinase A) in labial salivary glands of patients with Sjögren's syndrome with HTLV-I infection. Tominaga M, et al. **Clin Exp Rheumatol** 1999 Jul–Aug;17(4):463–6

Immunolocalization of aromatase in human minor salivary glands of the lower lip with primary Sjögren's syndrome. Onodera K, et al. **Pathol Int** 1998 Oct;48(10):786–90

GROWTH & DEVELOPMENT

Histochemical study of magellanic penguin (Spheniscus magellanicus) minor salivary glands during postnatal growth. Samar ME, et al. **Anat Rec** 1999 Feb 1; 254(2):298–306

IMMUNOLOGY

Analysis of V(H)-D-J(H) gene transcripts in B cells infiltrating the salivary glands and lymph node tissues of patients with Sjögren's syndrome. Gellrich S, et al. **Arthritis Rheum** 1999 Feb;42(2):240–7

Differential cytokine mRNA expression in human labial minor salivary glands in primary Sjögren's syndrome. Sun D, et al. **Autoimmunity** 1998;28(3):125–37

Anti-cytoplasmic autoantibodies reactive with epithelial cells of the salivary gland in sera from patients with Sjögren's syndrome: their disease- and organ-specificities. Sakamoto M, et al. **J Oral Pathol Med** 1999 Jan;28(1):20–5

[Immunohistochemical study of inflammatory infiltrates in minor salivary glands in Sjögren's syndrome and other autoimmune diseases] Tomás S, et al. **Med Clin (Barc)** 1998 Nov 28;111(18):681–6 (Eng. Abstr.) **(Spa)**

INNERVATION

Immunocytochemical localisation of neuropeptide-containing nerve fibres in human labial glands. Fehér E, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S33–7

METABOLISM

Cytokine expression in human labial minor salivary gland epithelial cells in health and disease. Fox PC, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S49–52

Expression of aquaporin 1 (AQP1) water channels in human labial salivary glands. Gresz V, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S53–7

Expression of B7 costimulatory molecules by salivary gland epithelial cells in patients with Sjögren's syndrome. Manoussakis MN, et al. **Arthritis Rheum** 1999 Feb; 42(2):229–39

Glandular and extraglandular expression of the Fas-Fas ligand and apoptosis in patients with Sjögren's syndrome. Matsumura R, et al. **Clin Exp Rheumatol** 1998 Sep–Oct; 16(5):561–8

Detection and quantification of MUC7 in submandibular, sublingual, palatine, and labial saliva by anti-peptide antiserum. Bolscher JG, et al. **J Dent Res** 1999 Jul; 78(7):1362–9

D-mannose and N-acetylglucosamine moieties and their respective binding sites in salivary glands of Sjögren's syndrome. Steinfeld S, et al. **J Rheumatol** 1999 Apr; 26(4):833–41

[The correlation between salivary endothelial expression of E-selectin and clinical and biological parameters in systemic scleroderma] Hebbar M, et al. **Rev Med Interne** 1998 Aug;19(8):537–41 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Adenomatoid hyperplasia in the mandibular retromolar area. Case report. Chen YK, et al. **Aust Dent J** 1999 Jun; 44(2):135–6

Fine-needle aspiration findings in patients with polymorphous low grade adenocarcinoma of the salivary glands. Gibbons D, et al. **Cancer** 1999 Feb 25;87(1):31–6

A clinicopathologic study of 196 intraoral minor salivary gland tumours. Lopes MA, et al. **J Oral Pathol Med** 1999 Jul;28(6):264–7

Sjögren's syndrome presenting with a minor salivary gland mass. Kemker BJ, et al. **J Otolaryngol** 1998 Oct; 27(5):298–300

Myoepithelioma of the gingiva. Report of a case. Piattelli A, et al. **J Periodontol** 1999 Jun;70(6):683–7

Labial salivary gland biopsy for diagnosis of amyloid polyneuropathy. Lechapt-Zalcman E, et al. **Muscle Nerve** 1999 Jan;22(1):105–7

[Biopsy of labial salivary glands and lacrimal glands in the diagnosis of Sjögren's syndrome] Xu K, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):222–5 (Eng. Abstr.) **(Chi)**

[Evaluation of parotid sialography and labial salivary gland biopsy to the diagnosis of Sjögren syndrome] Du D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec;19(6):447–50 (Eng. Abstr.) **(Chi)**

[Primary biliary cirrhosis and systemic scleroderma (Reynolds syndrome): apropos of 8 new cases. The contribution of accessory salivary gland biopsy] Launay D, et al. **Rev Med Interne** 1998 Jun;19(6):393–8 (Eng. Abstr.) **(Fre)**

[Basal cell adenocarcinoma of the minor salivary glands of the palate. Case report and review of the literature] Plath T, et al. **Mund Kiefer Gesichtschir** 1998 Sep;2(5):275–8 (22 ref.) (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

[The functional activity of the minor salivary glands of the lips in allergic cheilitis] Obraztsov IuL, et al. **Stomatologiia (Mosk)** 1999;78(3):15–8 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Radiation-induced hyposalivation and its treatment with oral pilocarpine. Niedermeier W, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):541–9

SECRETION

Secretion from minor salivary glands following ablation of

the major salivary glands in rats. Blazsek J, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S45–8

Study of saliva secretion and the salivary fluoride concentration of the human minor labial glands by a new method. Boros I, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S59–62

The flow rate and composition of human labial gland saliva. Ferguson DB. **Arch Oral Biol** 1999 May;44 Suppl 1:S11–4 (30 ref.)

Ion transport and signalling in human labial glands. Turner RJ, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S15–9 (35 ref.)

ULTRASONOGRAPHY

Ultrasonography in the diagnosis of palatal tumors. Ishii J, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):39–43

ULTRASTRUCTURE

A scanning and transmission electron microscope study of the human minor salivary glands. Riva A, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S27–31

SALIVARY PROTEINS

Human salivary histatins: promising anti-fungal therapeutic agents. Tsai H, et al. **Crit Rev Oral Biol Med** 1998; 9(4):480–97 (118 ref.)

ADMINISTRATION & DOSAGE

Evaluation of the use of xanthan as vehicle for cationic antifungal peptides. Ruissen AL, et al. **J Controlled Release** 1999 Jun 28;60(1):49–56

ANALYSIS

Quantitative and qualitative analyses of human salivary micelle-like globules. Young A, et al. **Acta Odontol Scand** 1999 Apr;57(2):105–10

Composition of pellicles formed in vivo on tooth surfaces in different parts of the dentition, and in vitro on hydroxyapatite. Carlén A, et al. **Caries Res** 1998; 32(6):447–55

A low concentration of carbonic anhydrase isoenzyme VI in whole saliva is associated with caries prevalence. Kivelä J, et al. **Caries Res** 1999 May–Jun;33(3):178–84

Salivary defence factor concentrations in relation to oral and general parameters in HIV positive patients. Grimoud AM, et al. **Eur J Oral Sci** 1998 Dec;106(6):979–85

The effect of exercising to exhaustion at different intensities on saliva immunoglobulin A, protein and electrolyte secretion. Blannin AK, et al. **Int J Sports Med** 1998 Nov; 19(8):547–52

Salivary lactoferrin and low-Mr mucin MG2 in Actinobacillus actinomycetemcomitans-associated periodontitis. Groenink J, et al. **J Clin Periodontol** 1999 May;26(5):269–75

Salivary sialic acid, protein, salivary flow rate, pH, buffering capacity and caries indices in subjects with Down's syndrome. Yarat A, et al. **J Dent** 1999 Feb;27(2):115–8

Detection and quantification of MUC7 in submandibular, sublingual, palatine, and labial saliva by anti-peptide antiserum. Bolscher JG, et al. **J Dent Res** 1999 Jul; 78(7):1362–9

Salivary histatins in patients with recurrent oral candidiasis. Bercier JG, et al. **J Oral Pathol Med** 1999 Jan;28(1):26–9

Periodontal conditions and salivary immunoglobulins in individuals with Down syndrome. Barr-Agholme M, et al. **J Periodontol** 1998 Oct;69(10):1119–23

The effects of high-intensity intermittent exercise on saliva IgA, total protein and alpha-amylase. Walsh NP, et al. **J Sports Sci** 1999 Feb;17(2):129–34

Levels of human defensin-1, an antimicrobial peptide, in saliva of patients with oral inflammation. Mizukawa N, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):539–43

Immunohistochemical localisation of tear lipocalin in human nasal mucosa. Fattori B, et al. **Rhinology** 1998 Sep; 36(3):101–3

The content of delmopinol and characterization of the molecular weight pattern of salivary protein precipitates. Freitas-Fernandes LB, et al. **Swed Dent J** 1999; 23(2–3):107–15

[Devices for saliva collection from the major salivary glands. Results in normal subjects (published erratum appears in Rev Med Chil 1998 Jul;126(7):887)] Morales I, et al. **Rev Med Chil** 1998 May;126(5):538–47 (Eng. Abstr.) **(Spa)**

BLOOD

Long-term ethanol exposure alters the sialylation index of plasma apolipoprotein J (Apo J) in rats. Ghosh P, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):720–5

CHEMISTRY

Interaction of tannin with human salivary proline-rich proteins. Lu Y, et al. **Arch Oral Biol** 1998 Sep;43(9):717–28

NMR studies of the antimicrobial salivary peptides histatin 3 and histatin 5 in aqueous and nonaqueous solutions. Brewer D, et al. **Biochem Cell Biol** 1998;76(2–3):247–56

Zn(2+) ions selectively induce antimicrobial salivary peptide histatin-5 to fuse negatively charged vesicles. Identification and characterization of a zinc-binding motif present in the functional domain. Melino S, et al. **Biochemistry** 1999 Jul 27;38(30):9626–33

Candidacidal activity prompted by N-terminus histatin-like domain of human salivary mucin (MUC7)1. Gururaja TL, et al. **Biochim Biophys Acta** 1999 Apr 12;1431(1):107–19

Equine CRISP-3: primary structure and expression in the male genital tract. Schambony A, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1–2):206–16

Salivary proteins in rheumatoid arthritis and Sjögren's syndrome: one-dimensional and two-dimensional electrophoretic studies. Beeley JA, et al. **Electrophoresis** 1999 Jun;20(7):1652–60

High-resolution electrophoretic analysis of rat parotid salivary proteins. Williams KM, et al. **Electrophoresis** 1999 Jun;20(7):1373–81

An isopeptide bond splitting enzyme from Hirudo medicinalis similar to gamma-glutamyl transpeptidase. Friedrich T, et al. **Eur J Biochem** 1998 Sep 1;256(2):297–302

Structural features of the human salivary mucin, MUC7. Gururaja TL, et al. **Glycoconj J** 1998 May;15(5):457–67

Delineation of conformational preferences in human salivary statherin by 1H, 31P NMR and CD studies: sequential assignment and structure-function correlations. Naganagowda GA, et al. **J Biomol Struct Dyn** 1998 Aug; 16(1):91–107

Construction and characterization of human salivary histatin-5 multimers. Situ H, et al. **J Dent Res** 1999 Feb; 78(2):690–8

Physico-chemical characterization of human von Ebner gland protein expressed in Escherichia coli: implications for its physiological role. Creuzenet C, et al. **Protein Expr Purif** 1998 Nov;14(2):254–60

The crystal structure of nitrophorin 4 at 1.5 A resolution: transport of nitric oxide by a lipocalin-based heme protein. Andersen JF, et al. **Structure** 1998 Oct 15;6(10):1315–27

[Protein diffusion patterns in human saliva] López RO, et al. **Rev Med Chil** 1998 Sep;126(9):1065–72 (Eng. Abstr.) **(Spa)**

GENETICS

Complete amino acid sequences and phosphorylation sites, determined by Edman degradation and mass spectrometry, of rat parotid destrin- and cofilin-like proteins. Kanamori T, et al. **Arch Oral Biol** 1998 Dec;43(12):955–67

Encoding of human basic and glycosylated proline-rich proteins by the PRB gene complex and proteolytic processing of their precursor proteins. Stubbs M, et al. **Arch Oral Biol** 1998 Oct;43(10):753–70

Gustin from human parotid saliva is carbonic anhydrase VI. Thatcher BJ, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):635–41

Purification, cloning, and synthesis of a novel salivary anti-thrombin from the mosquito Anopheles albimanus. Valenzuela JG, et al. **Biochemistry** 1999 Aug 24; 38(34):11209–15

Differential mucin MUC7 gene expression in invasive bladder carcinoma in contrast to uniform MUC1 and MUC2 gene expression in both normal urothelium and bladder carcinoma. Retz M, et al. **Cancer Res** 1998 Dec 15; 58(24):5662–6

Production of functional rat liver PSP protein in Escherichia coli. Oka T, et al. **Cell Mol Life Sci** 1999 Jan;55(1):131–4

Structure and polymorphism of the Chironomus thummi gene encoding special lobe-specific silk protein, ssp160. Berezikov E, et al. **Gene** 1998 Nov 26;223(1–2):347–54

The DNA puff BhB10-1 gene encodes a glycine-rich protein secreted by the late stage larval salivary glands of Bradysia hygida. Fontes AM, et al. **Gene** 1999 Apr 29;231(1–2):67–75

In-situ hybridization localized MUC7 mucin gene expression to the mucous acinar cells of human and MUC7-transgenic mouse salivary glands. Khan SH, et al. **Glycoconj J** 1998 Dec;15(12):1125–32

Cloning and characterization of an androgen-dependent acidic epididymal glycoprotein/CRISP1-like protein from the monkey. Sivashanmugam P, et al. **J Androl** 1999 May–Jun;20(3):384–93

mRNAs encoding a von Ebner's-like protein and the Huntington disease protein are induced in rat male germ cells by Sertoli cells. Syed V, et al. **J Biol Chem** 1999 Apr 16;274(16):10737–42

Expression of transcripts for cysteine-rich secretory proteins (CRISPs) in the murine lacrimal gland. Haendler B, et al. **J Cell Physiol** 1999 Mar;178(3):371–8

Sequence variations of the CST2 gene related to the polymorphism of salivary cystatin SA. Haga T, et al. **J Dent Res** 1999 Apr;78(4):835–9

Analyses of cDNA and recombinant protein for a potent vasoactive protein in saliva of a blood-feeding black fly, Simulium vittatum. Cupp MS, et al. **J Exp Biol** 1998 May; 201 (Pt 10):1553–61

Purification and cloning of the salivary nitrophorin from the hemipteran Cimex lectularius. Valenzuela JG, et al. **J Exp Biol** 1998 Sep;201 (Pt 18):2659–64

saliva, a new Drosophila gene expressed in the embryonic salivary glands with homologues in plants and vertebrates. Artero RD, et al. **Mech Dev** 1998 Jul;75(1–2):159–62

The MSG1 and AXR1 genes of Arabidopsis are likely to act independently in growth-curvature responses of hypocotyls. Watahiki MK, et al. **Planta** 1999 Jan; 207(3):362–9

Trapping cDNAs encoding secreted proteins from the salivary glands of the malaria vector Anopheles gambiae. Arcá B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1516–21

Expression and characterization of human salivary statherin from Escherichia coli using two different fusion constructs. Gilbert M, et al. **Protein Expr Purif** 1999 Jul;16(2):243–50

The main regulatory region in the murine PSP gene is a parotid gland enhancer. Laursen J, et al. **Transgenic Res** 1998 Nov;7(6):413–20

IMMUNOLOGY

Salivary defence factor concentrations in relation to oral and general parameters in HIV positive patients. Grimoud AM, et al. **Eur J Oral Sci** 1998 Dec;106(6):979–85

Effects of tobacco smoking on salivary immunoglobulin levels in immunodeficiency. Norhagen Engström G, et al. **Eur J Oral Sci** 1998 Dec;106(6):986–91

Lack of immunological cross-reactivity of 36-kDa secretory salivary gland antigen of Hyalomma anatolicum anatolicum with Hyalomma dromedarii and Boophilus microplus ticks. Kumar S, et al. **Zentralbl Veterinarmed [B]** 1999 Aug; 46(6):405–10

ISOLATION & PURIFICATION

Isolation of human salivary mucin MG2 by a novel method and characterization of its interactions with oral bacteria. Liu B, et al. **Arch Biochem Biophys** 1999 Apr 15; 364(2):286–93

Purification, cloning, and synthesis of a novel salivary anti-thrombin from the mosquito Anopheles albimanus. Valenzuela JG, et al. **Biochemistry** 1999 Aug 24; 38(34):11209–15

Purification and cloning of the salivary nitrophorin from the hemipteran Cimex lectularius. Valenzuela JG, et al. **J Exp Biol** 1998 Sep;201 (Pt 18):2659–64

METABOLISM

Developmental changes of sugar residues and secretory protein in mucous cells of the early postnatal rat parotid gland. Ikeda R, et al. **Anat Rec** 1999 Jun 1;255(2):155–61

The interaction between saliva and Actinobacillus actinomycetemcomitans influenced by the zeta potential. Groenink J, et al. **Antonie Van Leeuwenhoek** 1998 Apr; 73(3):279–88

Histatin 5 is a substrate and not an inhibitor of the Arg- and Lys-specific proteinases of Porphyromonas gingivalis. O'Brien-Simpson NM, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):474–8

Separate oligosaccharide determinants mediate interactions of the low-molecular-weight salivary mucin with neutrophils and bacteria. Prakobphol A, et al. **Biochemistry** 1999 May 25;38(21):6817–25

Expression of biological activity of draculin, the anticoagulant factor from vampire bat saliva, is strictly dependent on the appropriate glycosylation of the native molecule. Fernandez AZ, et al. **Biochim Biophys Acta** 1998 Oct 23;1425(2):291–9

Kinetic analysis on nitric oxide binding of recombinant Prolixin-S, a nitric oxide transport protein from the bloodsucking bug, Rhodnius prolixus. Kaneko Y, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):492–9

Identification of SLPI (secretory leukocyte protease inhibitor) in human mast cells using immunohistochemistry and in situ hybridisation. Westin U, et al. **Biol Chem** 1999 Apr;380(4):489–93

Salivary carbonic anhydrase isoenzyme VI is located in the human enamel pellicle. Leinonen J, et al. **Caries Res** 1999 May–Jun;33(3):185–90

A novel method to evaluate the relative tannin-binding capacities of salivary proteins. Fickel J, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Feb;122(2):225–9

Binding of the pili of Pseudomonas aeruginosa to a low-molecular-weight mucin and neutral cystatin of human submandibular-sublingual saliva. Reddy MS. **Curr Microbiol** 1998 Dec;37(6):395–402

Strains of Actinomyces naeslundii and Actinomyces viscosus exhibit structurally variant fimbrial subunit proteins and bind to different peptide motifs in salivary proteins. Li T, et al. **Infect Immun** 1999 May;67(5):2053–9

Salivary histatin 5 induces non-lytic release of ATP from Candida albicans leading to cell death. Koshlukova SE, et al. **J Biol Chem** 1999 Jul 2;274(27):18872–9

Cumulative correlations of lysozyme, lactoferrin, peroxidase, S-IgA, amylase, and total protein concentrations with adherence of oral viridans streptococci to microplates coated with human saliva. Rudney JD, et al. **J Dent Res** 1999 Mar;78(3):759–68

Measurement of adsorption of salivary proteins onto soft denture lining materials. Imai Y, et al. **J Prosthet Dent** 1999 Sep;82(3):348–51

The crystal structure of nitrophorin 4 at 1.5 A resolution: transport of nitric oxide by a lipocalin-based heme protein. Andersen JF, et al. **Structure** 1998 Oct 15;6(10):1315–27

PHARMACOLOGY

The PACAP-type I receptor agonist maxadilan from sand fly saliva protects mice against lethal endotoxemia by a

mechanism partially dependent on IL-10. Bozza M, et al. **Eur J Immunol** 1998 Oct;28(10):3120-7

A critical comparison of the hemolytic and fungicidal activities of cationic antimicrobial peptides. Helmerhorst EJ, et al. **FEBS Lett** 1999 Apr 23;449(2-3):105-10

Secretion of functional salivary peptide by Streptococcus gordonii which inhibits fimbria-mediated adhesion of Porphyromonas gingivalis. Kataoka K, et al. **Infect Immun** 1999 Aug;67(8):3780-5

Variation in the salivary peptide, maxadilan, from species in the Lutzomyia longipalpis complex. Lanzaro GC, et al. **Insect Mol Biol** 1999 May;8(2):267-75

The cellular target of histatin 5 on Candida albicans is the energized mitochondrion. Helmerhorst EJ, et al. **J Biol Chem** 1999 Mar 12;274(11):7286-91

The effects of histatin-derived basic antimicrobial peptides on oral biofilms. Helmerhorst EJ, et al. **J Dent Res** 1999 Jun;78(6):1245-50

Construction and characterization of human salivary histatin-5 multimers. Situ H, et al. **J Dent Res** 1999 Feb; 78(2):690-8

PHYSIOLOGY

Zn(2+) ions selectively induce antimicrobial salivary peptide histatin-5 to fuse negatively charged vesicles. Identification and characterization of a zinc-binding motif present in the functional domain. Melino S, et al. **Biochemistry** 1999 Jul 27;38(30):9626-33

Endogenous mucosal antiviral factors of the oral cavity. Shugars DC. **J Infect Dis** 1999 May;179 Suppl 3:S431-5 (33 ref.)

SALIVARY STONES see **SALIVARY GLAND CALCULI**

SALIVATION

see related
SIALORRHEA
XEROSTOMIA

Sicca symptoms, saliva and tear production, and disease variables in 636 patients with rheumatoid arthritis. Uhlig T, et al. **Ann Rheum Dis** 1999 Jul;58(7):415-22

DRUG EFFECTS

Treatment of xerostomia with the bile secretion-stimulating drug anethole trithione: a clinical trial. Hamada T, et al. **Am J Med Sci** 1999 Sep;318(3):146-51

Purines, a new class of agonists in salivary glands? Dehaye JP, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S39-43 (23 ref.)

The effect of ammonium glycopyrrolate (Robinul)-induced xerostomia on oral mucosal wetness and flow of gingival crevicular fluid in humans. Wolff MS, et al. **Arch Oral Biol** 1999 Feb;44(2):97-102

Prognostic value of the pilocarpine test to identify patients who may obtain long-term relief from xerostomia by acupuncture treatment. Blom M, et al. **Arch Otolaryngol Head Neck Surg** 1999 May;125(5):561-6

A brief overview of the oral complications in pediatric oncology patients and suggested management strategies. Chin EA. **ASDC J Dent Child** 1998 Nov-Dec;65(6):468-73 (50 ref.)

A study of salivary secretion in Parkinson's disease. Bagheri H, et al. **Clin Neuropharmacol** 1999 Jul-Aug;22(4):213-5

A pilot study of Salix SST (saliva-stimulating lozenges) in post-irradiation xerostomia. Senahayake F, et al. **Curr Med Res Opin** 1998;14(3):155-9

Effects of captopril and bradykinin on chorda tympani-induced salivation in cat. Stojic D. **Eur J Oral Sci** 1999 Feb;107(1):21-4

The effect of pilocarpine and biperiden on salivary secretion during and after radiotherapy in head and neck cancer patients. Rode M, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):373-8

Sympathetic mediation of salivation induced by intracerebroventricular pilocarpine in rats. Cecanho R, et al. **J Auton Nerv Syst** 1999 Apr 16;76(1):9-14

Nebulized scopolamine in the management of oral dribbling: three case reports. Zeppetella G. **J Pain Symptom Manage** 1999 Apr;17(4):293-5

The influence of hypothyroidism and thyroid replacement therapy on stimulated parotid flow rates. Dixit PS, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jan;87(1):55-60

Effects of the common cold and intranasal fluticasone propionate treatment on mucosal host defense assessed by human saliva. Lenander-Lumikari M, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jun;87(6):695-9

[Oral premedication with clonidine as an alternative in dental practice. The effects on the pain threshold, blood pressure and salivary flow] Fanini D, et al. **Minerva Stomatol** 1998 Sep;47(9):453-64 (57 ref.) (Eng. Abstr.) **(Ita)**

[Effects of propiverine hydrochloride (propiverine) on the muscarinic receptor binding affinity in guinea pig tissues and on salivation in conscious dogs] Nagao M, et al. **Nippon Yakurigaku Zasshi** 1999 Mar;113(3):157-66 (Eng. Abstr.) **(Jpn)**

[Kinetic assessment of salivary secretory response to citric acid. Differences with pilocarpine] Durán V, et al. **Rev Med Chil** 1998 Nov;126(11):1330-7 (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

A neurokinin-1 receptor antagonist reduced hypersalivation and gastric contractility related to emesis in dogs. Furukawa N, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1193-201

Effects of reducing submandibular blood flow on secretory responses to parasympathetic stimulation in anaesthetized cats. Hanna SJ, et al. **Exp Physiol** 1999 Jul;84(4):677-87

Sympathetic mediation of salivation induced by intracerebroventricular pilocarpine in rats. Cecanho R, et al. **J Auton Nerv Syst** 1999 Apr 16;76(1):9-14

[The demonstration of steady-state Ca2+ influx into the cells of the salivary glands in Chironomus plumosus L. larvae and its role in basal secretion] Fedirko NV, et al. **Fiziol Zh** 1999;45(4):84-91 (Eng. Abstr.) **(Ukr)**

RADIATION EFFECTS

A brief overview of the oral complications in pediatric oncology patients and suggested management strategies. Chin EA. **ASDC J Dent Child** 1998 Nov-Dec;65(6):468-73 (50 ref.)

The effect of pilocarpine and biperiden on salivary secretion during and after radiotherapy in head and neck cancer patients. Rode M, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):373-8

SALK VACCINE see **POLIOVIRUS VACCINE**

SALMO GAIRDNERI see **ONCORHYNCHUS MYKISS**

SALMO SALAR

Atypical bacterial gill disease in Atlantic salmon hatcheries in British Columbia. Brocklebank JR. **Can Vet J** 1999 Jan; 40(1):54

Infectious salmon anemia in Atlantic salmon. O'Halloran JL, et al. **Can Vet J** 1999 May;40(5):351-2

Isolation of infectious salmon anemia virus (ISAV) from Atlantic salmon in New Brunswick, Canada [published erratum appears in Dis Aquat Organ 1999 May 31;36(3):238] Bouchard D, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):131-7

Vibrio viscosus in farmed Atlantic salmon Salmo salar in Scotland: field and experimental observations. Bruno DW, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):161-6

Characterization and applications of a monoclonal antibody against infectious salmon anaemia virus. Falk K, et al. **Dis Aquat Organ** 1998 Oct 8;34(2):77-85

First identification of infectious salmon anaemia virus in North America with haemorrhagic kidney syndrome. Lovely JE, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):145-8

Effects of testosterone on gonadotropins, testes, and plasma 17alpha,20beta-dihydroxy-4-pregnene-3-one levels in postbreeding mature Atlantic salmon, Salmo salar, male parr. Antonopoulou E, et al. **J Exp Zool** 1999 Sep 1; 284(4):425-36

BLOOD

Identification of a pathogen-binding lectin in salmon serum. Ewart KV, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 May;123(1):9-15

Enhancement of anti-Aeromonas salmonicida activity in Atlantic salmon (Salmo salar) macrophages by a mannose-binding lectin. Ottinger CA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 May;123(1):53-9

Changes in serum concentration of a serum amyloid P-like pentraxin in Atlantic salmon, Salmo salar L., during infection and inflammation. Lund V, et al. **Dev Comp Immunol** 1999 Jan-Feb;23(1):61-70

EMBRYOLOGY

Muscle growth and development in normal-sex-ratio and all-female diploid and triploid Atlantic salmon. Johnston IA, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):1991-2016

Maternal blood, egg and larval thiamin levels correlate with larval survival in landlocked Atlantic salmon. Fisher JP, et al. **J Nutr** 1998 Dec;128(12):2456-66

GENETICS

Cloning and unusual expression profile of the aldolase B gene from Atlantic salmon. Llewellyn L, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):375-80

Cloning and physical mapping of Atlantic salmon (Salmo salar L.) telomeric sequences. Perez J, et al. **Heredity** 1999 Apr;82 Pt 4:409-14

The impact of ancestral tetraploidy on antibody heterogeneity in salmonid fishes. Hordvik I. **Immunol Rev** 1998 Dec;166:153-7 (28 ref.)

Characterisation of troponin-T from salmonid fish. Waddleton DM, et al. **J Muscle Res Cell Motil** 1999 Apr; 20(3):315-24

Molecular cloning and phylogenetic analysis of the Atlantic salmon immunoglobulin D gene. Hordvik I, et al. **Scand J Immunol** 1999 Aug;50(2):202-10

GROWTH & DEVELOPMENT

Muscle growth and development in normal-sex-ratio and all-female diploid and triploid Atlantic salmon. Johnston IA, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):1991-2016

IMMUNOLOGY

The impact of ancestral tetraploidy on antibody heterogeneity in salmonid fishes. Hordvik I. **Immunol Rev** 1998 Dec;166:153-7 (28 ref.)

Binding of soluble immune complexes to fractionated Atlantic salmon (Salmo salar L.) leucocytes. O'Dowd AM, et al. **Vet Immunol Immunopathol** 1999 May;68(2-4):149-57

METABOLISM

Structure of a non-psychrophilic trypsin from a cold-adapted fish species. Schrøder HK, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):780-98

GABA and GABA-transporter (GAT-1) immunoreactivities in the retina of the salmon (Salmo salar L.). Ekström P, et al. **Brain Res** 1998 Nov 23;812(1-2):179-85

Purification and characterization of two cysteine proteinase inhibitors from the skin of Atlantic salmon (Salmo salar L.). Synnes M. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Nov; 121(3):257-64

Does an association between pesticide use and subsequent declines in catch of Atlantic salmon (Salmo salar) represent a case of endocrine disruption? Fairchild WL, et al. **Environ Health Perspect** 1999 May;107(5):349-58

Excretion of flumequine in free-swimming Atlantic salmon (Salmo salar), determined by cannulation of the dorsal aorta, gall bladder and urethra. Sohlberg S, et al. **J Vet Pharmacol Ther** 1999 Feb;22(1):72-5

Carnitine palmitoyltransferase I, carnitine palmitoyltransferase II, and acyl-CoA oxidase activities in Atlantic salmon (Salmo salar). Frøyland L, et al. **Lipids** 1998 Sep;33(9):923-30

Induction of hepatic estrogen receptor in juvenile Atlantic salmon in vivo by the environmental estrogen, 4-nonylphenol. Yadetie F, et al. **Sci Total Environ** 1999 Aug 15;233(1-3):201-10

MICROBIOLOGY

A sensitive nested reverse transcriptase PCR assay to detect viable cells of the fish pathogen Renibacterium salmoninarum in Atlantic salmon (Salmo salar L.). Cook M, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3042-7

PARASITOLOGY

Changes in physiological parameters and feeding behaviour of Atlantic salmon Salmo salar infected with sea lice Lepeophtheirus salmonis. Dawson LH, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):89-99

Molecular characterization of the myxosporean associated with parasitic encephalitis of farmed Atlantic salmon Salmo salar in Ireland. Frasca S Jr, et al. **Dis Aquat Organ** 1999 Feb 26;35(3):221-33

Killing of Gyrodactylus salaris (Platyhelminthes, Monogenea) mediated by host complement. Harris PD, et al. **Parasitology** 1998 Aug;117 (Pt 2):137-43

Aqueous aluminium eliminates Gyrodactylus salaris (Platyhelminthes, Monogenea) infections in Atlantic salmon. Soleng A, et al. **Parasitology** 1999 Jul;119 (Pt 1):19-25

PHYSIOLOGY

Feedback control of gonadotropins in Atlantic salmon, Salmo salar, male parr.I. Castration effects in rematuring and nonrematuring fish. Antonopoulou E, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):132-41

Feedback control of gonadotropins in Atlantic salmon, Salmo salar, male parr.II. Aromatase inhibitor and androgen effects. Antonopoulou E, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):142-50

Regulation of gill cytosolic corticosteroid receptors in juvenile Atlantic salmon: interaction effects of growth hormone with prolactin and triiodothyronine. Shrimpton JM, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):262-74

Hsp70 and a 54 kDa protein (Osp54) are induced in salmon (Salmo salar) in response to hyperosmotic stress. Smith TR, et al. **J Exp Zool** 1999 Aug 1;284(3):286-98

VIROLOGY

Salmon pancreas disease virus, an alphavirus infecting farmed Atlantic salmon, Salmo salar L. Weston JH, et al. **Virology** 1999 Apr 10;256(2):188-95

SALMO SALMO see **SALMON**

SALMON

Assignment of disulfide linkages in chum salmon stanniocalcin. Hulova I, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):295-9

Heterogeneity of Atlantic salmon troponin-I. Jackman DM, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):478-84

Aspects of the epizootiology of pancreas disease in farmed Atlantic salmon Salmo salar in Ireland. Crockford T, et al. **Dis Aquat Organ** 1999 May 12;36(2):113-9

Different prevalences of Renibacterium salmoninarum detected by ELISA in Alaskan chinook salmon Oncorhynchus tshawytscha spawned from freshwater and

seawater. Meyers TR, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):101–5

Time course tissue distribution of infectious salmon anaemia virus in experimentally infected Atlantic salmon Salmo salar. Rimstad E, et al. **Dis Aquat Organ** 1999 May 12; 36(2):107–12

Efficacy of orally administered oxolinic acid and Vetoquinol, an oxolinic acid ester, for the treatment of furunculosis in Atlantic salmon Salmo salar held in seawater. Samuelsen OB, et al. **Dis Aquat Organ** 1999 Jun 23;37(1):53–9

Evidence for organochlorine contamination in tissues of salmonids in Lake Tahoe. Datta S, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):94–101

PCB congener patterns in rats consuming diets containing Great Lakes salmon: analysis of fish, diets, and adipose tissue. Jordan SA, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S207–S212

Are PCBs the major neurotoxicant in Great Lakes salmon? Seegal RF. **Environ Res** 1999 Feb;80(2 Pt 2):S38–S45

The crystal structure of anionic salmon trypsin in complex with bovine pancreatic trypsin inhibitor. Helland R, et al. **Eur J Biochem** 1998 Sep 1;256(2):317–24

Development of a sterile cold-smoked fish model. Joffraud JJ, et al. **J Appl Microbiol** 1998 Dec;85(6):991–8

GENETICS

Five multiplexed microsatellite loci for rapid response run identification of California's endangered winter chinook salmon. Greig C, et al. **Anim Genet** 1999 Aug;30(4):318–20

Isolation and cross species amplification of microsatellite loci useful for study of Pacific salmon. Nelson RJ, et al. **Anim Genet** 1999 Jun;30(3):228–9

Sequence features and phylogenetic analysis of the stress protein hsp90alpha in chinook salmon (Oncorhynchus tshawytscha), a poikilothermic vertebrate. Palmisano AN, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):784–91

Chromosomal localization and heterochromatin association of ribosomal RNA gene loci and silver-stained nucleolar organizer regions in salmonid fishes. Fujiwara A, et al. **Chromosome Res** 1998 Sep;6(6):463–71

Inheritance of nuclear DNA markers in gynogenetic haploid pink salmon. Spruell P, et al. **J Hered** 1999 Mar–Apr; 90(2):289–96

Natural selection promotes divergence of transferrin among salmonid species. Ford MJ, et al. **Mol Ecol** 1999 Jun; 8(6):1055–61

Phylogeny of salmonine fishes based on growth hormone introns: Atlantic (Salmo) and Pacific (Oncorhynchus) salmon are not sister taxa. Oakley TH, et al. **Mol Phylogenet Evol** 1999 Apr;11(3):381–93

METABOLISM

Unexpected BII conformer substate population in unoriented hydrated films of the d(CGCGAATTCGCG)2 dodecamer and of native B-DNA from salmon testes. Pichler A, et al. **Biophys J** 1999 Jul;77(1):398–409

Expression of salmon corticotropin-releasing hormone precursor gene in the preoptic nucleus in stressed rainbow trout. Ando H, et al. **Gen Comp Endocrinol** 1999 Jan; 113(1):87–95

Immunohistochemical localization of corticotropin-releasing factor in the brain and corticotropin-releasing factor and thyrotropin-stimulating hormone in the pituitary of chinook salmon (Oncorhynchus tshawytscha). Matz SP, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):151–60

Gonadotropin-releasing hormone (GnRH) in ancient teleosts, the bonytongue fishes: putative origin of salmon GnRH [see comments] O'neill DF, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):415–25. Comment in: Gen Comp Endocrinol 1998 Dec;112(3):296–302.

Confirmation of avermectin residues in food matrices with negative-ion atmospheric pressure chemical ionization liquid chromatography/mass spectrometry. Turnipseed SB, et al. **Rapid Commun Mass Spectrom** 1999;13(6):493–9

MICROBIOLOGY

Mobile drug resistance genes among fish bacteria. Sørum H. **APMIS Suppl** 1998;84:74–6 (10 ref.)

Cryptic luminescence in the cold-water fish pathogen Vibrio salmonicida. Fidopiastis PM, et al. **Arch Microbiol** 1999 Feb;171(3):205–9

Ulcerative dermatitis caused by Aeromonas salmonicida spp. salmonicida in farmed Atlantic salmon in British Columbia. Brocklebank JR. **Can Vet J** 1998 Feb;39(2):110

Development of a nested polymerase chain reaction for amplification of a sequence of the p57 gene of Renibacterium salmoninarum that provides a highly sensitive method for detection of the bacterium in salmonid kidney. Chase DM, et al. **Dis Aquat Organ** 1998 Nov 30; 34(3):223–9

False-positive fluorescence by pink salmon tissue and staphylococci in a rapid test for Escherichia coli. Himelbloom BH, et al. **J Food Prot** 1998 Sep;61(9):1119–23

Growth control of Listeria monocytogenes on cold-smoked salmon using a competitive lactic acid bacteria flora. Nilsson L, et al. **J Food Prot** 1999 Apr;62(4):336–42

Sensitive detection of Renibacterium salmoninarum in whole fry, blood, and other tissues of pacific salmon by reverse transcription-polymerase chain reaction. Rhodes LD, et al. **Mol Mar Biol Biotechnol** 1998 Dec;7(4):270–9

PARASITOLOGY

Efficacy of the fumagillin analog TNP-470 for Nucleospora salmonis and Loma salmonae infections in chinook salmon Oncorhynchus tshawytscha. Higgins MJ, et al. **Dis Aquat Organ** 1998 Sep 11;34(1):45–9

PHYSIOLOGY

Salmonid olfactory system-specific protein (N24) exhibits glutathione S-transferase class pi-like structure. Kudo H, et al. **J Neurochem** 1999 Apr;72(4):1344–52

VIROLOGY

The putative polymerase sequence of infectious salmon anemia virus suggests a new genus within the Orthomyxoviridae. Krossøy B, et al. **J Virol** 1999 Mar; 73(3):2136–42

Apoptosis precedes necrosis of fish cell line with infectious pancreatic necrosis virus infection. Hong JR, et al. **Virology** 1998 Oct 10;250(1):76–84

SALMON, ATLANTIC see **SALMO SALAR**

SALMON, CHINOOK see **SALMON**

SALMON, COHO see **ONCORHYNCHUS KISUTCH**

SALMON, PINK see **SALMON**

SALMON, SILVER see **ONCORHYNCHUS KISUTCH**

SALMON, SOCKEYE see **SALMON**

SALMONELLA

Detection of Salmonella contamination in food samples by dot-ELISA, DNA amplification and bacterial culture. Tapchaisri P, et al. **Asian Pac J Allergy Immunol** 1999 Mar; 17(1):41–51

Effects of proinflammatory cytokines and bacterial toxins on neutrophil rheologic properties. Lavkan AH, et al. **Crit Care Med** 1998 Oct;26(10):1677–82

The extent of traumatic damage determines a graded depression of the endotoxin responsiveness of peripheral blood mononuclear cells from patients with blunt injuries [see comments] Majetschak M, et al. **Crit Care Med** 1999 Feb;27(2):313–8. Comment in: Crit Care Med 1999 Feb;27(2):239.

Salmonella vaccine carrier strains: effective delivery system to trigger anti-tumor immunity by oral route. Medina E, et al. **Eur J Immunol** 1999 Feb;29(2):693–9

Endotoxin inhibits heat shock protein 70 (HSP70) expression in peripheral blood mononuclear cells of patients with severe sepsis. Schroeder S, et al. **Intensive Care Med** 1999 Jan;25(1):52–7

Antagonistic effect of Enterococcus faecium J96 against human and poultry pathogenic Salmonella spp. Audisio MC, et al. **J Food Prot** 1999 Jul;62(7):751–5

Extracorporeal adsorption of endotoxin. Staubach KH, et al. **Ther Apher** 1997 Feb;1(1):67–74

[Antiendotoxin immunity in experimental intestinal dysbacteriosis in mice] Likhoded VG, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug;(4):14–6 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Immunological and chemical studies of Salmonella haarlem somatic antigen epitopes. I. Structural studies of O-antigen. Szafranek J, et al. **FEMS Immunol Med Microbiol** 1998 Aug;21(4):243–52

[Immunosuppressive action of lipopolysaccharide S- and R-forms of Salmonella and the role of lipid A] Borisova EV. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov–Dec; (6):20–3 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Molecular typing of non-typhoid Salmonella strains isolated from HIV-infected patients with recurrent salmonellosis [letter] Rubino S, et al. **AIDS** 1999 Jan 14;13(1):137–9

Salmonella serotypes isolated in Malaysia over the ten-year period 1983–1992. Yasin RM, et al. **Asia Pac J Public Health** 1996–97;9:1–5

Evaluation of Salmonella serotype distributions from commercial broiler hatcheries and grower houses. Byrd JA, et al. **Avian Dis** 1999 Jan–Mar;43(1):39–47

Changing the nomenclature of Salmonella [editorial] Threlfall J, et al. **Commun Dis Public Health** 1999 Sep; 2(3):156–7

The rise and fall of salmonella? **Commun Dis Rep CDR Wkly** 1999 Jan 22;9(4):29, 32

Application of ribotyping and IS200 fingerprinting to distinguish the five Salmonella serotype O6,7:c:1,5 groups: Choleraesuis sensu stricto, Choleraesuis var. Kunzendorf, Choleraesuis var. Decatur, Paratyphi C, and Typhisuis. Uzzau S, et al. **Epidemiol Infect** 1999 Aug;123(1):37–46

Serotype and phage type distribution of salmonellas from human and non-human sources in Italy in the period 1973–1995. Fantasia M, et al. **Eur J Epidemiol** 1998 Oct; 14(7):701–10

Revised Salmonella nomenclature: designation of Salmonella enterica (ex Kauffmann and Edwards 1952) Le Minor and Popoff 1987 sp. nov., nom. rev. as the neotype species of the genus Salmonella Lignieres 1900 (approved lists 1980), rejection of the name Salmonella choleraesuis (Smith 1894) Weldin 1927 (approved lists 1980), and conservation of the name Salmonella typhi (Schroeter 1886) Warren and Scott 1930 (approved lists 1980). Request for an opinion. Euzéby JP. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:927–30

Application of random amplified polymorphic DNA analysis to differentiate strains of Salmonella typhi and other Salmonella species. Shangkuan YH, et al. **J Appl Microbiol** 1998 Oct;85(4):693–702

Assessment of strain relatedness among Salmonella serotypes Salinatis, Duisburg, and Sandiego by biotyping, ribotyping, IS200 fingerprinting, and pulsed-field gel electrophoresis. Old DC, et al. **J Clin Microbiol** 1999 Jun;37(6):1687–92

Typhoid fever due to Salmonella Kapemba infection in an otherwise healthy middle-aged man. Sarnighausen HE, et al. **J Clin Microbiol** 1999 Jul;37(7):2381–2

Confirmation of presumptive Salmonella colonies by the polymerase chain reaction. Stefanovičová A, et al. **J Food Prot** 1998 Oct;61(10):1381–3

An outbreak of extended-spectrum, beta-lactamase-producing Salmonella senftenberg in a burns ward. Revathi G, et al. **J Hosp Infect** 1998 Dec; 40(4):295–302 (36 ref.)

Salmonella tel-el-kebir and terrapins. Lynch M, et al. **J Infect** 1999 May;38(3):182–4

Predominant serovars of Salmonella in humans and foods from Thailand. Boonmar S, et al. **J Vet Med Sci** 1998 Jul; 60(7):877–80

From the Centers for Disease Control and Prevention. Outbreak of Salmonella serotype Muenchen infections associated with unpasteurized orange juice--United States and Canada, June 1999. **JAMA** 1999 Aug 25;282(8):726–8

Evaluation of a multiplex PCR assay for simultaneous identification of Salmonella sp., Salmonella enteritidis and Salmonella typhimurium from environmental swabs of poultry houses. Soumet C, et al. **Lett Appl Microbiol** 1999 Feb;28(2):113–7

Genotypic characterization of human and environmental isolates of Salmonella choleraesuis subspecies choleraesuis serovar infantis by pulsed-field gel electrophoresis. Murakami K, et al. **Microbiol Immunol** 1999;43(3):293–6

Outbreak of Salmonella serotype Muenchen infections associated with unpasteurized orange juice--United States and Canada, June 1999. **MMWR Morb Mortal Wkly Rep** 1999 Jul 16;48(27):582–5

Rapid identification of Salmonella spp. phase 2 antigens of the H1 antigenic complex using "multiplex PCR". Echeita MA, et al. **Res Microbiol** 1998 Nov–Dec;149(10):757–61

Supplement 1996 (no. 40) to the Kauffmann-White scheme. Popoff MY, et al. **Res Microbiol** 1997 Dec;148(9):811–4

Clinical presentation and treatment of a Salmonella bredeney epidemic in Shelby County, Alabama. Jahraus CD, et al. **South Med J** 1999 Aug;92(8):799–801

Salmonella infections in finishing pigs in The Netherlands: bacteriological herd prevalence, serogroup and antibiotic resistance of isolates and risk factors for infection. van der Wolf PJ, et al. **Vet Microbiol** 1999 Jul 1;67(4):263–75

[History of nomenclature of Salmonella species and the legitimate names] Ezaki T. **Nippon Saikingaku Zasshi** 1998 Nov;53(4):629–33 (14 ref.) **(Jpn)**

[Yet, the name Salmonella choleraesuis does not be used] Sakazaki R. **Nippon Saikingaku Zasshi** 1999 Apr; 54(2):429–30 **(Jpn)**

[Distribution of Salmonella spp. serotypes isolated in Spain during a 4-year period (1993–1996)] Echeita MA, et al. **Enferm Infecc Microbiol Clin** 1999 Jan;17(1):9–14 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

The susceptibility of gram-negative rods and their adaptive forms resistant to colistine to the bactericidal action of sera. Doroszkiewicz W, et al. **Acta Microbiol Pol** 1998; 47(3):275–81

Response of Salmonella choleraesuis LT2 spheroplasts and permeabilized cells to the bacteriocin AS-48. Abriouel H, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4623–6

Antibiotic resistance pattern of foodborne Salmonella isolates in Addis Ababa (Ethiopia). Molla B, et al. **Berl Munch Tierarztl Wochenschr** 1999 Feb;112(2):41–3

Establishment of a Salmonella tester strain highly sensitive to mutagenic heterocylic amines. Kamataki T, et al. **Cancer Lett** 1999 Sep 1;143(2):113–6

High rates of antimicrobial resistance among clinical isolates of nontyphoidal Salmonella in Taiwan. Yang YJ, et al. **Eur J Clin Microbiol Infect Dis** 1998 Dec;17(12):880–3

Spectral studies on the interaction of iodine and anthracene sulfonate with bacterial phospholipids from different mutants of Salmonella minnesota. Saha M, et al. **Indian J Biochem Biophys** 1998 Oct;35(5):291–5

Ciprofloxacin-resistant Salmonella senftenberg in north India [letter] Gupta V, et al. **Indian J Gastroenterol** 1999 Jan–Mar;18(1):42

Impact of antimicrobic use in veterinary medicine. Fedorka-Cray PJ, et al. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1739–41

Serogroups and antimicrobial susceptibility of clinical isolates of Salmonella species from a teaching hospital in Kuwait. Jamal WY, et al. **J Diarrhoeal Dis Res** 1998 Sep;16(3):180–6

Antibiotic resistance of Salmonella spp. and Listeria spp. isolates from traditionally made fresh sausages in Greece.

Abrahim A, et al. **J Food Prot** 1998 Oct;61(10):1378–80

Antibacterial activities of new synthetic divalent cation chelators. Ashoori M, et al. **Microbiol Immunol** 1999; 43(4):311–6

The use of YG bacterial tester strains for the monitoring of drinking water mutagenicity. Cerná M, et al. **Toxicol Lett** 1998 Aug;96–97:335–9

Nalidixic acid resistance in Salmonellae isolated from turkeys [letter; comment] Parker D. **Vet Rec** 1999 Apr 3;144(14):392 . Comment on: Vet Rec 1999 Mar 20;144(12):320–2.

Multiple antibiotic resistance in Salmonella [letter] Rankin SC. **Vet Rec** 1998 Dec 19–26;143(25):698–9

[The effect of the pH of the medium on induced autolysis in populations of enterobacteria] Akaizin ES. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug;(4):6–8 (Eng. Abstr.) **(Rus)**

[Sensitivity to quinolones and ampicillin in Salmonella spp. (letter)] Martínez MM, et al. **Enferm Infecc Microbiol Clin** 1998 Oct;16(8):389–90 **(Spa)**

ENZYMOLOGY

Purification and characterization of phospholipase C of Salmonella gallinarum. Singh BR, et al. **Indian J Exp Biol** 1998 Dec;36(12):1245–52

SopB, a protein required for virulence of Salmonella dublin, is an inositol phosphate phosphatase [see comments] Norris FA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14057–9. Comment in: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14006–8.

GENETICS

Use of single-strand conformation polymorphism analysis to examine the variability of the rpoS sequence in environmental isolates of Salmonellae. Jordan SJ, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3582–7

Molecular basis of the interaction of Salmonella with the intestinal mucosa. Darwin KH, et al. **Clin Microbiol Rev** 1999 Jul;12(3):405–28 (263 ref.)

Multiple drug resistance patterns and plasmid profiles of non-typhi salmonellae in Turkey. Yildirmak T, et al. **Epidemiol Infect** 1998 Oct;121(2):303–7

Biophysical characterisation of lysozyme binding to LPS Re and lipid A. Brandenburg K, et al. **Eur J Biochem** 1998 Dec 1;258(2):686–95

Plasmid-encoded tetracycline resistance in Salmonella enterica subsp. enterica serovars choleraesuis and typhimurium: identification of complete and truncated Tn1721 elements. Frech G, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):97–103

Performance tested method certification of BAX for Screening/Salmonella: a case study. Mrozinski PM, et al. **J AOAC Int** 1998 Nov–Dec;81(6):1147–54

Analysis of the type 1 pilin gene cluster fim in Salmonella: its distinct evolutionary histories in the 5' and 3' regions. Boyd EF, et al. **J Bacteriol** 1999 Feb;181(4):1301–8

Components of the Salmonella flagellar export apparatus and classification of export substrates. Minamino T, et al. **J Bacteriol** 1999 Mar;181(5):1388–94

Effect of hook subunit concentration on assembly and control of length of the flagellar hook of Salmonella. Muramoto K, et al. **J Bacteriol** 1999 Sep;181(18):5808–13

Analysis of rpoS mRNA in Salmonella dublin: identification of multiple transcripts with growth-phase-dependent variation in transcript stability. Paesold G, et al. **J Bacteriol** 1999 Feb;181(4):1264–8

Use of an autobioluminescent Salmonella hadar to monitor the effects of acid and temperature treatments on cell survival and viability on lactic acid-treated poultry carcasses. Bautista DA, et al. **J Food Prot** 1998 Nov; 61(11):1439–45

TTG as the initiation codon of Salmonella slyA, a gene required for survival within macrophages. Kawakami T, et al. **Microbiol Immunol** 1999;43(4):351–7

Genotypic characterization of human and environmental isolates of Salmonella choleraesuis subspecies choleraesuis serovar infantis by pulsed-field gel electrophoresis. Murakami K, et al. **Microbiol Immunol** 1999;43(3):293–6

Expression of disulphide-bridge-dependent conformational epitopes and immunogenicity of the carboxy-terminal 19 kDa domain of Plasmodium yoelii merozoite surface protein-1 in live attenuated Salmonella vaccine strains. Somner EA, et al. **Microbiology** 1999 Jan;145 (Pt 1):221–9

Development of a PCR microplate-capture hybridization method for simple, fast and sensitive detection of Salmonella serovars in food. Manzano M, et al. **Mol Cell Probes** 1998 Aug;12(4):227–34

Salmonella SirA is a global regulator of genes mediating enteropathogenesis. Ahmer BM, et al. **Mol Microbiol** 1999 Feb;31(3):971–82

Identification of a pathogenicity island required for Salmonella enteropathogenicity. Wood MW, et al. **Mol Microbiol** 1998 Aug;29(3):883–91

Mutagenicity assay in Salmonella and in vivo sister chromatid exchange in bone marrow cells of mice for four pyrazolone derivatives. Giri AK, et al. **Mutat Res** 1998 Dec 3; 420(1–3):15–25

Statistical methods for the Ames Salmonella assay: a review. Kim BS, et al. **Mutat Res** 1999 Jan;436(1):113–22 (29 ref.)

Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247–52

SopB, a protein required for virulence of Salmonella dublin, is an inositol phosphate phosphatase [see comments] Norris FA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14057–9. Comment in: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14006–8.

Statistical procedures for estimating the detection limit and determination limit of the Ames Salmonella mutagenicity assay. Takanashi H, et al. **Sci Total Environ** 1998 Sep 29; 221(1):31–42

Primers for Salmonella serovar detection by polymerase chain reaction. Kantama L, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):85–90

[Natural plasmid pSD89 (Cmr) from Salmonella derby K89, which increases the radiation tolerance of Escherichia coli strain K-12] Verbenko VN, et al. **Genetika** 1999 Mar; 35(2):303–8 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

The susceptibility of gram-negative rods and their adaptive forms resistant to colistine to the bactericidal action of sera. Doroszkiewicz W, et al. **Acta Microbiol Pol** 1998; 47(3):275–81

Presence of Campylobacter and Salmonella in sand from bathing beaches. Bolton FJ, et al. **Epidemiol Infect** 1999 Feb;122(1):7–13

Evaluation of methods for isolation of Salmonella species using modified semisolid Rappaport-Vassiliadis medium and Salmonella-Shigella agar. Ruiz Gomez J, et al. **Eur J Clin Microbiol Infect Dis** 1998 Nov;17(11):791–3

Bacterial flagellation and cell division. Aizawa SI, et al. **Genes Cells** 1998 Oct;3(10):625–34 (50 ref.)

The roles of intrahepatic Valpha14(+) NK1.1(+) T cells for liver injury induced by Salmonella infection in mice. Ishigami M, et al. **Hepatology** 1999 Jun;29(6):1799–808

Interaction of Bifidobacterium and Salmonella during associated growth. Bielecka M, et al. **Int J Food Microbiol** 1998 Dec 8;45(2):151–5

Salmonella in animal slurry can be destroyed by aeration at low temperatures. Heinonen-Tanski H, et al. **J Appl Microbiol** 1998 Aug;85(2):277–81

Growth phase-regulated induction of Salmonella-induced macrophage apoptosis correlates with transient expression of SPI-1 genes. Lundberg U, et al. **J Bacteriol** 1999 Jun; 181(11):3433–7

Comparison of CHROMagar Salmonella medium and hektoen enteric agar for isolation of salmonellae from stool samples. Gaillot O, et al. **J Clin Microbiol** 1999 Mar; 37(3):762–5

Use of an autobioluminescent Salmonella hadar to monitor the effects of acid and temperature treatments on cell survival and viability on lactic acid-treated poultry carcasses. Bautista DA, et al. **J Food Prot** 1998 Nov; 61(11):1439–45

Use of selective media to recover Salmonella and Vibrio cholerae after growth in reconditioned pork-processing wastewater. Rajkowski KT, et al. **J Food Prot** 1999 Jul; 62(7):724–30

Distribution of Salmonella in swine herds in Québec. Letellier A, et al. **Vet Microbiol** 1999 Jul 1;67(4):299–306

IMMUNOLOGY

Application of flagella-based immunoassays for serologic detection of Salmonella pullorum infection in chickens. Gast RK, et al. **Avian Dis** 1998 Oct–Dec;42(4):807–11

Thiolated Salmonella antibody immobilization onto the gold surface of piezoelectric quartz crystal. Park IS, et al. **Biosens Bioelectron** 1998 Nov 1;13(10):1091–7

Salmonella infection in a commercial line of ducks; experimental studies on virulence, intestinal colonization and immune protection. Barrow PA, et al. **Epidemiol Infect** 1999 Aug;123(1):121–32

Structural determination of the O-antigenic polysaccharide from Escherichia coli O35 and cross-reactivity to Salmonella arizonae O62. Rundlöf T, et al. **Eur J Biochem** 1998 Nov 15;258(1):139–43

Comparison of the effects of Salmonella minnesota Re595 lipopolysaccharide, lipid A and monophosphoryl lipid A on nitric oxide, TNF-alpha, and IL-6 induction from RAW 264.7 macrophages. Aybay C, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):263–73

Immunological and chemical studies of Salmonella haarlem somatic antigen epitopes. II. Serological investigations. Dziadziuszko H, et al. **FEMS Immunol Med Microbiol** 1998 Aug;21(4):253–9

Attenuation and immunogenicity of Deltacya Deltacrp derivatives of Salmonella choleraesuis in pigs. Kennedy MJ, et al. **Infect Immun** 1999 Sep;67(9):4628–36

Lipopolysaccharides (LPS) of oral black-pigmented bacteria induce tumor necrosis factor production by LPS-refractory C3H/HeJ macrophages in a way different from that of Salmonella LPS. Kirikae T, et al. **Infect Immun** 1999 Apr; 67(4):1736–42

All accessible epitopes in the Salmonella lipopolysaccharide core are associated with branch residues. Nnalue NA. **Infect Immun** 1999 Feb;67(2):998–1003

Endogenous IL-15 might be responsible for early protection by natural killer cells against infection with an avirulent strain of Salmonella choleraesuis in mice. Hirose K, et al. **J Leukoc Biol** 1999 Sep;66(3):382–90

Preparation of a high titre Salmonella abortusovis H-antigen and antiserum and improvement of the microagglutination test. Giannati A, et al. **J Microbiol Methods** 1999 Apr; 35(3):219–23

Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247–52

Comparison of immune responses of two Salmonella gallinarum strains viewed as possible vaccines for fowl typhoid in Kenya. Bebora LC, et al. **Onderstepoort J Vet Res** 1998 Jun;65(2):67–73

Rapid identification of Salmonella spp. phase 2 antigens of the H1 antigenic complex using "multiplex PCR". Echeita MA, et al. **Res Microbiol** 1998 Nov–Dec;149(10):757–61

Age-related prevalence of Shigella and Salmonella antibodies and their association with diarrhoeal diseases in Peruvian children. Nguyen BM, et al. **Scand J Infect Dis** 1998; 30(2):159–64

The attenuated Salmonella vaccine approach for the control of Helicobacter pylori-related diseases. Gómez-Duarte OG, et al. **Vaccine** 1999 Mar 26;17(13–14):1667–73 (81 ref.)

A Salmonella abortusovis inactivated vaccine protects mice from abortion after challenge. Giannati-Stefanou A, et al. **Vet Microbiol** 1999 May;66(4):285–90

[Induction of early endotoxin tolerance with atoxic endotoxin—a new method for preventing sepsis syndrome] Staubach KH, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1067–70 (Eng. Abstr.) **(Ger)**

[The corrective action of antibodies in experimental intestinal dysbacteriosis] Chkhaidze IG, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug;(4):12–4 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

Effects of sample storage and delayed secondary enrichment on detection of Salmonella spp in swine feces. O'Carroll JM, et al. **Am J Vet Res** 1999 Mar;60(3):359–62

Microbiological pollution of the Ibleian rivers: correlation between Salmonella and fecal indicators. Marranzano M, et al. **Ann Ig** 1997 Sep–Oct;9(5):401–6

Detection of Salmonella spp. and Listeria monocytogenes in suspended organic waste by nucleic acid extraction and PCR. Burtscher C, et al. **Appl Environ Microbiol** 1999 May; 65(5):2235–7

A novel chromogenic ester agar medium for detection of Salmonellae. Cooke VM, et al. **Appl Environ Microbiol** 1999 Feb;65(2):807–12

Use of single-strand conformation polymorphism analysis to examine the variability of the rpoS sequence in environmental isolates of Salmonellae. Jordan SJ, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3582–7

Sensitivity, specificity, and predictive values of three Salmonella rapid detection kits using fresh and frozen poultry environmental samples versus those of standard plating. Peplow MO, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1055–60

Effect of feed withdrawal on Campylobacter in the crops of market-age broiler chickens. Byrd JA, et al. **Avian Dis** 1998 Oct–Dec;42(4):802–6

Contamination of Salmonella blockley in the environment of a poultry farm. Limawongpranee S, et al. **Avian Dis** 1999 Apr–Jun;43(2):302–9

The prevalence of verotoxins, Escherichia coli 0157:H7, and Salmonella in the feces and rumen of cattle at processing. Van Donkersgoed J, et al. **Can Vet J** 1999 May;40(5):332–8

Salmonella septic arthritis in systemic lupus erythematosus and other systemic diseases. Chen JY, et al. **Clin Rheumatol** 1998;17(4):282–7

Microbiological investigation of halal butchery products and butchers' premises. Little C, et al. **Commun Dis Public Health** 1999 Jun;2(2):114–8

Peripheral ulcerative keratitis after Salmonella gastroenteritis. Yang J, et al. **Cornea** 1998 Nov;17(6):672–4

Salmonellosis in North Thames (East), UK: associated risk factors. Banatvala N, et al. **Epidemiol Infect** 1999 Apr; 122(2):201–7

Outbreaks of salmonellosis associated with eating uncooked tomatoes: implications for public health. The Investigation Team. Hedberg CW, et al. **Epidemiol Infect** 1999 Jun; 122(3):385–93

Evaluation of xylose-galactosidase medium, a new plate for the isolation of Salmonella, Shigella, Yersinia and Aeromonas species. García-Aguayo JM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan;18(1):77–8

Evaluation of methods for isolation of Salmonella species using modified semisolid Rappaport-Vassiliadis medium and Salmonella-Shigella agar. Ruiz Gomez J, et al. **Eur J Clin Microbiol Infect Dis** 1998 Nov;17(11):791–3

Importance of pre-enrichment media for isolation of Salmonella spp. from swine and poultry. Hoorfar J, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):125–30

Salmonella spp. on pork at cutting plants and at the retail level and the influence of particular risk factors. Berends BR, et al. **Int J Food Microbiol** 1998 Nov 10;44(3):207–17

Impact on human health of Salmonella spp. on pork in The Netherlands and the anticipated effects of some currently proposed control strategies. Berends BR, et al. **Int J Food Microbiol** 1998 Nov 10;44(3):219–29

Comparison between ICS-Vidas, MSRV and standard cultural method for Salmonella recovery in poultry meat. De Medici D, et al. **Int J Food Microbiol** 1998 Dec 22;

45(3):205–10

Rapid detection of stressed Salmonella spp. in dairy and egg products using immunomagnetic separation and PCR. Rijpens N, et al. **Int J Food Microbiol** 1999 Jan 12; 46(1):37–44

Occurrence of Vibrio and other pathogenic bacteria in Mytilus galloprovincialis (mussels) harvested from Adriatic Sea, Italy. Ripabelli G, et al. **Int J Food Microbiol** 1999 Aug 1;49(1–2):43–8

An immunoconcentration–PCR assay to detect Salmonella in the environment of poultry houses. Soumet C, et al. **Int J Food Microbiol** 1999 Jun 1;48(3):221–4

Occurrence of Salmonella spp. in imported eggs into Albania. Telo A, et al. **Int J Food Microbiol** 1999 Aug 15; 49(3):169–71

Influence of fecal shedding of Salmonella organisms on mortality in hospitalized horses. Mainar-Jaime RC, et al. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1162–6

Reveal for Salmonella test system. Bird CB, et al. **J AOAC Int** 1999 May–Jun;82(3):625–33

Routine detection of Salmonella species in water: comparative evaluation of the ISO and PROBELIA polymerase chain reaction methods. Coquard D, et al. **J AOAC Int** 1999 Jul–Aug;82(4):871–6

Salmonella in foods—a new enrichment procedure for use with the TECRA Salmonella visual immunoassay: collaborative study. Hughes D, et al. **J AOAC Int** 1999 May–Jun;82(3):634–47

Performance tested method certification of BAX for Screening/Salmonella: a case study. Mrozinski PM, et al. **J AOAC Int** 1998 Nov–Dec;81(6):1147–54

Development of a surface adhesion immunofluorescent technique for the rapid detection of Salmonella spp. from meat and poultry. Cloak OM, et al. **J Appl Microbiol** 1999 Apr;86(4):583–90

Evaluation of sampling methods for the detection of Salmonella in broiler flocks. Skov MN, et al. **J Appl Microbiol** 1999 Apr;86(4):695–700

Prospects for chemiluminescent and bioluminescent immunoassay and nucleic acid assays in food testing and the pharmaceutical industry. Kricka LJ. **J Biolumin Chemilumin** 1998 Jul–Aug;13(4):189–93

ABC medium, a new chromogenic agar for selective isolation of Salmonella spp. Perry JD, et al. **J Clin Microbiol** 1999 Mar;37(3):766–8

Prospective investigation of cryptic outbreaks of Salmonella agona salmonellosis. Taylor JP, et al. **J Clin Microbiol** 1998 Oct;36(10):2861–4

Evaluation of universal preenrichment broth for the recovery of foodborne pathogens from milk and cheese. Jiang J, et al. **J Dairy Sci** 1998 Nov;81(11):2798–803

Polymacron enzyme immunoassay system for detection of naturally contaminating Salmonella in foods, feeds, and environmental samples. Blais BW, et al. **J Food Prot** 1998 Sep;61(9):1187–90

Relative effectiveness of selenite cystine broth, tetrathionate broth, and Rappaport–Vassiliadis medium for the recovery of Salmonella spp. from foods with a low microbial load. Hammack TS, et al. **J Food Prot** 1999 Jan;62(1):16–21

Detection and isolation of Salmonella from naturally contaminated alfalfa seeds following an outbreak investigation. Inami GB, et al. **J Food Prot** 1999 Jun; 62(6):662–4

Evaluation of TaqMan PCR assay for detecting Salmonella in raw meat and shrimp. Kimura B, et al. **J Food Prot** 1999 Apr;62(4):329–35

Broiler skin sampling for optimum recovery of Salmonella spp. Kotula KL, et al. **J Food Prot** 1999 Mar;62(3):284–6

Prevalence of Salmonella spp. and Yersinia enterocolitica in finishing swine at Canadian abattoirs. Letellier A, et al. **J Food Prot** 1999 Jan;62(1):22–5

Listeria innocua and Salmonella panama in mussels: a comparative study. Plusquellec A, et al. **J Food Prot** 1998 Sep;61(9):1137–42

Evaluation of immunomagnetic separation and plating media for recovery of Salmonella from meat. Ripabelli G, et al. **J Food Prot** 1999 Feb;62(2):198–201

Salmonella Thompson associated with improper handling of roast beef at a restaurant in Sioux Falls, South Dakota. Shapiro R, et al. **J Food Prot** 1999 Feb;62(2):118–22

Performance of the Dynabeads anti-Salmonella system in the detection of Salmonella species in foods, animal feeds, and environmental samples. Shaw SJ, et al. **J Food Prot** 1998 Nov;61(11):1507–10

Incidence of Salmonella on beef carcasses relating to the U.S. meat and poultry inspection regulations. Sofos JN, et al. **J Food Prot** 1999 May;62(5):467–73

Confirmation of presumptive Salmonella colonies by the polymerase chain reaction. Stefanovičová A, et al. **J Food Prot** 1998 Oct;61(10):1381–3

Incidence of Salmonella, Campylobacter jejuni, Campylobacter coli, and Listeria monocytogenes in poultry carcasses and different types of poultry products for sale on the Belgian retail market. Uyttendaele M, et al. **J Food Prot** 1999 Jul;62(7):735–40

Rapid detection of Salmonella in chicken washes by immunomagnetic separation and flow cytometry. Wang X, et al. **J Food Prot** 1999 Jul;62(7):717–23

A PCR-based strategy for simple and rapid identification of rough presumptive Salmonella isolates. Hoorfar J, et al. **J Microbiol Methods** 1999 Feb;35(1):77–84

Automated detection of Salmonella spp. in foods. Tan W, et al. **J Microbiol Methods** 1999 Jul;37(1):87–91

Predominant serovars of Salmonella in humans and foods from Thailand. Boonmar S, et al. **J Vet Med Sci** 1998 Jul; 60(7):877–80

Use of pyrrolidonyl peptidase to distinguish Citrobacter from Salmonella. Bennett AR, et al. **Lett Appl Microbiol** 1999 Mar;28(3):175–8

Rapid and definitive detection of Salmonella in foods by PCR [letter; comment] Gibson DM. **Lett Appl Microbiol** 1998 Dec;27(6):384–5. Comment on: Lett Appl Microbiol 1998 Jun;26(6):437–41.

Isolation of Salmonella resistant to hypochlorous acid from a poultry abattoir. Mokgatla RM, et al. **Lett Appl Microbiol** 1998 Dec;27(6):379–82

Evaluation of a multiplex PCR assay for simultaneous identification of Salmonella sp., Salmonella enteritidis and Salmonella typhimurium from environmental swabs of poultry houses. Soumet C, et al. **Lett Appl Microbiol** 1999 Feb;28(2):113–7

Development of a PCR microplate-capture hybridization method for simple, fast and sensitive detection of Salmonella serovars in food. Manzano M, et al. **Mol Cell Probes** 1998 Aug;12(4):227–34

Detection of Salmonella spp. in food by a rapid PCR-hybridization procedure. Nastasi A, et al. **New Microbiol** 1999 Jul;22(3):195–202

The home environment and salmonellosis in children. Schutze GE, et al. **Pediatrics** 1999 Jan;103(1):E1

Effect of lactose administration in drinking water prior to and during feed withdrawal on Salmonella recovery from broiler crops and ceca. Barnhart ET, et al. **Poult Sci** 1999 Feb;78(2):211–4

Salmonella prevalence in crops of Ontario and Quebec broiler chickens at slaughter. Chambers JR, et al. **Poult Sci** 1998 Oct;77(10):1497–501

Use of arbitrarily primed polymerase chain reaction to study Salmonella ecology in a turkey production environment. Guo L, et al. **Poult Sci** 1999 Jan;78(1):24–31

Evaluation of alternative sampling methods for Salmonella critical control point determination at broiler processing. Sarlin LL, et al. **Poult Sci** 1998 Aug;77(8):1253–7

Nucleic acid extraction from polluted estuarine water for detection of viruses and bacteria by PCR and RT-PCR analysis. Petit F, et al. **Res Microbiol** 1999 Mar; 150(2):143–51

Enterotoxigenicity of Salmonellae isolated from dogs in Nigeria. Chah KF, et al. **Res Vet Sci** 1999 Aug;67(1):99–101

Monophasic group B Salmonella species infecting harbour porpoises (Phocoena phocoena) inhabiting Scottish coastal waters. Foster G, et al. **Vet Microbiol** 1999 Mar 12; 65(3):227–31

Salmonella pullorum in the common pheasant (Phasianus colchicus). Pennycott TW, et al. **Vet Rec** 1999 Mar 13; 144(11):283–7

[Research on types of Salmonella in some animals in Jilin province] Liu G, et al. **Wei Sheng Yen Chiu** 1997 May; 26(3):208–10 (Eng. Abstr.) **(Chi)**

[Monitoring of microbial contamination of stick wound in swine carcasses] Rheault N, et al. **Can Vet J** 1999 Apr; 40(4):261–4 (Eng. Abstr.) **(Fre)**

[Coupling of immunomagnetic separation and polymerase chain reaction for the rapid detection of salmonellae in minced meat and chicken giblets] Erol I, et al. **Berl Munch Tierarztl Wochenschr** 1999 Mar;112(3):100–3 (Eng. Abstr.) **(Ger)**

[Necessity of double testing of meat juice samples from pigs using ELISA for the determination of Salmonella status in pig farms] Steinbach G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Apr;112(4):121–3 (Eng. Abstr.) **(Ger)**

[Attempt to estimate the share of human Salmonella infections, which are attributable to Salmonella originating from swine] Steinbach G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Aug;112(8):296–300 (Eng. Abstr.) **(Ger)**

[Investigation of foodborne outbreak due to Salmonella infantis using epidemiological and microbiological methods (published erratum appears in Gesundheitswesen 1999 Jun;61(6):298)] Dieckmann H, et al. **Gesundheitswesen** 1999 May;61(5):241–7 (Eng. Abstr.) **(Ger)**

[Recovery and its evaluation of Shigella bacilli or Salmonella from healthy food handlers in Tokyo (1961–1997)] Yamada S, et al. **Kansenshogaku Zasshi** 1999 Aug;73(8):758–65 (Eng. Abstr.) **(Jpn)**

[Salmonella: comparison of methods for its detection in bird feed] Lound L, et al. **Rev Argent Microbiol** 1998 Oct–Dec; 30(4):180–4 (Eng. Abstr.) **(Spa)**

METABOLISM

Binding of extracellular matrix laminin to Escherichia coli expressing the Salmonella outer membrane proteins Rck and PagC. Crago AM, et al. **FEMS Microbiol Lett** 1999 Jul 15;176(2):495–501

Cytosol is required for the modulation by dietary casein of the hepatic microsomal activation of aflatoxin B1 to mutagenic metabolites detectable in Salmonella. Woodall GM Jr, et al. **Mutagenesis** 1999 Jul;14(4):365–73

Endotoxin-induced changes in sleep and sleepiness during the day. Hermann DM, et al. **Psychoneuroendocrinology** 1998 Jul;23(5):427–37

[Development of principles for the controlled autolysis of Escherichia and Salmonella] Akaĭzin ES. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep–Oct;(5):22–5 (Eng. Abstr.) **(Rus)**

PATHOGENICITY

Salmonella infection in a commercial line of ducks; experimental studies on virulence, intestinal colonization and immune protection. Barrow PA, et al. **Epidemiol Infect** 1999 Aug;123(1):121–32

Multiple analysis of a foodborne outbreak caused by infant formula contaminated by an atypical Salmonella virchow strain. Usera MA, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):551–5

Type III secretion machines and the pathogenesis of enteric infections caused by Yersinia and Salmonella spp. Lee VT, et al. **Immunol Rev** 1999 Apr;168:241–55 (154 ref.)

Secreted effector proteins of Salmonella dublin act in concert to induce enteritis. Jones MA, et al. **Infect Immun** 1998 Dec;66(12):5799–804

Topics in dose-response modeling. Coleman M, et al. **J Food Prot** 1998 Nov;61(11):1550–9

Salmonella abortus equi endotoxin does not affect leptin plasma levels in healthy humans [letter; comment] Pollmächer T, et al. **J Infect Dis** 1999 Apr;179(4):1047–8 . Comment on: J Infect Dis 1998 Sep;178(3):887–90.

Invasiveness of Salmonella serotypes Typhimurium, Choleraesuis and Dublin for rabbit terminal ileum in vitro. Bolton AJ, et al. **J Med Microbiol** 1999 Sep;48(9):801–10

Identification of a pathogenicity island required for Salmonella enteropathogenicity. Wood MW, et al. **Mol Microbiol** 1998 Aug;29(3):883–91

Lipid A mutant Salmonella with suppressed virulence and TNFalpha induction retain tumor-targeting in vivo [see comments] Low KB, et al. **Nat Biotechnol** 1999 Jan; 17(1):37–41. Comment in: Nat Biotechnol 1999 Jan;17(1):19.

Interactions of Salmonella with host cells: encounters of the closest kind [comment] Galán JE. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14006–8 (30 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14057–9.

The Salmonella invasin SipB induces macrophage apoptosis by binding to caspase-1. Hersh D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2396–401

Actin reorganization by SipA and Salmonella invasion of epithelial cells. Bourdet-Sicard R, et al. **Trends Microbiol** 1999 Aug;7(8):309–10

[Pathogenic power of Salmonellae: virulence factors and study models] Millemann Y. **Vet Res** 1998 Sep–Oct; 29(5):385–407 (132 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Acid-sensitive enteric pathogens are protected from killing under extremely acidic conditions of pH 2.5 when they are inoculated onto certain solid food sources. Waterman SR, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3882–6

Salmonella efficiently enter and survive within cultured CD11c+ dendritic cells initiating cytokine expression. Marriott I, et al. **Eur J Immunol** 1999 Apr;29(4):1107–15

Bacterial invasion is not required for activation of NF-kappaB in enterocytes. Eaves-Pyles T, et al. **Infect Immun** 1999 Feb;67(2):800–4

Early events in the pathogenesis of avian salmonellosis. Henderson SC, et al. **Infect Immun** 1999 Jul;67(7):3580–6

Components of the Salmonella flagellar export apparatus and classification of export substrates. Minamino T, et al. **J Bacteriol** 1999 Mar;181(5):1388–94

Lipid A mutant Salmonella with suppressed virulence and TNFalpha induction retain tumor-targeting in vivo [see comments] Low KB, et al. **Nat Biotechnol** 1999 Jan; 17(1):37–41. Comment in: Nat Biotechnol 1999 Jan;17(1):19.

Salmonella strikes a balance [news; comment] Donnenberg MS. **Nature** 1999 Sep 16;401(6750):218–9. Comment on: Nature 1999 Sep 16;401(6750):293–7.

Interactions of Salmonella with host cells: encounters of the closest kind [comment] Galán JE. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14006–8 (30 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14057–9.

[Pathogenic power of Salmonellae: virulence factors and study models] Millemann Y. **Vet Res** 1998 Sep–Oct; 29(5):385–407 (132 ref.) (Eng. Abstr.) **(Fre)**

[In vitro studies of adhesion and invasion by Salmonella strains of bovine epithelial cells] Dinjus U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):369–72 (Eng. Abstr.) **(Ger)**

RADIATION EFFECTS

Inactivation of Salmonella during microwave cooking. Levre E, et al. **Zentralbl Hyg Umweltmed** 1998 Dec; 201(4–5):431–6

ULTRASTRUCTURE

Effect of hook subunit concentration on assembly and control of length of the flagellar hook of Salmonella. Muramoto K, et al. **J Bacteriol** 1999 Sep;181(18):5808–13

VIROLOGY

Flagellar determinants of bacterial sensitivity to chi-phage. Samuel AD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9863–6

SALMONELLA ARIZONAE

[Systemic Salmonella arizonae infections in patients with a deficiency of cell-mediated immunity. A report of 2 cases and a review of the literature] Carfagna P, et al. **Recenti Prog Med** 1998 Dec;89(12):632-6 (25 ref.) (Eng. Abstr.) **(Ita)**

IMMUNOLOGY

Efficacy of Salmonella enteritidis-immune lymphokines on horizontal transmission of S. arizonae in turkeys and S. gallinarum in chickens. Lowry VK, et al. **Int J Food Microbiol** 1999 May 1;48(2):139-48

ISOLATION & PURIFICATION

Simultaneous occurrence of Salmonella arizonae in a sulfur crested cockatoo (Cacatua galerita galerita) and iguanas. Orós J, et al. **Avian Dis** 1998 Oct-Dec;42(4):818-23

SALMONELLA ENTERICA

[Benign intracranial hypertension after treatment with pefloxacin (letter)] Blanc P, et al. **Arch Pediatr** 1998 Aug; 5(8):930-1 **(Fre)**

CLASSIFICATION

Pulsed field gel electrophoresis identifies an outbreak of Salmonella enterica serotype Montevideo infection associated with a supermarket hot food outlet. Threlfall EJ, et al. **Commun Dis Public Health** 1999 Sep;2(3):207-9

Molecular typing of Salmonella serotype Thompson strains isolated from human and animal sources. Chisholm SA, et al. **Epidemiol Infect** 1999 Feb;122(1):33-9

Emergence of multidrug-resistant Salmonella enterica serotype Typhimurium phage-type DT104 among salmonellae causing enteritis in Israel. Metzer E, et al. **Epidemiol Infect** 1998 Dec;121(3):555-9

Revised Salmonella nomenclature: designation of Salmonella enterica (ex Kauffmann and Edwards 1952) Le Minor and Popoff 1987 sp. nov., nom. rev. as the neotype species of the genus Salmonella Lignieres 1900 (approved lists 1980), rejection of the name Salmonella choleraesuis (Smith 1894) Weldin 1927 (approved lists 1980), and conservation of the name Salmonella typhi (Schroeter 1886) Warren and Scott 1930 (approved lists 1980). Request for an opinion. Euzéby JP. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:927-30

Comparison of ribotyping and arbitrarily primed PCR for molecular typing of Salmonella enterica and relationships between strains on the basis of these molecular markers. Hilton AC, et al. **J Appl Microbiol** 1998 Dec;85(6):933-40

Restriction fragment length polymorphism analysis of some flagellin genes of Salmonella enterica. Dauga C, et al. **J Clin Microbiol** 1998 Oct;36(10):2835-43

Emergence and spread of an atypical Salmonella enterica subsp. enterica serotype 4,5,12:i:- strain in Spain. Echeita MA, et al. **J Clin Microbiol** 1999 Oct;37(10):3425

Typing of Salmonella enterica serotype paratyphi C isolates from various countries by plasmid profiles and pulsed-field gel electrophoresis. Kariuki S, et al. **J Clin Microbiol** 1999 Jun;37(6):2058-60

Multinational outbreak of Salmonella enterica serotype Newport infections due to contaminated alfalfa sprouts. Van Beneden CA, et al. **JAMA** 1999 Jan 13;281(2):158-62

Phage types of Australian isolates of Salmonella enterica subsp. enterica serovar Virchow. Sullivan AM, et al. **Lett Appl Microbiol** 1998 Oct;27(4):216-8

Supplement 1997 (no. 41) to the Kauffmann-White scheme. Popoff MY, et al. **Res Microbiol** 1998 Sep;149(8):601-4

Inter- and intra-phage type differentiation of Salmonella enterica subsp. enterica serovar enteritidis isolates using molecular typing methods. Weide-Botjes M, et al. **Zentralbl Bakteriol** 1998 Oct;288(2):181-93

DRUG EFFECTS

Resistance of Salmonella and Campylobacter species to antimicrobial agents. Mirelis B, et al. **Eur J Clin Microbiol Infect Dis** 1999 Apr;18(4):312

Increasing incidence and comparison of nalidixic acid-resistant Salmonella enterica subsp. enterica serotype typhimurium isolates from humans and animals. Heurtin-Le Corre C, et al. **J Clin Microbiol** 1999 Jan;37(1):266-9

A study of current trends in enteric fever. Agarwal KS, et al. **J Commun Dis** 1998 Sep;30(3):171-4

[Quinolone resistance in Salmonella enterica.] Seral C, et al. **Rev Esp Quimioter** 1998 Mar;11(1):43-6 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

A periplasmic D-alanyl-D-alanine dipeptidase in the gram-negative bacterium Salmonella enterica. Hilbert F, et al. **J Bacteriol** 1999 Apr;181(7):2158-65

Characterization of dTDP-4-dehydrorhamnose 3,5-epimerase and dTDP-4-dehydrorhamnose reductase, required for dTDP-L-rhamnose biosynthesis in Salmonella enterica serovar Typhimurium LT2. Graninger M, et al. **J Biol Chem** 1999 Aug 27;274(35):25069-77

GENETICS

Molecular typing of Salmonella serotype Thompson strains isolated from human and animal sources. Chisholm SA, et al. **Epidemiol Infect** 1999 Feb;122(1):33-9

Discrimination between endemic and feedborne Salmonella Infantis infection in cattle by molecular typing. Lindqvist N, et al. **Epidemiol Infect** 1999 Jun;122(3):497-504

Molecular fingerprinting defines a strain of Salmonella enterica serotype Anatum responsible for an international outbreak associated with formula-dried milk. Threlfall EJ, et al. **Epidemiol Infect** 1998 Oct;121(2):289-93

Comparative physical and genetic maps of the virulence plasmids of Salmonella enterica serovars typhimurium, enteritidis, choleraesuis, and dublin. Chu C, et al. **Infect Immun** 1999 May;67(5):2611-4

The SPI-3 pathogenicity island of Salmonella enterica. Blanc-Potard AB, et al. **J Bacteriol** 1999 Feb; 181(3):998-1004

The propanediol utilization (pdu) operon of Salmonella enterica serovar Typhimurium LT2 includes genes necessary for formation of polyhedral organelles involved in coenzyme B(12)-dependent 1, 2-propanediol degradation. Bobik TA, et al. **J Bacteriol** 1999 Oct; 181(19):5967-75

Restriction fragment length polymorphism analysis of some flagellin genes of Salmonella enterica. Dauga C, et al. **J Clin Microbiol** 1998 Oct;36(10):2835-43

GROWTH & DEVELOPMENT

Resistance of Escherichia coli and Salmonella against nisin and curvacin A. Gänzle MG, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):37-50

IMMUNOLOGY

Antibody responses against flagellin in mice orally immunized with attenuated Salmonella vaccine strains. De Almeida ME, et al. **Arch Microbiol** 1999 Aug;172(2):102-8

Immunization of mice with live oral vaccine based on a Salmonella enterica (sv Typhimurium) aroA strain expressing the Escherichia coli O111 O antigen. Wang L, et al. **Microb Pathog** 1999 Jul;27(1):55-9

[Agglutination of hen egg-yolk immunoglobulins (IgY) against Salmonella enterica, serovar enteritidis] Terzolo HR, et al. **Rev Argent Microbiol** 1998 Apr-Jun;30(2):84-92 (Eng. Abstr.) **(Spa)**

ISOLATION & PURIFICATION

Cost-effective methods for isolation of Salmonella enterica in the clinical laboratory. Kelly S, et al. **J Clin Microbiol** 1999 Oct;37(10):3369

Salmonella enterica serotype Dublin infection: an emerging infectious disease for the northeastern United States. McDonough PL, et al. **J Clin Microbiol** 1999 Aug; 37(8):2418-27

A study of current trends in enteric fever. Agarwal KS, et al. **J Commun Dis** 1998 Sep;30(3):171-4

Outbreak of Salmonella serotype Hartford infections associated with unpasteurized orange juice [see comments] Cook KA, et al. **JAMA** 1998 Nov 4;280(17):1504-9. Comment in: JAMA 1999 May 26;281(20):1892-3.

Salmonella level of Danish swine herds based on serological examination of meat-juice samples and Salmonella occurrence measured by bacteriological follow-up. Christensen J, et al. **Prev Vet Med** 1999 Jun 11; 40(3-4):277-92

PATHOGENICITY

Interaction of Salmonella with host cells through the centisome 63 type III secretion system. Galán JE. **Curr Opin Microbiol** 1999 Feb;2(1):46-50 (32 ref.)

A Salmonella virulence protein that inhibits cellular trafficking. Uchiya K, et al. **EMBO J** 1999 Jul 15; 18(14):3924-33

Pathogenicity in isolates of Salmonella enterica serotype Enteritidis PT4 which differ in RpoS expression: effects of growth phase and low temperature. Humphrey TJ, et al. **Epidemiol Infect** 1998 Oct;121(2):295-301

Evolution of host adaptation in Salmonella enterica. Bäumler AJ, et al. **Infect Immun** 1998 Oct;66(10):4579-87 (123 ref.)

Comparative physical and genetic maps of the virulence plasmids of Salmonella enterica serovars typhimurium, enteritidis, choleraesuis, and dublin. Chu C, et al. **Infect Immun** 1999 May;67(5):2611-4

The SPI-3 pathogenicity island of Salmonella enterica. Blanc-Potard AB, et al. **J Bacteriol** 1999 Feb; 181(3):998-1004

Risk factors for Salmonella enterica subsp. enterica contamination in French broiler-chicken flocks at the end of the rearing period. Rose N, et al. **Prev Vet Med** 1999 Apr 27;39(4):265-77

Anti-immune trick unveiled in Salmonella [news] Strauss E. **Science** 1999 Jul 16;285(5426):307-8

PHYSIOLOGY

Molecular basis for structural diversity in the core regions of the lipopolysaccharides of Escherichia coli and Salmonella enterica. Heinrichs DE, et al. **Mol Microbiol** 1998 Oct;30(2):221-32 (33 ref.)

ULTRASTRUCTURE

The propanediol utilization (pdu) operon of Salmonella enterica serovar Typhimurium LT2 includes genes necessary for formation of polyhedral organelles involved in coenzyme B(12)-dependent 1, 2-propanediol degradation. Bobik TA, et al. **J Bacteriol** 1999 Oct; 181(19):5967-75

SALMONELLA ENTERITIDIS

Myocardial abscess with salmonella infection [letter] Recio J, et al. **Ann Intern Med** 1999 Sep 21;131(6):477-8

Reduction of fecal shedding and egg contamination of Salmonella enteritidis by increasing the number of heterophil adaptations. Kramer TT, et al. **Avian Dis** 1998 Jul-Sep;42(3):585-8

Changes in microflora of the cloaca and oviduct of hens after intracloacal or intravaginal inoculation with Salmonella enteritidis. Miyamoto T, et al. **Avian Dis** 1998 Jul-Sep; 42(3):536-44

Salmonella infection in total hip replacement--report of successful reimplantation and review of the literature. Chen CM, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Jul; 62(7):472-6 (13 ref.)

An outbreak of Salmonella enteritidis phage type 5a infection in a residential home for elderly people. Hansell AL, et al. **Commun Dis Public Health** 1998 Sep;1(3):172-5

Salmonella enteritidis PT6: another egg-associated salmonellosis? Evans MR, et al. **Emerg Infect Dis** 1998 Oct-Dec;4(4):667-9

Risk factors for the occurrence of sporadic Salmonella enterica serotype enteritidis infections in children in France: a national case-control study. Delarocque-Astagneau E, et al. **Epidemiol Infect** 1998 Dec; 121(3):561-7

Spontaneous non-typhoidal Salmonella peritonitis in patients with serious underlying disorders. de la Fuente-Aguado J, et al. **Infection** 1999 May-Jun;27(3):224-7 (21 ref.)

Efficacy of disinfection of shell eggs externally contaminated with Salmonella enteritidis. Implications for egg testing. Himathongkham S, et al. **Int J Food Microbiol** 1999 Aug 15;49(3):161-7

Salmonella enteritidis infections in the United States. Angulo FJ, et al. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1729-31 (10 ref.)

Persistence of Salmonella enteritidis from one day of age until maturity in experimentally infected layer chickens. Gast RK, et al. **Poult Sci** 1998 Dec;77(12):1759-62

Application of negative air ionization for reducing experimental airborne transmission of Salmonella enteritidis to chicks. Gast RK, et al. **Poult Sci** 1999 Jan;78(1):57-61

Raw egg ingestion and salmonellosis in body builders. Mackenzie AR, et al. **Scott Med J** 1998 Oct;43(5):146-7

Salmonella enteritidis infections from shell eggs: outbreaks in California. Mohle-Boetani JC, et al. **West J Med** 1998 Nov;169(5):299-303

Supraclavicular abscess caused by Salmonella enteritidis in patient without gastrointestinal symptoms. Vajo Z, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):802-3

Pattern analysis of human Salmonella enteritidis infection. Bögel K, et al. **Zentralbl Bakteriol** 1995 Oct;282(4):474-97

Simplified preparation of a specific S. enteritidis antigen for ELISA and other immunological techniques. Zamora BM, et al. **Zentralbl Veterinarmed [B]** 1999 Feb;46(1):1-7

[An epidemic of salmonellosis in the First League Hockey Team] Černý Z, et al. **Epidemiol Mikrobiol Imunol** 1998 Dec;47(4):166-8 (Eng. Abstr.) **(Cze)**

[An outbreak of Salmonella enteritidis at the New Year celebration of the Copenhagen Medical Association] Neimann BJ, et al. **Ugeskr Laeger** 1999 May 10; 161(19):2803-6 (Eng. Abstr.) **(Dan)**

[Salmonella enteritidis gastroenteritis and erythema nodosum (letter)] Farges C, et al. **Arch Pediatr** 1999 Mar;6(3):337-8 **(Fre)**

[Efficacy of maternal Salmonella antibodies and experimental oral infection of chicks with Salmonella enteritidis] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):373-7 (Eng. Abstr.) **(Ger)**

[Fever and lumbalgia in a 22-year-old patient. Vertebral osteomyelitis mit epidural abscess] Stahl A, et al. **Internist (Berl)** 1999 Jan;40(1):95-9 **(Ger)**

[Infected aneurysms of the abdominal aorta. Personal case reports] Azzarone M, et al. **Minerva Chir** 1998 Jun; 53(6):535-8 (8 ref.) (Eng. Abstr.) **(Ita)**

[Bleeding infectious enteritis] Mitsuda T, et al. **Nippon Rinsho** 1998 Sep;56(9):2376-81 (18 ref.) (Eng. Abstr.) **(Jpn)**

[A case of Salmonella subdural empyema developed in chronic subdural hematoma] Kan M, et al. **No Shinkei Geka** 1998 Oct;26(10):903-7 (Eng. Abstr.) **(Jpn)**

[Food borne disease outbreaks caused by Salmonella enteritidis] Peresi JT, et al. **Rev Saude Publica** 1998 Oct; 32(5):477-83 (Eng. Abstr.) **(Por)**

[Salmonella infection in the surgical departments of a city hospital] Trunilina RA, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):111-3 **(Rus)**

[Intravascular infection caused by Salmonella enteritidis] de la Fuente Aguado J, et al. **An Med Interna** 1999 Apr; 16(4):191-2 (Eng. Abstr.) **(Spa)**

[Salmonella enteritidis meningitis in adults. Report of 2 cases and review of the literature (letter)] Asensi JM, et al. **Rev Clin Esp** 1998 Sep;198(9):633-4 (10 ref.) **(Spa)**

[The efficacy of Salmocumarin rodenticide in

livestock-raising and urban sites] Villafaña F, et al. **Rev Cubana Med Trop** 1995;47(2):83-7 (Eng. Abstr.) **(Spa)**

CHEMISTRY

Periplasmic and fimbrial SefA from Salmonella enteritidis. Clouthier SC, et al. **Biochim Biophys Acta** 1998 Sep 8; 1387(1-2):355-68

Structural predictions of AgfA, the insoluble fimbrial subunit of Salmonella thin aggregative fimbriae. Collinson SK, et al. **J Mol Biol** 1999 Jul 16;290(3):741-56

CLASSIFICATION

Clinical and veterinary isolates of Salmonella enterica serovar enteritidis defective in lipopolysaccharide O-chain polymerization. Guard-Petter J, et al. **Appl Environ Microbiol** 1999 May;65(5):2195-201

Phage type conversion in Salmonella enterica serotype Enteritidis caused by the introduction of a resistance plasmid of incompatibility group X (IncX). Brown DJ, et al. **Epidemiol Infect** 1999 Feb;122(1):19-22

Molecular epidemiology of Salmonella serotype Enteritidis. Relationships between food, water and pathogenic strains. Landers E, et al. **Int J Food Microbiol** 1998 Aug 18; 43(1-2):81-90

Evaluation of PCR-based methods and ribotyping performed with a mixture of PstI and SphI to differentiate strains of Salmonella serotype Enteritidis. Landeras E, et al. **J Med Microbiol** 1998 May;47(5):427-34

Identification by a multiplex PCR-based assay of Salmonella typhimurium and Salmonella enteritidis strains from environmental swabs of poultry houses. Soumet C, et al. **Lett Appl Microbiol** 1999 Jul;29(1):1-6

DRUG EFFECTS

Extended-spectrum beta-lactamase-producing Salmonella enteritidis in Trinidad and Tobago [letter] Cherian BP, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):181-2

In vitro evaluation of intracellular activity of antibiotics against non-typhoid Salmonella. Chiu CH, et al. **Int J Antimicrob Agents** 1999 Jun;12(1):47-52

Effect of nisin on heat injury and inactivation of Salmonella enteritidis PT4. Boziaris IS, et al. **Int J Food Microbiol** 1998 Aug 18;43(1-2):7-13

Antibacterial activity of wine against Salmonella enteritidis: pH or alcohol? [letter] Marimón JM, et al. **J Clin Gastroenterol** 1998 Sep;27(2):179-80

Comparison of enrichment methods for recovery and chick infectivity of chlorine-injured Salmonella enteritidis. Sarlin LL, et al. **J Food Prot** 1998 Nov;61(11):1504-6

Evaluation of potential disinfectants for preslaughter broiler crop decontamination. Barnhart ET, et al. **Poult Sci** 1999 Jan;78(1):32-7

ENZYMOLOGY

Extended-spectrum beta-lactamase-producing Salmonella enteritidis in Trinidad and Tobago [letter] Cherian BP, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):181-2

GENETICS

Partial inhibition of amplifications by primers of EHEC genes. Gadó I, et al. **Acta Microbiol Immunol Hung** 1998; 45(2):239-52

Computer-assisted restriction endonuclease analysis of plasmid DNA in field strains of Salmonella enteritidis. Rychlik I, et al. **Can J Microbiol** 1998 Dec;44(12):1183-5

Phage type conversion in Salmonella enterica serotype Enteritidis caused by the introduction of a resistance plasmid of incompatibility group X (IncX). Brown DJ, et al. **Epidemiol Infect** 1999 Feb;122(1):19-22

The variant rpoS allele of S. enteritidis strain 27655R does not affect virulence in a chick model nor constitutive curliation but does generate a cold-sensitive phenotype. Allen-Vercoe E, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):245-53

Salmonella enteritidis phage types 1 and 4: pheno- and genotypic epidemiology of recent outbreaks in Finland. Lukinmaa S, et al. **J Clin Microbiol** 1999 Jul;37(7):2176-82

Evaluation of PCR-based methods and ribotyping performed with a mixture of PstI and SphI to differentiate strains of Salmonella serotype Enteritidis. Landeras E, et al. **J Med Microbiol** 1998 May;47(5):427-34

SERE, a widely dispersed bacterial repetitive DNA element. Rajashekara G, et al. **J Med Microbiol** 1998 Jun; 47(6):489-97

Epidemiological analysis of Salmonella enteritidis from human outbreaks by pulsed-field gel electrophoresis. Murakami K, et al. **J Vet Med Sci** 1999 Apr;61(4):439-42

Plasmid profile analysis and antibiotic resistance of Salmonella strains from clinical isolates in Cluj-Napoca. Făgărăşan S, et al. **Roum Arch Microbiol Immunol** 1997 Jul-Dec;56(3-4):127-38

High efficiency genc replacement in Salmonella enteritidis: chimeric fimbrins containing a T-cell epitope from Leishmania major. White AP, et al. **Vaccine** 1999 Apr 23; 17(17):2150-61

GROWTH & DEVELOPMENT

Survival of Salmonella enteritidis and Salmonella typhimurium in chicken manure at different levels of water activity. Himathongkham S, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):159-63

A predictive model for the non-thermal inactivation of Salmonella enteritidis in a food model system supplemented with a natural antimicrobial. Koutsoumanis K, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):63-74

Rapid growth of Salmonella enteritidis in egg white reconstituted from industrial egg white powder. Baron F, et al. **J Food Prot** 1999 Jun;62(6):585-91

Fate of Escherichia coli O157:H7 and Salmonella Enteritidis on currency. Jiang X, et al. **J Food Prot** 1999 Jul; 62(7):805-7

Use of capillary tubes and plate heat exchanger to validate U.S. Department of Agriculture pasteurization protocols for elimination of Salmonella enteritidis from liquid egg products. Michalski CB, et al. **J Food Prot** 1999 Feb; 62(2):112-7

Effect of pH, temperature and surface contact on the elaboration of fimbriae and flagella by Salmonella serotype Enteritidis. Walker SL, et al. **J Med Microbiol** 1999 Mar; 48(3):253-61

The fate of Salmonella enteritidis PT4 in home-made mayonnaise prepared with citric acid. Xiong R, et al. **Lett Appl Microbiol** 1999 Jan;28(1):36-40

IMMUNOLOGY

Resistance to Salmonella enteritidis organ invasion in day-old turkeys and chickens by transformed T-cell line-produced lymphokines. Genovese KJ, et al. **Avian Dis** 1998 Jul-Sep; 42(3):545-53

Efficacy of Salmonella enteritidis-immune lymphokines on horizontal transmission of S. arizonae in turkeys and S. gallinarum in chickens. Lowry VK, et al. **Int J Food Microbiol** 1999 May 1;48(2):139-48

B-complex associated immunity to Salmonella enteritidis challenge in congenic chickens. Cotter PF, et al. **Poult Sci** 1998 Dec;77(12):1846-51

Secretion of Salmonella-specific antibodies in the oviducts of hens experimentally infected with Salmonella enteritidis. Withanage GS, et al. **Vet Immunol Immunopathol** 1999 Feb 1;67(2):185-93

T lymphocytes, B lymphocytes, and macrophages in the ovaries and oviducts of laying hens experimentally infected with Salmonella enteritidis. Withanage GS, et al. **Vet Immunol Immunopathol** 1998 Nov 24;66(2):173-84

Enhancement of phagocytosis and bacterial killing by heterophils from neonatal chicks after administration of Salmonella enteritidis-immune lymphokines. Genovese LL, et al. **Vet Microbiol** 1999 Mar 1;65(2):133-43

Adjuvanted outer membrane protein vaccine protects poultry against infection with Salmonella enteritidis. Meenakshi M, et al. **Vet Res Commun** 1999 Mar;23(2):81-90

[The role of the structural parts of bacterial lipopolysaccharide in its direct immunosuppressive activity] Borisova EV. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar-Apr; (2):22-5 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

Partial inhibition of amplifications by primers of EHEC genes. Gadó I, et al. **Acta Microbiol Immunol Hung** 1998; 45(2):239-52

Salmonella enteritidis meningitis in a healthy neonate [letter] Bose A, et al. **Ann Trop Paediatr** 1998 Dec;18(4):335

Salmonella enteritidis outbreak due to contaminated cheese--Newfoundland. Ratnam S, et al. **Can Commun Dis Rep** 1999 Feb 1;25(3):17-9; discussion 19-21 **(Eng, Fre)**

Undercooked hens eggs remain a risk factor for sporadic Salmonella enteritidis infection. Hayes S, et al. **Commun Dis Public Health** 1999 Jan;2(1):66-7

Common source outbreak of salmonellosis in a food factory. Wilson D, et al. **Commun Dis Public Health** 1999 Jan; 2(1):32-4

Outbreak of Salmonella enteritidis phage type 21 among British tourists returning from Ostend. **Commun Dis Rep CDR Wkly** 1998 Oct 30;8(44):389, 392

Application of recombinant fimbrial protein for the specific detection of Salmonella enteritidis infection in poultry. Rajashekara G, et al. **Diagn Microbiol Infect Dis** 1998 Nov; 32(3):147-57

A Mexican restaurant-associated outbreak of Salmonella Enteritidis type 34 infections traced to a contaminated egg farm. McNeil MM, et al. **Epidemiol Infect** 1999 Apr; 122(2):209-15

An international outbreak of Salmonella enteritidis associated with lasagne; lessons on the need for cross-national co-operation in investigating food-borne outbreaks. Nylen G, et al. **Epidemiol Infect** 1999 Aug;123(1):31-5

Comparison of two Salmonella enteritidis phage typing schemes. Głośnicka R, et al. **Eur J Epidemiol** 1999 Apr; 15(4):395-401

An unusual haemarthrosis in an HIV-seronegative haemophilia A patient. Ménart C, et al. **Haemophilia** 1998 Sep;4(5):752-4

Inhibitory effects of competitive exclusion and fructooligosaccharide, singly and in combination, on Salmonella colonization of chicks. Fukata T, et al. **J Food Prot** 1999 Mar;62(3):229-33

Cheesecake: a potential vehicle for salmonellosis? Hao YY, et al. **J Food Prot** 1999 Jan;62(1):26-9

Comparison of enrichment methods for recovery and chick infectivity of chlorine-injured Salmonella enteritidis. Sarlin LL, et al. **J Food Prot** 1998 Nov;61(11):1504-6

Convalescent excretion of Salmonella enteritidis in infants. Balfour AE, et al. **J Infect** 1999 Jan;38(1):24-5

Salmonella in broiler chickens in Thailand with special reference to contamination of retail meat with Salmonella enteritidis. Boonmar S, et al. **J Vet Med Sci** 1998 Nov; 60(11):1233-6

Cervical spondylitis and epidural abscess caused by Salmonella enteritidis with tetraplegia. Akagi S, et al. **Orthopedics** 1998 Dec;21(12):1289-91

Presence of Salmonella in the crop and ceca of broiler chickens before and after preslaughter feed withdrawal. Corrier DE, et al. **Poult Sci** 1999 Jan;78(1):45-9

[Monitoring poultry production] van der Zee H, et al. **Tijdschr Diergeneeskd** 1999 Apr 15;124(8):265-6 **(Dut)**

[Biochemical and molecular characterization of Salmonella ser. enteritidis phage type 1 isolated from food poisoning outbreaks in Tokyo] Kusunoki J, et al. **Kansenshogaku Zasshi** 1999 May;73(5):437-44 (Eng. Abstr.) **(Jpn)**

[An outbreak of acute intestinal infections in a children's home] Solodovnikov IuP, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep-Oct; (5):120-1 **(Rus)**

[Epidemic outbreaks of salmonellosis caused by eating eggs] Arnedo A, et al. **Enferm Infecc Microbiol Clin** 1998 Nov; 16(9):408-12 (Eng. Abstr.) **(Spa)**

METABOLISM

Clinical and veterinary isolates of Salmonella enterica serovar enteritidis defective in lipopolysaccharide O-chain polymerization. Guard-Petter J, et al. **Appl Environ Microbiol** 1999 May;65(5):2195-201

Adenylates and adenylate-energy charge in submerged and planktonic cultures of Salmonella enteritidis and Salmonella typhimurium. Walker SL, et al. **Int J Food Microbiol** 1998 Oct 20;44(1-2):107-13

PATHOGENICITY

Feed deprivation affects crop environment and modulates Salmonella enteritidis colonization and invasion of leghorn hens. Durant JA, et al. **Appl Environ Microbiol** 1999 May; 65(5):1919-23

Virulence of Salmonella enterica serotype Enteritidis aflagellate and afimbriate mutants in a day-old chick model. Allen-Vercoe E, et al. **Epidemiol Infect** 1999 Jun; 122(3):395-402

The variant rpoS allele of S. enteritidis strain 27655R does not affect virulence in a chick model nor constitutive curliation but does generate a cold-sensitive phenotype. Allen-Vercoe E, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):245-53

Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection. Altare F, et al. **J Clin Invest** 1998 Dec 15; 102(12):2035-40

Fimbriae- and flagella-mediated association with and invasion of cultured epithelial cells by Salmonella enteritidis. Dibb-Fuller MP, et al. **Microbiology** 1999 May; 145 (Pt 5):1023-31

[Significance of motility of Salmonella enteritidis and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):391-6 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

The role of flagella, but not fimbriae, in the adherence of Salmonella enterica serotype Enteritidis to chick gut explant. Allen-Vercoe E, et al. **J Med Microbiol** 1999 Aug; 48(8):771-80

Prolonged incubation period of salmonellosis in an outbreak of Salmonella enteritidis infection. Nagai K, et al. **Microbiol Immunol** 1999;43(1):69-71

[Significance of motility of Salmonella enteritidis and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):391-6 (Eng. Abstr.) **(Ger)**

VIROLOGY

Salmonella enteritidis phage types 1 and 4: pheno- and genotypic epidemiology of recent outbreaks in Finland. Lukinmaa S, et al. **J Clin Microbiol** 1999 Jul;37(7):2176-82

SALMONELLA FOOD POISONING

[An editorial about an editorial (letter)] Lundstedt C, et al. **Ugeskr Laeger** 1999 Jun 28;161(26):4022-3 **(Dan)**

DIAGNOSIS

Serotyping delays and implications for public health action: The Northern Territory experience of the 1996 national outbreak of Salmonella Mbandaka and a comparison with Western Australia [letter] [see comments] Skull SA, et al.

Aust N Z J Med 1998 Oct;28(5):660–1. Comment in: Aust N Z J Med 1998 Oct;28(5):579–80.

EPIDEMIOLOGY

Consequences in Georgia of a nationwide outbreak of Salmonella infections: what you don't know might hurt you. Mahon BE, et al. **Am J Public Health** 1999 Jan; 89(1):31–5

Consumer attitudes and behaviours--key risk factors in an outbreak of Salmonella typhimurium phage type 12 infection sourced to chicken nuggets. Kenny B, et al. **Aust N Z J Public Health** 1999 Apr;23(2):164–7

Salmonella Oranienburg, Ontario. Deeks S, et al. **Can Commun Dis Rep** 1998 Nov 15;24(22):177–8; discussion 178–9 **(Eng, Fre)**

Salmonella enteritidis outbreak due to contaminated cheese--Newfoundland. Ratnam S, et al. **Can Commun Dis Rep** 1999 Feb 1;25(3):17–9; discussion 19–21 **(Eng, Fre)**

Undercooked hens eggs remain a risk factor for sporadic Salmonella enteritidis infection. Hayes S, et al. **Commun Dis Public Health** 1999 Jan;2(1):66–7

Pulsed field gel electrophoresis identifies an outbreak of Salmonella enterica serotype Montevideo infection associated with a supermarket hot food outlet. Threlfall EJ, et al. **Commun Dis Public Health** 1999 Sep;2(3):207–9

Common source outbreak of salmonellosis in a food factory. Wilson D, et al. **Commun Dis Public Health** 1999 Jan; 2(1):32–4

Defective pasteurisation linked to outbreak of Salmonella typhimurium definitive phage type 104 infection in Lancashire. **Commun Dis Rep CDR Wkly** 1998 Sep 18; 8(38):335, 338

Salmonella outbreak in North Thames linked to delicatessen. **Commun Dis Rep CDR Wkly** 1998 Oct 16;8(42):369, 372

Salmonella java phage type Dundee--rise in cases: update. **Commun Dis Rep CDR Wkly** 1999 Mar 19;9(12):105, 108

Outbreak of Salmonella enteritidis phage type 21 among British tourists returning from Ostend. **Commun Dis Rep CDR Wkly** 1998 Oct 30;8(44):389, 392

An outbreak of Salmonella typhimurium DT170 associated with kebab meat and yogurt relish. Evans MR, et al. **Epidemiol Infect** 1999 Jun;122(3):377–83

Outbreaks of salmonellosis associated with eating uncooked tomatoes: implications for public health. The Investigation Team. Hedberg CW, et al. **Epidemiol Infect** 1999 Jun; 122(3):385–93

An international outbreak of Salmonella enteritidis associated with lasagne; lessons on the need for cross-national co-operation in investigating food-borne outbreaks. Nylen G, et al. **Epidemiol Infect** 1999 Aug;123(1):31–5

An outbreak of Salmonella typhimurium at a teaching hospital. McCall B, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):55–6

Impact on human health of Salmonella spp. on pork in The Netherlands and the anticipated effects of some currently proposed control strategies. Berends BR, et al. **Int J Food Microbiol** 1998 Nov 10;44(3):219–29

Molecular epidemiology of Salmonella serotype Enteritidis. Relationships between food, water and pathogenic strains. Landers E, et al. **Int J Food Microbiol** 1998 Aug 18; 43(1–2):81–90

Salmonella enteritidis infections in the United States. Angulo FJ, et al. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1729–31 (10 ref.)

An outbreak of food poisoning associated with restaurant-made mayonnaise in Abha, Saudi Arabia. al-Ahmadi KS, et al. **J Diarrhoeal Dis Res** 1998 Sep; 16(3):201–4

Topics in dose-response modeling. Coleman M, et al. **J Food Prot** 1998 Nov;61(11):1550–9

From the Centers for Disease Control and Prevention. Outbreak of Salmonella serotype Muenchen infections associated with unpasteurized orange juice--United States and Canada, June 1999. **JAMA** 1999 Aug 25;282(8):726–8

Two outbreaks of multidrug-resistant Salmonella serotype typhimurium DT104 infections linked to raw-milk cheese in Northern California. Cody SH, et al. **JAMA** 1999 May 19;281(19):1805–10

Outbreak of Salmonella serotype Hartford infections associated with unpasteurized orange juice [see comments] Cook KA, et al. **JAMA** 1998 Nov 4;280(17):1504–9. Comment in: JAMA 1999 May 26;281(20):1892–3.

Lessons from investigations of foodborne disease outbreaks [editorial] Keene WE. **JAMA** 1999 May 19;281(19):1845–7

Multinational outbreak of Salmonella enterica serotype Newport infections due to contaminated alfalfa sprouts. Van Beneden CA, et al. **JAMA** 1999 Jan 13;281(2):158–62

Investigation of multidrug-resistant Salmonella serotype typhimurium DT104 infections linked to raw-milk cheese in Washington State. Villar RG, et al. **JAMA** 1999 May 19;281(19):1811–6

Outbreak of Salmonella serotype Muenchen infections associated with unpasteurized orange juice--United States and Canada, June 1999. **MMWR Morb Mortal Wkly Rep** 1999 Jul 16;48(27):582–5

Salmonella outbreaks in the Kansas City metropolitan area: varying presentations. Wilkinson TH, et al. **Mo Med** 1999 Feb;96(2):62–6

Clinical presentation and treatment of a Salmonella bredeney epidemic in Shelby County, Alabama. Jahraus CD, et al. **South Med J** 1999 Aug;92(8):799–801

Salmonella enteritidis infections from shell eggs: outbreaks in California. Mohle-Boetani JC, et al. **West J Med** 1998 Nov;169(5):299–303

Outbreak of quinolone-resistant, multiresistant Salmonella typhimurium DT104, Denmark. **Wkly Epidemiol Rec** 1998 Oct 16;73(42):327–8 **(Eng, Fre)**

[The application of a Salmonella typhimurium biotyping method to the epidemiological surveys and surveillance] Zhou G, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Aug; 19(4):221–3 (Eng. Abstr.) **(Chi)**

[An epidemic of salmonellosis in the First League Hockey Team] Černý Z, et al. **Epidemiol Mikrobiol Imunol** 1998 Dec;47(4):166–8 (Eng. Abstr.) **(Cze)**

[An outbreak of Salmonella enteritidis at the New Year celebration of the Copenhagen Medical Association] Neimann BJ, et al. **Ugeskr Laeger** 1999 May 10; 161(19):2803–6 (Eng. Abstr.) **(Dan)**

[An epidemic of Salmonella typhimurium associated with traditional salted, smoked, and dried ham] Mertens PL, et al. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1046–9 (Eng. Abstr.) **(Dut)**

[Investigation of foodborne outbreak due to Salmonella infantis using epidemiological and microbiological methods (published erratum appears in Gesundheitswesen 1999 Jun;61(6):298)] Dieckmann H, et al. **Gesundheitswesen** 1999 May;61(5):241–7 (Eng. Abstr.) **(Ger)**

[Food borne disease outbreaks caused by Salmonella enteritidis] Peresi JT, et al. **Rev Saude Publica** 1998 Oct; 32(5):477–83 (Eng. Abstr.) **(Por)**

[Epidemic outbreaks of salmonellosis caused by eating eggs] Arnedo A, et al. **Enferm Infecc Microbiol Clin** 1998 Nov; 16(9):408–12 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Undercooked hens eggs remain a risk factor for sporadic Salmonella enteritidis infection. Hayes S, et al. **Commun Dis Public Health** 1999 Jan;2(1):66–7

An outbreak of multidrug-resistant Salmonella typhimurium food poisoning at a wedding reception. Grein T, et al. **Ir Med J** 1999 Jan–Feb;92(1):238–41

Raw egg ingestion and salmonellosis in body builders. Mackenzie AR, et al. **Scott Med J** 1998 Oct;43(5):146–7

MICROBIOLOGY

An outbreak of Salmonella enteritidis phage type 5a infection in a residential home for elderly people. Hansell AL, et al. **Commun Dis Public Health** 1998 Sep;1(3):172–5

Detection and isolation of Salmonella from naturally contaminated alfalfa seeds following an outbreak investigation. Inami GB, et al. **J Food Prot** 1999 Jun; 62(6):662–4

Salmonella Thompson associated with improper handling of roast beef at a restaurant in Sioux Falls, South Dakota. Shapiro R, et al. **J Food Prot** 1999 Feb;62(2):118–22

Prolonged incubation period of salmonellosis in an outbreak of Salmonella enteritidis infection. Nagai K, et al. **Microbiol Immunol** 1999;43(1):69–71

Clinical presentation and treatment of a Salmonella bredeney epidemic in Shelby County, Alabama. Jahraus CD, et al. **South Med J** 1999 Aug;92(8):799–801

[An epidemic of Salmonella typhimurium associated with traditional salted, smoked, and dried ham] Mertens PL, et al. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1046–9 (Eng. Abstr.) **(Dut)**

[Investigation of foodborne outbreak due to Salmonella infantis using epidemiological and microbiological methods (published erratum appears in Gesundheitswesen 1999 Jun;61(6):298)] Dieckmann H, et al. **Gesundheitswesen** 1999 May;61(5):241–7 (Eng. Abstr.) **(Ger)**

[Biochemical and molecular characterization of Salmonella ser. enteritidis phage type 1 isolated from food poisoning outbreaks in Tokyo] Kusunoki J, et al. **Kansenshogaku Zasshi** 1999 May;73(5):437–44 (Eng. Abstr.) **(Jpn)**

[Sepsis due to Salmonella Oranienburg--a case report] Okumara T, et al. **Kansenshogaku Zasshi** 1999 Aug; 73(8):787–91 (Eng. Abstr.) **(Jpn)**

PREVENTION & CONTROL

The Abuela Project: safe cheese workshops to reduce the incidence of Salmonella typhimurium from consumption of raw-milk fresh cheese. Bell RA, et al. **Am J Public Health** 1999 Sep;89(9):1421–4

Consequences in Georgia of a nationwide outbreak of Salmonella infections: what you don't know might hurt you. Mahon BE, et al. **Am J Public Health** 1999 Jan; 89(1):31–5

New egg safety recommendations added to FDA Food Code [news] **J Am Vet Med Assoc** 1999 May 15;214(10):1462

JAMA Patient Page: food-borne illnesses. **JAMA** 1999 May 19;281(19):1866

TRANSMISSION

An outbreak of Salmonella agona infection associated with precooked turkey meat. Synnott MB, et al. **Commun Dis Public Health** 1998 Sep;1(3):176–9

Salmonella in raw shell eggs in Northern Ireland: 1996–7. Wilson IG, et al. **Commun Dis Public Health** 1998 Sep; 1(3):156–60

Quantitative microbiological risk assessment: principles applied to determining the comparative risk of salmonellosis from chicken products. Brown MH, et al. **J Food Prot** 1998 Nov;61(11):1446–53

Salmonellosis in Trinidad: evidence for transovarian transmission of Salmonella in farm eggs. Indar L, et al. **West Indian Med J** 1998 Jun;47(2):50–3

SALMONELLA INFECTIONS

Cryptogenic Salmonella-infected ruptured aortic aneurysms. van Dam van Isselt EF, et al. **Cardiovasc Surg** 1998 Aug; 6(4):347–50

Vertebral osteomyelitis due to salmonellae: report of two cases and review. Santos EM, et al. **Clin Infect Dis** 1998 Aug;27(2):287–95 (86 ref.)

Pleuro pulmonary infection with Salmonella group E. Nair D, et al. **Diagn Microbiol Infect Dis** 1999 Aug;34(4):321–3

Respiratory manifestations of salmonelloses in AIDS patients [letter] Hovette P, et al. **Int J Tuberc Lung Dis** 1999 Aug; 3(8):743–4

Epidemiologic aspects, control, and importance of multiple-drug resistant Salmonella Typhimurium DT104 in the United States. Akkina JE, et al. **J Am Vet Med Assoc** 1999 Mar 15;214(6):790–8 (46 ref.)

Subdural empyema due to salmonella infection. Jain KC, et al. **Pediatr Neurosurg** 1998 Feb;28(2):89–90 (8 ref.)

[Pleuropulmonary manifestations of salmonellosis] Hovette P, et al. **Med Trop (Mars)** 1998;58(4):403–7 (67 ref.) (Eng. Abstr.) **(Fre)**

[Bleeding infectious enteritis] Mitsuda T, et al. **Nippon Rinsho** 1998 Sep;56(9):2376–81 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Salmonellosis] Sagara H. **Ryoikibetsu Shokogun Shirizu** 1999; (23 Pt 1):134–7 (11 ref.) **(Jpn)**

[Salmonella enteritidis meningitis in adults. Report of 2 cases and review of the literature (letter)] Asensi JM, et al. **Rev Clin Esp** 1998 Sep;198(9):633–4 (10 ref.) **(Spa)**

[Meningitis due to Salmonella in the neonatal period] Vázquez-López ME, et al. **Rev Neurol** 1998 Dec; 27(160):986–7 (Eng. Abstr.) **(Spa)**

CLASSIFICATION

[Nosocomial salmonellosis as an independent nosological form of human infectious pathology] Akimkin VG. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug; (4):106–10 (22 ref.) **(Rus)**

COMPLICATIONS

Myocardial abscess with salmonella infection [letter] Recio J, et al. **Ann Intern Med** 1999 Sep 21;131(6):477–8

Salmonella enteritidis meningitis in a healthy neonate [letter] Bose A, et al. **Ann Trop Paediatr** 1998 Dec;18(4):335

Acute bacterial infections and HIV disease. Gilks CF. **Br Med Bull** 1998;54(2):383–93 (48 ref.)

Peripheral ulcerative keratitis after Salmonella gastroenteritis. Yang J, et al. **Cornea** 1998 Nov;17(6):672–4

Non-typhoid Salmonella meningitis complicated by a infarction of basal ganglia. Kim H, et al. **J Korean Med Sci** 1999 Jun;14(3):342–4

Salmonella meningitis and its complications in infants. Lee WS, et al. **J Paediatr Child Health** 1999 Aug;35(4):379–82 (23 ref.)

Schistosomiasis and associated infections. Lambertucci JR, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:135–9 (49 ref.)

Salmonella-S. mansoni association in patients with acquired immunodeficiency syndrome. Lambertucci JR, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul–Aug;40(4):233–5

Characteristics of septic arthritis in human immunodeficiency virus-infected haemophiliacs versus other risk groups. Barzilai A, et al. **Rheumatology (Oxford)** 1999 Feb; 38(2):139–42

Brain abscess caused by Salmonella enteritidis in an immunocompetent adult patient: successful treatment with cefotaxime and ciprofloxacin. Bonvin P, et al. **Scand J Infect Dis** 1998;30(6):632–4

Persistent or severe course of reactive arthritis following Salmonella enteritidis infection. A prospective study of 9 cases. Kanakoudi-Tsakalidou F, et al. **Scand J Rheumatol** 1998;27(6):431–4

[Salmonella enteritidis gastroenteritis and erythema nodosum (letter)] Farges C, et al. **Arch Pediatr** 1999 Mar;6(3):337–8 **(Fre)**

[Cerebral abscess during a severe form of Salmonella typhimurium bacteremia in an immunocompetent patient] Broux C, et al. **Presse Med** 1998 May 23–30;27(19):909–10 (Eng. Abstr.) **(Fre)**

[A case of valve-like structure in ureter associated with pyonephrosis due to Salmonella infection] Ogura Y, et al. **Hinyokika Kiyo** 1999 Apr;45(4):261–4 (Eng. Abstr.) **(Jpn)**

[Transesophageal echocardiography in diagnosis of infectious endocarditis] Korneev NV, et al. **Klin Med (Mosk)** 1999; 77(5):21–4 (Eng. Abstr.) **(Rus)**

[Intravascular infection caused by Salmonella enteritidis] de la Fuente Aguado J, et al. **An Med Interna** 1999 Apr; 16(4):191–2 (Eng. Abstr.) **(Spa)**

[Salmonella osteomyelitis in a patient with collagenous colitis (letter)] Tomás ME, et al. **Rev Esp Enferm Dig** 1999 Jan; 91(1):76–7 **(Spa)**

DIAGNOSIS

Timeliness of Salmonella notifications in South Australia. Kirk MD, et al. **Aust N Z J Public Health** 1999 Apr; 23(2):198–200

Primary Salmonella iliopsoas abscess: a case report. Yu WL. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Apr; 62(4):239–43

Typhoid fever due to Salmonella Kapemba infection in an otherwise healthy middle-aged man. Sarnighausen HE, et al. **J Clin Microbiol** 1999 Jul;37(7):2381–2

Cervical spondylitis and epidural abscess caused by Salmonella enteritidis with tetraplegia. Akagi S, et al. **Orthopedics** 1998 Dec;21(12):1289–91

C-reactive protein levels for diagnosis of Salmonella gastroenteritis. Meloni GF, et al. **Pediatr Infect Dis J** 1999 May;18(5):471–3

Salmonella empyema following splenic biopsy. Charles TJ, et al. **Respir Med** 1998 Jul;92(7):968–9

Salmonella osteomyelitis of the rib. Andrianopoulos EG, et al. **Scand Cardiovasc J** 1998;32(3):181–2

Primers for Salmonella serovar detection by polymerase chain reaction. Kantama L, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):85–90

Supraclavicular abscess caused by Salmonella enteritidis in patient without gastrointestinal symptoms. Vajo Z, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):802–3

[Excavated pneumopathy due to Salmonella: a new observation (letter)] Arlet P, et al. **Presse Med** 1999 Sep 4;28(25):1362 **(Fre)**

[Fever and lumbalgia in a 22-year-old patient. Vertebral osteomyelitis mit epidural abscess] Stahl A, et al. **Internist (Berl)** 1999 Jan;40(1):95–9 **(Ger)**

[Infected aneurysms of the abdominal aorta. Personal case reports] Azzarone M, et al. **Minerva Chir** 1998 Jun; 53(6):535–8 (8 ref.) (Eng. Abstr.) **(Ita)**

[Salmonella bacteremia in Canavese] Ronchetto F, et al. **Recenti Prog Med** 1998 Nov;89(11):578 **(Ita)**

[Detection of bacteremia in patients discharged from an emergency unit: study of 61 cases (see comments)] Tudela P, et al. **Med Clin (Barc)** 1998 Sep 5;111(6):201–4 (Eng. Abstr.). Comment in: Med Clin (Barc) 1999 May 29;112(19):759. **(Spa)**

DRUG THERAPY

Integron- and carbenicillinase-mediated reduced susceptibility to amoxicillin-clavulanic acid in isolates of multidrug-resistant Salmonella enterica serotype typhimurium DT104 from French patients. Poirel L, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1098–104

Fluoroquinolone resistance in salmonellas and campylobacters from humans [letter; comment] Threlfall EJ, et al. **BMJ** 1999 Apr 3;318(7188):943–4. Comment on: BMJ 1998 Oct 17;317(7165):1029–30.

Persistence of Salmonella species in cerebrospinal fluid of patients with meningitis following ceftriaxone therapy. Chiu CH, et al. **Clin Infect Dis** 1999 May;28(5):1174–5

Emergence of resistance to third-generation cephalosporins amongst Salmonella typhimurium isolates in Greece: report of the first three cases [letter] Tzouvelekis LS, et al. **J Antimicrob Chemother** 1998 Aug;42(2):273–5

A clinical trial comparing oral azithromycin, cefixime and no antibiotics in the treatment of acute uncomplicated Salmonella enteritis in children [see comments] Chiu CH, et al. **J Paediatr Child Health** 1999 Aug;35(4):372–4. Comment in: J Paediatr Child Health 1999 Aug;35(4):338.

Antibiotic therapy for Salmonella enteritis [editorial; comment] Kamath R. **J Paediatr Child Health** 1999 Aug; 35(4):338. Comment on: J Paediatr Child Health 1999 Aug;35(4):372–4.

Salmonella choleraesuis bacteremia in southern Taiwan. Chen YH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Apr; 15(4):202–8

Salmonella meningitis in Thai infants: clinical case reports. Visudhiphan P, et al. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):181–4

[Benign intracranial hypertension after treatment with pefloxacin (letter)] Blanc P, et al. **Arch Pediatr** 1998 Aug; 5(8):930–1 **(Fre)**

EPIDEMIOLOGY

Salmonella serotypes isolated in Malaysia over the ten-year period 1983–1992. Yasin RM, et al. **Asia Pac J Public Health** 1996–97;9:1–5

Outbreak of quinolone-resistant, multiresistant Salmonella Typhimurium DT104, Denmark. **Can Commun Dis Rep** 1998 Dec 1;24(23):190–1 **(Eng, Fre)**

Salmonella typhimurium definitive type 104 isolates in British Columbia, 1997–1998. Buxton J, et al. **Can Commun Dis Rep** 1999 Aug 1;25(15):129–33 **(Eng, Fre)**

Salmonella typhimurium DT104: a virulent and drug-resistant pathogen. Poppe C, et al. **Can Vet J** 1998 Sep;39(9):559–65 (48 ref.)

The rise and fall of salmonella? **Commun Dis Rep CDR Wkly** 1999 Jan 22;9(4):29, 32

Salmonella and eggs--working group asks for information. **Commun Dis Rep CDR Wkly** 1999 Feb 26;9(9):77

Salmonella java phage type Dundee--rise in cases. **Commun Dis Rep CDR Wkly** 1999 Feb 26;9(9):77

Salmonellosis in North Thames (East), UK: associated risk factors. Banatvala N, et al. **Epidemiol Infect** 1999 Apr; 122(2):201–7

Salmonella infections in Norway: descriptive epidemiology and a case-control study. Kapperud G, et al. **Epidemiol Infect** 1998 Dec;121(3):569–77

A Mexican restaurant-associated outbreak of Salmonella Enteritidis type 34 infections traced to a contaminated egg farm. McNeil MM, et al. **Epidemiol Infect** 1999 Apr; 122(2):209–15

Automated outbreak detection: a quantitative retrospective analysis. Stern L, et al. **Epidemiol Infect** 1999 Feb; 122(1):103–10

Molecular fingerprinting defines a strain of Salmonella enterica serotype Anatum responsible for an international outbreak associated with formula-dried milk. Threlfall EJ, et al. **Epidemiol Infect** 1998 Oct;121(2):289–93

Salmonella enteritidis phage types 1 and 4: pheno- and genotypic epidemiology of recent outbreaks in Finland. Lukinmaa S, et al. **J Clin Microbiol** 1999 Jul;37(7):2176–82

Extraintestinal salmonellosis in a general hospital (1991 to 1996): relationships between Salmonella genomic groups and clinical presentations. Rodriguez M, et al. **J Clin Microbiol** 1998 Nov;36(11):3291–6

Prospective investigation of cryptic outbreaks of Salmonella agona salmonellosis. Taylor JP, et al. **J Clin Microbiol** 1998 Oct;36(10):2861–4

Convalescent excretion of Salmonella enteritidis in infants. Balfour AE, et al. **J Infect** 1999 Jan;38(1):24–5

Salmonella tel-el-kebir and terrapins. Lynch M, et al. **J Infect** 1999 May;38(3):182–4

A 3-year retrospective review of 132 patients with Salmonella enterocolitis admitted to a regional infectious diseases unit. McCarron B. **J Infect** 1998 Sep;37(2):136–9

Non-typhoid Salmonella gastroenteritis. Lee WS, et al. **J Paediatr Child Health** 1998 Aug;34(4):387–90

Epidemiological study of human salmonellosis during 1991–1996 in southern Taiwan. Chen YH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Mar; 15(3):127–36

Phage types of Australian isolates of Salmonella enterica subsp. enterica serovar Virchow. Sullivan AM, et al. **Lett Appl Microbiol** 1998 Oct;27(4):216–8

Molecular epidemiological investigation of Salmonella typhimurium strains related to an egg-borne outbreak. Carramiñana JJ, et al. **Res Microbiol** 1997 Sep-Oct; 148(7):633–6

Endemic presence of Salmonella bongori 48:z35:- causing enteritis in children in Sicily. Pignato S, et al. **Res Microbiol** 1998 Jun;149(6):429–31

Salmonella typhimurium DT104 infection in people and animals in Scotland: a collaborative epidemiological study 1993–96. Calvert N, et al. **Vet Rec** 1998 Sep 26; 143(13):351–4

Multiresistant Salmonella typhimurium DT 104, Czech Republic. **Wkly Epidemiol Rec** 1998 Dec 4;73(49):385–6 **(Eng, Fre)**

Pattern analysis of human Salmonella enteritidis infection. Bögel K, et al. **Zentralbl Bakteriol** 1995 Oct;282(4):474–97

[The application of a Salmonella typhimurium biotyping method to the epidemiological surveys and surveillance] Zhou G, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Aug; 19(4):221–3 (Eng. Abstr.) **(Chi)**

[An outbreak of Salmonella enteritidis at the New Year celebration of the Copenhagen Medical Association] Neimann BJ, et al. **Ugeskr Laeger** 1999 May 10; 161(19):2803–6 (Eng. Abstr.) **(Dan)**

[Salmonellosis in HIV infection in a hospital setting in Gabon] Okome-Kouakou M, et al. **Med Trop (Mars)** 1999; 59(1):46–50 (Eng. Abstr.) **(Fre)**

[Attempt to estimate the share of human Salmonella infections, which are attributable to Salmonella originating from swine] Steinbach G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Aug;112(8):296–300 (Eng. Abstr.) **(Ger)**

[Salmonella infections in swine herds--epidemiology and importance for human diseases] Steinbach G, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jul;106(7):282–8 (Eng. Abstr.) **(Ger)**

[Salmonellosis in 1997] Gonera E. **Przegl Epidemiol** 1999; 53(1-2):83–91 (Eng. Abstr.) **(Pol)**

[Registration of the foodborne diseases in Poland in 1919–1997] Przybylska A. **Przegl Epidemiol** 1998; 52(3):263–7 (Eng. Abstr.) **(Pol)**

[Outbreaks of foodborne diseases of bacterial etiology in Poland in 1990–1996] Przybylska A. **Przegl Epidemiol** 1998; 52(3):269–74 (Eng. Abstr.) **(Pol)**

[An outbreak of hospital salmonellosis] Berglezova LN, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):115–6 **(Rus)**

[An outbreak of acute intestinal infections in a children's home] Solodovnikov IuP, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep-Oct; (5):120–1 **(Rus)**

[Local outbreak of acute intestinal infections among organized preschool children (Part 2): Author's responses and commentary] Solodovnikov IuP, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep-Oct; (5):122–5 **(Rus)**

[Salmonella infection in the surgical departments of a city hospital] Trunilina RA, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul-Aug; (4):111–3 **(Rus)**

[Salmonella and salmonellosis in the Asturias District, Spain, during a seven year period (1990–1996)] González-Hevia MA, et al. **Enferm Infecc Microbiol Clin** 1999 Apr; 17(4):166–70 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Salmonella infection in total hip replacement--report of successful reimplantation and review of the literature. Chen CM, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Jul; 62(7):472–6 (13 ref.)

Risk factors for the occurrence of sporadic Salmonella enterica serotype enteritidis infections in children in France: a national case-control study. Delarocque-Astagneau E, et al. **Epidemiol Infect** 1998 Dec; 121(3):561–7

Possible salmonella osteomyelitis of spine following laser disc decompression. Farrar MJ, et al. **Eur Spine J** 1998; 7(6):509–11

Myocarditis due to Salmonella virchow and sudden infant death [letter] Neuwirth C, et al. **Lancet** 1999 Sep 18; 354(9183):1004

[Vascular prosthesis infected with Salmonella. A rare complication of Salmonella sepsis] Andersen PJ, et al. **Ugeskr Laeger** 1999 Jun 28;161(26):4010–1 (Eng. Abstr.) **(Dan)**

[Systemic Salmonella arizonae infections in patients with a deficiency of cell-mediated immunity. A report of 2 cases and a review of the literature] Carfagna P, et al. **Recenti Prog Med** 1998 Dec;89(12):632–6 (25 ref.) (Eng. Abstr.) **(Ita)**

[A case of Salmonella subdural empyema developed in chronic subdural hematoma] Kan M, et al. **No Shinkei Geka** 1998 Oct;26(10):903–7 (Eng. Abstr.) **(Jpn)**

[Spontaneous bacteremia due to Salmonella hadar in liver cirrhosis with transjugular intrahepatic portosystemic shunt] Barrio J, et al. **Gastroenterol Hepatol** 1999 Feb; 22(2):79–81 (Eng. Abstr.) **(Spa)**

GENETICS

Salmonella-triggered reactive arthritis: use of polymerase chain reaction, immunocytochemical staining, and gas chromatography-mass spectrometry in the detection of bacterial components from synovial fluid. Nikkari S, et al. **Arthritis Rheum** 1999 Jan;42(1):84–9

IMMUNOLOGY

An unusual haemarthrosis in an HIV-seronegative haemophilia A patient. Ménart C, et al. **Haemophilia** 1998 Sep;4(5):752–4

Type III secretion machines and the pathogenesis of enteric infections caused by Yersinia and Salmonella spp. Lee VT, et al. **Immunol Rev** 1999 Apr;168:241–55 (154 ref.)

The nature of the attenuation of Salmonella typhimurium strains expressing human papillomavirus type 16 virus-like particles determines the systemic and mucosal antibody responses in nasally immunized mice. Benyacoub J, et al. **Infect Immun** 1999 Jul;67(7):3674–9

Human monocytic U937 cells kill Salmonella in vitro by NO-independent mechanisms. Ekman P, et al. **Infect Immun** 1999 Jul;67(7):3670–3

Stimulating the phagocytes: progress and problems [editorial] Holland SM. **J Med Microbiol** 1999 Feb;48(2):111–2

Age-related prevalence of Shigella and Salmonella antibodies and their association with diarrhoeal diseases in Peruvian children. Nguyen BM, et al. **Scand J Infect Dis** 1998; 30(2):159–64

MICROBIOLOGY

Molecular typing of non-typhoid Salmonella strains isolated from HIV-infected patients with recurrent salmonellosis [letter] Rubino S, et al. **AIDS** 1999 Jan 14;13(1):137–9

Salmonella serotypes isolated in Malaysia over the ten-year period 1983–1992. Yasin RM, et al. **Asia Pac J Public Health** 1996–97;9:1–5

Primary peritonitis due to nonenteric salmonellae. McConkey SJ, et al. **Clin Infect Dis** 1999 Jul;29(1):211–2

Salmonella septic arthritis in systemic lupus erythematosus and other systemic diseases. Chen JY, et al. **Clin Rheumatol** 1998;17(4):282–7

Escherichia coli in patients with acute gastroenteritis in Lagos, Nigeria. Akinyemi KO, et al. **East Afr Med J** 1998 Sep;75(9):512–5

Extended-spectrum beta-lactamase-producing Salmonella enteritidis in Trinidad and Tobago [letter] Cherian BP, et al. **Emerg Infect Dis** 1999 Jan-Feb;5(1):181–2

Salmonella enteritidis PT6: another egg-associated salmonellosis? Evans MR, et al. **Emerg Infect Dis** 1998 Oct-Dec;4(4):667–9

Salmonellosis in North Thames (East), UK: associated risk factors. Banatvala N, et al. **Epidemiol Infect** 1999 Apr; 122(2):201–7

A Mexican restaurant-associated outbreak of Salmonella Enteritidis type 34 infections traced to a contaminated egg farm. McNeil MM, et al. **Epidemiol Infect** 1999 Apr; 122(2):209–15

Application of ribotyping and IS200 fingerprinting to distinguish the five Salmonella serotype O6,7:c:1,5 groups:

Choleraesuis sensu stricto, Choleraesuis var. Kunzendorf, Choleraesuis var. Decatur, Paratyphi C, and Typhisuis. Uzzau S, et al. **Epidemiol Infect** 1999 Aug;123(1):37–46

Evaluation of methods for isolation of Salmonella species using modified semisolid Rappaport–Vassiliadis medium and Salmonella–Shigella agar. Ruiz Gomez J, et al. **Eur J Clin Microbiol Infect Dis** 1998 Nov;17(11):791–3

High rates of antimicrobial resistance among clinical isolates of nontyphoidal Salmonella in Taiwan. Yang YJ, et al. **Eur J Clin Microbiol Infect Dis** 1998 Dec;17(12):880–3

Serotype and phage type distribution of salmonellas from human and non-human sources in Italy in the period 1973–1995. Fantasia M, et al. **Eur J Epidemiol** 1998 Oct; 14(7):701–10

Ciprofloxacin-resistant Salmonella senftenberg in north India [letter] Gupta V, et al. **Indian J Gastroenterol** 1999 Jan–Mar;18(1):42

A nursery outbreak of multidrug resistant Salmonella typhimurium. Buch NA, et al. **Indian Pediatr** 1998 May; 35(5):455–9

Spontaneous non-typhoidal Salmonella peritonitis in patients with serious underlying disorders. de la Fuente-Aguado J, et al. **Infection** 1999 May–Jun;27(3):224–7 (21 ref.)

Comparison of CHROMagar Salmonella medium and hektoen enteric agar for isolation of salmonellae from stool samples. Gaillot O, et al. **J Clin Microbiol** 1999 Mar; 37(3):762–5

Extraintestinal salmonellosis in a general hospital (1991 to 1996): relationships between Salmonella genomic groups and clinical presentations. Rodriguez M, et al. **J Clin Microbiol** 1998 Nov;36(11):3291–6

Serogroups and antimicrobial susceptibility of clinical isolates of Salmonella species from a teaching hospital in Kuwait. Jamal WY, et al. **J Diarrhoeal Dis Res** 1998 Sep;16(3):180–6

An outbreak of extended-spectrum, beta-lactamase-producing Salmonella senftenberg in a burns ward. Revathi G, et al. **J Hosp Infect** 1998 Dec; 40(4):295–302 (36 ref.)

A 3-year retrospective review of 132 patients with Salmonella enterocolitis admitted to a regional infectious diseases unit. McCarron B. **J Infect** 1998 Sep;37(2):136–9

Multidrug-resistant human and animal Salmonella typhimurium isolates in France belong predominantly to a DT104 clone with the chromosome- and integron-encoded beta-lactamase PSE-1. Casin I, et al. **J Infect Dis** 1999 May;179(5):1173–82

Invasiveness of Salmonella serotypes Typhimurium, Choleraesuis and Dublin for rabbit terminal ileum in vitro. Bolton AJ, et al. **J Med Microbiol** 1999 Sep;48(9):801–10

Phage types of Australian isolates of Salmonella enterica subsp. enterica serovar Virchow. Sullivan AM, et al. **Lett Appl Microbiol** 1998 Oct;27(4):216–8

Genotypic characterization of human and environmental isolates of Salmonella choleraesuis subspecies choleraesuis serovar infantis by pulsed-field gel electrophoresis. Murakami K, et al. **Microbiol Immunol** 1999;43(3):293–6

Endemic presence of Salmonella bongori 48:z35:- causing enteritis in children in Sicily. Pignato S, et al. **Res Microbiol** 1998 Jun;149(6):429–31

Multiresistant Salmonella typhimurium DT 104, Czech Republic. **Wkly Epidemiol Rec** 1998 Dec 4;73(49):385–6 **(Eng, Fre)**

[Plasmid profile typing of Salmonella typhimurium and its distribution in some provinces and cities of China] Pan R, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jul; 32(4):214–8 (Eng. Abstr.) **(Chi)**

[Sepsis due to Salmonella Oranienburg--a case report] Okumara T, et al. **Kansenshogaku Zasshi** 1999 Aug; 73(8):787–91 (Eng. Abstr.) **(Jpn)**

[Salmonella aortitis in atherosclerotic aneurysm of aorta] Semenskiĭ VA, et al. **Khirurgiia (Mosk)** 1999;(2):59 **(Rus)**

[Distribution of Salmonella spp. serotypes isolated in Spain during a 4-year period (1993–1996)] Echeita MA, et al. **Enferm Infecc Microbiol Clin** 1999 Jan;17(1):9–14 (Eng. Abstr.) **(Spa)**

[Salmonella osteomyelitis in a patient with collagenous colitis (letter)] Tomás ME, et al. **Rev Esp Enferm Dig** 1999 Jan; 91(1):76–7 **(Spa)**

PATHOLOGY

Fighting disease with disease [news] **Environ Health Perspect** 1998 Feb;106(2):A56–7

[The clinico-morphological characteristics of salmonellosis typhimurium in children] Nezhoda II. **Lik Sprava** 1999 Jan–Feb;(1):101–3 (Eng. Abstr.) **(Ukr)**

PHYSIOPATHOLOGY

Characteristics of septic arthritis in human immunodeficiency virus-infected haemophiliacs versus other risk groups. Barzilai A, et al. **Rheumatology (Oxford)** 1999 Feb; 38(2):139–42

PREVENTION & CONTROL

Zidovudine therapy protects against Salmonella bacteremia recurrence in human immunodeficiency virus-infected patients. Casado JL, et al. **J Infect Dis** 1999 Jun; 179(6):1553–6

Influence of immunopotentiators on the antiporin immunoglobulin G subclass: distribution and protective immunity against murine salmonellosis. Nandakumar KS, et al. **Scand J Immunol** 1999 Aug;50(2):188–94

High hydrostatic pressure inactivation of Salmonella typhimurium: effects of pressure, duration, pH and temperature studied by analysis of variance. Ritz M, et al. **Vet Res** 1998 Nov–Dec;29(6):547–56

SURGERY

Salmonella mycotic aneurysms: traditional and "alternative" surgical repair with arterial homograft. Locati P, et al. **Minerva Cardioangiol** 1999 Jan–Feb;47(1–2):31–7 (34 ref.) **(Eng, Ita)**

THERAPY

Septic arthritis. Perry CR. **Am J Orthop** 1999 Mar; 28(3):168–78 (93 ref.)

[Kaopectate in the combined treatment of patients with intestinal infections] Gebesh VV, et al. **Lik Sprava** 1999 Apr–May;(3):140–2 (Eng. Abstr.) **(Rus)**

[Practical use of adapted Salmonella bacteriophage for the treatment and prevention of nosocomial infections] Akimkin VG, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov–Dec; (6):85–6 **(Rus)**

TRANSMISSION

Advisory committee publishes report on microbial antibiotic resistance in relation to food safety. **Commun Dis Rep CDR Wkly** 1999 Aug 27;9(35):309, 312

[Attempt to estimate the share of human Salmonella infections, which are attributable to Salmonella originating from swine] Steinbach G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Aug;112(8):296–300 (Eng. Abstr.) **(Ger)**

[Animals as sources of infections in humans--salmonellosis] Meyer H. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug; 106(8):344–51 (58 ref.) (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Aortic valve endocarditis caused by Salmonella species. Pliakos C, et al. **J Clin Ultrasound** 1999 Jan;27(1):45–8 (21 ref.)

Ultrasonographic assessment of Salmonella enterocolitis in children. Ueda D, et al. **Pediatr Radiol** 1999 Jun; 29(6):469–71

[Mitral and/or aortic infectious endocarditis. The correlation between transesophageal echocardiography, surgery and pathological anatomy] Espinola Zavaleta N, et al. **Arch Inst Cardiol Mex** 1998 Jul–Aug;68(4):309–14 (Eng. Abstr.) **(Spa)**

VETERINARY see SALMONELLA INFECTIONS, ANIMAL

VIROLOGY

A case report of renal abscess caused by Salmonella virchow phage type 1 associated with a papillary renal cell carcinoma [letter] Olson ES, et al. **J Infect** 1999 Jan; 38(1):56–7

SALMONELLA INFECTIONS, ANIMAL

Persistence of Salmonella enteritidis from one day of age until maturity in experimentally infected layer chickens. Gast RK, et al. **Poult Sci** 1998 Dec;77(12):1759–62

[An editorial about an editorial (letter)] Lundstedt C, et al. **Ugeskr Laeger** 1999 Jun 28;161(26):4022–3 **(Dan)**

CLASSIFICATION

Salmonella typhimurium phage type DT104 in Belgian livestock. Imberechts H, et al. **Vet Rec** 1998 Oct 10; 143(15):424–5

COMPLICATIONS

Role of nitric oxide in sepsis-associated pulmonary edema. Hinder F, et al. **Am J Respir Crit Care Med** 1999 Jan; 159(1):252–7

Concurrent Aelurostrongylus abstrusus infection and salmonellosis in a kitten. Barrs VR, et al. **Aust Vet J** 1999 Apr;77(4):229–32

Treatment of swine dysentery--problems of antibiotic resistance and concurrent salmonellosis [letter] Gresham AC, et al. **Vet Rec** 1998 Nov 28;143(22):619

Salmonellosis in relation to chlamydiosis and pox and Salmonella infections in captive falcons in the United Arab Emirates. Wernery U, et al. **Zentralbl Veterinarmed [B]** 1998 Dec;45(10):577–83

DIAGNOSIS

Application of flagella-based immunoassays for serologic detection of Salmonella pullorum infection in chickens. Gast RK, et al. **Avian Dis** 1998 Oct–Dec;42(4):807–11

Simultaneous occurrence of Salmonella arizonae in a sulfur crested cockatoo (Cacatua galerita galerita) and iguanas. Orós J, et al. **Avian Dis** 1998 Oct–Dec;42(4):818–23

Application of recombinant fimbrial protein for the specific detection of Salmonella enteritidis infection in poultry. Rajashekara G, et al. **Diagn Microbiol Infect Dis** 1998 Nov; 32(3):147–57

Preparation of a high titre Salmonella abortusovis H-antigen and antiserum and improvement of the microagglutination test. Giannati A, et al. **J Microbiol Methods** 1999 Apr; 35(3):219–23

Salmonella pullorum in the common pheasant (Phasianus colchicus). Pennycott TW, et al. **Vet Rec** 1999 Mar 13; 144(11):283–7

Simplified preparation of a specific S. enteritidis antigen for ELISA and other immunological techniques. Zamora BM, et al. **Zentralbl Veterinarmed [B]** 1999 Feb;46(1):1–7

Detection of antibodies to S. enteritidis in broilers by means of indirect ELISA and chemiluminescent immunoassay (CLIA). Zamora BM, et al. **Zentralbl Veterinarmed [B]** 1999 Feb;46(1):9–23

[Agglutination of hen egg-yolk immunoglobulins (IgY) against Salmonella enterica, serovar enteritidis] Terzolo HR, et al. **Rev Argent Microbiol** 1998 Apr–Jun;30(2):84–92 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Characterisation of recently emerged multiple antibiotic-resistant Salmonella enterica serovar typhimurium DT104 and other multiresistant phage types from Danish pig herds. Baggesen DL, et al. **Vet Rec** 1998 Jul 25;143(4):95–7

Multiple antibiotic resistance in Salmonella [letter] Rankin SC. **Vet Rec** 1998 Dec 19–26;143(25):698–9

EPIDEMIOLOGY

Contamination of Salmonella blockley in the environment of a poultry farm. Limawongpranee S, et al. **Avian Dis** 1999 Apr–Jun;43(2):302–9

Salmonella typhimurium DT104: a virulent and drug-resistant pathogen. Poppe C, et al. **Can Vet J** 1998 Sep;39(9):559–65 (48 ref.)

The prevalence of verotoxins, Escherichia coli 0157:H7, and Salmonella in the feces and rumen of cattle at processing. Van Donkersgoed J, et al. **Can Vet J** 1999 May;40(5):332–8

Discrimination between endemic and feedborne Salmonella Infantis infection in cattle by molecular typing. Lindqvist N, et al. **Epidemiol Infect** 1999 Jun;122(3):497–504

Salmonella spp. on pork at cutting plants and at the retail level and the influence of particular risk factors. Berends BR, et al. **Int J Food Microbiol** 1998 Nov 10;44(3):207–17

Salmonella Typhimurium DT104 in cattle in Great Britain. Hollinger K, et al. **J Am Vet Med Assoc** 1998 Dec 15; 213(12):1732–3 (6 ref.)

Risk factors for nosocomial Salmonella infection among hospitalized horses. House JK, et al. **J Am Vet Med Assoc** 1999 May 15;214(10):1511–6

Isolation of Salmonella organisms from the mesenteric lymph nodes of horses at necropsy. House JK, et al. **J Am Vet Med Assoc** 1999 Aug 15;215(4):507–10

Salmonella enterica serotype Dublin infection: an emerging infectious disease for the northeastern United States. McDonough PL, et al. **J Clin Microbiol** 1999 Aug; 37(8):2418–27

Prevalence of Salmonella spp. and Yersinia enterocolitica in finishing swine at Canadian abattoirs. Letellier A, et al. **J Food Prot** 1999 Jan;62(1):22–5

The epidemiology of Salmonella typhimurium in cattle: plasmid profile analysis of definitive phage type (DT) 204c. Wray C, et al. **J Med Microbiol** 1998 Jun;47(6):483–7

Prevalence and persistence of Salmonella in broiler chicken flocks. Limawongpranee S, et al. **J Vet Med Sci** 1999 Mar; 61(3):255–9

Epidemiological analysis of Salmonella enteritidis from human outbreaks by pulsed-field gel electrophoresis. Murakami K, et al. **J Vet Med Sci** 1999 Apr;61(4):439–42

Salmonella prevalence in crops of Ontario and Quebec broiler chickens at slaughter. Chambers JR, et al. **Poult Sci** 1998 Oct;77(10):1497–501

Risk factors associated with Salmonella enterica serovar typhimurium infection in Danish broiler flocks. Skov MN, et al. **Poult Sci** 1999 Jun;78(6):848–54

Generalised linear mixed models analysis of risk factors for contamination of Danish broiler flocks with Salmonella typhimurium. Chriél M, et al. **Prev Vet Med** 1999 May 14;40(1):1–17

Multiple change-point analysis applied to the monitoring of Salmonella prevalence in Danish pigs and pork. Christensen J, et al. **Prev Vet Med** 1998 Aug 7;36(2):131–43

Salmonella level of Danish swine herds based on serological examination of meat-juice samples and Salmonella occurrence measured by bacteriological follow-up. Christensen J, et al. **Prev Vet Med** 1999 Jun 11; 40(3–4):277–92

Comparison of methods for estimation of individual-level prevalence based on pooled samples. Cowling DW, et al. **Prev Vet Med** 1999 Apr 9;39(3):211–25

Epidemiology and quality assurance: applications at farm level. Noordhuizen JP, et al. **Prev Vet Med** 1999 Mar 29; 39(2):93–110

Distribution of Salmonella in swine herds in Québec. Letellier A, et al. **Vet Microbiol** 1999 Jul 1;67(4):299–306

Salmonella infections in finishing pigs in The Netherlands: bacteriological herd prevalence, serogroup and antibiotic resistance of isolates and risk factors for infection. van der Wolf PJ, et al. **Vet Microbiol** 1999 Jul 1;67(4):263–75

Salmonella typhimurium DT104 infection in people and

animals in Scotland: a collaborative epidemiological study 1993–96. Calvert N, et al. **Vet Rec** 1998 Sep 26; 143(13):351–4

Antibiotic-resistant Salmonella in pigs in Spain [letter; comment] Mateu E, et al. **Vet Rec** 1999 Jan 16;144(3):80 . Comment on: Vet Rec 1998 Mar 7;142(10):255.

[Monitoring poultry production] van der Zee H, et al. **Tijdschr Diergeneeskd** 1999 Apr 15;124(8):265–6 **(Dut)**

[Prevalence of infections caused by Salmonella spp. in cattle and horses at the Veterinary Teaching Hospital of the Faculty of Veterinary Medicine of the University of Montreal] Ravary B, et al. **Can Vet J** 1998 Sep;39(9):566–72 (Eng. Abstr.) **(Fre)**

[Salmonella infections in swine herds--epidemiology and importance for human diseases] Steinbach G, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jul;106(7):282–8 (Eng. Abstr.) **(Ger)**

ETIOLOGY

Feed deprivation affects crop environment and modulates Salmonella enteritidis colonization and invasion of leghorn hens. Durant JA, et al. **Appl Environ Microbiol** 1999 May; 65(5):1919–23

Risks and benefits of modified-live versus killed virus vaccines in multiple-cat situations [letter; comment] Foley J, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):620, 622 . Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):67–70, 43–4.

Outbreak of fatal salmonellosis in cats following use of a high-titer modified-live panleukopenia virus vaccine [see comments] Foley JE, et al. **J Am Vet Med Assoc** 1999 Jan 1;214(1):67–70, 43–4. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):620, 622.

IMMUNOLOGY

Resistance to Salmonella enteritidis organ invasion in day-old turkeys and chickens by transformed T-cell line-produced lymphokines. Genovese KJ, et al. **Avian Dis** 1998 Jul–Sep; 42(3):545–53

Variability in the resistance of four chicken lines to experimental intravenous infection with Salmonella enteritidis phage type 4. Girard-Santosuosso O, et al. **Avian Dis** 1998 Jul–Sep;42(3):462–9

Salmonella infection in a commercial line of ducks; experimental studies on virulence, intestinal colonization and immune protection. Barrow PA, et al. **Epidemiol Infect** 1999 Aug;123(1):121–32

Salmonellosis: lessons drawn from a germ-free pig model. Trebichavský I, et al. **Folia Microbiol (Praha)** 1998; 43(6):697–701

The roles of intrahepatic Valpha14(+) NK1.1(+) T cells for liver injury induced by Salmonella infection in mice. Ishigami M, et al. **Hepatology** 1999 Jun;29(6):1799–808

The full expression of the ity phenotype in ityr mice requires C3 activation by Salmonella lipopolysaccharide. Nishikawa F, et al. **Immunology** 1998 Dec;95(4):640–7

Clonal expansion of antigen-specific CD4 T cells following infection with Salmonella typhimurium is similar in susceptible (Itys) and resistant (Ityr) BALB/c mice. Chen ZM, et al. **Infect Immun** 1999 Apr;67(4):2025–9

Limited interleukin-18 response in Salmonella-infected murine macrophages and in Salmonella-infected mice. Elhofy A, et al. **Infect Immun** 1999 Oct;67(10):5021–6

Effect of transforming growth factor beta on experimental Salmonella typhimurium infection in mice. Galdiero M, et al. **Infect Immun** 1999 Mar;67(3):1432–8

In vivo blockage of nitric oxide with aminoguanidine inhibits immunosuppression induced by an attenuated strain of Salmonella typhimurium, potentiates Salmonella infection, and inhibits macrophage and polymorphonuclear leukocyte influx into the spleen. MacFarlane AS, et al. **Infect Immun** 1999 Feb;67(2):891–8

Interleukin-12 is required for control of the growth of attenuated aromatic-compound-dependent salmonellae in BALB/c mice: role of gamma interferon and macrophage activation. Mastroeni P, et al. **Infect Immun** 1998 Oct; 66(10):4767–76

Salmonella typhimurium infection in mice induces nitric oxide-mediated immunosuppression through a natural killer cell-dependent pathway. Schwacha MG, et al. **Infect Immun** 1998 Dec;66(12):5862–6

Th1 dominance in the immune response to live Salmonella typhimurium requires bacterial invasiveness but not persistence. Pashine A, et al. **Int Immunol** 1999 Apr; 11(4):481–9

T cell responses to Gram-negative intracellular bacterial pathogens: a role for CD8+ T cells in immunity to Salmonella infection and the involvement of MHC class Ib molecules. Lo WF, et al. **J Immunol** 1999 May 1; 162(9):5398–406

Regulatory role of peritoneal NK1.1+ alpha beta T cells in IL-12 production during Salmonella infection. Naiki Y, et al. **J Immunol** 1999 Aug 15;163(4):2057–63

MHC class II-dependent NK1.1+ gammadelta T cells are induced in mice by Salmonella infection. Nishimura H, et al. **J Immunol** 1999 Feb 1;162(3):1573–81

The role of intrahepatic gammadelta-T cells for liver injury induced by Salmonella infection in mouse. Ishigami M, et al. **Microbiol Immunol** 1999;43(5):461–9

Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247–52

B-complex associated immunity to Salmonella enteritidis challenge in congenic chickens. Cotter PF, et al. **Poult Sci** 1998 Dec;77(12):1846–51

Recognition specificity of monoclonal antibodies which protect mice against Salmonella typhimurium infection. Singh SP, et al. **Res Microbiol** 1999 Jul–Aug;150(6):385–94

T lymphocytes, B lymphocytes, and macrophages in the ovaries and oviducts of laying hens experimentally infected with Salmonella enteritidis. Withanage GS, et al. **Vet Immunol Immunopathol** 1998 Nov 24;66(2):173–84

Secretion of Salmonella-specific antibodies in the oviducts of hens experimentally infected with Salmonella enteritidis. Withanage GS, et al. **Vet Immunol Immunopathol** 1999 Feb 1;67(2):185–93

Enhancement of phagocytosis and bacterial killing by heterophils from neonatal chicks after administration of Salmonella enteritidis-immune lymphokines. Genovese LL, et al. **Vet Microbiol** 1999 Mar 1;65(2):133–43

[Efficacy of maternal Salmonella antibodies and experimental oral infection of chicks with Salmonella enteritidis] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):373–7 (Eng. Abstr.) **(Ger)**

METABOLISM

A lethal role for lipid A in Salmonella infections. Khan SA, et al. **Mol Microbiol** 1998 Jul;29(2):571–9

MICROBIOLOGY

Multi-resistant Salmonella Typhimurium DT104--implications for animal industries and the veterinary profession. Crerar SK, et al. **Aust Vet J** 1999 Mar;77(3):170–1 (11 ref.)

Changes in microflora of the cloaca and oviduct of hens after intracloacal or intravaginal inoculation with Salmonella enteritidis. Miyamoto T, et al. **Avian Dis** 1998 Jul–Sep; 42(3):536–44

Virulence of Salmonella enterica serotype Enteritidis aflagellate and afimbriate mutants in a day-old chick model. Allen-Vercoe E, et al. **Epidemiol Infect** 1999 Jun; 122(3):395–402

Salmonella infection in a commercial line of ducks; experimental studies on virulence, intestinal colonization and immune protection. Barrow PA, et al. **Epidemiol Infect** 1999 Aug;123(1):121–32

Serotype and phage type distribution of salmonellas from human and non-human sources in Italy in the period 1973–1995. Fantasia M, et al. **Eur J Epidemiol** 1998 Oct; 14(7):701–10

The variant rpoS allele of S. enteritidis strain 27655R does not affect virulence in a chick model nor constitutive curliation but does generate a cold-sensitive phenotype. Allen-Vercoe E, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):245–53

Salmonellosis: lessons drawn from a germ-free pig model. Trebichavský I, et al. **Folia Microbiol (Praha)** 1998; 43(6):697–701

Evaluation of Salmonella typhimurium mutants in a model of experimental gastroenteritis. Everest P, et al. **Infect Immun** 1999 Jun;67(6):2815–21

Influence of the Salmonella typhimurium pathogenicity island 2 type III secretion system on bacterial growth in the mouse. Shea JE, et al. **Infect Immun** 1999 Jan;67(1):213–9

Contribution of Salmonella typhimurium virulence factors to diarrheal disease in calves. Tsolis RM, et al. **Infect Immun** 1999 Sep;67(9):4879–85

Impact of antimicrobic use in veterinary medicine. Fedorka-Cray PJ, et al. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1739–41

Evaluation of sampling methods for the detection of Salmonella in broiler flocks. Skov MN, et al. **J Appl Microbiol** 1999 Apr;86(4):695–700

Comparison of enrichment methods for recovery and chick infectivity of chlorine-injured Salmonella enteritidis. Sarlin LL, et al. **J Food Prot** 1998 Nov;61(11):1504–6

Multidrug-resistant human and animal Salmonella typhimurium isolates in France belong predominantly to a DT104 clone with the chromosome- and integron-encoded beta-lactamase PSE-1. Casin I, et al. **J Infect Dis** 1999 May;179(5):1173–82

Invasiveness of Salmonella serotypes Typhimurium, Choleraesuis and Dublin for rabbit terminal ileum in vitro. Bolton AJ, et al. **J Med Microbiol** 1999 Sep;48(9):801–10

Macrophage-dependent induction of the Salmonella pathogenicity island 2 type III secretion system and its role in intracellular survival. Cirillo DM, et al. **Mol Microbiol** 1998 Oct;30(1):175–88

Inducible prophages contribute to Salmonella virulence in mice. Figueroa-Bossi N, et al. **Mol Microbiol** 1999 Jul; 33(1):167–76

Genes encoding putative effector proteins of the type III secretion system of Salmonella pathogenicity island 2 are required for bacterial virulence and proliferation in macrophages. Hensel M, et al. **Mol Microbiol** 1998 Oct; 30(1):163–74

An essential role for DNA adenine methylation in bacterial virulence [see comments] Heithoff DM, et al. **Science** 1999 May 7;284(5416):967–70. Comment in: Science 1999 May 7;284(5416):883.

Monophasic group B Salmonella species infecting harbour porpoises (Phocoena phocoena) inhabiting Scottish coastal waters. Foster G, et al. **Vet Microbiol** 1999 Mar 12; 65(3):227–31

Nalidixic acid resistance in salmonellae isolated from turkeys and other livestock in Great Britain [see comments] Davies RH, et al. **Vet Rec** 1999 Mar 20;144(12):320–2. Comment in: Vet Rec 1999 Apr 3;144(14):392.

[Distribution of Salmonella spp. serotypes isolated in Spain during a 4-year period (1993-1996)] Echeita MA, et al. **Enferm Infecc Microbiol Clin** 1999 Jan;17(1):9–14 (Eng. Abstr.) **(Spa)**

MORTALITY

CD40-CD40 ligand interactions augment survival of normal mice, but not CD40 ligand knockout mice, challenged orally with Salmonella dublin. Marriott I, et al. **Infect Immun** 1999 Oct;67(10):5253–7

Influence of fecal shedding of Salmonella organisms on mortality in hospitalized horses. Mainar-Jaime RC, et al. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1162–6

PATHOLOGY

Differential regulation of enteric and systemic salmonellosis by slyA. Watson PR, et al. **Infect Immun** 1999 Sep; 67(9):4950–4

A case of canine salmonellosis due to Salmonella infantis. Sato Y, et al. **J Vet Med Sci** 1999 Jan;61(1):71–2

PHYSIOPATHOLOGY

Early events in the pathogenesis of avian salmonellosis. Henderson SC, et al. **Infect Immun** 1999 Jul;67(7):3580–6

Secretory pathways in Salmonella Typhimurium-induced fluid accumulation in the porcine small intestine. Grøndahl ML, et al. **J Med Microbiol** 1998 Feb;47(2):151–7

Effects of chicken-derived cecal microorganisms maintained in continuous culture on cecal colonization by Salmonella typhimurium in turkey poults. Hollister AG, et al. **Poult Sci** 1999 Apr;78(4):546–9

[Significance of motility of Salmonella enteritidis and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):391–6 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Reduction of fecal shedding and egg contamination of Salmonella enteritidis by increasing the number of heterophil adaptations. Kramer TT, et al. **Avian Dis** 1998 Jul–Sep;42(3):585–8

Effect of a commercial competitive exclusion culture (Preempt) on mortality and horizontal transmission of Salmonella gallinarum in broiler chickens. Nisbet DJ, et al. **Avian Dis** 1998 Oct–Dec;42(4):651–6

Inhibition of Salmonella typhimurium in the chicken intestinal tract by a transformed avirulent avian Escherichia coli. Wooley RE, et al. **Avian Dis** 1999 Apr–Jun; 43(2):245–50

Passive immunisation of neonatal lambs via colostrum and milk of ewes previously immunised with live attenuated Salmonella typhimurium protects neonatal lambs from experimental salmonellosis. Mukkur TK, et al. **Comp Immunol Microbiol Infect Dis** 1998 Oct;21(4):327–36

Destruction of Salmonella typhimurium, Escherichia coli O157:H7 and Listeria monocytogenes in chicken manure by drying and/or gassing with ammonia. Himathongkham S, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):179–82

Impact on human health of Salmonella spp. on pork in The Netherlands and the anticipated effects of some currently proposed control strategies. Berends BR, et al. **Int J Food Microbiol** 1998 Nov 10;44(3):219–29

Efficacy of Salmonella enteritidis-immune lymphokines on horizontal transmission of S. arizonae in turkeys and S. gallinarum in chickens. Lowry VK, et al. **Int J Food Microbiol** 1999 May 1;48(2):139–48

Combination of vaccination and competitive exclusion to prevent Salmonella colonization in chickens: experimental studies. Methner U, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):35–42

Use of competitive exclusion in food animals. Nisbet DJ. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1744–6 (14 ref.)

Protective effect of bifidus milk on the experimental infection with Salmonella enteritidis subsp. typhimurium in conventional and gnotobiotic mice. Silva AM, et al. **J Appl Microbiol** 1999 Feb;86(2):331–6

Dietary calcium phosphate stimulates intestinal lactobacilli and decreases the severity of a salmonella infection in rats. Bovee-Oudenhoven IM, et al. **J Nutr** 1999 Mar; 129(3):607–12

High intake of milk fat inhibits intestinal colonization of Listeria but not of Salmonella in rats. Sprong RC, et al. **J Nutr** 1999 Jul;129(7):1382–9

Effect of passive transfer status and vaccination with Escherichia coli (J5) on mortality in comingled dairy calves. Tyler JW, et al. **J Vet Intern Med** 1999 Jan–Feb; 13(1):36–9

Application of negative air ionization for reducing experimental airborne transmission of Salmonella enteritidis to chicks. Gast RK, et al. **Poult Sci** 1999 Jan;78(1):57–61

Evaluation of the efficacy of intraperitoneal immunization in reducing Salmonella typhimurium infection in chickens.

SALMONELLA INFECTIONS, ANIMAL

Muir WI, et al. **Poult Sci** 1998 Dec;77(12):1874–83

Risk factors for Salmonella enterica subsp. enterica contamination in French broiler-chicken flocks at the end of the rearing period. Rose N, et al. **Prev Vet Med** 1999 Apr 27;39(4):265–77

Gene may promise new route to potent vaccines [news; comment] Enserink M. **Science** 1999 May 7;284(5416):883 . Comment on: Science 1999 May 7;284(5416):967–70.

Vaccination for control of Salmonella in poultry. Zhang-Barber L, et al. **Vaccine** 1999 Jun 4; 17(20–21):2538–45 (79 ref.)

A Salmonella abortusovis inactivated vaccine protects mice from abortion after challenge. Giannati-Stefanou A, et al. **Vet Microbiol** 1999 May;66(4):285–90

Adjuvanted outer membrane protein vaccine protects poultry against infection with Salmonella enteritidis. Meenakshi M, et al. **Vet Res Commun** 1999 Mar;23(2):81–90

THERAPY

[The effect of an artificial magnetic field on Salmonella infection in mice] Kalutskii PV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):11–5 (Eng. Abstr.) **(Rus)**

TRANSMISSION

Simultaneous occurrence of Salmonella arizonae in a sulfur crested cockatoo (Cacatua galerita galerita) and iguanas. Orós J, et al. **Avian Dis** 1998 Oct–Dec;42(4):818–23

Aerosol route enhances the contamination of intact eggs and muscle of experimentally infected laying hens by Salmonella typhimurium DT104. Leach SA, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):203–7

Efficacy of Salmonella enteritidis-immune lymphokines on horizontal transmission of S. arizonae in turkeys and S. gallinarum in chickens. Lowry VK, et al. **Int J Food Microbiol** 1999 May 1;48(2):139–48

[Attempt to estimate the share of human Salmonella infections, which are attributable to Salmonella originating from swine] Steinbach G, et al. **Berl Munch Tierarztl Wochenschr** 1999 Aug;112(8):296–300 (Eng. Abstr.) **(Ger)**

[Animals as sources of infections in humans--salmonellosis] Meyer H. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug; 106(8):344–51 (58 ref.) (Eng. Abstr.) **(Ger)**

SALMONELLA PARATYPHI see **SALMONELLA PARATYPHI A**

SALMONELLA PARATYPHI A

ISOLATION & PURIFICATION

Paratyphoid fever in India: An emerging problem [letter] Sood S, et al. **Emerg Infect Dis** 1999 May-Jun;5(3):483–4

Adverse effects of being a "healthy carrier" [letter; comment] McLarty E, et al. **Lancet** 1999 Jun 26;353(9171):2246–7. Comment on: Lancet 1999 Apr 17;353(9161):1354–6.

SALMONELLA PARATYPHI B see **SALMONELLA SCHOTTMUELLERI**

SALMONELLA PHAGES

Salmonella paratyphi B phage type Taunton associated with travel to the Mediterranean coast of Turkey. **Commun Dis Rep CDR Wkly** 1999 Aug 27;9(35):309

Salmonella enteritidis PT6: another egg-associated salmonellosis? Evans MR, et al. **Emerg Infect Dis** 1998 Oct–Dec;4(4):667–9

A case report of renal abscess caused by Salmonella virchow phage type 1 associated with a papillary renal cell carcinoma [letter] Olson ES, et al. **J Infect** 1999 Jan; 38(1):56–7

Microbiology. Millennium bug [news] Siew RS. **Nature** 1999 Apr 1;398(6726):376

CLASSIFICATION

Genomic subtraction identifies Salmonella typhimurium prophages, F-related plasmid sequences, and a novel fimbrial operon, stf, which are absent in Salmonella typhi. Emmerth M, et al. **J Bacteriol** 1999 Sep;181(18):5652–61

Molecular survey of the Salmonella phage typing system of Anderson. Schmieger H. **J Bacteriol** 1999 Mar; 181(5):1630–5

GENETICS

Genomic subtraction identifies Salmonella typhimurium prophages, F-related plasmid sequences, and a novel fimbrial operon, stf, which are absent in Salmonella typhi. Emmerth M, et al. **J Bacteriol** 1999 Sep;181(18):5652–61

Molecular characterization and module composition of P22-related Salmonella phage genomes. Schicklmaier P, et al. **J Biotechnol** 1999 Aug 20;73(2–3):185–94

The epidemiology of Salmonella typhimurium in cattle: plasmid profile analysis of definitive phage type (DT) 204c. Wray C, et al. **J Med Microbiol** 1998 Jun;47(6):483–7

ISOLATION & PURIFICATION

Salmonella java phage type Dundee--rise in cases. **Commun Dis Rep CDR Wkly** 1999 Feb 26;9(9):77

Salmonella java phage type Dundee--rise in cases: update. **Commun Dis Rep CDR Wkly** 1999 Mar 19;9(12):105, 108

Salmonella enteritidis phage types 1 and 4: pheno- and genotypic epidemiology of recent outbreaks in Finland. Lukinmaa S, et al. **J Clin Microbiol** 1999 Jul;37(7):2176–82

Isolation of a temperate bacteriophage encoding the type III effector protein SopE from an epidemic Salmonella typhimurium strain. Mirold S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9845–50

PHYSIOLOGY

Virus passage through track-etch membranes modified by salinity and a nonionic surfactant. Lytle CD, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2773–5

Inducible prophages contribute to Salmonella virulence in mice. Figueroa-Bossi N, et al. **Mol Microbiol** 1999 Jul; 33(1):167–76

SALMONELLA SCHOTTMUELLERI

ISOLATION & PURIFICATION

Salmonella paratyphi B phage type Taunton associated with travel to the Mediterranean coast of Turkey. **Commun Dis Rep CDR Wkly** 1999 Aug 27;9(35):309

SALMONELLA TYPHI

Endotoxin differentially impairs receptor-mediated relaxation in rat isolated pulmonary and thoracic aortic vessels. McIntyre RC Jr, et al. **J Trauma** 1998 Nov; 45(5):862–7

Community-acquired septicaemia in southern Viet Nam: the importance of multidrug-resistant Salmonella typhi. Hoa NT, et al. **Trans R Soc Trop Med Hyg** 1998 Sep–Oct; 92(5):503–8

Outcome in three groups of patients with typhoid fever in Indonesia between 1948 and 1990. van den Bergh ET, et al. **Trop Med Int Health** 1999 Mar;4(3):211–5

[Ultrastructural changes in the axons in the feline spleen under the influence of large doses of lipopolysaccharide] Netukova NI, et al. **Morfologiia** 1998;114(4):44–7 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Efficacy of Vi polysaccharide vaccine against Salmonella typhi [letter; comment] Arya SC. **Vaccine** 1999 Mar 5; 17(9–10):1015–6. Comment on: Vaccine 1998 May-Jun;16(9–10):871–2.

CLASSIFICATION

Application of random amplified polymorphic DNA analysis to differentiate strains of Salmonella typhi and other Salmonella species. Shangkuan YH, et al. **J Appl Microbiol** 1998 Oct;85(4):693–702

Use of pulsed field gel electrophoresis as an epidemiological tool for analysis of sporadic associated strains of Salmonella typhi isolated in Taiwan. Tsen HY, et al. **J Appl Microbiol** 1999 May;86(5):761–8

Role of genomic rearrangements in producing new ribotypes of Salmonella typhi. Ng I, et al. **J Bacteriol** 1999 Jun; 181(11):3536–41

DRUG EFFECTS

A massive epidemic of multidrug-resistant typhoid fever in Tajikistan associated with consumption of municipal water. Mermin JH, et al. **J Infect Dis** 1999 Jun;179(6):1416–22

Multidrug-resistant Salmonella typhi in India [letter] Chitnis V, et al. **Lancet** 1999 Aug 7;354(9177):514–5

Ciprofloxacin in typhoid fever [letter; comment] [published erratum appears in Lancet 1999 Sep 4;354(9181):870] Kapil A, et al. **Lancet** 1999 Jul 10;354(9173):164. Comment on: Lancet 1999 May 8;353(9164):1590–1.

Re-emergence of chloramphenicol-sensitive Salmonella typhi [letter] Sood S, et al. **Lancet** 1999 Apr 10; 353(9160):1241–2

Ciprofloxacin-resistant Salmonella typhi and treatment failure [letter] [see comments] Threlfall EJ, et al. **Lancet** 1999 May 8;353(9164):1590–1 (5 ref.). Comment in: Lancet 1999 Jul 10;354(9173):164.

Ciprofloxacin-resistant Salmonella typhi [letter] Baliga S, et al. **Natl Med J India** 1999 May-Jun;12(3):138

Ciprofloxacin-resistant Salmonella typhi [letter] Bhat KG, et al. **Natl Med J India** 1999 Mar-Apr;12(2):88

Changing pattern of antibiotic sensitivity of Salmonella typhi [see comments] Ranju C, et al. **Natl Med J India** 1998 Nov-Dec;11(6):266–7. Comment in: Natl Med J India 1999 Mar-Apr;12(2):88.

Nalidixic acid-resistant Salmonella typhi in Mumbai [letter; comment] Rodrigues C, et al. **Natl Med J India** 1999 Mar-Apr;12(2):88. Comment on: Natl Med J India 1998 Nov-Dec;11(6):266–7.

A highly ceftriaxone-resistant Salmonella typhi in Bangladesh. Saha SK, et al. **Pediatr Infect Dis J** 1999 Apr; 18(4):387

Drug resistant typhoid fever. Khosla SN, et al. **Trop Doct** 1998 Oct;28(4):235–7

ENZYMOLOGY

The two types of 3-dehydroquinase have distinct structures but catalyze the same overall reaction. Gourley DG, et al. **Nat Struct Biol** 1999 Jun;6(6):521–5

GENETICS

The rpoS mutant allele of Salmonella typhi Ty2 is identical to that of the live typhoid vaccine Ty21a. Robbe-Saule V, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):141–3

Characterization of candidate live oral Salmonella typhi vaccine strains harboring defined mutations in aroA, aroC, and htrA. Lowe DC, et al. **Infect Immun** 1999 Feb; 67(2):700–7

Genomic subtractive hybridization and selective capture of transcribed sequences identify a novel Salmonella typhimurium fimbrial operon and putative transcriptional regulator that are absent from the Salmonella typhi genome. Morrow BJ, et al. **Infect Immun** 1999 Oct; 67(10):5106–16

Expression and immunogenicity of a mutant diphtheria toxin molecule, CRM(197), and its fragments in Salmonella typhi vaccine strain CVD 908-htrA. Orr N, et al. **Infect Immun** 1999 Aug;67(8):4290–4

Genomic subtraction identifies Salmonella typhimurium prophages, F-related plasmid sequences, and a novel fimbrial operon, stf, which are absent in Salmonella typhi. Emmerth M, et al. **J Bacteriol** 1999 Sep;181(18):5652–61

The ompB operon partially determines differential expression of OmpC in Salmonella typhi and Escherichia coli. Martinez-Flores I, et al. **J Bacteriol** 1999 Jan;181(2):556–62

Role of genomic rearrangements in producing new ribotypes of Salmonella typhi. Ng I, et al. **J Bacteriol** 1999 Jun; 181(11):3536–41

Molecular typing of multiple-antibiotic-resistant Salmonella enterica serovar Typhi from Vietnam: application to acute and relapse cases of typhoid fever. Wain J, et al. **J Clin Microbiol** 1999 Aug;37(8):2466–72

The Salmonella typhi melittin resistance gene pqaB affects intracellular growth in PMA-differentiated U937 cells, polymyxin B resistance and lipopolysaccharide. Baker SJ, et al. **Microbiology** 1999 Feb;145 (Pt 2):367–78

The RcsB-RcsC regulatory system of Salmonella typhi differentially modulates the expression of invasion proteins, flagellin and Vi antigen in response to osmolarity. Arricau N, et al. **Mol Microbiol** 1998 Aug;29(3):835–50

Negative and positive regulation of the non-osmoregulated ompS1 porin gene in Salmonella typhi: a novel regulatory mechanism that involves OmpR. Oropeza R, et al. **Mol Microbiol** 1999 Apr;32(2):243–52

Sequencing and characterization of Salmonella typhi plasmid R27 (incompatibility group HI1) trhC, a transfer gene encoding a potential nucleoside triphosphate-binding domain. Taylor DE, et al. **Plasmid** 1999 May;41(3):207–18

Genome size variation among recent human isolates of Salmonella typhi. Thong KL, et al. **Res Microbiol** 1997 Mar-Apr;148(3):229–35

Genetic dynamics of Salmonella typhi--diversity in clonality. Pang T. **Trends Microbiol** 1998 Sep;6(9):339–42

[The design and study of an ogt deletion mutant of Salmonella typhi] Satorov S, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug; (4):19–23 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Viable, but non-culturable, state of a green fluorescence protein-tagged environmental isolate of Salmonella typhi in groundwater and pond water. Cho JC, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):257–64

Green fluorescent protein-based direct viable count to verify a viable but non-culturable state of Salmonella typhi in environmental samples. Cho JC, et al. **J Microbiol Methods** 1999 Jun;36(3):227–35

Negative and positive regulation of the non-osmoregulated ompS1 porin gene in Salmonella typhi: a novel regulatory mechanism that involves OmpR. Oropeza R, et al. **Mol Microbiol** 1999 Apr;32(2):243–52

[Experimental study of mixed infection by Vibrio cholerae and Salmonella typhi] Lobanov VV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep–Oct;(5):17–9 (Eng. Abstr.) **(Rus)**

[The population dynamics of Salmonella typhi and Tetrahymena pyriformis during joint cultivation] Sevost'anova EV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug;(4):3–6 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Rapid and reliable serological diagnosis of enteric fever: comparative sensitivity and specificity of Typhidot and Typhidot-M tests in febrile Malaysian children. Choo KE, et al. **Acta Trop** 1999 Mar 15;72(2):175–83

Characterization of a phase 1-d epitope on Salmonella typhi flagellin and its role in the serodiagnosis of typhoid fever. Korbsrisate S, et al. **Asian Pac J Allergy Immunol** 1999 Mar;17(1):31–9

Attenuated deltaguaBA Salmonella typhi vaccine strain CVD 915 as a live vector utilizing prokaryotic or eukaryotic expression systems to deliver foreign antigens and elicit immune responses. Pasetti MF, et al. **Clin Immunol** 1999 Jul;92(1):76–89

Crystallization of the immunodominant outer membrane protein OmpC; the first protein crystals from Salmonella typhi, a human pathogen. Arockiasamy A, et al.

FEBS Lett 1999 Jun 25;453(3):380–2

Effect of pre–existing carrier immunity on the efficacy of synthetic influenza vaccine. Ben–Yedidia T, et al. **Immunol Lett** 1998 Nov;64(1):9–15

Immunogenic epitopes of Salmonella typhi GroEL heat shock protein reactive with both monoclonal antibody and patients sera. Panchanathan V, et al. **Immunol Lett** 1998 Jun;62(2):105–9

Differences in immune responses induced by oral and rectal immunizations with Salmonella typhi Ty21a: evidence for compartmentalization within the common mucosal immune system in humans. Kantele A, et al. **Infect Immun** 1998 Dec;66(12):5630–5

PhoP–PhoQ–regulated loci are required for enhanced bile resistance in Salmonella spp. van Velkinburgh JC, et al. **Infect Immun** 1999 Apr;67(4):1614–22

Salmonella typhi flagella are potent inducers of proinflammatory cytokine secretion by human monocytes. Wyant TL, et al. **Infect Immun** 1999 Jul;67(7):3619–24

An immunoblotting procedure comprising O = 9,12 and H = d antigens as an alternative to the Widal agglutination assay. Chart H, et al. **J Clin Pathol** 1998 Nov;51(11):854–6

Induction of systemic and mucosal immune response in mice immunised with porins of Salmonella typhi. Singh M, et al. **J Med Microbiol** 1999 Jan;48(1):79–88

Chemical and immunological characterization of a low molecular weight outer membrane protein of Salmonella typhi. de Andrade CM, et al. **Microbiol Immunol** 1998; 42(8):521–6

Vaccination against intracellular bacterial pathogens [letter; comment] Pang T. **Trends Microbiol** 1998 Nov;6(11):433. Comment on: Trends Microbiol 1998 Mar;6(3):102–7. Comment on: Trends Microbiol 1998 Apr;6(4):135–6.

Typhoid fever vaccines [letter] Clemens J, et al. **Vaccine** 1999 Jun 4;17(20–21):2476–8

Persistence of antibodies to the Salmonella typhi Vi capsular polysaccharide vaccine in South African school children ten years after immunization. Keddy KH, et al. **Vaccine** 1999 Jan;17(2):110–3

[Efficacy and side effects following immunization with Salmonella typhi Vi capsular polysaccharide vaccine] Wang ZG, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Feb; 18(1):26–9 (Eng. Abstr.) **(Chi)**

[The induction and the prevention of Vi antigen of S.typhi loss by three metalic ions of salts] Zhang JX, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Apr; 18(2):89–91 (Eng. Abstr.) **(Chi)**

ISOLATION & PURIFICATION

A highly sensitive and fast non–radioactive method for the detection of polymerase chain reaction products from Salmonella serovars, such as Salmonella typhi, in blood specimens. Cocolin L, et al. **FEMS Immunol Med Microbiol** 1998 Nov;22(3):233–9

Viable, but non–culturable, state of a green fluorescence protein–tagged environmental isolate of Salmonella typhi in groundwater and pond water. Cho JC, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):257–64

Molecular typing of multiple–antibiotic–resistant Salmonella enterica serovar Typhi from Vietnam: application to acute and relapse cases of typhoid fever. Wain J, et al. **J Clin Microbiol** 1999 Aug;37(8):2466–72

Green fluorescent protein–based direct viable count to verify a viable but non–culturable state of Salmonella typhi in environmental samples. Cho JC, et al. **J Microbiol Methods** 1999 Jun;36(3):227–35

Salmonella typhi meningitis. Zafar J, et al. **JPMA J Pak Med Assoc** 1999 Jan;49(1):17–8

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 8–1999. A 28–year–old man with gram–negative sepsis of uncertain cause [clinical conference] **N Engl J Med** 1999 Mar 18;340(11):869–76

Uptake and retention of Vibrio cholerae non–O1, Salmonella typhi, Escherichia coli and Vibrio harvey by mussels in seawater. Marino A, et al. **New Microbiol** 1999 Apr; 22(2):129–38

Subdural empyema due to salmonella infection. Jain KC, et al. **Pediatr Neurosurg** 1998 Feb;28(2):89–90 (8 ref.)

Index of suspicion. Case 2. Typhoid fever. Batres LA, et al. **Pediatr Rev** 1999 Feb;20(2):53–5

Typhoid fever in children--a retrospective study of 54 cases from Malaysia. Yap YF, et al. **Singapore Med J** 1998 Jun; 39(6):260–2

[Septic shock with coma revealing typhoid fever] Hazouard E, et al. **Presse Med** 1998 Sep 5;27(25):1275–6 (Eng. Abstr.) **(Fre)**

PATHOGENICITY

Influence of sex on clinical features, laboratory findings, and complications of typhoid fever. Khan M, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):41–6

Considerations regarding mass vaccination against typhoid fever as an adjunct to sanitation and public health measures: potential use in an epidemic in Tajikistan. Tarr PE, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):163–70

Comparison of survival of diarrhoeagenic agents in two local weaning foods (ogi and koko). Bakare S, et al. **J Trop Pediatr** 1998 Dec;44(6):332–4

Salmonella typhi entry into intestinal epithelial cells. Huang XZ, et al. **Jpn J Med Sci Biol** 1998;51 Suppl:S90

The Salmonella typhi melittin resistance gene pqaB affects intracellular growth in PMA–differentiated U937 cells, polymyxin B resistance and lipopolysaccharide. Baker SJ, et al. **Microbiology** 1999 Feb;145 (Pt 2):367–78

PHYSIOLOGY

Potent immunoregulatory effects of Salmonella typhi flagella on antigenic stimulation of human peripheral blood mononuclear cells. Wyant TL, et al. **Infect Immun** 1999 Mar;67(3):1338–46

SALMONELLA TYPHIMURIUM

The Abuela Project: safe cheese workshops to reduce the incidence of Salmonella typhimurium from consumption of raw–milk fresh cheese. Bell RA, et al. **Am J Public Health** 1999 Sep;89(9):1421–4

Passive immunisation of neonatal lambs via colostrum and milk of ewes previously immunised with live attenuated Salmonella typhimurium protects neonatal lambs from experimental salmonellosis. Mukkur TK, et al. **Comp Immunol Microbiol Infect Dis** 1998 Oct;21(4):327–36

Structural changes in the rat middle ear mucosa due to endotoxin and eustachian tube obstruction. Nell MJ, et al. **Eur Arch Otorhinolaryngol** 1999;256(4):167–72

Role of interleukin–2 receptor expression on macrophages from Salmonella–infected mice. Matsui K. **FEMS Immunol Med Microbiol** 1999 May;24(1):97–103

Aerosol route enhances the contamination of intact eggs and muscle of experimentally infected laying hens by Salmonella typhimurium DT104. Leach SA, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):203–7

A nursery outbreak of multidrug resistant Salmonella typhimurium. Buch NA, et al. **Indian Pediatr** 1998 May; 35(5):455–9

Effect of transforming growth factor beta on experimental Salmonella typhimurium infection in mice. Galdiero M, et al. **Infect Immun** 1999 Mar;67(3):1432–8

Inhibition of endotoxin–induced uveitis and potentiation of local TNF–alpha and interleukin–6 mRNA expression by interleukin–13. Marie O, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2275–82

Endotoxin–induced uveitis is partially inhibited by anti–IL–8 antibody treatment. Verma MJ, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2465–70

RpoS synthesis is growth rate regulated in Salmonella typhimurium, but its turnover is not dependent on acetyl phosphate synthesis or PTS function. Cunning C, et al. **J Bacteriol** 1999 Aug;181(16):4853–62

Two outbreaks of multidrug–resistant Salmonella serotype typhimurium DT104 infections linked to raw–milk cheese in Northern California. Cody SH, et al. **JAMA** 1999 May 19;281(19):1805–10

Investigation of multidrug–resistant Salmonella serotype typhimurium DT104 infections linked to raw–milk cheese in Washington State. Villar RG, et al. **JAMA** 1999 May 19;281(19):1811–6

Effect of propolis on endotoxin–induced uveitis in rabbits. Oztürk F, et al. **Jpn J Ophthalmol** 1999 Jul–Aug; 43(4):285–9

Targeted Salmonella--a new way to image tumours? [letter] Watson WS. **Nucl Med Commun** 1998 Oct;19(10):1019

Risk factors associated with Salmonella enterica serovar typhimurium infection in Danish broiler flocks. Skov MN, et al. **Poult Sci** 1999 Jun;78(6):848–54

Comparison of CoMFA models for Salmonella typhimurium TA98, TA100, TA98 + S9 and TA100 + S9 mutagenicity of nitroaromatics. Fan M, et al. **SAR QSAR Environ Res** 1998;9(3–4):187–215

Salmonella typhimurium DT104 infection in people and animals in Scotland: a collaborative epidemiological study 1993–96. Calvert N, et al. **Vet Rec** 1998 Sep 26; 143(13):351–4

[Cerebral abscess during a severe form of Salmonella typhimurium bacteremia in an immunocompetent patient] Broux C, et al. **Presse Med** 1998 May 23–30;27(19):909–10 (Eng. Abstr.) **(Fre)**

[Poison needles and tails of Salmonella typhimurium: pathogen export apparatus and flagellar motor] Aizawa S. **Tanpakushitsu Kakusan Koso** 1999 Jan;44(1):1–7 (27 ref.) **(Jpn)**

[The effect of an artificial magnetic field on Salmonella infection in mice] Kalutskii PV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):11–5 (Eng. Abstr.) **(Rus)**

[Salmonella infection in the surgical departments of a city hospital] Trunilina RA, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug; (4):111–3 **(Rus)**

[The clinico–morphological characteristics of salmonellosis typhimurium in children] Nezhoda II. **Lik Sprava** 1999 Jan–Feb;(1):101–3 (Eng. Abstr.) **(Ukr)**

CHEMISTRY

Domain organization of flagellar hook protein from Salmonella typhimurium. Uedaira H, et al. **FEBS Lett** 1999 Feb 19;445(1):126–30

Protein–ligand interaction: grafting of the uridine–specific determinants from the CytR regulator of Salmonella typhimurium to Escherichia coli CytR. Thomsen LE, et al. **J Mol Biol** 1999 Apr 23;288(1):165–75

Amplified proinflammatory cytokine expression and toxicity in mice coexposed to lipopolysaccharide and the trichothecene vomitoxin (deoxynivalenol). Zhou HR, et al. **J Toxicol Environ Health** 1999 May 28;57(2):115–36

CLASSIFICATION

Salmonella typhimurium definitive type 104 isolates in British Columbia, 1997–1998. Buxton J, et al. **Can Commun Dis Rep** 1999 Aug 1;25(15):129–33 **(Eng, Fre)**

Advisory committee publishes report on microbial antibiotic resistance in relation to food safety. **Commun Dis Rep CDR Wkly** 1999 Aug 27;9(35):309, 312

Molecular characterization of Salmonella enterica subsp. enterica serovar Typhimurium DT009 isolates: differentiation of the live vaccine strain Zoosaloral from field isolates. Frech G, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):263–9

Salmonella Typhimurium DT104 in cattle in Great Britain. Hollinger K, et al. **J Am Vet Med Assoc** 1998 Dec 15; 213(12):1732–3 (6 ref.)

Identification by a multiplex PCR–based assay of Salmonella typhimurium and Salmonella enteritidis strains from environmental swabs of poultry houses. Soumet C, et al. **Lett Appl Microbiol** 1999 Jul;29(1):1–6

Salmonella typhimurium phage type DT104 in Belgian livestock. Imberechts H, et al. **Vet Rec** 1998 Oct 10; 143(15):424–5

[The application of a Salmonella typhimurium biotyping method to the epidemiological surveys and surveillance] Zhou G, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Aug; 19(4):221–3 (Eng. Abstr.) **(Chi)**

[Plasmid profile typing of Salmonella typhimurium and its distribution in some provinces and cities of China] Pan R, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jul; 32(4):214–8 (Eng. Abstr.) **(Chi)**

CYTOLOGY

A minimal mechanism for bacterial pattern formation. Tyson R, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7; 266(1416):299–304

DRUG EFFECTS

Integron– and carbenicillinase–mediated reduced susceptibility to amoxicillin–clavulanic acid in isolates of multidrug–resistant Salmonella enterica serotype typhimurium DT104 from French patients. Poirel L, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1098–104

Effects of Salmonella typhimurium infection and ofloxacin treatment on glucose and glutamine metabolism in Caco–2/TC–7 cells. Posho L, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):2950–5

Class 1 integron–borne multiple–antibiotic resistance carried by IncFI and IncL/M plasmids in Salmonella enterica serotype typhimurium. Tosini F, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3053–8

The effect of hydrocarbon chain length, pH, and temperature on the binding and bactericidal effect of amphiphilic betaine esters on Salmonella typhimurium. Ahlström B, et al. **APMIS** 1999 Mar;107(3):318–24

Loss of bactericidal capacity of long–chain quaternary ammonium compounds with protein at lowered temperature. Ahlström B, et al. **APMIS** 1999 Jun; 107(6):606–14

Induction of acid resistance of Salmonella typhimurium by exposure to short–chain fatty acids. Kwon YM, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3458–63

Antimutagenic effect of plant flavonoids in the Salmonella assay system. Choi JS, et al. **Arch Pharm Res** 1994 Apr; 17(2):71–5

Outbreak of quinolone–resistant, multiresistant Salmonella Typhimurium DT104, Denmark. **Can Commun Dis Rep** 1998 Dec 1;24(23):190–1 **(Eng, Fre)**

Influence of nitroreductase and O–acetyltransferase on the mutagenicity of substituted nitrobenzothiophenamines in Salmonella typhimurium. Hrelia P, et al. **Chem Biol Interact** 1999 Apr 1;118(2):99–111

Genotoxicity of iron compounds in Salmonella typhimurium and L5178Y mouse lymphoma cells. Dunkel VC, et al. **Environ Mol Mutagen** 1999;33(1):28–41

Selection of agar for use in Salmonella typhimurium and Escherichia coli mutation assays. Majeska JB, et al. **Environ Mol Mutagen** 1998;32(2):192–6

VITOTOX bacterial genotoxicity and toxicity test for the rapid screening of chemicals. Verschaeve L, et al. **Environ Mol Mutagen** 1999;33(3):240–8

Antibiotic resistance in Salmonella enterica serotype typhimurium. Gross U, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jun;17(6):385–7

A new chloramphenicol and florfenicol resistance gene flanked by two integron structures in Salmonella typhimurium DT104. Arcangioli MA, et al. **FEMS Microbiol Lett** 1999 May 15;174(2):327–32

Biological properties of structurally related alpha–helical cationic antimicrobial peptides. Scott MG, et al. **Infect Immun** 1999 Apr;67(4):2005–9

In vitro evaluation of intracellular activity of antibiotics against non–typhoid Salmonella. Chiu CH, et al. **Int J Antimicrob Agents** 1999 Jun;12(1):47–52

Survival of multidrug–resistant Salmonella typhimurium

DT104 in egg powders as affected by water activity and temperature. Jung YS, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):1-8

Mutagenic activity of 3,6-diamino-10-methyl-9,10-dihydroacridine in Salmonella typhimurium cells. Ferenc T, et al. **Int J Occup Med Environ Health** 1999;12(1):67-72

Epidemiologic aspects, control, and importance of multiple-drug resistant Salmonella Typhimurium DT104 in the United States. Akkina JE, et al. **J Am Vet Med Assoc** 1999 Mar 15;214(6):790-8 (46 ref.)

Mechanisms of resistance to ampicillin, chloramphenicol and quinolones in multiresistant Salmonella typhimurium strains isolated from fish. Ruiz J, et al. **J Antimicrob Chemother** 1999 May;43(5):699-702

Emergence of resistance to third-generation cephalosporins amongst Salmonella typhimurium isolates in Greece: report of the first three cases [letter] Tzouvelekis LS, et al. **J Antimicrob Chemother** 1998 Aug;42(2):273-5

Lipid A modifications characteristic of Salmonella typhimurium are induced by NH4VO3 in Escherichia coli K12. Detection of 4-amino-4-deoxy-L-arabinose, phosphoethanolamine and palmitate. Zhou Z, et al. **J Biol Chem** 1999 Jun 25;274(26):18503-14

Reduction of Escherichia coli O157:H7 and Salmonella typhimurium on beef carcass surfaces using acidified sodium chlorite. Castillo A, et al. **J Food Prot** 1999 Jun; 62(6):580-4

Multidrug-resistant human and animal Salmonella typhimurium isolates in France belong predominantly to a DT104 clone with the chromosome- and integron-encoded beta-lactamase PSE-1. Casin I, et al. **J Infect Dis** 1999 May;179(5):1173-82

Increase in incidence of resistance to ampicillin, chloramphenicol and trimethoprim in clinical isolates of Salmonella serotype Typhimurium with investigation of molecular epidemiology and mechanisms of resistance. Gallardo F, et al. **J Med Microbiol** 1999 Apr;48(4):367-74

Mutagenicity and dark toxicity of the second-generation photosensitizer bacteriochlorin a. Schuitmaker JJ, et al. **J Photochem Photobiol B** 1998 Dec;47(2-3):211-5

Hydrolysis of the soft amphiphilic antimicrobial agent tetradecyl betainate is retarded after binding to and killing Salmonella typhimurium. Ahlström B, et al. **Microbiology** 1998 Sep;144 (Pt 9):2497-504

Microsomal metabolism of dictamnine: identification of metabolites and evaluation of their mutagenicity in Salmonella typhimurium. Klier B, et al. **Mutagenesis** 1999 Mar;14(2):181-5

Inhibition of metabolic activation of the promutagens, benzo[a]pyrene, 2-aminofluorene and 2-aminoanthracene by furanochromones in Salmonella typhimurium. Schimmer O, et al. **Mutagenesis** 1998 Jul;13(4):385-9

Development of a new genotoxicity test system with Salmonella typhimurium OY1001/1A2 expressing human CYP1A2 and NADPH-P450 reductase. Aryal P, et al. **Mutat Res** 1999 Jun 25;442(2):113-20

Correcting for toxic inhibition in quantification of genotoxic response in the umuC test. Baun A, et al. **Mutat Res** 1999 May 17;441(2):171-80

Studies on the genotoxicity of endosulfan in bacterial systems. Chaudhuri K, et al. **Mutat Res** 1999 Feb 2;439(1):63-7

Genotoxicity of instant coffee: possible involvement of phenolic compounds. Duarte MP, et al. **Mutat Res** 1999 Jun 7;442(1):43-51

Molecular basis for resistance to silver cations in Salmonella. Gupta A, et al. **Nat Med** 1999 Feb;5(2):183-8

Mutagenicity of 4-aminobiphenyl and 4-acetylaminobiphenyl in Salmonella typhimurium strains expressing different levels of N-acetyltransferase. Dang LN, et al. **Toxicol Appl Pharmacol** 1999 Sep 1;159(2):77-82

Characterisation of recently emerged multiple antibiotic-resistant Salmonella enterica serovar typhimurium DT104 and other multiresistant phage types from Danish pig herds. Baggesen DL, et al. **Vet Rec** 1998 Jul 25;143(4):95-7

Nalidixic acid resistance in salmonellae isolated from turkeys and other livestock in Great Britain [see comments] Davies RH, et al. **Vet Rec** 1999 Mar 20;144(12):320-2. Comment in: Vet Rec 1999 Apr 3;144(14):392.

Multiresistant Salmonella typhimurium DT 104, Czech Republic. **Wkly Epidemiol Rec** 1998 Dec 4;73(49):385-6 **(Eng, Fre)**

Outbreak of quinolone-resistant, multiresistant Salmonella typhimurium DT104, Denmark. **Wkly Epidemiol Rec** 1998 Oct 16;73(42):327-8 **(Eng, Fre)**

[Growing incidence of nalidixic acid resistance and sensitivity to quinolones in Salmonella typhimurium strains isolated from man or animal] Heurtin-Le Corre C, et al. **Pathol Biol (Paris)** 1998 Oct;46(8):587-90 (Eng. Abstr.) **(Fre)**

ENZYMOLOGY

Purification, crystallization and preliminary structural studies of dTDP-6-deoxy-D-xylo-4-hexulose 3,5-epimerase (RmlC), the third enzyme of the dTDP-L-rhamnose synthesis pathway, from Salmonella enterica serovar typhimurium. Giraud MF, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):706-8

Crystallization and preliminary crystallographic studies of the anthranilate synthase partial complex from Salmonella typhimurium. Tolbert WD, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):305-6

Biochemical characterization of alpha-aspartyl dipeptidase. Cloning and expression of its gene. Zhang H, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:621-5

Expression of recombinant aroB-encoded dehydroquinate synthase from pathogenic microorganisms. Skinner MA, et al. **Biochem Soc Trans** 1998 Aug;26(3):S280

Mechanism of Salmonella typhimurium histidinol dehydrogenase: kinetic isotope effects and pH profiles. Grubmeyer C, et al. **Biochemistry** 1999 Jun 1; 38(22):7355-62

Definition of the redox states of cobalt-precorrinoids: investigation of the substrate and redox specificity of CbiL from Salmonella typhimurium. Spencer P, et al. **Biochemistry** 1998 Oct 20;37(42):14917-27

The flagellar anti-sigma factor FlgM actively dissociates Salmonella typhimurium sigma28 RNA polymerase holoenzyme. Chadsey MS, et al. **Genes Dev** 1998 Oct 1; 12(19):3123-36

Glucose 6-phosphate dehydrogenase is required for Salmonella typhimurium virulence and resistance to reactive oxygen and nitrogen intermediates. Lundberg BE, et al. **Infect Immun** 1999 Jan;67(1):436-8

Biosynthesis of the pyrimidine moiety of thiamine independent of the PurF enzyme (Phosphoribosylpyrophosphate amidotransferase) in Salmonella typhimurium: incorporation of stable isotope-labeled glycine and formate. Enos-Berlage JL, et al. **J Bacteriol** 1999 Feb;181(3):841-8

CobB, a new member of the SIR2 family of eucaryotic regulatory proteins, is required to compensate for the lack of nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase activity in cobT mutants during cobalamin biosynthesis in Salmonella typhimurium LT2. Tsang AW, et al. **J Biol Chem** 1998 Nov 27; 273(48):31788-94

Three-dimensional structure of O-acetylserine sulfhydrylase from Salmonella typhimurium. Burkhard P, et al. **J Mol Biol** 1998;283(1):121-33

Ligand binding induces a large conformational change in O-acetylserine sulfhydrylase from Salmonella typhimurium. Burkhard P, et al. **J Mol Biol** 1999 Aug 27; 291(4):941-53

The genetic basis of tetrathionate respiration in Salmonella typhimurium. Hensel M, et al. **Mol Microbiol** 1999 Apr; 32(2):275-87

Structural biology. The ABC of a versatile engine [news; comment] Welsh MJ, et al. **Nature** 1998 Dec 17; 396(6712):623-4. Comment on: Nature 1998 Dec 17;396(6712):703-6.

Virulent Salmonella typhimurium has two periplasmic Cu, Zn-superoxide dismutases. Fang FC, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7502-7

DNA adenine methylase mutants of Salmonella typhimurium show defects in protein secretion, cell invasion, and M cell cytotoxicity. García-Del Portillo F, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11578-83

Structural alterations of the tRNA(m1G37)methyltransferase from Salmonella typhimurium affect tRNA substrate specificity. Li JN, et al. **RNA** 1999 Mar;5(3):395-408

An essential role for DNA adenine methylation in bacterial virulence [see comments] Heithoff DM, et al. **Science** 1999 May 7;284(5416):967-70. Comment in: Science 1999 May 7;284(5416):883.

Induction of specific cell-mediated immunity in mice by oral immunization with Salmonella expressing Onchocerca volvulus glutathione S-transferase. Catmull J, et al. **Vaccine** 1999 Jan;17(1):31-9

GENETICS

Molecular characterization of an antibiotic resistance gene cluster of Salmonella typhimurium DT104. Briggs CE, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):846-9

Class 1 integron-borne multiple-antibiotic resistance carried by IncFI and IncL/M plasmids in Salmonella enterica serotype typhimurium. Tosini F, et al. **Antimicrob Agents Chemother** 1998 Dec;42(12):3053-8

Integration of minitransposons for expression of the Escherichia coli elt genes at a preferred site in Salmonella typhimurium identifies a novel putative fimbrial locus. Brocchi M, et al. **Arch Microbiol** 1999 Jan;171(2):122-6

Correlation of 32P-postlabelling-detection of DNA adducts in mouse skin in vivo with the polycyclic aromatic compound content and mutagenicity in Salmonella typhimurium of a range of oil products. Booth ED, et al. **Arch Toxicol** 1998 Jul-Aug;72(8):505-13

Identification of a cis-acting regulatory sequence responsible for the repression of brnQ in Salmonella typhimurium. Ohnishi K, et al. **Biochim Biophys Acta** 1999 May 14; 1445(2):196-206

Gene transfer in dendritic cells, induced by oral DNA vaccination with Salmonella typhimurium, results in protective immunity against a murine fibrosarcoma. Paglia P, et al. **Blood** 1998 Nov 1;92(9):3172-6

Role of human N-acetyltransferases, NAT1 or NAT2, in genotoxicity of nitroarenes and aromatic amines in Salmonella typhimurium NM6001 and NM6002. Oda Y, et al. **Carcinogenesis** 1999 Jun;20(6):1079-83

Biodistribution of, antimutagenic efficacies in Salmonella typhimurium of, and inhibition of P450 activities by ellagic acid and one analogue. Castonguay A, et al. **Chem Res Toxicol** 1998 Nov;11(11):1258-64

Conditional lethality of cell shape mutations of Salmonella typhimurium: rodA and mre mutants are lethal on solid but not in liquid medium. Costa CS, et al. **Curr Microbiol** 1999 Mar;38(3):137-42

Regulation of virulence genes by environmental signals in Salmonella typhimurium. Deiwick J, et al. **Electrophoresis** 1999 Apr-May;20(4-5):813-7

Genotoxicity of iron compounds in Salmonella typhimurium and L5178Y mouse lymphoma cells. Dunkel VC, et al. **Environ Mol Mutagen** 1999;33(1):28-41

Induction of oxidative DNA damage in anaerobes. Takeuchi T, et al. **FEBS Lett** 1999 May 7;450(3):178-80

DNA sequencing of the gene encoding Salmonella typhimurium-derived T-cell inhibitor (STI) and characterization of the gene product, cloned STI. Matsui K, et al. **FEMS Immunol Med Microbiol** 1998 Dec; 22(4):341-9

A new chloramphenicol and florfenicol resistance gene flanked by two integron structures in Salmonella typhimurium DT104. Arcangioli MA, et al. **FEMS Microbiol Lett** 1999 May 15;174(2):327-32

Molecular characterization of Salmonella enterica subsp. enterica serovar Typhimurium DT009 isolates: differentiation of the live vaccine strain Zoosaloral from field isolates. Frech G, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):263-9

Two novel plasmid-mediated cefotaxime-hydrolyzing beta-lactamases (CTX-M-5 and CTX-M-6) from Salmonella typhimurium. Gazouli M, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):289-93

Iterative selection from a Salmonella typhimurium cosmid library can lead to the isolation of an atypically small plasmid. Lodge JM, et al. **FEMS Microbiol Lett** 1999 Jan 15;170(2):355-61

High levels of transcription factor RpoS (sigma S) in mviA mutants negatively affect 1,2-propanediol-dependent transcription of the cob/pdu regulon of Salmonella typhimurium LT2. Rondon MR, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):147-53

Transduction of multiple drug resistance of Salmonella enterica serovar typhimurium DT104. Schmieger H, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):251-6

Sample sequencing of a Salmonella typhimurium LT2 lambda library: comparison to the Escherichia coli K12 genome. Wong RM, et al. **FEMS Microbiol Lett** 1999 Apr 15; 173(2):411-23

Amber (UAG) suppressors affected in UGA/UAA-specific polypeptide release factor 2 of bacteria: genetic prediction of initial binding to ribosome preceding stop codon recognition. Yoshimura K, et al. **Genes Cells** 1999 May; 4(5):253-66

Identification of carcinogenic substances by means of short-term tests in bacteria. Quillardet P, et al. **IARC Sci Publ** 1999;(146):487-97 (46 ref.)

DNA-mobility shift assay and the detection of anti-DNA IgG in systemic lupus erythematosus patients. Keyhani J, et al. **Immunol Lett** 1998 Jun;62(2):81-6

Use of in vivo-regulated promoters to deliver antigens from attenuated Salmonella enterica var. Typhimurium. Dunstan SJ, et al. **Infect Immun** 1999 Oct;67(10):5133-41

Evaluation of Salmonella typhimurium mutants in a model of experimental gastroenteritis. Everest P, et al. **Infect Immun** 1999 Jun;67(6):2815-21

Molecular and functional characterization of Salmonella enterica serovar typhimurium poxA gene: effect on attenuation of virulence and protection. Kaniga K, et al. **Infect Immun** 1998 Dec;66(12):5599-606

Identification and characterization of a phase-variable nonfimbrial Salmonella typhimurium gene that alters O-antigen production. Kwan LY, et al. **Infect Immun** 1998 Dec;66(12):5725-30

Pathogenicity island 2 mutants of Salmonella typhimurium are efficient carriers for heterologous antigens and enable modulation of immune responses. Medina E, et al. **Infect Immun** 1999 Mar;67(3):1093-9

Genomic subtractive hybridization and selective capture of transcribed sequences identify a novel Salmonella typhimurium fimbrial operon and putative transcriptional regulator that are absent from the Salmonella typhi genome. Morrow BJ, et al. **Infect Immun** 1999 Oct; 67(10):5106-16

Influence of the Salmonella typhimurium pathogenicity island 2 type III secretion system on bacterial growth in the mouse. Shea JE, et al. **Infect Immun** 1999 Jan;67(1):213-9

Salmonella typhimurium encodes a putative iron transport system within the centisome 63 pathogenicity island. Zhou D, et al. **Infect Immun** 1999 Apr;67(4):1974-81

The virulence plasmid of Salmonella typhimurium is self-transmissible. Ahmer BM, et al. **J Bacteriol** 1999 Feb; 181(4):1364-8

Histidine operon deattenuation in dnaA mutants of Salmonella typhimurium correlates with a decrease in the gene dosage ratio between tRNA(His) and histidine biosynthetic loci. Blanc-Potard AB, et al. **J Bacteriol** 1999 May;181(9):2938-41

InvF is required for expression of genes encoding proteins secreted by the SPI1 type III secretion apparatus in Salmonella typhimurium. Darwin KH, et al. **J Bacteriol** 1999 Aug;181(16):4949-54

Genomic subtraction identifies Salmonella typhimurium

prophages, F-related plasmid sequences, and a novel fimbrial operon, stf, which are absent in Salmonella typhi. Emmerth M, et al. **J Bacteriol** 1999 Sep;181(18):5652-61

Complex metabolic phenotypes caused by a mutation in yjgF, encoding a member of the highly conserved YER057c/YjgF family of proteins. Enos-Berlage JL, et al. **J Bacteriol** 1998 Dec;180(24):6519-28

Coordinate intracellular expression of Salmonella genes induced during infection. Heithoff DM, et al. **J Bacteriol** 1999 Feb;181(3):799-807

Physiological states of individual Salmonella typhimurium cells monitored by in situ reverse transcription-PCR. Hølmstrom K, et al. **J Bacteriol** 1999 Mar;181(6):1733-8

Flk couples flgM translation to flagellar ring assembly in Salmonella typhimurium. Karlinsey JE, et al. **J Bacteriol** 1998 Oct;180(20):5384-97

Mutant forms of Salmonella typhimurium sigma54 defective in transcription initiation but not promoter binding activity. Kelly MT, et al. **J Bacteriol** 1999 Jun;181(11):3351-7

The 17-gene ethanolamine (eut) operon of Salmonella typhimurium encodes five homologues of carboxysome shell proteins. Kofoid E, et al. **J Bacteriol** 1999 Sep; 181(17):5317-29

Mutations affecting motifs of unknown function in the central domain of nitrogen regulatory protein C. Li J, et al. **J Bacteriol** 1999 Sep;181(17):5443-54

Role of ArgR in activation of the ast operon, encoding enzymes of the arginine succinyltransferase pathway in Salmonella typhimurium. Lu CD, et al. **J Bacteriol** 1999 Mar;181(6):1934-8

Cyclic AMP receptor protein and TyrR are required for acid pH and anaerobic induction of hyaB and aniC in Salmonella typhimurium. Park KR, et al. **J Bacteriol** 1999 Jan; 181(2):689-94

Molecular characterization of eutF mutants of Salmonella typhimurium LT2 identifies eutF lesions as partial-loss-of-function tonB alleles. Thomas MG, et al. **J Bacteriol** 1999 Jan;181(2):368-74

Studies of regulation of expression of the propionate (prpBCDE) operon provide insights into how Salmonella typhimurium LT2 integrates its 1,2-propanediol and propionate catabolic pathways. Tsang AW, et al. **J Bacteriol** 1998 Dec;180(24):6511-8

A new class of cobalamin transport mutants (btuF) provides genetic evidence for a periplasmic binding protein in Salmonella typhimurium. Van Bibber M, et al. **J Bacteriol** 1999 Sep;181(17):5539-41

Characterization of a group of anaerobically induced, fnr-dependent genes of Salmonella typhimurium. Wei Y, et al. **J Bacteriol** 1999 Oct;181(19):6092-7

Regulation of the Salmonella typhimurium flavohemoglobin gene. A new pathway for bacterial gene expression in response to nitric oxide [published erratum appears in J Biol Chem 1999 Feb 5;274(6):3918] Crawford MJ, et al. **J Biol Chem** 1998 Dec 18;273(51):34028-32

Suppression of leu-500 mutation in topA+ Salmonella typhimurium strains. The promoter relay at work. Fang M, et al. **J Biol Chem** 1998 Nov 6;273(45):29929-34

Transcription initiation at the flagellin promoter by RNA polymerase carrying sigma28 from Salmonella typhimurium. Schaubach OL, et al. **J Biol Chem** 1999 Mar 26;274(13):8757-63

CobB, a new member of the SIR2 family of eucaryotic regulatory proteins, is required to compensate for the lack of nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase activity in cobT mutants during cobalamin biosynthesis in Salmonella typhimurium LT2. Tsang AW, et al. **J Biol Chem** 1998 Nov 27; 273(48):31788-94

Molecular characterization of the PmrA regulon. Wösten MM, et al. **J Biol Chem** 1999 Sep 17;274(38):27185-90

Multidrug-resistant human and animal Salmonella typhimurium isolates in France belong predominantly to a DT104 clone with the chromosome- and integron-encoded beta-lactamase PSE-1. Casin I, et al. **J Infect Dis** 1999 May;179(5):1173-82

The epidemiology of Salmonella typhimurium in cattle: plasmid profile analysis of definitive phage type (DT) 204c. Wray C, et al. **J Med Microbiol** 1998 Jun;47(6):483-7

Induction of rpoS in Salmonella typhimurium by nutrient-poor and depleted media is slower than that achieved by a competitive microflora. Aldsworth TG, et al. **Lett Appl Microbiol** 1999 Apr;28(4):255-7

Modulation of autoimmune disease in the MRL-lpr/lpr mouse by IL-2 and TGF-beta1 gene therapy using attenuated Salmonella typhimurium as gene carrier. Huggins ML, et al. **Lupus** 1999;8(1):29-38

The prpE gene of Salmonella typhimurium LT2 encodes propionyl-CoA synthetase. Horswill AR, et al. **Microbiology** 1999 Jun;145 (Pt 6):1381-8

Structure and expression of the fliA operon of Salmonella typhimurium. Ikebe T, et al. **Microbiology** 1999 Jun;145 (Pt 6):1389-96

Detection of multiresistant Salmonella typhimurium DT104 using multiplex and fluorogenic PCR. Carlson SA, et al. **Mol Cell Probes** 1999 Jun;13(3):213-22

A coding segment of the virulence regulatory gene spvR enhances expression of spvR-lacZ and spvR-gfp translational fusions in Salmonella typhimurium. Robbe-Saule V, et al. **Mol Gen Genet** 1999 Apr; 261(3):472-9

Novel ribosomal mutations affecting translational accuracy, antibiotic resistance and virulence of Salmonella typhimurium. Björkman J, et al. **Mol Microbiol** 1999 Jan; 31(1):53-8

Macrophage-dependent induction of the Salmonella pathogenicity island 2 type III secretion system and its role in intracellular survival. Cirillo DM, et al. **Mol Microbiol** 1998 Oct;30(1):175-88

Environmental regulation of Salmonella pathogenicity island 2 gene expression. Deiwick J, et al. **Mol Microbiol** 1999 Mar;31(6):1759-73

Characterization of SprA, an AraC-like transcriptional regulator encoded within the Salmonella typhimurium pathogenicity island 1. Eichelberg K, et al. **Mol Microbiol** 1999 Jul;33(1):139-52

The genetic basis of tetrathionate respiration in Salmonella typhimurium. Hensel M, et al. **Mol Microbiol** 1999 Apr; 32(2):275-87

Molecular and functional analysis indicates a mosaic structure of Salmonella pathogenicity island 2. Hensel M, et al. **Mol Microbiol** 1999 Jan;31(2):489-98

Genes encoding putative effector proteins of the type III secretion system of Salmonella pathogenicity island 2 are required for bacterial virulence and proliferation in macrophages. Hensel M, et al. **Mol Microbiol** 1998 Oct; 30(1):163-74

Expression and transcriptional control of the Salmonella typhimurium Ipf fimbrial operon by phase variation. Norris TL, et al. **Mol Microbiol** 1998 Jul;29(1):311-20

In vivo analysis of the interactions of the LysR-like regulator SpvR with the operator sequences of the spvA and spvR virulence genes of Salmonella typhimurium. Sheehan BJ, et al. **Mol Microbiol** 1998 Oct;30(1):91-105

New O-acetyltransferase-deficient Ames Salmonella strains generated by specific gene disruption. Espinosa-Aguirre JJ, et al. **Mutat Res** 1999 Feb 19;439(2):159-69

Cytochrome P450 1A1 in rat peripheral blood lymphocytes: inducibility in vivo and bioactivation of benzo[a]pyrene in the Salmonella typhimurium mutagenicity assay in vitro. Fung J, et al. **Mutat Res** 1999 Jan 2;438(1):1-12

Advantage of the use of human liver S9 in the Ames test. Hakura A, et al. **Mutat Res** 1999 Jan 2;438(1):29-36

Genotoxicity evaluation of tetramethylbenzenes. Janik-Spiechowicz E, et al. **Mutat Res** 1999 Feb 2; 439(1):69-75

Mutagenicities of 2,4- and 2,6-dinitrotoluenes and their reduced products in Salmonella typhimurium nitroreductase- and O-acetyltransferase-overproducing Ames test strains. Sayama M, et al. **Mutat Res** 1998 Dec 3;420(1-3):27-32

Glutathione activation of chloropicrin in the Salmonella mutagenicity test. Schneider M, et al. **Mutat Res** 1999 Feb 19;439(2):233-8

Comparison of SYBR Green I nucleic acid gel stain mutagenicity and ethidium bromide mutagenicity in the Salmonella/mammalian microsome reverse mutation assay (Ames test). Singer VL, et al. **Mutat Res** 1999 Feb 2; 439(1):37-47

Molecular basis for resistance to silver cations in Salmonella. Gupta A, et al. **Nat Med** 1999 Feb;5(2):183-8

Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247-52

Mutagenicity of medicinal plant extracts in Salmonella/microsome assay. de Sá Ferreira IC, et al. **Phytother Res** 1999 Aug;13(5):397-400

Molecular epidemiological investigation of Salmonella typhimurium strains related to an egg-borne outbreak. Carramiñana JJ, et al. **Res Microbiol** 1997 Sep-Oct; 148(7):633-6

Plasmid profile analysis and antibiotic resistance of Salmonella strains from clinical isolates in Cluj-Napoca. Făgărăşan S, et al. **Roum Arch Microbiol Immunol** 1997 Jul-Dec;56(3-4):127-38

Evidence that gene amplification underlies adaptive mutability of the bacterial lac operon. Andersson DI, et al. **Science** 1998 Nov 6;282(5391):1133-5

Gene may promise new route to potent vaccines [news; comment] Enserink M. **Science** 1999 May 7;284(5416):883 . Comment on: Science 1999 May 7;284(5416):967-70.

Immunogenicity of viral B-cell epitopes inserted into two surface loops of the Escherichia coli K12 LamB protein and expressed in an attenuated aroA strain of Salmonella typhimurium. Wang J, et al. **Vaccine** 1999 Jan;17(1):1-12

[A chromosomal integration system for development of polyvalent vaccine strains] Tu HL, et al. **I Chuan Hsueh Pao** 1998 Dec;25(6):551-8 (Eng. Abstr.) **(Chi)**

GROWTH & DEVELOPMENT

Viability and virulence of experimentally stressed nonculturable Salmonella typhimurium. Caro A, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3229-32

The rab7 GTPase controls the maturation of Salmonella typhimurium-containing vacuoles in HeLa cells. Méresse S, et al. **EMBO J** 1999 Aug 16;18(16):4394-403

Survival of Salmonella enteritidis and Salmonella typhimurium in chicken manure at different levels of water activity. Himathongkham S, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):159-63

Destruction of Salmonella typhimurium, Escherichia coli O157:H7 and Listeria monocytogenes in chicken manure by drying and/or gassing with ammonia. Himathongkham S, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):179-82

Combination of vaccination and competitive exclusion to prevent Salmonella colonization in chickens: experimental studies. Methner U, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):35-42

Comparative survival of Salmonella typhimurium DT 104, Listeria monocytogenes, and Escherichia coli O157:H7 in preservative-free apple cider and simulated gastric fluid. Roering AM, et al. **Int J Food Microbiol** 1999 Feb 18; 46(3):263-9

Pulsed high electric field causes 'all or nothing' membrane damage in Listeria monocytogenes and Salmonella typhimurium, but membrane H+-ATPase is not a primary target. Simpson RK, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):1-10

Protective effect of bifidus milk on the experimental infection with Salmonella enteritidis subsp. typhimurium in conventional and gnotobiotic mice. Silva AM, et al. **J Appl Microbiol** 1999 Feb;86(2):331-6

Shelf life extension, safety, and quality of fresh pork loin treated with high hydrostatic pressure. Ananth V, et al. **J Food Prot** 1998 Dec;61(12):1649-56

Response surface models for effects of temperature, pH, and previous growth pH on growth kinetics of Salmonella Typhimurium in brain heart infusion broth. Oscar TP. **J Food Prot** 1999 Feb;62(2):106-11

Intestinal colonisation of gnotobiotic pigs by Salmonella organisms: interaction between isogenic and unrelated strains. Lovell MA, et al. **J Med Microbiol** 1999 Oct; 48(10):907-16

Induction of rpoS in Salmonella typhimurium by nutrient-poor and depleted media is slower than that achieved by a competitive microflora. Aldsworth TG, et al. **Lett Appl Microbiol** 1999 Apr;28(4):255-7

The production of an auxotrophic marked, plasmid-cured Salmonella ser. Typhimurium as a live attenuated vaccine. Van Der Walt ML, et al. **Onderstepoort J Vet Res** 1998 Sep;65(3):213-20

Eggshell characteristics and penetration by Salmonella through the productive life of a broiler breeder flock. Berrang ME, et al. **Poult Sci** 1998 Sep;77(9):1446-50

Effects of chicken-derived cecal microorganisms maintained in continuous culture on cecal colonization by Salmonella typhimurium in turkey poults. Hollister AG, et al. **Poult Sci** 1999 Apr;78(4):546-9

Inhibition of Salmonella intracellular proliferation by non-phagocytic eucaryotic cells. Martinez-Moya M, et al. **Res Microbiol** 1998 May;149(5):309-18

High hydrostatic pressure inactivation of Salmonella typhimurium: effects of pressure, duration, pH and temperature studied by analysis of variance. Ritz M, et al. **Vet Res** 1998 Nov-Dec;29(6):547-56

IMMUNOLOGY

Production of monoclonal antibodies specific for the i and 1,2 flagellar antigens of Salmonella typhimurium and characterization of their respective epitopes. de Vries N, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5033-8

Inhibition of Salmonella typhimurium in the chicken intestinal tract by a transformed avirulent avian Escherichia coli. Wooley RE, et al. **Avian Dis** 1999 Apr-Jun; 43(2):245-50

New vaccine strategies against enterotoxigenic Escherichia coli. II: Enhanced systemic and secreted antibody responses against the CFA/I fimbriae by priming with DNA and boosting with a live recombinant Salmonella vaccine. Lásaro MO, et al. **Braz J Med Biol Res** 1999 Feb; 32(2):241-6

Salmonellosis: lessons drawn from a germ-free pig model. Trebichavský I, et al. **Folia Microbiol (Praha)** 1998; 43(6):697-701

Oral immunization with a Salmonella typhimurium vaccine vector expressing recombinant enterotoxigenic Escherichia coli K99 fimbriae elicits elevated antibody titers for protective immunity. Ascón MA, et al. **Infect Immun** 1998 Nov;66(11):5470-6

The nature of the attenuation of Salmonella typhimurium strains expressing human papillomavirus type 16 virus-like particles determines the systemic and mucosal antibody responses in nasally immunized mice. Benyacoub J, et al. **Infect Immun** 1999 Jul;67(7):3674-9

Clonal expansion of antigen-specific CD4 T cells following infection with Salmonella typhimurium is similar in susceptible (Itys) and resistant (Ityr) BALB/c mice. Chen ZM, et al. **Infect Immun** 1999 Apr;67(4):2025-9

Orchestration of neutrophil movement by intestinal epithelial cells in response to Salmonella typhimurium can be uncoupled from bacterial internalization. Gewirtz AT, et al. **Infect Immun** 1999 Feb;67(2):608-17

In vivo blockage of nitric oxide with aminoguanidine inhibits immunosuppression induced by an attenuated strain of Salmonella typhimurium, potentiates Salmonella infection, and inhibits macrophage and polymorphonuclear leukocyte influx into the spleen. MacFarlane AS, et al. **Infect Immun** 1999 Feb;67(2):891-8

Invasion by Salmonella typhimurium induces increased expression of the LMP, MECL, and PA28 proteasome genes and changes in the peptide repertoire of HLA-B27. Maksymowych WP, et al. **Infect Immun** 1998 Oct; 66(10):4624-32

Interleukin 18 contributes to host resistance and gamma interferon production in mice infected with virulent

Salmonella typhimurium. Mastroeni P, et al. **Infect Immun** 1999 Feb;67(2):478–83

Prior immunity to homologous and heterologous Salmonella serotypes suppresses local and systemic anti-fragment C antibody responses and protection from tetanus toxin in mice immunized with Salmonella strains expressing fragment C. Roberts M, et al. **Infect Immun** 1999 Aug; 67(8):3810–5

Salmonella typhimurium infection in mice induces nitric oxide–mediated immunosuppression through a natural killer cell–dependent pathway. Schwacha MG, et al. **Infect Immun** 1998 Dec;66(12):5862–6

PhoP–PhoQ–regulated loci are required for enhanced bile resistance in Salmonella spp. van Velkinburgh JC, et al. **Infect Immun** 1999 Apr;67(4):1614–22

Immunogenicity of a Salmonella typhimurium aroA aroD vaccine expressing a nontoxic domain of Clostridium difficile toxin A. Ward SJ, et al. **Infect Immun** 1999 May; 67(5):2145–52

The polysaccharide portion of lipopolysaccharide regulates antigen–specific T–cell activation via effects on macrophage–mediated antigen processing. Zirk NM, et al. **Infect Immun** 1999 Jan;67(1):319–26

Comparison of the abilities of Salmonella typhimurium rpoS, aroA and rpoS aroA strains to elicit humoral immune responses in BALB/c mice and to cause lethal infection in athymic BALB/c mice. Coynault C, et al. **Microb Pathog** 1999 Jun;26(6):299–305

Protection and immune responses induced by attenuated Salmonella typhimurium UK–1 strains. Zhang X, et al. **Microb Pathog** 1999 Mar;26(3):121–30

Regulation of host immune responses by modification of Salmonella virulence genes. VanCott JL, et al. **Nat Med** 1998 Nov;4(11):1247–52

Evaluation of the efficacy of intraperitoneal immunization in reducing Salmonella typhimurium infection in chickens. Muir WI, et al. **Poult Sci** 1998 Dec;77(12):1874–83

Recognition specificity of monoclonal antibodies which protect mice against Salmonella typhimurium infection. Singh SP, et al. **Res Microbiol** 1999 Jul–Aug;150(6):385–94

Induction of specific cell–mediated immunity in mice by oral immunization with Salmonella expressing Onchocerca volvulus glutathione S–transferase. Catmull J, et al. **Vaccine** 1999 Jan;17(1):31–9

Expression of a pilin subunit BfpA of the bundle–forming pilus of enteropathogenic Escherichia coli in an aroA live salmonella vaccine strain. Schriefer A, et al. **Vaccine** 1999 Feb 26;17(7–8):770–8

Recombinant, attenuated Salmonella typhimurium stimulate lymphoproliferative responses to SIV capsid antigen in rhesus macaques. Steger KK, et al. **Vaccine** 1999 Feb 26; 17(7–8):923–32

Interaction between Salmonella typhimurium and phagocytic cells in pigs. Phagocytosis, oxidative burst and killing in polymorphonuclear leukocytes and monocytes. Riber U, et al. **Vet Immunol Immunopathol** 1999 Feb 22;67(3):259–70

Immunogenicity and antigenic relationship of Salmonella enterotoxin with other enterotoxins. Rahman H, et al. **Zentralbl Bakteriol** 1995 Oct;282(4):416–26

[The role of the structural parts of bacterial lipopolysaccharide in its direct immunosuppressive activity] Borisova EV. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Mar–Apr; (2):22–5 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

Combinations of intervention treatments resulting in 5–log10–unit reductions in numbers of Escherichia coli O157:H7 and Salmonella typhimurium DT104 organisms in apple cider. Uljas HE, et al. **Appl Environ Microbiol** 1999 May;65(5):1924–9

Consumer attitudes and behaviours––key risk factors in an outbreak of Salmonella typhimurium phage type 12 infection sourced to chicken nuggets. Kenny B, et al. **Aust N Z J Public Health** 1999 Apr;23(2):164–7

Concurrent Aelurostrongylus abstrusus infection and salmonellosis in a kitten. Barrs VR, et al. **Aust Vet J** 1999 Apr;77(4):229–32

Persistence of Salmonella species in cerebrospinal fluid of patients with meningitis following ceftriaxone therapy. Chiu CH, et al. **Clin Infect Dis** 1999 May;28(5):1174–5

Defective pasteurisation linked to outbreak of Salmonella typhimurium definitive phage type 104 infection in Lancashire. **Commun Dis Rep CDR Wkly** 1998 Sep 18; 8(38):335, 338

An outbreak of Salmonella typhimurium DT170 associated with kebab meat and yogurt relish. Evans MR, et al. **Epidemiol Infect** 1999 Jun;122(3):377–83

Isolation of Salmonella organisms from the mesenteric lymph nodes of horses at necropsy. House JK, et al. **J Am Vet Med Assoc** 1999 Aug 15;215(4):507–10

Use of polymerase chain reaction and restriction enzyme analysis to directly detect and identify Salmonella typhimurium in food. Cocolin L, et al. **J Appl Microbiol** 1998 Oct;85(4):673–7

Detection of multidrug–resistant Salmonella enterica serotype typhimurium DT104 based on a gene which confers cross–resistance to florfenicol and chloramphenicol. Bolton LF, et al. **J Clin Microbiol** 1999 May;37(5):1348–51

Combination spray washes of saponin with water or acetic acid to reduce aerobic and pathogenic bacteria on lean beef surfaces. Cutter CN. **J Food Prot** 1999 Mar;62(3):280–3

Development of a rapid response biosensor for detection of Salmonella typhimurium. Seo KH, et al. **J Food Prot** 1999 May;62(5):431–7

[An epidemic of Salmonella typhimurium associated with traditional salted, smoked, and dried ham] Mertens PL, et al. **Ned Tijdschr Geneeskd** 1999 May 15;143(20):1046–9 (Eng. Abstr.) **(Dut)**

[An outbreak of hospital salmonellosis] Berglezova LN, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov–Dec; (6):115–6 **(Rus)**

[Epidemic outbreaks of salmonellosis caused by eating eggs] Arnedo A, et al. **Enferm Infecc Microbiol Clin** 1998 Nov; 16(9):408–12 (Eng. Abstr.) **(Spa)**

METABOLISM

Ferrioxamine–mediated Iron(III) utilization by Salmonella enterica. Kingsley RA, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1610–8

Biosynthesis of cobalamin in Salmonella typhimurium: transformation of riboflavin into the 5,6–dimethylbenzimidazole moiety. Keck B, et al. **Arch Microbiol** 1998 Dec;171(1):66–8

Defects in pyruvate kinase cause a conditional increase of thiamine synthesis in Salmonella typhimurium. Christian T, et al. **Can J Microbiol** 1999 Jul;45(7):565–72

Differential regulation of Salmonella typhimurium type III secreted proteins by pathogenicity island 1 (SPI–1)–encoded transcriptional activators InvF and hilA. Eichelberg K, et al. **Infect Immun** 1999 Aug;67(8):4099–105

Identification of two laminin–binding fimbriae, the type 1 fimbria of Salmonella enterica serovar typhimurium and the G fimbria of Escherichia coli, as plasminogen receptors. Kukkonen M, et al. **Infect Immun** 1998 Oct;66(10):4965–70

Adenylates and adenylate–energy charge in submerged and planktonic cultures of Salmonella enteritidis and Salmonella typhimurium. Walker SL, et al. **Int J Food Microbiol** 1998 Oct 20;44(1–2):107–13

InvF is required for expression of genes encoding proteins secreted by the SPI1 type III secretion apparatus in Salmonella typhimurium. Darwin KH, et al. **J Bacteriol** 1999 Aug;181(16):4949–54

Salmonella typhimurium LT2 catabolizes propionate via the 2–methylcitric acid cycle. Horswill AR, et al. **J Bacteriol** 1999 Sep;181(18):5615–23

Sensing of nitrogen limitation by Bacillus subtilis: comparison to enteric bacteria. Hu P, et al. **J Bacteriol** 1999 Aug; 181(16):5042–50

A combination of three mutations, dcd, pyrH, and cdd, establishes thymidine (Deoxyuridine) auxotrophy in thyA+ strains of Salmonella typhimurium. Krogan NJ, et al. **J Bacteriol** 1998 Nov;180(22):5891–5

Role of ArgR in activation of the ast operon, encoding enzymes of the arginine succinyltransferase pathway in Salmonella typhimurium. Lu CD, et al. **J Bacteriol** 1999 Mar;181(6):1934–8

Cyclic AMP receptor protein and TyrR are required for acid pH and anaerobic induction of hyaB and aniC in Salmonella typhimurium. Park KR, et al. **J Bacteriol** 1999 Jan; 181(2):689–94

NAD–dependent DNA–binding activity of the bifunctional NadR regulator of Salmonella typhimurium. Penfound T, et al. **J Bacteriol** 1999 Jan;181(2):648–55

Salmonella typhimurium IroN and FepA proteins mediate uptake of enterobactin but differ in their specificity for other siderophores. Rabsch W, et al. **J Bacteriol** 1999 Jun; 181(11):3610–2

MgATP binding and hydrolysis determinants of NtrC, a bacterial enhancer–binding protein. Rombel I, et al. **J Bacteriol** 1999 Aug;181(15):4628–38

Domain structure of the ATP–binding–cassette protein MalK of salmonella typhimurium as assessed by coexpressed half molecules and LacK'–MalK chimeras. Schmees G, et al. **J Bacteriol** 1998 Oct;180(20):5299–305

A mutant HemA protein with positive charge close to the N terminus is stabilized against heme–regulated proteolysis in Salmonella typhimurium. Wang L, et al. **J Bacteriol** 1999 Oct;181(19):6033–41

Conditional stability of the HemA protein (glutamyl–tRNA reductase) regulates heme biosynthesis in Salmonella typhimurium. Wang L, et al. **J Bacteriol** 1999 Feb; 181(4):1211–9

The CorA Mg2+ transport protein of Salmonella typhimurium. Mutagenesis of conserved residues in the third membrane domain identifies a Mg2+ pore. Smith RL, et al. **J Biol Chem** 1998 Oct 30;273(44):28663–9

RpoS function in Salmonella Typhimurium LT2 monitored in a skim milk model food. Thompson JM, et al. **J Food Prot** 1999 Jan;62(1):70–2

A histotoxin produced by Salmonella. Lodge JM, et al. **J Med Microbiol** 1999 Sep;48(9):811–8

Hydrolysis of the soft amphiphilic antimicrobial agent tetradecyl betainate is retarded after binding to and killing Salmonella typhimurium. Ahlström B, et al. **Microbiology** 1998 Sep;144 (Pt 9):2497–504

Involvement of signal transduction pathways in Salmonella typhimurium porin activated gut macrophages. Gupta S, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):235–43

Salmonella InvG forms a ring–like multimer that requires the InvH lipoprotein for outer membrane localization. Crago AM, et al. **Mol Microbiol** 1998 Oct;30(1):47–56

Limits to inducer exclusion: inhibition of the bacterial phosphotransferase system by glycerol kinase. Rohwer JM, et al. **Mol Microbiol** 1998 Jul;29(2):641–52

Regulation of autoinducer production in Salmonella typhimurium. Surette MG, et al. **Mol Microbiol** 1999 Jan; 31(2):585–95

Infection, inflammation, and cancer [news; comment] Darveau R. **Nat Biotechnol** 1999 Jan;17(1):19. Comment on: Nat Biotechnol 1999 Jan;17(1):37–41.

Salmonella typhimurium porin internalization by leukocytes. Galdiero M, et al. **Res Microbiol** 1998 Oct;149(9):625–30

Nitroarene reduction and generation of free radicals by cell–free extracts of wild–type, and nitroreductase–deficient and –enriched Salmonella typhimurium strains used in the umu gene induction assay. Metosh–Dickey CA, et al. **Toxicol Appl Pharmacol** 1999 Jan 15;154(2):126–34

PATHOGENICITY

Viability and virulence of experimentally stressed nonculturable Salmonella typhimurium. Caro A, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3229–32

Multi–resistant Salmonella Typhimurium DT104––implications for animal industries and the veterinary profession Crerar SK, et al. **Aust Vet J** 1999 Mar;77(3):170–1 (11 ref.)

Salmonella typhimurium DT104: a virulent and drug–resistant pathogen. Poppe C, et al. **Can Vet J** 1998 Sep;39(9):559–65 (48 ref.)

Lipid A acylation and bacterial resistance against vertebrate antimicrobial peptides. Guo L, et al. **Cell** 1998 Oct 16; 95(2):189–98

Porins and lipopolysaccharide (LPS) from Salmonella typhimurium induce leucocyte transmigration through human endothelial cells in vitro. Galdiero M, et al. **Clin Exp Immunol** 1999 Jun;116(3):453–61

Enteropathogenic E. coli, Salmonella, and Shigella: masters of host cell cytoskeletal exploitation. Goosney DL, et al. **Emerg Infect Dis** 1999 Mar–Apr;5(2):216–23 (63 ref.)

Isolation and characterization of Salmonella typhimurium and Yersinia pseudotuberculosis–containing phagosomes from infected mouse macrophages: Y. pseudotuberculosis traffics to terminal lysosomes where they are degraded. Mills SD, et al. **Eur J Cell Biol** 1998 Sep;77(1):35–47

Novel Salmonella typhimurium properties in host––parasite interactions. Borg S, et al. **Immunol Lett** 1999 Jun 1; 68(2–3):247–9

An outbreak of Salmonella typhimurium at a teaching hospital. McCall B, et al. **Infect Control Hosp Epidemiol** 1999 Jan;20(1):55–6

Inhibition of Salmonella typhimurium invasion by host cell expression of secreted bacterial invasion proteins. Carlson SA, et al. **Infect Immun** 1998 Nov;66(11):5295–300

The alternative sigma factor, sigmaE, is critically important for the virulence of Salmonella typhimurium. Humphreys S, et al. **Infect Immun** 1999 Apr;67(4):1560–8

Molecular and functional characterization of Salmonella enterica serovar typhimurium poxA gene: effect on attenuation of virulence and protection. Kaniga K, et al. **Infect Immun** 1998 Dec;66(12):5599–606

Glucose 6–phosphate dehydrogenase is required for Salmonella typhimurium virulence and resistance to reactive oxygen and nitrogen intermediates. Lundberg BE, et al. **Infect Immun** 1999 Jan;67(1):436–8

Influence of the Salmonella typhimurium pathogenicity island 2 type III secretion system on bacterial growth in the mouse. Shea JE, et al. **Infect Immun** 1999 Jan;67(1):213–9

Contribution of Salmonella typhimurium virulence factors to diarrheal disease in calves. Tsolis RM, et al. **Infect Immun** 1999 Sep;67(9):4879–85

Differential regulation of enteric and systemic salmonellosis by slyA. Watson PR, et al. **Infect Immun** 1999 Sep; 67(9):4950–4

Th1 dominance in the immune response to live Salmonella typhimurium requires bacterial invasiveness but not persistence. Pashine A, et al. **Int Immunol** 1999 Apr; 11(4):481–9

The relationship between acid stress responses and virulence in Salmonella typhimurium and Listeria monocytogenes. Gahan CG, et al. **Int J Food Microbiol** 1999 Sep 15; 50(1–2):93–100 (38 ref.)

The virulence plasmid of Salmonella typhimurium is self–transmissible. Ahmer BM, et al. **J Bacteriol** 1999 Feb; 181(4):1364–8

A HilA–independent pathway to Salmonella typhimurium invasion gene transcription. Rakeman JL, et al. **J Bacteriol** 1999 May;181(10):3096–104

T cell responses to Gram–negative intracellular bacterial pathogens: a role for CD8+ T cells in immunity to Salmonella infection and the involvement of MHC class Ib molecules. Lo WF, et al. **J Immunol** 1999 May 1; 162(9):5398–406

A histotoxin produced by Salmonella. Lodge JM, et al. **J Med Microbiol** 1999 Sep;48(9):811–8

Intracellular Salmonella typhimurium induce lysis of human polymorphonuclear leukocytes which is not associated with the Salmonella virulence plasmid. Chiu CH, et al. **Microbiol Immunol** 1999;43(1):9–14

Macrophage–dependent induction of the Salmonella pathogenicity island 2 type III secretion system and its role in intracellular survival. Cirillo DM, et al. **Mol Microbiol** 1998 Oct;30(1):175–88

Environmental regulation of Salmonella pathogenicity island

2 gene expression. Deiwick J, et al. **Mol Microbiol** 1999 Mar;31(6):1759–73

Genes encoding putative effector proteins of the type III secretion system of Salmonella pathogenicity island 2 are required for bacterial virulence and proliferation in macrophages. Hensel M, et al. **Mol Microbiol** 1998 Oct; 30(1):163–74

Molecular and functional analysis indicates a mosaic structure of Salmonella pathogenicity island 2. Hensel M, et al. **Mol Microbiol** 1999 Jan;31(2):489–98

A lethal role for lipid A in Salmonella infections. Khan SA, et al. **Mol Microbiol** 1998 Jul;29(2):571–9

In vivo analysis of the interactions of the LysR-like regulator SpvR with the operator sequences of the spvA and spvR virulence genes of Salmonella typhimurium. Sheehan BJ, et al. **Mol Microbiol** 1998 Oct;30(1):91–105

Generalised linear mixed models analysis of risk factors for contamination of Danish broiler flocks with Salmonella typhimurium. Chriél M, et al. **Prev Vet Med** 1999 May 14;40(1):1–17

An invasion-associated Salmonella protein modulates the actin-bundling activity of plastin. Zhou D, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10176–81

An essential role for DNA adenine methylation in bacterial virulence [see comments] Heithoff DM, et al. **Science** 1999 May 7;284(5416):967–70. Comment in: Science 1999 May 7;284(5416):883.

American Society for Cell Biology. Bacteria pull cell skeletons out of the closet [news] Strauss E. **Science** 1999 Jan 8;283(5399):167–8

Role of the S. typhimurium actin-binding protein SipA in bacterial internalization. Zhou D, et al. **Science** 1999 Mar 26;283(5410):2092–5

Effect of peroral anti-bacterial antiserum treatment on intestinal immune parameters of germ-free piglets intragastrically infected with virulent Salmonella typhimurium or enteropathogenic E. coli. Trebichavský I, et al. **Vet Immunol Immunopathol** 1999 Jan 4;67(1):55–65

Contamination of the contents of intact eggs by Salmonella typhimurium DT104. Williams A, et al. **Vet Rec** 1998 Nov 14;143(20):562–3

[Significance of motility of Salmonella enteritidis and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):391–6 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

The starvation-stress response (SSR) of Salmonella. Spector MP. **Adv Microb Physiol** 1998;40:233–79 (100 ref.)

Mutagenicity testing of organic extracts of diesel exhaust particles after spiking with polycyclic aromatic hydrocarbons (PAH). Bostrøm E, et al. **Arch Toxicol** 1998 Oct;72(10):645–9

Measurement of bacterial flagellar thrust by negative dielectrophoresis. Hughes MP, et al. **Biotechnol Prog** 1999 Mar–Apr;15(2):245–9

Early events in the pathogenesis of avian salmonellosis. Henderson SC, et al. **Infect Immun** 1999 Jul;67(7):3580–6

Salmonella typhimurium and lipopolysaccharide stimulate extracellularly regulated kinase activation in macrophages by a mechanism involving phosphatidylinositol 3-kinase and phospholipase D as novel intermediates. Procyk KJ, et al. **Infect Immun** 1999 Mar;67(3):1011–7

noxR3, a novel gene from Mycobacterium tuberculosis, protects Salmonella typhimurium from nitrosative and oxidative stress. Ruan J, et al. **Infect Immun** 1999 Jul; 67(7):3276–83

The relationship between acid stress responses and virulence in Salmonella typhimurium and Listeria monocytogenes. Gahan CG, et al. **Int J Food Microbiol** 1999 Sep 15; 50(1–2):93–100 (38 ref.)

Physiological states of individual Salmonella typhimurium cells monitored by in situ reverse transcription-PCR. Hølmstrom K, et al. **J Bacteriol** 1999 Mar;181(6):1733–8

Peptidoglycan-hydrolyzing activity of the FlgJ protein, essential for flagellar rod formation in Salmonella typhimurium. Nambu T, et al. **J Bacteriol** 1999 Mar; 181(5):1555–61

Molecular basis for the enterocyte tropism exhibited by Salmonella typhimurium type 1 fimbriae. Thankavel K, et al. **J Biol Chem** 1999 Feb 26;274(9):5797–809

Requirement of p21-activated kinase (PAK) for Salmonella typhimurium-induced nuclear responses. Chen LM, et al. **J Exp Med** 1999 May 3;189(9):1479–88

Eggshell membrane structure and penetration by Salmonella typhimurium. Berrang ME, et al. **J Food Prot** 1999 Jan; 62(1):73–6

Secretory pathways in Salmonella Typhimurium-induced fluid accumulation in the porcine small intestine. Grøndahl ML, et al. **J Med Microbiol** 1998 Feb;47(2):151–7

HLA-B27 does not affect invasion of arthritogenic bacteria into human cells [see comments] Ortiz-Alvarez O, et al. **J Rheumatol** 1998 Sep;25(9):1765–71. Comment in: J Rheumatol 1998 Sep;25(9):1659–61.

The medium-/long-chain fatty acyl-CoA dehydrogenase (fadF) gene of Salmonella typhimurium is a phase 1 starvation-stress response (SSR) locus. Spector MP, et al. **Microbiology** 1999 Jan;145 (Pt 1):15–31

Type III secretion by Salmonella typhimurium does not require contact with a eukaryotic host. Daefler S. **Mol Microbiol** 1999 Jan;31(1):45–51

Deletion analysis of MotA and MotB, components of the force-generating unit in the flagellar motor of Salmonella. Muramoto K, et al. **Mol Microbiol** 1998 Sep;29(5):1191–202

Adherence of Escherichia coli serogroup O 157 and the Salmonella typhimurium mutant DT 104 to the surface of Saccharomyces boulardii. Gedek BR. **Mycoses** 1999; 42(4):261–4

A salmonella protein antagonizes Rac-1 and Cdc42 to mediate host-cell recovery after bacterial invasion [see comments] Fu Y, et al. **Nature** 1999 Sep 16;401(6750):293–7 . Comment in: Nature 1999 Sep 16;401(6750):218–9.

Quorum sensing in Escherichia coli, Salmonella typhimurium, and Vibrio harveyi: a new family of genes responsible for autoinducer production. Surette MG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1639–44

An invasion-associated Salmonella protein modulates the actin-bundling activity of plastin. Zhou D, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10176–81

Salmonella typhimurium recognition of intestinal environments. Rakeman JL, et al. **Trends Microbiol** 1999 Jun;7(6):221–3

[Significance of motility of Salmonella enteritidis and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens] Methner U, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct;110(10):391–6 (Eng. Abstr.) **(Ger)**

[The effect of Aerococcus viridans on the properties of salmonellae and staphylococci in vitro] Zhurylo OA, et al. **Mikrobiol Z** 1999 May–Jun;61(3):15–22 (Eng. Abstr.) **(Ukr)**

RADIATION EFFECTS

Genotoxic effects in bacteria of the light emitted by halogen tungsten lamps having treated quartz bulbs. Camoirano A, et al. **Mutat Res** 1999 Apr 26;441(1):21–7

ULTRASTRUCTURE

Role of the outermost subdomain of Salmonella flagellin in the filament structure revealed by electron cryomicroscopy. Mimori-Kiyosue Y, et al. **J Mol Biol** 1998 Nov 27;284(2):521–30

Architectural features of the Salmonella typhimurium flagellar motor switch revealed by disrupted C-rings. Khan S, et al. **J Struct Biol** 1998;122(3):311–9

VIROLOGY

RecA-dependent viral burst in bacterial colonies during the entry into stationary phase. Ramirez E, et al. **FEMS Microbiol Lett** 1999 Jan 15;170(2):313–7

Site-specific recombination of bacteriophage P22 does not require integration host factor. Cho EH, et al. **J Bacteriol** 1999 Jul;181(14):4245–9

Genomic subtraction identifies Salmonella typhimurium prophages, F-related plasmid sequences, and a novel fimbrial operon, stf, which are absent in Salmonella typhi. Emmerth M, et al. **J Bacteriol** 1999 Sep;181(18):5652–61

Molecular survey of the Salmonella phage typing system of Anderson. Schmieger H. **J Bacteriol** 1999 Mar; 181(5):1630–5

The epidemiology of Salmonella typhimurium in cattle: plasmid profile analysis of definitive phage type (DT) 204c. Wray C, et al. **J Med Microbiol** 1998 Jun;47(6):483–7

Inducible prophages contribute to Salmonella virulence in mice. Figueroa-Bossi N, et al. **Mol Microbiol** 1999 Jul; 33(1):167–76

Isolation of a temperate bacteriophage encoding the type III effector protein SopE from an epidemic Salmonella typhimurium strain. Mirold S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9845–50

Different trajectories of parallel evolution during viral adaptation. Wichman HA, et al. **Science** 1999 Jul 16; 285(5426):422–4

[Practical use of adapted Salmonella bacteriophage for the treatment and prevention of nosocomial infections] Akimkin VG, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov–Dec; (6):85–6 **(Rus)**

SALMONELLA TYPHOSA see **SALMONELLA TYPHI**

SALMONELLOSIS see **SALMONELLA INFECTIONS**

SALMONIDAE

Fingerprinting of Flavobacterium psychrophilum isolates by ribotyping and plasmid profiling. Chakroun C, et al. **Dis Aquat Organ** 1998 Jul 30;33(3):167–77

Expression of the vitellogenin gene in the liver of juvenile whitefish (Coregonus lavaretus L. s.l.) exposed to effluents from pulp and paper mills. Mellanen P, et al. **Ecotoxicol Environ Saf** 1999 Jun;43(2):133–7

BLOOD

Purification of the precursors to vitelline envelope proteins from serum of Sakhalin taimen, Hucho perryi. Shimizu M, et al. **J Exp Zool** 1998 Oct 15;282(3):385–95

GENETICS

The first microsatellite marker (BFRO 004) for grayling, informative for its Adriatic population. Snoj A, et al. **Anim Genet** 1999 Feb;30(1):74–5

The salmonid class I MHC: limited diversity in a primitive teleost. Miller KM, et al. **Immunol Rev** 1998 Dec; 166:279–93 (25 ref.)

Zoogeographical implications of variation in mitochondrial DNA of Arctic grayling (Thymallus arcticus). Redenbach Z, et al. **Mol Ecol** 1999 Jan;8(1):23–35

Isolation and characterization of coho salmon (Oncorhynchus kisutch) microsatellites and their use in other salmonids. Smith CT, et al. **Mol Ecol** 1998 Nov;7(11):1614–6

Molecular cloning and evolution of transferrin cDNAs in salmonids. Lee JY, et al. **Mol Mar Biol Biotechnol** 1998 Dec;7(4):287–93

METABOLISM

Polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) in muscle and eggs of salmonid fishes from the Great Lakes. Giesy JP, et al. **Arch Environ Contam Toxicol** 1999 May;36(4):432–46

MICROBIOLOGY

Type E botulism associated with vacuum-packaged hot-smoked whitefish. Korkeala H, et al. **Int J Food Microbiol** 1998 Aug 18;43(1–2):1–5

The effect of diet on aerobic bacterial flora associated with intestine of Arctic charr (Salvelinus alpinus L.). Ringø E, et al. **J Appl Microbiol** 1999 Jan;86(1):22–8

PARASITOLOGY

Species of Proteocephalus Weinland, 1858 (Cestoda: Proteocephalidae), parasites of coregonid and salmonid fishes from North America: taxonomic reappraisal. Hanzelová V, et al. **J Parasitol** 1999 Feb;85(1):94–101

PHYSIOLOGY

Bioaccumulation and subchronic physiological effects of waterborne iron overload on whitefish exposed in humic and nonhumic water. Lappivaara J, et al. **Arch Environ Contam Toxicol** 1999 Aug;37(2):196–204

Altered challenge response in whitefish subchronically exposed in areas polluted by bleached kraft mill effluents. Lappivaara J, et al. **Ecotoxicol Environ Saf** 1999 Mar; 42(3):212–22

Responses of an Amazonian teleost, the tambaqui (Colossoma macropomum), to low pH in extremely soft water. Wood CM, et al. **Physiol Zool** 1998 Nov–Dec;71(6):658–70

VIROLOGY

Mapping of linear antibody epitopes of the glycoprotein of VHSV, a salmonid rhabdovirus. Fernandez-Alonso M, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):167–76

SALMONIFORMES

GENETICS

Genetic variation, population structure and cryptic species within the black mudfish, Neochanna diversus, an endemic galaxiid from New Zealand. Gleeson DM, et al. **Mol Ecol** 1999 Jan;8(1):47–57

SALPINGITIS

[Adnexitis (salpingitis, oophoritis)] Matsuoka R, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):215–7 (2 ref.) **(Jpn)**

COMPLICATIONS

Herpetic salpingitis and fallopian tube prolapse. Lefrancq T, et al. **Histopathology** 1999 Jun;34(6):548–50

Effect of human immunodeficiency virus type 1 infection upon acute salpingitis: a laparoscopic study. Cohen CR, et al. **J Infect Dis** 1998 Nov;178(5):1352–8

[Pneumococcal peritonitis of gynecologic etiology (letter)] Blanche P, et al. **Rev Med Interne** 1998 Apr;19(4):290–1 **(Fre)**

DIAGNOSIS

Clinical utility of CA125 levels in predicting laparoscopically confirmed salpingitis in patients with clinically diagnosed pelvic inflammatory disease. Moore E, et al. **Infect Dis Obstet Gynecol** 1998;6(4):182–5

Evaluation of ofloxacin in the treatment of laparoscopically documented acute pelvic inflammatory disease (salpingitis). Peipert JF, et al. **Infect Dis Obstet Gynecol** 1999; 7(3):138–44

Group A Streptococcus causing PID from an initial pharyngeal infection. A case report. Lamb EK, et al. **J Reprod Med** 1999 Jul;44(7):639–41

[The salpingitis diagnosis under scrutiny] Vánky E, et al. **Tidsskr Nor Laegeforen** 1999 Mar 10;119(7):928–30 (Eng. Abstr.) **(Nor)**

DRUG THERAPY

Evaluation of ofloxacin in the treatment of laparoscopically

SALPINGITIS

documented acute pelvic inflammatory disease (salpingitis). Peipert JF, et al. **Infect Dis Obstet Gynecol** 1999; 7(3):138–44

MICROBIOLOGY

Presence of the major outer-membrane protein of Chlamydia trachomatis in patients with chronic salpingitis and salpingitis isthmica nodosa with tubal occlusion. Dieterle S, et al. **Fertil Steril** 1998 Oct;70(4):774–6

Chlamydial and gonococcal serology in women with tubal infertility. Tyagi P, et al. **Indian J Med Sci** 1998 Jun; 52(6):231–5

Gonococcal infection of human fallopian tube mucosa in organ culture: relationship of mucosal tissue TNF-alpha concentration to sloughing of ciliated cells. McGee ZA, et al. **Sex Transm Dis** 1999 Mar;26(3):160–5

PARASITOLOGY

[A case of Enterobius vermicularis salpingitis] Guiot F, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec; 27(8):822–4 (Eng. Abstr.) **(Fre)**

REHABILITATION

[The effect of massage on the neuromuscular apparatus and blood coagulating system of patients with chronic salpingo-oophoritis] Makarova MR, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov-Dec; (6):45–8 (Eng. Abstr.) **(Rus)**

[The combined treatment of patients with chronic nonspecific salpingo-oophoritis using a low-frequency magnetic field and iodobromine water] Markina LP, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Jul-Aug; (4):38–40 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Transvaginal sonographic markers of tubal inflammatory disease. Timor-Tritsch IE, et al. **Ultrasound Obstet Gynecol** 1998 Jul;12(1):56–66

SALPINGOGRAPHY see **HYSTEROSALPINGOGRAPHY**

SALPINGOSTOMY

Ultrasonographic evaluation of hysterectomized patients with and without concomitant adnexectomy? Pardo J, et al. **Clin Exp Obstet Gynecol** 1998;25(4):133–4

Reproductive potential after methotrexate treatment of ectopic gestation in a community hospital. Tolaymat LL, et al. **J Reprod Med** 1999 Apr;44(4):335–8

Fertility outcome after systemic methotrexate and laparoscopic salpingostomy for tubal pregnancy [letter] Dias Pereira G, et al. **Lancet** 1999 Feb 27;353(9154):724–5

Preoperative serum hCG level and intraoperative failure of laparoscopic linear salpingostomy for ectopic pregnancy [letter; comment] Mol BW, et al. **Obstet Gynecol** 1999 Feb; 93(2):319–20. Comment on: Obstet Gynecol 1998 Sep;92(3):373–6.

Resolution of hormonal markers of ectopic gestation: a randomized trial comparing single-dose intramuscular methotrexate with salpingostomy. Saraj AJ, et al. **Obstet Gynecol** 1998 Dec;92(6):989–94

Preoperative serum hCG level and intraoperative failure of laparoscopic linear salpingostomy for ectopic pregnancy [letter; comment] Sehdev MS, et al. **Obstet Gynecol** 1999 Feb;93(2):320–1. Comment on: Obstet Gynecol 1998 Sep;92(3):373–6.

[Are there still indications for tubal surgery in infertility? (editorial)] Dubuisson JB. **Presse Med** 1998 Nov 14; 27(35):1793–4 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Tuboperitoneal fistula after salpingostomy [letter] Phelps JY, et al. **Int J Gynaecol Obstet** 1995 Jun;49(3):339–40

METHODS

Laparoscopically assisted extracorporeal neosalpingostomy. A case report. Van Geem TA. **J Reprod Med** 1998 Aug; 43(8):699–702

SALSOLINE ALKALOIDS

CEREBROSPINAL FLUID

No increase of synthesis of (R)salsolinol in Parkinson's disease. Müller T, et al. **Mov Disord** 1999 May;14(3):514–5

An endogenous MPTP-like dopaminergic neurotoxin, N-methyl(R)salsolinol, in the cerebrospinal fluid decreases with progression of Parkinson's disease. Maruyama W, et al. **Neurosci Lett** 1999 Feb 26;262(1):13–6

CHEMICAL SYNTHESIS

Endogenous dopamine-derived neurotoxins and Parkinson's disease [editorial] Deleu D. **Acta Neurol Belg** 1998 Dec; 98(4):319–21

METABOLISM

N-methyl(R)salsolinol, a dopamine neurotoxin, in Parkinson's disease. Naoi M, et al. **Adv Neurol** 1999; 80:259–64 (17 ref.)

Effect of ethanol on (R)- and (S)-salsolinol, salsoline, and THP in the nucleus accumbens of AA and ANA rats. Sällström Baum S, et al. **Alcohol** 1999 Jun-Jul; 18(2–3):165–9

Stereospecific N-methylation of the tetrahydroisoquinoline alkaloids isosalsoline and salsolidine by amine N-methyltransferase A from bovine liver. Bahnmaier AH, et al. **Chirality** 1999;11(2):160–5

No increase of synthesis of (R)salsolinol in Parkinson's disease. Müller T, et al. **Mov Disord** 1999 May;14(3):514–5

PHARMACOLOGY

Generation of reactive oxygen species accounts for cytotoxicity of an endogenous dopaminergic neurotoxin, (R)-N-methylsalsolinol, to differentiated dopaminergic SH-SY5Y cells. Minami C, et al. **J Neural Transm** 1998; 105(4–5):397–405

Apoptosis induced by an endogenous neurotoxin, N-methyl(R)salsolinol, is mediated by activation of caspase 3 [published erratum appears in Neurosci Lett 1999 Jun 25;268(3):166] Akao Y, et al. **Neurosci Lett** 1999 Jun 4; 267(3):153–6

SALT GLAND

ENZYMOLOGY

Heterogeneity of Na+/K+-ATPase from rectal gland of Squalus acanthias is not due to alpha isoform diversity. Hansen O. **Pflugers Arch** 1999 Mar;437(4):517–22

METABOLISM

Cloning, characterization, and functional expression of a CNP receptor regulating CFTR in the shark rectal gland. Aller SG, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C442–9

The Na+2Cl-K+ cotransporter in the rectal gland of Squalus acanthias is activated by cell shrinkage. Greger R, et al. **Pflugers Arch** 1999 Jul;438(2):165–76

The cellular mechanisms of Cl- secretion induced by C-type natriuretic peptide (CNP). Experiments on isolated in vitro perfused rectal gland tubules of Squalus acanthias. Greger R, et al. **Pflugers Arch** 1999 Jun;438(1):15–22

PHYSIOLOGY

Mecamylamine blocks the [Asp1,Val5]-ANG II-induced attenuation of salt gland activity in Pekin ducks. Butler DG. **Am J Physiol** 1999 Sep;277(3 Pt 2):R836–42

In vivo and in vitro induction of c-fos in avian exocrine salt gland cells. Hildebrandt JP, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C951–7

Central action of nitric oxide in the saltwater-acclimated duck: modulation of extrarenal sodium excretion and vasotocin release. Hübschle T, et al. **Brain Res** 1999 Apr 17;825(1–2):22–35

Vertebrate salt glands: short- and long-term regulation of function. Shuttleworth TJ, et al. **J Exp Zool** 1999 Jun 1; 283(7):689–701 (104 ref.)

Osmotically induced conductance and capacitance changes in in vitro perfused rectal gland tubules of Squalus acanthias. Thiele I, et al. **Kidney Blood Press Res** 1998; 21(5):317–24

Molecular and functional characterization of s-KCNQ1 potassium channel from rectal gland of Squalus acanthias. Waldegger S, et al. **Pflugers Arch** 1999 Jan;437(2):298–304

SALTS

A general approach to desalting oligosaccharides released from glycoproteins. Packer NH, et al. **Glycoconj J** 1998 Aug;15(8):737–47

ADMINISTRATION & DOSAGE

[The characteristics of the mechanism of action in the joint use of solutions of brine and mud extracts with galvanization and ultrasonic exposure. 2] Levitskii EF, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Jul-Aug; (4):29–30 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Engineering out motion: introduction of a de novo disulfide bond and a salt bridge designed to close a dynamic cleft on the surface of cytochrome b5. Storch EM, et al. **Biochemistry** 1999 Apr 20;38(16):5054–64

Improved electrophoretic resolution of DNA fragments in samples containing high concentrations of salts. Ha WY, et al. **Biotechniques** 1999 Mar;26(3):425–6

Protein refolding in predominantly organic media markedly enhanced by common salts. Rariy RV, et al. **Biotechnol Bioeng** 1999 Mar 20;62(6):704–10

Effects of salt concentration on analyte response using electrospray ionization mass spectrometry. Constantopoulos TL, et al. **J Am Soc Mass Spectrom** 1999 Jul;10(7):625–34

Suppression of epimerization by cupric (II) salts in peptide synthesis using free amino acids as amino components. Ryadnov MG, et al. **J Pept Res** 1999 Mar;53(3):322–8

The spontaneous gating activity of OmpC porin is affected by mutations of a putative hydrogen bond network or of a salt bridge between the L3 loop and the barrel. Liu N, et al. **Protein Eng** 1998 Sep;11(9):797–802

Surface salt bridges stabilize the GCN4 leucine zipper. Spek EJ, et al. **Protein Sci** 1998 Nov;7(11):2431–7

METABOLISM

The renin-angiotensin system and its receptors. Stroth U, et al. **J Cardiovasc Pharmacol** 1999;33 Suppl 1:S21–8; discussion S41–3 (115 ref.)

A novel mechanism of ion homeostasis and salt tolerance in yeast: the Hal4 and Hal5 protein kinases modulate the Trk1-Trk2 potassium transporter. Mulet JM, et al. **Mol Cell Biol** 1999 May;19(5):3328–37

PHARMACOLOGY

Isoform-specific effects of salts on nitric oxide synthase activity. Schrammel A, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1–2):257–63

Model for inactivation of alpha-amylase in the presence of salts: theoretical and experimental studies. Lecker DN, et al. **Biotechnol Prog** 1998 Jul-Aug;14(4):621–5

Anion size of sodium salts and simple taste reaction times. Delwiche JF, et al. **Physiol Behav** 1999 Mar;66(1):27–32

Effects of salt bridges on protein structure and design. Sindelar CV, et al. **Protein Sci** 1998 Sep;7(9):1898–914

THERAPEUTIC USE

Cardiovascular effects of dietary salts and isosorbide-5-mononitrate in spontaneously hypertensive rats. Vaskonen T, et al. **Blood Press** 1998 May;7(3):184–92

[Halotherapy in the combined treatment of chronic bronchitis patients] Maev EZ, et al. **Voen Med Zh** 1999 Jun; 320(6):34–7, 96 (Eng. Abstr.) **(Rus)**

[The development of bromine sodium chloride brines in the Moscow area] Burakov AIu. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul-Aug; (4):38–41 **(Rus)**

[Ground-based speleo-climatic wards and the experience with their use in bronchial asthma] Krasnoshtein AE, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May-Jun; (3):25–8 (Eng. Abstr.) **(Rus)**

[The effect of the brine and mud extract from Lake Karachi on the morphofunctional status of the adnexa uteri in experimental inflammation] Tikhonovskaia OA, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Sep-Oct;(5):33–5 (Eng. Abstr.) **(Rus)**

TOXICITY

Assessment of aggression, sexual behavior and fertility in adult male rat following long-term ingestion of four industrial metals salts. Batainch H, et al. **Hum Exp Toxicol** 1998 Oct;17(10):570–6

Cytotoxicity of dental alloy extracts and corresponding metal salt solutions. Schmalz G, et al. **J Dent Res** 1998 Oct; 77(10):1772–8

SALVAGE THERAPY

Impact of drug resistance mutations on virologic response to salvage therapy. Swiss HIV Cohort Study. Lorenzi P, et al. **AIDS** 1999 Feb 4;13(2):F17–21

Dexamethasone, cytarabine, ifosfamide, and cisplatin as salvage therapy in non-Hodgkin lymphoma. Haim N, et al. **Am J Clin Oncol** 1999 Feb;22(1):47–50

Phase II trial of topotecan in advanced breast cancer: a Cancer and Leukemia Group B study. Levine EG, et al. **Am J Clin Oncol** 1999 Jun;22(3):218–22

Daily oral etoposide in patients with heavily pretreated metastatic breast cancer. Pusztai L, et al. **Am J Clin Oncol** 1998 Oct;21(5):442–6

Phase II study of carboplatin and etoposide as salvage treatment for patients with metastatic breast cancer. Ron IG, et al. **Am J Clin Oncol** 1999 Feb;22(1):35–7

High-dose megestrol acetate in the treatment of patients with ovarian cancer who have undergone previous treatment: Eastern Cooperative Oncology Group Study PD884. Wiernik PH, et al. **Am J Clin Oncol** 1998 Dec;21(6):565–7

Early experience with cryopreserved arterial allografts in below-knee revascularization for limb salvage. Castier Y, et al. **Am J Surg** 1999 Mar;177(3):197–202

Successful salvage treatment for relapse after autologous stem cell transplantation in a patient with Hodgkin's disease--a case report. Kaiser U, et al. **Ann Hematol** 1999 Jan; 78(1):33–5

Salvage treatment with paclitaxel and gemcitabine for patients with non-small-cell lung cancer after cisplatin- or docetaxel-based chemotherapy: a multicenter phase II study. Androulakis N, et al. **Ann Oncol** 1998 Oct; 9(10):1127–30

Treatment of relapsed Hodgkin's disease: strategies and prognostic factors. Canellos GP. **Ann Oncol** 1998;9 Suppl 5:S91–6 (61 ref.)

Preliminary results on the activity of oxaliplatin (L-OHP) in refractory/recurrent non-Hodgkin's lymphoma patients. Germann N, et al. **Ann Oncol** 1999 Mar;10(3):351–4

Radiation therapy as a component of high-dose salvage strategies in Hodgkin's disease. Hoppe RT. **Ann Oncol** 1998;9 Suppl 5:S87–90 (14 ref.)

Primary refractory Hodgkin's disease. Horning SJ. **Ann Oncol** 1998;9 Suppl 5:S97–101 (20 ref.)

Salvage chemotherapy in anthracycline-pretreated metastatic breast cancer patients with docetaxel and gemcitabine: a

multicenter phase II trial. Greek Breast Cancer Cooperative Group. Mavroudis D, et al. **Ann Oncol** 1999 Feb;10(2):211-5

Salvage treatment for germ cell cancer after failed high-dose therapy [letter; comment] Shamash J, et al. **Ann Oncol** 1998 Jul;9(7):787-8. Comment on: Ann Oncol 1997 Dec;8(12):1229-34.

New success with management of recurrent rectal cancer--a reason to follow patients [editorial; comment] Beart RW Jr. **Ann Surg Oncol** 1999 Mar;6(2):131-2. Comment on: Ann Surg Oncol 1999 Mar;6(2):171-7.

Surgical salvage of recurrent rectal carcinoma after curative resection: a 10-year experience [see comments] Salo JC, et al. **Ann Surg Oncol** 1999 Mar;6(2):171-7. Comment in: Ann Surg Oncol 1999 Mar;6(2):131-2.

Treatment of refractory metastatic breast cancer with 5-fluorouracil and levofolinic acid as 48 hours continuous venous infusion. Gebbia V, et al. **Anticancer Res** 1999 May-Jun;19(3B):2289-92

Salvage chemotherapy with tamoxifen for recurrent anaplastic astrocytomas. Chamberlain MC, et al. **Arch Neurol** 1999 Jun;56(6):703-8

T-cell depletion plus salvage immunotherapy with donor leukocyte infusions as a strategy to treat chronic-phase chronic myelogenous leukemia patients undergoing HLA-identical sibling marrow transplantation. Drobyski WR, et al. **Blood** 1999 Jul 15;94(2):434-41

Feasibility of immunotherapy of relapsed leukemia with ex vivo-generated cytotoxic T lymphocytes specific for hematopoietic system-restricted minor histocompatibility antigens. Mutis T, et al. **Blood** 1999 Apr 1;93(7):2336-41

Effect of complete remission on survival in patients with acute myelogenous leukemia receiving first salvage therapy [letter] Vey N, et al. **Blood** 1999 May 1;93(9):3149-50

Rescue thrombolysis for failure of primary thrombolysis cannot be justified [letter; comment] Sutton AG. **BMJ** 1999 Jan 23;318(7178):261. Comment on: BMJ 1998 Jul 11;317(7151):147.

Defibrotide as salvage therapy for refractory veno-occlusive disease of the liver complicating allogeneic bone marrow transplantation. Abecasis MM, et al. **Bone Marrow Transplant** 1999 Apr;23(8):843-6

Second-line treatment for primary central nervous system lymphoma. Reni M, et al. **Br J Cancer** 1999 Feb; 79(3-4):530-4 (44 ref.)

Effectiveness of surgical salvage therapy for patients with locally uncontrolled anal carcinoma after sphincter-conserving treatment. Allal AS, et al. **Cancer** 1999 Aug 1;86(3):405-9

Predictors of survival for prostate carcinoma patients treated with salvage radical prostatectomy after radiation therapy. Cheng L, et al. **Cancer** 1998 Nov 15;83(10):2164-71

Primary refractory and relapsed adult acute lymphoblastic leukemia: characteristics, treatment results, and prognosis with salvage therapy. Thomas DA, et al. **Cancer** 1999 Oct 1;86(7):1216-30

Pilot neuropsychological findings from a treatment regimen consisting of intensive chemotherapy and bone marrow rescue for young children with newly diagnosed malignant brain tumors. Sands SA, et al. **Childs Nerv Syst** 1998 Oct; 14(10):587-9

Paclitaxel and cisplatin as salvage treatment in patients with non-seminomatous germ cell tumour who failed to achieve a complete remission on induction chemotherapy. Tjulandin SA, et al. **Clin Oncol (R Coll Radiol)** 1998; 10(5):297-300

Use of a jejunal pouch with ileal interposition in salvage surgery after restorative proctocolectomy. Dehni N, et al. **Dis Colon Rectum** 1998 Dec;41(12):1587-9

Results of salvage abdominoperineal resection for anal cancer after radiotherapy. Pocard M, et al. **Dis Colon Rectum** 1998 Dec;41(12):1488-93

Induced hypothermia as salvage treatment for refractory cardiac failure following paediatric cardiac surgery. Dalrymple-Hay MJ, et al. **Eur J Cardiothorac Surg** 1999 Apr;15(4):515-8

Failure of double protease inhibitor therapy as a salvage therapy for HIV-infected patients resistant to conventional triple therapy. Rockstroh JK, et al. **Eur J Med Res** 1999 Jul 28;4(7):271-4

"Salvage" transjugular intrahepatic portosystemic shunt: gastric fundal compared with esophageal variceal bleeding. Albillos A, et al. **Gastrointest Endosc** 1999 Aug;50(2):294-5

Management of acute promyelocytic leukemia relapse in the ATRA era. Castagnola C, et al. **Haematologica** 1998 Aug; 83(8):714-7

Time sequential chemotherapy for primary refractory or relapsed adult acute myeloid leukemia: results of the phase II Gemia protocol. Martino R, et al. **Haematologica** 1999 Mar;84(3):226-30

Costs of high-dose salvage therapy and blood stem cell transplantation for resistant-relapsed malignant lymphomas in a southern Italian hospital. Mazza P, et al. **Haematologica** 1999 Feb;84(2):142-9

Partial laryngectomy as salvage surgery for radiation failures in T1-T2 laryngeal cancer. Rodriguez-Cuevas S, et al. **Head Neck** 1998 Oct;20(7):630-3

Hydroxyurea as part of a salvage regimen for heavily pretreated patients with advanced HIV infection [letter] Grunke M, et al. **J Acquir Immune Defic Syndr** 1999 Aug 15;21(5):424-6

The neglected clubfoot: a salvage procedure. el-Tayeby HM. **J Foot Ankle Surg** 1998 Nov-Dec;37(6):501-9

Novel four-drug salvage treatment regimens after failure of a human immunodeficiency virus type 1 protease inhibitor-containing regimen: antiviral activity and correlation of baseline phenotypic drug susceptibility with virologic outcome. Deeks SG, et al. **J Infect Dis** 1999 Jun; 179(6):1375-81

Salvage chemotherapy with taxol for recurrent anaplastic astrocytomas. Chamberlain MC, et al. **J Neurooncol** 1999 May;43(1):71-8

Extra neurofilament NF-L subunits rescue motor neuron disease caused by overexpression of the human NF-H gene in mice. Meier J, et al. **J Neuropathol Exp Neurol** 1999 Oct;58(10):1099-110

Quality of life in patients undergoing salvage procedures for locally recurrent prostate cancer. Tefilli MV, et al. **J Surg Oncol** 1998 Nov;69(3):156-61

Lower limb ischemia: phase 1 results of salvage perfusion. Walker PM, et al. **J Surg Res** 1999 Jun 15;84(2):193-8

ESHAP as salvage therapy for refractory non-Hodgkin's lymphoma: Taiwan experience. Wang WS, et al. **Jpn J Clin Oncol** 1999 Jan;29(1):33-7

Surgical salvage after failed radiation for paranasal sinus malignancy. Curran AJ, et al. **Laryngoscope** 1998 Nov; 108(11 Pt 1):1618-22

Quality of life and voice in patients with laryngeal carcinoma: a posttreatment comparison of laryngectomy (salvage surgery) versus radiotherapy. Finizia C, et al. **Laryngoscope** 1998 Oct;108(10):1566-73

Antileukemic effects of rapid cyclosporin withdrawal in patients with relapsed chronic myeloid leukemia after allogeneic bone marrow transplantation. Brandenburg U, et al. **Leuk Lymphoma** 1998 Nov;31(5-6):545-50

Salvage chemotherapy using a combination of fludarabine and cyclophosphamide for refractory or relapsing indolent and aggressive non-Hodgkin's lymphomas. Lossos IS, et al. **Leuk Lymphoma** 1999 Mar;33(1-2):155-60

Nasopharyngectomy for recurrent high-grade mucoepidermoid carcinoma after radiation failure. Brown J, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):564-6

Is repeated treatment with a 5-fluorouracil-based regimen useful in colorectal cancer? Goldberg RM. **Semin Oncol** 1998 Oct;25(5 Suppl 11):21-8 (40 ref.)

Efficacy and toxicity of irinotecan in patients with colorectal cancer. Rothenberg ML. **Semin Oncol** 1998 Oct;25(5 Suppl 11):39-46 (24 ref.)

Rescue hepatectomy for initial graft non-function after liver transplantation. Oldhafer KJ, et al. **Transplantation** 1999 Apr 15;67(7):1024-8

Analysis of the clinical utility of the use of salvage brachytherapy in patients who have a rising PSA after definitive external beam radiation therapy [editorial] D'Amico AV. **Urology** 1999 Aug;54(2):201-3

Limited suppression of prostate-specific antigen after salvage radiotherapy for its isolated elevation after radical prostatectomy. Egawa S, et al. **Urology** 1999 Jan; 53(1):148-54

Salvage brachytherapy for localized prostate cancer after radiotherapy failure. Grado GL, et al. **Urology** 1999 Jan; 53(1):2-10

Benefits of brachytherapy as salvage treatment for radiorecurrent localized prostate cancer [editorial] Grado GL. **Urology** 1999 Aug;54(2):204-7

[Prognosis of children with acute myelocytic leukemia after first relapse] Creutzig U, et al. **Klin Padiatr** 1998 Jul-Aug; 210(4):207-11 (Eng. Abstr.) **(Ger)**

[High dose chemotherapy with thiotepa, carboplatin, VP16 and autologous stem cell transplantation in treatment of malignant brain tumors with poor prognosis. Results of a mono-center pilot study] Fleischhack G, et al. **Klin Padiatr** 1998 Jul-Aug;210(4):248-55 (Eng. Abstr.) **(Ger)**

[Diagnostic difficulties--salvage diagnostic thoracotomies] Mihăltan F, et al. **Pneumoftiziologia** 1998 Apr-Jun; 47(2):109-12 (Eng. Abstr.) **(Rum)**

[Diagnosis, clinical picture and treatment policy in acute progressive forms of pulmonary tuberculosis under present-day epidemiological conditions] Khomenko AG, et al. **Probl Tuberk** 1999;(1):22-7 (Eng. Abstr.) **(Rus)**

[Intensive chemotherapy in the treatment of patients with metastatic breast cancer] Salgado JE, et al. **Rev Med Univ Navarra** 1997 Jul-Sep;41(3):143-51 (Eng. Abstr.) **(Spa)**

ECONOMICS

The treatment of recurrent ovarian carcinoma: balancing patient desires, therapeutic benefit, cost containment and quality of life. Bomalaski JJ. **Curr Opin Obstet Gynecol** 1999 Feb;11(1):11-5 (37 ref.)

INSTRUMENTATION

Salvage of total hip instability with a constrained acetabular component. Goetz DD, et al. **Clin Orthop** 1998 Oct; (355):171-81

Safety and feasibility of coronary stenting during rescue PTCA: in-hospital outcome. Repetto S, et al. **G Ital Cardiol** 1999 Jun;29(6):630-6

METHODS

Surgical procedure and local recurrence in 223 patients treated 1982-1997 according to two osteosarcoma chemotherapy protocols. The Scandinavian Sarcoma Group experience. Brosjö O. **Acta Orthop Scand Suppl** 1999 Jun;285:58-61

Salvage of failed amputation about the hip in peripheral vascular disease by open wound care and nutritional support. Pinzur MS, et al. **Am J Orthop** 1998 Aug; 27(8):561-2

Granulocyte colony-stimulating factor shortens duration of critical neutropenia and prolongs disease-free survival after sequential high-dose cytosine arabinoside and mitoxantrone (S-HAM) salvage therapy for refractory and relapsed acute myeloid leukemia. German AML Cooperative Group. Kern W, et al. **Ann Hematol** 1998 Sep;77(3):115-22

Hyperthermic isolated limb perfusion with tumour necrosis factor-alpha and melphalan as palliative limb-saving treatment in patients with locally advanced soft-tissue sarcomas of the extremities with regional or distant metastases. Is it worthwhile? Olieman AF, et al. **Arch Orthop Trauma Surg** 1998;118(1-2):70-4

Transposition of a vascularised distal femoral bone graft after wide resection of a diaphyseal Ewing's sarcoma--a salvage procedure. Raab P, et al. **Arch Orthop Trauma Surg** 1998; 117(6-7):402-4

Salvage of total hip instability with a constrained acetabular component. Goetz DD, et al. **Clin Orthop** 1998 Oct; (355):171-81

Salvage surgery for recurrent nasopharyngeal cancer. Morton RP. **Clin Otolaryngol** 1998 Oct;23(5):397-402 (43 ref.)

Toxicity and efficacy of ifosfamide, carboplatin and etoposide (modified ICE) as a salvage chemotherapy in Japanese patients with relapsed or refractory aggressive non-Hodgkin's lymphoma. Itoh K, et al. **Int J Hematol** 1998 Dec;68(4):431-7

Pulsed dose rate (PDR) brachytherapy as salvage treatment of locally advanced or recurrent gynecologic cancer. Jensen PT, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1041-7

Comparison of the results of the Girdlestone pseudarthrosis with reimplantation of a total hip replacement. Schröder J, et al. **Int Orthop** 1998;22(4):215-8

Salvage procedure for failed Bowers' hemiresection interposition technique in the distal radioulnar joint. González del Pino J, et al. **J Hand Surg [Br]** 1998 Dec; 23(6):749-53

Rescue and salvage of casualties suffering from the crush syndrome after mass disasters. Better OS. **Mil Med** 1999 May;164(5):366-9 (24 ref.)

Functional outcome of arthrodesis for failed total knee arthroplasty. Benson ER, et al. **Orthopedics** 1998 Aug; 21(8):875-9

Hepatic artery thrombosis in pediatric liver transplantation: graft salvage after thrombectomy. Garcia-Gallont R, et al. **Pediatr Transplant** 1999 Feb;3(1):74-8

[Initial experience with the use of abciximab in the salvage treatment of acute coronary thrombosis in the Hemodynamics Laboratory] Rubboli A, et al. **Cardiologia** 1998 Nov;43(11):1221-9 (Eng. Abstr.) **(Ita)**

[Organ-salvaging surgeries in combination with vagotomy for perforative pyloroduodenal ulcer] Chislenko IV. **Klin Khir** 1998;(5):40-2 (25 ref.) **(Rus)**

[Follow-up study results of organ-salvaging surgeries for perforative pyloric-duodenal ulcers] Chyslenko IV. **Klin Khir** 1999;(4):54 **(Rus)**

[Organ-salvaging surgeries for highly differentiated thyroid cancer in children] Komissarenko IV, et al. **Klin Khir** 1999; (1):27-30 (Eng. Abstr.) **(Rus)**

[High-frequency oscillatory ventilation as salvage strategy in the newborn infant. Spanish multicenter study. I] Morcillo F, et al. **An Esp Pediatr** 1999 Mar;50(3):269-74 (Eng. Abstr.) **(Spa)**

SALVELINUS see **TROUT**

SAMARIUM

Influence of neutron activation factors on the physico-chemical properties of suppositories and their excipients. Ahrabi SF, et al. **Eur J Pharm Sci** 1999 Jul; 8(3):193-201

ADMINISTRATION & DOSAGE

Changes in articular synovial lining volume measured by magnetic resonance in a randomized, double-blind, controlled trial of intra-articular samarium-153 particulate hydroxyapatite for chronic knee synovitis. Clunie GP, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):113-7

THERAPEUTIC USE

Double blind glucocorticoid controlled trial of samarium-153 particulate hydroxyapatite radiation synovectomy for chronic knee synovitis. O'Duffy EK, et al. **Ann Rheum Dis** 1999 Sep;58(9):554-8

Quantifying the radiation dosage to individual skeletal lesions treated with samarium-153-EDTMP. van Rensburg AJ, et al. **J Nucl Med** 1998 Dec;39(12):2110-5

Chromosomal analysis of peripheral lymphocytes of patients before and after radiation synovectomy with samarium-153 particulate hydroxyapatite. O'Duffy EK, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):316-20

SAMPLE SIZE

Cigarette smoking, asbestos exposure, lung cancer, and sample size [letter; comment] Petrini MF. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1688. Comment on: Am J Respir Crit Care Med 1998 Mar;157(3 Pt 1):748–55.

Postmenopausal women and walking [letter; comment] Petrini MF. **Arch Intern Med** 1999 Apr 12;159(7):756–7. Comment on: Arch Intern Med 1998 Aug 10–24;158(15):1695–701.

What size sample do I need? Williams G. **Aust N Z J Public Health** 1999 Apr;23(2):215–7

Numbers needed to treat derived from meta-analyses--sometimes informative, usually misleading. Smeeth L, et al. **BMJ** 1999 Jun 5;318(7197):1548–51 (32 ref.)

Necessary sample size for method comparison studies based on regression analysis. Linnet K. **Clin Chem** 1999 Jun;45(6 Pt 1):882–94

Sample size calculations when outcomes will be compared with an historical control. Hoehler FK. **Comput Biol Med** 1999 Mar;29(2):101–10

Power and sample size calculations for studies involving linear regression. Dupont WD, et al. **Control Clin Trials** 1998 Dec;19(6):589–601

Statistical methods in epidemiology. II: A commonsense approach to sample size estimation. Rigby AS, et al. **Disabil Rehabil** 1998 Nov;20(11):405–10 (11 ref.)

Relation between the prevalence of a characteristic and the size of the sample needed to estimate it [letter] Seuc AH. **Eur J Epidemiol** 1998 Sep;14(6):627–8

Sample size estimation in phase III cancer clinical trials. Curran D, et al. **Eur J Surg Oncol** 1999 Jun;25(3):244–50

Sample size calculations for linkage analysis using extreme sib pairs based on segregation analysis with the quantitative phenotype body weight as an example. Ziegler A, et al. **Genet Epidemiol** 1998;15(6):577–93

Simple sample size calculation for cluster-randomized trials. Hayes RJ, et al. **Int J Epidemiol** 1999 Apr;28(2):319–26 (24 ref.)

Sampling and external validity. Morgan GA, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):1051–3

Surveying physicians to determine the minimal important difference: implications for sample-size calculation. van Walraven C, et al. **J Clin Epidemiol** 1999 Aug;52(8):717–23

Sample size and power calculations for comparing two independent proportions in a 'negative' trial. Tai BC, et al. **Psychiatry Res** 1998 Aug 17;80(2):197–200

The number needed to be treated as a valuable parameter in interpreting clinical trial findings [letter] Bannwarth B. **Rev Rhum Engl Ed** 1999 Jun;66(6):361–2

Combining different phases in the development of medical treatments within a single trial. Bauer P, et al. **Stat Med** 1999 Jul 30;18(14):1833–48

Sample size review in a head injury trial with ordered categorical responses. Bolland K, et al. **Stat Med** 1998 Dec 30;17(24):2835–47

Exact test size and power of a Gaussian error linear model for an internal pilot study. Coffey CS, et al. **Stat Med** 1999 May 30;18(10):1199–214

Estimating the sample size for a t-test using an internal pilot. Denne JS, et al. **Stat Med** 1999 Jul 15;18(13):1575–85

The study of candidate genes in drug trials: sample size considerations. Elston RC, et al. **Stat Med** 1999 Mar 30; 18(6):741–51

Sample size determination for proving equivalence based on the ratio of two means for normally distributed data. Hauschke D, et al. **Stat Med** 1999 Jan 15;18(1):93–105

A simple method of sample size calculation for linear and logistic regression. Hsieh FY, et al. **Stat Med** 1998 Jul 30; 17(14):1623–34

Sample size calculations for paired or matched ordinal data. Julious SA, et al. **Stat Med** 1998 Jul 30;17(14):1635–42

Application of GEE procedures for sample size calculations in repeated measures experiments. Rochon J. **Stat Med** 1998 Jul 30;17(14):1643–58

Sample size formula with a continuous outcome for unequal group sizes and unequal variances. Schouten HJ. **Stat Med** 1999 Jan 15;18(1):87–91

A method for determining the size of internal pilot studies [letter; comment] Singer J. **Stat Med** 1999 May 15; 18(9):1151–3. Comment on: Stat Med 1996 Jul 30;15(14):1587–90.

Exploratory thoughts on clinical trials with utilities. Tan SB, et al. **Stat Med** 1998 Dec 15;17(23):2771–91

Sample size calculations in studies of test accuracy. Obuchowski NA. **Stat Methods Med Res** 1998 Dec; 7(4):371–92 (36 ref.)

[Assumption of maximal indetermination, the sample size and other considerations relating to the sample (letter)] Suárez Gil P, et al. **Gac Sanit** 1999 May-Jun;13(3):245–6 **(Spa)**

[Estimation of the sample size in clinical and epidemiological investigations] Marrugat J, et al. **Med Clin (Barc)** 1998 Sep 12;111(7):267–76 **(Spa)**

SAMPLING BIAS see **SELECTION BIAS**

SAMPLING STUDIES

Estimating and generalizing with clustered sampling in general practice. Sayer GP. **Aust Fam Physician** 1999 Jan; 28 Suppl 1:S32–4 (8 ref.)

Optimal sampling strategies for bayesian estimation of docetaxel (Taxotere) clearance. Baille P, et al. **Clin Cancer Res** 1997 Sep;3(9):1535–8

Fund the 2000 census statistical samples [editorial] Swartz K. **Inquiry** 1998 Fall;35(3):247–9

An introduction to the biostatistical technique of resampling. Landry VL. **J Burn Care Rehabil** 1999 Jan–Feb;20(1 Pt 1):1–6

Sampling--how big a sample? Aitken CG. **J Forensic Sci** 1999 Jul;44(4):750–60

Sampling gay men: Random Digit Dialing versus sources in the Gay Community. Meyer IH, et al. **J Homosex** 1999; 37(4):99–110

Random vs. systematic sampling from administrative databases involving human subjects. Hagino C, et al. **J Manipulative Physiol Ther** 1998 Sep;21(7):454–9

Urn sampling and the proportional hazard model. Davidov O, et al. **Lifetime Data Anal** 1998;4(4):309–27

Respondent selection by mail: obtaining probability samples of health plan enrollees. Gallagher PM, et al. **Med Care** 1999 Mar;37(3 Suppl):MS50–8

Sampling biases and missing data in explorations of sexual partner networks for the spread of sexually transmitted diseases. Ghani AC, et al. **Stat Med** 1998 Sep 30; 17(18):2079–97

A general theory of the sampling process with applications to the "veil line". Dewdney AK. **Theor Popul Biol** 1998 Dec;54(3):294–302

Sampling technique from central venous catheters proves critical for pharmacokinetic studies. Huitema AD, et al. **Ther Drug Monit** 1999 Feb;21(1):102–4

[Selective structure of the gene pool. III. Technology of determination from F(ST)-statistics using numerical resampling] Balanovskaia EV, et al. **Genetika** 1998 Oct; 34(10):1434–46 (Eng. Abstr.) **(Rus)**

[Assumption of maximal indetermination, the sample size and other considerations relating to the sample (letter)] Suárez Gil P, et al. **Gac Sanit** 1999 May-Jun;13(3):245–6 **(Spa)**

SAN MIGUEL SEA LION VIRUSES see **CALICIVIRUS**

SAND-DOLLAR see **SEA URCHINS**

SANDFLIES see **PSYCHODIDAE**

SANDFLY FEVER see **PHLEBOTOMUS FEVER**

SANDFLY FEVER GROUP VIRUSES

CLASSIFICATION

Infections due to sandfly fever virus serotype Toscana in Spain. Mendoza-Montero J, et al. **Clin Infect Dis** 1998 Sep; 27(3):434–6

IMMUNOLOGY

Humoral response in Toscana virus acute neurologic disease investigated by viral-protein-specific immunoassays. Magurano F, et al. **Clin Diagn Lab Immunol** 1999 Jan; 6(1):55–60

Detection of Toscana virus-specific immunoglobulins G and M by an enzyme-linked immunosorbent assay based on recombinant viral nucleoprotein. Ciufolini MG, et al. **J Clin Microbiol** 1999 Jun;37(6):2010–2

A recombinant Toscana virus nucleoprotein in a diagnostic immunoblot test system. Schwarz TF, et al. **Res Virol** 1998 Nov-Dec;149(6):413–8

ISOLATION & PURIFICATION

Detection of Toscana virus-specific immunoglobulins G and M by an enzyme-linked immunosorbent assay based on recombinant viral nucleoprotein. Ciufolini MG, et al. **J Clin Microbiol** 1999 Jun;37(6):2010–2

Laboratory diagnosis of Toscana virus infection by enzyme immunoassay with recombinant viral nucleoprotein. Soldateschi D, et al. **J Clin Microbiol** 1999 Mar; 37(3):649–52

SANDFLY FEVER SICILIAN VIRUS see **PHLEBOVIRUS**

SANDFLY FEVER VIRUS see **SANDFLY FEVER GROUP VIRUSES**

SANDHOFF DISEASE

COMPLICATIONS

Progressive cerebellar ataxia in juvenile GM2-gangliosidosis type Sandhoff [letter] Beck M, et al. **Eur J Pediatr** 1998 Oct;157(10):866–7

Adult Sandhoff disease presenting with chronic diarrhoea. Gomez-Brouchet A, et al. **J Inherit Metab Dis** 1999 Apr; 22(2):187–8

DIAGNOSIS

Neuroimaging findings of four patients with Sandhoff disease. Yüksel A, et al. **Pediatr Neurol** 1999 Aug;21(2):562–5

DRUG THERAPY

Delayed symptom onset and increased life expectancy in Sandhoff disease mice treated with N-butyldeoxynojirimycin. Jeyakumar M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6388–93

GENETICS

Two mutations remote from an exon/intron junction in the beta-hexosaminidase beta-subunit gene affect 3'-splice site selection and cause Sandhoff disease. Fujimaru M, et al. **Hum Genet** 1998 Oct;103(4):462–9

Novel splice site mutation at IVS8 nt 5 of HEXB responsible for a Greek-Cypriot case of Sandhoff disease. Furihata K, et al. **Hum Mutat** 1999;13(1):38–43

METABOLISM

Glycosphingolipid degradation and animal models of GM2-gangliosidoses. Kolter T, et al. **J Inherit Metab Dis** 1998 Aug;21(5):548–63 (54 ref.)

Recombinant GM2-activator protein stimulates in vivo degradation of GA2 in GM2 gangliosidosis AB variant fibroblasts but exhibits no detectable binding of GA2 in an in vitro assay. Bierfreund U, et al. **Neurochem Res** 1999 Feb;24(2):295–300

PHYSIOPATHOLOGY

Delayed symptom onset and increased life expectancy in Sandhoff disease mice treated with N-butyldeoxynojirimycin. Jeyakumar M, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6388–93

THERAPY

A genetic model of substrate deprivation therapy for a glycosphingolipid storage disorder [see comments] Liu Y, et al. **J Clin Invest** 1999 Feb;103(4):497–505. Comment in: J Clin Invest 1999 Feb;103(4):439–40.

SANFILIPPO'S SYNDROME see **MUCOPOLYSACCHARIDOSIS III**

SANGO VIRUS see **SIMBU GROUP VIRUSES**

SANITARY ENGINEERING

Factors to be considered concerning the corrosion of copper tubes. Arens P. **Eur J Med Res** 1999 Jun 28;4(6):243–5

Lung health among plumbers and pipefitters in Edmonton, Alberta. Hessel PA, et al. **Occup Environ Med** 1998 Oct; 55(10):678–83

Abdominal symptoms among sewage workers. Friis L, et al. **Occup Med (Lond)** 1998 May;48(4):251–3

Persistent cognitive and motor deficits following acute hydrogen sulphide poisoning. Schneider JS, et al. **Occup Med (Lond)** 1998 May;48(4):255–60

Feces, flies, and fetor: findings from a Peruvian shantytown. Huttly SR, et al. **Rev Panam Salud Publica** 1998 Aug; 4(2):75–9

MANPOWER

Occupational hepatitis B virus infection in sewage workers. Arvanitidou M, et al. **Med Lav** 1998 Sep-Oct;89(5):437–44

[An epidemiological study of a group of workers employed in the maintenance of a sewer network and of urban waste water treatment plants] Salano R, et al. **Med Lav** 1998 Sep-Oct;89(5):393–403 (Eng. Abstr.) **(Ita)**

METHODS

Fresh from the farm [news] Taylor D. **Environ Health Perspect** 1999 Mar;107(3):A 154–7

Coming to grips with a slippery issue: human waste disposal in cold climates. Meyer-Rochow VB. **Int J Circumpolar Health** 1999 Jan;58(1):57–62 (33 ref.)

STANDARDS

Now wash your hands? A survey of hospital handwashing facilities. Kesavan S, et al. **J Hosp Infect** 1998 Dec; 40(4):291–3

SANITATION

Is poor sanitation a risk factor for developing Crohn's disease? [letter; comment] Alic M. **Am J Gastroenterol** 1999 Apr;94(4):1113. Comment on: Am J Gastroenterol 1998 Sep;93(9):1457–62.

A reassessment of the cost-effectiveness of water and sanitation interventions in programmes for controlling childhood diarrhoea. Varley RC, et al. **Bull World Health Organ** 1998;76(6):617–31

China's problems persist after the flood [news] Beach M. **Lancet** 1998 Oct 10;352(9135):1203

[Report on the state of animal sanitation in Canada] Inch C, et al. **Can Vet J** 1999 Jul;40(7):509–13 **(Fre)**

[Health promotion and education: a diagnosis of sanitation conditions using participatory research and community education (São João dos Queiróz - Quixadá/Ceará, Brazil)] Mello DA, et al. **Cad Saude Publica** 1998 Jul-Sep; 14(3):583–95 (Eng. Abstr.) **(Por)**

[Experience at the State Sanitary and Epidemiological Surveillance Center in the Republic of Dagestan] Omarieva Ela, et al. **Gig Sanit** 1999 Jul-Aug;(4):53–5 **(Rus)**

[Improving the planning of sanitary and epidemiological

institutions under current conditions] Kutsenko GI, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov-Dec;(6):34-6 (Eng. Abstr.) **(Rus)**

HISTORY

1997 Chadwick Lecture--is a healthy north west region achievable in the 21st century. Ashton J. **J Epidemiol Community Health** 1999 Jun;53(6):370-82

High rates and a healthy city [editorial] Sheard S. **J Epidemiol Community Health** 1999 Jun;53(6):324

A fearsome enemy (1); A history of sanitation in the British Army 1899-1914. Thompson SV. **J R Army Med Corps** 1998 Oct;144(3):166-71

[Significant and anniversary dates of the history of hygiene and sanitation in 1999] Mirskii MB. **Gig Sanit** 1999 Jul-Aug;(4):74-6 **(Rus)**

[Noteworthy and anniversary dates of the history of hygiene and sanitation in 1998] Mirskii MB. **Gig Sanit** 1998 Sep-Oct;(5):71-3 **(Rus)**

[History of the development of public hygiene in Russia] Nushtaev IA. **Gig Sanit** 1999 Jul-Aug;(4):76-8 **(Rus)**

METHODS

Defecation practices of young children in a Peruvian shanty town. Yeager BA, et al. **Soc Sci Med** 1999 Aug;49(4):531-41

[The bioluminescence method in evaluating the sanitary and disinfection procedures in a hospital environment] Torre I, et al. **Ann Ig** 1998 Sep-Dec;10(5-6):325-32 (Eng. Abstr.) **(Ita)**

STANDARDS

Hand washing. Handwashing facilities are inadequate [letter] Kesavan S. **BMJ** 1999 Aug 21;319(7208):518-9

SAO PAULO TYPHUS see **ROCKY MOUNTAIN SPOTTED FEVER**

SAPHENOUS VEIN

Treatment of venous outflow stenoses in thigh grafts with Wallstents. Funaki B, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1591-6

Late development of an aneurysm of a saphenous vein used as an aortocoronary conduit. Nakamura M, et al. **Am J Cardiol** 1999 Apr 15;83(8):1294-5, A10

Aneurysm of the small saphenous vein presenting as a popliteal mass: a case report. Kim DH, et al. **Am J Orthop** 1999 May;28(5):304-5

Early experience with cryopreserved arterial allografts in below-knee revascularization for limb salvage. Castier Y, et al. **Am J Surg** 1999 Mar;177(3):197-202

Colour doppler ultrasonography assessment and a saphenous vein-graft penile venocorporeal shunt for priapism. Chiou RK, et al. **BJU Int** 1999 Jan;83(1):138-9

The effect of 'non-critical' (<50%) stenosis on vein graft longitudinal resistance and impedance. Moawad J, et al. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):517-20

Thymoma encasing last patent vein graft to the heart. Jaklitsch MT, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):561-3

Saphenous vein puncture for blood sampling of the mouse, rat, hamster, gerbil, guinea pig, ferret and mink. Hem A, et al. **Lab Anim** 1998 Oct;32(4):364-8

Spontaneous rupture of a saphenous vein graft. Davey P, et al. **Postgrad Med J** 1999 Jun;75(884):363-4

ANATOMY & HISTOLOGY

Estimation of intraoperative aortocoronary bypass saphenous vein graft circumference from its preoperative compliance. Lefthériotis G, et al. **Cardiovasc Surg** 1999 Jan;7(1):112-6

Venous drainage of the distally based lesser saphenous-sural veno-neuroadipofascial pediclied fasciocutaneous flap: a radiographic perfusion study. Imanishi N, et al. **Plast Reconstr Surg** 1999 Feb;103(2):494-8

Accompanying arteries of the lesser saphenous vein and sural nerve: anatomic study and its clinical applications. Nakajima H, et al. **Plast Reconstr Surg** 1999 Jan;103(1):104-20

The saphenous venous compartments. Caggiati A. **Surg Radiol Anat** 1999;21(1):29-34

Contribution to the study of the venous vasculature of the penis. Moscovici J, et al. **Surg Radiol Anat** 1999;21(3):193-9

[Superficial veins of the leg] Gillot C. **Morphologie** 1999 Mar;83(260):19-28 (Eng. Abstr.) **(Fre)**

CYTOLOGY

Arterial and venous smooth muscle cell proliferation in response to co-culture with arterial and venous endothelial cells. Waybill PN, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1051-7

DRUG EFFECTS

MMP inhibition reduces intimal hyperplasia in a human vein graft stenosis model. Loftus IM, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:547-50

Analysis of an H1 receptor-mediated, zinc-potentiated vasoconstrictor action of the histidyl dipeptide carnosine in rabbit saphenous vein. O'Dowd A, et al. **Br J Pharmacol** 1998 Nov;125(6):1272-80

Marimastat inhibits neointimal thickening in a model of human vein graft stenosis. Porter KE, et al. **Br J Surg** 1998 Oct;85(10):1373-7

Pharmacological characterization of histamine H3 receptors in human saphenous vein and guinea pig ileum. Valentine AF, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):73-8

5-Hydroxytryptamine(1F) receptors do not participate in vasoconstriction: lack of vasoconstriction to LY344864, a selective serotonin(1F) receptor agonist in rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):935-9

ENZYMOLOGY

Increased secretion of basement membrane-degrading metalloproteinases in pig saphenous vein into carotid artery interposition grafts. Southgate KM, et al. **Arterioscler Thromb Vasc Biol** 1999 Jul;19(7):1640-9

Production and inhibition of the gelatinolytic matrix metalloproteinases in a human model of vein graft stenosis. Porter KE, et al. **Eur J Vasc Endovasc Surg** 1999 May;17(5):404-12

Tissue inhibitor of metalloproteinase-1 is increased in the saphenofemoral junction of patients with varices in the leg. Parra JR, et al. **J Vasc Surg** 1998 Oct;28(4):669-75

[Evaluation of factors for stenosis of coronary artery bypass graft--their relationship with the vascular wall angiotensin II producing system] Yuda J, et al. **Nippon Geka Gakkai Zasshi** 1998 Oct;99(10):737 **(Jpn)**

INJURIES

Inadvertent arterial injury during saphenous vein stripping: three cases and therapeutic strategies. Ramsheyi A, et al. **Arch Surg** 1998 Oct;133(10):1120-3 (6 ref.)

Mechanical stretching of human saphenous vein grafts induces expression and activation of matrix-degrading enzymes associated with vascular tissue injury and repair. Meng X, et al. **Exp Mol Pathol** 1999 Aug;66(3):227-37

INNERVATION

5-Hydroxytryptamine(1A) receptor activation enhances norepinephrine release from nerves in the rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1195-201

METABOLISM

Nitric oxide, prostacyclin and cyclic nucleotide formation in externally stented porcine vein grafts. Jeremy JY, et al. **Atherosclerosis** 1998 Dec;141(2):297-305

Fibrinogen up-regulates the expression of monocyte chemoattractant protein 1 in human saphenous vein endothelial cells. Harley SL, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):739-44

Alternative pathways of angiotensin II production in the human saphenous vein. Borland JA, et al. **Br J Pharmacol** 1998 Oct;125(3):423-8

Endothelin receptor expression and pharmacology in human saphenous vein graft. Maguire JJ, et al. **Br J Pharmacol** 1999 Jan;126(2):443-50

Arterial flow conditions downregulate thrombomodulin on saphenous vein endothelium. Gosling M, et al. **Circulation** 1999 Mar 2;99(8):1047-53

Molecular and cellular changes in vein grafts: influence of pulsatile stretch. Powell JT, et al. **Curr Opin Cardiol** 1998 Nov;13(6):453-8 (27 ref.)

Membrane stabilization in harvested vein graft storage: effects on adhesion molecule expression and nitric oxide synthesis. Vural KM, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):150-5

Arterialization of human vein grafts is associated with tenascin-C expression. Wallner K, et al. **J Am Coll Cardiol** 1999 Sep;34(3):871-5

Characterisation of constrictor endothelin receptors in the human internal thoracic artery and saphenous vein. Pate MA, et al. **J Cardiovasc Pharmacol** 1999 Apr;33(4):567-72

Insights into the unusual alpha adrenoceptor subtype in dog saphenous vein using phenoxybenzamine. Low AM, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):148-56

Pressure-mediated oligonucleotide transfection of rat and human cardiovascular tissues. Mann MJ, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6411-6

PATHOLOGY

Reduction of intimal and medial thickening in sheathed vein grafts. Zurbrügg HR, et al. **Ann Thorac Surg** 1999 Jul;68(1):79-83

Morphological picture of the big saphenous vein following cryoobliteration of varices. Matysek M, et al. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:63-6

RE: JW Butany, TE David, M Ojha. Histological and morphometric analyses of early and late aortocoronary vein grafts and distal anastomoses [letter; comment] FitzGibbon GM. **Can J Cardiol** 1998 Nov;14(11):1337, 1341-2. Comment on: Can J Cardiol 1998 May;14(5):671-7.

Prevention of distal embolization during saphenous vein graft lesion angioplasty. Experience with a new temporary occlusion and aspiration system. Carlino M, et al. **Circulation** 1999 Jun 29;99(25):3221-3

Topography of cell replication in human vein graft stenoses. Westerband A, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II325-9; discussion II329-30

Histopathologic findings in autogenous saphenous vein graft wrapping for recurrent tarsal tunnel syndrome: a case report. Campbell JT, et al. **Foot Ankle Int** 1998 Nov;19(11):766-9

Endothelin-B receptors mediate intimal hyperplasia in an organ culture of human saphenous vein. Porter KE, et al. **J Vasc Surg** 1998 Oct;28(4):695-701

PHYSIOLOGY

Expression of tissue inhibitor of metalloproteinase-1, -2, and -3 during neointima formation in organ cultures of human saphenous vein. Kranzhöfer A, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb;19(2):255-65

Adenosine 5'-triphosphate and neuropeptide Y are co-transmitters in conjunction with noradrenaline in the human saphenous vein. Racchi H, et al. **Br J Pharmacol** 1999 Mar;126(5):1175-85

The cyclo-oxygenase-dependent regulation of rabbit vein contraction: evidence for a prostaglandin E2-mediated relaxation. Rouaud C, et al. **Br J Pharmacol** 1999 Jan;126(1):35-44

Endophytic fungal toxin effect on adrenergic receptors in lateral saphenous veins (cranial branch) of cattle grazing tall fescue. Oliver JW, et al. **J Anim Sci** 1998 Nov;76(11):2853-6

5-Hydroxytryptamine(1F) receptors do not participate in vasoconstriction: lack of vasoconstriction to LY344864, a selective serotonin(1F) receptor agonist in rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):935-9

[Postsurgical changes of the calculated wall shear stress in autogenous interpositional venous grafts by blood flow waveform analysis: clinical and experimental studies] Zhao L, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Mar;14(1):21-5 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Venous ulceration and continuous flow in the long saphenous vein. Bello M, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):111-4

RADIOGRAPHY

Electron beam computed tomographic angiography and 3-dimensional reconstruction of a stented saphenous vein graft. Reiner JS, et al. **Circulation** 1999 Jun 22;99(24):E16

SURGERY

Invaginating versus classic stripping of the long saphenous vein. A randomized prospective study. Lacroix H, et al. **Acta Chir Belg** 1999 Feb;99(1):22-5

A prospective randomised trial of PIN versus conventional stripping in varicose vein surgery. Durkin MT, et al. **Ann R Coll Surg Engl** 1999 May;81(3):171-4

Favorable scanning electron microscopic findings of stapled saphenous vein-carotid artery anastomoses. Izzat MB, et al. **Ann Thorac Surg** 1999 Jan;67(1):85-8

Nonpenetrating stapling: a valuable alternative for coronary anastomoses? Lisi G, et al. **Ann Thorac Surg** 1998 Nov;66(5):1705-8

Clinical experience with the video-assisted saphenectomy procedure for coronary bypass operations. Pagni S, et al. **Ann Thorac Surg** 1998 Nov;66(5):1626-31

Autogenous valve reconstruction technique for post-thrombotic reflux. Plagnol P, et al. **Ann Vasc Surg** 1999 May;13(3):339-42

Inadvertent arterial injury during saphenous vein stripping: three cases and therapeutic strategies. Ramsheyi A, et al. **Arch Surg** 1998 Oct;133(10):1120-3 (6 ref.)

Pre-existing vascular disease in the radial artery and other coronary artery bypass conduits. Kane-ToddHall SM, et al. **Eur J Med Res** 1999 Jan 26;4(1):11-4

Histopathologic findings in autogenous saphenous vein graft wrapping for recurrent tarsal tunnel syndrome: a case report. Campbell JT, et al. **Foot Ankle Int** 1998 Nov;19(11):766-9

Subfascial perforator vein ablation: comparison of open versus endoscopic techniques. Sato DT, et al. **J Endovasc Surg** 1999 May;6(2):147-54

Recurrent stenosis of common carotid-intracranial internal carotid interposition saphenous vein bypass graft caused by intimal hyperplasia and treated with endovascular stent placement. Case report and review of the literature. Brennan JW, et al. **J Neurosurg** 1999 Mar;90(3):571-4

Carbon dioxide embolism during endoscopic saphenectomy for coronary artery bypass surgery. Chavanon O, et al. **J Thorac Cardiovasc Surg** 1999 Sep;118(3):557-8

Thigh isosulfan blue injection in the treatment of postoperative lymphatic complications. Blebea J, et al. **J Vasc Surg** 1999 Aug;30(2):350-4

Stripping the long saphenous vein reduces the rate of reoperation for recurrent varicose veins: five-year results of a randomized trial. Dwerryhouse S, et al. **J Vasc Surg** 1999 Apr;29(4):589-92

Regarding "Saphenous surgery does not correct perforator incompetence in the presence of deep venous reflux" [letter; comment] Lucertini G, et al. **J Vasc Surg** 1999 May;29(5):941-2. Comment on: J Vasc Surg 1998 Nov;28(5):834-8.

Saphenous surgery does not correct perforator incompetence

in the presence of deep venous reflux. Stuart WP, et al. **J Vasc Surg** 1998 Nov;28(5):834–8

[Reconstruction of saphenous vein grafts using Wallstent endoprostheses. Immediate and mid-term results] Joseph T, et al. **Arch Mal Coeur Vaiss** 1999 Apr;92(4):405–10 (Eng. Abstr.) **(Fre)**

[125 reinterventions for recurrent popliteal varicose veins after excision of the short saphenous vein. Anatomical and physiological hypotheses of the mechanism of recurrence] Creton D. **J Mal Vasc** 1999 Feb;24(1):30–6 (Eng. Abstr.) **(Fre)**

[A prospective study based on cases of varices of the internal saphena operated between January–July 1998 both mono- and bilaterally] Fancellu G, et al. **Minerva Cardioangiol** 1998 Oct;46(10):385–6 **(Ita)**

[Surgery of recurrent varices of the minor saphenous vein] Lucertini G, et al. **Minerva Cardioangiol** 1998 Apr; 46(4):91–5 (Eng. Abstr.) **(Ita)**

[The treatment of acute thrombophlebitis in the varicose saphenous veins of the lower extremities] Namashko MV. **Khirurgiia (Mosk)** 1998;(8):34–5 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Dumbbell type jugular foramen meningioma extending both into the posterior cranial fossa and into the parapharyngeal space: report of 2 cases with vascular reconstruction. Kawahara N, et al. **Acta Neurochir (Wien)** 1998; 140(4):323–30; discussion 330–1

Predictors of long-term outcome after stent implantation in a saphenous vein graft. Le May MR, et al. **Am J Cardiol** 1999 Mar 1;83(5):681–6

Low- versus high-dose recombinant urokinase for the treatment of chronic saphenous vein graft occlusion. Teirstein PS, et al. **Am J Cardiol** 1999 Jun 15;83(12):1623–8

Angiographic and clinical outcomes following acute infarct angioplasty on saphenous vein grafts. Watson PS, et al. **Am J Cardiol** 1999 Apr 1;83(7):1018–21

Endoscopic saphenous vein harvest in infrainguinal bypass surgery. Robbins MR, et al. **Am J Surg** 1998 Dec; 176(6):586–90

Saphenous vein graft ectasia: an unusual late complication of coronary artery bypass surgery. A case report. Sharifi M, et al. **Angiology** 1999 Jun;50(6):497–501 (16 ref.)

Modified incision for the long saphenous vein harvest [letter; comment] Chaugle H, et al. **Ann Thorac Surg** 1998 Dec; 66(6):2159–60. Comment on: Ann Thorac Surg 1998 Jul;66(1):279.

Adjustment of faulty graft length in aortocoronary bypass [letter; comment] Erdinc M, et al. **Ann Thorac Surg** 1999 May;67(5):1536–7. Comment on: Ann Thorac Surg 1998 Sep;66(3):966–7.

Sustained reduction of neointima with c-myc antisense oligonucleotides in saphenous vein grafts. Mannion JD, et al. **Ann Thorac Surg** 1998 Dec;66(6):1948–52

Innovative uses of saphenous vein grafts in minimally invasive coronary surgery [letter; comment] Tovar EA. **Ann Thorac Surg** 1998 Nov;66(5):1867–8. Comment on: Ann Thorac Surg 1998 Mar;65(3):625–7.

Reduction of intimal and medial thickening in sheathed vein grafts. Zurbrügg HR, et al. **Ann Thorac Surg** 1999 Jul; 68(1):79–83

Use of ipsilateral greater saphenous vein as a valved transplant in management of post-thrombotic deep venous insufficiency: long-term results. Cardon JM, et al. **Ann Vasc Surg** 1999 May;13(3):284–9

Prosthetic reinforcement of varicose saphenous vein grafts for infrainguinal bypass. Soury P, et al. **Ann Vasc Surg** 1999 May;13(3):290–3

Nitric oxide, prostacyclin and cyclic nucleotide formation in externally stented porcine vein grafts. Jeremy JY, et al. **Atherosclerosis** 1998 Dec;141(2):297–305

Reduction of leg wound infections following coronary artery bypass surgery. Mullen JC, et al. **Can J Cardiol** 1999 Jan; 15(1):65–8

Involvement of dendritic cells in long-term aortocoronary saphenous vein bypass graft failure. Cherian SM, et al. **Cardiovasc Surg** 1999 Aug;7(5):508–18

Estimation of intraoperative aortocoronary bypass saphenous vein graft circumference from its preoperative compliance. Leftheriotis G, et al. **Cardiovasc Surg** 1999 Jan;7(1):112–6

Managing the embolization problem during saphenous vein graft intervention [editorial; comment] Baim DS, et al. **Catheter Cardiovasc Interv** 1999 Jun;47(2):155–6. Comment on: Catheter Cardiovasc Interv 1999 Jun;47(2):149–54.

Retrograde embolization during saphenous vein graft angioplasty. Gao W, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):205–9

Yes reflow [editorial; comment] Heldman AW, et al. **Catheter Cardiovasc Interv** 1999 Aug;47(4):404–5. Comment on: Catheter Cardiovasc Interv 1999 Aug;47(4):397–403.

Risk of distal embolization and infarction with transluminal extraction atherectomy in saphenous vein grafts and native coronary arteries. NACI Investigators. New Approaches to Coronary Interventions [see comments] Moses JW, et al. **Catheter Cardiovasc Interv** 1999 Jun;47(2):149–54. Comment in: Catheter Cardiovasc Interv 1999 Jun;47(2):155–6.

Novel distal occluder washout method for prevention of no-reflow during stenting of saphenous vein grafts [see comments] Shaknovich A, et al. **Catheter Cardiovasc Interv** 1999 Aug;47(4):397–403. Comment in: Catheter Cardiovasc Interv 1999 Aug;47(4):404–5.

Adjunctive abciximab improves outcomes during recanalization of totally occluded saphenous vein grafts using transluminal extraction atherectomy. Sullebarger JT, et al. **Catheter Cardiovasc Interv** 1999 Jan;46(1):107–10

Anterior mediastinal mass in a patient with prior saphenous vein coronary artery bypass grafting. Trop I, et al. **Chest** 1999 Feb;115(2):572–6

In situ saphenous vein arterial bypass for lower limb ischemia [letter] Fu W, et al. **Chin Med J (Engl)** 1998 Feb;111(2):190

Aggressive cholesterol lowering delays saphenous vein graft atherosclerosis in women, the elderly, and patients with associated risk factors. NHLBI post coronary artery bypass graft clinical trial. Post CABG Trial Investigators. Campeau L, et al. **Circulation** 1999 Jun 29;99(25):3241–7

Prevention of distal embolization during saphenous vein graft lesion angioplasty. Experience with a new temporary occlusion and aspiration system. Carlino M, et al. **Circulation** 1999 Jun 29;99(25):3221–3

Percutaneous transluminal therapy of occluded saphenous vein grafts: can the challenge be met with ultrasound thrombolysis? [see comments] Rosenschein U, et al. **Circulation** 1999 Jan 5–12;99(1):26–9. Comment in: Circulation 1999 Jan 5–12;99(1):8–11.

Molecular and cellular changes in vein grafts: influence of pulsatile stretch. Powell JT, et al. **Curr Opin Cardiol** 1998 Nov;13(6):453–8 (27 ref.)

Minimally invasive cardiac surgery for the treatment of coronary artery multi-vessel disease. Gulielmos V, et al. **Eur J Cardiothorac Surg** 1998 Oct;14 Suppl 1:S48–53

Endoscopic harvest of saphenous vein graft for coronary artery bypass grafting: Saitama-Olympus technique. Kyo S, et al. **Eur J Cardiothorac Surg** 1998 Oct;14 Suppl 1:S93–9

Tunnelling versus open harvest technique in obtaining venous conduits for coronary bypass surgery. Tran HM, et al. **Eur J Cardiothorac Surg** 1998 Dec;14(6):602–6

Totally minimally invasive cardiac surgery for coronary artery disease. Yeh CH, et al. **Eur J Cardiothorac Surg** 1998 Oct;14 Suppl 1:S43–7

Immediate occlusion of in situ saphenous vein bypass grafts: a survey of 329 reconstructions. Albäck A, et al. **Eur J Surg** 1998 Oct;164(10):745–50

Valvulotomy of non-reversed saphenous vein bypass grafts: a randomised, blinded, angioscopy-controlled study. Albäck A, et al. **Eur J Vasc Endovasc Surg** 1999 Aug; 18(2):144–8

PTFE-vein composite grafts for critical limb ischaemia: a valuable alternative to all-autogenous infrageniculate reconstructions. Bastounis E, et al. **Eur J Vasc Endovasc Surg** 1999 Aug;18(2):127–32

Angiographic runoff score as a predictor of outcome following femorocrural bypass surgery. Biancari F, et al. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):480–5

The myth of the in situ graft: superiority in infrainguinal bypass surgery? Lawson JA, et al. **Eur J Vasc Endovasc Surg** 1999 Aug;18(2):149–57

Successful treatment of false aneurysm of a saphenous vein bypass graft with fistula to the anterior chest wall using "covered" intracoronary stents. Mahy IR, et al. **Heart** 1998 Nov;80(5):527–9

S-nitrosoglutathione inhibits platelet activation and deposition in coronary artery saphenous vein grafts in vitro and in vivo. Salas E, et al. **Heart** 1998 Aug;80(2):146–50

Utilisation of transluminal extraction atherectomy in the treatment of saphenous vein graft disease: two case reports. White HL, et al. **Int J Cardiol** 1998 Sep 1;66(1):11–5

Microsurgical repair of Stensen's & Wharton's ducts with autogenous venous grafts. An experimental study on dogs. Chudakov O, et al. **Int J Oral Maxillofac Surg** 1999 Feb; 28(1):70–3

50th anniversary historical article. Surgical treatment of acute myocardial infarction. Favaloro RG. **J Am Coll Cardiol** 1999 May;33(6):1435–41

Arterialization of human vein grafts is associated with tenascin-C expression. Wallner K, et al. **J Am Coll Cardiol** 1999 Sep;34(3):871–5

Retrieval and analysis of particulate debris after saphenous vein graft intervention. Webb JG, et al. **J Am Coll Cardiol** 1999 Aug;34(2):468–75

Coronary artery bypass with "snake" grafts: fifteen-year follow-up. Quigley RL, et al. **J Card Surg** 1998 Jan; 13(1):18–23

Ultrastructural investigations for reducing endothelial cell damage of vein grafts during CABG-operation and practical consequences. Hickethier T, et al. **J Cardiovasc Surg (Torino)** 1999 Feb;40(1):71–6

Double layered autogenous vein graft patch reconstruction of the common carotid-internal jugular fistula caused by gunshot wound. Kaklikkaya I, et al. **J Cardiovasc Surg (Torino)** 1999 Jun;40(3):429–33

Duplex features of vein graft stenosis and the success of percutaneous transluminal angioplasty. Gonsalves C, et al. **J Endovasc Surg** 1999 Feb;6(1):66–72

Video-assisted endoscopic saphenous vein harvesting for coronary artery bypass grafting. Li JY, et al. **J Formos Med Assoc** 1998 Dec;97(12):819–25

Late occlusion of microvascular vein grafts in replantation. Morrison WA, et al. **J Hand Surg [Am]** 1998 Nov; 23(6):1106–11

Vein grafting of tunical incisions in the treatment of Peyronie's disease. Chalouhy E, et al. **J Med Liban** 1998 Sep-Oct;46(5):251–5

Recurrent stenosis of common carotid-intracranial internal carotid interposition saphenous vein bypass graft caused by intimal hyperplasia and treated with endovascular stent placement. Case report and review of the literature. Brennan JW, et al. **J Neurosurg** 1999 Mar;90(3):571–4

Saphenous vein interposition graft for recurrent carotid stenosis after prior endarterectomy and stent placement. Case report. Coumans JV, et al. **J Neurosurg** 1999 Mar; 90(3):567–70

New alternative coronary bypass graft: first clinical experience with an autologous endothelialized cryopreserved allograft. Lamm P, et al. **J Thorac Cardiovasc Surg** 1999 Jun;117(6):1217–9

Intraoperative hemodynamic assessment of gastroepiploic artery and saphenous vein bypass grafts: a comparative study. Louagie YA, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):330–8

Saphenous vein grafts for minimally invasive direct coronary artery bypass. Wolf RK, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):822

Aneurysm of saphenous vein coronary bypass graft: diagnosis by computed tomography. Reddy GP, et al. **J Thorac Imaging** 1999 Apr;14(2):147–9

Stent placement in a carotid artery bypass graft in a patient with Takayasu arteritis. Chapdelaine JP, et al. **J Vasc Interv Radiol** 1998 Sep-Oct;9(5):846–8

Autogenous vein-covered stent for the endovascular management of a superior mesenteric artery pseudoaneurysm. McGraw JK, et al. **J Vasc Interv Radiol** 1998 Sep-Oct;9(5):779–82

Stent graft construction with use of autologous vein [letter] Millward SF, et al. **J Vasc Interv Radiol** 1999 Sep; 10(8):1131–3

Carotid endarterectomy outcome with vein or Dacron graft patch angioplasty and internal carotid artery shortening. Archie JP. **J Vasc Surg** 1999 Apr;29(4):654–64

Infrainguinal aneurysm formation in arterialized autologous saphenous vein grafts [see comments] Cassina PC, et al. **J Vasc Surg** 1998 Nov;28(5):944–8. Comment in: J Vasc Surg 1999 Apr;29(4):756–7.

Infrainguinal aneurysm formation in arterialized autologous saphenous vein grafts [letter; comment] Dardik H. **J Vasc Surg** 1999 Apr;29(4):756–7. Comment on: J Vasc Surg 1998 Nov;28(5):944–8.

The correlation of early flow disturbances with the development of infrainguinal graft stenosis: a 10-year study of 341 autogenous vein grafts. Ihnat DM, et al. **J Vasc Surg** 1999 Jul;30(1):8–15

Late rupture of a saphenous vein aortorenal graft. Lavigne J, et al. **J Vasc Surg** 1999 Apr;29(4):722–3

Do residual arteriovenous fistulae after in situ saphenous vein bypass grafting influence patency? Lundell A, et al. **J Vasc Surg** 1999 Jul;30(1):99–10

Superficial femoral eversion endarterectomy combined with a vein segment as a composite artery-vein bypass graft for infrainguinal arterial reconstruction. Presti C, et al. **J Vasc Surg** 1999 Mar;29(3):413–21

Redo carotid surgery: An analysis of materials and configurations used in carotid reoperations and their influence on perioperative stroke and subsequent recurrent stenosis. Rockman CB, et al. **J Vasc Surg** 1999 Jan; 29(1):72–80; discussion 80–1

Effect of outflow level and maximum graft diameter on the velocity parameters of reversed vein bypass grafts. Treiman GS, et al. **J Vasc Surg** 1999 Jul;30(1):16–25

Failure of a saphenous vein extracranial-intracranial bypass graft to protect against bilateral middle cerebral artery ischemia after carotid artery occlusion: case report. Bendok BR, et al. **Neurosurgery** 1999 Aug;45(2):367–70; discussion 370–1

Effect of dressings on saphenous vein harvest incision pain, distress and cosmetic result. Wipke-Tevis DD, et al. **Prog Cardiovasc Nurs** 1998 Summer;13(3):3–13

Angiographic changes in saphenous vein grafts and atherosclerosis risk factors. A 5-year study with serial measurements of serum lipids and lipoproteins. Korpilahti K, et al. **Scand Cardiovasc J** 1998;32(6):343–51

Biological vascular grafts. Wengerter K, et al. **Semin Vasc Surg** 1999 Mar;12(1):46–51

Less-invasive saphenous harvest. Iafrati MM. **Surg Clin North Am** 1999 Jun;79(3):623–44 (62 ref.)

Minimally invasive in situ bypass. Rosenthal D, et al. **Surg Clin North Am** 1999 Jun;79(3):645–52, x (07 ref.)

Endoscopic harvesting of the greater saphenous vein for aortocoronary bypass grafting. Carrizo GJ, et al. **Tex Heart Inst J** 1999;26(2):120–3

Coagulation factor V (Arg506-->Gln) mutation and early saphenous vein graft occlusion after coronary artery bypass grafting. Moor E, et al. **Thromb Haemost** 1998 Aug; 80(2):220–4

Native atherosclerosis and vein graft arterialization: association with increased urokinase receptor expression in vitro and in vivo. Okada SS, et al. **Thromb Haemost** 1998 Jul;80(1):140–7

Vein graft surveillance with scanhead tracking duplex ultrasound imaging: a preliminary report. Jong JM, et al. **Ultrasound Med Biol** 1998 Nov;24(9):1313–24

[A new method to repair artery injuries in extremities by phleboplasty of branched vein graft] Liu H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):5–7 (Eng. Abstr.) **(Chi)**

[The clinical application of bridge by "Y" type vein] Sui H,

et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1998 Jan;12(1):16–8 (Eng. Abstr.) **(Chi)**
[Reconstruction of tendon sheath by autogenous vein graft in preventing adhesion] Yan D, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Jan;11(1):38–9 (Eng. Abstr.) **(Chi)**
[Treatment of ischemia in lower extremities by primary arterization in situ of Vana saphena magna] Yu L, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1998 Jan;12(1):8–10 (Eng. Abstr.) **(Chi)**
[Use of duplex sonography in selecting the most suitable part of the great saphenous vein (parva) for myocardial revascularization] Dušek M. **Rozhl Chir** 1998 Aug; 77(8):360–3 (Eng. Abstr.) **(Cze)**
["Saphenous vascular loop" technique in the treatment of lower limb defects. Report of five cases] Quinodoz P, et al. **Ann Chir Plast Esthet** 1998 Jun;43(3):264–8 (Eng. Abstr.) **(Fre)**
[Harvesting of an internal saphenous graft for aorto–coronary bypass using video–surgery] Folliguet T, et al.
Arch Mal Coeur Vaiss 1999 Jul;92(7):859–66 (Eng. Abstr.) **(Fre)**
[Aorto–coronary bypass] Folliguet T, et al. **Presse Med** 1998 Jun 6;27(20):954–7 (Eng. Abstr.) **(Fre)**
[Minimally invasive internal saphenous vein harvesting for coronary artery bypass] Tevaearai HT, et al.
Swiss Surg 1998;Suppl 2:8–11 (Eng. Abstr.) **(Fre)**
[A comparative study of minimal invasive harvesting of vena saphena magna segments] Dangel M, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1305–7 (Eng. Abstr.) **(Ger)**
[Diagnosis and therapy of vascular injuries in posterior knee dislocation] Platz A, et al. **Swiss Surg** 1998;(4):170–4 (Eng. Abstr.) **(Ger)**
[Elevated levels of plasma homocysteine related to saphenous vein graft disease after coronary artery bypass graft surgery] Iwama Y, et al. **J Cardiol** 1998 Dec;32(6):357–62 (Eng. Abstr.) **(Jpn)**
[Assessment of saphenous vein graft wall characteristics with intravascular ultrasound imaging] Kobayashi T, et al.
Jpn J Thorac Cardiovasc Surg 1998 Aug;46(8):701–6 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Venous ulceration and continuous flow in the long saphenous vein. Bello M, et al. **Eur J Vasc Endovasc Surg** 1999 Feb; 17(2):111–4
Primary superficial vein reflux with competent saphenous trunk. Labropoulos N, et al. **Eur J Vasc Endovasc Surg** 1999 Sep;18(3):201–6
Duplex sonographic evaluation of the sapheno–femoral venous junction in patients with recurrent varicose veins after surgical treatment. Benabou JE, et al.
J Clin Ultrasound 1998 Oct;26(8):401–4
Vein graft surveillance with scanhead tracking duplex ultrasound imaging: a preliminary report. Jong JM, et al.
Ultrasound Med Biol 1998 Nov;24(9):1313–24
[Use of duplex sonography in selecting the most suitable part of the great saphenous vein (parva) for myocardial revascularization] Dušek M. **Rozhl Chir** 1998 Aug; 77(8):360–3 (Eng. Abstr.) **(Cze)**
[Assessment of saphenous vein graft wall characteristics with intravascular ultrasound imaging] Kobayashi T, et al.
Jpn J Thorac Cardiovasc Surg 1998 Aug;46(8):701–6 (Eng. Abstr.) **(Jpn)**

ULTRASTRUCTURE

Analysis of an H1 receptor–mediated, zinc–potentiated vasoconstrictor action of the histidyl dipeptide carnosine in rabbit saphenous vein. O'Dowd A, et al.
Br J Pharmacol 1998 Nov;125(6):1272–80
Impact of the incubation medium on the endothelium of autologous vein grafts: damage scoring by scanning electron microscopy. Konerding MA, et al.
Scanning Microsc 1996;10(3):841–8; discussion 848–9

SAPHO SYNDROME see **ACQUIRED HYPEROSTOSIS SYNDROME**

SAPOGENINS

CHEMISTRY

Gynostemma pentaphyllum: identification of major sapogenins and differentiation from Panax species. Cui J, et al. **Eur J Pharm Sci** 1999 Jul;8(3):187–91
Saikosaponins from roots of Bupleurum scorzonerifolium. Tan L, et al. **Phytochemistry** 1999 Jan;50(1):139–42

IMMUNOLOGY

Production of antibody against saikosaponin a, an active component of bupleuri radix. Jung DW, et al.
Arch Pharm Res 1998 Apr;21(2):135–9

ISOLATION & PURIFICATION

Constituents and bioactive principles of Polygonum chinensis. Tsai PL, et al. **Phytochemistry** 1998 Nov; 49(6):1663–6
[Chemical constituents of the roots of Bupleurum longicaule Wall. ex DC. var. franchetii de Boiss and B. chaishoui Shan et Sheh] Jing H, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Dec;21(12):739–41, 762 (Eng. Abstr.) **(Chi)**
[Studies on sapogenins of Aesculus wilsonii Rehd] Yang L, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Oct; 21(10):617–8 inside back cover (Eng. Abstr.) **(Chi)**

PHARMACOLOGY

Acyl–CoA: cholesterol acyltransferase inhibitory activity of ginseng sapogenins, produced from the ginseng saponins. Kwon BM, et al. **Bioorg Med Chem Lett** 1999 May 17; 9(10):1375–8
Saikosaponin b2 induces differentiation without growth inhibition in cultured B16 melanoma cells. Zong Z, et al.
Cell Struct Funct 1998 Oct;23(5):265–72
Stimulatory effects of starfish sapogenins (Asterias amurensis and Lethasterias nanimensis chelifera) on molluscan heart (Spisula sachalinensis). Gorshkov BA, et al.
Comp Biochem Physiol C Pharmacol Toxicol Endocrinol 1998 Aug;120(2):235–9
Korean red ginseng saponins with low ratios of protopanaxadiol and protopanaxatriol saponin improve scopolamine–induced learning disability and spatial working memory in mice. Jin SH, et al.
J Ethnopharmacol 1999 Aug;66(2):123–9
Protopanaxatriol ginsenosides inhibit glucose uptake in primary cultured rabbit renal proximal tubular cells by arachidonic acid release. Han HJ, et al.
Kidney Blood Press Res 1999;22(3):114–20
[The structure activity relationship of saikosaponins and glycyrrhizin derivatives for Na+, K(+)-ATPase inhibiting action] Zhou QL, et al. **Yao Hsueh Hsueh Pao** 1996; 31(7):496–501 (Eng. Abstr.) **(Chi)**

SAPONINS

ADMINISTRATION & DOSAGE

Natural rubber base matrix containing Calendula officinalis plant as a source of molluscicdal saponin. Helaly FM, et al. **J Controlled Release** 1999 Jan 4;57(1):1–7
Korean red ginseng saponins with low ratios of protopanaxadiol and protopanaxatriol saponin improve scopolamine–induced learning disability and spatial working memory in mice. Jin SH, et al.
J Ethnopharmacol 1999 Aug;66(2):123–9
The adjuvant combination monophosphoryl lipid A and QS21 switches T cell responses induced with a soluble recombinant HIV protein from Th2 to Th1. Moore A, et al. **Vaccine** 1999 Jun 4;17(20–21):2517–27

ANALYSIS

Multiple–stage tandem mass spectrometry for structural characterization of saponins. van Setten DC, et al.
Anal Chem 1998 Oct 15;70(20):4401–9
Determination of ginsenosides in plant extracts from Panax ginseng and Panax quinquefolius L. by LC/MS/MS. Wang X, et al. **Anal Chem** 1999 Apr 15;71(8):1579–84
Western blotting for ginseng saponins, ginsenosides using anti–ginsenoside Rb1 monoclonal antibody. Fukuda N, et al. **Biol Pharm Bull** 1999 Feb;22(2):219–20
Detection of digitalis compounds using a surface plasmon resonance–based biosensor. Laricchia–Robbio L, et al.
Biosens Bioelectron 1998 Nov 1;13(10):1055–60
Studies on the constituents of Clematis species. VII. Triterpenoid saponins from the roots of Clematis terniflora DC. var. robusta Tamura. Kawata Y, et al.
Chem Pharm Bull (Tokyo) 1998 Dec;46(12):1891–900
Saponin contents and anticarcinogenic effects of ginseng depending on types and ages in mice. Yun TK, et al.
Chung Kuo Yao Li Hsueh Pao 1996 Jul;17(4):293–8
Application of high–performance liquid chromatography coupled to nuclear magnetic resonance spectrometry, mass spectrometry and bioassay for the determination of active saponins from Bacopa monniera Wettst. Renukappa T, et al. **J Chromatogr A** 1999 Jun 25;847(1–2):109–16
Extraction and analysis of cosmetic active ingredients from an anti–cellulitis transdermal delivery system by high–performance liquid chromatography. Morganti P, et al. **J Chromatogr Sci** 1999 Feb;37(2):51–5
Saponins and phenolic content in plant dietary additives of a traditional subsistence community, the Batemi of Ngorongoro District, Tanzania. Johns T, et al.
J Ethnopharmacol 1999 Jul;66(1):1–10
[Quantitative determination of ginsenoside Rg1 in Capsulae gansuning by TLC–scanning] Liu G, et al.
Chung Kuo Chung Yao Tsa Chih 1996 Sep;21(9):542–3, 575–6 (Eng. Abstr.) **(Chi)**

BLOOD

Plasma and cerebrospinal fluid endogenous digoxin–like immunoreactivity in patients with aneurysmal subarachnoid haemorrhage. Lušić I, et al. **Acta Neurochir (Wien)** 1999; 141(7):691–7
A probable relationship between an endogenous digitalis–like substance and concentric cardiac hypertrophy in primary aldosteronism. Shimada T, et al. **Intern Med** 1999 Aug; 38(8):655–9
Endogenous digoxin–like immunoreactive factor (DLIF) serum concentrations are decreased in manic bipolar patients compared to normal controls. Grider G, et al.
J Affect Disord 1999 Aug;54(3):261–7
Intestinal bacterial hydrolysis is required for the appearance of compound K in rat plasma after oral administration of ginsenoside Rb1 from Panax ginseng. Akao T, et al.
J Pharm Pharmacol 1998 Oct;50(10):1155–60
Detection of endogenous digitalis–like immunoreactive factors in human blood. Lin MH, et al.
Proc Natl Sci Counc Repub China B 1998 Jul;22(3):129–35

CEREBROSPINAL FLUID

Plasma and cerebrospinal fluid endogenous digoxin–like immunoreactivity in patients with aneurysmal subarachnoid haemorrhage. Lušić I, et al. **Acta Neurochir (Wien)** 1999; 141(7):691–7

CHEMICAL SYNTHESIS

Synthesis of three diosgenyl saponins: dioscin, polyphyllin D, and balanitin 7. Deng S, et al. **Carbohydr Res** 1999 Apr 30;317(1–4):53–62

CHEMISTRY

Multiple–stage tandem mass spectrometry for structural characterization of saponins. van Setten DC, et al.
Anal Chem 1998 Oct 15;70(20):4401–9
Triterpenoidal saponins from the bark of Kalopanax pictum var. typicum. Cho SH, et al. **Arch Pharm Res** 1991 Mar; 14(1):19–24
Ginsenoside Rf2, a new dammarane glycoside from Korean red ginseng (Panax ginseng). Park JD, et al.
Arch Pharm Res 1998 Oct;21(5):615–7
Saponins from the stem bark of Kalopanax pictum var. magnificum (I). Park MJ, et al. **Arch Pharm Res** 1991 Mar; 14(1):7–11
On the relationship of OSW–1 to the cephalostatins. Guo C, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):419–24
Requirement of the glycosyl parts in platycodin D to stimulate pancreatic exocrine secretion. Ida Y, et al.
Bioorg Med Chem Lett 1998 Aug 18;8(16):2209–12
Acyl–CoA: cholesterol acyltransferase inhibitory activity of ginseng sapogenins, produced from the ginseng saponins. Kwon BM, et al. **Bioorg Med Chem Lett** 1999 May 17; 9(10):1375–8
Relationship between chemical structures and biological activities of triterpenoid saponins from soybean. Yoshiki Y, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2291–9 (60 ref.)
Structures of new acylated oleanene–type triterpene oligoglycosides, theasaponins E1 and E2, from the seeds of tea plant, Camellia sinensis (L.) O. Kuntze. Kitagawa I, et al. **Chem Pharm Bull (Tokyo)** 1998 Dec;46(12):1901–6
Triterpenoidal saponins acylated with two monoterpenic acids from Gleditsia sinensis. Zhang Z, et al.
Chem Pharm Bull (Tokyo) 1999 Mar;47(3):388–93
Two new sulfated saponins from the roots of Gypsophila bermejoi. Acebes B, et al. **J Nat Prod** 1998 Dec; 61(12):1557–9
Secondary metabolites from the roots of Astragalus trojanus. Bedir E, et al. **J Nat Prod** 1999 Apr;62(4):563–8
Silenosides A–C, triterpenoid saponins from Silene vulgaris. Glensk M, et al. **J Nat Prod** 1999 May;62(5):717–21
Saponarioside C, the first alpha–D–galactose containing triterpenoid saponin, and five related compounds from Saponaria officinalis. Jia Z, et al. **J Nat Prod** 1999 Mar; 62(3):449–53
Triterpenoid saponins of Acanthopanax nipponicus leaves. Miyakoshi M, et al. **J Nat Prod** 1999 Mar;62(3):445–8
Four new triterpenoidal saponins acylated with one monoterpenic acid from Gleditsia sinensis. Zhang Z, et al.
J Nat Prod 1999 May;62(5):740–5
Gleditsiosides N–Q, new triterpenoid saponins from Gleditsia sinensis. Zhang Z, et al. **J Nat Prod** 1999 Jun;62(6):877–81
Separation of a triterpenoid saponin mixture from Maesa lanceolata: semipreparative reversed–phase wide pore high performance liquid chromatography with temperature control. Apers S, et al. **J Pharm Biomed Anal** 1998 Dec; 18(4–5):737–43
A saponin from the roots of Gypsophila bermejoi. Acebes B, et al. **Phytochemistry** 1998 Dec;49(7):2077–9
Triterpenoid saponins from Becium grandiflorum var. obovatum. Burger I, et al. **Phytochemistry** 1998 Dec; 49(7):2087–95
Spirostanol saponins of Allium porrum L. Carotenuto A, et al. **Phytochemistry** 1999 Aug;51(8):1077–82
Steroidal saponins from Asparagus africanus. Debella A, et al. **Phytochemistry** 1999 Aug;51(8):1069–75
Steroidal saponins from the aerial parts of Dracaena draco and their cytostatic activity on HL–60 cells. Mimaki Y, et al. **Phytochemistry** 1999 Mar;50(5):805–13
A spirostanol saponin from the underground parts of Ruscus aculeatus. Mimaki Y, et al. **Phytochemistry** 1999 Jul; 51(5):689–92
Triterpenoid saponins from Fagonia indica. Shaker KH, et al. **Phytochemistry** 1999 Aug;51(8):1049–53
Saponins from Harpullia cupanioides. Voutquenne L, et al.
Phytochemistry 1998 Dec;49(7):2081–5
A triterpenoid saponin from Cucumaria frondosa. Yayli N, et al. **Phytochemistry** 1999 Jan;50(1):135–8
Cycloartane–type glycosides from Aquilegia flabellata. Yoshimitsu H, et al. **Phytochemistry** 1999 Jun;51(3):449–52
A comparative study on commercial, botanical gardens and wild samples of the roots of Platycodon grandiflorum by

HPLC analysis. Saeki T, et al. **Planta Med** 1999 Jun; 65(5):428–31

[Structure of gypentonoside A from Gynostemma pentaphylum Makino] Fang ZP, et al. **Yao Hsueh Hsueh Pao** 1996;31(9):680–3 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Western blotting for ginseng saponins, ginsenosides using anti-ginsenoside Rb1 monoclonal antibody. Fukuda N, et al. **Biol Pharm Bull** 1999 Feb;22(2):219–20

Enhancement by IL-12 of the cytolytic T lymphocyte (CTL) response of mice immunized with tumor-specific peptides in an adjuvant containing QS21 and MPL. Silla S, et al. **Eur Cytokine Netw** 1999 Jun;10(2):181–90

TCR vaccines against T cell lymphoma: QS-21 and IL-12 adjuvants induce a protective CD8+ T cell response. Wong CP, et al. **J Immunol** 1999 Feb 15;162(4):2251–8

Effects of different adjuvants on rotavirus antibody responses and protection in mice following intramuscular immunization with inactivated rotavirus. McNeal MM, et al. **Vaccine** 1999 Mar 17;17(11–12):1573–80

ISOLATION & PURIFICATION

Recent progress in biotechnology of Mexican medicinal plants. Villarreal ML, et al. **Adv Exp Med Biol** 1999; 464:221–33 (22 ref.)

New antifungal and cytotoxic steroidal saponins from the bulbs of an elephant garlic mutant. Sata N, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1904–11

Steroidal saponins from the bulbs of Allium karataviense. Mimaki Y, et al. **Chem Pharm Bull (Tokyo)** 1999 Jun; 47(6):738–43

Two new triterpenoid saponins from Platycodon grandiflorum. Nikaido T, et al. **Chem Pharm Bull (Tokyo)** 1999 Jun;47(6):903–4

Starfish saponins. 55. Isolation, structure elucidation, and biological activity of the steroid oligoglycosides from an Antarctic starfish of the family Asteriidae. De Marino S, et al. **J Nat Prod** 1998 Nov;61(11):1319–27

Biologically active triterpene saponins from callus tissue of Polygala amarella. Desbene S, et al. **J Nat Prod** 1999 Jun; 62(6):923–6

Six triterpenoid saponins from Mmaesa laxiflora. Jiang Z, et al. **J Nat Prod** 1999 Jun;62(6):873–6

New triterpenoid saponins from Maesa japonica. Koike K, et al. **J Nat Prod** 1999 Feb;62(2):228–32

A new biologically active acylated triterpene saponin from Silene fortunei [published erratum appears in J Nat Prod 1999 Feb;62(2):404] Lacaille-Dubois MA, et al. **J Nat Prod** 1999 Jan;62(1):133–6

Isolation and characterization of novel endogenous digitalis-like factors in the ovary of the giant toad, Bufo marinus. Matsukawa M, et al. **J Nat Prod** 1998 Dec; 61(12):1476–81

Aculeoside B, a new bisdesmosidic spirostanol saponin from the underground parts of Ruscus aculeatus. Mimaki Y, et al. **J Nat Prod** 1998 Oct;61(10):1279–82

A cytotoxic triterpene saponin from the root bark of Aralia dasyphylla. Xiao K, et al. **J Nat Prod** 1999 Jul;62(7):1030–2

Five new triterpene saponins from Pulsatilla patens var. multifida. Ye W, et al. **J Nat Prod** 1999 Feb;62(2):233–7

A saponin from the roots of Gypsophila bermejoi. Acebes B, et al. **Phytochemistry** 1998 Dec;49(7):2077–9

Steroidal saponins from Asparagus dumosus. Ahmad VU, et al. **Phytochemistry** 1999 Feb;50(3):481–4

Antitumor sterols from the mycelia of Cordyceps sinensis. Bok JW, et al. **Phytochemistry** 1999 Aug;51(7):891–8

Triterpenoid saponins from Becium grandiflorum var. obovatum. Burger I, et al. **Phytochemistry** 1998 Dec; 49(7):2087–95

Steroidal saponins from the bulbs of Lilium candidum. Mimaki Y, et al. **Phytochemistry** 1999 Jun;51(4):567–73

Triterpenoid saponins from Ilex latifolia. Ouyang MA, et al. **Phytochemistry** 1998 Dec;49(8):2483–6

Noroleanane saponins from Celmisia spectabilis. Ueckert J, et al. **Phytochemistry** 1998 Dec;49(8):2487–92

Saponins from Harpullia cupanioides. Voutquenne L, et al. **Phytochemistry** 1998 Dec;49(7):2081–5

A saponin with anti-ulcerogenic effect from the flowers of Spartium junceum. Yeşilada E, et al. **Phytochemistry** 1999 Aug;51(7):903–8

A new steroidal saponin from the rhizomes of Costus spicatus [letter] da Silva BP, et al. **Planta Med** 1999 Apr;65(3):285–7

[Two new steroidal saponins from Allium sativum and their inhibitory effects on blood coagulability] Peng JP, et al. **Yao Hsueh Hsueh Pao** 1996;31(8):607–12 (Eng. Abstr.) **(Chi)**

[Studies on the chemical constituents of Dregea sinensis Hemsl] Shen XL, et al. **Yao Hsueh Hsueh Pao** 1996; 31(8):613–6 (Eng. Abstr.) **(Chi)**

METABOLISM

Effects of digoxin-specific antibody Fab fragment (Digibind) on blood pressure and renal water-sodium metabolism in 5/6 reduced renal mass hypertensive rats. Kaide J, et al. **Am J Hypertens** 1999 Jun;12(6):611–9

Improved recovery of antibiotic-stressed microorganisms on inclusion of saponin in aerobic blood culture media. Elliott TS, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug; 17(8):566–9

Production of ginseng and its bioactive components in plant cell culture: current technological and applied aspects. Wu J, et al. **J Biotechnol** 1999 Feb 19;68(2–3):89–99 (56 ref.)

Intestinal bacterial hydrolysis is required for the appearance of compound K in rat plasma after oral administration of ginsenoside Rb1 from Panax ginseng. Akao T, et al. **J Pharm Pharmacol** 1998 Oct;50(10):1155–60

PHARMACOLOGY

Ginsenoside-Rs3, a new diol-type ginseng saponin, selectively elevates protein levels of p53 and p21WAF1 leading to induction of apoptosis in SK-HEP-1 cells. Kim SE, et al. **Anticancer Res** 1999 Jan–Feb;19(1A):487–91

Growth inhibitory activities of kalopanaxsaponins A and I against human pathogenic fungi. Kim DW, et al. **Arch Pharm Res** 1998 Dec;21(6):688–91

Effect of ginseng total saponin on bovine adrenal tyrosine hydroxylase. Kim HS, et al. **Arch Pharm Res** 1998 Dec; 21(6):782–4

Avocado/soya unsaponifiables enhance the expression of transforming growth factor beta1 and beta2 in cultured articular chondrocytes. Boumediene K, et al. **Arthritis Rheum** 1999 Jan;42(1):148–56

Effect of steroidal saponins of Anemarrhenae rhizoma on superoxide generation in human neutrophils. Zhang J, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):636–9

Suppression of constitutive and inducible cytochrome P450 gene expression by alpha-hederin in mice. Jeong HG. **Biochem Mol Biol Int** 1998 Dec;46(5):1019–26

In vitro antioxidant activity of Vietnamese ginseng saponin and its components. Huong NT, et al. **Biol Pharm Bull** 1998 Sep;21(9):978–81

Anti-tumor-promoting activity of majonoside-R2 from Vietnamese ginseng, Panax vietnamensis Ha et Grushv. (I). Konoshima T, et al. **Biol Pharm Bull** 1998 Aug;21(8):834–8

Structure-activity relationships of saponins and cardiac glycosides. III. Beta-L-xylopyranosyl-(1-->6)-alpha- and -beta-D-glucopyranosides. Takechi M, et al. **Biol Pharm Bull** 1998 Nov;21(11):1234–5

Requirement of the glycosyl parts in platycodin D to stimulate pancreatic exocrine secretion. Ida Y, et al. **Bioorg Med Chem Lett** 1998 Aug 18;8(16):2209–12

The membrane-permeabilizing effect of avenacin A-1 involves the reorganization of bilayer cholesterol. Armah CN, et al. **Biophys J** 1999 Jan;76(1 Pt 1):281–90

Effect of Tribulus terrestris L. saponin mixture on some smooth muscle preparations: a preliminary study. Arcasoy HB, et al. **Boll Chim Farm** 1998 Dec;137(11):473–5

Role of transforming growth factor-beta pathway in the mechanism of wound healing by saponin from Ginseng Radix rubra. Kanzaki T, et al. **Br J Pharmacol** 1998 Sep; 125(2):255–62

The relaxation effects of ginseng saponin in rabbit corporal smooth muscle: is it a nitric oxide donor? Kim HJ, et al. **Br J Urol** 1998 Nov;82(5):744–8

Suppressive effects of alpha-Hederin on 2,3,7,8-tetrachlorodibenzo-p-dioxin-mediated murine Cyp1a-1 expression in the mouse hepatoma Hepa-1c1c7 cells. Jeong HG, et al. **Cancer Lett** 1999 Apr 26; 138(1–2):131–7

Antitumor activity of a novel ginseng saponin metabolite in human pulmonary adenocarcinoma cells resistant to cisplatin. Lee SJ, et al. **Cancer Lett** 1999 Sep 20; 144(1):39–43

Structures of three new oleanene glucuronides isolated from Lathyrus palustris var. pilosus and hepatoprotective activity. Udayama M, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1412–5

Inhibitory effects of Acanthopanax gracilistylus saponins on human platelet aggregation and platelet factor 4 liberation in vitro. Chen XC, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):523–6

Cardiovascular effects of total soyasaponin in central nervous system and its relationship with monoamine transmitters. Guo JH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May; 17(3):239–41

Effects of ginsenoside Rg1 on c-fos gene expression and cAMP levels in rat hippocampus. Liu M, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):171–4

Effect of alpha-hederin on hepatic detoxifying systems in mice. Liu YP, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jan;18(1):33–6

Effect of saponins of Panax notoginseng on synaptosomal 45Ca uptake. Ma LY, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):213–5

Effect of alpha-hederin and sapindoside B on hepatic microsomal cytochrome P-450 in mice. Shi JZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):264–6

Stimulatory effects of starfish sapogenins (Asterias amurensis and Lethasterias nanimensis chelifera) on molluscan heart (Spisula sachalinensis). Gorshkov BA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):235–9

Ginsenoside-Rs4, a new type of ginseng saponin concurrently induces apoptosis and selectively elevates protein levels of p53 and p21WAF1 in human hepatoma SK-HEP-1 cells. Kim SE, et al. **Eur J Cancer** 1999 Mar;35(3):507–11

Ginsenoside Rg3 mediates endothelium-dependent relaxation in response to ginsenosides in rat aorta: role of K+ channels. Kim ND, et al. **Eur J Pharmacol** 1999 Feb 12; 367(1):41–9

The ginsenoside Rg3 evokes endothelium-independent relaxation in rat aortic rings: role of K+ channels. Kim ND, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):51–7

Effects of ginseng saponins on responses induced by various receptor stimuli. Tachikawa E, et al. **Eur J Pharmacol** 1999 Mar 12;369(1):23–32

Panax ginseng blocks morphine-induced thymic apoptosis by lowering plasma corticosterone level. Kim YR, et al. **Gen Pharmacol** 1999 Jun;32(6):647–52

Ginsenosides that produce differential antinociception in mice. Shin YH, et al. **Gen Pharmacol** 1999 Jun;32(6):653–9

Protective effects of pretreatment with ginsenosides on cardiac and coronary vascular function after hypothermic rat heart preservation. Zhang JM, et al. **Hiroshima J Med Sci** 1999 Jun;48(2):65–70

Endogenous immunoreactive ouabain-like and digoxin-like factors in reduced renal mass hypertensive rats. Takada T, et al. **Hypertens Res** 1998 Sep;21(3):193–9

Inhibitory effect of ginsenoside on the mediator release in the guinea pig lung mast cells activated by specific antigen-antibody reactions. Ro JY, et al. **Int J Immunopharmacol** 1998 Nov;20(11):625–41

Anti-proliferating effects of ginsenoside Rh2 on MCF-7 human breast cancer cells. Oh M, et al. **Int J Oncol** 1999 May;14(5):869–75

Korean red ginseng saponins with low ratios of protopanaxadiol and protopanaxatriol saponin improve scopolamine-induced learning disability and spatial working memory in mice. Jin SH, et al. **J Ethnopharmacol** 1999 Aug;66(2):123–9

Effects of ginsenosides on bovine adrenal tyrosine hydroxylase. Kim HS, et al. **J Ethnopharmacol** 1999 Jul; 66(1):107–11

Ginseng total saponin inhibits nicotine-induced hyperactivity and conditioned place preference in mice. Kim HS, et al. **J Ethnopharmacol** 1999 Jul;66(1):83–90

Combination spray washes of saponin with water or acetic acid to reduce aerobic and pathogenic bacteria on lean beef surfaces. Cutter CN. **J Food Prot** 1999 Mar;62(3):280–3

Mechanism of maxi-K channel activation by dehydrosoyasaponin-I. Giangiacomo KM, et al. **J Gen Physiol** 1998 Oct;112(4):485–501

Comparison of synthetic saponin cholesterol absorption inhibitors in rabbits: evidence for a non-stoichiometric, intestinal mechanism of action. Morehouse LA, et al. **J Lipid Res** 1999 Mar;40(3):464–74

Antifungal jujubogenin saponins from Colubrina retusa. Li XC, et al. **J Nat Prod** 1999 May;62(5):674–7

Ginsenosides Rb1 and Rg3 protect cultured rat cortical cells from glutamate-induced neurodegeneration [published erratum appears in J Neurosci Res 1998 Oct 1;54(1):123] Kim YC, et al. **J Neurosci Res** 1998 Aug 15;53(4):426–32

Protective effects of pseudoginsenoside-F11 on scopolamine-induced memory impairment in mice and rats. Li Z, et al. **J Pharm Pharmacol** 1999 Apr;51(4):435–40

Enhancement of intestinal model compound transport by DS-1, a modified Quillaja saponin. Chao AC, et al. **J Pharm Sci** 1998 Nov;87(11):1395–9

Effects of caffeine and adenine nucleotides on Ca2+ release by the sarcoplasmic reticulum in saponin-permeabilized frog skeletal muscle fibres. Duke AM, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):43–53

Involvement of glucocorticoid receptor in the induction of differentiation by ginsenosides in F9 teratocarcinoma cells. Lee YN, et al. **J Steroid Biochem Mol Biol** 1998 Oct; 67(2):105–11

Protopanaxatriol ginsenosides inhibit glucose uptake in primary cultured rabbit renal proximal tubular cells by arachidonic acid release. Han HJ, et al. **Kidney Blood Press Res** 1999;22(3):114–20

Ginsenoside RH-2 induces apoptotic cell death in rat C6 glioma via a reactive oxygen- and caspase-dependent but Bcl-X(L)-independent pathway. Kim HE, et al. **Life Sci** 1999;65(3):PL33–40

Effects of ginseng on ethanol induced sedation in mice. Koo MW. **Life Sci** 1999;64(2):153–60

Panax quinquefolium saponins protects low density lipoproteins from oxidation. Li J, et al. **Life Sci** 1999; 64(1):53–62

Different effects of newly isolated saponins on the mutagenicity and cytotoxicity of the anticancer drugs mitomycin C and bleomycin in human lymphocytes. Scarpato R, et al. **Mutat Res** 1998 Dec 3;420(1–3):49–54

Study of the action of alpha-hederin on the ultrastructure of Candida albicans. Moulin-Traffort J, et al. **Mycoses** 1998 Nov;41(9–10):411–6

Effect of ginsenoside-Rd in cephaloridine-induced renal disorder. Yokozawa T, et al. **Nephron** 1999 Feb;81(2):200–7

Effects of beta-escin and saponin on the transverse-tubular system and sarcoplasmic reticulum membranes of rat and toad skeletal muscle. Launikonis BS, et al. **Pflugers Arch** 1999 May;437(6):955–65

Inhibition by ginsenosides Rb1 and Rg1 of cocaine-induced hyperactivity, conditioned place preference, and postsynaptic dopamine receptor supersensitivity in mice. Kim HS, et al. **Pharmacol Biochem Behav** 1999 Jul; 63(3):407–12

Mechanism of antiviral activity of triterpenoid saponins. Simões CM, et al. **Phytother Res** 1999 Jun;13(4):323–8

Acute and chronic effects of ginseng total saponin and amphetamine on fixed-interval performance in rats [letter] Halladay AK, et al. **Planta Med** 1999 Mar;65(2):162–4

Haemolytic and antifungal activities of saponins or

anti-ATPase and antiviral activities of cardiac glycosides. Takechi M, et al. **Planta Med** 1999 Aug;65(6):585-6

Saponin, an inhibitory agent of carbon dioxide production by white cells: its use in the microbiologic examination of blood components in an automated bacterial culture system. van Doorne H, et al. **Transfusion** 1998 Nov-Dec; 38(11-12):1090-6

Beneficial effects of ginsenosides of stems and leaves on cardiac and coronary vascular functions after 12-hour rat heart preservation. Zhang JM, et al. **Transplant Proc** 1999 Aug;31(5):2175-8

[Clinical and experimental study of improving left ventricular diastolic function by total saponins of panax notoginseng] Feng PF, et al.
Chung Kuo Chung Hsi I Chieh Ho Tsa Chih 1997 Dec; 17(12):714-7 (Eng. Abstr.) **(Chi)**

[Influence of gypenoside on serum lipoprotein and atherosclerosis in hyperlipidaemia animals] Qi G, et al.
Chung Kuo Chung Yao Tsa Chih 1996 Sep;21(9):562-4 inside back cover (Eng. Abstr.) **(Chi)**

[Protective effect of active components extracted from radix Astragali on human erythrocyte membrane damages caused by reactive oxygen species] Wang D, et al.
Chung Kuo Chung Yao Tsa Chih 1996 Dec;21(12):746-8, 763 (Eng. Abstr.) **(Chi)**

[Effects of new constituents L-6a and L-10 from leaves of Luffa cylinderica on learning, memory, and hippocampal somatostatin in rats] Qi SB, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Nov;18(6):529-31 (Eng. Abstr.) **(Chi)**

[Effect of ginsenosides on nucleolar organizer region of neuron and sprouting of mossy fibre terminals of hippocampus in rats] Wang J, et al.
Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih 1997 May; 13(2):154-8 (Eng. Abstr.) **(Chi)**

[Differentiation of B16 melanoma cells induced by ginsenoside RH2] Xia LJ, et al. **Yao Hsueh Hsueh Pao** 1996;31(10):742-5 (Eng. Abstr.) **(Chi)**

[Analgesic and anti-inflammatory activity of saponins of Argania spinoza] Alaoui K, et al. **Ann Pharm Fr** 1998; 56(5):220-8 (Eng. Abstr.) **(Fre)**

THERAPEUTIC USE

Antimetastatic efficacy of orally administered ginsenoside Rb1 in dependence on intestinal bacterial hydrolyzing potential and significance of treatment with an active bacterial metabolite. Hasegawa H, et al. **Planta Med** 1998 Dec;64(8):696-700

TOXICITY

Effects of endothelial impairment by saponin on the responses to vasodilators and nitrergic nerve stimulation in isolated canine corpus cavernosum. Okamura T, et al.
Br J Pharmacol 1999 Jun;127(3):802-8

[Acute and chronic toxicity of saponins from Argania spinosa] Alaoui K, et al. **Ann Pharm Fr** 1998;56(5):213-9 (Eng. Abstr.) **(Fre)**

SAPROPHYTIC CHAIN see **FOOD CHAIN**

SAQUINAVIR

ADMINISTRATION & DOSAGE

Relationships between exposure to saquinavir monotherapy and antiviral response in HIV-positive patients. Gieschke R, et al. **Clin Pharmacokinet** 1999 Jul;37(1):75-86

[Amsterdam duration of antiretroviral medication (ADAM)--study: induction-suppression treatment in HIV-1 infection, preliminary results] Reijers MH, et al. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2230 **(Dut)**

[The new saquinavir formulation SGC (Soft Gel Capsule)] Katlama C. **Presse Med** 1999 Apr 17;28(15):815-8 (24 ref.) **(Fre)**

ADVERSE EFFECTS

Safety profile of soft gelatin formulation of saquinavir in combination with nucleosides in a broad patient population. NV15182 Study Team [letter] Gill MJ. **AIDS** 1998 Jul 30; 12(11):1400-2

Acute paranoid reaction to saquinavir. Finlayson JA, et al. **Am J Health Syst Pharm** 1998 Oct 1;55(19):2016-7

Acute hepatitis in a patient treated with saquinavir and ritonavir: absence of cross-toxicity with indinavir [letter] Vandercam B, et al. **Infection** 1998 Sep-Oct;26(5):313

Gynaecomastia associated with saquinavir therapy. Donovan B, et al. **Int J STD AIDS** 1999 Jan;10(1):49-50

Renal calculi developing de novo in a patient taking saquinavir [letter] Green ST, et al. **Int J STD AIDS** 1998 Sep;9(9):555

Lipid abnormalities during saquinavir soft-gel-based highly active antiretroviral therapy [letter] Moyle GJ, et al.
J Acquir Immune Defic Syndr 1999 Aug 15;21(5):423-4

Liposuction for protease-inhibitor-associated lipodystrophy [letter] Ponce-de-Leon S, et al. **Lancet** 1999 Apr 10; 353(9160):1244

Itraconazole and HIV protease inhibitors: an important interaction [letter] MacKenzie-Wood AR, et al.
Med J Aust 1999 Jan 4;170(1):46-7

[Focal mycobacterial lymphadenitis after starting highly active antiretroviral therapy] Schwietert M, et al.
Dtsch Med Wochenschr 1999 Jan 22;124(3):45-8 (Eng. Abstr.) **(Ger)**

[Portal thrombosis in a female patient treated with protease inhibitors (letter)] Locutura J, et al. **Med Clin (Barc)** 1999 Mar 13;112(9):359 **(Spa)**

BLOOD

Single daily doses of saquinavir achieve HIV-inhibitory concentrations when combined with baby-dose ritonavir. Kurowski M, et al. **Eur J Med Res** 1999 Mar 26;4(3):101-4

Simultaneous determination of ritonavir and saquinavir, two human immunodeficiency virus protease inhibitors, in human serum by high-performance liquid chromatography. Frappier S, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):384-9

CEREBROSPINAL FLUID

Plasma and cerebrospinal fluid saquinavir concentrations in patients receiving combination antiretroviral therapy. Moyle GJ, et al. **Clin Infect Dis** 1999 Feb;28(2):403-4

CHEMISTRY

Molecular mechanisms of resistance: free energy calculations of mutation effects on inhibitor binding to HIV-1 protease. Rick SW, et al. **Protein Sci** 1998 Aug;7(8):1750-6

PHARMACOKINETICS

The effect of plasma drug concentrations on HIV-1 clearance rate during quadruple drug therapy. Hoetelmans RM, et al. **AIDS** 1998 Jul 30;12(11):F111-5

Poor penetration of the male genital tract by HIV-1 protease inhibitors [letter] Taylor S, et al. **AIDS** 1999 May 7; 13(7):859-60

Pharmacokinetic interaction between saquinavir and cyclosporine [letter] Brinkman K, et al.
Ann Intern Med 1998 Dec 1;129(11):914-5

Pharmacokinetic variability and strategy for therapeutic drug monitoring of saquinavir (SQV) in HIV-1 infected individuals. Regazzi MB, et al. **Br J Clin Pharmacol** 1999 Apr;47(4):379-82

Relationships between exposure to saquinavir monotherapy and antiviral response in HIV-positive patients. Gieschke R, et al. **Clin Pharmacokinet** 1999 Jul;37(1):75-86

The pharmacokinetics of saquinavir: a Markov chain Monte Carlo population analysis. Lunn DJ, et al.
J Pharmacokinet Biopharm 1998 Feb;26(1):47-74

Interactions of HIV protease inhibitors with ATP-dependent drug export proteins. Gutmann H, et al. **Mol Pharmacol** 1999 Aug;56(2):383-9

PHARMACOLOGY

Efficacy of a five-drug combination including ritonavir, saquinavir and efavirenz in patients who failed on a conventional triple-drug regimen: phenotypic resistance to protease inhibitors predicts outcome of therapy. Piketty C, et al. **AIDS** 1999 Jul 30;13(11):F71-7

Clinical cross-resistance between the HIV-1 protease inhibitors saquinavir and indinavir and correlations with genotypic mutations. Schapiro JM, et al. **AIDS** 1999 Feb 25;13(3):359-65

The HIV type 1 protease inhibitor saquinavir can select for multiple mutations that confer increasing resistance [published erratum appears in AIDS Res Hum Retroviruses 1999 Jul 1;15(10):949] Vaillancourt M, et al.
AIDS Res Hum Retroviruses 1999 Mar 1;15(4):355-63

Effects of the human immunodeficiency virus (HIV) proteinase inhibitors saquinavir and indinavir on in vitro activities of secreted aspartyl proteinases of Candida albicans isolates from HIV-infected patients. Korting HC, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):2038-42

Genetic variation and susceptibilities to protease inhibitors among subtype B and F isolates in Brazil. Tanuri A, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):253-8

Effect of saquinavir on the pharmacokinetics and pharmacodynamics of oral and intravenous midazolam. Palkama VJ, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):33-9

Lack of immunotoxicity of saquinavir (Ro 31-8959) used alone or in double or triple combination with AZT and ddC. Viora M, et al. **J Clin Immunol** 1998 Sep;18(5):346-54

Saquinavir delays the emergence of zidovudine resistance in HIV-1 seropositive patients treated with combination therapy. Andreoni M, et al. **J Med Virol** 1998 Dec; 56(4):332-6

Replicative fitness of protease inhibitor-resistant mutants of human immunodeficiency virus type 1. Martinez-Picado J, et al. **J Virol** 1999 May;73(5):3744-52

THERAPEUTIC USE

Control of cytomegalovirus retinitis after combination antiretroviral therapy. Ruhswurm I, et al.
Acta Ophthalmol Scand 1999 Aug;77(4):471-3

Ritonavir and saquinavir combination therapy for the treatment of HIV infection. Cameron DW, et al. **AIDS** 1999 Feb 4;13(2):213-24

Predictors of long-term response to protease inhibitor therapy in a cohort of HIV-infected patients. Casado JL, et al. **AIDS** 1998 Jul 30;12(11):F131-5

Randomized trial comparing saquinavir soft gelatin capsules versus indinavir as part of triple therapy (CHEESE study). Cohen Stuart JW, et al. **AIDS** 1999 May 7;13(7):F53-8

HIV protease genotype and viral sensitivity to HIV protease inhibitors following saquinavir therapy. Craig C, et al.
AIDS 1998 Sep 10;12(13):1611-8

Clinical outcome and predictive factors of failure of highly active antiretroviral therapy in antiretroviral-experienced patients in advanced stages of HIV-1 infection. d'Arminio Monforte A, et al. **AIDS** 1998 Sep 10;12(13):1631-7

Salvage therapy with ritonavir-saquinavir plus two nucleoside reverse transcriptase inhibitors in patients failing with amprenavir-zidovudine-lamivudine [letter] De Wit S, et al. **AIDS** 1999 May 7;13(7):864-5

Reply: Virological treatment failure of protease inhibitor therapy in an unselected cohort of HIV-infected patients [letter; comment] Fätkenheuer G, et al. **AIDS** 1998 Jul 30; 12(11):1402-3. Comment on: AIDS 1998 Jun 18;12(9):1111.

Efficacy of salvage therapy containing ritonavir and saquinavir after failure of single protease inhibitor-containing regimens. Hall CS, et al. **AIDS** 1999 Jul 9;13(10):1207-12

Randomized, controlled phase II trial of subcutaneous interleukin-2 in combination with highly active antiretroviral therapy (HAART) in HIV patients. Hengge UR, et al. **AIDS** 1998 Dec 3;12(17):F225-34

Treatment response and durability of a double protease inhibitor therapy with saquinavir and ritonavir in an observational cohort of HIV-1-infected individuals. Kaufmann GR, et al. **AIDS** 1998 Sep 10;12(13):1625-30

Combination therapy containing ritonavir plus saquinavir has superior short-term antiretroviral efficacy: a randomized trial. Kirk O, et al. **AIDS** 1999 Jan 14;13(1):F9-16

Activity of the soft gelatin formulation of saquinavir in combination therapy in antiretroviral-naive patients. NV15355 Study Team. Mitsuyasu RT, et al. **AIDS** 1998 Jul 30;12(11):F103-9

Correlation of response to treatment and HIV genotypic changes during phase III trials with saquinavir and reverse transcriptase inhibitor combination therapy. Race E, et al. **AIDS** 1998 Aug 20;12(12):1465-74

Virologic responses to a ritonavir--saquinavir-containing regimen in patients who had previously failed nelfinavir. Tebas P, et al. **AIDS** 1999 Feb 4;13(2):F23-8

The rabbit study: ritonavir and saquinavir in combination in saquinavir-experienced and previously untreated patients. Churchill DR, et al.
AIDS Res Hum Retroviruses 1999 Sep 1;15(13):1181-9

Phenotypic analysis of CD8+ T lymphocytes in a cohort of HIV type 1-infected patients treated with saquinavir, ritonavir, and two nucleoside analogs for 1 year, and association with plasma HIV type 1 RNA. Kaufmann GR, et al. **AIDS Res Hum Retroviruses** 1999 Jul 20; 15(11):963-72

Discontinuation rates for protease inhibitor regimens containing ritonavir 600 mg versus ritonavir 400 mg plus saquinavir 400 mg. Rublein JC, et al.
Ann Pharmacother 1999 Sep;33(9):899-905

Prospective follow-up of 67 indinavir-experienced human immunodeficiency virus-infected and AIDS patients treated with the ritonavir/saquinavir combination. Lallemand F, et al. **Clin Infect Dis** 1999 May;28(5):1184-5

Safety and efficacy of ritonavir and saquinavir in combination with zidovudine and lamivudine. Michelet C, et al.
Clin Pharmacol Ther 1999 Jun;65(6):661-71

Virological efficacy and plasma drug concentrations of nelfinavir plus saquinavir as salvage therapy in HIV-infected patients refractory to standard triple therapy. Reiser M, et al. **Eur J Med Res** 1999 Feb 25;4(2):54-8

Failure of double protease inhibitor therapy as a salvage therapy for HIV-infected patients resistant to conventional triple therapy. Rockstroh JK, et al. **Eur J Med Res** 1999 Jul 28;4(7):271-4

Cerebrospinal fluid HIV RNA and drug levels with combination ritonavir and saquinavir. Kravcik S, et al.
J Acquir Immune Defic Syndr 1999 Aug 15;21(5):371-5

The effectiveness of combined saquinavir and ketoconazole treatment in reducing HIV viral load. Jordan WC.
J Natl Med Assoc 1998 Oct;90(10):622-4

Constrained evolution of human immunodeficiency virus type 1 protease during sequential therapy with two distinct protease inhibitors. Dulioust A, et al. **J Virol** 1999 Jan; 73(1):850-4

[Importance of antiproteases in the treatment of microsporidia and/or cryptosporidia infections in HIV-seropositive patients] Bobin S, et al.
Pathol Biol (Paris) 1998 Jun;46(6):418-9 (Eng. Abstr.) **(Fre)**

[Polymorphism of protease genes in patients infected with HIV-1 and response to therapy including a protease inhibitor] Mouroux M, et al. **Pathol Biol (Paris)** 1999 May; 47(5):549-52 (Eng. Abstr.) **(Fre)**

[Combined polychemotherapy of patients with chronic hepatitis C] Nikitin IG, et al. **Klin Med (Mosk)** 1999; 77(5):24-6 **(Rus)**

[Efficacy and tolerance of a combination of AZT, DDC, and saquinavir in patients infected with the human immunodeficiency virus (letter)] Soriano Vázquez V, et al. **Rev Clin Esp** 1998 Sep;198(9):634-5 **(Spa)**

1-SAR-8-ALA ANGIOTENSIN II see **SARALASIN**

1-SAR-8-ILE ANGIOTENSIN II see **1-SARCOSINE-8-ISOLEUCINE ANGIOTENSIN II**

SARALASIN

PHARMACOLOGY

Diminished salt appetite in spontaneously hypertensive rats following local administration of the angiotensin II antagonist saralasin in the median preoptic area. Tanaka J, et al. **Behav Pharmacol** 1997 Dec;8(8):752–6

Nonpeptide angiotensin II receptor antagonist recognizes inter-species differences in angiotensin AT1 receptors. Kawano K, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):33–9

Participation of angiotensin receptors in acute hypoxia in mice. I. Effects of angiotensin peptide receptor ligands saralasin and sarmesin. Georgiev V, et al. **Methods Find Exp Clin Pharmacol** 1999 Jul–Aug; 21(6):415–9

SARCOCYSTIS

Induction of tumor necrosis factor alpha and nitric oxide in rabbits inoculated with a cyst extract of Sarcocystis cruzi. Nakamura Y, et al. **Vet Parasitol** 1999 Sep 1; 85(4):235–43

CLASSIFICATION

Isolation in immunodeficient mice of Sarcocystis neurona from opossum (Didelphis virginiana) faeces, and its differentiation from Sarcocystis falcatula. Dubey JP, et al. **Int J Parasitol** 1998 Dec;28(12):1823–8

Are Sarcocystis neurona and Sarcocystis falcatula synonymous? A horse infection challenge. Cutler TJ, et al. **J Parasitol** 1999 Apr;85(2):301–5

Isolation of a third species of Sarcocystis in immunodeficient mice fed feces from opossums (Didelphis virginiana) and its differentiation from Sarcocystis falcatula and Sarcocystis neurona. Dubey JP, et al. **J Parasitol** 1998 Dec; 84(6):1158–64

Sarcocystis dubeyi n. sp. (Protozoa: Sarcocystidae) in the water buffalo (Bubalus bubalis). Huong LT, et al. **J Parasitol** 1999 Feb;85(1):102–4

Multiple DNA markers differentiate Sarcocystis neurona and Sarcocystis falcatula. Tanhauser SM, et al. **J Parasitol** 1999 Apr;85(2):221–8

Sarcocystis atheridis sp. nov., a new sarcosporidian coccidium from Nitsche's bush viper, Atheris nitschei Tornier, 1902, from Uganda. Slapeta JR, et al. **Parasitol Res** 1999 Aug;85(8–9):758–64

Development of Sarcocystis falcatula in cell cultures demonstrates that it is different from Sarcocystis neurona. Lindsay DS, et al. **Parasitology** 1999 Mar;118 (Pt 3):227–33

Prevalence of Sarcocystis spp. in water buffaloes in Vietnam. Huong LT. **Vet Parasitol** 1999 Sep 15;86(1):33–9

DRUG EFFECTS

Determination of the activity of pyrimethamine, trimethoprim, sulfonamides, and combinations of pyrimethamine and sulfonamides against Sarcocystis neurona in cell cultures. Lindsay DS, et al. **Vet Parasitol** 1999 Apr 12;82(3):205–10

ENZYMOLOGY

Isolation and characterization of a cDNA clone encoding a thiol proteinase of Sarcocystis muris cyst mero' zoites (Apicomplexa). Hansner T, et al. **Parasitol Res** 1999 Aug; 85(8–9):749–57

GENETICS

Comparison of the internal transcribed spacer, ITS–1, from Sarcocystis falcatula isolates and Sarcocystis neurona. Marsh AE, et al. **J Parasitol** 1999 Aug;85(4):750–7

GROWTH & DEVELOPMENT

Isolation in immunodeficient mice of Sarcocystis neurona from opossum (Didelphis virginiana) faeces, and its differentiation from Sarcocystis falcatula. Dubey JP, et al. **Int J Parasitol** 1998 Dec;28(12):1823–8

Identification of a subpopulation of merozoites of Sarcocystis singaporensis that invades and partially develops inside muscle cells in vitro. Jäkel T, et al. **Parasitology** 1999 Mar; 118 (Pt 3):235–44

Development of Sarcocystis falcatula in cell cultures demonstrates that it is different from Sarcocystis neurona. Lindsay DS, et al. **Parasitology** 1999 Mar;118 (Pt 3):227–33

IMMUNOLOGY

Effects of blood contamination of cerebrospinal fluid on western blot analysis for detection of antibodies against Sarcocystis neurona and on albumin quotient and immunoglobulin G index in horses. Miller MM, et al. **J Am Vet Med Assoc** 1999 Jul 1;215(1):67–71

Prevalence of antibodies to Sarcocystis neurona, Toxoplasma gondii and Neospora caninum in horses from Argentina. Dubey JP, et al. **Vet Parasitol** 1999 Sep 15;86(1):59–62

ISOLATION & PURIFICATION

Meningoencephalitis due to a Sarcocystis neurona–like protozoan in Pacific harbor seals (Phoca vitulina richardsi). Lapointe JM, et al. **J Parasitol** 1998 Dec;84(6):1184–9

Recovery of Sarcocystis oocysts from a free–ranging wild dog (Lycaon pictus) [editorial] Penzhorn BL, et al. **J S Afr Vet Assoc** 1998 Jun;69(2):42

First isolation of Sarcocystis hominis from cattle in Japan. Saito M, et al. **J Vet Med Sci** 1999 Mar;61(3):307–9

Sarcocystis species in skeletal muscle of otter (Lutra lutra). Wahlström K, et al. **Parasitology** 1999 Jan;118 (Pt 1):59–62

Prevalence of Sarcocystis spp. in meat–producing animals in Iraq. Latif BM, et al. **Vet Parasitol** 1999 Jul;84(1–2):85–90

Acute fulminant sarcocystosis in a captive–born rhesus macaque. Lane JH, et al. **Vet Pathol** 1998 Nov; 35(6):499–505

PATHOGENICITY

Are Sarcocystis neurona and Sarcocystis falcatula synonymous? A horse infection challenge. Cutler TJ, et al. **J Parasitol** 1999 Apr;85(2):301–5

The severe combined immunodeficient mouse as a definitive host for Sarcocystis muris. Koudela B, et al. **Parasitol Res** 1999 Aug;85(8–9):737–42

PHYSIOLOGY

Phylogenetic analysis of Sarcocystis spp. of mammals and reptiles supports the coevolution of Sarcocystis spp. with their final hosts. Doležel D, et al. **Int J Parasitol** 1999 May; 29(5):795–8

Heteroxenous coccidia increase the predation risk of parasitized rodents. Voříšek P, et al. **Parasitology** 1998 Dec; 117 (Pt 6):521–4

ULTRASTRUCTURE

Ultrastructure of shizonts and merozoites of Sarcocystis falcatula in the lungs of budgerigars (Melopsittacus undulatus). Speer CA, et al. **J Parasitol** 1999 Aug; 85(4):630–7

SARCOCYSTOSIS

PARASITOLOGY

Isolation in immunodeficient mice of Sarcocystis neurona from opossum (Didelphis virginiana) faeces, and its differentiation from Sarcocystis falcatula. Dubey JP, et al. **Int J Parasitol** 1998 Dec;28(12):1823–8

PHYSIOPATHOLOGY

Induction of tumor necrosis factor alpha and nitric oxide in rabbits inoculated with a cyst extract of Sarcocystis cruzi. Nakamura Y, et al. **Vet Parasitol** 1999 Sep 1; 85(4):235–43

VETERINARY

Blood clotting disorders during experimental sarcocystiosis in calves. Daugschies A, et al. **Int J Parasitol** 1998 Aug; 28(8):1187–94

Effects of blood contamination of cerebrospinal fluid on western blot analysis for detection of antibodies against Sarcocystis neurona and on albumin quotient and immunoglobulin G index in horses. Miller MM, et al. **J Am Vet Med Assoc** 1999 Jul 1;215(1):67–71

Fatal visceral and neural sarcocystosis in dogs. Trasti SL, et al. **J Comp Pathol** 1999 Aug;121(2):179–84

Are Sarcocystis neurona and Sarcocystis falcatula synonymous? A horse infection challenge. Cutler TJ, et al. **J Parasitol** 1999 Apr;85(2):301–5

Isolation of a third species of Sarcocystis in immunodeficient mice fed feces from opossums (Didelphis virginiana) and its differentiation from Sarcocystis falcatula and Sarcocystis neurona. Dubey JP, et al. **J Parasitol** 1998 Dec; 84(6):1158–64

Prevalence of Sarcocystis kirkpatricki Sarcocysts in the central nervous system and striated muscles of raccoons from the Eastern United States. Hamir AN, et al. **J Parasitol** 1999 Aug;85(4):748–50

Sarcocystis dubeyi n. sp. (Protozoa: Sarcocystidae) in the water buffalo (Bubalus bubalis). Huong LT, et al. **J Parasitol** 1999 Feb;85(1):102–4

Meningoencephalitis due to a Sarcocystis neurona–like protozoan in Pacific harbor seals (Phoca vitulina richardsi). Lapointe JM, et al. **J Parasitol** 1998 Dec;84(6):1184–9

Ultrastructure of shizonts and merozoites of Sarcocystis falcatula in the lungs of budgerigars (Melopsittacus undulatus). Speer CA, et al. **J Parasitol** 1999 Aug; 85(4):630–7

Multiple DNA markers differentiate Sarcocystis neurona and Sarcocystis falcatula. Tanhauser SM, et al. **J Parasitol** 1999 Apr;85(2):221–8

Recovery of Sarcocystis oocysts from a free–ranging wild dog (Lycaon pictus) [editorial] Penzhorn BL, et al. **J S Afr Vet Assoc** 1998 Jun;69(2):42

Prevalence of Sarcocystis spp. in water buffaloes in Vietnam. Huong LT. **Vet Parasitol** 1999 Sep 15;86(1):33–9

Prevalence of Sarcocystis spp. in meat–producing animals in Iraq. Latif BM, et al. **Vet Parasitol** 1999 Jul;84(1–2):85–90

Acute fulminant sarcocystosis in a captive–born rhesus macaque. Lane JH, et al. **Vet Pathol** 1998 Nov; 35(6):499–505

[Equine protozoal myeloencephalitis (EPM) in the Netherlands?] Boersema JH. **Tijdschr Diergeneeskd** 1999 May 1;124(9):288–9 **(Dut)**

SARCODINA

CYTOLOGY

Reactivatable cell models of the giant amoeba Reticulomyxa. Koonce MP, et al. **Methods Enzymol** 1998;298:400–9

METABOLISM

Evidence for a direct conversion between two tubulin polymers--microtubules and helical filaments--in the foraminiferan, Allogromia laticollaris. Welnhofer EA, et al. **Cell Motil Cytoskeleton** 1998;41(2):107–16

SARCOIDOSIS

see related

KVEIM TEST

Sarcoidosis in children. Epidemiology in Danes, clinical features, diagnosis, treatment and prognosis. Milman N, et al. **Acta Paediatr** 1998 Aug;87(8):871–8

Sarcoidosis: a primary care review. Belfer MH, et al. **Am Fam Physician** 1998 Dec;58(9):2041–50, 2055–6 (10 ref.)

Sarcoidosis: a pediatric perspective. Shetty AK, et al. **Clin Pediatr (Phila)** 1998 Dec;37(12):707–17 (126 ref.)

Update on sarcoidosis. Jones RE, et al. **Curr Opin Rheumatol** 1999 Jan;11(1):83–7 (37 ref.)

Animal models of granulomatous inflammation. Kunkel SL, et al. **Semin Respir Infect** 1998 Sep;13(3):221–8 (56 ref.)

Extrapulmonary sarcoidosis. Lynch JP 3rd, et al. **Semin Respir Infect** 1998 Sep;13(3):229–54 (261 ref.)

[Late relapse of sarcoidosis. Report of 3 cases] Benzaquen–Forner H, et al. **Rev Pneumol Clin** 1998 Feb; 54(1):27–9 (Eng. Abstr.) **(Fre)**

[Sarcoidosis. Diagnosis, course, treatment] Bensiali A, et al. **Rev Prat** 1999 Jun 1;49(11):1227–32 **(Fre)**

[Sarcoidosis–lymphoma syndrome] Nitta M. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):323–5 (11 ref.) **(Jpn)**

[Clinical presentation, course and treatment of recurrent sarcoidosis: followup data] Ozerova LV, et al. **Probl Tuberk** 1999;(1):47–51 (Eng. Abstr.) **(Rus)**

CHEMICALLY INDUCED

[Löfgren syndrome after silicone breast prosthesis implantation] Barzó P, et al. **Orv Hetil** 1998 Sep 27; 139(39):2323–6 (Eng. Abstr.) **(Hun)**

COMPLICATIONS

Gastric ulceration due to sarcoidosis. Low VH, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):251–2

Sarcoidosis and vasculitis [letter] Shetty AK, et al. **Am Fam Physician** 1999 Sep 1;60(3):763–4

Sarcoidosis presenting as granulomatous colitis. Dumot JA, et al. **Am J Gastroenterol** 1998 Oct;93(10):1949–51

Lacrimal bypass surgery in patients with sarcoidosis. Chapman KL, et al. **Am J Ophthalmol** 1999 Apr; 127(4):443–6

Bilateral optic disk edema caused by sarcoidosis mimicking pseudotumor cerebri. Pelton RW, et al. **Am J Ophthalmol** 1999 Feb;127(2):229–30

Central alveolar hypoventilation in neurosarcoidosis. Kim H, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1467–8

Hepatopulmonary syndrome associated with sarcoidosis of the liver: case report. Ganguli SN, et al. **Can Assoc Radiol J** 1998 Dec;49(6):411–4

Sarcoidosis presenting as palmar erythema. Cliff S, et al. **Clin Exp Dermatol** 1998 May;23(3):123–4

Myotonia associated with sarcoidosis: marked exacerbation with pravastatin. Riggs JE, et al. **Clin Neuropharmacol** 1999 May–Jun;22(3):180–1

Growth hormone deficiency in a child with sarcoidosis [letter] Basdemir D, et al. **Clin Pediatr (Phila)** 1999 May; 38(5):315–6

Sarcoidosis with nasal obstruction and septal perforation. Baum ED, et al. **Ear Nose Throat J** 1998 Nov;77(11):896–8, 900–2

Guess what! Cutaneous sarcoidosis, Sjögren's syndrome and autoimmune thyroiditis associated with hepatitis C virus infection. Belgodere X, et al. **Eur J Dermatol** 1999 Apr–May;9(3):235–6

Hepatic sarcoidosis complicated by hepatocellular carcinoma. Wong VS, et al. **Eur J Gastroenterol Hepatol** 1999 Mar;11(3):353–5

Intermittent azoospermia associated with epididymal sarcoidosis. Svetec DA, et al. **Fertil Steril** 1998 Oct; 70(4):777–9

Association of Crohn's ileitis with pulmonary and cutaneous sarcoidosis in a Japanese patient. Takashima M, et al. **Gastrointest Endosc** 1998 Dec;48(6):637–9

Recurrent fainting, dysesthesia, and impotence. Rayder R, et al. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):52c–52d

Erythema nodosum and associated diseases. A study of 129 cases. Cribier B, et al. **Int J Dermatol** 1998 Sep;37(9):667–72

Sarcoidosis associated with acute renal failure and increased levels of interleukin–6 in urine. Maniwa K, et al. **Intern Med** 1998 Sep;37(9):757–61

Sarcoidosis in a patient with AIDS: a manifestation of immune restoration syndrome. Mirmirani P, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):285–6

Carcinoma in villous adenoma of ascending colon associated with sarcoid reaction in the regional lymph nodes. Nozoe

T, et al. **J Clin Gastroenterol** 1999 Jun;28(4):377–9
Sarcoidosis, sclerosing cholangitis, and chronic atrophic autoimmune gastritis: a case of infiltrative sclerosing cholangitis. Romero-Gómez M, et al.
J Clin Gastroenterol 1998 Sep;27(2):162–5
Systemic sarcoidosis presenting with multiple tattoo granulomas and an extra-tattoo cutaneous granuloma. Papageorgiou PP, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):51–3
Lytic skull lesions and symptomatic hypercalcaemia in bone marrow sarcoidosis [letter] Slart RM, et al.
J Intern Med 1999 Jul;246(1):117–20
Pediatric sarcoidosis presenting with hypertensive encephalopathy. Jungthirapanich J, et al.
J Med Assoc Thai 1998 Nov;81(11):911–7
A case of sarcoidosis associated with chronic eosinophilic pneumonia. Tani K, et al. **J Med Invest** 1998 Aug; 45(1–4):131–6
Systemic sarcoidosis: a case with a focal hydrocephalus and elevated lysozyme and angiotensin-converting enzyme in the cerebrospinal fluid [letter] Nakamura A, et al.
J Neurol 1999 Apr;246(4):320–2
Histopathological findings in proliferative membrane from a patient with sarcoid uveitis. Miyao A, et al.
Jpn J Ophthalmol 1999 May–Jun;43(3):209–12
Sarcoidosis with selective involvement of a second liver allograft: report of a case and review of the literature. Hunt J, et al. **Mod Pathol** 1999 Mar;12(3):325–8 (12 ref.)
Polyradiculopathy in sarcoidosis. Koffman B, et al.
Muscle Nerve 1999 May;22(5):608–13 (38 ref.)
Steroid-sensitive nephrotic syndrome, sarcoidosis and thyroiditis--a new syndrome? Nishiki M, et al.
Nephrol Dial Transplant 1999 Aug;14(8):2008–10
Membranous nephropathy associated with childhood sarcoidosis. Dimitriades C, et al. **Pediatr Nephrol** 1999 Jun; 13(5):444–7 (16 ref.)
Sarcoid tenosynovitis. Report of a case [letter] el Hassani S, et al. **Rev Rhum Engl Ed** 1999 May;66(5):296–7
Sarcoidosis with palpable nodular myositis, periostitis and large-vessel vasculitis stimulating Takayasu's arteritis [letter] Korkmaz C, et al. **Rheumatology (Oxford)** 1999 Mar; 38(3):287–8
Life-threatening situations in sarcoidosis. James DG.
Sarcoidosis Vasc Diffuse Lung Dis 1998 Sep;15(2):134–9 (13 ref.)
Association between chronic lymphocytic leukemia and sarcoidosis: clinical value of bronchoalveolar lavage. Marruchella A, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):101–3
Peritoneal sarcoidosis: case report and review of the literature. Uthman IW, et al. **Semin Arthritis Rheum** 1999 Apr;28(5):351–4 (21 ref.)
Oral ulcerations in a patient with sarcoidosis. Morrow JD.
Tenn Med 1999 Feb;92(2):63–4
Antiphospholipid antibody syndrome in a patient with neurosarcoidosis. Satti SD, et al. **Vasc Med** 1999;4(1):37–9
[Cardiogenic shock presenting a cardiac sarcoidosis. Apropos of a case] Messas E, et al. **Arch Mal Coeur Vaiss** 1998 Jun;91(6):771–6 (Eng. Abstr.) **(Fre)**
[Lacrimal gland hypertrophy: revealing sarcoidosis] Ribeaudeau-Saindelle F, et al. **J Fr Ophtalmol** 1999 Jun–Jul;22(6):666–70 (Eng. Abstr.) **(Fre)**
[Breast adenocarcinoma and sarcoidosis: a fortuitous association? (letter)] Bachmeyer C, et al. **Presse Med** 1998 May 23–30;27(19):911 **(Fre)**
[Pseudo-sarcoidotic lymphoma and nephrotic syndrome in a hepatitis C-carrying female patient (letter)] Morand JJ, et al. **Presse Med** 1998 Apr 11;27(14):668 **(Fre)**
[Association of Sweet syndrome, sarcoidosis and toxoplasmosis (letter)] Pagnoux C, et al. **Presse Med** 1999 Mar 6;28(9):479 **(Fre)**
[Renal sarcoidosis with a pseudotumoral pyelic localization] Schillinger F, et al. **Presse Med** 1999 Apr 3;28(13):683–5 (Eng. Abstr.) **(Fre)**
[Otolaryngological manifestations of sarcoidosis. Report of 10 cases and review of the literature] Houliat T, et al.
Rev Laryngol Otol Rhinol (Bord) 1998;119(1):19–23 (20 ref.) (Eng. Abstr.) **(Fre)**
[Polyradiculoneuritis and sarcoidosis (letter)] Fredj M, et al.
Rev Med Interne 1998 Oct;19(10):745–6 **(Fre)**
[AA amyloidosis complicating sarcoidosis] Levasseur R, et al. **Rev Med Interne** 1999 Feb;20(2):168–70 (Eng. Abstr.) **(Fre)**
[Cicatricial alopecia, a rare manifestation of sarcoidosis (letter)] Sibaud V, et al. **Rev Med Interne** 1999 Jul; 20(7):625–8 **(Fre)**
[Sarcoidosis of the central nervous system] Valeyre D, et al. **Rev Med Interne** 1998 Jun;19(6):409–14 (38 ref.) (Eng. Abstr.) **(Fre)**
[Cardiac sarcoidosis complicated by multivessel coronary spasm: a case report] Anzai H, et al. **J Cardiol** 1999 Aug; 34(2):85–91 (Eng. Abstr.) **(Jpn)**
[Lung cancer accompanying sarcoidosis with diffuse myocardial involvement] Itoh T, et al.
Nihon Kokyuki Gakkai Zasshi 1998 Dec;36(12):1066–70 (Eng. Abstr.) **(Jpn)**
[Primary lung cancer (adenocarcinoma) associated with cardiac sarcoidosis] Mizutani H, et al.
Nihon Kokyuki Gakkai Zasshi 1999 Jun;37(6):489–94 (Eng. Abstr.) **(Jpn)**
[Sarcoidosis with hypercalcemia, urolithiasis, renal insufficiency, and heart failure] Nagayama M, et al.
Nihon Kokyuki Gakkai Zasshi 1999 Jul;37(7):571–6 (Eng. Abstr.) **(Jpn)**
[Nervous system diseases associated with sarcoidosis] Iizuka T, et al. **Nippon Naika Gakkai Zasshi** 1999 May 10; 88(5):808–17 (5 ref.) **(Jpn)**
[A case of primary Sjögren's syndrome presenting with aseptic meningoencephalitis associated with sarcoidosis] Nishida H, et al. **No To Shinkei** 1999 Apr;51(4):349–52 (Eng. Abstr.) **(Jpn)**
[A case of Churg-Strauss syndrome overlapping with sarcoidosis] Ohori N, et al. **Rinsho Shinkeigaku** 1998 Jul; 38(7):631–6 (Eng. Abstr.) **(Jpn)**
[Symptomatic eye changes during the course of sarcoidosis] Cieślicka E, et al. **Klin Oczna** 1998;100(3):179–83 (28 ref.) (Eng. Abstr.) **(Pol)**
[Sudden hearing loss and uveitis as a form of presentation of neurosarcoidosis] García Berrocal JR, et al.
Acta Otorrinolaringol Esp 1998 Aug–Sep;49(6):488–90 (Eng. Abstr.) **(Spa)**
[Sarcoidosis in a patient with systemic sclerosis (letter)] Castillo Palma MJ, et al. **Med Clin (Barc)** 1999 May 1; 112(15):597–8 **(Spa)**

DIAGNOSIS

Sarcoidosis in children [letter] Shetty AK, et al.
Acta Paediatr 1999 Feb;88(2):235 (9 ref.)
MR imaging changes of lumbar vertebral sarcoidosis. Fisher AJ, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):354–6 (8 ref.)
Myocardial sarcoidosis in forensic medicine. Thomsen TK, et al. **Am J Forensic Med Pathol** 1999 Mar;20(1):52–6
Conjunctival deposits as an initial manifestation of sarcoidosis. Dithmar S, et al. **Am J Ophthalmol** 1999 Sep; 128(3):361–2
A case series of ocular disease as the primary manifestation in sarcoidosis. Sivakumar M, et al.
Ann Acad Med Singapore 1998 Jul;27(4):560–6 (16 ref.)
Unusual pediatric presentations of sarcoidosis [letter; comment] Needles CF. **Arch Pediatr Adolesc Med** 1998 Oct;152(10):1037. Comment on: Arch Pediatr Adolesc Med 1998 Apr;152(4):410–1.
Diagnosing the systemic associations of anterior uveitis. Smith JR, et al. **Aust N Z J Ophthalmol** 1998 Nov; 26(4):319–26 (36 ref.)
Spinal cord sarcoidosis presenting as an intramedullary mass: a case report. Wang PY.
Chung Hua I Hsueh Tsa Chih (Taipei) 1999 Apr;62(4):250–4
Neurosarcoidosis presenting as a large supraseallar mass. Magnetic resonance imaging findings. Bakshi R, et al.
Clin Imaging 1998 Sep–Oct;22(5):323–6
Löfgren's syndrome as the first manifestation of acute infection due to Chlamydia pneumoniae: a prospective study. Marie I, et al. **Clin Infect Dis** 1999 Mar;28(3):691–2
Clinical significance of gadolinium-DTPA-enhanced MRI for detection of myocardial lesions in a patient with sarcoidosis. Inoue S, et al. **Clin Radiol** 1999 Jan;54(1):70–2
Thyroid function and autoimmunity in sarcoidosis: a case-control study. Ilias I, et al. **Croat Med J** 1998 Dec; 39(4):404–6
Renal granulomatous sarcoidosis in childhood: a report of 11 cases and a review of the literature. Coutant R, et al. **Eur J Pediatr** 1999 Feb;158(2):154–9 (35 ref.)
MR imaging of muscular sarcoidosis after steroid therapy. Otake S, et al. **Eur Radiol** 1998;8(9):1651–3
Recurrent fainting, dysesthesia, and impotence. Rayder R, et al. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):52c–52d
Striking, asymptomatic skin lesions in a 42-year-old man. Vaisman D, et al. **Hosp Pract (Off Ed)** 1998 Dec 15; 33(12):101–2, 107
Diagnostic criteria for sarcoidosis of the sinuses. deShazo RD, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):789–95
Annular vasculitis in association with sarcoidosis. Cecchi R, et al. **J Dermatol** 1999 May;26(5):334–6
Hepatobiliary images. Liver sarcoidosis. Okuda K, et al.
J Gastroenterol Hepatol 1998 Jul;13(7):744, 751
Extensive nodular sarcoidosis in the hand. Kwon B, et al.
J Hand Surg [Br] 1997 Oct;22(5):676–8
Sarcoid tumour: continuing diagnostic problems in the MRI era. Larner AJ, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):510–2
Sarcoidosis of the cauda equina mimicking leptomeningeal malignancy. Abrey LE, et al. **J Neurooncol** 1998 Sep; 39(3):261–5 (11 ref.)
The many faces of sarcoidosis. Izer JD, et al.
J Neuroophthalmol 1998 Dec;18(4):268–9
Sarcoidosis in preschool children with hepatic involvement mimicking juvenile rheumatoid arthritis. Sarigol SS, et al.
J Pediatr Gastroenterol Nutr 1999 May;28(5):510–2
Sarcoidosis presenting as multilobular limbal corneal nodules. Hegab SM, et al. **J Pediatr Ophthalmol Strabismus** 1998 Nov–Dec;35(6):323–6
Symptomatic bone lesion of the tibia head as onset manifestation of sarcoidosis. Blank NM, et al.
J Rheumatol 1999 Apr;26(4):936–7
Spinal cord granulomatous vasculitis: an unusual clinical presentation of sarcoidosis. Diri E, et al. **J Rheumatol** 1999 Jun;26(6):1408–10
Role of serum angiotensin converting enzyme in sarcoidosis. Khan AH, et al. **JPMA J Pak Med Assoc** 1998 May; 48(5):131–3
A 4-year-old with a rash. Falcini F, et al. **Lancet** 1999 Jul 3;354(9172):40
Blau's syndrome and sarcoidosis [letter] James G. **Lancet** 1999 Sep 18;354(9183):1035
Hypercalcaemia in sarcoidosis. Young C, et al. **Lancet** 1999 Jan 30;353(9150):374
Determination of angiotensin-converting enzyme levels in cerebrospinal fluid is not a useful test for the diagnosis of neurosarcoidosis [letter] Dale JC, et al. **Mayo Clin Proc** 1999 May;74(5):535
Sarcoidosis presenting as a tumorlike muscular lesion. Case report and review of the literature. Zisman DA, et al.
Medicine (Baltimore) 1999 Mar;78(2):112–22 (68 ref.)
Clinical presentation of sarcoidosis in The Netherlands an epidemiological study. Wirnsberger RM, et al.
Neth J Med 1998 Aug;53(2):53–60
Diagnostic role of Mantoux test site biopsy in neurosarcoidosis. Mankodi AK, et al. **Neurology** 1998 Oct; 51(4):1216–8 (9 ref.)
Indocyanine green angiographic features in ocular sarcoidosis. Wolfensberger TJ, et al. **Ophthalmology** 1999 Feb;106(2):285–9
Clinical photographs. Laryngeal sarcoidosis. Josephson GD, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):134–5
Neurosarcoidosis: An unusual case presenting as a cerebellopontine angle tumor. Wani MK, et al.
Otolaryngol Head Neck Surg 1999 Sep;121(3):301–2
The pitfall of silent neurosarcoidosis. Koné-Paut I, et al.
Pediatr Neurol 1999 Mar;20(3):215–8
Central nervous system sarcoidosis--diagnosis and management. Zajicek JP, et al. **QJM** 1999 Feb;92(2):103–17
Neuroradiology case of the day. Neurosarcoidosis. Hollander MD, et al. **Radiographics** 1998 Nov–Dec;18(6):1608–11
Sarcoidosis of the eye, orbit, and central nervous system. Role of MR imaging. Mafee MF, et al.
Radiol Clin North Am 1999 Jan;37(1):73–87, x (53 ref.)
A case of lymphomatoid granulomatosis mimicking sarcoidosis. Fitch PS, et al. **Respir Med** 1998 Jul;92(7):966–8
The nasal bones, an uncommon localization of sarcoidosis. Report of a new case [letter] Allali F, et al.
Rev Rhum Engl Ed 1998 Jul–Sep;65(7–9):515–7
Sicca syndrome in patients with sarcoidosis. Drosos AA, et al. **Rheumatol Int** 1999;18(5–6):177–80
Sarcoidosis presenting with peripheral lymphadenopathy [letter] Handa R, et al.
Sarcoidosis Vasc Diffuse Lung Dis 1998 Sep;15(2):192
Coexisting Sjögren's syndrome and sarcoidosis in the lung. Lois M, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):31–40
Sclerotic lesions of the cervical spine in sarcoidosis. Jelinek JS, et al. **Skeletal Radiol** 1998 Dec;27(12):702–4
Whipple's disease presenting as sarcoidosis and valvular heart disease. Wolfert AL, et al. **South Med J** 1999 Aug; 92(8):820–5 (33 ref.)
Solitary sarcoid granuloma of the cerebellopontine angle: a case report. Elias WJ, et al. **Surg Neurol** 1999 Feb; 51(2):185–90
[Sarcoidosis of the liver, a granulomatous process with an unclear prognosis] Fryšák Z, et al. **Vnitr Lek** 1998 Aug; 44(8):472–4 (Eng. Abstr.) **(Cze)**
[Sarcoidosis and spondyloarthropathy. Apropos of a case (letter)] Garazi S, et al. **Ann Med Interne (Paris)** 1998 Sep; 149(5):303–4 **(Fre)**
[Sarcoidosis gastropathy: diagnosis and contribution of echo-endoscopy] Marcato N, et al.
Gastroenterol Clin Biol 1999 Mar;23(3):394–7 (Eng. Abstr.) **(Fre)**
[Manifestations in the posterior segment during sarcoidosis] Razavi S, et al. **J Fr Ophtalmol** 1999 Feb;22(1):110–21 (97 ref.) **(Fre)**
[Lacrimal gland hypertrophy: revealing sarcoidosis] Ribeaudeau-Saindelle F, et al. **J Fr Ophtalmol** 1999 Jun–Jul;22(6):666–70 (Eng. Abstr.) **(Fre)**
[Cardiac sarcoidosis in the Principal Hospital in Dakar: apropos of a case (letter)] Wade B, et al.
Med Trop (Mars) 1999;59(1):103 **(Fre)**
[Neurologic involvement in sarcoidosis. Federation of Systemic Diseases of Grenoble] Pavese P, et al.
Presse Med 1999 Jan 30;28(4):168–72 (Eng. Abstr.) **(Fre)**
[Abscess waltz in a patient with a kidney transplant] Frimat L, et al. **Rev Med Interne** 1998;19 Suppl 2:255s–257s **(Fre)**
[Cicatricial alopecia, a rare manifestation of sarcoidosis (letter)] Sibaud V, et al. **Rev Med Interne** 1999 Jul; 20(7):625–8 **(Fre)**
[Irritation... (comment)] Foncin JF. **Rev Neurol (Paris)** 1998 Jul;154(6–7):551. Comment on: Rev Neurol (Paris) 1997 Dec;153(12):771–4. **(Fre)**
[Sarcoidosis. Diagnosis, course, treatment] Bensiali A, et al.
Rev Prat 1999 Jun 1;49(11):1227–32 **(Fre)**
[Skin manifestations of sarcoidosis: diagnostic problems] Benchikhi H, et al. **Tunis Med** 1998 Feb;76(2):1071–5 (Eng. Abstr.) **(Fre)**
[Unusual case of disseminated sarcoidosis with prominent gastrointestinal symptoms] Klebl FH, et al.
Dtsch Med Wochenschr 1999 Jan 22;124(3):39–44 (Eng. Abstr.) **(Ger)**
[Secondary hypersplenism syndrome. Etiology of thrombo- and leukocytopenia in sarcoidosis?] Koehler U, et al.
Internist (Berl) 1998 Nov;39(11):1181–4 **(Ger)**
[Sudden deafness, peripheral facial paralysis and vertigo] Blank N, et al. **Med Klin** 1998 Dec 15;93(12):732 **(Ger)**
[Serum adenosine deaminase as a parameter for activity in

sarcoidosis] Wetzel E, et al. **Pneumologie** 1999 Jul; 53(7):323–8 (Eng. Abstr.) **(Ger)**

[Holter electrocardiogram monitoring as an indicator of cardiac involvement of sarcoidosis] Kashiwabara K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jan;37(1):45–50 (Eng. Abstr.) **(Jpn)**

[Sarcoidosis in the scar after a perineal surgery] Cyrkowicz A, et al. **Ginekol Pol** 1997 Sep;68(9):444–6 (Eng. Abstr.) **(Pol)**

[Diagnostic–therapeutic procedures in ocular sarcoidosis] Cieślicka E, et al. **Klin Oczna** 1998;100(3):185–8 (28 ref.) (Eng. Abstr.) **(Pol)**

[Rare forms of non–neoplastic tumors of the lacrimal gland] Stręk P, et al. **Otolaryngol Pol** 1998;52(5):593–5 (Eng. Abstr.) **(Pol)**

[Extracellular components of bronchoalveolar lavage fluid (BALF) as a marker of the activity of interstitial pulmonary diseases. III: Phospholipids to protein concentration ratio] Zielonka TM, et al. **Przegl Lek** 1999;56(2):144–7 (Eng. Abstr.) **(Pol)**

[Neurosarcoidosis presenting with transitory neurodeficit and generalized epileptic seizures associated with migraine] Dizdarevic K, et al. **Med Arh** 1998;52(3):159–62 (Eng. Abstr.) **(Scr)**

[Sudden hearing loss and uveitis as a form of presentation of neurosarcoidosis] Garcia Berrocal JR, et al. **Acta Otorrinolaringol Esp** 1998 Aug–Sep;49(6):488–90 (Eng. Abstr.) **(Spa)**

[Sarcoidosis 10 years later (editorial)] Mañá J, et al. **Med Clin (Barc)** 1999 Jun 19;113(2):54–5 (21 ref.) **(Spa)**

[Intracranial involvement in neurosarcoidosis: a report of 4 cases as initial manifestation of the disease] Ortega MD, et al. **Rev Neurol** 1999 Mar 1–15;28(5):491–4 (Eng. Abstr.) **(Spa)**

[The acute course of generalized sarcoidosis] Duzhyi ID, et al. **Lik Sprava** 1999 Apr–May;(3):145–6 **(Ukr)**

DRUG THERAPY

Cutaneous sarcoidosis: complete remission after oral isotretinoin therapy. Georgiou S, et al. **Acta Derm Venereol** 1998 Nov;78(6):457–9

Treatment of cutaneous sarcoidosis using phonophoresis. Gogstetter DS, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):767–9

Disfiguring cutaneous manifestation of sarcoidosis treated with thalidomide: a case report. Lee JB, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):835–8

Hepatic sarcoidosis and renal carcinoma. Das D, et al. **J Clin Gastroenterol** 1999 Jan;28(1):61–3

Low–dose methotrexate in the treatment of severe juvenile rheumatoid arthritis and sarcoid iritis. Shetty AK, et al. **J Pediatr Ophthalmol Strabismus** 1999 May–Jun; 36(3):125–8

Methotrexate treatment for sarcoid–associated panuveitis. Dev S, et al. **Ophthalmology** 1999 Jan;106(1):111–8

The pitfall of silent neurosarcoidosis. Koné–Paut I, et al. **Pediatr Neurol** 1999 Mar;20(3):215–8

Successful treatment of hepatic sarcoidosis with hormone replacement in a postmenopausal woman. Chida K, et al. **Respirology** 1999 Sep;4(3):259–61

Methotrexate for sarcoidosis. Baughman RP. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):147–9 (27 ref.)

A clinical approach to the use of methotrexate for sarcoidosis. Baughman RP, et al. **Thorax** 1999 Aug;54(8):742–6 (61 ref.)

[Effectiveness of thalidomide treatment during cutaneous sarcoidosis (letter)] Grasland A, et al. **Rev Med Interne** 1998 Mar;19(3):208–9 **(Fre)**

ENZYMOLOGY

Determination of angiotensin–converting enzyme levels in cerebrospinal fluid is not a useful test for the diagnosis of neurosarcoidosis [letter] Dale JC, et al. **Mayo Clin Proc** 1999 May;74(5):535

Association of heterozygote glucose–6–phosphate–dehydrogenase deficiency with more advanced disease in sarcoidosis [letter] Drent M. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):108–9

EPIDEMIOLOGY

Geographic variation in sarcoidosis in South Carolina: its relation to socioeconomic status and health care indicators. Kajdasz DK, et al. **Am J Epidemiol** 1999 Aug 1; 150(3):271–8

Sarcoidosis and cancer revisited: a long–term follow–up study of 555 Danish sarcoidosis patients. Rømer FK, et al. **Eur Respir J** 1998 Oct;12(4):906–12

Seasonal clustering of sarcoidosis presenting with erythema nodosum. Wilsher ML. **Eur Respir J** 1998 Nov; 12(5):1197–9

Ocular sarcoidosis in Kuwait with a review of literature. Hegab SM, et al. **Int Ophthalmol** 1997–98;21(5):255–60 (51 ref.)

Clinical presentation of sarcoidosis in The Netherlands an epidemiological study. Wirnsberger RM, et al. **Neth J Med** 1998 Aug;53(2):53–60

Familial sarcoidosis in Finland and Hokkaido, Japan––a comparative study. Pietinalho A, et al. **Respir Med** 1999 Jun;93(6):408–12

How common is sarcoidosis? [letter] Reich JM. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):108

ETIOLOGY

Statement on sarcoidosis. Joint Statement of the American Thoracic Society (ATS), the European Respiratory Society (ERS) and the World Association of Sarcoidosis and Other Granulomatous Disorders (WASOG) adopted by the ATS Board of Directors and by the ERS Executive Committee, February 1999. **Am J Respir Crit Care Med** 1999 Aug; 160(2):736–55 (331 ref.)

Reactivation of multisystemic sarcoidosis after immunosuppression withdrawal in a transplanted patient returning to chronic dialysis [letter] Herrero JC, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3280–1

Sarcoidosis–lymphoma syndrome in a woman with acromegaly [letter; comment] Siekierska–Hellmann M, et al. **Postgrad Med J** 1998 Jun;74(872):382. Comment on: Postgrad Med J 1997 Sep;73(863):580–2.

Epithelioid cell granulomatosis of the lung: new insights and concepts. Popper HH. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):32–46 (62 ref.)

GENETICS

Analysis of MHC encoded antigen–processing genes TAP1 and TAP2 polymorphisms in sarcoidosis. Foley PJ, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):1009–14

The role of the C–C chemokine receptor 2 gene polymorphism V64I (CCR2–64I) in sarcoidosis in a Japanese population. Hizawa N, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2021–3

Angiotensin–converting enzyme gene polymorphism and risk of sarcoidosis. Maliarik MJ, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1566–70

Sarcoidosis in monozygotic twins [letter] Swale VJ, et al. **Br J Dermatol** 1998 Aug;139(2):350–2

Genetics of sarcoidosis. Iannuzzi MC. **Monaldi Arch Chest Dis** 1998 Dec;53(6):609–13 (58 ref.)

[Familial sarcoidosis: three case reports] el Hassani S, et al. **Rev Med Interne** 1998 Mar;19(3):199–202 (Eng. Abstr.) **(Fre)**

[Sarcoidosis synchronously detected in identical twins] Nakamura H, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):406–9 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Analysis of MHC encoded antigen–processing genes TAP1 and TAP2 polymorphisms in sarcoidosis. Foley PJ, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):1009–14

Expression of mucosa–related integrin alphaEbeta7 on alveolar T cells in interstitial lung diseases. Lohmeyer J, et al. **Clin Exp Immunol** 1999 May;116(2):340–6

Thyroid function and autoimmunity in sarcoidosis: a case–control study. Ilias I, et al. **Croat Med J** 1998 Dec; 39(4):404–6

Sarcoidosis: immunopathogenetic concepts and their clinical application. Müller–Quernheim J. **Eur Respir J** 1998 Sep; 12(3):716–38 (305 ref.)

T cell receptor vbeta repertoire in bronchoalveolar lavage in Wegener's granulomatosis and sarcoidosis. Schnabel A, et al. **Int Arch Allergy Immunol** 1999 Jul;119(3):223–30

Immunophenotyping of a sarcoidal granuloma in a scar, a manifestation of a possible autoimmune process. Morhenn VB, et al. **J Cutan Med Surg** 1998 Jul;3(1):46–8

Involvement of the IP–10 chemokine in sarcoid granulomatous reactions. Agostini C, et al. **J Immunol** 1998 Dec 1;161(11):6413–20

Evidence of gastrointestinal immune reactivity in patients with sarcoidosis. Papadopoulos KI, et al. **J Intern Med** 1999 May;245(5):525–31

Anticardiolipin antibodies in childhood rheumatic disorders. Gedalia A, et al. **Lupus** 1998;7(8):551–3

Sarcoidosis with selective involvement of a second liver allograft: report of a case and review of the literature. Hunt J, et al. **Mod Pathol** 1999 Mar;12(3):325–8 (12 ref.)

Cells and cytokines involved in the pathogenesis of sarcoidosis. Moller DR. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):24–31 (59 ref.)

[Physiopathology of sarcoidosis] Delaporte E, et al. **Ann Dermatol Venereol** 1998 Nov;125(11):845–50 (32 ref.) **(Fre)**

METABOLISM

Secretion of stem cell factor by alveolar fibroblasts in interstitial lung diseases. Fireman E, et al. **Immunol Lett** 1999 Apr 15;67(3):229–36

Impaired counterregulation of glucose in a patient with hypothalamic sarcoidosis. Féry F, et al. **N Engl J Med** 1999 Mar 18;340(11):852–6

[Procollagen III in bronchoalveolar lavage fluid of patients with allergic alveolitis and sarcoidosis] Jastrzębski D, et al. **Pneumonol Alergol Pol** 1998;66(5–6):312–20 (Eng. Abstr.) **(Pol)**

MICROBIOLOGY

Identification of mycobacterial DNA in cutaneous lesions of sarcoidosis. Li N, et al. **J Cutan Pathol** 1999 Jul; 26(6):271–8

Detection of M. tuberculosis DNA in sarcoidosis: correlation with T–cell response. Grosser M, et al. **Lab Invest** 1999 Jul;79(7):775–84

Quantitative PCR of mycobacterial and propionibacterial DNA in lymph nodes of Japanese patients with sarcoidosis. Ishige I, et al. **Lancet** 1999 Jul 10;354(9173):120–3

Chlamydia pneumoniae DNA is not detectable within sarcoidosis tissue. Mills GD, et al. **Pathology** 1998 Aug; 30(3):295–8

Mycobacterium tuberculosis DNA in tissues affected by sarcoidosis. Wilsher ML, et al. **Thorax** 1998 Oct; 53(10):871–4

PATHOLOGY

Post–herpes zoster scar sarcoidosis [letter] Corazza M, et al. **Acta Derm Venereol** 1999 Jan;79(1):95

MR of CNS sarcoidosis: correlation of imaging features to clinical symptoms and response to treatment. Christoforidis GA, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):655–69

Histologic diagnostic rate of cardiac sarcoidosis: evaluation of endomyocardial biopsies. Uemura A, et al. **Am Heart J** 1999 Aug;138(2 Pt 1):299–302

Epidermal changes in cutaneous lesions of sarcoidosis. Okamoto H. **Am J Dermatopathol** 1999 Jun;21(3):229–33

Sarcoid–like pulmonary disorder in human immunodeficiency virus–infected patients receiving antiretroviral therapy. Naccache JM, et al. **Am J Respir Crit Care Med** 1999 Jun; 159(6):2009–13

Genitourinary sarcoidosis [letter] Tosolini AB, et al. **Aust N Z J Med** 1999 Apr;29(2):285–6

Diagnosis of corticosteroid resistant ocular sarcoidosis by chorioretinal biopsy [letter] Whitcup SM, et al. **Br J Ophthalmol** 1999 Apr;83(4):504–5

Sarcoidosis presenting as a testicular mass. Metcalfe MS, et al. **Br J Urol** 1998 Nov;82(5):769–70

Granulomatous interstitial nephritis in extrapulmonary sarcoidosis. Utaş C, et al. **Clin Nephrol** 1999 Apr; 51(4):252–4 (8 ref.)

Sarcoidosis with nasal obstruction and septal perforation. Baum ED, et al. **Ear Nose Throat J** 1998 Nov;77(11):896–8, 900–2

Immunohistochemical localization of somatostatin receptor sst2A in sarcoid granulomas. ten Bokum AM, et al. **Eur J Clin Invest** 1999 Jul;29(7):630–6

Annular elastolytic sarcoidosis of the face. Terui T, et al. **Eur J Dermatol** 1998 Mar;8(2):127–30

Cost–effectiveness in the diagnosis of sarcoidosis: the conjunctival biopsy. Leavitt JA, et al. **Eye** 1998;12 (Pt 6):959–62

Subcutaneous sarcoidosis following hypophysectomy for pituitary microadenoma inducing Cushing's disease [letter] Marzano AV, et al. **Int J Dermatol** 1998 Oct;37(10):798

Ichthyosiform sarcoidosis. Cather JC, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):862–5

Necrobiosis lipoidica–like skin lesions in systemic sarcoidosis. Igawa K, et al. **J Dermatol** 1998 Oct;25(10):653–6

Squamous cell carcinoma of the skin associated with sarcoid reactions in the regional lymph nodes. Setoyama M, et al. **J Dermatol** 1998 Sep;25(9):601–5

Scar sarcoidosis following herpes zoster [letter] Cecchi R, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):280–2

Ulcerative sarcoidosis [letter] Güngör E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):78–9

Nonpainful swelling of the palate and loosening of the maxillary incisors [clinical conference] Clayman L, et al. **J Oral Maxillofac Surg** 1998 Nov;56(11):1327–35

Laryngeal sarcoidosis presenting as an isolated submucosal vocal fold mass. McLaughlin RB, et al. **J Voice** 1999 Jun; 13(2):240–5

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 35–1998. A 54–year–old woman with a progressive gait disturbance and painful leg paresthesias [clinical conference] [see comments] **N Engl J Med** 1998 Nov 19;339(21):1534–41. Comment in: N Engl J Med 1999 Apr 8;340(14):1123.

Oral ulceration as a presenting sign of unknown sarcoidosis mimicking a tumour: report of 2 cases. Piattelli A, et al. **Oral Oncol** 1998 Sep;34(5):427–30

Cutaneous sarcoidosis. Wilson NJ, et al. **Postgrad Med J** 1998 Nov;74(877):649–52 (22 ref.)

Secretion of GM–CSF by inflammatory cells in the lung of patients with sarcoidosis. Itoh A, et al. **Respirology** 1998 Dec;3(4):247–51

Defining organ involvement in sarcoidosis: the ACCESS proposed instrument. ACCESS Research Group. A Case Control Etiologic Study of Sarcoidosis. Judson MA, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):75–86 (115 ref.)

Imaging features of subcutaneous sarcoidosis. Shinozaki T, et al. **Skeletal Radiol** 1998 Jul;27(7):359–64

[Granulomatous mycosis fungoides histologically simulating cutaneous sarcoidosis] Maillard H, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):912–5 (Eng. Abstr.) **(Fre)**

[Unique medullary neurosarcoidosis] Obadia M, et al. **Rev Neurol (Paris)** 1999 Jan;155(1):46–7 **(Fre)**

[Granulomatous hepatitis and myelitis: an unusual manifestation of extrapulmonary sarcoidosis] Trenn G, et al. **Z Gastroenterol** 1999 Feb;37(2):159–63 (Eng. Abstr.) **(Ger)**

[A case of small pancreatic cancer with sarcoid reaction] Ozeki Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Mar; 96(3):310–3 **(Jpn)**

[Breast sarcoidosis] Batova EV, et al. **Probl Tuberk** 1999; (4):38–9 **(Rus)**

PHYSIOPATHOLOGY

Regulation of alveolar macrophage-T cell interactions during Th1-type sarcoid inflammatory process. Agostini C, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L240-50

Improvement of sarcoidosis under therapy with interferon-alpha 2b for chronic hepatitis B virus infection [letter; comment] Luers C, et al. **J Hepatol** 1999 Feb; 30(2):347. Comment on: J Hepatol 1998 Jun;28(6):1058-63.

Chronological changes in brain MRI, SPECT, and EEG in neurosarcoidosis with stroke-like episodes. Matsumoto K, et al. **Psychiatry Clin Neurosci** 1998 Dec;52(6):629-33

[Physiopathology of sarcoidosis] Delaporte E, et al. **Ann Dermatol Venereol** 1998 Nov;125(11):845-50 (32 ref.) **(Fre)**

[Sarcoidosis and pregnancy. A retrospective study of 11 cases] Chapelon Abric C, et al. **Rev Med Interne** 1998 May; 19(5):305-12 (Eng. Abstr.) **(Fre)**

[Renal manifestations of sarcoidosis. A report of nine cases] Duvic C, et al. **Rev Med Interne** 1999 Mar;20(3):226-33 (Eng. Abstr.) **(Fre)**

PSYCHOLOGY

Impairment of quality of life: rheumatoid arthritis versus sarcoidosis [see comments] Wirnsberger RM, et al. **Neth J Med** 1999 Mar;54(3):86-95. Comment in: Neth J Med 1999 Mar;54(3):83-5.

Quality of life in sarcoidosis: a comparison between members of a patient organisation and a random sample. De Vries J, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep; 15(2):183-8

RADIOGRAPHY

Sarcoidosis of the breast presenting as a spiculated lesion. Kirshy D, et al. **AJR Am J Roentgenol** 1999 Feb; 172(2):554-5

Sarcoidosis of the ureter. Mariano RT, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1431

The "fairy ring": a new radiographic finding in sarcoidosis. Marlow TJ, et al. **Chest** 1999 Jan;115(1):275-6

Sarcoidosis associated with multiple large pulmonary nodules. Kurogouchi F, et al. **Respirology** 1998 Dec; 3(4):273-6

Long-term radiographic follow-up in a patient with osteosclerotic sarcoidosis of the spine and pelvis. Franco M, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):586-90 (17 ref.)

Imaging features of subcutaneous sarcoidosis. Shinozaki T, et al. **Skeletal Radiol** 1998 Jul;27(7):359-64

Sarcoidosis and the pancreas. Siavelis HA, et al. **Surgery** 1999 Apr;125(4):456-61 (32 ref.)

[Hepato-splenic sarcoidosis] Bruel JM. **J Radiol** 1998 Dec; 79(12):1526-7 **(Fre)**

RADIONUCLIDE IMAGING

Seminoma and sarcoidosis: a cause for false positive mediastinal uptake in PET? [letter; comment] Muggia FM, et al. **Ann Oncol** 1998 Aug;9(8):924. Comment on: Ann Oncol 1998 Mar;9(3):321-5.

Multiple extrapulmonary sites of accumulation of Ga-67 citrate in sarcoidosis. Fukumitsu N, et al. **Clin Nucl Med** 1999 Jul;24(7):532

Somatostatin receptor imaging in patients with sarcoidosis. Kwekkeboom DJ, et al. **Eur J Nucl Med** 1998 Sep; 25(9):1284-92

[Usefulness of 18F-FDG PET for diagnosis of cardiac sarcoidosis] Okumura W, et al. **Kaku Igaku** 1999 May; 36(4):341-8 (Eng. Abstr.) **(Jpn)**

SURGERY

Endoscopic management in symptomatic gastric sarcoidosis. Espinel J, et al. **Endoscopy** 1999 Jun;31(5):S35

Surgical management for instability and paraplegia caused by spinal sarcoidosis. A case report. Tzagarakis GP, et al. **Spine** 1998 Aug 1;23(15):1711-4 (24 ref.)

[Sarcoidosis of the paranasal sinuses] Stankiewicz W, et al. **Otolaryngol Pol** 1998;52(6):727-30 (Eng. Abstr.) **(Pol)**

THERAPY

The clinical management of sarcoidosis. A 50-year experience at the Johns Hopkins Hospital. Johns CJ, et al. **Medicine (Baltimore)** 1999 Mar;78(2):65-111

Sarcoidosis: is therapy effective? Baughman RP, et al. **Semin Respir Infect** 1998 Sep;13(3):255-73 (226 ref.)

[Clinical features and treatment of sarcoidosis involving the central nervous system] Akimoto J, et al. **No To Shinkei** 1998 Dec;50(12):1078-86 (Eng. Abstr.) **(Jpn)**

[Diagnostic-therapeutic procedures in ocular sarcoidosis] Cieslicka E, et al. **Klin Oczna** 1998;100(3):185-8 (28 ref.) (Eng. Abstr.) **(Pol)**

ULTRASONOGRAPHY

Endoscopic ultrasonography with fine-needle aspiration: an accurate and simple diagnostic modality for sarcoidosis. Mishra G, et al. **Endoscopy** 1999 Jun;31(5):377-82

EUS in gastric sarcoidosis. De Angelis C, et al. **Gastrointest Endosc** 1999 May;49(5):639-41 (18 ref.)

A 68-year-old man with complete atrioventricular block and congestive heart failure. Honma H, et al. **J Cardiol** 1999 Feb;33(2):111-5

Sonographic findings in testicular sarcoidosis simulating malignant nodule. Eraso CE, et al. **J Clin Ultrasound** 1999 Feb;27(2):81-3

VETERINARY

Mutational status of the tumour suppressor gene (p53) in donkey sarcoid tumours. Nasir L, et al. **Vet J** 1999 Jan; 157(1):99-101

VIROLOGY

Human herpesvirus 8 and sarcoidosis [letter; comment] Di Alberti L, et al. **Lancet** 1998 May 23;351(9115):1589-90. Comment on: Lancet 1998 Feb 28;351(9103):679-80.

SARCOIDOSIS, PULMONARY

Animal models of granulomatous inflammation. Kunkel SL, et al. **Semin Respir Infect** 1998 Sep;13(3):221-8 (56 ref.)

Epidemiology, demographics, and genetics of sarcoidosis. Rybicki BA, et al. **Semin Respir Infect** 1998 Sep; 13(3):166-73 (67 ref.)

BLOOD

Measurement of serum monocyte chemoattractant protein-1 and its clinical application for estimating the activity of granuloma formation in sarcoidosis [see comments] Iyonaga K, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep; 15(2):165-72. Comment in: Sarcoidosis Vasc Diffuse Lung Dis 1998 Sep;15(2):131-3.

CHEMICALLY INDUCED

Interferon-alpha therapy associated with the development of sarcoidosis. Pietropaoli A, et al. **Chest** 1999 Aug; 116(2):569-72

Sarcoid granulomatosis after zirconium exposure with multiple organ involvement [letter] Werfel U, et al. **Eur Respir J** 1998 Sep;12(3):750

Association between exposure to crystalline silica and risk of sarcoidosis. Rafnsson V, et al. **Occup Environ Med** 1998 Oct;55(10):657-60

COMPLICATIONS

Clinical image: lattice pattern of osseous destruction in sarcoidosis. Grismer LE, et al. **Arthritis Rheum** 1999 May; 42(5):1065

Hyperbaric chamber-related decompression illness in a patient with asymptomatic pulmonary sarcoidosis. Tetzlaff K, et al. **Aviat Space Environ Med** 1999 Jun;70(6):594-7

Sarcoidosis is a significant cause of bullous emphysema [letter; comment] Teramoto S, et al. **Chest** 1999 Jun; 115(6):1758. Comment on: Chest 1998 Nov;114(5):1474-8.

Sarcoidosis in a patient with linear IgA disease. Porter WM, et al. **Clin Exp Dermatol** 1999 Mar;24(2):67-70

Localized scleroderma associated with sarcoidosis [letter] Biasi D, et al. **Clin Exp Rheumatol** 1998 Nov-Dec; 16(6):761-2 (17 ref.)

Association of Crohn's ileitis with pulmonary and cutaneous sarcoidosis in a Japanese patient. Takashima M, et al. **Gastrointest Endosc** 1998 Dec;48(6):637-9

Facial numbness: a manifestation of sarcoidosis. Adcock BB. **J Am Board Fam Pract** 1999 May-Jun;12(3):253-5

Sarcoidosis-related anterior uveitis in a patient with human immunodeficiency virus. Lee AK, et al. **J Am Optom Assoc** 1999 Jun;70(6):384-90

Hepatopulmonary syndrome associated with cardiorespiratory disease. Martinez G, et al. **J Hepatol** 1999 May;30(5):882-9

The lymphocytic alveolitis in sarcoidosis is associated with increased amounts of soluble and cell-bound adhesion molecules in bronchoalveolar lavage fluid and serum. Berlin M, et al. **J Intern Med** 1998 Oct;244(4):333-40

Sarcoid, amyloid, and acute myocardial failure. Stather D, et al. **Mod Pathol** 1998 Sep;11(9):901-4

Moyamoya disease associated with pulmonary sarcoidosis--case report. Takenaka K, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38(9):566-8

Malignant neoplasms in pulmonary sarcoidosis [letter; comment] Reich JM. **Thorax** 1998 Jul;53(7):625-6. Comment on: Thorax 1997 Oct;52(10):892-4.

[Sarcoidosis and transverse myelitis (letter)] Cano A, et al. **Med Clin (Barc)** 1999 Mar 27;112(11):438-9 **(Spa)**

DIAGNOSIS

Induced sputum in patients with newly diagnosed sarcoidosis: comparison with bronchial wash and BAL. D'Ippolito R, et al. **Chest** 1999 Jun;115(6):1611-5

Bullous sarcoidosis: a report of three cases [see comments] Judson MA, et al. **Chest** 1998 Nov;114(5):1474-8. Comment in: Chest 1999 Jun;115(6):1758.

Value of ICAM-1 expression and soluble ICAM-1 level as a marker of activity in sarcoidosis. Kim DS, et al. **Chest** 1999 Apr;115(4):1059-65

Fevers, weight loss, and bilateral peripheral infiltrates in a young man. Lee FE, et al. **Chest** 1999 Apr;115(4):1181-3

Tuberculosis and sarcoidosis [letter; comment] Noppen M. **Chest** 1999 May;115(5):1480. Comment on: Chest 1998 Aug;114(2):363-4. Comment on: Chest 1998 Aug;114(2):626-9.

Sarcoidosis in infancy: a case with pulmonary involvement as a cardinal manifestation. Tsagris VA, et al. **Eur J Pediatr** 1999 Mar;158(3):258-60

Does the cellular bronchoalveolar lavage fluid profile reflect the severity of sarcoidosis? Drent M, et al. **Eur Respir J** 1999 Jun;13(6):1338-44

Necrotizing sarcoid granulomatosis in a 14-yr-old female. Tauber E, et al. **Eur Respir J** 1999 Mar;13(3):703-5

Comparison of high resolution CT findings of sarcoidosis, lymphoma, and lymphangitic carcinoma: is there any difference of involved interstitium? Honda O, et al. **J Comput Assist Tomogr** 1999 May-Jun;23(3):374-9

Pulmonary sarcoidosis: comparison of patients at a university and a municipal hospital [see comments] Yeager H Jr, et al. **J Natl Med Assoc** 1999 Jun;91(6):322-7. Comment in: J Natl Med Assoc 1999 Jun;91(6):327-8.

Are sociodemographic factors important in sarcoidosis? [comment] Young RC Jr. **J Natl Med Assoc** 1999 Jun; 91(6):327-8. Comment on: J Natl Med Assoc 1999 Jun;91(6):322-7.

Serum lysozyme levels and clinical features of sarcoidosis. Tomita H, et al. **Lung** 1999;177(3):161-7

Combining transbronchial aspiration with endobronchial and transbronchial biopsy in sarcoidosis. Bilaçeroglu S, et al. **Monaldi Arch Chest Dis** 1999 Jun;54(3):217-23

Clinical problem-solving. A little math helps the medicine go down. Kopelman RI, et al. **N Engl J Med** 1999 Aug 5;341(6):435-9

Diagnostic and therapeutic challenges. Schatz H, et al. **Retina** 1998;18(6):551-3 (2 ref.)

Clinical findings in 715 patients with newly detected pulmonary sarcoidosis--results of a cooperative study in former West Germany and Switzerland. WATL Study Group. Wissenschaftliche Arbeitsgemeinschaft für die Therapie von Lungenkrankheitan. Loddenkemper R, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):178-82

[Sarcoidosis and pregnancy] Ivanov S. **Akush Ginekol (Sofiia)** 1998;37(4):15-6 **(Bul)**

[A very silent hematopulmonary syndrome...] Arlet P, et al. **Rev Med Interne** 1998;19 Suppl 2:303s-305s **(Fre)**

[Spontaneous course of bilateral sarcoid granulomatosis] Kirsten D, et al. **Pneumologie** 1999 Apr;53(4):207-9 **(Ger)**

[Productive cough in established sarcoidosis] Lauper S. **Schweiz Rundsch Med Prax** 1999 Mar 25;88(13):579-82 **(Ger)**

[Adenosine deaminase activity in bronchoalveolar lavage fluid of sarcoidosis patients] Kubota M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):374-9 (Eng. Abstr.) **(Jpn)**

[Extracellular components of bronchoalveolar lavage fluid (BALF) as a marker of interstitial pulmonary disease activity. I. Protein concentration] Zielonka TM, et al. **Przegl Lek** 1998;55(11):581-5 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Randomized trial of prolonged chloroquine therapy in advanced pulmonary sarcoidosis. Baltzan M, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):192-7

An approach to the treatment of pulmonary sarcoidosis with corticosteroids: the six phases of treatment. Judson MA. **Chest** 1999 Apr;115(4):1158-65

Oral prednisolone followed by inhaled budesonide in newly diagnosed pulmonary sarcoidosis: a double-blind, placebo-controlled multicenter study. Finnish Pulmonary Sarcoidosis Study Group. Pietinalho A, et al. **Chest** 1999 Aug;116(2):424-31

Randomized trial of inhaled fluticasone propionate in chronic stable pulmonary sarcoidosis: a pilot study. du Bois RM, et al. **Eur Respir J** 1999 Jun;13(6):1345-50

Efficacy of azathioprine as second-line treatment in pulmonary sarcoidosis. Lewis SJ, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):87-92

Oral and inhaled corticosteroids in the treatment of pulmonary sarcoidosis--a critical reappraisal. Milman N. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):150-7 (46 ref.)

Sarcoidosis and central serous retinopathy: a dangerous combination. Sharma OP, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):189-91

[German Society of Pneumology: recommendations for diagnosis and therapy of sarcoidosis (letter)] Breyne H. **Pneumologie** 1998 Jul;52(7):403-5 **(Ger)**

ETIOLOGY

Statement on sarcoidosis. Joint Statement of the American Thoracic Society (ATS), the European Respiratory Society (ERS) and the World Association of Sarcoidosis and Other Granulomatous Disorders (WASOG) adopted by the ATS Board of Directors and by the ERS Executive Committee, February 1999. **Am J Respir Crit Care Med** 1999 Aug; 160(2):736-55 (331 ref.)

Metals that cause sarcoidosis. Newman LS. **Semin Respir Infect** 1998 Sep;13(3):212-20 (88 ref.)

Kveim antigen: what does it tell us about causation of sarcoidosis? Teirstein AS. **Semin Respir Infect** 1998 Sep; 13(3):206-11 (57 ref.)

[Primary biliary cirrhosis with sarcoid-like infiltrations in the lung] Plodziszewska M, et al. **Pneumonol Alergol Pol** 1998;66(5-6):330-6 (Eng. Abstr.) **(Pol)**

[Sarcoidosis of the respiratory organs: the problems of

etiology and pathogenesis, classification and X-ray diagnosis] Dmitrieva LI, et al. **Vestn Rentgenol Radiol** 1998 Jul-Aug;(4):33-9 (19 ref.) **(Rus)**

GENETICS

TNF-alpha and HLA-DR genotyping as potential prognostic markers in pulmonary sarcoidosis. Swider C, et al. **Eur Cytokine Netw** 1999 Jun;10(2):143-6

The angiotensin-converting enzyme DD gene is associated with poor prognosis in Finnish sarcoidosis patients. Pietinalho A, et al. **Eur Respir J** 1999 Apr;13(4):723-6

T-cell receptor genes in sarcoidosis. Moller DR. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):158-64 (61 ref.)

IMMUNOLOGY

Antibacterial components in bronchoalveolar lavage fluid from healthy individuals and sarcoidosis patients. Agerberth B, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):283-90

Proliferation of type II pneumocytes and alteration in their apical surface membrane antigenicity in pulmonary sarcoidosis. Hayasaka M, et al. **Chest** 1999 Aug; 116(2):477-83

Reduced expression of the alphabeta T-cell antigen receptor by alveolar T-cells. Yamaguchi E, et al. **Eur Respir J** 1999 Apr;13(4):814-9

Osteopontin is associated with T cells in sarcoid granulomas and has T cell adhesive and cytokine-like properties in vitro. O'Regan AW, et al. **J Immunol** 1999 Jan 15; 162(2):1024-31

Bronchoalveolar lavage cells from sarcoidosis patients and healthy controls can efficiently present antigens. Grunewald J, et al. **J Intern Med** 1999 Apr;245(4):353-7

Immunohistochemical localization of B7 costimulating molecules and major histocompatibility complex class II antigen in pulmonary sarcoidosis. Kaneko Y, et al. **Respiration** 1999;66(4):343-8

A case of sarcoidosis with increased response of peripheral blood mononuclear cells to purified protein derivative antigen after depletion of CD8+ T-cells in vitro [letter] Ishioka S, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):194-5

Cytokines in sarcoidosis. Agostini C, et al. **Semin Respir Infect** 1998 Sep;13(3):184-96 (75 ref.)

Involvement of T cells and alterations in T cell receptors in sarcoidosis. Moller DR. **Semin Respir Infect** 1998 Sep; 13(3):174-83 (80 ref.)

Phenotypic analysis of lymphocytes and monocytes/macrophages in peripheral blood and bronchoalveolar lavage fluid from patients with pulmonary sarcoidosis. Wahlström J, et al. **Thorax** 1999 Apr; 54(4):339-46

METABOLISM

Increased expression of apoptosis signalling receptors by alveolar macrophages in sarcoidosis. Dai H, et al. **Eur Respir J** 1999 Jun;13(6):1451-4

The lymphocytic alveolitis in sarcoidosis is associated with increased amounts of soluble and cell-bound adhesion molecules in bronchoalveolar lavage fluid and serum. Berlin M, et al. **J Intern Med** 1998 Oct;244(4):333-40

1,25-dihydroxycholecalciferol stimulates ICAM-1 expression of human alveolar macrophages in healthy controls and patients with sarcoidosis. Braun J, et al. **Lung** 1999; 177(3):139-49

Ultrastructural studies on the formation and distribution of lipid droplets in the lung capillary endothelial cells in patients with sarcoidosis. Mochizuki I, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):62-6

MICROBIOLOGY

The role of mycobacteria in the pathogenesis of sarcoidosis. Hance AJ. **Semin Respir Infect** 1998 Sep;13(3):197-205 (80 ref.)

PATHOLOGY

Bronchoalveolar lavage fluid granulomas in a case of severe sarcoidosis. Hendricks MV, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):730-1

Proliferation of type II pneumocytes and alteration in their apical surface membrane antigenicity in pulmonary sarcoidosis. Hayasaka M, et al. **Chest** 1999 Aug; 116(2):477-83

Expression of p53, p21 (Waf1/Cip1/Sdi1) and Fas antigen in collagen vascular and granulomatous lung diseases. Kunitake R, et al. **Eur Respir J** 1998 Oct;12(4):920-5

Apoptosis in the course of granulomatous inflammation in pulmonary sarcoidosis. Kunitake R, et al. **Eur Respir J** 1999 Jun;13(6):1329-37

Transforming growth factor-beta1 in sarcoidosis. Salez F, et al. **Eur Respir J** 1998 Oct;12(4):913-9

Defining organ involvement in sarcoidosis: the ACCESS proposed instrument. ACCESS Research Group. A Case Control Etiologic Study of Sarcoidosis. Judson MA, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):75-86 (115 ref.)

PHYSIOPATHOLOGY

Clinical courses and prognoses of pulmonary sarcoidosis. Nagai S, et al. **Curr Opin Pulm Med** 1999 Sep;5(5):293-8 (28 ref.)

Association of fatigue with an acute phase response in sarcoidosis [see comments] Drent M, et al. **Eur Respir J** 1999 Apr;13(4):718-22. Comment in: Eur Respir J 1999 Apr;13(4):713-4.

Fatigue and sarcoidosis [editorial; comment] Sharma OP. **Eur Respir J** 1999 Apr;13(4):713-4. Comment on: Eur Respir J 1999 Apr;13(4):718-22.

Inverse association between sarcoidosis and atopic asthma [letter] Grutters JC, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):193-4

Angiotensin II receptor on BALF macrophages from Japanese patients with active sarcoidosis. Nagai S, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):67-74

PSYCHOLOGY

[Psychosomatic relationships in sarcoidosis] Valiev RSh, et al. **Probl Tuberk** 1999;(4):10-1 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

HRCT in miliary lung disease. Voloudaki AE, et al. **Acta Radiol** 1999 Jul;40(4):451-6

Distribution of thoracic lymphadenopathy in sarcoidosis using computed tomography. Patil SN, et al. **J Thorac Imaging** 1999 Apr;14(2):114-7

Granulomatous interstitial pneumonitis in association with primary hypogammaglobulinemia: computed tomography appearances. Walsh G, et al. **J Thorac Imaging** 1999 Jul; 14(3):207-9

Pulmonary sarcoidosis: calcified micronodular pattern simulating pulmonary alveolar microlithiasis. Weinstein DS. **J Thorac Imaging** 1999 Jul;14(3):218-20

Sarcoidosis: correlation of HRCT findings with results of pulmonary function tests and serum angiotensin-converting enzyme assay. Mimori Y. **Kurume Med J** 1998;45(3):247-56

General case of the day. End-stage sarcoidosis. Meyer CA, et al. **Radiographics** 1998 Sep-Oct;18(5):1303-6

Sarcoidosis: tracking a mystery ailment. Russell C, et al. **Radiol Technol** 1999 Jan-Feb;70(3):285-6 (6 ref.)

Pulmonary sarcoidosis: morphologic associations of airflow obstruction at thin-section CT. Hansell DM, et al. **Radiology** 1998 Dec;209(3):697-704

High resolution computed tomography in sarcoidosis: a clinical perspective. Wells A. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):140-6 (41 ref.)

[Sarcoidosis presenting as a diffuse micronodular shadow on a chest radiograph] Iwanaga T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jun;36(6):556-9 (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE IMAGING

Sarcoid: an unusual mimicker of classic pulmonary embolus. Morello FA, et al. **Clin Nucl Med** 1998 Oct;23(10):654-6

THERAPY

Lung transplantation for end-stage pulmonary sarcoidosis [see comments] Nunley DR, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):93-100 . Comment in: Sarcoidosis Vasc Diffuse Lung Dis 1999 Mar;16(1):21-3.

Lung transplantation in sarcoidosis: lessons learned from immunology [editorial; comment] Semenzato G, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):21-3. Comment on: Sarcoidosis Vasc Diffuse Lung Dis 1999 Mar;16(1):93-100.

SARCOLEMMA

CHEMISTRY

A new topological model of the cardiac sarcolemmal Na+-Ca2+ exchanger. Nicoll DA, et al. **J Biol Chem** 1999 Jan 8;274(2):910-7

Pharmacological and histochemical distinctions between molecularly defined sarcolemmal KATP channels and native cardiac mitochondrial KATP channels. Hu H, et al. **Mol Pharmacol** 1999 Jun;55(6):1000-5

DRUG EFFECTS

Changes in sarcolemmal PLC isoenzymes in postinfarct congestive heart failure: partial correction by imidapril. Tappia PS, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H40-9

Inverse agonist activity of pirenzepine at M2 muscarinic acetylcholine receptors. Daeffler L, et al. **Br J Pharmacol** 1999 Mar;126(5):1246-52

ENZYMOLOGY

Changes in sarcolemmal PLC isoenzymes in postinfarct congestive heart failure: partial correction by imidapril. Tappia PS, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H40-9

Overexpression of the sarcolemmal calcium pump in the myocardium of transgenic rats [see comments] Hammes A, et al. **Circ Res** 1998 Nov 2;83(9):877-88. Comment in: Circ Res 1998 Nov 2;83(9):966-8.

alpha1-syntrophin gene disruption results in the absence of neuronal-type nitric-oxide synthase at the sarcolemma but does not induce muscle degeneration. Kameya S, et al. **J Biol Chem** 1999 Jan 22;274(4):2193-200

FGF-2-induced negative inotropism and cardioprotection are inhibited by chelerythrine: involvement of sarcolemmal calcium-independent protein kinase C. Padua RR, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2695-709

The role of sarcolemmal Ca2+-ATPase in the regulation of resting calcium concentration in rat ventricular myocytes. Choi HS, et al. **J Physiol (Lond)** 1999 Feb 15; 515 (Pt 1):109-18

Abnormalities in sarcolemmal phospholipase D and phospholipase C isoenzymes and in their interactions in post-infarcted failing hearts. Panagia V, et al. **Lipids** 1999; 34 Suppl:S73-4

Cardiac sarcolemmal Na(+)-Ca2+ exchange and Na(+)-K+ ATPase activities and gene expression in alloxan-induced diabetes in rats. Golfman L, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):91-101

Immunolocalization of the sarcolemmal Ca2+/Mg2+ ecto-ATPase (myoglein) in rat myocardium. Kannan S, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):187-94

The effects of inhibition of the sarcolemmal Ca-ATPase on systolic calcium fluxes and intracellular calcium concentration in rat ventricular myocytes. Choi HS, et al. **Pflugers Arch** 1999 May;437(6):966-71

GENETICS

[Sarcoglycanopathies] Colomer J. **Rev Neurol** 1999 Jan 16-31;28(2):150-3 (30 ref.) (Eng. Abstr.) **(Spa)**

METABOLISM

Subsarcolemmal expression of utrophin in neuromuscular disorders: an immunohistochemical study of 80 cases. Teijeira S, et al. **Acta Neuropathol (Berl)** 1998 Nov; 96(5):481-6

Mitochondrial Ca2+ uptake, efflux, and sarcolemmal damage in Ca2+-overloaded cultured rat cardiomyocytes. Korge P, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2085-93

Regulation of cardiac sarcolemmal Na+/H+ exchanger activity by endogenous ligands. Relevance to ischemia. Avkiran M, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:335-45 (77 ref.)

Regulation of guanine nucleotide turnover on Gi/Go by agonist-stimulated and spontaneously active muscarinic receptors in cardiac membranes. Quist E, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):57-64

Time-resolved monitoring of electrogenic Na+-Ca2+ exchange in the isolated cardiac sarcolemma vesicles by using a rapid-response fluorescent probe. Baazov D, et al. **Biochemistry** 1999 Feb 2;38(5):1435-45

Sarcolemmal versus mitochondrial ATP-sensitive K+ channels and myocardial preconditioning. Gross GJ, et al. **Circ Res** 1999 May 14;84(9):973-9 (53 ref.)

Subcellular [Ca2+]i gradients during excitation-contraction coupling in newborn rabbit ventricular myocytes. Haddock PS, et al. **Circ Res** 1999 Sep 3;85(5):415-27

Caveolar microdomains of the sarcolemma: compartmentation of signaling molecules comes of age [editorial] Ostrom RS, et al. **Circ Res** 1999 May 14; 84(9):1110-2 (25 ref.)

Immunohistological diagnosis of myocarditis. Potential role of sarcolemmal induction of the MHC and ICAM-1 in the detection of autoimmune mediated myocyte injury. Wojnicz R, et al. **Eur Heart J** 1998 Oct;19(10):1564-72

Statistically significant differences in the number of CD24 positive muscle fibers and satellite cells between sarcoglycanopathy and age-matched Becker muscular dystrophy patients. Higuchi I, et al. **Intern Med** 1999 May; 38(5):412-5

Lactate transport activity in rat skeletal muscle sarcolemmal vesicles after acute exhaustive exercise. Dubouchaud H, et al. **J Appl Physiol** 1999 Sep;87(3):955-61

Assembly of the sarcoglycan complex. Insights for muscular dystrophy. Holt KH, et al. **J Biol Chem** 1998 Dec 25; 273(52):34667-70

Protein-mediated palmitate uptake and expression of fatty acid transport proteins in heart giant vesicles. Luiken JJ, et al. **J Lipid Res** 1999 Jun;40(6):1007-16

Phospholipase A2-mediated activation of phospholipase D in rat heart sarcolemma. Liu SY, et al. **J Mol Cell Cardiol** 1998 Jun;30(6):1203-14

Large-scale expression of recombinant cardiac sodium-calcium exchange in insect larvae. Hale CC, et al. **Protein Expr Purif** 1999 Feb;15(1):121-6

[The role of ion transport system of sarcolemma in amino acid loss during myocardial perfusion with calcium-free medium and myocardium injury during "calcium paradox"] Alabovskii VV, et al. **Vopr Med Khim** 1999 May-Jun; 45(3):238-45 (Eng. Abstr.) **(Rus)**

PATHOLOGY

Diaphragm sarcolemmal injury is induced by sepsis and alleviated by nitric oxide synthase inhibition. Lin MC, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1656-63

Regeneration in sarcoglycanopathies: expression studies of sarcoglycans and other muscle proteins. Fanin M, et al. **J Neurol Sci** 1999 Jun 1;165(2):170-7

PHYSIOLOGY

Modulation of the sarcolemmal L-type current by alteration in SR Ca2+ release. Balog EM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C128-35

Increased sarcolemmal permeability in the cerebral artery during chronic spasm: an assessment using DNA-binding dyes and detection of apoptosis. Kim P, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):889-97

Regulation of cardiac sarcolemmal Na+/H+ exchanger activity: potential pathophysiological significance of endogenous mediators and oxidant stress. Avkiran M, et al. **J Thromb Thrombolysis** 1999 Jul;8(1):25-32 (84 ref.)

Protection of reoxygenated cardiomyocytes against sarcolemmal fragility: the role of glutathione. Obermayr RP, et al. **Pflugers Arch** 1999 Aug;438(3):365-70

ULTRASTRUCTURE

The direct visualization of structural array from laminin to dystrophin in sarcolemmal vesicles prepared from rat skeletal muscles. Hijikata T, et al. **Biol Cell** 1998 Dec; 90(9):629-39

Caveolar microdomains of the sarcolemma: compartmentation of signaling molecules comes of age [editorial] Ostrom RS, et al. **Circ Res** 1999 May 14; 84(9):1110-2 (25 ref.)

SARCOLYSINE see **MELPHALAN**

SARCOMA

see related

SARCOMA VIRUSES, AVIAN

Soft tissue and bone sarcomas in association with pregnancy. Merimsky O, et al. **Acta Oncol** 1998;37(7-8):721-7

List of scientific publications from the Scandinavian Sarcoma Centers, 1992-1998. **Acta Orthop Scand Suppl** 1999 Jun; 285:83-97

Soft tissue sarcomas: integrating primary care recognition with tertiary care center treatment. Rosenthal TC, et al. **Am Fam Physician** 1999 Aug;60(2):567-72 (34 ref.)

Adult soft tissue sarcoma. Mann GB, et al. **Aust N Z J Surg** 1999 May;69(5):336-43 (85 ref.)

Primary cardiac myofibroblastic sarcoma, case report and review of diagnosis and treatment of cardiac tumors. Dhillon G, et al. **Bol Asoc Med P R** 1998 Jul-Dec; 90(7-12):130-3

Soft-tissue sarcomas: an update. de Saint Aubain Somerhausen N, et al. **Eur J Surg Oncol** 1999 Apr; 25(2):215-20 (35 ref.)

The Carney Triad: a lesson in observation, creativity, and perseverance [editorial; comment] Appelman HD. **Mayo Clin Proc** 1999 Jun;74(6):638-40 (15 ref.). Comment on: Mayo Clin Proc 1999 Jun;74(6):543-52.

Gastric stromal sarcoma, pulmonary chondroma, and extra-adrenal paraganglioma (Carney Triad): natural history, adrenocortical component, and possible familial occurrence [see comments] Carney JA. **Mayo Clin Proc** 1999 Jun;74(6):543-52. Comment in: Mayo Clin Proc 1999 Jun;74(6):638-40.

Primary epithelioid sarcoma of the scalp. Suwantemee C. **Plast Reconstr Surg** 1999 Sep;104(3):785-8

Soft tissue sarcomas of infancy. Palumbo JS, et al. **Semin Perinatol** 1999 Aug;23(4):299-309 (61 ref.)

[Sarcoma of the uterus] Fait T, et al. **Ceska Gynekol** 1998 Aug;63(4):318-21 (Eng. Abstr.) **(Cze)**

[Sarcomatoid renal carcinoma] Leucumberri Castaños D, et al. **Arch Esp Urol** 1998 Oct;51(8):772-5 (Eng. Abstr.) **(Spa)**

BLOOD

Regulation of iron metabolism in the acute-phase response: interferon gamma and tumour necrosis factor alpha induce hypoferraemia, ferritin production and a decrease in circulating transferrin receptors in cancer patients. Feelders RA, et al. **Eur J Clin Invest** 1998 Jul;28(7):520-7

BLOOD SUPPLY

Angiography for assessment of preoperative chemotherapy in musculoskeletal sarcomas. Fujii J, et al. **Clin Orthop** 1999 Mar;(360):197-206

CHEMICALLY INDUCED

[Assessment of risk due to the intake of uranium isotopes in mineral spring waters] Camargo IM, et al. **Rev Saude Publica** 1998 Aug;32(4):317-20 (Eng. Abstr.) **(Por)**

CHEMISTRY

Expression of P53, MDM2 and Ki-67 antigens in soft tissue sarcomas. Szadowska A, et al. **Pol J Pathol** 1999;50(1):9-16

CLASSIFICATION

Morphologic review of 1000 soft tissue sarcomas from the Scandinavian Sarcoma Group (SSG) Register. The peer-review committee experience. Meis-Kindblom JM, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:18-26

p53/MDM-2 immunohistochemical expression correlated with proliferative activity in different subtypes of human sarcomas: a ten-year follow-up study. Stefanou DG, et al. **Anticancer Res** 1998 Nov-Dec;18(6B):4673-81

Uterine sarcomas: the Curie Institut experience. Prognosis factors and adjuvant treatments. Chauveinc L, et al. **Gynecol Oncol** 1999 Feb;72(2):232-7

Histologic grading of adult soft tissue sarcomas. Coindre JM. **Verh Dtsch Ges Pathol** 1998;82:59-63 (26 ref.)

COMPLICATIONS

Compartment syndrome. An unusual etiology [clinical conference] Goldfarb CA, et al. **Clin Orthop** 1998 Nov; (356):248-53, 264-6

Sarcoma of the main pulmonary artery: an unusual etiology for recurrent pulmonary emboli. Pagni S, et al. **J Cardiovasc Surg (Torino)** 1999 Jun;40(3):457-61

Characteristics of recovery from the euthyroid sick syndrome induced by tumor necrosis factor alpha in cancer patients. Feelders RA, et al. **Metabolism** 1999 Mar;48(3):324-9

[Primary sarcoma of A. pulmonalis: a rare cause of cor pulmonale] Ismaël F, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1705-9 (Eng. Abstr.) **(Dut)**

[Gastric granulocytic sarcoma revealed by a massive digestive hemorrhage] D'Alteroche L, et al. **Gastroenterol Clin Biol** 1999 Jun-Jul;23(6-7):779-82 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

Sarcomatoid carcinoma of the descending colon--a histological, immunohistochemical and ultrastructural analysis. Shoji M, et al. **Acta Oncol** 1998;37(7-8):765-8

Application of immunocytochemistry in the diagnosis of soft tissue sarcomas: a review and update. Ordóñez NG. **Adv Anat Pathol** 1998 Mar;5(2):67-85 (277 ref.)

Dendritic fibromyxolipoma: clinicopathologic study of a distinctive benign soft tissue lesion that may be mistaken for a sarcoma. Suster S, et al. **Ann Diagn Pathol** 1998 Apr; 2(2):111-20

MR imaging of complex tail-gut cysts. Moulopoulos LA, et al. **Clin Radiol** 1999 Feb;54(2):118-22

Follow-up of musculoskeletal tumours. 2. Metastatic disease. Bearcroft PW, et al. **Eur Radiol** 1999;9(2):192-200 (100 ref.)

Spindle cell tumours of the breast: practical approach to diagnosis. Al-Nafussi A. **Histopathology** 1999 Jul; 35(1):1-13 (192 ref.)

Evaluation of soft-tissue tumors. Springfield D. **Instr Course Lect** 1999;48:617-9 (1 ref.)

Orthopaedic oncology for the nononcologist orthopaedist: introduction and common errors to avoid. Ward WG Sr. **Instr Course Lect** 1999;48:577-86 (10 ref.)

Paraneoplastic pemphigus associated with follicular dendritic cell sarcoma arising from Castleman's tumor. Lee IJ, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):294-7

Delay in the diagnosis and treatment of primary bone sarcoma of the pelvis. Wurtz LD, et al. **J Bone Joint Surg Am** 1999 Mar;81(3):317-25

Recent advances in the diagnosis of pediatric soft-tissue tumors. Kilpatrick SE, et al. **Med Pediatr Oncol** 1999 May; 32(5):373-6 (22 ref.)

Case report of a patient with an intimal sarcoma of the pulmonary trunk presenting as a pulmonary embolism. Weijmer MC, et al. **Neth J Med** 1999 Aug;55(2):80-3 (7 ref.)

Prognostic factors in soft tissue sarcoma. Levine EA. **Semin Surg Oncol** 1999 Jul-Aug;17(1):23-32 (76 ref.)

Soft tissue sarcomas in children. Pappo AS, et al. **Semin Surg Oncol** 1999 Mar;16(2):121-43 (127 ref.)

New diagnostic modalities in soft tissue sarcoma. Singer S. **Semin Surg Oncol** 1999 Jul-Aug;17(1):11-22 (78 ref.)

Optimal radiologic imaging of soft tissue sarcomas. Varma DG. **Semin Surg Oncol** 1999 Jul-Aug;17(1):2-10 (56 ref.)

Intraarticular epithelioid sarcoma. Hurtado RM, et al. **Skeletal Radiol** 1998 Aug;27(8):453-6

Imaging of soft tissue sarcomas. Heslin MJ, et al. **Surg Oncol Clin N Am** 1999 Jan;8(1):91-107 (36 ref.)

The diagnostive evaluation and surgical management of soft tissue sarcomas. Igun GO. **West Afr J Med** 1998 Oct-Dec; 17(4):232-5

[Primary sarcoma of A. pulmonalis: a rare cause of cor pulmonale] Ismaël F, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1705-9 (Eng. Abstr.) **(Dut)**

[Standards, options and recommendations (SOR) for clinical care of rhabdomyosarcoma (RMS) and other soft tissue sarcoma in children. Federation of the French Cancer Centers. French Society of Pediatric Oncology (published erratum appears in Bull Cancer 1999 Feb;86(2):232)] Sommelet D, et al. **Bull Cancer** 1998 Dec;85(12):1015-42 (218 ref.) (Eng. Abstr.) **(Fre)**

[Gastric granulocytic sarcoma revealed by a massive digestive hemorrhage] D'Alteroche L, et al. **Gastroenterol Clin Biol** 1999 Jun-Jul;23(6-7):779-82 (Eng. Abstr.) **(Fre)**

[Retroperitoneal sarcomas: 1. Natural history and preoperative evaluation] Bonvalot S. **J Chir (Paris)** 1999 Mar;136(1):5-9 (17 ref.) (Eng. Abstr.) **(Fre)**

[Primary sarcoma of the pulmonary artery. Case report] Gerard A, et al. **Rev Med Interne** 1999 Aug;20(8):705-8 (Eng. Abstr.) **(Fre)**

[Askin's tumor--a rare entity. Case report with references to the literature] Promnitz S, et al. **Pneumologie** 1999 Aug; 53(8):393-9 (Eng. Abstr.) **(Ger)**

[Sarcoma of the pulmonary artery--pre- and postoperative radiologic findings in initial tumor manifestation and recurrence] Fasse A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):112-8 (Eng. Abstr.) **(Ger)**

[Sarcoma of the endometrial stroma] Melilli GA, et al. **Minerva Ginecol** 1998 Dec;50(12):523-6 (Eng. Abstr.) **(Ita)**

[An intimal sarcoma of the pulmonary artery. An immunohistochemical study] Pérez del Río MJ, et al. **Rev Esp Cardiol** 1998 Oct;51(10):850-2 (8 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Evaluation of the effect of preoperative chemotherapy in bone sarcomas. 99mTc-HMDP scintigraphy in 34 cases. Kobayashi Y, et al. **Acta Orthop Scand** 1998 Dec; 69(6):611-6

Chemotherapy in soft tissue sarcoma. The Scandinavian Sarcoma Group experience. Fernberg JO, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:62-8

Phase I-II trial of intensification of the MAID regimen with support of lenograstim (rHuG-CSF) in patients with advanced soft-tissue sarcoma (STS). Chevreau C, et al. **Am J Clin Oncol** 1999 Jun;22(3):267-72

Phase II trial of first-line high-dose ifosfamide in advanced soft tissue sarcomas of the adult: a study of the Spanish Group for Research on Sarcomas (GEIS) [see comments] Buesa JM, et al. **Ann Oncol** 1998 Aug;9(8):871-6. Comment in: Ann Oncol 1999 Jan;10(1):123-4.

Activity of doxorubicin after high-dose ifosfamide in adult patients with advanced soft tissue sarcoma: a study of the Spanish Group for Research on Sarcomas (GEIS). Buesa JM, et al. **Ann Oncol** 1998 Jul;9(7):783-5

High-dose ifosfamide plus adriamycin in the treatment of adult advanced soft tissue sarcomas: is it feasible? [see comments] De Pas T, et al. **Ann Oncol** 1998 Aug;9(8):917-9 . Comment in: Ann Oncol 1998 Aug;9(8):807-9.

A phase II study of Doxil (liposomal doxorubicin): lack of activity in poor prognosis soft tissue sarcomas. Garcia AA, et al. **Ann Oncol** 1998 Oct;9(10):1131-3

Phase I multicenter study of combined high-dose ifosfamide and doxorubicin in the treatment of advanced sarcomas. Swiss Group for Clinical Research (SAKK) [see comments] Leyvraz S, et al. **Ann Oncol** 1998 Aug;9(8):877-84. Comment in: Ann Oncol 1998 Aug;9(8):807-9.

Advanced soft tissue sarcoma: how many more trials with anthracyclines and ifosfamide? Santoro A. **Ann Oncol** 1999 Feb;10(2):151-4

High-dose ifosfamide for soft tissue sarcomas: set the scene, or senescence? [editorial; comment] Verweij J. **Ann Oncol** 1998 Aug;9(8):807-9. Comment on: Ann Oncol 1998 Aug;9(8):870-84. Comment on: Ann Oncol 1998 Aug;9(8):917-9.

Treatment of soft-tissue sarcomas: high-dose ifosfamide or combination of ifosfamide and etoposide? [letter; comment] Yalçin S. **Ann Oncol** 1999 Jan;10(1):123-4. Comment on: Ann Oncol 1998 Aug;9(8):871-6.

Phase II study of oral trofosfamide as palliative therapy in pretreated patients with metastatic soft-tissue sarcoma. Kollmannsberger C, et al. **Anticancer Drugs** 1999 Jun; 10(5):453-6

rIL-2 in metastatic soft tissue sarcomas refractory to chemotherapy: response and enhancement of further chemosensitivity. Gravis G, et al. **Anticancer Res** 1998 Sep-Oct;18(5B):3699-704

Caffeine-potentiated chemotherapy and conservative surgery for high-grade soft-tissue sarcoma. Tsuchiya H, et al. **Anticancer Res** 1998 Sep-Oct;18(5B):3651-6

Inhibition of proliferation and induction of apoptosis in soft tissue sarcoma cells by interferon-alpha and retinoids. Brodowicz T, et al. **Br J Cancer** 1999 Jul;80(9):1350-8

Adjuvant chemotherapy for primary cardiac sarcomas: the IGR experience. Llombart-Cussac A, et al. **Br J Cancer** 1998 Dec;78(12):1624-8

High-dose epirubicin is not an alternative to standard-dose doxorubicin in the treatment of advanced soft tissue sarcomas. A study of the EORTC soft tissue and bone sarcoma group. Nielsen OS, et al. **Br J Cancer** 1998 Dec; 78(12):1634-9

Doxorubicin-cisplatin chemotherapy for high-grade nonosteogenic sarcoma of bone. Comparison of treatment and control groups. Waddell AE, et al. **Can J Surg** 1999 Jun;42(3):190-9

Electrically enhanced drug delivery for the treatment of soft tissue sarcoma. Hyacinthe M, et al. **Cancer** 1999 Jan 15; 85(2):409-17

Multidrug resistance phenotype in high grade soft tissue sarcoma: correlation of P-glycoprotein immunohistochemistry with pathologic response to chemotherapy. Jimenez RE, et al. **Cancer** 1999 Sep 15; 86(6):976-81

Phase II trial of paclitaxel in patients with soft-tissue sarcoma. Casper ES, et al. **Cancer Invest** 1998;16(7):442-6

Freireich's laws in the treatment of sarcomas. Benjamin RS. **Clin Cancer Res** 1997 Dec;3(12 Pt 2):2648-54 (45 ref.)

Hyperthermic isolated limb perfusion with tumor necrosis factor-alpha and melphalan in patients with locally advanced soft tissue sarcomas: treatment response and clinical outcome related to changes in proliferation and apoptosis. Plaat BE, et al. **Clin Cancer Res** 1999 Jul; 5(7):1650-7

Single-agent ifosfamide in the treatment of anthracycline-refractory adult sarcomas. Lopez M, et al.

Clin Ter 1998 Sep-Oct;149(5):331-3

Treatment of intermediate risk rhabdomyosarcoma and undifferentiated sarcoma with alternating cycles of vincristine/doxorubicin/cyclophosphamide and etoposide/ifosfamide. Arndt CA, et al. **Eur J Cancer** 1998 Jul;34(8):1224-9

Should patients with advanced sarcomas be treated with chemotherapy? [see comments] Benjamin RS, et al. **Eur J Cancer** 1998 Jun;34(7):958-65 (43 ref.). Comment in: Eur J Cancer 1999 Feb;35(2):327.

Comments on: Should patients with advanced soft tissue sarcomas be treated with chemotherapy? Arbiter: Van Hoesel, Q.G.C.M. Eur J Cancer 1998, 34(7), 964-965 [letter; comment] De Pas T. **Eur J Cancer** 1999 Feb; 35(2):327. Comment on: Eur J Cancer 1998 Jun;34(7):958-65.

Dose-intensive first-line chemotherapy with epirubicin and continuous infusion ifosfamide in adult patients with advanced soft tissue sarcomas: a phase II study. Palumbo R, et al. **Eur J Cancer** 1999 Jan;35(1):66-72

Temozolomide in adult patients with advanced soft tissue sarcoma: a phase II study of the EORTC Soft Tissue and Bone Sarcoma Group. Woll PJ, et al. **Eur J Cancer** 1999 Mar;35(3):410-2

Toxicity of chemotherapeutical protocols in the treatment of uterine sarcomas (Vincristine, actinomycin D, Cyclophosphamide VAC versus ifosfamide). Simşek T, et al. **Eur J Gynaecol Oncol** 1998;19(4):405-7

Radiation therapy for consolidation of metastatic or recurrent sarcomas in children treated with intensive chemotherapy and stem cell rescue. A feasibility study. Czyzewski EA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):569-77

Phase II study of CI-980 (NSC 635370) in patients with previously treated advanced soft-tissue sarcomas. Patel SR, et al. **Invest New Drugs** 1998;16(1):87-92

Late complications of therapy in 213 children with localized, nonorbital soft-tissue sarcoma of the head and neck: A descriptive report from the Intergroup Rhabdomyosarcoma Studies (IRS)-II and - III. IRS Group of the Children's Cancer Group and the Pediatric Oncology Group. Raney RB, et al. **Med Pediatr Oncol** 1999 Oct;33(4):362-71

Adriamycin-ifosfamide induction chemotherapy for extremity soft tissue sarcoma: comparison of two non-randomized protocols. Merimsky O, et al. **Oncol Rep** 1999 Jul-Aug;6(4):913-20

The role of chemotherapy in the treatment of adult soft tissue sarcomas. O'Byrne K, et al. **Oncology** 1999;56(1):13-23 (84 ref.)

Role of the combination of ifosfamide and etoposide in the treatment of soft tissue sarcomas. Yalçin S. **Oncology** 1999; 57(2):175

Phase I clinical data on novel anticancer, antiangiogenesis drug [news] **Oncology (Huntingt)** 1998 Sep;12(9):1395

Long-term results of preoperative intra-arterial doxorubicin combined with neoadjuvant radiotherapy, followed by extensive surgical resection for locally advanced soft tissue sarcomas of the extremities. Nijhuis PH, et al. **Radiother Oncol** 1999 Apr;51(1):15-9

High-dose chemotherapy in adult sarcomas: no standard yet. Seynaeve C, et al. **Semin Oncol** 1999 Feb;26(1):119-33 (86 ref.)

New chemotherapeutic strategies for soft tissue sarcomas. Patel SR, et al. **Semin Surg Oncol** 1999 Jul-Aug;17(1):47-51 (31 ref.)

Chemoradiation treatment strategies for localized sarcoma: conventional and investigational approaches. Pisters PW. **Semin Surg Oncol** 1999 Jul-Aug;17(1):66-71 (25 ref.)

Pilot study of daily ifosfamide 1 g/m2 until grade III granulocytopenia as second-line chemotherapy for anthracycline-pretreated advanced soft tissue sarcoma. Babović N, et al. **Tumori** 1998 Nov-Dec;84(6):677-80

[Chemotherapy of soft tissue sarcoma in the adult (published erratum appears in Cancer Radiother 1999 Jan-Feb;3(1):85)] Lagarde P, et al. **Cancer Radiother** 1998 Dec;2(6):747-51 (18 ref.) (Eng. Abstr.) **(Fre)**

[Adjuvant chemotherapy in early soft tissue sarcoma and palliative chemotherapy in advanced soft tissue sarcoma in adults] Sauer H. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1066-71 (72 ref.) (Eng. Abstr.) **(Ger)**

[Neoadjuvant radiochemotherapy in soft tissue sarcomas. Optimization of local functional tumor control] Sauer R, et al. **Strahlenther Onkol** 1999 Jun;175(6):259-66 (Eng. Abstr.) **(Ger)**

[Phase II study of docetaxel in patients with advanced stage soft tissue sarcoma] Amodio A, et al. **Clin Ter** 1998 Mar-Apr;149(2):121-5 (Eng. Abstr.) **(Ita)**

[How do we treat refractory soft tissue sarcomas? (editorial)] Colucci G. **Clin Ter** 1998 Sep-Oct;149(5):327-8 (22 ref.) **(Ita)**

[New approaches to antitumor therapy of various morphological variants of primary bone sarcoma (editorial)] Kushlinskii NE, et al. **Arkh Patol** 1999 Jan-Feb; 61(1):9-15 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

Protein kinase C isoform expression and activity alter paclitaxel resistance in vitro. Chen L, et al. **Gynecol Oncol** 1999 Feb;72(2):171-9

EPIDEMIOLOGY

A review of the epidemiology of soft tissue sarcoma. Olsson H. **Acta Orthop Scand Suppl** 1999 Jun;285:8-10 (29 ref.)

Occupational chlorophenol exposure and soft tissue sarcoma risk among men aged 30-60 years. Hoppin JA, et al. **Am J Epidemiol** 1998 Oct 1;148(7):693-703

Second malignancies after treatment for Ewing's sarcoma: a report of the CESS-studies. Dunst J, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):379-84

Soft tissue sarcoma of the upper extremity: descriptive data and outcome in a population-based series of 108 adult patients. Gustafson P, et al. **J Hand Surg [Am]** 1999 Jul; 24(4):668-74

Soft tissue sarcomas: pattern diagnosis or entity? Talati N, et al. **JPMA J Pak Med Assoc** 1998 Sep;48(9):272-5

Head and neck and intra-oral soft tissue sarcomas. Gorsky M, et al. **Oral Oncol** 1998 Jul;34(4):292-6

[Incidence and epidemiology of prostatic cancer in the Urology Department at CHU-Tokoin (Lome-Togo)] Anoukoum T, et al. **Tunis Med** 1998 Feb;76(2):1061-4 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Occupational risk factors for sarcoma subtypes. Hoppin JA, et al. **Epidemiology** 1999 May;10(3):300-6

Soft tissue sarcoma after treatment for breast cancer--a Swedish population-based study. Karlsson P, et al. **Eur J Cancer** 1998 Dec;34(13):2068-75

Colony-stimulating factor-1 and its receptor do not have a role in the pathogenesis of uterine sarcomas. Anderson PS, et al. **Gynecol Oncol** 1999 Aug;74(2):202-7

Radiation induced sarcoma of the head and neck. Patel SG, et al. **Head Neck** 1999 Jul;21(4):346-54 (56 ref.)

Granulocytic sarcoma as isolated extramedullary relapse after donor lymphocyte infusion in a patient with CML who relapsed after allogeneic bone marrow transplantation: a case report. Lee JJ, et al. **J Korean Med Sci** 1998 Aug; 13(4):434-6

Fourteen cases of sarcomatous degeneration in Paget's disease. Jattiot F, et al. **J Rheumatol** 1999 Jan;26(1):150-5

GENETICS

Genetic changes in bone and soft tissue tumors. Mandahl N, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:30-40 (59 ref.)

Prognostic factors in soft tissue sarcoma. A review and the Scandinavian Sarcoma Group experience. Rydholm A, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:50-7 (72 ref.)

Correlation between clinicopathological features and karyotype in spindle cell sarcomas. A report of 130 cases from the CHAMP study group. Fletcher CD, et al. **Am J Pathol** 1999 Jun;154(6):1841-7

Frequent loss of expression or aberrant alternative splicing of P2XM, a p53-inducible gene, in soft-tissue tumours. Nawa G, et al. **Br J Cancer** 1999 Jun;80(8):1185-9

Molecular alterations in bone and soft-tissue sarcoma. Bell RS, et al. **Can J Surg** 1999 Aug;42(4):259-66 (45 ref.)

H-ras and K-ras mutations in soft tissue sarcoma: comparative studies of sarcomas from Korean and American patients. Yoo J, et al. **Cancer** 1999 Jul 1; 86(1):58-63

Allelic losses at 1p, 9q, 10q, 14q, and 22q in the progression of aggressive meningiomas and undifferentiated meningeal sarcomas. Lamszus K, et al. **Cancer Genet Cytogenet** 1999 Apr 15;110(2):103-10

GLI gene expression in bone and soft tissue sarcomas of adult patients correlates with tumor grade. Stein U, et al. **Cancer Res** 1999 Apr 15;59(8):1890-5

Bibliography. Current world literature. Sarcomas. **Curr Opin Oncol** 1999 Jul;11(4):B147-54

Genetics and the biologic basis of sarcomas. Bennicelli JL, et al. **Curr Opin Oncol** 1999 Jul;11(4):267-74 (65 ref.)

The cytogenetic and molecular characterization of benign and malignant soft tissue tumors. Sreekantaiah C. **Cytogenet Cell Genet** 1998;82(1-2):13-29 (277 ref.)

Comparison of routine flow cytometric DNA analysis of fresh tissues in two laboratories: effects of differences in preparation methods and background models of cell cycle calculation. Heiden T, et al. **Cytometry** 1998 Aug 15; 34(4):187-97

Molecular assessment of clonality leads to the identification of a new germ line TP53 mutation associated with malignant cystosarcoma phyllodes and soft tissue sarcoma. Bot FJ, et al. **Diagn Mol Pathol** 1998 Dec;7(6):295-301

Comparison of genetic changes in primary sarcomas and their pulmonary metastases. Tarkkanen M, et al. **Genes Chromosomes Cancer** 1999 Aug;25(4):323-31

Cytogenetics of uterine sarcomas: presentation of eight new cases and review of the literature. Iliszko M, et al. **Gynecol Oncol** 1998 Nov;71(2):172-6

Molecular analysis of granulocytic sarcoma: a single center experience [letter] Martinelli G, et al. **Haematologica** 1999 Apr;84(4):380-2

Characterization of the 17p amplicon in human sarcomas: microsatellite marker analysis. Wolf M, et al. **Int J Cancer** 1999 Jul 30;82(3):329-33

Alterations of INK4A and INK4B genes in adult soft tissue sarcomas: effect on survival. Orlow I, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):73-9

Microsatellite alterations in various sarcomas in Japanese patients. Suwa K, et al. **J Orthop Sci** 1999;4(3):223-30

Frequent p53 gene mutations in soft tissue sarcomas arising in burn scar. Nakanishi H, et al. **Jpn J Cancer Res** 1999 Mar;90(3):276-9

Identical variant TSG101 transcripts in soft tissue sarcomas and various non-neoplastic tissues. Willeke F, et al. **Mol Carcinog** 1998 Dec;23(4):195-200

Mice deficient of Lats1 develop soft-tissue sarcomas, ovarian tumours and pituitary dysfunction. St. John MA, et al. **Nat Genet** 1999 Feb;21(2):182-6

A KRAB-related domain and a novel transcription repression domain in proteins encoded by SSX genes that are disrupted in human sarcomas. Lim FL, et al. **Oncogene** 1998 Oct 15;17(15):2013-8

Third report of t(19q)(13.4) in mesenchymal hamartoma of liver with comments on link to embryonal sarcoma. Bove KE, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):438-42

[What is the value of recent molecular biology knowledge for surgical oncologic therapy of soft tissue sarcoma?] Willeke F. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:393-8 (28 ref.) (Eng. Abstr.) **(Ger)**

[Frequency, distribution and prognostic relevance of p53 mutations in soft tissue sarcomas] Taubert H, et al. **Verh Dtsch Ges Pathol** 1998;82:340-4 (Eng. Abstr.) **(Ger)**

[p53 overexpression as independent prognostic marker in soft tissue sarcomas is antibody dependent] Würl P, et al. **Verh Dtsch Ges Pathol** 1998;82:358-61 (Eng. Abstr.) **(Ger)**

HISTORY

The Scandinavian Sarcoma Group. Background, organization and the Central Register--the first 20 years. Alvegård TA, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:3-7

Ideas and principles of action. Nilsonne U, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:1-2

IMMUNOLOGY

Immunohistochemical analysis of Fas ligand expression in sarcomas. Sarcomas express high level of FasL in vivo. Lee SH, et al. **APMIS** 1998 Nov;106(11):1035-40

Oesophageal sarcoma with CD34 positivity [letter] Ikeda T, et al. **Histopathology** 1998 Sep;33(3):284-6

Heat shock protein antibodies in sarcoma patients undergoing 41.8 degrees C whole body hyperthermia. Katschinski DM, et al. **J Immunother** 1999 Jan;22(1):67-70

METABOLISM

Clinical relevance of pRb and p53 co-overexpression in soft tissue sarcomas. Würl P, et al. **Cancer Lett** 1999 May 24; 139(2):159-65

Overexpression of cyclin D1 is associated with poor prognosis in extremity soft-tissue sarcomas. Kim SH, et al. **Clin Cancer Res** 1998 Oct;4(10):2377-82

Protein synthesis rate measured with L-[1-11C]tyrosine positron emission tomography correlates with mitotic activity and MIB-1 antibody-detected proliferation in human soft tissue sarcomas. Plaat B, et al. **Eur J Nucl Med** 1999 Apr;26(4):328-32

Melan-A/Mart-1 expression in various melanocytic lesions and in non-melanocytic soft tissue tumours. Orosz Z. **Histopathology** 1999 Jun;34(6):517-25

Epithelioid sarcoma: presence of vascular-endothelial cadherin and lack of epithelial cadherin. Smith ME, et al. **Histopathology** 1998 Nov;33(5):425-31

Epithelioid sarcoma: an immunohistochemical analysis of 112 classical and variant cases and a discussion of the differential diagnosis. Miettinen M, et al. **Hum Pathol** 1999 Aug;30(8):934-42

In vitro invasiveness of human epithelioid-sarcoma cell lines: association with cell motility and inverse correlation with the expression of tissue inhibitor of metalloproteinases. Engers R, et al. **Int J Cancer** 1999 Jan 29;80(3):406-12

Pharmacokinetics of ifosfamide administered according to three different schedules in metastatic soft tissue and bone sarcomas. Comandone A, et al. **J Chemother** 1998 Oct; 10(5):385-93

Coexpression of HGF and c-Met/HGF receptor in human bone and soft tissue tumors. Fukuda T, et al. **Pathol Int** 1998 Oct;48(10):757-62

Expression of p21WAF1/CIP1 in soft tissue sarcomas: a comparative immunohistochemical study with p53 and Ki-67. Pindzola JA, et al. **Pathol Res Pract** 1998; 194(10):685-91

MORTALITY

Pulmonary metastases from soft tissue sarcoma: analysis of patterns of diseases and postmetastasis survival. Billingsley KG, et al. **Ann Surg** 1999 May;229(5):602-10; discussion 610-2

Multifactorial analysis of long-term follow-up (more than 5 years) of primary extremity sarcoma. Lewis JJ, et al. **Arch Surg** 1999 Feb;134(2):190-4

Extremity soft tissue sarcoma: factors predictive of local recurrence and survival. Wilson RB, et al. **Aust N Z J Surg** 1999 May;69(5):344-9

Multifactorial analysis of the survival of patients with distant metastasis arising from primary extremity sarcoma. Billingsley KG, et al. **Cancer** 1999 Jan 15;85(2):389-95

Mutant p53 expression: a marker of diminished survival in well-differentiated soft tissue sarcoma. Hieken TJ, et al. **Clin Cancer Res** 1996 Aug;2(8):1391-5

Survival of adult patients with cancer of soft tissues or bone in Europe. EUROCARE Working Group. Storm HH. **Eur J Cancer** 1998 Dec;34(14 Spec No):2212–7

Prognostic factors in soft tissue sarcomas: the Aarhus experience. Vraa S, et al. **Eur J Cancer** 1998 Nov; 34(12):1876–82

Prognostic factors in superficial adult soft tissue sarcomas: analysis of a series of 105 patients. Cany L, et al. **J Surg Oncol** 1999 May;71(1):4–9

NURSING

Gender issues in patients with extremity soft-tissue sarcoma: a pilot study. Znajda TL, et al. **Cancer Nurs** 1999 Apr; 22(2):111–8

PATHOLOGY

Logistic regression analysis of high grade spindle cell neoplasms. A fine needle aspiration cytologic study. Liu K, et al. **Acta Cytol** 1999 Jul–Aug;43(4):593–600

Spermatic cord sarcoma in adults. Merimsky O, et al. **Acta Oncol** 1999;38(5):635–8

Morphologic review of 1000 soft tissue sarcomas from the Scandinavian Sarcoma Group (SSG) Register. The peer-review committee experience. Meis-Kindblom JM, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:18–26

Prognostic factors in soft tissue sarcoma. A review and the Scandinavian Sarcoma Group experience. Rydholm A, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:50–7 (72 ref.)

Ultrasound-guided fine needle aspiration biopsy of gall bladder malignancies. Venkataramu NK, et al. **Acta Radiol** 1999 Jul;40(4):436–9

Atypical prostatic stromal lesions. Cohen MB. **Adv Anat Pathol** 1998 Nov;5(6):359–66 (13 ref.)

MR appearance of penile epithelioid sarcoma. Oto A, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):555–6

Low-grade fibromyxoid sarcoma: clinicopathologic case report with review of the literature. Shidham VB, et al. **Am J Clin Oncol** 1999 Apr;22(2):150–5 (17 ref.)

Recommendations for reporting soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Am J Clin Pathol** 1999 May;111(5):594–8

Fine-needle aspiration biopsy of soft tissue sarcomas. A cytomorphologic analysis with emphasis on histologic subtyping, grading, and therapeutic significance. Kilpatrick SE, et al. **Am J Clin Pathol** 1999 Aug;112(2):179–88

Follicular dendritic cell sarcoma and interdigitating reticulum cell sarcoma: a review. Fonseca R, et al. **Am J Hematol** 1998 Oct;59(2):161–7 (32 ref.)

Sarcomas and related proliferative lesions of specialized prostatic stroma [letter; comment] Colby TV, et al. **Am J Surg Pathol** 1999 Feb;23(2):243–4. Comment on: Am J Surg Pathol 1998 Feb;22(2):148–62.

Multiple familial gastrointestinal autonomic nerve tumors and small intestinal neuronal dysplasia. O'Brien P, et al. **Am J Surg Pathol** 1999 Feb;23(2):198–204

Origin of microcells in the human sarcoma cell line HT-1080. Buikis I, et al. **Anal Cell Pathol** 1999;18(2):73–85

Myxoid variant of follicular dendritic cell sarcoma arising in the breast. Fisher C, et al. **Ann Diagn Pathol** 1999 Apr; 3(2):92–8

Histologic prognostication in soft tissue sarcomas: grading versus subtyping or both? A comprehensive review of the literature with proposed practical guidelines. Kilpatrick SE. **Ann Diagn Pathol** 1999 Feb;3(1):48–61 (97 ref.)

Staging of soft tissue sarcomas [editorial; comment] Brennan MF. **Ann Surg Oncol** 1999 Jan–Feb;6(1):8–9. Comment on: Ann Surg Oncol 1999 Jan–Feb;6(1):57–69.

Modified staging system for extremity soft tissue sarcomas [see comments] Ramanathan RC, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):57–69. Comment in: Ann Surg Oncol 1999 Jan–Feb;6(1):8–9.

G2/M checkpoint is p53-dependent and independent after irradiation in five human sarcoma cell lines. Bache M, et al. **Anticancer Res** 1999 May–Jun;19(3A):1827–32

p53/MDM-2 immunohistochemical expression correlated with proliferative activity in different subtypes of human sarcomas: a ten-year follow-up study. Stefanou DG, et al. **Anticancer Res** 1998 Nov–Dec;18(6B):4673–81

Proximal-type epithelioid sarcoma in the pelvic soft tissues. Fukunaga M, et al. **APMIS** 1999 Mar;107(3):283–8

Sarcomatoid renal cell carcinoma with chromophobe cell foci. Report of a case. Hirokawa M, et al. **APMIS** 1998 Oct;106(10):993–6

Prognostic value of sarcomatoid histology and volume-weighted mean nuclear volume in renal cell carcinoma. Kanamaru H, et al. **BJU Int** 1999 Feb; 83(3):222–6

Prognostic implications of various models for calculation of S-phase fraction in 259 patients with soft tissue sarcoma. Gustafson P, et al. **Br J Cancer** 1999 Mar;79(7–8):1205–9

Comparison of the Ki-67 score and S-phase fraction as prognostic variables in soft-tissue sarcoma. Huuhtanen RL, et al. **Br J Cancer** 1999 Feb;79(5–6):945–51

Results of surgery and multimodal therapy for patients with soft tissue sarcoma invading to vascular structures. Hohenberger P, et al. **Cancer** 1999 Jan 15;85(2):396–408

Expression of cyclin A in soft tissue sarcomas correlates with tumor aggressiveness. Huuhtanen RL, et al. **Cancer Res** 1999 Jun 15;59(12):2885–90

High-grade endometrial stromal sarcoma in a 10-year-old girl: case report. Wang KC, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Sep;21(3):312–7 (20 ref.)

Relative contribution of normal and neoplastic cells determines telomerase activity and telomere length in primary cancers of the prostate, colon, and sarcoma. Engelhardt M, et al. **Clin Cancer Res** 1997 Oct; 3(10):1849–57

Fine needle aspiration (FNA) cytology in the diagnosis of recurrent soft tissue sarcoma. Trovik CS, et al. **Cytopathology** 1998 Oct;9(5):320–8

"Dedifferentiated" chordoma: a case report of the cytomorphologic findings on fine-needle aspiration. Layfield LJ, et al. **Diagn Cytopathol** 1998 Nov;19(5):378–81

Undifferentiated (embryonal) sarcoma of the liver: fine-needle aspiration cytology and preoperative chemotherapy as an approach to diagnosis and initial treatment. A case report. Pollono DG, et al. **Diagn Cytopathol** 1998 Aug;19(2):102–6

Occupational risk factors for sarcoma subtypes. Hoppin JA, et al. **Epidemiology** 1999 May;10(3):300–6

Endometrial stromal sarcoma of the vulva arising in extraovarian endometriosis: a case report and literature review. Irvin W, et al. **Gynecol Oncol** 1998 Nov;71(2):313–6

Epithelioid sarcoma of the vulva. Tjalma WA, et al. **Gynecol Oncol** 1999 Apr;73(1):160–4 (21 ref.)

Dendritic cell sarcoma of the thyroid. Galati LT, et al. **Head Neck** 1999 May;21(3):273–5

Primary cardiac sarcomas: an immunohistochemical and grading study with long-term follow-up of 24 cases. Donsbeck AV, et al. **Histopathology** 1999 Apr; 34(4):295–304

Desmoplastic malignant melanoma of the uterine cervix: a rare primary malignancy in the uterus mimicking a sarcoma [letter] Ishikura H, et al. **Histopathology** 1998 Jul;33(1):93–4

Sarcomatous transformation of chromophobe cell renal carcinoma [letter] Mai KT, et al. **Histopathology** 1999 Jun; 34(6):557–9

Intimal sarcoma of the left iliac artery [letter] Weickert U, et al. **Histopathology** 1998 Sep;33(3):286–7

Recommendations for the reporting of soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Hum Pathol** 1999 Jan;30(1):3–7

Epithelioid sarcoma: an immunohistochemical analysis of 112 classical and variant cases and a discussion of the differential diagnosis. Miettinen M, et al. **Hum Pathol** 1999 Aug;30(8):934–42

Stromal sarcoma of the breast: a case report. Chawla S, et al. **Indian J Pathol Microbiol** 1998 Jul;41(3):355–6

Biopsy. Aboulafia AJ. **Instr Course Lect** 1999;48:587–90 (6 ref.)

In vitro invasiveness of human epithelioid-sarcoma cell lines: association with cell motility and inverse correlation with the expression of tissue inhibitor of metalloproteinases. Engers R, et al. **Int J Cancer** 1999 Jan 29;80(3):406–12

Clinical and radiological aspects of idiopathic diabetic muscle infarction. Rational approach to diagnosis and treatment. Aboulafia AJ, et al. **J Bone Joint Surg Br** 1999 Mar; 81(2):323–6

In vitro influence of lectins and neoglycoconjugates on the growth of three human sarcoma cell lines. Remmelink M, et al. **J Cancer Res Clin Oncol** 1999;125(5):275–85

Sarcomatoid renal cell carcinoma: biologic behavior, prognosis, and response to combined surgical resection and immunotherapy. Cangiano T, et al. **J Clin Oncol** 1999 Feb; 17(2):523–8

Histochemical investigation into the molecular mechanisms of malignant transformation in a benign glomus tumour. Hegyi L, et al. **J Clin Pathol** 1998 Nov;51(11):872–4

Soft tissue sarcomas: pattern diagnosis or entity? Talati N, et al. **JPMA J Pak Med Assoc** 1998 Sep;48(9):272–5

Brief report: Neural differentiation of a novel cell line, YCUS-5, established from proximal-type epithelioid sarcoma of a child. Goto H, et al. **Med Pediatr Oncol** 1999 Aug;33(2):137–8

Recommendations for the reporting of soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Mod Pathol** 1998 Dec;11(12):1257–61

Phosphorus MR spectroscopy in the treatment of human extremity sarcomas. Sijens PE. **NMR Biomed** 1998 Nov; 11(7):341–53 (73 ref.)

Metastatic uterine leiomyosarcoma presenting as a primary sarcoma of the parotid gland. Saiz AD, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 2):667–8

Extranodal follicular dendritic cell sarcoma of the palate. Araújo VC, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):209–14 (30 ref.)

A case of chromophobe renal cell carcinoma with sarcomatoid foci and a small daughter lesion. Kuroda N, et al. **Pathol Int** 1998 Oct;48(10):812–7 (30 ref.)

Mediastinal mature teratoma with coexistence of angiosarcoma, granulocytic sarcoma and a hematopoietic region in the tumor: a rare case of association between hematological malignancy and mediastinal germ cell tumor. Saito A, et al. **Pathol Int** 1998 Sep;48(9):749–53

Epithelioid sarcoma of the penis. Clinicopathologic study of a tumor with myogenic features and review of the literature concerning this unusual location. Corsi A, et al. **Pathol Res Pract** 1999;195(6):441–8; discussion 449 (50 ref.)

Inflammatory myxoid tumor of the soft parts with bizarre giant cells. Michal M. **Pathol Res Pract** 1998;194(8):529–33

A case of pseudosarcoma associated with type 3 squamous cell carcinoma of the esophagus: report of a case. Kubota S, et al. **Surg Today** 1999;29(8):777–81

Intrahepatic cholangiocarcinoma with extensive sarcomatous change: report of a case. Matsuo S, et al. **Surg Today** 1999; 29(6):560–3

Histologic grading of adult soft tissue sarcomas. Coindre JM. **Verh Dtsch Ges Pathol** 1998;82:59–63 (26 ref.)

Comparative analysis of prognostic indicators for sarcomas of the soft parts and the viscerae. Rudolph P, et al. **Verh Dtsch Ges Pathol** 1998;82:246–52

Recommendations for the reporting of soft tissue sarcoma. Association of Directors of Anatomic and Surgical Pathology. **Virchows Arch** 1999 Mar;434(3):187–91

Intimal-type primary sarcoma of the aorta. Report of a case with evidence of rhabdomyosarcomatous differentiation. Miracco C, et al. **Virchows Arch** 1999 Jul;435(1):62–6

[A study on histogenesis of gastrointestinal stromal tumors] Yang J, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Jun;26(3):144–6 (Eng. Abstr.) **(Chi)**

[Sarcomatous chromophobe cell renal carcinoma. 2 case reports] Hes O, et al. **Cesk Patol** 1999 Jan;35(1):15–9 (Eng. Abstr.) **(Cze)**

[Recommendations for anatamo-pathologic management of soft tissue sarcomas in the adult. Pathologists of the FNCLCC Sarcoma Group (Fédération Nationale des Centres de Lutte Contre le Cancer)] Coindre JM. **Ann Pathol** 1998 Dec;18(6):505–11 (24 ref.) (Eng. Abstr.) **(Fre)**

[Histoprognostic grade in adult soft tissue sarcomas. Evaluation method, value and limits] Guillou L, et al. **Ann Pathol** 1998 Dec;18(6):473–80 (42 ref.) **(Fre)**

[Hyalinizing spindle cell tumor with giant rosettes. Case report with immunohistochemical characterization] Meister P, et al. **Pathologe** 1999 May;20(3):183–8 (Eng. Abstr.) **(Ger)**

[Prognostic factors for gastrointestinal stromal tumors] Gloeckner K, et al. **Verh Dtsch Ges Pathol** 1998;82:253–60 (Eng. Abstr.) **(Ger)**

[p53 overexpression as independent prognostic marker in soft tissue sarcomas is antibody dependent] Würl P, et al. **Verh Dtsch Ges Pathol** 1998;82:358–61 (Eng. Abstr.) **(Ger)**

[Clinical experience with uterine sarcoma] Melilli GA, et al. **Minerva Ginecol** 1998 Jul–Aug;50(7–8):291–5 (25 ref.) (Eng. Abstr.) **(Ita)**

[Imprint cytological features of soft tissue sarcomas] Sonobe H. **Rinsho Byori** 1999 Jul;47(7):614–21 (Eng. Abstr.) **(Jpn)**

[Sarcoma consisting of dendritic reticular cells] Pavlovskaia AI, et al. **Arkh Patol** 1998 Jul–Aug;60(4):14–9 (Eng. Abstr.) **(Rus)**

[Follicular dendritic cell sarcoma in lymph node (letter)] Barón AV, et al. **Medicina (B Aires)** 1998;58(6):765–6 **(Spa)**

[Follicular dendritic cell sarcoma in lymph node (letter)] Maxit MJ, et al. **Medicina (B Aires)** 1998;58(6):765 **(Spa)**

PSYCHOLOGY

Gender issues in patients with extremity soft-tissue sarcoma: a pilot study. Znajda TL, et al. **Cancer Nurs** 1999 Apr; 22(2):111–8

RADIOGRAPHY

Angiography for assessment of preoperative chemotherapy in musculoskeletal sarcomas. Fujii J, et al. **Clin Orthop** 1999 Mar;(360):197–206

Detection of pulmonary nodules with overlapping vs non-overlapping image reconstruction at spiral CT. Diederich S, et al. **Eur Radiol** 1999;9(2):281–6

[Computerized tomography and magnetic resonance in the study of retroperitoneal sarcomas] Marano I, et al. **Radiol Med (Torino)** 1998 Sep;96(3):232–7 (Eng. Abstr.) **(Ita)**

[Quantitative evaluation of the effectiveness of radiotherapy] Lebedenko IM, et al. **Med Tekh** 1998 Jul–Aug;(4):3–5 (Eng. Abstr.) **(Rus)**

RADIONUCLIDE IMAGING

Functional imaging and detection of local recurrence in soft tissue sarcomas by positron emission tomography. Schwarzbach M, et al. **Anticancer Res** 1999 Mar–Apr; 19(2B):1343–9

Prospective evaluation of soft tissue masses and sarcomas using fluorodeoxyglucose positron emission tomography. Lucas JD, et al. **Br J Surg** 1999 Apr;86(4):550–6

F-18 FDG whole-body positron emission tomography scan in primary breast sarcoma. Bakheet SM, et al. **Clin Nucl Med** 1998 Sep;23(9):604–8

Simulation of renal function by tumor and its effect on the calculated glomerular filtration rate. Boxen I. **Clin Nucl Med** 1999 May;24(5):338–42

Tc-99m DTPA used as reference imaging to evaluate the distribution of other tumor-seeking tracers in tumors associated with neurofibromatosis. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):435–9

A PET study of 18FDG uptake in soft tissue masses. Lodge MA, et al. **Eur J Nucl Med** 1999 Jan;26(1):22–30

Protein synthesis rate measured with L-[1-11C]tyrosine positron emission tomography correlates with mitotic activity and MIB-1 antibody-detected proliferation in

human soft tissue sarcomas. Plaat B, et al. **Eur J Nucl Med** 1999 Apr;26(4):328–32

Carbon-11-thymidine and FDG to measure therapy response. Shields AF, et al. **J Nucl Med** 1998 Oct; 39(10):1757–62

L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al. **J Nucl Med** 1999 Feb;40(2):262–7

RADIOTHERAPY

Radiotherapy on adult patients with soft tissue sarcoma with fast neutrons or photons. Schönekaes KG, et al. **Anticancer Res** 1999 May-Jun;19(3B):2355–9

Magnetic resonance imaging of soft tissue expanders used in the management of musculoskeletal sarcomas. Saunders A, et al. **Br J Radiol** 1998 Sep;71(849):926–9

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma: is there a leg to stand on? [comment] Hsi RA, et al. **Cancer J Sci Am** 1999 Jan-Feb;5(1):18–9. Comment on: Cancer J Sci Am 1999 Jan-Feb;5(1):26–33.

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma arising in a previously radiated field [see comments] Pearlstone DB, et al. **Cancer J Sci Am** 1999 Jan-Feb;5(1):26–33. Comment in: Cancer J Sci Am 1999 Jan-Feb;5(1):18–9.

Is pre-operative radiotherapy superior to postoperative radiotherapy in the treatment of soft tissue sarcoma? Robinson MH, et al. **Eur J Cancer** 1998 Aug;34(9):1309–16 (17 ref.)

Adjuvant brachytherapy in the treatment of soft-tissue sarcomas. Crownover RL, et al. **Hematol Oncol Clin North Am** 1999 Jun;13(3):595–607 (40 ref.)

Radiation therapy for consolidation of metastatic or recurrent sarcomas in children treated with intensive chemotherapy and stem cell rescue. A feasibility study. Czyzewski EA, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1;44(3):569–77

Impact of radiotherapy on local control and survival in uterine sarcomas: a retrospective study from the Grup Oncologic Català-Occità. Ferrer F, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):47–52

Postoperative radiotherapy in the management of adult soft tissue sarcoma of the extremities: results with two different total dose, fractionation, and overall treatment time schedules. Le Péchoux C, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):879–86

Late complications of therapy in 213 children with localized, nonorbital soft-tissue sarcoma of the head and neck: A descriptive report from the Intergroup Rhabdomyosarcoma Studies (IRS)-II and - III. IRS Group of the Children's Cancer Group and the Pediatric Oncology Group. Raney RB, et al. **Med Pediatr Oncol** 1999 Oct;33(4):362–71

Use of brachytherapy to preserve function in children with soft-tissue sarcomas. Nag S, et al. **Oncology (Huntingt)** 1999 Mar;13(3):361–69; discussion 369–70, 373–4 (32 ref.)

Growth hormone deficiency following radiotherapy for orbital and parameningeal sarcomas. Goddard AG, et al. **Pediatr Hematol Oncol** 1999 Jan-Feb;16(1):23–33

The effect of combined nicotinamide and carbogen treatments in human tumour xenografts: oxygenation and tumour control studies. Stüben G, et al. **Radiother Oncol** 1998 Aug;48(2):143–8

Chemoradiation treatment strategies for localized sarcoma: conventional and investigational approaches. Pisters PW. **Semin Surg Oncol** 1999 Jul-Aug;17(1):66–71 (25 ref.)

Contemporary radiotherapy for soft tissue sarcoma. Wylie JP, et al. **Semin Surg Oncol** 1999 Jul-Aug;17(1):33–46 (91 ref.)

Interstitial brachytherapy in soft tissue sarcomas. The Tata Memorial Hospital experience. Chaudhary AJ, et al. **Strahlenther Onkol** 1998 Oct;174(10):522–8

Treatment results of fast neutron irradiation in soft tissue sarcomas. Prott FJ, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:76–8

[Treatment of soft tissue sarcomas of the extremities and the trunk by conservative surgery and postoperative irradiation. Apropos of a series of 96 patients] Pouchard I, et al. **Cancer Radiother** 1999 May-Jun;3(3):221–6 (Eng. Abstr.) **(Fre)**

[Late results of radiotherapy of soft tissue sarcoma] Schultze J, et al. **Rontgenpraxis** 1998;51(11):413–9 (30 ref.) (Eng. Abstr.) **(Ger)**

[Radiotherapy of soft tissue sarcomas] Schwarz R, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1072–80 (100 ref.) (Eng. Abstr.) **(Ger)**

[The advantage of adjuvant radiotherapy in soft-tissue sarcomas--the results of a prospective randomized study] Budach V. **Strahlenther Onkol** 1998 Oct;174(10):542–4 **(Ger)**

[Neoadjuvant radiochemotherapy in soft tissue sarcomas. Optimization of local functional tumor control] Sauer R, et al. **Strahlenther Onkol** 1999 Jun;175(6):259–66 (Eng. Abstr.) **(Ger)**

[Quantitative evaluation of the effectiveness of radiotherapy] Lebedenko IM, et al. **Med Tekh** 1998 Jul-Aug;(4):3–5 (Eng. Abstr.) **(Rus)**

REHABILITATION

[Surgical management of soft tissue sarcomas: principles of resection and reconstructive plastic procedures] Steinau HU, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19; 87(34):1061–5 (17 ref.) (Eng. Abstr.) **(Ger)**

SECONDARY

Pulmonary metastases from soft tissue sarcoma: analysis of patterns of diseases and postmetastasis survival. Billingsley KG, et al. **Ann Surg** 1999 May;229(5):602–10; discussion 610–2

Multifactorial analysis of the survival of patients with distant metastasis arising from primary extremity sarcoma. Billingsley KG, et al. **Cancer** 1999 Jan 15;85(2):389–95

Pulmonary cysts as the sole metastatic manifestation of soft tissue sarcoma: case report and consideration of the pathogenesis. Hasegawa S, et al. **Chest** 1999 Jul; 116(1):263–5 (12 ref.)

Comparison of genetic changes in primary sarcomas and their pulmonary metastases. Tarkkanen M, et al. **Genes Chromosomes Cancer** 1999 Aug;25(4):323–31

Distant skin and soft tissue metastases from sarcomas. Rao UN, et al. **J Surg Oncol** 1998 Oct;69(2):94–8

Brain metastases in musculoskeletal sarcomas. Ogose A, et al. **Jpn J Clin Oncol** 1999 May;29(5):245–7

Metastatic nonrhabdomyosarcomatous soft-tissue sarcomas in children and adolescents: the St. Jude Children's Research Hospital experience. Pappo AS, et al. **Med Pediatr Oncol** 1999 Aug;33(2):76–82

[Surgical resection of recurrent pulmonary metastases] Galbis JM, et al. **Arch Bronconeumol** 1998 Nov;34(10):489–91 (Eng. Abstr.) **(Spa)**

SURGERY

Radiation-induced brain tumours: potential late complications of radiation therapy for brain tumours. Nishio S, et al. **Acta Neurochir (Wien)** 1998;140(8):763–70

Local recurrence after surgery for soft tissue sarcoma. The Scandinavian Sarcoma Group experience. Trovik CS, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:45–6 (16 ref.)

Sarcoma of the breast: implications of the extent of local therapy. North JH Jr, et al. **Am Surg** 1998 Nov; 64(11):1059–61

Gastrointestinal sarcoma (GIST)--a review of surgical management. Lehnert T. **Ann Chir Gynaecol** 1998; 87(4):297–305 (64 ref.)

Prognostic factors and results after surgical treatment of primary sarcomas of the lung. Régnard JF, et al. **Ann Thorac Surg** 1999 Jul;68(1):227–31

High complication rate of reconstruction using Ilizarov bone transport method in patients with bone sarcomas. Ozaki T, et al. **Arch Orthop Trauma Surg** 1998;118(3):136–9

Functional outcome in amputation versus limb sparing of patients with lower extremity sarcoma: a matched case-control study. Davis AM, et al. **Arch Phys Med Rehabil** 1999 Jun;80(6):615–8

Importance of surgical resection in the successful management of soft tissue sarcoma. Flugstad DL, et al. **Arch Surg** 1999 Aug;134(8):856–61; discussion 861–2

Extremity soft tissue sarcoma: factors predictive of local recurrence and survival. Wilson RB, et al. **Aust N Z J Surg** 1999 May;69(5):344–9

Gastrointestinal stromal sarcomas. Lev D, et al. **Br J Surg** 1999 Apr;86(4):545–9

Cryosurgical ablation of soft tissue sarcomas: a phase I trial of feasibility and safety. Menendez LR, et al. **Cancer** 1999 Jul 1;86(1):50–7

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma: is there a leg to stand on? [comment] Hsi RA, et al. **Cancer J Sci Am** 1999 Jan-Feb;5(1):18–9. Comment on: Cancer J Sci Am 1999 Jan-Feb;5(1):26–33.

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma arising in a previously radiated field [see comments] Pearlstone DB, et al. **Cancer J Sci Am** 1999 Jan-Feb;5(1):26–33. Comment in: Cancer J Sci Am 1999 Jan-Feb;5(1):18–9.

Evaluating functional outcome in patients with lower extremity sarcoma. Davis AM, et al. **Clin Orthop** 1999 Jan; (358):90–100

Functioning muscle transplantation after wide excision of sarcomas in the extremity. Ihara K, et al. **Clin Orthop** 1999 Jan;(358):140–8

Quantitative methodologies for selection of patients with recurrent abdominopelvic sarcoma for treatment. Berthet B, et al. **Eur J Cancer** 1999 Mar;35(3):413–9

Prognostic factors in soft tissue sarcomas: the Aarhus experience. Vraa S, et al. **Eur J Cancer** 1998 Nov; 34(12):1876–82

Surgical treatment of primary pulmonary sarcomas. Bacha EA, et al. **Eur J Cardiothorac Surg** 1999 Apr;15(4):456–60

Surgical aspects of iliopsoas compartment tumours. Spillane AJ, et al. **Eur J Surg Oncol** 1999 Aug;25(4):389–91

Postoperative radiotherapy in the management of adult soft tissue sarcoma of the extremities: results with two different total dose, fractionation, and overall treatment time schedules. Le Péchoux C, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 1;44(4):879–86

The impact of margin of resection on outcome in pediatric nonrhabdomyosarcoma soft tissue sarcoma. Blakely ML, et al. **J Pediatr Surg** 1999 May;34(5):672–5

The abdominoinguinal incision: the equivalent of thoracoabdominal incision for the lower quadrants of the abdomen. Karakousis CP. **J Surg Oncol** 1998 Dec; 69(4):249–57

Posterior compartment resection of the thigh for soft-tissue sarcomas. Kulaylat MN, et al. **J Surg Oncol** 1999 Aug; 71(4):243–5

Functional outcome after soft-tissue reconstruction for limb salvage after sarcoma surgery. Serletti JM, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1576–83; discussion 1584–5

Reconstructive approaches in soft tissue sarcoma. Langstein HN, et al. **Semin Surg Oncol** 1999 Jul-Aug;17(1):52–65 (27 ref.)

Effective follow-up strategies in soft tissue sarcoma. Whooley BP, et al. **Semin Surg Oncol** 1999 Jul-Aug; 17(1):83–7

MRI evaluation of post-operative seromas in extremity soft tissue sarcomas. Poon-Chue A, et al. **Skeletal Radiol** 1999 May;28(5):279–82

Retroperitoneal sarcoma--the continued challenge for surgery and oncology. Herman K, et al. **Surg Oncol** 1998 Jul-Aug;7(1-2):77–81 (33 ref.)

The diagnostive evaluation and surgical management of soft tissue sarcomas. Igun GO. **West Afr J Med** 1998 Oct-Dec; 17(4):232–5

Primary retroperitoneal soft tissue sarcomas: results of aggressive surgical treatment. Malerba M, et al. **World J Surg** 1999 Jul;23(7):670–5

[The role of intraperitoneal chemotherapy after curative excision of primary abdominopelvic sarcoma] Berthet B, et al. **Ann Chir** 1998;52(7):607–11 (Eng. Abstr.) **(Fre)**

[Cutaneous and subcutaneous sarcomas] Champeau F, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):421–38 (33 ref.) (Eng. Abstr.) **(Fre)**

[Treatment of soft tissue sarcomas of the extremities and the trunk by conservative surgery and postoperative irradiation. Apropos of a series of 96 patients] Pouchard I, et al. **Cancer Radiother** 1999 May-Jun;3(3):221–6 (Eng. Abstr.) **(Fre)**

[Retroperitoneal sarcomas: 2. Surgical and complementary treatment] Bonvalot S. **J Chir (Paris)** 1999 Jun;136(2):61–6 (17 ref.) (Eng. Abstr.) **(Fre)**

[Primary sarcoma of the pulmonary artery. Case report] Gerard A, et al. **Rev Med Interne** 1999 Aug;20(8):705–8 (Eng. Abstr.) **(Fre)**

[Surgery of extensive retroperitoneal soft tissue sarcoma] Junginger T. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:388–92 (8 ref.) (Eng. Abstr.) **(Ger)**

[Secondary resection of soft tissue sarcomas within the scope of a multimodality therapy concept] Peiper M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1316–8 (Eng. Abstr.) **(Ger)**

[Morbidity and tumor control in limb-saving resection with intraoperative radiotherapy in a multimodality therapy concept in soft tissue sarcoma] Schwarzbach M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1312–5 (Eng. Abstr.) **(Ger)**

[Surgical aspects in the multidisciplinary treatment of soft tissue sarcomas] Röhrborn A, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1050–60 (50 ref.) (Eng. Abstr.) **(Ger)**

[Surgical management of soft tissue sarcomas: principles of resection and reconstructive plastic procedures] Steinau HU, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19; 87(34):1061–5 (17 ref.) (Eng. Abstr.) **(Ger)**

[Gemcitabine in advanced stage soft tissue sarcoma: a phase II study] Amodio A, et al. **Clin Ter** 1999 Jan-Feb; 150(1):17–20 (25 ref.) (Eng. Abstr.) **(Ita)**

THERAPY

The Scandinavian Sarcoma Group Register. Bauer HC, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:41–4 (19 ref.)

Hyperthermic isolated limb perfusion with tumour necrosis factor-alpha and melphalan as palliative limb-saving treatment in patients with locally advanced soft-tissue sarcomas of the extremities with regional or distant metastases. Is it worthwhile? Olieman AF, et al. **Arch Orthop Trauma Surg** 1998;118(1-2):70–4

Enhanced retention of in vitro functional activity of platelets from recombinant human thrombopoietin-treated patients following long-term cryopreservation with a platelet-preserving solution (ThromboSol) and 2% DMSO. Vadhan-Raj S, et al. **Br J Haematol** 1999 Feb;104(2):403–11

Soft tissue sarcoma: opening the door to advances in diagnosis and treatment [editorial; comment] Biermann JS, et al. **Cancer** 1999 Jun 15;85(12):2497–8. Comment on: Cancer 1999 Jun 15;85(12):2596–607.

Results of surgery and multimodal therapy for patients with soft tissue sarcoma invading to vascular structures. Hohenberger P, et al. **Cancer** 1999 Jan 15;85(2):396–408

Results of postoperative radiotherapy in the treatment of sarcoma of the corpus uteri. Knocke TH, et al. **Cancer** 1998 Nov 1;83(9):1972–9

Soft tissue sarcoma of the extremities. A multimodality diagnostic and therapeutic approach. Ham SJ, et al. **Cancer Treat Rev** 1998 Dec;24(6):373–91 (319 ref.)

Bibliography. Current world literature. Sarcomas. **Curr Opin Oncol** 1999 Jul;11(4):B147–54

Soft tissue sarcoma in adults. Dirix LY, et al. **Curr Opin Oncol** 1999 Jul;11(4):285–95 (66 ref.)

Uterine sarcomas: the Curie Institut experience. Prognosis factors and adjuvant treatments. Chauveinc L, et al. **Gynecol Oncol** 1999 Feb;72(2):232–7

Present knowledge of gynecologic sarcoma management. Verschraegen CF, et al. **Hematol Oncol Clin North Am**

1999 Feb;13(1):211-23, x (36 ref.)
Sarcomatoid renal cell carcinoma: biologic behavior, prognosis, and response to combined surgical resection and immunotherapy. Cangiano T, et al. **J Clin Oncol** 1999 Feb; 17(2):523-8
Combination interleukin-2 and doxorubicin in advanced adult solid tumors: circumvention of doxorubicin resistance in soft-tissue sarcoma? Le Cesne A, et al. **J Immunother** 1999 May;22(3):268-77
L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al. **J Nucl Med** 1999 Feb;40(2):262-7
Treatment and local control of primary extremity soft tissue sarcomas. Karakousis CP, et al. **J Surg Oncol** 1999 Jul; 71(3):155-61
Multifocal soft tissue sarcoma: limb salvage following hyperthermic isolated limb perfusion with high-dose tumor necrosis factor and melphalan. Lev-Chelouche D, et al. **J Surg Oncol** 1999 Mar;70(3):185-9
Paratesticular sarcoma: failure patterns after definitive local therapy. Catton C, et al. **J Urol** 1999 Jun;161(6):1844-7
Metastatic nonrhabdomyosarcomatous soft-tissue sarcomas in children and adolescents: the St. Jude Children's Research Hospital experience. Pappo AS, et al. **Med Pediatr Oncol** 1999 Aug;33(2):76-82
Phosphorus MR spectroscopy in the treatment of human extremity sarcomas. Sijens PE. **NMR Biomed** 1998 Nov; 11(7):341-53 (73 ref.)
Hyperthermic isolated limb perfusion with tumour necrosis factor and melphalan as treatment of locally advanced or recurrent soft tissue sarcomas of the extremities. Schraffordt Koops H, et al. **Radiother Oncol** 1998 Jul; 48(1):1-4 (19 ref.)
Preclinical experimental therapeutic approaches in soft tissue sarcoma. Hunt KK, et al. **Semin Surg Oncol** 1999 Jul-Aug; 17(1):78-82 (27 ref.)
Immunotherapeutic approaches to sarcoma. Linehan DC, et al. **Semin Surg Oncol** 1999 Jul-Aug;17(1):72-7 (37 ref.)
Soft tissue sarcomas in children. Pappo AS, et al. **Semin Surg Oncol** 1999 Mar;16(2):121-43 (127 ref.)
Inhibition of the transcription factor nuclear factor-kappa B by adenoviral-mediated expression of I kappa B alpha M results in tumor cell death. Feig BW, et al. **Surgery** 1999 Aug;126(2):399-405
[Recommendations of the FNCLCC Sarcoma Group for pathologic management of soft tissue sarcoma in adults] Voigt JJ. **Ann Pathol** 1999 Apr;19(2):153 **(Fre)**
[Solid tumors: sarcomas of bone and soft tissue] Sommelet D. **Arch Pediatr** 1999;6 Suppl 2:337s-340s **(Fre)**
[Standards, options and recommendations (SOR) for clinical care of rhabdomyosarcoma (RMS) and other soft tissue sarcoma in children. Federation of the French Cancer Centers. French Society of Pediatric Oncology (published erratum appears in Bull Cancer 1999 Feb;86(2):232)] Sommelet D, et al. **Bull Cancer** 1998 Dec;85(12):1015-42 (218 ref.) (Eng. Abstr.) **(Fre)**
[High-dose chemotherapy with autologous peripheral blood stem cell transplantation (PBSCT) for refractory bone and soft tissue sarcomas] Yonemoto T, et al. **Gan To Kagaku Ryoho** 1999 Sep;26(10):1431-5 (Eng. Abstr.) **(Jpn)**
[Rare malignant tumors of the larynx] Jurkiewicz D, et al. **Otolaryngol Pol** 1997;51 Suppl 25:46-9 (Eng. Abstr.) **(Pol)**

ULTRASONOGRAPHY

Transrectal ultrasound appearance of radiation-induced prostatic sarcoma. Terris MK. **Prostate** 1998 Nov 1; 37(3):182-6
Pulmonary artery sarcoma diagnosed using intravascular ultrasound images. Okano Y, et al. **Thorax** 1999 Aug; 54(8):748-9

VETERINARY

Pulmonary sarcomas in a young chicken. Hafner S, et al. **Avian Dis** 1998 Oct-Dec;42(4):824-8
Feline vaccine-associated sarcomas. Hendrick MJ. **Cancer Invest** 1999;17(4):273-7 (26 ref.)
Vaccine-Associated Feline Sarcoma Task Force guidelines. Diagnosis and treatment of suspected sarcomas. **J Am Vet Med Assoc** 1999 Jun 15;214(12):1745
Etiology of feline vaccine-associated sarcomas: history and update. Bergman PJ. **J Am Vet Med Assoc** 1998 Nov 15; 213(10):1424-5 (5 ref.)
Review of treatment options for vaccine-associated feline sarcoma. Couto CG, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1426-7 (4 ref.)
What is your diagnosis? Soft tissue sarcoma in the forelimb of a cat. Gieger T, et al. **J Am Vet Med Assoc** 1999 Apr 15;214(8):1155-6
Feline vaccine-associated sarcomas: current studies on pathogenesis. Hendrick MJ. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1425-6 (5 ref.)
Vaccine-Associated Feline Sarcoma Task Force: a new model for problem solving in veterinary medicine. Starr RM. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1428-9
Abdominal spindle cell sarcoma of probable myofibroblastic origin in a horse. Newman SJ, et al. **J Vet Diagn Invest** 1999 May;11(3):278-82
Surgical removal of an undifferentiated abdominal sarcoma from a koi carp (Cyprinus carpio). Lewbart GA, et al. **Vet Rec** 1998 Nov 14;143(20):556-8

VIROLOGY

Self-reported infectious mononucleosis and 6 cancers: a population-based, case-control study. Levine R, et al. **Scand J Infect Dis** 1998;30(3):211-4

SARCOMA 180

BLOOD SUPPLY

Effect of U-995, a potent shark cartilage-derived angiogenesis inhibitor, on anti-angiogenesis and anti-tumor activities. Sheu JR, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4435-41

IMMUNOLOGY

Tumor necrosis factor alpha-mediated tumor regression by the in vivo transfer of genes into the artery that leads to tumors. Mizuguchi H, et al. **Cancer Res** 1998 Dec 15; 58(24):5725-30
[Research on effects of taurine on the transplanted tumor of mice] Zhang X, et al. **Wei Sheng Yen Chiu** 1997 Sep; 26(5):321-4 (Eng. Abstr.) **(Chi)**

PATHOLOGY

Sonodynamically induced effect of rose bengal on isolated sarcoma 180 cells. Umemura S, et al. **Cancer Chemother Pharmacol** 1999;43(5):389-93

SARCOMA 180, CROCKER see **SARCOMA 180**

SARCOMA, ALVEOLAR SOFT PART

CHEMISTRY

Immunohistochemical examination of an orbital alveolar soft part sarcoma. Coupland SE, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):266-72

DIAGNOSIS

Neuroradiology case of the day. Alveolar soft part sarcoma. Greiner FG, et al. **Radiographics** 1999 Mar-Apr;19(2):542-5

GENETICS

Chromosome rearrangement at 17q25 and xp11.2 in alveolar soft-part sarcoma: A case report and review of the literature. Joyama S, et al. **Cancer** 1999 Oct 1;86(7):1246-50 (24 ref.)
Alveolar soft-part sarcoma: further evidence by FISH for the involvement of chromosome band 17q25. Heimann P, et al. **Genes Chromosomes Cancer** 1998 Oct;23(2):194-7

PATHOLOGY

Giemsa staining for alveolar soft part sarcoma [letter] Fukuda T, et al. **Acta Cytol** 1999 May-Jun;43(3):519-21
Fine needle aspiration cytology and core biopsy in the diagnosis of alveolar soft part sarcoma presenting with lung metastases. A case report. Logrono R, et al. **Acta Cytol** 1999 May-Jun;43(3):464-70
Alveolar soft part sarcoma: a review and update. Ordóñez NG. **Adv Anat Pathol** 1999 May;6(3):125-39 (113 ref.)
Alveolar soft part sarcoma: histogenesis. Nakano H. **Anticancer Res** 1998 Nov-Dec;18(6A):4207-11
Alveolar soft-part sarcoma: a review of the pathology and histogenesis. Ordóñez NG, et al. **Ultrastruct Pathol** 1998 Jul-Aug;22(4):275-92 (114 ref.)

SECONDARY

Fine needle aspiration cytology and core biopsy in the diagnosis of alveolar soft part sarcoma presenting with lung metastases. A case report. Logrono R, et al. **Acta Cytol** 1999 May-Jun;43(3):464-70
Immunohistochemical profile of myogenin and MyoD1 does not support skeletal muscle lineage in alveolar soft part sarcoma. Gómez JA, et al. **Arch Pathol Lab Med** 1999 Jun; 123(6):503-7

SURGERY

Alveolar soft part sarcoma involving the ilium. A case report. Durkin RC, et al. **Clin Orthop** 1999 Feb;(359):197-202 (21 ref.)

ULTRASTRUCTURE

Alveolar soft-part sarcoma with unusual mitochondrial findings: a case report. Cardinalli IA, et al. **Ultrastruct Pathol** 1998 Jul-Aug;22(4):321-9

SARCOMA, AVIAN

GENETICS

Genes of chicken MHC regulate the adherence activity of blood monocytes in Rous sarcomas progressing and regressing lines. Hala K, et al. **Vet Immunol Immunopathol** 1998 Nov 24;66(2):143-57
The genetic control of susceptibility to subgroup D RNA tumour virus infection in commercial breeds of chickens. Rout PK, et al. **Vet Res Commun** 1998 Sep;22(6):425-34

PREVENTION & CONTROL

Protective effects of type I and type II interferons toward Rous sarcoma virus-induced tumors in chickens. Plachý J, et al. **Virology** 1999 Mar 30;256(1):85-91

SARCOMA, CLEAR CELL

Clear cell sarcoma in the first metatarsal. An unusual case. Brekke MK, et al. **J Am Podiatr Med Assoc** 1998 Sep; 88(9):457-61

COMPLICATIONS

Febrile arthritis as the first manifestation of clear cell sarcoma of the tendons and aponeuroses [letter] Guillot P, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):595-7

DIAGNOSIS

[Malignant melanoma of soft tissues. Apropos of a case] Boutry N, et al. **J Radiol** 1998 Aug;79(8):767-9 (Eng. Abstr.) **(Fre)**

GENETICS

New type of chimeric fusion product between the EWS and ATF1 genes in clear cell sarcoma (malignant melanoma of soft parts). Pellin A, et al. **Genes Chromosomes Cancer** 1998 Dec;23(4):358-60
[Prognosis and invasion marker expression of cutaneous melanoma. Metastasis-associated genes (nm23, CD44v3, MMP2] Döme B, et al. **Orv Hetil** 1999 Jan 31;140(5):235-40 (Eng. Abstr.) **(Hun)**

PATHOLOGY

Fine needle aspiration cytology of clear cell sarcoma of the kidney. A case report. Krishnamurthy S, et al. **Acta Cytol** 1998 Nov-Dec;42(6):1444-6
Clear cell sarcoma of soft parts: report of a case primary in the kidney with cytogenetic confirmation. Rubin BP, et al. **Am J Surg Pathol** 1999 May;23(5):589-94
Clear cell sarcoma of kidney with tumor extension into the right atrium. Toyoda Y, et al. **J Cardiovasc Surg (Torino)** 1998 Aug;39(4):489-91
[Clear cell sarcoma of soft tissues. Clinico-pathological and ultrastructural analysis of a case in the head-neck region and a literature review] Bisceglia M, et al. **Pathologica** 1998 Aug;90(4):391-6 (40 ref.) (Eng. Abstr.) **(Ita)**

RADIOGRAPHY

Clear cell sarcoma (malignant melanoma) of soft parts: A clinicopathologic study of 30 cases. Deenik W, et al. **Cancer** 1999 Sep 15;86(6):969-75
Primary clear cell sarcoma of bone: a unique site of origin. Gelczer RK, et al. **Skeletal Radiol** 1999 Apr;28(4):240-3

SECONDARY

Melanotic peritoneal sarcomatosis originating from clear cell sarcoma. Ohba Y, et al. **Pathol Int** 1999 Jul;49(7):653-7

THERAPY

Successful double autografts for patients with relapsed clear cell sarcoma of the kidney. Yumura-Yagi K, et al. **Bone Marrow Transplant** 1998 Aug;22(4):381-3

SARCOMA, ENDOMETRIAL STROMAL

COMPLICATIONS

Unilateral hydronephrosis and recurrent endometrial stromal sarcoma with review of the literature. Janssen van Doorn K, et al. **Acta Clin Belg** 1999 Jun;54(3):165-8
[Metastatic endometrial sarcoma of the right ventricular outflow tract associated with disseminated intravascular coagulopathy] Matsumoto N, et al. **Kyobu Geka** 1999 May; 52(5):401-4 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Syncope two years after hysterectomy. Dizon MN, et al. **Hosp Pract (Off Ed)** 1999 Feb 15;34(2):37-8
Magnetic resonance appearance of endometrial sarcoma: report of a case with unusual findings. La Fianza A, et al. **Magn Reson Imaging** 1999 May;17(4):637-40

DRUG THERAPY

Low-grade endometrial stromal sarcoma preoperative treatment with Depo-Lupron and Megace. Scribner DR Jr, et al. **Gynecol Oncol** 1998 Dec;71(3):458-60

ENZYMOLOGY

Expression of metalloproteinases endometrial stromal sarcoma: immunohistochemical study using image analysis. Liokumovich P, et al. **J Clin Pathol** 1999 Mar;52(3):198-202

GENETICS

Endometrial stromal sarcoma with clonal complex chromosome abnormalities. Report of a case and review

of the literature. Sonobe H, et al. **Cancer Genet Cytogenet** 1999 Jul 1;112(1):34–7 (17 ref.)

PATHOLOGY

Intracaval extension of a recurrent low-grade endometrial stromal sarcoma. Debing E, et al. **Acta Chir Belg** 1998 Dec; 98(6):264–6

MR imaging of endometrial stromal sarcoma: correlation with pathologic findings. Koyama T, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):767–72

Endometrial stromal sarcoma involving the placenta. Katsanis WA, et al. **Ann Diagn Pathol** 1998 Oct;2(5):301–5

Stromal sarcoma arising on endometriosis. A clinicopathological and immunohistochemical study of 4 cases. Kondi-Paphitis A, et al. **Eur J Gynaecol Oncol** 1998; 19(6):588–90

Endometrial stromal sarcoma: a clinicopathologic study. Melilli GA, et al. **Eur J Gynaecol Oncol** 1999;20(1):33–4

Collision of endometrioid carcinoma and stromal sarcoma of the uterus: a report of two cases. Lam KY, et al. **Int J Gynecol Pathol** 1999 Jan;18(1):77–81

Endometrial stromal sarcomas: immunohistochemical, electron microscopical and cytogenetic findings in two cases. Gil-Benso R, et al. **Virchows Arch** 1999 Apr; 434(4):307–14

[Endolymphatic stromal myosis corporis in a 50-year-old woman] Heimrath J, et al. **Ginekol Pol** 1998 Nov; 69(11):809–12 (Eng. Abstr.) **(Pol)**

SECONDARY

Syncope two years after hysterectomy. Dizon MN, et al. **Hosp Pract (Off Ed)** 1999 Feb 15;34(2):37–8

Metastatic endometrial stromal sarcoma masquerading as pulmonary lymphangioleiomyomatosis. Mahadeva R, et al. **J Clin Pathol** 1999 Feb;52(2):147–8

Multiple endometrial stromal nodules with sparse cysts and glands in the lung--a nodular variation of endometriosis that may mimic metastases of sarcoma. Huber M, et al. **Pathol Res Pract** 1999;195(1):59–64

Low-grade endometrial stromal sarcoma with intracardiac extension. Evolution of extensive smooth muscle differentiation and usefulness of immunohistochemistry for its recognition and distinction from intravenous leiomyomatosis. Mikami Y, et al. **Pathol Res Pract** 1999; 195(7):501–8

[Metastatic endometrial sarcoma of the right ventricular outflow tract associated with disseminated intravascular coagulopathy] Matsumoto N, et al. **Kyobu Geka** 1999 May; 52(5):401–4 (Eng. Abstr.) **(Jpn)**

THERAPY

[Clinical evaluation of different methods of treatment in patients with endometrial stromal sarcoma of the uterus] Lazareva NI, et al. **Vopr Onkol** 1998;44(5):603–7 (Eng. Abstr.) **(Rus)**

SARCOMA, ENGELBRETH-HOLM-SWARM see **SARCOMA, EXPERIMENTAL**

SARCOMA, EPITHELIOID see **SARCOMA**

SARCOMA, EWING'S

Evaluation of cancer information on the Internet [see comments] Biermann JS, et al. **Cancer** 1999 Aug 1; 86(3):381–90. Comment in: Cancer 1999 Aug 1;86(3):373–4.

Cancer and the Internet [editorial; comment] Henson DE. **Cancer** 1999 Aug 1;86(3):373–4. Comment on: Cancer 1999 Aug 1;86(3):381–90.

Tyrosine kinase Pyk2 mediates G-protein-coupled receptor regulation of the Ewing sarcoma RNA-binding protein EWS. Felsch JS, et al. **Carr Biol** 1999 May 6;9(9):485–8

Common musculoskeletal tumors of childhood and adolescence. Arndt CA, et al. **N Engl J Med** 1999 Jul 29; 341(5):342–52 (100 ref.)

BLOOD

Prognostic significance of serum LDH in Ewing's sarcoma of bone. Bacci G, et al. **Oncol Rep** 1999 Jul-Aug; 6(4):807–11

CHEMISTRY

Neurotensin receptors in human neoplasms: high incidence in Ewing's sarcomas. Reubi JC, et al. **Int J Cancer** 1999 Jul 19;82(2):213–8

COMPLICATIONS

Primary orbital Ewing sarcoma in a middle-aged woman. Choi RY, et al. **Arch Ophthalmol** 1999 Apr;117(4):535–7

Ewing's sarcoma in a patient with congenital optic atrophy. Fein-Levy C, et al. **J Pediatr Hematol Oncol** 1998 Nov-Dec;20(6):577–9

Vertebra plana due to a Ewing tumor. Kager L, et al. **Med Pediatr Oncol** 1999 Jan;32(1):57–9

CONGENITAL

Congenital Ewing's sarcoma of the humerus. Hsieh HY, et al. **Br J Radiol** 1998 Dec;71(852):1313–6

DIAGNOSIS

Diagnosis and tumor response in osteosarcoma and Ewing's sarcoma, according to treatment protocols SSG II, SSG VIII, ISG/SSG I, SSG IV and SSG IX. Holmström T, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:27–9 (0 ref.)

Ewing's sarcoma presenting as a posterior mediastinal mass: a lesson learned. Silver JM, et al. **Ann Thorac Surg** 1999 Mar;67(3):845–7

Extraskeletal Ewing's sarcoma mimicking traumatic hematoma. Ogose A, et al. **Arch Orthop Trauma Surg** 1998; 118(3):172–3

Ewing's sarcoma masquerading as osteomyelitis. Durbin M, et al. **Clin Orthop** 1998 Dec;(357):176–85 (36 ref.)

Diagnostic utility of MIC-2 immunocytochemical staining in the differential diagnosis of small blue cell tumors. Halliday BE, et al. **Diagn Cytopathol** 1998 Dec;19(6):410–6

Ewing family tumors: potential prognostic value of reverse-transcriptase polymerase chain reaction detection of minimal residual disease in peripheral blood samples. de Alava E, et al. **Diagn Mol Pathol** 1998 Jun;7(3):152–7

Sensitive detection of rare Ewing's sarcoma cells in peripheral blood by reverse transcriptase polymerase chain reaction. Fidelia-Lambert MN, et al. **Hum Pathol** 1999 Jan; 30(1):78–80

Indications for epiphyseal preservation in metaphyseal malignant bone tumors of children: relationship between image methods and histological findings. San-Julian M, et al. **J Pediatr Orthop** 1999 Jul-Aug;19(4):543–8

Delayed diagnosis and tumor stage in Ewing's sarcoma. Bacci G, et al. **Oncol Rep** 1999 Mar-Apr;6(2):465–6

Ewing's sarcoma recurrence vs radiation necrosis in dynamic contrast-enhanced MR imaging: a case report. El Khadrawy AM, et al. **Pediatr Radiol** 1999 Apr;29(4):272–4

Primary Ewing's sarcoma of the sphenoid bone: a rare presentation. Varan A, et al. **Pediatr Radiol** 1998 May; 28(5):311

Ewing's sarcoma of the ilium mimicking sacroiliitis [letter] Al-Adsani A, et al. **Rheumatology (Oxford)** 1999 Aug; 38(8):792–3

Pediatric bone tumors. Yaw KM. **Semin Surg Oncol** 1999 Mar;16(2):173–83 (30 ref.)

[Ewing's sarcoma of the soft tissues: apropos of 3 cases and review of the literature] Paoletti H, et al. **J Radiol** 1999 May;80(5):477–82 (26 ref.) (Eng. Abstr.) **(Fre)**

[MRI diagnosis in longitudinal stress fractures: differential diagnosis of Ewing sarcoma] Pauleit D, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):28–34 (Eng. Abstr.) **(Ger)**

[Ewing's soft-tissue sarcoma--case report] Hasanbegović E, et al. **Med Arh** 1998;52(3):157–8 (Eng. Abstr.) **(Scr)**

DRUG THERAPY

Predictive factors of histological response to primary chemotherapy in Ewing's sarcoma. Bacci G, et al. **Acta Oncol** 1998;37(7-8):671–6

Chemotherapy in Ewing's sarcoma. The Scandinavian Sarcoma Group experience. Elomaa I, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:69–73

Dynamic bone scintigraphy for evaluation of tumor response after preoperative chemotherapy. A retrospective study of osteosarcoma and Ewing's sarcoma patients. Winderen M, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:11–7

Management of cancer in pregnancy: a case of Ewing's sarcoma of the pelvis in the third trimester. Merimsky O, et al. **Ann Oncol** 1999 Mar;10(3):345–50

Extraskeletal Ewing's sarcoma. Ahmad R, et al. **Cancer** 1999 Feb 1;85(3):725–31

Pelvic Ewing sarcoma: a retrospective analysis of 241 cases. Hoffmann C, et al. **Cancer** 1999 Feb 15;85(4):869–77

Primary orbital Ewing's sarcoma: report of a case and review of the literature. Lam DS, et al. **Eye** 1999;13 (Pt 1):38–42 (21 ref.)

Tumour volume as a predictor of necrosis after chemotherapy in Ewing's sarcoma. Abudu A, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):317–22

Ifosfamide and actinomycin-D, added in the induction phase to vincristine, cyclophosphamide and doxorubicin, improve histologic response and prognosis in patients with non metastatic Ewing's sarcoma of the extremity. Ferrari S, et al. **J Chemother** 1998 Dec;10(6):484–91

Ifosfamide-containing chemotherapy in Ewing's sarcoma: The Second United Kingdom Children's Cancer Study Group and the Medical Research Council Ewing's Tumor Study. Craft A, et al. **J Clin Oncol** 1998 Nov;16(11):3628–33

Ewing's family of tumors in adults: multivariate analysis of survival and long-term results of multimodality therapy in 182 patients. Fizazi K, et al. **J Clin Oncol** 1998 Dec; 16(12):3736–43

Chemotherapy dose-intensification for pediatric patients with Ewing's family of tumors and desmoplastic small round-cell tumors: a feasibility study at St. Jude Children's Research Hospital. Marina NM, et al. **J Clin Oncol** 1999 Jan;17(1):180–90

Differential diagnosis of metastases in bone scans: chemotherapy induced bone necrosis. Reuland P, et al. **Nuklearmedizin** 1999;38(2):38–42

EPIDEMIOLOGY

Descriptive epidemiology of bone cancer in greater Bombay. Yeole BB, et al. **Indian J Cancer** 1998 Sep;35(3):101–6

ETIOLOGY

Extraskeletal Ewing's sarcoma in a kidney transplant patient. Balakrishnan R, et al. **Am J Kidney Dis** 1999 Jun; 33(6):1164–7

GENETICS

Translocation of chromosomes 11 and 22 in choroidal metastatic Ewing sarcoma detected by fluorescent in situ hybridization. Chan CC, et al. **Am J Ophthalmol** 1999 Feb; 127(2):226–8

Adamantinoma-like Ewing's sarcoma: genomic confirmation, phenotypic drift. Bridge JA, et al. **Am J Surg Pathol** 1999 Feb;23(2):159–65 (30 ref.)

Documentation of EWS gene rearrangements by fluorescence in-situ hybridization (FISH) in frozen sections of Ewing's sarcoma-peripheral primitive neuroectodermal tumor. Monforte-Muñoz H, et al. **Am J Surg Pathol** 1999 Mar;23(3):309–15

Molecular detection of EWS-FLI1 chimeric transcripts in Ewing family tumors by nested reverse transcription-polymerase chain reaction: application to archival paraffin-embedded tumor tissues. Hisaoka M, et al. **APMIS** 1999 Jun;107(6):577–84

Clinical and molecular features of Ewing sarcoma in a patient with triple-X syndrome. Patiño-Garcia A, et al. **Cancer Genet Cytogenet** 1999 Sep;113(2):188–90

Differential transactivation by alternative EWS-FLI1 fusion proteins correlates with clinical heterogeneity in Ewing's sarcoma. Lin PP, et al. **Cancer Res** 1999 Apr 1; 59(7):1428–32

The genomic breakpoint and chimeric transcripts in the EWSR1-ETV4/E1AF gene fusion in Ewing sarcoma. Ishida S, et al. **Cytogenet Cell Genet** 1998;82(3-4):278–83

Prognostic impact of deletions at 1p36 and numerical aberrations in Ewing tumors. Hattinger CM, et al. **Genes Chromosomes Cancer** 1999 Mar;24(3):243–54

Molecular characterization of the genomic breakpoint junction in a t(11;22) translocation in Ewing sarcoma. Obata K, et al. **Genes Chromosomes Cancer** 1999 May; 25(1):6–15

Detection of EWS-FLI-1 fusion in Ewing's sarcoma/peripheral primitive neuroectodermal tumor by fluorescence in situ hybridization using formalin-fixed paraffin-embedded tissue. Kumar S, et al. **Hum Pathol** 1999 Mar;30(3):324–30

Detection of t(11;22)(q24;q12) translocation of Ewing's sarcoma in paraffin embedded tissue by nested reverse transcription-polymerase chain reaction. Park YK, et al. **J Korean Med Sci** 1998 Aug;13(4):395–9

Ewing's sarcoma--a clinical enigma coming into focus. Denny CT. **J Pediatr Hematol Oncol** 1998 Sep-Oct; 20(5):421–5 (64 ref.)

Abnormalities of the FHIT transcripts in osteosarcoma and Ewing sarcoma. Hinohara S, et al. **Jpn J Cancer Res** 1998 Sep;89(9):887–94

Acute lymphoblastic leukemia with multiple cytogenetic abnormalities secondary to treatment of Ewing's sarcoma. Al-Homaidhi AM, et al. **Leuk Res** 1999 Jun;23(6):593–6

Cytogenetic aberrations in Ewing sarcoma: are secondary changes associated with clinical outcome? Kullendorff CM, et al. **Med Pediatr Oncol** 1999 Feb;32(2):79–83

Induction of an oncogenic fusion protein by a viral gene--a new chapter in an old story [news; comment] Kirn D, et al. **Nat Med** 1999 Sep;5(9):991–2. Comment on: Nat Med 1999 Sep;5(9):1076–9.

An association between viral genes and human oncogenic alterations: the adenovirus E1A induces the Ewing tumor fusion transcript EWS-FLI1 [see comments] Sanchez-Prieto R, et al. **Nat Med** 1999 Sep;5(9):1076–9. Comment in: Nat Med 1999 Sep;5(9):991–2.

Retrospective analysis of ploidy in primary osseous and extraosseous Ewing family tumors in children. Perotti D, et al. **Tumori** 1998 Jul-Aug;84(4):493–8

IMMUNOLOGY

Simultaneous expression of Fas and nonfunctional Fas ligand in Ewing's sarcoma. Kontny HU, et al. **Cancer Res** 1998 Dec 15;58(24):5842–9

Monomorphic HLA class I-(non-A, non-B) expression on Ewing's tumor cell lines, modulation by TNF-alpha and IFN-gamma. Borowski A, et al. **Immunobiology** 1999 Feb; 200(1):1–20

METABOLISM

Fas ligand is present in tumors of the Ewing's sarcoma family and is cleaved into a soluble form by a metalloproteinase. Mitsiades N, et al. **Am J Pathol** 1998 Dec;153(6):1947–56

Overexpression of p53 protein in primary Ewing's sarcoma of bone: relationship to tumour stage, response and prognosis. Abudu A, et al. **Br J Cancer** 1999 Mar; 79(7-8):1185–9

Regulatory role of mevalonate and N-linked glycosylation in proliferation and expression of the EWS/FLI-1 fusion protein in Ewing's sarcoma cells. Wang M, et al. **Exp Cell Res** 1999 Jan 10;246(1):38–46

Relation of neurological marker expression and EWS gene fusion types in MIC2/CD99-positive tumors of the Ewing family. Amann G, et al. **Hum Pathol** 1999 Sep; 30(9):1058–64

The EWS/TEC fusion protein encoded by the t(9;22)

chromosomal translocation in human chondrosarcomas is a highly potent transcriptional activator. Labelle Y, et al. **Oncogene** 1999 May 27;18(21):3303–8

Increased c-myc oncogene expression in Ewing's sarcoma: correlation with Ki67 proliferation index. Sollazzo MR, et al. **Tumori** 1999 May–Jun;85(3):167–73

[Bone tumors and androgen metabolism] Kushlinskii NE, et al. **Usp Fiziol Nauk** 1999 Jul–Sep;30(3):14–22 (57 ref.) (Eng. Abstr.) **(Rus)**

MORTALITY

Adults with Ewing's sarcoma/primitive neuroectodermal tumor: adverse effect of older age and primary extraosseous disease on outcome. Baldini EH, et al. **Ann Surg** 1999 Jul; 230(1):79–86

PATHOLOGY

Predictive factors of histological response to primary chemotherapy in Ewing's sarcoma. Bacci G, et al. **Acta Oncol** 1998;37(7–8):671–6

Engagement of CD99 induces apoptosis through a calcineurin-independent pathway in Ewing's sarcoma cells. Sohn HW, et al. **Am J Pathol** 1998 Dec;153(6):1937–45

Low incidence of molecular evidence for tumour in PBPC harvests from patients with high risk Ewing tumours. Fischmeister G, et al. **Bone Marrow Transplant** 1999 Aug; 24(4):405–9

Frequent detection of tumor cells in hematopoietic grafts in neuroblastoma and Ewing's sarcoma. Leung W, et al. **Bone Marrow Transplant** 1998 Nov;22(10):971–9

The cytology of extraskeletal Ewing sarcoma. Guiter GE, et al. **Cancer** 1999 Jun 25;87(3):141–8

Ewing's sarcoma of the maxilla. Zheng P, et al. **Chin Med J (Engl)** 1998 Apr;111(4):377–8

Neuroectodermal differentiation in Ewing's sarcoma family of tumors does not predict tumor behavior. Parham DM, et al. **Hum Pathol** 1999 Aug;30(8):911–8

Paravertebral extraosseous Ewing's sarcoma. Yadav TP, et al. **Indian Pediatr** 1998 Jun;35(6):557–60

Ewing's sarcoma of the head and neck in children. Vaccani JP, et al. **Int J Pediatr Otorhinolaryngol** 1999 May 25; 48(3):209–16

Ewing's sarcoma of os calcis: case report with a review of literature. Gupta V, et al. **J Foot Ankle Surg** 1999 Jan–Feb; 38(1):61–5; discussion 83 (23 ref.)

Ki-1+ large-cell anaplastic lymphoma after Ewing sarcoma. Rossbach HC, et al. **J Pediatr Hematol Oncol** 1999 Jan–Feb;21(1):50–2

Primary extraskeletal Ewing's sarcoma of the external genitalia. Toh KL, et al. **J Urol** 1999 Jul;162(1):159–60 (3 ref.)

Evaluation of prognostic factors in a tumor volume-adapted treatment strategy for localized Ewing sarcoma of bone: the CESS 86 experience. Cooperative Ewing Sarcoma Study. Ahrens S, et al. **Med Pediatr Oncol** 1999 Mar; 32(3):186–95

Cytogenetic aberrations in Ewing sarcoma: are secondary changes associated with clinical outcome? Kullendorff CM, et al. **Med Pediatr Oncol** 1999 Feb;32(2):79–83

Prognostic value of clinicopathologic characteristics including neuroectodermal differentiation in osseous Ewing's sarcoma family of tumors in children. Luksch R, et al. **Tumori** 1999 Mar–Apr;85(2):101–7

Periosteal Ewing-like adamantinoma. Fukunaga M, et al. **Virchows Arch** 1998 Oct;433(4):385–9

[Rhabdomyosarcoma and extraosseous Ewing's sarcoma] Harms D, et al. **Verh Dtsch Ges Pathol** 1998;82:83–98 (71 ref.) (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Ewing's sarcoma of the head and neck in children. Vaccani JP, et al. **Int J Pediatr Otorhinolaryngol** 1999 May 25; 48(3):209–16

Pediatric case of the day. Ewing sarcoma of the rib with intraspinal extension. Coombs RJ, et al. **Radiographics** 1999 Jan–Feb;19(1):241–4

RADIONUCLIDE IMAGING

Dynamic bone scintigraphy for evaluation of tumor response after preoperative chemotherapy. A retrospective study of osteosarcoma and Ewing's sarcoma patients. Winderen M, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:11–7

RADIOTHERAPY

Primary orbital Ewing's sarcoma: report of a case and review of the literature. Lam DS, et al. **Eye** 1999;13 (Pt 1):38–42 (21 ref.)

Effect of low-dose radiation therapy when combined with surgical resection for Ewing sarcoma. Merchant TE, et al. **Med Pediatr Oncol** 1999 Aug;33(2):65–70

[Radiotherapy in pelvic Ewing's sarcomas] Dunst J. **Strahlenther Onkol** 1998 Oct;174(10):540–1 **(Ger)**

SECONDARY

Fine-needle aspiration biopsy of metastatic Ewing's sarcoma with MIC2 (CD99) immunocytochemistry. Collins BT, et al. **Diagn Cytopathol** 1998 Nov;19(5):382–4

Intracranial Ewing's sarcoma. Biousse V, et al. **J Neuroophthalmol** 1998 Sep;18(3):187–91

Atypical extraosseous Ewing sarcoma of the spinal canal with bone marrow involvement in a two-month-old boy. Benesch M, et al. **Med Pediatr Oncol** 1999 Jun;32(6):471–3

Isolated CNS involvement in Ewing sarcoma. Mendes WL, et al. **Med Pediatr Oncol** 1999 Jun;32(6):469–70

Metastatic brain involvement in Ewing family of tumors in children. Shuper A, et al. **Neurology** 1998 Nov;51(5):1336–8

Bone marrow metastasis in Ewing's sarcoma and peripheral primitive neuroectodermal tumor: An immunohistochemical study. Lazda EJ, et al. **Pediatr Dev Pathol** 1998 Mar–Apr;1(2):125–30

SURGERY

Diagnosis and tumor response in osteosarcoma and Ewing's sarcoma, according to treatment protocols SSG II, SSG VIII, ISG/SSG I, SSG IV and SSG IX. Holmström T, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:27–9 (0 ref.)

Functional results after partial pelvic resection in Ewing's sarcoma of the ilium. Porsch M, et al. **Arch Orthop Trauma Surg** 1999;119(3–4):199–204

Transposition of a vascularised distal femoral bone graft after wide resection of a diaphyseal Ewing's sarcoma--a salvage procedure. Raab P, et al. **Arch Orthop Trauma Surg** 1998; 117(6–7):402–4

Extraskeletal Ewing's sarcoma. Ahmad R, et al. **Cancer** 1999 Feb 1;85(3):725–31

Non-metastatic Ewing's sarcoma: twenty years of experience suggests that surgery is a prime factor for successful multimodality therapy. Givens SS, et al. **Int J Oncol** 1999 Jun;14(6):1039–43

Reconstruction of the first and second metatarsals with free microvascular fibular bone graft after resection of a Ewing sarcoma. Exner GU, et al. **J Pediatr Orthop B** 1998 Jul; 7(3):239–42

Pediatric bone tumors. Yaw KM. **Semin Surg Oncol** 1999 Mar;16(2):173–83 (30 ref.)

[Surgical management of malignant bone tumors in the child. Saint-Etienne Hospital experience, apropos of 17 cases] Cottalorda J, et al. **Ann Chir** 1998;52(1):45–51 (20 ref.) (Eng. Abstr.) **(Fre)**

THERAPY

Adults with Ewing's sarcoma/primitive neuroectodermal tumor: adverse effect of older age and primary extraosseous disease on outcome. Baldini EH, et al. **Ann Surg** 1999 Jul; 230(1):79–86

Low incidence of molecular evidence for tumour in PBPC harvests from patients with high risk Ewing tumours. Fischmeister G, et al. **Bone Marrow Transplant** 1999 Aug; 24(4):405–9

Frequent detection of tumor cells in hematopoietic grafts in neuroblastoma and Ewing's sarcoma. Leung W, et al. **Bone Marrow Transplant** 1998 Nov;22(10):971–9

G-CSF-primed peripheral blood progenitor cells (PBPC) support in high-risk Ewing sarcoma of childhood. Prete A, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 5:S21–3

Italian Cooperative Study for the treatment of children and young adults with localized Ewing sarcoma of bone: a preliminary report of 6 years of experience. Rosito P, et al. **Cancer** 1999 Aug 1;86(3):421–8

The Ewing family of tumors and the search for the Achilles' heel. Kovar H, et al. **Curr Opin Oncol** 1999 Jul;11(4):275–84 (81 ref.)

Ukrain and hyperthermia treatment in a patient with Ewing's sarcoma (case report). Aschhoff B. **Drugs Exp Clin Res** 1998;24(5–6):241–2

Second malignancies after treatment for Ewing's sarcoma: a report of the CESS-studies. Dunst J, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):379–84

Radiotherapy in Ewing's sarcoma and PNET of the chest wall: results of the trials CESS 81, CESS 86 and EICESS 92. Schuck A, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1001–6

Evaluation of prognostic factors in a tumor volume-adapted treatment strategy for localized Ewing sarcoma of bone: the CESS 86 experience. Cooperative Ewing Sarcoma Study. Ahrens S, et al. **Med Pediatr Oncol** 1999 Mar; 32(3):186–95

[Ewing's sarcoma of the jaw. The value of multidisciplinary management. Apropos of 4 cases] Baude-Brogniez A, et al. **Rev Stomatol Chir Maxillofac** 1999 Apr;100(1):34–7 (Eng. Abstr.) **(Fre)**

SARCOMA, EXPERIMENTAL

BLOOD

[Assessment of antineoplastic action of dehydrogenases in peripheral blood lymphocytes in S-45 tumor-bearing rats exposed to weak ultra-low-frequency irradiation] Shiikhliarova AI, et al. **Vopr Onkol** 1999;45(3):287–91 (Eng. Abstr.) **(Rus)**

BLOOD SUPPLY

Evidence for characteristic vascular patterns in solid tumours: quantitative studies using corrosion casts. Konerding MA, et al. **Br J Cancer** 1999 May; 80(5–6):724–32

Microregional blood flow in murine and human tumours assessed using laser Doppler microprobes. Hill SA, et al. **Br J Cancer Suppl** 1996 Jul;27:S260–3

Effect of nitro-L-arginine on blood flow, oxygenation and the activity of hypoxic cell cytotoxins in murine tumours. Horsman MR, et al. **Br J Cancer Suppl** 1996 Jul;27:S168–71

CHEMICALLY INDUCED

Low susceptibility of specific inbred colonies of rats to nickel tumorigenesis in soft tissue. Ohmori T, et al. **Cancer Lett** 1999 Feb 8;136(1):53–8

COMPLICATIONS

Effect of dietary fish oil on tumor-induced hyperlipidemia and tumor growth in rats implanted with a methylcholanthrene-induced sarcoma. Radcliffe J, et al. **Biochem Mol Biol Int** 1999 Feb;47(2):293–9

NPY messenger RNA is increased in medial hypothalamus of anorectic tumor-bearing rats. Chance WT, et al. **Regul Pept** 1998 Sep 25;75–76:347–53

DRUG THERAPY

Isolated lung perfusion with cisplatin in a rat lung solitary tumor nodule model. Li TS, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4171–6

Molecular design of conjugated tumor necrosis factor-alpha: synthesis and characteristics of polyvinyl pyrrolidone modified tumor necrosis factor-alpha. Kamada H, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):448–53

Characterization of human soft-tissue sarcoma xenografts for use in secondary drug screening. Boven E, et al. **Br J Cancer** 1998 Dec;78(12):1586–93

Contribution of myeloid and lymphoid host cells to the curative outcome of mouse sarcoma treatment by photodynamic therapy. Korbelik M, et al. **Cancer Lett** 1999 Mar 22;137(1):91–8

Enhancing effects of green tea components on the antitumor activity of adriamycin against M5076 ovarian sarcoma. Sugiyama T, et al. **Cancer Lett** 1998 Nov 13;133(1):19–26

Photofrin-mediated photodynamic therapy induces vascular occlusion and apoptosis in a human sarcoma xenograft model. Engbrecht BW, et al. **Cancer Res** 1999 Sep 1; 59(17):4334–42

Tumor pretargeting with avidin improves the therapeutic index of biotinylated tumor necrosis factor alpha in mouse models. Gasparri A, et al. **Cancer Res** 1999 Jun 15; 59(12):2917–23

Combination of theanine with doxorubicin inhibits hepatic metastasis of M5076 ovarian sarcoma. Sugiyama T, et al. **Clin Cancer Res** 1999 Feb;5(2):413–6

Morphometric and kinetic analysis of the growth of experimental sarcoma-45 in the presence of Ukrain. Deneka ER. **Drugs Exp Clin Res** 1998;24(5–6):281–5

Tumor growth modulates macrophage nitric oxide production following paclitaxel administration. Mullins DW, et al. **Int J Immunopharmacol** 1998 Oct;20(10):537–51

Enhancement of tumor response to gamma-radiation by an inhibitor of cyclooxygenase-2 enzyme. Milas L, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1501–4

Enhancement of tumour response to photodynamic therapy by adjuvant mycobacterium cell-wall treatment. Korbelik M, et al. **J Photochem Photobiol B** 1998 Jul 10;44(2):151–8

Toxicity and antitumor activity of interferon gamma alone and in combinations with TNFalpha and melphalan in isolated limb perfusion in the BN175 sarcoma tumor model in rats. Manusama ER, et al. **Oncol Rep** 1999 Jan–Feb; 6(1):173–7

Effect of estrogen and antiestrogen therapy in rats bearing mesenchymal tumors. Remedi MM, et al. **Tumour Biol** 1999 Sep–Oct;20(5):242–50

GENETICS

The p53 tumor suppressor gene of the marsupial Monodelphis domestica: cloning of exons 4–11 and mutations in exons 5–8 in ultraviolet radiation-induced corneal sarcomas. Kusewitt DF, et al. **Carcinogenesis** 1999 Jun;20(6):963–8

Analysis of the c-myc, K-ras and p53 genes in methylcholanthrene-induced mouse sarcomas. Watanabe H, et al. **Jpn J Cancer Res** 1999 Jan;90(1):40–7

Mice deficient of Lats1 develop soft-tissue sarcomas, ovarian tumours and pituitary dysfunction. St. John MA, et al. **Nat Genet** 1999 Feb;21(2):182–6

NPY messenger RNA is increased in medial hypothalamus of anorectic tumor-bearing rats. Chance WT, et al. **Regul Pept** 1998 Sep 25;75–76:347–53

IMMUNOLOGY

Cancer gene therapy with a heat shock protein gene. Pardo OE, et al. **Adv Exp Med Biol** 1998;451:217–23

Tumor infiltrating lymphocytes: CD8+ lymphocytes in canine transmissible venereal sarcomas at different stages of tumor growth. Barber MR, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):1137–42

Augmentation of in vitro interleukin 10 production after in vivo administration of interleukin 18 is activated macrophage-dependent and is probably not involved in the antitumor effects of interleukin 18. Micallef MJ, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4267–74

Anti-tumor immunity generated by tumor cells engineered to express B7-1 via retroviral or adenoviral gene transfer. Felzmann T, et al. **Cancer Lett** 1999 Jan 8;135(1):1–10

Contribution of myeloid and lymphoid host cells to the

curative outcome of mouse sarcoma treatment by photodynamic therapy. Korbelik M, et al. **Cancer Lett** 1999 Mar 22;137(1):91–8

Primary chemically induced tumors induce profound immunosuppression concomitant with apoptosis and alterations in signal transduction in T cells and NK cells. Horiguchi S, et al. **Cancer Res** 1999 Jun 15;59(12):2950–6

Synergistic action of fms-like tyrosine kinase 3 ligand and CD40 ligand in the induction of dendritic cells and generation of antitumor immunity in vivo. Borges L, et al. **J Immunol** 1999 Aug 1;163(3):1289–97

Defective function of Langerhans cells in tumor-bearing animals is the result of defective maturation from hemopoietic progenitors. Ishida T, et al. **J Immunol** 1998 Nov 1;161(9):4842–51

Paclitaxel enhances macrophage IL-12 production in tumor-bearing hosts through nitric oxide. Mullins DW, et al. **J Immunol** 1999 Jun 1;162(11):6811–8

Dissecting the immune response to moloney murine sarcoma/leukemia virus-induced tumors by means of a DNA vaccination approach. Milan G, et al. **J Virol** 1999 Mar;73(3):2280–7

Vaccination with carbohydrate peptide mimotopes promotes anti-tumor responses. Kieber-Emmons T, et al. **Nat Biotechnol** 1999 Jul;17(7):660–5

Differential expression of major histocompatibility complex class II variants in cells infiltrating the meth A sarcoma. Busund L, et al. **Scand J Immunol** 1999 May;49(5):501–5

The effects of immunosuppression on the induction and immunogenicity of chemically induced sarcomas. Fisher JC, et al. **Surgery** 1970 Jul;68(1):150–6; discussion 156–7

METABOLISM

Inhibition of IRS-1 phosphorylation and the alterations of GLUT4 in isolated adipocytes from cachectic tumor-bearing rats. Yoshikawa T, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):676–81

Biodisposition characteristics of N-succinyl-chitosan and glycol-chitosan in normal and tumor-bearing mice. Kamiyama K, et al. **Biol Pharm Bull** 1999 Feb;22(2):179–86

Reciprocal changes in hypothalamic receptor binding and circulating leptin in anorectic tumor-bearing rats. Chance WT, et al. **Brain Res** 1998 Aug 24;803(1-2):27–33

The salubrious effects of ascorbic acid on cyclophosphamide instigated lipid abnormalities in fibrosarcoma bearing rats. Vasavi H, et al. **Cancer Biochem Biophys** 1998 Jun; 16(1-2):71–83

99mTc-HYNIC-folate: a novel receptor-based targeted radiopharmaceutical for tumor imaging. Guo W, et al. **J Nucl Med** 1999 Sep;40(9):1563–9

Cancer reduces the metabolic response of muscle to surgical stress in the rat. de Blaauw I, et al. **J Surg Res** 1998 Nov; 80(1):94–101

Membrane transport and antitumor activity of pirarubicin, and comparison with those of doxorubicin. Sugiyama T, et al. **Jpn J Cancer Res** 1999 Jul;90(7):775–80

Effects of tumor cell-derived interleukin 1 alpha on invasiveness of metastatic clones of murine RCT sarcoma through endothelial cells. Yasuda T, et al. **Tumour Biol** 1999 Mar-Apr;20(2):105–16

[Effect of the ozonized physiologic solution on biochemical parameters of liver during neoplasia] Goncharova TA, et al. **Biull Eksp Biol Med** 1998 Aug;126(8):207–9 **(Rus)**

PATHOLOGY

Coagulative necrosis: the forgotten way to die. Jones GR. **Biochem Soc Trans** 1998 Nov;26(4):S321

Effects of human platelet-derived growth factor-AB on sarcoma growth in vitro and in vivo. Abdiu A, et al. **Cancer Lett** 1999 Jul 1;141(1-2):39–45

Apoptotic cell death of high polyploid cells in a cultured sarcoma cell line. Zong ZP, et al. **Cell Struct Funct** 1998 Aug;23(4):231–7

Timed daily administration of prolactin and corticosteroid hormone reduces murine tumor growth and enhances immune reactivity. Keisari Y, et al. **Chronobiol Int** 1999 May;16(3):315–33

Involvement of oxidative stress in tumor cytotoxic activity of hepatocyte growth factor/scatter factor. Arakaki N, et al. **J Biol Chem** 1999 May 7;274(19):13541–6

Morphological and biological characterization of two mesenchymal murine tumors and the modulation of their growth parameters by n-3 and n-6 polyunsaturated fatty acids. López CB, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Nov; 59(5):341–7

Lymphatic metastasis from tumors transplanted into the pre-irradiated footpad of the rat. van der Planken HJ, et al. **Strahlenther Onkol** 1999 Jan;175(1):32–8

Increased tumor growth in mice exposed to inhaled isobutyl nitrite. Soderberg LS. **Toxicol Lett** 1999 Jan 11; 104(1-2):35–41

PHYSIOPATHOLOGY

Effect of local irradiation on tumor oxygenation, perfused vessel density, and development of hypoxia. Fenton BM, et al. **Adv Exp Med Biol** 1998;454:619–28

PREVENTION & CONTROL

Effect of 3 growth control substances on foreign body sarcomagenesis: IFN, IUdR, MGBG. Mhic Iomhair M, et al. **Ir J Med Sci** 1999 Jan-Mar;168(1):42–4

p53 protects against skin cancer induction by UV-B radiation. Jiang W, et al. **Oncogene** 1999 Jul 22; 18(29):4247–53

RADIOTHERAPY

Effect of local irradiation on tumor oxygenation, perfused vessel density, and development of hypoxia. Fenton BM, et al. **Adv Exp Med Biol** 1998;454:619–28

Targeting the tumor vasculature with combretastatin A-4 disodium phosphate: effects on radiation therapy. Li L, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):899–903

Enhancement of tumor response to gamma-radiation by an inhibitor of cyclooxygenase-2 enzyme. Milas L, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1501–4

[The effect of low-intensity laser radiation on luminescence parameters of lymphocytes in experimental animals] Sheiko EA, et al. **Vopr Onkol** 1999;45(3):283–6 (Eng. Abstr.) **(Rus)**

[Assessment of antineoplastic action of dehydrogenases in peripheral blood lymphocytes in S-45 tumor-bearing rats exposed to weak ultra-low-frequency irradiation] Shiikhliarova AI, et al. **Vopr Onkol** 1999;45(3):287–91 (Eng. Abstr.) **(Rus)**

SECONDARY

Enhancement of experimental pulmonary metastasis and inhibition of subcutaneously transplanted tumor growth following cryosurgery. Shibata T, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4443–8

SURGERY

Effect of a microwave coagulator on implanted liver neoplasms in rats. Chen HH, et al. **Dig Surg** 1999; 16(2):140–4

THERAPY

Cancer gene therapy with a heat shock protein gene. Pardo OE, et al. **Adv Exp Med Biol** 1998;451:217–23

DNA vaccines targeting dendritic cells for the immunotherapy of cancer. Tüting T, et al. **Adv Exp Med Biol** 1998;451:295–304

Monitoring temperature-induced changes in tissue during hyperthermia by impedance methods. Gersing E. **Ann N Y Acad Sci** 1999 Apr 20;873:13–20

Adoptive-transfer therapy of tumors with the tumor-specific primary cytotoxic T cells induced in vitro with the B7.1-transduced MCA205 cell line. Kim SJ, et al. **Cancer Immunol Immunother** 1999 Jan;47(5):257–64

Isolated limb perfusion in the sarcoma-bearing rat: a novel preclinical gene delivery system. Milas M, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2197–203

Gamma-globulin inhibits tumor spread in mice. Shoenfeld Y, et al. **Int Immunol** 1999 Aug;11(8):1247–52

Hyperlactacidaemia in isolated hyperthermic perfusion of tumour bearing rat limbs: a study of feasibility using a novel infusion solution. Walgenbach S, et al. **Int J Hyperthermia** 1999 Mar-Apr;15(2):109–22

Differential effect of protein-bound polysaccharide (PSK) on survival of experimental murine tumors. Algarra I, et al. **J Exp Clin Cancer Res** 1999 Mar;18(1):39–46

High frequency of specific CD8+ T cells in the tumor and blood is associated with efficient local IL-12 gene therapy of cancer. Fernandez NC, et al. **J Immunol** 1999 Jan 1; 162(1):609–17

CD80 and IL-2 signals cooperate in the regression of tumors transplanted in congenitally athymic mice. Sobota V, et al. **Oncol Rep** 1999 May-Jun;6(3):669–73

Enhancement of cisplatin sensitivity of quiescent cells in solid tumors by combined treatment with tirapazamine and low-temperature hyperthermia. Masunaga S, et al. **Radiat Med** 1998 Nov-Dec;16(6):441–8

SARCOMA, GERMINOBLASTIC see **LYMPHOMA**

SARCOMA, IMMUNOBLASTIC see **LYMPHOMA, LARGE-CELL, IMMUNOBLASTIC**

SARCOMA, JENSEN see **SARCOMA, EXPERIMENTAL**

SARCOMA, KAPOSI

AIDS-related malignancies. Smith C, et al. **Ann Med** 1998 Aug;30(4):323–44 (212 ref.)

Human herpesvirus 8 DNA load in leukocytes of human immunodeficiency virus-infected subjects: correlation with the presence of Kaposi's sarcoma and response to anticytomegalovirus therapy. Boivin G, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):377–80

Proceedings of the Second National AIDS Malignancy Conference. Bethesda, Maryland, USA. April 6–8, 1998. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S1–86

Perspective on Kaposi's sarcoma: facts, concepts, and conjectures. Reitz MS Jr, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1453–8 (100 ref.)

Human herpesvirus 8--let the transplantation physician beware [editorial; comment] Ho M. **N Engl J Med** 1998 Nov 5;339(19):1391–2. Comment on: N Engl J Med 1998 Nov 5;339(19):1358–63.

Human herpesvirus 8 and renal transplantation [letter; comment] Rabkin CS, et al. **N Engl J Med** 1999 Apr 1; 340(13):1045–6. Comment on: N Engl J Med 1998 Nov 5;339(19):1358–63.

Transmission of human herpesvirus 8 infection from renal-transplant donors to recipients [see comments] Regamey N, et al. **N Engl J Med** 1998 Nov 5; 339(19):1358–63. Comment in: N Engl J Med 1998 Nov 5;339(19):1391–2. Comment in: N Engl J Med 1999 Apr 1;340(13):1045; discussion 1046. Comment in: N Engl J Med 1999 Apr 1;340(13):1045–6.

[Kaposi's disease] Lebbé C. **Rev Prat** 1999 Apr 15;49(8):843–7 (42 ref.) (Eng. Abstr.) **(Fre)**

[HHV8 infection (Kaposi's sarcoma)] Tachikawa N. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):51–4 (6 ref.) **(Jpn)**

BLOOD

Detection of high nerve growth factor serum levels in AIDS-related and -unrelated Kaposi's sarcoma patients. Pica F, et al. **AIDS** 1998 Oct 22;12(15):2025–9

Vascular endothelial growth factor (VEGF165) plasma level increase with immunodepression in AIDS patients with Kaposi's sarcoma. Mercié P, et al. **Microvasc Res** 1999 Mar; 57(2):208–10

CHEMICALLY INDUCED

Kaposi's sarcoma in renal transplant recipients: pathogenetic relation between the reduced density of Langerhans cells and cyclosporin-A therapy. Bedani PL, et al. **J Nephrol** 1999 May-Jun;12(3):193–6

Five cases of Kaposi's sarcoma in kidney graft recipients: possible influence of the immunosuppressive therapy. Eberhard OK, et al. **Transplantation** 1999 Jan 15; 67(1):180–4

[Painless, red-violet skin lesions during immunosuppression] Pfister M, et al. **Ther Umsch** 1998 Sep;55(9):583–5 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Kaposi's sarcoma and protection from AIDS dementia complex [letter] Dore GJ, et al. **AIDS** 1998 Dec 3; 12(17):2354–5

Kaposi's sarcoma is an important risk factor for survival in HIV-infected patients independent of CD4+ cell count [letter] Husak R, et al. **AIDS** 1999 Feb 25;13(3):432–3

Detection of Kaposi's sarcoma-associated herpesvirus in peripheral blood cells in human immunodeficiency virus infection: association with Kaposi's sarcoma, CD4 cell count, and HIV RNA levels. Min J, et al. **AIDS Res Hum Retroviruses** 1999 Jan 1;15(1):51–5

Risk factors for rebleeding and mortality from acute upper gastrointestinal hemorrhage in human immunodeficiency virus infection. Bini EJ, et al. **Am J Gastroenterol** 1999 Feb;94(2):358–63

Castleman's disease with Kaposi's sarcoma and glomerulonephritis [letter] Chim CS, et al. **Am J Med** 1999 Aug;107(2):186–8

HHV-8 is present in multiple myeloma patients. Berenson JR, et al. **Blood** 1999 May 15;93(10):3157–9; discussion 3164–6 (29 ref.)

Classical Kaposi's sarcoma and chronic lymphocytic leukaemia in the same skin biopsy. Report of two cases [letter] Cottoni F, et al. **Br J Dermatol** 1998 Oct; 139(4):753–4

Epiphora due to Kaposi's sarcoma of the nasolacrimal duct [letter] Khan MA, et al. **Br J Ophthalmol** 1999 Apr; 83(4):501–2

Human immunodeficiency virus negative Kaposi sarcoma and lymphoproliferative disorders. Fossati S, et al. **Cancer** 1999 Apr 1;85(7):1611–5

AIDS-related malignancies [editorial] Scadden DT. **Curr Opin Oncol** 1998 Sep;10(5):403–4

Bone involvement in a case of Kaposi sarcoma. Ritz-Quillac L, et al. **Dermatology** 1999;198(1):73–4

Kaposi's sarcoma associated with Castleman's disease [letter] Zeidman A, et al. **Eur J Haematol** 1999 Jul;63(1):67–70

A complex immunodeficiency. Idiopathic CD4+ T-lymphocytopenia and hypogammaglobulinemia associated with HHV8 infection, Kaposi's sarcoma and gastric cancer [letter] Mazzucchelli I, et al. **Haematologica** 1999 Apr;84(4):378–80

Primary effusion lymphoma and Kaposi's sarcoma in an HIV-infected man. Lankester KJ, et al. **Int J STD AIDS** 1998 Oct;9(10):616–8

Pulmonary Kaposi's sarcoma in AIDS patients treated with combined chemotherapy and recombinant human granulocyte colony-stimulating factor. Mastroianni A, et al. **J Chemother** 1998 Oct;10(5):405–10

Seroprevalence of human herpesvirus 8 among Zambian women of childbearing age without Kaposi's sarcoma (KS) and mother-child pairs with KS. He J, et al. **J Infect Dis** 1998 Dec;178(6):1787–90

Human herpesvirus 8 and cancer [editorial; comment] Beral V, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1440–1. Comment on: J Natl Cancer Inst 1999 Sep 1;91(17):1468–74.

An unusual cluster of cases of Castleman's disease during highly active antiretroviral therapy for AIDS [letter] Zietz C, et al. **N Engl J Med** 1999 Jun 17;340(24):1923–4

The dialysed patient with both Castleman disease and Kaposi sarcoma. Nampoory MR, et al. **Nephrol Dial Transplant**

1998 Sep;13(9):2373–6

DIAGNOSIS

Neuroradiology case of the day. Kaposi's sarcoma of the nasopharynx, oropharynx, and hypopharynx. Atkinson DS Jr, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):804, 807–8

Clinical images. Kaposi's sarcoma. Lizarzabal M. **Dig Dis** 1999;17(1):60–1

Detection of HHV-8 DNA in a German patient with classical Kaposi's sarcoma may allow an estimation of the incubation period. Kowalzick L, et al. **Eur J Dermatol** 1998 Sep; 8(6):432–4

Edematous, violaceous papules. Levine N. **Geriatrics** 1998 Oct;53(10):20

Postirradiation primary Kaposi's sarcoma of the head and neck. De Pasquale R, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):312–4

Human herpes-virus 8 seropositive patient with skin and graft Kaposi's sarcoma after lung transplantation. Sachsenberg-Studer EM, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):308–11

Images in clinical medicine. Endobronchial Kaposi's sarcoma. Meghjee S, et al. **Postgrad Med J** 1998 Sep; 74(875):515

Kaposi sarcoma in renal transplant recipients. Kim S, et al. **Transplant Proc** 1998 Nov;30(7):3165

[The observation of Mongin and collaborators] Dormont J. **Ann Med Interne (Paris)** 1999 Jan;150(1):58–60 **(Fre)**

[Chylothorax as a complication of Kaposi sarcoma (letter)] Vandenbos F, et al. **Presse Med** 1998 Jul 4–11;27(24):1218 **(Fre)**

[Laboratory diagnosis of viral infections. 7. Opportunistic infection by herpesviruses (human cytomegalovirus, Epstein–Barr virus, and human herpesvirus 8)] Okuno T. **Rinsho Byori** 1998 Nov;Suppl 108:98–104 (5 ref.) **(Jpn)**

DRUG THERAPY

Complete regression of AIDS-related Kaposi's sarcoma-associated human herpesvirus-8 during therapy with indinavir [letter] Martinelli C, et al. **AIDS** 1998 Sep 10;12(13):1717–9

Complete regression of AIDS-related Kaposi's sarcoma in a child treated with highly active antiretroviral therapy [letter] Niehues T, et al. **AIDS** 1999 Jun 18;13(9):1148–9

Treatment of early AIDS-related Kaposi's sarcoma with oral all-trans-retinoic acid: results of a sequential non-randomized phase II trial. Kaposi's Sarcoma ANRS Study Group. Agence Nationale de Recherches sur le SIDA. Saiag P, et al. **AIDS** 1998 Nov 12;12(16):2169–76

Potential interaction of antiretroviral therapy with paclitaxel in patients with AIDS-related Kaposi's sarcoma [letter] Schwartz JD, et al. **AIDS** 1999 Feb 4;13(2):283–4

Retinoid-induced hypercalcemia in a patient with kaposi sarcoma associated with acquired immunodeficiency syndrome. Aboulafia DM, et al. **Am J Clin Oncol** 1998 Oct;21(5):513–7

The use of cardiac biopsy to demonstrate reduced cardiotoxicity in AIDS Kaposi's sarcoma patients treated with pegylated liposomal doxorubicin. Berry G, et al. **Ann Oncol** 1998 Jul;9(7):711–6

Highly active antiretroviral therapy in HIV-related Kaposi's sarcoma [letter] Tavio M, et al. **Ann Oncol** 1998 Aug; 9(8):923

Recombinant interleukin 2 monotherapy for classic Kaposi sarcoma. Shibagaki R, et al. **Arch Dermatol** 1998 Oct; 134(10):1193–6

Isolated limb perfusion with high-dose tumor necrosis factor alpha and melphalan for Kaposi sarcoma. Lev-Chelouche D, et al. **Arch Surg** 1999 Feb;134(2):177–80

A phase II study of liposomal doxorubicin in the treatment of HIV-related Kaposi's sarcoma. Newell M, et al. **Aust N Z J Med** 1998 Dec;28(6):777–83

Paradoxical pro-Kaposi's sarcoma activity of preparations of human chorionic gonadotropin [letter; comment] Simonart T, et al. **Blood** 1999 Jul 1;94(1):376–7. Comment on: Blood 1999 Feb 1;93(3):1038–44.

Non-human immunodeficiency virus Kaposi's sarcoma can be effectively treated with low-dose interferon-alpha despite the persistence of herpesvirus-8. Deichmann M, et al. **Br J Dermatol** 1998 Dec;139(6):1052–4

Paclitaxel in the treatment of human immunodeficiency virus 1-associated Kaposi's sarcoma--drug-drug interactions with protease inhibitors and a nonnucleoside reverse transcriptase inhibitor: a case report study. Nannan Panday VR, et al. **Cancer Chemother Pharmacol** 1999;43(6):516–9

Successful treatment of Kaposi's sarcoma with a combination of antiviral drug therapy and chemotherapy: two case reports [letter; comment] Badiaga S, et al. **Clin Infect Dis** 1998 Dec;27(6):1558–9. Comment on: Clin Infect Dis 1998 Feb;26(2):527.

Abatement of cutaneous Kaposi's sarcoma associated with cidofovir treatment [letter; comment] Simonart T, et al. **Clin Infect Dis** 1998 Dec;27(6):1562. Comment on: Clin Infect Dis 1998 May;26(5):1233.

A risk and benefit assessment of treatment for AIDS-related Kaposi's sarcoma [published erratum appears in Drug Saf 1999 Jun;20(6):473] Nasti G, et al. **Drug Saf** 1999 May; 20(5):403–25 (92 ref.)

Human chorionic gonadotropin in the treatment of HIV-related Kaposi's sarcoma. Tavio M, et al. **Eur J Cancer** 1998 Sep;34(10):1634–7

Favourable effect of chemotherapy on clinical symptoms and human herpesvirus-8 DNA load in a patient with Kaposi's sarcoma presenting with fever and anemia. Prins JM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jul;18(7):499–502

Bleomycin-induced digital gangrene [letter] Surville-Barland J, et al. **Eur J Dermatol** 1998 Apr-May;8(3):221

Resolution of severe Kaposi's sarcoma after initiation of antiretroviral triple therapy. Jung C, et al. **Eur J Med Res** 1998 Sep 17;3(9):439–42

Suppression of HHV-8 viremia by foscarnet in an HIV-infected patient with Kaposi's sarcoma and HHV-8 associated hemophagocytic syndrome. Löw P, et al. **Eur J Med Res** 1998 Oct 14;3(10):461–4

Thoracoscopic sympathectomy for ischaemic lesions related to bleomycin therapy for acquired immune deficiency syndrome-related Kaposi's sarcoma. Chakfe N, et al. **Eur J Vasc Endovasc Surg** 1999 Feb;17(2):175–7

Somatostatin controls Kaposi's sarcoma tumor growth through inhibition of angiogenesis. Albini A, et al. **FASEB J** 1999 Apr;13(6):647–55

Activity of thalidomide in AIDS-related Kaposi's sarcoma and correlation with HHV8 titre. Fife K, et al. **Int J STD AIDS** 1998 Dec;9(12):751–5

A randomized trial of interferon-alpha2a and zidovudine versus bleomycin and zidovudine for AIDS-related Kaposi's sarcoma. Swiss HIV Cohort Study. Opravil M, et al. **Int J STD AIDS** 1999 Jun;10(6):369–75

Kaposi's sarcoma regression following treatment with a triple antiretroviral regimen containing nevirapine. Shaw AJ, et al. **Int J STD AIDS** 1999 Jun;10(6):417–8

Pulmonary Kaposi's sarcoma in AIDS patients treated with combined chemotherapy and recombinant human granulocyte colony-stimulating factor. Mastroianni A, et al. **J Chemother** 1998 Oct;10(5):405–10

AIDS-related cutaneous Kaposi's sarcoma: failure of treatment with human chorionic gonadotropin [letter] Sipsas NV, et al. **J Chemother** 1999 Feb;11(1):78–9

Phase II trial of liposomal daunorubicin in the treatment of AIDS-related pulmonary Kaposi's sarcoma. Tulpule A, et al. **J Clin Oncol** 1998 Oct;16(10):3369–74

Posttransplant Kaposi's sarcoma treated with paclitaxel [letter] Wu CJ, et al. **J Clin Oncol** 1998 Oct;16(10):3478–9

Enhancing the response to interferon-alpha. Begemann F, et al. **J Clin Virol** 1999 Jun;13(1–2):1–7

AIDS-related Kaposi's sarcoma patients with visceral manifestations. Response to human chorionic gonadotropin preparations. Hermans P, et al. **J Hum Virol** 1998 Jan–Feb; 1(2):82–9

The butler did it: search for killer(s) of Kaposi's sarcoma cells in preparations of human chorionic gonadotropin [editorial; comment] Darzynkiewicz Z. **J Natl Cancer Inst** 1999 Jan 20;91(2):104–6. Comment on: J Natl Cancer Inst 1999 Jan 20;91(2):135–43.

Unique recombinant human ribonuclease and inhibition of Kaposi's sarcoma cell growth. Newton DL, et al. **J Natl Cancer Inst** 1998 Dec 2;90(23):1787–91

Induction of programmed cell death in Kaposi's sarcoma cells by preparations of human chorionic gonadotropin [see comments] Samaniego F, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):135–43. Comment in: J Natl Cancer Inst 1999 Jan 20;91(2):104–6.

Interleukin-4 receptor-directed cytotoxin therapy of AIDS-associated Kaposi's sarcoma tumors in xenograft model [see comments] Husain SR, et al. **Nat Med** 1999 Jul;5(7):817–22. Comment in: Nat Med 1999 Jul;5(7):738–9.

Targeting AIDS-Kaposi's sarcoma [news; comment] Mesri EA. **Nat Med** 1999 Jul;5(7):738–9. Comment on: Nat Med 1999 Jul;5(7):817–22.

Anti-KS activity still a mystery [letter; comment] Noonan D, et al. **Nat Med** 1998 Jul;4(7):748. Comment on: Nat Med 1998 Apr;4(4):428–34.

Kaposi's sarcoma after renal transplantation: treatment with liposomal doxorubicin [letter; comment] Boehringer M, et al. **Nephrol Dial Transplant** 1999 May;14(5):1342–3. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768–73.

Clearance given for Panretin gel [news] **Oncologist** 1999; 4(2):187

European Committee signs off on Paxene for Kaposi's sarcoma treatment [news] **Oncologist** 1999;4(2):187

Complete histological regression of Kaposi's sarcoma following treatment with protease inhibitors despite persistence of HHV-8 in lesions. Benfield TL, et al. **Scand J Infect Dis** 1998;30(6):613–5

Chemo-immunotherapy of advanced AIDS-related Kaposi's sarcoma. Aversa SM, et al. **Tumori** 1999 Jan–Feb;85(1):54–9

ENZYMOLOGY

Expression of multiple matrix metalloproteinases and urokinase type plasminogen activator in cultured Kaposi sarcoma cells. Meade-Tollin LC, et al. **Acta Histochem** 1999 Jul;101(3):305–16

Implication of TNF receptor-I-mediated extracellular signal-regulated kinases 1 and 2 (ERK1/2) activation in growth of AIDS-associated Kaposi's sarcoma cells: a possible role of a novel death domain protein MADD in TNF-alpha-induced ERK1/2 activation in Kaposi's sarcoma cells. Murakami-Mori K, et al. **J Immunol** 1999 Mar 15;162(6):3672–9

EPIDEMIOLOGY

Epidemiology of Kaposi's sarcoma-associated herpesvirus/human herpesvirus 8. Schulz TF. **Adv Cancer Res** 1999;76:121–60 (172 ref.)

Kaposi's sarcoma-associated herpesvirus: epidemiology, virology, and molecular biology. Sarid R, et al. **Adv Virus Res** 1999;52:139–232 (395 ref.)

Classic Kaposi's sarcoma in Jews living in Israel, 1961–1989: a population-based incidence study. Iscovich J, et al. **AIDS** 1998 Oct 22;12(15):2067–72

Classic Kaposi sarcoma: experience at Rabin Medical Center in Israel. Fenig E, et al. **Am J Clin Oncol** 1998 Oct; 21(5):498–500

Kaposi's sarcoma. Schwartz RA. **Ann Transplant** 1998; 3(1):5–12 (227 ref.)

Kaposi's sarcoma in renal transplant recipients. Shaheen FA, et al. **Ann Transplant** 1997;2(4):49–58 (218 ref.)

Epidemiology, etiology and pathogenesis, clinical presentations and therapeutic approaches in Kaposi's sarcoma: 15-year lessons from AIDS. Hermans P. **Biomed Pharmacother** 1998;52(10):440–6 (30 ref.)

Risk of HIV related Kaposi's sarcoma and non-Hodgkin's lymphoma with potent antiretroviral therapy: prospective cohort study. Swiss HIV Cohort Study. Ledergerber B, et al. **BMJ** 1999 Jul 3;319(7201):23–4

Epidemiology of Kaposi's sarcoma in Scotland, 1976–1996. Brewster DH, et al. **Br J Cancer** 1999 Apr; 79(11–12):1938–42

The geographical distribution of Kaposi's sarcoma and of lymphomas in Africa before the AIDS epidemic. Cook-Mozaffari P, et al. **Br J Cancer** 1998 Dec; 78(11):1521–8

Comparison of the distribution of non-AIDS Kaposi's sarcoma and non-Hodgkin's lymphoma in Europe. Dal Maso L, et al. **Br J Cancer** 1999 Jan;79(1):161–3

High incidence of Kaposi's sarcoma in Iceland and the Faroe Islands [letter; comment] Simonart T, et al. **Br J Cancer** 1999 Jan;79(2):373. Comment on: Br J Cancer 1998 Apr;77(7):1190–3.

Kaposi's sarcoma in Africa. Matondo P. **Clin Dermatol** 1999 Mar-Apr;17(2):197–207; discussion 105–6

Classic Kaposi's sarcoma as a first primary neoplasm. Iscovich J, et al. **Int J Cancer** 1999 Jan 18;80(2):173–7

Classic Kaposi's sarcoma as a second primary neoplasm. Iscovich J, et al. **Int J Cancer** 1999 Jan 18;80(2):178–82

Incidence of acquired immunodeficiency syndrome (AIDS)-related Kaposi's sarcoma in the Aquitaine Cohort, France, 1988–1996. Groupe d'Epidémiologie Clinique du SIDA en Aquitaine. Dupon M, et al. **Int J Epidemiol** 1998 Dec;27(6):1078–82

Future trends in Kaposi's sarcoma and lymphoma. Schulz TF. **Int J STD AIDS** 1998;9 Suppl 1:32–4

Impact of potent antiretroviral therapy on the incidence of Kaposi's sarcoma and non-Hodgkin's lymphomas among HIV-1-infected individuals. Multicenter AIDS Cohort Study. Jacobson LP, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S34–41

Changes in AIDS-defining illnesses in a London Clinic, 1987–1998. Mocroft A, et al. **J Acquir Immune Defic Syndr** 1999 Aug 15;21(5):401–7

Overview of the epidemiology of malignancy in immune deficiency. Mueller N. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S5–10 (23 ref.)

Kaposi's sarcoma and non-Hodgkin's lymphoma incidence trends in AIDS Clinical Trial Group study participants. Rabkin CS, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S31–3

Kaposi's sarcoma in women: A clinicopathologic study. Smith KJ, et al. **J Cutan Med Surg** 1999 Jan;3(3):132–9

Kaposi's sarcoma in the Gambia, West Africa is less frequent in human immunodeficiency virus type 2 than in human immunodeficiency virus type 1 infection despite a high prevalence of human herpesvirus 8 [see comments] Ariyoshi K, et al. **J Hum Virol** 1998 Mar-Apr;1(3):193–9 . Comment in: J Hum Virol 1998 Mar-Apr;1(3):185–6.

Seroprevalence of Kaposi's sarcoma-associated herpesvirus/human herpesvirus 8 in several regions of Italy. Calabrò ML, et al. **J Hum Virol** 1998 Mar-Apr;1(3):207–13

Lack of an epidemiologic link between Kaposi's sarcoma and CNS lymphoma in patients with AIDS [letter; comment] Buskin S, et al. **Neurology** 1998 Nov;51(5):1513. Comment on: Neurology 1998 Feb;50(2):335–40.

Epidemic Kaposi's sarcoma. Cianfrocca M, et al. **Oncology (Huntingt)** 1998 Sep;12(9):1375–81, 1385; discussion 1385–90 (66 ref.)

Prevalence of infection with human herpesvirus 8/Kaposi's sarcoma herpesvirus in rural South Africa. Wilkinson D, et al. **S Afr Med J** 1999 May;89(5):554–7

[Human herpesvirus 8 (HHV-8): I. Characteristics and epidemiology] Boulanger E. **Ann Biol Clin (Paris)** 1998 Nov-Dec;56(6):643–50 (38 ref.) (Eng. Abstr.) **(Fre)**

ETHNOLOGY

Human herpesvirus 8 and Kaposi's sarcoma--some answers, more questions [editorial; comment] Jaffe HW, et al. **N Engl J Med** 1999 Jun 17;340(24):1912–3. Comment on: N Engl J Med 1999 Jun 17;340(24):1863–71.

ETIOLOGY

Kaposi's sarcoma in a heart transplant patient. Gobitti C,

et al. **Acta Oncol** 1998;37(7-8):769-70

Seroconversion for human herpesvirus 8 during HIV infection is highly predictive of Kaposi's sarcoma. Renwick N, et al. **AIDS** 1998 Dec 24;12(18):2481-8

Kaposi's sarcoma. Schwartz RA. **Ann Transplant** 1998; 3(1):5-12 (227 ref.)

Oncological complications of human immunodeficiency virus disease and hematologic consequences of their treatment. Mitsuyasu R. **Clin Infect Dis** 1999 Jul;29(1):35-43 (77 ref.)

Kaposi's sarcoma after renal transplantation in Turkey. Ecder ST, et al. **Clin Transplant** 1998 Oct;12(5):472-5

Kaposi's sarcoma herpesvirus as a new paradigm for virus-induced oncogenesis. Whitby D, et al. **Curr Opin Oncol** 1998 Sep;10(5):405-12 (82 ref.)

Kaposi's sarcoma in a patient with erythroblastopenia and thymoma: reactivation after topical corticosteroids. Pérez E, et al. **Dermatology** 1998;197(3):264-7

Transplant associated Kaposis sarcoma. Ajithkumar K, et al. **Indian J Cancer** 1998 Dec;35(4):171-2

Iron as a potential co-factor in the pathogenesis of Kaposi's sarcoma? Simonart T, et al. **Int J Cancer** 1998 Dec 9; 78(6):720-6

Consideration of host-viral interactions in the pathogenesis of Kaposi's sarcoma. Offermann MK. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S58-65 (69 ref.)

Effect of antiviral drugs used to treat cytomegalovirus end-organ disease on subsequent course of previously diagnosed Kaposi's sarcoma in patients with AIDS. Robles R, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Jan 1;20(1):34-8

Trauma-induced Kaposi's sarcoma of the hallux. An unusual case. Berkowitz KD, et al. **J Am Podiatr Med Assoc** 1998 Oct;88(10):500-5

IFN-gamma induces endothelial cells to proliferate and to invade the extracellular matrix in response to the HIV-1 Tat protein: implications for AIDS-Kaposi's sarcoma pathogenesis. Fiorelli V, et al. **J Immunol** 1999 Jan 15; 162(2):1165-70

Human herpesvirus-8 infection in hemodialysis patients from northern Italy [letter] Luppi M, et al. **Kidney Int** 1999 Jan; 55(1):340

Targeting AIDS-Kaposi's sarcoma [news; comment] Mesri EA. **Nat Med** 1999 Jul;5(7):738-9. Comment on: Nat Med 1999 Jul;5(7):817-22.

Kaposi's sarcoma after renal transplantation: treatment with liposomal doxorubicin [letter; comment] Boehringer M, et al. **Nephrol Dial Transplant** 1999 May;14(5):1342-3. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768-73.

Kaposi's sarcoma after renal transplantation [see comments] Frances C. **Nephrol Dial Transplant** 1998 Nov; 13(11):2768-73 (35 ref.). Comment in: Nephrol Dial Transplant 1999 May;14(5):1342-3. Comment in: Nephrol Dial Transplant 1999 May;14(5):1343.

Kaposi's sarcoma after renal transplantation--disappearance after reduction of immunosuppression and reappearance 7 years later after start of mycophenolate mofetil treatment [letter] Gómez E, et al. **Nephrol Dial Transplant** 1998 Dec; 13(12):3279-80

Kaposi's sarcoma after renal transplantation--withdrawal of immunosuppression or local irradiation? [letter; comment] Rubinger D, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1343. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768-73.

Transplantation-associated Kaposi's sarcoma: herpesvirus 8 transmission through renal allografts. Regamey N, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):922-3

Human herpes virus-8 and other risk factors for Kaposi's sarcoma in kidney transplant recipients. Groupe Cooperatif de Transplantation d' Ile de France (GCIF). Farge D, et al. **Transplantation** 1999 May 15;67(9):1236-42

The pathogenesis of Kaposi's sarcoma. Rodman S, et al. **West J Med** 1998 Oct;169(4):222-3

[Primary effusion lymphoma: a rare form of lymphoma associated with herpesvirus 8 in AIDS (letter)] Boutoille D, et al. **Rev Med Interne** 1999 Jun;20(6):544 **(Fre)**

[Kaposi's sarcoma: a sexually transmitted cancer?] Sousa Escandón MA, et al. **Actas Urol Esp** 1999 Feb;23(2):89-94 (34 ref.) (Eng. Abstr.) **(Spa)**

GENETICS

Familial Kaposi's sarcoma and Paget's disease of bone. Hale LR, et al. **Australas J Dermatol** 1998 Nov;39(4):241-3

AIDS-related Kaposi's sarcoma is a clonal neoplasm. Rabkin CS, et al. **Clin Cancer Res** 1995 Mar;1(3):257-60

American Academy of Dermatology 1999 Awards for Young Investigators in Dermatology. Active transcription of human herpesvirus 8 cellular homologue genes and HIV-1 tat in various forms of Kaposi's sarcoma. Moore AY. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):458-9

Further confirmation of the association of human herpesvirus 8 with Kaposi's sarcoma. Li N, et al. **J Cutan Pathol** 1998 Sep;25(8):413-9

Point mutation causing constitutive signaling of CXCR2 leads to transforming activity similar to Kaposi's sarcoma herpesvirus-G protein-coupled receptor. Burger M, et al. **J Immunol** 1999 Aug 15;163(4):2017-22

Bcl-2 and p53 immunoprofile in Kaposi's sarcoma. Pillay P, et al. **Pathol Oncol Res** 1999;5(1):17-20

IMMUNOLOGY

Purified Tat induces inflammatory response genes in Kaposi's sarcoma cells. Kelly GD, et al. **AIDS** 1998 Oct 1; 12(14):1753-61

Impact of Kaposi's sarcoma on HIV disease progression [letter; comment] Mocroft A, et al. **AIDS** 1999 Feb 4; 13(2):286. Comment on: AIDS 1998 Aug 20;12(12):1475-81.

Human herpes virus 8 (HHV8) serology in allogeneic bone marrow transplant recipients. Rosenzwajg M, et al. **Bone Marrow Transplant** 1999 Aug;24(4):351-4

Expression of costimulatory molecules CD80 and/or CD86 by a Kaposi's sarcoma tumor cell line induces differential T-cell activation and proliferation. Foreman KE, et al. **Clin Immunol** 1999 Jun;91(3):345-53

Kaposi's sarcoma pathogenesis: a link between immunology and tumor biology. Ensoli B, et al. **Crit Rev Oncog** 1998; 9(2):107-24 (130 ref.)

Cytokine profile of HIV-positive Kaposi's sarcoma derived cells in vitro. Brockmeyer NH, et al. **Eur J Med Res** 1999 Mar 26;4(3):95-100

The role of immunosuppression and immune-activation in classic Kaposi's sarcoma. Touloumi G, et al. **Int J Cancer** 1999 Sep 9;82(6):817-21

Human herpesvirus 8 seroprevalence and evaluation of nonsexual transmission routes by detection of DNA in clinical specimens from human immunodeficiency virus-seronegative patients from central and southern Italy, with and without Kaposi's sarcoma. Cattani P, et al. **J Clin Microbiol** 1999 Apr;37(4):1150-3

Evaluation of BC-3 and BCP-1 cell lines in immunofluorescence assay to detect HHV-8 antibodies in Kaposi's sarcoma, multiple myeloma and other groups. Couty JP, et al. **J Clin Virol** 1999 May;12(3):221-31

Inflammatory cytokines synergize with the HIV-1 Tat protein to promote angiogenesis and Kaposi's sarcoma via induction of basic fibroblast growth factor and the alpha v beta 3 integrin. Barillari G, et al. **J Immunol** 1999 Aug 15;163(4):1929-35

Vascular endothelial growth factor (VEGF165) plasma level increase with immunodepression in AIDS patients with Kaposi's sarcoma. Mercié P, et al. **Microvasc Res** 1999 Mar; 57(2):208-10

CD40 upregulation is independent of HHV-8 in the pathogenesis of Kaposi's sarcoma. Kennedy MM, et al. **Mol Pathol** 1999 Feb;52(1):32-6

Distinct serum cytokines in AIDS-related skin diseases. Breuer-McHam JN, et al. **Viral Immunol** 1998;11(4):215-20

Comparison of human sera reactivities in immunoblots with recombinant human herpesvirus (HHV)-8 proteins associated with the latent (ORF73) and lytic (ORFs 65, K8.1A, and K8.1B) replicative cycles and in immunofluorescence assays with HHV-8-infected BCBL-1 cells. Zhu L, et al. **Virology** 1999 Apr 10; 256(2):381-92

[Human herpesvirus-8 in Hungarian blood donors and in patients with Kaposi sarcoma] Juhász A, et al. **Orv Hetil** 1998 Dec 13;139(50):3001-4 (Eng. Abstr.) **(Hun)**

METABOLISM

No significant difference in the Ki-67 proliferation index in different histologic stages of Karposi sarcoma lesions [letter; comment] Haupt HM, et al. **Am J Dermatopathol** 1999 Aug;21(4):400-1. Comment on: Am J Dermatopathol 1999 Feb;21(1):25-7.

Differential expression of p53 and Ki-67 proteins in classic and iatrogenic Kaposi's sarcoma. Hodak E, et al. **Am J Dermatopathol** 1999 Apr;21(2):138-45

High expression of HHV-8-encoded ORF73 protein in spindle-shaped cells of Kaposi's sarcoma. Katano H, et al. **Am J Pathol** 1999 Jul;155(1):47-52

Reactivation and persistence of human herpesvirus-8 infection in B cells and monocytes by Th-1 cytokines increased in Kaposi's sarcoma [see comments] Monini P, et al. **Blood** 1999 Jun 15;93(12):4044-58. Comment in: Blood 1999 Jun 15;93(12):4031-3.

Expression of transforming growth factor beta and transforming growth factor beta receptors on AIDS-associated Kaposi's sarcoma. Ciernik IF, et al. **Clin Cancer Res** 1995 Oct;1(10):1119-24

Receptor for interleukin 13 on AIDS-associated Kaposi's sarcoma cells serves as a new target for a potent Pseudomonas exotoxin-based chimeric toxin protein. Husain SR, et al. **Clin Cancer Res** 1997 Feb;3(2):151-6

Kaposi's sarcoma: a result of the interplay among inflammatory cytokines, angiogenic factors and viral agents. Ensoli B, et al. **Cytokine Growth Factor Rev** 1998 Mar;9(1):63-83 (215 ref.)

Differential expression of c-Met in Kaposi's sarcoma according to progression stage and HIV infection status. Puig L, et al. **J Cutan Pathol** 1999 May;26(5):227-31

Expression of vascular endothelial growth factor receptor-3 and podoplanin suggests a lymphatic endothelial cell origin of Kaposi's sarcoma tumor cells. Weninger W, et al. **Lab Invest** 1999 Feb;79(2):243-51

MORTALITY

Kaposi's sarcoma in HIV infection: impact on opportunistic infections and survival [see comments] Brodt HR, et al. **AIDS** 1998 Aug 20;12(12):1475-81. Comment in: AIDS 1999 Feb 4;13(2):286.

[Factors associated with survival in Kaposi's sarcoma in patients infected with the human immunodeficiency virus. Clinical Epidemiological Group for AIDS in Aquitaine] Cazorla C, et al. **Rev Epidemiol Sante Publique** 1999 Apr; 47(2):109-17 (Eng. Abstr.) **(Fre)**

PATHOLOGY

An unusual localization and presentation of Kaposi's sarcoma. Hallet Y, et al. **Acta Orthop Belg** 1999 Mar;65(1):109-12

Usefulness of molecular detection of human herpesvirus-8 in the diagnosis of Kaposi sarcoma by fine-needle aspiration. Alkan S, et al. **Am J Clin Pathol** 1999 Jan; 111(1):91-6

Early- and late-stage Kaposi's sarcoma lesions exhibit similar proliferation fraction [see comments] De Thier F, et al. **Am J Dermatopathol** 1999 Feb;21(1):25-7. Comment in: Am J Dermatopathol 1999 Aug;21(4):400-1.

Spindle cell tumors associated with mycobacteria in lymph nodes of HIV-positive patients: 'Kaposi sarcoma with mycobacteria' and 'mycobacterial pseudotumor'. Logani S, et al. **Am J Surg Pathol** 1999 Jun;23(6):656-61 (11 ref.)

In vitro sensitivity of Kaposi's sarcoma cells to various chemotherapeutic agents including acyclic nucleoside phosphonates. Simonart T, et al. **Antivir Chem Chemother** 1999 May;10(3):129-34

Antineoplastic urinary protein inhibits Kaposi's sarcoma and angiogenesis in vitro and in vivo. Masood R, et al. **Blood** 1999 Feb 1;93(3):1038-44

The Koebner phenomenon in Kaposi's sarcoma in a renal transplant recipient [letter] Seçkin D, et al. **Br J Dermatol** 1998 Aug;139(2):346-8

AIDS-related Kaposi's sarcoma is a clonal neoplasm. Rabkin CS, et al. **Clin Cancer Res** 1995 Mar;1(3):257-60

Kaposi's sarcoma: a result of the interplay among inflammatory cytokines, angiogenic factors and viral agents. Ensoli B, et al. **Cytokine Growth Factor Rev** 1998 Mar;9(1):63-83 (215 ref.)

Kaposi's sarcoma: a new approach of lesional follow-up using epiluminescent light microscopy. Krischer J, et al. **Dermatology** 1999;198(4):420-2

Fine-needle aspiration cytology of primary Kaposi's sarcoma of lymph nodes in an immunocompetent man. al-Rikabi AC, et al. **Diagn Cytopathol** 1998 Dec;19(6):451-4

Guess What! Kaposi's sarcoma. Satta R, et al. **Eur J Dermatol** 1998 Apr-May;8(3):219-20

CD4+ T-lymphocytopenia, Kaposi's sarcoma, HHV-8 infection, severe seborrheic dermatitis, and onychomycosis in a homosexual man without HIV infection [letter] Garcia-Silva J, et al. **Int J Dermatol** 1999 Mar;38(3):231-3

Thiol redox modulation of doxorubicin mediated cytotoxicity in cultured AIDS-related Kaposi's sarcoma cells. Mallery SR, et al. **J Cell Biochem** 1999 May 1;73(2):259-77

Coexistent gastric MALT lymphoma and Kaposi sarcoma in an HIV positive patient. Chetty R, et al. **J Clin Pathol** 1999 Apr;52(4):313-6

Kaposi's sarcoma in women: A clinicopathologic study. Smith KJ, et al. **J Cutan Med Surg** 1999 Jan;3(3):132-9

Role of Kaposi's sarcoma cells in recruitment of circulating leukocytes: implications in pathogenesis. Galea P, et al. **J Hum Virol** 1998 May-Jun;1(4):273-81

Sensitization of AIDS-Kaposi's sarcoma cells to Apo-2 ligand-induced apoptosis by actinomycin D. Mori S, et al. **J Immunol** 1999 May 1;162(9):5616-23

Implication of TNF receptor-I-mediated extracellular signal-regulated kinases 1 and 2 (ERK1/2) activation in growth of AIDS-associated Kaposi's sarcoma cells: a possible role of a novel death domain protein MADD in TNF-alpha-induced ERK1/2 activation in Kaposi's sarcoma cells. Murakami-Mori K, et al. **J Immunol** 1999 Mar 15;162(6):3672-9

Expression of vascular endothelial growth factor receptor-3 and podoplanin suggests a lymphatic endothelial cell origin of Kaposi's sarcoma tumor cells. Weninger W, et al. **Lab Invest** 1999 Feb;79(2):243-51

Gastro-intestinal Kaposi's sarcoma, with special reference to the appendix. Chetty R, et al. **S Afr J Surg** 1999 Feb; 37(1):9-11

The enigmas of Kaposi's sarcoma. Gallo RC. **Science** 1998 Dec 4;282(5395):1837-9 (25 ref.)

AIDS-related Kaposi's sarcoma involving bone and bone marrow. Teh BS, et al. **South Med J** 1999 Jan;92(1):61-4

Cancer (or lack thereof) and viruses [letter] Herndier B. **Trends Microbiol** 1999 Jul;7(7):269-70

Fibrous long-spacing collagen in Kaposi's sarcoma [letter; comment] Marquart KH. **Ultrastruct Pathol** 1999 Jan-Feb; 23(1):59. Comment on: Ultrastruct Pathol 1998 Mar-Apr;22(2):127-33.

[Hodgkin's disease associated with a Kaposi's sarcoma and tuberculosis of hematopoietic organs] Laatiri MA, et al. **Tunis Med** 1998 Dec;76(12):481-3 **(Fre)**

[Kaposiform HHV-8 negative acroangiodermatitis in chronic venous insufficiency] Krengel S, et al. **Hautarzt** 1999 Mar; 50(3):208-13 (Eng. Abstr.) **(Ger)**

[Histological concepts on clinico-pathological features of Kaposi sarcoma (editorial)] Massarelli G, et al. **Pathologica** 1999 Feb;91(1):1-5 **(Ita)**

[An autopsy case of AIDS complicated with cytomegalovirus infection and multiple Kaposi's sarcoma] Takahashi H, et al. **Kansenshogaku Zasshi** 1999 Apr;73(4):351-5 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Bronchopulmonary Kaposi's sarcoma in 106 HIV-1 infected patients. Hannon FB, et al. **Int J STD AIDS** 1998 Sep; 9(9):518-25

AIDS-associated Kaposi's sarcoma is more aggressive in women: a study of 54 patients. Nasti G, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 1;20(4):337-41

A possible role of multidrug resistance-associated protein (MRP) in basic fibroblast growth factor secretion by AIDS-associated Kaposi's sarcoma cells: a survival molecule? Gupta S, et al. **J Clin Immunol** 1998 Jul; 18(4):256-63

Induction of programmed cell death in Kaposi's sarcoma cells by preparations of human chorionic gonadotropin [see comments] Samaniego F, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):135-43. Comment in: J Natl Cancer Inst 1999 Jan 20;91(2):104-6.

Reactivation of Kaposi's sarcoma-associated herpesvirus infection from latency by expression of the ORF 50 transactivator, a homolog of the EBV R protein. Lukac DM, et al. **Virology** 1998 Dec 20;252(2):304-12

RADIOGRAPHY

[Diagnostic imaging in AIDS-related pulmonary Kaposi's sarcoma] Busi Rizzi E, et al. **Radiol Med (Torino)** 1998 Oct;96(4):313-7 (Eng. Abstr.) **(Ita)**

[AIDS-related pulmonary Kaposi's sarcoma: role of high-resolution computerized tomography] Pompili GG, et al. **Radiol Med (Torino)** 1998 Oct;96(4):318-24 (Eng. Abstr.) **(Ita)**

RADIOTHERAPY

Palliative treatment of epidemic Kaposi sarcoma of the feet. Gressen EL, et al. **Am J Clin Oncol** 1999 Jun;22(3):286-90

Oral cavity and oropharyngeal tumors in human immunodeficiency virus-positive patients: acute response to radiation therapy. Kao GD, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug;125(8):873-6

SECONDARY

[Chronic cough in AIDS] Bassetti S. **Schweiz Rundsch Med Prax** 1998 Sep 23;87(39):1265-7 **(Ger)**

SURGERY

A case of classical Kaposi's sarcoma of the penis showing a good response to high-energy pulsed carbon dioxide laser therapy. Chun YS, et al. **J Dermatol** 1999 Apr;26(4):240-3

Laparoscopic surgery for anorectal malignancies other than carcinoma. Agachan F, et al. **J Soc Laparoendosc Surg** 1998 Jul-Sep;2(3):239-42

THERAPY

The systemic treatment of AIDS-related Kaposi's sarcoma. Schwartsmann G, et al. **Cancer Treat Rev** 1998 Dec; 24(6):415-24 (116 ref.)

Emerging treatments for epidemic (AIDS-related) Kaposi's sarcoma. McGarvey ME, et al. **Curr Opin Oncol** 1998 Sep; 10(5):413-21 (50 ref.)

Tailoring treatment for classical Kaposi's sarcoma: comprehensive clinical guidelines. Brenner B, et al. **Int J Oncol** 1999 Jun;14(6):1097-102

Therapy for Kaposi's sarcoma: recent advances and experimental approaches. Yarchoan R. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S66-73 (82 ref.)

Kaposi's sarcoma after renal transplantation--withdrawal of immunosuppression or local irradiation? [letter; comment] Rubinger D, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1343. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768-73.

[Kaposi sarcoma. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Schöfer H. **Hautarzt** 1998 Oct;48 Suppl 1:S39-45 **(Ger)**

VETERINARY

Kaposi's sarcoma in dog with acquired immunodeficiency after phosphate poisoning. Sýkora B, et al. **Folia Microbiol (Praha)** 1998;43(5):543-4

VIROLOGY

Non-AIDS-related Kaposi sarcoma tissues do not contain DNA sequences of HHV-6, HHV-7, Epstein-Barr virus, cytomegalovirus and HSV [letter] Drago F, et al. **Acta Derm Venereol** 1998 Nov;78(6):485

Kaposi's sarcoma-associated herpesvirus: epidemiology, virology, and molecular biology. Sarid R, et al. **Adv Virus Res** 1999;52:139-232 (395 ref.)

Spectrum of clinical diseases in HIV-infected adults at the Lagos University Teaching Hospital: a five-year experience [1992-1996]. Akinsete I, et al. **Afr J Med Med Sci** 1998 Sep-Dec;27(3-4):147-51

Variability and evolution of Kaposi's sarcoma-associated herpesvirus in Europe and Africa. International Collaborative Group. Cook PM, et al. **AIDS** 1999 Jul 9; 13(10):1165-76

Parenteral transmission of Kaposi's sarcoma-associated herpesvirus [letter] Marcelin AG, et al. **AIDS** 1998 Dec 3;12(17):2351

Epstein-Barr virus-associated intravascular lymphomatosis within Kaposi's sarcoma in an AIDS patient. Hsiao CH, et al. **Am J Surg Pathol** 1999 Apr;23(4):482-7

Inflammatory reactivation and angiogenicity of Kaposi's sarcoma-associated herpesvirus/HHV8: a missing link in the pathogenesis of acquired immunodeficiency syndrome-associated Kaposi's sarcoma [comment] Mesri EA. **Blood** 1999 Jun 15;93(12):4031-3 (18 ref.). Comment on: Blood 1999 Jun 15;93(12):4034-43. Comment on: Blood 1999 Jun 15;93(12):4044-58.

Progressive HHV-8-positive classic Kaposi's sarcoma: rapid response to interferon alpha-2a but persistence of HHV-8 DNA sequences in lesional skin. Pfrommer C, et al. **Br J Dermatol** 1998 Sep;139(3):516-9

Seroprevalence of human immunodeficiency virus type 1 infection in childhood malignancy in Zimbabwe. Chitsike I, et al. **Cent Afr J Med** 1998 Oct;44(10):242-5

Human herpesvirus 8 and its role in the genesis of Kaposi's sarcoma. Ganem D. **Curr Clin Top Infect Dis** 1998; 18:237-51 (86 ref.)

Favourable effect of chemotherapy on clinical symptoms and human herpesvirus-8 DNA load in a patient with Kaposi's sarcoma presenting with fever and anemia. Prins JM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jul;18(7):499-502

Detection and sequence diversity of Kaposi's sarcoma-associated herpesvirus (KSHV)/human herpesvirus 8 (HHV-8) DNA. Murakami M, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):13-6

Cytokine profile of HIV-positive Kaposi's sarcoma derived cells in vitro. Brockmeyer NH, et al. **Eur J Med Res** 1999 Mar 26;4(3):95-100

Human herpesvirus 8 (HHV-8) in familial Kaposi's sarcoma. Kempf W, et al. **Exp Dermatol** 1999 Feb;8(1):68-70

Human herpesvirus 8 primary infection occurs during childhood in Cameroon, Central Africa. Gessain A, et al. **Int J Cancer** 1999 Apr 12;81(2):189-92

Kaposi's sarcoma: breeding ground of herpesviridae - A tour de force over viral evolution (review). Sinkovics JG, et al. **Int J Oncol** 1999 Apr;14(4):615-46 (300 ref.)

Big but weak: how many pathogenic genes does human herpesvirus-8 need to cause Kaposi's sarcoma? (Review). Sturzl M, et al. **Int J Oncol** 1999 Feb;14(2):287-9 (20 ref.)

Kaposi's sarcoma-associated herpesvirus: a sexually transmissible infection? Grulich AE, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 1;20(4):387-93

Classic Kaposi's sarcoma after multiple-partner heterosexual behavior in Central Africa. Simonart T, et al. **J Am Acad Dermatol** 1999 Oct;41(4):648-9

The chemokine kidnapping receptor of HHV8 [editorial; comment] Howard OM, et al. **J Clin Invest** 1998 Oct 15; 102(8):1467-8. Comment on: J Clin Invest 1998 Oct 15;102(8):1469-72.

Further confirmation of the association of human herpesvirus 8 with Kaposi's sarcoma. Li N, et al. **J Cutan Pathol** 1998 Sep;25(8):413-9

Detection of human herpesvirus 8 in Korean Kaposi's sarcoma cases by polymerase chain reaction and in situ polymerase chain reaction. Jang HS, et al. **J Dermatol** 1999 Jul;26(7):434-41

Sequence analyses of human herpesvirus-8 strains from both African human immunodeficiency virus-negative and -positive childhood endemic Kaposi's sarcoma show a close relationship with strains identified in febrile children and high variation in the K1 glycoprotein. Kasolo FC, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3055-65

Kaposi's sarcoma in the Gambia, West Africa is less frequent in human immunodeficiency virus type 2 than in human immunodeficiency virus type 1 infection despite a high prevalence of human herpesvirus 8 [see comments] Ariyoshi K, et al. **J Hum Virol** 1998 Mar-Apr;1(3):193-9 . Comment in: J Hum Virol 1998 Mar-Apr;1(3):185-6.

HIV-1, HHV-8, and Kaposi's sarcoma [editorial; comment] Gallo RC. **J Hum Virol** 1998 Mar-Apr;1(3):185-6. Comment on: J Hum Virol 1998 Mar-Apr;1(3):193-9.

Identification of a major latent nuclear antigen, LNA-1, in the human herpesvirus 8 genome. Kellam P, et al. **J Hum Virol** 1997 Nov-Dec;1(1):19-29

Study of human herpesvirus 8 (HHV-8) variants from Kaposi's sarcoma in France: is HHV-8 subtype A responsible for more agressive tumors? [letter; comment] Boralevi F, et al. **J Infect Dis** 1998 Nov;178(5):1546-7. Comment on: J Infect Dis 1998 Apr;177(4):1136-7.

Heterogeneity of viral IL-6 expression in HHV-8-associated diseases. Cannon JS, et al. **J Infect Dis** 1999 Sep; 180(3):824-8

Detection of human herpesvirus 8 DNA sequences in tissues and bodily fluids. LaDuca JR, et al. **J Infect Dis** 1998 Dec; 178(6):1610-5

HHV-8 infection and multiple myeloma. Sjak-Shie NN, et al. **J Leukoc Biol** 1999 Aug;66(2):357-60

Human herpesvirus 8 seropositivity and risk of Kaposi's sarcoma and other acquired immunodeficiency syndrome-related diseases [see comments] Rezza G, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1468-74. Comment in: J Natl Cancer Inst 1999 Sep 1;91(17):1440-1.

Localization of human herpesvirus type 8 (HHV-8) in the Kaposi's sarcoma tissues and the semen specimens of HIV-1 infected and uninfected individuals by utilizing in situ polymerase chain reaction. Bobroski L, et al. **J Reprod Immunol** 1998 Dec;41(1-2):149-60

Distinct biology of Kaposi's sarcoma-associated herpesvirus from primary lesions and body cavity lymphomas. Friborg J Jr, et al. **J Virol** 1998 Dec;72(12):10073-82

Identification of a spliced gene from Kaposi's sarcoma-associated herpesvirus encoding a protein with similarities to latent membrane proteins 1 and 2A of Epstein-Barr virus. Glenn M, et al. **J Virol** 1999 Aug; 73(8):6953-63

Expression of the open reading frame 74 (G-protein-coupled receptor) gene of Kaposi's sarcoma (KS)-associated herpesvirus: implications for KS pathogenesis. Kirshner JR, et al. **J Virol** 1999 Jul;73(7):6006-14

Identification and characterization of Kaposi's sarcoma-associated herpesvirus K8.1 virion glycoprotein. Li M, et al. **J Virol** 1999 Feb;73(2):1341-9

Characterization and cell cycle regulation of the major Kaposi's sarcoma-associated herpesvirus (human herpesvirus 8) latent genes and their promoter. Sarid R, et al. **J Virol** 1999 Feb;73(2):1438-46

Cellular tropism and viral interleukin-6 expression distinguish human herpesvirus 8 involvement in Kaposi's sarcoma, primary effusion lymphoma, and multicentric Castleman's disease. Staskus KA, et al. **J Virol** 1999 May;73(5):4181-7

Human herpesvirus-8 (HHV-8) gene expression in Kaposi's sarcoma (KS) primary lesions: an in situ hybridization study. Stürzl M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S110-2

Lymphoid disorders associated with HHV-8/KSHV infection: facts and contentions. Gaidano G, et al. **Med Oncol** 1999 Apr;16(1):8-12

Human herpes virus 8 (HHV-8) in Kaposi's sarcoma: lack of association with Bcl-2 and p53 protein expression. Kennedy MM, et al. **Mol Pathol** 1998 Jun;51(3):155-9

HHV-8 peripheral-blood viral load and the titer of antibodies against HHV-8 [letter] Campbell TB, et al. **N Engl J Med** 1999 Oct 14;341(16):1241-2

Human herpesvirus 8 and renal transplantation [letter; comment] Frances C, et al. **N Engl J Med** 1999 Apr 1; 340(13):1045; discussion 1046. Comment on: N Engl J Med 1998 Nov 5;339(19):1358-63.

Antibodies against human herpesvirus 8 in black South African patients with cancer [see comments] Sitas F, et al. **N Engl J Med** 1999 Jun 17;340(24):1863-71. Comment in: N Engl J Med 1999 Jun 17;340(24):1912-3.

Distribution of human herpesvirus-8 latently infected cells in Kaposi's sarcoma, multicentric Castleman's disease, and primary effusion lymphoma. Dupin N, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4546-51

Deregulated signal transduction by the K1 gene product of Kaposi's sarcoma-associated herpesvirus. Lagunoff M, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5704-9

HHV8 status in Kaposi's sarcoma associated with multiple myeloma. Le Gars L, et al. **Rev Rhum Engl Ed** 1998 Dec; 65(12):788-90

The enigmas of Kaposi's sarcoma. Gallo RC. **Science** 1998 Dec 4;282(5395):1837-9 (25 ref.)

The role of HHV-8 in Kaposi's sarcoma. Neipel F, et al. **Semin Cancer Biol** 1999 Jun;9(3):151-64 (82 ref.)

Kaposi sarcoma-associated herpesvirus/human herpesvirus type 8 and Epstein-Barr virus in immunosuppressed renal transplant recipients. Demirağ A, et al. **Transplant Proc** 1998 Nov;30(7):3166-7

Human herpes virus-8 and other risk factors for Kaposi's sarcoma in kidney transplant recipients. Groupe Cooperatif de Transplantation d' Ile de France (GCIF). Farge D, et al. **Transplantation** 1999 May 15;67(9):1236-42

Relationship of HHV8 replication and Kaposi's sarcoma after solid organ transplantation. Mendez JC, et al. **Transplantation** 1999 Apr 27;67(8):1200-1

HHV-8 and multistep tumorigenesis [letter] Ensoli B, et al. **Trends Microbiol** 1999 Aug;7(8):310-2

Cancer (or lack thereof) and viruses [letter] Herndier B. **Trends Microbiol** 1999 Jul;7(7):269-70

Kaposi's sarcoma-associated herpesvirus: a new human tumor virus, but how? Schulz TF, et al. **Trends Microbiol** 1999 May;7(5):196-200

Individuals from North America, Australasia, and Africa are infected with four different genotypes of human herpesvirus 8. Meng YX, et al. **Virology** 1999 Aug 15; 261(1):106-19

[Human herpesvirus 8 (HHV8). II. Pathogenic role and sensitivity to antiviral drugs] Boulanger E. **Ann Biol Clin (Paris)** 1999 Jan-Feb;57(1):19-28 (48 ref.) (Eng. Abstr.) **(Fre)**

[New oncogenic viruses in human pathology] Brousset P, et al. **Ann Pathol** 1998;18(5 Suppl):76-7 **(Fre)**

[HHV-8 related diseases] Calvez V, et al. **Presse Med** 1998 Dec;27 Suppl 5:16 (Eng. Abstr.) **(Fre)**

[Factors associated with survival in Kaposi's sarcoma in patients infected with the human immunodeficiency virus. Clinical Epidemiological Group for AIDS in Aquitaine] Cazorla C, et al. **Rev Epidemiol Sante Publique** 1999 Apr; 47(2):109-17 (Eng. Abstr.) **(Fre)**

[Human herpesvirus-8 in Hungarian blood donors and in patients with Kaposi sarcoma] Juhász A, et al. **Orv Hetil** 1998 Dec 13;139(50):3001-4 (Eng. Abstr.) **(Hun)**

SARCOMA, LYMPHATIC see **LYMPHOMA, DIFFUSE**

SARCOMA, MAST-CELL

SARCOMA, MAST-CELL

GENETICS

Clustering of activating mutations in c-KIT's juxtamembrane coding region in canine mast cell neoplasms. Ma Y, et al. **J Invest Dermatol** 1999 Feb;112(2):165–70

IMMUNOLOGY

Identification of a second major tumor-specific antigen recognized by CTLs on mouse mastocytoma P815. Bilsborough J, et al. **J Immunol** 1999 Mar 15;162(6):3534–40

Host B7-1 and B7-2 costimulatory molecules contribute to the eradication of B7-1-transfected P815 tumor cells via a CD8+ T cell-dependent mechanism. La Motte RN, et al. **J Immunol** 1999 Apr 15;162(8):4817–23

Importance of B7-1-expressing host antigen-presenting cells for the eradication of B7-2 transfected P815 tumor cells. La Motte RN, et al. **J Immunol** 1998 Dec 15;161(12):6552–8

Cutting edge: differential effect of apoptotic versus necrotic tumor cells on macrophage antitumor activities. Reiter I, et al. **J Immunol** 1999 Aug 15;163(4):1730–2

Antitumor response elicited by a superantigen-transmembrane sequence fusion protein anchored onto tumor cells. Wahlsten JL, et al. **J Immunol** 1998 Dec 15;161(12):6761–7

METABOLISM

Tumor cell surface expression of granulocyte-macrophage colony-stimulating factor elicits antitumor immunity and protects from tumor challenge in the P815 mouse mastocytoma tumor model. Soo Hoo W, et al. **J Immunol** 1999 Jun 15;162(12):7343–9

PATHOLOGY

Cutaneous mastocytomas in the neotenic caudate amphibians Ambystoma mexicanum (axolotl) and Ambystoma tigrinum (tiger salamander). Harshbarger JC, et al. **J Cancer Res Clin Oncol** 1999;125(3–4):187–92

Cutting edge: differential effect of apoptotic versus necrotic tumor cells on macrophage antitumor activities. Reiter I, et al. **J Immunol** 1999 Aug 15;163(4):1730–2

Mast cell sarcoma with tissue eosinophilia arising in the ascending colon. Kojima M, et al. **Mod Pathol** 1999 Jul; 12(7):739–43

THERAPY

Priming for T-cell-mediated rejection of established tumors by cutaneous DNA immunization. Ross HM, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2191–6

High frequency of specific CD8+ T cells in the tumor and blood is associated with efficient local IL-12 gene therapy of cancer. Fernandez NC, et al. **J Immunol** 1999 Jan 1; 162(1):609–17

Host B7-1 and B7-2 costimulatory molecules contribute to the eradication of B7-1-transfected P815 tumor cells via a CD8+ T cell-dependent mechanism. La Motte RN, et al. **J Immunol** 1999 Apr 15;162(8):4817–23

VETERINARY

Spontaneous canine mast cell tumors express tandem duplications in the proto-oncogene c-kit. London CA, et al. **Exp Hematol** 1999 Apr;27(4):689–97

Frequency and severity of mastocytemia in dogs with and without mast cell tumors: 120 cases (1995–1997). McManus PM. **J Am Vet Med Assoc** 1999 Aug 1;215(3):355–7

Cytogenetic, ras, and p53: studies in cases of canine neoplasms (hemangiopericytoma, mastocytoma, histiocytoma, chloroma). Mayr B, et al. **J Hered** 1999 Jan–Feb;90(1):124–8

Computed tomographic diagnosis: use of computed tomography to distinguish a pulmonary mass from alveolar disease. Spann DR, et al. **Vet Radiol Ultrasound** 1998 Nov–Dec;39(6):532–5

Multiple cutaneous mast cell tumour in a calf. Pérez V, et al. **Vet Rec** 1999 Jul 17;145(3):81–2

Evidence for in vivo mitosis by granule-containing mast cells from canine mastocytomas. Curry A, et al. **Virchows Arch** 1998 Nov;433(5):465–70

SARCOMA, OSTEOGENIC see **OSTEOSARCOMA**

SARCOMA, RETICULUM-CELL see **LYMPHOMA, LARGE-CELL**

SARCOMA, ROUS see **SARCOMA, AVIAN**

SARCOMA, SMALL CELL

DIAGNOSIS

Synovial sarcoma mimicking desmoplastic small round-cell tumor: critical role for molecular diagnosis. Cole P, et al. **Med Pediatr Oncol** 1999 Feb;32(2):97–101

[A resected case of malignant peripheral nerve sheath tumor (MPNST) necessary to distinguish from Askin tumor] Odaka M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Nov; 46(11):1215–20 (Eng. Abstr.) **(Jpn)**

PATHOLOGY

Fine needle aspiration cytology of desmoplastic small round cell tumor. A case report. Insabato L, et al. **Acta Cytol** 1999 Jul–Aug;43(4):641–6

Small round-cell type of malignant peripheral nerve sheath tumor. Abe S, et al. **Mod Pathol** 1998 Aug;11(8):747–53

RADIOGRAPHY

Diagnostic imaging of primitive neuroectodermal tumour of the chest wall (Askin tumour). Sallustio G, et al. **Pediatr Radiol** 1998 Sep;28(9):697–702

SARCOMA, SOFT TISSUE see **SARCOMA**

SARCOMA, SPINDLE CELL see **SARCOMA**

SARCOMA, SYNOVIAL

Morphology, translocations, and clinical behavior: where do we go from here? Rosenberg AE. **Adv Anat Pathol** 1998 Jul;5(4):235–8

Morpho-immunophenotypic-genotypic infidelity in synovial sarcoma [letter; comment] Mezzelani A, et al. **Diagn Mol Pathol** 1998 Aug;7(4):232–3. Comment on: Diagn Mol Pathol 1998 Feb;7(1):16–23.

Angiogenesis does not correlate with prognosis or expression of vascular endothelial growth factor in synovial sarcomas. Kawauchi S, et al. **Oncol Rep** 1999 Sep–Oct;6(5):959–64

CHEMISTRY

Detection of SYT-SSX fusion transcripts in synovial sarcoma by reverse transcription-polymerase chain reaction using archival paraffin-embedded tissues. Tsuji S, et al. **Am J Pathol** 1998 Dec;153(6):1807–12

SSX and the synovial-sarcoma-specific chimaeric protein SYT-SSX co-localize with the human Polycomb group complex. Soulez M, et al. **Oncogene** 1999 Apr 29; 18(17):2739–46

DIAGNOSIS

Diagnosis, treatment and prognosis of patients with synovial sarcoma. The Scandinavian Sarcoma Group experience. Skytting BT, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:47–9

Synovial presentation of non-Hodgkin's lymphoma. Jamieson KA, et al. **Br J Radiol** 1998 Sep;71(849):980–2

Synovial sarcoma of the foot and ankle. Scully SP, et al. **Clin Orthop** 1999 Jul;(364):220–6

Diagnosis of synovial sarcoma with the reverse transcriptase-polymerase chain reaction: analyses of 84 soft tissue and bone tumors. Hiraga H, et al. **Diagn Mol Pathol** 1998 Apr;7(2):102–10

Synovial sarcoma of the esophagus simulating achalasia. Bonavina L, et al. **Dis Esophagus** 1998 Oct;11(4):268–71 (17 ref.)

Detection of SYT-SSX1/2 fusion transcripts by reverse transcriptase-polymerase chain reaction (RT-PCR) is a valuable diagnostic tool in synovial sarcoma. Willeke F, et al. **Eur J Cancer** 1998 Dec;34(13):2087–93

Dual colour fluorescence in situ hybridization to paraffin-embedded samples to deduce the presence of the der(X)t(X;18)(p11.2;q11.2) and involvement of either the SSX1 or SSX2 gene: a diagnostic and prognostic aid for synovial sarcoma. Lu YJ, et al. **J Pathol** 1999 Mar; 187(4):490–6

Primary pericardial synovial sarcoma with detection of the chimeric transcript SYT-SSX. Oizumi S, et al. **Jpn Circ J** 1999 Apr;63(4):330–2

Synovial sarcoma mimicking desmoplastic small round-cell tumor: critical role for molecular diagnosis. Cole P, et al. **Med Pediatr Oncol** 1999 Feb;32(2):97–101

General case of the day. Synovial sarcoma of the carpal tunnel (monophasic fibrous type). Takhtani D, et al. **Radiographics** 1999 Sep–Oct;19(5):1394–6

[Synovial sarcoma localized in the muscles] Galy-Fourcade D, et al. **J Radiol** 1998 Mar;79(3):259–61 (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Evaluating a critically ill patient with metabolic acidosis: the ifosfamide paradigm. Lehrich RW, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):226–30

GENETICS

Reverse transcriptase polymerase chain reaction on fine needle aspirates for rapid detection of translocations in synovial sarcoma [see comments] Nilsson G, et al. **Acta Cytol** 1998 Nov–Dec;42(6):1317–24. Comment in: Acta Cytol 1998 Nov–Dec;42(6):1315–6.

Detection of SYT-SSX fusion transcript in synovial sarcoma using archival cytologic specimens. Inagaki H, et al. **Am J Clin Pathol** 1999 Apr;111(4):528–33

Synovial sarcoma of the prostate with t(X;18)(p11.2;q11.2). Iwasaki H, et al. **Am J Surg Pathol** 1999 Feb;23(2):220–6

Poorly differentiated synovial sarcoma: an analysis of clinical, pathologic, and molecular genetic features. van de Rijn M, et al. **Am J Surg Pathol** 1999 Jan;23(1):106–12

The SYT-SSX1 variant of synovial sarcoma is associated with a high rate of tumor cell proliferation and poor clinical outcome. Nilsson G, et al. **Cancer Res** 1999 Jul 1; 59(13):3180–4

Characterization of a variant SYT-SSX1 synovial sarcoma fusion transcript. Safar A, et al. **Diagn Mol Pathol** 1998 Oct;7(5):283–7

Masked t(X;18)(p11;q11) in a biphasic synovial sarcoma revealed by FISH and RT-PCR. Geurts van Kessel A, et al. **Genes Chromosomes Cancer** 1998 Oct;23(2):198–201

Genetic imbalances in 67 synovial sarcomas evaluated by comparative genomic hybridization. Szymanska J, et al. **Genes Chromosomes Cancer** 1998 Nov;23(3):213–9

Functional domains of the SYT and SYT-SSX synovial sarcoma translocation proteins and co-localization with the SNF protein BRM in the nucleus. Thaete C, et al. **Hum Mol Genet** 1999 Apr;8(4):585–91

Synovial sarcoma specific translocation associated with both epithelial and spindle cell components. Birdsall S, et al. **Int J Cancer** 1999 Aug 12;82(4):605–8

A new human synovial sarcoma cell line, HS-SY-3, with a truncated form of hybrid SYT/SSX1 gene. Sonobe H, et al. **Int J Cancer** 1999 Jul 30;82(3):459–64

A novel fusion gene, SYT-SSX4, in synovial sarcoma [letter] Skytting B, et al. **J Natl Cancer Inst** 1999 Jun 2;91(11):974–5

Synovial sarcoma with t(X;18) chromosomal translocation, cardiac involvement, and peripheral embolus [clinical conference] Hall TC, et al. **Med Pediatr Oncol** 1999 Feb; 32(2):141–5

Detection of a variant SYT-SSX1 fusion in a case of predominantly epithelioid synovial sarcoma. Sanders ME, et al. **Mol Diagn** 1999 Mar;4(1):65–70

[Demonstration of SYT-SSX11/2 fusion transcripts in synovial sarcomas using RT-PCR] Willeke F, et al. **Verh Dtsch Ges Pathol** 1998;82:215–9 (Eng. Abstr.) **(Ger)**

METABOLISM

Absence of SYT-SSX fusion products in soft tissue tumors other than synovial sarcoma. van de Rijn M, et al. **Am J Clin Pathol** 1999 Jul;112(1):43–9

Synovial sarcoma of the larynx and hypopharynx [clinical conference] Dei Tos AP, et al. **Ann Otol Rhinol Laryngol** 1998 Dec;107(12):1080–5

Expression of insulin-like growth factor-1 receptor in synovial sarcoma: association with an aggressive phenotype. Xie Y, et al. **Cancer Res** 1999 Aug 1; 59(15):3588–91

Utility of cytokeratin subsets for distinguishing poorly differentiated synovial sarcoma from peripheral primitive neuroectodermal tumour. Machen SK, et al. **Histopathology** 1998 Dec;33(6):501–7

Coexpression of hepatocyte growth factor and c-Met proto-oncogene product in synovial sarcoma. Motoi T, et al. **Pathol Int** 1998 Oct;48(10):769–75

MORTALITY

Ki-67 is strongly prognostic in synovial sarcoma: analysis based on 86 patients from the Scandinavian Sarcoma group register. Skytting BT, et al. **Br J Cancer** 1999 Aug; 80(11):1809–14

PATHOLOGY

Cytologic features of malignant peripheral nerve sheath tumor. Jiménez-Heffernan JA, et al. **Acta Cytol** 1999 Mar–Apr;43(2):175–83

Logistic regression analysis of low grade spindle cell lesions. A cytologic study. Liu K, et al. **Acta Cytol** 1999 Mar–Apr; 43(2):143–52

Primary cutaneous synovial sarcoma: a case report. Flieder DB, et al. **Am J Dermatopathol** 1998 Oct;20(5):509–12

Synovial sarcoma of the extremities: a clinicopathologic study of 34 cases, including semi-quantitative analysis of spindled, epithelial, and poorly differentiated areas. Machen SK, et al. **Am J Surg Pathol** 1999 Mar;23(3):268–75

Poorly differentiated synovial sarcoma: an analysis of clinical, pathologic, and molecular genetic features. van de Rijn M, et al. **Am J Surg Pathol** 1999 Jan;23(1):106–12

Synovial sarcoma. Fisher C. **Ann Diagn Pathol** 1998 Dec; 2(6):401–21 (179 ref.)

Synovial sarcoma of the larynx and hypopharynx [clinical conference] Dei Tos AP, et al. **Ann Otol Rhinol Laryngol** 1998 Dec;107(12):1080–5

Synovial sarcoma in the parapharyngeal space: case report and review of the literature. Hanada T, et al. **Auris Nasus Larynx** 1999 Jan;26(1):91–4 (24 ref.)

Ki-67 is strongly prognostic in synovial sarcoma: analysis based on 86 patients from the Scandinavian Sarcoma group register. Skytting BT, et al. **Br J Cancer** 1999 Aug; 80(11):1809–14

Synovial sarcoma: identification of low and high risk groups [see comments] Bergh P, et al. **Cancer** 1999 Jun 15; 85(12):2596–607. Comment in: Cancer 1999 Jun 15;85(12):2497–8.

Primary synovial sarcoma of the lung: report of two cases confirmed by molecular detection of SYT-SSX fusion gene transcripts. Hisaoka M, et al. **Histopathology** 1999 Mar; 34(3):205–10

Synovial sarcoma of the pleura and its differentiation from other primary pleural tumours: a clinicopathological and immunohistochemical review of three cases. Nicholson AG, et al. **Histopathology** 1998 Dec;33(6):508–13

Pure monophasic, epithelial synovial sarcoma without a spindle cell component [letter] Tajima K, et al.

Histopathology 1999 Jan;34(1):78–81
Histological and molecular evidence of synovial sarcoma of bone. A case report. Hiraga H, et al.
J Bone Joint Surg Am 1999 Apr;81(4):558–63
Myxoid synovial sarcoma: an underappreciated morphologic subset. Krane JF, et al. **Mod Pathol** 1999 May;12(5):456–62
[Primary synovial sarcoma of the lung] Kuhnen C, et al.
Pathologe 1999 Mar;20(2):130–4 (Eng. Abstr.) **(Ger)**
[Synovial sarcoma of the pericardium] Langner K, et al.
Pathologe 1998 Nov;19(6):442–6 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Synovial sarcoma arising from the pericardium: radiographic and CT findings. Kojima KY, et al.
AJR Am J Roentgenol 1999 Jul;173(1):246–7
Synovial sarcoma in the parapharyngeal space: case report and review of the literature. Hanada T, et al.
Auris Nasus Larynx 1999 Jan;26(1):91–4 (24 ref.)

RADIOTHERAPY

Preoperative vs. postoperative radiotherapy in the treatment of soft tissue sarcomas: a matter of presentation. Pollack A, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1; 42(3):563–72

SECONDARY

Aspiration cytology of lung metastasis of monophasic synovial sarcoma. Report of a case. Costa I, et al.
Acta Cytol 1997 Jul–Aug;41(4 Suppl):1289–92
Embolization of pulmonary pseudoaneurysms secondary to metastatic synovial sarcoma of the right atrium. Bean SH, et al. **J Vasc Interv Radiol** 1999 May;10(5):649–52
A case of pulmonary metastases of synovial sarcoma surviving for a long period after active surgery. Inoue K, et al. **Osaka City Med J** 1998 Jun;44(1):125–31
[Recurrent spontaneous pneumothorax as the earliest indication of the pulmonary metastasis of a synovial sarcoma?] Bode F, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Sep;169(3):318–20 (10 ref.) **(Ger)**

SURGERY

Diagnosis, treatment and prognosis of patients with synovial sarcoma. The Scandinavian Sarcoma Group experience. Skytting BT, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:47–9
Application of combined three-dimensional bone and soft tissue model. A case report. Santler G, et al.
Int J Oral Maxillofac Surg 1998 Dec;27(6):482–4
Intraneural synovial sarcoma of the median nerve. Chesser TJ, et al. **J Hand Surg [Br]** 1999 Jun;24(3):373–5
Primary pericardial synovial sarcoma: a case report and literature review. Al-Rajhi N, et al. **J Surg Oncol** 1999 Mar;70(3):194–8 (18 ref.)
Synovial sarcoma: report of a series of 25 consecutive children from a single institution. Ferrari A, et al.
Med Pediatr Oncol 1999 Jan;32(1):32–7
[Synovial sarcoma in the head and neck with 3 case reports] Sun A, et al.
Lin Chuang Erh Pi Yen Hou Ko Tsa Chih 1997 Nov; 11(11):502–4 (Eng. Abstr.) **(Chi)**
[Primary cardiac synovial sarcoma--a case report] Fujioka M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep; 46(9):923–7 (Eng. Abstr.) **(Jpn)**

VETERINARY

What is your diagnosis? Synovial sarcoma. Borenstein N, et al. **J Small Anim Pract** 1999 May;40(5):205, 236–7

SARCOMA VIRUS, FELINE

GENETICS

Assignment of the horse mitochondrial glutamate oxaloacetate transaminase 2 (GOT2) and v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog (KIT) to horse chromosome 3 by in situ hybridization. Lear TL, et al. **Cytogenet Cell Genet** 1998; 82(1–2):112–3

SARCOMA VIRUSES, AVIAN

An avian sarcoma/leukosis virus-based gene trap vector for mammalian cells. Zheng XH, et al. **J Virol** 1999 Aug; 73(8):6946–52

ENZYMOLOGY

Crystal structures of catalytic core domains of retroviral integrases and role of divalent cations in enzymatic activity. Wlodawer A. **Adv Virus Res** 1999;52:335–50 (48 ref.)
Characterization of the nuclear localization signal in the avian sarcoma virus integrase. Kukolj G, et al. **Gene** 1998 Nov 26;223(1–2):157–63
Structural basis for inactivating mutations and pH-dependent activity of avian sarcoma virus integrase. Lubkowski J, et al. **J Biol Chem** 1998 Dec 4;273(49):32685–9
Soluble Rous sarcoma virus reverse transcriptases alpha, alphabeta, and beta purified from insect cells are processive DNA polymerases that lack an RNase H 3'--> 5'directed processing activity. Werner S, et al. **J Biol Chem** 1999 Sep 10;274(37):26329–36
Purification of recombinant Rous sarcoma virus integrase possessing physical and catalytic properties similar to virion-derived integrase. McCord M, et al.
Protein Expr Purif 1998 Nov;14(2):167–77
[Molecular mechanisms of the biological effects of weak magnetic fields. V. Inactivation in vitro of recombinant Rous sarcoma virus reverse transcriptase under the combined action of weak direct and low-frequency alternating magnetic fields, adjusted to the cyclotron resonance of polar amino acid ions] Shvetsov IuP, et al.
Biofizika 1998 Nov-Dec;43(6):977–80 (Eng. Abstr.) **(Rus)**

GENETICS

Comparison of CMV, RSV, SV40 viral and Vlambda1 cellular promoters in B and T lymphoid and non-lymphoid cell lines. Zarrin AA, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):135–9
The X gene of hepatitis B virus shows a high level stimulation of the Rous sarcoma virus long terminal repeat in the methylotropic yeast, Pichia pastoris. Lal SK, et al.
FEBS Lett 1999 Jul 30;456(1):108–12
Comparison of long-term survival of cytomegalovirus promotre versus Rous Sarcoma virus promoter-driven thymidine kinase gene therapy in nude mice bearing human ovarian cancer. Tong X, et al. **Hybridoma** 1999 Feb; 18(1):93–7
Gene therapy of chondrosarcoma using retrovirus vectors encoding the herpes simplex virus thymidine kinase gene. Seto M, et al. **Int J Oncol** 1999 Jun;14(6):1137–41
Secondary structure and mutational analysis of the ribosomal frameshift signal of rous sarcoma virus. Marczinke B, et al. **J Mol Biol** 1998 Nov 27;284(2):205–25
Point mutations in the avian sarcoma/leukosis virus 3' untranslated region result in a packaging defect. Aschoff JM, et al. **J Virol** 1999 Sep;73(9):7421–9
Interaction between the negative regulator of splicing element and a 3' splice site: requirement for U1 small nuclear ribonucleoprotein and the 3' splice site branch point/pyrimidine tract. Cook CR, et al. **J Virol** 1999 Mar; 73(3):2394–400
The gag domains required for avian retroviral RNA encapsidation determined by using two independent assays. Lee Eg, et al. **J Virol** 1999 Aug;73(8):6282–92
U1 small nuclear ribonucleoprotein and splicing inhibition by the rous sarcoma virus negative regulator of splicing element. McNally LM, et al. **J Virol** 1999 Mar; 73(3):2385–93
Changes in Rous sarcoma virus RNA secondary structure near the primer binding site upon tRNATrp primer annealing. Morris S, et al. **J Virol** 1999 Aug;73(8):6307–18
Unstable retrovirus mutants with acquired transforming activity: rapid changes in the number of repeats of a specific junD polynucleotide segment. Ito T, et al.
Nucleic Acids Res 1998 Nov 1;26(21):4868–73
Inhibition of the rous sarcoma virus long terminal repeat-driven transcription by in vitro methylation: different sensitivity in permissive chicken cells versus mammalian cells. Hejnar J, et al. **Virology** 1999 Mar 1; 255(1):171–81

IMMUNOLOGY

Genes of chicken MHC regulate the adherence activity of blood monocytes in Rous sarcomas progressing and regressing lines. Hala K, et al.
Vet Immunol Immunopathol 1998 Nov 24;66(2):143–57

PATHOGENICITY

Response to wing-web challenge of Rous sarcoma virus subgroups in some chicken breeds. Sharma SN.
Indian J Exp Biol 1999 Jan;37(1):106–8
Protective effects of type I and type II interferons toward Rous sarcoma virus-induced tumors in chickens. Plachy J, et al. **Virology** 1999 Mar 30;256(1):85–91

PHYSIOLOGY

Subgroup-A Rous sarcoma virus-induced growth stimulation of chick embryos infected via the chorioallantoic membrane. Naithani S, et al.
Indian J Exp Biol 1999 Jan;37(1):104–5
Conditions for copackaging rous sarcoma virus and murine leukemia virus Gag proteins during retroviral budding. Bennett RP, et al. **J Virol** 1999 Mar;73(3):2045–51
HMG protein family members stimulate human immunodeficiency virus type 1 and avian sarcoma virus concerted DNA integration in vitro. Hindmarsh P, et al. **J Virol** 1999 Apr;73(4):2994–3003

ULTRASTRUCTURE

Mass determination of rous sarcoma virus virions by scanning transmission electron microscopy. Vogt VM, et al.
J Virol 1999 Aug;73(8):7050–5

SARCOMA VIRUSES, MURINE

GENETICS

Detection and induction of equine infectious anemia virus-specific cytotoxic T-lymphocyte responses by use of recombinant retroviral vectors. Lonning SM, et al.
J Virol 1999 Apr;73(4):2762–9

IMMUNOLOGY

Detection and induction of equine infectious anemia virus-specific cytotoxic T-lymphocyte responses by use of recombinant retroviral vectors. Lonning SM, et al.
J Virol 1999 Apr;73(4):2762–9

SARCOMA VIRUSES, SIMIAN

METABOLISM

Cell surface retention sequence binding protein-1 interacts with the v-sis gene product and platelet-derived growth factor beta-type receptor in simian sarcoma virus-transformed cells. Boensch C, et al. **J Biol Chem** 1999 Apr 9;274(15):10582–9

PATHOGENICITY

Simian sarcoma-associated virus fails to infect Chinese hamster cells despite the presence of functional gibbon ape leukemia virus receptors. Ting YT, et al. **J Virol** 1998 Dec; 72(12):9453–8

SARCOMA, YOSHIDA

DRUG THERAPY

Anticancer potential of N,N-diethylaminoethyl ethers of flavanone oximes: a comparison with mitoxantrone action on rat Yoshida sarcoma cells in vivo. Metodiewa D, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1249–54

METABOLISM

Relationship between the biodistributions of radioactive metal nuclides in tumor tissue and the physicochemical properties of these metal ions. Ando A, et al.
Ann Nucl Med 1999 Apr;13(2):83–8
Manipulation of the ubiquitin-proteasome pathway in cachexia: pentoxifylline suppresses the activation of 20S and 26S proteasomes in muscles from tumor-bearing rats. Combaret L, et al. **Mol Biol Rep** 1999 Apr;26(1–2):95–101

SARCOMERES

CHEMISTRY

The NH2 terminus of titin spans the Z-disc: its interaction with a novel 19-kD ligand (T-cap) is required for sarcomeric integrity. Gregorio CC, et al. **J Cell Biol** 1998 Nov 16;143(4):1013–27
Comparative sequence analysis of the complete human sarcomeric myosin heavy chain family: implications for functional diversity. Weiss A, et al. **J Mol Biol** 1999 Jul 2;290(1):61–75

GENETICS

Familial hypertrophic cardiomyopathy: a paradigm of the cardiac hypertrophic response to injury. Marian AJ, et al.
Ann Med 1998 Aug;30 Suppl 1:24–32 (74 ref.)
Myotilin, a novel sarcomeric protein with two Ig-like domains, is encoded by a candidate gene for limb-girdle muscular dystrophy. Salmikangas P, et al.
Hum Mol Genet 1999 Jul;8(7):1329–36
Advances in molecular genetics and management of hypertrophic cardiomyopathy [clinical conference] Fananapazir L. **JAMA** 1999 May 12;281(18):1746–52

METABOLISM

Sarcomeric myosin heavy chain is degraded by the proteasome. Eble DM, et al. **Cell Tissue Res** 1999 Jun; 296(3):541–8
Immunopurification of a sarcomeric junctional protein complex containing GAPDH. McDonald KA, et al.
Exp Cell Res 1998 Sep 15;243(2):305–18
The extent of proteolysis is independent of sarcomere length in lamb longissimus and psoas major. Wheeler TL, et al.
J Anim Sci 1999 Sep;77(9):2444–51
Role of M-line proteins in sarcomeric titin assembly during cardiac myofibrillogenesis. Wang SM, et al.
J Cell Biochem 1998 Oct 1;71(1):82–95
ZASP: a new Z-band alternatively spliced PDZ-motif protein. Faulkner G, et al. **J Cell Biol** 1999 Jul 26; 146(2):465–75
The NH2 terminus of titin spans the Z-disc: its interaction with a novel 19-kD ligand (T-cap) is required for sarcomeric integrity. Gregorio CC, et al. **J Cell Biol** 1998 Nov 16;143(4):1013–27
Thin filament protein dynamics in fully differentiated adult cardiac myocytes: toward a model of sarcomere maintenance. Michele DE, et al. **J Cell Biol** 1999 Jun 28; 145(7):1483–95
Sarcomeric binding pattern of exogenously added intact caldesmon and its C-terminal 20-kDa fragment in skinned fibers of skeletal muscle. Frisbie SM, et al.
J Muscle Res Cell Motil 1999 Apr;20(3):291–303
Expression of sarcomeric proteins and assembly of myofibrils in the putative myofibroblast cell line BHK-21/C13. van der Ven PF, et al. **J Muscle Res Cell Motil** 1998 Oct;

SARCOMERES

19(7):767-75

Muscle LIM proteins are associated with muscle sarcomeres and require dMEF2 for their expression during Drosophila myogenesis. Stronach BE, et al. **Mol Biol Cell** 1999 Jul; 10(7):2329-42

PATHOLOGY

Congenital myopathy with mosaic fibers and interlacing sarcomeres: a new structural myopathy. Marbini A, et al. **Acta Neuropathol (Berl)** 1998 Dec;96(6):643-50

PHYSIOLOGY

Sarcomere length-joint angle relationships of seven frog hindlimb muscles. Lieber RL, et al. **Acta Anat (Basel)** 1992; 145(4):289-95

How do skinned skeletal muscle fibers relax? Hoskins BK, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):330-3

Analysis of the mechanisms of mitochondrial NADH regulation in cardiac trabeculae. Brandes R, et al. **Biophys J** 1999 Sep;77(3):1666-82

Image-analysis-based assessment of the effects of the "Ca2+-jump" technique on sarcomere uniformity. Slawnych MP, et al. **J Appl Physiol** 1998 Sep;85(3):955-61

Sarcomere lesion damage occurs mainly in slow fibers of reloaded rat adductor longus muscles. Vijayan K, et al. **J Appl Physiol** 1998 Sep;85(3):1017-23

Sarcomere length varies with wrist ulnar deviation but not forearm pronation in the extensor carpi radialis brevis muscle. Ljung BO, et al. **J Biomech** 1999 Feb;32(2):199-202

A model for mylohyoid muscle mechanics. van Eijden TM, et al. **J Biomech** 1998 Nov;31(11):1017-24

Dynamic distribution and formation of a para-sarcomeric banding pattern of prosomes during myogenic differentiation of satellite cells in vitro. Foucrier J, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):989-1001

Effect of stretching on undamped elasticity in muscle fibres from Rana temporaria. Mantovani M, et al. **J Muscle Res Cell Motil** 1999 Jan;20(1):33-43

3-Dimensional configuration of perimysial collagen fibres in rat cardiac muscle at resting and extended sarcomere lengths. Hanley PJ, et al. **J Physiol (Lond)** 1999 Jun 15; 517 (Pt 3):831-7

The efficiency of contraction in rabbit skeletal muscle fibres, determined from the rate of release of inorganic phosphate. He ZH, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):839-54

Nitric oxide synthase inhibitors reduce sarcomere addition in rat skeletal muscle. Koh TJ, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:189-96

Effects of rapid shortening on rate of force regeneration and myoplasmic [Ca2+] in intact frog skeletal muscle fibres. Vandenboom R, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):171-80

Filament assembly properties of the sarcomeric myosin heavy chain. Wick M. **Poult Sci** 1999 May;78(5):735-42

Ca(2+)-dependence of diastolic properties of cardiac sarcomeres: involvement of titin. Stuyvers BD, et al. **Prog Biophys Mol Biol** 1998;69(2-3):425-43

The C-protein (myosin binding protein C) family: regulators of contraction and sarcomere formation? Bennett PM, et al. **Rev Physiol Biochem Pharmacol** 1999;138:203-34 (101 ref.)

Control of sarcomeric assembly: the flow of information on titin. Gautel M, et al. **Rev Physiol Biochem Pharmacol** 1999; 138:97-137 (173 ref.)

Computer system modelling muscle work. Skubiszak L, et al. **Technol Health Care** 1998 Sep;6(2-3):139-49

ULTRASTRUCTURE

Does thin filament compliance diminish the cross-bridge kinetics? A study in rabbit psoas fibers. Wang G, et al. **Biophys J** 1999 Feb;76(2):978-84

Image-analysis-based assessment of the effects of the "Ca2+-jump" technique on sarcomere uniformity. Slawnych MP, et al. **J Appl Physiol** 1998 Sep;85(3):955-61

Measurement of sarcomere length during fast contraction of muscle fibers by digital image analysis. Hajjar M, et al. **J Biomech** 1999 Jul;32(7):737-42

Acute effects of intramuscular aponeurotomy on rat gastrocnemius medialis: force transmission, muscle force and sarcomere length. Jaspers RT, et al. **J Biomech** 1999 Jan;32(1):71-9

Eccentric training does not increase sarcomere number in rabbit dorsiflexor muscles. Koh TJ, et al. **J Biomech** 1998 May;31(5):499-501

3-Dimensional configuration of perimysial collagen fibres in rat cardiac muscle at resting and extended sarcomere lengths. Hanley PJ, et al. **J Physiol (Lond)** 1999 Jun 15; 517 (Pt 3):831-7

Differential protein localization in sarcomeric and nonsarcomeric contractile structures of cultured cardiomyocytes. Harder BA, et al. **J Struct Biol** 1998; 122(1-2):162-75

Effects of skeletal muscle sarcomere length on in vivo capillary distensibility. Kindig CA, et al. **Microvasc Res** 1999 Mar;57(2):144-52

Sarcomere length during contraction of isolated guinea-pig ventricular myocytes. Sasaki N, et al. **Pflugers Arch** 1999 May;437(6):804-11

Structure and assembly of the sarcomeric M band. Fürst DO, et al. **Rev Physiol Biochem Pharmacol** 1999;138:163-202 (128 ref.)

Computer system modelling muscle work. Skubiszak L, et al. **Technol Health Care** 1998 Sep;6(2-3):139-49

SARCOPLASMIC RETICULUM

CHEMISTRY

The 90-kDa junctional sarcoplasmic reticulum protein forms an integral part of a supramolecular triad complex in skeletal muscle. Froemming GR, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):603-9

Self-aggregation of triadin in the sarcoplasmic reticulum of rabbit skeletal muscle. Froemming GR, et al. **Biochim Biophys Acta** 1999 Apr 14;1418(1):197-205

Influence of various nucleotides on the in situ crystallization of Ca2+-ATPase. Hiroaki Y, et al. **Biochim Biophys Acta** 1999 Jan 8;1415(2):361-8

Lipid composition, membrane structure relationships in lens and muscle sarcoplasmic reticulum membranes. Borchman D, et al. **Biospectroscopy** 1999;5(3):151-67

Membrane asymmetry in isolated canine cardiac sarcoplasmic reticulum: comparison with skeletal muscle sarcoplasmic reticulum. Bick RJ, et al. **J Membr Biol** 1998 Jul 15; 164(2):169-75

pH-modulation of chloride channels from the sarcoplasmic reticulum of skeletal muscle. Kourie JI. **J Membr Biol** 1999 Jan 1;167(1):73-83

Electrokinetic properties of the sarcoplasmic reticulum membrane obtained from reconstitution studies. Smejtek P, et al. **J Membr Biol** 1999 Jan 15;167(2):151-63

DRUG EFFECTS

Differential effects of sevoflurane, isoflurane, and halothane on Ca2+ release from the sarcoplasmic reticulum of skeletal muscle. Kunst G, et al. **Anesthesiology** 1999 Jul; 91(1):179-86

Inhibition of the ryanodine receptor calcium channel in the sarcoplasmic reticulum of skeletal muscle by an ADP/ATP translocase inhibitor, atractyloside. Yamaguchi N, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):247-51

Nitric oxide inhibits capacitative cation influx in human platelets by promoting sarcoplasmic/endoplasmic reticulum Ca2+-ATPase-dependent refilling of Ca2+ stores. Trepakova ES, et al. **Circ Res** 1999 Feb 5; 84(2):201-9

Ca2+ buffering action of sarcoplasmic reticulum on Bay k 8644-induced Ca2+ influx in rat femoral arterial smooth muscle. Asano M, et al. **Eur J Pharmacol** 1999 Jan 29; 366(1):61-71

Transient and sustained impacts of hydroxyl radicals on sarcoplasmic reticulum function: protective effects of nebivolol. Janssen PM, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):223-32

Role of sarcoplasmic reticulum in the myorelaxant activity of nitric oxide donors in guinea pig gastric fundus. Petkov GV, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):59-66

9-Methyl-7-bromoeudistomin D induces Ca2+ release from cardiac sarcoplasmic reticulum. Seino-Umeda A, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):261-5

Properties of amentoflavone, a potent caffeine-like Ca2+ releaser in skeletal muscle sarcoplasmic reticulum. Suzuki A, et al. **Eur J Pharmacol** 1999 May 7;372(1):97-102

2-Hydroxycarbazole induces Ca2+ release from sarcoplasmic reticulum by activating the ryanodine receptor. Tovey SC, et al. **Eur J Pharmacol** 1998 Aug 7; 354(2-3):245-51

Glucose 6-phosphate alters rat skeletal muscle contractile apparatus and sarcoplasmic reticulum function. Williams JH, et al. **Exp Physiol** 1998 Jul;83(4):489-502

Inhibition of skeletal muscle sarcoplasmic reticulum Ca2+-ATPase by nitric oxide. Ishii T, et al. **FEBS Lett** 1998 Nov 27;440(1-2):218-22

A novel interaction mechanism accounting for different acylphosphatase effects on cardiac and fast twitch skeletal muscle sarcoplasmic reticulum calcium pumps. Nediani C, et al. **FEBS Lett** 1999 Jan 29;443(3):308-12

Clotrimazole, an antimycotic drug, inhibits the sarcoplasmic reticulum calcium pump and contractile function in heart muscle. Snajdrova L, et al. **J Biol Chem** 1998 Oct 23; 273(43):28032-9

PKC-dependent preconditioning with norepinephrine protects sarcoplasmic reticulum function in rat trabeculae following metabolic inhibition. Musters RJ, et al. **J Mol Cell Cardiol** 1999 May;31(5):1083-94

Effects of creatine phosphate on Ca2+ regulation by the sarcoplasmic reticulum in mechanically skinned rat skeletal muscle fibres. Duke AM, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):447-58

2,3-Butanedione monoxime (BDM) decreases sarcoplasmic reticulum Ca content by stimulating Ca release in isolated rat ventricular myocytes. Adams W, et al. **Pflugers Arch** 1998 Oct;436(5):776-81

Measurement of SR Ca2+ content in the presence of caffeine in permeabilised rat cardiac trabeculae. Smith GL, et al. **Pflugers Arch** 1998 Dec;437(1):139-48

Impaired sarcoplasmic reticulum function in lipopolysaccharide-induced myocardial dysfunction demonstrated in whole heart. Hoshiai M, et al. **Shock** 1999 May;11(5):362-6

[Superoxide anion radical selectively increases Ca2+ release from cardiac sarcoplasmic reticulum through ryanodine receptor Ca2+ channel] Okabe E. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:58P-62P (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Expression of the sarco/endoplasmic reticulum Ca(2+)-transport ATPase protein isoforms during regeneration from notexin-induced necrosis of rat soleus muscle. Zádor E, et al. **Acta Histochem** 1998 Nov; 100(4):355-69

Exercise-induced decreases in sarcoplasmic reticulum Ca(2+)-ATPase activity attenuated by high-resistance training. Green HJ, et al. **Acta Physiol Scand** 1998 Oct; 164(2):141-6

The role of phospholamban and SERCA3 in regulation of smooth muscle-endothelial cell signalling mechanisms: evidence from gene-ablated mice. Paul RJ. **Acta Physiol Scand** 1998 Dec;164(4):589-97 (54 ref.)

Effects of exhaustive exercise on biochemical characteristics of sarcoplasmic reticulum from rat soleus muscle. Yasuda T, et al. **Acta Physiol Scand** 1999 Jan;165(1):45-50

Structure-function relationships of the calcium binding sites of the sarcoplasmic reticulum Ca(2+)-ATPase. Andersen JP, et al. **Acta Physiol Scand Suppl** 1998 Aug;643:45-54

Structure-function relationships in the Ca(2+)-binding and translocation domain of SERCA1: physiological correlates in Brody disease. MacLennan DH, et al. **Acta Physiol Scand Suppl** 1998 Aug;643:55-67 (52 ref.)

The relationship between Ca2+-ATPase and freely exchangeable Ca2+ in the dense tubules: a study in platelets from women. Horiguchi M, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):120-7

Ablation of the SERCA3 gene alters epithelium-dependent relaxation in mouse tracheal smooth muscle. Kao J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L264-70

Phospholamban-to-SERCA2 ratio controls the force-frequency relationship. Meyer M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H779-85

Unloading induces transcriptional activation of the sarco(endo)plasmic reticulum Ca2+-ATPase 1 gene in muscle. Peters DG, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1218-25

Functional characterization of alternatively spliced human SERCA3 transcripts. Poch E, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1449-58

Human heart failure: cAMP stimulation of SR Ca(2+)-ATPase activity and phosphorylation level of phospholamban. Schmidt U, et al. **Am J Physiol** 1999 Aug; 277(2 Pt 2):H474-80

Measurement of sarcoplasmic reticulum Ca2+-ATPase activity and E-type Mg2+-ATPase activity in rat heart homogenates. Saborido A, et al. **Anal Biochem** 1999 Mar 1;268(1):79-88

In vitro analysis of SERCA2 gene regulation in hypertrophic cardiomyocytes and increasing transfection efficiency by gene-gun biolistics. Eizema K, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:111-24

Plausible stoichiometry of the interacting nucleotide-binding sites in the Ca(2+)-ATPase from sarcoplasmic reticulum membranes. Merino JM, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):298-302

Effects of various amino acid 256 mutations on sarcoplasmic/endoplasmic reticulum Ca2+ ATPase function and their role in the cellular adaptive response to thapsigargin. Yu M, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):225-32

Frequency dependent force generation correlates with sarcoplasmic calcium ATPase activity in human myocardium. Frank K, et al. **Basic Res Cardiol** 1998 Oct; 93(5):405-11

Influence of SR Ca(2+)-ATPase and Na(+)-Ca(2+)-exchanger on the force-frequency relation. Schillinger W, et al. **Basic Res Cardiol** 1998;93 Suppl 1:38-45 (38 ref.)

Control of sarcoplasmic/endoplasmic-reticulum Ca2+ pump expression in cardiac and smooth muscle. Misquitta CM, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):167-73

Protein modification during biological aging: selective tyrosine nitration of the SERCA2a isoform of the sarcoplasmic reticulum Ca2+-ATPase in skeletal muscle. Viner RI, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):657-69

GroEL protects the sarcoplasmic reticulum Ca(++)-dependent ATPase from inactivation in vitro. Javed MU, et al. **Biochem Mol Biol Int** 1999 Apr; 47(4):631-8

The effect of mastoparan on the E2-E1 transition of the SR Ca(2+)-ATPase. Longland CL, et al. **Biochem Soc Trans** 1998 Aug;26(3):S305

Interaction of the SR CaATPase with the cytoplasmic region of phospholamban. Sharma P, et al. **Biochem Soc Trans** 1998 Aug;26(3):S228

Relationship between phospholamban and nucleotide activation of cardiac sarcoplasmic reticulum Ca2+ adenosinetriphosphatase. Coll KE, et al. **Biochemistry** 1999 Feb 23;38(8):2444-51

Phosphatidylethanolamine modulates Ca-ATPase function and dynamics. Hunter GW, et al. **Biochemistry** 1999 Jan 26;38(4):1356-64

Rearrangement of domain elements of the Ca-ATPase in cardiac sarcoplasmic reticulum membranes upon phospholamban phosphorylation. Negash S, et al.

Biochemistry 1999 Jun 22;38(25):8150–8
NMR conformational study of the sixth transmembrane segment of sarcoplasmic reticulum Ca2+–ATPase. Soulié S, et al. **Biochemistry** 1999 May 4;38(18):5813–21
Formation of the ADP-insensitive phosphoenzyme intermediate in the sarcoplasmic reticulum Ca2+–ATPase of which both Cys344 and Cys364 are modified by N-ethylmaleimide. Suzuki H, et al. **Biochemistry** 1999 Jan 12;38(2):820–5
Regulation of Ca2+ transport by sarcoplasmic reticulum Ca2+–ATPase at limiting [Ca2+]. Berman MC. **Biochim Biophys Acta** 1999 Apr 14;1418(1):48–60
pH and ligand binding modulate the strength of protein–protein interactions in the Ca(2+)-ATPase from sarcoplasmic reticulum membranes. Merino JM, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1–2):203–13
Calcium dependence of Pi phosphorylation of sarcoplasmic reticulum Ca2+–ATPase at low water content: water dependence of the E2-->E1 conversion. Sodré CL, et al. **Biochim Biophys Acta** 1999 Jun 9;1419(1):55–63
Sarco/endoplasmic reticulum Ca2+ (SERCA)-pumps: link to heart beats and calcium waves. Misquitta CM, et al. **Cell Calcium** 1999 Apr;25(4):277–90 (126 ref.)
Expression patterns of sarco/endoplasmic reticulum Ca(2+)-ATPase and inositol 1,4,5-trisphosphate receptor isoforms in vascular endothelial cells. Mountian I, et al. **Cell Calcium** 1999 May;25(5):371–80
Inhibition of skeletal sarcoplasmic reticulum Ca2+–ATPase activity by deferoxamine nitroxide free radical. Kiyose M, et al. **Chem Res Toxicol** 1999 Feb;12(2):137–43
Mechanism of nitric oxide-induced vasodilatation: refilling of intracellular stores by sarcoplasmic reticulum Ca2+ ATPase and inhibition of store-operated Ca2+ influx. Cohen RA, et al. **Circ Res** 1999 Feb 5;84(2):210–9
Enhanced myocardial contractility and increased Ca2+ transport function in transgenic hearts expressing the fast-twitch skeletal muscle sarcoplasmic reticulum Ca2+–ATPase [see comments] Loukianov E, et al. **Circ Res** 1998 Nov 2;83(9):889–97. Comment in: Circ Res 1998 Nov 2;83(9):966–8.
Effects of mutant and antisense RNA of phospholamban on SR Ca(2+)-ATPase activity and cardiac myocyte contractility. He H, et al. **Circulation** 1999 Aug 31; 100(9):974–80
cDNA cloning and predicted primary structure of scallop sarcoplasmic reticulum Ca(2+)-ATPase [published erratum appears in Comp Biochem Physiol B Biochem Mol Biol 1998 Nov;121(3):361-2] Nagata Y, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):777–85
alphaKAP is an anchoring protein for a novel CaM kinase II isoform in skeletal muscle. Bayer KU, et al. **EMBO J** 1998 Oct 1;17(19):5598–605
Sites on the cytoplasmic region of phospholamban involved in interaction with the calcium-activated ATPase of the sarcoplasmic reticulum. Levine BA, et al. **Eur J Biochem** 1999 Sep;264(3):905–13
Identification of avian sarcoplasmic reticulum Ca(2+)-ATPase (SERCA3) as a novel 1,25(OH)(2)D(3) target gene in the monocytic lineage. Machuca I, et al. **Exp Cell Res** 1999 Aug 1;250(2):364–75
Sarcoplasmic lipase and non-specific esterase inhibition in myofibers of rats intoxicated with the organophosphate isofenphos. Calore EE, et al. **Exp Toxicol Pathol** 1999 Jan; 51(1):27–33
Mutations of Arg198 in sarcoplasmic reticulum Ca2+–ATPase cause inhibition of hydrolysis of the phosphoenzyme intermediate formed from inorganic phosphate. Daiho T, et al. **FEBS Lett** 1999 Feb 5; 444(1):54–8
Antagonistic effect of ganglioside GM1 and GM3 on the activity and conformation of sarcoplasmic reticulum Ca(2+)-ATPase. Wang Y, et al. **FEBS Lett** 1999 Aug 20; 457(1):144–8
Oxidative damage to sarcoplasmic reticulum Ca2+–ATPase AT submicromolar iron concentrations: evidence for metal-catalyzed oxidation. Moreau VH, et al. **Free Radic Biol Med** 1998 Sep;25(4–5):554–60
Expression of skeletal muscle sarcoplasmic reticulum calcium-ATPase is reduced in rats with postinfarction heart failure. Simonini A, et al. **Heart** 1999 Mar;81(3):303–7
Methods for creating and animating a computer model depicting the structure and function of the sarcoplasmic reticulum calcium ATPase enzyme. Chen AY, et al. **J Biocommun** 1999;26(1):16–22
Phosphoenzyme conversion of the sarcoplasmic reticulum Ca(2+)-ATPase. Molecular interpretation of infrared difference spectra. Barth A. **J Biol Chem** 1999 Aug 6; 274(32):22170–5
Deletions or specific substitutions of a few residues in the NH(2)-terminal region (Ala(3) to Thr(9)) of sarcoplasmic reticulum Ca(2+)-ATPase cause inactivation and rapid degradation of the enzyme expressed in COS-1 cells. Daiho T, et al. **J Biol Chem** 1999 Aug 20;274(34):23910–5
Impaired cardiac performance in heterozygous mice with a null mutation in the sarco(endo)plasmic reticulum Ca2+–ATPase isoform 2 (SERCA2) gene. Periasamy M, et al. **J Biol Chem** 1999 Jan 22;274(4):2556–62
Schistosoma mansoni Ca2+–ATPase SMA2 restores viability to yeast Ca2+–ATPase-deficient strains and functions in calcineurin-mediated Ca2+ tolerance. Talla E, et al. **J Biol Chem** 1998 Oct 23;273(43):27831–40
Electrogenic partial reactions of the SR-Ca-ATPase investigated by a fluorescence method. Butscher C, et al. **J Membr Biol** 1999 Mar 15;168(2):169–81
Three-dimensional crystals of Ca2+–ATPase from sarcoplasmic reticulum: merging electron diffraction tilt series and imaging the (h, k, 0) projection. Shi D, et al. **J Mol Biol** 1998 Dec 18;284(5):1547–64
The sarcoplasmic reticulum Ca2+–ATPase (SERCA2) gene promoter activity is decreased in response to severe left ventricular pressure-overload hypertrophy in rat hearts. Aoyagi T, et al. **J Mol Cell Cardiol** 1999 Apr;31(4):919–26
Sub-antihypertensive doses of ramipril normalize sarcoplasmic reticulum calcium ATPase expression and function following cardiac hypertrophy in rats. Boateng SY, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2683–94
Consequences of the inhibition of the sarcoplasmic reticulum calcium ATPase on cardiac function and coronary flow in rabbit isolated perfused heart: role of calcium and nitric oxide. Khandoudi N, et al. **J Mol Cell Cardiol** 1998 Oct; 30(10):1967–77
Contribution of abnormal sarcoplasmic reticulum ATPase activity to systolic and diastolic dysfunction in human heart failure. Schmidt U, et al. **J Mol Cell Cardiol** 1998 Oct; 30(10):1929–37
Expression of sarcoplasmic/endoplasmic reticulum Ca2+ ATPases in the rat extensor digitorum longus (EDL) muscle regenerating from notexin-induced necrosis. Mendler L, et al. **J Muscle Res Cell Motil** 1998 Oct; 19(7):777–85
Interactions of 6-gingerol and ellagic acid with the cardiac sarcoplasmic reticulum Ca2+–ATPase. Antipenko AY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):227–34
Influence of inorganic phosphate and pH on sarcoplasmic reticular ATPase in skinned muscle fibres of Xenopus laevis. Stienen GJ, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):735–44
Age-related chemical modification of the skeletal muscle sarcoplasmic reticulum Ca-ATPase of the rat. Schöneich C, et al. **Mech Ageing Dev** 1999 Mar 15;107(3):221–31 (69 ref.)
Chemical modification of an arginine residue in the ATP-binding site of Ca2+ -transporting ATPase of sarcoplasmic reticulum by phenylglyoxal. Yamamoto H, et al. **Mol Cell Biochem** 1999 Jan;190(1–2):169–77
Rabbit sarcoplasmic reticulum Ca(2+)-ATPase replaces yeast PMC1 and PMR1 Ca(2+)-ATPases for cell viability and calcineurin-dependent regulation of calcium tolerance. Degand I, et al. **Mol Microbiol** 1999 Jan;31(2):545–56
Muscle function in a patient with Brody's disease. De Ruiter CJ, et al. **Muscle Nerve** 1999 Jun;22(6):704–11
Nitric oxide synthase in cardiac sarcoplasmic reticulum. Xu KY, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19; 96(2):657–62
Regulation of alternative processing of the sarco/endoplasmic reticulum Ca2+ ATPase (SERCA2) gene transcripts during muscle differentiation. van den Bosch L. **Verh K Acad Geneeskd Belg** 1998;60(5):441–61
[Calcium pumps of plasma membrane and sarco(endo)plasmic reticulum] Suzuki H. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1610–21 (146 ref.) **(Jpn)**

METABOLISM

Swelling of sarcoplasmic reticulum in the periphery of muscle fibres after isometric contractions in rat semimembranosus lateralis muscle. Willems ME, et al. **Acta Physiol Scand** 1999 Apr;165(4):347–56
Cryoelectron microscopy of the calcium pump from sarcoplasmic reticulum: two crystal forms reveal two different conformations. Stokes DL, et al. **Acta Physiol Scand Suppl** 1998 Aug;643:35–43 (32 ref.)
Role of transverse tubules (T-tubules) in muscle glucose transport. Dohm GL, et al. **Adv Exp Med Biol** 1998; 441:27–34 (17 ref.)
Modulation of the sarcolemmal L-type current by alteration in SR Ca2+ release. Balog EM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C128–35
Postnatal changes in contractile time parameters, calcium regulatory proteins, and phosphatases. Gombosova I, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2123–32
Quantification of Ca2+ uptake in the sarcoplasmic reticulum of trout ventricular myocytes. Hove-Madsen L, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2070–80
SERCA1a can functionally substitute for SERCA2a in the heart. Ji Y, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H89–97
Modification of ischemia-reperfusion-induced changes in cardiac sarcoplasmic reticulum by preconditioning. Osada M, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2025–34
Cyclosporin A treatment alters characteristics of Ca2+-release channel in cardiac sarcoplasmic reticulum. Park KS, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H865–72
Role of intracellular Ca2+ and pH in positive inotropic response of cardiomyocytes to diacylglycerol. Pi Y, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1473–81
Effect of angiotensin-converting enzyme inhibition on protein kinase C and SR proteins in heart failure. Takeishi Y, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H53–62
Effects of aging on sarcoplasmic reticulum Ca2+-cycling proteins and their phosphorylation in rat myocardium. Xu A, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2087–94
Analysis of sarcoplasmic reticulum Ca2+ transport and Ca2+ ATPase enzymatic properties using mouse cardiac tissue homogenates. Ji Y, et al. **Anal Biochem** 1999 May 1;269(2):236–44
Interaction of bupivacaine and tetracaine with the sarcoplasmic reticulum Ca2+ release channel of skeletal and cardiac muscles. Komai H, et al. **Anesthesiology** 1999 Mar;90(3):835–43
Nitric oxide prevents myoglobin/tert-butyl hydroperoxide-induced inhibition of Ca2+ transport in skeletal and cardiac sarcoplasmic reticulum. Menshikova EV, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:371–85
Effects of cyclic adenosine monophosphate (cAMP) on sarcoplasmic reticulum Ca(2+)-loading in failing rabbit and human cardiac trabeculae. Denvir MA, et al. **Basic Res Cardiol** 1998 Oct;93(5):396–404
The novel sarcomeric protein telethonin exhibits developmental and functional regulation. Mason P, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):699–703
Cyclic ADP-ribose-dependent Ca2+ release is modulated by free [Ca2+] in the scallop sarcoplasmic reticulum. Panfoli I, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):57–62
Calsequestrin: more than 'only' a luminal Ca2+ buffer inside the sarcoplasmic reticulum. Szegedi C, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):19–22
Identification of 30 kDa calsequestrin-binding protein, which regulates calcium release from sarcoplasmic reticulum of rabbit skeletal muscle. Yamaguchi N, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):541–7
Coordination between Ca2+ release and subsequent re-uptake in the sarcoplasmic reticulum. Saiki Y, et al. **Biochemistry** 1999 Mar 9;38(10):3112–9
Characteristics of the interaction of melittin with sarcoplasmic reticulum membranes. Shorina EA, et al. **Biochemistry (Mosc)** 1999 Jun;64(6):705–13
Calcium additional to that bound to the transport sites is required for full activation of the sarcoplasmic reticulum Ca-ATPase from skeletal muscle. Alonso GL, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1–3):47–54
Chloride channel blockers inhibit Ca2+ uptake by the smooth muscle sarcoplasmic reticulum. Pollock NS, et al. **Biophys J** 1998 Oct;75(4):1759–66
Enhanced phosphorylation of phospholamban and downregulation of sarco/endoplasmic reticulum Ca2+ ATPase type 2 (SERCA 2) in cardiac sarcoplasmic reticulum from rabbits with heart failure. Currie S, et al. **Cardiovasc Res** 1999 Jan;41(1):135–46
Growth hormone preserves cardiac sarcoplasmic reticulum Ca2+ release channels (ryanodine receptors) and enhances cardiac function in cardiomyopathic hamsters. Ueyama T, et al. **Cardiovasc Res** 1998 Oct;40(1):64–73
Functional linkage of Na(+)-Ca2+ exchange and sarcoplasmic reticulum Ca2+ release mediates Ca2+ cycling in vascular smooth muscle. Nazer MA, et al. **Cell Calcium** 1998 Oct;24(4):275–83
Conformational basis of the phospholipid requirement for the activity of SR Ca(2+)-ATPase. Zhang X, et al. **Chem Phys Lipids** 1998 Dec;97(1):55–64
Effects of MCI-154 on calcium sensitivity of contractile system and calcium release from sarcoplasmic reticulum in saponin-skinned rat myocardium. Huang Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):234–7
Effects of Arg-Gly-Asp-Ser on Ca2+ transport of myocardial sarcoplasmic reticulum in rat septic shock. Ji Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar; 17(2):129–32
Targeted overexpression of the sarcoplasmic reticulum Ca2+–ATPase increases cardiac contractility in transgenic mouse hearts. Baker DL, et al. **Circ Res** 1998 Dec 14–28; 83(12):1205–14
Regulation of the Ca2+ gradient across the sarcoplasmic reticulum in perfused rabbit heart. A 19F nuclear magnetic resonance study. Chen W, et al. **Circ Res** 1998 Nov 2; 83(9):898–907
The sarcoplasmic reticulum and the Na+/Ca2+ exchanger both contribute to the Ca2+ transient of failing human ventricular myocytes. Dipla K, et al. **Circ Res** 1999 Mar 5;84(4):435–44
Subcellular [Ca2+]i gradients during excitation-contraction coupling in newborn rabbit ventricular myocytes. Haddock PS, et al. **Circ Res** 1999 Sep 3;85(5):415–27
Ca2+ handling and sarcoplasmic reticulum Ca2+ content in isolated failing and nonfailing human myocardium. Pieske B, et al. **Circ Res** 1999 Jul 9;85(1):38–46
Absence of troponin I degradation or altered sarcoplasmic reticulum uptake protein expression after reversible ischemia in swine [see comments] Thomas SA, et al. **Circ Res** 1999 Sep 3;85(5):446–56. Comment in: Circ Res 1999 Sep 3;85(5):470–2.
Sulfhydryl redox state affects susceptibility to ischemia and sarcoplasmic reticulum Ca2+ release in rat heart. Implications for ischemic preconditioning. Zucchi R, et al. **Circ Res** 1998 Nov 2;83(9):908–15
Serial changes in sarcoplasmic reticulum gene expression in volume-overloaded cardiac hypertrophy in the rat: effect of an angiotensin II receptor antagonist. Hashida H, et al. **Clin Sci (Colch)** 1999 Apr;96(4):387–95
Alterations in cardiac sarcoplasmic reticulum Ca2+ regulatory proteins in the atrial tissue of patients with chronic atrial fibrillation. Ohkusa T, et al. **J Am Coll Cardiol** 1999 Jul;34(1):255–63
Sarcoplasmic reticulum responses to repeated sprints are affected by conditioning of horses. Wilson JA, et al. **J Anim Sci** 1998 Dec;76(12):3065–71

SARCOPLASMIC RETICULUM

Sarcoplasmic reticulum Ca(2+) release and muscle fatigue. Favero TG. **J Appl Physiol** 1999 Aug;87(2):471–83 (145 ref.)

Human skeletal sarcoplasmic reticulum Ca2+ uptake and muscle function with aging and strength training. Hunter SK, et al. **J Appl Physiol** 1999 Jun;86(6):1858–65

Anion permeability and conduction of adenine nucleotides through a chloride channel in cardiac sarcoplasmic reticulum. Kawano S, et al. **J Biol Chem** 1999 Jan 22; 274(4):2085–92

Interaction of nucleotides with Asp(351) and the conserved phosphorylation loop of sarcoplasmic reticulum Ca(2+)-ATPase. McIntosh DB, et al. **J Biol Chem** 1999 Sep 3;274(36):25227–36

FK-binding protein is associated with the ryanodine receptor of skeletal muscle in vertebrate animals. Qi Y, et al. **J Biol Chem** 1998 Dec 25;273(52):34813–9

Direct monitoring of the calcium concentration in the sarcoplasmic and endoplasmic reticulum of skeletal muscle myotubes. Robert V, et al. **J Biol Chem** 1998 Nov 13; 273(46):30372–8

The influence of sarcoplasmic reticulum Ca2+ concentration on Ca2+ sparks and spontaneous transient outward currents in single smooth muscle cells. ZhuGe R, et al. **J Gen Physiol** 1999 Feb;113(2):215–28

Myotonic dystrophy protein kinase expressed in rat cardiac muscle is associated with sarcoplasmic reticulum and gap junctions. Mussini I, et al. **J Histochem Cytochem** 1999 Mar; 47(3):383–92

[3H]Azidodantrolene: synthesis and use in identification of a putative skeletal muscle dantrolene binding site in sarcoplasmic reticulum. Palnitkar SS, et al. **J Med Chem** 1999 Jun 3;42(11):1872–80

Kinetic differences in the phospholamban-regulated calcium pump when studied in crude and purified cardiac sarcoplasmic reticulum vesicles. Antipenko A, et al. **J Membr Biol** 1999 Feb 1;167(3):257–65

Effects of ATP-sensitive potassium channel regulators on chloride channels in the sarcoplasmic reticulum vesicles from rabbit skeletal muscle. Kourie JI. **J Membr Biol** 1998 Jul 1;164(1):47–58

Reduced sarcoplasmic reticulum Ca(2+)-uptake and expression of phospholamban in left ventricular myocardium of dogs with heart failure. Gupta RC, et al. **J Mol Cell Cardiol** 1999 Jul;31(7):1381–9

Frequency-dependent changes in contribution of SR Ca2+ to Ca2+ transients in failing human myocardium assessed with ryanodine. Schlotthauer K, et al. **J Mol Cell Cardiol** 1998 Jul;30(7):1285–94

Captopril treatment improves the sarcoplasmic reticular Ca(2+) transport in heart failure due to myocardial infarction. Shao Q, et al. **J Mol Cell Cardiol** 1999 Sep; 31(9):1663–72

Calcium handling by the sarcoplasmic reticulum during oscillatory contractions of skinned skeletal muscle fibres. Szentesi P, et al. **J Muscle Res Cell Motil** 1998 Aug; 19(6):675–87

Sarcoplasmic reticulum Ca(2+) release by 4-chloro-m-cresol (4-CmC) in intact and chemically skinned ferret cardiac ventricular fibers. Choisy S, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):578–86

Relationship between L-type Ca2+ current and unitary sarcoplasmic reticulum Ca2+ release events in rat ventricular myocytes. Collier ML, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):117–28

Effects of tetracaine on sarcoplasmic calcium release in mammalian skeletal muscle fibres. Csernoch L, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):843–57

Release of Ca2+ from the sarcoplasmic reticulum increases mitochondrial [Ca2+] in rat pulmonary artery smooth muscle cells. Drummond RM, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):139–47

Effects of caffeine and adenine nucleotides on Ca2+ release by the sarcoplasmic reticulum in saponin-permeabilized frog skeletal muscle fibres. Duke AM, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):43–53

Effects of creatine phosphate on Ca2+ regulation by the sarcoplasmic reticulum in mechanically skinned rat skeletal muscle fibres. Duke AM, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):447–58

Na+-Ca2+ exchange and sarcoplasmic reticular Ca2+ regulation in ventricular myocytes from transgenic mice overexpressing the Na+-Ca2+ exchanger. Terracciano CM, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):651–67

Increased calcium entry into dystrophin-deficient muscle fibres of MDX and ADR-MDX mice is reduced by ion channel blockers. Tutdibi O, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):859–68

Ryanodine-sensitive, thapsigargin-insensitive calcium uptake in rat ventricle homogenates. Feher JJ, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):9–17

Influence of different culture conditions on sarcoplasmic reticular calcium transport in isolated neonatal rat cardiomyocytes. Vetter R, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):177–85

Measurement of SR Ca2+ content in the presence of caffeine in permeabilised rat cardiac trabeculae. Smith GL, et al. **Pflugers Arch** 1998 Dec;437(1):139–48

A novel, rapid and reversible method to measure Ca buffering and time-course of total sarcoplasmic reticulum Ca content in cardiac ventricular myocytes. Trafford AW, et al. **Pflugers Arch** 1999 Feb;437(3):501–3

[Effects of harringtonine on peroxidation and dynamic microstructure of membrane lipids of myocardial sarcoplasmic reticulum in rat] Zhu MY, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jan;18(1):90–2 (Eng. Abstr.) **(Chi)**

[Effects of amrinone on the Ca(2+)-related functions of skinned skeletal muscle fibers of guinea pigs] Sasaki J. **Masui** 1999 Jan;48(1):18–26 (Eng. Abstr.) **(Jpn)**

[Ca+ metabolism in the sarcoplasmic reticulum and the role of ryanodine and IP3 receptors in the nervous system] Nagata E, et al. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2522–9 (30 ref.) **(Jpn)**

[The role of cytoplasmic factors in stabilization of Ca2+-transporting function of the myocardial sarcoplasmic reticulum during stress adaptation in rats] Matskevich AA, et al. **Biull Eksp Biol Med** 1999 Feb; 127(2):155–9 **(Rus)**

[The role of HSP70 and Ca(2+)-pump from the myocardial sarcoplasmic reticulum in cardioprotective effects during adaptation to physical load in rats] Pshennikova MG, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov; 84(11):1214–22 (Eng. Abstr.) **(Rus)**

PATHOLOGY

Sarcoplasmic reticulum in vascular cells in hypertension and during proliferation. Lompré AM. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):553–7 (24 ref.)

PHYSIOLOGY

Superficial buffer barrier and preferentially directed release of Ca2+ in canine airway smooth muscle. Janssen LJ, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L744–53

Effects of isoflurane on [Ca2+]i, SR Ca2+ content, and twitch force in intact trabeculae. Jiang Y, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1360–9

Energy expenditure by Ba(2+) contracture in rat ventricular slices derives from cross-bridge cycling. Kohzuki H, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H74–9

Sarcoplasmic reticulum and endothelium independently regulate venous smooth muscle [Ca(2+)](i) and contraction. Laporte R, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H749–55

Cardiac myofibrillar and sarcoplasmic reticulum function are not depressed in insulin-resistant JCR:LA-cp rats. Misra T, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1811–7

Effects of IBMX on norepinephrine-induced vasoconstriction in small mesenteric arteries. Taylor MS, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G909–14

Alterations in sarcoplasmic reticulum function and gene expression in ischemic-reperfused rat heart. Temsah RM, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H584–94

Minor role of a Ca2+-depleted sarcoplasmic reticulum in heterologous desensitization of smooth muscle to K+. Wardle RL, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1095–103

The force-frequency relationship is dependent on Ca(2+)-influx via L-type- and SR-Ca(2+)-channels in human heart. Reuter H, et al. **Basic Res Cardiol** 1999 Jun; 94(3):159–70

Analysis of the mechanisms of mitochondrial NADH regulation in cardiac trabeculae. Brandes R, et al. **Biophys J** 1999 Sep;77(3):1666–82

In situ study of the sarcoplasmic reticulum function in control and mdx mouse diaphragm muscle. Khammari A, et al. **Can J Physiol Pharmacol** 1998 Dec;76(12):1161–5

Measurement of sarcoplasmic reticulum Ca2+ content in intact amphibian skeletal muscle fibres with 4-chloro-m-cresol. Kabbara AA, et al. **Cell Calcium** 1999 Mar;25(3):227–35

Relation between spontaneous contraction and sarcoplasmic reticulum function in cultured neonatal rat cardiac myocytes. Kimura H, et al. **Cell Signal** 1998 May; 10(5):349–54

Ontogeny of local sarcoplasmic reticulum Ca2+ signals in cerebral arteries: Ca2+ sparks as elementary physiological events [published erratum appears in Circ Res 1999 Jan 8-22;84(1):125] Gollasch M, et al. **Circ Res** 1998 Nov 30; 83(11):1104–14

Role of sarcoplasmic reticulum in myocardial contraction of neonatal and adult mice. Tanaka H, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jul; 120(3):431–8

Role of sarcoplasmic reticulum in the myorelaxant activity of nitric oxide donors in guinea pig gastric fundus. Petkov GV, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):59–66

Ca2+ sparks in frog skeletal muscle: generation by one, some, or many SR Ca2+ release channels? Schneider MF. **J Gen Physiol** 1999 Mar;113(3):365–72 (23 ref.)

pH-modulation of chloride channels from the sarcoplasmic reticulum of skeletal muscle. Kourie JI. **J Membr Biol** 1999 Jan 1;167(1):73–83

Similarities in the effects of DIDS, DBDS and suramin on cardiac ryanodine receptor function. Sitsapesan R. **J Membr Biol** 1999 Mar 15;168(2):159–68

Sarcoplasmic reticulum function in murine ventricular myocytes overexpressing SR CaATPase. Yao A, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2711–8

Comparison of sarcoplasmic reticulum capabilities in toadfish (Opsanus tau) sonic muscle and rat fast twitch muscle. Feher JJ, et al. **J Muscle Res Cell Motil** 1998 Aug; 19(6):661–74

Effects of ivermectin and midecamycin on ryanodine receptors and the Ca2+-ATPase in sarcoplasmic reticulum of rabbit and rat skeletal muscle. Ahern GP, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):313–26

The effect of cyclopiazonic acid on excitation-contraction coupling in guinea-pig ureteric smooth muscle: role of the sarcoplasmic reticulum. Burdyga TV, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):855–65

The buffer barrier hypothesis, [Ca2+]i homogeneity, and sarcoplasmic reticulum function in swine carotid artery. Rembold CM, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):477–92

Direct measurement of SR release flux by tracking 'Ca2+ spikes' in rat cardiac myocytes. Song LS, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):677–91

Contribution of sarcoplasmic reticular calcium to smooth muscle contractile activation: gestational dependence in isolated rat uterus. Taggart MJ, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):133–44

Role of sarcoplasmic reticulum in the contractile dysfunction during myocardial ischaemia and reperfusion. Kaplán P, et al. **Physiol Res** 1997;46(5):333–9 (59 ref.)

Dual mechanisms of Mg2+ block of ryanodine receptor Ca2+ release channel from cardiac sarcoplasmic reticulum. Kawano S. **Receptors Channels** 1998;5(6):405–16

[Cardiac sarcoplasmic reticulum and phospholamban] Tada M, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1622–7 (42 ref.) **(Jpn)**

SECRETION

Ryanodine and the left ventricular force-interval and relaxation-interval relations in closed-chest dogs: insights on calcium handling. Prabhu SD. **Cardiovasc Res** 1998 Dec; 40(3):483–91

9-Methyl-7-bromoeudistomin D induces Ca2+ release from cardiac sarcoplasmic reticulum. Seino-Umeda A, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):261–5

ULTRASTRUCTURE

The cardiac content of sarcoplasmic reticulum in the rat determined by calcium uptake rate, calcium oxalate capacity, ryanodine binding and thapsigargin titration. Feher JJ. **J Mol Cell Cardiol** 1998 Sep;30(9):1763–72

Decreased expression of myotonic dystrophy protein kinase and disorganization of sarcoplasmic reticulum in skeletal muscle of myotonic dystrophy. Ueda H, et al. **J Neurol Sci** 1999 Jan 1;162(1):38–50

Effects of beta-escin and saponin on the transverse-tubular system and sarcoplasmic reticulum membranes of rat and toad skeletal muscle. Launikonis BS, et al. **Pflugers Arch** 1999 May;437(6):955–65

SARCOPTES SCABIEI

Dermacase. Crusted Norwegian scabies. Adams SP. **Can Fam Physician** 1999 Jun;45:1455, 1462

CYTOLOGY

Findings in vivo of Sarcoptes scabiei with incident light microscopy. Brunetti B, et al. **Eur J Dermatol** 1998 Jun; 8(4):266–7

GROWTH & DEVELOPMENT

Persistent efficacy of doramectin and ivermectin against experimental infestations of Sarcoptes scabiei var. suis in swine. Arends JJ, et al. **Vet Parasitol** 1999 Mar 22; 82(1):71–9

IMMUNOLOGY

The relation between scabies and hypersensitivity to antigens of house dust mites and storage mites. Moustafa EH, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):777–87

The efficacy of simplified eradication strategies against sarcoptic mange mite infections in swine herds monitored by an ELISA. Jacobson M, et al. **Vet Parasitol** 1999 Mar 1;81(3):249–58

[Continuous serologic study and sanitation inspection of Sarcoptes scabiei var. suis infection: preliminary results] Zimmermann W, et al. **Schweiz Arch Tierheilkd** 1998; 140(12):513–7 (Eng. Abstr.) **(Ger)**

SARCOSINE

ANALOGS & DERIVATIVES

Cholylsarcosine for bile acid deficiency caused by ileal resection [letter] Popović OS, et al. **Dig Dis Sci** 1999 Sep; 44(9):1931–2

[Cholysarkosin in treatment of bile acid deficiency syndrome] Weinand I, et al. **Z Gastroenterol** 1999 Jul;37(7):675–7 **(Ger)**

1-SARCOSINE-8-ALANINE ANGIOTENSIN II see **SARALASIN**

1-SARCOSINE-8-ISOLEUCINE ANGIOTENSIN II

METABOLISM

Chemical lesion of the inferior olive reduces [125I]sarcosine1-angiotensin II binding to AT2 receptors in the cerebellar cortex of young rats. Jöhren O, et al. **Brain Res** 1998 May 18;793(1-2):176-86

SARCOSOMES see **MITOCHONDRIA, MUSCLE**

SARCOSPORIDIA see **SARCOCYSTIS**

SARCOSPORIDIOSIS see **SARCOCYSTOSIS**

SARIN

ANALYSIS

Determination of alkylmethylphosphonic acids, the main metabolites of organophosphorus nerve agents, in biofluids by gas chromatography-mass spectrometry and liquid-liquid-solid-phase-transfer-catalyzed pentafluorobenzylation. Miki A, et al. **J Anal Toxicol** 1999 Mar-Apr;23(2):86-93

CHEMISTRY

Biodegradation of neutralized sarin. Zhang Y, et al. **Biotechnol Bioeng** 1999 Jul 20;64(2):221-31

METABOLISM

The interaction of sarin and soman with plasma proteins: the identification of a novel phosphonylation site. Black RM, et al. **Arch Toxicol** 1999 Mar;73(2):123-6

Urinary metabolites of sarin in a patient of the Matsumoto sarin incident. Nakajima T, et al. **Arch Toxicol** 1998 Sep; 72(9):601-3

Quantitative analysis of O-isopropyl methylphosphonic acid in serum samples of Japanese citizens allegedly exposed to sarin: estimation of internal dosage. Noort D, et al. **Arch Toxicol** 1998 Oct;72(10):671-5

Biological monitoring of metabolites of sarin and its by-products in human urine samples. Minami M, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:250-4

POISONING

Urinary metabolites of sarin in a patient of the Matsumoto sarin incident. Nakajima T, et al. **Arch Toxicol** 1998 Sep; 72(9):601-3

Chronic neurobehavioral and central and autonomic nervous system effects of Tokyo subway sarin poisoning. Yokoyama K, et al. **J Physiol Paris** 1998 Jun-Aug;92(3-4):317-23

Biological monitoring of metabolites of sarin and its by-products in human urine samples. Minami M, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:250-4

Distal sensory axonopathy after sarin intoxication. Himuro K, et al. **Neurology** 1998 Oct;51(4):1195-7

Elevated frequency of sister chromatid exchanges in lymphocytes of victims of the Tokyo sarin disaster and in experiments exposing lymphocytes to by-products of sarin synthesis. Li Q, et al. **Toxicol Lett** 1998 Sep 1; 98(1-2):95-103

Success of pyridostigmine, physostigmine, eptastigmine and phosphotriesterase treatments in acute sarin intoxication. Tuovinen K, et al. **Toxicology** 1999 Jun 15;134(2-3):169-78

[Terror in Japan: mass-intoxication with the nerve-agent sarin] Solberg Y, et al. **Harefuah** 1998 Oct;135(7-8):268-71, 336, 335 (Eng. Abstr.) **(Heb)**

[Sarin poisoning] Sekijima Y. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):646-9 (9 ref.) **(Jpn)**

TOXICITY

Neuromuscular effects of low level exposures to Sarin, pyridostigmine, DEET, and chlorpyrifos. Olson CT, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:149-69

Clinical effects of low-level exposures to chemical warfare agents in mice and chickens. Wilson BW, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:183-90

The effects of acutely administered low dose sarin on cognitive behaviour and the electroencephalogram in the common marmoset. Pearce PC, et al. **J Psychopharmacol** 1999;13(2):128-35

Sarin-like and soman-like organophosphorous agents activate PLCgamma in rat brains. Niijima H, et al. **Toxicol Appl Pharmacol** 1999 Apr 1;156(1):64-9

SARKOLYSIN see **MELPHALAN**

SASSAFRAS see **LAURACEAE**

SATELLITE COMMUNICATIONS

Applying GPS to the study of primate ecology: a useful tool? Phillips KA, et al. **Am J Primatol** 1998;46(2):167-72

Predicting malaria infection in Gambian children from satellite data and bed net use surveys: the importance of spatial correlation in the interpretation of results. Thomson MC, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):2-8

Telecommunications systems in support of disaster medicine: applications of basic information pathways. Garshnek V, et al. **Ann Emerg Med** 1999 Aug;34(2):213-8

Modelling the distribution and abundance of Culicoides imicola in Morocco and Iberia using climatic data and satellite imagery. Baylis M, et al. **Arch Virol Suppl** 1998; 14:137-53

Satellite observations of Lava Lake activity at Nyiragongo volcano, ex-Zaire, during the Rwandan refugee crisis. Oppenheimer C. **Disasters** 1998 Sep;22(3):268-81

Distributing digital imaging and communications in medicine data and optimizing access over satellite networks. Ernst RD, et al. **J Digit Imaging** 1999 May;12(2 Suppl 1):195-6

Application of the advanced communications technology satellite to teleradiology and real-time compressed ultrasound video telemedicine. Stewart BK, et al. **J Digit Imaging** 1999 May;12(2):68-76 (12 ref.)

NASA/DARPA advanced communications technology satellite project for evaluation of telemedicine outreach using next-generation communications satellite technology: Mayo Foundation participation [see comments] Gilbert BK, et al. **Mayo Clin Proc** 1999 Aug;74(8):753-7. Comment in: Mayo Clin Proc 1999 Aug;74(8):841-3.

Technology, sociology, and medicine [editorial; comment] Stackhouse W. **Mayo Clin Proc** 1999 Aug;74(8):841-3. Comment on: Mayo Clin Proc 1999 Aug;74(8):753-7. Comment on: Mayo Clin Proc 1999 Aug;74(8):758-63. Comment on: Mayo Clin Proc 1999 Aug;74(8):764-9.

Geostatistics and remote sensing using NOAA-AVHRR satellite imagery as predictive tools in tick distribution and habitat suitability estimations for Boophilus microplus (Acari: Ixodidae) in South America. National Oceanographic and Atmosphere Administration-Advanced Very High Resolution Radiometer. Estrada-Peña A. **Vet Parasitol** 1999 Feb 1; 81(1):73-82

[Satellite project for animal health fits together very well in pro-active thinking. Theoretical trial for cattlemen and veterinarians] Tomassen F. **Tijdschr Diergeneeskd** 1999 Mar 15;124(6):200-2 **(Dut)**

[Satellite remote sensing as a tool for the analysis of the occurrence of American cutaneous leishmaniasis in an urban area of southeastern Brazil] Miranda C, et al. **Rev Saude Publica** 1998 Oct;32(5):455-63 (Eng. Abstr.) **(Por)**

INSTRUMENTATION

Telemedicine consultations in congenital heart disease: assessment of advanced technical capabilities [see comments] Julsrud PR, et al. **Mayo Clin Proc** 1999 Aug; 74(8):758-63. Comment in: Mayo Clin Proc 1999 Aug;74(8):841-3.

ORGANIZATION & ADMINISTRATION

Deriving meteorological variables across Africa for the study and control of vector-borne disease: a comparison of remote sensing and spatial interpolation of climate. Hay SI, et al. **Trop Med Int Health** 1999 Jan;4(1):58-71

SATELLITE DNA see **DNA, SATELLITE**

SATELLITE RNA see **RNA, SATELLITE**

SATELLITE TOBACCO MOSAIC VIRUS see **TOBACCO MOSAIC VIRUS SATELLITE**

SATELLITE VIRUSES

see related
HELPER VIRUSES
RNA, SATELLITE

GENETICS

Biology and structure of plant satellite viruses activated by icosahedral helper viruses. Scholthof KB, et al. **Curr Top Microbiol Immunol** 1999;239:123-43 (59 ref.)

Features of the autonomous function of the translational enhancer domain of satellite tobacco necrosis virus. Meulewaeter F, et al. **RNA** 1998 Nov;4(11):1347-56

ULTRASTRUCTURE

Biology and structure of plant satellite viruses activated by icosahedral helper viruses. Scholthof KB, et al. **Curr Top Microbiol Immunol** 1999;239:123-43 (59 ref.)

SATELLITES, ARTIFICIAL see **SPACECRAFT**

SATELLITES, MAN-MADE see **SPACECRAFT**

SATELLITES, NATURAL see **SOLAR SYSTEM**

SATIATION

The effects of a high-carbohydrate, high-protein or balanced lunch upon later food intake and hunger ratings. Latner JD, et al. **Appetite** 1999 Aug;33(1):119-28

Hunger and satiety: deceptively simple words for the complex mechanisms that tell us when to eat and when to stop [news] **J Am Diet Assoc** 1998 Oct;98(10):1111

Satiation causes within-session decreases in instrumental responding. Bizo LA, et al. **J Exp Psychol Anim Behav Process** 1998 Oct;24(4):439-52

The satiating effect of a diet containing jojoba meal (Simmondsia chinensis) in dogs. Hawthorne AJ, et al. **J Nutr** 1998 Dec;128(12 Suppl):2669S-2670S

Energy density, palatability, and satiety: implications for weight control. Drewnowski A. **Nutr Rev** 1998 Dec; 56(12):347-53 (42 ref.)

Palatability affects satiation but not satiety. De Graaf C, et al. **Physiol Behav** 1999 Jun;66(4):681-8

DRUG EFFECTS

Interaction of CCK and 8-OH-DPAT in the satiation of alcohol intake. Kulkosky PJ, et al. **Alcohol** 1998 Nov; 16(4):305-9

Glucagon-like peptide-1 promotes satiety and reduces food intake in patients with diabetes mellitus type 2. Gutzwiller JP, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1541-4

Blockade of GABAA receptors in the medial ventral pallidum elicits feeding in satiated rats. Stratford TR, et al. **Brain Res** 1999 Apr 17;825(1-2):199-203

Satiety related to 24 h diet-induced thermogenesis during high protein/carbohydrate vs high fat diets measured in a respiration chamber. Westerterp-Plantenga MS, et al. **Eur J Clin Nutr** 1999 Jun;53(6):495-502

Role of impaired gastric accommodation to a meal in functional dyspepsia [see comments] Tack J, et al. **Gastroenterology** 1998 Dec;115(6):1346-52. Comment in: Gastroenterology 1998 Dec;115(6):1586-7.

The effects of high-carbohydrate vs high-fat breakfasts on feelings of fullness and alertness, and subsequent food intake. Holt SH, et al. **Int J Food Sci Nutr** 1999 Jan; 50(1):13-28

Effect of hydrolyzed guar fiber on fasting and postprandial satiety and satiety hormones: a double-blind, placebo-controlled trial during controlled weight loss. Heini AF, et al. **Int J Obes Relat Metab Disord** 1998 Sep; 22(9):906-9

Effect of i.v. amino acids on satiety in humans. Gielkens HA, et al. **JPEN J Parenter Enteral Nutr** 1999 Mar-Apr; 23(2):56-60

PHYSIOLOGY

A rapid feedback signal is not always necessary for termination of a drinking bout. Houpt TR, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1156-63

Increased food intake induced in rats by changes in the satiating sensory input from food (first published in French in 1956) [classical article] Le Magnen J. **Appetite** 1999 Aug; 33(1):33-5

Effects of food, glucose, and water ingestion on feeding activity in the toad (Bufo bufo). Laming PR, et al. **Behav Neurosci** 1998 Oct;112(5):1266-72

Palatable food induces an appetitive behaviour in satiated rats which can be inhibited by chronic stress. Ghiglieri O, et al. **Behav Pharmacol** 1997 Nov;8(6-7):619-28

Intake of fat and carbohydrate: role of energy density. Rolls BJ, et al. **Eur J Clin Nutr** 1999 Apr;53 Suppl 1:S166-73 (47 ref.)

A microstructural analysis of the control of water and isotonic saline ingestion by postingestional stimulation. Davis JD, et al. **Physiol Behav** 1999 May;66(3):543-8

Differential reinforcing and satiating effects of intragastric fat and carbohydrate infusions in rats. Lucas F, et al. **Physiol Behav** 1999 May;66(3):381-8

Correlation of regional cerebral blood flow and change of plasma sodium concentration during genesis and satiation of thirst. Denton D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2532-7

Neuroanatomical correlates of hunger and satiation in humans using positron emission tomography. Tataranni PA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4569-74

[A shift in prey color preference in the green toad Bufo viridis Laur. after food satiation] Fal'tsman IA, et al. **Zh Obshch Biol** 1999 Mar-Apr;60(2):199-206 (Eng. Abstr.) **(Rus)**

SATIETY RESPONSE

Physical state of meal affects gastric emptying, cholecystokinin release and satiety. Santangelo A, et al. **Br J Nutr** 1998 Dec;80(6):521-7

Satiety threshold: a quantitative model of maintained cocaine self-administration. Tsibulsky VL, et al. **Brain Res** 1999 Aug 21;839(1):85-93

Ureteropelvic junction obstruction presenting as early satiety and weight loss. Tebyani N, et al. **J Endourol** 1999 Jul-Aug; 13(6):445-6

Behavioral satiety sequence (BSS) for the diagnosis of drug action on food intake. Halford JC, et al. **Pharmacol Biochem Behav** 1998 Oct;61(2):159-68 (73 ref.)

Palatability affects satiation but not satiety. De Graaf C, et al. **Physiol Behav** 1999 Jun;66(4):681-8

DRUG EFFECTS

Yohimbine interacts with the dopaminergic system to reverse sexual satiation: further evidence for a role of sexual motivation in sexual exhaustion. Rodríguez-Manzo G. **Eur J Pharmacol** 1999 May 7;372(1):1-8

Rats maintained on high-fat diets exhibit reduced satiety in response to CCK and bombesin. Covasa M, et al.

SATIETY RESPONSE

Peptides 1998;19(8):1407–15

Intracerebroventricular glucagon-like peptide-1 (7-36) amide inhibits sham feeding in rats without eliciting satiety. Asarian L, et al. **Physiol Behav** 1998 Jun 1;64(3):367–72

Effects of enterostatin in non-food-deprived rats with limited or continuous access to oil or sucrose. Corwin RL, et al. **Physiol Behav** 1998 Aug;65(1):1–10

Influence of hyperglycemia on the satiating effect of CCK in humans. Lam WF, et al. **Physiol Behav** 1998 Dec 1; 65(3):505–11

Mammalian bombesin-like peptides extend the intermeal interval in freely feeding rats. Thaw AK, et al. **Physiol Behav** 1998 Jun 1;64(3):425–8

Reduced satiating effect of d-fenfluramine in serotonin 5-HT(2C) receptor mutant mice. Vickers SP, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):309–14

PHYSIOLOGY

Water incorporated into a food but not served with a food decreases energy intake in lean women. Rolls BJ, et al. **Am J Clin Nutr** 1999 Oct;70(4):448–55

Cholecystokinin and serotonin receptors in the regulation of fat-induced satiety in rats. Burton-Freeman B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R429–34

Reduced sensitivity to the satiation effect of intestinal oleate in rats adapted to high-fat diet. Covasa M, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R279–85

Chemical specificities and intestinal distributions of nutrient-driven satiety. Meyer JH, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1293–307

Length of intestinal contact on nutrient-driven satiety. Meyer JH, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1308–19

Role of small intestine in caloric compensations to oil premeals in rats. Meyer JH, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 2):R1320–33

Leptin does not fully account for the satiety activity of adipose tissue-conditioned medium. Weigle DS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R976–85

Fats and satiety: the role of the small intestine. Greenberg D. **Appetite** 1998 Oct;31(2):229

Sensory-specific satiety: comparison of taste and texture effects. Guinard JX, et al. **Appetite** 1998 Oct;31(2):141–57

Olfactory alliesthesia in human neonates: prandial state and stimulus familiarity modulate facial and autonomic responses to milk odors. Soussignan R, et al. **Dev Psychobiol** 1999 Jul;35(1):3–14

Effect of the energy density and volume of high carbohydrate meals on short term satiety in preschool children. Araya H, et al. **Eur J Clin Nutr** 1999 Apr;53(4):273–6

Intraperitoneal, but not subcutaneous, administration of the sulphated cholecystokinin octapeptide (CCK-8S) inhibits operant and nonoperant food intake in rats: implications for the CCK-satiety hypothesis. Ebenezer IS. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):167–71

Visceral afferent participation in delayed satiation following NMDA receptor blockade. Burns GA, et al. **Physiol Behav** 1998 Nov 15;65(2):361–6

A "pre-satiety sequence" in rats drinking sucrose solutions. Gao P, et al. **Physiol Behav** 1998 Nov 15;65(2):355–9

Differential satiating effects of fats in the small intestine of obesity-resistant and obesity-prone rats. Greenberg D, et al. **Physiol Behav** 1999 Jun;66(4):621–6

SATURN

Titan weather report [news; comment] Flasar FM. **Nature** 1998 Oct 8;395(6702):541, 543. Comment on: Nature 1998 Oct 8;395(6702):575–8.

Transient clouds in Titan's lower atmosphere [see comments] Griffith CA, et al. **Nature** 1998 Oct 8;395(6702):575–8. Comment in: Nature 1998 Oct 8;395(6702):541, 543.

Detection of centimeter-sized meteoroid impact events in Saturn's F ring. Showalter MR. **Science** 1998 Nov 6; 282(5391):1099–102

SAUNA see **BATHS, FINNISH**

SAVANNA BABOONS see **PAPIO**

SAVINGS ACCOUNTS, MEDICAL see **MEDICAL SAVINGS ACCOUNTS**

SAXITOXIN

ISOLATION & PURIFICATION

High levels of yessotoxin in mussels and presence of yessotoxin and homoyessotoxin in dinoflagellates of the Adriatic Sea. Draisci R, et al. **Toxicon** 1999 Aug; 37(8):1187–93

METABOLISM

Differences in saxitoxin and tetrodotoxin binding revealed by mutagenesis of the Na+ channel outer vestibule. Penzotti JL, et al. **Biophys J** 1998 Dec;75(6):2647–57

POISONING

Paralytic shellfish poisoning: clinical and electrophysiological observations. de Carvalho M, et al. **J Neurol** 1998 Aug; 245(8):551–4

TOXICITY

Toxic effects, pharmacokinetics and clearance of saxitoxin, a component of paralytic shellfish poison (PSP), in cats. Andrinolo D, et al. **Toxicon** 1999 Mar;37(3):447–64

SC-19220

PHARMACOLOGY

PGE2 receptor subtype EP1 antagonist may inhibit central interleukin-1beta-induced fever in rats. Oka K, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1762–5

SC-19220, a prostaglandin E2 antagonist, inhibits osteoclast formation by 1,25-dihydroxyvitamin D3 in cell cultures. Inoue H, et al. **J Endocrinol** 1999 May;161(2):231–6

SC DISEASE see **HEMOGLOBIN SC DISEASE**

SC1 PROTEIN see **ACTIVATED-LEUKOCYTE CELL ADHESION MOLECULE**

SCABIES

Of mites and men--lessons in scabies for the infectious diseases clinician [editorial; comment] Mathisen GE. **Clin Infect Dis** 1998 Sep;27(3):646–8. Comment on: Clin Infect Dis 1998 Sep;27(3):645–6.

The saga of ectoparasitoses: scabies and pediculosis. Parish LC, et al. **Int J Dermatol** 1999 Jun;38(6):432–3 (11 ref.)

Diagnosing and treating scabies. Burgess IF. **Practitioner** 1997 Dec;241(1581):739–43 (9 ref.)

[Cutaneous ectoparasitoses: sarcoptic scabies and pediculosis. Epidemiology, diagnosis, treatment] Crickx B. **Rev Prat** 1998 Sep 1;48(13):1473–6 **(Fre)**

[Scabies] Trefzer D, et al. **MMW Fortschr Med** 1999 Jun 10;141(23):57–8 **(Ger)**

[Scabies] Takahashi H. **Ryoikibetsu Shokogun Shirizu** 1999; (24 Pt 2):518–20 (4 ref.) **(Jpn)**

CHEMICALLY INDUCED

Crusted (Norwegian) scabies induced by use of topical corticosteroids and treated successfully with ivermectin. Marlière V, et al. **J Pediatr** 1999 Jul;135(1):122–4

COMPLICATIONS

Scabies presenting as a necrotizing vasculitis in the presence of lupus anticoagulant. Jarrett P, et al. **Br J Dermatol** 1998 Oct;139(4):701–3

Norwegian scabies and a toxic shock syndrome toxin 1-producing strain of Staphylococcus aureus endocarditis in a patient with trisomy 21 [see comments] Bonomo RA, et al. **Clin Infect Dis** 1998 Sep;27(3):645–6. Comment in: Clin Infect Dis 1998 Sep;27(3):646–8.

Norwegian scabies in a patient with acquired immunodeficiency syndrome. Guggisberg D, et al. **Dermatology** 1998;197(3):306–8

The relation between scabies and hypersensitivity to antigens of house dust mites and storage mites. Moustafa EH, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):777–87

Infantile acropustulosis revisited: history of scabies and response to topical corticosteroids. Mancini AJ, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):337–41

[Comment on the work of E. Kösler: "Transitory acantholytic dermatosis (Grover's disease) with Sarcoptes scabiei infection". Hautarzt (1997) 48:915–7 (letter; comment)] Jordaan HF, et al. **Hautarzt** 1999 Apr;50(4):305–6. Comment on: Hautarzt 1997 Dec;48(2):915–7. **(Ger)**

[Scabies--provoked bullous lichen planus in a child] Schlotmann K, et al. **Hautarzt** 1998 Dec;49(12):929–31 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Dermacase. Crusted Norwegian scabies. Adams SP. **Can Fam Physician** 1999 Jun;45:1455, 1462

A potpourri of parasitic infestations. Zabawski EJ, et al. **Cutis** 1999 Feb;63(2):81–5

Lice and scabies. Myths and reality. Maunder JW. **Dermatol Clin** 1998 Oct;16(4):843–5, xv

Crusted (Norwegian) scabies. A simple office test demystifies the 'great imitator'. Nowak MA, et al. **Postgrad Med** 1999 May 1;105(5):153, 156

How to spot scabies in infants. Tanphaichitr A, et al. **Postgrad Med** 1999 Jan;105(1):191–2

[Norwegian scabies] Klotz F, et al. **Med Trop (Mars)** 1998; 58(4):336 **(Fre)**

[The internist knows the music but not on microdisks] Berthier S, et al. **Rev Med Interne** 1999;20 Suppl 2:279s–280s **(Fre)**

[Generalized pruritus and specific cutaneous lesions] Revenga Arranz F, et al. **Rev Clin Esp** 1999 Feb;199(2):101–2 **(Spa)**

DRUG THERAPY

Lindane toxicity is preventable. Diaz JE. **Acad Emerg Med** 1998 Nov;5(11):1126–8

Equivalent therapeutic efficacy and safety of ivermectin and lindane in the treatment of human scabies [see comments] Chouela EN, et al. **Arch Dermatol** 1999 Jun;135(6):651–5. Comment in: Arch Dermatol 1999 Jun;135(6):705–6.

Ivermectin: a new therapeutic weapon in dermatology? [editorial; comment] del Giudice P, et al. **Arch Dermatol** 1999 Jun;135(6):705–6. Comment on: Arch Dermatol 1999 Jun;135(6):651–5.

Ivermectin in elderly patients [letter] del Giudice P, et al. **Arch Dermatol** 1999 Mar;135(3):351–2

Crusted scabies in two immunocompromised children: successful treatment with oral ivermectin. Patel A, et al. **Australas J Dermatol** 1999 Feb;40(1):37–40

Treatment of scabies with ivermectin. Offidani A, et al. **Eur J Dermatol** 1999 Mar;9(2):100–1

Another look at ivermectin in the treatment of scabies and head lice [letter] Burkhart CN, et al. **Int J Dermatol** 1999 Mar;38(3):235

Is ivermectin safe for humans? [letter] Kalivas J. **Int J Dermatol** 1999 Mar;38(3):235–6

Norwegian crusted scabies treated with ivermectin [published erratum appears in Ir Med J 1999 May-Jun;92(4):340] O'Callaghan J, et al. **Ir Med J** 1999 Apr;92(3):308–9

Efficacy and tolerance of oral ivermectin in scabies. Dourmishev A, et al. **J Eur Acad Dermatol Venereol** 1998 Nov;11(3):247–51

Crusted (Norwegian) scabies induced by use of topical corticosteroids and treated successfully with ivermectin. Marlière V, et al. **J Pediatr** 1999 Jul;135(1):122–4

Ivermectin-responsive crusted scabies in four patients [letter] Larralde M, et al. **Pediatr Dermatol** 1999 Jan-Feb; 16(1):69–70

EPIDEMIOLOGY

The epidemiology of head lice and scabies in the UK. Downs AM, et al. **Epidemiol Infect** 1999 Jun;122(3):471–7

Epidemiologic aspects of scabies in Mali, Malawi, and Cambodia. Landwehr D, et al. **Int J Dermatol** 1998 Aug; 37(8):588–90

The epidemiologic trends of scabies among Israeli soldiers: a 28-year follow-up. Mimouni D, et al. **Int J Dermatol** 1998 Aug;37(8):586–7

ETIOLOGY

Crusted scabies in association with human T-cell lymphotropic virus 1 [clinical conference] Bergman JN, et al. **J Cutan Med Surg** 1999 Jan;3(3):148–52

HISTORY

Giovan Cosimo Bonomo (1663–1696): discoverer of the etiology of scabies. Ramos-e-Silva M. **Int J Dermatol** 1998 Aug;37(8):625–30

IMMUNOLOGY

Crusted scabies in two immunocompromised children: successful treatment with oral ivermectin. Patel A, et al. **Australas J Dermatol** 1999 Feb;40(1):37–40

PATHOLOGY

Findings in vivo of Sarcoptes scabiei with incident light microscopy. Brunetti B, et al. **Eur J Dermatol** 1998 Jun; 8(4):266–7

[Scabies crustosa and AIDS] Danielsen AG, et al. **Ugeskr Laeger** 1998 Oct 26;160(44):6358–9 (Eng. Abstr.) **(Dan)**

PREVENTION & CONTROL

Control of human scabies by topical application of ivermectin. Yeruham I, et al. **Ann Trop Med Parasitol** 1998 Jul;92(5):627–9

Epidemiology and control of scabies in an Egyptian village. Hegazy AA, et al. **Int J Dermatol** 1999 Apr;38(4):291–5

TRANSMISSION

[Pseudo-scabies transmitted by red fox] Birk RW, et al. **Hautarzt** 1999 Feb;50(2):127–30 (Eng. Abstr.) **(Ger)**

VETERINARY

Persistent efficacy of doramectin and ivermectin against experimental infestations of Sarcoptes scabiei var. suis in swine. Arends JJ, et al. **Vet Parasitol** 1999 Mar 22; 82(1):71–9

The efficacy of simplified eradication strategies against sarcoptic mange mite infections in swine herds monitored by an ELISA. Jacobson M, et al. **Vet Parasitol** 1999 Mar 1;81(3):249–58

Chewing lice, sheep scab and systemic endectocides [letter] [see comments] Bates P. **Vet Rec** 1999 Feb 27;144(9):243 . Comment in: Vet Rec 1999 Mar 6;144(10):271–2.

Chewing lice, sheep scab and systemic endectocides [letter; comment] Dennis JD. **Vet Rec** 1999 Mar 6;144(10):271–2 . Comment on: Vet Rec 1999 Feb 27;144(9):243.

[Continuous serologic study and sanitation inspection of Sarcoptes scabiei var. suis infection: preliminary results] Zimmermann W, et al. **Schweiz Arch Tierheilkd** 1998; 140(12):513–7 (Eng. Abstr.) **(Ger)**

SCALA MEDIA see **COCHLEAR DUCT**

SCALA TYMPANI

PATHOLOGY

Mesothelial cell proliferation in the scala tympani: a reaction

to the rupture of the round window membrane. Sone M. **Nagoya J Med Sci** 1998 Oct;61(3-4):125-30

PHYSIOLOGY

Longitudinal endolymph movements induced by perilymphatic injections. Salt AN, et al. **Hear Res** 1998 Sep;123(1-2):137-47

SCALDED SKIN SYNDROME, NONSTAPHYLOCOCCAL see **EPIDERMAL NECROLYSIS, TOXIC**

SCALDED SKIN SYNDROME, STAPHYLOCOCCAL see **STAPHYLOCOCCAL SCALDED SKIN SYNDROME**

SCALE INSECTS see **HEMIPTERA**

SCALENUS ANTICUS SYNDROME see **THORACIC OUTLET SYNDROME**

SCALING, DENTAL see **DENTAL SCALING**

SCALING, ROOT see **DENTAL SCALING**

SCALING, SUBGINGIVAL see **DENTAL SCALING**

SCALING, SUPRAGINGIVAL see **DENTAL SCALING**

SCALP

Cephalhematoma and caput succedaneum: do they always occur in labor? Petrikovsky BM, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):906-8

A case of temporary facial nerve palsy after regional anesthesia of the scalp. Harbers JB, et al. **Anesth Analg** 1998 Dec;87(6):1375-6

A rare case of atypical eccrine acrospiroma of the scalp and a literature review. Wilhelmi BJ, et al. **Ann Plast Surg** 1999 May;42(5):568-9 (13 ref.)

Asymptomatic scalp nodule present for 20 years. Albertini JG, et al. **Arch Dermatol** 1999 Jun;135(6):709, 712

Intralesional cisplatin for the treatment of cutaneous B-cell lymphoma. Kempf W, et al. **Arch Dermatol** 1998 Nov; 134(11):1343-5

Skin breakdown in children and high-frequency oscillatory ventilation. Schmidt JE, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1565-9

Curly hair following radiotherapy epilation [letter] Möhrenschlager M, et al. **Br J Dermatol** 1998 Oct; 139(4):746-7

Recurrent malignant proliferating trichilemmal tumour: local management with ethanol injection. Takenaka H, et al. **Br J Dermatol** 1998 Oct;139(4):726-9

Sub-aponeurotic haemorrhage: a rare but life-threatening neonatal complication associated with ventouse delivery. Fortune PM, et al. **Br J Obstet Gynaecol** 1999 Aug; 106(8):868-70

Burn scar sarcoma. Ozyazgan I, et al. **Burns** 1999 Aug; 25(5):455-8

Giant malignant eccrine spiradenoma of the scalp. Jamshidi M, et al. **Dermatol Surg** 1999 Jan;25(1):45-8 (20 ref.)

Metastasizing porocarcinoma of the head with lethal outcome. Grimme H, et al. **Dermatology** 1999; 198(3):298-300

Diagnostic relevance of chromosomal in-situ hybridization in Merkel cell carcinoma: targeted interphase cytogenetic tumour analyses. Amo-Takyi BK, et al. **Histopathology** 1999 Feb;34(2):163-9

Vascular myxolipoma (angiomyxolipoma) of subcutaneous tissue [letter] Zámecnik M. **Histopathology** 1999 Feb; 34(2):180-1

Primary adenoid cystic carcinoma of skin with lung metastasis. Chang SE, et al. **J Am Acad Dermatol** 1999 Apr;40(4):640-2

Cutaneous metastases from a chondroblastoma initially presenting as unilateral palmar hyperhidrosis. Seline PC, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):325-7

Expression of basic fibroblast growth factor and its receptor in angiosarcoma. Yamamoto T, et al. **J Am Acad Dermatol** 1999 Jul;41(1):127-9

Malignant chondroid syringoma. Agrawal V, et al. **J Dermatol** 1998 Aug;25(8):547-9

Cerebriform intradermal nevus: a case of scalp expansion on the galea. Hashimoto I, et al. **J Dermatol** 1999 Apr; 26(4):258-63

Basal cell carcinoma of the scalp with spinal metastasis. Lam DG, et al. **J R Soc Med** 1998 Oct;91(10):539-40

Brief report. Malignant melanoma in infancy--too risky to be misdiagnosed. Ziv T, et al. **Med Pediatr Oncol** 1998 Dec;31(6):553-4

Scalp localization using a simple algorithm. Nakajima S, et al. **Neurol Res** 1998 Dec;20(8):751-3

Human scalp-recorded EEG may be a result of activity of weakly-coupled subsystems. Sulimov A. **Neurosci Lett** 1998 Jun 26;250(1):72-4

Lactate in scalp and cord blood from fetuses with ominous fetal heart rate patterns. Krüger K, et al. **Obstet Gynecol** 1998 Dec;92(6):918-22

Clinical indicators of intracranial injury in head-injured infants. Greenes DS, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):861-7

Primary epithelioid sarcoma of the scalp. Suwantemee C. **Plast Reconstr Surg** 1999 Sep;104(3):785-8

Basal cell carcinoma with lung metastasis diagnosed by fine-needle aspiration biopsy. Patel MS, et al. **South Med J** 1999 Mar;92(3):321-4

Giant cavernous hemangioma of the scalp. Tüzün Y, et al. **Zentralbl Neurochir** 1998;59(4):274-7

[Verrucous carcinoma] Krekels GA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2708-9 **(Dut)**

[Eosinophilic pustulosis in an infant accompanied by immune deficit] Rybojad M, et al. **Ann Dermatol Venereol** 1999 Jan; 126(1):29-31 (Eng. Abstr.) **(Fre)**

[Relapsing pneumothorax secondary to thin-walled cavitary pulmonary metastasis from angiosarcoma of the scalp] Kobayashi T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec;36(12):1058-61 (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Further family with possible autosomal recessive inheritance of Adams-Oliver syndrome [letter] Tekin M, et al. **Am J Med Genet** 1999 Sep 3;86(1):90-1

A de novo deletion of chromosome 15(q15.2q21.2) in a dysmorphic, mentally retarded child with congenital scalp defect. Koivisto PA, et al. **Clin Dysmorphol** 1999 Apr; 8(2):139-41

Cutis verticis gyrata in a child with Turner syndrome [letter] Parolin Marinoni L, et al. **Pediatr Dermatol** 1999 May-Jun; 16(3):242-3

[Cutis verticis gyrata] Diederen PV, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1337-8 **(Dut)**

ANATOMY & HISTOLOGY

Hair density in African Americans. Sperling LC. **Arch Dermatol** 1999 Jun;135(6):656-8

BLOOD SUPPLY

Déjà vu, again [letter; comment] Sacks DA, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):1100. Comment on: Am J Obstet Gynecol 1998 Feb;178(2):330-5.

Ischemic scalp necrosis preceding loss of visual acuity in giant cell arteritis [published erratum appears in Arch Ophthalmol 1999 Jun;117(6):729] Rudd JC, et al. **Arch Ophthalmol** 1998 Dec;116(12):1690-1

Use of a regulating flap in the treatment of a large arteriovenous malformation of the scalp. Dompmartin A, et al. **Br J Plast Surg** 1998 Oct;51(7):561-3

Substance P (SP) in innervated and non-innervated blood vessels in the skin of patients with symptomatic scalp. Ericson M, et al. **Exp Dermatol** 1999 Aug;8(4):344-5

Multiple scalp aneurysms caused by atypical temporal arteritis--case report. Yoshimoto T, et al. **Neurol Med Chir (Tokyo)** 1998 Jul;38(7):405-8

Pediatric intracranial epidural abscess secondary to an infected scalp vein catheter. Lefkowitz MA, et al. **Pediatr Neurosurg** 1998 Dec;29(6):297-9

Surgical management of cutis aplasia with high-flow sinus pericranii. Madsen JR, et al. **Pediatr Neurosurg** 1998 Feb; 28(2):79-83

Craniofacial arteriovenous malformation: preoperative embolization with direct puncture and injection of n-butyl cyanoacrylate. Han MH, et al. **Radiology** 1999 Jun; 211(3):661-6

Peripherally inserted central venous catheters: success of scalp-vein access in infants and newborns. Racadio JM, et al. **Radiology** 1999 Mar;210(3):858-60

CYTOLOGY

Detection of apoptosis in hair follicles and acrosyringium of normal human scalp skin by labeling of nick ends of fragmented DNA. Kishimoto S, et al. **Arch Dermatol Res** 1999 May;291(5):300-2

Androgen-dependent beard dermal papilla cells secrete autocrine growth factor(s) in response to testosterone unlike scalp cells. Thornton MJ, et al. **J Invest Dermatol** 1998 Nov;111(5):727-32

DRUG EFFECTS

Minoxidil increases 17 beta-hydroxysteroid dehydrogenase and 5 alpha-reductase activity of cultured human dermal papilla cells from balding scalp. Sato T, et al. **J Dermatol Sci** 1999 Feb;19(2):123-5

ENZYMOLOGY

Minoxidil increases 17 beta-hydroxysteroid dehydrogenase and 5 alpha-reductase activity of cultured human dermal papilla cells from balding scalp. Sato T, et al. **J Dermatol Sci** 1999 Feb;19(2):123-5

INJURIES

Lightning strike to the head of a helmeted motorcyclist [letter] Junkins EP Jr, et al. **Am J Emerg Med** 1999 Mar; 17(2):213-4

Pediatric scalp laceration repair complicated by skin staple migration. Kanegaye JT, et al. **Am J Emerg Med** 1999 Mar; 17(2):157-9

Topical anesthesia for pediatric lacerations: a randomized trial of lidocaine-epinephrine-tetracaine solution versus gel. Resch K, et al. **Ann Emerg Med** 1998 Dec;32(6):693-7

The use of scalp flap as graft donor area [letter] Akbaş H, et al. **Br J Plast Surg** 1998 Oct;51(7):571-2

Scalp burns in elderly women--the perils of the perm. Wilson DI. **Burns** 1999 Mar;25(2):182-3

Craniofacial trauma presenting at an adult accident and emergency department with an emphasis on soft tissue injuries. Ong TK, et al. **Injury** 1999 Jun;30(5):357-63

Traumatic alopecia. Whiting DA. **Int J Dermatol** 1999 May; 38 Suppl 1:34-44 (52 ref.)

Osteomyelitis of calvarium after trivial scalp laceration. Pickering SA, et al. **J Accid Emerg Med** 1998 Nov;15(6):430

Pediatric patients experiencing postoperative nausea and vomiting after burn reconstruction surgery: an analysis. Stubbs TK, et al. **J Burn Care Rehabil** 1999 May-Jun; 20(3):236-8

Outcomes of irradiated polyglactin 910 Vicryl Rapide fast-absorbing suture in oral and scalp wounds. Aderriotis D, et al. **J Can Dent Assoc** 1999 Jun;65(6):345-7

Trephination in the treatment of scalp avulsion: successful application of a historical method. Terzioğlu A, et al. **J Oral Maxillofac Surg** 1999 Feb;57(2):204-6

Secondary expansion of a replanted scalp salvaged by an intrinsic arteriovenous shunt. Hallock GG. **Plast Reconstr Surg** 1999 Jun;103(7):1957-60

An unusual case of microvascular replantation of the scalp [letter] Libermanis O, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2273-4

Total face and scalp replantation. Thomas A, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2085-7

[Prevention and treatment of postoperative complications following skin soft tissue expansion] Wang S, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):33-4 (Eng. Abstr.) **(Chi)**

[The problems in the use of superficial cervical artery skin flap and it's relevant solution] Wang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):216-7 (Eng. Abstr.) **(Chi)**

[Successful replantation of whole scalp avulsion with micro-vascular anastomosis. A case report] Long J, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):375-6 **(Chi)**

INNERVATION

Improved reproducibility of magnetic stimulation-evoked motor potentials in the human masseter by a new method for locating stimulation sites on the scalp [published erratum appears in Arch Oral Biol 1999 Mar;44(3):295] McMillan AS, et al. **Arch Oral Biol** 1998 Aug;43(8):665-8

P300: the similarities and differences in the scalp distribution of visual and auditory modality. Ji J, et al. **Brain Topogr** 1999 Summer;11(4):315-27

Presynaptic muscarinic M1 and M2 receptor modulation of auriculotemporal nerve transmission in the rat. Tobin G. **J Auton Nerv Syst** 1998 Aug 6;72(1):61-71

METABOLISM

The effects of finasteride on scalp skin and serum androgen levels in men with androgenetic alopecia. Drake L, et al. **J Am Acad Dermatol** 1999 Oct;41(4):550-4

PATHOLOGY

Cicatricial fibromatosis mimics metastatic medulloblastoma. Okamoto K, et al. **AJNR Am J Neuroradiol** 1999 Mar; 20(3):472-3

Adams-Oliver syndrome: autosomal recessive inheritance and new phenotypic-anthropometric findings. Klinger G, et al. **Am J Med Genet** 1998 Sep 23;79(3):197-9 (13 ref.)

Malignant transformation of a giant proliferating trichilemmal tumor of the scalp: patient report and literature review. Markal N, et al. **Ann Plast Surg** 1998 Sep;41(3):314-6 (18 ref.)

Prenatal pressure necrosis of the scalp. Matthews MS. **Ann Plast Surg** 1999 Jul;43(1):74-6

Magnetic resonance angiography in the diagnosis of a case of giant cell arteritis manifesting as scalp necrosis. Botella-Estrada R, et al. **Arch Dermatol** 1999 Jul; 135(7):769-71

Cicatricial pemphigoid rarely involves the scalp. Ball S, et al. **Australas J Dermatol** 1998 Nov;39(4):258-60 (16 ref.)

Pronounced perifollicular lymphocytic infiltrates in alopecia areata are associated with poor treatment response to diphencyprone. Freyschmidt-Paul P, et al. **Eur J Dermatol** 1999 Mar;9(2):111-4

Borderline tuberculoid leprosy lesion on the scalp presenting with supra orbital neuritis. Petro TS. **Indian J Lepr** 1998 Jul-Sep;70(3):319-20

Soft tissue swelling as sole presenting symptom in acute lymphatic leukemia. Kusumakumari P, et al. **Indian Pediatr** 1998 Nov;35(11):1121-4

An S100 negative granular cell tumor with malignant potential: report of a case. Schoedel KE, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):894-8

POEMS syndrome: cicatricial alopecia as an unusual cutaneous manifestation associated with an underlying plasmacytoma. Weichenthal M, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):808-12

Congenital capillary hemangioma and its therapeutic approach in infants: a case report. Hassan E, et al. **J Dermatol** 1998 Oct;25(10):673-6

Specific cutaneous lesions of the scalp in myelodysplastic syndrome with deletion of 20q. Namba Y, et al. **J Dermatol** 1999 Apr;26(4):220-4 (15 ref.)

Craniofacial pain followed by scalp necrosis and stroke. An

unusual presentation of the primary antiphospholipid syndrome [letter] Sanges G, et al. **J Neurol** 1999 Feb; 246(2):134–5

Tetanus originating from a benign scalp tumour. Johkura K, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):120

Intracranial extension of an eccrine porocarcinoma. Case report and review of the literature. Ritter AM, et al. **J Neurosurg** 1999 Jan;90(1):138–40 (13 ref.)

Immunohistochemical staining for Ber-EP4, p53, proliferating cell nuclear antigen, Ki-67, bcl-2, CD34, and factor XIIIa in nevus sebaceus. Barrett TL, et al. **Mod Pathol** 1999 May;12(5):450–5

Scalp necrosis with giant cell arteritis. Dudenhoefer EJ, et al. **Ophthalmology** 1998 Oct;105(10):1875–8

Papillary and follicular thyroid carcinoma metastatic to the skin: a case report and review of the literature. Koller EA, et al. **Thyroid** 1998 Nov;8(11):1045–50 (33 ref.)

[Proliferating trichilemmal cyst with focal segments of metastatic squamous epithelial carcinoma] Riemann H, et al. **Hautarzt** 1999 Jan;50(1):42–6 (Eng. Abstr.) **(Ger)**

[Gigantic proliferating trichilemmal cyst of the scalp with central carcinoma and lymph node metastasis] Kruse-Lösler B, et al. **Mund Kiefer Gesichtschir** 1998 Jul; 2(4):216–9 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Focal ictal direct current shifts in human epilepsy as studied by subdural and scalp recording. Ikeda A, et al. **Brain** 1999 May;122 (Pt 5):827–38

Scalp extension--a quantitative study. Nordström RE, et al. **Dermatol Surg** 1999 Jan;25(1):30–3

Scalp distribution components of brain activity evoked by visual motion stimuli. Skrandies W, et al. **Exp Brain Res** 1998 Sep;122(1):62–70

A preliminary study of changes in scalp impedance during the early post-mortem period in rats. Querido D. **Forensic Sci Int** 1999 Apr 26;101(2):123–30

P300 scalp amplitude distribution as an index of deception in a simulated cognitive deficit model. Rosenfeld JP, et al. **Int J Psychophysiol** 1999 Jul;33(1):3–19

ERP manifestations of processing printed words at different psycholinguistic levels: time course and scalp distribution. Bentin S, et al. **J Cogn Neurosci** 1999 May;11(3):235–60

Different contribution of joint and cutaneous inputs to early scalp somatosensory evoked potentials. Restuccia D, et al. **Muscle Nerve** 1999 Jul;22(7):910–9

[Clinical importance of fetal pulse oximetry. II. Comparative predictive values of oximetry and scalp pH. Multicenter study] Carbonne B, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 May; 28(2):137–44 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Generation of scalp discharges in temporal lobe epilepsy as suggested by intraoperative electrocorticographic recordings. Fernández Torre JL, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):51–8

Hypoxia- and hypercapnia-induced DC potential shifts in rat at the scalp and the skull are opposite in polarity to those at the cerebral cortex. Lehmenkühler A, et al. **Neurosci Lett** 1999 Jul 30;270(2):67–70

SURGERY

A new technique of surface anatomy MR scanning of the brain: its application to scalp incision planning. Tsuchiya K, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):515–8

The subgaleal pulley suture. Orchard DC, et al. **Australas J Dermatol** 1999 May;40(2):118–9

Reconstruction of an extensive scalp defect [letter; comment] Richards M. **Br J Plast Surg** 1998 Dec;51(8):649. Comment on: Br J Plast Surg 1998 Apr;51(3):250–4.

Topical diflorasone ointment for treatment of recalcitrant, excessive granulation tissue. Mandrea E. **Dermatol Surg** 1998 Dec;24(12):1409–10

Scalp extension--a quantitative study. Nordström RE, et al. **Dermatol Surg** 1999 Jan;25(1):30–3

Serial scalp reductions: a biomechanical approach. Raposio E, et al. **Dermatol Surg** 1999 Mar;25(3):210–4

Multifocal angiosarcoma of the scalp: a case report and review of the literature. Kacker A, et al. **Ear Nose Throat J** 1999 Apr;78(4):302–5 (14 ref.)

Reconstruction for large defects of the scalp and cranium. Ioannides C, et al. **J Craniomaxillofac Surg** 1999 Jun; 27(3):145–52

Free adipofascial flap for scalp reconstruction: case report. Kimata Y, et al. **J Reconstr Microsurg** 1999 Feb; 15(2):109–12; discussion 112–4

Microsurgical reconstruction of extensive scalp defects. Lee B, et al. **J Reconstr Microsurg** 1999 May;15(4):255–62; discussion 263–4

Prevention and treatment of wide scar and alopecia in the scalp: wedge excision and double relaxation suture. Burm JS, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1143–9

Shortening of the long forehead. Guyuron B, et al. **Plast Reconstr Surg** 1999 Jan;103(1):218–23

Secondary expansion of a replanted scalp salvaged by an intrinsic arteriovenous shunt. Hallock GG. **Plast Reconstr Surg** 1999 Jun;103(7):1957–60

Limited incision forehead plasty. Knize DM. **Plast Reconstr Surg** 1999 Jan;103(1):271–84; discussion 285–90

Undermining of the scalp [letter; comment] Knize DM. **Plast Reconstr Surg** 1998 Oct;102(5):1757. Comment on: Plast Reconstr Surg 1998 Apr;101(5):1218–22.

An unusual case of microvascular replantation of the scalp [letter] Libermanis O, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2273–4

Hairline lowering during foreheadplasty. Marten TJ. **Plast Reconstr Surg** 1999 Jan;103(1):224–36

Ineffectiveness of acute scalp expansion. Raposio E, et al. **Plast Reconstr Surg** 1999 May;103(6):1645–9

Total face and scalp replantation. Thomas A, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2085–7

Coronal incision extending postauricularly [letter] Yavuzer R, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1532–3

Reconstruction of large defects in the scalp with fasciocutaneous flaps. Guerrissi JO. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):217–24

Aesthetic reconstruction of the vertex area of the scalp. Case report. Raposio E, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Sep; 32(3):339–41

[Measurement of skin area of expansion and defect on scalp] Shan S, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Feb; 35(2):123–4 (Eng. Abstr.) **(Chi)**

[Successful replantation of whole scalp avulsion with micro-vascular anastomosis. A case report] Long J, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):375–6 **(Chi)**

[Coverage flaps for loss of substance of the scalp. Our experiences apropos of 42 cases] Voinchet V, et al. **J Chir (Paris)** 1997 Dec;134(7–8):314–21 (Eng. Abstr.) **(Fre)**

["Windmill-plasty" for coverage of large defects of the scalp] Lange-Ionescu S, et al. **Hautarzt** 1998 Jul;49(7):556–9 (Eng. Abstr.) **(Ger)**

[Case report of epithelioid hemangioendothelioma of the frontal region metastatic to the parotid gland] Schneider B, et al. **Laryngorhinootologie** 1998 Dec;77(12):728–31 (27 ref.) (Eng. Abstr.) **(Ger)**

[Usefulness of galea suturing method for scalp closure] Suetake K, et al. **No Shinkei Geka** 1999 May;27(5):427–30 (Eng. Abstr.) **(Jpn)**

TRANSPLANTATION

Incidence of the concrete scalp deformity associated with deep scalp donor sites and management with the Unna cap. Carter YM, et al. **J Burn Care Rehabil** 1999 Mar-Apr; 20(2):141–4

The Unna "cap" as a scalp donor site dressing. Summer GJ, et al. **J Burn Care Rehabil** 1999 Mar-Apr;20(2):183–8, discussion 182

Outcome of scalp donor sites in 450 consecutive pediatric burn patients. Barret JP, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1139–42

Scalp autografts and hair transfer to the face in the burned child. MacLennan SE, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):1865–8

Non-anastomotic bypass surgery for childhood moyamoya disease using dural pedicle insertion over the brain surface combined with encephalogaleomyosynangiosis. Yoshida YK, et al. **Surg Neurol** 1999 Apr;51(4):404–11

ULTRASONOGRAPHY

Prenatal diagnosis of atypical cystic lesions of the fetal scalp. Okaro E, et al. **Ultrasound Obstet Gynecol** 1998 Dec; 12(6):442–4

SCALP DERMATOSES

Head lice--developing a practical approach. Burgess IF. **Practitioner** 1998 Feb;242(1583):126–9

[Head lice] Rasmussen AM, et al. **Ugeskr Laeger** 1998 Oct 12;160(42):6057–60 **(Dan)**

CHEMICALLY INDUCED

Allergic contact dermatitis caused by dialkyl thioureas in a patient with sleep apnea. Scalf LA, et al. **Am J Contact Dermat** 1999 Sep;10(3):169–71

Contact allergy to methyldibromo glutaronitrile presenting as severe scalp seborrhoeic eczema. Armstrong DK, et al. **Contact Dermatitis** 1999 Jun;40(6):335

COMPLICATIONS

Cutis verticis gyrata (case reports of rare causes). Kolawole TM, et al. **West Afr J Med** 1999 Apr-Jun;18(2):130–2

DIAGNOSIS

Allergic contact dermatitis from parabens in a tar shampoo. Cooper SM, et al. **Contact Dermatitis** 1998 Sep;39(3):140

Non-specific scalp crusting as a presenting feature of Brunsting-Perry cicatricial pemphigoid [letter] Poon E, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):177–8

Scalp necrosis with giant cell arteritis. Dudenhoefer EJ, et al. **Ophthalmology** 1998 Oct;105(10):1875–8

[Erosive and pustular scalp diseases (editorial)] Bonerandi JJ. **Ann Dermatol Venereol** 1999 Apr;126(4):311–2 **(Fre)**

DRUG THERAPY

Differential permethrin susceptibility of head lice sampled in the United States and Borneo. Pollack RJ, et al. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):969–73

Terbinafine (Lamisil) therapy for Microsporum canis scalp ringworm [letter] del Palacio A, et al. **Clin Exp Dermatol** 1998 May;23(3):142–3

Arthropathy associated with cystic acne, hidradenitis suppurativa, and perifolliculitis capitis abscedens et suffodiens: treatment with isotretinoin. Libow LF, et al. **Cutis** 1999 Aug;64(2):87–90

Folliculitis spinulosa decalvans: successful therapy with dapsone. Kunte C, et al. **J Am Acad Dermatol** 1998 Nov; 39(5 Pt 2):891–3

Ketoconazole 2% shampoo in the treatment of tinea versicolor: a multicenter, randomized, double-blind, placebo-controlled trial. Lange DS, et al. **J Am Acad Dermatol** 1998 Dec;39(6):944–50

The safety of ketoconazole shampoo for infantile seborrheic dermatitis [letter] Brodell RT, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):406–7

Treatment of Pediculus humanus var. capitis infestation in Cowlitz County, Washington, with ivermectin and the LiceMeister comb. Bell TA. **Pediatr Infect Dis J** 1998 Oct; 17(10):923–4

EPIDEMIOLOGY

Scalp psoriasis, clinical presentations and therapeutic management [published erratum appears in Dermatology 1999;198(2):222] van de Kerkhof PC, et al. **Dermatology** 1998;197(4):326–34

The epidemiology of head lice and scabies in the UK. Downs AM, et al. **Epidemiol Infect** 1999 Jun;122(3):471–7

[Scalp pediculosis in school environment in the city of Abidjan: prevalence and influence of socioeconomic conditions] Menan EI, et al. **Sante** 1999 Jan-Feb;9(1):32–7 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Cicatricial alopecia following therapeutic embolization [letter] Toutous-Trellu L, et al. **Acta Derm Venereol** 1999 May;79(3):236–7

Allergic contact dermatitis from parabens in a tar shampoo. Cooper SM, et al. **Contact Dermatitis** 1998 Sep;39(3):140

Hair and scalp conditions. Walkden V. **Practitioner** 1998 Apr; 242(1585):278–81 (4 ref.)

[Erosive and pustular scalp diseases (editorial)] Bonerandi JJ. **Ann Dermatol Venereol** 1999 Apr;126(4):311–2 **(Fre)**

MICROBIOLOGY

Gonococcal scalp abscess in a neonate delivered by caesarean section. Varady E, et al. **Sex Transm Infect** 1998 Dec; 74(6):451

NURSING

School nurses' perceptions of and experiences with head lice. Price JH, et al. **J Sch Health** 1999 Apr;69(4):153–8

PATHOLOGY

Desmoplastic trichilemmoma arising within a nevus sebaceus. Rosón E, et al. **Am J Dermatopathol** 1998 Oct;20(5):495–7

Nail and scalp lesions in a man with diabetes insipidus. Langerhans cell histiocytosis (LCH). Munro CS, et al. **Arch Dermatol** 1998 Nov;134(11):1477–8, 1480–1

Guess What! Myiasis caused by Wohlfahrtia vigil. Grunwald MH, et al. **Eur J Dermatol** 1998 Jun;8(4):287–8

A case of pustular ulcerative dermatosis of the scalp associated with ulcerative skin lesions on the scrotum. Sadayama T, et al. **J Dermatol** 1998 Oct;25(10):657–61

Larva migrans within scalp sebaceous gland. Guimarães LC, et al. **Rev Soc Bras Med Trop** 1999 Mar-Apr;32(2):187–9 (8 ref.)

[Recurrence of erosive pustular scalp dermatosis after a skin graft] Drouin CA, et al. **Ann Dermatol Venereol** 1999 Apr; 126(4):335–8 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Delayed telogen replacement in a boy's scalp. Guarrera M, et al. **Dermatology** 1998;197(4):335–7

Substance P (SP) in innervated and non-innervated blood vessels in the skin of patients with symptomatic scalp. Ericson M, et al. **Exp Dermatol** 1999 Aug;8(4):344–5

PREVENTION & CONTROL

Working document combs out guidance on head lice. **Commun Dis Rep CDR Wkly** 1998 Nov 13;8(46):405

Head lice in pupils of a primary school in Australia and implications for control. Speare R, et al. **Int J Dermatol** 1999 Apr;38(4):285–90

Incidence of the concrete scalp deformity associated with deep scalp donor sites and management with the Unna cap. Carter YM, et al. **J Burn Care Rehabil** 1999 Mar-Apr; 20(2):141–4

RADIOGRAPHY

Cutis verticis gyrata (case reports of rare causes). Kolawole TM, et al. **West Afr J Med** 1999 Apr-Jun;18(2):130–2

SURGERY

Repair of a large "coup de sabre" with soft-tissue expansion

and artificial bone graft. Eguchi T, et al. **Ann Plast Surg** 1999 Feb;42(2):207–10

[Recurrence of erosive pustular scalp dermatosis after a skin graft] Drouin CA, et al. **Ann Dermatol Venereol** 1999 Apr; 126(4):335–8 (Eng. Abstr.) **(Fre)**

THERAPY

Comparison of betamethasone valerate solution with phototherapy (UVB comb) in scalp psoriasis treatment [letter] Braun R, et al. **Acta Derm Venereol** 1998 Sep; 78(5):385

Evidence based case report: treatment for head lice [see comments] Dawes M, et al. **BMJ** 1999 Feb 6; 318(7180):385–6 (9 ref.). Comment in: BMJ 1999 May 22;318(7195):1422.

Experience in treating recalcitrant scalp psoriasis with automated shampooing and debridement. King L Jr, et al. **J Am Acad Dermatol** 1999 Oct;41(4):638–51

Quarterly communicable disease review October to December 1998. From the PHLS Communicable Disease Surveillance Centre. **J Public Health Med** 1999 Jun; 21(2):228–33

[Body lice] Gøtzsche PC. **Ugeskr Laeger** 1998 Dec 21; 160(52):7610–1 **(Dan)**

ULTRASONOGRAPHY

Prenatal findings in membranous aplasia cutis. Cambiaghi S, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):638–40

VIROLOGY

Scarring alopecia and sclerodermatous changes of the scalp in a patient with hepatitis C infection. Jackson JM, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):824–6

SCANNING ELECTRON MICROSCOPY see **MICROSCOPY, ELECTRON, SCANNING**

SCANNING FORCE MICROSCOPY see **MICROSCOPY, ATOMIC FORCE**

SCANNING PROBE MICROSCOPY see **MICROSCOPY, ATOMIC FORCE**

SCANNING, RADIOISOTOPE see **RADIONUCLIDE IMAGING**

SCANNING TRANSMISSION ELECTRON MICROSCOPY see **MICROSCOPY, ELECTRON, SCANNING TRANSMISSION**

SCANNING TUNNELING MICROSCOPY see **MICROSCOPY, SCANNING TUNNELING**

SCAPULA

Scapula winger's brace: a case series on the management of long thoracic nerve palsy. Marin R. **Arch Phys Med Rehabil** 1998 Oct;79(10):1226–30

Shoulder mass in a 38-year-old woman [clinical conference] Averyt J, et al. **Clin Orthop** 1998 Oct;(355):323–7, 330–2

Bone tumors of the coracoid process of the scapula. Ogose A, et al. **Clin Orthop** 1999 Jan;(358):205–14

Elastofibroma dorsi. Study of two cases and magnetic resonance imaging findings. Zembsch A, et al. **Clin Orthop** 1999 Jul;(364):213–9

Symptomatic scapulothoracic crepitus and bursitis. Kuhn JE, et al. **J Am Acad Orthop Surg** 1998 Sep–Oct;6(5):267–73 (30 ref.)

Chondrosarcoma of the scapula in an adolescent girl. Anderson K, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug; 7(4):429–31

Large bursa formation associated with osteochondroma of the scapula: a case report and review of the literature. Okada K, et al. **Jpn J Clin Oncol** 1999 Jul;29(7):356–60 (23 ref.)

Osteosarcoma of the scapula arising in osteogenesis imperfecta. Bedi HS, et al. **Pathology** 1999 Feb;31(1):52–4

[Primary bone tumors and "tumor-like lesions" of the shoulder. Their histopathology and imaging] Link TM, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 May;170(5):507–13 (25 ref.) (Eng. Abstr.) **(Ger)**

ABNORMALITIES

Bilateral unfused coracoid process: report of a case. Kim SJ, et al. **J Korean Med Sci** 1998 Oct;13(5):563–5

Results of surgical treatment of Sprengel deformity by a modified Green's procedure. Bellemans M, et al. **J Pediatr Orthop B** 1999 Jul;8(3):194–6

[Snapping scapula: the value of 3D imaging] Sans N, et al. **J Radiol** 1999 Apr;80(4):379–81 (Eng. Abstr.) **(Fre)**

[The etiology and pathogenesis of Sprengel's disease] Skopichenko DN. **Klin Khir** 1999;(6):29–31 (Eng. Abstr.) **(Rus)**

[Surgical treatment of Sprengel's disease] Skopichenko DN. **Klin Khir** 1999;(7):28–9 (Eng. Abstr.) **(Rus)**

ANATOMY & HISTOLOGY

Articular facets of the coracoclavicular joint in Koreans. Cho BP, et al. **Acta Anat (Basel)** 1998;163(1):56–62

The scapulohumeral line revisited. Harding WG 3rd. **Am J Orthop** 1999 May;28(5):313–5

Anatomy of the scapulothoracic articulation. Williams GR Jr, et al. **Clin Orthop** 1999 Feb;(359):237–46

Anatomy and histological characteristics of the spinoglenoid ligament. Cummins CA, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1622–5

Functional and historical determinants of shape in the scapula of Xenarthran mammals: evolution of a complex morphological structure. Monteiro LR, et al. **J Morphol** 1999 Sep;241(3):251–63

BLOOD SUPPLY

An aneurysm involving the axillary artery and its branch vessels in a major league baseball pitcher. A case report and review of the literature. Schneider K, et al. **Am J Sports Med** 1999 May–Jun;27(3):370–5 (23 ref.)

The anatomy of the angular branch of the thoracodorsal artery. Seitz A, et al. **Cells Tissues Organs** 1999; 164(4):227–36

Versatility and reliability of combined flaps of the subscapular system. Germann G, et al. **Plast Reconstr Surg** 1999 Apr; 103(5):1386–99

[Positional occlusion of the descending scapular artery in transverse thoraco-brachial syndrome with neurologic symptoms] Lacombe P, et al. **J Radiol** 1999 Jan;80(1):53–5 (Eng. Abstr.) **(Fre)**

INJURIES

Pseudarthrosis of the spine of the scapula--case report of a minimally invasive osteosynthesis technique. Böhm P. **Acta Orthop Scand** 1998 Dec;69(6):645–7

Scapular body stress fracture--a case report. Parr TJ, et al. **Acta Orthop Scand** 1999 Feb;70(1):84–5

Scapular dislocation. Muñiz AE. **Am J Emerg Med** 1998 Nov; 16(7):690–1

Scapulothoracic dissociation. Lee L, et al. **Am J Orthop** 1998 Oct;27(10):699–702 (31 ref.)

Low-energy scapular body fracture: a case report. McAtee SJ. **Am J Orthop** 1999 Aug;28(8):468–72 (28 ref.)

Scapular neck fractures; an update of the concept of floating shoulder. Arts V, et al. **Injury** 1999 Mar;30(2):146–8

An electromyographical analysis of the scapular stabilizing synergists during a push-up progression. Lear LJ, et al. **J Orthop Sports Phys Ther** 1998 Sep;28(3):146–57

Periprosthetic fractures of the humerus and scapula: management and prevention. Cameron B, et al. **Orthop Clin North Am** 1999 Apr;30(2):305–18 (28 ref.)

Epiphyseal separation of the coracoid process without acromioclavicular dislocation. Holst AK, et al. **Skeletal Radiol** 1998 Aug;27(8):461–2

[Isolated coracoid fracture--open reposition and osteosynthesis--report of 3 cases] Spormann C, et al. **Swiss Surg** 1998;(4):198–202 (23 ref.) (Eng. Abstr.) **(Ger)**

[Scapulo-thoracic dissociation. A missed injury?] Lahoda LU, et al. **Unfallchirurg** 1998 Oct;101(10):791–5 (Eng. Abstr.) **(Ger)**

[Isolated traumatic rupture of the subscapular tendon] Fabiś J. **Chir Narzadow Ruchu Ortop Pol** 1998;63(6):597–600 (Eng. Abstr.) **(Pol)**

INNERVATION

Injury of the suprascapular nerve at the spinoglenoid notch. The natural history of infraspinatus atrophy in volleyball players. Ferretti A, et al. **Am J Sports Med** 1998 Nov–Dec; 26(6):759–63

Uncommon nerve compression syndromes of the upper extremity. Lubahn JD, et al. **J Am Acad Orthop Surg** 1998 Nov–Dec;6(6):378–86 (38 ref.)

Nonsurgical treatment of suprascapular nerve injury in horses: 8 cases (1988–1998). Dutton DM, et al. **J Am Vet Med Assoc** 1999 Jun 1;214(11):1657–9

Suprascapular nerve entrapment at the spinoglenoid notch due to a ganglion cyst. Van Zandijcke M, et al. **J Neurol Neurosurg Psychiatry** 1999 Feb;66(2):245

Suprascapular nerve rotator cuff compression syndrome in volleyball players. Sandow MJ, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct;7(5):516–21

The incidence of ganglion cysts and other variations in anatomy along the course of the suprascapular nerve. Ticker JB, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct; 7(5):472–8

Relationship of the long thoracic nerve to the scapular tip: an aid to prevention of proximal nerve injury. Salazar JD, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):960–4

PATHOLOGY

Intrathoracic scapula: an unusual complication of thoracotomy. Gilkeson RC. **AJR Am J Roentgenol** 1998 Dec;171(6):1706–7

Posttraumatic cleidoscapular synostosis following a fracture of the clavicle. A case report. Qureshi AA, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):256–8

[Desmoid tumor of the thoracic wall. A case manifesting as painful stiffness of the shoulder] Giraudet-Le Quintrec JS, et al. **Presse Med** 1998 Nov 7;27(34):1727–30 (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Thoracic position effect on shoulder range of motion, strength, and three-dimensional scapular kinematics. Kebaetse M, et al. **Arch Phys Med Rehabil** 1999 Aug; 80(8):945–50

The effects of concentric versus eccentric isokinetic strength training of the rotator cuff in the plane of the scapula at various speeds. Bast SC, et al. **Bull Hosp Jt Dis** 1998; 57(3):139–44

PHYSIOPATHOLOGY

Stretching and strengthening exercises: their effect on three-dimensional scapular kinematics. Wang CH, et al. **Arch Phys Med Rehabil** 1999 Aug;80(8):923–9

RADIOGRAPHY

Scapular neck fractures; an update of the concept of floating shoulder. Arts V, et al. **Injury** 1999 Mar;30(2):146–8

Troubleshooting the supraspinatus outlet view. Duralde XA, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):314–9

Coracoclavicular involvement--an atypical manifestation in rheumatoid arthritis. Lehtinen JT, et al. **Scand J Rheumatol** 1999;28(4):252–3

SURGERY

Results of surgical treatment of Sprengel deformity by a modified Green's procedure. Bellemans M, et al. **J Pediatr Orthop B** 1999 Jul;8(3):194–6

Arthroscopic partial resection of the scapula for snapping scapula: a new technique. Harper GD, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):53–7

Scapulothoracic arthrodesis for patients with facioscapulohumeral muscular dystrophy. Andrews CT, et al. **Neuromuscul Disord** 1998 Dec;8(8):580–4

[Tikhoff-Linberg interscapulothoracic resection in extra-compartmental tumors of the shoulder girdle] Voggenreiter G, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1414–6 (Eng. Abstr.) **(Ger)**

[Surgical treatment of Sprengel's disease] Skopichenko DN. **Klin Khir** 1999;(7):28–9 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Revascularized composite grafts with inserted implants for reconstructing the maxilla--improved flap design and flap prefabrication. Vinzenz KG, et al. **Br J Oral Maxillofac Surg** 1998 Oct;36(5):346–52

[Reconstruction of a complex defect of the upper third of the humerus by pedicle transplant of the lateral edge of the scapula. A case report] Benmansour BM, et al. **Ann Chir Plast Esthet** 1999 Apr;44(2):199–203 (Eng. Abstr.) **(Fre)**

SCARLET FEVER

[Scarlet fever] Sunakawa K. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):97–8 (1 ref.) **(Jpn)**

COMPLICATIONS

Inefficacy of a 3-day course of azithromycin in preventing acute rheumatic fever after group A streptococcal infection (scarlet fever) in an 8-year-old child [letter] Ghirga G, et al. **J Pediatr** 1999 Jan;134(1):123–4

EPIDEMIOLOGY

[Scarlet fever in 1997] Czarkowski MP. **Przegl Epidemiol** 1999;53(1–2):33–40 (Eng. Abstr.) **(Pol)**

[Has scarlet fever returned or did it ever go away? (letter)] Poveda Monge F, et al. **Aten Primaria** 1998 Nov 15; 22(8):538–40 **(Spa)**

MICROBIOLOGY

Involvement of enterotoxins G and I in staphylococcal toxic shock syndrome and staphylococcal scarlet fever. Jarraud S, et al. **J Clin Microbiol** 1999 Aug;37(8):2446–9

SCARPA'S GANGLION see **VESTIBULAR NERVE**

SCARS see **CICATRIX**

SCARS, HYPERTROPHIC see **CICATRIX, HYPERTROPHIC**

SCATTER FACTOR see **HEPATOCYTE GROWTH FACTOR**

SCATTERING, RADIATION

see related
NEPHELOMETRY AND TURBIDIMETRY

Ab initio phasing using molecular envelope from solution X-ray scattering. Hao Q, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):243–6

Accessing lysozyme nucleation with a novel dynamic light scattering detector. Peters R, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):873–7

A low-volume, short-path length dynamic light scattering sample cell for highly turbid suspensions. Patapoff TW, et al. **Anal Biochem** 1999 Jun 1;270(2):338–40

Light-scattering submicroscopic particles as highly fluorescent analogs and their use as tracer labels in clinical and biological applications. Yguerabide J, et al. **Anal Biochem** 1998 Sep 10;262(2):137–56

Light-scattering submicroscopic particles as highly fluorescent analogs and their use as tracer labels in clinical and biological applications. Yguerabide J, et al. **Anal Biochem** 1998 Sep 10;262(2):157–76

Quasi-elastic light scattering and analytical ultracentrifugation are indispensable tools for the purification and characterization of recombinant proteins. Schönfeld HJ, et al. **Biochem Soc Trans** 1998 Nov; 26(4):753–8

The temperature dependence of internal molecular motions in hydrated and dry alpha-amylase: the role of hydration water in the dynamical transition of proteins. Fitter J. **Biophys J** 1999 Feb;76(2):1034–42

Primary difficulties in quantitative backscattered electron (BSE) imaging [letter; comment] Vajda EG, et al. **Bone** 1999 Jun;24(6):619–21. Comment on: Bone 1998 Oct;23(4):319–26.

A rapid and sensitive automated light scattering immunoassay for serum C-reactive protein and the definition of a reference range in healthy blood donors. Price CP, et al. **Clin Chem Lab Med** 1999 Feb;37(2):109–13

Incoherent neutron scattering of copper azurin: a comparison with molecular dynamics simulation results. Paciaroni A, et al. **Eur Biophys J** 1999;28(6):447–56

Efficient scatter modelling for incorporation in maximum likelihood reconstruction. Hutton BF, et al. **Eur J Nucl Med** 1998 Dec;25(12):1658–65

Energy dependence of nonstationary scatter subtraction--restoration in high resolution PET. Bentourkia M, et al. **IEEE Trans Med Imaging** 1999 Jan; 18(1):66–73

Investigation of the nanofibrillar morphology in silk fibers by small angle X-ray scattering and atomic force microscopy. Miller LD, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):159–65

Directional and spectral reflectance of the rat retinal nerve fiber layer. Knighton RW, et al. **Invest Ophthalmol Vis Sci** 1999 Mar;40(3):639–47

Conversion of lens slit lamp photographs into physical light-scattering units. van den Berg TJ, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2151–7

Laser light scattering immunoassay: an improved data analysis by CONTIN method. Antony T, et al. **J Biochem Biophys Methods** 1998 Jun 11;36(2-3):75–85

Continuous particle size distribution analysis with dynamic light scattering. MAXAMPER: a regularization method using the maximum amplitude for the average error and the Lagrange's multipliers method. Fernandes MX, et al. **J Biochem Biophys Methods** 1998 Jun 11;36(2-3):101–17

Formation of the myosin.ADP.gallium fluoride complex and its solution structure by small-angle synchrotron X-ray scattering. Maruta S, et al. **J Biochem (Tokyo)** 1999 Jan; 125(1):177–85

Corneal light scattering with stromal reformation after laser in situ keratomileusis and photorefractive keratectomy. Chang SW, et al. **J Cataract Refract Surg** 1998 Aug; 24(8):1064–9

Analysis of edge glare phenomena in intraocular lens edge designs. Holladay JT, et al. **J Cataract Refract Surg** 1999 Jun;25(6):748–52

Glare and light streaks: a complication of IOL implantation [letter; comment] Shipper I. **J Cataract Refract Surg** 1999 May;25(5):604–5. Comment on: J Cataract Refract Surg 1998 Dec;24(12):1554–61.

Comparison of methods to assess visual impairment from glare and light scattering with posterior capsule opacification. Tan JC, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1626–31

Analysis of human milk triacylglycerols by high-performance liquid chromatography with light-scattering detection. Morera Pons S, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):475–82

Application of evaporative light scattering detection to the characterization of combinatorial and parallel synthesis libraries for pharmaceutical drug discovery. Hsu BH, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2; 725(1):103–12

Image quality degradation by light scattering in display devices. Flynn MJ, et al. **J Digit Imaging** 1999 May; 12(2):50–9

A comparison of LDL size determination using gradient gel electrophoresis and light-scattering methods. O'Neal D, et al. **J Lipid Res** 1998 Oct;39(10):2086–90

Effects of scatter substraction on detection and quantitation in hepatic SPECT. de Vries DJ, et al. **J Nucl Med** 1999 Jun;40(6):1011–23

Spatial coherence of forward-scattered light in a turbid medium. Yang C, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Apr;16(4):866–71

Aggregation of A beta Alzheimer's disease-related peptide studied by dynamic light scattering. Thunecke M, et al. **J Pept Res** 1998 Dec;52(6):509–17

Determination of the fraction composition of blood lipoproteins by the small-angle X-ray scattering technique. Tuzikov FV, et al. **Membr Cell Biol** 1998;12(4):521–36

Time-resolved spectroscopy of mitochondria, cells and tissues under normal and pathological conditions. Beauvoit B, et al. **Mol Cell Biochem** 1998 Jul;184(1-2):445–55

An index for human lens transparency related to age and lens layer: comparison between normal volunteers and diabetic patients with still clear lenses. Sasaki H, et al. **Ophthalmic Res** 1999;31(2):93–103

Light scattering in the human lens in childhood and adolescence. Wegener A, et al. **Ophthalmic Res** 1999; 31(2):104–9

Total internal reflection of laser light in eyes filled with silicone oil. Bartov E, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):17–23

Objective and subjective evaluation of photic phenomena after monofocal and multifocal intraocular lens implantation. Dick HB, et al. **Ophthalmology** 1999 Oct; 106(10):1878–86

Efficient SPECT scatter calculation in non-uniform media using correlated Monte Carlo simulation. Beekman FJ, et al. **Phys Med Biol** 1999 Aug;44(8):N183–92

Monte Carlo calculations of the dose backscatter factor for monoenergetic electrons. Cho SH, et al. **Phys Med Biol** 1999 Jan;44(1):13–26

Monte Carlo simulation of light fluence in tissue in a cylindrical diffusing fibre geometry. Farina B, et al. **Phys Med Biol** 1999 Jan;44(1):1–11

Comparing two methods for calculating phantom scatter. McDonough J, et al. **Phys Med Biol** 1999 Feb;44(2):N9–14

The practical implementation of a scatter model for portal imaging at 10 MV. Partridge M, et al. **Phys Med Biol** 1998 Sep;43(9):2685–93

The relative contributions of scatter and attenuation corrections toward improved brain SPECT quantification. Stodilka RZ, et al. **Phys Med Biol** 1998 Oct; 43(10):2991–3008

Water phantom backscatter factors for x-rays in the 60 kV to 300 kV region. Tomljenović II, et al. **Phys Med Biol** 1999 Sep;44(9):2193–200

A consistent formalism for the application of phantom and collimator scatter factors. Venselaar JL, et al. **Phys Med Biol** 1999 Feb;44(2):365–81

Equivalent fields and scatter integration for photon fields. Xiao Y, et al. **Phys Med Biol** 1999 Apr;44(4):1053–65

Transport of sugars across human placental membranes measured by light scattering. Quraishi AN, et al. **Placenta** 1999 Mar-Apr;20(2-3):167–74

A solution SAXS study of Borrelia burgdorferi OspA, a protein containing a single-layer beta-sheet. Bu Z, et al. **Protein Sci** 1998 Dec;7(12):2681–3

Absolute and effective cross-sections for low-energy electron-scattering processes within condensed matter. Bass AD, et al. **Radiat Environ Biophys** 1998 Dec; 37(4):243–57 (84 ref.)

Imaging living cells the friendly way [news] Antia M. **Science** 1999 May 28;284(5419):1445

Doppler Monte Carlo simulations of light scattering in tissue to support laser-Doppler perfusion measurements. de Mul FF, et al. **Technol Health Care** 1999;7(2-3):171–83

[Employing deconvolution method for correcting scatter in radiography] Deng Z, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Jun; 14(2):137–43 (Eng. Abstr.) **(Chi)**

[Scatter correction in myocardial thallium SPECT: needs for optimization of energy window settings in the energy window-based scatter correction techniques] Narita Y, et al. **Kaku Igaku** 1999 Feb;36(2):83–90 (Eng. Abstr.) **(Jpn)**

SCENEDESMUS see **ALGAE, GREEN**

SCENT GLANDS

ANATOMY & HISTOLOGY

[Histogenesis of perineal gland cells from the pangolin (Manis javanica Demarest, 1821, Pholidota, Mammalia) during organ culture in diffusion chambers] Sokolov VE, et al. **Dokl Akad Nauk** 1998 Aug;361(4):573–6 **(Rus)**

CYTOLOGY

Detection of glycosidic residues in carpal glands of wild and domestic pig revealed by basic and lectin histochemistry. Pedini V, et al. **Anat Anz** 1999 May;181(3):269–74

ENZYMOLOGY

[Systematic and taxonomic rank of voles based on histochemical characteristics of skin glands in Micsotus oeconomus and Miscotus limnophilus] Sokolov VE, et al. **Dokl Akad Nauk** 1999 Feb;364(4):572–4 **(Rus)**

[Ecologo-physiological interpretation of enzymatic differences in systematically close forms of gray voles using the cutaneous glands of the Arvalis group as an example] Sokolov VE, et al. **Dokl Akad Nauk** 1999 Mar;365(2):286–8 **(Rus)**

PHYSIOLOGY

Biochemical variations of male scent markers alter the attractiveness in the female rats, Rattus norvegicus. Kannan S, et al. **Acta Physiol Hung** 1997-98;85(2):175–81

SECRETION

Behavioral discrimination between circumgenital odor from peri-ovulatory dominant and anovulatory female common marmosets (Callithrix jacchus). Smith TE, et al. **Am J Primatol** 1998;46(4):265–84

ULTRASTRUCTURE

Epidermal glands in Squamata: microscopical examination of precloacal glands in Amphisbaena alba (Amphisbaenia, Amphisbaenidae). Jared C, et al. **J Morphol** 1999 Sep; 241(3):197–206

SCH-13521 see **FLUTAMIDE**

SCH-23390

METABOLISM

Alpha-melanotropin hormone inhibits the binding of [3H]SCH 23390 to the dopamine D1 receptor in vitro. Lezcano NE, et al. **Eur J Pharmacol** 1998 Dec 18; 363(2-3):211–5

PHARMACOKINETICS

Effects of the substituted (S)-3-phenylpiperidine (-)-OSU6162 on PET measurements of [11C]SCH23390 and [11C]raclopride binding in primate brains. Ekesbo A, et al. **Neuropharmacology** 1999 Mar;38(3):331–8

PHARMACOLOGY

Effects of haloperidol or SCH-23390 on ethanol-induced conditioned taste aversion. Risinger FO, et al. **Alcohol** 1999 Jun-Jul;18(2-3):139–45

A functional role for dopamine transmission in the amygdala during conditioned fear. Guarraci FA, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:732–6

Injection of SCH 23390, but not 7-hydroxy-DPAT, into the ventral tegmental area blocks the acute motor-stimulant response to cocaine. Steketee JD, et al. **Behav Pharmacol** 1997 Feb;8(1):58–64

Injection of SCH 23390 into the ventral tegmental area blocks the development of neurochemical but not behavioral sensitization to cocaine. Steketee JD. **Behav Pharmacol** 1998 Feb;9(1):69–76

Prefrontal cortex infusions of SCH 23390 cause immediate and delayed effects on ventral tegmental area stimulation reward. Duvauchelle CL, et al. **Brain Res** 1998 Nov 16; 811(1-2):57–62

Methyl mercury exposure during post-natal brain growth alters behavioral response to SCH 23390 in young rats. Pereira ME, et al. **Bull Environ Contam Toxicol** 1999 Aug; 63(2):256–62

Influence of SCH23390 and spiperone on the expression of conditioned place preference induced by d-amphetamine or cocaine in the rat. Liao RM, et al. **Chin J Physiol** 1998 Jun 30;41(2):85–92

Effects of dopamine agonists and antagonists on optical responses evoked in rat frontal cortex slices after stimulation of the subcortical white matter [published erratum appears in Exp Brain Res 1999 Jul;127(1):116] Kita H, et al. **Exp Brain Res** 1999 Apr;125(3):383–8

Striatal neuronal activity and responsiveness to dopamine and glutamate after selective blockade of D1 and D2 dopamine receptors in freely moving rats. Kiyatkin EA, et al. **J Neurosci** 1999 May 1;19(9):3594–609

Blockade of subthalamic dopamine D1 receptors elicits akinesia in rats. Hauber W. **Neuroreport** 1998 Dec 21; 9(18):4115–8

Effect of dopamine receptor anatagonists on the calcium-dependent central function that reduces blood pressure in spontaneously hypertensive rats. Sutoo D, et al. **Neurosci Lett** 1999 Jul 16;269(3):133–6

D1 and D2 dopamine receptor mediation of amphetamine-induced acetylcholine release in nucleus accumbens. Keys AS, et al. **Neuroscience** 1998 Sep; 86(2):521–31

Role of accumbens and cortical dopamine receptors in the regulation of cortical acetylcholine release. Moore H, et al. **Neuroscience** 1999;88(3):811–22

A double dissociation within the hippocampus of dopamine D1/D5 receptor and beta-adrenergic receptor contributions to the persistence of long-term potentiation. Swanson-Park JL, et al. **Neuroscience** 1999;92(2):485–97

Effects of SCH 23390, raclopride, and haloperidol on morphine withdrawal-induced aggression in male mice. Rodríguez-Arias M, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):123–30

Effects of SCH23390 and raclopride on anxiety-like behavior in rats tested in the black-white box. Timothy C, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):323–7

Effects of dopamine receptor antagonists (D1 and D2) on the demand for smoked cocaine base in rhesus monkeys. Campbell UC, et al. **Psychopharmacology (Berl)** 1999 Jun; 144(4):381–8

Haloperidol, raclopride, and eticlopride induce microcatalepsy during operant performance in rats, but clozapine and SCH 23390 do not. Fowler SC, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):81–90

Effects of intraaccumbens administration of SCH-23390 on cocaine-induced locomotion and conditioned place preference. Baker DA, et al. **Synapse** 1998 Oct;30(2):181–93

Effects of SCH-23390 on dopamine D1 receptor occupancy and locomotion produced by intraaccumbens cocaine infusion. Neisewander JL, et al. **Synapse** 1998 Oct; 30(2):194–204

SCHAMBERG'S DISEASE see **PIGMENTATION DISORDERS**

SCHAUMANN'S DISEASE see **SARCOIDOSIS**

SCHEDULES, PATIENT see **APPOINTMENTS AND SCHEDULES**

SCHEIE'S SYNDROME see **MUCOPOLYSACCHARIDOSIS I**

SCHEUERMANN'S DISEASE

Scheuermann's disease. Lowe TG. **Orthop Clin North Am** 1999 Jul;30(3):475–87, ix (37 ref.)

DIAGNOSIS

Scheuermann's kyphosis [see comments] Ali RM, et al. **Curr Opin Pediatr** 1999 Feb;11(1):70–5 (48 ref.). Comment in: Curr Opin Pediatr 1999 Feb;11(1):65–6.

PATHOLOGY

Disk degenerative disease in childhood: Scheuermann's disease, Schmorl's nodes, and the limbus vertebra: MRI findings in 12 patients. Swischuk LE, et al. **Pediatr Radiol** 1998 May;28(5):334–8

REHABILITATION

[Sports and physical load bearing capacity after spondylodesis in patients with Scheuermann kyphosis] Daentzer D, et al. **Sportverletz Sportschaden** 1999 Mar; 13(1):22–9 (Eng. Abstr.) **(Ger)**

THERAPY

Scheuermann's kyphosis [see comments] Ali RM, et al. **Curr Opin Pediatr** 1999 Feb;11(1):70–5 (48 ref.). Comment in: Curr Opin Pediatr 1999 Feb;11(1):65–6.

SCHIFF BASES

Lysine–69 plays a key role in catalysis by ornithine decarboxylase through acceleration of the Schiff base formation, decarboxylation, and product release steps. Osterman AL, et al. **Biochemistry** 1999 Sep 7; 38(36):11814–26

CHEMISTRY

A Schiff base formed from sulfanilic acid and dimethylformamide. Hempel A, et al. **Acta Crystallogr C** 1999 Apr 15;55 (Pt 4):697–8

Redox characteristics of Schiff base manganese and cobalt complexes related to water-oxidizing complex of photosynthesis. Hotchandani S, et al. **Bioelectrochem Bioenerg** 1999 Feb;48(1):53–9

Magic angle spinning NMR of the protonated retinylidene Schiff base nitrogen in rhodopsin: expression of 15N–lysine- and 13C–glycine–labeled opsin in a stable cell line. Eilers M, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):487–92

The Schiff base complex of yeast 5–aminolaevulinic acid dehydratase with laevulinic acid. Erskine PT, et al. **Protein Sci** 1999 Jun;8(6):1250–6

PHARMACOLOGY

Application of Schiff base copper(II) and iron(III) chelates to site–specific cleavage of a trypsin. Toyota E, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):116–9

SCHILDER'S DISEASE see **ENCEPHALITIS PERIAXIALIS**

SCHILLING TEST

Schilling and protein–bound cobalamin absorption tests are poor instruments for diagnosing cobalamin malabsorption. Lindgren A, et al. **J Intern Med** 1997 Jun;241(6):477–84

STANDARDS

The value of the intrinsic factor antibody test in diagnosing pernicious anaemia. Ingram CF, et al. **Cent Afr J Med** 1998 Jul;44(7):178–81

SCHISTOSOMA

see related
SCHISTOSOMICIDES

An immunohistological study of phenotypic characteristics of cells of the inflammatory response in the intestine of Schistosoma bovis–infected goats. Lindberg R, et al. **Parasitology** 1999 Jan;118 (Pt 1):91–9

CHEMISTRY

Preliminary crystallographic study of glutathione S–transferase fused with the nuclear matrix targeting signal of the transcription factor AML–1/CBF–alpha2. Tang L, et al. **J Struct Biol** 1998 Sep;123(1):83–5

ENZYMOLOGY

Schistosoma bovis: vaccine effects of a recombinant homologous glutathione S–transferase in sheep. Boulanger D, et al. **Int J Parasitol** 1999 Mar;29(3):415–8

Definition and mapping of epitopes recognized by specific monoclonal antibodies to Schistosoma bovis 28 kDa glutathione S–transferase: relation with anti–egg viability immunity. da Costa AV, et al. **Parasite Immunol** 1999 Jan; 21(1):9–18

GENETICS

Comparison of the intergenic spacers and 3' end regions of the large subunit (28S) ribosomal RNA gene from three species of Schistosoma. Kane RA, et al. **Parasitology** 1998 Sep;117 (Pt 3):235–42

IMMUNOLOGY

Schistosoma bovis: vaccine effects of a recombinant homologous glutathione S–transferase in sheep. Boulanger D, et al. **Int J Parasitol** 1999 Mar;29(3):415–8

Humoral immune response and antigenemia in sheep experimentally infected with Schistosoma bovis. Cross–reactivity with Fasciola hepatica antigens. Rodriguez–Osorio M, et al. **J Parasitol** 1999 Jun; 85(3):585–7

Egg–hatching inhibition in mice immunized with recombinant Schistosoma bovis 28 kDa glutathione S–transferase. Da Costa AV, et al. **Parasite Immunol** 1999 Jul;21(7):341–50

Definition and mapping of epitopes recognized by specific monoclonal antibodies to Schistosoma bovis 28 kDa glutathione S–transferase: relation with anti–egg viability immunity. da Costa AV, et al. **Parasite Immunol** 1999 Jan; 21(1):9–18

A fatty acid binding protein from Fasciola hepatica induced protection in C57/BL mice from challenge infection with Schistosoma bovis. Abán JL, et al. **Vet Parasitol** 1999 Jun 15;83(2):107–21

PATHOGENICITY

A pathological study of experimental long–standing Schistosoma bovis infection in sheep. Ferreras–Estrada MC, et al. **J Comp Pathol** 1998 Nov;119(4):479–84

PHYSIOLOGY

Recent studies on the reproductive biology of the schistosomes and their relevance to speciation in the Digenea. Southgate VR, et al. **Int J Parasitol** 1998 Aug; 28(8):1159–72 (83 ref.)

The oral route as a potential way of transmission of Schistosoma bovis in goats. Boulanger D, et al. **J Parasitol** 1999 Jun;85(3):464–7

Egg–hatching inhibition in mice immunized with recombinant Schistosoma bovis 28 kDa glutathione S–transferase. Da Costa AV, et al. **Parasite Immunol** 1999 Jul;21(7):341–50

Sex determination and female reproductive development in the genus Schistosoma: a review. Ribeiro–Paes JT, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov–Dec;39(6):337–44 (136 ref.)

SCHISTOSOMA HAEMATOBIUM

Urine circulating soluble egg antigen in relation to egg counts, hematuria, and urinary tract pathology before and after treatment in children infected with Schistosoma haematobium in Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):215–9

Therapeutic and operational profiles of metrifonate and praziquantel in Schistosoma haematobium infection. Feldmeier H, et al. **Arzneimittelforschung** 1999 Jul; 49(7):557–65 (81 ref.)

The Sudanese immigrant with recurrent gross haematuria--diagnosis at a glance by examination of the urine sediment. Colucci P, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2247–9

A comparison of re–infection rates with Schistosoma haematobium following chemotherapy in areas with high and low levels of infection. Mutapi F, et al. **Parasite Immunol** 1999 May;21(5):253–9

CHEMISTRY

Purification and crystallization of a novel membrane–anchored protein: the Schistosoma haematobium serpin. Huang W, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):350–2

DRUG EFFECTS

Parameters associated with Schistosoma haematobium infection before and after chemotherapy in school children from two villages in the coast province of Kenya. Kahama AI, et al. **Trop Med Int Health** 1999 May;4(5):335–40

GENETICS

Host–parasite population genetics: a cross–sectional comparison of Bulinus globosus and Schistosoma haematobium. Davies CM, et al. **Parasitology** 1999 Sep;119 (Pt 3):295–302

GROWTH & DEVELOPMENT

Long–term suppression of adult bladder morbidity and severe hydronephrosis following selective population chemotherapy for Schistosoma haematobium. Subramanian AK, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):476–81

IMMUNOLOGY

Detection and quantification of soluble egg antigen in urine of Schistosoma haematobium–infected children from Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):769–74

Application of immunodiagnostic assays: detection of antibodies and circulating antigens in human schistosomiasis and correlation with clinical findings. Al–Sherbiny MM, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):960–6

Common features of T cell reactivity in persistent helminth infections: lymphatic filariasis and schistosomiasis. Yazdanbakhsh M. **Immunol Lett** 1999 Jan;65(1–2):109–15 (35 ref.)

Systemic and mucosal immune responses after intranasal administration of recombinant Mycobacterium bovis bacillus Calmette–Guérin expressing glutathione S–transferase from Schistosoma haematobium. Kremer L, et al. **Infect Immun** 1998 Dec;66(12):5669–76

Is an anti–Schistosoma haematobium vaccine necessary? El Ridi R, et al. **Int J Parasitol** 1999 Apr;29(4):651–3

Morphometrical and immunopathological dissection of the hepatic Schistosoma haematobium granuloma in the murine host. Jacobs W, et al. **Parasite** 1998 Dec;5(4):299–306

The effect of anti–IL–10 on proliferation and cytokine production in human schistosomiasis: fresh versus cryopreserved cells. Grogan JL, et al. **Parasite Immunol** 1998 Jul;20(7):345–9

Murine immune responses to Schistosoma haematobium and the vaccine candidate rSh28GST. Lane A, et al. **Parasite Immunol** 1998 Aug;20(8):359–67

Vaccine potential of a recombinant glutathione S–transferase cloned from Schistosoma haematobium in primates experimentally infected with an homologous challenge. Boulanger D, et al. **Vaccine** 1999 Jan 28;17(4):319–26

Leucocyte migration inhibitory factor assay in Nigerians with urinary schistosomiasis. Arinola OG, et al. **West Afr J Med** 1999 Apr–Jun;18(2):101–5

ISOLATION & PURIFICATION

Immunochemical characterization and diagnostic potential of a 63–kilodalton Schistosoma antigen. Attallah AM, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):493–7

Detection and quantification of soluble egg antigen in urine of Schistosoma haematobium–infected children from Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):769–74

Photo quiz. Schistosoma haematobium. Gould JM, et al. **Clin Infect Dis** 1999 May;28(5):987, 1155

Diagnostic value of a miracidium in urinary sediment. Procop GW, et al. **Diagn Cytopathol** 1999 Jan;20(1):34–7

Parasite–induced bladder pathology [letter; comment] Vester U. **Pediatr Nephrol** 1999 May;13(4):369. Comment on: Pediatr Nephrol 1998 Apr;12(3):257–8.

The dynamics of a soluble egg antigen of Schistosoma haematobium in relation to egg counts, circulating anodic and cathodic antigens and pathology markers before and after chemotherapy. Kahama AI, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec;92(6):629–33

Evaluation of dipsticks in Schistosoma haematobium infections in four villages in the middle valley of the Senegal River Basin, Senegal. Shaw DJ, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec;92(6):634–5

METABOLISM

Schistosoma TOR (trispanning orphan receptor), a novel, antigenic surface receptor of the blood–dwelling, Schistosoma parasite. Inal JM. **Biochim Biophys Acta** 1999 Jun 9;1445(3):283–98

PHYSIOLOGY

Schistosoma haematobium: comparative studies on the characteristics of infection in three populations of Planorbarius metidjensis from the Agadir province in South Morocco. Yacoubi B, et al. **Parasitol Res** 1999 Mar; 85(3):239–42

SCHISTOSOMA JAPONICUM

Measuring exposure to S. japonicum in China. I. Activity diaries to assess water contact and comparison to other measures. Ross AG, et al. **Acta Trop** 1998 Nov 30; 71(3):213–28

Measuring exposure to S. japonicum in China. II. Activity diaries, pathways to infection and immunological correlates. Ross AG, et al. **Acta Trop** 1998 Nov 30; 71(3):229–36

Soil factors influencing the distribution of Oncomelania quadrasi, the intermediate host of Schistosoma japonicum, on Bohol Island, Philippines. Nihei N, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):699–710

CHEMISTRY

Inhibitory effect of artemether on proteinase of Schistosoma

japonicum. Gong PL, et al.
Chung Kuo Yao Li Hsueh Pao 1997 May;18(3):198–201
Immunolocalization of schistosome proteins. Gobert GN.
Microsc Res Tech 1998 Aug 1;42(3):176–85 (70 ref.)

DRUG EFFECTS

Preventive effect of artemether in rabbits infected with Schistosoma japonicum cercariae. Xiao SH, et al.
Chung Kuo Yao Li Hsueh Pao 1998 Jan;19(1):63–6
Tegument changes of Schistosoma japonicum and Schistosoma mansoni in mice treated with artemether. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):535–7
Schistosoma japonicum is less sensitive to cyclosporin A in vivo than Schistosoma mansoni. Caffrey CR, et al.
J Parasitol 1999 Aug;85(4):736–9

ENZYMOLOGY

Effect of artemether on glyceraldehyde-3-phosphate dehydrogenase, phosphoglycerate kinase, and pyruvate kinase of Schistosoma japonicum harbored in mice. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May; 19(3):279–81
Immunolocalisation of the glutathione S-transferases, GST-26 and GST-28, within adult Schistosoma japonicum. Gobert GN, et al. **Int J Parasitol** 1998 Sep;28(9):1437–43
Dipeptidyl peptidase I and III activities of adult schistosomes. Hola-Jamriska L, et al. **Parasitology** 1999 Mar;118 (Pt 3):275–82
Gene cloning and amino acid sequence analysis of triose-phosphate isomerase of Schistosoma japonicum Chinese strain. Yinchang Z, et al.
Southeast Asian J Trop Med Public Health 1998 Sep; 29(3):615–21

GENETICS

Generation, identification, and evaluation of expressed sequence tags from different developmental stages of the Asian blood fluke Schistosoma japonicum. Fan J, et al.
Biochem Biophys Res Commun 1998 Nov 18;252(2):348–56
Cloning of a cDNA encoding SjIrV1, a Schistosoma japonicum calcium-binding protein similar to calnexin, and expression of the recombinant protein in Escherichia coli. Hooker CW, et al. **Biochim Biophys Acta** 1999 Jan 11; 1429(2):331–41
Characterisation of a family of Schistosoma japonicum proteins related to dynein light chains. Yang W, et al.
Biochim Biophys Acta 1999 Jun 15;1432(1):13–26
Characterization of cDNAs encoding a new family of tetraspanins from schistosomes--the Sj25 family. Fan J, et al. **Gene** 1998 Sep 28;219(1–2):1–8
Identification of novel 70-kDa heat shock protein-encoding cDNAs from Schistosoma japonicum. Scott JC, et al.
Int J Parasitol 1999 Mar;29(3):437–44
Variation in the sequence of a mitochondrial NADH dehydrogenase I gene fragment among six natural populations of Schistosoma japonicum from China. Sørensen E, et al. **Int J Parasitol** 1998 Dec;28(12):1931–4
Expression of foreign gene in mycobacterium regulated by human Mycobacterium tuberculosis heat shock protein 70 promoter. Cheng J, et al. **J Tongji Med Univ** 1997; 17(4):193–9
Molecular characterization of a calponin-like protein from Schistosoma japonicum. Yang W, et al.
Mol Biochem Parasitol 1999 Jan 25;98(2):225–37
Scanning for nucleotide variations in mitochondrial DNA fragments of Schistosoma japonicum by single-strand conformation polymorphism. Bøgh HO, et al.
Parasitology 1999 Jan;118 (Pt 1):73–82
Localization of mouse type 2 Alu sequence in schistosomes. Imase A, et al. **Parasitology** 1999 Sep;119 (Pt 3):315–21

GROWTH & DEVELOPMENT

Generation, identification, and evaluation of expressed sequence tags from different developmental stages of the Asian blood fluke Schistosoma japonicum. Fan J, et al.
Biochem Biophys Res Commun 1998 Nov 18;252(2):348–56
Peroral infection of pigs with Schistosoma japonicum cercariae. Giver H, et al. **Vet Parasitol** 1999 Jun 15; 83(2):161–5

IMMUNOLOGY

Natural antibodies in Microtus fortis react with antigens derived from four stages in the life-cycle of Schistosoma japonicum. He YK, et al. **Ann Trop Med Parasitol** 1999 Jan;93(1):83–7
Egg laying is delayed but worm fecundity is normal in SCID mice infected with Schistosoma japonicum and S. mansoni with or without recombinant tumor necrosis factor alpha treatment. Cheever AW, et al. **Infect Immun** 1999 May; 67(5):2201–8
Identification of the Schistosoma japonicum 22.6-kDa antigen as a major target of the human IgE response: similarity of IgE-binding epitopes to allergen peptides. Santiago ML, et al. **Int Arch Allergy Immunol** 1998 Oct; 117(2):94–104
The vaccine efficacy of native paramyosin (Sj-97) against Chinese Schistosoma japonicum. McManus DP, et al.
Int J Parasitol 1998 Nov;28(11):1739–42
Dynamic analysis of T-lymphocyte function in relation to hepatopathologic changes and effect of interleukin-12 treatment in mice infected with Schistosoma japonicum. Yang JQ, et al. **J Parasitol** 1999 Apr;85(2):257–62
Genetic immunization of mice with DNA encoding the 23 kDa transmembrane surface protein of Schistosoma japonicum (Sj23) induces antigen-specific immunoglobulin G antibodies. Waine GJ, et al. **Parasite Immunol** 1999 Jul; 21(7):377–81
Schistosoma japonicum myosin: cloning, expression and vaccination studies with the homologue of the S. mansoni myosin fragment IrV-5. Zhang Y, et al.
Parasite Immunol 1998 Dec;20(12):583–94
Vaccination of mice with gamma-irradiated Schistosoma japonicum cercariae. Zhang Y, et al. **Parasite Immunol** 1999 Feb;21(2):111–7
Characteristics of eosinophilic inclusions within Schistosoma japonicum eggs. Hirata M, et al. **Parasitology** 1999 Mar; 118 (Pt 3):269–74
B-cell epitopes recognized by Chinese water buffaloes (Bos buffelus) on the 22 kDa tegumental membrane-associated antigen (Sj-22) of the Asiatic bloodfluke, Schistosoma japonicum. Zhou J, et al. **Vet Res** 1999 Jul-Aug; 30(4):427–32
[Effects of induction of anti-embryonation and anti-fecundity immunity on liver granuloma formation in mice infected with Schistosoma japonicum] Wang S, et al.
Chung Hua I Hsueh Tsa Chih 1997 Oct;77(10):768–70 (Eng. Abstr.) **(Chi)**
[Detection of different class (subclass) antibodies in sera of patients with schistosomiasis japonica for diagnosis and efficiency evaluation] Li Y, et al.
Hunan I Ko Ta Hsueh Hsueh Pao 1997;22(5):381–3 (Eng. Abstr.) **(Chi)**
[Identification of antigens in circulating immune complexes of schistosomiasis japonica] Zeng X, et al.
Hunan I Ko Ta Hsueh Hsueh Pao 1997;22(5):377–80 (Eng. Abstr.) **(Chi)**

ISOLATION & PURIFICATION

Hepatosplenic morbidity in schistosomiasis japonica: evaluation with Doppler sonography. Kardorff R, et al.
Am J Trop Med Hyg 1999 Jun;60(6):954–9

METABOLISM

Effect of artemether on glucose uptake and glycogen content in Schistosoma japonicum. Xiao SH, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Jul;18(4):363–7

PATHOGENICITY

Egg laying is delayed but worm fecundity is normal in SCID mice infected with Schistosoma japonicum and S. mansoni with or without recombinant tumor necrosis factor alpha treatment. Cheever AW, et al. **Infect Immun** 1999 May; 67(5):2201–8

RADIATION EFFECTS

Vaccination of mice with gamma-irradiated Schistosoma japonicum cercariae. Zhang Y, et al. **Parasite Immunol** 1999 Feb;21(2):111–7

ULTRASTRUCTURE

Ultrastructural analysis of the adult Schistosoma japonicum by lectin cytochemistry. Gobert GN, et al.
Int J Parasitol 1998 Sep;28(9):1445–52
Immunolocalization of schistosome proteins. Gobert GN.
Microsc Res Tech 1998 Aug 1;42(3):176–85 (70 ref.)

SCHISTOSOMA MANSONI

Population biology of Schistosoma mansoni in the black rat: host regulation and basic transmission rate. Morand S, et al. **Int J Parasitol** 1999 May;29(5):673–84
Influence of dietary n-6 and n-3 lipids upon the development of pulmonary granulomas induced by Schistosoma mansoni eggs. Lima SF, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:197–8
Effect of Biomphalaria straminea plasma in the phagocytosis of Biomphalaria glabrata hemolymph cells. Malagueño E, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:301–2
[Pseudo-tumoral schistosomiasis: case report] Pereira RM, et al. **Arq Gastroenterol** 1998 Jan-Mar;35(1):74–7 (Eng. Abstr.) **(Por)**

ANATOMY & HISTOLOGY

[The size polymorphism of the cercariae of a Venezuelan strain of Schistosoma mansoni] Pino LA, et al.
Rev Soc Bras Med Trop 1999 Jul-Aug;32(4):443–6 (Eng. Abstr.) **(Spa)**

CHEMISTRY

Synthesis of the spacer-containing beta-D-GalpNAc-(1-->4)-beta-D-GlcpNAc-(1-->3)-alpha-D-Galp moiety, representing the non-fucosylated backbone trisaccharide of the glycocalyx glycan of the parasite Schistosoma mansoni. Halkes KM, et al. **Carbohydr Res** 1998 Jun;308(3–4):329–38
Use of synthetic peptides derived from adult worm proteins of Schistosoma mansoni, in the diagnosis of schistosomiasis. Noya O, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:157–8
Ether lipids and their possible physiological function in adult Schistosoma mansoni. Brouwers JF, et al.
Mol Biochem Parasitol 1998 Oct 30;96(1–2):49–58

CYTOLOGY

Morphological study of adult male worms of Schistosoma mansoni Sambon, 1907 by confocal laser scanning microscopy. Machado-Silva JR, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:303–7
Schistosoma mansoni Sambon, 1907: morphometric differences between adult worms from sympatric rodent and human isolates. Neves RH, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:309–12
Continuous in vitro propagation and differentiation of cultures of the intramolluscan stages of the human parasite Schistosoma mansoni. Ivanchenko MG, et al.
Proc Natl Acad Sci U S A 1999 Apr 27;96(9):4965–70

DRUG EFFECTS

Evidence for a long-term effect of a single dose of praziquantel on Schistosoma mansoni-induced hepatosplenic lesions in northern Uganda. Frenzel K, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):927–31
Resistance to praziquantel: direct evidence from Schistosoma mansoni isolated from Egyptian villagers. Ismail M, et al.
Am J Trop Med Hyg 1999 Jun;60(6):932–5
Blockage of skin invasion by schistosome cercariae by serine protease inhibitors. Lim KC, et al.
Am J Trop Med Hyg 1999 Mar;60(3):487–92
Short report: prevention of Schistosoma mansoni infections in mice by the insect repellents AI3-37220 and N,N-diethyl-3-methylbenzamide. Secor WE, et al.
Am J Trop Med Hyg 1999 Jun;60(6):1061–2
Tegument changes of Schistosoma japonicum and Schistosoma mansoni in mice treated with artemether. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):535–7
The use of video-imaging to assess the sub-lethal impact of plant secondary compounds on Schistosoma mansoni miracidia. Lyddiard JR, et al. **J Helminthol** 1998 Sep; 72(3):237–41
Schistosoma japonicum is less sensitive to cyclosporin A in vivo than Schistosoma mansoni. Caffrey CR, et al.
J Parasitol 1999 Aug;85(4):736–9
Recombinant human interleukin-1-mediated killing of Schistosoma mansoni primary sporocysts in Biomphalaria glabrata. Connors VA, et al. **J Parasitol** 1998 Oct; 84(5):920–6
Activity of oxamniquine at skin, pulmonary and sexual maturation phases, on a Schistosoma mansoni strain (R1) previously reported as resistant at the adult phase. Coelho PM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:267–8
Effects of Euphorbia milii latex on Schistosoma mansoni eggs, miracidia and cercariae. De-Carvalho RR, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:235–7

ENZYMOLOGY

Recombinant expression and localization of Schistosoma mansoni cathepsin L1 support its role in the degradation of host hemoglobin. Brady CP, et al. **Infect Immun** 1999 Jan;67(1):368–74
Characterization of a stable form of tryptophan hydroxylase from the human parasite Schistosoma mansoni. Hamdan FF, et al. **J Biol Chem** 1999 Jul 30;274(31):21746–54
Schistosoma mansoni Ca2+-ATPase SMA2 restores viability to yeast Ca2+-ATPase-deficient strains and functions in calcineurin-mediated Ca2+ tolerance. Talla E, et al. **J Biol Chem** 1998 Oct 23;273(43):27831–40
Cloning and characterization of Schistosoma mansoni fructose-1,6-bisphosphate aldolase isoenzyme. El-Dabaa E, et al. **J Parasitol** 1998 Oct;84(5):954–60
Biochemical characterization of cathepsin D from adult Schistosoma mansoni worms. Cesari IM, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:165–8
(Ca(2+)-Mg2+)ATPase in Schistosoma mansoni: evidence for heterogeneity and resistance to praziquantel. Cunha VM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:181–2
Lactate dehydrogenase: sequence and analysis of its expression during the life cycle of Schistosoma mansoni. Guerra-Sá R, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:205–6
Glutathione S-transferases of 28kDa as major vaccine candidates against schistosomiasis. Riveau G, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:87–94 (41 ref.)
Assay of Schistosoma mansoni calcineurin phosphatase activity and assessment of its role in parasite survival. Khattab A, et al. **Mol Biochem Parasitol** 1999 Apr 30; 99(2):269–73
Cloning and sequence analysis of a lysophospholipase homologue from Schistosoma mansoni. Hamdan FF, et al.
Parasitol Res 1998 Oct;84(10):839–42
Purification and partial characterization of kininogenase activity from Schistosoma mansoni adult worms. Carvalho WS, et al. **Parasitology** 1998 Oct;117 (Pt 4):311–9
Identification of a developmentally regulated Schistosoma mansoni serine protease homologous to mouse plasma kallikrein and human factor I. Cocude C, et al.
Parasitology 1999 Apr;118 (Pt 4):389–96
Dipeptidyl peptidase I and III activities of adult schistosomes. Hola-Jamriska L, et al. **Parasitology** 1999 Mar;118 (Pt

3):275–82

GENETICS

Expression of metalloproteinases (MMP-1, MMP-2, and MMP-9) and their inhibitors (TIMP-1 and TIMP-2) in schistosomal portal fibrosis. Gomez DE, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):9–13

Cloning of the SmSPO-1 gene preferentially expressed in sporocyst during the life cycle of the parasitic helminth Schistosoma mansoni1. Ram D, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):412–6

Characterization of a Schistosoma mansoni homologue of the gene encoding the breast basic conserved protein 1/L13 ribosomal protein. Franco GR, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug; 120(4):701–8

Full results of the genome-wide scan which localises a locus controlling the intensity of infection by Schistosoma mansoni on chromosome 5q31-q33. Marquet S, et al. **Eur J Hum Genet** 1999 Jan;7(1):88–97

Schistosoma mansoni: cloning and characterization of the Ras homologue. Kampkötter A, et al. **Exp Parasitol** 1999 Mar; 91(3):280–3

RXR-2, a member of the retinoid x receptor family in Schistosoma mansoni. Freebern WJ, et al. **Gene** 1999 Jun 11;233(1-2):33–8

Identification of a cDNA encoding a retinoid X receptor homologue from Schistosoma mansoni. Evidence for a role in female-specific gene expression. Freebern WJ, et al. **J Biol Chem** 1999 Feb 19;274(8):4577–85

Genetic diversity and recruitment pattern of Schistosoma mansoni in a Biomphalaria glabrata snail population: a field study using random-amplified polymorphic DNA markers. Sire C, et al. **J Parasitol** 1999 Jun;85(3):436–41

Identification of genes encoding Schistosoma mansoni antigens using an antigenic sequence tag strategy. Zouain CS, et al. **J Parasitol** 1998 Dec;84(6):1307–10

Characterization of an abundant Schistosoma mansoni transcript with no homologs in the databases. Meira WS, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:211–3

Sequencing and expression analysis of a Schistosoma mansoni gene homologue to a Drosophila gene involved in germ plasm assembly. Rabelo EM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:207–9

The tegument of Schistosoma mansoni: genes, antigens and the host-parasite relationship. Xavier EM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:85–6

Genomic instability in Schistosoma mansoni. Grevelding CG. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):207–16

Identification of NF-AT-like transcription factor in Schistosoma mansoni: its possible involvement in the antiparasitic action of cyclosporin A. Serra EC, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):33–41

SR2 elements, non-long terminal repeat retrotransposons of the RTE-1 lineage from the human blood fluke Schistosoma mansoni. Drew AC, et al. **Mol Biol Evol** 1999 Sep;16(9):1256–69

Mitochondrial genes of Schistosoma mansoni. Blair D, et al. **Parasitology** 1999 Sep;119 (Pt 3):303–13

Localization of mouse type 2 Alu sequence in schistosomes. Imase A, et al. **Parasitology** 1999 Sep;119 (Pt 3):315–21

The identification of markers segregating with resistance to Schistosoma mansoni infection in the snail Biomphalaria glabrata. Knight M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1510–5

Rapid characterization of S. mansoni expression library clones of potential interest. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov-Dec;39(6):355–7

GROWTH & DEVELOPMENT

Effects of Euphorbia milii latex on Schistosoma mansoni eggs, miracidia and cercariae. De-Carvalho RR, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:235–7

Lactate dehydrogenase: sequence and analysis of its expression during the life cycle of Schistosoma mansoni. Guerra-Sá R, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:205–6

Transcription levels of two actin genes (SmAct and SmAct2), cytochrome C oxidase subunit II (SmCOXII), triosephosphate isomerase (TPI), and a putative translation regulatory protein EIF-5 during the first seven days of in vitro development of Schistosoma mansoni schistosomula. Oliveira G, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:215–7

Human portal serum stimulates cell proliferation in immature Schistosoma mansoni. Shaker YM, et al. **Parasitology** 1998 Oct;117 (Pt 4):293–9

Continuous in vitro propagation and differentiation of cultures of the intramolluscan stages of the human parasite Schistosoma mansoni. Ivanchenko MG, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4965–70

IMMUNOLOGY

Schistosoma mansoni infection in owl monkeys (Aontus nancymai): evidence for the early elimination of adult worms. Noya O, et al. **Acta Trop** 1998 Jul 30;70(3):257–67

The initiation and function of Th2 responses during infection with Schistosoma mansoni. Pearce EJ, et al. **Adv Exp Med Biol** 1998;452:67–73 (30 ref.)

Effect of C-C chemokine receptor 2 (CCR2) knockout on type-2 (schistosomal antigen-elicited) pulmonary granuloma formation: analysis of cellular recruitment and cytokine responses. Warmington KS, et al. **Am J Pathol** 1999 May;154(5):1407–16

Formation of multinucleated giant cells in the mouse lung is promoted in the absence of interleukin-12. Anderson S, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):371–8

Seroepidemiology of schistosomiasis in Puerto Rico: evidence for vanishing endemicity. Hillyer GV, et al. **Am J Trop Med Hyg** 1999 May;60(5):827–30

Application of immunodiagnostic assays: detection of antibodies and circulating antigens in human schistosomiasis and correlation with clinical findings. Al-Sherbiny MM, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):960–6

Schistosomiasis mansoni: immunoblot analysis to diagnose and differentiate recent and chronic infection. Valli LC, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):302–7

Phenotype and cytokine profile of Schistosoma mansoni specific T cell lines and clones derived from schistosomiasis patients with distinct clinical forms. Contigli C, et al. **Clin Immunol** 1999 Jun;91(3):338–44

Selectin and Lewis(x) are required as co-receptors in antibody-dependent cell-mediated cytotoxicity of human eosinophils to Schistosoma mansoni schistosomula. Nutten S, et al. **Eur J Immunol** 1999 Mar;29(3):799–808

Localization by immunoelectron microscopy of Schistosoma mansoni antigens in the glomerulus of the hamster (Mesocricetus auratus) kidney. De Brito T, et al. **Exp Nephrol** 1998 Jul-Aug;6(4):368–76

Schistosoma mansoni: the circulating cathodic antigen forms an abundant product of 41/42 kDa in the urine of infected patients. Abdeen HH, et al. **Exp Parasitol** 1998 Nov; 90(3):286–9

Nitric oxide and IL-10 production induced by PIII--a fraction of Schistosoma mansoni adult worm antigenic preparation--associated with downregulation of in vitro granuloma formation. Oliveira DM, et al. **Hum Immunol** 1999 Apr;60(4):305–11

Characterization of Schistosoma mansoni specific human T-T hybrids. Contigli C, et al. **Hybridoma** 1998 Oct; 17(5):421–9

Inhibition of protein kinases prevents lymphocyte activation by Schistosoma mansoni antigens and reduces in vitro [correction of in vivo] granuloma reaction [published erratum appears in Immunol Lett 1999 Apr 1;67(2):155] Almeida CA, et al. **Immunol Lett** 1998 Jul;62(3):137–43

Immune responses to the radiation-attenuated schistosome vaccine: what can we learn from knock-out mice? Wilson RA, et al. **Immunol Lett** 1999 Jan;65(1-2):117–23 (31 ref.)

A novel 62-kilodalton egg antigen from Schistosoma mansoni induces a potent CD4(+) T helper cell response in the C57BL/6 mouse. Asahi H, et al. **Infect Immun** 1999 Apr; 67(4):1729–35

Single-dose mucosal immunization with biodegradable microparticles containing a Schistosoma mansoni antigen. Baras B, et al. **Infect Immun** 1999 May;67(5):2643–8

Intranasal administration of synthetic recombinant peptide-based vaccine protects mice from infection by Schistosoma mansoni. Ben-Yedidia T, et al. **Infect Immun** 1999 Sep;67(9):4360–6

Interleukin-12 as an adjuvant for an antischistosome vaccine consisting of adult worm antigens: protection of rats from cercarial challenge. Bungiro RD Jr, et al. **Infect Immun** 1999 May;67(5):2340–8

Egg laying is delayed but worm fecundity is normal in SCID mice infected with Schistosoma japonicum and S. mansoni with or without recombinant tumor necrosis factor alpha treatment. Cheever AW, et al. **Infect Immun** 1999 May; 67(5):2201–8

Polarization of the immune response to the single immunodominant epitope of p38, a major Schistosoma mansoni egg antigen, generates Th1- or Th2-type cytokines and granulomas. Chen Y, et al. **Infect Immun** 1999 Sep;67(9):4570–7

Isolation of T-cell antigens by using a recombinant protein library and its application to the identification of novel vaccine candidates against schistosomiasis. Eberl M, et al. **Infect Immun** 1999 Jul;67(7):3383–9

Development of antibody isotype responses to Schistosoma mansoni in an immunologically naive immigrant population: influence of infection duration, infection intensity, and host age. Naus CW, et al. **Infect Immun** 1999 Jul;67(7):3444–51

Role of adult worm antigen-specific immunoglobulin E in acquired immunity to Schistosoma mansoni infection in baboons. Nyindo M, et al. **Infect Immun** 1999 Feb; 67(2):636–42

The p47(phox-/-) mouse model of chronic granulomatous disease has normal granuloma formation and cytokine responses to Mycobacterium avium and Schistosoma mansoni eggs. Segal BH, et al. **Infect Immun** 1999 Apr; 67(4):1659–65

Proteosome delivery of a protective 9B-antigen against Schistosoma mansoni. Tarrab-Hazdai R, et al. **Int J Immunopharmacol** 1999 Mar;21(3):205–18

Production of monoclonal antibodies against target schistosomal antigen secreted in the urine of Schistosoma mansoni-infected patients. Shaker ZA, et al. **Int J Parasitol** 1998 Dec;28(12):1893–901

Liver tissue schistosomiasis mansoni vaccine, as a third generation livestock immunogenes. el-Bishlawy IM, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):789–95

Evaluation of specific immunoglobulin G avidity enzyme linked immunosorbent assay (IgG avidity ELISA) in diagnosis of early and chronic Schistosomiasis mansoni. el Zayyat EA, et al. **J Egypt Soc Parasitol** 1998 Dec; 28(3):739–52

Neonatal idiotypic exposure alters subsequent cytokine, pathology, and survival patterns in experimental Schistosoma mansoni infections. Montesano MA, et al. **J Exp Med** 1999 Feb 15;189(4):637–45

Tolerization of mice to Schistosoma mansoni egg antigens causes elevated type 1 and diminished type 2 cytokine responses and increased mortality in acute infection. Fallon PG, et al. **J Immunol** 1999 Apr 1;162(7):4122–32

Studies with double cytokine-deficient mice reveal that highly polarized Th1- and Th2-type cytokine and antibody responses contribute equally to vaccine-induced immunity to Schistosoma mansoni. Hoffmann KF, et al. **J Immunol** 1999 Jul 15;163(2):927–38

Optimal vaccination against Schistosoma mansoni requires the induction of both B cell- and IFN-gamma-dependent effector mechanisms. Jankovic D, et al. **J Immunol** 1999 Jan 1;162(1):345–51

T1/ST2 expression is enhanced on CD4+ T cells from schistosome egg-induced granulomas: analysis of Th cell cytokine coexpression ex vivo. Löhning M, et al. **J Immunol** 1999 Apr 1;162(7):3882–9

Neonatal exposure to idiotype induces Schistosoma mansoni egg antigen-specific cellular and humoral immune responses. Montesano MA, et al. **J Immunol** 1999 Jul 15; 163(2):898–905

Expression and participation of eotaxin during mycobacterial (type 1) and schistosomal (type 2) antigen-elicited granuloma formation. Ruth JH, et al. **J Immunol** 1998 Oct 15;161(8):4276–82

Intranasal administration of a Schistosoma mansoni glutathione S-transferase-cholera toxoid conjugate vaccine evokes antiparasitic and antipathological immunity in mice. Sun JB, et al. **J Immunol** 1999 Jul 15;163(2):1045–52

Pharmacological evidence supporting a role for IL-1, IL-2 and serotonin in the inflammation induced by Schistosoma mansoni Soluble Egg Antigen (SEA) in rat paws. Pacheco CM, et al. **Mediators Inflamm** 1998;7(4):261–7

IgM antibodies to Schistosoma mansoni gut-associated antigens for the study of schistosomiasis transmission in Ribeirão Pires, São Paulo. Camargo-Neves VL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:273–8

A comparative study on IgG-ELISA, IgM-IFT and Kato-Katz methods for epidemiological purposes in a low endemic area for schistosomiasis. da Silva RM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:279–82

Immunization with PIII, a fraction of Schistosoma mansoni soluble adult worm antigenic preparation, affects nitric oxide production by murine spleen cells. de Oliveira DM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:175–80

Protective immunity induced in mice by F8.1 and F8.2 antigens purified from Schistosoma mansoni eggs. Ferreira CC, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:185–9

IgE and IgG4 antibodies in subjects reinfected with Schistosoma mansoni in an endemic area of northeast Brazil. Gomes YM, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:183–4

Induction of protective immunity against Schistosoma mansoni infection by antigens purified from PIII, a fraction of adult worm, associated to the downregulation of granuloma formation. Gustavson S, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:191–6

Immunofluorescence test on Schistosoma mansoni worm paraffin sections (IgM-IFT) for the study of schistosomiasis transmission in Campinas, São Paulo, Brazil. Lima VL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:283–7

Circulating antigens levels in different clinical forms of the Schistosoma mansoni infection. Pereira e Silva Y, et al. **Mem Inst Oswaldo Cruz** 1999 Jan-Feb;94(1):83–6

The tegument of Schistosoma mansoni: genes, antigens and the host-parasite relationship. Xavier EM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:85–6

Molecular cloning and characterization of the polypeptide backbone of Schistosoma mansoni circulating cathodic antigen. Abdeen HH, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):149–59

Characterization of a stage-specific Mr16000 schistosomular surface glycoprotein antigen of Schistosoma mansoni. Bickle QD, et al. **Mol Biochem Parasitol** 1999 May 15; 100(1):85–94

Characterization of Sm20.8, a member of a family of schistosome tegumental antigens. Mohamed MM, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1-2):15–25

The Th1 to Th2 shift induced by Schistosoma mansoni does not exacerbate murine aids (MAIDS). Lacroix C, et al. **Parasite Immunol** 1998 Oct;20(10):497–501

Accelerated influx of dendritic cells into the lymph nodes draining skin sites exposed to attenuated cercariae of Schistosoma mansoni in guinea-pigs. Sato H, et al. **Parasite Immunol** 1998 Jul;20(7):337–43

Schistosomal granuloma modulation. I. Schistosoma mansoni worm antigens CAA and CCA prime egg-antigen-induced hepatic granuloma formation. Jacobs W, et al. **Parasitol Res** 1999 Jan;85(1):7–13

Periodate-sensitive immunological cross-reactivity between keyhole limpet haemocyanin (KLH) and serodiagnostic Schistosoma mansoni egg antigens. Hamilton JV, et al. **Parasitology** 1999 Jan;118 (Pt 1):83–9

Characterization, cloning and immunogenicity of antigens released by lung-stage larvae of Schistosoma mansoni. Harrop R, et al. **Parasitology** 1999 Jun;118 (Pt 6):583-94

Induction of immunity to Schistosoma mansoni: interaction of schistosomula with accessory leucocytes in murine skin and draining lymph nodes. Riengrojpitak S, et al. **Parasitology** 1998 Oct;117 (Pt 4):301-9

Failure of Schistosoma mansoni to reinfect Biomphalaria glabrata snails: acquired humoral resistance or intra-specific larval antagonism? Sire C, et al. **Parasitology** 1998 Aug;117 (Pt 2):117-22

Detection of IgM antibodies to Schistosoma mansoni gut-associated antigens for the study of the dynamics of schistosomiasis transmission in an endemic area with low worm burden. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul-Aug;40(4):225-31

A comparative epidemiologic study of specific antibodies (IgM and IgA) and parasitological findings in an endemic area of low transmission of schistosoma mansoni. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar-Apr; 40(2):85-91

Schistosoma mansoni: description of a potentially useful monoclonal antibody that recognizes soluble egg antigen (SEA). Nakhle MC, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov-Dec;39(6):353-4

Levels of circulating soluble egg antigen in urine of individuals infected with Schistosoma mansoni before and after treatment with praziquantel. Nibbeling HA, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):675-7

Serum circulating egg antigen levels in two areas endemic for Schistosoma mansoni. Nibbeling HA, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):350-4

Cellular immune responses of a Senegalese community recently exposed to Schistosoma mansoni: correlations of infection level with age and inflammatory cytokine production by soluble egg antigen-specific cells. Marguerite M, et al. **Trop Med Int Health** 1999 Aug; 4(8):530-43

Induction of a protective immunity against Schistosoma mansoni with ovalbumin-coupled Sm37-5 coadsorbed with granulocyte-macrophage colony stimulating factor (GM-CSF) or IL-12 on alum. Argiro L, et al. **Vaccine** 1999 Jan;17(1):13-8

Induction of resistance against Schistosoma mansoni infection by passive transfer of an IgG2a monoclonal antibody. Attallah AM, et al. **Vaccine** 1999 May 4;17(18):2306-10

Recombinant vaccinia viruses and gene gun vectors expressing the large subunit of Schistosoma mansoni calpain used in a murine immunization-challenge model. Hota-Mitchell S, et al. **Vaccine** 1999 Mar 17; 17(11-12):1338-54

ISOLATION & PURIFICATION

Immunochemical characterization and diagnostic potential of a 63-kilodalton Schistosoma antigen. Attallah AM, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):493-7

A polymerase chain reaction assay for detecting snails infected with bilharzia parasites (Schistosoma mansoni) from very early prepatency. Hamburger J, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):872-6

Emergence of Schistosoma mansoni infection in upper Egypt: the Giza governorate. Talaat M, et al. **Am J Trop Med Hyg** 1999 May;60(5):822-6

The use of a stereological method to estimate the volume of Schistosoma mansoni granulomas: the effect of zinc deficiency. Friis H, et al. **Ann Trop Med Parasitol** 1998 Oct;92(7):785-92

Rapid detection of a Schistosoma mansoni circulating antigen excreted in urine of infected individuals by using a monoclonal antibody. Attallah AM, et al. **J Clin Microbiol** 1999 Feb;37(2):354-7

Identification of a transmission focus of Schistosoma mansoni in the southernmost Brazilian State, Rio Grande do Sul. Graeff-Teixeira C, et al. **Mem Inst Oswaldo Cruz** 1999 Jan-Feb;94(1):9-10

Re-evaluation of schistosomiasis mansoni in Minas Gerais, Brazil. III. "Noroeste de Minas" mesoregion. Carvalho OS, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct; 40(5):277-9

Reversibility of Schistosoma mansoni-associated morbidity after yearly mass praziquantel therapy: ultrasonographic assessment. Boisier P, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):451-3

METABOLISM

Schistosoma TOR (trispanning orphan receptor), a novel, antigenic surface receptor of the blood-dwelling, Schistosoma parasite. Inal JM. **Biochim Biophys Acta** 1999 Jun 9;1445(3):283-98

Characterization of the Ras homologue of Schistosoma mansoni. Osman A, et al. **Mol Biochem Parasitol** 1999 May 15;100(1):27-41

Schistosoma mansoni sporocysts contain rhodoquinone and produce succinate by fumarate reduction. Van Hellemond JJ, et al. **Parasitology** 1997 Aug;115 (Pt 2):177-82

PARASITOLOGY

Schistosoma mansoni activates host microvascular endothelial cells to acquire an anti-inflammatory phenotype. Trottein F, et al. **Infect Immun** 1999 Jul; 67(7):3403-9

PATHOGENICITY

The role of corticosteroids in the treatment of cerebral schistosomiasis caused by Schistosoma mansoni: case report and discussion. Fowler R, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):47-50

Egg laying is delayed but worm fecundity is normal in SCID mice infected with Schistosoma japonicum and S. mansoni with or without recombinant tumor necrosis factor alpha treatment. Cheever AW, et al. **Infect Immun** 1999 May; 67(5):2201-8

Toxoplasma gondii and Schistosoma mansoni synergize to promote hepatocyte dysfunction associated with high levels of plasma TNF-alpha and early death in C57BL/6 mice. Marshall AJ, et al. **J Immunol** 1999 Aug 15;163(4):2089-97

Histopathologic features associated with susceptibility and resistance of Biomphalaria snails to infection with Schistosoma mansoni. Borges CM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:117-21

Partial lack of susceptibility to Schistosoma mansoni infection of Biomphalaria glabrata strains from Itanhomi (Minas Gerais, Brazil) after fourteen years of laboratory maintenance. Conceição MJ, et al. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):425-6

The identification of markers segregating with resistance to Schistosoma mansoni infection in the snail Biomphalaria glabrata. Knight M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1510-5

PHYSIOLOGY

Schistosoma mansoni: in vitro adhesion of parasite eggs to the vascular endothelium. Subsequent inhibition by a monoclonal antibody directed to a carbohydrate epitope. Lejoly-Boisseau H, et al. **Exp Parasitol** 1999 Jan;91(1):20-9

Infection of mice lacking interleukin-7 (IL-7) reveals an unexpected role for IL-7 in the development of the parasite Schistosoma mansoni. Wolowczuk I, et al. **Infect Immun** 1999 Aug;67(8):4183-90

Compatibility of Biomphalaria alexandrina, Biomphalaria glabrata and a hybrid of both to seven strains of Schistosoma mansoni from Egypt. Yousif F, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):863-81

Evidence for functional ryanodine receptors in Schistosoma mansoni and their putative role in the control of calcium homeostasis. Silva CL, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:269-70

Effect of bile salts on oviposition in vitro by Schistosoma mansoni. Badr SG, et al. **Parasitol Res** 1999 May; 85(5):421-3

Host choice by larval parasites: a study of Biomphalaria glabrata snails and Schistosoma mansoni miracidia related to host size. Théron A, et al. **Parasitol Res** 1998 Sep; 84(9):727-32

Studies on phospholipid turnover argue against sloughing of tegumental membranes in adult Schistosoma mansoni. Brouwers JF, et al. **Parasitology** 1999 Sep;119 (Pt 3):287-94

A vesicle preparation for resolving single-channel currents in tegument of male Schistosoma mansoni. Robertson AP, et al. **Parasitology** 1997 Aug;115 (Pt 2):183-92

Compatibility of Schistosoma mansoni and Biomphalaria pfeifferi in northern Senegal. Tchuenté LA, et al. **Parasitology** 1999 Jun;118 (Pt 6):595-603

RADIATION EFFECTS

Scanning electron microscopical studies on the tegument of adult worms of Schistosoma mansoni originating from ultraviolet-irradiated and non-irradiated cercariae. Mohamed SH. **J Helminthol** 1999 Jun;73(2):157-61

ULTRASTRUCTURE

Scanning electron microscopical studies on the tegument of adult worms of Schistosoma mansoni originating from ultraviolet-irradiated and non-irradiated cercariae. Mohamed SH. **J Helminthol** 1999 Jun;73(2):157-61

A vesicle preparation for resolving single-channel currents in tegument of male Schistosoma mansoni. Robertson AP, et al. **Parasitology** 1997 Aug;115 (Pt 2):183-92

SCHISTOSOMATIDAE

ISOLATION & PURIFICATION

Trichobilharzia regenti n. sp. (Schistosomatidae, Bilharziellinae), a new nasal schistosome from Europe. Horák P, et al. **Parasite** 1998 Dec;5(4):349-57

PHYSIOLOGY

Invasion of the vertebrate skin by cercariae of Trichobilharzia ocellata: penetration processes and stimulating host signals. Haas W, et al. **Parasitol Res** 1998 Oct;84(10):787-95

The suppressive excretory-secretory product of Trichobilharzia ocellata: a possible factor for determining compatibility in parasite-host interactions. Núñez PE, et al. **Parasitology** 1997 Aug;115 (Pt 2):193-203

SCHISTOSOMIASIS

see related

SCHISTOSOMICIDES

Proceedings of the 6th International Symposium on Schistosomiasis and the 6th National Meeting on Schistosomiasis. Belo Horizonte, MG, Brazil,19-24 October 1997. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:3-316

Key developments in travel medicine. Chiodini P, et al. **Practitioner** 1998 May;242(1586):342-4, 346 (2 ref.)

Schistosomial arthritis. A case-report [letter] Rolland Y, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):597-8

[Pulmonary manifestations of schistosomiasis] Klotz F, et al. **Rev Pneumol Clin** 1998 Dec;54(6):353-8 (Eng. Abstr.) **(Fre)**

[Schistosomiasis] Kojima S. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):156-8 (2 ref.) **(Jpn)**

[Schistosomiasis (intestinal, hepatic, urinary tract)] Ohnishi K. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):481-4 (4 ref.) **(Jpn)**

COMPLICATIONS

Alterations affecting the p53 control pathway in bilharzial-related bladder cancer. Osman I, et al. **Clin Cancer Res** 1997 Apr;3(4):531-6

Expression of cyclin D1, but not cyclins E and A, is related to progression in bilharzial bladder cancer. Osman I, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2247-51

Relationship between schistosomiasis and bladder cancer. Mostafa MH, et al. **Clin Microbiol Rev** 1999 Jan; 12(1):97-111 (237 ref.)

Impact of hepatitis C virus infection on schistosomal liver disease. Mohamed A, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1492-6

Late clinical, biochemical, endoscopic and electroencephalographic evaluation of patients with schistosomal portal hypertension treated with distal splenorenal shunt. Lopes Filho G de J, et al. **Int Surg** 1998 Jan-Mar;83(1):42-7

High prevalence of GB-C/hepatitis G virus in a Brazilian population with helminth infection. Gallian P, et al. **J Med Virol** 1998 Dec;56(4):310-5

Schistosomiasis and associated infections. Lambertucci JR, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:135-9 (49 ref.)

DIAGNOSIS

Schistosomiasis of the urinary bladder. Répássy DL, et al. **Acta Chir Hung** 1998;37(3-4):263-70

Self-diagnosis as a possible basis for treating urinary schistosomiasis: a study of schoolchildren in a rural area of the United Republic of Tanzania. Partnership for Child Development. **Bull World Health Organ** 1999;77(6):477-83

Questionnaire approach to diagnosis in developing countries. Barreto ML. **Lancet** 1998 Oct 10;352(9135):1164-5

IgM antibodies to Schistosoma mansoni gut-associated antigens for the study of schistosomiasis transmission in Ribeirão Pires, São Paulo. Camargo-Neves VL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:273-8

Use of synthetic peptides derived from adult worm proteins of Schistosoma mansoni, in the diagnosis of schistosomiasis. Noya O, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:157-8

Abdominal pain and eosinophilia in a ten-year-old boy. Abuhammour WM, et al. **Pediatr Infect Dis J** 1999 Jun; 18(6):556, 572-3

Evaluation of dipsticks in Schistosoma haematobium infections in four villages in the middle valley of the Senegal River Basin, Senegal. Shaw DJ, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):634-5

[Family infected bathing in Malawi lake (letter)] Nicolas X, et al. **Med Trop (Mars)** 1998;58(4):414-5 **(Fre)**

[Hepatic schistosomiasis: diagnostic difficulties in a non endemic area] Fernandes N, et al. **Acta Med Port** 1998 Oct;11(10):927-31 (Eng. Abstr.) **(Por)**

[Personal experience in the diagnosis of schistosomiasis] Maksimović M, et al. **Vojnosanit Pregl** 1998 Sep-Oct;55(5 Suppl):53-7 **(Scc)**

DRUG THERAPY

The role of corticosteroids in the treatment of cerebral schistosomiasis caused by Schistosoma mansoni: case report and discussion. Fowler R, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):47-50

Double-blind placebo-controlled study of concurrent administration of albendazole and praziquantel in schoolchildren with schistosomiasis and geohelminths. Olds GR, et al. **J Infect Dis** 1999 Apr;179(4):996-1003

The dynamics of a soluble egg antigen of Schistosoma haematobium in relation to egg counts, circulating anodic and cathodic antigens and pathology markers before and after chemotherapy. Kahama AI, et al. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):629-33

Community-wide treatment of schistosomiasis with praziquantel. Webbe G. **Trop Doct** 1999 Jul;29(3):172-6 (28 ref.)

ECONOMICS

Eradication of schistosomiasis in Guangxi, China. Part 2: Political economy, management strategy and costs, 1953-92. Sleigh A, et al. **Bull World Health Organ** 1998; 76(5):497-508

Economic evaluation in schistosomiasis: valuation of health states preferences. A research note. Kirigia JM.

Health Econ 1998 Sep;7(6):551–6
Different approaches to modelling the cost–effectiveness of schistosomiasis control. Guyatt H.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:75–84 (14 ref.)

EPIDEMIOLOGY

Geographic information systems and the environmental risk of schistosomiasis in Bahia, Brazil. Bavia ME, et al.
Am J Trop Med Hyg 1999 Apr;60(4):566–72
Outbreak of acute schistosomiasis among Israeli rafters on the Omo River in Ethiopia [letter] Bisharat N, et al.
Am J Trop Med Hyg 1998 Oct;59(4):504
Age–specific decrease in seroprevalence of schistosomiasis in Puerto Rico. Hillyer GV, et al.
Am J Trop Med Hyg 1999 Feb;60(2):313–8
Eradication of schistosomiasis in Guangxi, China. Part 1: Setting, strategies, operations, and outcomes, 1953–92. Sleigh A, et al. **Bull World Health Organ** 1998;76(4):361–72
The last fifteen years of schistosomiasis in Venezuela: features and evolution. Alarcón de Noya B, et al.
Mem Inst Oswaldo Cruz 1999 Mar–Apr;94(2):139–46
The situation of hepatosplenic schistosomiasis in Brazil today. Andrade ZA. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:313–6
Can prevalence of infection in school–aged children be used as an index for assessing community prevalence? Guyatt HL, et al. **Parasitology** 1999 Mar;118 (Pt 3):257–68
Malaria, schistosomiasis, and intestinal helminths in relation to microdams in Tigray, northern Ethiopia. Alemayehu T, et al. **Parassitologia** 1998 Sep;40(3):259–67
The use of morbidity questionnaires to identify communities with high prevalences of schistosome or geohelminth infections in Tanzania. Booth M, et al.
Trans R Soc Trop Med Hyg 1998 Sep–Oct;92(5):484–90
The population biology and epidemiology of schistosome and geohelminth infections among schoolchildren in Tanzania. Booth M, et al. **Trans R Soc Trop Med Hyg** 1998 Sep–Oct; 92(5):491–5
Comparisons of schistosome and geohelminth infection prevalences in school–aged children from selected areas of Africa: implications for rapid assessment and combined control. Brooker S, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):125–6
[Schistosomiasis in the region of Ziga (Burkina Faso) before the construction of a dam] Garba A, et al.
Bull Soc Pathol Exot 1999 Jul;92(3):195–7 (Eng. Abstr.) **(Fre)**
[The prevalence of schistosomiasis in Togo. A cross–sectional study conducted in a school setting] Agbo K, et al.
Med Trop (Mars) 1999;59(1):51–4 (Eng. Abstr.) **(Fre)**
[Malacologic–schistosomal study of the refugee camps on the Plain of Ruzizi in the Democratic Republic of the Congo] Baluku B, et al. **Med Trop (Mars)** 1999;59(1):39–42 (Eng. Abstr.) **(Fre)**
[The Center for Research on Meningitis and Schistosomiasis (CERMES), Naimey, Niger] Chippaux JP.
Med Trop (Mars) 1998;58(2):199–203 (Eng. Abstr.) **(Fre)**
[Travel medicine and epidemiologic monitoring: the example of schistosomiasis (editorial)] Corachan M.
Med Trop (Mars) 1998;58(4):345–6 **(Fre)**
[Evolution of schistosomiasis endemicity in the Zona da Mata Sul, Pernambuco State, Brazil. Epidemiology and current situation: under control or out of control?] de Carvalho EM, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):787–95 (Eng. Abstr.) **(Por)**

GENETICS

Alterations affecting the p53 control pathway in bilharzial–related bladder cancer. Osman I, et al.
Clin Cancer Res 1997 Apr;3(4):531–6
Full results of the genome–wide scan which localises a locus controlling the intensity of infection by Schistosoma mansoni on chromosome 5q31–q33. Marquet S, et al.
Eur J Hum Genet 1999 Jan;7(1):88–97

IMMUNOLOGY

Immunological aspects of human schistosomiasis. Butterworth AE. **Br Med Bull** 1998;54(2):357–68 (40 ref.)
Characterization of Schistosoma mansoni specific human T–T hybrids. Contigli C, et al. **Hybridoma** 1998 Oct; 17(5):421–9
Down modulation of MHC surface molecules on B cells by suppressive immune complexes obtained from chronic intestinal schistosomiasis patients. Rezende SA, et al.
Immunol Lett 1998 Jun;62(2):67–73
Extramedullar B lymphopoiesis in liver schistosomal granulomas: presence of the early stages and inhibition of the full B cell differentiation. Rossi MI, et al.
Int Immunol 1999 Apr;11(4):509–18
Cell mediated immune response in chronic liver diseases: schistosomal, viral and neoplastic. Wahib AA, et al.
J Egypt Soc Parasitol 1998 Dec;28(3):929–39
Acquired immunity of a schistosomiasis transmission model––analysis of the stabilizing effects. Yang HM, et al.
J Theor Biol 1999 Feb 21;196(4):473–82
The spleen is an important site of T cell activation during human hepatosplenic schistosomiasis. Martins Filho OA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:159–64
The stabilizing effects of the acquired immunity on the schistosomiasis transmission modeling––the sensitivity analysis. Yang HM, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:63–73
Cross reacting antibodies against keyhole limpet haemocyanin may interfere with the diagnostics of acute schistosomiasis. Thors C, et al. **Parasite Immunol** 1998 Oct; 20(10):489–96
Mice deficient for 5–lipoxygenase, but not leukocyte–type 12–lipoxygenase, display altered immune responses during infection with Schistosoma mansoni. Secor WE, et al.
Prostaglandins Other Lipid Mediat 1998 Aug; 56(5–6):291–304

METABOLISM

No evidence of an impaired nutritional status in the early stage of schistosomiasis [letter] De Lorenzo A, et al.
Ital J Gastroenterol Hepatol 1999 Apr;31(3):264
Evidence for nitric oxide action on in vitro granuloma formation through pivotal changes in MIP–1alpha and IL–10 release in human schistosomiasis. Oliveira DM, et al. **Nitric Oxide** 1999;3(2):162–71

PARASITOLOGY

Incrimination of Schistosoma spindale as a causative agent of farmer's dermatitis in Assam with a note on liver pathology in mice. Narain K, et al. **J Commun Dis** 1998 Mar;30(1):1–6
Studies on phospholipid turnover argue against sloughing of tegumental membranes in adult Schistosoma mansoni. Brouwers JF, et al. **Parasitology** 1999 Sep;119 (Pt 3):287–94
An immunohistological study of phenotypic characteristics of cells of the inflammatory response in the intestine of Schistosoma bovis–infected goats. Lindberg R, et al.
Parasitology 1999 Jan;118 (Pt 1):91–9

PATHOLOGY

Expression of cyclin D1, but not cyclins E and A, is related to progression in bilharzial bladder cancer. Osman I, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2247–51
Myofibroblasts in schistosomal portal fibrosis of man. Andrade ZA, et al. **Mem Inst Oswaldo Cruz** 1999 Jan–Feb; 94(1):87–93
An immunohistological study of phenotypic characteristics of cells of the inflammatory response in the intestine of Schistosoma bovis–infected goats. Lindberg R, et al.
Parasitology 1999 Jan;118 (Pt 1):91–9

PHYSIOPATHOLOGY

Assessment of liver function by the MEGX test in patients with schistosomiasis and cirrhosis. El Desoky ES, et al.
Clin Biochem 1999 Apr;32(3):207–12
Urinary bladder bilharziasis as a cause of impaired bladder muscle contractility. Ghobish A, et al.
Neurourol Urodyn 1998;17(5):483–92
[Angiographic study of the hepatic venous system with pressure gradient: basic evaluation or superfluous imposition (editorial)] D'Albuquerque LA, et al.
Arq Gastroenterol 1998 Jul–Sep;35(3):153–6 **(Por)**
[Angiographic aspects of the hepatic veins in portal hypertension in schistosomiasis. The importance in assessing the hepatic vein pressure] Widman A, et al.
Arq Gastroenterol 1998 Jul–Sep;35(3):157–63 (Eng. Abstr.) **(Por)**

PREVENTION & CONTROL

Proposed standardization of assessment protocols for plant molluscicides for use in self–help control programmes. Brackenbury TD. **Ann Trop Med Parasitol** 1998 Oct; 92(7):803–16
Schistosomiasis. Colley DG, et al.
Bull World Health Organ 1998;76 Suppl 2:150–1
Eradication of schistosomiasis in Guangxi, China. Part 3. Community diagnosis of the worst–affected areas and maintenance strategies for the future. Sleigh A, et al.
Bull World Health Organ 1998;76(6):581–90
Eradication of schistosomiasis in Guangxi, China. Part 2: Political economy, management strategy and costs, 1953–92. Sleigh A, et al. **Bull World Health Organ** 1998; 76(5):497–508
Eradication of schistosomiasis in Guangxi, China. Part 1: Setting, strategies, operations, and outcomes, 1953–92. Sleigh A, et al. **Bull World Health Organ** 1998;76(4):361–72
Questionnaire approach to diagnosis in developing countries. Barreto ML. **Lancet** 1998 Oct 10;352(9135):1164–5
Epidemiology and anthropology: an integrated approach dealing with bio–socio–cultural aspects as strategy for the control of endemic diseases. Barbosa CS.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:59–62
Schistosomiasis vaccine development: progress and prospects. Bergquist NR. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:95–101 (30 ref.)
Different approaches to modelling the cost–effectiveness of schistosomiasis control. Guyatt H.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:75–84 (14 ref.)
Schistosomiasis control in Brazil. Katz N.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:33–5
Schistosomiasis control based on repeated chemotherapy in a rural village of the sugar–cane zone in northeast Brazil. Pieri OS, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:259–64
Glutathione S–transferases of 28kDa as major vaccine candidates against schistosomiasis. Riveau G, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:87–94 (41 ref.)
Egg–hatching inhibition in mice immunized with recombinant Schistosoma bovis 28 kDa glutathione S–transferase. Da Costa AV, et al. **Parasite Immunol** 1999 Jul;21(7):341–50
Community–wide treatment of schistosomiasis with praziquantel. Webbe G. **Trop Doct** 1999 Jul;29(3):172–6 (28 ref.)
A school–based schistosomiasis and intestinal helminthiasis control programme in Nigeria: acceptability to community members. Nwaorgu OC, et al. **Trop Med Int Health** 1998 Oct;3(10):842–9
Recombinant vaccinia viruses and gene gun vectors expressing the large subunit of Schistosoma mansoni calpain used in a murine immunization–challenge model. Hota–Mitchell S, et al. **Vaccine** 1999 Mar 17; 17(11–12):1338–54

PSYCHOLOGY

Economic evaluation in schistosomiasis: valuation of health states preferences. A research note. Kirigia JM.
Health Econ 1998 Sep;7(6):551–6

TRANSMISSION

The impact of the local water–development programme on the abundance of the intermediate hosts of schistosomiasis in three villages of the Senegal River delta. Ernould JC, et al. **Ann Trop Med Parasitol** 1999 Mar;93(2):135–45
Epidemiological study on the transmission of schistosomiasis in Saudi Arabia (western region). Ghandour AM, et al.
Ann Trop Med Parasitol 1999 Mar;93(2):193–5
Population dynamics of and larval trematode interactions with Lymnaea tomentosa and the potential for biological control of schistosome dermatitis in Bremner Bay, Lake Wanaka, New Zealand. Davis NE. **J Helminthol** 1998 Dec; 72(4):319–24
Acquired immunity of a schistosomiasis transmission model––analysis of the stabilizing effects. Yang HM, et al.
J Theor Biol 1999 Feb 21;196(4):473–82
IgM antibodies to Schistosoma mansoni gut–associated antigens for the study of schistosomiasis transmission in Ribeirão Pires, São Paulo. Camargo–Neves VL, et al.
Mem Inst Oswaldo Cruz 1998;93 Suppl 1:273–8
Microgeographical patterns of schistosomiasis and water contact behavior; examples from Africa and Brazil. Kloos H, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:37–50
The stabilizing effects of the acquired immunity on the schistosomiasis transmission modeling––the sensitivity analysis. Yang HM, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:63–73
Heterogeneities in schistosome transmission dynamics and control. Woolhouse ME, et al. **Parasitology** 1998 Nov;117 (Pt 5):475–82
[Monthly variations in the level of infestation and the potential for transmission of Biomphalaria pfeifferi in 2 aquatic systems in Lwiro, Democratic Republic of Congo] Bagalwa M, et al. **Med Trop (Mars)** 1998;58(4):372–4 (Eng. Abstr.) **(Fre)**

ULTRASONOGRAPHY

Ultrasonography of the liver and spleen in Brazilian patients with hepatosplenic schistosomiasis and cirrhosis. Pereira LM, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec; 92(6):639–42

URINE

Levels of circulating soluble egg antigen in urine of individuals infected with Schistosoma mansoni before and after treatment with praziquantel. Nibbeling HA, et al.
Trans R Soc Trop Med Hyg 1998 Nov–Dec;92(6):675–7

VETERINARY

Schistosoma bovis: vaccine effects of a recombinant homologous glutathione S–transferase in sheep. Boulanger D, et al. **Int J Parasitol** 1999 Mar;29(3):415–8
A pathological study of experimental long–standing Schistosoma bovis infection in sheep. Ferreras–Estrada MC, et al. **J Comp Pathol** 1998 Nov;119(4):479–84
The oral route as a potential way of transmission of Schistosoma bovis in goats. Boulanger D, et al.
J Parasitol 1999 Jun;85(3):464–7
Humoral immune response and antigenemia in sheep experimentally infected with Schistosoma bovis. Cross–reactivity with Fasciola hepatica antigens. Rodriguez–Osorio M, et al. **J Parasitol** 1999 Jun; 85(3):585–7
A fatty acid binding protein from Fasciola hepatica induced protection in C57/BL mice from challenge infection with Schistosoma bovis. Abán JL, et al. **Vet Parasitol** 1999 Jun 15;83(2):107–21

SCHISTOSOMIASIS HAEMATOBIA

COMPLICATIONS

Morbidity induced by Schistosoma haematobium infections, as assessed by ultrasound before and after treatment with praziquantel, in a recently expanded focus (Senegal River basin). Delegue P, et al. **Ann Trop Med Parasitol** 1998 Oct; 92(7):775–83

SCHISTOSOMIASIS HAEMATOBIA

Schistosomiasis of the uterine cervix. Rand RJ, et al. **Br J Obstet Gynaecol** 1998 Dec;105(12):1329–31

Biomonitoring of n–nitroso compounds, nitrite and nitrate in the urine of Egyptian bladder cancer patients with or without Schistosoma haematobium infection. Abdel Mohsen MA, et al. **Int J Cancer** 1999 Sep 9;82(6):789–94

Partial allelotype of schistosomiasis–associated bladder cancer. Shaw ME, et al. **Int J Cancer** 1999 Mar 1; 80(5):656–61

Schistosomiasis presenting as acute appendicitis in a traveler. Weber G, et al. **J Travel Med** 1998 Sep;5(3):147–8

A case of mixed infection with Schistosoma haematobium and Trichinella sp. Kusuhara Y, et al. **Kansenshogaku Zasshi** 1999 Jun;73(6):614–7

Colon polyps in Schistosoma haematobium schistosomiasis. Chassot CA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:289–91

The Sudanese immigrant with recurrent gross haematuria—diagnosis at a glance by examination of the urine sediment. Colucci P, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2247–9

[Prevalence of uro–nephrologic complications of urinary bilharziasis in hyperendemic focus in Madagascar] Rasendramino MH, et al. **Nephrologie** 1998;19(6):341–5 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

Immunochemical characterization and diagnostic potential of a 63–kilodalton Schistosoma antigen. Attallah AM, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):493–7

Application of immunodiagnostic assays: detection of antibodies and circulating antigens in human schistosomiasis and correlation with clinical findings. Al–Sherbiny MM, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):960–6

The clinical value of CYFRA21–1 in bladder cancer patients: Egyptian experience. el–Ahmady O, et al. **Anticancer Res** 1999 Jul–Aug;19(4A):2603–8

A cost effective two step rapid diagnosis of urinary schistosomiasis in Zimbabwe. Ndamba J, et al. **Cent Afr J Med** 1998 Jul;44(7):167–71

Photo quiz. Schistosoma haematobium. Gould JM, et al. **Clin Infect Dis** 1999 May;28(5):987, 1155

The Sudanese immigrant with recurrent gross haematuria—diagnosis at a glance by examination of the urine sediment. Colucci P, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2247–9

Parasite–induced bladder pathology [letter; comment] Vester U. **Pediatr Nephrol** 1999 May;13(4):369. Comment on: Pediatr Nephrol 1998 Apr;12(3):257–8.

Leucocyte migration inhibitory factor assay in Nigerians with urinary schistosomiasis. Arinola OG, et al. **West Afr J Med** 1999 Apr–Jun;18(2):101–5

[Case for diagnosis. Ectopic cutaneous schistosomiasis] Clyti E, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):737–8 **(Fre)**

[Vulvar lesion in urogenital schistosomiasis (S. haematobium)] Blum J, et al. **Z Geburtshilfe Neonatol** 1998 Nov–Dec;202(6):255–7 (Eng. Abstr.) **(Ger)**

[Bilharziasis and bladder cancer. A case report] Alvarez Kindelan J, et al. **Actas Urol Esp** 1999 Jan;23(1):60–3 (9 ref.) (Eng. Abstr.) **(Spa)**

[Vesical bilharziasis. A report of a new case] Soler Soler JL, et al. **Arch Esp Urol** 1998 Nov;51(9):937–41 (15 ref.) (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Increase of intestinal schistosomiasis after praziquantel treatment in a Schistosoma haematobium and Schistosoma mansoni mixed focus. Ernould JC, et al. **Acta Trop** 1999 Jul 30;73(2):143–52

Evolution of Schistosoma haematobium–related pathology over 24 months after treatment with praziquantel among school children in southeastern Tanzania. Hatz CF, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):775–81

Urine circulating soluble egg antigen in relation to egg counts, hematuria, and urinary tract pathology before and after treatment in children infected with Schistosoma haematobium in Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):215–9

Long–term suppression of adult bladder morbidity and severe hydronephrosis following selective population chemotherapy for Schistosoma haematobium. Subramanian AK, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):476–81

A mass chemotherapy trial of praziquantel on Schistosoma haematobium endemicity in Upper Egypt. Talaat M, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):546–50

Resolution and resurgence of schistosoma haematobium–induced pathology after community–based chemotherapy in ghana, as detected by ultrasound. Wagatsuma Y, et al. **J Infect Dis** 1999 Jun;179(6):1515–22

Predicting the impact of school–based treatment for urinary schistosomiasis given by the Ghana Partnership for Child Development. Chan MS, et al. **Trans R Soc Trop Med Hyg** 1998 Jul–Aug;92(4):386–9

The effect of different treatment regimens on the epidemiology of seasonally transmitted Schistosoma haematobium infections in four villages in the Senegal River Basin, Senegal. Shaw DJ, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):142–50

Parameters associated with Schistosoma haematobium infection before and after chemotherapy in school children from two villages in the coast province of Kenya. Kahama AI, et al. **Trop Med Int Health** 1999 May;4(5):335–40

[Effect of praziquantel on the uro–nephrologic complications of urinary bilharziasis] Rasendramino MH, et al. **Nephrologie** 1998;19(6):347–51 (Eng. Abstr.) **(Fre)**

EPIDEMIOLOGY

Schistosoma haematobium infection in Abeokuta. Mafiana CF, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):5–7

Schistosomiasis in newly reclaimed areas in Egypt. 1–distribution and population seasonal fluctuation of intermediate host snails. Yousif F, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):915–28

New sites of Bulinus truncatus and indigenous cases of urinary schistosomiasis in Jordan. Arbaji A, et al. **Parasite** 1998 Dec;5(4):379–82

A comparison of re–infection rates with Schistosoma haematobium following chemotherapy in areas with high and low levels of infection. Mutapi F, et al. **Parasite Immunol** 1999 May;21(5):253–9

The effect of different treatment regimens on the epidemiology of seasonally transmitted Schistosoma haematobium infections in four villages in the Senegal River Basin, Senegal. Shaw DJ, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):142–50

Schistosomiasis in northern Mozambique. Traquinho GA, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):279–81

The epidemiology of a recent focus of mixed Schistosoma haematobium and Schistosoma mansoni infections around the 'Lac de Guiers' in the Senegal River Basin, Senegal. De Clercq D, et al. **Trop Med Int Health** 1999 Aug; 4(8):544–50

Parameters associated with Schistosoma haematobium infection before and after chemotherapy in school children from two villages in the coast province of Kenya. Kahama AI, et al. **Trop Med Int Health** 1999 May;4(5):335–40

Urinary schistosomiasis among schoolchildren in Ibadan, an urban community in south–western Nigeria. Okoli EI, et al. **Trop Med Int Health** 1999 Apr;4(4):308–15

[Schistosomiasis risk in the region of the dam of Bagre, Burkina Faso (letter)] Campagne G, et al. **Med Trop (Mars)** 1998;58(4):415–6 **(Fre)**

[Use of a questionnaire for quick identification of the principal foci of urinary bilharziasis in central Ivory Coast] N'Goran EK, et al. **Med Trop (Mars)** 1998;58(3):253–60 (Eng. Abstr.) **(Fre)**

[Geographic approach to urinary schistosomiasis in an average African town, Daloa (Ivory Coast)] Cadot E, et al. **Sante** 1998 Nov–Dec;8(6):447–53 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Urinary schistosomiasis among school children in Nigeria: consequences of indigenous beliefs and water contact activities. Amazigo UO, et al. **J Biosoc Sci** 1997 Jan; 29(1):9–18

GENETICS

Partial allelotype of schistosomiasis–associated bladder cancer. Shaw ME, et al. **Int J Cancer** 1999 Mar 1; 80(5):656–61

IMMUNOLOGY

Common features of T cell reactivity in persistent helminth infections: lymphatic filariasis and schistosomiasis. Yazdanbakhsh M. **Immunol Lett** 1999 Jan;65(1–2):109–15 (35 ref.)

Helminth– and Bacillus Calmette–Guérin–induced immunity in children sensitized in utero to filariasis and schistosomiasis. Malhotra I, et al. **J Immunol** 1999 Jun 1; 162(11):6843–8

The effect of anti–IL–10 on proliferation and cytokine production in human schistosomiasis: fresh versus cryopreserved cells. Grogan JL, et al. **Parasite Immunol** 1998 Jul;20(7):345–9

Murine immune responses to Schistosoma haematobium and the vaccine candidate rSh28GST. Lane A, et al. **Parasite Immunol** 1998 Aug;20(8):359–67

Changes in specific anti–egg antibody levels following treatment with praziquantel for Schistosoma haematobium infection in children. Mutapi F, et al. **Parasite Immunol** 1998 Dec;20(12):595–600

Leucocyte migration inhibitory factor assay in Nigerians with urinary schistosomiasis. Arinola OG, et al. **West Afr J Med** 1999 Apr–Jun;18(2):101–5

METABOLISM

Eosinophils, eosinophil cationic protein and eosinophil–derived neurotoxin in serum and urine of patients with onchocerciasis coinfected with intestinal nematodes and in urinary schistosomiasis. Tischendorf FW, et al. **Acta Trop** 1999 Mar 15;72(2):157–73

PARASITOLOGY

Detection and quantification of soluble egg antigen in urine of Schistosoma haematobium–infected children from Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1998 Nov; 59(5):769–74

Schistosomiasis of the lower reproductive tract without egg excretion in urine. Poggensee G, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):782–3

[Schistosomiasis of the female genital tract: anatomoclinical and histopathological aspects. Apropos of 26 cases] Nouhou H, et al. **Bull Soc Pathol Exot** 1998;91(3):221–3 (Eng. Abstr.) **(Fre)**

[Bilharziosis (schistosomiasis) of the bladder. Pathogenesis, therapy and uroprotective measures] Feil G, et al. **Med Monatsschr Pharm** 1999 Jan;22(1):14–8 (25 ref.) **(Ger)**

PATHOLOGY

Evolution of Schistosoma haematobium–related pathology over 24 months after treatment with praziquantel among school children in southeastern Tanzania. Hatz CF, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):775–81

Schistosomiasis haematobium as a cause of vulvar hypertrophy. Laven JS, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Aug;79(2):213–6

Morphometrical and immunopathological dissection of the hepatic Schistosoma haematobium granuloma in the murine host. Jacobs W, et al. **Parasite** 1998 Dec;5(4):299–306

PREVENTION & CONTROL

Measurement of public health importance of schistosomiasis: problems and prospects [letter] Ofoezie IE. **Acta Trop** 1998 Aug 15;71(1):91–2

Is an anti–Schistosoma haematobium vaccine necessary? El Ridi R, et al. **Int J Parasitol** 1999 Apr;29(4):651–3

Developing strategies to control schistosomiasis morbidity in nonenrolled school–age children: experience from Egypt. Talaat M, et al. **Trop Med Int Health** 1999 Aug; 4(8):551–6

PSYCHOLOGY

The relationship between Schistosoma haematobium infection and school performance and attendance in Bamako, Mali. de Clercq D, et al. **Ann Trop Med Parasitol** 1998 Dec;92(8):851–8

THERAPY

Therapeutic and operational profiles of metrifonate and praziquantel in Schistosoma haematobium infection. Feldmeier H, et al. **Arzneimittelforschung** 1999 Jul; 49(7):557–65 (81 ref.)

ULTRASONOGRAPHY

Ultrasonographic urinary tract abnormalities in Schistosoma haematobium infection. Salah MA, et al. **Int Urol Nephrol** 1999;31(2):163–72

Resolution and resurgence of schistosoma haematobium–induced pathology after community–based chemotherapy in ghana, as detected by ultrasound. Wagatsuma Y, et al. **J Infect Dis** 1999 Jun;179(6):1515–22

URINE

Schistosoma haematobium infection in Abeokuta. Mafiana CF, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):5–7

Diagnostic value of a miracidium in urinary sediment. Procop GW, et al. **Diagn Cytopathol** 1999 Jan;20(1):34–7

Biomonitoring of n–nitroso compounds, nitrite and nitrate in the urine of Egyptian bladder cancer patients with or without Schistosoma haematobium infection. Abdel Mohsen MA, et al. **Int J Cancer** 1999 Sep 9;82(6):789–94

SCHISTOSOMIASIS, INTESTINAL see **SCHISTOSOMIASIS MANSONI**

SCHISTOSOMIASIS JAPONICA

[Cerebral schistosomiasis] Hayashi M. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):477–80 (14 ref.) **(Jpn)**

COMPLICATIONS

Epidemiologic study of the relationship between schistosomiasis due to Schistosoma japonicum and liver cancer/cirrhosis. Takemura Y, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):551–6

Chronic Japanese schistosomiasis and hepatocellular carcinoma: ten years of follow–up in Yamanashi Prefecture, Japan. Iida F, et al. **Bull World Health Organ** 1999; 77(7):573–81

p53 gene mutations in rectal cancer associated with schistosomiasis japonica in Chinese patients. Zhang R, et al. **Cancer Lett** 1998 Sep 25;131(2):215–21

Hepatic calcification by sequelae of chronic schistosomiasis japonica: report of four cases. Pan KT, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Jun;22(2):265–70

Peanut lectin–binding sites and mucins in benign and malignant colorectal tissues associated with schistomatosis. Lin M, et al. **Histol Histopathol** 1998 Oct;13(4):961–6

HLA–DR–DQ alleles and HLA–DP alleles are independently associated with susceptibility to different stages of post–schistosomal hepatic fibrosis in the Chinese population. Hirayama K, et al. **Tissue Antigens** 1999 Mar; 53(3):269–74

CONGENITAL

Congenital transmission of Schistosoma japonicum in pigs. Willingham AL 3rd, et al. **Am J Trop Med Hyg** 1999 Feb; 60(2):311–2

DIAGNOSIS

Hepatosplenic morbidity in schistosomiasis japonica: evaluation with Doppler sonography. Kardorff R, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):954–9

Diagnosis of schistosomiasis japonica in Chinese schoolchildren by administration of a questionnaire. Zhou H, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun; 92(3):245–50

DRUG THERAPY

Evidence for an improvement in cognitive function following treatment of Schistosoma japonicum infection in Chinese primary schoolchildren. Nokes C, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):556–65

Microscopic observations on livers of rabbits and dogs infected with Schistosoma japonicum cercariae and early treatment with artemether or praziquantel. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):167–70

EPIDEMIOLOGY

Antibody isotype responses, infection and re-infection for Schistosoma japonicum in a marshland area of China. Li YS, et al. **Acta Trop** 1999 Jul 30;73(2):79–92

Epidemiological identification of Chinese individuals putatively susceptible or insusceptible to Schistosoma japonicum: a prelude to immunogenetic study of human resistance to Asian schistosomiasis. Ross AG, et al. **Ann Trop Med Parasitol** 1998 Oct;92(7):765–74

Epidemiology and eradication of Schistosomiasis japonica in Japan. Ebisawa I. **J Travel Med** 1998 Mar;5(1):33–5

Five year impact of chemotherapy on morbidity attributable to Schistosoma japonicum infection in the Dongting Lake region. Ross AG, et al. **Trop Med Int Health** 1998 Oct; 3(10):837–41

GENETICS

HLA-DR-DQ alleles and HLA-DP alleles are independently associated with susceptibility to different stages of post-schistosomal hepatic fibrosis in the Chinese population. Hirayama K, et al. **Tissue Antigens** 1999 Mar; 53(3):269–74

IMMUNOLOGY

Antibody isotype responses, infection and re-infection for Schistosoma japonicum in a marshland area of China. Li YS, et al. **Acta Trop** 1999 Jul 30;73(2):79–92

Identification of the Schistosoma japonicum 22.6-kDa antigen as a major target of the human IgE response: similarity of IgE-binding epitopes to allergen peptides. Santiago ML, et al. **Int Arch Allergy Immunol** 1998 Oct; 117(2):94–104

The vaccine efficacy of native paramyosin (Sj-97) against Chinese Schistosoma japonicum. McManus DP, et al. **Int J Parasitol** 1998 Nov;28(11):1739–42

Dynamic analysis of T-lymphocyte function in relation to hepatopathologic changes and effect of interleukin-12 treatment in mice infected with Schistosoma japonicum. Yang JQ, et al. **J Parasitol** 1999 Apr;85(2):257–62

Molecular identification of a 21.7 kDa schistosoma japonicum antigen as a target of the human IgE response. Hafalla JC, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):157–61

[Effects of induction of anti-embryonation and anti-fecundity immunity on liver granuloma formation in mice infected with Schistosoma japonicum] Wang S, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Oct;77(10):768–70 (Eng. Abstr.) **(Chi)**

[Progresses in the study of tropical diseases and parasitology in China, 1997] Zheng J. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):902–3 (0 ref.) **(Chi)**

[Detection of different class (subclass) antibodies in sera of patients with schistosomiasis japonica for diagnosis and efficiency evaluation] Li Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):381–3 (Eng. Abstr.) **(Chi)**

[Cross reaction of Trichinella spiralis larva antigens with sera of schistosomiasis japonica] Zeng Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(6):475–7 (Eng. Abstr.) **(Chi)**

[Identification of antigens in circulating immune complexes of schistosomiasis japonica] Zeng X, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):377–80 (Eng. Abstr.) **(Chi)**

PARASITOLOGY

Variation in the sequence of a mitochondrial NADH dehydrogenase 1 gene fragment among six natural populations of Schistosoma japonicum from China. Sørensen E, et al. **Int J Parasitol** 1998 Dec;28(12):1931–4

Characteristics of eosinophilic inclusions within Schistosoma japonicum eggs. Hirata M, et al. **Parasitology** 1999 Mar; 118 (Pt 3):269–74

Localization of mouse type 2 Alu sequence in schistosomes. Imase A, et al. **Parasitology** 1999 Sep;119 (Pt 3):315–21

A new technic for counting Schistosoma japonicum eggs in pig feces. Willingham AL, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):128–30

PREVENTION & CONTROL

Preventive effect of artemether on schistosome infection [published erratum appears in Chin Med J (Engl) 1998 May;111(5):465] Song Y, et al. **Chin Med J (Engl)** 1998 Feb;111(2):123–7

Preventive effect of artemether in rabbits infected with Schistosoma japonicum cercariae. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):63–6

Epidemiology and eradication of Schistosomiasis japonica in Japan. Ebisawa I. **J Travel Med** 1998 Mar;5(1):33–5

DNA immunization by intramuscular injection or gene gun induces specific IgG antibodies agains: a Schistosoma japonicum 22 kDa antigen, Sj22, when fused to the murine Ig K-chain secretory leader sequence. Waine GJ, et al. **Parasite Immunol** 1999 Jan;21(1):53–6

Genetic immunization of mice with DNA encoding the 23 kDa transmembrane surface protein of Schistosoma japonicum (Sj23) induces antigen-specific immunoglobulin G antibodies. Waine GJ, et al. **Parasite Immunol** 1999 Jul; 21(7):377–81

RADIOGRAPHY

[CT features of hepatic cirrhosis in patients with chronic schistosomiasis] Peng G, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(1):91–2 **(Chi)**

ULTRASONOGRAPHY

[Ultrasound diagnosis in schistosomiasis] Littmann M, et al. **Ultraschall Med** 1998 Oct;19(5):M69–70 **(Ger)**

VETERINARY

Congenital transmission of Schistosoma japonicum in pigs. Willingham AL 3rd, et al. **Am J Trop Med Hyg** 1999 Feb; 60(2):311–2

Peroral infection of pigs with Schistosoma japonicum cercariae. Giver H, et al. **Vet Parasitol** 1999 Jun 15; 83(2):161–5

SCHISTOSOMIASIS MANSONI

Sociocultural aspects of schistosomiasis mansoni in an endemic area in Minas Gerais, Brazil. Gazzinelli A, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):841–9

Late clinical, biochemical, endoscopic and electroencephalographic evaluation of patients with schistosomal portal hypertension treated with distal splenorenal shunt. Lopes Filho G de J, et al. **Int Surg** 1998 Jan–Mar;83(1):42–7

Partial lack of susceptibility to Schistosoma mansoni infection of Biomphalaria glabrata strains from Itanhomi (Minas Gerais, Brazil) after fourteen years of laboratory maintenance. Conceição MJ, et al. **Mem Inst Oswaldo Cruz** 1999 May–Jun;94(3):425–6

Susceptibility of Nectomys rattus (Pelzen, 1883) to experimental infection with Schistosoma mansoni (Sambon, 1907): a potential reservoir in Brazil. Ribeiro AC, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:295–9

Genetic variability and identification of the intermediate snail hosts of Schistosoma mansoni. Vidigal TH, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:103–10

Mice deficient for 5-lipoxygenase, but not leukocyte-type 12-lipoxygenase, display altered immune responses during infection with Schistosoma mansoni. Secor WE, et al. **Prostaglandins Other Lipid Mediat** 1998 Aug; 56(5–6):291–304

BLOOD

Recombinant expression and localization of Schistosoma mansoni cathepsin L1 support its role in the degradation of host hemoglobin. Brady CP, et al. **Infect Immun** 1999 Jan;67(1):368–74

Ether lipids and their possible physiological function in adult Schistosoma mansoni. Brouwers JF, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1–2):49–58

Serum concentrations of sICAM-1, sE-, sP- and sL-selectins in patients with Schistosoma mansoni infection and association with disease severity. Esterre P, et al. **Parasite Immunol** 1998 Aug;20(8):369–76

Murine schistosomiasis mansoni: experimental analysis of bone marrow and peripheral myelopoiesis. Dutra HS, et al. **Parasitol Res** 1998 Aug;84(8):668–75

COMPLICATIONS

An unusual cause of spinal paraplegia intramedullary schistosomiasis. Ansari SA, et al. **Acta Neurochir (Wien)** 1999;141(1):105–6

Systemic hemodynamic changes in mansonic schistosomiasis with portal hypertension treated by azygoportal disconnection and splenectomy. de Cleva R, et al. **Am J Gastroenterol** 1999 Jun;94(6):1632–7

Severe hepatic fibrosis in Schistosoma mansoni infection is controlled by a major locus that is closely linked to the interferon-gamma receptor gene. Dessein AJ, et al. **Am J Hum Genet** 1999 Sep;65(3):709–21

Role of the spleen on the pathogenesis of schistosomal periportal (pipestem) fibrosis of the liver: an experimental approach. Andrade ZA, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):557–62

Effect of schistosomiasis and hepatitis on liver disease. Halim AB, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):915–20

Chronic schistosomiasis: an incidental finding in new onset ulcerative colitis. Eaden JA, et al. **Eur J Gastroenterol Hepatol** 1999 Apr;11(4):443–5

Early liver dysfunction in schistosomiasis. Camacho-Lobato L, et al. **J Hepatol** 1998 Aug;29(2):233–40

Prognosis of schistosomiasis mansoni patients infected with hepatitis B virus. Conceição MJ, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:255–8

Genital manifestations of schistosomiasis mansoni in women: important but neglected. Feldmeier H, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:127–33 (41 ref.)

A long-term intake of a protein hydrolysate seems to increase the risk of encephalopathy in mice infected with Schistosoma mansoni. Ferreira HS, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:199–203

Chronic carriers of hepatitis B surface antigen in an endemic area for schistosomiasis mansoni in Brazil. Serufo JC, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:249–53

Salmonella-S. mansoni association in patients with acquired immunodeficiency syndrome. Lambertucci JR, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul–Aug;40(4):233–5

Large intestine obstruction complicated with perforation: a rare manifestation of Schistosoma mansoni infection. Atik FA, et al. **Rev Paul Med** 1998 Jul–Aug;116(4):1781–3

DIAGNOSIS

Schistosomal myelopathy: relevance and limits of contrast-enhanced magnetic resonance imaging in spinal cord infections. Goffette S, et al. **Acta Neurol Belg** 1998 Sep;98(3):289–91

Diagnostic value of connective tissue metabolites in Schistosoma mansoni related liver disease. Kardorff R, et al. **Acta Trop** 1999 Jul 30;73(2):153–64

Immunochemical characterization and diagnostic potential of a 63-kilodalton Schistosoma antigen. Attallah AM, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):493–7

Application of immunodiagnostic assays: detection of antibodies and circulating antigens in human schistosomiasis and correlation with clinical findings. Al-Sherbiny MM, et al. **Am J Trop Med Hyg** 1999 Jun; 60(6):960–6

Schistosomiasis mansoni: immunoblot analysis to diagnose and differentiate recent and chronic infection. Valli LC, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):302–7

Schistosomal myelitis: findings at MR imaging. Bennett G, et al. **Eur J Radiol** 1998 Jul;27(3):268–70

Rapid detection of a Schistosoma mansoni circulating antigen excreted in urine of infected individuals by using a monoclonal antibody. Attallah AM, et al. **J Clin Microbiol** 1999 Feb;37(2):354–7

Evaluation of specific immunoglobulin G avidity enzyme linked immunosorbent assay (IgG avidity ELISA) in diagnosis of early and chronic Schistosomiasis mansoni. el Zayyat EA, et al. **J Egypt Soc Parasitol** 1998 Dec; 28(3):739–52

Manson's schistosomiasis presenting as a brain tumor. Case report. Mackenzie IR, et al. **J Neurosurg** 1998 Dec; 89(6):1052–4

Clinical quiz. Schistosoma mansoni. Kaddu RJ, et al. **J Pediatr Gastroenterol Nutr** 1999 Feb;28(2):202, 226

Meckel's diverticulitis associated with Schistosoma mansoni. Sood R, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar; 28(3):336–7

Spinal cord schistosomiasis. A report of 2 cases and review emphasizing clinical aspects. Ferrari TC. **Medicine (Baltimore)** 1999 May;78(3):176–90 (104 ref.)

A comparative study on IgG-ELISA, IgM-IFT and Kato-Katz methods for epidemiological purposes in a low endemic area for schistosomiasis. da Silva RM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:279–82

Morbidity of schistosomiasis in an endemic area of the northeast of the state of Minas Gerais in Brazil: a clinical and sonographic study. Martins MJ, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:243–4

Comparison of a digestion-sedimentation technique with the Kato-Katz technique in the detection and quantification of S. mansoni eggs in light to moderate infections. Borel E, et al. **Parasite** 1999 Jun;6(2):175–8

A snail tale [letter] Polam S, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):173–4

Ectopic cutaneous schistosomiasis: report of two cases and a review of the literature. Andrade Filho J de S, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul–Aug;40(4):253–7 (15 ref.)

Detection of IgM antibodies to Schistosoma mansoni gut-associated antigens for the study of the dynamics of schistosomiasis transmission in an endemic area with low worm burden. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul–Aug;40(4):225–31

Dot enzyme-linked immunosorbent assay (dot-ELISA) for schistosomiasis diagnosis using dacron as solid-phase. Montenegro SM, et al. **Rev Soc Bras Med Trop** 1999 Mar–Apr;32(2):139–43

[A case of intestinal schistosomiasis imported from Djibouti (letter)] Dupouy-Camet J, et al. **Med Trop (Mars)** 1998; 58(4):414 **(Fre)**

[Schistosomiasis of the bladder] Csata S, et al. **Orv Hetil** 1999 Apr 11;140(15):835–8 (Eng. Abstr.) **(Hun)**

SCHISTOSOMIASIS MANSONI

DRUG THERAPY

Praziquantel side effects and efficacy related to Schistosoma mansoni egg loads and morbidity in primary school children in north-east Ethiopia. Berhe N, et al. **Acta Trop** 1999 Jan 15;72(1):53-63

Increase of intestinal schistosomiasis after praziquantel treatment in a Schistosoma haematobium and Schistosoma mansoni mixed focus. Ernould JC, et al. **Acta Trop** 1999 Jul 30;73(2):143-52

Schistosoma mansoni infection and nutritional status in schoolchildren: a randomized, double-blind trial in northeastern Brazil. Assis AM, et al. **Am J Clin Nutr** 1998 Dec;68(6):1247-53

Evidence for a long-term effect of a single dose of praziquantel on Schistosoma mansoni-induced hepatosplenic lesions in northern Uganda. Frenzel K, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):927-31

Resistance to praziquantel: direct evidence from Schistosoma mansoni isolated from Egyptian villagers. Ismail M, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):932-5

Colchicine therapy for hepatic murine schistosomal fibrosis: image analysis and serological study. Badawy AA, et al. **Int J Exp Pathol** 1999 Feb;80(1):25-34

Activity of oxamniquine at skin, pulmonary and sexual maturation phases, on a Schistosoma mansoni strain (R1) previously reported as resistant at the adult phase. Coelho PM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:267-8

Protein deficiency impairs the schistosomicidal action of praziquantel. Lima SF, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:271-2

Reversibility of Schistosoma mansoni-associated morbidity after yearly mass praziquantel therapy: ultrasonographic assessment. Boisier P, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):451-3

Therapeutic effect of praziquantel enantiomers in mice infected with Schistosoma mansoni. Xiao S, et al. **Trans R Soc Trop Med Hyg** 1999 May-Jun;93(3):324-5

[Therapeutic evaluation of artesunate in experimental Schistosoma mansoni infection] Araújo N, et al. **Rev Soc Bras Med Trop** 1999 Jan-Feb;32(1):7-12 (Eng. Abstr.) **(Por)**

EPIDEMIOLOGY

Seroepidemiology of schistosomiasis in Puerto Rico: evidence for vanishing endemicity. Hillyer GV, et al. **Am J Trop Med Hyg** 1999 May;60(5):827-30

Emergence of Schistosoma mansoni infection in upper Egypt: the Giza governorate. Talaat M, et al. **Am J Trop Med Hyg** 1999 May;60(5):822-6

Schistosoma mansoni ova in urine of children from an endemic area of Kenya: a short report. Mkoji GM, et al. **East Afr Med J** 1998 Sep;75(9):558-9

Epidemiology of schistosomiasis mansoni in three endemic communities in north-east Ethiopia: baseline characteristics before endod based intervention. Birrie H, et al. **Ethiop Med J** 1998 Apr;36(2):101-11

Rate of reinfection with S. mansoni following treatment in two newly reclaimed areas of Egypt. Abaza SM, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):631-43

Schistosomiasis in newly reclaimed areas in Egypt. I-distribution and population seasonal fluctuation of intermediate host snails. Yousif F, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):915-28

Urban schistosomiasis in Itamaracá Island, Pernambuco, Brazil: epidemiological factors involved in the recent endemic process. Barbosa CS, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:265-6

Splenic palpation for the evaluation of morbidity due to schistosomiasis mansoni. Gerspacher-Lara R, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:245-8

Potential spread of schistosomiasis in the periphery of greater metropolitan region of Rio de Janeiro. Grault CE, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:293-4

Morbidity of schistosomiasis in an endemic area of the northeast of the state of Minas Gerais in Brazil: a clinical and sonographic study. Martins MJ, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:243-4

Re-evaluation of schistosomiasis mansoni in Minas Gerais, Brazil. III. "Noroeste de Minas" mesoregion. Carvalho OS, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct; 40(5):277-9

Schistosomiasis mansoni in the "Baixada Ocidental Maranhense", state of Maranhão, Brazil: cross-sectional studies performed in 1987 and 1993. Cutrim RN, et al. **Rev Inst Med Trop Sao Paulo** 1998 May-Jun;40(3):165-71

A comparative epidemiologic study of specific antibodies (IgM and IgA) and parasitological findings in an endemic area of low transmission of schistosoma mansoni. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar-Apr; 40(2):85-91

Questionnaires in the screening for Schistosoma mansoni infection: a study of socio demographic and water contact variables in four communities in Brazil. Lima e Costa MF, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar-Apr; 40(2):93-9

The proportion of helminth infections in a community in western Kenya which would be treated by mass chemotherapy of schoolchildren. Olsen A. **Trans R Soc Trop Med Hyg** 1998 Mar-Apr;92(2):144-8

The epidemiology of a recent focus of mixed Schistosoma haematobium and Schistosoma mansoni infections around the 'Lac de Guiers' in the Senegal River Basin, Senegal. De Clercq D, et al. **Trop Med Int Health** 1999 Aug; 4(8):544-50

[Intestinal schistosomiasis from Schistosoma mansoni in Madagascar: extent and center of the endemic] Ollivier G, et al. **Bull Soc Pathol Exot** 1999 May;92(2):99-103 (Eng. Abstr.) **(Fre)**

[Discovery of a focus of intestinal bilharziasis in te Republic of Djibouti] Koeck JL, et al. **Med Trop (Mars)** 1999; 59(1):35-8 (Eng. Abstr.) **(Fre)**

[Wilson's disease ("hepatic form") in a region endemic for schistosomiasis mansoni: clinical presentation of 25 patients] Galizzi-Filho J, et al. **Arq Gastroenterol** 1998 Jan-Mar; 35(1):11-7 (Eng. Abstr.) **(Por)**

[Schistosomiasis mansoni: the epidemiological and control aspects] Passos AD, et al. **Rev Soc Bras Med Trop** 1998; 31 Suppl 2:61-74 **(Por)**

[Outbreak of schistosomiasis in a group a travellers returning from Burkina Faso] Elcuaz R, et al. **Enferm Infecc Microbiol Clin** 1998 Oct;16(8):367-9 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Infection of mice lacking interleukin-7 (IL-7) reveals an unexpected role for IL-7 in the development of the parasite Schistosoma mansoni. Wolowczuk I, et al. **Infect Immun** 1999 Aug;67(8):4183-90

Schistosome-infected IL-4 receptor knockout (KO) mice, in contrast to IL-4 KO mice, fail to develop granulomatous pathology while maintaining the same lymphokine expression profile. Jankovic D, et al. **J Immunol** 1999 Jul 1;163(1):337-42

GENETICS

Expression of metalloproteinases (MMP-1, MMP-2, and MMP-9) and their inhibitors (TIMP-1 and TIMP-2) in schistosomal portal fibrosis. Gomez DE, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):9-13

Genetic control of schistosome infections by the SM1 locus of the 5q31-q33 region is linked to differentiation of type 2 helper T lymphocytes. Rodrigues V Jr, et al. **Infect Immun** 1999 Sep;67(9):4689-92

IMMUNOLOGY

The initiation and function of Th2 responses during infection with Schistosoma mansoni. Pearce EJ, et al. **Adv Exp Med Biol** 1998;452:67-73 (30 ref.)

Schistosomiasis mansoni: immunoblot analysis to diagnose and differentiate recent and chronic infection. Valli LC, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):302-7

Nitric oxide-mediated immune complex-induced prostaglandin E(2) production by peripheral blood mononuclear cells of humans infected with Schistosoma mansoni. Neves SM, et al. **Cell Immunol** 1999 Jul 10; 195(1):37-42

Phenotype and cytokine profile of Schistosoma mansoni specific T cell lines and clones derived from schistosomiasis patients with distinct clinical forms. Contigli C, et al. **Clin Immunol** 1999 Jun;91(3):338-44

Clinical forms of human Schistosoma mansoni infection are associated with differential activation of T-cell subsets and costimulatory molecules. Martins-Filho OA, et al. **Dig Dis Sci** 1999 Mar;44(3):570-7

Localization by immunoelectron microscopy of Schistosoma mansoni antigens in the glomerulus of the hamster (Mesocricetus auratus) kidney. De Brito T, et al. **Exp Nephrol** 1998 Jul-Aug;6(4):368-76

Experimental murine schistosomiasis mansoni: modulation of the B-1 lymphocyte distribution and phenotype expression [published erratum appears in Immunobiology 1999 Feb;200(1):165] el-Cheikh MC, et al. **Immunobiology** 1998 Jul;199(1):51-62

Inhibition of protein kinases prevents lymphocyte activation by Schistosoma mansoni antigens and reduces in vitro [correction of in vivo] granuloma reaction [published erratum appears in Immunol Lett 1999 Apr 1;67(2):155] Almeida CA, et al. **Immunol Lett** 1998 Jul;62(3):137-43

The radiation-attenuated schistosome vaccine induces high levels of protective immunity in the absence of B cells. Anderson S, et al. **Immunology** 1999 Jan;96(1):22-8

Interleukin-12 can directly induce T-helper 1 responses in interferon-gamma (IFN-gamma) receptor-deficient mice, but requires IFN-gamma signalling to downregulate T-helper 2 responses. Mountford AP, et al. **Immunology** 1999 Aug;97(4):588-94

Enhanced Th1 and dampened Th2 responses synergize to inhibit acute granulomatous and fibrotic responses in murine schistosomiasis mansoni. Boros DL, et al. **Infect Immun** 1999 Mar;67(3):1187-93

Interleukin 5 (IL-5) is not required for expression of a Th2 response or host resistance mechanisms during murine schistosomiasis mansoni but does play a role in development of IL-4-producing non-T, non-B cells. Brunet LR, et al. **Infect Immun** 1999 Jun;67(6):3014-8

Profiles of Th1 and Th2 cytokines after primary and secondary infection by Schistosoma mansoni in the semipermissive rat host. Cêtre C, et al. **Infect Immun** 1999 Jun;67(6):2713-9

Isolation of T-cell antigens by using a recombinant protein library and its application to the identification of novel vaccine candidates against schistosomiasis. Eberl M, et al. **Infect Immun** 1999 Jul;67(7):3383-9

Altered immune responses in mice with concomitant Schistosoma mansoni and Plasmodium chabaudi infections. Helmby H, et al. **Infect Immun** 1998 Nov;66(11):5167-74

Development of antibody isotype responses to Schistosoma mansoni in an immunologically naive immigrant population: influence of infection duration, infection intensity, and host age. Naus CW, et al. **Infect Immun** 1999 Jul;67(7):3444-51

Role of adult worm antigen-specific immunoglobulin E in acquired immunity to Schistosoma mansoni infection in baboons. Nyindo M, et al. **Infect Immun** 1999 Feb; 67(2):636-42

Neonatal idiotypic exposure alters subsequent cytokine, pathology, and survival patterns in experimental Schistosoma mansoni infections. Montesano MA, et al. **J Exp Med** 1999 Feb 15;189(4):637-45

The substance P receptor is necessary for a normal granulomatous response in murine schistosomiasis mansoni. Blum AM, et al. **J Immunol** 1999 May 15;162(10):6080-5

Differential expression and cross-regulatory function of RANTES during mycobacterial (type 1) and schistosomal (type 2) antigen-elicited granulomatous inflammation. Chensue SW, et al. **J Immunol** 1999 Jul 1;163(1):165-73

IL-13 is a key regulatory cytokine for Th2 cell-mediated pulmonary granuloma formation and IgE responses induced by Schistosoma mansoni eggs. Chiaramonte MG, et al. **J Immunol** 1999 Jan 15;162(2):920-30

Tolerization of mice to Schistosoma mansoni egg antigens causes elevated type 1 and diminished type 2 cytokine responses and increased mortality in acute infection. Fallon PG, et al. **J Immunol** 1999 Apr 1;162(7):4122-32

Elucidation and role of critical residues of immunodominant peptide associated with T cell-mediated parasitic disease. Hernandez HJ, et al. **J Immunol** 1999 Oct 1;163(7):3877-82

Experimental murine schistosomiasis in the absence of B7 costimulatory molecules: reversal of elicited T cell cytokine profile and partial inhibition of egg granuloma formation. Hernandez HJ, et al. **J Immunol** 1999 Mar 1;162(5):2884-9

Optimal vaccination against Schistosoma mansoni requires the induction of both B cell- and IFN-gamma-dependent effector mechanisms. Jankovic D, et al. **J Immunol** 1999 Jan 1;162(1):345-51

Dermal endothelial cells and keratinocytes produce IL-7 in vivo after human Schistosoma mansoni percutaneous infection. Roye O, et al. **J Immunol** 1998 Oct 15; 161(8):4161-8

The schistosome granuloma: characterization of lymphocyte migration, activation, and cytokine production. Rumbley CA, et al. **J Immunol** 1998 Oct 15;161(8):4129-37

Activated eosinophils are the major source of Th2-associated cytokines in the schistosome granuloma. Rumbley CA, et al. **J Immunol** 1999 Jan 15;162(2):1003-9

Intranasal administration of a Schistosoma mansoni glutathione S-transferase-cholera toxoid conjugate vaccine evokes antiparasitic and antipathological immunity in mice. Sun JB, et al. **J Immunol** 1999 Jul 15;163(2):1045-52

Cytokine production in acute versus chronic human Schistosomiasis mansoni: the cross-regulatory role of interferon-gamma and interleukin-10 in the responses of peripheral blood mononuclear cells and splenocytes to parasite antigens. Montenegro SM, et al. **J Infect Dis** 1999 Jun;179(6):1502-14

Schistosoma mansoni: IL-4 is necessary for concomitant immunity in mice. Brunet LR, et al. **J Parasitol** 1999 Aug; 85(4):734-6

Identification of genes encoding Schistosoma mansoni antigens using an antigenic sequence tag strategy. Zouain CS, et al. **J Parasitol** 1998 Dec;84(6):1307-10

Immunization with PIII, a fraction of Schistosoma mansoni soluble adult worm antigenic preparation, affects nitric oxide production by murine spleen cells. de Oliveira DM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:175-80

Protective immunity induced in mice by F8.1 and F8.2 antigens purified from Schistosoma mansoni eggs. Ferreira CC, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:185-9

IgE and IgG4 antibodies in subjects reinfected with Schistosoma mansoni in an endemic area of northeast Brazil. Gomes YM, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:183-4

Preliminary results on the regulatory role of IFN-gamma and IL-10 human schistosomiasis mansoni. Montenegro SM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:173

Circulating antigens levels in different clinical forms of the Schistosoma mansoni infection. Pereira e Silva Y, et al. **Mem Inst Oswaldo Cruz** 1999 Jan-Feb;94(1):83-6

Infection with Schistosoma mansoni prevents insulin dependent diabetes mellitus in non-obese diabetic mice. Cooke A, et al. **Parasite Immunol** 1999 Apr;21(4):169-76

Human Schistosomiasis mansoni: IL-10 modulates the in vitro granuloma formation. Falcão PL, et al. **Parasite Immunol** 1998 Oct;20(10):447-54

X-linked immunodeficiency affects the outcome of Schistosoma mansoni infection in the murine model. Gaubert S, et al. **Parasite Immunol** 1999 Feb;21(2):89-101

The Th1 to Th2 shift induced by Schistosoma mansoni does not exacerbate murine aids (MAIDS). Lacroix C, et al. **Parasite Immunol** 1998 Oct;20(10):497-501

Accelerated influx of dendritic cells into the lymph nodes draining skin sites exposed to attenuated cercariae of Schistosoma mansoni in guinea-pigs. Sato H, et al. **Parasite Immunol** 1998 Jul;20(7):337-43

Schistosomal granuloma modulation. II. Specific immunogenic carbohydrates can modulate schistosome-egg-antigen-induced hepatic granuloma formation. Jacobs W, et al. **Parasitol Res** 1999 Jan; 85(1):14–8

The development of schistosomiasis mansoni in an immunologically naive immigrant population in Masongaleni, Kenya. Ouma JH, et al. **Parasitology** 1998 Aug;117 (Pt 2):123–32

Detection of IgM antibodies to Schistosoma mansoni gut-associated antigens for the study of the dynamics of schistosomiasis transmission in an endemic area with low worm burden. Kanamura HY, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul–Aug;40(4):225–31

Serum circulating egg antigen levels in two areas endemic for Schistosoma mansoni. Nibbeling HA, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):350–4

Cellular immune responses of a Senegalese community recently exposed to Schistosoma mansoni: correlations of infection level with age and inflammatory cytokine production by soluble egg antigen-specific cells. Marguerite M, et al. **Trop Med Int Health** 1999 Aug; 4(8):530–43

Induction of a protective immunity against Schistosoma mansoni with ovalbumin-coupled Sm37-5 coadsorbed with granulocyte-macrophage colony stimulating factor (GM-CSF) or IL-12 on alum. Argiro L, et al. **Vaccine** 1999 Jan;17(1):13–8

Induction of resistance against Schistosoma mansoni infection by passive transfer of an IgG2a monoclonal antibody. Attallah AM, et al. **Vaccine** 1999 May 4;17(18):2306–10

METABOLISM

Relationships between several markers of extracellular matrix turn-over and ultrasonography in human Schistosomiasis mansoni. Ricard-Blum S, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):658–63

Development of eosinophil peroxidase activity and concomitant alteration of the antioxidant defenses in the liver of mice infected with Schistosoma mansoni. Gharib B, et al. **J Hepatol** 1999 Apr;30(4):594–602

MORTALITY

Mortality due to schistosomiasis mansoni: a field study in Sudan. Kheir MM, et al. **Am J Trop Med Hyg** 1999 Feb; 60(2):307–10

PARASITOLOGY

Schistosoma mansoni activates host microvascular endothelial cells to acquire an anti-inflammatory phenotype. Trottein F, et al. **Infect Immun** 1999 Jul; 67(7):3403–9

Production of monoclonal antibodies against target schistosomal antigen secreted in the urine of Schistosoma mansoni-infected patients. Shaker ZA, et al. **Int J Parasitol** 1998 Dec;28(12):1893–901

Histoarchitecture of schistosomal granuloma development and involution: morphogenetic and biomechanical approaches. Lenzi HL, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:141–51 (40 ref.)

Age-related worm load and worm fecundity patterns in human populations, as indicated by schistosome circulating antigens. Polman K, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:123–5

Localization of mouse type 2 Alu sequence in schistosomes. Imase A, et al. **Parasitology** 1999 Sep;119 (Pt 3):315–21

Adult resistance to schistosomiasis mansoni: age-dependence of reinfection remains constant in communities with diverse exposure patterns. Kabatereine NB, et al. **Parasitology** 1999 Jan;118 (Pt 1):101–5

PATHOLOGY

Distinct B-cell populations are present in hepatic and intestinal Schistosoma mansoni granulomas. Jacobs W, et al. **Acta Gastroenterol Belg** 1999 Apr–Jun;62(2):178–81

The use of a stereological method to estimate the volume of Schistosoma mansoni granulomas: the effect of zinc deficiency. Friis H, et al. **Ann Trop Med Parasitol** 1998 Oct;92(7):785–92

Effect of octreotide on the pathology of hepatic schistosomiasis. Mansy SS, et al. **Arzneimittelforschung** 1998 Aug;48(8):855–61

IFN-gamma, IL-12, and TNF-alpha are required to maintain reduced liver pathology in mice vaccinated with Schistosoma mansoni eggs and IL-12. Hoffmann KF, et al. **J Immunol** 1998 Oct 15;161(8):4201–10

Schistosome-infected IL-4 receptor knockout (KO) mice, in contrast to IL-4 KO mice, fail to develop granulomatous pathology while maintaining the same lymphokine expression profile. Jankovic D, et al. **J Immunol** 1999 Jul 1;163(1):337–42

Toxoplasma gondii and Schistosoma mansoni synergize to promote hepatocyte dysfunction associated with high levels of plasma TNF-alpha and early death in C57BL/6 mice. Marshall AJ, et al. **J Immunol** 1999 Aug 15;163(4):2089–97

Intranasal administration of a Schistosoma mansoni glutathione S-transferase-cholera toxoid conjugate vaccine evokes antiparasitic and antipathological immunity in mice. Sun JB, et al. **J Immunol** 1999 Jul 15;163(2):1045–52

Effects of schistosomal mansoni infection on Calomys callosus coelom-associated lymphomyeloid tissue (milky spots). Lenzi JA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:13–23

Murine schistosomiasis mansoni: experimental analysis of bone marrow and peripheral myelopoiesis. Dutra HS, et al. **Parasitol Res** 1998 Aug;84(8):668–75

Schistosomal granuloma modulation. I. Schistosoma mansoni worm antigens CAA and CCA prime egg-antigen-induced hepatic granuloma formation. Jacobs W, et al. **Parasitol Res** 1999 Jan;85(1):7–13

Human portal serum stimulates cell proliferation in immature Schistosoma mansoni. Shaker YM, et al. **Parasitology** 1998 Oct;117 (Pt 4):293–9

[Pseudo-tumoral schistosomiasis: case report] Pereira RM, et al. **Arq Gastroenterol** 1998 Jan–Mar;35(1):74–7 (Eng. Abstr.) **(Por)**

[High intensity signal in basal ganglia on T1 weighted images: case report in Manson's Schistosomiasis with portal systemic encephalopathy] Machado Júnior MA, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2A):306–10 (39 ref.) (Eng. Abstr.) **(Por)**

PHYSIOPATHOLOGY

Increased reactivity to 5-hydroxytryptamine of portal veins from mice infected with Schistosoma mansoni. Silva CL, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jul;120(3):417–23

Role of cytokines in the formation and downregulation of hepatic circumoval granulomas and hepatic fibrosis in Schistosoma mansoni-infected mice. Cheever AW, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:25–32

Portal veins of mice infected with Schistosoma mansoni exhibit an increased reactivity to 5-hydroxytryptamine. Silva CL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:153–5

Influence of Schistosoma mansoni infection on the reproductive capacity of albino mice. Mello RT, et al. **Rev Soc Bras Med Trop** 1998 Nov–Dec;31(6):579–80

PREVENTION & CONTROL

Measurement of public health importance of schistosomiasis: problems and prospects [letter] Ofoezie IE. **Acta Trop** 1998 Aug 15;71(1):91–2

Blockage of skin invasion by schistosome cercariae by serine protease inhibitors. Lim KC, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):487–92

Short report: prevention of Schistosoma mansoni infections in mice by the insect repellents AI3-37220 and N,N-diethyl-3-methylbenzamide. Secor WE, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):1061–2

Intranasal administration of synthetic recombinant peptide-based vaccine protects mice from infection by Schistosoma mansoni. Ben-Yedidia T, et al. **Infect Immun** 1999 Sep;67(9):4360–6

Proteosome delivery of a protective 9B-antigen against Schistosoma mansoni. Tarrab-Hazdai R, et al. **Int J Immunopharmacol** 1999 Mar;21(3):205–18

Liver tissue schistosomiasis mansoni vaccine, as a third generation livestock immunogenes. el-Bishlawy IM, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):789–95

IFN-gamma, IL-12, and TNF-alpha are required to maintain reduced liver pathology in mice vaccinated with Schistosoma mansoni eggs and IL-12. Hoffmann KF, et al. **J Immunol** 1998 Oct 15;161(8):4201–10

Protective immunity induced in mice by F8.1 and F8.2 antigens purified from Schistosoma mansoni eggs. Ferreira CC, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:185–9

An interactive perspective of health education for the tropical disease control: the schistosomiasis case. Schall VT. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:51–8

Induction of immunity to Schistosoma mansoni: interaction of schistosomula with accessory leucocytes in murine skin and draining lymph nodes. Riengrojpitak S, et al. **Parasitology** 1998 Oct;117 (Pt 4):301–9

Mass chemotherapy and school-based anthelmintic delivery. Guyatt HL. **Trans R Soc Trop Med Hyg** 1999 Jan–Feb; 93(1):12–3

[Schistosomiasis mansoni: the epidemiological and control aspects] Passos AD, et al. **Rev Soc Bras Med Trop** 1998; 31 Suppl 2:61–74 **(Por)**

PSYCHOLOGY

Infection with Schistosoma mansoni in mice induces changes in nociception and exploratory behavior. Fiore M, et al. **Physiol Behav** 1998 Nov 15;65(2):347–53

SURGERY

Systemic hemodynamic changes in mansonic schistosomiasis with portal hypertension treated by azygoportal disconnection and splenectomy. de Cleva R, et al. **Am J Gastroenterol** 1999 Jun;94(6):1632–7

THERAPY

Systemic delivery of an adenovirus expressing EBV-derived vIL-10 in mice infected with Schistosoma mansoni or Leishmania amazonensis: controversial effects on the development of pathological parameters. Verwaerde C, et al. **Eur Cytokine Netw** 1999 Jun;10(2):161–70

Band ligation or sclerotherapy as endoscopic treatment for oesophageal varices in schistosomotic patients: results of a randomized study. Siqueira ES, et al. **HPB Surg** 1998; 11(1):27–32

An IL-13 inhibitor blocks the development of hepatic fibrosis during a T-helper type 2-dominated inflammatory response. Chiaramonte MG, et al. **J Clin Invest** 1999 Sep; 104(6):777–85

Control of schistosomiasis pathology by combination of Sm28GST DNA immunization and praziquantel treatment. Dupré, et al. **J Infect Dis** 1999 Aug;180(2):454–63

TRANSMISSION

Granulomatous inflammation and the transmission of infection: schistosomiasis--and TB too? [see comments] Doenhoff MJ. **Immunol Today** 1998 Oct;19(10):462–7. Comment in: Immunol Today 1999 Jul;20(7):336–7. Comment in: Immunol Today 1999 Jul;20(7):337–8.

Identification of a transmission focus of Schistosoma mansoni in the southernmost Brazilian State, Rio Grande do Sul. Graeff-Teixeira C, et al. **Mem Inst Oswaldo Cruz** 1999 Jan–Feb;94(1):9–10

Immunofluorescence test on Schistosoma mansoni worm paraffin sections (IgM-IFT) for the study of schistosomiasis transmission in Campinas, São Paulo, Brazil. Lima VL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:283–7

ULTRASONOGRAPHY

Relationships between several markers of extracellular matrix turn-over and ultrasonography in human Schistosomiasis mansoni. Ricard-Blum S, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):658–63

[Ultrasound diagnosis in schistosomiasis] Littmann M, et al. **Ultraschall Med** 1998 Oct;19(5):M69–70 **(Ger)**

URINE

Schistosoma mansoni ova in urine of children from an endemic area of Kenya: a short report. Mkoji GM, et al. **East Afr Med J** 1998 Sep;75(9):558–9

Schistosoma mansoni: the circulating cathodic antigen forms an abundant product of 41/42 kDa in the urine of infected patients. Abdeen HH, et al. **Exp Parasitol** 1998 Nov; 90(3):286–9

VETERINARY

Schistosoma mansoni infection in owl monkeys (Aontus nancymai): evidence for the early elimination of adult worms. Noya O, et al. **Acta Trop** 1998 Jul 30;70(3):257–67

Histopathological and parasitological changes in baboons (Papio hamadryas) experimentally infected with baboon and human isolates of Schistosoma mansoni from Saudi Arabia: a comparative study. Ghandour AM, et al. **Ann Trop Med Parasitol** 1999 Mar;93(2):197–201

Population biology of Schistosoma mansoni in the black rat: host regulation and basic transmission rate. Morand S, et al. **Int J Parasitol** 1999 May;29(5):673–84

SCHISTOSOMIASIS, URINARY see **SCHISTOSOMIASIS HAEMATOBIA**

SCHISTOSOMICIDES

ADVERSE EFFECTS

Praziquantel side effects and efficacy related to Schistosoma mansoni egg loads and morbidity in primary school children in north-east Ethiopia. Berhe N, et al. **Acta Trop** 1999 Jan 15;72(1):53–63

ANALYSIS

Fluorimetric determination of oxamniquine in biological fluids. Rizk M, et al. **Farmaco** 1999 Jan–Feb;54(1–2):47–50

CHEMISTRY

Solubility properties of racemic praziquantel and its enantiomers. el-Arini SK, et al. **Pharm Dev Technol** 1998 Nov;3(4):557–64

PHARMACOLOGY

Resistance to praziquantel: direct evidence from Schistosoma mansoni isolated from Egyptian villagers. Ismail M, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):932–5

Inhibitory effect of artemether on proteinase of Schistosoma japonicum. Gong PL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):198–201

Tegument changes of Schistosoma japonicum and Schistosoma mansoni in mice treated with artemether. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):535–7

Effect of artemether on glyceraldehyde-3-phosphate dehydrogenase, phosphoglycerate kinase, and pyruvate kinase of Schistosoma japonicum harbored in mice. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May; 19(3):279–81

Effect of artemether on glucose uptake and glycogen content in Schistosoma japonicum. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):363–7

Activity of oxamniquine at skin, pulmonary and sexual maturation phases, on a Schistosoma mansoni strain (R1) previously reported as resistant at the adult phase. Coelho PM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:267–8

SCHISTOSOMICIDES

(Ca(2+)-Mg2+)ATPase in Schistosoma mansoni: evidence for heterogeneity and resistance to praziquantel. Cunha VM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:181–2

Identification of NF-AT-like transcription factor in Schistosoma mansoni: its possible involvement in the antiparasitic action of cyclosporin A. Serra EC, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):33–41

THERAPEUTIC USE

Schistosoma mansoni infection and nutritional status in schoolchildren: a randomized, double-blind trial in northeastern Brazil. Assis AM, et al. **Am J Clin Nutr** 1998 Dec;68(6):1247–53

Evidence for a long-term effect of a single dose of praziquantel on Schistosoma mansoni-induced hepatosplenic lesions in northern Uganda. Frenzel K, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):927–31

Evolution of Schistosoma haematobium-related pathology over 24 months after treatment with praziquantel among school children in southeastern Tanzania. Hatz CF, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):775–81

Urine circulating soluble egg antigen in relation to egg counts, hematuria, and urinary tract pathology before and after treatment in children infected with Schistosoma haematobium in Kenya. Kahama AI, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):215–9

Evidence for an improvement in cognitive function following treatment of Schistosoma japonicum infection in Chinese primary schoolchildren. Nokes C, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):556–65

Long-term suppression of adult bladder morbidity and severe hydronephrosis following selective population chemotherapy for Schistosoma haematobium. Subramanian AK, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):476–81

A mass chemotherapy trial of praziquantel on Schistosoma haematobium endemicity in Upper Egypt. Talaat M, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):546–50

Morbidity induced by Schistosoma haematobium infections, as assessed by ultrasound before and after treatment with praziquantel, in a recently expanded focus (Senegal River basin). Delegue P, et al. **Ann Trop Med Parasitol** 1998 Oct; 92(7):775–83

Preventive effect of artemether on schistosome infection [published erratum appears in Chin Med J (Engl) 1998 May;111(5):465] Song Y, et al. **Chin Med J (Engl)** 1998 Feb;111(2):123–7

Preventive effect of artemether in rabbits infected with Schistosoma japonicum cercariae. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):63–6

Control of schistosomiasis pathology by combination of Sm28GST DNA immunization and praziquantel treatment. Dupré, et al. **J Infect Dis** 1999 Aug;180(2):454–63

Resolution and resurgence of schistosoma haematobium-induced pathology after community-based chemotherapy in ghana, as detected by ultrasound. Wagatsuma Y, et al. **J Infect Dis** 1999 Jun;179(6):1515–22

Protein deficiency impairs the schistosomicidal action of praziquantel. Lima SF, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:271–2

Schistosomiasis control based on repeated chemotherapy in a rural village of the sugar-cane zone in northeast Brazil. Pieri OS, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:259–64

Therapeutic effect of praziquantel enantiomers in mice infected with Schistosoma mansoni. Xiao S, et al. **Trans R Soc Trop Med Hyg** 1999 May-Jun;93(3):324–5

Community-wide treatment of schistosomiasis with praziquantel. Webbe G. **Trop Doct** 1999 Jul;29(3):172–6 (28 ref.)

Parameters associated with Schistosoma haematobium infection before and after chemotherapy in school children from two villages in the coast province of Kenya. Kahama AI, et al. **Trop Med Int Health** 1999 May;4(5):335–40

[Effect of praziquantel on the uro-nephrologic complications of urinary bilharziasis] Rasendramino MH, et al. **Nephrologie** 1998;19(6):347–51 (Eng. Abstr.) **(Fre)**

SCHIZAPHIS see **APHIDS**

SCHIZOAFFECTIVE DISORDER see **PSYCHOTIC DISORDERS**

SCHIZOID PERSONALITY DISORDER

PHYSIOPATHOLOGY

Nightmares and schizotypy. Levin R. **Psychiatry** 1998 Fall; 61(3):206–16

PSYCHOLOGY

Mohawks and combat boots: the schizoid dilemma of punks. McAllister MJ. **Bull Menninger Clin** 1999 Winter; 63(1):89–102 (25 ref.)

SCHIZOMYCETES see **BACTERIA**

SCHIZOPHRENIA

The relationship between coping style and burden in the carers of relatives with schizophrenia. Budd RJ, et al. **Acta Psychiatr Scand** 1998 Oct;98(4):304–9

Subjective quality of life in out-patients with schizophrenia: clinical and utilization correlates. Dickerson FB, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):124–7

Prelingually profoundly deaf schizophrenic patients who hear voices: a phenomenological analysis. du Feu M, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):453–9

Relationship of neuropsychological and MRI measures to age of onset of schizophrenia. Jeste DV, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):156–64

Improvement of inter-rater reliability of PANSS items and subscales by a standardized rater training. Müller MJ, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):135–9

Reduced fertility in schizophrenia: here to stay? Nimgaonkar VL. **Acta Psychiatr Scand** 1998 Nov;98(5):348–53 (56 ref.)

Cognition and neuropathology in schizophrenia. Arnold SE. **Acta Psychiatr Scand Suppl** 1999;395:41–50 (106 ref.)

The concept of target features in schizophrenia research. Tsuang MT, et al. **Acta Psychiatr Scand Suppl** 1999; 395:2–11 (119 ref.)

When a family member has a schizophrenic disorder: practice issues across the family life cycle. Stromwall LK, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):580–9

Gender differences in living skills and global assessment of functioning among outpatients with schizophrenia. Hintikka J, et al. **Aust N Z J Psychiatry** 1999 Apr; 33(2):226–31

A short echo proton magnetic resonance spectroscopy study of the left mesial-temporal lobe in first-onset schizophrenic patients. Bartha R, et al. **Biol Psychiatry** 1999 Jun 1; 45(11):1403–11

Antiretroviral antibodies: implications for schizophrenia, schizophrenia spectrum disorders, and bipolar disorder. Hart DJ, et al. **Biol Psychiatry** 1999 Mar 15;45(6):704–14

Fluency versus conscious recollection in category-production performance: the performance of schizophrenic patients. Besche-Richard C, et al. **Brain Cogn** 1999 Mar;39(2):100–15

Precursors to schizophrenia: do biological markers have specificity? [see comments] Tarrant CJ, et al. **Can J Psychiatry** 1999 May;44(4):335–49 (103 ref.). Comment in: Can J Psychiatry 1999 May;44(4):325.

The 'schizophrenic' and the liminal persona in modern society. Essay review [see comments] Barrett RJ. **Cult Med Psychiatry** 1998 Dec;22(4):465–94. Comment in: Cult Med Psychiatry 1998 Dec;22(4):495–503.

Interpreting schizophrenia: construal or construction? A reply to Robert J. Barrett [comment] Sass LA. **Cult Med Psychiatry** 1998 Dec;22(4):495–503. Comment on: Cult Med Psychiatry 1998 Dec;22(4):465–94.

Relationship between panic and schizophrenia. Hofmann SG. **Depress Anxiety** 1999;9(3):101–6 (65 ref.)

Screening for concomitant alcohol abuse in schizophrenia: clinical significance of the Munich Alcoholism Test and laboratory tests. Agelink MW, et al. **Eur Addict Res** 1999 Jun;5(2):82–7

Negative symptoms in schizophrenia: neurobiological models and treatment response. Goff DC, et al. **Harv Rev Psychiatry** 1998 Jul-Aug;6(2):59–77 (208 ref.)

Has the media influenced public attitudes to schizophrenia? Bowers F. **Ir Med J** 1999 Mar;92(2):263–4

Eye-tracking dysfunction and birth-month weather in schizophrenia. Kinney DK, et al. **J Abnorm Psychol** 1999 May;108(2):359–62

Clustering and switching strategies in verbal fluency tasks: comparison between schizophrenics and healthy adults. Robert PH, et al. **J Int Neuropsychol Soc** 1998 Nov; 4(6):539–46

The natural history and pathophysiology of treatment resistant schizophrenia. Sheitman BB, et al. **J Psychiatr Res** 1998 May-Aug;32(3-4):143–50 (84 ref.)

Schizophrenia researchers striving for early detection and intervention [news] Stephenson J. **JAMA** 1999 May 26; 281(20):1877–8

Probing informed consent in schizophrenia research [news] Stephenson J. **JAMA** 1999 Jun 23-30;281(24):2273–4

Schizophrenia. Schultz SK, et al. **Lancet** 1999 Apr 24; 353(9162):1425–30 (42 ref.)

Development and validation of a measure of patients' knowledge about schizophrenia. Ascher-Svanum H. **Psychiatr Serv** 1999 Apr;50(4):561–3

Health and self-care practices of persons with schizophrenia. Holmberg SK, et al. **Psychiatr Serv** 1999 Jun;50(6):827–9

Caffeine and schizophrenia. Hughes JR, et al. **Psychiatr Serv** 1998 Nov;49(11):1415–7 (25 ref.)

Narratives of twenty to thirty year outcomes in schizophrenia. Seeman MV. **Psychiatry** 1998 Fall; 61(3):249–61

Executive-frontal lobe cognitive dysfunction in schizophrenia: a symptom subtype analysis. Mahurin RK, et al. **Psychiatry Res** 1998 Jun 15;79(2):139–49

HIV-risk behaviour and knowledge about HIV/AIDS among patients with schizophrenia. Grassi L, et al. **Psychol Med** 1999 Jan;29(1):171–9

Terminator: An unusual form of self-mutilation. Bharath S, et al. **Psychopathology** 1999 Jul-Aug;32(4):184–6

Schizophrenia research: a biennium of progress. Proceedings from the Sixth International Congress on Schizophrenia Research. Colorado Springs, CO, April 12–16, 1997. Buchanan RW, et al. **Schizophr Bull** 1998;24(4):501–18

Antipsychotics: Past and Future: National Institute of Mental Health Division of Services and Intervention Research Workshop, July 14, 1998. Dawkins K, et al. **Schizophr Bull** 1999;25(2):395–405

First person account: coming apart--a tribute to Mark. Hochman K. **Schizophr Bull** 1999;25(1):183–6

The Russian concept of schizophrenia: a review of the literature. Lavretsky H. **Schizophr Bull** 1998;24(4):537–57 (166 ref.)

Family caregiving in schizophrenia: domains and distress. Schene AH, et al. **Schizophr Bull** 1998;24(4):609–18

VII International Congress on Schizophrenia Research. Santa Fe, New Mexico, USA. April 17–21, 1999. Abstracts. **Schizophr Res** 1999 Apr;36(1-3):1–382

Adverse pregnancy outcome in schizophrenic women: occurrence and risk factors. Bennedsen BE. **Schizophr Res** 1998 Sep 7;33(1-2):1–26 (230 ref.)

Sense and nonsense: an essay on schizophrenia research ethics. Carpenter WT, et al. **Schizophr Res** 1999 Feb 15; 35(3):219–25; discussion 227–36

Blunted cortisol response to a psychosocial stressor in schizophrenia. Jansen LM, et al. **Schizophr Res** 1998 Sep 7;33(1-2):87–94

A comparative study of sertraline versus imipramine in postpsychotic depressive disorder of schizophrenia. Kirli S, et al. **Schizophr Res** 1998 Sep 7;33(1-2):103–11

Recruitment of non-patient volunteers with schizophrenia spectrum personality symptoms. Kunkel R, et al. **Schizophr Res** 1998 Nov 30;34(3):181–6

The relationship between smooth pursuit eye movements and tardive dyskinesia in schizophrenia. Ross DE, et al. **Schizophr Res** 1998 May 25;31(2-3):141–50

Schizophrenia, substance use, and brain morphology. Scheller-Gilkey G, et al. **Schizophr Res** 1999 Jan 11; 35(2):113–20

The long-term home-making functioning of women with schizophrenia [letter] Srinivasan TN, et al. **Schizophr Res** 1999 Jan 4;35(1):97–8

Perception of the social support role of the extended family network by some Nigerians with schizophrenia and affective disorders. Ohaeri JU. **Soc Sci Med** 1998 Nov; 47(10):1463–72

[Fatal incidences during arrest of highly agitated persons] Pedal I, et al. **Arch Kriminol** 1999 Jan-Feb;203(1-2):1–9 (Eng. Abstr.) **(Ger)**

[Searching for a controlled madness. How artists were fascinated by images of schizophrenics] Graf G. **Fortschr Med** 1998 Dec 10;116(34):59–60 **(Ger)**

[Quality of life--what it means to me...Results of a survey among schizophrenic patients] Angermeyer MC, et al. **Psychiatr Prax** 1999 Mar;26(2):56–60 (Eng. Abstr.) **(Ger)**

[Transsexualism and schizophrenic psychosis. Problems preparing expert opinion on transsexualism] Caspari D, et al. **Psychiatr Prax** 1999 Mar;26(2):89–92 (Eng. Abstr.) **(Ger)**

[Psychopathological study on schizophrenic autism through the paintings of a case of simple schizophrenia] Inoue Y, et al. **Seishin Shinkeigaku Zasshi** 1998;100(6):398–411 (Eng. Abstr.) **(Jpn)**

[Association meaning of the emotionally aggressive words in a group of schizophrenic patients and in healthy controls. Semantic analysis] Hunca-Bednarska A. **Psychiatr Pol** 1998 May-Jun;32(3):329–40 (Eng. Abstr.) **(Pol)**

[Current concept of schizophrenia: state of the art] Tiganov AS. **Vestn Ross Akad Med Nauk** 1999;(1):7–11 (16 ref.) (Eng. Abstr.) **(Rus)**

BLOOD

Serum testosterone levels, mental disorders and criminal behaviour. Räsänen P, et al. **Acta Psychiatr Scand** 1999 May;99(5):348–52

Pretreatment plasma homovanillic acid in schizophrenia and schizoaffective disorder: the influence of demographic variables and the inpatient drug-free period. Sharma RP, et al. **Biol Psychiatry** 1998 Sep 15;44(6):488–92

Elevated plasma levels of S-100b protein in schizophrenic patients. Wiesmann M, et al. **Biol Psychiatry** 1999 Jun 1; 45(11):1508–11

3H-spiperone binding to lymphocytes in neuroleptic-naive-schizophrenia and the effect of neuroleptic treatment. Laufer N, et al. **Clin Neuropharmacol** 1999 Mar-Apr;22(2):110–4

The impact of clozapine treatment on serum lipids in chronic schizophrenic patients. Spivak B, et al. **Clin Neuropharmacol** 1999 Mar-Apr;22(2):98–101

Effects of the CYP2D6*10 allele on the steady-state plasma concentrations of haloperidol and reduced haloperidol in Japanese patients with schizophrenia. Mihara K, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):291–4

The use of a side effect as a qualitative indicator of plasma chlorpromazine levels. Chetty M, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):77–82

Laboratory findings in acute schizophrenia. Relevance to medical management on emergency admission. Hatta K, et al. **Gen Hosp Psychiatry** 1999 May-Jun;21(3):220–7

Supersensitive platelet glutamate receptors as a possible peripheral marker in schizophrenia. Berk M, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):119–22

Effects of gender and age on plasma levels of clozapine and its metabolites: analyzed by critical statistics. Lane HY, et al. **J Clin Psychiatry** 1999 Jan;60(1):36–40

Sex differences, season of birth and platelet 5-HT levels in schizophrenic patients. Mück-Seler D, et al. **J Neural Transm** 1999;106(3-4):337–47

Plasma catecholamine metabolites as markers for psychosis

and antipsychotic response in schizophrenia. Kelley ME, et al. **Neuropsychopharmacology** 1999 Jun;20(6):603–11

Differential effects of mental stress on plasma homovanillic acid in schizophrenia and normal controls. Sumiyoshi T, et al. **Neuropsychopharmacology** 1999 Apr;20(4):365–9

Changes in the serum levels of autoantibody to nerve growth factor in patients with schizophrenia. Klyushnik TP, et al. **Neurosci Behav Physiol** 1999 May–Jun;29(3):355–7

Therapeutic window of serum haloperidol concentration in acute schizophrenia and schizoaffective disorder. Ulrich S, et al. **Pharmacopsychiatry** 1998 Sep;31(5):163–9

Neurochemical variables in schizophrenic patients during switching from neuroleptics to clozapine. Hatzimanolis J, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1077–85

What can the investigation of phosphoinositide signaling system in platelets of schizophrenic patients tell us? Strunecká A, et al.
Prostaglandins Leukot Essent Fatty Acids 1999 Jul;61(1):1–5 (47 ref.)

Plasma concentrations of timiperone and its reduced metabolite in the patients on timiperone. Shimoda K, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):535–40

Reduced level of plasma antioxidant uric acid in schizophrenia. Yao JK, et al. **Psychiatry Res** 1998 Jul 27; 80(1):29–39

In-vitro and in-vivo evaluation of the drug–drug interaction between fluvoxamine and clozapine. Chang WH, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):91–8

Effects of haloperidol treatment on prolactin response to D-fenfluramine challenge in acute schizophrenia. Mohr P, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):322–5

Serum levels of soluble IL-2 receptor alpha, IL-6 and IL-1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97–106

Increased serum neopterin levels in acutely ill and recovered schizophrenic patients. Korte S, et al. **Schizophr Res** 1998 Jun 22;32(1):63–7

Factors confounding studies of circulating soluble interleukin-2 receptor levels in schizophrenia [letter; comment] Pollmächer T, et al. **Schizophr Res** 1998 Sep 7;33(1–2):123–4. Comment on: Schizophr Res 1998 Feb 9;29(3):263–7.

Reduced status of plasma total antioxidant capacity in schizophrenia. Yao JK, et al. **Schizophr Res** 1998 Jun 22; 32(1):1–8

[The level of lipid peroxidation and the function of the antioxidant system in different forms of schizophrenia] Rachkauskas GS. **Lik Sprava** 1998 Jul–Aug;(5):92–3 (Eng. Abstr.) **(Rus)**

[Biochemical characteristics of blood from patients with febrile attacks of schizophrenia] Roslyi IM, et al.
Vopr Med Khim 1998 Jul–Aug;44(4):393–8 (Eng. Abstr.) **(Rus)**

CEREBROSPINAL FLUID

Cerebrospinal fluid glutamate inversely correlates with positive symptom severity in unmedicated male schizophrenic/schizoaffective patients. Faustman WO, et al. **Biol Psychiatry** 1999 Jan 1;45(1):68–75

Reduction of chromogranin A and B but not C in the cerebrospinal fluid in subjects with schizophrenia. Landén M, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):311–5

Blood–cerebrospinal fluid barrier impairment as indicator for an immune process in schizophrenia. Schwarz MJ, et al. **Neurosci Lett** 1998 Sep 11;253(3):201–3

Higher cerebrospinal fluid angiotensin-converting enzyme levels in neuroleptic-treated than in drug-free patients with schizophrenia. Wahlbeck K, et al. **Schizophr Bull** 1998; 24(3):391–7

CSF N-CAM in neuroleptic-naïve first-episode patients with schizophrenia. Vawter MP, et al. **Schizophr Res** 1998 Nov 30;34(3):123–31

CHEMICALLY INDUCED

Prenatal methylazoxymethanol acetate alters behavior and brain NGF levels in young rats: a possible correlation with the development of schizophrenia-like deficits. Fiore M, et al. **Neuropharmacology** 1999 Jun;38(6):857–69

The neuropsychopharmacology of phencyclidine: from NMDA receptor hypofunction to the dopamine hypothesis of schizophrenia. Jentsch JD, et al.
Neuropsychopharmacology 1999 Mar;20(3):201–25 (250 ref.)

Psilocybin induces schizophrenia-like psychosis in humans via a serotonin-2 agonist action. Vollenweider FX, et al. **Neuroreport** 1998 Dec 1;9(17):3897–902

Phencyclidine in the social interaction test: an animal model of schizophrenia with face and predictive validity. Sams-Dodd F. **Rev Neurosci** 1999;10(1):59–90 (243 ref.)

Backward masking in schizophrenia: time course of visual processing deficits during task performance. Suslow T, et al. **Schizophr Res** 1998 Sep 7;33(1–2):79–86

CLASSIFICATION

Symptom classification of schizophrenia changes with the duration of illness. Hori A, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):447–52

The cycloid type and its differentiation from core schizophrenia: a phenomenological approach. Sigmund D, et al. **Compr Psychiatry** 1999 Jan–Feb;40(1):4–18 (92 ref.)

Dimensions of schizophrenic positive symptoms: an exploratory factor analysis investigation. Kitamura T, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(3):130–5

Absence of a subgroup of chronic schizophrenia in monozygotic twins. Consequences for considerations on the pathogenesis of schizophrenic psychoses. Pfuhlmann B, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(1):50–4

Visual scanning of faces correlates with schizophrenia symptomatology. Rosse RB, et al.
Prog Neuropsychopharmacol Biol Psychiatry 1998 Aug; 22(6):971–9

Interrater reliability of the Japanese version of the Positive and Negative Syndrome Scale and the appraisal of its training effect. Igarashi Y, et al.
Psychiatry Clin Neurosci 1998 Oct;52(5):467–70

Predicting quality of life from symptomatology in schizophrenia at exacerbation and stabilization.
Bow-Thomas CC, et al. **Psychiatry Res** 1999 May 31; 86(2):131–42

Neuropsychological correlates of negative, disorganized and psychotic symptoms in schizophrenia. Basso MR, et al. **Schizophr Res** 1998 May 25;31(2–3):99–111

Meta-analysis of symptom factors in schizophrenia. Grube BS, et al. **Schizophr Res** 1998 May 25;31(2–3):113–20

What predicts the course of expressed emotion in relatives of patients with schizophrenia or related psychoses? Boye B, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jan; 34(1):35–43

COMPLICATIONS

No increased incidence of Alzheimer's disease in elderly schizophrenics. Jellinger KA, et al.
Acta Neuropathol (Berl) 1999 Feb;97(2):165–9

Criteria defining refractory schizophrenia. Hori A, et al.
Acta Psychiatr Scand 1999 Feb;99(2):141–7

Depression Scale (DEPS) in schizophrenia. Huttunen J, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):220–2

Dementia in affective disorder: a case-register study [see comments] Kessing LV, et al. **Acta Psychiatr Scand** 1999 Sep;100(3):176–85. Comment in: Acta Psychiatr Scand 1999 Sep;100(3):165–6.

First-case postpartum psychoses in Eastern Turkey: a clinical case and follow-up study. Kirpinar I, et al.
Acta Psychiatr Scand 1999 Sep;100(3):199–204

Hallucinatory modalities in prelingually deaf schizophrenic patients: a retrospective analysis of 67 cases. Schonauer K, et al. **Acta Psychiatr Scand** 1998 Nov;98(5):377–83

Substance abuse treatment for people with schizophrenia. Bellack AS, et al. **Addict Behav** 1998 Nov–Dec; 23(6):749–66 (94 ref.)

Changing patterns of illicit substance use among schizophrenic patients: 1984–1996. Patkar AA, et al.
Am J Addict 1999 Winter;8(1):65–71

Course of substance abuse in patients with and without schizophrenia. Westermeyer JJ, et al. **Am J Addict** 1999 Winter;8(1):55–64

Schizophrenia and sudden death: a medical examiner case study. Chute D, et al. **Am J Forensic Med Pathol** 1999 Jun;20(2):131–5 (17 ref.)

Use of the CAGE questionnaire in older adults with schizophrenia or schizoaffective disorder [letter] Lehman MS, et al. **Am J Geriatr Psychiatry** 1999 Summer;7(3):269

Bupropion and smoking cessation [letter] Evins AE, et al.
Am J Psychiatry 1999 May;156(5):798–9

Schizophrenia and major affective disorder among Medicaid recipients with HIV/AIDS in New Jersey. Walkup J, et al. **Am J Public Health** 1999 Jul;89(7):1101–3

What gives rise to impaired smooth pursuit in the relatives of patients with schizophrenia? Abel LA.
Arch Ophthalmol 1999 Apr;117(4):522–3

The link between diabetes and schizophrenia: an immunological explanation [letter] Holden RJ, et al.
Aust N Z J Psychiatry 1999 Apr;33(2):286–7

Processing of auditory stimuli during visual attention in patients with schizophrenia. Alain C, et al.
Biol Psychiatry 1998 Dec 1;44(11):1151–9

Sleep-disordered breathing and periodic limb movements in sleep in older patients with schizophrenia. Ancoli-Israel S, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1426–32

Extrapyramidal symptoms and neuropsychological deficits in schizophrenia. Palmer BW, et al. **Biol Psychiatry** 1999 Mar 15;45(6):791–4

Severe mental illness and substance misuse [editorial] Weaver T, et al. **BMJ** 1999 Jan 16;318(7177):137–8

'Pfropfschizophrenie' revisited. Schizophrenia in people with mild learning disability. Doody GA, et al.
Br J Psychiatry 1998 Aug;173:145–53

Cognitive deficit in schizophrenia and its neurochemical basis. Breier A. **Br J Psychiatry Suppl** 1999;(37):16–8 (20 ref.)

Group treatment for substance abuse in schizophrenia. Addington J, et al. **Can J Psychiatry** 1998 Oct;43(8):843–5

Clozapine and substance abuse in patients with schizophrenia [letter] Lee ML, et al. **Can J Psychiatry** 1998 Oct; 43(8):855–6

Risperidone treatment for a patient suffering from schizophrenia and IDDM [letter] Melamed Y, et al.
Can J Psychiatry 1998 Nov;43(9):956

Re: Correlation between cognitive functioning and the symptomatology of schizophrenia [letter; comment] Stip E. **Can J Psychiatry** 1998 Oct;43(8):854–5. Comment on: Can J Psychiatry 1997 Dec;42(10):1066–71.

Effect of amantadine on sexual dysfunction in neuroleptic-treated male schizophrenic patients. Valevski A, et al. **Clin Neuropharmacol** 1998 Nov–Dec;21(6):355–7

Gender differences in homeless persons with schizophrenia and substance abuse. Brunette M, et al.
Community Ment Health J 1998 Dec;34(6):627–42

Selegiline augmentation of antipsychotics for the treatment of negative symptoms in schizophrenia. Gupta S, et al.
Compr Psychiatry 1999 Mar–Apr;40(2):148–50

Obsessive-compulsive disorder among schizophrenic patients: an exploratory study using functional magnetic resonance imaging data. Levine JB, et al.
Compr Psychiatry 1998 Sep–Oct;39(5):308–11

Depression and schizophrenia in epilepsy: social and biological risk factors. Schmitz EB, et al. **Epilepsy Res** 1999 May;35(1):59–68

Epithalamus calcifications in schizophrenia. Caputo A, et al.
Eur Arch Psychiatry Clin Neurosci 1998;248(6):272–6

Using multidimensional scaling and cluster analysis for understanding information processing and schizophrenia. Catalano JA. **Genet Soc Gen Psychol Monogr** 1999 Aug; 125(3):313–28 (45 ref.)

Clozapine for comorbid substance use disorder and schizophrenia: do patients with schizophrenia have a reward-deficiency syndrome that can be ameliorated by clozapine? Green AI, et al. **Harv Rev Psychiatry** 1999 Mar–Apr;6(6):287–96 (94 ref.)

Lead poisoning in a schizophrenic. Handa R, et al.
Indian J Med Sci 1998 Sep;52(9):414–6

Characteristics of patients with schizophrenia successive to childhood attention deficit hyperactivity disorder (ADHD). Elman I, et al. **Isr J Psychiatry Relat Sci** 1998; 35(4):280–6

Context-processing deficits in schizophrenia: converging evidence from three theoretically motivated cognitive tasks. Cohen JD, et al. **J Abnorm Psychol** 1999 Feb; 108(1):120–33

Electrical and mechanical abnormalities in the heart of a schizophrenic patient with hyponatremia derived from water intoxication. Yanagi N, et al. **J Cardiol** 1998 Sep; 32(3):197–204

Syndromes of schizophrenia and language dysfunction. Shean GD. **J Clin Psychol** 1999 Feb;55(2):233–40

Global-local processing in schizophrenia: hemispheric asymmetry and symptom-specific interference. Ferman TJ, et al. **J Int Neuropsychol Soc** 1999 Jul;5(5):442–51

Effectiveness of antipsychotic medication in people with intellectual disability and schizophrenia: a systematic review. Duggan L, et al. **J Intellect Disabil Res** 1999 Apr; 43 (Pt 2):94–104 (56 ref.)

Cue dependent right hemineglect in schizophrenia: a kinematic analysis. Downing ME, et al.
J Neurol Neurosurg Psychiatry 1998 Oct;65(4):454–9

Spontaneous dyskinesia in first episode schizophrenia. Puri BK, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan; 66(1):76–8

Stability of neurological soft signs in chronically hospitalized schizophrenic patients. Smith RC, et al.
J Neuropsychiatry Clin Neurosci 1999 Winter;11(1):91–6

Dimensionality of depression in acute schizophrenia: a methodological study using the Bech-Rafaelsen Melancholia Scale (BRMES). Müller MJ, et al.
J Psychiatr Res 1998 Nov–Dec;32(6):369–78

Course of psychopathology, cognition and neurobiological abnormality in schizophrenia: developmental origins and amelioration by antipsychotics? Waddington JL, et al.
J Psychiatr Res 1998 May–Aug;32(3–4):179–89 (151 ref.)

The somatic component of schizophrenia: a dissociation of the goals of visual attention and bifoveal fixation? Korn H. **Med Hypotheses** 1999 Feb;52(2):163–70 (24 ref.)

High seroprevalence of Borna virus infection in schizophrenic patients, family members and mental health workers in Taiwan. Chen CH, et al. **Mol Psychiatry** 1999 Jan;4(1):33–8

Neurocognitive dysfunction in patients diagnosed with schizophrenia and alcoholism. Allen DN, et al.
Neuropsychology 1999 Jan;13(1):62–8

Neurocognitive deficit in schizophrenia: a quantitative review of the evidence. Heinrichs RW, et al.
Neuropsychology 1998 Jul;12(3):426–45

Impairment of consciously controlled use of memory in schizophrenia. Kazes M, et al. **Neuropsychology** 1999 Jan; 13(1):54–61

Nicotine withdrawal and psychiatric symptoms in cigarette smokers with schizophrenia. Dalack GW, et al.
Neuropsychopharmacology 1999 Aug;21(2):195–202

Olfactory dysfunction in schizophrenia: a qualitative and quantitative review. Moberg PJ, et al.
Neuropsychopharmacology 1999 Sep;21(3):325–40 (90 ref.)

Fidelity to assertive community treatment and client outcomes in the New Hampshire dual disorders study. McHugo GJ, et al. **Psychiatr Serv** 1999 Jun;50(6):818–24

Predicting quality of life from symptomatology in schizophrenia at exacerbation and stabilization.
Bow-Thomas CC, et al. **Psychiatry Res** 1999 May 31; 86(2):131–42

Preattentive visual search and perceptual grouping in schizophrenia. Carr VJ, et al. **Psychiatry Res** 1998 Jun 15; 79(2):151–62

Immediate versus delayed visual memory task performance among schizophrenic patients and normal control subjects.

Dougherty DM, et al. **Psychiatry Res** 1998 Jul 13; 79(3):255–65

Increased olfactory sensitivity in first episode psychosis and the effect of neuroleptic treatment on olfactory sensitivity in schizophrenia. Sirota P, et al. **Psychiatry Res** 1999 May 31;86(2):143–53

Prediction of the deficit syndrome from initial deficit symptoms in the early course of schizophrenia. Subotnik KL, et al. **Psychiatry Res** 1998 Jul 27;80(1):53–9

Concurrent and predictive validity of the Allen Cognitive Levels Assessment. Velligan DI, et al. **Psychiatry Res** 1998 Sep 21;80(3):287–98

Immediate memory, attention and communication disturbances in schizophrenia patients and their relatives. Docherty NM, et al. **Psychol Med** 1999 Jan;29(1):189–97

Increased automatic spreading activation in healthy subjects with elevated scores in a scale assessing schizophrenic language disturbances. Moritz S, et al. **Psychol Med** 1999 Jan;29(1):161–70

Errorless learning and the cognitive rehabilitation of memory-impaired schizophrenic patients. O'Carroll RE, et al. **Psychol Med** 1999 Jan;29(1):105–12

On the puzzle of language, pragmatics, and schizophrenia. Fine J. **Psychol Rep** 1999 Feb;84(1):84–6

Patterns of relation and premorbid personality in late paraphrenia and depression. Fuchs T. **Psychopathology** 1999 Mar–Apr;32(2):70–80

Anhedonia in the deficit syndrome of schizophrenia. Loas G, et al. **Psychopathology** 1999 Jul–Aug;32(4):207–19

Comorbidity in schizophrenia: a prognostic study of personality disorders in recovered and non-recovered schizophrenia patients. Torgalsbøen AK. **Scand J Psychol** 1999 Jun;40(2):147–52

Heterogeneity of the psychoses: is there a neurodegenerative psychosis? Knoll JL 4th, et al. **Schizophr Bull** 1998; 24(3):365–79 (99 ref.)

Auditory laterality and selective attention: normal performance in patients with early-onset schizophrenia. Oie M, et al. **Schizophr Bull** 1998;24(4):643–52

Depression during the longitudinal course of schizophrenia. Sands JR, et al. **Schizophr Bull** 1999;25(1):157–71

Symptomatic overlap of cocaine intoxication and acute schizophrenia at emergency presentation. Serper MR, et al. **Schizophr Bull** 1999;25(2):387–94

Suicidal ideation and suicide attempts in recent-onset schizophrenia. Young AS, et al. **Schizophr Bull** 1998; 24(4):629–34

Selective attention in schizophrenia: relationship to verbal working memory. Barch DM, et al. **Schizophr Res** 1998 Sep 7;33(1–2):53–61

Correlates of insight and insight change in schizophrenia. Carroll A, et al. **Schizophr Res** 1999 Feb 15;35(3):247–53

Olanzapine response in treatment-refractory schizophrenic patients with a history of substance abuse. Conley RR, et al. **Schizophr Res** 1998 Sep 7;33(1–2):95–101

Differential prevalence of cigarette smoking in patients with schizophrenic vs mood disorders. Diwan A, et al. **Schizophr Res** 1998 Sep 7;33(1–2):113–8

Dual diagnosis of substance abuse in schizophrenia: prevalence and impact on outcomes. Dixon L. **Schizophr Res** 1999 Mar 1;35 Suppl:S93–100 (36 ref.)

Mini-Mental State Examination (MMSE) performance of partially remitted community-dwelling patients with schizophrenia. Ganguli R, et al. **Schizophr Res** 1998 Sep 7;33(1–2):45–52

Left nostril olfactory identification impairment in a subgroup of male patients with schizophrenia. Good KP, et al. **Schizophr Res** 1998 Sep 7;33(1–2):35–43

Convergence of cognitive and adaptive decline in late-life schizophrenia. Harvey PD, et al. **Schizophr Res** 1999 Jan 4;35(1):77–84

How do early stages of information processing influence social skills in patients with schizophrenia? Ikebuchi E, et al. **Schizophr Res** 1999 Feb 15;35(3):255–62

Bone age in adolescents with schizophrenia and obsessive-compulsive disorder. Katz N, et al. **Schizophr Res** 1998 Sep 7;33(1–2):119–22

Toward a rational pharmacotherapy of comorbid substance abuse in schizophrenic patients. Krystal JH, et al. **Schizophr Res** 1999 Mar 1;35 Suppl:S35–49 (128 ref.)

Expressed emotion of families and negative/depressive symptoms in schizophrenia: a cohort study in Japan. Mino Y, et al. **Schizophr Res** 1998 Nov 30;34(3):159–68

The composition of the depressive syndrome in acute schizophrenia. Nakaya M, et al. **Schizophr Res** 1998 Nov 30;34(3):151–7

Autopsy study of Alzheimer's disease brain pathology in schizophrenia. Niizato K, et al. **Schizophr Res** 1998 May 25;31(2–3):177–84

Comparison of set-shifting ability in patients with chronic schizophrenia and frontal lobe damage. Pantelis C, et al. **Schizophr Res** 1999 Jun 22;37(3):251–70

A multimethod approach to assessing perseverations in schizophrenia patients. Perry W, et al. **Schizophr Res** 1998 Sep 7;33(1–2):69–77

Episodic memory and learning in patients with chronic schizophrenia. Rushe TM, et al. **Schizophr Res** 1999 Jan 4;35(1):85–96

Early age of onset, brain morphological changes and non-consistent motor asymmetry in schizophrenic patients. Seisdedos RT, et al. **Schizophr Res** 1999 Jun 22;37(3):225–31

The relationship between affect expression and affect recognition in schizophrenia. Shaw RJ, et al. **Schizophr Res** 1999 Jun 22;37(3):245–50

[Cognitive dysfunction in schizophrenia--new therapeutic possibilities. 11th ECNP. 31 October–4 November 1998, Paris] **Fortschr Neurol Psychiatr** 1998 Dec;66(12 Suppl):1–4 **(Ger)**

[Neuropsychological deficits in the initial acute episode of schizophrenia. A comparison with chronic schizophrenic patients] Sobizack N, et al. **Nervenarzt** 1999 May; 70(5):408–15 (Eng. Abstr.) **(Ger)**

[Agenesis septum pellucidum in a schizophrenic patient] Supprian T, et al. **Nervenarzt** 1999 Mar;70(3):269–75 (Eng. Abstr.) **(Ger)**

[A case of metastatic testicular tumor in a schizophrenic patient: experience of multidisciplinary treatment at the urology ward] Hasegawa T, et al. **Hinyokika Kiyo** 1998 Dec;44(12):897–9 (Eng. Abstr.) **(Jpn)**

[Electroencephalography and cognitive processes in schizophrenia] Alfimova MV, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(11):55–8 (57 ref.) **(Rus)**

[Impulse control disorders in schizophrenia in children, adolescents and young people] Golik AN. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(7):63–7 (129 ref.) **(Rus)**

[Kinesthetic brain evoked potentials in schizophrenia] Gordeev SA, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(4):51–3 (Eng. Abstr.) **(Rus)**

[The correlation of depressive and negative symptoms in the picture of post-schizophrenic depressions] Shumskaia KN. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(6):13–7 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Early visual information processing and the Defence Mechanism Test in schizophrenia. Bogren LY, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):460–5

MMPI variables predictive of schizophrenia in the Copenhagen High-Risk Project: a 25-year follow-up. Carter JW, et al. **Acta Psychiatr Scand** 1999 Jun; 99(6):432–40

A factor analysis of the Mini-Mental State Examination in schizophrenic disorders. de Leon J, et al. **Acta Psychiatr Scand** 1998 Nov;98(5):366–8

Subjective and external assessments of quality of life in schizophrenia: relationship to insight. Doyle M, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):466–72

Symptom classification of schizophrenia changes with the duration of illness. Hori A, et al. **Acta Psychiatr Scand** 1999 Jun;99(6):447–52

Factorial structure of the Positive and Negative Syndrome Scale (PANSS): a forced five-dimensional factor analysis. Lançon C, et al. **Acta Psychiatr Scand** 1998 Nov; 98(5):369–76

Validity and reliability of the French-language version of the Positive and Negative Syndrome Scale (PANSS). Lançon C, et al. **Acta Psychiatr Scand** 1999 Sep; 100(3):237–43

Family burden and coping strategies in schizophrenia: are key relatives really different to other relatives? Magliano L, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):10–5

Development and preliminary application of a new scale for assessing dysfunctional working models of self and others (DWM-S) in severely disturbed patients. Perris C, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):219–23

Social deficits associated with schizophrenia defined in terms of interpersonal Machiavellianism. Sullivan RJ, et al. **Acta Psychiatr Scand** 1999 Feb;99(2):148–54

What is the nature of increased Stroop interference in schizophrenia? Boucart M, et al. **Acta Psychol (Amst)** 1999 Mar;101(1):3–25

Early- vs. late-onset schizophrenia: is it time to define the difference? [letter; comment] Almeida OP. **Am J Geriatr Psychiatry** 1998 Fall;6(4):345–7. Comment on: Am J Geriatr Psychiatry 1997 Fall;5(4):302–17.

Understanding schizophrenia: a silent spring? [editorial; comment] **Am J Psychiatry** 1998 Dec;155(12):1657–9. Comment on: Am J Psychiatry 1998 Dec;155(12):1661–70.

Comparison of ketamine-induced thought disorder in healthy volunteers and thought disorder in schizophrenia. Adler CM, et al. **Am J Psychiatry** 1999 Oct;156(10):1646–9

Neuropsychological functions in patients with schizophrenia [letter] Albus M, et al. **Am J Psychiatry** 1999 Oct; 156(10):1665–6

Memory impairment in schizophrenia: a meta-analysis. Aleman A, et al. **Am J Psychiatry** 1999 Sep;156(9):1358–66

Cognitive substrates of thought disorder, II: specifying a candidate cognitive mechanism [comment] Aloia MS, et al. **Am J Psychiatry** 1998 Dec;155(12):1677–84. Comment on: Am J Psychiatry 1998 Dec;155(12):1671–6.

Stability of the diagnosis of deficit syndrome in schizophrenia. Amador XF, et al. **Am J Psychiatry** 1999 Apr;156(4):637–9

Prediction of neuropsychological performance by neurological signs in schizophrenia. Arango C, et al. **Am J Psychiatry** 1999 Sep;156(9):1349–57

Relationship of awareness of dyskinesia in schizophrenia to insight into mental illness. Arango C, et al. **Am J Psychiatry** 1999 Jul;156(7):1097–9

Symptom correlates of prepulse inhibition deficits in male schizophrenic patients. Braff DL, et al. **Am J Psychiatry** 1999 Apr;156(4):596–602

Gender differences in temporal lobe structures of patients with schizophrenia: a volumetric MRI study. Bryant NL, et al. **Am J Psychiatry** 1999 Apr;156(4):603–9

Change in basal ganglia volume over 2 years in patients with schizophrenia: typical versus atypical neuroleptics. Corson PW, et al. **Am J Psychiatry** 1999 Aug;156(8):1200–4

Recalling word lists reveals "cognitive dysmetria" in schizophrenia: a positron emission tomography study. Crespo-Facorro B, et al. **Am J Psychiatry** 1999 Mar; 156(3):386–92

Schizophrenia and intellectual decline [letter; comment] David A. **Am J Psychiatry** 1998 Nov;155(11):1634–5; discussion 1636–7. Comment on: Am J Psychiatry 1997 May;154(5):635–9.

Behavioral and intellectual markers for schizophrenia in apparently healthy male adolescents. Davidson M, et al. **Am J Psychiatry** 1999 Sep;156(9):1328–35

Senile degeneration and cognitive impairment in chronic schizophrenia. Dwork AJ, et al. **Am J Psychiatry** 1998 Nov; 155(11):1536–43

Schizophrenia and intellectual decline [letter; comment] Gold J. **Am J Psychiatry** 1998 Nov;155(11):1633–4; discussion 1636–7. Comment on: Am J Psychiatry 1997 May;154(5):635–9.

Longitudinal study of cognitive function in first-episode and recent-onset schizophrenia. Gold S, et al. **Am J Psychiatry** 1999 Sep;156(9):1342–8

Cognitive substrates of thought disorder, I: the semantic system [see comments] Goldberg TE, et al. **Am J Psychiatry** 1998 Dec;155(12):1671–6. Comment in: Am J Psychiatry 1998 Dec;155(12):1677–84.

Backward masking in unmedicated schizophrenic patients in psychotic remission: possible reflection of aberrant cortical oscillation. Green MF, et al. **Am J Psychiatry** 1999 Sep; 156(9):1367–73

Subcortical MRI volumes in neuroleptic-naive and treated patients with schizophrenia. Gur RE, et al. **Am J Psychiatry** 1998 Dec;155(12):1711–7

Suicidal behavior in schizophrenia: characteristics of individuals who had and had not attempted suicide. Harkavy-Friedman JM, et al. **Am J Psychiatry** 1999 Aug; 156(8):1276–8

Three-dimensional analysis with MRI and PET of the size, shape, and function of the thalamus in the schizophrenia spectrum. Hazlett EA, et al. **Am J Psychiatry** 1999 Aug; 156(8):1190–9

Subgenual cingulate cortex volume in first-episode psychosis. Hirayasu Y, et al. **Am J Psychiatry** 1999 Jul;156(7):1091–3

Longitudinal neuropsychological follow-up study of patients with first-episode schizophrenia. Hoff AL, et al. **Am J Psychiatry** 1999 Sep;156(9):1336–41

Selective speech perception alterations in schizophrenic patients reporting hallucinated "voices". Hoffman RE, et al. **Am J Psychiatry** 1999 Mar;156(3):393–9

Empirical validation of primary negative symptoms: independence from effects of medication and psychosis. Kelley ME, et al. **Am J Psychiatry** 1999 Mar;156(3):406–11

Quantitative volumetric MRI study of the cerebellum and vermis in schizophrenia: clinical and cognitive correlates. Levitt JJ, et al. **Am J Psychiatry** 1999 Jul;156(7):1105–7

Serotonin 5-HT2 receptors in schizophrenia: a PET study using [18F]setoperone in neuroleptic-naive patients and normal subjects. Lewis R, et al. **Am J Psychiatry** 1999 Jan; 156(1):72–8

Searching for the neuropathology of schizophrenia: neuroimaging strategies and findings [editorial] Lieberman JA. **Am J Psychiatry** 1999 Aug;156(8):1133–6

Word recall in schizophrenia: a connectionist model. Nestor PG, et al. **Am J Psychiatry** 1998 Dec;155(12):1685–90

Suicidal behavior in patients with schizophrenia and other psychotic disorders. Radomsky ED, et al. **Am J Psychiatry** 1999 Oct;156(10):1590–5

Distinguishing change in primary and secondary negative symptoms [letter] Remington G, et al. **Am J Psychiatry** 1999 Jun;156(6):974–5

Premorbid social functioning with schizophrenia and bipolar disorder [letter; comment] Reznik I, et al. **Am J Psychiatry** 1999 Jun;156(6):986. Comment on: Am J Psychiatry 1997 Nov;154(11):1544–50.

Association between age at onset of schizophrenia and obstetric complications [letter; comment] Schaub RT, et al. **Am J Psychiatry** 1998 Nov;155(11):1644–5. Comment on: Am J Psychiatry 1997 Sep;154(9):1220–7.

Impaired glucose tolerance and abnormal movements in patients with schizophrenia. Schultz SK, et al. **Am J Psychiatry** 1999 Apr;156(4):640–2

More stringent threshold needed [letter; comment] Spence SA. **Am J Psychiatry** 1999 May;156(5):803–4. Comment on: Am J Psychiatry 1997 Dec;154(12):1670–5.

Schizophrenia and intellectual decline [letter; comment] Stevens JR, et al. **Am J Psychiatry** 1998 Nov; 155(11):1635–7. Comment on: Am J Psychiatry 1997 May;154(5):635–9.

Suicide risk in schizophrenia [letter; comment] Vieta E, et al. **Am J Psychiatry** 1998 Nov;155(11):1640. Comment on: Am J Psychiatry 1997 Sep;154(9):1235–42.

Prevalence of depressive symptoms early in the course of schizophrenia. Wassink TH, et al. **Am J Psychiatry** 1999 Feb;156(2):315–6

Informed consent: assessment of comprehension [see comments] Wirshing DA, et al. **Am J Psychiatry** 1998 Nov;

155(11):1508–11. Comment in: Am J Psychiatry 1998 Nov;155(11):1486–8.

Is schizophrenia a progressive neurodevelopmental disorder? Toward a unitary pathogenetic mechanism [see comments] Woods BT. **Am J Psychiatry** 1998 Dec;155(12):1661–70 (108 ref.). Comment in: Am J Psychiatry 1998 Dec;155(12):1657–9.

Diagnostic stability of schizophrenia in psychiatric emergency room patients. Dhossche DM, et al. **Ann Clin Psychiatry** 1998 Dec;10(4):151–5

Left temporal lobe dysfunction in schizophrenia: event-related potential and behavioral evidence from phonetic and tonal dichotic listening tasks. Bruder G, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):267–76

Regional gray matter, white matter, and cerebrospinal fluid distributions in schizophrenic patients, their siblings, and controls. Cannon TD, et al. **Arch Gen Psychiatry** 1998 Dec; 55(12):1084–91

Motion perception in schizophrenia. Chen Y, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):149–54

Dependence of impaired eye tracking on deficient velocity discrimination in schizophrenia. Chen Y, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):155–61

Functional mechanisms underlying impaired recognition memory and conscious awareness in patients with schizophrenia [see comments] Danion JM, et al. **Arch Gen Psychiatry** 1999 Jul;56(7):639–44. Comment in: Arch Gen Psychiatry 1999 Jul;56(7):645–6. Comment in: Arch Gen Psychiatry 1999 Jul;56(7):647–8.

Brain activations in schizophrenia during a graded memory task studied with functional neuroimaging. Fletcher PC, et al. **Arch Gen Psychiatry** 1998 Nov;55(11):1001–8

Cortical abnormalities in schizophrenia identified by structural magnetic resonance imaging. Goldstein JM, et al. **Arch Gen Psychiatry** 1999 Jun;56(6):537–47

Left planum temporale volume reduction in schizophrenia. Kwon JS, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):142–8

Compromised white matter tract integrity in schizophrenia inferred from diffusion tensor imaging. Lim KO, et al. **Arch Gen Psychiatry** 1999 Apr;56(4):367–74

Generalized cognitive deficits in schizophrenia: a study of first-episode patients. Mohamed S, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):749–54

Sensorimotor gating and thought disturbance measured in close temporal proximity in schizophrenic patients. Perry W, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):277–81

Cortical dysfunction in schizophrenia during auditory word and tone working memory demonstrated by functional magnetic resonance imaging. Stevens AA, et al. **Arch Gen Psychiatry** 1998 Dec;55(12):1097–103

Hippocampal volume in first-episode psychoses and chronic schizophrenia: a high-resolution magnetic resonance imaging study. Velakoulis D, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):133–41

Word and tone working memory deficits in schizophrenia. Wexler BE, et al. **Arch Gen Psychiatry** 1998 Dec; 55(12):1093–6

Construct validity of neuropsychological tests in schizophrenia. Allen DN, et al. **Assessment** 1998 Dec; 5(4):365–74

Affect traits in differential diagnosis of anxiety, depressive, and schizophrenic disorders using the Multiple Affect Adjective Check List-Revised. Lubin B, et al. **Assessment** 1998 Dec;5(4):309–19

Schizophrenia and consuming body waste [letter] Razali SM. **Aust N Z J Psychiatry** 1998 Dec;32(6):888–90

The thalamus and the schizophrenia phenotype: failure to replicate reduced volume. Arciniegas D, et al. **Biol Psychiatry** 1999 May 15;45(10):1329–35

Distinguishing schizophrenic patients from healthy controls by quantitative measurement of eye movement parameters. Arolt V, et al. **Biol Psychiatry** 1998 Sep 15;44(6):448–58

Modulation of language processing in schizophrenia: effects of context and haloperidol on the event-related potential. Condray R, et al. **Biol Psychiatry** 1999 May 15; 45(10):1336–55

Landmark-based morphometric analysis of first-episode schizophrenia. DeQuardo JR, et al. **Biol Psychiatry** 1999 May 15;45(10):1321–8

Continuous-processing related ERPS in adult schizophrenia: continuity with childhood onset schizophrenia. Strandburg RJ, et al. **Biol Psychiatry** 1999 May 15;45(10):1356–69

Longitudinal assessment of methylphenidate effects on oral word production and symptoms in first-episode schizophrenia at acute and stabilized phases. Szeszko PR, et al. **Biol Psychiatry** 1999 Mar 15;45(6):680–6

Triplets with schizophrenia [letter; comment] Torrey EF, et al. **Biol Psychiatry** 1999 Mar 1;45(5):655 (4 ref.). Comment on: Biol Psychiatry 1997 Dec 15;42(12):1186–7.

Loss, humiliation and entrapment as appraisals of schizophrenic illness: a prospective study of depressed and non-depressed patients. Rooske O, et al. **Br J Clin Psychol** 1998 Sep;37 (Pt 3):259–68

Definitions of schizophrenia [letter] First MB, et al. **Br J Psychiatry** 1999 Mar;174:273

Premorbid adjustment and schizophrenia [letter; comment] Krauss H, et al. **Br J Psychiatry** 1998 Dec;173:536. Comment on: Br J Psychiatry 1998 Apr;172:308–13; discussion 314–5.

Critique of the DSM-IV operational diagnostic criteria for schizophrenia [editorial] Maj M. **Br J Psychiatry** 1998 Jun; 172:458, 460

Diagnostic significance of Schneider's first-rank symptoms in schizophrenia. Comparative study between schizophrenic and non-schizophrenic psychotic disorders. Peralta V, et al. **Br J Psychiatry** 1999 Mar;174:243–8

Paraphrenia redefined. Ravindran AV, et al. **Can J Psychiatry** 1999 Mar;44(2):133–7

Improving outcomes for patients with schizophrenia: new hope for an old illness [editorial; comment] Seeman MV. **CMAJ** 1999 Mar 23;160(6):826–8. Comment on: CMAJ 1999 Mar 23;160(6):843–6.

Treatment satisfaction compared with outcome in severe dual disorders. Ries RK, et al. **Community Ment Health J** 1999 Jun;35(3):213–21

Two factors of experienced deficits in schizophrenia and their relationships with positive, negative, and depressive symptoms. Iwawaki A, et al. **Compr Psychiatry** 1998 Nov-Dec;39(6):386–91

Insight and illness in chronic schizophrenia. Schwartz RC. **Compr Psychiatry** 1998 Sep-Oct;39(5):249–54

Cannabis psychosis and acute schizophrenia. a case-control study from India. Basu D, et al. **Eur Addict Res** 1999 Jun; 5(2):71–3

Diagnostic interview for genetic studies (DIGS): inter-rater and test-retest reliability of the French version. Preisig M, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(4):174–9

Adult schizophrenic-like variant of adrenoleukodystrophy. Szpak GM, et al. **Folia Neuropathol** 1996;34(4):184–92

Laboratory findings in acute schizophrenia. Relevance to medical management on emergency admission. Hatta K, et al. **Gen Hosp Psychiatry** 1999 May-Jun;21(3):220–7

Late paraphrenia: a variant of schizophrenia manifest in late life or an organic clinical syndrome? A review of recent evidence. Roth M, et al. **Int J Geriatr Psychiatry** 1998 Nov; 13(11):775–84 (60 ref.)

MMPI-2 characteristics of adults diagnosed with attention deficit disorder. Coleman AR, et al. **Int J Neurosci** 1998 Dec;96(3–4):161–75

Social anhedonia as a predictor of the development of schizophrenia-spectrum disorders. Kwapil TR. **J Abnorm Psychol** 1998 Nov;107(4):558–65

Crack cocaine and schizophrenia as risk factors for PPD reactivity in the dually diagnosed. Taubes T, et al. **J Addict Dis** 1998;17(3):63–74

Pupillary responses evoked during verbal fluency tasks indicate semantic network dysfunction in schizophrenia. Granholm E, et al. **J Clin Exp Neuropsychol** 1998 Dec; 20(6):856–72

Gender-related clinical differences in older patients with schizophrenia. Lindamer LA, et al. **J Clin Psychiatry** 1999 Jan;60(1):61–7; quiz 68–9

Sexual offending and antisocial sexual behavior among patients with schizophrenia. Phillips SL, et al. **J Clin Psychiatry** 1999 Mar;60(3):170–5

Differential diagnosis of PTSD, schizophrenia, and depression with the MMPI-2. Greenblatt RL, et al. **J Clin Psychol** 1999 Feb;55(2):217–23

Rey-Osterrieth Complex Figure Test performance in acute, chronic, and remitted schizophrenia patients. Silverstein SM, et al. **J Clin Psychol** 1998 Nov;54(7):985–94

Examining an affect regulation model of substance abuse in schizophrenia. The role of traits and coping. Blanchard JJ, et al. **J Nerv Ment Dis** 1999 Feb;187(2):72–9

Word recognition, discrimination accuracy, and decision bias in schizophrenia: association with positive symptomatology and depressive symptomatology. Brébion G, et al. **J Nerv Ment Dis** 1998 Oct;186(10):604–9

Primitive defense mechanisms in schizophrenics and borderline patients. Leichsenring F. **J Nerv Ment Dis** 1999 Apr;187(4):229–36

Personality as a predictor of the variability of insight in schizophrenia. Lysaker PH, et al. **J Nerv Ment Dis** 1999 Feb;187(2):119–22

Insight in schizophrenia: its relationship to measures of executive functions. Mohamed S, et al. **J Nerv Ment Dis** 1999 Sep;187(9):525–31

Relationship of psychiatric experience and interrater reliability in assessment of negative symptoms. Müller MJ, et al. **J Nerv Ment Dis** 1999 May;187(5):316–8

Social cognition and social skills in schizophrenia: the role of self-monitoring. Penn DL, et al. **J Nerv Ment Dis** 1999 Mar;187(3):188–90

Thought disorder and psychosocial functioning in schizophrenia: the concurrent and predictive relationships. Racenstein JM, et al. **J Nerv Ment Dis** 1999 May; 187(5):281–9

The relationship between insight and suicidality among patients with schizophrenia. Schwartz RC, et al. **J Nerv Ment Dis** 1999 Jun;187(6):376–8

Relations between cognitive and symptom profile heterogeneity in schizophrenia. Seaton BE, et al. **J Nerv Ment Dis** 1999 Jul;187(7):414–9

The relative influences of symptoms, insight, and neurocognition on social adjustment in schizophrenia and schizoaffective disorder. Smith TE, et al. **J Nerv Ment Dis** 1999 Feb;187(2):102–8

Dimensions of social adjustment in schizophrenia: a factor analysis. Smith TE, et al. **J Nerv Ment Dis** 1999 Jan; 187(1):55–7

Information processing in schizophrenia and bipolar disorder: a discriminant analysis. Tam WC, et al. **J Nerv Ment Dis** 1998 Oct;186(10):597–603

Spontaneous dyskinesia in first episode schizophrenia. Puri BK, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan; 66(1):76–8

Left lenticular lacuna and schizophrenia [letter] Luauté JP, et al. **J Neuropsychiatry Clin Neurosci** 1998 Summer; 10(3):367–8

Incidence of ectopic gray matter in patients with schizophrenia and healthy control subjects studied with MRI. Nopoulos P, et al. **J Neuropsychiatry Clin Neurosci** 1998 Summer;10(3):351–3

The Rorschach Schizophrenia Index (SCZI): an examination of reliability, validity, and diagnostic efficiency. Hilsenroth MJ, et al. **J Pers Assess** 1998 Jun;70(3):514–34

Special feature: childhood personality characteristics of schizophrenia: manifestations of, or risk factors for, the disorder? Ellison Z, et al. **J Personal Disord** 1998 Fall; 12(3):247–61 (69 ref.)

Tower of Hanoi and WCST performance in schizophrenia: problem-solving capacity and clinical correlates. Bustini M, et al. **J Psychiatr Res** 1999 May-Jun;33(3):285–90

New views on the course and treatment of schizophrenia. Carpenter WT Jr. **J Psychiatr Res** 1998 May-Aug; 32(3–4):191–5 (56 ref.)

The role of life events in onset and recurrent episodes of schizophrenia and schizoaffective disorder. Castine MR, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):283–8

Which characteristics of schizophrenia predate psychosis? Davies N, et al. **J Psychiatr Res** 1998 May-Aug; 32(3–4):121–31 (134 ref.)

The profiles of clinical deterioration in schizophrenia. McGlashan TH. **J Psychiatr Res** 1998 May-Aug; 32(3–4):133–41 (56 ref.)

Exploratory eye movement dysfunctions in patients with schizophrenia: possibility as a discriminator for schizophrenia. Matsushima E, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):289–95

Elevated response of growth hormone to graded doses of apomorphine in schizophrenic patients. Müller-Spahn F, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):265–71

Speaking behavior and speech sound characteristics in acute schizophrenia. Püschel J, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):89–97

Trait versus state aspects of the MMPI during the early course of schizophrenia. Subotnik KL, et al. **J Psychiatr Res** 1999 May-Jun;33(3):275–84

Differentiation of cognitive and motor slowing in the Digit Symbol Test (DST): differences between depression and schizophrenia. van Hoof JJ, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):99–103

Listening to the voice hearers. Romme M. **J Psychosoc Nurs Ment Health Serv** 1998 Sep;36(9):40–4

Two methods for semi-automated quantification of changes in ventricular volume and their use in schizophrenia. Saeed N, et al. **Magn Reson Imaging** 1998 Dec;16(10):1237–47

Nonlinear analysis of the EEG of schizophrenics with optimal embedding dimension. Jeong J, et al. **Med Eng Phys** 1998 Nov-Dec;20(9):669–76

Diminished facial expression despite the existence of pleasant emotional experience in schizophrenia. Iwase M, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):189–94

Detecting structural changes in whole brain based on nonlinear deformations-application to schizophrenia research. Gaser C, et al. **Neuroimage** 1999 Aug;10(2):107–13

Motor dysfunction and sensorimotor cortex activation changes in schizophrenia: A study with functional magnetic resonance imaging. Schröder J, et al. **Neuroimage** 1999 Jan; 9(1):81–7

The concept of pseudoschizophrenia. Adityanjee. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Jul; 11(3):171–3; discussion 174

The mental health provider's view. Pollack DA. **New Dir Ment Health Serv** 1999 Spring;(81):25–32

Processing and recognition of facial affect in schizophrenia. Federman EJ, et al. **Percept Mot Skills** 1998 Oct; 87(2):484–6

Psychopathy and violent behavior among patients with schizophrenia or schizoaffective disorder. Nolan KA, et al. **Psychiatr Serv** 1999 Jun;50(6):787–92

In sickness and in health: dilemmas of the person with severe mental illness. Barham P, et al. **Psychiatry** 1998 Summer; 61(2):163–70

The constitution of community: how individuals diagnosed with schizophrenia and their friends achieved community. Beal G. **Psychiatry** 1999 Summer;62(2):173–86

The thickness of being: intentional worlds, strategies of identity, and experience among schizophrenics. Corin E. **Psychiatry** 1998 Summer;61(2):133–46

Private and public in the lives of chronic schizophrenic patients. Leferink K. **Psychiatry** 1998 Summer;61(2):147–62 (60 ref.)

Personality and psychopathology in schizophrenia: the association between personality traits and symptoms. Lysaker PH, et al. **Psychiatry** 1999 Spring;62(1):36–48

Schizophrenia and severe affective illness alternating over time in some patients: a hypothesis. Sigman M. **Psychiatry** 1998 Fall;61(3):262–8 (39 ref.)

Defining new frameworks for psychosocial intervention. Williams CC, et al. **Psychiatry** 1999 Spring;62(1):61–78

Schizophrenia: is it time to replace the term? Ono Y, et al. **Psychiatry Clin Neurosci** 1999 Jun;53(3):335–41

Neurological signs and psychomotor performance in patients with schizophrenia, their relatives and healthy controls. Flyckt L, et al. **Psychiatry Res** 1999 May 31;86(2):113–29

(50 ref.)
Gaze discrimination is unimpaired in schizophrenia. Franck N, et al. **Psychiatry Res** 1998 Oct 19;81(1):67-75
Social perception and social skill in schizophrenia. Ihnen GH, et al. **Psychiatry Res** 1998 Sep 21;80(3):275-86
Perception of emotion and neurocognitive functioning in schizophrenia: what's the link? Kee KS, et al. **Psychiatry Res** 1998 Oct 19;81(1):57-65
Auditory event-related potentials and clinical scores in unmedicated schizophrenic patients. Laurent A, et al. **Psychiatry Res** 1999 Jun 30;86(3):229-38
Relationship of gender and menstrual status to symptoms and medication side effects in patients with schizophrenia. Magharious W, et al. **Psychiatry Res** 1998 Feb 27; 77(3):159-66
Low resolution brain electromagnetic tomography (LORETA) functional imaging in acute, neuroleptic-naive, first-episode, productive schizophrenia. Pascual-Marqui RD, et al. **Psychiatry Res** 1999 Jun 30;90(3):169-79
Olfactory identification deficiency and WCST performance in men with schizophrenia. Saoud M, et al. **Psychiatry Res** 1998 Nov 16;81(2):251-7
Dissociation of affect recognition and mood state from blunting in patients with schizophrenia. Sweet LH, et al. **Psychiatry Res** 1998 Dec 14;81(3):301-8
CSF levels of HVA and 5-HIAA in drug-free schizophrenic patients and healthy controls: a prospective study focused on their predictive value for outcome in schizophrenia. Wieselgren IM, et al. **Psychiatry Res** 1998 Nov 16; 81(2):101-10
Peripheral-type benzodiazepine receptors in diagnostic subtypes of schizophrenic patients. Wodarz N, et al. **Psychiatry Res** 1998 Dec 14;81(3):363-9
Cognitive processes in auditory hallucinations: attributional biases and metacognition. Baker CA, et al. **Psychol Med** 1998 Sep;28(5):1199-208
Impaired generation and use of strategy in schizophrenia: evidence from visuospatial and verbal tasks. Iddon JL, et al. **Psychol Med** 1998 Sep;28(5):1049-62
The dimensional structure of first episode psychosis: an exploratory factor analysis. McGorry PD, et al. **Psychol Med** 1998 Jul;28(4):935-47
Saccadic and attentional abnormalities in patients with schizophrenia. Maruff P, et al. **Psychol Med** 1998 Sep; 28(5):1091-100
Aspects of dysphoria and symptoms of schizophrenia. Norman RM, et al. **Psychol Med** 1998 Nov;28(6):1433-41
Sentence verification and delusions: a content-specific deficit. Rossell SL, et al. **Psychol Med** 1998 Sep;28(5):1189-98
Pragmatic language behaviors of adults diagnosed with chronic schizophrenia. Byrne ME, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):835-46
Psychopathological dimensions and lack of insight in schizophrenia. Cuesta MJ, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):895-8
Reliability and validity of the functional assessment rating scale. Schwartz RC. **Psychol Rep** 1999 Apr;84(2):389-91
Personality and defenses: a cross-cultural study of psychiatric patients and healthy individuals in Nicaragua and Sweden. Sundbom E, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1331-47
Is schizophrenic symptomatology independent of the phase of the illness? Nakaya M, et al. **Psychopathology** 1999 Jan-Feb;32(1):23-9
Clinical homogeneity of DSM-IV schizophrenic disorders. Oulis P, et al. **Psychopathology** 1999 Jul-Aug;32(4):187-91
Relations between neuropsychological vulnerability markers and negative symptoms in schizophrenia. Suslow T, et al. **Psychopathology** 1998;31(4):178-87
The evaluation of women with schizophrenia. Canuso CM, et al. **Psychopharmacol Bull** 1998;34(3):271-7 (78 ref.)
Social environment and longevity in schizophrenia [see comments] Christensen AJ, et al. **Psychosom Med** 1999 Mar-Apr;61(2):141-5. Comment in: Psychosom Med 1999 Mar-Apr;61(2):146-7.
The development of a scale to measure concepts of schizophrenia: experience among Brazilian psychiatrists. Santos DN, et al. **Rev Saude Publica** 1998 Jun;32(3):201-8
Microscopic polyangiitis presenting as schizophrenia. Askari A, et al. **Rheumatol Int** 1999;18(5-6):215-7
First person account: psychosocial implications of stigma caused by misdiagnosis. Bjorklund R. **Schizophr Bull** 1998; 24(4):653-5
Cognitive asymmetry patterns in schizophrenia: active and withdrawn syndromes and sex differences as moderators. Gruzelier JH, et al. **Schizophr Bull** 1999;25(2):349-62
Outcome of schizophrenia in relation to brain abnormalities. Staal WG, et al. **Schizophr Bull** 1999;25(2):337-48 (80 ref.)
Confirmatory factor analysis of the WAIS-R in patients with schizophrenia. Allen DN, et al. **Schizophr Res** 1998 Nov 9;34(1-2):87-94
Validity study of the Brazilian version of the Calgary Depression Scale for Schizophrenia. Bressan RA, et al. **Schizophr Res** 1998 Jun 22;32(1):41-9
Internal consistency, temporal stability and neuropsychological correlates of three cognitive components of the Positive and Negative Syndrome Scale (PANSS). Bryson G, et al. **Schizophr Res** 1999 Jul 27; 38(1):27-35
Differences in distribution of ages of onset in males and females with schizophrenia. Castle D, et al. **Schizophr Res** 1998 Oct 9;33(3):179-83
Illness duration and neuropsychological impairments in schizophrenia. Cuesta MJ, et al. **Schizophr Res** 1998 Oct 9;33(3):141-50
P50 abnormalities in schizophrenia: relationship to clinical and neuropsychological indices of attention. Erwin RJ, et al. **Schizophr Res** 1998 Oct 9;33(3):157-67
Schizophrenic delusions: the detection of warning signals. Jørgensen P. **Schizophr Res** 1998 Jun 22;32(1):17-22
Dynamical aspects of motor and perceptual processes in schizophrenic patients and healthy controls. Keil A, et al. **Schizophr Res** 1998 Oct 9;33(3):169-78
Event-related potentials in schizophrenic patients during a degraded stimulus version of the visual continuous performance task. Knott V, et al. **Schizophr Res** 1999 Feb 15;35(3):263-78
Avoidance learning in schizophrenia: a dissociation between the effects of aversive and non-aversive stimuli. Kosmidis MH, et al. **Schizophr Res** 1999 Jul 27;38(1):51-9
Evaluation of standardized rater training for the Positive and Negative Syndrome Scale (PANSS). Müller MJ, et al. **Schizophr Res** 1998 Aug 17;32(3):151-60
Long-range correlations in choice sequences of schizophrenic patients. Paulus MP, et al. **Schizophr Res** 1999 Jan 4;35(1):69-75
Dimensional structure of psychotic symptoms: an item-level analysis of SAPS and SANS symptoms in psychotic disorders. Peralta V, et al. **Schizophr Res** 1999 Jul 27; 38(1):13-26
Emotional response as a function of symptoms in schizophrenia. Quirk SW, et al. **Schizophr Res** 1998 Jun 22;32(1):31-9
The relationship between symptoms and insight in schizophrenia: a longitudinal perspective. Smith TE, et al. **Schizophr Res** 1998 Sep 7;33(1-2):63-7
Neuropsychological and oculomotor correlates of spatial working memory performance in schizophrenia patients and controls. Snitz BE, et al. **Schizophr Res** 1999 Jul 27; 38(1):37-50
Neuropsychological, neurological and symptom correlates of impaired olfactory identification in schizophrenia. Stedman TJ, et al. **Schizophr Res** 1998 Jun 22;32(1):23-30
Risk factors for onset and persistence of psychosis. Van Os J, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec; 33(12):596-605 (110 ref.)
Psychiatric symptoms and an anterior cranial fossa meningioma. Hutchinson G, et al. **West Indian Med J** 1998 Sep;47(3):111-2
[The contribution of functional neuroimaging to the understanding of schizophrenic psychosis] Jeannerod M. **Bull Acad Natl Med** 1999;183(3):477-84; discussion 484-5 (19 ref.) (Eng. Abstr.) **(Fre)**
[Depressive symptoms in schizophrenia] Gerard A. **Encephale** 1998 Jul;24 Spec No 1:24-6 **(Fre)**
[Stroop test and schizophrenia] Grapperon J, et al. **Encephale** 1999 Jan-Feb;25(1):50-8 (63 ref.) (Eng. Abstr.) **(Fre)**
[Depression scales in schizophrenia: a critical review] Reine G, et al. **Encephale** 1998 Nov-Dec;24(6):530-40 (Eng. Abstr.) **(Fre)**
[Follow up of a schizophrenic patient in general practice] Kapsambelis V. **Presse Med** 1998 Dec 19;27(40):2170-8 (Eng. Abstr.) **(Fre)**
[Schizophreniform psychosis with polydipsia and electrolyte imbalance in multiple sclerosis] Dieterle L, et al. **Nervenarzt** 1998 Aug;69(8):698-701 (Eng. Abstr.) **(Ger)**
[Dimensions of schizophrenic symptomatology. Comparative testing of several theoretical models in a first-episode population sample] Löffler W, et al. **Nervenarzt** 1999 May; 70(5):416-29 (Eng. Abstr.) **(Ger)**
[Neuropsychological deficits in the initial acute episode of schizophrenia. A comparison with chronic schizophrenic patients] Sobizack N, et al. **Nervenarzt** 1999 May; 70(5):408-15 (Eng. Abstr.) **(Ger)**
[Decompensated "anorexia" at age 52--diagnosis of schizophrenia 30 years later] Hoffmann-Richter U. **Psychiatr Prax** 1999 Mar;26(2):97-8 **(Ger)**
[The course of schizophrenic illnesses] Riecher-Rössler A, et al. **Wien Med Wochenschr** 1998;148(11-12):259-65 (36 ref.) (Eng. Abstr.) **(Ger)**
[Schizophrenia--an illness and its treatment reflected in public attitude] Schöny W. **Wien Med Wochenschr** 1998; 148(11-12):284-8 (18 ref.) (Eng. Abstr.) **(Ger)**
[Regional cerebral blood flow changes in schizophrenic patients detected by SPECT studies under resting and active conditions] Ambrus E, et al. **Orv Hetil** 1999 Aug 8;140(32):1783-6 (Eng. Abstr.) **(Hun)**
[Differential diagnosis of schizophrenic symptoms complicated with brain anomalies including bilateral temporal arachnoid cysts by eye mark recorder and PET: a case study] Shiraishi H, et al. **Seishin Shinkeigaku Zasshi** 1999;101(4):350-67 (Eng. Abstr.) **(Jpn)**
[Prodromal period of the first episode of schizophrenia] Bogacki P, et al. **Psychiatr Pol** 1998 May-Jun;32(3):239-50 (62 ref.) (Eng. Abstr.) **(Pol)**
[Schizophrenia, schizophrenia-like disorders and delusional disorders in patients with anorexia nervosa: literature review and report of 3 cases] Brzozowska A, et al. **Psychiatr Pol** 1998 May-Jun;32(3):265-74 (Eng. Abstr.) **(Pol)**
[Cathamnestic long-term study in early schizophrenia. The assessment of psychological status and social functioning] Krupka-Matuszyczk I. **Psychiatr Pol** 1998 May-Jun; 32(3):287-95 (Eng. Abstr.) **(Pol)**
[Subjective quality of life in patients with chronic schizophrenia and in healthy persons] Spiridonow K, et al. **Psychiatr Pol** 1998 May-Jun;32(3):297-306 (Eng. Abstr.) **(Pol)**
[Psychopathological profile of acute schizophrenic syndromes diagnosed according to ICD-10 and DSM-IV criteria] Wciórka J, et al. **Psychiatr Pol** 1998 May-Jun; 32(3):251-64 (Eng. Abstr.) **(Pol)**
[Electroencephalographic correlates of schizophrenic type mental disorders at an early age in childhood] Kozlovskaia GV, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999; 99(3):37-40 (Eng. Abstr.) **(Rus)**
[The release of growth hormone in response to injection of trihexiphenidyl in patients with Alzheimer's disease, multi infarction dementia and in schizophrenic patients with intact cognitive functions (preliminary results)] Salganik I. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(5):53-4 **(Rus)**
[Neuropsychological alteration in schizophrenia and its modification] Penadés R, et al. **Actas Esp Psiquiatr** 1999 May-Jun;27(3):198-208 (101 ref.) (Eng. Abstr.) **(Spa)**
[A critical study of the influence of negative symptoms on the therapeutic response in schizophrenia] Acuña MJ, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Jul-Aug;26(4):209-13 (Eng. Abstr.) **(Spa)**
[Biological markers of schizophrenic symptoms: functional neuroimaging] Crespo-Facorro B, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Sep-Oct;26(5):309-14 (50 ref.) (Eng. Abstr.) **(Spa)**
[Neurophysiology and neuropsychology of recognition confabulation in hospitalized schizophrenic patients] Salazar Fraile J, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Jul-Aug;26(4):254-9 (Eng. Abstr.) **(Spa)**

DIET THERAPY

Megavitamin and dietary treatment in schizophrenia: a randomised, controlled trial. Vaughan K, et al. **Aust N Z J Psychiatry** 1999 Feb;33(1):84-8

DRUG THERAPY

Neuroleptics, subjective perception and quality of life [letter; comment] Eranti S, et al. **Acta Psychiatr Scand** 1998 Aug; 98(2):165-6. Comment on: Acta Psychiatr Scand 1997 Jun;95(6):464-8.
A combined analysis of double-blind studies with risperidone vs. placebo and other antipsychotic agents: factors associated with extrapyramidal symptoms. Lemmens P, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):160-70
Risperidone and clozapine combination for the treatment of refractory schizophrenia. Morera AL, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):305-6; discussion 306-7
Health care costs of therapy-refractory schizophrenic patients treated with clozapine: a study in a community psychiatric service in Italy. Percudani M, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):274-80
Amisulpride, and atypical antipsychotic, in the treatment of acute episodes of schizophrenia: a dose-ranging study vs. haloperidol. The Amisulpride Study Group. Puech A, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):65-72
Therapeutic alliance in cognitive therapy for schizophrenic and other long-term mentally ill patients: development and relationship to outcome in an in-patient treatment programme. Svensson B, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):281-7
Subjective experience and mental side-effects of antipsychotic treatment. Gerlach J, et al. **Acta Psychiatr Scand Suppl** 1999;395:113-7
Conventional vs. newer antipsychotics in elderly patients. Jeste DV, et al. **Am J Geriatr Psychiatry** 1999 Winter; 7(1):70-6 (33 ref.)
Clozapine and risperidone in chronic schizophrenia: effects on symptoms, parkinsonian side effects, and neuroendocrine response. Breier AF, et al. **Am J Psychiatry** 1999 Feb; 156(2):294-8
Diazepam treatment of early signs of exacerbation in schizophrenia. Carpenter WR Jr, et al. **Am J Psychiatry** 1999 Feb;156(2):299-303
Cognitive deficits in adolescents with schizophrenia undergoing antipsychotic treatment [letter; comment] Chabrol H, et al. **Am J Psychiatry** 1999 Mar;156(3):497-8 . Comment on: Am J Psychiatry 1997 Nov;154(11):1613-5.
Change in basal ganglia volume over 2 years in patients with schizophrenia: typical versus atypical neuroleptics. Corson PW, et al. **Am J Psychiatry** 1999 Aug;156(8):1200-4
Improvement of schizophrenic patients with primary negative symptoms treated with amisulpride. Amisulpride Study Group. Danion JM, et al. **Am J Psychiatry** 1999 Apr;156(4):610-6
Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Dunayevich E, et al. **Am J Psychiatry** 1999 Jul;156(7):1127; discussion 1127-8. Comment on: Am J Psychiatry 1998 Apr;155(4):499-504.
Olanzapine overdose [letter] Gardner DM, et al. **Am J Psychiatry** 1999 Jul;156(7):1118-9
Subcortical MRI volumes in neuroleptic-naive and treated patients with schizophrenia. Gur RE, et al. **Am J Psychiatry** 1998 Dec;155(12):1711-7
Risperidone-induced tardive dyskinesia [letter] Hong KS, et

al. **Am J Psychiatry** 1999 Aug;156(8):1290

Sexual disturbances during clozapine and haloperidol treatment for schizophrenia. Hummer M, et al. **Am J Psychiatry** 1999 Apr;156(4):631–3

Clinical and theoretical implications of 5-HT2 and D2 receptor occupancy of clozapine, risperidone, and olanzapine in schizophrenia. Kapur S, et al. **Am J Psychiatry** 1999 Feb;156(2):286–93

Persistence of haloperidol in human brain tissue. Kornhuber J, et al. **Am J Psychiatry** 1999 Jun;156(6):885–90

Normalization of information processing deficits in schizophrenia with clozapine. Kumari V, et al. **Am J Psychiatry** 1999 Jul;156(7):1046–51

Risperidone for exclusively negative symptoms [letter] Lane HY, et al. **Am J Psychiatry** 1999 Feb;156(2):335

Treatment of schizoaffective disorder and schizophrenia with mood symptoms. Levinson DF, et al. **Am J Psychiatry** 1999 Aug;156(8):1138–48 (64 ref.)

Effects of antipsychotic treatment on polysomnographic measures in schizophrenia: a replication and extension. Maixner S, et al. **Am J Psychiatry** 1998 Nov;155(11):1600–2

Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Meltzer HY. **Am J Psychiatry** 1999 Jul;156(7):1126–7; discussion 1127–8 . Comment on: Am J Psychiatry 1998 Apr;155(4):499–504.

Clozapine to olanzapine [letter] Millson RC, et al. **Am J Psychiatry** 1999 Jul;156(7):1121

Olanzapine-induced obsessive-compulsive disorder [letter] Mottard JP, et al. **Am J Psychiatry** 1999 May; 156(5):799–800

British experience with high-dose olanzapine for treatment-refractory schizophrenia [letter; comment] Mountjoy CQ, et al. **Am J Psychiatry** 1999 Jan;156(1):158–9 . Comment on: Am J Psychiatry 1997 Nov;154(11):1626.

Increase in expression of adhesion molecule receptors on T helper cells during antipsychotic treatment and relationship to blood-brain barrier permeability in schizophrenia. Müller N, et al. **Am J Psychiatry** 1999 Apr;156(4):634–6

Suggested minimal effective dose of risperidone based on PET-measured D2 and 5-HT2A receptor occupancy in schizophrenic patients. Nyberg S, et al. **Am J Psychiatry** 1999 Jun;156(6):869–75

Individualized risperidone dosing [letter; comment] Pies R. **Am J Psychiatry** 1999 Jul;156(7):1123–4. Comment on: Am J Psychiatry 1998 Mar;155(3):365–6.

Effect of clozapine and adjunctive high-dose glycine in treatment-resistant schizophrenia. Potkin SG, et al. **Am J Psychiatry** 1999 Jan;156(1):145–7

A dilemma born of progress: switching from clozapine to a newer antipsychotic. Rafal S, et al. **Am J Psychiatry** 1999 Jul;156(7):1086–90

Distinguishing change in primary and secondary negative symptoms [letter] Remington G, et al. **Am J Psychiatry** 1999 Jun;156(6):974–5

Predictors of treatment response from a first episode of schizophrenia or schizoaffective disorder [see comments] Robinson DG, et al. **Am J Psychiatry** 1999 Apr; 156(4):544–9. Comment in: Am J Psychiatry 1999 Apr;156(4):501–3.

Impact of clozapine on negative symptoms and on the deficit syndrome in refractory schizophrenia. Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Am J Psychiatry** 1999 Jan;156(1):88–93

Risperidone and clozapine for treatment-resistant schizophrenia [letter; comment] Rubin E. **Am J Psychiatry** 1999 Jul;156(7):1127; discussion 1127–8. Comment on: Am J Psychiatry 1998 Apr;155(4):499–504.

Clozapine and paroxetine in the treatment of schizophrenia with obsessive-compulsive features [letter] Strous RD, et al. **Am J Psychiatry** 1999 Jun;156(6):973–4

Placebo-controlled study of the D4/5-HT2A antagonist fananserin in the treatment of schizophrenia. Truffinet P, et al. **Am J Psychiatry** 1999 Mar;156(3):419–25

Clozapine for substance-abusing schizophrenic patients [letter] Tsuang JW, et al. **Am J Psychiatry** 1999 Jul; 156(7):1119–20

Evidence of clozapine's effectiveness in schizophrenia: a systematic review and meta-analysis of randomized trials. Wahlbeck K, et al. **Am J Psychiatry** 1999 Jul;156(7):990–9

Risperidone in treatment-refractory schizophrenia. Wirshing DA, et al. **Am J Psychiatry** 1999 Sep;156(9):1374–9

Olanzapine augmentation of clozapine. Gupta S, et al. **Ann Clin Psychiatry** 1998 Sep;10(3):113–5

D3 receptors and the actions of neuroleptics in the ventral striatopallidal system of schizophrenics. Joyce JN, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:595–613 (61 ref.)

Atypical antipsychotics: Part II: Adverse effects, drug interactions, and costs. Brown CS, et al. **Ann Pharmacother** 1999 Feb;33(2):210–7 (57 ref.)

Novel antipsychotics and patient care in state hospitals. Buckley PF. **Ann Pharmacother** 1998 Sep;32(9):906–14 (72 ref.)

No mourning for the conventional antipsychotics: the dawn of the atypical agents [comment] DeVane CL. **Ann Pharmacother** 1999 Jan;33(1):107–8. Comment on: Ann Pharmacother 1999 Jan;33(1):73–85.

Indirect modulation of dopamine D2 receptors as potential pharmacotherapy for schizophrenia: I. Adenosine agonists. Dixon DA, et al. **Ann Pharmacother** 1999 Apr;33(4):480–8 (94 ref.)

Atypical antipsychotics. Part I: Pharmacology, pharmacokinetics, and efficacy [see comments] Markowitz JS, et al. **Ann Pharmacother** 1999 Jan;33(1):73–85 (87 ref.) . Comment in: Ann Pharmacother 1999 Jan;33(1):107–8.

Famotidine in the management of schizophrenia. Martinez MC. **Ann Pharmacother** 1999 Jun;33(6):742–7 (14 ref.)

Very high cytochrome P4501A2 activity and nonresponse to clozapine [letter] Bender S, et al. **Arch Gen Psychiatry** 1998 Nov;55(11):1048–50

Glycine agonists: what can they teach us about schizophrenia? [comment] Farber NB, et al. **Arch Gen Psychiatry** 1999 Jan;56(1):13–7 (50 ref.). Comment on: Arch Gen Psychiatry 1999 Jan;56(1):21–7. Comment on: Arch Gen Psychiatry 1999 Jan;56(1):29–36.

A placebo-controlled trial of D-cycloserine added to conventional neuroleptics in patients with schizophrenia [see comments] Goff DC, et al. **Arch Gen Psychiatry** 1999 Jan;56(1):21–7. Comment in: Arch Gen Psychiatry 1999 Jan;56(1):13–7.

Efficacy of high-dose glycine in the treatment of enduring negative symptoms of schizophrenia [see comments] Heresco-Levy U, et al. **Arch Gen Psychiatry** 1999 Jan; 56(1):29–36. Comment in: Arch Gen Psychiatry 1999 Jan;56(1):13–7.

Predictors of relapse following response from a first episode of schizophrenia or schizoaffective disorder. Robinson D, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):241–7

Cost-effectiveness of clozapine in patients with high and low levels of hospital use. Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Arch Gen Psychiatry** 1999 Jun;56(6):565–72

Sustained long-term improvement with clozapine in schizophrenia. Oliveira-Souza R de O, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):18–22

Six-month outcome following a relapse of schizophrenia. Bergen J, et al. **Aust N Z J Psychiatry** 1998 Dec; 32(6):815–22

Does clozapine affect smoking rates? [letter] Chatterton R, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):890–1

Megavitamin and dietary treatment in schizophrenia: a randomised, controlled trial. Vaughan K, et al. **Aust N Z J Psychiatry** 1999 Feb;33(1):84–8

Comparative efficacy of olanzapine and haloperidol for patients with treatment-resistant schizophrenia [see comments] Breier A, et al. **Biol Psychiatry** 1999 Feb 15; 45(4):403–11. Comment in: Biol Psychiatry 1999 Feb 15;45(4):383–4.

P300 delay and attenuation in schizophrenia: reversal by neuroleptic medication. Coburn KL, et al. **Biol Psychiatry** 1998 Sep 15;44(6):466–74

Modulation of language processing in schizophrenia: effects of context and haloperidol on the event-related potential. Condray R, et al. **Biol Psychiatry** 1999 May 15; 45(10):1336–55

Pharmacologic strategies for augmenting cognitive performance in schizophrenia. Friedman JI, et al. **Biol Psychiatry** 1999 Jan 1;45(1):1–16 (160 ref.)

A placebo-controlled crossover trial of D-cycloserine added to clozapine in patients with schizophrenia. Goff DC, et al. **Biol Psychiatry** 1999 Feb 15;45(4):512–4

Dopamine D4 receptor gene polymorphisms and neuroleptic response in schizophrenia. Hwu HG, et al. **Biol Psychiatry** 1998 Sep 15;44(6):483–7

D-serine and the therapeutic challenge posed by the N-methyl-D-aspartate antagonist model of schizophrenia [editorial; comment] Krystal JH, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1075–6. Comment on: Biol Psychiatry 1998 Dec 1;44(11):1081–9.

Serotonergic basis of antipsychotic drug effects in schizophrenia. Lieberman JA, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1099–117 (213 ref.)

Newer antipsychotics in treatment-resistant schizophrenia [editorial; comment] Marder SR. **Biol Psychiatry** 1999 Feb 15;45(4):383–4. Comment on: Biol Psychiatry 1999 Feb 15;45(4):403–11.

Does akathisia influence psychopathology in psychotic patients treated with clozapine? Nair CJ, et al. **Biol Psychiatry** 1999 May 15;45(10):1376–83

Relationship between patient variables and plasma clozapine concentrations: a dosing nomogram. Perry PJ, et al. **Biol Psychiatry** 1998 Oct 15;44(8):733–8

A 1H-decoupled 31P chemical shift imaging study of medicated schizophrenic patients and healthy controls. Potwarka JJ, et al. **Biol Psychiatry** 1999 Mar 15; 45(6):687–93

Predictors of differential response to clozapine and haloperidol. Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Biol Psychiatry** 1998 Sep 15;44(6):475–82

Serotonin and schizophrenia [editorial] Tamminga CA. **Biol Psychiatry** 1998 Dec 1;44(11):1079–80

D-serine added to antipsychotics for the treatment of schizophrenia [see comments] Tsai G, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1081–9. Comment in: Biol Psychiatry 1998 Dec 1;44(11):1075–6.

Content and quality of 2000 controlled trials in schizophrenia over 50 years [see comments] Thornley B, et al. **BMJ** 1998 Oct 31;317(7167):1181–4. Comment in: BMJ 1999 Apr 17;318(7190):1075.

The use of atypical antipsychotics in the management of schizophrenia. Campbell M, et al. **Br J Clin Pharmacol** 1999 Jan;47(1):13–22 (35 ref.)

Serum concentrations and clinical effects of risperidone in schizophrenic patients in Singapore--a preliminary report [letter] Lee HS, et al. **Br J Clin Pharmacol** 1999 Apr; 47(4):460–1

Randomized controlled trial of teaching practice nurses to carry out structured assessments of patients receiving depot antipsychotic injections. Burns T, et al. **Br J Gen Pract** 1998 Dec;48(437):1845–8

Randomised double-blind comparison of the incidence of tardive dyskinesia in patients with schizophrenia during long-term treatment with olanzapine or haloperidol. Beasley CM, et al. **Br J Psychiatry** 1999 Jan;174:23–30

Schizophrenia and diabetes mellitus [letter] Mohan D, et al. **Br J Psychiatry** 1999 Feb;174:180–1

Oral olanzapine versus oral haloperidol in the maintenance treatment of schizophrenia and related psychoses. Tran PV, et al. **Br J Psychiatry** 1998 Jun;172:499–505

5-HT2A receptor blockade in patients with schizophrenia treated with risperidone or clozapine. A SPET study using the novel 5-HT2A ligand 123I-5-I-R-91150. Travis MJ, et al. **Br J Psychiatry** 1998 Sep;173:236–41

Olanzapine in the long-term treatment of schizophrenia. Kane J. **Br J Psychiatry Suppl** 1999;(37):26–9 (31 ref.)

An approach to treatment resistance in schizophrenia. Marder SR. **Br J Psychiatry Suppl** 1999;(37):19–22 (21 ref.)

Review of recent clinical studies with olanzapine. Tollefson GD, et al. **Br J Psychiatry Suppl** 1999;(37):30–5 (22 ref.)

Documenting informed consent for antipsychotic medication [editorial; comment] Holzapfel S. **Can Fam Physician** 1999 Jun;45:1403–4, 1415–6. Comment on: Can Fam Physician 1999 Jun;45 :1502–8. **(Eng, Fre)**

Phase-IV multicentre clinical study of risperidone in the treatment of outpatients with schizophrenia. The RIS-CAN-3 Study Group. Chouinard G, et al. **Can J Psychiatry** 1998 Dec;43(10):1018–25

Hospital days in clozapine-treated patients. Dickson RA, et al. **Can J Psychiatry** 1998 Nov;43(9):945–8

Aggression, agitation, and mania with olanzapine [letter] John V, et al. **Can J Psychiatry** 1998 Dec;43(10):1054

Clozapine and substance abuse in patients with schizophrenia [letter] Lee ML, et al. **Can J Psychiatry** 1998 Oct; 43(8):855–6

Typical and atypical antipsychotics in adolescent schizophrenia: efficacy, tolerability, and differential sensitivity to extrapyramidal symptoms. Lewis R. **Can J Psychiatry** 1998 Aug;43(6):596–604 (57 ref.)

Risperidone treatment for a patient suffering from schizophrenia and IDDM [letter] Melamed Y, et al. **Can J Psychiatry** 1998 Nov;43(9):956

3H-spiperone binding to lymphocytes in neuroleptic-naive-schizophrenia and the effect of neuroleptic treatment. Laufer N, et al. **Clin Neuropharmacol** 1999 Mar-Apr;22(2):110–4

The impact of clozapine treatment on serum lipids in chronic schizophrenic patients. Spivak B, et al. **Clin Neuropharmacol** 1999 Mar-Apr;22(2):98–101

Switching from therapy with typical antipsychotic agents to risperidone: long-term impact on patient outcome. Malla AK, et al. **Clin Ther** 1999 May;21(5):806–17

Drug utilization patterns and outcomes associated with in-hospital treatment with risperidone or olanzapine. Procyshyn RM, et al. **Clin Ther** 1998 Nov-Dec; 20(6):1203–17; discussion 1192–3

Improving outcome in schizophrenia: the case for early intervention [see comments] Malla AK, et al. **CMAJ** 1999 Mar 23;160(6):843–6 (73 ref.). Comment in: CMAJ 1999 Mar 23;160(6):826–8.

Improving outcomes for patients with schizophrenia: new hope for an old illness [editorial; comment] Seeman MV. **CMAJ** 1999 Mar 23;160(6):826–8. Comment on: CMAJ 1999 Mar 23;160(6):843–6.

Clozapine efficacy in tardive dyskinesia in schizophrenic patients. Bassitt DP, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(4):209–11

Long-term treatment with antipsychotic drugs in conventional doses prolonged QTc dispersion, but did not increase ventricular tachyarrhythmias in patients with schizophrenia in the absence of cardiac disease. Kitayama H, et al. **Eur J Clin Pharmacol** 1999 Jun;55(4):259–62

A mass in the buttock of a schizophrenic. Baird A, et al. **Eur J Surg Oncol** 1999 Apr;25(2):223–4

The clinical investigation of medicinal products in the treatment of schizophrenia. **Eur Neuropsychopharmacol** 1998 Aug;8(3):247–52 (0 ref.)

Depressive symptomatology during clozapine treatment: two case reports. Altamura AC, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):239–40

Combination treatment with clozapine and paroxetine in schizophrenia: safety and tolerability data from a prospective open clinical trial. Anghelescu I, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):315–20

Drug metabolism and atypical antipsychotics. Prior TI, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):301–9 (74 ref.)

Schizophrenia: do we really need placebo-controlled studies? Storosum JG, et al. **Eur Neuropsychopharmacol** 1998 Dec; 8(4):279–86

Choices in antipsychotic therapy in schizophrenia. Frankenburg FR. **Harv Rev Psychiatry** 1999 Jan-Feb; 6(5):241–9 (85 ref.)

Clozapine for comorbid substance use disorder and schizophrenia: do patients with schizophrenia have a reward-deficiency syndrome that can be ameliorated by

clozapine? Green AI, et al. **Harv Rev Psychiatry** 1999 Mar-Apr;6(6):287-96 (94 ref.)
Multiple outcome assessment in a study of the cost-effectiveness of clozapine in the treatment of refractory schizophrenia. Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Health Serv Res** 1998 Dec;33(5 Pt 1):1237-61
Sertindole in treating schizophrenia [letter] **Hosp Med** 1998 Feb;59(2):165
Olanzapine [letter; comment] Baldacchino AM, et al. **Hosp Med** 1998 Sep;59(9):737. Comment on: Br J Hosp Med 1997 Nov 5-18;58(9):442-5.
Novel antipsychotics, extrapyramidal side effects and tardive dyskinesia. Barnes TR, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S49-57 (100 ref.)
Lithium and clozapine-induced neutropenia/agranulocytosis. Blier P, et al. **Int Clin Psychopharmacol** 1998 May; 13(3):137-40
Critical issues in the treatment of schizophrenia. Gaebel W. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S1-6 (30 ref.)
A review of the safety and tolerability of sertindole. Hale AS. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S65-70 (22 ref.)
Nocturnal eating/drinking syndrome and neuroleptic-induced restless legs syndrome. Horiguchi J, et al. **Int Clin Psychopharmacol** 1999 Jan;14(1):33-6
Adjunctive nefazodone in neuroleptic-treated schizophrenic patients with predominantly negative symptoms: an open prospective pilot study. Joffe G, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):233-8
Risperidone is associated with blunting of D-fenfluramine evoked serotonergic responses in schizophrenia. Jones H, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):199-203
Sertindole: a review of clinical efficacy. Kane JM. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S59-63; discussion S63-4 (8 ref.)
How much do novel antipsychotics benefit the patients? Kasper S. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S71-7 (55 ref.)
Risperidone and olanzapine: optimal dosing for efficacy and tolerability in patients with schizophrenia. Kasper S. **Int Clin Psychopharmacol** 1998 Nov;13(6):253-62 (51 ref.)
The treatment of negative symptoms: a clinical and methodological study. Lapierre YD, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):101-12
Carbamazepine as an adjunct in the treatment of schizophrenia-like psychosis related to cannabis abuse. Leweke FM, et al. **Int Clin Psychopharmacol** 1999 Jan; 14(1):37-9
Early detection and intervention in schizophrenia. Linszen DH, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S31-4 (33 ref.)
Novel antipsychotics and negative symptoms. Möller HJ. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S43-7 (21 ref.)
Long-term treatment of chronic schizophrenia with risperidone: an open-label, multicenter study of 386 patients. Möller HJ, et al. **Int Clin Psychopharmacol** 1998 May;13(3):99-106
Implications of brain imaging for the management of schizophrenia. Nyberg S, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S15-20 (52 ref.)
Auto-amputation of the tongue associated with flupenthixol induced extrapyramidal symptoms. Pantanowitz L, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):129-31
Good medical practice in antipsychotic pharmacotherapy. Peuskens J. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S35-41 (32 ref.)
Fluvoxamine treatment of obsessive-compulsive symptoms in schizophrenic patients: an add-on open study. Poyurovsky M, et al. **Int Clin Psychopharmacol** 1999 Mar; 14(2):95-100
The effect of augmentation with moclobemide on symptoms of schizophrenia. Silver H, et al. **Int Clin Psychopharmacol** 1999 May;14(3):193-5
The effect of long-term antipsychotic treatment on the body weight of patients suffering from chronic schizophrenia: clozapine versus classical antipsychotic agents. Spivak B, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):229-32
The role of negative symptoms and cognitive dysfunction in schizophrenia outcome. Tamminga CA, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S21-6 (45 ref.)
Co-administration of citalopram and clozapine: effect on plasma clozapine levels. Taylor D, et al. **Int Clin Psychopharmacol** 1998 Jan;13(1):19-21
Reduced haloperidol does not interfere with the antipsychotic activity of haloperidol in the treatment of acute schizophrenia. Ulrich S, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):219-28
The European Post-marketing Observational Serdolect (EPOS) Project: increasing our understanding of schizophrenia therapy. Wehnert A. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S27-30
Lack of significant pharmacokinetic interaction between haloperidol and grapefruit juice. Yasui N, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):113-8
Tardive dyskinesia in a chronically institutionalized population of elderly schizophrenic patients: prevalence and association with cognitive impairment. Byne W, et al. **Int J Geriatr Psychiatry** 1998 Jul;13(7):473-9
P50 suppression in recent-onset schizophrenia: clinical correlates and risperidone effects. Yee CM, et al. **J Abnorm Psychol** 1998 Nov;107(4):691-8
Atypical neuroleptics: autonomy and compliance? Marland GR. **J Adv Nurs** 1999 Mar;29(3):615-22 (47 ref.)
Cyproheptadine in treatment of chronic schizophrenia: a double-blind, placebo-controlled study. Akhondzadeh S, et al. **J Clin Pharm Ther** 1999 Feb;24(1):49-52
Clozapine-olanzapine: a potentially dangerous switch. A report of two cases. Delassus-Guenault N, et al. **J Clin Pharm Ther** 1999 Jun;24(3):191-5
Whole saliva and plasma levels of clozapine and desmethylclozapine. Dumortier G, et al. **J Clin Pharm Ther** 1998 Feb;23(1):35-40
Treatment-resistant schizophrenia and beyond: current concepts and future prospects. Proceedings of a meeting. London, United Kingdom, July 8-9, 1998. **J Clin Psychiatry** 1999;60 Suppl 12:3-50
Pharmacoeconomic factors related to the treatment of schizophrenia. Concluding discussion. **J Clin Psychiatry** 1999;60 Suppl 3:59-60
The distribution of body mass index among individuals with and without schizophrenia. Allison DB, et al. **J Clin Psychiatry** 1999 Apr;60(4):215-20
Clozapine: the commitment to patient safety. Alphs LD, et al. **J Clin Psychiatry** 1999;60 Suppl 12:39-42 (22 ref.)
Compliance and the rehabilitation alliance. Aquila R, et al. **J Clin Psychiatry** 1999;60 Suppl 19:23-7; discussion 28-9
Cost-utility analysis in schizophrenia. Awad AG, et al. **J Clin Psychiatry** 1999;60 Suppl 3:22-6; discussion 27-8
New antipsychotic agents: emerging clinical profiles. Buckley PF. **J Clin Psychiatry** 1999;60 Suppl 1:12-7; discussion 28-30 (57 ref.)
Clozapine for refractory schizophrenia: the Illinois experience. Buckman RW, et al. **J Clin Psychiatry** 1999; 60 Suppl 1:18-22; discussion 28-30
Risperidone treatment of tardive dyskinesia and dystonia [letter] Chong SA, et al. **J Clin Psychiatry** 1999 May; 60(5):340-1
Clozapine and obsessions in patients with recent-onset schizophrenia and other psychotic disorders. de Haan L, et al. **J Clin Psychiatry** 1999 Jun;60(6):364-5
Pharmacologic treatment of first-episode schizophrenia: early intervention is key to outcome. DeQuardo JR. **J Clin Psychiatry** 1998;59 Suppl 19:9-17 (61 ref.)
Hyperprolactinemia and male sexual dysfunction [letter] Dickson RA, et al. **J Clin Psychiatry** 1999 Feb;60(2):125
Pharmacologic and pharmacokinetic considerations in choosing an antipsychotic. Ereshefsky L. **J Clin Psychiatry** 1999;60 Suppl 10:20-30 (90 ref.)
Clozapine: a comparison with other novel antipsychotics. Fleischhacker WW. **J Clin Psychiatry** 1999;60 Suppl 12:30-4 (34 ref.)
Does loxapine have "atypical" properties? Clinical evidence. Glazer WM. **J Clin Psychiatry** 1999;60 Suppl 10:42-6 (38 ref.)
Pharmacoeconomics of schizophrenia in the 21st century. Hanson MA. **J Clin Psychiatry** 1999;60 Suppl 1:26-7; discussion 28-30
Suicide victims with schizophrenia in different treatment phases and adequacy of antipsychotic medication. Heilä H, et al. **J Clin Psychiatry** 1999 Mar;60(3):200-8
Switching from clozapine to olanzapine in treatment-refractory schizophrenia: safety, clinical efficacy, and predictors of response. Henderson DC, et al. **J Clin Psychiatry** 1998 Nov;59(11):585-8
A historical perspective of clozapine. Hippius H. **J Clin Psychiatry** 1999;60 Suppl 12:22-3
The efficacy and safety of clozapine versus chlorpromazine in geriatric schizophrenia [published erratum appears in J Clin Psychiatry 1999 May;60(5):341] Howanitz E, et al. **J Clin Psychiatry** 1999 Jan;60(1):41-4
Management strategies for the treatment of schizophrenia. Kane JM. **J Clin Psychiatry** 1999;60 Suppl 12:13-7 (32 ref.)
Some adverse effects of antipsychotics: prevention and treatment. Lader M. **J Clin Psychiatry** 1999;60 Suppl 12:18-21 (34 ref.)
Seizures after discontinuation of low-dose lorazepam from originally seizure-free clozapine regimen: combined effects? [letter] Lane HY, et al. **J Clin Psychiatry** 1999 Jun; 60(6):408-9
Effects of gender and age on plasma levels of clozapine and its metabolites: analyzed by critical statistics. Lane HY, et al. **J Clin Psychiatry** 1999 Jan;60(1):36-40
Manic and psychotic symptoms following risperidone withdrawal in a schizophrenic patient [letter; comment] Lane HY, et al. **J Clin Psychiatry** 1998 Nov;59(11):620-1 . Comment on: J Clin Psychiatry 1996;57 Suppl 3:14-26; discussion 47-9.
Clozapine versus risperidone in treatment-refractory schizophrenia: possible impact of dosing strategies [letter; comment] Lane HY, et al. **J Clin Psychiatry** 1999 Jul; 60(7):487-8. Comment on: J Clin Psychiatry 1998 Oct;59(10):521-7.
Developing an outcomes-oriented approach for the treatment of schizophrenia. Lehman AF. **J Clin Psychiatry** 1999;60 Suppl 19:30-5; discussion 36-7 (31 ref.)
Pathophysiologic mechanisms in the pathogenesis and clinical course of schizophrenia. Lieberman JA. **J Clin Psychiatry** 1999;60 Suppl 12:9-12 (25 ref.)
Clinical and neurocognitive effects of clozapine and risperidone in treatment-refractory schizophrenic patients: a prospective study [see comments] Lindenmayer JP, et al. **J Clin Psychiatry** 1998 Oct;59(10):521-7. Comment in: J Clin Psychiatry 1999 Jul;60(7):487-8.
Use patterns for antipsychotic medications in medicaid patients with schizophrenia. McCombs JS, et al. **J Clin Psychiatry** 1999;60 Suppl 19:5-11; discussion 12-3
The effects of clozapine on cognitive functioning in schizophrenia. McGurk SR. **J Clin Psychiatry** 1999;60 Suppl 12:24-9 (31 ref.)
The Risperidone Outcomes Study of Effectiveness (ROSE): a model for evaluating treatment strategies in typical psychiatric practice. Mahmoud R, et al. **J Clin Psychiatry** 1999;60 Suppl 3:42-7; discussion 48
Annual health outcomes and treatment costs for schizophrenia populations. Mauskopf JA, et al. **J Clin Psychiatry** 1999;60 Suppl 19:14-9; discussion 20-2
Perspective and the measurement of costs and benefits for cost-effectiveness analysis in schizophrenia. Meltzer D. **J Clin Psychiatry** 1999;60 Suppl 3:32-5; discussion 36-7
Outcome in schizophrenia: beyond symptom reduction. Meltzer HY. **J Clin Psychiatry** 1999;60 Suppl 3:3-7; discussion 8 (24 ref.)
Low-dose loxapine in the treatment of schizophrenia: is it more effective and more "atypical" than standard-dose loxapine? Meltzer HY, et al. **J Clin Psychiatry** 1999;60 Suppl 10:47-51
Suicide and schizophrenia: clozapine and the InterSePT study. International Clozaril/Leponex Suicide Prevention Trial. Meltzer HY. **J Clin Psychiatry** 1999;60 Suppl 12:47-50
Optimizing clozapine treatment. Naber D. **J Clin Psychiatry** 1999;60 Suppl 12:35-8 (16 ref.)
Methods of cost-effectiveness analysis in the evaluation of new antipsychotics: implications for schizophrenia treatment. Neumann PJ. **J Clin Psychiatry** 1999;60 Suppl 3:9-14; discussion 15 (65 ref.)
Effectiveness of combining atypical antipsychotics and psychosocial rehabilitation in a community mental health center setting. Noordsy DL, et al. **J Clin Psychiatry** 1999; 60 Suppl 19:47-51; discussion 52-3
Do antipsychotic medications decrease the risk of suicide in patients with schizophrenia? Palmer DD, et al. **J Clin Psychiatry** 1999;60 Suppl 2:100-3; discussion 111-6 (43 ref.)
The evolving definition of treatment resistance. Peuskens J. **J Clin Psychiatry** 1999;60 Suppl 12:4-8 (15 ref.)
New vs. old antipsychotics: the Texas experience. Reid WH. **J Clin Psychiatry** 1999;60 Suppl 1:23-5; discussion 28-30
Pharmacoeconomic evaluation of treatments for refractory schizophrenia: clozapine-related studies. Revicki DA. **J Clin Psychiatry** 1999;60 Suppl 1:7-11; discussion 28-30 (22 ref.)
Edema associated with addition of risperidone to valproate treatment [letter] Sanders RD, et al. **J Clin Psychiatry** 1998 Dec;59(12):689-90
Lithium augmentation fails to reduce symptoms in poorly responsive schizophrenic outpatients. Schulz SC, et al. **J Clin Psychiatry** 1999 Jun;60(6):366-72
Common treatment goals of antipsychotics: acute treatment. Sharif ZA. **J Clin Psychiatry** 1998;59 Suppl 19:5-8 (14 ref.)
Selecting an atypical antipsychotic by combining clinical experience with guidelines from clinical trials. Stahl SM. **J Clin Psychiatry** 1999;60 Suppl 10:31-41 (184 ref.)
Olanzapine treatment after clozapine-induced granulocytopenia in 3 patients. Swartz JR, et al. **J Clin Psychiatry** 1999 Feb;60(2):119-21
Should we consider mood disturbance in schizophrenia as an important determinant of quality of life? Tollefson GD, et al. **J Clin Psychiatry** 1999;60 Suppl 5:23-9; discussion 30 (45 ref.)
Changes in perceived health and functioning as a cost-effectiveness measure for olanzapine versus haloperidol treatment of schizophrenia. Tunis SL, et al. **J Clin Psychiatry** 1999;60 Suppl 19:38-45; discussion 46
The effects of clozapine on aggression and substance abuse in schizophrenic patients. Volavka J. **J Clin Psychiatry** 1999;60 Suppl 12:43-6 (25 ref.)
Long-term considerations after switching antipsychotics. Weiden PJ, et al. **J Clin Psychiatry** 1998;59 Suppl 19:36-49 (33 ref.)
Novel antipsychotics: comparison of weight gain liabilities. Wirshing DA, et al. **J Clin Psychiatry** 1999 Jun; 60(6):358-63
Prolactin levels in premenopausal women treated with risperidone compared with those of women treated with typical neuroleptics [letter] Caracci G, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):194-6
Plasma olanzapine and clinical response [letter; comment] Chong SA, et al. **J Clin Psychopharmacol** 1999 Apr; 19(2):192-4. Comment on: J Clin Psychopharmacol 1997 Dec;17(6):472-7.
Olanzapine-induced reversible priaprism: a case report [letter] Deirmenjian JM, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):351-3
Schizophrenia and schizoaffective disorder treated with high doses of olanzapine [letter] Fanous A, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):275-6
An exploratory haloperidol-controlled dose-finding study of ziprasidone in hospitalized patients with schizophrenia or schizoaffective disorder. Goff DC, et al.

J Clin Psychopharmacol 1998 Aug;18(4):296–304

Effects of carbamazepine and valproate on haloperidol plasma levels and on psychopathologic outcome in schizophrenic patients. Hesslinger B, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):310–5

Comments on "Double-blind comparison of olanzapine versus risperidone in the treatment of schizophrenia and other psychotic disorders" by Tran and Associates [letter; comment] Kasper S, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):353–6. Comment on: J Clin Psychopharmacol 1997 Oct;17(5):407–18.

Characteristics and risk factors of acute dystonia in schizophrenic patients treated with nemonapride, a selective dopamine antagonist. Kondo T, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):45–50

A double-blind study of adjunctive sertraline in haloperidol-stabilized patients with chronic schizophrenia. Lee MS, et al. **J Clin Psychopharmacol** 1998 Oct; 18(5):399–403

Selective serotonin reuptake inhibitor syndrome: precipitated by concomitant clozapine? [letter] Lu ML, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):386–7

New-onset panic attacks in a patient treated with olanzapine [letter] Mandalos GE, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):191

Plasma prolactin and central D2 receptor occupancy in antipsychotic drug-treated patients. Nordström AL, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):305–10

Quality of life and atypical antipsychotics [letter; comment] Rudnick A. **J Clin Psychopharmacol** 1998 Oct;18(5):424–5 . Comment on: J Clin Psychopharmacol 1997 Oct;17(5):407–18.

A simpler and more accurate equation to predict daily lithium dose. Terao T, et al. **J Clin Psychopharmacol** 1999 Aug; 19(4):336–40

Gradual withdrawal of long-term anticholinergic antiparkinson medication in Chinese patients with chronic schizophrenia. Ungvari GS, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):141–8

Critical review of GABA-ergic drugs in the treatment of schizophrenia. Wassef AA, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):222–32 (49 ref.)

Olanzapine for treatment-refractory psychosis in patients responsive to, but intolerant of, clozapine [letter] Weiss EL, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):378–80

Weight gain: side effect of atypical neuroleptics? Wetterling T, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):316–21

Herbal medicine (Shakuyaku-kanzo-to) in the treatment of risperidone-induced amenorrhea [letter] Yamada K, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):380–1

Effects of itraconazole on the steady-state plasma concentrations of haloperidol and its reduced metabolite in schizophrenic patients: in vivo evidence of the involvement of CYP3A4 for haloperidol metabolism. Yasui N, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):149–54

Pseudolymphoma syndrome due to carbamazepine. Saeki H, et al. **J Dermatol** 1999 May;26(5):329–31

Medication compliance in patients with chronic schizophrenia: implications for the community management of mentally disordered offenders. Duncan JC, et al. **J Forensic Sci** 1998 Nov;43(6):1133–7

Comparison of the efficacy and acceptability of atypical antipsychotic drugs: a meta-analysis of randomized, placebo-controlled trials. Srisurapanont M, et al. **J Med Assoc Thai** 1999 Apr;82(4):341–6

Erythrocyte and brain methionine adenosyltransferase activities in patients with schizophrenia. Gomes-Trolin C, et al. **J Neural Transm** 1998;105(10–12):1293–305

Effects of the D3 and autoreceptor-preferring dopamine antagonist (+)-UH232 in schizophrenia. Lahti AC, et al. **J Neural Transm** 1998;105(6–7):719–34

Clozapine restores water balance in schizophrenic patients with polydipsia-hyponatremia syndrome. Canuso CM, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter; 11(1):86–90

New views on the course and treatment of schizophrenia. Carpenter WT Jr. **J Psychiatr Res** 1998 May-Aug; 32(3–4):191–5 (56 ref.)

Do atypical antipsychotic medications favorably alter the long-term course of schizophrenia? DeQuardo JR, et al. **J Psychiatr Res** 1998 May-Aug;32(3–4):229–42 (128 ref.)

Do long-term treatments alter lifetime course? Lessons learned, actions needed. Greden JF. **J Psychiatr Res** 1998 May-Aug;32(3–4):197–9

Delay to first antipsychotic medication in schizophrenia: impact on symptomatology and clinical course of illness. Haas GL, et al. **J Psychiatr Res** 1998 May-Aug; 32(3–4):151–9

Adverse neurobiological effects of long-term use of neuroleptics: human and animal studies. Jeste DV, et al. **J Psychiatr Res** 1998 May-Aug;32(3–4):201–14 (102 ref.)

New atypical antipsychotic medications. Jibson MD, et al. **J Psychiatr Res** 1998 May-Aug;32(3–4):215–28 (101 ref.)

Early developmental differences between DSM-III-R schizophrenics treated with clozapine and typical neuroleptics. Mäkikyrö T, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):105–10

In conclusion: does antipsychotic treatment modify the long-term course of schizophrenic illness? Tandon R. **J Psychiatr Res** 1998 May-Aug;32(3–4):251–3

Impact of antipsychotic treatment on long-term course of schizophrenic illness: an introduction. Tandon R. **J Psychiatr Res** 1998 May-Aug;32(3–4):119–20

The effects of early and sustained intervention on the long-term morbidity of schizophrenia. Wyatt RJ, et al. **J Psychiatr Res** 1998 May-Aug;32(3–4):169–77 (86 ref.)

The Canadian experience with risperidone for the treatment of schizophrenia: an overview. Iskedjian M, et al. **J Psychiatry Neurosci** 1998 Sep;23(4):229–39 (80 ref.)

A case of risperidone overdose in early schizophrenia: a review of potential complications. Kopala LC, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):305–8

Mania-like syndrome in a patient with chronic schizophrenia during olanzapine treatment [letter] Pozo P, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):309–10

Pimozide augmentation in a patient with drug-resistant psychosis previously treated with olanzapine [letter] Takhar J. **J Psychiatry Neurosci** 1999 May;24(3):248–9

Dopamine receptors, antipsychotic action and schizophrenia [letter] Reynolds GP. **J Psychopharmacol** 1999;13(2):202–3

Reducing recidivism: medication versus psychosocial rehabilitation. Delaney C. **J Psychosoc Nurs Ment Health Serv** 1998 Nov;36(11):28–34

Refractory schizophrenia: what works pharmacologically? Sousa S. **J Psychosoc Nurs Ment Health Serv** 1999 Feb; 37(2):19–23

Olanzapine-induced agranulocytosis [letter] Naumann R, et al. **Lancet** 1999 Aug 14;354(9178):566–7

Potential role of muscarinic receptors in schizophrenia. Bymaster FP, et al. **Life Sci** 1999;64(6–7):527–34

Reliability, validity, and application of the medical outcomes study 36-item short-form health survey (SF-36) in schizophrenic patients treated with olanzapine versus haloperidol. Tunis SL, et al. **Med Care** 1999 Jul; 37(7):678–91

Evaluation of antipsychotic and concomitant medication use patterns in patients with schizophrenia. Williams CL, et al. **Med Care** 1999 Apr;37(4 Suppl Lilly):AS81–6

Abnormal involuntary movements in people with schizophrenia in the community [letter] Hope JD, et al. **Med J Aust** 1999 Jul 19;171(2):111–2

A case of tardive tremor successfully treated with clozapine. Delecluse F, et al. **Mov Disord** 1998 Sep;13(5):846–7

Neurologic side effects in neuroleptic-naive patients treated with haloperidol or risperidone. Rosebush PI, et al. **Neurology** 1999 Mar 10;52(4):782–5

The predictive value of benzodiazepine tolerance in persistently aggressive schizophrenia. Hatta K, et al. **Neuropsychobiology** 1999 May;39(4):196–9

Auditory P50 in schizophrenics on clozapine: improved gating parallels clinical improvement and changes in plasma 3-methoxy-4-hydroxyphenylglycol. Nagamoto HT, et al. **Neuropsychobiology** 1999;39(1):10–7

Comparison of risperidone and mosapramine addition to neuroleptic treatment in chronic schizophrenia. Takahashi N, et al. **Neuropsychobiology** 1999;39(2):81–5

Ziprasidone 80 mg/day and 160 mg/day in the acute exacerbation of schizophrenia and schizoaffective disorder: a 6-week placebo-controlled trial. Ziprasidone Study Group. Daniel DG, et al. **Neuropsychopharmacology** 1999 May;20(5):491–505

Mechanism of peripheral noradrenergic stimulation by clozapine. Elman I, et al. **Neuropsychopharmacology** 1999 Jan;20(1):29–34

Haloperidol improves membrane phospholipid abnormalities in temporal lobes of schizophrenic patients. Fukuzako H, et al. **Neuropsychopharmacology** 1999 Oct;21(4):542–9

Atrophic and static (neurodevelopmental) schizophrenic psychoses: premorbid functioning, symptoms and neuroleptic response. Garver DL, et al. **Neuropsychopharmacology** 1999 Jul;21(1):82–92

D-cycloserine increases positive symptoms in chronic schizophrenic patients when administered in addition to antipsychotics: a double-blind, parallel, placebo-controlled study. van Berckel BN, et al. **Neuropsychopharmacology** 1999 Aug;21(2):203–10

Serotonin-6 receptor variant (C267T) and clinical response to clozapine. Yu YW, et al. **Neuroreport** 1999 Apr 26; 10(6):1231–3

Schizophrenia, psychotropic medication, and cataract. McCarty CA, et al. **Ophthalmology** 1999 Apr;106(4):683–7

Lack of association between a polymorphism in the promoter region of the dopamine-2 receptor gene and clozapine response. Arranz MJ, et al. **Pharmacogenetics** 1998 Dec; 8(6):481–4

Combined treatment of schizophrenic psychoses with haloperidol and valproate. Dose M, et al. **Pharmacopsychiatry** 1998 Jul;31(4):122–5

Efficacy and safety of the sigma receptor ligand EMD 57445 (panamesine) in patients with schizophrenia: an open clinical trial. Huber MT, et al. **Pharmacopsychiatry** 1999 Mar;32(2):68–72

Severe akathisia during olanzapine treatment of acute schizophrenia. Jauss M, et al. **Pharmacopsychiatry** 1998 Jul; 31(4):146–8

Pharmacotherapy of schizophrenia. Hallstrom C, et al. **Practitioner** 1998 Jan;242(1582):47–50

Clinical outcome to clozapine treatment in chronic psychiatric inpatients. Advokat CD, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):1–14

Pharmacoclinical strategy in neuroleptic resistant schizophrenic patients treated by clozapine: clinical evolution, concentration of plasma and red blood cell clozapine and desmethylclozapine, whole blood serotonin and tryptophan. Aymard N, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):25–41

Neurochemical variables in schizophrenic patients during switching from neuroleptics to clozapine. Hatzimanolis J, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1077–85

Depressive symptoms and schizophrenic relapses: the effect of four neuroleptic drugs. Mauri MC, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):43–54

Ethnic differences in the neuroleptic treatment of schizophrenia. Ruiz P, et al. **Psychiatr Q** 1999 Summer; 70(2):163–72

Treatment refractory schizophrenia: how should we proceed? Sharif ZA. **Psychiatr Q** 1998 Winter;69(4):263–81 (44 ref.)

The schizophrenia algorithm [letter; comment] Berman LH. **Psychiatr Serv** 1999 May;50(5):703; discussion 703–4. Comment on: Psychiatr Serv 1999 Jan;50(1):69–74.

The Texas Medication Algorithm Project: development and implementation of the schizophrenia algorithm [see comments] Chiles JA, et al. **Psychiatr Serv** 1999 Jan; 50(1):69–74. Comment in: Psychiatr Serv 1999 May;50(5):703; discussion 703–4.

The schizophrenia algorithm [letter; comment] Fleishman M. **Psychiatr Serv** 1999 May;50(5):703; discussion 703–4. Comment on: Psychiatr Serv 1999 Jan;50(1):69–74.

Effects of clozapine for non-treatment-resistant patients with schizophrenia. Galletly CA, et al. **Psychiatr Serv** 1999 Jan; 50(1):101–3

Compliance with depot antipsychotic medication by patients attending outpatient clinics. Heyscue BE, et al. **Psychiatr Serv** 1998 Sep;49(9):1232–4

Olanzapine and NMS [letter] Hickey C, et al. **Psychiatr Serv** 1999 Jun;50(6):836–7

Clozapine in schizophrenia [letter] Judge J. **Psychiatr Serv** 1999 Aug;50(8):1087

Overoptimism about drugs [letter; comment] Leeman CP. **Psychiatr Serv** 1998 Dec;49(12):1623. Comment on: Psychiatr Serv 1998 Aug;49(8):997.

Treatment compliance in first-episode schizophrenia [letter] Novack-Grubic V, et al. **Psychiatr Serv** 1999 Jul; 50(7):970–1

Clozapine and suicide [letter] Sernyak MJ, et al. **Psychiatr Serv** 1999 Jan;50(1):116–7

Clinical trials and tribulations: implementation processes in schizophrenia research outcome. Mason SE, et al. **Psychiatry** 1998 Winter;61(4):288–301 (49 ref.)

Panic attacks in patients with chronic schizophrenia: a complication of long-term neuroleptic treatment. Higuchi H, et al. **Psychiatry Clin Neurosci** 1999 Feb;53(1):91–4

A transcultural study of psychopharmacotherapy for schizophrenia of neuroleptic treatment between Tokyo and Bali. Kurihara T, et al. **Psychiatry Clin Neurosci** 1998 Dec; 52 Suppl:S188–9

Co-administration of sertraline and haloperidol. Lee MS, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S193–8

Change in plasma prolactin and clinical response to haloperidol in schizophrenia and schizoaffective disorder. Chou JC, et al. **Psychiatry Res** 1998 Oct 19;81(1):51–5

Positive correlation between reduction of handwriting area and D2 dopamine receptor occupancy during treatment with neuroleptic drugs. Kuenstler U, et al. **Psychiatry Res** 1999 Feb 22;90(1):31–9

Effects of clozapine on awareness of illness and cognition in schizophrenia. Pallanti S, et al. **Psychiatry Res** 1999 Jun 30;86(3):239–49

In vivo determination of striatal dopamine D2 receptor occupancy in patients treated with olanzapine. Raedler TJ, et al. **Psychiatry Res** 1999 Apr 26;90(2):81–90

Increased olfactory sensitivity in first episode psychosis and the effect of neuroleptic treatment on olfactory sensitivity in schizophrenia. Sirota P, et al. **Psychiatry Res** 1999 May 31;86(2):143–53

Will the novel antipsychotics significantly ameliorate neuropsychological deficits and improve adaptive functioning in schizophrenia? [editorial] Hawkins KA, et al. **Psychol Med** 1999 Jan;29(1):1–8 (63 ref.)

A new algorithm for treating schizophrenia. Pearsall R, et al. **Psychopharmacol Bull** 1998;34(3):349–53 (27 ref.)

Ziprasidone 40 and 120 mg/day in the acute exacerbation of schizophrenia and schizoaffective disorder: a 4-week placebo-controlled trial. Keck P Jr, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):173–84

Gonadal axis hormones in male schizophrenic patients during treatment with haloperidol and after switch to risperidone. Markianos M, et al. **Psychopharmacology (Berl)** 1999 Apr; 143(3):270–2

Spontaneous slow and fast MEG activity in male schizophrenics treated with clozapine. Sperling W, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):375–82

Both nicotine and mecamylamine block dizocilpine-induced explosive jumping behavior in mice: psychiatric implications. Tizabi Y, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):202–5

Development of obsessive-compulsive symptoms during clozapine treatment in schizophrenia and its positive response to clomipramine. [letter] Biondi M, et al. **Psychother Psychosom** 1999 Mar-Apr;68(2):111–2

Olanzapine versus haloperidol in the treatment of schizophrenia and other psychotic disorders: quality of life

and clinical outcomes of a randomized clinical trial. Revicki DA, et al. **Qual Life Res** 1999 Aug;8(5):417–26

Affordable psychiatric medication [letter] Sommers DK. **S Afr Med J** 1999 Jul;89(7):711–3

The effects of atypical antipsychotic drugs on neurocognitive impairment in schizophrenia: a review and meta–analysis. Keefe RS, et al. **Schizophr Bull** 1999;25(2):201–22

First person account: talking through medication issues: one family's experience. Mann SB. **Schizophr Bull** 1999; 25(2):407–9

Management of the adverse effects of clozapine. Young CR, et al. **Schizophr Bull** 1998;24(3):381–90 (93 ref.)

New antipsychotic drugs: special issues and indications. Symposium proceedings. Marco Island, Florida, USA. 20–21 February 1998. **Schizophr Res** 1999 Mar 1;35 Suppl:S1–109

Serum levels of soluble IL–2 receptor alpha, IL–6 and IL–1 receptor antagonist in schizophrenia before and during neuroleptic administration. Akiyama K. **Schizophr Res** 1999 May 4;37(1):97–106

Olanzapine response in treatment–refractory schizophrenic patients with a history of substance abuse. Conley RR, et al. **Schizophr Res** 1998 Sep 7;33(1–2):95–101

Medical–claims databases in the design of a health–outcomes comparison of quetiapine ('Seroquel') and usual–care antipsychotic medication. Hong WW, et al. **Schizophr Res** 1998 Jun 22;32(1):51–8

Risperidone versus haloperidol for perception of emotion in treatment–resistant schizophrenia: preliminary findings. Kee KS, et al. **Schizophr Res** 1998 May 25;31(2–3):159–65

Toward a rational pharmacotherapy of comorbid substance abuse in schizophrenic patients. Krystal JH, et al. **Schizophr Res** 1999 Mar 1;35 Suppl:S35–49 (128 ref.)

A comparison of the effect of clozapine with typical neuroleptics on cognitive function in neuroleptic–responsive schizophrenia. Lee MA, et al. **Schizophr Res** 1999 May 4;37(1):1–11

Efficacy and extrapyramidal side–effects of the new antipsychotics olanzapine, quetiapine, risperidone, and sertindole compared to conventional antipsychotics and placebo. A meta–analysis of randomized controlled trials. Leucht S, et al. **Schizophr Res** 1999 Jan 4;35(1):51–68

Antipsychotic drugs and relapse prevention. Marder SR. **Schizophr Res** 1999 Mar 1;35 Suppl:S87–92 (26 ref.)

Cognitive improvement in schizophrenia with novel antipsychotic medications. Purdon SE. **Schizophr Res** 1999 Mar 1;35 Suppl:S51–60 (42 ref.)

Pharmacoeconomic studies of atypical antipsychotic drugs for the treatment of schizophrenia. Revicki DA. **Schizophr Res** 1999 Mar 1;35 Suppl:S101–9 (31 ref.)

Attentional improvement following quetiapine fumarate treatment in schizophrenia. Sax KW, et al. **Schizophr Res** 1998 Oct 9;33(3):151–5

Placebo–controlled trials: when are they needed? Streiner DL. **Schizophr Res** 1999 Feb 15;35(3):201–10

Anxious–depressive symptoms in schizophrenia: a new treatment target for pharmacotherapy? Tollefson GD, et al. **Schizophr Res** 1999 Mar 1;35 Suppl:S13–21

Clozapine effects on force control in schizophrenic patients. Vrtunski PB, et al. **Schizophr Res** 1998 Nov 9;34(1–2):39–48

Placebo–controlled trials in schizophrenia: are they ethical? Are they necessary? Weijer C. **Schizophr Res** 1999 Feb 15;35(3):211–8; discussion 227–36

Placebo–controlled studies in schizophrenia––ethical and scientific perspectives: an overview of conference proceedings. Zipursky RB, et al. **Schizophr Res** 1999 Feb 15;35(3):189–200

Clinical evaluation of risperidone in Asian patients with schizophrenia in Singapore. Chong SA, et al. **Singapore Med J** 1999 Jan;40(1):41–3

The meaning and management of neuroleptic medication: a study of patients with a diagnosis of schizophrenia. Rogers A, et al. **Soc Sci Med** 1998 Nov;47(9):1313–23

Small effects of valproic acid on the plasma concentrations of clozapine and its major metabolites in patients with schizophrenic or affective disorders. Facciolà G, et al. **Ther Drug Monit** 1999 Jun;21(3):341–5

Lower plasma levels of haloperidol in smoking than in nonsmoking schizophrenic patients. Shimoda K, et al. **Ther Drug Monit** 1999 Jun;21(3):293–6

Non–fatal clozapine (LEPONEX) intoxication with toxicokinetic evaluation. Bedry R, et al. **Vet Hum Toxicol** 1999 Feb;41(1):20–2

[Therapeutic effect of shuxuening combining neuroleptics for the treatment of chronic schizophrenia––a double blind study] Luo HC, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar; 17(3):139–42 (Eng. Abstr.) **(Chi)**

[Current status of integrated traditional and Western medicine study on schizophrenia] Zhang JZ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Nov; 16(11):643–5 **(Chi)**

[Clinical study of shuizhi–dahuang mixture in treating schizophrenics with blood stasis syndrome] Zhu YZ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Nov; 16(11):646–8 (Eng. Abstr.) **(Chi)**

[Severe tardive dyskinesia during treatment with risperidone and fluoxetine] Dubbelman YD, et al. **Ned Tijdschr Geneeskd** 1998 Jun 27;142(26):1508–11 (Eng. Abstr.) **(Dut)**

[For how long should antipsychotic medication be continued after the first psychotic episode in schizophrenics? (see comments)] van Harten PN, et al. **Ned Tijdschr Geneeskd** 1998 Jun 13;142(24):1361–4 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Sep 26;142(39):2160–1. **(Dut)**

[A new drug risperidone for treatment of psychosis] Tiihonen J. **Duodecim** 1995;111(20):1911–2 **(Fin)**

[Severe intoxication probably from olanzapine (Zyprexa). Beneficial effect of glucagon] Joye F, et al. **Ann Fr Anesth Reanim** 1999 Jun;18(6):686–90 (Eng. Abstr.) **(Fre)**

[Subjective perception of the effect of neuroleptics by outpatient schizophrenic patients: a cross–sectional study] Bonsack C, et al. **Encephale** 1998 Jul–Aug;24(4):315–23 (Eng. Abstr.) **(Fre)**

[What is the meaning of "stabilization" in schizophrenic patients?] Chabannes JP, et al. **Encephale** 1998 Jul–Aug; 24(4):331–6 (Eng. Abstr.) **(Fre)**

[Evaluation of efficacy and tolerance of amisulpride in treatment of schizophrenic psychoses] Chabannes JP, et al. **Encephale** 1998 Jul–Aug;24(4):386–92 (Eng. Abstr.) **(Fre)**

[Effect of neuroleptics on depressive symptoms] Tabeze JP. **Encephale** 1998 Jul;24 Spec No 1:38–41 **(Fre)**

[Management of schizophrenic psychoses: a one–year experience with Serdolect] **Fortschr Neurol Psychiatr** 1998 Nov;66(11 Suppl Therapie):1–4 **(Ger)**

[Schizophrenic psychoses: distinct therapeutic advantages of atypical neuroleptics. Serdolect: effective and free of side effects] **Fortschr Neurol Psychiatr** 1998 Oct;66(10 Suppl Schizophre):1–4 **(Ger)**

[Positive and negative symptoms in chronic schizophrenic patients under maintenance therapy with flupenthixol decanoate for a twelve month period] Pach J, et al. **Fortschr Neurol Psychiatr** 1998 Oct;66(10):442–9 (Eng. Abstr.) **(Ger)**

[Amisulpride––a neuroleptic agent for all phases of schizophrenia] **Nervenarzt** 1999 Mar;70(3 Suppl Amisulprid):1–8 **(Ger)**

[Clozapine and obsessive–compulsive symptoms in schizophrenia. A case history of one patient] Bürgy M. **Nervenarzt** 1999 Jan;70(1):64–7 (Eng. Abstr.) **(Ger)**

[Schizophrenic psychoses: distinct therapeutic advantages of atypical neuroleptics. Serdolect is effective and free of side effects] **Psychiatr Prax** 1998 Sep;25(5 Suppl):1–4 **(Ger)**

[Attitude of family to neuroleptics] Angermeyer MC, et al. **Psychiatr Prax** 1999 Jul;26(4):171–4 (Eng. Abstr.) **(Ger)**

[Attitude of family to clozapine] Angermeyer MC, et al. **Psychiatr Prax** 1999 Jul;26(4):181–7 (Eng. Abstr.) **(Ger)**

["Rather overweight and mentally present...". Patients evaluate clozapine] Boitz K, et al. **Psychiatr Prax** 1999 Jul; 26(4):188–93 (Eng. Abstr.) **(Ger)**

[Neuroleptic treatment by the established psychiatrist. A report of experiences] Haberfellner EM, et al. **Psychiatr Prax** 1998 Nov;25(6):284–5 (Eng. Abstr.) **(Ger)**

[Neuroleptics in the newspaper. A mass media analysis] Hoffmann–Richter U, et al. **Psychiatr Prax** 1999 Jul; 26(4):175–80 (Eng. Abstr.) **(Ger)**

[Subjective quality of life of schizophrenic patients. Effect of treatment setting, psychopathology and extrapyramidal motor drug effects] Kemmler G, et al. **Psychiatr Prax** 1999 Jan;26(1):9–15 (Eng. Abstr.) **(Ger)**

[Success of new treatments for schizophrenics, as shown by the example of modern antipsychotic drugs] Lambert M, et al. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S30–5 (42 ref.) **(Ger)**

[Presentation of obsessive–compulsive symptoms in a patient with schizophrenia treated with clozapine] Stengler–Wenzke K. **Psychiatr Prax** 1999 May;26(3):145–6 (Eng. Abstr.) **(Ger)**

[Compliance problems in treatment of schizophrenic patients] Barnas C, et al. **Wien Med Wochenschr** 1998; 148(11–12):281–3 (21 ref.) (Eng. Abstr.) **(Ger)**

[Problems in evaluating new antipsychotic drugs] Fleischhacker WW. **Wien Med Wochenschr** 1998; 148(11–12):266–72 (71 ref.) (Eng. Abstr.) **(Ger)**

[Depressive symptoms and biogenic amines as predictors of treatment response in schizophrenic illnesses in childhood and adolescence] Fleischhaker C, et al. **Z Kinder Jugendpsychiatr Psychother** 1998 Dec; 26(4):235–43 (Eng. Abstr.) **(Ger)**

[Use of novel agents in the treatment of schizophrenia and a look to the future] Keks NA. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Jun; 18(3):97–101 (4 ref.) **(Jpn)**

[Early phase II study of quetiapine fumarate on schizophrenia] Murasaki M, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Apr; 19(2):53–66 (Eng. Abstr.) **(Jpn)**

[Glycine therapy of schizophrenia; its rationale and a review of clinical trials] Semba J. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Jun; 18(3):71–80 (63 ref.) (Eng. Abstr.) **(Jpn)**

[A critical study of the influence of negative symptoms on the therapeutic response in schizophrenia] Acuña MJ, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Jul–Aug;26(4):209–13 (Eng. Abstr.) **(Spa)**

[Benzodiazepines in the treatment of schizophrenia: a review] González–Seijo JC, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Nov–Dec;26(6):371–9 (71 ref.) (Eng. Abstr.) **(Spa)**

ECONOMICS

Health care costs of therapy–refractory schizophrenic patients treated with clozapine: a study in a community psychiatric service in Italy. Percudani M, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):274–80

Costs of services for schizophrenic patients in Norway. Rund BR, et al. **Acta Psychiatr Scand** 1999 Feb;99(2):120–5

Atypical antipsychotics: Part II: Adverse effects, drug interactions, and costs. Brown CS, et al. **Ann Pharmacother** 1999 Feb;33(2):210–7 (57 ref.)

Utilisation of mental health services and costs of patients with schizophrenia in three areas of Spain. Haro JM, et al. **Br J Psychiatry** 1998 Oct;173:334–40

Making music out of noise––the cost function approach to evaluation. Knapp M. **Br J Psychiatry Suppl** 1998;(36):7–11 (0 ref.)

Building castles on sands or quicksands? The strengths and weaknesses of economic evaluation in pharmaceuticals. Maynard A, et al. **Br J Psychiatry Suppl** 1998;(36):12–8 (52 ref.)

Economics of schizophrenia. Moscarelli M. **Br J Psychiatry Suppl** 1998;(36):4–6 (8 ref.)

Three questions seem to be set the health care systems of the world today [editorial] Sartorius N. **Br J Psychiatry Suppl** 1998;(36):3

Drug utilization patterns and outcomes associated with in–hospital treatment with risperidone or olanzapine. Procyshyn RM, et al. **Clin Ther** 1998 Nov–Dec; 20(6):1203–17; discussion 1192–3

Multiple outcome assessment in a study of the cost–effectiveness of clozapine in the treatment of refractory schizophrenia. Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Health Serv Res** 1998 Dec;33(5 Pt 1):1237–61

Cost–effectiveness of atypical antipsychotics in chronic schizophrenia. Amin S. **Hosp Med** 1999 Jun;60(6):410–3 (21 ref.)

Pharmacoeconomic factors related to the treatment of schizophrenia. Concluding discussion. **J Clin Psychiatry** 1999;60 Suppl 3:59–60

Cost–utility analysis in schizophrenia. Awad AG, et al. **J Clin Psychiatry** 1999;60 Suppl 3:22–6; discussion 27–8

Clozapine for refractory schizophrenia: the Illinois experience. Buckman RW, et al. **J Clin Psychiatry** 1999; 60 Suppl 1:18–22; discussion 28–30

Pharmacoeconomics of schizophrenia in the 21st century. Hanson MA. **J Clin Psychiatry** 1999;60 Suppl 1:26–7; discussion 28–30

Perspective and the measurement of costs and benefits for cost–effectiveness analysis in schizophrenia. Meltzer D. **J Clin Psychiatry** 1999;60 Suppl 3:32–5; discussion 36–7

Outcome in schizophrenia: beyond symptom reduction. Meltzer HY. **J Clin Psychiatry** 1999;60 Suppl 3:3–7; discussion 8 (24 ref.)

Methods of cost–effectiveness analysis in the evaluation of new antipsychotics: implications for schizophrenia treatment. Neumann PJ. **J Clin Psychiatry** 1999;60 Suppl 3:9–14; discussion 15 (65 ref.)

New vs. old antipsychotics: the Texas experience. Reid WH. **J Clin Psychiatry** 1999;60 Suppl 1:23–5; discussion 28–30

The economic impact of schizophrenia. Rice DP. **J Clin Psychiatry** 1999;60 Suppl 1:4–6; discussion 28–30 (6 ref.)

What about the patient? Weisburd DE. **J Clin Psychiatry** 1999;60 Suppl 3:38–41

Health status and health care costs for publicly funded patients with schizophrenia started on clozapine. Blieden N, et al. **Psychiatr Serv** 1998 Dec;49(12):1590–3

Clozapine and hospitalization [letter] Rosenheck R, et al. **Psychiatr Serv** 1999 Jan;50(1):114–6

Health care expenditure on schizophrenia patients in Belgium. De Hert M, et al. **Schizophr Bull** 1998; 24(4):519–27

Expenditures for treating schizophrenia: a population–based study of Georgia Medicaid recipients. Martin BC, et al. **Schizophr Bull** 1998;24(3):479–88

[Medico–economic study of Léponex (clozapine) in the Bordeaux Charles Perrens Hospital Center] Bret P, et al. **Encephale** 1998 Jul–Aug;24(4):365–77 (Eng. Abstr.) **(Fre)**

[Direct and indirect costs of schizophrenia] Kissling W, et al. **Fortschr Neurol Psychiatr** 1999 Jan;67(1):29–36 (Eng. Abstr.) **(Ger)**

[The costs of schizophrenia] Rössler W, et al. **Fortschr Neurol Psychiatr** 1998 Nov;66(11):496–504 (63 ref.) (Eng. Abstr.) **(Ger)**

[Economic perspectives in the care and treatment of patients diagnosed with schizophrenia] Percudani M, et al. **Epidemiol Psichiatr Soc** 1998 Sep–Dec;7(3):197–209 (114 ref.) (Eng. Abstr.) **(Ita)**

[The study of the costs of schizophrenia] Prot–Herczyńska K. **Psychiatr Pol** 1998 May–Jun;32(3):307–18 (Eng. Abstr.) **(Pol)**

ENZYMOLOGY

Cerebrospinal fluid inositol monophosphatase: elevated activity in depression and neuroleptic–treated schizophrenia. Atack JR, et al. **Biol Psychiatry** 1998 Sep 15;44(6):433–7

Human plasma glutathione peroxidase and symptom severity in schizophrenia. Yao JK, et al. **Biol Psychiatry** 1999 Jun

1;45(11):1512–5
Differential alteration of phospholipase A2 activities in brain of patients with schizophrenia. Ross BM, et al. **Brain Res** 1999 Mar 13;821(2):407–13
Plasma alpha1,3–fucosyltransferase deficiency in schizophrenia. Yazawa S, et al. **Exp Clin Immunogenet** 1999;16(3):125–30
Effect of fluoxetine on the plasma concentrations of clozapine and its major metabolites in patients with schizophrenia. Spina E, et al. **Int Clin Psychopharmacol** 1998 May; 13(3):141–5
Effects of caffeine withdrawal from the diet on the metabolism of clozapine in schizophrenic patients. Carrillo JA, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):311–6
Protease resistant prion proteins are not present in sporadic "poor outcome" schizophrenia. Arnold SE, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):90–2
Effects of haloperidol on antioxidant defense system enzymes in schizophrenia. Yao JK, et al. **J Psychiatr Res** 1998 Nov–Dec;32(6):385–91
Allelic association of the MTHFR gene with schizophrenia [letter; comment] Wei J, et al. **Mol Psychiatry** 1999 Mar; 4(2):115–6. Comment on: Mol Psychiatry 1998 Sep;3(5):435–7.
Mitochondrial function is differentially altered in the basal ganglia of chronic schizophrenics. Prince JA, et al. **Neuropsychopharmacology** 1999 Sep;21(3):372–9
Schizophrenia, monoamine oxidase activity, and cigarette smoking. Simpson GM, et al. **Neuropsychopharmacology** 1999 Apr;20(4):392–4
[Brain isoforms of creatine kinase in health and mental diseases: Alzheimer's disease and schizophrenia] Burbaeva GSh, et al. **Vestn Ross Akad Med Nauk** 1999;(1):20–4 (39 ref.) (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Relationship between childhood behavioral disturbance and later schizophrenia in the New York High–Risk Project. Amminger GP, et al. **Am J Psychiatry** 1999 Apr; 156(4):525–30
Earlier puberty as a predictor of later onset of schizophrenia in women. Cohen RZ, et al. **Am J Psychiatry** 1999 Jul; 156(7):1059–64
Saccadic eye movements in families multiply affected with schizophrenia: the Maudsley Family Study. Crawford TJ, et al. **Am J Psychiatry** 1998 Dec;155(12):1703–10
Nicotine dependence in schizophrenia: clinical phenomena and laboratory findings. Dalack GW, et al. **Am J Psychiatry** 1998 Nov;155(11):1490–501 (100 ref.)
Minor physical anomalies in schizophrenic patients and their siblings. Ismail B, et al. **Am J Psychiatry** 1998 Dec; 155(12):1695–702
Smoking in first–episode patients with schizophrenia [letter] McEvoy JP, et al. **Am J Psychiatry** 1999 Jul;156(7):1120–1
Obstetrical complications and childhood–onset schizophrenia. Nicolson R, et al. **Am J Psychiatry** 1999 Oct;156(10):1650–2
Association between age at onset of schizophrenia and obstetric complications [letter; comment] Schaub RT, et al. **Am J Psychiatry** 1998 Nov;155(11):1644–5. Comment on: Am J Psychiatry 1997 Sep;154(9):1220–7.
Association between prenatal exposure to poliovirus infection and adult schizophrenia. Suvisaari J, et al. **Am J Psychiatry** 1999 Jul;156(7):1100–2
School performance in Finnish children and later development of schizophrenia: a population–based longitudinal study. Cannon M, et al. **Arch Gen Psychiatry** 1999 May;56(5):457–63
Decline in the incidence of schizophrenia in Finnish cohorts born from 1954 to 1965. Suvisaari JM, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):733–40
Nithsdale schizophrenia surveys. 17. Fifteen year review. Kelly C, et al. **Br J Psychiatry** 1998 Jun;172:513–7
Cantabria first–episode schizophrenia study: three–year follow–up. Vázquez–Barquero JL, et al. **Br J Psychiatry** 1999 Feb;174:141–9
Service components of case management which reduce inpatient care use for persons with serious mental illness. Kuno E, et al. **Community Ment Health J** 1999 Apr; 35(2):153–67
Cannabis and schizophrenia: results of a follow–up study. Caspari D. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(1):45–9
Absence of a subgroup of chronic schizophrenia in monozygotic twins. Consequences for considerations on the pathogenesis of schizophrenic psychoses. Pfuhlmann B, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(1):50–4
The course of schizophrenic psychoses: what do we really know? A selective review from an epidemiological perspective. Riecher–Rössler A, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(4):189–202 (104 ref.)
Clinical neuroscience and epidemiology in schizophrenia. Seidman LJ. **Harv Rev Psychiatry** 1997 Mar–Apr; 4(6):338–42
The association of medical comorbidity in schizophrenia with poor physical and mental health. Dixon L, et al. **J Nerv Ment Dis** 1999 Aug;187(8):496–502
Communication disturbances and family psychiatric history in parents of schizophrenic patients. Docherty NM, et al. **J Nerv Ment Dis** 1998 Dec;186(12):761–8
Obsessive–compulsive disorder in schizophrenia: epidemiologic and biologic overlap. Tibbo P, et al. **J Psychiatry Neurosci** 1999 Jan;24(1):15–24 (90 ref.)
Conduct disorder, antisocial personality disorder and substance use disorders in schizophrenia and major affective disorders. Mueser KT, et al. **J Stud Alcohol** 1999 Mar;60(2):278–84
Environment and vulnerability to major psychiatric illness: a case control study of early parental loss in major depression, bipolar disorder and schizophrenia [see comments] Agid O, et al. **Mol Psychiatry** 1999 Mar; 4(2):163–72. Comment in: Mol Psychiatry 1999 Mar;4(2):106–8.
Involuntary first admission of patients with schizophrenia as a predictor of future admissions. Fennig S, et al. **Psychiatr Serv** 1999 Aug;50(8):1049–52
Aggressive behavior against self and others among first–admission patients with schizophrenia. Steinert T, et al. **Psychiatr Serv** 1999 Jan;50(1):85–90
Recall of obstetric events by mothers of schizophrenic patients. Cantor–Graae E, et al. **Psychol Med** 1998 Sep; 28(5):1239–43
Schizophrenic patients who were never treated--a study in an Indian urban community. Padmavathi R, et al. **Psychol Med** 1998 Sep;28(5):1113–7
Prevalence and severity of substance use disorders and onset of psychosis in first–admission psychotic patients. Rabinowitz J, et al. **Psychol Med** 1998 Nov;28(6):1411–9
Patterns of current and lifetime substance use in schizophrenia. Fowler IL, et al. **Schizophr Bull** 1998; 24(3):443–55
Changes in the risk of schizophrenia in Scotland: is there an environmental factor? Al Mousawi AH, et al. **Schizophr Bull** 1998;24(4):529–35
Schizophrenia, alcohol abuse, and violent behavior: a 26–year followup study of an unselected birth cohort. Räsänen P, et al. **Schizophr Bull** 1998;24(3):437–41
At issue: is household crowding a risk factor for schizophrenia and bipolar disorder? Torrey EF, et al. **Schizophr Bull** 1998;24(3):321–4 (38 ref.)
Seasonal influences on admissions in schizophrenia and affective disorder in Ireland. Clarke M, et al. **Schizophr Res** 1998 Nov 30;34(3):143–9
Characteristics of early– and late–diagnosed schizophrenia: implications for first–episode studies. Driessen G, et al. **Schizophr Res** 1998 Sep 7;33(1–2):27–34
Alcohol dependence and hospitalization in schizophrenia. Gerding LB, et al. **Schizophr Res** 1999 Jul 27;38(1):71–5
Anticipation in schizophrenia. Heiden A, et al. **Schizophr Res** 1999 Jan 4;35(1):25–32
Season of birth and schizophrenia: a systematic review and meta–analysis of data from the Southern Hemisphere. McGrath JJ, et al. **Schizophr Res** 1999 Feb 15;35(3):237–42
Schizophrenia and seasonality of admissions: the northern Finland 1966 birth cohort study [letter] Räsänen P, et al. **Schizophr Res** 1999 Jan 11;35(2):183–5
Psychotic illness after prenatal exposure to the 1953 Dutch Flood Disaster. Selten JP, et al. **Schizophr Res** 1999 Feb 15;35(3):243–5
Schizophrenia in Kosrae, Micronesia: prevalence, gender ratios, and clinical symptomatology. Waldo MC. **Schizophr Res** 1999 Jan 11;35(2):175–81
Geographical variation in rate of schizophrenia in rural Ireland by place at birth vs place at onset. Youssef HA, et al. **Schizophr Res** 1999 Jun 22;37(3):233–43
Family study of acute and transient psychotic disorders: comparison with schizophrenia. Das SK, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jun;34(6):328–32
Taking the wrong drugs: the role of substance abuse and medication noncompliance in violence among severely mentally ill individuals. Swartz MS, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33 Suppl 1:S75–80
The Camberwell Study of Crime and Schizophrenia. Wessely S. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33 Suppl 1:S24–8
Ecological pattern of first admitted schizophrenics in two German cities over 25 years. Löffler W, et al. **Soc Sci Med** 1999 Jul;49(1):93–108
Psychosis and functioning as risk factors for later suicidal activity among schizophrenia and schizoaffective patients: a disease–based interactive model. Kaplan KJ, et al. **Suicide Life Threat Behav** 1999 Spring;29(1):10–24
[Higher hopitalization rates for schizophrenic Surinamese in Netherlands cannot be attributed to theimmigration of higher numbers of preschizophrenic patients (letter; comment)] Borgdorff MW. **Ned Tijdschr Geneeskd** 1998 Jun 6;142(23):1349–50. Comment on: Ned Tijdschr Geneeskd 1998 Apr 18;142(16):905–8. **(Dut)**
[Frequency of immunologic disorders in acute schizophrenia] Fabisch H, et al. **Fortschr Neurol Psychiatr** 1999 May; 67(5):218–24 (Eng. Abstr.) **(Ger)**
[Schizophrenia and violence: epidemiological, forensic and clinical aspects] Steinert T. **Fortschr Neurol Psychiatr** 1998 Sep;66(9):391–401 (124 ref.) (Eng. Abstr.) **(Ger)**
[Epidemiology of schizophrenic disorders] Hinterhuber H, et al. **Wien Med Wochenschr** 1998;148(11–12):253–8 (74 ref.) (Eng. Abstr.) **(Ger)**

ETHNOLOGY

A polydiagnostic approach to the differences in the symptoms of schizophrenia in different cultural and ethnic populations. Maslowski J, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):41–6
The 15–year outcome of Chinese patients with schizophrenia in Hong Kong. Lee PW, et al. **Can J Psychiatry** 1998 Sep; 43(7):706–13
Ethnic differences in the neuroleptic treatment of schizophrenia. Ruiz P, et al. **Psychiatr Q** 1999 Summer; 70(2):163–72
An investigation of ethnic and gender differences in the pharmacodynamics of haloperidol. Zhang–Wong J, et al. **Psychiatry Res** 1998 Dec 14;81(3):333–9

ETIOLOGY

Developmental neuropathology and the precursors of schizophrenia. Walker EF, et al. **Acta Psychiatr Scand Suppl** 1999;395:12–9 (31 ref.)
The planetary positions and relationships at the dates of birth of a cohort of Nigerian schizophrenics. Ohaeri JU. **Afr J Med Med Sci** 1997 Sep–Dec;26(3–4):127–33
Obstetric complications and the risk of schizophrenia: a longitudinal study of a national birth cohort. Dalman C, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):234–40
Progressive neurodegeneration after intracerebroventricular kainic acid administration in rats: implications for schizophrenia? Csernansky JG, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1143–50
Prenatal and perinatal and perinatal risk factors for early onset schizophrenia, affective psychosis, and reactive psychosis. Geddes J. **BMJ** 1999 Feb 13;318(7181):426
Prenatal and perinatal risk factors for schizophrenia, affective psychosis, and reactive psychosis of early onset: case–control study. Hultman CM, et al. **BMJ** 1999 Feb 13;318(7181):421–6
Prenatal and perinatal risk factors for psychiatric diseases of early onset. Results are different if seasons are categorised differently [letter] Räsänen P, et al. **BMJ** 1999 Jun 12;318(7198):1622–3
Prenatal exposure to maternal stress and subsequent schizophrenia [letter; comment] Quenstedt M, et al. **Br J Psychiatry** 1998 Aug;173:183. Comment on: Br J Psychiatry 1998 Apr;172:324–6.
A glutamatergic deficiency model of schizophrenia. Carlsson A, et al. **Br J Psychiatry Suppl** 1999;(37):2–6 (21 ref.)
Precursors to schizophrenia [editorial; comment] Bland RC. **Can J Psychiatry** 1999 May;44(4):325. Comment on: Can J Psychiatry 1999 May;44(4):326–34. Comment on: Can J Psychiatry 1999 May;44(4):335–49.
Prenatal factors and adult mental and physical health [see comments] Susser EB, et al. **Can J Psychiatry** 1999 May; 44(4):326–34 (79 ref.). Comment in: Can J Psychiatry 1999 May;44(4):325.
An autopsy case of spinocerebellar ataxia type 6 with mental symptoms of schizophrenia and dementia. Tashiro H, et al. **Clin Neuropathol** 1999 Jul–Aug;18(4):198–204
The role of gender differences in the reduction of etiologic heterogeneity in schizophrenia. Salem JE, et al. **Clin Psychol Rev** 1998 Nov;18(7):795–819 (201 ref.)
Identifying critical periods of neurodevelopmental risk: the turning point in schizophrenia research. Zornberg GL. **Harv Rev Psychiatry** 1998 Sep–Oct;6(3):171–4 (27 ref.)
Schizophrenia: all in the mind or locked in the brain? Clarke L. **J Adv Nurs** 1998 Aug;28(2):398–404 (50 ref.)
The glutamate hypothesis of schizophrenia [editorial] Akhondzadeh S. **J Clin Pharm Ther** 1998 Aug;23(4):243–6
Ayahoasca: an experimental psychosis that mirrors the transmethylation hypothesis of schizophrenia. Pomilio AB, et al. **J Ethnopharmacol** 1999 Apr;65(1):29–51
Schizophrenia neuropathology: tortoises and hares [editorial; comment] Harrison PJ. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):432. Comment on: J Neurol Neurosurg Psychiatry 1998 Oct;65(4):446–53.
Course of psychopathology, cognition and neurobiological abnormality in schizophrenia: developmental origins and amelioration by antipsychotics? Waddington JL, et al. **J Psychiatr Res** 1998 May–Aug;32(3–4):179–89 (151 ref.)
Histamine and prostaglandins in schizophrenia: revisited. Heleniak E, et al. **Med Hypotheses** 1999 Jan;52(1):37–42 (59 ref.)
Understanding the causes of schizophrenia [editorial; comment] Andreasen NC. **N Engl J Med** 1999 Feb 25; 340(8):645–7. Comment on: N Engl J Med 1999 Feb 25;340(8):603–8.
Risk factors for schizophrenia [letter; comment] McGuffin P, et al. **N Engl J Med** 1999 Jul 29;341(5):370–1; discussion 372. Comment on: N Engl J Med 1999 Feb 25;340(8):603–8.
Effects of family history and place and season of birth on the risk of schizophrenia [see comments] Mortensen PB, et al. **N Engl J Med** 1999 Feb 25;340(8):603–8. Comment in: N Engl J Med 1999 Feb 25;340(8):645–7. Comment in: N Engl J Med 1999 Jul 29;341(5):370–1; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):371–2; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):372.
Risk factors for schizophrenia [letter; comment] Weilerstein R. **N Engl J Med** 1999 Jul 29;341(5):372. Comment on: N Engl J Med 1999 Feb 25;340(8):603–8.
Mental illness and the sciences of brain and behavior. Kety SS. **Nat Med** 1999 Oct;5(10):1113–6
What causes schizophrenia? [editorial] **Nat Neurosci** 1999 Apr;2(4):295
Choroid plexus calcification as a possible clue of serotonin implication in schizophrenia. Bersani G, et al.

Neurosci Lett 1999 Jan 15;259(3):169–72
Birth insult increases amphetamine-induced behavioral responses in the adult rat. El-Khodor BF, et al. **Neuroscience** 1998 Dec;87(4):893–904
Childhood parental loss and schizophrenia: evidence against pathogenic but for some pathoplastic effects. Furukawa T, et al. **Psychiatry Res** 1998 Dec 14;81(3):353–62
Neurological soft signs in adolescents with poor performance on the continous performance test: markers of liability for schizophrenia spectrum disorders? Obiols JE, et al. **Psychiatry Res** 1999 Jun 30;86(3):217–28
Life events in late paraphrenia and depression. Fuchs T. **Psychopathology** 1999 Mar–Apr;32(2):60–9
Neonatal head circumference and related indices of disturbed fetal development in schizophrenic patients. Cantor-Graae E, et al. **Schizophr Res** 1998 Aug 17;32(3):191–9
A hyperglycinergic rat model for the pathogenesis of schizophrenia: preliminary findings. Waziri R, et al. **Schizophr Res** 1999 Jun 22;37(3):205–15

GENETICS

Candidate-gene association studies of schizophrenia. O'Donovan MC, et al. **Am J Hum Genet** 1999 Sep; 65(3):587–92 (37 ref.)
Support for a chromosome 18p locus conferring susceptibility to functional psychoses in families with schizophrenia, by association and linkage analysis. Schwab SG, et al. **Am J Hum Genet** 1998 Oct;63(4):1139–52
Chromosome 13 workshop report. Barden N, et al. **Am J Med Genet** 1999 Jun 18;88(3):260–2
Report of the Chromosome 5 Workshop of the Sixth World Congress on Psychiatric Genetics. Crowe RR, et al. **Am J Med Genet** 1999 Jun 18;88(3):229–32
No evidence for linkage between schizophrenia and markers at chromosome 15q13–14. Curtis L, et al. **Am J Med Genet** 1999 Apr 16;88(2):109–12
Chromosomes 19 and 20 report. Gejman PV. **Am J Med Genet** 1999 Jun 18;88(3):271
102T/C polymorphism of serotonin receptor type 2A gene is not associated with schizophrenia in either Chinese or British populations. He L, et al. **Am J Med Genet** 1999 Feb 5;88(1):95–8
Systematic search for variations in the tyrosine hydroxylase gene and their associations with schizophrenia, affective disorders, and alcoholism. Ishiguro H, et al. **Am J Med Genet** 1998 Sep 7;81(5):388–96
Lack of association between the hSKCa3 channel gene CAG polymorphism and schizophrenia. Joober R, et al. **Am J Med Genet** 1999 Apr 16;88(2):154–7
Novel mutations in the promoter and coding region of the human 5-HT1A receptor gene and association analysis in schizophrenia. Kawanishi Y, et al. **Am J Med Genet** 1998 Sep 7;81(5):434–9
Marker-to-marker linkage disequilibrium on chromosomes 5q, 6p, and 8p in Irish high-density schizophrenia pedigrees. Kendler KS, et al. **Am J Med Genet** 1999 Feb 5;88(1):29–33
Chromosome 4 Workshop Summary: Sixth World Congress on Psychiatric Genetics, Bonn, Germany, October 6–10, 1998. Kennedy JL, et al. **Am J Med Genet** 1999 Jun 18; 88(3):224–8
Dopamine D1 receptor gene polymorphism and schizophrenia in Japan. Kojima H, et al. **Am J Med Genet** 1999 Apr 16;88(2):116–9
Evidence for linkage to psychosis and cerebral asymmetry (relative hand skill) on the X chromosome. Laval SH, et al. **Am J Med Genet** 1998 Sep 7;81(5):420–7
Anticipation is not associated with CAG repeat expansion in parent–offspring pairs of patients affected with schizophrenia. Martorell L, et al. **Am J Med Genet** 1999 Feb 5;88(1):50–6
Genetic epidemiological study of schizophrenia in Palau, Micronesia: prevalence and familiality. Myles-Worsley M, et al. **Am J Med Genet** 1999 Feb 5;88(1):4–10
No evidence for linkage of the CHRNA7 gene region in Canadian schizophrenia families. Neves-Pereira M, et al. **Am J Med Genet** 1998 Sep 7;81(5):361–3
Chromosome 6 workshop report. Nurnberger JI Jr, et al. **Am J Med Genet** 1999 Jun 18;88(3):233–8
Kallmann syndrome gene (KAL-X) is not mutated in schizophrenia. O'Neill M, et al. **Am J Med Genet** 1999 Feb 5;88(1):34–7
Chromosome 22 workshop report. Schwab SG, et al. **Am J Med Genet** 1999 Jun 18;88(3):276–8
A genome-wide search for schizophrenia susceptibility genes. Shaw SH, et al. **Am J Med Genet** 1998 Sep 7;81(5):364–76
Association study of the 5-HT6 receptor gene in schizophrenia. Shinkai T, et al. **Am J Med Genet** 1999 Apr 16;88(2):120–2
14-3-3 protein eta chain gene (YWHAH) polymorphism and its genetic association with schizophrenia. Toyooka K, et al. **Am J Med Genet** 1999 Apr 16;88(2):164–7
Report of the chromosome 18 workshop. Van Broeckhoven C, et al. **Am J Med Genet** 1999 Jun 18;88(3):263–70
Chromosomes 8 and 10 workshop. Wildenauer DB, et al. **Am J Med Genet** 1999 Jun 18;88(3):239–43
Systematic mutation analysis of the catechol O-methyltransferase gene as a candidate gene for schizophrenia. Chen CH, et al. **Am J Psychiatry** 1999 Aug; 156(8):1273–5
Poor P50 suppression among schizophrenia patients and their first-degree biological relatives. Clementz BA, et al. **Am J Psychiatry** 1998 Dec;155(12):1691–4
Saccadic eye movements in families multiply affected with schizophrenia: the Maudsley Family Study. Crawford TJ, et al. **Am J Psychiatry** 1998 Dec;155(12):1703–10
Minor physical anomalies in schizophrenic patients and their siblings. Ismail B, et al. **Am J Psychiatry** 1998 Dec; 155(12):1695–702
Clinical and neurobiological correlates of cytogenetic abnormalities in childhood-onset schizophrenia. Nicolson R, et al. **Am J Psychiatry** 1999 Oct;156(10):1575–9
Schizophrenia and the HLA-DRB1 gene in the Japanese population. Sasaki T, et al. **Am J Psychiatry** 1999 May; 156(5):771–3
Partial volume decrease of the thalamus in relatives of patients with schizophrenia. Staal WG, et al. **Am J Psychiatry** 1998 Dec;155(12):1784–6
Genetic variation in human 5-HT receptors: potential pathogenetic and pharmacological role. Göthert M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:26–30 (20 ref.)
Neurobehavioral deficits at adolescence in children at risk for schizophrenia: The Jerusalem Infant Development Study. Hans SL, et al. **Arch Gen Psychiatry** 1999 Aug; 56(8):741–8
Schizophrenia: refining the phenotype, resolving endophenotypes. Lenzenweger MF. **Behav Res Ther** 1999 Mar;37(3):281–95 (80 ref.)
Transmission disequilibrium analysis of a triplet repeat within the hKCa3 gene using family trios with schizophrenia. Li T, et al. **Biochem Biophys Res Commun** 1998 Oct 20; 251(2):662–5
A genetic polymorphism in the promoter region of DRD4 associated with expression and schizophrenia. Okuyama Y, et al. **Biochem Biophys Res Commun** 1999 May 10; 258(2):292–5
Search for retroviral related DNA polymorphisms using RAPD PCR in schizophrenia. Deb P, et al. **Biochim Biophys Acta** 1999 Feb 24;1453(2):216–20
The thalamus and the schizophrenia phenotype: failure to replicate reduced volume. Arciniegas D, et al. **Biol Psychiatry** 1999 May 15;45(10):1329–35
Alternative phenotypes for the complex genetics of schizophrenia. Freedman R, et al. **Biol Psychiatry** 1999 Mar 1;45(5):551–8 (40 ref.)
Biological phenotypes in the genetics of schizophrenia. Freedman R. **Biol Psychiatry** 1998 Nov 15;44(10):939–40
Dopamine D4 receptor gene polymorphisms and neuroleptic response in schizophrenia. Hwu HG, et al. **Biol Psychiatry** 1998 Sep 15;44(6):483–7
Smooth pursuit performance in families with multiple occurrence of schizophrenia and nonpsychotic families. Lencer R, et al. **Biol Psychiatry** 1999 Mar 15;45(6):694–703
Analysis of CAG/CTG repeat size in Chinese subjects with schizophrenia and bipolar affective disorder using the repeat expansion detection method. Li T, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1160–5
Anticipatory saccades during smooth pursuit eye movements and familial transmission of schizophrenia. Ross RG, et al. **Biol Psychiatry** 1998 Oct 15;44(8):690–7
Triplets with schizophrenia [letter; comment] Torrey EF, et al. **Biol Psychiatry** 1999 Mar 1;45(5):655 (4 ref.). Comment on: Biol Psychiatry 1997 Dec 15;42(12):1186–7.
Treatment of nonpsychotic relatives of patients with schizophrenia: four case studies. Tsuang MT, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1412–8
Evolution of schizotypy [letter; comment] Price JS. **Br J Psychiatry** 1998 Aug;173:183. Comment on: Br J Psychiatry 1998 Apr;172:289–90.
Age at onset and outcome in schizophrenia are related to the degree of familial loading. Suvisaari JM, et al. **Br J Psychiatry** 1998 Dec;173:494–500
Midline brain anomalies and schizophrenia in people with CATCH 22 syndrome. Vataja R, et al. **Br J Psychiatry** 1998 Jun;172:518–20
Schizophrenia susceptibility gene locus at Xp22.3. Milunsky J, et al. **Clin Genet** 1999 Jun;55(6):455–60
Dermatoglyphic analysis in borderline personality disorder and schizophrenia--results of a Croatian study. Jelovac N, et al. **Coll Antropol** 1998 Jun;22(1):141–8
Analysis of a polymorphism in the tuberous sclerosis (TSC2) gene does not predispose to schizophrenia. Przkora R, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(6):314–5
No evidence for involvement of KCNN3 (hSKCa3) potassium channel gene in familial and isolated cases of schizophrenia. Bonnet-Brilhault F, et al. **Eur J Hum Genet** 1999 Feb-Mar;7(2):247–50
The etiologic heterogeneity of schizophrenia. Garver DL. **Harv Rev Psychiatry** 1997 Mar–Apr;4(6):317–27 (100 ref.)
Chromosomal fragile site expression in lymphocytes from patients with schizophrenia. Chen CH, et al. **Hum Genet** 1998 Dec;103(6):702–6
No correlation between A(-1438)G polymorphism in 5-HT2A receptor gene promoter and the density of frontal cortical 5-HT2A receptors in schizophrenia. Kouzmenko AP, et al. **Hum Hered** 1999 Mar;49(2):103–5
Neuropsychological functioning among the nonpsychotic relatives of schizophrenic patients: a 4-year follow-up study. Faraone SV, et al. **J Abnorm Psychol** 1999 Feb; 108(1):176–81
Anticipation in Japanese families with schizophrenia. Imamura A, et al. **J Hum Genet** 1998;43(4):217–23
Progress on the genetics of schizophrenia [editorial] Bassett AS. **J Psychiatry Neurosci** 1998 Nov;23(5):270–3 (32 ref.)
T102C polymorphism in the 5HT2A gene and schizophrenia: relation to phenotype and drug response variability [see comments] Joober R, et al. **J Psychiatry Neurosci** 1999 Mar;24(2):141–6. Comment in: J Psychiatry Neurosci 1999 Mar;24(2):139–40.
Brains at risk of schizophrenia [comment] Harrison PJ. **Lancet** 1999 Jan 2;353(9146):3–4. Comment on: Lancet 1999 Jan 2;353(9146):30–3.
A YAC contig encompassing the 11q14.3 breakpoint of a translocation associated with schizophrenia, and including the tyrosinase gene. Petit J, et al. **Mamm Genome** 1999 Jun;10(6):649–52
Childhood-onset schizophrenia associated with parkinsonism in a patient with a microdeletion of chromosome 22. Krahn LE, et al. **Mayo Clin Proc** 1998 Oct;73(10):956–9
Expanded (CAG)n, (CGG)n and (GAA)n trinucleotide repeat microsatellites, and mutant purine synthesis and pigmentation genes cause schizophrenia and autism. Fischer KM. **Med Hypotheses** 1998 Sep;51(3):223–33 (89 ref.)
New genetic hypothesis of schizophrenia. Guidry J, et al. **Med Hypotheses** 1999 Jan;52(1):69–75 (66 ref.)
A piece in the puzzle: an ion channel candidate gene for schizophrenia. Gargus JJ, et al. **Mol Med Today** 1998 Dec; 4(12):518–24
A study of chromosome 4p markers and dopamine D5 receptor gene in schizophrenia and bipolar disorder. Asherson P, et al. **Mol Psychiatry** 1998 Jul;3(4):310–20
Mapping of hKCa3 to chromosome 1q21 and investigation of linkage of CAG repeat polymorphism to schizophrenia. Austin CP, et al. **Mol Psychiatry** 1999 May;4(3):261–6
Large CAG/CTG repeats are associated with childhood-onset schizophrenia. Burgess CE, et al. **Mol Psychiatry** 1998 Jul;3(4):321–7
High seroprevalence of Borna virus infection in schizophrenic patients, family members and mental health workers in Taiwan. Chen CH, et al. **Mol Psychiatry** 1999 Jan;4(1):33–8
Evidence for a chromosome 2p13–14 schizophrenia susceptibility locus in families from Palau, Micronesia. Coon H, et al. **Mol Psychiatry** 1998 Nov;3(6):521–7
hKCa3/KCNN3 potassium channel gene: association of longer CAG repeats with schizophrenia in Israeli Ashkenazi Jews, expression in human tissues and localization to chromosome 1q21. Dror V, et al. **Mol Psychiatry** 1999 May;4(3):254–60
A comparative proteome analysis of hippocampal tissue from schizophrenic and Alzheimer's disease individuals. Edgar PF, et al. **Mol Psychiatry** 1999 Mar;4(2):173–8
Linkage analysis of putative schizophrenia gene candidate regions on chromosomes 3p, 5q, 6p, 8p, 20p and 22q in a population-based sampled Finnish family set. Hovatta I, et al. **Mol Psychiatry** 1998 Sep;3(5):452–7
Polyglutamine-containing proteins in schizophrenia [see comments] Joober R, et al. **Mol Psychiatry** 1999 Jan; 4(1):53–7. Comment in: Mol Psychiatry 1999 Jan;4(1):4–5.
Alterations in synaptic proteins and their encoding mRNAs in prefrontal cortex in schizophrenia: a possible neurochemical basis for 'hypofrontality'. Karson CN, et al. **Mol Psychiatry** 1999 Jan;4(1):39–45
Polymorphisms of the interleukin-1 gene complex in schizophrenia [see comments] Katila H, et al. **Mol Psychiatry** 1999 Mar;4(2):179–81. Comment in: Mol Psychiatry 1999 Mar;4(2):109–11.
Dopamine D3 receptor gene variants and substance abuse in schizophrenia. Krebs MO, et al. **Mol Psychiatry** 1998 Jul;3(4):337–41
A functional serotonin transporter (5-HTT) polymorphism is associated with psychosis in neuroleptic-free schizophrenics. Malhotra AK, et al. **Mol Psychiatry** 1998 Jul;3(4):328–32
Detection of polyglutamine expansion in a new acidic protein: a candidate for childhood onset schizophrenia? [see comments] Moriniere S, et al. **Mol Psychiatry** 1999 Jan; 4(1):58–63. Comment in: Mol Psychiatry 1999 Jan;4(1):4–5.
Cytokines in affective disorders and schizophrenia: new clinical and genetic findings [news; comment] Prolo P, et al. **Mol Psychiatry** 1999 Mar;4(2):109–11. Comment on: Mol Psychiatry 1999 Mar;4(2):179–81. Comment on: Mol Psychiatry 1999 Mar;4(2):182–8.
Autosome search for schizophrenia susceptibility genes in multiply affected families. Rees MI, et al. **Mol Psychiatry** 1999 Jul;4(4):353–9
Schizophrenia genetics: expansion of knowledge? [editorial; comment] Ross CA. **Mol Psychiatry** 1999 Jan;4(1):4–5 (14 ref.). Comment on: Mol Psychiatry 1999 Jan;4(1):53–7. Comment on: Mol Psychiatry 1999 Jan;4(1):58–63.
Genotypic association between the dopamine D3 receptor and tardive dyskinesia in chronic schizophrenia. Segman R, et al. **Mol Psychiatry** 1999 May;4(3):247–53
Genetic association study of a polymorphic CAG repeats array of calcium-activated potassium channel (KCNN3) gene and schizophrenia among the Chinese population from Taiwan. Tsai MT, et al. **Mol Psychiatry** 1999 May; 4(3):271–3
Analysis of genome-wide CAG/CTG repeats, and at SEF2-1B and ERDA1 in schizophrenia and bipolar affective disorder. Vincent JB, et al. **Mol Psychiatry** 1999 May;4(3):229–34
Allelic association of the MTHFR gene with schizophrenia [letter; comment] Wei J, et al. **Mol Psychiatry** 1999 Mar; 4(2):115–6. Comment on: Mol Psychiatry 1998 Sep;3(5):435–7.

Is the cPLA2 gene associated with schizophrenia? [letter] Wei J, et al. **Mol Psychiatry** 1998 Nov;3(6):480–1

Association between hSKCa3 and schizophrenia not confirmed by transmission disequilibrium test in 193 offspring/parents trios. Wittekindt O, et al. **Mol Psychiatry** 1999 May;4(3):267–70

Effects of family history and place and season of birth on the risk of schizophrenia [see comments] Mortensen PB, et al. **N Engl J Med** 1999 Feb 25;340(8):603–8. Comment in: N Engl J Med 1999 Feb 25;340(8):645–7. Comment in: N Engl J Med 1999 Jul 29;341(5):370–1; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):371–2; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):372.

Risk factors for schizophrenia [letter; comment] Swerdlow RH, et al. **N Engl J Med** 1999 Jul 29;341(5):371–2; discussion 372. Comment on: N Engl J Med 1999 Feb 25;340(8):603–8.

Schizophrenia and N-methyl-D-aspartate receptors: evolutionary adaptations from malfunctioning molecules? Rison RA. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct;11(4):236–40 (40 ref.)

Apolipoprotein E genotype and schizophrenia. Chen JY, et al. **Neuropsychobiology** 1999;39(3):141–3

Association of the MscI polymorphism of the dopamine D3 receptor gene with tardive dyskinesia in schizophrenia. Basile VS, et al. **Neuropsychopharmacology** 1999 Jul; 21(1):17–27

On the future of genetic research in bipolar and schizophrenic syndromes [editorial] Berrettini WH. **Neuropsychopharmacology** 1999 Jul;21(1):1–2

The apolipoprotein E epsilon 4 allele is associated with blunting of ketamine-induced psychosis in schizophrenia. A preliminary report. Malhotra AK, et al. **Neuropsychopharmacology** 1998 Nov;19(5):445–8

No evidence for association of serotonin-2A receptor variant (102T/C) with schizophrenia or clozapine response in a Chinese population. Lin CH, et al. **Neuroreport** 1999 Jan 18;10(1):57–60

Short CAG repeats within the hSKCa3 gene associated with schizophrenia: results of a family-based study. Stöber G, et al. **Neuroreport** 1998 Nov 16;9(16):3595–9

Plasma homocysteine and the methylenetetrahydrofolate reductase C677T gene variant: lack of association with schizophrenia. Virgos C, et al. **Neuroreport** 1999 Jul 13; 10(10):2035–8

Association between polymorphisms in the type 1 sigma receptor gene and schizophrenia. Ishiguro H, et al. **Neurosci Lett** 1998 Nov 20;257(1):45–8

Apolipoprotein E regulatory region genotype in schizophrenia. Shinkai T, et al. **Neurosci Lett** 1998 Oct 30;256(1):57–60

Hippocampal and cortical growth-associated protein-43 messenger RNA in schizophrenia. Eastwood SL, et al. **Neuroscience** 1998 Sep;86(2):437–48

Altered ratios of alternatively spliced long and short gamma2 subunit mRNAs of the gamma-amino butyrate type A receptor in prefrontal cortex of schizophrenics. Huntsman MM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8; 95(25):15066–71

A decrease of reelin expression as a putative vulnerability factor in schizophrenia. Impagnatiello F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15718–23

Cerebral ventricle-brain ratio in monozygotic twins discordant and concordant for schizophrenia. Ohara K, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Aug; 22(6):1043–50

No association between the tyrosine hydroxylase microsatellite marker HUMTH01 and schizophrenia or bipolar I disorder. Burgert E, et al. **Psychiatr Genet** 1998 Summer;8(2):45–8

Search for a schizophrenia susceptibility gene on chromosome 13. Jensen J, et al. **Psychiatr Genet** 1998 Winter;8(4):239–43

Possible association between schizophrenia and a CAG repeat polymorphism in the spinocerebellar ataxia type 1 (SCA1) gene on human chromosome 6p23. Joo EJ, et al. **Psychiatr Genet** 1999 Mar;9(1):7–11

Tests of linkage, allelic and genotypic association between schizophrenia and the gene for the D3 dopamine receptor, DRD3. Kalsi G, et al. **Psychiatr Genet** 1998 Autumn; 8(3):187–9

No association between schizophrenia and serotonin receptor type 2A gene in Korea. Kim YK, et al. **Psychiatr Genet** 1999 Mar;9(1):47–9

Analysis of chromosome 6 markers in eight Utah schizophrenia pedigrees. Lind B, et al. **Psychiatr Genet** 1998 Autumn;8(3):171–3

A long-range restriction map across 3 Mb of the chromosome 11 breakpoint region of a translocation linked to schizophrenia: localization of the breakpoint and the search for neighbouring genes. Millar JK, et al. **Psychiatr Genet** 1998 Autumn;8(3):175–81

Association of the Ban I dimorphic site at the human cytosolic phospholipase A2 gene with schizophrenia. Peet M, et al. **Psychiatr Genet** 1998 Autumn;8(3):191–2

Schizophrenia and the serotonin transporter gene [published erratum appears in Psychiatr Genet 1999 Mar;9(1):51] Rao D, et al. **Psychiatr Genet** 1998 Winter;8(4):207–12

Failure to exclude a possible schizophrenia susceptibility locus on chromosome 13q14.1–q32 in southern African Bantu-speaking families. Riley BP, et al. **Psychiatr Genet** 1998 Autumn;8(3):155–62

Biological research on schizophrenia. Toru M. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S170–2 (28 ref.)

No linkage or linkage disequilibrium between brain-derived neurotrophic factor (BDNF) dinucleotide repeat polymorphism and schizophrenia in Irish families. Hawi Z, et al. **Psychiatry Res** 1998 Nov 16;81(2):111–6

Neuropsychological risk indicators for schizophrenia: a preliminary study of female relatives of schizophrenic and bipolar probands. Kremen WS, et al. **Psychiatry Res** 1998 Jul 13;79(3):227–40

Familial associations of subsyndromes of psychosis in affected sibling pairs with schizophrenia and schizoaffective disorder. Loftus J, et al. **Psychiatry Res** 1998 Aug 17; 80(2):101–11

Functional polymorphism of -141C Ins/Del in the dopamine D2 receptor gene promoter and schizophrenia. Ohara K, et al. **Psychiatry Res** 1998 Nov 16;81(2):117–23

Schizophrenia and the serotonin-2A receptor promoter polymorphism. Ohara K, et al. **Psychiatry Res** 1999 Feb 22;85(2):221–4

Dopamine D2 receptor promoter polymorphism: no association with schizophrenia. Tallerico T, et al. **Psychiatry Res** 1999 Feb 22;85(2):215–9

Sibling pairs with schizophrenia or schizoaffective disorder: associations of subtypes, symptoms and demographic variables. Cardno AG, et al. **Psychol Med** 1998 Jul; 28(4):815–23

Psychophysiological measures of (dis)inhibition as liability indicators for schizophrenia. Clementz BA. **Psychophysiology** 1998 Nov;35(6):648–68 (250 ref.)

Acoustic startle reflex in schizophrenia patients and their first-degree relatives: evidence of normal emotional modulation. Curtis CE, et al. **Psychophysiology** 1999 Jul; 36(4):469–75

Identifying psychophysiological risk for psychopathology: examples from substance abuse and schizophrenia research. Iacono WG. **Psychophysiology** 1998 Nov;35(6):621–37 (145 ref.)

Measuring liability for schizophrenia using optimized antisaccade stimulus parameters. McDowell JE, et al. **Psychophysiology** 1999 Jan;36(1):138–41

EEG differences in monozygotic twins discordant and concordant for schizophrenia. Stassen HH, et al. **Psychophysiology** 1999 Jan;36(1):109–17

A transmission disequilibrium and linkage analysis of D22S278 marker alleles in 574 families: further support for a susceptibility locus for schizophrenia at 22q12. Schizophrenia Collaborative Linkage Group for Chromosome 22. **Schizophr Res** 1998 Jul 27;32(2):115–21

Evidence supporting an association between the DRB1 gene and schizophrenia in Japanese. Arinami T, et al. **Schizophr Res** 1998 Jul 27;32(2):81–6

Negative symptoms of familial schizophrenia breed true in unstable (vs. stable) cerebral-ventricle pedigrees. Filbey FM, et al. **Schizophr Res** 1999 Jan 4;35(1):15–23

Clinical characteristics of schizophrenia associated with velo-cardio-facial syndrome. Gothelf D, et al. **Schizophr Res** 1999 Jan 11;35(2):105–12

Genetic polymorphisms for drug metabolism (CYP2D6) and tardive dyskinesia in schizophrenia. Kapitany T, et al. **Schizophr Res** 1998 Jul 27;32(2):101–6

Sex differences in self-reported schizotypal traits in relatives of schizophrenic probands. Kremen WS, et al. **Schizophr Res** 1998 Nov 9;34(1-2):27–37

Familial schizophrenia with pericentric inversion of chromosome 9: a case report. Lee KB, et al. **Schizophr Res** 1998 Jul 27;32(2):123–6

Case-control, haplotype relative risk and transmission disequilibrium analysis of a dopamine D2 receptor functional promoter polymorphism in schizophrenia. Li T, et al. **Schizophr Res** 1998 Jul 27;32(2):87–92

Increased expression of Wnt-1 in schizophrenic brains. Miyaoka T, et al. **Schizophr Res** 1999 Jul 27;38(1):1–6

The sensitivity of the Spontaneous Selective Attention Test (SSAT): a study of schizophrenic inpatients and outpatients versus normal controls. Myles-Worsley M, et al. **Schizophr Res** 1998 May 25;31(2-3):131–9

Tardive dyskinesia and debrisoquine 4-hydroxylase (CYP2D6) genotype in Japanese schizophrenics. Ohmori O, et al. **Schizophr Res** 1998 Jul 27;32(2):107–13

Increased repetition blindness in schizophrenia patients and first-degree relatives of schizophrenia patients. Park S, et al. **Schizophr Res** 1998 Jun 22;32(1):59–62

Dopamine receptor D2 Ser/Cys311 variant associated with disorganized symptomatology of schizophrenia. Serretti A, et al. **Schizophr Res** 1998 Nov 30;34(3):207–10

Serotonin transporter gene is not associated with symptomatology of schizophrenia. Serretti A, et al. **Schizophr Res** 1999 Jan 4;35(1):33–9

Association of neuropsychological vulnerability markers in relatives of schizophrenic patients. Toomey R, et al. **Schizophr Res** 1998 May 25;31(2-3):89–98

The ecogenetics of schizophrenia: a review. van Os J, et al. **Schizophr Res** 1998 Jul 27;32(2):127–35 (71 ref.)

A transmission/disequilibrium study of the DRB1*04 gene locus on chromosome 6p21.3 with schizophrenia. Wright P, et al. **Schizophr Res** 1998 Jul 27;32(2):75–80

[Early familial and environmental processes in schizophrenia. Importance of premorbid personality evaluation] Chabot B, et al. **Encephale** 1998 Jul-Aug;24(4):309–14 (Eng. Abstr.) **(Fre)**

[Vulnerability to schizophrenia. I: Familial nature of of neuropsychologic indicators] d'Amato T, et al. **Encephale** 1998 Sep-Oct;24(5):442–8 (Eng. Abstr.) **(Fre)**

[Problem of molecular psychiatry in view of the trinucleotide repeat expansion disease] Ohara K. **Nippon Rinsho** 1999 Apr;57(4):792–5 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Association of allele polymorphism of dopamine d2 receptors with schizophrenic and affective disorders] Golimbet VE, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):32–5 (Eng. Abstr.) **(Rus)**

[Genetic factors in the onset of schizophrenia] Zivanović O, et al. **Med Pregl** 1999 Jan-Feb;52(1-2):25–8 (15 ref.) (Eng. Abstr.) **(Scr)**

HISTORY

Conceptual foundations of schizophrenia: I. Degeneration. Barrett RJ. **Aust N Z J Psychiatry** 1998 Oct;32(5):617–26; discussion 635–41

Conceptual foundations of schizophrenia: II. Disintegration and division. Barrett RJ. **Aust N Z J Psychiatry** 1998 Oct; 32(5):627–34; discussion 635–41

The treatment of schizophrenia: a survey of the literature. 1929 [classical article] Hinsie LE. **Psychiatr Q** 1999 Spring; 70(1):5–26

Early theory and research on hemispheric specialization. Harris LJ. **Schizophr Bull** 1999;25(1):11–39

[The beginning of Emil Kraepelin's classification of psychoses. A historical-methodological reflection on the occasion of the 100th anniversary of his "Heidelberg Address" 27 November 1898 on "nosologic dichotomy" of endogenous psychoses] Kohl F. **Psychiatr Prax** 1999 May; 26(3):105–11 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Antibodies to heat shock proteins in schizophrenic patients: implications for the mechanism of the disease. Schwarz MJ, et al. **Am J Psychiatry** 1999 Jul;156(7):1103–4

The link between diabetes and schizophrenia: an immunological explanation [letter] Holden RJ, et al. **Aust N Z J Psychiatry** 1999 Apr;33(2):286–7

Autoantibodies against 60-kDa heat shock protein in schizophrenia. Schwarz MJ, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(6):282–8

Cytokines in affective disorders and schizophrenia: new clinical and genetic findings [news; comment] Prolo P, et al. **Mol Psychiatry** 1999 Mar;4(2):109–11. Comment on: Mol Psychiatry 1999 Mar;4(2):179–81. Comment on: Mol Psychiatry 1999 Mar;4(2):182–8.

Changes in the serum levels of autoantibody to nerve growth factor in patients with schizophrenia. Klyushnik TP, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):355–7

Blood-cerebrospinal fluid barrier impairment as indicator for an immune process in schizophrenia. Schwarz MJ, et al. **Neurosci Lett** 1998 Sep 11;253(3):201–3

Cytokines production in chronic schizophrenia patients with or without paranoid behaviour. Cazzullo CL, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Aug; 22(6):947–57

Characterization of the sigma ligand panamesine, a potential antipsychotic, by immune response in patients with schizophrenia and by sleep-EEG changes in normal controls. Frieboes RM, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):107–10

The inflammatory response system in treatment-resistant schizophrenia: increased serum interleukin-6. Lin A, et al. **Schizophr Res** 1998 Jun 22;32(1):9–15

Increased frequency of CD8 positive gamma/delta T-lymphocytes (CD8+ gamma/delta+) in unmedicated schizophrenic patients: relation to impairment of the blood-brain barrier and HLA-DPA*02011 [letter] Müller N, et al. **Schizophr Res** 1998 Jun 22;32(1):69–71

T-cell subsets in schizophrenia: a comparison between drug-naive first episode patients and chronic schizophrenic patients. Sperner-Unterweger B, et al. **Schizophr Res** 1999 Jul 27;38(1):61–70

[Frequency of immunologic disorders in acute schizophrenia] Fabisch H, et al. **Fortschr Neurol Psychiatr** 1999 May; 67(5):218–24 (Eng. Abstr.) **(Ger)**

[Nerve growth factor auto-antibodies in the sera of mothers of schizophrenic children and children from high risk group] Zakharenko OM, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(3):44–6 (Eng. Abstr.) **(Rus)**

METABOLISM

Changes in levels of phosphorus metabolites in temporal lobes of drug-naive schizophrenic patients. Fukuzako H, et al. **Am J Psychiatry** 1999 Aug;156(8):1205–8

The relationship between dorsolateral prefrontal N-acetylaspartate measures and striatal dopamine activity in schizophrenia [see comments] Bertolino A, et al. **Biol Psychiatry** 1999 Mar 15;45(6):660–7. Comment in: Biol Psychiatry 1999 Mar 15;45(6):657–9.

The role of prefrontal cortex in the dopaminergic dysregulation of schizophrenia [editorial; comment] Byne W, et al. **Biol Psychiatry** 1999 Mar 15;45(6):657–9. Comment on: Biol Psychiatry 1999 Mar 15;45(6):660–7.

Hippocampal N-acetyl aspartate in unaffected siblings of patients with schizophrenia: a possible intermediate

neurobiological phenotype [published erratum appears in Biol Psychiatry 1999 Jan 15;45(2):following 244] Callicott JH, et al. **Biol Psychiatry** 1998 Nov 15;44(10):941–50

A.E. Bennett Research Award. Reversal of phencyclidine-induced effects by glycine and glycine transport inhibitors. Javitt DC, et al. **Biol Psychiatry** 1999 Mar 15;45(6):668–79

In vivo neurochemistry of the brain in schizophrenia as revealed by magnetic resonance spectroscopy. Kegeles LS, et al. **Biol Psychiatry** 1998 Sep 15;44(6):382–98 (137 ref.)

D-serine and the therapeutic challenge posed by the N-methyl-D-aspartate antagonist model of schizophrenia [editorial; comment] Krystal JH, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1075–6. Comment on: Biol Psychiatry 1998 Dec 1;44(11):1081–9.

Inositol levels are decreased in postmortem brain of schizophrenic patients. Shimon H, et al. **Biol Psychiatry** 1998 Sep 15;44(6):428–32

Comparison of glutamate and gamma-aminobutyric acid uptake binding sites in frontal and temporal lobes in schizophrenia. Simpson MD, et al. **Biol Psychiatry** 1998 Sep 15;44(6):423–7

31Phosphorus magnetic resonance spectroscopy of the dorsolateral prefrontal region in schizophrenics--a study including 50 patients and 36 controls. Volz HP, et al. **Biol Psychiatry** 1998 Sep 15;44(6):399–404

Pharmacokinetics of clozapine and its metabolites in psychiatric patients: plasma protein binding and renal clearance. Schaber G, et al. **Br J Clin Pharmacol** 1998 Nov; 46(5):453–9

Lipids and schizophrenia [editorial] Walker NP, et al. **Br J Psychiatry** 1999 Feb;174:101–4

Olanzapine: a basic science update. Bymaster F, et al. **Br J Psychiatry Suppl** 1999;(37):36–40 (18 ref.)

Glutamatergic aspects of schizophrenia. Tamminga C. **Br J Psychiatry Suppl** 1999;(37):12–5 (15 ref.)

Cholinergic aspects of schizophrenia. Tandon R. **Br J Psychiatry Suppl** 1999;(37):7–11 (11 ref.)

An increase in [3H] CGS21680 binding in the striatum of postmortem brains of chronic schizophrenics. Kurumaji A, et al. **Brain Res** 1998 Oct 19;808(2):320–3

Expression of the human excitatory amino acid transporter 2 and metabotropic glutamate receptors 3 and 5 in the prefrontal cortex from normal individuals and patients with schizophrenia. Ohnuma T, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):207–17

The cytotoxicity of clozapine metabolites: implications for predicting clozapine-induced agranulocytosis. Tschen AC, et al. **Clin Pharmacol Ther** 1999 May;65(5):526–32

Proton magnetic resonance spectroscopy in schizophrenia. Bertolino A, et al. **Eur J Radiol** 1999 May;30(2):132–41 (55 ref.)

VASE-containing N-CAM isoforms are increased in the hippocampus in bipolar disorder but not schizophrenia. Vawter MP, et al. **Exp Neurol** 1998 Nov;154(1):1–11

The glutamate hypothesis of schizophrenia [editorial] Akhondzadeh S. **J Clin Pharm Ther** 1998 Aug;23(4):243–6

Clozapine and metabolite concentrations during treatment of patients with chronic schizophrenia. Guitton C, et al. **J Clin Pharmacol** 1999 Jul;39(7):721–8

Multiple-dose pharmacokinetics of clozapine in patients with chronic schizophrenia. Guitton C, et al. **J Clin Psychopharmacol** 1998 Dec;18(6):470–6

Quantitative proton-decoupled 31P MRS of the schizophrenic brain in vivo. Blüml S, et al. **J Comput Assist Tomogr** 1999 Mar-Apr;23(2):272–5

Diurnal melatonin and cortisol secretion profiles in medicated schizophrenic patients. Jiang HK, et al. **J Formos Med Assoc** 1998 Dec;97(12):830–7

[3H]Neurotensin receptor densities in human postmortem brain tissue obtained from normal and schizophrenic persons. An autoradiographic study. Lahti RA, et al. **J Neural Transm** 1998;105(4–5):507–16

Stability of RNA transcripts in post-mortem psychiatric brains. Schramm M, et al. **J Neural Transm** 1999; 106(3–4):329–35

Neuronal nicotinic receptors in dementia with Lewy bodies and schizophrenia: alpha-bungarotoxin and nicotine binding in the thalamus. Court J, et al. **J Neurochem** 1999 Oct;73(4):1590–7

Changes in serotonin2A and GABA(A) receptors in schizophrenia: studies on the human dorsolateral prefrontal cortex. Dean B, et al. **J Neurochem** 1999 Apr;72(4):1593–9

Expression of NMDAR1, GluR1, GluR7, and KA1 glutamate receptor mRNAs is decreased in frontal cortex of "neuroleptic-free" schizophrenics: evidence on reversible up-regulation by typical neuroleptics. Sokolov BP. **J Neurochem** 1998 Dec;71(6):2454–64

The binding of [3H]AF-DX 384 is reduced in the caudate-putamen of subjects with schizophrenia. Crook JM, et al. **Life Sci** 1999;64(19):1761–71

Decreased serotonin2A receptors in Brodmann's area 9 from schizophrenic subjects. A pathological or pharmacological phenomenon? Dean B, et al. **Mol Chem Neuropathol** 1998 Jun-Aug;34(2-3):153–45

No association between the serotonin transporter-linked promoter region polymorphism and either schizophrenia or density of the serotonin transporter in human hippocampus. Naylor L, et al. **Mol Med** 1998 Oct; 4(10):671–4

Alterations in synaptic proteins and their encoding mRNAs in prefrontal cortex in schizophrenia: a possible neurochemical basis for 'hypofrontality'. Karson CN, et al. **Mol Psychiatry** 1999 Jan;4(1):39–45

Direct determination of dopamine D4 receptors in normal and schizophrenic postmortem brain tissue: a [3H]NGD-94-1 study. Lahti RA, et al. **Mol Psychiatry** 1998 Nov;3(6):528–33

Immunohistochemical localization of the cell adhesion molecules Thy-1 and L1 in the human prefrontal cortex patients with schizophrenia, bipolar disorder, and depression. Webster MJ, et al. **Mol Psychiatry** 1999 Jan; 4(1):46–52

No change in the density of the serotonin1A receptor, the serotonin4 receptor or the serotonin transporter in the dorsolateral prefrontal cortex from subjects with schizophrenia. Dean B, et al. **Neurochem Int** 1999 Feb; 34(2):109–15

No evidence of altered in vivo benzodiazepine receptor binding in schizophrenia. Abi-Dargham A, et al. **Neuropsychopharmacology** 1999 Jun;20(6):650–61

Proton magnetic resonance spectroscopy in the frontal and temporal lobes of neuroleptic naive patients with schizophrenia. Cecil KM, et al. **Neuropsychopharmacology** 1999 Feb;20(2):131–40

AMPA receptor binding and subunit mRNA expression in prefrontal cortex and striatum of elderly schizophrenics. Healy DJ, et al. **Neuropsychopharmacology** 1998 Oct; 19(4):278–86

Brain noradrenergic receptors in major depression and schizophrenia. Klimek V, et al. **Neuropsychopharmacology** 1999 Jul;21(1):69–81

NR2B-containing NMDA receptors are up-regulated in temporal cortex in schizophrenia. Grimwood S, et al. **Neuroreport** 1999 Feb 25;10(3):461–5

Reduced tyrosine kinase receptor C mRNA levels in the frontal cortex of patients with schizophrenia. Schramm M, et al. **Neurosci Lett** 1998 Nov 27;257(2):65–8

Detection and quantification of hippocampal synaptophysin messenger RNA in schizophrenia using autoclaved, formalin-fixed, paraffin wax-embedded sections. Eastwood SL, et al. **Neuroscience** 1999;93(1):99–106

A decrease of reelin expression as a putative vulnerability factor in schizophrenia. Impagnatiello F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15718–23

Reversible metabolism of clozapine and clozapine N-oxide in schizophrenic patients. Chang WH, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):723–39

Regional proton magnetic resonance spectroscopy in schizophrenia and exploration of drug effect. Heimberg C, et al. **Psychiatry Res** 1998 Aug 26;83(2):105–15

Positive correlation between reduction of handwriting area and D2 dopamine receptor occupancy during treatment with neuroleptic drugs. Kuenstler U, et al. **Psychiatry Res** 1999 Feb 22;90(1):31–9

Functional connectivity in depressive, obsessive-compulsive, and schizophrenic disorders: an explorative correlational analysis of regional cerebral metabolism. Mallet L, et al. **Psychiatry Res** 1998 May 20;82(2):83–93

In vivo determination of striatal dopamine D2 receptor occupancy in patients treated with olanzapine. Raedler TJ, et al. **Psychiatry Res** 1999 Apr 26;90(2):81–90

Oxytocin modulates psychotomimetic-induced deficits in sensorimotor gating. Feifel D, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):93–8

Effects of itraconazole on the steady-state plasma concentrations of bromperidol and reduced bromperidol in schizophrenic patients. Furukori H, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):189–92

In vivo 123I IBZM SPECT imaging of striatal dopamine-2 receptor occupancy in schizophrenic patients treated with olanzapine in comparison to clozapine and haloperidol. Tauscher J, et al. **Psychopharmacology (Berl)** 1999 Jan; 141(2):175–81

Imaging dopamine transmission in schizophrenia. A review and meta-analysis. Laruelle M. **Q J Nucl Med** 1998 Sep; 42(3):211–21 (84 ref.)

Reduced hippocampal N-acetylaspartate without volume loss in schizophrenia. Deicken RF, et al. **Schizophr Res** 1999 Jun 22;37(3):217–23

Red cell membrane fatty acids, cytosolic phospholipase-A2 and schizophrenia. Doris AB, et al. **Schizophr Res** 1998 May 25;31(2-3):185–96

Absence of basal ganglia amino acid neuron deficits in schizophrenia in three collections of brains. Simpson MD, et al. **Schizophr Res** 1998 May 25;31(2-3):167–75

Dopamine D2 densities and the schizophrenic brain. Zakzanis KK, et al. **Schizophr Res** 1998 Aug 17;32(3):201–6

Decreased hippocampal (CA3) NMDA receptors in schizophrenia. Dean B, et al. **Synapse** 1999 Apr;32(1):67–9

Inducing effect of phenobarbital on clozapine metabolism in patients with chronic schizophrenia. Facciolà G, et al. **Ther Drug Monit** 1998 Dec;20(6):628–30

Interindividual variation of plasma haloperidol concentrations and the impact of concomitant medications: the analysis of therapeutic drug monitoring data. Hirokane G, et al. **Ther Drug Monit** 1999 Feb;21(1):82–6

[Current trends in clinical psychiatric research] Poirier MF. **Presse Med** 1998 Dec 19;27(40):2185–9 (Eng. Abstr.) **(Fre)**

MORTALITY

Antecedents of suicide in people with schizophrenia. Heilä H, et al. **Br J Psychiatry** 1998 Oct;173:330–3

Mortality in schizophrenia. Antipsychotic polypharmacy and absence of adjunctive anticholinergics over the course of a 10-year prospective study. Waddington JL, et al. **Br J Psychiatry** 1998 Oct;173:325–9

Suicide in patients hospitalized for schizophrenia: 1913–1940. Stephens JH, et al. **J Nerv Ment Dis** 1999 Jan;187(1):10–4

Suicide among psychiatric in-patients with schizophrenia in an Australian mental hospital. Shah A, et al. **Med Sci Law** 1999 Jul;39(3):251–9

[Suicidal risk in confirmed psychotic states] Verdoux H. **Encephale** 1998 Jul;24 Spec No 1:8–11 **(Fre)**

NURSING

The use of critical pathways in caring for schizophrenic patients in a mental hospital. Chan SW, et al. **Arch Psychiatr Nurs** 1999 Jun;13(3):145–53

Instruments for assessment of auditory hallucinations. Frederick JA, et al. **Arch Psychiatr Nurs** 1998 Oct; 12(5):255–63 (24 ref.)

Atypical neuroleptics: autonomy and compliance? Marland GR. **J Adv Nurs** 1999 Mar;29(3):615–22 (47 ref.)

Practice nurses and the care of patients receiving depot neuroleptic treatment: views on training, confidence and use of structured assessment. Millar E, et al. **J Adv Nurs** 1999 Jun;29(6):1454–61

Well siblings living with schizophrenia. Impact of associated behaviors. Friedrich RM, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):11–9

Burden on the families of patients with schizophrenia: results of the BIOMED I study. Magliano L, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Sep;33(9):405–12

Social and clinical factors influencing the choice of coping strategies in relatives of patients with schizophrenia: results of the BIOMED I study. Magliano L, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Sep;33(9):413–9

PATHOLOGY

Uniform abnormalities in the hippocampus of five chronic schizophrenic men compared with age-matched controls. Luts A, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):60–4

Cellular and molecular neuropathology of the olfactory epithelium and central olfactory pathways in Alzheimer's disease and schizophrenia. Arnold SE, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:762–75 (74 ref.)

Ventromedial temporal lobe pathology in dementia, brain trauma, and schizophrenia. Van Hoesen GW, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:575–94 (96 ref.)

Structural brain changes in schizophrenia [letter; comment] DeLisi LE. **Arch Gen Psychiatry** 1999 Feb;56(2):195–6. Comment on: Arch Gen Psychiatry 1998 Jun;55(6):540–6.

Three-dimensional magnetic resonance-based morphometrics and ventricular dysmorphology in schizophrenia. Buckley PF, et al. **Biol Psychiatry** 1999 Jan 1;45(1):62–7

Hemispheric asymmetry of frontal and temporal gray matter and age of onset in schizophrenia. Maher BA, et al. **Biol Psychiatry** 1998 Sep 15;44(6):413–7

Severity of schizophrenia and magnetic resonance imaging abnormalities: a comparison of state and veterans hospital patients. Marsh L, et al. **Biol Psychiatry** 1999 Jan 1; 45(1):49–61

Temporal horn enlargement is present in schizophrenia and bipolar disorder. Roy PD, et al. **Biol Psychiatry** 1998 Sep 15;44(6):418–22

The reduced neuropil hypothesis: a circuit based model of schizophrenia. Selemon LD, et al. **Biol Psychiatry** 1999 Jan 1;45(1):17–25 (91 ref.)

A reduction of nonpyramidal cells in sector CA2 of schizophrenics and manic depressives [letter] Senitz D. **Biol Psychiatry** 1999 Jun 1;45(11):1528–30

Corpus callosum shape and size in male patients with schizophrenia. Tibbo P, et al. **Biol Psychiatry** 1998 Sep 15;44(6):405–12

Cerebellar morphology as a predictor of symptom and psychosocial outcome in schizophrenia. Wassink TH, et al. **Biol Psychiatry** 1999 Jan 1;45(1):41–8

Cell biology of the hippocampal formation in schizophrenia. Weinberger DR. **Biol Psychiatry** 1999 Feb 15;45(4):395–402 (50 ref.)

Pathophysiology of 'positive' thought disorder in schizophrenia. McGuire PK, et al. **Br J Psychiatry** 1998 Sep;173:231–5

Brain changes in schizophrenia. Volumetric MRI study of families multiply affected with schizophrenia--the Maudsley Family Study 5. Sharma T, et al. **Br J Psychiatry** 1998 Aug;173:132–8

The neuropathology of schizophrenia. A critical review of the data and their interpretation. Harrison PJ. **Brain** 1999 Apr;122 (Pt 4):593–624 (394 ref.)

The size and fibre composition of the corpus callosum with respect to gender and schizophrenia: a post-mortem study. Highley JR, et al. **Brain** 1999 Jan;122 (Pt 1):99–110

Multiple constraint organization in the brain: a theory for schizophrenia. Peled A. **Brain Res Bull** 1999 Jul 1; 49(4):245–50 (40 ref.)

Supra-regional brain systems and the neuropathology of schizophrenia. Wright IC, et al. **Cereb Cortex** 1999 Jun; 9(4):366–78

Pyramidal neuron size in the hippocampus of schizophrenics correlates with total cell count and degree of cell disarray.

Jönsson SA, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(4):169–73

Neuronal nicotinic receptors in dementia with Lewy bodies and schizophrenia: alpha-bungarotoxin and nicotine binding in the thalamus. Court J, et al. **J Neurochem** 1999 Oct;73(4):1590–7

Reduced dendritic spine density on cerebral cortical pyramidal neurons in schizophrenia [see comments] Garey LJ, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):446–53. Comment in: J Neurol Neurosurg Psychiatry 1998 Oct;65(4):432.

The neuropathology of schizophrenia. Powers RE. **J Neuropathol Exp Neurol** 1999 Jul;58(7):679–90 (98 ref.)

Superior temporal gyrus and the course of early schizophrenia: progressive, static, or reversible? Keshavan MS, et al. **J Psychiatr Res** 1998 May–Aug;32(3–4):161–7

Excitatory neurons and schizophrenia [see comments] Butterworth RF. **Lancet** 1998 Nov 21;352(9141):1643. Comment in: Lancet 1998 Nov 21;352(9141):1669–73.

Preferential involvement of excitatory neurons in medial temporal lobe in schizophrenia [see comments] [published erratum appears in Lancet 1999 Jan 9;353(9147):154] Harrison PJ, et al. **Lancet** 1998 Nov 21;352(9141):1669–73 . Comment in: Lancet 1998 Nov 21;352(9141):1643.

Magnetic resonance imaging of brain in people at high risk of developing schizophrenia [see comments] Lawrie SM, et al. **Lancet** 1999 Jan 2;353(9146):30–3. Comment in: Lancet 1999 Jan 2;353(9146):3–4.

Chandelier cells: shedding light on altered cortical circuitry in schizophrenia [news] Lewis DA. **Mol Psychiatry** 1998 Nov;3(6):468–71, 466–7

No evidence for astrogliosis in brains of schizophrenic patients. A post-mortem study. Falkai P, et al. **Neuropathol Appl Neurobiol** 1999 Feb;25(1):48–53

Disturbances of corticogenesis in schizophrenia: morphological findings provide new evidence for the maldevelopmental hypothesis. Kalus P, et al. **Neuropsychobiology** 1999;40(1):1–13 (85 ref.)

Relationship of mismatch negativity to background EEG and morphological findings in schizophrenia. Kirino E, et al. **Neuropsychobiology** 1999;40(1):14–20

Atrophic and static (neurodevelopmental) schizophrenic psychoses: premorbid functioning, symptoms and neuroleptic response. Garver DL, et al. **Neuropsychopharmacology** 1999 Jul;21(1):82–92

Single-voxel proton magnetic resonance spectroscopy of the pons and cerebellum in patients with schizophrenia: a preliminary study. Eluri R, et al. **Psychiatry Res** 1998 Nov 9;84(1):17–26

Investigation of frontal lobe subregions in first-episode schizophrenia. Szeszko PR, et al. **Psychiatry Res** 1999 Feb 22;90(1):1–15

Postmortem studies in schizophrenia. Powchik P, et al. **Schizophr Bull** 1998;24(3):325–41

Morphometric studies of the entorhinal cortex in neuropsychiatric patients and controls: clusters of heterotopically displaced lamina II neurons are not indicative of schizophrenia. Bernstein HG, et al. **Schizophr Res** 1998 Oct 9;33(3):125–32

Reduced hippocampal N-acetylaspartate without volume loss in schizophrenia. Deicken RF, et al. **Schizophr Res** 1999 Jun 22;37(3):217–23

Nailfold capillary plexus visibility in relation to schizotypy. Gooding DC, et al. **Schizophr Res** 1998 Aug 17; 32(3):207–12

Anomalies of cerebral asymmetry in schizophrenia interact with gender and age of onset: a post-mortem study. Highley JR, et al. **Schizophr Res** 1998 Nov 9;34(1–2):13–25

Temporal-lobe length is reduced, and gyral folding is increased in schizophrenia: a post-mortem study. Highley JR, et al. **Schizophr Res** 1998 Nov 9;34(1–2):1–12

Early age of onset, brain morphological changes and non-consistent motor asymmetry in schizophrenic patients. Seisdedos RT, et al. **Schizophr Res** 1999 Jun 22;37(3):225–31

Compartmental volumetry of the superior temporal gyrus reveals sex differences in schizophrenia--a post-mortem study. Vogeley K, et al. **Schizophr Res** 1998 May 25; 31(2–3):83–7

Hippocampal volume reduction in male schizophrenic patients. Whitworth AB, et al. **Schizophr Res** 1998 May 25;31(2–3):73–81

Mapping of grey matter changes in schizophrenia. Wright IC, et al. **Schizophr Res** 1999 Jan 4;35(1):1–14

Mitochondrial pathology in human schizophrenic striatum: a postmortem ultrastructural study. Kung L, et al. **Synapse** 1999 Jan;31(1):67–75

Neural migration, pro-inflammatory interleukins and periventricular leukomalacia: involvement in schizophrenia [letter] Thomas KL, et al. **Trends Neurosci** 1999 Sep; 22(9):389–90

PHYSIOPATHOLOGY

Altered electrophysiological pattern of target detection in schizophrenia in the Continuous Attention Test. Basińska A. **Acta Neurobiol Exp (Warsz)** 1998;58(3):207–20

Auditory hallucinations: phenomenology, neuropsychology and neuroimaging update. David AS. **Acta Psychiatr Scand Suppl** 1999;395:95–104 (112 ref.)

Abnormal neural integration related to cognition in schizophrenia. Dolan RJ, et al. **Acta Psychiatr Scand Suppl** 1999;395:58–67 (66 ref.)

Schizophrenia and the disconnection hypothesis. Friston KJ. **Acta Psychiatr Scand Suppl** 1999;395:68–79 (49 ref.)

Cognitive dysfunction in schizophrenia: a new set of tools for the assessment of cognition and drug effects. Gallhofer B, et al. **Acta Psychiatr Scand Suppl** 1999;395:118–28 (102 ref.)

Transmitter dysfunction during the process of schizophrenia. Glenthøj BY, et al. **Acta Psychiatr Scand Suppl** 1999; 395:105–12 (81 ref.)

Backward masking performance as an indicator of vulnerability to schizophrenia. Green MF, et al. **Acta Psychiatr Scand Suppl** 1999;395:34–40 (30 ref.)

Cortical brain dysfunction in early schizophrenia: secondary pathogenetic hierarchy of neuroplasticity, psychopathology and social impairment. Hemmingsen R, et al. **Acta Psychiatr Scand Suppl** 1999;395:80–8

New methods for studying hallucinated 'voices' in schizophrenia. Hoffman RE. **Acta Psychiatr Scand Suppl** 1999;395:89–94

From predisposition to psychosis: progression of symptoms in schizophrenia. Parnas J. **Acta Psychiatr Scand Suppl** 1999;395:20–9 (64 ref.)

Abnormal contents of consciousness: the transition from automatic to controlled processing. Gray JA. **Adv Neurol** 1998;77:195–208; discussion 208–11 (57 ref.)

Dopamine, serotonin, and schizophrenia. van Veelen NM, et al. **Adv Neurol** 1999;80:425–9 (51 ref.)

Lamina-specific alterations in the dopamine innervation of the prefrontal cortex in schizophrenic subjects. Akil M, et al. **Am J Psychiatry** 1999 Oct;156(10):1580–9

Mechanisms of hallucinations [letter; comment] Feinberg I. **Am J Psychiatry** 1999 May;156(5):805–7. Comment on: Am J Psychiatry 1997 Dec;154(12):1683–9.

Cellular and molecular neuropathology of the olfactory epithelium and central olfactory pathways in Alzheimer's disease and schizophrenia. Arnold SE, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:762–75 (74 ref.)

Mesolimbic activity associated with psychosis in schizophrenia. Symptom-specific PET studies. Epstein J, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:562–74 (97 ref.)

D3 receptors and the actions of neuroleptics in the ventral striatopallidal system of schizophrenics. Joyce JN, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:595–613 (61 ref.)

Epilepsy, schizophrenia, and the extended amygdala. Stevens JR. **Ann N Y Acad Sci** 1999 Jun 29;877:548–61 (93 ref.)

P300 subcomponents reflect different aspects of psychopathology in schizophrenia. Frodl-Bauch T, et al. **Biol Psychiatry** 1999 Jan 1;45(1):116–26

Deficient sensorimotor gating following seizures in amygdala-kindled rats. Koch M, et al. **Biol Psychiatry** 1998 Aug 15;44(4):290–7

A study of motor dysfunction associated with schizophrenia based on analyses of movement-related cerebral potentials and motor conduction time. Kubota F, et al. **Biol Psychiatry** 1999 Feb 15;45(4):412–6

Smooth pursuit performance in families with multiple occurrence of schizophrenia and nonpsychotic families. Lencer R, et al. **Biol Psychiatry** 1999 Mar 15;45(6):694–703

Electrodermal activity in schizophrenia: a quantitative study using a short interstimulus paradigm. Lim CL, et al. **Biol Psychiatry** 1999 Jan 1;45(1):127–35

Hemispheric asymmetry in schizophrenia: a "dual deficits" model. Løberg EM, et al. **Biol Psychiatry** 1999 Jan 1; 45(1):76–81

Delayed visual NA potential in remitted schizophrenia: a new vulnerability marker for psychotic relapse under low-dose medication. Matsuoka H, et al. **Biol Psychiatry** 1999 Jan 1;45(1):107–15

Platelet serotonin, plasma cortisol, and dexamethasone suppression test in schizophrenic patients. Mück-Seler D, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1433–9

The resting and activation issue of hypofrontality: a single photon emission computed tomography study in neuroleptic-naive and neuroleptic-free schizophrenic female patients. Parellada E, et al. **Biol Psychiatry** 1998 Oct 15;44(8):787–90

The relationship between skin conductance hyporesponsivity and perseverations in schizophrenia patients. Perry W, et al. **Biol Psychiatry** 1998 Sep 15;44(6):459–65

High-density recording and topographic analysis of the auditory oddball event-related potential in patients with schizophrenia. Potts GF, et al. **Biol Psychiatry** 1998 Nov 15;44(10):982–9

P300 topography differs in schizophrenia and manic psychosis. Salisbury DF, et al. **Biol Psychiatry** 1999 Jan 1;45(1):98–106

Olfactory identification and psychosis. Striebel KM, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1419–25

Serotonin and schizophrenia [editorial] Tamminga CA. **Biol Psychiatry** 1998 Dec 1;44(11):1079–80

Low frontal electroencephalographic coherence in neuroleptic-free schizophrenic patients. Tauscher J, et al. **Biol Psychiatry** 1998 Sep 15;44(6):438–47

Glutamatergic neurotransmission involves structural and clinical deficits of schizophrenia. Tsai G, et al. **Biol Psychiatry** 1998 Oct 15;44(8):667–74

Effects of clozapine on auditory event-related potentials in schizophrenia. Umbricht D, et al. **Biol Psychiatry** 1998 Oct 15;44(8):716–25

Cortical acetylcholine, reality distortion, schizophrenia, and Lewy Body Dementia: too much or too little cortical acetylcholine? Sarter M, et al. **Brain Cogn** 1998 Dec; 38(3):297–316 (135 ref.)

An integrated view of pathophysiological models of schizophrenia. Duncan GE, et al. **Brain Res Brain Res Rev** 1999 Apr;29(2–3):250–64 (224 ref.)

GABA-ergic neurons and the neurobiology of schizophrenia and other psychoses. Keverne EB. **Brain Res Bull** 1999 Mar 15;48(5):467–73 (71 ref.)

The relation between asymmetry and amplitude of the P300 field in schizophrenia. Hill H, et al. **Clin Neurophysiol** 1999 Sep;110(9):1611–7

Slow EEG potentials (contingent negative variation and post-imperative negative variation) in schizophrenia: their association to the present state and to Parkinsonian medication effects. Verleger R, et al. **Clin Neurophysiol** 1999 Jul;110(7):1175–92

Predictive saccade behavior is enhanced in schizophrenia. Karoumi B, et al. **Cognition** 1998 Sep;68(3):B81–91

Cognitive disorders: A question of misattribution. Stein J, et al. **Curr Biol** 1999 May 20;9(10):R374–6 (14 ref.)

Quantification and rejection of ocular artifacts in auditory evoked fields in schizophrenics. Meier T, et al. **Electroencephalogr Clin Neurophysiol** 1998 Nov; 108(6):526–35

Abnormal physiological conditions in acute schizophrenic patients on emergency admission: dehydration, hypokalemia, leukocytosis and elevated serum muscle enzymes. Hatta K, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(4):180–8

Repetition blindness in schizophrenic patients. Kammer T, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(3):136–40

A deviant EEG brain microstate in acute, neuroleptic-naive schizophrenics at rest. Koenig T, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(4):205–11

Internally and externally guided voluntary saccades in unmedicated and medicated schizophrenic patients. Part II. Saccadic latency, gain, and fixation suppression errors. Müller N, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(1):7–14

Internally and externally guided voluntary saccades in unmedicated and medicated schizophrenic patients. Part I. Saccadic velocity. Straube A, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(1):1–6

Planning dysfunction in schizophrenia: impairment of potentials preceding fixed/free and single/sequence of self-initiated finger movements. Dreher JC, et al. **Exp Brain Res** 1999 Jan;124(2):200–14

Movement-related potentials prior to self-initiated movements are impaired in patients with schizophrenia and negative signs. Fuller R, et al. **Exp Brain Res** 1999 Jun; 126(4):545–55

Toward a heart rate and axillary temperature chronome in schizophrenia: gauge of disease severity. Denisov M, et al. **Funct Neurol** 1999 Jan–Mar;14(1):13–20

Clinical neuroscience and epidemiology in schizophrenia. Seidman LJ. **Harv Rev Psychiatry** 1997 Mar–Apr; 4(6):338–42

Methods for diagnosis and treatment of stimulus-correlated motion in generic brain activation studies using fMRI. Bullmore ET, et al. **Hum Brain Mapp** 1999;7(1):38–48

Nonlinear analysis of time series generated by schizophrenic patients. Hornero R, et al. **IEEE Eng Med Biol Mag** 1999 May–Jun;18(3):84–90

Pharmacological differentiation of classical and novel antipsychotics. Arnt J. **Int Clin Psychopharmacol** 1998 Mar; 13 Suppl 3:S7–14 (46 ref.)

Auto-amputation of the tongue associated with flupenthixol induced extrapyramidal symptoms. Pantanowitz L, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):129–31

Fluvoxamine treatment of obsessive-compulsive symptoms in schizophrenic patients: an add-on open study. Poyurovsky M, et al. **Int Clin Psychopharmacol** 1999 Mar; 14(2):95–100

Perinatal characteristics and schizophrenia: electrodermal activity as a mediating link in a vulnerability-stress perspective. Hultman CM, et al. **Int J Dev Neurosci** 1998 Jun–Jul;16(3–4):307–16 (99 ref.)

Gender- and age-dependent differences in latent inhibition following pre-weaning non-handling: implications for a neurodevelopmental animal model of schizophrenia. Shalev U, et al. **Int J Dev Neurosci** 1998 Jun–Jul;16(3–4):279–88

Fast and slow reaction times and associated ERPs in patients with schizophrenia and controls. Bahramali H, et al. **Int J Neurosci** 1998 Sep;95(3–4):155–65

Effects of repeated administration of methamphetamine on P3-like potentials in rats. Takeuchi S, et al. **Int J Psychophysiol** 1999 Jun;32(3):183–92

Exploratory eye movements to pictures in childhood-onset schizophrenia and attention-deficit/hyperactivity disorder (ADHD). Karatekin C, et al. **J Abnorm Child Psychol** 1999 Feb;27(1):35–49

Components of visual search in childhood-onset schizophrenia and attention-deficit/hyperactivity disorder. Karatekin C, et al. **J Abnorm Child Psychol** 1998 Oct; 26(5):367–80

An event-related brain potential substrate of disturbed response monitoring in paranoid schizophrenic patients. Kopp B, et al. **J Abnorm Psychol** 1999 May;108(2):337–46

Normal time course of auditory recognition in schizophrenia, despite impaired precision of the auditory sensory ("echoic") memory code. March L, et al. **J Abnorm Psychol** 1999 Feb;108(1):69–75

Spatial frequency masking in positive- and negative-symptom schizophrenia. Slaghuis WL, et al.

J Abnorm Psychol 1999 Feb;108(1):42–50

Insight in severe mental illness: implications for treatment decisions. Husted JR. **J Am Acad Psychiatry Law** 1999; 27(1):33–49 (33 ref.)

Pathophysiologic mechanisms in the pathogenesis and clinical course of schizophrenia. Lieberman JA. **J Clin Psychiatry** 1999;60 Suppl 12:9–12 (25 ref.)

Global–local processing in schizophrenia: hemispheric asymmetry and symptom–specific interference. Ferman TJ, et al. **J Int Neuropsychol Soc** 1999 Jul;5(5):442–51

Usefulness of the zung self–rating depression scale for schizophrenics. Kaneda Y. **J Med Invest** 1999 Feb; 46(1–2):75–8

Concurrent performance of motor tasks and processing capacity in patients with schizophrenia. Fuller R, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):668–71

Impairment of willed actions and use of advance information for movement preparation in schizophrenia. Fuller R, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):502–9

Visual scanning of facial expressions in schizophrenia. Schwartz BL, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter;11(1):103–6

Stability of neurological soft signs in chronically hospitalized schizophrenic patients. Smith RC, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter;11(1):91–6

Interactions between lipid metabolism and schizophrenia: the biochemical changes which may have made us human. Horrobin DF. **Lipids** 1999;34 Suppl:S255

The somatic component of schizophrenia: a dissociation of the goals of visual attention and bifoveal fixation? Korn H. **Med Hypotheses** 1999 Feb;52(2):163–70 (24 ref.)

Biophysical shunt theory for neuropsychopathology: pentaphasic lipid–induced model for schizophrenia. Naisberg Y, et al. **Med Hypotheses** 1999 Mar;52(3):183–6

Chandelier cells: shedding light on altered cortical circuitry in schizophrenia [news] Lewis DA. **Mol Psychiatry** 1998 Nov;3(6):468–71, 466–7

Genotypic association between the dopamine D3 receptor and tardive dyskinesia in chronic schizophrenia. Segman R, et al. **Mol Psychiatry** 1999 May;4(3):247–53

The missing link: a failure of fronto–hippocampal integration in schizophrenia [news; comment] Fletcher P. **Nat Neurosci** 1998 Aug;1(4):266–7. Comment on: Nat Neurosci 1998 Aug;1(4):318–323.

Impaired recruitment of the hippocampus during conscious recollection in schizophrenia [see comments] Heckers S, et al. **Nat Neurosci** 1998 Aug;1(4):318–23. Comment in: Nat Neurosci 1998 Aug;1(4):266–7.

Abnormal cingulate modulation of fronto–temporal connectivity in schizophrenia. Fletcher P, et al. **Neuroimage** 1999 Mar;9(3):337–42

Steady state visually evoked potential correlates of auditory hallucinations in schizophrenia. Line P, et al. **Neuroimage** 1998 Nov;8(4):370–6

High velocity transient visual processing deficits diminish ability of patients with schizophrenia to recognize objects. Schwartz BD, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Jul; 12(3):170–7

Schizophrenia – A disturbance of signal interaction between the entorhinal cortex and the dentate gyrus? The contribution of experimental dibenamine psychosis to the pathogenesis of schizophrenia: A hypothesis. Arnold OH. **Neuropsychobiology** 1999;40(1):21–32 (54 ref.)

Contingent negative variation and attention in schizophrenic and depressed patients. Heimberg DR, et al. **Neuropsychobiology** 1999;39(3):131–40

Relationship of mismatch negativity to background EEG and morphological findings in schizophrenia. Kirino E, et al. **Neuropsychobiology** 1999;40(1):14–20

Fixation stability among schizophrenia patients. Kissler J, et al. **Neuropsychobiology** 1998;38(2):57–62

Pituitary–adrenal and parasympathetic function in chronic schizophrenic patients with postoperative ileus or hypotension. Kudoh A, et al. **Neuropsychobiology** 1999; 39(3):125–30

The electrically elicited startle blink reflex in patients with schizophrenia: A threshold study of different reflex components. Meincke U, et al. **Neuropsychobiology** 1999; 39(2):76–80

Regional cerebral blood flow in schizophrenia using stable xenon–enhanced computed tomography. Mori K, et al. **Neuropsychobiology** 1999;39(3):117–24

Auditory P50 in schizophrenics on clozapine: improved gating parallels clinical improvement and changes in plasma 3–methoxy–4–hydroxyphenylglycol. Nagamoto HT, et al. **Neuropsychobiology** 1999;39(1):10–7

Aberrant functional organization in schizophrenia: analysis of EEG coherence during rest and photic stimulation in drug–naive patients. Wada Y, et al. **Neuropsychobiology** 1998;38(2):63–9

Response programming in patients with schizophrenia: a kinematic analysis. Downing ME, et al. **Neuropsychologia** 1998 Jul;36(7):603–10

Spatial and semantic inhibitory processing in schizophrenia. Fuentes LJ, et al. **Neuropsychology** 1999 Apr;13(2):259–70

Hemispheric and attentional contributions to perceptual organization deficits on the global–local task in schizophrenia. Granholm E, et al. **Neuropsychology** 1999 Apr;13(2):271–81

The Stroop task and attention deficits in schizophrenia: a critical evaluation of card and single–trial Stroop methodologies. Perlstein WM, et al. **Neuropsychology** 1998 Jul;12(3):414–25

Frontotemporal cerebral blood flow change during executive and declarative memory tasks in schizophrenia: a positron emission tomography study. Ragland JD, et al. **Neuropsychology** 1998 Jul;12(3):399–413

Global cerebral blood flow increase reveals focal hypoperfusion in schizophrenia. Taylor SF, et al. **Neuropsychopharmacology** 1999 Sep;21(3):368–71

Developing a neuronal model for the pathophysiology of schizophrenia based on the nature of electrophysiological actions of dopamine in the prefrontal cortex. Yang CR, et al. **Neuropsychopharmacology** 1999 Aug;21(2):161–94 (369 ref.)

Failure of dominant left–hemispheric activation to right–ear stimulation in schizophrenia. Rockstroh B, et al. **Neuroreport** 1998 Dec 1;9(17):3819–22

Synaptic contacts in schizophrenia: studies using immunocytochemical identification of dopaminergic neurons. Kolomeets NS, et al. **Neurosci Behav Physiol** 1999 Mar–Apr;29(2):217–21

Measurement of GABAergic parameters in the prefrontal cortex in schizophrenia: focus on GABA content, GABA(A) receptor alpha–1 subunit messenger RNA and human GABA transporter–1 (HGAT–1) messenger RNA expression. Ohnuma T, et al. **Neuroscience** 1999;93(2):441–8

The NMDA antagonist model for schizophrenia: promise and pitfalls. Abi–Saab WM, et al. **Pharmacopsychiatry** 1998 Jul; 31 Suppl 2:104–9 (50 ref.)

Behavioral studies of hallucinogenic drugs in animals: implications for schizophrenia research. Geyer MA. **Pharmacopsychiatry** 1998 Jul;31 Suppl 2:73–9 (47 ref.)

Cannabinoid/anandamide system and schizophrenia: is there evidence for association? Schneider U, et al. **Pharmacopsychiatry** 1998 Jul;31 Suppl 2:110–3

Psychophysical isolation of a motion–processing deficit in schizophrenics and their relatives and its association with impaired smooth pursuit. Chen Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4724–9

Hippocampal morphometry in schizophrenia by high dimensional brain mapping. Csernansky JG, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11406–11

The glutamate synapse in neuropsychiatric disorders. Focus on schizophrenia and Alzheimer's disease. Farber NB, et al. **Prog Brain Res** 1998;116:421–37 (60 ref.)

Calbindin immunoreactivity in the hippocampal formation and neocortex of schizophrenics. Iritani S, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):409–21

P300 and disability of daily life in schizophrenia. Iwanami A, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr;23(3):423–30

Electroencephalographic findings in functional psychoses: state or trait indicators? Sengoku A, et al. **Psychiatry Clin Neurosci** 1998 Aug;52(4):375–81 (91 ref.)

A topographic event–related potential follow–up study on 'prepulse inhibition' in first and second episode patients with schizophrenia. Bender S, et al. **Psychiatry Res** 1999 Feb 22;90(1):41–53

Neurological signs and psychomotor performance in patients with schizophrenia, their relatives and healthy controls. Flyckt L, et al. **Psychiatry Res** 1999 May 31;86(2):113–29 (50 ref.)

Auditory event–related potentials and clinical scores in unmedicated schizophrenic patients. Laurent A, et al. **Psychiatry Res** 1999 Jun 30;86(3):229–38

Positive and negative symptoms and regional cerebral perfusion in antipsychotic–naive schizophrenic patients: a high–resolution SPECT study. Min SK, et al. **Psychiatry Res** 1999 Jun 30;90(3):159–68

Relationship between auditory P300 amplitude and age of onset of schizophrenia in older patients. Olichney JM, et al. **Psychiatry Res** 1998 Jul 13;79(3):241–54

Low resolution brain electromagnetic tomography (LORETA) functional imaging in acute, neuroleptic–naive, first–episode, productive schizophrenia. Pascual–Marqui RD, et al. **Psychiatry Res** 1999 Jun 30;90(3):169–79

Independent frontal–system deficits in schizophrenia: cognitive, clinical, and adaptive implications. Poole JH, et al. **Psychiatry Res** 1999 Feb 22;85(2):161–76

Measuring liability for schizophrenia using optimized antisaccade stimulus parameters. McDowell JE, et al. **Psychophysiology** 1999 Jan;36(1):138–41

Identification of neural circuits underlying P300 abnormalities in schizophrenia. O'Donnell BF, et al. **Psychophysiology** 1999 May;36(3):388–98 (99 ref.)

Amplitude criteria and anticipatory saccades during smooth pursuit eye movements in schizophrenia. Ross RG, et al. **Psychophysiology** 1999 Jul;36(4):464–8

EEG differences in monozygotic twins discordant and concordant for schizophrenia. Stassen HH, et al. **Psychophysiology** 1999 Jan;36(1):109–17

Laterality in animals: relevance to schizophrenia. Cowell PE, et al. **Schizophr Bull** 1999;25(1):41–62 (255 ref.)

Functional neuropsychophysiological asymmetry in schizophrenia: a review and reorientation. Gruzelier JH. **Schizophr Bull** 1999;25(1):91–120 (235 ref.)

Is Schizophrenia a lateralized brain disorder? Editor's introduction [editorial] Gur RE. **Schizophr Bull** 1999; 25(1):7–9

Laterality in functional brain imaging studies of schizophrenia. Gur RE, et al. **Schizophr Bull** 1999; 25(1):141–56 (87 ref.)

Race in the "decade of the brain". Lewine RR, et al. **Schizophr Bull** 1999;25(1):1–5

Facial expressions of emotions and schizophrenia: a review. Mandal MK, et al. **Schizophr Bull** 1998;24(3):399–412 (92 ref.)

Structural asymmetries of the human brain and their disturbance in schizophrenia. Petty RG. **Schizophr Bull** 1999;25(1):121–39 (224 ref.)

Neuropsychological laterality indices of schizophrenia: interactions with gender. Ragland JD, et al. **Schizophr Bull** 1999;25(1):79–89

A review of longitudinal studies of cognitive functions in schizophrenia patients. Rund BR. **Schizophr Bull** 1998; 24(3):425–35 (65 ref.)

Atypical handedness in schizophrenia: some methodological and theoretical issues. Satz P, et al. **Schizophr Bull** 1999; 25(1):63–78 (110 ref.)

Attenuated frontal activation in schizophrenia may be task dependent. Curtis VA, et al. **Schizophr Res** 1999 May 4; 37(1):35–44

Social functioning and neurocognitive deficits in outpatients with schizophrenia: a 2–year follow–up. Dickerson F, et al. **Schizophr Res** 1999 May 4;37(1):13–20

Depressive symptoms and presynaptic dopamine function in neuroleptic–naive schizophrenia. Hietala J, et al. **Schizophr Res** 1999 Jan 4;35(1):41–50

Mismatch negativity and N2b attenuation as an indicator for dysfunction of the preattentive and controlled processing for deviance detection in schizophrenia: a topographic event–related potential study. Kasai K, et al. **Schizophr Res** 1999 Jan 11;35(2):141–56

Neurologic signs of cerebellar and cortical sensory dysfunction in schizophrenics and their relatives. Kinney DK, et al. **Schizophr Res** 1999 Jan 11;35(2):99–104

Impaired sensory processing in male patients with schizophrenia: a magnetoencephalographic study of auditory mismatch detection. Kreitschmann–Andermahr I, et al. **Schizophr Res** 1999 Jan 11;35(2):121–9

Initiation and supervisory processes in schizophrenia and depression. Lafont V, et al. **Schizophr Res** 1998 Nov 9; 34(1–2):49–57

Differences in cerebellar blood volume in schizophrenia and bipolar disorder. Loeber RT, et al. **Schizophr Res** 1999 May 4;37(1):81–9

Covert visual attention in patients with early–onset schizophrenia. Oie M, et al. **Schizophr Res** 1998 Nov 30; 34(3):195–205

Problem–solving and spatial working memory in patients with schizophrenia and with focal frontal and temporal lobe lesions. Rushe TM, et al. **Schizophr Res** 1999 May 4;37(1):21–33

Differential amygdala activation in schizophrenia during sadness. Schneider F, et al. **Schizophr Res** 1998 Nov 30; 34(3):133–42

Hallucinations in the acute schizophrenic–type psychosis: effects of gender and age of illness onset. Sharma RP, et al. **Schizophr Res** 1999 May 4;37(1):91–5

Diminished responsiveness of ERPs in schizophrenic subjects to changes in auditory stimulation parameters: implications for theories of cortical dysfunction. Shelley AM, et al. **Schizophr Res** 1999 May 4;37(1):65–79

Schizophrenic patients use context–independent reasoning more often than context–dependent reasoning as measured by the cognitive bias task (CBT): a controlled study. Stratta P, et al. **Schizophr Res** 1999 May 4;37(1):45–51

Slower and more variable reaction times in schizophrenia: what do they signify? Vinogradov S, et al. **Schizophr Res** 1998 Aug 17;32(3):183–90

Deficient cancellation of the vestibular ocular reflex in schizophrenia. Warren S, et al. **Schizophr Res** 1998 Nov 30;34(3):187–93

The distribution and latency of the auditory P300 in schizophrenia and depression. Weir N, et al. **Schizophr Res** 1998 May 25;31(2–3):151–8

Hemispheric specialization in schizophrenics with perceptual aberration. White MS, et al. **Schizophr Res** 1998 Aug 17; 32(3):161–70

Executive function in schizophrenia. Velligan DI, et al. **Semin Clin Neuropsychiatry** 1999 Jan;4(1):24–33 (134 ref.)

Neural migration, pro–inflammatory interleukins and periventricular leukomalacia: involvement in schizophrenia [letter] Thomas KL, et al. **Trends Neurosci** 1999 Sep; 22(9):389–90

[Transmitter dysfunction in patients with schizophrenia. Significance for cognitive functioning and treatment] Glenthøj BY, et al. **Ugeskr Laeger** 1999 Mar 8; 161(10):1391–8 (40 ref.) (Eng. Abstr.) **(Dan)**

[Aspects of cerebral connnectivity in schizophrenia. A comparative CBF study on treated schizophrenics before and after medication] Erkwoh R, et al. **Fortschr Neurol Psychiatr** 1999 Jul;67(7):318–26 (Eng. Abstr.) **(Ger)**

[Psychopathological correlates of dopaminergic dysfunction in alcoholic and schizophrenic patients] Heinz A. **Nervenarzt** 1999 May;70(5):399–407 (69 ref.) (Eng. Abstr.) **(Ger)**

[Dimensions of bizarre, idiosyncratic thinking. Relationship between thought disorders and affect] Leichsenring F. **Nervenarzt** 1999 May;70(5):430–7 (Eng. Abstr.) **(Ger)**

[Dimensions of schizophrenic symptomatology. Comparative testing of several theoretical models in a first–episode

population sample] Löffler W, et al. **Nervenarzt** 1999 May; 70(5):416–29 (Eng. Abstr.) **(Ger)**

[ERPs changes during neuroleptic treatment in schizophrenia--a vulnerability marker in schizophrenia] Asato N, et al. **Seishin Shinkeigaku Zasshi** 1999; 101(3):254–76 (Eng. Abstr.) **(Jpn)**

[Electroencephalography and cognitive processes in schizophrenia] Alfimova MV, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(11):55–8 (57 ref.) **(Rus)**

PREVENTION & CONTROL

Comparative effectiveness of fluphenazine decanoate injections every 2 weeks versus every 6 weeks. Carpenter WT Jr, et al. **Am J Psychiatry** 1999 Mar;156(3):412–8

The Capitol shooting. No reflex legislation, no long-term solution. Silberner J. **Hastings Cent Rep** 1998 Nov–Dec; 28(6):5

Social support predicts 5-year outcome in first-episode schizophrenia. Erickson DH, et al. **J Abnorm Psychol** 1998 Nov;107(4):681–5

The routine use of atypical antipsychotic agents: maintenance treatment. Kinon BJ. **J Clin Psychiatry** 1998;59 Suppl 19:18–22 (34 ref.)

A naturalistic study of risperidone maintenance treatment of outpatients with severe mental illness. Megna JL, et al. **Psychiatr Serv** 1999 Aug;50(8):1084–6

[How long should prophylactic antipsychotic therapy last after the initial schizophrenic psychosis? (letter; comment)] Vlaminck P. **Ned Tijdschr Geneeskd** 1998 Sep 26; 142(39):2160–1. Comment on: Ned Tijdschr Geneeskd 1998 Jun 13;142(24):1361–4. **(Dut)**

[Prevention of schizophrenia--from a projection to practical planning] Oguru T. **Seishin Shinkeigaku Zasshi** 1998; 100(8):501–6 **(Jpn)**

PSYCHOLOGY see SCHIZOPHRENIC PSYCHOLOGY

RADIOGRAPHY

Computed tomographic findings in schizophrenia: relation with symptom dimensions and sex differences. Malla AK, et al. **J Psychiatry Neurosci** 1999 Mar;24(2):131–8

RADIONUCLIDE IMAGING

Visualizing fronto-striatal circuitry and neuroleptic effects in schizophrenia. Buchsbaum MS, et al. **Acta Psychiatr Scand Suppl** 1999;395:129–37

More stringent threshold needed [letter; comment] Spence SA. **Am J Psychiatry** 1999 May;156(5):803–4. Comment on: Am J Psychiatry 1997 Dec;154(12):1670–5.

The resting and activation issue of hypofrontality: a single photon emission computed tomography study in neuroleptic-naive and neuroleptic-free schizophrenic female patients. Parellada E, et al. **Biol Psychiatry** 1998 Oct 15;44(8):787–90

SPET study of verbal fluency in schizophrenia and epilepsy. Mellers JD, et al. **Br J Psychiatry** 1998 Jul;173:69–74

In vivo effects of olanzapine on striatal dopamine D(2)/D(3) receptor binding in schizophrenic patients: an iodine-123 iodobenzamide single-photon emission tomography study. Dresel S, et al. **Eur J Nucl Med** 1999 Aug;26(8):862–8

Brain imaging of affective disorders and schizophrenia. Kishimoto H, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S212–4 (20 ref.)

Active and remitted schizophrenia: psychopathological and regional cerebral blood flow findings. Erkwoh R, et al. **Psychiatry Res** 1999 Feb 22;90(1):17–30

Positive correlation between reduction of handwriting area and D2 dopamine receptor occupancy during treatment with neuroleptic drugs. Kuenstler U, et al. **Psychiatry Res** 1999 Feb 22;90(1):31–9

Positive and negative symptoms and regional cerebral perfusion in antipsychotic-naive schizophrenic patients: a high-resolution SPECT study. Min SK, et al. **Psychiatry Res** 1999 Jun 30;90(3):159–68

Positron emission tomography studies of abnormal glucose metabolism in schizophrenia. Buchsbaum MS, et al. **Schizophr Bull** 1998;24(3):343–64 (165 ref.)

[Clinical impact of cerebral dopamine-D2 receptor scintigraphy] Larisch R, et al. **Nuklearmedizin** 1998; 37(7):245–50 (Eng. Abstr.) **(Ger)**

REHABILITATION

A 16-year follow-up study of schizophrenia and related disorders in Sofia, Bulgaria. Ganev K, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):200–7

Subjective quality of life and standard of living: a 10-year follow-up of out-patients with schizophrenia. Skantze K. **Acta Psychiatr Scand** 1998 Nov;98(5):390–9

Flupenthixol treatment for cocaine abusers with schizophrenia: a pilot study. Levin FR, et al. **Am J Drug Alcohol Abuse** 1998 Aug;24(3):343–60

Skills training or occupational therapy for persistent schizophrenia [letter; comment] Bair J. **Am J Psychiatry** 1999 Aug;156(8):1292; discussion 1294–5. Comment on: Am J Psychiatry 1998 Aug;155(8):1087–91.

Skills training or occupational therapy for persistent schizophrenia [letter; comment] Drake M, et al. **Am J Psychiatry** 1999 Aug;156(8):1294; discussion 1294–5. Comment on: Am J Psychiatry 1998 Aug;155(8):1087–91.

Skills training or occupational therapy for persistent schizophrenia [letter; comment] Falk-Kessler J. **Am J Psychiatry** 1999 Aug;156(8):1293–4; discussion 1294–5. Comment on: Am J Psychiatry 1998 Aug;155(8):1087–91.

Symptoms and cognition as predictors of community functioning: a prospective analysis. Norman RM, et al. **Am J Psychiatry** 1999 Mar;156(3):400–5

Skills training or occupational therapy for persistent schizophrenia [letter; comment] Stein F. **Am J Psychiatry** 1999 Aug;156(8):1292–3; discussion 1294–5. Comment on: Am J Psychiatry 1998 Aug;155(8):1087–91.

Skills training or occupational therapy for persistent schizophrenia [letter; comment] Vargas S. **Am J Psychiatry** 1999 Aug;156(8):1293; discussion 1294–5. Comment on: Am J Psychiatry 1998 Aug;155(8):1087–91.

Recorded audio prompts. A strategy to increase independent prevocational task completion in individuals with dual diagnosis. Steed SE, et al. **Behav Modif** 1999 Jan; 23(1):152–68

Predictors of management problems in supported housing: a pilot study. Grunebaum M, et al. **Community Ment Health J** 1999 Apr;35(2):127–33

The initiation of mutual-help groups within residential treatment settings. Salem DA, et al. **Community Ment Health J** 1998 Aug;34(4):419–29

The effect of training in a strengths model of case management on client outcomes in a community mental health center. Stanard RP. **Community Ment Health J** 1999 Apr;35(2):169–79

The role of gender in engaging the dually diagnosed in treatment. Watkins KE, et al. **Community Ment Health J** 1999 Apr;35(2):115–26

Holocaust survivors hospitalized for life: the Israeli experience. Terno P, et al. **Compr Psychiatry** 1998 Nov–Dec;39(6):364–7

Deinstitutionalization of psychiatric patients in central Europe. Haug HJ, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(3):115–22

Has deinstitutionalization gone too far? Munk-Jørgensen P. **Eur Arch Psychiatry Clin Neurosci** 1999;249(3):136–43

Objective and subjective quality of life of first-admitted women and men with schizophrenia. Röder-Wanner UU, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(5):250–8

The effect of placement in a hostel on the post-hospitalization rehabilitation of psychiatrically disabled persons in Israel. Cohen BZ, et al. **Int J Rehabil Res** 1999 Mar;22(1):61–3

Interindividual differences in cognitive remediation research with schizophrenic patients--indicators of rehabilitation potential? Wiedl KH, et al. **Int J Rehabil Res** 1999 Mar; 22(1):55–9

Current thinking on the management of schizophrenia. O'Callaghan E. **Ir Med J** 1999 Mar;92(2):264, 280

Compliance and the rehabilitation alliance. Aquila R, et al. **J Clin Psychiatry** 1999;60 Suppl 19:23–7; discussion 28–9

Effectiveness of combining atypical antipsychotics and psychosocial rehabilitation in a community mental health center setting. Noordsy DL, et al. **J Clin Psychiatry** 1999; 60 Suppl 19:47–51; discussion 52–3

The functional consequences of memory impairments on initial work performance in people with schizophrenia. Bryson G, et al. **J Nerv Ment Dis** 1998 Oct;186(10):610–5

Prediction of hospitalizations by schizophrenia patients' assessment of treatment: an expanded study. Priebe S, et al. **J Psychiatr Res** 1999 Mar–Apr;33(2):113–9

Reducing recidivism: medication versus psychosocial rehabilitation. Delaney C. **J Psychosoc Nurs Ment Health Serv** 1998 Nov;36(11):28–34

Cognitive skill learning and schizophrenia: implications for cognitive remediation. Michel L, et al. **Neuropsychology** 1998 Oct;12(4):590–9

A randomized controlled study of two styles of group patient education about schizophrenia. Ascher-Svanum H, et al. **Psychiatr Serv** 1999 Jul;50(7):926–30

Clarifying the scope of occupational therapy [letter; comment] Bair J. **Psychiatr Serv** 1999 Mar;50(3):419–20; discussion 420–1. Comment on: Psychiatr Serv 1998 Oct;49(10):1313–6.

Two-year outcomes of psychosocial rehabilitation of black patients with chronic mental illness. Baker FM, et al. **Psychiatr Serv** 1999 Apr;50(4):535–9

Employment outcomes for clients with severe mental illness in a PACT model replication. Program for Assertive Community Treatment. Becker RE, et al. **Psychiatr Serv** 1999 Jan;50(1):104–6

Treating substance abuse among patients with schizophrenia. Bellack AS, et al. **Psychiatr Serv** 1999 Jan;50(1):75–80 (57 ref.)

Quality of life, loneliness, and social contact among long-term psychiatric patients. Borge L, et al. **Psychiatr Serv** 1999 Jan;50(1):81–4

Intensity and continuity of services and functional outcomes in the rehabilitation of persons with schizophrenia. Brekke JS, et al. **Psychiatr Serv** 1999 Feb;50(2):248–56

Predictors of residential independence among outpatients with schizophrenia. Dickerson FB, et al. **Psychiatr Serv** 1999 Apr;50(4):515–9

Training to enhance partnerships between mental health professionals and family caregivers: a comparative study. Farhall J, et al. **Psychiatr Serv** 1998 Nov;49(11):1488–90

Measuring client satisfaction with assertive community treatment. Gerber GJ, et al. **Psychiatr Serv** 1999 Apr; 50(4):546–50

Impact of robustness of program implementation on outcomes of clients in dual diagnosis programs [published erratum appears in Psychiatr Serv 1999 Mar;50(3):375] Jerrell JM, et al. **Psychiatr Serv** 1999 Jan;50(1):109–12

Teaching psychiatric inpatients to re-enter the community: a brief method of improving the continuity of care [see comments] Kopelowicz A, et al. **Psychiatr Serv** 1998 Oct; 49(10):1313–6. Comment in: Psychiatr Serv 1999 Mar;50(3):418–9; discussion 420–1. Comment in: Psychiatr Serv 1999 Mar;50(3):419–20; discussion 420–1. Comment in: Psychiatr Serv 1999 Mar;50(3):420–1.

Prediction of homelessness within three months of discharge among inpatients with schizophrenia. Olfson M, et al. **Psychiatr Serv** 1999 May;50(5):667–73

Clarifying the scope of occupational therapy [letter; comment] Rebeiro KL. **Psychiatr Serv** 1999 Mar; 50(3):418–9; discussion 420–1. Comment on: Psychiatr Serv 1998 Oct;49(10):1313–6.

Development of a vertically integrated program of services for persons with schizophrenia. Smith TE, et al. **Psychiatr Serv** 1999 Jul;50(7):931–5

Expressed emotion and differentiation of self in the relatives of stable schizophrenia outpatients. Docherty NM, et al. **Psychiatry** 1998 Winter;61(4):269–78

Group psychoeducation of relatives of schizophrenic patients: two-year experiences. Zhang M, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S344–7

Independent frontal-system deficits in schizophrenia: cognitive, clinical, and adaptive implications. Poole JH, et al. **Psychiatry Res** 1999 Feb 22;85(2):161–76

Positive and negative symptoms and and adjustment in severely mentally ill outpatients. Schuldberg D, et al. **Psychiatry Res** 1999 Feb 22;85(2):177–88

Coping strategies for people who care for a relative with chronic mental illness. Winefield HR. **Psychol Rep** 1998 Oct;83(2):453–4

Observational versus experimental studies: would the results be similar? [editorial; comment] Tsuang MT. **Psychosom Med** 1999 Mar–Apr;61(2):146–7. Comment on: Psychosom Med 1999 Mar–Apr;61(2):141–5.

Cognitive rehabilitation for schizophrenia: problems, prospects, and strategies. Bellack AS, et al. **Schizophr Bull** 1999;25(2):257–74 (84 ref.)

Expressed emotion and relapse in young schizophrenia outpatients. King S, et al. **Schizophr Bull** 1999;25(2):377–86

Employment, attitudes toward work, and quality of life among people with schizophrenia in three countries. Priebe S, et al. **Schizophr Bull** 1998;24(3):469–77

Cognitive functioning in schizophrenia: implications for psychiatric rehabilitation. Spaulding WD, et al. **Schizophr Bull** 1999;25(2):275–89 (65 ref.)

The Cochrane Schizophrenia Group. Adams C, et al. **Schizophr Res** 1998 Oct 9;33(3):185–6

The construct validity of empowerment among consumers of mental health services. Corrigan PW, et al. **Schizophr Res** 1999 Jul 27;38(1):77–84

Training schizophrenic patients to manage their symptoms: predictors of treatment response to the German version of the Symptom Management Module. Schaub A, et al. **Schizophr Res** 1998 May 25;31(2-3):121–30

What are we changing with neurocognitive rehabilitation? Illustrations from two single cases of changes in neuropsychological performance and brain systems as measured by SPECT. Wykes T. **Schizophr Res** 1998 Nov 9;34(1–2):77–86

The TAPS project 32: social networks of two group homes ... 5 years on.Team for the Assessment of Psychiatric Services. Dayson D, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Sep;33(9):438–44

Thirteen-year social outcome among Nigerian outpatients with schizophrenia. Gureje O, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Mar;34(3):147–51

The impact of work-related rehabilitation on the quality of life of patients with schizophrenia. Holzner B, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):624–31

Patient and relative education in community psychiatry: a randomized controlled trial regarding its effectiveness. Merinder LB, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jun;34(6):287–94

A randomised controlled trial of home-based rehabilitation versus outpatient-based rehabilitation for patients suffering from chronic schizophrenia. Sellwood W, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 May;34(5):250–3

[Contribution of systemic therapy in schizophrenia] Miermont J. **Encephale** 1998 Jul;24 Spec No 1:27–30 **(Fre)**

[Long-term treatment of chronic schizophrenia (see comments)] Albers M. **Nervenarzt** 1998 Sep;69(9):737–51 (142 ref.) (Eng. Abstr.). Comment in: Nervenarzt 1999 Mar;70(3):291–2. **(Ger)**

[Psychotic women and their children] Bauer M, et al. **Psychiatr Prax** 1998 Jul;25(4):191–5 (Eng. Abstr.) **(Ger)**

[Quality indicators of patient treatment of schizophrenic patients. Results of a pilot study for external quality assurance using tracer diagnosis] Janssen B, et al. **Psychiatr Prax** 1998 Nov;25(6):303–9 (Eng. Abstr.) **(Ger)**

[Family nursing and occupational therapy in Charles Dickens' "David Copperfield"] Reker T. **Psychiatr Prax**

1998 Sep;25(5):260–1 **(Ger)**

["Out of the picture"--self-evaluation of the occupational status of chronic schizophrenic patients in united Germany] Riedel SG, et al. **Psychiatr Prax** 1998 Nov;25(6):286–90 (Eng. Abstr.) **(Ger)**

[Rehabilitation of psychiatric patients by half-way house admission--a catamnestic study] Meissner A. **Rehabilitation (Stuttg)** 1998 Nov;37(4):199–204 (Eng. Abstr.) **(Ger)**

[Rehabilitation in schizophrenia--guidelines for including psychosocial measures] Katschnig H. **Wien Med Wochenschr** 1998;148(11–12):273–80 (41 ref.) (Eng. Abstr.) **(Ger)**

[Family burden of schizophrenic patients with various forms of psychiatric care] Bury L, et al. **Psychiatr Pol** 1998 May–Jun;32(3):275–85 (Eng. Abstr.) **(Pol)**

[Cathamnestic long-term study in early schizophrenia. The assessment of psychological status and social functioning] Krupka-Matuszyczk I. **Psychiatr Pol** 1998 May–Jun; 32(3):287–95 (Eng. Abstr.) **(Pol)**

[Case management] Prot-Herczyńska K. **Psychiatr Pol** 1998 May–Jun;32(3):319–27 (Eng. Abstr.) **(Pol)**

[Neurophysiology and neuropsychology of recognition confabulation in hospitalized schizophrenic patients] Salazar Fraile J, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Jul–Aug;26(4):254–9 (Eng. Abstr.) **(Spa)**

THERAPY

Essential components of schizophrenia care: a Delphi approach. Fiander M, et al. **Acta Psychiatr Scand** 1998 Nov; 98(5):400–5

Self-reported life satisfaction and treatment factors in patients with schizophrenia, major depression and anxiety disorder. Koivumaa-Honkanen HT, et al. **Acta Psychiatr Scand** 1999 May;99(5):377–84

Costs of services for schizophrenic patients in Norway. Rund BR, et al. **Acta Psychiatr Scand** 1999 Feb;99(2):120–5

Therapeutic alliance in cognitive therapy for schizophrenic and other long-term mentally ill patients: development and relationship to outcome in an in-patient treatment programme. Svensson B, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):281–7

Continuity of care and readmission in two service systems: a comparative Victorian and Groningen case-register study. Sytema S, et al. **Acta Psychiatr Scand** 1999 Sep; 100(3):212–9

Using measures of readiness to change in individuals with schizophrenia. Addington J, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):151–61

Managed care and psychotherapy for schizophrenia [letter; comment] Dinakar HS, et al. **Am J Psychiatry** 1999 Feb; 156(2):336–7. Comment on: Am J Psychiatry 1997 Nov;154(11):1493–5. Comment on: Am J Psychiatry 1997 Nov;154(11):1504–13.

Long-term care of an individual with schizophrenia: pharmacologic, psychological, and social factors [clinical conference] Kendler KS. **Am J Psychiatry** 1999 Jan; 156(1):124–8

Reviving applied family intervention [letter; comment] Liberman RP, et al. **Arch Gen Psychiatry** 1998 Nov; 55(11):1047–8. Comment on: Arch Gen Psychiatry 1997 May;54(5):453–63.

Early intervention in schizophrenia in the elderly. Burke D, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):809–14 (28 ref.)

Development of a consumer advocacy program. O'Donnell M, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):873–9

Intensive cognitive behaviour therapy for chronic schizophrenia. Specific effect of cognitive behaviour therapy for schizophrenia is not proved [letter; comment] Curtis D. **BMJ** 1999 Jan 30;318(7179):331. Comment on: BMJ 1998 Aug 1;317(7154):303–7.

Cognitive therapy is no better than supportive counselling in schizophrenia [letter] Curtis D. **BMJ** 1999 Sep 4; 319(7210):643

Practical problems in recruiting patients with schizophrenia into randomised controlled trials [letter; comment] Lester H, et al. **BMJ** 1999 Apr 17;318(7190):1075. Comment on: BMJ 1998 Oct 31;317(7167):1181–4.

20 years ago. The British Homoeopathic Journal, January 1979. Land ST. **Br Homeopath J** 1999 Jan;88(1):31–2

Item-of-service payments for general practitioner care of severely mentally ill persons: does the money matter? Burns T, et al. **Br J Gen Pract** 1998 Jul;48(432):1415–6

People with schizophrenia and their families. Fifteen-year outcome. Brown S, et al. **Br J Psychiatry** 1998 Aug; 173:139–44

Well-being in the families of people with schizophrenia [letter; comment] Gardner JB. **Br J Psychiatry** 1998 Jun; 172:540–1. Comment on: Br J Psychiatry 1997 Nov;171:401–5.

The difficult patient. The role of 'scientific psychiatry' in understanding patients with chronic schizophrenia or severe personality disorder [editorial] Hinshelwood RD. **Br J Psychiatry** 1999 Mar;174:187–90

Coping strategies in relatives of people with schizophrenia before and after psychiatric admission. Scazufca M, et al. **Br J Psychiatry** 1999 Feb;174:154–8

Canadian clinical practice guidelines for the treatment of schizophrenia. The Canadian Psychiatric Association [see comments] **Can J Psychiatry** 1998 Nov;43 Suppl 2:25S–40S

. Comment in: Can J Psychiatry 1999 May;44(4):390–1.

Feasibility of client reports to measure treatment outcome in schizophrenia [letter] Baigent L, et al. **Can J Psychiatry** 1999 Feb;44(1):94–5

Re: Canadian clinical practice guidelines for the treatment of schizophrenia [letter; comment] Haslam DR, et al. **Can J Psychiatry** 1999 May;44(4):390–1. Comment on: Can J Psychiatry 1998 Nov;43 Suppl 2:25S–40S.

Clozapine does not increase ECT-seizure duration [letter] Husni M, et al. **Can J Psychiatry** 1999 Mar;44(2):190–1

An integrated medical and psychosocial treatment program for psychotic disorders: patient characteristics and outcome. Malla AK, et al. **Can J Psychiatry** 1998 Sep; 43(7):698–705

Impediments in the treatment of schizophrenic patients. Fleck S. **Conn Med** 1998 Dec;62(12):707–14 (91 ref.)

Long-term effects of a psychoeducational psychotherapeutic intervention for schizophrenic outpatients and their key-persons--results of a five-year follow-up. Hornung WP, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(3):162–7

Differential therapy effects of psychoeducational psychotherapy for schizophrenic patients--results of a 2-year follow-up. Klingberg S, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(2):66–72

Using multidimensional scaling and cluster analysis for understanding information processing and schizophrenia. Catalano JA. **Genet Soc Gen Psychol Monogr** 1999 Aug; 125(3):313–28 (45 ref.)

Schizophrenia: improving outcome. Bustillo JR, et al. **Harv Rev Psychiatry** 1999 Jan–Feb;6(5):229–40 (72 ref.)

Quality of care in mental health: the case of schizophrenia. Lehman AF. **Health Aff (Millwood)** 1999 Sep–Oct; 18(5):52–65

Managed care and clinical reality in schizophrenia treatment. Sharfstein SS, et al. **Health Aff (Millwood)** 1999 Sep–Oct; 18(5):66–70

Elective combined electroconvulsive and clozapine therapy. James DV, et al. **Int Clin Psychopharmacol** 1999 Mar; 14(2):69–72

Results of treatment of schizophrenia: is the glass half full or half empty? Kissling W, et al. **Int Clin Psychopharmacol** 1999 Jun;14 Suppl 3:S11–4 (9 ref.)

The integration of sensorial channels through progressive mirror drawing in the psychotherapy of schizophrenic patients with disturbances in verbal language. Peciccia M, et al. **J Am Acad Psychoanal** 1998 Spring;26(1):109–22

Treatment of schizophrenia in childhood and adolescence. Clark AF, et al. **J Child Psychol Psychiatry** 1998 Nov; 39(8):1071–81 (97 ref.)

Treatment of schizophrenia 1999. The expert consensus guideline series. **J Clin Psychiatry** 1999;60 Suppl 11:3–80

What about the patient? Weisburd DE. **J Clin Psychiatry** 1999;60 Suppl 3:38–41

Concurrent administration of clozapine and ECT: a successful therapeutic strategy for a patient with treatment-resistant schizophrenia. Bhatia SC, et al. **J ECT** 1998 Dec;14(4):280–3

Short-term effect of combined ECT and neuroleptic therapy in treatment-resistant schizophrenia. Chanpattana W, et al. **J ECT** 1999 Jun;15(2):129–39

Maintenance ECT in mentally retarded, treatment-resistant schizophrenic patients. Chanpattana W. **J ECT** 1999 Jun; 15(2):150–3

ECT and clozapine in schizophrenia [editorial] Fink M. **J ECT** 1998 Dec;14(4):223–6

Neuropeptides and electroconvulsive treatment. Mathé AA. **J ECT** 1999 Mar;15(1):60–75

Electroconvulsive therapy and mental retardation. Thuppal M, et al. **J ECT** 1999 Jun;15(2):140–9

A theory-based treatment of psychotic symptoms in schizophrenia: treatment successes and obstacles to implementation. Leibman M, et al. **J Genet Psychol** 1998 Dec;159(4):404–20

Effects of twice- versus thrice-weekly electroconvulsive therapy in schizophrenia. Chanpattana W, et al. **J Med Assoc Thai** 1999 May;82(5):477–83

The use of the stabilization period in electroconvulsive therapy research in schizophrenia: II. Implementation. Chanpattana W, et al. **J Med Assoc Thai** 1999 Jun; 82(6):558–68

Efficacy of a self-esteem module in the empowerment of individuals with schizophrenia. Lecomte T, et al. **J Nerv Ment Dis** 1999 Jul;187(7):406–13

Soteria and other alternatives to acute psychiatric hospitalization: a personal and professional review. Mosher LR. **J Nerv Ment Dis** 1999 Mar;187(3):142–9 (48 ref.)

A pilot trial of treatment changes according to schizophrenic patients' wishes. Priebe S, et al. **J Nerv Ment Dis** 1999 Jul;187(7):441–3

Repetitive transcranial magnetic stimulation in the treatment of chronic negative schizophrenia: a pilot study [letter] Cohen E, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul; 67(1):129–30

The limitations of antipsychotic medication on schizophrenia relapse and adjustment and the contributions of psychosocial treatment. Hogarty GE, et al. **J Psychiatr Res** 1998 May–Aug;32(3–4):243–50

Combined electroconvulsive therapy and clozapine in treatment-resistant schizophrenia. Kales HC, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr; 23(3):547–56

Services to families of adults with schizophrenia: from treatment recommendations to dissemination. Dixon L, et al. **Psychiatr Serv** 1999 Feb;50(2):233–8

Optimal treatment for psychosis in an international multisite demonstration project. Optimal Treatment Project Collaborators. Falloon IR. **Psychiatr Serv** 1999 May; 50(5):615–8

Cognitive-behavioral therapy and clozapine for clients with treatment-refractory schizophrenia. Pinto A, et al. **Psychiatr Serv** 1999 Jul;50(7):901–4

The importance of psychotherapy in remission and relapse. Ruocchio PJ. **Psychiatr Serv** 1999 Jun;50(6):745, 749

From "nonspecific factors" to disorder-specific treatments for schizophrenia: commentary on Williams and Collins. Davidson L. **Psychiatry** 1999 Spring;62(1):79–82

Defining new frameworks for psychosocial intervention. Williams CC, et al. **Psychiatry** 1999 Spring;62(1):61–78

Present status and prospect of psychotherapy in Japan. Ushijima S. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S226–8

Traditional Chinese medical treatment to invigorate blood and relieve stasis treatment of schizophrenia: comparison with antipsychotics treatment. Wang B. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S329–30

The first contact of patients with schizophrenia with psychiatric services: social factors and pathways to care in a multi-ethnic population. Burnett R, et al. **Psychol Med** 1999 Mar;29(2):475–83

Comorbidity in schizophrenia: a prognostic study of personality disorders in recovered and non-recovered schizophrenia patients. Torgalsbøen AK. **Scand J Psychol** 1999 Jun;40(2):147–52

Relationship between empathic family attitude and relapse in schizophrenia: a 2-year followup prospective study. Girón M, et al. **Schizophr Bull** 1998;24(4):619–27

Should schizophrenia be treated as a neurocognitive disorder? Green MF, et al. **Schizophr Bull** 1999;25(2):309–19 (60 ref.)

Interventions for neurocognitive deficits: editor's introduction [editorial] Green MF. **Schizophr Bull** 1999; 25(2):197–200

Studying the effectiveness of neurocognitive remediation in schizophrenia [letter] Jaeger J. **Schizophr Bull** 1999; 25(2):193–6

Role of psychosocial treatments in management of schizophrenia: a meta-analytic review of controlled outcome studies. Mojtabai R, et al. **Schizophr Bull** 1998; 24(4):569–87

Glucose-induced increase in memory performance in patients with schizophrenia. Newcomer JW, et al. **Schizophr Bull** 1999;25(2):321–35

Deinstitutionalization and schizophrenia in Finland: I. Discharged patients and their care. Salokangas RK, et al. **Schizophr Bull** 1998;24(3):457–67

The quality of life of people with schizophrenia in Boulder, Colorado, and Bologna, Italy. Warner R, et al. **Schizophr Bull** 1998;24(4):559–68

The effects of neurocognitive remediation on executive processing in patients with schizophrenia. Wykes T, et al. **Schizophr Bull** 1999;25(2):291–307

Early intervention and prevention in schizophrenia--experiences from a study in Stavanger, Norway. Johannessen JO. **Seishin Shinkeigaku Zasshi** 1998; 100(8):511–22

[Indications and modality of electorconvulsive therapy. Text of recommendations of the ANAES (French Society for Anesthesia and Reanimation)] **Presse Med** 1999 Feb 6; 28(5):236–9 **(Fre)**

[Psychiatry today] Tribolet S, et al. **Presse Med** 1998 Dec 19;27(40):2190–7 (Eng. Abstr.) **(Fre)**

[Schizophrenia and violence: epidemiological, forensic and clinical aspects] Steinert T. **Fortschr Neurol Psychiatr** 1998 Sep;66(9):391–401 (124 ref.) (Eng. Abstr.) **(Ger)**

[Pharmacologic and cognitive therapy treatment strategies in in persistent negative schizophrenic symptoms] Vauth R, et al. **Fortschr Neurol Psychiatr** 1999 Jun;67(6):261–73 (106 ref.) (Eng. Abstr.) **(Ger)**

[Psychoeducational-psychotherapeutic treatment of schizophrenic patients and their caregivers. II. Supplementary findings at a 2-year follow-up] Hornung WP, et al. **Nervenarzt** 1999 May;70(5):444–9 (Eng. Abstr.) **(Ger)**

[Remarks on the contribution of M. Albers. The long-term treatment of chronic schizophrenia. Nervenarzt (1998) 69:737–51 (letter; comment)] Steinert T. **Nervenarzt** 1999 Mar;70(3):291–2. Comment on: Nervenarzt 1998 Sep;69(9):737–51. **(Ger)**

[A stimulus barrier model of early onset schizophrenia: an integrative etiological and therapeutic approach] Eggers C. **Prax Kinderpsychol Kinderpsychiatr** 1998 Dec; 47(10):740–53 (67 ref.) (Eng. Abstr.) **(Ger)**

[Family burden in schizophrenia: effects of socio-environmental and clinical variables and family intervention] Magliano L, et al. **Epidemiol Psichiatr Soc** 1998 Sep–Dec;7(3):178–87 (Eng. Abstr.) **(Ita)**

[Economic perspectives in the care and treatment of patients diagnosed with schizophrenia] Percudani M, et al. **Epidemiol Psichiatr Soc** 1998 Sep–Dec;7(3):197–209 (114 ref.) (Eng. Abstr.) **(Ita)**

[Electroconvulsive therapy decreased bispectral index--a case report] Tanabe T, et al. **Masui** 1998 Sep;47(9):1096–8 (Eng. Abstr.) **(Jpn)**

[On the "folkloric" psychotherapy to schizophrenic patients--based on phenomenological study] Yamada T, et al. **Seishin Shinkeigaku Zasshi** 1998;100(6):369-86 (Eng. Abstr.) **(Jpn)**

[The efficacy of enterosorption and a combination of antioxidants in schizophrenics] Rachkauskas GS. **Lik Sprava** 1998 Jun;(4):122-4 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

Mild ventriculomegaly detected in utero with ultrasound: clinical associations and implications for schizophrenia. Gilmore JH, et al. **Schizophr Res** 1998 Oct 9;33(3):133-40

URINE

Decreased bombesin peptide response to cigarette smoking in schizophrenia. Olincy A, et al. **Neuropsychopharmacology** 1999 Jan;20(1):52-9

Increase in urinary peptides prior to the diagnosis of schizophrenia [letter] Reichelt KL, et al. **Schizophr Res** 1998 Nov 30;34(3):211-3

VIROLOGY

Neonatal cytomegalovirus exposure decreases prepulse inhibition in adult rats: implications for schizophrenia. Rothschild DM, et al. **J Neurosci Res** 1999 Aug 15; 57(4):429-34

Failure to demonstrate Borna disease virus genome in peripheral blood mononuclear cells from psychiatric patients in Korea. Kim YK, et al. **J Neurovirol** 1999 Apr; 5(2):196-9

Detection and sequence analysis of borna disease virus p24 RNA from peripheral blood mononuclear cells of patients with mood disorders or schizophrenia and of blood donors. Iwata Y, et al. **J Virol** 1998 Dec;72(12):10044-9

SCHIZOPHRENIA, BORDERLINE see **SCHIZOTYPAL PERSONALITY DISORDER**

SCHIZOPHRENIA, CATATONIC

DIAGNOSIS

The relationship of catatonia symptoms to symptoms of schizophrenia. Cernovsky ZZ, et al. **Can J Psychiatry** 1998 Dec;43(10):1031-5

[Stability and variability of catatonic symptoms in the longitudinal course of illness. Videotape documentation in catatonic schizophrenia] Brüne M, et al. **Nervenarzt** 1999 Jan;70(1):26-30 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

["Catatonic dilemma". Therapy with lorazepam and clozapine (see comments)] Lausberg H, et al. **Nervenarzt** 1998 Sep; 69(9):818-22 (Eng. Abstr.). Comment in: Nervenarzt 1999 May;70(5):484-5. **(Ger)**

GENETICS

Parent-of-origin effect and evidence for differential transmission in periodic catatonia. Stöber G, et al. **Psychiatr Genet** 1998 Winter;8(4):213-9

Gender differences and age of onset in the catatonic subtypes of schizophrenia. Stöber G, et al. **Psychopathology** 1998 Nov-Dec;31(6):307-12

THERAPY

An unexpected hyperkalemic response to succinylcholine during electroconvulsive therapy for catatonic schizophrenia. Cooper RC, et al. **Anesthesiology** 1999 Aug; 91(2):574-5

SCHIZOPHRENIA, CHILDHOOD

COMPLICATIONS

[Impulse control disorders in schizophrenia in children, adolescents and young people] Golik AN. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(7):63-7 (129 ref.) **(Rus)**

DIAGNOSIS

Progressive cortical change during adolescence in childhood-onset schizophrenia. A longitudinal magnetic resonance imaging study. Rapoport JL, et al. **Arch Gen Psychiatry** 1999 Jul;56(7):649-54

Continuous-processing related ERPS in adult schizophrenia: continuity with childhood onset schizophrenia. Strandburg RJ, et al. **Biol Psychiatry** 1999 May 15;45(10):1356-69

DRUG THERAPY

Including children and adolescents with schizophrenia in medication-free research. Kumra S, et al. **Am J Psychiatry** 1999 Jul;156(7):1065-8

Is liver function monitoring warranted during risperidone treatment? [letter; comment] Landau J, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Oct; 37(10):1007-8. Comment on: J Am Acad Child Adolesc Psychiatry 1997 May;36(5):701-5. Comment on: J Am Acad Child Adolesc Psychiatry 1998 Mar;37(3):246-7.

Quetiapine for refractory schizophrenia. Szigethy E, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1127-8

Biogenic amines as predictors of response to clozapine treatment in early-onset schizophrenia. Fleischhaker C, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):325-33

[Atypical neuroleptics in the child and adolescent] Naja WJ, et al. **Encephale** 1998 Jul-Aug;24(4):378-85 (67 ref.) (Eng. Abstr.) **(Fre)**

GENETICS

Apolipoprotein E alleles in childhood-onset schizophrenia [letter] Fernandez T, et al. **Am J Med Genet** 1999 Apr 16;88(2):211-3

Evidence for bilineal inheritance of physiological indicators of risk in childhood-onset schizophrenia. Ross RG, et al. **Am J Med Genet** 1999 Apr 16;88(2):188-99

PHYSIOPATHOLOGY

Blink rate in pediatric complex partial seizure disorder. Caplan R, et al. **J Child Psychol Psychiatry** 1998 Nov; 39(8):1145-52

REHABILITATION

[Behavior therapy methods in treatment of schizophrenic adolescents] Kienzle N, et al. **Z Kinder Jugendpsychiatr Psychother** 1999 Aug; 27(3):189-97 (60 ref.) **(Ger)**

THERAPY

Treatment of schizophrenia in childhood and adolescence. Clark AF, et al. **J Child Psychol Psychiatry** 1998 Nov; 39(8):1071-81 (97 ref.)

SCHIZOPHRENIA, DISORGANIZED

DIAGNOSIS

[Frontotemporal dementia in a young woman with apparent schizophrenia (letter; comment)] Jansen Steur EN. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2698-9. Comment on: Ned Tijdschr Geneeskd 1998 Aug 29;142(35):1962-5. **(Dut)**

[Frontotemporal dementia in a young woman with apparent schizophrenia (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1998 Oct 31;142(44):2440)] Lamote H, et al. **Ned Tijdschr Geneeskd** 1998 Aug 29; 142(35):1962-5 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2698-9. **(Dut)**

[Homicide and hebephrenia-like syndrome in metachromatic leukodystrophy (published erratum appears in Nervenarzt 1999 Jul;70(7):619)] Rentrop M, et al. **Nervenarzt** 1999 Mar; 70(3):276-80 (Eng. Abstr.) **(Ger)**

[Guirod's hebephrenic syndrome: a case report] Andrés Tauler JM, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Sep-Oct;26(5):339-41 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Long-term heavy use of diphenhydramine without anticholinergic delirium. Isabelle C, et al. **Am J Health Syst Pharm** 1999 Mar 15;56(6):555-7

SCHIZOPHRENIA, HEBEPHRENIC see **SCHIZOPHRENIA, DISORGANIZED**

SCHIZOPHRENIA, LATENT see **SCHIZOTYPAL PERSONALITY DISORDER**

SCHIZOPHRENIA, PARANOID

COMPLICATIONS

Polyglandular autoimmune syndrome type II and paranoid schizophrenia with obsessive-compulsive disorder [letter] Asghar SJ, et al. **Can J Psychiatry** 1999 May;44(4):391-2

Nightmares and psychotic decompensation: a case study. Levin R, et al. **Psychiatry** 1998 Fall;61(3):217-22

[Basic cognitive-perceptive module in schizophrenics] Franck N, et al. **Encephale** 1998 Nov-Dec;24(6):550-6 (Eng. Abstr.) **(Fre)**

[Coincidence of schizophrenia and panic disorder] Rupprecht R, et al. **Nervenarzt** 1999 Mar;70(3):265-8 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Paranoid schizophrenia--malingering or factitious disorder? [letter; comment] Krahn LE. **Am J Psychiatry** 1999 Mar; 156(3):498-9. Comment on: Am J Psychiatry 1997 Nov;154(11):1599-601.

Late-onset psychosis: clinical, research, and ethical considerations [clinical conference] McClure FS, et al. **Am J Psychiatry** 1999 Jun;156(6):935-40

Is paranoid schizophrenia the most common subtype? Comparison of subtype diagnoses by Japanese and European psychiatrists, using the summaries of the same patients. Tateyama M, et al. **Psychopathology** 1999 Mar-Apr;32(2):98-106

[Basic cognitive-perceptive module in schizophrenics] Franck N, et al. **Encephale** 1998 Nov-Dec;24(6):550-6 (Eng. Abstr.) **(Fre)**

[Paranoid schizophrenia as Munchausen syndrome in a forensic psychiatry setting] Frei A, et al. **Psychiatr Prax** 1999 May;26(3):149 **(Ger)**

[Differential diagnosis of psychotic disorders in immigrants] Lambert M, et al. **Psychiatr Prax** 1998 Jul;25(4):198-9 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Prolactogenic effects of risperidone in male patients--a preliminary study. Shiwach RS, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):81-3

Olanzapine-induced neuroleptic malignant syndrome [letter] Burkhard PR, et al. **Arch Gen Psychiatry** 1999 Jan; 56(1):101-2

Aggression, agitation, and mania with olanzapine [letter] John V, et al. **Can J Psychiatry** 1998 Dec;43(10):1054

Psychotic relapse and maintenance therapy in paranoid schizophrenia: a 15 year follow up. Ohmori T, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(2):73-8

Olanzapine treatment in patients with typical and atypical neuroleptic-associated agranulocytosis. Finkel B, et al. **Int Clin Psychopharmacol** 1998 May;13(3):133-5

Clomipramine treatment of delusional disorder, somatic type. Wada T, et al. **Int Clin Psychopharmacol** 1999 May; 14(3):181-3

Asymptomatic pancreatitis associated with clozapine. Bergemann N, et al. **Pharmacopsychiatry** 1999 Mar; 32(2):78-80 (9 ref.)

ETIOLOGY

The phenomenology of delusional jealousy in late life [letter] Sibisi CD. **Int J Geriatr Psychiatry** 1999 May;14(5):398-9

IMMUNOLOGY

Antibrain antibodies in mental disorder: no evidence for antibodies against synaptic membranes. Schott K, et al. **J Neural Transm** 1998;105(4-5):517-24

PHYSIOPATHOLOGY

Interhemispheric EEG coherence in never-medicated patients with paranoid schizophrenia: analysis at rest and during photic stimulation. Wada Y, et al. **Clin Electroencephalogr** 1998 Oct;29(4):170-6

Spatial and temporal mapping of neural activity associated with auditory hallucinations [letter] [see comments] Lennox BR, et al. **Lancet** 1999 Feb 20;353(9153):644. Comment in: Lancet 1999 Jul 10;354(9173):166.

Activation of Heschl's gyrus during auditory hallucinations [see comments] Dierks T, et al. **Neuron** 1999 Mar; 22(3):615-21. Comment in: Neuron 1999 Mar;22(3):414-5.

Possible association between delusional disorder, somatic type and reduced regional cerebral blood flow. Wada T, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb;23(2):353-7

PSYCHOLOGY

Catatonia under medication with risperidone in a 61-year-old patient. Bahro M, et al. **Acta Psychiatr Scand** 1999 Mar; 99(3):223-4; discussion 224-6

Persecutory delusions and autobiographical memory. Kaney S, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):97-102

Case report: treating a mentally ill patient with serious medical problems. Lent B, et al. **Can Fam Physician** 1999 Jul;45:1743-4

Insight in paranoid schizophrenia--its relationship to psychopathology and premorbid adjustment. Dębowska G, et al. **Compr Psychiatry** 1998 Sep-Oct;39(5):255-60

Self-mutilation and behavioural disorder. Pradhan SC, et al. **Postgrad Med J** 1998 Dec;74(878):759-60

An unusual case of delusional misidentification: 'delusional hermaphroditism'. Mulholland C, et al. **Psychopathology** 1999 Jul-Aug;32(4):220-4

Is paranoid schizophrenia the most common subtype? Comparison of subtype diagnoses by Japanese and European psychiatrists, using the summaries of the same patients. Tateyama M, et al. **Psychopathology** 1999 Mar-Apr;32(2):98-106

A schizophrenic patient's attempt to resume dialysis following renal transplantation. Krahn LE, et al. **Psychosomatics** 1998 Sep-Oct;39(5):470-3

RADIONUCLIDE IMAGING

Reduced striatal dopaminergic innervation shown by IPT and SPECT in patients under neuroleptic treatment: need for levodopa therapy? Schwarz J, et al. **Psychiatry Res** 1998 Jul 15;83(1):23-8

REHABILITATION

[Therapeutic problems of positively experienced hallucinations] Fischer RB. **Psychiatr Prax** 1999 Jul; 26(4):208 **(Ger)**

[Dealing creatively with laws regarding protective custody] Frei A, et al. **Psychiatr Prax** 1999 Jul;26(4):207 **(Ger)**

THERAPY

The man from Big Sur [see comments] Camenietzki S. **Int J Group Psychother** 1999 Jan;49(1):107-17; discussion 119-20. Comment in: Int J Group Psychother 1999 Jan;49(1):121-5.

SCHIZOPHRENIA, PARANOID

Comments on "The man from Big Sur": the clinical appeal of a Kleinian perspective [comment] Kibel HD. **Int J Group Psychother** 1999 Jan;49(1):121-5. Comment on: Int J Group Psychother 1999 Jan;49(1):107-17; discussion 119-20.

SCHIZOPHRENIA, PSEUDONEUROTIC see **SCHIZOTYPAL PERSONALITY DISORDER**

SCHIZOPHRENIC DISORDERS see **SCHIZOPHRENIA**

SCHIZOPHRENIC LANGUAGE

'Confabulation' in narrative discourse by schizophrenic patients. Kramer S, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:202-7

Pragmatic language behaviors of adults diagnosed with chronic schizophrenia. Byrne ME, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):835-46

[Psychosis, language and literature] Maier T. **Nervenarzt** 1999 May;70(5):438-43 (35 ref.) (Eng. Abstr.) **(Ger)**

SCHIZOPHRENIC PSYCHOLOGY

Altered electrophysiological pattern of target detection in schizophrenia in the Continuous Attention Test. Basińska A. **Acta Neurobiol Exp (Warsz)** 1998;58(3):207-20

Subjective quality of life in out-patients with schizophrenia: clinical and utilization correlates. Dickerson FB, et al. **Acta Psychiatr Scand** 1998 Aug;98(2):124-7

Neuroleptics, subjective perception and quality of life [letter; comment] Eranti S, et al. **Acta Psychiatr Scand** 1998 Aug; 98(2):165-6. Comment on: Acta Psychiatr Scand 1997 Jun;95(6):464-8.

A 16-year follow-up study of schizophrenia and related disorders in Sofia, Bulgaria. Ganev K, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):200-7

A polydiagnostic approach to the differences in the symptoms of schizophrenia in different cultural and ethnic populations. Maslowski J, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):41-6

Development and preliminary application of a new scale for assessing dysfunctional working models of self and others (DWM-S) in severely disturbed patients. Perris C, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):219-23

Morbid objectivization in psychopathology. Cutting J. **Acta Psychiatr Scand Suppl** 1999;395:30-3

Auditory hallucinations: phenomenology, neuropsychology and neuroimaging update. David AS. **Acta Psychiatr Scand Suppl** 1999;395:95-104 (112 ref.)

Cognitive dysfunction in schizophrenia: a new set of tools for the assessment of cognition and drug effects. Gallhofer B, et al. **Acta Psychiatr Scand Suppl** 1999;395:118-28 (102 ref.)

Subjective experience and mental side-effects of antipsychotic treatment. Gerlach J, et al. **Acta Psychiatr Scand Suppl** 1999;395:113-7

Backward masking performance as an indicator of vulnerability to schizophrenia. Green MF, et al. **Acta Psychiatr Scand Suppl** 1999;395:34-40 (30 ref.)

Cortical brain dysfunction in early schizophrenia: secondary pathogenetic hierarchy of neuroplasticity, psychopathology and social impairment. Hemmingsen R, et al. **Acta Psychiatr Scand Suppl** 1999;395:80-8

New methods for studying hallucinated 'voices' in schizophrenia. Hoffman RE. **Acta Psychiatr Scand Suppl** 1999;395:89-94

Developmental neuropathology and the precursors of schizophrenia. Walker EF, et al. **Acta Psychiatr Scand Suppl** 1999;395:12-9 (31 ref.)

Subjective experience in schizophrenia: factors influencing self-esteem, satisfaction with life, and subjective distress. Bradshaw W, et al. **Am J Orthopsychiatry** 1999 Apr; 69(2):254-60

Comparison of ketamine-induced thought disorder in healthy volunteers and thought disorder in schizophrenia. Adler CM, et al. **Am J Psychiatry** 1999 Oct;156(10):1646-9

Memory impairment in schizophrenia: a meta-analysis. Aleman A, et al. **Am J Psychiatry** 1999 Sep;156(9):1358-66

Cognitive substrates of thought disorder, II: specifying a candidate cognitive mechanism [comment] Aloia MS, et al. **Am J Psychiatry** 1998 Dec;155(12):1677-84. Comment on: Am J Psychiatry 1998 Dec;155(12):1671-6.

Stability of the diagnosis of deficit syndrome in schizophrenia. Amador XF, et al. **Am J Psychiatry** 1999 Apr;156(4):637-9

Relationship of awareness of dyskinesia in schizophrenia to insight into mental illness. Arango C, et al. **Am J Psychiatry** 1999 Jul;156(7):1097-9

Symptom correlates of prepulse inhibition deficits in male schizophrenic patients. Braff DL, et al. **Am J Psychiatry** 1999 Apr;156(4):596-602

Recalling word lists reveals "cognitive dysmetria" in schizophrenia: a positron emission tomography study. Crespo-Facorro B, et al. **Am J Psychiatry** 1999 Mar; 156(3):386-92

Nicotine dependence in schizophrenia: clinical phenomena and laboratory findings. Dalack GW, et al. **Am J Psychiatry** 1998 Nov;155(11):1490-501 (100 ref.)

Improvement of schizophrenic patients with primary negative symptoms treated with amisulpride. Amisulpride Study Group. Danion JM, et al. **Am J Psychiatry** 1999 Apr;156(4):610-6

Schizophrenia and intellectual decline [letter; comment] David A. **Am J Psychiatry** 1998 Nov;155(11):1634-5; discussion 1636-7. Comment on: Am J Psychiatry 1997 May;154(5):635-9.

Senile degeneration and cognitive impairment in chronic schizophrenia. Dwork AJ, et al. **Am J Psychiatry** 1998 Nov; 155(11):1536-43

Bupropion and smoking cessation [letter] Evins AE, et al. **Am J Psychiatry** 1999 May;156(5):798-9

Schizophrenia and intellectual decline [letter; comment] Gold J. **Am J Psychiatry** 1998 Nov;155(11):1633-4; discussion 1636-7. Comment on: Am J Psychiatry 1997 May;154(5):635-9.

Cognitive substrates of thought disorder, I: the semantic system [see comments] Goldberg TE, et al. **Am J Psychiatry** 1998 Dec;155(12):1671-6. Comment in: Am J Psychiatry 1998 Dec;155(12):1677-84.

Backward masking in unmedicated schizophrenic patients in psychotic remission: possible reflection of aberrant cortical oscillation. Green MF, et al. **Am J Psychiatry** 1999 Sep; 156(9):1367-73

Suicidal behavior in schizophrenia: characteristics of individuals who had and had not attempted suicide. Harkavy-Friedman JM, et al. **Am J Psychiatry** 1999 Aug; 156(8):1276-8

Selective speech perception alterations in schizophrenic patients reporting hallucinated "voices". Hoffman RE, et al. **Am J Psychiatry** 1999 Mar;156(3):393-9

Empirical validation of primary negative symptoms: independence from effects of medication and psychosis. Kelley ME, et al. **Am J Psychiatry** 1999 Mar;156(3):406-11

Normalization of information processing deficits in schizophrenia with clozapine. Kumari V, et al. **Am J Psychiatry** 1999 Jul;156(7):1046-51

Risperidone for exclusively negative symptoms [letter] Lane HY, et al. **Am J Psychiatry** 1999 Feb;156(2):335

Word recall in schizophrenia: a connectionist model. Nestor PG, et al. **Am J Psychiatry** 1998 Dec;155(12):1685-90

Symptoms and cognition as predictors of community functioning: a prospective analysis. Norman RM, et al. **Am J Psychiatry** 1999 Mar;156(3):400-5

Effect of clozapine and adjunctive high-dose glycine in treatment-resistant schizophrenia. Potkin SG, et al. **Am J Psychiatry** 1999 Jan;156(1):145-7

A dilemma born of progress: switching from clozapine to a newer antipsychotic. Rafal S, et al. **Am J Psychiatry** 1999 Jul;156(7):1086-90

Distinguishing change in primary and secondary negative symptoms [letter] Remington G, et al. **Am J Psychiatry** 1999 Jun;156(6):974-5

Impact of clozapine on negative symptoms and on the deficit syndrome in refractory schizophrenia. Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia. Rosenheck R, et al. **Am J Psychiatry** 1999 Jan;156(1):88-93

Schizophrenia and intellectual decline [letter; comment] Stevens JR, et al. **Am J Psychiatry** 1998 Nov; 155(11):1635-7. Comment on: Am J Psychiatry 1997 May;154(5):635-9.

Suicide risk in schizophrenia [letter; comment] Vieta E, et al. **Am J Psychiatry** 1998 Nov;155(11):1640. Comment on: Am J Psychiatry 1997 Sep;154(9):1235-42.

Prevalence of depressive symptoms early in the course of schizophrenia. Wassink TH, et al. **Am J Psychiatry** 1999 Feb;156(2):315-6

Informed consent: assessment of comprehension [see comments] Wirshing DA, et al. **Am J Psychiatry** 1998 Nov; 155(11):1508-11. Comment in: Am J Psychiatry 1998 Nov;155(11):1486-8.

Functional mechanisms underlying impaired recognition memory and conscious awareness in patients with schizophrenia [see comments] Danion JM, et al. **Arch Gen Psychiatry** 1999 Jul;56(7):639-44. Comment in: Arch Gen Psychiatry 1999 Jul;56(7):645-6. Comment in: Arch Gen Psychiatry 1999 Jul;56(7):647-8.

When conscious recollection disrupts memory [comment] [see comments] Frith C. **Arch Gen Psychiatry** 1999 Jul; 56(7):645-6. Comment on: Arch Gen Psychiatry 1999 Jul;56(7):639-44. Comment in: Arch Gen Psychiatry 1999 Jul;56(7):647-8.

Efficacy of high-dose glycine in the treatment of enduring negative symptoms of schizophrenia [see comments] Heresco-Levy U, et al. **Arch Gen Psychiatry** 1999 Jan; 56(1):29-36. Comment in: Arch Gen Psychiatry 1999 Jan;56(1):13-7.

Generalized cognitive deficits in schizophrenia: a study of first-episode patients. Mohamed S, et al. **Arch Gen Psychiatry** 1999 Aug;56(8):749-54

Sensorimotor gating and thought disturbance measured in close temporal proximity in schizophrenic patients. Perry W, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):277-81

Deficits of information management associated with schizophrenia. Awareness and associated integrative cognitive functions [comment] Tien AY. **Arch Gen Psychiatry** 1999 Jul;56(7):647-8. Comment on: Arch Gen Psychiatry 1999 Jul;56(7):639-44. Comment on: Arch Gen Psychiatry 1999 Jul;56(7):645-6.

Word and tone working memory deficits in schizophrenia. Wexler BE, et al. **Arch Gen Psychiatry** 1998 Dec; 55(12):1093-6

Instruments for assessment of auditory hallucinations. Frederick JA, et al. **Arch Psychiatr Nurs** 1998 Oct; 12(5):255-63 (24 ref.)

Construct validity of neuropsychological tests in schizophrenia. Allen DN, et al. **Assessment** 1998 Dec; 5(4):365-74

Conceptual foundations of schizophrenia: II. Disintegration and division. Barrett RJ. **Aust N Z J Psychiatry** 1998 Oct; 32(5):627-34; discussion 635-41

Conceptual foundations of schizophrenia: I. Degeneration. Barrett RJ. **Aust N Z J Psychiatry** 1998 Oct;32(5):617-26; discussion 635-41

Does clozapine affect smoking rates? [letter] Chatterton R, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):890-1

Schizophrenia and consuming body waste [letter] Razali SM. **Aust N Z J Psychiatry** 1998 Dec;32(6):888-90

Schizophrenia: refining the phenotype, resolving endophenotypes. Lenzenweger MF. **Behav Res Ther** 1999 Mar;37(3):281-95 (80 ref.)

Clinical and pharmacologic risk factors for neuroleptic malignant syndrome: a case-control study. Berardi D, et al. **Biol Psychiatry** 1998 Oct 15;44(8):748-54

Impaired categorical perception of synthetic speech sounds in schizophrenia. Cienfuegos A, et al. **Biol Psychiatry** 1999 Jan 1;45(1):82-8

Modulation of language processing in schizophrenia: effects of context and haloperidol on the event-related potential. Condray R, et al. **Biol Psychiatry** 1999 May 15; 45(10):1336-55

Cerebrospinal fluid glutamate inversely correlates with positive symptom severity in unmedicated male schizophrenic/schizoaffective patients. Faustman WO, et al. **Biol Psychiatry** 1999 Jan 1;45(1):68-75

Pharmacologic strategies for augmenting cognitive performance in schizophrenia. Friedman JI, et al. **Biol Psychiatry** 1999 Jan 1;45(1):1-16 (160 ref.)

P300 subcomponents reflect different aspects of psychopathology in schizophrenia. Frodl-Bauch T, et al. **Biol Psychiatry** 1999 Jan 1;45(1):116-26

Cognitive decline in late-life schizophrenia: a longitudinal study of geriatric chronically hospitalized patients. Harvey PD, et al. **Biol Psychiatry** 1999 Jan 1;45(1):32-40

Risperidone vs. haloperidol on reaction time, manual dexterity, and motor learning in treatment-resistant schizophrenia patients. Kern RS, et al. **Biol Psychiatry** 1998 Oct 15;44(8):726-32

Hemispheric asymmetry in schizophrenia: a "dual deficits" model. Løberg EM, et al. **Biol Psychiatry** 1999 Jan 1; 45(1):76-81

Delayed visual NA potential in remitted schizophrenia: a new vulnerability marker for psychotic relapse under low-dose medication. Matsuoka H, et al. **Biol Psychiatry** 1999 Jan 1;45(1):107-15

Does akathisia influence psychopathology in psychotic patients treated with clozapine? Nair CJ, et al. **Biol Psychiatry** 1999 May 15;45(10):1376-83

The relationship between skin conductance hyporesponsivity and perseverations in schizophrenia patients. Perry W, et al. **Biol Psychiatry** 1998 Sep 15;44(6):459-65

Premorbid educational attainment in schizophrenia: association with symptoms, functioning, and neurobehavioral measures. Swanson CL Jr, et al. **Biol Psychiatry** 1998 Oct 15;44(8):739-47

Eye tracking abnormalities in schizophrenia: evidence for dysfunction in the frontal eye fields. Sweeney JA, et al. **Biol Psychiatry** 1998 Oct 15;44(8):698-708

Cerebellar morphology as a predictor of symptom and psychosocial outcome in schizophrenia. Wassink TH, et al. **Biol Psychiatry** 1999 Jan 1;45(1):41-8

Shakespeare knew the layered clothing sign of schizophrenia [letter] Altschuler E. **BMJ** 1999 Aug 21;319(7208):520

An investigation of attributional style in first-episode psychosis. Krstev H, et al. **Br J Clin Psychol** 1999 Jun;38 (Pt 2):181-94

Semantic priming in schizophrenia [letter; comment] Bhandari S, et al. **Br J Psychiatry** 1998 Aug;173:184. Comment on: Br J Psychiatry 1998 Feb;172:142-6.

Nuclear schizophrenic symptoms as a window on the relationship between thought and speech [see comments] Crow TJ. **Br J Psychiatry** 1998 Oct;173:303-9. Comment in: Br J Psychiatry 1998 Oct;173 :310-1.

'Pfropfschizophrenie' revisited. Schizophrenia in people with mild learning disability. Doody GA, et al. **Br J Psychiatry** 1998 Aug;173:145-53

Schizophrenia--a disorder of the corollary discharge systems that integrate the motor systems of thought with the sensory systems of consciousness. Feinberg I, et al. **Br J Psychiatry** 1999 Mar;174:196-204 (62 ref.)

Family burden of schizophrenia and depressive illness. Specifying the effects of ethnicity, gender and social ecology. Jenkins JH, et al. **Br J Psychiatry** 1999 Jan; 174:31-8 (33 ref.)

Coping strategies in relatives of people with schizophrenia before and after psychiatric admission. Scazufca M, et al. **Br J Psychiatry** 1999 Feb;174:154-8

Serious sex offending against women by men with schizophrenia. Relationship of illness and psychotic symptoms to offending. Smith AD, et al. **Br J Psychiatry** 1999 Mar;174:233-7

Are first-rank symptoms encryption errors [letter] Spence SA. **Br J Psychiatry** 1998 Aug;173:184-5

Paying attention to emotion in schizophrenia [editorial] Taylor SF, et al. **Br J Psychiatry** 1999 Jan;174:6-8

Invited commentaries on: nuclear schizophrenic symptoms as a window on the relationship between thought and speech [comment] Trimble M, et al. **Br J Psychiatry** 1998 Oct;173:310-1. Comment on: Br J Psychiatry 1998 Oct;173 :303-9.

Cognitive deficit in schizophrenia and its neurochemical basis. Breier A. **Br J Psychiatry Suppl** 1999;(37):16-8 (20 ref.)

Mice with reduced NMDA receptor expression display behaviors related to schizophrenia. Mohn AR, et al. **Cell** 1999 Aug 20;98(4):427-36

Mentalising, schizotypy, and schizophrenia. Langdon R, et al. **Cognition** 1999 May 3;71(1):43-71

Quality of life, gender and schizophrenia: a cross-national survey in Canada, Cuba, and U.S.A. Vandiver VL. **Community Ment Health J** 1998 Oct;34(5):501-11

Insight and illness in chronic schizophrenia. Schwartz RC. **Compr Psychiatry** 1998 Sep-Oct;39(5):249-54

Thought disorder in schizophrenia. Testing models through confirmatory factor analysis. Cuesta MJ, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(2):55-61

Markers from event-related potential subcomponents and reaction time for information processing dysfunction in schizophrenia. Frodl T, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(6):307-13

Repetition blindness in schizophrenic patients. Kammer T, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(3):136-40

A deviant EEG brain microstate in acute, neuroleptic-naive schizophrenics at rest. Koenig T, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(4):205-11

Reliability and validity of the premorbid adjustment scale (PAS) in a German sample of schizophrenic and schizoaffective patients. Krauss H, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(6):277-81

Objective and subjective quality of life of first-admitted women and men with schizophrenia. Röder-Wanner UU, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(5):250-8

Adult schizophrenic-like variant of adrenoleukodystrophy. Szpak GM, et al. **Folia Neuropathol** 1996;34(4):184-92

The use of clock tests in schizophrenia. Herrmann N, et al. **Gen Hosp Psychiatry** 1999 Jan-Feb;21(1):70-3

Pharmacological differentiation of classical and novel antipsychotics. Arnt J. **Int Clin Psychopharmacol** 1998 Mar; 13 Suppl 3:S7-14 (46 ref.)

How much do novel antipsychotics benefit the patients? Kasper S. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S71-7 (55 ref.)

The treatment of negative symptoms: a clinical and methodological study. Lapierre YD, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):101-12

Early detection and intervention in schizophrenia. Linszen DH, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S31-4 (33 ref.)

Novel antipsychotics and negative symptoms. Möller HJ. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S43-7 (21 ref.)

Good medical practice in antipsychotic pharmacotherapy. Peuskens J. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S35-41 (32 ref.)

Fluvoxamine treatment of obsessive-compulsive symptoms in schizophrenic patients: an add-on open study. Poyurovsky M, et al. **Int Clin Psychopharmacol** 1999 Mar; 14(2):95-100

The role of negative symptoms and cognitive dysfunction in schizophrenia outcome. Tamminga CA, et al. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S21-6 (45 ref.)

The European Post-marketing Observational Serdolect (EPOS) Project: increasing our understanding of schizophrenia therapy. Wehnert A. **Int Clin Psychopharmacol** 1998 Mar;13 Suppl 3:S27-30

'Confabulation' in narrative discourse by schizophrenic patients. Kramer S, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:202-7

Impairments in judgment of chimeric faces by schizophrenic and affective patients. Lior R, et al. **Int J Neurosci** 1999 Apr;97(3-4):185-209

An event-related brain potential substrate of disturbed response monitoring in paranoid schizophrenic patients. Kopp B, et al. **J Abnorm Psychol** 1999 May;108(2):337-46

Social anhedonia as a predictor of the development of schizophrenia-spectrum disorders. Kwapil TR. **J Abnorm Psychol** 1998 Nov;107(4):558-65

Deeper into the schizotypy taxon: on the robust nature of maximum covariance analysis. Lenzenweger MF. **J Abnorm Psychol** 1999 Feb;108(1):182-7

Attributions and affective reactions of family members and course of schizophrenia. López SR, et al. **J Abnorm Psychol** 1999 May;108(2):307-14

Schizophrenia: all in the mind or locked in the brain? Clarke L. **J Adv Nurs** 1998 Aug;28(2):398-404 (50 ref.)

Insight in severe mental illness: implications for treatment decisions. Husted JR. **J Am Acad Psychiatry Law** 1999; 27(1):33-49 (33 ref.)

Making sense of schizophrenic symptoms; delusional statements and behavior may be functional in purpose. Schock K, et al. **J Behav Ther Exp Psychiatry** 1998 Jun; 29(2):131-41

Is the Halstead Category Test a multidimensional instrument? Allen DN, et al. **J Clin Exp Neuropsychol** 1999 Apr; 21(2):237-44

Pupillary responses evoked during verbal fluency tasks indicate semantic network dysfunction in schizophrenia. Granholm E, et al. **J Clin Exp Neuropsychol** 1998 Dec; 20(6):856-72

Clozapine and obsessions in patients with recent-onset schizophrenia and other psychotic disorders. de Haan L, et al. **J Clin Psychiatry** 1999 Jun;60(6):364-5

Clinical and neurocognitive effects of clozapine and risperidone in treatment-refractory schizophrenic patients: a prospective study [see comments] Lindenmayer JP, et al. **J Clin Psychiatry** 1998 Oct;59(10):521-7. Comment in: J Clin Psychiatry 1999 Jul;60(7):487-8.

The effects of clozapine on cognitive functioning in schizophrenia. McGurk SR. **J Clin Psychiatry** 1999;60 Suppl 12:24-9 (31 ref.)

Sexual offending and antisocial sexual behavior among patients with schizophrenia. Phillips SL, et al. **J Clin Psychiatry** 1999 Mar;60(3):170-5

Should we consider mood disturbance in schizophrenia as an important determinant of quality of life? Tollefson GD, et al. **J Clin Psychiatry** 1999;60 Suppl 5:23-9; discussion 30 (45 ref.)

Emotional expression and feeling in schizophrenia: effects of specific expressive behaviors on emotional experiences. Flack WF Jr, et al. **J Clin Psychol** 1999 Jan;55(1):1-20

Effects of carbamazepine and valproate on haloperidol plasma levels and on psychopathologic outcome in schizophrenic patients. Hesslinger B, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):310-5

Quality of life and atypical antipsychotics [letter; comment] Rudnick A. **J Clin Psychopharmacol** 1998 Oct;18(5):424-5 . Comment on: J Clin Psychopharmacol 1997 Oct;17(5):407-18.

Short-term effect of combined ECT and neuroleptic therapy in treatment-resistant schizophrenia. Chanpattana W, et al. **J ECT** 1999 Jun;15(2):129-39

Medication compliance in patients with chronic schizophrenia: implications for the community management of mentally disordered offenders. Duncan JC, et al. **J Forensic Sci** 1998 Nov;43(6):1133-7

A theory-based treatment of psychotic symptoms in schizophrenia: treatment successes and obstacles to implementation. Leibman M, et al. **J Genet Psychol** 1998 Dec;159(4):404-20

Word recognition, discrimination accuracy, and decision bias in schizophrenia: association with positive symptomatology and depressive symptomatology. Brébion G, et al. **J Nerv Ment Dis** 1998 Oct;186(10):604-9

The functional consequences of memory impairments on initial work performance in people with schizophrenia. Bryson G, et al. **J Nerv Ment Dis** 1998 Oct;186(10):610-5

Insight in schizophrenia: its relationship to measures of executive functions. Mohamed S, et al. **J Nerv Ment Dis** 1999 Sep;187(9):525-31

Relationship of psychiatric experience and interrater reliability in assessment of negative symptoms. Müller MJ, et al. **J Nerv Ment Dis** 1999 May;187(5):316-8

Social cognition and social skills in schizophrenia: the role of self-monitoring. Penn DL, et al. **J Nerv Ment Dis** 1999 Mar;187(3):188-90

A pilot trial of treatment changes according to schizophrenic patients' wishes. Priebe S, et al. **J Nerv Ment Dis** 1999 Jul;187(7):441-3

Thought disorder and psychosocial functioning in schizophrenia: the concurrent and predictive relationships. Racenstein JM, et al. **J Nerv Ment Dis** 1999 May; 187(5):281-9

The relationship between insight and suicidality among patients with schizophrenia. Schwartz RC, et al. **J Nerv Ment Dis** 1999 Jun;187(6):376-8

Relations between cognitive and symptom profile heterogeneity in schizophrenia. Seaton BE, et al. **J Nerv Ment Dis** 1999 Jul;187(7):414-9

The relative influences of symptoms, insight, and neurocognition on social adjustment in schizophrenia and schizoaffective disorder. Smith TE, et al. **J Nerv Ment Dis** 1999 Feb;187(2):102-8

Dimensions of social adjustment in schizophrenia: a factor analysis. Smith TE, et al. **J Nerv Ment Dis** 1999 Jan; 187(1):55-7

Information processing in schizophrenia and bipolar disorder: a discriminant analysis. Tam WC, et al. **J Nerv Ment Dis** 1998 Oct;186(10):597-603

Concurrent performance of motor tasks and processing capacity in patients with schizophrenia. Fuller R, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):668-71

The Rorschach Schizophrenia Index (SCZI): an examination of reliability, validity, and diagnostic efficiency. Hilsenroth MJ, et al. **J Pers Assess** 1998 Jun;70(3):514-34

The role of life events in onset and recurrent episodes of schizophrenia and schizoaffective disorder. Castine MR, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):283-8

Which characteristics of schizophrenia predate psychosis? Davies N, et al. **J Psychiatr Res** 1998 May-Aug; 32(3-4):121-31 (134 ref.)

The profiles of clinical deterioration in schizophrenia. McGlashan TH. **J Psychiatr Res** 1998 May-Aug; 32(3-4):133-41 (56 ref.)

Early developmental differences between DSM-III-R schizophrenics treated with clozapine and typical neuroleptics. Mäkikyrö T, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):105-10

Exploratory eye movement dysfunctions in patients with schizophrenia: possibility as a discriminator for schizophrenia. Matsushima E, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):289-95

Speaking behavior and speech sound characteristics in acute schizophrenia. Püschel J, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):89-97

Differentiation of cognitive and motor slowing in the Digit Symbol Test (DST): differences between depression and schizophrenia. van Hoof JJ, et al. **J Psychiatr Res** 1998 Mar-Apr;32(2):99-103

Course of psychopathology, cognition and neurobiological abnormality in schizophrenia: developmental origins and amelioration by antipsychotics? Waddington JL, et al. **J Psychiatr Res** 1998 May-Aug;32(3-4):179-89 (151 ref.)

Effects of smoking status and schizotypy on latent inhibition. Della Casa V, et al. **J Psychopharmacol** 1999;13(1):45-57

A descriptive study of insight into illness reported by persons with schizophrenia. Baier M, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Jan;37(1):14-21

Family planning knowledge, attitudes and practices in women with schizophrenic spectrum disorders. Miller LJ, et al. **J Psychosom Obstet Gynaecol** 1998 Dec;19(4):210-7

Verbal self-monitoring and auditory hallucinations in schizophrenia [letter] Johns LC, et al. **Lancet** 1999 Feb 6;353(9151):469-70

The biographical component of schizophrenia: a two-faced definition of relationship? Korn H. **Med Hypotheses** 1999 Jun;52(6):539-44 (32 ref.)

Biophysical shunt theory for neuropsychopathology: pentaphasic lipid-induced model for schizophrenia. Naisberg Y, et al. **Med Hypotheses** 1999 Mar;52(3):183-6

Suicide among psychiatric in-patients with schizophrenia in an Australian mental hospital. Shah A, et al. **Med Sci Law** 1999 Jul;39(3):251-9

Diminished facial expression despite the existence of pleasant emotional experience in schizophrenia. Iwase M, et al. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):189-94

How hallucinations make themselves heard [comment] Frith C. **Neuron** 1999 Mar;22(3):414-5. Comment on: Neuron 1999 Mar;22(3):615-21.

High velocity transient visual processing deficits diminish ability of patients with schizophrenia to recognize objects. Schwartz BD, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Jul; 12(3):170-7

Contingent negative variation and attention in schizophrenic and depressed patients. Heimberg DR, et al. **Neuropsychobiology** 1999;39(3):131-40

Association between delta waves during sleep and negative symptoms in schizophrenia. Pharmaco-eeg studies by using structurally different hypnotics. Kato M, et al. **Neuropsychobiology** 1999;39(3):165-72

Spatial and semantic inhibitory processing in schizophrenia. Fuentes LJ, et al. **Neuropsychology** 1999 Apr;13(2):259-70

Hemispheric and attentional contributions to perceptual organization deficits on the global-local task in schizophrenia. Granholm E, et al. **Neuropsychology** 1999 Apr;13(2):271-81

Neurocognitive deficit in schizophrenia: a quantitative review of the evidence. Heinrichs RW, et al. **Neuropsychology** 1998 Jul;12(3):426-45

The Stroop task and attention deficits in schizophrenia: a critical evaluation of card and single-trial Stroop methodologies. Perlstein WM, et al. **Neuropsychology** 1998 Jul;12(3):414-25

Nicotine withdrawal and psychiatric symptoms in cigarette smokers with schizophrenia. Dalack GW, et al. **Neuropsychopharmacology** 1999 Aug;21(2):195-202

Atrophic and static (neurodevelopmental) schizophrenic psychoses: premorbid functioning, symptoms and neuroleptic response. Garver DL, et al. **Neuropsychopharmacology** 1999 Jul;21(1):82-92

D-cycloserine increases positive symptoms in chronic schizophrenic patients when administered in addition to antipsychotics: a double-blind, parallel, placebo-controlled study. van Berckel BN, et al. **Neuropsychopharmacology** 1999 Aug;21(2):203-10

Processing and recognition of facial affect in schizophrenia. Federman EJ, et al. **Percept Mot Skills** 1998 Oct; 87(2):484-6

Behavioral studies of hallucinogenic drugs in animals: implications for schizophrenia research. Geyer MA. **Pharmacopsychiatry** 1998 Jul;31 Suppl 2:73-9 (47 ref.)

Cannabinoid/anandamide system and schizophrenia: is there evidence for association? Schneider U, et al. **Pharmacopsychiatry** 1998 Jul;31 Suppl 2:110-3

Psychophysical isolation of a motion-processing deficit in schizophrenics and their relatives and its association with impaired smooth pursuit. Chen Y, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4724-9

Treatment refractory schizophrenia: how should we proceed? Sharif ZA. **Psychiatr Q** 1998 Winter;69(4):263-81 (44 ref.)

Quality of life, loneliness, and social contact among long-term psychiatric patients. Borge L, et al. **Psychiatr Serv** 1999 Jan;50(1):81-4

Parenting and adjustment in schizophrenia. Caton CL, et al. **Psychiatr Serv** 1999 Feb;50(2):239-43

Factors associated with suicide attempts among patients with schizophrenia. Gupta S, et al. **Psychiatr Serv** 1998 Oct; 49(10):1353-5

Adverse effects of poor behavior management of an inpatient's difficult behaviors. Hilton NZ, et al.

Psychiatr Serv 1999 Jul;50(7):964–6

Psychopathy and violent behavior among patients with schizophrenia or schizoaffective disorder. Nolan KA, et al. **Psychiatr Serv** 1999 Jun;50(6):787–92

Aggressive behavior against self and others among first-admission patients with schizophrenia. Steinert T, et al. **Psychiatr Serv** 1999 Jan;50(1):85–90

In sickness and in health: dilemmas of the person with severe mental illness. Barham P, et al. **Psychiatry** 1998 Summer; 61(2):163–70

The constitution of community: how individuals diagnosed with schizophrenia and their friends achieved community. Beal G. **Psychiatry** 1999 Summer;62(2):173–86

The thickness of being: intentional worlds, strategies of identity, and experience among schizophrenics. Corin E. **Psychiatry** 1998 Summer;61(2):133–46

From "nonspecific factors" to disorder-specific treatments for schizophrenia: commentary on Williams and Collins. Davidson L. **Psychiatry** 1999 Spring;62(1):79–82

Expressed emotion and differentiation of self in the relatives of stable schizophrenia outpatients. Docherty NM, et al. **Psychiatry** 1998 Winter;61(4):269–78

Private and public in the lives of chronic schizophrenic patients. Leferink K. **Psychiatry** 1998 Summer;61(2):147–62 (60 ref.)

Personality and psychopathology in schizophrenia: the association between personality traits and symptoms. Lysaker PH, et al. **Psychiatry** 1999 Spring;62(1):36–48

Narratives of twenty to thirty year outcomes in schizophrenia. Seeman MV. **Psychiatry** 1998 Fall; 61(3):249–61

Defining new frameworks for psychosocial intervention. Williams CC, et al. **Psychiatry** 1999 Spring;62(1):61–78

Criminal and violent behavior in schizophrenic patients: an overview. Modestin J. **Psychiatry Clin Neurosci** 1998 Dec; 52(6):547–54 (35 ref.)

Evaluation of Mini Mental State Examination and Brief Psychiatric Rating Scale on aged schizophrenic patients. Seno H, et al. **Psychiatry Clin Neurosci** 1998 Dec; 52(6):567–70

Predicting quality of life from symptomatology in schizophrenia at exacerbation and stabilization. Bow-Thomas CC, et al. **Psychiatry Res** 1999 May 31; 86(2):131–42

Preattentive visual search and perceptual grouping in schizophrenia. Carr VJ, et al. **Psychiatry Res** 1998 Jun 15; 79(2):151–62

Illusory conjunctions and perceptual grouping in a visual search task in schizophrenia. Carr VJ, et al. **Psychiatry Res** 1998 Jul 27;80(1):69–81

Immediate versus delayed visual memory task performance among schizophrenic patients and normal control subjects. Dougherty DM, et al. **Psychiatry Res** 1998 Jul 13; 79(3):255–65

Childhood parental loss and schizophrenia: evidence against pathogenic but for some pathoplastic effects. Furukawa T, et al. **Psychiatry Res** 1998 Dec 14;81(3):353–62

Auditory and visual working memory performance in patients with frontal lobe damage and in schizophrenic patients with low scores on the Wisconsin Card Sorting Test. Grön G. **Psychiatry Res** 1998 Jul 27;80(1):83–96

Working memory in childhood-onset schizophrenia and attention-deficit/hyperactivity disorder. Karatekin C, et al. **Psychiatry Res** 1998 Aug 17;80(2):165–76

Neuropsychological risk indicators for schizophrenia: a preliminary study of female relatives of schizophrenic and bipolar probands. Kremen WS, et al. **Psychiatry Res** 1998 Jul 13;79(3):227–40

Personality and psychosocial dysfunction in schizophrenia: the association of extraversion and neuroticism to deficits in work performance. Lysaker PH, et al. **Psychiatry Res** 1998 Jul 27;80(1):61–8

Relationship of gender and menstrual status to symptoms and medication side effects in patients with schizophrenia. Magharious W, et al. **Psychiatry Res** 1998 Feb 27; 77(3):159–66

Executive-frontal lobe cognitive dysfunction in schizophrenia: a symptom subtype analysis. Mahurin RK, et al. **Psychiatry Res** 1998 Jun 15;79(2):139–49

Positive and negative symptoms and regional cerebral perfusion in antipsychotic-naive schizophrenic patients: a high-resolution SPECT study. Min SK, et al. **Psychiatry Res** 1999 Jun 30;90(3):159–68

Effects of clozapine on awareness of illness and cognition in schizophrenia. Pallanti S, et al. **Psychiatry Res** 1999 Jun 30;86(3):239–49

Low resolution brain electromagnetic tomography (LORETA) functional imaging in acute, neuroleptic-naive, first-episode, productive schizophrenia. Pascual-Marqui RD, et al. **Psychiatry Res** 1999 Jun 30;90(3):169–79

Correlates of functional status in older patients with schizophrenia. Patterson TL, et al. **Psychiatry Res** 1998 Jul 27;80(1):41–52

Dissociation of affect recognition and mood state from blunting in patients with schizophrenia. Sweet LH, et al. **Psychiatry Res** 1998 Dec 14;81(3):301–8

CSF levels of HVA and 5-HIAA in drug-free schizophrenic patients and healthy controls: a prospective study focused on their predictive value for outcome in schizophrenia. Wieselgren IM, et al. **Psychiatry Res** 1998 Nov 16; 81(2):101–10

Impaired generation and use of strategy in schizophrenia: evidence from visuospatial and verbal tasks. Iddon JL, et al. **Psychol Med** 1998 Sep;28(5):1049–62

Saccadic and attentional abnormalities in patients with schizophrenia. Maruff P, et al. **Psychol Med** 1998 Sep; 28(5):1091–100

Aspects of dysphoria and symptoms of schizophrenia. Norman RM, et al. **Psychol Med** 1998 Nov;28(6):1433–41

Psychopathological dimensions and lack of insight in schizophrenia. Cuesta MJ, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):895–8

Personality and defenses: a cross-cultural study of psychiatric patients and healthy individuals in Nicaragua and Sweden. Sundbom E, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1331–47

Coping strategies for people who care for a relative with chronic mental illness. Winefield HR. **Psychol Rep** 1998 Oct;83(2):453–4

A case of auto-erotic asphyxia in a long-term psychiatric setting. Quinn J, et al. **Psychopathology** 1998;31(4):169–73

Relations between neuropsychological vulnerability markers and negative symptoms in schizophrenia. Suslow T, et al. **Psychopathology** 1998;31(4):178–87

Effects of response requirement and the availability of an alternative reinforcer on cigarette smoking by schizophrenics. Tidey JW, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):52–60

Identifying psychophysiological risk for psychopathology: examples from substance abuse and schizophrenia research. Iacono WG. **Psychophysiology** 1998 Nov;35(6):621–37 (145 ref.)

Schizophrenic patients show facial reactions to emotional facial expressions. Kring AM, et al. **Psychophysiology** 1999 Mar;36(2):186–92

Event-related potential correlates of proactive interference in schizophrenic patients and controls. Rössner P, et al. **Psychophysiology** 1999 Mar;36(2):199–208

Neurocognitive and social functioning in schizophrenia. Addington J, et al. **Schizophr Bull** 1999;25(1):173–82

Anhedonia, positive and negative affect, and social functioning in schizophrenia. Blanchard JJ, et al. **Schizophr Bull** 1998;24(3):413–24

Cognitive asymmetry patterns in schizophrenia: active and withdrawn syndromes and sex differences as moderators. Gruzelier JH, et al. **Schizophr Bull** 1999;25(2):349–62

The effects of atypical antipsychotic drugs on neurocognitive impairment in schizophrenia: a review and meta-analysis. Keefe RS, et al. **Schizophr Bull** 1999;25(2):201–22

Expressed emotion and relapse in young schizophrenia outpatients. King S, et al. **Schizophr Bull** 1999;25(2):377–86

First person account: my voyage through turbulence. Malloy R. **Schizophr Bull** 1998;24(3):495–7

Facial expressions of emotions and schizophrenia: a review. Mandal MK, et al. **Schizophr Bull** 1998;24(3):399–412 (92 ref.)

First person account: talking through medication issues: one family's experience. Mann SB. **Schizophr Bull** 1999; 25(2):407–9

Postmortem studies in schizophrenia. Powchik P, et al. **Schizophr Bull** 1998;24(3):325–41

Employment, attitudes toward work, and quality of life among people with schizophrenia in three countries. Priebe S, et al. **Schizophr Bull** 1998;24(3):469–77

A review of longitudinal studies of cognitive functions in schizophrenia patients. Rund BR. **Schizophr Bull** 1998; 24(3):425–35 (65 ref.)

Symptomatic overlap of cocaine intoxication and acute schizophrenia at emergency presentation. Serper MR, et al. **Schizophr Bull** 1999;25(2):387–94

The quality of life of people with schizophrenia in Boulder, Colorado, and Bologna, Italy. Warner R, et al. **Schizophr Bull** 1998;24(4):559–68

Suicidal ideation and suicide attempts in recent-onset schizophrenia. Young AS, et al. **Schizophr Bull** 1998; 24(4):629–34

Facial affect recognition and information processing in schizophrenia and bipolar disorder. Addington J, et al. **Schizophr Res** 1998 Aug 17;32(3):171–81

Visual attention and symptoms in schizophrenia: a 1-year follow-up. Addington J, et al. **Schizophr Res** 1998 Nov 9;34(1–2):95–9

Relationship between cognitive and social dysfunction in schizophrenia. Addington J, et al. **Schizophr Res** 1998 Nov 9;34(1–2):59–66

Neuropsychological correlates of negative, disorganized and psychotic symptoms in schizophrenia. Basso MR, et al. **Schizophr Res** 1998 May 25;31(2–3):99–111

Validity study of the Brazilian version of the Calgary Depression Scale for Schizophrenia. Bressan RA, et al. **Schizophr Res** 1998 Jun 22;32(1):41–9

Internal consistency, temporal stability and neuropsychological correlates of three cognitive components of the Positive and Negative Syndrome Scale (PANSS). Bryson G, et al. **Schizophr Res** 1999 Jul 27; 38(1):27–35

Differences in distribution of ages of onset in males and females with schizophrenia. Castle D, et al. **Schizophr Res** 1998 Oct 9;33(3):179–83

The construct validity of empowerment among consumers of mental health services. Corrigan PW, et al. **Schizophr Res** 1999 Jul 27;38(1):77–84

Attenuated frontal activation in schizophrenia may be task dependent. Curtis VA, et al. **Schizophr Res** 1999 May 4; 37(1):35–44

Social functioning and neurocognitive deficits in outpatients with schizophrenia: a 2-year follow-up. Dickerson F, et al. **Schizophr Res** 1999 May 4;37(1):13–20

Antisaccade task performance in questionnaire-identified schizotypes. Gooding DC. **Schizophr Res** 1999 Jan 11; 35(2):157–66

Meta-analysis of symptom factors in schizophrenia. Grube BS, et al. **Schizophr Res** 1998 May 25;31(2–3):113–20

Monetary reinforcement and Wisconsin Card Sorting performance in schizophrenia: why show me the money? Hellman SG, et al. **Schizophr Res** 1998 Nov 9;34(1–2):67–75

Social cue perception in Japanese schizophrenic patients. Ito M, et al. **Schizophr Res** 1998 Nov 9;34(1–2):113–9

Schizophrenic delusions: the detection of warning signals. Jørgensen P. **Schizophr Res** 1998 Jun 22;32(1):17–22

Risperidone versus haloperidol for perception of emotion in treatment-resistant schizophrenia: preliminary findings. Kee KS, et al. **Schizophr Res** 1998 May 25;31(2–3):159–65

Dynamical aspects of motor and perceptual processes in schizophrenic patients and healthy controls. Keil A, et al. **Schizophr Res** 1998 Oct 9;33(3):169–78

Increased serum neopterin levels in acutely ill and recovered schizophrenic patients. Korte S, et al. **Schizophr Res** 1998 Jun 22;32(1):63–7

Avoidance learning in schizophrenia: a dissociation between the effects of aversive and non-aversive stimuli. Kosmidis MH, et al. **Schizophr Res** 1999 Jul 27;38(1):51–9

Sex differences in self-reported schizotypal traits in relatives of schizophrenic probands. Kremen WS, et al. **Schizophr Res** 1998 Nov 9;34(1–2):27–37

The sensitivity of the Spontaneous Selective Attention Test (SSAT): a study of schizophrenic inpatients and outpatients versus normal controls. Myles-Worsley M, et al. **Schizophr Res** 1998 May 25;31(2–3):131–9

Application of cognitive scales to medical records of schizophrenia inpatients. Ortakov V, et al. **Schizophr Res** 1999 Jan 11;35(2):131–40

Increased repetition blindness in schizophrenia patients and first-degree relatives of schizophrenia patients. Park S, et al. **Schizophr Res** 1998 Jun 22;32(1):59–62

Dimensional structure of psychotic symptoms: an item-level analysis of SAPS and SANS symptoms in psychotic disorders. Peralta V, et al. **Schizophr Res** 1999 Jul 27; 38(1):13–26

Emotional response as a function of symptoms in schizophrenia. Quirk SW, et al. **Schizophr Res** 1998 Jun 22;32(1):31–9

Problem-solving and spatial working memory in patients with schizophrenia and with focal frontal and temporal lobe lesions. Rushe TM, et al. **Schizophr Res** 1999 May 4;37(1):21–33

Attentional improvement following quetiapine fumarate treatment in schizophrenia. Sax KW, et al. **Schizophr Res** 1998 Oct 9;33(3):151–5

The effects of increasing resource demand on vigilance performance in adults with schizophrenia or developmental attentional/learning disorders: a preliminary study. Seidman LJ, et al. **Schizophr Res** 1998 Nov 9; 34(1–2):101–12

Hallucinations in the acute schizophrenic-type psychosis: effects of gender and age of illness onset. Sharma RP, et al. **Schizophr Res** 1999 May 4;37(1):91–5

Neuropsychological, neurological and symptom correlates of impaired olfactory identification in schizophrenia. Stedman TJ, et al. **Schizophr Res** 1998 Jun 22;32(1):23–30

Schizophrenic patients use context-independent reasoning more often than context-dependent reasoning as measured by the cognitive bias task (CBT): a controlled study. Stratta P, et al. **Schizophr Res** 1999 May 4;37(1):45–51

Association of neuropsychological vulnerability markers in relatives of schizophrenic patients. Toomey R, et al. **Schizophr Res** 1998 May 25;31(2–3):89–98

What are we changing with neurocognitive rehabilitation? Illustrations from two single cases of changes in neuropsychological performance and brain systems as measured by SPECT. Wykes T. **Schizophr Res** 1998 Nov 9;34(1–2):77–86

The meaning and management of neuroleptic medication: a study of patients with a diagnosis of schizophrenia. Rogers A, et al. **Soc Sci Med** 1998 Nov;47(9):1313–23

[The study of family structure, illness symptom, and stress adaptation of psychotic patients] Shiau S, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Jun; 15(6):359–71 (Eng. Abstr.) **(Chi)**

[Transmitter dysfunction in patients with schizophrenia. Significance for cognitive functioning and treatment] Glenthøj BY, et al. **Ugeskr Laeger** 1999 Mar 8; 161(10):1391–8 (40 ref.) (Eng. Abstr.) **(Dan)**

[Subjective perception of the effect of neuroleptics by outpatient schizophrenic patients: a cross-sectional study] Bonsack C, et al. **Encephale** 1998 Jul–Aug;24(4):315–23 (Eng. Abstr.) **(Fre)**

[What is the meaning of "stabilization" in schizophrenic patients?] Chabannes JP, et al. **Encephale** 1998 Jul–Aug; 24(4):331–6 (Eng. Abstr.) **(Fre)**

[Evaluation of efficacy and tolerance of amisulpride in treatment of schizophrenic psychoses] Chabannes JP, et al. **Encephale** 1998 Jul–Aug;24(4):386–92 (Eng. Abstr.) **(Fre)**

[Vulnerability to schizophrenia. I: Familial nature of of neuropsychologic indicators] d'Amato T, et al. **Encephale** 1998 Sep–Oct;24(5):442–8 (Eng. Abstr.) **(Fre)**

[Depressive symptoms in schizophrenia] Gerard A. **Encephale** 1998 Jul;24 Spec No 1:24–6 **(Fre)**
[Contribution of systemic therapy in schizophrenia] Miermont J. **Encephale** 1998 Jul;24 Spec No 1:27–30 **(Fre)**
[Depression scales in schizophrenia: a critical review] Reine G, et al. **Encephale** 1998 Nov-Dec;24(6):530–40 (Eng. Abstr.) **(Fre)**
[Effect of neuroleptics on depressive symptoms] Tabeze JP. **Encephale** 1998 Jul;24 Spec No 1:38–41 **(Fre)**
[Suicidal risk in confirmed psychotic states] Verdoux H. **Encephale** 1998 Jul;24 Spec No 1:8–11 **(Fre)**
[Perception and insight of illness in schizophrenic patients] Böker W. **Fortschr Neurol Psychiatr** 1999 Jun;67(6):237–48 (91 ref.) (Eng. Abstr.) **(Ger)**
[German version of the Snaith–Hamilton–Pleasure Scale (SHAPS–D). Anhedonia in schizophrenic and depressive patients] Franz M, et al. **Fortschr Neurol Psychiatr** 1998 Sep;66(9):407–13 (Eng. Abstr.) **(Ger)**
[Psychopathologic symptoms and cognitive test performance in schizophrenic patients] Höschel K, et al. **Fortschr Neurol Psychiatr** 1998 Nov;66(11):512–9 (Eng. Abstr.) **(Ger)**
[Dissociation and schizophrenia. Schizophrenias––a dissociative nosopoietic construct?] Scharfetter C. **Fortschr Neurol Psychiatr** 1998 Nov;66(11):520–3 (21 ref.) (Eng. Abstr.) **(Ger)**
[Schizophrenia and violence: epidemiological, forensic and clinical aspects] Steinert T. **Fortschr Neurol Psychiatr** 1998 Sep;66(9):391–401 (124 ref.) (Eng. Abstr.) **(Ger)**
[Long–term treatment of chronic schizophrenia (see comments)] Albers M. **Nervenarzt** 1998 Sep;69(9):737–51 (142 ref.) (Eng. Abstr.). Comment in: Nervenarzt 1999 Mar;70(3):291–2. **(Ger)**
[Dimensions of schizophrenic symptomatology. Comparative testing of several theoretical models in a first–episode population sample] Löffler W, et al. **Nervenarzt** 1999 May; 70(5):416–29 (Eng. Abstr.) **(Ger)**
[Psychotic women and their children] Bauer M, et al. **Psychiatr Prax** 1998 Jul;25(4):191–5 (Eng. Abstr.) **(Ger)**
["Rather overweight and mentally present...". Patients evaluate clozapine] Boitz K, et al. **Psychiatr Prax** 1999 Jul; 26(4):188–93 (Eng. Abstr.) **(Ger)**
[Therapeutic problems of positively experienced hallucinations] Fischer RB. **Psychiatr Prax** 1999 Jul; 26(4):208 **(Ger)**
[Subjective quality of life of schizophrenic patients. Effect of treatment setting, psychopathology and extrapyramidal motor drug effects] Kemmler G, et al. **Psychiatr Prax** 1999 Jan;26(1):9–15 (Eng. Abstr.) **(Ger)**
[Family nursing and occupational therapy in Charles Dickens' "David Copperfield"] Reker T. **Psychiatr Prax** 1998 Sep;25(5):260–1 **(Ger)**
[Internalized object relations in schizophrenics] Leichsenring F. **Psychother Psychosom Med Psychol** 1999 Jul;49(7):241–8 (Eng. Abstr.) **(Ger)**
[Problems in evaluating new antipsychotic drugs] Fleischhacker WW. **Wien Med Wochenschr** 1998; 148(11–12):266–72 (71 ref.) (Eng. Abstr.) **(Ger)**
[Rehabilitation in schizophrenia––guidelines for including psychosocial measures] Katschnig H. **Wien Med Wochenschr** 1998;148(11–12):273–80 (41 ref.) (Eng. Abstr.) **(Ger)**
[The course of schizophrenic illnesses] Riecher–Rössler A, et al. **Wien Med Wochenschr** 1998;148(11–12):259–65 (36 ref.) (Eng. Abstr.) **(Ger)**
[Schizophrenia––an illness and its treatment reflected in public attitude] Schöny W. **Wien Med Wochenschr** 1998; 148(11–12):284–8 (18 ref.) (Eng. Abstr.) **(Ger)**
[Depressive symptoms and biogenic amines as predictors of treatment response in schizophrenic illnesses in childhood and adolescence] Fleischhaker C, et al. **Z Kinder Jugendpsychiatr Psychother** 1998 Dec; 26(4):235–43 (Eng. Abstr.) **(Ger)**
[Effects of demeclocycline on psychiatric polydipsia in schizophrenic patients] Sanga M, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1999 Feb; 19(1):21–6 (Eng. Abstr.) **(Jpn)**
[Psychopathological study on schizophrenic autism through the paintings of a case of simple schizophrenia] Inoue Y, et al. **Seishin Shinkeigaku Zasshi** 1998;100(6):398–411 (Eng. Abstr.) **(Jpn)**
[A psychopathological study of aggression in schizophrenic patients] Tsuji K, et al. **Seishin Shinkeigaku Zasshi** 1999; 101(4):327–49 (Eng. Abstr.) **(Jpn)**
[Mental processes in schizophrenia (based on data from neuropsychological studies)] Verbenko VA. **Lik Sprava** 1998 Jul–Aug;(5):126–9 (Eng. Abstr.) **(Rus)**
[Types of impulse control disorders in children and adolescents] Luss LA. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):14–7 (Eng. Abstr.) **(Rus)**
[Neuropsychological alteration in schizophrenia and its modification] Penadés R, et al. **Actas Esp Psiquiatr** 1999 May–Jun;27(3):198–208 (101 ref.) (Eng. Abstr.) **(Spa)**

SCHIZOPHRENIFORM DISORDERS see **PSYCHOTIC DISORDERS**

SCHIZOPHYLLAN see **SIZOFIRAN**

SCHIZOPHYLLUM

ENZYMOLOGY

Characterization of trehalose phosphorylase from Schizophyllum commune. Eis C, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):385–93
Cloning and expression of a cDNA encoding the laccase from Schizophyllum commune. Hatamoto O, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):58–64
The stereochemical course of the reaction mechanism of trehalose phosphorylase from Schizophyllum commune. Eis C, et al. **FEBS Lett** 1998 Dec 4;440(3):440–3

GENETICS

Cloning and expression of a cDNA encoding the laccase from Schizophyllum commune. Hatamoto O, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):58–64
Identification and characterization of brt1, a gene down–regulated during B–regulated development in Schizophyllum commune. Lengeler KB, et al. **Curr Genet** 1999 Jun;35(5):551–6
Regulation of dikaryon–expressed genes by FRT1 in the basidiomycete Schizophyllum commune. Horton JS, et al. **Fungal Genet Biol** 1999 Feb;26(1):33–47
Introns are necessary for mRNA accumulation in Schizophyllum commune. Lugones LG, et al. **Mol Microbiol** 1999 May;32(4):681–9

GROWTH & DEVELOPMENT

How a fungus escapes the water to grow into the air. Wösten HA, et al. **Curr Biol** 1999 Jan 28;9(2):85–8

ISOLATION & PURIFICATION

Maxillary sinusitis caused by medusoid form of Schizophyllum commune. Sigler L, et al. **J Clin Microbiol** 1999 Oct;37(10):3395–8

METABOLISM

Ligand recognition in multiallelic pheromone receptors from the basidiomycete Schizophyllum commune studied in yeast. Hegner J, et al. **Fungal Genet Biol** 1999 Apr; 26(3):190–7

PHYSIOLOGY

Multiple sex pheromones and receptors of a mushroom–producing fungus elicit mating in yeast. Fowler TJ, et al. **Mol Biol Cell** 1999 Aug;10(8):2559–72

SCHIZOPYRENIDA

CLASSIFICATION

[Parasitic amoebae and amoebo–flagellates from the Lobosea and heterolobosea classes] Sopinina VA. **Parazitologiia** 1998 Jul–Aug;32(4):332–46 (Eng. Abstr.) **(Rus)**

SCHIZOSACCHAROMYCES

CHEMISTRY

Crystallographic characterization of Pap1–DNA complex. Fujii Y, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):1014–6
Subcellular localization and possible function of actin, tropomyosin and actin–related protein 3 (Arp3) in the fission yeast Schizosaccharomyces pombe. Arai R, et al. **Eur J Cell Biol** 1998 Aug;76(4):288–95
Tpr1, a Schizosaccharomyces pombe protein involved in potassium transport. Lichtenberg H, et al. **FEBS Lett** 1999 Sep 3;457(3):363–8
All pyruvylated galactose in Schizosaccharomyces pombe N–glycans is present in the terminal disaccharide, 4, 6–O–[(R)–(1–carboxyethylidine)]–Galbeta1,3Galalpha1–. Gemmill TR, et al. **Glycobiology** 1998 Nov;8(11):1087–95
Preparation of the fission yeast Schizosaccharomyces pombe for ultrastructural and immunocytochemical study. Hajibagheri MA, et al. **Methods Mol Biol** 1999;117:183–207 (43 ref.)
The crystal structure of rna1p: a new fold for a GTPase–activating protein. Hillig RC, et al. **Mol Cell** 1999 Jun;3(6):781–91
The C–terminal region of Schizosaccaromyces pombe proliferating cell nuclear antigen is essential for DNA polymerase activity. Kelman Z, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9515–20

CYTOLOGY

Deletion of the sep1(+) forkhead transcription factor homologue is not lethal but causes hyphal growth in Schizosaccharomyces pombe. Ribár B, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):465–74
Felix Hoppe–Seyler Lecture 1999. Cyclin dependent kinases and regulation of the fission yeast cell cycle. Nurse P. **Biol Chem** 1999 Jul–Aug;380(7–8):729–33
Real–time monitoring of yeast cell division by dielectric spectroscopy. Asami K, et al. **Biophys J** 1999 Jun; 76(6):3345–8
Ruptured fission yeast walls. Structural discontinuities related to the cell cycle. Piombo S, et al. **Cell Biochem Biophys** 1998;29(3):263–79
Byr4 and Cdc16 form a two–component GTPase–activating protein for the Spg1 GTPase that controls septation in fission yeast. Furge KA, et al. **Curr Biol** 1998 Aug 27; 8(17):947–54
Mutations in fission yeast Cut15, an importin alpha homolog, lead to mitotic progression without chromosome condensation. Matsusaka T, et al. **Curr Biol** 1998 Sep 10; 8(18):1031–4
Conjugation in S. pombe: identification of a microtubule–organising centre, a requirement for microtubules and a role for Mad2. Petersen J, et al. **Curr Biol** 1998 Aug 27;8(17):963–6
Cdc18 transcription and proteolysis couple S phase to passage through mitosis. Baum B, et al. **EMBO J** 1998 Oct 1; 17(19):5689–98
The role of the destruction box and its neighbouring lysine residues in cyclin B for anaphase ubiquitin–dependent proteolysis in fission yeast: defining the D–box receptor. Yamano H, et al. **EMBO J** 1998 Oct 1;17(19):5670–8
Fission yeast alpha–glucan synthase Mok1 requires the actin cytoskeleton to localize the sites of growth and plays an essential role in cell morphogenesis downstream of protein kinase C function. Katayama S, et al. **J Cell Biol** 1999 Mar 22;144(6):1173–86
Sid2p, a spindle pole body kinase that regulates the onset of cytokinesis. Sparks CA, et al. **J Cell Biol** 1999 Aug 23; 146(4):777–90
Asymmetry of the spindle pole bodies and spg1p GAP segregation during mitosis in fission yeast. Cerutti L, et al. **J Cell Sci** 1999 Jul;112 (Pt 14):2313–21
Cdc18p can block mitosis by two independent mechanisms. Greenwood E, et al. **J Cell Sci** 1998 Oct;111 (Pt 20):3101–8
The fission yeast microtubule cytoskeleton. Hagan IM. **J Cell Sci** 1998 Jun;111 (Pt 12):1603–12 (92 ref.)
Caffeine can override the S–M checkpoint in fission yeast. Wang SW, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):927–37
GFP fusion proteins as probes for cytology in fission yeast. Sawin KE. **Methods Cell Biol** 1999;58:123–38 (35 ref.)
The cdr2(+) gene encodes a regulator of G2/M progression and cytokinesis in Schizosaccharomyces pombe. Breeding CS, et al. **Mol Biol Cell** 1998 Dec;9(12):3399–415
Cdc25 inhibited in vivo and in vitro by checkpoint kinases Cds1 and Chk1. Furnari B, et al. **Mol Biol Cell** 1999 Apr; 10(4):833–45
The protein kinase Cdr2, related to Nim1/Cdr1 mitotic inducer, regulates the onset of mitosis in fission yeast. Kanoh J, et al. **Mol Biol Cell** 1998 Dec;9(12):3321–34
cut11(+): A gene required for cell cycle–dependent spindle pole body anchoring in the nuclear envelope and bipolar spindle formation in Schizosaccharomyces pombe. West RR, et al. **Mol Biol Cell** 1998 Oct;9(10):2839–55
Cdc2 phosphorylation of Crb2 is required for reestablishing cell cycle progression after the damage checkpoint. Esashi F, et al. **Mol Cell** 1999 Aug;4(2):167–74
Analysis of the cps1 gene provides evidence for a septation checkpoint in Schizosaccharomyces pombe. Le Goff X, et al. **Mol Gen Genet** 1999 Aug;262(1):163–72
The function of the chicken p34CDC2 protein kinase in fission yeast is cold sensitive for cell cycle progression through the G1 phase and temperature sensitive for traversal of mitosis. Schmitz N. **Mol Gen Genet** 1999 Jun; 261(4–5):716–24
Control of meiotic recombination in Schizosaccharomyces pombe. Fox ME, et al. **Prog Nucleic Acid Res Mol Biol** 1998;61:345–78 (132 ref.)

DRUG EFFECTS

Deleterious effects of androstenedione on growth and cell morphology of Schizosaccharomyces pombe. Długoński J, et al. **Antonie Van Leeuwenhoek** 1998 Feb;73(2):189–94
The role of catalase in hydrogen peroxide resistance in fission yeast Schizosaccharomyces pombe. Mutoh N, et al. **Can J Microbiol** 1999 Feb;45(2):125–9
The myosin ATPase inhibitor 2,3–butanedione–2–monoxime (BDM) inhibits tip growth and cytokinesis in the fission yeast, Schizosaccharomyces pombe. May KM, et al. **Cell Motil Cytoskeleton** 1998;41(2):117–25
Effects of the myosin inhibitor 2,3–butanedione monoxime on the physiology of fission yeast. Steinberg G, et al. **Eur J Cell Biol** 1998 Dec;77(4):284–93
Methionine induces sexual development in the fission yeast Schizosaccharomyces pombe via an ste11–dependent signalling pathway. Schweingruber AM, et al. **J Bacteriol** 1998 Dec;180(23):6338–41
Caffeine can override the S–M checkpoint in fission yeast. Wang SW, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):927–37
Cytochalasin D interferes with contractile actin ring and septum formation in Schizosaccharomyces japonicus var. versatilis. Gabriel M, et al. **Microbiology** 1998 Aug;144 (Pt 8):2331–44
Mutations in the Schizosaccharomyces pombe heat shock factor that differentially affect responses to heat and cadmium stress. Saltsman KA, et al. **Mol Gen Genet** 1999 Feb;261(1):161–9
The topoisomerase I poison camptothecin generates a Chk1–dependent DNA damage checkpoint signal in fission yeast. Wan S, et al. **Yeast** 1999 Jul;15(10A):821–8

ENZYMOLOGY

Cloning and overexpression in Escherichia coli of the gene

encoding dihydroxyacetone kinase isoenzyme 1 from Schizosaccharomyces pombe, and its application to dihydroxyacetone phosphate production. Itoh N, et al. **Appl Microbiol Biotechnol** 1999 Feb;51(2):193–200

A mutation Ser213/Asn in the hexokinase 1 from Schizosaccharomyces pombe increases its affinity for glucose. Petit T, et al. **Biochem Biophys Res Commun** 1998 Oct 29;251(3):714–9

Purification and kinetic characterization of 6-phosphogluconate dehydrogenase from Schizosaccharomyces pombe. Tsai CS, et al. **Biochem Cell Biol** 1998;76(4):637–44

Mutant DNA polymerase delta from thermosensitive Schizosaccharomyces pombe strains display reduced stimulation by proliferating cell nuclear antigen. Perderiset M, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):581–8

Stress-activated MAP kinase (mitogen-activated protein kinase) pathways of budding and fission yeasts. Millar JB. **Biochem Soc Symp** 1999;64:49–62 (53 ref.)

Schizosaccharomyces pombe Aps1, a diadenosine 5',5''-P1, P6-hexaphosphate hydrolase that is a member of the nudix (MutT) family of hydrolases: cloning of the gene and characterization of the purified enzyme. Ingram SW, et al. **Biochemistry** 1999 Mar 23;38(12):3649–55

Cloning and characterization of two genes encoding dihydroxyacetone kinase from Schizosaccharomyces pombe IFO 0354. Kimura T, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):361–8

Cdc2 activation in fission yeast depends on Mcs6 and Csk1, two partially redundant Cdk-activating kinases (CAKs). Lee KM, et al. **Curr Biol** 1999 Apr 22;9(8):441–4

A new large proteolytic complex distinct from the proteasome is present in the cytosol of fission yeast. Osmulski PA, et al. **Curr Biol** 1998 Sep 10;8(18):1023–6

Cdm1, the smallest subunit of DNA polymerase d in the fission yeast Schizosaccharomyces pombe, is non-essential for growth and division. Reynolds N, et al. **Curr Genet** 1998 Oct;34(4):250–8

Fission yeast Csk1 is a CAK-activating kinase (CAKAK). Hermand D, et al. **EMBO J** 1998 Dec 15;17(24):7230–8

Localization of the 26S proteasome during mitosis and meiosis in fission yeast. Wilkinson CR, et al. **EMBO J** 1998 Nov 16;17(22):6465–76

The Schizosaccharomyces pombe Pzh1 protein phosphatase regulates Na+ ion influx in a Trk1-independent fashion. Balcells L, et al. **Eur J Biochem** 1999 Feb;260(1):31–7

Differences in in vivo acceptor specificity of two galactosyltransferases, the gmh3+ and gma12+ gene products from Schizosaccharomyces pombe. Yoko-o T, et al. **Eur J Biochem** 1998 Nov 1;257(3):630–7

Candida albicans exoglucanase as a reporter gene in Schizosaccharomyces pombe. Molero G, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):143–8

Identification of the catalase gene promoter region involved in superinduction in Schizosaccharomyces pombe caused by cycloheximide and hydrogen peroxide. Nakagawa CW, et al. **FEMS Microbiol Lett** 1999 Apr 15;173(2):373–8

Mutation of Gly-444 inactivates the S. pombe malic enzyme. Viljoen M, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):157–62

Stability and refractoriness of the high catalase activity in the oxidative-stress-resistant fission yeast Schizosaccharomyces pombe. Sigler K, et al. **Folia Microbiol (Praha)** 1998;43(4):369–72

Inactivation of the plasma membrane ATPase of Schizosaccharomyces pombe by hydrogen peroxide and by the Fenton reagent (Fe2+/H2O2): nonradical vs. radical-induced oxidation. Sigler K, et al. **Folia Microbiol (Praha)** 1998;43(4):361–7

Enhancement of neutral trehalase activity by oxidative stress in the fission yeast Schizosaccharomyces pombe. Fernández J, et al. **Fungal Genet Biol** 1998 Nov;25(2):79–86

A new inducible protein expression system in fission yeast based on the glucose-repressed inv1 promoter. Iacovoni JS, et al. **Gene** 1999 May 17;232(1):53–8

Identification of the gene and the protein of RNA polymerase II subunit 9 (Rpb9) from the fission yeast Schizosacharomyces pombe. Sakurai H, et al. **Gene** 1998 Oct 9;221(1):11–6

ATP synthase of yeast mitochondria. Isolation of subunit j and disruption of the ATP18 gene. Arnold I, et al. **J Biol Chem** 1999 Jan 1;274(1):36–40

The CDK-activating kinase (Cak1p) from budding yeast has an unusual ATP-binding pocket. Enke DA, et al. **J Biol Chem** 1999 Jan 22;274(4):1949–56

Purification, molecular cloning, and catalytic activity of Schizosaccharomyces pombe pyridoxal reductase. A possible additional family in the aldo-keto reductase superfamily. Nakano M, et al. **J Biol Chem** 1999 Aug 13; 274(33):23185–90

The diadenosine hexaphosphate hydrolases from Schizosaccharomyces pombe and Saccharomyces cerevisiae are homologues of the human diphosphoinositol polyphosphate phosphohydrolase. Overlapping substrate specificities in a MutT-type protein. Safrany ST, et al. **J Biol Chem** 1999 Jul 30;274(31):21735–40

Characterization of human, Schizosaccharomyces pombe, and Candida albicans mRNA cap methyltransferases and complete replacement of the yeast capping apparatus by mammalian enzymes. Saha N, et al. **J Biol Chem** 1999 Jun 4;274(23):16553–62

Regulation of phosphatidylinositol 4-phosphate 5-kinase from Schizosaccharomyces pombe by casein kinase I. Vancurova I, et al. **J Biol Chem** 1999 Jan 8;274(2):1147–55

Substrate specificity of the SpCCE1 holliday junction resolvase of Schizosaccharomyces pombe. Whitby MC, et al. **J Biol Chem** 1998 Dec 25;273(52):35063–73

Functional organization of two large subunits of the fission yeast Schizosaccharomyces pombe RNA polymerase II. Location of the catalytic sites. Wlassoff WA, et al. **J Biol Chem** 1999 Feb 19;274(8):5104–13

imp2, a new component of the actin ring in the fission yeast Schizosaccharomyces pombe. Demeter J, et al. **J Cell Biol** 1998 Oct 19;143(2):415–27

Sid2p, a spindle pole body kinase that regulates the onset of cytokinesis. Sparks CA, et al. **J Cell Biol** 1999 Aug 23; 146(4):777–90

Evidence for a novel MAPKKK-independent pathway controlling the stress activated Sty1/Spc1 MAP kinase in fission yeast. Shieh JC, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2799–807

Polyanionic inhibitors of phosphoglycerate mutase: combined structural and biochemical analysis. Rigden DJ, et al. **J Mol Biol** 1999 Jun 18;289(4):691–9

The role of topoisomerase II in meiotic chromosome condensation and segregation in Schizosaccharomyces pombe. Hartsuiker E, et al. **Mol Biol Cell** 1998 Oct; 9(10):2739–50

A Uve1p-mediated mismatch repair pathway in Schizosaccharomyces pombe. Kaur B, et al. **Mol Cell Biol** 1999 Jul;19(7):4703–10

Genetic evidence for Pak1 autoinhibition and its release by Cdc42. Tu H, et al. **Mol Cell Biol** 1999 Jan;19(1):602–11

Thioltransferase from Schizosaccharomyces pombe: purification to homogeneity and some properties. Kim HG, et al. **Mol Cells** 1998 Aug 31;8(4):431–7

The fission yeast rpa17+ gene encodes a functional homolog of AC19, a subunit of RNA polymerases I and III of Saccharomyces cerevisiae. Imai K, et al. **Mol Gen Genet** 1999 Mar;261(2):364–73

Characterization of the geranylgeranyl transferase type I from Schizosaccharomyces pombe. Arellano M, et al. **Mol Microbiol** 1998 Sep;29(6):1357–67

The MAPK kinase Pek1 acts as a phosphorylation-dependent molecular switch. Sugiura R, et al. **Nature** 1999 Jun 3; 399(6735):479–83

Substrate specificity of ultraviolet DNA endonuclease (UVDE/Uve1p) from Schizosaccharomyces pombe. Avery AM, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2256–64

Terminator element mutations affect both the efficiency and position of RNA polymerase I termination in Schizosaccharomyces pombe. Shwed PS, et al. **Nucleic Acids Res** 1999 Jul 15;27(14):2883–8

Sequence divergence of the RNA polymerase shared subunit ABC14.5 (Rpb8) selectively affects RNA polymerase III assembly in Saccharomyces cerevisiae. Voutsina A, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1047–55

Chk1 complements the G2/M checkpoint defect and radiosensitivity of ataxia-telangiectasia cells. Chen P, et al. **Oncogene** 1999 Jan 7;18(1):249–56

Phytochelatin synthase genes from Arabidopsis and the yeast Schizosaccharomyces pombe. Ha SB, et al. **Plant Cell** 1999 Jun;11(6):1153–64

Purification and characterization of pyruvate kinase from Schizosaccharomyces pombe: evidence for an unusual quaternary structure. Nairn J, et al. **Protein Expr Purif** 1998 Nov;14(2):247–53

Pac1p, an RNase III homolog, is required for formation of the 3' end of U2 snRNA in Schizosaccharomyces pombe. Zhou D, et al. **RNA** 1999 Aug;5(8):1083–98

The uracil permease of Schizosaccharomyces pombe: a representative of a family of 10 transmembrane helix transporter proteins of yeasts. de Montigny J, et al. **Yeast** 1998 Aug;14(11):1051–9

Schizosaccharomyces pombe homologue of glutathione peroxidase, which does not contain selenocysteine, is induced by several stresses and works as an antioxidant. Yamada K, et al. **Yeast** 1999 Aug;15(11):1125–32

GENETICS

Genetics, physiology and cytology of yeast-mycelial dimorphism in fission yeasts. Sipiczki M, et al. **Acta Microbiol Immunol Hung** 1999;46(2–3):297–302 (23 ref.)

Cloning and characterization of psu1(+), a new essential fission yeast gene involved in cell wall synthesis. Omi K, et al. **Biochem Biophys Res Commun** 1999 Aug 27; 262(2):368–74

Isolation of a novel gene, moc2, encoding a putative RNA helicase as a suppressor of sterile strains in Schizosaccharomyces pombe. Kawamukai M. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):93–101

Cloning and characterization of two genes encoding dihydroxyacetone kinase from Schizosaccharomyces pombe IFO 0354. Kimura T, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):361–8

Analysis of the ntp1+ gene, encoding neutral trehalase in the fission yeast Schizosaccharomyces pombe. Soto T, et al. **Biochim Biophys Acta** 1998 Nov 26;1443(1–2):225–9

Expression of the ADP/ATP carrier encoding genes in aerobic yeasts; phenotype of an ADP/ATP carrier deletion mutant of Schizosaccharomyces pombe. Trézéguet V, et al. **Biochim Biophys Acta** 1999 Mar 9;1410(3):229–36

DNA structure checkpoint pathways in Schizosaccharomyces pombe. Caspari T, et al. **Biochimie** 1999 Jan-Feb;81(1–2):173–81 (65 ref.)

S-phase DNA damage checkpoint in budding yeast. Foiani M, et al. **Biol Chem** 1998 Aug-Sep;379(8–9):1019–23 (25 ref.)

S. pombe expression vector with 6x(His) tag for protein purification and potential for ligation-independent cloning. Hosfield T, et al. **Biotechniques** 1999 Jul;27(1):58–60

Fission yeast expression vectors adapted for positive identification of gene insertion and green fluorescent protein fusion. Zhao Y, et al. **Biotechniques** 1998 Sep; 25(3):438–40, 442, 444

HRad17, a human homologue of the Schizosaccharomyces pombe checkpoint gene rad17, is overexpressed in colon carcinoma. Bao S, et al. **Cancer Res** 1999 May 1; 59(9):2023–8

Functional counterparts of mammalian protein kinases PDK1 and SGK in budding yeast. Casamayor A, et al. **Curr Biol** 1999 Feb 25;9(4):186–97

Mutations in fission yeast Cut15, an importin alpha homolog, lead to mitotic progression without chromosome condensation. Matsusaka T, et al. **Curr Biol** 1998 Sep 10; 8(18):1031–4

The essential schizosaccharomyces pombe cdc23 DNA replication gene shares structural and functional homology with the Saccharomyces cerevisiae DNA43 (MCM10) gene. Aves SJ, et al. **Curr Genet** 1998 Sep;34(3):164–71

ras1 and pat1 alleles interact to quantitatively and qualitatively alter conjugation in fission yeast. Mach KE, et al. **Curr Genet** 1998 Sep;34(3):172–82

Systematic mutagenesis of the fission yeast Srp54 protein. Martínez-Force E, et al. **Curr Genet** 1999 Mar;35(2):88–102

Transient inhibition of histone deacetylase activity overcomes silencing in the mating-type region in fission yeast. Olsson TGS, et al. **Curr Genet** 1999 Mar;35(2):82–7

Cell-division-cycle defects associated with fission yeast pre-mRNA splicing mutants. Potashkin J, et al. **Curr Genet** 1998 Sep;34(3):153–63

Schizosaccharomyces pombe exo1 is involved in the same mismatch repair pathway as msh2 and pms1. Rudolph C, et al. **Curr Genet** 1998 Dec;34(5):343–50

Apc10 and Ste9/Srw1, two regulators of the APC-cyclosome, as well as the CDK inhibitor Rum1 are required for G1 cell-cycle arrest in fission yeast. Kominami K, et al. **EMBO J** 1998 Sep 15;17(18):5388–99

Evidence for F-actin-dependent and -independent mechanisms involved in assembly and stability of the medial actomyosin ring in fission yeast. Naqvi NI, et al. **EMBO J** 1999 Feb 15;18(4):854–62

phd1+, a histone deacetylase gene of Schizosaccharomyces pombe, is required for the meiotic cell cycle and resistance to trichostatin A. Kim YB, et al. **FEBS Lett** 1998 Oct 2; 436(2):193–6

Identification of cold-sensitive mutations in the Schizosaccharomyces pombe actin locus. McCollum D, et al. **FEBS Lett** 1999 May 28;451(3):321–6

The cta3+ gene that encodes a cation-transporting P-type ATPase is induced by salt stress under control of the Wis1-Sty1 MAPKK-MAPK cascade in fission yeast. Nishikawa T, et al. **FEBS Lett** 1999 Jul 16;455(1–2):183–7

Schizosaccharomyces pombe UDP-galactose transporter: identification of its functional form through cDNA cloning and expression in mammalian cells. Segawa H, et al. **FEBS Lett** 1999 May 28;451(3):295–8

The Drosophila gene 2A5 complements the defect in mitochondrial F1-ATPase assembly in yeast lacking the molecular chaperone Atp11p. Wang ZG, et al. **FEBS Lett** 1999 Jun 11;452(3):305–8

Candida albicans exoglucanase as a reporter gene in Schizosaccharomyces pombe. Molero G, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):143–8

Enhancement of neutral trehalase activity by oxidative stress in the fission yeast Schizosaccharomyces pombe. Fernández J, et al. **Fungal Genet Biol** 1998 Nov;25(2):79–86

Vectors for the expression of tagged proteins in Schizosaccharomyces pombe. Craven RA, et al. **Gene** 1998 Oct 9;221(1):59–68

A new inducible protein expression system in fission yeast based on the glucose-repressed inv1 promoter. Iacovoni JS, et al. **Gene** 1999 May 17;232(1):53–8

Identification of the gene and the protein of RNA polymerase II subunit 9 (Rpb9) from the fission yeast Schizosacharomyces pombe. Sakurai H, et al. **Gene** 1998 Oct 9;221(1):11–6

Meiotic telomeres: a matchmaker for homologous chromosomes. Hiraoka Y. **Genes Cells** 1998 Jul;3(7):405–13 (55 ref.)

Identification of sna41 gene, which is the suppressor of nda4 mutation and is involved in DNA replication in Schizosaccharomyces pombe. Miyake S, et al. **Genes Cells** 1998 Mar;3(3):157–66

Defect in cytokinesis of fission yeast induced by mutation in the WD40 repeat motif of a TFIID subunit. Yamamoto T, et al. **Genes Cells** 1998 Jun;3(6):347–55

Fission yeast condensin complex: essential roles of non-SMC subunits for condensation and Cdc2 phosphorylation of Cut3/SMC4. Sutani T, et al. **Genes Dev** 1999 Sep 1; 13(17):2271–83

Genetic control of fission yeast cell wall synthesis: the genes involved in wall biogenesis and their interactions in Schizosaccharomyces pombe. Ishiguro J. **Genes Genet Syst** 1998 Aug;73(4):181–91 (104 ref.)

Position effect variegation at the mating-type locus of fission yeast: a cis-acting element inhibits covariegated expression of genes in the silent and expressed domains. Ayoub N, et al. **Genetics** 1999 Jun;152(2):495–508

The role of nucleotide binding and hydrolysis in the function of the fission yeast cdc18(+) gene product. DeRyckere D, et al. **Genetics** 1999 Apr;151(4):1445–57

Identification and characterization of Schizosaccharomyces pombe asp1(+), a gene that interacts with mutations in the Arp2/3 complex and actin. Feoktistova A, et al. **Genetics** 1999 Jul;152(3):895–908

Suppressors of cdc25p overexpression identify two pathways that influence the G2/M checkpoint in fission yeast. Forbes KC, et al. **Genetics** 1998 Dec;150(4):1361–75

Histone deacetylase homologs regulate epigenetic inheritance of transcriptional silencing and chromosome segregation in fission yeast. Grewal SI, et al. **Genetics** 1998 Oct; 150(2):563–76

The Schizosaccharomyces pombe cho1+ gene encodes a phospholipid methyltransferase. Kanipes MI, et al. **Genetics** 1998 Oct;150(2):553–62

A new recombinational DNA repair gene from Schizosaccharomyces pombe with homology to Escherichia coli RecA. Khasanov FK, et al. **Genetics** 1999 Aug;152(4):1557–72

Genetic control of telomere integrity in Schizosaccharomyces pombe: rad3(+) and tel1(+) are parts of two regulatory networks independent of the downstream protein kinases chk1(+) and cds1(+). Matsuura A, et al. **Genetics** 1999 Aug;152(4):1501–12

Characterization of the ptr6(+) gene in fission yeast: a possible involvement of a transcriptional coactivator TAF in nucleocytoplasmic transport of mRNA. Shibuya T, et al. **Genetics** 1999 Jul;152(3):869–80

Rereplication phenomenon in fission yeast requires MCM proteins and other S phase genes. Snaith HA, et al. **Genetics** 1999 Jul;152(3):839–51

Localization and properties of a silencing element near the mat3-M mating-type cassette of Schizosaccharomyces pombe. Thon G, et al. **Genetics** 1999 Mar;151(3):945–63

Characterization of functional regions in the Schizosaccharomyces pombe mei3 developmental activator. Wang W, et al. **Genetics** 1998 Nov;150(3):1007–18

Regulation of mRNA export by nutritional status in fission yeast. Whalen WA, et al. **Genetics** 1999 Jul;152(3):827–38

Human and mouse homologs of the Schizosaccharomyces pombe rad17+ cell cycle checkpoint control gene. Bluyssen HA, et al. **Genomics** 1999 Jan 15;55(2):219–28

cDNA cloning and gene mapping of human homologs for Schizosaccharomyces pombe rad17, rad1, and hus1 and cloning of homologs from mouse, Caenorhabditis elegans, and Drosophila melanogaster. Dean FB, et al. **Genomics** 1998 Dec 15;54(3):424–36

Mouse Hus1, a homolog of the Schizosaccharomyces pombe hus1+ cell cycle checkpoint gene. Weiss RS, et al. **Genomics** 1999 Jul 1;59(1):32–9

Characterization of the myotubularin dual specificity phosphatase gene family from yeast to human. Laporte J, et al. **Hum Mol Genet** 1998 Oct;7(11):1703–12

Disruption of the YRB2 gene retards nuclear protein export, causing a profound mitotic delay, and can be rescued by overexpression of XPO1/CRM1. Noguchi E, et al. **J Biochem (Tokyo)** 1999 Mar;125(3):574–85

Functional expression of the plant alternative oxidase affects growth of the yeast Schizosaccharomyces pombe. Affourtit C, et al. **J Biol Chem** 1999 Mar 5;274(10):6212–8

A fission yeast gene for mitochondrial sulfide oxidation. Vande Weghe JG, et al. **J Biol Chem** 1999 May 7; 274(19):13250–7

Transcriptional regulation of the Schizosaccharomyces pombe malic enzyme gene, mae2. Viljoen M, et al. **J Biol Chem** 1999 Apr 9;274(15):9969–75

Transcription dependence and the roles of two excision repair pathways for UV damage in fission yeast Schizosaccharomyces pombe. Yasuhira S, et al. **J Biol Chem** 1999 Sep 17;274(38):26822–7

Molecular cloning and tissue-specific expression of Mrad9, a murine orthologue of the Schizosaccharomyces pombe rad9+ checkpoint control gene. Hang H, et al. **J Cell Physiol** 1998 Nov;177(2):241–7

Regulation of the start of DNA replication in Schizosaccharomyces pombe. Carlson CR, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):939–46

Sto1p, a fission yeast protein similar to tubulin folding cofactor E, plays an essential role in mitotic microtubule assembly. Grishchuk EL, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):1979–88

Reduced dosage of a single fission yeast MCM protein causes genetic instability and S phase delay. Liang DT, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):559–67

Functionally homologous DNA replication genes in fission and budding yeast. Sánchez M, et al. **J Cell Sci** 1999 Jul; 112 (Pt 14):2381–90

Essential structural features in the Schizosaccharomyces pombe pre-rRNA 5' external transcribed spacer. Intine RV, et al. **J Mol Biol** 1999 Feb 26;286(3):695–708

Conserved core structure in the internal transcribed spacer 1 of the Schizosaccharomyces pombe precursor ribosomal RNA. Lalev AI, et al. **J Mol Biol** 1998 Dec 18; 284(5):1341–51

Regulation of DNA damage inducible rhp51+ gene, a rec A homolog from Schizosaccharomyces pombe. Park SD, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:110–6

A map of interactions between the proteins of a retrotransposon. Steele SJ, et al. **J Virol** 1998 Nov; 72(11):9318–22

Schizosaccharomyces pombe replication and repair proteins: proliferating cell nuclear antigen (PCNA). Arroyo MP, et al. **Methods** 1999 Jul;18(3):335–48, 324

Methods of assaying Bcl-2 and Bax family proteins in yeast. Xu Q, et al. **Methods** 1999 Apr;17(4):292–304

Isolation of DNA structure-dependent checkpoint mutants in S. pombe. Martinho RG, et al. **Methods Mol Biol** 1999; 113:1–9

In vitro excision repair assay in Schizosaccharomyces pombe. Salles B, et al. **Methods Mol Biol** 1999;113:327–35

Stage-specific activity of the Leishmania major CRK3 kinase and functional rescue of a Schizosaccharomyces pombe cdc2 mutant. Wang Y, et al. **Mol Biochem Parasitol** 1998 Oct 30;96(1-2):139–50

The cdr2(+) gene encodes a regulator of G2/M progression and cytokinesis in Schizosaccharomyces pombe. Breeding CS, et al. **Mol Biol Cell** 1998 Dec;9(12):3399–415

The role of topoisomerase II in meiotic chromosome condensation and segregation in Schizosaccharomyces pombe. Hartsuiker E, et al. **Mol Biol Cell** 1998 Oct; 9(10):2739–50

Isolated mammalian and Schizosaccharomyces pombe ran-binding domains rescue S. pombe sbp1 (RanBP1) genomic mutants. Novoa I, et al. **Mol Biol Cell** 1999 Jul; 10(7):2175–90

Effects of genome position and the DNA damage checkpoint on the structure and frequency of sod2 gene amplification in fission yeast. Patterson TE, et al. **Mol Biol Cell** 1999 Jul;10(7):2199–208

Identification of novel temperature-sensitive lethal alleles in essential beta-tubulin and nonessential alpha 2-tubulin genes as fission yeast polarity mutants. Radcliffe P, et al. **Mol Biol Cell** 1998 Jul;9(7):1757–71

Functional dissection and hierarchy of tubulin-folding cofactor homologues in fission yeast. Radcliffe PA, et al. **Mol Biol Cell** 1999 Sep;10(9):2987–3001

Fission yeast Pob1p, which is homologous to budding yeast Boi proteins and exhibits subcellular localization close to actin patches, is essential for cell elongation and separation. Toya M, et al. **Mol Biol Cell** 1999 Aug;10(8):2745–57

Rad18 is required for DNA repair and checkpoint responses in fission yeast. Verkade HM, et al. **Mol Biol Cell** 1999 Sep;10(9):2905–18

cut11(+): A gene required for cell cycle-dependent spindle pole body anchoring in the nuclear envelope and bipolar spindle formation in Schizosaccharomyces pombe. West RR, et al. **Mol Biol Cell** 1998 Oct;9(10):2839–55

Definition of transcriptional pause elements in fission yeast. Aranda A, et al. **Mol Cell Biol** 1999 Feb;19(2):1251–61

The schizosaccharomyces pombe dim1(+) gene interacts with the anaphase-promoting complex or cyclosome (APC/C) component lid1(+) and is required for APC/C function. Berry LD, et al. **Mol Cell Biol** 1999 Apr; 19(4):2535–46

A new member of the Sin3 family of corepressors is essential for cell viability and required for retroelement propagation in fission yeast. Dang VD, et al. **Mol Cell Biol** 1999 Mar; 19(3):2351–65

Defects in components of the proteasome enhance transcriptional silencing at fission yeast centromeres and impair chromosome segregation. Javerzat JP, et al. **Mol Cell Biol** 1999 Jul;19(7):5155–65

Multiple orientation-dependent, synergistically interacting, similar domains in the ribosomal DNA replication origin of the fission yeast, Schizosaccharomyces pombe. Kim SM, et al. **Mol Cell Biol** 1998 Dec;18(12):7294–303

Regulation of the Mts1-Mts2-dependent ade6-M26 meiotic recombination hot spot and developmental decisions by the Spc1 mitogen-activated protein kinase of fission yeast. Kon N, et al. **Mol Cell Biol** 1998 Dec;18(12):7575–83

Mutator phenotype induced by aberrant replication. Liu VF, et al. **Mol Cell Biol** 1999 Feb;19(2):1126–35

Myb-related fission yeast cdc5p is a component of a 40S snRNP-containing complex and is essential for pre-mRNA splicing. McDonald WH, et al. **Mol Cell Biol** 1999 Aug; 19(8):5352–62

Interaction between the product of the breast cancer susceptibility gene BRCA2 and DSS1, a protein functionally conserved from yeast to mammals. Marston NJ, et al. **Mol Cell Biol** 1999 Jul;19(7):4633–42

The msh2 gene of Schizosaccharomyces pombe is involved in mismatch repair, mating-type switching, and meiotic chromosome organization. Rudolph C, et al. **Mol Cell Biol** 1999 Jan;19(1):241–50

A fission yeast gene, him1(+)/dfp1(+), encoding a regulatory subunit for Hsk1 kinase, plays essential roles in S-phase initiation as well as in S-phase checkpoint control and recovery from DNA damage. Takeda T, et al. **Mol Cell Biol** 1999 Aug;19(8):5535–47

The mating-type proteins of fission yeast induce meiosis by directly activating mei3 transcription. Van Heeckeren WJ, et al. **Mol Cell Biol** 1998 Dec;18(12):7317–26

Cloning of caf1+, caf2+ and caf4+ from Schizosaccharomyces pombe: their involvement in multidrug resistance, UV and pH sensitivity. Benko Z, et al. **Mol Gen Genet** 1998 Dec;260(5):434–43

A phosphorylation site mutant of Schizosaccharomyces pombe cdc2p fails to promote the metaphase to anaphase transition. Gould KL, et al. **Mol Gen Genet** 1998 Sep; 259(4):437–48

The S/M checkpoint at 37 degrees C and the recovery of viability of the mutant poldeltats3 require the crb2+/rhp9+ gene in fission yeast. Grenon M, et al. **Mol Gen Genet** 1999 Jan;260(6):522–34

The fission yeast rpa17+ gene encodes a functional homolog of AC19, a subunit of RNA polymerases I and III of Saccharomyces cerevisiae. Imai K, et al. **Mol Gen Genet** 1999 Mar;261(2):364–73

Isolation and characterization of temperature-sensitive mutations in the gene (rpb3) for subunit 3 of RNA polymerase II in the fission yeast Schizosaccharomyces pombe. Mitobe J, et al. **Mol Gen Genet** 1999 Aug; 262(1):73–84

Genetic interactions between Hsp90 and the Cdc2 mitotic machinery in the fission yeast Schizosaccharomyces pombe. Muñoz MJ, et al. **Mol Gen Genet** 1999 Mar;261(2):242–50

A Schizosaccharomyces pombe gene, ksg1, that shows structural homology to the human phosphoinositide-dependent protein kinase PDK1, is essential for growth, mating and sporulation. Niederberger C, et al. **Mol Gen Genet** 1999 Feb;261(1):177–83

Isolation of multicopy suppressors of the calcium sensitivity of a mutant lacking the bZIP transcription factor Atf1 in fission yeast. Ohmiya R, et al. **Mol Gen Genet** 1999 Mar; 261(2):297–306

Differential effects of caffeine on DNA damage and replication cell cycle checkpoints in the fission yeast Schizosaccharomyces pombe. Osman F, et al. **Mol Gen Genet** 1998 Nov;260(4):319–34

The function of the chicken p34CDC2 protein kinase in fission yeast is cold sensitive for cell cycle progression through the G1 phase and temperature sensitive for traversal of mitosis. Schmitz N. **Mol Gen Genet** 1999 Jun; 261(4-5):716–24

Cut5 is a component of the UV-responsive DNA damage checkpoint in fission yeast. Verkade HM, et al. **Mol Gen Genet** 1998 Dec;260(5):426–33

Characterization of the geranylgeranyl transferase type I from Schizosaccharomyces pombe. Arellano M, et al. **Mol Microbiol** 1998 Sep;29(6):1357–67

Involvement of nucleotide-excision repair in msh2 pms1-independent mismatch repair [see comments] Fleck O, et al. **Nat Genet** 1999 Mar;21(3):314–7. Comment in: Nat Genet 1999 Mar;21(3):247–9.

Circular chromosome formation in a fission yeast mutant defective in two ATM homologues. Naito T, et al. **Nat Genet** 1998 Oct;20(2):203–6

Orientation of DNA replication establishes mating-type switching pattern in S. pombe. Dalgaard JZ, et al. **Nature** 1999 Jul 8;400(6740):181–4

The fission yeast chromo domain encoding gene chp1(+) is required for chromosome segregation and shows a genetic interaction with alpha-tubulin. Doe CL, et al. **Nucleic Acids Res** 1998 Sep 15;26(18):4222–9

Use of gap repair in fission yeast to obtain novel alleles of specific genes. Kostrub CF, et al. **Nucleic Acids Res** 1998 Oct 15;26(20):4783–4

Structural equivalence in the transcribed spacers of pre-rRNA transcripts in Schizosaccharomyces pombe. Lalev AI, et al. **Nucleic Acids Res** 1999 Aug 1; 27(15):3071–8

Removal of cyclobutane pyrimidine dimers by the UV damage repair and nucleotide excision repair pathways of Schizosaccharomyces pombe at nucleotide resolution. Lombaerts M, et al. **Nucleic Acids Res** 1999 Jul 15; 27(14):2868–74

Characterization of the rhp7(+) and rhp16(+) genes in Schizosaccharomyces pombe. Lombaerts M, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3410–6

Srp2, an SR protein family member of fission yeast: in vivo characterization of its modular domains. Lützelberger M, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2618–26

A novel expression cloning method to isolate mammalian transcription factors in Schizosaccharomyces pombe. Remacle JE, et al. **Nucleic Acids Res** 1998 Nov 15; 26(22):5223–4

A key role for replication factor C in DNA replication checkpoint function in fission yeast. Reynolds N, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):462–9

Schizosaccharomyces pombe rad32 protein: a phosphoprotein with an essential phosphoesterase motif required for repair of DNA double strand breaks. Wilson S, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5261–9

A Schizosaccharomyces pombe artificial chromosome large DNA cloning system. Young DJ, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5052–60

Expression of human papillomavirus 16 E2 protein in Schizosaccharomyces pombe delays the initiation of mitosis. Fournier N, et al. **Oncogene** 1999 Jul 8; 18(27):4015–21

Phytochelatin synthase genes from Arabidopsis and the yeast Schizosaccharomyces pombe. Ha SB, et al. **Plant Cell** 1999 Jun;11(6):1153–64

Arabidopsis Rho-related GTPases: differential gene expression in pollen and polar localization in fission yeast. Li H, et al. **Plant Physiol** 1998 Oct;118(2):407–17

Negative regulation of mitosis in fission yeast by the shk1 interacting protein skb1 and its human homolog, Skb1Hs. Gilbreth M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14781–6

Control of meiotic recombination in Schizosaccharomyces pombe. Fox ME, et al.
Prog Nucleic Acid Res Mol Biol 1998;61:345–78 (132 ref.)
DNA damage and replication checkpoints in the fission yeast, Schizosaccharomyces pombe. Huberman JA.
Prog Nucleic Acid Res Mol Biol 1999;62:369–95 (81 ref.)
C-terminal interaction of translational release factors eRF1 and eRF3 of fission yeast: G-domain uncoupled binding and the role of conserved amino acids. Ebihara K, et al. **RNA** 1999 Jun;5(6):739–50
Molecular genetic analysis of U2AF59 in Schizosaccharomyces pombe: differential sensitivity of introns to mutational inactivation. Romfo CM, et al.
RNA 1999 Jan;5(1):49–65
The best yeast? Forsburg SL. **Trends Genet** 1999 Sep; 15(9):340–4 (64 ref.)
Analysis of TFIIH subunit through isolation of the gene from Schizosaccharomyces pombe corresponding to that of Saccharomyces cerevisiae SSL1, reveals the presence of conserved structural motifs. Adachi N, et al. **Yeast** 1999 Feb;15(3):255–62
Heterologous modules for efficient and versatile PCR-based gene targeting in Schizosaccharomyces pombe. Bähler J, et al. **Yeast** 1998 Jul;14(10):943–51
Eleven novel sep genes of Schizosaccharomyces pombe required for efficient cell separation and sexual differentiation. Grallert A, et al. **Yeast** 1999 Jun 15; 15(8):669–86
High-efficiency gene targeting in Schizosaccharomyces pombe using a modular, PCR-based approach with long tracts of flanking homology. Krawchuk MD, et al.
Yeast 1999 Sep 30;15(13):1419–27
Biosynthesis of phytochelatins in the fission yeast. Phytochelatin synthesis: a second role for the glutathione synthetase gene of Schizosaccharomyces pombe. Al-Lahham A, et al. **Yeast** 1999 Mar 30;15(5):385–96
Molecular cloning and sequence analysis of the Schizosaccharomyces pombe ade10+ gene. Liedtke C, et al. **Yeast** 1998 Oct;14(14):1307–10
A systematic nomenclature for new translation initiation factor genes from S. pombe and other fungi. Linder P, et al. **Yeast** 1999 Jul;15(10A):865–72
DNA sequencing and analysis of a 40 kb region from the right arm of chromosome II from Schizosaccharomyces pombe. Sánchez M, et al. **Yeast** 1999 Mar 30;15(5):419–26
DNA sequencing and analysis of a 67.4 kb region from the right arm of Schizosaccharomyces pombe chromosome II reveals 28 open reading frames including the genes his5, pol5, ppa2, rip1, rpb8 and skb1. Xiang Z, et al. **Yeast** 1999 Jul;15(10A):893–901
Schizosaccharomyces pombe stt3+ is a functional homologue of Saccharomyces cerevisiae STT3 which regulates oligosaccharyltransferase activity. Yoshida S, et al. **Yeast** 1999 Apr;15(6):497–505
[Phylogenetic preservation of genetic study stocks of Schizosaccharomyces pombe] Shimoda C.
Tanpakushitsu Kakusan Koso 1999 Mar;44(3):282–4 (9 ref.) **(Jpn)**
[Molecular cloning and characteristics of rpc19+ and rpc40+ Schizosaccharomyces pombe genes, coding for common subunits of nuclear RNA polymerase I and III] Shpakovskii GV, et al. **Bioorg Khim** 1998 Dec;24(12):933–7 (Eng. Abstr.) **(Rus)**
[Structural-functional characteristics of the Schizosaccharomyces pombe rpb8+ gene, coding the subunit of RNA polymerase I-III, specific only for eukaryotes] Shpakovskii GV, et al. **Bioorg Khim** 1998 Feb; 24(2):119–25 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

On growth and form: control of cell morphogenesis in fission yeast. Verde F. **Curr Opin Microbiol** 1998 Dec;1(6):712–8 (54 ref.)
Dynamics of cell wall formation in fission yeast, Schizosaccharomyces pombe. Osumi M, et al.
Fungal Genet Biol 1998 Jun-Jul;24(1-2):178–206 (98 ref.)
Role of polo kinase and Mid1p in determining the site of cell division in fission yeast. Bähler J, et al. **J Cell Biol** 1998 Dec 14;143(6):1603–16
The UDP-Glc:Glycoprotein glucosyltransferase is essential for Schizosaccharomyces pombe viability under conditions of extreme endoplasmic reticulum stress. Fanchiotti S, et al. **J Cell Biol** 1998 Nov 2;143(3):625–35
Regulation of the start of DNA replication in Schizosaccharomyces pombe. Carlson CR, et al.
J Cell Sci 1999 Mar;112 (Pt 6):939–46
Growth polarity transitions in a dimorphic fission yeast. Sipiczki M, et al. **Microbiology** 1998 Dec;144 (Pt 12):3475–85
Fission yeast Pob1p, which is homologous to budding yeast Boi proteins and exhibits subcellular localization close to actin patches, is essential for cell elongation and separation. Toya M, et al. **Mol Biol Cell** 1999 Aug;10(8):2745–57
Growth arrest of Schizosaccharomyces pombe following overexpression of mouse type 1 protein phosphatases. Sangrador A, et al. **Mol Gen Genet** 1998 Sep;259(5):449–56
Eleven novel sep genes of Schizosaccharomyces pombe required for efficient cell separation and sexual differentiation. Grallert A, et al. **Yeast** 1999 Jun 15; 15(8):669–86

METABOLISM

Regulation of D-glucose-6-phosphate dehydrogenase from Schizosaccharomyces pombe. Tsai CS, et al.
Biochem Cell Biol 1998;76(4):645–8
Interaction of mammalian neprilysin with binding protein and calnexin in Schizosaccharomyces pombe. Beaulieu H, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):813–9
Inositol hexakisphosphate in Schizosaccharomyces pombe: synthesis from Ins(1,4,5)P3 and osmotic regulation. Ongusaha PP, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):671–9
Calnexin and BiP interact with acid phosphatase independently of glucose trimming and reglucosylation in Schizosaccharomyces pombe. Jannatipour M, et al.
Biochemistry 1998 Dec 8;37(49):17253–61
Crm1p mediates regulated nuclear export of a yeast AP-1-like transcription factor. Yan C, et al. **EMBO J** 1998 Dec 15;17(24):7416–29
Repression of enzymes of the pentose phosphate pathway by glucose in fission yeast. Mehta S, et al. **FEBS Lett** 1998 Dec 4;440(3):430–3
Interaction between the fission yeast nim1/cdr1 protein kinase and a dynamin-related protein. Pelloquin L, et al. **FEBS Lett** 1999 Jan 22;443(1):71–4
Schizosaccharomyces pombe UDP-galactose transporter: identification of its functional form through cDNA cloning and expression in mammalian cells. Segawa H, et al.
FEBS Lett 1999 May 28;451(3):295–8
Hexavalent chromium uptake by sensitive and tolerant mutants of Schizosaccharomyces pombe. Czakó-Vér K, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):109–15
Ras-mediated signaling pathway regulates the expression of a low-molecular-weight heat-shock protein in fission yeast. Danjoh I, et al. **Gene** 1999 Aug 20;236(2):347–52
Two F-box/WD-repeat proteins Pop1 and Pop2 form hetero- and homo-complexes together with cullin-1 in the fission yeast SCF (Skp1-Cullin-1-F-box) ubiquitin ligase. Kominami K, et al. **Genes Cells** 1998 Nov;3(11):721–35
Involvement of CRM1, a nuclear export receptor, in mRNA export in mammalian cells and fission yeast. Watanabe M, et al. **Genes Cells** 1999 May;4(5):291–7
The role of nucleotide binding and hydrolysis in the function of the fission yeast cdc18(+) gene product. DeRyckere D, et al. **Genetics** 1999 Apr;151(4):1445–57
Schizosaccharomyces pombe produces novel Gal0-2Man1-3 O-linked oligosaccharides. Gemmill TR, et al.
Glycobiology 1999 May;9(5):507–15
Novel Schizosaccharomyces pombe N-linked GalMan9GlcNAc isomers: role of the Golgi GMA12 galactosyltransferase in core glycan galactosylation. Ziegler FD, et al. **Glycobiology** 1999 May;9(5):497–505
The high mobility group domain protein Cmb1 of Schizosaccharomyces pombe binds to cytosines in base mismatches and opposite chemically altered guanines. Fleck O, et al. **J Biol Chem** 1998 Nov 13;273(46):30398–405
Regions of Byr4, a regulator of septation in fission yeast, that bind Spg1 or Cdc16 and form a two-component GTPase-activating protein with Cdc16. Furge KA, et al.
J Biol Chem 1999 Apr 16;274(16):11339–43
Human homologs of Schizosaccharomyces pombe rad1, hus1, and rad9 form a DNA damage-responsive protein complex. Volkmer E, et al. **J Biol Chem** 1999 Jan 8;274(2):567–70
The UDP-Glc:Glycoprotein glucosyltransferase is essential for Schizosaccharomyces pombe viability under conditions of extreme endoplasmic reticulum stress. Fanchiotti S, et al. **J Cell Biol** 1998 Nov 2;143(3):625–35
Fission yeast alpha-glucan synthase Mok1 requires the actin cytoskeleton to localize the sites of growth and plays an essential role in cell morphogenesis downstream of protein kinase C function. Katayama S, et al. **J Cell Biol** 1999 Mar 22;144(6):1173–86
Asymmetry of the spindle pole bodies and spg1p GAP segregation during mitosis in fission yeast. Cerutti L, et al. **J Cell Sci** 1999 Jul;112 (Pt 14):2313–21
Mitotic control in the absence of cdc25 mitotic inducer in fission yeast. Sveiczer A, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1085–92
Active nucleocytoplasmic shuttling required for function and regulation of stress-activated kinase Spc1/Sty1 in fission yeast. Gaits F, et al. **Mol Biol Cell** 1999 May;10(5):1395–407
Vacuole fusion regulated by protein phosphatase 2C in fission yeast. Gaits F, et al. **Mol Biol Cell** 1999 Aug;10(8):2647–54
The protein kinase Cdr2, related to Nim1/Cdr1 mitotic inducer, regulates the onset of mitosis in fission yeast. Kanoh J, et al. **Mol Biol Cell** 1998 Dec;9(12):3321–34
Plo1 kinase recruitment to the spindle pole body and its role in cell division in Schizosaccharomyces pombe. Mulvihill DP, et al. **Mol Biol Cell** 1999 Aug;10(8):2771–85
Nup124p is a nuclear pore factor of Schizosaccharomyces pombe that is important for nuclear import and activity of retrotransposon Tf1. Balasundaram D, et al.
Mol Cell Biol 1999 Aug;19(8):5768–84
Schizosaccharomyces pombe retrotransposon Tf2 mobilizes primarily through homologous cDNA recombination. Hoff EF, et al. **Mol Cell Biol** 1998 Nov;18(11):6839–52
Reverse transcription of a self-primed retrotransposon requires an RNA structure similar to the U5-IR stem-loop of retroviruses. Lin JH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6859–69
Fission yeast cdc24 is a replication factor C- and proliferating cell nuclear antigen-interacting factor essential for S-phase completion. Tanaka H, et al. **Mol Cell Biol** 1999 Feb; 19(2):1038–48
Cell cycle regulation of Dfp1, an activator of the Hsk1 protein kinase. Brown GW, et al.
Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8443–8
Moe1, a conserved protein in Schizosaccharomyces pombe, interacts with a Ras effector, Scd1, to affect proper spindle formation. Chen CR, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):517–22
Genetic regulation of phospholipid metabolism: yeast as a model eukaryote. Henry SA, et al.
Prog Nucleic Acid Res Mol Biol 1998;61:133–79 (276 ref.)
Biotransformation of steroids by the fission yeast Schizosaccharomyces pombe. Pajič T, et al. **Yeast** 1999 Jun 15;15(8):639–45
The topoisomerase I poison camptothecin generates a Chk1-dependent DNA damage checkpoint signal in fission yeast. Wan S, et al. **Yeast** 1999 Jul;15(10A):821–8

PHYSIOLOGY

Identification of a fission yeast dynamin-related protein involved in mitochondrial DNA maintenance. Pelloquin L, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):720–6
Action at the ends of microtubules. Saunders WS.
Curr Opin Cell Biol 1999 Feb;11(1):129–33 (35 ref.)
Effects of pressure stress on the fission yeast Schizosaccharomyces pombe cold-sensitive mutant nda3. Sato M, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):31–8
Stress-activated signalling pathways in yeast. Toone WM, et al. **Genes Cells** 1998 Aug;3(8):485–98 (110 ref.)
Heat-shock-induced activation of stress MAP kinase is regulated by threonine- and tyrosine-specific phosphatases. Nguyen AN, et al. **Genes Dev** 1999 Jul 1;13(13):1653–63
Caffeine-mediated override of checkpoint controls. A requirement for rhp6 (Schizosaccharomyces pombe). Rowley R, et al. **Genetics** 1999 May;152(1):61–71
Methionine induces sexual development in the fission yeast Schizosaccharomyces pombe via an ste11-dependent signalling pathway. Schweingruber AM, et al.
J Bacteriol 1998 Dec;180(23):6338–41
Cell surface galactosylation is essential for nonsexual flocculation in Schizosaccharomyces pombe. Tanaka N, et al. **J Bacteriol** 1999 Feb;181(4):1356–9
Phosphorylation of the myosin-II light chain does not regulate the timing of cytokinesis in fission yeast. McCollum D, et al. **J Biol Chem** 1999 Jun 18; 274(25):17691–5
Fission yeast bub1 is a mitotic centromere protein essential for the spindle checkpoint and the preservation of correct ploidy through mitosis. Bernard P, et al. **J Cell Biol** 1998 Dec 28;143(7):1775–87
The fission yeast microtubule cytoskeleton. Hagan IM.
J Cell Sci 1998 Jun;111 (Pt 12):1603–12 (92 ref.)
Mph1, a member of the Mps1-like family of dual specificity protein kinases, is required for the spindle checkpoint in S. pombe. He X, et al. **J Cell Sci** 1998 Jun;111 (Pt 12):1635–47
Cytochalasin D interferes with contractile actin ring and septum formation in Schizosaccharomyces japonicus var. versatilis. Gabriel M, et al. **Microbiology** 1998 Aug;144 (Pt 8):2331–44
Cdc25 inhibited in vivo and in vitro by checkpoint kinases Cds1 and Chk1. Furnari B, et al. **Mol Biol Cell** 1999 Apr; 10(4):833–45
Liz1p, a novel fission yeast membrane protein, is required for normal cell division when ribonucleotide reductase is inhibited. Moynihan EB, et al. **Mol Biol Cell** 1999 Feb; 10(2):245–57
Dynamics of centromeres during metaphase-anaphase transition in fission yeast: Dis1 is implicated in force balance in metaphase bipolar spindle. Nabeshima K, et al.
Mol Biol Cell 1998 Nov;9(11):3211–25
Ssp1 promotes actin depolymerization and is involved in stress response and new end take-off control in fission yeast. Rupeš I, et al. **Mol Biol Cell** 1999 May; 10(5):1495–510
Cohesin Rec8 is required for reductional chromosome segregation at meiosis. Watanabe Y, et al. **Nature** 1999 Jul 29;400(6743):461–4
Leptomycin B inactivates CRM1/exportin 1 by covalent modification at a cysteine residue in the central conserved region. Kudo N, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9112–7
Role for yeast inhibitor of apoptosis (IAP)-like proteins in cell division. Uren AG, et al.
Proc Natl Acad Sci U S A 1999 Aug 31;96(18):10170–5
Two modes of survival of fission yeast without telomerase. Nakamura TM, et al. **Science** 1998 Oct 16;282(5388):493–6
Fusion of a fission yeast. Davey J. **Yeast** 1998 Dec; 14(16):1529–66 (318 ref.)

RADIATION EFFECTS

Cloning of caf1+, caf2+ and caf4+ from Schizosaccharomyces pombe: their involvement in multidrug resistance, UV and pH sensitivity. Benko Z, et al. **Mol Gen Genet** 1998 Dec;260(5):434–43
Cut5 is a component of the UV-responsive DNA damage checkpoint in fission yeast. Verkade HM, et al.
Mol Gen Genet 1998 Dec;260(5):426–33

ULTRASTRUCTURE

Role of polo kinase and Mid1p in determining the site of

cell division in fission yeast. Bähler J, et al. **J Cell Biol** 1998 Dec 14;143(6):1603–16

Preparation of the fission yeast Schizosaccharomyces pombe for ultrastructural and immunocytochemical study. Hajibagheri MA, et al. **Methods Mol Biol** 1999;117:183–207 (43 ref.)

VIROLOGY

Expression of human papillomavirus 16 E2 protein in Schizosaccharomyces pombe delays the initiation of mitosis. Fournier N, et al. **Oncogene** 1999 Jul 8; 18(27):4015–21

SCHIZOTYPAL PERSONALITY DISORDER

Mentalising, schizotypy, and schizophrenia. Langdon R, et al. **Cognition** 1999 May 3;71(1):43–71

Perceptual biases in psychosis–prone individuals. Luh KE, et al. **J Abnorm Psychol** 1999 May;108(2):283–9

Skin–conductance orienting deficits and increased alcoholism in schizotypal criminals. Raine A, et al. **J Abnorm Psychol** 1999 May;108(2):299–306

CLASSIFICATION

Deeper into the schizotypy taxon: on the robust nature of maximum covariance analysis. Lenzenweger MF. **J Abnorm Psychol** 1999 Feb;108(1):182–7

COMPLICATIONS

Neurological soft signs in adolescents with poor performance on the continous performance test: markers of liability for schizophrenia spectrum disorders? Obiols JE, et al. **Psychiatry Res** 1999 Jun 30;86(3):217–28

DIAGNOSIS

Three–dimensional analysis with MRI and PET of the size, shape, and function of the thalamus in the schizophrenia spectrum. Hazlett EA, et al. **Am J Psychiatry** 1999 Aug; 156(8):1190–9

Minor physical anomalies, dermatoglyphic asymmetries, and cortisol levels in adolescents with schizotypal personality disorder. Weinstein DD, et al. **Am J Psychiatry** 1999 Apr; 156(4):617–23

Neurological soft signs in adolescents with poor performance on the continous performance test: markers of liability for schizophrenia spectrum disorders? Obiols JE, et al. **Psychiatry Res** 1999 Jun 30;86(3):217–28

Positive and negative schizotypal symptoms relate to different aspects of crossover reaction time task performance. Sarkin AJ, et al. **Psychiatry Res** 1998 Nov 16;81(2):241–9

Vocational interests and career indecision among psychosis–prone college students. Poreh AM, et al. **Psychol Rep** 1998 Oct;83(2):599–607

ETIOLOGY

Developmental neuropathology and the precursors of schizophrenia. Walker EF, et al. **Acta Psychiatr Scand Suppl** 1999;395:12–9 (31 ref.)

GENETICS

A psychometric–genetic study of schizotypal disorder. Battaglia M, et al. **Schizophr Res** 1999 May 4;37(1):53–64

[Early familial and environmental processes in schizophrenia. Importance of premorbid personality evaluation] Chabot B, et al. **Encephale** 1998 Jul–Aug;24(4):309–14 (Eng. Abstr.) **(Fre)**

[Vulnerability to schizophrenia. I: Familial nature of of neuropsychologic indicators] d'Amato T, et al. **Encephale** 1998 Sep–Oct;24(5):442–8 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Schizotypal personality disorder and MRI abnormalities of temporal lobe gray matter. Dickey CC, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1393–402

PHYSIOPATHOLOGY

Electrophysiological correlates of language processing in schizotypal personality disorder. Niznikiewicz MA, et al. **Am J Psychiatry** 1999 Jul;156(7):1052–8

PSYCHOLOGY

Delusional ideation in religious and psychotic populations. Peters E, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):83–96

Are high–schizotypal normal participants distractible or limited in attentional resources? A study of latent inhibition as a function of masking task load and schizotypy level. Braunstein–Bercovitz H, et al. **J Abnorm Psychol** 1998 Nov; 107(4):659–70

Verbal learning and memory in schizotypal personality disorder. Bergman AJ, et al. **Schizophr Bull** 1998; 24(4):635–41

SCHLICHTER TEST see **SERUM BACTERICIDAL TEST**

SCHMIDT'S SYNDROME see **POLYENDOCRINOPATHIES, AUTOIMMUNE**

SCHNITZLER SYNDROME

[Schnitzler's syndrome] Obořilová A, et al. **Vnitr Lek** 1998 Jul;44(7):423–7 (Eng. Abstr.) **(Cze)**

COMPLICATIONS

Acquired C1 inhibitor deficiency associated with systemic lupus erythematosus, secondary antiphospholipid syndrome and IgM monoclonal paraproteinaemia. Nagy L, et al. **Clin Rheumatol** 1999;18(1):56–8

A case of Schnitzler's syndrome with nodular regenerative hyperplasia of the liver. Lauwers A, et al. **Rev Rhum Engl Ed** 1999 May;66(5):281–3

DIAGNOSIS

Schnitzler's syndrome versus adult onset Still's disease [published erratum appears in Eur J Dermatol 1998 Jun;8(4):234] Tomková H, et al. **Eur J Dermatol** 1998 Mar; 8(2):118–21 (20 ref.)

[The Schnitzler syndrome. A case report (letter)] Lozano Gutiérrez F, et al. **Med Clin (Barc)** 1999 Feb 6;112(4):158–9 (10 ref.) **(Spa)**

SCHOENLEIN–HENOCH PURPURA see **PURPURA, SCHOENLEIN–HENOCH**

SCHOLARSHIPS see **FELLOWSHIPS AND SCHOLARSHIPS**

SCHOOL ADMISSION CRITERIA

Babies and bathwater: standardized vs narrative data (or both) in applicant evaluation [editorial; comment] Binder LS. **Acad Emerg Med** 1998 Nov;5(11):1045–8. Comment on: Acad Emerg Med 1998 Nov;5(11):1101–4.

A comparison of standardized and narrative letters of recommendation [see comments] Girzadas DV Jr, et al. **Acad Emerg Med** 1998 Nov;5(11):1101–4. Comment in: Acad Emerg Med 1998 Nov;5(11):1045–8.

Correlation of students' characteristics with their learning styles as they begin medical school. Aaron S, et al. **Acad Med** 1999 Mar;74(3):260–2

Relationship between primary care practices in medical school admission and the matriculation of underrepresented–minority and female applicants. Basco WT Jr, et al. **Acad Med** 1999 Aug;74(8):920–4

Participation in enrichment programs and its effect on interview scores of applicants to the University of Washington School of Medicine. Carline JD, et al. **Acad Med** 1999 Apr;74(4):360–2

The effects of differently weighting interview scores on the admission of underrepresented minority medical students. Edwards JC, et al. **Acad Med** 1999 Jan;74(1):59–61

Computer literacy requirements and the admission process [letter] Elam CL. **Acad Med** 1999 Sep;74(9):944

Truth and consequences. Foster GS. **Acad Med** 1998 Dec; 73(12):1226–7 (1 ref.)

Recruiting and selecting generalist–oriented students at Pennsylvania State University College of Medicine. Gingrich D, et al. **Acad Med** 1999 Jan;74(1 Suppl):S49–50

The Gateway program: ten–year lessons about outcomes and admission measures. Iler E, et al. **Acad Med** 1998 Nov; 73(11):1169–71

Medical school admission committee members' evaluations of and impressions from recommendation letters. Johnson M, et al. **Acad Med** 1998 Oct;73(10 Suppl):S41–3

Recruiting and selecting generalist–oriented students at New York Medical College. Juster F, et al. **Acad Med** 1999 Jan; 74(1 Suppl):S45–8

Evaluating the predictive validity of MCAT scores across diverse applicant groups. Koenig JA, et al. **Acad Med** 1998 Oct;73(10):1095–106

Learning disabilities, medical students, and common sense. Little D. **Acad Med** 1999 Jun;74(6):622–3

The role of the medical school admission process in the production of generalist physicians. Rabinowitz HK. **Acad Med** 1999 Jan;74(1 Suppl):S39–44

Better admission criteria. Smith MD, et al. **Acad Med** 1998 Oct;73(10):1054–5

Leadership experiences of conditional early–acceptance students [letter] Stratman E. **Acad Med** 1999 Jun;74(6):620

Cognitive factors, attrition rates, and underrepresented minority students: the problem of predicting future performance. Tekian A. **Acad Med** 1998 Oct;73(10 Suppl):S38–40

Determinants of academic and clinical performance in the physiotherapy education programme at the University of Ibadan, Nigeria. Amosun SL, et al. **Afr J Med Med Sci** 1996 Sep;25(3):225–9

Predictors of academic performance in the pre–clinical sciences: effects of age, sex and mode of admission at the Maiduguri Medical School. Olaleye SB, et al. **Afr J Med Med Sci** 1997 Sep–Dec;26(3–4):189–90

Use of the interview in selecting students for occupational therapy programs. Agho AO, et al. **Am J Occup Ther** 1998 Jul–Aug;52(7):592–4

Defending diversity: affirmative action and medical education. DeVille K. **Am J Public Health** 1999 Aug; 89(8):1256–61

The relationship of physical fitness on pilot candidate selection in the Israel Air Force. Hoffman JR, et al. **Aviat Space Environ Med** 1999 Feb;70(2):131–4

Is medical school selection discriminatory? New data should be used as a catalyst for change [editorial;comment] Abbasi K. **BMJ** 1998 Oct 24;317(7166):1097–8. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. Prejudice may not be responsible for difference in success rates. [letter; comment] Bland JM. **BMJ** 1999 Apr 3;318(7188):938; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. League tables only help if uncertainty is properly looked at [letter; comment] Gore SM. **BMJ** 1999 Apr 3;318(7188):938–9. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. Dundee university medical school has some questions [letter; comment] Levison DA, et al. **BMJ** 1999 Apr 3; 318(7188):938; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Factors affecting likelihood of applicants being offered a place in medical schools in the United Kingdom in 1996 and 1997: retrospective study [see comments] [published erratum appears in BMJ 1999 Jan 9;318(7176):94] McManus IC. **BMJ** 1998 Oct 24;317(7166):1111–6; discussion 1116–7 . Comment in: BMJ 1998 Oct 24;317(7166):1097–8. Comment in: BMJ 1999 Apr 3;318(7188):937–8; discussion 939. Comment in: BMJ 1999 Apr 3;318(7188):938; discussion 939. Comment in: BMJ 1999 Apr 3;318(7188):938–9.

Select medical students. Powis D. **BMJ** 1998 Oct 24; 317(7166):1149–50

Selection to medical school in Great Britain. Admissions procedure at St Andrews is driven by purely academic criteria [letter; comment] Steel CM, et al. **BMJ** 1999 Apr 3;318(7188):937–8; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

An analysis of an admissions system: can performance in the first year of the dental course be predicted? [published erratum appears in Br Dent J 1999 Feb 27;186(4 Spec No):182] Hoad–Reddick G, et al. **Br Dent J** 1999 Feb 13; 186(3):138–42

Relating personality to interview results and performance in the first year of the dental course. Hoad–Reddick G, et al. **Br Dent J** 1999 Apr 10;186(7):348–52

Veterinary medicine in Canada: opportunity for renewal [see comments] Guernsey G, et al. **Can Vet J** 1998 Jul; 39(7):407–9. Comment in: Can Vet J 1999 Feb;40(2):89–93.

Evaluating residency applicants: stable values in a changing market. Travis C, et al. **Fam Med** 1999 Apr;31(4):252–6

Admission processes in the dental PBL at USC. Pereira LS. **J Dent Educ** 1998 Sep;62(9):680–4

A consultant looks at the NHS today. Fowler PB. **J Eval Clin Pract** 1999 Aug;5(3):347–54

A few great themes. Neher JO. **J Fam Pract** 1998 Nov; 47(5):393–4

Medical student selection: which matriculation scores and personality factors are important? Chan–Ob T, et al. **J Med Assoc Thai** 1999 Jun;82(6):604–10

A crisis in medical education: rollback of affirmative action. Dennis GC. **J Natl Med Assoc** 1998 Oct;90(10):581–2

Nurse educators' attitudes toward and decision–making related to applicants with physical disabilities. Christensen RM. **J Nurs Educ** 1998 Oct;37(7):311–4

A student selection method and predictors of success in a graduate nursing program. Wilson T. **J Nurs Educ** 1999 Apr;38(4):183–7

Selecting medical students: a case report of the need for change. Marley J, et al. **Med Educ** 1999 Jun;33(6):455–9

Medical school selection – fair or unfair? Wood DF. **Med Educ** 1999 Jun;33(6):399–401

Relationship between conditional early acceptance into medical school and medical school leadership and academic performance: the Conley Scholar experience at the University of Missouri–Columbia. Stratman E, et al. **Mo Med** 1999 Mar;96(3):92–6

Interview expectations and experiences of women and men applying to an optometry program. Spafford MM, et al. **Optom Vis Sci** 1999 Jul;76(7):500–10

The personal characteristics of effective counselors: what 10 experts think. Pope VT, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1339–44

Is there discrimination against ethnic minorities applying to Scottish medical schools? Parratt D, et al. **Scott Med J** 1998 Dec;43(6):163

Balance of the sexes [letter] Waterman–Pearson AE. **Vet Rec** 1999 Jul 17;145(3):88

STATISTICS & NUMERICAL DATA

Associations between primary care–oriented practices in medical school admission and the practice intentions of matriculants. Basco WT Jr, et al. **Acad Med** 1998 Nov; 73(11):1207–10

Ethnic and sex differences in selection for admission to Nottingham University Medical School. James D, et al. **BMJ** 1999 Aug 7;319(7206):351–2

Premedical program effective in increasing admissions to health professional schools. Stephens MC, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:87–90

A national survey of current admission practices in selected allied health educational programs. Agho AO, et al. **J Allied Health** 1999 Spring;28(1):8–14

SCHOOL ADMISSION CRITERIA

TRENDS

The predictable price of Proposition 209. Cohen JJ. **Acad Med** 1999 May;74(5):528

SCHOOL DENTISTRY

Need for a school dental service [letter; comment] Manson JD. **Br Dent J** 1999 Mar 13;186(5):212. Comment on: Br Dent J 1999 Feb 13;186(3):102.

School dental service [letter; comment] Smyth JS. **N Z Dent J** 1998 Dec;94(418):161. Comment on: N Z Dent J 1998 Sep;94(417):106–9. Comment on: N Z Dent J 1998 Sep;94(417):109–13.

Dental survey at school with the purpose to select children with no actual need of dental treatment. Lundman UA, et al. **Swed Dent J** 1998;22(5–6):203–10

[A report on the activities of the Dental Health Assistance Switzerland (D.H.A.S.). The Bakuriani Project, Georgia (news)] Boitel RH. **Schweiz Monatsschr Zahnmed** 1999; 109(1):54–5 **(Ger)**

[The effects of dental collective, group and individual prophylaxis in those who have left school] Büttner M. **Schweiz Monatsschr Zahnmed** 1999;109(1):35–9 **(Ger, Fre)**

HISTORY

Dental health as a neglected issue in medical history: the school dental service in England and Wales, 1900–40. Welshman J. **Med Hist** 1998 Jul;42(3):306–27

MANPOWER

The education of school dental therapists [editorial] **N Z Dent J** 1999 Mar;95(419):3

METHODS

The identification of agreed criteria for referral following the dental inspection of children in the school setting [see comments] Milsom K, et al. **Br Dent J** 1999 Jan 9; 186(1):37–40. Comment in: Br Dent J 1999 Mar 27;186(6):263.

Dental screenings using telehealth technology: a pilot study. Patterson S, et al. **J Can Dent Assoc** 1998 Dec; 64(11):806–10

ORGANIZATION & ADMINISTRATION

Smokeless tobacco cessation intervention for college athletes: results after 1 year. Walsh MM, et al. **Am J Public Health** 1999 Feb;89(2):228–34

Accessible dental care for children. McManus J, et al. **N Y State Dent J** 1999 Mar;65(3):24–6

STATISTICS & NUMERICAL DATA

Oral health of children in South Australia by socio-demographic characteristics and choice of provider. Gaughwin A, et al. **Community Dent Oral Epidemiol** 1999 Apr;27(2):93–102

SCHOOL DROPOUTS see **STUDENT DROPOUTS**

SCHOOL HEALTH SERVICES

A public health vs a risk-based intervention to improve cardiovascular health in elementary school children: the Cardiovascular Health in Children Study. Harrell JS, et al. **Am J Public Health** 1999 Oct;89(10):1529–35

Impact of a school-based interdisciplinary intervention on diet and physical activity among urban primary school children: eat well and keep moving. Gortmaker SL, et al. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):975–83

Early effects of a school-based human immunodeficiency virus infection and sexual risk prevention intervention. Siegel DM, et al. **Arch Pediatr Adolesc Med** 1998 Oct; 152(10):961–70

Bullied children are picked on for their vulnerability [letter; comment] Leff S. **BMJ** 1999 Apr 17;318(7190):1076. Comment on: BMJ 1998 Oct 3;317(7163):924–5.

School-based smoking control: a research agenda [see comments] Manske SR, et al. **Cancer Prev Control** 1997 Aug;1(3):196–212 (110 ref.). Comment in: Cancer Prev Control 1997 Aug;1(3):190–1.

Reference intervals for haematological parameters in urban school children and adolescents [letter] Flegar-Meštrić Z, et al. **Clin Lab Haematol** 1999 Feb;21(1):72–4

Mental health services in schools: utilization, effectiveness, and consent. Evans SW. **Clin Psychol Rev** 1999 Mar; 19(2):165–78 (67 ref.)

Guidance for infection control in schools and nurseries. **Commun Dis Rep CDR Wkly** 1999 Jul 30;9(31):269

School-based sexuality education: the issues and challenges. Donovan P. **Fam Plann Perspect** 1998 Jul–Aug; 30(4):188–93

Targeting "risky" gender ideologies: constructing a community-driven, theory-based HIV prevention intervention for youth. Laub C, et al. **Health Educ Behav** 1999 Apr;26(2):185–99

Evaluation of a three-year school-based intervention to increase adolescent sun protection. Lowe JB, et al. **Health Educ Behav** 1999 Jun;26(3):396–408

School-based approaches for preventing and treating obesity. Story M. **Int J Obes Relat Metab Disord** 1999 Mar;23 Suppl 2:S43–51 (52 ref.)

Peer counselling in Saudi Arabia. Abu-Rasain MH, et al. **J Adolesc** 1999 Aug;22(4):493–502

Sex, drugs and alcohol: two peer-led approaches in Tamaki Makaurau/Auckland, Aotearoa/New zealand. Elliott KJ, et al. **J Adolesc** 1999 Aug;22(4):503–13

Countering bullying at an australian secondary school with students as helpers. Peterson L, et al. **J Adolesc** 1999 Aug; 22(4):481–92

Defining peer education. Shiner M. **J Adolesc** 1999 Aug; 22(4):555–66 (37 ref.)

Gallagher lecture. Thirty years in pursuit of the magic bullet. Dryfoos JG. **J Adolesc Health** 1998 Dec;23(6):338–43

The 3 R's of school consultation. Bostic JQ, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):339–41

Sun and the skin: evaluation of a sun awareness program for elementary school students. Gooderham MJ, et al. **J Cutan Med Surg** 1999 Jul;3(5):230–5

Community learning: the Reach for Health Nursing Program–Middle School Collaboration. Juhn G, et al. **J Nurs Educ** 1999 May;38(5):215–21

To reintroduce school BCG or abolish it - the dilemma for the newly formed health authorities [letter] Mukerjee AK, et al. **J Public Health Med** 1998 Dec;20(4):486–7

Special educational needs in East Surrey from a school doctor's point of view. Bisazza P. **J R Soc Health** 1999 Mar;119(1):50–1

Sexual coercion content in 21 sexuality education curricula. Beyer CE, et al. **J Sch Health** 1998 Nov;68(9):370–5

Perceptions of alcoholics: the impact of personal characteristics. Brey RA, et al. **J Sch Health** 1999 Apr; 69(4):165–6

Electronic portfolios enhance health instruction. Corbett-Perez S, et al. **J Sch Health** 1999 Aug;69(6):247–9

Preventing disease with stress management in elementary schools. Dombrowski MA. **J Sch Health** 1999 Mar; 69(3):126–7

Using cooperative learning groups to develop health-related cultural awareness. Doyle EI, et al. **J Sch Health** 1999 Feb; 69(2):73–6

Alien nation: a problem-solving activity for dealing with pertinent health issues. Duitsman D, et al. **J Sch Health** 1999 Mar;69(3):123–4

A nutrition relay race for preschool health education. Geiger BF. **J Sch Health** 1999 Mar;69(3):125

Fifteen prevalent myths concerning adolescent suicide. King KA. **J Sch Health** 1999 Apr;69(4):159–61

Parental reasons for non-response following a referral in school vision screening. Mark H, et al. **J Sch Health** 1999 Jan;69(1):35–8

The awesome Asthma School Days Program: educating children, inspiring a community. Meurer JR, et al. **J Sch Health** 1999 Feb;69(2):63–8

School nurses' perceptions of and experience with school health research. Price JH, et al. **J Sch Health** 1999 Feb; 69(2):58–62

Health professions students as adolescent mentors in the Seattle (Wash.) schools. Rutherford RR, et al. **J Sch Health** 1999 Feb;69(2):77–81

Reducing risks and building developmental assets: essential actions for promoting adolescent health. Scales PC. **J Sch Health** 1999 Mar;69(3):113–9 (16 ref.)

Using puppetry in a coordinated school health program. Synovitz LB. **J Sch Health** 1999 Apr;69(4):145–7 (46 ref.)

Bright smiles, shining futures. Yehieli M, et al. **J Sch Health** 1999 Apr;69(4):162–4 (1 ref.)

25 years of school-based health centers [news] Friedrich MJ. **JAMA** 1999 Mar 3;281(9):781–2

Managing asthma in Rhode Island schools. Thacher AK, et al. **Med Health R I** 1999 Jul;82(7):246–8

Pediatricians' response to the demand for school health programming. Barnett S, et al. **Pediatrics** 1999 Apr; 103(4):e45

Evaluation of a health and nutrition education program in primary school children of Crete over a three-year period. Manios Y, et al. **Prev Med** 1999 Feb;28(2):149–59

Acanthosis Nigricans as an early clinical proxy marker of increased risk of type II diabetes. Bent KN, et al. **Public Health Nurs** 1998 Dec;15(6):415–21

Adolescent smoking prevention--primary health care in cooperation with local schools. A controlled intervention study. Svoen N, et al. **Scand J Prim Health Care** 1999 Mar; 17(1):54–8

Telekid Care: bringing health care into schools. Whitten P, et al. **Telemed J** 1998 Winter;4(4):335–43

Alaska: trampling tobacco [news] Lanier M. **Tob Control** 1998 Winter;7(4):342–3

Using multiple interventions to make an impact in the community [comment] Sandell SD. **Tob Control** 1998 Winter;7 Suppl:S31; discussion S32–5. Comment on: Tob Control 1996 Winter;5(4):259–61.

The health and nutritional status of schoolchildren in Africa: evidence from school-based health programmes in Ghana and Tanzania. The Partnership for Child Development [published erratum appears in Trans R Soc Trop Med Hyg 1998 Jul–Aug;92(4):450] **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):254–61

Implications for school-based health programmes of age and gender patterns in the Tanzanian primary school. The Partnership for Child Development. **Trop Med Int Health** 1998 Oct;3(10):850–3

Caring for our most valuable natural resource: school age children [editorial] Ericksen CS. **WMJ** 1998 Sep;97(8):20–1, 45

Wisconsin's new guide to school nursing and health services. Ericksen CS. **WMJ** 1998 Sep;97(8):29

Health services in Madison Metro School District. Gulbrandsen MW, et al. **WMJ** 1998 Sep;97(8):30–2

AIDS talks for adolescents. Manuel C, et al. **World Health Forum** 1998;19(3):294–7

[Bullying as health hazard among school children] Due EP, et al. **Ugeskr Laeger** 1999 Apr 12;161(15):2201–6 (Eng. Abstr.) **(Dan)**

[The role of the national education physician in the management of child abuse (published erratum appears in Sante Publique 1999 Mar;11(1):following 9)] Le Bihan C, et al. **Sante Publique** 1998 Sep;10(3):305–10 (Eng. Abstr.) **(Fre)**

[PCB blood screening by teachers in a highly PCB-contaminated school (letter; comment)] Ewers U, et al. **Gesundheitswesen** 1998 Dec;60(12):772–5. Comment on: Gesundheitswesen 1998 Jun;60(6):357–62. **(Ger)**

[Measures to promote healthy dietary habits among schoolchildren] Klepp KI, et al. **Tidsskr Nor Laegeforen** 1998 Sep 10;118(21):3306–9 (Eng. Abstr.) **(Nor)**

[Evaluation of the effect of the health education intervention project "Healthy School"] Zivković M, et al. **Srp Arh Celok Lek** 1998 May–Jun;126(5–6):164–70 (Eng. Abstr.) **(Scc)**

[The reform of the school day in Spain. All for the child but without the child (letter)] Labay Matias M, et al. **An Esp Pediatr** 1998 Sep;49(3):330–1 **(Spa)**

[Health surveys in the school environment: between rigor and opportunity (editorial)] Nebot M. **Gac Sanit** 1998 Nov–Dec;12(6):239–40 **(Spa)**

[Hygienic-sanitary conditions in school lunch rooms in the municipality of Oviedo] Arias Diaz C, et al. **Rev Esp Salud Publica** 1998 Nov–Dec;72(6):571–81 (Eng. Abstr.) **(Spa)**

[Health promotion in schools (editorial)] Garcia Garcia I. **Rev Esp Salud Publica** 1998 Jul–Aug;72(4):285–7 **(Spa)**

[Oral health in Galician schoolchildren. 1995] Lorenzo Garcia V, et al. **Rev Esp Salud Publica** 1998 Nov–Dec; 72(6):539–46 (Eng. Abstr.) **(Spa)**

[Prevalence of physical activity in relation to variable socio-demographic conditions and life style in Cordoban students] Perula de Torres LA, et al. **Rev Esp Salud Publica** 1998 May–Jun;72(3):233–44 (Eng. Abstr.) **(Spa)**

[Schools should be adapting to natural differences between pupils (letter)] Elinder L. **Lakartidningen** 1998 Oct 21; 95(43):4714 **(Swe)**

[The medical profession should emphasize the importance of more physical education in schools (letter)] Hällgren B. **Lakartidningen** 1998 Dec 16;95(51–52):5864 **(Swe)**

ECONOMICS

The cost of large-scale school health programmes which deliver anthelmintics to children in Ghana and Tanzania. The Partnership for Child Development. **Acta Trop** 1999 Jul 30;73(2):183–204

Costs and cost-effectiveness of a universal, school-based hepatitis B vaccination program. Krahn M, et al. **Am J Public Health** 1998 Nov;88(11):1638–44

Mental health in schools and system restructuring. Adelman HS, et al. **Clin Psychol Rev** 1999 Mar;19(2):137–63 (102 ref.)

The new child health insurance expansions: how will school-based health centers fit in? Koppelman J, et al. **J Sch Health** 1998 Dec;68(10):441–6 (8 ref.)

A nationwide survey of financing health-related services for special education students. Rodman J, et al. **J Sch Health** 1999 Apr;69(4):133–9

Funding a school-based health center [letter] Nash K, et al. **Nurse Pract** 1999 Feb;24(2):142–6

MANPOWER

[Physicians of the national education system: Stakes and perspectives for a new profession] Carvalho J, et al. **Sante Publique** 1998 Sep;10(3):269–85 (Eng. Abstr.) **(Fre)**

ORGANIZATION & ADMINISTRATION

A qualitative evaluation of school-based family resource and youth service centers. Kalafat J, et al. **Am J Community Psychol** 1998 Aug;26(4):573–604

Teaching kids about rabies. Dandoy S, et al. **Am J Public Health** 1999 Mar;89(3):413–4

The impact of condom availability [correction of distribution] in Seattle schools on sexual behavior and condom use [published erratum appears in Am J Public Health 1999 Mar;89(3):422] Kirby D, et al. **Am J Public Health** 1999 Feb;89(2):182–7

The effectiveness of a tobacco prevention program with adolescents living in a tobacco-producing region. Noland MP, et al. **Am J Public Health** 1998 Dec;88(12):1862–5

The effectiveness of the Reach for Health Community Youth Service learning program in reducing early and unprotected sex among urban middle school students. O'Donnell L, et al. **Am J Public Health** 1999 Feb; 89(2):176–81

Vaccinating high school students against hepatitis B: a school/STD clinic collaboration. Peavey L, et al.

Am J Public Health 1999 Mar;89(3):412–3

The Cardiovascular Health Education Program: assessing the impact on rural and urban adolescents' health knowledge. MacDonald SA. **Appl Nurs Res** 1999 May;12(2):86–90

Health promoting schools: issues and future directions for Australia and the Asia Pacific Region. Rowling L, et al. **Asia Pac J Public Health** 1996–97;9:33–7 (41 ref.)

School screening in remote aboriginal communities--results of an evaluation. Paterson B, et al. **Aust N Z J Public Health** 1998 Oct;22(6):685–9

Sex education should begin in primary school [letter] Ejidokun O, et al. **BMJ** 1999 Jan 2;318(7175):57

A tuberculosis screening and chemoprophylaxis project in children from a high risk population in Edmonton, Alberta. Doering D, et al. **Can J Public Health** 1999 May–Jun; 90(3):152–5

Firearm safety courses for elementary school-age children. Leonard KA. **Can J Public Health** 1999 Jan–Feb;90(1):35–6

Prevention of paediatric acquired brain injury: an interactive, elementary-school program. Morrongiello BA, et al. **Can J Public Health** 1998 Nov–Dec;89(6):391–6

Mental health in schools. Comer JP, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Jul;7(3):499–513, viii

Review of sexuality education in the United States for health professionals working with adolescents. Middleman AB. **Curr Opin Pediatr** 1999 Aug;11(4):283–6 (15 ref.)

The action-oriented school health curriculum in the eastern Mediterranean region. Sulieman O. **East Mediterr Health J** 1998;4 Suppl:S130–6

Effects of a replication of a multicomponent model for preventing adolescent pregnancy in three Kansas communities. Paine-Andrews A, et al. **Fam Plann Perspect** 1999 Jul–Aug;31(4):182–9

The Kahnawake Schools Diabetes Prevention Project: community participation in a diabetes primary prevention research project. McComber AM, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:370–4

Youth action strategies in violence prevention. Carroll GB, et al. **J Adolesc Health** 1999 Jul;25(1):7–13

The prevention education program (PEP). A prospective study of the efficacy of family-oriented life style modification in the reduction of cardiovascular risk and disease: design and baseline data. Schwandt P, et al. **J Clin Epidemiol** 1999 Aug;52(8):791–800

Assessment of drug abuse prevention curricula developed at the local level. Bosworth K. **J Drug Educ** 1998; 28(4):307–25

Implementation and process evaluation of a school-based drug abuse prevention program: Project Towards No Drug Abuse. Dent CW, et al. **J Drug Educ** 1998;28(4):361–75

Preliminary evaluation of a resiliency-based preschool substance abuse and violence prevention project. Dubas JS, et al. **J Drug Educ** 1998;28(3):235–55

Drug prevention with high risk families and young children. Hahn EJ, et al. **J Drug Educ** 1998;28(4):327–45

Effectiveness of student assistance programs in Nebraska schools. Scott DM, et al. **J Drug Educ** 1999;29(2):165–74

Twelfth grade follow-up of the effectiveness of a middle school-based substance abuse prevention program. Shope JT, et al. **J Drug Educ** 1998;28(3):185–97

Trends from 1987 to 1991 in alcohol, tobacco, and other drug (ATOD) use among adolescents exposed to a school district-wide prevention intervention. Younoszai TM, et al. **J Drug Educ** 1999;29(1):77–94

Health promoting schools in England--a way forward in development. Denman S. **J Public Health Med** 1999 Jun; 21(2):215–20

Screening for asthma in an inner-city elementary school in Minneapolis, Minnesota. Bauer EJ, et al. **J Sch Health** 1999 Jan;69(1):12–6

Family involvement in expanded school mental health. Bickham NL, et al. **J Sch Health** 1998 Dec;68(10):425–8 (8 ref.)

Statewide assessment of school-age children with asthma in Delaware. Bucher L, et al. **J Sch Health** 1998 Sep; 68(7):276–81

Short-term impact of safer choices: a multicomponent, school-based HIV, other STD, and pregnancy prevention program. Coyle K, et al. **J Sch Health** 1999 May; 69(5):181–8

Parent expectations of the school health program in Nebraska. Cramer MW, et al. **J Sch Health** 1999 Mar; 69(3):107–12

Developing an evaluation plan for school health programs in Nebraska. Cramer MW, et al. **J Sch Health** 1999 Feb; 69(2):51–7

School-based health centers in the context of education reform. Dryfoos JG. **J Sch Health** 1998 Dec;68(10):404–8 (18 ref.)

Optimizing the roles of school mental health professionals. Flaherty LT, et al. **J Sch Health** 1998 Dec;68(10):420–4 (34 ref.)

Assessing rural community viewpoints to implement a school-based health center. Gadomski A, et al. **J Sch Health** 1998 Sep;68(7):304–6

Promoting sun protection in elementary schools and child care settings: the SunSafe Project. Grant-Petersson J, et al. **J Sch Health** 1999 Mar;69(3):100–6

School-based health centers and school nurses: cementing the collaboration. Hacker K, et al. **J Sch Health** 1998 Dec; 68(10):409–14 (25 ref.)

Promoting holistic child development: a collaborative school health approach. Haynes NM. **J Sch Health** 1998 Nov; 68(9):381–3 (9 ref.)

Evaluation of Jump Into Action: a program to reduce the risk of non-insulin dependent diabetes mellitus in school children on the Texas-Mexico border. Holcomb JD, et al. **J Sch Health** 1998 Sep;68(7):282–8

Using the Open Airways curriculum to improve self-care for third grade children with asthma. Horner SD. **J Sch Health** 1998 Oct;68(8):329–33

Business and faith: key community partnerships for school-based health centers. Juszczak L, et al. **J Sch Health** 1998 Dec;68(10):429–33 (1 ref.)

A hearing conservation program for Wisconsin youth working in agriculture. Knobloch MJ, et al. **J Sch Health** 1998 Oct;68(8):313–8

Lessons learned from the Hunter Region Health Promoting Schools Project in New South Wales, Australia. Lynagh M, et al. **J Sch Health** 1999 Aug;69(6):227–32

Encouraging schools to promote health: impact of the Western Australian School Health Project (1992–1995). McBride N, et al. **J Sch Health** 1999 Aug;69(6):220–6

Interdisciplinary collaborative training for school-based health professionals. Papa PA, et al. **J Sch Health** 1998 Dec;68(10):415–9 (13 ref.)

Recruitment and retention in an alcohol prevention program at two inner-city middle schools. Pappas DM, et al. **J Sch Health** 1998 Aug;68(6):231–6

Texas public school nurses' assessment of children's oral health status. Peterson J, et al. **J Sch Health** 1999 Feb; 69(2):69–72

Assessment of an itinerant medical evaluation program for school dysfunction. Sandler AD. **J Sch Health** 1999 Apr; 69(4):140–4

Managed care, school health programs, and adolescent health services: opportunities for health promotion. Santelli J, et al. **J Sch Health** 1998 Dec;68(10):434–40 (46 ref.)

Establishing networks for health promoting schools in South Africa. Swart D, et al. **J Sch Health** 1999 Feb;69(2):47–50

Alliances and school-based health care. Weist MD, et al. **J Sch Health** 1998 Dec;68(10):401–3

The status of middle level HIV/STD education as assessed by state and local education agencies. Wolff WJ, et al. **J Sch Health** 1999 Aug;69(6):239–42

Barriers to seeking care following school vision screening in Rochester, Minnesota. Yawn BP, et al. **J Sch Health** 1998 Oct;68(8):319–24

School mental health screening: a model for developing countries. Eapen V, et al. **J Trop Pediatr** 1999 Feb; 45(1):53–5

Behavioural intervention trials for HIV/STD prevention in schools: are they feasible? Stephenson JM, et al. **Sex Transm Infect** 1998 Dec;74(6):405–8

Wisconsin's Comprehensive School Health Program (CSHP). Gundersen DF. **WMJ** 1998 Sep;97(8):25–8

[Health education in school] Berthon BS. **Sante Publique** 1998 Dec;10(4):459–71 **(Fre)**

[Elementary school health and the national education physician-teacher partnership: apropos of 2 surveys conducted by national education physicians in training] Danzon A, et al. **Sante Publique** 1998 Sep;10(3):289–302 (Eng. Abstr.) **(Fre)**

[School health in France: evolution and perspectives] Tricoire M, et al. **Sante Publique** 1998 Sep;10(3):257–67 (Eng. Abstr.) **(Fre)**

[A new organization of school health services: its twilight or renaissance?] Prebeg Z. **Lijec Vjesn** 1998 Sep; 120(9):257–61 **(Scr)**

STANDARDS

Systematic review of the school entry medical examination [letter; comment] Leff S. **Arch Dis Child** 1999 Jan;80(1):101 . Comment on: Arch Dis Child 1998 Apr;78(4):301–11.

Collision or collaboration? School-based health services meet managed care. Armbruster P, et al. **Clin Psychol Rev** 1999 Mar;19(2):221–37

Promotion of evaluation as a strategy towards an effective substance prevention. Ostaszewski K. **Eur Addict Res** 1998 Sep;4(3):128–33 (33 ref.)

Direct measurement of sun protection in primary schools. Milne E, et al. **Prev Med** 1999 Jul;29(1):45–52

[School health education in California. The policies and contents of The Health Framework] Watanabe M, et al. **Nippon Koshu Eisei Zasshi** 1999 Mar;46(3):216–23 (Eng. Abstr.) **(Jpn)**

STATISTICS & NUMERICAL DATA

The extent of drug therapy for attention deficit-hyperactivity disorder among children in public schools. LeFever GB, et al. **Am J Public Health** 1999 Sep;89(9):1359–64

School screening: comparing outcomes for Australian and overseas born children [letter] Leavy J, et al. **J Paediatr Child Health** 1998 Aug;34(4):399–400

Child sexual abuse prevention programs in Texas public elementary schools. Lanning B, et al. **J Sch Health** 1999 Jan;69(1):3–8

[Possibilities of epidemiologic studies within the scope of school entrance examinations exemplified by Ulm Helicobacter pylori studies] Gonser T, et al. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S24–9 (Eng. Abstr.) **(Ger)**

SUPPLY & DISTRIBUTION

Mental health in schools and system restructuring. Adelman HS, et al. **Clin Psychol Rev** 1999 Mar;19(2):137–63 (102 ref.)

Collision or collaboration? School-based health services meet managed care. Armbruster P, et al. **Clin Psychol Rev** 1999 Mar;19(2):221–37

Responding to the mental health needs of Latino children and families through school-based services. Garrison EG, et al. **Clin Psychol Rev** 1999 Mar;19(2):199–219 (98 ref.)

Integrating health and mental health services in schools: psychologists collaborating with primary care providers. Kubiszyn T. **Clin Psychol Rev** 1999 Mar;19(2):179–98 (104 ref.)

Toward collaboration in the growing education-mental health interface. Waxman RP, et al. **Clin Psychol Rev** 1999 Mar;19(2):239–53 (62 ref.)

Challenges and opportunities in expanded school mental health. Weist MD. **Clin Psychol Rev** 1999 Mar;19(2):131–5

TRENDS

Telemedicine: new directions for health care delivery in Kentucky schools [letter] Miller TW, et al. **J Ky Med Assoc** 1999 Apr;97(4):170–2

UTILIZATION

A comparison study of an elementary school-based health center: effects on health care access and use. Kaplan DW, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):235–43

Psychosocial functioning of youth receiving mental health services in the schools versus community mental health centers. Weist MD, et al. **Community Ment Health J** 1999 Feb;35(1):69–81

SCHOOL NURSING

An allergy and asthma educational outreach program for school nurses and staff. Wu F, et al. **Allergy Asthma Proc** 1998 Sep–Oct;19(5):307–10

A clinic on wheels. A paradigm shift in the provision of care and the challenges of information infrastructure. Brocht DF, et al. **Comput Nurs** 1999 May–Jun;17(3):109–13

Parent expectations of the school health program in Nebraska. Cramer MW, et al. **J Sch Health** 1999 Mar; 69(3):107–12

Texas public school nurses' assessment of children's oral health status. Peterson J, et al. **J Sch Health** 1999 Feb; 69(2):69–72

School nurses' perceptions of and experience with school health research. Price JH, et al. **J Sch Health** 1999 Feb; 69(2):58–62

School nurses' perceptions of and experiences with head lice. Price JH, et al. **J Sch Health** 1999 Apr;69(4):153–8

Nebraska school nurses identify emotional maltreatment of school-age children: a replication of an Ohio study. Pakieser RA, et al. **J Soc Pediatr Nurs** 1998 Oct–Dec; 3(4):137–45

Tenure in nursing education: how are we doing? Gropper RG. **Nurs Outlook** 1998 Sep–Oct;46(5):202–5

EDUCATION

An academic-community partnership: a model of service and education. Lough MA. **J Community Health Nurs** 1999; 16(3):137–49

Asthma knowledge, roles, functions, and educational needs of school nurses. Calabrese BJ, et al. **J Sch Health** 1999 Aug;69(6):233–8

Preparation of school nurse practitioners [letter; comment] Igoe JB. **J Sch Health** 1998 Nov;68(9):351. Comment on: J Sch Health 1998 May;68(5):179–83.

Who cares for students with epilepsy in mainstream education? Lanfear JH, et al. **Seizure** 1998 Jun;7(3):189–92

MANPOWER

Personnel resource distribution for nursing programs in Carnegie-classified Research I and II and Doctoral I institutions. Gosnell DJ, et al. **J Prof Nurs** 1999 Jan–Feb; 15(1):44–51

METHODS

School-based methylphenidate placebo protocols: methodological and practical issues. Hyman IA, et al. **J Learn Disabil** 1998 Nov–Dec;31(6):581–94, 614

Asthma knowledge, roles, functions, and educational needs of school nurses. Calabrese BJ, et al. **J Sch Health** 1999 Aug;69(6):233–8

The school nurse's role in homeopathic interventions. Selekman J, et al. **J Sch Health** 1998 Oct;68(8):342–5 (7 ref.)

ORGANIZATION & ADMINISTRATION

School nursing: past, present, and future. Hall DM. **Arch Dis Child** 1999 Aug;81(2):181–4 (42 ref.)

An academic-community partnership: a model of service and education. Lough MA. **J Community Health Nurs** 1999; 16(3):137–49

School-based health centers and school nurses: cementing the collaboration. Hacker K, et al. **J Sch Health** 1998 Dec; 68(10):409–14 (25 ref.)

Creating community-based care for the new millennium. Naylor MD, et al. **Nurs Outlook** 1999 May-Jun;47(3):120-7
Who cares for students with epilepsy in mainstream education? Lanfear JH, et al. **Seizure** 1998 Jun;7(3):189-92

TRENDS

School health: yesterday, today, and tomorrow [letter] Auer J. **Nurse Pract** 1999 Apr;24(4):20, 23, 144

SCHOOLS

The relationship between athletic participation and high school students' leadership ability. Dobosz RP, et al. **Adolescence** 1999 Spring;34(133):215-20
Educational programs for deaf students. Schools and programs in Canada. **Am Ann Deaf** 1999 Apr;144(2):148-54
Educational programs for deaf students. Postsecondary programs. **Am Ann Deaf** 1999 Apr;144(2):155-63
Educational programs for deaf students. Schools and programs in the U.S. **Am Ann Deaf** 1999 Apr;144(2):79-147
Exposures to lead-based paint dust in an inner-city high school. Decker JA, et al. **Am Ind Hyg Assoc J** 1999 Mar-Apr;60(2):191-4
Process evaluation in a multisite, primary obesity-prevention trial in American Indian schoolchildren. Helitzer DL, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):816S-824S
The Pathways study: a model for lowering the fat in school meals. Snyder P, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):810S-815S
The epidemic of obesity in American Indian communities and the need for childhood obesity-prevention programs. Story M, et al. **Am J Clin Nutr** 1999 Apr;69(4 Suppl):747S-754S (78 ref.)
Role of schools in the transmission of measles in rural Senegal: implications for measles control in developing countries [see comments] Cisse B, et al.
Am J Epidemiol 1999 Feb 15;149(4):295-301. Comment in: Am J Epidemiol 1999 Feb 15;149(4):302-3.
The incidence of school-related injuries among adolescents in Kaohsiung, Taiwan. Yang CY, et al.
Am J Prev Med 1998 Oct;15(3):172-7
First aid training: the hidden dimension of injury control for school-based injuries [letter; comment] Nguyen LH.
Am J Public Health 1998 Oct;88(10):1557. Comment on: Am J Public Health 1998 Mar;88(3):413-8.
Airways inflammation, atopy, and (1-->3)-beta-D-glucan exposures in two schools. Rylander R, et al.
Am J Respir Crit Care Med 1998 Nov;158(5 Pt 1):1685-7
The relationship between Schistosoma haematobium infection and school performance and attendance in Bamako, Mali. de Clercq D, et al.
Ann Trop Med Parasitol 1998 Dec;92(8):851-8
Weapon carrying on school property among middle school students. DuRant RH, et al. **Arch Pediatr Adolesc Med** 1999 Jan;153(1):21-6
Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. Gortmaker SL, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):409-18
Does classroom amplification aid comprehension? Arnold P, et al. **Br J Audiol** 1999 Jun;33(3):171-8
Health Sciences Information Tools 2000: a cooperative health sciences library/public school information literacy program for medical assistant students. Spang L, et al.
Bull Med Libr Assoc 1998 Oct;86(4):534-40
A case of extreme myopia enrolled at a school for the blind. Masanganise R. **Cent Afr J Med** 1998 May;44(5):136-8
School violence in an impoverished South African community. Burnett C. **Child Abuse Negl** 1998 Aug; 22(8):789-95
Children experiencing violence. II: Prevalence and determinants of corporal punishment in schools. Youssef RM, et al. **Child Abuse Negl** 1998 Oct;22(10):975-85
Supporting pupils in mainstream school with an illness or disability: young people's views. Lightfoot J, et al.
Child Care Health Dev 1999 Jul;25(4):267-83
Radiofrequency radiation: what's safe? [letter] Cridland RG.
CMAJ 1999 Sep 7;161(5):486, 488
The implications of different developmental patterns of disruptive behavior problems for school adjustment. Conduct Problems Prevention Research Group. Stormshak EA, et al. **Dev Psychopathol** 1998 Summer;10(3):451-67
Protecting schools from pesticides [news]
Environ Health Perspect 1999 Aug;107(8):A400
Children's behaviour and the design of school furniture. Knight G, et al. **Ergonomics** 1999 May;42(5):747-60
High school genetics education and Alzheimer disease. Horsma HG. **Genet Test** 1999;3(1):147-53 (50 ref.)
School shootings. Damage control. Hudson T.
Hosp Health Netw 1998 Sep 20;72(18):48
Nasal patency and biomarkers in nasal lavage--the significance of air exchange rate and type of ventilation in schools. Wålinder R, et al.
Int Arch Occup Environ Health 1998 Oct;71(7):479-86
Cancer curricula for secondary schools: making the right choice. Pezza PE. **Int J Health Serv** 1998;28(3):593-602
Who should be educated? Education strategies: could children educate their parents? Basdevant A, et al.
Int J Obes Relat Metab Disord 1999 May;23 Suppl 4:S10-2; discussion S12-3 (7 ref.)
Misfits and mishaps: the need for ergonomics standards in schools [editorial; comment] Litt IF. **J Adolesc Health** 1999 Apr;24(4):229. Comment on: J Adolesc Health 1999 Jan;24(1):1. Comment on: J Adolesc Health 1999 Apr;24(4):265-73.
Mismatch of classroom furniture and student body dimensions: empirical findings and health implications [see comments] Parcells C, et al. **J Adolesc Health** 1999 Apr; 24(4):265-73 (29 ref.). Comment in: J Adolesc Health 1999 Apr;24(4):229.
School as a risk environment for children allergic to cats and a site for transfer of cat allergen to homes [see comments] Almqvist C, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1012-7. Comment in: J Allergy Clin Immunol 1999 Jun;103(6):1002-4.
How to take a weapons history: interviewing children at risk for violence at school. Pittel EM.
J Am Acad Child Adolesc Psychiatry 1998 Oct; 37(10):1100-2
Texas school menu compliance with US Dietary Guidelines for Americans. Friedman BJ, et al. **J Am Diet Assoc** 1998 Nov;98(11):1325-7
Nutrient intake of children eating school breakfast. Friedman BJ, et al. **J Am Diet Assoc** 1999 Feb;99(2):219-21
Factors other than environmental issues influence resource allocation decisions of school foodservice directors. Hackes BL, et al. **J Am Diet Assoc** 1999 Aug;99(8):944-9
Development and implementation of a school-based nutrition and fitness promotion program for ethnically diverse middle-school girls. Leslie J, et al. **J Am Diet Assoc** 1999 Aug;99(8):967-70
Variables affecting high school students' perceptions of school foodservice. Meyer MK, et al. **J Am Diet Assoc** 1998 Dec;98(12):1424-31
Making hot lunch cool: marketing strategies for school foodservices. Miller C. **J Am Diet Assoc** 1998 Dec; 98(12):1431
Back-to-school programs that work. Bailey GM.
J Am Optom Assoc 1999 Aug;70(8):536-7
Dust-borne bacteria in animal sheds, schools and children's day care centres. Andersson AM, et al.
J Appl Microbiol 1999 Apr;86(4):622-34
Return to school as an outcome measure after a burn injury. Staley M, et al. **J Burn Care Rehabil** 1999 Jan-Feb;20(1 Pt 1):91-4; discussion 90
Differences between school classes in preschoolers' psychosocial adjustment: evidence for the importance of children's interpersonal relations. van den Oord EJ, et al.
J Child Psychol Psychiatry 1999 Mar;40(3):417-30
The houses that Ruth and Jefferson built [editorial; comment] Jacoby I. **J Emerg Med** 1999 Mar-Apr;17(2):339-41. Comment on: J Emerg Med 1999 Mar-Apr;17(2):293-7.
Vision testing in schools: an evaluation of personnel, tests, and premises. Spowart KM, et al. **J Med Screen** 1998; 5(3):131-2
High school counselors' perceptions of the academic and personality attributes important for a career in nursing. Blasdell AL, et al. **J Nurs Educ** 1999 Apr;38(4):176-8
The cost-effectiveness of radon mitigation in schools in Northamptonshire. Denman AR, et al. **J Radiol Prot** 1998 Sep;18(3):203-8
Mothers' perceptions of factors influencing violence in schools. Kandakai TL, et al. **J Sch Health** 1999 May; 69(5):189-95
Informed consent in school health research: why, how, and making it easy. Ross JG, et al. **J Sch Health** 1999 May; 69(5):171-6 (14 ref.)
Learning lessons from true-life school trauma [news] Mitka M. **JAMA** 1999 Jan 20;281(3):220
Incidence of keratinophilic fungi in the soil of primary schools and public parks of Madras City, India. Ramesh VM, et al. **Mycopathologia** 1998-99;143(3):139-45
The deadly progression. Anger, rage, insanity, and violence in our schools and what we could do about it. Nesbit F.
N C Med J 1998 Nov-Dec;59(6):370-1
Correlation between the prevalence of certain fungi and sick building syndrome. Cooley JD, et al.
Occup Environ Med 1998 Sep;55(9):579-84
Mass concentration and elemental composition of PM10 in classrooms. Janssen NA, et al. **Occup Environ Med** 1999 Jul;56(7):482-7
Emotional and cognitive aspects in adolescence-onset school difficulties. Masi G, et al. **Panminerva Med** 1999 Mar; 41(1):54-8 (21 ref.)
Tinea capitis: recommendations for school attendance. Honig PJ. **Pediatr Infect Dis J** 1999 Feb;18(2):211-4 (23 ref.)
Selective mutism--the child who doesn't speak at school. Joseph PR. **Pediatrics** 1999 Aug;104(2 Pt 1):308-9
Prehospital emergency care for children at school and nonschool locations. Knight S, et al. **Pediatrics** 1999 Jun; 103(6):e81
Patterns of sustained attentional demands in elementary classrooms: an observational study. Hooper ML, et al.
Percept Mot Skills 1998 Oct;87(2):731-4
Note on ambient noise levels in head start speech-language therapy rooms. Porter R, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1057-8
Limit children's work hours, report says [news; comment]
Public Health Rep 1999 Mar-Apr;114(2):105. Comment on: Public Health Rep 1999 Mar-Apr;114(2):126-9.
Helminth control as an entry point for health-promoting schools in KwaZulu-Natal. Taylor M, et al.
S Afr Med J 1999 Mar;89(3):273-9
Lead poisoning of children in Africa, IV: Exposure to dust lead in primary schools in south-central Durban, South Africa. Liggans GL, et al. **Sci Total Environ** 1998 Oct 8; 221(2-3):117-26
Health behaviour and the school environment in New South Wales, Australia. McLellan L, et al. **Soc Sci Med** 1999 Sep; 49(5):611-9
Trends in adolescent alcohol and other substance use: relationships to trends in peer, parent, and school influences. Welte JW, et al. **Subst Use Misuse** 1999 Aug; 34(10):1427-49
Adolescent suicide prevention: acceptability of school-based programs among secondary school principals. Miller DN, et al. **Suicide Life Threat Behav** 1999 Spring;29(1):72-85
Injuries at school: a review. Haq SM, et al. **Tex Med** 1999 Apr;95(4):62-5 (33 ref.)
Pediatric renal transplantation: back to school issues. Davis ID. **Transplant Proc** 1999 Jun;31(4A):61S-62S
[Young people with back pain (letter)] Ebbehøj N, et al.
Ugeskr Laeger 1999 Jun 14;161(24):3679-80 **(Dan)**
[Health education in the French school system: principles and practical applications] Billon J. **Arch Pediatr** 1998 Feb; 5(2):194-8 (Eng. Abstr.) **(Fre)**
[The link between anxiety dependence with school] Catheline N, et al. **Arch Pediatr** 1999;6 Suppl 2:377s-379s **(Fre)**
[How important are attitudes towards washroom hygiene and spitting in schools? A telephone survey of school attendants in the Baselstadt canton, April 1998] Stürchler MS, et al.
Schweiz Rundsch Med Prax 1999 Apr 22;88(17):747-54 (Eng. Abstr.) **(Ger)**
[Role of school lunch in primary school education: a trial analysis of school teachers' views using an open-ended questionnaire] Inayama T, et al.
Nippon Koshu Eisei Zasshi 1998 Dec;45(12):1115-26 (Eng. Abstr.) **(Jpn)**
[Investigation of school life of children with acquired brain damage] Kurihara M, et al. **No To Hattatsu** 1999 Jan; 31(1):38-43 (Eng. Abstr.) **(Jpn)**
[Evaluation of Japanese school lunch cooks' work by foreign researchers: an attempt to promote an effective discussion by presenting a video tape record] Nakata M.
Sangyo Eiseigaku Zasshi 1999 May;41(3):54-62 (Eng. Abstr.) **(Jpn)**
[Report from the conference on "safe and hygienic learning conditions as indispensable elements of elementary schools' functioning"] Ignar-Golinowska B, et al.
Rocz Panstw Zakl Hig 1998;49(4):515-20 (Eng. Abstr.) **(Pol)**
[Nutritional status of full-time students at public schools. São Paulo, Brazil] da Silva MV. **Arch Latinoam Nutr** 1998 Mar; 48(1):18-24 (Eng. Abstr.) **(Por)**
[The effect of certain factors on the radon concentration in the air of school premises] Mazurenko NIu, et al.
Gig Sanit 1999 Jan-Feb;(1):40-1 **(Rus)**
[Physiologic and health aspects of first-grade schoolchildren's adaptation to school] Sheremet'eva EM, et al. **Gig Sanit** 1999 Jul-Aug;(4):27-9 **(Rus)**
[The hygienic conditions in children's and teenagers' institutions] Spiridonov AM, et al. **Gig Sanit** 1999 May-Jun; (3):52-4 (Eng. Abstr.) **(Rus)**
[Occupational assessment of computer placement in school areas] Gel'tishcheva EA, et al. **Med Tr Prom Ekol** 1999; (6):31-4 (Eng. Abstr.) **(Rus)**
[An epidemic outbreak of pseudotuberculosis in a boarding school] Rodina LV, et al.
Zh Mikrobiol Epidemiol Immunobiol 1998 Jul-Aug; (4):116-8 **(Rus)**
[An outbreak of acute intestinal infections in general education schools (2)] Solodovnikov IuP, et al.
Zh Mikrobiol Epidemiol Immunobiol 1998 Jul-Aug; (4):118-21 **(Rus)**
[An outbreak of acute intestinal infections in general education schools (1)] Solodovnikov IuP, et al.
Zh Mikrobiol Epidemiol Immunobiol 1998 Jul-Aug; (4):113-6 **(Rus)**
[Status of the quality of drinking water provided to schools in the area of the Zenoj-Doboj Canton] Durmišević S, et al. **Med Arh** 1998;52(4):211-3 (Eng. Abstr.) **(Ser)**
[Smoking prevention in Spanish schools] Barrueco M, et al.
Arch Bronconeumol 1998 Nov;34(10):496-9 **(Spa)**
[School feeding programmes in Latin America. An analysis] Amigo H. **Arch Latinoam Nutr** 1997 Dec;47(4):299-304 (Eng. Abstr.) **(Spa)**
[Hygienic-sanitary conditions in school lunch rooms in the municipality of Oviedo] Arias Diaz C, et al.
Rev Esp Salud Publica 1998 Nov-Dec;72(6):571-81 (Eng. Abstr.) **(Spa)**
[Must "noisy Kalle" have a diagnosis to be placed correctly?] Tenstam J. **Lakartidningen** 1999 Jun 16;96(24):2951 **(Swe)**

ECONOMICS

Outrageous [editorial] [see comments] Meskin LH.
J Am Dent Assoc 1999 Mar;130(3):308-10, 312. Comment in: J Am Dent Assoc 1999 Apr;130(4):474. Comment in: J Am Dent Assoc 1999 Aug;130(8):1158.
Subsidized schools [letter; comment] Springer CW.
J Am Dent Assoc 1999 Apr;130(4):474. Comment on: J Am Dent Assoc 1999 Mar;130(3):308-10, 312.

LEGISLATION & JURISPRUDENCE

[Quality management of health examinations of schoolchildren--factors influencing the quality of

documentation of preliminary examinations before school admittance] Knispel C, et al. **Gesundheitswesen** 1999 Jun; 61(6):303–11 (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

Class size and the quality of educational outcomes. Bennett N. **J Child Psychol Psychiatry** 1998 Sep;39(6):797–804

An academic–community partnership: a model of service and education. Lough MA. **J Community Health Nurs** 1999; 16(3):137–49

Innovation in two alternative elementary school programs: why it works. Dyson B, et al. **Res Q Exerc Sport** 1998 Sep;69(3):242–53

STANDARDS

Boarding and public schools: Navajo educational attainment, conduct disorder, and alcohol dependency. Henderson E, et al. **Am Indian Alsk Native Ment Health Res** 1998; 8(2):24–45

A contextual model of adolescent alcohol use across the rural–urban continuum. Rountree PW, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):495–519

STATISTICS & NUMERICAL DATA

Outdoor tobacco advertising in six Boston neighborhoods. Evaluating youth exposure. Pucci LG, et al. **Am J Prev Med** 1998 Aug;15(2):155–9

Current use of adequate preparticipation history forms for heart disease screening of high school athletes. Gómez JE, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):723–6

Building-related health problems: reflections on different symptom prevalence among pupils and teachers. Thörn A. **Int J Circumpolar Health** 1998 Oct;57(4):249–56

Students who carry weapons to high school: comparison with other weapon-carriers. Simon TR, et al. **J Adolesc Health** 1999 May;24(5):340–8

Sexual harassment policies in Florida school districts. Moore MJ, et al. **J Sch Health** 1998 Aug;68(6):237–42

From the Centers for Disease Control and Prevention. Outbreaks of gastrointestinal illness of unknown etiology associated with eating burritos—United States, October 1997–October 1998. **JAMA** 1999 Apr 14;281(14):1263–4

Recent trends in violence-related behaviors among high school students in the United States. Brener ND, et al. **JAMA** 1999 Aug 4;282(5):440–6

Traumatic brain injury in high school athletes [see comments] Powell JW, et al. **JAMA** 1999 Sep 8;282(10):958–63. Comment in: JAMA 1999 Sep 8;282(10):989–91.

Outbreaks of gastrointestinal illness of unknown etiology associated with eating burritos—United States, October 1997–October 1998. **MMWR Morb Mortal Wkly Rep** 1999 Mar 19;48(10):210–3

Attention-deficit/hyperactivity disorder: relations between prevalence rate and school district size, diagnostic method, and referral process. Daley CE, et al. **Psychol Rep** 1998 Oct;83(2):593–4

SCHOOLS, DENTAL

An analysis of an admissions system: can performance in the first year of the dental course be predicted? [published erratum appears in Br Dent J 1999 Feb 27;186(4 Spec No):182] Hoad-Reddick G, et al. **Br Dent J** 1999 Feb 13; 186(3):138–42

Mike Grace interviews Fred Smales, Dean of the Faculty of Dentistry, University of Hong Kong [interview] Smales F. **Br Dent J** 1999 Feb 27;186(4 Spec No):154–6

The Indiana University School of Dentistry archives: back to the future. Hook SA, et al. **Bull Med Libr Assoc** 1998 Jul;86(3):416–9

76th Annual session of the American Association of Dental Schools. Vancouver, British Columbia, Canada, March 8–9, 1999. Abstracts. **J Dent Educ** 1999 Jan;63(1):21–108

Population-based primary care and dental education: a new role for dental schools. Formicola AJ, et al. **J Dent Educ** 1999 Apr;63(4):331–8

Exposures to blood and body fluids among dental school-based dental health care workers. Kennedy JE, et al. **J Dent Educ** 1999 Jun;63(6):464–9

Implementing the problem-based curriculum at Harvard School of Dental Medicine. Matlin KS, et al. **J Dent Educ** 1998 Sep;62(9):693–708

Admission processes in the dental PBL at USC. Pereira LS. **J Dent Educ** 1998 Sep;62(9):680–4

Oral biology, a dialogue: Solon Arthur Ellison at the State University of New York at Buffalo. Emmings FG. **J Dent Res** 1999 Mar;78(3):725–9

[The new construction of the Center for Dentistry, Oral Medicine and Orthodontics of the University of Zurich. Glass-enclosed, modern, mysterious (news)] Berg V. **Schweiz Monatsschr Zahnmed** 1998;108(9):887–8 **(Ger)**

["Heartfelt thanks to all who helped us!" The open-door day at the Basel Center for Dentistry on 28 August 1998 (news)] Vauthier T. **Schweiz Monatsschr Zahnmed** 1998; 108(12):1260–1 **(Ger)**

[Rural internship in dentistry in Rio de Janeiro, Brazil] de Oliveira BH. **Rev Panam Salud Publica** 1998 Aug; 4(2):121–5 (Eng. Abstr.) **(Por)**

[Medical informatics in the training of students, dentists and teachers in dental schools] Bezrukov VM, et al. **Stomatologiia (Mosk)** 1998;77(6):58–61 (Eng. Abstr.) **(Rus)**

[A universal computerized training system for the instruction in computer technologies of dentists, students and teachers in dental schools] Prokhonchukov AA, et al. **Stomatologiia (Mosk)** 1998;77(6):62–4 (Eng. Abstr.) **(Rus)**

HISTORY

[50 years of stomatology in Spain: its odontology and stomatology colleges. A philosophy to be studied with warmth and without passion] Coscolín Fuertes E. **An R Acad Nac Med (Madr)** 1998;Spec No:27–30 **(Spa)**

[From the School of Stomatology of Madrid to that of Oviedo] López Arranz J. **An R Acad Nac Med (Madr)** 1998; Spec No:87–91 **(Spa)**

STATISTICS & NUMERICAL DATA

Cancer curricula in U.S. dental schools. Rankin KV, et al. **J Cancer Educ** 1999 Spring;14(1):8–12

SCHOOLS, HEALTH OCCUPATIONS

Strategies to expand the definition of scholarship for the health professions. Angstadt CN, et al. **J Allied Health** 1998 Fall;27(3):157–61

The Menzies School of Health Research offers a new paradigm of cooperative research. Mathews JD. **Med J Aust** 1998 Dec 7–21;169(11–12):625–9

The schools of public health and practice: where we stand. **Public Health Rep** 1999 Mar–Apr;114(2):194–7

MANPOWER

Premedical program effective in increasing admissions to health professional schools. Stephens MC, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:87–90

ORGANIZATION & ADMINISTRATION

Ten years on and more: establishing programmes of rehabilitation education: the New Zealand case. Gregory RJ. **Disabil Rehabil** 1998 Oct;20(10):385–90 (12 ref.)

A national survey of current admission practices in selected allied health educational programs. Agho AO, et al. **J Allied Health** 1999 Spring;28(1):8–14

Developing and implementing interprofessional learning in a Faculty of Health Professions. Banks S, et al. **J Allied Health** 1998 Fall;27(3):132–6

TRENDS

[UOEH and the future of occupational health] Koizumi A. **Sangyo Ika Daigaku Zasshi** 1999 Mar 1;21(1):7–11 **(Jpn)**

[Institutional development of UOEH] Tachi M. **Sangyo Ika Daigaku Zasshi** 1999 Mar 1;21(1):1–6 **(Jpn)**

SCHOOLS, MEDICAL

Academic departments of emergency medicine: the effects of managed care. Counselman FL, et al. **Acad Emerg Med** 1998 Nov;5(11):1095–100

Changes in academic attributes associated with establishment of departments of emergency medicine. Task Force on the Development of Emergency Medicine at Academic Medical Centers. Gallagher EJ, et al. **Acad Emerg Med** 1998 Nov;5(11):1091–5

Learning objectives for medical student education—guidelines for medical schools: report I of the Medical School Objectives Project [see comments] **Acad Med** 1999 Jan;74(1):13–8. Comment in: Acad Med 1999 May;74(5):461–2.

Relationship between primary care practices in medical school admission and the matriculation of underrepresented-minority and female applicants. Basco WT Jr, et al. **Acad Med** 1999 Aug;74(8):920–4

Participation in enrichment programs and its effect on interview scores of applicants to the University of Washington School of Medicine. Carline JD, et al. **Acad Med** 1999 Apr;74(4):360–2

The InterCon network: a program for education partnerships at the University of Texas–Houston Health Science Center. Castro GA, et al. **Acad Med** 1999 Apr;74(4):363–5

The University of Louisville Medical School's comprehensive programs to increase its percentage of underrepresented-minority students. Crump R, et al. **Acad Med** 1999 Apr;74(4):315–7

UCSF partnership to enrich science teaching for sixth graders in San Francisco's schools. Doyle HJ. **Acad Med** 1999 Apr; 74(4):329–31

The dishonest dean's letter: an analysis of 532 dean's letters from 99 U.S. medical schools. Edmond M, et al. **Acad Med** 1999 Sep;74(9):1033–5

The Medical Academic Advancement Program at the University of Virginia School of Medicine. Fang WL, et al. **Acad Med** 1999 Apr;74(4):366–9

Improving the social responsiveness of medical schools: summary of the conference. Gastel B. **Acad Med** 1999 Aug; 74(8 Suppl):S3–7

Recruiting and selecting generalist-oriented students at Pennsylvania State University College of Medicine. Gingrich D, et al. **Acad Med** 1999 Jan;74(1 Suppl):S49–50

The Urban Health Program to encourage minority enrollment at the University of Illinois at Chicago College of Medicine. Girotti JA. **Acad Med** 1999 Apr;74(4):370–2

Physicians in service to the underserved: an analysis of the practice locations of alumni of Western University of Health Sciences College of Osteopathic Medicine of the Pacific, 1982–1995. Gugelchuk GM, et al. **Acad Med** 1999 May;74(5):557–9

Medical school admission committee members' evaluations of and impressions from recommendation letters. Johnson M, et al. **Acad Med** 1998 Oct;73(10 Suppl):S41–3

Recruiting and selecting generalist-oriented students at New York Medical College. Juster F, et al. **Acad Med** 1999 Jan; 74(1 Suppl):S45–8

Evaluating the predictive validity of MCAT scores across diverse applicant groups. Koenig JA, et al. **Acad Med** 1998 Oct;73(10):1095–106

Academic models for practice relief, recruitment, and retention at the University of New Mexico Medical Center and East Carolina University School of Medicine. Larsen LC, et al. **Acad Med** 1999 Jan;74(1 Suppl):S136–40

UCLA's outreach program of science education in the Los Angeles schools. Palacio-Cayetano J, et al. **Acad Med** 1999 Apr;74(4):348–51

Measuring the social responsiveness of medical schools: setting the standards. Peabody JW. **Acad Med** 1999 Aug; 74(8 Suppl):S59–68

A statewide system to track medical students' careers: the Pennsylvania model. Rabinowitz HK, et al. **Acad Med** 1999 Jan;74(1 Suppl):S112–8

The role of the medical school admission process in the production of generalist physicians. Rabinowitz HK. **Acad Med** 1999 Jan;74(1 Suppl):S39–44

WVU—community partnership that provides science and math enrichment for underrepresented high school students. Rye JA, et al. **Acad Med** 1999 Apr;74(4):352–5

Better admission criteria. Smith MD, et al. **Acad Med** 1998 Oct;73(10):1054–5

Faculty development for community-based physicians at the University of Massachusetts and SUNY–Buffalo. Stone SL, et al. **Acad Med** 1999 Jan;74(1 Suppl):S75–81

Psychology's future in medical schools and academic health care centers. Sheridan EP. **Am Psychol** 1999 Apr; 54(4):267–71

English teaching in the Italian medical faculties: results of a survey. Albano MG, et al. **Ann Ital Chir** 1998 May–Jun; 69(3):413–6

Post graduate education [editorial] Ramos OL. **Arq Bras Cardiol** 1998 Sep;71(3):177–87 **(Eng, Por)**

Is medical school selection discriminatory? New data should be used as a catalyst for change [editorial;comment] Abbasi K. **BMJ** 1998 Oct 24;317(7166):1097–8. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. Prejudice may not be responsible for difference in success rates. [letter; comment] Bland JM. **BMJ** 1999 Apr 3;318(7188):938; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. League tables only help if uncertainty is properly looked at [letter; comment] Gore SM. **BMJ** 1999 Apr 3;318(7188):938–9. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Selection to medical school in Great Britian. Dundee university medical school has some questions [letter; comment] Levison DA, et al. **BMJ** 1999 Apr 3; 318(7188):938; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Factors affecting likelihood of applicants being offered a place in medical schools in the United Kingdom in 1996 and 1997: retrospective study [see comments] [published erratum appears in BMJ 1999 Jan 9;318(7176):94] McManus IC. **BMJ** 1998 Oct 24;317(7166):1111–6; discussion 1116–7 . Comment in: BMJ 1998 Oct 24;317(7166):1097–8. Comment in: BMJ 1999 Apr 3;318(7188):937–8; discussion 939. Comment in: BMJ 1999 Apr 3;318(7188):938; discussion 939. Comment in: BMJ 1999 Apr 3;318(7188):938–9.

Select medical students. Powis D. **BMJ** 1998 Oct 24; 317(7166):1149–50

Selection to medical school in Great Britain. Admissions procedure at St Andrews is driven by purely academic criteria [letter; comment] Steel CM, et al. **BMJ** 1999 Apr 3;318(7188):937–8; discussion 939. Comment on: BMJ 1998 Oct 24;317(7166):1111–6; discussion 1116–7.

Current activity and perspectives of Clinical and Transplantation Immunology Division, Medical University, Sofia, Bulgaria. Naumova E, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 4:S110–3

Perspectives from the historic African American medical institutions. Epps CH Jr. **Clin Orthop** 1999 May; (362):95–101

Lessons about racism [letter; comment] Goldberg WM. **CMAJ** 1998 Oct 20;159(8):917–8. Comment on: CMAJ 1998 Jul 14;159(1):66–7.

Chaos reigns at medical schools over hepatitis B testing. Sibbald B. **CMAJ** 1999 May 18;160(10):1492–3

Southern synergy [news] Brown KS. **Environ Health Perspect** 1998 Nov;106(11):A536–7

Outreach. Medschool drop-ins [news] Novarro L. **Hosp Health Netw** 1999 Apr;73(4):30

Problem-based learning [letter; comment] Young L. **Hosp Pract (Off Ed)** 1999 Apr 15;34(4):62. Comment on: Hosp Pract (Off Ed) 1998 Nov 15;33(11):15–6, 21.

Integrity in science: misconduct investigations in a U.S. university. Dale ML. **J Expo Anal Environ Epidemiol** 1993;

3 Suppl 1:283–95
Med schools and teaching hospitals tackle "Y2K" problem [news] D'Auria J. **J Investig Med** 1999 Mar;47(3):91–3
Medical schools in the United States. **JAMA** 1999 Sep 1; 282(9):883–91
Medical schools in Canada. **JAMA** 1999 Sep 1;282(9):892
Health and human rights in the medical school curriculum [letter; comment] Cobey JC. **JAMA** 1999 Jan 27; 281(4):324–5. Comment on: JAMA 1998 Aug 5;280(5):462–4, 469–70.
Addressing the needs of basic and clinical research: analysis of graduates of the University of Pennsylvania MD–PhD program. Schwartz P, et al. **JAMA** 1999 Jan 6;281(1):96–7, 99
Eliminating disparities, promoting partnerships. Satcher D. **Mayo Clin Proc** 1999 Aug;74(8):838–40
Is it time for a community-based medical school in the UK? [editorial] Bligh J. **Med Educ** 1999 May;33(5):315
Selecting medical students: a case report of the need for change. Marley J, et al. **Med Educ** 1999 Jun;33(6):455–9
Does it matter where you go to medical school? Reznick R. **Med Educ** 1999 Aug;33(8):557–8
Attitudes towards community medicine: a comparison of students from traditional and community-oriented medical schools. Rolfe IE, et al. **Med Educ** 1999 Aug;33(8):606–11
Relationship between conditional early acceptance into medical school and medical school leadership and academic performance: the Conley Scholar experience at the University of Missouri-Columbia. Stratman E, et al. **Mo Med** 1999 Mar;96(3):92–6
Teaching cytopathology in the undergraduate medical school curriculum: the experience at the University of North Carolina. Maygarden SJ, et al. **Mod Pathol** 1998 Aug; 11(8):795–7
The impact of managed care on the academic missions of medical schools and teaching hospitals. Wilson DE. **P R Health Sci J** 1998 Jun;17(2):127–34
Clinical research in medical schools: seizing the opportunity. Meyer RE, et al. **Proc Assoc Am Physicians** 1998 Nov–Dec; 110(6):513–20 (18 ref.)
The relevancy of tenure in medical schools. Friedenberg RM. **Radiology** 1998 Dec;209(3):621–4
Johns Hopkins plagiarism policies [letter] Miller ED. **Science** 1999 Feb 26;283(5406):1265
Is there discrimination against ethnic minorities applying to Scottish medical schools? Parratt D, et al. **Scott Med J** 1998 Dec;43(6):163
Qualification, not diversification [letter; comment] Roberts LC. **Tex Med** 1999 Apr;95(4):6. Comment on: Tex Med 1999 Feb;95(2):56–9.
The first five years: a review of the collaboration between DHHR and the WVU School of Medicine. Withersty DJ, et al. **W V Med J** 1999 Mar–Apr;95(2):62–3
Health status in the Caribbean. Has the faculty of medical sciences made a difference? Gibbs WN. **West Indian Med J** 1998 Jun;47(2):41–6
Where are we now? Hanchard NA. **West Indian Med J** 1998 Dec;47(4):123–4
Development of the Faculty of Medical Sciences. Trinidad & Tobago. Roopnarinesingh S. **West Indian Med J** 1998 Jun;47(2):47–9
[Teaching ethics in French medical schools: evolution or revolution ?] De Saint Martin L, et al. **Presse Med** 1998 Jun 6;27(20):968–70 (Eng. Abstr.) **(Fre)**
[4 figures and a commentary] Chabot JM. **Rev Prat** 1998 Nov 1;48(17):1929–30 **(Fre)**
[Higher medical schools and medical institutions: feedback problems] Shkarin VV, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):42–5 (Eng. Abstr.) **(Rus)**
[The curriculum plan for the Split University Medical School--a modern concept for a new school] Sapunar D, et al. **Lijec Vjesn** 1999 Jun;121(6):208–12 (Eng. Abstr.) **(Scr)**
[Analysis of the ethical principles in medical oaths used by medical schools of Argentina in relation to the Hippocratic Oath] Rancich AM, et al. **Medicina (B Aires)** 1998; 58(2):147–52 (Eng. Abstr.) **(Spa)**
[Clinical nutrition training in medical schools of Mexico] Arroyo P, et al. **Rev Invest Clin** 1998 Nov–Dec; 50(6):517–24 (Eng. Abstr.) **(Spa)**
[The physician-patient relation and the schools of medicine (letter)] Lama A. **Rev Med Chil** 1998 Nov;126(11):1405–6 **(Spa)**
[Accreditation professional degrees and teaching institutions: the case of Chile] Rosselot E, et al. **Rev Med Chil** 1998 Jun;126(6):715–24 (Eng. Abstr.) **(Spa)**

ECONOMICS

Federal research funding at U.S. universities and colleges and the production of underrepresented-minority physicians. Cummings SM. **Acad Med** 1998 Oct;73(10):1122
Use of a mini-grant program to stimulate generalist training at the University of Massachusetts Medical Center. Lasser DH, et al. **Acad Med** 1999 Jan;74(1 Suppl):S30–5
Income and expenditures of osteopathic medical colleges. Kowert C. **J Am Osteopath Assoc** 1998 Nov;98(11):595
The impact of the research assessment exercise on the funding of medical schools [editorial] Symonds EM. **J Public Health Med** 1999 Jun;21(2):123–4
Review of US medical school finances, 1997–1998. Krakower JY, et al. **JAMA** 1999 Sep 1;282(9):847–54
Managed care and medical education. Kuttner R. **N Engl J Med** 1999 Sep 30;341(14):1092–6
Is research suffering at academic health centers? [news] Ault A. **Nat Med** 1999 May;5(5):472
Physician-scientists at risk [letter; comment] [see comments] Cameron OG. **Science** 1999 Mar 5;283(5407):1456. Comment on: Science 1999 Jan 15;283(5400):331–2. Comment in: Science 1999 Apr 2;284(5411):49.
Keck gives $110 million for USC initiatives [news] Kaiser J. **Science** 1999 Jul 30;285(5428):651

HISTORY

History of hematology at the Charles University, Faculty of Medicine and Faculty Hospital in Hradec Králové. Chrobák L, et al. **Acta Medica (Hradec Kralove)** 1998; 41(3):145–53
Eugene Auston Stead, Jr., MD: a conversation with J. Willis Hurst, MD [interview] Stead EA Jr. **Am J Cardiol** 1999 Sep 15;84(6):701–25
Re: "The legacy of epidemiology in the Department of Social and Preventive Medicine: a commemoration of the sesquicentennial of the State University of New York at Buffalo School of Medicine and Biomedical Sciences," "Current problems that are likely to affect the future of epidemiology," and "Toward an integrated approach to molecular epidemiology" [letter; comment] Susser M, et al. **Am J Epidemiol** 1999 Jun 1;149(11):1072–3. Comment on: Am J Epidemiol 1997 Dec 1;146(11):891–5. Comment on: Am J Epidemiol 1997 Dec 1;146(11):907–11. Comment on: Am J Epidemiol 1997 Dec 1;146(11):912–8.
Pulling the cart and enjoying the ride. Hunt CC. **Annu Rev Physiol** 1999;61:1–17
The Montpellier School and Guy de Chauliac. Mellick SA. **Aust N Z J Surg** 1998 Apr;69(4):297–301
The London and Liverpool Schools of Tropical Medicine 1898–1998. Wilkinson L, et al. **Br Med Bull** 1998; 54(2):281–92
'Faithful to its old traditions'? Paris clinical medicine from the second empire to the Third Republic (1848–1872). Harvey J. **Clio Med** 1998;50:313–35
Was anatomical and tissue pathology a product of the Paris clinical school or not? Keel O. **Clio Med** 1998;50:117–83
Dichotomy or integration? Medical microscopy and the Paris clinical tradition. La Berge A. **Clio Med** 1998;50:275–312
Paris medicine: perspectives past and present. La Berge A, et al. **Clio Med** 1998;50:1–69
Paradigm lost or paradise declining? American physicians and the 'dead end' of the Paris clinical school. Warner JH. **Clio Med** 1998;50:337–83
History of osteopathic medical education accreditation. Ward WD, et al. **J Am Osteopath Assoc** 1998 Nov;98(11):583–4
Coke adds life to Emory medicine. Auchmutey P, et al. **J Med Assoc Ga** 1999 Apr;88(2):36–41
Tropical medicine [letter] Cook GC. **J R Soc Med** 1999 Jun; 92(6):325
Iuliu Hatieganu--eminent Romanian clinician. Dumitrascu DL, et al. **Mayo Clin Proc** 1999 Apr;74(4):356
Around the continent in 180 days: the controversial journey of Abraham Flexner [see comments] Hiatt MD. **Pharos** 1999 Winter;62(1):18–24. Comment in: Pharos 1999 Winter;62(1):31–2.
Vilray P. Blair, his surgical descendants, and their roles in plastic surgical development. Stelnicki EJ, et al. **Plast Reconstr Surg** 1999 Jun;103(7):1990–2009
[The Masaryk Homes and the Charles University Medical School in Prague] Mášová H. **Cas Lek Cesk** 1999 Feb 22; 138(4):122–3 **(Cze)**
[Over a half century at the 1st Medical School of Charles University: development of interdisciplinary cooperation] Bednář B. **Cesk Patol** 1998 Nov;34(4):154–9 (Eng. Abstr.) **(Cze)**
[Address by the Dean of Charles University Medical School delivered April 1998 on the occasion of a commemorative meeting on the 650th anniversary of the founding of Charles University] Hach P. **Sb Lek** 1998;99(3):165–8 **(Cze)**
[Training at the Charles University Medical School in 1945 and afterward] Linc R. **Sb Lek** 1998;99(1):79–90 **(Cze)**
[History of medical education in Amiens (editorial)] Ricard J. **Arch Pediatr** 1998;5 Suppl 2:85s–87s **(Fre)**
[Opening of the university medical school in Ghana] Ringelhann B. **Orv Hetil** 1999 Jan 10;140(2):85–7 **(Hun)**
[Past and present at the Polish Medical School in Edinburgh] Grzybowski A. **Przegl Lek** 1999;56(2):181–2 (Eng. Abstr.) **(Pol)**
[The College of Cardiology of Coimbra] Lopes MR. **Rev Port Cardiol** 1999 Apr;18(4):453–5 **(Por)**
[Austrian reform of university medical education in the second half of XVIII century. Communication 2. Development of curricula for training doctors by I.P. Frank] Stochik AM, et al. **Klin Med (Mosk)** 1998;76(8):70–5 **(Rus)**
[Organization of training and curriculum at the Medical Department of the Moscow University after introduction of the Code of 1835. 2. Introduction of the General Code of the Imperial Russian Universities of 1835 at the Medical Department of the Moscow University] Stochik AM, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):47–52 **(Rus)**
[The 100th anniversary of the Department of Normal Physiology of the academician I.P. Pavlov St. Petersburg State Medical University] Nadezhkin LV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Sep;84(9):953–9 **(Rus)**
[The 75th anniversary of the Department of Forensic Medicine of the Nizhegorod Medical Academy] Zagriadskaia AP, et al. **Sud Med Ekspert** 1999 May–Jun; 42(3):37–8 **(Rus)**
[Surgeons--the presidents and commanders of the former Medical Surgical Academy--of the Military Medical Academy] Leonov IT. **Vestn Khir Im I I Grek** 1998; 157(5):157–62 **(Rus)**
[Pathophysiology--the science on the essence of diseases (on the 150th anniversary of the Department of Pathophysiology of the I. M. Sechenov Moscow Medical Academy)] Litvitskiĭ PF. **Vestn Ross Akad Med Nauk** 1999; (8):61–4 **(Rus)**
[The problem-oriented research laboratories of the Military Medical Academy] Budko AA, et al. **Voen Med Zh** 1998 Nov;319(11):20–7 **(Rus)**
[The Military Medical Academy on memorial medals and phalerae] Gribanov ED, et al. **Voen Med Zh** 1998 Nov; 319(11):78–83 **(Rus)**
[The development of clinical practice in the Military Medical Academy] Ianov IuK, et al. **Voen Med Zh** 1999 Jan; 320(1):77–81 **(Rus)**
[Military hygiene in the history of the Military Medical Academy] Lizunov IuV, et al. **Voen Med Zh** 1999 Jun; 320(6):69–74, 96 (Eng. Abstr.) **(Rus)**
[The leaders of the Military Medical (Medicosurgical) Academy over the past 200 years] Lobastov OS. **Voen Med Zh** 1998 Nov;319(11):75–8 **(Rus)**
[The development of the theory of infectious diseases at the Military Medical Academy] Lobzin IuV. **Voen Med Zh** 1998 Nov;319(11):58–62 **(Rus)**
[The development of the academic process at the Military Medical Academy] Novikov VS. **Voen Med Zh** 1998 Nov; 319(11):12–20 **(Rus)**
[The 30th anniversary of the State Institute for Physician Advanced Training of the Ministry of Defense of the Russian Federation] Petrov GM. **Voen Med Zh** 1998 Dec; 319(12):64–6 **(Rus)**
[The contribution of the Military Medical Academy to the development of Russian anesthesiology and the science of resuscitation] Polushin IuS. **Voen Med Zh** 1999 Jul; 320(7):70–4 **(Rus)**
[The contribution of the Military Medical Academy to the development of Russian traumatology and orthopedics] Shapovalov VM. **Voen Med Zh** 1998 Nov;319(11):37–44 **(Rus)**
[The development and improvement in the Military Medical Academy of a system of military physician training for the Armed Forces] Shelepov AM, et al. **Voen Med Zh** 1998 Dec;319(12):51–5 **(Rus)**
[The Military Medical Academy--the national property of Russia] Shevchenko IuL. **Voen Med Zh** 1998 Nov; 319(11):5–12, 95 (Eng. Abstr.) **(Rus)**
[2 centuries of our alma mater--half a century with her by one course] Voronskiĭ IV, et al. **Voen Med Zh** 1999 Apr; 320(4):81–4 **(Rus)**
[The contribution of the scientists of the Military Medical Academy to the development of Russian physiotherapy and health resort science (on the 200th anniversary of the Military Medical Academy and the 70th anniversary of the Department (Course) of Physiotherapy and Health Resort Science of the Military Medical Academy)] Ponomarenko GN. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Nov–Dec; (6):6–11 **(Rus)**
[The first medical school in Sarajevo (1944–1945)] Dugački V. **Lijec Vjesn** 1999 Jun;121(6):216–8 (Eng. Abstr.) **(Scr)**
[History of student medical journals at the Medical School of the University of Zagreb] Pulanić D. **Lijec Vjesn** 1998 Jun;120(6):165–71 **(Scr)**
[Contribution of the Medical Association of Puerto Rico to the creation and development of the School of Medicine of the University of Puerto Rico (published erratum appears in P R Health Sci J 1998 Dec;17(4):381)] Torres-Gómez JM. **P R Health Sci J** 1998 Jun;17(2):145–7 **(Spa)**
[The 70th anniversary of the founding of the Department of the Propedeutics of Internal Diseases of the National Medical University] Netiazhenko VZ, et al. **Lik Sprava** 1999 Apr–May;(3):171–3 **(Ukr)**

LEGISLATION & JURISPRUDENCE

Truth and consequences. Foster GS. **Acad Med** 1998 Dec; 73(12):1226–7 (1 ref.)
Clinical integration and new options for academic medical institutions in network development. Taylor PL. **Acad Med** 1999 Mar;74(3):213–20
Institutional liability for needlestick injury [letter] Tereskerz PM, et al. **Infect Control Hosp Epidemiol** 1998 Oct; 19(10):737
Sending a policy signal: state legislatures, medical schools, and primary care mandates. Weissert CS, et al. **J Health Polit Policy Law** 1998 Oct;23(5):743–70 (39 ref.)

ORGANIZATION & ADMINISTRATION

Contemporary issues in medicine--medical informatics and population health: report II of the Medical School Objectives Project. **Acad Med** 1999 Feb;74(2):130–41

Mixed messages about primary care in the culture of U.S. medical schools. Block SD, et al. **Acad Med** 1998 Oct; 73(10):1087–94
Adapting health care institutions and medical schools to societies' needs. Boelen C. **Acad Med** 1999 Aug;74(8 Suppl):S11–20
Institutional change: embracing the initiative to train more generalists. Brooks WB, et al. **Acad Med** 1999 Jan;74(1 Suppl):S3–8
Improving the social responsiveness of medical schools: lessons from the Canadian experience. Cappon P, et al. **Acad Med** 1999 Aug;74(8 Suppl):S81–90
Missions of a medical school: a North American perspective. Cohen JJ. **Acad Med** 1999 Aug;74(8 Suppl):S27–30
Missions of a medical school: a European perspective. Curtoni SE. **Acad Med** 1999 Aug;74(8 Suppl):S31–7
The metrics process: Baylor's development of a "report card" for faculty and departments. Garson A Jr, et al. **Acad Med** 1999 Aug;74(8):861–70
Promoting institutional change to encourage primary care: experiences at New York Medical College and East Carolina University School of Medicine. Grayson MS, et al. **Acad Med** 1999 Jan;74(1 Suppl):S9–15
Measuring social responsiveness of medical schools: a case study from New Mexico. Kaufman A. **Acad Med** 1999 Aug; 74(8 Suppl):S69–74
The Virginia generalist initiative: lessons learned in a statewide consortium. Morse RM, et al. **Acad Med** 1999 Jan;74(1 Suppl):S24–9
The role of the generalist physician initiative in the merger of Hahnemann University and Medical College of Pennsylvania. Ross LL, et al. **Acad Med** 1999 Jan;74(1 Suppl):S16–23
Measuring social responsiveness of medical schools: a case study from Thailand. Sirisup N. **Acad Med** 1999 Aug;74(8 Suppl):S75–80
Missions of a medical school: an Asian perspective. Suleiman AB. **Acad Med** 1999 Aug;74(8 Suppl):S45–52
Missions of a medical school: an African perspective. van Niekerk JP. **Acad Med** 1999 Aug;74(8 Suppl):S38–44
Changes and challenges for women in academic obstetrics and gynecology. Seltzer VL. **Am J Obstet Gynecol** 1999 Apr;180(4):837–48
Alternative and complementary medicine in Canadian medical schools: a survey. Ruedy J, et al. **CMAJ** 1999 Mar 23;160(6):816–7
Cochairs: a new model for departmental leadership [editorial] Gordon PR, et al. **Fam Med** 1998 Nov–Dec;30(10):740–3
Full time professor and Hon. professor. Joglekar SV. **Indian J Med Sci** 1998 Aug;52(8):357–61
Osteopathic medical education in 1998 prepares for the future [editorial] Retz KC. **J Am Osteopath Assoc** 1998 Nov; 98(11):577–8
Osteopathic graduate medical education. Swallow CS, et al. **J Am Osteopath Assoc** 1998 Nov;98(11):599–606
The Medical School Objectives Project (MSOP) [editorial] O'Donnell JF. **J Cancer Educ** 1999 Spring;14(1):2–3
A blueprint for linking academic oncology and the community. Linggood R, et al. **J Health Polit Policy Law** 1998 Dec;23(6):973–94
Domestic partnership benefits at medical universities. O'Hanlan KA. **JAMA** 1999 Oct 6;282(13):1289, 1292
Undergraduate and postgraduate clinical education in Kobe University School of Medicine. Maruo T. **Kobe J Med Sci** 1997 Dec;43(6):237–42 (0 ref.)
Establishing community-orientated medical schools: key issues and steps in early planning. Hamad B. **Med Educ** 1999 May;33(5):382–9
Merger of top Californian medical schools turns sour [news] Dalton R. **Nature** 1999 Jul 22;400(6742):300
Dismissal of faculty [letter] Soslau G, et al. **Science** 1998 Oct 23;282(5389):627–8
Medical schools in the new millennium. Forbes CD. **Scott Med J** 1998 Aug;43(4):104–5
Medical schools in the new millenium. A reply. Pennington TH. **Scott Med J** 1998 Oct;43(5):131–2

STANDARDS

Changes in services for students with learning disabilities in U.S. and Canadian medical schools, 1991 to 1997. Faigel HC. **Acad Med** 1998 Dec;73(12):1290–3
Education to defend professional values in the new corporate age [see comments] Relman AS. **Acad Med** 1998 Dec; 73(12):1229–33. Comment in: Acad Med 1999 May;74(5):463–4.
Setting better priorities for medical education [letter] Vine S. **Acad Med** 1999 May;74(5):462–3
The teaching of pharmacology in Italian medical schools: the point of view of Italian doctors. Furlanut M. **Eur J Clin Pharmacol** 1998 Nov–Dec;54(9–10):801–4
Has the Medical Council of India succeeded in its aim of improvement of standard of teaching by implementation of full time teachers in clinical subjects? Patel JC. **Indian J Med Sci** 1998 Aug;52(8):362–5
A suggested model for internal assessment as per MCI Guidelines on Graduate Medical Education, 1997. Medical Council of India. Singh T, et al. **Indian Pediatr** 1998 Apr; 35(4):345–7
Executive summary of the Nerflex Commission Report. **J Clin Invest** 1999;104 Suppl:S1–3
Teaching human rights in the medical curriculum [letter] Ahmadi R. **JAMA** 1999 Sep 15;282(11):1034–5
Prestige of training programs and experience of bypass surgeons as factors in adjusted patient mortality rates. Hartz AJ, et al. **Med Care** 1999 Jan;37(1):93–103
Medical school selection – fair or unfair? Wood DF. **Med Educ** 1999 Jun;33(6):399–401
A suitable case for treatment [editorial] **Nature** 1999 May 20;399(6733):183

STATISTICS & NUMERICAL DATA

Ethnic and sex differences in selection for admission to Nottingham University Medical School. James D, et al. **BMJ** 1999 Aug 7;319(7206):351–2
Entry of US medical school graduates into family practice residencies: 1997–1998 and 3-year summary. Kahn NB Jr, et al. **Fam Med** 1998 Sep;30(8):554–63
Affirmative action [editorial] [see comments] **Lancet** 1999 Jan 2;353(9146):1. Comment in: Lancet 1999 Mar 6;353(9155):847. Comment in: Lancet 1999 Mar 27;353(9158):1104.
Brown University School of Medicine: Class of 1999. Smith SR, et al. **Med Health R I** 1999 Aug;82(8):280–4
[Feminization of medicine (comment)] Meyboom-de Jong B. **Ned Tijdschr Geneeskd** 1999 May 29;143(22):1134–6 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 May 29;143(22):1161–6. Comment on: Ned Tijdschr Geneeskd 1999 May 29;143(22):1167–71. **(Dut)**

SUPPLY & DISTRIBUTION

England gets more medical students [news] Knight S. **BMJ** 1999 Jun 26;318(7200):1720

TRENDS

The future of academic emergency medicine [editorial] Moorhead J. **Acad Emerg Med** 1999 Apr;6(4):255–8
Medical schools and teaching hospitals—serving the needs of America's communities. Cohen JJ. **Acad Med** 1998 Nov; 73(11):1177
Psychologists in medical schools in 1997. Research brief. Williams S, et al. **Am Psychol** 1999 Apr;54(4):272–6
Educational programs in US medical schools, 1998–1999. Barzansky B, et al. **JAMA** 1999 Sep 1;282(9):840–6

SCHOOLS, NURSERY

see related
CHILD DAY CARE CENTERS

Promoting generalized social interactions using puppets and script training in an integrated preschool. A single-case study using multiple baseline design. Gronna SS, et al. **Behav Modif** 1999 Jul;23(3):419–40
Representation of goodness or badness in contacts of 5-year-old children with mother and nursery school teacher. Ben-Aaron M, et al. **Br J Med Psychol** 1999 Mar; 72 (Pt 1):93–104
Developmental and psychiatric evaluation in the preschool context. Kaplan MD. **Child Adolesc Psychiatr Clin N Am** 1999 Apr;8(2):379–93 (29 ref.)
Evaluation of early childhood programs. Schweinhart LJ. **Child Adolesc Psychiatr Clin N Am** 1999 Apr;8(2):395–407, viii–ix (44 ref.)
Guidance for infection control in schools and nurseries. **Commun Dis Rep CDR Wkly** 1999 Jul 30;9(31):269
Nutrient intake of Head Start children: home vs. school. Bollella MC, et al. **J Am Coll Nutr** 1999 Apr;18(2):108–14
Head Start, nutrition, and problems of poverty in childhood [editorial] Karp RJ. **J Am Coll Nutr** 1999 Apr;18(2):100–1 (21 ref.)
Social competence in Italian early childhood education. New RS. **New Dir Child Dev** 1998 Fall;(81):87–104
[Load on the low back of teachers in kindergartens] Kumagai S, et al. **Sangyo Eiseigaku Zasshi** 1998 Sep;40(5):204–11 (Eng. Abstr.) **(Jpn)**

STANDARDS

[Evaluation of the indoor and outdoor air quality in a nursery school in Mexico City] Cortez-Lugo M, et al. **Salud Publica Mex** 1998 Sep–Oct;40(5):415–20 (Eng. Abstr.) **(Spa)**

SCHOOLS, NURSING

Assessing school readiness for a practice arrangement using decision tree methodology. Barger SE. **J Prof Nurs** 1998 Nov–Dec;14(6):323–8
Selecting doctoral programs in nursing: resources for students and faculty. Jones KD, et al. **J Prof Nurs** 1999 Jul–Aug; 15(4):245–52

ECONOMICS

Impact of federal funding increase for research. Deets C. **J Prof Nurs** 1999 Mar–Apr;15(2):70

ORGANIZATION & ADMINISTRATION

Wired for thought. Electronic meetings in nursing education. O'Brien BS, et al. **Comput Nurs** 1999 Jan–Feb;17(1):27–31
An education-service partnership: analysis of the development of a satellite baccalaureate nursing programme. Sullinger H, et al. **J Adv Nurs** 1998 Dec; 28(6):1334–8
An academic–community partnership: a model of service and education. Lough MA. **J Community Health Nurs** 1999; 16(3):137–49
Tenure for nursing faculty: who decides and does it matter? Watson J, et al. **J Nurs Educ** 1998 Oct;37(7):308–10
School of nursing closure: an example of congruence with Sutton's model of organizational death. Hart AL. **J Prof Nurs** 1999 May–Jun;15(3):187–91
Transforming academic nursing: from balance through integration to coherence. Langston NF, et al. **J Prof Nurs** 1999 Jan–Feb;15(1):28–32
Building community health nursing in the People's Republic of China: a partnership between schools of nursing in Ottawa, Canada, and Tianjin, China. Edwards N, et al. **Public Health Nurs** 1999 Apr;16(2):140–5

STANDARDS

American Cancer Society's Program of Professorships in Oncology Nursing: survey of activities of the recipients. Frank-Stromborg M, et al. **Cancer Nurs** 1999 Jun; 22(3):230–7
Organizational culture and faculty use of empowering teaching behaviors in selected schools of nursing. Hawks JH. **Nurs Outlook** 1999 Mar–Apr;47(2):67–73

TRENDS

Cooperative education in nursing: a strategy for increasing marketability. Ishida DN, et al. **J Nurs Educ** 1998 Sep; 37(6):260–3

SCHOOLS, PHARMACY

HISTORY

[The first higher pharmacy school in Russia] Khveshchuk PF. **Voen Med Zh** 1998 Nov;319(11):68–72 **(Rus)**

ORGANIZATION & ADMINISTRATION

Clinical pharmacy services in hospitals educating pharmacy students. Raehl CL, et al. **Pharmacotherapy** 1998 Sep–Oct; 18(5):1093–102

TRENDS

Innovation at Midwestern [letter; comment] Slatkin DJ, et al. **J Am Pharm Assoc (Wash)** 1998 Sep–Oct;38(5):516. Comment on: J Am Pharm Assoc (Wash) 1998 May–Jun;38(3):304–6.

SCHOOLS, PUBLIC HEALTH

The schools of public health and practice an environmental health partnership: bringing students to the science. Boatright D, et al. **Public Health Rep** 1999 Jul–Aug; 114(4):384–7
[Cyberspace and the negotiation of meaning: the social aspects of implementing digital communications networks in public health academic institutions] Iturri J. **Cad Saude Publica** 1998 Oct–Dec;14(4):803–10 (Eng. Abstr.) **(Por)**

MANPOWER

Size characteristics of larger academic human environmental health programs in the United States. Goldstein BD, et al. **Environ Health Perspect** 1998 Oct;106(10):615–7

ORGANIZATION & ADMINISTRATION

Reinventing the field training experience: building a practical and effective graduate program at the UCLA School of Public Health. Chickering KL, et al. **Am J Public Health** 1999 Apr;89(4):596–7
Role of schools of public health on maternal and child health programmes in the Asia-Pacific region. Zulkifli SN, et al. **Asia Pac J Public Health** 1998;10(1):10–6

STATISTICS & NUMERICAL DATA

Ethics instruction at schools of public health in the United States. Association of Schools of Public Health Education Committee. Coughlin SS, et al. **Am J Public Health** 1999 May;89(5):768–70

SCHOOLS, VETERINARY

Controversy over relevancy of LGVMA continues [letter; comment] Dubielzig RR, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):616. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Risk factors associated with the seroprevalence of leptospirosis among students at the veterinary school of Zaragoza University. Simón MC, et al. **Vet Rec** 1999 Mar 13;144(11):287–91
Balance of the sexes [letter] Waterman-Pearson AE. **Vet Rec** 1999 Jul 17;145(3):88

HISTORY

Reshaping veterinary medical education: the British experience. Stalheim OH. **J Am Vet Med Assoc** 1998 Dec 15;213(12):1702–5
[History of control measures against bovine tuberculosis—contributions from the Institute of

Microbiology and Contagious Diseases of the Tierärztlichen Hochschule Hannover] Bisping W. **Berl Munch Tierarztl Wochenschr** 1998 Oct;111(10):362–7 (46 ref.) (Eng. Abstr.) **(Ger)**

STANDARDS

Challenges in educating and training small animal clinicians. Clark WT. **Aust Vet J** 1999 Aug;77(8):496–8

New veterinary college generates mixed opinions [letter; comment] Ames ER. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):324. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Anderson BC. **J Am Vet Med Assoc** 1999 Feb 1;214(3):324. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Cartee RE. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):328. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Creswell JA. **J Am Vet Med Assoc** 1999 Feb 1;214(3):326. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Griffiths AO. **J Am Vet Med Assoc** 1999 Feb 1;214(3):328. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Johnston SD, et al. **J Am Vet Med Assoc** 1999 Feb 1;214(3):328–9. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

Is the new veterinary college a good model? [letter] [see comments] Marshak RR, et al. **J Am Vet Med Assoc** 1998 Dec 1;213(11):1554. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):324. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):324, 326. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):326. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):326, 328; discussion 329. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):328. Comment in: J Am Vet Med Assoc 1999 Feb 1;214(3):328–9.

New veterinary college generates mixed opinions [letter; comment] Murtaugh RJ. **J Am Vet Med Assoc** 1999 Feb 1;214(3):324, 326. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

New veterinary college generates mixed opinions [letter; comment] Newman ME. **J Am Vet Med Assoc** 1999 Feb 1;214(3):326, 328; discussion 329. Comment on: J Am Vet Med Assoc 1998 Dec 1;213(11):1554.

Disciplinary introversion in colleges of veterinary medicine. Wilson RB. **J Am Vet Med Assoc** 1999 Jun 15; 214(12):1772–3

STATISTICS & NUMERICAL DATA

Employment, starting salaries, and educational indebtedness of 1998 graduates of US veterinary medical colleges. Wise JK, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):488–90

Employment of male and female graduates of US veterinary medical colleges, 1998. Wise JK, et al. **J Am Vet Med Assoc** 1999 Mar 15;214(6):788–9

TRENDS

The future of veterinary medicine [letter; comment] DiPietro JA. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1117. Comment on: J Am Vet Med Assoc 1998 Aug 1;213(3):347–50.

Veterinary research—a continuing challenge for the schools [news] **Vet Rec** 1999 May 22;144(21):570–2

[Where are you going, academia?] Mouwen JM. **Tijdschr Diergeneeskd** 1998 Dec 15;123(24):755–9 **(Dut)**

SCHUELLER-CHRISTIAN DISEASE see **HAND-SCHUELLER-CHRISTIAN SYNDROME**

SCHWALBE'S NUCLEUS see **VESTIBULAR NUCLEI**

SCHWANN CELLS

Schwann cell hyperplasia and tumors in transgenic mice expressing a naturally occurring mutant NF2 protein. Giovannini M, et al. **Genes Dev** 1999 Apr 15;13(8):978–86

CHEMISTRY

A novel P0 glycoprotein transgene activates expression of lacZ in myelin-forming Schwann cells. Feltri ML, et al. **Eur J Neurosci** 1999 May;11(5):1577–86

Loss of NF1 allele in Schwann cells but not in fibroblasts derived from an NF1-associated neurofibroma. Kluwe L, et al. **Genes Chromosomes Cancer** 1999 Mar;24(3):283–5

Caveolin-1 expression in Schwann cells. Mikol DD, et al. **Glia** 1999 Jul;27(1):39–52

CYTOLOGY

Proliferation of human Schwann cells induced by neu differentiation factor isoforms. Baek SY, et al. **Dev Neurosci** 1998;20(6):512–7

Regulation of insulin-like growth factor-binding protein-5 expression during Schwann cell differentiation. Cheng HL, et al. **Endocrinology** 1999 Oct;140(10):4478–85

Isolation and serum-free culture of primary Schwann cells from human fetal peripheral nerve. Lopez TJ, et al. **Exp Neurol** 1999 Jul;158(1):1–8

Poly(alpha-hydroxyacids) for application in the spinal cord: resorbability and biocompatibility with adult rat Schwann cells and spinal cord. Gautier SE, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):642–54

Heterophilic binding of L1 on unmyelinated sensory axons mediates Schwann cell adhesion and is required for axonal survival. Haney CA, et al. **J Cell Biol** 1999 Sep 6; 146(5):1173–84

Aggregates of acetylcholine receptors are not observed under anti-agrin staining schwann cell processes at the frog neuromuscular junction. Werle MJ, et al. **J Neurobiol** 1999 Jul;40(1):45–54

Schwann cells proliferate at rat neuromuscular junctions during development and regeneration. Love FM, et al. **J Neurosci** 1998 Nov 15;18(22):9376–85

Nerve growth factor signaling through p75 induces apoptosis in Schwann cells via a Bcl-2-independent pathway. Soilu-Hänninen M, et al. **J Neurosci** 1999 Jun 15; 19(12):4828–38

Vascular endothelial growth factor has neurotrophic activity and stimulates axonal outgrowth, enhancing cell survival and Schwann cell proliferation in the peripheral nervous system. Sondell M, et al. **J Neurosci** 1999 Jul 15; 19(14):5731–40

A dicistronic retroviral vector and culture model for analysis of neuron-Schwann cell interactions. Howe DG, et al. **J Neurosci Methods** 1998 Sep 1;83(2):133–42

In vivo predegeneration of peripheral nerves: an effective technique to obtain activated Schwann cells for nerve conduits. Keilhoff G, et al. **J Neurosci Methods** 1999 Jul 1;89(1):17–24

Schwann cell development in embryonic mouse nerves. Dong Z, et al. **J Neurosci Res** 1999 May 15;56(4):334–48

Phosphorylation of CREB in axon-induced Schwann cell proliferation. Lee MM, et al. **J Neurosci Res** 1999 Mar 15;55(6):702–12

Assessment of the malignant potential of mitogen stimulated human Schwann cells. Emery E, et al. **J Peripher Nerv Syst** 1999;4(2):107–16

Control of Schwann cell survival and proliferation: autocrine factors and neuregulins. Cheng L, et al. **Mol Cell Neurosci** 1998 Oct;12(3):141–56

Successful nerve regeneration and persistence of donor cells after a limited course of immunosuppression in rat peripheral nerve allografts. Katsube K, et al. **Transplantation** 1998 Sep 27;66(6):772–7

DRUG EFFECTS

Po gene expression is modulated by androgens in the sciatic nerve of adult male rats. Magnaghi V, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):36–44

DMSO induction of the leukotriene LTC4 by Lewis rat Schwann cells. Constable AL, et al. **J Neurol Sci** 1999 Jan 15;162(2):120–6

Galectin-3 promotes neural cell adhesion and neurite growth. Pesheva P, et al. **J Neurosci Res** 1998 Dec 1;54(5):639–54

TNF-alpha and TGF-beta act synergistically to kill Schwann cells. Skoff AM, et al. **J Neurosci Res** 1998 Sep 15;53(6):747–56

Neuronal signals are required for estrogen-mediated induction of progesterone receptor in cultured rat Schwann cells. Thi AD, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):201–11

Role of organotellurium species in tellurium neuropathy. Goodrum JF. **Neurochem Res** 1998 Oct;23(10):1313–9

Myelin basic protein and myelin basic protein peptides induce the proliferation of Schwann cells via ganglioside GM1 and the FGF receptor. Tzeng SF, et al. **Neurochem Res** 1999 Feb;24(2):255–60

[Experimental study of the effect on growth of Schwann cell from chitin and chitosan in vitro] Kuang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):90–3 (Eng. Abstr.) **(Chi)**

ENZYMOLOGY

The pro-protein convertase PC1 is induced in the transected sciatic nerve and is present in cultured Schwann cells: comparison with PC5, furin and PC7, implication in pro-BDNF processing. Marcinkiewicz M, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):229–46

Lipoprotein lipase is expressed in cultured Schwann cells and functions in lipid synthesis and utilization. Huey PU, et al. **J Lipid Res** 1998 Nov;39(11):2135–42

IMMUNOLOGY

Immunohistochemical localizations of class II antigens and nerve fibers in human carious teeth: HLA-DR immunoreactivity in Schwann cells. Yoshiba N, et al. **Arch Histol Cytol** 1998 Oct;61(4):343–52

METABOLISM

Activation of the autophagy, c-FOS and ubiquitin expression, and nucleolar alterations in Schwann cells precede demyelination in tellurium-induced neuropathy. Calle E, et al. **Acta Neuropathol (Berl)** 1999 Feb;97(2):143–55

Induction of microtubule-associated protein 1B expression in Schwann cells during nerve regeneration. Ma D, et al. **Brain Res** 1999 Mar 27;823(1-2):141–53

Krox-20 controls SCIP expression, cell cycle exit and susceptibility to apoptosis in developing myelinating Schwann cells. Zorick TS, et al. **Development** 1999 Apr; 126(7):1397–406

Regulation of insulin-like growth factor-binding protein-5 expression during Schwann cell differentiation. Cheng HL, et al. **Endocrinology** 1999 Oct;140(10):4478–85

Induction of myelin gene expression in Schwann cell cultures by an interleukin-6 receptor-interleukin-6 chimera. Haggiag S, et al. **FEBS Lett** 1999 Aug 27;457(2):200–4

Prosaposin: a myelinotrophic protein that promotes expression of myelin constituents and is secreted after nerve injury. Hiraiwa M, et al. **Glia** 1999 Jun;26(4):353–60

Expression of the ERBB2/neu and neurofibromatosis type 1 gene products in reactive and neoplastic schwann cell proliferation. Schlegel J, et al. **Int J Oncol** 1998 Dec; 13(6):1281–4

Characterization of the transmembrane molecular architecture of the dystroglycan complex in schwann cells. Saito F, et al. **J Biol Chem** 1999 Mar 19;274(12):8240–6

Neurofibrosarcoma-derived Schwann cells overexpress platelet-derived growth factor (PDGF) receptors and are induced to proliferate by PDGF BB. Badache A, et al. **J Cell Physiol** 1998 Nov;177(2):334–42

Schwann cells use a novel collagen-dependent mechanism for fibronectin fibril assembly. Chernousov MA, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2763–77

Nerve growth factor and proprotein convertases furin and PC7 in transected sciatic nerves and in nerve segments cultured in conditioned media: their presence in Schwann cells, macrophages, and smooth muscle cells. Marcinkiewicz M, et al. **J Comp Neurol** 1999 Jan 25; 403(4):471–85

Estrogen receptor immunoreactivity in Schwann-like brain macroglia. Gudiño-Cabrera G, et al. **J Neurobiol** 1999 Sep 15;40(4):458–70 (106 ref.)

Merlin, the neurofibromatosis type 2 gene product, and beta1 integrin associate in isolated and differentiating Schwann cells. Obremski VJ, et al. **J Neurobiol** 1998 Dec; 37(4):487–501

The levels of leukemia inhibitory factor mRNA in a Schwann cell line are regulated by multiple second messenger pathways. Nagamoto-Combs K, et al. **J Neurochem** 1999 May;72(5):1871–81

Cytochalasin D disrupts the restricted localization of N-CAM, but not of L1, at sites of Schwann cell-neurite and Schwann cell-Schwann cell contact in culture. Carenini S, et al. **J Neurocytol** 1998 Jun;27(6):453–8

Heteromultimeric delayed-rectifier K+ channels in schwann cells: developmental expression and role in cell proliferation. Sobko A, et al. **J Neurosci** 1998 Dec 15; 18(24):10398–408

Quantitation of changes in P0 mRNA by polymerase chain reaction in primary cultured Schwann cells stimulated by axolemma-enriched fraction. Clive DR, et al. **J Neurosci Methods** 1998 Jun 1;81(1-2):25–34

p200, a collagen secreted by Schwann cells, is expressed in developing nerves and in adult nerves following axotomy. Chernousov MA, et al. **J Neurosci Res** 1999 May 1; 56(3):284–94

Ionic currents in normal and neurofibromatosis type 1-affected human Schwann cells: induction of tumor cell K current in normal Schwann cells by cyclic AMP. Fieber LA. **J Neurosci Res** 1998 Nov 15;54(4):495–506

Expression of gp145trkB in the early stage of Schwann cell tube formation. Shi D, et al. **J Orthop Sci** 1999;4(1):22–7

Confocal calcium imaging reveals an ionotropic P2 nucleotide receptor in the paranodal membrane of rat Schwann cells. Grafe P, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):377–83

The Schwann cell at the neuromuscular junction. Koenig J, et al. **J Physiol Paris** 1998 Jun-Aug;92(3-4):153–5 (15 ref.)

Neuronal signals are required for estrogen-mediated induction of progesterone receptor in cultured rat Schwann cells. Thi AD, et al. **J Steroid Biochem Mol Biol** 1998 Nov; 67(3):201–11

Inflammatory cytokines inhibit upregulation of glycolipid expression by Schwann cells in vitro. Lisak RP, et al. **Neurology** 1998 Dec;51(6):1661–5

MICROBIOLOGY

How Mycobacterium leprae infects peripheral nerves. Freedman VH, et al. **Lepr Rev** 1999 Jun;70(2):136–9 (13 ref.)

A 21-kDa surface protein of Mycobacterium leprae binds peripheral nerve laminin-2 and mediates Schwann cell invasion. Shimoji Y, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9857–62

Role of alpha-dystroglycan as a Schwann cell receptor for Mycobacterium leprae [see comments] Rambukkana A, et al. **Science** 1998 Dec 11;282(5396):2076–9. Comment in: Science 1998 Dec 11;282(5396):1999–2000.

PATHOLOGY

Activation of the autophagy, c-FOS and ubiquitin expression, and nucleolar alterations in Schwann cells precede demyelination in tellurium-induced neuropathy. Calle E, et al. **Acta Neuropathol (Berl)** 1999 Feb;97(2):143–55

Not all granular cell tumors show schwann cell differentiation: a granular cell leiomyosarcoma of the

thumb, a case report [letter] Sironi M, et al. **Am J Dermatopathol** 1999 Jun;21(3):307-9

Effect of macrophage suppression with silica on the proliferation of Schwann cells during Wallerian degeneration. Kubota A, et al. **Brain Res** 1998 Aug 17; 802(1-2):254-8

Improved culture methods to expand Schwann cells with altered growth behaviour from CMT1A patients. Hanemann CO, et al. **Glia** 1998 Jun;23(2):89-98

Voltage-dependent membrane currents of cultured human neurofibromatosis type 2 Schwann cells. Kamleiter M, et al. **Glia** 1998 Nov;24(3):313-22

Role of S-100 staining in differentiating leprosy from other granulomatous diseases of the skin. Thomas MM, et al. **Int J Lepr Other Mycobact Dis** 1999 Mar;67(1):1-5

A morphological study of Schwann cells and axonal regeneration in chronically transected human peripheral nerves. Terenghi G, et al. **J Hand Surg [Br]** 1998 Oct; 23(5):583-7

Schwann cells can induce collateral sprouting from intact axons: experimental study of end-to-side neurorrhaphy using a Y-chamber model. Matsumoto M, et al. **J Reconstr Microsurg** 1999 May;15(4):281-6

Isolation and characterization of Schwann cells from neurofibromatosis type 2 patients. Rosenbaum C, et al. **Neurobiol Dis** 1998 Jul;5(1):55-64

Ruffling membrane, stress fiber, cell spreading and proliferation abnormalities in human Schwannoma cells. Pelton PD, et al. **Oncogene** 1998 Oct 29;17(17):2195-209

A 21-kDa surface protein of Mycobacterium leprae binds peripheral nerve laminin-2 and mediates Schwann cell invasion. Shimoji Y, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9857-62

Schwann cell survival mediated by the signaling phospholipid lysophosphatidic acid. Weiner JA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5233-8

PHYSIOLOGY

The neurobiology of Schwann cells. Mirsky R, et al. **Brain Pathol** 1999 Apr;9(2):293-311 (179 ref.)

Differential signaling cascade of MAP kinase and S6 kinase depends on 3',5'-monophosphate concentration in schwann cells: correlation to cellular differentiation and proliferation. Mutoh T, et al. **Brain Res** 1998 Nov 9; 810(1-2):274-8

Schwann cell-conditioned medium promotes neuroblastoma survival and differentiation. Kwiatkowski JL, et al. **Cancer Res** 1998 Oct 15;58(20):4602-6

Adhesion, alignment, and migration of cultured Schwann cells on ultrathin fibronectin fibres. Ahmed Z, et al. **Cell Motil Cytoskeleton** 1999;42(4):331-43

Thyroid hormone affects Schwann cell and oligodendrocyte gene expression at the glial transition zone of the VIIIth nerve prior to cochlea function. Knipper M, et al. **Development** 1998 Sep;125(18):3709-18

A novel P0 glycoprotein transgene activates expression of lacZ in myelin-forming Schwann cells. Feltri ML, et al. **Eur J Neurosci** 1999 May;11(5):1577-86

Guided neurite elongation and schwann cell invasion into magnetically aligned collagen in simulated peripheral nerve regeneration. Dubey N, et al. **Exp Neurol** 1999 Aug; 158(2):338-50

Subtle roles of neural cell adhesion molecule and myelin-associated glycoprotein during Schwann cell spiralling in P0-deficient mice. Carenini S, et al. **Glia** 1999 Sep;27(3):203-12

Myelin formation by Schwann cells in the absence of beta4 integrin. Frei R, et al. **Glia** 1999 Sep;27(3):269-74

Effective gene transfer of lacZ and P0 into Schwann cells of P0-deficient mice. Guénard V, et al. **Glia** 1999 Jan 15; 25(2):165-78

Chronically denervated rat Schwann cells respond to GGF in vitro. Li H, et al. **Glia** 1998 Nov;24(3):290-303

Motor neurons and Schwann cells distinguish between synaptic and extrasynaptic isoforms of laminin. Cho SI, et al. **J Neurobiol** 1998 Nov 15;37(3):339-58

In vivo observations of terminal Schwann cells at normal, denervated, and reinnervated mouse neuromuscular junctions. O'Malley JP, et al. **J Neurobiol** 1999 Feb 5; 38(2):270-86

Leukemia inhibitory factor is an autocrine survival factor for Schwann cells. Dowsing BJ, et al. **J Neurochem** 1999 Jul;73(1):96-104

Developmental expression pattern of the myelin proteolipid MAL indicates different functions of MAL for immature Schwann cells and in a late step of CNS myelinogenesis. Frank M, et al. **J Neurochem** 1999 Aug;73(2):587-97

Schwann cell undergoes apoptosis during experimental allergic neuritis (EAN). Conti G, et al. **J Neurol Sci** 1998 Nov 26;161(1):29-35

Diminished viability, growth, and behavioral efficacy of fetal dopamine neuron grafts in aging rats with long-term dopamine depletion: an argument for neurotrophic supplementation. Collier TJ, et al. **J Neurosci** 1999 Jul 1; 19(13):5563-73

Muscarinic control of cytoskeleton in perisynaptic glia. Georgiou J, et al. **J Neurosci** 1999 May 15;19(10):3836-46

Polysialylated neural cell adhesion molecule-positive CNS precursors generate both oligodendrocytes and Schwann cells to remyelinate the CNS after transplantation. Keirstead HS, et al. **J Neurosci** 1999 Sep 1;19(17):7529-36

Developing Schwann cells acquire the ability to survive without axons by establishing an autocrine circuit involving insulin-like growth factor, neurotrophin-3, and platelet-derived growth factor-BB. Meier C, et al. **J Neurosci** 1999 May 15;19(10):3847-59

Control of myelination by specific patterns of neural impulses. Stevens B, et al. **J Neurosci** 1998 Nov 15; 18(22):9303-11

A role for insulin-like growth factor-I in the regulation of Schwann cell survival. Syroid DE, et al. **J Neurosci** 1999 Mar 15;19(6):2059-68

A glial cell line-derived neurotrophic factor-secreting clone of the Schwann cell line SCTM41 enhances survival and fiber outgrowth from embryonic nigral neurons grafted to the striatum and to the lesioned substantia nigra. Wilby MJ, et al. **J Neurosci** 1999 Mar 15;19(6):2301-12

Orientation of cell adhesion and growth on patterned heterogeneous polystyrene surface. Detrait E, et al. **J Neurosci Methods** 1998 Oct 1;84(1-2):193-204

In vivo predegeneration of peripheral nerves: an effective technique to obtain activated Schwann cells for nerve conduits. Keilhoff G, et al. **J Neurosci Methods** 1999 Jul 1;89(1):17-24

1,25-Dihydroxyvitamin D3 regulates the expression of VDR and NGF gene in Schwann cells in vitro. Cornet A, et al. **J Neurosci Res** 1998 Sep 15;53(6):742-6

Phosphorylation of CREB in axon-induced Schwann cell proliferation. Lee MM, et al. **J Neurosci Res** 1999 Mar 15;55(6):702-12

Multiple connexin expression in peripheral nerve, Schwann cells, and Schwannoma cells. Mambetisaeva ET, et al. **J Neurosci Res** 1999 Jul 15;57(2):166-75

Estrogen and progesterone stimulate Schwann cell proliferation in a sex- and age-dependent manner. Svenningsen AF, et al. **J Neurosci Res** 1999 Jul 1; 57(1):124-30

Endogenous peptidergic modulation of perisynaptic Schwann cells at the frog neuromuscular junction. Bourque MJ, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):197-209

Schwann cells, neurotrophic factors, and peripheral nerve regeneration. Frostick SP, et al. **Microsurgery** 1998; 18(7):397-405 (82 ref.)

Synergistic regulation of Schwann cell proliferation by heregulin and forskolin. Rahmatullah M, et al. **Mol Cell Biol** 1998 Nov;18(11):6245-52

Control of Schwann cell survival and proliferation: autocrine factors and neuregulins. Cheng L, et al. **Mol Cell Neurosci** 1998 Oct;12(3):141-56

Myelin-associated glycoprotein in myelin and expressed by Schwann cells inhibits axonal regeneration and branching. Shen YJ, et al. **Mol Cell Neurosci** 1998 Sep;12(1-2):79-91

N-Cadherin inhibits Schwann cell migration on astrocytes. Wilby MJ, et al. **Mol Cell Neurosci** 1999 Jul;14(1):66-84

Schwann cell-derived Desert hedgehog controls the development of peripheral nerve sheaths [see comments] Parmantier E, et al. **Neuron** 1999 Aug;23(4):713-24. Comment in: Neuron 1999 Aug;23(4):627-9.

Creating barriers: a new role for Schwann cells and Desert hedgehog [comment] Salzer JL. **Neuron** 1999 Aug; 23(4):627-9. Comment on: Neuron 1999 Aug;23(4):713-24.

The Schwann song of the glia-less synapse [comment] Ullian EM, et al. **Neuron** 1998 Oct;21(4):651-2. Comment on: Neuron 1998 Oct;21(4):847-55.

Schwann cell survival mediated by the signaling phospholipid lysophosphatidic acid. Weiner JA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5233-8

Schwann cells and their precursors emerge as major regulators of nerve development. Jessen KR, et al. **Trends Neurosci** 1999 Sep;22(9):402-10 (87 ref.)

SECRETION

Nerve growth factor modulates myelin-associated glycoprotein binding to sensory neurons. Turnley AM, et al. **Int J Dev Neurosci** 1999 Apr;17(2):109-19

Peripheral nerve regeneration and neurotrophic factors. Terenghi G. **J Anat** 1999 Jan;194 (Pt 1):1-14 (219 ref.)

TRANSPLANTATION

Implantation of collagen IV/poly(2-hydroxyethyl methacrylate) hydrogels containing Schwann cells into the lesioned rat optic tract. Plant GW, et al. **Cell Transplant** 1998 Jul-Aug;7(4):381-91

Regrowth of axons into the distal spinal cord through a Schwann-cell-seeded mini-channel implanted into hemisected adult rat spinal cord. Xu XM, et al. **Eur J Neurosci** 1999 May;11(5):1723-40

Enhanced axonal regeneration following combined demyelination plus schwann cell transplantation therapy in the injured adult spinal cord. Keirstead HS, et al. **Exp Neurol** 1999 Sep;159(1):225-36

The effect of denervated muscle and Schwann cells on axon collateral sprouting. Chen YG, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1025-33

Assessment of the malignant potential of mitogen stimulated human Schwann cells. Emery E, et al. **J Peripher Nerv Syst** 1999;4(2):107-16

Successful implantation of Schwann cells in acellular muscles. Fansa H, et al. **J Reconstr Microsurg** 1999 Jan;15(1):61-5

Transplanting myelin-forming cells into the central nervous system: principles and practice. Franklin RJ, et al. **Methods** 1998 Nov;16(3):311-9 (60 ref.)

ULTRASTRUCTURE

Measurements of the Obersteiner-Redlich zone of the vagus nerve and their possible clinical applications. Słoniewski P, et al. **Folia Morphol (Warsz)** 1999;58(1):37-41

Neural architecture in transected rabbit sciatic nerve after prolonged nonreinnervation. Bradley JL, et al. **J Anat** 1998 May;192 (Pt 4):529-38

Perisynaptic Schwann cells at neuromuscular junctions revealed by a novel monoclonal antibody. Astrow SH, et al. **J Neurocytol** 1998 Sep;27(9):667-81

Redistribution of Schwann cells at the developing PNS-CNS borderline. An ultrastructural and autoradiographic study on the S1 dorsal root of the cat. Nilsson Remahl I, et al. **J Neurocytol** 1998 Feb;27(2):85-97

Paranodal Schwann cell mitochondria in spinal roots of the cat. An ultrastructural morphometric analysis. Rydmark M, et al. **J Neurocytol** 1998 Feb;27(2):99-108

SCHWANNOMA see **NEURILEMMOMA**

SCHWANNOMA, ACOUSTIC see **NEUROMA, ACOUSTIC**

SCHWANNOMA, ACOUSTIC, BILATERAL see **NEUROFIBROMATOSIS 2**

SCHWARTZ-BARTTER SYNDROME see **INAPPROPRIATE ADH SYNDROME**

SCHWARTZ-JAMPEL SYNDROME see **OSTEOCHONDRODYSPLASIAS**

SCIATIC NERVE

see related
SCIATICA

Midfemoral block: a new lateral approach to the sciatic nerve [letter] Dang CP. **Anesth Analg** 1999 Jun;88(6):1426

The effect of a sciatic nerve block on the development of inflammation in carrageenan injected rats. Gentili ME, et al. **Anesth Analg** 1999 Oct;89(4):979-84

Blockade of the sciatic nerve in the popliteal fossa: a system for standardization in children. Konrad C, et al. **Anesth Analg** 1998 Dec;87(6):1256-8

Major ambulatory surgery with continuous regional anesthesia and a disposable infusion pump. Klein SM, et al. **Anesthesiology** 1999 Aug;91(2):563-5

Effects of sciatic-conditioned medium on neonatal rat retinal cells in vitro. Torres PM, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1439-42

Lumbar plexus and sciatic nerve block for knee arthroplasty: comparison of ropivacaine and bupivacaine. Greengrass RA, et al. **Can J Anaesth** 1998 Nov;45(11):1094-6

Late sciatic nerve entrapment following pelvic plate reconstruction in total hip arthroplasty. Stiehl JB, et al. **J Arthroplasty** 1998 Aug;13(5):586-8

Tardy sciatic nerve palsy following apophyseal avulsion fracture of the ischial tuberosity. Case report. Spinner RJ, et al. **J Neurosurg** 1998 Nov;89(5):819-21

Assessment of the malignant potential of mitogen stimulated human Schwann cells. Emery E, et al. **J Peripher Nerv Syst** 1999;4(2):107-16

Effects of hydroxyethyl-starch-bound deferoxamine on ischemia/reperfusion injury in chronic nerve compression. Marin PC, et al. **J Reconstr Microsurg** 1998 Oct; 14(7):485-90

Hamstring pain in an athletic sprinter caused by a schwannoma of the sciatic nerve [letter] Blohm D, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(2):135-6

Bacterial lipopolysaccharide induces a conduction block in the sciatic nerves of rats. Brown RF, et al. **Lab Anim Sci** 1999 Feb;49(1):62-9

Sciatic neuropathy. Yuen EC, et al. **Neurol Clin** 1999 Aug; 17(3):617-31, viii (95 ref.)

Clinical trials for piriformis syndrome [letter; comment] Foster MR. **Orthopedics** 1999 Jun;22(6):561, 569. Comment on: Orthopedics 1998 Oct;21(10):1133-5.

Piriformis syndrome resulting from an anomalous relationship between the sciatic nerve and piriformis muscle. Ozaki S, et al. **Orthopedics** 1999 Aug;22(8):771-2

Piriformis syndrome: assessment of current practice and literature review [see comments] Silver JK, et al. **Orthopedics** 1998 Oct;21(10):1133-5. Comment in: Orthopedics 1999 Jun;22(6):561, 569.

Postoperative analgesia following total knee arthroplasty: a study comparing spinal anesthesia and combined sciatic femoral 3-in-1 block [letter; comment] Lang SA. **Reg Anesth Pain Med** 1999 Jan-Feb;24(1):97. Comment on: Reg Anesth Pain Med 1998 Mar-Apr;23(2):142-6.

Continuous sciatic nerve infusion: expanded case report describing a new approach. Sutherland ID. **Reg Anesth Pain Med** 1998 Sep-Oct;23(5):496-501

An unusual cause of sciatica. A case report. Servant CT. **Spine** 1998 Oct 1;23(19):2134-6

[Effect of crushing of sciatic nerve on neuron of lumbar spinal cord] Dong Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):113-6 (Eng. Abstr.) **(Chi)**

[Approaches to the sciatic nerve from the popliteal fossa] Zetlaoui PJ. **Ann Fr Anesth Reanim** 1999 Mar;18(3):fi31-2 **(Fre)**

[Acute compression neuropathy of the proximal sciatic nerve

in a patient with facioscapulohumeral muscular dystrophy] Yokoyama T, et al. **Rinsho Shinkeigaku** 1998 Oct-Nov; 38(10-11):958-60 (Eng. Abstr.) **(Jpn)**

ANATOMY & HISTOLOGY

Greater sciatic notch in sex differentiation in Nigerian skeletal samples. Akpan TB, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):43-6

Dual oblique MR method for imaging the sciatic nerve. Almanza MY, et al. **J Comput Assist Tomogr** 1999 Jan-Feb; 23(1):138-40

Multi-component T1 relaxation and magnetisation transfer in peripheral nerve. Does MD, et al. **Magn Reson Imaging** 1998 Nov;16(9):1033-41

BLOOD SUPPLY

Revascularization of a free nerve graft wrapped in omentum. Smahel J, et al. **Acta Chir Plast** 1999;41(1):11-4

A comparison of blood-brain barrier and blood-nerve barrier endothelial cell markers. Orte C, et al. **Anat Embryol (Berl)** 1999 Jun;199(6):509-17

Hypothermic neuroprotection of peripheral nerve of rats from ischaemia-reperfusion injury. Mitsui Y, et al. **Brain** 1999 Jan;122 (Pt 1):161-9

Ischaemic sciatic neuropathy: a complication of endovascular repair of abdominal aortic aneurysm. Kibria SG, et al. **Eur J Vasc Endovasc Surg** 1999 Mar;17(3):266-7

Effects of hindlimb temperature on sciatic nerve laser Doppler vascular conductance in control and streptozotocin-diabetic rats. Dines KC, et al. **J Neurol Sci** 1999 Feb 1;163(1):17-24

Alpha-lipoic acid provides neuroprotection from ischemia-reperfusion injury of peripheral nerve. Mitsui Y, et al. **J Neurol Sci** 1999 Feb 1;163(1):11-6

Endoneurial microvasculature of chronically transected sciatic nerves in diabetic rats. Maeda K, et al. **J Peripher Nerv Syst** 1999;4(1):13-8

Blood flow in a chronic entrapment neuropathy model in the rabbit sciatic nerve. Aziz W, et al. **J Reconstr Microsurg** 1999 Jan;15(1):47-53

Peripheral nerve revascularization: histomorphometric study of small- and large-caliber grafts. Best TJ, et al. **J Reconstr Microsurg** 1999 Apr;15(3):183-90

MR angiography of persistent sciatic artery. Lin CW, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1119-21

Smooth muscle cells are the site of neurokinin-1 receptor localization in the arterial supply of the rat sciatic nerve. Kummer W, et al. **Neurosci Lett** 1999 Jan 8;259(2):119-22

Combined microlightguide spectrophotometry and microendoscopy for measurement of oxygen saturation in peripheral nerves. Ibrahim S, et al. **Physiol Meas** 1999 Feb; 20(1):65-73

[Peripheral ischemia and persistent sciatic artery--interdisciplinary management] Gawenda M, et al. **Chirurg** 1999 Jul;70(7):795-9 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Caveolin-1 expression in Schwann cells. Mikol DD, et al. **Glia** 1999 Jul;27(1):39-52

Functional recovery and vitamin E level following sciatic nerve crush injury in normal and diabetic rats. Al Moutaery K, et al. **Int J Neurosci** 1998 Dec;96(3-4):245-54

Peripheral myelin protein 22 and protein zero: a novel association in peripheral nervous system myelin. D'Urso D, et al. **J Neurosci** 1999 May 1;19(9):3396-403

CYTOLOGY

Prospective identification, isolation by flow cytometry, and in vivo self-renewal of multipotent mammalian neural crest stem cells. Morrison SJ, et al. **Cell** 1999 Mar 5;96(5):737-49

Adrenergic innervation of rat sensory ganglia following proximal or distal painful sciatic neuropathy: distinct mechanisms revealed by anti-NGF treatment. Ramer MS, et al. **Eur J Neurosci** 1999 Mar;11(3):837-46

In vivo predegeneration of peripheral nerves: an effective technique to obtain activated Schwann cells for nerve conduits. Keilhoff G, et al. **J Neurosci Methods** 1999 Jul 1;89(1):17-24

Multiple connexin expression in peripheral nerve, Schwann cells, and Schwannoma cells. Mambetisaeva ET, et al. **J Neurosci Res** 1999 Jul 15;57(2):166-75

Assessment of the malignant potential of mitogen stimulated human Schwann cells. Emery E, et al. **J Peripher Nerv Syst** 1999;4(2):107-16

Sciatic and femoral nerve sensory neurones occupy different regions of the L4 dorsal root ganglion in the adult rat. Puigdellivol-Sánchez A, et al. **Neurosci Lett** 1998 Jul 31; 251(3):169-72

Techsigting. Neural regeneration. Some nerve! Sikorski R, et al. **Science** 1999 Apr 16;284(5413):453

DRUG EFFECTS

The effects of vasoconstrictor on transmission of impulses in the peripheral nerve. Falaiye VO, et al. **Afr J Med Med Sci** 1996 Sep;25(3):251-3

Ropivacaine or 2% mepivacaine for lower limb peripheral nerve blocks. Study Group on Orthopedic Anesthesia of the Italian Society of Anesthesia, Analgesia, and Intensive Care. Casati A, et al. **Anesthesiology** 1999 Apr; 90(4):1047-52

Sciatic nerve blockade in infant, adolescent, and adult rats: a comparison of ropivacaine with bupivacaine. Kohane DS, et al. **Anesthesiology** 1998 Nov;89(5):1199-208; discussion 10A

Ropivacaine-induced convulsions and severe cardiac dysrhythmia after sciatic block. Ruetsch YA, et al. **Anesthesiology** 1999 Jun;90(6):1784-6

Po gene expression is modulated by androgens in the sciatic nerve of adult male rats. Magnaghi V, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):36-44

Heparan sulphates upregulate regeneration of transected sciatic nerves of adult guinea-pigs. Chau CH, et al. **Eur J Neurosci** 1999 Jun;11(6):1914-26

Effect of metformin on advanced glycation endproduct formation and peripheral nerve function in streptozotocin-induced diabetic rats. Tanaka Y, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):17-22

The effects of FK506 on dorsal column axons following spinal cord injury in adult rats: neuroprotection and local regeneration. Bavetta S, et al. **Exp Neurol** 1999 Aug; 158(2):382-93

Increase of nerve regeneration capacity by new neurotrophic pyrimidine derivative MS-430. Noda M, et al. **Gen Pharmacol** 1998 Nov;31(5):821-4

Indian red scorpion (Mesobuthus tamulus concanesis, Pocock) venom prolongs repolarization time and refractoriness of the compound action potential of frog sciatic nerve in vitro through calcium dependent mechanism. Deshpande SB. **Indian J Exp Biol** 1998 Nov; 36(11):1108-13

Evaluation of peripheral nerve regeneration by nerve growth factor locally administered with a novel system. Santos X, et al. **J Neurosci Methods** 1998 Nov 1;85(1):119-27

Peripheral nerve injection injury with antiemetic agents. Strasberg JE, et al. **J Neurotrauma** 1999 Jan;16(1):99-107

Recombinant human glial growth factor 2 (rhGGF2) improves functional recovery of crushed peripheral nerve (a double-blind study). Chen LE, et al. **Neurochem Int** 1998 Oct;33(4):341-51

The action of local anaesthetics on the compound action potential is altered by the nature of the permeant ion in frog nerve. Lilley SJ, et al. **Neurosci Lett** 1998 Aug 7; 252(1):41-4

Analysis of the neurotrophic effects of GPI-1046 on neuron survival and regeneration in culture and in vivo. Harper S, et al. **Neuroscience** 1999 Jan;88(1):257-67

Intrathecal administration of the mGluR compound, (S)-4CPG, attenuates hyperalgesia and allodynia associated with sciatic nerve constriction injury in rats. Fisher K, et al. **Pain** 1998 Jul;77(1):59-66

Evening primrose oil treatment corrects reduced conduction velocity but not depletion of arachidonic acid in nerve from streptozotocin-induced diabetic rats. Kuruvilla R, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Sep; 59(3):195-202

The endoneurial response to neurolytic agents is highly dependent on the mode of application. Westerlund T, et al. **Reg Anesth Pain Med** 1999 Jul-Aug;24(4):294-302

EMBRYOLOGY

Schwann cell development in embryonic mouse nerves. Dong Z, et al. **J Neurosci Res** 1999 May 15;56(4):334-48

ENZYMOLOGY

Experimental diabetic neuropathy: role of oxidative stress and mechanisms involved. Martínez-Blasco A, et al. **Biofactors** 1998;8(1-2):41-3

Peripheral nerve soluble esterases are spontaneously reactivated after inhibition by paraoxon: implications for a new definition of neuropathy target esterase. Barril J, et al. **Chem Biol Interact** 1999 May 14;119-120:541-50

Localization of Na,K-ATPase alpha/beta isoforms in rat sciatic nerves: effect of diabetes and fish oil treatment. Gerbi A, et al. **J Neurochem** 1999 Aug;73(2):719-26

Expression and activity of cyclin-dependent kinase 5/p35 in adult rat peripheral nervous system. Terada M, et al. **J Neurochem** 1998 Dec;71(6):2600-6

Matrix metalloproteinases MMP-2 and MMP-9 in denervated muscle and injured nerve. Kherif S, et al. **Neuropathol Appl Neurobiol** 1998 Aug;24(4):309-19

IMMUNOLOGY

Anti-ganglioside antibodies can bind peripheral nerve nodes of Ranvier and activate the complement cascade without inducing acute conduction block in vitro [see comments] Paparounas K, et al. **Brain** 1999 May;122 (Pt 5):807-16. Comment in: Brain 1999 May;122 (Pt 5):797-8.

Resistance and susceptibility to experimental autoimmune neuritis in Sprague-Dawley and Lewis rats correlate with different levels of autoreactive T and B cell responses to myelin antigens. Zhu J, et al. **J Neurosci Res** 1998 Nov 1;54(3):373-81

Cold preservation of nerve grafts decreases expression of ICAM-1 and class II MHC antigens. Atchabahian A, et al. **J Reconstr Microsurg** 1999 May;15(4):307-11

Inflammation and severe demyelination in the peripheral nervous system induced by the intraneural injection of recombinant mouse interleukin-12. Pelidou SH, et al. **Scand J Immunol** 1999 Jul;50(1):39-44

INJURIES

Results of cable graft technique in repair of large nerve trunk lesions. Samardžić MM, et al. **Acta Neurochir (Wien)** 1998; 140(11):1177-82

The long-term effect of epidural administration of butamben suspension on nerve injury-induced allodynia in rats. Mitchell VA, et al. **Anesth Analg** 1999 Oct;89(4):989-94

Sciatic nerve injury associated with fracture of the femoral shaft. Takami H, et al. **Arch Orthop Trauma Surg** 1999; 119(1-2):103-4

A single intrathecal injection of GABA permanently reverses neuropathic pain after nerve injury. Eaton MJ, et al. **Brain Res** 1999 Jul 24;835(2):334-9

Microglia, but not astrocytes, react to sciatic nerve injury in aging rats. Gilmore SA, et al. **Brain Res** 1998 Sep 21; 806(1):113-6

Modulation of serotonin 5-HT3 receptor expression in injured adult rat spinal cord motoneurons. Rende M, et al. **Brain Res** 1999 Mar 27;823(1-2):234-40

Regulated expression during development and following sciatic nerve injury of mRNAs encoding the receptor tyrosine phosphatase HPTPzeta/RPTPbeta. Li J, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):77-88

Transplants of neuronal cells bioengineered to synthesize GABA alleviate chronic neuropathic pain. Eaton MJ, et al. **Cell Transplant** 1999 Jan-Feb;8(1):87-101

Peripheral nerve insult induces NMDA receptor-mediated, delayed degeneration in spinal neurons. Azkue JJ, et al. **Eur J Neurosci** 1998 Jun;10(6):2204-6

Intrathecal galanin alleviates allodynia-like behaviour in rats after partial peripheral nerve injury. Hao JX, et al. **Eur J Neurosci** 1999 Feb;11(2):427-32

Satellite-cell-derived nerve growth factor and neurotrophin-3 are involved in noradrenergic sprouting in the dorsal root ganglia following peripheral nerve injury in the rat. Zhou XF, et al. **Eur J Neurosci** 1999 May; 11(5):1711-22

Recovery of C-fiber-induced extravasation following peripheral nerve injury in the rat. Bester H, et al. **Exp Neurol** 1998 Dec;154(2):628-36

Injury-induced gelatinase and thrombin-like activities in regenerating and nonregenerating nervous systems. Friedmann I, et al. **FASEB J** 1999 Mar;13(3):533-43

Differential T cell response in central and peripheral nerve injury: connection with immune privilege. Moalem G, et al. **FASEB J** 1999 Jul;13(10):1207-17

Missile injuries of the sciatic nerve. Samardžić MM, et al. **Injury** 1999 Jan;30(1):15-20

Recovery of sciatic nerve injuries in association with total hip arthroplasty in 27 patients. Pekkarinen J, et al. **J Arthroplasty** 1999 Apr;14(3):305-11

Nitric oxide synthase and growth-associated protein are coexpressed in primary sensory neurons after peripheral injury. González-Hernández T, et al. **J Comp Neurol** 1999 Feb 1;404(1):64-74

Regulation of hemopexin synthesis in degenerating and regenerating rat sciatic nerve. Madore N, et al. **J Neurochem** 1999 Feb;72(2):708-15

Sciatic nerve injury [letter; comment] Plangger CA. **J Neurosurg** 1999 Apr;90(4):806-7. Comment on: J Neurosurg 1998 Jul;89(1):13-23.

Topical axonal transport blocker vincristine prevents nerve injury-induced spinal neuron sensitization in rats. Sotgiu ML, et al. **J Neurotrauma** 1998 Dec;15(12):1077-82

Influence of water immersion stress on peripheral nerve recovery in the rat. Amako M, et al. **J Orthop Sci** 1998; 3(1):32-41

Expression of alpha2-adrenergic receptors in rat primary afferent neurones after peripheral nerve injury or inflammation. Birder LA, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):533-42

Long-term evaluation of functional nerve recovery after reconstruction with a thin-walled biodegradable poly (DL-lactide-epsilon-caprolactone) nerve guide, using walking track analysis and electrostimulation tests. Meek MF, et al. **Microsurgery** 1999;19(5):247-53

Recombinant human glial growth factor 2 (rhGGF2) improves functional recovery of crushed peripheral nerve (a double-blind study). Chen LE, et al. **Neurochem Int** 1998 Oct;33(4):341-51

Zinc alleviates thermal hyperalgesia due to partial nerve injury. Liu T, et al. **Neuroreport** 1999 May 14;10(7):1619-23

Zinc alleviates thermal hyperalgesia due to partial nerve injury. Liu T, et al. **Neuroreport** 1999 Feb 25;10(3):645-9

Unilateral sciatic nerve injury stimulates contralateral nerve regeneration. Yamaguchi H, et al. **Neuroreport** 1999 Apr 26;10(6):1359-62

Upregulation of brain-derived neurotrophic factor and neuropeptide Y in the dorsal ascending sensory pathway following sciatic nerve injury in rat. Li WP, et al. **Neurosci Lett** 1999 Jan 22;260(1):49-52

Contralateral inhibitory control of spinal nociceptive transmission in rats with chronic peripheral nerve injury. Sotgiu ML, et al. **Neurosci Lett** 1998 Aug 28;253(1):21-4

Nerve injury increases an excitatory action of neuropeptide Y and Y2-agonists on dorsal root ganglion neurons. Abdulla FA, et al. **Neuroscience** 1999 Mar;89(1):43-50

Partial and complete sciatic nerve injuries induce similar increases of neuropeptide Y and vasoactive intestinal peptide immunoreactivities in primary sensory neurons and their central projections. Ma W, et al. **Neuroscience** 1998 Oct;86(4):1217-34

Ultrastructural localization of increased neuropeptide immunoreactivity in the axons and cells of the gracile nucleus following chronic constriction injury of the sciatic nerve. Ma W, et al. **Neuroscience** 1999;93(1):335–48

Injured primary sensory neurons switch phenotype for brain-derived neurotrophic factor in the rat. Zhou XF, et al. **Neuroscience** 1999;92(3):841–53

Effect of peripheral nerve injury on cGMP and nitric oxide synthase levels in rat dorsal root ganglia: time course and coexistence. Shi TJ, et al. **Pain** 1998 Dec;78(3):171–80

Wallerian degeneration and hyperalgesia after peripheral nerve injury are glutathione-dependent. Wagner R, et al. **Pain** 1998 Aug;77(2):173–9

The effects of ultrasonic energy on peripheral nerves: implications for ultrasound-assisted liposuction. Howard BK, et al. **Plast Reconstr Surg** 1999 Mar;103(3):984–9

[Effects of electric fields on the cellular structure of the regenerated nerve] Li Q, et al.
Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih 1997 Jan;13(1):43–7 (Eng. Abstr.) **(Chi)**

[Experimental study of peripheral nerve regeneration influenced inverted and non-inverted distal nerve segments] Chen Z, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Jan;11(1):23–6 (Eng. Abstr.) **(Chi)**

[Studies on the changes of morphometry and neuropeptide of spinal neurons after peripheral nerve ... ...] Huang Y, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Jan;11(1):6–9 (Eng. Abstr.) **(Chi)**

[Experimental study of fibrin glue adhesion with epineurial anchor suture to repair peripheral nerves] Zhang C, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1998 May;12(3):129–32 (Eng. Abstr.) **(Chi)**

[Evaluating the risk of sciatic nerve damage in the rabbit by administration of low and intermediate energy extracorporeal shock waves] Rompe JD, et al.
Z Orthop Ihre Grenzgeb 1998 Sep–Oct;136(5):407–11 (Eng. Abstr.) **(Ger)**

METABOLISM

Regulation of the expression of peripheral benzodiazepine receptors and their endogenous ligands during rat sciatic nerve degeneration and regeneration: a role for PBR in neurosteroidogenesis. Lacor P, et al. **Brain Res** 1999 Jan 2;815(1):70–80

Proteolytic processing, axonal transport and differential distribution of chromogranins A and B, and secretogranin II (secretoneurin) in rat sciatic nerve and spinal cord. Li JY, et al. **Eur J Neurosci** 1999 Feb;11(2):528–44

Prosaposin: a myelinotrophic protein that promotes expression of myelin constituents and is secreted after nerve injury. Hiraiwa M, et al. **Glia** 1999 Jun;26(4):353–60

Identification and localization of Ca(2+)-activated K+ channels in rat sciatic nerve. Mi H, et al. **Glia** 1999 Apr; 26(2):166–75

Modulation of cell-mediated immunity prolongs adenovirus-mediated transgene expression in sciatic nerve. Jani A, et al. **Hum Gene Ther** 1999 Mar 20;10(5):787–800

Differential expression of gap junction proteins connexin26, 32, and 43 in normal and crush-injured rat sciatic nerves. Close relationship between connexin43 and occludin in the perineurium. Nagaoka T, et al. **J Histochem Cytochem** 1999 Jul;47(7):937–48

Calcium-dependent interaction between the large myelin-associated glycoprotein and S100beta. Kursula P, et al. **J Neurochem** 1999 Oct;73(4):1724–32

Regulation of hemopexin synthesis in degenerating and regenerating rat sciatic nerve. Madore N, et al.
J Neurochem 1999 Feb;72(2):708–15

Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13

p200, a collagen secreted by Schwann cells, is expressed in developing nerves and in adult nerves following axotomy. Chernousov MA, et al. **J Neurosci Res** 1999 May 1; 56(3):284–94

Characterization of polyol pathway in Schwann cells isolated from adult rat sciatic nerves. Suzuki T, et al.
J Neurosci Res 1999 Aug 15;57(4):495–503

Regulation of fibronectin alternative splicing during peripheral nerve repair. Vogelezang MG, et al.
J Neurosci Res 1999 May 15;56(4):323–33

Expression of gp145trkB in the early stage of Schwann cell tube formation. Shi D, et al. **J Orthop Sci** 1999;4(1):22–7

Neuroprotective effect of fish oil in diabetic neuropathy. Gerbi A, et al. **Lipids** 1999;34 Suppl:S93–4

Anisotropic and restricted diffusion of water in the sciatic nerve: A (2)H double-quantum-filtered NMR study. Seo Y, et al. **Magn Reson Med** 1999 Sep;42(3):461–6

Generation of spectrin breakdown products in peripheral nerves by addition of M-calpain. Castejon MS, et al.
Muscle Nerve 1999 Jul;22(7):905–9

Vascular endothelial growth factor expression in peripheral nerves and dorsal root ganglia in diabetic neuropathy in rats. Samii A, et al. **Neurosci Lett** 1999 Mar 12; 262(3):159–62

Regulation of the LIM-type homeobox gene islet-1 during neuronal regeneration. Hol EM, et al. **Neuroscience** 1999; 88(3):917–25

Regulation of ciliary neurotrophic factor receptor alpha in sciatic motor neurons following axotomy. MacLennan AJ, et al. **Neuroscience** 1999;91(4):1401–13

Age-induced decrease of glycoprotein Po and myelin basic protein gene expression in the rat sciatic nerve. Repair by steroid derivatives. Melcangi RC, et al. **Neuroscience** 1998 Jul;85(2):569–78

The expression of recombinant large myelin-associated glycoprotein cytoplasmic domain and the purification of native myelin-associated glycoprotein from rat brain and peripheral nerve. Heape AM, et al. **Protein Expr Purif** 1999 Apr;15(3):349–61

PATHOLOGY

Nonselective nerve fibre damage in peripheral nerves after experimental thermocoagulation. Fröhling MA, et al.
Acta Neurochir (Wien) 1998;140(12):1297–302

Expression of myelin proteins in the adult heterozygous Trembler mouse. Vallat JM, et al.
Acta Neuropathol (Berl) 1999 Sep;98(3):281–7

An immunohistochemical marker for Wallerian degeneration of fibers in the central and peripheral nervous system. Pesini P, et al. **Brain Res** 1999 May 15;828(1–2):41–59

Peripheral mononeuropathy induced by loose ligation of the sciatic nerve in the rat: behavioral, electrophysiological and histopathologic studies. Bai YH, et al. **Exp Anim** 1999 Apr; 48(2):87–94

Influence of water immersion stress on peripheral nerve recovery in the rat. Amako M, et al. **J Orthop Sci** 1998; 3(1):32–41

Schwann cells can induce collateral sprouting from intact axons: experimental study of end-to-side neurorrhaphy using a Y-chamber model. Matsumoto M, et al.
J Reconstr Microsurg 1999 May;15(4):281–6

Effect of distraction osteogenesis on the peripheral nerve: experimental study in the rat. Skoulis TG, et al.
J Reconstr Microsurg 1998 Nov;14(8):565–74

Peripheral nerve hemangioblastoma. Giannini C, et al.
Mod Pathol 1998 Oct;11(10):999–1004

PHYSIOLOGY

Purified extracts from short-time-predegenerated rats' sciatic nerves promote the regrowth of injured hippocampal neurites. Lewin-Kowalik J, et al. **Acta Physiol Hung** 1997–98;85(4):325–34

Effect of a matrix metalloproteinase inhibitor (BB-1101) on nerve regeneration. Demestre M, et al.
Ann N Y Acad Sci 1999 Jun 30;878:658–61

In vivo performance of a new biodegradable polyester urethane system used as a nerve guidance channel. Borkenhagen M, et al. **Biomaterials** 1998 Dec; 19(23):2155–65

Early peripheral nerve healing in collagen and silicone tube implants: myofibroblasts and the cellular response. Chamberlain LJ, et al. **Biomaterials** 1998 Aug; 19(15):1393–403

In vivo evaluation of poly(L-lactic acid) porous conduits for peripheral nerve regeneration. Evans GR, et al.
Biomaterials 1999 Jun;20(12):1109–15

Two modes of microtubule-associated protein 1B phosphorylation are differentially regulated during peripheral nerve regeneration. Ramón-Cueto A, et al.
Brain Res 1999 Jan 9;815(2):213–26

Effect of subcutaneous administration of calcium channel blockers on nerve injury-induced hyperalgesia. White DM, et al. **Brain Res** 1998 Aug 10;801(1–2):50–8

The effect of perineural colchicine on nerve injury-induced spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Brain Res Bull** 1999 Aug;49(6):419–27

Thrombospondin expression in nerve regeneration I. Comparison of sciatic nerve crush, transection, and long-term denervation. Hoffman JR, et al.
Brain Res Bull 1999 Mar 1;48(4):413–20

Experimental stationary potential recorded with using spine and skull model. Uraisami T, et al.
Electromyogr Clin Neurophysiol 1999 Jan–Feb;39(1):55–60

Heparan sulphates upregulate regeneration of transected sciatic nerves of adult guinea-pigs. Chau CH, et al.
Eur J Neurosci 1999 Jun;11(6):1914–26

AMPA receptors at primary afferent synapses in substantia gelatinosa after sciatic nerve section. Popratiloff A, et al. **Eur J Neurosci** 1998 Oct;10(10):3220–30

Differential time course of neuronal and glial apoptosis in neonatal rat dorsal root ganglia after sciatic nerve axotomy. Whiteside G, et al. **Eur J Neurosci** 1998 Nov;10(11):3400–8

Facilitation of spinal sciatic neuron responses to hindpaw thermal stimulation after formalin injection in rat tail. Biella G, et al. **Exp Brain Res** 1999 Jun;126(4):501–8

Anodally focused polarization of peripheral nerve allows discrimination of myelinated and unmyelinated fiber input to brainstem nuclei. Petruska JC, et al. **Exp Brain Res** 1998 Aug;121(4):379–90

Magnetically aligned collagen gel filling a collagen nerve guide improves peripheral nerve regeneration. Ceballos D, et al. **Exp Neurol** 1999 Aug;158(2):290–300

Regulation of semaphorin III/collapsin-1 gene expression during peripheral nerve regeneration. Pasterkamp RJ, et al. **Exp Neurol** 1998 Oct;153(2):313–27

Neuronal-glial differential expression of TGF-alpha and its receptor in the dorsal root ganglia in response to sciatic nerve lesion. Xian CJ, et al. **Exp Neurol** 1999 Jun; 157(2):317–26

Injury-induced gelatinase and thrombin-like activities in regenerating and nonregenerating nervous systems. Friedmann I, et al. **FASEB J** 1999 Mar;13(3):533–43

Metastasis-associated mts1 (S100A4) protein is selectively expressed in white matter astrocytes and is up-regulated after peripheral nerve or dorsal root injury. Kozlova EN, et al. **Glia** 1999 Sep;27(3):249–58

Functional recovery and vitamin E level following sciatic nerve crush injury in normal and diabetic rats. Al Moutaery K, et al. **Int J Neurosci** 1998 Dec;96(3–4):245–54

Endothelial modulation of neural sympathetic vascular tone in canine skeletal muscle. King-VanVlack CE, et al.
J Appl Physiol 1998 Oct;85(4):1362–7

Nitric oxide synthase and growth-associated protein are coexpressed in primary sensory neurons after peripheral injury. González-Hernández T, et al. **J Comp Neurol** 1999 Feb 1;404(1):64–74

Nerve growth factor and proprotein convertases furin and PC7 in transected sciatic nerves and in nerve segments cultured in conditioned media: their presence in Schwann cells, macrophages, and smooth muscle cells.
Marcinkiewicz M, et al. **J Comp Neurol** 1999 Jan 25; 403(4):471–85

Electrophysiological and ultrastructural correlates of cryoinjury in sciatic nerve of the freeze-tolerant wood frog, Rana sylvatica. Costanzo JP, et al.
J Comp Physiol [B] 1999 Jul;169(4–5):351–9

Changes in the stress relaxation properties of peripheral nerves after transection. Toby EB, et al.
J Hand Surg [Am] 1999 Jul;24(4):694–9

Structural and electrophysiological effects of local anesthetics and of low temperature on myelinated nerves: implication of the lipid chains in nerve excitability. Luzzati V, et al. **J Mol Biol** 1999 Mar 12;286(5):1389–402

Expression of JE (monocyte chemoattractant protein-1) is induced by sciatic axotomy in wild type rodents but not in C57BL/Wld(s) mice. Carroll SL, et al.
J Neuropathol Exp Neurol 1998 Oct;57(10):915–30

Evaluation of peripheral nerve regeneration by nerve growth factor locally administered with a novel system. Santos X, et al. **J Neurosci Methods** 1998 Nov 1;85(1):119–27

Phosphorylation of CREB in axon-induced Schwann cell proliferation. Lee MM, et al. **J Neurosci Res** 1999 Mar 15;55(6):702–12

Electromagnetic fields influence NGF activity and levels following sciatic nerve transection. Longo FM, et al.
J Neurosci Res 1999 Jan 15;55(2):230–7

Neurotoxins targetting receptor site 5 of voltage-dependent sodium channels increase the nodal volume of myelinated axons. Mattei C, et al. **J Neurosci Res** 1999 Mar 15; 55(6):666–73

Insulin-like growth factor-II increases and IGF is required for postnatal rat spinal motoneuron survival following sciatic nerve axotomy. Pu SF, et al. **J Neurosci Res** 1999 Jan 1;55(1):9–16

Prior collateral sprouting enhances elongation rate of sensory axons regenerating through acellular distal segment of a crushed peripheral nerve. Bajrović F, et al.
J Peripher Nerv Syst 1999;4(1):5–12

Immunophilin FK506-binding protein 52 (not FK506-binding protein 12) mediates the neurotrophic action of FK506. Gold BG, et al.
J Pharmacol Exp Ther 1999 Jun;289(3):1202–10

Regeneration of the motor component of the rat sciatic nerve with local administration of neurotrophic growth factor in silicone chambers. Santos X, et al.
J Reconstr Microsurg 1999 Apr;15(3):207–13

Polylactide bioabsorbable polymers for guided tissue regeneration. Giardino R, et al. **J Trauma** 1999 Aug; 47(2):303–8

Influence of motor activities on the release of transmitter quanta from motor nerve terminals in mice. Taquahashi Y, et al. **J Vet Med Sci** 1999 May;61(5):513–6

Effect of KW-8232, a novel anti-osteoporotic agent, on bone loss in sciatic neurectomized rats. Uchii M, et al.
Jpn J Pharmacol 1998 Oct;78(2):241–3

Improved nerve regeneration with neutralization of transforming growth factor-beta1. Davison SP, et al.
Laryngoscope 1999 Apr;109(4):631–5

A novel, biodegradable polymer conduit delivers neurotrophins and promotes nerve regeneration. Hadlock T, et al. **Laryngoscope** 1999 Sep;109(9):1412–6

Effect of 1.5 T steady magnetic field on neuroconduction of a bullfrog sciatic nerve in a partially active state within several hours after extraction. Osuga T, et al.
Magn Reson Imaging 1999 Jun;17(5):791–4

Long-term evaluation of functional nerve recovery after reconstruction with a thin-walled biodegradable poly (DL-lactide-epsilon-caprolactone) nerve guide, using walking track analysis and electrostimulation tests. Meek MF, et al. **Microsurgery** 1999;19(5):247–53

Local administration of neurotrophic growth factor in subcutaneous silicon chambers enhances the regeneration of the sensory component of the rat sciatic nerve. Santos X, et al. **Microsurgery** 1999;19(6):275–80

Electric nerve stimulation: analysis of two clinical cases of failed nerve electrolocation by using sheathed needles. Di Massa A, et al. **Minerva Anestesiol** 1999 Jul–Aug; 65(7–8):555–9

The expression of P2X3 purinoreceptors in sensory neurons: effects of axotomy and glial-derived neurotrophic factor. Bradbury EJ, et al. **Mol Cell Neurosci** 1998 Nov; 12(4–5):256–68

SCIATIC NERVE

The expression of receptor tyrosine phosphatases is responsive to sciatic nerve crush. Haworth K, et al. **Mol Cell Neurosci** 1998 Oct;12(3):93–104

N-Cadherin inhibits Schwann cell migration on astrocytes. Wilby MJ, et al. **Mol Cell Neurosci** 1999 Jul;14(1):66–84

Anterograde transport of leukemia inhibitory factor within transected sciatic nerves. Bennett TM, et al. **Muscle Nerve** 1999 Jan;22(1):78–87

In vivo and in vitro neurotoxic action of plasma ultrafiltrate from uraemic patients. Cantaro S, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2288–93

Reversal of behavioural and electrophysiological correlates of experimental peripheral neuropathy by the NK1 receptor antagonist GR205171 in rats. Cumberbatch MJ, et al. **Neuropharmacology** 1998 Dec;37(12):1535–43

Unilateral sciatic nerve injury stimulates contralateral nerve regeneration. Yamaguchi H, et al. **Neuroreport** 1999 Apr 26;10(6):1359–62

Overexpression of glucose transporter protein 5 in sciatic nerve of streptozotocin-induced diabetic rats. Asada T, et al. **Neurosci Lett** 1998 Aug 14;252(2):111–4

Effect of sciatic nerve crush on local and target tissue production of neurotrophin-3 transcripts in rats. Cai F, et al. **Neurosci Lett** 1998 Aug 7;252(1):45–8

Antisense of c-fos gene attenuates Fos expression in the spinal cord induced by unilateral constriction of the sciatic nerve in the rat. Huang W, et al. **Neurosci Lett** 1999 Mar 19; 263(1):61–4

Ketamine suppresses c-fos expression in dorsal horn neurons after acute constrictive sciatic nerve injury in the rat. Huang W, et al. **Neurosci Lett** 1999 Jul 16;269(3):165–8

The action of local anaesthetics on the compound action potential is altered by the nature of the permeant ion in frog nerve. Lilley SJ, et al. **Neurosci Lett** 1998 Aug 7; 252(1):41–4

Involvement of protein kinase C in the nitric oxide–mediated peripheral nerve disturbance in endotoxemic rats. Liu SH, et al. **Neurosci Lett** 1999 Jan 8;259(2):99–102

Increase of galanin mRNA in lumbar dorsal root ganglion neurons of adult rats after partial sciatic nerve ligation. Ma W, et al. **Neurosci Lett** 1999 Mar 12;262(3):195–8

Flunarizine enhances functional recovery following sciatic nerve crush lesion in rats. Patro IK, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):97–100

Contralateral inhibitory control of spinal nociceptive transmission in rats with chronic peripheral nerve injury. Sotgiu ML, et al. **Neurosci Lett** 1998 Aug 28;253(1):21–4

Increased activity in the form of endurance training increases calcitonin gene-related peptide content in lumbar motoneuron cell bodies and in sciatic nerve in the rat. Gharakhanlou R, et al. **Neuroscience** 1999;89(4):1229–39

Effects of excitation of sensory pathways on the membrane potential of cat masseter motoneurons before and during cholinergically induced motor atonia. Kohlmeier KA, et al. **Neuroscience** 1998 Sep;86(2):557–69

Endogenous neurotrophin-3 is retrogradely transported in the rat sciatic nerve. Nitta A, et al. **Neuroscience** 1999; 88(3):679–85

Sensitivity of neurons in somatosensory cortex (S1) to cutaneous stimulation of the hindlimb immediately following a sciatic nerve crush. Barbay S, et al. **Somatosens Mot Res** 1999;16(2):103–14

[Effects of electric fields on the cellular structure of the regenerated nerve] Li Q, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):43–7 (Eng. Abstr.) **(Chi)**

[An assessment of neuronal regeneration in neural anastomoses by synthetic guide and biological systems and insulin administration: an experimental study in the rat] Vellucci R, et al. **G Chir** 1999 Jun-Jul;20(6–7):316–24 (Eng. Abstr.) **(Ita)**

[Functional characteristics of foot skin mechanoreceptors and afferent nerve fibers of the sciatic nerve after central axotomy of sensory neurons] Kolosova LI, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):755–60 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Purified extracts from short-time-predegenerated rats' sciatic nerves promote the regrowth of injured hippocampal neurites. Lewin-Kowalik J, et al. **Acta Physiol Hung** 1997-98;85(4):325–34

Effects of 2.5 s mouse nerve growth factor on regeneration of injured sciatic nerves in mice and rats. Wang JZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):501–4

Protein kinase C effects on nerve function, perfusion, Na(+), K(+)-ATPase activity and glutathione content in diabetic rats. Cameron NE, et al. **Diabetologia** 1999 Sep; 42(9):1120–30

Sacral plexopathy and sciatic neuropathy after total knee arthroplasty. Myers MA, et al. **Electromyogr Clin Neurophysiol** 1998 Oct-Nov;38(7):423–6

Haemodynamic responses to sciatic nerve stimulation during acute experimental anaemia in cats [letter] Tandon OP, et al. **Indian J Physiol Pharmacol** 1998 Jul;42(3):425–6

Effects of hindlimb temperature on sciatic nerve laser Doppler vascular conductance in control and streptozotocin-diabetic rats. Dines KC, et al. **J Neurol Sci** 1999 Feb 1;163(1):17–24

Temperature modulation reveals three distinct stages of Wallerian degeneration. Tsao JW, et al. **J Neurosci** 1999 Jun 15;19(12):4718–26

Hereditary absence of complement C5 in adult mice influences Wallerian degeneration, but not retrograde responses, following injury to peripheral nerve. Liu L, et al. **J Peripher Nerv Syst** 1999;4(2):123–33

Endoneurial microvasculature of chronically transected sciatic nerves in diabetic rats. Maeda K, et al. **J Peripher Nerv Syst** 1999;4(1):13–8

Denervation of Pacinian corpuscles: electron microscopic observations in the rat following nerve transection. Koshima I, et al. **J Reconstr Microsurg** 1999 May; 15(4):273–9

Effect of distraction osteogenesis on the peripheral nerve: experimental study in the rat. Skoulis TG, et al. **J Reconstr Microsurg** 1998 Nov;14(8):565–74

Olfactory bulb ensheathing cells enhance peripheral nerve regeneration. Verdú E, et al. **Neuroreport** 1999 Apr 6; 10(5):1097–101

Decreased accumulation of endogenous brain-derived neurotrophic factor against constricting sciatic nerve ligatures in streptozotocin-diabetic and galactose-fed rats. Mizisin AP, et al. **Neurosci Lett** 1999 Mar 26; 263(2–3):149–52

Reversal of thermal hyperalgesia in a rat partial sciatic nerve ligation model by Prosaptide TX14(A). Otero DA, et al. **Neurosci Lett** 1999 Jul 23;270(1):29–32

Glial overexpression of NGF enhances neuropathic pain and adrenergic sprouting into DRG following chronic sciatic constriction in mice. Ramer MS, et al. **Neurosci Lett** 1998 Jul 17;251(1):53–6

Neutralizing antibodies to interleukin 1-receptor reduce pain associated behavior in mice with experimental neuropathy. Sommer C, et al. **Neurosci Lett** 1999 Jul 23;270(1):25–8

Effect of NGF and anti-NGF on neuropathic pain in rats following chronic constriction injury of the sciatic nerve. Ro LS, et al. **Pain** 1999 Feb;79(2–3):265–74

Does a neuroimmune interaction contribute to the genesis of painful peripheral neuropathies? Bennett GJ. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7737–8

Multifractal analysis of wide dynamic range neuron discharge profiles in normal rats and in rats with sciatic nerve constriction. Biella G, et al. **Somatosens Mot Res** 1999; 16(2):89–102

[Experimental study on the collateral sprouting after end-to-side anastomosis of nerve trunk] Cao X, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):321–4 (Eng. Abstr.) **(Chi)**

[Paralysis in olive harvesters (letter)] Cañadillas Hidalgo FM, et al. **Neurologia** 1998 Aug-Sep;13(7):371–2 **(Spa)**

RADIOGRAPHY

[Compression of the sciatic nerve in uremic tumor calcinosis] Garcia S, et al. **Neurologia** 1999 Feb;14(2):86–9 (Eng. Abstr.) **(Spa)**

SURGERY

Cortical tibial bone volume in two strains of mice: effects of sciatic neurectomy and genetic regulation of bone response to mechanical loading. Kodama Y, et al. **Bone** 1999 Aug;25(2):183–90

The effects of free fat grafts on the stiffness of the rat sciatic nerve and perineural scar. Dumanian GA, et al. **J Hand Surg [Am]** 1999 Jan;24(1):30–6

Changes in the stress relaxation properties of peripheral nerves after transection. Toby EB, et al. **J Hand Surg [Am]** 1999 Jul;24(4):694–9

End-to-side neurorrhaphy: evaluation of axonal response and upregulation of IGF-I and IGF-II in a non-injury model. Fortes WM, et al. **J Reconstr Microsurg** 1999 Aug; 15(6):449–57

Optimal time for distraction osteogenesis in limbs with nerve repairs: experimental study in the rat. Vekris MD, et al. **J Reconstr Microsurg** 1999 Apr;15(3):191–201

Effect of a modified Nd:YAG laser technique on neuroma formation: An experimental study in rat sciatic nerve. Menovsky T, et al. **Lasers Surg Med** 1999;25(3):213–8

Effects of tension at the site of coaptation on recovery of sciatic nerve function after neurorrhaphy: evaluation by walking-track measurement, electrophysiology, histomorphometry, and electron probe X-ray microanalysis. Maeda T, et al. **Microsurgery** 1999; 19(4):200–7

Comparison of microsurgical suture with fibrin glue connection of the sciatic nerve in rabbits. Sames M, et al. **Physiol Res** 1997;46(4):303–6

A comparative study of nerve healing in adult, neonatal, and fetal rabbits. Butler PE, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1386–92

[Experimental study of peripheral nerve regeneration influenced inverted and non-inverted distal nerve segments] Chen Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):23–6 (Eng. Abstr.) **(Chi)**

[Experimental study on prevention and treatment of neuroma by implanting nerve stump into muscle] Zhang B, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):325–7 (Eng. Abstr.) **(Chi)**

[Tissue engineering study on repairment of injured nerve gap in rat] Wu D, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Jun; 14(2):108–10 (Eng. Abstr.) **(Chi)**

[Peripheral ischemia and persistent sciatic artery--interdisciplinary management] Gawenda M, et al. **Chirurg** 1999 Jul;70(7):795–9 (Eng. Abstr.) **(Ger)**

[An assessment of neuronal regeneration in neural anastomoses by synthetic guide and biological systems and insulin administration: an experimental study in the rat] Vellucci R, et al. **G Chir** 1999 Jun-Jul;20(6–7):316–24 (Eng. Abstr.) **(Ita)**

TRANSPLANTATION

Revascularization of a free nerve graft wrapped in omentum. Smahel J, et al. **Acta Chir Plast** 1999;41(1):11–4

Transplantation of sciatic nerve segments into normal and glia-depleted spinal cords. Sims TJ, et al. **Exp Brain Res** 1999 Apr;125(4):495–501

Collagen-GAG substrate enhances the quality of nerve regeneration through collagen tubes up to level of autograft. Chamberlain LJ, et al. **Exp Neurol** 1998 Dec; 154(2):315–29

Peripheral nerve graft and neurotrophic factors enhance neuronal survival and expression of nitric oxide synthase in Clarke's nucleus after hemisection of the spinal cord in adult rat. Yick LW, et al. **Exp Neurol** 1999 Sep; 159(1):131–8

Survival of axotomized retinal ganglion cells in peripheral nerve-grafted ferrets. Quan MZ, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2360–6

The effect of the immunosuppressant FK 506 on peripheral nerve regeneration following nerve grafting. Fansa H, et al. **J Hand Surg [Br]** 1999 Feb;24(1):38–42

Regeneration across cold preserved peripheral nerve allografts. Evans PJ, et al. **Microsurgery** 1999;19(3):115–27

Cold preserved nerve allografts: changes in basement membrane, viability, immunogenicity, and regeneration. Evans PJ, et al. **Muscle Nerve** 1998 Nov;21(11):1507–22

Successful nerve regeneration and persistence of donor cells after a limited course of immunosuppression in rat peripheral nerve allografts. Katsube K, et al. **Transplantation** 1998 Sep 27;66(6):772–7

ULTRASONOGRAPHY

Ultrasound of radial, ulnar, median, and sciatic nerves in healthy subjects and patients with hereditary motor and sensory neuropathies. Heinemeyer O, et al. **Ultrasound Med Biol** 1999 Mar;25(3):481–5

ULTRASTRUCTURE

Neural architecture in transected rabbit sciatic nerve after prolonged nonreinnervation. Bradley JL, et al. **J Anat** 1998 May;192 (Pt 4):529–38

Electrophysiological and ultrastructural correlates of cryoinjury in sciatic nerve of the freeze-tolerant wood frog, Rana sylvatica. Costanzo JP, et al. **J Comp Physiol [B]** 1999 Jul;169(4–5):351–9

Ultrastructural studies of dorsal root axons regenerating through adult frog optic and sciatic nerves. Blanco RE, et al. **Microsc Res Tech** 1999 Aug 15–Sep 1;46(4–5):310–8

VIROLOGY

Spread of swine hemagglutinating encephalomyelitis virus from peripheral nerves to the CNS. Hirano N, et al. **Adv Exp Med Biol** 1998;440:601–7

The GDVII strain of Theiler's virus spreads via axonal transport. Martinat C, et al. **J Virol** 1999 Jul;73(7):6093–8

Retrograde transport of intact poliovirus through the axon via the fast transport system. Ohka S, et al. **Virology** 1998 Oct 10;250(1):67–75

SCIATICA

CEREBROSPINAL FLUID

Markers of nerve tissue injury in the cerebrospinal fluid in patients with lumbar disc herniation and sciatica. Brisby H, et al. **Spine** 1999 Apr 15;24(8):742–6

Higher levels of antibodies against the psoriasis-associated antigen pso p27 in cerebrospinal fluid from patients with low back pain and sciatica. Zwart JA, et al. **Spine** 1999 Feb 15;24(4):373–7

COMPLICATIONS

[Hernia of the lumbar discs in persons at work. Results of a retrospective study in a series of 189 consecutive patients] Royo-Salvador MB, et al. **Rev Neurol** 1998 Oct; 27(158):574–6 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Diagnosis of intermittent vascular claudication in a patient with a diagnosis of sciatica. Gray JC. **Phys Ther** 1999 Jun; 79(6):582–90

Is it possible to predict the efficacy at discharge of inhospital rheumatology department management of disk-related sciatica? A study in 150 patients. Berthelot JM, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):207–13

[A diagnosis of sciatica cut to pieces...] Cosserat J, et al. **Rev Med Interne** 1998;19 Suppl 2:267s–269s **(Fre)**

DRUG THERAPY

Mexiletine as a treatment for malignant neuropathic pain [letter] Lightfoot T, et al. **Aust N Z J Med** 1998 Oct;

28(5):664
Efficacy of epidural steroids in low back pain and sciatica. A critical appraisal by a French Task Force of randomized trials. Critical Analysis Group of the French Society for Rheumatology. Rozenberg S, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):79–85 (23 ref.)
[Local corticosteroid therapy of lumbo-sciatica (letter; comment)] Chazerain P. **Presse Med** 1998 Nov 21; 27(36):1845. Comment on: Presse Med 1998 Jul 4;27(24):1220. **(Fre)**

ETIOLOGY

MR myelography of sacral meningeal cysts. Tsuchiya K, et al. **Acta Radiol** 1999 Jan;40(1):95–9
Sciatic neuropathy secondary to a uterine fibroid: a case report. Bodack MP, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):157–9
"Toilet seat" sciatic neuropathy. Holland NR, et al. **Arch Neurol** 1999 Jan;56(1):116
Magnetic resonance imaging of endometriosis of the piriform muscle causing sciatica: case report. Hickey NA, et al. **Can Assoc Radiol J** 1999 Feb;50(1):33–6
Problem in diagnostic imaging: a patient with sciatica. Rankine JJ, et al. **Clin Anat** 1998;11(5):342–5
Sciatica caused by a dilated epidural vein: MR findings. Demaerel P, et al. **Eur Radiol** 1999;9(1):113–4
Extradural inflammation associated with annular tears: demonstration with gadolinium-enhanced lumbar spine MRI. Saifuddin A, et al. **Eur Spine J** 1999;8(1):34–9
Osteochondroma of the L-5 vertebra: a rare cause of sciatic pain. Case report. Fiumara E, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):219–22
Heavy physical work and occurrence of sciatic pain: need for Poisson log linear models or for better data? [letter; comment] Leclerc A, et al. **Occup Environ Med** 1998 Jul; 55(7):503–5. Comment on: Occup Environ Med 1997 Nov;54(11):807–11.
Pathogenesis of sciatic pain: role of herniated nucleus pulposus and deformation of spinal nerve root and dorsal root ganglion. Omarker K, et al. **Pain** 1998 Nov; 78(2):99–105
A leptomeningeal metastasis revealed by sciatica. Allanore Y, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):232–4
Reasons for rheumatology department admission in 125 patients with disk-related sciatica. Berthelot JM, et al. **Rev Rhum Engl Ed** 1999 May;66(5):267–70
Are tennis players at increased risk for low back pain and sciatica? Saraux A, et al. **Rev Rhum Engl Ed** 1999 Mar; 66(3):143–5
Dumb-bell shaped tuberculous abscess across the greater sciatic notch compressing both sciatic nerves. Baba H, et al. **Spinal Cord** 1998 Aug;36(8):584–7
Extraspinal bone and soft-tissue tumors as a cause of sciatica. Clinical diagnosis and recommendations: analysis of 32 cases. Bickels J, et al. **Spine** 1999 Aug 1;24(15):1611–6
Nerve root herniation secondary to lumbar puncture in the patient with lumbar canal stenosis. A case report. Hasegawa K, et al. **Spine** 1999 May 1;24(9):915–7
Sciatica caused by cervical and thoracic spinal cord compression. Ito T, et al. **Spine** 1999 Jun 15;24(12):1265–7
An unusual cause of sciatica. A case report. Servant CT. **Spine** 1998 Oct 1;23(19):2134–6
[Pain in one leg in patients with cancer (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2674)] Koot RW, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2129–32 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2593–4. **(Dut)**
[Postinfectious bilateral leg edema and lumbar sciatica] Mock B, et al. **Med Klin** 1998 Aug 15;93(8):499 **(Ger)**
[A case of Guillain-Barrè syndrome with severe sciatica preceding motor paralysis in the lower extremities] Yamauchi Y, et al. **Masui** 1999 Feb;48(2):198–200 (Eng. Abstr.) **(Jpn)**
.[The Maffucci syndrome with axial bone lesions. A rare cause of low back pain] Ribeiro C, et al. **Acta Med Port** 1998 Jun;11(6):559–62 (10 ref.) (Eng. Abstr.) **(Por)**

GENETICS

An allele of COL9A2 associated with intervertebral disc disease. Annunen S, et al. **Science** 1999 Jul 16; 285(5426):409–12

HISTORY

William Jason Mixter (1880–1958). Ushering in the "dynasty of the disc". Parisien RC, et al. **Spine** 1998 Nov 1; 23(21):2363–6
[Surgery of lumbar disk hernia: historical perspective] Brunori A, et al. **Ann Ital Chir** 1998 May–Jun;69(3):285–93 (Eng. Abstr.) **(Ita)**

METABOLISM

Adrenergic innervation of rat sensory ganglia following proximal or distal painful sciatic neuropathy: distinct mechanisms revealed by anti-NGF treatment. Ramer MS, et al. **Eur J Neurosci** 1999 Mar;11(3):837–46

PATHOLOGY

The anatomical basis of sciatica secondary to herniated lumbar disc: a review. Spencer DL. **Neurol Res** 1999;21 Suppl 1:S33–6 (41 ref.)

PHYSIOPATHOLOGY

The effect of perineural colchicine on nerve injury-induced spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Brain Res Bull** 1999 Aug;49(6):419–27
[New information concerning pain caused by herniated disk and sciatica. Exposure to disk tissue sensitizes the nerve roots] Olmarker K, et al. **Lakartidningen** 1998 Dec 2; 95(49):5618–22 (46 ref.) (Eng. Abstr.) **(Swe)**

RADIOGRAPHY

[Radiological imaging in lumbago and sciatica] Dullerud R. **Tidsskr Nor Laegeforen** 1999 May 10;119(12):1778–81 (14 ref.) (Eng. Abstr.) **(Nor)**

REHABILITATION

Bed rest for sciatica? Stevermer JJ, et al. **J Fam Pract** 1999 May;48(5):337–8

SURGERY

Posttraumatic piriformis syndrome: diagnosis and results of operative treatment. Benson ER, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):941–9
Statistical approaches in the development of clinical practice guidelines from expert panels: the case of laminectomy in sciatica patients. Wietlisbach V, et al. **Med Care** 1999 Aug; 37(8):785–97
[L5 sciatica caused by the compression of the lumbo-sacral trunk of osseous origin at the sacro-iliac level. Treatment by an antero-lateral subperitoneal approach] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):377–80 (Eng. Abstr.) **(Fre)**
[Persistent back pain, working situation and disability pension after lumbago surgery] Valen B. **Tidsskr Nor Laegeforen** 1999 May 20;119(13):1903–6 (Eng. Abstr.) **(Nor)**

THERAPY

Sciatica: which intervention? Samanta A, et al. **BMJ** 1999 Jul 31;319(7205):302–3 (6 ref.)
Does bed rest improve any of the important outcomes of sciatica? Rivet C. **Can Fam Physician** 1999 Aug;45:1883–4
Clinical observation of therapeutic effects of wrist-ankle acupuncture in 88 cases of sciatica. Chu Z, et al. **J Tradit Chin Med** 1997 Dec;17(4):280–1
Clinical observation on the therapeutic effects of wrist-ankle acupuncture in treatment of pain of various origins. Zhu Z, et al. **J Tradit Chin Med** 1998 Sep;18(3):192–4
Lack of effectiveness of bed rest for sciatica. Vroomen PC, et al. **N Engl J Med** 1999 Feb 11;340(6):418–23
Is it possible to predict the efficacy at discharge of inhospital rheumatology department management of disk-related sciatica? A study in 150 patients. Berthelot JM, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):207–13
Inhospital management of common lumbosciatic syndrome. An opinion survey among French rheumatologists. Legrand E, et al. **Rev Rhum Engl Ed** 1998 Jul–Sep; 65(7–9):483–8
[Bed rest not necessary for the treatment of sciatica] Bergmann JF. **Presse Med** 1999 Jun 19;28(22):1169–70 **(Fre)**
[Local corticosteroid therapy in the treatment of lumbar sciatica (letter) (see comments)] Chaouat D. **Presse Med** 1998 Jul 4–11;27(24):1220. Comment in: Presse Med 1998 Nov 21;27(36):1845. **(Fre)**

SCID see **SEVERE COMBINED IMMUNODEFICIENCY**

SCID-HU MICE see **MICE, SCID**

SCID MICE see **MICE, SCID**

SCIENCE

see related
RELIGION AND SCIENCE

University of Washington and partners' program to teach middle school students about neuroscience and science careers. Cunningham SL, et al. **Acad Med** 1999 Apr; 74(4):318–21
Science and alcohol policy at the local level: a respectful partnership. Holder HD, et al. **Addiction** 1998 Oct; 93(10):1467–73
Science, truth, and the unknown [letter] Pollard FG. **Adv Mind Body Med** 1999 Summer;15(3):158; discussion 159
Science, truth, and the unknown [letter] Surr JV. **Adv Mind Body Med** 1999 Summer;15(3):158–9
Preference of preclinical medical students for medical specialties and the basic medical sciences. Oyebola DD, et al. **Afr J Med Med Sci** 1998 Sep–Dec;27(3–4):209–12
Report of the ASHP Task Force on Science: American Society of Health-System Pharmacists. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2519–24 (0 ref.)
Is epidemiology an applied science or a technology? [letter; comment] Tapia Granados JA. **Am J Public Health** 1999 Apr;89(4):599–600. Comment on: Am J Public Health 1996 May;86(5):668–73. Comment on: Am J Public Health 1996 May;86(5):674–7.
Women in Science and Engineering: Choices for Success. Proceedings of a conference. New York City, New York, USA. March 12–13, 1998. **Ann N Y Acad Sci** 1999 Apr 15;869:1–263
Tempos in Science and Nature: Structures, Relations, and Complexity. Proceedings of a conference. Siena, Italy, September 23–26, 1998. **Ann N Y Acad Sci** 1999 Jun 30; 879:1–450
Screening for prostate cancer: the roles of science, policy, and opinion in determining what is best for patients. Woolf SH, et al. **Annu Rev Med** 1999;50:207–21 (61 ref.)
Using scientific principles when there is no research. Beyea SC, et al. **AORN J** 1999 May;69(5):1037–8
Philosophy of science and the progressiveness of the DSM's theory-neutral nosology: response to Follette and Houts, Part 1. Wakefield JC. **Behav Res Ther** 1999 Oct; 37(10):963–99
Science for evil: the scientist's dilemma. Atiyah M. **BMJ** 1999 Aug 14;319(7207):448–9 (1 ref.)
Science and collective health: on the need for critical reason [editorial] Camargo KR Jr. **Cad Saude Publica** 1999 Jan–Mar;15(1):4–5 **(Eng, Por)**
Science, rhetoric, and public discourse in genetic research. Lagay FL. **Camb Q Healthc Ethics** 1999 Spring;8(2):226–37 (33 ref.)
Pursuit of science, New social factors [editorial] Boudreau B. **Can Fam Physician** 1999 May;45:1134–6, 1141–3 **(Eng, Fre)**
Science, sex and semantics: the firing of George Lundberg [editorial] Hoey J, et al. **CMAJ** 1999 Feb 23;160(4):507–8
Unitas, Libertas, Caritas: the meaning of science for general practice. de Melker RA. **Fam Pract** 1998 Aug;15(4):369–74 (48 ref.)
Building a science of couple relationships: comments on two articles by Gottman and Levenson. Lebow JL. **Fam Process** 1999 Summer;38(2):167–73
Relationship between ideology and science. Canestrari R. **Forum (Genova)** 1999 Apr–Jun;9(2):183–90
Endangered species. LaMont JT. **Gastroenterology** 1999 Jul; 117(1):5
Translational research: what is it? Rustgi AK. **Gastroenterology** 1999 Jun;116(6):1285
Fragmented ethics and "bridge bioethics". Potter VR. **Hastings Cent Rep** 1999 Jan–Feb;29(1):38–40 (17 ref.)
Federal science policy. Changing battle lines, new fronts. Silberner J. **Hastings Cent Rep** 1999 Jul–Aug;29(4):6
The social responsibility of scientists: the scientific impact statement. Walter C, et al. **IEEE Eng Med Biol Mag** 1998 Nov–Dec;17(6):94–5
The manipulation of international scientific organizations [editorial] Castleman BI, et al. **Int J Occup Environ Health** 1998 Jan–Mar;4(1):53–5 (17 ref.)
The idea of nursing science. Edwards SD. **J Adv Nurs** 1999 Mar;29(3):563–9 (34 ref.)
Observations on positivism and pseudoscience in qualitative nursing research. Johnson M. **J Adv Nurs** 1999 Jul; 30(1):67–73
The nature of philosophy of science, theory and knowledge relating to nursing and professionalism. Rutty JE. **J Adv Nurs** 1998 Aug;28(2):243–50 (63 ref.)
The physician scientist, peer review, and creativity [letter; comment] Fusaro RM. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):786. Comment on: J Am Acad Dermatol 1998 Jul;39(1):109–13.
Science and practice: a case for medical informatics as a local science of design [see comments] Patel VL, et al. **J Am Med Inform Assoc** 1998 Nov–Dec;5(6):489–92. Comment in: J Am Med Inform Assoc 1998 Nov–Dec;5(6):583–4.
Conversations with a cab driver [editorial] Rangaswamy L. **J Bone Joint Surg Am** 1998 Oct;80(10):1407–9
Evidence-based medicine: a Kuhnian perspective of a transvestite non-theory. Couto JS. **J Eval Clin Pract** 1998 Nov;4(4):267–75
Random reflections on science, art and technique applied to medicine and its evaluation. Grémy F. **J Eval Clin Pract** 1999 May;5(2):117–23
Science and the alternative [editorial; comment] Faughnan JG, et al. **J Fam Pract** 1998 Oct;47(4):262–3. Comment on: J Fam Pract 1998 Oct;47(4):271–7.
Clinical jazz: harmonizing clinical experience and evidence-based medicine [see comments] Shaughnessy AF, et al. **J Fam Pract** 1998 Dec;47(6):425–8 (16 ref.). Comment in: J Fam Pract 1999 Apr;48(4):306.
The necessity for a progressing dialog between basic science and clinical research in obstetrics and gynecology. Graeff H. **J Obstet Gynaecol Res** 1998 Dec;24(6):427–32
Philosophy of science in doctoral nursing education revisited. DiBartolo MC. **J Prof Nurs** 1998 Nov–Dec;14(6):350–60
Alternative medicine meets science [editorial] Fontanarosa PB, et al. **JAMA** 1998 Nov 11;280(18):1618–9
Science, ethics, and the future of research into maternal infant transmission of HIV-1. Perinatal HIV Intervention Research in Developing Countries Workshop participants [see comments] **Lancet** 1999 Mar 6;353(9155):832–5 (23 ref.) . Comment in: Lancet 1999 May 29;353(9167):1878, discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1878–9; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1879; discussion 1880. Comment in: Lancet 1999 May 29;353(9167):1879–80; discussion 1880.

Comment in: Lancet 1999 May 29;353(9167):1880-1.
Centenarian scientists [letter; comment] Kantha SS. **Lancet** 1999 Jun 26;353(9171):2250. Comment on: Lancet 1999 Mar 27;353(9158):1074.
Scientific journals and public disputes. Nelkin D. **Lancet** 1998;:SII25-8
Science and terrorism in Europe [editorial] **Nat Neurosci** 1999 Feb;2(2):99-100
Big Science comes of age [editorial] **Nature** 1999 Jul 29; 400(6743):387
A science-oriented search engine could solve web problems... [letter; comment] Gardner M. **Nature** 1999 Sep 9; 401(6749):111. Comment on: Nature 1999 Jul 8;400(6740):107-9.
Scientists seek support from Mexican public [news] Garwin L. **Nature** 1999 Apr 1;398(6726 Suppl):A7-9
How to restore public trust in science. Haerlin B, et al. **Nature** 1999 Aug 5;400(6744):499
Start-up companies: out of the lab and into the marketplace. Horton B, et al. **Nature** 1999 May 13;399(6732):175-82
German standstill as fewer chairs available [news] Kiessling T. **Nature** 1998 Dec 17;396(6712):609
UK panel formed to rebuild trust in government science advice [news] Masood E. **Nature** 1999 Feb 11;397(6719):458
English versus Spanish in science evaluation [letter] Rey-Rocha J, et al. **Nature** 1999 Jan 7;397(6714):14
UN stands up for East German scientists [news] Schiermeier Q. **Nature** 1998 Dec 17;396(6712):605
Radical reform needed to aid junior scientists [letter; comment] Vassiliou G. **Nature** 1998 Nov 26;396(6709):307 . Comment on: Nature 1998 Sep 10;395(6698):101. Comment on: Nature 1998 Sep 10;395(6698):103.
Is science dangerous? Wolpert L. **Nature** 1999 Mar 25; 398(6725):281-2
On the nature of space-time in the observation of physical events in science. Persinger MA. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1210-6
Introduction to Japanese-American frontiers of science. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8818
Limits of scientific growth [letter] Csermely P. **Science** 1999 Jun 4;284(5420):1622-3
Science and "truth" [letter; comment] Hogg DW. **Science** 1999 Jul 30;285(5428):663. Comment on: Science 1999 Jun 25;284(5423):2087.
Science and "truth" [letter; comment] Touryan KJ. **Science** 1999 Jul 30;285(5428):663. Comment on: Science 1999 Jun 25;284(5423):2087.
The Nobel Prize and the biomedical paradigm: is it time for a change? Foss L. **Theor Med Bioeth** 1998 Dec;19(6):621-44 (63 ref.)
The role of science in medicine. Nordin I. **Theor Med Bioeth** 1999 Jun;20(3):229-44 (18 ref.)
[Reason, science, ethics and networks (editorial)] Cariou JL. **Ann Chir Plast Esthet** 1999 Jun;44(3):215-6 **(Fre)**
[Culture and scientific research. A binomial to preserve] Carosella ED. **C R Acad Sci III** 1999 Apr;322(4):269-70 **(Fre)**
[Role of science in the formulation of social policy on drugs] Kalant H. **C R Seances Soc Biol Fil** 1998;192(5):905-15 (29 ref.) (Eng. Abstr.) **(Fre)**
[Paradigms and pragmatism] Healy MJ. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):185-9 (16 ref.) **(Fre)**
[Alternative medicine at the crossing of scientific reality and myth] Abramow M. **Rev Med Brux** 1998 Sep;19(4):A301-5 (15 ref.) **(Fre)**
[Acceptance: scientific cultural aspects] Lübbe H. **Schweiz Med Wochenschr** 1998 Aug 15;128(33):1202-11 (Eng. Abstr.) **(Fre)**
[Clinical research--an indispensible link to basic science] Röher HD. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:921-5 **(Ger)**
[Neutrality in science: an irreducible myth?] Saracci R. **Epidemiol Prev** 1998 Oct-Dec;22(4):206-11 **(Ita)**
[Women and Science-Helena Rubinstein Awards for Women in Science] Isogai E. **Nippon Saikingaku Zasshi** 1998 Aug; 53(3):531-5 (7 ref.) **(Jpn)**
[Space biomedicine in the sciences system and in the life of human society (editorial)] Giurdzhian AA. **Aviakosm Ekolog Med** 1998;32(6):6-11 (Eng. Abstr.) **(Rus)**

EDUCATION

Science education partnership between the University of Colorado and a Denver High School. Curran-Everett D, et al. **Acad Med** 1999 Apr;74(4):322-5
Boston University's biosciences education program for Boston-area students. DeRosa DA, et al. **Acad Med** 1999 Apr;74(4):326-8
UCSF partnership to enrich science teaching for sixth graders in San Francisco's schools. Doyle HJ. **Acad Med** 1999 Apr; 74(4):329-31
A program to enhance k-12 science education in ten rural New York school districts. Goodell E, et al. **Acad Med** 1999 Apr;74(4):332-5
We create and can remove the roadblocks to good basic science education. Halasz NA. **Acad Med** 1999 Jan; 74(1):6-7
Education and career paths of LSU's summer science program students from 1985 to 1997. Helm EG, et al. **Acad Med** 1999 Apr;74(4):336-8
A comparative study of a comprehensive basic sciences test using paper-and-pencil and computerized formats. Luecht RM, et al. **Acad Med** 1998 Oct;73(10 Suppl):S51-3
An interdisciplinary national program developed at Baylor to make science exciting for all K-5 students. Moreno NP, et al. **Acad Med** 1999 Apr;74(4):345-7
WVU--community partnership that provides science and math enrichment for underrepresented high school students. Rye JA, et al. **Acad Med** 1999 Apr;74(4):352-5
Experimental appraisal of personal beliefs in science: constraints on performance in the 9 to 14 age group. Howe C, et al. **Br J Educ Psychol** 1999 Jun;69 (Pt 2):243-74
A core curriculum in the evaluative sciences for diagnostic imaging [editorial] Stolberg HO, et al. **Can Assoc Radiol J** 1998 Oct;49(5):295-306 (66 ref.)
Basic science in medical education [editorial; comment] MacLeod SM. **Clin Invest Med** 1999 Feb;22(1):23-4. Comment on: Clin Invest Med 1999 Feb;22(1):15-22.
The challenge for basic science education in problem-based medical curricula [see comments] Sweeney G. **Clin Invest Med** 1999 Feb;22(1):15-22 (19 ref.). Comment in: Clin Invest Med 1999 Feb;22(1):23-4.
Contribution of basic sciences to academic success in nursing education. Wong J, et al. **Int J Nurs Stud** 1999 Aug; 36(4):345-54
Integration of the basic and clinical sciences using a PBL format. Watson RE, et al. **J Dent Educ** 1998 Sep; 62(9):714-7
Communicating science to the public: whose job is it anyway? [news] **J Natl Cancer Inst** 1998 Oct 21;90(20):1509-10
Industry calls for reform of UK research training [news] Dickson D. **Nat Med** 1998 Nov;4(11):1214
The difference between science and dogma [editorial] [see comments] **Nature** 1999 Aug 19;400(6746):697. Comment in: Nature 1999 Aug 26;400(6747):810.
Kansas kicks evolution out the classroom [news] [see comments] Dalton R. **Nature** 1999 Aug 19;400(6746):701. Comment in: Nature 1999 Aug 26;400(6747):810.
Ethics training more important than ever [letter] Finn JT. **Nature** 1999 Sep 16;401(6750):208
Kansas makes a monkey of itself [letter; comment] Grant PM. **Nature** 1999 Aug 26;400(6747):810. Comment on: Nature 1999 Aug 19;400(6746):697. Comment on: Nature 1999 Aug 19;400(6746):701.
Fending off furtive strategists [editorial] Hanson RB, et al. **Science** 1999 Sep 17;285(5435):1847
Kansas dumps Darwin, raises alarm across the United States [news] Holden C. **Science** 1999 Aug 20;285(5431):1186-7
Kansas evolution ruling [letter] Lin H. **Science** 1999 Sep 17; 285(5435):1849

HISTORY

1998 ASHG Award for Excellence in Education. Remarks on receiving the ASHG award: science and science education. Li CC. **Am J Hum Genet** 1999 Jan;64(1):16-7
The Academy of Science of Bologna and the kidney. Bonomini V, et al. **Am J Nephrol** 1999;19(2):177-81
Importance of philosophy of science to the history of medical thinking. Zalewski Z. **Croat Med J** 1999 Mar;40(1):8-13
Part 1. European science and surgery from 500 BC-AD 1500. Rew DA. **Eur J Surg Oncol** 1999 Apr;25(2):199-204
Current bibliography of the history of science and its cultural influences. 1998. **Isis** 1998;89 Suppl:1-308
Time to take a healthier view of history [letter] Haznedaroglu IC. **Nature** 1998 Nov 12;396(6707):108
Credit for discoveries: citation data as a basis for history of science analysis. Lindahl BI, et al. **Theor Med Bioeth** 1998 Dec;19(6):609-20
[Philosophers, physicists and physicians in defense of the unity of the scientific method] Antiseri D. **Clin Ter** 1998 Nov-Dec;149(6):429-33 (Eng. Abstr.) **(Ita)**
[Science, customs and social life in the Middle Ages] Latronico N. **Minerva Pediatr** 1999 Mar;51(3):73-85 **(Ita)**
[By way of a synthesis of its conceptual evolution towards scientific medicine] de Micheli-Serra A. **Gac Med Mex** 1999 Jan-Feb;135(1):67-72 (Eng. Abstr.) **(Spa)**

LEGISLATION & JURISPRUDENCE

Burden of proof: judging science and protecting public health in (and out of) the courtroom [see comments] Annas GJ. **Am J Public Health** 1999 Apr;89(4):490-3 (32 ref.). Comment in: Am J Public Health 1999 Apr;89(4):487-9.

MANPOWER

Basic scientists in urology departments. Lee C. **J Urol** 1999 May;161(5):1578-9

METHODS

Looking at the future through orange-colored glasses [letter; comment] Bloch HS. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):638-9 . Comment on: J Am Acad Child Adolesc Psychiatry 1997 Dec;36(12):1653-5.
Thirteenth Nathalie Barr Lecture. Clinical reasoning: the passion of practice. Walsh MT. **J Hand Ther** 1998 Oct-Dec; 11(4):244-50
Alternative therapies: abuses of scientific method and challenges to dental research. Brunette DM. **J Prosthet Dent** 1998 Nov;80(5):605-14 (52 ref.)

ORGANIZATION & ADMINISTRATION

[The political power of elders: an illusion or a reality? A gap in science] Braam GP. **Tijdschr Gerontol Geriatr** 1998 Aug;29(4):166-7 **(Dut)**

STANDARDS

Emergence of "pseudoscience" [letter; comment] Healey MA. **Can Fam Physician** 1998 Nov;44:2374-5. Comment on: Can Fam Physician 1998 Aug;44:1567-8, 1572-4. Comment on: Can Fam Physician 1998 Aug;44:1634-40.
Wisdom versus knowledge: an agenda for a more humane medical science. Pollack R. **FASEB J** 1999 Sep; 13(12):1477-80
Objectivity in nursing research: observations and objections. Avis M. **Int J Nurs Stud** 1998 Jun;35(3):141-5 (30 ref.)
Industry pressures on scientific investigators [letter] Legator MS. **Int J Occup Environ Health** 1998 Apr-Jun;4(2):133
Tolerance in a rigorous science [comment] Shimp CP. **J Exp Anal Behav** 1999 Mar;71(2):284-8. Comment on: J Exp Anal Behav 1999 Mar;71(2):215-51.
More haste, less science? [letter] Hawkins BA. **Nature** 1999 Aug 5;400(6744):498
[Fragility of scientifically acquired data. The example of fluoride salts in osteoporosis] Villani P, et al. **Presse Med** 1998 Feb 28;27(8):361-2 (Eng. Abstr.) **(Fre)**
[Good manners in science. A collection of rules and principles. The committee on ethics in science from the executive board of the Polish Academy of Science] Gibiński K. **Pol Arch Med Wewn** 1998 Oct;100(4):388-402 **(Pol)**
[Science, law, freedom, customs] Duława J. **Przegl Lek** 1999; 56(3):248-50 **(Pol)**

TRENDS

The new scientists, and the new science. Bayne SC. **J Dent Res** 1999 Aug;78(8):1386-7
The sexual revolution in science: what gender-based research is telling us. Thompson PM, et al. **J Investig Med** 1999 Mar;47(3):106-13 (40 ref.)
Science, technology and health literacy for the 21st century. A future for dentistry. Percy T. Phillips Memorial Lecture. Slavkin HC. **N Y State Dent J** 1998 Dec;64(10):25-8
A powerful paradigm made stronger. Sperry RW. **Neuropsychologia** 1998 Oct;36(10):1063-8
Science, medical practice and ethics in the next millennium [editorial] Atallah AN. **Rev Paul Med** 1998 Mar-Apr; 116(2):1649
[The challenge of science at the outset of the third millenium] Ruffié J. **C R Seances Soc Biol Fil** 1998;192(5):857-67 (Eng. Abstr.) **(Fre)**
[Humanity and science] Frühwald W. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:909-15 **(Ger)**

SCIENTIFIC INTEGRITY REVIEW [Publication Type]

Findings of scientific misconduct [comment] **NIH Guide Grants Contracts** 1998 Jul 17;:1 p.. Comment on: J Biol Chem 1993 Nov 5;268(31):23055-8. Comment on: Mol Pharmacol 1993 Nov;44(5):1016-20. Comment on: J Pharmacol Exp Ther 1994 Sep;270(3):1381-6.

SCIENTIFIC MISCONDUCT

see related
DUPLICATE PUBLICATION
PLAGIARISM
RETRACTION OF PUBLICATION
UNITED STATES OFFICE OF RESEARCH INTEGRITY

Research fundamentals VI: misconduct in biomedical research. Biros MH, et al. **Acad Emerg Med** 1999 Aug; 6(8):840-8 (35 ref.)
Citation guidelines for residency applicants [letter; comment] Ankel F, et al. **Acad Med** 1999 Apr;74(4):297-8. Comment on: Acad Med 1998 May;73(5):532-3.
Anonymous poison pen letters vs allegations of scientific misconduct [letter; comment] Price AR. **Acad Med** 1998 Oct;73(10):1027-8. Comment on: Acad Med 1998 May;73(5):534-7.
An ethical analysis of the phenomenon of misconduct in research. Forsman B. **Acta Oncol** 1999;38(1):107-10
Misconduct in clinical research--the Scandinavian experience and actions for prevention. Riis P. **Acta Oncol** 1999;38(1):89-92 (12 ref.)
Research misconduct in clinical research--the American experience and response. Ryan KJ. **Acta Oncol** 1999; 38(1):93-7 (19 ref.)
Salami slicing, shotgunning, and the ethics of authorship [editorial; comment] Rogers LF. **AJR Am J Roentgenol** 1999 Aug;173(2):265. Comment on: AJR Am J Roentgenol 1999 Jan;172(1):1-2.
Ethics and research in anaesthesia [letter; comment] Smith G. **Anaesthesia** 1998 Sep;53(9):930. Comment on: Anaesthesia 1998 May;53(5):422-3.
Authorship, dissemination of research findings, and related matters. Duncan AM. **Appl Nurs Res** 1999 May;12(2):101-6 (23 ref.)
Fraud. Fair and efficient system of investigating alleged

misconduct can be devised [letter; comment] Breimer L. **BMJ** 1998 Dec 5;317(7172):1590. Comment on: BMJ 1998 Jun 6;316(7146):1733.
Fraud. Pharmaceutical industry follows guidelines on conduct of research [letter; comment] Brown L. **BMJ** 1998 Dec 5;317(7172):1590. Comment on: BMJ 1998 Jun 6;316(7146):1726–8. Comment on: BMJ 1998 Jun 6;316(7146):1728–9. Comment on: BMJ 1998 Jun 6;316(7146):1729–31. Comment on: BMJ 1998 Jun 6;316(7146):1731–2. Comment on: BMJ 1998 Jun 6;316(7146):1733.
Research claiming link between electromagnetic fields and cancer deemed fraudulent [news] Charatan F. **BMJ** 1999 Aug 7;319(7206):337
Fraud. Validating research retrospectively is difficult [letter] Gani A. **BMJ** 1998 Dec 5;317(7172):1590–1
Max-Planck society investigates misconduct [news] Heidelberg AT. **BMJ** 1999 Jul 31;319(7205):274
Fraud. Some aspects do not fall within remit of bodies examining fraud [letter; comment] Hillman H. **BMJ** 1998 Dec 5;317(7172):1591. Comment on: BMJ 1998 Jun 6;316(7146):1686–7. Comment on: BMJ 1998 Jun 6;316(7146):1726–8. Comment on: BMJ 1998 Jun 6;316(7146):1728–9. Comment on: BMJ 1998 Jun 6;316(7146):1729–31. Comment on: BMJ 1998 Jun 6;316(7146):1731–2. Comment on: BMJ 1998 Jun 6;316(7146):1733.
Falsifying data is main problem in US research fraud review [news] Pownall M. **BMJ** 1999 May 1;318(7192):1164
Fraud. Fraud at conferences needs to be addressed [letter; comment] Rymer J. **BMJ** 1998 Dec 5;317(7172):1591. Comment on: BMJ 1998 Jun 6;316(7146):1686–7. Comment on: BMJ 1998 Jun 6;316(7146):1726–8. Comment on: BMJ 1998 Jun 6;316(7146):1728–9. Comment on: BMJ 1998 Jun 6;316(7146):1729–31. Comment on: BMJ 1998 Jun 6;316(7146):1731–2. Comment on: BMJ 1998 Jun 6;316(7146):1733.
Refutation of an investigation commissioned by the Karolinska Institute 'regarding Ulf Lönn's research' [letter; comment] Lönn U. **Breast Cancer Res Treat** 1998 Sep; 51(2):189–90. Comment on: Breast Cancer Res Treat 1998 Sep;51(2):189.
The decision of the Karolinska Institute following an independent investigation of the research carried out by Associate Professor Ulf Lönn [letter; comment] [see comments] Nilsson B, et al. **Breast Cancer Res Treat** 1998 Sep;51(2):189. Comment on: Breast Cancer Res Treat 1992;23(3):191–200. Comment on: Breast Cancer Res Treat 1994;29(3):237–45. Comment on: Breast Cancer Res Treat 1994;30(2):147–52. Comment on: Breast Cancer Res Treat 1996;39(2):213–20. Comment in: Breast Cancer Res Treat 1998 Sep;51(2):189–90.
Justice for Marguerite. Wegmann RJ.
Cell Mol Biol (Noisy-le-grand) 1999 Mar;45(2):153–94
Seven years in search of alpha: the best of times, the worst of times. Wilkinson GS. **Epidemiology** 1999 May; 10(3):340–4
The Baltimore case. Fielder JH.
IEEE Eng Med Biol Mag 1999 Mar–Apr;18(2):117–9
What is the quality of the reporting of research ethics in publications of nursing home research? Karlawish JH, et al. **J Am Geriatr Soc** 1999 Jan;47(1):76–81 (58 ref.)
Scientific misconduct in cancer clinical trials. Emanuel EJ, et al. **J Clin Oncol** 1998 Oct;16(10):3433–8
Scientific dishonesty: a Danish proposal for evaluation and prevention. Grandjean P, et al.
J Expo Anal Environ Epidemiol 1993;3 Suppl 1:265–70
The United States Government scientific misconduct regulations and the handling of issues related to research integrity. Price AR. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:253–64
Questions from the delegates and answers by the panelists concerning "ethics and law in environmental epidemiology". Price AR, et al.
J Expo Anal Environ Epidemiol 1993;3 Suppl 1:297–319
Introduction to misconduct in science and scientific duties. Soskolne CL. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:245–51 (18 ref.)
Will Germany's good scientific practice guidelines prevent fraud? [news] Steimle S. **J Natl Cancer Inst** 1998 Nov 18; 90(22):1694–5
Scientific dishonesty [letter] Bergh C, et al. **Lancet** 1999 Aug 14;354(9178):601
Fraud in science [news] Sharma AM. **Natl Med J India** 1998 Jul–Aug;11(4):188–9
A sorry affair [editorial; comment] **Nature** 1999 May 27; 399(6734):285. Comment on: Nature 1999 May 27;399(6734):297–8.
Surviving misconduct is one thing, accountability is another [editorial] [see comments] **Nature** 1998 Oct 22; 395(6704):727. Comment in: Nature 1998 Dec 3;396(6710):404. Comment in: Nature 1999 Jan 14;397(6715):101. Comment in: Nature 1999 Feb 4;397(6718):384.
Where next on misconduct? [editorial] **Nature** 1999 Mar 4; 398(6722):1
A chronic lack of definition [editorial] [see comments]
Nature 1998 Aug 27;394(6696):815. Comment in: Nature 1998 Oct 29;395(6705):835–6.
Science comes to terms with the lessons of fraud [news] [see comments] Abbott A. **Nature** 1999 Mar 4;398(6722):13–7. Comment in: Nature 1999 Apr 29;398(6730):745.
Battle lines drawn between 'nanobacteria' researchers [news] Abbott A. **Nature** 1999 Sep 9;401(6749):105
as Seeburg faces misconduct inquiry [news] Abbott A.
Nature 1999 Jun 10;399(6736):512
It will take more than notebooks to stop fraud [letter; comment] [see comments] Angelides K, et al. **Nature** 1998 Dec 3;396(6710):404. Comment on: Nature 1998 Oct 22;395(6704):727. Comment in: Nature 1999 Jan 14;397(6715):101.
French inquiry into misconduct is shelved [news] Butler D. **Nature** 1998 Oct 29;395(6705):829
Lab guidelines aim to prevent misconduct [letter; comment] Clausen T. **Nature** 1999 Jan 14;397(6715):101. Comment on: Nature 1998 Oct 22;395(6704):727. Comment on: Nature 1998 Dec 3;396(6710):404.
NIH office plans research on misconduct [news] Dalton R. **Nature** 1999 Jul 8;400(6740):99
US stalls on new definitions of misconduct [news] Dalton R. **Nature** 1999 Mar 4;398(6722):16
Charges fly in $1bn hormone patent battle [news] Dalton R. **Nature** 1999 May 27;399(6734):289
Tougher crackdown on fraud needed [letter] del Guercio P. **Nature** 1998 Aug 27;394(6696):823
Genentech stands by original data [letter] [see comments] Henner DJ, et al. **Nature** 1999 May 27;399(6734):297–8. Comment in: Nature 1999 May 27;399(6734):285.
Can teaching ethics make people ethical? [letter; comment] Leavitt FJ. **Nature** 1999 Feb 4;397(6718):384. Comment on: Nature 1998 Oct 22;395(6704):727.
Name and shame the scientific fraudsters [letter; comment] McComb J. **Nature** 1999 Apr 29;398(6730):745. Comment on: Nature 1999 Mar 4;398(6722):13–7.
Editors' responsibility in defeating fraud [letter] Meguid MM. **Nature** 1999 May 6;399(6731):13
Missing the mark on misconduct [letter; comment] Roy R. **Nature** 1998 Oct 29;395(6705):835–6. Comment on: Nature 1998 Aug 27;394(6696):815.
Japanese scandals raise public distrust [news] Saegusa A. **Nature** 1999 Mar 4;398(6722):14
Statement from Peter Seeburg [letter] Seeburg PH.
Nature 1999 May 27;399(6734):298
Canadian whistleblower row prompts broader code of conduct [news] Spurgeon D. **Nature** 1998 Dec 24–31; 396(6713):715
Findings of scientific misconduct [comment]
NIH Guide Grants Contracts 1998 Jul 17;:1 p.. Comment on: J Biol Chem 1993 Nov 5;268(31):23055–8. Comment on: Mol Pharmacol 1993 Nov;44(5):1016–20. Comment on: J Pharmacol Exp Ther 1994 Sep;270(3):1381–6.
Plant science. Data in key papers cannot be reproduced [news] [see comments] Balter M. **Science** 1999 Mar 26; 283(5410):1987, 1989. Comment in: Science 1999 May 21;284(5418):1275.
Misconduct. Fraud finding triggers payback demand [news] Barinaga M, et al. **Science** 1999 Aug 20;285(5431):1189–90
Scientific misconduct. ORI report tracks gun-shy feds [news] Kaiser J. **Science** 1999 May 7;284(5416):901
Scientific misconduct. EMF researcher made up data, ORI says [news] [see comments] Vergano D. **Science** 1999 Jul 2;285(5424):23,25. Comment in: Science 1999 Jul 16;285(5426):337.
Falsifying data is main problem in US research fraud review [news] Pownall M. **West J Med** 1999 Jun;170(6):377
[Scientific fraud and misconduct--need for comprehensive terminology] Riis P, et al. **Nord Med** 1998 Dec; 113(10):358–9 **(Dan)**
[Good scientific practice] Andersen D. **Ugeskr Laeger** 1999 Feb 1;161(5):610–8 **(Dan)**
[A good Scientific Practice (editorial)] Riis P.
Ugeskr Laeger 1999 Feb 1;161(5):571 **(Dan)**
[Scientific honesty in psychiatric–psychotherapeutic research in child and adolescent psychiatry (editorial)] Lehmkuhl U. **Z Kinder Jugendpsychiatr Psychother** 1998 Dec; 26(4):233–4 **(Ger)**
[The assistant was guilty? On the erotic of fraud in science (editorial)] Werner P. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):Oa1–2 **(Ger)**
[Scientific fraud. A disease we find among ourselves] Guimarães S. **Acta Med Port** 1998 Aug–Sep;11(8–9):783–5 (Eng. Abstr.) **(Por)**
[Consequences of scientific misconduct and fraud. Is a "scientific research committee" required?] Jacobsson L.
Lakartidningen 1999 Jan 6;96(1–2):9–10 **(Swe)**
[Handling of duplicate publications (letter; comment)] Rössner S. **Lakartidningen** 1998 Nov 18;95(47):5275. Comment on: Lakartidningen 1998 Oct 28;95(44):4864–5. **(Swe)**
[Don't forget the journals in the fight against research misconduct. Investigation of suspected misconduct should not be conducted by the universities themselves (see comments)] Zetterström R. **Lakartidningen** 1998 Oct 28; 95(44):4864–6 (7 ref.). Comment in: Lakartidningen 1998 Nov 18;95(47):5275. **(Swe)**

LEGISLATION & JURISPRUDENCE

Scientific misconduct and correcting the scientific literature [published erratum appears in Acad Med 1999 Jun;74(6):621] Parrish DM. **Acad Med** 1999 Mar; 74(3):221–30
The unending saga of legal controls over scientific misconduct: a clash of cultures needing resolution. Goldner JA. **Am J Law Med** 1998;24(2–3):293–343 (521 ref.)
Integrity in science: misconduct investigations in a U.S. university. Dale ML. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:283–95
Integrity in science: administrative, civil and criminal law in the U.S.A. Sharphorn DH.
J Expo Anal Environ Epidemiol 1993;3 Suppl 1:271–81
German scientists may escape fraud trial [news] Abbott A. **Nature** 1998 Oct 8;395(6702):532–3
Federal panel endorses Baylor fraud claim [news] Dalton R. **Nature** 1999 Feb 18;397(6720):549
Arizona professor files lawsuit after being fired for misconduct [news] Dalton R. **Nature** 1998 Aug 27; 394(6696):817
Scientific misconduct. Baylor saga comes to an end [news] Kaiser J. **Science** 1999 Feb 19;283(5405):1091
Scientific misconduct. Investigations on trial in a Texas court [news] Marshall E. **Science** 1999 Feb 12;283(5404):913–4

STATISTICS & NUMERICAL DATA

Integrity in science: misconduct investigations in a U.S. university. Dale ML. **J Expo Anal Environ Epidemiol** 1993; 3 Suppl 1:283–95
Fraud in medicine. Coping with fraud. Farthing MJ.
Lancet 1998 Dec 19–26;352 Suppl 4:SIV11 (5 ref.)

TRENDS

Scientific misconduct: exaggerated fear but still real and requiring a proportionate response [comment] Horton R. **Lancet** 1999 Jul 3;354(9172):7–8. Comment on: Lancet 1999 Jul 3;354(9172):57–61.
Handling of scientific dishonesty in the Nordic countries. National Committees on Scientific Dishonesty in the Nordic Countries [see comments] Nylenna M, et al.
Lancet 1999 Jul 3;354(9172):57–61. Comment in: Lancet 1999 Jul 3;354(9172):7–8.

SCIENTIFIC SOCIETIES see **SOCIETIES, SCIENTIFIC**

SCIENTOLOGY see **ALTERNATIVE MEDICINE**

SCILLARENIN RHAMNOSIDE see **PROSCILLARIDIN**

SCIMITAR SYNDROME

COMPLICATIONS

Langer-Giedion syndrome associated with scimitar syndrome. Sinzig M, et al. **Pediatr Radiol** 1999 Mar; 29(3):218–20

DIAGNOSIS

Scimitar syndrome: diagnosis with MR angiography. Kivelitz DE, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1700
Scimitar syndrome presenting in infancy. Huddleston CB, et al. **Ann Thorac Surg** 1999 Jan;67(1):154–9; discussion 160
Images in Cardiovascular Medicine. Scimitar syndrome. Ferrari VA, et al. **Circulation** 1998 Oct 13;98(15):1583–4

HISTORY

History of scimitar syndrome [letter; comment] Mulligan ME. **Radiology** 1999 Jan;210(1):288–90. Comment on: Radiology 1998 Mar;206(3):623–4.

SCINTIGRAPHY see **RADIONUCLIDE IMAGING**

SCINTIGRAPHY, COMPUTED TOMOGRAPHIC see **TOMOGRAPHY, EMISSION-COMPUTED**

SCINTIGRAPHY, EQUILIBRIUM see **GATED BLOOD-POOL IMAGING**

SCINTILLATION CAMERAS see **GAMMA CAMERAS**

SCINTILLATION COUNTING

see related
GAMMA CAMERAS

A scintillation proximity assay for human interleukin-5 (hIL-5) high-affinity binding in insect cells coexpressing hIL-5 receptor alpha and beta subunits. Zhang J, et al. **Anal Biochem** 1999 Mar 1;268(1):134–42
Intraoperative probes and imaging probes. Hoffman EJ, et al. **Eur J Nucl Med** 1999 Aug;26(8):913–35 (159 ref.)
Modeling of scintillation camera systems. Woldeselassie T. **Med Phys** 1999 Jul;26(7):1375–81

INSTRUMENTATION

Evaluation of surgical gamma probes for radioguided sentinel node localisation [see comments] Tiourina T, et al.
Eur J Nucl Med 1998 Sep;25(9):1224–31. Comment in: Eur J Nucl Med 1999 Feb;26(2):183–4.
Optimization of the scintillation detector in a combined 3D megavoltage CT scanner and portal imager.
Mosleh-Shirazi MA, et al. **Med Phys** 1998 Oct; 25(10):1880–90
Modeling of scintillation camera systems. Woldeselassie T. **Med Phys** 1999 Jul;26(7):1375–81
Plastic scintillator response to low-energy photons. Williamson JF, et al. **Phys Med Biol** 1999 Apr;44(4):857–71

SCINTILLATION COUNTING

METHODS

Assessment of counting efficiencies for labeled protein and other macromolecules in filter disk assays. Albright EB, et al. **Anal Biochem** 1978 Nov;91(1):258–63

Development of a scintillation proximity assay for high-throughput measurement of intact parathyroid hormone. Frolik CA, et al. **Anal Biochem** 1998 Dec 15; 265(2):216–24

A scintillation proximity assay for the Raf/MEK/ERK kinase cascade: high-throughput screening and identification of selective enzyme inhibitors. McDonald OB, et al. **Anal Biochem** 1999 Mar 15;268(2):318–29

Sources of error in the channels ratio method for efficiency determination in liquid scintillation counting. Neame KD. **Anal Biochem** 1978 Nov;91(1):323–39

Automatic collector of expired 14CO2 for liquid scintillation counting. Richards AC, et al. **Anal Biochem** 1978 Nov; 91(1):199–208

Adding water to liquid scintillation cocktail for laboratory wipe tests. Sturchio GM, et al. **Health Phys** 1999 Feb;76(2 Suppl):S32–6

The role of a new liquid–solid scintillator, a mixture of DPO, POPOP and Epon 812, for enhancement of autoradiograms with tritium agents. Nishimaki T, et al. **J Vet Med Sci** 1998 Jul;60(7):795–7

Plastic scintillator response to low-energy photons. Williamson JF, et al. **Phys Med Biol** 1999 Apr;44(4):857–71

[Measurement of cerebral blood flow the blood sampling method using 99mTc-ECD: simultaneous scintigram scanning of arterial blood samples and the brain with a gamma camera] Hachiya T, et al. **Kaku Igaku** 1999 Jan; 36(1):51–7 (Eng. Abstr.) **(Jpn)**

STANDARDS

Compounds capable of generating singlet oxygen represent a source of artifactual data in scintillation proximity assays measuring phosphopeptide binding to SH2 domains. Pai JJ, et al. **Anal Biochem** 1999 May 15;270(1):33–40

The standardization of 62Cu and experimental determinations of dose calibrator settings for generator-produced 62CuPTSM. Zimmerman BE, et al. **Appl Radiat Isot** 1999 Nov;51(5):515–26

SCINTIPHOTOGRAPHY see **RADIONUCLIDE IMAGING**

SCISSORS, SURGICAL see **SURGICAL INSTRUMENTS**

SCIURIDAE

Identification of a novel strain of Borrelia hermsii in a previously undescribed northern California focus. Cleary M, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):883–7

On sperm competition games: raffles and roles revisited. Mesterton-Gibbons M. **J Math Biol** 1999 Aug;39(2):91–108

ANATOMY & HISTOLOGY

Morphology, topography and cytoarchitectonics of the otic ganglion in the spotted suslik (Spermophilus suslicus, Güldenstaedt 1770). Szczurkowski A. **Anat Anz** 1999 Jul; 181(4):409–11

Modelling the mosaic organization of rod and cone photoreceptors with a minimal-spacing rule. Galli-Resta L, et al. **Eur J Neurosci** 1999 Apr;11(4):1461–9

[The morphofunctional characteristics of the testicular interstitial endocrinocytes in the red suslik (Citellus major Pallas) during a seasonal change in reproductive activity] Shevliuk NN. **Morfologiia** 1998;114(4):88–93 (Eng. Abstr.) **(Rus)**

BLOOD

The antihemorrhagic factor of the Mexican ground squirrel, (Spermophilus mexicanus). Martinez RR, et al. **Toxicon** 1999 Jun;37(6):949–54

GENETICS

[Allozyme differentiation of various chromosomal forms of the spotted suslik (Spermophilus suslicus Guld, 1770, Rodentia)] Frisman LV, et al. **Genetika** 1999 Mar; 35(2):378–84 (Eng. Abstr.) **(Rus)**

[Genetic connections and differentiation of ground squirrels Marmotinae Pocock, 1923 (Rodentia, Sciuridae) from Palearctics] Mezhzherin SV, et al. **Genetika** 1999 Jun; 35(6):756–64 (Eng. Abstr.) **(Rus)**

METABOLISM

cAMP-dependent protein kinase from brown adipose tissue: temperature effects on kinetic properties and enzyme role in hibernating ground squirrels. MacDonald JA, et al. **J Comp Physiol [B]** 1998 Oct;168(7):513–25

Major changes in the brain histamine system of the ground squirrel Citellus lateralis during hibernation. Sallmen T, et al. **J Neurosci** 1999 Mar 1;19(5):1824–35

[Effect of fractions of peptides (1–10 kDa) from tissues of hibernating squirrels and peptides kyotorphin and neokyotorphin on fish behavior] Santalova IM, et al. **Dokl Akad Nauk** 1998 Oct;362(5):696–8 **(Rus)**

MICROBIOLOGY

Mycophagy by small mammals in the coniferous forests of North America: nutritional value of sporocarps of Rhizopogon vinicolor, a common hypogeous fungus. Claridge AW, et al. **J Comp Physiol [B]** 1999 Apr; 169(3):172–8

From the Centers for Disease Control and Prevention. Blastomycosis acquired occupationally during prairie dog relocation--Colorado, 1998. **JAMA** 1999 Jul 7;282(1):21–2

Study of diseases of the grey squirrel (Sciurus carolinensis) in Italy. First isolation of the dermatophyte Microsporum cookei. Caffara M, et al. **Med Mycol** 1999 Feb;37(1):75–7

Blastomycosis acquired occupationally during prairie dog relocation--Colorado, 1998. **MMWR Morb Mortal Wkly Rep** 1999 Feb 12;48(5):98–100

[The survival of the causative agent of plaque in the long-tailed suslik from a Tuva natural focus in wintertime] Maevskii MP, et al. **Med Parazitol (Mosk)** 1999 Jan–Mar; (1):55–8 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Gongylonema macrogubernaculum in captive African squirrels (Funisciurus substriatus and Xerus erythropus) and lion-tailed macaques (Macaca silenus). Craig LE, et al. **J Zoo Wildl Med** 1998 Sep;29(3):331–7

PHYSIOLOGY

Differential regulation of uncoupling protein gene homologues in multiple tissues of hibernating ground squirrels. Boyer BB, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1232–8

Light-induced uncoupling of multioscillatory circadian system in a diurnal rodent, Asian chipmunk. Honma S, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1390–6

Dissimilarity of slow-wave activity enhancement by torpor and sleep deprivation in a hibernator. Strijkstra AM, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1110–7

Regulation of ground squirrel Na+K+-ATPase activity by reversible phosphorylation during hibernation. MacDonald JA, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):424–9

Determination of striatal extracellular gamma-aminobutyric acid in non-hibernating and hibernating arctic ground squirrels using quantitative microdialysis. Osborne PG, et al. **Brain Res** 1999 Aug 21;839(1):1–6

California ground squirrel body temperature regulation patterns measured in the laboratory and in the natural environment. Muchlinski AE, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun; 120(2):365–72

Effects of continuous light, continuous darkness and pinealectomy on pineal–thyroid–gonadal axis of the female Indian palm squirrel, Funambulus pennanti. Shavali SS, et al. **J Neural Transm** 1998;105(4–5):407–13

Major changes in the brain histamine system of the ground squirrel Citellus lateralis during hibernation. Sallmen T, et al. **J Neurosci** 1999 Mar 1;19(5):1824–35

Flavor avoidance learning and its implications in reducing strychnine baiting hazards to nontarget animals. El Hani A, et al. **Physiol Behav** 1998 Jul;64(5):585–9

Social contact synchronizes free-running activity rhythms of diurnal palm squirrels. Rajaratnam SM, et al. **Physiol Behav** 1999 Mar;66(1):21–6

Reversible depression of oxygen consumption in isolated liver mitochondria during hibernation. Martin SL, et al. **Physiol Biochem Zool** 1999 May–Jun;72(3):255–64

Information asymmetries among males: implications for fertilization success in the thirteen-lined ground squirrel. Schwagmeyer PL, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1861–5

[The Van't Hoff rule in studying various phases of hibernation of the squirrel Citellus undulatus Pallas. Physico-chemical route to cold adaptation] Kalabukhova TN. **Biofizika** 1998 Nov–Dec;43(6):1076–80 (Eng. Abstr.) **(Rus)**

[Atrial cardiomyocytes of the heterothermic animal in various physiological conditions] Vinogradova MS, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):353–6 **(Rus)**

[The reactions of chipmunk binocular striatal cortex on performed stimuli] Revishchin AV, et al. **Dokl Akad Nauk** 1999 Apr;365(5):710–4 **(Rus)**

[Seasonal changes in the brain integrative activity in hibernating animals] Semenova TP, et al. **Dokl Akad Nauk** 1998 Dec;363(4):567–9 **(Rus)**

[The myoglobin level in skeletal muscles of the hibernating Iakutiia ground squirrel Citellus undulatus] Postnikova GB, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May–Jun; 84(5–6):541–6 (Eng. Abstr.) **(Rus)**

VIROLOGY

A novel parvovirus isolated from Manchurian chipmunks. Yoo BC, et al. **Virology** 1999 Jan 20;253(2):250–8

SCLERA

see related
LIMBUS CORNEAE
SCLERAL BUCKLING
SCLEROPLASTY
SCLEROSTOMY

Technique for harvesting keratolimbal allografts from corneoscleral buttons. Mannis MJ, et al. **Am J Ophthalmol** 1999 Aug;128(2):237–8

Corneo-scleral RGP lenses for post-graft patients [letter] Winkler TD. **CLAO J** 1998 Oct;24(4):198

Medial canthus episcleral (sub-Tenon) anesthesia imaging. Ripart J, et al. **Clin Anat** 1998;11(6):390–5

Chronic recording of the vestibulo-ocular reflex in the restrained rat using a permanently implanted scleral search coil. Quinn KJ, et al. **J Neurosci Methods** 1998 Apr 30; 80(2):201–8

ANATOMY & HISTOLOGY

An additional bone in the sclera of the eyes of owls and the common potoo (Nictibius griseus) and its role in the contraction of the nictitating membrane. Bohórquez Mahecha GA, et al. **Acta Anat (Basel)** 1998;163(4):201–11

Peripapillary circle of Zinn-Haller [letter; comment] Gauntt CD. **Br J Ophthalmol** 1998 Jul;82(7):849. Comment on: Br J Ophthalmol 1997 Aug;81(8):663–7.

BLOOD SUPPLY

Light microscopy of uveoscleral drainage routes after gelatine injections into the suprachoroidal space. Krohn J, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):521–7

Topical verapamil and episcleral venous pressure. Abreu MM, et al. **Ophthalmology** 1998 Dec;105(12):2251–5

CHEMISTRY

Glycoproteins of trabecular meshwork, cornea and sclera. Chapman SA, et al. **Eye** 1998;12 (Pt 3a):440–8

DRUG EFFECTS

Topical prostaglandin F2alpha treatment reduces collagen types I, III, and IV in the monkey uveoscleral outflow pathway. Sagara T, et al. **Arch Ophthalmol** 1999 Jun; 117(6):794–801

Enthacrynic and acid effects on inner wall pores in living monkeys. Ethier CR, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1382–91

Effects of ethacrynic acid on Schlemm's canal inner wall and outflow facility in human eyes. Ethier CR, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1599–607

Muscarinic acetylcholine receptor antagonists inhibit chick scleral chondrocytes. Lind GJ, et al. **Invest Ophthalmol Vis Sci** 1998 Nov;39(12):2217–31

ENZYMOLOGY

Matrix metalloproteinase-1 localization in the normal human uveoscleral outflow pathway. Gaton DD, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):363–9

[The effects of single mitomycin C application on the expression of matrix metalloproteinase in the sclera and aqueous of albino rabbits] Hanyu T. **Nippon Ganka Gakkai Zasshi** 1999 Mar;103(3):186–92 (Eng. Abstr.) **(Jpn)**

GROWTH & DEVELOPMENT

Influence of destruction of retina-RPE complex on the proliferation of scleral chondrocytes in chicks. Wang IJ, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):429–36

INJURIES

Intraocular foreign bodies. Factors influencing final visual outcome. Chiquet C, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):321–5

Retained intraocular metallic foreign body masquerading as a ciliary body melanoma with extrascleral extension. Khoury JM, et al. **Arch Ophthalmol** 1999 Mar;117(3):410–1

Traumatic foveal relocation with good visual acuity [letter] Toller KK, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1536–7

Lens expulsion into sub-conjunctival space following peribulbar anaesthesia [published erratum appears in Indian J Ophthalmol 1998 Sep;46(3):following table of contents] Nagpal M, et al. **Indian J Ophthalmol** 1998 Jun;46(2):109–10

Dodick laser phacolysis: thermal effects. Alzner E, et al. **J Cataract Refract Surg** 1999 Jun;25(6):800–3

Scleral perforation during retrobulbar and peribulbar anesthesia: risk factors and outcome in 50,000 consecutive injections. Edge R, et al. **J Cataract Refract Surg** 1999 Sep; 25(9):1237–44

Treatment of traumatic cyclodialysis with vitrectomy, cryotherapy, and gas endotamponade. Hoerauf H, et al. **J Cataract Refract Surg** 1999 Sep;25(9):1299–301

Corneoscleral burn during phacoemulsification surgery. Majid MA, et al. **J Cataract Refract Surg** 1998 Oct; 24(10):1413–5

A case of bacterial endophthalmitis following perforating injury caused by a cat claw. Doi M, et al. **Ophthalmic Surg Lasers** 1999 Apr;30(4):315–6

Management of traumatic cyclodialysis cleft associated with ocular hypotony. Kato T, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):469–72

Scleral rupture [letter; comment] Rao NA, et al. **Ophthalmology** 1999 Sep;106(9):1643–4. Comment on: Ophthalmology 1998 Mar;105(3):535–8.

Ocular injuries from paintball pellets. Thach AB, et al. **Ophthalmology** 1999 Mar;106(3):533–7

Surfing-related ocular injuries. Kim JW, et al. **Retina** 1998; 18(5):424-9

[Post-traumatic scleromalacia in an Ehlers-Danlos syndrome] Parc C, et al. **J Fr Ophtalmol** 1998 Dec; 21(10):761-3 (Eng. Abstr.) **(Fre)**

INNERVATION

Axon deviation in the human lamina cribrosa [see comments] Morgan JE, et al. **Br J Ophthalmol** 1998 Jun;82(6):680-3 . Comment in: Br J Ophthalmol 1998 Jun;82(6):595-6.

Autonomic nerves containing substance P in the aqueous outflow channels and scleral spur of the guinea pig. Sasamoto M, et al. **Jpn J Ophthalmol** 1999 Jul-Aug; 43(4):272-8

METABOLISM

Expression of factor VIII-related antigen in human aqueous drainage channels. Krohn J. **Acta Ophthalmol Scand** 1999 Feb;77(1):9-12

Glucocorticoids regulate transendothelial fluid flow resistance and formation of intercellular junctions. Underwood JL, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C330-42

Leukocyte adhesion molecule expression in scleritis. Sangwan VS, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1476-80

Differential expression and regulation of TGF-beta1, TGF-beta2, TGF-beta3, TGF-betaRI, TGF-betaRII and TGF-betaRIII in cultured human corneal, limbal, and conjunctival fibroblasts. Li DQ, et al. **Curr Eye Res** 1999 Aug;19(2):154-61

Isolated chick sclera shows a circadian rhythm in proteoglycan synthesis perhaps associated with the rhythm in ocular elongation. Nickla DL, et al. **J Comp Physiol [A]** 1999 Jul;185(1):81-90

Quantification of intraoperative administration of mitomycin-C in filtering surgery with surgical sponge material. Larrosa JM, et al. **J Glaucoma** 1999 Feb;8(1):46-50

The ocular distribution of methazolamide after corneal and scleral administration: the effect of ionization state. Conroy CW, et al. **J Ocul Pharmacol Ther** 1998 Dec;14(6):565-73

Penetration of natural prostaglandins and their ester prodrugs and analogs across human ocular tissues in vitro. Madhu C, et al. **J Ocul Pharmacol Ther** 1998 Oct;14(5):389-99

MICROBIOLOGY

Decontamination of human sclera: an in vitro study. Lucci LM, et al. **Cornea** 1999 Sep;18(5):595-8

PATHOLOGY

Scleral and episcleral histological changes related to encircling explants in 20 eyes. D'Hermies F, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):279-85

Early-onset scleral necrosis after iodine I 125 plaque radiotherapy for ciliochoroidal melanoma. Corrêa ZM, et al. **Arch Ophthalmol** 1999 Feb;117(2):259-61

Alkaptonuria [letter] Carlesimo M, et al. **Dermatology** 1999; 199(1):70-1

Modulation of scleral DNA synthesis in development of and recovery from induced axial myopia in the tree shrew. Gentle A, et al. **Exp Eye Res** 1999 Feb;68(2):155-63

Histologic effect of diode laser sclerostomy in human cadaver eyes. Rodrigues M, et al. **Ophthalmic Surg Lasers** 1998 Sep; 29(9):758-61

Experimental encircling scleral buckle with silicone and hydrogel: histopathologic and comparative study of 26 rabbit eyes. D'Hermies F, et al. **Retina** 1999;19(2):148-57

PHYSIOLOGY

A lattice model for computing the transmissivity of the cornea and sclera. Ameen DB, et al. **Biophys J** 1998 Nov; 75(5):2520-31

Swelling studies on the cornea and sclera: the effects of pH and ionic strength. Huang Y, et al. **Biophys J** 1999 Sep; 77(3):1655-65

A biomathematical model for pressure-dependent lamina cribrosa behavior. Dongqi H, et al. **J Biomech** 1999 Jun; 32(6):579-84

Isolated chick sclera shows a circadian rhythm in proteoglycan synthesis perhaps associated with the rhythm in ocular elongation. Nickla DL, et al. **J Comp Physiol [A]** 1999 Jul;185(1):81-90

Permeability of cornea, sclera, and conjunctiva: a literature analysis for drug delivery to the eye. Prausnitz MR, et al. **J Pharm Sci** 1998 Dec;87(12):1479-88 (51 ref.)

Regulation of the mechanical properties of tree shrew sclera by the visual environment. Siegwart JT Jr, et al. **Vision Res** 1999 Jan;39(2):387-407

PHYSIOPATHOLOGY

Wound healing of scleral self-sealing incision: a comparison of ultrasound biomicroscopy and histology findings. Hikichi T, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):775-8

Method for safer penetrating keratoplasty in patients with low scleral rigidity. Faktorovich EG, et al. **J Cataract Refract Surg** 1999 Jul;25(7):882-4

SURGERY

Viscocanalostomy: a pilot study. Carassa RG, et al. **Acta Ophthalmol Scand Suppl** 1998;(227):51-2

Modified sutureless sclerotomies in pars plana vitrectomy. Kwok AK, et al. **Am J Ophthalmol** 1999 Jun;127(6):731-3

Meta-analysis on the recurrence rates after bare sclera resection with and without mitomycin C use and conjunctival autograft placement in surgery for primary pterygium. Sánchez-Thorin JC, et al. **Br J Ophthalmol** 1998 Jun;82(6):661-5

Non-penetrating deep sclerectomy preliminary results. Bas JM, et al. **Bull Soc Belge Ophtalmol** 1999;272:55-9

Wound healing of scleral self-sealing incision: a comparison of ultrasound biomicroscopy and histology findings. Hikichi T, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):775-8

Ocular hypotony after laser suture lysis following trabeculectomy with mitomycin C. Bardak Y, et al. **Int Ophthalmol** 1997-98;21(6):325-30

Excimer laser effects on outflow facility and outflow pathway morphology. Schuman JS, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1676-80

Ab externo 4-point scleral fixation of posterior chamber intraocular lenses. Chakrabarti A, et al. **J Cataract Refract Surg** 1999 Mar;25(3):420-6

Management of profound zonular dialysis or weakness with a new endocapsular ring designed for scleral fixation. Cionni RJ, et al. **J Cataract Refract Surg** 1998 Oct; 24(10):1299-306

Sulcus transscleral sutured posterior chamber lenses [letter; comment] Cordovés L, et al. **J Cataract Refract Surg** 1999 Feb;25(2):156-7. Comment on: J Cataract Refract Surg 1998 Jul;24(7):889.

Simplified anesthesia technique for scleral tunnel phacoemulsification [see comments] John T. **J Cataract Refract Surg** 1998 Dec;24(12):1562-5. Comment in: J Cataract Refract Surg 1998 Dec;24(12):1546-7.

Corneal astigmatism after cataract surgery with 4.1 mm BENT scleral and 4.1 mm plus meridian corneal incisions. Kurimoto Y, et al. **J Cataract Refract Surg** 1999 Mar; 25(3):427-31

Short-term results of scleral intraocular lens fixation in children. Lam DS, et al. **J Cataract Refract Surg** 1998 Nov; 24(11):1474-9

Two year follow-up of astigmatism after phacoemulsification with adjusted and unadjusted sutured versus sutureless 5.2 mm superior scleral incisions. Lyhne N, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1647-51

Transscleral fixation of acrylic intraocular lenses in the absence of capsular support through 3.5 mm self-sealing incisions. Oshima Y, et al. **J Cataract Refract Surg** 1998 Sep;24(9):1223-9

Long-term course of surgically induced astigmatism after a 5.0 mm sclerocorneal valve incision. Rainer G, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1642-6

Surgically induced astigmatism with superior and temporal incisions in cases of with-the-rule preoperative astigmatism. Roman SJ, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1636-41

Transscleral fixation of foldable intraocular lens after pars plana lensectomy in eyes with a subluxated lens. Tsai YY, et al. **J Cataract Refract Surg** 1999 May;25(5):722-4

Pain in scleral pocket incision cataract surgery using topical and peribulbar anesthesia [see comments] Virtanen P, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1609-13. Comment in: J Cataract Refract Surg 1998 Dec;24(12):1546-7.

Trabeculectomy using a sutureless scleral tunnel technique: a preliminary study. Lai JS, et al. **J Glaucoma** 1999 Jun; 8(3):188-92

Scleral fixation for a phakic anterior chamber disc intraocular lens. Maggi R, et al. **J Refract Surg** 1998 Nov-Dec; 14(6):597-601

Combined lensectomy, vitrectomy and scleral fixation of intraocular lens implant after closed-globe injury. Chaudhry NA, et al. **Ophthalmic Surg Lasers** 1999 May; 30(5):375-81

A simplified technique for stable transscleral suture fixation of posterior chamber intraocular lenses. Epley KD, et al. **Ophthalmic Surg Lasers** 1999 May;30(5):398-402

The effect of adjustable suture techniques on scleral resistance. Keech RV. **Ophthalmic Surg Lasers** 1998 Oct; 29(10):842-8

Intraocular lens tilt and decentration, anterior chamber depth, and refractive error after trans-scleral suture fixation surgery. Hayashi K, et al. **Ophthalmology** 1999 May; 106(5):878-82

Scleral expansion surgery does not restore accommodation in human presbyopia. Mathews S. **Ophthalmology** 1999 May;106(5):873-7

Scleral fixated intraocular lenses: an angiographic study. Lanzetta P, et al. **Retina** 1998;18(6):515-20

[Retinal detachment--severe complication after posterior scleral reinforcement operation] Zhang J, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):210-2 (Eng. Abstr.) **(Chi)**

[Repair of cornea-sclera defect by autogenous sclera graft from the same eye] Wang B, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):206-7 (Eng. Abstr.) **(Chi)**

[Deep non-perforating sclerectomy: a bad name for good surgery] Baudouin C. **J Fr Ophtalmol** 1999 Aug-Sep; 22(7):780 **(Fre)**

[Non-perforating external sclero-trabeculectomy] Demailly P, et al. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):791-3 **(Fre)**

[Deep sclerectomy: surgical technique] Mermoud A. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):781-6 **(Fre)**

[Scleral mini-incision without ultrasound in the treatment of congenital cataract] Ndiaye PA, et al. **J Fr Ophtalmol** 1999 Apr;22(3):347-51 (Eng. Abstr.) **(Fre)**

[Deep sclerectomy in congenital glaucoma. Preliminary results] Tixier J, et al. **J Fr Ophtalmol** 1999 May;22(5):545-8 (Eng. Abstr.) **(Fre)**

[Sclera fixation of posterior chamber lenses in vitrectomized eyes. Perfluorocarbon as an operative aid] Schmitz P, et al. **Ophthalmologe** 1998 Aug;95(8):564-7 (Eng. Abstr.) **(Ger)**

[Surgical stimulation of uveoscleral discharge in primary glaucoma] Kornilaeva GG. **Vestn Oftalmol** 1999 Jan-Feb; 115(1):34-5 (30 ref.) **(Rus)**

[Sclera-fortifying treatment of myopia in children at high risk of its progression] Tarutta EP, et al. **Vestn Oftalmol** 1998 Nov-Dec;114(6):29-31 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Therapeutic sclerokeratoplasty versus therapeutic penetrating keratoplasty in refractory corneal ulcers. Panda A, et al. **Aust N Z J Ophthalmol** 1999 Feb;27(1):15-9

Corneoscleral transplantation for end stage corneal disease. Hirst LW, et al. **Br J Ophthalmol** 1998 Nov;82(11):1276-9

Scleral patch graft in the management of necrotizing scleritis. Nguyen QD, et al. **Int Ophthalmol Clin** 1999 Winter; 39(1):109-31 (48 ref.)

Use of autologous Tenon's capsule and scleral patch grafts for repair of excessively draining fistulas with leaking filtering blebs. Morris DA, et al. **J Glaucoma** 1998 Dec; 7(6):417-9

Sclerokeratoplasty versus penetrating keratoplasty in anterior staphyloma. Panda A, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):31-6

Repair of scleral perforation with preserved scleral and amniotic membrane in Marfan's syndrome. Rodriguez-Ares MT, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):485-7

Comparative motility of hydroxyapatite and alloplastic enucleation implants. Custer PL, et al. **Ophthalmology** 1999 Mar;106(3):513-6

[The effect of heterogeneous scleral transplantation on hypotony after filtration surgery of glaucoma with mitomycin C] Yan L, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):181-3 (Eng. Abstr.) **(Chi)**

[Repair of cornea-sclera defect by autogenous sclera graft from the same eye] Wang B, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):206-7 (Eng. Abstr.) **(Chi)**

ULTRASONOGRAPHY

Evaluation of laser sclerostomy fistulas using ultrasound biomicroscopy. Häring G, et al. **Int Ophthalmol** 1997-98; 21(5):261-4

ULTRASTRUCTURE

Abnormal collagen fibrils in nanophthalmos: a clinical and histologic study [published erratum appears in Am J Ophthalmol 1999 May;127(5):635] Yamani A, et al. **Am J Ophthalmol** 1999 Jan;127(1):106-8

SCLERAL BUCKLING

Comparison of pneumatic retinopexy and scleral buckling in the management of primary rhegmatogenous retinal detachment. Southern Wisconsin Pneumatic Retinopexy Study Group [see comments] Han DP, et al. **Am J Ophthalmol** 1998 Nov;126(5):658-68. Comment in: Am J Ophthalmol 1999 Jun;127(6):741-3.

Comparison of pneumatic retinopexy and scleral buckling in the management of primary rhegmatogenous retinal detachment [letter; comment] Tornambe PE, et al. **Am J Ophthalmol** 1999 Jun;127(6):741-3. Comment on: Am J Ophthalmol 1998 Nov;126(5):658-68.

Long-term complications of silicone and hydrogel explants in retinal reattachment surgery. Roldán-Pallarés M, et al. **Arch Ophthalmol** 1999 Feb;117(2):197-201

Pars plana vitrectomy without scleral buckle for pseudophakic retinal detachments. Campo RV, et al. **Ophthalmology** 1999 Sep;106(9):1811-5; discussion 1816

Scleral buckling surgery for active stage 4A retinopathy of prematurity. Hinz BJ, et al. **Ophthalmology** 1998 Oct; 105(10):1827-30

Modified aqueous drainage implants in the treatment of complicated glaucomas in eyes with pre-existing episcleral bands. Smith MF, et al. **Ophthalmology** 1998 Dec; 105(12):2237-42

Retinal detachment surgery in Marfan's syndrome. Abboud EB. **Retina** 1998;18(5):405-9

Surgical repair of cytomegalovirus-related retinal detachment without silicone oil in patients with AIDS [see comments] Canzano JC, et al. **Retina** 1999;19(4):274-80. Comment in: Retina 1999 ;19(4):271-3.

Experimental encircling scleral buckle with silicone and

SCLERAL BUCKLING

hydrogel: histopathologic and comparative study of 26 rabbit eyes. D'Hermies F, et al. **Retina** 1999;19(2):148–57

Long-term results after scleral buckling surgery in uncomplicated juvenile retinal detachment without proliferative vitreoretinopathy. Häring G, et al. **Retina** 1998;18(6):501–5

[Automobile driving capacity after retinal detachment surgery] Schrader WF, et al. **Ophthalmologe** 1999 Feb; 96(2):102–7 (Eng. Abstr.) **(Ger)**

[A comparative study of visual outcomes following primary vitrectomy and scleral buckling procedures to manage macular off rhegmatogenous retinal detachments] Oshima Y, et al. **Nippon Ganka Gakkai Zasshi** 1999 Mar; 103(3):215–22 (Eng. Abstr.) **(Jpn)**

ADVERSE EFFECTS

Scleral and episcleral histological changes related to encircling explants in 20 eyes. D'Hermies F, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):279–85

Refractive changes associated with scleral buckling and division in retinopathy of prematurity. Chow DR, et al. **Arch Ophthalmol** 1998 Nov;116(11):1446–8

Corneal astigmatism after scleral buckling surgery assessed by Fourier analysis of videokeratography data. Tomidokoro A, et al. **Cornea** 1998 Sep;17(5):517–21

Changes in axial length after retinal detachment surgery. Malukiewicz-Wiśniewska G, et al. **Eur J Ophthalmol** 1999 Apr–Jun;9(2):115–9

Complications associated with vortex vein damage in scleral buckling surgery for rhegmatogenous retinal detachment. Doi N, et al. **Jpn J Ophthalmol** 1999 May–Jun;43(3):232–8

An extruded encircling band straddling the cornea and corneal groove formation. Osman Saatci A, et al. **Ophthalmic Surg Lasers** 1998 Dec;29(12):991–2

An unusual complication of retinal reattachment surgery. Ozertürk Y, et al. **Ophthalmic Surg Lasers** 1999 Jun; 30(6):483–4

Methicillin-resistant Staphylococcus aureus infections after scleral buckling procedures for retinal detachments associated with atopic dermatitis. Oshima Y, et al. **Ophthalmology** 1999 Jan;106(1):142–7

Corneal topographic changes after retinal and vitreous surgery. Weinberger D, et al. **Ophthalmology** 1999 Aug; 106(8):1521–4

Ocular hypertension after a triple procedure: phacoemulsification, intraocular lens implantation, and scleral buckling surgery [letter; comment] Kwok AK, et al. **Retina** 1999;19(2):174–5; discussion 175–6. Comment on: Retina 1997;17(6):502–6.

INSTRUMENTATION

The effect of silicone ocular surgical devices on serum IgG binding to silicones. Shaikh S, et al. **Am J Ophthalmol** 1998 Dec;126(6):798–804

METHODS

Conventional retinal detachment surgery: technique, complications and results. Van Tricht V, et al. **Bull Soc Belge Ophtalmol** 1998;270:39–43

Surgical advances in retinopathy of prematurity. Andrews AP, et al. **Int Ophthalmol Clin** 1999 Winter;39(1):275–90 (41 ref.)

Transscleral diode laser retinopexy in retinal detachment surgery: results of a multicenter trial. Haller JA, et al. **Retina** 1998;18(5):399–404

[Intraocular gases in vitreous and retinal surgery. I: Basic principles] Faude F, et al. **Ophthalmologe** 1999 May; 96(5):W349–58 (66 ref.) **(Ger)**

STANDARDS

Results of primary retinal detachment surgery: a prospective audit [letter; comment] Laidlaw DA, et al. **Eye** 1998;12 (Pt 4):751. Comment on: Eye 1997;11 (Pt 6):869–71.

SCLERAL DISEASES

CHEMICALLY INDUCED

Mystery of the blue pigmentation [letter] Johnston AM, et al. **N Engl J Med** 1999 May 20;340(20):1597–8

COMPLICATIONS

Outcome of cataract surgery associated with posterior staphyloma. Navon SE, et al. **J Cataract Refract Surg** 1999 Jan;25(1):83–90

[An unusual case of orbital cellulitis and perforating scleromalacia] Cavallaro N, et al. **J Fr Ophtalmol** 1999 Aug–Sep;22(7):753–4 (Eng. Abstr.) **(Fre)**

CONGENITAL

Congenital sclerocorneal epithelial cyst. Mahmood MA, et al. **Am J Ophthalmol** 1998 Nov;126(5):740–1

DIAGNOSIS

Photo Quiz. A spot in the eye. Leung AK. **Am Fam Physician** 1999 Jan 1;59(1):163–4

Phacomatosis pigmentovascularis type II. Du LC, et al. **Eur J Dermatol** 1998 Dec;8(8):569–72

EPIDEMIOLOGY

Axial length and posterior staphyloma in Saudi Arabian cataract patients. Edge R, et al. **J Cataract Refract Surg** 1999 Jan;25(1):91–5

ETIOLOGY

Bilateral periopticointrascleral hemorrhages associated with traumatic child abuse. Lin KC, et al. **Am J Ophthalmol** 1999 Apr;127(4):473–5

Comparison of different biomaterials for glaucoma drainage devices. Ayyala RS, et al. **Arch Ophthalmol** 1999 Feb; 117(2):233–6

Scleral perforation following trans-scleral cyclodiode [letter] Sabri K, et al. **Br J Ophthalmol** 1999 Apr;83(4):502–3

Scleromalacia following trabeculectomy with intraoperative mitomycin C. Akova YA, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9(1):63–5

[Post-traumatic scleromalacia in an Ehlers-Danlos syndrome] Parc C, et al. **J Fr Ophtalmol** 1998 Dec; 21(10):761–3 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Scleral and episcleral histological changes related to encircling explants in 20 eyes. D'Hermies F, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):279–85

Abnormal collagen fibrils in nanophthalmos: a clinical and histologic study [published erratum appears in Am J Ophthalmol 1999 May;127(5):635] Yamani A, et al. **Am J Ophthalmol** 1999 Jan;127(1):106–8

Episcleral melanoma without conjunctival or uveal involvement [letter] Gündüz K, et al. **Br J Ophthalmol** 1998 Nov;82(11):1342–3

Experimental encircling scleral buckle with silicone and hydrogel: histopathologic and comparative study of 26 rabbit eyes. D'Hermies F, et al. **Retina** 1999;19(2):148–57

Establishment of a rabbit model of extrascleral extension of ocular melanoma. Pineda R 2nd, et al. **Retina** 1998; 18(4):368–72

RADIOGRAPHY

Calcified scleral plaques imaged on orbital computed tomography. Gordon RN, et al. **Am J Ophthalmol** 1999 Apr;127(4):461–3

SURGERY

Silicone oil tamponade in eyes with posterior staphyloma and retinal detachment caused by macular hole. Scholda C, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):704–6

Transconjunctival herniation of orbital fat. Monner J, et al. **Ann Plast Surg** 1998 Dec;41(6):658–61

Peripheral lamellar keratoplasty for corneoscleral cyst: three case reports. Sano Y, et al. **Cornea** 1999 Mar;18(2):233–6

Cyanoacrylate tissue adhesive augmented tenoplasty: a new surgical procedure for bilateral severe chemical eye burns. Sharma A, et al. **Cornea** 1999 May;18(3):366–9

Lamellolamellar sclerokeratoplasty. Where do we stand today? Panda A. **Eye** 1999 Apr;13 (Pt 2):221–5

Repair of scleral perforation with preserved scleral and amniotic membrane in Marfan's syndrome. Rodriguez-Ares MT, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):485–7

ULTRASONOGRAPHY

Three-dimensional ultrasonography of choroidal melanoma: extrascleral extension. Romero JM, et al. **Am J Ophthalmol** 1998 Dec;126(6):842–4

VETERINARY

Diagnostic ophthalmology. Grahn BH, et al. **Can Vet J** 1999 Jul;40(7):521–2

Subconjunctival haemorrhages in neonatal thoroughbred foals. Munroe G. **Vet Rec** 1999 Mar 13;144(11):279–82

VIROLOGY

Corneal, anterior segment, and adnexal manifestations of human immunodeficiency virus. Acharya NR, et al. **Int Ophthalmol Clin** 1998 Fall;38(4):161–77 (189 ref.)

SCLEREDEMA ADULTORUM

COMPLICATIONS

[Systemic Buschke's scleredema with cardiomyopathy, monoclonal IgG kappa gammopathy and amyloidosis. Case report with autopsy] Paz RA, et al. **Medicina (B Aires)** 1998;58(5 Pt 1):501–3 (Eng. Abstr.) **(Spa)**

CONGENITAL

A case of congenital scleredema [letter] Hwang JH, et al. **Clin Exp Dermatol** 1998 May;23(3):139–40

DRUG THERAPY

Severe diabetic scleredema with extension to the extremities and effective treatment using prostaglandin E1. Ikeda Y, et al. **Intern Med** 1998 Oct;37(10):861–4

PATHOLOGY

A patient with a severe scleroedema diabeticorum, partially responding to low-dose methotrexate [letter] Seyger MM, et al. **Dermatology** 1999;198(2):177–9

SCLERITIS

CHEMICALLY INDUCED

Ocular inflammation associated with alendronate therapy. Mbekeani JN, et al. **Arch Ophthalmol** 1999 Jun;117(6):837–8

COMPLICATIONS

Severity of episcleritis and systemic disease association. Akpek EK, et al. **Ophthalmology** 1999 Apr;106(4):729–31

An overlap syndrome with features of atypical Cogan syndrome and Wegener's granulomatosis. Gran JT, et al. **Scand J Rheumatol** 1999;28(1):62–4 (12 ref.)

Episcleritis associated with pigmentary retinal degeneration in an HTLV-I carrier. Nomura E, et al. **Tokai J Exp Clin Med** 1998 Oct;23(4):183–5

[Diode laser cyclophotocoagulation of secondary glaucoma caused by anterior, necrotizing scleritis] Schlote T, et al. **Klin Monatsbl Augenheilkd** 1998 Nov;213(5):306–8 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

A pseudoepidemic of postoperative scleritis due to misdiagnosis. Burwen DR, et al. **Infect Control Hosp Epidemiol** 1999 Aug;20(8):539–42

[Scleritis resembling choroidal melanoma: a case report] Polaczek-Kornecka A, et al. **Klin Oczna** 1999;101(2):135–7 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Subconjunctival corticosteroid injections for nonnecrotizing anterior scleritis. Croasdale CR, et al. **Arch Ophthalmol** 1999 Jul;117(7):966–8

Haemophilus influenzae associated scleritis. Sykes SO, et al. **Br J Ophthalmol** 1999 Apr;83(4):410–3

Use of topical steroid therapy in the management of nonnecrotizing anterior scleritis. McMullen M, et al. **Can J Ophthalmol** 1999 Jun;34(4):217–21

Unique alterations of thyroid function parameters after i.v. administration of alkylating drugs (cyclophosphamide and ifosfamide). Reinhardt W, et al. **Exp Clin Endocrinol Diabetes** 1999;107(3):177–82

Effect of topical 0.02% polyhexamethylene biguanide on nocardial keratitis associated with scleritis. Prajna NV, et al. **Indian J Ophthalmol** 1998 Dec;46(4):251–2

Mycophenolate mofetil. A useful immunosuppressive in inflammatory eye disease [see comments] Larkin G, et al. **Ophthalmology** 1999 Feb;106(2):370–4. Comment in: Ophthalmology 1999 Sep;106(9):1645.

ETIOLOGY

Squamous cell carcinoma with necrotizing scleritis. Younan N, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):149–51

Scleritis associated with vitamin B12 deficiency. Weston BC, et al. **Can J Ophthalmol** 1998 Aug;33(5):283–4

Surgically induced necrotizing scleritis in a patient with ankylosing spondylitis. Karia N, et al. **J Cataract Refract Surg** 1999 Apr;25(4):597–600

Polyarteritis nodosa complicated by severe progressive scleritis [letter] Narag RB Jr, et al. **J Rheumatol** 1999 May; 26(5):1213–4

[Episcleritis and brucellosis. Apropos of a case] Bourcier T, et al. **J Fr Ophtalmol** 1998 Feb;21(2):126–7 (4 ref.) (Eng. Abstr.) **(Fre)**

GENETICS

Immunogenetics of episcleritis in leprosy. Joko S, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):431–6

IMMUNOLOGY

Immunogenetics of episcleritis in leprosy. Joko S, et al. **Jpn J Ophthalmol** 1998 Sep–Oct;42(5):431–6

METABOLISM

Leukocyte adhesion molecule expression in scleritis. Sangwan VS, et al. **Arch Ophthalmol** 1998 Nov; 116(11):1476–80

PARASITOLOGY

Severe Acanthamoeba sclerokeratitis in a non-contact lens wearer. Hirano K, et al. **Acta Ophthalmol Scand** 1999 Jun; 77(3):347–8

PATHOLOGY

Scleritis: a clinicopathologic study of 55 cases. Riono WP, et al. **Ophthalmology** 1999 Jul;106(7):1328–33

SURGERY

Scleral patch graft in the management of necrotizing scleritis. Nguyen QD, et al. **Int Ophthalmol Clin** 1999 Winter; 39(1):109–31 (48 ref.)

Surgical debridement of scleral abscesses with concomitant resolution of the complicating exudative retinal detachment. Tseng SH. **Ophthalmic Surg Lasers** 1998 Nov; 29(11):939–42

THERAPY

The treatment of Pseudomonas keratoscleritis after pterygium excision. Huang SC, et al. **Cornea** 1999 Sep;18(5):608–11

ULTRASONOGRAPHY

Posterior scleritis: clinical profile and imaging characteristics. Biswas J, et al. **Indian J Ophthalmol** 1998 Dec; 46(4):195–202

VIROLOGY

Recurrent nodular scleritis associated with varicella zoster virus. Livir-Rallatos C, et al. **Am J Ophthalmol** 1998 Oct; 126(4):594–7

SCLEROCORNEAL LIMBUS see **LIMBUS CORNEAE**

SCLERODERMA, CIRCUMSCRIBED

[Morphea: classification and management] Salmon-Ehr V, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):283–90 (94 ref.) **(Fre)**

BLOOD

Serum levels of soluble TNF alpha receptor type I and the severity of systemic sclerosis [see comments] Majewski S, et al. **Acta Derm Venereol** 1999 May;79(3):207–10. Comment in: Acta Derm Venereol 1999 May;79(3):177.

CHEMICALLY INDUCED

Dermal sclerosis in the lesional skin of 'flagellate' erythema (scratch dermatitis) induced by bleomycin [letter] Yamamoto T, et al. **Dermatology** 1998;197(4):399–400

Reticulate scleroderma after isolated limb perfusion with melphalan. Landau M, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1011–2

COMPLICATIONS

Coexisting morphoea and granuloma annulare–are the conditions related? Ben-Amitai D, et al. **Clin Exp Dermatol** 1999 Mar;24(2):86–9

Localized scleroderma associated with sarcoidosis [letter] Biasi D, et al. **Clin Exp Rheumatol** 1998 Nov–Dec; 16(6):761–2 (17 ref.)

Papular mucinosis associated with scleroderma. Sawada Y, et al. **Eur J Dermatol** 1998 Oct–Nov;8(7):497–500

Chromosome damage in a young woman with generalized morphea: cause or effect? [letter] Cadoni S, et al. **Int J Dermatol** 1999 Jun;38(6):478–9

Lipodermatosclerosis and the significance of proteolytic remodeling in the pathogenesis of venous ulceration (Review). Herouy Y, et al. **Int J Mol Med** 1999 May; 3(5):511–5 (25 ref.)

Removal of dermal edema with class I and II compression stockings in patients with lipodermatosclerosis. Gniadecka M, et al. **J Am Acad Dermatol** 1998 Dec;39(6):966–70

Localized scleroderma associated with progressing ischemic stroke. Kanzato N, et al. **J Neurol Sci** 1999 Feb 1; 163(1):86–9

Pulmonary edema during acute infusion of epoprostenol in a patient with pulmonary hypertension and limited scleroderma. Farber HW, et al. **J Rheumatol** 1999 May; 26(5):1195–6

Continuous muscle fiber activity associated with morphea (localized scleroderma). Papadimitriou A, et al. **Neurology** 1998 Dec;51(6):1763–4

DIAGNOSIS

Decreased nailfold capillary density in limited scleroderma with pulmonary hypertension. Ong YY, et al. **Asian Pac J Allergy Immunol** 1998 Jun–Sep;16(2–3):81–6

Keratoderma with pseudo-Quincke's pulse. Norton SA. **Cutis** 1998 Sep;62(3):135–6

Morphea and localized scleroderma in children. Vierra E, et al. **Semin Cutan Med Surg** 1999 Sep;18(3):210–25 (105 ref.)

[Linear morphea] Elst EF, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1582–3 **(Dut)**

[Severe course of a mutilating pansclerotic circumscribed scleroderma in childhood. Clinical aspects and therapy] Stücker M, et al. **Hautarzt** 1999 Feb;50(2):131–5 (Eng. Abstr.) **(Ger)**

[Localized scleroderma: lesion "en coup de sabre". Review of the literature and report of a case] Pastor Oliver JF, et al. **An Esp Pediatr** 1998 Nov;49(5):499–502 **(Spa)**

DRUG THERAPY

Topical tocoretinate improved hypertrophic scar, skin sclerosis in systemic sclerosis and morphea. Mizutani H, et al. **J Dermatol** 1999 Jan;26(1):11–7

The discrepancy in hardness between clinical and histopathological findings in localized scleroderma treated with PUVA. Yamaguchi K, et al. **J Dermatol** 1998 Aug; 25(8):544–6

Generalized morphea and lichen sclerosus et atrophicus successfully treated with sulphasalazine [letter] Taveira M, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):283–4

Effectiveness of topical calcitriol for localized scleroderma [letter] Koeger AC, et al. **J Rheumatol** 1999 Jan; 26(1):239–40

Effect of penicillin G on corium thickness in linear morphea of childhood: An analysis using ultrasound technique. Möhrenschlager M, et al. **Pediatr Dermatol** 1999 Jul–Aug; 16(4):314–6

Iloprost as cyclic five-day infusions in the treatment of scleroderma. An open pilot study in 20 patients treated for one year. Biasi D, et al. **Rev Rhum Engl Ed** 1998 Dec; 65(12):745–50

[Linear morphea] Elst EF, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1582–3 **(Dut)**

ENZYMOLOGY

Lipodermatosclerosis is characterized by elevated expression and activation of matrix metalloproteinases: implications for venous ulcer formation [see comments] Herouy Y, et al. **J Invest Dermatol** 1998 Nov;111(5):822–7. Comment in: J Invest Dermatol 1999 Jun;112(6):993–4.

ETIOLOGY

Radiation-induced localized scleroderma in breast cancer patients. Bleasel NR, et al. **Australas J Dermatol** 1999 May; 40(2):99–102

Generalized morphoea after antitetanus vaccination [letter] Drago F, et al. **Clin Exp Dermatol** 1998 May;23(3):142

Trauma-induced linear scleroderma. Yamanaka CT, et al. **Cutis** 1999 Jan;63(1):29–32 (36 ref.)

Scleroderma-like lesions and Epstein-Barr virus-associated B-cell lymphoma presenting with a huge splenomegaly [letter; comment] Sakai C, et al. **Eur J Haematol** 1999 Apr; 62(4):278–80. Comment on: Eur J Haematol 1997 Sep;59(3):194–6.

Chromosome damage in a young woman with generalized morphea: cause or effect? [letter] Cadoni S, et al. **Int J Dermatol** 1999 Jun;38(6):478–9

A "scar" and epilepsy: coup de sabre. Duyff RF, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):568

Postradiation morphea. Gollob MH, et al. **J Rheumatol** 1998 Nov;25(11):2267–9

[Radiation-induced morphea] Fischer M, et al. **Hautarzt** 1999 Jul;50(7):507–10 (Eng. Abstr.) **(Ger)**

GENETICS

Lipodermatosclerosis is characterized by elevated expression and activation of matrix metalloproteinases: implications for venous ulcer formation [see comments] Herouy Y, et al. **J Invest Dermatol** 1998 Nov;111(5):822–7. Comment in: J Invest Dermatol 1999 Jun;112(6):993–4.

METABOLISM

Lipodermatosclerosis and the significance of proteolytic remodeling in the pathogenesis of venous ulceration (Review). Herouy Y, et al. **Int J Mol Med** 1999 May; 3(5):511–5 (25 ref.)

Expression of platelet-derived growth factor B-chain and platelet-derived growth factor beta-receptor in fibroblasts of scleroderma. Zheng XY, et al. **J Dermatol Sci** 1998 Nov; 18(2):90–7

PATHOLOGY

Circumscribed scleroderma in congenital rubella syndrome with hypogammaglobulinemia. Español T, et al. **Allergy** 1998 Oct;53(10):1005–6

Morphea limited to the superficial reticular dermis: an underrecognized histologic phenomenon. McNiff JM, et al. **Am J Dermatopathol** 1999 Aug;21(4):315–9

Scleroderma fibroblasts promote migration of mononuclear leucocytes across endothelial cell monolayers. Denton CP, et al. **Clin Exp Immunol** 1998 Nov;114(2):293–300

Trauma-induced linear scleroderma. Yamanaka CT, et al. **Cutis** 1999 Jan;63(1):29–32 (36 ref.)

Nodular morphea in a linear pattern. Hsu S, et al. **Int J Dermatol** 1999 Jul;38(7):529–30

The discrepancy in hardness between clinical and histopathological findings in localized scleroderma treated with PUVA. Yamaguchi K, et al. **J Dermatol** 1998 Aug; 25(8):544–6

Panscleroticmorphea of childhood-follow-up over 6 years [letter] Wollina U, et al. **Pediatr Dermatol** 1999 May–Jun; 16(3):245–7

[Koebner phenomenon and multiple morphea] Desruelles F, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):604 **(Fre)**

RADIOTHERAPY

UVA therapy for scleroderma [letter; comment] Steger JW, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):787–8. Comment on: J Am Acad Dermatol 1997 Jun;36(6 Pt 1):938–44. Comment on: J Am Acad Dermatol 1998 Jan;38(1):21–6.

[Ultraviolet A-1 phototherapy for skin diseases] Polderman MC, et al. **Ned Tijdschr Geneeskd** 1999 May 1;143(18):931–4 (25 ref.) (Eng. Abstr.) **(Dut)**

SURGERY

Repair of a large "coup de sabre" with soft-tissue expansion and artificial bone graft. Eguchi T, et al. **Ann Plast Surg** 1999 Feb;42(2):207–10

THERAPY

Disabling morphoea of childhood-beneficial effect of intravenous immunoglobulin therapy [letter] Wollina U, et al. **Clin Exp Dermatol** 1998 Nov;23(6):292–3

Morphea and localized scleroderma in children. Vierra E, et al. **Semin Cutan Med Surg** 1999 Sep;18(3):210–25 (105 ref.)

ULTRASONOGRAPHY

Effect of penicillin G on corium thickness in linear morphea of childhood: An analysis using ultrasound technique. Möhrenschlager M, et al. **Pediatr Dermatol** 1999 Jul–Aug; 16(4):314–6

VETERINARY

Morphea-like lesion in a cat. Bensignor E, et al. **J Small Anim Pract** 1998 Nov;39(11):538–40

VIROLOGY

Scarring alopecia and sclerodermatous changes of the scalp in a patient with hepatitis C infection. Jackson JM, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):824–6

SCLERODERMA, DIFFUSE see **SCLERODERMA, SYSTEMIC**

SCLERODERMA, LOCALIZED see **SCLERODERMA, CIRCUMSCRIBED**

SCLERODERMA, SYSTEMIC

Scleromyositis: a scleroderma/polymyositis overlap syndrome [editorial] Jablonska S, et al. **Clin Rheumatol** 1998;17(6):465–7 (25 ref.)

International Conference on Systemic Sclerosis. Pope JE, et al. **J Rheumatol** 1999 Apr;26(4):938–44

Calcitonin and mandibular bone resorption in systemic sclerosis [letter] Yoon KH, et al. **J Rheumatol** 1999 Mar; 26(3):758–9

Normotensive renal failure in a patient with systemic sclerosis and p-antineutrophil cytoplasmic autoantibodies which developed into Paget's disease of bone after immunosuppressive therapy [letter] Villaverde V, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):190–1

[Scleroderma--systemic sclerosis. Serology, lung function and survival] Ullman S, et al. **Ugeskr Laeger** 1999 May 24;161(21):3084–90 (Eng. Abstr.) **(Dan)**

[Mixed connective tissue disease and overlap syndrome] Nishimaki T. **Nippon Rinsho** 1999 Feb;57(2):355–9 (8 ref.) (Eng. Abstr.) **(Jpn)**

[Systemic sclerosis: different subsets and disease remitting drugs] Ogawa T, et al. **Nippon Rinsho** 1999 Feb;57(2):344–8 (17 ref.) (Eng. Abstr.) **(Jpn)**

BLOOD

Serum levels of soluble TNF alpha receptor type I and the severity of systemic sclerosis [see comments] Majewski S, et al. **Acta Derm Venereol** 1999 May;79(3):207–10. Comment in: Acta Derm Venereol 1999 May;79(3):177.

Blood yield stress in systemic sclerosis. Picart C, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H771–7

Investigation of sialic acids and sialyltransferase activity in blood of patients with systemic scleroderma. Gabrielyan ND, et al. **Biochemistry (Mosc)** 1999 May;64(5):561–4

Circulating type I collagen degradation products: a new serum marker for clinical severity in patients with scleroderma? Hunzelmann N, et al. **Br J Dermatol** 1998 Dec;139(6):1020–5

Increased serum levels of soluble vascular cell adhesion molecule-1 and E-selectin in patients with systemic sclerosis. Ihn H, et al. **Br J Rheumatol** 1998 Nov; 37(11):1188–92

Clinical implications of soluble intercellular adhesion molecule-1 levels in systemic sclerosis. Veale DJ, et al. **Br J Rheumatol** 1998 Nov;37(11):1227–8

Clinical and serological associations with anti-RNA polymerase antibodies in systemic sclerosis. Harvey GR, et al. **Clin Exp Immunol** 1999 Aug;117(2):395–402

Serum nucleotide pyrophosphohydrolase activity; elevated levels in osteoarthritis, calcium pyrophosphate crystal deposition disease, scleroderma, and fibromyalgia. Cardenal A, et al. **J Rheumatol** 1998 Nov;25(11):2175–80

Circulating thrombopoietin in systemic sclerosis. Ertenli I, et al. **J Rheumatol** 1999 Sep;26(9):1939–41

Sera from patients with scleroderma inhibit fibroblast micromotions monitored electrically. Huang CN, et al. **J Rheumatol** 1999 Jun;26(6):1312–7

Increased levels of hepatocyte growth factor in sera of patients with systemic sclerosis [letter] Kawaguchi Y, et al. **J Rheumatol** 1999 Apr;26(4):1012–3

Treatment with interferon gamma enhances fibrinolysis in systemic sclerosis. Gluszko P, et al. **Thromb Res** 1998 Aug 15;91(4):203–7

CHEMICALLY INDUCED

Thorotrast and calciphylactic scleroderma [letter] Stebbings JH. **Health Phys** 1999 Apr;76(4):435–7

Animal model of sclerotic skin. I: Local injections of bleomycin induce sclerotic skin mimicking scleroderma. Yamamoto T, et al. **J Invest Dermatol** 1999 Apr; 112(4):456–62

Silica induced scleroderma--clinical and experimental

aspects. Haustein UF, et al. **J Rheumatol** 1998 Oct; 25(10):1917–26 (99 ref.)

A case of systemic sclerosis that developed under dexfenfluramine use [letter] Korkmaz C, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):379–80

[Bleomycin-induced PSS-like pseudoscleroderma. Case report and review of the literature] Behrens S, et al. **Hautarzt** 1998 Sep;49(9):725–9 (21 ref.) (Eng. Abstr.) **(Ger)**

CLASSIFICATION

Development and validation of a self-administered systemic sclerosis questionnaire (SySQ). Ruof J, et al. **Rheumatology (Oxford)** 1999 Jun;38(6):535–42

COMPLICATIONS

Effect of long-term estrogen therapy on brachial arterial endothelium-dependent vasodilation in women with Raynaud's phenomenon secondary to systemic sclerosis. Lekakis J, et al. **Am J Cardiol** 1998 Dec 15;82(12):1555–7, A8

Mechanism of sustained monomorphic ventricular tachycardia in systemic sclerosis. Rankin AC, et al. **Am J Cardiol** 1999 Feb 15;83(4):633–6, A11

Esophageal dysmotility and its relation to systemic sclerosis variant [letter; comment] Yarze JC. **Am J Gastroenterol** 1998 Dec;93(12):2630–1. Comment on: Am J Gastroenterol 1998 Mar;93(3):341–5.

MPO-ANCA-Positive crescentic glomerulonephritis: a distinct entity of scleroderma renal disease? Anders HJ, et al. **Am J Kidney Dis** 1999 Apr;33(4):e3

Fibronectin gene polymorphisms associated with fibrosing alveolitis in systemic sclerosis. Avila JJ, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):106–12

Spinal anaesthesia for caesarean section in a patient with systemic sclerosis. Bailey AR, et al. **Anaesthesia** 1999 Apr; 54(4):355–8

Dietary advice in systemic sclerosis: the dangers of a high fibre diet. Gough A, et al. **Ann Rheum Dis** 1998 Nov; 57(11):641–2

Distribution of macrovascular disease in scleroderma. Stafford L, et al. **Ann Rheum Dis** 1998 Aug;57(8):476–9

Manometry of the upper intestinal tract in patients with systemic sclerosis: a prospective study. Marie I, et al. **Arthritis Rheum** 1998 Oct;41(10):1874–83

Watermelon stomach. Murphy FT, et al. **Arthritis Rheum** 1999 Mar;42(3):573

The concurrence of rheumatoid arthritis and limited systemic sclerosis: clinical and serologic characteristics of an overlap syndrome. Zimmermann C, et al. **Arthritis Rheum** 1998 Nov;41(11):1938–45

Oral iloprost in Raynaud's phenomenon secondary to systemic sclerosis: a multicentre, placebo-controlled, dose-comparison study. Black CM, et al. **Br J Rheumatol** 1998 Sep;37(9):952–60

Systemic sclerosis complicated by procainamide-induced lupus and antiphospholipid syndrome. Kameda H, et al. **Br J Rheumatol** 1998 Nov;37(11):1236–9

Clinicopathological study of renal involvement in patients with systemic sclerosis. Zeng X, et al. **Chin Med J (Engl)** 1998 Mar;111(3):224–7

Manifestations of scleroderma pulmonary disease. Minai OA, et al. **Clin Chest Med** 1998 Dec;19(4):713–31, viii–ix (168 ref.)

Severe urinary bladder involvement in systemic sclerosis. Case report and review of the literature. La Civita L, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):591–3 (17 ref.)

Takayasu's arteritis overlapping with systemic sclerosis. Passiu G, et al. **Clin Exp Rheumatol** 1999 May–Jun; 17(3):363–5

Melorheostosis: report of a new case with linear scleroderma. Birtane M, et al. **Clin Rheumatol** 1998;17(6):543–5

Cardiac involvement in limited systemic sclerosis: non-invasive assessment in asymptomatic patients. Handa R, et al. **Clin Rheumatol** 1999;18(2):136–9

Advances in the diagnosis and management of scleroderma-related vascular complications. Kerin K, et al. **Compr Ther** 1998 Nov–Dec;24(11–12):574–81 (28 ref.)

Gastrointestinal manifestations of scleroderma. Rose S, et al. **Gastroenterol Clin North Am** 1998 Sep;27(3):563–94 (137 ref.)

Kikuchi's histiocytic necrotizing lymphadenitis driven by activated cytolytic T-cells: an example associated with systemic scleroderma [letter] Laeng RH, et al. **Histopathology** 1999 Apr;34(4):373–4

Synchronous intracranial aneurysm clipping and coronary artery bypass grafting in a scleroderma patient with a subarachnoid hemorrhage and an acute myocardial infarction. A case report. Blaustein HS, et al. **J Cardiovasc Surg (Torino)** 1999 Feb;40(1):55–7

Watermelon-stomach as a cause of chronic iron deficiency anemia in a patient with systemic sclerosis. Fábián G, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):161–4

Scleromyxoedema and thrombotic thrombocytopaenic purpura: two rare conditions both responding to plasma exchange. Harman KE, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):59–65

Esophageal scintigraphy with a semisolid meal to evaluate esophageal dysmotility in systemic sclerosis and Raynaud's phenomenon. Bestetti A, et al. **J Nucl Med** 1999 Jan; 40(1):77–84

Seasonal variation of Raynaud's phenomenon secondary to systemic sclerosis. Watson HR, et al. **J Rheumatol** 1999 Aug;26(8):1734–7

A case study and national database report of progressive systemic sclerosis and associated conditions. Phillips D, et al. **J Womens Health** 1998 Nov;7(9):1099–104 (13 ref.)

Intriguing presentation of scleroderma renal crisis (scleroderma renal crisis sine scleroderma sine hypertension). Korzets Z, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2953–6

An unusual complication of pregnancy. Ong AC, et al. **Nephrol Dial Transplant** 1999 May;14(5):1324–6

Pregnancy in women with systemic sclerosis. Steen VD. **Obstet Gynecol** 1999 Jul;94(1):15–20

Diagnosis and physiopathology of laryngeal deposits in autoimmune disease. Hosako-Naito Y, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun; 61(3):151–7

Progressive multifocal leukoencephalopathy in a 15-year-old boy with scleroderma and secondary amyloidosis. Hahn JS, et al. **Pediatrics** 1998 Dec;102(6):1475–9

Different patterns of endothelial cell activation in renal and pulmonary vascular disease in scleroderma. Stratton RJ, et al. **QJM** 1998 Aug;91(8):561–6

Progressive systemic sclerosis: intrathecal pain management. Lundborg CN, et al. **Reg Anesth Pain Med** 1999 Jan–Feb; 24(1):89–93

Normotensive scleroderma renal crisis: case report and review of the literature. Haviv YS, et al. **Ren Fail** 1998 Sep;20(5):733–6 (8 ref.)

Interstitial lung disease in systemic sclerosis: comparison of BALF lymphocyte phenotype and DLCO impairment. Domagała-Kulawik J, et al. **Respir Med** 1998 Nov; 92(11):1295–301

Non-invasive ventilation in hypercapnic respiratory failure secondary to sclerodermic chest wall restriction. Nageh TT, et al. **Respir Med** 1998 Sep;92(9):1170–2

Acute effects of nebulised epoprostenol in pulmonary hypertension due to systemic sclerosis. Parameswaran K, et al. **Respir Med** 1999 Feb;93(2):75–8

Jejunal telangiectasias as a cause of massive bleeding in a patient with scleroderma. Khanlou H, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):119–21

Multiple stress fractures in a scleroderma patient on methotrexate therapy. Singwe M, et al. **Rev Rhum Engl Ed** 1998 Jul–Sep;65(7–9):508–10 (14 ref.)

Giant cell arteritis in a patient with limited cutaneous systemic sclerosis [letter] Sari-Kouzel H, et al. **Rheumatology (Oxford)** 1999 May;38(5):479–80

Bowel problems in patients with systemic sclerosis. Trezza M, et al. **Scand J Gastroenterol** 1999 Apr;34(4):409–13

Undiagnosed scleroderma in a patient with a difficult airway. Kanter GJ, et al. **Yale J Biol Med** 1998 Jan–Feb;71(1):31–3

[Hemifacial atrophy. A case report associated with linear scleroderma] Duteille F, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):344–9; discussion 350 (Eng. Abstr.) **(Fre)**

[Medical images. Pseudo-obstruction of the small intestine] Chaussade S, et al. **Presse Med** 1998 Apr 11;27(14):689 **(Fre)**

[Extracapillary glomerulonephritis with anti-myeloperoxidase antibodies in 2 patients with systemic scleroderma treated with penicillamine D] Kyndt X, et al. **Presse Med** 1999 Jan 16;28(2):67–70 (Eng. Abstr.) **(Fre)**

[Pseudotumoral calcinosis of the wrist in a patient with scleroderma (letter)] Porteau-Cassard L, et al. **Presse Med** 1999 Jun 19;28(22):1168 **(Fre)**

[Finger tip necroses after dihydroergotamine medication in limited systemic scleroderma] Hahne T, et al. **Hautarzt** 1998 Sep;49(9):722–4 (Eng. Abstr.) **(Ger)**

[Cardiac disorders associated with progressive systemic sclerosis] Hata N, et al. **J Cardiol** 1998 Dec;32(6):397–402 (Eng. Abstr.) **(Jpn)**

[Interstitial pneumonia preceding systemic sclerosis] Imokawa S, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov; 36(11):969–72 (Eng. Abstr.) **(Jpn)**

[A case of systemic sclerosis complicated with pneumoperitoneum and pneumatosis cystoides intestinalis] Aoki M, et al. **Nihon Rinsho Meneki Gakkai Kaishi** 1998 Aug;21(4):159–65 (Eng. Abstr.) **(Jpn)**

[Pneumoperitoneum with systemic sclerosis] Nakajima A, et al. **Ryumachi** 1998 Dec;38(6):825–30 (15 ref.) (Eng. Abstr.) **(Jpn)**

[A case of systemic lupus erythematosus overlapping with progressive systemic sclerosis accompanied by deposition of AA amyloid in the stomach] Obata T, et al. **Ryumachi** 1998 Dec;38(6):810–7 (24 ref.) (Eng. Abstr.) **(Jpn)**

[Renal crisis in systemic sclerosis] Haugeberg G, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1278–80 (Eng. Abstr.) **(Nor)**

[Sarcoidosis in a patient with systemic sclerosis (letter)] Castillo Palma MJ, et al. **Med Clin (Barc)** 1999 May 1; 112(15):597–8 **(Spa)**

DIAGNOSIS

Clinical evaluation of systemic sclerosis: a comprehensive panel of diagnostic tests to assess skin, microvascular and visceral involvement. The Genoese Group for the Study of Systemic Sclerosis. **Ann Ital Med Int** 1999 Apr–Jun; 14(2):79–85

Decreased nailfold capillary density in limited scleroderma with pulmonary hypertension. Ong YY, et al. **Asian Pac J Allergy Immunol** 1998 Jun–Sep;16(2–3):81–6

Serum III procollagen, but not serum I procollagen, is predictive of lung involvement in systemic sclerosis [letter] Valat C, et al. **Clin Exp Rheumatol** 1998 Jul–Aug; 16(4):517–8

'Downut Sign' in scleromyxoedema [letter] Dhar S, et al. **Dermatology** 1999;198(2):180

First report of association of chronic pancreatitis, primary biliary cirrhosis, and systemic sclerosis. Hastier P, et al. **Dig Dis Sci** 1998 Nov;43(11):2426–8 (17 ref.)

The "distal-dorsal difference" as a possible predictor of secondary Raynaud's phenomenon. Clark S, et al. **J Rheumatol** 1999 May;26(5):1125–8

Clinical and laboratory manifestations of systemic sclerosis (scleroderma) in Black South Africans. Tager RE, et al. **Rheumatology (Oxford)** 1999 May;38(5):397–400

Polyneuropathy as initial manifestation of systemic sclerosis (scleroderma). Knupp-Oliveira S, et al. **Scand J Rheumatol** 1999;28(4):260–1 (10 ref.)

Morphea and localized scleroderma in children. Vierra E, et al. **Semin Cutan Med Surg** 1999 Sep;18(3):210–25 (105 ref.)

[Scleroderma renal crisis. 7 cases and review of the literature] Bonnet F, et al. **Ann Med Interne (Paris)** 1998 Sep; 149(5):243–50 (45 ref.) (Eng. Abstr.) **(Fre)**

[Progressive systemic scleroderma--prognosis determining involvement of internal organ systems] Mittag M, et al. **Hautarzt** 1998 Jul;49(7):545–51 (40 ref.) (Eng. Abstr.) **(Ger)**

[64-year-old patient with dyspnea at rest and rapidly progressing renal failure. Systemic sclerosis with interstitial lung disease and renal crisis] Hellmich B, et al. **Internist (Berl)** 1998 Oct;39(10):1062–8 **(Ger)**

[Comment on the contribution: Nikol S. et al. 51-year-old patient with reversible infarct-like ECG changes (letter)] Maclachlan D. **Internist (Berl)** 1998 Aug;39(8):892 **(Ger)**

[Immobilized antigenic preparations with magnetic properties in the diagnosis and treatment of rheumatic diseases] Zborovskiĭ AB, et al. **Vestn Ross Akad Med Nauk** 1999; (5):45–9 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Short-term estrogen administration improves abnormal endothelial function in women with systemic sclerosis and Raynaud's phenomenon. Lekakis J, et al. **Am Heart J** 1998 Nov;136(5):905–12

Oral psoralen-UV-A for systemic scleroderma [letter] Hofer A, et al. **Arch Dermatol** 1999 May;135(5):603–4

Interferon-alpha does not improve outcome at one year in patients with diffuse cutaneous scleroderma: results of a randomized, double-blind, placebo-controlled trial. Black CM, et al. **Arthritis Rheum** 1999 Feb;42(2):299–305

Iloprost treatment in systemic sclerosis: comment on the concise communication by Tedeschi et al [letter; comment] Braun J, et al. **Arthritis Rheum** 1999 Jan;42(1):196–8. Comment on: Arthritis Rheum 1998 Mar;41(3):559–60.

High-dose versus low-dose D-penicillamine in early diffuse systemic sclerosis: analysis of a two-year, double-blind, randomized, controlled clinical trial. Clements PJ, et al. **Arthritis Rheum** 1999 Jun;42(6):1194–203

Etretinate therapy for refractory sclerodermatous chronic graft-versus-host disease. Marcellus DC, et al. **Blood** 1999 Jan 1;93(1):66–70

Interferon-gamma in the treatment of systemic sclerosis: a randomized controlled multicentre trial. Grassegger A, et al. **Br J Dermatol** 1998 Oct;139(4):639–48

Extracorporeal photochemotherapy in nodular scleroderma [letter] Wollina U, et al. **Br J Dermatol** 1998 Sep; 139(3):559–60

Cyclophosphamide therapy for scleroderma. Akesson A. **Curr Opin Rheumatol** 1998 Nov;10(6):579–83

The effects of iloprost infusion on microcirculation is independent of nitric oxide metabolites and endothelin-1 in chronic peripheral ischaemia. Mazzone A, et al. **Eur J Clin Invest** 1999 Jan;29(1):1–5

Coagulation factor XIII in scleroderma. Jullien D, et al. **Eur J Dermatol** 1998 Jun;8(4):231–4 (21 ref.)

Plasma and buffy coat concentration of 8-methoxypsoralen in patients treated with extracorporeal photopheresis. Balogh A, et al. **Exp Toxicol Pathol** 1998 Sep; 50(4–6):397–401

Topical tocoretinate improved hypertrophic scar, skin sclerosis in systemic sclerosis and morphea. Mizutani H, et al. **J Dermatol** 1999 Jan;26(1):11–7

Acute effect of nitric oxide on Raynaud's phenomenon in scleroderma [letter] Freedman RR, et al. **Lancet** 1999 Aug 28;354(9180):739

Minocycline in early diffuse scleroderma [letter] Le CH, et al. **Lancet** 1998 Nov 28;352(9142):1755–6

Efficacy evaluation of prostaglandin E1 against placebo in patients with progressive systemic sclerosis and significant Raynaud's phenomenon. Bartolone S, et al. **Minerva Cardioangiol** 1999 May;47(5):137–43 **(Eng, Ita)**

Therapeutic interventions in systemic sclerosis. van den Hoogen FH. **Neth J Med** 1998 Sep;53(3):137–8 (13 ref.)

Treatment of linear scleroderma with oral 1,25-dihydroxyvitamin D3 (calcitriol) in seven children. Elst EF, et al. **Pediatr Dermatol** 1999 Jan–Feb;16(1):53–8

Iloprost as cyclic five-day infusions in the treatment of scleroderma. An open pilot study in 20 patients treated for one year. Biasi D, et al. **Rev Rhum Engl Ed** 1998 Dec; 65(12):745–50

Treatment with interferon gamma enhances fibrinolysis in systemic sclerosis. Gluszko P, et al. **Thromb Res** 1998 Aug 15;91(4):203–7

[Extra-capillary glomerulonephritis induced by D-penicillamine therapy (letter)] Marlier S, et al. **Presse Med** 1999 Apr 3;28(13):689–90 **(Fre)**

[Immune modulating effect of intravenous gamma globulin in a patient with overlapping syndrome] Jurlow E, et al. **Rev Med Chil** 1998 Sep;126(9):1108–11 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Elevated expression of epidermal ornithine decarboxylase mRNA in scleroderma. Ohtsuka T, et al. **Br J Dermatol** 1998 Dec;139(6):1047–8

EPIDEMIOLOGY

Fertility and pregnancy outcome in women with systemic sclerosis. Steen VD, et al. **Arthritis Rheum** 1999 Apr; 42(4):763–8

Systemic sclerosis prevalence and mortality in Sydney 1974–88. Englert H, et al. **Aust N Z J Med** 1999 Feb; 29(1):42–50

A study of the frequency of pericardial and pleural effusions in scleroderma. Thompson AE, et al. **Br J Rheumatol** 1998 Dec;37(12):1320–3

Anti-endothelial cell antibodies in systemic sclerosis. Renaudineau Y, et al. **Clin Diagn Lab Immunol** 1999 Mar; 6(2):156–60 (61 ref.)

ETHNOLOGY

Oklahoma Choctaw and systemic sclerosis: the founder effect and genetic susceptibility [editorial] Harley JB, et al. **Arthritis Rheum** 1998 Oct;41(10):1725–8

Influence of ethnic background on clinical and serologic features in patients with systemic sclerosis and anti-DNA topoisomerase I antibody. Kuwana M, et al. **Arthritis Rheum** 1999 Mar;42(3):465–74

Association of microsatellite markers near the fibrillin 1 gene on human chromosome 15q with scleroderma in a Native American population. Tan FK, et al. **Arthritis Rheum** 1998 Oct;41(10):1729–37

Clinical and laboratory manifestations of systemic sclerosis (scleroderma) in Black South Africans. Tager RE, et al. **Rheumatology (Oxford)** 1999 May;38(5):397–400

HLA haplotypes and microsatellite polymorphisms in and around the major histocompatibility complex region in a Native American population with a high prevalence of scleroderma (systemic sclerosis). Tan FK, et al. **Tissue Antigens** 1999 Jan;53(1):74–80

ETIOLOGY

Anti-centromere antibodies in 2 patients with discoid lupus erythematosus and no signs of systemic sclerosis [letter] Aragone MG, et al. **Acta Derm Venereol** 1999 Mar; 79(2):165

Sclerodermatous graft-versus-host disease after donor leucocyte infusion. Jones-Caballero M, et al. **Br J Dermatol** 1998 Nov;139(5):889–92

Microchimerism and the pathogenesis of systemic sclerosis. Nelson JL. **Curr Opin Rheumatol** 1998 Nov;10(6):564–71 (63 ref.)

The endothelium in the pathogenesis of systemic sclerosis: is it primary or secondary? [editorial] Furst DE. **J Mal Vasc** 1999 May;24(2):95–8 (25 ref.)

New perspectives on the etiology of systemic sclerosis. Artlett CM, et al. **Mol Med Today** 1999 Feb;5(2):74–8 (38 ref.)

Systemic sclerosis (scleroderma) in two iron ore mines. Martin JR, et al. **Occup Med (Lond)** 1999 Apr;49(3):161–9

Pulmonary manifestations of rheumatic diseases. Eid NS, et al. **Pediatr Pulmonol Suppl** 1999;18:91–2

Cocaine-induced scleroderma and scleroderma renal crisis. Attoussi S, et al. **South Med J** 1998 Oct;91(10):961–3

[A case report of diabetic scleredema in a patient with non-insulin-dependent diabetes mellitus] Ide H, et al. **Hokkaido Igaku Zasshi** 1999 Jan;74(1):77–82 (Eng. Abstr.) **(Jpn)**

GENETICS

Esophageal dysmotility and its relation to systemic sclerosis variant [letter; comment] Yarze JC. **Am J Gastroenterol** 1998 Dec;93(12):2630–1. Comment on: Am J Gastroenterol 1998 Mar;93(3):341–5.

Fibronectin gene polymorphisms associated with fibrosing alveolitis in systemic sclerosis. Avila JJ, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):106–12

Identification of multiple, differentially expressed messenger RNAs in dermal fibroblasts from patients with systemic sclerosis. Feghali CA, et al. **Arthritis Rheum** 1999 Jul; 42(7):1451–7

Association of microsatellite markers near the fibrillin 1 gene on human chromosome 15q with scleroderma in a Native American population. Tan FK, et al. **Arthritis Rheum** 1998 Oct;41(10):1729–37

Familial risk estimation in systemic sclerosis. Englert H, et al. **Aust N Z J Med** 1999 Feb;29(1):36–41

A syndrome resembling human systemic sclerosis (scleroderma) in MRL/lpr mice lacking interferon-gamma (IFN-gamma) receptor (MRL/lprgammaR-/-). Le Hir M, et al. **Clin Exp Immunol** 1999 Feb;115(2):281–7

Association of human leukocyte antigen class II genes with autoantibody profiles, but not with disease susceptibility in Japanese patients with systemic sclerosis. Kuwana M, et al. **Intern Med** 1999 Apr;38(4):336–44

Microchimerism in Japanese women patients with systemic sclerosis [letter] Murata H, et al. **Lancet** 1999 Jul 17; 354(9174):220

Cytogenetic study and FISH analysis in lymphocytes of systemic lupus erythematosus (SLE) and systemic sclerosis (SS) patients. Migliore L, et al. **Mutagenesis** 1999 Mar; 14(2):227–31

[The correlation between salivary endothelial expression of E-selectin and clinical and biological parameters in systemic scleroderma] Hebbar M, et al. **Rev Med Interne** 1998 Aug;19(8):537–41 (Eng. Abstr.) **(Fre)**

HISTORY

Endure!: how Paul Klee's illness influenced his art. Wolf G. **Lancet** 1999 May 1;353(9163):1516–8

[Forty years study of systemic scleroderma (data of Institute of Rheumatology, Russian Academy of Medical Sciences)] Guseva NG. **Vestn Ross Akad Med Nauk** 1998;(12):27–31 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Antigen specificity of antihistone antibodies in systemic sclerosis. Hasegawa M, et al. **Ann Rheum Dis** 1998 Aug; 57(8):470–5

Inhibition of type I collagen production by dermal fibroblasts upon contact with activated T cells: different sensitivity to inhibition between systemic sclerosis and control fibroblasts. Chizzolini C, et al. **Arthritis Rheum** 1998 Nov; 41(11):2039–47

An immunodominant epitope on DNA topoisomerase I is conformational in nature: heterogeneity in its recognition by systemic sclerosis sera. Kuwana M, et al. **Arthritis Rheum** 1999 Jun;42(6):1179–88

Influence of ethnic background on clinical and serologic features in patients with systemic sclerosis and anti-DNA topoisomerase I antibody. Kuwana M, et al. **Arthritis Rheum** 1999 Mar;42(3):465–74

The concurrence of rheumatoid arthritis and limited systemic sclerosis: clinical and serologic characteristics of an overlap syndrome. Zimmermann C, et al. **Arthritis Rheum** 1998 Nov;41(11):1938–45

Spontaneous occurrence of anti-fibrillin-1 autoantibodies in tight-skin mice. Murai C, et al. **Autoimmunity** 1998; 28(3):151–5

Long-term fetal microchimerism in peripheral blood mononuclear cell subsets in healthy women and women with scleroderma. Evans PC, et al. **Blood** 1999 Mar 15; 93(6):2033–7

Digital gangrene and anticentromere antibodies without scleroderma [letter] Picillo U, et al. **Br J Rheumatol** 1998 Dec;37(12):1352–3

A role for T helper 2 cells in mediating skin fibrosis in tight-skin mice. Ong CJ, et al. **Cell Immunol** 1999 Aug 25;196(1):60–8

Is anti-topoisomerase I a serum marker of pulmonary involvement in systemic sclerosis? Diot E, et al. **Chest** 1999 Sep;116(3):715–20

Anti-endothelial cell antibodies in systemic sclerosis. Renaudineau Y, et al. **Clin Diagn Lab Immunol** 1999 Mar; 6(2):156–60 (61 ref.)

Systemic sclerosis: an autoantibody mosaic [editorial] Bunn CC, et al. **Clin Exp Immunol** 1999 Aug;117(2):207–8 (24 ref.)

Clinical and serological associations with anti-RNA polymerase antibodies in systemic sclerosis. Harvey GR, et al. **Clin Exp Immunol** 1999 Aug;117(2):395–402

Distribution and antigen specificity of anti-U1RNP antibodies in patients with systemic sclerosis. Ihn H, et al. **Clin Exp Immunol** 1999 Aug;117(2):383–7

Antibodies against a novel nucleolar and cytoplasmic antigen (p105-p42) present in the sera of patients with a subset of rheumatoid arthritis (RA) with signs of scleroderma. Labrador M, et al. **Clin Exp Immunol** 1998 Nov; 114(2):301–10

Increased interferon-gamma (IFN-gamma) levels produced in vitro by alloactivated T lymphocytes in systemic sclerosis and Raynaud's phenomenon. Molteni M, et al. **Clin Exp Immunol** 1999 Apr;116(1):164–8

Anti-endothelial cell antibodies in systemic sclerosis: significant association with vascular involvement and alveolo-capillary impairment. Pignone A, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):527–32

Endothelial tissue factor induction by T lymphocytes in systemic sclerosis. Della Bella S, et al. **Clin Rheumatol** 1999; 18(1):38–41

Kikuchi's histiocytic necrotizing lymphadenitis driven by activated cytolytic T-cells: an example associated with systemic scleroderma [letter] Laeng RH, et al. **Histopathology** 1999 Apr;34(4):373–4

Scleroderma: immunopathogenesis and treatment [see comments] Rose NR, et al. **Immunol Today** 1998 Nov; 19(11):499–501. Comment in: Immunol Today 1999 May;20(5):246.

Association of human leukocyte antigen class II genes with autoantibody profiles, but not with disease susceptibility in Japanese patients with systemic sclerosis. Kuwana M, et al. **Intern Med** 1999 Apr;38(4):336–44

The association of anti-Ro52 autoantibodies with myositis and scleroderma autoantibodies. Frank MB, et al. **J Autoimmun** 1999 Mar;12(2):137–42

Centrosome proteins: a major class of autoantigens in scleroderma. Gavanescu I, et al. **J Clin Immunol** 1999 May; 19(3):166–71

Clinical and immunological characterization of patients with systemic sclerosis overlapping primary biliary cirrhosis: a comparison with patients with systemic sclerosis alone. Akimoto S, et al. **J Dermatol** 1999 Jan;26(1):18–22

Immunological features of patients with primary biliary cirrhosis (PBC) overlapping systemic sclerosis: a comparison with patients with PBC alone. Akimoto S, et al. **J Gastroenterol Hepatol** 1998 Sep;13(9):897–901

Autoantibodies to the extracellular matrix microfibrillar protein, fibrillin-1, in patients with scleroderma and other connective tissue diseases. Tan FK, et al. **J Immunol** 1999 Jul 15;163(2):1066–72

Myenteric neuronal antibodies in scleroderma: passive transfer evokes alterations in intestinal myoelectric activity in a rat model [see comments] Eaker EY, et al. **J Lab Clin Med** 1999 Jun;133(6):551–6. Comment in: J Lab Clin Med 1999 Jun;133(6):523–4.

Immune-mediated enteric neuron dysfunction in scleroderma [editorial; comment] Reynolds JC. **J Lab Clin Med** 1999 Jun;133(6):523–4. Comment on: J Lab Clin Med 1999 Jun;133(6):531–6.

Systemic sclerosis and multiple sclerosis [letter] Spadaro A, et al. **J Neurol** 1999 Jun;246(6):497–9

Autoantibodies against calpastatin in sera from patients with systemic sclerosis. Sato S, et al. **J Rheumatol** 1998 Nov; 25(11):2135–9

Enhanced interleukin 6 production by cultured fibroblasts from patients with systemic sclerosis in response to platelet derived growth factor. Takemura H, et al. **J Rheumatol** 1998 Aug;25(8):1534–9

Evidence of cell-mediated cardiac myocyte injury involved in the heart failure of a patient with progressive systemic sclerosis. Takahashi N, et al. **Jpn Circ J** 1999 Jan; 63(1):68–72

Anti-NuMA antibodies: an uncommon specificity in scleroderma sera. Herrera-Esparza R, et al. **Rev Rhum Engl Ed** 1999 Jun;66(6):315–8

Systemic sclerosis from autoimmunity to alloimmunity. Famularo G, et al. **South Med J** 1999 May;92(5):472–6 (30 ref.)

[Is scleroderma an allo-immune disease?] Cosnes A, et al. **Ann Dermatol Venereol** 1999 Mar;126(3):291–4 **(Fre)**

METABOLISM

Production of type 2 cytokines by CD8+ lung cells is associated with greater decline in pulmonary function in patients with systemic sclerosis. Atamas SP, et al. **Arthritis Rheum** 1999 Jun;42(6):1168–78

Increased production of nitric oxide stimulated by interleukin-1beta in peripheral blood mononuclear cells in patients with systemic sclerosis. Yamamoto T, et al. **Br J Rheumatol** 1998 Oct;37(10):1123–5

Augmented production of chemokines (monocyte chemotactic protein-1 (MCP-1), macrophage inflammatory protein-1alpha (MIP-1alpha) and MIP-1beta) in patients with systemic sclerosis: MCP-1 and MIP-1alpha may be involved in the development of pulmonary fibrosis. Hasegawa M, et al. **Clin Exp Immunol** 1999 Jul;117(1):159–65

Increased nitric oxide in exhaled air in patients with systemic sclerosis [see comments] Fajac I, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):547–52. Comment in: Clin Exp Rheumatol 1998 Sep-Oct;16(5):522–4.

Nitric oxide in systemic sclerosis lung: controversies and expectations [editorial; comment] Rolla G, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):522–4 (50 ref.). Comment on: Clin Exp Rheumatol 1998 Sep-Oct;16(5):547–52.

Expression of stem cell factor in the lesional skin of systemic sclerosis. Yamamoto T, et al. **Dermatology** 1998; 197(2):109–14

Intraesophageal pH monitoring during acid infusion in patients with systemic sclerosis. Carola F, et al. **Dig Dis Sci** 1999 Aug;44(8):1716–20

Carnitine deficiency in scleroderma [letter] Famularo G, et al. **Immunol Today** 1999 May;20(5):246 (16 ref.)

Endogenous IL-1alpha from systemic sclerosis fibroblasts induces IL-6 and PDGF-A. Kawaguchi Y, et al. **J Clin Invest** 1999 May;103(9):1253–60

Increased cutaneous immunoreactive stem cell factor expression and serum stem cell factor level in systemic scleroderma. Kihira C, et al. **J Dermatol Sci** 1998 May; 20(1):72–8

Expression of TGF-beta 1, -beta 2 and -beta 3 in localized and systemic scleroderma. Querfeld C, et al. **J Dermatol Sci** 1999 Sep;21(1):13–22

Expression of platelet-derived growth factor B-chain and platelet-derived growth factor beta-receptor in fibroblasts of scleroderma. Zheng XY, et al. **J Dermatol Sci** 1998 Nov; 18(2):90–7

Dermatopontin expression is decreased in hypertrophic scar and systemic sclerosis skin fibroblasts and is regulated by transforming growth factor-beta1, interleukin-4, and matrix collagen. Kuroda K, et al. **J Invest Dermatol** 1999

May;112(5):706–10
Increased expression of heat-shock protein 47 is associated with overproduction of type I procollagen in systemic sclerosis skin fibroblasts. Kuroda K, et al. **J Invest Dermatol** 1998 Dec;111(6):1023–8
Monocytes of patients wiht systemic sclerosis (scleroderma spontaneously release in vitro increased amounts of superoxide anion. Sambo P, et al. **J Invest Dermatol** 1999 Jan;112(1):78–84
Discrepant expression of neprilysin on fibroblasts in diffuse systemic sclerosis. Matucci-Cerinic M, et al. **J Rheumatol** 1999 Feb;26(2):347–51
Enhanced production of interleukin-6 (IL-6), oncostatin M and soluble IL-6 receptor by cultured peripheral blood mononuclear cells from patients with systemic sclerosis. Hasegawa M, et al. **Rheumatology (Oxford)** 1999 Jul; 38(7):612–7

MICROBIOLOGY

Deconjugation ability of bacteria isolated from the jejunal fluid of patients with progressive systemic sclerosis and its gastric pH. Shindo K, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1643–50

MORTALITY

Mortality and causes of death in a Swedish series of systemic sclerosis patients. Hesselstrand R, et al. **Ann Rheum Dis** 1998 Nov;57(11):682–6
A case study and national database report of progressive systemic sclerosis and associated conditions. Phillips D, et al. **J Womens Health** 1998 Nov;7(9):1099–104 (13 ref.)
South Australian Scleroderma Register: analysis of deceased patients. Bond C, et al. **Pathology** 1998 Nov;30(4):386–90
Causes of mortality in systemic sclerosis [letter; comment] Ho M, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):283–4 . Comment on: Br J Rheumatol 1998 Jul;37(7):750–5.

PATHOLOGY

What biochemical markers are best for measuring the extent of disease in patients with sclerosis? [editorial; comment] Thestrup-Pedersen K. **Acta Derm Venereol** 1999 May; 79(3):177. Comment on: Acta Derm Venereol 1999 May;79(3):207–10.
Recurrence of scleroderma in a renal allograft from an identical twin sister. Caplin NJ, et al. **Am J Kidney Dis** 1999 Apr;33(4):e7 (25 ref.)
Activation of microvascular pericytes in autoimmune Raynaud's phenomenon and systemic sclerosis. Rajkumar VS, et al. **Arthritis Rheum** 1999 May;42(5):930–41
Lack of endothelial cell apoptosis in the dermis of tight skin 1 and tight skin 2 mice. Sgonc R, et al. **Arthritis Rheum** 1999 Mar;42(3):581–4
Capillary density in patients with systemic sclerosis, as determined by microscopy counts and compared with computer-based analysis. Wildt M, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):219–22
Is antiendothelial cell antibody the murder weapon in systemic sclerosis? [editorial] Youinou P, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):35–6 (20 ref.)
Biology of the scleroderma fibroblast. Strehlow D, et al. **Curr Opin Rheumatol** 1998 Nov;10(6):572–8 (49 ref.)
Systemic sclerosis revealing T-cell lymphoma. Hasegawa M, et al. **Dermatology** 1999;198(1):75–8
Maternal scleroderma: placental findings and perinatal outcome. Doss BJ, et al. **Hum Pathol** 1998 Dec; 29(12):1524–30
Clinical and immunological characterization of patients with systemic sclerosis overlapping primary biliary cirrhosis: a comparison with patients with systemic sclerosis alone. Akimoto S, et al. **J Dermatol** 1999 Jan;26(1):18–22
Sera from patients with scleroderma inhibit fibroblast micromotions monitored electrically. Huang CN, et al. **J Rheumatol** 1999 Jun;26(6):1312–7
Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 4–1999. A 38-year-old woman with increasing pulmonary hypertension after delivery [clinical conference] **N Engl J Med** 1999 Feb 11; 340(6):455–64
[Primary biliary cirrhosis and systemic scleroderma (Reynolds syndrome): apropos of 8 new cases. The contribution of accessory salivary gland biopsy] Launay D, et al. **Rev Med Interne** 1998 Jun;19(6):393–8 (Eng. Abstr.) **(Fre)**
[Significance of histopathologic analysis of skin lesions in scleromyxedema. Light microscopy, electron microscopy, immunohistochemistry and immunofluorescence microscopy] Krajnc I, et al. **Acta Med Austriaca** 1998; 25(3):109–12 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Identification of elements in the promoter region of the alpha1(I) procollagen gene involved in its up-regulated expression in systemic sclerosis. Hitraya EG, et al. **Arthritis Rheum** 1998 Nov;41(11):2048–58
Relationship between abnormalities on high-resolution CT and pulmonary function in systemic sclerosis. Diot E, et al. **Chest** 1998 Dec;114(6):1623–9
Non-invasive assessment of digital vascular reactivity in patients with primary Raynaud's phenonenon and systemic sclerosis. Anderson ME, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):49–54
Autonomic nervous system dysfunction in sclerodermic and primary Raynaud's phenomenon. Pancera P, et al. **Clin Sci (Colch)** 1999 Jan;96(1):49–57
Measurement of functional status, self-assessment, and psychological well-being in scleroderma. Merkel PA. **Curr Opin Rheumatol** 1998 Nov;10(6):589–94 (27 ref.)
In vivo study of skin mechanical properties in patients with systemic sclerosis. Dobrev HP. **J Am Acad Dermatol** 1999 Mar;40(3):436–42
A potential role for protease nexin 1 overexpression in the pathogenesis of scleroderma. Strehlow D, et al. **J Clin Invest** 1999 Apr;103(8):1179–90
Pathophysiology of scleroderma: an update. Haustein UF, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):1–8 (64 ref.)
Prevalence of impaired gastric emptying of solids in systemic sclerosis: diagnostic and therapeutic implications. Sridhar KR, et al. **J Lab Clin Med** 1998 Dec;132(6):541–6
Laser doppler imaging--a new technique for quantifying microcirculatory flow in patients with primary Raynaud's phenomenon and systemic sclerosis. Clark S, et al. **Microvasc Res** 1999 May;57(3):284–91
Oxidative stress in Systemic Sclerosis. Simonini G, et al. **Mol Cell Biochem** 1999 Jun;196(1-2):85–91
Lymphatic microangiopathy of the skin in systemic sclerosis. Leu AJ, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):221–7
Plasma noradrenaline and neuropeptide-Y may not be of primary importance in the pathophysiology of cardiac involvement in systemic sclerosis. Kazzam E, et al. **Scand J Rheumatol** 1999;28(4):238–43
Clinical approach to scleroderma. White B. **Semin Cutan Med Surg** 1998 Sep;17(3):213–8
[Involvement of the small intestine in systemic scleroderma] Marie I, et al. **Rev Med Interne** 1999 Jun;20(6):504–13 (86 ref.) (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Anti-sclerotic effect of transforming growth factor-beta antibody in a mouse model of bleomycin-induced scleroderma. Yamamoto T, et al. **Clin Immunol** 1999 Jul; 92(1):6–13

PSYCHOLOGY

Measurement of functional status, self-assessment, and psychological well-being in scleroderma. Merkel PA. **Curr Opin Rheumatol** 1998 Nov;10(6):589–94 (27 ref.)

RADIOGRAPHY

Relationship between abnormalities on high-resolution CT and pulmonary function in systemic sclerosis. Diot E, et al. **Chest** 1998 Dec;114(6):1623–9
Bone mineral density in scleroderma [letter] Carbone L, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):371–2
Gastro-intestinal scleroderma. Moorhouse S. **S Afr Med J** 1999 Jul;89(7):744

RADIONUCLIDE IMAGING

Scleroderma heart disease: an unusual cause of positive antimyosin cardiac imaging. Lekakis J, et al. **J Nucl Cardiol** 1999 Jan–Feb;6(1 Pt 1):91–2

RADIOTHERAPY

UVA therapy for scleroderma [letter; comment] Steger JW, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):787–8. Comment on: J Am Acad Dermatol 1997 Jun;36(6 Pt 1):938–44. Comment on: J Am Acad Dermatol 1998 Jan;38(1):21–6.

SURGERY

[Surgical treatment of Thibièrge-Weissenbach syndrome and other calcinoses of the hand. Case report and review of the literature] Kauschke T, et al. **Handchir Mikrochir Plast Chir** 1999 Jan;31(1):57–60 (21 ref.) (Eng. Abstr.) **(Ger)**

THERAPY

Marked and sustained improvement two years after autologous stem cell transplantation in a girl with systemic sclerosis. Martini A, et al. **Arthritis Rheum** 1999 Apr; 42(4):807–11
Scleroderma: immunopathogenesis and treatment [see comments] Rose NR, et al. **Immunol Today** 1998 Nov; 19(11):499–501. Comment in: Immunol Today 1999 May;20(5):246.
Rhythmic external compression of the limbs: a method for healing cutaneous ulcers in systemic sclerosis. Filho JP, et al. **J Rheumatol** 1998 Aug;25(8):1540–3
Advances in treatment of systemic sclerosis. Herrick AL. **Lancet** 1998 Dec 12;352(9144):1874–5
Marked and sustained improvement 2 years after autologous stem cell transplantation in a girl with systemic sclerosis. Martini A, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):773
Morphea and localized scleroderma in children. Vierra E, et al. **Semin Cutan Med Surg** 1999 Sep;18(3):210–25 (105 ref.)
[Immobilized antigenic preparations with magnetic properties in the diagnosis and treatment of rheumatic diseases] Zborovskiĭ AB, et al. **Vestn Ross Akad Med Nauk** 1999; (5):45–9 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

The role of collagen abnormalities in ultrasound and densitometry assessment: In vivo evidence. Cheng S, et al. **Calcif Tissue Int** 1999 Jun;64(6):470–6
Ultrasonic videodensitometric analysis in scleroderma heart disease. Di Bello V, et al. **Coron Artery Dis** 1999; 10(2):103–10

VIROLOGY

Increased serum levels of antibodies against human cytomegalovirus and prevalence of autoantibodies in systemic sclerosis. Neidhart M, et al. **Arthritis Rheum** 1999 Feb;42(2):389–92
Parvovirus B19 and systemic sclerosis [letter] Ferri C, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):267–8

SCLEROMA, NASAL see **RHINOSCLEROMA**

SCLEROPLASTY

[Scleroplasty surgery in the treatment of progressive myopia in children] Autrata R, et al. **Cesk Slov Oftalmol** 1998; 54(5):323–7 (Eng. Abstr.) **(Cze)**
[Sclera-fortifying treatment of myopia in children at high risk of its progression] Tarutta EP, et al. **Vestn Oftalmol** 1998 Nov–Dec;114(6):29–31 (Eng. Abstr.) **(Rus)**

METHODS

Deep sclerectomy with collagen implant: medium term results [see comments] Karlen ME, et al. **Br J Ophthalmol** 1999 Jan;83(1):6–11. Comment in: Br J Ophthalmol 1999 Jan;83(1):1–2.
Lamellolamellar sclerokeratoplasty. Where do we stand today? Panda A. **Eye** 1999 Apr;13 (Pt 2):221–5
[The morphological characteristics of the take of synthetic transplants following experimental scleroplasty] Andreeva LD, et al. **Vestn Oftalmol** 1999 May–Jun;115(3):15–8 (Eng. Abstr.) **(Rus)**
[The optimization of a surgical intervention to stabilize progressive myopia] Gonchar PA, et al. **Vestn Oftalmol** 1999 May–Jun;115(3):6–8 (Eng. Abstr.) **(Rus)**
[The use of simplified extrascleral alloscleroplasty in progressive myopia in servicemen] Cherepnin AI, et al. **Voen Med Zh** 1999 Jan;320(1):23–5 **(Rus)**

SCLEROSING AGENTS see **SCLEROSING SOLUTIONS**

SCLEROSING SOLUTIONS

Effects of phenol with botulinus toxin type A for the treatment of spasticity [letter] Kishner S. **Am J Phys Med Rehabil** 1999 Sep–Oct;78(5):500
A logical approach to the injection treatment of varicose and "spider" veins. Dee R. **Conn Med** 1999 Jul;63(7):391–8

ADMINISTRATION & DOSAGE

Comparison of endoscopic variceal sclerotherapy with sequential endoscopic band ligation plus low-dose sclerotherapy for secondary prophylaxis of variceal hemorrhage: a prospective randomized study. Garg PK, et al. **Gastrointest Endosc** 1999 Sep;50(3):369–73
Is endoscopic paravascular injection of sclerosing agents reasonable in the control of GI bleeding? Tatemichi M, et al. **Gastrointest Endosc** 1999 Oct;50(4):499–505
Pleurodesis treatment with tetracycline in peritoneal dialysis-complicated hydrothorax [letter] Bakkaloglu SA, et al. **Pediatr Nephrol** 1999 Sep;13(7):637–8
Effectiveness of ethanolamine oleate as a pleural sclerosing agent in rabbits. Teixeira LR, et al. **Respiration** 1998; 65(4):304–8
Successful treatment of bleeding duodenal varices by balloon-occluded retrograde transvenous obliteration: a transjugular venous approach. Ohta M, et al. **Surgery** 1999 Sep;126(3):581–3
Preliminary results of percutaneous treatment of renal cysts with povidone-iodine sclerosis. Phelan M, et al. **Urology** 1999 Apr;53(4):816–7
The efficacy of mechanical abrasion and talc slurry as methods of pleurodesis in normal dogs. Jerram RM, et al. **Vet Surg** 1999 Sep–Oct;28(5):322–32

ADVERSE EFFECTS

Embolia cutis medicamentosa of the foot after sclerotherapy. Geukens J, et al. **Eur J Dermatol** 1999 Mar;9(2):132–3
A complication of sclerotherapy [letter] Magee RH. **Med J Aust** 1999 Aug 2;171(3):166

THERAPEUTIC USE

Bleeding ulcer: inject or clip? Nagasu N, et al. **Am J Gastroenterol** 1998 Oct;93(10):1998
Successful treatment of parathyroid cyst using ethanol sclerotherapy. Akel M, et al. **Am J Med Sci** 1999 Jan; 317(1):50–2
Tetracycline sclerotherapy for the treatment of recurrent pooling of plasma in the submandibular tissue space: case report. Nixon PP, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):137–8

Povidone iodine used as a sclerosing agent in the treatment of chyluria. Shanmugam TV, et al. **Br J Urol** 1998 Oct; 82(4):587

Post-traumatic pseudocyst of the spleen: sclerotherapy with ethanol. Völk M, et al. **Cardiovasc Intervent Radiol** 1999 May-Jun;22(3):246-8

Ethanolamine injection for sclerotherapy of angiodysplasia of the colon. Bemvenuti GA, et al. **Endoscopy** 1998 Aug; 30(6):564-9

A comparison between endoscopic injection of bleeding esophageal varices using ethanolamine oleate and fibrin glue sealant in patients with bilharzial liver fibrosis [letter] Naga MI, et al. **Endoscopy** 1999 Jun;31(5):405

A multicentre randomised trial comparing octreotide and injection sclerotherapy in the management and outcome of variceal haemorrhage. Lee JG. **Gastrointest Endosc** 1998 Oct;48(4):442-4

Injection sclerotherapy for gastric varices using N-butyl-2-cyanoacrylate and ethanolamine oleate. Miyazaki S, et al. **Hepatogastroenterology** 1998 Jul-Aug; 45(22):1155-8

Evaluation of endoscopic variceal ligation in prophylactic therapy for bleeding of oesophageal varices: a prospective, controlled trial compared with endoscopic injection sclerotherapy. Gotoh Y, et al. **J Gastroenterol Hepatol** 1999 Mar;14(3):241-4

Endoscopic variceal ligation is a sufficient procedure for the treatment of oesophageal varices in patients with hepatitis C liver cirrhosis: comparison with injection sclerotherapy. Hata Y, et al. **J Gastroenterol Hepatol** 1999 Mar; 14(3):236-40

A sclerosant with astringent properties developed in China for oesophageal varices: comparison with ethanolamine oleate and polidocanol. Nishida R, et al. **J Gastroenterol Hepatol** 1999 May;14(5):481-8

Clinical evaluation of endoscopic injection sclerotherapy using n-butyl-2-cyanoacrylate for gastric variceal bleeding. Ogawa K, et al. **J Gastroenterol Hepatol** 1999 Mar;14(3):245-50

Long-term follow up of a randomized, controlled trial on prophylactic sclerotherapy of small oesophageal varices in liver cirrhosis. Strauss E, et al. **J Gastroenterol Hepatol** 1999 Mar;14(3):225-30

Intratumoral ethanol injection [letter] Okada Y, et al. **J Neurosurg** 1999 Sep;91(3):521-3

Evaluation of lidocaine as an analgesic when added to hypertonic saline for sclerotherapy. Bukhari RH, et al. **J Vasc Surg** 1999 Mar;29(3):479-83

A prospective randomized controlled trial of sclerotherapy vs ligation in the prophylactic treatment of high-risk esophageal varices. Svoboda P, et al. **Surg Endosc** 1999 Jun;13(6):580-4

Use of talcum in sclerotherapy of pelvic lymphoceles. Teiche PE, et al. **Tech Urol** 1999 Mar;5(1):52-3

[Obliteration of gallbladder lumen in patients with high operation risk] Guliaev AA, et al. **Khirurgiia (Mosk)** 1998; (9):42-4 (Eng. Abstr.) **(Rus)**

SCLEROSIS

DRUG THERAPY

MACOP-B and involved field radiation therapy is an effective therapy for primary mediastinal large B-cell lymphoma with sclerosis. Martelli MP, et al. **Ann Oncol** 1998 Sep;9(9):1027-9

PATHOLOGY

Regional changes in hippocampal T2 relaxation and volume: a quantitative magnetic resonance imaging study of hippocampal sclerosis. Woermann FG, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):656-64

RADIOGRAPHY

[Tympanosclerosis. Radio-anatomic correlation] Louryan S, et al. **Rev Med Brux** 1999 Apr;20(2):A101-3 **(Fre)**

SURGERY

Extensive tympanosclerosis with a fixed malleus. Pulec JL, et al. **Ear Nose Throat J** 1999 May;78(5):326

VETERINARY

The accuracy of the dorsoproximal-dorsodistal projection in assessing third carpal bone sclerosis in standardbred trotters. Uhlhorn H, et al. **Vet Radiol Ultrasound** 1998 Sep-Oct;39(5):412-7

SCLEROSIS, DISSEMINATED see **MULTIPLE SCLEROSIS**

SCLEROSIS, HEREDITARY SPINAL see **FRIEDREICH'S ATAXIA**

SCLEROSIS, PROGRESSIVE SYSTEMIC see **SCLERODERMA, SYSTEMIC**

SCLEROSIS, SYSTEMIC see **SCLERODERMA, SYSTEMIC**

SCLEROSTOMY

Corneal refractive and endothelial changes following THC:YAG (holmium) laser sclerostomy. Trible JR, et al. **Ophthalmic Surg Lasers** 1998 Sep;29(9):733-7

[Deep non-perforating sclerectomy: a bad name for good surgery] Baudouin C. **J Fr Ophtalmol** 1999 Aug-Sep; 22(7):780 **(Fre)**

[Ultrasound localization of haptics of sclera attached posterior chamber lenses. Comparison of 2 high resolution ultrasound instruments] Hille K, et al. **Ophthalmologe** 1999 Mar;96(3):187-92 (Eng. Abstr.) **(Ger)**

[Ab externo erbium YAG laser sclerostomy versus conventional trabeculectomy. Treatment of glaucoma patients] Spiegel D, et al. **Ophthalmologe** 1998 Aug; 95(8):537-41 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Post-operative inflammation following deep sclerectomy with collagen implant versus standard trabeculectomy. Chiou AG, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Aug;236(8):593-6

Dysfunctional filtering blebs. Azuara-Blanco A, et al. **Surv Ophthalmol** 1998 Sep-Oct;43(2):93-126 (291 ref.)

INSTRUMENTATION

[Trabeculotomy, deep sclerectomy and viscocanalostomy. Non-fistulating microsurgical glaucoma operation ab externo] Schwenn O, et al. **Ophthalmologe** 1998 Dec; 95(12):835-43 (30 ref.) (Eng. Abstr.) **(Ger)**

METHODS

Modified sutureless sclerotomies in pars plana vitrectomy. Kwok AK, et al. **Am J Ophthalmol** 1999 Jun;127(6):731-3

Evaluation of laser sclerostomy fistulas using ultrasound biomicroscopy. Häring G, et al. **Int Ophthalmol** 1997-98; 21(5):261-4

Combined surgery for cataract and glaucoma: phacoemulsification and deep sclerectomy compared with phacoemulsification and trabeculectomy [see comments] Gianoli F, et al. **J Cataract Refract Surg** 1999 Mar; 25(3):340-6. Comment in: J Cataract Refract Surg 1999 Mar;25(3):298-300.

Comparison of deep sclerectomy with collagen implant and trabeculectomy in open-angle glaucoma [see comments] Mermoud A, et al. **J Cataract Refract Surg** 1999 Mar; 25(3):323-31. Comment in: J Cataract Refract Surg 1999 Mar;25(3):297. Comment in: J Cataract Refract Surg 1999 Mar;25(3):298-300.

Nd:Yag goniopuncture after deep sclerectomy with collagen implant. Mermoud A, et al. **Ophthalmic Surg Lasers** 1999 Feb;30(2):120-5

Histologic effect of diode laser sclerostomy in human cadaver eyes. Rodrigues M, et al. **Ophthalmic Surg Lasers** 1998 Sep; 29(9):758-61

[Initial clinical experience with deep sclerectomy in ambulatory surgery in glaucoma] Pitrová S, et al. **Cesk Slov Oftalmol** 1999 Jan;55(1):3-9 (Eng. Abstr.) **(Cze)**

[Deep nonpenetrating sclerectomy and open angle glaucoma. Intermediate results from the first operated patients] Hamard P, et al. **J Fr Ophtalmol** 1999 Feb;22(1):25-31 (Eng. Abstr.) **(Fre)**

[Non-penetrating deep sclerectomy in the surgical treatment of chronic open-angle glaucoma. Mid-term results] Massy J, et al. **J Fr Ophtalmol** 1999 Apr;22(3):292-8 (Eng. Abstr.) **(Fre)**

[Deep sclerectomy: surgical technique] Mermoud A. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):781-6 **(Fre)**

SCLEROTHERAPY

see related
SCLEROSING SOLUTIONS

Successful treatment of parathyroid cyst using ethanol sclerotherapy. Akel M, et al. **Am J Med Sci** 1999 Jan; 317(1):50-2

Sclerosis and the Nd:YAG, Q-switched laser with multiple frequency for treatment of telangiectases, reticular veins, and residual pigmentation. Cisneros JL, et al. **Dermatol Surg** 1998 Oct;24(10):1119-23

Leg and foot sclerotherapy [letter; comment] Moniuszko M. **Dermatol Surg** 1999 Mar;25(3):257. Comment on: Dermatol Surg 1998 Apr;24(4):465-70.

Long cotton wool rolls as compression enhancers in macrosclerotherapy for varicose veins. Tazelaar DJ, et al. **Dermatol Surg** 1999 Jan;25(1):38-40

Post-sclerotherapy compression: controlled comparative study of duration of compression and its effects on clinical outcome. Weiss RA, et al. **Dermatol Surg** 1999 Feb; 25(2):105-8

A practical guide to the management of oesophageal varices. McCormack G, et al. **Drugs** 1999 Mar;57(3):327-35 (37 ref.)

Ethanolamine injection for sclerotherapy of angiodysplasia of the colon. Bemvenuti GA, et al. **Endoscopy** 1998 Aug; 30(6):564-9

Combined ligation and sclerotherapy versus ligation alone for eradication of bleeding esophageal varices: a randomized and prospective trial. Djurdjevic D, et al. **Endoscopy** 1999 May;31(4):286-90

Life-threatening hemorrhage: an unusual form of presentation of Crohn's disease treated with endoscopic injection sclerotherapy. Sans M, et al. **Endoscopy** 1998 Sep; 30(7):S83-4

Sclerotherapy [letter; comment] Lees TA. **Eur J Vasc Endovasc Surg** 1999 May;17(5):460. Comment on: Eur J Vasc Endovasc Surg 1998 Jul;16(1):43-6.

Predictive factors of variceal bleeding control by emergency sclerotherapy. Multicenter Group. Ingrand P, et al. **Gastroenterol Clin Biol** 1998 May;22(5):519-24

The role of endoscopic therapy in the management of variceal hemorrhage. American Society for Gastrointestinal Endoscopy. **Gastrointest Endosc** 1998 Dec; 48(6):697-8

Sclerotherapy in acute variceal bleeding [letter; comment] Albillos A, et al. **Gastrointest Endosc** 1999 Jan;49(1):140-1 . Comment on: Gastrointest Endosc 1997 Jul;46(1):1-7.

A multicentre randomised trial comparing octreotide and injection sclerotherapy in the management and outcome of variceal haemorrhage. Lee JG. **Gastrointest Endosc** 1998 Oct;48(4):442-4

Bleeding stercoral ulcer with visible vessels: effective endoscopic injection therapy without electrocoagulation [letter; comment] Matsushita M, et al. **Gastrointest Endosc** 1998 Nov;48(5):559. Comment on: Gastrointest Endosc 1997 Oct;46(4):369-70.

Is endoscopic paravascular injection of sclerosing agents reasonable in the control of GI bleeding? Tatemichi M, et al. **Gastrointest Endosc** 1999 Oct;50(4):499-505

Palliative sclerosis of intra-abdominal cystic ovarian or peritoneal carcinoma. Rose PG, et al. **Gynecol Oncol** 1999 Feb;72(2):256-60

Endoscopic sclerotherapy to arrest uncontrolled variceal bleeding in cirrhotic patients with high surgical risk. Llach J, et al. **Hepatogastroenterology** 1998 Nov-Dec; 45(24):2181-5

Prospective multicenter randomized trial comparing banding ligation with sclerotherapy of esophageal varices. Masci E, et al. **Hepatogastroenterology** 1999 May-Jun; 46(27):1769-73

Improved long-term survival following complete eradication of esophageal varices by sclerotherapy. Matsumoto H, et al. **Hepatogastroenterology** 1999 Jan-Feb;46(25):172-6

Endoscopic management for bleeding esophageal varices: sclerotherapy versus sclerotherapy plus band ligation versus band ligation alone. One year experience at a main hospital in Saudi Arabia. Mohamed AR, et al. **Hepatogastroenterology** 1999 Mar-Apr;46(26):967-70

Long-term effect of prophylactic endoscopic injection sclerotherapy on liver function. Murata K, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1726-30

Hepatic portal venous gas following emergency endoscopic sclerotherapy of gastric varices. Nguyen HN, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1767-9

Transjugular intrahepatic portosystemic shunt versus endoscopic sclerotherapy for the prevention of variceal rebleeding after recent variceal hemorrhage. García-Villarreal L, et al. **Hepatology** 1999 Jan;29(1):27-32

Somatostatin alone or combined with emergency sclerotherapy in the treatment of acute esophageal variceal bleeding: a prospective randomized trial. Villanueva C, et al. **Hepatology** 1999 Aug;30(2):384-9

Sclerotherapy or banding for oesophageal varices? Sung JJ. **HPB Surg** 1998;11(2):131-3

Laparoscopic findings after ultrasound-guided transvaginal ethanol sclerotherapy for ovarian endometrial cyst [letter] Okagaki R, et al. **Hum Reprod** 1999 Jan;14(1):270

Early changes in esophageal motility after endoscopic variceal sclerotherapy or ligation. Narawane NM, et al. **Indian J Gastroenterol** 1999 Jan-Mar;18(1):11-4

Cutaneous hemangioma of the penis successfully treated with sclerotherapy and ligation. Tsujii T, et al. **Int J Urol** 1998 Jul;5(4):396-7

Oesophageal motility and gastro-oesophageal reflux: effect of variceal eradication by endoscopic sclerotherapy. Ghoshal UC, et al. **J Gastroenterol Hepatol** 1998 Oct; 13(10):1033-8

Endoscopic management of gastric varices using a detachable snare and simultaneous endoscopic sclerotherapy and O-ring ligation. Yoshida T, et al. **J Gastroenterol Hepatol** 1999 Jul;14(7):730-5

Randomized controlled trial of sclerotherapy versus somatostatin infusion in the prevention of early rebleeding following acute variceal hemorrhage in patients with cirrhosis. Variceal Bleeding Study Group. Escorsell A, et al. **J Hepatol** 1998 Nov;29(5):779-88

Percutaneous ethanol is applicable only to small lesions [letter; comment] Carrillo N. **J Ultrasound Med** 1999 Apr; 18(4):314. Comment on: J Ultrasound Med 1998 Aug;17(8):531-3.

Evaluation of lidocaine as an analgesic when added to hypertonic saline for sclerotherapy. Bukhari RH, et al. **J Vasc Surg** 1999 Mar;29(3):479-83

Band ligation vs endoscopic sclerotherapy in esophageal varices: a prospective randomized comparison [see comments] Shafqat F, et al. **JPMA J Pak Med Assoc** 1998 Jul;48(7):192-6. Comment in: JPMA J Pak Med Assoc 1998 Jul;48(7):188-9.

Effect of mesocaval interposition shunting and repeated sclerotherapy on blood levels of gastrointestinal regulatory peptides, amino acids, and lysosomal enzymes--a prospective randomised trial. Isaksson B, et al. **Liver** 1999 Feb;19(1):3-11

SCLEROTHERAPY

The role of sclerotherapy in abnormal varicose hand veins. Duffy DM, et al. **Plast Reconstr Surg** 1999 Oct; 104(5):1474–9; discussion 1480–1

Short- and long-term results of endoscopic variceal ligation for esophageal varices compared with injection sclerotherapy. Murata I, et al. **Sangyo Ika Daigaku Zasshi** 1999 Jun 1;21(2):119–31

Bronchoscopic sclerotherapy combined with thoracoscopic drainage for postpneumonectomy bronchial fistula and empyema. Urschel JD, et al. **Surg Endosc** 1999 Sep; 13(9):932–4

Use of talcum in sclerotherapy of pelvic lymphoceles. Teiche PE, et al. **Tech Urol** 1999 Mar;5(1):52–3

Preliminary results of percutaneous treatment of renal cysts with povidone-iodine sclerosis. Phelan M, et al. **Urology** 1999 Apr;53(4):816–7

[Study on intravascular pressure change during sclerotherapy for cavernous hemangiomas (CHs)] Ouyang T, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 May;13(3):171–4 (Eng. Abstr.) **(Chi)**

[Malignant or non-malignant pericarditis? (letter; comment)] Schot BW, et al. **Ned Tijdschr Geneeskd** 1999 Mar 20; 143(12):643. Comment on: Ned Tijdschr Geneeskd 1998 Oct 17;142(42):2281–8. **(Dut)**

[Sclerosing in multiple familial glomangiomas] Vente C, et al. **Hautarzt** 1998 Aug;49(8):657–61 (Eng. Abstr.) **(Ger)**

[Choice of hemorrhoids treatment] Vorob'ev GI, et al. **Khirurgiia (Mosk)** 1999;(8):50–5 (43 ref.) **(Rus)**

[Compressive sclerotherapy monitored by ultrasound] Labaš P, et al. **Rozhl Chir** 1998 Sep;77(9):414–6 (Eng. Abstr.) **(Slo)**

[Esophago-pleural fistula complicating variceal sclerotherapy (letter)] Jover R, et al. **Rev Esp Enferm Dig** 1999 Jan;91(1):78–9 **(Spa)**

[Therapeutic endoscopy in portal hypertension. When, how and how far in 1998] Ballesteros Amozurrutia MA. **Rev Gastroenterol Mex** 1998 Oct-Dec;63(4 Suppl 1):S7–20 (77 ref.) (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Klebsiella pneumoniae panophthalmitis: a possible complication of endoscopic variceal injection sclerotherapy. Hung HC, et al. **Am J Gastroenterol** 1998 Dec;93(12):2603–4

Life-threatening retroperitoneal sepsis after hemorrhoid injection sclerotherapy: report of a case. Barwell J, et al. **Dis Colon Rectum** 1999 Mar;42(3):421–3

Necrotizing fascitis after injection sclerotherapy for hemorrhoids: report of a case. Kaman L, et al. **Dis Colon Rectum** 1999 Mar;42(3):419–20

Embolia cutis medicamentosa of the foot after sclerotherapy. Geukens J, et al. **Eur J Dermatol** 1999 Mar;9(2):132–3

Do alterations in the rate of gastric emptying after injection sclerotherapy for oesophageal varices play any role in the development of portal hypertensive gastropathy? Balan KK, et al. **HPB Surg** 1999;11(3):141–8; discussion 148–50

Effect of sucralfate granules in suspension on endoscopic variceal sclerotherapy induced ulcer: analysis of the factors determining ulcer healing. Yang WG, et al. **J Gastroenterol Hepatol** 1998 Feb;13(2):225–31

Sequential variceal pressure measurement by endoscopic needle puncture during maintenance sclerotherapy: the correlation between variceal pressure and variceal rebleeding [see comments] Hou MC, et al. **J Hepatol** 1998 Nov;29(5):772–8. Comment in: J Hepatol 1998 Nov;29(5):829–31.

A complication of sclerotherapy [letter] Magee RH. **Med J Aust** 1999 Aug 2;171(3):166

[Pleural empyema: an infrequent complication of endoscopic sclerotherapy (letter)] Domínguez M, et al. **Enferm Infecc Microbiol Clin** 1999 Jun-Jul;17(6):315–6 **(Spa)**

ECONOMICS

The economic impact of esophageal variceal hemorrhage: cost-effectiveness implications of endoscopic therapy. Gralnek IM, et al. **Hepatology** 1999 Jan;29(1):44–50

Cost analysis for the prevention of variceal rebleeding: a comparison between transjugular intrahepatic portosystemic shunt and endoscopic sclerotherapy in a selected group of Italian cirrhotic patients. Meddi P, et al. **Hepatology** 1999 Apr;29(4):1074–7

INSTRUMENTATION

Aspiration sclerotherapy: a simple endoscopic modification for sclerotherapy of esophageal varices. Akcan Y, et al. **Endoscopy** 1998 Jun;30(5):S57–8

Duodenal variceal bleeding treated with a combination of endoscopic ligation and sclerotherapy. Omata F, et al. **Endoscopy** 1998 Jun;30(5):S62–3

METHODS

Combined sonographic and fluoroscopic guidance: a modified technique for percutaneous sclerosis of low-flow vascular malformations. Donnelly LF, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):655–7

Balloon-occluded retrograde transvenous obliteration of high risk gastric fundal varices. Matsumoto A, et al. **Am J Gastroenterol** 1999 Mar;94(3):643–9

Scleroembolization techniques in the treatment of varicocele. Belgrano E, et al. **Ann Urol (Paris)** 1999;33(3):203–9

Pathophysiology and treatment of anterior rectal mucosal prolapse syndrome. Tsiaoussis J, et al. **Br J Surg** 1998 Dec; 85(12):1699–702

Povidone iodine used as a sclerosing agent in the treatment of chyluria. Shanmugam TV, et al. **Br J Urol** 1998 Oct; 82(4):587

Talc sclerotherapy for hydroceles. Yilmaz U, et al. **Br J Urol** 1998 Sep;82(3):440–1

Treatment of malignant pleural effusions. Erasmus JJ, et al. **Curr Opin Pulm Med** 1999 Jul;5(4):250–5 (55 ref.)

Changes of urinary enzyme activity after endoscopic treatment of vesico-ureteric reflux. Rákóczy G, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):244–6

Treatment of bleeding oesophageal varices with endoscopic sclerotherapy--first results. Gugushev M, et al. **Folia Med (Plovdiv)** 1998;40(3B Suppl 3):58–60

Balloon endoscopic sclerotherapy, a novel treatment for high-risk gastric fundal varices: a pilot study [letter] Matsumoto A, et al. **Gastroenterology** 1999 Aug; 117(2):515–6

Comparison of endoscopic variceal sclerotherapy with sequential endoscopic band ligation plus low-dose sclerotherapy for secondary prophylaxis of variceal hemorrhage: a prospective randomized study. Garg PK, et al. **Gastrointest Endosc** 1999 Sep;50(3):369–73

Treatment of gastric fundal varices by balloon endoscopic sclerotherapy. Hamamoto N, et al. **Gastrointest Endosc** 1999 Jan;49(1):115–8

Endoscopic clipping of duodenal Dieulafoy's lesions: alone or combined? [letter; comment] Hokama A, et al. **Gastrointest Endosc** 1998 Sep;48(3):336–7. Comment on: Gastrointest Endosc 1997 Dec;46(6):574–5.

Large paraesophageal varices on endosonography predict recurrence of esophageal varices and rebleeding. Perisic VN. **Gastrointest Endosc** 1999 Jun;49(6):812

Endoscopic ligation plus sclerotherapy: two plus two make only three! [editorial; comment] Sarin SK, et al. **Gastrointest Endosc** 1999 Jul;50(1):129–33 (30 ref.). Comment on: Gastrointest Endosc 1999 Jul;50(1):1–6. Comment on: Gastrointest Endosc 1999 Jul;50(1):7–12.

Randomized trial of ligation versus combined ligation and sclerotherapy for bleeding esophageal varices [see comment] Al Traif I, et al. **Gastrointest Endosc** 1999 Jul; 50(1):1–6. Comment on: Gastrointest Endosc 1999 Jul;50(1):129–33.

Sclerotherapy plus ligation versus ligation for the treatment of esophageal varices: a prospective randomized study [see comments] Umehara M, et al. **Gastrointest Endosc** 1999 Jul;50(1):7–12. Comment in: Gastrointest Endosc 1999 Jul;50(1):129–33.

MR imaging in the evaluation of the therapeutic effect of B-RTO for gastric varices. Kin H, et al. **Hepatogastroenterology** 1998 May-Jun;45(21):677–83

Injection sclerotherapy for gastric varices using N-butyl-2-cyanoacrylate and ethanolamine oleate. Miyazaki S, et al. **Hepatogastroenterology** 1998 Jul-Aug; 45(22):1155–8

Band ligation or sclerotherapy as endoscopic treatment for oesophageal varices in schistosomotic patients: results of a randomized study. Siqueira ES, et al. **HPB Surg** 1998; 11(1):27–32

Evaluation of endoscopic injection sclerotherapy with and without simultaneous ligation for the treatment of esophageal varices [see comments] Nishikawa Y, et al. **J Gastroenterol** 1999 Apr;34(2):159–62. Comment in: J Gastroenterol 1999 Apr;34(2):286–7.

Is stab with stranglation the fastest way to kill esophageal varices? [editorial; comment] Toyonaga A, et al. **J Gastroenterol** 1999 Apr;34(2):286–7. Comment on: J Gastroenterol 1999 Apr;34(2):159–62.

Transvenous retrograde nidus sclerotherapy under controlled hypotension (TRENSH): a newly proposed treatment for brain arteriovenous malformations--concepts and rationale. Massoud TF, et al. **Neurosurgery** 1999 Aug;45(2):351–63; discussion 363–5 (82 ref.)

Retrograde transvenous obliteration of gastric varices. Hirota S, et al. **Radiology** 1999 May;211(2):349–56

Low-flow vascular malformations in the head and neck: safety and feasibility of MR imaging-guided percutaneous sclerotherapy--preliminary experience with 14 procedures in three patients. Lewin JS, et al. **Radiology** 1999 May; 211(2):566–70

Laparoscopic fenestration in combination with ethanol sclerotherapy prevents a recurrence of symptomatic giant liver cyst. Tanaka S, et al. **Surg Laparosc Endosc** 1998 Dec; 8(6):453–6

[Efficiency of endoscopic therapy of varices. The significance of paraesophageal varices and perforating veins] Hansen EF, et al. **Ugeskr Laeger** 1999 Feb 22;161(8):1125–6 **(Dan)**

[Antegrade scrotal embolization of varicocele: results] Frangi I, et al. **Acta Urol Belg** 1998 Dec;66(4):5–8 (Eng. Abstr.) **(Fre)**

[Sclerosis in varicose veins] Perilli G, et al. **G Chir** 1998 Oct; 19(10):408–9 (Eng. Abstr.) **(Ita)**

[Endoscopic hemostasis for esophagogastric bleeding: technical assessment and recent advances] Murashima N. **Nippon Rinsho** 1998 Sep;56(9):2276–80 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Diagnosis and treatment of bleeding esophago-gastric varices] Oho K, et al. **Nippon Rinsho** 1998 Sep; 56(9):2325–30 (11 ref.) (Eng. Abstr.) **(Jpn)**

[Sclerotherapy of single non-parasitic liver cyst] Wysocki A, et al. **Wiad Lek** 1998;51(11-12):513–7 (Eng. Abstr.) **(Pol)**

[Endoscopic sclerosing as an alternative method of treatment of the portal hypertension syndrome in children] Palkina IS, et al. **Klin Khir** 1999;(5):14–5 (Eng. Abstr.) **(Ukr)**

SCLEROTINIA see **ASCOMYCOTA**

SCOLIOSIS

Infantile and juvenile scoliosis. Dobbs MB, et al. **Orthop Clin North Am** 1999 Jul;30(3):331–41, vii (63 ref.)

Adolescent idiopathic scoliosis. Roach JW. **Orthop Clin North Am** 1999 Jul;30(3):353–65, vii–viii (44 ref.)

Labor analgesia with paravertebral lumbar sympathetic block. Suelto MD, et al. **Reg Anesth Pain Med** 1999 Mar-Apr;24(2):179–81

[28th Annual meeting of the Scoliosis Society of Quebec. Sainte-Foy, Quebec, Canada. 24-25 April 1998. Abstracts] **Ann Chir** 1998;52(8):861–71 **(Fre)**

[Meeting theme: Vertebrae deformations. Idiopathic scoliosis] **Bull Acad Natl Med** 1999;183(4):697–783 **(Fre)**

BLOOD

Fibrinogen, fibrin and its degradation products in drained blood after major orthopaedic surgery. Krohn CD, et al. **Blood Coagul Fibrinolysis** 1999 Jun;10(4):167–71

CLASSIFICATION

A concept of idiopathic scoliosis deformities as imperfect torsion(s). Asher MA, et al. **Clin Orthop** 1999 Jul; (364):11–25 (50 ref.)

The value of the system of King et al. for the classification of idiopathic thoracic scoliosis [letter; comment] Price CT. **J Bone Joint Surg Am** 1999 May;81(5):743–4. Comment on: J Bone Joint Surg Am 1998 Aug;80(8):1097–106. Comment on: J Bone Joint Surg Am 1998 Aug;80(8):1107–11.

[Classification of left thoracolumbar scoliosis according to its radiologic morphology and its postural geometry] Nguyen VH, et al. **Ann Chir** 1998;52(8):752–60 (Eng. Abstr.) **(Fre)**

[Classification of the adolescent idiopathic scoliosis and preoperative strategy] Nowakowski A, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):319–25 (Eng. Abstr.) **(Pol)**

COMPLICATIONS

Cor pulmonale presenting in a patient with congenital kyphoscoliosis following intercontinental air travel. Noble JS, et al. **Anaesthesia** 1999 Apr;54(4):361–3

Compression of the esophagus by the spine and the aorta in untreated scoliosis. Bar-On E, et al. **Arch Orthop Trauma Surg** 1998;117(6-7):405–7

Kyphoscoliosis preventing gallbladder assessment. Gandhi SM, et al. **Clin Nucl Med** 1998 Jul;23(7):466–7

Slipped capital femoral epiphysis, Perthes' disease and scoliosis in children with growth hormone deficiency. Nishi Y, et al. **Endocr J** 1998 Apr;45 Suppl:S167–9

Autonomic dysfunction in patients with nocturnal hypoventilation in extrapulmonary restrictive disease. Watson JP, et al. **Eur Respir J** 1999 May;13(5):1097–102

Familial congenital horizontal gaze paralysis and kyphoscoliosis. Steffen H, et al. **Neuropediatrics** 1998 Aug; 29(4):220–2

Intramedullary spinal teratoma and diastematomyelia. Case report and review of the literature. Hader WJ, et al. **Pediatr Neurosurg** 1999 Mar;30(3):140–5 (19 ref.)

A 16-year-old male with Noonan's syndrome develops progressive scoliosis and deteriorating gait. Sanford RA, et al. **Pediatr Neurosurg** 1999 Jan;30(1):47–52

Anterior endoscopic approach to the thoracolumbar spine. Burgos J, et al. **Spine** 1998 Nov 15;23(22):2427–31

Persistent osteopenia in adolescent idiopathic scoliosis. A longitudinal follow up study. Cheng JC, et al. **Spine** 1999 Jun 15;24(12):1218–22

[Respiratory problems in severe scoliosis] Barois A. **Bull Acad Natl Med** 1999;183(4):721–30 (21 ref.) (Eng. Abstr.) **(Fre)**

[Pain as an important symptom in trauma, diseases and movement disorders] Rąpała K. **Pol Merkuriusz Lek** 1998 Oct;5(28):238–9 (Eng. Abstr.) **(Pol)**

CONGENITAL

Simultaneous anterior and posterior hemivertebra excision. Lazar RD, et al. **Clin Orthop** 1999 Jul;(364):76–84

Familial synspondylism: progressive scoliosis and multiple hernias in a kinship. Mullins DA, et al. **J Pediatr Orthop** 1998 Sep-Oct;18(5):606–10

Jarcho-Levin syndrome: report on a long-term follow-up of an untreated patient. Hayek S, et al. **J Pediatr Orthop B** 1999 Apr;8(2):150–3

Congenital scoliosis with posterior spinal arthrodesis T2-L3 at age 3 years with 41-year follow-up. A case report. Winter RB, et al. **Spine** 1999 Jan 15;24(2):194–7

DIAGNOSIS

Larsen's syndrome--a case report. Priyadarshi H, et al. **J Indian Med Assoc** 1998 Jun;96(6):188–9

Neuroimaging of scoliosis in childhood. Kim FM, et al. **Neuroimaging Clin N Am** 1999 Feb;9(1):195–221 (118 ref.)

MRI evaluation of multifidus muscles in adolescent idiopathic scoliosis. Chan YL, et al. **Pediatr Radiol** 1999 May; 29(5):360–3

Determination of the object surface function by structured light: application to the study of spinal deformities. Buendia M, et al. **Phys Med Biol** 1999 Jan;44(1):75–86

Correlation between curve severity, somatosensory evoked potentials, and magnetic resonance imaging in adolescent idiopathic scoliosis. Cheng JC, et al. **Spine** 1999 Aug 15; 24(16):1679–84

Scoliometer is useful instrument with high reliability and repeatability [letter; comment] Korovessis PG. **Spine** 1999 Feb 1;24(3):307–8. Comment on: Spine 1998 Apr 1;23(7):796–802; discussion 803.

Observations made during school screening for scoliosis in Greece [letter; comment] Korovessis PG. **Spine** 1998 Sep 1;23(17):1924. Comment on: Spine 1997 Sep 1;22(17):1985–9.

[Morphometric dual-energy roentgen absorptiometry in follow-up of scoliosis] Hutzelmann A, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):380–2 (Eng. Abstr.) **(Ger)**

[Screening for adolescent idiopathic scoliosis: is current knowledge sufficient to support its use?] Redondo Granado MJ, et al. **An Esp Pediatr** 1999 Feb;50(2):129–33 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

[Scoliosis in patients with osteogenesis imperfecta: a federal nation-wide cross-sectional study] Karbowski A, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun;137(3):219–22 (Eng. Abstr.) **(Ger)**

[Idiopathic scoliosis: epidemiology and etiology] Nowakowski A, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(4):317–20 (14 ref.) (Eng. Abstr.) **(Pol)**

ETIOLOGY

Hip abductor contracture as a biomechanical factor in the development of the so-called "idiopathic scoliosis". Explanation of the etiology. Karski T. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:87–94

Rapidly progredient scoliosis associated with multicore disease. Pellengahr C, et al. **Arch Orthop Trauma Surg** 1998; 117(6–7):411–4

Postural changes with aging in tetraplegia: effects on life satisfaction and pain. Boninger ML, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1577–81

Curve patterns and etiologies of scoliosis: analysis in a university hospital clinic in Taiwan. Chiu YL, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec;21(4):421–8

Etiology of idiopathic scoliosis. Computational study. Azegami H, et al. **Clin Orthop** 1998 Dec;(357):229–36

Spinal fusion in patients with congenital heart disease. Predictors of outcome. Coran DL, et al. **Clin Orthop** 1999 Jul;(364):99–107

S rod fixation to the sacrum in patients with neuromuscular spinal deformities. McCarthy RE, et al. **Clin Orthop** 1999 Jul;(364):26–31

Short posterior fusion for patients with thoracolumbar idiopathic scoliosis. Monney G, et al. **Clin Orthop** 1999 Jul;(364):32–9

Anterior only fusion for scoliosis in patients with myelomeningocele. Sponseller PD, et al. **Clin Orthop** 1999 Jul;(364):117–24

Preoperative evaluation of activity and function in patients with paralytic scoliosis. Larsson EL, et al. **Eur Spine J** 1998;7(4):294–301

The treatment of neuromuscular scoliosis. Banta JV, et al. **Instr Course Lect** 1999;48:551–62 (84 ref.)

Orthopedic problems in Lesch-Nyhan syndrome. Sponseller PD, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):596–602

A genomic approach to scoliosis pathogenesis. Blank RD, et al. **Lupus** 1999;8(5):356–60 (21 ref.)

The spinal manifestations of Stickler's syndrome. Letts M, et al. **Spine** 1999 Jun 15;24(12):1260–4

The production of scoliosis after pinealectomy in young chickens, rats, and hamsters. O'Kelly C, et al. **Spine** 1999 Jan 1;24(1):35–43

Changes in serum melatonin levels in response to pinealectomy in the chicken and its correlation with development of scoliosis. Wang X, et al. **Spine** 1998 Nov 15;23(22):2377–81; discussion 2382

Scoliosis secondary to cerebrocosto-mandibular syndrome. A case report with surgical management. Winter RB, et al. **Spine** 1999 May 1;24(9):908–11

[Idiopathic scoliosis. Definition--pathology--classification--etiology] Dubousset J. **Bull Acad Natl Med** 1999;183(4):699–704 (Eng. Abstr.) **(Fre)**

[Neuromuscular scoliosis] Carstens C. **Orthopade** 1999 Jul; 28(7):622–33 (2 ref.) **(Ger)**

[Idiopathic scoliosis: epidemiology and etiology] Nowakowski A, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(4):317–20 (14 ref.) (Eng. Abstr.) **(Pol)**

[The etiology and pathogenesis of Sprengel's disease] Skopichenko DN. **Klin Khir** 1999;(6):29–31 (Eng. Abstr.) **(Rus)**

GENETICS

Familial cervical dystonia, head tremor, and scoliosis: a case report. Duane DD. **Adv Neurol** 1998;78:117–20

Synteny-defined candidate genes for congenital and idiopathic scoliosis. Giampietro PF, et al. **Am J Med Genet** 1999 Mar 19;83(3):164–77

Tsukahara syndrome of radioulnar synostosis, short stature, microcephaly, scoliosis, and mental retardation [letter; comment] Udler Y, et al. **Am J Med Genet** 1998 Dec 28; 80(5):526–8. Comment on: Am J Med Genet 1995 Aug 28;58(2):159–60.

A STS content physical and transcription map across the ky, kyphoscoliosis, nonrecombinant region. Blanco G, et al. **Genomics** 1998 Dec 15;54(3):415–23

Familial synspondylism: progressive scoliosis and multiple hernias in a kinship. Mullins DA, et al. **J Pediatr Orthop** 1998 Sep–Oct;18(5):606–10

Radiographic, histologic, and cytologic lesions associated with mutations in the fitness1(4226SB) locus of mice. Schultze AE, et al. **Lab Anim Sci** 1999 Jun;49(3):260–8

[Spondylocostal dysplasia in Jarcho-Levin syndrome (letter)] Bouskraoui M, et al. **Arch Pediatr** 1998 Aug;5(8):929–30 **(Fre)**

HISTORY

The health and illness of the artists: Giacomo Leopardi's scoliosis. Campanacci M. **Chir Organi Mov** 1998 Oct–Dec; 83(4):441–6 **(Eng, Ita)**

Treatment of lateral curvature by means of pressure correction. 1893 [classical articles] Bradford EH, et al. **Clin Orthop** 1999 Jul;(364):4–10; discussion 2–3

[Historic look at the treatments for scoliosis] Rauschmann M. **Z Orthop Ihre Grenzgeb** 1999 Jan–Feb;137(1):Oa16–7 **(Ger)**

METABOLISM

Variation with age in the pattern of type X collagen expression in normal and scoliotic human intervertebral discs. Aigner T, et al. **Calcif Tissue Int** 1998 Sep;63(3):263–8

Changes in collagen cross-linking in degenerative disc disease and scoliosis. Duance VC, et al. **Spine** 1998 Dec 1; 23(23):2545–51

PATHOLOGY

A comparison of the innervation characteristics of the lateral spinal ligaments between normal subjects and patients with adolescent idiopathic scoliosis. Jiang H, et al. **Acta Anat (Basel)** 1997;160(3):200–7

Paraspinal muscle fibre type alterations associated with scoliosis: an old problem revisited with new evidence. Mannion AF, et al. **Eur Spine J** 1998;7(4):289–93

Paravertebral muscles in experimental scoliosis: a light and electron microscopic study. Garrosa M, et al. **Histol Histopathol** 1998 Oct;13(4):927–37

[Stereovideographic evaluation of the postural geometry of healthy and scoliotic patients] De la Huerta F, et al. **Ann Chir** 1998;52(8):776–83 (Eng. Abstr.) **(Fre)**

[Morphometric characteristics of the scoliotic spine] Landry C, et al. **Ann Chir** 1998;52(8):784–90 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Progressive scoliosis in early, non-progressive CNS injuries: role of axial muscles. DeToledo JC, et al. **Brain Inj** 1999 Jan;13(1):39–43

The immediate effect of a Boston brace on lung volumes and pulmonary compliance in mild adolescent idiopathic scoliosis. Katsaris G, et al. **Eur Spine J** 1999;8(1):2–7

Preoperative evaluation of activity and function in patients with paralytic scoliosis. Larsson EL, et al. **Eur Spine J** 1998;7(4):294–301

Activities and functional assessment 1 year after spinal fusion for paralytic scoliosis. Larsson EL, et al. **Eur Spine J** 1999; 8(2):100–9

Long-term three-dimensional changes of the spine after posterior spinal instrumentation and fusion in adolescent idiopathic scoliosis. Papin P, et al. **Eur Spine J** 1999; 8(1):16–21

Assessment of curve progression in idiopathic scoliosis. Soucacos PN, et al. **Eur Spine J** 1998;7(4):270–7

Estimation of the lumbar curve magnitude with correction of the right thoracic curve in idiopathic scoliosis. Mason DE, et al. **J Pediatr Orthop** 1998 Sep–Oct;18(5):602–5

Mechanical modulation of calf tail vertebral growth: implications for scoliosis progression. Aronsson DD, et al. **J Spinal Disord** 1999 Apr;12(2):141–6

Asymmetry of paraspinal EMG-time characteristics in idiopathic scoliosis. Avikainen VJ, et al. **J Spinal Disord** 1999 Feb;12(1):61–7

Cause and natural history of adolescent idiopathic scoliosis. Miller NH. **Orthop Clin North Am** 1999 Jul;30(3):343–52, vii (134 ref.)

Anaesthetic implications of rigid spine syndrome. Jorgensen BG, et al. **Paediatr Anaesth** 1999;9(4):352–5

The effect of aerobic training in girls with idiopathic scoliosis. Athanasopoulos S, et al. **Scand J Med Sci Sports** 1999 Feb; 9(1):36–40

Correlation between curve severity, somatosensory evoked potentials, and magnetic resonance imaging in adolescent idiopathic scoliosis. Cheng JC, et al. **Spine** 1999 Aug 15; 24(16):1679–84

Left thoracic curve patterns and their association with disease. Goldberg CJ, et al. **Spine** 1999 Jun 15; 24(12):1228–33

The spinal curve in standing and sitting postures in children with idiopathic scoliosis [see comments] Gram MC, et al. **Spine** 1999 Jan 15;24(2):169–77. Comment in: Spine 1999 Jan 15;24(2):200–1.

Kinematics of the chest cage and spine during breathing in healthy individuals and in patients with adolescent idiopathic scoliosis. Leong JC, et al. **Spine** 1999 Jul 1; 24(13):1310–5

Spinal growth and a histologic evaluation of the Risser grade in idiopathic scoliosis. Noordeen MH, et al. **Spine** 1999 Mar 15;24(6):535–8

Measured external curves and surface electromyograms in patients with mild untreated scoliosis [letter; comment] Swank SM. **Spine** 1999 Jan 15;24(2):200–1. Comment on: Spine 1999 Jan 15;24(2):169–77.

[Natural history of scoliosis from childhood to old age] Guillaumat M. **Bull Acad Natl Med** 1999;183(4):705–18; discussion 718–9 (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

The effects of melatonin therapy on the development of scoliosis after pinealectomy in the chicken. Bagnall K, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):191–9

Pediatric syringomyelia with chiari malformation: its clinical characteristics and surgical outcomes. Hida K, et al. **Surg Neurol** 1999 Apr;51(4):383–90; discussion 390–1

PSYCHOLOGY

Patients' perceptions of overall function, pain, and appearance after primary posterior instrumentation and fusion for idiopathic scoliosis. White SF, et al. **Spine** 1999 Aug 15;24(16):1693–9; discussion 1699–700

RADIOGRAPHY

Curve patterns and etiologies of scoliosis: analysis in a university hospital clinic in Taiwan. Chiu YL, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec;21(4):421–8

Volumetric determination of normal and scoliotic vertebral bodies. Diab KM, et al. **Eur Spine J** 1998;7(4):282–8

Radiation protection of the ovaries in young scoliosis patients. Palmer SH, et al. **Eur Spine J** 1998;7(4):278–81

A biomechanical analysis of the vertebral and rib deformities in structural scoliosis. Wever DJ, et al. **Eur Spine J** 1999; 8(4):252–60

Normalization of the coronal and sagittal profile in idiopathic scoliosis: options of treatment. Bridwell KH. **J Orthop Sci** 1998;3(2):125–34 (16 ref.)

Jarcho-Levin syndrome: report on a long-term follow-up of an untreated patient. Hayek S, et al. **J Pediatr Orthop B** 1999 Apr;8(2):150–3

Estimation of 3D location and orientation of human vertebral facet joints from standing digital radiographs. Petit Y, et al. **Med Biol Eng Comput** 1998 Jul;36(4):389–94

Ischio-vertebral dysplasia: a distinct entity. Cohen PA, et al. **Pediatr Radiol** 1999 Feb;29(2):131–4

Ischio-spinal dysostosis: a previously unrecognised combination of malformations. Nishimura G, et al. **Pediatr Radiol** 1999 Mar;29(3):212–7

Scoliosis circa 2000: radiologic imaging perspective. I. Diagnosis and pretreatment evaluation. Oestreich AE, et al. **Skeletal Radiol** 1998 Nov;27(11):591–605 (75 ref.)

Spontaneous lumbar curve coronal correction after selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Lenke LG, et al. **Spine** 1999 Aug 15; 24(16):1663–71; discussion 1672

Coronal and sagittal balance in surgically treated adolescent idiopathic scoliosis with the King II curve pattern. A review of 67 consecutive cases having selective thoracic arthrodesis. McCance SE, et al. **Spine** 1998 Oct 1; 23(19):2063–73

Maintaining lumbar lordosis with anterior single solid-rod instrumentation in thoracolumbar and lumbar adolescent idiopathic scoliosis. Sweet FA, et al. **Spine** 1999 Aug 15; 24(16):1655–62

[Customized 3D radiographic reconstruction of the human pelvis] Gauvin C, et al. **Ann Chir** 1998;52(8):744–51 (Eng. Abstr.) **(Fre)**

[Reference values for development of the iliac crest apophysis (Risser sign)] Diedrichs V, et al. **Z Orthop Ihre Grenzgeb** 1998 May–Jun;136(3):226–9 (Eng. Abstr.) **(Ger)**

REHABILITATION

Cognitive strategies and self-esteem as predictors of brace-wear noncompliance in patients with idiopathic scoliosis and kyphosis. Lindeman M, et al. **J Pediatr Orthop** 1999 Jul–Aug;19(4):493–9

Effect of a Soft Boston Orthosis on pulmonary mechanics in severe cerebral palsy. Leopando MT, et al. **Pediatr Pulmonol** 1999 Jul;28(1):53–8

The effect of aerobic training in girls with idiopathic scoliosis. Athanasopoulos S, et al. **Scand J Med Sci Sports** 1999 Feb; 9(1):36–40

[Primary correction of scoliosis with the Wilmington corset] Weber M, et al. **Z Orthop Ihre Grenzgeb** 1999 Mar–Apr;

137(2):173–80 (Eng. Abstr.) **(Ger)**
[The efficacy of the physical rehabilitation of patients with spinal osteochondrosis and scoliosis] Rukhadze MM. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug;(4):46–8 **(Rus)**

SURGERY

Modified transcranial electromagnetic motor evoked potential obtained with train-of-four monitor for scoliosis surgery. Lin BC, et al. **Acta Anaesthesiol Sin** 1998 Dec; 36(4):199–206

Long-term results in patients treated with posterior instrumentation and fusion for degenerative scoliosis of the lumbar spine. Zurbriggen C, et al. **Acta Neurochir (Wien)** 1999;141(1):21–6

Superior mesenteric artery syndrome after segmental instrumentation: a biomechanical analysis. Vitale MG, et al. **Am J Orthop** 1999 Aug;28(8):461–7 (27 ref.)

A case of ventricular fibrillation in the prone position during back stabilisation surgery in a boy with Duchenne's muscular dystrophy. Reid JM, et al. **Anaesthesia** 1999 Apr; 54(4):364–7

Epidural analgesia for pain relief after scoliosis surgery in a patient with Rett's syndrome. Konen AA, et al. **Anesth Analg** 1999 Aug;89(2):451–2

Fibrinogen, fibrin and its degradation products in drained blood after major orthopaedic surgery. Krohn CD, et al. **Blood Coagul Fibrinolysis** 1999 Jun;10(4):167–71

Complement activation and increased systemic and pulmonary vascular resistance indices during infusion of postoperatively drained untreated blood. Krohn CD, et al. **Br J Anaesth** 1999 Jan;82(1):47–51

Transoesophageal echocardiography during scoliosis repair: comparison with CVP monitoring [see comments] Soliman DE, et al. **Can J Anaesth** 1998 Oct;45(10):925–32. Comment in: Can J Anaesth 1998 Oct;45(10):919–24.

Spatial facilitation of motor evoked responses in monitoring during spinal surgery. Andersson G, et al. **Clin Neurophysiol** 1999 Apr;110(4):720–4

A concept of idiopathic scoliosis deformities as imperfect torsion(s). Asher MA, et al. **Clin Orthop** 1999 Jul; (364):11–25 (50 ref.)

Spinal fusion in patients with congenital heart disease. Predictors of outcome. Coran DL, et al. **Clin Orthop** 1999 Jul;(364):99–107

Extension to the sacrum of previous adolescent scoliosis fusions in adult life. Kostuik JP, et al. **Clin Orthop** 1999 Jul;(364):53–60

Simultaneous anterior and posterior hemivertebra excision. Lazar RD, et al. **Clin Orthop** 1999 Jul;(364):76–84

S rod fixation to the sacrum in patients with neuromuscular spinal deformities. McCarthy RE, et al. **Clin Orthop** 1999 Jul;(364):26–31

Short posterior fusion for patients with thoracolumbar idiopathic scoliosis. Monney G, et al. **Clin Orthop** 1999 Jul;(364):32–9

Anterior only fusion for scoliosis in patients with myelomeningocele. Sponseller PD, et al. **Clin Orthop** 1999 Jul;(364):117–24

Lumbosacral fusion in children and adolescents using the modified sacral bar technique. Widmann RF, et al. **Clin Orthop** 1999 Jul;(364):85–91

Surgical treatment of scoliosis associated with myelomeningocele. Stella G, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:22–5

Adolescent idiopathic thoracic scoliosis: apical correction with specialized pedicle hooks. Arlet V, et al. **Eur Spine J** 1999;8(4):266–71

The 'MW' sacropelvic construct: an enhanced fixation of the lumbosacral junction in neuromuscular pelvic obliquity. Arlet V, et al. **Eur Spine J** 1999;8(3):229–31

Cotrel-Dubousset instrumentation for the treatment of severe scoliosis. De Giorgi G, et al. **Eur Spine J** 1999;8(1):8–15

Complications of scoliosis surgery in children with myelomeningocele. Geiger F, et al. **Eur Spine J** 1999; 8(1):22–6

Halm-Zielke instrumentation for primary stable anterior scoliosis surgery: operative technique and 2-year results in ten consecutive adolescent idiopathic scoliosis patients within a prospective clinical trial. Halm HF, et al. **Eur Spine J** 1998;7(5):429–34

Activities and functional assessment 1 year after spinal fusion for paralytic scoliosis. Larsson EL, et al. **Eur Spine J** 1999; 8(2):100–9

Dorsal instrumentation for idiopathic adolescent thoracic scoliosis: rod rotation versus translation. Muschik M, et al. **Eur Spine J** 1999;8(2):93–9

Unusual presentation of spinal cord compression related to misplaced pedicle screws in thoracic scoliosis. Papin P, et al. **Eur Spine J** 1999;8(2):156–9; discussion 160

Long-term three-dimensional changes of the spine after posterior spinal instrumentation and fusion in adolescent idiopathic scoliosis. Papin P, et al. **Eur Spine J** 1999; 8(1):16–21

A physiological approach to surgical treatment of progressive early idiopathic scoliosis. Xiong B, et al. **Eur Spine J** 1998; 7(6):505–8

A new approach to scoliosis. Yazar T, et al. **Eur Spine J** 1999;8(2):86–92

The treatment of neuromuscular scoliosis. Banta JV, et al. **Instr Course Lect** 1999;48:551–62 (84 ref.)

Psychological evaluations of patients operated for idiopathic scoliosis by the Harrington method. Orvomaa E. **Int J Rehabil Res** 1998 Jun;21(2):169–78

The ankle clonus test for assessment of the integrity of the spinal cord during operations for scoliosis [letter; comment] Ewen A, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):1044 . Comment on: J Bone Joint Surg Am 1997 Feb;79(2):208–12.

Fracture-dislocation of the lumbar spine after arthrodesis with instrumentation for idiopathic scoliosis. Neyt JG, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):111–4

Dysfunction of the spinal cord during spinal arthrodesis for scoliosis: recommendations for early detection and treatment. A case report. Potenza V, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1679–83

Normalization of the coronal and sagittal profile in idiopathic scoliosis: options of treatment. Bridwell KH. **J Orthop Sci** 1998;3(2):125–34 (16 ref.)

New remote-controlled growing-rod spinal instrumentation possibly applicable for scoliosis in young children. Takaso M, et al. **J Orthop Sci** 1998;3(6):336–40

Modification of Cotrel-Dubousset's original hook constructs for idiopathic scoliosis. Grossman BS, et al. **J Pediatr Orthop** 1999 Jul–Aug;19(4):500–3

Estimation of the lumbar curve magnitude with correction of the right thoracic curve in idiopathic scoliosis. Mason DE, et al. **J Pediatr Orthop** 1998 Sep–Oct;18(5):602–5

Wound infection after spinal fusion in children with cerebral palsy. Szöke G, et al. **J Pediatr Orthop** 1998 Nov–Dec; 18(6):727–33

The effectiveness of preoperative erythropoietin in averting allogenic blood transfusion among children undergoing scoliosis surgery. Vitale MG, et al. **J Pediatr Orthop B** 1998 Jul;7(3):203–9

Minimally invasive anterior spinal exposure and release in children with scoliosis. Kokoska ER, et al. **J Soc Laparoendosc Surg** 1998 Jul–Sep;2(3):255–8

The effects of perioperative blood salvage and autologous blood donation on transfusion requirements in scoliosis surgery. Anand N, et al. **J Spinal Disord** 1998 Dec; 11(6):532–4 (10 ref.)

Correction of adolescent idiopathic thoracic scoliosis with a new type of offset apical instrumentation: preliminary results. Arlet V, et al. **J Spinal Disord** 1998 Oct;11(5):404–9

Torsional stiffness of three spine constructs for thoracic scoliosis. Farley FA, et al. **J Spinal Disord** 1999 Apr; 12(2):120–5

Shortening of a unit rod protruding into the hip joint: case report and description of a surgical technique. Givon U, et al. **J Spinal Disord** 1999 Feb;12(1):74–6

A King type II curve pattern treated with selective thoracic fusion: case report with 44-year follow-up. McCance SE, et al. **J Spinal Disord** 1999 Jun;12(3):262–5

Aseptic loosening after CD instrumentation in the treatment of scoliosis: a report about eight cases. Wimmer C, et al. **J Spinal Disord** 1998 Oct;11(5):440–3

Comparative study of propofol and midazolam effects on somatosensory evoked potentials during surgical treatment of scoliosis. Laureau E, et al. **Neurosurgery** 1999 Jul; 45(1):69–74; discussion 75

Anterior endoscopic correction and fusion of scoliosis. Picetti G 3rd, et al. **Orthopedics** 1998 Dec;21(12):1285–7

Anaesthesia for scoliosis surgery in a patient on anticoagulant therapy. Leitão LM, et al. **Paediatr Anaesth** 1998;8(6):512–5

Scoliosis circa 2000: radiologic imaging perspective. II. Treatment and follow-up. Oestreich AE, et al. **Skeletal Radiol** 1998 Dec;27(12):651–6 (27 ref.)

Experimental external fixation combined with percutaneous discectomy in the management of scoliosis. Abe J, et al. **Spine** 1999 Apr 1;24(7):646–53

Effects of deamino-8-D-arginin vasopressin on blood loss and coagulation factors in scoliosis surgery. A double-blind randomized clinical trial. Alanay A, et al. **Spine** 1999 May 1;24(9):877–82

Results and morbidity in a consecutive series of patients undergoing spinal fusion for neuromuscular scoliosis. Benson ER, et al. **Spine** 1998 Nov 1;23(21):2308–17; discussion 2318

Comparison of anterior and posterior instrumentation for correction of adolescent thoracic idiopathic scoliosis. Betz RR, et al. **Spine** 1999 Feb 1;24(3):225–39

Process measures and patient/parent evaluation of surgical management of spinal deformities in patients with progressive flaccid neuromuscular scoliosis (Duchenne's muscular dystrophy and spinal muscular atrophy). Bridwell KH, et al. **Spine** 1999 Jul 1;24(13):1300–9

The selection of fusion levels using torsional correction techniques in the surgical treatment of idiopathic scoliosis. Burton DC, et al. **Spine** 1999 Aug 15;24(16):1728–39

Autologous bone grafting in staged scoliosis surgery. The patient as bone bank. Chugh S, et al. **Spine** 1998 Aug 15; 23(16):1793–5

Hemodilution as a method to reduce transfusion requirements in adolescent spine fusion surgery. Copley LA, et al. **Spine** 1999 Feb 1;24(3):219–22; discussion 223–4

Results of the Scoliosis Research Society instrument for evaluation of surgical outcome in adolescent idiopathic scoliosis. A multicenter study of 244 patients. Haher TR, et al. **Spine** 1999 Jul 15;24(14):1435–40

Proximal kyphosis after posterior spinal fusion in patients with idiopathic scoliosis. Lee GA, et al. **Spine** 1999 Apr 15;24(8):795–9

Spontaneous lumbar curve coronal correction after selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Lenke LG, et al. **Spine** 1999 Aug 15; 24(16):1663–71; discussion 1672

Assessment of scoliosis correction in relation to flexibility using the fulcrum bending correction index. Luk KD, et al. **Spine** 1998 Nov 1;23(21):2303–7

Variability of somatosensory-evoked potentials in different stages of scoliosis surgery. Luk KD, et al. **Spine** 1999 Sep 1;24(17):1799–804

Coronal and sagittal balance in surgically treated adolescent idiopathic scoliosis with the King II curve pattern. A review of 67 consecutive cases having selective thoracic arthrodesis. McCance SE, et al. **Spine** 1998 Oct 1; 23(19):2063–73

Spinal growth and a histologic evaluation of the Risser grade in idiopathic scoliosis. Noordeen MH, et al. **Spine** 1999 Mar 15;24(6):535–8

Somatosensory- and motor-evoked potential monitoring without a wake-up test during idiopathic scoliosis surgery: an accepted standard of care [letter; comment] Péréon Y, et al. **Spine** 1999 Jun 1;24(11):1169–70. Comment on: Spine 1998 Jun 15;23(12):1392–400.

Luque trolley and convex epiphysiodesis in the management of infantile and juvenile idiopathic scoliosis. Pratt RK, et al. **Spine** 1999 Aug 1;24(15):1538–47

Maintaining lumbar lordosis with anterior single solid-rod instrumentation in thoracolumbar and lumbar adolescent idiopathic scoliosis. Sweet FA, et al. **Spine** 1999 Aug 15; 24(16):1655–62

Rotations of a helix as a model for correction of the scoliotic spine. Tredwell SJ, et al. **Spine** 1999 Jun 15;24(12):1223–7

Patients' perceptions of overall function, pain, and appearance after primary posterior instrumentation and fusion for idiopathic scoliosis. White SF, et al. **Spine** 1999 Aug 15;24(16):1693–9; discussion 1699–700

Congenital scoliosis with posterior spinal arthrodesis T2-L3 at age 3 years with 41-year follow-up. A case report. Winter RB, et al. **Spine** 1999 Jan 15;24(2):194–7

[Painful mild scoliosis in the elderly] Ling J, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr; 19(2):131–5 (Eng. Abstr.) **(Chi)**

[Biomechanical modeling of instrumentation for the scoliotic spine using flexible elements: a feasibility study] Poulin F, et al. **Ann Chir** 1998;52(8):761–7 (Eng. Abstr.) **(Fre)**

[Surgical treatment of idiopathic scoliosis in adolescents and young adults] Chopin D. **Bull Acad Natl Med** 1999; 183(4):737–42 (Eng. Abstr.) **(Fre)**

[Review of surgical cases which have deteriorated over time] Farcy JP. **Bull Acad Natl Med** 1999;183(4):775–82 (Eng. Abstr.) **(Fre)**

[Distinctive problems of the surgical treatment of scoliosis after 50 years] Guillaumat M. **Bull Acad Natl Med** 1999; 183(4):743–56 (Eng. Abstr.) **(Fre)**

[Neurologic complications of surgical treatments] Passuti N, et al. **Bull Acad Natl Med** 1999;183(4):769–73; discussion 773–4 (Eng. Abstr.) **(Fre)**

[Surgery of the spine in Duchenne's muscular dystrophy] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):224–30 (Eng. Abstr.) **(Fre)**

[Somatosensory evoked potentials during surgery of scoliosis: significance of epidural recording] de Gauzy JS, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jul; 85(4):387–92 (Eng. Abstr.) **(Fre)**

[Treatment of scoliosis in the adolescent by anterior release and vertebral arthrodesis under thoracoscopy. Preliminary results] Papin P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):231–8 (21 ref.) (Eng. Abstr.) **(Fre)**

[Simplified technique for thoracic drainage in anterior surgery of scoliosis in the child] Ruzic JC, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct; 84(6):550–3 (Eng. Abstr.) **(Fre)**

[3-dimensional registration of micro-movements of vertebral implants by a specially adapted measuring system using magnetic transducers] Schramm M, et al. **Biomed Tech (Berl)** 1999 Apr;44(4):104–8 (Eng. Abstr.) **(Ger)**

[Patient-controlled analgesia (PCA) in postop pain management in scoliosis surgery] Garstka J, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(3):281–6 (Eng. Abstr.) **(Pol)**

[Classification of the adolescent idiopathic scoliosis and preoperative strategy] Nowakowski A, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):319–25 (Eng. Abstr.) **(Pol)**

[Fatal gas embolism during corrective surgery for scoliosis using the posterior approach] López LM, et al. **Rev Esp Anestesiol Reanim** 1999 Jun–Jul;46(6):267–70 (Eng. Abstr.) **(Spa)**

THERAPY

Halo femoral traction and sliding rods in the treatment of a neurologically compromised congenital scoliosis: technique. Arlet V, et al. **Eur Spine J** 1999;8(4):329–31

The immediate effect of a Boston brace on lung volumes and pulmonary compliance in mild adolescent idiopathic scoliosis. Katsaris G, et al. **Eur Spine J** 1999;8(1):2–7

Bracing (and screening)--yes or no? Dickson RA, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):193–8 (47 ref.)

Mechanical modulation of growth for the correction of vertebral wedge deformities. Mente PL, et al.

J Orthop Res 1999 Jul;17(4):518–24
Brace treatment in neuromuscular spine deformity. Olafsson Y, et al. **J Pediatr Orthop** 1999 May–Jun;19(3):376–9
Back pain during orthotic treatment of idiopathic scoliosis. Ramirez N, et al. **J Pediatr Orthop** 1999 Mar–Apr; 19(2):198–201
Modalities of ventilation in neuromuscular disorders and thoracic deformities. Shneerson JM.
Monaldi Arch Chest Dis 1998 Oct;53(5):552–5 (10 ref.)
Management of neuromuscular scoliosis. McCarthy RE.
Orthop Clin North Am 1999 Jul;30(3):435–49, viii (99 ref.)
Variability of strap tension in brace treatment for adolescent idiopathic scoliosis. Aubin CE, et al. **Spine** 1999 Feb 15; 24(4):349–54
A comparative study of TLSO, Charleston, and Milwaukee braces for idiopathic scoliosis [see comments] Howard A, et al. **Spine** 1998 Nov 15;23(22):2404–11. Comment in: Spine 1999 Aug 15;24(16):1751.
Comparative study of TLSO [letter; comment] King AG. **Spine** 1999 Aug 15;24(16):1751. Comment on: Spine 1998 Nov 15;23(22):2404–11.
[A biomechanical study of new orthotic treatment approaches for the 3D correction of scoliosis] Gignac D, et al. **Ann Chir** 1998;52(8):795–800 (Eng. Abstr.) **(Fre)**
[Idiopathic scoliosis: evaluation of the results] Bollini G, et al. **Bull Acad Natl Med** 1999;183(4):757–67; discussion 767–8 (30 ref.) (Eng. Abstr.) **(Fre)**
[Treatment of idiopathic scoliosis in children during the growth period] Morin C. **Bull Acad Natl Med** 1999; 183(4):731–5 (Eng. Abstr.) **(Fre)**
[Historic look at the treatments for scoliosis] Rauschmann M. **Z Orthop Ihre Grenzgeb** 1999 Jan–Feb;137(1):Oa16–7 **(Ger)**

ULTRASONOGRAPHY

Prenatal sonographic diagnosis of VATER association. Tongsong T, et al. **J Clin Ultrasound** 1999 Sep;27(7):378–84

SCOPOLAMINE

Estrogen improves working but not reference memory and prevents amnestic effects of scopolamine of a radial-arm maze. Fader AJ, et al. **Pharmacol Biochem Behav** 1999 Apr; 62(4):711–7

ADMINISTRATION & DOSAGE

Transdermal scopolamine withdrawal syndrome [letter] Feder RE. **Clin Neuropharmacol** 1999 Mar–Apr;22(2):120

ADVERSE EFFECTS

Acute and long-term administration of anticholinergics in Parkinson's disease: specific effects on the subcortico-frontal syndrome. Bédard MA, et al.
Brain Cogn 1999 Jul;40(2):289–313
Transdermal scopolamine withdrawal syndrome [letter] Feder RE. **Clin Neuropharmacol** 1999 Mar–Apr;22(2):120
Heart rate increase after intravenous administration of trospium chloride and scopolamine during endoscopic retrograde cholangiopancreatography [letter] Pfeiffer A, et al. **Endoscopy** 1999 Aug;31(6):507
Scopolamine model of dementia: electroencephalogram findings and cognitive performance. Ebert U, et al.
Eur J Clin Invest 1998 Nov;28(11):944–9 (65 ref.)
Protective effects of pseudoginsenoside-F11 on scopolamine-induced memory impairment in mice and rats. Li Z, et al. **J Pharm Pharmacol** 1999 Apr;51(4):435–40
Transderm-induced psychosis in Parkinson's disease. Minagar A, et al. **Neurology** 1999 Jul 22;53(2):433–4

ANALOGS & DERIVATIVES see SCOPOLAMINE DERIVATIVES

ANALYSIS

Phytochemical and microscopic evaluation of cultivated Datura innoxia miller. Abo KA, et al.
Afr J Med Med Sci 1998 Sep–Dec;27(3–4):181–3

ANTAGONISTS & INHIBITORS

Estrogen replacement attenuates effects of scopolamine and lorazepam on memory acquisition and retention. Gibbs RB, et al. **Horm Behav** 1998 Oct;34(2):112–25
Korean red ginseng saponins with low ratios of protopanaxadiol and protopanaxatriol saponin improve scopolamine-induced learning disability and spatial working memory in mice. Jin SH, et al.
J Ethnopharmacol 1999 Aug;66(2):123–9
Glucose minimally attenuates scopolamine-but not morphine-induced deficits on a water maze alternation task. Means LW, et al. **J Neural Transm** 1998; 105(10–12):1171–85
Ameliorative effects of tachykinins on scopolamine-induced impairment of spontaneous alternation performance in mice. Kameyama T, et al.
Methods Find Exp Clin Pharmacol 1998 Sep;20(7):555–60

CHEMISTRY

Compatibility and stability of fentanyl admixtures in polypropylene syringes. Peterson GM, et al.
J Clin Pharm Ther 1998 Feb;23(1):67–72

PHARMACOKINETICS

Pharmacokinetics and pharmacodynamics of scopolamine after subcutaneous administration. Ebert U, et al.
J Clin Pharmacol 1998 Aug;38(8):720–6

PHARMACOLOGY

Anesthetic uses of hyoscine and atropine alkaloids in surgical Arabic book [letter; comment] Takrouri MS.
Anesthesiology 1999 Jun;90(6):1795–6. Comment on: Anesthesiology 1998 Jul;89(1):241–9.
Intra-amygdala infusions of scopolamine impair performance on a conditioned place preference task but not a spatial radial maze task. McIntyre CK, et al. **Behav Brain Res** 1998 Oct;95(2):219–26
The absence of effect of glucose on memory is associated with low susceptibility to the amnestic effects of scopolamine in a strain of mice. Messier C.
Behav Brain Res 1998 Nov;96(1–2):47–57
Spatial signal detection in rats is differentially disrupted by delta-9-tetrahydrocannabinol, scopolamine, and MK-801. Presburger G, et al. **Behav Brain Res** 1999 Feb 15; 99(1):27–34
Scopolamine disruption of behavioral and hippocampal responses in appetitive trace classical conditioning. Seager MA, et al. **Behav Brain Res** 1999 Apr;100(1–2):143–51
Postacquisition scopolamine treatments reveal the time course for the formation of lamb odor recognition memory in parturient ewes. Ferreira G, et al. **Behav Neurosci** 1999 Feb;113(1):136–42
Reactivation treatment prevents the memory-impairing effects of scopolamine in preweanling rats. Sandstrom NJ, et al. **Behav Neurosci** 1998 Aug;112(4):909–19
Scopolamine prevents tolerance to the effects of caffeine on rotational behavior in 6-hydroxydopamine-denervated rats. Casas M, et al. **Eur J Pharmacol** 1999 Jan 29; 366(1):1–11
Cholinergic modulation of the acoustic startle response in the caudal pontine reticular nucleus of the rat. Fendt M, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):101–7
Clozapine-induced dopamine levels in the rat striatum and nucleus accumbens are not affected by muscarinic antagonism. Gray AM, et al. **Eur J Pharmacol** 1998 Dec 4;362(2–3):127–36
Changes in apparent in vivo binding of [3H]raclopride and [3H]N-methylspiperone induced by oxotremorine.
Kobayashi K, et al. **J Neural Transm** 1998; 105(10–12):1193–7
Cerebral blood flow responses to somatosensory stimulation are unaffected by scopolamine in unanesthetized rat. Nakao Y, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):929–34
Intraseptal injection of scopolamine increases the effect of systemic diazepam on passive avoidance learning and emotionality in rats. Anglade F, et al. **Life Sci** 1999; 64(17):1553–61
Activation of M1-like muscarinic receptors is required for the induction of corticostriatal LTP. Calabresi P, et al. **Neuropharmacology** 1999 Feb;38(2):323–6
The effects of scopolamine on changes in regional cerebral blood flow during classical conditioning of the human eyeblink response. Bahro M, et al. **Neuropsychobiology** 1999 May;39(4):187–95
EEG changes following scopolamine administration in healthy subjects. Quantitative analysis during rest and photic stimulation. Kikuchi M, et al.
Neuropsychobiology 1999 May;39(4):219–26
Attenuation of morphine tolerance and dependence in scopolamine-treated rats. Zhou H, et al. **Neuroreport** 1999 Jul 13;10(10):2007–10
Scopolamine impairs memory recall in Octopus vulgaris. Fiorito G, et al. **Neurosci Lett** 1998 Sep 4;253(2):87–90
Scopolamine enhances middle-latency auditory evoked magnetic fields. Jääskeläinen IP, et al. **Neurosci Lett** 1999 Jan 4;259(1):41–4
Scopolamine-sensitive and resistant components of increase in cerebral cortical blood flow elicited by periaqueductal gray matter of rats. Nakai M, et al. **Neurosci Lett** 1999 Aug 6;270(3):173–6
The effects of temperature and scopolamine on N-methyl-D-aspartate antagonist-induced neuronal necrosis in the rat. Colbourne F, et al. **Neuroscience** 1999 Apr;90(1):87–94
Two related forms of long-term habituation in the crab Chasmagnathus are differentially affected by scopolamine. Berón de Astrada M, et al. **Pharmacol Biochem Behav** 1999 May;63(1):109–18
The acetylcholinesterase inhibitor, ENA 713 (Exelon), attenuates the working memory impairment induced by scopolamine in an operant DNMTP task in rats. Ballard TM, et al. **Psychopharmacology (Berl)** 1999 Sep 1; 146(1):10–8
An investigation of the effects of benzodiazepine receptor ligands and of scopolamine on conceptual priming. Bishop KI, et al. **Psychopharmacology (Berl)** 1998 Dec; 140(3):345–53
Combining tacrine with milameline reverses a scopolamine-induced impairment of continuous performance in rhesus monkeys. Callahan MJ.
Psychopharmacology (Berl) 1999 Jun;144(3):234–8
Scopolamine slows the orienting of attention in primates to cued visual targets. Davidson MC, et al.
Psychopharmacology (Berl) 1999 Feb;142(1):1–8
Moderate cortical EEG changes in apolipoprotein E-deficient mice during ageing and scopolamine treatment but not after nucleus basalis lesion. Puoliväli J, et al.
Psychopharmacology (Berl) 1999 Aug;145(4):386–92
Attenuation of scopolamine-induced spatial learning impairments by an angiotensin IV analog. Pederson ES, et al. **Regul Pept** 1998 Jun 30;74(2–3):97–103

POISONING

Laboratory confirmation of scopolamine co-intoxication in patients using tainted heroin. Perrone J, et al.
J Toxicol Clin Toxicol 1999;37(4):491–6
Anticholinergic syndrome precipitated by opioid reversal [clinical conference] Hicks SD, et al.
Prehosp Emerg Care 1998 Oct–Dec;2(4):328–9

THERAPEUTIC USE

Muscarinic blockade with oral hyoscine palliates angiotensin converting enzyme inhibitor induced cough [letter] Adigun AO, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):139
Nebulized scopolamine in the management of oral dribbling: three case reports. Zeppetella G.
J Pain Symptom Manage 1999 Apr;17(4):293–5
Effects of atropine and scopolamine on bradycardia and emetic symptoms in otoplasty. Honkavaara P, et al.
Laryngoscope 1999 Jan;109(1):108–12

TOXICITY

Nociceptin/orphanin FQ and nocistatin on learning and memory impairment induced by scopolamine in mice. Hiramatsu M, et al. **Br J Pharmacol** 1999 Jun;127(3):655–60

SCOPOLAMINE DERIVATIVES

ADMINISTRATION & DOSAGE

Relationship between cholinergic airway tone and serum immunoglobulin E in human subjects. Endoh N, et al.
Eur Respir J 1998 Jul;12(1):71–4
Inhaled oxitropium bromide is currently used as the first-line therapy of patients with chronic pulmonary disease in Japan [letter; comment] Teramoto S, et al. **Eur Respir J** 1999 Feb;13(2):473–5. Comment on: Eur Respir J 1998 Jun;11(6):1337–41.
Comparison between fenoterol and fenoterol plus oxitropium bromide delivered by metered-dose inhaler with InspirEase to relieve acute asthma attack. Kamei T, et al.
J Asthma 1999;36(1):67–75

ANALYSIS

Validated capillary electrophoresis method for the determination of atropine and scopolamine derivatives in pharmaceutical formulations. Cherkaoui S, et al.
J Pharm Biomed Anal 1998 Sep 1;17(6–7):1167–76

PHARMACOLOGY

Effects of inhaled bronchodilators on pulmonary hemodynamics at rest and during exercise in patients with COPD. Saito S, et al. **Chest** 1999 Feb;115(2):376–82
Effect of anisodine on acute forebrain ischemia-reperfusion damage in rats. Xu W, et al.
Chung Kuo Yao Li Hsueh Pao 1996 Mar;17(2):161–3

THERAPEUTIC USE

Tiotropium bromide (Ba 679 BR), a novel long-acting muscarinic antagonist for the treatment of obstructive airways disease. Barnes PJ, et al. **Life Sci** 1995; 56(11–12):853–9 (47 ref.)
Tiotropium (Spiriva): mechanistical considerations and clinical profile in obstructive lung disease. Disse B, et al. **Life Sci** 1999;64(6–7):457–64 (20 ref.)
[A new long-acting anticholinergic agent] Lopez-Vidriero M. **Rev Mal Respir** 1998 Sep;15 Suppl 2:S55–6 **(Fre)**

SCOPOLAMINEBUTYLBROMIDE see **BUTYLSCOPOLAMMONIUM BROMIDE**

SCOPOLETIN

PHARMACOLOGY

Hepatoprotective activity of scopoletin, a constituent of Solanum lyratum. Kang SY, et al. **Arch Pharm Res** 1998 Dec;21(6):718–22
Scopoletin: an inducible nitric oxide synthesis inhibitory active constituent from Artemisia feddei. Kang TH, et al.
Planta Med 1999 Jun;65(5):400–3

SCORBUTUS see **SCURVY**

SCORPION VENOMS

Effects of tachykinin NK1 or PAF receptor blockade on the lung injury induced by scorpion venom in rats. Matos IM, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):293–300
Scorpion toxins: tools for studying K+ channels [published erratum appears in Toxicon 1999 Apr;37(4):701] Garcia ML, et al. **Toxicon** 1998 Nov;36(11):1641–50

SCORPION VENOMS

ADMINISTRATION & DOSAGE

Induction of acute and chronic pancreatitis with the use of the toxin of the scorpion Tityus serrulatus: experimental model in rats. Novaes G, et al. **Arq Gastroenterol** 1998 Jul-Sep;35(3):216-22

ADVERSE EFFECTS

Effects of crude venom, tityustoxin and toxin Ts-gamma from Tityus serrulatus scorpion on secretion and structure of the rat submandibular gland. Clemente GT, et al. **Arch Oral Biol** 1999 Feb;44(2):103-10

ANTAGONISTS & INHIBITORS

Efficacy of serotherapy in scorpion sting: a matched-pair study. Belghith M, et al. **J Toxicol Clin Toxicol** 1999; 37(1):51-7

Serotherapy in scorpion envenomation: a randomised controlled trial. Abroug F, et al. **Lancet** 1999 Sep 11; 354(9182):906-9

CHEMISTRY

A series of bioactivity-variant neurotoxins from scorpion Buthus martensii Karsch: purification, crystallization and crystallographic analysis. Li HM, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):341-4

Solution structure of a beta-neurotoxin from the New World scorpion Centruroides sculpturatus Ewing. Jablonsky MJ, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):406-12

A new scorpion toxin (BmK-PL) stimulates Ca2+-release channel activity of the skeletal-muscle ryanodine receptor by an indirect mechanism. Kuniyasu A, et al. **Biochem J** 1999 Apr 15;339 (Pt 2):343-50

Solution structure of two new toxins from the venom of the Chinese scorpion Buthus martensi Karsch blockers of potassium channels. Blanc E, et al. **Biochemistry** 1998 Sep 8;37(36):12412-8

An nmr conformational analysis of a synthetic peptide Cn2(1-15)NH2-S-S-acetyl-Cn2(52-66)NH2 from the New World Centruroides noxius 2 (Cn2) scorpion toxin: comparison of the structure with those of the Centruroides scorpion toxins. Yamamoto H, et al. **Biopolymers** 1999 Apr; 49(4):277-86

A K+ channel-blocking peptide from venom of Chinese scorpion Buthus martensii Karsch. Wu G, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):317-21

Purification and primary structure of low molecular mass peptides from scorpion (Buthus sindicus) venom. Ali SA, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Dec;121(4):323-32

Role of lysine and tryptophan residues in the biological activity of toxin VII (Ts gamma) from the scorpion Tityus serrulatus. Hassani O, et al. **Eur J Biochem** 1999 Feb; 260(1):76-86

Solution structure of a conformationally constrained Arg-Gly-Asp-like motif inserted into the alpha/beta scaffold of leiurotoxin I. Kellenberger E, et al. **Eur J Biochem** 1999 Mar;260(3):810-7

CD and NMR investigations on trifluoroethanol-induced step-wise folding of helical segment from scorpion neurotoxin. Khandelwal P, et al. **Eur J Biochem** 1999 Sep; 264(2):468-78

Scorpion toxins specific for Na+-channels. Possani LD, et al. **Eur J Biochem** 1999 Sep;264(2):287-300 (156 ref.)

A toxin to nervous, cardiac, and endocrine ERG K+ channels isolated from Centruroides noxius scorpion venom. Gurrola GB, et al. **FASEB J** 1999 May;13(8):953-62

A novel K+ channel blocking toxin from Tityus discrepans scorpion venom. D'Suze G, et al. **FEBS Lett** 1999 Jul 30; 456(1):146-8

Aah VI, a novel, N-glycosylated anti-insect toxin from Androctonus australis hector scorpion venom: isolation, characterisation, and glycan structure determination. Hassani O, et al. **FEBS Lett** 1999 Jan 25;443(2):175-80

Purification and partial characterization of a 'short' insectotoxin-like peptide from the venom of the scorpion Parabuthus schlechteri. Tytgat J, et al. **FEBS Lett** 1998 Dec 28;441(3):387-91

Molecular dynamics study of kaliotoxin in water. Canto J, et al. **Int J Biol Macromol** 1999 Jan;24(1):1-9

The putative bioactive surface of insect-selective scorpion excitatory neurotoxins. Froy O, et al. **J Biol Chem** 1999 Feb 26;274(9):5769-76

Crystal structures of two alpha-like scorpion toxins: non-proline cis peptide bonds and implications for new binding site selectivity on the sodium channel. He XL, et al. **J Mol Biol** 1999 Sep 10;292(1):125-35

NMR structures and activity of a novel alpha-like toxin from the scorpion Leiurus quinquestriatus hebraeus. Krimm I, et al. **J Mol Biol** 1999 Jan 29;285(4):1749-63

Solution structure of toxin 2 from centruroides noxius Hoffmann, a beta-scorpion neurotoxin acting on sodium channels. Pintar A, et al. **J Mol Biol** 1999 Mar 26; 287(2):359-67

Crystal structure of neurotoxin Ts1 from Tityus serrulatus provides insights into the specificity and toxicity of scorpion toxins. Polikarpov I, et al. **J Mol Biol** 1999 Jul 2;290(1):175-84

Dynamic diversification from a putative common ancestor of scorpion toxins affecting sodium, potassium, and chloride channels. Froy O, et al. **J Mol Evol** 1999 Feb;48(2):187-96

Oxidative refolding chromatography: folding of the scorpion toxin Cn5 [see comments] Altamirano MM, et al. **Nat Biotechnol** 1999 Feb;17(2):187-91. Comment in: Nat Biotechnol 1999 Feb;17(2):136-7.

Solution structure of potassium channel-inhibiting scorpion toxin Lq2. Renisio JG, et al. **Proteins** 1999 Mar 1; 34(4):417-26

1H NMR structural analysis of novel potassium blocking toxins using a nano-NMR probe. Delepierre M, et al. **Toxicon** 1998 Nov;36(11):1599-608

Molecular cloning and genomic analysis of TsNTxp: an immunogenic protein from Tityus serrulatus scorpion venom. Guatimosim SC, et al. **Toxicon** 1999 Mar; 37(3):507-17

Sodium channel modifiers from scorpion venom: structure-activity relationship, mode of action and application. Gurevitz M, et al. **Toxicon** 1998 Nov; 36(11):1671-82

Covalent structures of BmK AS and BmK AS-1, two novel bioactive polypeptides purified from Chinese scorpion Buthus martensi Karsch. Ji YH, et al. **Toxicon** 1999 Mar; 37(3):519-36

TsTX-IV, a short chain four-disulfide-bridged neurotoxin from Tityus serrulatus venom which acts on Ca2+-activated K+ channels. Novello JC, et al. **Toxicon** 1999 Apr;37(4):651-60

Maurotoxin, a four disulfide bridges scorpion toxin acting on K+ channels. Rochat H, et al. **Toxicon** 1998 Nov; 36(11):1609-11

New toxins acting on sodium channels from the scorpion Leiurus quinquestriatus hebraeus suggest a clue to mammalian vs insect selectivity. Sautière P, et al. **Toxicon** 1998 Aug;36(8):1141-54

The cDNA sequence of an excitatory insect selective neurotoxin from the scorpion Buthus martensi Karsch. Xiong YM, et al. **Toxicon** 1999 Feb;37(2):335-41

[Variability of the structure of neurotoxins from the scorpion Orthochirus scrobiculosus from various natural habitats] Lipkin AV, et al. **Bioorg Khim** 1999 May;25(5):341-7 (Eng. Abstr.) **(Rus)**

GENETICS

Electrostatic mutations in iberiotoxin as a unique tool for probing the electrostatic structure of the maxi-K channel outer vestibule. Mullmann TJ, et al. **Biochemistry** 1999 Feb 23;38(8):2395-402

Genomic organization of three neurotoxins active on small conductance Ca2+-activated potassium channels from the scorpion Buthus martensi Karsch. Wu JJ, et al. **FEBS Lett** 1999 Jun 11;452(3):360-4

Molecular cloning and sequencing of two 'short chain' and two 'long chain' K(+) channel-blocking peptides from the Chinese scorpion Buthus martensii Karsch. Zhu S, et al. **FEBS Lett** 1999 Sep 3;457(3):509-14

Molecular cloning and genomic analysis of TsNTxp: an immunogenic protein from Tityus serrulatus scorpion venom. Guatimosim SC, et al. **Toxicon** 1999 Mar; 37(3):507-17

Gene cloning and sequencing of BmK AS and BmK AS-1, two novel neurotoxins from the scorpion Buthus martensi Karsch. Lan ZD, et al. **Toxicon** 1999 May;37(5):815-23

IMMUNOLOGY

Mapping of an epitope recognized by a neutralizing monoclonal antibody specific to toxin Cn2 from the scorpion Centruroides noxius, using discontinuous synthetic peptides. Calderon-Aranda ES, et al. **Eur J Biochem** 1999 Sep;264(3):746-55

A recombinant single-chain antibody fragment that neutralizes toxin II from the venom of the scorpion Androctonus australis hector. Mousli M, et al. **FEBS Lett** 1999 Jan 15;442(2-3):183-8

Antibody BCF2 against scorpion toxin Cn2 from Centuroides noxius Hoffmann: primary structure and three-dimensional model as free Fv fragment and complexed with its antigen. Selisko B, et al. **Proteins** 1999 Oct 1;37(1):130-43

Antibodies against Tityus discrepans venom do not abolish the effect of Tityus serrulatus venom on the rat sodium and potassium channels. Borges A, et al. **Toxicon** 1999 Jun; 37(6):867-81

Pharmacokinetics of 125I-labelled IgG, F(ab')2 and Fab fractions of scorpion and snake antivenins: merits and potential for therapeutic use. Ismail M, et al. **Toxicon** 1998 Nov;36(11):1523-8

Immunotherapy for scorpion envenoming in Brazil. Rezende NA, et al. **Toxicon** 1998 Nov;36(11):1507-13

ISOLATION & PURIFICATION

A series of bioactivity-variant neurotoxins from scorpion Buthus martensii Karsch: purification, crystallization and crystallographic analysis. Li HM, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):341-4

A K+ channel-blocking peptide from venom of Chinese scorpion Buthus martensii Karsch. Wu G, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):317-21

A toxin to nervous, cardiac, and endocrine ERG K+ channels isolated from Centruroides noxius scorpion venom. Gurrola GB, et al. **FASEB J** 1999 May;13(8):953-62

Aah VI, a novel, N-glycosylated anti-insect toxin from Androctonus australis hector scorpion venom: isolation, characterisation, and glycan structure determination. Hassani O, et al. **FEBS Lett** 1999 Jan 25;443(2):175-80

Purification and partial characterization of a 'short' insectotoxin-like peptide from the venom of the scorpion Parabuthus schlechteri. Tytgat J, et al. **FEBS Lett** 1998 Dec 28;441(3):387-91

Isolation and properties of a new kallikrein inhibitor from Tityus serrulatus venom. Ferreira LA, et al. **J Protein Chem** 1998 Nov;17(8):799-805

METABOLISM

Use of chlorotoxin for targeting of primary brain tumors. Soroceanu L, et al. **Cancer Res** 1998 Nov 1;58(21):4871-9

Delta-atracotoxins from Australian funnel-web spiders compete with scorpion alpha-toxin binding on both rat brain and insect sodium channels. Little MJ, et al. **FEBS Lett** 1998 Nov 20;439(3):246-52

Molecular cloning and sequencing of two 'short chain' and two 'long chain' K(+) channel-blocking peptides from the Chinese scorpion Buthus martensii Karsch. Zhu S, et al. **FEBS Lett** 1999 Sep 3;457(3):509-14

delta-Atracotoxins from australian funnel-web spiders compete with scorpion alpha-toxin binding but differentially modulate alkaloid toxin activation of voltage-gated sodium channels. Little MJ, et al. **J Biol Chem** 1998 Oct 16;273(42):27076-83

Three-dimensional location of the imperatoxin A binding site on the ryanodine receptor. Samsó M, et al. **J Cell Biol** 1999 Jul 26;146(2):493-9

Voltage sensor-trapping: enhanced activation of sodium channels by beta-scorpion toxin bound to the S3-S4 loop in domain II. Cestèle S, et al. **Neuron** 1998 Oct;21(4):919-31

PHARMACOKINETICS

Pharmacokinetics of the toxic fraction of Centruroides limpidus limpidus venom in experimentally envenomed rabbits and effects of immunotherapy with specific F(ab')2. Calderón-Aranda ES, et al. **Toxicon** 1999 May;37(5):771-82

PHARMACOLOGY

Effects of adrenergic-receptor blockade and ligation of spleen vessels on the hemodynamics of dogs injected with scorpion venom [see comments] Tarasiuk A, et al. **Crit Care Med** 1999 Feb;27(2):365-72. Comment in: Crit Care Med 1999 Feb;27(2):250.

Cardiovascular responses to scorpion venom [editorial; comment] Taylor AE. **Crit Care Med** 1999 Feb;27(2):250 . Comment on: Crit Care Med 1999 Feb;27(2):365-72.

Scorpion alpha-like toxins, toxic to both mammals and insects, differentially interact with receptor site 3 on voltage-gated sodium channels in mammals and insects. Cestèle S, et al. **Eur J Neurosci** 1999 Mar;11(3):975-85

Biophysical properties of scorpion alpha-toxin-sensitive background sodium channel contributing to the pacemaker activity in insect neurosecretory cells (DUM neurons). Lapied B, et al. **Eur J Neurosci** 1999 Apr;11(4):1449-60

Pharmacological evidence that neuropeptides mediate part of the actions of scorpion venom on the guinea pig ileum. Matos IM, et al. **Eur J Pharmacol** 1999 Mar 5; 368(2-3):231-6

A novel K+ channel blocking toxin from Tityus discrepans scorpion venom. D'Suze G, et al. **FEBS Lett** 1999 Jul 30; 456(1):146-8

Indian red scorpion venom modulates spontaneous activity of rat right atria through the involvement of cholinergic and adrenergic systems. Alex AB, et al. **Indian J Exp Biol** 1999 May;37(5):455-60

Activation of ryanodine receptors by imperatoxin A and a peptide segment of the II-III loop of the dihydropyridine receptor. Gurrola GB, et al. **J Biol Chem** 1999 Mar 19; 274(12):7879-86

A marine snail neurotoxin shares with scorpion toxins a convergent mechanism of blockade on the pore of voltage-gated K channels. Garcia E, et al. **J Gen Physiol** 1999 Jul;114(1):141-57

Isolation and properties of a new kallikrein inhibitor from Tityus serrulatus venom. Ferreira LA, et al. **J Protein Chem** 1998 Nov;17(8):799-805

Scorpion toxins as tools for studying potassium channels. Garcia ML, et al. **Methods Enzymol** 1999;294:624-39 (37 ref.)

Inhibition of T-type voltage-gated calcium channels by a new scorpion toxin. Chuang RS, et al. **Nat Neurosci** 1998 Dec;1(8):668-74

Central Asian black scorpion venom protects Mauthner neurons from damage due to prolonged stimulation. Tiras NR, et al. **Neurosci Behav Physiol** 1999 May-Jun; 29(3):251-5

Inactivated state dependence of sodium channel modulation by beta-scorpion toxin. Tsushima RG, et al. **Pflugers Arch** 1999 Apr;437(5):661-8

From noxiustoxin to Shiva-3, a peptide toxic to the sporogonic development of Plasmodium berghei. Possani LD, et al. **Toxicon** 1998 Nov;36(11):1683-92

Effect of Tityus serrulatus scorpion toxin on serum gastrin levels in anaesthetized rat. Toppa NH, et al. **Toxicon** 1998 Dec;36(12):1833-42

POISONING

Second degree atrio-ventricular block and cardiotoxicity secondary to envenomation by the scorpion Leiurus quinquestriatus ('yellow scorpion')--an indication for serotherapy? Shapira MY, et al. **Hum Exp Toxicol** 1998 Oct;17(10):541-3

Clinical manifestations and management of scorpion envenomation. Amitai Y. **Public Health Rev** 1998; 26(3):257-63 (25 ref.)

TOXICITY

Effect of some variables on the in vivo determination of scorpion and viper venom toxicities. Krifi MN, et al. **Biologicals** 1998 Dec;26(4):277-88

Modulation of inhibitory post-synaptic currents (IPSCs) in mouse cerebellar Purkinje and basket cells by snake and scorpion toxin K+ channel blockers. Southan AP, et al. **Br J Pharmacol** 1998 Nov;125(6):1375-81

Effect of toxin-g from Tityus serrulatus scorpion venom on gastric emptying in rats. Bucaretchi F, et al. **Braz J Med Biol Res** 1999 Apr;32(4):431-4

A toxin to nervous, cardiac, and endocrine ERG K+ channels isolated from Centruroides noxius scorpion venom. Gurrola GB, et al. **FASEB J** 1999 May;13(8):953-62

Indian red scorpion (Mesobuthus tamulus concanesis, Pocock) venom prolongs repolarization time and refractoriness of the compound action potential of frog sciatic nerve in vitro through calcium dependent mechanism. Deshpande SB. **Indian J Exp Biol** 1998 Nov; 36(11):1108-13

A new approach to insect-pest control--combination of neurotoxins interacting with voltage sensitive sodium channels to increase selectivity and specificity. Gordon D. **Invert Neurosci** 1997 Sep-Dec;3(2-3):103-16 (55 ref.)

Pancreas ultrastructural alterations in mice inoculated with Tityus discrepans (Buthidae) venom. Blanco M, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):51-6

Inhibition of a snake venom hemorrhagic metalloproteinase by human and rat alpha-macroglobulins. Anai K, et al. **Toxicon** 1998 Aug;36(8):1127-39

Tityus discrepans venom produces a respiratory distress syndrome in rabbits through an indirect mechanism. D'Suze G, et al. **Toxicon** 1999 Jan;37(1):173-80

Serum levels of cytokines in patients envenomed by Tityus serrulatus scorpion sting. Magalhães MM, et al. **Toxicon** 1999 Aug;37(8):1155-64

Serum interleukin-1beta, interleukin-6, nitric oxide and alpha1-antitrypsin in scorpion envenomed children. Meki AR, et al. **Toxicon** 1998 Dec;36(12):1851-9

SCORPIONS

A clinical and neurophysiological study of scorpion envenomation in Assiut, Upper Egypt. Farghly WM, et al. **Acta Paediatr** 1999 Mar;88(3):290-4

Solution structure of a beta-neurotoxin from the New World scorpion Centruroides sculpturatus Ewing. Jablonsky MJ, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):406-12

Production and characterization of a bivalent single chain Fv/alkaline phosphatase conjugate specific for the hemocyanin of the scorpion Androctonus australis. Mousli M, et al. **Biochim Biophys Acta** 1998 Oct 23;1425(2):348-60

Antibodies against Tityus discrepans venom do not abolish the effect of Tityus serrulatus venom on the rat sodium and potassium channels. Borges A, et al. **Toxicon** 1999 Jun; 37(6):867-81

1H NMR structural analysis of novel potassium blocking toxins using a nano-NMR probe. Delepierre M, et al. **Toxicon** 1998 Nov;36(11):1599-608

CHEMISTRY

NMR structures and activity of a novel alpha-like toxin from the scorpion Leiurus quinquestriatus hebraeus. Krimm I, et al. **J Mol Biol** 1999 Jan 29;285(4):1749-63

CLASSIFICATION

[Variability of the structure of neurotoxins from the scorpion Orthochirus scrobiculosus from various natural habitats] Lipkin AV, et al. **Bioorg Khim** 1999 May;25(5):341-7 (Eng. Abstr.) **(Rus)**

GENETICS

Genomic organization of three neurotoxins active on small conductance Ca2+-activated potassium channels from the scorpion Buthus martensi Karsch. Wu JJ, et al. **FEBS Lett** 1999 Jun 11;452(3):360-4

Genetic benefits enhance the reproductive success of polyandrous females. Newcomer SD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10236-41

IMMUNOLOGY

Mapping of an epitope recognized by a neutralizing monoclonal antibody specific to toxin Cn2 from the scorpion Centruroides noxius, using discontinuous synthetic peptides. Calderon-Aranda ES, et al. **Eur J Biochem** 1999 Sep;264(3):746-55

METABOLISM

Crystallization and preliminary diffraction data of neurotoxin Ts-gamma from the venom of the scorpion Tityus serrulatus. Golubev AM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1440-1

The fluorescence of scorpions and cataractogenesis. Stachel SJ, et al. **Chem Biol** 1999 Aug;6(8):531-9

Role of lysine and tryptophan residues in the biological activity of toxin VII (Ts gamma) from the scorpion Tityus serrulatus. Hassani O, et al. **Eur J Biochem** 1999 Feb; 260(1):76-86

PHYSIOLOGY

Genetic benefits enhance the reproductive success of polyandrous females. Newcomer SD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10236-41

Polyandrous females discriminate against previous mates. Zeh JA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13732-6

Molecular characterization of a new excitatory insect neurotoxin with an analgesic effect on mice from the scorpion Buthus martensi Karsch. Xiong YM, et al. **Toxicon** 1999 Aug;37(8):1165-80

SCOTOMA

DIAGNOSIS

Indocyanine green angiography in enlarged blind spot syndrome. Pece A, et al. **Am J Ophthalmol** 1998 Oct; 126(4):604-7

Localized scotomata detected with temporal modulation perimetry in central serous chorioretinopathy. Vingrys AJ, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):109-16

The "thin man" phenomenon: a sign of cortical plasticity following inferior homonymous paracentral scotomas [see comments] Safran AB, et al. **Br J Ophthalmol** 1999 Feb; 83(2):137-42. Comment in: Br J Ophthalmol 1999 Feb;83(2):131.

The full-field flicker test in glaucomas: influence of intraocular pressure and pattern of visual field losses. Horn FK, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Aug; 237(8):621-8

Models for the description of angioscotomas. Benda N, et al. **Vision Res** 1999 May;39(10):1889-96

Angioscotoma detection with fundus-oriented perimetry. A study with dark and bright stimuli of different sizes. Schiefer U, et al. **Vision Res** 1999 May;39(10):1897-909

[Pitfalls in automatic perimetry] Nordmann JP, et al. **J Fr Ophtalmol** 1999 Feb;22(1):84-9 **(Fre)**

[Comparative study of 2 classifications of glaucomatous perimetric deficits] Risse JF, et al. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):738-42 (Eng. Abstr.) **(Fre)**

[Microperimetry and reading saccades in retinopathia solaris. Follow-up with the scanning laser ophthalmoscope] Ehrt O, et al. **Ophthalmologe** 1999 May;96(5):325-31 (Eng. Abstr.) **(Ger)**

[Detection of parafoveal scotoma by multifocal electroretinograms] Matsuno K, et al. **Nippon Ganka Gakkai Zasshi** 1998 Aug;102(8):545-50 (Eng. Abstr.) **(Jpn)**

[Solar retinopathy] Kawa P, et al. **Klin Oczna** 1998; 100(4):235-7 (Eng. Abstr.) **(Pol)**

ETIOLOGY

Compression of the prechiasmatic optic nerve produces a junctional scotoma. Karanjia N, et al. **Am J Ophthalmol** 1999 Aug;128(2):256-8

Laser pointer maculopathy. Zamir E, et al. **Am J Ophthalmol** 1999 Jun;127(6):728-9

Localized scotomata detected with temporal modulation perimetry in central serous chorioretinopathy. Vingrys AJ, et al. **Aust N Z J Ophthalmol** 1999 Apr;27(2):109-16

Incongruous homonymous hemianopic scotoma. Wada K, et al. **J Neurol Sci** 1999 Mar 1;163(2):179-82

Manifestation of scotomas created by transcranial magnetic stimulation of human visual cortex. Kamitani Y, et al. **Nat Neurosci** 1999 Aug;2(8):767-71

Phosphenes and transient scotomas induced by magnetic stimulation of the occipital lobe: their topographic relationship. Kammer T. **Neuropsychologia** 1999 Feb; 37(2):191-8

Chronic vitamin E deficiency causing spinocerebellar degeneration, peripheral neuropathy, and centro-cecal scotomata. McCarron MO, et al. **Nutrition** 1999 Mar; 15(3):217-9

Peripheral scotoma associated with chronic ethmoidal sinusitis. A case report and review of the literature. Rödel R, et al. **Rhinology** 1998 Jun;36(2):86-9

METABOLISM

Metabolic mapping of suppression scotomas in striate cortex of macaques with experimental strabismus. Horton JC, et al. **J Neurosci** 1999 Aug 15;19(16):7111-29

PHYSIOPATHOLOGY

The "thin man" phenomenon: imperfect filling in of visual space [editorial; comment] Miller NR. **Br J Ophthalmol** 1999 Feb;83(2):131. Comment on: Br J Ophthalmol 1999 Feb;83(2):137-42.

Increased receptive field size in the surround of chronic lesions in the adult cat visual cortex. Eysel UT, et al. **Cereb Cortex** 1999 Mar;9(2):101-9

Effects of experimental scotomata on sequential pattern-onset, pattern-reversal and pattern-offset visual evoked potentials. Shawkat FS, et al. **Doc Ophthalmol** 1997-98;94(4):307-20

Making holes in the visual world [news] Morgan M. **Nat Neurosci** 1999 Aug;2(8):685-6

Effects of cataract and scotoma on visual acuity: a simulation study. Fine EM, et al. **Optom Vis Sci** 1999 Jul;76(7):468-73

Reading with simulated scotomas: attending to the right is better than attending to the left. Fine EM, et al. **Vision Res** 1999 Mar;39(5):1039-48

Looking behind a pathological blind spot in human retina. Tripathy SP, et al. **Vision Res** 1999 Jun;39(11):1917-25

PSYCHOLOGY

Combined use of several preferred retinal loci in patients with macular disorders when reading single words [published erratum appears in Vision Res 1999 Aug;39(16):2793] Duret F, et al. **Vision Res** 1999 Feb; 39(4):873-9

Reading with central field loss: number of letters masked is more important than the size of the mask in degrees. Fine EM, et al. **Vision Res** 1999 Feb;39(4):747-56

RADIONUCLIDE IMAGING

Activation of human extrageniculostriate pathways after damage to area V1. Ptito M, et al. **Neuroimage** 1999 Jan; 9(1):97-107

REHABILITATION

Location and stability of a newly established eccentric retinal locus suitable for reading, achieved through training of patients with a dense central scotoma. Nilsson UL, et al. **Optom Vis Sci** 1998 Dec;75(12):873-8

SCRAPIE

see related
PRIONS
PRPSC PROTEINS

Scrapie. Hunter N. **Mol Biotechnol** 1998 Jun;9(3):225-34 (67 ref.)

Study on scrapie resistance [letter] Baylis M, et al. **Vet Rec** 1998 Aug 8;143(6):176

BLOOD

Late increase of serum S100 beta protein levels in hamsters after oral or intraperitoneal infection with scrapie. Beekes M, et al. **J Infect Dis** 1999 Aug;180(2):518-20

DIAGNOSIS

The immunodetection of the abnormal isoform of prion protein. Yokoyama T. **Histochem J** 1999 Apr;31(4):209-12 (48 ref.)

Scrapie infectivity and proteinase K-resistant prion protein in sheep placenta, brain, spleen, and lymph node: implications for transmission and antemortem diagnosis. Race R, et al. **J Infect Dis** 1998 Oct;178(4):949-53

Elevated levels of serum S100 beta protein in scrapie hamsters [letter] Otto M, et al. **J Neurovirol** 1998 Oct;4(5):572-3

ENZYMOLOGY

Scrapie-infected mice and PrP knockout mice share abnormal localization and activity of neuronal nitric oxide synthase. Keshet GI, et al. **J Neurochem** 1999 Mar; 72(3):1224-31

EPIDEMIOLOGY

A mathematical model of the dynamics of scrapie in a sheep flock. Stringer SM, et al. **Math Biosci** 1998 Nov; 153(2):79-98

Population dynamics of scrapie in a sheep flock. Woolhouse ME, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Apr 29;354(1384):751-6

The basic reproduction number for scrapie. Matthews L, et al. **Proc R Soc Lond B Biol Sci** 1999 May 22; 266(1423):1085-90

Natural occurrence of scrapie in goats in Italy [see comments] Capucchio MT, et al. **Vet Rec** 1998 Oct 17;143(16):452-3 . Comment in: Vet Rec 1998 Oct 31;143(18):512.

[Epidemiologic aspects of scrapie and BSE including an analysis of risk factors] Schreuder BE. **Tijdschr Diergeneeskd** 1999 Mar 15;124(6):182-4 (0 ref.) (Eng. Abstr.) **(Dut)**

ETIOLOGY

Scrapie strain-specific interactions with endogenous murine leukaemia virus. Carp RI, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):5-10

Molecular analysis of ovine prion protein identifies similarities between BSE and an experimental isolate of natural scrapie, CH1641. Hope J, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):1-4

Evidence that single-stranded DNA wrapped around the tubulofilamentous particles termed "nemaviruses" is the

genome of the scrapie agent. Narang HK. **Res Virol** 1998 Nov-Dec;149(6):375-82

GENETICS

Genetic susceptibility and transmission factors in scrapie: detailed analysis of an epidemic in a closed flock of Romanov. Elsen JM, et al. **Arch Virol** 1999;144(3):431-45

Analysis of the incubation periods, induction of obesity and histopathological changes in senescence-prone and senescence-resistant mice infected with various scrapie strains. Carp RI, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2863-9

PrP gene polymorphism and natural scrapie in Icelandic sheep. Thorgeirsdottir S, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2527-34

Prion protein gene polymorphisms in sheep with natural scrapie and healthy controls in Norway. Tranulis MA, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):1073-7

Naturally occurring scrapie in Southdown sheep. Tyler JW, et al. **J Vet Intern Med** 1999 May-Jun;13(3):213-6

Rapid analysis of allelic variants of the sheep PrP gene by oligonucleotide probes. Ishiguro N, et al. **Microbiol Immunol** 1998;42(8):579-82

The basic reproduction number for scrapie. Matthews L, et al. **Proc R Soc Lond B Biol Sci** 1999 May 22; 266(1423):1085-90

Genotyping of German sheep with respect to scrapie susceptibility. Junghans F, et al. **Vet Rec** 1998 Sep 19; 143(12):340-1

METABOLISM

Mitochondrial dysfunction induced by oxidative stress in the brains of hamsters infected with the 263 K scrapie agent. Choi SI, et al. **Acta Neuropathol (Berl)** 1998 Sep; 96(3):279-86

PrP-dependent association of prions with splenic but not circulating lymphocytes of scrapie-infected mice. Raeber AJ, et al. **EMBO J** 1999 May 17;18(10):2702-6

Corticoid concentrations are increased in the plasma and urine of ewes with naturally occurring scrapie. Schelcher F, et al. **Endocrinology** 1999 May;140(5):2422-5

Alteration of free radical metabolism in the brain of mice infected with scrapie agent. Lee DW, et al. **Free Radic Res** 1999 Jun;30(6):499-507

Abnormal periodic acid-Schiff (PAS)-positive substance in the islets of Langerhans, pituitaries and adrenal glands of 139H scrapie-infected hamsters. Ye X, et al. **Histol Histopathol** 1999 Jul;14(3):673-8

Prion distribution in hamster lung and brain following intraperitoneal inoculation. Bolton DC. **J Gen Virol** 1998 Oct;79 (Pt 10):2557-62

Expression of inducible nitric oxide synthase in the brains of scrapie-infected mice. Ju WK, et al. **J Neurovirol** 1998 Aug;4(4):445-50

Extensive degeneration of catecholaminergic neurons to scrapie agent 87V in the brains of IM mice. Yun SW, et al. **Mol Chem Neuropathol** 1998 Jun-Aug;34(2-3):121-32

Pathological PrP is abundant in sympathetic and sensory ganglia of hamsters fed with scrapie. McBride PA, et al. **Neurosci Lett** 1999 Apr 16;265(2):135-8

PATHOLOGY

Astrocytosis and amyloid deposition in scrapie-infected hamsters. Ye X, et al. **Brain Res** 1998 Nov 2;809(2):277-87

Electron microscopic studies of the optic nerve in experimental scrapie and the panencephalopathic type of Creutzfeldt-Jakob disease. Walis A, et al. **Folia Neuropathol** 1997;35(4):255-8

The reproducibility of scrapie-associated fibril and PrPSc detection methods after long-term cold storage of natural ovine scrapie-affected brain tissue. Cooley WA, et al. **J Comp Pathol** 1999 May;120(4):357-68

Scrapie-associated prion protein in the gastrointestinal tract of sheep with natural scrapie. van Keulen LJ, et al. **J Comp Pathol** 1999 Jul;121(1):55-63

Astrocytosis and proliferating cell nuclear antigen expression in brains of scrapie-infected hamsters. Ye X, et al. **J Mol Neurosci** 1998 Dec;11(3):253-63

Inflammatory response and retinal ganglion cell degeneration following intraocular injection of ME7. Russelakis-Carneiro M, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):196-206

Immunolocalization of the prion protein in scrapie affected rodent retinas. Foster J, et al. **Neurosci Lett** 1999 Jan 22; 260(1):1-4

Observations on thermostable subpopulations of the unconventional agents that cause transmissible degenerative encephalopathies. Taylor DM, et al. **Vet Microbiol** 1998 Nov;64(1):33-8

PHYSIOPATHOLOGY

Mitochondrial dysfunction induced by oxidative stress in the brains of hamsters infected with the 263 K scrapie agent. Choi SI, et al. **Acta Neuropathol (Berl)** 1998 Sep; 96(3):279-86

Reversibility of scrapie inactivation is enhanced by copper. McKenzie D, et al. **J Biol Chem** 1998 Oct 2;273(40):25545-7

Analysis of the incubation periods, induction of obesity and histopathological changes in senescence-prone and senescence-resistant mice infected with various scrapie strains. Carp RI, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2863-9

Synaptic plasticity in the CA1 area of the hippocampus of scrapie-infected mice. Johnston AR, et al. **Neurobiol Dis** 1998 Sep;5(3):188-95

Urodynamic parameters in scrapie-affected ewes and their modifications in the course of the disease. Combrisson H, et al. **Neurourol Urodyn** 1998;17(5):555-63

PREVENTION & CONTROL

PrP genotype frequencies of the most dominant sheep breed in a country free from scrapie. Bossers A, et al. **Arch Virol** 1999;144(4):829-34

Inhibiting scrapie neuroinvasion by polyene antibiotic treatment of SCID mice. Beringue V, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1873-7

Prophylactic potential of pentosan polysulphate in transmissible spongiform encephalopathies [letter] [see comments] Farquhar C, et al. **Lancet** 1999 Jan 9; 353(9147):117. Comment in: Lancet 1999 Apr 10;353(9160):1272.

Infectivity of scrapie prions bound to a stainless steel surface. Zobeley E, et al. **Mol Med** 1999 Apr;5(4):240-3

Survival of scrapie agent after exposure to sodium dodecyl sulphate and heat. Taylor DM, et al. **Vet Microbiol** 1999 Jun 1;67(1):13-6

TRANSMISSION

Genetic susceptibility and transmission factors in scrapie: detailed analysis of an epidemic in a closed flock of Romanov. Elsen JM, et al. **Arch Virol** 1999;144(3):431-45

Scrapie infectivity and proteinase K-resistant prion protein in sheep placenta, brain, spleen, and lymph node: implications for transmission and antemortem diagnosis. Race R, et al. **J Infect Dis** 1998 Oct;178(4):949-53

A crucial role for B cells in neuroinvasive scrapie. Brandner S, et al. **Transfus Clin Biol** 1999 Feb;6(1):17-23

Natural occurrence of scrapie in goats in Italy [letter; comment] Andrews AH. **Vet Rec** 1998 Oct 31;143(18):512 . Comment on: Vet Rec 1998 Oct 17;143(16):452-3.

[Animal transmissible subacute spongiform encephalopathies: scrapie in sheep and bovine spongiform encephalopathy] Parodi AL. **Clin Exp Pathol** 1999;47(3-4):133-44 (53 ref.) (Eng. Abstr.) **(Fre)**

VIROLOGY

Sensitivity of the Western blot detection of prion protein PrPres in natural sheep scrapie. Madec JY, et al. **J Virol Methods** 1998 Nov;75(2):169-77

SCRAPIE AGENT see **PRPSC PROTEINS**

SCRAPIE AMYLOID PRECURSOR PROTEIN see **PRPC PROTEINS**

SCRAPIE-ASSOCIATED FIBRILS see **PRP 27-30 PROTEIN**

SCRAPIE PRP see **PRPSC PROTEINS**

SCREEN-FILM SYSTEMS, X-RAY see **X-RAY INTENSIFYING SCREENS**

SCREW WORM INFECTION

Case studies of emergency management of screwworm. Reichard R. **Rev Sci Tech** 1999 Apr;18(1):145-63 (38 ref.)

VETERINARY

Screwworm returns to vex Texas [news] **J Am Vet Med Assoc** 1999 Jan 15;214(2):179

No screwworms allowed [news] Monti DJ. **J Am Vet Med Assoc** 1999 Mar 15;214(6):771

SCROFULA see **TUBERCULOSIS, LYMPH NODE**

SCROFULODERMA see **TUBERCULOSIS, CUTANEOUS**

SCROTUM

Migration of abdominal catheter of ventriculoperitoneal shunt into the scrotum. Oktem IS, et al. **Acta Neurochir (Wien)** 1998;140(2):167-70

Diverticulitis presenting as scrotal pain in a young man [letter] Herfel RF, et al. **Am J Emerg Med** 1998 Oct; 16(6):618-9

A sling support for scrotal edema. Benjamin KD. **Am J Occup Ther** 1999 Jul-Aug;53(4):392-3

Portrait in history: Percivall Pott [letter] Geyer SJ. **Arch Pathol Lab Med** 1999 Aug;123(8):661

A giant urethral diverticulum presenting as a scrotal mass in an adult male. De Filippo RE, et al. **BJU Int** 1999 Mar; 83(4):522-3

The acute scrotum: beware the non-scrotal cause. Napier-Hemy RD, et al. **BJU Int** 1999 May;83(7):878

Multiple scrotal lymphangiomas (lymphangiectases) treated by carbon dioxide laser ablation [letter] Egan CA, et al. **Br J Dermatol** 1998 Sep;139(3):561-2

Meconium masquerading as a scrotal mass. Han K, et al. **Br J Urol** 1998 Nov;82(5):765-7 (5 ref.)

Pyogenic granuloma of the scrotum. Abdul Gaffoor PM. **Cutis** 1998 Dec;62(6):282

Multiple cutaneous granular cell tumors of the scrotum. Altman CE, et al. **Cutis** 1999 Feb;63(2):77-80

Acute scrotal pain. Burgher SW. **Emerg Med Clin North Am** 1998 Nov;16(4):781-809, vi (99 ref.)

Guess what! Superficial basal cell carcinoma of the scrotum. Vandeweyer E, et al. **Eur J Dermatol** 1999 Apr-May; 9(3):237-8

Congenital lymphoedema of the genitalia. Bolt RJ, et al. **Eur J Pediatr** 1998 Nov;157(11):943-6

Sudden pneumoscrotum in a ventilated infant. Sudden pneumoscrotum as clinical sign of a tension pneumothorax in an infant with tracheal stenosis. Trübel H, et al. **Eur J Pediatr** 1998 Aug;157(8):689-90

Fetus-in-fetu in the scrotal sac of a newborn infant: imaging, surgical and pathological findings. Shin JH, et al. **Eur Radiol** 1999;9(5):945-7

Microsporum gypseum infection showing a white-paint-dot appearance [letter] Miranda MF, et al. **Int J Dermatol** 1998 Dec;37(12):956-7

Genital eczema in an elderly man. Aldeen T, et al. **Int J STD AIDS** 1999 Feb;10(2):124-6

Chronic inguinal hernia. Levine BJ, et al. **J Emerg Med** 1999 May-Jun;17(3):515-6

Acute scrotum: an exceptional presentation of acute nonperforated appendicitis in childhood [see comments] Méndez R, et al. **J Pediatr Surg** 1998 Sep;33(9):1435-6. Comment in: J Pediatr Surg 1999 Jul;34(7):1183.

Acute scrotum due to edidymo-orchitis associated with vasal anomalies in children with anorectal malformations. Oğuzkurt P, et al. **J Pediatr Surg** 1998 Dec;33(12):1834-6

Paratesticular desmoplastic small round cell tumor: case report and review of the literature. Roganovich J, et al. **J Surg Oncol** 1999 Aug;71(4):269-72 (16 ref.)

Paratesticular sarcoma: failure patterns after definitive local therapy. Catton C, et al. **J Urol** 1999 Jun;161(6):1844-7

Carcinoma en cuirasse of the scrotum: an unusual presentation of lung carcinoma metastatic to the scrotum. Ferguson MA, et al. **J Urol** 1998 Dec;160(6 Pt 1):2154-5 (3 ref.)

Scrotal herniation of the bladder secondary to prostate enlargement. Huang TY, et al. **J Urol** 1999 Aug; 162(2):488-9

Inguinal lipoblastomatosis in a male infant. Russell ST, et al. **J Urol** 1998 Dec;160(6 Pt 1):2204

Migration of the abdominal catheter of a ventriculoperitoneal shunt into the scrotum--case report. Ozveren MF, et al. **Neurol Med Chir (Tokyo)** 1999 Apr;39(4):313-5

Scrotal ulcer occurring in patients with acute promyelocytic leukemia during treatment with all-trans retinoic acid. Mori A, et al. **Oncol Rep** 1999 Jan-Feb;6(1):55-8

Surgical management of penoscrotal lymphangioma circumscriptum. Latifoğlu O, et al. **Plast Reconstr Surg** 1999 Jan;103(1):175-8

General case of the day. Desmoplastic small round cell tumor of the abdomen with scrotal metastases. Takhtani D, et al. **Radiographics** 1999 Jan-Feb;19(1):252-4

Recurrent primary well-differentiated intrascrotal liposarcoma: case report and review of the literature. Kochman A, et al. **Tumori** 1999 Mar-Apr;85(2):135-6 (11 ref.)

Scrotal lymphangioma in children. Alaminos-Mingorance M, et al. **Urol Int** 1998;61(3):181-2

Early diagnosis and management of neonatal abdominoscrotal hydroceles. Cooper CS, et al. **Urol Int** 1999;62(1):61-3

Scrotal lymphangioma. Yasui T, et al. **Urol Int** 1998; 61(3):178-80

Images in clinical urology. Scrotal lymphangioma in an adult. Kingsly KA, et al. **Urology** 1999 Apr;53(4):820-1

Restoration of spermatogenesis after scrotal replacement of experimentally cryptorchid rat testis: assessment of germ cell apoptosis and eNOS expression. Zini A, et al. **Urology** 1999 Jan;53(1):223-7

[An abdomino-scrotal hydrocele] Geryk B, et al. **Rozhl Chir** 1999 Apr;78(4):180-2 (Eng. Abstr.) **(Cze)**

[Acute scrotum in the child] Dubois R, et al. **Arch Pediatr** 1998 Aug;5(8):916-22 (14 ref.) (Eng. Abstr.) **(Fre)**

[Bladder herniation in a inguinal-scrotal hernia complicated by acute renal insufficiency] Barea D, et al. **J Radiol** 1998 Mar;79(3):263-5 (Eng. Abstr.) **(Fre)**

[Multiple recurrent scrotal abscesses and metallic foreign bodies] Rammos L, et al. **Prog Urol** 1999 Jun;9(3):541-3 (Eng. Abstr.) **(Fre)**

[Ulcerating scrotal leiomyoma] Walser AC, et al. **Urologe A** 1999 Jul;38(4):370-1 (Eng. Abstr.) **(Ger)**

[An apocrine hidrocystoma of the scrotum. A case report] Flessati P, et al. **Minerva Chir** 1999 Jan-Feb;54(1-2):87-9 (7 ref.) (Eng. Abstr.) **(Ita)**

[A case of intrascrotal extratesticular schwannoma] Amano T, et al. **Hinyokika Kiyo** 1999 May;45(5):379-81 (Eng. Abstr.) **(Jpn)**

[Cavernous hemangioma of the scrotum: a case report] Awakura Y, et al. **Hinyokika Kiyo** 1998 Oct;44(10):751-3 (9 ref.) (Eng. Abstr.) **(Jpn)**

[A case of scrotal elephantiasis 30 years after treatment of penile carcinoma] Horinaga M, et al. **Hinyokika Kiyo** 1998 Nov;44(11):839-41 (Eng. Abstr.) **(Jpn)**

[Aggressive angiomyxoma in the scrotum: a case report] Ichiyanagi N, et al. **Hinyokika Kiyo** 1999 Jan;45(1):69-72 (17 ref.) (Eng. Abstr.) **(Jpn)**

[A case of genital Paget's disease with severe dermal invasion and early dissemination] Iwamura H, et al. **Hinyokika Kiyo** 1999 Apr;45(4):281–4 (Eng. Abstr.) **(Jpn)**

[Leiomyoma of the scrotum: a case report] Minami M, et al. **Hinyokika Kiyo** 1999 Mar;45(3):207–9 (Eng. Abstr.) **(Jpn)**

[Epidermoid cyst of the scrotum: a case report] Sakamoto T, et al. **Hinyokika Kiyo** 1998 Sep;44(9):683–5 (12 ref.) (Eng. Abstr.) **(Jpn)**

[Intrascrotal epidermoid cyst: report of two cases] Tamada S, et al. **Hinyokika Kiyo** 1999 Apr;45(4):285–8 (Eng. Abstr.) **(Jpn)**

[Clinical review of acute scrotum in children] Goto T, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Jul;90(7):663–8 (Eng. Abstr.) **(Jpn)**

[Malignant mesenchymoma in the scrotum. A case report] Sano M, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Nov; 89(11):903–6 (Eng. Abstr.) **(Jpn)**

[Acute promyelocytic leukemia accompanied by scrotal Fournier's gangrene during ATRA treatment and relapsed as external ear tumor] Goto H, et al. **Rinsho Ketsueki** 1998 Dec;39(12):1169–74 (Eng. Abstr.) **(Jpn)**

[Acute scrotum] Oliveira A, et al. **Acta Med Port** 1999 Jan–Mar;12(1–3):39–45 (Eng. Abstr.) **(Por)**

[A massive hernia of the bladder into the scrotum. A report of a case] Ojea Calvo A, et al. **Actas Urol Esp** 1999 Jan; 23(1):79–82 (7 ref.) (Eng. Abstr.) **(Spa)**

[An intrascrotal epidermoid cyst: apropos a case] Puyol Pallas M, et al. **Actas Urol Esp** 1999 May;23(5):436–9 (18 ref.) (Eng. Abstr.) **(Spa)**

[Intrascrotal lithiasis: an infrequent finding?] López-Rasines G, et al. **Arch Esp Urol** 1999 May;52(4):329–31 (Eng. Abstr.) **(Spa)**

[Intrascrotal malignant fibrous histiocytoma] Medina Pérez M, et al. **Arch Esp Urol** 1999 May;52(4):393–5 (Eng. Abstr.) **(Spa)**

[An epidermal inclusion cyst located in the scrotum. A brief case report] Pellicé i Vilalta C, et al. **Arch Esp Urol** 1999 Jan–Feb;52(1):72–4 (8 ref.) (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Accessory perineal scrotum associated with anorectal malformation. Ozcan C, et al. **BJU Int** 1999 Apr; 83(6):729–30 (5 ref.)

Bifid scrotum, perineal hamartoma and high imperforate anus: a case report. Villarreal DH, et al. **Bol Asoc Med P R** 1998 Apr–Jun;90(4–6):93–4

Popliteal pterygium syndrome with penile and groin testicular ectopia. Habib Z, et al. **Br J Urol** 1998 Nov; 82(5):773–4

Ring chromosome 13 in an infant with multiple congenital anomalies and penoscrotal transposition [letter] Boduroglu K, et al. **Clin Dysmorphol** 1998 Oct;7(4):299–301

Accessory scrotum: an unusual localization of scrotal skin. Korkmaz A, et al. **Pediatr Dermatol** 1999 Mar–Apr; 16(2):142–3

[Perineal lipoma and accessory scrotum] Benchekroun A, et al. **Prog Urol** 1999 Apr;9(2):327–9 (Eng. Abstr.) **(Fre)**

[Epidemiology and classification of congenital malformations] Favre M, et al. **Arch Ital Urol Androl** 1998 Dec;70(5):211–3 (Eng. Abstr.) **(Ita)**

[Malformations of the scrotum and its contents] Marzotto Caotorta M, et al. **Arch Ital Urol Androl** 1998 Dec; 70(5):251–62 (15 ref.) (Eng. Abstr.) **(Ita)**

[The webbed penis. A report of a new case] Medina López RA, et al. **Arch Esp Urol** 1999 Jan–Feb;52(1):68–9 (Eng. Abstr.) **(Spa)**

ANATOMY & HISTOLOGY

Associations among age, scrotal circumference, and proportion of morphologically normal spermatozoa in young beef bulls during an initial breeding soundness examination. Coe PH. **J Am Vet Med Assoc** 1999 Jun 1; 214(11):1664–7

Estimation of genetic parameters for scrotal circumference, age at puberty in heifers, and hip height in Brahman cattle. Vargas CA, et al. **J Anim Sci** 1998 Oct;76(10):2536–41

BLOOD SUPPLY

Scrotal arteriovenous malformation and its preoperative embolization. Konus OL, et al. **Eur Radiol** 1999;9(3):425–7

CYTOLOGY

Scrotal heat stress induces altered sperm chromatin structure associated with a decrease in protamine disulfide bonding in the stallion [published erratum appears in Biol Reprod 1999 May;60(5):1271] Love CC, et al. **Biol Reprod** 1999 Mar;60(3):615–20

INJURIES

Testicular dislocation after scrotal trauma. O'Donnell C, et al. **Br J Urol** 1998 Nov;82(5):768

Scrotal trauma: a cause of testicular atrophy. Cross JJ, et al. **Clin Radiol** 1999 May;54(5):317–20

METABOLISM

Transdermal testosterone delivery: comparison between scrotal and nonscrotal delivery systems. Lin S, et al. **Pharm Dev Technol** 1999 Aug;4(3):405–14

PARASITOLOGY

Direct assessment in vivo of the efficacy of combined single-dose ivermectin and diethylcarbamazine against adult Wuchereria bancrofti. Dreyer G, et al. **Trans R Soc Trop Med Hyg** 1998 Mar–Apr;92(2):219–22

PATHOLOGY

Methods helping the diagnosis of "acute scrotum" based on medical practice in our department. Szabó Z, et al. **Acta Chir Hung** 1998;37(1–2):67–70

Solitary tuberculoid leprosy lesion over penoscrotal fold. Ghorpade A, et al. **Indian J Lepr** 1998 Jul–Sep;70(3):317–8

A case of pustular ulcerative dermatosis of the scalp associated with ulcerative skin lesions on the scrotum. Sadayama T, et al. **J Dermatol** 1998 Oct;25(10):657–61

Cutaneous lymphatic malformation of the penis and scrotum. Sadikoğlu B, et al. **J Urol** 1999 Oct;162(4):1445–6

Aggressive angiomyxoma of scrotum. Durdov MG, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):299–302

[Sclerosing lipogranuloma of the scrotum: a case report] Kodama K, et al. **Hinyokika Kiyo** 1999 Mar;45(3):211–4 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Granular cell tumor of the scrotum with high pseudoepitheliomatous hyperplasia] Medina Pérez M, et al. **Arch Esp Urol** 1999 Mar;52(2):169–70 (Eng. Abstr.) **(Spa)**

[Surgical pathology of the scrotum. An analysis of a series of 56 cases] Redondo Martinez E, et al. **Arch Esp Urol** 1999 Jan–Feb;52(1):11–6 (20 ref.) (Eng. Abstr.) **(Spa)**

[Torsion of the hydatid of Morgagni--a hereditary disease? The most common cause of acute scrotum in children] Skorpil M, et al. **Lakartidningen** 1999 Mar 17;96(11):1320–2 **(Swe)**

PHYSIOLOGY

Comparison of three methods for adjusting scrotal circumference in Charolais, Limousin and Hungarian Fleckvieh young bulls under farm conditions. Tózsér J, et al. **Acta Vet Hung** 1999;47(1):33–40

Effects of ambient temperature and scrotal fleece cover on scrotal and testicular temperatures in rams. Kastelic JP, et al. **Can J Vet Res** 1999 Apr;63(2):157–60

The evolution of the scrotum and testicular descent in mammals: a phylogenetic view. Werdelin L, et al. **J Theor Biol** 1999 Jan 7;196(1):61–72

PHYSIOPATHOLOGY

The swollen, scarlet scrotum: an uncommon manifestation of a common disorder. Gunasekaran TS, et al. **J Pediatr** 1999 Jan;134(1):97–8

SURGERY

Idiopathic scrotal lymphoedema in Down's syndrome. Hashem FK, et al. **Aust N Z J Surg** 1999 Jan;69(1):75–7

Point of technique: Management of penile and scrotal elephantiasis. Ndoye A, et al. **BJU Int** 1999 Aug; 84(3):362–4

Cosmetic orchiectomy using pedicled fibro-fatty tissue graft for prostate cancer: a new approach. Kihara K, et al. **Eur Urol** 1998 Sep;34(3):210–5

Alternative neutering technique for consideration [letter] Helfand JM. **J Am Vet Med Assoc** 1999 Jul 1;215(1):16

Scrotal (Bianchi) approach to patent processus vaginalis in children. Koyle MA, et al. **Tech Urol** 1999 Jun;5(2):95–9

ULTRASONOGRAPHY

Sonographic appearances of extratesticular fluid and fluid-containing scrotal masses in infants and children: clues to diagnosis. Chung SE, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):741–5

Bancroftian filariasis in Egypt: visualization of adult worms and subclinical lymphatic pathology by scrotal ultrasound. Faris R, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):864–7

Ultrasound and Doppler features of accessory spleens and splenic grafts [letter; comment] Henderson RG. **Br J Radiol** 1998 Dec;71(852):1333. Comment on: Br J Radiol 1998 Jun;71(846):595–600.

Scrotal cystocele: US and CT findings in two cases. Casas JD, et al. **Comput Med Imaging Graph** 1998 Jan–Feb; 22(1):53–6 (12 ref.)

The ultrasound appearances of scrotal oedema. Grainger AJ, et al. **Eur J Ultrasound** 1998 Sep;8(1):33–7

Scrotal sonography: a valuable tool in the evaluation of complications following inguinal hernia repair. Holloway BJ, et al. **J Clin Ultrasound** 1998 Sep;26(7):341–4

Lymphangioma of the scrotum. Johansen TL, et al. **Scand J Urol Nephrol** 1999 Jun;33(3):205–6

Color Doppler ultrasound evaluation of the acute scrotum. Galejs LE, et al. **Tech Urol** 1998 Dec;4(4):182–4

SCRUB TYPHUS

[Classic type tsutsugamushi disease] Tachibana N. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):288–90 (4 ref.) **(Jpn)**

[New type tsutsugamushi disease] Tachibana N. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):291–3 (9 ref.) **(Jpn)**

COMPLICATIONS

Serious complications in scrub typhus. Tsay RW, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Dec;31(4):240–4

DIAGNOSIS

Eschar, fever and rash in a 43 year old man. Tsutsugamushi disease. Taniguchi Y. **Dermatol Online J** 1997 Dec;3(2):3

Scrub typhus in north Queensland. McBride WJ, et al. **Med J Aust** 1999 Apr 5;170(7):318–20

DRUG THERAPY

Azithromycin therapy for scrub typhus during pregnancy. Choi EK, et al. **Clin Infect Dis** 1998 Dec;27(6):1538–9

EPIDEMIOLOGY

Seroepidemiologic survey of Orientia tsutsugamushi, Rickettsia typhi, and TT118 spotted fever group rickettsiae in rubber estate workers in Malaysia. Tee TS, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):73–7

Seroprevalence of scrub typhus infection in patients with pyrexia at some malaria clinics in three western provinces of Thailand. Chanyasanha C, et al. **Asian Pac J Allergy Immunol** 1998 Jun–Sep;16(2–3):119–25

Scrub typhus in north Queensland. McBride WJ, et al. **Med J Aust** 1999 Apr 5;170(7):318–20

[Studies on clinical epidemiology of Tsutsugamushi disease of the autumn-winter type in the easten suburbs of Jinan] Yang ZQ, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Aug; 18(4):233–5 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

Antigenic relationship among the eight prototype and new serotype strains of Orientia tsutsugamushi revealed by monoclonal antibodies. Kang JS, et al. **Microbiol Immunol** 1999;43(3):229–34

SCULPTURE

Bacterial bio-mediated calcite precipitation for monumental stones conservation: methods of evaluation. Tiano P, et al. **J Microbiol Methods** 1999 May;36(1–2):139–45

Technology and art against cancer. Armaroli L. **Lancet** 1999 Jan 23;353(9149):332

Remembering those who died from heroin addiction. Birchard K. **Lancet** 1999 Jul 31;354(9176):436

King and Queen of Glenkiln [letter] Watt G. **Lancet** 1998 Oct 17;352(9136):1316

HISTORY

Medicine in American Art. Phrenology at the Fancy Ball. Schatzki SC. **AJR Am J Roentgenol** 1999 Jan;172(1):134

Do Olmec figurines resemble children with specific dysmorphology syndromes? Pueschel SM. **J Hist Med Allied Sci** 1998 Oct;53(4):407–15

Motor perception and anatomical realism in Classical Greek art. Skoyles JR. **Med Hypotheses** 1998 Jul;51(1):69–70

[At the tooth puller's. Johann Joachim Kaendler (news)] Neumeister M. **Schweiz Monatsschr Zahnmed** 1999; 109(7):758, 796 **(Ger, Fre)**

SCURVY

see related

ASCORBIC ACID DEFICIENCY

[Scurvy, Möller-Barlow disease] Mase K. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):405–7 (8 ref.) **(Jpn)**

COMPLICATIONS

Scurvy causing bilateral orbital hemorrhage. Sloan B, et al. **Arch Ophthalmol** 1999 Jun;117(6):842–3

DIAGNOSIS

Scurvy--an unusual cause of proptosis? Suman RL, et al. **Indian Pediatr** 1998 Sep;35(9):915–6

Scurvy can mimick cutaneous vasculitis. Three case reports [letter] Gonzalez-Gay MA, et al. **Rev Rhum Engl Ed** 1999 Jun;66(6):360–1

ETIOLOGY

Pseudoscurvy caused by copper deficiency. Hoyle GS, et al. **J Pediatr** 1999 Mar;134(3):379

HISTORY

Prevention of scurvy in the Royal Navy. Thomas DP, et al. **J R Nav Med Serv** 1998;84(2):107–9

British physician suggests cure for scurvy. Shampo MA, et al. **Mayo Clin Proc** 1999 Jul;74(7):686

An orange a day keeps the scurvy away. Manchester KL. **Trends Pharmacol Sci** 1998 May;19(5):167–70

PATHOLOGY

Puzzles in practice. A rash imposition from a lifestyle omission. Vitamin C deficiency. Garg K, et al. **Postgrad Med** 1998 Nov;104(5):183–4

SCURVY

[Case for diagnosis. Scurvy] Raynaud E, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):920–2 **(Fre)**

PHYSIOPATHOLOGY

Probable evidence of scurvy in subadults from archeological sites in Peru. Ortner DJ, et al. **Am J Phys Anthropol** 1999 Mar;108(3):321–31

RADIOGRAPHY

Separation of the proximal humeral epiphysis. Aroojis A, et al. **Postgrad Med J** 1998 Dec;74(878):752–5

SCYPHOZOA see **JELLYFISH**

SDS-PAGE see **ELECTROPHORESIS, POLYACRYLAMIDE GEL**

SEA ANEMONE VENOMS see **CNIDARIAN VENOMS**

SEA ANEMONES

Partial sequence and toxic effects of granulitoxin, a neurotoxic peptide from the sea anemone Bundosoma granulifera. Santana AN, et al. **Braz J Med Biol Res** 1998 Oct;31(10):1335–8

Antiparasite activity of sea-anemone cytolysins on Giardia duodenalis and specific targeting with anti-Giardia antibodies. Tejuca M, et al. **Int J Parasitol** 1999 Mar; 29(3):489–98

Modification of sticholysin II hemolytic activity by free radicals. Pazos IF, et al. **Toxicon** 1998 Oct;36(10):1383–93

CHEMISTRY

Cathepsin S and cruzipain are inhibited by equistatin from Actinia equina. Stoka V, et al. **Biol Chem** 1999 May; 380(5):589–92

Cysteine-scanning mutagenesis of an eukaryotic pore-forming toxin from sea anemone: topology in lipid membranes. Anderluh G, et al. **Eur J Biochem** 1999 Jul; 263(1):128–36

Sticholysin II, a cytolysin from the sea anemone Stichodactyla helianthus, is a monomer-tetramer associating protein. de los Rios V, et al. **FEBS Lett** 1999 Jul 16;455(1–2):27–30

Structure of a putative sodium channel from the sea anemone Aiptasia pallida. White GB, et al. **Invert Neurosci** 1998 Mar; 3(4):317–26

Kinetics and mechanism of St I modification by peroxyl radicals. Campos AM, et al. **J Protein Chem** 1999 Apr; 18(3):297–306

Effects of equinatoxin II from Actinia equina (L.) on isolated rat heart: the role of direct cardiotoxic effects in equinatoxin II lethality. Bunc M, et al. **Toxicon** 1999 Jan; 37(1):109–23

[Low-molecular cytolysins and trypsin inhibitors from sea anemone Radianthus macrodactylus. Isolation and partial characterization] Zykova TA, et al. **Bioorg Khim** 1998 Jul; 24(7):509–16 (Eng. Abstr.) **(Rus)**

CYTOLOGY

Regulatory volume decrease in nematocytes isolated from acontia of Aiptasia diaphana. La Spada G, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Mar;45(2):249–58

ENZYMOLOGY

Spectral analysis and catalytic activities of the microsomal mixed-function oxidase system of the sea anemone (phylum: Cnidaria). Heffernan LM, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Nov;121(1–3):371–83

GENETICS

Genomic organization of a receptor from sea anemones, structurally and evolutionarily related to glycoprotein hormone receptors from mammals. Vibede N, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):497–501

Cysteine-scanning mutagenesis of an eukaryotic pore-forming toxin from sea anemone: topology in lipid membranes. Anderluh G, et al. **Eur J Biochem** 1999 Jul; 263(1):128–36

Carbonic anhydrase expression and synthesis in the sea anemone Anthopleura elegantissima are enhanced by the presence of dinoflagellate symbionts. Weis VM, et al. **Physiol Biochem Zool** 1999 May-Jun;72(3):307–16

Equinatoxins, pore-forming proteins from the sea anemone Actinia equina, belong to a multigene family. Anderluh G, et al. **Toxicon** 1999 Oct;37(10):1391–401

PHYSIOLOGY

A comparison of hair bundle mechanoreceptors in sea anemones and vertebrate systems. Watson GM, et al. **Curr Top Dev Biol** 1999;43:51–84 (75 ref.)

ULTRASTRUCTURE

Ultrastructure of neuro-spirocyte synapses in the sea anemone Aiptasia pallida (Cnidaria, Anthozoa, Zoantharia). Westfall JA, et al. **J Morphol** 1999 Aug;241(2):165–73

SEA-BLUE HISTIOCYTE SYNDROME

[The syndrome of the sea-blue histiocyte] Kohda K. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):571–4 (13 ref.) **(Jpn)**

PATHOLOGY

Spleen localization of light chain deposition disease associated with sea blue histiocytosis, revealed by spontaneous rupture. de Lajarte-Thirouard AS, et al. **Virchows Arch** 1999 May;434(5):463–5

[Sea-blue histocytosis--a case report] Lu H, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(6):550, 552 **(Chi)**

SEA CUCUMBERS

[Biomedical research on a concentrate of carotenoids made from the North Atlantic sea cucumber Cucumaria frondosa] Bariliak IR, et al. **Vopr Pitan** 1999;68(3):12–7 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Growth of sea cucumber collagen fibrils occurs at the tips and centers in a coordinated manner. Trotter JA, et al. **J Mol Biol** 1998 Dec 18;284(5):1417–24

Toxins from sea cucumbers (holothuroids): chemical structures, properties, taxonomic distribution, biosynthesis and evolution. Stonik VA, et al. **J Nat Toxins** 1999 Jun; 8(2):235–48 (71 ref.)

A triterpenoid saponin from Cucumaria frondosa. Yayli N, et al. **Phytochemistry** 1999 Jan;50(1):135–8

GENETICS

Arginine kinase evolved twice: evidence that echinoderm arginine kinase originated from creatine kinase. Suzuki T, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):671–5

METABOLISM

Studies on the carbohydrate binding sites of the hemolytic lectin CEL-III isolated from the marine invertebrate Cucumaria echinata. Sallay I, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1757–61

Characterization of the interaction of hemolytic lectin CEL-III from the marine invertebrate, Cucumaria echinata, with artificial lipid membranes: involvement of neutral sphingoglycolipids in the pore-forming process. Hatakeyama T, et al. **J Biochem (Tokyo)** 1999 Feb; 125(2):277–84

PHYSIOLOGY

Regeneration of the enteric nervous system in the sea cucumber Holothuria glaberrima. Garcia-Arrarás JE, et al. **J Comp Neurol** 1999 Apr 19;406(4):461–75

SEA LION SPUMAVIRUS see **SPUMAVIRUS**

SEA LIONS see **SEALS**

SEA MINK see **MINK**

SEA NETTLES see **JELLYFISH**

SEA OTTERS see **OTTERS**

SEA URCHINS

Mechanisms of cytotoxicity by cosmetic ingredients in sea urchin eggs. Amouroux I, et al. **Arch Environ Contam Toxicol** 1999 Jan;36(1):28–37

Sea urchins. Burnett JW, et al. **Cutis** 1999 Jul;64(1):21–2

Imaging sea urchin fertilization. Holy JM. **Methods Mol Biol** 1999;122:153–66 (41 ref.)

CHEMISTRY

Purification and some properties of thymidilate kinase from sea urchin. Terentyev LL, et al. **Biochemistry (Mosc)** 1999 Jan;64(1):80–5

Separation and microgram-scale isolation of sea urchin egg granules by electrophoresis in polyvinylpyrrolidone solution, using horizontal gel electrophoresis apparatus with fluorescence detector. Chen N, et al. **Electrophoresis** 1998 Jun;19(7):1195–204

Ultrastructure and cytochemistry of the early calcification site and of its mineralization organic matrix in Paracentrotus lividus (Echinodermata: Echinoidea). Ameye L, et al. **Histochem Cell Biol** 1998 Sep;110(3):285–94

CYTOLOGY

Protein tyrosine kinase-dependent release of intracellular calcium in the sea urchin egg. Shen SS, et al. **Dev Growth Differ** 1999 Jun;41(3):345–55

DRUG EFFECTS

Toxicity of metals and pesticides using the sperm cell bioassay with the sea urchin Arbacia spatuligera. Larrain A, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):749–57

Effect of the IMPase inhibitor L690,330 on sea urchin development. Sconzo G, et al. **Cell Biol Int** 1998;22(2):91–4

Biological effects of a neurotoxic pesticide at low concentrations on sea urchin early development. A terathogenic assay. Morale A, et al. **Chemosphere** 1998 Dec; 37(14–15):3001–10

Caulerpenyne interferes with microtubule-dependent events during the first mitotic cycle of sea urchin eggs. Pesando D, et al. **Eur J Cell Biol** 1998 Sep;77(1):19–26

EMBRYOLOGY

Constitutive hsp70 is essential to mitosis during early cleavage of Paracentrotus lividus embryos: the blockage of constitutive hsp70 impairs mitosis. Sconzo G, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):143–9

How to grow a gut: ontogeny of the endoderm in the sea urchin embryo. Wessel GM, et al. **Bioessays** 1999 Jun; 21(6):459–71 (75 ref.)

Temporal-spatial expression of two Paracentrotus lividus cell surface proteins. Romancino DP, et al. **Cell Biol Int** 1998; 22(4):305–11

Cell movements in the sea urchin embryo. Ettensohn CA. **Curr Opin Genet Dev** 1999 Aug;9(4):461–5 (38 ref.)

Activation of the proteasomes of sand dollar eggs at fertilization depends on the intracellular pH rise. Chiba K, et al. **Dev Biol** 1999 May 1;209(1):52–9

rab3 mediates cortical granule exocytosis in the sea urchin egg. Conner S, et al. **Dev Biol** 1998 Nov 15;203(2):334–44

The TATA binding protein in the sea urchin embryo is maternally derived. Edelmann L, et al. **Dev Biol** 1998 Dec 1;204(1):293–304

Apextrin, a novel extracellular protein associated with larval ectoderm evolution in Heliocidaris erythrogramma. Haag ES, et al. **Dev Biol** 1999 Jul 1;211(1):77–87

alphaSU2, an epithelial integrin that binds laminin in the sea urchin embryo. Hertzler PL, et al. **Dev Biol** 1999 Mar 1; 207(1):1–13

Bottle cells are required for the initiation of primary invagination in the sea urchin embryo. Kimberly EL, et al. **Dev Biol** 1998 Dec 1;204(1):235–50

Requirement of SpOtx in cell fate decisions in the sea urchin embryo and possible role as a mediator of beta-catenin signaling. Li X, et al. **Dev Biol** 1999 Aug 15;212(2):425–39

The betaL integrin subunit is necessary for gastrulation in sea urchin embryos. Marsden M, et al. **Dev Biol** 1998 Nov 1;203(1):134–48

Expression pattern of Brachyury and Not in the sea urchin: comparative implications for the origins of mesoderm in the basal deuterostomes. Peterson KJ, et al. **Dev Biol** 1999 Mar 15;207(2):419–31

Disruption of primary mesenchyme cell patterning by misregulated ectodermal expression of SpMsx in sea urchin embryos. Tan H, et al. **Dev Biol** 1998 Sep 15;201(2):230–46

Functional gap junctions in the early sea urchin embryo are localized to the vegetal pole. Yazaki I, et al. **Dev Biol** 1999 Aug 15;212(2):503–10

Detection of phospholipase Cgamma in sea urchin eggs. De Nadai C, et al. **Dev Growth Differ** 1998 Dec;40(6):669–76

Studies on heat shock proteins in sea urchin development. Giudice G, et al. **Dev Growth Differ** 1999 Aug;41(4):375–80 (27 ref.)

Hbox1 and Hbox7 are involved in pattern formation in sea urchin embryos. Ishii M, et al. **Dev Growth Differ** 1999 Jun;41(3):241–52

Lim1 related homeobox gene (HpLim1) expressed in sea urchin embryos. Kawasaki T, et al. **Dev Growth Differ** 1999 Jun;41(3):273–82

Unequal divisions at the third cleavage increase the number of primary mesenchyme cells in sea urchin embryos. Kominami T, et al. **Dev Growth Differ** 1998 Oct; 40(5):545–53

Role of cell adhesion in the specification of pigment cell lineage in embryos of the sea urchin, Hemicentrotus pulcherrimus. Kominami T. **Dev Growth Differ** 1998 Dec; 40(6):609–18

Outgrowth of pseudopodial cables induced by all-trans retinoic acid in micromere-derived cells isolated from sea urchin embryos. Kuno S, et al. **Dev Growth Differ** 1999 Apr;41(2):193–9

SM37, a skeletogenic gene of the sea urchin embryo linked to the SM50 gene. Lee YH, et al. **Dev Growth Differ** 1999 Jun;41(3):303–12

Histone deacetylase mRNA temporally and spatially regulated in its expression in sea urchin embryos. Nemer M. **Dev Growth Differ** 1998 Dec;40(6):583–90

Expression of a src-type protein tyrosine kinase gene, AcSrc1, in the sea urchin embryo. Onodera H, et al. **Dev Growth Differ** 1999 Feb;41(1):19–28

Absence of furrowing activity following regional cortical tension reduction in sand dollar blastomere and fertilized egg fragment surfaces. Rappaport R. **Dev Growth Differ** 1999 Aug;41(4):441–7

A protein of the basal lamina of the sea urchin embryo. Tesoro V, et al. **Dev Growth Differ** 1998 Oct;40(5):527–35

Spatially restricted expression of PlOtp, a Paracentrotus lividus orthopedia-related homeobox gene, is correlated with oral ectodermal patterning and skeletal morphogenesis in late-cleavage sea urchin embryos. Di Bernardo M, et al. **Development** 1999 May;126(10):2171–9

Nuclear beta-catenin is required to specify vegetal cell fates in the sea urchin embryo. Logan CY, et al. **Development** 1999 Jan;126(2):345–57

A novel ontogenetic pathway in hybrid embryos between species with different modes of development. Raff EC, et

al. **Development** 1999 May;126(9):1937-45
LvNotch signaling mediates secondary mesenchyme specification in the sea urchin embryo. Sherwood DR, et al. **Development** 1999 Apr;126(8):1703-13
Spatially regulated SpEts4 transcription factor activity along the sea urchin embryo animal-vegetal axis. Wei Z, et al. **Development** 1999 Apr;126(8):1729-37
Characterization of a gene encoding a developmentally regulated winged helix transcription factor of the sea urchin Strongylocentrotus purpuratus. David ES, et al. **Gene** 1999 Aug 5;236(1):97-105
Action of serotonin antagonists on cytoplasmic calcium levels in early embryos of sea urchin Lytechinus pictus. Shmukler YB, et al. **Int J Dev Biol** 1999 Mar;43(2):179-82
Calcium-protein interactions in the extracellular environment: calcium binding, activation, and immunolocalization of a collagenase/gelatinase activity expressed in the sea urchin embryo. Mayne J, et al. **J Cell Biochem** 1998 Dec 15;71(4):546-58
Na+/K+-ATPase activity during early development and growth of an Antarctic sea urchin. Leong PK, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2051-8
Energy metabolism during embryonic development and larval growth of an Antarctic sea urchin. Marsh AG, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2041-50
Temperature dependence of membrane lipid composition in early blastula embryos of Lytechinus pictus: selective sorting of phospholipids into nascent plasma membranes. Tremper KE, et al. **J Membr Biol** 1999 Sep 1;171(1):47-53
Cellular control over spicule formation in sea urchin embryos: A structural approach. Beniash E, et al. **J Struct Biol** 1999 Mar;125(1):50-62
Developmental characterization of the gene for laminin alpha-chain in sea urchin embryos. Benson S, et al. **Mech Dev** 1999 Mar;81(1-2):37-49
HpEts, an ets-related transcription factor implicated in primary mesenchyme cell differentiation in the sea urchin embryo. Kurokawa D, et al. **Mech Dev** 1999 Jan; 80(1):41-52
Quantitative and ultrastructural analysis of the chondriome in ovogenesis and embryogenesis of the sea urchin Paracentrotus lividus. Sukhomlinova MY, et al. **Membr Cell Biol** 1998;12(4):453-68
Syntaxin is required for cell division. Conner SD, et al. **Mol Biol Cell** 1999 Aug;10(8):2735-43
Molecular characterization and phylogenetic analysis of SpBMP5-7, a new member of the TGF-beta superfamily expressed in sea urchin embryos. Ponce MR, et al. **Mol Biol Evol** 1999 May;16(5):634-45
Calcium-induced fusion of sea urchin egg secretory vesicles with planar phospholipid bilayer membranes. Chanturiya A, et al. **Mol Membr Biol** 1999 Jan-Mar;16(1):89-94
Regulative development of the sea urchin embryo: signalling cascades and morphogen gradients. Angerer LM, et al. **Semin Cell Dev Biol** 1999 Jun;10(3):327-34 (42 ref.)
[Effect of millimeter waves on the early development of the mouse and sea urchin embryo] Galat VV, et al. **Biofizika** 1999 Jan-Feb;44(1):137-40 (Eng. Abstr.) **(Rus)**

ENZYMOLOGY

The primary and higher order structures of sea urchin ovoperoxidase as determined by cDNA cloning and predicted by homology modeling. Nomura K, et al. **Arch Biochem Biophys** 1999 Jul 15;367(2):173-84
The cortical granule serine protease CGSP1 of the sea urchin, Strongylocentrotus purpuratus, is autocatalytic and contains a low-density lipoprotein receptor-like domain. Haley SA, et al. **Dev Biol** 1999 Jul 1;211(1):1-10
Proximal cis-regulatory elements of sea urchin arylsulfatase gene. Koike H, et al. **Dev Growth Differ** 1998 Oct; 40(5):537-44
Localization of Rho GTPase in sea urchin eggs. Nishimura Y, et al. **FEBS Lett** 1998 Dec 11;441(1):121-6

GENETICS

Sea urchin TgBMP2/4 gene encoding a bone morphogenetic protein closely related to vertebrate BMP2 and BMP4 with maximal expression at the later stages of embryonic development. Hwang SL, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):457-63
In vivo mitochondrial DNA-protein interactions in sea urchin eggs and embryos. Roberti M, et al. **Curr Genet** 1999 Jan;34(6):449-58
Genes and their products in sea urchin development. Giudice G. **Curr Top Dev Biol** 1999;45:41-116 (565 ref.)
Microsatellite loci in wild-type and inbred Strongylocentrotus purpuratus. Cameron RA, et al. **Dev Biol** 1999 Apr 15;208(2):255-64
Histone deacetylase mRNA temporally and spatially regulated in its expression in sea urchin embryos. Nemer M. **Dev Growth Differ** 1998 Dec;40(6):583-90
Functional organization of DNA elements regulating SM30alpha, a spicule matrix gene of sea urchin embryos. Yamasu K, et al. **Dev Growth Differ** 1999 Feb;41(1):81-91
Characterization of a gene encoding a developmentally regulated winged helix transcription factor of the sea urchin Strongylocentrotus purpuratus. David ES, et al. **Gene** 1999 Aug 5;236(1):97-105
Multiple SSAP binding sites constitute the stage-specific enhancer of the sea urchin late H1beta gene. Edelmann L, et al. **Gene Expr** 1998;7(3):133-47
Toward the gene catalogue of sea urchin development: the construction and analysis of an unfertilized egg cDNA library highly normalized by oligonucleotide fingerprinting. Poustka AJ, et al. **Genomics** 1999 Jul 15; 59(2):122-33
Identification of a human homologue of the sea urchin receptor for egg jelly: a polycystic kidney disease-like protein. Hughes J, et al. **Hum Mol Genet** 1999 Mar; 8(3):543-9
The molecular evolution of sperm bindin in six species of sea urchins (Echinoida: Strongylocentrotidae). Biermann CH. **Mol Biol Evol** 1998 Dec;15(12):1761-71
Evolution of sea urchin retroviral-like (SURL) elements: evidence from 40 echinoid species. Gonzalez P, et al. **Mol Biol Evol** 1999 Jul;16(7):938-52
Temporal activation of the sea urchin late H1 gene requires stage-specific phosphorylation of the embryonic transcription factor SSAP. Li Z, et al. **Mol Cell Biol** 1999 May;19(5):3684-95
Identification of a new sea urchin ets protein, SpEts4, by yeast one-hybrid screening with the hatching enzyme promoter. Wei Z, et al. **Mol Cell Biol** 1999 Feb;19(2):1271-8
Expression of the Hox gene complex in the indirect development of a sea urchin. Arenas-Mena C, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13062-7

GROWTH & DEVELOPMENT

Genes and their products in sea urchin development. Giudice G. **Curr Top Dev Biol** 1999;45:41-116 (565 ref.)
A novel ontogenetic pathway in hybrid embryos between species with different modes of development. Raff EC, et al. **Development** 1999 May;126(9):1937-45
Differential expression of sea urchin Otx isoform (hpOtxE and HpOtxL) mRNAs during early development. Mitsunaga-Nakatsubo K, et al. **Int J Dev Biol** 1998 Jul; 42(5):645-51

IMMUNOLOGY

Complement systems in invertebrates. The ancient alternative and lectin pathways. Smith LC, et al. **Immunopharmacology** 1999 May;42(1-3):107-20 (64 ref.)
Coelomocytes express SpBf, a homologue of factor B, the second component in the sea urchin complement system. Smith LC, et al. **J Immunol** 1998 Dec 15;161(12):6784-93

METABOLISM

Temporal-spatial expression of two Paracentrotus lividus cell surface proteins. Romancino DP, et al. **Cell Biol Int** 1998; 22(4):305-11
Cytoplasmic Ca2+ oscillation coordinates the formation of actin filaments in the sea urchin eggs activated with phorbol ester. Arai A, et al. **Cell Motil Cytoskeleton** 1999; 42(1):27-35
In vivo mitochondrial DNA-protein interactions in sea urchin eggs and embryos. Roberti M, et al. **Curr Genet** 1999 Jan;34(6):449-58
Sperm-egg binding in the sea urchin: a high level of intracellular ATP stabilizes sperm attachment to the egg receptor. Hirohashi N, et al. **Dev Biol** 1998 Sep 15; 201(2):270-9
Studies on heat shock proteins in sea urchin development. Giudice G, et al. **Dev Growth Differ** 1999 Aug;41(4):375-80 (27 ref.)
Association of the sea urchin EGF-related peptide, EGIP-D, with fasciclin I-related ECM proteins from the sea urchin Anthocidaris crassispina. Hirate Y, et al. **Dev Growth Differ** 1999 Aug;41(4):483-94
Energy metabolism during embryonic development and larval growth of an Antarctic sea urchin. Marsh AG, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2041-50
Ultrastructural localization of proteins involved in sea urchin biomineralization. Ameye L, et al. **J Histochem Cytochem** 1999 Sep;47(9):1189-200
Temperature dependence of membrane lipid composition in early blastula embryos of Lytechinus pictus: selective sorting of phospholipids into nascent plasma membranes. Tremper KE, et al. **J Membr Biol** 1999 Sep 1;171(1):47-53
Matrix and mineral in the sea urchin larval skeleton. Wilt FH. **J Struct Biol** 1999 Jun 30;126(3):216-26 (62 ref.)

MICROBIOLOGY

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198-201

PHYSIOLOGY

Differential regulation of nicotinic acid-adenine dinucleotide phosphate and cADP-ribose production by cAMP and cGMP. Wilson HL, et al. **Biochem J** 1998 May 1;331 (Pt 3):837-43
Alterations in cholinergic signaling modulate contraction of isolated sea urchin tube feet: potential role of nitric oxide. Billack B, et al. **Biol Bull** 1998 Oct;195(2):196-7
Bending patterns of ATP-reactivated sea urchin sperm flagella following high salt extraction for removal of outer dynein arms. Brokaw CJ. **Cell Motil Cytoskeleton** 1999; 42(2):125-33
Inhibition of sea urchin fertilization by fatty acid ethanolamides and cannabinoids. Berdyshev EV. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Mar;122(3):327-30
Identification of PLCgamma-dependent and -independent events during fertilization of sea urchin eggs. Carroll DJ, et al. **Dev Biol** 1999 Feb 15;206(2):232-47
Primary structure of a 120 kDa protein associated with the fucose sulfate glycoconjugate constituting the acrosome reaction-inducing substance of the sea urchin, Hemicentrotus pulcherrimus. Ohbayashi H, et al. **Dev Growth Differ** 1998 Dec;40(6):641-50
Using sea urchin gametes for the study of mitosis. Sluder G, et al. **Methods Cell Biol** 1999;61:439-72 (10 ref.)

ULTRASTRUCTURE

Ultrastructure and cytochemistry of the early calcification site and of its mineralization organic matrix in Paracentrotus lividus (Echinodermata: Echinoidea). Ameye L, et al. **Histochem Cell Biol** 1998 Sep;110(3):285-94

SEAFOOD

Plant-food and seafood allergens--an overview. Breiteneder H. **Allergy** 1998;53(46 Suppl):31-4 (21 ref.)
Estimation of target hazard quotients and potential health risks for metals by consumption of seafood in Taiwan. Han B, et al. **Arch Environ Contam Toxicol** 1998 Nov; 35(4):711-20
New system for seafood safety [news] **Environ Health Perspect** 1998 Oct;106(10):A475-8
Absence of nonresponse bias in a study of sport-caught Great Lakes fish consumption and conception failure. Stein AD, et al. **Environ Res** 1999 Apr;80(3):287-93
Fish consumption and coronary heart disease mortality. A systematic review of prospective cohort studies. Marckmann P, et al. **Eur J Clin Nutr** 1999 Aug;53(8):585-90 (42 ref.)
n-3 fatty acids and the risk of sudden cardiac death assessed by 24-hour heart rate variability. Christensen JH, et al. **Lipids** 1999;34 Suppl:S197
Aquatic biotoxins: design and implementation of seafood safety monitoring programs. Park DL, et al. **Rev Environ Contam Toxicol** 1999;161:157-200 (182 ref.)
Lead, nickel and vanadium in seafood: an exposure assessment for Kuwaiti consumers. Bu-Olayan AH, et al. **Sci Total Environ** 1998 Nov 10;223(2-3):81-6
Seafood recommendation in Knobeloch paper 'inappropriate' [letter; comment] Moyer TP. **WMJ** 1999 Jan-Feb;98(1):5 . Comment on: WMJ 1998 Oct;97(9):46-8.

ADVERSE EFFECTS

Histamine intolerance imitated a fish allergy [letter] Thewes M, et al. **Acta Derm Venereol** 1999 Jan;79(1):89
Delayed evoked potentials in children exposed to methylmercury from seafood. Murata K, et al. **Neurotoxicol Teratol** 1999 Jul-Aug;21(4):343-8

ANALYSIS

Determination of borates in caviare by ion-exclusion chromatography. Carlson M, et al. **Food Addit Contam** 1998 Nov-Dec;15(8):898-905
Total mercury in muscle of benthic and pelagic fish from the South Adriatic Sea (Italy). Storelli MM, et al. **Food Addit Contam** 1998 Nov-Dec;15(8):876-83
Arsenic speciation in manufactured seafood products. Vélez D, et al. **J Food Prot** 1998 Sep;61(9):1240-5 (60 ref.)

MICROBIOLOGY

Botulism in Canada--summary for 1997. Austin J, et al. **Can Commun Dis Rep** 1999 Jul 15;25(14):121-2 **(Eng, Fre)**
Dry rehydratable film method for enumerating confirmed Escherichia coli in poultry, meats, and seafood: collaborative study. Gangar V, et al. **J AOAC Int** 1999 Jan-Feb;82(1):73-8
Thawed cod fillets spoil less rapidly than unfrozen fillets when stored under modified atmosphere at 2 degrees C. Guldager HS, et al. **J Food Prot** 1998 Sep;61(9):1129-36
Conservative prediction of time to Clostridium botulinum toxin formation for use with time-temperature indicators to ensure the safety of foods. Skinner GE, et al. **J Food Prot** 1998 Sep;61(9):1154-60
Prevalence and characteristics of Aeromonas species isolated from processed channel catfish. Wang C, et al. **J Food Prot** 1999 Jan;62(1):30-4
Quantitative PCR for Listeria monocytogenes with colorimetric detection. Wang C, et al. **J Food Prot** 1999 Jan;62(1):35-9
[Characterization of Escherichia coli strains isolated from man and seafood] Bouhaddioui B, et al. **Bull Soc Pathol Exot** 1998;91(4):283-6 (Eng. Abstr.) **(Fre)**
[Seafood transmitted diseases] Feldhusen F. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug;106(8):319-25 (60 ref.) (Eng. Abstr.) **(Ger)**

PARASITOLOGY

[Seafood transmitted diseases] Feldhusen F. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug;106(8):319-25 (60 ref.) (Eng. Abstr.) **(Ger)**

SEAFOOD

POISONING

Seafood-associated disease outbreaks in New York, 1980-1994. Wallace BJ, et al. **Am J Prev Med** 1999 Jul; 17(1):48-54

Cyanobacterial toxins in Portugal: effects on aquatic animals and risk for human health. Vasconcelos VM. **Braz J Med Biol Res** 1999 Mar;32(3):249-54 (40 ref.)

From the Centers for Disease Control and Prevention. Ciguatera fish poisoning--Texas, 1997. **JAMA** 1998 Oct 28;280(16):1394-5

Seafood-induced fatal anaphylaxis. Patel F. **Med Sci Law** 1998 Oct;38(4):354-7

Ciguatera fish poisoning [letter] Crump JA, et al. **N Z Med J** 1999 Jul 23;112(1092):282-3

An overview of the marine food poisoning in Mexico. Sierra-Beltrán AP, et al. **Toxicon** 1998 Nov; 36(11):1493-502 (31 ref.)

Fish poisoning due to toxins of microalgal origins in the Pacific. Yasumoto T. **Toxicon** 1998 Nov;36(11):1515-8

A review of selected seafood poisonings. Clark RF, et al. **Undersea Hyperb Med** 1999 Fall;26(3):175-84 (91 ref.)

[KAP study (knowledge-attitude-practice) on seafood poisoning on the southwest coast of Madagascar] Robinson R, et al. **Bull Soc Pathol Exot** 1999 Feb;92(1):46-50 (Eng. Abstr.) **(Fre)**

STANDARDS

Compliance issues and drug use in aquaculture production. Mitchell GA. **Vet Hum Toxicol** 1998;40 Suppl 2:31-4

Quality assurance and food safety. Warren H. **Vet Hum Toxicol** 1998;40 Suppl 2:34-6

SEALANTS, ROOT CANAL see **ROOT CANAL FILLING MATERIALS**

SEALANTS, TOOTH see **PIT AND FISSURE SEALANTS**

SEALED CABIN ECOLOGY see **ECOLOGICAL SYSTEMS, CLOSED**

SEALS

Levels and enantiomeric ratios of alpha-HCH, oxychlordane, and PCB 149 in blubber of harbour seals (Phoca vitulina) and grey seals (Halichoerus grypus) from Iceland and further species. Klobes U, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):2501-12

Combined microwave-assisted extraction and gel permeation chromatography for the determination of chlorinated hydrocarbons in seal blubber and cod livers. Vetter W, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):2439-49

Isolation of Mycoplasma species from a patient with seal finger. Baker AS, et al. **Clin Infect Dis** 1998 Nov; 27(5):1168-70

Adenocarcinoma of the lung in a Steller sea lion (Eumetopias jubatus). Sato S, et al. **J Vet Med Sci** 1998 Dec; 60(12):1349-51

Antibodies against Leptospira interrogans in California sea lion pups from Gulf of California. Godinez CR, et al. **J Wildl Dis** 1999 Jan;35(1):108-11

An additional case of leptospirosis in a harbor seal [letter] Stevens E, et al. **J Wildl Dis** 1999 Jan;35(1):150

Evidence of Brucella infection in marine mammals in the North Atlantic Ocean. Tryland M, et al. **Vet Rec** 1999 May 22;144(21):588-92

ANATOMY & HISTOLOGY

Absence of short-wavelength sensitive cones in the retinae of seals (Carnivora) and African giant rats (Rodentia). Peichl L, et al. **Eur J Neurosci** 1998 Aug;10(8):2586-94

Establishment of monk seal cell lines [letter] Lu Y, et al. **In Vitro Cell Dev Biol Anim** 1998 May;34(5):367-9

CT examination of the head of the Baikal seal (Phoca sibirica). Endo H, et al. **J Anat** 1999 Jan;194 (Pt 1):119-26

Light and electron microscopical observations on the terminal airways and alveoli of the lung of the SA (Cape) fur seal Arctocephalus pusillus. Wessels JC, et al. **Onderstepoort J Vet Res** 1998 Dec;65(4):253-62

BLOOD

Changes in fibrinolytic activity in diving grey seals. Lohman S, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Aug;120(4):693-8

Health status of young Alaska Steller sea lion pups (Eumetopias jubatus) as indicated by blood chemistry and hematology. Rea LD, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Aug; 120(4):617-23

Thyroid hormones in grey seal pups (Halichoerus grypus). Woldstad S, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Feb; 122(2):157-62

Use of a GnRH agonist to suppress testosterone in wild male Hawaiian monk seals (Monachus schauinslandi). Atkinson S, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):178-82

Factors affecting organochlorine contaminant concentrations in milk and blood of northern fur seal (Callorhinus ursinus) dams and pups from St. George Island, Alaska. Beckmen KB, et al. **Sci Total Environ** 1999 Jul 1;231(2-3):183-200

[The amino acid composition of blood serum of harp seal pups in the period of adaptation to captivity] Erokhina IA. **Ukr Biokhim Zh** 1998 Sep-Oct;70(5):153-6 (Eng. Abstr.) **(Rus)**

EMBRYOLOGY

[Comparative analysis of development of the auditory and vestibular structures in a representative of true seals, Pusa hispida (Pinnipedia:Phocidae-Pusa hispida)] Solntseva GN. **Dokl Akad Nauk** 1999 Apr;365(6):849-52 **(Rus)**

GENETICS

Molecular cloning and phylogenetic analysis of beluga whale (Delphinapterus leucas) and grey seal (Halichoerus grypus) interleukin 2. St-Laurent G, et al. **Vet Immunol Immunopathol** 1999 Mar 1;67(4):385-94

GROWTH & DEVELOPMENT

Ontogeny of humoral immunity in northern elephant seal (Mirounga angustirostris) neonates. King DP, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Dec; 121(4):363-8

IMMUNOLOGY

Ontogeny of humoral immunity in northern elephant seal (Mirounga angustirostris) neonates. King DP, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Dec; 121(4):363-8

Characterization of a harbor seal class I major histocompatability complex cDNA clone. Zhong JF, et al. **Immunogenetics** 1998 Nov-Dec;48(6):422-4

METABOLISM

Enantioselective gas chromatography/mass spectrometry of methylsulfonyl PCBs with application to arctic marine mammals. Wiberg K, et al. **Anal Chem** 1998 Sep 15; 70(18):3845-52

Age-dependent accumulation of heavy metals in baikal seal (Phoca sibirica) from the Lake Baikal. Watanabe I, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):518-26

Contamination levels and specific accumulation of persistent organochlorines in Caspian seal (Phoca caspica) from the Caspian sea, Russia. Watanabe M, et al. **Arch Environ Contam Toxicol** 1999 Oct;37(3):396-407

Characterization of three major toxaphene congeners in arctic ringed seal by electron ionization and electron capture negative ion mass spectrometry. Loewen MD, et al. **Chemosphere** 1998 Jun;36(15):3119-35

Composition of polyunsaturated fatty acids in the liver of freshwater and marine ringed seals (Phoca hispida ssp.) differs largely due to the diet of the seals. Käkelä R, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun; 120(2):231-7

Factors affecting organochlorine contaminant concentrations in milk and blood of northern fur seal (Callorhinus ursinus) dams and pups from St. George Island, Alaska. Beckmen KB, et al. **Sci Total Environ** 1999 Jul 1;231(2-3):183-200

Levels of organochlorine and polycyclic aromatic compounds in harp seal beaters (Phoca groenlandica). Zitko V, et al. **Sci Total Environ** 1998 Sep 29;221(1):11-29

MICROBIOLOGY

Amplification of a 500-base-pair fragment from cultured isolates of Mycobacterium bovis. Rodriguez JG, et al. **J Clin Microbiol** 1999 Jul;37(7):2330-2

Genomic fingerprinting and development of a dendrogram for Brucella spp. isolated from seals, porpoises, and dolphins. Jensen AE, et al. **J Vet Diagn Invest** 1999 Mar; 11(2):152-7

Antimicrobial susceptibility of bacteria isolated from pinnipeds stranded in central and northern California. Johnson SP, et al. **J Zoo Wildl Med** 1998 Sep;29(3):288-94

PARASITOLOGY

Meningoencephalitis due to a Sarcocystis neurona-like protozoan in Pacific harbor seals (Phoca vitulina richardsi). Lapointe JM, et al. **J Parasitol** 1998 Dec;84(6):1184-9

Hookworms (Uncinaria sp.) in Juan Fernandez fur seal pups (Arctocephalus philippii) from Alejandro Selkirk Island, Chile. Sepúlveda MS. **J Parasitol** 1998 Dec;84(6):1305-7

Parasites and related pathological lesions in the gastrointestinal tract of a seal (Phoka vitulina Linnaeus). Ito M, et al. **J Vet Med Sci** 1998 Sep;60(9):1025-8

Ecology of host parasite relationships in the Baltic Sea. Zander CD. **Naturwissenschaften** 1998 Sep;85(9):426-36 (38 ref.)

Prevalence and intensity of the ectoparasite Echinophthirius horridus on harbour seals (Phoca vitulina): effects of host age and inter-annual variability in host food availability. Thompson PM, et al. **Parasitology** 1998 Oct;117 (Pt 4):393-403

PHYSIOLOGY

Brain cooling in diving seals. Odden A, et al. **Acta Physiol Scand** 1999 May;166(1):77-8

Heart rate and behavior of fur seals: implications for measurement of field energetics. Boyd IL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H844-57

Health condition of the Baltic grey seal (Halichoerus grypus) during two decades. Gynaecological health improvement but increased prevalence of colonic ulcers. Bergman A. **APMIS** 1999 Mar;107(3):270-82

Immobilisation of pinniped species. Lynch MJ, et al. **Aust Vet J** 1999 Mar;77(3):181-5 (39 ref.)

Effects of adrenergic and cholinergic drugs on splenic arteries and veins from hooded seals (Cystophora cristata). Cabanac A, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun; 120(2):277-81

Heterogeneous cholinergic reactions of ringed seal coronary arteries. Elsner R, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Apr; 119(4):1019-25

Diving seals, ischemia-reperfusion and oxygen radicals. Elsner R, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Apr; 119(4):975-80

Nutrient, fatty acid, amino acid and mineral analysis of natural prey of the Hawaiian monk seal, Monachus schauinslandi. Goodman-Lowe GD, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):137-46

Stranded seals: important sentinels. Gulland FM. **J Am Vet Med Assoc** 1999 Apr 15;214(8):1191-2 (5 ref.)

Instrumentation for the remote monitoring of physiological and behavioral variables. Andrews RD. **J Appl Physiol** 1998 Nov;85(5):1974-81 (12 ref.)

High aerobic capacities in the skeletal muscles of pinnipeds: adaptations to diving hypoxia. Kanatous SB, et al. **J Appl Physiol** 1999 Apr;86(4):1247-56

Convective oxygen transport and tissue oxygen consumption in Weddell seals during aerobic dives. Davis RW, et al. **J Exp Biol** 1999 May;202 (Pt 9):1091-113

Ambient temperature does not affect the tactile sensitivity of mystacial vibrissae in harbour seals. Dehnhardt G, et al. **J Exp Biol** 1998 Nov;201 (Pt 22):3023-9

Development of cardiorespiratory patterns associated with terrestrial apneas in free-ranging southern elephant seals. Falabella V, et al. **Physiol Biochem Zool** 1999 Jan-Feb; 72(1):64-70

Protein catabolism and renal function in lactating northern elephant seals. Crocker DE, et al. **Physiol Zool** 1998 Sep-Oct;71(5):485-91

Lunar cycles in diel prey migrations exert a stronger effect on the diving of juveniles than adult Galápagos fur seals. Horning M, et al. **Proc R Soc Lond B Biol Sci** 1999 Jun 7;266(1424):1127-32

[Grey (Halcichoerus grypus) and common (Phoca vitulina) seals in Murman: adaptation to ice and ecological differentiation in subpopulations] Kondakov AA. **Dokl Akad Nauk** 1999 Jan;364(2):274-6 **(Rus)**

[Various ecological and physiological aspects of feeding and growth of the Baikal seal Pusa sibirica pups] Egorova LI, et al. **Zh Evol Biokhim Fiziol** 1998 Sep-Oct;34(5):591-7 **(Rus)**

[Composition and properties of serum proteins from the Greenland seal Pagophilus groenlandica pups during adaptation to captivity] Erokhina IA, et al. **Zh Evol Biokhim Fiziol** 1998 Nov-Dec;34(6):654-60 **(Rus)**

VIROLOGY

Antigenic and nucleotide characterization of a herpesvirus isolated from Pacific harbor seals (Phoca vitulina richardsii). King DP, et al. **Arch Virol** 1998;143(10):2021-7

Morbillivirus infections in aquatic mammals. Kennedy S. **J Comp Pathol** 1998 Oct;119(3):201-25 (106 ref.)

Canine distemper virus in a Caspian seal. Forsyth MA, et al. **Vet Rec** 1998 Dec 12;143(24):662-4

SEARCHING BEHAVIOR see **APPETITIVE BEHAVIOR**

SEASICKNESS see **MOTION SICKNESS**

SEASONAL AFFECTIVE DISORDER

Chronic fatigue syndrome and seasonal affective disorder: comorbidity, diagnostic overlap, and implications for treatment. Terman M, et al. **Am J Med** 1998 Sep 28; 105(3A):115S-124S

Seasonal affective disorder. Partonen T, et al. **Lancet** 1998 Oct 24;352(9137):1369-74 (50 ref.)

BLOOD

The effects of seasons and light therapy on G protein levels in mononuclear leukocytes of patients with seasonal affective disorder. Avissar S, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):178-83

Platelet [3H]paroxetine and [3H]lysergic acid diethylamide binding in seasonal affective disorder and the effect of bright light therapy. Smedh K, et al. **Biol Psychiatry** 1999 Feb 15;45(4):464-70

Gender differences in glycosylated hemoglobin levels in seasonal affective disorder patients and controls. Neuhaus IM, et al. **Compr Psychiatry** 1999 May-Jun;40(3):234-7

Accelerated post-glucose glycaemia and altered alliesthesia-test in Seasonal Affective Disorder. Kräuchi K, et al. **J Affect Disord** 1999 Apr;53(1):23-6

Melatonin sensitivity to dim white light in affective disorders. Nathan PJ, et al. **Neuropsychopharmacology** 1999 Sep; 21(3):408-13

COMPLICATIONS

Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9-28

DIAGNOSIS

Validation of the hypomania interview guide-seasonal affective disorder (HIGH-SAD) version in patients with rapid cycling bipolar disorder. Feldman-Naim S, et al. **Depress Anxiety** 1998;8(4):166-8

Cluster headache and periodic affective illness: common chronobiological features. Costa A, et al. **Funct Neurol** 1998 Jul-Sep;13(3):263-72 (47 ref.)

Characteristics of patients with otherwise typical winter depression, but with incomplete summer remission. Lingjaerde O, et al. **J Affect Disord** 1999 Apr;53(1):91-4

DRUG THERAPY

Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9-28

EPIDEMIOLOGY

Seasonal affective disorders among rural Finns and Lapps. Saarijärvi S, et al. **Acta Psychiatr Scand** 1999 Feb; 99(2):95-101

The prevalence of seasonal affective disorder in The Netherlands: a prospective and retrospective study of seasonal mood variation in the general population. Mersch PP, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1013-22

Prevalence of seasonal affective disorder [letter; comment] Vera GH. **Br J Psychiatry** 1998 Sep;173:270. Comment on: Br J Psychiatry 1998 Feb;172:164-7.

Seasonal affective disorder in college students: prevalence and latitude. Low KG, et al. **J Am Coll Health** 1998 Nov; 47(3):135-7

Vulnerability by sex to seasonal affective disorder. Lee TM, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1120-2

The possible role of seasonal mood changes in the seasonal distribution of acute myocardial infarction [letter] Sher L. **Psychosomatics** 1999 Jul-Aug;40(4):364

ETHNOLOGY

Self-reported seasonal variation in depression at 78 degree north. The Svalbard Study. Nilssen O, et al. **Int J Circumpolar Health** 1999 Jan;58(1):14-23

GENETICS

No coding variant of the tryptophan hydroxylase gene detected in seasonal affective disorder, obsessive-compulsive disorder, anorexia nervosa, and alcoholism. Han L, et al. **Biol Psychiatry** 1999 Mar 1; 45(5):615-9

Association between seasonal affective disorder and the 5-HT2A promoter polymorphism, -1438G/A. Enoch MA, et al. **Mol Psychiatry** 1999 Jan;4(1):89-92

Behavioral effects of tryptophan depletion in seasonal affective disorder associated with the serotonin transporter gene? Lenzinger E, et al. **Psychiatry Res** 1999 Mar 22; 85(3):241-6

Familial transmission of seasonal changes in sleep and eating function in the general population. Sasaki T, et al. **Psychiatry Res** 1998 Nov 16;81(2):211-7

METABOLISM

Extrapineal melatonin and exogenous serotonin in seasonal affective disorder. Partonen T. **Med Hypotheses** 1998 Nov; 51(5):441-2 (5 ref.)

NURSING

Understanding seasonal affective disorder and experiences in northern Norway. Stuhlmiller CM. **Image J Nurs Sch** 1998;30(2):151-6

PHYSIOPATHOLOGY

Serotonin 1A receptors, melatonin, and the proportional control thermostat in patients with winter depression. Schwartz PJ, et al. **Arch Gen Psychiatry** 1998 Oct; 55(10):897-903

One pacemaker in seasonal affective disorder. Partonen T. **Med Hypotheses** 1998 Oct;51(4):297-8

Growth hormone response to baclofen in patients with seasonal affective disorder: effects of light therapy. Shiah IS, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):143-53

[Seasonal depression] Attar-Levy D. **Therapie** 1998 Sep-Oct; 53(5):489-98 (67 ref.) (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Case study: dawn simulation as maintenance treatment in a nine-year-old patient with seasonal affective disorder. Meesters Y. **J Am Acad Child Adolesc Psychiatry** 1998 Sep; 37(9):986-8

PSYCHOLOGY

Prevention and the clinical encounter. Beardslee WR. **Am J Orthopsychiatry** 1998 Oct;68(4):521-33

Natural bright light exposure in the summer and winter in subjects with and without complaints of seasonal mood variations. Guillemette J, et al. **Biol Psychiatry** 1998 Oct 1;44(7):622-8

Spring fever [letter] O'Flanagan D. **Can J Psychiatry** 1998 Oct;43(8):856

The wintertime blues. Caplan CE. **CMAJ** 1999 Feb 9; 160(3):375

Summer mood in winter depressives: validation of a structured interview. Goel N, et al. **Depress Anxiety** 1999; 9(2):83-91

Understanding seasonal affective disorder and experiences in northern Norway. Stuhlmiller CM. **Image J Nurs Sch** 1998;30(2):151-6

Characteristics of patients with otherwise typical winter depression, but with incomplete summer remission. Lingjaerde O, et al. **J Affect Disord** 1999 Apr;53(1):91-4

Seasonal affective disorder and latitude: a review of the literature. Mersch PP, et al. **J Affect Disord** 1999 Apr; 53(1):35-48 (59 ref.)

THERAPY

Dose-response relationship of phototherapy for seasonal affective disorder: a meta-analysis. Lee TM, et al. **Acta Psychiatr Scand** 1999 May;99(5):315-23

Dawn simulation vs. lightbox treatment in winter depression: a comparative study. Lingjaerde O, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):73-80

There is nothing new under the sun [letter; comment] Oren DA. **Am J Psychiatry** 1999 Feb;156(2):336. Comment on: Am J Psychiatry 1986 FEb;143(2):261-2.

Greater improvement in summer than with light treatment in winter in patients with seasonal affective disorder. Postolache TT, et al. **Am J Psychiatry** 1998 Nov; 155(11):1614-6

A turning point for seasonal affective disorder and light therapy research? [comment] Avery DH. **Arch Gen Psychiatry** 1998 Oct;55(10):863-4 (19 ref.). Comment on: Arch Gen Psychiatry 1998 Oct;55(10):883-9. Comment on: Arch Gen Psychiatry 1998 Oct;55(10):875-82. Comment on: Arch Gen Psychiatry 1998 Oct;55(10):890-6.

The effects of seasons and light therapy on G protein levels in mononuclear leukocytes of patients with seasonal affective disorder. Avissar S, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):178-83

Bright light treatment of winter depression: a placebo-controlled trial [see comments] Eastman CI, et al. **Arch Gen Psychiatry** 1998 Oct;55(10):883-9. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):861-2. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):863-1.

Morning vs evening light treatment of patients with winter depression [see comments] Lewy AJ, et al. **Arch Gen Psychiatry** 1998 Oct;55(10):890-6. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):861-2. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):863-4.

A controlled trial of timed bright light and negative air ionization for treatment of winter depression [see comments] Terman M, et al. **Arch Gen Psychiatry** 1998 Oct;55(10):875-82. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):861-2. Comment in: Arch Gen Psychiatry 1998 Oct;55(10):863-4.

Beginning to see the light [comment] Wirz-Justice A. **Arch Gen Psychiatry** 1998 Oct;55(10):861-2 (20 ref.). Comment on: Arch Gen Psychiatry 1998 Oct;55(10):875-82. Comment on: Arch Gen Psychiatry 1998 Oct;55(10):883-9. Comment on: Arch Gen Psychiatry 1998 Oct;55(10):890-6.

Platelet [3H]paroxetine and [3H]lysergic acid diethylamide binding in seasonal affective disorder and the effect of bright light therapy. Smedh K, et al. **Biol Psychiatry** 1999 Feb 15;45(4):464-70

Hypericum in seasonal affective disorder (SAD). Wheatley D. **Curr Med Res Opin** 1999;15(1):33-7

Light treatment of seasonal affective disorder in combination with citalopram or placebo with 1-year follow-up. Thorell LH, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S7-11

Light-therapy-induced hot flushes in a patient with seasonal affective disorder [letter] Sher L, et al. **J Psychiatry Neurosci** 1999 May;24(3):249-50

Direct assessment of improvement in winter depression with a visual analogue scale: high reliability and validity. Lingjaerde O, et al. **Psychiatry Res** 1998 Dec 14; 81(3):387-92

Randomized trial of physical exercise alone or combined with bright light on mood and health-related quality of life. Partonen T, et al. **Psychol Med** 1998 Nov;28(6):1359-64

Effects of fluoxetine versus bright light in the treatment of seasonal affective disorder. Ruhrmann S, et al. **Psychol Med** 1998 Jul;28(4):923-33

[Phototherapy: clinical and therapeutic evaluation of a 2-year experience] Metzger JY, et al. **Encephale** 1998 Sep-Oct; 24(5):480-5 (Eng. Abstr.) **(Fre)**

[Phototherapy in the clinic] Pracka D. **Postepy Hig Med Dosw** 1999;53(3):517-23 (26 ref.) (Eng. Abstr.) **(Pol)**

[Winter depression and light therapy] Honory A. **Psychiatr Pol** 1998 Sep-Oct;32(5):605-19 (74 ref.) (Eng. Abstr.) **(Pol)**

SEASONAL MOOD DISORDER see **SEASONAL AFFECTIVE DISORDER**

SEASONS

Seasonality of birth in epilepsy: a Danish study. Procopio M, et al. **Acta Neurol Scand** 1998 Nov;98(5):297-301

Seasonal variation of endogenous uveitis in south-western Finland. Päivönsalo-Hietanen T, et al. **Acta Ophthalmol Scand** 1998 Oct;76(5):599-602

Seasonal increase in specific IgE in serum induced by natural Japanese cedar pollen exposure in asymptomatic and symptomatic sensitized individuals. Kakinoki Y, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:152-5

Seasonal changes in phytohemagglutinin-induced cytokine synthesis by peripheral blood lymphocytes of patients with seasonal allergic rhinitis due to Japanese cedar pollens. Tsuda M, et al. **Acta Otolaryngol Suppl (Stockh)** 1998; 538:156-68

Seasonality of sudden infant death syndrome (SIDS) by age at death. Douglas AS, et al. **Acta Paediatr** 1998 Oct; 87(10):1033-8

Congenital hypothyroidism, seasonality and consanguinity in the West Midlands, England. Hall SK, et al. **Acta Paediatr** 1999 Feb;88(2):212-5

Seasonal differences in risk factors for sudden infant death syndrome. The New Zealand Cot Death Study Group. Mitchell EA, et al. **Acta Paediatr** 1999 Mar;88(3):253-8

Seasonality and diversity of Group A rotaviruses in Europe. Koopmans M, et al. **Acta Paediatr Suppl** 1999 Jan; 88(426):14-9 (37 ref.)

Seasonal variation in suicide occurrence in Finland [see comments] Hakko H, et al. **Acta Psychiatr Scand** 1998 Aug; 98(2):92-7. Comment in: Acta Psychiatr Scand 1999 Apr;99(4):308-10.

Seasonality and neuroticism: comment on Jang et al [letter; comment] Murray GW. **Acta Psychiatr Scand** 1998 Dec; 98(6):511-2. Comment on: Acta Psychiatr Scand 1997 Jun;95(6):539-43.

The effects of season and alcohol intake on mineral metabolism in men. Perry HM 3rd, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):214-9

Month of birth and childhood atopic diseases in the tropics. Chew FT, et al. **Allergy** 1998 Oct;53(10):962-8

Is month of birth a risk factor for subsequent development of pollen allergy in adults? Vovolis V, et al. **Allergy Asthma Proc** 1999 Jan-Feb;20(1):15-22

Weekly and seasonal variation in the incidence of cardiac arrests [see comments] Peckova M, et al. **Am Heart J** 1999 Mar;137(3):512-5. Comment in: Am Heart J 1999 Mar;137(3):384-5.

Rhythmic variation in the rate of ectopic pregnancy throughout the year. Cagnacci A, et al. **Am J Obstet Gynecol** 1999 May;180(5):1067-71

Physiologic and thermal responses of male and female patients with multiple sclerosis to head and neck cooling. Ku YT, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct; 78(5):447-56

Greater improvement in summer than with light treatment in winter in patients with seasonal affective disorder. Postolache TT, et al. **Am J Psychiatry** 1998 Nov; 155(11):1614-6

Healthy women's PEF variations with ambient summer concentrations of PM10, PM2.5, SO42-, H+, and O3. Naeher LP, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):117-25

Characteristics of Plasmodium falciparum parasites that survive the lengthy dry season in eastern Sudan where malaria transmission is markedly seasonal. Babiker HA, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):582-90

Seasonal morphology of the domestic quail (Coturnix coturnix japonica) testis. Artoni SM, et al. **Anat Histol Embryol** 1999 Aug;28(4):217-20

Calculation of spermatogenic transformations based on dual-flow cytometric analysis of testicular tissue in seasonal breeders. Blottner S, et al. **Andrologia** 1998 Nov;30(6):331-7

Seasonal regulation of prolactin secretion in hypophyseal stalk transected beef calves. Cho SJ, et al. **Anim Reprod Sci** 1998 Oct 9;52(4):253-65

Reproductive seasonality and maturation throughout the complete life-cycle in the mouflon ram (Ovis musimon). Lincoln GA. **Anim Reprod Sci** 1998 Oct;53(1-4):87-105

Endocrine and testicular changes in a short-day seasonally breeding bird, the emu (Dromaius novaehollandiae), in southwestern Australia. Malecki IA, et al. **Anim Reprod Sci** 1998 Oct;53(1-4):143-55

Development of a nutritional strategy for increasing lamb survival in Merino ewes mated in late spring/early summer. Nottle MB, et al. **Anim Reprod Sci** 1998 Sep 11;52(3):213-9

Seasonal and management effects on fertility of the sow: a descriptive study. Peltoniemi OA, et al. **Anim Reprod Sci** 1999 Feb 12;55(1):47-61

VESAS: a solution to seasonal fluctuations in emergency department census. Shaw KN, et al. **Ann Emerg Med** 1998 Dec;32(6):698-702

Seasonal variation of interferon-gamma production in progressive multiple sclerosis. Balashov KE, et al. **Ann Neurol** 1998 Nov;44(5):824-8

Seasonal dynamics of bacterioplankton community structure

in a eutrophic lake as determined by 5S rRNA analysis. Höfle MG, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):3164–74

Seasonal variation of sweating responses under identical heat stress. Nakamura Y, et al. **Appl Human Sci** 1998 Sep; 17(5):167–72

Seasonality of sudden infant death syndrome in mainland Britain and Ireland 1985–95. Douglas AS, et al. **Arch Dis Child** 1998 Sep;79(3):269–70

Clinical algorithm for malaria during low and high transmission seasons. Muhe L, et al. **Arch Dis Child** 1999 Sep;81(3):216–20

Month of birth and risk of developing insulin dependent diabetes in south east Sweden. Samuelsson U, et al. **Arch Dis Child** 1999 Aug;81(2):143–6

The effects of seasons and light therapy on G protein levels in mononuclear leukocytes of patients with seasonal affective disorder. Avissar S, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):178–83

Seasonality of low birthweight in indigenous Australians: an increase in pre-term birth or intrauterine growth retardation? Rousham EK, et al. **Aust N Z J Public Health** 1998 Oct;22(6):669–72

Seasonal variation of glycyrrhizin and isoliquiritigenin glycosides in the root of Glycyrrhiza glabra L. Hayashi H, et al. **Biol Pharm Bull** 1998 Sep;21(9):987–9

Natural bright light exposure in the summer and winter in subjects with and without complaints of seasonal mood variations. Guillemette J, et al. **Biol Psychiatry** 1998 Oct 1;44(7):622–8

Sex differences in seasonal variations in P300. Kosmidis MH, et al. **Biol Psychol** 1998 Nov;49(3):249–68

Pulsatile luteinizing hormone secretion in the ovariectomized, thyroidectomized red deer hind following treatment with dopaminergic and opioidergic agonists and antagonists. Anderson GM, et al. **Biol Reprod** 1998 Oct;59(4):960–8

Gonadotropin response to naloxone in the mare: effect of time of year and reproductive status. Davison LA, et al. **Biol Reprod** 1998 Nov;59(5):1195–9

Short day length alone does not inhibit spermatogenesis in the seasonally breeding four-striped field mouse (Rhabdomys pumilio). Jackson C, et al. **Biol Reprod** 1999 Jun;60(6):1320–3

Seasonal variation in long-day stimulation of prolactin secretion in ewes. Sweeney T, et al. **Biol Reprod** 1999 Jan; 60(1):128–33

Seasonal changes of zinc, copper, and iron in gilthead sea bream (Sparus aurata) fed fortified diets. Carpenè E, et al. **Biol Trace Elem Res** 1999 Aug;69(2):121–39

Towards a neural model of timing. Bugmann G. **Biosystems** 1998 Sep–Dec;48(1–3):11–9

Conservatives blame rationing for winter crisis [news] Warden J. **BMJ** 1999 Jan 23;318(7178):216

Bone metabolic changes in Antarctic wintering team members. Yonei T, et al. **Bone** 1999 Feb;24(2):145–50

Circadian and seasonal variations of hematopoiesis in cord blood. Baudoux E, et al. **Bone Marrow Transplant** 1998 Jul;22 Suppl 1:S12

Seasonal variations in the presentation and growth of thyroid cancer [letter; comment] Machin D, et al. **Br J Cancer** 1999 Mar;79(9–10):1626–8. Comment on: Br J Cancer 1998 Apr;77(7):1174–9.

Seasonal variations in the diagnosis of childhood cancer in the United States. Ross JA, et al. **Br J Cancer** 1999 Oct; 81(3):549–53

Seasonal variation in the incidence of Hodgkin's disease. Douglas S, et al. **Br J Haematol** 1998 Dec;103(3):653–62

Correlation between surface water contamination with amoeba and the onset of symptoms and diagnosis of amoeba-like keratitis. Mathers WD, et al. **Br J Ophthalmol** 1998 Oct;82(10):1143–6

Cataract and season of birth [letter; comment] Weale RA. **Br J Ophthalmol** 1999 Jan;83(1):126–7. Comment on: Br J Ophthalmol 1998 May;82(5):526–7.

Seasonal plasticity of neuromuscular junctions in adult male Siberian hamsters (Phodopus sungorus). Hegstrom CD, et al. **Brain Res** 1999 Feb 20;819(1–2):83–8

Possible involvement of neuropeptide Y in the seasonal control of hydroxyindole-O-methyltransferase activity in the pineal gland of the european hamster (Cricetus cricetus). Ribelayga C, et al. **Brain Res** 1998 Aug 10; 801(1–2):137–42

Daily and seasonal variations in the concentration of melatonin in the human pineal gland. Luboshitzky R, et al. **Brain Res Bull** 1998 Oct;47(3):271–6

Seasonal diarrhoeal mortality among Mexican children. Villa S, et al. **Bull World Health Organ** 1999;77(5):375–80

DNA damage in mononuclear leukocytes of farmers measured using the alkaline comet assay: discussion of critical parameters and evaluation of seasonal variations in relation to pesticide exposure. Lebailly P, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):917–27

Seasonal effect on airborne pyrene, urinary 1-hydroxypyrene, and benzo(a)pyrene diol epoxide-hemoglobin adducts in the general population. Pastorelli R, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):561–5

Seasonality in live births with congenital heart disease in Malta. Grech V. **Cardiol Young** 1999 Jul;9(4):396–401 (25 ref.)

Seasonal incidence of acute myocardial infarction in the Chinese population [letter; comment] Cheng TO. **Cardiology** 1998;90(4):312. Comment on: Cardiology 1998 May;89(4):277–82.

It's spring, and thoughts turn to...allergies. Metzger H. **Cell** 1999 Apr 30;97(3):287–90 (20 ref.)

Seasonal variation in proliferative response and subpopulations of lymphocytes from mice housed in a constant environment. Planelles D, et al. **Cell Prolif** 1994 Jun;27(6):333–41

Latitude-related changes in the amplitude of annual mortality rhythm. The biological equator in man. Douglas S, et al. **Chronobiol Int** 1999 Mar;16(2):199–212

Seasonally dependent effect of ectopic pituitary grafts on 24-hour rhythms in serum prolactin and gonadotropins in rats. Esquifino AI, et al. **Chronobiol Int** 1999 Jul; 16(4):451–60

Accomplishment of time-interval activation of esterase A4 by simple removal of pin fraction. Kai H, et al. **Chronobiol Int** 1999 Jan;16(1):51–8

Annual rhythms of demand-feeding activity in sea bass: evidence of a seasonal phase inversion of the diel feeding pattern. Sánchez-Vázquez FJ, et al. **Chronobiol Int** 1998 Nov;15(6):607–22

Absence of seasonal variation in the phase of the endogenous circadian rhythm in humans. Van Dongen HP, et al. **Chronobiol Int** 1998 Nov;15(6):623–32

Seasonal variation of chickenpox, mumps and rubella in Taiwanese children estimated by pediatric clinics. Liu SC, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Dec;31(4):217–24

Seasonal variation in chronic heart failure hospitalizations and mortality in France. Boulay F, et al. **Circulation** 1999 Jul 20;100(3):280–6

Snowbirds: an unwelcome sign that winter's coming [letter] Forster J. **CMAJ** 1998 Dec 1;159(11):1356, 1358

Rank dependent seasonal levels of IGF-1, cortisol and reproductive hormones in male pudu (Pudu puda). Bartoš L, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun;120(2):373–8

Seasonal and diel transitions in physiology and behavior in the migratory dark-eyed junco. Ramenofsky M, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Apr; 122(4):385–97

Seasonal variation of peroxisomal enzyme activities and peroxisomal structure in mussels Mytilus galloprovincialis and its relationship with the lipid content. Cancio I, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):135–44

Photo-neuroendocrine control of seasonal cycles in body weight, pelage growth and reproduction: lessons from the HPD sheep model. Lincoln GA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):283–94 (78 ref.)

Regulation of appetite and body weight in seasonal mammals. Mercer JG. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):295–303 (64 ref.)

Seasonal dependence of cadmium accumulation and Cd-binding proteins in Mytilus galloprovincialis exposed to cadmium. Serra R, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):165–74

The seasonal influence on patch test reactions is significant in Israel. Ingber A, et al. **Contact Dermatitis** 1998 Dec; 39(6):318–9

Handedness and season of birth: a gender-invariant relation. Martin M, et al. **Cortex** 1999 Feb;35(1):123–8

c-fos activity in Rana esculenta testis: seasonal and estradiol-induced changes. Cobellis G, et al. **Endocrinology** 1999 Jul;140(7):3238–44

Expression of three distinct somatostatin messenger ribonucleic acids (mRNAs) in goldfish brain: characterization of the complementary deoxyribonucleic acids, distribution and seasonal variation of the mRNAs, and action of a somatostatin-14 variant. Lin X, et al. **Endocrinology** 1999 May;140(5):2089–99

Pregnenolone, pregnenolone sulfate, and cytochrome P450 side-chain cleavage enzyme in the amphibian brain and their seasonal changes. Takase M, et al. **Endocrinology** 1999 Apr;140(4):1936–44

Cytoplasmic liberation of protein gene product 9.5 during the seasonal regulation of spermatogenesis in the monkey (Macaca fuscata). Tokunaga Y, et al. **Endocrinology** 1999 Apr;140(4):1875–83

Thyroid hormones act primarily within the brain to promote the seasonal inhibition of luteinizing hormone secretion in the ewe. Viguié C, et al. **Endocrinology** 1999 Mar; 140(3):1111–7

Characterization of phenytoin-resistant kindled rats, a new model of drug-resistant partial epilepsy: influence of experimental and environmental factors. Ebert U, et al. **Epilepsy Res** 1999 Feb;33(2–3):199–215

Effects of season and diet on tensile strength and mineral content of the equine hoof wall. Ley WB, et al. **Equine Vet J Suppl** 1998 Sep;(26):46–50

Does vitamin D deficiency account for ethnic differences in tuberculosis seasonality in the UK? Douglas AS, et al. **Ethn Health** 1998 Nov;3(4):247–53

Physical activity patterns of rural Senegalese adolescent girls during the dry and rainy seasons measured by movement registration and direct observation methods. Bénéfice E, et al. **Eur J Clin Nutr** 1999 Aug;53(8):636–43

Vitamin D: seasonal and regional differences in preschool children in Great Britain. Davies PS, et al. **Eur J Clin Nutr** 1999 Mar;53(3):195–8

Changes in dietary intake account for seasonal changes in cardiovascular disease risk factors. Shahar DR, et al. **Eur J Clin Nutr** 1999 May;53(5):395–400

Modulation of the acute respiratory effects of winter air pollution by serum and dietary antioxidants: a panel study. Grievink L, et al. **Eur Respir J** 1999 Jun;13(6):1439–46

Seasonal variations in hospital treatment periods and deaths among adult asthmatics. Harju T, et al. **Eur Respir J** 1998 Dec;12(6):1362–5

Exhaled and nasal NO levels in allergic rhinitis: relation to sensitization, pollen season and bronchial hyperresponsiveness. Henriksen AH, et al. **Eur Respir J** 1999 Feb;13(2):301–6

Seasonal clustering of sarcoidosis presenting with erythema nodosum. Wilsher ML. **Eur Respir J** 1998 Nov; 12(5):1197–9

Serum prolactin concentrations in the captive female African elephant (Loxodonta africana): potential effects of season and steroid hormone interactions. Bechert US, et al. **Gen Comp Endocrinol** 1999 May;114(2):269–78

Relation of glucocorticosteroids and testosterone to the annual cycle of free-living degus in semiarid central Chile. Kenagy GJ, et al. **Gen Comp Endocrinol** 1999 Aug; 115(2):236–43

Seasonal variations in the function of the endocrine pancreas in Psammomys obesus. Laraki M, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):255–61

Effect of season and photoperiod on FSH in male great tits. Silverin B, et al. **Gen Comp Endocrinol** 1999 Mar; 113(3):457–63

Seasonal changes in mRNA levels of gonadotropin and thyrotropin subunits in the goldfish, Carassius auratus. Sohn YC, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):436–44

Effects of photoperiod on the cessation of growth during autumn in male red deer and growth hormone and insulin-like growth factor-I secretion. Webster JR, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):464–77

Time of thyroidectomy variably affects seasonality in female American tree sparrows (Spizella arborea). Wilson FE, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):425–30

White spots enhanced in the summer. Levine N. **Geriatrics** 1999 Apr;54(4):38

Seasonal changes in astrocytes parallel neuronal plasticity in the song control area HVc of the canary. Kafitz KW, et al. **Glia** 1999 Jul;27(1):88–100

Seasonal specificity of hormonal, behavioral, and coloration responses to within- and between-sex encounters in male lizards (Sceloporus undulatus). Smith LC, et al. **Horm Behav** 1999 Aug;36(1):39–52

Geographic differences in seasonality of preterm births in Japan. Matsuda S, et al. **Hum Biol** 1998 Oct;70(5):919–35

Cataract, glaucoma and season of birth amongst patients born on the Indian subcontinent. Weale RA. **Indian J Ophthalmol** 1998 Dec;46(4):211–5

Secular and seasonal changes in semen quality among young Danish men: a statistical analysis of semen samples from 1927 donor candidates during 1977–1995. Gyllenborg J, et al. **Int J Androl** 1999 Feb;22(1):28–36

Marriage season, promptness of successful pregnancy and first-born sex ratio in a historical natural fertility population--evidence for sex-dependent early pregnancy loss? Nonaka K, et al. **Int J Biometeorol** 1998 Dec; 42(2):89–92

Seasonal variation of serum TSH and thyroid hormones in males living in subarctic environmental conditions. Leppäluoto J, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:383–5

Seasonal variation of the amino acid, L-tryptophan, in interior Alaska. Levine ME, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:386–8

Self-reported seasonal variation in depression at 78 degree north. The Svalbard Study. Nilssen O, et al. **Int J Circumpolar Health** 1999 Jan;58(1):14–23

Seasonal patterns of deaths in Matlab, Bangladesh. Becker S, et al. **Int J Epidemiol** 1998 Oct;27(5):814–23

Pesticide poisoning in Mexican seasonal farm workers. Chain-Castro TJ, et al. **Int J Occup Environ Health** 1998 Jul-Sep;4(3):202–3

Eye-tracking dysfunction and birth-month weather in schizophrenia. Kinney DK, et al. **J Abnorm Psychol** 1999 May;108(2):359–62

Alcoholic typology and season of birth. Levine ME, et al. **J Addict Dis** 1999;18(1):41–52

Seasonal and circadian rhythms in suicide in Cagliari, Italy. Altamura C, et al. **J Affect Disord** 1999 Apr;53(1):77–85 (51 ref.)

Month of birth and prevalence of atopic dermatitis in schoolchildren: dry skin in early infancy as a possible etiologic factor. Kusunoki T, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1148–52

Seasonal variations in the incidence of acute myocardial infarction [letter; comment] Meier CR. **J Am Coll Cardiol** 1998 Dec;32(7):2103–4. Comment on: J Am Coll Cardiol 1998 May;31(6):1226–33.

Seasonal distribution of myocardial infarction and seasonal mood changes [letter; comment] Sher L. **J Am Coll Cardiol** 1999 Jun;33(7):2088–9. Comment on: J Am Coll Cardiol 1998 May;31(6):1226–33.

Increased winter mortality from acute myocardial infarction

and stroke: the effect of age. Sheth T, et al. **J Am Coll Cardiol** 1999 Jun;33(7):1916–9

Increase in liver pigmentation during natural hibernation in some amphibians. Barni S, et al. **J Anat** 1999 Jul;195 (Pt 1):19–25

Diet selection by steers using microhistological and stable carbon isotope ratio analyses. Bennett LL, et al. **J Anim Sci** 1999 Aug;77(8):2252–8

Shade and wind barrier effects on summertime feedlot cattle performance. Mader TL, et al. **J Anim Sci** 1999 Aug; 77(8):2065–72

Seasonal variation of Campylobacter types from human cases, veterinary cases, raw chicken, milk and water. Hudson JA, et al. **J Appl Microbiol** 1999 Jul;87(1):115–24

The seasonal variation of thermophilic campylobacters in beef cattle, dairy cattle and calves. Stanley KN, et al. **J Appl Microbiol** 1998 Sep;85(3):472–80

Seasonality of marriages in Spanish and French parishes in the Cerdanya valley, eastern Pyrenees. Salvat M, et al. **J Biosoc Sci** 1997 Jan;29(1):51–62

Calcium supplementation prevents seasonal bone loss and changes in biochemical markers of bone turnover in elderly New England women: a randomized placebo-controlled trial. Storm D, et al. **J Clin Endocrinol Metab** 1998 Nov; 83(11):3817–25

Seasonal changes in androgen receptor immunoreactivity in the song nucleus HVc of a wild bird. Soma KK, et al. **J Comp Neurol** 1999 Jun 28;409(2):224–36

Seasonal changes in protein composition of whey from commercial manufacture of caprine and ovine specialty cheeses. Casper JL, et al. **J Dairy Sci** 1998 Dec; 81(12):3117–22

An unusual panniculitis appearing in the winter with good response to tetracycline. Aroni K, et al. **J Dermatol** 1998 Oct;25(10):677–81

Characteristics of UVA-induced delayed tanning: seasonal variation. Sakamaki T, et al. **J Dermatol** 1998 Oct; 25(10):641–7

Seasonal changes in the negative feedback regulation of the secretion of the gonadotrophins by testosterone and inhibin in rams. Tilbrook AJ, et al. **J Endocrinol** 1999 Jan; 160(1):155–67

Studying seasonality by using sine and cosine functions in regression analysis. Stolwijk AM, et al. **J Epidemiol Community Health** 1999 Apr;53(4):235–8

Plasma steroid hormone profiles and reproductive biology of the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **J Exp Zool** 1999 Oct 1;284(5):586–94

Role of prolactin in regulating the onset of winter fur growth in mink (Mustela vison): A reconsideration. Johnston B, et al. **J Exp Zool** 1999 Sep 1;284(4):437–44

Alterations in serum steroid concentrations in the clearnose skate, Raja eglanteria: correlations with season and reproductive status. Rasmussen LE, et al. **J Exp Zool** 1999 Oct 1;284(5):575–85

Seasonal variations of the middle-upper paleolithic transition at El castillo, Cueva Morin and El pendo (Cantabria, Spain). Pike-Tay A, et al. **J Hum Evol** 1999 Mar; 36(3):283–317

Seasonal influences on ambulatory blood pressure. An insight from the HARVEST study. Hypertension and Ambulatory Monitoring Venetia Study [letter] Palatini P, et al. **J Hypertens** 1999 May;17(5):715–7

Seasonal variations in home and ambulatory blood pressure in the PAMELA population. Pressione Arteriose Monitorate E Loro Associazioni. Sega R, et al. **J Hypertens** 1998 Nov;16(11):1585–92

Seasonal behaviour of healed duodenal ulcer. Gupta AK, et al. **J Indian Med Assoc** 1998 Apr;96(4):106–8

Patients hospitalized because of small vessel vasculitides with renal involvement in the period 1975–95: organ involvement, anti-neutrophil cytoplasmic antibodies patterns, seasonal attack rates and fluctuation of annual frequencies. Tidman M, et al. **J Intern Med** 1998 Aug; 244(2):133–41

Seasonal changes in symptomatic duodenal ulcer activity in Taiwan: a comparison between subjects with and without haemorrhage. Tsai CJ, et al. **J Intern Med** 1998 Nov; 244(5):405–10

Sex differences, season of birth and platelet 5-HT levels in schizophrenic patients. Mück-Seler D, et al. **J Neural Transm** 1999;106(3–4):337–47

Seasonal neuroendocrine rhythms in the male Siberian hamster persist after monosodium glutamate-induced lesions of the arcuate nucleus in the neonatal period. Ebling FJ, et al. **J Neuroendocrinol** 1998 Sep;10(9):701–12

Distribution and seasonal variations in levels of three native GnRHs in the brain and pituitary of perciform fish [published erratum appears in J Neuroendocrinol 1999 Jul;11(7):577] Senthilkumaran B, et al. **J Neuroendocrinol** 1999 Mar;11(3):181–6

Seasonal patterns in the biology of Eubothrium salvelini infecting brook trout in a creek in lower Michigan. Hernandez AD, et al. **J Parasitol** 1998 Dec;84(6):1119–23

Anticipatory guidance and chitterlings [letter] Bien JP. **J Pediatr** 1998 Nov;133(5):712

A study on seasonal variation in the development of morphine dependence in rats. Salem A, et al. **J Pharmacol Toxicol Methods** 1998 Oct;40(3):151–7

The seasonal interrelationship between melatonin, vasopressin, and serum osmolality in elderly subjects. Asplund R, et al. **J Pineal Res** 1998 Sep;25(2):67–72

Season of birth of chronic alcoholics. Kunugi H, et al. **J Psychiatr Res** 1998 Sep–Oct;32(5):321–3

Seasonal variation in mortality in Moscow. McKee M, et al. **J Public Health Med** 1998 Sep;20(3):268–74

The causes of seasonal variation in births [letter] James WH. **J R Soc Med** 1999 Apr;92(4):214–5

Seasonal variations in sexual activity and their implications for sexual health promotion. Wellings K, et al. **J R Soc Med** 1999 Feb;92(2):60–4

Summer eating guidelines for renal patients. McQuiston B. **J Ren Nutr** 1999 Jul;9(3):167–71

Effects of thyroidectomy and thyroxine replacement on seasonal reproduction in the red deer hind. Anderson GM, et al. **J Reprod Fertil** 1998 Jul;113(2):239–50

Active immunization with a synthetic fragment of pig inhibin alpha-subunit increases ovulation rate and embryo production in superovulated ewes but season affects its efficiency. D'Alessandro A, et al. **J Reprod Fertil** 1999 Jan; 115(1):185–91

Effect of transport on pulsatile and surge secretion of LH in ewes in the breeding season. Dobson H, et al. **J Reprod Fertil** 1999 May;116(1):1–8

Ovarian androstenedione production is enhanced by insulin during the period of delayed ovulation in a vespertilionid bat, Scotophilus heathi. Doval J, et al. **J Reprod Fertil** 1998 Sep;114(1):63–8

Effects of maintaining solstice light and temperature on reproductive activity, coat growth, plasma prolactin and melatonin in goats. Gebbie FE, et al. **J Reprod Fertil** 1999 May;116(1):25–33

Association of seasonal reproductive patterns with changing food availability in an equatorial carnivore, the spotted hyaena (Crocuta crocuta). Holekamp KE, et al. **J Reprod Fertil** 1999 May;116(1):87–93

Phenotypic differences in the GnRH neuronal system of deer mice Peromyscus maniculatus under a natural short photoperiod. Korytko AI, et al. **J Reprod Fertil** 1998 Nov; 114(2):231–5

Role of oestradiol in the regulation of the seasonal antler cycle in female reindeer, Rangifer tarandus. Lincoln GA, et al. **J Reprod Fertil** 1999 Jan;115(1):167–74

Ovulation, fertilization and lambing rates, and peripheral progesterone concentrations, in ewes inseminated at a natural oestrus during November or February. Mitchell LM, et al. **J Reprod Fertil** 1999 Jan;115(1):133–40

Seasonal variation in systemic onset juvenile rheumatoid arthritis in Israel. Uziel Y, et al. **J Rheumatol** 1999 May; 26(5):1187–9

Seasonal allergic conjunctivitis induced by Japanese pear pollen. Yanagisawa S, et al. **Jpn J Ophthalmol** 1999 May–Jun;43(3):240–2

Secular and seasonal variation of length and weight at birth [letter] Wohlfahrt J, et al. **Lancet** 1998 Dec 19–26; 352(9145):1990

A quest for seasonality in presentation of leukaemia and non-Hodgkin's lymphoma. Douglas S, et al. **Leuk Lymphoma** 1999 Feb;32(5–6):523–32

Seasonal variations in activity of systemic lupus erythematosus in a subarctic region. Haga HJ, et al. **Lupus** 1999;8(4):269–73

Seasonal variation of grounding rates among B-52H aircrew. Bendrick GA. **Mil Med** 1998 Oct;163(10):692–4

Seasonal variation in haematological parameters in male and female Tinca tinca. Collazos ME, et al. **Mol Cell Biochem** 1998 Jun;183(1–2):165–8

Seasonal changes in blood pressure in patients with end-stage renal disease treated with hemodialysis [see comments] Argilés A, et al. **N Engl J Med** 1998 Nov 5;339(19):1364–70 . Comment in: N Engl J Med 1999 Mar 25;340(12):965; discussion 965–6. Comment in: N Engl J Med 1999 Mar 25;340(12):965–6.

Effects of family history and place and season of birth on the risk of schizophrenia [see comments] Mortensen PB, et al. **N Engl J Med** 1999 Feb 25;340(8):603–8. Comment in: N Engl J Med 1999 Feb 25;340(8):645–7. Comment in: N Engl J Med 1999 Jul 29;341(5):370–1; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):371–2; discussion 372. Comment in: N Engl J Med 1999 Jul 29;341(5):372.

Seasonal changes in blood pressure in patients undergoing hemodialysis [letter; comment] Rostand SG. **N Engl J Med** 1999 Mar 25;340(12):965–6. Comment on: N Engl J Med 1998 Nov 5;339(19):1364–70.

Seasonal changes in blood pressure in patients undergoing hemodialysis [letter; comment] Vitting KE. **N Engl J Med** 1999 Mar 25;340(12):965; discussion 965–6 . Comment on: N Engl J Med 1998 Nov 5;339(19):1364–70.

Risk factors for schizophrenia [letter; comment] Weilerstein R. **N Engl J Med** 1999 Jul 29;341(5):372. Comment on: N Engl J Med 1999 Feb 25;340(8):603–8.

Sex ratios at birth and environmental temperatures. Lerchl A. **Naturwissenschaften** 1999 Jul;86(7):340–2

Seasonal variation in stroke mortality rates [published erratum appears in Neurology 1999 Jun 10;52(9):1952] Lanska DJ, et al. **Neurology** 1999 Mar 23;52(5):984–90

Variations in CSF monoamine metabolites according to the season of birth. Chotai J, et al. **Neuropsychobiology** 1999; 39(2):57–62

Serotonin transporter genotype and seasonal variation in serotonin function [letter] Hanna GL, et al. **Neuropsychopharmacology** 1999 May;20(5):506–8

Shift type and season affect adaptation of the 6-sulphatoxymelatonin rhythm in offshore oil rig workers. Barnes RG, et al. **Neurosci Lett** 1998 Aug 21;252(3):179–82

Sex and seasonal differences in the rate of cell proliferation in the deniate gyrus of adult wild meadow voles. Galea LA, et al. **Neuroscience** 1999 Mar;89(3):955–64

Seasonal and weekly rhythms: windows into variability in family socialization experiences in early adolescence. Crouter AC, et al. **New Dir Child Dev** 1998 Winter; (82):69–82 (16 ref.)

Seasonal patterns of idiopathic facial paralysis: a 16-year study. De Diego JI, et al. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):269–71 (29 ref.)

Seasonality of meal patterns and hormonal correlates in red deer. Rhind SM, et al. **Physiol Behav** 1998 Nov 15; 65(2):295–302

Seasonal changes in the concentrations of four taxoids in Taxus baccata L. during the autumn-spring period. Glowniak K, et al. **Phytomedicine** 1999 May;6(2):135–40

Investigating potential risk factors for seasonal variation: an example using graphical and spectral analysis methods based on the production of milk components in dairy cattle. Sargeant JM, et al. **Prev Vet Med** 1998 Sep 1;36(3):167–78

Seasonal neuroplasticity in the songbird telencephalon: a role for melatonin. Bentley GE, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4674–9

Sleep stage and skin temperature regulation during night-sleep in winter. Kubo H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):121–3

Seasonality in suicides: the influence of suicide method, gender and age on suicide distribution in Italy. Preti A, et al. **Psychiatry Res** 1998 Nov 16;81(2):219–31

Decreasing tendency of seasonality in suicide may indicate lowering rate of depressive suicides in the population. Rihmer Z, et al. **Psychiatry Res** 1998 Nov 16;81(2):233–40

Diurnal and seasonal variations in vervet monkeys' activity. Baldellou M, et al. **Psychol Rep** 1998 Oct;83(2):675–85

Seasonal variation in plasma prolactin response to D-fenfluramine in healthy subjects. Monteleone P, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):201–8

The winter bed crisis--quantifying seasonal effects on hospital bed usage. Fullerton KJ, et al. **QJM** 1999 Apr; 92(4):199–206

Reproductive and productive performance in Chios ewes mated in spring or in autumn. Avdi M, et al. **Reprod Nutr Dev** 1998 Sep–Oct;38(5):551–8

Melatonin and the seasonal control of reproduction. Malpaux B, et al. **Reprod Nutr Dev** 1999 May–Jun;39(3):355–66 (75 ref.)

Melatonin mediates seasonal adjustments in immune function. Nelson RJ, et al. **Reprod Nutr Dev** 1999 May–Jun; 39(3):383–98 (148 ref.)

Influence of nutrition on testicular growth in Corriedale rams during spring. Pérez-Clariget R, et al. **Reprod Nutr Dev** 1998 Sep–Oct;38(5):529–38

Diurnal fluctuations in rectal temperature of the Red Sokoto goat during the harmattan season. Ayo JO, et al. **Res Vet Sci** 1999 Feb;66(1):7–9

Seasonal variations in vitamin-D status and the incidence of tuberculosis in different countries [letter] Chan TY. **Respiration** 1999;66(2):196 (6 ref.)

Seasonal variation of blood pressure in maintenance hemodialysis. de Castro MC, et al. **Rev Paul Med** 1998 Jul-Aug;116(4):1774–7

Occurrence of suicide and seasonal variation. Retamal P, et al. **Rev Saude Publica** 1998 Oct;32(5):408–12

Aetiological, clinical and epidemiological characteristics of a seasonal peak of diarrhoea in Dhaka, Bangladesh. Faruque AS, et al. **Scand J Infect Dis** 1998;30(4):393–6

Seasonal variation of semen quality and fertility. Levine RJ. **Scand J Work Environ Health** 1999;25 Suppl 1:34–7; discussion 76–8 (22 ref.)

Seasonal influences on admissions in schizophrenia and affective disorder in Ireland. Clarke M, et al. **Schizophr Res** 1998 Nov 30;34(3):143–9

Season of birth and schizophrenia: a systematic review and meta-analysis of data from the Southern Hemisphere. McGrath JJ, et al. **Schizophr Res** 1999 Feb 15;35(3):237–42

Schizophrenia and seasonality of admissions: the northern Finland 1966 birth cohort study [letter] Räsänen P, et al. **Schizophr Res** 1999 Jan 11;35(2):183–5

Seasonal deposition of housedusts onto household surfaces. Edwards RD, et al. **Sci Total Environ** 1998 Dec 11; 224(1–3):69–80

Seasonality of presentation of type I diabetes mellitus in children. Scottish Study Group for the Care of Young Diabetics. Douglas S, et al. **Scott Med J** 1999 Apr; 44(2):41–6

Increasing homicide rate in Finland accompanied by decreasing seasonality over the period 1957–95. Hakko H, et al. **Soc Sci Med** 1998 Dec;47(11):1695–8

Summer tuberculosis [letter] Kelsey MC, et al. **Thorax** 1999 Sep;54(9):862

Unstable malaria in Sudan: the influence of the dry season. Clone multiplicity of Plasmodium falciparum infections in individuals exposed to variable levels of disease transmission. Arnot D. **Trans R Soc Trop Med Hyg** 1998 Nov-Dec;92(6):580–5

Statistical analysis of the seasonal variation in the twinning rate. Fellman J, et al. **Twin Res** 1999 Mar;2(1):22–9

Seasonal changes in the lymphoid organs of wild brown trout, Salmo trutta L: a morphometrical study. Alvarez F, et al. **Vet Immunol Immunopathol** 1998 Jul 31;

64(3):267–78

Temporal variations in blood glutathione peroxidase (GSHPx) activity in sheep at pasture in a Mediterranean area. Andres S, et al. **Vet J** 1999 Mar;157(2):186–8

Seasonal transmission of equine cyathostomes in warm climates. Courtney CH. **Vet Parasitol** 1999 Aug 31; 85(2–3):173–7; discussion 177–80, 215–25

Ascaris suum: seasonal egg development rates in a Saskatchewan pig barn. Wagner B, et al. **Vet Parasitol** 1999 Aug 16;85(1):71–8

Seasonal influences on the functional expression of the endogenous L-type Ca2+ channels in Pleurodeles oocytes: role of cAMP? Ouadid-Ahidouch H, et al. **Zygote** 1998 May;6(2):97–101

[Reagin sensitizations and date of birth. Differences in function according to family history] de Montis G. **Arch Pediatr** 1999 Mar;6(3):259–62 (Eng. Abstr.) **(Fre)**

[Vitamin D status in the adolescent: seasonal variations and effects of winter supplementation with vitamin D3] Guillemant J, et al. **Arch Pediatr** 1998 Nov;5(11):1211–5 (Eng. Abstr.) **(Fre)**

[Monthly variations in the level of infestation and the potential for transmission of Biomphalaria pfeifferi in 2 aquatic systems in Lwiro, Democratic Republic of Congo] Bagalwa M, et al. **Med Trop (Mars)** 1998;58(4):372–4 (Eng. Abstr.) **(Fre)**

[Seasonal fluctuation in peptic ulcer occurrence: a disappearing phenomenon?] Soszka A, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):208–9 (Eng. Abstr.) **(Pol)**

[Seasonal periodicity of perforated peptic ulcers] Wysocki A, et al. **Przegl Lek** 1999;56(3):189–91 (Eng. Abstr.) **(Pol)**

[Absence of seasonal adaptive changes in the isoformic state and functional properties of actin-containing and thin filament proteins in skeletal muscles of hibernating squirrels] [letter] Lukoianova NA, et al. **Biofizika** 1998 Nov–Dec;43(6):1134–6 (Eng. Abstr.) **(Rus)**

[Atrial cardiomyocytes of the heterothermic animal in various physiological conditions] Vinogradova MS, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):353–6 **(Rus)**

[Periodicity of tactile and noxious perception of rat skin mechanoreceptors] Enin LD, et al. **Dokl Akad Nauk** 1998 Dec;363(5):694–5 **(Rus)**

[Seasonal changes in the size of testis and vocalization in pikas as a confirmation of hormonal control for acoustic behavior in mammals] Nikol'skii AA, et al. **Dokl Akad Nauk** 1999 Feb;364(4):569–71 **(Rus)**

[The season of birth and laterality] Stoianov Z, et al. **Fiziol Cheloveka** 1998 Nov–Dec;24(6):32–7 **(Rus)**

[Phenotypic and genotypic structure of a natural Drosophila population for meristic morphologic characters and its seasonal changes] Grechanyi GV, et al. **Genetika** 1998 Dec; 34(12):1619–29 (Eng. Abstr.) **(Rus)**

[The experience of winter field deratization in a focus of hemorrhagic fever with renal syndrome] Matrosov AN, et al. **Gig Sanit** 1999 Mar–Apr;(2):57–9 **(Rus)**

[The effect of the photoperiod on steroid hormone secretion, on seasonal reproductive rhythms and on fertility in female silver foxes] Osadchuk LV. **Izv Akad Nauk Ser Biol** 1999 Mar–Apr;(2):191–200 (Eng. Abstr.) **(Rus)**

[The survival of the causative agent of plaque in the long-tailed suslik from a Tuva natural focus in wintertime] Maevskii MP, et al. **Med Parazitol (Mosk)** 1999 Jan–Mar; (1):55–8 (Eng. Abstr.) **(Rus)**

[The morphofunctional characteristics of the testicular interstitial endocrinocytes in the red suslik (Citellus major Pallas) during a seasonal change in reproductive activity] Shevliuk NN. **Morfologiia** 1998;114(4):88–93 (Eng. Abstr.) **(Rus)**

[Effects of the hormonal activity of the thyroid gland and insulin system on the glucose level in man in the North] Tkachev AV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May–Jun;84(5–6):521–6 (Eng. Abstr.) **(Rus)**

[Effect of weather on the occurrence of cerebral stroke] Cabajová Z, et al. **Bratisl Lek Listy** 1999 May; 100(5):267–70 (Eng. Abstr.) **(Slo)**

[Contents of various nutrients, minerals and seasonal fluctuations in Porphyra columbina, an edible marine algae from the Argentine Patagonian++ coast] Fajardo MA, et al. **Arch Latinoam Nutr** 1998 Sep;48(3):260–4 (Eng. Abstr.) **(Spa)**

[The seasonal variation in the plasma fibrinogen concentrations in patients with essential arterial hypertension] Murciano Revert J, et al. **Aten Primaria** 1998 Sep 30;22(5):298–301 (Eng. Abstr.) **(Spa)**

[Do seasonal changes have any influence on Pneumocystis carinii pneumonia? (letter)] López de la Osa A, et al. **Enferm Infecc Microbiol Clin** 1998 Nov;16(9):435 **(Spa)**

[The seasonality of meningococcal disease in infants less than 1 year old. Cuba, 1983–1990] Rico Cordeiro O, et al. **Rev Cubana Med Trop** 1995;47(2):108–12 (Eng. Abstr.) **(Spa)**

[Effects of environmental factors on the number of emergency admissions to the Hospital Complex Juan Canalejo in La Coruña: creation of a prediction model] Lage Ferrón MB, et al. **Rev Esp Salud Publica** 1999 Jan–Feb;73(1):45–60 (Eng. Abstr.) **(Spa)**

[Annual school and menarche rhythms (vacation-study)] Valenzuela CY, et al. **Rev Med Chil** 1999 Feb;127(2):143–50 (Eng. Abstr.) **(Spa)**

[The efficacy of physiotherapeutic methods in the treatment of chronic pancreatitis taking into account the season of the year] Mel'nychuk ZA. **Lik Sprava** 1998 Jun;(4):141–4 (Eng. Abstr.) **(Ukr)**

SEAT BELTS

see related
AIR BAGS

The "seat belt mark" sign: a call for increased vigilance among physicians treating victims of motor vehicle accidents. Velmahos GC, et al. **Am Surg** 1999 Feb;65(2):181–5

Child safety seats--improving use step-by-step [comment] Jolly BT. **Ann Emerg Med** 1999 Sep;34(3):404–5. Comment on: Ann Emerg Med 1999 Sep;34(3):403–4.

Braking electric-powered wheelchairs: effect of braking method, seatbelt, and legrests. Cooper RA, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1244–9

Whiplash cultures [letter; comment] Ferrari R. **CMAJ** 1999 Aug 24;161(4):368. Comment on: CMAJ 1999 May 18;160(10):1425.

Kids in the back seat: Brazil's strides in enforcing its new traffic law [letter; comment] Blank D. **Inj Prev** 1999 Mar; 5(1):77. Comment on: Inj Prev 1998 Sep;4(3):181–7.

Seating positions and children's risk of dying in motor vehicle crashes [see comments] Braver ER, et al. **Inj Prev** 1998 Sep;4(3):181–7. Comment in: Inj Prev 1999 Mar;5(1):77. Comment in: Inj Prev 1999 Mar;5(1):78.

Reduced fatalities related to rear seat shoulder belts. Robertson LS. **Inj Prev** 1999 Mar;5(1):62–4

Seating positions and children's risk of dying in motor vehicle crashes [letter; comment] Shield J. **Inj Prev** 1999 Mar; 5(1):78. Comment on: Inj Prev 1998 Sep;4(3):181–7.

The effects of an intervention campaign to enhance seat belt use on campus. Clark MJ, et al. **J Am Coll Health** 1999 May;47(6):277–80

Pregnant women and car restraints: beliefs and practices. Tyroch AH, et al. **J Trauma** 1999 Feb;46(2):241–5

National Child Passenger Safety Week--February 14–20, 1999. **MMWR Morb Mortal Wkly Rep** 1999 Feb 5; 48(4):83–4

[Acceleration injuries of the cervical spine in seat-belted automobile drivers. Determination of the trauma mechanism and severity of injury] Richter M, et al. **Orthopade** 1999 May;28(5):414–23 (Eng. Abstr.) **(Ger)**

[Safety belts as a traffic safety requirement (letter)] Nandorf R. **Lakartidningen** 1999 Mar 17;96(11):1290 **(Swe)**

ADVERSE EFFECTS

Transection of the appendix: a seat belt injury. Edwards RA, et al. **Arch Surg** 1999 Jan;134(1):90–1

A seat belt injury to the female breast [letter] Matthews RN, et al. **Br J Plast Surg** 1998 Dec;51(8):653

Cost of seat-belt-related whiplash injuries rising [news] [see comments] LeBourdais E. **CMAJ** 1999 May 18; 160(10):1425. Comment in: CMAJ 1999 Aug 24;161(4):368.

Incarcerated lumbar hernia--delayed consequence of a seat belt injury. Zamir G, et al. **Injury** 1998 Sep;29(7):561–3

Fatal intra-abdominal injury associated with incorrect use of a seat belt [letter] Dawson LK, et al. **J Accid Emerg Med** 1998 Nov;15(6):437–8

Seat-belt transection of the pararenal vena cava in a 5-year-old child: survival with caval ligation. DeCou JM, et al. **J Pediatr Surg** 1999 Jul;34(7):1074–6 (30 ref.)

Traumatic lumbar hernia due to seat belt injury: case report. Balkan M, et al. **J Trauma** 1999 Jul;47(1):154–5

Left ventricular thrombus after seat-belt-related chest trauma. Hung MJ, et al. **J Trauma** 1999 Sep;47(3):599–601

Unusual pseudoaneurysm of an axillofemoral bypass caused by seat belt trauma: case report. Krüger K, et al. **J Trauma** 1999 Jan;46(1):189–91

Seat belt syndrome [letter] Paci M, et al. **J Trauma** 1999 Aug;47(2):437–8

The spectrum of lap belt injuries sustained by two cousins in the same motor vehicle crash. Statter MB, et al. **J Trauma** 1998 Oct;45(4):835–7

Seat belt injury presenting as bilateral abdominal wall herniations in a child. Levine JL, et al. **Pediatr Emerg Care** 1998 Oct;14(5):352–3 (11 ref.)

Seat-belt-related injuries to the supra-aortic arteries. Illuminati G, et al. **Scand Cardiovasc J** 1999;33(2):111–5

Seat belt fracture with late development of an enterocolic fistula in a child. A case report. Letts M, et al. **Spine** 1999 Jun 1;24(11):1151–5

Positive seat belt sign in three siblings involved in a single motor vehicle collision: the use of diagnostic laparoscopy. Sprouse LR 2nd, et al. **Tenn Med** 1999 Feb;92(2):58–60

[Case record from Nippon Medical School. Seatbelt injury (clinical conference)] Naitoh E, et al. **Nippon Ika Daigaku Zasshi** 1999 Apr;66(2):143–5 **(Jpn)**

CLASSIFICATION

Motor vehicle occupant protection for children. Agran P, et al. **West J Med** 1998 Dec;169(6):375–6

LEGISLATION & JURISPRUDENCE

The efficacy of safety policies on traffic fatalities in Singapore. Jessie WS, et al. **Accid Anal Prev** 1998 Nov; 30(6):745–54

Effectiveness of primary and secondary enforced seat belt laws. Rivara FP, et al. **Am J Prev Med** 1999 Jan;16(1 Suppl):30–9

Nighttime observations of safety belt use: an evaluation of California's primary law. Lange JE, et al. **Am J Public Health** 1998 Nov;88(11):1718–20

STANDARDS

Rear seat belt accessibility and occupant seat belt use in New York City taxicabs [letter] Manoach SM, et al. **Am J Public Health** 1998 Dec;88(12):1878

UTILIZATION

Seatbelt use and belief in destiny among Hispanic and non-Hispanic drivers. Byrd T, et al. **Accid Anal Prev** 1999 Jan–Mar;31(1–2):63–5

Predictors of safety belt use among crash-involved drivers and front seat passengers: adjusting for over-reporting. Li L, et al. **Accid Anal Prev** 1999 Nov;31(6):631–8

Who is driving when unrestrained children and teenagers are hurt? Miller TR, et al. **Accid Anal Prev** 1998 Nov; 30(6):839–49

Possible causes of socioeconomic and ethnic differences in seat belt use among high school students. Shin D, et al. **Accid Anal Prev** 1999 Sep;31(5):485–96

Impacts of culture on driver knowledge and safety device usage among Hispanic farm workers. Stiles MC, et al. **Accid Anal Prev** 1999 May;31(3):235–41

Effectiveness of health promotion programs to increase motor vehicle occupant restraint use among young children. Grossman DC, et al. **Am J Prev Med** 1999 Jan; 16(1 Suppl):12–22

Nighttime observations of safety belt use: an evaluation of California's primary law. Lange JE, et al. **Am J Public Health** 1998 Nov;88(11):1718–20

Factors associated with seat belt use: an evaluation from the Ontario Health Survey. Sahai VS, et al. **Can J Public Health** 1998 Sep–Oct;89(5):320–4

Person, time, and place predictors of seat belt use in Athens, Greece. Hellenic Road Traffic Police Department. Petridou E. **J Epidemiol Community Health** 1998 Aug; 52(8):534–5

Seat belt use by children brought to an inner-city hospital. Tun J, et al. **Pediatr Emerg Care** 1999 Jun;15(3):176–8

SEAWATER

see related
GEOLOGIC SEDIMENTS
THALASSOTHERAPY

Distribution coefficients (Kd's) for use in risk assessment models of the Kara Sea. Carroll J, et al. **Appl Radiat Isot** 1999 Jul;51(1):121–9

Contamination levels and specific accumulation of persistent organochlorines in Caspian seal (Phoca caspica) from the Caspian sea, Russia. Watanabe M, et al. **Arch Environ Contam Toxicol** 1999 Oct;37(3):396–407

Measurement of biodegradable substances using the salt-tolerant yeast Arxula adeninivorans for a microbial sensor immobilized with poly(carbamoyl)sulfonate (PCS). Part II: Application of the novel biosensor to real samples from coastal and island regions. Lehmann M, et al. **Biosens Bioelectron** 1999 Mar 15;14(3):295–302

Studies on degradation of 14C-DDT in the marine environment. Kale SP, et al. **Chemosphere** 1999 Sep; 39(6):959–68

Studies on degradation of 14C-chlorpyrifos in the marine environment. Kale SP, et al. **Chemosphere** 1999 Sep; 39(6):969–76

Different prevalences of Renibacterium salmoninarum detected by ELISA in Alaskan chinook salmon Oncorhynchus tshawytscha spawned from freshwater and seawater. Meyers TR, et al. **Dis Aquat Organ** 1999 Jan 29;35(2):101–5

Effects of estrogenic substances in the aquatic environment. Matthiessen P, et al. **EXS** 1998;86:319–35 (64 ref.)

Diatom test with Soluene-350 to diagnose drowning in sea water. Sidari L, et al. **Forensic Sci Int** 1999 Jul 12; 103(1):61–5

Plasma calcium and calcitonin levels in eels fed a high calcium solution or transferred to seawater. Suzuki N, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):324–9

The Manzanar Project: towards a solution to poverty, hunger, environmental pollution, and global warming through sea water aquaculture and silviculture in deserts [editorial] Sato GH, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul–Aug;34(7):509–11

Actinosporeans (Myxozoa) with four developing spores within a pansporocyst: Tetraspora discoidea n.g. n.sp. and Tetraspora rotundum n.sp. Hallett SL, et al. **Int J Parasitol** 1999 Mar;29(3):419–27

Low incidence of Vibrio vulnificus among Vibrio isolates from sea water and shellfish of the western Mediterranean coast. Arias CR, et al. **J Appl Microbiol** 1999 Jan; 86(1):125–34

Survival of Listeria monocytogenes in sea water and effect of exposure on thermal resistance. Bremer PJ, et al. **J Appl Microbiol** 1998 Sep;85(3):545–53

Marine taphonomy: adipocere formation in a series of bodies recovered from a single shipwreck. Kahana T, et al. **J Forensic Sci** 1999 Sep;44(5):897–901

Pyrite suspended in artificial sea water catalyzes hydrolysis of adsorbed ATP: enhancing effect of acetate. Tessis AC, et al. **Orig Life Evol Biosph** 1999 Aug;29(4):361–74

Parasite communities of the Salzhaff (Northwest Mecklenburg, Baltic Sea). I. Structure and dynamics of communities of littoral fish, especially small-sized fish. Zander CD, et al. **Parasitol Res** 1999 May;85(5):356–72

Salt water bathing prior to UVB irradiation leads to a decrease of the minimal erythema dose and an increased erythema index without affecting skin pigmentation. Schempp CM, et al. **Photochem Photobiol** 1999 Mar; 69(3):341–4

A multi-purpose system for water purification and sea-water softening. Barsky L, et al. **Rev Environ Health** 1998 Oct–Dec;13(4):205–12

[Nasal washing with Physiomer ... 10 years later: 1988–1998] Traissac L, et al. **Rev Laryngol Otol Rhinol (Bord)** 1999; 120(2):133–5 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Estimates of the severity of illnesses associated with bathing in marine recreational waters contaminated with domestic sewage. Fleisher JM, et al. **Int J Epidemiol** 1998 Aug; 27(4):722–6

ANALYSIS

Laser-enhanced ionization detection of Pb in seawater by flow injection analysis with on-line preconcentration and separation. Ke CB, et al. **Anal Chem** 1999 Apr 15; 71(8):1561–7

Tracing marine biomass into tidal freshwater ecosystems using stable sulfur isotopes. MacAvoy SE, et al. **Naturwissenschaften** 1998 Nov;85(11):544–6

CHEMISTRY

Altered growth and metabolism of an estuarine shrimp (Palaemonetes pugio) during and after metamorphosis onto fenvalerate-laden sediment. McKenney CL Jr, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):464–71

Metal pollution in the sediments of Alexandria region, southeastern Mediterranean, Egypt. El-Sammak AA, et al. **Bull Environ Contam Toxicol** 1999 Aug;63(2):263–70

Oil contamination along oil tanker routes off the United Arab Emirates (the Arabian Gulf and the Gulf of Oman). Shriadah MA. **Bull Environ Contam Toxicol** 1999 Aug; 63(2):203–10

Bioaccumulation and retention of lead in the mussel Mytilus galloprovincialis following uptake from seawater. Boisson F, et al. **Sci Total Environ** 1998 Oct 15;222(1–2):55–61

MICROBIOLOGY

A small, dilute-cytoplasm, high-affinity, novel bacterium isolated by extinction culture and having kinetic constants compatible with growth at ambient concentrations of dissolved nutrients in seawater. Button DK, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4467–76

Chitinases from uncultured marine microorganisms. Cottrell MT, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2553–7

Bacterioplankton compositions of lakes and oceans: a first comparison based on fluorescence in situ hybridization. Glöckner FO, et al. **Appl Environ Microbiol** 1999 Aug; 65(8):3721–6

Effects of salinity and temperature on long-term survival of the eel pathogen Vibrio vulnificus biotype 2 (serovar E). Marco-Noales E, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1117–26

Flow cytometric analysis of 5-cyano-2,3-ditolyl tetrazolium chloride activity of marine bacterioplankton in dilution cultures. Sieracki ME, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2409–17

Sunlight inactivation of fecal bacteriophages and bacteria in sewage-polluted seawater. Sinton LW, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3605–13

Niche-partitioning of Prochlorococcus populations in a stratified water column in the eastern North Atlantic Ocean. West NJ, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2585–91

New nitrogen-fixing microorganisms detected in oligotrophic oceans by amplification of Nitrogenase (nifH) genes. Zehr JP, et al. **Appl Environ Microbiol** 1998 Sep; 64(9):3444–50

Taxonomic studies of deep-sea barophilic Shewanella strains and description of Shewanella violacea sp. nov. Nogi Y, et al. **Arch Microbiol** 1998 Oct;170(5):331–8

A mathematical model of cell growth and alkane degradation in Wadden Sea sediment suspensions. Berthe-Corti L, et al. **Biosystems** 1999 Mar;49(3):161–89

A phylogenetic analysis of microbial communities associated with methane hydrate containing marine fluids and sediments in the Cascadia margin (ODP site 892B). Bidle KA, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):101–8

Survival of fish-virulent strains of Photobacterium damselae subsp. damselae in seawater under starvation conditions. Fouz B, et al. **FEMS Microbiol Lett** 1998 Nov 15; 168(2):181–6

Detection of methanogenic archaea in seawater particles and the digestive tract of a marine fish species. van der Maarel MJ, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):189–94

Bacillus marismortui sp. nov., a new moderately halophilic species from the Dead Sea. Arahal DR, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:521–30

Description of Cellulophaga baltica gen. nov., sp. nov. and Cellulophaga fucicola gen. nov., sp. nov. and reclassification of [Cytophaga] lytica to Cellulophaga lytica gen. nov., comb. nov. Johansen JE, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1231–40

Hippea maritima gen. nov., sp. nov., a new genus of thermophilic, sulfur-reducing bacterium from submarine hot vents. Miroshnichenko ML, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1033–8

Haloarcula quadrata sp. nov., a square, motile archaeon isolated from a brine pool in Sinai (Egypt). Oren A, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1149–55

Studies on the phylogenetic relationships of melanogenic marine bacteria: proposal of Marinomonas mediterranea sp. nov. Solano F, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1241–6

Assignment of Vibrio sp. strain ABE-1 to Colwellia maris sp. nov., a new psychrophilic bacterium. Yumoto I, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1357–62

Viable heterotrophic bacteria in water and sediment in 'Mar Piccolo' of Taranto (Ionian Sea, Italy). Cavallo RA, et al. **J Appl Microbiol** 1999 Jun;86(6):906–16

Occurrence, diversity and pathogenicity of mesophilic Aeromonas in estuarine waters of the Italian coast of the Adriatic Sea. Fiorentini C, et al. **J Appl Microbiol** 1998 Sep;85(3):501–11

Distribution of indicator bacteria and bacteriophages in shellfish and shellfish-growing waters. Legnani P, et al. **J Appl Microbiol** 1998 Nov;85(5):790–8

The effect of wind speed and direction on the distribution of sewage-associated bacteria. Smith P, et al. **Lett Appl Microbiol** 1999 Mar;28(3):184–8

Prochlorococcus, a marine photosynthetic prokaryote of global significance. Partensky F, et al. **Microbiol Mol Biol Rev** 1999 Mar;63(1):106–27 (106 ref.)

In situ detection of bacteria in continuous-flow cultures of seawater sediment suspensions with fluorescently labelled rRNA-directed oligonucleotide probes. Bruns A, et al. **Microbiology** 1998 Oct;144 (Pt 10):2783–90

Polyunsaturated fatty acids in marine bacteria--a dogma rewritten. Russell NJ, et al. **Microbiology** 1999 Apr;145 (Pt 4):767–79 (80 ref.)

Isolation of Vibrio vulnificus from sea water and sand along the Dan region coast of the Mediterranean. Ghinsberg RC, et al. **Microbios** 1999;97(386):7–17

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198–201

Antibacterial activity of marine-derived fungi. Christophersen C, et al. **Mycopathologia** 1998–99; 143(3):135–8

Variability of some microbial parameters in relation to the hydrological features of the water column in the Eolian Basin (Southern Tyrrhenian Sea). Giuliano L, et al. **New Microbiol** 1999 Apr;22(2):139–50

Uptake and retention of Vibrio cholerae non-O1, Salmonella typhi, Escherichia coli and Vibrio harvey by mussels in seawater. Marino A, et al. **New Microbiol** 1999 Apr; 22(2):129–38

Polyphasic approach to the characterisation of marine luminous bacteria. Caccamo D, et al. **Res Microbiol** 1999 Apr;150(3):221–30

Persistence of infectious hepatitis A virus and its genome in artificial seawater. Arnal C, et al. **Zentralbl Hyg Umweltmed** 1998 Sep;201(3):279–84

PARASITOLOGY

Long-term survival of Cryptosporidium parvum oocysts in seawater and in experimentally infected mussels (Mytilus galloprovincialis). Tamburrini A, et al. **Int J Parasitol** 1999 May;29(5):711–5

VIROLOGY

Sunlight inactivation of fecal bacteriophages and bacteria in sewage-polluted seawater. Sinton LW, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3605–13

Bacteriophage diversity in the North Sea. Wichels A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4128–33

Marine viruses and their biogeochemical and ecological effects. Fuhrman JA. **Nature** 1999 Jun 10;399(6736):541–8 (105 ref.)

SEAWEED

see related

CARRAGEENAN

Evaluation of the cytotoxic activity of polyethers isolated from Laurencia. Fernández JJ, et al. **Bioorg Med Chem** 1998 Dec;6(12):2237–43

Potent suppressive effect of a Japanese edible seaweed, Enteromorpha prolifera (Sujiao-nori) on initiation and promotion phases of chemically induced mouse skin tumorigenesis. Hiqashi-Okaj K, et al. **Cancer Lett** 1999 Jun 1;140(1–2):21–5

Inhibition of liver glutathione S-transferase placental form-positive foci development in the rat hepatocarcinogenesis by Porphyra tenera (Asakusa-nori). Ichihara T, et al. **Cancer Lett** 1999 Jul 1;141(1–2):211–8

Transient hyperthyroidism in a patient taking dietary supplements containing kelp. Eliason BC. **J Am Board Fam Pract** 1998 Nov–Dec;11(6):478–80

A case of carotenodermia caused by a diet of the dried seaweed called Nori. Nishimura Y, et al. **J Dermatol** 1998 Oct;25(10):685–7

Hepatic fatty acid oxidation enzyme activities are stimulated in rats fed the brown seaweed, Undaria pinnatifida (wakame). Murata M, et al. **J Nutr** 1999 Jan;129(1):146–51

Biological properties of ulvan, a new source of green seaweed sulfated polysaccharides, on cultured normal and cancerous colonic epithelial cells. Kaeffer B, et al. **Planta Med** 1999 Aug;65(6):527–31

Antiviral activities against HSV-1, HCMV, and HIV-1 of rhamnan sulfate from Monostroma latissimum [letter] Lee JB, et al. **Planta Med** 1999 Jun;65(5):439–41

Illness associated with eating seaweed, Hawaii, 1994. Marshall KL, et al. **West J Med** 1998 Nov;169(5):293–5

CHEMISTRY

Fucoxanthin as the major antioxidant in Hijikia fusiformis, a common edible seaweed. Yan X, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):605–7

Immunomodulating activity of seaweed extract on human lymphocytes in vitro. Shan BE, et al. **Int J Immunopharmacol** 1999 Jan;21(1):59–70

Antioxidative activities in some common seaweeds. Yan X, et al. **Plant Foods Hum Nutr** 1998;52(3):253–62

[Presence of lectins, tannins and protease inhibitors in venezuelan marine algae] Perez-Lorenzo S, et al. **Acta Cient Venez** 1998;49(3):144–51 (Eng. Abstr.) **(Spa)**

[Contents of various nutrients, minerals and seasonal fluctuations in Porphyra columbina, an edible marine algae from the Argentine Patagonian++ coast] Fajardo MA, et al. **Arch Latinoam Nutr** 1998 Sep;48(3):260–4 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Preliminary X-ray analysis of a new crystal form of the vanadium-dependent bromoperoxidase from Corallina officinalis. Brindley AA, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):454–7

PHYSIOLOGY

Molecular phylogenetic evidence for a reversible morphogenetic switch controlling the gross morphology of two common genera of green seaweeds, Ulva and Enteromorpha. Tan IH, et al. **Mol Biol Evol** 1999 Aug; 16(8):1011–8

SEBACEOUS CYST see **EPIDERMAL CYST**

SEBACEOUS GLAND DISEASES

PATHOLOGY

Nevus sebaceus of Jadassohn associated with macro optic discs and conjunctival choristoma [letter] Kruse FE, et al. **Arch Ophthalmol** 1998 Oct;116(10):1379–81

Confocal imaging of sebaceous gland hyperplasia in vivo to assess efficacy and mechanism of pulsed dye laser treatment. González S, et al. **Lasers Surg Med** 1999; 25(1):8–12

Larva migrans within scalp sebaceous gland. Guimarães LC, et al. **Rev Soc Bras Med Trop** 1999 Mar–Apr;32(2):187–9 (8 ref.)

SURGERY

Confocal imaging of sebaceous gland hyperplasia in vivo to assess efficacy and mechanism of pulsed dye laser treatment. González S, et al. **Lasers Surg Med** 1999; 25(1):8–12

SEBACEOUS GLAND NEOPLASMS

[A case of linear sebaceous nevus syndrome associated with a cerebrovascular anomaly] Okuda K, et al. **Rinsho Shinkeigaku** 1998 May;38(5):471–3 (Eng. Abstr.) **(Jpn)**

CHEMICALLY INDUCED

High frequency of codon 61 K-ras A-->T transversions in lung and Harderian gland neoplasms of B6C3F1 mice exposed to chloroprene (2-chloro-1,3-butadiene) for 2 years, and comparisons with the structurally related chemicals isoprene and 1,3-butadiene. Sills RC, et al. **Carcinogenesis** 1999 Apr;20(4):657–62

CLASSIFICATION

Folliculo-sebaceous cystic hamartoma is but the sebaceous end of tricho-sebo-folliculoma spectrum [letter; comment] Simón RS, et al. **J Cutan Pathol** 1999 Feb;26(2):109. Comment on: J Cutan Pathol 1998 Aug;25(7):341–53. Comment on: J Cutan Pathol 1998 Aug;25(7):354–64.

COMPLICATIONS

[Muir-Torre syndrome] Tiszlavicz L, et al. **Orv Hetil** 1999 Jan 31;140(5):251–4 (Eng. Abstr.) **(Hun)**

DIAGNOSIS

Sebaceous carcinoma presenting as a unilateral papillary conjunctivitis. Gloor P, et al. **Am J Ophthalmol** 1999 Apr; 127(4):458–9

SEBACEOUS GLAND NEOPLASMS

Dimorphic immunohistochemical staining in ocular sebaceous neoplasms: a useful diagnostic aid. Johnson JS, et al. **Eye** 1999;13 (Pt 1):104–8

[Diseases associated with adnexal tumors. II--Sebaceous tumors, sudoral tumors] Cribier B. **Ann Dermatol Venereol** 1999 May;126(5):455–62 (100 ref.) **(Fre)**

ETIOLOGY

Sebaceous gland carcinoma of the eyelid seventeen years after irradiation for bilateral retinoblastoma [letter] Rundle P, et al. **Eye** 1999;13 (Pt 1):109–10

GENETICS

Familial naevus sebaceous of Jadassohn [letter] Fearfield LA, et al. **Br J Dermatol** 1998 Dec;139(6):1119–20

A novel germline mutation in the hMLH1 DNA mismatch repair gene in a patient with an isolated cystic sebaceous tumor [letter] Kruse R, et al. **J Invest Dermatol** 1999 Jan; 112(1):117–8

Familial cylindromatosis mimicking tuberous sclerosis complex and confirmation of the cylindromatosis locus, CYLD1, in a large family. Verhoef S, et al. **J Med Genet** 1998 Oct;35(10):841–5

PATHOLOGY

About benign neoplasms with sebaceous differentiation [letter; comment] Yus ES, et al. **Am J Dermatopathol** 1999 Jun;21(3):298–300. Comment on: Am J Dermatopathol 1998 Apr;20(2):194–8.

Cytologic-pathologic correlations: fine needle aspiration of three cases of steatocystoma multiplex. Oertel YC, et al. **Ann Diagn Pathol** 1998 Oct;2(5):318–20

Sebaceous carcinoma of the eyelid: a clinicopathological study. Zürcher M, et al. **Br J Ophthalmol** 1998 Sep; 82(9):1049–55

A case of multiple sebaceous epithelioma: analysis of microsatellite instability. Ueda M, et al. **J Dermatol** 1999 Mar;26(3):178–82

Linear nevus sebaceous syndrome [letter; comment] Charles NC. **Ophthalmology** 1999 Feb;106(2):207. Comment on: Ophthalmology 1998 Aug;105(8):1459–65.

THERAPY

Successful treatment of adenoma sebaceum with the potassium titanyl phosphate laser. Finch TM, et al. **Clin Exp Dermatol** 1998 Sep;23(5):201–3

SEBACEOUS GLANDS

Heterotopic sebaceous glands in the esophagus: histopathological and immunohistochemical study of a resected esophagus. Nakanishi Y, et al. **Pathol Int** 1999 Apr;49(4):364–8

CYTOLOGY

Establishment of a tissue culture system for hamster sebaceous gland cells. Ito A, et al. **Dermatology** 1998; 197(3):238–44

Growth hormone and insulin-like growth factors have different effects on sebaceous cell growth and differentiation. Deplewski D, et al. **Endocrinology** 1999 Sep; 140(9):4089–94

DRUG EFFECTS

Inhibitory effect of propranolol on lipid synthesis in gonadectomized male hamster flank organs. Cabeza M, et al. **Arch Med Res** 1998 Winter;29(4):291–5

Estrogen-induced production of a peroxisome proliferator-activated receptor (PPAR) ligand in a PPARgamma-expressing tissue. Ma H, et al. **J Biol Chem** 1998 Nov 13;273(46):30131–8

ENZYMOLOGY

Expression of stratum corneum chymotryptic enzyme in human sebaceous follicles. Ekholm E, et al. **Acta Derm Venereol** 1998 Sep;78(5):343–7

Androgen metabolism in sebaceous glands from subjects with and without acne [see comments] Thiboutot D, et al. **Arch Dermatol** 1999 Sep;135(9):1041–5. Comment in: Arch Dermatol 1999 Sep;135(9):1101–2.

INJURIES

Laser hair removal affects sebaceous glands and sebum excretion: a pilot study. Manuskiatti W, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):176–80

METABOLISM

The organ maintained human sebaceous gland. Guy R, et al. **Exp Dermatol** 1999 Aug;8(4):315–7

An immunohistochemical study of the apocrine type of cutaneous mixed tumors with special reference to their follicular and sebaceous differentiation. Yamamoto O, et al. **J Cutan Pathol** 1999 May;26(5):232–41

PATHOLOGY

Isotretinoin for sebaceous skin lesions in Muir-Torre syndrome: a case report [letter] Marcusson JA, et al. **Acta Derm Venereol** 1998 Nov;78(6):479–80

Poral neoplasm with combined sebaceous and apocrine differentiation. Gianotti R, et al. **Am J Dermatopathol** 1998 Oct;20(5):491–4

Sebaceous differentiation in microcystic adnexal carcinoma [letter; comment] Heenan PJ. **Am J Dermatopathol** 1998 Oct;20(5):537–8. Comment on: Am J Dermatopathol 1997 Aug;19(4):358–62.

Band-like sebaceous hyperplasia over the penis. Kumar A, et al. **Australas J Dermatol** 1999 Feb;40(1):47–8

The linear naevus sebaceus syndrome. van de Warrenburg BP, et al. **Clin Neurol Neurosurg** 1998 Jun;100(2):126–32 (57 ref.)

Multiple follicular hamartomas with sweat gland and sebaceous differentiation, vermiculate atrophoderma, milia, hypotrichosis, and late development of multiple basal cell carcinomas. Pujol RM, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):853–7

Confocal imaging of sebaceous gland hyperplasia in vivo to assess efficacy and mechanism of pulsed dye laser treatment. González S, et al. **Lasers Surg Med** 1999; 25(1):8–12

Benign lymphoepithelial lesion of the parotid gland with sebaceous differentiation. Ide F, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jun;87(6):721–4

[An uncommon parotid tumor] Moll ME, et al. **Ann Pathol** 1998 Nov;18(5):437–8 **(Fre)**

[Hyperplasia of sebaceous glands (Fordyce's disease) in an oral mucocutaneous graft: 45-year follow-up] Landenberger H, et al. **Klin Monatsbl Augenheilkd** 1999 Mar;214(3):185–7 (Eng. Abstr.) **(Ger)**

[Sebaceous carcinoma of the parotid gland] Namysłowski G, et al. **Otolaryngol Pol** 1998;52(4):475–7 (Eng. Abstr.) **(Pol)**

PHYSIOPATHOLOGY

Hair follicle biology, the sebaceous gland, and scarring alopecias. Stenn KS, et al. **Arch Dermatol** 1999 Aug; 135(8):973–4

RADIATION EFFECTS

UVB irradiation stimulates deposition of new elastic fibers by modified epithelial cells surrounding the hair follicles and sebaceous glands in mice. Starcher B, et al. **J Invest Dermatol** 1999 Apr;112(4):450–5

SEBORRHEA see **DERMATITIS, SEBORRHEIC**

SEBORRHEIC KERATOSIS see **KERATOSIS, SEBORRHEIC**

SEBUM

CHEMISTRY

Recent trend of polychlorinated dibenzo-p-dioxins and their related compounds in the blood and sebum of Yusho and Yu Cheng patients. Iida T, et al. **Chemosphere** 1999 Feb; 38(5):981–93

[Site specific difference of PCB concentration in the skin derived sebum and collection of excreted sebum with commercial sebum-remover sheet] Watanabe M, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):154–6 (Eng. Abstr.) **(Jpn)**

CYTOLOGY

Rat preputial sebocyte differentiation involves peroxisome proliferator-activated receptors. Rosenfield RL, et al. **J Invest Dermatol** 1999 Feb;112(2):226–32

SECRETION

Laser hair removal affects sebaceous glands and sebum excretion: a pilot study. Manuskiatti W, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):176–80

SECALE see **RYE**

SECERNENTEA

ENZYMOLOGY

A divergent multi-domain cyclophilin is highly conserved between parasitic and free-living nematode species and is important in larval muscle development. Page AP, et al. **Mol Biochem Parasitol** 1998 Sep 15;95(2):215–27

SECOBARBITAL

[Experience in managing refractory status epilepticus caused by viral encephalitis under long-term anesthesia with barbiturate: a case report] Ohori N, et al. **Rinsho Shinkeigaku** 1998 May;38(5):474–7 (Eng. Abstr.) **(Jpn)**

POISONING

Emergency! Barbiturate overdose [see comments] Lisanti P. **Am J Nurs** 1998 Oct;98(10):38. Comment in: Am J Nurs 1999 Apr;99(4):14.

SECOND CRANIAL NERVE see **OPTIC NERVE**

SECOND-GENERATION ANTIDEPRESSIVE AGENTS see **ANTIDEPRESSIVE AGENTS, SECOND-GENERATION**

SECOND-LOOK SURGERY see **REOPERATION**

SECOND MALIGNANCY see **NEOPLASMS, SECOND PRIMARY**

SECOND MESSENGER SYSTEMS

Differential utilization of cyclic ADP-ribose pathway by chemokines to induce the mobilization of intracellular calcium in NK cells. Inngjerdingen M, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):467–72

Sphingosine-1-phosphate: extracellular mediator or intracellular second messenger? Hla T, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):201–7 (61 ref.)

A novel protein kinase target for the lipid second messenger phosphatidic acid. McPhail LC, et al. **Biochim Biophys Acta** 1999 Jul 30;1439(2):277–90 (208 ref.)

Phospholipase D in cellular senescence. Venable ME, et al. **Biochim Biophys Acta** 1999 Jul 30;1439(2):291–8 (67 ref.)

Bronchodilatation in vivo by carbon monoxide, a cyclic GMP related messenger. Cardell LO, et al. **Br J Pharmacol** 1998 Jul;124(6):1065–8

Reactive oxygen species modulate endothelin-1-induced c-fos gene expression in cardiomyocytes. Cheng TH, et al. **Cardiovasc Res** 1999 Mar;41(3):654–62

Cyclic ADP-ribose: a novel Ca2+-mobilising second messenger. Guse AH. **Cell Signal** 1999 May;11(5):309–16 (78 ref.)

Recent advances in the regulation of plant calcium channels: evidence for regulation by G-proteins, the cytoskeleton and second messengers. Thuleau P, et al. **Curr Opin Plant Biol** 1998 Oct;1(5):424–7 (28 ref.)

Functional assessment of the calcium messenger system in cultured mouse Leydig tumor cells: regulation of human chorionic gonadotropin-induced expression of the steroidogenic acute regulatory protein. Manna PR, et al. **Endocrinology** 1999 Apr;140(4):1739–51

The transmembrane glycoprotein CD38 is a catalytically active transporter responsible for generation and influx of the second messenger cyclic ADP-ribose across membranes. Franco L, et al. **FASEB J** 1998 Nov; 12(14):1507–20

Intracellular diadenosine polyphosphates: a novel second messenger in stimulus-secretion coupling. Martin F, et al. **FASEB J** 1998 Nov;12(14):1499–506

Mg2+ modulates membrane sphingolipid and lipid second messenger levels in vascular smooth muscle cells. Morrill GA, et al. **FEBS Lett** 1998 Nov 27;440(1-2):167–71

Role of phospholipases during sperm acrosomal exocytosis. Roldan ER. **Front Biosci** 1998 Nov 1;3:D1109–19 (122 ref.)

Transfection of an active cytochrome P450 arachidonic acid epoxygenase indicates that 14,15-epoxyeicosatrienoic acid functions as an intracellular second messenger in response to epidermal growth factor. Chen JK, et al. **J Biol Chem** 1999 Feb 19;274(8):4764–9

Platelet-derived growth factor-BB and thrombin generate positive and negative signals for human hepatic stellate cell proliferation. Role of a prostaglandin/cyclic AMP pathway and cross-talk with endothelin receptors. Mallat A, et al. **J Biol Chem** 1998 Oct 16;273(42):27300–5

Sphingosine 1-phosphate: a prototype of a new class of second messengers. Spiegel S. **J Leukoc Biol** 1999 Mar; 65(3):341–4 (41 ref.)

Calcium and cAMP are second messengers in the adipokinetic hormone-induced lipolysis of triacylglycerols in Manduca sexta fat body. Arrese EL, et al. **J Lipid Res** 1999 Mar;40(3):556–64

Fibroblast growth factor receptor signaling in Xenopus retinal axon extension. Lom B, et al. **J Neurobiol** 1998 Dec; 37(4):633–41

Evidence for chloride ions as intracellular messenger substances in astrocytes. Bekar LK, et al. **J Neurophysiol** 1999 Jul;82(1):248–54

The Nobel chronicles. 1971: Earl Wilbur Sutherland, Jr. (1915–74). Raju TN. **Lancet** 1999 Sep 11;354(9182):961

Autoradiography of enzymes, second messenger systems, and ion channels. Walsh DA, et al. **Methods Mol Biol** 1999; 106:199–214 (36 ref.)

Second messenger pathways in the honeybee brain: immunohistochemistry of protein kinase A and protein kinase C. Müller U. **Microsc Res Tech** 1999 May 1; 45(3):165–73 (57 ref.)

Reactive oxygen species function as second messenger during ischemic preconditioning of heart. Das DK, et al. **Mol Cell Biochem** 1999 Jun;196(1-2):59–67

Regulation of alpha4beta2 nicotinic receptor desensitization by calcium and protein kinase C. Fenster CP, et al. **Mol Pharmacol** 1999 Mar;55(3):432–43

Regulation of calcium signalling in T lymphocytes by the second messenger cyclic ADP-ribose. Guse AH, et al. **Nature** 1999 Mar 4;398(6722):70–3

Nitric oxide is formed in a subpopulation of rat pineal cells and acts as an intercellular messenger. Spessert R, et al. **Neuroendocrinology** 1998 Jul;68(1):57–63

The response of cAMP and DNA synthesis in rat osteosarcoma cells to mechanically deformed culture

dishes. Chen YJ, et al.
Proc Natl Sci Counc Repub China B 1999 Jul;23(3):114–9
Interaction of the tyrosine phosphatase inhibitor ortho-vanadate on stimulus--secretion coupling in pancreatic acinar cells. Siegel EG, et al.
Scand J Gastroenterol 1999 Feb;34(2):208–14
Progesterone induces meiotic division in the amphibian oocyte by releasing lipid second messengers from the plasma membrane. Morrill GA, et al. **Steroids** 1999 Jan–Feb;64(1–2):157–67 (45 ref.)
[Cyclic ADP-ribose as a second messenger--intramembrane signal transduction from receptors to ADP-ribosyl cyclase] Higashida H, et al. **Seikagaku** 1998 Nov;70(11):1326–34 (79 ref.) **(Jpn)**
[Recent development of sphingosin 1-phosphate studies as a second messenger or a second agonist in cell signaling] Igarashi Y. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1059–66 (43 ref.) **(Jpn)**
[Effect of thyrotropin on activity of calpains in the thyroid gland. The role of second messengers] Stroev EA, et al. **Biull Eksp Biol Med** 1998 Dec;126(12):649–51 **(Rus)**

DRUG EFFECTS

Effects of the peroxisome proliferator ciprofibrate and prostaglandin F2 alpha combination treatment on second messengers in cultured rat hepatocytes. Hong JT, et al. **Arch Pharm Res** 1998 Apr;21(2):120–7
Preconditioning-induced cardioprotection and release of the second messenger inositol (1,4,5)-trisphosphate are both abolished by neomycin in rabbit heart. Bauer B, et al. **Basic Res Cardiol** 1999 Feb;94(1):31–40
Downregulation of JAK3 protein levels in T lymphocytes by prostaglandin E2 and other cyclic adenosine monophosphate-elevating agents: impact on interleukin-2 receptor signaling pathway. Kolenko V, et al. **Blood** 1999 Apr 1;93(7):2308–18
Pharmacological modulation of secondary mediator systems--cyclic AMP and cyclic GMP--on inflammatory hyperalgesia. Cunha FQ, et al. **Br J Pharmacol** 1999 Jun; 127(3):671–8
Impact of various glycosaminoglycans upon cAMP-dependent protein kinase. Dittmann J, et al. **Cell Biochem Funct** 1999 Mar;17(1):21–8
Alterations of second messenger systems in the rat brain after 6-hydroxydopamine lesions of the medial forebrain bundle. Araki T, et al. **Eur J Pharm Sci** 1999 Aug;8(4):261–7
Parallel modulation of striatal dopamine synthetic enzymes by second messenger pathways. Young EA, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):15–23
cAMP-dependent inhibition is dominant in regulating superoxide production in the bone-resorbing osteoclasts. Berger CE, et al. **J Endocrinol** 1998 Sep;158(3):311–8
Redistribution of a 120 kDa phosphoprotein in the parietal cell associated with stimulation. Urushidani T, et al. **J Membr Biol** 1999 Apr 1;168(3):209–20
Endocytosis and recycling of muscarinic receptors. Edwardson JM, et al. **Life Sci** 1999;64(6–7):487–94
Potent, stereoselective, and brain region selective modulation of second messengers in the rat brain by (+)LY354740, a novel group II metabotropic glutamate receptor agonist. Schoepp DD, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):175–80
Arginine vasotocin activates phosphoinositide signal transduction system and potentiates N-acetyltransferase activity in the rat pineal gland. Novotná R, et al. **Neurosci Lett** 1999 Mar 5;262(2):97–100
Molecular and behavioral effects mediated by Gs-coupled adenosine A2a, but not serotonin 5-Ht4 or 5-Ht6 receptors following antipsychotic administration. Ward RP, et al. **Neuroscience** 1999 Mar;89(3):927–38
Congener-specific distribution of polychlorinated biphenyls in brain regions, blood, liver, and fat of adult rats following repeated exposure to Aroclor 1254. Kodavanti PR, et al. **Toxicol Appl Pharmacol** 1998 Dec;153(2):199–210

GENETICS

Assignment1 of human PLCB2 encoding PLC beta2 to human chromosome 15q15 by fluorescence in situ hybridization. Park SH, et al. **Cytogenet Cell Genet** 1998; 83(1–2):48–9
Alanine mutants of the Spo0F response regulator modifying specificity for sensor kinases in sporulation initiation. Jiang M, et al. **Mol Microbiol** 1999 Jul;33(2):389–95

PHYSIOLOGY

Lipid second messengers derived from glycerolipids and sphingolipids, and their role in smooth muscle function. Ohanian J, et al. **Acta Physiol Scand** 1998 Dec; 164(4):533–48 (138 ref.)
Second messenger production in avian medullary nephron segments in response to peptide hormones. Goldstein DL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R847–54
Regulation of second messengers associated with airway smooth muscle contraction and relaxation. Hakonarson H, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 3):S115–22 (51 ref.)
Localization of neuronal-constitutive nitric oxide synthase and secretory regulation by nitric oxide in the rat submandibular and sublingual glands. Takai N, et al. **Arch Oral Biol** 1999 Sep;44(9):745–50
Kindling and second messengers: an approach to the neurobiology of recurrence in bipolar disorder. Ghaemi SN, et al. **Biol Psychiatry** 1999 Jan 15;45(2):137–44 (50 ref.)
Comparative desensitization of the human 5-HT2A and 5-HT2C receptors expressed in the human neuroblastoma cell line SH-SY5Y. Briddon SJ, et al. **Br J Pharmacol** 1998 Oct;125(4):727–34
Nitric oxide as a putative messenger molecule in the crayfish olfactory midbrain. Johansson KU, et al. **Brain Res** 1998 Oct 5;807(1–2):237–42
Common components of patch-clamp internal recording solutions can significantly affect protein kinase A activity. Vargas G, et al. **Brain Res** 1999 May 15;828(1–2):169–73
Responses to cyclic AMP is impaired in the twitcher Schwann cells in vitro. Yamada H, et al. **Brain Res** 1999 Jan 23;816(2):390–5
Catabolism of Ap4A and Ap5A by rat brain synaptosomes. Emanuelli T, et al. **Braz J Med Biol Res** 1998 Dec; 31(12):1529–32
The effects of diadenosine polyphosphates on the cardiovascular system. Flores NA, et al. **Cardiovasc Res** 1999 Apr;42(1):15–26 (82 ref.)
Differential sensitivity to nickel and SK&F96365 of second messenger-operated and receptor-operated calcium channels in rat submandibular ductal cells. Chaib N, et al. **Cell Calcium** 1998 Jun;23(6):395–404
On the complexities of ceramide changes in cells undergoing apoptosis: lack of evidence for a second messenger function in apoptotic induction. Watts JD, et al. **Cell Death Differ** 1999 Feb;6(2):105–14
Inositol 1,3,4,5-tetrakisphosphate as a second messenger--a special role in neurones? Irvine RF, et al. **Chem Phys Lipids** 1999 Apr;98(1–2):49–57 (50 ref.)
beta2-adrenergic cAMP signaling is uncoupled from phosphorylation of cytoplasmic proteins in canine heart. Kuschel M, et al. **Circulation** 1999 May 11;99(18):2458–65
The myogenic response: established facts and attractive hypotheses. Schubert R, et al. **Clin Sci (Colch)** 1999 Apr; 96(4):313–26 (101 ref.)
Dietary lipids: ancestral ligands and regulators of cell signaling pathways [editorial; comment] Zaloga GP. **Crit Care Med** 1999 Aug;27(8):1646–8 (10 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1409–20.
Identification and analysis of PH domain-containing targets of phosphatidylinositol 3-kinase using a novel in vivo assay in yeast. Isakoff SJ, et al. **EMBO J** 1998 Sep 15; 17(18):5374–87
Nitric oxide, a new second messenger involved in the action of angiotensin II on neuronal differentiation of NG108-15 cells. Côté F, et al. **Endocr Res** 1998 Aug-Nov; 24(3–4):403–7
Alterations in intracellular messengers mobilized by gonadotropin-releasing hormone in an experimental ovarian tumor. Chamson-Reig A, et al. **Endocrinology** 1999 Aug;140(8):3573–80
Calcium ion as a second messenger for o-nitrophenylsulfenyl-adrenocorticotropin (NPS-ACTH) and ACTH in bovine adrenal steroidogenesis. Yamazaki T, et al. **Endocrinology** 1998 Dec;139(12):4765–71
Correlation between store-operated cation current and capacitative Ca2+ influx in smooth muscle cells from mouse anococcygeus. Wayman CP, et al. **Eur J Pharmacol** 1999 Jul 9;376(3):325–9
Signal transduction and hepatocellular bile acid transport: cross talk between bile acids and second messengers. Bouscarel B, et al. **Gastroenterology** 1999 Aug; 117(2):433–52 (217 ref.)
Genomic structure and functional characterization of NBPhox (PMX2B), a homeodomain protein specific to catecholaminergic cells that is involved in second messenger-mediated transcriptional activation. Yokoyama M, et al. **Genomics** 1999 Jul 1;59(1):40–50
Phospholipases and phagocytosis: the role of phospholipid-derived second messengers in phagocytosis. Lennartz MR. **Int J Biochem Cell Biol** 1999 Mar-Apr; 31(3–4):415–30 (108 ref.)
Second messenger systems underlying plasticity at the neuromuscular junction. Hannan F, et al. **Int Rev Neurobiol** 1999;43:119–38 (108 ref.)
Modulation of nicotinic acetylcholine receptor activity in submucous neurons by intracellular messengers. Glushakov AV, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):16–22
Localization of Smads, the TGF-beta family intracellular signaling components during endochondral ossification. Sakou T, et al. **J Bone Miner Res** 1999 Jul;14(7):1145–52
The role of protein kinase C signaling in activated DRA transcription. Setterblad N, et al. **J Immunol** 1998 Nov 1; 161(9):4819–24
Mechanism of catecholamine-mediated destabilization of messenger RNA encoding Thy-1 protein in T-lineage cells. Wajeman-Chao SA, et al. **J Immunol** 1998 Nov 1; 161(9):4825–33
Cyclic ADP-ribose-mediated insulin secretion and Reg, regenerating gene. Okamoto H. **J Mol Med** 1999 Jan; 77(1):74–8
Regulation of amyloid precursor protein cleavage. Mills J, et al. **J Neurochem** 1999 Feb;72(2):443–60 (240 ref.)
The levels of leukemia inhibitory factor mRNA in a Schwann cell line are regulated by multiple second messenger pathways. Nagamoto-Combs K, et al. **J Neurochem** 1999 May;72(5):1871–81
Secondary messenger regulation of ion channels/plant patch clamping. Assmann SM, et al. **Methods Enzymol** 1999; 294:410–41
Modulation of angiogenic endothelial permselectivity by the cAMP pathway. DeFouw LM, et al. **Microvasc Res** 1999 Jan;57(1):19–29
Neuronal signaling systems and ethanol dependence. Pandey SC. **Mol Neurobiol** 1998 Winter;17(1–3):1–15 (100 ref.)
In vitro secretion of gonadotropin-releasing hormone (GnRH) and [hydroxyproline9]GnRH from the rat hypothalamus exhibits a differential sensitivity to castration and second messengers. Rochdi L, et al. **Neuroendocrinology** 1998 Oct;68(4):281–92
Altered adenylyl cyclase responsiveness subsequent to point mutations of Asp 128 in the third transmembrane domain of the delta-opioid receptor. Cavalli A, et al. **Neuroscience** 1999;93(3):1025–31
Second messengers, the substantia gelatinosa and injury-induced persistent pain. Petersen-Zeitz KR, et al. **Pain** 1999 Aug;Suppl 6:S5–12 (87 ref.)
Quality assessment of platelet concentrates supplemented with second-messenger effectors. Rivera J, et al. **Transfusion** 1999 Feb;39(2):135–43
Ceramide second messengers and ceramide assays [letter] Watts JD, et al. **Trends Biochem Sci** 1999 Jun;24(6):228
Taking the plunge. Terminal differentiation in Dictyostelium. Thomason P, et al. **Trends Genet** 1999 Jan;15(1):15–9 (53 ref.)
VIP and PACAP: very important in pain? Dickinson T, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):324–9 (77 ref.)
[Role of PI signaling in early development] Kume S, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1834–40 (28 ref.) **(Jpn)**

SECOND NEOPLASM see **NEOPLASMS, SECOND PRIMARY**

SECOND OPINION see **REFERRAL AND CONSULTATION**

SECOND PRIMARY NEOPLASMS see **NEOPLASMS, SECOND PRIMARY**

SECONDARY ION MASS SPECTROMETRY see **SPECTROMETRY, MASS, SECONDARY ION**

SECONDARY ION MASS SPECTROMETRY MICROSCOPY see **SPECTROMETRY, MASS, SECONDARY ION**

SECOSTEROIDS

ISOLATION & PURIFICATION

New secosteroids from a gorgonian of the genus Muricella. Seo Y, et al. **J Nat Prod** 1998 Nov;61(11):1441–3

SECRETIN

see related
GASTROINTESTINAL AGENTS

ANALOGS & DERIVATIVES

Identification of an interaction between residue 6 of the natural peptide ligand and a distinct residue within the amino-terminal tail of the secretin receptor. Dong M, et al. **J Biol Chem** 1999 Jul 2;274(27):19161–7

ANALYSIS

Comparison of diagnostic modalities: EUS, ERCP, and fluid analysis. Hawes RH. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S74–6

CHEMISTRY

Aggregation behaviour and Zn2+ binding properties of secretin. Carpenter KA, et al. **Biochemistry** 1998 Dec 1; 37(48):16967–74

DIAGNOSTIC USE

A new evaluation of pancreatic function after pancreatoduodenectomy using secretin magnetic resonance cholangiopancreatography. Sho M, et al. **Am J Surg** 1998 Sep;176(3):279–82
Comparison of ultrasound-secretin test and sphincter of Oddi manometry in patients with recurrent acute pancreatitis. Di Francesco V, et al. **Dig Dis Sci** 1999 Feb;44(2):336–40
Dynamic imaging of the pancreas using real-time endoscopic ultrasonography with secretin stimulation. Catalano MF, et al. **Gastrointest Endosc** 1998 Dec;48(6):580–7
Duodenal gastrinoma--clinical features and usefulness of selective arterial secretin injection test. Takasu A, et al. **J Gastroenterol** 1998 Oct;33(5):728–33
Ultrasound secretin test in patients with pancreas divisum--an aid in the diagnosis of papillary or dorsal duct stenosis? Glaser J, et al. **Z Gastroenterol** 1999 Jul; 37(7):585–8
[Dynamic pancreatography with magnetic resonance after functional stimulus with secretin in chronic pancreatitis] Manfredi R, et al. **Radiol Med (Torino)** 1998 Sep; 96(3):226–31 (Eng. Abstr.) **(Ita)**

SECRETIN

GENETICS

GPR56, a novel secretin-like human G-protein-coupled receptor gene. Liu M, et al. **Genomics** 1999 Feb 1; 55(3):296–305

Properties of a recombinant human secretin receptor: a comparison with the rat and rabbit receptors. Di Paolo E, et al. **Pancreas** 1999 Jul;19(1):51–5

METABOLISM

Vagus nerve modulates secretin binding sites in the rat forestomach. Kwon HY, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 1):G1052–8

COOH-terminally extended secretins are potent stimulants of pancreatic secretion. Solomon TE, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G808–16

Targeted ablation of secretin-producing cells in transgenic mice reveals a common differentiation pathway with multiple enteroendocrine cell lineages in the small intestine. Rindi G, et al. **Development** 1999 Sep;126(18):4149–56

Esophageal small cell carcinoma with ectopic production of parathyroid hormone-related protein (PTHrp), secretin, and granulocyte colony-stimulating factor (G-CSF). Nagashima R, et al. **Dig Dis Sci** 1999 Jul;44(7):1312–6

The human secretin receptor gene: genomic organization and promoter characterization. Ho PK, et al. **FEBS Lett** 1999 Jul 23;455(3):209–14

Porcine pancreatic phospholipase A2 stimulates secretin release from secretin-producing cells. Chang TM, et al. **J Biol Chem** 1999 Apr 16;274(16):10758–64

Demonstration of a direct interaction between residue 22 in the carboxyl-terminal half of secretin and the amino-terminal tail of the secretin receptor using photoaffinity labeling. Dong M, et al. **J Biol Chem** 1999 Jan 8;274(2):903–9

PHARMACOLOGY

Endothelin-1 inhibits secretin-stimulated ductal secretion by interacting with ETA receptors on large cholangiocytes. Caligiuri A, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G835–46

Secretin induces the apical insertion of aquaporin-1 water channels in rat cholangiocytes. Marinelli RA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G280–6

COOH-terminally extended secretins are potent stimulants of pancreatic secretion. Solomon TE, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G808–16

Construction of chimeras between human VIP1 and secretin receptors: identification of receptor domains involved in selectivity towards VIP, secretin, and PACAP. Du K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:386–9

Effects of PACAP/VIP/secretin on pancreatic and gastrointestinal blood flow in conscious dogs. Naruse S, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:463–5

Secretin and gastric lipase secretion. Olsen O, et al. **Digestion** 1998 Nov-Dec;59(6):655–9

Plasma pancreatic polypeptide response to secretin. Peracchi M, et al. **Eur J Endocrinol** 1999 Jul;141(1):47–9

Influence of secretin and caerulein on acid phosphatase activity in human saliva. Marcinkiewicz M, et al. **J Oral Sci** 1999 Mar;41(1):29–34

Effect of acute hyperglycemia on basal, secretin and secretin + cholecystokinin stimulated exocrine pancreatic secretion in humans. Lam WF, et al. **Life Sci** 1999;64(8):617–26

Potentiation of cholecystokinin and secretin-induced pancreatic exocrine secretion by endogenous insulin in humans. Kim C, et al. **Pancreas** 1999 May;18(4):410–4

Cardiovascular effects of secretin in intact rats versus rats with streptozotocin-induced diabetes mellitus. Sitniewska E, et al. **Pol J Pharmacol** 1999 Mar-Apr;51(2):131–6

[Effects of secretin and cholecystokinin-8 (CCK-8) on contractile activity of gastric muscle strips in dogs] Zheng T, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):376 **(Chi)**

PHYSIOLOGY

Abnormal gastric motility in liver cirrhosis: roles of secretin. Usami A, et al. **Dig Dis Sci** 1998 Nov;43(11):2392–7

[Signalling roles for selectins] Yoshida M. **Seikagaku** 1998 Oct;70(10):1270–4 (16 ref.) **(Jpn)**

THERAPEUTIC USE

Secretin and autism: the role of cysteine [letter] Connors SL, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul; 38(7):795–6

Secretin in autism [letter] Perry R, et al. **J Child Adolesc Psychopharmacol** 1998;8(4):247–8

Secretin: cure or snake oil for autism in the new millennium? [news] Lightdale JR, et al. **J Pediatr Gastroenterol Nutr** 1999 Aug;29(2):114–5

SECRETIN CELLS see **ENDOCRINE CELLS OF GUT**

SECRETIONS see **BODILY SECRETIONS**

SECRETORY COMPONENT

Expression, purification and biochemical characterization of recombinant murine secretory component: a novel tool in mucosal immunology. Crottet P, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):299–306

ANALYSIS

Free secretory component as a standardization protein for nasopharyngeal specimens from children with upper respiratory tract infection. Heikkinen T, et al. **Acta Paediatr** 1999 Feb;88(2):150–3

BIOSYNTHESIS

Different regulatory pathways employed in cytokine-enhanced expression of secretory component and epithelial HLA class I genes. Nilsen EM, et al. **Eur J Immunol** 1999 Jan;29(1):168–79

Role of local cytokines in increased gastric expression of the secretory component in Helicobacter pylori infection. Ahlstedt I, et al. **Infect Immun** 1999 Sep;67(9):4921–5

GENETICS

Different regulatory pathways employed in cytokine-enhanced expression of secretory component and epithelial HLA class I genes. Nilsen EM, et al. **Eur J Immunol** 1999 Jan;29(1):168–79

The first exon of the human sc gene contains an androgen responsive unit and an interferon regulatory factor element. Haelens A, et al. **Mol Cell Endocrinol** 1999 Jul 20; 153(1–2):91–102

Androgen specificity of a response unit upstream of the human secretory component gene is mediated by differential receptor binding to an essential androgen response element. Verrijdt G, et al. **Mol Endocrinol** 1999 Sep;13(9):1558–70

IMMUNOLOGY

Thiol–disulfide redox buffers maintain a structure of immunoglobulin A that is essential for optimal in vitro binding to secretory component. Jones RM, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):265–74

Interleukin-4 and interferon-gamma synergistically increase secretory component gene expression, but are additive in stimulating secretory immunoglobulin A release by Calu-3 airway epithelial cells. Loman S, et al. **Immunology** 1999 Apr;96(4):537–43

METABOLISM

Expression of a local immune defense system in the female genital tract. An immunohistochemical study. Kondi-Paphitis A, et al. **Eur J Gynaecol Oncol** 1999; 20(2):141–3

Lack of SC/pIgR-mediated epithelial transport of a human polymeric IgA devoid of J chain: in vitro and in vivo studies. Vaerman JP, et al. **Immunology** 1998 Sep;95(1):90–6

IgM secretory tailpiece drives multimerisation of bivalent scFv fragments in eukaryotic cells. Olafsen T, et al. **Immunotechnology** 1998 Oct;4(2):141–53

Binding of Clostridium difficile toxin A to human milk secretory component. Dallas SD, et al. **J Med Microbiol** 1998 Oct;47(10):879–88

Subclass distribution and the secretory component of serum IgA anti–ganglioside antibodies in Guillain–Barré syndrome after Campylobacter jejuni enteritis. Koga M, et al. **J Neuroimmunol** 1999 May 3;96(2):245–50

PHYSIOLOGY

Secretory component delays the conversion of secretory IgA into antigen–binding competent F(ab')2: a possible implication for mucosal defense. Crottet P, et al. **J Immunol** 1998 Nov 15;161(10):5445–53

Polymerization of IgA and IgM: roles of Cys309/Cys414 and the secretory tailpiece. Sørensen V, et al. **J Immunol** 1999 Mar 15;162(6):3448–55

SECRETORY GRANULES see **CYTOPLASMIC GRANULES**

SECRETORY IGA see **IGA, SECRETORY**

SECRETORY PHASE see **MENSTRUAL CYCLE**

SECRETORY PIECE see **SECRETORY COMPONENT**

SECULARISM see **RELIGION**

SECURITY MEASURES

Weapon changes over time after initiation of a comprehensive weapon surveillance system [letter] Irvin CB, et al. **Am J Emerg Med** 1999 May;17(3):323–4

Repeated use of computerized case simulations in a test format does not present a security risk. Lynch TG, et al. **Am J Surg** 1999 Mar;177(3):270–3

High security facilities must not be closed until viable alternatives are in place [letter] Sayal K, et al. **BMJ** 1999 Jul 3;319(7201):59

Violence in the accident and emergency department: liaison with the police [letter] Bache J, et al. **J Accid Emerg Med** 1999 Mar;16(2):159

Effect of closed circuit television on urban violence. Sivarajasingam V, et al. **J Accid Emerg Med** 1999 Jul; 16(4):255–7

Workplace–violence investigations by the California Division of Occupational Safety and Health, 1993–1996. Peek-Asa C, et al. **J Occup Environ Med** 1999 Aug;41(8):647–53

Implantable defibrillators, pacemakers, and electronic antitheft devices [letter; comment] Harthorne JW. **N Engl J Med** 1999 Apr 8;340(14):1117; discussion 1118–9 . Comment on: N Engl J Med 1998 Nov 5;339(19):1371–4.

Interactions between cardiac pacemakers and antishoplifting security systems [letter] McIvor ME, et al. **N Engl J Med** 1998 Nov 5;339(19):1394–5

Interference with an implantable defibrillator by an electronic antitheft–surveillance device [see comments] Santucci PA, et al. **N Engl J Med** 1998 Nov 5;339(19):1371–4. Comment in: N Engl J Med 1999 Apr 8;340(14):1117; discussion 1118–9. Comment in: N Engl J Med 1999 Apr 8;340(14):1117–8.

Study of Pacemaker and Implantable CardiovErter Defibrillator Triggering by Electronic Article Surveillance devices (SPICED TEAS) [letter] Becker G, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):542

Pacemaker/ICD patients and the electromagnetic environment [letter] Furman S. **Pacing Clin Electrophysiol** 1999 Mar;22(3):544–5

Study of pacemaker and implantable cardioverter defibrillator triggering by electronic article surveillance devices [letter; comment] Giles OS. **Pacing Clin Electrophysiol** 1999 Feb;22(2):401–2. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1847–61.

Theft deterrent systems: a threat for medical device recipients or an industry cat fight? [editorial] [see comments] Harthorne JW. **Pacing Clin Electrophysiol** 1998 Oct; 21(10):1845–6. Comment in: Pacing Clin Electrophysiol 1999 Feb;22(2)400–1. Comment in: Pacing Clin Electrophysiol 1999 Mar;22(3):543–4.

Four types of interaction between pacemakers and EAS systems [letter; comment] Kunisada K. **Pacing Clin Electrophysiol** 1999 Feb;22(2):402–3. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1847–61.

Study of Pacemaker and Implantable Cardioverter Defibrillator Triggering by Electronic Article Surveillance Devices (SPICED TEAS) [see comments] McIvor ME, et al. **Pacing Clin Electrophysiol** 1998 Oct;21(10):1847–61 . Comment in: Pacing Clin Electrophysiol 1999 Feb;22(2):400–1. Comment in: Pacing Clin Electrophysiol 1999 Feb;22(2):401–2. Comment in: Pacing Clin Electrophysiol 1999 Feb;22(2):402–3. Comment in: Pacing Clin Electrophysiol 1999 Mar;22(3):543–4.

SPICED TEAS manuscript. Study of Pacemaker and Implantable CardiovErter Defibrillator Triggering by Electronic Article Surveillance devices [letter] McIvor ME, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):540–1

Risk of interference between pacemakers and security systems [letter; comment] Wilke A, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):540. Comment on: Pacing Clin Electrophysiol 1998 Sep;21(9):1784–8.

Interactions between pacemakers and security systems [see comments] Wilke A, et al. **Pacing Clin Electrophysiol** 1998 Sep;21(9):1784–8. Comment in: Pacing Clin Electrophysiol 1999 Feb;22(2):400–1. Comment in: Pacing Clin Electrophysiol 1999 Mar;22(3):540.

Electronic article surveillance (EAS) systems [letter; comment] Zipes DP. **Pacing Clin Electrophysiol** 1999 Mar; 22(3):543–4. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1845–6. Comment on: Pacing Clin Electrophysiol 1998 Oct;21(10):1847–61.

Violence in the emergency department. Managing aggressive patients in a high-stress environment. Kuhn W. **Postgrad Med** 1999 Jan;105(1):143–8, 154 (30 ref.)

[Security and home emergency psychiatric interventions] Pochard F, et al. **Encephale** 1998 Jul–Aug;24(4):324–9 (Eng. Abstr.) **(Fre)**

LEGISLATION & JURISPRUDENCE

An administrative model for close monitoring and managing high risk individuals. Bigelow DA, et al. **Behav Sci Law** 1999;17(2):227–35

The psychiatric "supermax"?: long-term, high-security psychiatric services. Mason T. **Int J Law Psychiatry** 1999 Mar-Apr;22(2):155–66

ORGANIZATION & ADMINISTRATION

Effect of a security system on violent incidents and hidden weapons in the emergency department. Rankins RC, et al. **Ann Emerg Med** 1999 Jun;33(6):676–9

Violence in the emergency department. Blanchard JC, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):717–31, viii (39 ref.)

TRENDS

Everywhere a sign. Lumsdon K. **Hosp Health Netw** 1999 Mar;73(3):76

Practice of seclusion: a five-year retrospective review in north Cheshire. Salib E, et al. **Med Sci Law** 1998 Oct; 38(4):321–7

Keeping America secure for the 21st century. Lederberg J, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3486–8

SEDATION, CONSCIOUS see **CONSCIOUS SEDATION**

SEDATIVES see **HYPNOTICS AND SEDATIVES**

SEDATIVES, BARBITURATE

Effects of AL 107, a novel semisynthetic cardiac glycoside, on the cardiovascular system in anaesthetized beagle dogs with pentobarbital-induced cardiac insufficiency. Kögel B, et al. **Arzneimittelforschung** 1999 Aug;49(8):679-84

Considerations on anesthesia in experiments using rats [letter] Wako M, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1543-4

The role of codeine phosphate premedication in fibre-optic bronchoscopy under insufficient local anaesthesia and midazolam sedation. Tsunezuka Y, et al. **Respir Med** 1999 Jun;93(6):413-5

[Experience in managing refractory status epilepticus caused by viral encephalitis under long-term anesthesia with barbiturate: a case report] Ohori N, et al. **Rinsho Shinkeigaku** 1998 May;38(5):474-7 (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Paroxysmal sneezing during local anesthesia for ocular surgery with thiopentone hypnosis [letter] Wessels IF, et al. **Can J Anaesth** 1999 Jun;46(6):617

Time perception following unilateral amobarbital injection in patients with temporal lobe epilepsy. Drane DL, et al. **J Clin Exp Neuropsychol** 1999 Jun;21(3):385-96

ADVERSE EFFECTS

Autoradiography of [3H]glutamate binding during pentobarbital tolerance and withdrawal in the rat. Jang CG, et al. **Brain Res Bull** 1999 Jan 1;48(1):99-102

Occurrence of withdrawal in critically ill sedated children [see comments] Fonsmark L, et al. **Crit Care Med** 1999 Jan;27(1):196-9. Comment in: Crit Care Med 1999 Jan;27(1):32-3.

Pediatric sedation withdrawal: recognizing the need for refinement in a necessary therapy [editorial; comment] Kesavulu V, et al. **Crit Care Med** 1999 Jan;27(1):32-3. Comment on: Crit Care Med 1999 Jan;27(1):196-9.

Barbiturate coma may promote reversible bone marrow suppression in patients with severe isolated traumatic brain injury. Stover JF, et al. **Eur J Clin Pharmacol** 1998 Sep; 54(7):529-34

Phenobarbital and perinatal asphyxia [letter; comment] Donn SM. **J Pediatr** 1998 Nov;133(5):714. Comment on: J Pediatr 1998 Feb;132(2):345-8.

Atelectasis on pediatric chest CT: comparison of sedation techniques. Sargent MA, et al. **Pediatr Radiol** 1999 Jul; 29(7):509-13

Genetic determinants of severity of acute withdrawal from diazepam in mice: commonality with ethanol and pentobarbital. Metten P, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):473-9

BLOOD

Improved method of determining thiamylal enantiomers in human serum by high-performance liquid chromatography. Sueyasu M, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19;723(1-2):307-11

DIAGNOSTIC USE

Evaluation of functional changes in the medial temporal region during intracarotid amobarbital procedure by use of SPECT. Kim BG, et al. **Epilepsia** 1999 Apr;40(4):424-9

Criterion-based validity of an intracarotid amobarbital recognition-memory protocol. McGlone J, et al. **Epilepsia** 1999 Apr;40(4):430-8

Independent recovery of memory and language functioning during the Intracarotid Sodium Amytal Test. Morris RG, et al. **J Clin Exp Neuropsychol** 1998 Aug;20(4):433-44

A comparison of Wada test for cerebral speech dominance by use of amytal or brietal. Bacia T, et al. **Neurol Neurochir Pol** 1998;32 Suppl 2:247-61 **(Eng, Pol)**

PHARMACOKINETICS

Pharmacokinetic and pharmacodynamic consequences of thiopental in renal dysfunction rats: evaluation with electroencephalography. Srivastava K, et al. **Biol Pharm Bull** 1998 Dec;21(12):1327-33

Pharmacokinetic alterations after severe head injury. Clinical relevance. Boucher BA, et al. **Clin Pharmacokinet** 1998 Sep; 35(3):209-21 (107 ref.)

Pharmacodynamics and pharmacokinetics of thiopental. Russo H, et al. **Clin Pharmacokinet** 1998 Aug;35(2):95-134 (235 ref.)

Changes in brain barbiturate concentration in brain-dead rabbits. Saito T, et al. **Nippon Hoigaku Zasshi** 1998 Jun; 52(3):177-83

Absence of correlation between amobarbital distribution as assessed with SPECT brain perfusion imaging and behavioral manifestations during the intracarotid amobarbital procedure (Wada test). Soucy JP, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb; 23(2):259-74

PHARMACOLOGY

Depressant and convulsant barbiturates both inhibit neuronal nicotinic acetylcholine receptors. Watanabe I, et al. **Anesth Analg** 1999 Jun;88(6):1406-11

Assessment of the multiple discriminative stimulus effects of ethanol using an ethanol-pentobarbital-water discrimination in rats. Bowen CA, et al. **Behav Pharmacol** 1997 Aug;8(4):339-52

Suppression of parasympathetic reflex vasodilatation in the lower lip of the cat by isoflurane, propofol, ketamine and pentobarbital: implications for mechanisms underlying the production of anaesthesia. Ito Y, et al. **Br J Anaesth** 1998 Oct;81(4):563-8

Differential inhibitory effects of thiopental, thiamylal and phenobarbital on both voltage-gated calcium channels and NMDA receptors in rat hippocampal slices. Zhan RZ, et al. **Br J Anaesth** 1998 Dec;81(6):932-9

A single amino acid confers barbiturate sensitivity upon the GABA rho 1 receptor. Belelli D, et al. **Br J Pharmacol** 1999 Jun;127(3):601-4

Autoradiography of [3H]glutamate binding during pentobarbital tolerance and withdrawal in the rat. Jang CG, et al. **Brain Res Bull** 1999 Jan 1;48(1):99-102

Phenobarbital-mediated changes in gene expression in the liver. Meyer UA, et al. **Drug Metab Rev** 1999 May; 31(2):365-73 (32 ref.)

Thiopentone inhibits endothelium-dependent relaxations of rat aortas regulated by endothelial Ca2+-dependent K+ channels. Ishida K, et al. **Eur J Pharmacol** 1999 Apr 29; 371(2-3):179-85

Influence of ondansetron on thiopental hypnotic requirements. Kostopanagiotou G, et al. **J Clin Pharmacol** 1998 Sep;38(9):825-9

Effect of pentobarbital anaesthesia on intestinal absorption and hepatic first-pass metabolism of oxacillin in rats, evaluated by portal-systemic concentration difference. Ueda S, et al. **J Pharm Pharmacol** 1999 May;51(5):585-9

Involvement of diazepam binding inhibitor and its fragment octadecaneuropeptide in social isolation stress-induced decrease in pentobarbital sleep in mice. Dong E, et al. **Life Sci** 1999;64(19):1779-84

Non-peptidic corticotropin-releasing hormone receptor type 1 antagonist reverses restraint stress-induced shortening of sodium pentobarbital-induced sleeping time of rats: evidence that an increase in arousal induced by stress is mediated through CRH receptor type 1. Arai K, et al. **Neurosci Lett** 1998 Oct 16;255(2):103-6

Temperature dependence and independence of effects of pentobarbital on visual evoked potentials of rats. Hetzler BE, et al. **Neurotoxicol Teratol** 1999 Mar-Apr;21(2):181-91

Thiopental and midazolam do not seem to impede metabolism of glutamate in brain-injured patients. Stover JF, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):66-70

POISONING

[Neurotoxicity of sedative-hypnotics, anxiolytics] Murasaki M. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):507-14 (25 ref.) **(Jpn)**

THERAPEUTIC USE

Phenobarbital for alcohol withdrawal syndrome. Rodgers JE, et al. **Am J Health Syst Pharm** 1999 Jan 15;56(2):175-8 (18 ref.)

Barbiturates, smoking, and bladder cancer risk. Habel LA, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov; 7(11):1049-50

Thiopental attenuates energetic impairment but fails to normalize cerebrospinal fluid glutamate in brain-injured patients. Stover JF, et al. **Crit Care Med** 1999 Jul; 27(7):1351-7

The amobarbital interview revisited: a review of the literature since 1966. Kavirajan H. **Harv Rev Psychiatry** 1999 Sep-Oct;7(3):153-65 (63 ref.)

Barbiturate coma for severe, refractory vasospasm following subarachnoid haemorrhage. Finfer SR, et al. **Intensive Care Med** 1999 Apr;25(4):406-9

Tale of two (or three or more) cities [editorial; comment] Gettes LS. **J Cardiovasc Electrophysiol** 1999 Feb; 10(2):165-7 (15 ref.). Comment on: J Cardiovasc Electrophysiol 1999 Feb;10(2):154-64.

Sodium pentobarbital reduces transmural dispersion of repolarization and prevents torsades de Pointes in models of acquired and congenital long QT syndrome [see comments] Shimizu W, et al. **J Cardiovasc Electrophysiol** 1999 Feb;10(2):154-64. Comment in: J Cardiovasc Electrophysiol 1999 Feb;10(2):164-7.

Absence of evidence for the effectiveness of five interventions routinely used in the intensive care management of severe head injury: a systematic review [see comments] Roberts I, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):729-33 (25 ref.). Comment in: ACP J Club 1999 May-Jun;130(3):66.

The ciliospinal reflex in pentobarbital coma. Andrefsky JC, et al. **J Neurosurg** 1999 Apr;90(4):644-6

The sodium pentothal hypnosis interview with follow-up treatment for complex regional pain syndrome. Simon EP, et al. **J Pain Symptom Manage** 1999 Aug;18(2):132-6

The use of phenobarbitone in the management of agitation and seizures at the end of life. Stirling LC, et al. **J Pain Symptom Manage** 1999 May;17(5):363-8

TOXICITY

Phenobarbital does not promote hepatic tumorigenesis in a twenty-six-week bioassay in p53 heterozygous mice. Sagartz JE, et al. **Toxicol Pathol** 1998 Jul-Aug; 26(4):492-500

The quantitative distinction of hyperplasia from hypertrophy in hepatomegaly induced in the rat liver by phenobarbital. Carthew P, et al. **Toxicol Sci** 1998 Jul;44(1):46-51

SEDATIVES, NONBARBITURATE

The effect of ketamine on clinical endpoints of hypnosis and EEG variables during propofol infusion. Sakai T, et al. **Acta Anaesthesiol Scand** 1999 Feb;43(2):212-6

Propofol versus propofol-ketamine sedation for retrobulbar nerve block: comparison of sedation quality, intraocular pressure changes, and recovery profiles. Frey K, et al. **Anesth Analg** 1999 Aug;89(2):317-21

Intraoperative awareness in fast-track cardiac anesthesia. Dowd NP, et al. **Anesthesiology** 1998 Nov;89(5):1068-73; discussion 9A

Parental presence during induction of anesthesia versus sedative premedication: which intervention is more effective? Kain ZN, et al. **Anesthesiology** 1998 Nov; 89(5):1147-56; discussion 9A-10A

Is chloral hydrate/hydroxyzine a good option for paediatric dental outpatient sedation? Avalos-Arenas V, et al. **Curr Med Res Opin** 1998;14(4):219-26

Ultra-rapid opiate detoxification using deep sedation with oral midazolam: short and long-term results. Cucchia AT, et al. **Drug Alcohol Depend** 1998 Nov 1;52(3):243-50

Bispectral index (BIS) monitoring during propofol-induced sedation and anaesthesia. Singh H. **Eur J Anaesthesiol** 1999 Jan;16(1):31-6

Anesthetic and cardiorespiratory effects of tiletamine-zolazepam-medetomidine in cheetahs. Deem SL, et al. **J Am Vet Med Assoc** 1998 Oct 1;213(7):1022-6

Postoperative short-term sedation with propofol in cardiac surgery. Ko WJ, et al. **J Formos Med Assoc** 1999 Aug; 98(8):556-61

Alpha-chloralose immobilization of rock doves in Ohio. Belant JL, et al. **J Wildl Dis** 1999 Apr;35(2):239-42

Intravenous midazolam for sedation of children undergoing procedures: an analysis of age- and procedure-related factors. Karl HW, et al. **Pediatr Emerg Care** 1999 Jun; 15(3):167-72

Sedation of pediatric patients for minor laceration repair: effect on length of emergency department stay and patient charges. Lawrence LM, et al. **Pediatr Emerg Care** 1998 Dec;14(6):393-5

End-tidal carbon dioxide monitoring during sedation with a combination of midazolam and ketamine for children undergoing painful, invasive procedures. Tobias JD. **Pediatr Emerg Care** 1999 Jun;15(3):173-5

[Propofol for sedation in pediatric magnetic resonance imaging investigations] Reinhold P, et al. **Klin Padiatr** 1999 Jan-Feb;211(1):40-3 (Eng. Abstr.) **(Ger)**

[Propofol for sedation in gastroscopy--a randomized comparison with midazolam] Hofmann C, et al. **Z Gastroenterol** 1999 Jul;37(7):589-95 (Eng. Abstr.) **(Ger)**

[NORA (non-operating room anesthesia) in ophthalmic surgery: pharmacologic combinations in controlled sedation] Collini S, et al. **Minerva Anestesiol** 1998 Dec; 64(12 Suppl 1):17-21 **(Ita)**

[Patient-controlled sedation using propofol for a patient with von Gierke disease] Kakinohana M, et al. **Masui** 1998 Sep; 47(9):1104-8 (Eng. Abstr.) **(Jpn)**

[Is patient-controlled sedation good for elderly patients?] Kawabata T, et al. **Masui** 1998 Dec;47(12):1437-43 (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Propylene glycol toxicity related to high-dose lorazepam infusion: case report and discussion. Arbour RB. **Am J Crit Care** 1999 Jan;8(1):499-506

Target-controlled infusion of propofol for the difficult airway [letter] Kiyama S, et al. **Anaesth Intensive Care** 1998 Oct;26(5):591-2

Population pharmacokinetic modeling in very premature infants receiving midazolam during mechanical ventilation: midazolam neonatal pharmacokinetics. Lee TC, et al. **Anesthesiology** 1999 Feb;90(2):451-7

Analgesia and sedation in preterm neonates who require ventilatory support: results from the NOPAIN trial. Neonatal Outcome and Prolonged Analgesia in Neonates [published erratum appears in Arch Pediatr Adolesc Med 1999 Aug;153(8):895] Anand KJ, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):331-8

Patient-controlled sedation using propofol in elderly patients in day-case cataract surgery. Janzen PR, et al. **Br J Anaesth** 1999 Apr;82(4):635-6

Patient-maintained propofol sedation as premedication in day-case surgery: assessment of a target-controlled system. Murdoch JA, et al. **Br J Anaesth** 1999 Mar;82(3):429-31

An approach for dose finding of drugs in infants: sedation by midazolam studied using the continual reassessment method. Fabre E, et al. **Br J Clin Pharmacol** 1998 Oct; 46(4):395-401

Continuous IV sedation and prolonged mechanical ventilation [letter; comment] Sfeir TA, et al. **Chest** 1999 Feb;115(2):604-5. Comment on: Chest 1998 Aug;114(2):541-8.

Effect of saquinavir on the pharmacokinetics and pharmacodynamics of oral and intravenous midazolam. Palkama VJ, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):33-9

Ketamine-fentanyl-midazolam facilitated weaning [letter]

Black DR, et al. **Eur J Anaesthesiol** 1999 Jun;16(6):418

Continuous sedation during spinal anaesthesia: gamma-hydroxybutyrate vs. propofol. Kleinschmidt S, et al. **Eur J Anaesthesiol** 1999 Jan;16(1):23-30

Cardiovascular responses, arterial oxygen saturation and plasma catecholamine concentration during upper gastrointestinal endoscopy using conscious sedation with midazolam or propofol. Oei-Lim VL, et al. **Eur J Anaesthesiol** 1998 Sep;15(5):535-43

Patient-controlled sedation using propofol: randomized, double-blind dose refinement. Smith AF, et al. **Eur J Anaesthesiol** 1999 Jan;16(1):18-22

Transcutaneous ethanol injection in hepatocarcinoma: problems in analgesia and sedation. Iannarone C, et al. **Eur Rev Med Pharmacol Sci** 1997 Nov-Dec;1(6):217-21

Midazolam/ketamine sedative combination compared with fentanyl/propofol/isoflurane anaesthesia for oocyte retrieval. Ben-Shlomo I, et al. **Hum Reprod** 1999 Jul; 14(7):1757-9

Use of sedatives, analgesics and neuromuscular blocking agents in Danish ICUs 1996/97. A national survey [see comments] Christensen BV, et al. **Intensive Care Med** 1999 Feb;25(2):186-91. Comment in: Intensive Care Med 1999 Feb;25(2):137-9.

Sedation, where are we now? [editorial; comment] Shelly MP. **Intensive Care Med** 1999 Feb;25(2):137-9. Comment on: Intensive Care Med 1999 Feb;25(2):186-91.

Comparing single and cumulative dosing procedures in human triazolam discriminators. Smith BJ, et al. **J Exp Anal Behav** 1999 May;71(3):417-37

Buccal midazolam and rectal diazepam for treatment of prolonged seizures in childhood and adolescence: a randomised trial. Camfield PR. **J Pediatr** 1999 Sep; 135(3):398-9

Oxygen saturation during esophagogastroduodenoscopy in children: general anesthesia versus intravenous sedation [see comments] Lamireau T, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):172-5. Comment in: J Pediatr Gastroenterol Nutr 1999 Apr;28(4):455.

Observations on the use of midazolam for sedation, and induction of anaesthesia with midazolam in combination with ketamine in the goat. Stegmann GF. **J S Afr Vet Assoc** 1998 Sep;69(3):89-92

Propofol-infusion syndrome in children [letter; comment] Murdoch SD, et al. **Lancet** 1999 Jun 12;353(9169):2074-5 . Comment on: Lancet 1999 Apr 3;353(9159):1117-8.

Sublingual midazolam premedication in children: a dose response study. Khalil S, et al. **Paediatr Anaesth** 1998; 8(6):461-5

The effect of orally administered midazolam on children of three age groups during restorative dental care. Fraone G, et al. **Pediatr Dent** 1999 Jul-Aug;21(4):235-41

Upper airway obstruction during midazolam/nitrous oxide sedation in children with enlarged tonsils. Litman RS, et al. **Pediatr Dent** 1998 Sep-Oct;20(5):318-20

The effectiveness of midazolam as a single pharmacologic agent to facilitate endotracheal intubation by paramedics. Dickinson ET, et al. **Prehosp Emerg Care** 1999 Jul-Sep; 3(3):191-3

Midazolam sedation to produce complete amnesia for bronchoscopy: 2 years' experience at a district general hospital. Williams TJ, et al. **Respir Med** 1999 May; 93(5):361-5

[A new method of administering analgesic sedation before gastroscopy--a comparative study of 100 patients] Keil R, et al. **Vnitr Lek** 1998 May;44(5):266-8 (Eng. Abstr.) **(Cze)**

[Patient-controlled sedation with propofol for extracorporeal shock wave lithotripsy] Sztark F, et al. **Ann Fr Anesth Reanim** 1999 Apr;18(4):409-14 (Eng. Abstr.) **(Fre)**

[Secondary erectile dysfunction. Is oral medication in the diagnostic phase indicated?] Sperling H, et al. **Urologe A** 1999 Jan;38(1):56-9 (Eng. Abstr.) **(Ger)**

[Comparative study for assessing quality of life of patients with exogenous sleep disorders (temporary sleep onset and sleep interruption disorders) treated with a hops-valarian preparation and a benzodiazepine drug] Schmitz M, et al. **Wien Med Wochenschr** 1998;148(13):291-8 (Eng. Abstr.) **(Ger)**

[Rectal midazolam for preanesthetic sedation in pediatric age patients] Romano R, et al. **Minerva Anestesiol** 1998 Dec; 64(12 Suppl 1):13-5 **(Ita)**

[Sedative and hypnotic properties of propofol during epidural or spinal anesthesia] Takeshita M, et al. **Masui** 1998 Sep; 47(9):1099-103 (Eng. Abstr.) **(Jpn)**

[Limited use of dormicum has its place in the care of critically ill patients (letter)] Helsing M. **Lakartidningen** 1999 Jun 16;96(24):2953 **(Swe)**

ADVERSE EFFECTS

Chlormethiazole, apnoea and Alzheimer's disease [letter] Grace J. **Acta Psychiatr Scand** 1999 Sep;100(3):248

Receptor-specific reversible sedation: dangers of vascular effects [letter; comment] Jones JG, et al. **Anesthesiology** 1999 May;90(5):1489-90. Comment on: Anesthesiology 1998 Sep;89(3):560-1. Comment on: Anesthesiology 1998 Sep;89(3):574-84.

Report of the Institute of Medicine Committee on the Efficacy and Safety of Halcion [see comments] Bunney WE Jr, et al. **Arch Gen Psychiatry** 1999 Apr;56(4):349-52 . Comment in: Arch Gen Psychiatry 1999 Apr;56(4):353-4. Comment in: Arch Gen Psychiatry 1999 Apr;56(4):355.

Long-term use of sedative and hypnotic medication [comment] Dunner DL. **Arch Gen Psychiatry** 1999 Apr; 56(4):355. Comment on: Arch Gen Psychiatry 1999 Apr;56(4):349-52.

The report by the Institute of Medicine and postmarketing surveillance [comment] Klein DF. **Arch Gen Psychiatry** 1999 Apr;56(4):353-4. Comment on: Arch Gen Psychiatry 1999 Apr;56(4):349-52.

Airline passenger dies after being sedated. ...or to potentiating effects on diazepam [letter; comment] Samer Abdalla M. **BMJ** 1999 May 29;318(7196):1491. Comment on: BMJ 1999 Jan 2;318(7175):12.

Propofol-induced pancreatitis: recurrence of pancreatitis after rechallenge. Kumar AN, et al. **Chest** 1999 Apr; 115(4):1198-9

Lactic acidemia and bradyarrhythmia in a child sedated with propofol [see comments] Cray SH, et al. **Crit Care Med** 1998 Dec;26(12):2087-92 (31 ref.). Comment in: Crit Care Med 1998 Dec;26(12):1959-60.

Occurrence of withdrawal in critically ill sedated children [see comments] Fonsmark L, et al. **Crit Care Med** 1999 Jan;27(1):196-9. Comment in: Crit Care Med 1999 Jan;27(1):32-3.

Pediatric sedation withdrawal: recognizing the need for refinement in a necessary therapy [editorial; comment] Kesavulu V, et al. **Crit Care Med** 1999 Jan;27(1):32-3. Comment on: Crit Care Med 1999 Jan;27(1):196-9.

Propofol toxicity in critically ill pediatric patients: show us the proof [editorial; comment] Susla GM. **Crit Care Med** 1998 Dec;26(12):1959-60 (15 ref.). Comment on: Crit Care Med 1998 Dec;26(12):2087-92.

Prolonged coma after continuous sedation with propofol. Hedera P, et al. **Eur Neurol** 1999;41(2):116-7

Oxygen desaturation during sedation for colonoscopy in elderly patients. Yano H, et al. **Hepatogastroenterology** 1998 Nov-Dec;45(24):2138-41

The safety and tolerability of zolpidem--an update. Darcourt G, et al. **J Psychopharmacol** 1999;13(1):81-93 (150 ref.)

Propofol-infusion syndrome in children [letter; comment] Bray RJ. **Lancet** 1999 Jun 12;353(9169):2074-5. Comment on: Lancet 1999 Apr 3;353(9159):1117-8.

Propofol-infusion syndrome in children [see comments] Hatch DJ. **Lancet** 1999 Apr 3;353(9159):1117-8 (12 ref.). Comment in: Lancet 1999 Jun 12;353(9169):2074-5.

Overnight effects of triazolam on cognitive function: an event-related potentials study. Nakagome K, et al. **Neuropsychobiology** 1998 Nov;38(4):232-40

The effect of diazepam and promethazine treatment during pregnancy on the somatic development of human offspring. Czeizel AE, et al. **Neurotoxicol Teratol** 1999 Mar-Apr; 21(2):157-67

Propofol infusion syndrome in children. Bray RJ. **Paediatr Anaesth** 1998;8(6):491-9 (59 ref.)

Incidence and therapy of midazolam induced hiccups in paediatric anaesthesia. Marhofer P, et al. **Paediatr Anaesth** 1999;9(4):295-8

Severe hypoxia following local anesthesia in a sedated patient: case report [see comments] Ashkenazi M, et al. **Pediatr Dent** 1998 Sep-Oct;20(5):359-60. Comment in: Pediatr Dent 1999 Jan-Feb;21(1):5.

Side effects of triazolam in children. Coldwell SE, et al. **Pediatr Dent** 1999 Jan-Feb;21(1):18-25

A survey of post-discharge side effects of conscious sedation using chloral hydrate in pediatric CT and MR imaging. Kao SC, et al. **Pediatr Radiol** 1999 Apr;29(4):287-90

Myoclonic movements in very low birth weight premature infants associated with midazolam intravenous bolus administration [letter] Waisman D, et al. **Pediatrics** 1999 Sep;104(3 Pt 1):579

Complications following sedation of paediatric oncology patients undergoing radiotherapy. Adenipekun A, et al. **West Afr J Med** 1998 Oct-Dec;17(4):224-6

ANALYSIS

Stability of lorazepam 1 and 2 mg/mL in glass bottles and polypropylene syringes. Share MJ, et al. **Am J Health Syst Pharm** 1998 Oct 1;55(19):2013-5

Confirmation of azaperone and its metabolically reduced form, azaperol, in swine liver by gas chromatography/mass spectrometry. Adam LA. **J AOAC Int** 1999 Jul-Aug; 82(4):815-24

Determination of diazepam in cold drinks by high-performance thin-layer chromatography. Sarin RK, et al. **J Chromatogr A** 1998 Oct 2;822(2):332-5

ANTAGONISTS & INHIBITORS

Flumazenil in children after esophagogastroduodenoscopy. Peters JM, et al. **Am J Gastroenterol** 1999 Jul;94(7):1857-61

ECONOMICS

The cost-effectiveness of methohexital versus propofol for sedation during monitored anesthesia care. Sá Rêgo MM, et al. **Anesth Analg** 1999 Apr;88(4):723-8

A cost analysis of enterally administered lorazepam in the pediatric intensive care unit [see comments] Lugo RA, et al. **Crit Care Med** 1999 Feb;27(2):417-21. Comment in: Crit Care Med 1999 Feb;27(2):266-7.

A cost analysis of enterally administered lorazepam in the pediatric intensive care unit "out of the orphanage" [editorial; comment] Schulman SR. **Crit Care Med** 1999 Feb;27(2):266-7. Comment on: Crit Care Med 1999 Feb;27(2):417-21.

PHARMACOKINETICS

Population pharmacokinetic modeling in very premature infants receiving midazolam during mechanical ventilation: midazolam neonatal pharmacokinetics. Lee TC, et al. **Anesthesiology** 1999 Feb;90(2):451-7

Population pharmacokinetics of midazolam administered by target controlled infusion for sedation following coronary artery bypass grafting. Zomorodi K, et al. **Anesthesiology** 1998 Dec;89(6):1418-29

The effect of age on the pharmacokinetics and pharmacodynamics of midazolam. Albrecht S, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):630-9

Propofol decreases the clearance of midazolam by inhibiting CYP3A4: an in vivo and in vitro study. Hamaoka N, et al. **Clin Pharmacol Ther** 1999 Aug;66(2):110-7

Effect of saquinavir on the pharmacokinetics and pharmacodynamics of oral and intravenous midazolam. Palkama VJ, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):33-9

Quantitative prediction of metabolic inhibition of midazolam by itraconazole and ketoconazole in rats: implication of concentrative uptake of inhibitors into liver. Yamano K, et al. **Drug Metab Dispos** 1999 Mar;27(3):395-402

Absence of interaction between tiagabine, a new antiepileptic drug, and the benzodiazepine triazolam. Richens A, et al. **Drug Metabol Drug Interact** 1998;14(3):159-77

Pharmacokinetics of midazolam and its main metabolite 1-hydroxymidazolam in intensive care patients. Boulieu R, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr-Jun; 23(2):255-8

Effect of enteral versus parenteral feeding on hepatic blood flow and steady state propofol pharmacokinetics in ICU patients. Van Brandt N, et al. **Intensive Care Med** 1998 Aug;24(8):795-800

Extensive impairment of triazolam and alprazolam clearance by short-term low-dose ritonavir: the clinical dilemma of concurrent inhibition and induction [editorial] Greenblatt DJ, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):293-6 (51 ref.)

Effect of enterohepatic circulation on the pharmacokinetics of chloral hydrate and its metabolites in F344 rats. Merdink JL, et al. **J Toxicol Environ Health** 1999 Jul 9;57(5):357-68

Pharmacokinetics of medetomidine and atipamezole in dairy calves: an agonist-antagonist interaction. Ranheim B, et al. **J Vet Pharmacol Ther** 1998 Dec;21(6):428-32

A pharmacokinetic study of midazolam in dogs: nasal drop vs. atomizer administration. Henry RJ, et al. **Pediatr Dent** 1998 Sep-Oct;20(5):321-6

Pharmacokinetics of medetomidine in ponies and elaboration of a medetomidine infusion regime which provides a constant level of sedation. Bettschart-Wolfensberger R, et al. **Res Vet Sci** 1999 Aug;67(1):41-6

PHARMACOLOGY

Effect of nonsedative doses of propofol on an innate anxiogenic situation in rats. Pain L, et al. **Anesthesiology** 1999 Jan;90(1):191-6

Effect of combined mouth closure and chin lift on upper airway dimensions during routine magnetic resonance imaging in pediatric patients sedated with propofol. Reber A, et al. **Anesthesiology** 1999 Jun;90(6):1617-23

Contractility in humans after coronary artery surgery. Schmidt C, et al. **Anesthesiology** 1999 Jul;91(1):58-70

Population pharmacodynamics of midazolam administered by target controlled infusion in SICU patients after CABG surgery. Somma J, et al. **Anesthesiology** 1998 Dec; 89(6):1430-43

Triazolam and zolpidem: a comparison of their psychomotor, cognitive, and subjective effects in healthy volunteers. Mintzer MZ, et al. **Behav Pharmacol** 1997 Nov; 8(6-7):561-74

Functional antagonism of the caffeine-discriminative stimulus by triazolam in humans. Oliveto AH, et al. **Behav Pharmacol** 1997 Jun;8(2-3):124-38

Rate of change of blood concentrations is a major determinant of the pharmacodynamics of midazolam in rats. Cleton A, et al. **Br J Pharmacol** 1999 May;127(1):227-35

Analgesic and sedative concentrations of lignocaine shunt tonic and burst firing in thalamocortical neurones. Schwarz SK, et al. **Br J Pharmacol** 1998 Aug;124(8):1633-42

Progesterone withdrawal. II: insensitivity to the sedative effects of a benzodiazepine. Moran MH, et al. **Brain Res** 1998 Oct 5;807(1-2):91-100

L-Dopa-induced sedation: a double-blind cross-over controlled study versus triazolam and placebo in healthy volunteers. Andreu N, et al. **Clin Neuropharmacol** 1999 Jan-Feb;22(1):15-23

The effect of age on the pharmacokinetics and pharmacodynamics of midazolam. Albrecht S, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):630-9

Pharmacokinetics and pharmacodynamics of clomethiazole after oral and rectal administration in healthy subjects. Rätz AE, et al. **Clin Ther** 1999 May;21(5):829-40

Propofol reduces the migration of human leukocytes through endothelial cell monolayers. Hofbauer R, et al. **Crit Care Med** 1999 Sep;27(9):1843-7

Development of physical dependence to lorazepam in rats: the effects of repeated short treatments, dose and age.

Korkmaz S, et al. **Eur Neuropsychopharmacol** 1998 Aug; 8(3):175–81

The effects of benzodiazepine (triazolam), cyclopyrrolone (zopiclone) and imidazopyridine (zolpidem) hypnotics on the frequency of hippocampal theta activity and sleep structure in rats. Yoshimoto M, et al.
Eur Neuropsychopharmacol 1999 Jan;9(1–2):29–35

Evaluation of inhibitory effect of diphenhydramine on benzodiazepine dependence in rats. Nath C, et al.
Indian J Physiol Pharmacol 1997 Jan;41(1):42–6

An investigation into the effects of midazolam and propofol on human respiratory cilia beat frequency in vitro. Hann HC, et al. **Intensive Care Med** 1998 Aug;24(8):791–4

Effect of diazepam on survival of the immature pig in a confined atmosphere. Arieli R, et al.
J Basic Clin Physiol Pharmacol 1999;10(1):15–27

A novel alpha 2-adrenoceptor antagonist attenuates the early, but preserves the late cardiovascular effects of intravenous dexmedetomidine in conscious dogs. Pagel PS, et al.
J Cardiothorac Vasc Anesth 1998 Aug;12(4):429–34

Alprazolam 0.125 mg twice a day improves aspects of psychometric performance in healthy volunteers. Bourin M, et al. **J Clin Psychopharmacol** 1998 Oct;18(5):364–72

A randomized trial of the effect of midazolam on intraocular pressure. Carter K, et al. **J Glaucoma** 1999 Jun;8(3):204–7

Brain mechanisms of propofol-induced loss of consciousness in humans: a positron emission tomographic study. Fiset P, et al. **J Neurosci** 1999 Jul 1;19(13):5506–13

Selective effects of zolpidem on human memory functions. Mintzer MZ, et al. **J Psychopharmacol** 1999;13(1):18–31

Protective effect of chlormethiazole, a sedative, against acetaminophen-induced liver injury in mice. Lee HC, et al. **Korean J Intern Med** 1999 Jul;14(2):27–33

Effects of sedation, stimulation, and placebo on cerebral blood oxygenation: a magnetic resonance neuroimaging study of psychotropic drug action. Kleinschmidt A, et al. **NMR Biomed** 1999 Aug;12(5):286–92

Effects of parenterally administered triazolam on sleep in rats with lesions of the preoptic area. Mendelson WB. **Pharmacol Biochem Behav** 1998 Sep;61(1):81–6

Sedative actions of Ternstroemia sylvatica in the male rat. Molina M, et al. **Phytomedicine** 1999 May;6(2):115–8

Effects of a small dose of triazolam on P300. Hayakawa T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):185–7

Effects of trazodone on polysomnography, blood concentration and core body temperature in healthy volunteers. Yamadera H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):189–91

Thiopental and midazolam do not seem to impede metabolism of glutamate in brain-injured patients. Stover JF, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):66–70

Triazolam-induced changes in alcoholic thought processes. Weingartner HJ, et al. **Psychopharmacology (Berl)** 1998 Aug;138(3–4):311–7

Effects of promethazine on porcine gastroduodenal function: a sonographic study. Wright AB, et al.
Ultrasound Med Biol 1999 Feb;25(2):241–7

Hemodynamic effects of medetomidine in the dog: a dose titration study. Pypendop BH, et al. **Vet Surg** 1998 Nov–Dec;27(6):612–22

[The effects of midazolam on oxygen consumption and the level of vigilance. The possibility of the sedative effect of the plexiglas dome (canopy) of the Deltatrac indirect calorimetry device] Kerbaul F, et al.
Ann Fr Anesth Reanim 1998;17(9):1109–13 (Eng. Abstr.) **(Fre)**

[Effects of the chronic administration of midazolam on the rat hippocampus] Carassiti M, et al.
Rev Med Univ Navarra 1998 Jan–Mar;42(1):18–28 (Eng. Abstr.) **(Spa)**

POISONING

Successful treatment of chloral hydrate cardiac toxicity with propranolol. Zahedi A, et al. **Am J Emerg Med** 1999 Sep; 17(5):490–1

Life-threatening diphenhydramine overdose treated with charcoal hemoperfusion and hemodialysis. Mullins ME, et al. **Ann Emerg Med** 1999 Jan;33(1):104–7

Continuous flumazenil infusion in the treatment of zolpidem (Ambien) and ethanol coingestion [letter] Burton JH, et al. **J Toxicol Clin Toxicol** 1998;36(7):743–6

[Zolpidem intoxication (letter)] Sadeg N, et al. **Therapie** 1999 Mar–Apr;54(2):264–7 **(Fre)**

[A case of the cerebellar atrophy and pseudo-hyperchloremia as a clue to diagnose chronic bromvalerylurea intoxication] Makita Y, et al. **Rinsho Shinkeigaku** 1999 Feb–Mar; 39(2–3):367–9 (Eng. Abstr.) **(Jpn)**

[Neurotoxicity of sedative-hypnotics, anxiolytics] Murasaki M. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):507–14 (25 ref.) **(Jpn)**

SUPPLY & DISTRIBUTION

European court upholds UK ban on Halcion [news] Dyer C. **BMJ** 1999 Feb 13;318(7181):418

THERAPEUTIC USE

Interaction between fluconazole and midazolam in intensive care patients. Ahonen J, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):509–14

Epidural anesthesia combined with propofol sedation for abdominal hysterectomy in a patient with amyotrophic lateral sclerosis--a case report. Chen LK, et al.
Acta Anaesthesiol Sin 1998 Jun;36(2):103–6

Long-term continuous infusion of propofol as a means of sedation for patients in intensive care unit: relationship between dosage and serum concentration. Wang SH, et al. **Acta Anaesthesiol Sin** 1998 Jun;36(2):93–8

Acceptance of dental care following early extractions under rectal sedation with diazepam in preschool children. Jensen B, et al. **Acta Odontol Scand** 1998 Aug;56(4):229–32

A comparison of home detoxification and minimal intervention strategies for problem drinkers [letter; comment] Lewis JC, et al. **Alcohol Alcohol** 1999 Mar–Apr; 34(2):261. Comment on: Alcohol Alcohol 1998 Mar–Apr;33(2):157–63.

A post hoc descriptive study of patients receiving propofol. Kowalski SD, et al. **Am J Crit Care** 1999 Jan;8(1):507–13

Sedation of intoxicated, agitated patients requiring CT to evaluate head injury [letter] Holger JS, et al.
Am J Emerg Med 1999 May;17(3):321–3

Identification of the dopaminergic neurotoxin 1-trichloromethyl-1,2, 3,4-tetrahydro-beta-carboline in human blood after intake of the hypnotic chloral hydrate. Bringmann G, et al. **Anal Biochem** 1999 May 15; 270(1):167–75

Comparison of the sedation and recovery profiles of Ro 48-6791, a new benzodiazepine, and midazolam in combination with meperidine for outpatient endoscopic procedures. Tang J, et al. **Anesth Analg** 1999 Oct; 89(4):893–8

Thalidomide in patients with cachexia due to terminal cancer: preliminary report. Bruera E, et al. **Ann Oncol** 1999 Jul; 10(7):857–9

Sleep terrors in a 5-year-old girl [see comments] Owens JA, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):309–12. Comment in: Arch Pediatr Adolesc Med 1999 Aug;153(8):895.

Effects of the antimigraine compound zolmitriptan ('Zomig') on psychomotor performance alone and in combination with diazepam in healthy volunteers. Dixon R, et al.
Cephalalgia 1998 Sep;18(7):468–75

Midazolam or no midazolam: that is the question! [letter; comment] Marik P, et al. **Crit Care Med** 1999 Jul;27(7):1403 . Comment on: Crit Care Med 1998 May;26(5):947–56.

Continuous infusion of lorazepam versus medazolam in patients in the intensive care unit: sedation with lorazepam is easier to manage and is more cost-effective. Swart EL, et al. **Crit Care Med** 1999 Aug;27(8):1461–5

Low-dose midazolam sedation: an option for patients undergoing serial hepatic venous pressure measurements. Steinlauf AF, et al. **Hepatology** 1999 Apr;29(4):1070–3

Comparison of ketorolac-chlorpromazine with meperidine-promethazine for treatment of exacerbations of chronic pain. Mehl-Madrona LE.
J Am Board Fam Pract 1999 May–Jun;12(3):188–94

Effect of low-dose propofol infusion on total-body oxygen consumption after coronary artery surgery. Hammarén E, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):154–9

A randomized clinical trial of triazolam in 3- to 5-year-olds. Raadal M, et al. **J Dent Res** 1999 Jun;78(6):1197–203

Propofol in the treatment of moderate and severe head injury: a randomized, prospective double-blinded pilot trial. Kelly DF, et al. **J Neurosurg** 1999 Jun;90(6):1042–52

Subcutaneous administration of midazolam: a comparison of the Bioject jet injector with the conventional syringe and needle. Bennett J, et al. **J Oral Maxillofac Surg** 1998 Nov; 56(11):1249–54

Flavored midazolam elixir for manual separation of labial adhesions in the office [letter] Jamieson MA, et al.
J Pediatr Adolesc Gynecol 1999 May;12(2):106–7

A double-blind study of the sedative effects of the thalidomide enantiomers in humans. Höglund P, et al.
J Pharmacokinet Biopharm 1998 Aug;26(4):363–83

Morphine-midazoiam combination doses for presurgical analgesia in children [published erratum appears in Middle East J Anesthesiol 1999 Feb;15(1):117] Atallah MM, et al. **Middle East J Anesthesiol** 1997 Oct;14(3):185–94

The predictive value of benzodiazepine tolerance in persistently aggressive schizophrenia. Hatta K, et al.
Neuropsychobiology 1999 May;39(4):196–9

The effects of nitrous oxide on pediatric dental patients sedated with chloral hydrate and hydroxyzine. Wilson S, et al. **Pediatr Dent** 1998 Jul–Aug;20(4):253–8

Survival analytic approach to long-term prescription of benzodiazepine hypnotics. Ishigooka J, et al.
Psychiatry Clin Neurosci 1998 Oct;52(5):541–5

[Patient-controlled sedation with propofol for extracorporeal shock wave lithotripsy] Sztark F, et al.
Ann Fr Anesth Reanim 1999 Apr;18(4):409–14 (Eng. Abstr.) **(Fre)**

[Midazolam in sedation in intensive therapy] Braschi A, et al. **Minerva Anestesiol** 1998 Dec;64(12 Suppl 1):7–10 (7 ref.) **(Ita)**

[Midazolam in heart surgery: applications outside the operating room] Tritapepe L. **Minerva Anestesiol** 1998 Dec; 64(12 Suppl 1):11–2 **(Ita)**

[Influence of stress and stress-protecting factors on rat tolerance to cold and efficiency of rat adaptation to cold] Gilinskii MA, et al. **Vestn Ross Akad Med Nauk** 1998; (10):22–6 (Eng. Abstr.) **(Rus)**

TOXICITY

An investigation of the possible neurotoxic effects of intrathecal midazolam combined with fentanyl in the rat. Bahar M, et al. **Eur J Anaesthesiol** 1998 Nov;15(6):695–701

URINE

[Colorimetric characterisation of meprobamate in urine and gastric liquid after solid-phase extraction (letter)] Royer S, et al. **Ann Biol Clin (Paris)** 1999 Mar–Apr;57(2):237 **(Fre)**

SEDIMENTS, GEOLOGIC see **GEOLOGIC SEDIMENTS**

SEDIMENTS, MARINE see **GEOLOGIC SEDIMENTS**

SEED LEAF see **COTYLEDON**

SEEDLINGS see **PLANTS**

SEEDS

see related
NUTS

Proanthocyanidins from grape seeds promote proliferation of mouse hair follicle cells in vitro and convert hair cycle in vivo. Takahashi T, et al. **Acta Derm Venereol** 1998 Nov; 78(6):428–32

Health aspects of partially defatted flaxseed, including effects on serum lipids, oxidative measures, and ex vivo androgen and progestin activity: a controlled crossover trial. Jenkins DJ, et al. **Am J Clin Nutr** 1999 Mar;69(3):395–402

Human metabolism of mammalian lignan precursors in raw and processed flaxseed. Nesbitt PD, et al.
Am J Clin Nutr 1999 Mar;69(3):549–55

Seed handling in chimpanzees (Pan troglodytes) and redtail monkeys (Cercopithecus ascanius): implications for understanding hominoid and cercopithecine fruit-processing strategies and seed dispersal. Lambert JE.
Am J Phys Anthropol 1999 Jul;109(3):365–86

Proanthocyanidin-rich extract from grape seeds attenuates the development of aortic atherosclerosis in cholesterol-fed rabbits. Yamakoshi J, et al. **Atherosclerosis** 1999 Jan; 142(1):139–49

The effect of dietary flaxseed supplementation on organic anion and osmolyte content and excretion in rat polycystic kidney disease. Ogborn MR, et al. **Biochem Cell Biol** 1998; 76(2–3):553–9

Frugivory and seed dispersal by vertebrates in the Oriental (Indomalayan) Region. Corlett RT.
Biol Rev Camb Philos Soc 1998 Nov;73(4):413–48 (230 ref.)

Nucleotide sequence of seed- and pollen-transmitted double-stranded RNA, which encodes a putative RNA-dependent RNA polymerase, detected from Japanese pear. Osaki H, et al. **Biosci Biotechnol Biochem** 1998 Nov; 62(11):2101–6

Neem (Azadirachta indica) kernel meal in the diet of White Leghorn layers. Gowda SK, et al. **Br Poult Sci** 1998 Dec; 39(5):648–52

Performance of broiler chicks fed on diets containing urea ammoniated neem (Azadirachta indica) kernel cake. Nagalakshmi D, et al. **Br Poult Sci** 1999 Mar;40(1):77–83

Effect of chicken age on the nutritive value of diets with graded additions of full-fat sunflower seed. Ortiz LT, et al. **Br Poult Sci** 1998 Sep;39(4):530–5

Synthesis of a jojoba bean disaccharide. Kornienko A, et al. **Carbohydr Res** 1998 Aug;310(1–2):141–4

Signaling in plant embryogenesis. Harada JJ.
Curr Opin Plant Biol 1999 Feb;2(1):23–7 (40 ref.)

Effect of micronizing full fat canola seed on amino acid disappearance in the gastrointestinal tract of dairy cows. Wang Y, et al. **J Dairy Sci** 1999 Mar;82(3):537–44

Wide spectrum antibacterial and antifungal activities in the seeds of some coprophilous plants of north Indian plains. Bagchi GD, et al. **J Ethnopharmacol** 1999 Jan;64(1):69–77

Severe systemic reactions caused by poppy seed. Crivellaro M, et al. **J Investig Allergol Clin Immunol** 1999 Jan–Feb; 9(1):58–9

Low nutritional quality of unconventional tropical crop seeds in rats. Proll J, et al. **J Nutr** 1998 Nov;128(11):2014–22

Dose, timing, and duration of flaxseed exposure affect reproductive indices and sex hormone levels in rats. Tou JC, et al. **J Toxicol Environ Health** 1999 Apr 23; 56(8):555–70

Effect of flaxseed consumption on urinary estrogen metabolites in postmenopausal women. Haggans CJ, et al. **Nutr Cancer** 1999;33(2):188–95

Flaxseed and lignans increase cecal beta-glucuronidase activity in rats. Jenab M, et al. **Nutr Cancer** 1999; 33(2):154–8

Tension pneumothorax secondary to grass head aspiration. Newson TP, et al. **Pediatr Emerg Care** 1998 Aug; 14(4):287–9 (12 ref.)

Taxumairol M: a new bicyclic taxoid from seeds of Taxus mairei [letter] Shen YC, et al. **Planta Med** 1999 Aug; 65(6):582–4

["Opiate positive" in urine drug screening test after eating poppy seed cake (letter)] Voderholzer U, et al.
Nervenarzt 1997 Nov;68(11):926 **(Ger)**

ADVERSE EFFECTS

Is walnut really a birch-pollen-related fruit? Asero R.
Allergy 1998 Sep;53(9):908–9

A case of sesame seed-induced anaphylaxis. Asero R, et al.

Allergy 1999 May;54(5):526–7

Occupational asthma caused by sunflower-seed dust. Vandenplas O, et al. **Allergy** 1998 Sep;53(9):907–8

Acute cyanide toxicity caused by apricot kernel ingestion. Suchard JR, et al. **Ann Emerg Med** 1998 Dec;32(6):742–4

Systemic allergic reaction to coconut (Cocos nucifera) in 2 subjects with hypersensitivity to tree nut and demonstration of cross-reactivity to legumin-like seed storage proteins: new coconut and walnut food allergens. Teuber SS, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1180–5

Acute appendicitis in childhood: did mother know best? A pathological analysis of 1409 cases. Byard RW, et al. **Med J Aust** 1998 Dec 7–21;169(11–12):647–8 (15 ref.)

CHEMISTRY

Crystallization and preliminary crystallographic analyses of pokeweed antiviral protein from seeds. Li HM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):137–9

Purification, crystallization and preliminary crystallographic study of a Kunitz-type trypsin inhibitor from Delonix regia seeds. Polikarpov I, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Sep;55 (Pt 9):1611–3

Crystallization and preliminary X-ray studies of the basic lectin from the seeds of Artocarpus hirsuta. Rao KN, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1204–5

Quantification of isoflavones by capillary zone electrophoresis in soybean seeds: effects of variety and environment. Aussenac T, et al. **Am J Clin Nutr** 1998 Dec; 68(6 Suppl):1480S–1485S

Purification and characterization of novel ribosome inactivating proteins, alpha- and beta-pisavins, from seeds of the garden pea Pisum sativum. Lam SS, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):135–42

Ribosome inactivating protein and lectin from bitter melon (Momordica charantia) seeds: sequence comparison with related proteins. Wang H, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):143–6

Purification, characterization and molecular cloning of trichoanguin, a novel type I ribosome-inactivating protein from the seeds of Trichosanthes anguina. Chow LP, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):211–9

Models for the multisubunit conformation of oil-seed globulins. Carrasco B, et al. **Biochem Soc Trans** 1998 Nov; 26(4):721–5

Characterization of molecular mobility in seed tissues: an electron paramagnetic resonance spin probe study. Buitink J, et al. **Biophys J** 1999 Jun;76(6):3315–22

High protection by grape seed proanthocyanidins (GSPC) of polyunsaturated fatty acids against UV-C induced peroxidation. Bouhamidi R, et al. **C R Acad Sci III** 1998 Jan;321(1):31–8

Inhibition of TPA-induced tumor promotion in CD-1 mouse epidermis by a polyphenolic fraction from grape seeds. Bomser JA, et al. **Cancer Lett** 1999 Jan 29;135(2):151–7

Structures of new acylated oleanene-type triterpene oligoglycosides, theasaponins E1 and E2, from the seeds of tea plant, Camellia sinensis (L.) O. Kuntze. Kitagawa I, et al. **Chem Pharm Bull (Tokyo)** 1998 Dec;46(12):1901–6

Solution structure of a lipid transfer protein extracted from rice seeds. Comparison with homologous proteins. Poznanski J, et al. **Eur J Biochem** 1999 Feb;259(3):692–708

Opiate concentrations following the ingestion of poppy seed products--evidence for the poppy seed defence'. Meadway C, et al. **Forensic Sci Int** 1998 Aug 31;96(1):29–38

Hypoglycemic activity of Cajanus cajan (seeds) in mice. Amalraj T, et al. **Indian J Exp Biol** 1998 Oct;36(10):1032–3

Comparative evaluation of antiinflammatory potential of fixed oil of different species of Ocimum and its possible mechanism of action. Singh S. **Indian J Exp Biol** 1998 Oct; 36(10):1028–31

Effect of processing on some properties of cowpea (Vigna unguiculata), seed, protein, starch, flour and akara. Enwere NJ, et al. **Int J Food Sci Nutr** 1998 Sep;49(5):365–73

Determination of the thermogenesis curves and studies of the thermodynamics and thermokinetics of seed germination. Zhou PJ, et al. **J Biochem Biophys Methods** 1999 Feb 8;38(3):171–80

Extraction of polyphenolic compounds from grape seeds with near critical carbon dioxide. Palma M, et al. **J Chromatogr A** 1999 Jul 16;849(1):117–24

Pharmacology of Casimiroa edulis IV. Hypotensive effects of compounds isolated from methanolic extracts in rats and guinea pigs. Magos GA, et al. **J Ethnopharmacol** 1999 Jan; 64(1):35–44

Aspects of microbiological and chemical quality of turmus, lupin seeds debittered by soaking in water. Yamani MI, et al. **J Food Prot** 1998 Nov;61(11):1480–3

High-resolution structure of a potent, cyclic proteinase inhibitor from sunflower seeds. Luckett S, et al. **J Mol Biol** 1999 Jul 9;290(2):525–33

Thiamin-binding protein from sunflower seeds. Watanabe K, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct;44(5):665–72

The complete amino acid sequence of a trypsin inhibitor from Bauhinia variegata var. candida seeds. Di Ciero L, et al. **J Protein Chem** 1998 Nov;17(8):827–34

Occurrence of gamma-linolenic acid in compositae: a study of Youngia tenuicaulis seed oil. Tsevegsüren N, et al. **Lipids** 1999 May;34(5):525–9

The carbohydrate-binding specificity of a highly toxic protein from Abrus pulchellus seeds. Ramos MV, et al. **Mem Inst Oswaldo Cruz** 1999 Mar–Apr;94(2):185–8

Amino acid composition and biological effects of supplementing broad bean and corn proteins with Nigella sativa (black cumin) cake protein. al-Gaby AM. **Nahrung** 1998 Oct;42(5):290–4

Purpuracenin: a new cytotoxic adjacent bis-tetrahydrofuran annonaceous acetogenin from the seeds of Annona purpurea. Chávez D, et al. **Phytochemistry** 1999 Mar; 50(5):823–8

Studies on antifertility effect of pawpaw seeds (Carica papaya) on the gonads of male albino rats. Udoh P, et al. **Phytother Res** 1999 May;13(3):226–8

Identification of three novel unique proteins in seed oil bodies of sesame. Chen EC, et al. **Plant Cell Physiol** 1998 Sep; 39(9):935–41

Identification of polypeptides associated with an enriched cytoskeleton-protein body fraction from developing rice endosperm. Wu Y, et al. **Plant Cell Physiol** 1998 Dec; 39(12):1251–7

Nutrient content of Prosopis africana seeds. Barminas JT, et al. **Plant Foods Hum Nutr** 1998;52(4):325–8

Morphological and oil content variation in seeds of Azadirachta indica A. Juss. (Neem) from northern and western provenances of India. Kaura SK, et al. **Plant Foods Hum Nutr** 1998;52(4):293–8

Changes in chemical composition, minerals and amino acids during seed growth and development of four safflower cultivars. Rahamatalla AB, et al. **Plant Foods Hum Nutr** 1998;52(2):161–70

Properties of proteins and the glassy matrix in maturation-defective mutant seeds of Arabidopsis thaliana. Wolkers WF, et al. **Plant J** 1998 Oct;16(2):133–43

Effect of chemical composition of sunflower seed meal on its true metabolizable energy and amino acid digestibility. Villamide MJ, et al. **Poult Sci** 1998 Dec;77(12):1884–92

A comparative study on the purification of the Amaranthus leucocarpus syn. hypocondriacus lectin. Hernández P, et al. **Prep Biochem Biotechnol** 1999 Aug;29(3):219–34

Inhibitors of pepsin, trypsin and chymotrypsin in seeds of plants consumed by humans and animals. I. Evaluation of pepsin, trypsin, and chymotrypsin inhibitors activity in seeds of 26 plant species. Bańkowska A, et al. **Rocz Akad Med Bialymst** 1998;43:278–86

Cathepsin D inhibitor from Vicia sativa L. Roszkowska-Jakimiec W, et al. **Rocz Akad Med Bialymst** 1998;43:245–9

[Bioactive saponins and glycosides. XIII. Horse chestnut. (3): Quantitative analysis of escins Ia, Ib, IIa, and IIb by means of high performance liquid chromatography] Yoshikawa M, et al. **Yakugaku Zasshi** 1999 Jan;119(1):81–7 (Eng. Abstr.) **(Jpn)**

[Effect of cooking on the chemical and nutritional value of the Pithecellobium flexicaule (Bent) seed] Alanis Guzmán MG, et al. **Arch Latinoam Nutr** 1998 Dec;48(4):328–33 (Eng. Abstr.) **(Spa)**

[Protein concentrate from Amaranthus mantegazzianus. Physical, chemical and biological characterization] de Luquez N, et al. **Arch Latinoam Nutr** 1997 Dec; 47(4):359–61 (Eng. Abstr.) **(Spa)**

CYTOLOGY

Regulation of callus status and cell-suspending culture in naked seed oat (Avena nuda). Cui L, et al. **Chin J Biotechnol** 1998;14(1):31–6

Endosperm development. Berger F. **Curr Opin Plant Biol** 1999 Feb;2(1):28–32 (29 ref.)

Mutations in the pilz group genes disrupt the microtubule cytoskeleton and uncouple cell cycle progression from cell division in Arabidopsis embryo and endosperm. Mayer U, et al. **Eur J Cell Biol** 1999 Feb;78(2):100–8

DRUG EFFECTS

Studies on inhibitory activities of fukiic acid esters on germination, alpha-amylase and carboxypeptidase A. Kusano G, et al. **Biol Pharm Bull** 1998 Sep;21(9):997–9

Germination responses and boron accumulation in germplasm from Chile and the United States grown with boron-enriched water. Bañuelos GS, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):62–7

[Modification of the mutagenic effect of ethylmethane sulfonate by adrenaline] Semenov VV, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):427–9 **(Rus)**

ENZYMOLOGY

Preliminary X-ray crystallographic analysis of Bowman-Birk trypsin inhibitor from barley seeds. Song HK, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):441–3

Substrate binding subsites of chitinase from barley seeds and lysozyme from goose egg white. Honda Y, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):53–65

Lipoxygenase-1 from soybean seed inhibiting the activity of pancreatic lipase. Satouchi K, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1498–503

Wheat-germ aspartate transcarbamoylase: revised purification, stability and re-evaluation of regulatory kinetics in terms of the Monod-Wyman-Changeux model. Khan AI, et al. **Eur J Biochem** 1999 Jan;259(1–2):71–8

9-Hydroxy-traumatin, a new metabolite of the lipoxygenase pathway. Gardner HW. **Lipids** 1998 Aug;33(8):745–9

Thioltransferase from Arabidopsis thaliana seed: purification to homogeneity and characterization. Cho YW, et al. **Mol Cells** 1998 Oct 31;8(5):550–5

The localization and expression of the class II starch synthases of wheat. Li Z, et al. **Plant Physiol** 1999 Aug; 120(4):1147–56

Purification of a multicatalytic protease complex from developing winged bean seeds by indirect immunoaffinity chromatography. Usha R, et al. **Protein Expr Purif** 1999 Feb;15(1):48–56

GENETICS

Mutations in the pilz group genes disrupt the microtubule cytoskeleton and uncouple cell cycle progression from cell division in Arabidopsis embryo and endosperm. Mayer U, et al. **Eur J Cell Biol** 1999 Feb;78(2):100–8

Co-introduction of an antisense gene for an endogenous seed storage protein can increase expression of a transgene in Arabidopsis thaliana seeds. Goossens A, et al. **FEBS Lett** 1999 Jul 30;456(1):160–4

Impacts of seed and pollen flow on population genetic structure for plant genomes with three contrasting modes of inheritance. Hu XS, et al. **Genetics** 1999 May; 152(1):441–50

Swiss soiled seed prompts tolerance question [news] Fürst I. **Nat Biotechnol** 1999 Jul;17(7):629

Cloning and characterization of a seed-specific omega-3 fatty acid desaturase cDNA from Perilla frutescens. Chung CH, et al. **Plant Cell Physiol** 1999 Jan;40(1):114–8

Sequences surrounding the transcription initiation site of the Arabidopsis enoyl-acyl carrier protein reductase gene control seed expression in transgenic tobacco. de Boer GJ, et al. **Plant Mol Biol** 1999 Apr;39(6):1197–207

Cloning of a wheat puroindoline gene promoter by IPCR and analysis of promoter regions required for tissue-specific expression in transgenic rice seeds. Digeon JF, et al. **Plant Mol Biol** 1999 Apr;39(6):1101–12

ZmOCL1, an HDGL2 family homeobox gene, is expressed in the outer cell layer throughout maize development. Ingram GC, et al. **Plant Mol Biol** 1999 May;40(2):343–54

ATS1 and ATS3: two novel embryo-specific genes in Arabidopsis thaliana. Nuccio ML, et al. **Plant Mol Biol** 1999 Apr;39(6):1153–63

A defective seed coat pattern (Net) is correlated with the post-transcriptional abundance of soluble proline-rich cell wall proteins. Percy JD, et al. **Plant Mol Biol** 1999 Jul; 40(4):603–13

Seed-specific expression patterns and regulation by ABI3 of an unusual late embryogenesis-abundant gene in sunflower. Prieto-Dapena P, et al. **Plant Mol Biol** 1999 Feb; 39(3):615–27

Identification of cis-regulatory elements required for endosperm expression of the rice storage protein glutelin gene GluB-1. Washida H, et al. **Plant Mol Biol** 1999 May; 40(1):1–12

Evolutionary dynamics of seed size and seedling competitive ability. Geritz SA, et al. **Theor Popul Biol** 1999 Jun; 55(3):324–43

[Chromosome aberrations as a bio-dosimetric test of space radiation (experimental data from the seeds of higher plants)] Nevzgodina LV, et al. **Aviakosm Ekolog Med** 1999; 33(2):42–4 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Sugars as signal molecules in plant seed development. Wobus U, et al. **Biol Chem** 1999 Jul–Aug;380(7–8):937–44 (40 ref.)

Inexpensive alternative to M&S medium for selection of Arabidopsis plants in culture. Pollock MA, et al. **Biotechniques** 1999 Feb;26(2):254–7

Seed maturation: genetic programmes and control signals. Wobus U, et al. **Curr Opin Plant Biol** 1999 Feb;2(1):33–8 (49 ref.)

Germination responses and boron accumulation in germplasm from Chile and the United States grown with boron-enriched water. Bañuelos GS, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):62–7

Changes in chemical composition, minerals and amino acids during seed growth and development of four safflower cultivars. Rahamatalla AB, et al. **Plant Foods Hum Nutr** 1998;52(2):161–70

The EMB 506 gene encodes a novel ankyrin repeat containing protein that is essential for the normal development of Arabidopsis embryos. Albert S, et al. **Plant J** 1999 Jan;17(2):169–79

The titan mutants of Arabidopsis are disrupted in mitosis and cell cycle control during seed development. Liu CM, et al. **Plant J** 1998 Oct;16(1):21–31

FUSCA3 encodes a protein with a conserved VP1/AB13-like B3 domain which is of functional importance for the regulation of seed maturation in Arabidopsis thaliana. Luerssen H, et al. **Plant J** 1998 Sep; 15(6):755–64

Genes controlling fertilization-independent seed development in Arabidopsis thaliana. Luo M, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):296–301

METABOLISM

Coordinated accumulation of (+)-delta-cadinene synthase mRNAs and gossypol in developing seeds of Gossypium hirsutum and a new member of the cad1 family from G. arboreum. Meng YL, et al. **J Nat Prod** 1999 Feb;

62(2):248–52
Novel metabolites of the mammalian lignans enterolactone and enterodiol in human urine. Jacobs E, et al. **J Steroid Biochem Mol Biol** 1999 Mar;68(5–6):211–8
In vivo studies of the biosynthesis of vernolic acid in the seed of Vernonia galamensis. Liu L, et al. **Lipids** 1998 Dec; 33(12):1217–21
Isoforms of acyl carrier protein involved in seed-specific fatty acid synthesis. Suh MC, et al. **Plant J** 1999 Mar; 17(6):679–88
Sucrose transport into developing seeds of Pisum sativum L. Tegeder M, et al. **Plant J** 1999 Apr;18(2):151–61
Hydrophobic protein synthesized in the pod endocarp adheres to the seed surface. Gijzen M, et al. **Plant Physiol** 1999 Aug;120(4):951–9
The arcelin-5 gene of Phaseolus vulgaris directs high seed-specific expression in transgenic Phaseolus acutifolius and Arabidopsis plants. Goossens A, et al. **Plant Physiol** 1999 Aug;120(4):1095–104
The Pex16p homolog SSE1 and storage organelle formation in Arabidopsis seeds. Lin Y, et al. **Science** 1999 Apr 9; 284(5412):328–30

MICROBIOLOGY

Role of pfkA and general carbohydrate catabolism in seed colonization by Enterobacter cloacae. Roberts DP, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2513–9
Studies on toxigenic fungi in roasted foodstuff (salted seed) and halotolerant activity of emodin-producing Aspergillus wentii. Hasan HA. **Folia Microbiol (Praha)** 1998; 43(4):383–91
Vaccination against ergot alkaloids and the effect of endophyte-infected fescue seed-based diets on rabbits. Filipov NM, et al. **J Anim Sci** 1998 Sep;76(9):2456–63
Detection and isolation of Salmonella from naturally contaminated alfalfa seeds following an outbreak investigation. Inami GB, et al. **J Food Prot** 1999 Jun; 62(6):662–4
Comparison of chemical treatments to eliminate enterohemorrhagic Escherichia coli O157:H7 on alfalfa seeds. Taormina PJ, et al. **J Food Prot** 1999 Apr; 62(4):318–24
Aspects of microbiological and chemical quality of turmus, lupin seeds debittered by soaking in water. Yamani MI, et al. **J Food Prot** 1998 Nov;61(11):1480–3
Multinational outbreak of Salmonella enterica serotype Newport infections due to contaminated alfalfa sprouts. Van Beneden CA, et al. **JAMA** 1999 Jan 13;281(2):158–62

PHYSIOLOGY

Engineering seed dormancy by the modification of zeaxanthin epoxidase gene expression. Frey A, et al. **Plant Mol Biol** 1999 Apr;39(6):1267–74
Degradation of oat mRNAs during seed development. Johnson RR, et al. **Plant Mol Biol** 1999 Mar;39(4):823–33

POISONING

Anticholinergic toxicity associated with lupine seeds as a home remedy for diabetes mellitus. Tsiodras S, et al. **Ann Emerg Med** 1999 Jun;33(6):715–7
The lysosomal enzymes acid phosphatase and cathepsin D in rats intoxicated with Senna occidentalis seeds. Calore EE, et al. **J Submicrosc Cytol Pathol** 1999 Apr;31(2):259–64
Epidemic of self-poisoning with seeds of the yellow oleander tree (Thevetia peruviana) in northern Sri Lanka. Eddleston M, et al. **Trop Med Int Health** 1999 Apr;4(4):266–73

RADIATION EFFECTS

Effect of electric field on physical states of cell-associated water in germinating morning glory seeds observed by 1H-NMR. Isobe S, et al. **Biochim Biophys Acta** 1999 Jan 4;1426(1):17–31
Biological effects of ion beams in Nicotiana tabacum L. Hase Y, et al. **Radiat Environ Biophys** 1999 Jul;38(2):111–5
[Chromosome aberrations as a bio-dosimetric test of space radiation (experimental data from the seeds of higher plants)] Nevzgodina LV, et al. **Aviakosm Ekolog Med** 1999; 33(2):42–4 (Eng. Abstr.) **(Rus)**

ULTRASTRUCTURE

A new protocol to prepare dry plant specimens for electron microscopy and immunocytochemistry. Grote M, et al. **Micron** 1999 Feb;30(1):65–70

VIROLOGY

Transmission of raspberry bushy dwarf virus by seed of Chenopodium quinoa [letter] Kubelková D, et al. **Acta Virol** 1998 Jun;42(3):195–6
Detection of plum pox virus in apricot seeds. Pasquini G, et al. **Acta Virol** 1998 Sep;42(4):260–3

SEER PROGRAM

The changing survival of patients with mycosis fungoides: a population-based assessment of trends in the United States [letter] Jones GW, et al. **Cancer** 1999 Jul 1; 86(1):191–3
Carcinoma in situ of the colorectum: SEER trends by race, gender, and total colorectal cancer. Nelson RL, et al. **J Surg Oncol** 1999 Jun;71(2):123–9
Re: Editorial comment--The results of prostate carcinoma screening in the U.S. as reflected in the surveillance, epidemiology, and end results program [letter] Horan AH. **J Urol** 1999 Feb;161(2):614
The utility of Medicare claims data for measuring cancer stage. Cooper GS, et al. **Med Care** 1999 Jul;37(7):706–11
A hypothesis about Spiegel et al.'s 1989 paper on Psychosocial intervention and breast cancer survival [see comments] Fox BH. **Psychooncology** 1998 Sep–Oct; 7(5):361–70. Comment in: Psychooncology 1999 May–Jun;8(3):276.
Prostate cancer research and the National Cancer Institute. Brawley OW, et al. **Semin Urol Oncol** 1998 Nov; 16(4):235–40 (26 ref.)

STATISTICS & NUMERICAL DATA

Five-year leukemia survival by age [letter] Levi F, et al. **Ann Oncol** 1999 Jun;10(6):735
Cancer risk among Scandinavian immigrants in the US and Scandinavian residents compared with US whites, 1973–89. Moradi T, et al. **Eur J Cancer Prev** 1998 Apr;7(2):117–25
Cancer of the colon and rectum in Louisiana. Chen VW, et al. **J La State Med Soc** 1999 Apr;151(4):189–97

SEGMENTATION STAGE, OVUM see **CLEAVAGE STAGE, OVUM**

SEGMENTED WORMS see **ANNELIDA**

SEI WHALE see **WHALES**

SEITELBERGER'S DISEASE see **NEUROAXONAL DYSTROPHIES**

SEIZURES

Bibliography. Current world literature. Seizure disorders. **Curr Opin Neurol** 1999 Apr;12(2):225–45
Forecasting brain storms [news; comment] Schiff SJ. **Nat Med** 1998 Oct;4(10):1117–8. Comment on: Nat Med 1998 Oct;4(10):1173–6.
Seizures as the presenting feature of post-streptococcal glomerulonephritis [letter] Roussos L, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):1034–5
Nonepileptic seizures: psychiatric framework, treatment, and outcome. Bowman ES. **Neurology** 1999;53(5 Suppl 2):S84–8 (41 ref.)
Psychogenic nonepileptic seizures: theoretic and clinical considerations. Sirven JI, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):225–35 (75 ref.)

BLOOD

Seizure-refractory period after a single stimulation and inhibition of seizures after repetitive stimulation in the gerbil: effects on blood cortisol levels. Revilla V, et al. **Epilepsia** 1999 Jan;40(1):1–4
Serum prolactin in neonatal seizures. Kiliç S, et al. **Pediatr Int** 1999 Feb;41(1):61–4
Serum prolactin levels after seizure and syncopal attacks. Usić I, et al. **Seizure** 1999 Jun;8(4):218–22

CEREBROSPINAL FLUID

Excitatory and inhibitory amino acid levels in the cerebrospinal fluids of children with neurological disorders. Shen EY, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Mar–Apr;40(2):65–9

CHEMICALLY INDUCED

A puzzling case of seizures and visual hallucinations during clomipramine treatment with a high dose but causing a low serum concentration. Terao T, et al. **Acta Psychiatr Scand** 1999 May;99(5):388–90; discussion 390–2
Repeated ethanol withdrawal delays development of focal seizures in hippocampal kindling. Veatch LM, et al. **Alcohol Clin Exp Res** 1999 Jul;23(7):1145–50
Seizures induced by NSAID. Sánchez-Hernandez MC, et al. **Allergy** 1999 Jan;54(1):90–1
Kainic acid (KA)-induced seizures in Sprague-Dawley rats and the effect of dietary taurine (TAU) supplementation or deficiency. Eppler B, et al. **Amino Acids** 1999; 16(2):133–47
Norpethidine accumulation and generalized seizure during pethidine patient-controlled analgesia. McHugh GJ. **Anaesth Intensive Care** 1999 Jun;27(3):289–91
A comparison of the effects of propofol and sevoflurane on the systemic toxicity of intravenous bupivacaine in rats. Ohmura S, et al. **Anesth Analg** 1999 Jan;88(1):155–9
Photosensitive seizures associated with interferon alfa-2a [letter] Brouwers PJ, et al. **Ann Pharmacother** 1999 Jan; 33(1):113–4
Seizure associated with olanzapine. Lee JW, et al. **Ann Pharmacother** 1999 May;33(5):554–6
Clozapine-induced seizures and EEG abnormalities in ambulatory psychiatric patients. Silvestri RC, et al. **Ann Pharmacother** 1998 Nov;32(11):1147–51
Pharmacokinetic-pharmacodynamic contributions to the convulsant activity of fluoroquinolones in rats. Delon A, et al. **Antimicrob Agents Chemother** 1999 Jun;43(6):1511–5
Hyponatremic seizure in a child using desmopressin for nocturnal enuresis [letter; comment] Schwartz ID. **Arch Pediatr Adolesc Med** 1998 Oct;152(10):1037–8. Comment on: Arch Pediatr Adolesc Med 1998 Mar;152(3):290–2.
Cortical blindness and seizures in a patient receiving FK506 after bone marrow transplantation. Steg RE, et al. **Bone Marrow Transplant** 1999 May;23(9):959–62
Tremor and seizures associated with chronic manganese intoxication. Komaki H, et al. **Brain Dev** 1999 Mar; 21(2):122–4
Decreased seizure threshold and more rapid rate of kindling in rats with cortical malformation induced by prenatal treatment with methylazoxymethanol. Chevassus-au-Louis N, et al. **Brain Res** 1998 Nov 23;812(1–2):252–5
Forebrain ischemia: effect on pharmacologically induced seizure thresholds in the rat. Kim DC, et al. **Brain Res** 1999 Jun 12;831(1–2):131–9
Effect of hypothermia on kainic acid-induced limbic seizures: an electroencephalographic and 14C-deoxyglucose autoradiographic study. Maeda T, et al. **Brain Res** 1999 Feb 13;818(2):228–35
Progesterone withdrawal I: pro-convulsant effects. Moran MH, et al. **Brain Res** 1998 Oct 5;807(1–2):84–90
Prenatal morphine exposure alters ovarian steroid hormonal regulation of seizure susceptibility. Velisek L, et al. **Brain Res** 1998 Jun 15;796(1–2):247–56
The in vivo proconvulsant effects of corticotropin releasing hormone in the developing rat are independent of ionotropic glutamate receptor activation. Brunson KL, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):119–28
Prenatal morphine exposure differentially alters seizure susceptibility in developing female rats. Velisková J, et al. **Brain Res Dev Brain Res** 1999 Aug 5;116(1):119–21
Seizure-related opening of the blood-brain barrier produced by the anticholinesterase compound, soman: new ultrastructural observations. Grange-Messent V, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Feb;45(1):1–14
Seizures associated with buspirone overdose: case report and literature review. Catalano G, et al. **Clin Neuropharmacol** 1998 Nov–Dec;21(6):347–50 (23 ref.)
Low frequency of meperidine-associated seizures in sickle cell disease. Nadvi SZ, et al. **Clin Pediatr (Phila)** 1999 Aug; 38(8):459–62
A ketogenic diet increases the resistance to pentylenetetrazole-induced seizures in the rat. Bough KJ, et al. **Epilepsia** 1999 Feb;40(2):138–43
Hippocampal and entorhinal cortex high-frequency oscillations (100--500 Hz) in human epileptic brain and in kainic acid--treated rats with chronic seizures. Bragin A, et al. **Epilepsia** 1999 Feb;40(2):127–37
Acute management of hypersensitivity reactions and seizures. Griebel ML. **Epilepsia** 1998;39 Suppl 7:S17–21
Muscarinic receptors mediate carbachol-induced inhibition of maximal electroshock seizures in the nucleus reticularis pontis oralis. Peterson SL, et al. **Epilepsia** 1999 Jan; 40(1):20–5
Spontaneous motor seizures of rats with kainate-induced epilepsy: effect of time of day and activity state. Hellier JL, et al. **Epilepsy Res** 1999 May;35(1):47–57
Induction of seizures by the potent K+ channel-blocking scorpion venom peptide toxins tityustoxin-K(alpha) and pandinustoxin-K(alpha). Juhng KN, et al. **Epilepsy Res** 1999 Apr;34(2–3):177–86
Seizures after inadvertent umbilical venous infusion of synthetic surfactant (Exosurf): cause or coincidence? [letter] Frey B, et al. **Eur J Pediatr** 1999 Jul;158(7):610
Role of metabotropic glutamate receptors in the hypersusceptibility to pentylenetetrazole-induced seizure during diazepam withdrawal. Suzuki T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):163–8
Mitochondrial toxin 3-nitropropionic acid evokes seizures in mice. Urbanska EM, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):55–8
Gamma-aminobutyric acid and glutamic acid receptors may mediate theophylline-induced seizures in mice. Amabeoku GJ. **Gen Pharmacol** 1999 Mar;32(3):365–72
Influence of orchidectomy and ovariectomy on the blood-brain barrier permeability during bicuculline-induced seizures. Oztaş B, et al. **Horm Metab Res** 1998 Aug;30(8):500–3
Near fatal anticholinergic intoxication after routine fundoscopy. Brunner GA, et al. **Intensive Care Med** 1998 Jul;24(7):730–1
A generalized seizure following initiation of nelfinavir in a patient with human immunodeficiency virus type 1 infection, suspected due to interaction between nelfinavir and phenytoin. Honda M, et al. **Intern Med** 1999 Mar; 38(3):302–3
Hyponatraemia, seizures and stupor associated with ecstasy ingestion in a female. Magee C, et al. **Ir Med J** 1998 Oct–Nov;91(5):178
Seizures after discontinuation of low-dose lorazepam from originally seizure-free clozapine regimen: combined effects? [letter] Lane HY, et al. **J Clin Psychiatry** 1999 Jun; 60(6):408–9
Lorazepam to prevent alcohol withdrawal seizures. Seidl JJ, et al. **J Fam Pract** 1999 Aug;48(8):575–6
GABA(B) receptor activation promotes seizure activity in the juvenile rat hippocampus. Motalli R, et al. **J Neurophysiol** 1999 Aug;82(2):638–47

A relative energy failure is associated with low-Mg2+ but not with 4-aminopyridine induced seizure-like events in entorhinal cortex. Schuchmann S, et al. **J Neurophysiol** 1999 Jan;81(1):399-403

Grand mal seizures with liver toxicity in a case of clozapine treatment [letter] Panagiotis B.
J Neuropsychiatry Clin Neurosci 1999 Winter;11(1):117-8

Preclinical evaluation of newly approved and potential antiepileptic drugs against cocaine-induced seizures. Gasior M, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1148-56

Benzonatate overdose associated with seizures and arrhythmias. Crouch BI, et al. **J Toxicol Clin Toxicol** 1998; 36(7):713-8

Medical causes of seizure [letter; comment] Marinella MA. **Lancet** 1998 Oct 24;352(9137):1390. Comment on: Lancet 1998 Aug 1;352(9125):383-90.

Neonatal seizures after use of pyridoxine in pregnancy [letter] South M. **Lancet** 1999 Jun 5;353(9168):1940-1

GM1 monosialoganglioside pretreatment protects against soman-induced seizure-related brain damage. Ballough GP, et al. **Mol Chem Neuropathol** 1998 May;34(1):1-23

Confusion and general seizures following ciprofloxacin administration [letter] [see comments] Tattevin P, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2712-3. Comment in: Nephrol Dial Transplant 1999 May;14(5):1337.

Chlorambucil-induced seizure in a patient with nephrotic syndrome [letter] Apaydin S, et al. **Nephron** 1999;82(4):368

Extracellular amino acids in the rat hippocampus during picrotoxin threshold seizures in chronic microdialysis experiments. Sierra-Paredes G, et al. **Neurosci Lett** 1998 May 22;248(1):53-6

Recurrent seizures and hippocampal sclerosis following intrahippocampal kainate injection in adult mice: electroencephalography, histopathology and synaptic reorganization similar to mesial temporal lobe epilepsy. Bouilleret V, et al. **Neuroscience** 1999 Mar;89(3):717-29

Heparin injection into the adult rat hippocampus induces seizures in the absence of macroscopic abnormalities. Mudher AK, et al. **Neuroscience** 1999 Mar;89(2):329-33

Effects of cypermethrin on the electroencephalographic activity of the rat: a model of chemically induced seizures. Condés-Lara M, et al. **Neurotoxicol Teratol** 1999 May-Jun; 21(3):293-8

Amitriptyline-associated seizures in a toddler with Munchausen-by-proxy. Mullins ME, et al.
Pediatr Emerg Care 1999 Jun;15(3):202-5

Bupivacaine-induced seizures and ventricular fibrillation in a 13-year-old girl undergoing wound debridement. Yan AC, et al. **Pediatr Emerg Care** 1998 Oct;14(5):354-5

Increased Ro15-4513-induced seizures following multiple ethanol withdrawals. Mhatre MC, et al.
Pharmacol Biochem Behav 1999 May;63(1):93-9

Organophosphorus nerve agents-induced seizures and efficacy of atropine sulfate as anticonvulsant treatment. Shih TM, et al. **Pharmacol Biochem Behav** 1999 Sep; 64(1):147-53

Seizures in patients receiving concomitant antimuscarinics and acetylcholinesterase inhibitor. Piecoro LT, et al.
Pharmacotherapy 1998 Sep-Oct;18(5):1129-32

Role of G proteins and nitric oxide in seizures induced by different chemoconvulsants in mice. Mlynarczyk M, et al. **Pol J Pharmacol** 1999 Jan-Feb;51(1):106

Hyponatraemia and seizures after ecstasy use. Holmes SB, et al. **Postgrad Med J** 1999 Jan;75(879):32-3

Anticonvulsant effects of dipotassium clorazepate on hippocampal kindled seizures in rats. Amano K, et al.
Psychiatry Clin Neurosci 1998 Aug;52(4):459-62

Asymmetrical changes in blood-brain barrier permeability during pentylenetetrazol-induced seizures and in acute hypertension. Oztaş B. **Psychiatry Res** 1998 May 20; 82(2):129-33

Seizure after gadolinium administration. Hailemeskal B, et al. **Radiol Technol** 1999 Mar-Apr;70(4):387

Exacerbation of epileptic seizures by carbamazepine: report of 10 cases. Parmeggiani A, et al. **Seizure** 1998 Dec; 7(6):479-83

Paradoxical seizures in phenytoin toxicity. Chua HC, et al.
Singapore Med J 1999 Apr;40(4):276-7

Anticonvulsant-resistant seizures following pyridostigmine bromide (PB) and N,N-diethyl-m-toluamide (DEET). Chaney LA, et al. **Toxicol Sci** 1999 Jun;49(2):306-11

The strategy used by some piscivorous cone snails to capture their prey: the effects of their venoms on vertebrates and on isolated neuromuscular preparations. Le Gall F, et al.
Toxicon 1999 Jul;37(7):985-98

Seizures induced by theophylline and isoniazid in mice. Bonner AB, et al. **Vet Hum Toxicol** 1999 Jun;41(3):175-7

[Adverse-effects of theophylline on the central nervous system; clinical characteristics of theophylline-associated seizures] Maegaki Y. **Ryoikibetsu Shokogun Shirizu** 1999; (27 Pt 2):593-6 (19 ref.) **(Jpn)**

CLASSIFICATION

A new epileptic seizure classification based exclusively on ictal semiology [editorial] Lüders H, et al.
Acta Neurol Scand 1999 Mar;99(3):137-41 (26 ref.)

ECT seizure classification [letter] Buckingham W, et al.
Can J Anaesth 1998 Jul;45(7):709

Segmentation and classification of EEG during epileptic seizures. Wu L, et al.
Electroencephalogr Clin Neurophysiol 1998 Apr; 106(4):344-56

Epileptology of the first-seizure presentation [letter; comment] Chadwick D, et al. **Lancet** 1998 Dec 5; 352(9143):1855; discussion 1856. Comment on: Lancet 1998 Sep 26;352(9133):1007-11.

Dacrystic seizures reconsidered [letter] Lenard HG.
Neuropediatrics 1999 Apr;30(2):107-8

Liverpool Seizure Severity Scale revisited. Baker GA, et al.
Seizure 1998 Jun;7(3):201-5

Follow-up of psychogenic, non-epileptic seizures: a pilot study - experience in a Dutch special centre for epilepsy. Jongsma MJ, et al. **Seizure** 1999 May;8(3):146-8

The Yelandur study: a community-based approach to epilepsy in rural South India--epidemiological aspects. Mani KS, et al. **Seizure** 1998 Aug;7(4):281-8

Clinical courses of pure sleep epilepsies. Park SA, et al.
Seizure 1998 Oct;7(5):369-77

COMPLICATIONS

Idiopathic generalized epilepsies with versive or circling seizures. Aguglia U, et al. **Acta Neurol Scand** 1999 Apr; 99(4):219-24

Bilateral femoral neck fractures secondary to hypocalcemic seizures in a skeletally immature patient. Blanco JS, et al.
Am J Orthop 1999 Mar;28(3):187-8

Ictal hemiparesis. Dale RC, et al. **Dev Med Child Neurol** 1999 May;41(5):344-7

Albendazole therapy in children with focal seizures and single small enhancing computerized tomographic lesions: a randomized, placebo-controlled, double blind trial. Baranwal AK, et al. **Pediatr Infect Dis J** 1998 Aug; 17(8):696-700

Similar brain SPECT findings in subclinical and clinical seizures in two neonates with hemimegalencephaly. Alfonso I, et al. **Pediatr Neurol** 1998 Aug;19(2):132-4

DIAGNOSIS

MR and CT imaging in the Dyke-Davidoff-Masson syndrome. Report of three cases and contribution to pathogenesis and differential diagnosis. Aguiar PH, et al.
Arq Neuropsiquiatr 1998 Dec;56(4):803-7

Neurofeedback treatment of pseudoseizure disorder. Swingle PG. **Biol Psychiatry** 1998 Dec 1;44(11):1196-9

Epilepsy update: new medical and surgical treatment options. Arunkumar G, et al. **Cleve Clin J Med** 1998 Nov-Dec; 65(10):527-32, 534-7 (20 ref.)

Comparison of status epilepticus with prolonged seizure episodes lasting from 10 to 29 minutes. DeLorenzo RJ, et al. **Epilepsia** 1999 Feb;40(2):164-9

A comprehensive profile of clinical, psychiatric, and psychosocial characteristics of patients with psychogenic nonepileptic seizures. Ettinger AB, et al. **Epilepsia** 1999 Sep;40(9):1292-8

Nonepileptic seizures [letter; comment] Gatzonis SD, et al. **Epilepsia** 1999 Mar;40(3):387. Comment on: Epilepsia 1998 May;39(5):458-62.

Photosensitive and nonphotosensitive electronic screen game-induced seizures. Inoue Y, et al. **Epilepsia** 1999;40 Suppl 4:8-16

Hypnotic recall: a positive criterion in the differential diagnosis between epileptic and pseudoepileptic seizures. Kuyk J, et al. **Epilepsia** 1999 Apr;40(4):485-91

How many patients with pseudoseizures receive antiepileptic drugs prior to diagnosis? Benbadis SR. **Eur Neurol** 1999; 41(2):114-5

Post-seizure EEG fractal dimension of first ECT predicts antidepressant response at two weeks. Gangadhar BN, et al. **J Affect Disord** 1999 Jan-Mar;52(1-3):235-8

Automatic detection of seizures and spikes. Gotman J.
J Clin Neurophysiol 1999 Mar;16(2):130-40 (46 ref.)

Continuous EEG monitoring in the neuroscience intensive care unit and emergency department. Jordan KG.
J Clin Neurophysiol 1999 Jan;16(1):14-39 (92 ref.)

Continuous EEG monitoring in the intensive care unit: early findings and clinical efficacy. Vespa PM, et al.
J Clin Neurophysiol 1999 Jan;16(1):1-13

EEG monitoring in the intensive care unit: pitfalls and caveats. Young GB, et al. **J Clin Neurophysiol** 1999 Jan; 16(1):40-5

Epileptic seizures can be anticipated by non-linear analysis [see comments] Martinerie J, et al. **Nat Med** 1998 Oct; 4(10):1173-6. Comment in: Nat Med 1998 Oct;4(10):1117-8.

Pseudoseizures and other nonepileptic paroxysmal disorders in children and adolescents. Andriola MR, et al.
Neurology 1999;53(5 Suppl 2):S89-95 (71 ref.)

Nonepileptic seizures: diagnosis and management. Krumholz A. **Neurology** 1999;53(5 Suppl 2):S76-83 (55 ref.)

Transient MRI enhancement in a patient with seizures and previously resected glioma: use of MRS. Quan D, et al.
Neurology 1999 Jul 13;53(1):211-3

Functional magnetic resonance imaging localization of ictal onset to a dysplastic cleft with simultaneous sensorimotor mapping: intraoperative electrophysiological confirmation and postoperative follow-up: technical note. Schwartz TH, et al. **Neurosurgery** 1998 Sep;43(3):639-44; discussion 644-5

Epilepsy and seizures: advances in seizure assessment, treatment, and self-management. Shafer PO.
Nurs Clin North Am 1999 Sep;34(3):743-59 (36 ref.)

Symptomatic seizures. Evans OB. **Pediatr Ann** 1999 Apr; 28(4):231-7 (13 ref.)

Serum prolactin in neonatal seizures. Kiliç S, et al.
Pediatr Int 1999 Feb;41(1):61-4

Pseudoseizures. Bowman ES. **Psychiatr Clin North Am** 1998 Sep;21(3):649-57, vii (44 ref.)

Is it possible to anticipate seizure onset by non-linear analysis of intracerebral EEG in human partial epilepsies? Lehnertz K, et al. **Rev Neurol (Paris)** 1999 Jul;155(6-7):454-6 (29 ref.)

What to do with the first fits. Davidson DL.
Scott Med J 1999 Feb;44(1):6-8 (19 ref.)

Eyelid myoclonia with absences: phenomenology in children. Kent L, et al. **Seizure** 1998 Jun;7(3):193-9

Improved health care resource utilization following video-EEG-confirmed diagnosis of nonepileptic psychogenic seizures. Martin RC, et al. **Seizure** 1998 Oct; 7(5):385-90

Are we overusing the diagnosis of psychogenic non-epileptic events? Parra J, et al. **Seizure** 1999 Jun;8(4):223-7

Non-epileptic attack disorder and clinical outcome: a pilot study. Riaz H, et al. **Seizure** 1998 Oct;7(5):365-8

The misdiagnosis of epilepsy: findings of a population study. Scheepers B, et al. **Seizure** 1998 Oct;7(5):403-6

Seizure-alert dogs--fact or fiction? Strong V, et al.
Seizure 1999 Feb;8(1):62-5

Clinical symptoms in psychogenic seizures. Gröppel G, et al. **Wien Klin Wochenschr** 1999 Jun 18;111(12):469-75

[Seizures in acute apoplexy. Predisposing factors and significance for prognosis] Reith J, et al. **Ugeskr Laeger** 1998 Dec 7;160(50):7266-9 (Eng. Abstr.) **(Dan)**

DIET THERAPY

A multicenter study of the efficacy of the ketogenic diet [see comments] Vining EP, et al. **Arch Neurol** 1998 Nov; 55(11):1433-7. Comment in: Arch Neurol 1998 Nov;55(11):1403-4.

Biochemical abnormalities of the ketogenic diet in children. Chesney D, et al. **Clin Pediatr (Phila)** 1999 Feb;38(2):107-9

Seizure resistance is dependent upon age and calorie restriction in rats fed a ketogenic diet. Bough KJ, et al.
Epilepsy Res 1999 May;35(1):21-8

Ketogenic diet reduces spontaneous seizures and mossy fiber sprouting in the kainic acid model. Muller-Schwarze AB, et al. **Neuroreport** 1999 May 14;10(7):1517-22

DRUG THERAPY

Incidence and significance of adverse effects of albendazole therapy in patients with a persistent solitary cysticercus granuloma. Rajshekhar V. **Acta Neurol Scand** 1998 Aug; 98(2):121-3

Similar name, different diagnosis. When two patients shouldn't be in the same room. Ahmed DS, et al.
Am J Nurs 1999 May;99(5):12

Fosphenytoin facts [letter] Chioffi SM, et al. **Am J Nurs** 1999 Aug;99(8):14

Fosphenytoin for seizure control. Hutt N. **Am J Nurs** 1999 Mar;99(3):52

Chromosome fragile sites in mentally retarded males: increased incidence with seizures and diphenylhydantoin therapy. Hodges KB, et al. **Ann Clin Lab Sci** 1998 Sep-Oct; 28(5):293-9

Benzodiazepines in the home treatment of acute seizures. Akinbi MS, et al. **Ann Pharmacother** 1999 Jan;33(1):99-102 (36 ref.)

ACTH treatment for gelastic seizures [letter] Go T.
Arch Dis Child 1999 Sep;81(3):278

Anticonvulsant activity of paeonimetabolin-I adducts obtained by incubation of paeoniflorin and thiol compounds with Lactobacillus brevis. Abdel-Hafez AA, et al.
Biol Pharm Bull 1999 May;22(5):491-7

Intranasal administration of diazepam aiming at the treatment of acute seizures: clinical trials in healthy volunteers. Gizurarson S, et al. **Biol Pharm Bull** 1999 Apr;22(4):425-7

Synthesis, characterization, and anticonvulsant activity of enaminones. Part 5: investigations on 3-carboalkoxy-2-methyl-2,3-dihydro-1H-phenothizin-4[10H]-one derivatives. Laws ML, et al.
Bioorg Med Chem 1998 Dec;6(12):2289-99

A case of epileptic negative myoclonus: therapeutic considerations. Shirasaka Y, et al. **Brain Dev** 1999 Apr; 21(3):209-12

Testosterone and its metabolites affect afterdischarge thresholds and the development of amygdala kindled seizures. Edwards HE, et al. **Brain Res** 1999 Aug 14; 838(1-2):151-7

Anticonvulsant effects of nimodipine and two novel dihydropyridines (PCA 50922 and PCA 50941) against seizures elicited by pentylenetetrazole and electroconvulsive shock in mice. Zapater P, et al.
Brain Res 1998 Jun 15;796(1-2):311-4

Pharmacokinetic optimization of benzodiazepine therapy for acute seizures. Focus on delivery routes. Rey E, et al.
Clin Pharmacokinet 1999 Jun;36(6):409-24 (98 ref.)

Respiratory depression in children receiving diazepam for acute seizures: a prospective study. Norris E, et al.
Dev Med Child Neurol 1999 May;41(5):340-3

Prenatal stress reduces the effectiveness of the neurosteroid 3 alpha,5 alpha-THP to block kainic-acid-induced seizures. Frye CA, et al. **Dev Psychobiol** 1999 Apr; 34(3):227-34

Management approaches to prolonged seizures and status epilepticus. Bleck TP. **Epilepsia** 1999;40 Suppl 1:S59-63; discussion S64-6 (24 ref.)

Evidence for a unique profile of levetiracetam in rodent

models of seizures and epilepsy. Klitgaard H, et al. **Eur J Pharmacol** 1998 Jul 24;353(2–3):191–206

How many patients with pseudoseizures receive antiepileptic drugs prior to diagnosis? Benbadis SR. **Eur Neurol** 1999; 41(2):114–5

The effect of tizanidine on maximal electroshock seizures (MES) in mice. Denizbaşi A, et al. **Gen Pharmacol** 1999 Apr;32(4):513–6

Opioid receptor mediated anticonvulsant effect of pentazocine. Khanna N, et al. **Indian J Med Sci** 1998 Jan; 52(1):1–7

Additive anticonvulsant effect of flunarizine and sodium valproate on electroshock and chemoshock induced seizures in mice. Joseph S, et al. **Indian J Physiol Pharmacol** 1998 Jul;42(3):383–8

Tramadol, a centrally acting opioid: anticonvulsant effect against maximal electroshock seizure in mice. Manocha A, et al. **Indian J Physiol Pharmacol** 1998 Jul;42(3):407–11

Anticonvulsants for soman-induced seizure activity. Shih T, et al. **J Biomed Sci** 1999 Mar–Apr;6(2):86–96

Additional modalities for treating acute seizures in children: overview. Bebin EM. **J Child Neurol** 1998 Oct;13 Suppl 1:S23–6; discussion S30–2 (15 ref.)

Pharmacoeconomic considerations in treatment options for acute seizures. Graves N. **J Child Neurol** 1998 Oct;13 Suppl 1:S27–9; discussion S30–2

Clinical experience with fosphenytoin in children. Morton LD. **J Child Neurol** 1998 Oct;13 Suppl 1:S19–22; discussion S30–2

Fosphenytoin in infants. Takeoka M, et al. **J Child Neurol** 1998 Nov;13(11):537–40

Evaluation of the anticonvulsant activity of the essential oil of Eugenia caryophyllata in male mice. Pourgholami MH, et al. **J Ethnopharmacol** 1999 Feb;64(2):167–71

Influence of ethanol on the pentylenetetrazol-induced kindling in rats. Fischer W, et al. **J Neural Transm** 1998; 105(10–12):1129–42

Positive symptoms in multiple sclerosis: their treatment with sodium channel blockers, lidocaine and mexiletine. Sakurai M, et al. **J Neurol Sci** 1999 Jan 15;162(2):162–8

A review of pharmacodynamics and pharmacokinetics in seizure management. Winkelman C. **J Neurosci Nurs** 1999 Feb;31(1):50–3 (9 ref.)

The use of phenobarbitone in the management of agitation and seizures at the end of life. Stirling LC, et al. **J Pain Symptom Manage** 1999 May;17(5):363–8

Demographics and diagnosis of pyridoxine-dependent seizures [letter; comment] Ebinger M, et al. **J Pediatr** 1999 Jun;134(6):795–6. Comment on: J Pediatr 1998 Jun;132(6):919–23.

Co-prescription of conventional and 'alternative' medicines [letter] Bharucha NE. **J R Coll Physicians Lond** 1999 May–Jun;33(3):285

Does treatment change the outcome of seizures and computerized tomographic lesions in intracranial granulomas? Rajadhyaksha S, et al. **J Trop Pediatr** 1999 Jun;45(3):161–5

Anticonvulsant activity of 4-urea-5,7-dichlorokynurenic acid derivatives that are antagonists at the NMDA-associated glycine binding site. Nichols AC, et al. **Mol Chem Neuropathol** 1998 Aug–Dec;35(1–3):1–12

Phenobarbital compared with phenytoin for the treatment of neonatal seizures. Painter MJ, et al. **N Engl J Med** 1999 Aug 12;341(7):485–9

Effects of NNC 711, a GABA uptake inhibitor, on pentylenetetrazol-induced seizures in developing and adult rats. Kubová H, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):334–41

Treating repetitive seizures with a rectal diazepam formulation: a randomized study. The North American Diastat Study Group. Cereghino JJ, et al. **Neurology** 1998 Nov;51(5):1274–82

A double-blind trial of gabapentin monotherapy for newly diagnosed partial seizures. International Gabapentin Monotherapy Study Group 945–77. Chadwick DW, et al. **Neurology** 1998 Nov;51(5):1282–8

Nonepileptic seizures: diagnosis and management. Krumholz A. **Neurology** 1999;53(5 Suppl 2):S76–83 (55 ref.)

Treatment of seizures and epilepsy in children and adolescents. Pellock JM. **Neurology** 1998 Nov;51(5 Suppl 4):S8–14 (61 ref.)

Reflections on the treatment of seizures in the elderly population. Rowan AJ. **Neurology** 1998 Nov;51(5 Suppl 4):S28–33 (17 ref.)

A guideline for discontinuing antiepileptic drugs in seizure-free patients [letter; comment] Wilkins DE. **Neurology** 1999 Jul 13;53(1):239. Comment on: Neurology 1996 Aug;47(2):600–2.

Anticonvulsant efficacy of L-deprenyl (selegiline) during chronic treatment in mice: continuous versus discontinuous administration. Löscher W, et al. **Neuropharmacology** 1998 Dec;37(12):1587–93

Antisense oligonucleotides to C-fos reduce postictal seizure susceptibility following fully kindled seizures in rats. Rocha L, et al. **Neurosci Lett** 1999 Jun 25;268(3):143–6

How does metyrapone decrease seizures? [letter] Koch CA, et al. **Neurosurg Rev** 1998;21(4):302–3

The acute management of seizures. Bebin M. **Pediatr Ann** 1999 Apr;28(4):225–9

Anticonvulsant medications. Russell RJ, et al. **Pediatr Ann** 1999 Apr;28(4):238–45 (22 ref.)

Albendazole therapy in children with focal seizures and single small enhancing computerized tomographic lesions: a randomized, placebo-controlled, double blind trial. Baranwal AK, et al. **Pediatr Infect Dis J** 1998 Aug; 17(8):696–700

Efficacy of lamotrigine in refractory neonatal seizures. Barr PA, et al. **Pediatr Neurol** 1999 Feb;20(2):161–3

Creatine increases survival and suppresses seizures in the hypoxic immature rat. Holtzman D, et al. **Pediatr Res** 1998 Sep;44(3):410–4

Effect of fluoxetine on maximal electroshock seizures in mice: acute vs chronic administration. Raju SS, et al. **Pharmacol Res** 1999 Jun;39(6):451–4

The anticonvulsant potency of (+/–)-2-Amino-7-phosphonoheptanoic acid and (+/–)-2-amino-5-phosphonovaleric acid against metaphit-induced audiogenic seizures in rats. Zivanović D, et al. **Pharmacol Res** 1998 Nov;38(5):347–51

Anticonvulsant properties of 1,4-benzodiazepine derivatives in amygdaloid-kindled seizures and their chemical structure-related anticonvulsant action. Fukinaga M, et al. **Pharmacology** 1998 Nov;57(5):233–41

Antiepileptic drugs. Meythaler JM, et al. **Phys Med Rehabil Clin N Am** 1999 May;10(2):275–300, vii–viii (119 ref.)

Influence of prolonged clonic seizures in mice upon their susceptibility to chemical convulsants 2 weeks later. Haberek G, et al. **Pol J Pharmacol** 1999 Jan–Feb; 51(1):107–8

[Problems of intravenous lidocaine treatment in status epilepticus or clustering seizures in childhood] Tanabe T, et al. **No To Hattatsu** 1999 Jan;31(1):14–20 (Eng. Abstr.) **(Jpn)**

[Effect of ketotifen fumarate for seizures in Lennox-Gastaut syndrome; a care report] Yamanaka K, et al. **No To Hattatsu** 1999 Mar;31(2):177–8 (Eng. Abstr.) **(Jpn)**

[The effect of anticonvulsants on the nitric oxide content and level of lipid peroxidation in the brain of rats in model seizure states] Bashkatova VG, et al. **Eksp Klin Farmakol** 1999 May–Jun;62(3):11–4 (Eng. Abstr.) **(Rus)**

ECONOMICS

Improved health care resource utilization following video-EEG-confirmed diagnosis of nonepileptic psychogenic seizures. Martin RC, et al. **Seizure** 1998 Oct; 7(5):385–90

EMBRYOLOGY

Cerebral seizure susceptibility and patterns of paroxysmal activity during embryonic development in the domestic chicken. Bot AP, et al. **Isr J Med Sci** 1973;9 Suppl:43–54

Nitric oxide synthase inhibition and delayed cerebral injury after severe cerebral ischemia in fetal sheep. Marks KA, et al. **Pediatr Res** 1999 Jul;46(1):8–13

ENZYMOLOGY

Antiepileptic effects of allopurinol on EL mice are associated with changes in SOD isoenzyme activities. Murashima YL, et al. **Epilepsy Res** 1998 Sep;32(1–2):254–65

Temporal and spatial regulation of the expression of BAD2, a MAP kinase phosphatase, during seizure, kindling, and long-term potentiation. Qian Z, et al. **Learn Mem** 1994 Sep–Oct;1(3):180–8

Skeletal muscle mitochondrial defects in nonspecific neurologic disorders. Marin-Garcia J, et al. **Pediatr Neurol** 1999 Aug;21(2):538–42

EPIDEMIOLOGY

Incidence of neonatal seizures in Harris County, Texas, 1992–1994. Saliba RM, et al. **Am J Epidemiol** 1999 Oct 1;150(7):763–9

Seizure outcome after epilepsy surgery in children and adolescents [see comments] Wyllie E, et al. **Ann Neurol** 1998 Nov;44(5):740–8. Comment in: Ann Neurol 1999 Apr;45(4):547.

Prospective study of new-onset seizures in patients with human immunodeficiency virus infection: etiologic and clinical aspects. Pascual-Sedano B, et al. **Arch Neurol** 1999 May;56(5):609–12

Does withdrawal of different antiepileptic drugs have different effects on seizure recurrence? Further results from the MRC Antiepileptic Drug Withdrawal Study. Chadwick D. **Brain** 1999 Mar;122 (Pt 3):441–8

The incidence of epilepsy and unprovoked seizures in multiethnic, urban health maintenance organizations. Annegers JF, et al. **Epilepsia** 1999 Apr;40(4):502–6

Epilepsy and seizure occurrence in a population-based sample of Virginian twins and their families. Miller LL, et al. **Epilepsy Res** 1999 Apr;34(2–3):135–43

The epidemiology of clinical neonatal seizures in Newfoundland: a population-based study. Ronen GM, et al. **J Pediatr** 1999 Jan;134(1):71–5

Seizure frequency and the health-related quality of life of adults with epilepsy. Leidy NK, et al. **Neurology** 1999 Jul 13;53(1):162–6

Chorioamnionitis and the prognosis for term infants. Alexander JM, et al. **Obstet Gynecol** 1999 Aug;94(2):274–8

Pediatric status epilepticus: a perspective from Saudi Arabia. Mah JK, et al. **Pediatr Neurol** 1999 May;20(5):364–9

Electroencephalogram confirmatory rate in neonatal seizures. Sheth RD. **Pediatr Neurol** 1999 Jan;20(1):27–30

Central nervous system manifestations of childhood shigellosis: prevalence, risk factors, and outcome. Khan WA, et al. **Pediatrics** 1999 Feb;103(2):E18

[Epileptic seizures, epilepsy and risk factors. Experiences with an investigation in Martinique. Epimart Group] Jallon P, et al. **Rev Neurol (Paris)** 1998 Jun;154(5):408–11 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Unusual clinical presentation of a meningeal melanocytoma with seizures: case report and review of the literature. Leonardi MA, et al. **Acta Neurochir (Wien)** 1998; 140(6):621–8 (56 ref.)

Late epileptic seizures after cerebral infarction. Awada A, et al. **Acta Neurol Scand** 1999 May;99(5):265–8

Postoperative multichannel magnetoencephalography in patients with recurrent seizures after epilepsy surgery. Kirchberger K, et al. **Acta Neurol Scand** 1998 Jul;98(1):1–7

Photosensitive fits elicited by TV animation: an electroencephalographic study. Enoki H, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):626–30

Patient background of the Pokemon phenomenon: questionnaire studies in multiple pediatric clinics. Furusho J, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):550–4

TV-animation induced seizures. Iinuma K. **Acta Paediatr Jpn** 1998 Dec;40(6):624–5

Pocket Monster incident and low luminance visual stimuli: special reference to deep red flicker stimulation. Takahashi T, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):631–7

Blunted TSH response to TRH and seizure duration in ECT. Papakostas YG, et al. **Acta Psychiatr Scand** 1999 Jan; 99(1):68–72

Fetal seizures causing increased heart rate variability during terminal fetal hypoxia. Westgate JA, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):765–6

Temperature, age, and recurrence of febrile seizure. van Stuijvenberg M, et al. **Arch Pediatr Adolesc Med** 1998 Dec; 152(12):1170–5

Chronic treatment with repetitive transcranial magnetic stimulation inhibits seizure induction by electroconvulsive shock in rats. Fleischmann A, et al. **Biol Psychiatry** 1999 Mar 15;45(6):759–63

Seizures in the de-institutionalized patients with early brain injuries. DeToledo JC. **Brain Inj** 1998 Aug;12(8):715–9 (27 ref.)

Effects of repeated seizure induction on seizure activity, post-ictal and interictal behavior. Della Paschoa OE, et al. **Brain Res** 1998 Dec 14;814(1–2):199–208

Genetic influences on electrical seizure threshold. Ferraro TN, et al. **Brain Res** 1998 Nov 30;813(1):207–10

Seizures in the elderly: etiology and prognosis. Holt-Seitz A, et al. **Can J Neurol Sci** 1999 May;26(2):110–4

Childhood MELAS syndrome presenting with seizure and cortical blindness: a case report. Liu AM, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Dec; 61(12):730–5

Evaluation of the patient with seizures: an evidence based approach. Bradford JC, et al. **Emerg Med Clin North Am** 1999 Feb;17(1):203–20, ix–x (94 ref.)

Photosensitive seizures provoked while viewing "pocket monsters," a made-for-television animation program in Japan. Ishida S, et al. **Epilepsia** 1998 Dec;39(12):1340–4

Activation of the locus coeruleus after amygdaloid kindling. Silveira DC, et al. **Epilepsia** 1998 Dec;39(12):1261–4

Kindled seizures activate both branches of the autonomic nervous system. Goodman JH, et al. **Epilepsy Res** 1999 Apr;34(2–3):169–76

Dissociation of mossy fiber sprouting and electrically-induced seizure sensitivity: rapid kindling versus adaptation. Timofeeva OA, et al. **Epilepsy Res** 1999 Feb;33(2–3):99–115

Studies on the role of 5-HT2C and 5-HT2B receptors in regulating generalised seizure threshold in rodents. Upton N, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):33–40

Seizure in a woman with lupus. Barbero DJ, et al. **Hosp Pract (Off Ed)** 1998 Nov 15;33(11):51–2, 55–6

Recurrent seizures due to pachygyria. Rodrigues W, et al. **Indian Pediatr** 1998 Dec;35(12):1230–3

Involvement of tumor necrosis factor alpha and interleukin-1beta in enhancement of pentylenetetrazole-induced seizures caused by Shigella dysenteriae. Yuhas Y, et al. **Infect Immun** 1999 Mar; 67(3):1455–60

Radiographic findings and morbidity in patients treated with stereotactic radiosurgery. Gelblum DY, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):391–5

Coexisting preexcitation syndrome and intermittent heart block presenting as neonatal seizures. Kanter RJ, et al. **J Cardiovasc Electrophysiol** 1999 May;10(5):736–40

Neurologic complications after coronary artery bypass grafting. Young MA, et al. **J Cardiovasc Nurs** 1998 Oct; 13(1):26–33 (20 ref.)

Tuberous sclerosis complex and neonatal seizures. Miller SP, et al. **J Child Neurol** 1998 Dec;13(12):619–23

Instructive case report. A 26-year-old Indian woman with seizures and multiple intracranial mass lesions. Tosomeen AH, et al. **J Med Liban** 1998 Nov–Dec;46(6):349–52

Disseminated cysticercosis. Bhigjee AI, et al.

J Neurol Neurosurg Psychiatry 1999 Apr;66(4):545
Seizures induced by frustration and despair due to unresolved moral and political issues: a rare case of reflex epilepsy. Cohen O, et al. **J Neurol Sci** 1999 Jan 1;162(1):94–6
Hashimoto's encephalopathy [letter; comment] Desai J, et al. **J Neurol Sci** 1999 Mar 1;163(2):202–4. Comment on: J Neurol Sci 1998 Jan 8;153(2):172–81.
Mapping loci for pentylenetetrazol-induced seizure susceptibility in mice. Ferraro TN, et al. **J Neurosci** 1999 Aug 15;19(16):6733–9
The long QT syndrome and seizures in childhood. Davis AM, et al. **J Paediatr Child Health** 1998 Oct;34(5):410–1 (15 ref.)
The effect of hypoglycemic seizures on cognitive function in children with diabetes: a 7-year prospective study [see comments] Rovet JF, et al. **J Pediatr** 1999 Apr;134(4):503–6 . Comment in: J Pediatr 1999 Apr;134(4):392–4.
Clinical patterns of neuronal migrational disorders and parental consanguinity. al-Qudah AA. **J Trop Pediatr** 1998 Dec;44(6):351–4
Cardiac asystole masquerading as temporal lobe epilepsy [letter; comment] Hood GA. **Mayo Clin Proc** 1999 May; 74(5):533. Comment on: Mayo Clin Proc 1998 Aug;73(8):784–6.
81-year-old man with unusual spells. Vassallo R, et al. **Mayo Clin Proc** 1999 Apr;74(4):415–8
Unexplained fainting, near drowning and unusual seizures in childhood: screening for long QT syndrome in New Zealand families. Bradley T, et al. **N Z Med J** 1999 Aug 13;112(1093):299–302
Acromegaly: report of two patients with an unusual presentation. Castro Cabezas M, et al. **Neth J Med** 1999 Apr;54(4):163–6
Speech arrest caused by meningioma--two case reports. Shiino A, et al. **Neurol Med Chir (Tokyo)** 1998 Aug; 38(8):475–7
Electroshock seizures protect against apoptotic hippocampal cell death induced by adrenalectomy. Masco D, et al. **Neuroscience** 1999;91(4):1315–9
Symptomatic seizures. Evans OB. **Pediatr Ann** 1999 Apr; 28(4):231–7 (13 ref.)
It's not just a seizure: etiology, management, and transport of the seizure patient. Woodward GA, et al. **Pediatr Emerg Care** 1999 Apr;15(2):147–55
Seizures following renal transplantation in childhood. Awan AQ, et al. **Pediatr Nephrol** 1999 May;13(4):275–7
Seizures in neurofibromatosis 1. Kulkantrakorn K, et al. **Pediatr Neurol** 1998 Nov;19(5):347–50
Pediatric manifestations of Hashimoto's encephalopathy. Vasconcellos E, et al. **Pediatr Neurol** 1999 May;20(5):394–8 (21 ref.)
Stroke and seizures as the presenting signs of pediatric HIV infection. Visudtibhan A, et al. **Pediatr Neurol** 1999 Jan; 20(1):53–6
Symptomatic hypoglycemia in otherwise healthy, breastfed term newborns. Moore AM, et al. **Pediatrics** 1999 Apr; 103(4 Pt 1):837–9
Nitric oxide and the anticonvulsant action of antiepileptic drugs. Czuczwar SJ. **Pol J Pharmacol** 1999 Jan-Feb; 51(1):101–2 (18 ref.)
An islander with seizures. Stephen LJ, et al. **Scott Med J** 1998 Dec;43(6):183–4
Postictal symptoms help distinguish patients with epileptic seizures from those with non-epileptic seizures. Ettinger AB, et al. **Seizure** 1999 May;8(3):149–51
Lead induced thiamine deficiency in the brain decreased the threshold of electroshock seizure in rat. Cheong JH, et al. **Toxicology** 1999 Apr 15;133(2–3):105–13
[Epileptic seizures induced by television: recent studies (letter)] Masnou P, et al. **Presse Med** 1998 Sep 19; 27(27):1382–3 **(Fre)**
[Seizures associated with acute subarachnoid hemorrhage. Emergency diagnosis and treatment] Beretta L, et al. **Minerva Anestesiol** 1998 Apr;64(4):131–3 (5 ref.) (Eng. Abstr.) **(Ita)**
[Seizures in the acute phase of aseptic and bacterial meningitis] Inoue S, et al. **No To Hattatsu** 1998 Nov; 30(6):494–9 (Eng. Abstr.) **(Jpn)**
[A case of hypothalamic hamartoma manifesting gelastic seizure and multifocal independent seizure foci] Kitajima K, et al. **Rinsho Shinkeigaku** 1998 Apr;38(4):305–10 (Eng. Abstr.) **(Jpn)**
[Migraine and associated epileptic seizures] Pryszmont M, et al. **Neurol Neurochir Pol** 1998 May–Jun;32(3):671–5 (Eng. Abstr.) **(Pol)**
[The role of acetylcholine in the pathogenesis of seizure states of different etiologies] Kosmachev AB, et al. **Eksp Klin Farmakol** 1999 Mar–Apr;62(2):7–9 (Eng. Abstr.) **(Rus)**

GENETICS

Childhood absence epilepsy with tonic-clonic seizures and electroencephalogram 3-4-Hz spike and multispike-slow wave complexes: linkage to chromosome 8q24. Fong GC, et al. **Am J Hum Genet** 1998 Oct;63(4):1117–29
Terminal deletion, del(1)(p36.3), detected through screening for terminal deletions in patients with unclassified malformation syndromes. Riegel M, et al. **Am J Med Genet** 1999 Jan 29;82(3):249–53
Targeted disruption of the murine Nhe1 locus induces ataxia, growth retardation, and seizures. Bell SM, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C788–95
Epilepsy and obesity in serotonin 5-HT2C receptor mutant mice. Heisler LK, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:74–8 (30 ref.)
Audiogenic seizure sensitivity in mouse lines genetically selected for high versus low blood magnesium levels. Motta R, et al. **Behav Genet** 1999 Mar;29(2):125–30
Family studies and human leukocyte antigen class II typing in Indian probands with seizures in association with single small enhancing computed tomography lesions. Jain S, et al. **Epilepsia** 1999 Feb;40(2):232–8
Characterization of seizures in the flathead rat: a new genetic model of epilepsy in early postnatal development. Sarkisian MR, et al. **Epilepsia** 1999 Apr;40(4):394–400
Epilepsy and seizure occurrence in a population-based sample of Virginian twins and their families. Miller LL, et al. **Epilepsy Res** 1999 Apr;34(2–3):135–43
Deletion including the oligophrenin-1 gene associated with enlarged cerebral ventricles, cerebellar hypoplasia, seizures and ataxia. Tentler D, et al. **Eur J Hum Genet** 1999 Jul; 7(5):541–8
Phenotypic analysis of seizure-prone mice lacking L-isoaspartate (D-aspartate) O-methyltransferase. Kim E, et al. **J Biol Chem** 1999 Jul 16;274(29):20671–8
Genetic approaches to the neurobiology of electroconvulsive therapy. Fochtmann LJ. **J ECT** 1998 Sep;14(3):206–19
Mapping quantitative trait loci for seizure response to a GABAA receptor inverse agonist in mice. Gershenfeld HK, et al. **J Neurosci** 1999 May 15;19(10):3731–8
Genetic factors in human sleep disorders with special reference to Norrie disease, Prader-Willi syndrome and Moebius syndrome. Parkes JD. **J Sleep Res** 1999 Jun;8 Suppl 1:14–22
Higher seizure susceptibility and enhanced tyrosine phosphorylation of N-methyl-D-aspartate receptor subunit 2B in fyn transgenic mice. Kojima N, et al. **Learn Mem** 1998 Nov–Dec;5(6):429–45
Genotyping microsatellite polymorphisms by agarose gel electrophoresis with ethidium bromide staining: application to quantitative trait loci analysis of seizure susceptibility in mice. Ferraro TN, et al. **Psychiatr Genet** 1998 Winter; 8(4):227–33

HISTORY

Seizures in the life and works of Edgar Allan Poe. Bazil CW. **Arch Neurol** 1999 Jun;56(6):740–3
The depiction of seizures in film. Kerson JF, et al. **Epilepsia** 1999 Aug;40(8):1163–7
The cerebellar seizures of Hughlings Jackson. McCrory PR, et al. **Neurology** 1999 Jun 10;52(9):1888–90

METABOLISM

Effect of over-the-counter cimetidine on phenytoin concentrations in patients with seizures. Rafi JA, et al. **Ann Pharmacother** 1999 Jul–Aug;33(7–8):769–74
Behavioral changes and expression of heat shock protein hsp-70 mRNA, brain-derived neurotrophic factor mRNA, and cyclooxygenase-2 mRNA in rat brain following seizures induced by systemic administration of kainic acid. Hashimoto K, et al. **Brain Res** 1998 Sep 7;804(2):212–23
Seizure induced synthesis of fibronectin is rapid and age dependent: implications for long-term potentiation and sprouting. Hoffman KB, et al. **Brain Res** 1998 Nov 23; 812(1–2):209–15
Expression of Fos in the superior lateral subdivision of the lateral parabrachial (LPBsl) area after generalized tonic seizures in rats. Eells JB, et al. **Brain Res Bull** 1998 Sep 15;47(2):155–61
Repetitive electroconvulsive seizures induce activity of c-Jun N-terminal kinase and compartment-specific desensitization of c-Jun phosphorylation in the rat brain. Brecht S, et al. **Brain Res Mol Brain Res** 1999 May 7; 68(1–2):101–8
Kainic acid-induced seizure upregulates Na(+)/myo-inositol cotransporter mRNA in rat brain. Nonaka M, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):179–86
Localization and seizure-regulation of integrin beta 1 mRNA in adult rat brain. Pinkstaff JK, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):265–76
FOS induction in brain associated with seizure and sustained cortical vasodilation in anesthetized rat. Mraovitch S, et al. **Epilepsia** 1999 Jun;40(6):677–92
Expression of GABA(A) receptor subunits in the hippocampus of the rat after kainic acid-induced seizures. Sperk G, et al. **Epilepsy Res** 1998 Sep;32(1–2):129–39
Effects of diazepam on extracellular brain neurotransmitters in pilocarpine-induced seizures in rats. Khan GM, et al. **Eur J Pharmacol** 1999 Jun 4;373(2–3):153–61
Ultrastructure and immunocytochemical distribution of GABA in layer III of the rat medial entorhinal cortex following aminooxyacetic acid-induced seizures. Eid T, et al. **Exp Brain Res** 1999 Apr;125(4):463–75
Spatial and temporal relationships between C-Fos expression and kindling of audiogenic seizures in Wistar rats. Simler S, et al. **Exp Neurol** 1999 May;157(1):106–19
Morphometry of a peptidergic transmitter system: dynorphin B-like immunoreactivity in the rat hippocampal mossy fiber pathway before and after seizures. Pierce JP, et al. **Hippocampus** 1999;9(3):255–76
Repeated seizure-associated long-lasting changes of N-methyl-D-aspartate receptor properties in the developing rat brain. Doriat JF, et al. **Int J Dev Neurosci** 1999 Jul;17(4):369–76
Effects of pilocarpine- and kainate-induced seizures on thyrotropin-releasing hormone biosynthesis and receptors in the rat brain. Jaworska-Feil L, et al. **J Neural Transm** 1999;106(5–6):395–407
Kainate-elicited seizures induce mRNA encoding a CaMK-related peptide: a putative modulator of kinase activity in rat hippocampus. Vreugdenhil E, et al. **J Neurobiol** 1999 Apr;39(1):41–50
Relationship between seizure-induced transcription of the DNA damage-inducible gene GADD45, DNA fragmentation, and neuronal death in focally evoked limbic epilepsy. Henshall DC, et al. **J Neurochem** 1999 Oct; 73(4):1573–83
Responses of heat shock proteins hsp27, alphaB-crystallin, and hsp70 in rat brain after kainic acid-induced seizure activity. Kato K, et al. **J Neurochem** 1999 Jul;73(1):229–36
Immunohistochemical evidence of seizure-induced activation of trk receptors in the mossy fiber pathway of adult rat hippocampus. Binder DK, et al. **J Neurosci** 1999 Jun 1; 19(11):4616–26
Heparin-binding epidermal growth factor-like growth factor in hippocampus: modulation of expression by seizures and anti-excitotoxic action. Opanashuk LA, et al. **J Neurosci** 1999 Jan 1;19(1):133–46
Differential expression of alpha1, alpha2, alpha3, and alpha5 GABAA receptor subunits in seizure-prone and seizure-resistant rat models of temporal lobe epilepsy. Poulter MO, et al. **J Neurosci** 1999 Jun 1;19(11):4654–61
p75 neurotrophin receptor expression is induced in apoptotic neurons after seizure. Roux PP, et al. **J Neurosci** 1999 Aug 15;19(16):6887–96
Seizure activity induces PIM-1 expression in brain. Feldman JD, et al. **J Neurosci Res** 1998 Aug 15;53(4):502–9
Time development and regional distribution of [3H]nitrobenzylthioinosine adenosine uptake site binding in the mouse brain after acute Pentylenetetrazol-induced seizures. Pagonopoulou O, et al. **J Neurosci Res** 1998 Aug 15;53(4):433–42
The role of probenecid-sensitive organic acid transport in the pharmacokinetics of N-methyl-D-aspartate receptor antagonists acting at the glycine(B)-site: microdialysis and maximum electroshock seizures studies. Hesselink MB, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):543–50
Differential seizure-induced and developmental changes of neurexin expression. Górecki DC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):218–27
Temporal profile of connexin 43 mRNA expression in a tetanus toxin-induced seizure disorder. Elisevich K, et al. **Mol Chem Neuropathol** 1998 Aug–Dec;35(1–3):23–37
Quantal GABA release: noise or not? [news; comment] Staley KJ. **Nat Neurosci** 1999 Jun;2(6):494–5. Comment on: Nat Neurosci 1999 Jun;2(6):499–500.
Striatum adenosine A2 receptors are modified during seizure: effect of cyclopentyladenosine administration. Giraldez L, et al. **Neurochem Res** 1999 Oct;24(10):1217–23
Sensitivity of the rat hippocampal GABA(A) receptor alpha 4 subunit to electroshock seizures. Clark M. **Neurosci Lett** 1998 Jun 26;250(1):17–20
Pentylenetetrazol-induced seizures increase [3H]L-2-amino-4-phosphonobutyrate binding in discrete regions of the rat brain. Thomsen C. **Neurosci Lett** 1999 Apr 30;266(1):5–8
Kainic acid may enhance hippocampal NO generation of awake rats in a seizure stage-related fashion. Kashihara K, et al. **Neurosci Res** 1998 Nov;32(3):189–94
Picrotoxin-, kainic acid- and seizure-induced Fos in brainstem, with special reference to catecholamine cell groups. Willoughby JO, et al. **Neurosci Res** 1999 Mar; 33(3):163–9
Activity and expression of JNK1, p38 and ERK kinases, c-Jun N-terminal phosphorylation, and c-jun promoter binding in the adult rat brain following kainate-induced seizures. Mielke K, et al. **Neuroscience** 1999;91(2):471–83
Growth-associated phosphoprotein expression is increased in the supragranular regions of the dentate gyrus following pilocarpine-induced seizures in rats. Naffah-Mazzacoratti MG, et al. **Neuroscience** 1999;91(2):485–92
Lactate and pyruvate changes in the cerebral gray and white matter during posthypoxic seizures in newborn pigs. Thoresen M, et al. **Pediatr Res** 1998 Nov;44(5):746–54
Electroconvulsive seizures increase levels of pGlu-Glu-Pro-NH2 (EEP) in rat brain. Pekary AE, et al. **Peptides** 1999;20(1):107–19
TRH in therapeutic vs. nontherapeutic seizures: affective and motor functions. Sattin A, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):575–83
Neuropeptide Y and limbic seizures. Baraban SC. **Rev Neurosci** 1998;9(2):117–28 (94 ref.)
Increases in mRNA levels for synapsin I but not synapsin II in the hippocampus of the rat kindling model of epilepsy. Morimoto K, et al. **Seizure** 1998 Jun;7(3):229–35
[Nitric oxide in the rat cerebral cortex in seizure models: potential ways of pharmacological modulation] Raevskii KS, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct; 84(10):1093–9 (Eng. Abstr.) **(Rus)**

NURSING

Neurologic complications after coronary artery bypass grafting. Young MA, et al. **J Cardiovasc Nurs** 1998 Oct; 13(1):26–33 (20 ref.)
Development of scales to measure psychosocial care needs

of children with seizures and their parents. 1. Austin J, et al. **J Neurosci Nurs** 1998 Jun;30(3):155–60
Psychosocial care needs of children with new-onset seizures. 2. McNelis A, et al. **J Neurosci Nurs** 1998 Jun;30(3):161–5
Psychosocial care needs of parents of children with new-onset seizures. 3. Shore C, et al. **J Neurosci Nurs** 1998 Jun;30(3):169–74

PARASITOLOGY

Case of the month: July 1998 - 21 year old man with new-onset seizures and a temporal lobe mass. Abraham S, et al. **Brain Pathol** 1999 Jan;9(1):187–8

PATHOLOGY

Autosomal recessive syndrome of growth and mental retardation, seizures, retinal abnormalities, and osteodysplasia with similarity to the Gurrieri syndrome. Orrico A, et al. **Am J Med Genet** 1999 Jan 1;82(1):84–7
Previously apparently undescribed autosomal recessive MCA/MR syndrome with light fixation, retinal cone dystrophy, and seizures: the M syndrome. Rauch A, et al. **Am J Med Genet** 1999 Jan 15;82(2):194–8
Consequences of neonatal seizures in the rat: morphological and behavioral effects. Holmes GL, et al. **Ann Neurol** 1998 Dec;44(6):845–57
Apoptosis of hippocampal neurons after amygdala kindled seizures. Zhang LX, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):198–208
Acute and chronic effects of seizures in the developing brain: experimental models. Jensen FE. **Epilepsia** 1999;40 Suppl 1:S51–8; discussion S64–6 (89 ref.)
The neuropathology of hyperthermic seizures in the rat. Jiang W, et al. **Epilepsia** 1999 Jan;40(1):5–19
Brain injury with prolonged seizures in children and adults. Moshé SL. **J Child Neurol** 1998 Oct;13 Suppl 1:S3–6; discussion S30–2
Mossy fiber sprouting after recurrent seizures during early development in rats. Holmes GL, et al. **J Comp Neurol** 1999 Feb 22;404(4):537–53
Seizure-induced cell death produced by repeated tetanic stimulation in vitro: possible role of endoplasmic reticulum calcium stores. Pelletier MR, et al. **J Neurophysiol** 1999 Jun;81(6):3054–64
Inhibition of dentate granule cell neurogenesis with brain irradiation does not prevent seizure-induced mossy fiber synaptic reorganization in the rat. Parent JM, et al. **J Neurosci** 1999 Jun 1;19(11):4508–19
Actions of brain-derived neurotrophic factor in slices from rats with spontaneous seizures and mossy fiber sprouting in the dentate gyrus. Scharfman HE, et al. **J Neurosci** 1999 Jul 1;19(13):5619–31
Bilateral intranigral NMDA infusion suppresses neuronal injury without affecting the duration of kainic acid-induced seizures in rats. Tanaka K, et al. **Neurosci Lett** 1998 Jul 17;251(1):69–71
Consequences of recurrent seizures during early brain development. Liu Z, et al. **Neuroscience** 1999;92(4):1443–54
Neuroprotective effects of brain-derived neurotrophic factor in seizures during development. Tandon P, et al. **Neuroscience** 1999;91(1):293–303
[Seizure activity and lesions of neuronal cells by intrahippocampal injection of guanidinosuccinic acid in rats] Pan JC, et al. **Yao Hsueh Hsueh Pao** 1996;31(8):561–7 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Developmental changes in seizure susceptibility during ethanol withdrawal. Acheson SK, et al. **Alcohol** 1999 May; 18(1):23–6
Microcephaly with simplified gyral pattern in six related children. Peiffer A, et al. **Am J Med Genet** 1999 May 21; 84(2):137–44
Galanin controls excitability of the brain. Chepurnov SA, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:547–50
Risk of unprovoked seizure after acute symptomatic seizure: effect of status epilepticus. Hesdorffer DC, et al. **Ann Neurol** 1998 Dec;44(6):908–12
Effects of the competitive N-methyl-D-aspartate antagonist CGP 37849 and its ethylester CGP 39551 on N-methyl-D-aspartate-evoked whole-cell currents in cultured spinal neurones and on vestibular stimulation-induced seizures in EL mice. D'Hooge R, et al. **Arzneimittelforschung** 1998 Dec;48(12):1121–5
An autoregressive method for the measurement of synchronization of interictal and ictal EEG signals. Franaszczuk PJ, et al. **Biol Cybern** 1999 Jul;81(1):3–9
Forebrain ischaemia with CA1 cell loss impairs epileptogenesis in the tetanus toxin limbic seizure model [see comments] Milward AJ, et al. **Brain** 1999 Jun;122 (Pt 6):1009–16. Comment in: Brain 1999 Jun;122 (Pt 6):1007–8.
Interictal hyperperfusion observed in infants with cortical dysgenesis. Maehara T, et al. **Brain Dev** 1999 Sep; 21(6):407–12
Effects of nitric oxide synthase inhibition on the cerebral circulation and brain damage during kainic acid-induced seizures in newborn rabbits. Takei Y, et al. **Brain Dev** 1999 Jun;21(4):253–9
Role of the subthalamo-nigral input in the control of amygdala-kindled seizures in the rat. Deransart C, et al. **Brain Res** 1998 Oct 5;807(1-2):78–83
Modulation of pentylenetetrazol-induced seizure activity by branched-chain amino acids and alpha-ketoisocaproate. Dufour F, et al. **Brain Res** 1999 Jan 9;815(2):400–4
Medial septum mediates the increase in post-ictal behaviors and hippocampal gamma waves after an electrically induced seizure. Ma J, et al. **Brain Res** 1999 Jun 26; 833(1):51–7
Development of spontaneous seizures over extended electrical kindling. I. Electrographic, behavioral, and transfer kindling correlates. Michalakis M, et al. **Brain Res** 1998 May 18;793(1-2):197–211
Amygdala-kindled and electroconvulsive seizures alter hippocampal expression of the m1 and m3 muscarinic cholinergic receptor genes. Mingo NS, et al. **Brain Res** 1998 Nov 9;810(1-2):9–15
Spatial and temporal evolution of neuronal activation, stress and injury in lithium-pilocarpine seizures in adult rats. Motte J, et al. **Brain Res** 1998 May 18;793(1-2):61–72
A short episode of seizure activity protects from status epilepticus-induced neuronal damage in rat brain. Najm IM, et al. **Brain Res** 1998 Nov 9;810(1-2):72–5
Effect of a glutamate receptor antagonist (GYKI 52466) on 4-aminopyridine-induced seizure activity developed in rat cortical slices. Dóczi J, et al. **Brain Res Bull** 1999 Aug; 49(6):435–40
The effects of histamine H3-receptor antagonists on amygdaloid kindled seizures in rats. Kakinoki H, et al. **Brain Res Bull** 1998 Jul 15;46(5):461–5
A tachykinin NK1 receptor antagonist, CP-122,721-1, attenuates kainic acid-induced seizure activity. Zachrisson O, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):291–5
Factors influencing ratio of motor and EEG seizure duration in ECT [letter] Mayur PM, et al. **Can J Psychiatry** 1999 Mar;44(2):191
Hypersensitivity to seizures in beta-amyloid precursor protein deficient mice. Steinbach JP, et al. **Cell Death Differ** 1998 Oct;5(10):858–66
EEG seizure in bilateral ECT is different between low and high stimulus doses. Motreja S, et al. **Clin Electroencephalogr** 1998 Oct;29(4):197–9
Status epilepticus in epileptogenesis. Kapur J. **Curr Opin Neurol** 1999 Apr;12(2):191–5 (31 ref.)
Sturge-Weber syndrome: cerebral haemodynamics during seizure activity. Aylett SE, et al. **Dev Med Child Neurol** 1999 Jul;41(7):480–5
Audiogenic seizures in the developmentally primed Long-Evans rat. Ross KC, et al. **Dev Psychobiol** 1999 May; 34(4):303–13
Acute and chronic effects of seizures in the developing brain: lessons from clinical experience. Mizrahi EM. **Epilepsia** 1999;40 Suppl 1:S42–50; discussion S64–6 (80 ref.)
Regulation of limbic motor seizures by GABA and glutamate transmission in nucleus tractus solitarius. Walker BR, et al. **Epilepsia** 1999 Aug;40(8):1051–7
Hormonal effects on the brain. Woolley CS, et al. **Epilepsia** 1998;39 Suppl 8:S2–8 (45 ref.)
Latency alterations of the auditory brainstem response in audiogenic seizure-prone Long-Evans rats. Coleman JR, et al. **Epilepsy Res** 1999 Jan;33(1):31–8
Medium- and long-term alterations of brain A1 and A2A adenosine receptor characteristics following repeated seizures in developing rats. Doriat JF, et al. **Epilepsy Res** 1999 Jul;35(3):219–28
Kindled seizures activate both branches of the autonomic nervous system. Goodman JH, et al. **Epilepsy Res** 1999 Apr;34(2-3):169–76
Recurrent spontaneous motor seizures after repeated low-dose systemic treatment with kainate: assessment of a rat model of temporal lobe epilepsy. Hellier JL, et al. **Epilepsy Res** 1998 Jun;31(1):73–84
Supragranular mossy fiber sprouting is not necessary for spontaneous seizures in the intrahippocampal kainate model of epilepsy in the rat. Longo BM, et al. **Epilepsy Res** 1998 Sep;32(1-2):172–82
The periaqueductal grey is a critical site in the neuronal network for audiogenic seizures: modulation by GABA(A), NMDA and opioid receptors. N'Gouemo P, et al. **Epilepsy Res** 1999 May;35(1):39–46
Impaired sensorimotor gating in patients with non-epileptic seizures. Pouretemad HR, et al. **Epilepsy Res** 1998 Jun; 31(1):1–12
Evidence of increased excitability in GEPR hippocampus preceding development of seizure susceptibility. Verma-Ahuja S, et al. **Epilepsy Res** 1998 Aug;31(3):161–73
Mapping of neuronal networks underlying generalized seizures induced by increasing doses of pentylenetetrazol in the immature and adult rat: a c-Fos immunohistochemical study. André V, et al. **Eur J Neurosci** 1998 Jun;10(6):2094–106
Effect of precollicular transection on audiogenic seizures in genetically epilepsy-prone rats. Browning RA, et al. **Exp Neurol** 1999 Feb;155(2):295–301
Differential roles in the neuronal network for audiogenic seizures are observed among the inferior colliculus subnuclei and the amygdala. Chakravarty DN, et al. **Exp Neurol** 1999 May;157(1):135–41
Focal microinjection of gamma-acetylenic GABA into the rat entorhinal cortex: behavioral and electroencephalographic abnormalities and preferential neuron loss in layer III. Wu HQ, et al. **Exp Neurol** 1998 Oct;153(2):203–13
Influence of orchidectomy and ovariectomy on the blood-brain barrier permeability during bicuculline-induced seizures. Oztaş B, et al. **Horm Metab Res** 1998 Aug;30(8):500–3
Adenosinergic system as an endogenous anticonvulsant mechanism. Gupta YK, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):329–43 (111 ref.)
Histamine H2-receptor modulation in two mouse models of seizure susceptibility. Seeley NA, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S67–8
Effects of experimental cortical seizures on respiratory motor nerve activities in piglets. Terndrup TE, et al. **J Appl Physiol** 1999 Jun;86(6):2052–8
Melatonin's role as an anticonvulsant and neuronal protector: experimental and clinical evidence. Muñoz-Hoyos A, et al. **J Child Neurol** 1998 Oct;13(10):501–9 (112 ref.)
Electroconvulsive therapy as an anticonvulsant: a possible role of neuropeptide Y (NPY). Bolwig TG, et al. **J ECT** 1999 Mar;15(1):93–101
Theophylline and ECT [letter] Fink M, et al. **J ECT** 1998 Dec;14(4):286–90
The anticonvulsant hypothesis of the mechanisms of action of ECT: current status. Sackeim HA. **J ECT** 1999 Mar; 15(1):5–26 (109 ref.)
Effect of clobenpropit, a centrally acting histamine H3-receptor antagonist, on electroshock- and pentylenetetrazol-induced seizures in mice. Fischer W, et al. **J Neural Transm** 1998;105(6-7):587–99
Relationships among seizures, extracellular amino acid changes, and neurodegeneration induced by 4-aminopyridine in rat hippocampus: a microdialysis and electroencephalographic study. Peña F, et al. **J Neurochem** 1999 May;72(5):2006–14
A relative energy failure is associated with low-Mg2+ but not with 4-aminopyridine induced seizure-like events in entorhinal cortex. Schuchmann S, et al. **J Neurophysiol** 1999 Jan;81(1):399–403
Mediodorsal thalamus plays a critical role in the development of limbic motor seizures. Cassidy RM, et al. **J Neurosci** 1998 Nov 1;18(21):9002–9
Persistent increased DNA-binding and expression of serum response factor occur with epilepsy-associated long-term plasticity changes. Morris TA, et al. **J Neurosci** 1999 Oct 1;19(19):8234–43
Kindled seizures increase metabotropic glutamate receptor expression and function in the rat supraoptic nucleus. Al-Ghoul WM, et al. **J Neurosci Res** 1998 Nov 1; 54(3):412–23
Pharmacological characterization of nicotine's interaction with cocaine and cocaine analogs. Damaj MI, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1229–36
Seizure sensitivity and GABAergic modulation of ethanol sensitivity in selectively bred FAST and SLOW mouse lines. Shen EH, et al. **J Pharmacol Exp Ther** 1998 Nov; 287(2):606–15
Adenosine kinase inhibitors as a novel approach to anticonvulsant therapy. Wiesner JB, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1669–77
Adenosine-angiotensin II interactions in pentylenetetrazol seizure threshold in mice. Tchekalarova J, et al. **J Physiol Paris** 1999 May-Jun;93(3):191–7
ESR spectroscopy for analysis of hippocampal elimination of a nitroxide radical during kainic acid-induced seizure in rats. Ueda Y, et al. **Magn Reson Med** 1998 Sep; 40(3):491–3
Differential seizure-induced and developmental changes of neurexin expression. Górecki DC, et al. **Mol Cell Neurosci** 1999 Mar;13(3):218–27
Seizure activity is increased in endocrine states characterized by decline in endogenous levels of the neurosteroid 3 alpha,5 alpha-THP [published erratum appears in Neuroendocrinology 1998 Dec;68(6):436] Frye CA, et al. **Neuroendocrinology** 1998 Oct;68(4):272–80
Epileptic seizures progressing into nonepileptic conversion seizures. Devinsky O, et al. **Neurology** 1998 Nov; 51(5):1293–6
Amygdala atrophy and seizure outcome after temporal lobe epilepsy surgery. Ho SS, et al. **Neurology** 1998 Nov; 51(5):1502–4
Seizures in the developing brain: perhaps not so benign after all. Holmes GL, et al. **Neuron** 1998 Dec;21(6):1231–4 (21 ref.)
Dacrystic seizures reconsidered. Dan B, et al. **Neuropediatrics** 1998 Dec;29(6):326–7
Roles of metabotropic glutamate receptor subtypes in modulation of pentylenetetrazole-induced seizure activity in mice. Thomsen C, et al. **Neuropharmacology** 1998 Dec; 37(12):1465–73
Limbic seizures increase pronociceptin mRNA levels in the thalamic reticular nucleus. Bregola G, et al. **Neuroreport** 1999 Feb 25;10(3):541–6
Kainic acid seizure suppression by neuropeptide Y is not correlated to immediate early gene mRNA levels in rats. Madsen TM, et al. **Neurosci Lett** 1999 Aug 13;271(1):21–4
Anticonvulsant effects of melatonin in amygdala-kindled rats. Mevissen M, et al. **Neurosci Lett** 1998 Nov 20;257(1):13–6
Calpain inhibitor I retards seizure offset in the hippocampus of freely moving rats. Sierra-Paredes G, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):165–8
Bilateral intranigral NMDA infusion suppresses neuronal injury without affecting the duration of kainic acid-induced seizures in rats. Tanaka K, et al. **Neurosci Lett** 1998 Jul 17;251(1):69–71

SEIZURES

Electroshock seizures protect against apoptotic hippocampal cell death induced by adrenalectomy. Masco D, et al. **Neuroscience** 1999;91(4):1315–9

An immunosuppressant, FK506, protects against neuronal dysfunction and death but has no effect on electrographic and behavioral activities induced by systemic kainate. Moriwaki A, et al. **Neuroscience** 1998 Oct;86(3):855–65

Reflex anoxic seizures and anaesthesia [letter] Pollard RC. **Paediatr Anaesth** 1999;9(5):467–8

Motiveless firesetting: implicating partial limbic seizure kindling by revived memories of fires in "Limbic Psychotic Trigger Reaction". Pontius AA. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):970–82

Multiple sclerosis potpourri. Paroxysmal symptoms, seizures, fatigue, pregnancy, and more. Taylor RS. **Phys Med Rehabil Clin N Am** 1998 Aug;9(3):551–9, vi (31 ref.)

Interictal–ictal interactions and limbic seizure generation. Avoli M, et al. **Rev Neurol (Paris)** 1999 Jul;155(6–7):468–71 (17 ref.)

Is it possible to anticipate seizure onset by non-linear analysis of intracerebral EEG in human partial epilepsies? Lehnertz K, et al. **Rev Neurol (Paris)** 1999 Jul;155(6–7):454–6 (29 ref.)

Neuropeptide Y and limbic seizures. Baraban SC. **Rev Neurosci** 1998;9(2):117–28 (94 ref.)

Neuropeptide Y: emerging evidence for a functional role in seizure modulation. Vezzani A, et al. **Trends Neurosci** 1999 Jan;22(1):25–30 (65 ref.)

[Limbic ictus as a condition for anxiety attacks] Gallinat J, et al. **Nervenarzt** 1999 Mar;70(3):206–15 (83 ref.) (Eng. Abstr.) **(Ger)**

[Running fit and generalized tonic–clonic seizure are differently controlled by different subtype receptors in the brainstem] Yasuda S, et al. **Nihon Shinkei Seishin Yakurigaku Zasshi** 1998 Aug; 18(4):123–8 (Eng. Abstr.) **(Jpn)**

[Effect of carotid glomectomy on seizures induced by corasol] Agadzhanian NA, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):263–5 **(Rus)**

[Effect of cerebral ischemia of various severity on acute seizures and chronic epileptogenesis] Karpova MH, et al. **Biull Eksp Biol Med** 1998 Jul;126(7):30–3 **(Rus)**

[A neurophysiological model of the "paroxysmal brain" (cerebral mechanisms in the genesis of paroxysmal states)] Vein AM, et al. **Vestn Ross Akad Med Nauk** 1998;(8):32–6 (Eng. Abstr.) **(Rus)**

[Disturbances in the wakefulness–sleep cycle and its dissolution] Oganesian GA. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug;34(4):502–9 **(Rus)**

PREVENTION & CONTROL

Propofol for lidocaine-induced seizures [letter; comment] Heavner JE, et al. **Anesth Analg** 1999 May;88(5):1193. Comment on: Anesth Analg 1998 Oct;87(4):900–6.

A comparison of the effects of propofol and sevoflurane on the systemic toxicity of intravenous bupivacaine in rats. Ohmura S, et al. **Anesth Analg** 1999 Jan;88(1):155–9

Pharmacodynamic interaction between phenytoin and sodium valproate changes seizure thresholds and pattern. Della Paschoa OE, et al. **Br J Pharmacol** 1998 Nov; 125(5):997–1004

A ketogenic diet increases the resistance to pentylenetetrazole-induced seizures in the rat. Bough KJ, et al. **Epilepsia** 1999 Feb;40(2):138–43

Muscarinic receptors mediate carbachol-induced inhibition of maximal electroshock seizures in the nucleus reticularis pontis oralis. Peterson SL, et al. **Epilepsia** 1999 Jan; 40(1):20–5

Antiepileptic effects of allopurinol on EL mice are associated with changes in SOD isoenzyme activities. Murashima YL, et al. **Epilepsy Res** 1998 Sep;32(1–2):254–65

Effects of adenosine receptor agonists and antagonists on audiogenic seizure-sensible DBA/2 mice. De Sarro G, et al. **Eur J Pharmacol** 1999 Apr 29;371(2–3):137–45

Felbamate demonstrates low propensity for interaction with methylxanthines and Ca2+ channel modulators against experimental seizures in mice. Gasior M, et al. **Eur J Pharmacol** 1998 Jul 10;352(2–3):207–14

Ifenprodil and arcaine alter amygdala-kindling development. Yourick DL, et al. **Eur J Pharmacol** 1999 Apr 29; 371(2–3):147–52

Quenching revisited: low level direct current inhibits amygdala-kindled seizures. Weiss SR, et al. **Exp Neurol** 1998 Nov;154(1):185–92

Effect of theophylline on diazepam and sodium valproate protection in pentylenetetrazole - kindled seizures in rats. Gupta YK, et al. **Indian J Physiol Pharmacol** 1997 Jul; 41(3):280–4

Lorazepam to prevent alcohol withdrawal seizures. Seidl JJ, et al. **J Fam Pract** 1999 Aug;48(8):575–6

Side effects and mortality associated with use of phenytoin for early posttraumatic seizure prophylaxis. Haltiner AM, et al. **J Neurosurg** 1999 Oct;91(4):588–92

Valproate therapy for prevention of posttraumatic seizures: a randomized trial. Temkin NR, et al. **J Neurosurg** 1999 Oct;91(4):593–600

Preclinical evaluation of newly approved and potential antiepileptic drugs against cocaine-induced seizures. Gasior M, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1148–56

[S]-AR-R 15896AR-A novel anticonvulsant: acute safety, pharmacokinetic and pharmacodynamic properties. Palmer GC, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):121–32

Adenosine kinase inhibitors as a novel approach to anticonvulsant therapy. Wiesner JB, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1669–77

Is the prophylactic use of antiepileptic drugs in Sturge–Weber syndrome justified? Salman MS. **Med Hypotheses** 1998 Oct; 51(4):293–6

Effect of adenosinergic modulation on the anticonvulsant effect of phenobarbitone and carbamazepine. Malhotra J, et al. **Methods Find Exp Clin Pharmacol** 1999 Mar; 21(2):79–83

Lorazepam for the prevention of recurrent seizures related to alcohol. D'Onofrio G, et al. **N Engl J Med** 1999 Mar 25;340(12):915–9

Lorazepam for the prevention of recurrent seizures related to alcohol [letter] Matz R. **N Engl J Med** 1999 Aug 19; 341(8):609–10

Lorazepam for the prevention of recurrent seizures related to alcohol [letter] Sosis MB. **N Engl J Med** 1999 Aug 19; 341(8):609; discussion 610

Environmental enrichment inhibits spontaneous apoptosis, prevents seizures and is neuroprotective. Young D, et al. **Nat Med** 1999 Apr;5(4):448–53

Rectal diazepam gel for treatment of acute repetitive seizures. The North American Diastat Study Group. Kriel RL, et al. **Pediatr Neurol** 1999 Apr;20(4):282–8

Neuroprotection with prolonged head cooling started before postischemic seizures in fetal sheep. Gunn AJ, et al. **Pediatrics** 1998 Nov;102(5):1098–106

Organophosphorus nerve agents-induced seizures and efficacy of atropine sulfate as anticonvulsant treatment. Shih TM, et al. **Pharmacol Biochem Behav** 1999 Sep; 64(1):147–53

Influence of intracerebroventricular administration of tetanus toxin on experimental seizures and protection afforded by some antiepileptic drugs in mice. Korolkiewicz R, et al. **Pharmacol Res** 1998 Jun;37(6):477–83

Anticonvulsant properties of linalool in glutamate-related seizure models. Elisabetsky E, et al. **Phytomedicine** 1999 May;6(2):107–13

Anticonvulsive properties of chlormethiazole in mice. Pilip S, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):105

Influence of antiepileptic drugs on the convulsive and toxic activity of lindane in mice. Tochman A, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):106–7

Antiepileptic effects of NPY on pentylenetetrazole seizures. Woldbye DP. **Regul Pept** 1998 Sep 25;75–76:279–82

Attenuation of brain hyperbaric oxygen toxicity by fasting is not related to ketosis. Chavko M, et al. **Undersea Hyperb Med** 1999 Summer;26(2):99–103

PSYCHOLOGY

Consequences of neonatal seizures in the rat: morphological and behavioral effects. Holmes GL, et al. **Ann Neurol** 1998 Dec;44(6):845–57

Ictal cognitive assessment of partial seizures and pseudoseizures. Bell WL, et al. **Arch Neurol** 1998 Nov; 55(11):1456–9

Psychiatric features of children and adolescents with pseudoseizures. Wyllie E, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):244–8

Behavioral changes and expression of heat shock protein hsp-70 mRNA, brain-derived neurotrophic factor mRNA, and cyclooxygenase-2 mRNA in rat brain following seizures induced by systemic administration of kainic acid. Hashimoto K, et al. **Brain Res** 1998 Sep 7;804(2):212–23

Medial septum mediates the increase in post-ictal behaviors and hippocampal gamma waves after an electrically induced seizure. Ma J, et al. **Brain Res** 1999 Jun 26; 833(1):51–7

The contribution of life events to pseudoseizure occurrence in adults. Bowman ES, et al. **Bull Menninger Clin** 1999 Winter;63(1):70–88

Stress and avoidance in Pseudoseizures: testing the assumptions. Frances PL, et al. **Epilepsy Res** 1999 Apr; 34(2–3):241–9

Will's journey: a rebirth. A study of the effects of chronic illness on the human spirit. Watters W. **J Neurosci Nurs** 1998 Oct;30(5):314–7

Reduced exploratory activity of audiogenic seizures susceptible Wistar rats. Garcia-Cairasco N, et al. **Physiol Behav** 1998 Jul;64(5):671–4

Intellectual and neuropsychological features of patients with psychogenic pseudoseizures. Kalogjera-Sackellares D, et al. **Psychiatry Res** 1999 Apr 19;86(1):73–84

Subjective perception of seizure precipitants: results of a questionnaire study. Spatt J, et al. **Seizure** 1998 Oct; 7(5):391–5

Clinical symptoms in psychogenic seizures. Gröppel G, et al. **Wien Klin Wochenschr** 1999 Jun 18;111(12):469–75

RADIOGRAPHY

Family studies and human leukocyte antigen class II typing in Indian probands with seizures in association with single small enhancing computed tomography lesions. Jain S, et al. **Epilepsia** 1999 Feb;40(2):232–8

Behenoyl cytarabine-associated reversible encephalopathy in a patient with acute myelogenous leukemia. Cho SG, et al. **J Korean Med Sci** 1999 Feb;14(1):89–92

Emergency brain computed tomography in children with seizures: who is most likely to benefit? Garvey MA, et al. **J Pediatr** 1998 Nov;133(5):664–9

RADIONUCLIDE IMAGING

Similar brain SPECT findings in subclinical and clinical seizures in two neonates with hemimegalencephaly. Alfonso I, et al. **Pediatr Neurol** 1998 Aug;19(2):132–4

REHABILITATION

Antiepileptic drugs. Meythaler JM, et al. **Phys Med Rehabil Clin N Am** 1999 May;10(2):275–300, vii–viii (119 ref.)

SURGERY

Can the long-term prognosis of patients with seizures and structural brain lesions be improved by surgical treatment? [letter] Koch CA, et al. **Seizure** 1999 Feb;8(1):70

THERAPY

Chronic treatment with repetitive transcranial magnetic stimulation inhibits seizure induction by electroconvulsive shock in rats. Fleischmann A, et al. **Biol Psychiatry** 1999 Mar 15;45(6):759–63

Neurofeedback treatment of pseudoseizure disorder. Swingle PG. **Biol Psychiatry** 1998 Dec 1;44(11):1196–9

Clinical issues in acute childhood seizure management in the emergency department. Terndrup TE. **J Child Neurol** 1998 Oct;13 Suppl 1:S7–10; discussion S30–2

Epilepsy emergencies: the first seizure and status epilepticus. Willmore LJ. **Neurology** 1998 Nov;51(5 Suppl 4):S34–8 (25 ref.)

Epilepsy and seizures: advances in seizure assessment, treatment, and self-management. Shafer PO. **Nurs Clin North Am** 1999 Sep;34(3):743–59 (36 ref.)

It's not just a seizure: etiology, management, and transport of the seizure patient. Woodward GA, et al. **Pediatr Emerg Care** 1999 Apr;15(2):147–55

Follow-up of psychogenic, non-epileptic seizures: a pilot study - experience in a Dutch special centre for epilepsy. Jongsma MJ, et al. **Seizure** 1999 May;8(3):146–8

Non-epileptic attack disorder and clinical outcome: a pilot study. Riaz H, et al. **Seizure** 1998 Oct;7(5):365–8

[Seizures associated with acute subarachnoid hemorrhage. Emergency diagnosis and treatment] Beretta L, et al. **Minerva Anestesiol** 1998 Apr;64(4):131–3 (5 ref.) (Eng. Abstr.) **(Ita)**

VETERINARY

Seizures as a complication of brain tumors in dogs. Bagley RS, et al. **Clin Tech Small Anim Pract** 1998 Aug; 13(3):179–84 (40 ref.)

Interictal paroxysmal discharges in the electroencephalograms of epileptic dogs. Holliday TA, et al. **Clin Tech Small Anim Pract** 1998 Aug;13(3):132–43 (31 ref.)

Feline epilepsy. Kline KL. **Clin Tech Small Anim Pract** 1998 Aug;13(3):152–8 (34 ref.)

Idiopathic epilepsy. Knowles K. **Clin Tech Small Anim Pract** 1998 Aug;13(3):144–51 (37 ref.)

Seizures: classification, etiologies, and pathophysiology. March PA. **Clin Tech Small Anim Pract** 1998 Aug; 13(3):119–31 (66 ref.)

Toxic and metabolic causes of seizures. O'Brien D. **Clin Tech Small Anim Pract** 1998 Aug;13(3):159–66 (53 ref.)

Antiepileptic drug therapy. Podell M. **Clin Tech Small Anim Pract** 1998 Aug;13(3):185–92 (38 ref.)

Inflammatory diseases of the central nervous system in dogs. Thomas WB. **Clin Tech Small Anim Pract** 1998 Aug; 13(3):167–78 (86 ref.)

Use of ocular compression to induce vagal stimulation and aid in controlling seizures in seven dogs. Speciale J, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):663–5

Epilepsy and seizure classification in 63 dogs: a reappraisal of veterinary epilepsy terminology [see comments] Berendt M, et al. **J Vet Intern Med** 1999 Jan–Feb;13(1):14–20. Comment in: J Vet Intern Med 1999 Jan–Feb;13(1):3–4.

Epilepsy and seizure classification: a lesson from Leonardo [editorial; comment] Podell M. **J Vet Intern Med** 1999 Jan–Feb;13(1):3–4. Comment on: J Vet Intern Med 1999 Jan–Feb;13(1):14–20.

'Twitchiness' in miniature wirehaired dachshunds [letter; comment] Fitzmaurice S, et al. **Vet Rec** 1998 Aug 15; 143(7):204. Comment on: Vet Rec 1998 Mar 14;142(11):288.

VIROLOGY

HIV infection and seizures. Garg RK. **Postgrad Med J** 1999 Jul;75(885):387–90 (22 ref.)

SEIZURES, CONVULSIVE see **CONVULSIONS**

SEIZURES, EPILEPTIC see **EPILEPSY**

SEIZURES, FEBRILE see **CONVULSIONS, FEBRILE**

E-SELECTIN

ANALYSIS

Differential expression of ICAM-1, E-selectin and VCAM-1 by endothelial cells in psoriasis and contact dermatitis. Das PK, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:21–2

Carbohydrate-based probes for detection of cellular lectins. Galanina OE, et al. **Anal Biochem** 1998 Dec 15;265(2):282-9
Green fluorescent protein-based system for analysis of E-selectin-mediated adhesion. el-Battari A, et al. **Biotechniques** 1999 Mar;26(3):536-40
E2F decoy suppresses E-selectin expression in murine cardiac allograft arteriopathy. Suzuki J, et al. **Transplant Proc** 1999 Aug;31(5):2018-9
[The concentration of exfoliative adhesion molecules (ICAM-1 and E-Selectin) in serum and peritoneal fluid of women with endometriosis] Goluda M, et al. **Ginekol Pol** 1998 Dec;69(12):1175-8 (Eng. Abstr.) **(Pol)**

BIOSYNTHESIS

High-density lipoproteins differentially modulate cytokine-induced expression of E-selectin and cyclooxygenase-2. Cockerill GW, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):910-7
Inhibition of tumor necrosis factor-alpha- and interleukin-1-induced endothelial E-selectin expression by thiol-modifying agents. Friedrichs B, et al. **Arterioscler Thromb Vasc Biol** 1998 Dec;18(12):1829-37
Loss of endothelial surface expression of E-selectin in a patient with recurrent infections. DeLisser HM, et al. **Blood** 1999 Aug 1;94(3):884-94
Noninflammatory expression of E-selectin is regulated by cell growth. Luo J, et al. **Blood** 1999 Jun 1,93(11):3785-91
Nuclear factor kappaB dominant negative genetic constructs inhibit X-ray induction of cell adhesion molecules in the vascular endothelium. Hallahan DE, et al. **Cancer Res** 1998 Dec 1;58(23):5484-8
Rapid induction of cytokine and E-selectin expression in the liver in response to metastatic tumor cells. Khatib AM, et al. **Cancer Res** 1999 Mar 15;59(6):1356-61
Differential up-regulation of circulating soluble selectins and endothelial adhesion molecules in Sicilian patients with Boutonneuse fever. Vitale G, et al. **Clin Exp Immunol** 1999 Aug;117(2):304-8
Escherichia coli and Porphyromonas gingivalis lipopolysaccharide interactions with CD14: implications for myeloid and nonmyeloid cell activation. Cunningham MD, et al. **Clin Infect Dis** 1999 Mar;28(3):497-504
Infection of endothelial cells with Trypanosoma cruzi activates NF-kappaB and induces vascular adhesion molecule expression. Huang H, et al. **Infect Immun** 1999 Oct;67(10):5434-40
ICAM-3 and E-selectin endothelial cell expression differentiate two phases of angiogenesis in infantile hemangiomas. Verkarre V, et al. **J Cutan Pathol** 1999 Jan; 26(1):17-24
Alpha(1,3)-fucosyltransferase VII-dependent synthesis of P- and E-selectin ligands on cultured T lymphoblasts. Knibbs RN, et al. **J Immunol** 1998 Dec 1;161(11):6305-15
Expression of functional selectin ligands on Th cells is differentially regulated by IL-12 and IL-4. Lim YC, et al. **J Immunol** 1999 Mar 15;162(6):3193-201
Estrogen protects against cellular infiltration by reducing the expressions of E-selectin and IL-6 in endotoxin-induced uveitis. Miyamoto N, et al. **J Immunol** 1999 Jul 1; 163(1):374-9
Factor Xa induces cytokine production and expression of adhesion molecules by human umbilical vein endothelial cells. Senden NH, et al. **J Immunol** 1998 Oct 15; 161(8):4318-24
A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E-selectin ligands and L-selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914-9
Endothelial adhesion molecule expression is enhanced in the aorta and internal mammary artery of diabetic patients. Ribau JC, et al. **J Surg Res** 1999 Aug;85(2):225-33
Delayed treatment with diethyl maleate prevents E-selectin expression in human endothelial cells. Wei AC, et al. **Surgery** 1999 Aug;126(2):286-92
Induction of endothelial cell adhesion molecules by serum and immunoglobulins G from a patient with vasculitis and monoclonal gammapathy: potential relevance to vasculitis. Dupuy E, et al. **Thromb Haemost** 1998 Sep;80(3):477-80

BLOOD

Soluble E-selectin correlates with disease activity in cyclosporin A-treated patients with atopic dermatitis. Kägi MK, et al. **Allergy** 1999 Jan;54(1):57-63
Serum levels of thrombomodulin, intercellular adhesion molecule-1, vascular cell adhesion molecule-1, and E-selectin in the acute phase of Plasmodium vivax malaria. Ohnishi K. **Am J Trop Med Hyg** 1999 Feb;60(2):248-50
Circulating levels of endothelial function are modulated by dietary monounsaturated fat. Pérez-Jiménez F, et al. **Atherosclerosis** 1999 Aug;145(2):351-8
Circulating intercellular adhesion molecule 1 (ICAM-1), E-selectin and vascular cell adhesion molecule 1 (VCAM-1) in head and neck cancer. Liu CM, et al. **Br J Cancer** 1999 Jan;79(2):360-2
Increased serum levels of soluble vascular cell adhesion molecule-1 and E-selectin in patients with systemic sclerosis. Ihn H, et al. **Br J Rheumatol** 1998 Nov; 37(11):1188-92
Effect of postmenopausal hormones on inflammation-sensitive proteins: the Postmenopausal Estrogen/Progestin Interventions (PEPI) Study. Cushman M, et al. **Circulation** 1999 Aug 17;100(7):717-22
Prognostic value of circulating soluble E-selectin concentrations in node-negative breast cancer patients. Hebbar M, et al. **Clin Cancer Res** 1999 Jun;5(6):1427-33
Soluble E-selectin serum levels correlate with disease activity in psoriatic patients. Szepietowski J, et al. **Clin Exp Dermatol** 1999 Jan;24(1):33-6
Serum soluble adhesion molecule concentrations are not regulated by acute hyperinsulinaemia in healthy men [letter] Nagai Y, et al. **Diabet Med** 1999 Jul;16(7):618
The heart produces but the lungs consume proinflammatory cytokines following cardiopulmonary bypass. Liebold A, et al. **Eur J Cardiothorac Surg** 1999 Mar;15(3):340-5
Increased release of the soluble form of the adhesion molecules L-selectin and ICAM-1 but not E-selectin during attacks of angina pectoris. Siminiak T, et al. **Heart Vessels** 1998;13(4):189-94
Serum markers of treatment success in leprosy. MacLean S, et al. **Int J Lepr Other Mycobact Dis** 1999 Mar; 67(1):19-23
Serum levels of soluble intercellular adhesion molecule-1 and E-selectin in metastatic breast carcinoma: correlations with clinicopathological features and prognosis. Zhang GJ, et al. **Int J Oncol** 1999 Jan;14(1):71-7
Interleukin 1 receptor antagonist and E-selectin concentrations: a comparison in patients with severe acute pancreatitis and severe sepsis. Hynninen M, et al. **J Crit Care** 1999 Jun;14(2):63-8
Serum level of sELAM-1 in psoriatic patients correlates with disease activity. Krasowska D, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):140-2
Serum soluble adhesion molecules in multiple sclerosis: raised sVCAM-1, sICAM-1 and sE-selectin in primary progressive disease. McDonnell GV, et al. **J Neurol** 1999 Feb;246(2):87-92
Soluble adhesion molecules in juvenile rheumatoid arthritis. Bloom BJ, et al. **J Rheumatol** 1999 Sep;26(9):2044-8
Soluble adhesion molecules and anti-endothelial cell antibodies in patients with rheumatoid arthritis complicated by peripheral neuropathy. Salih AM, et al. **J Rheumatol** 1999 Mar;26(3):551-5
Relation between the serum E-selectin level and the survival rate of patients with resected non-small cell lung cancers. Tsumatori G, et al. **Jpn J Cancer Res** 1999 Mar;90(3):301-7
Plasma levels of E-selectin in normolipemic and hyperlipemic arteriopathic patients. Ferlito S, et al. **Minerva Cardioangiol** 1999 Apr;47(4):91-4 **(Eng, Ita)**
Nitrite, endothelin and E-selectin plasma levels after arginine infusion in normal and vasculopathic subjects. Ferlito S, et al. **Minerva Cardioangiol** 1998 Dec;46(12):471-7 (38 ref.) **(Eng, Ita)**
Erythropoietin administration induces an increase of serum levels of soluble E-selectin and soluble intercellular adhesion molecule 1 [letter] Allegra A, et al. **Nephron** 1999; 82(4):361-2
VCAM-1, ICAM-1, and E-selectin in IgA nephropathy and Schönlein-Henoch syndrome: differences between tissue expression and serum concentration. Mrowka C, et al. **Nephron** 1999;81(3):256-63
Expression of soluble endothelial adhesion molecules in clinical cardiopulmonary bypass. Galea J, et al. **Perfusion** 1998 Sep;13(5):314-21
Changes in leucocyte counts and soluble intercellular adhesion molecule-1 and E-selectin during cardiopulmonary bypass in children. Williams HJ, et al. **Perfusion** 1998 Sep;13(5):322-7
A longitudinal prospective study of soluble adhesion molecules in acute stroke. Bitsch A, et al. **Stroke** 1998 Oct; 29(10):2129-35
Adhesion molecules in cerebrovascular diseases. Evidence for an inflammatory endothelial activation in cerebral large- and small-vessel disease. Fassbender K, et al. **Stroke** 1999 Aug;30(8):1647-50
[Hemostasis and levels of cytoadhesion molecules in gestational diabetes] Bendl J, et al. **Ceska Gynekol** 1999 Apr;64(2):83-6 (Eng. Abstr.) **(Cze)**

DRUG EFFECTS

Amelioration of lung reperfusion injury by L- and E- selectin blockade. Demertzis S, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):174-80

GENETICS

Functional characterization of atherosclerosis-associated Ser128Arg and Leu554Phe E-selectin mutations. Wenzel K, et al. **Biol Chem** 1999 Jun;380(6):661-7
P- and E-selectin-deficient mice are susceptible to cerebral ischemia-reperfusion injury. Soriano SG, et al. **Brain Res** 1999 Jul 24;835(2):360-4
Enhanced expression of ELAM-1 on endothelium of renal cell carcinoma compared to the corresponding normal renal tissue. Brenner W, et al. **Cancer Lett** 1999 Aug 23; 143(1):15-21
E-selectin gene expression is induced synergistically with the coexistence of activated classic protein kinase C and signals elicited by interleukin-1beta but not tumor necrosis factor-alpha. Tamaru M, et al. **J Biol Chem** 1999 Feb 5; 274(6):3753-63
A PstI polymorphism detects the mutation of serine128 to arginine in CD 62E gene - a risk factor for coronary artery disease. Ye SQ, et al. **J Biomed Sci** 1999 Jan;6(1):18-21
Modulation of irritation-induced increase of E-selectin mRNA in vivo by topically applied corticosteroids. Kukutsch NA, et al. **J Invest Dermatol** 1999 Aug; 113(2):170-4
Induction of adhesion molecule expression on blood vessels and keratinocytes in recurrent oral ulceration. Healy CM, et al. **J Oral Pathol Med** 1999 Jan;28(1):5-11
Effects of beta-oxa and beta-thia polyunsaturated fatty acids on agonist-induced increase in endothelial cell adhesion molecules. Robinson BS, et al. **Lipids** 1999;34 Suppl:S341-2
Tumor necrosis factor-alpha induces adhesion molecule expression through the sphingosine kinase pathway. Xia P, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24; 95(24):14196-201
Effect of anoxia on expression of endothelial leukocyte adhesion molecule 1 in cultured human endothelial cells. Doughman T, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):990-1
[The correlation between salivary endothelial expression of E-selectin and clinical and biological parameters in systemic scleroderma] Hebbar M, et al. **Rev Med Interne** 1998 Aug;19(8):537-41 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Inhibition of dextran sulphate sodium (DSS)-induced colitis in mice by intracolonically administered antibodies against adhesion molecules (endothelial leucocyte adhesion molecule-1 (ELAM-1) or intercellular adhesion molecule-1 (ICAM-1)). Hamamoto N, et al. **Clin Exp Immunol** 1999 Sep;117(3):462-8
Characterization of an apparently conserved epitope in E- and P-selectin identified by dual-specific monoclonal antibodies. Goda K, et al. **Eur J Immunol** 1999 May; 29(5):1551-60
Selectin and Lewis(x) are required as co-receptors in antibody-dependent cell-mediated cytotoxicity of human eosinophils to Schistosoma mansoni schistosomula. Nutten S, et al. **Eur J Immunol** 1999 Mar;29(3):799-808
Human T lymphocyte populations which bind to P- or E-selectin are enriched with cells expressing core 2 O-glycans. Mukasa R, et al. **Immunol Lett** 1999 Apr 1; 67(2):117-24
Characterization of E-selectin-binding epitopes expressed by skin-homing T cells. Priest R, et al. **Immunology** 1998 Aug; 94(4):523-8
A bacterial single-chain Fv antibody fragment that inhibits binding of its parental anti-E-selectin monoclonal antibody to activated human endothelial cells. Casalvilla R, et al. **J Biotechnol** 1999 Jun 11;72(1-2):1-12
Intestinal inflammation in adhesion molecule-deficient mice: an assessment of P-selectin alone and in combination with ICAM-1 or E-selectin. McCafferty DM, et al. **J Leukoc Biol** 1999 Jul;66(1):67-74
Expression of cytokine and adhesion molecule mRNA in atherectomy specimens from patients with coronary artery disease. Ishibashi T, et al. **Jpn Circ J** 1999 Apr;63(4):249-54

METABOLISM

Blood-brain barrier permeability, neutrophil accumulation and vascular adhesion molecule expression after controlled cortical impact in rats: a preliminary study. Whalen MJ, et al. **Acta Neurochir Suppl (Wien)** 1998;71:212-4
Specific targeting of activated endothelium in rat adjuvant arthritis with a 99mTc-radiolabeled E-selectin-binding peptide. Zinn KR, et al. **Arthritis Rheum** 1999 Apr; 42(4):641-9
Modulation of sialyl Lewis X dependent binding to E-selectin by glycoforms of alpha-1-acid glycoprotein expressed in rheumatoid arthritis. Jørgensen HG, et al. **Biomed Chromatogr** 1998 Nov-Dec;12(6):343-9
Synthesis of sialyl Lewis X mimetics using the Ugi four-component reaction. Tsai CY, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2333-8
Soluble intercelluar adhesion molecule-1, E-selectin, vascular cell adhesion molecule-1 and von Willebrand factor in stroke. Blann A, et al. **Blood Coagul Fibrinolysis** 1999 Jul;10(5):277-84
Inhibition of nuclear factor-kappa B nuclear localization reduces human E-selectin expression and the systemic inflammatory response. Boyle EM Jr, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II282-8
Alterations of endothelial nucleotide levels by mycophenolic acid result in changes of membrane glycosylation and E-selectin expression. Bertalanffy P, et al. **Clin Chem Lab Med** 1999 Mar;37(3):259-64
Effect of shear stress and a stable prostaglandin I2 analogue on adhesive interactions of colon cancer cells and endothelial cells. Yoshida N, et al. **Clin Exp Immunol** 1999 Sep;117(3):430-4
Comparison of 16 human colon carcinoma cell lines for their expression of sialyl LeX antigens and their E-selectin-dependent adhesion. Nemoto Y, et al. **Clin Exp Metastasis** 1998 Aug;16(6):569-76
In vitro up-regulation of E-selectin and induction of interleukin-6 in endothelial cells by autoantibodies in Wegener's granulomatosis and microscopic polyangiitis. Kobold AC, et al. **Clin Exp Rheumatol** 1999 Jul-Aug; 17(4):433-40

E-SELECTIN

Enhancement of endothelial cell E-selection expression by sera from patients with active Behçet's disease: moderate correlation with anti-endothelial cell antibodies and serum myeloperoxidase levels. Triolo G, et al. **Clin Immunol** 1999 Jun;91(3):330–7

Neutrophil CD11b and soluble ICAM-1 and E-selectin in community acquired pneumonia. Glynn P, et al. **Eur Respir J** 1999 Jun;13(6):1380–5

Expression of selectin families and their ligand sialyl Lewis X in the muscles of inflammatory myopathies: an immunohistochemical study. Jimi T, et al. **Intern Med** 1999 Aug;38(8):632–5

Vascular adhesion molecules in vitreous from eyes with proliferative diabetic retinopathy. Limb GA, et al. **Invest Ophthalmol Vis Sci** 1999 Sep;40(10):2453–7

In vivo ligand specificity of E-selectin binding to multivalent sialyl Lewisx N-linked oligosaccharides. Thomas VH, et al. **J Biol Chem** 1999 Jul 2;274(27):19035–40

An automatic braking system that stabilizes leukocyte rolling by an increase in selectin bond number with shear. Chen S, et al. **J Cell Biol** 1999 Jan 11;144(1):185–200

Transit time of leukocytes rolling through venules controls cytokine-induced inflammatory cell recruitment in vivo. Jung U, et al. **J Clin Invest** 1998 Oct 15;102(8):1526–33

Memory B lymphocytes from secondary lymphoid organs interact with E-selectin through a novel glycoprotein ligand. Montoya MC, et al. **J Clin Invest** 1999 May; 103(9):1317–27

Dextran sulfate inhibits E-selectin-mediated neutrophil adhesion to endotoxin-activated vascular endothelial cells. Matsumiya A, et al. **Life Sci** 1999;64(2):PL9–17

VCAM-1, ICAM-1, and E-selectin in IgA nephropathy and Schönlein-Henoch syndrome: differences between tissue expression and serum concentration. Mrowka C, et al. **Nephron** 1999;81(3):256–63

Role of tumor necrosis factor and interferon gamma in endotoxin-induced E-selectin expression. Eppihimer MJ, et al. **Shock** 1999 Feb;11(2):93–7

PHYSIOLOGY

Role of endotoxin in intestinal reperfusion-induced expression of E-selectin. Bauer P, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G479–84

Selective requirements for leukocyte adhesion molecules in models of acute and chronic cutaneous inflammation: participation of E- and P- but not L-selectin. Catalina MD, et al. **Blood** 1999 Jan 15;93(2):580–9

Expression of human alpha(1,3)fucosyltransferase antisense sequences inhibits selectin-mediated adhesion and liver metastasis of colon carcinoma cells. Weston BW, et al. **Cancer Res** 1999 May 1;59(9):2127–35

Role of selectin-dependent adhesion in cardiac allograft rejection. Yamazaki S, et al. **J Heart Lung Transplant** 1998 Oct;17(10):1007–16

Varying roles of E-selectin and P-selectin in different microvascular beds in response to antigen. Hickey MJ, et al. **J Immunol** 1999 Jan 15;162(2):1137–43

Characterization of eosinophil adhesion to TNF-alpha-activated endothelium under flow conditions: alpha 4 integrins mediate initial attachment, and E-selectin mediates rolling. Ulfman LH, et al. **J Immunol** 1999 Jul 1;163(1):343–50

Lewis antigen mediated adhesion of freshly removed human bladder tumors to E-selectin. Skorstengaard K, et al. **J Urol** 1999 Apr;161(4):1316–23

Angiogenesis in P- and E-selectin-deficient mice. Hartwell DW, et al. **Microcirculation** 1998;5(2–3):173–8

Mice lacking E-selectin show normal numbers of rolling leukocytes but reduced leukocyte stable arrest on cytokine-activated microvascular endothelium. Milstone DS, et al. **Microcirculation** 1998;5(2–3):153–71

Endothelial selectins and vascular cell adhesion molecule-1 promote hematopoietic progenitor homing to bone marrow [see comments] Frenette PS, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14423–8. Commeat in: Proc Natl Acad Sci U S A 1998 Dec 22;95(26):15155–7.

E-selectin and L-selectin blockade in pure skin flaps exposed to ischaemia and reperfusion injury. Birk-Sørensen L, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):365–71

L-SELECTIN

ANALYSIS

Expression of adhesion molecules and G proteins in circulating neutrophils in chronic obstructive pulmonary disease. Noguera A, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1664–8

Anti-L-selectin oligonucleotide ligands recognize CD62L-positive leukocytes: binding affinity and specificity of univalent and bivalent ligands. Ringquist S, et al. **Cytometry** 1998 Dec 1;33(4):394–405

Nonselective beta blockade attenuates the recruitment of CD62L(-)T lymphocytes following exercise. Mills PJ, et al. **Eur J Appl Physiol** 1999 May;79(6):531–4

LPS from Actinobacillus actinomycetemcomitans and the expression of beta2 integrins and L-selectin in an ex vivo human whole blood system. Blix IJ, et al. **Eur J Oral Sci** 1999 Feb;107(1):14–20

Ultrastructural evidence of distinctive behavior of L-selectin and LFA-1 (alphaLbeta2 integrin) on lymphocytes adhering to the endothelial surface of high endothelial venules in peripheral lymph nodes. Tohya K, et al. **Histochem Cell Biol** 1998 Oct;110(4):407–16

Alterations of neutrophil L-selection and CD18 expression by tobacco smoke: implications for periodontal diseases. Ryder MI, et al. **J Periodontal Res** 1998 Aug;33(6):359–68

Effects of trauma and sepsis on soluble L-selectin and cell surface expression of L-selectin and CD11b [letter; comment] Dressler J, et al. **J Trauma** 1998 Nov;45(5):981 . Comment on: J Trauma 1998 Mar;44(3):460–8.

[Soluble proteins from Staphylococcus aureus can change expression of CD11b and CD62L, but not H2O2 production by human blood granulocytes] Onogawa T, et al. **Kansenshogaku Zasshi** 1999 Apr;73(4):328–35 (Eng. Abstr.) **(Jpn)**

BIOSYNTHESIS

Increase in granulocyte-macrophage-colony-stimulating factor secretion and the respiratory burst with decreased L-selectin expression in hyper-IgE syndrome patients. Vargas L, et al. **Ann Allergy Asthma Immunol** 1999 Sep; 83(3):245–51

Modulation of VLA-4 and L-selectin expression on normal CD34+ cells during mobilization with G-CSF. Bellucci R, et al. **Bone Marrow Transplant** 1999 Jan;23(1):1–8

Differential up-regulation of circulating soluble selectins and endothelial adhesion molecules in Sicilian patients with Boutonneuse fever. Vitale G, et al. **Clin Exp Immunol** 1999 Aug;117(2):304–8

Effect of theophylline on CD11b and L-selectin expression and density of eosinophils and neutrophils in vitro. Spoelstra FM, et al. **Eur Respir J** 1998 Sep;12(3):585–91

Tumor infiltration by adoptively transferred T cells is independent of immunologic specificity but requires down-regulation of L-selectin expression. Kjaergaard J, et al. **J Immunol** 1999 Jul 15;163(2):751–9

Expression of L-selectin on Th1 cells is regulated by IL-12. Wely CA, et al. **J Immunol** 1999 Aug 1;163(3):1214–21

A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E-selectin ligands and L-selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914–9

An adoptive transfer model of allergic lung inflammation in mice is mediated by CD4+CD62LlowCD25+ T cells. Wise JT, et al. **J Immunol** 1999 May 1;162(9):5592–600

[Effect of Staphylococcus aureus extract on the expression of L-selectin and LFA-1, in neutrophils from patients with allergic bronchial asthma] Rojas Ramos E, et al. **Rev Alerg Mex** 1999 Mar-Apr;46(2):41–8 (Eng. Abstr.) **(Spa)**

BLOOD

Leukocyte adhesion molecule profiles and outcome after traumatic brain injury. McKeating EG, et al. **Acta Neurochir Suppl (Wien)** 1998;71:200–2

Circulating L-selectin levels and endothelial CD34 expression in inflammatory bowel disease. Seidelin JB, et al. **Am J Gastroenterol** 1998 Oct;93(10):1854–9

5-oxo-6,8,11,14-eicosatetraenoic acid is a potent stimulator of L-selectin shedding, surface expression of CD11b, actin polymerization, and calcium mobilization in human eosinophils. Powell WS, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):163–70

Melatonin increases the intensity of respiratory burst and prevents L-selectin shedding in human neutrophils in vitro. Recchioni R, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):20–4

Relationship between cleaved L-selectin levels and the outcome of acute myeloid leukemia. Extermann M, et al. **Blood** 1998 Nov 1;92(9):3115–22

Administration of G-CSF to normal individuals diminishes L-selectin+ T cells in the peripheral blood that respond better to alloantigen stimulation than L-selectin- T cells. Sugimori N, et al. **Bone Marrow Transplant** 1999 Jan; 23(2):119–24

Enhanced expression of L-selectin on peripheral blood lymphocytes from patients with IgA nephropathy. Kennel-de March A, et al. **Clin Exp Immunol** 1999 Mar; 115(3):542–6

Adhesion molecules in common variable immunodeficiency (CVID)--a decrease in L-selectin-positive T lymphocytes. Nordøy I, et al. **Clin Exp Immunol** 1998 Nov;114(2):258–63

Circulating P- and L-selectin and T-lymphocyte activation and patients with autoimmune rheumatic diseases. Sfikakis PP, et al. **Clin Rheumatol** 1999;18(1):28–32

Increased release of the soluble form of the adhesion molecules L-selectin and ICAM-1 but not E-selectin during attacks of angina pectoris. Siminiak T, et al. **Heart Vessels** 1998;13(4):189–94

Soluble L-selectin plasma concentrations in infants undergoing heart surgery: no association with capillary leak syndrome or need for respiratory support. Bührer C, et al. **Intensive Care Med** 1998 Oct;24(10):1093–8

Alterations of soluble L- and P-selectins during cardiac arrest and CPR. Gando S, et al. **Intensive Care Med** 1999 Jun;25(6):588–93

Elevated serum L-selectin levels and abnormal regulation of L-selectin expression on leukocytes in atopic dermatitis: soluble L-selectin levels indicate disease severity. Shimada Y, et al. **J Allergy Clin Immunol** 1999 Jul;104(1):163–8

Increased levels of circulating ICAM-1, VCAM-1, and L-selectin in obstructive sleep apnea syndrome. Ohga E, et al. **J Appl Physiol** 1999 Jul;87(1):10–4

Cell volume-dependent regulation of L-selectin shedding in neutrophils. A role for p38 mitogen-activated protein kinase. Rizoli SB, et al. **J Biol Chem** 1999 Jul 30; 274(31):22072–80

Soluble adhesion molecules in juvenile rheumatoid arthritis. Bloom BJ, et al. **J Rheumatol** 1999 Sep;26(9):2044–8

Decreased soluble adhesion molecule L-selectin plasma concentrations after major trauma. Müller JC, et al. **J Trauma** 1998 Oct;45(4):705–8

Serum soluble L-selectin in childhood acute lymphoblastic leukemia. Olejnik I. **Pediatr Int** 1999 Jun;41(3):246–8

L-selectin expression enhances clonogenesis of CD34+ cord blood progenitors. Koenig JM, et al. **Pediatr Res** 1999 Jun; 45(6):867–70

Vulnerable caregivers of patients with Alzheimer's disease have a deficit in circulating CD62L- T lymphocytes. Mills PJ, et al. **Psychosom Med** 1999 Mar-Apr;61(2):168–74

Concentration changes of malondialdehyde across the cerebral vascular bed and shedding of L-selectin during carotid endarterectomy. Weigand MA, et al. **Stroke** 1999 Feb;30(2):306–11

Selective expansion of a peripheral blood CD8+ memory T cell subset expressing both granzyme B and L-selectin during primary viral infection in renal allograft recipients. ten Berge IJ, et al. **Transplant Proc** 1998 Dec;30(8):3975–7

Effect of antibiotic induced bacterial clearance in the udder on L-selectin shedding of blood neutrophils in cows with Escherichia coli mastitis. Monfardini E, et al. **Vet Immunol Immunopathol** 1999 Mar 1;67(4):373–84

CHEMISTRY

H (0) blood group determinant is present on soluble human L-selectin expressed in BHK-cells. Gohlke M, et al. **FEBS Lett** 1999 Apr 30;450(1–2):111–6

DRUG EFFECTS

Effect of erythromycin on otitis media with effusion in experimental rat model. Enomoto F, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:57–60

Aryl C-glycosides: physiologically stable glycomimetics of sialyl Lewis X. Kuribayashi T, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3307–10

Amelioration of lung reperfusion injury by L- and E- selectin blockade. Demertzis S, et al. **Eur J Cardiothorac Surg** 1999 Aug;16(2):174–80

Inhibition of L-selectin-mediated leukocyte rolling by synthetic glycoprotein mimics. Sanders WJ, et al. **J Biol Chem** 1999 Feb 26;274(9):5271–8

GENETICS

Cyclosporin A decreases lymphocyte migration to the heart allograft through suppression of their L-selectin expression. Maksymowicz M, et al. **Ann Transplant** 1998;3(1):34–6

The effect of glucocorticoids on the expression of L-selectin on polymorphonuclear leukocyte. Nakagawa M, et al. **Blood** 1999 Apr 15;93(8):2730–7

Expression of Recombinant bovine L-selectin in Escherichia coli and insect cells. Kashima T, et al. **J Vet Med Sci** 1999 Mar;61(3):251–4

IMMUNOLOGY

Selectin neutralization: does it make biological sense? [editorial; comment] Lin E, et al. **Crit Care Med** 1999 Sep; 27(9):2050–3. Comment on: Crit Care Med 1999 Sep;27(9):1900–7.

Anti-L-selectin antibody treatment of hemorrhagic-traumatic shock in baboons [see comments] Schlag G, et al. **Crit Care Med** 1999 Sep;27(9):1900–7. Comment in: Crit Care Med 1999 Sep;27(9):2050–2.

A population of CD62Llow Nk1.1- CD4+ T cells that resembles NK1.1+ CD4+ T cells. Chen H, et al. **Eur J Immunol** 1998 Oct;28(10):3172–82

Selectin and Lewis(x) are required as co-receptors in antibody-dependent cell-mediated cytotoxicity of human eosinophils to Schistosoma mansoni schistosomula. Nutten S, et al. **Eur J Immunol** 1999 Mar;29(3):799–808

Detailed immunophenotype of CD8+ memory cytotoxic T-lymphocytes (CTL) against HIV-1 with respect to expression of CD45RA/RO, CD62L and CD28 antigens. Giorgi JV, et al. **Immunol Lett** 1999 Mar;66(1–3):105–10

FTY720, a novel immunosuppressant, induces sequestration of circulating mature lymphocytes by acceleration of lymphocyte homing in rats, III. Increase in frequency of CD62L-positive T cells in Peyer's patches by FTY720-induced lymphocyte homing. Yanagawa Y, et al. **Immunology** 1998 Dec;95(4):591–4

Properties and pharmacokinetics of two humanized antibodies specific for L-selectin. Co MS, et al. **Immunotechnology** 1999 Mar;4(3–4):253–66

The cutaneous lymphocyte antigen is an essential component of the L-selectin ligand induced on human vascular endothelial cells. Tu L, et al. **J Exp Med** 1999 Jan 18; 189(2):241–52

Both memory and CD45RA+/CD62L+ naive CD4(+) T cells are infected in human immunodeficiency virus type

1-infected individuals. Ostrowski MA, et al. **J Virol** 1999 Aug;73(8):6430-5

Antibodies to CD44 and integrin alpha4, but not L-selectin, prevent central nervous system inflammation and experimental encephalomyelitis by blocking secondary leukocyte recruitment. Brocke S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6896-901

ISOLATION & PURIFICATION

Identification and characterization of ligands for L-selectin in the kidney. I. Versican, a large chondroitin sulfate proteoglycan, is a ligand for L-selectin. Kawashima H, et al. **Int Immunol** 1999 Mar;11(3):393-405

METABOLISM

Expression and function of beta 2 integrin CD11B/CD18 on leukocytes from patients with psoriasis. Sjögren F, et al. **Acta Derm Venereol** 1999 Mar;79(2):105-10

Altered expression of CD4, CD54, CD62L, and CCR5 in primary lymphocytes productively infected with the human immunodeficiency virus. Marodon G, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):161-71

Selectin/glycoconjugate binding assays for the identification and optimization of selectin antagonists. Weitz-Schmidt G, et al. **Anal Biochem** 1999 Aug 15;273(1):81-8

Identification of human complement Factor H as a ligand for L-selectin. Malhotra R, et al. **Biochem J** 1999 Jul 1; 341 (Pt 1):61-9

Glycoprotein-inspired materials promote the proteolytic release of cell surface L-selectin. Gordon EJ, et al. **Bioorg Med Chem** 1998 Aug;6(8):1293-9

Mechanical anchoring strength of L-selectin, beta2 integrins, and CD45 to neutrophil cytoskeleton and membrane. Shao JY, et al. **Biophys J** 1999 Jul;77(1):587-96

Changes in L-selectin expression on CD34-positive cells upon cryopreservation of peripheral blood stem cell transplants. De Boer F, et al. **Bone Marrow Transplant** 1998 Dec;22(11):1103-10

Transendothelial migration of lymphocytes in chronic lymphocytic leukaemia is impaired and involved down-regulation of both L-selectin and CD23. Chen JR, et al. **Br J Haematol** 1999 Apr;105(1):181-9

GlyCAM-1 supports leukocyte rolling in flow: evidence for a greater dynamic stability of L-selectin rolling of lymphocytes than of neutrophils. Dwir O, et al. **Cell Adhes Commun** 1998;6(4):349-70

Vascular and non-vascular ligands for L-selectin. Kawashima H, et al. **Cell Adhes Commun** 1998;6(2-3):135-9 (26 ref.)

Selective killing of CD8+ cells with a 'memory' phenotype (CD62Llo) by the N-acetyl-D-galactosamine-specific lectin from Viscum album L. Büssing A, et al. **Cell Death Differ** 1998 Mar;5(3):231-40

Intracellular mechanisms of L-selectin induced capping. Junge S, et al. **Cell Signal** 1999 Apr;11(4):301-8

Alterations in adhesion molecule (CD11b/CD18 and CD62L) expression on granulocytes after chemotherapy. Engervall P, et al. **Eur J Clin Invest** 1998 Nov;28(11):924-9

Novel chondroitin sulfate-modified ligands for L-selectin on lymph node high endothelial venules. Derry CJ, et al. **Eur J Immunol** 1999 Feb;29(2):419-30

Identification and characterization of ligands for L-selectin in the kidney. II. Expression of chondroitin sulfate and heparan sulfate proteoglycans reactive with L-selectin. Li YF, et al. **FEBS Lett** 1999 Feb 12;444(2-3):201-5

High endothelial cells synthesize and degrade sLex. Putative implications for L-selectin-dependent recognition. Majuri ML, et al. **FEBS Lett** 1999 Jul 16;455(1-2):97-100

Expression of adhesion molecules on circulating polymorphonuclear leukocytes during orthotopic liver transplantation. Thiel M, et al. **Hepatology** 1998 Dec; 28(6):1538-50

Selective induction of endothelial L-selectin ligand in human lung inflammation. Collett C, et al. **Histochem J** 1999 Apr; 31(4):213-9

A novel, high endothelial venule-specific sulfotransferase expresses 6-sulfo sialyl Lewis(x), an L-selectin ligand displayed by CD34. Hiraoka N, et al. **Immunity** 1999 Jul; 11(1):79-89

Mechanisms for induction of L-selectin loss from T lymphocytes by a cryptococcal polysaccharide, glucuronoxylomannan. Dong ZM, et al. **Infect Immun** 1999 Jan;67(1):220-9

Altered expression of CD11b and CD62L after cross-linking of CD45 isoforms on human eosinophils. Matsumoto K, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:34-9

Cell adhesion molecules in subretinal fluid: soluble forms of VCAM-1 (vascular cell adhesion molecule-1) and L-selectin. Toker E, et al. **Int Ophthalmol** 1998-99; 22(2):71-6

Identification and characterization of ligands for L-selectin in the kidney. III. Characterization of L-selectin reactive heparan sulfate proteoglycans. Watanabe N, et al. **J Biochem (Tokyo)** 1999 Apr;125(4):826-31

Tissue inhibitor of metalloproteinases-3 inhibits shedding of L-selectin from leukocytes. Borland G, et al. **J Biol Chem** 1999 Jan 29;274(5):2810-5

L-selectin interactions with novel mono- and multisulfated Lewisx sequences in comparison with the potent ligand 3'-sulfated Lewisa. Galustian C, et al. **J Biol Chem** 1999 Jun 25;274(26):18213-7

Sulfotransferases of two specificities function in the reconstitution of high endothelial cell ligands for L-selectin. Bistrup A, et al. **J Cell Biol** 1999 May 17; 145(4):899-910

Regulation of L-selectin-mediated rolling through receptor dimerization. Li X, et al. **J Exp Med** 1998 Oct 5; 188(7):1385-90

L-selectin-mediated leukocyte adhesion in vivo: microvillous distribution determines tethering efficiency, but not rolling velocity. Stein JV, et al. **J Exp Med** 1999 Jan 4;189(1):37-50

Expression of L-selectin ligands by transformed endothelial cells enhances T cell-mediated rejection. Biancone L, et al. **J Immunol** 1999 May 1;162(9):5263-9

Dynamic association of L-selectin with the lymphocyte cytoskeletal matrix. Evans SS, et al. **J Immunol** 1999 Mar 15;162(6):3615-24

The effects of trauma and sepsis on soluble L-selectin and cell surface expression on L-selectin and CD11b on leukocytes [letter; comment] Giannoudis PV, et al. **J Trauma** 1999 May;46(5):984. Comment on: J Trauma 1998 Mar;44(3):460-8.

Painful stimulation suppresses joint inflammation by inducing shedding of L-selectin from neutrophils. Strausbaugh HJ, et al. **Nat Med** 1999 Sep;5(9):1057-61

Hemodialysis neutropenia correlates with a decreased filterability and an increase in the number of cytoplasmic actin filaments in peripheral blood neutrophils, which is preceded by a decrease in the number of surface expression of L-selectin. Iijima S, et al. **Nephron** 1999;82(3):214-20

Ligation of the CD4 receptor induces activation-independent down-regulation of L-selectin. Marschner S, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9763-8

Regulation of selectin binding activity by cyclization of sialic acid moiety of carbohydrate ligands on human leukocytes. Mitsuoka C, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1597-602

Functional distribution and further characterization of human endothelial ligand for cellular L-selectin. Collett C, et al. **Tissue Cell** 1999 Feb;31(1):39-44

[Expression of L-selectin on peripheral memory CD4+ T cells in atopic diseases] Yamashita H, et al. **Arerugi** 1998 Nov;47(11):1168-75 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Shedding of L-selectin and PECAM-1 and upregulation of Mac-1 and ICAM-1 on neutrophils in RSV bronchiolitis. Wang SZ, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L983-9

L-selectin and ICAM-1 mediate reperfusion injury and neutrophil adhesion in the warm ischemic mouse liver. Yadav SS, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1341-52

Selectin blockade prevents antigen-induced late bronchial responses and airway hyperresponsiveness in allergic sheep. Abraham WM, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1205-14

L- and P-selectin and CD11/CD18 in intracapillary neutrophil sequestration in rabbit lungs. Kubo H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):267-74

Kinetics of beta2-integrin and L-selectin bonding during neutrophil aggregation in shear flow. Tandon P, et al. **Biophys J** 1998 Dec;75(6):3163-78

Selective requirements for leukocyte adhesion molecules in models of acute and chronic cutaneous inflammation: participation of E- and P- but not L-selectin. Catalina MD, et al. **Blood** 1999 Jan 15;93(2):580-9

L-selectin-mediated lymphocyte aggregation: role of carbohydrates, activation and effects on cellular interactions. Swarte VV, et al. **Cell Adhes Commun** 1998; 6(4):311-22

P- and L-selectin mediate binding of T cells to chronically inflamed human airway endothelium. Symon FA, et al. **Eur J Immunol** 1999 Apr;29(4):1324-33

L-selectin and beta7 integrin synergistically mediate lymphocyte migration to mesenteric lymph nodes. Wagner N, et al. **Eur J Immunol** 1998 Nov;28(11):3832-9

Role of L-selectin in physiological manifestations after burn and smoke inhalation injury in sheep. Sakurai H, et al. **J Appl Physiol** 1999 Apr;86(4):1151-9

Relevance of L-selectin shedding for leukocyte rolling in vivo. Hafezi-Moghadam A, et al. **J Exp Med** 1999 Mar 15;189(6):939-48

Expression of L-selectin ligands by transformed endothelial cells enhances T cell-mediated rejection. Biancone L, et al. **J Immunol** 1999 May 1;162(9):5263-9

Overlapping roles for L-selectin and P-selectin in antigen-induced immune responses in the microvasculature. Kanwar S, et al. **J Immunol** 1999 Mar 1;162(5):2709-16

Signaling functions of L-selectin in neutrophils: alterations in the cytoskeleton and colocalization with CD18. Simon SI, et al. **J Immunol** 1999 Sep 1;163(5):2891-901

Efficient lymphocyte migration across high endothelial venules of mouse Peyer's patches requires overlapping expression of L-selectin and beta7 integrin. Steeber DA, et al. **J Immunol** 1998 Dec 15;161(12):6638-47

Leukocyte entry into sites of inflammation requires overlapping interactions between the L-selectin and ICAM-1 pathways. Steeber DA, et al. **J Immunol** 1999 Aug 15;163(4):2176-86

Role of the leukocyte-adhesion molecule L-selectin in experimental autoimmune encephalomyelitis. Archelos JJ, et al. **J Neurol Sci** 1998 Aug 14;159(2):127-34

Reconstitution of functional L-selectin ligands on a cultured human endothelial cell line by cotransfection of alpha1-->3 fucosyltransferase VII and newly cloned GlcNAcbeta:6-sulfotransferase cDNA. Kimura N, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4530-5

E-selectin and L-selectin blockade in pure skin flaps exposed to ischaemia and reperfusion injury. Birk-Sørensen L, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):365-71

P-SELECTIN

Recombinant soluble P-selectin glycoprotein ligand-1 protects against myocardial ischemic reperfusion injury in cats. Hayward R, et al. **Cardiovasc Res** 1999 Jan;41(1):65-76

Platelet membrane early activation markers during prolonged storage. Matsubayashi H, et al. **Thromb Res** 1999 Feb 15; 93(4):151-60

ANALYSIS

Direct demonstration of P-selectin- and VCAM-1-dependent mononuclear cell rolling in early atherosclerotic lesions of apolipoprotein E-deficient mice. Ramos CL, et al. **Circ Res** 1999 Jun 11;84(11):1237-44

Expression of cell adhesion molecules and the appearance of adherent leukocytes on the left atrial endothelium with atrial fibrillation: rabbit experimental model. Kamiyama N. **Jpn Circ J** 1998 Nov;62(11):837-43

Is soluble P-selectin determination a more reliable marker of in vivo platelet activation than CD62P flow cytometric analysis? [letter] Ferroni P, et al. **Thromb Haemost** 1999 Mar;81(3):472-3

BIOSYNTHESIS

P-selectin expression by endothelial cells is decreased in neonatal rats and human premature infants. Lorant DE, et al. **Blood** 1999 Jul 15;94(2):600-9

Effects of tanshinone II-A sulfonate on adhesion molecule expression of endothelial cells and platelets in vitro. Jiang KY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan; 19(1):47-50

Increased expression of P-selectin on platelets is a risk factor for silent cerebral infarction in patients with atrial fibrillation: role of nitric oxide. Minamino T, et al. **Circulation** 1998 Oct 27;98(17):1721-7

Alpha(1,3)-fucosyltransferase VII-dependent synthesis of P- and E-selectin ligands on cultured T lymphoblasts. Knibbs RN, et al. **J Immunol** 1998 Dec 1;161(11):6305-15

Expression of functional selectin ligands on Th cells is differentially regulated by IL-12 and IL-4. Lim YC, et al. **J Immunol** 1999 Mar 15;162(6):3193-201

Inhibition of expression of P-selectin by antioxidant in cholesterol-fed rats. Lee CS, et al. **J Korean Med Sci** 1999 Feb;14(1):8-14

Angiotensin II and bradykinin regulate the expression of P-selectin on the surface of endothelial cells in culture. Tayeh MA, et al. **Proc Assoc Am Physicians** 1998 Sep-Oct; 110(5):412-21

The effects of Mpl-ligand, interleukin-6 and interleukin-11 on megakaryocyte and platelet alpha-granule proteins. Philipp CS, et al. **Thromb Haemost** 1998 Dec;80(6):968-75

The relations of major platelet receptor expression during myocardial infarction. Monitoring efficacy of GPIIb/IIIa inhibitors by measuring P-selectin? [letter] Serebruany VL, et al. **Thromb Haemost** 1999 Feb;81(2):314-6

Differences between activation thresholds for platelet P-selectin glycoprotein IIb-IIIa expression and their clinical implications. Holmes MB, et al. **Thromb Res** 1999 Jul 15;95(2):75-82

Cilostazol inhibits the expression of activation-dependent membrane surface glycoprotein on the surface of platelets stimulated in vitro. Inoue T, et al. **Thromb Res** 1999 Feb 1;93(3):137-43

Exhaustive cycle exercise induces P-selectin expression, coagulation, and fibrinolysis activation in ultraendurance athletes. Möckel M, et al. **Thromb Res** 1999 May 15; 94(4):263-9

[Relationship between syndrome differentiation-typing and expression of platelet-activation molecule CD62P and CD63 on platelets in psoriatic patients] Li GY, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jul; 17(7):417-8 (Eng. Abstr.) **(Chi)**

[Effects of PGMS on the functions of human platelets and endothelial cells] Weng J, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec; 19(6):414-8 (Eng. Abstr.) **(Chi)**

BLOOD

Plasma soluble P-selectin in acute myocardial infarction: effects of coronary recanalization therapy. Tomoda H, et al. **Angiology** 1998 Oct;49(10):807-13

Thrombopoietin, interleukin-6, and P-selectin at diagnosis and during post-steroid recovery period of patients with autoimmune thrombocytopenic purpura. Haznedaroglu IC, et al. **Ann Hematol** 1998 Oct;77(4):165-70

Adhesive interaction between P-selectin and sialyl Lewis(x) plays an important role in recurrent coronary arterial thrombosis in dogs. Ikeda H, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):1083-90

In vitro comparison study of CD63 and CD62P expression after contacting leukocyte filters. Fukunaga K, et al.

Artif Organs 1999 Jan;23(1):108–13

Aprotinin reduces the expression of p-selectin on the surface of platelet and leukocyte-platelet conjugates. Inui K, et al. **Artif Organs** 1998 Dec;22(12):1018–22

Significance of soluble P-selectin, von Willebrand factor, and other adhesion molecules in hypercholesterolemia and peripheral artery disease [letter; comment] Blann AD, et al. **Circulation** 1999 May 11;99(18):2478–9. Comment on: Circulation 1998 Mar 17;97(10):953–7.

Circulating P- and L-selectin and T-lymphocyte activation and patients with autoimmune rheumatic diseases. Sfikakis PP, et al. **Clin Rheumatol** 1999;18(1):28–32

Increased baseline levels of platelet P-selectin, and platelet-endothelial cell adhesion molecule-1 in patients with acute myocardial infarction as predictors of unsuccessful thrombolysis. Gurbel PA, et al. **Coron Artery Dis** 1998;9(7):451–6

Volatile anaesthetics induce changes in the expression of P-selectin and glycoprotein Ib on the surface of platelets in vitro. Fröhlich D, et al. **Eur J Anaesthesiol** 1998 Nov; 15(6):641–8

Treatment with polymyxin B-immobilized fiber reduces platelet activation in septic shock patients: decrease in plasma levels of soluble P-selectin, platelet factor 4 and beta-thromboglobulin. Nakamura T, et al. **Inflamm Res** 1999 Apr;48(4):171–5

Alterations of soluble L- and P-selectins during cardiac arrest and CPR. Gando S, et al. **Intensive Care Med** 1999 Jun;25(6):588–93

Risk stratification of emergency department patients with acute coronary syndromes using P-selectin. Hollander JE, et al. **J Am Coll Cardiol** 1999 Jul;34(1):95–105

Role of P-selectin cytoplasmic domain in granular targeting in vivo and in early inflammatory responses. Hartwell DW, et al. **J Cell Biol** 1998 Nov 16;143(4):1129–41

P-selectin binding promotes the adhesion of monocytes to VCAM-1 under flow conditions. Yago T, et al. **J Immunol** 1999 Jul 1;163(1):367–73

Levels of soluble cell adhesion molecules in patients with angiographically defined coronary atherosclerosis. Saku K, et al. **Jpn Circ J** 1999 Jan;63(1):19–24

Platelet activation markers and the primary antiphospholipid syndrome (PAPS). Joseph JE, et al. **Lupus** 1998;7 Suppl 2:S48–51 (35 ref.)

Increased soluble P-selectin in peripheral artery disease: a new marker for the progression of atherosclerosis [letter] Blann AD, et al. **Thromb Haemost** 1998 Dec;80(6):1031–2

Reteplase but not alteplase affects early soluble PECAM-1 and P-selectin release in patients with acute myocardial infarction [letter] Gurbel PA, et al. **Thromb Haemost** 1998 Oct;80(4):725

Soluble P-selectin in diabetes [letter; comment] Jilma B, et al. **Thromb Haemost** 1999 Mar;81(3):474. Comment on: Thromb Haemost 1998 Sep;80(3):388–92.

Release of calcium and P-selectin from intraplatelet granules is hampered by procaine. Watala C, et al. **Thromb Res** 1999 Apr 1;94(1):1–11

Platelet surface P-selectin measurements in platelet preparations: an international collaborative study. Biomedical Excellence for Safer Transfusion (BEST) Working Party of the International Society of Blood Transfusion (ISBT). Dumont LJ, et al. **Transfus Med Rev** 1999 Jan;13(1):31–42

Platelet surface p-selectin, platelet-granulocyte heterotypic aggregates, and plasma-soluble p-selectin during plateletpheresis. Barnard MR, et al. **Transfusion** 1999 Jul; 39(7):735–41

Decrease in P-selectin levels in patients with hypercholesterolaemia and peripheral arterial occlusive disease after lipid-lowering treatment. Kirk G, et al. **Vasc Med** 1999;4(1):23–6

[Decreased plasma soluble P-selectin level in coronary sinus after successful coronary angioplasty in patients with unstable angina] Doi N, et al. **J Cardiol** 1999 May; 33(5):251–6 (Eng. Abstr.) **(Jpn)**

[Increased expression of P-selectin on platelets is a risk factor for silent cerebral infarction in patients with atrial fibrillation: role of nitric oxide] Minamino T, et al. **J Cardiol** 1999 Feb;33(2):103–4 **(Jpn)**

[Soluble adhesion molecules (P-selectin, ICAM-1 and ICAM-3) in rheumatoid arthritis] Nasonov EL, et al. **Ter Arkh** 1999;71(5):17–20 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Comparative biochemical and ultrastructural studies of P-selectin in rabbit platelets. Reed GL, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):729–38

Force-mediated kinetics of single P-selectin/ligand complexes observed by atomic force microscopy. Fritz J, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12283–8

DRUG EFFECTS

Oligonucleotide inhibitors of P-selectin-dependent neutrophil-platelet adhesion. Jenison RD, et al. **Antisense Nucleic Acid Drug Dev** 1998 Aug;8(4):265–79

Aryl C-glycosides: physiologically stable glycomimetics of sialyl Lewis X. Kuribayashi T, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3307–10

Kinetics of platelet P-selectin mobilization: concurrent surface expression and release induced by thrombin or PMA, and inhibition by the NO donor SNAP. Whiss PA, et al. **Cell Adhes Commun** 1998;6(4):289–300

GENETICS

Stat6 activation is essential for interleukin-4 induction of P-selectin transcription in human umbilical vein endothelial cells. Khew-Goodall Y, et al. **Arterioscler Thromb Vasc Biol** 1999 Jun;19(6):1421–9

P- and E-selectin-deficient mice are susceptible to cerebral ischemia-reperfusion injury. Soriano SG, et al. **Brain Res** 1999 Jul 24;835(2):360–4

P-selectin deficiency exacerbates experimental glomerulonephritis: a protective role for endothelial P-selectin in inflammation. Rosenkranz AR, et al. **J Clin Invest** 1999 Mar;103(5):649–59

Acceleration and increased severity of collagen-induced arthritis in P-selectin mutant mice. Bullard DC, et al. **J Immunol** 1999 Sep 1;163(5):2844–9

Improved recovery after spinal cord trauma in ICAM-1 and P-selectin knockout mice. Farooque M, et al. **Neuroreport** 1999 Jan 18;10(1):131–4

IMMUNOLOGY

Flow cytometric analysis of circadian changes in platelet activation using anti-GMP-140 monoclonal antibody. Undar L, et al. **Chronobiol Int** 1999 May;16(3):335–42

Characterization of an apparently conserved epitope in E- and P-selectin identified by dual-specific monoclonal antibodies. Goda K, et al. **Eur J Immunol** 1999 May; 29(5):1551–60

Protective effects of sialyl Lewis X and anti-P-selectin antibody against lipopolysaccharide-induced acute lung injury in rabbits. Hayashi H, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):47–56

Human T lymphocyte populations which bind to P- or E-selectin are enriched with cells expressing core 2 O-glycans. Mukasa R, et al. **Immunol Lett** 1999 Apr 1; 67(2):117–24

Protective effect of anti-P-selectin monoclonal antibody in lipopolysaccharide-induced lung hemorrhage. Ohnishi M, et al. **Inflammation** 1999 Oct;23(5):461–9

P-selectin deficiency exacerbates experimental glomerulonephritis: a protective role for endothelial P-selectin in inflammation. Rosenkranz AR, et al. **J Clin Invest** 1999 Mar;103(5):649–59

Donor MHC and adhesion molecules in transplant arteriosclerosis. Shi C, et al. **J Clin Invest** 1999 Feb; 103(4):469–74

P-selectin mediates neutrophil adhesion to endothelial cell borders. Burns AR, et al. **J Leukoc Biol** 1999 Mar; 65(3):299–306

Intestinal inflammation in adhesion molecule-deficient mice: an assessment of P-selectin alone and in combination with ICAM-1 or E-selectin. McCafferty DM, et al. **J Leukoc Biol** 1999 Jul;66(1):67–74

P-selectin antibody reduces hemorrhage and infarct volume resulting from MCA occlusion in the rat. Goussev AV, et al. **J Neurol Sci** 1998 Nov 26;161(1):16–22

In vivo neutralization of P-selectin inhibits leukocyte-endothelial interactions in retinal microcirculation during ocular inflammation. Miyamoto K, et al. **Microvasc Res** 1998 May;55(3):230–40

Reduction of ischemic brain injury by anti-P-selectin monoclonal antibody after permanent middle cerebral artery occlusion in rat. Suzuki H, et al. **Neurol Res** 1999 Apr;21(3):269–76

Anti-P-selectin antibody attenuates rat brain ischemic injury. Suzuki H, et al. **Neurosci Lett** 1999 Apr 23;265(3):163–6

METABOLISM

Topical budesonide treatment reduces endothelial expression of intercellular adhesion molecules (vascular cell adhesion molecule-1 and P-selectin) and eosinophil infiltration in nasal polyps. Tingsgaard PK, et al. **Acta Otolaryngol** 1999; 119(3):362–8

Usefulness of soluble and surface-bound P-selectin in detecting heightened platelet activity in patients with congestive heart failure. O'Connor CM, et al. **Am J Cardiol** 1999 May 1;83(9):1345–9

Differing patterns of P-selectin expression in lung injury. Bless NM, et al. **Am J Pathol** 1998 Oct;153(4):1113–22

Reperfusion injury is not affected by blockade of P-selectin in the diabetic mouse heart. Jones SP, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H763–9

Selectin/glycoconjugate binding assays for the identification and optimization of selectin antagonists. Weitz-Schmidt G, et al. **Anal Biochem** 1999 Aug 15;273(1):81–8

Determinants in the cytoplasmic domain of P-selectin required for sorting to secretory granules. Modderman PW, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):153–61

Interaction between soluble P-selectin and soluble P-selectin glycoprotein ligand 1: equilibrium binding analysis. Croce K, et al. **Biochemistry** 1998 Nov 24;37(47):16472–80

Exploration of beta-turn scaffolding motifs as components of sialyl Le(X) mimetics and their relevance to P-selectin. Hanessian S, et al. **Bioorg Med Chem Lett** 1998 Oct 6; 8(19):2803–8

Synthesis of sialyl Lewis X mimetics using the Ugi four-component reaction. Tsai CY, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2333–8

The effect of aspirin on thrombin stimulated platelet adhesion receptor expression and the role of neutrophils. Taylor ML, et al. **Br J Clin Pharmacol** 1998 Aug;46(2):139–45

Flow cytometric analysis of platelet activation by different collagen types present in the vessel wall. Alberio L, et al. **Br J Haematol** 1998 Sep;102(5):1212–8

X-ray-induced P-selectin localization to the lumen of tumor blood vessels. Hallahan DE, et al. **Cancer Res** 1998 Nov 15;58(22):5216–20

Role of P-selectin expression in hepatic ischemia and reperfusion injury. Singh I, et al. **Clin Transplant** 1999 Feb; 13(1 Pt 2):76–82

The effect of genetic deficiency of adhesion molecules on the course of endotoxin-induced uveitis. Planck SR, et al. **Curr Eye Res** 1998 Sep;17(9):941–6

Inhibition of P-selectin attenuates neutrophil-mediated myocardial dysfunction in isolated rat heart. Ohnishi M, et al. **Eur J Pharmacol** 1999 Feb 5;366(2–3):271–9

12-Hydroxyeicosatetraenoic acid upregulates P-selectin-induced tissue factor activity on monocytes. Pellegrini G, et al. **FEBS Lett** 1998 Dec 28;441(3):463–6

Characterization of the O-linked oligosaccharide structures on P-selectin glycoprotein ligand-1 (PSGL-1). Aeed PA, et al. **Glycoconj J** 1998 Oct;15(10):975–85

Monocytes that have ingested Yersinia enterocolitica serotype O:3 acquire enhanced capacity to bind to nonstimulated vascular endothelial cells via P-selectin. Wuorela M, et al. **Infect Immun** 1999 Feb;67(2):726–32

Neutrophil adhesion to human endothelial cells is induced by the membrane attack complex: the roles of P-selectin and platelet activating factor. Kilgore KS, et al. **Inflammation** 1998 Dec;22(6):583–98

Expression of selectin families and their ligand sialyl Lewis X in the muscles of inflammatory myopathies: an immunohistochemical study. Jimi T, et al. **Intern Med** 1999 Aug;38(8):632–5

Retinal ischemia-reperfusion injury attenuated by blocking of adhesion molecules of vascular endothelium. Tsujikawa A, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1183–90

A balance of opposing signals within the cytoplasmic tail controls the lysosomal targeting of P-selectin. Blagoveshchenskaya AD, et al. **J Biol Chem** 1998 Oct 23; 273(43):27896–903

A novel glycosulfopeptide binds to P-selectin and inhibits leukocyte adhesion to P-selectin. Leppänen A, et al. **J Biol Chem** 1999 Aug 27;274(35):24838–48

Affinity and kinetic analysis of P-selectin binding to P-selectin glycoprotein ligand-1. Mehta P, et al. **J Biol Chem** 1998 Dec 4;273(49):32506–13

Specific activation of platelets by surface-adsorbed plasma proteins. Nygren H, et al. **J Biomater Sci Polym Ed** 1998; 9(8):817–31

A complex web of signal-dependent trafficking underlies the triorganellar distribution of P-selectin in neuroendocrine PC12 cells. Blagoveshchenskaya AD, et al. **J Cell Biol** 1999 Jun 28;145(7):1419–33

The glycoprotein Ib-IX-V complex is a platelet counterreceptor for P-selectin. Romo GM, et al. **J Exp Med** 1999 Sep 20;190(6):803–14

Accumulation of P-selectin in the lumen of irradiated blood vessels. Hallahan DE, et al. **Radiat Res** 1999 Jul;152(1):6–13

Significance of membrane glycoproteins in platelet interaction with oxidized low-density lipoprotein. Takahashi Y, et al. **Semin Thromb Hemost** 1998;24(3):251–3

Neutrophil migration into the peritoneum is P-selectin dependent, but sequestration in lungs is selectin independent during peritonitis. Wickel DJ, et al. **Shock** 1998 Oct;10(4):265–9

PHARMACOLOGY

Plasma adenosine levels and platelet activation in patients with atrial fibrillation. Minamino T, et al. **Am J Cardiol** 1999 Jan 15;83(2):194–8

PHYSIOLOGY

Assessment of the mechanism of juxtacrine activation and adhesion of leukocytes in liver microcirculation. Carvalho-Tavares J, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G828–34

P-selectin and ICAM-1 mediate endotoxin-induced neutrophil recruitment and injury to the lung and liver. Kamochi M, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L310–9

Coronary endothelial P-selectin in pathogenesis of myocardial ischemia-reperfusion injury. Palazzo AJ, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1865–72

L- and P-selectin and CD11/CD18 in intracapillary neutrophil sequestration in rabbit lungs. Kubo H, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):267–74

P-Selectin and platelet clearance. Berger G, et al. **Blood** 1998 Dec 1;92(11):4446–52

Selective requirements for leukocyte adhesion molecules in models of acute and chronic cutaneous inflammation: participation of E- and P- but not L-selectin. Catalina MD, et al. **Blood** 1999 Jan 15;93(2):580–9

Platelet/polymorphonuclear leukocyte interaction: P-selectin triggers protein-tyrosine phosphorylation-dependent CD11b/CD18 adhesion: role of PSGL-1 as a signaling molecule. Evangelista V, et al. **Blood** 1999 Feb 1;93(3):876–85

Eosinophil tethering to interleukin-4-activated endothelial cells requires both P-selectin and vascular cell adhesion

molecule-1. Patel KD. **Blood** 1998 Nov 15;92(10):3904-11
Endothelial injuries of coronary arteries distal to thrombotic sites: role of adhesive interaction between endothelial P-selectin and leukocyte sialyl LewisX. Eguchi H, et al. **Circ Res** 1999 Mar 19;84(5):525-35
Effect of recombinant soluble P-selectin glycoprotein ligand-1 on leukocyte-endothelium interaction in vivo. Role in rat traumatic shock. Scalia R, et al. **Circ Res** 1999 Jan 8-22;84(1):93-102
Recombinant soluble form of PSGL-1 accelerates thrombolysis and prevents reocclusion in a porcine model. Kumar A, et al. **Circulation** 1999 Mar 16;99(10):1363-9
Effects of a monoclonal antibody to P-selectin on recovery of neonatal lamb hearts after cold cardioplegic ischemia. Nagashima M, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II391-7; discussion II397-8
Probucol inhibits oxidized-low density lipoprotein-induced adhesion of monocytes to endothelial cells by reducing P-selectin synthesis in vitro. Li LX, et al. **Endothelium** 1998;6(1):1-8
The transmembrane domain enhances granular targeting of P-selectin. Fleming JC, et al. **Eur J Cell Biol** 1998 Apr; 75(4):331-43
P- and L-selectin mediate binding of T cells to chronically inflamed human airway endothelium. Symon FA, et al. **Eur J Immunol** 1999 Apr;29(4):1324-33
P-Selectin mediates reperfusion injury through neutrophil and platelet sequestration in the warm ischemic mouse liver. Yadav SS, et al. **Hepatology** 1999 May;29(5):1494-502
P-selectin inhibition prevents early neutrophil activation but provides only modest protection against myocardial injury in dogs with ischemia and forty-eight hours reperfusion. Arai M, et al. **J Am Coll Cardiol** 1999 Jul;34(1):280-8
Essential role of P-selectin in the initiation of the inflammatory response induced by hemorrhage and reinfusion. Scalia R, et al. **J Exp Med** 1999 Mar 15; 189(6):931-8
Role of selectin-dependent adhesion in cardiac allograft rejection. Yamazaki S, et al. **J Heart Lung Transplant** 1998 Oct;17(10):1007-16
Varying roles of E-selectin and P-selectin in different microvascular beds in response to antigen. Hickey MJ, et al. **J Immunol** 1999 Jan 15;162(2):1137-43
Overlapping roles for L-selectin and P-selectin in antigen-induced immune responses in the microvasculature. Kanwar S, et al. **J Immunol** 1999 Mar 1;162(5):2709-16
P-selectin and MAC-1 mediate monocyte rolling and adhesion to ECM-bound platelets under flow conditions. Kuijper PH, et al. **J Leukoc Biol** 1998 Oct;64(4):467-73
Effects of a metalloproteinase that truncates P-selectin glycoprotein ligand on neutrophil-induced cardiac dysfunction in ischemia/reperfusion. Lefer AM, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2561-6
Inhibition of adhesion molecules markedly ameliorates cytokine-induced sustained myocardial dysfunction in dogs in vivo. Momii H, et al. **J Mol Cell Cardiol** 1998 Dec; 30(12):2637-50
P-selectin blockade following fluid-percussion injury: behavioral and immunochemical sequelae. Grady MS, et al. **J Neurotrauma** 1999 Jan;16(1):13-25
Activation of endothelial cells in preeclampsia: increased neutrophil-endothelial adhesion correlates with up-regulation of adhesion molecule P-selectin in human umbilical vein endothelial cells isolated from preeclampsia. Wang Y, et al. **J Soc Gynecol Investig** 1998 Sep-Oct; 5(5):237-43
Lewis antigen mediated adhesion of freshly removed human bladder tumors to E-selectin. Skorstengaard K, et al. **J Urol** 1999 Apr;161(4):1316-23
Angiogenesis in P- and E-selectin-deficient mice. Hartwell DW, et al. **Microcirculation** 1998;5(2-3):173-8
An absolute requirement for P-selectin in ischemia/reperfusion-induced leukocyte recruitment in cremaster muscle. Kanwar S, et al. **Microcirculation** 1998; 5(4):281-7
In vivo neutralization of P-selectin inhibits leukocyte-endothelial interactions in retinal microcirculation during ocular inflammation. Miyamoto K, et al. **Microvasc Res** 1998 May;55(3):230-40
P-selectin-mediated rolling is a prerequisite for ICAM-1-independent firm adhesion in arterioles provoked by tumor necrosis factor-alpha in vivo. Thorlacius H, et al. **Microvasc Res** 1999 Sep;58(2):193-6
An atypical sorting determinant in the cytoplasmic domain of P-selectin mediates endosomal sorting. Straley KS, et al. **Mol Biol Cell** 1998 Jul;9(7):1683-94
Endothelial selectins and vascular cell adhesion molecule-1 promote hematopoietic progenitor homing to bone marrow [see comments] Frenette PS, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14423-8. Comment in: Proc Natl Acad Sci U S A 1998 Dec 22;95(26):15155-7.
Multiple, targeted deficiencies in selectins reveal a predominant role for P-selectin in leukocyte recruitment. Robinson SD, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11452-7
The biology of P-selectin glycoprotein ligand-1: its role as a selectin counterreceptor in leukocyte-endothelial and leukocyte-platelet interaction. Yang J, et al. **Thromb Haemost** 1999 Jan;81(1):1-7 (76 ref.)
Cylexin: a P-selectin inhibitor prolongs heart allograft survival in hypersensitized rat recipients. Park IY, et al. **Transplant Proc** 1998 Nov;30(7):2927-8
[Coronary thrombosis and cell adhesion molecules] Ikeda H, et al. **Nippon Rinsho** 1999 Jul;57(7):1502-7 (21 ref.) (Eng. Abstr.) **(Jpn)**

SELECTINS

ANALYSIS

Enhanced expression of selectins in human skin wounds. Dressler J, et al. **Int J Legal Med** 1999;112(1):39-44

BIOSYNTHESIS

Selectins induced by interleukin-1beta on the human liver endothelial cells act as ligands for sialyl Lewis X-expressing human colon cancer cell metastasis. Matsushita Y, et al. **Cancer Lett** 1998 Nov 27;133(2):151-60

BLOOD

Selectins and IL-6 during the clinical course of idiopathic thrombocytopenic purpura. Haznedaroglu IC, et al. **Acta Haematol** 1999 Mar;101(1):16-20
Effects of colchicine on inflammatory cytokines and selectins in familial Mediterranean fever. Kiraz S, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):721-4
Plasma soluble endothelial selectin is elevated in women with pre-eclampsia. Daniel Y, et al. **Hum Reprod** 1998 Dec; 13(12):3537-41
Serum concentrations of sICAM-1, sE-, sP- and sL-selectins in patients with Schistosoma mansoni infection and association with disease severity. Esterre P, et al. **Parasite Immunol** 1998 Aug;20(8):369-76
Plasma levels of selectins and interleukins in cardiovascular surgery using cardiopulmonary bypass. Sablotzki A, et al. **Thorac Cardiovasc Surg** 1999 Feb;47(1):26-31

DRUG EFFECTS

Fucoidin reduces coronary microvascular leukocyte accumulation early in reperfusion. Ritter LS, et al. **Ann Thorac Surg** 1998 Dec;66(6):2063-71; discussion 2072
Synthesis of sialyl Lewis x mimetics as selectin inhibitors by enzymatic aldol condensation reactions. Lin CC, et al. **Bioorg Med Chem** 1999 Mar;7(3):425-33

GENETICS

Mice lacking two or all three selectins demonstrate overlapping and distinct functions for each selectin. Jung U, et al. **J Immunol** 1999 Jun 1;162(11):6755-62
Biomphalaria glabrata embryonic cells express a protein with a domain homologous to the lectin domain of mammalian selectins. Duclermortier P, et al. **Parasitol Res** 1999 Jun; 85(6):481-6

IMMUNOLOGY

Influence of oligosaccharide presentation on the interactions of carbohydrate sequence-specific antibodies and the selectins. Observations with biotinylated oligosaccharides. Leteux C, et al. **J Immunol Methods** 1999 Jul 30; 227(1-2):109-19

METABOLISM

Involvement of selectin-like carbohydrate binding specificity in human gamete interaction. Oehninger S, et al. **Andrologia** 1998 Aug-Sep;30(4-5):269-74
A stereoselective alpha-fucosylation reaction using 1-hydroxy 2,3,4-tri-O-benzyl-L-fucose donor for the practical synthesis of selectin blocker. Kiyoi T, et al. **Bioorg Med Chem Lett** 1998 Oct 20;8(20):2845-8
Biosynthesis of sialylated and fucosylated selectin ligands of HL-60 cells in vitro. Midchain alpha3-fucose units inhibit terminal alpha6-sialylation but not alpha3-sialylation of polylactosamines. Natunen J, et al. **FEBS Lett** 1999 Jun 11;452(3):272-6
Panosialins, inhibitors of an alpha1,3-fucosyltransferase Fuc-TVII, suppress the expression of selectin ligands on U937 cells. Shinoda K, et al. **Glycoconj J** 1998 Nov; 15(11):1079-83
Novel monoclonal antibodies to putative selectin carbohydrate ligands that inhibit selectin binding to myeloid cells. Zhang K, et al. **Hybridoma** 1998 Oct; 17(5):445-56
Recombinant glycoproteins that inhibit complement activation and also bind the selectin adhesion molecules. Rittershaus CW, et al. **J Biol Chem** 1999 Apr 16; 274(16):11237-44
Leukocyte infection by the granulocytic ehrlichiosis agent is linked to expression of a selectin ligand. Goodman JL, et al. **J Clin Invest** 1999 Feb;103(3):407-12
Interleukin 12 and interleukin 4 control T cell adhesion to endothelial selectins through opposite effects on alpha1, 3-fucosyltransferase VII gene expression. Wagers AJ, et al. **J Exp Med** 1998 Dec 21;188(12):2225-31
Acquisition of selectin binding and peripheral homing properties by CD4(+) and CD8(+) T cells. Xie H, et al. **J Exp Med** 1999 Jun 7;189(11):1765-76
Studies on selectin blockers. 7. Structure-activity relationships of sialyl Lewis X mimetics based on modified Ser-Glu dipeptides. Tsukida T, et al. **J Med Chem** 1998 Oct 22;41(22):4279-87
Mechanisms that regulate the function of the selectins and their ligands. Vestweber D, et al. **Physiol Rev** 1999 Jan; 79(1):181-213 (386 ref.)

PHARMACOLOGY

Antagonism of selectin-dependent adhesion of human eosinophils and neutrophils by glycomimetics and oligosaccharide compounds. Kim MK, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):836-41

PHYSIOLOGY

Distinct selectin ligands on colon carcinoma mucins can mediate pathological interactions among platelets, leukocytes, and endothelium. Kim YJ, et al. **Am J Pathol** 1999 Aug;155(2):461-72
Selectin blockade reduces neutrophil interaction with platelets at the site of deep arterial injury by angioplasty in pigs. Merhi Y, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb;19(2):372-7
Are selectins involved in metastasis? Krause T, et al. **Clin Exp Metastasis** 1999 May;17(3):183-92 (69 ref.)
The role of selectins in VLA-4 and CD18-independent neutrophil migration to joints of rats with adjuvant arthritis. Birner U, et al. **Eur J Immunol** 1999 Apr;29(4):1094-100
Molecular mechanisms that control leukocyte extravasation: the selectins and the chemokines. Ebnet K, et al. **Histochem Cell Biol** 1999 Jul;112(1):1-23 (247 ref.)
Selectin blockade worsened lipopolysaccharide-induced lung injury in a swine model. Tasaki O, et al. **J Trauma** 1999 Jun;46(6):1089-95
Pain control in inflammation governed by selectins [see comments] Machelska H, et al. **Nat Med** 1998 Dec; 4(12):1425-8. Comment in: Nat Med 1998 Dec;4(12):1359-60.
Can inflammation relieve pain? [news; comment] Porreca F, et al. **Nat Med** 1998 Dec;4(12):1359-60. Comment on: Nat Med 1998 Dec;4(12):1425-8.
Selectins in the HIT syndrome: pathophysiologic role and therapeutic modulation. Fareed J, et al. **Semin Thromb Hemost** 1999;25 Suppl 1:37-42 (24 ref.)
[Oligosaccharide sulfate inhibitors of selectin-sugar interactions in inflammatory processes] Auge C, et al. **Ann Pharm Fr** 1999 May;57(3):216-22 (12 ref.) (Eng. Abstr.) **(Fre)**
[Selectin and homing of lymphocytes] Kannagi R, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2549-58 (34 ref.) **(Jpn)**

SELECTION (GENETICS)

Carcinogenesis and natural selection: a new perspective to the genetics and epigenetics of colorectal cancer. Breivik J, et al. **Adv Cancer Res** 1999;76:187-212 (112 ref.)
Comparison of alcohol-preferring and nonpreferring selectively bred rat lines. II. Operant self-administration in a continuous-access situation. Files FJ, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2147-58
Development of alcohol drinking behavior in rat lines selectively bred for divergent alcohol preference. McKinzie DL, et al. **Alcohol Clin Exp Res** 1998 Oct; 22(7):1584-90
Comparison of alcohol-preferring and nonpreferring selectively bred rat lines. I. Ethanol initiation and limited access operant self-administration. Samson HH, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2133-46
Mitochondrial genetic analyses suggest selection against maternal lineages in bipolar affective disorder. Kirk R, et al. **Am J Hum Genet** 1999 Aug;65(2):508-18
Nonrandom X inactivation and selection of fragile X full mutation in fetal fibroblasts. Sun YJ, et al. **Am J Med Genet** 1999 Sep 10;86(2):162-4
Selection for carriers of recessive diseases: a common phenomenon? Zlotogora J. **Am J Med Genet** 1998 Nov 16;80(3):266-8 (19 ref.)
Is the genetic code really a frozen accident? New evidence from in vitro selection. Knight RD, et al. **Ann N Y Acad Sci** 1999 May 18;870:408-10
Natural selection at major histocompatibility complex loci of vertebrates. Hughes AL, et al. **Annu Rev Genet** 1998; 32:415-35 (59 ref.)
Selective breeding for high and low alcohol preference in mice. Grahame NJ, et al. **Behav Genet** 1999 Jan;29(1):47-57
Developmental isolation and subsequent adult behavior of Drosophila paulistorum. V. Survey of six sibling species. Kim YK, et al. **Behav Genet** 1999 Jan;29(1):65-73
Audiogenic seizure sensitivity in mouse lines genetically selected for high versus low blood magnesium levels. Motta R, et al. **Behav Genet** 1999 Mar;29(2):125-30
Positive Darwinian selection in Vipera palaestinae phospholipase A2 genes is unexpectedly limited to the third exon. Kordiš D, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):613-9
Acquisition of selenium tolerance by a selenium non-accumulating Astragalus species via selection. Wang Y, et al. **Biofactors** 1999;9(1):3-10
Clonal variability within dihydrofolate reductase-mediated gene amplified Chinese hamster ovary cells: stability in the absence of selective pressure. Kim NS, et al. **Biotechnol Bioeng** 1998 Dec 20;60(6):679-88
The sexual competition hypothesis for eating disorders. Abed RT. **Br J Med Psychol** 1998 Dec;71 (Pt 4):525-47

Emotional disorders in evolutionary perspective. Nesse R. **Br J Med Psychol** 1998 Dec;71 (Pt 4):397–415
Evolutionary epidemiology and manic depression. Wilson DR. **Br J Med Psychol** 1998 Dec;71 (Pt 4):375–95
Antibiotic-selective environments. Baquero F, et al. **Clin Infect Dis** 1998 Aug;27 Suppl 1:S5–11 (28 ref.)
Gene trap screening using negative selection: identification of two tandem, differentially expressed loci with potential hematopoietic function. Cannon JP, et al. **Dev Genet** 1999; 25(1):49–63
Mutation, selection, and evolution [editorial] Zeiger E. **Environ Mol Mutagen** 1998;32(4):291
The equation for response to selection and its use for prediction. Mühlenbein H. **Evol Comput** 1997 Fall; 5(3):303–46
Identification of regions in which positive selection may operate in S-RNase of Rosaceae: implication for S-allele-specific recognition sites in S-RNase. Ishimizu T, et al. **FEBS Lett** 1998 Dec 4;440(3):337–42
Natural selection of high heel usage [letter] Roeder B. **Foot Ankle Int** 1999 Jul;20(7):470
Natural selection and high heels. Smith EO, et al. **Foot Ankle Int** 1999 Jan;20(1):55–7
Long-term selection for protein amount over 70 generations in mice. Bünger L, et al. **Genet Res** 1998 Oct;72(2):93–109
Linkage disequilibrium, mutational analysis and natural selection in the repetitive region of the clock gene, period, in Drosophila melanogaster. Rosato E, et al. **Genet Res** 1997 Apr;69(2):89–99
Balancing selection and MHC. Hedrick PW. **Genetics** 1998–99;104(3):207–14 (66 ref.)
Positive selection drives the evolution of the Acp29AB accessory gland protein in Drosophila. Aguadé M. **Genetics** 1999 Jun;152(2):543–51
Inferring the fitness effects of DNA mutations from polymorphism and divergence data: statistical power to detect directional selection under stationarity and free recombination. Akashi H. **Genetics** 1999 Jan;151(1):221–38
Prediction of genetic contributions and generation intervals in populations with overlapping generations under selection. Bijma P, et al. **Genetics** 1999 Mar;151(3):1197–210
Genetic variation maintained in multilocus models of additive quantitative traits under stabilizing selection. Bürger R, et al. **Genetics** 1999 Jun;152(2):807–20
Natural selection on synonymous sites is correlated with gene length and recombination in Drosophila. Comeron JM, et al. **Genetics** 1999 Jan;151(1):239–49
Evidence of selection on silent site base composition in mammals: potential implications for the evolution of isochores and junk DNA. Eyre-Walker A. **Genetics** 1999 Jun;152(2):675–83
Identification of quantitative trait loci influencing traits related to energy balance in selection and inbred lines of mice. Moody DE, et al. **Genetics** 1999 Jun;152(2):699–711
Improving the efficiency of artificial selection: more selection pressure with less inbreeding. Sanchez L, et al. **Genetics** 1999 Mar;151(3):1103–14
The evolution of dominance. Bourguet D. **Heredity** 1999 Jul; 83 (Pt 1):1–4 (40 ref.)
The direct response of Drosophila melanogaster to selection on knockdown temperature. Gilchrist GW, et al. **Heredity** 1999 Jul;83 (Pt 1):15–29
Selection under negative linkage disequilibrium. Random mating versus inbreeding. Silvela L, et al. **Heredity** 1999 Jun;82 (Pt 6):598–604
Distribution of corticotropin-releasing hormone promoter polymorphism in different ethnic groups: evidence for natural selection in human populations. Baerwald CG, et al. **Immunogenetics** 1999 Sep;49(10):894–9
Evolution of the mammalian MHC: natural selection, recombination, and convergent evolution. Yeager M, et al. **Immunol Rev** 1999 Feb;167:45–58 (77 ref.)
Evolution isn't for the faint of heart [letter; comment] Barnhill J. **J Am Acad Child Adolesc Psychiatry** 1999 Aug; 38(8):939. Comment on: J Am Acad Child Adolesc Psychiatry 1998 Oct;37(10):1011–21.
Properties of threshold model predictions. Abdel-Azim GA, et al. **J Anim Sci** 1999 Mar;77(3):582–90
Shortcomings of current genetic evaluation systems. Bourdon RM. **J Anim Sci** 1998 Sep;76(9):2308–23 (53 ref.)
The impact of genetic markers on selection. Davis GP, et al. **J Anim Sci** 1998 Sep;76(9):2331–9 (51 ref.)
"Quasi-REML" correlation estimates between production and health traits in the presence of selection and confounding: a simulation study. Gates P, et al. **J Anim Sci** 1999 Mar;77(3):558–68
Defining multiple-trait objectives for sustainable genetic improvement. Gibson JP, et al. **J Anim Sci** 1998 Sep; 76(9):2303–7 (29 ref.)
Two-stage selection strategies utilizing marker-quantitative trait locus information and individual performance. Gomez-Raya L, et al. **J Anim Sci** 1999 Aug;77(8):2008–18
Direct and correlated responses to selection for efficiency of lean gain in mice. Holder RB, et al. **J Anim Sci** 1999 Mar;77(3):575–81
Responses in ovulation rate, embryonal survival, and litter traits in swine to 14 generations of selection to increase litter size. Johnson RK, et al. **J Anim Sci** 1999 Mar; 77(3):541–57
Maximizing the response of selection with a predefined rate of inbreeding: overlapping generations. Meuwissen TH, et al. **J Anim Sci** 1998 Oct;76(10):2575–83
Isolation and characterization of mutations in Bacillus subtilis that allow spore germination in the novel germinant D-alanine. Paidhungat M, et al. **J Bacteriol** 1999 Jun; 181(11):3341–50
HIV-1 evolution under pressure of protease inhibitors: climbing the stairs of viral fitness. Berkhout B. **J Biomed Sci** 1999 Sep-Oct;6(5):298–305 (59 ref.)
Insurance ovulation, embryo mortality and twinning. Ball HL, et al. **J Biosoc Sci** 1999 Apr;31(2):245–55
Bone's early responses to mechanical loading differ in distinct genetic strains of chick: selection for enhanced growth reduces skeletal adaptability. Pitsillides AA, et al. **J Bone Miner Res** 1999 Jun;14(6):980–7
Productive life and reasons for disposal of Holstein cows selected for large versus small body size. Hansen LB, et al. **J Dairy Sci** 1999 Apr;82(4):795–801
The effects of nutritional manipulation and laboratory selection on lifespan in Drosophila melanogaster. Nusbaum TJ, et al. **J Gerontol A Biol Sci Med Sci** 1999 May; 54(5):B192–8
Convergence of multilocus systems under weak epistasis or weak selection. Nagylaki T, et al. **J Math Biol** 1999 Feb; 38(2):103–33
Neuropeptide Y gene expression in lines of mice subjected to long-term divergent selection on fat content. Boswell T, et al. **J Mol Endocrinol** 1999 Aug;23(1):77–83
Synonymous codon choices in the extremely GC-poor genome of Plasmodium falciparum: compositional constraints and translational selection. Musto H, et al. **J Mol Evol** 1999 Jul;49(1):27–35
Estimating the contributions of selection and self-organization in RNA secondary structure. Schultes EA, et al. **J Mol Evol** 1999 Jul;49(1):76–83
Unifying genetic and game theoretic models of kin selection for continuous traits. Day T, et al. **J Theor Biol** 1998 Oct 7;194(3):391–407
Abundant multilocus polymorphisms caused by genetic interaction between species on trait-for-trait basis. Kirzhner VM, et al. **J Theor Biol** 1999 May 7;198(1):61–70
A procedure for detecting selection in highly variable viral genomes: evidence of positive selection in antigenic regions of capsid protein VP1 of foot-and-mouth disease virus. Martin MJ, et al. **J Virol Methods** 1998 Oct;74(2):215–21
Selection, recombination and history in a parasitic flatworm (Echinococcus) inferred from nucleotide sequences. Haag KL, et al. **Mem Inst Oswaldo Cruz** 1998 Sep-Oct; 93(5):695–702
Stable transformation of Toxoplasma gondii based on a pyrimethamine resistant trifunctional dihydrofolate reductase-cytosine deaminase-thymidylate synthase gene that confers sensitivity to 5-fluorocytosine. Fox BA, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):93–103
HLA-H: a pseudogene with increased variation due to balancing selection at neighboring loci. Grimsley C, et al. **Mol Biol Evol** 1998 Dec;15(12):1581–8
Reduced nucleotide variability at an androgen-binding protein locus (Abpa) in house mice: evidence for positive natural selection. Karn RC, et al. **Mol Biol Evol** 1999 Sep; 16(9):1192–7
A simple method for estimating the intensity of purifying selection in protein-coding genes. Ophir R, et al. **Mol Biol Evol** 1999 Jan;16(1):49–53
Genealogies and weak purifying selection. Przeworski M, et al. **Mol Biol Evol** 1999 Feb;16(2):246–52
Rapid evolution of a primate sperm protein: relaxation of functional constraint or positive Darwinian selection? Rooney AP, et al. **Mol Biol Evol** 1999 May;16(5):706–10
Rapid establishment of high-producing cell lines using dicistronic vectors with glutamine synthetase as the selection marker. Pu H, et al. **Mol Biotechnol** 1998 Aug; 10(1):17–25
Follicle selection in sheep with breed differences in ovulation rate. Baird DT, et al. **Mol Cell Endocrinol** 1998 Oct 25; 145(1-2):89–95 (28 ref.)
In vivo selection of retrovirally transduced hematopoietic stem cells. Allay JA, et al. **Nat Med** 1998 Oct;4(10):1136–43
Selective repopulation of normal mouse liver by Fas/CD95-resistant hepatocytes. Mignon A, et al. **Nat Med** 1998 Oct;4(10):1185–8
Selection, the mutation rate and cancer: ensuring that the tail does not wag the dog. Tomlinson I, et al. **Nat Med** 1999 Jan;5(1):11–2 (19 ref.)
Intron size and natural selection. Carvalho AB, et al. **Nature** 1999 Sep 23;401(6751):344
Isochores result from mutation not selection [letter] Francino MP, et al. **Nature** 1999 Jul 1;400(6739):30–1
The limits of selection during maize domestication. Wang RL, et al. **Nature** 1999 Mar 18;398(6724):236–9
The "anxiety state" and its relation with rat models of memory and habituation. Ribeiro RL, et al. **Neurobiol Learn Mem** 1999 Sep;72(2):78–94
Using sequence logos and information analysis of Lrp DNA binding sites to investigate discrepanciesbetween natural selection and SELEX. Shultzaberger RK, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):882–7
Comparative evolutionary pharmacogenetics of CYP2D6 in Ngawbe and Embera Amerindians of Panama and Colombia: role of selection versus drift in world populations. Jorge LF, et al. **Pharmacogenetics** 1999 Apr; 9(2):217–28
Timidity in Japanese quail: effects of vitamin C and divergent selection for adrenocortical response. Jones RB, et al. **Physiol Behav** 1999 Aug 1;67(1):117–20
Lessons for the poultry industry gleaned from experiences with other commodity species. Amann RP. **Poult Sci** 1999 Mar;78(3):419–27
Genetic relationships between selection for growth and reproductive effectiveness. Barbato GF. **Poult Sci** 1999 Mar;78(3):444–52
Patterns of growth and feed intake in divergent lines of laying domestic fowl selected for residual feed consumption. Bordas A, et al. **Poult Sci** 1999 Mar;78(3):317–23
Effect of genetics and maternal dietary iodide supplementation on turkey embryonic growth. Christensen VL, et al. **Poult Sci** 1999 Jun;78(6):883–9
Effects of genetics and maternal dietary iodide supplementation on glycogen content of organs within embryonic turkeys. Christensen VL, et al. **Poult Sci** 1999 Jun;78(6):890–8
Symposium summary and challenges for the future. Hammerstedt RH. **Poult Sci** 1999 Mar;78(3):459–66
Discounted expressions of traits in broiler breeding programs. Jiang X, et al. **Poult Sci** 1999 Mar;78(3):307–16
Different commercial broiler crosses have different susceptibilities to leg weakness. Kestin SC, et al. **Poult Sci** 1999 Aug;78(8):1085–90
Broiler meat quality: effect of selection for increased carcass quality and estimates of genetic parameters. Le Bihan-Duval E, et al. **Poult Sci** 1999 Jun;78(6):822–6
Improving animal well-being through genetic selection. Muir WM, et al. **Poult Sci** 1998 Dec;77(12):1781–8 (69 ref.)
A geneticist's perspective from within a broiler primary breeder company. Pollock DL. **Poult Sci** 1999 Mar; 78(3):414–8
Direct and correlated response to divergent selection for serum immunoglobulin M and G levels in chickens. Sarker N, et al. **Poult Sci** 1999 Jan;78(1):1–7
Broiler breeder survivors of chronic unilateral pulmonary artery occlusion produce progeny resistant to pulmonary hypertension syndrome (ascites) induced by cool temperatures. Wideman RF Jr, et al. **Poult Sci** 1999 Mar; 78(3):404–11
Kinetics of antibody responses in hens from chicken lines divergently selected for response to sheep red blood cells. Yang N, et al. **Poult Sci** 1999 Aug;78(8):1081–4
Developmental shifts and species selection in gastropods. Duda TF Jr, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10272–7
The signature of balancing selection: fungal mating compatibility gene evolution. May G, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9172–7
Developmental selection within the angiosperm style: using gamete DNA to visualize interspecific pollen competition. Williams JH Jr, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9201–6
Trade-off associated with selection for increased ability to resist parasitoid attack in Drosophila melanogaster. Fellowes MD, et al. **Proc R Soc Lond B Biol Sci** 1998 Aug 22;265(1405):1553–8
Natural selection on age-specific fertilities in human females: comparison of individual-level fitness measures. Käär P, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 22; 265(1413):2415–20
Levels of selection, altruism, and primate behavior. Bradley BJ. **Q Rev Biol** 1999 Jun;74(2):171–94 (94 ref.)
Parasitism, host immune function, and sexual selection. Møller AP, et al. **Q Rev Biol** 1999 Mar;74(1):3–20
Evolution and the origins of disease [published erratum appears in Sci Am 1999 Mar;280(3):14] Nesse RM, et al. **Sci Am** 1998 Nov;279(5):86–93
Science and "truth" [letter; comment] Hogg DW. **Science** 1999 Jul 30;285(5428):663. Comment on: Science 1999 Jun 25;284(5423):2087.
Chimp cultural diversity [letter; comment] Jablonski NG, et al. **Science** 1999 Aug 6;285(5429):836–7. Comment on: Science 1999 Jun 25;284(5423):2070–3.
Ecology returns to speciation studies [news] [see comments] Morell V. **Science** 1999 Jun 25;284(5423):2106–8. Comment in: Science 1999 Aug 6;285(5429):837.
Genetic selection of peptide inhibitors of biological pathways. Norman TC, et al. **Science** 1999 Jul 23;285(5427):591–5
Gaining new insight into the molecular basis of evolution [news] Pennisi E. **Science** 1999 Jul 30;285(5428):654–5
The evolution of species interactions. Thompson JN. **Science** 1999 Jun 25;284(5423):2116–8
Genomic instability, DNA methylation, and natural selection in colorectal carcinogenesis. Breivik J, et al. **Semin Cancer Biol** 1999 Aug;9(4):245–54 (65 ref.)
The coalescent time in the presence of background fertility selection. Campbell RB. **Theor Popul Biol** 1999 Jun; 55(3):260–9
Evolution of mutualistic symbiosis without vertical transmission. Genkai-Kato M, et al. **Theor Popul Biol** 1999 Jun;55(3):309–23
The effects of density dependence and immigration on local adaptation and niche evolution in a black-hole sink environment. Gomulkiewicz R, et al. **Theor Popul Biol** 1999 Jun;55(3):283–96
Sexual selection by male choice in monogamous and polygynous human populations. Ihara Y, et al. **Theor Popul Biol** 1999 Feb;55(1):77–93
Tandem constructs: preventing the rise of superweeds. Gressel J. **Trends Biotechnol** 1999 Sep;17(9):361–6 (62 ref.)
Prospects and strategies for genetic improvement of the dairy

potential of tropical cattle by selection. Syrstad O, et al. **Trop Anim Health Prod** 1998 Aug;30(4):257–68 (17 ref.)
Natural selection of the Pol gene of bovine immunodeficiency virus. Cooper CR, et al. **Virology** 1999 Mar 15; 255(2):294–301
Vectors for transcription factor cloning and target site identification by means of genetic selection in yeast. Meijer AH, et al. **Yeast** 1998 Nov;14(15):1407–15
[Changes in sizes and forms of the American mink (Mustela vison) skull bred for tame and aggressive types of behavior] Kharlamova AV, et al. **Dokl Akad Nauk** 1999 Jul; 367(2):276–8 **(Rus)**
[Selective structure of the gene pool. II. Standard method using F(ST) statistics] Balanovskaia EV, et al. **Genetika** 1998 Sep;34(9):1307–21 (Eng. Abstr.) **(Rus)**
[Selective structure of the gene pool. IV. Estimation from the selection intensity index Rs] Balanovskaia EV, et al. **Genetika** 1998 Nov;34(11):1559–73 (Eng. Abstr.) **(Rus)**
[Selective structure of the gene pool. III. Technology of determination from F(ST)-statistics using numerical resampling] Balanovskaia EV, et al. **Genetika** 1998 Oct; 34(10):1434–46 (Eng. Abstr.) **(Rus)**
[Biosynthesis of testosterone in the gonads in silver fox embryos after long-term selection for domesticated behavior] Osadchuk LV. **Genetika** 1998 Jul;34(7):941–6 (Eng. Abstr.) **(Rus)**
[Population dynamics of the additive polygenic system under truncation selection] Ratner VA, et al. **Genetika** 1999 Jun; 35(6):853–61 (Eng. Abstr.) **(Rus)**
[Improvement of methods for determining genetic correlations for selection indices] Riabko VM, et al. **Genetika** 1999 Jun;35(6):847–52 (Eng. Abstr.) **(Rus)**
[Population dynamics of the response of the genomic pattern of the mobile genetic element Dm412 in Drosophila on selection for a quantitative trait] Vasil'eva LA, et al. **Genetika** 1998 Jul;34(7):929–40 (Eng. Abstr.) **(Rus)**
[A selection model for predicting poultry meat productivity] Kovalenko VP, et al. **Tsitol Genet** 1998 Jul–Aug;32(4):55–9 (Eng. Abstr.) **(Rus)**
[Circadian rhythm of various melatonin biosynthesis parameters in the silver fox Vulpes fulvus during domestication] Kolesnikova LA, et al. **Zh Evol Biokhim Fiziol** 1998 Sep–Oct;34(5):576–82 **(Rus)**
[Interstrain differences in the the behavior of mice selected for greater and lesser brain mass] Markina NV, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Jan–Feb; 49(1):59–67 (Eng. Abstr.) **(Rus)**
[The characteristics of the development of learned helplessness in rats selected for the excitability threshold of their nervous systems] Ordian NE. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov–Dec; 48(6):1058–64 (Eng. Abstr.) **(Rus)**
[The evolution of resistance in a Culex quinquefasciatus strain starting from selection with the pyrethroid insecticide lambdacyhalothrin] González T, et al. **Rev Cubana Med Trop** 1996;48(3):218–23 (Eng. Abstr.) **(Spa)**
[The selection of a strain of Culex quinquefasciatus resistant to lambdacyhalothrin and its spectrum of cross-resistance to other insecticides] Rodríguez MM, et al. **Rev Cubana Med Trop** 1998;50(2):129–32 (Eng. Abstr.) **(Spa)**
[The genetics and selection of microorganisms] Matseliukh BP. **Mikrobiol Z** 1998 Sep–Oct;60(5):60–72 (100 ref.) (Eng. Abstr.) **(Ukr)**

SELECTION BIAS

Participant selection biases in a randomized clinical trial of alcoholism treatment settings and intensities. Rychtarik RG, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):969–73
A population comparison of participants and nonparticipants in a health survey. Klesges RC, et al. **Am J Public Health** 1999 Aug;89(8):1228–31
Unbiased, relevant, and reliable assessments in health care: important progress during the past century, but plenty of scope for doing better [editorial] Chalmers I. **BMJ** 1998 Oct 31;317(7167):1167–8
Detecting selection bias in randomized clinical trials. Berger VW, et al. **Control Clin Trials** 1999 Aug;20(4):319–27
Sampling bias in blending validation and a different approach to homogeneity assessment. Kraemer J, et al. **Drug Dev Ind Pharm** 1999 Feb;25(2):217–22
Selection bias and the use of controls with malformations in case-control studies of birth defects. Lieff S, et al. **Epidemiology** 1999 May;10(3):238–41
Testosterone level as a potential selection bias for semen donors in assessing population fertility [letter] Mullard A, et al. **Epidemiology** 1999 Jul;10(4):467–8
A sensitivity analysis of secular trends in risk factors and mortality based on cohort studies. Prescott E, et al. **Epidemiology** 1999 Mar;10(2):176–80
Price elasticities of demand for curative health care with control for sample selectivity on endogenous illness: an analysis for Sri Lanka. Akin JS, et al. **Health Econ** 1998 Sep;7(6):509–31
Precision and method bias of two assays for oestradiol: consequences for decisions in assisted reproduction. Tummon I, et al. **Hum Reprod** 1999 May;14(5):1175–7
Stepwise selection in small data sets: a simulation study of bias in logistic regression analysis. Steyerberg EW, et al. **J Clin Epidemiol** 1999 Oct;52(10):935–42
Is there a Gulf War syndrome? [letter; comment] Roff SR. **Lancet** 1999 Apr 3;353(9159):1182–3. Comment on: Lancet 1999 Jan 16;353(9148):169–78.
Does selection bias determine the prevalence of the cavum septi pellucidi? Pauling KJ, et al. **Pediatr Neurol** 1998 Sep; 19(3):195–8
Reduction of selection bias in primary prevention of cardiovascular disease through involvement of primary health care. Weinehall L, et al. **Scand J Prim Health Care** 1998 Sep;16(3):171–6
Selection bias and treatment heterogeneity in clinical trials. Longford NT. **Stat Med** 1999 Jun 30;18(12):1467–74
Correcting for verification bias in studies of a diagnostic test's accuracy. Zhou XH. **Stat Methods Med Res** 1998 Dec; 7(4):337–53 (43 ref.)
[Roaming through methodology. XV. Smoking grandfathers and other selection biases] van Gijn J, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1515–7 (7 ref.) (Eng. Abstr.) **(Dut)**

SELECTION CRITERIA see **PATIENT SELECTION**

SELECTIVE MUTISM see **MUTISM**

SELECTIVE PROVIDER RESTRICTIONS see **PATIENT FREEDOM OF CHOICE LAWS**

SELEGILINE

ADMINISTRATION & DOSAGE

A pilot evaluation of the tolerability, safety, and efficacy of tolcapone alone and in combination with oral selegiline in untreated Parkinson's disease patients. Tolcapone De Novo Study Group. Hauser RA, et al. **Mov Disord** 1998 Jul;13(4):643–7
Anticonvulsant efficacy of L-deprenyl (selegiline) during chronic treatment in mice: continuous versus discontinuous administration. Löscher W, et al. **Neuropharmacology** 1998 Dec;37(12):1587–93
Oral versus transdermal selegiline: antidepressant-like activity in rats. Gordon MN, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):501–6
Is 10 milligrams selegiline essential as an adjunct therapy for the symptomatic treatment of Parkinson's disease? Mahmood I. **Ther Drug Monit** 1998 Dec;20(6):717–21

ADVERSE EFFECTS

Selegiline-induced postural hypotension in Parkinson's disease: a longitudinal study on the effects of drug withdrawal. Churchyard A, et al. **Mov Disord** 1999 Mar; 14(2):246–51

ANALOGS & DERIVATIVES

Synthesis of tools for target identification of the anti-apoptotic compound CGP 3466; Part I. Zimmermann K, et al. **Bioorg Med Chem Lett** 1998 May 19; 8(10):1195–200

ANALYSIS

Analysis of deprenyl metabolites in the rat brain using HPLC-ES-MS. Kalász H, et al. **Curr Med Chem** 1999 Apr; 6(4):271–8
Stereochemical determination of selegiline metabolites in postmortem biological specimens. Kupiec TC, et al. **J Forensic Sci** 1999 Jan;44(1):222–6

CHEMISTRY

[In vitro interaction of selegiline, riboflavin and light. Sensitized photodegradation of drugs. I] Takács M, et al. **Acta Pharm Hung** 1999 Jun;69(3):103–7 (Eng. Abstr.) **(Hun)**

METABOLISM

Analysis of deprenyl metabolites in the rat brain using HPLC-ES-MS. Kalász H, et al. **Curr Med Chem** 1999 Apr; 6(4):271–8
Chromatographic investigation and computer simulation of L-deprenyl metabolism. Tarjányi ZS, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr–Jun; 23(2):324–8
Stereoselective analyses of selegiline metabolites: possible urinary markers for selegiline therapy. Hasegawa M, et al. **Forensic Sci Int** 1999 Apr 26;101(2):95–106

PHARMACOKINETICS

Temporal lobe epilepsy visualized with PET with 11C-L-deuterium-deprenyl--analysis of kinetic data. Bergström M, et al. **Acta Neurol Scand** 1998 Oct; 98(4):224–31
Dose linearity study of selegiline pharmacokinetics after oral administration: evidence for strong drug interaction with female sex steroids. Laine K, et al. **Br J Clin Pharmacol** 1999 Mar;47(3):249–54
CYP2D6 polymorphism is not crucial for the disposition of selegiline. Scheinin H, et al. **Clin Pharmacol Ther** 1998 Oct; 64(4):402–11
l-methamphetamine pharmacokinetics and pharmacodynamics for assessment of in vivo deprenyl-derived l-methamphetamine. Melega WP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):752–8

PHARMACOLOGY

Assessing the effects of deprenyl on longevity and antioxidant defenses in different animal models. Kitani K, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:291–306 (36 ref.)
Chronic L-deprenyl treatment alters brain monoamine levels and reduces impulsiveness in an animal model of Attention-Deficit/Hyperactivity Disorder. Boix F, et al. **Behav Brain Res** 1998 Jul;94(1):153–62
l-Deprenyl, blocking apoptosis and regulating gene expression in cultured retinal neurons. Xu L, et al. **Biochem Pharmacol** 1999 Oct 1;58(7):1183–90
Synthesis of tools for target identification of the anti-apoptotic compound CGP 3466; Part I. Zimmermann K, et al. **Bioorg Med Chem Lett** 1998 May 19; 8(10):1195–200
Effect of low-dose treatment with selegiline on dopamine transporter (DAT) expression and amphetamine-induced dopamine release in vivo. Lamensdorf I, et al. **Br J Pharmacol** 1999 Feb;126(4):997–1002
Effect of selegiline on dopamine concentration in the striatum of a primate. Kaseda S, et al. **Brain Res** 1999 Jan 2; 815(1):44–50
Trophic effects of selegiline on cultured dopaminergic neurons. Kontkanen O, et al. **Brain Res** 1999 May 22; 829(1-2):190–2
Chronic (–) deprenyl administration increases dendritic arborization in CA3 neurons of hippocampus and AChE activity in specific regions of the primate brain. Lakshmana MK, et al. **Brain Res** 1998 Jun 15;796(1-2):38–44
Clorgyline and deprenyl attenuate striatal malonate and 3-nitropropionic acid lesions. Maragos WF, et al. **Brain Res** 1999 Jul 10;834(1-2):168–72
Chronic (–) deprenyl administration alters dendritic morphology of layer III pyramidal neurons in the prefrontal cortex of adult Bonnett monkeys. Shankaranarayana Rao BS, et al. **Brain Res** 1999 Mar 6; 821(1):218–23
Region-specific alterations in the concentrations of catecholamines and indoleamines in the brains of young and old F344 rats after L-deprenyl treatment. ThyagaRajan S, et al. **Brain Res Bull** 1999 Mar 15;48(5):513–20
L-deprenyl inhibits tumor growth, reduces serum prolactin, and suppresses brain monoamine metabolism in rats with carcinogen-induced mammary tumors. ThyagaRajan S, et al. **Endocrine** 1999 Jun;10(3):225–32
Deprenyl rescues dopaminergic neurons in organotypic slice cultures of neonatal rat mesencephalon from N-methyl-D-aspartate toxicity. Shimazu S, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):29–34
The amphetamine-like reinforcing effect and mechanism of L-deprenyl on conditioned place preference in mice. Wu WR, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):1–6
Onset and progression of motor deficits in motor neuron degeneration (mnd) mice are unaltered by the glycine/NMDA receptor antagonist L-701,324 or the MAO-B inhibitor R(–)-deprenyl. Boyce S, et al. **Exp Neurol** 1999 Jan;155(1):49–58
L-deprenyl-induced increase in IL-2 and NK cell activity accompanies restoration of noradrenergic nerve fibers in the spleens of old F344 rats. ThyagaRajan S, et al. **J Neuroimmunol** 1998 Dec 1;92(1-2):9–21
Effects of L-deprenyl treatment on noradrenergic innervation and immune reactivity in lymphoid organs of young F344 rats. ThyagaRajan S, et al. **J Neuroimmunol** 1999 Apr 1;96(1):57–65
Monoamine oxidase inhibition causes a long-term prolongation of the dopamine-induced responses in rat midbrain dopaminergic cells. Mercuri NB, et al. **J Neurosci** 1997 Apr 1;17(7):2267–72
Enhanced glial cell line-derived neurotrophic factor mRNA expression upon (–)-deprenyl and melatonin treatments. Tang YP, et al. **J Neurosci Res** 1998 Sep 1;53(5):593–604
L-deprenyl induces aromatic L-amino acid decarboxylase (AADC) mRNA in the rat substantia nigra and ventral tegmentum. An in situ hybridization study. Li XM, et al. **Mol Chem Neuropathol** 1998 Aug–Dec;35(1-3):149–55
Selegiline prevents long-term changes in dopamine efflux and stress immobility during the second and third weeks of abstinence following opiate withdrawal. Grasing K, et al. **Neuropharmacology** 1998 Aug;37(8):1007–17
Selegiline effects on cocaine-induced changes in medial temporal lobe metabolism and subjective ratings of euphoria. Bartzokis G, et al. **Neuropsychopharmacology** 1999 Jun;20(6):582–90
L-deprenyl: nitric oxide production and dilation of cerebral blood vessels. Thomas T, et al. **Neuroreport** 1998 Aug 3; 9(11):2595–600
L-Deprenyl stimulates the release of catecholamines in the rat medial basal hypothalamus in vivo. ThyagaRajan S, et al. **Neurosci Lett** 1999 Jul 30;270(2):79–82
Neuronal sparing and behavioral effects of the antiapoptotic drug, (-)deprenyl, following kainic acid administration. Gelowitz DL, et al. **Pharmacol Biochem Behav** 1999 Feb; 62(2):255–62
Oral versus transdermal selegiline: antidepressant-like activity in rats. Gordon MN, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):501–6
Cytoprotection by deprenyl and tolcapone in a cell culture model of cerebral ischaemia. Ekblom J, et al.

SELEGILINE

Pharmacol Toxicol 1998 Nov;83(5):194–9
[Effects of selegiline hydrochloride on intracellular Ca2+ contents in cultured neuronal cells] Itoh T, et al.
No To Shinkei 1998 Dec;50(12):1093–9 (Eng. Abstr.) **(Jpn)**

RADIATION EFFECTS

[In vitro interaction of selegiline, riboflavin and light. Sensitized photodegradation of drugs. I] Takács M, et al.
Acta Pharm Hung 1999 Jun;69(3):103–7 (Eng. Abstr.) **(Hun)**

THERAPEUTIC USE

Combined and selective monoamine oxidase inhibition in the treatment of depression in Parkinson's disease. Jansen Steur EN, et al. **Adv Neurol** 1999;80:505–8
Effect of adding selegiline to levodopa in early, mild Parkinson's disease. Evidence is insufficient to show that combined treatment increases mortality [letter; comment] Aaltonen H, et al. **BMJ** 1998 Dec 5;317(7172):1586–7. Comment on: BMJ 1998 Apr 18;316(7139):1191–6.
Effect of adding selegiline to levodopa in early, mild Parkinson's disease. Formal systematic review of data on patients in all relevant trials is required [letter; comment] Counsell C. **BMJ** 1998 Dec 5;317(7172):1586. Comment on: BMJ 1998 Apr 18;316(7139):1191–6.
The effect of deprenyl treatment on directional and velocity control of arm movement in patients with early stages of Parkinson's disease. Giladi N, et al.
Clin Neuropharmacol 1999 Jan–Feb;22(1):54–9
Selegiline augmentation of antipsychotics for the treatment of negative symptoms in schizophrenia. Gupta S, et al.
Compr Psychiatry 1999 Mar–Apr;40(2):148–50
Stereoselective analyses of selegiline metabolites: possible urinary markers for selegiline therapy. Hasegawa M, et al.
Forensic Sci Int 1999 Apr 26;101(2):95–106
Selegiline in the treatment of Alzheimer's disease: a long-term randomized placebo-controlled trial. Czech and Slovak Senile Dementia of Alzheimer Type Study Group. Filip V, et al. **J Psychiatry Neurosci** 1999 May;24(3):234–43
Medical treatment of pituitary-dependent hyperadrenocorticism in dogs: should L-deprenyl (Anipryl) ever be used? [editorial] Peterson ME.
J Vet Intern Med 1999 Jul–Aug;13(4):289–90
The efficacy of L-Deprenyl in dogs with pituitary-dependent hyperadrenocorticism. Reusch CE, et al.
J Vet Intern Med 1999 Jul–Aug;13(4):291–301
Effect of treatment with L-dopa/carbidopa or L-selegiline on striatal dopamine transporter SPECT imaging with [123I]beta-CIT. Innis RB, et al. **Mov Disord** 1999 May; 14(3):436–42
A randomized, double-blind, placebo-controlled trial of deprenyl and thiotic acid in HIV-associated cognitive impairment [letter; comment] Di Rocco A. **Neurology** 1999 Jun 10;52(9):1920; discussion 1920–1. Comment on: Neurology 1998 Mar;50(3):645–51.
A randomized, double-blind, placebo-controlled trial of deprenyl and thiotic acid in HIV-associated cognitive impairment [letter; comment] Roesler R, et al.
Neurology 1999 Jun 10;52(9):1920–1. Comment on: Neurology 1998 Mar;50(3):645–51.
[Assessment of the efficacy of treatment with pimozide in patients with amyotrophic lateral sclerosis. Introductory notes] Szczudlik A, et al. **Neurol Neurochir Pol** 1998 Jul–Sep;32(4):821–9 (Eng. Abstr.) **(Pol)**
[Jumex in the treatment of Alzheimer's disease] Zarajczyk M. **Neurol Neurochir Pol** 1999;33 Suppl 1:73–5 **(Pol)**

SELENITE see **SODIUM SELENITE**

SELENIUM

A selenium-containing abzyme, the activity of which surpassed the level of native glutathione peroxidase. Luo G, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:136–41
Comparison between a screen-film system and a selenium radiography system. An ROC study using simulated thoracic lesions. Kotter E, et al. **Invest Radiol** 1999 Apr; 34(4):296–302
Effects of pre- or postpartum selenium supplementation on selenium status in beef cows and their calves. Enjalbert F, et al. **J Anim Sci** 1999 Jan;77(1):223–9
Selenoprotein P in human plasma as an extracellular phospholipid hydroperoxide glutathione peroxidase. Isolation and enzymatic characterization of human selenoprotein p. Saito Y, et al. **J Biol Chem** 1999 Jan 29; 274(5):2866–71
Digital x-ray imaging using amorphous selenium: reduction of aliasing. Ji WG, et al. **Med Phys** 1998 Nov; 25(11):2148–62
Digital radiology using active matrix readout of amorphous selenium: geometrical and effective fill factors. Pang G, et al. **Med Phys** 1998 Sep;25(9):1636–46
Functional indicators of iodine and selenium status. Arthur JR. **Proc Nutr Soc** 1999 May;58(2):507–12 (59 ref.)
Detection of CT-proved pulmonary nodules: comparison of selenium-based digital and conventional screen-film chest radiographs. Woodard PK, et al. **Radiology** 1998 Dec; 209(3):705–9
Selenite and selenium yeast as feed supplements to growing fattening pigs. Ortman K, et al.
Zentralbl Veterinarmed A 1998 Nov;45(9):551–7
[Digital radiography of the thorax with selenium detector. Clinical results and optimization potential of the technique] Procacci C, et al. **Radiol Med (Torino)** 1998 Nov; 96(5):446–53 (Eng. Abstr.) **(Ita)**

ADMINISTRATION & DOSAGE

Responsiveness of selenoproteins to dietary selenium. Allan CB, et al. **Annu Rev Nutr** 1999;19:1–16 (50 ref.)
Effect of selenium supplementation in asthmatic subjects on the expression of endothelial cell adhesion molecules in culture. Horváthová M, et al. **Biol Trace Elem Res** 1999 Jul;69(1):15–26
Effect of vitamin E and selenium supplementation of cockerel diets on glutathione peroxidase activity and lipid peroxidation susceptibility in sperm, testes, and liver. Surai P, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):119–32
Selenium-enriched Agaricus bisporus mushrooms suppress 7,12-dimethlybenz[a]anthracene bioactivation in mammary tissue. Spolar MR, et al. **Cancer Lett** 1999 Apr 26; 138(1–2):145–50
Selenium deficiency and chronic pancreatitis: disease mechanism and potential for therapy. Bowrey DJ, et al. **HPB Surg** 1999;11(4):207–15; discussion 215–6 (41 ref.)
Significance of amount and form of dietary selenium on blood, milk, and casein selenium concentrations in grazing cows. Knowles SO, et al. **J Dairy Sci** 1999 Feb;82(2):429–37
Effect of administration of vitamin E and selenium during the dry period on mammary health and milk cell counts in dairy ewes. Morgante M, et al. **J Dairy Sci** 1999 Mar; 82(3):623–31
Selenium deficiency in tissue culture: implications for oxidative metabolism. Baker RD Jr, et al.
J Pediatr Gastroenterol Nutr 1998 Oct;27(4):387–92
Expression pattern of gastrointestinal selenoproteins--targets for selenium supplementation. Mörk H, et al.
Nutr Cancer 1998;32(2):64–70
Dietary antioxidants and magnesium in type 1 brittle asthma: a case control study. Baker JC, et al. **Thorax** 1999 Feb; 54(2):115–8

ADVERSE EFFECTS

Environmental selenium and cancer: risk or protection? [editorial; comment] Clark LC, et al.
Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):847–8; discussion 851–2 (14 ref.). Comment on: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):853–6.
False presumptions and continued surprises: how much do we really know about nutritional supplements and cancer risk? [editorial; comment] Kristal AR, et al.
Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):849–50; discussion 851–2 (12 ref.). Comment on: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):853–6.
Excess melanoma incidence in a cohort exposed to high levels of environmental selenium [see comments] Vinceti M, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):853–6 . Comment in: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):847–8. Comment in: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):849–50.
Active oxygen species generation and cellular damage by additives of parenteral preparations: selenium and sulfhydryl compounds. Terada A, et al. **Nutrition** 1999 Sep; 15(9):651–5

ANALYSIS

Characteristics of the new milks for infants: fatty acids, nucleotides, selenium. Agostoni C, et al.
Acta Biomed Ateneo Parmense 1997;68 Suppl 1:29–34
Measurement of selenium in clinical specimens. Sheehan TM, et al. **Ann Clin Biochem** 1999 May;36 (Pt 3):301–15 (107 ref.)
Certified reference materials for quality control of mercury and selenium determination in food. Jędrzejczak R, et al.
Arh Hig Rada Toksikol 1999 Mar;50(1):13–21
Comparison of two methods for destruction of biological material for determination of selenium. Matek M, et al.
Arh Hig Rada Toksikol 1998 Dec;49(4):301–5
Subcellular distribution of selenium and Se-containing proteins in human liver. Chen C, et al.
Biochim Biophys Acta 1999 Apr 19;1427(2):205–15
Selenium and mercury concentrations in some fish species of the Madeira River, Amazon Basin, Brazil. Dorea JG, et al. **Biol Trace Elem Res** 1998 Dec;65(3):211–20
Selenium content of milk and milk products of Turkey. II. Yanardağ R, et al. **Biol Trace Elem Res** 1999 Apr; 68(1):79–95
Selenium and copper in vegetables and fruits grown on long-term impacted soils from Valparaiso region, Chile. Pinochet H, et al. **Bull Environ Contam Toxicol** 1999 Sep; 63(3):327–34
Comparison of total mercury, methylmercury, and selenium in muscle tissues and in the liver of Stenella coeruleoalba (Meyen) and Caretta caretta (Linnaeus). Storelli MM, et al. **Bull Environ Contam Toxicol** 1998 Oct;61(4):541–7
Determination of copper, zinc, and selenium in human plasma and urine samples by potentiometric stripping analysis and constant current stripping analysis. Gozzo ML, et al.
Clin Chim Acta 1999 Jul;285(1–2):53–68
Selenium transport and bioaccumulation in aquatic ecosystems: a proposal for water quality criteria based on hydrological units. Lemly AD. **Ecotoxicol Environ Saf** 1999 Feb;42(2):150–6 (27 ref.)
Twenty years of trace metal analyses of marine mammals in Alaska: evaluation and summation. Ponce RA, et al.
Int J Circumpolar Health 1998;57 Suppl 1:576–81
Determination of selenium in meat products by hydride generation atomic absorption spectrophotometry. Tinggi U. **J AOAC Int** 1999 Mar–Apr;82(2):364–7
Determination of selenium stable isotopes by gas chromatography–mass spectrometry with negative chemical ionisation. Van Dael P, et al.
J Chromatogr B Biomed Sci Appl 1998 Sep 18;715(2):341–7
Significance of amount and form of dietary selenium on blood, milk, and casein selenium concentrations in grazing cows. Knowles SO, et al. **J Dairy Sci** 1999 Feb;82(2):429–37
The distribution of selenium levels in Saudi dairy farms: a preliminary report from Al-Kharj. Al-Saleh IA, et al.
J Environ Pathol Toxicol Oncol 1999;18(1):37–46
Levels of selenium in the skin of patients with chronic lymphedema. Werner GT. **Lymphology** 1999 Sep; 32(3):126–8
Selenium contents of human milk and infant formulas in Spain. Torres MA, et al. **Sci Total Environ** 1999 Apr 5; 228(2–3):185–92

BLOOD

Association of antioxidants with memory in a multiethnic elderly sample using the Third National Health and Nutrition Examination Survey. Perkins AJ, et al.
Am J Epidemiol 1999 Jul 1;150(1):37–44
Plasma selenium levels and risk of hepatocellular carcinoma among men with chronic hepatitis virus infection. Yu MW, et al. **Am J Epidemiol** 1999 Aug 15;150(4):367–74
Separation of selenium-containing proteins in human and mouse plasma using tandem high-performance liquid chromatography columns coupled with inductively coupled plasma-mass spectrometry. Koyama H, et al.
Anal Biochem 1999 Feb 1;267(1):84–91
Serum selenium in the general population of Singapore, 1993 to 1995. Hughes K, et al. **Ann Acad Med Singapore** 1998 Jul;27(4):520–3
Serum and urine selenium concentrations in patients with cardiovascular diseases and relationship to other nutritional indexes. Navarro-Alarcón M, et al. **Ann Nutr Metab** 1999; 43(1):30–6
Impact of oxygen therapy on antioxidant status in newborns. Relationship with infection risk. Araujo V, et al.
Biofactors 1998;8(1–2):143–7
High serum coenzyme Q10, positively correlated with age, selenium and cholesterol, in Inuit of Greenland. A pilot study. Pedersen HS, et al. **Biofactors** 1999;9(2–4):319–23
Environmental factors, health-related habits, and serum selenium levels in cancer patients and healthy controls. Backović D, et al. **Biol Trace Elem Res** 1999 Jan; 67(1):55–62
Serum selenium levels in healthy Slovak children and adolescents. Brtková A, et al. **Biol Trace Elem Res** 1999 Jan;67(1):49–54
Direct determination of selenium in human blood plasma and seminal plasma by graphite furnace atomic absorption spectrophotometry and clinical application. Lin TH, et al.
Biol Trace Elem Res 1998 Summer;64(1–3):133–49
Plasma and urinary selenium in Saudi Arabian patients with dilated cardiomyopathy. Raines DA, et al.
Biol Trace Elem Res 1999 Jul;69(1):59–68
Trace elements in hemodialysis and continuous ambulatory peritoneal dialysis patients. Zima T, et al. **Blood Purif** 1998; 16(5):253–60
Serum selenium levels in multinodular goitre. Samir M, et al. **Clin Otolaryngol** 1998 Dec;23(6):512–4
Effect of exercise training, selenium and vitamin E on some free radical scavengers in horses (Equus caballus). Avellini L, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jun;123(2):147–54
Plasma levels of selenium, selenoprotein P and glutathione peroxidase and their correlations to fish intake and serum levels of thyrotropin and thyroid hormones: a study on Latvian fish consumers. Hagmar L, et al.
Eur J Clin Nutr 1998 Nov;52(11):796–800
Effects of pancreatic enzyme preparations on erythrocyte glutathione peroxidase activities and plasma selenium concentrations in cystic fibrosis. Winklhofer-Roob BM, et al. **Free Radic Biol Med** 1998 Jul 15;25(2):242–9
Recurrent spontaneous abortion and selenium deficiency. Koçak I, et al. **Int J Gynaecol Obstet** 1999 Apr;65(1):79–80
Biological interaction between transition metals (Ag, Cd and Hg), selenide/sulfide and selenoprotein P. Sasakura C, et al. **J Inorg Biochem** 1998 Sep;71(3–4):159–62
Direct determination of selenium and other trace elements in serum samples by ICP-MS. Forrer R, et al.
J Trace Elem Med Biol 1999 Apr;12(4):240–7
The human selenium status in 27 regions of Russia. Golubkina NA, et al. **J Trace Elem Med Biol** 1999 Jul;13(1–2):15–20
Serum copper, zinc and selenium levels with regard to psychological stress in men. Pizent A, et al.
J Trace Elem Med Biol 1999 Jul;13(1–2):34–9
Selenium, zinc and copper in plasma of patients with type 1 diabetes mellitus in different metabolic control states. Ruíz C, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):91–5
Selenium, glutathione peroxidase and superoxide dismutase in maltese asthmatic patients: effect of glucocorticoid administration. Fenech AG, et al. **Pulm Pharmacol Ther** 1998;11(4):301–8

Whole blood selenium content in pregnant women. Ferrer E, et al. **Sci Total Environ** 1999 Mar 9;227(2-3):139-43
Serum and urine selenium concentrations as indicators of body status in patients with diabetes mellitus. Navarro-Alarcón M, et al. **Sci Total Environ** 1999 Mar 22;228(1):79-85
Food supply abundant increase of serum selenium concentrations in middle-aged Dresden women between 1990 and 1996. DRECAN-Team. Dresden Cardiovascular Risk and Nutrition. Bergmann S, et al. **Toxicol Lett** 1998 Aug;96-97:181-7
Selenium status in fibromyalgia. Reinhard P, et al. **Toxicol Lett** 1998 Aug;96-97:177-80
The role of cytokines and antioxidant status in graft quality prediction. Zivna H, et al. **Transplant Proc** 1999 Aug; 31(5):2094
Association of vitamin A, zinc, selenium and magnesium with oesophageal cancer. Nayar D, et al. **Trop Gastroenterol** 1998 Oct-Dec;19(4):148-9
[The concentration of selenium in the maternal serum in cases of missed abortion] Marinov B, et al. **Akush Ginekol (Sofiia)** 1998;37(1):15-6 (Eng. Abstr.) **(Bul)**
[The comparison of selenium status between the children suffered from pneumonia and the normal children from kindergarten] Cui H, et al. **Wei Sheng Yen Chiu** 1997 Jul; 26(4):242-4 (Eng. Abstr.) **(Chi)**
[Determination of the selenomethionine content in grain and human blood] Yang X, et al. **Wei Sheng Yen Chiu** 1997 Mar;26(2):113-6 (Eng. Abstr.) **(Chi)**
[Serum selenium levels in the population of four regions in southern Moravia] Kizek R, et al. **Vnitr Lek** 1998 Mar; 44(3):135-41 (Eng. Abstr.) **(Cze)**
[Nutritional status of participants in the Giessen Senior Long-Term Study with respect to antioxidant vitamins and selenium] Gritschneder K, et al. **Z Gerontol Geriatr** 1998 Dec;31(6):448-53 (Eng. Abstr.) **(Ger)**
[Serum selenium contents and the risk of cancer] Ujiie S, et al. **Gan To Kagaku Ryoho** 1998 Oct;25(12):1891-7 (Eng. Abstr.) **(Jpn)**
[Selenium nutritional status and the course of psoriasis] Serwin AB, et al. **Pol Merkuriusz Lek** 1999 May; 6(35):263-5 (Eng. Abstr.) **(Pol)**
[Selenium and some antioxidants in blood of patients with chronic renal failure (published erratum appears in Pol Merkuriusz Lek 1998 Dec;5(30):356)] Trafikowska U, et al. **Pol Merkuriusz Lek** 1998 Sep;5(27):178-82 (61 ref.) (Eng. Abstr.) **(Pol)**

CEREBROSPINAL FLUID

Cerebrospinal fluid selenium and chromium levels in patients with Parkinson's disease. Aguilar MV, et al. **J Neural Transm** 1998;105(10-12):1245-51
Cerebrospinal fluid levels of selenium in patients with Alzheimer's disease. Meseguer I, et al. **J Neural Transm** 1999;106(3-4):309-15

CHEMISTRY

Selenomethionine-substituted Thermus thermophilus cytochrome ba3: characterization of the CuA site by Se and Cu K-EXAFS. Blackburn NJ, et al. **Biochemistry** 1999 Jun 1;38(22):7075-84
Accelerated volatilization rates of selenium from different soils. Stork A, et al. **Biol Trace Elem Res** 1999 Sep; 69(3):217-34
Selenium-containing xanthine dehydrogenase from Eubacterium barkeri. Schräder T, et al. **Eur J Biochem** 1999 Sep;264(3):862-71
Anisotropy of chemical shift and J coupling for P-31 and Se-77 in trimethyl and triphenyl phosphine selenides. Grossmann G, et al. **Solid State Nucl Magn Reson** 1998 Nov;13(1-2):71-85
Selenium-based MAD phasing: setting the sites on larger structures. Deacon AM, et al. **Structure Fold Des** 1999 Jul 15;7(7):R161-6

DEFICIENCY

Is low selenium status a risk factor for lung cancer? Knekt P, et al. **Am J Epidemiol** 1998 Nov 15;148(10):975-82
Protective effect of gamma-glutamylcysteinylethyl ester on dysfunction of the selenium-deficient rat heart. Okamoto T, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):955-63
Protective role of ubiquinone in vitamin E and selenium-deficient plasma membranes. Navarro F, et al. **Biofactors** 1999;9(2-4):163-70
The effects of selenium deficiency on differentiation, degradation, and cell lysis of L8 rat skeletal muscle cells. Ueda Y, et al. **Biol Trace Elem Res** 1999 Jul;69(1):1-13
Midmural fibrosis of left ventricle due to selenium deficiency. Inoko M, et al. **Circulation** 1998 Dec 8;98(23):2638-9
Effect of selenium deficiency on cardiac function of individuals with severe disabilities under long-term tube feeding [published erratum appears in Dev Med Child Neurol 1999 Feb;41(2):inside back cover] Saito Y, et al. **Dev Med Child Neurol** 1998 Nov;40(11):743-8
Vitamin E and selenium deficiency induces expression of the ubiquinone-dependent antioxidant system at the plasma membrane. Navarro F, et al. **FASEB J** 1998 Dec; 12(15):1665-73
Effect of selenium deficiency on cellular and extracellular glutathione peroxidases: immunochemical detection and mRNA analysis in rat kidney and serum. Nakane T, et al. **Free Radic Biol Med** 1998 Sep;25(4-5):504-11
Selenium deficiency and chronic pancreatitis: disease mechanism and potential for therapy. Bowrey DJ, et al. **HPB Surg** 1999;11(4):207-15; discussion 215-6 (41 ref.)
Recurrent spontaneous abortion and selenium deficiency. Koçak I, et al. **Int J Gynaecol Obstet** 1999 Apr;65(1):79-80
Mortality risk in selenium-deficient HIV-positive children. Campa A, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):508-13
Increased neutrophil adherence and adhesion molecule mRNA expression in endothelial cells during selenium deficiency. Maddox JF, et al. **J Leukoc Biol** 1999 May; 65(5):658-64
Single and multiple selenium-zinc-iodine deficiencies affect rat thyroid metabolism and ultrastructure. Ruz M, et al. **J Nutr** 1999 Jan;129(1):174-80
Selenium and liver cirrhosis. Al-Bader A, et al. **Mol Cell Biochem** 1998 Aug;185(1-2):1-6
Dilated cardiomyopathy in HIV-infected patients [letter; comment] Chariot P, et al. **N Engl J Med** 1999 Mar 4; 340(9):732; discussion 733-5. Comment on: N Engl J Med 1998 Oct 15;339(16):1093-9. Comment on: N Engl J Med 1998 Oct 15;339(16):1153-5.
In utero exposure to methylmercury and Se deficiency converge on the neurobehavioral outcome in mice. Watanabe C, et al. **Neurotoxicol Teratol** 1999 Jan-Feb; 21(1):83-8
Selenium and HIV infection [editorial] Constans J, et al. **Nutrition** 1999 Sep;15(9):719-20
Selenium depletion in patients with gastrointestinal diseases: are there any predictive factors? Rannem T, et al. **Scand J Gastroenterol** 1998 Oct;33(10):1057-61
Temporal variations in blood glutathione peroxidase (GSHPx) activity in sheep at pasture in a Mediterranean area. Andres S, et al. **Vet J** 1999 Mar;157(2):186-8
Rupture of the gracilis muscle in Iberian pigs at slaughter. Méndez A, et al. **Vet Rec** 1999 Mar 13;144(11):294-6
[Progress in the study of endemic diseases in China, 1997] Wu Z, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Dec; 77(12):933-4 (0 ref.) **(Chi)**
[Selenium deficiency favors the appearance of heart failure after multiple injury] Briel A, et al. **Ann Fr Anesth Reanim** 1997;16(7):911-2 (Eng. Abstr.) **(Fre)**
[Investigations on manifestations of vitamin E and selenium deficiency in sheep and goats] Bickhardt K, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jun;106(6):242-7 (Eng. Abstr.) **(Ger)**
[Selenium status and bronchopulmonary dysplasia in premature infants <1,500 g.] Merz U, et al. **Z Geburtshilfe Neonatol** 1998 Sep;202(5):203-6 (Eng. Abstr.) **(Ger)**
[Effects of the combined deficiency of selenium and iodine on thyroid function] Miniero R, et al. **Ann Ist Super Sanita** 1998;34(3):349-55 (39 ref.) (Eng. Abstr.) **(Ita)**
[Selenium in health and disease] Inglot AD, et al. **Postepy Hig Med Dosw** 1998;52(3):207-22 (99 ref.) (Eng. Abstr.) **(Pol)**
[Selenium status in population of Irkutsk region] Golubkina NA, et al. **Vopr Pitan** 1998;(4):24-6 (Eng. Abstr.) **(Rus)**

HISTORY

Just 40 years ago [editorial; comment] McLaren DS. **Nutrition** 1999 Mar;15(3):254, 256. Comment on: Nutrition 1999 Mar;15(3):255.
Selenium as an integral part of factor 3 against dietary necrotic liver degeneration. 1951 [classical article] [see comments] Schwarz K, et al. **Nutrition** 1999 Mar;15(3):255 . Comment in: Nutrition 1999 Mar;15(3):254, 256.

ISOLATION & PURIFICATION

[Active anticarcinogenic chemical components in ordinary garlic and selenium-enriched garlic] Yang W, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Sep;31(5):304-6 (21 ref.) **(Chi)**

METABOLISM

Fermented whey--an inexpensive feed source for a laboratory-scale selenium-bioremediation reactor system inoculated with Thauera selenatis. Bledsoe TL, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):682-5
Sex-related levels of selenium, heavy metals, and organochlorine compounds in American white pelicans (Pelecanus erythrorhyncos). Donaldson GM, et al. **Arch Environ Contam Toxicol** 1999 Jul;37(1):110-4
The vhuU gene encoding a small subunit of a selenium-containing [NiFe]-hydrogenase in Methanococcus voltae appears to be essential for the cell. Pfeiffer M, et al. **Arch Microbiol** 1998 Nov;170(6):418-26
Bacillus arsenicoselenatis, sp. nov., and Bacillus selenitireducens, sp. nov.: two haloalkaliphiles from Mono Lake, California that respire oxyanions of selenium and arsenic. Switzer Blum J, et al. **Arch Microbiol** 1998 Dec; 171(1):19-30
Enhancement of selenium excretion in bile by sulfobromophthalein: elucidation of the mechanism. Gregus Z, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1391-402
Role of glutathione and methylation in the biliary excretion of selenium. The paradoxical effect of sulfobromophthalein. Gyurasics A, et al. **Biochem Pharmacol** 1998 Nov 15; 56(10):1381-9
The trace element selenium and the thyroid gland. Köhrle J. **Biochimie** 1999 May;81(5):527-33 (81 ref.)
Acquisition of selenium tolerance by a selenium non-accumulating Astragalus species via selection. Wang Y, et al. **Biofactors** 1999;9(1):3-10
The effect of altered selenium and vitamin E nutritional status on learning and memory of third-generation rats. Baştuğ M, et al. **Biol Trace Elem Res** 1998 Summer;64(1-3):151-60
Correlation of mercury with selenium in human hair at a typical mercury-polluted area in China. Chai Z, et al. **Biol Trace Elem Res** 1998 Aug;63(2):95-104
Cytoprotection against lipid hydroperoxides correlates with increased glutathione peroxidase activities, but not selenium uptake from different selenocompounds. Leist M, et al. **Biol Trace Elem Res** 1999 May;68(2):159-74
Mercury-binding capacity of organic and inorganic selenium in rat blood and liver. Seppänen K, et al. **Biol Trace Elem Res** 1998 Dec;65(3):197-210
Selenium-mediated differential response of beta-glucosidase and beta-galactosidase of germinating Trigonella foenum-graecum. Sreekala M, et al. **Biol Trace Elem Res** 1998 Summer;64(1-3):247-58
Selenium metabolism in Escherichia coli. Turner RJ, et al. **Biometals** 1998 Sep;11(3):223-7 (31 ref.)
mRNA stability and selenocysteine insertion sequence efficiency rank gastrointestinal glutathione peroxidase high in the hierarchy of selenoproteins. Wingler K, et al. **Eur J Biochem** 1999 Jan;259(1-2):149-57
Selenium in human male reproductive organs. Oldereid NB, et al. **Hum Reprod** 1998 Aug;13(8):2172-6
Controlled introduction of selenium into Chlorella cells. de Alcantara S, et al. **Indian J Exp Biol** 1998 Dec; 36(12):1286-8
Binding of tellurium to hepatocellular selenoproteins during incubation with inorganic tellurite: consequences for the activity of selenium-dependent glutathione peroxidase. Garberg P, et al. **Int J Biochem Cell Biol** 1999 Feb; 31(2):291-301
A family of S-methylmethionine-dependent thiol/selenol methyltransferases. Role in selenium tolerance and evolutionary relation. Neuhierl B, et al. **J Biol Chem** 1999 Feb 26;274(9):5407-14
Selenium metabolism in Drosophila. Characterization of the selenocysteine tRNA population. Zhou X, et al. **J Biol Chem** 1999 Jun 25;274(26):18729-34
Increased neutrophil adherence and adhesion molecule mRNA expression in endothelial cells during selenium deficiency. Maddox JF, et al. **J Leukoc Biol** 1999 May; 65(5):658-64
The retention and distribution by healthy young men of stable isotopes of selenium consumed as selenite, selenate or hydroponically-grown broccoli are dependent on the isotopic form. Finley JW. **J Nutr** 1999 Apr;129(4):865-71
The TSH-dependent variation of the essential elements iodine, selenium and zinc within human thyroid tissues. Bellisola G, et al. **J Trace Elem Med Biol** 1998 Nov; 12(3):177-82
Organic and inorganic selenium supplementation to lactating mothers increase the blood and milk Se concentrations and Se intake by breast-fed infants. Trafikowska U, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):77-85
Expression pattern of mitochondrial capsule selenoprotein mRNA in the hamster testis. Nam SY, et al. **J Vet Med Sci** 1998 Nov;60(11):1175-9
The selenium link: the missing link in our understanding of biochemical trigger reactions? Nyberg-Swenson BE. **Med Hypotheses** 1999 Feb;52(2):125-31 (15 ref.)
Chemopreventive agents: selenium. Combs GF Jr, et al. **Pharmacol Ther** 1998 Sep;79(3):179-92 (179 ref.)
Selenium redox biochemistry of zinc-sulfur coordination sites in proteins and enzymes. Jacob C, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1910-4
Effects of mild chronic heat exposure on the concentrations of thiobarbituric acid reactive substances, glutathione, and selenium, and glutathione peroxidase activity in the mouse liver. Kasanuma Y, et al. **Tohoku J Exp Med** 1998 Jun; 185(2):79-87
[Changes in trace elements contents of renal cells in cadmium poisoning] Long M, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Mar;32(2):73-5 (Eng. Abstr.) **(Chi)**
[Selenium in health and disease] Inglot AD, et al. **Postepy Hig Med Dosw** 1998;52(3):207-22 (99 ref.) (Eng. Abstr.) **(Pol)**
[Selenium status in population of Irkutsk region] Golubkina NA, et al. **Vopr Pitan** 1998;(4):24-6 (Eng. Abstr.) **(Rus)**
[Relation between metabolism of trace elements and the antioxidant defense system in chronic nephropathies] Podracká L, et al. **Cas Lek Cesk** 1999 May 24;138(11):337-9 (Eng. Abstr.) **(Slo)**

PHARMACOKINETICS

Selenium bioaccumulation by the water boatman Trichocorixa reticulata (Guerin-Meneville). Thomas BV, et al. **Arch Environ Contam Toxicol** 1999 Apr;36(3):295-300
Bioavailability of enteral yeast-selenium in preterm infants. Bogye G, et al. **Biol Trace Elem Res** 1998 Nov;65(2):143-51
Small-scale spatial variation of selenium concentrations in Chironomid larvae. Malloy JC, et al.

Bull Environ Contam Toxicol 1999 Feb;62(2):122–9

Correlation between prevention of cataract development by disulfiram and fates of selenium in selenite-treated rats. Ito Y, et al. **Curr Eye Res** 1999 Apr;18(4):292–9

An evaluation of the bioavailability of selenium in high-selenium yeast. Yoshida M, et al. **J Nutr Sci Vitaminol (Tokyo)** 1999 Jan;45(1):119–28

Effects of dietary selenium species on Se concentrations in hair, blood, and urine. Shiobara Y, et al. **Toxicol Appl Pharmacol** 1998 Oct;152(2):309–14

PHARMACOLOGY

Effect of selenium on rat thioredoxin reductase activity: increase by supranutritional selenium and decrease by selenium deficiency. Berggren MM, et al. **Biochem Pharmacol** 1999 Jan 15;57(2):187–93

The effect of selenium and vitamin E on microvascular permeability of rat organs. Demirel-Yilmaz E, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):161–8

Effect of selenium and vitamin E supplementation on lipid abnormalities in plasma, aorta, and adipose tissue of Zucker rats. Douillet C, et al. **Biol Trace Elem Res** 1998 Dec; 65(3):221–36

Effects of selenium supplementation on virus-induced inflammatory heart disease. Ilbäck NG, et al. **Biol Trace Elem Res** 1998 Jul;63(1):51–66

Protective role of intraperitoneally administered vitamin E and selenium in rats anesthetized with enflurane. Naziroğlu M. **Biol Trace Elem Res** 1999 Sep;69(3):199–209

Mercury-binding capacity of organic and inorganic selenium in rat blood and liver. Seppänen K, et al. **Biol Trace Elem Res** 1998 Dec;65(3):197–210

False presumptions and continued surprises: how much do we really know about nutritional supplements and cancer risk? [editorial; comment] Kristal AR, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):849–50; discussion 851-2 (12 ref.). Comment on: Cancer Epidemiol Biomarkers Prev 1998 Oct;7(10):853–6.

Effects of intraperitoneally-administered vitamin E and selenium on the blood biochemical and haematological parameters in rats. Cay M, et al. **Cell Biochem Funct** 1999 Jun;17(2):143–8

Influence of dietary selenium and vitamin E on the levels of fatty acids in brain and liver tissues of lambs. Celik S, et al. **Cell Biochem Funct** 1999 Jun;17(2):115–21

Protective effects of selenium, vitamin C and vitamin E against oxidative stress of cigarette smoke in rats. Dilsiz N, et al. **Cell Biochem Funct** 1999 Mar;17(1):1–7

Selenium effects on gallium arsenide induced biochemical and immunotoxicological changes in rats. Flora SJ, et al. **Chem Biol Interact** 1999 Aug 30;122(1):1–13

Effects of nickel chloride on reproduction of the rat and possible antagonistic role of selenium. Käkelä R, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 May;123(1):27–37

Thyroid stimulating hormone and selenium supply interact to regulate selenoenzyme gene expression in thyroid cells (FRTL-5) in culture. Villette S, et al. **FEBS Lett** 1998 Oct 30;438(1-2):81–4

Selenium compounds have disparate abilities to impose oxidative stress and induce apoptosis. Stewart MS, et al. **Free Radic Biol Med** 1999 Jan;26(1-2):42–8

Effects of dietary selenium on biochemical composition of rat testis. Kaur R, et al. **Indian J Exp Biol** 1999 May; 37(5):509–11

Growth of suckling beef calves in response to parenteral administration of selenium and the effect of dietary protein provided to their dams. Castellan DM, et al. **J Am Vet Med Assoc** 1999 Mar 15;214(6):816–21

Effect of vitamin E and selenium on iron utilization in neonatal pigs. Hill GM, et al. **J Anim Sci** 1999 Jul; 77(7):1762–8

Effects of dietary levels of selenium-enriched yeast and sodium selenite as selenium sources fed to growing-finishing pigs on performance, tissue selenium, serum glutathione peroxidase activity, carcass characteristics, and loin quality. Mahan DC, et al. **J Anim Sci** 1999 Aug;77(8):2172–9

Role of selenium against lead toxicity in male rats. Othman AI, et al. **J Biochem Mol Toxicol** 1998;12(6):345–9

The chemical form of selenium influences 3,2'-dimethyl-4-aminobiphenyl-DNA adduct formation in rat colon. Davis CD, et al. **J Nutr** 1999 Jan;129(1):63–9

Cadmium-induced renal lipid peroxidation in rats and protection by selenium. Yiin SJ, et al. **J Toxicol Environ Health** 1999 Jul 23;57(6):403–13

Nitroblue tetrazolium reduction of neutrophils in heat stressed goats is not influenced by selenium and vitamin E injection. Katamoto H, et al. **J Vet Med Sci** 1998 Nov; 60(11):1243–9

Effects of selenium enriched reperfusion solutions on isolated guinea pig hearts. Sinci V, et al. **Keio J Med** 1998 Dec; 47(4):219–22

Antagonistic effect of calcium, zinc and selenium against cadmium induced chromosomal aberrations and micronuclei in root cells of Hordeum vulgare. Zhang Y, et al. **Mutat Res** 1998 Dec 3;420(1-3):1–6

The influence of exogenous antioxidants and physical exercise on some parameters associated with production and removal of free radicals. Kaczmarski M, et al. **Pharmazie** 1999 Apr;54(4):303–6

Cardiac dysfunction induced by low and high diet antioxidant levels comparing selenium and vitamin E in rats. Turan B, et al. **Regul Toxicol Pharmacol** 1999 Apr;29(2 Pt 1):142–50

Dietary selenium reduces the formation of aberrant crypts in rats administered 3,2'-dimethyl-4-aminobiphenyl. Feng Y, et al. **Toxicol Appl Pharmacol** 1999 May 15;157(1):36–42

[Accumulation and excretion of fluorine and effect of selenium on them in rats with chronic fluorosis] Bian J, et al. **Wei Sheng Yen Chiu** 1997 Jul;26(4):233–8 (Eng. Abstr.) **(Chi)**

[Interactions between selenium and cadmium on lipid peroxidation of encephalon in mice] Wang J, et al. **Wei Sheng Yen Chiu** 1997 Jul;26(4):239–41 (Eng. Abstr.) **(Chi)**

[Effect of a bioactive food supplement from selenium enriched baker's yeast autolysate on the status of the intestinal barrier in rats with anaphylaxis] Golubkina NA, et al. **Vopr Pitan** 1998;(3):18–22 (Eng. Abstr.) **(Rus)**

[Effect of dietary selenium on the activity of UDP-glucuronosyltransferases and metabolism of mycotoxin deoxynivalenol in rats] Obol'skiĭ OL, et al. **Vopr Pitan** 1998;(4):18–23 (Eng. Abstr.) **(Rus)**

[Effect of selenium on the functional state of white rat kidney in aluminum-cadmium poisoning] Rudenko SS, et al. **Ukr Biokhim Zh** 1998 Nov-Dec;70(6):98–105 (Eng. Abstr.) **(Ukr)**

PHYSIOLOGY

The influence of supplements of selenite, selenate and selenium yeast on the selenium status of dairy heifers. Ortman K, et al. **Acta Vet Scand** 1999;40(1):23–34

Effects of iodine repletion on thyroid morphology in iodine and/or selenium deficient rat term fetuses, pups and mothers. Colzani RM, et al. **Biochimie** 1999 May; 81(5):485–91

Selenium metabolism, selenoproteins and mechanisms of cancer prevention: complexities with thioredoxin reductase. Ganther HE. **Carcinogenesis** 1999 Sep;20(9):1657–66 (86 ref.)

The role of copper, molybdenum, selenium, and zinc in nutrition and health. Chan S, et al. **Clin Lab Med** 1998 Dec;18(4):673–85 (54 ref.)

Selenium-based antihypertensives. Rationale and potential. May SW, et al. **Drugs** 1998 Dec;56(6):959–64 (38 ref.)

Effects of sodium selenite on in vitro interactions between platelets and endothelial cells. Ricetti MM, et al. **Int J Clin Lab Res** 1999;29(2):80–4

The diverse role of selenium within selenoproteins: a review. Holben DH, et al. **J Am Diet Assoc** 1999 Jul;99(7):836–43 (117 ref.)

Selenium's role in infertility explained [news; comment] Strauss E. **Science** 1999 Aug 27;285(5432):1339. Comment on: Science 1999 Aug 27;285(5432):1393–6.

Dual function of the selenoprotein PHGPx during sperm maturation [see comments] Ursini F, et al. **Science** 1999 Aug 27;285(5432):1393–6. Comment in: Science 1999 Aug 27;285(5432):1339.

[Selenium and the organism] Kvíčala J. **Cas Lek Cesk** 1999 Feb 22;138(4):99–106 (48 ref.) (Eng. Abstr.) **(Cze)**

POISONING

Concern about the possibility of selenium in the human food chain [letter; comment] Both H. **Can Vet J** 1998 Dec; 39(12):742. Comment on: Can Vet J 1998 Sep;39(9):591–2.

Chronic selenium toxicosis in growing-finishing pigs in southwestern Québec [see comments] Hélie P, et al. **Can Vet J** 1998 Sep;39(9):591–2. Comment in: Can Vet J 1998 Dec;39(12):742.

Selenium toxicosis in a flock of Katahdin hair sheep. Smith BI, et al. **Can Vet J** 1999 Mar;40(3):192–4

Selenium elimination in pigs after an outbreak of selenium toxicosis. Davidson-York D, et al. **J Vet Diagn Invest** 1999 Jul;11(4):352–7

THERAPEUTIC USE

Randomized clinical trial of enteral yeast-selenium supplementation in preterm infants. Bogye G, et al. **Biofactors** 1998;8(1-2):139–42

Selenium, an antioxidant, protects against methamphetamine-induced dopaminergic neurotoxicity. Imam SZ, et al. **Brain Res** 1999 Feb 13;818(2):575–8

Selenium replacement in patients with severe systemic inflammatory response syndrome improves clinical outcome. Angstwurm MW, et al. **Crit Care Med** 1999 Sep; 27(9):1807–13

Selenium replacement in severe systemic inflammatory response syndrome [editorial] Opal SM. **Crit Care Med** 1999 Sep;27(9):2042–3

Lessons from basic research in selenium and cancer prevention. Ip C. **J Nutr** 1998 Nov;128(11):1845–54 (85 ref.)

Beneficial effect of selenium supplementation during murine infection with Trypanosoma cruzi. Davis CD, et al. **J Parasitol** 1998 Dec;84(6):1274–7

Chemopreventive agents: selenium. Combs GF Jr, et al. **Pharmacol Ther** 1998 Sep;79(3):179–92 (179 ref.)

Selenium and prostate cancer prevention. Nelson MA, et al. **Semin Urol Oncol** 1999 May;17(2):91–6 (34 ref.)

TOXICITY

Effect of selenium on the growth of the cyanobacterium Anacystis nidulans. Lee LH, et al. **Bull Environ Contam Toxicol** 1999 May;62(5):591–9

Selenium compounds have disparate abilities to impose oxidative stress and induce apoptosis. Stewart MS, et al. **Free Radic Biol Med** 1999 Jan;26(1–2):42–8

Locoweeds: effects on reproduction in livestock. Panter KE, et al. **J Nat Toxins** 1999 Feb;8(1):53–62 (49 ref.)

Selenium. Barceloux DG. **J Toxicol Clin Toxicol** 1999; 37(2):145–72 (224 ref.)

Effects of ascorbic acid on selenium teratogenicity in cultured rat embryos. Usami M, et al. **Toxicol Lett** 1999 Mar 29; 105(2):123–8

URINE

Serum and urine selenium concentrations in patients with cardiovascular diseases and relationship to other nutritional indexes. Navarro-Alarcón M, et al. **Ann Nutr Metab** 1999; 43(1):30–6

Determination of urinary arsenic, mercury, and selenium in steel production workers. Horng CJ, et al. **Biol Trace Elem Res** 1999 Oct;70(1):29–40

Plasma and urinary selenium in Saudi Arabian patients with dilated cardiomyopathy. Raines DA, et al. **Biol Trace Elem Res** 1999 Jul;69(1):59–68

Serum and urine selenium concentrations as indicators of body status in patients with diabetes mellitus. Navarro-Alarcón M, et al. **Sci Total Environ** 1999 Mar 22;228(1):79–85

SELENIUM COMPOUNDS

Characterization of etch pits and correlated defects in ZnSe/(001)GaAs. Tanaka S, et al. **Microsc Res Tech** 1998 Dec 15;43(6):518–9

[Baeyer-Villiger reaction of benzaldehydes possessing oxygen functions with SeO2-H2O2] Nishioka H, et al. **Yakugaku Zasshi** 1999 Jul;119(7):519–28 (Eng. Abstr.) **(Jpn)**

CHEMISTRY

Binding sites for the (Hg-Se) complex on selenoprotein P. Suzuki KT, et al. **Biochim Biophys Acta** 1998 Dec 8; 1429(1):102–12

Study of the antioxidant effect of several selenium and sulphur compounds. Feroci G, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):96–100

Selenium redox biochemistry of zinc-sulfur coordination sites in proteins and enzymes. Jacob C, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1910–4

Anisotropy of chemical shift and J coupling for P-31 and Se-77 in trimethyl and triphenyl phosphine selenides. Grossmann G, et al. **Solid State Nucl Magn Reson** 1998 Nov;13(1–2):71–85

METABOLISM

The influence of supplements of selenite, selenate and selenium yeast on the selenium status of dairy heifers. Ortman K, et al. **Acta Vet Scand** 1999;40(1):23–34

Selenophosphate as a substrate for mammalian selenocysteine synthase, its stability and toxicity. Mizutani T, et al. **Biofactors** 1999;9(1):27–36

Sulfurospirillum barnesii sp. nov. and Sulfurospirillum arsenophilum sp. nov., new members of the Sulfurospirillum clade of the epsilon Proteobacteria. Stolz JF, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1177–80

The NIFS protein can function as a selenide delivery protein in the biosynthesis of selenophosphate. Lacourciere GM, et al. **J Biol Chem** 1998 Nov 20;273(47):30921–6

The distribution of zinc selenite and expression of metallothionein-III mRNA in the spinal cord and dorsal root ganglia of the rat suggest a role for zinc in sensory transmission. Velázquez RA, et al. **J Neurosci** 1999 Mar 15;19(6):2288–300

Defenses against peroxynitrite. Briviba K, et al. **Methods Enzymol** 1999;301:301–11 (26 ref.)

Selenium redox biochemistry of zinc-sulfur coordination sites in proteins and enzymes. Jacob C, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1910–4

PHARMACOKINETICS

Organic and inorganic selenium supplementation to lactating mothers increase the blood and milk Se concentrations and Se intake by breast-fed infants. Trafikowska U, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):77–85

PHARMACOLOGY

Organic and inorganic selenium supplementation to lactating mothers increase the blood and milk Se concentrations and Se intake by breast-fed infants. Trafikowska U, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):77–85

THERAPEUTIC USE

Pilot study to investigate the efficacy of a 1 per cent selenium sulphide shampoo in the treatment of equine chorioptic mange. Curtis CF. **Vet Rec** 1999 Jun 12;144(24):674–5

TOXICITY

Selenophosphate as a substrate for mammalian selenocysteine synthase, its stability and toxicity. Mizutani T, et al. **Biofactors** 1999;9(1):27–36

Effects of glutathione depletion on selenite- and selenate-induced embryotoxicity in cultured rat embryos. Usami M, et al. **Teratog Carcinog Mutagen** 1999; 19(4):257–66

An acute intratracheal selenium study: immediate effects on respiration in guinea pigs. Nonavinakere VK, et al. **Toxicol Lett** 1999 Feb 22;104(3):231–7

SELENOCYSTEINE

Crystal structure and mechanism of CO dehydrogenase, a molybdo iron-sulfur flavoprotein containing S-selanylcysteine. Dobbek H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):8884–9

Catalytic properties of selenophosphate synthetases: comparison of the selenocysteine-containing enzyme from Haemophilus influenzae with the corresponding cysteine-containing enzyme from Escherichia coli. Lacourciere GM, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):44–8

CHEMISTRY

Selenocysteine-containing thioredoxin reductase in C. elegans. Gladyshev VN, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):244–9

Selenocysteine-containing proteins in mammals. Gladyshev VN, et al. **J Biomed Sci** 1999 May-Jun;6(3):151–60 (104 ref.)

The disulfide-coupled folding pathway of apamin as derived from diselenide-quenched analogs and intermediates. Pegoraro S, et al. **Protein Sci** 1999 Aug;8(8):1605–13

GENETICS

Hormonal induction of mouse selenocysteine transfer ribonucleic acid (tRNA) gene transcription-activating factor and its functional importance in the selenocysteine tRNA gene transcription in mouse mammary gland. Adachi K, et al. **Endocrinology** 1999 Feb;140(2):618–23

mRNA stability and selenocysteine insertion sequence efficiency rank gastrointestinal glutathione peroxidase high in the hierarchy of selenoproteins. Wingler K, et al. **Eur J Biochem** 1999 Jan;259(1-2):149–57

The 3'-untranslated region of human type 2 iodothyronine deiodinase mRNA contains a functional selenocysteine insertion sequence element. Buettner C, et al. **J Biol Chem** 1998 Dec 11;273(50):33374–8

UGA codon position affects the efficiency of selenocysteine incorporation into glutathione peroxidase-1. Wen W, et al. **J Biol Chem** 1998 Oct 23;273(43):28533–41

Structural compensation in an archaeal selenocysteine transfer RNA. Ioudovitch A, et al. **J Mol Biol** 1999 Jul 9;290(2):365–71

METABOLISM

Functional expression of rat thioredoxin reductase: selenocysteine insertion sequence element is essential for the active enzyme. Fujiwara N, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):439–44

Mutation of the Secys residue 266 in human type 2 selenodeiodinase alters 75Se incorporation without affecting its biochemical properties. Salvatore D, et al. **Biochimie** 1999 May;81(5):535–8

Dynamics and efficiency in vivo of UGA-directed selenocysteine insertion at the ribosome. Suppmann S, et al. **EMBO J** 1999 Apr 15;18(8):2284–93

Substituting selenocysteine for active site cysteine 149 of phosphorylating glyceraldehyde 3-phosphate dehydrogenase reveals a peroxidase activity. Boschi-Muller S, et al. **FEBS Lett** 1998 Nov 20; 439(3):241–5

Selenocysteine inserting tRNAs: an overview. Commans S, et al. **FEMS Microbiol Rev** 1999 Jun;23(3):335–51 (83 ref.)

The Caenorhabditis elegans homologue of thioredoxin reductase contains a selenocysteine insertion sequence (SECIS) element that differs from mammalian SECIS elements but directs selenocysteine incorporation. Buettner C, et al. **J Biol Chem** 1999 Jul 30;274(31):21598–602

The NIFS protein can function as a selenide delivery protein in the biosynthesis of selenophosphate. Lacourciere GM, et al. **J Biol Chem** 1998 Nov 20;273(47):30921–6

Redox regulation of cell signaling by selenocysteine in mammalian thioredoxin reductases. Sun QA, et al. **J Biol Chem** 1999 Aug 27;274(35):24522–30

Two distinct SECIS structures capable of directing selenocysteine incorporation in eukaryotes. Grundner-Culemann E, et al. **RNA** 1999 May;5(5):625–35

Overproduction of selenocysteine tRNA in Chinese hamster ovary cells following transfection of the mouse tRNA[Ser]Sec gene. Moustafa ME, et al. **RNA** 1998 Nov; 4(11):1436–43

SELENOMETHIONINE

Accessibility of selenomethionine proteins by total chemical synthesis: structural studies of human herpesvirus-8 MIP-II. Shao W, et al. **FEBS Lett** 1998 Dec 11; 441(1):77–82

ADMINISTRATION & DOSAGE

Dietary supplementation of selenomethionine reduces metastasis of melanoma cells in mice. Yan L, et al. **Anticancer Res** 1999 Mar-Apr;19(2A):1337–42

ANALYSIS

[Determination of the selenomethionine content in grain and human blood] Yang X, et al. **Wei Sheng Yen Chiu** 1997 Mar;26(2):113–6 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Determination of the structure of seleno-methionine-labelled hydroxymethylbilane synthase in its active form by multi-wavelength anomalous dispersion. Hädener A, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):631–43

Selenomethionine-substituted Thermus thermophilus cytochrome ba3: characterization of the CuA site by Se and Cu K-EXAFS. Blackburn NJ, et al. **Biochemistry** 1999 Jun 1;38(22):7075–84

High expression and steady-state kinetic characterization of methionine site-directed mutants of Escherichia coli methionyl- and selenomethionyl-dihydrofolate reductase. Shaw D, et al. **Biochim Biophys Acta** 1999 Jan 11; 1429(2):401–10

PHARMACOLOGY

Influence of sodium selenite and selenomethionine on DNA/RNA synthesis and BaP binding to spleen lymphocytes in culture. Bansal MP, et al. **Biol Trace Elem Res** 1999 Oct;70(1):21–8

Effect of the antioxidants selenium and beta-carotene on HIV-related endothelium dysfunction. Constans J, et al. **Thromb Haemost** 1998 Dec;80(6):1015–7

TOXICITY

An acute intratracheal selenium study: immediate effects on respiration in guinea pigs. Nonavinakere VK, et al. **Toxicol Lett** 1999 Feb 22;104(3):231–7

SELENOMETHIONINE SE 75 see **SELENOMETHIONINE**

SELENOMONAS

CLASSIFICATION

Phylogenetic relationships of three amino-acid-utilizing anaerobes, Selenomonas acidaminovorans, Selenomonas acidaminophila' and Eubacterium acidaminophilum, as inferred from partial 16S rDNA nucleotide sequences and proposal of Thermanaerovibrio acidaminovorans gen. nov., comb. nov. and Anaeromusa acidaminophila gen. nov., comb. nov. Baena S, et al. **Int J Syst Bacteriol** 1999 Jul; 49 Pt 3:969–74

Phylogenetic characterization of Centipeda periodontii, Selenomonas sputigena and Selenomonas species by 16S rRNA gene sequence analysis. Sawada S, et al. **Microbios** 1999;98(391):133–40

DRUG EFFECTS

Manipulation of ruminal fermentation with organic acids: a review. Martin SA. **J Anim Sci** 1998 Dec;76(12):3123–32 (50 ref.)

Effects of laidlomycin propionate and monensin on glucose utilization and nutrient transport by Streptococcus bovis and Selenomonas ruminantium. Wampler JL, et al. **J Anim Sci** 1998 Oct;76(10):2730–6

ENZYMOLOGY

Novel characteristics of Selenomonas ruminantium lysine decarboxylase capable of decarboxylating both L-lysine and L-ornithine. Takatsuka Y, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1063–9

GENETICS

Sequence analysis of small cryptic plasmids isolated from Selenomonas ruminantium S20. Nakamura M, et al. **Curr Microbiol** 1999 Feb;38(2):107–12

Detection of N6-methyladenine in GATC sequences of Selenomonas ruminantium. Pristas P, et al. **J Basic Microbiol** 1998;38(4):283–7

Complete nucleotide sequence of a cryptic plasmid from the ruminal bacterium Selenomonas ruminantium HD4 and identification of two predicted open reading frames. Al-Khaldi SF, et al. **Plasmid** 1999 Jul;42(1):45–52

ISOLATION & PURIFICATION

Tannin-tolerant ruminal bacteria from East African ruminants. Odenyo AA, et al. **Can J Microbiol** 1998 Sep; 44(9):905–9

METABOLISM

Tannin-tolerant ruminal bacteria from East African ruminants. Odenyo AA, et al. **Can J Microbiol** 1998 Sep; 44(9):905–9

SELENOMONAS RUMINANTIUM see **SELENOMONAS**

SELF see **EGO**

SELF ADMINISTRATION

Effects of ethanol hangover on the operant self-administration of cocaine in rats. Briscoe RJ, et al. **Alcohol** 1999 Jan;17(1):41–5

Ethanol consumption and place-preference conditioning in the alcohol-preferring C57BL/6 mouse: relationship with motor activity patterns. Nocjar C, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):683–92

Cocaine-seeking behavior and Fos expression in the amygdala produced by cocaine or a cocaine self-administration environment. Baker DA, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:796–9

Mesoaccumbens dopamine and the self-administration of amphetamine. Lorrain DS, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:820–2

Cocaine is self-administered into the shell region of the nucleus accumbens in Wistar rats. McKinzie DL, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:788–91

Phasic accumbal firing may contribute to the regulation of drug taking during intravenous cocaine self-administration sessions. Peoples LL, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:781–7

Approaches towards successful home treatment in patients with inhibitors. Ingerslev J, et al. **Eur J Haematol Suppl** 1998;63:11–4

5-HT receptor ligands differentially affect operant oral self-administration of ethanol in the rat. Maurel S, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):217–23

Regulation of intravenously self-administered nicotine in rats. Lynch WJ, et al. **Exp Clin Psychopharmacol** 1999 Aug; 7(3):198–207

Re: Collingsworth, S. Gould, D, Wainwright, S. P. 1997. Patient self-administration of medication: a review of the literature. International Journal of Nursing Studies 34, 256–69 [letter; comment] Schafheutle EI. **Int J Nurs Stud** 1998 Aug;35(4):243. Comment on: Int J Nurs Stud 1997 Aug;34(4):256–69.

Medication management capacity in highly functioning community-living older adults: detection of early deficits. Edelberg HK, et al. **J Am Geriatr Soc** 1999 May; 47(5):592–6

Effects of self-administered cocaine on plasma adrenocorticotropic hormone and cortisol in male rhesus monkeys. Broadbear JH, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1641–7

What makes DOT work? Directly observed therapy [comment] [see comments] Garner P. **Lancet** 1998 Oct 24; 352(9137):1326–7. Comment on: Lancet 1998 Oct 24;352(9137):1340–3. Comment in: Lancet 1999 Jan 9;353(9147):145; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):146; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):146–7; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):147–8. Comment in: Lancet 1999 Feb 27;353(9154):755–6.

Randomised controlled trial of self-supervised and directly observed treatment of tuberculosis [see comments] Zwarenstein M, et al. **Lancet** 1998 Oct 24;352(9137):1340–3 . Comment in: Lancet 1998 Oct 24;352(9137):1326–7. Comment in: Lancet 1999 Jan 9;353(9147):145; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):145–6; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):146; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):146–7; discussion 147–8. Comment in: Lancet 1999 Jan 9;353(9147):147–8. Comment in: Lancet 1999 Feb 27;353(9154):755–6.

Doctors detected self-administering opioids in New South Wales, 1985–1994: characteristics and outcomes [see comments] Cadman M, et al. **Med J Aust** 1998 Oct 19; 169(8):419–21. Comment in: Med J Aust 1998 Oct 19;169(8):404–5. Comment in: Med J Aust 1999 May 17;170(10):511–2.

Patient and family caregiver perspectives. Ferrell BR. **Oncology (Huntingt)** 1999 May;13(5 Suppl 2):15–9 (29 ref.)

Efficacy of parental application of eutectic mixture of local anesthetics for intravenous insertion. Koh JL, et al. **Pediatrics** 1999 Jun;103(6):e79

Voluntary consumption of amphetamine, cocaine, ethanol and morphine by rats as influenced by a preceding period of forced drug intake and clozapine. Ufer M, et al. **Pharmacology** 1999 Jun;58(6):285–91

Progressive-ratio schedules of drug delivery in the analysis of drug self-administration: a review. Stafford D, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):169–84 (119 ref.)

The availability of activated charcoal and ipecac for home use. Nordt SP, et al. **Vet Hum Toxicol** 1999 Aug; 41(4):247–8 (10 ref.)

[Self management of peroral anticoagulant therapy in patients with artificial heart valves] Hasenkam JM, et al. **Ugeskr Laeger** 1998 Nov 16;160(47):6811–5 (Eng. Abstr.) **(Dan)**

ADVERSE EFFECTS

Safety of self-injection of gold and methotrexate. Arthur AB, et al. **J Rheumatol** 1999 Feb;26(2):302–5

Doctors who self-administer drugs of dependence [editorial; comment] Breen KJ, et al. **Med J Aust** 1998 Oct 19; 169(8):404–5. Comment on: Med J Aust 1998 Oct 19;169(8):419–21.

SELF ADMINISTRATION

METHODS

Directly observed therapy and tuberculosis treatment completion. Bloch re: Bayer et al [letter; comment] Bloch AB. **Am J Public Health** 1999 Apr;89(4):602–3. Comment on: Am J Public Health 1998 Jul;88(7):1052–8.

Does directly observed therapy work? [letter; comment] Burman WJ, et al. **Am J Public Health** 1999 Apr; 89(4):600–2. Comment on: Am J Public Health 1998 Mar;88(3):442–5.

Directly observed therapy and tuberculosis treatment completion. Frieden re: Bayer et al [letter; comment] Frieden TR. **Am J Public Health** 1999 Apr;89(4):604–5. Comment on: Am J Public Health 1998 Jul;88(7):1052–8.

Directly observed therapy and tuberculosis treatment completion. Jereb et al. re: Bayer et al [letter; comment] Jereb JA, et al. **Am J Public Health** 1999 Apr;89(4):603–4 . Comment on: Am J Public Health 1998 Jul;88(7):1052–8.

Directly observed therapy for tuberculosis [letter; comment] Marks S, et al. **Am J Public Health** 1999 Apr;89(4):600; discussion 601–2. Comment on: Am J Public Health 1998 Mar;88(3):442–5.

Directly observed therapy and tuberculosis treatment completion. Novick and Lipsman re: Bayer et al [letter; comment] Novick LF, et al. **Am J Public Health** 1999 Apr; 89(4):604. Comment on: Am J Public Health 1998 Jul;88(7):1052–8.

Tuberculosis: 1. Introduction. Fanning A. **CMAJ** 1999 Mar 23;160(6):837–9

Optimizing tuberculosis control in the inner city [editorial; comment] FitzGerald JM. **CMAJ** 1999 Mar 23;160(6):821–2 (14 ref.). Comment on: CMAJ 1999 Mar 23;160(6):789–94. Comment on: CMAJ 1999 Mar 23;160(6):799–802.

Assessing metered-dose inhaler technique: comparison of observation vs. patient self-report. Erickson SR, et al. **J Asthma** 1998;35(7):575–83

Towards the safer use of dosettes. Levings B, et al. **J Qual Clin Pract** 1999 Mar;19(1):69–72

PSYCHOLOGY

Adherence to combination therapy in persons living with HIV: balancing the hardships and the blessings. Erlen JA, et al. **J Assoc Nurses AIDS Care** 1999 Jul–Aug;10(4):75–84

STANDARDS

State-of-the-art patient self-management for control of oral anticoagulation. Taborski U, et al. **Semin Thromb Hemost** 1999;25(1):43–7 (18 ref.)

SELF ASSESSMENT (PSYCHOLOGY)

A cross-sectional validation study of Self-Evaluation of Communication Experiences after Laryngeal Cancer--a questionnaire for use in the voice rehabilitation of laryngeal cancer patients. Finizia C, et al. **Acta Oncol** 1999; 38(5):573–80

How many donuts is a "binge"? Women with BED eat more but do not have more restrictive standards than weight-matched non-BED women. Greeno CG, et al. **Addict Behav** 1999 Mar–Apr;24(2):299–303

Mood and forbidden foods' influence on perceptions of binge eating. Guertin TL, et al. **Addict Behav** 1999 Mar–Apr; 24(2):175–93

Metacognition and substance use. Toneatto T. **Addict Behav** 1999 Mar–Apr;24(2):167–74

Predictors of pain self-report in nursing home residents. Weiner DK, et al. **Aging (Milano)** 1998 Oct;10(5):411–20

Mental health and the academic performance of first nations and majority-culture children. Beiser M, et al. **Am J Orthopsychiatry** 1998 Jul;68(3):455–67

Peer and self assessment during problem-based tutorials. Sullivan ME, et al. **Am J Surg** 1999 Mar;177(3):266–9

How do I appear to others? Social anxiety and processing of the observable self. Mansell W, et al. **Behav Res Ther** 1999 May;37(5):419–34

Fear of blushing: fearful preoccupation irrespective of facial coloration. Mulkens S, et al. **Behav Res Ther** 1999 Nov; 37(11):1119–28

Self-reporting of periodontal health status. Gilbert AD, et al. **Br Dent J** 1999 Mar 13;186(5):241–4

A cognitive distortion associated with eating disorders: thought-shape fusion. Shafran R, et al. **Br J Clin Psychol** 1999 Jun;38 (Pt 2):167–79

Age trends in the use of social and temporal comparison for self-evaluation: examination of a novel developmental hypothesis. Butler R. **Child Dev** 1998 Aug;69(4):1054–73

Children's over- and underestimation of academic competence: a longitudinal study of gender differences, depression, and anxiety. Cole DA, et al. **Child Dev** 1999 Mar–Apr;70(2):459–73

Longitudinal and concurrent relations among temperament, ability estimation, and injury proneness. Schwebel DC, et al. **Child Dev** 1999 May–Jun;70(3):700–12

Prospective study of a self-report type A scale and risk of coronary heart disease: test of the MMPI-2 type A scale [letter] Ketterer MW. **Circulation** 1999 Aug 10;100(6):686–7

Agreement between child and parent reports of pain. Chambers CT, et al. **Clin J Pain** 1998 Dec;14(4):336–42

Comparison of the effects of perceived self-efficacy on coping with chronic cancer pain and coping with chronic low back pain [see comments] Lin CC. **Clin J Pain** 1998 Dec;14(4):303–10. Comment in: Clin J Pain 1998 Dec;14(4):277–9.

Self-reported sleep and mood disturbance in chronic pain patients. Morin CM, et al. **Clin J Pain** 1998 Dec;14(4):311–4

Mentalising, schizotypy, and schizophrenia. Langdon R, et al. **Cognition** 1999 May 3;71(1):43–71

Comparison of self, nurse, and physician assessment of residents rotating through an intensive care unit [see comments] Johnson D, et al. **Crit Care Med** 1998 Nov; 26(11):1811–6. Comment in: Crit Care Med 1998 Nov;26(11):1772–3.

Measurement of functional status, self-assessment, and psychological well-being in scleroderma. Merkel PA. **Curr Opin Rheumatol** 1998 Nov;10(6):589–94 (27 ref.)

Treatment outcome in alcoholism – a comparison of self-report and the biological markers carbohydrate-deficient transferrin and gamma-glutamyl transferase. Mundle G, et al. **Eur Addict Res** 1999 Jun; 5(2):91–6

Do memory complaints indicate the presence of cognitive impairment? Results of a field study. Riedel-Heller SG, et al. **Eur Arch Psychiatry Clin Neurosci** 1999; 249(4):197–204

The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. Goodman R, et al. **Eur Child Adolesc Psychiatry** 1998 Sep;7(3):125–30

Self reported health status and magnetic resonance imaging findings in patients with low back pain. Hollingworth W, et al. **Eur Spine J** 1998;7(5):369–75

Being labeled as gifted, self-appraisal, and psychological well-being: a life span developmental perspective. Holahan CK, et al. **Int J Aging Hum Dev** 1999;48(3):161–73

Continuity in the lives of elder catholic women religious. Melia SP. **Int J Aging Hum Dev** 1999;48(3):175–89

Self-assessment of competence in public health management as a measure of effectiveness of postgraduate training. Indulski JA, et al. **Int J Occup Med Environ Health** 1999; 12(1):15–27

Social skills, social outcomes, and cognitive features of childhood social phobia. Spence SH, et al. **J Abnorm Psychol** 1999 May;108(2):211–21

Peer and self-evaluation of teamwork skills. Strom PS, et al. **J Adolesc** 1999 Aug;22(4):539–53

Validity of self-assessment of pubertal maturation in African American and European American adolescents [see comments] Hergenroeder AC, et al. **J Adolesc Health** 1999 Mar;24(3):201–5. Comment in: J Adolesc Health 1999 Mar;24(3):157.

Self-assessment of sexual maturation in adolescent females with anorexia nervosa [see comments] Hick KM, et al. **J Adolesc Health** 1999 Mar;24(3):206–11. Comment in: J Adolesc Health 1999 Mar;24(3):157.

Self-assessment of puberty: problems and potential [editorial; comment] Litt IF. **J Adolesc Health** 1999 Mar;24(3):157. Comment on: J Adolesc Health 1999 Mar;24(3):201–5. Comment on: J Adolesc Health 1999 Mar;24(3):206–11.

Rating scales for mania: is self-rating reliable? Altman E. **J Affect Disord** 1998 Sep;50(2–3):283–6 (12 ref.)

How to change as pharmacy changes. Brown JJ. **J Am Pharm Assoc (Wash)** 1998 Nov–Dec;38(6):652–3

Differentiating anxious and depressive self-statements in youth: factor structure of the Negative Affect Self-Statement Questionnaire among youth referred to an anxiety disorders clinic. Lerner J, et al. **J Clin Child Psychol** 1999 Mar;28(1):82–93

Self- and informant-ratings on the patient competency rating scale in patients with traumatic brain injury. Leathem JM, et al. **J Clin Exp Neuropsychol** 1998 Oct;20(5):694–705

Coping self-talk and cognitive interference in anxious children. Prins PJ, et al. **J Consult Clin Psychol** 1999 Jun; 67(3):435–9

Self-rated health and adverse health outcomes: an exploration and refinement of the trajectory hypothesis. Wolinsky FD, et al. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov;53(6):S336–40

Functional disability in adolescents and young adults with symptoms of irritable bowel syndrome: the role of academic, social, and athletic competence. Claar RL, et al. **J Pediatr Psychol** 1999 Jun;24(3):271–80

Daily goals, life goals, and worst fears: means, ends, and subjective well-being. King LA, et al. **J Pers** 1998 Oct; 66(5):713–44

Development and first results of the Borderline Personality Inventory: a self-report instrument for assessing borderline personality organization. Leichsenring F. **J Pers Assess** 1999 Aug;73(1):45–63

Self-reported psychopathy: a validation study. Lynam DR, et al. **J Pers Assess** 1999 Aug;73(1):110–32

Family correlates of adolescent self-monitoring and social competence. Schoenrock CJ, et al. **J Psychol** 1999 Jul; 133(4):377–93

A descriptive study of insight into illness reported by persons with schizophrenia. Baier M, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Jan;37(1):14–21

Self-enhancement, generality level of self-evaluation, and emotional adjustment. Kurman J, et al. **J Soc Psychol** 1998 Oct;138(5):549–63

Gender differences in medical graduates' assessment of their personal attributes. Clack GB, et al. **Med Educ** 1999 Feb; 33(2):101–5

Self-report and objective measures of cognitive deficit in patients entering substance abuse treatment. Horner MD, et al. **Psychiatry Res** 1999 May 31;86(2):155–61

Correspondence of emotional self-rating with facial expression. Weiss U, et al. **Psychiatry Res** 1999 May 31; 86(2):175–84

Self-appraisal, life satisfaction, and retrospective life choices across one and three decades. Holahan CK, et al. **Psychol Aging** 1999 Jun;14(2):238–44

Objective and projective personality assessment: the TEMAS and the Behavior Assessment System for Children, self-report of personality. Flanagan R. **Psychol Rep** 1999 Jun;84(3 Pt 1):865–7

Peeing barbed wire. Symptom experiences in women with lower urinary tract infection. Malterud K, et al. **Scand J Prim Health Care** 1999 Mar;17(1):49–53

Self-assessed health-related quality of life in men being treated for prostate cancer with radiotherapy: instrument validation and its relation to patient-assessed bother of symptoms. Dale W, et al. **Urology** 1999 Feb;53(2):359–66

[Energy-saving, effective and elegant. Awareness through motion. Body perception and relaxation technic, no. 2: Hightened self-awareness through bodily and spiritual training] Wagner B. **Fortschr Med** 1999 Apr 30; 117(12):37–8 **(Ger)**

[Subjective assessment of self health and subjective morbidity in Germany. Results of a representative demographic survey] Hessel A, et al. **Psychother Psychosom Med Psychol** 1999 Aug;49(8):264–74 (Eng. Abstr.) **(Ger)**

[Epidemiology of psychosomatic symptoms and subjective health evaluation among secondary school students] Pikó B. **Orv Hetil** 1999 Jun 6;140(23):1297–304 (40 ref.) (Eng. Abstr.) **(Hun)**

SELF CARE

Retrospective clinical trial of contraceptive effectiveness of the electronic fertility indicator Ladycomp/Babycomp. Freundl G, et al. **Adv Contracept** 1998 Jun;14(2):97–108

Education and biopsychosocial care for the patients with irritable bowel syndrome [letter; comment] Dill JE, et al. **Am J Gastroenterol** 1999 Feb;94(2):540. Comment on: Am J Gastroenterol 1998 Jun;93(6):860–1. Comment on: Am J Gastroenterol 1998 Jun;93(6):901–5. Comment on: Am J Gastroenterol 1998 Jun;93(6):906–10.

What is the value of home (self) blood pressure monitoring in patients with hypertensive heart disease? Mengden T, et al. **Am J Hypertens** 1998 Jul;11(7):813–9

White coat effect detected using self-monitoring of blood pressure at home: comparison with ambulatory blood pressure. Stergiou GS, et al. **Am J Hypertens** 1998 Jul; 11(7):820–7

Dan and me, taking care of ourselves. Rivera B. **Am J Nurs** 1999 Jun;99(6):56–8

Use of complementary therapies for arthritis among patients of rheumatologists. Rao JK, et al. **Ann Intern Med** 1999 Sep 21;131(6):409–16

Factors influencing knowledge of and adherence to self-care among patients with heart failure. Ni H, et al. **Arch Intern Med** 1999 Jul 26;159(14):1613–9

Interrater reliability of the Functional Assessment Measure in a brain injury rehabilitation program. Donaghy S, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1231–6

Intermittent self catheterization versus regular outpatient dilatation in urethral stricture: a comparison. Gnanaraj J, et al. **Aust N Z J Surg** 1999 Jan;69(1):41–3

Experiences of hospital care and treatment seeking for pain from sickle cell disease: qualitative study. Maxwell K, et al. **BMJ** 1999 Jun 12;318(7198):1585–90

Knowledge, attitudes, and self care practices associated with age related eye disease in Australia. Livingston PM, et al. **Br J Ophthalmol** 1998 Jul;82(7):780–5

Long-term outcomes of an arthritis self-management programme. Barlow JH, et al. **Br J Rheumatol** 1998 Dec; 37(12):1315–9

Self-diagnosis as a possible basis for treating urinary schistosomiasis: a study of schoolchildren in a rural area of the United Republic of Tanzania. Partnership for Child Development. **Bull World Health Organ** 1999;77(6):477–83

Measuring impact of nursing intervention on cancer patients' ability to control symptoms. Benor DE, et al. **Cancer Nurs** 1998 Oct;21(5):320–34

An intervention to increase use and effectiveness of self-care measures for breast cancer chemotherapy patients. Craddock RB, et al. **Cancer Nurs** 1999 Aug;22(4):312–9

A controlled comparison of directly observed therapy vs self-administered therapy for active tuberculosis in the urban United States [see comments] Davidson BL. **Chest** 1998 Nov;114(5):1239–43. Comment in: Chest 1998 Nov;114(5):1229–30.

Assessing the validity of tuberculin skin test readings by trained professionals and patients. Ozuah PO, et al. **Chest** 1999 Jul;116(1):104–6

Of pride and program planning--a lesson in reality [editorial; comment] Sbarbaro JA. **Chest** 1998 Nov;114(5):1229–30. Comment on: Chest 1998 Nov;114(5):1239–43.

Inadequate literacy is a barrier to asthma knowledge and self-care. Williams MV, et al. **Chest** 1998 Oct; 114(4):1008–15

Long-term home treatment with epidural analgesia does not affect later spinal cord stimulation in patients with otherwise intractable angina pectoris. Andersen C, et al. **Clin J Pain** 1998 Dec;14(4):315–9

The program for rheumatic independent self-management

a pilot evaluation. Alderson M, et al. **Clin Rheumatol** 1999; 18(4):283–92

Biopsychobehavioral model of risk of severe hypoglycemia. Self–management behaviors. Clarke WL, et al. **Diabetes Care** 1999 Apr;22(4):580–4

Counseling women with epilepsy. Shafer PO. **Epilepsia** 1998; 39 Suppl 8:S38–44

Personal responsibility for health? A review of the arguments and the evidence at century's end. Minkler M. **Health Educ Behav** 1999 Feb;26(1):121–40 (118 ref.)

Interactive versus noninteractive interventions and dose–response relationships for stage–matched smoking cessation programs in a managed care setting. Velicer WF, et al. **Health Psychol** 1999 Jan;18(1):21–8

Multiple clinic and home blood pressure measurements versus ambulatory blood pressure monitoring. Jula A, et al. **Hypertension** 1999 Aug;34(2):261–6

Nursing practice theory of exercise as self–care. Ulbrich SL. **Image J Nurs Sch** 1999;31(1):65–70 (24 ref.)

Easy access to antifungal agents [editorial] Faro S. **Infect Dis Obstet Gynecol** 1999;7(3):125

Evaluation of a nurse–run asthma school. Pettersson E, et al. **Int J Nurs Stud** 1999 Apr;36(2):145–51

A study of self–care among Irish doctors. Clarke J, et al. **Ir Med J** 1998 Oct–Nov;91(5):175–6

Social support and personal models of diabetesin relation to self–care and well–being inadolescents with type I diabetes mellitus. Skinner TC, et al. **J Adolesc** 1998 Dec; 21(6):703–15

Power, self–care and health in women living in urban squatter settlements in Karachi, Pakistan: a test of Orem's theory. Lee MB. **J Adv Nurs** 1999 Jul;30(1):248–59

Can nurses learn to let go? issues arising from an intervention designed to improve patients' involvement in their own care. Pill R, et al. **J Adv Nurs** 1999 Jun;29(6):1492–9

Self–care ability in a group of elderly Swedish people: a phenomenological study. Söderhamn O. **J Adv Nurs** 1998 Oct;28(4):745–53

Preventing disability and managing chronic illness in frail older adults: a randomized trial of a community–based partnership with primary care [see comments] Leveille SG, et al. **J Am Geriatr Soc** 1998 Oct;46(10):1191–8. Comment in: J Am Geriatr Soc 1998 Oct;46(10):1314–6.

Decision support for patient preference–based care planning: effects on nursing care and patient outcomes. Ruland CM. **J Am Med Inform Assoc** 1999 Jul–Aug;6(4):304–12

APhA drug treatment protocols: self–care of self–limited pain. Albrant DH. **J Am Pharm Assoc (Wash)** 1999 May–Jun;39(3):321–30

Use of a paging system to improve medication self–management in patients with asthma. Erickson SR, et al. **J Am Pharm Assoc (Wash)** 1998 Nov–Dec;38(6):767–9

Increasing accuracy and decreasing latency during clean intermittent self–catheterization procedures with young children. McComas JJ, et al. **J Appl Behav Anal** 1999 Summer;32(2):217–20

The validity and reliability of an asthma knowledge questionnaire used in the evaluation of a group asthma education self–management program for adults with asthma. Allen RM, et al. **J Asthma** 1998;35(7):537–45

How many self–measured blood pressure readings are needed to estimate hypertensive patients' "true" blood pressure? Garcia–Vera MP, et al. **J Behav Med** 1999 Feb;22(1):93–113

A symptom–management program for patients undergoing cancer treatment: the Pro–Self Program. Larson PJ, et al. **J Cancer Educ** 1998 Winter;13(4):248–52

Home self–assessment and self–treatment of obsessive–compulsive disorder using a manual and a computer–conducted telephone interview: replication of a UK–US study. Bachofen M, et al. **J Clin Psychiatry** 1999 Aug;60(8):545–9

Division of responsibility for asthma management tasks between caregivers and children in the inner city. Wade SL, et al. **J Dev Behav Pediatr** 1999 Apr;20(2):93–8

Antihypertensive drug treatment: a comparison of usual care with self blood pressure measurement. Bailey B, et al. **J Hum Hypertens** 1999 Feb;13(2):147–50

Self–care actions to manage fatigue among myasthenia gravis patients. Grohar–Murray ME, et al. **J Neurosci Nurs** 1998 Jun;30(3):191–9

Preventing adverse outcomes: a population focus. Ervin NE, et al. **J Nurs Care Qual** 1999 Aug;13(6):25–31

Self–care agency: the concept and how it is measured. Carter PA. **J Nurs Meas** 1998 Winter;6(2):195–207 (25 ref.)

Physical abuse, social support, self–care, and pregnancy outcomes of older adolescents. Renker PR. **J Obstet Gynecol Neonatal Nurs** 1999 Jul–Aug;28(4):377–88

Using the Open Airways curriculum to improve self–care for third grade children with asthma. Horner SD. **J Sch Health** 1998 Oct;68(8):329–33

The relationship of reciprocity to self health care in older women. Craft BJ, et al. **J Women Aging** 1998;10(2):35–47

Empowering patients to monitor and manage oral anticoagulation therapy [editorial; comment] Ansell JE. **JAMA** 1999 Jan 13;281(2):182–3. Comment on: JAMA 1999 Jan 13;281(2):145–50.

Home sample collection tests for HIV infection. Branson BM. **JAMA** 1998 Nov 18;280(19):1699–701

Patient self–management of oral anticoagulation [letter; comment] Li Q, et al. **JAMA** 1999 Jun 23–30; 281(24):2283–4. Comment on: JAMA 1999 Jan 13;281(2):145–50.

A structured teaching and self–management program for patients receiving oral anticoagulation: a randomized controlled trial. Working Group for the Study of Patient Self–Management of Oral Anticoagulation [see comments] Sawicki PT. **JAMA** 1999 Jan 13;281(2):145–50. Comment in: JAMA 1999 Jan 13;281(2):182–3. Comment in: JAMA 1999 Jun 23–30;281(24):2283–4.

A path analysis of self–care of elderly women in a rural area of southern Taiwan. Wang HH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Feb; 15(2):94–103

Lessons from an evaluation of the effectiveness of an asthma day camp. Meng A, et al. **MCN Am J Matern Child Nurs** 1998 Nov–Dec;23(6):300–6

Comparison of patients with asthma managed in general practice and in a hospital clinic [see comments] Abdulwadud OA, et al. **Med J Aust** 1999 Jul 19;171(2):72–5 . Comment in: Med J Aust 1999 Jul 19;171(2):67.

A telecommunications system to manage patients with chronic disease. Friedman RH, et al. **Medinfo** 1998;9 Pt 2:1330–4

Self–referral of patients for electron–beam computed tomography to screen for coronary artery disease [comment] Taylor AJ, et al. **N Engl J Med** 1998 Dec 31; 339(27):2018–20. Comment on: N Engl J Med 1998 Dec 31;339(27):1964–71. Comment on: N Engl J Med 1998 Dec 31;339(27):1972–8.

The health and health practices of doctors and their families. Richards JG. **N Z Med J** 1999 Mar 26;112(1084):96–9

Outcomes of a nonaversive behavior intervention in intellectually impaired individuals using goal attainment scaling. Mate–Kole CC, et al. **Nurs Res** 1999 Jul–Aug; 48(4):220–5

Follow–up essential for positive home HIV test results [news] **Oncology (Huntingt)** 1999 Jan;13(1):81

Encouraging self–help in oesophagitis. Heatley RV. **Practitioner** 1999 Apr;243(1597):261–2, 265–6, 271 passim (0 ref.)

Self–management plans in asthma. Neville R. **Practitioner** 1998 Mar;242(1584):212–5 (20 ref.)

Consumer health informatics: knowledge engineering and evaluation studies of medical HouseCall. Bouhaddou O, et al. **Proc AMIA Symp** 1998;:612–6

Patients' acceptance of Internet–based home asthma telemonitoring. Finkelstein J, et al. **Proc AMIA Symp** 1998; :336–40

Improving patient outcomes by including patient preferences in nursing care. Ruland CM. **Proc AMIA Symp** 1998; :448–52

Health and self–care practices of persons with schizophrenia. Holmberg SK, et al. **Psychiatr Serv** 1999 Jun;50(6):827–9

The role of client choice and target selection in self–management therapy for depression in older adults. Rokke PD, et al. **Psychol Aging** 1999 Mar;14(1):155–69

HIV testing not for self–doers [news] **S Afr Med J** 1998 Sep; 88(9):1062

Training schizophrenic patients to manage their symptoms: predictors of treatment response to the German version of the Symptom Management Module. Schaub A, et al. **Schizophr Res** 1998 May 25;31(2–3):121–30

Use of self–collected vaginal swabs for detection of Chlamydia trachomatis infection [letter] Gray RH, et al. **Sex Transm Dis** 1998 Sep;25(8):450

A randomized trial of a lay person–led self–management group intervention for back pain patients in primary care. Von Korff M, et al. **Spine** 1998 Dec 1;23(23):2608–15

A randomized, controlled pilot study of a home–based exercise program for individuals with mild and moderate stroke. Duncan P, et al. **Stroke** 1998 Oct;29(10):2055–60

Influence of self–care education on illness behaviors and health locus of control of Mexican American women. Kennedy CA, et al. **Women Health** 1999;28(3):1–13

[Self–care behaviors, self–efficacy, and social support effect on the glycemic control of patients newly diagnosed with non–insulin–dependent diabetes mellitus] Wang JS, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Dec; 14(12):807–15 (Eng. Abstr.) **(Chi)**

[Self management of peroral anticoagulant therapy in patients with artificial heart valves] Hasenkam JM, et al. **Ugeskr Laeger** 1998 Nov 16;160(47):6811–5 (Eng. Abstr.) **(Dan)**

[Hard–to–reach young mothers: study of the implementation of a pre and postnatal intervention for a clientele at risk] Tremblay D, et al. **Can J Public Health** 1998 Nov–Dec; 89(6):376–9 (Eng. Abstr.) **(Fre)**

[Early education in autonomous bronchial drainage in the management of patients with hypersecretion] Delplanque D, et al. **Rev Mal Respir** 1998 Oct;15(5):589–95 (Eng. Abstr.) **(Fre)**

[Increasing personal responsibility as a public health goal] Seger W. **Gesundheitswesen** 1999 Apr;61(4):214–7 (Eng. Abstr.) **(Ger)**

[Intraocular pressure self–monitoring in glaucoma patients (news)] Draeger J. **Klin Monatsbl Augenheilkd** 1998 Jul; 213(1):aA9 **(Ger)**

[Optimizing long–term anticoagulation by patient self–management?] Bernardo A. **Z Kardiol** 1998;87 Suppl 4:75–81 (Eng. Abstr.) **(Ger)**

[Patient self–monitoring in follow–up of long–term anticoagulant therapy] Zerback R, et al. **Z Kardiol** 1998; 87 Suppl 4:68–74 (Eng. Abstr.) **(Ger)**

[Patient self–management and stabilization as a contribution to process quality] Kriegel W, et al. **Z Rheumatol** 1998 Dec;57(6):434–6 (Eng. Abstr.) **(Ger)**

[Individual pressure profile in clinical practice (letter)] Verdecchia P. **G Ital Cardiol** 1999 Jan;29(1):89–90 **(Ita)**

[Home hemodialysis for therapy of late–stage kidney failure] Saito A. **Nippon Naika Gakkai Zasshi** 1998 Jul 10; 87(7):1323–8 (9 ref.) **(Jpn)**

[Better AVK treatment with self monitoring. Dosage can be regulated in time] Stigendal L, et al. **Lakartidningen** 1999 May 19;96(20):2482, 2485–7 (Eng. Abstr.) **(Swe)**

[New system for testing mechanical heart valves. Self–monitoring at home of anti–vitamin K therapy means greater freedom for the patient] Svensson PJ, et al. **Lakartidningen** 1999 May 19;96(20):2478–82 (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Self–care and deviance in elementary school–age children. Pettine A, et al. **J Clin Psychol** 1998 Aug;54(5):629–43

Management of false passages in patients practising clean intermittent self catheterisation. Michielsen DP, et al. **Spinal Cord** 1999 Mar;37(3):201–3

[The late dimensions and complications following paraffin injection into the breast] Dimitrov S, et al. **Akush Ginekol (Sofiia)** 1998;37(4):54–6 **(Bul)**

ECONOMICS

Reduced utilization and cost of primary care clinic visits resulting from self–care education for patients with osteoarthritis of the knee. Mazzuca SA, et al. **Arthritis Rheum** 1999 Jun;42(6):1267–73

Assessment of asthma patients' willingness to pay for and give time to an asthma self–management program. Barner JC, et al. **Clin Ther** 1999 May;21(5):878–94

Efficacy and safety of self–start therapy in women with recurrent urinary tract infections. Schaeffer AJ, et al. **J Urol** 1999 Jan;161(1):207–11

Efficiency and costs of medical exercise therapy, conventional physiotherapy, and self–exercise in patients with chronic low back pain. A pragmatic, randomized, single–blinded, controlled trial with 1–year follow–up. Torstensen TA, et al. **Spine** 1998 Dec 1;23(23):2616–24

HISTORY

Autosurgery, 1816 [letter] Kirkup J. **J R Soc Med** 1998 Sep; 91(9):506–7

INSTRUMENTATION

Self–tonometry with the Ocuton S versus Goldmann tonometry. Theofylaktopoulos I, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Sep;237(9):720–4

Assessment of the AirWatch lung function monitoring system.Asthma Clinical Research Network (ACRN). Martin RJ, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):535–6

[Noninvasive intermittent self–ventilation as a palliative measure in amyotrophic lateral sclerosis] Schlamp V, et al. **Nervenarzt** 1998 Dec;69(12):1074–82 (Eng. Abstr.) **(Ger)**

METHODS

Studies of preventive nephrology: self–urinalysis as a feasible method for early detection of renal damage. Soyannwo MA, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):27–34

Modulation of tinnitus by voluntary jaw movements. Pinchoff RJ, et al. **Am J Otol** 1998 Nov;19(6):785–9

Coping skills training for youths with diabetes on intensive therapy. Grey M, et al. **Appl Nurs Res** 1999 Feb;12(1):3–12

Self–resolution of alcohol problems as a process of investing and re–investing in self. Finfgeld DL. **Arch Psychiatr Nurs** 1999 Aug;13(4):212–20

Towards a more enlightened view of autonomy. Hassed C. **Aust Fam Physician** 1999 Feb;28(2):172–3

Vaginal health. Mazza D. **Aust Fam Physician** 1999 Feb; 28(2):162

Validation of two devices for self–measurement of blood pressure by elderly patients according to the revised British Hypertension Society protocol: the Omron HEM–722C and HEM–735C. Bortolotto LA, et al. **Blood Press Monit** 1999 Feb;4(1):21–5

Cold/flu knowledge, attitudes and health care practices: results of a two–city telephone survey. Vingilis ER, et al. **Can J Public Health** 1999 May–Jun;90(3):205–8

Motion sickness in public road transport: passenger behavior and susceptibility. Turner M, et al. **Ergonomics** 1999 Mar; 42(3):444–61

What parents think of fever [see comments] Blumenthal I. **Fam Pract** 1998 Dec;15(6):513–8. Comment in: Fam Pract 1998 Dec;15(6):505–6.

How can obese weight controllers minimize weight gain during the high risk holiday season? By self–monitoring very consistently. Boutelle KN, et al. **Health Psychol** 1999 Jul;18(4):364–8

Wellness self–care by healthy older adults. Clark CC. **Image J Nurs Sch** 1998;30(4):351–5

Lifestyle practices and the health promoting environment of hospital nurses. Hope A, et al. **J Adv Nurs** 1998 Aug; 28(2):438–47

Quality of life and self–care management strategies of PLWAs with chronic diarrhea. Henry SB, et al.

J Assoc Nurses AIDS Care 1999 Mar-Apr;10(2):46-54
Physician support and rewards: developing a support system. Burdick D. **J Cancer Educ** 1999 Spring;14(1):52-3
Teaching memory strategies to persons with multiple sclerosis. Allen DN, et al. **J Rehabil Res Dev** 1998 Oct; 35(4):405-10
Camp Superteens. An asthma education program for adolescents. Alaniz KL, et al.
MCN Am J Matern Child Nurs 1999 May-Jun;24(3):133-7
Lessons from pilot tests of computer self-help for agora/claustrophobia and panic. Shaw SC, et al.
MD Comput 1999 Jul-Aug;16(4):44-8
Community-based Spanish language arthritis education program: a randomized trial. Lorig K, et al. **Med Care** 1999 Sep;37(9):957-63
Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. Lorig KR, et al.
Med Care 1999 Jan;37(1):5-14
Management of insulin-treated diabetes in Tasmania. McCarty DJ, et al. **Med J Aust** 1999 Apr 5;170(7):312-5
A military application of a medical self-care program. Glavan KA, et al. **Mil Med** 1998 Oct;163(10):678-81
Self-collection of group B Streptococcus cultures in pregnant women. Spieker MR, et al. **Mil Med** 1999 Jul;164(7):471-4
Epilepsy and seizures: advances in seizure assessment, treatment, and self-management. Shafer PO.
Nurs Clin North Am 1999 Sep;34(3):743-59 (36 ref.)
Stress-less: a modern fable [editorial] Pearson L.
Nurse Pract 1999 Sep;24(9):11, 15
Do you just want to feel better or get better? [editorial] Mooney V. **Orthopedics** 1999 May;22(5):479-80
Patient education: a tool in the outpatient management of deep vein thrombosis. Haines ST. **Pharmacotherapy** 1998 Nov-Dec;18(6 Pt 3):158S-164S (33 ref.)
Monitoring your blood pressure. **Postgrad Med** 1999 May 1;105(5):209-10
Coping with panic disorder. **Postgrad Med** 1999 May 1; 105(5):148
Smoking cravings are reduced by self-massage.
Hernandez-Reif M, et al. **Prev Med** 1999 Jan;28(1):28-32
Evaluation of a minimal self-help smoking cessation intervention following cervical cancer screening. McBride CM, et al. **Prev Med** 1999 Aug;29(2):133-8
What you need to know: how to manage your stress. Ung EK. **Singapore Med J** 1998 Nov;39(11):517-9
Coping with pediatric migraine. Gilbert MC.
Soc Work Health Care 1999;28(3):21-38
Contrasting patient and practitioner perspectives in type 2 diabetes management. Hunt LM, et al.
West J Nurs Res 1998 Dec;20(6):656-76; discussion 677-82
[Is self-management practical in bronchial asthma?] Gonon M, et al. **Schweiz Med Wochenschr** 1999 Apr 3; 129(13):519-25 (18 ref.) (Eng. Abstr.) **(Ger)**
[Home self-monitoring of arterial pressure: identification of the white coat reaction] Comas A, et al. **Aten Primaria** 1999 Jun 15;24(1):5-11 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Disability in geriatric depression. Steffens DC, et al.
Am J Geriatr Psychiatry 1999 Winter;7(1):34-40
Self-resolution of alcohol problems as a process of investing and re-investing in self. Finfgeld DL.
Arch Psychiatr Nurs 1999 Aug;13(4):212-20
Alternative medicine [letter] Goodman SH.
Aviat Space Environ Med 1998 Nov;69(11):1122
Fatigue in rheumatoid arthritis: the role of self-efficacy and problematic social support. Riemsma RP, et al.
Br J Rheumatol 1998 Oct;37(10):1042-6
Exploring self-efficacy as a predictor of disease management. Clark NM, et al. **Health Educ Behav** 1999 Feb;26(1):72-89
Self-regulating childhood asthma: a developmental model of family change. Zimmerman BJ, et al.
Health Educ Behav 1999 Feb;26(1):55-71
Weight control during the holidays: highly consistent self-monitoring as a potentially useful coping mechanism. Baker RC, et al. **Health Psychol** 1998 Jul;17(4):367-70
The relationship between diabetes knowledge and compliance among Chinese with non-insulin dependent diabetes mellitus in Hong Kong. Chan YM, et al.
J Adv Nurs 1999 Aug;30(2):431-8
Correlates of expected success at adherence to health regimen of people with IDDM. Lo R. **J Adv Nurs** 1999 Aug; 30(2):418-24
Quality of life and self-care management strategies of PLWAs with chronic diarrhea. Henry SB, et al.
J Assoc Nurses AIDS Care 1999 Mar-Apr;10(2):46-54
Barriers to self-care in a cohort of low-income white women living with HIV/AIDS. Leenerts MH.
J Assoc Nurses AIDS Care 1998 Nov-Dec;9(6):22-36
Self-help treatment for insomnia: bibliotherapy with and without professional guidance. Mimeault V, et al.
J Consult Clin Psychol 1999 Aug;67(4):511-9
The highly structured climate in families of adolescents with diabetes: functional or dysfunctional for metabolic control? Seiffge-Krenke I. **J Pediatr Psychol** 1998 Oct;23(5):313-22
Protective factors in adolescent health behavior. Jessor R, et al. **J Pers Soc Psychol** 1998 Sep;75(3):788-800
Parental self-efficacy and asthma self-management skills. Hanson J. **J Soc Pediatr Nurs** 1998 Oct-Dec;3(4):146-54
Patient perspective and self-help. Andersen S. **Neurology** 1999;52(7 Suppl 3):S26-8
Amount of information on case illustrations in self-help psychology books. Forest JJ. **Psychol Rep** 1998 Dec;83(3 Pt 2):1147-52
Appropriateness of self-care responses to symptoms among elders: identifying pathways of influence. Edwardson SR, et al. **Res Nurs Health** 1999 Aug;22(4):329-39
Coping with pediatric migraine. Gilbert MC.
Soc Work Health Care 1999;28(3):21-38
Contrasting patient and practitioner perspectives in type 2 diabetes management. Hunt LM, et al.
West J Nurs Res 1998 Dec;20(6):656-76; discussion 677-82

STANDARDS

Comparison of clinic, home self-measured, and work self-measured blood pressures. García-Vera MP, et al.
Behav Med 1999 Spring;25(1):13-22
Pitfalls in processing home electronic spirometric data in asthma. Reddel HK, et al. **Eur Respir J** 1998 Oct; 12(4):853-8
Improvement in self-care may lower the increasing rate of medical expenses for community-dwelling older people in Japan [letter] Matsubayashi K, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1484-5
Construction and validation of four childhood asthma self-management scales: parent barriers, child and parent self-efficacy, and parent belief in treatment efficacy. Bursch B, et al. **J Asthma** 1999;36(1):115-28
Evaluation and long-term treatment of aberrant behavior displayed by young children with disabilities. Wacker DP, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):260-6
A computerized method of identifying potentially preventable heart failure admissions. Thomas V, et al.
J Nurs Care Qual 1999 Jun;13(5):1-10 (25 ref.)
Commentary: Self-management programs in the treatment of asthma. Kotses H. **J Pediatr Psychol** 1999 Aug; 24(4):331-2
Using statistical process control charts for the continual improvement of asthma care. Boggs PB, et al.
Jt Comm J Qual Improv 1999 Apr;25(4):163-81
Targeting smokers with low readiness to change with tailored and nontailored self-help materials. Dijkstra A, et al.
Prev Med 1999 Feb;28(2):203-11
Effects of group treatment for women with a history of childhood sexual abuse. Talbot NL, et al.
Psychiatr Serv 1999 May;50(5):686-92
Appropriateness of self-care responses to symptoms among elders: identifying pathways of influence. Edwardson SR, et al. **Res Nurs Health** 1999 Aug;22(4):329-39

STATISTICS & NUMERICAL DATA

Effects of education and support on self-care and resource utilization in patients with heart failure [see comments] Jaarsma T, et al. **Eur Heart J** 1999 May;20(9):673-82. Comment in: Eur Heart J 1999 May;20(9):632-3.
Knowledge and self-care practices of diabetics in a resettlement colony of Chandigarh. Kaur K, et al.
Indian J Med Sci 1998 Aug;52(8):341-7
Taking dental self-care to the extreme: 24-month incidence of dental self-extractions in the Florida Dental Care Study. Gilbert GH, et al. **J Public Health Dent** 1998 Spring; 58(2):131-4

TRENDS

Evolution of self-care with over-the-counter medications. Soller RW. **Clin Ther** 1998;20 Suppl C:C134-40 (26 ref.)
Home haemodialysis in the 1990s [see comments] Mackenzie P, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):1944-8 (17 ref.). Comment in: Nephrol Dial Transplant 1999 Jan;14(1):251-2. Comment in: Nephrol Dial Transplant 1999 Apr;14(4):1031-2.

UTILIZATION

Untreated remissions from drug use: the predominant pathway. Cunningham JA. **Addict Behav** 1999 Mar-Apr; 24(2):267-70

SELF CARE (REHABILITATION) see **ACTIVITIES OF DAILY LIVING**

SELF CONCEPT

see related
BODY IMAGE

An exploration of the perceptions of the average driver's speed compared to perceived driver safety and driving skill. Walton D, et al. **Accid Anal Prev** 1998 Nov;30(6):821-30
Trepanation is a metaphor. Fischer R.
Acta Neurochir (Wien) 1998;140(5):479-80
Development and preliminary application of a new scale for assessing dysfunctional working models of self and others (DWM-S) in severely disturbed patients. Perris C, et al.
Acta Psychiatr Scand 1998 Sep;98(3):219-23
Alcohol cue reactivity and private self-consciousness among male alcoholics. Bradizza CM, et al. **Addict Behav** 1999 Jul-Aug;24(4):543-9
Modification of the cognitive model for bulimia via path analysis on a Brazilian adolescent sample. Darnall BD, et al. **Addict Behav** 1999 Jan-Feb;24(1):47-57
Overlapping addictions and self-esteem among college men and women. Greenberg JL, et al. **Addict Behav** 1999 Jul-Aug;24(4):565-71
Quality of life and overweight: the obesity related well-being (Orwell 97) questionnaire. Mannucci E, et al.
Addict Behav 1999 May-Jun;24(3):345-57
Feelings and attitudes of gifted students. Field T, et al.
Adolescence 1998 Summer;33(130):331-42
Association between self-concept and body weight, gender, and pubertal development among male and female adolescents. O'Dea JA, et al. **Adolescence** 1999 Spring; 34(133):69-79
Finding a place to be: ethnic identity exploration of Asian Americans. Tse L. **Adolescence** 1999 Spring;34(133):121-38
The relationship of attributional beliefs to self-esteem. Turner LA, et al. **Adolescence** 1998 Summer;33(130):477-84
Predictors of global self-worth and academic performance among regular education, learning disabled, and continuation high school students. Wiest DJ, et al.
Adolescence 1998 Fall;33(131):601-18
Building positive self-image in adolescents in foster care: the use of role models in an interactive group approach. Yancey AK. **Adolescence** 1998 Summer;33(130):253-67
Life satisfaction, self-esteem, and body image: a psychosocial evaluation of aesthetic and reconstructive surgery candidates. Ozgür F, et al. **Aesthetic Plast Surg** 1998 Nov-Dec;22(6):412-9
The effects of resistance training on well-being and memory in elderly volunteers. Perrig-Chiello P, et al.
Age Ageing 1998 Jul;27(4):469-75
Family and peer correlates of behavioral self-regulation in boys at risk for substance abuse. Dawes M, et al.
Am J Drug Alcohol Abuse 1999 May;25(2):219-37
Pharmacy technician helps cancer patients look good [news] Landis NT. **Am J Health Syst Pharm** 1999 Feb 1;56(3):208
Perceived personal control (PPC): a new concept in measuring outcome of genetic counseling. Berkenstadt M, et al. **Am J Med Genet** 1999 Jan 1;82(1):53-9
Competence and adjustment of siblings of children with mental retardation. Hannah ME, et al.
Am J Ment Retard 1999 Jan;104(1):22-37
Occupations and well-being: a study of personal projects. Christiansen CH, et al. **Am J Occup Ther** 1999 Jan-Feb; 53(1):91-100
Clinical interpretation of "My Secret Life': the emergence of one gay man's authentic identity" [comment] Crepeau EB. **Am J Occup Ther** 1998 Jul-Aug;52(7):570-2 (20 ref.) . Comment on: Am J Occup Ther 1998 Jul-Aug;52(7):563-9.
Alleviating gender role strain in adult men with traumatic brain injury: an evaluation of a set of guidelines for occupational therapy. Gutman SA. **Am J Occup Ther** 1999 Jan-Feb;53(1):101-10
"My secret life": the emergence of one gay man's authentic identity [see comments] Walsh AL, et al.
Am J Occup Ther 1998 Jul-Aug;52(7):563-9 (41 ref.). Comment in: Am J Occup Ther 1998 Jul-Aug;52(7):570-2.
Subjective experience in schizophrenia: factors influencing self-esteem, satisfaction with life, and subjective distress. Bradshaw W, et al. **Am J Orthopsychiatry** 1999 Apr; 69(2):254-60
Perceived parental acceptance and early adolescent self-competence. Ohannessian CM, et al.
Am J Orthopsychiatry 1998 Oct;68(4):621-9
The development of ethnic identity in Asian-American adolescents: status and outcome. Ying YW, et al.
Am J Orthopsychiatry 1999 Apr;69(2):194-208
Self-esteem: the past of an illusion. Katz EB.
Am J Psychoanal 1998 Sep;58(3):303-15
Self-perception of health among elderly community dwellers in Singapore. Chan KM, et al.
Ann Acad Med Singapore 1998 Jul;27(4):461-7
Correlates of self-efficacy expectation and prediction of walking behavior in cardiac surgery elders. Jenkins LS, et al. **Ann Behav Med** 1998 Spring;20(2):99-103
Interpersonal processes: the interplay of cognitive, motivational, and behavioral activities in social interaction. Snyder M, et al. **Annu Rev Psychol** 1999;50:273-303 (138 ref.)
Effect of abuse on self-perception of rural Mexican-American and non-Hispanic white adolescents. Champion JD. **Arch Psychiatr Nurs** 1999 Feb;13(1):12-8
Self-resolution of alcohol problems as a process of investing and re-investing in self. Finfgeld DL.
Arch Psychiatr Nurs 1999 Aug;13(4):212-20
The Heideggerian view of person: a perspective conducive to the therapeutic encounter. Orbanic SD.
Arch Psychiatr Nurs 1999 Jun;13(3):137-44 (19 ref.)
Calling for the absent male. Edgar D.
Aust Fam Physician 1999 Aug;28(8):797-9 (5 ref.)
A genetic analysis of the eating and attitudes associated with bulimia nervosa: dealing with the problem of ascertainment in twin studies. Wade T, et al. **Behav Genet** 1999 Jan; 29(1):1-10
Avoidant personality disorder and implicit schema-congruent information processing bias: a pilot study with a pragmatic inference task. Dreessen L, et al.
Behav Res Ther 1999 Jul;37(7):619-32
Obsessive-compulsive disorder, anxiety disorders, and self-esteem: an exploratory study. Ehntholt KA, et al.
Behav Res Ther 1999 Aug;37(8):771-81
Multiple pathways to inflated responsibility beliefs in obsessional problems: possible origins and implications for therapy and research. Salkovskis P, et al.

Behav Res Ther 1999 Nov;37(11):1055–72 (40 ref.)
The observer perspective: biased imagery in social phobia, agoraphobia, and blood/injury phobia. Wells A, et al. **Behav Res Ther** 1999 Jul;37(7):653–8
Current census categories are not a good match for identity [letter; comment] Rankin J, et al. **BMJ** 1999 Jun 19; 318(7199):1696. Comment on: BMJ 1998 Nov 14;317(7169):1381–4.
Bullying in schools: self reported anxiety, depression, and self esteem in secondary school children [see comments] Salmon G, et al. **BMJ** 1998 Oct 3;317(7163):924–5. Comment in: BMJ 1999 Apr 17;318(7190):1076.
Does the ethnicity of teenage children influence oral self perception and prevalence of dental disease? Mandall NA, et al. **Br Dent J** 1998 Oct 10;185(7):358–62
The London-East Anglia randomized controlled trial of cognitive-behaviour therapy for psychosis. IV: Self-esteem and persecutory delusions. Freeman D, et al. **Br J Clin Psychol** 1998 Nov;37 (Pt 4):415–30
Persecutory delusions and autobiographical memory. Kaney S, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):97–102
Coping with epilepsy: do illness representations play a role? Kemp S, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):43–58
Delusional ideation in religious and psychotic populations. Peters E, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):83–96
Loss, humiliation and entrapment as appraisals of schizophrenic illness: a prospective study of depressed and non-depressed patients. Rooske O, et al. **Br J Clin Psychol** 1998 Sep;37 (Pt 3):259–68
Dependency and self-criticism in bipolar and unipolar depressed women. Rosenfarb IS, et al. **Br J Clin Psychol** 1998 Nov;37 (Pt 4):409–14
The relation between accuracy of self-perception and cognitive development. Bouffard T, et al. **Br J Educ Psychol** 1998 Sep;68 (Pt 3):321–30
Attributional style and its relation to other personality dispositions. Haugen R, et al. **Br J Educ Psychol** 1998 Dec; 68 (Pt 4):537–49
Self-reports of mathematics self-concept and educational outcomes: the roles of ego-dimensions and self-consciousness. Martin AJ, et al. **Br J Educ Psychol** 1998 Dec;68 (Pt 4):517–35
The relationship between personality and attainment in 16–19-year-old students in a sixth form college: II: Self-perception, gender and attainment. Summerfield M, et al. **Br J Educ Psychol** 1999 Jun;69 (Pt 2):173–87
The relationship between personality and attainment in 16–19-year-old students in a sixth form college. I: Construction of the Student Self-Perception Scale. Summerfield M, et al. **Br J Educ Psychol** 1999 Jun;69 (Pt 2):159–72
Brains, minds and selves: changing conceptions of the losses involved in dementia. Cheston R, et al. **Br J Med Psychol** 1999 Jun;72 (Pt 2):203–16 (92 ref.)
The plans in unplanned pregnancy: secondary gain and the partnership. Harris K, et al. **Br J Med Psychol** 1999 Mar; 72 (Pt 1):105–20
Strategies for well-being in later life: a qualitative analysis. Sherrard C. **Br J Med Psychol** 1998 Sep;71 (Pt 3):253–63
Imagined futures: young men's talk about fatherhood and domestic life. Edley N, et al. **Br J Soc Psychol** 1999 Jun; 38 (Pt 2):181–94
Enhancing collective and personal self-esteem through differentiation: further exploration of Hinkle & Brown's taxonomy. Meeres SL, et al. **Br J Soc Psychol** 1999 Mar; 38 (Pt 1):21–34
Social identity and individual productivity within groups. Worchel S, et al. **Br J Soc Psychol** 1998 Dec;37 (Pt 4):389–413
Emotional activation during therapeutic interaction in traumatic brain injury: effect of apathy, self-awareness and implications for rehabilitation. Andersson S, et al. **Brain Inj** 1999 Jun;13(6):393–404
Self awareness: effects of feedback and review on verbal self reports and remembering following brain injury. Schlund MW. **Brain Inj** 1999 May;13(5):375–80
Delusion of sexual transformation as delusional misidentification syndrome [letter] Silva JA, et al. **Can J Psychiatry** 1998 Nov;43(9):956–7
Having children after cancer. A pilot survey of survivors' attitudes and experiences. Schover LR, et al. **Cancer** 1999 Aug 15;86(4):697–709
Representations of self in women sexually abused in childhood. Classen C, et al. **Child Abuse Negl** 1998 Oct; 22(10):997–1004
Effects of parental verbal aggression on children's self-esteem and school marks. Solomon CR, et al. **Child Abuse Negl** 1999 Apr;23(4):339–51
The stress of being a poor child in America. Garbarino J. **Child Adolesc Psychiatr Clin N Am** 1998 Jan;7(1):105–19, ix (23 ref.)
Structure, stability, and development of young children's self-concepts: a multicohort-multioccasion study. Marsh HW, et al. **Child Dev** 1998 Aug;69(4):1030–53
Assessing young children's views of their academic, social, and emotional lives: an evaluation of the self-perception scales of the Berkeley Puppet Interview. Measelle JR, et al. **Child Dev** 1998 Dec;69(6):1556–76
The relations among body image, physical attractiveness, and body mass in adolescence. Rosenblum GD, et al. **Child Dev** 1999 Jan–Feb;70(1):50–64
Representation of self and socioemotional competence in kindergartners: differential and combined effects of attachment to mother and to father. Verschueren K, et al. **Child Dev** 1999 Jan–Feb;70(1):183–201
Impact of managed waiting for coronary artery bypass graft surgery on patients' perceived quality of life. Teo KK, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II29–33; discussion II33–4
Childhood memory and self-description in young Chinese adults: the impact of growing up an only child. Wang Q, et al. **Cognition** 1998 Nov;69(1):73–103
Identity disturbance in personality disorders. Modestin J, et al. **Compr Psychiatry** 1998 Nov–Dec;39(6):352–7
Social adjustment and self-esteem in remitted patients with unipolar and bipolar affective disorder: a case-control study. Shapira B, et al. **Compr Psychiatry** 1999 Jan–Feb; 40(1):24–30
Agency and communion: the relationship between therapy and culture. Sato T. **Cult Divers Ment Health** 1998; 4(4):278–90
Fat, fatigue and the feminine: the changing cultural experience of women in Hong Kong. Lee S. **Cult Med Psychiatry** 1999 Mar;23(1):51–73
The long-term impact of parents' childbearing decisions on children's self-esteem. Axinn WG, et al. **Demography** 1998 Nov;35(4):435–43
Level of voice among female and male high school students: relational context, support, and gender orientation. Harter S, et al. **Dev Psychol** 1998 Sep;34(5):892–901
Person versus process praise and criticism: implications for contingent self-worth and coping. Kamins ML, et al. **Dev Psychol** 1999 May;35(3):835–47
Age-related changes in children's use of external representations. Zelazo PD, et al. **Dev Psychol** 1999 Jul; 35(4):1059–71
Supporting autonomy to motivate patients with diabetes for glucose control. Williams GC, et al. **Diabetes Care** 1998 Oct;21(10):1644–51
Perception of supervisors of their role in primary health care programmes in Saudi Arabia. Jarallah JS, et al. **East Mediterr Health J** 1998 Dec;4(3):530–8
Differentiated ratings of perceived exertion at ventilatory threshold in children and adults. Mahon AD, et al. **Eur J Appl Physiol** 1998 Jul;78(2):115–20
Sunbathing and sunbed use related to self-image in a randomized sample of Swedish adolescents. Brandberg Y, et al. **Eur J Cancer Prev** 1998 Aug;7(4):321–9
Self-concept, body image, and use of unconventional therapies in patients with gynaecological malignancies in the state of complete remission and recurrence. Kullmer U, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Jan; 82(1):101–6
Mother and teacher reports of behaviour and perceived self-competence of children with hydrocephalus. Williams J, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:5–9
Self-perception and action in infancy. Rochat P. **Exp Brain Res** 1998 Nov;123(1–2):102–9 (22 ref.)
Racial differences in the multiple social roles of older women: implications for depressive symptoms. Cochran DL, et al. **Gerontologist** 1999 Aug;39(4):465–72
Changing women: the narrative construction of personal change through community health work among women in Mexico. Ramirez-Valles J. **Health Educ Behav** 1999 Feb; 26(1):25–42
Improving adjustment to chronic illness through strategic self-presentation: an experimental study on a renal dialysis unit. Leake R, et al. **Health Psychol** 1999 Jan;18(1):54–62
Persistence of self in advanced Alzheimer's disease. Tappen RM, et al. **Image J Nurs Sch** 1999;31(2):121–5
Self-perception and perception of age groups as a function of the perceiver's category membership. Celejewski I, et al. **Int J Aging Hum Dev** 1998;47(3):205–16
The inner self of the Japanese elderly: a defense against negative stereotypes of aging. Levy BR. **Int J Aging Hum Dev** 1999;48(2):131–44
Are eating and psychosocial characteristics in early teenage years useful predictors of eating characteristics in early adulthood? A 7-year longitudinal study. Calam R, et al. **Int J Eat Disord** 1998 Dec;24(4):351–62
Perfection as acculturation: psychological correlates of eating problems in Chinese male and female students living in the United States. Davis C, et al. **Int J Eat Disord** 1999 Jan;25(1):65–70
Heightened accuracy of self-reported weight in bulimia nervosa: a useful cognitive "distortion". Doll HA, et al. **Int J Eat Disord** 1998 Nov;24(3):267–73
Shape- and weight-based self-esteem and the eating disorders. Geller J, et al. **Int J Eat Disord** 1998 Nov; 24(3):285–98
The effect of perceived control over eating on the life satisfaction of women and men: results from a community sample. Greeno CG, et al. **Int J Eat Disord** 1998 Dec; 24(4):415–9
Measuring self-esteem in dieting disordered patients: the validity of the Rosenberg and Coopersmith contrasted. Griffiths RA, et al. **Int J Eat Disord** 1999 Mar;25(2):227–31
Dieting awareness and low self-worth: related issues in 8-year-old girls. Hill AJ, et al. **Int J Eat Disord** 1998 Dec; 24(4):405–13
An experimental test of the relationship between self-esteem and concern about body shape and weight in restrained eaters. Meijboom A, et al. **Int J Eat Disord** 1999 Apr; 25(3):327–34
Body image, psychological functioning, and parental feedback regarding physical appearance. Schwartz DJ, et al. **Int J Eat Disord** 1999 Apr;25(3):339–43
Parental input and weight concerns among elementary school children. Smolak L, et al. **Int J Eat Disord** 1999 Apr; 25(3):263–71
Weight concern across the life-span: relationship to self-esteem and feminist identity. Tiggemann M, et al. **Int J Eat Disord** 1999 Jul;26(1):103–6
Evaluation of a computer-mediated eating disorder intervention program. Winzelberg AJ, et al. **Int J Eat Disord** 1998 Dec;24(4):339–49
Self-structure and self-transformation in group psychotherapy. Cohen BD, et al. **Int J Group Psychother** 1999 Jan;49(1):61–83
Aliveness in the work of the group: a subjective guide to creative character change. Shields W. **Int J Group Psychother** 1999 Jul;49(3):387–98
The measurement of psychological well-being in the person with aphasia. Brumfitt S. **Int J Lang Commun Disord** 1998; 33 Suppl:116–20
Outcome measurement in adult stuttering therapy: a self-rating profile. Wright L, et al. **Int J Lang Commun Disord** 1998;33 Suppl:378–83
The professional self concept of Korean hospital nurses. Arthur D, et al. **Int J Nurs Stud** 1998 Jun;35(3):155–62
Obesity stigmatization and coping: relation to mental health symptoms, body image, and self-esteem. Myers A, et al. **Int J Obes Relat Metab Disord** 1999 Mar;23(3):221–30
The interplay between identifications and identity in the analysis of a violent young man: issues of technique. Perelberg RJ. **Int J Psychoanal** 1999 Feb;80 (Pt 1):31–45
'My heart belongs to daddy'. Some reflections on the difference between generations as the organiser of the triangular structure of the mind. Sapisochin G. **Int J Psychoanal** 1999 Aug;80 (Pt 4):755–67
Problems of female sexuality: the defensive function of certain phantasies about the body. Squitieri LM. **Int J Psychoanal** 1999 Aug;80 (Pt 4):645–60
Some notes on the 'heroic self' and the meaning and importance of its reparation for the creative process and the creative personality. Steiner R. **Int J Psychoanal** 1999 Aug;80 (Pt 4):685–718
Empowering the disabled: a multidimensional approach. Itzhaky H, et al. **Int J Rehabil Res** 1998 Sep;21(3):301–10
A programme for the enhancement of autonomy in young adults with physical disabilities: the development of a realistic self concept, individual perception of quality of life and the development of independent living skills. Reiter S, et al. **Int J Rehabil Res** 1999 Mar;22(1):71–4
A test of interpersonal theory of depression in youth psychiatric inpatients. Joiner TE Jr. **J Abnorm Child Psychol** 1999 Feb;27(1):77–85
Catastrophic worrying: personal inadequacy and a perseverative iterative style as features of the catastrophizing process. Davey GC, et al. **J Abnorm Psychol** 1998 Nov;107(4):576–86
Social cognition and the manic defense: attributions, selective attention, and self-schema in bipolar affective disorder. Lyon HM, et al. **J Abnorm Psychol** 1999 May;108(2):273–82
Cognitive reactivity and depressotypic information processing in children of depressed mothers. Taylor L, et al. **J Abnorm Psychol** 1999 May;108(2):202–10
Predisposing factors and consequences of occupational status for long-term unemployed youth: a longitudinal examination. Creed PA. **J Adolesc** 1999 Feb;22(1):81–93
Does self-competence predict gender differences in adolescent depression and anxiety? McCauley Ohannessian C, et al. **J Adolesc** 1999 Jun;22(3):397–411
Perception of discrimination and ethnocultural variables in a diverse group of adolescents. Romero AJ, et al. **J Adolesc** 1998 Dec;21(6):641–56
Diversity, identity, and adolescent health [editorial] Fergerson G. **J Adolesc Health** 1998 Sep;23(3):125–6
Stigmatization, self-esteem, and coping among the adolescent children of lesbian mothers. Gershon TD, et al. **J Adolesc Health** 1999 Jun;24(6):437–45
Longitudinal health endangering behavior risk among resilient and nonresilient early adolescents. Gordon Rouse KA, et al. **J Adolesc Health** 1998 Nov;23(5):297–302
Perceived stigmatization among overweight African-American and Caucasian adolescent girls. Neumark-Sztainer D, et al. **J Adolesc Health** 1998 Nov; 23(5):264–70
Self-transformation as a factor in the self-esteem and well-being of breast cancer survivors. Carpenter JS, et al. **J Adv Nurs** 1999 Jun;29(6):1402–11
The self in self-awareness. Cook SH. **J Adv Nurs** 1999 Jun; 29(6):1292–9 (42 ref.)
Health-within-illness: concept development through research and practice. Moch SD. **J Adv Nurs** 1998 Aug; 28(2):305–10 (38 ref.)
The professional identity of the nurse: concept analysis and development. Ohlén J, et al. **J Adv Nurs** 1998 Oct; 28(4):720–7 (40 ref.)
'Coming out' as a life transition: homosexual identity formation and its implications for health care practice. Taylor B. **J Adv Nurs** 1999 Aug;30(2):520–5 (52 ref.)
A concept analysis of personal transformation. Wade GH. **J Adv Nurs** 1998 Oct;28(4):713–9
Self-esteem and depression: ten year follow-up of mothers and offspring. Miller L, et al. **J Affect Disord** 1999 Jan–Mar;

52(1-3):41-9
Self-criticism, dependency and depressive symptoms in a nationwide sample of Norwegian physicians. Vaglum P, et al. **J Affect Disord** 1999 Jan-Mar;52(1-3):153-9
Do adolescents who take overdoses have specific psychological characteristics? A comparative study with psychiatric and community controls. Kingsbury S, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Sep; 38(9):1125-31
Identity and experience: recasting the ontology of mind. Sanfilippo LC. **J Am Acad Psychoanal** 1998 Winter; 26(4):573-83
Self-perceived competence of advanced public health nutritionists in the United States. Dodds JM, et al. **J Am Diet Assoc** 1999 Jul;99(7):808-12
Dissociation and the self in the magical pre-Oedipal field. Salman S. **J Anal Psychol** 1999 Jan;44(1):69-85
Social anxiety and its effects on performance and perception. Strahan E, et al. **J Anxiety Disord** 1998 Jul-Aug; 12(4):293-305
Mirror, mirror on the wall, who's the thinnest one of all? Effects of self-awareness on consumption of full-fat, reduced-fat, and no-fat products. Sentyrz SM, et al. **J Appl Psychol** 1998 Dec;83(6):944-9
Does assisted reproduction make an impact on the identity and self-image of infertile couples? Daniels KR. **J Assist Reprod Genet** 1999 Feb;16(2):57-9 (12 ref.)
Does assisted reproduction make an impact on the identity and self-esteem of infertile women during the transition to parenthood? McMahon CA. **J Assist Reprod Genet** 1999 Feb;16(2):59-62 (19 ref.)
The role of body dissatisfaction and bingeing in the self-esteem of women with type II diabetes. Carroll P, et al. **J Behav Med** 1999 Feb;22(1):59-74
The relevance of self-concepts discriminating in long-term incarcerated sex offenders. Fruehwald S, et al. **J Behav Ther Exp Psychiatry** 1998 Dec;29(4):267-78
Information processing in recovered depressed children and adolescents. Dalgleish T, et al. **J Child Psychol Psychiatry** 1998 Oct;39(7):1031-5
The self-systems of aggressive children: a cluster-analytic investigation. Edens JF, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):441-53
On developing self-concepts: a controlled study of children and adolescents with autism. Lee A, et al. **J Child Psychol Psychiatry** 1998 Nov;39(8):1131-44
Mother- and father-rated competence, child-perceived competence, and cognitive distortions: unique relations with children's depressive symptoms. Epkins CC. **J Clin Child Psychol** 1998 Dec;27(4):442-51
Changing self-esteem in children and adolescents: a meta-analytic review. Haney P, et al. **J Clin Child Psychol** 1998 Dec;27(4):423-33
Predicting dysphoria in adolescence from actual and perceived peer acceptance in childhood. Kistner J, et al. **J Clin Child Psychol** 1999 Mar;28(1):94-104
Homesickness in preadolescent and adolescent girls: risk factors, behavioral correlates, and sequelae. Thurber CA, et al. **J Clin Child Psychol** 1999 Jun;28(2):185-96
Overestimation and unreliability in "feeling-of-doing" judgements about temporal ordering performance: impaired self-awareness following frontal lobe damage. Jurado MA, et al. **J Clin Exp Neuropsychol** 1998 Jun;20(3):353-64
The relationship of psychological-mindedness to adult perceptions of early parental rejection. Alvarez JR, et al. **J Clin Psychol** 1998 Dec;54(8):1079-84
Codependency: predictors and psychometric issues. Lindley NR, et al. **J Clin Psychol** 1999 Jan;55(1):59-64
The hope construct, will, and ways: their relations with self-efficacy, optimism, and general well-being. Magaletta PR, et al. **J Clin Psychol** 1999 May;55(5):539-51
Health concerns and risk behaviors of rural adolescents. Puskar KR, et al. **J Community Health Nurs** 1999; 16(2):109-19
Effects of neighborhood and family stressors on African American male adolescents' self-worth and propensity for violent behavior. Paschall MJ, et al. **J Consult Clin Psychol** 1998 Oct;66(5):825-31
Psychosocial aspects of acne vulgaris. Layton AM. **J Cutan Med Surg** 1998 May;2 Suppl 3:19-23 (17 ref.)
Psychological effects of aesthetic dental treatment. Davis LG, et al. **J Dent** 1998 Sep;26(7):547-54
Reputations, self-concepts and coping strategies of volatile solvent users. Houghton S, et al. **J Drug Educ** 1998; 28(3):199-210
Do housing tenure and car access predict health because they are simply markers of income or self esteem? A Scottish study. Macintyre S, et al. **J Epidemiol Community Health** 1998 Oct;52(10):657-64
Children's understanding of the relation between delayed video representation and current reality: a test for self-awareness? Suddendorf T. **J Exp Child Psychol** 1999 Mar;72(3):157-76
Self-reported versus measured weight and height in an older adult meal program population. Vailas LI, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M481-3
Content and function of the self-definition in old and very old age. Freund AM, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Jan;54(1):P55-67
Stress and the devaluation of highly salient roles in late life. Krause N. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar; 54(2):S99-108
Aging, culture and control: setting a new research agenda. Schulz R, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):P139-45
Global integrative meaning as a mediating factor in the relationship between social roles and psychological distress. Burton RP. **J Health Soc Behav** 1998 Sep;39(3):201-15
The effects of stigma on the psychological well-being and life satisfaction of persons with mental illness. Markowitz FE. **J Health Soc Behav** 1998 Dec;39(4):335-47
Age, disability, and the sense of mastery. Schieman S, et al. **J Health Soc Behav** 1998 Sep;39(3):169-86
Shame and internalized homophobia in gay men. Allen DJ, et al. **J Homosex** 1999;37(3):33-43
Status passages: the experience of HIV-positive gay men. Lewis J. **J Homosex** 1999;37(3):87-115
Identity in political context: lesbian/gay representation in the public sphere. Smith RR, et al. **J Homosex** 1999;37(2):25-45 (86 ref.)
Facing stress and conflict: a comparison of the predicted responses and self-concepts of aggressive and non-aggressive people with intellectual disability. Jahoda A, et al. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):360-9
Stress: the chiropractic patients' self-perceptions. Jamison J. **J Manipulative Physiol Ther** 1999 Jul-Aug;22(6):395-8
On autonomy and identity [letter; comment] Calinas-Correia J. **J Med Ethics** 1998 Dec;24(6):414. Comment on: J Med Ethics 1998 Apr;24(2):123-6. Comment on: J Med Ethics 1998 Apr;24(2):127-33.
Neuropsychology and the self-concept. Brown JW. **J Nerv Ment Dis** 1999 Mar;187(3):131-41
Efficacy of a self-esteem module in the empowerment of individuals with schizophrenia. Lecomte T, et al. **J Nerv Ment Dis** 1999 Jul;187(7):406-13
Self-complexity and the persistence of depression. Woolfolk RL, et al. **J Nerv Ment Dis** 1999 Jul;187(7):393-9
Impact of perinatal loss on the subsequent pregnancy and self: women's experiences. Côte-Arsenault D, et al. **J Obstet Gynecol Neonatal Nurs** 1999 May-Jun; 28(3):274-82
Illness narratives: discursive constructions of self in pediatric oncology. Kameny RR, et al. **J Pediatr Nurs** 1999 Apr; 14(2):73-9
Cognitive strategies and self-esteem as predictors of brace-wear noncompliance in patients with idiopathic scoliosis and kyphosis. Lindeman M, et al. **J Pediatr Orthop** 1999 Jul-Aug;19(4):493-9
Psychosocial changes associated with participation in a pediatric summer camp. Briery BG, et al. **J Pediatr Psychol** 1999 Apr;24(2):183-90
Individual differences in reactivity to daily events: examining the roles of stability and level of self-esteem. Greenier KD, et al. **J Pers** 1999 Feb;67(1):185-208
Identity consolidation in early adulthood: relations with ego-resiliency, the context of marriage, and personality change. Pals JL. **J Pers** 1999 Apr;67(2):295-329
Looking at body image: the organization of self-knowledge about physical appearance and its relation to disordered eating. Showers CJ, et al. **J Pers** 1999 Aug;67(4):659-700
Metatraits and self-schemata: same or different? Siem FM. **J Pers** 1998 Oct;66(5):783-803
Implicit and self-attributed dependency needs in dependent and histrionic personality disorders. Bornstein RF. **J Pers Assess** 1998 Aug;71(1):1-14
Connected and separate selves: development of an inventory and initial validation. Pearson JL, et al. **J Pers Assess** 1998 Aug;71(1):29-48
Taxometric analysis of impression management and self-deception on the MMPI-2 in child-custody litigants. Strong DR, et al. **J Pers Assess** 1999 Aug;73(1):1-18
Self-concept in children: equivalence of measurement and structure across gender and grade of Harter's Self-Perception Profile for Children. Van den Bergh BR, et al. **J Pers Assess** 1998 Jun;70(3):564-82
Men's sexual self-schema. Andersen BL, et al. **J Pers Soc Psychol** 1999 Apr;76(4):645-61
Mental representations of the self, significant others, and nonsignificant others: structure and processing of private and public aspects. Andersen SM, et al. **J Pers Soc Psychol** 1998 Oct;75(4):845-61
Implicit and self-attributed dependency strivings: differential relationships to laboratory and field measures of help seeking. Bornstein RF. **J Pers Soc Psychol** 1998 Sep; 75(3):778-87
Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: does self-love or self-hate lead to violence? Bushman BJ, et al. **J Pers Soc Psychol** 1998 Jul; 75(1):219-29
Self-esteem and the cognitive accessibility of strengths and weaknesses after failure. Dodgson PG, et al. **J Pers Soc Psychol** 1998 Jul;75(1):178-97
Close partner as sculptor of the ideal self: behavioral affirmation and the Michelangelo phenomenon. Drigotas SM, et al. **J Pers Soc Psychol** 1999 Aug;77(2):293-323
That swimsuit becomes you: sex differences in self-objectification, restrained eating, and math performance. Fredrickson BL, et al. **J Pers Soc Psychol** 1998 Jul;75(1):269-84
Distinctions of unmitigated communion from communion: self-neglect and overinvolvement with others. Fritz HL, et al. **J Pers Soc Psychol** 1998 Jul;75(1):121-40
Prosocial self-schemas, self-awareness, and children's prosocial behavior. Froming WJ, et al. **J Pers Soc Psychol** 1998 Sep;75(3):766-77
In search of self-definition: motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? Gaertner L, et al. **J Pers Soc Psychol** 1999 Jan;76(1):5-18
Individual differences in social comparison: development of a scale of social comparison orientation. Gibbons FX, et al. **J Pers Soc Psychol** 1999 Jan;76(1):129-42
Immune neglect: a source of durability bias in affective forecasting. Gilbert DT, et al. **J Pers Soc Psychol** 1998 Sep;75(3):617-38
Lake Wobegon be gone! The "below-average effect" and the egocentric nature of comparative ability judgments. Kruger J. **J Pers Soc Psychol** 1999 Aug;77(2):221-32
Increasing the salience of one's best selves can undermine inspiration by outstanding role models. Lockwood P, et al. **J Pers Soc Psychol** 1999 Feb;76(2):214-28
Perceptual biases, affect, and behavior in the relationships of dependents and self-critics. Mongrain M, et al. **J Pers Soc Psychol** 1998 Jul;75(1):230-41
Strategies to cope with negative social identity: predictions by social identity theory and relative deprivation theory. Mummendey A, et al. **J Pers Soc Psychol** 1999 Feb; 76(2):229-45
Through the looking glass darkly? When self-doubts turn into relationship insecurities. Murray SL, et al. **J Pers Soc Psychol** 1998 Dec;75(6):1459-80
Stigma consciousness: the psychological legacy of social stereotypes. Pinel EC. **J Pers Soc Psychol** 1999 Jan; 76(1):114-28
The self-esteem motive in social influence: agreement with valued majorities and disagreement with derogated minorities. Pool GJ, et al. **J Pers Soc Psychol** 1998 Oct; 75(4):967-75
When ideology hurts: effects of belief in the protestant ethic and feeling overweight on the psychological well-being of women. Quinn DM, et al. **J Pers Soc Psychol** 1999 Aug; 77(2):402-14
Mood, self-esteem, and simulated alternatives: thought-provoking affective influences on counterfactual direction. Sanna LJ, et al. **J Pers Soc Psychol** 1999 Apr; 76(4):543-58
Goal striving, need satisfaction, and longitudinal well-being: the self-concordance model. Sheldon KM, et al. **J Pers Soc Psychol** 1999 Mar;76(3):482-97
Are shame and guilt related to distinct self-discrepancies? A test of Higgins's (1987) hypotheses. Tangney JP, et al. **J Pers Soc Psychol** 1998 Jul;75(1):256-68
Private self-consciousness and the five-factor model of personality: distinguishing rumination from reflection. Trapnell PD, et al. **J Pers Soc Psychol** 1999 Feb; 76(2):284-304
How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. Vorauer JD, et al. **J Pers Soc Psychol** 1998 Oct;75(4):917-37
The relationship between differential inequity, job satisfaction, intention to turnover, and self-esteem. Abraham R. **J Psychol** 1999 Mar;133(2):205-15
Gender and ethnic differences in the relationship between body esteem and self-esteem. Henriques GR, et al. **J Psychol** 1999 Jul;133(4):357-68
Cognitive correlates of boredom proneness: the role of private self-consciousness and absorption. Seib HM, et al. **J Psychol** 1998 Nov;132(6):642-52
Toward a cultural conception of the self. Carnevale FA. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):26-31
Menopausal status: subjectively and objectively defined. Garamszegi C, et al. **J Psychosom Obstet Gynaecol** 1998 Sep;19(3):165-73
Eating habits, body-esteem and self-esteem in Scottish children and adolescents. Hoare P, et al. **J Psychosom Res** 1998 Nov;45(5):425-31
Features of eating disorders in patients with irritable bowel syndrome. Tang TN, et al. **J Psychosom Res** 1998 Aug; 45(2):171-8
The broken mirror. A self psychological treatment perspective for relationship violence. Wexler DB. **J Psychother Pract Res** 1999 Spring;8(2):129-41
Responsiveness of health status instruments to changes in articular status and perceived health in patients with psoriatic arthritis. Husted JA, et al. **J Rheumatol** 1998 Nov; 25(11):2146-55
Why don't you want to "go with" me? The dynamics of interpersonal attraction. Byrne TJ. **J Sch Health** 1999 May; 69(5):208-10
Distract me from my dreaded self: strategies to enhance self-esteem. Hamilton D, et al. **J Sch Health** 1998 Sep; 68(7):301-3
Psychosocial factors associated with dieting behaviors among female adolescents. Pesa J. **J Sch Health** 1999 May; 69(5):196-201
Dynamics of self-acceptance and mate acceptance in sexual life [letter] Slosarz WJ. **J Sex Marital Ther** 1999 Jan-Mar; 25(1):9-10
Self-esteem among Arab adolescents in Israel. Abu-Saad I. **J Soc Psychol** 1999 Aug;139(4):479-86
Self-image and ethnic identification in South Africa. Bornman E. **J Soc Psychol** 1999 Aug;139(4):411-25
Effect of collective self-esteem on ingroup evaluations. De Cremer D, et al. **J Soc Psychol** 1999 Aug;139(4):530-2
Self-monitoring and student integration of community

college students. Guarino A, et al. **J Soc Psychol** 1998 Dec; 138(6):754–7

Perceived overqualification and health: a longitudinal analysis. Johnson GJ, et al. **J Soc Psychol** 1999 Feb; 139(1):14–28

Self–enhancement, generality level of self–evaluation, and emotional adjustment. Kurman J, et al. **J Soc Psychol** 1998 Oct;138(5):549–63

The acceptance of lonely others: effects of loneliness and gender of the target person and loneliness of the perceiver. Lau S, et al. **J Soc Psychol** 1999 Apr;139(2):229–41

Ethnic identity and its relation to personal self–esteem: a comparison of Canadian–born and foreign–born Chinese adolescents. Lay C, et al. **J Soc Psychol** 1999 Jun; 139(3):288–99

Measuring self–monitoring ability and propensity: a two–dimensional Chinese scale. Li F, et al. **J Soc Psychol** 1998 Dec;138(6):758–65

Factors affecting the self–concepts of South African students. Marjoribanks K, et al. **J Soc Psychol** 1998 Oct; 138(5):572–80

Gender traits and identities in a "masculine" organization: the Israeli police force. Moore D. **J Soc Psychol** 1999 Feb; 139(1):49–68

Effects of adoptive status on evaluations of children. Mulcare SL, et al. **J Soc Psychol** 1999 Apr;139(2):159–72

Longitudinal improvement of self–regulation through practice: building self–control strength through repeated exercise. Muraven M, et al. **J Soc Psychol** 1999 Aug; 139(4):446–57

The relationship between collective self–esteem and self–construal in Japan and Canada. Sato T, et al. **J Soc Psychol** 1999 Aug;139(4):426–35

Perception of enhancing self–worth through service: the development of a Service Ethic Scale. Tang TL, et al. **J Soc Psychol** 1998 Dec;138(6):734–43

The effects of cognitive and somatic anxiety and self–confidence on components of performance during competition. Parfitt G, et al. **J Sports Sci** 1999 May; 17(5):351–6

Gender role orientation as a correlate of perceived health, health behavior, and qualitative well–being in older women. Ruffing–Rahal MA, et al. **J Women Aging** 1998; 10(1):3–19

Self–perception in elite collegiate female gymnasts, cross–country runners, and track–and–field athletes. Saint–Phard D, et al. **Mayo Clin Proc** 1999 Aug;74(8):770–4

A study of self–perception in hyperactive children. Dumas D, et al. **MCN Am J Matern Child Nurs** 1999 Jan–Feb; 24(1):12–9

Surviving cancer: the importance of sexual self–concept. Andersen BL. **Med Pediatr Oncol** 1999 Jul;33(1):15–23 (45 ref.)

Visual self–motion perception during head turns. Crowell JA, et al. **Nat Neurosci** 1998 Dec;1(8):732–7

Identity development and peer group participation. Pugh MJ, et al. **New Dir Child Adolesc Dev** 1999 Summer;(84):55–70

Identity claims and projections: descriptions of self and crowds in secondary school. Stone MR, et al. **New Dir Child Adolesc Dev** 1999 Summer;(84):7–20

Self–esteem and health behavior: theoretic and empirical links. Seigley LA. **Nurs Outlook** 1999 Mar–Apr;47(2):74–7 (36 ref.)

Relative body weight and self–esteem among African Americans in four nationally representative samples. Faith MS, et al. **Obes Res** 1998 Nov;6(6):430–7

Dysmorphophobia: a distorted perception of one's self–appearance. Mawn LA, et al. **Ophthal Plast Reconstr Surg** 1998 Nov;14(6):446–50

An intrusive impact of anchors in children's faces pain scales. Chambers CT, et al. **Pain** 1998 Oct;78(1):27–37

Pain coping strategies predict perceived control over pain. Haythornthwaite JA, et al. **Pain** 1998 Jul;77(1):33–9

Influence of female body images in printed advertising on self–ratings of physical attractiveness by adolescent girls. Crouch A, et al. **Percept Mot Skills** 1998 Oct;87(2):585–6

Body–image perceptions across sex and age groups. Cullari S, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):839–47

Body perceptions of bulimic and nonbulimic groups. Harden AJ, et al. **Percept Mot Skills** 1998 Aug;87(1):108–10

Self–concept and motor performance of children with learning disabilities. Hosley MG, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):859–62

Self–esteem and injury in competitive field hockey players. Kolt GS, et al. **Percept Mot Skills** 1998 Aug;87(1):353–4

Self–concept of academic ability as a function of sex, age, and academic achievement among African adolescents. Mboya MM. **Percept Mot Skills** 1998 Aug;87(1):155–61

Muscle test comparisons of congruent and incongruent self–referential statements. Monti DA, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):1019–28

Distortion of body image among elite female dancers. Pierce EF, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):769–70

Relationship between identification with the role of sport fan and trait aggression. Wann DL, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1296–8

A path model of the relationship between career indecision, androgyny, self–efficacy, and self–esteem. Wulff MB, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):935–40

Attention, self–regulation and consciousness. Posner MI, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Nov 29; 353(1377):1915–27 (66 ref.)

A psychiatrist recalls life as a foster child. Cournos F. **Psychiatr Serv** 1999 Apr;50(4):479–80

Defining new frameworks for psychosocial intervention. Williams CC, et al. **Psychiatry** 1999 Spring;62(1):61–78

Adolescent depression in Japan: as studied from Shimoda's theory and Harter's theory. Murata T, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S309–12

P300 in response to the subject's own face. Ninomiya H, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):519–22

Effects of clozapine on awareness of illness and cognition in schizophrenia. Pallanti S, et al. **Psychiatry Res** 1999 Jun 30;86(3):239–49

Self–esteem in remitted patients with mood disorders is not associated with the dopamine receptor D4 and the serotonin transporter genes. Serretti A, et al. **Psychiatry Res** 1998 Aug 17;80(2):137–44

The wounded male persona and the mysterious feminine in the poetry of James Wright: a study in the transformation of the self. Graves M, et al. **Psychoanal Rev** 1998 Dec; 85(6):849–69

Sociodemographic variations in the sense of control by domain: findings from the MacArthur studies of midlife. Lachman ME, et al. **Psychol Aging** 1998 Dec;13(4):553–62

The perils of outperformance: sensitivity about being the target of a threatening upward comparison. Exline JJ, et al. **Psychol Bull** 1999 May;125(3):307–37 (312 ref.)

Gender differences in self–esteem: a meta–analysis. Kling KC, et al. **Psychol Bull** 1999 Jul;125(4):470–500

A population–based twin study of self–esteem and gender. Kendler KS, et al. **Psychol Med** 1998 Nov;28(6):1403–9

Differentiation of self, need fulfillment, and psychological well–being in married men. Bohlander RW. **Psychol Rep** 1999 Jun;84(3 Pt 2):1274–80

Self–perception profile in children with cancer: self vs parent report. Eapen V, et al. **Psychol Rep** 1999 Apr;84(2):427–32

Regular and occasional smoking by college students: personality attributions of smokers and nonsmokers. Hines D, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1299–306

Depression, self–defeating, and self–destructive behaviors as predictors of suicide ideation in males and females. Hopes LM, et al. **Psychol Rep** 1999 Feb;84(1):63–6

Ego Identity Status in cross–cultural context: a comparison of Norwegian and United States university students. Jensen M, et al. **Psychol Rep** 1998 Oct;83(2):455–60

Self–defeating personality and attachment revisited. McCutcheon LE. **Psychol Rep** 1998 Dec;83(3 Pt 2):1153–4

Interaction of cognitive balance and mood induction on self–descriptions: a Q methodological approach. Schell KL. **Psychol Rep** 1998 Oct;83(2):443–52

Revisiting sexual styles: patterns of adolescents' self–perceptions. Smith AM, et al. **Psychol Rep** 1998 Aug; 83(1):65–6

Correlations of self–ratings of attitude towards violent groups with measures of personality, self–esteem, and moral reasoning. Sotelo MJ, et al. **Psychol Rep** 1999 Apr; 84(2):558–60

Self–schemas in social phobia and panic disorder. van Niekerk JK, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):843–54

A long–term follow–up study of psychosocial functioning after autologous bone marrow transplantation in childhood. Arvidson J, et al. **Psychooncology** 1999 Mar–Apr; 8(2):123–34

Hypochondriasis and somatization related to personality and attitudes toward self. Hollifield M, et al. **Psychosomatics** 1999 Sep–Oct;40(5):387–95

Infants with atopic dermatitis: maternal hopelessness, child–rearing attitudes and perceived infant temperament. Pauli–Pott U, et al. **Psychother Psychosom** 1999;68(1):39–45

R.T. self–perception survey results. Haselhuhn G. **Radiol Technol** 1998 Nov–Dec;70(2):209–12

Aerobic dance and physical self–perceptions in female adolescents: some implications for physical education. Daley AJ, et al. **Res Q Exerc Sport** 1999 Jun;70(2):196–200

The development of self–perceptions of ability and achievement goals and their relations in physical education. Xiang P, et al. **Res Q Exerc Sport** 1998 Sep;69(3):231–41

Adolescent identity--a qualitative approach: self–concept, existential questions and adult contacts. Adamson L, et al. **Scand J Psychol** 1999 Mar;40(1):21–31

The emotional impact of shift work on the children of shift workers. Barton J, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:146–50

First person account: psychosocial implications of stigma caused by misdiagnosis. Bjorklund R. **Schizophr Bull** 1998; 24(4):653–5

First person account: coming apart--a tribute to Mark. Hochman K. **Schizophr Bull** 1999;25(1):183–6

Patients' perceptions of overall function, pain, and appearance after primary posterior instrumentation and fusion for idiopathic scoliosis. White SF, et al. **Spine** 1999 Aug 15;24(16):1693–9; discussion 1699–700

State self–esteem following stroke. Chang AM, et al. **Stroke** 1998 Nov;29(11):2325–8

Drug identity change processes, race, and gender. III. Macrolevel opportunity concepts. Anderson TL. **Subst Use Misuse** 1998 Dec;33(14):2721–35

Drug identity change processes, race, and gender. II. Microlevel motivational concepts. Anderson TL. **Subst Use Misuse** 1998 Oct;33(12):2469–83

Visiting public drinking places: an explorative study into the functions of pub–going for late adolescents. Engels RC, et al. **Subst Use Misuse** 1999 Jul;34(9):1261–80

A pilot study of the social construction of the meanings attached to alcohol use: perceptions from India. Nimmagadda J. **Subst Use Misuse** 1999 Jan;34(2):251–67

Cognitive psychopathology of problem gambling. Toneatto T. **Subst Use Misuse** 1999 Sep;34(11):1593–604 (29 ref.)

Adolescents' responses to cigarette advertisements: links between exposure, liking, and the appeal of smoking. Arnett JJ, et al. **Tob Control** 1998 Summer;7(2):129–33

Organ transplantation and the human revolution. Awaya T. **Transplant Proc** 1999 Feb–Mar;31(1–2):1317–9

The impact of different forms of psychological abuse on battered women. Sackett LA, et al. **Violence Vict** 1999 Spring;14(1):105–17

Mentoring and nurse practitioner student self–efficacy. Hayes EF. **West J Nurs Res** 1998 Oct;20(5):521–35

Self–esteem differences as a function of race and weight preoccupation: findings and implications. Jones SL, et al. **Womens Health Issues** 1999 Jan–Feb;9(1):50–5

["Sense of coherence", social class and health in a Danish population study] Due EP, et al. **Ugeskr Laeger** 1998 Dec 14;160(51):7424–9 (Eng. Abstr.) **(Dan)**

[The patient's representation of asthma. Preliminary results of a survey] Cousson–Gélie F, et al. **Rev Mal Respir** 1998 Sep;15(4):513–7 (Eng. Abstr.) **(Fre)**

[Obesity and women: esthetic preoccupation or medical problem?] Luyckx FH, et al. **Rev Med Liege** 1999 Apr; 54(4):262–7 (Eng. Abstr.) **(Fre)**

[Some concerns and semantic confusions about feminine skin] Piérard GE, et al. **Rev Med Liege** 1999 Apr;54(4):313–7 (Eng. Abstr.) **(Fre)**

[Some relations between pain and identity] Le Breton D. **Rev Med Suisse Romande** 1999 Apr;119(4):259–64 (15 ref.) **(Fre)**

[Significance of work for mentally ill people in social relationships. Sociological commentary on vocational rehabilitation] von Kardorff E. **Psychiatr Prax** 1999 Apr; 26 Suppl 1:S25–9 **(Ger)**

[Acquaintance with dying (editorial)] Röglin HC. **Versicherungsmedizin** 1998 Dec 1;50(6):207 **(Ger)**

[The medicalization of women, The "myth of fragility"--the image of women in the advertising of hormonal replacement therapy] Backe J. **Zentralbl Gynakol** 1999;121 Suppl 1:53–4 **(Ger)**

[Body changes in adolescence as a system of self–awareness] Madonna ML, et al. **Minerva Pediatr** 1998 Jun;50(6):305–6 **(Ita)**

[Self–reference effect on implicit and explicit memory tasks] Fujita T, et al. **Shinrigaku Kenkyu** 1998 Dec;69(5):414–20 (Eng. Abstr.) **(Jpn)**

[Self–reference effect and real, ideal, and social selves] Horiuchi T. **Shinrigaku Kenkyu** 1999 Jun;70(2):128–35 (Eng. Abstr.) **(Jpn)**

[Subjective well–being and self acceptance] Makino Y, et al. **Shinrigaku Kenkyu** 1998 Jun;69(2):143–8 (Eng. Abstr.) **(Jpn)**

[Self–referent rating of personality trait adjectives in mild depression] Torimaru S. **Shinrigaku Kenkyu** 1999 Jun; 70(2):143–8 (Eng. Abstr.) **(Jpn)**

[Significance of migration patterns on self–evaluated health among Norwegian women aged 34–69 years (see comments)] Lund E, et al. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3752–5 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1998 Nov 20;118(28):4414. **(Nor)**

[Women from Northern Norway as a negatively selected group (letter; comment)] Salvesen R. **Tidsskr Nor Laegeforen** 1998 Nov 20;118(28):4414. Comment on: Tidsskr Nor Laegeforen 1998 Oct 10;118(24):3752–5. **(Nor)**

[Psychosocial conditions of cigarette smoking among youth] Supranowicz P. **Rocz Panstw Zakl Hig** 1998;49(4):507–13 (Eng. Abstr.) **(Pol)**

[Subjective evaluation of health status and motivation for improving it in able–bodied urban population of the European North of Russia] Viaz'min AM, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):19–23 (Eng. Abstr.) **(Rus)**

SELF–DESTRUCTIVE BEHAVIOR see **SELF–INJURIOUS BEHAVIOR**

SELF DETERMINATION see **FREEDOM**

SELF DISCLOSURE

Socially desirable response tendency as a correlate of accuracy of self–reported HIV serostatus for HIV seropositive injection drug users. Latkin CA, et al. **Addiction** 1998 Aug;93(8):1191–7

Do people with HIV/AIDS disclose their HIV–positivity to dentists? Charbonneau A, et al. **AIDS Care** 1999 Feb; 11(1):61–70

Self–reported alcohol–associated symptoms and drinking behavior in three ALDH2 genotypes among Japanese university students. Takeshita T, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):1065–9

The validity of self–reported cocaine use in a criminal justice treatment sample. Knight K, et al. **Am J Drug Alcohol Abuse** 1998 Nov;24(4):647–60

Prevalence of nonreporting behavior of sharps injuries in Taiwanese health care workers. Shiao JS, et al. **Am J Infect Control** 1999 Jun;27(3):254–7

To speak or not to speak? Self–disclosure with patients.

SELF DISCLOSURE

Deering CG. **Am J Nurs** 1999 Jan;99(1 Pt 1):34–8; quiz 39 (12 ref.)

Lesbian, gay, and bisexual youth and their families: disclosure of sexual orientation and its consequences. D'Augelli AR, et al. **Am J Orthopsychiatry** 1998 Jul;68(3):361–71; discussion 372–5

Psychopathological correlates of self-reported behavioural inhibition in normal children. Muris P, et al. **Behav Res Ther** 1999 Jun;37(6):575–84

Self-disclosure or self presence? Broucek F, et al. **Bull Menninger Clin** 1998 Fall;62(4):427–38

The development of display rule knowledge: linkages with family expressiveness and social competence. Jones DC, et al. **Child Dev** 1998 Aug;69(4):1209–22

Narrativity and the representation of experience in American Indian discourses about drinking. Spicer P. **Cult Med Psychiatry** 1998 Jun;22(2):139–69

Self-efficacy and disclosure of HIV-positive serostatus to sex partners. Kalichman SC, et al. **Health Psychol** 1999 May;18(3):281–7

Underreporting sensitive behaviors: the case of young women's willingness to report abortion. Smith LB, et al. **Health Psychol** 1999 Jan;18(1):37–43

Telling the story: parents' scripts for donor offspring. Rumball A, et al. **Hum Reprod** 1999 May;14(5):1392–9

Accounts of experiences of bulimia: a discourse analytic study. Brooks A, et al. **Int J Eat Disord** 1998 Sep; 24(2):193–205

Self-reporting versus parental reporting of acute respiratory symptoms of children and their relation to pulmonary function and air pollution. Hoek G, et al. **Int J Epidemiol** 1999 Apr;28(2):293–9

Characteristics of discrepancies between self-reported visual function and measured reading speed. Salisbury Eye Evaluation Project Team. Friedman SM, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):858–64

Young people in transition: the relationship between homesickness and self-disclosure. Bell J, et al. **J Adolesc** 1998 Dec;21(6):745–8

The relationship between problem disclosure, coping strategies and placement outcome in foster adolescents. Browne DC. **J Adolesc** 1998 Oct;21(5):585–97

'Coming out' as a life transition: homosexual identity formation and its implications for health care practice. Taylor B. **J Adv Nurs** 1999 Aug;30(2):520–5 (52 ref.)

Barriers to recognition of erectile dysfunction among diabetic Mexican-American men [see comments] Zweifler J, et al. **J Am Board Fam Pract** 1998 Jul–Aug;11(4):259–63. Comment in: J Am Board Fam Pract 1998 Jul–Aug;11(4):327–30.

Genetic and environmental influences on ratings of manifest anxiety by parents and children. Topolski TD, et al. **J Anxiety Disord** 1999 Jul–Aug;13(4):371–97

Misclassification and under-reporting of acute myocardial infarction by elderly persons: implications for community-based observational studies and clinical trials. O'Donnell CJ, et al. **J Clin Epidemiol** 1999 Aug; 52(8):745–51

Development of the Marital Self-disclosure Questionnaire (MSDQ). Waring EM, et al. **J Clin Psychol** 1998 Oct; 54(6):817–24

The validity of self-reported cocaine use in two groups of cocaine abusers. Hersh D, et al. **J Consult Clin Psychol** 1999 Feb;67(1):37–42

Ethnicity, desirable responding, and self-reports of abuse: a comparison of European- and Asian-ancestry undergraduates. Meston CM, et al. **J Consult Clin Psychol** 1999 Feb;67(1):139–44

Inside "Pandora's box": abused women's experiences with clinicians and health services. McCauley J, et al. **J Gen Intern Med** 1998 Aug;13(8):549–55

Exploring the links between interpersonal trust and the reasons underlying gay and bisexual males' disclosure of their sexual orientation to their mothers. Boon SD, et al. **J Homosex** 1999;37(3):45–68

Coming out to parents: perceptions of family relations, perceived resources, and identity expression as predictors of identity disclosure for gay and lesbian adolescents. Waldner LK, et al. **J Homosex** 1999;37(2):83–100

Psychological adjustment and self reported coping in stroke survivors with and without emotionalism [letter] Eccles S, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):125–6

Perceived understanding and self-disclosure in the stepparent-stepchild relationship. Martin MM, et al. **J Psychol** 1999 May;133(3):281–90

Prenatal alcohol consumption. Self versus collateral report. Chang G, et al. **J Subst Abuse Treat** 1999 Jul–Sep; 17(1–2):85–9

Self-disclosure. Reconciling psychoanalytic psychotherapy and alcoholics anonymous philosophy. Mallow AJ. **J Subst Abuse Treat** 1998 Nov–Dec;15(6):493–8

Jonathan Mann's mantle [letter; comment] Schusky RW. **Lancet** 1998 Dec 19–26;352(9145):2025. Comment on: Lancet 1998 Sep 12;352(9131):889.

When asked, patients tell: disclosure of sensitive health-risk behaviors. Gerbert B, et al. **Med Care** 1999 Jan;37(1):104–11

Social disclosure among coworkers without disabilities in supported employment settings. Ohtake Y, et al. **Ment Retard** 1999 Feb;37(1):25–35

Energy expenditure determined by self-reported physical activity is related to body fatness. Buchowski MS, et al. **Obes Res** 1999 Jan;7(1):23–33

Impulsive and premeditated aggression: a factor analysis of self-reported acts. Barratt ES, et al. **Psychiatry Res** 1999 May 31;86(2):163–73

Terms of endearment in clinical analysis. Fitzpatrick K. **Psychoanal Q** 1999 Jan;68(1):119–25

On the question of self-disclosure by the analyst: error or advance in technique? Jacobs T. **Psychoanal Q** 1999 Apr; 68(2):159–83

Meteorological conditions and self-report of low back pain. McGorry RW, et al. **Spine** 1998 Oct 1;23(19):2096–102; discussion 2103

Aggregate comparisons of self-reported versus nonself-reported drinking in a general population survey. Bongers IM, et al. **Subst Use Misuse** 1999 Feb;34(3):421–41

Agreement between urinalysis and self-reported drug use. Hamid R, et al. **Subst Use Misuse** 1999 Sep;34(11):1585–92

Negative affectivity: how serious a threat to self-report studies of psychological distress? Brennan RT, et al. **Womens Health** 1998 Winter;4(4):369–83

[The pattern of variables predicting self-reported environmental behavior] Kannapin O, et al. **Z Exp Psychol** 1998;45(4):365–77 (Eng. Abstr.) **(Ger)**

SELF EFFICACY

The role of weight concern and self-efficacy in smoking cessation and weight gain among smokers in a clinic-based cessation program. Borrelli B, et al. **Addict Behav** 1998 Sep–Oct;23(5):609–22

The relationship among self-efficacy expectancies, severity of alcohol abuse, and psychological benefits from drinking. Skutle A. **Addict Behav** 1999 Jan–Feb;24(1):87–98

Positive effects on life skills motivation and self-efficacy: node-link maps in a modified therapeutic community. Newbern D, et al. **Am J Drug Alcohol Abuse** 1999 Aug; 25(3):407–23

Perceptions of control and long-term recovery from rape. Regehr C, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):110–5

An investigation of factors associated with fluid adherence among hemodialysis patients: a self-efficacy theory based approach. Brady BA, et al. **Ann Behav Med** 1998 Fall; 19(4):339–43

Effects of preparatory videotapes on self-efficacy beliefs and recovery from coronary bypass surgery. Mahler HI, et al. **Ann Behav Med** 1998 Winter;20(1):39–46

Mutuality and preparedness of family caregivers for elderly women after bypass surgery. Kneeshaw MF, et al. **Appl Nurs Res** 1999 Aug;12(3):128–35

Promoting enjoyment and self-belief through work rehabilitation. Mitchell D. **Arch Psychiatr Nurs** 1998 Dec; 12(6):344–50

Using sports to strengthen resiliency in children. Training heart. Bell CC, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):859–65 (33 ref.)

The program for rheumatic independent self-management: a pilot evaluation. Alderson M, et al. **Clin Rheumatol** 1999; 18(4):283–92

Self-efficacy for dietary behaviour concerning heart disease among Alexandria school pupils. Mounir GM, et al. **East Mediterr Health J** 1998 Dec;4(3):452–69

Self-efficacy and social support as mediators in the relation between disease severity and quality of life in patients with epilepsy. Amir M, et al. **Epilepsia** 1999 Feb;40(2):216–24

The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. Goodman R, et al. **Eur Child Adolesc Psychiatry** 1998 Sep;7(3):125–30

Self-efficacy as a common variable in oral health behavior and diabetes adherence. Kneckt MC, et al. **Eur J Oral Sci** 1999 Apr;107(2):89–96

Self-efficacy and participation in vigorous physical activity by high school students. Allison KR, et al. **Health Educ Behav** 1999 Feb;26(1):12–24

Exercise self-efficacy and its correlates among socioeconomically disadvantaged older adults. Clark DO, et al. **Health Educ Behav** 1999 Aug;26(4):535–46

Exploring self-efficacy as a predictor of disease management. Clark NM, et al. **Health Educ Behav** 1999 Feb;26(1):72–89

Measuring self-efficacy in the context of HIV risk reduction: research challenges and recommendations. Forsyth AD, et al. **Health Psychol** 1998 Nov;17(6):559–68 (91 ref.)

Self-efficacy and disclosure of HIV-positive serostatus to sex partners. Kalichman SC, et al. **Health Psychol** 1999 May;18(3):281–7

Manipulating self-efficacy in the exercise environment in women: influences on affective responses. McAuley E, et al. **Health Psychol** 1999 May;18(3):288–94

Multidimensional correlates of falls in older women. Gill DL, et al. **Int J Aging Hum Dev** 1998;47(1):35–51

The advanced-stage therapy group. Berman A, et al. **Int J Group Psychother** 1998 Oct;48(4):499–518

Exploring the factorial composition of the transcultural self-efficacy tool. Jeffreys MR, et al. **Int J Nurs Stud** 1998 Aug;35(4):217–25

Does self-competence predict gender differences in adolescent depression and anxiety? McCauley Ohannessian C, et al. **J Adolesc** 1999 Jun;22(3):397–411

The hormone replacement therapy self-efficacy scale. Ali NS. **J Adv Nurs** 1998 Nov;28(5):1115–9

The psychometric properties of the diabetes management self-efficacy scale for patients with type 2 diabetes mellitus. Bijl JV, et al. **J Adv Nurs** 1999 Aug;30(2):352–9

Correlates of expected success at adherence to health regimen of people with IDDM. Lo R. **J Adv Nurs** 1999 Aug; 30(2):418–24

Enhancing role breadth self-efficacy: the roles of job enrichment and other organizational interventions. Parker SK. **J Appl Psychol** 1998 Dec;83(6):835–52

Construction and validation of four childhood asthma self-management scales: parent barriers, child and parent self-efficacy, and parent belief in treatment efficacy. Bursch B, et al. **J Asthma** 1999;36(1):115–28

Self-efficacy as a psychological moderator of chronic fatigue syndrome. Findley JC, et al. **J Behav Med** 1998 Aug; 21(4):351–62

Exercise intensity and self-efficacy effects on anxiety reduction in healthy, older adults. Katula JA, et al. **J Behav Med** 1999 Jun;22(3):233–47

Dental self-efficacy as a determinant to oral health behaviour, oral hygiene and HbA1c level among diabetic patients. Syrjälä AM, et al. **J Clin Periodontol** 1999 Sep; 26(9):616–21

Self-efficacy for refusal mediated by outcome expectancies in the prediction of alcohol-dependence amongst young adults. Williams RJ, et al. **J Drug Educ** 1998;28(4):347–59

Construct validation of the Transcultural Self-Efficacy Tool. Jeffreys MR, et al. **J Nurs Educ** 1999 May;38(5):222–7

Reliability and validity testing of the Self-Efficacy for Functional Activities Scale. Resnick B. **J Nurs Meas** 1999 Spring;7(1):5–20

American and Korean adolescents' physical and mental health self-efficacy. Froman RD, et al. **J Pediatr Nurs** 1999 Feb;14(1):51–8

An adolescent and young adult condom self-efficacy scale. Hanna KM. **J Pediatr Nurs** 1999 Feb;14(1):59–66

Self-efficacy pathways to childhood depression. Bandura A, et al. **J Pers Soc Psychol** 1999 Feb;76(2):258–69

Female injecting drug users: human immunodeficiency virus risk behavior and intervention needs. Brown EJ. **J Prof Nurs** 1998 Nov–Dec;14(6):361–9

Teacher self-efficacy in new nurse educators. Nugent KE, et al. **J Prof Nurs** 1999 Jul–Aug;15(4):229–37

Empowerment education for individuals with serious mental illness. Schofield R. **J Psychosoc Nurs Ment Health Serv** 1998 Nov;36(11):35–40

The effect of a self-monitoring tool on self-efficacy, health beliefs, and adherence in patients receiving hemodialysis. Tanner JL, et al. **J Ren Nutr** 1998 Oct;8(4):203–11

Parental self-efficacy and asthma self-management skills. Hanson J. **J Soc Pediatr Nurs** 1998 Oct–Dec;3(4):146–54

The differential role of alcohol expectancies and drinking refusal self-efficacy in problem and nonproblem drinkers. Oei TP, et al. **J Stud Alcohol** 1998 Nov;59(6):704–11

Self-efficacy and substance abuse: assessment using a brief phone interview. Coon GM, et al. **J Subst Abuse Treat** 1998 Sep–Oct;15(5):385–91

An argument for choice. An alternative women's treatment program. LaFave LM, et al. **J Subst Abuse Treat** 1999 Jun; 16(4):345–52

Psychometric properties of a hurricane coping self-efficacy measure. Benight CC, et al. **J Trauma Stress** 1999 Apr; 12(2):379–86

Comparing perceived self-efficacy among adolescent Bosnian and Croatian refugees with and without posttraumatic stress disorder. Ferren PM. **J Trauma Stress** 1999 Jul;12(3):405–20

Physical and psychological predictors of exercise dosage in healthy adults. Lox CL, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):1060–4

Caregiving effectiveness in families managing complex technology at home: replication of a model [see comments] Smith CE. **Nurs Res** 1999 May–Jun;48(3):120–8. Comment in: Nurs Res 1999 May–Jun;48(3):119.

Binge eating, body image, depression, and self-efficacy in an obese clinical population. Cargill BR, et al. **Obes Res** 1999 Jul;7(4):379–86

Changes in self-efficacy and decisional balance for exercise among obese women in a weight management program. Pinto BM, et al. **Obes Res** 1999 May;7(3):288–92

Self efficacy as a mediator of the relationship between pain intensity, disability and depression in chronic pain patients. Arnstein P, et al. **Pain** 1999 Apr;80(3):483–91

The relationship of arthritis self-efficacy to daily pain, daily mood, and daily pain coping in rheumatoid arthritis patients. Lefebvre JC, et al. **Pain** 1999 Mar;80(1–2):425–35

Understanding exercise in the context of chronic disease: an exploratory investigation of self-efficacy. Barlow JH. **Percept Mot Skills** 1998 Oct;87(2):439–46

Associations of self-regulation with personality traits and self-efficacy in Japanese elementary school children. Shiomi K, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1169–72

Efficacy outcome and sex difference in learning of hypermedia programming skills. Tam SF. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):855–8

A path model of the relationship between career indecision, androgyny, self-efficacy, and self-esteem. Wulff MB, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):935–40

Perceived barriers to physical activity among high school students. Allison KR, et al. **Prev Med** 1999 Jun;28(6):608–15

Differential beliefs, perceived social influences, and self-efficacy expectations among smokers in various motivational phases. De Vries H, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):681–9

Smokers hospitalized in an urban, public hospital: addiction, stages of change, and self-efficacy. Vernon JD, et al. **Prev Med** 1999 May;28(5):488–95

Gait adjustments in older adults: activity and efficacy influences. Rosengren KS, et al. **Psychol Aging** 1998 Sep; 13(3):375–86

Feedback on ability in counseling, self-efficacy, and persistence on task. Lane EJ, et al. **Psychol Rep** 1998 Dec; 83(3 Pt 1):1113–4

Self-efficacy and self-reported functional status in coronary heart disease: a six-month prospective study. Sullivan MD, et al. **Psychosom Med** 1998 Jul–Aug;60(4):473–8

Parenting competence, social support, and self-esteem in teen mothers case managed by public health nurses. Herrmann MM, et al. **Public Health Nurs** 1998 Dec;15(6):432–9

Functional status from the patient's perspective: the challenge of preserving personal integrity. Leidy NK, et al. **Res Nurs Health** 1999 Feb;22(1):67–77

Self-efficacy, outcome expectations, and fantasies as predictors of alcoholics' posttreatment drinking. Long CG, et al. **Subst Use Misuse** 1998 Oct;33(12):2383–402

Social network ties, self-efficacy, and condom use among women who use crack cocaine: a pilot study. Montoya ID. **Subst Use Misuse** 1998 Aug;33(10):2049–73 (70 ref.)

Factors associated with physical activity in women across the life span: implications for program development. Scharff DP, et al. **Women Health** 1999;29(2):115–34

[Self-care behaviors, self-efficacy, and social support effect on the glycemic control of patients newly diagnosed with non-insulin-dependent diabetes mellitus] Wang JS, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Dec; 14(12):807–15 (Eng. Abstr.) **(Chi)**

[Loss of autonomy in the elderly. Etiology, evaluation methods, consequences for medical-social management] Wolmark Y. **Rev Prat** 1998 Oct 15;48(16):1836–40 **(Fre)**

[Questionnaire of self-efficacy, optimism and pessimism: reconstruction, selection of items and validation of an instrument by means of examinations of clinical samples] Scholler G, et al. **Psychother Psychosom Med Psychol** 1999 Aug;49(8):275–83 (Eng. Abstr.) **(Ger)**

[Development of a "self efficacy for health promotion scale" in community-dwelling elderly] Yokokawa Y, et al. **Nippon Koshu Eisei Zasshi** 1999 Feb;46(2):103–12 (Eng. Abstr.) **(Jpn)**

SELF ESTEEM see **SELF CONCEPT**

SELF-EVALUATION PROGRAMS

Self-perceived competence of advanced public health nutritionists in the United States. Dodds JM, et al. **J Am Diet Assoc** 1999 Jul;99(7):808–12

Mandatory practice self-appraisal: moving towards outcomes based continuing education. Donen N. **J Eval Clin Pract** 1999 Aug;5(3):297–303 (49 ref.)

The use of the nominal group technique as an evaluative tool in medical undergraduate education. Lloyd-Jones G, et al. **Med Educ** 1999 Jan;33(1):8–13

[Self-reported skills in practical procedures among young physicians] Lundeby T, et al. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2849–53 (Eng. Abstr.) **(Nor)**

[Young males have scant knowledge of anatomy and physiology] Meling TR, et al. **Tidsskr Nor Laegeforen** 1999 Mar 20;119(8):1080–3 (Eng. Abstr.) **(Nor)**

METHODS

Self-management as a strategy to improve the classroom behavior of adolescents with ADHD. Shapiro ES, et al. **J Learn Disabil** 1998 Nov–Dec;31(6):545–55

STATISTICS & NUMERICAL DATA

Using videotaped benchmarks to improve the self-assessment ability of family practice residents. Martin D, et al. **Acad Med** 1998 Nov;73(11):1201–6

SELF-EXAMINATION

Self-reported waist circumference compared with the 'Waist Watcher' tape-measure to identify individuals at increased health risk through intra-abdominal fat accumulation. Han TS, et al. **Br J Nutr** 1998 Jul;80(1):81–8

Evaluation of the Micral-Test S, a qualitative immunologic patient self-test for microalbuminuria: the PROSIT project. Proteinuria Screening and Intervention. Piehlmeier W, et al. **Diabet Med** 1998 Oct;15(10):883–5

Self-assessment of tuberculin skin test reactions by drug users with or at risk for human immunodeficiency virus infection. Gourevitch MN, et al. **Int J Tuberc Lung Dis** 1999 Apr; 3(4):321–5

Self-administered joint counts and standard joint counts in the assessment of rheumatoid arthritis. MIRA Trial Group. Minocycline in RA. Alarcón GS, et al. **J Rheumatol** 1999 May;26(5):1065–7

HIV homes tests. **N J Med** 1999 Aug;96(8):14

Anxiety and adherence to breast self-examination in women with a family history of breast cancer. Brain K, et al. **Psychosom Med** 1999 Mar–Apr;61(2):181–7

METHODS

Are subjective clinical findings and objective clinical tests related to the motion characteristics of low back pain subjects? McGregor AH, et al. **J Orthop Sports Phys Ther** 1998 Dec;28(6):370–7

On the lack of correlation between self-report and urine loss measured with standing provocation test in older stress-incontinent women. Miller JM, et al. **J Womens Health** 1999 Mar;8(2):157–62

A patient-derived disease activity score can substitute for a physician-derived disease activity score in clinical research. Houssien DA, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):48–52

STANDARDS

Effect of an educational multimedia prostate program on the International Prostate Symptom Score. van Schaik P, et al. **Eur Urol** 1999;36(1):36–9

Reliability and validity of two self-report measures of impairment and disability for MS. North American Research Consortium on Multiple Sclerosis Outcomes Study Group. Schwartz CE, et al. **Neurology** 1999 Jan 1; 52(1):63–70

SELF-EXAMINATION, BREAST see **BREAST SELF-EXAMINATION**

SELF-FERTILIZATION see **INBREEDING**

SELF-HELP DEVICES

A comparison of two computer access systems for functional text entry. DeVries RC, et al. **Am J Occup Ther** 1998 Sep; 52(8):656–65

Biomechanical evaluation of assistive devices for transferring residents. Zhuang Z, et al. **Appl Ergon** 1999 Aug; 30(4):285–94

Effectiveness of assistive technology and environmental interventions in maintaining independence and reducing home care costs for the frail elderly. A randomized controlled trial. Mann WC, et al. **Arch Fam Med** 1999 May–Jun;8(3):210–7

Utility of a microcomputer as an external memory aid for a memory-impaired head injury patient during in-patient rehabilitation. Kim HJ, et al. **Brain Inj** 1999 Feb; 13(2):147–50

The NavBelt--a computerized travel aid for the blind based on mobile robotics technology. Shoval S, et al. **IEEE Trans Biomed Eng** 1998 Nov;45(11):1376–86

Implementation of new technology for persons with mental retardation and the importance of staff education. Brodin J. **Int J Rehabil Res** 1998 Jun;21(2):155–68

Enhancing independent indoor travel and activity in a woman with multiple disabilities through special technology. Lancioni GE, et al. **Int J Rehabil Res** 1998 Dec;21(4):409–13

The cooling-suit: a study of ten multiple sclerosis patients' experiences in daily life. Flensner G, et al. **J Adv Nurs** 1999 Jun;29(6):1444–53

Effects of synthetic speech output and orthographic feedback on spelling in a student with autism: a preliminary study. Schlosser RW, et al. **J Autism Dev Disord** 1998 Aug; 28(4):309–19

New assistive technology for passive standing. Gear AJ, et al. **J Burn Care Rehabil** 1999 Mar–Apr;20(2):164–9 (14 ref.)

Use of an ambulation assistive device predicts functional decline associated with hospitalization. Mahoney JE, et al. **J Gerontol A Biol Sci Med Sci** 1999 Feb;54(2):M83–8

Well-being of families with healthy and technology-assisted infants in the home: a comparative study. Stephenson C. **J Pediatr Nurs** 1999 Jun;14(3):164–76

The influence of personal care and assistive devices on the measurement of disability. Agree EM. **Soc Sci Med** 1999 Feb;48(4):427–43

Analysis of assisted-gait characteristics in persons with incomplete spinal cord injury. Melis EH, et al. **Spinal Cord** 1999 Jun;37(6):430–9

Assistive technology in Tennessee. Cundall J. **Tenn Med** 1999 Jan;92(1):24–5

[University research and education in rehabilitation technology: inducing ISO 9001 conformity and initial experiences with a certified quality management system] Howorka K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:570–1 **(Ger)**

[Supply of disability aids for handicapped patients] Knigge M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:540–1 **(Ger)**

PSYCHOLOGY

Impact of long-term care of children assisted by technology on maternal health. Thyen U, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):273–82

STANDARDS

A novel method for locomotion training. Seif-Naraghi AH, et al. **J Head Trauma Rehabil** 1999 Apr;14(2):146–62

Form perception with a 49-point electrotactile stimulus array on the tongue: a technical note. Bach-y-Rita P, et al. **J Rehabil Res Dev** 1998 Oct;35(4):427–30

TRENDS

Assistive technology patenting trends and the Americans with Disabilities Act. Berven HM, et al. **Behav Sci Law** 1999;17(1):47–71

UTILIZATION

Ownership and use of assistive devices amongst older people in the community. Edwards NI, et al. **Age Ageing** 1998 Jul;27(4):463–8

Use of technology by people with physical disabilities in Australia. Pell SD, et al. **Disabil Rehabil** 1999 Feb; 21(2):56–60

SELF-HELP GROUPS

Personality and alcohol/substance-use disorder patient relapse and attendance at self-help group meetings. Janowsky DS, et al. **Alcohol Alcohol** 1999 May–Jun; 34(3):359–69

A comparative evaluation of substance abuse treatment: II. Linking proximal outcomes of 12-step and cognitive-behavioral treatment to substance use outcomes. Finney JW, et al. **Alcohol Clin Exp Res** 1999 Mar; 23(3):537–44

A comparative evaluation of substance abuse treatment: V. Substance abuse treatment can enhance the effectiveness of self-help groups. Humphreys K, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):558–63

A comparative evaluation of substance abuse treatment III. Examining mechanisms underlying patient-treatment matching hypotheses for 12-step and cognitive-behavioral treatments for substance abuse. Ouimette PC, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):545–51

A comparative evaluation of substance abuse treatment IV. The effect of comorbid psychiatric diagnoses on amount of treatment, continuing care, and 1-year outcomes. Ouimette PC, et al. **Alcohol Clin Exp Res** 1999 Mar; 23(3):552–7

Prevention of relapse in alcohol dependence [letter; comment] Malerich JA Jr. **Am Fam Physician** 1999 Apr 1;59(7):1753–4. Comment on: Am Fam Physician 1998 Jul;58(1):139–46.

A survival analysis of communal-living, self-help, addiction recovery participants. Bishop PD, et al. **Am J Community Psychol** 1998 Dec;26(6):803–21

"Nothing about me, without me": participatory action research with self-help/mutual aid organizations for psychiatric consumer/survivors. Nelson G, et al. **Am J Community Psychol** 1998 Dec;26(6):881–912 (92 ref.)

An exploratory analysis of women and men within a self-help, communal-living recovery setting: a new beginning in a new house. Ferrari JR, et al. **Am J Drug Alcohol Abuse** 1999 May;25(2):305–17

A change of heart. Leighton C. **Am J Nurs** 1998 Oct; 98(10):33–7

A randomized controlled clinical trial of a bereavement support group intervention in human immunodeficiency virus type 1-seropositive and -seronegative homosexual men [published erratum appears in Arch Gen Psychiatry 1999 Aug;56(8):693] Goodkin K, et al. **Arch Gen Psychiatry** 1999 Jan;56(1):52–9

Education and peer discussion group interventions and adjustment to breast cancer. Helgeson VS, et al. **Arch Gen Psychiatry** 1999 Apr;56(4):340–7

Self-help groups. Gray RE, et al. **Can Fam Physician** 1998 Oct;44:2137–42

Self-transcendence in older men attending a prostate cancer support group. Chin-A-Loy SS, et al. **Cancer Nurs** 1998 Oct;21(5):358–63

Club as an integral approach to war veterans. Gruden V, et al. **Coll Antropol** 1999 Jun;23(1):309–13

Self-help groups for families of persons with mental illness: perceived benefits of helpfulness. Citron M, et al. **Community Ment Health J** 1999 Feb;35(1):15–30

The initiation of mutual-help groups within residential treatment settings. Salem DA, et al. **Community Ment Health J** 1998 Aug;34(4):419–29

Promoting group empowerment and self-reliance through participatory research: a case study of people with physical disability. Stewart R, et al. **Disabil Rehabil** 1999 Jul; 21(7):338–45

Community reinforcement training for family and significant others of drug abusers: a unilateral intervention to increase treatment entry of drug users. Kirby KC, et al. **Drug Alcohol Depend** 1999 Aug 2;56(1):85–96

Project 5: triggering and maintenance factors of remitting from alcohol dependence without formal help. Rumpf HJ, et al. **Eur Addict Res** 1998 Dec;4(4):209–10

Eyewitness. Survivor's skill [news] Mycek S. **Hosp Health Netw** 1999 Mar;73(3):16, 18

Intern discussion group: a supportive educational experience for junior doctors. Davis M. **Hosp Med** 1999 Jun; 60(6):435–9

The Circle Model--support for relatives of people with dementia. Jansson W, et al. **Int J Geriatr Psychiatry** 1998 Oct;13(10):674–81

Women's perceptions of group support and adaptation to breast cancer. Samarel N, et al. **J Adv Nurs** 1998 Dec; 28(6):1259–68

Thinking about students who do not identify as gay, lesbian, or bisexual, but.... Green BC. **J Am Coll Health** 1998 Sep; 47(2):89–91

The "A" word. Joachim BJ. **J Am Coll Health** 1999 Jul; 48(1):47–8

Demographics, treatment seeking, and diagnoses of anxiety support group participants. Segee PF, et al. **J Anxiety Disord** 1999 May–Jun;13(3):315–34

SELF-HELP GROUPS

Professional-led versus family-led support groups: exploring the differences. Pickett SA, et al. **J Behav Health Serv Res** 1998 Nov;25(4):437–45

Qualitative analysis of the questions raised by patients with gynecologic cancers and their relatives in an educational support group. Carlsson ME, et al. **J Cancer Educ** 1999 Spring;14(1):41–6

The benefits of group music at the 1996 music weekend for women with cancer. Tobia DM, et al. **J Cancer Educ** 1999 Summer;14(2):115–9

Rethinking the place of psychological support groups in cardiopulmonary rehabilitation. Harper W, et al. **J Cardiopulm Rehabil** 1998 Jan–Feb;19(1):18–21

Professional and paraprofessional group treatments for depression: a comparison of cognitive-behavioral and mutual support interventions. Bright JI, et al. **J Consult Clin Psychol** 1999 Aug;67(4):491–501

"Internet patients" turn to support groups to guide medical decisions [news] Smith J. **J Natl Cancer Inst** 1998 Nov 18;90(22):1695–7

Positively reframing perceptions of the menstrual cycle among women with premenstrual syndrome. Morse G. **J Obstet Gynecol Neonatal Nurs** 1999 Mar–Apr; 28(2):165–74

The development and impact of a chronic pain support group: a qualitative and quantitative study. Subramaniam V, et al. **J Pain Symptom Manage** 1999 May;17(5):376–83

Pall-Connect: a support network for community physicians. Schroder C, et al. **J Palliat Care** 1998 Autumn;14(3):98–101

A conference for the education of families who have a member with phenylketonuria. Kolb SE, et al. **J Pediatr Nurs** 1999 Aug;14(4):270–2

Social networks for women with serious mental illness. Pickens JM. **J Psychosoc Nurs Ment Health Serv** 1999 May; 37(5):30–8

Drug dependence during pregnancy. Effect of an on-site support group. Svikis D, et al. **J Reprod Med** 1998 Sep; 43(9):799–805

A study of rural women's satisfaction with a breast cancer self-help network. Curran VR, et al. **J Telemed Telecare** 1999;5(1):47–54

Modern health services versus traditional engozi system in Uganda [letter] Katabarwa M. **Lancet** 1999 Jul 24; 354(9175):343

Experience journals: using computers to share personal stories about illness and medical intervention. Gonzalez-Heydrich J, et al. **Medinfo** 1998;9 Pt 2:1325–9

Cancer resources in the United States. **Oncol Nurs Forum** 1998 Nov–Dec;25(10):1785–98

Treasure Weekend: supporting bereaved siblings. Potts S, et al. **Palliat Med** 1999 Jan;13(1):51–6

Palliative care organizations with a global perspective [see comments] Speck P. **Palliat Med** 1999 Jan;13(1):69–74. Comment in: Palliat Med 1999 Jan;13(1):1–2.

Twelve-step and mutual-help programs for addictive disorders. Chappel JN, et al. **Psychiatr Clin North Am** 1999 Jun;22(2):425–46

A randomized controlled trial of the effects of group psychological therapy on survival in women with metastatic breast cancer. Cunningham AJ, et al. **Psychooncology** 1998 Nov–Dec;7(6):508–17

The case for a partnership with self-help groups. Humphreys K, et al. **Public Health Rep** 1999 Jul–Aug;114(4):322–5, 328–9

Addiction. Self-help groups in recovery. **Rep Group Adv Psychiatry** 1998;(142):113–23

A randomized trial of a lay person-led self-management group intervention for back pain patients in primary care. Von Korff M, et al. **Spine** 1998 Dec 1;23(23):2608–15

How to support Japanese liver transplant candidates and recipients throughout the transplant process: role of family coordinators. Aranami Y, et al. **Transplant Proc** 1998 Nov; 30(7):3635–7

[Improving cooperation between physician and patient in Rendu-Osler-Weber disease (letter)] Hanselmann K. **Laryngorhinootologie** 1998 Dec;77(12):735 **(Ger)**

[Ambulatory heart groups after inpatient cardiologic rehabilitation] Keck M, et al. **Rehabilitation (Stuttg)** 1999 May;38(2):79–87 (Eng. Abstr.) **(Ger)**

[Support groups for patients in the early stage of dementia--usefulness and experiences] Petry H. **Ther Umsch** 1999 Feb;56(2):109–13 (11 ref.) (Eng. Abstr.) **(Ger)**

[Long-term results of treatment of overweight in self-help groups] Andersen E, et al. **Tidsskr Nor Laegeforen** 1999 Jan 10;119(1):14–7 (Eng. Abstr.) **(Nor)**

[Self-development groups for medical students] Stordal KI, et al. **Tidsskr Nor Laegeforen** 1999 May 20;119(13):1932–3 **(Nor)**

[Group education for asthmatic children: our experience] Calvo Rey C, et al. **An Esp Pediatr** 1998 Oct;49(4):353–8 (Eng. Abstr.) **(Spa)**

[Health education: repercussions of a self-help program on the psychological status of perimenopausal women] García Sánchez C, et al. **Aten Primaria** 1998 Sep 15;22(4):215–9 (Eng. Abstr.) **(Spa)**

ECONOMICS

Impact of robustness of program implementation on outcomes of clients in dual diagnosis programs [published erratum appears in Psychiatr Serv 1999 Mar;50(3):375] Jerrell JM, et al. **Psychiatr Serv** 1999 Jan;50(1):109–12

HISTORY

Hemophilia: a story of success--disaster and the perseverance of the human spirit, Part 2. Dubin CS. **J Assoc Nurses AIDS Care** 1999 Jul–Aug;10(4):88–92

ORGANIZATION & ADMINISTRATION

An investigation of the effect of structured teaching on a group of tinnitus patients after vestibular schwannoma removal. Baguley DM, et al. **Am J Otol** 1998 Nov; 19(6):828–33

Parents with mental illness. Is there help for their adolescent children? [news] Rimington H, et al. **Aust Fam Physician** 1998 Nov;27(11):987–8

National patient groups are a resource underutilised by GPs [letter; comment] Lapsley P. **BMJ** 1998 Dec 12; 317(7173):1658. Comment on: BMJ 1998 Jun 27;316(7149):1922.

Role conflict and confidentiality in multidisciplinary athlete support programmes. Collins D, et al. **Br J Sports Med** 1999 Jun;33(3):208–11

Zimbabwean people with head noises are offered help [news] **Cent Afr J Med** 1998 Nov;44(11):296

Using participatory research to help promote the physical and mental health of female social workers in child welfare. Gold N. **Child Welfare** 1998 Nov–Dec;77(6):701–24

A professionally led adoption triad group: an evolving approach to search and reunion. Valley S, et al. **Child Welfare** 1999 May–Jun;78(3):363–79

Motivating the well elderly to exercise. Grove NC, et al. **J Community Health Nurs** 1999;16(3):179–89

Building a support group for parents of children with brain tumors. McGee SJ, et al. **J Neurosci Nurs** 1998 Dec; 30(6):345–9 (7 ref.)

The outcome for patients with ME in New Zealand [letter; comment] Simpson LO. **N Z Med J** 1999 Mar 26; 112(1084):104–5. Comment on: N Z Med J 1999 Jun 25;112(1090):242.

Active listening to cancer patients' stories. ten Kroode HF. **Neth J Med** 1998 Aug;53(2):41–52 (4 ref.)

Nurses guide readers to additional literature on Internet cancer support groups [letter; comment] Ehrenberger H, et al. **Oncol Nurs Forum** 1998 Oct;25(9):1497–8. Comment on: Oncol Nurs Forum 1998 May;25(4):673–6.

Effectiveness of community-directed diabetes prevention and control in a rural Aboriginal population in British Columbia, Canada. Daniel M, et al. **Soc Sci Med** 1999 Mar; 48(6):815–32

STANDARDS

After drug treatment: are 12-step programs effective in maintaining abstinence? Fiorentine R. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):93–116

Consumers as mental health providers: first-person accounts of benefits and limitations. Mowbray CT, et al. **J Behav Health Serv Res** 1998 Nov;25(4):397–411

Cognitive-behavioral self-help for binge eating disorder: a controlled effectiveness study. Carter JC, et al. **J Consult Clin Psychol** 1998 Aug;66(4):616–23

Superior efficacy of cognitive-behavioral therapy for urban crack cocaine abusers: main and matching effects. Maude-Griffin PM, et al. **J Consult Clin Psychol** 1998 Oct; 66(5):832–7

A multimodal support group with Hispanic traumatic brain injury survivors. Armengol CG. **J Head Trauma Rehabil** 1999 Jun;14(3):233–46

Distance education and caregiver support groups: comparison of traditional and telephone groups. Brown R, et al. **J Head Trauma Rehabil** 1999 Jun;14(3):257–68

Members only: electronic support groups closed to the average surfer [news] Smith J. **J Natl Cancer Inst** 1998 Nov 18;90(22):1696

Matching alcoholism treatments to client heterogeneity: treatment main effects and matching effects on drinking during treatment. Project MATCH Research Group. **J Stud Alcohol** 1998 Nov;59(6):631–9

Influence of outpatient treatment and 12-step group involvement on one-year substance abuse treatment outcomes. Ouimette PC, et al. **J Stud Alcohol** 1998 Sep; 59(5):513–22

STATISTICS & NUMERICAL DATA

Helping distressed patients. A strategy for reducing the doctor's anxiety. Phillipson R. **Aust Fam Physician** 1998 Nov;27(11):1033–5

Gender differences on Internet cancer support groups. Klemm P, et al. **Comput Nurs** 1999 Mar–Apr;17(2):65–72

UTILIZATION

Improving access to family support organizations: a member survey of the AMI-Quebec Alliance for the Mentally Ill. Looper K, et al. **Psychiatr Serv** 1998 Nov;49(11):1491–2

[Incidence and prevalence of colostomies. The future of stoma societies. Results of a Côte-d'Or survey. Federation of Stoma Patients in France] Goudet P, et al. **Ann Chir** 1998;52(1):24–8 (Eng. Abstr.) **(Fre)**

SELF-INJURIOUS BEHAVIOR

Different types of self-injurious behavior in bulimia nervosa. Favaro A, et al. **Compr Psychiatry** 1999 Jan–Feb; 40(1):57–60

Play versus alone conditions as controls during functional analyses of self-injurious escape behavior. Kahng S, et al. **J Appl Behav Anal** 1998 Winter;31(4):669–72

Identification of early self-injurious behaviour in young children with intellectual disability. Murphy G, et al. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):149–63

No self-injurious behavior was found in HPRT-deficient mice treated with 9-ethyladenine. Edamura K, et al. **Pharmacol Biochem Behav** 1998 Oct;61(2):175–9

Evaluation of an evolutionary model of self-preservation and self-destruction. Brown RM, et al. **Suicide Life Threat Behav** 1999 Spring;29(1):58–71

BLOOD

Stress and self-injurious behavior; hormonal and serotonergic parameters in mentally retarded subjects. Verheoven WM, et al. **Pharmacopsychiatry** 1999 Jan;32(1):13–20

CHEMICALLY INDUCED

Paradoxical effects of serotonin and opioids in pemoline-induced self-injurious behavior. Turner C, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):361–6

CLASSIFICATION

Self-injurious behavior and Prader-Willi syndrome: behavioral forms and body locations. Symons FJ, et al. **Am J Ment Retard** 1999 May;104(3):260–9

The nosology of compulsive skin picking [letter] Stein DJ, et al. **J Clin Psychiatry** 1999 Sep;60(9):618–9

Identification of nearly fatal suicide attempts: Self-Inflicted Injury Severity Form. Potter LB, et al. **Suicide Life Threat Behav** 1998 Summer;28(2):174–86

Asking adolescents to explain discrepancies in self-reported suicidality. Velting DM, et al. **Suicide Life Threat Behav** 1998 Summer;28(2):187–96

COMPLICATIONS

The relationship between self-induced water intoxication and severity of psychiatric symptoms. May DL. **Arch Psychiatr Nurs** 1998 Dec;12(6):335–43

Gingivitis artefacta--a case report of a patient undergoing orthodontic treatment. Spencer RJ, et al. **Br J Orthod** 1999 Jun;26(2):93–6

Self-inflicted intramyocardial injury [letter; comment] Frankel KM. **Chest** 1998 Oct;114(4):1225. Comment on: Chest 1998 Feb;113(2):531–4.

An evaluation of functional variables affecting severe problem behaviors in adults with mental retardation by using the Questions about Behavioral Function Scale (QABF). Applegate H, et al. **Res Dev Disabil** 1999 May–Jun;20(3):229–37

DIAGNOSIS

A case of self-inflicted intraorbital injury: wooden foreign body introduced into the ethmoidal sinus. Akgüner M, et al. **Ann Plast Surg** 1998 Oct;41(4):422–4

Clarifying an ambiguous functional analysis with matched and mismatched extinction procedures. Kuhn DE, et al. **J Appl Behav Anal** 1999 Spring;32(1):99–102

Assessment of self-injurious behavior maintained by access to self-restraint materials. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter;31(4):647–50

Fixed-time schedules attenuate extinction-induced phenomena in the treatment of severe aberrant behavior. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter; 31(4):529–42

Characteristics of 34 adults with psychogenic excoriation. Arnold LM, et al. **J Clin Psychiatry** 1998 Oct;59(10):509–14

Self-injurious skin picking: clinical characteristics and comorbidity. Wilhelm S, et al. **J Clin Psychiatry** 1999 Jul; 60(7):454–9

The Self-Harm Inventory (SHI): development of a scale for identifying self-destructive behaviors and borderline personality disorder. Sansone RA, et al. **J Clin Psychol** 1998 Nov;54(7):973–83

Distinctiveness and correlates of maladaptive behaviour in children and adolescents with Smith-Magenis syndrome. Dykens EM, et al. **J Intellect Disabil Res** 1998 Dec;42 (Pt 6):481–9

Nipple discharge in a teenager. Mudan SS, et al. **J R Soc Med** 1998 Sep;91(9):490–1

An evaluation of functional variables affecting severe problem behaviors in adults with mental retardation by using the Questions about Behavioral Function Scale (QABF). Applegate H, et al. **Res Dev Disabil** 1999 May–Jun;20(3):229–37

Within-session patterns of responding during functional analyses: the role of establishing operations in clarifying behavioral function. Roane HS, et al. **Res Dev Disabil** 1999 Jan–Feb;20(1):73–89

[Occupation-specific mode of self injury within the scope of a fictitious assault] Faller-Marquardt M, et al. **Arch Kriminol** 1999 May–Jun;203(5–6):129–37 (Eng. Abstr.) **(Ger)**

[Self-inflicted stab wound for simulating self-defense?] Schnabel A, et al. **Arch Kriminol** 1999 May–Jun; 203(5–6):147–51 (Eng. Abstr.) **(Ger)**

["Self-inflicted injuries"--psychiatric, forensic and insurance aspects (I)] Möllhoff G, et al. **Versicherungsmedizin** 1998

Dec 1;50(6):226-31 (0 ref.) **(Ger)**

DRUG THERAPY

Self-injurious behavior is decreased by cyproterone acetate in adult male rhesus (Macaca mulatta). Eaton GG, et al. **Horm Behav** 1999 Apr;35(2):195-203

Treatment of "cutaneous self-injurious behavior" (CSIB) [letter; comment] Koblenzer CS. **Int J Dermatol** 1998 Aug; 37(8):633-4. Comment on: Int J Dermatol 1997 Jun;36(6):477.

Effect of divalproex sodium on aggression and self-injurious behaviour in adults with intellectual disability: a retrospective review. Ruedrich S, et al. **J Intellect Disabil Res** 1999 Apr;43 (Pt 2):105-11

Effect of tryptophan treatment on self-biting and central nervous system serotonin metabolism in rhesus monkeys (Macaca mulatta). Weld KP, et al. **Neuropsychopharmacology** 1998 Oct;19(4):314-21

Gabapentin for self-injurious behavior in Lesch-Nyhan syndrome. McManaman J, et al. **Pediatr Neurol** 1999 May; 20(5):381-2

Near-fatal skin picking from delusional body dysmorphic disorder responsive to fluvoxamine. O'Sullivan RL, et al. **Psychosomatics** 1999 Jan-Feb;40(1):79-81

Cessation of long-term naltrexone administration: longitudinal follow-ups. Crews WD Jr, et al. **Res Dev Disabil** 1999 Jan-Feb;20(1):23-30

Using analog baselines to assess the effects of naltrexone on self-injurious behavior. Garcia D, et al. **Res Dev Disabil** 1999 Jan-Feb;20(1):1-21

EPIDEMIOLOGY

Does initial management affect the rate of repetition of deliberate self harm? cohort study. Crawford MJ, et al. **BMJ** 1998 Oct 10;317(7164):985

Epidemiology of self-injurious behaviour in adults with learning disabilities. Collacott RA, et al. **Br J Psychiatry** 1998 Nov;173:428-32

Suicidal ideation and acts of self-harm among Dublin school children. O'Sullivan M, et al. **J Adolesc** 1998 Aug; 21(4):427-33

Self-inflicted burn injuries. Erzurum VZ, et al. **J Burn Care Rehabil** 1999 Jan-Feb;20(1 Pt 1):22-4

Self-inflicted burn injuries: an 11-year retrospective study. Wallace KL, et al. **J Burn Care Rehabil** 1999 Mar-Apr; 20(2):191-4; discussion 189-90

Aggressive behavior against self and others among first-admission patients with schizophrenia. Steinert T, et al. **Psychiatr Serv** 1999 Jan;50(1):85-90

Suicidal behavior in children and adolescents with developmental disorders. Hardan A, et al. **Res Dev Disabil** 1999 Jul-Aug;20(4):287-96

ETIOLOGY

Depression, suicidality, and HIV [letter] Nandakumar R. **Am J Psychiatry** 1999 May;156(5):801-2

Distinctiveness and correlates of maladaptive behaviour in children and adolescents with Smith-Magenis syndrome. Dykens EM, et al. **J Intellect Disabil Res** 1998 Dec;42 (Pt 6):481-9

Senile squalor syndrome: two unusual cases. Clark J. **J R Soc Med** 1999 Mar;92(3):138-40

Impaired peripheral somatosensory function in children with Prader-Willi syndrome. Brandt BR, et al. **Neuropediatrics** 1998 Jun;29(3):124-6

PATHOLOGY

[Factitious skin lesions as an expression of a family crisis] Vieker S, et al. **Klin Padiatr** 1999 Jan-Feb;211(1):44-6 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Dynamics of self-injurious behaviors. Newell KM, et al. **Am J Ment Retard** 1999 Jan;104(1):11-21

The self-mutilative nature of severe onychophagia: a comparison with self-cutting. Wells JH, et al. **Can J Psychiatry** 1999 Feb;44(1):40-7

Self-injurious behaviour: a kindling phenomenon? Russell PS, et al. **Pediatr Rehabil** 1999 Jan-Mar;3(1):1-4

Cortical damage enhances pemoline-induced self-injurious behavior in prepubertal rats. Cromwell HC, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):223-7

PREVENTION & CONTROL

Effects of puzzle feeders on pathological behavior in individually housed rhesus monkeys. Novak MA, et al. **Am J Primatol** 1998;46(3):213-27

Who will protect mentally ill individuals from themselves? [letter] Melamed Y, et al. **Can J Psychiatry** 1999 May; 44(4):392-3

Observation levels in acute psychiatric admissions. Langenbach M, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(1):28-33

A validity study on the Questions About Behavioral Function (QABF) Scale: predicting treatment success for self-injury, aggression, and stereotypies. Matson JL, et al. **Res Dev Disabil** 1999 Mar-Apr;20(2):163-75

PSYCHOLOGY

Suicide attempts by firearms and by leaping from heights: a comparative study of survivors. de Moore GM, et al. **Am J Psychiatry** 1999 Sep;156(9):1425-31

Images of God used by self-injurious burn patients. Grossoehme DH, et al. **Burns** 1999 Aug;25(5):443-8

Childhood sexual and physical abuse and adult self-harm and suicidal behaviour: a literature review [see comments] Santa Mina EE, et al. **Can J Psychiatry** 1998 Oct;43(8):793-800 (52 ref.). Comment in: Can J Psychiatry 1998 Oct;43(8):783.

Repetition of deliberate self-harm by adolescents: the role of psychological factors. Hawton K, et al. **J Adolesc** 1999 Jun;22(3):369-78

Play versus alone conditions as controls during functional analyses of self-injurious escape behavior. Kahng S, et al. **J Appl Behav Anal** 1998 Winter;31(4):669-72

The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. Pelios L, et al. **J Appl Behav Anal** 1999 Summer;32(2):185-95

False-positive maintenance of self-injurious behavior by access to tangible reinforcers. Shirley MJ, et al. **J Appl Behav Anal** 1999 Summer;32(2):201-4

Animal models of psychopathology: the establishment, maintenance, attenuation, and persistence of head-banging by pigeons. Layng TV, et al. **J Behav Ther Exp Psychiatry** 1999 Mar;30(1):45-61

No harm done? Psychological assessment in the A&E department of patients who deliberately harm themselves [see comments] Head L, et al. **J R Coll Physicians Lond** 1999 Jan-Feb;33(1):51-5. Comment in: J R Coll Physicians Lond 1999 Mar-Apr;33(2):193.

Crowding and violent behavior: the influence of patient density on violent and self-harming behaviour at a medium secure unit. Hardie TJ. **Med Sci Law** 1999 Apr;39(2):161-6

Stress and self-injurious behavior; hormonal and serotonergic parameters in mentally retarded subjects. Verhoeven WM, et al. **Pharmacopsychiatry** 1999 Jan;32(1):13-20

Depression, self-defeating, and self-destructive behaviors as predictors of suicide ideation in males and females. Hopes LM, et al. **Psychol Rep** 1999 Feb;84(1):63-6

[Occupation-specific mode of self injury within the scope of a fictitious assault] Faller-Marquardt M, et al. **Arch Kriminol** 1999 May-Jun;203(5-6):129-37 (Eng. Abstr.) **(Ger)**

[Factitious skin lesions as an expression of a family crisis] Vieker S, et al. **Klin Padiatr** 1999 Jan-Feb;211(1):44-6 (Eng. Abstr.) **(Ger)**

["Self-inflicted injuries"--psychiatric, forensic and insurance aspects (II)] Möllhoff G, et al. **Versicherungsmedizin** 1999 Mar 1;51(1):30-5 (0 ref.) (Eng. Abstr.) **(Ger)**

REHABILITATION

Assessment of stimulus generalization gradients in the treatment of self-injurious behavior. Lalli JS, et al. **J Appl Behav Anal** 1998 Fall;31(3):479-83

Functional analysis and extinction of different behavior problems exhibited by the same individual. Richman DM, et al. **J Appl Behav Anal** 1998 Fall;31(3):475-8

Behavioral rehabilitation and the reduction of aggressive and self-injurious behaviors with cognitively impaired, chronic psychiatric inpatients. Bellus SB, et al. **Psychiatr Q** 1999 Spring;70(1):27-37

THERAPY

Lesson of the week: managing patients with deliberate self harm who refuse treatment in the accident and emergency department. Hassan TB, et al. **BMJ** 1999 Jul 10; 319(7202):107-9

Transference--counter-transference constellations and enactments in the psychotherapy of destructive narcissism. Ivey G. **Br J Med Psychol** 1999 Mar;72 (Pt 1):63-74

Reductions in self-injury produced by transcutaneous electrical nerve stimulation. Fisher WW, et al. **J Appl Behav Anal** 1998 Fall;31(3):493-6

Correspondence between outcomes of brief and extended functional analyses. Kahng S, et al. **J Appl Behav Anal** 1999 Summer;32(2):149-59; quiz 159-60

Clarifying an ambiguous functional analysis with matched and mismatched extinction procedures. Kuhn DE, et al. **J Appl Behav Anal** 1999 Spring;32(1):99-102

Side effects of extinction: prevalence of bursting and aggression during the treatment of self-injurious behavior. Lerman DC, et al. **J Appl Behav Anal** 1999 Spring;32(1):1-8

Decreasing signs of negative affect and correlated self-injury in an individual with mental retardation and mood disturbances. Lindauer SE, et al. **J Appl Behav Anal** 1999 Spring;32(1):103-6

On the relation between object manipulation and stereotypic self-injurious behavior. Lindberg JS, et al. **J Appl Behav Anal** 1999 Spring;32(1):51-62

Effects of warning stimuli for reinforcer withdrawal and task onset on self-injury. Mace AB, et al. **J Appl Behav Anal** 1998 Winter;31(4):679-82

The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. Pelios L, et al. **J Appl Behav Anal** 1999 Summer;32(2):185-95

A comparison of noncontingent reinforcement and sensory extinction as treatments for self-injurious behavior. Roscoe EM, et al. **J Appl Behav Anal** 1998 Winter;31(4):635-46

Fixed-time schedules attenuate extinction-induced phenomena in the treatment of severe aberrant behavior. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter; 31(4):529-42

Assessment of self-injurious behavior maintained by access to self-restraint materials. Vollmer TR, et al. **J Appl Behav Anal** 1998 Winter;31(4):647-50

Effects of session duration on functional analysis outcomes. Wallace MD, et al. **J Appl Behav Anal** 1999 Summer; 32(2):175-82; quiz 183

Medicolegal aspects of self-harm [letter; comment] Bouchier H. **N Z Med J** 1998 Sep 11;111(1073):349 discussion 350 . Comment on: N Z Med J 1998 Jul 10;111(1069):255-8.

Medicolegal aspects of self-harm [letter; comment] McCleave NR. **N Z Med J** 1998 Sep 11;111(1073):349-50 . Comment on: N Z Med J 1998 Jul 10;111(1069):255-8.

Lip biting in a patient with Chiari type II malformation: case report. Nurko C, et al. **Pediatr Dent** 1999 May-Jun; 21(3):209-12

Manual-assisted cognitive-behaviour therapy (MACT): a randomized controlled trial of a brief intervention with bibliotherapy in the treatment of recurrent deliberate self-harm. Evans K, et al. **Psychol Med** 1999 Jan; 29(1):19-25

On the establishing and reinforcing effects of termination of demands for destructive behavior maintained by positive and negative reinforcement. Piazza CC, et al. **Res Dev Disabil** 1998 Sep-Oct;19(5):395-407

Evidence inconclusive on best treatment for patients who self-inflict harm. Links PS. **West J Med** 1999 Jul;171(1):21

SELF-INSTRUCTION PROGRAMS see **PROGRAMMED INSTRUCTION**

SELF-INSTRUCTION PROGRAMS, COMPUTERIZED see **COMPUTER-ASSISTED INSTRUCTION**

SELF MEDICATION

Prevalence of aspirin use among patients calling 9-1-1 for chest pain. Jaffy MB, et al. **Acad Emerg Med** 1998 Dec; 5(12):1146-9

Drug-related hospitalization at a tertiary teaching center in Lebanon: incidence, associations, and relation to self-medicating behavior. Major S, et al. **Clin Pharmacol Ther** 1998 Oct;64(4):450-61

Comparison between dopamine transporter affinity and self-administration potency of local anesthetics in rhesus monkeys. Wilcox KM, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):175-81

Opioid therapy for chronic pancreatitis: controlling aberrant use through behavioral management [letter] Meana M, et al. **Gen Hosp Psychiatry** 1999 Mar-Apr;21(2):137-40

Laxative withdrawal in eating disorders: treatment protocol and 3 to 20-month follow-up. Colton P, et al. **Int J Eat Disord** 1999 Apr;25(3):311-7

Extractable free monomers from self-cured dental sealants resulting from dispensing errors. Vaubert VM, et al. **J Biomed Mater Res** 1999 Spring;48(1):5-8

Stress-motivated drinking in collegiate and postcollegiate young adulthood: life course and gender patterns. Perkins HW. **J Stud Alcohol** 1999 Mar;60(2):219-27

St John's wort during pregnancy [letter] Grush LR, et al. **JAMA** 1998 Nov 11;280(18):1566

Self-prescribing by physicians [letter; comment] Tenery RM Jr. **JAMA** 1999 Apr 28;281(16):1489-90. Comment on: JAMA 1998 Oct 14;280(14):1253-5.

Self-prescribing by physicians [letter; comment] Vatcher D. **JAMA** 1999 Apr 28;281(16):1488-9; discussion 1489-90. Comment on: JAMA 1998 Oct 14;280(14):1253-5.

Self-prescribing by physicians [letter; comment] Voth EA. **JAMA** 1999 Apr 28;281(16):1489; discussion 1489-90. Comment on: JAMA 1998 Oct 14;280(14):1253-5.

Finnish physicians' opinions of vaginal estriol in self-care. Hemminki E, et al. **Maturitas** 1999 Mar 15;31(3):241-7

Fast relief: buying time with medications. Vuckovic N. **Med Anthropol Q** 1999 Mar;13(1):51-68

Patient medication and nuclear medicine tests: a pharmacist's viewpoint [editorial] Sampson CB. **Nucl Med Commun** 1998 Jun;19(6):519-20

Outpatient deep vein thrombosis treatment models. Leong WA. **Pharmacotherapy** 1998 Nov-Dec;18(6 Pt 3):170S-174S

Self-medication/prescribing by medical practitioners [letter][see comments] Becker L, et al. **S Afr Med J** 1999 Mar;89(3):212. Comment in: S Afr Med J 1999 Mar;89(3):201.

Physician, don't heal thyself! [editorial; comment] Ncayiyana DJ. **S Afr Med J** 1999 Mar;89(3):201. Comment on: S Afr Med J 1999 Mar;89(3):212.

[Self-medication of the common cold] Fendrich Z, et al. **Ceska Slov Farm** 1998 Sep;47(5):206-10 (Eng. Abstr.) **(Cze)**

[Sale of chloroquine in the street in Niamey (Niger)] Julvez J. **Bull Soc Pathol Exot** 1999 Feb;92(1):31-2 (Eng. Abstr.) **(Fre)**

[Investigation on self-medication: from disease to performance] Laure P. **Therapie** 1998 Mar-Apr; 53(2):127-35 (Eng. Abstr.) **(Fre)**

[Surfing the Internet with side effects: problems surrounding smart drugs] Hesselink JM. **Dtsch Med Wochenschr** 1999 Jun 4;124(22):707-10 **(Ger)**

[Cerebral infarction in an adolescent girl following an

SELF MEDICATION

overdose of paroxetine and caffedrine combined with theodrenaline] Conde López VJ, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Sep–Oct;26(5):333–8 (Eng. Abstr.) **(Spa)**

[Self-medication in acute respiratory infection: a strategy to potentiate in health education? (letter)] Gil Alvarez J. **Aten Primaria** 1998 Sep 15;22(4):262–4 **(Spa)**

[Analysis of automedication with antibiotics in Spain] Orero Gonzalez A, et al. **Enferm Infecc Microbiol Clin** 1998 Aug–Sep;16(7):328–33 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Potentially fatal natural remedies [letter] Marty AT. **Am Fam Physician** 1999 Mar 1;59(5):1116, 1119–20

Hypomania and St John's wort [letter] O'Breasail AM, et al. **Can J Psychiatry** 1998 Sep;43(7):746–7

A case of adult chronic copper self-intoxication resulting in cirrhosis. O'Donohue J, et al. **Eur J Med Res** 1999 Jun 28;4(6):252

Self-intoxication with morphine obtained from an infusion pump. Gock SB, et al. **J Anal Toxicol** 1999 Mar–Apr; 23(2):130–3

Topical anesthetic abuse after radial keratotomy. Sugar A. **J Cataract Refract Surg** 1998 Nov;24(11):1535–7

METHODS

An individualized teaching and self-medication program to promote compliance in newly transplanted pediatric patients. Girvan C, et al. **Transplant Proc** 1999 Jun; 31(4A):73S–74S

[Self-medication in gastroesophageal reflux: role and limits] De Winter B, et al. **Gastroenterol Clin Biol** 1999 Jan;23(1 Pt 2):S297–301 (27 ref.) **(Fre)**

[Role and limits of self-medication in the therapeutic strategy of gastroesophageal reflux in adults] Poynard T. **Gastroenterol Clin Biol** 1999 Jan;23(1 Pt 2):S176–9 (16 ref.) **(Fre)**

PSYCHOLOGY

Taking the edge off: why patients choose St. John's Wort. Wagner PJ, et al. **J Fam Pract** 1999 Aug;48(8):615–9

STATISTICS & NUMERICAL DATA

Nonprescription and alternative medication use by individuals with HIV disease. Smith SR, et al. **Ann Pharmacother** 1999 Mar;33(3):294–300

Medication-taking behavior and drug self regulation in people with epilepsy. Gomes M da M, et al. **Arq Neuropsiquiatr** 1998 Dec;56(4):714–9

Self-medication among university students in Hong Kong. Lau GS, et al. **Asia Pac J Public Health** 1995;8(3):153–7

Practice of self medication among slum-dwellers. Durgawale PM. **Indian J Public Health** 1998 Apr–Jun;42(2):53–5

Use of antacids in a general population: the impact of health-related variables, lifestyle and sociodemographic characteristics. Furu K, et al. **J Clin Epidemiol** 1999 Jun; 52(6):509–16

Prescription drug use and self-prescription among resident physicians [see comments] Christie JD, et al. **JAMA** 1998 Oct 14;280(14):1253–5. Comment in: JAMA 1999 Apr 28;281(16):1488–9; discussion 1489–90. Comment in: JAMA 1999 Apr 28;281(16):1489; discussion 1489–90. Comment in: JAMA 1999 Apr 28;281(16):1489–90.

Underreporting the use of dietary supplements and nonprescription medications among patients undergoing a periodic health examination [see comments] Hensrud DD, et al. **Mayo Clin Proc** 1999 May;74(5):443–7. Comment in: Mayo Clin Proc 1999 May;74(5):531–2.

[Self-medication profile in a city of south Brazil] Vilarino JF, et al. **Rev Saude Publica** 1998 Feb;32(1):43–9 (Eng. Abstr.) **(Por)**

SELF-MONITORING, BLOOD GLUCOSE see **BLOOD GLUCOSE SELF-MONITORING**

SELF MUTILATION

Severe morbid onychophagia: the classification as self-mutilation and a proposed model of maintenance. Wells JH, et al. **Aust N Z J Psychiatry** 1998 Aug;32(4):534–45 (79 ref.)

Necessity is... [letter] Wallach SB. **N Y State Dent J** 1999 Apr;65(4):10

[Piercing] Jensen P. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4634 **(Nor)**

COMPLICATIONS

Tongue piercing and associated tooth fracture. Botchway C, et al. **J Can Dent Assoc** 1998 Dec;64(11):803–5 (9 ref.)

A late complication from a self-inflicted stab wound. Kennedy RJ, et al. **Ulster Med J** 1999 May;68(1):40–2

DIAGNOSIS

Factitious disease of periocular and facial skin [letter] Feldman MD. **Am J Ophthalmol** 1999 Sep;128(3):392–3; discussion 393–4

Self-inflicted vaginal bleeding [letter] Levavi H, et al. **Int J Gynaecol Obstet** 1995 Jun;49(3):337–8

Clinical correlates of self-mutilation in a sample of general psychiatric patients. Zlotnick C, et al. **J Nerv Ment Dis** 1999 May;187(5):296–301

[Suicide by a borderline patient at the end of fatal self-destructive behavior] Heide S, et al. **Arch Kriminol** 1998 Jul–Aug;202(1–2):50–8 (Eng. Abstr.) **(Ger)**

[Therapy refractory unilateral chronic blepharokeratoconjunctivitis as the chief manifestation of auto-aggression syndrome. Clinico-histopathologic findings] Assadoullina A, et al. **Ophthalmologe** 1999 May; 96(5):319–24 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Dietary supplementation with the inhibitory amino acid taurine suppresses autotomy in HA rats. Belfer I, et al. **Neuroreport** 1998 Sep 14;9(13):3103–7

EPIDEMIOLOGY

Self-mutilation in clinical and general population samples: prevalence, correlates, and functions. Briere J, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):609–20

Increasing numbers of patients with self-inflicted burns at Dutch burn units [letter] Van de Does AJ, et al. **Burns** 1998 Sep;24(6):584–5

ETIOLOGY

Congenital insensitivity to pain with anhidrosis: ocular and systemic manifestations. Yagev R, et al. **Am J Ophthalmol** 1999 Mar;127(3):322–6

Upper-extremity self-amputation and replantation: 2 case reports and a review of the literature. Schlozman SC. **J Clin Psychiatry** 1998 Dec;59(12):681–6 (22 ref.)

Self-mutilation and behavioural disorder. Pradhan SC, et al. **Postgrad Med J** 1998 Dec;74(878):759–60

[Self-mutilating hand and finger injuries among physicians suspected of insurance fraud] Püschel K, et al. **Versicherungsmedizin** 1998 Dec 1;50(6):232–40 (Eng. Abstr.) **(Ger)**

NURSING

Tattoos and piercing offer psychopathology clues [news] **J Psychosoc Nurs Ment Health Serv** 1998 Dec;36(12):9–10

PHYSIOPATHOLOGY

Substantia nigra lesion suppresses the antagonistic effects of N-methyl-D-aspartate receptor antagonist (MK-801) on the autotomy in the rat. Tseng SH, et al. **Neurosci Lett** 1998 Oct 23;255(3):167–71

PREVENTION & CONTROL

Clozapine reduces severe self-mutilation and aggression in psychotic patients with borderline personality disorder. Chengappa KN, et al. **J Clin Psychiatry** 1999 Jul; 60(7):477–84

Shortening of rat teeth prevents autocannibalization of surgical flaps. Komorowska-Timek E, et al. **J Reconstr Microsurg** 1999 May;15(4):303–6

PSYCHOLOGY

Factitious disease of periocular and facial skin [letter] Stark A, et al. **Am J Ophthalmol** 1999 Sep;128(3):392; discussion 393–4

Factitious disease of periocular and facial skin. Ugurlu S, et al. **Am J Ophthalmol** 1999 Feb;127(2):196–201

The functions of self-mutilation. Suyemoto KL. **Clin Psychol Rev** 1998 Aug;18(5):531–54 (89 ref.)

Autoenucleation--a culture-specific phenomenon: a case series and review. Shiwach RS. **Compr Psychiatry** 1998 Sep–Oct;39(5):318–22 (39 ref.)

Making sense of self-mutilation [news] **J Psychosoc Nurs Ment Health Serv** 1998 Sep;36(9):8

Effects of estrogen on autotomy in normal and ovariectomized rats. Tsao CM, et al. **Pharmacology** 1999 Sep;59(3):142–8

Female genital self-mutilation [letter] Alao AO, et al. **Psychiatr Serv** 1999 Jul;50(7):971

Terminator: An unusual form of self-mutilation. Bharath S, et al. **Psychopathology** 1999 Jul–Aug;32(4):184–6

[Self-injury or attempted murder--analysis of an unusual case] Riepert T, et al. **Arch Kriminol** 1999 Jan–Feb; 203(1–2):19–26 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Images in cardiovascular medicine. Sewing needle transfixing the posterior wall of the left ventricle causes death. Rossi MA, et al. **Circulation** 1999 Feb 16;99(6):843–4

SELF PERCEPTION see **SELF CONCEPT**

SELF PSYCHOLOGY

see related
NARCISSISM

Self psychology interpretation of the Thematic Apperception Test. Benziman H, et al. **Bull Menninger Clin** 1999 Winter; 63(1):103–10

Conflict and aggression in couples therapy: a self psychological vantge point. Livingston MS. **Fam Process** 1998 Fall;37(3):311–21

Self-structure and self-transformation in group psychotherapy. Cohen BD, et al. **Int J Group Psychother** 1999 Jan;49(1):61–83

Vulnerability, tenderness, and the experience of selfobject relationship: a self psychological view of deepening curative process in group psychotherapy. Livingston MS. **Int J Group Psychother** 1999 Jan;49(1):19–40

Countertransference. Hinshelwood RD. **Int J Psychoanal** 1999 Aug;80 (Pt 4):797–818 (104 ref.)

Empathy in psychotherapy and psychoanalysis. Chessick RD. **J Am Acad Psychoanal** 1998 Winter;26(4):487–502

Attitudes of embeddedness and transcendence in psychoanalysis: subjectivity, self-experience, and countertransference. Coburn WJ. **J Am Acad Psychoanal** 1999 Spring;27(1):101–19

Trauma, dissociation, and somatization: a self-psychological perspective. Miliora MT. **J Am Acad Psychoanal** 1998 Summer;26(2):273–93

Self and observer reports of interpersonal problems in couples. Foltz C, et al. **J Clin Psychol** 1999 Jan;55(1):27–37

Conceptualization and treatment of rage in self psychology. Ornstein PH. **J Clin Psychol** 1999 Mar;55(3):283–93

A longitudinal study of the relationship of self-preoccupation with depression. Sakamoto S. **J Clin Psychol** 1999 Jan; 55(1):109–16

The broken mirror. A self psychological treatment perspective for relationship violence. Wexler DB. **J Psychother Pract Res** 1999 Spring;8(2):129–41

Resilience in child survivors of the Holocaust: toward the concept of resilience. Valent P. **Psychoanal Rev** 1998 Aug; 85(4):517–35 (33 ref.)

A hot/cool-system analysis of delay of gratification: dynamics of willpower. Metcalfe J, et al. **Psychol Rev** 1999 Jan;106(1):3–19

Stories of illness and trauma survival: liberation or repression? Crossley ML. **Soc Sci Med** 1999 Jun;48(11):1685–95

[Energy-saving, effective and elegant. Awareness through motion. Body perception and relaxation technic, no. 2: Hightened self-awareness through bodily and spiritual training] Wagner B. **Fortschr Med** 1999 Apr 30; 117(12):37–8 **(Ger)**

[Self-reference effect on implicit and explicit memory tasks] Fujita T, et al. **Shinrigaku Kenkyu** 1998 Dec;69(5):414–20 (Eng. Abstr.) **(Jpn)**

[Free from stress by autogenic therapy. Relaxation technique yielding peace of mind and self-insight] Broms C. **Lakartidningen** 1999 Feb 10;96(6):588–92 (20 ref.) (Eng. Abstr.) **(Swe)**

SELF-REFERRAL, PHYSICIAN see **PHYSICIAN SELF-REFERRAL**

SELF STIMULATION

Alterations in the density of excrescences in CA3 neurons of hippocampus in rats subjected to self-stimulation experience. Shankaranarayana Rao BS, et al. **Brain Res** 1998 Sep 7;804(2):320–4

Dissociation of dopamine release in the nucleus accumbens from intracranial self-stimulation. Garris PA, et al. **Nature** 1999 Mar 4;398(6722):67–9

Regional differences in desensitization of c-Fos expression following repeated self-stimulation of the medial forebrain bundle in the rat. Nakahara D, et al. **Neuroscience** 1999 Mar;90(3):1013–20

Self-stimulation rewarding experience induced alterations in dendritic spine density in CA3 hippocampal and layer V motor cortical pyramidal neurons. Shankaranarayana Rao BS, et al. **Neuroscience** 1999;89(4):1067–77

Involvement of the ventral tegmental area opiate receptors in self-stimulation elicited from the ventral pallidum. Panagis G, et al. **Psychopharmacology (Berl)** 1998 Oct; 139(3):222–9

DRUG EFFECTS

Amphetamine injections into the nucleus accumbens enhance the reward of stimulation of the subiculum. Sweet KL, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:828–30

Effect of chronic nicotine on brain stimulation reward. I. Effect of daily injections. Bozarth MA, et al. **Behav Brain Res** 1998 Nov;96(1–2):185–8

Effect of chronic nicotine on brain stimulation reward. II. An escalating dose regimen. Bozarth MA, et al. **Behav Brain Res** 1998 Nov;96(1–2):189–94

Effects of D1 and D2 dopamine receptor antagonists on cocaine-induced self-stimulation and locomotor activity in rats. Kita K, et al. **Eur Neuropsychopharmacol** 1999 Jan; 9(1–2):1–7

A dopamine D1 agonist elevates self-stimulation thresholds: comparison to other dopamine-selective drugs. Baldo BA, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):659–72

RU 24969, a 5-HT1A/1B agonist, elevates brain stimulation reward thresholds: an effect reversed by GR 127935, a 5-HT1B/1D antagonist. Harrison AA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):242–50

The effects of dopamine D3/D2 receptor agonists on intracranial self stimulation in the rat. Hatcher JP, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):405–10

PHYSIOLOGY

Activation of reward-relevant neurons in the caudate-putamen influences the development of medial prefrontal cortex self-stimulation: a moveable electrode

mapping study. Bielajew C, et al.
Acta Neurobiol Exp (Warsz) 1998;58(3):189–98
Functional connections between medial prefrontal cortex and caudate–putamen in brain–stimulation reward of rats. Trzcińska M, et al. **Behav Neurosci** 1998 Oct;112(5):1177–86
Involvement of the parafascicular nucleus in the facilitative effect of intracranial self–stimulation on active avoidance in rats. Massanés–Rotger E, et al. **Brain Res** 1998 Oct 19; 808(2):220–31
Intracranial self–stimulation in the parafascicular nucleus of the rat. Vale–Martínez A, et al. **Brain Res Bull** 1999 Mar 1;48(4):401–6
Vulnerability to stressor–induced disturbances in self–stimulation from the dorsal and ventral A10 area: differential effects of intraventricular D–Ala2–Met5–enkephalinamide, D–Ala2, N–Me–Phe4, Gly–Ol5–enkephalin, and D–Pen2, D–Pen5–enkephalin administration. Zacharko RM, et al. **Brain Res Bull** 1998 Oct;47(3):237–48
Central cancellation of self–produced tickle sensation. Blakemore SJ, et al. **Nat Neurosci** 1998 Nov;1(7):635–40
Self–stimulation of lateral hypothalamus and ventral tegmentum increases the levels of noradrenaline, dopamine, glutamate, and AChE activity, but not 5–hydroxytryptamine and GABA levels in hippocampus and motor cortex. Shankaranarayana Rao BS, et al.
Neurochem Res 1998 Aug;23(8):1053–9
Increased numerical density of synapses in CA3 region of hippocampus and molecular layer of motor cortex after self–stimulation rewarding experience. Rao BS, et al.
Neuroscience 1999;91(3):799–803
Effects of NMDA lesions of the medial basal forebrain on LH and VTA self–stimulation. Arvanitogiannis A, et al.
Physiol Behav 1999 Jan 1–15;65(4–5):805–10
A search for the metabolic signal that sensitizes lateral hypothalamic self–stimulation in food–restricted rats. Cabeza De Vaca S, et al. **Physiol Behav** 1998 Jun 1; 64(3):251–60

SELF TOLERANCE

see related
AUTOIMMUNE DISEASES
CLONAL ANERGY
CLONAL DELETION

Immunological self/nonself discrimination: integration of self vs nonself during cognate T cell interactions with antigen–presenting cells. Mannie MD. **Immunol Res** 1999; 19(1):65–87 (154 ref.)
Critical self–epitopes are key to the understanding of self–tolerance and autoimmunity. Dighiero G, et al.
Immunol Today 1999 Sep;20(9):423–8 (65 ref.)
Death by neglect as a deletional mechanism of peripheral tolerance. Bertolino P, et al. **Int Immunol** 1999 Aug; 11(8):1225–38
A minimal level of MHC class II expression is sufficient to abrogate autoreactivity. de Bont ES, et al. **Int Immunol** 1999 Aug;11(8):1295–306
Immunologic self–tolerance maintained by CD25+CD4+ naturally anergic and suppressive T cells: induction of autoimmune disease by breaking their anergic/suppressive state. Takahashi T, et al. **Int Immunol** 1998 Dec; 10(12):1969–80
Dual MHC class I and class II restriction of a single T cell receptor: distinct modes of tolerance induction by two classes of autoantigens. Arsov I, et al. **J Immunol** 1999 Feb 15;162(4):2008–15
Tolerance and alloreactivity of the Ly49D subset of murine NK cells. George TC, et al. **J Immunol** 1999 Aug 15; 163(4):1859–67

GENETICS

In vivo selection of neutralization–resistant virus variants but no evidence of B cell tolerance in lymphocytic choriomeningitis virus carrier mice expressing a transgenic virus–neutralizing antibody. Seiler P, et al. **J Immunol** 1999 Apr 15;162(8):4536–41
Transcription of a broad range of self–antigens in human thymus suggests a role for central mechanisms in tolerance toward peripheral antigens. Sospedra M, et al.
J Immunol 1998 Dec 1;161(11):5918–29

IMMUNOLOGY

Regaining self–control—regulation and immunotherapy [editorial] Isaacs JD, et al. **Br J Rheumatol** 1998 Sep; 37(9):926–9
Linkage of immune self–tolerance with the positive selection of T cells. Rubin RL, et al. **Crit Rev Immunol** 1999; 19(3):199–218 (141 ref.)
Peripheral–antigen–expressing cells in thymic medulla: factors in self–tolerance and autoimmunity. Hanahan D. **Curr Opin Immunol** 1998 Dec;10(6):656–62 (36 ref.)
MHC restriction to T–cell autoaggression: an emerging understanding of IDDM pathogenesis. Choudhuri K, et al. **Diabetes Metab Rev** 1998 Dec;14(4):285–301 (108 ref.)
The presentation of self and allogeneic MHC peptides to T lymphocytes. Benichou G, et al. **Hum Immunol** 1998 Sep; 59(9):540–8 (44 ref.)
The evolution of self–tolerance: a new cell arises to meet the challenge of self–reactivity. de St Groth BF.
Immunol Today 1998 Oct;19(10):448–54
Expansion of neonatal tolerance to self in adult life: II. Tolerance preferentially spreads in an intramolecular manner. Grabie N, et al. **Int Immunol** 1999 Jun;11(6):907–13
Thymus and autoimmunity: production of CD25+CD4+ naturally anergic and suppressive T cells as a key function of the thymus in maintaining immunologic self–tolerance. Itoh M, et al. **J Immunol** 1999 May 1;162(9):5317–26
Control of neonatal tolerance to tissue antigens by peripheral T cell trafficking. Alferink J, et al. **Science** 1998 Nov 13; 282(5392):1338–41
The self–nonself discrimination in the context of function. Cohn M. **Theor Med Bioeth** 1998 Sep;19(5):475–84; discussion 485–504 (6 ref.)
Conceptual shifts in immunology: comments on the "two–way paradigm" [comment] Tauber AI.
Theor Med Bioeth 1998 Sep;19(5):457–73 (39 ref.). Comment on: Theor Med Bioeth 1998 Sep;19(5):441–55.
Immune tolerance to self–MHC class II antigens after bone marrow transplantation. Hess A, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):688–9

PHYSIOLOGY

The function of TGF–beta–mediated innocent bystander suppression associated with physiological self–tolerance in vivo. Teng YT, et al. **Cell Immunol** 1998 Nov 25; 190(1):51–60
On the intrathymic intercellular transfer of self–determinants. Viret C, et al. **Immunol Today** 1999 Jan;20(1):8–10 (20 ref.)
Expansion of neonatal tolerance to self in adult life: I. The role of a bacterial adjuvant in tolerance spread. Grabie N, et al. **Int Immunol** 1999 Jun;11(6):899–906
The thymic repertoire of neuroendocrine–related self antigens: biological role in T–cell selection and pharmacological implications. Geenen V, et al.
Neuroimmunomodulation 1999 Jan–Apr;6(1–2):115–25 (107 ref.)

SELLA TURCICA

see related
EMPTY SELLA SYNDROME

Non–neoplastic cystic lesions of the sellar region presentation, diagnosis and management of eight cases and review of the literature. Iqbal J, .et al.
Acta Neurochir (Wien) 1999;141(4):389–97; discussion 397–8 (41 ref.)
Demonstration of the optic pathway in sellar/juxtasellar tumours with visual disturbance on MR imaging. Sumida M, et al. **Acta Neurochir (Wien)** 1998;140(6):541–8
Multifocal fibrosclerosis presenting as Grave's orbitopathy. Bilateral exophthalmos associated with retroperitoneal and sellar fibrosis. van der Pol R, et al.
Graefes Arch Clin Exp Ophthalmol 1999 Mar;237(3):256–8
Extrapituitary parasellar microadenoma in Cushing's disease. Pluta RM, et al. **J Clin Endocrinol Metab** 1999 Aug; 84(8):2912–23 (61 ref.)
Long–term functional outcome of suprasellar germinomas: usefulness and limitations of radiotherapy. Oka H, et al.
J Neurooncol 1998 Nov;40(2):185–90
Suprasellar germinomas in childhood and adolescence: diagnostic pitfalls. Ramelli GP, et al.
J Pediatr Endocrinol Metab 1998 Nov–Dec;11(6):693–7
Neuro–oncology–endocrinology interface: A patient who earned her salt [clinical conference] Janss AJ, et al.
Med Pediatr Oncol 1999 Oct;33(4):413–7
Diaphragma sellae metastasis from colon carcinoma mimicking a meningioma. A case report. Neroni M, et al.
Neurochirurgie 1999 May;45(2):160–3
[Intrasellar epidermoid cysts] Civit T, et al.
Neurochirurgie 1999 May;45(2):150–4 (Eng. Abstr.) **(Fre)**

ABNORMALITIES

Spontaneous transethmoidal cerebrospinal fluid fistula associated with empty sella [letter] Minutoli F, et al.
Eur Radiol 1999;9(3):571

ANATOMY & HISTOLOGY

Approaches to the sellar and parasellar region: anatomic comparison of the microscope versus endoscope. Spencer WR, et al. **Laryngoscope** 1999 May;109(5):791–4
Is there a dural wall between the cavernous sinus and the pituitary fossa? Anatomical and MRI findings. Dietemann JL, et al. **Neuroradiology** 1998 Oct;40(10):627–30

EMBRYOLOGY

Pituitary gland and sella turcica in human trisomy 21 fetuses related to axial skeletal development. Kjaer I, et al.
Am J Med Genet 1998 Dec 28;80(5):494–500

PATHOLOGY

Intrasellar malignant lymphoma developing within pituitary adenoma. Kuhn D, et al. **Acta Neuropathol (Berl)** 1999 Mar; 97(3):311–6
Xanthogranuloma of the sellar region: a clinicopathological entity different from adamantinomatous craniopharyngioma. Paulus W, et al.
Acta Neuropathol (Berl) 1999 Apr;97(4):377–82
Intraoperative cytologic diagnosis of suprasellar and sellar cystic lesions. Smith AR, et al. **Diagn Cytopathol** 1999 Mar; 20(3):137–47
Differential diagnosis of sellar masses. Freda PU, et al.
Endocrinol Metab Clin North Am 1999 Mar;28(1):81–117, vi (165 ref.)
Long–term follow–up of germinoma after stereotactic biopsy and brain radiotherapy: a cell kinetics study. Franzini A, et al. **J Neurol** 1998 Sep;245(9):593–7
Postoperative sella: evaluation with fast spin echo T2–weighted high–resolution imaging. Nakasu Y, et al.
Neurosurgery 1998 Sep;43(3):440–6; discussion 446–7
Imaging of sellar and parasellar pathology. FitzPatrick M, et al. **Radiol Clin North Am** 1999 Jan;37(1):101–21, x (80 ref.)
Sellar–sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461–3; discussion 463–4
Suprasellar osteolipoma: case report. Sinson G, et al.
Surg Neurol 1998 Nov;50(5):457–60
[Differential diagnosis of expansive lesions in the sellar region using magnetic resonance imaging] Seidl Z, et al.
Cas Lek Cesk 1998 Dec 14;137(24):743–9 (Eng. Abstr.) **(Cze)**
[A case of parasellar tumor with double histological texture: chromophobe pituitary adenoma and epidermoid cyst] Kaspera W, et al. **Neurol Neurochir Pol** 1998 Jul–Sep; 32(4):987–96 (Eng. Abstr.) **(Pol)**
[Empty sella syndrome] Kulakowska A, et al.
Neurol Neurochir Pol 1999 Mar–Apr;33(2):451–9 (Eng. Abstr.) **(Pol)**

RADIOGRAPHY

Sellar–sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461–3; discussion 463–4
Suprasellar osteolipoma: case report. Sinson G, et al.
Surg Neurol 1998 Nov;50(5):457–60
[Empty sella syndrome] Kulakowska A, et al.
Neurol Neurochir Pol 1999 Mar–Apr;33(2):451–9 (Eng. Abstr.) **(Pol)**

SURGERY

Transsphenoidal–transtuberculum sellae approach for supradiaphragmatic tumours: technical note. Kato T, et al.
Acta Neurochir (Wien) 1998;140(7):715–8; discussion 719
Transnasal endoscopic approach to the sella turcica. Aust MR, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):283–7
A combined, minimally invasive transnasal approach to the sella turcica. Nasseri SS, et al. **Am J Rhinol** 1998 Nov–Dec; 12(6):409–16
Approaches to the sellar and parasellar region: anatomic comparison of the microscope versus endoscope. Spencer WR, et al. **Laryngoscope** 1999 May;109(5):791–4
Instruments for endoscopic endonasal transsphenoidal surgery. Cappabianca P, et al. **Neurosurgery** 1999 Aug; 45(2):392–5; discussion 395–6
Frameless stereotaxy for transsphenoidal surgery. Elias WJ, et al. **Neurosurgery** 1999 Aug;45(2):271–5; discussion 275–7
[A case of parasellar tumor with double histological texture: chromophobe pituitary adenoma and epidermoid cyst] Kaspera W, et al. **Neurol Neurochir Pol** 1998 Jul–Sep; 32(4):987–96 (Eng. Abstr.) **(Pol)**

SEMANTIC DIFFERENTIAL

Conceptual processing during the conscious resting state. A functional MRI study. Binder JR, et al.
J Cogn Neurosci 1999 Jan;11(1):80–95
The naming deficit in early Alzheimer's and vascular dementia. Lukatela K, et al. **Neuropsychology** 1998 Oct; 12(4):565–72
Evidence for an impaired ability to determine semantic relations in Alzheimer's disease patients. Sailor KM, et al.
Neuropsychology 1998 Oct;12(4):555–64

STATISTICS & NUMERICAL DATA

Perception of physical variables during four phases of the menstrual cycle. Jacobson BH, et al. **Percept Mot Skills** 1998 Oct;87(2):565–6

SEMANTICS

Sensitivity to semantic cuing: an index of episodic memory dysfunction in early Alzheimer disease. Tounsi H, et al.
Alzheimer Dis Assoc Disord 1999 Jan;13(1):38–46
Cognitive substrates of thought disorder, II: specifying a candidate cognitive mechanism [comment] Aloia MS, et al. **Am J Psychiatry** 1998 Dec;155(12):1677–84. Comment on: Am J Psychiatry 1998 Dec;155(12):1671–6.
Cognitive substrates of thought disorder, I: the semantic system [see comments] Goldberg TE, et al.
Am J Psychiatry 1998 Dec;155(12):1671–6. Comment in: Am J Psychiatry 1998 Dec;155(12):1677–84.
Reading in two alphabets. Lukatela G, et al. **Am Psychol** 1998 Sep;53(9):1057–72
The effect of importance level, delay, and rate of forgetting on prose recall in multiple sclerosis. Lokken K, et al.
Appl Neuropsychol 1999;6(3):147–53
Optimal short forms of the Spanish WAIS (EIWA). Demsky Y, et al. **Assessment** 1998 Dec;5(4):361–4
Automatically deriving readers' knowledge structures from texts. Foltz PW, et al.
Behav Res Methods Instrum Comput 1999 May;31(2):208–14

Measuring symbol and icon characteristics: norms for concreteness, complexity, meaningfulness, familiarity, and semantic distance for 239 symbols. McDougall SJ, et al. **Behav Res Methods Instrum Comput** 1999 Aug; 31(3):487–519

Chinese characters: semantic and phonetic regularity norms for China, Singapore, and Taiwan. Rickard Liow SJ, et al. **Behav Res Methods Instrum Comput** 1999 Feb; 31(1):155–77

Modulation of language processing in schizophrenia: effects of context and haloperidol on the event-related potential. Condray R, et al. **Biol Psychiatry** 1999 May 15; 45(10):1336–55

Semantic integration in reading: engagement of the right hemisphere during discourse processing. St George M, et al. **Brain** 1999 Jul;122 (Pt 7):1317–25

Electrophysiological manifestations of open- and closed-class words in patients with Broca's aphasia with agrammatic comprehension. An event-related brain potential study. ter Keurs M, et al. **Brain** 1999 May;122 (Pt 5):839–54

Cerebral hemispheric mechanisms linking ambiguous word meaning retrieval and creativity. Atchley RA, et al. **Brain Cogn** 1999 Aug;40(3):479–99 (79 ref.)

Subcortical mechanisms in language: lexical-semantic mechanisms and the thalamus. Crosson B. **Brain Cogn** 1999 Jul;40(2):414–38

Interpreting ambiguous advertisements: the effect of frontal lobe damage. Pearce S, et al. **Brain Cogn** 1998 Nov; 38(2):150–64

Chronic electrical stimulation of the left ventrointermediate (Vim) thalamic nucleus for the treatment of pharmacotherapy-resistant Parkinson's disease: a differential impact on access to semantic and episodic memory? Tröster AI, et al. **Brain Cogn** 1998 Nov; 38(2):125–49 (120 ref.)

Why do Alzheimer patients have difficulty with pronouns? Working memory, semantics, and reference in comprehension and production in Alzheimer's disease. Almor A, et al. **Brain Lang** 1999 May;67(3):202–27

False memories and semantic lexicon arrangement. Buchanan L, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):172–7

Morpholexical access and naming: the semantic interpretability of new root-suffix combinations. Burani C, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):333–9

What do category-specific semantic deficits tell us about the representation of lexical concepts? de Almeida RG. **Brain Lang** 1999 Jun 1–15;68(1–2):241–8

An integrated model of meaning and sense activation and disambiguation. Dixon P, et al. **Brain Lang** 1999 Jun 1–15; 68(1–2):165–71

Morphological priming: the role of prime duration, semantic transparency, and affix position. Feldman LB, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):33–9

Semantic features and semantic categories: differences in rapid activation of the lexicon. Frenck-Mestre C, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):199–204

Decision latencies for phonological and semantic information in object identification. Goodglass H, et al. **Brain Lang** 1999 Feb 1;66(2):294–305

Impaired comprehension of raising-to-subject constructions in Parkinson's disease. Kemmerer D. **Brain Lang** 1999 Feb 15;66(3):311–28

Right hemisphere activation during indirect semantic priming: evidence from event-related potentials. Kiefer M, et al. **Brain Lang** 1998 Oct 1;64(3):377–408

Strategies of semantic categorization in the cerebral hemispheres. Koivisto M, et al. **Brain Lang** 1999 Feb 15; 66(3):341–57

Lemmas and lexemes: the evidence from blends. Laubstein AS. **Brain Lang** 1999 Jun 1–15;68(1–2):135–43

Lexical encoding of event participant information. Mauner G, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):178–84

The phonology-morphosyntax interface: affixed words in agrammatism. Obler LK, et al. **Brain Lang** 1999 Jun 1–15; 68(1–2):233–40

Bilingual aphasia: semantic organization, strategy use, and productivity in semantic verbal fluency. Roberts PM, et al. **Brain Lang** 1998 Nov;65(2):287–312

Agrammatic aphasic subjects' comprehension of subject and object extracted Wh questions. Thompson CK, et al. **Brain Lang** 1999 May;67(3):169–87

Hemispheric differences in context sensitivity during lexical ambiguity resolution. Titone D. **Brain Lang** 1998 Dec; 65(3):361–94

Please use another term [letter; comment] Sloan J. **Can Fam Physician** 1998 Oct;44:2066. Comment on: Can Fam Physician 1998 Jun;44:1329–30.

The deterioration of semantic memory in Alzheimer's disease. Salmon DP, et al. **Can J Exp Psychol** 1999 Mar; 53(1):108–17 (56 ref.)

Nouns and verbs in the intact brain: evidence from event-related potentials and high-frequency cortical responses. Pulvermüller F, et al. **Cereb Cortex** 1999 Jul–Aug;9(5):497–506

The role of semantic context and memory in the acquisition of novel nouns. Goodman JC, et al. **Child Dev** 1998 Oct; 69(5):1330–44

Individual differences in contextual facilitation: evidence from dyslexia and poor reading comprehension. Nation K, et al. **Child Dev** 1998 Aug;69(4):996–1011

Anatomical spaces: a review [see comments] Newell RL. **Clin Anat** 1999;12(1):66–9 (31 ref.). Comment in: Clin Anat 1999 ;12(1):70–1.

Cortical activation related to auditory semantic matching of concrete versus abstract words. Krause CM, et al. **Clin Neurophysiol** 1999 Aug;110(8):1371–7

Science, sex and semantics: the firing of George Lundberg [editorial] Hoey J, et al. **CMAJ** 1999 Feb 23;160(4):507–8

More is not always better: a response to Roelofs, Meyer, and Levelt [comment] Caramazza A, et al. **Cognition** 1998 Dec;69(2):231–41. Comment on: Cognition 1998 Dec;69(2):219–30.

Taking on semantic commitments, II: Collective versus distributive readings. Frazier L, et al. **Cognition** 1999 Feb 1;70(1):87–104

When nonwords activate semantics better than words. Lukatela G, et al. **Cognition** 1998 Aug;68(2):B31–40

Developmental differences in sensitivity to semantic relations among good and poor comprehenders: evidence from semantic priming. Nation K, et al. **Cognition** 1999 Feb 1; 70(1):B1–13

Conditional reasoning, causality, and the structure of semantic memory: strength of association as a predictive factor for content effects. Quinn S, et al. **Cognition** 1998 Sep;68(3):B93–101

A case for the lemma/lexeme distinction in models of speaking: comment on Caramazza and Miozzo (1997) [comment] [see comments] Roelofs A, et al. **Cognition** 1998 Dec;69(2):219–30. Comment on: Cognition 1997 Sep;64(3):309–43. Comment in: Cognition 1998 Dec;69(2):231–41.

Sensitivity to discontinuous dependencies in language learners: evidence for limitations in processing space. Santelmann LM, et al. **Cognition** 1998 Dec;69(2):105–34

Achieving incremental semantic interpretation through contextual representation. Sedivy JC, et al. **Cognition** 1999 Jun 22;71(2):109–47

Independent judgment-linked and motor-linked forms of artificial grammar learning. Seger CA. **Conscious Cogn** 1998 Jun;7(2):259–84

Associative visual agnosia resulting from a disconnection between intact visual memory and semantic systems. Carlesimo GA, et al. **Cortex** 1998 Sep;34(4):563–76

Cortical networks implicated in semantic and episodic memory: common or unique? Dalla Barba G, et al. **Cortex** 1998 Sep;34(4):547–61

The more you know the less you can tell: inhibitory effects of visuo-semantic activation on modality specific visual misnaming. Goldenberg G, et al. **Cortex** 1998 Sep; 34(4):471–91

When a rose is a rose in speech but a tulip in writing. Hillis AE, et al. **Cortex** 1999 Jun;35(3):337–56

Comprehension of prosody in Parkinson's disease. Lloyd AJ. **Cortex** 1999 Jun;35(3):389–402

Semantically-triggered reading epilepsy: an experimental case study. Pegna AJ, et al. **Cortex** 1999 Feb;35(1):101–11

Selective sparing of verb naming in a case of severe Alzheimer's disease. Robinson G, et al. **Cortex** 1999 Jun; 35(3):443–50

Humpty Dumpty and the language of euthanasia. Kelleher MJ. **Crisis** 1998;19(3):100–1

Episodic memory: new insights from the study of semantic dementia. Graham KS, et al. **Curr Opin Neurobiol** 1999 Apr;9(2):245–50 (73 ref.)

Semantics, inflammation, cytokines and common sense. Kushner I. **Cytokine Growth Factor Rev** 1998 Sep–Dec; 9(3–4):191–6 (63 ref.)

When does an ostrich become a bird? The role of typicality in early word comprehension. Meints K, et al. **Dev Psychol** 1999 Jul;35(4):1072–8

Developing successful performance appraisals through choosing appropriate words to effectively describe work. Timmreck TC. **Health Care Manage Rev** 1998 Summer; 23(3):48–57 (14 ref.)

Phonology, semantics, and the role of the left inferior prefrontal cortex [editorial] Fiez JA. **Hum Brain Mapp** 1997;5(2):79–83 (39 ref.)

Spatio-temporal analysis of electric brain activity during semantic and phonological word processing. Khateb A, et al. **Int J Psychophysiol** 1999 Jun;32(3):215–31

Preattentive bias for emotional information in panic disorder with agoraphobia. Lundh LG, et al. **J Abnorm Psychol** 1999 May;108(2):222–32

The power of the word: some post-structural considerations of qualitative approaches in nursing research. Crowe M. **J Adv Nurs** 1998 Aug;28(2):339–44 (22 ref.)

The place of metaphor and language in exploring nurses' emotional work. Froggatt K. **J Adv Nurs** 1998 Aug; 28(2):332–8

A semantic lexicon for medical language processing. Johnson SB. **J Am Med Inform Assoc** 1999 May–Jun;6(3):205–18

The use of orthographic analogies in learning to read Chinese. Ho CS, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):393–403

Lexical decision in Parkinson's disease: A comment on Spicer, Brown, and Gorell (1994), and McDonald, Brown, and Gorell (1996) [see comments] Arnott WL, et al. **J Clin Exp Neuropsychol** 1999 Jun;21(3):289–300. Comment in: J Clin Exp Neuropsychol 1999 Jun;21(3):301–11.

Lexical priming on Neely's (1977) paradigm in Parkinson's disease: where do we stand? [comment] Brown GG, et al. **J Clin Exp Neuropsychol** 1999 Jun;21(3):301–11. Comment on: J Clin Exp Neuropsychol 1999 Jun;21(3):289–300.

Pupillary responses evoked during verbal fluency tasks indicate semantic network dysfunction in schizophrenia. Granholm E, et al. **J Clin Exp Neuropsychol** 1998 Dec; 20(6):856–72

Assessment of functional cerebral laterality for language using magnetoencephalography. Simos PG, et al. **J Clin Neurophysiol** 1998 Jul;15(4):364–72

Semantic and visual determinants of face recognition in a prosopagnosic patient. Dixon MJ, et al. **J Cogn Neurosci** 1998 May;10(3):362–76

Auxiliary selection in Italian: a comment on Miozzo and Caramazza's "On knowing the auxiliary of a verb that cannot be named: evidence for the independence of grammatical and phonological aspects of lexical knowledge". Kemmerer D. **J Cogn Neurosci** 1998 May; 10(3):421–3

Functional neuroanatomy of the semantic system: divisible by what? Mummery CJ, et al. **J Cogn Neurosci** 1998 Nov; 10(6):766–77

Delineating necessary and sufficient neural systems with functional imaging studies of neuropsychological patients. Price CJ, et al. **J Cogn Neurosci** 1999 Jul;11(4):371–82

Semantic processing of spoken words in Alzheimer's disease: an electrophysiological study. Revonsuo A, et al. **J Cogn Neurosci** 1998 May;10(3):408–20

Phonemes, rhymes, and intelligence as predictors of children's responsiveness to remedial reading instruction: evidence from a longitudinal intervention study. Hatcher PJ, et al. **J Exp Child Psychol** 1999 Feb;72(2):130–53

Phonological and semantic processes influence beginning readers' ability to learn to read words. Laing E, et al. **J Exp Child Psychol** 1999 Jul;73(3):183–207

A deficit in the short-term retention of lexical-semantic information: forgetting words but remembering a story. Romani C, et al. **J Exp Psychol Gen** 1999 Mar;128(1):56–77

Reading homographs: orthographic, phonologic, and semantic dynamics. Gottlob LR, et al. **J Exp Psychol Hum Percept Perform** 1999 Apr;25(2):561–74

Interactions between color and word processing in a flanker task. Henik A, et al. **J Exp Psychol Hum Percept Perform** 1999 Feb; 25(1):198–209

Processing lexically embedded spoken words. Luce PA, et al. **J Exp Psychol Hum Percept Perform** 1999 Feb; 25(1):174–83

Levels of representation in visual word recognition: a dissociation between morphological and semantic processing. Stolz JA, et al. **J Exp Psychol Hum Percept Perform** 1998 Dec; 24(6):1642–55

Semantic and phonological information flow in the production lexicon. Cutting JC, et al. **J Exp Psychol Learn Mem Cogn** 1999 Mar;25(2):318–44

Semantic and phonological codes interact in single word production. Damian MF, et al. **J Exp Psychol Learn Mem Cogn** 1999 Mar;25(2):345–61

Dual-coding, context-availability, and concreteness effects in sentence comprehension: an electrophysiological investigation. Holcomb PJ, et al. **J Exp Psychol Learn Mem Cogn** 1999 May;25(3):721–42

Syntactic ambiguity resolution in discourse: modeling the effects of referential context and lexical frequency. Spivey MJ, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov; 24(6):1521–43

Priming of visual and functional knowledge on a semantic classification task. Thompson-Schill SL, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):41–53

Time course of word identification and semantic integration in spoken language. Van Petten C, et al. **J Exp Psychol Learn Mem Cogn** 1999 Mar;25(2):394–417

Episodic and semantic contributions to older adults' autobiographical recall. Rybash JM, et al. **J Gen Psychol** 1999 Jan;126(1):85–96

Evidence for impaired sentence comprehension in early Alzheimer's disease. Croot K, et al. **J Int Neuropsychol Soc** 1999 Jul;5(5):393–404

Differential association of HIV-related neuropsychological impairment with semantic versus repetition priming. Jasiukaitis P, et al **J Int Neuropsychol Soc** 1999 Jul; 5(5):434–41

Neuroanatomic substrates of semantic memory impairment in Alzheimer's disease: patterns of functional MRI activation. Saykin AJ, et al. **J Int Neuropsychol Soc** 1999 Jul;5(5):377–92

The effect of semantic and emotional context on written recall for verbal language in high functioning adults with autism spectrum disorder. Beversdorf DQ, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):685–92

Sematic memory deficit in multiple sclerosis; impaired understanding of conceptual meanings. Laatu S, et al. **J Neurol Sci** 1999 Jan 15;162(2):152–61

Looking back at anger: reference periods change the interpretation of emotion frequency questions. Winkielman P, et al. **J Pers Soc Psychol** 1998 Sep;75(3):719–28

Semantic influence on processing gender agreement: evidence from Hebrew. Deutsch A, et al. **J Psycholinguist Res** 1999 Sep;28(5):515–35

Effects of grammatical gender on picture and word naming: evidence from German. Jacobsen T. **J Psycholinguist Res** 1999 Sep;28(5):499–514

The role of sentence context in accessing partial knowledge of word meanings. Shore WJ, et al.

J Psycholinguist Res 1999 Mar;28(2):145–63
Neuro–talk: an intervention to enhance communication. Gregory RJ. **J Psychosoc Nurs Ment Health Serv** 1998 Oct;36(10):28–31 (10 ref.)
Model–based semantic treatment for naming deficits in aphasia. Drew RL, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):972–89
Defining abstract entities: development in pre–adolescents, adolescents, and young adults. Nippold MA, et al. **J Speech Lang Hear Res** 1999 Apr;42(2):473–81
Subjects or participants? [editorial] Biddle S. **J Sports Sci** 1999 Apr;17(4):261
The power of words [editorial] Freda MC. **MCN Am J Matern Child Nurs** 1999 Mar–Apr;24(2):63
Lexical integration: sequential effects of syntactic and semantic information. Friederici AD, et al. **Mem Cognit** 1999 May;27(3):438–53
An examination of the distinction between nouns and verbs: associations with two different kinds of motion. Kersten AW. **Mem Cognit** 1998 Nov;26(6):1214–32
Context effects in lexical access: a meta–analysis. Lucas M. **Mem Cognit** 1999 May;27(3):385–98
The inadvertent use of prior knowledge in a generative cognitive task. Marsh RL, et al. **Mem Cognit** 1999 Jan; 27(1):94–105
The importance of semantic similarity to the irrelevant speech effect. Neely CB, et al. **Mem Cognit** 1999 Jan;27(1):37–44
Phonological and semantic priming: evidence for task–independent effects. Rouibah A, et al. **Mem Cognit** 1999 May;27(3):422–37
The influence of semantic fit on on–line sentence processing. Schmauder AR, et al. **Mem Cognit** 1998 Nov;26(6):1304–12
Effects of divided attention on perceptual and conceptual memory tests: an analysis using a process–dissociation approach. Schmitter–Edgecombe M. **Mem Cognit** 1999 May;27(3):512–25
Context effects in visual word recognition: lexical relatedness and syntactic context. Schriefers H, et al. **Mem Cognit** 1998 Nov;26(6):1292–303
Feature centrality: naming versus imagining. Sloman SA, et al. **Mem Cognit** 1999 May;27(3):526–37
Plausibility and argument structure in sentence comprehension. Speer SR, et al. **Mem Cognit** 1998 Sep; 26(5):965–78
Sources of sentence constraint on lexical ambiguity resolution. Vu H, et al. **Mem Cognit** 1998 Sep; 26(5):979–1001
Dual–process model in semantic priming: A functional imaging perspective. Mummery CJ, et al. **Neuroimage** 1999 May;9(5):516–25
Functional specialization for semantic and phonological processing in the left inferior prefrontal cortex. Poldrack RA, et al. **Neuroimage** 1999 Jul;10(1):15–35
Creative, paranormal, and delusional thought: a consequence of right hemisphere semantic activation? Leonhard D, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):177–83
Cerebral hemispheric asymmetries in processing lexical metaphors. Anaki D, et al. **Neuropsychologia** 1998 Jul; 36(7):691–700
Sentence context and lexical ambiguity resolution by the two hemispheres. Faust M, et al. **Neuropsychologia** 1998 Sep; 36(9):827–35
Semantic category interference effects upon the reach–to–grasp movement. Jervis C, et al. **Neuropsychologia** 1999 Jun;37(7):857–68
Semantic category dissociations in naming: is there a gender effect in Alzheimer's disease? Laiacona M, et al. **Neuropsychologia** 1998 May;36(5):407–19
Identification without manipulation: a study of the relations between object use and semantic memory. Moreaud O, et al. **Neuropsychologia** 1998 Dec;36(12):1295–301
Proper name anomia: a case with sparing of the first–letter knowledge. Papagno C, et al. **Neuropsychologia** 1998 Jul; 36(7):669–79
Word and picture matching: a PET study of semantic category effects. Perani D, et al. **Neuropsychologia** 1999 Mar;37(3):293–306
Understanding ambiguous words in sentence contexts: electrophysiological evidence for delayed contextual selection in Broca's aphasia. Swaab TY, et al. **Neuropsychologia** 1998 Aug;36(8):737–61
A neural basis for category and modality specificity of semantic knowledge. Thompson–Schill SL, et al. **Neuropsychologia** 1999 Jun;37(6):671–6
Going, going, gone...? Implicit and explicit test of conceptual knowledge in a longitudinal study of semantic dementia. Tyler LK, et al. **Neuropsychologia** 1998 Dec;36(12):1313–23
Right hemisphere emotional perception: evidence across multiple channels. Borod JC, et al. **Neuropsychology** 1998 Jul;12(3):446–58
Category–specific semantic deficits: the role of familiarity and property type reexamined. Bunn EM, et al. **Neuropsychology** 1998 Jul;12(3):367–79
The differentiation of semantic dementia and frontal lobe dementia (temporal and frontal variants of frontotemporal dementia) from early Alzheimer's disease: a comparative neuropsychological study. Hodges JR, et al. **Neuropsychology** 1999 Jan;13(1):31–40
Powerlifting versus weightlifting [letter; comment] Herrick RT. **Orthopedics** 1998 Aug;21(8):837. Comment on: Orthopedics 1997 Dec;20(12):1180–3; discussion 1183–4.
Emotionality of words as related to vividness of imagery and concreteness. Campos A, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1135–40
Word–type effects in word–stem priming: evidence for semantic processing in the perceptual representation system? Cooley EL, et al. **Percept Mot Skills** 1998 Aug; 87(1):263–8
Preservation of the attribute knowledge of concepts in normal aging groups. Eustache F, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1155–62
Manual response set in a Stroop–like task involving categorization of English and Japanese words indicates a common semantic representation. Ikeda S. **Percept Mot Skills** 1998 Oct;87(2):467–74
Semantic priming of Kanji words in the cerebral hemispheres. Kawakami A, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):937–8
Expertise and performance on the emotional Stroop task. Nortje C, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1361–2
Morpho–semantic parsing of medical expressions. Baud RH, et al. **Proc AMIA Symp** 1998;:760–4
Automatic semantic interpretation of anatomic spatial relationships in clinical text. Bean CA, et al. **Proc AMIA Symp** 1998;:897–901
Cognitive integration of language and memory in bilinguals: semantic representation. Francis WS. **Psychol Bull** 1999 Mar;125(2):193–222 (165 ref.)
Increased automatic spreading activation in healthy subjects with elevated scores in a scale assessing schizophrenic language disturbances. Moritz S, et al. **Psychol Med** 1999 Jan;29(1):161–70
Sentence verification and delusions: a content–specific deficit. Rossell SL, et al. **Psychol Med** 1998 Sep;28(5):1189–98
What is meant by "misidentification" in delusional misidentification syndromes? Comparison between Capgras' syndromes and "clonal pluralization of a person'. Murai T, et al. **Psychopathology** 1998 Nov–Dec;31(6):313–7
An electrophysiological analysis of animacy effects in the processing of object relative sentences. Weckerly J, et al. **Psychophysiology** 1999 Sep;36(5):559–70
Face naming in dementia: a reply to Hodges and Greene (1998) [comment] Brennen T. **Q J Exp Psychol A** 1999 May;52(2):535–41. Comment on: Q J Exp Psychol A 1998 Feb;51(1):121–34.
The representation of sublexical orthographic–phonologic correspondences: evidence from phonological dyslexia. Lesch MF, et al. **Q J Exp Psychol A** 1998 Nov;51(4):905–38
Semantic similarity and immediate serial recall: is there a detrimental effect on order information? Saint–Aubin J, et al. **Q J Exp Psychol A** 1999 May;52(2):367–94
Assignments of meaning in epidemiology. Little M. **Soc Sci Med** 1998 Nov;47(9):1135–45 (31 ref.)
Doctor talk and diabetes: towards an analysis of the clinical construction of chronic illness. Loewe R, et al. **Soc Sci Med** 1998 Nov;47(9):1267–76
[Placebo] Bonard EC. **Rev Med Suisse Romande** 1998 Oct; 118(10):905–6 **(Fre)**
[Deficit of language comprehension in a child with semantic–pragmatic disorder—dissociation between the phonemic and semantic processing abilities] Haruhara N, et al. **No To Hattatsu** 1999 Jul;31(4):370–5 (Eng. Abstr.) **(Jpn)**
[Association meaning of the emotionally aggressive words in a group of schizophrenic patients and in healthy controls. Semantic analysis] Hunca–Bednarska A. **Psychiatr Pol** 1998 May–Jun;32(3):329–40 (Eng. Abstr.) **(Pol)**
[Cerebral evoked potentials and semantic categorization] Arroyo–Anlló EM, et al. **Rev Neurol** 1998 Nov; 27(159):795–801 (Eng. Abstr.) **(Spa)**

SEMEN

see related
SPERM BANKS
SPERMATOZOA

Manual collection and characterization of semen from Asian elephants (Elephas maximus). Schmitt DL, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):309–14
Post vasectomy semen analysis [letter] Vorster MA. **Br J Fam Plann** 1998 Jan;23(4):141
A follow–up study of semen quality and fertility in men with varicocele testis and in control subjects. Lund L, et al. **Br J Urol** 1998 Nov;82(5):682–6
Potential adverse effect of semen processing on human sperm deoxyribonucleic acid integrity. Zini A, et al. **Fertil Steril** 1999 Sep;72(3):496–9
Putting new drugs to good use [letter] Malpani A. **Hum Reprod** 1999 Feb;14(2):572
Prediction of bull fertility by combined in vitro assessments of frozen–thawed semen from young dairy bulls entering an AI–programme. Zhang BR, et al. **Int J Androl** 1999 Aug;22(4):253–60
Detection of PSP94 and its specific binding sites in the prostate adenocarcinoma cell line LNCaP. Yang JP, et al. **J Urol** 1998 Dec;160(6 Pt 1):2240–4
Improvement of semen quality in infected asymptomatic infertile male after bacteriological cure. Cardoso EM, et al. **Medicina (B Aires)** 1998;58(2):160–4
Haematospermia associated with malignant hypertension. Bhaduri S, et al. **Sex Transm Infect** 1999 Jun;75(3):200
Spermatic granuloma in the ram: diagnosis by ultrasonography and semen characteristics. Karaca F, et al. **Vet Radiol Ultrasound** 1999 Jul–Aug;40(4):402–6
Practical evaluation of the fertilising capacity of frozen–thawed horse semen. Newcombe JR. **Vet Rec** 1999 Jul 10;145(2):46–7
[Magnetic resonance images of hematospermia] Hasegawa N, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Dec; 89(12):956–60 (Eng. Abstr.) **(Jpn)**

CHEMISTRY

Biophysical and biochemical analysis of semen in infertile Nigerian males. Adejuwon CA, et al. **Afr J Med Med Sci** 1996 Sep;25(3):217–9
Fructose concentration in seminal fluids and the deoxyribonucleic acid content of spermatozoa from infertile human males. Oforofuo IA, et al. **Afr J Reprod Health** 1997 Mar;1(1):89–96
Contrasting associations of blood and semen lead concentrations with semen quality among lead smelter workers. Alexander BH, et al. **Am J Ind Med** 1998 Nov; 34(5):464–9
Sialic acid in semen of normozoospermic men. du Toit D, et al. **Arch Androl** 1998 Sep–Oct;41(2):97–101
Prostate–specific antigen (PSA) in human seminal plasma. Schieferstein G. **Arch Androl** 1999 May–Jun;42(3):193–7
Fatty acid pattern of human prostasome lipid. Arienti G, et al. **Arch Biochem Biophys** 1998 Oct 15;358(2):391–5
beta–Microseminoprotein/prostatic secretory protein is a member of immunoglobulin binding factor family. Kamada M, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):101–10
Seminal plasma choline phospholipid–binding proteins stimulate cellular cholesterol and phospholipid efflux. Moreau R, et al. **Biochim Biophys Acta** 1999 Apr 19; 1438(1):38–46
Equine CRISP–3: primary structure and expression in the male genital tract. Schambony A, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1–2):206–16
The motility of human spermatozoa as influenced by prostasomes at various pH levels. Arienti G, et al. **Biol Cell** 1999 Jan;91(1):51–4
Molecular models of acidic peptides from pea bud chromatin and seminal plasma. Divalent cations–mediated interaction with DNA. Mancinelli L, et al. **Biol Chem** 1999 Jan; 380(1):31–40
Major proteins of bovine seminal plasma and high–density lipoprotein induce cholesterol efflux from epididymal sperm. Thérien I, et al. **Biol Reprod** 1998 Oct;59(4):768–76
Rapid, simple alkaline extraction of human genomic DNA from whole blood, buccal epithelial cells, semen and forensic stains for PCR. Rudbeck L, et al. **Biotechniques** 1998 Oct;25(4):588–90, 592
Prostate specific antigen is detectable in formalin–fixed semen. Eyre RC, et al. **BJU Int** 1999 Feb;83(3):265–8
Automated nephelometric assay for seminal fluid transferrin. Lefèvre F, et al. **Clin Chem** 1998 Dec;44(12):2544–6
Seminal androgen concentrations and residual sperm cytoplasm. Laudat A, et al. **Clin Chim Acta** 1998 Aug 10; 276(1):11–8
Cytokine levels in seminal plasma. Matalliotakis I, et al. **Clin Exp Obstet Gynecol** 1998;25(1–2):58–60
Characterisation of the conformational and quaternary structure–dependent heparin–binding region of bovine seminal plasma protein PDC–109. Calvete JJ, et al. **FEBS Lett** 1999 Feb 12;444(2–3):260–4
Vascular endothelial growth factor and its receptors in male fertility. Obermair A, et al. **Fertil Steril** 1999 Aug; 72(2):269–75
Aneuploidy frequencies in semen fractions from ten oligoasthenoteratozoospermic patients donating sperm for intracytoplasmic sperm injection. Pfeffer J, et al. **Fertil Steril** 1999 Sep;72(3):472–8
Isolation, partial characterization and biological activity of mannosyl glycopeptides from seminal plasma. Lopes CH, et al. **Glycoconj J** 1998 May;15(5):477–81
Seminal transforming growth factor–beta in normal and infertile men. Loras B, et al. **Hum Reprod** 1999 Jun; 14(6):1534–9
Evaluation of prostate–specific antigen (PSA) membrane test assays for the forensic identification of seminal fluid. Hochmeister MN, et al. **J Forensic Sci** 1999 Sep; 44(5):1057–60
Spermadhesins of the AQN and AWN families, DQH sperm surface protein and HNK protein in the heparin–binding fraction of boar seminal plasma. Jonáková V, et al. **J Reprod Fertil** 1998 Sep;114(1):25–34
Occurrence of prostasome–like membrane vesicles in equine seminal plasma. Minelli A, et al. **J Reprod Fertil** 1998 Nov; 114(2):237–43
Serum and semen prostate specific antigen concentrations are different in young spinal cord injured men compared to normal controls. Lynne CM, et al. **J Urol** 1999 Jul; 162(1):89–91
Prostate specific origin of dipeptidylpeptidase IV (CD–26) in human seminal plasma. Wilson MJ, et al. **J Urol** 1998 Nov;160(5):1905–9
Electroejaculation and semen characteristics of the captive Hokkaido brown bear (Ursus arctos yesoensis). Ishikawa A, et al. **J Vet Med Sci** 1998 Aug;60(8):965–8
Secretory leukocyte protease inhibitor (SLPI) concentrations in seminal plasma: SLPI restores sperm motility reduced by elastase. Moriyama A, et al. **Mol Hum Reprod** 1998 Oct;4(10):946–50

Zinc, magnesium and calcium in human seminal fluid: relations to other semen parameters and fertility. Sørensen MB, et al. **Mol Hum Reprod** 1999 Apr;5(4):331–7

Semen analysis in the Usher syndrome type 2A. van Aarem A, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun; 61(3):126–30

The clinical and biologic significance of serum inhibins in subfertile men. Mahmoud AM, et al. **Reprod Toxicol** 1998 Nov–Dec;12(6):591–9

The detection by enzyme linked immunosorbent assay of P30 and 19–OH prostaglandin F1/F2, in the presence of a range of possible contaminants. Sutton JG, et al. **Sci Justice** 1998 Jul–Sep;38(3):157–64

Elevated levels of proinflammatory cytokines in the semen of patients with chronic prostatitis/chronic pelvic pain syndrome. Alexander RB, et al. **Urology** 1998 Nov; 52(5):744–9

Seminal plasma biochemical markers and their association with semen analysis findings. Diamandis EP, et al. **Urology** 1999 Mar;53(3):596–603

[Intra–spermatic L–carnitine and survival of sperm motility] Mazzilli F, et al. **Minerva Ginecol** 1999 Apr;51(4):129–34 (Eng. Abstr.) **(Ita)**

[The deterioration of the parameters of the human semen: myth or reality?] Mędras M, et al. **Ginekol Pol** 1999 Mar; 70(3):155–60 (20 ref.) (Eng. Abstr.) **(Pol)**

[Comparative study of determined biochemical parameters in semen of vasectomized and non–vasectomized subjects] Jiménez Verdejo A, et al. **Arch Esp Urol** 1998 Oct; 51(8):811–7 (Eng. Abstr.) **(Spa)**

[beta–Endorphins and the male reproductive system] Morales Martínez ME, et al. **Ginecol Obstet Mex** 1999 Apr;67:183–7 (33 ref.) (Eng. Abstr.) **(Spa)**

[Determination of alpha–glucosidase as a marker of epididymal function (letter)] Gil ML, et al. **Med Clin (Barc)** 1999 Mar 6;112(8):315–6 **(Spa)**

CYTOLOGY

Morphometrical comparison of human spermatozoa obtained from semen and swim–up methodology. Dominguez LA, et al. **Andrologia** 1999 Jan;31(1):23–6

Semen culture, leukocytospermia, and the presence of sperm antibodies in seminal hyperviscosity. Munuce MJ, et al. **Arch Androl** 1999 Jan–Feb;42(1):21–8

Decreased levels of interleukin–12 are not correlated with leukocyte concentration and superoxide dismutase activity in semen of infertile men. Naz RK, et al. **Arch Androl** 1998 Sep–Oct;41(2):91–6

Semen analysis in men from Mérida, Venezuela, over a 15–year period. Tortolero I, et al. **Arch Androl** 1999 Jan–Feb;42(1):29–34

Sperm subpopulations in boar (Sus scrofa) and gazelle (Gazella dama mhorr) semen as revealed by pattern analysis of computer–assisted motility assessments. Abaigar T, et al. **Biol Reprod** 1999 Jan;60(1):32–41

Interregional differences undermine sperm trend conclusions [letter] [see comments] Heinze J. **Environ Health Perspect** 1998 Aug;106(8):A369–70; discussion A370–1. Comment in: Environ Health Perspect 1999 Mar;107(3):A132.

The effect of testicular seminoma in semen quality. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Apr; 83(2):219–22

Leukocytes in semen from men with spinal cord injuries. Aird IA, et al. **Fertil Steril** 1999 Jul;72(1):97–103

Human sperm head morphometric distribution and its influence on human fertility. Aziz N, et al. **Fertil Steril** 1998 Nov;70(5):883–91

Assessment of interlaboratory and intralaboratory sperm morphology readings with the use of a Hamilton Thorne Research integrated visual optical system semen analyzer. Coetzee K, et al. **Fertil Steril** 1999 Jan;71(1):80–4

Incidence of sperm aneuploidy in relation to semen characteristics and assisted reproductive outcome. Colombero LT, et al. **Fertil Steril** 1999 Jul;72(1):90–6

Variables in the fractioning of human seminal fluid! [letter; comment] McCulloh DH, et al. **Fertil Steril** 1999 Apr; 71(4):778–9. Comment on: Fertil Steril 1998 Nov;70(5):961–6.

Immature germ cell separation using a modified discontinuous Percoll gradient technique in human semen. Gandini L, et al. **Hum Reprod** 1999 Apr;14(4):1022–7

Semen preparation by standard swim–up versus swim–up with test yolk buffer incubation in intrauterine insemination: a randomized study. Ragni G, et al. **Hum Reprod** 1998 Jul; 13(7):1859–63

The correlates and alleged biochemical background of the resazurin reduction test in semen. Zalata AA, et al. **Int J Androl** 1998 Oct;21(5):289–94

Centrifugal pulsing increases the recovery of viable spermatozoa. Bielfeld P, et al. **J Assist Reprod Genet** 1998 Nov;15(10):609–11

Is intracytoplasmic sperm injection necessary for couples undergoing in vitro fertilization–embryo transfer with normal semen analyses but failing hamster egg penetration assays? Surrey ES, et al. **J Assist Reprod Genet** 1999 Feb; 16(2):69–72

Altered sperm function or sperm antibodies are not associated with chlamydial antibodies in infertile men with leucocytospermia. Habermann B, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):25–9

Fluorescence in situ hybridization analysis of chromosome 12 anomalies in semen cells from patients with carcinoma in situ of the testis. Meng FJ, et al. **J Pathol** 1998 Nov; 186(3):235–9

Semen parameters and electron microscope observations of spermatozoa of the red wolf, Canis rufus. Koehler JK, et al. **J Reprod Fertil** 1998 Sep;114(1):95–101

Electroejaculation and semen characteristics of the captive Hokkaido brown bear (Ursus arctos yesoensis). Ishikawa A, et al. **J Vet Med Sci** 1998 Aug;60(8):965–8

Antioxidant capacity of prostasomes in human semen. Saez F, et al. **Mol Hum Reprod** 1998 Jul;4(7):667–72

Zinc, magnesium and calcium in human seminal fluid: relations to other semen parameters and fertility. Sørensen MB, et al. **Mol Hum Reprod** 1999 Apr;5(4):331–7

Quality assurance of semen analysis in multicenter studies. Asclepios. Giwercman A, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:23–5; discussion 76–8

Study on the origin of seminal leucocytes using split ejaculate technique and the effect of leucocytospermia on sperm characteristics. Simbini T, et al. **Urol Int** 1998;61(2):95–100

DRUG EFFECTS

Improvement in semen quality associated with decreasing occupational lead exposure. Viskum S, et al. **Am J Ind Med** 1999 Mar;35(3):257–63

New system for long–term monitoring of sperm motility: EDTA effect on semen. Kuo YL, et al. **Arch Androl** 1998 Sep–Oct;41(2):127–33

Human semen quality in relation to dietary pesticide exposure and organic diet. Juhler RK, et al. **Arch Environ Contam Toxicol** 1999 Oct;37(3):415–23

Gonadotrophin–releasing hormone agonist stimulates milt fluidity and plasma concentrations of 17,20beta–dihydroxylated and 5beta–reduced, 3alpha–hydroxylated C21 steroids in male plaice (Pleuronectes platessa). Vermeirssen EL, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):163–77

Effect of potash alum (aluminium potassium sulphate) on human semen and sperm. Singh HP, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):311–4

Change in semen quality and sperm chromatin structure following occupational styrene exposure. ASCLEPIOS [see comments] Kolstad HA, et al. **Int Arch Occup Environ Health** 1999 May;72(3):135–41. Comment in: Int Arch Occup Environ Health 1999 May;72(3):133–4.

Effects of HCG or gonadoreline on seminal parameters and plasma testosterone levels in young male rabbits. Rebollar PG, et al. **J Physiol Biochem** 1998 Sep;54(3):161–6

Chronic treatment with finasteride daily does not affect spermatogenesis or semen production in young men. Overstreet JW, et al. **J Urol** 1999 Oct;162(4):1295–300

Cadmium affects testes and semen of rabbits exposed before and after puberty. Foote RH. **Reprod Toxicol** 1999 Jul–Aug;13(4):269–77

A longitudinal study of semen quality in pesticide spraying Danish farmers. The ASCLEPIOS Study Group. Larsen SB, et al. **Reprod Toxicol** 1998 Nov–Dec;12(6):581–9

ENZYMOLOGY

Studies on the measurement of phospholipase A2 (PLA2) and PLA2 inhibitor activities in ram semen. Upreti GC, et al. **Anim Reprod Sci** 1999 Jun 28;56(2):107–21

Plasmin, substilisin–like endoproteases, tissue plasminogen activator, and urokinase plasminogen activator are involved in activation of latent TGF–beta 1 in human seminal plasma. Chu TM, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):128–34

Semen specific gamma–glutamyltransferase carries ABH antigens: a sandwich ELISA for simultaneous semen detection and its ABO blood typing. Abe S, et al. **Clin Chim Acta** 1999 May;283(1–2):183–94

Seminal–type ribonuclease genes in ruminants, sequence conservation without protein expression? Kleineidam RG, et al. **Gene** 1999 Apr 29;231(1–2):147–53

LDH isozymes with anomalous bands in semen of leprosy patients. Sirmour SK, et al. **Indian J Lepr** 1998 Oct–Dec; 70(4):405–9

Relationship between creatine kinase activity and semen characteristics in subfertile men. Sidhu RS, et al. **Int J Fertil Womens Med** 1998 Jul–Aug;43(4):192–7

Seminal fructose levels in male infertility: relationship with sperm characteristics. Andrade–Rocha FT. **Int Urol Nephrol** 1999;31(1):107–11

Kininogenase activity of prostate–derived human glandular kallikrein (hK2) purified from seminal fluid. Charlesworth MC, et al. **J Androl** 1999 Mar–Apr;20(2):220–9

Protein kinase CK2 activities in human prostatic and seminal–vesicle secretions and seminal plasma. Wilson MJ, et al. **J Androl** 1998 Nov–Dec;19(6):754–60

Activity of IMP– and AMP–preferring isoforms of 5'–nucleotidase from human seminal plasma with AMP analogues. Minelli A, et al. **Mol Genet Metab** 1999 Jan; 66(1):49–55

Studies on the origin of redox enzymes in seminal plasma and their relationship with results of in–vitro fertilization. Yeung CH, et al. **Mol Hum Reprod** 1998 Sep;4(9):835–9

Selective and asymmetric action of trypsin on the dimeric forms of seminal RNase. De Lorenzo C, et al. **Protein Sci** 1998 Dec;7(12):2653–8

IMMUNOLOGY

Intravaginal desensitization to seminal fluid. Nusam D, et al. **Allergy** 1999 Jul;54(7):765

Allergy to human seminal fluid: a case of self–diagnosis. Prandini M, et al. **Allergy** 1999 May;54(5):530

Quantification of C3 and C4 in infertile men with antisperm antibody in their seminal plasma. Rahimi A, et al. **Am J Reprod Immunol** 1999 May;41(5):330–6

Leukocytospermia and genuine genital tract infections? [letter; comment] Carranza–Lira S. **Fertil Steril** 1999 May; 71(5):973. Comment on: Fertil Steril 1998 Aug;70(2):315–9.

Seminal leukocyte concentration and related specific reactive oxygen species production in patients with male accessory gland infections. Vicari E. **Hum Reprod** 1999 Aug; 14(8):2025–30

Immunomodulators in human seminal plasma: a vital protection for spermatozoa in the presence of infection? Kelly RW. **Int J Androl** 1999 Feb;22(1):2–12 (121 ref.)

Origin of an 84–kDa protein with ABH blood–typing antigen activity in human seminal plasma. Sato I, et al. **J Androl** 1999 Jul–Aug;20(4):481–6

The effect of spermatozoa and seminal plasma on leukocyte migration into the uterus of gilts. Rozeboom KJ, et al. **J Anim Sci** 1999 Aug;77(8):2201–6

Chlamydia trachomatis and male infertility: chlamydia–IgA antibodies in seminal plasma are C. trachomatis specific and associated with an inflammatory response. Ochsendorf FR, et al. **J Eur Acad Dermatol Venereol** 1999 Mar; 12(2):143–52

Detection of HIV–1–specific CTLs in the semen of HIV–infected individuals. Quayle AJ, et al. **J Immunol** 1998 Oct 15;161(8):4406–10

Human seminal plasma protein allergy: a diagnosis rarely considered. Ludman BG. **J Obstet Gynecol Neonatal Nurs** 1999 Jul–Aug;28(4):359–63 (18 ref.)

Successful pregnancy in a woman with a human seminal plasma allergy. A case report. Iwahashi K, et al. **J Reprod Med** 1999 Apr;44(4):391–3

Detection of simian immunodeficiency virus Gag–specific CD8(+) T lymphocytes in semen of chronically infected rhesus monkeys by cell staining with a tetrameric major histocompatibility complex class I–peptide complex. Jordan HL, et al. **J Virol** 1999 May;73(5):4508–12

Seminal plasma PSA in spinal cord injured men: a preliminary report. Brasso K, et al. **Spinal Cord** 1998 Nov;36(11):771–3

METABOLISM

Poor penetration of the male genital tract by HIV–1 protease inhibitors [letter] Taylor S, et al. **AIDS** 1999 May 7; 13(7):859–60

In vitro effect of zinc on oxidative changes in human semen. Gavella M, et al. **Andrologia** 1998 Nov;30(6):317–23

Increased levels of interleukin–8 in human seminal plasma. Koumantakis E, et al. **Andrologia** 1998 Nov;30(6):339–43

Analysis of serum and seminal plasma after feeding ochratoxin A with breeding boars. Solti L, et al. **Anim Reprod Sci** 1999 Jun 28;56(2):123–32

Antiretroviral–drug concentrations in semen: implications for sexual transmission of human immunodeficiency virus type 1. Kashuba AD, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):1817–26 (141 ref.)

High concentrations of the macrophage migration inhibitory factor in human seminal plasma and prostatic tissues. Frenette G, et al. **Arch Androl** 1998 Nov–Dec;41(3):185–93

Determination of interleukin–11 in seminal plasma and elevated IL–11 in seminal plasma of infertile patients with urogenital infection. Matalliotakis I, et al. **Arch Androl** 1998 Nov–Dec;41(3):177–83

Decreased levels of interleukin–12 are not correlated with leukocyte concentration and superoxide dismutase activity in semen of infertile men. Naz RK, et al. **Arch Androl** 1998 Sep–Oct;41(2):91–6

Purification of a 76–kDa iron–binding protein from human seminal plasma by affinity chromatography specific for ribonuclease: structural and functional identity with milk lactoferrin. Sorrentino S, et al. **Biochim Biophys Acta** 1999 Feb 10;1430(1):103–10

Comparison of sperm viability with seminal plasma metal levels. Dawson EB, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):215–9

Direct determination of selenium in human blood plasma and seminal plasma by graphite furnace atomic absorption spectrophotometry and clinical application. Lin TH, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):133–49

Lipid peroxidation in avian semen: protective effect of seminal plasma. Surai PF, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S57–8

Fatty acid composition, glutathione peroxidase and superoxide dismutase activity and total antioxidant activity of avian semen. Surai PF, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):527–33

Role of the ionic environment and internal pH on sperm activity. Hamamah S, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:20–30 (62 ref.)

Seminal leukocyte concentration and related specific reactive oxygen species production in patients with male accessory gland infections. Vicari E. **Hum Reprod** 1999 Aug; 14(8):2025–30

Zinc enrichment in prostasomes [letter] Ronquist G.

Int J Androl 1998 Aug;21(4):233-4

The relation of optical density of seminal plasma with serum FSH and LH levels in azoospermic patients. Cevik C, et al. **Int Urol Nephrol** 1999;31(1):113-6

Modulation of insulin-like growth factor-1 in the seminal plasma of infertile men. Colombo JB, et al. **J Androl** 1999 Jan-Feb;20(1):118-25

Studies on the relationship between urokinase plasminogen activator (uPA) and human sperm motility. Huang X, et al. **J Tongji Med Univ** 1997;17(4):213-7

Varicocele is associated with elevated spermatozoal reactive oxygen species production and diminished seminal plasma antioxidant capacity. Hendin BN, et al. **J Urol** 1999 Jun; 161(6):1831-4

Relation between semen quality and fertility: a population-based study of 430 first-pregnancy planners [see comments] Bonde JP, et al. **Lancet** 1998 Oct 10; 352(9135):1172-7. Comment in: Lancet 1998 Dec 5;352(9143):1861-2.

Functionally inactive protein C inhibitor in seminal plasma may be associated with infertility. He S, et al. **Mol Hum Reprod** 1999 Jun;5(6):513-9

[Lipid peroxidation, morphological stress pattern and nuclear maturity of spermatozoon] Laudat A, et al. **Ann Biol Clin (Paris)** 1999 Jan-Feb;57(1):51-6 (Eng. Abstr.) **(Fre)**

[In vivo scavenging effect of ethylcysteine on reactive oxygen species in human semen] Akiyama M. **Nippon Hinyokika Gakkai Zasshi** 1999 Mar;90(3):421-8 (Eng. Abstr.) **(Jpn)**

[Iron and nonheme iron protein metabolism in ejaculates with varying degrees of fertility] Nikolaev AA, et al. **Urol Nefrol (Mosk)** 1998 Sep-Oct;(5):27-31 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Aerobic bacterial flora of semen and stallion reproductive tract and its relation to fertility under field conditions. Malmgren L, et al. **Acta Vet Scand** 1998;39(2):173-82

Chlamydia trachomatis detected by ligase chain reaction in the semen of asymptomatic patients without pyospermia or pyuria. Fujisawa M, et al. **Arch Androl** 1999 Jan-Feb; 42(1):41-4

Detection of leptospires in bovine semen by polymerase chain reaction. Heinemann MB, et al. **Aust Vet J** 1999 Jan; 77(1):32-4

The effects of Tritrichomonas foetus and nutritional status on the fertility of cows on a community pasture in Saskatchewan. Stewart RJ, et al. **Can Vet J** 1998 Oct; 39(10):638-41

Ureaplasma urealyticum in semen: is there any effect on in vitro fertilization outcome? Kanakas N, et al. **Fertil Steril** 1999 Mar;71(3):523-7

Testicular sperm aspiration and intracytoplasmic sperm injection for persistent infection of the ejaculate. Seidman DS, et al. **Fertil Steril** 1999 Mar;71(3):564-6

Screening for Chlamydia trachomatis and Ureaplasma urealyticum infection in semen from asymptomatic male partners of infertile couples prior to in vitro fertilization. Levy R, et al. **Int J Androl** 1999 Apr;22(2):113-8

Antibiotic therapy for seminal infection. Effect on antioxidant activity and T-helper cytokines. Omu AE, et al. **J Reprod Med** 1998 Oct;43(10):857-64

Antibacterial skin preparation decreases the incidence of false-positive semen culture results. Kim FY, et al. **J Urol** 1999 Mar;161(3):819-21

PHYSIOLOGY

Effect of human seminal fluid on production of messenger ribonucleic acid for metalloproteinase 2 and metalloproteinase 9 in cervical epithelial carcinoma cells. Jeremias J, et al. **Am J Obstet Gynecol** 1999 Sep; 181(3):591-5

Quality assessment of computer-assisted semen analysis (CASA) in the andrology laboratory. Krause W, et al. **Andrologia** 1999 May;31(3):125-9 (23 ref.)

Prediction of porcine semen fertility by homologous in vitro penetration (hIVP) assay. Gadea J, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):95-108

Biological activity of the seminal plasma of alpacas: stimulus for the production of LH by pituitary cells. Paolicchi F, et al. **Anim Reprod Sci** 1999 Jan 8;54(3):203-10

Characterization of the semen quality of postpuberal boars with spontaneous unilateral abdominal cryptorchidism on the right side. Pinart E, et al. **Anim Reprod Sci** 1999 Apr 31;55(3-4):269-78

Evaluation of the effects of different trypsin treatments on semen quality after BHV-1 inactivation, and a comparison of the results before and after freezing, assessed by a computer image analyzer. Silva N, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):227-35

Seminal plasma does not advance ovulation in hCG-treated sows. Soede NM, et al. **Anim Reprod Sci** 1998 Dec 1; 54(1):23-9

Semen backflow after insemination and its effect on fertilisation results in sows. Steverink DW, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):109-19

Relationship of subnormal semen parameters and subsequent zona pellucida thinning following in vitro fertilization. Check JH, et al. **Arch Androl** 1998 Nov-Dec;41(3):145-50

Semen culture, leukocytospermia, and the presence of sperm antibodies in seminal hyperviscosity. Munuce MJ, et al. **Arch Androl** 1999 Jan-Feb;42(1):21-8

Interactions between prostasomes and leukocytes. Arienti G, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):36-40

Effects of photoperiod and age on secretory patterns of luteinizing hormone and testosterone and semen production in male domestic turkeys. Yang J, et al. **Biol Reprod** 1998 Nov;59(5):1171-9

Advanced semen analysis: a simple screening test to predict intrauterine insemination success. Branigan EF, et al. **Fertil Steril** 1999 Mar;71(3):547-51

Effect of seminal oxidative stress on fertility after vasectomy reversal. Kolettis PN, et al. **Fertil Steril** 1999 Feb; 71(2):249-55

Occupationally related exposures and reduced semen quality: a case-control study. Tielemans E, et al. **Fertil Steril** 1999 Apr;71(4):690-6

Evolution of semen quality in North-eastern Spain: a study in 22,759 infertile men over a 36 year period. Andolz P, et al. **Hum Reprod** 1999 Mar;14(3):731-5

Diurnal variation of semen quality in human males. Cagnacci A, et al. **Hum Reprod** 1999 Jan;14(1):106-9

Relationship between psychological stress and semen quality among in-vitro fertilization patients. Clarke RN, et al. **Hum Reprod** 1999 Mar;14(3):753-8

Experience with external quality control in spermatology. Cooper TG, et al. **Hum Reprod** 1999 Mar;14(3):765-9

Effect of seminal plasma on capacitation and hyperactivation in human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1998 Aug;13(8):2139-46

Semen retrieval by penile vibratory stimulation in men with spinal cord injury. Brackett NL. **Hum Reprod Update** 1999 May-Jun;5(3):216-22 (46 ref.)

Methods of semen collection not based on masturbation or surgical sperm retrieval. Gerris J. **Hum Reprod Update** 1999 May-Jun;5(3):211-5 (20 ref.)

Induction of heat shock protein expression in cervical epithelial cells by human semen. Jeremias JC, et al. **Infect Dis Obstet Gynecol** 1999;7(1-2):17-22

Influence of seminal plasma on cryopreservation of human spermatozoa in a biological material-free medium: study of normal and low-quality semen. Grizard G, et al. **Int J Androl** 1999 Jun;22(3):190-6

Secular and seasonal changes in somen quality among young Danish men: a statistical analysis of semen samples from 1927 donor candidates during 1977-1995. Gyllenborg J, et al. **Int J Androl** 1999 Feb;22(1):28-36

Semen quality changes among 2343 healthy Slovenian men included in an IVF-ET programme from 1983 to 1996. Zorn B, et al. **Int J Androl** 1999 Jun;22(3):178-83

In vitro maturation and fertilization techniques for assessment of semen quality and boar fertility. Xu X, et al. **J Anim Sci** 1998 Dec;76(12):3079-89

Fertilization, embryo quality, and cryosurvival in in vitro fertilization and intracytoplasmic sperm injection cycles. Moilanen JM, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):17-23

Optimal utilization of cryopreserved human semen for assisted reproduction: recovery and maintenance of sperm motility and viability. Polcz TE, et al. **J Assist Reprod Genet** 1998 Sep;15(8):504-12

Semen quality and reproductive hormones before orchiectomy in men with testicular cancer. Petersen PM, et al. **J Clin Oncol** 1999 Mar;17(3):941-7

Environmental, management, and genetic factors affecting semen production in Holstein bulls. Mathevon M, et al. **J Dairy Sci** 1998 Dec;81(12):3321-30

Human ejaculate. Effects on the biomechanical properties of the human chorioamniotic membranes. Harmanli OH, et al. **J Reprod Med** 1998 Sep;43(9):779-82

Seminal plasma components stimulate interleukin-8 and interleukin-10 release. Denison FC, et al. **Mol Hum Reprod** 1999 Mar;5(3):220-6

Prospective approaches to avoid flock fertility problems: predictive assessment of sperm function traits in poultry. Donoghue AM. **Poult Sci** 1999 Mar;78(3):437-43

Body weight and semen production of broiler breeder males as influenced by crude protein levels and feeding regimens during rearing. Zhang X, et al. **Poult Sci** 1999 Feb; 78(2):190-6

Does transurethral microwave thermotherapy (TUMT) affect emission of semen? Hallin A, et al. **Scand J Urol Nephrol** 1998 May;32(3):211-4

Sperm chromatin structure and semen quality following occupational styrene exposure. Asclepios. Kolstad HA, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:70-3; discussion 76-8

Seminal characteristics following exposure to pesticides among agricultural workers. Asclepios. Larsen SB, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:74-5; discussion 76-8

Seasonal variation of semen quality and fertility. Levine RJ. **Scand J Work Environ Health** 1999;25 Suppl 1:34-7; discussion 76-8 (22 ref.)

Flow cytometric sperm chromatin structure assay as an independent descriptor of human semen quality. Spanò M, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:28-30; discussion 76-8

Biochemical properties and usefulness of boar semen for liquid preservation following atropine administration. Strzeżek J, et al. **Zentralbl Veterinarmed A** 1998 Oct; 45(8):459-70

[In vitro assessment of semen for the prediction of fertility] Waberski D, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Feb; 27(1):1-7 (27 ref.) (Eng. Abstr.) **(Ger)**

[Analysis of decline in seminal fluid in the Italian population during the past 15 years] Bilotta P, et al. **Minerva Ginecol** 1999 Jun;51(6):223-31 (53 ref.) (Eng. Abstr.) **(Ita)**

[Changes in morphological picture of the semen in the group of men from infertile couples in the Lower Silesia in 1977-1993] Pająk J, et al. **Ginekol Pol** 1999 Jan;70(1):20-5 (Eng. Abstr.) **(Pol)**

RADIATION EFFECTS

Endocrine and reproductive health status of men who had experienced short-term radiation exposure at Chernobyl. Goncharov NP, et al. **Int J Androl** 1998 Oct;21(5):271-6

SECRETION

Effects of frequency of semen collection on quantitative and qualitative characteristics of semen in turkey breeder males. Noirault J, et al. **Poult Sci** 1999 Jul;78(7):1034-9

VIROLOGY

Rapid and sensitive detection of equine arteritis virus in semen and tissue samples by reverse transcription-polymerase chain reaction, dot blot hybridisation and nested polymerase chain reaction. Starick E. **Acta Virol** 1998 Nov;42(5):333-9

Resistance of HIV-1 to antiretroviral agents in blood and seminal plasma: implications for transmission. Eron JJ, et al. **AIDS** 1998 Oct 22;12(15):F181-9

Detection and quantification of HIV-1 in semen: identification of a subpopulation of men at high potential risk of viral sexual transmission. Tachet A, et al. **AIDS** 1999 May 7;13(7):823-31

Feline immunodeficiency virus is shed in semen from experimentally and naturally infected cats. Jordan HL, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10; 14(12):1087-92

Risk factors for HIV-1 shedding in semen. Speck CE, et al. **Am J Epidemiol** 1999 Sep 15;150(6):622-31

Shedding of feline immunodeficiency virus in semen of domestic cats during acute infection. Jordan HL, et al. **Am J Vet Res** 1999 Feb;60(2):211-5

Phylogenetic characterization of a highly attenuated strain of equine arteritis virus from the semen of a persistently infected standardbred stallion. Patton JF, et al. **Arch Virol** 1999;144(4):817-27

Persistence of human immunodeficiency virus in semen after adding indinavir to combination antiretroviral therapy. Mayer KH, et al. **Clin Infect Dis** 1999 Jun;28(6):1252-9

Detection of equine arteritis virus in semen by reverse transcriptase polymerase chain reaction-ELISA. Ramina A, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jul; 22(3):187-97

Absence of human herpes virus 8 in semen from healthy Danish donors. Kelsen J, et al. **Hum Reprod** 1999 Sep; 14(9):2274-6

Serologic and molecular characterization of an abortigenic strain of equine arteritis virus isolated from infective frozen semen and an aborted equine fetus. Balasuriya UB, et al. **J Am Vet Med Assoc** 1998 Dec 1;213(11):1586-9, 1570

Multicenter comparison of PCR assays for detection of human herpesvirus 8 DNA in semen. Pellett PE, et al. **J Clin Microbiol** 1999 May;37(5):1298-301

GBV-C/HGV coinfection in HIV-1-positive men: frequent detection of viral RNA in blood plasma but absence from seminal fluid plasma. Hollingsworth RC, et al. **J Med Virol** 1998 Dec;56(4):321-6

Localization of human herpesvirus type 8 (HHV-8) in the Kaposi's sarcoma tissues and the semen specimens of HIV-1 infected and uninfected individuals by utilizing in situ polymerase chain reaction. Bobroski L, et al. **J Reprod Immunol** 1998 Dec;41(1-2):149-60

Presence of HSV-1 DNA in semen and menstrual blood. El Borai N, et al. **J Reprod Immunol** 1998 Dec; 41(1-2):137-47

Analysis of human immunodeficiency virus in semen: indications of a genetically distinct virus reservoir. Byrn RA, et al. **J Reprod Immunol** 1998 Dec;41(1-2):161-76

Assisted conception in HIV discordant couples: evaluation of semen processing techniques in reducing HIV viral load. Chrystie IL, et al. **J Reprod Immunol** 1998 Dec; 41(1-2):301-6

Detection of HIV-1 in seminal plasma and seminal cells of HIV-1 seropositive men. Dulioust E, et al. **J Reprod Immunol** 1998 Dec;41(1-2):27-40

Horizontal transmission of feline immunodeficiency virus with semen from seropositive cats. Jordan HL, et al. **J Reprod Immunol** 1998 Dec;41(1-2):341-57

Use of PCR to measure HIV viral changes in drug-resistant genes in genital fluids. Merigan TC. **J Reprod Immunol** 1998 Dec;41(1-2):177-85

Preliminary description of a polymerase chain reaction test for bluetongue and epizootic hemorrhagic disease viral RNA in bovine semen. Wilson WC. **J Vet Diagn Invest** 1999 Jul;11(4):377-9

Improved detection of bovine herpesvirus 1 in artificially infected bovine semen by protein amplification. Zhou J, et al. **J Virol Methods** 1999 May;79(2):181-9

SEMEN

Different HIV-1 strains found in semen and blood [news] Birchard K. **Lancet** 1998 Oct 24;352(9137):1363

Potential for the transmission of HIV-1 despite highly active antiretroviral therapy [editorial; comment] Haase AT, et al. **N Engl J Med** 1998 Dec 17;339(25):1846-8. Comment on: N Engl J Med 1998 Dec 17;339(25):1803-9.

Human immunodeficiency virus type 1 in the semen of men receiving highly active antiretroviral therapy [see comments] Zhang H, et al. **N Engl J Med** 1998 Dec 17; 339(25):1803-9. Comment in: N Engl J Med 1998 Dec 17;339(25):1846-8.

Detection of herpes simplex virus DNA in semen of men with genital HSV-2 infection. Wald A, et al. **Sex Transm Dis** 1999 Jan;26(1):1-3

Transmission of classical swine fever virus by artificial insemination. de Smit AJ, et al. **Vet Microbiol** 1999 Jul 1;67(4):239-49

A high sensitivity-nested PCR assay for BHV-1 detection in semen of naturally infected bulls. Rocha MA, et al. **Vet Microbiol** 1998 Aug 28;63(1):1-11

Equine viral arteritis risk from imported semen [letter] [see comments] Pycock JF. **Vet Rec** 1998 Dec 19-26;143(25):699 . Comment in: Vet Rec 1999 Feb 13;144(7):186.

[Detection of caprine arthritis encephalitis virus in sperm of experimentally infected bucks] Travassos C, et al. **Vet Res** 1998 Nov-Dec;29(6):579-84 (Eng. Abstr.) **(Fre)**

[Boar semen--a possible risk factor in infection occurrence of porcine reproductive and respiratory syndrome] Teuffert J, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Sep; 105(9):340-5 (Eng. Abstr.) **(Ger)**

[High viral content in men's semen during highly active antiretroviral therapy] **Hautarzt** 1999 Apr;50(4):317 **(Ger)**

SEMEN PRESERVATION

see related
SPERM BANKS

Laser-assisted cryopreservation of single human spermatozoa in cell-free zona pellucida. Montag M, et al. **Andrologia** 1999 Jan;31(1):49-53

Ongoing pregnancies resulting from intracytoplasmic sperm injection (ICSI) of spermatozoa from frozen-thawed testicular biopsy specimens. Windt ML, et al. **Andrologia** 1999 May;31(3):169-72

Cryopreservation of non-human primate sperm: priorities for future research. Morrell JM, et al. **Anim Reprod Sci** 1998 Oct;53(1-4):43-63 (66 ref.)

Cancer patients should be offered semen cryopreservation [letter; comment] Lass A, et al. **BMJ** 1999 Jun 5; 318(7197):1556. Comment on: BMJ 1999 Feb 27;318(7183):559-62.

Law and ethics of gamete storage and informed consent as illustrated by the Diane Blood case, and an appraisal of international standards. Yap LB. **Br J Fam Plann** 1999 Jan; 24(4):164-7

Cryopreservation of sperm from patients with leukemia: is it worth the effort? Hallak J, et al. **Cancer** 1999 May 1; 85(9):1973-8

Cryopreservation of spermatozoa from freeze-tolerant and -intolerant anurans. Beesley SG, et al. **Cryobiology** 1998 Sep;37(2):155-62

Cryopreservation of human spermatozoa with pentoxifylline improves the post-thaw agonist-induced acrosome reaction rate. Esteves SC, et al. **Hum Reprod** 1998 Dec; 13(12):3384-9

Perinatal and obstetric outcomes of donor insemination using cryopreserved semen in Victoria, Australia. Hoy J, et al. **Hum Reprod** 1999 Jul;14(7):1760-4

Lipid dynamics in the plasma membrane of fresh and cryopreserved human spermatozoa. James PS, et al. **Hum Reprod** 1999 Jul;14(7):1827-32

A programme of semen cryopreservation for patients with malignant disease in a tertiary infertility centre: lessons from 8 years' experience. Lass A, et al. **Hum Reprod** 1998 Nov;13(11):3256-61

A novel approach to sperm cryopreservation. Morris GJ, et al. **Hum Reprod** 1999 Apr;14(4):1013-21

Full-term delivery following intracytoplasmic sperm injection with frozen-thawed immotile testicular spermatozoa. Rives N, et al. **Hum Reprod** 1998 Dec; 13(12):3399-401

Freezing of testicular tissue as a minced suspension preserves sperm quality better than whole-biopsy freezing when glycerol is used as cryoprotectant. Crabbé E, et al. **Int J Androl** 1999 Feb;22(1):43-8

Influence of seminal plasma on cryopreservation of human spermatozoa in a biological material-free medium: study of normal and low-quality semen. Grizard G, et al. **Int J Androl** 1999 Jun;22(3):190-6

Prediction of bull fertility by combined in vitro assessments of frozen-thawed semen from young dairy bulls entering an AI-programme. Zhang BR, et al. **Int J Androl** 1999 Aug;22(4):253-60

Effect of in vitro incubation on spontaneous acrosome reaction in fresh and cryopreserved human spermatozoa. Esteves SC, et al. **Int J Fertil Womens Med** 1998 Sep-Oct; 43(5):235-42

Comparison of fresh and cryopreserved human sperm attachment to bovine oviduct (uterine tube) epithelial cells in vitro. Ellington JE, et al. **J Androl** 1999 Jul-Aug; 20(4):492-9

The quagmire of postmortem sperm acquisition. Gottenger EE, et al. **J Androl** 1999 Jul-Aug;20(4):458-62 (18 ref.)

The emergence of specialized procedures for the acquisition, processing, and cryopreservation of epididymal and testicular sperm in connection with intracytoplasmic sperm injection. Marmar JL. **J Androl** 1998 Sep-Oct;19(5):517-26 (106 ref.)

Two-day IUI treatment cycles are more successful than one-day IUI cycles when using frozen-thawed donor sperm. Matilsky M, et al. **J Androl** 1998 Sep-Oct; 19(5):603-7

Live sperm, dead bodies. Rothman CM. **J Androl** 1999 Jul-Aug;20(4):456-7

Müllerian inhibiting substance improves longevity of motility and viability of fresh and cryopreserved sperm. Siow Y, et al. **J Androl** 1998 Sep-Oct;19(5):568-72

Optimal utilization of cryopreserved human semen for assisted reproduction: recovery and maintenance of sperm motility and viability. Polcz TE, et al. **J Assist Reprod Genet** 1998 Sep;15(8):504-12

The posthumous gift of life: the world according to Kane. Shuster E. **J Contemp Health Law Policy** 1999 Spring; 15(2):401-23 (91 ref.)

Fertility of bull sperm frozen and stored in clarified egg yolk-Tris-glycerol extender. Wall RJ, et al. **J Dairy Sci** 1999 Apr;82(4):817-21

Penile vibratory stimulation and electroejaculation before anticancer therapy in two pubertal boys. Schmiegelow ML, et al. **J Pediatr Hematol Oncol** 1998 Sep-Oct;20(5):429-30

Cryopreservation of gametes in young patients with cancer. Schover LR, et al. **J Pediatr Hematol Oncol** 1998 Sep-Oct; 20(5):426-8 (19 ref.)

Pregnancy after 20 years of sperm cryopreservation [letter] Marik J. **J Reprod Med** 1998 Oct;43(10):922

Mouse sperm cryopreservation: a legacy in the making [editorial; comment] Pinkert CA. **Lab Anim Sci** 1998 Jun; 48(3):224 (5 ref.). Comment on: Lab Anim Sci 1998 Jun;48(3):275-81.

Live mice from cryopreserved embryos derived in vitro with cryopreserved ejaculated spermatozoa [see comments] Songsasen N, et al. **Lab Anim Sci** 1998 Jun;48(3):275-81. Comment in: Lab Anim Sci 1998 Jun;48(3):224.

Reliable recovery of inbred mouse lines using cryopreserved spermatozoa. Marschall S, et al. **Mamm Genome** 1999 Aug; 10(8):773-6

Life on the cutting edge. Palmer K. **Minn Med** 1998 Oct; 81(10):6-11

Pregnancies resulting from intracytoplasmic sperm injection of spermatozoa from frozen-thawed testicular biopsy specimens [letter] Windt ML, et al. **S Afr Med J** 1998 Oct; 88(10):1348

[Treatment of male infertility after oncologic therapy: preventive autologous sperm preservation versus testicular biopsy and oocyte fertilization with testicular spermatozoa] Sobek A, et al. **Ceska Gynekol** 1998 Jun;63(3):196-9 (Eng. Abstr.) **(Cze)**

METHODS

Scimitar-horned oryx (Oryx dammah) spermatozoa are functionally competent in a heterologous bovine in vitro fertilization system after cryopreservation on dry ice, in a dry shipper, or over liquid nitrogen vapor. Roth TL, et al. **Biol Reprod** 1999 Feb;60(2):493-8

Viable spermatozoa can be recovered from refrigerated mice up to 7 days after death. An TZ, et al. **Cryobiology** 1999 Feb;38(1):27-34

Mouse spermatozoa in high concentrations of glycerol: chemical toxicity vs osmotic shock at normal and reduced oxygen concentrations. Katkov II, et al. **Cryobiology** 1998 Dec;37(4):325-38

Osmotic effects on volume and motility of bull sperm exposed to membrane permeable and nonpermeable agents. Liu Z, et al. **Cryobiology** 1998 Nov;37(3):207-18

Survival of bull sperm frozen at different rates in media varying in osmolarity. Liu Z, et al. **Cryobiology** 1998 Nov; 37(3):219-30

Comparison of various methods of processing human cryopreserved-thawed semen samples. Srisombut C, et al. **Hum Reprod** 1998 Aug;13(8):2151-7

Collection, storage, and use of zebrafish sperm. Ransom DG, et al. **Methods Cell Biol** 1999;60:365-72 (3 ref.)

The effect of incubation periods under 95% oxygen on the stimulated acrosome reaction and motility of human spermatozoa. Whittington K, et al. **Mol Hum Reprod** 1998 Nov;4(11):1053-7

Evaluation of techniques for the cryopreservation of washed spermatozoa: comparisons between Ham's F-10 and TEST-yolk media. Zavos PM, et al. **Tohoku J Exp Med** 1998 Apr;184(4):277-84

Cryopreservation of mouse spermatozoa: double your mouse space. Marschall S, et al. **Trends Genet** 1999 Apr; 15(4):128-31 (20 ref.)

[Indications and results of the cryopreservation of testicular sperm. The CECOS experience. CECOS French Federation] Rigot JM, et al. **Contracept Fertil Sex** 1998 Jul-Aug;26(7-8):578-9 (Eng. Abstr.) **(Fre)**

UTILIZATION

Semen storage for special purposes at Monash IVF from 1977 to 1997. Audrins P, et al. **Fertil Steril** 1999 Jul;72(1):179-81

VETERINARY

Sperm collection from shot red deer stags (Cervus elaphus) and the utilisation of sperm frozen and subsequently thawed. Zomborszky Z, et al. **Acta Vet Hung** 1999; 47(2):263-70

Sperm viability in ram semen diluted and stored in three different extenders. López A, et al. **Acta Vet Scand** 1999; 40(1):1-9

Evaluation of the effects of different trypsin treatments on semen quality after BHV-1 inactivation, and a comparison of the results before and after freezing, assessed by a computer image analyzer. Silva N, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):227-35

Comparison of cryoprotectants and methods of cryopreservation of fowl spermatozoa. Tselutin K, et al. **Poult Sci** 1999 Apr;78(4):586-90

Freezing of stallion semen with addition of glycine betaine. Lindeberg H, et al. **Zentralbl Veterinarmed A** 1999 Mar; 46(2):87-90

Biochemical properties and usefulness of boar semen for liquid preservation following atropine administration. Strzeżek J, et al. **Zentralbl Veterinarmed A** 1998 Oct; 45(8):459-70

SEMIASPARTATE ALDEHYDE DEHYDROGENASE see **ASPARTATE-SEMIALDEHYDE DEHYDROGENASE**

SEMICARBAZIDES

ADMINISTRATION & DOSAGE

Influence of dietary osteolathyrogens on the eggshell quality of laying hens. Chowdhury SD, et al. **Br Poult Sci** 1998 Sep;39(4):497-9

CHEMICAL SYNTHESIS

Synthesis, structure elucidation and antimicrobial activity of some 3-hydroxy-2-naphthoic acid hydrazide derivatives. Dogan HN, et al. **Farmaco** 1998 Jul 30;53(7):462-7

PHARMACOLOGY

Assessment of the deamination of aminoacetone, an endogenous substrate for semicarbazide-sensitive amine oxidase. Deng Y, et al. **Anal Biochem** 1999 May 15; 270(1):97-102

Circulating semicarbazide-sensitive amine oxidase is raised both in type I (insulin-dependent), in type II (non-insulin-dependent) diabetes mellitus and even in childhood type I diabetes at first clinical diagnosis. Boomsma F, et al. **Diabetologia** 1999 Feb;42(2):233-7

Simultaneous determination of formaldehyde and methylglyoxal in urine: involvement of semicarbazide-sensitive amine oxidase-mediated deamination in diabetic complications. Deng Y, et al. **J Chromatogr Sci** 1999 Sep;37(9):317-22

SEMICARBAZONES

CHEMICAL SYNTHESIS

Synthesis of aryl semicarbazone of 4-aminoacetophenone and their anti-HIV activity. Mishra V, et al. **Pharm Acta Helv** 1998 Dec;73(4):215-8

PHARMACOLOGY

Synthesis of aryl semicarbazone of 4-aminoacetophenone and their anti-HIV activity. Mishra V, et al. **Pharm Acta Helv** 1998 Dec;73(4):215-8

Evaluation of semicarbazones for anticonvulsant and sedative-hypnotic properties. Pandeya SN, et al. **Pharmazie** 1999 Apr;54(4):300-2

URINE

Isolation and identification of the major urinary metabolite of 4-(4-fluorophenoxy)benzaldehyde semicarbazone after oral dosing to rats. Dimmock JR, et al. **Pharmazie** 1999 Apr;54(4):260-2

SEMICIRCULAR CANALS

Histologic changes after semicircular canal occlusion in guinea pigs. Smouha EE, et al. **Am J Otol** 1999 Sep; 20(5):632-8

ANATOMY & HISTOLOGY

Are the semicircular canals of the European mole, Talpa europaea, adapted to a subterranean habitat? McVean A. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):173-8

Examination of the cupula and stereocilia of the horizontal semicircular canal in the toadfish Opsanus tau. Silver RB, et al. **J Comp Neurol** 1998 Dec 7;402(1):48-61

BLOOD SUPPLY

Development of blood-labyrinth barrier in the semicircular canal ampulla of the rat. Suzuki M, et al. **Hear Res** 1999 Mar;129(1-2):27-34

CYTOLOGY

Examination of the cupula and stereocilia of the horizontal semicircular canal in the toadfish Opsanus tau. Silver RB, et al. **J Comp Neurol** 1998 Dec 7;402(1):48–61

DRUG EFFECTS

The effects of perilymphatic tonicity on endolymph composition and synaptic activity at the frog semicircular canal. Rossi ML, et al. **Hear Res** 1998 Jul;121(1–2):99–108

INNERVATION

Effects of betahistine on vestibular receptors of the frog. Botta L, et al. **Acta Otolaryngol (Stockh)** 1998 Jul; 118(4):519–23

Canal and otolith afferent activity underlying eye velocity responses to pitching while rotating. Raphan T, et al. **Ann N Y Acad Sci** 1999 May 28;871:181–94

Anatomical evidence for binaural processing in the descending octaval nucleus of the toadfish (Opsanus tau). Edds-Walton PL. **Hear Res** 1998 Sep;123(1–2):41–54

Characteristics of regenerating horizontal semicircular canal afferent and efferent fibers in the toadfish, Opsanus tau. Mensinger AF, et al. **J Comp Neurol** 1999 Aug 9; 410(4):653–76

Recovery of semicircular canal primary afferent activity in the pigeon after streptomycin ototoxicity. Li W, et al. **J Neurophysiol** 1998 Dec;80(6):3297–311

PATHOLOGY

Imaging case of the month: bilateral empty internal auditory canal. Nishizaki K, et al. **Am J Otol** 1999 Jan;20(1):91–2

PHYSIOLOGY

Contribution of the vertical semicircular canals to the caloric nystagmus. Aw ST, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):618–27

Sympathetic nerve activity during natural stimulation of horizontal semicircular canals in humans. Ray CA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1274–8

VOR gain modulation in the monkey due to convergence of otolith and semicircular canal afferences during eccentric sinusoidal rotation. Fuhry L, et al. **Ann N Y Acad Sci** 1999 May 28;871:398–401

An alternative approach to the central processing of canal and otolith signals. Green AM, et al. **Ann N Y Acad Sci** 1999 May 28;871:402–5 (8 ref.)

Otolith–canal interaction during pitch while rotating. Haslwanter T, et al. **Ann N Y Acad Sci** 1999 May 28; 871:410–3

A simple model of vestibular canal–otolith signal fusion. Mergner T, et al. **Ann N Y Acad Sci** 1999 May 28;871:430–4

A linear canal–otolith interaction model to describe the human vestibulo-ocular reflex. Crane BT, et al. **Biol Cybern** 1999 Aug;81(2):109–18

Directional coding of three-dimensional movements by the vestibular semicircular canals. Rabbitt RD. **Biol Cybern** 1999 Jun;80(6):417–31

Are the semicircular canals of the European mole, Talpa europaea, adapted to a subterranean habitat? McVean A. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jun; 123(2):173–8

Effects of galvanic vestibular stimulation on otolithic and semicircular canal eye movements and perceived vertical. Zink R, et al. **Electroencephalogr Clin Neurophysiol** 1998 Sep;107(3):200–5

Mechanisms and effects of transepithelial polarization in the isolated semicircular canal. Norris CH, et al. **Hear Res** 1998 Sep;123(1–2):31–40

Development of blood–labyrinth barrier in the semicircular canal ampulla of the rat. Suzuki M, et al. **Hear Res** 1999 Mar;129(1–2):27–34

Integration of vestibular and head movement signals in the vestibular nuclei during whole-body rotation. Gdowski GT, et al. **J Neurophysiol** 1999 Jul;82(1):436–49

Hypothesis for shared central processing of canal and otolith signals. Green AM, et al. **J Neurophysiol** 1998 Oct; 80(4):2222–8

Firing behavior of vestibular neurons during active and passive head movements: vestibulo-spinal and other non-eye-movement related neurons. McCrea RA, et al. **J Neurophysiol** 1999 Jul;82(1):416–28

Short- and long-term consequences of canal plugging on gaze shifts in the rhesus monkey. I. Effects on gaze stabilization. Newlands SD, et al. **J Neurophysiol** 1999 May; 81(5):2119–30

Influence of surgical plugging on horizontal semicircular canal mechanics and afferent response dynamics. Rabbitt RD, et al. **J Neurophysiol** 1999 Aug;82(2):1033–53

Dynamics and kinematics of the angular vestibulo-ocular reflex in monkey: effects of canal plugging. Yakushin SB, et al. **J Neurophysiol** 1998 Dec;80(6):3077–99

Caloric stimulation of ampullar receptors: a new method to produce mechanically-evoked responses in frog semicircular canals. Zucca G, et al. **J Neurosci Methods** 1999 May 1;88(2):141–51

The EMG development of the longissimus and multifidus muscles after plugging the horizontal semicircular canals. Geisler HC, et al. **J Vestib Res** 1998 Nov–Dec;8(6):399–409

Position-dependent expression of inwardly rectifying K+ currents by hair cells of frog semicircular canals. Marcotti W, et al. **Neuroreport** 1999 Feb 25;10(3):601–6

Opioid peptides as possible neuromodulators of the afferent synaptic transmission in the frog semicircular canal. Andrianov GN, et al. **Neuroscience** 1999;93(2):801–6

Vestibular semicircular canal epithelium of the rat in culture on filter support: polarity and barrier properties. Milhaud PG, et al. **Pflugers Arch** 1999 May;437(6):823–30

PHYSIOPATHOLOGY

Transection and occlusion of lateral semicircular canal in guinea pigs [letter; comment] Campbell K. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):1000. Comment on: Ann Otol Rhinol Laryngol 1997 Dec;106(12):1082–6.

Recovery of semicircular canal primary afferent activity in the pigeon after streptomycin ototoxicity. Li W, et al. **J Neurophysiol** 1998 Dec;80(6):3297–311

Head impulses reveal loss of individual semicircular canal function. Aw ST, et al. **J Vestib Res** 1999;9(3):173–80

Evaluation of vertical semicircular canal function by the caloric test--a study on patients with benign paroxysmal positional vertigo. Iida M, et al. **Tokai J Exp Clin Med** 1998 Nov;23(5):231–4

SURGERY

Acute effects of semicircular canal destruction on the cochlea, with and without preceding Pseudomonas aeruginosa exotoxin A treatment. Iguchi H, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):511–8

Long-term results of posterior semicircular canal occlusion for intractable benign paroxysmal positional vertigo. Walsh RM, et al. **Clin Otolaryngol** 1999 Aug;24(4):316–23

SEMICONDUCTORS

Electrically excitable normal rat kidney fibroblasts: A new model system for cell–semiconductor hybrids. Parak WJ, et al. **Biophys J** 1999 Mar;76(3):1659–67

Spontaneous abortion in the UK semiconductor industry: an HSE investigation–reply to "Open letter to the Greenock Telegraph" [letter; comment] Elliott RC. **Int J Occup Environ Health** 1999 Apr–Jun;5(2):154–6. Comment on: Int J Occup Environ Health 1998 Jul–Sep;4(3):204–5.

Signal formation and decay in CdTe x-ray detectors under intense irradiation. Jahnke A, et al. **Med Phys** 1999 Jan; 26(1):38–48

Single nucleotide polymorphic discrimination by an electronic dot blot assay on semiconductor microchips. Gilles PN, et al. **Nat Biotechnol** 1999 Apr;17(4):365–70

Biochips. Persidis A. **Nat Biotechnol** 1998 Oct;16(10):981–3

ADVERSE EFFECTS

Open letter to the Greenock telegraph, Greenock, Scotland. [editorial] [see comments] Fowler B, et al. **Int J Occup Environ Health** 1998 Jul–Sep;4(3):204–5. Comment in: Int J Occup Environ Health 1999 Apr–Jun;5(2):154–6.

STANDARDS

In vivo semiconductor dosimetry as part of routine quality assurance. Millwater CJ, et al. **Br J Radiol** 1998 Jun; 71(846):661–8

SEMILUNAR BONE

INJURIES

Fracture-dislocation of the lunotriquetral coalition. Laurencin CT, et al. **J Natl Med Assoc** 1998 Dec; 90(12):779–81

Volar lunate fracture-dislocations of the wrist: case report for two patients treated with external frame and internal open reduction. Habernek H, et al. **J Trauma** 1998 Nov; 45(5):975–8

PATHOLOGY

MR imaging of the type II lunate bone: frequency, extent, and associated findings. Malik AM, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):335–8

SURGERY

Reconstruction of the scapholunate ligament in a cadaver model using a bone–ligament–bone autograft from the foot [see comments] Davis CA, et al. **J Hand Surg [Am]** 1998 Sep;23(5):884–92. Comment in: J Hand Surg [Am] 1999 Jan;24(1):200–1.

[Late outcome after surgical treatment of perilunar dislocation and dislocation fractures] Schaller P, et al. **Handchir Mikrochir Plast Chir** 1998 Sep;30(5):298–302 (Eng. Abstr.) **(Ger)**

[Mid-term results of scapho-trapezio-trapezoid arthrodesis in aseptic semilunar bone necrosis stage IIIa/b] Sauerbier M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1274–8 (Eng. Abstr.) **(Ger)**

SEMILUNAR CARTILAGES see **MENISCI, TIBIAL**

SEMILUNAR GANGLION see **TRIGEMINAL GANGLION**

SEMINAL PLASMA see **SEMEN**

SEMINAL VESICLES

Seminal vesicle cyst in a child with a contralateral upper urinary tract abnormality. Phillis TM Jr, et al. **BJU Int** 1999 Feb;83(3):359–60

Successful treatment of a persistent cutaneous fistula to the seminal tract: imaging with three-dimensional computed tomography. Maeda H, et al. **Br J Urol** 1998 Oct; 82(4):595–6

Large seminal vesicle cyst obstructing the ureter of a solitary kidney. Negi SC, et al. **Br J Urol** 1998 Sep;82(3):446–7

Prostate target volume variations during a course of radiotherapy. Antolak JA, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):661–72

Target position variability throughout prostate radiotherapy. Dawson LA, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1155–61

Perineural invasion and seminal vesicle involvement predict pelvic lymph node metastasis in men with localized carcinoma of the prostate [see comments] Stone NN, et al. **J Urol** 1998 Nov;160(5):1722–6. Comment in: J Urol 1998 Nov;160(5):1739–40.

Percutaneous transvesical drainage of a seminal vesicle abscess. Smith ER Jr, et al. **J Vasc Interv Radiol** 1998 Sep–Oct;9(5):743–5

The prevalence of seminal vesicle cysts in autosomal dominant polycystic kidney disease. Danaci M, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2825–8

Ectopic ureter draining into seminal vesicle cyst: usefulness of MRI. Matsuki M, et al. **Radiat Med** 1998 Jul–Aug; 16(4):309–11

Seminal vesicle abscess due to tuberculosis: role of tissue culture in making the diagnosis. Eastham JA, et al. **South Med J** 1999 Mar;92(3):328–9

Pelvic arteriovenous malformation mimicking seminal vesicle cyst. Richards SL, et al. **Urology** 1999 Feb;53(2):420–2

[Probability of seminal vesicle involvement in localized prostatic carcinoma. Significance in conformal radiotherapy] Feldmann HJ, et al. **Strahlenther Onkol** 1998 Nov;174(11):566–70 (Eng. Abstr.) **(Ger)**

[Cystic dysplasia in the seminal vesicle. Case report and literature review] Dominguez Dominguez M, et al. **Actas Urol Esp** 1999 Jun;23(6):532–5 (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Analysis of the prostatic central zone in patients with unilateral absence of wolffian duct structures: further evidence of the mesodermal origin of the prostatic central zone. Argani P, et al. **J Urol** 1998 Dec;160(6 Pt 1):2126–9

Hoxa-13 gene mutation results in abnormal seminal vesicle and prostate development. Podlasek CA, et al. **J Urol** 1999 May;161(5):1655–61

[Seminal vesicle cysts (and ejaculatory duct cysts) with ipsilateral renal agenesis. Report of five cases and review of the literature] Gallmetzer J, et al. **Minerva Urol Nefrol** 1999 Mar;51(1):27–31 (17 ref.) (Eng. Abstr.) **(Ita)**

ANATOMY & HISTOLOGY

Precocious recrudescence of seminal vesicle and testis in catfish, Clarias batrachus (Linn.), subjected to a long photoperiod regime. Singh MS, et al. **Indian J Exp Biol** 1998 Dec;36(12):1264–8

BLOOD SUPPLY

Suppression of 125I-vasoactive intestinal polypeptide binding sites in arteries of the hamster seminal vesicle following castration. Barroso CP, et al. **Histochem J** 1999 May; 31(5):271–6

CHEMISTRY

Developmental profile of a caltrin-like protease inhibitor, P12, in mouse seminal vesicle and characterization of its binding sites on sperm surface. Chen LY, et al. **Biol Reprod** 1998 Dec;59(6):1498–505

Expression of transforming growth factor-beta isoforms in the rat male accessory sex organs and epididymis. Desai KV, et al. **Cell Tissue Res** 1998 Nov;294(2):271–7

Potent inhibition of CD4/TCR-mediated T cell apoptosis by a CD4-binding glycoprotein secreted from breast tumor and seminal vesicle cells. Gaubin M, et al. **J Immunol** 1999 Mar 1;162(5):2631–8

CYTOLOGY

DNA ploidy in seminal vesicle cells. A potential diagnostic pitfall in urine cytology. Wojcik EM, et al. **Anal Quant Cytol Histol** 1999 Feb;21(1):29–34

Immunohistochemical localization of the spermadhesin AWN-1 in the equine male genital tract. Hoshiba H, et al. **Anat Histol Embryol** 1998 Oct;27(5):351–3

DRUG EFFECTS

Effects of administration of testosterone on seminal vesicle activity in the catfish Clarias batrachus during preparatory phase: a study correlating changes in testis and serum sex steroid levels. Singh MS, et al. **Acta Biol Hung** 1997; 48(4):421–30

Effect of short-term treatment of eugenol on the seminal

vesicles of adult albino rats. Vanithakumari G, et al. **Indian J Exp Biol** 1998 Dec;36(12):1240–4

Effects of Azadirachta indica leaves on the seminal vesicles and ventral prostate in albino rats. Kasutri M, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):234–40

Effects of lead on the male reproductive system in mice. Wadi SA, et al. **J Toxicol Environ Health** 1999 Apr 9; 56(7):513–21

Development of androgen-independent carcinomas from androgen-dependent preneoplastic lesions in the male accessory sex organs of rats treated with 3,2'-dimethyl-4-aminobiphenyl and testosterone propionate. Iwasaki S, et al. **Jpn J Cancer Res** 1999 Jan; 90(1):23–30

Effects of a soybean isoflavone mixture on carcinogenesis in prostate and seminal vesicles of F344 rats. Onozawa M, et al. **Jpn J Cancer Res** 1999 Apr;90(4):393–8

Synthesis and pharmacological effect of 6-halo-16 beta-methyl-pregnane derivatives. Cabeza M, et al. **Proc West Pharmacol Soc** 1998;41:87–8

ENZYMOLOGY

Gene expression of a novel cytochrome P450 of the CYP4F subfamily in human seminal vesicles. Bylund J, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):169–74

Protein kinase CK2 activities in human prostatic and seminal-vesicle secretions and seminal plasma. Wilson MJ, et al. **J Androl** 1998 Nov–Dec;19(6):754–60

GROWTH & DEVELOPMENT

Prostatic growth and development are regulated by FGF10. Thomson AA, et al. **Development** 1999 Aug; 126(16):3693–701

INNERVATION

Ultrastructure and innervation of water buffalo (Bubalus bubalis) seminal vesicle. Abou-Elmagd A, et al. **Acta Anat (Basel)** 1992;145(4):420–9

Distribution of vasoactive intestinal peptide and calcitonin gene-related peptide immunoreactive nerve fibers and binding sites in the hamster seminal vesicle during post-natal development. Afonso F, et al. **Histol Histopathol** 1999 Jul;14(3):761–70

METABOLISM

Effects of chronic ethanol ingestion on the vasoactive intestinal peptide receptor–effector system from rat seminal vesicle membranes. Juarranz MG, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):318–23

DNA ploidy in seminal vesicle cells. A potential diagnostic pitfall in urine cytology. Wojcik EM, et al. **Anal Quant Cytol Histol** 1999 Feb;21(1):29–34

Androgen-dependent synthesis/secretion of caltrin, calcium transport inhibitor protein of mammalian seminal vesicle. Novella ML, et al. **Arch Androl** 1999 Jul–Aug;43(1):1–12

Semenogelin I: a coagulum forming, multifunctional seminal vesicle protein. Robert M, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):944–60 (95 ref.)

Characterization of glycoconjugates of guinea pig seminal vesicle by lectin histochemistry. Chan FL, et al. **Histochem J** 1998 Jun;30(6):447–59

Distribution of vasoactive intestinal peptide and calcitonin gene-related peptide immunoreactive nerve fibers and binding sites in the hamster seminal vesicle during post-natal development. Afonso F, et al. **Histol Histopathol** 1999 Jul;14(3):761–70

Immunohistochemical characteristics of estrogen receptor alpha positive cells in glandular epithelium of the rat seminal vesicle. Yuasa H, et al. **Tohoku J Exp Med** 1999 Jan;187(1):25–35

MICROBIOLOGY

Aeromonas hydrophila isolated from cases of bovine seminal vesiculitis in south Brazil. Moro EM, et al. **J Vet Diagn Invest** 1999 Mar;11(2):189–91

PATHOLOGY

Seminal vesicle cysts in the patients with adult polycystic kidney disease [letter] Danaci M, et al. **Clin Nephrol** 1998 Sep;50(3):199–200

Male adnexal tumour of probable Wolffian origin occurring in a seminal vesicle. Middleton LP, et al. **Histopathology** 1998 Sep;33(3):269–74

Seminal vesicle carcinoma [letter] Oxley JD, et al. **Histopathology** 1999 Jun;34(6):562–3

Seminal megavesicles with adult polycystic kidney disease. Hendry WF, et al. **Hum Reprod** 1998 Jun;13(6):1567–9

Porin from Pseudomonas aeruginosa induces apoptosis in an epithelial cell line derived from rat seminal vesicles. Buommino E, et al. **Infect Immun** 1999 Sep;67(9):4794–800

Influence of preoperative vesicle biopsy on the decision for radical prostatectomy. Deliveliotis CH, et al. **Int Urol Nephrol** 1999;31(1):83–7

Later onset of apoptosis in the bulbourethral glands after castration compared to that in the seminal vesicles. Tsuji M, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(2):113–8

Unilateral obstruction of the vas deferens diagnosed by seminal vesicle aspiration. Seifman BD, et al. **Tech Urol** 1999 Jun;5(2):113–5

[Seminal vesicle cysts associated with ipsilateral renal agenesis. Diagnosis, and long-term clinical course] Uder M, et al. **Radiologe** 1998 Sep;38(9):766–73 (43 ref.) (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Many LH peaks are needed to physiologically stimulate testosterone secretion: modulation by fasting and NPY. Pierroz DD, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E603–10

Sexual selection and evolution of the seminal vesicles in primates. Dixson AF. **Folia Primatol (Basel)** 1998; 69(5):300–6

RADIATION EFFECTS

Does prostate brachytherapy treat the seminal vesicles? A dose-volume histogram analysis of seminal vesicles in patients undergoing combined PD-103 prostate implantation and external beam irradiation. Stock RG, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):385–9

RADIOGRAPHY

Two cases of seminal vesicle fistula. Carlin J, et al. **Clin Radiol** 1999 May;54(5):309–11

[Spiral CT vesiculography—a new examination technique in patients with histologically verified prostate carcinoma] Beilicke M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):662–5 (Eng. Abstr.) **(Ger)**

SURGERY

Improving bladder neck division in radical retropubic prostatectomy by prior dissection of the seminal vesicles and vasa deferentia. Barré C, et al. **Eur Urol** 1999 Aug; 36(2):107–10

Anterior resection with total mesorectal excision [letter; comment] Williams E, et al. **J R Coll Surg Edinb** 1999 Apr;44(2):136. Comment on: J R Coll Surg Edinb 1999 Feb;44(1):40–5.

Laparoscopic excision of seminal vesicle cysts. Ikari O, et al. **J Urol** 1999 Aug;162(2):498–9

ULTRASONOGRAPHY

Significant changes in volume of seminal vesicles as determined by transrectal sonography in relation to age and benign prostatic hyperplasia. Hayakawa T, et al. **Tohoku J Exp Med** 1998 Nov;186(3):193–204

ULTRASTRUCTURE

Ultrastructure and innervation of water buffalo (Bubalus bubalis) seminal vesicle. Abou-Elmagd A, et al. **Acta Anat (Basel)** 1992;145(4):420–9

Fine structure of rat liver, adrenal, testis and seminal vesicle in experimental emaciation. Hashimoto PH, et al. **J Electron Microsc (Tokyo)** 1998;47(3):251–62

SEMINIFEROUS EPITHELIUM

CHEMISTRY

Function of stem cell factor as a survival factor of spermatogonia and localization of messenger ribonucleic acid in the rat seminiferous epithelium. Hakovirta H, et al. **Endocrinology** 1999 Mar;140(3):1492–8

Differential expression of gap-junction gene connexin 31 in seminiferous epithelium of rat testes. Mok BW, et al. **FEBS Lett** 1999 Jun 25;453(3):243–8

The anti-PCNA reaction in the seminiferous tubule cells of Lewis rat testis. Part I: The topography of reaction. Bołoz W, et al. **Folia Histochem Cytobiol** 1999;37(2):79–80

CYTOLOGY

Stages of the cycle of the seminiferous epithelium of the viscacha (Lagostomus maximus maximus). Muñoz EM, et al. **Anat Rec** 1998 Sep;252(1):8–16

Apoptosis in the rat spermatogenic epithelium following androgen withdrawal: changes in apoptosis-related genes. Woolveridge I, et al. **Biol Reprod** 1999 Feb;60(2):461–70

The effects of aging on the seminiferous epithelium and the blood–testis barrier of the Brown Norway rat. Levy S, et al. **J Androl** 1999 May–Jun;20(3):356–65

DRUG EFFECTS

The cycle duration of the seminiferous epithelium remains unaltered during GnRH antagonist-induced testicular involution in rats and monkeys. Aslam H, et al. **J Endocrinol** 1999 May;161(2):281–8

"Have you seen this?" Progression of drug-induced testicular toxicity. Morton D. **Toxicol Pathol** 1999 May–Jun; 27(3):380–1

IMMUNOLOGY

The anti-PCNA reaction in the seminiferous tubule cells of Lewis rat testis. Part I: The topography of reaction. Bołoz W, et al. **Folia Histochem Cytobiol** 1999;37(2):79–80

METABOLISM

Stage-specific regulation of stem cell factor gene expression in the rat seminiferous epithelium. Yan W, et al. **Endocrinology** 1999 Mar;140(3):1499–504

Expression and regulation of LRP-2/megalin in epithelial cells lining the efferent ducts and epididymis during postnatal development. Hermo L, et al. **Mol Reprod Dev** 1999 Jul;53(3):282–93

PATHOLOGY

Degeneration of the seminiferous epithelium following epididymal obstruction in prepubertal rats. Flickinger CJ, et al. **Anat Rec** 1999 Jan;254(1):76–86

Influence of the male reproductive tract on the reproductive potential of round spermatids abnormally released from the seminiferous epithelium. Sofikitis N, et al. **Hum Reprod** 1999 Aug;14(8):1998–2006

Degeneration of the seminiferous epithelium with ageing is a cause of spermatoceles? Itoh M, et al. **Int J Androl** 1999 Apr;22(2):91–6

PHYSIOLOGY

Stages of the cycle of the seminiferous epithelium of the viscacha (Lagostomus maximus maximus). Muñoz EM, et al. **Anat Rec** 1998 Sep;252(1):8–16

The effects of aging on the seminiferous epithelium and the blood–testis barrier of the Brown Norway rat. Levy S, et al. **J Androl** 1999 May–Jun;20(3):356–65

The length of the cycle of seminiferous epithelium in goats (Capra hircus). França LR, et al. **Tissue Cell** 1999 Jun; 31(3):274–80

Seminiferous epithelium cycle and its duration in capybaras (Hydrochoerus hydrochaeris). Paula TA, et al. **Tissue Cell** 1999 Jun;31(3):327–34

ULTRASTRUCTURE

Spermatid translocation in the rat seminiferous epithelium: coupling membrane trafficking machinery to a junction plaque. Beach SF, et al. **Biol Reprod** 1999 Apr; 60(4):1036–46

SEMINIFEROUS TUBULES

ABNORMALITIES

Identification of seminiferous tubule aberrations and a low incidence of testicular microliths associated with the development of azoospermia. Smith GD, et al. **Fertil Steril** 1999 Sep;72(3):467–71

ANATOMY & HISTOLOGY

Potential daily sperm production, Sertoli cell number, and seminiferous tubule characteristics in beef bulls fed conventional or gossypol-enriched diets. Cerelli JS, et al. **J Androl** 1999 Jul–Aug;20(4):519–28

CHEMISTRY

The anti-PCNA reaction in the seminiferous tubule cells of Lewis rat testis. Part II: The unilateral inflammatory effect of Freund's complete adjuvant. Godlewski A, et al. **Folia Histochem Cytobiol** 1999;37(2):81–2

CYTOLOGY

Metaphase-specific cell death in meiotic spermatocytes in mice. Kon Y, et al. **Cell Tissue Res** 1999 May;296(2):359–69

Computer assisted image analysis to assess colonization of recipient seminiferous tubules by spermatogonial stem cells from transgenic donor mice. Dobrinski I, et al. **Mol Reprod Dev** 1999 Jun;53(2):142–8

DRUG EFFECTS

Sterological estimation of seminiferous tubular dysfunction in chloroquine treated rats. Okanlawon AO, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):101–6

Neonatal exposure of male rats to estradiol benzoate causes rete testis dilation and backflow impairment of spermatogenesis. Aceitero J, et al. **Anat Rec** 1998 Sep; 252(1):17–33

Effects of single polychlorinated biphenyls on the morphology of cultured rat tubuli seminiferi. Pflieger-Bruss S, et al. **Andrologia** 1999 Mar;31(2):77–82

Heregulins or neu differentiation factors and the interactions between peritubular myoid cells and Sertoli cells. Hoeben E, et al. **Endocrinology** 1999 May;140(5):2216–23

Apoptosis pattern elicited by several apoptogenic agents on the seminiferous epithelium of the adult rat testis. Blanco-Rodríguez J, et al. **J Androl** 1998 Jul–Aug; 19(4):487–97

Reproductive and endocrine function in rams exposed to the organochlorine pesticides lindane and pentachlorophenol from conception. Beard AP, et al. **J Reprod Fertil** 1999 Mar;115(2):303–14

IMMUNOLOGY

The anti-PCNA reaction in the seminiferous tubule cells of Lewis rat testis. Part II: The unilateral inflammatory effect of Freund's complete adjuvant. Godlewski A, et al. **Folia Histochem Cytobiol** 1999;37(2):81–2

METABOLISM

Specific expression of the mRNA for 25 kDA heat-shock protein in the spermatocytes of mouse seminiferous tubules. Wakayama T, et al. **Anat Embryol (Berl)** 1999 May; 199(5):419–25

In vivo gene transfer to mouse spermatogenic cells by deoxyribonucleic acid injection into seminiferous tubules and subsequent electroporation. Yamazaki Y, et al. **Biol Reprod** 1998 Dec;59(6):1439–44

PATHOLOGY

Mast cells in testicular biopsies of infertile men with 'mixed atrophy' of seminiferous tubules. Ježek D, et al. **Andrologia** 1999 Jul;31(4):203–10

Effect of long-term vasectomy on seminiferous tubules in the guinea pig. Aitken H, et al. **Clin Anat** 1999;12(4):250–63

The fungicide carbendazim induces meiotic micronuclei in the spermatids of the rat testis. Matsuo F, et al. **J Vet Med Sci** 1999 May;61(5):573–6

[Tubular ectasia of the rete testis as cystic space-occupying lesion of the testis--magnetic resonance tomography aspects in 5 cases] Hüppe T, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):594–7 **(Ger)**

PHYSIOLOGY

Cyclic expression of endothelin-converting enzyme-1 mediates the functional regulation of seminiferous tubule contraction. Tripiciano A, et al. **J Cell Biol** 1999 May 31; 145(5):1027–38

SECRETION

Secretion of glutathione S-transferase isoforms in the seminiferous tubular fluid, tissue distribution and sex steroid binding by rat GSTM1. Mukherjee SB, et al. **Biochem J** 1999 May 15;340 (Pt 1):309–20

ULTRASTRUCTURE

Sterological estimation of seminiferous tubular dysfunction in chloroquine treated rats. Okanlawon AO, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):101–6

Ultrastructure of peritubular tissue in association with tubular hyalinization in human testis. Haider SG, et al. **Tissue Cell** 1999 Feb;31(1):90–8

SEMINOMA

The management and clinical course of testicular seminoma: 15 years' experience at a single institution [see comments] Coleman JM, et al. **Clin Oncol (R Coll Radiol)** 1998; 10(4):237–41. Comment in: Clin Oncol (R Coll Radiol) 1999;11(2):137.

Testicular germ cell tumors: molecular understanding and clinical implications. Lutzker SG, et al. **Mol Med Today** 1998 Sep;4(9):404–11 (50 ref.)

BLOOD

Histologically pure seminoma with elevated alpha-fetoprotein: a clinicopathologic study of ten cases. Nazeer T, et al. **Oncol Rep** 1998 Nov-Dec;5(6):1425–9

CHEMISTRY

Different concentrations of two small stress proteins, alphaB crystallin and HSP27 in human urological tumor tissues. Takashi M, et al. **Urol Res** 1998;26(6):395–9

COMPLICATIONS

Spermatocytic seminoma in a maldescended testis. Stevens MJ, et al. **Br J Urol** 1993 Nov;72(5 Pt 1):657–9

Fine-needle aspiration cytology of a mediastinal seminoma associated with multilocular thymic cyst. Silverman JF, et al. **Diagn Cytopathol** 1999 Apr;20(4):224–8

Seminoma associated with bilateral cryptorchidism in Down's syndrome: a case report. Miki M, et al. **Int J Urol** 1999 Jul;6(7):377–80

Paraneoplastic disorders associated with seminoma [letter] Jaster JH, et al. **Neurology** 1999 Aug 11;53(3):658–9

Down's syndrome associated with seminoma in undescended testis. Ichiyanagi O, et al. **Scand J Urol Nephrol** 1998 Sep; 32(5):365–7

DIAGNOSIS

Testicular seminoma in a patient with ataxia-telangiectasia. Phillips HA, et al. **Clin Oncol (R Coll Radiol)** 1999; 11(1):63–4

Synchronous testicular seminoma and adrenocortical carcinoma: a case report. Inoue T, et al. **Int J Urol** 1998 Nov;5(6):615–7

Treatment of stage I seminoma: should beta-HCG positive seminoma be treated aggressively? Suzuki K, et al. **Int Urol Nephrol** 1998;30(5):593–8

[Bilateral testicular tumors. Contralateral benign lesions in germ cell tumors of the testis] Neubauer S, et al. **Urologe A** 1999 May;38(3):282–4 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

The management of residual masses after chemotherapy in metastatic seminoma. Ravi R, et al. **BJU Int** 1999 Apr; 83(6):649–53

High-dose chemotherapy in germ cell tumours: a large single centre experience. Rick O, et al. **Eur J Cancer** 1998 Nov; 34(12):1883–8

Management consideration in nonpulmonary visceral metastatic seminoma of testis. Park DS, et al. **J Korean Med Sci** 1999 Aug;14(4):431–7

Neutropenic colitis as a complication of high-dose chemotherapy for refractory testicular cancer. Kawai K, et al. **Jpn J Clin Oncol** 1998 Sep;28(9):571–3

Timing of effective natural killer cell collection in cancer patients after high dose chemotherapy, compared to peripheral blood stem cell collection. Komatsu F, et al. **Ther Apher** 1998 Nov;2(4):277–82

[Metastatic pure seminomas of the testicle: role of chemotherapy] Ceccaldi B, et al. **Bull Cancer** 1998 Oct; 85(10):887–91 (36 ref.) (Eng. Abstr.) **(Fre)**

[Bleomycin-induced PSS-like pseudoscleroderma. Case report and review of the literature] Behrens S, et al. **Hautarzt** 1998 Sep;49(9):725–9 (21 ref.) (Eng. Abstr.) **(Ger)**

[Carboplatin monotherapy in clinical stage I of seminoma. An acceptable alternative?] Nöst G, et al. **Urologe A** 1998 Nov;37(6):629–34 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Characterization of alkaline phosphatase genes expressed in seminoma by cDNA cloning. Shigenari A, et al. **Cancer Res** 1998 Nov 15;58(22):5079–82

Purification and characterization of alkaline phosphatase from human seminomas. Yamamoto T, et al. **Tokai J Exp Clin Med** 1998 Oct;23(4):199–207

Natural interferon enhances expression of placental alkaline phosphatase in human seminoma xenograft. Imao T, et al. **Urol Res** 1998;26(6):377–82

EPIDEMIOLOGY

Analyzing incidence of testis cancer by means of a frailty model. Aalen OO, et al. **Cancer Causes Control** 1999 Aug; 10(4):285–92

Maternal health and pre- and perinatal characteristics in the etiology of testicular cancer: a prospective population- and register-based study on Norwegian males born between 1967 and 1995. Wanderås EH, et al. **Cancer Causes Control** 1998 Oct;9(5):475–86

Trends in the incidence of testicular germ cell cancer in Ontario by histologic subgroup, 1964–1996 [see comments] Weir HK, et al. **CMAJ** 1999 Jan 26;160(2):201–5. Comment in: CMAJ 1999 Jan 26;160(2):213–4.

Surveillance study for clinical stage I testicular seminomas and nonseminomatous germ cell tumors. Suzuki K, et al. **Int J Urol** 1998 Nov;5(6):568–74

ETIOLOGY

Seminomas complicating undescended intraabdominal testes in patients with prior negative findings from surgical exploration. Miller FH, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):425–8

Lepromatous orchitis associated with seminoma. Ebenezer GJ, et al. **Int J Lepr Other Mycobact Dis** 1998 Sep; 66(3):385–6

Germinal cell tumors of the testis in cryptorchids. Berkmen F, et al. **J Exp Clin Cancer Res** 1998 Dec;17(4):409–12

GENETICS

Spermatocytic seminoma as compared to classical seminoma: an immunohistochemical and DNA flow cytometric study. Kraggerud SM, et al. **APMIS** 1999 Mar;107(3):297–302

Analysis of the biological properties and use of comparative genomic hybridization to locate chromosomal aberrations in the human testicular seminoma cell line JKT-1 and its highly metastatic cell line JKT-HM. Jo Y, et al. **BJU Int** 1999 Mar;83(4):469–75

Chromosomal constitution of human spermatocytic seminomas: comparative genomic hybridization supported by conventional and interphase cytogenetics. Rosenberg C, et al. **Genes Chromosomes Cancer** 1998 Dec;23(4):286–91

Human and mouse RAD17 genes: identification, localization, genomic structure and histological expression pattern in normal testis and seminoma. von Deimling F, et al. **Hum Genet** 1999 Jul-Aug;105(1-2):17–27

Seminoma in a postmenopausal woman with a Y;15 translocation in peripheral blood lymphocytes and a t(Y;15)/45,X Turner mosaic pattern in skin fibroblasts. Hoshi N, et al. **J Med Genet** 1998 Oct;35(10):852–6

A human seminoma xenograft model with regional lymph node metastasis. Konaka H, et al. **J Urol** 1999 Jan; 161(1):342–8

Pathogenesis of testicular germ cell tumours. Looijenga LH, et al. **Rev Reprod** 1999 May;4(2):90–100 (78 ref.)

IMMUNOLOGY

Fas and Fas-ligand expression in seminomatous testes. Braendstrup O, et al. **APMIS** 1999 Apr;107(4):431–6

High prevalence of antibodies against HERV-K10 in patients with testicular cancer but not with AIDS. Goedert JJ, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Apr;8(4 Pt 1):293–6

Tumour responding accessory cells in testicular seminoma: an immunohistochemical study. Cope NJ, et al. **Histopathology** 1999 Jun;34(6):510–6

Immunohistochemical expression of monoclonal antibody 43-9F in testicular germ cell tumours. Heidenreich A, et al. **Int J Androl** 1998 Oct;21(5):283–8

METABOLISM

Spermatocytic seminoma as compared to classical seminoma: an immunohistochemical and DNA flow cytometric study. Kraggerud SM, et al. **APMIS** 1999 Mar;107(3):297–302

Human and mouse RAD17 genes: identification, localization, genomic structure and histological expression pattern in normal testis and seminoma. von Deimling F, et al. **Hum Genet** 1999 Jul-Aug;105(1-2):17–27

Detection of alpha-fetoprotein mRNA in seminoma. Yuasa T, et al. **J Androl** 1999 May-Jun;20(3):336–40

PATHOLOGY

Development of a testicular tumour after negative biopsy for carcinoma in situ. Zöller G, et al. **Br J Urol** 1998 Oct; 82(4):605

Trends in the incidence of testicular germ cell cancer in Ontario by histologic subgroup, 1964–1996 [see comments] Weir HK, et al. **CMAJ** 1999 Jan 26;160(2):201–5. Comment in: CMAJ 1999 Jan 26;160(2):213–4.

Spermatocytic seminoma: a cytology and histology case report with review of the literature. Saran RK, et al. **Diagn Cytopathol** 1999 Apr;20(4):233–6 (18 ref.)

Fine-needle aspiration cytology of a mediastinal seminoma associated with multilocular thymic cyst. Silverman JF, et al. **Diagn Cytopathol** 1999 Apr;20(4):224–8

Tumour responding accessory cells in testicular seminoma: an immunohistochemical study. Cope NJ, et al. **Histopathology** 1999 Jun;34(6):510–6

Modified neck dissection for metastatic nonseminomatous testicular carcinoma. Weisberger EC, et al. **Laryngoscope** 1999 Aug;109(8):1241–4

Tubular seminoma of the testis. Takeshima Y, et al. **Pathol Int** 1999 Jul;49(7):676–9

A poorly differentiated germ cell tumor (seminoma) in a Long Evans rat. Kerlin RL, et al. **Toxicol Pathol** 1998 Sep-Oct;26(5):691–4

[Two cases of giant testicular tumor with widespread extension to the spermatic cord: usefulness of upfront chemotherapy] Kin T, et al. **Hinyokika Kiyo** 1999 Mar; 45(3):191–4 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

The effect of testicular seminoma in semen quality. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Apr; 83(2):219–22

PSYCHOLOGY

A case of acute psychosis and mediastinal seminoma [letter] Plioplys S, et al. **Psychosomatics** 1998 Nov-Dec; 39(6):559–61

RADIONUCLIDE IMAGING

Seminoma and sarcoidosis: a cause for false positive mediastinal uptake in PET? [letter; comment] Muggia FM, et al. **Ann Oncol** 1998 Aug;9(8):924. Comment on: Ann Oncol 1998 Mar;9(3):321–5.

Ga-67 citrate imaging of a primary thymic seminoma. Lescout JM, et al. **Clin Nucl Med** 1998 Jul;23(7):471–3

RADIOTHERAPY

Radiation therapy for stage I and II testicular seminoma: changes in the treatment policy for the prescribed dose. Sato T, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):815–9

The sperm deformity and the sperm multiple anomalies indexes in patients who underwent unilateral orchectomy and preventive radiotherapy. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;80(2):247–50

Postoperative radiotherapy for Stage I/II seminoma: results for 212 patients. Bauman GS, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):313–7

Long-term results of adjuvant irradiation or surveillance in stage I testicular seminoma. Miki T, et al. **Int J Urol** 1998 Jul;5(4):357–60

Second non-germ cell malignancies in patients treated for stage I-II testicular seminoma. Bachaud JM, et al. **Radiother Oncol** 1999 Feb;50(2):191–7

Impact of localized radiotherapy on blood immune cells counts and function in humans. Belka C, et al. **Radiother Oncol** 1999 Feb;50(2):199–204

Seminoma of the testis: is scrotal shielding necessary when radiotherapy is limited to the para-aortic nodes? Bieri S, et al. **Radiother Oncol** 1999 Mar;50(3):349–53

[Therapeutic strategy in stage I seminomas: which lymph node areas are to be irradiated?] Coquard R, et al. **Prog Urol** 1999 Feb;9(1):101–6 (Eng. Abstr.) **(Fre)**

[The gonadal loading during the irradiation of lymph outflow in operated seminomas. In-vivo dosimetry] Gruber G, et al. **Strahlenther Onkol** 1999 Apr;175(4):185–9 (Eng. Abstr.) **(Ger)**

[Long-term tumor control and fertility after para-aortic limited radiotherapy of stage I seminoma] Sedlmayer F, et al. **Strahlenther Onkol** 1999 Jul;175(7):320–4 (Eng. Abstr.) **(Ger)**

SEMINOMA

SECONDARY

Xanthogranulomatous pyelonephritis--a pseudo-neoplastic disease. Peters FP, et al. **Acta Oncol** 1999;38(2):269-70

Metachronous metastasis from testicular cancer masquerading as a renal calculus. Sharma R, et al. **Br J Urol** 1998 Dec;82(6):922

Management consideration in nonpulmonary visceral metastatic seminoma of testis. Park DS, et al. **J Korean Med Sci** 1999 Aug;14(4):431-7

A human seminoma xenograft model with regional lymph node metastasis. Konaka H, et al. **J Urol** 1999 Jan; 161(1):342-8

[Surgical resection of recurrent pulmonary metastases] Galbis JM, et al. **Arch Bronconeumol** 1998 Nov;34(10):489-91 (Eng. Abstr.) **(Spa)**

SURGERY

Evaluation of sexual life after orchidectomy followed by radiotherapy for early-stage seminoma of the testis. Caffo O, et al. **BJU Int** 1999 Mar;83(4):462-8

Paternity in a patient with seminoma and carcinoma in situ in a solitary testis treated by partial orchidectomy. Houlgatte A, et al. **BJU Int** 1999 Aug;84(3):374-5

The sperm deformity and the sperm multiple anomalies indexes in patients who underwent unilateral orchectomy and preventive radiotherapy. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;80(2):247-50

Long-term results of adjuvant irradiation or surveillance in stage I testicular seminoma. Miki T, et al. **Int J Urol** 1998 Jul;5(4):357-60

The significance of resections for residual masses after chemotherapy in metastatic testicular tumors. Suzuki K, et al. **Int J Urol** 1999 Jun;6(6):305-13

Modified neck dissection for metastatic nonseminomatous testicular carcinoma. Weisberger EC, et al. **Laryngoscope** 1999 Aug;109(8):1241-4

THERAPY

Is surveillance for stage 1 germ cell tumours of the testis appropriate outside a specialist centre? [see comments] Jones A, et al. **BJU Int** 1999 Jul;84(1):79-84. Comment in: BJU Int 1999 Jul;84(1):61-7.

The development of a malignant fibrous histiocytoma after treatment for advanced testicular seminoma. Shinohara N, et al. **BJU Int** 1999 Feb;83(3):355-6

Successful treatment of a bulky seminoma in an abdominal undescended testis: a case report. Kuo JY, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1998 Nov; 61(11):683-7

The management and clinical course of testicular seminoma: 15 years' experience at a single institution [letter; comment] Russell JM. **Clin Oncol (R Coll Radiol)** 1999;11(2):137. Comment on: Clin Oncol (R Coll Radiol) 1998;10(4):237-41.

Treatment of stage I seminoma: should beta-HCG positive seminoma be treated aggressively? Suzuki K, et al. **Int Urol Nephrol** 1998;30(5):593-8

Primary mediastinal seminoma. Efficacy of chemo-radiotherapy alone. Osada H, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep;46(9):810-4

[A case of neutropenic enterocolitis in high dose chemotherapy with peripheral blood stem cell transplantation for relapsed testicular tumor] Muraki O, et al. **Hinyokika Kiyo** 1998 Oct;44(10):743-5 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Potential difficulty with extirpation of seminoma after orchidopexy with scrotal transposition (Ombredonne procedure). Hendry WF, et al. **Br J Urol** 1998 Sep; 82(3):448-9

Paraneoplastic encephalomyelitis and seminoma: importance of testicular ultrasonography. Wingerchuk DM, et al. **Neurology** 1998 Nov;51(5):1504-7

VETERINARY

Treatment of aggressive testicular tumors in four dogs. Dhaliwal RS, et al. **J Am Anim Hosp Assoc** 1999 Jul-Aug; 35(4):311-8 (43 ref.)

Simultaneous seminoma and interstitial cell tumour in a rabbit with a previous cutaneous basal cell tumour. Roccabianca P, et al. **J Comp Pathol** 1999 Jul;121(1):95-9

SEMIOCHEMICALS see **PHEROMONES**

SEMI-PERMEABLE CHAMBERS see **DIFFUSION CHAMBERS, CULTURE**

SEMI-PRIVATE ROOMS see **PATIENTS' ROOMS**

SEMISYNTHETIC VACCINES see **VACCINES, SYNTHETIC**

SEMLIKI FOREST VIRUS

Comparative analysis of humoral immune responses to HIV type 1 envelope glycoproteins in mice immunized with a DNA vaccine, recombinant Semliki Forest virus RNA, or recombinant Semliki Forest virus particles. Brand D, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1369-77

Enzyme distributions in subcellular fractions of BHK cells infected with Semliki forest virus: evidence for a major fraction of sphingomyelin synthase in the trans-golgi network. Allan D, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):277-87

Construction and characterization of recombinant VLPs and Semliki-Forest virus live vectors for comparative evaluation in the SHIV monkey model. Notka F, et al. **Biol Chem** 1999 Mar;380(3):341-52

Virus infection induces neuronal apoptosis: A comparison with trophic factor withdrawal. Allsopp TE, et al. **Cell Death Differ** 1998 Jan;5(1):50-9

Semiliki forest virus vector carrying the bovine viral diarrhea virus NS3 (p80) cDNA induced immune responses in mice and expressed BVDV protein in mammalian cells. Reddy JR, et al. **Comp Immunol Microbiol Infect Dis** 1999 Oct; 22(4):231-46

Polyethylene glycol-mediated infection of non-permissive mammalian cells with semliki forest virus: application to signal transduction studies. Arudchandran R, et al. **J Immunol Methods** 1999 Jan 1;222(1-2):197-208

Regional changes in 5-HT1A but not in 5-HT2A receptors in mouse brain after Semliki Forest virus infection: radioligand binding and autoradiographic studies. Mehta S, et al. **J Neurovirol** 1998 Dec;4(6):606-18

Two-helper RNA system for production of recombinant Semliki forest virus particles. Smerdou C, et al. **J Virol** 1999 Feb;73(2):1092-8

Cell death mechanisms in the olfactory bulb of rats infected intranasally with Semliki forest virus. Sammin DJ, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):236-43

CHEMISTRY

Molecular mimicry between a viral peptide and a myelin oligodendrocyte glycoprotein peptide induces autoimmune demyelinating disease in mice. Mokhtarian F, et al. **J Neuroimmunol** 1999 Mar 1;95(1-2):43-54

DRUG EFFECTS

Acceleration of viral replication and up-regulation of cytokine levels by antimalarials: implications in malaria-endemic areas. Seth P, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):180-6

Aurothiolates enhance the replication of Semliki Forest virus in the CNS and the exocrine pancreas. Scallan MF, et al. **J Neurovirol** 1999 Aug;5(4):392-400

ENZYMOLOGY

Guanosine nucleotide analogs as inhibitors of alphavirus mRNA capping enzyme. Lampio A, et al. **Antiviral Res** 1999 May;42(1):35-46

Semliki Forest virus mRNA capping enzyme requires association with anionic membrane phospholipids for activity. Ahola T, et al. **EMBO J** 1999 Jun 1;18(11):3164-72

RNA helicase activity of Semliki Forest virus replicase protein NSP2. Gomez de Cedrón M, et al. **FEBS Lett** 1999 Apr 1;448(1):19-22

GENETICS

Respiratory syncytial virus G glycoprotein expressed using the Semliki Forest virus replicon is biologically active. Peroulis I, et al. **Arch Virol** 1999;144(1):107-16

Characterization of the human gonadotropin-releasing hormone receptor heterologously produced using the baculovirus/insect cell and the Semliki Forest virus systems. Marheineke K, et al. **Cell Mol Neurobiol** 1998 Oct; 18(5):509-24

Perturbation of the synaptic release machinery in hippocampal neurons by overexpression of SNAP-25 with the Semliki Forest virus vector. Owe-Larsson B, et al. **Eur J Neurosci** 1999 Jun;11(6):1981-7

Transfer of the murine interleukin-12 gene in vivo by a Semliki Forest virus vector induces B16 tumor regression through inhibition of tumor blood vessel formation monitored by Doppler ultrasonography. Asselin-Paturel C, et al. **Gene Ther** 1999 Apr;6(4):606-15

Cationic lipid-mediated transfection of cells in culture requires mitotic activity. Mortimer I, et al. **Gene Ther** 1999 Mar;6(3):403-11

Recombinant Semliki Forest virus particles encoding the prME or NS1 proteins of louping ill virus protect mice from lethal challenge. Fleeton MN, et al. **J Gen Virol** 1999 May;80 (Pt 5):1189-98

The Semliki Forest virus vector induces p53-independent apoptosis. Glasgow GM, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2405-10

Recombinant Semliki Forest virus and Sindbis virus efficiently infect neurons in hippocampal slice cultures. Ehrengruber MU, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7041-6

Stable alphavirus packaging cell lines for Sindbis virus and Semliki Forest virus-derived vectors. Polo JM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4598-603

Growth and stability of a cholesterol-independent Semliki Forest virus mutant in mosquitoes. Ahn A, et al. **Virology** 1999 Sep 30;262(2):452-6

GROWTH & DEVELOPMENT

Growth and stability of a cholesterol-independent Semliki Forest virus mutant in mosquitoes. Ahn A, et al. **Virology** 1999 Sep 30;262(2):452-6

IMMUNOLOGY

Effect of compounds with antibacterial activities in human milk on respiratory syncytial virus and cytomegalovirus in vitro. Portelli J, et al. **J Med Microbiol** 1998 Nov; 47(11):1015-8

Immunization with recombinant Semliki Forest virus induces protection against influenza challenge in mice. Berglund P, et al. **Vaccine** 1999 Feb 5;17(5):497-507

Induction of HIV-1 IIIb neutralizing antibodies in BALB/c mice by a chimaeric peptide consisting of a T-helper cell epitope of Semliki Forest virus and a B-cell epitope of HIV. Fernández IM, et al. **Vaccine** 1998 Dec; 16(20):1936-40

METABOLISM

The isolation of the ectodomain of the alphavirus E1 protein as a soluble hemagglutinin and its crystallization. Wengler G, et al. **Virology** 1999 May 10;257(2):472-82

PATHOGENICITY

The molecular pathogenesis of Semliki Forest virus: a model virus made useful? Atkins GJ, et al. **J Gen Virol** 1999 Sep; 80 (Pt 9):2287-97 (102 ref.)

PHYSIOLOGY

Influenza viruses select ordered lipid domains during budding from the plasma membrane. Scheiffele P, et al. **J Biol Chem** 1999 Jan 22;274(4):2038-44

Alphavirus replicase protein NSP1 induces filopodia and rearrangement of actin filaments. Laakkonen P, et al. **J Virol** 1998 Dec;72(12):10265-9

ULTRASTRUCTURE

The first step: activation of the Semliki Forest virus spike protein precursor causes a localized conformational change in the trimeric spike. Ferlenghi I, et al. **J Mol Biol** 1998; 283(1):71-81

SENDAI VIRUS see **PARAMYXOVIRUS**

SENECIO

see related
PYRROLIZIDINE ALKALOIDS

[Veno-occlusive disease after prolonged treatment with senecionine (Hemoluol) (letter)] Bensaude RJ, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):363-4 **(Fre)**

ADVERSE EFFECTS

[Veno-occlusive disease following chronic ingestion of drugs containing senecio (letter)] Radal M, et al. **Therapie** 1998 Sep-Oct;53(5):509-11 **(Fre)**

CHEMISTRY

Interactions in sheep between tall fescue ergot alkaloids and hepatotoxic carbon tetrachloride and Senecio pyrrolizidine alkaloids. Debessai WT, et al. **Vet Hum Toxicol** 1999 Jun; 41(3):129-33

GENETICS

Genetic flexibility of plant chloroplasts [letter] Frey JE. **Nature** 1999 Mar 11;398(6723):115-6

Cloning and expression of a cDNA encoding homospermidine synthase from Senecio vulgaris (Asteraceae) in Escherichia coli. Kaiser A. **Plant J** 1999 Jul;19(2):195-201

POISONING

Ragwort poisoning [letter] Borsberry S. **Vet Rec** 1999 Aug 7;145(6):176

Ultrasonographic findings in three cows with chronic ragwort (Senecio alpinus) poisoning. Braun U, et al. **Vet Rec** 1999 Jan 30;144(5):122-6

Ragwort poisoning in horses [letter] McDowell DM. **Vet Rec** 1999 Jul 31;145(5):148

SENECIO ALKALOIDS see **PYRROLIZIDINE ALKALOIDS**

SENESCENCE see **AGING**

SENESCENCE, CELLULAR see **CELL AGING**

SENESCENCE, REPLICATIVE see **CELL AGING**

SENILE OSTEOPOROSIS see **OSTEOPOROSIS**

SENILE PLAQUES

see related
AMYLOID BETA-PROTEIN

Transgenic mice with Alzheimer presenilin 1 mutations show accelerated neurodegeneration without amyloid plaque formation. Chui DH, et al. **Nat Med** 1999 May;5(5):560-4

CHEMISTRY

The A beta 3-pyroglutamyl and 11-pyroglutamyl peptides found in senile plaque have greater beta-sheet forming and aggregation propensities in vitro than full-length A beta. He W, et al. **Biochemistry** 1999 Aug 17;38(33):10871-7

Fibroblast growth factor (FGF)-9 immunoreactivity in senile plaques. Nakamura S, et al. **Brain Res** 1998 Dec 14; 814(1-2):222-5

Distribution of interleukin-1-immunoreactive microglia in cerebral cortical layers: implications for neuritic plaque formation in Alzheimer's disease. Sheng JG, et al. **Neuropathol Appl Neurobiol** 1998 Aug;24(4):278-83

Prominent expression of presenilin-1 in senile plaques and reactive astrocytes in Alzheimer's disease brain. Weggen S, et al. **Neuroreport** 1998 Oct 5;9(14):3279-83

DRUG EFFECTS

The molecular chaperone alphaB-crystallin enhances amyloid beta neurotoxicity. Stege GJ, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):152-6

ENZYMOLOGY

Immunohistochemical demonstration of tissue transglutaminase in amyloid plaques. Zhang W, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):395-400

Bleomycin hydrolase immunoreactivity in senile plaque in the brains of patients with Alzheimer's disease. Namba Y, et al. **Brain Res** 1999 May 29;830(1):200-2

Molecular interactions of acetylcholinesterase with senile plaques. Inestrosa NC, et al. **J Physiol Paris** 1998 Oct-Dec; 92(5-6):341-4 (17 ref.)

Insulin-degrading enzyme in the Alzheimer's disease brain: prominent localization in neurons and senile plaques. Bernstein HG, et al. **Neurosci Lett** 1999 Mar 26; 263(2-3):161-4

GENETICS

Transgenic animals in Alzheimer's disease research. Sturchler-Pierrat C, et al. **Rev Neurosci** 1999;10(1):15-24 (68 ref.)

IMMUNOLOGY

Alzheimer's disease. Antibody clears senile plaques [news; comment] [see comments] St George-Hyslop PH, et al. **Nature** 1999 Jul 8;400(6740):116-7. Comment on: Nature 1999 Jul 8;400(6740):173-7. Comment in: Nature 1999 Aug 26;400(6747):810.

METABOLISM

Reverse relationship between beta-amyloid precursor protein and beta-amyloid peptide plaques in Down's syndrome versus sporadic/familial Alzheimer's disease. Egensperger R, et al. **Acta Neuropathol (Berl)** 1999 Feb;97(2):113-8

The AMY antigen co-occurs with abeta and follows its deposition in the amyloid plaques of Alzheimer's disease and down syndrome. Lemere CA, et al. **Am J Pathol** 1999 Jul;155(1):29-37

Association of microglia with amyloid plaques in brains of APP23 transgenic mice [see comments] Stalder M, et al. **Am J Pathol** 1999 Jun;154(6):1673-84. Comment in: Am J Pathol 1999 Jun;154(6):1627-31.

Predominance of neuronal mRNAs in individual Alzheimer's disease senile plaques. Ginsberg SD, et al. **Ann Neurol** 1999 Feb;45(2):174-81

Deposition of monomeric, not oligomeric, Abeta mediates growth of Alzheimer's disease amyloid plaques in human brain preparations. Tseng BP, et al. **Biochemistry** 1999 Aug 10;38(32):10424-31

Dynamics of plaque formation in Alzheimer's disease. Urbanc B, et al. **Biophys J** 1999 Mar;76(3):1330-4

Mint2/X11-like colocalizes with the Alzheimer's disease amyloid precursor protein and is associated with neuritic plaques in Alzheimer's disease. McLoughlin DM, et al. **Eur J Neurosci** 1999 Jun;11(6):1988-94

The Alzheimer's plaques, tangles and memory deficits may have a common origin. Part III: animal model. Chen M. **Front Biosci** 1998 Jun 17;3:A47-51 (42 ref.)

Cortical load of PHF-tau in Alzheimer's disease is correlated to cholinergic dysfunction. Arendt T, et al. **J Neural Transm** 1999;106(5-6):513-23

Lipoprotein effects on Abeta accumulation and degradation by microglia in vitro. Cole GM, et al. **J Neurosci Res** 1999 Aug 15;57(4):504-20

Experimental induction of corpora amylacea in adult rat brain. Schipper HM. **Microsc Res Tech** 1998 Oct 1; 43(1):43-8

Alpha-synuclein accumulates in Lewy bodies in Parkinson's disease and dementia with Lewy bodies but not in Alzheimer's disease beta-amyloid plaque cores. Bayer TA, et al. **Neurosci Lett** 1999 May 14;266(3):213-6

[Mechanism of senile plaque formation in Alzheimer disease] Ohyagi Y. **Fukuoka Igaku Zasshi** 1999 Apr;90(4):113-7 (5 ref.) **(Jpn)**

PATHOLOGY

Presenile Alzheimer dementia characterized by amyloid angiopathy and large amyloid core type senile plaques in the APP 692Ala-->Gly mutation. Cras P, et al. **Acta Neuropathol (Berl)** 1998 Sep;96(3):253-60

Cytoskeletal pathology in familial cerebral amyloid angiopathy (British type) with non-neuritic amyloid plaque formation. Revesz T, et al. **Acta Neuropathol (Berl)** 1999 Feb;97(2):170-6

Comparison of beta-protein/A4 deposits and Alz-50-stained cytoskeletal changes in the hypothalamus and adjoining areas of Alzheimer's disease patients: amorphic plaques and cytoskeletal changes occur independently. van de Nes JA, et al. **Acta Neuropathol (Berl)** 1998 Aug;96(2):129-38

A new kind of Alzheimer's disease plaque. Baum L, et al. **Adv Anat Pathol** 1998 May;5(3):170-4 (11 ref.)

The magnitude of brain lipid peroxidation correlates with the extent of degeneration but not with density of neuritic plaques or neurofibrillary tangles or with APOE genotype in Alzheimer's disease patients. Montine TJ, et al. **Am J Pathol** 1999 Sep;155(3):863-8

Tangles and plaques in nondemented aging and "preclinical" Alzheimer's disease. Price JL, et al. **Ann Neurol** 1999 Mar; 45(3):358-68

Aluminosilicate particulate and beta-amyloid in vitro interactions: a model of Alzheimer plaque formation. Evans P, et al. **Biochem Soc Trans** 1998 Aug;26(3):S251

Dynamics of plaque formation in Alzheimer's disease. Urbanc B, et al. **Biophys J** 1999 Mar;76(3):1330-4

Pathogenesis of Alzheimer-related neuritic plaques: AT8 immunoreactive dystrophic neurites precede argyrophilic neurites in plaques of the entorhinal region, hippocampal formation, and amygdala. Yilmazer-Hanke DM. **Clin Neuropathol** 1998 Jul-Aug;17(4):194-8

Progression of Alzheimer-related neuritic plaque pathology in the entorhinal region, perirhinal cortex and hippocampal formation. Yilmazer-Hanke DM, et al. **Dement Geriatr Cogn Disord** 1999 Mar-Apr;10(2):70-6

The presence of isoaspartic acid in beta-amyloid plaques indicates plaque age. Fonseca MI, et al. **Exp Neurol** 1999 Jun;157(2):277-88

Alzheimer changes are common in aged drivers killed in single car crashes and at intersections. Viitanen M, et al. **Forensic Sci Int** 1998 Sep 28;96(2-3):115-27

Stage-correlated distribution of type 1 and 2 dystrophic neurites in cortical and hippocampal plaques in Alzheimer's disease. Thal DR, et al. **J Hirnforsch** 1998;39(2):175-81

Histopathological studies of senile plaques and cerebral amyloidosis in cynomolgus monkeys. Nakamura S, et al. **J Med Primatol** 1998 Oct;27(5):244-52

Spinal corpora amylacea and motor neuron disease: a quantitative study. Cavanagh JB. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):488-91

Corpora amylacea in hippocampal sclerosis [letter; comment] Leel-Ossy L. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):614. Comment on: J Neurol Neurosurg Psychiatry 1997 Oct;63(4):513-5.

Volumes of brain atrophy and plaques correlated with neurological disability in secondary progressive multiple sclerosis. Dastidar P, et al. **J Neurol Sci** 1999 May 1; 165(1):36-42

Progression of neurofibrillary changes and PHF-tau in end-stage Alzheimer's disease is different from plaque and cortical microglial pathology. Thal DR, et al. **Neurobiol Aging** 1998 Nov-Dec;19(6):517-25

Low amyloid (Abeta) plaque load and relative predominance of diffuse plaques distinguish argyrophilic grain disease from Alzheimer's disease. Tolnay M, et al. **Neuropathol Appl Neurobiol** 1999 Aug;25(4):295-305

Structural correlates of cognitive deficits in a selected group of patients with Alzheimer's disease. Caramelli P, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):184-90

Confocal observation of senile plaques in Alzheimer's disease: senile plaque morphology and relationship between senile plaques and astrocytes. Kato S, et al. **Pathol Int** 1998 May; 48(5):332-40

Plaque-induced neurite abnormalities: implications for disruption of neural networks in Alzheimer's disease. Knowles RB, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5274-9

A quantitative study of neurofibrillary tangles, senile plaques and astrocytes in the hippocampal subdivisions and entorhinal cortex in Alzheimer's disease, normal controls and non-Alzheimer neuropsychiatric diseases. Muramori F, et al. **Psychiatry Clin Neurosci** 1998 Dec;52(6):593-9

Autopsy study of Alzheimer's disease brain pathology in schizophrenia. Niizato K, et al. **Schizophr Res** 1998 May 25;31(2-3):177-84

PHYSIOLOGY

Plaque biogenesis in brain aging and Alzheimer's disease. II. Progressive transformation and developmental sequence of dystrophic neurites. Su JH, et al. **Acta Neuropathol (Berl)** 1998 Nov;96(5):463-71

The Alzheimer's plaques, tangles and memory deficits may have a common origin. Part II: therapeutic rationale. Chen M. **Front Biosci** 1998 Jun 8;3:A32-7 (37 ref.)

Plaque-induced neurite abnormalities: implications for disruption of neural networks in Alzheimer's disease. Knowles RB, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5274-9

SENNA

ADVERSE EFFECTS

Perdiem causing esophageal obstruction in Parkinson's disease. Shulman LM, et al. **Neurology** 1999 Feb; 52(3):670-1

ANALYSIS

['Weight reduction preparations' from Thailand: unexpected complication for the traveller] de Smet PA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2798-800 (Eng. Abstr.) **(Dut)**

POISONING

The lysosomal enzymes acid phosphatase and cathepsin D in rats intoxicated with Senna occidentalis seeds. Calore EE, et al. **J Submicrosc Cytol Pathol** 1999 Apr;31(2):259-64

THERAPEUTIC USE

Senna vs polyethylene glycol for mechanical preparation the evening before elective colonic or rectal resection: a multicenter controlled trial. French Association for Surgical Research. Valverde A, et al. **Arch Surg** 1999 May; 134(5):514-9

Managing morphine-induced constipation: a controlled comparison of an Ayurvedic formulation and senna. Ramesh PR, et al. **J Pain Symptom Manage** 1998 Oct; 16(4):240-4

TOXICITY

Genotoxicity of sennosides on the bone marrow cells of mice. Mukhopadhyay MJ, et al. **Food Chem Toxicol** 1998 Nov; 36(11):937-40

SENSATION

see related
PERCEPTION

Effects of sensation seeking, instruction set, and alcohol/placebo administration on aggressive behavior. Cheong J, et al. **Alcohol** 1999 Jan;17(1):81-6

Symptoms and visceral perception in patients with pain-predominant irritable bowel syndrome. Lembo T, et al. **Am J Gastroenterol** 1999 May;94(5):1320-6

Sensory integrative-based occupational therapy and functional outcomes in young children with pervasive developmental disorders: a single-subject study. Linderman TM, et al. **Am J Occup Ther** 1999 Mar-Apr;53(2):207-13

A meta-analysis of research on sensory integration treatment. Vargas S, et al. **Am J Occup Ther** 1999 Mar-Apr; 53(2):189-98

Perceived inspiratory difficulty during inspiratory threshold and hyperinflationary loadings. Chen RC, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):720-7

Ventilatory drive at rest and perception of exertional dyspnea in severe COPD. Marin JM, et al. **Chest** 1999 May; 115(5):1293-300

Cardiorespiratory variables and sensation during stimulation of the left vagus in patients with epilepsy. Banzett RB, et al. **Epilepsy Res** 1999 May;35(1):1-11

Perception of respiratory symptoms after methacholine-induced bronchoconstriction in a general population. Devereux G, et al. **Eur Respir J** 1998 Nov; 12(5):1089-93

Effects of negative pressure assisted ventilation on dyspnoeic sensation and breathing pattern. Nishino T, et al. **Eur Respir J** 1998 Dec;12(6):1278-83

Sensory and hedonic associations with macronutrient and energy intakes of lean and obese consumers. Cox DN, et al. **Int J Obes Relat Metab Disord** 1999 Apr;23(4):403-10

Effect of facilitation of sensation from plantar foot-surface boundaries on postural stabilization in young and older adults. Maki BE, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jun;54(6):M281-7

Artificial sensibility based on the use of piezoresistive sensors. Preliminary observations. Lundborg G, et al. **J Hand Surg [Br]** 1998 Oct;23(5):620-6

Sensory function after median nerve decompression in carpal tunnel syndrome. Preoperative vs postoperative findings. Rosén B, et al. **J Hand Surg [Br]** 1997 Oct;22(5):602-6

Normal digit tip values for the Weinstein Enhanced Sensory Test. Schulz LA, et al. **J Hand Ther** 1998 Jul-Sep; 11(3):200-5

An evaluation of acrylic complete dentures using the discrimination of elastic bodies or viscous fluids. Inoue K, et al. **J Oral Rehabil** 1999 Jul;26(7):608-12

Neuro-talk: an intervention to enhance communication. Gregory RJ. **J Psychosoc Nurs Ment Health Serv** 1998 Oct;36(10):28-31 (10 ref.)

Sensate myocutaneous latissimus dorsi flap. Schultes G, et al. **J Reconstr Microsurg** 1998 Nov;14(8):541-3

Decreased sensitivity in the membranous urethra after orthotopic ileal bladder substitute [see comments] Hugonnet CL, et al. **J Urol** 1999 Feb;161(2):418-21. Comment in: J Urol 1999 Feb;161(2):429.

Son.atosensory cuing of head-only rotational testing. Furman JM, et al. **J Vestib Res** 1999;9(3):189-95

Evaluating the sensation of nasal obstruction with acoustic rhinometry and rhinomanometry. Tai CF, et al.

Kao Hsiung I Hsueh Ko Hsueh Tsa Chih 1998 Sep; 14(9):548–53

Evaluation of the improvement of sensibility after primary median nerve repair at the wrist. Selma P, et al. **Microsurgery** 1998;18(3):192–6

Sensory and hedonic judgments of common foods by lean consumers and consumers with obesity. Cox DN, et al. **Obes Res** 1998 Nov;6(6):438–47

Hemisensory impairment in patients with complex regional pain syndrome. Rommel O, et al. **Pain** 1999 Mar; 80(1–2):95–101

Prevalence of auditory, olfactory, and gustatory experiences in home dreams. Zadra AL, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):819–26

Evaluation of hand sensibility with single and double latex gloves. Novak CB, et al. **Plast Reconstr Surg** 1999 Jan; 103(1):128–31

Sensation recovery on innervated radial forearm flap for hemiglossectomy reconstruction by using different recipient nerves. Santamaria E, et al. **Plast Reconstr Surg** 1999 Feb;103(2):450–7

Impulse-control disorders in alcoholics are related to sensation seeking and not to impulsivity. Lejoyeux M, et al. **Psychiatry Res** 1998 Nov 16;81(2):149–55

[Disturbance of deep sensation in medial medullary syndrome. Topographical localization of medial lemniscus in the medulla oblongata] Koyano S, et al. **Rinsho Shinkeigaku** 1998 Aug;38(8):739–44 (30 ref.) (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Effects of somatostatin on proximal gastric motor function and visceral perception. Mearadji B, et al. **Aliment Pharmacol Ther** 1998 Nov;12(11):1163–9

Assessment of the level of sensory block after subarachnoid anesthesia using a pressure palpator. Fassoulaki A, et al. **Anesth Analg** 1999 Feb;88(2):398–401

No enhancement of sensory and motor blockade by neostigmine added to mepivacaine axillary plexus block. Bouaziz H, et al. **Anesthesiology** 1999 Jul;91(1):78–83

Intrathecal sufentanil produces sensory changes without hypotension in male volunteers [letter; comment] Chado HN. **Anesthesiology** 1999 Apr;90(4):1229–30. Comment on: Anesthesiology 1998 Jul;89(1):73–8.

Quantitative and selective assessment of sensory block during lumbar epidural anaesthesia with 1% or 2% lidocaine. Sakura S, et al. **Br J Anaesth** 1998 Nov;81(5):718–22

Differential sensory block: spinal vs epidural with lidocaine [see comments] White JL, et al. **Can J Anaesth** 1998 Nov; 45(11):1049–53. Comment in: Can J Anaesth 1998 Nov;45(11):1039–43.

Modulation of sensory inhibition in the ventrobasal thalamus via activation of group II metabotropic glutamate receptors by 2R,4R-aminopyrrolidine-2,4-dicarboxylate. Salt TE, et al. **Exp Brain Res** 1998 Jul;121(2):181–5

Capsaicin desensitization and stimulus-induced recovery on facial compared to lingual skin. Green BG. **Physiol Behav** 1998 Dec 1;65(3):517–23

GENETICS

Behavioral phenotyping of transgenic and knockout mice: experimental design and evaluation of general health, sensory functions, motor abilities, and specific behavioral tests. Crawley JN. **Brain Res** 1999 Jul 17;835(1):18–26 (77 ref.)

Preweanling sensorial and motor development in laboratory mice: quantitative trait loci mapping. Le Roy I, et al. **Dev Psychobiol** 1999 Mar;34(2):139–58

PHYSIOLOGY

The effect of peripheral glycerol on trigeminal neuropathic pain examined by quantitative assessment of abnormal pain and sensory perception. Eide PK, et al. **Acta Neurochir (Wien)** 1998;140(12):1271–7

Sensation and action during active and passive movement. Takahashi M, et al. **Acta Otolaryngol (Stockh)** 1999 Mar; 119(2):121–5

Sensory information and conscious experience. Jasper HH. **Adv Neurol** 1998;77:33–48 (39 ref.)

Motor and sensory function of the proximal stomach in reflux disease and after laparoscopic Nissen fundoplication. Vu MK, et al. **Am J Gastroenterol** 1999 Jun;94(6):1481–9

Corneal sensitivity after photorefractive keratectomy and laser in situ keratomileusis for low myopia. Pérez-Santonja JJ, et al. **Am J Ophthalmol** 1999 May;127(5):497–504

A case for reduced skin sensation in high latitude prehistoric Polynesians. Visser EP, et al. **Ann Hum Biol** 1999 Mar–Apr; 26(2):131–40

The effect of turbulent fluctuation of air on thermal sensation. Sugai K, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:98–104

Relative contributions of intestinal, gastric, oro-sensory influences and information to changes in appetite induced by the same liquid meal. Cecil JE, et al. **Appetite** 1998 Dec; 31(3):377–90

Sensory-specific satiety: comparison of taste and texture effects. Guinard JX, et al. **Appetite** 1998 Oct;31(2):141–57

Equivalent sensation curves of simultaneous lateral and vertical sinusoidal whole-body vibration. Broede P, et al. **Aviat Space Environ Med** 1998 Oct;69(10):986–91

Peripheral and central hyperexcitability: differential signs and symptoms in persistent pain. Coderre TJ, et al. **Behav Brain Sci** 1997 Sep;20(3):404–19; discussion 435–513

How do I appear to others? Social anxiety and processing of the observable self. Mansell W, et al. **Behav Res Ther** 1999 May;37(5):419–34

Hypertension and pain sensitivity: effects of gender and cardiovascular reactivity. Nykliček I, et al. **Biol Psychol** 1999 Jun;50(2):127–42

Brainy mind. Gregory R. **BMJ** 1998 Dec 19–26; 317(7174):1693–5 (15 ref.)

The neural consequences of conflict between intention and the senses. Fink GR, et al. **Brain** 1999 Mar;122 (Pt 3):497–512

Behavioral phenotyping of transgenic and knockout mice: experimental design and evaluation of general health, sensory functions, motor abilities, and specific behavioral tests. Crawley JN. **Brain Res** 1999 Jul 17;835(1):18–26 (77 ref.)

Visual sensations produced by optic nerve stimulation using an implanted self-sizing spiral cuff electrode. Veraart C, et al. **Brain Res** 1998 Nov 30;813(1):181–6

Task-dependent reduction of the number of degrees of freedom in sensorimotor systems. Gielen CC, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):136–42 (71 ref.)

Corneal surface temperature change as the mode of stimulation of the non-contact corneal aesthesiometer. Murphy PJ, et al. **Cornea** 1999 May;18(3):333–42

Sensory systems. Web alert. Burke JF, et al. **Curr Opin Neurobiol** 1998 Aug;8(4):441–2

Sensory pathways and their modulation in the control of locomotion. Büschges A, et al. **Curr Opin Neurobiol** 1998 Dec;8(6):733–9 (47 ref.)

Sensory systems [editorial] Hudspeth AJ, et al. **Curr Opin Neurobiol** 1998 Aug;8(4):443–6

Role of intestinal chemoreception in the induction of gastrointestinal sensations. Feinle C. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):441–4

A polysensory pathway to the forebrain of the pigeon: the ascending projections of the nucleus dorsolateralis posterior thalami (DLP). Güntürkün O, et al. **Eur J Morphol** 1999 Apr;37(2–3):185–9

A patchy horizontal organization of the somatosensory activation of the rat cerebellum demonstrated by functional MRI. Peeters RR, et al. **Eur J Neurosci** 1999 Aug; 11(8):2720–30

Delayed-onset ipsilateral sensory symptoms in patients with central poststroke pain. Kim JS. **Eur Neurol** 1998 Nov; 40(4):201–6

Time-dependent influence of sensorimotor set on automatic responses in perturbed stance. Chong RK, et al. **Exp Brain Res** 1999 Feb;124(4):513–9

Cortical mechanisms underlying point localization of pain spot as studied by event-related potentials following CO2 laser stimulation in man. Kanda M, et al. **Exp Brain Res** 1999 Jul;127(2):131–40

Experience-dependent changes in function and anatomy of adult barrel cortex. Kossut M. **Exp Brain Res** 1998 Nov; 123(1–2):110–6 (30 ref.)

Effect of altered sensory conditions on multivariate descriptors of human postural sway. Kuo AD, et al. **Exp Brain Res** 1998 Sep;122(2):185–95

A principle of error compensation studied within a task of force production by a redundant set of fingers. Latash ML, et al. **Exp Brain Res** 1998 Sep;122(2):131–8

The influence of stimulus temperature rise rate, adapting temperature, and stimulus duration on suprathreshold responses evoked by noxious heat in the glabrous skin of the limb. Comparison of neuronal discharge in the rat spinal dorsal horn with human sensations. Pertovaara A. **Exp Brain Res** 1999 Jun;126(4):482–94

Neural mechanisms for synthesizing sensory information and producing adaptive behaviors. Stein BE. **Exp Brain Res** 1998 Nov;123(1–2):124–35 (75 ref.)

Gating of the sensory activity within barrel cortex of the awake rat. Wróbel A, et al. **Exp Brain Res** 1998 Nov; 123(1–2):117–23 (39 ref.)

Oscillatory brain theory: a new trend in neuroscience. Basar E, et al. **IEEE Eng Med Biol Mag** 1999 May–Jun; 18(3):56–66

Postprandial thermogenesis and alimentary sensory stimulation in human subjects. Brondel L, et al. **Int J Obes Relat Metab Disord** 1999 Jan;23(1):34–40

The neurobiology of multimodal sensory integration. Freeman WJ. **Integr Physiol Behav Sci** 1998 Apr–Jun; 33(2):124–9 (36 ref.)

Somatovisceral interactions in visceral perception: abdominal masking of colonic stimuli [published erratum appears in Integr Physiol Behav Sci 1998 Oct–Dec;33(4):following table of contents] Hölzl R, et al. **Integr Physiol Behav Sci** 1998 Jul–Sep;33(3):246–79

Measurement of corneal sensitivity to mechanical and chemical stimulation with a CO2 esthesiometer. Belmonte C, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):513–9

Corneal sensation after cataract and refractive surgery. Kohlhaas M. **J Cataract Refract Surg** 1998 Oct; 24(10):1399–409 (48 ref.)

Cellular and subcellular structure of anterior sensory pathways in Phestilla sibogae (Gastropoda, Nudibranchia). Boudko DY, et al. **J Comp Neurol** 1999 Jan 5;403(1):39–52

Responses of neurons in the region of human thalamic principal somatic sensory nucleus to mechanical and thermal stimuli graded into the painful range. Lee J, et al. **J Comp Neurol** 1999 Aug 9;410(4):541–55

Vasoactive intestinal polypeptide in sacral primary sensory pathways in the cat. Morgan CW, et al. **J Comp Neurol** 1999 May 10;407(3):381–94

Prey capture in the weakly electric fish Apteronotus albifrons: sensory acquisition strategies and electrosensory consequences. Nelson ME, et al. **J Exp Biol** 1999 May;202 (Pt 10):1195–203

The effects of circumferential wrist pressure on reproduction accuracy of wrist placement in healthy young and elderly adults. Batavia M, et al. **J Gerontol A Biol Sci Med Sci** 1999 Apr;54(4):M177–83

Sensory organization for balance: specific deficits in Alzheimer's but not in Parkinson's disease. Chong RK, et al. **J Gerontol A Biol Sci Med Sci** 1999 Mar;54(3):M122–8

Quantitative sensory testing and risk factors of diabetic sensory neuropathy. Cheng WY, et al. **J Neurol** 1999 May; 246(5):394–8

Distal versus proximal inhibitory shaping of feedback excitation in the electrosensory lateral line lobe: implications for sensory filtering. Berman NJ, et al. **J Neurophysiol** 1998 Dec;80(6):3214–32

Intracortical inhibition and facilitation in different representations of the human motor cortex. Chen R, et al. **J Neurophysiol** 1998 Dec;80(6):2870–81

Simultaneous early processing of sensory input in human primary (SI) and secondary (SII) somatosensory cortices. Karhu J, et al. **J Neurophysiol** 1999 May;81(5):2017–25

Distinct signaling pathways mediate touch and osmosensory responses in a polymodal sensory neuron. Hart AC, et al. **J Neurosci** 1999 Mar 15;19(6):1952–8

Neurobiological and psychophysical mechanisms underlying the oral sensation produced by carbonated water. Simons CT, et al. **J Neurosci** 1999 Sep 15;19(18):8134–44

The distribution of zinc selenite and expression of metallothionein-III mRNA in the spinal cord and dorsal root ganglia of the rat suggest a role for zinc in sensory transmission. Velázquez RA, et al. **J Neurosci** 1999 Mar 15;19(6):2288–300

Sensory impairments and delayed regeneration of sensory axons in interleukin-6-deficient mice. Zhong J, et al. **J Neurosci** 1999 Jun 1;19(11):4305–13

Plasma somatostatin and cholecystokinin levels in preterm infants during kangaroo care with and without nasogastric tube-feeding. Törnhage CJ, et al. **J Pediatr Endocrinol Metab** 1998 Sep–Oct;11(5):645–51

Transient change in standing posture after linear treadmill locomotion. Hashiba M. **Jpn J Physiol** 1998 Dec; 48(6):499–504

Evaluation of topical anesthetics by laser-induced sensation: comparison of EMLA 5% cream and 40% lidocaine in an acid mantle ointment. Hernández E, et al. **Lasers Surg Med** 1998;23(3):167–71

Long-term effects of sensory reeducation following digital replantation and revascularization. Shieh SJ, et al. **Microsurgery** 1998;18(5):334–6

Sense of effort and dyspnoea. Killian KJ. **Monaldi Arch Chest Dis** 1998 Dec;53(6):654–60 (39 ref.)

Reduction of motor artifact in antidromic ulnar sensory studies. Rutkove SB. **Muscle Nerve** 1999 Apr;22(4):520–2

A role for BDNF in mechanosensation [see comments] Carroll P, et al. **Nat Neurosci** 1998 May;1(1):42–6. Comment in: Nat Neurosci 1998 May;1(1):5–6.

Long-term reorganization of human motor cortex driven by short-term sensory stimulation. Hamdy S, et al. **Nat Neurosci** 1998 May;1(1):64–8

Physiologic effects of intense MR imaging gradient fields. Bourland JD, et al. **Neuroimaging Clin N Am** 1999 May; 9(2):363–77

Surgical treatment of intractable epilepsy originating from the primary sensory area of the hand--case report. Asano E, et al. **Neurol Med Chir (Tokyo)** 1999 Mar;39(3):246–50

A complex sensory map for pheromones. Bargmann CI. **Neuron** 1999 Apr;22(4):640–2

The role of VIP/PACAP receptor subtypes in spinal somatosensory processing in rats with an experimental peripheral mononeuropathy. Dickinson T, et al. **Neuropharmacology** 1999 Jan;38(1):167–80

Mismatch negativity and auditory sensory memory evaluation: a new faster paradigm. Grau C, et al. **Neuroreport** 1998 Aug 3;9(11):2451–6

Activation of sensory nerves participates in stress-induced histamine release from mast cells in rats. Huang ZL, et al. **Neurosci Lett** 1999 Aug 6;270(3):181–4

Cortical focusing is an alternative explanation for improved sensory acuity on an amputation stump. Moore CE, et al. **Neurosci Lett** 1999 Aug 6;270(3):185–7

Endogenous mechanisms of sensory modulation. Dubner R, et al. **Pain** 1999 Aug;Suppl 6:S45–53 (56 ref.)

Pain affect without pain sensation in a patient with a postcentral lesion. Ploner M, et al. **Pain** 1999 May; 81(1–2):211–4

Dissociation of sensory and affective dimensions of pain using hypnotic modulation. Rainville P, et al. **Pain** 1999 Aug; 82(2):159–71

Hoffman-Tinel sign. The realities. Alfonso MI, et al. **Phys Med Rehabil Clin N Am** 1998 Nov;9(4):721–36, v (59 ref.)

Learning-induced physiological plasticity in the thalamo-cortical sensory systems: a critical evaluation of receptive field plasticity, map changes and their potential mechanisms. Edeline JM. **Prog Neurobiol** 1999 Feb; 57(2):165–224 (369 ref.)

Love as sensory stimulation: physiological consequences of its deprivation and expression. Komisaruk BR, et al. **Psychoneuroendocrinology** 1998 Nov;23(8):927–44 (58 ref.)

[Skin sensitivity before and after reduction mammaplasty. Report of 44 cases] Mitrofanoff M, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):314–23 (Eng. Abstr.) **(Fre)**

[Physiological and sensorial determinism of maternal behavior in mammals] Lévy F. **Contracept Fertil Sex** 1998 Oct;26(10):718–27 (78 ref.) (Eng. Abstr.) **(Fre)**

[Visceral sensitivity and digestive functional disorders. Clinical significance and therapeutic perspectives] Coffin B, et al. **Gastroenterol Clin Biol** 1998 Jun;22(5 Suppl):B109–17 (114 ref.) **(Fre)**

[The influence of dorsal neck proprioceptive inputs on vestibular compensation--by three-dimensional analysis of neck-induced nystagmus] Ohyama Y. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Jan;102(1):50–7 (Eng. Abstr.) **(Jpn)**

[Evoked potentials in assessing the sensory, activating and cognitive functions of the normal human brain and in cortical and subcortical types of vascular dementia] Korepina OS, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Jul–Aug; 48(4):707–18 (Eng. Abstr.) **(Rus)**

[The cortical reactions during sensory and motor activities in healthy children and adults and in depression patients] Puchinskaia LM. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Jul–Aug;48(4):743–6 (Eng. Abstr.) **(Rus)**

SENSATION DISORDERS

Dimensions of gut dysfunction in irritable bowel syndrome: altered sensory function. Azpiroz F. **Can J Gastroenterol** 1999 Mar;13 Suppl A:12A–14A (17 ref.)

Aging and sensory senescence. Nusbaum NJ. **South Med J** 1999 Mar;92(3):267–75 (52 ref.)

[Acute sensory neuropathy] Adachi H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):461–3 (16 ref.) **(Jpn)**

[Lewis–Sumner syndrome] Ogino Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):492–5 (12 ref.) **(Jpn)**

[Multifocal motor neuropathy (MMN)] Ozaki I, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):483–6 (13 ref.) **(Jpn)**

[Behavior problems in patients with dementia. The impact on the career life] Garrido R, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2B):427–34 (39 ref.) (Eng. Abstr.) **(Por)**

CHEMICALLY INDUCED

Poststeroid balance disorder--a case report in a body builder. Bochnia M, et al. **Int J Sports Med** 1999 Aug;20(6):407–9

Deficit in selective and divided attention associated with cholinergic basal forebrain immunotoxic lesion produced by 192-saporin; motoric/sensory deficit associated with Purkinje cell immunotoxic lesion produced by OX7-saporin. Waite JJ, et al. **Neurobiol Learn Mem** 1999 May;71(3):325–52

Long-term effects on the olfactory system of exposure to hydrogen sulphide. Hirsch AR, et al. **Occup Environ Med** 1999 Apr;56(4):284–7

COMPLICATIONS

Sensory hyperreactivity--a possible mechanism underlying cough and asthma-like symptoms. Millqvist E, et al. **Allergy** 1998 Dec;53(12):1208–12

Sensory and autonomic neuropathy in patients with idiopathic slow-transit constipation. Knowles CH, et al. **Br J Surg** 1999 Jan;86(1):54–60

Perception of and adaptation to rectal isobaric distension in patients with faecal incontinence. Siproudhis L, et al. **Gut** 1999 May;44(5):687–92

Penile sensitivity in men with premature ejaculation. Paick JS, et al. **Int J Impot Res** 1998 Dec;10(4):247–50

Recurrent abdominal pain and the biopsychosocial model of medical practice. Hyams JS, et al. **J Pediatr** 1998 Oct; 133(4):473–8 (53 ref.)

Evidence for an abnormal cortical sensory processing in dystonia: selective enhancement of lower limb P37–N50 somatosensory evoked potential. Tinazzi M, et al. **Mov Disord** 1999 May;14(3):473–80

Olfaction and symptoms in the multiple chemical sensitivities syndrome. Ross PM, et al. **Prev Med** 1999 May; 28(5):467–80 (140 ref.)

[Sensitive deficit of pseudo-polyneuritis distribution as the initial manifestation of spondylotic cervical myelopathy (letter)] Combarros O, et al. **Neurologia** 1998 Oct; 13(8):407–9 **(Spa)**

DIAGNOSIS

Long latency responses in pure sensory stroke due to thalamic infarction. Chen CC, et al. **Acta Neurol Scand** 1998 Jul; 98(1):41–8

Actual and perceived postural sway during balance specific and non-specific proprioceptive stimulation. Andersson G, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):461–5

Validity of visual stabilization conditions used with computerized dynamic platform posturography. Di Fabio RP, et al. **Acta Otolaryngol (Stockh)** 1998 Jul;118(4):449–54

Utility of anti-Hu antibodies in the diagnosis of paraneoplastic sensory neuropathy. Molinuevo JL, et al. **Ann Neurol** 1998 Dec;44(6):976–80

Electrodiagnosis in spinal cord injured persons with new weakness or sensory loss: central and peripheral etiologies. Bursell JP, et al. **Arch Phys Med Rehabil** 1999 Aug; 80(8):904–9

Balance disturbances in individuals with vibroacoustic disease. Martinho Pimenta AJ, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A96–9

Equilibrium and balance in the elderly. Hobeika CP. **Ear Nose Throat J** 1999 Aug;78(8):558–62, 565–6 (53 ref.)

Comparison of different tests assessing neurosensory disturbances after bilateral sagittal split osteotomy. Ylikontiola L, et al. **Int J Oral Maxillofac Surg** 1998 Dec; 27(6):417–21

The use of dynamic posturography to detect neurosensorial disorder in IDDM without clinical neuropathy. Di Nardo W, et al. **J Diabetes Complications** 1999 Mar–Apr; 13(2):79–85

Loss of protective sensation: a practical evidence-based definition. Armstrong DG. **J Foot Ankle Surg** 1999 Jan–Feb;38(1):79–80

Quantitative sensory testing and risk factors of diabetic sensory neuropathy. Cheng WY, et al. **J Neurol** 1999 May; 246(5):394–8

Measuring vibration threshold with a graduated tuning fork in normal aging and in patients with polyneuropathy. European Inflammatory Neuropathy Cause and Treatment (INCAT) group. Martina IS, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):743–7

Pagers to test vibratory sense [letter; comment] Prochazka AV, et al. **Lancet** 1999 Feb 20;353(9153):678. Comment on: Lancet 1998 Dec 12;352(9144):1942.

Clinical and electrophysiological evaluation of nerve function impairment following cessation of multidrug therapy in leprosy. Samant G, et al. **Lepr Rev** 1999 Mar;70(1):10–20

Neuroseleetive current perception threshold electrodiagnostic sensory test [letter; comment] Cohen RP. **Muscle Nerve** 1998 Dec;21(12):1810. Comment on: Muscle Nerve 1997 Sep;20(9):1200–3.

Quantitative sensation testing in epidemiological and therapeutic studies of peripheral neuropathy [editorial] Dyck PJ, et al. **Muscle Nerve** 1999 Jun;22(6):659–62

Proximal sensory neuropathies of the Leg. Reid V, et al. **Neurol Clin** 1999 Aug;17(3):655–67, viii (45 ref.)

[Taste and lacrimation after acoustic neuroma surgery] Magliulo G, et al. **Rev Laryngol Otol Rhinol (Bord)** 1998; 119(3):167–70 (Eng. Abstr.) **(Fre)**

[Paraneoplastic neuropathy with positive anti-Hu] Casas Parera I, et al. **Medicina (B Aires)** 1998;58(2):197–201 (Eng. Abstr.) **(Spa)**

[Saddle block anesthesia syndrome with normal neuro-radiological findings (letter)] Santos-Lasaosa S, et al. **Rev Neurol** 1999 Jan 16–31;28(2):214 **(Spa)**

DRUG THERAPY

Treatment of dysesthesias secondary to ultrasonic lipoplasty [letter] Perez JA. **Plast Reconstr Surg** 1999 Apr;103(5):1534

[Beneficial effects of acetazolamide on paroxysmal attacks of girdle sensation in multiple sclerosis] Hamasaki S, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):697–9 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

[Epidemiological monitoring of psychological, neurological and sensory handicaps in the 0–24-year-old Abruzzo population (Italy). Preliminary results] Madonna R, et al. **Epidemiol Psichiatr Soc** 1998 Sep–Dec;7(3):188–96 (Eng. Abstr.) **(Ita)**

ETIOLOGY

Central pain after pontine infarction is associated with changes in opioid receptor binding: a PET study with 11C-diprenorphine. Willoch F, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):686–90

Exposure-response relationship between hand-arm vibration and vibrotactile perception sensitivity. Lundström R, et al. **Am J Ind Med** 1999 May;35(5):456–64

Congenital insensitivity to pain with anhidrosis: ocular and systemic manifestations. Yagev R, et al. **Am J Ophthalmol** 1999 Mar;127(3):322–6

Neurologic complications after placement of cerebrospinal fluid drainage catheters and needles in anesthetized patients: implications for regional anesthesia. Mayo Perioperative Outcomes Group. Grady RE, et al. **Anesth Analg** 1999 Feb; 88(2):388–92

Uterine cancer presenting with generalised dysaesthesia--a possible new paraneoplastic syndrome? [letter] Sturm JW, et al. **Aust N Z J Med** 1999 Feb;29(1):86–7

Spatial disorientation in U.S. Army rotary-wing operations. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Nov; 69(11):1031–7

The hazard of spatial disorientation during helicopter flight using night vision devices. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1038–44

Balance disturbances in individuals with vibroacoustic disease. Martinho Pimenta AJ, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A96–9

Reduce risk of inducing spatial disorientation using physiologically compatible ground lighting. Schmidt RT. **Aviat Space Environ Med** 1999 Jun;70(6):598–603 (22 ref.)

Sensory disorders after separation of the nasopalatine nerve during removal of palatal displaced canines: prospective investigation. Filippi A, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):134–6

Alterations in nasal sensibility following open rhinoplasty. Bafaqeeh SA, et al. **Br J Plast Surg** 1998 Oct;51(7):508–10

Accidental burns following subcutaneous mastectomy and reconstruction with a prosthesis [letter; comment] Davison JA, et al. **Br J Plast Surg** 1998 Sep;51(6):486. Comment on: Br J Plast Surg 1997 Sep;50(6):443–9.

Phantom erection after amputation of penis. Case description and review of the relevant literature on phantoms. Fisher CM. **Can J Neurol Sci** 1999 Feb;26(1):53–6

Volitional monocular Lilliputian visual hallucinations and synesthesia. Jacome DE. **Eur Neurol** 1999 Jan;41(1):54–6

Dolicho-vertebrobasilar abnormality and migraine-like attacks. Zambrino CA, et al. **Eur Neurol** 1999 Jan; 41(1):10–4

Treatment with AC pulsed electromagnetic fields improves olfactory function in Parkinson's disease. Sandyk R. **Int J Neurosci** 1999 Apr;97(3–4):225–33

Prospective study on post-traumatic and postoperative sensory disturbances of the inferior alveolar nerve and infraorbital nerve in mandibular and midfacial fractures. Schultze-Mosgau S, et al. **J Craniomaxillofac Surg** 1999 Apr;27(2):86–93

Clinical outcome of sural nerve biopsy: a retrospective study. Flachenecker P, et al. **J Neurol** 1999 Feb;246(2):93–6

Central pontine myelinolysis causes bilateral loss of deep sensitivity and pseudochoreoathetosis [letter] Federlein J, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):607–8

Dorsolateral pontine segmental infarction presenting as isolated trigeminal sensory neuropathy. Ishii K, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):702

Peduncular hallucinosis following a transoral odontoidectomy for cranio-vertebral junction malformation. A case report. Qasho R, et al. **J Neurosurg Sci** 1998 Mar;42(1):47–9

Neurosensory deficit and functional impairment after sagittal ramus osteotomy: a long-term follow-up study. August M, et al. **J Oral Maxillofac Surg** 1998 Nov;56(11):1231–5; discussion 1236

Somebody struck a nerve! [letter] Stoelinga PJ. **J Oral Maxillofac Surg** 1999 Jul;57(7):882–3

Significance of cold intolerance in upper extremity disorders. Koman LA, et al. **J South Orthop Assoc** 1998 Fall; 7(3):192–7

Clinical and electrophysiological evaluation of nerve function impairment following cessation of multidrug therapy in leprosy. Samant G, et al. **Lepr Rev** 1999 Mar;70(1):10–20

Sensory abnormalities after the seventh cervical nerve root transfer. Sungpet A, et al. **Microsurgery** 1999;19(6):287–8

Ectopic impulse generation and autoexcitation in single myelinated afferent fibers in patients with peripheral neuropathy and positive sensory symptoms. Campero M, et al. **Muscle Nerve** 1998 Dec;21(12):1661–7

MRI of the occipital cortex, red nucleus, and substantia nigra during visual aura of migraine. Welch KM, et al. **Neurology** 1998 Nov;51(5):1465–9

Neurological deficit following spinal anaesthesia: MRI and CT evidence of spinal cord gas embolism. Tedeschi E, et al. **Neuroradiology** 1999 Apr;41(4):275–8

"Alice in Wonderland" syndrome and varicella [letter] Soriani S, et al. **Pediatr Infect Dis J** 1998 Oct;17(10):935–6

A recalcitrant case of reflexive nose picking. Trigeminal trophic syndrome. Mishriki YY. **Postgrad Med** 1999 Sep; 106(3):175–6

Neglect after right insular cortex infarction. Manes F, et al. **Stroke** 1999 May;30(5):946–8

[Diagnosis and treatment of postoperative nerve damage. Chronic neuropathic pain (see comments)] Paltved CV, et al. **Ugeskr Laeger** 1999 Mar 22;161(12):1739–43 (Eng. Abstr.). Comment in: Ugeskr Laeger 1999 Jun 14;161(24):3680–1. **(Dan)**

[Characterization of sensation disorders and neuropathic pain related to syringomyelia. A prospective study] Attal N, et al. **Neurochirurgie** 1999 Jun;45 Suppl 1:84–94 (Eng. Abstr.) **(Fre)**

[Small cell lung cancer associated with subacute sensori-motor neuropathy in a patient whose symptoms subsided during chemotherapy] Tsushima K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Sep;36(9):798–802 (Eng. Abstr.) **(Jpn)**

[Sensory disturbance of crossed oral-pedal topography in a case of lateral medullary infarction] Ikeda K, et al. **No To Shinkei** 1998 Oct;50(10):949–52 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Cytotoxic T lymphocyte-mediated cell death in paraneoplastic sensory neuronopathy with anti-Hu antibody. Tanaka K, et al. **J Neurol Sci** 1999 Mar 1; 163(2):159–62

[Paraneoplastic neuropathy with positive anti-Hu] Casas Parera I, et al. **Medicina (B Aires)** 1998;58(2):197–201 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Case of the month: April 1998--30 year old male with perineal numbness. Smith SJ, et al. **Brain Pathol** 1998 Oct;

SENSATION DISORDERS

8(4):813–4
Epidermal innervation: changes with aging, topographic location, and in sensory neuropathy. Lauria G, et al. **J Neurol Sci** 1999 Apr 1;164(2):172–8
Localized hypertrophic neuropathy involving the inferior alveolar nerve. Ethunandan M, et al. **J Oral Maxillofac Surg** 1999 Jan;57(1):84–9 (23 ref.)
Neuropathology in older people with disequilibrium of unknown cause. Whitman GT, et al. **Neurology** 1999 Jul 22;53(2):375–82

PHYSIOPATHOLOGY

EEG topographical analysis of spatial disorientation. Tokumaru O, et al. **Aviat Space Environ Med** 1999 Mar; 70(3 Pt 1):256–63
Subtypes of constipation predominant irritable bowel syndrome based on rectal perception. Harraf F, et al. **Gut** 1998 Sep;43(3):388–94
Improving balance. Robbins S, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1363–70
Neurophysiological aspects of synesthetic experience. Schiltz K, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter; 11(1):58–65
Balance and aging. Konrad HR, et al. **Laryngoscope** 1999 Sep;109(9):1454–60 (47 ref.)
Evidence for an abnormal cortical sensory processing in dystonia: selective enhancement of lower limb P37–N50 somatosensory evoked potential. Tinazzi M, et al. **Mov Disord** 1999 May;14(3):473–80
Role of the blink reflex in the evaluation of sensory neuronopathy. Auger RG, et al. **Neurology** 1999 Jul 22; 53(2):407–8
Spinal nerve ligation-induced neuropathy in the rat: sensory disorders and correlation between histology of the peripheral nerves [published erratum appears in Pain 1999 May;81(1–2):221–3] Röyttä M, et al. **Pain** 1999 Mar; 80(1–2):161–70
Multiple sclerosis potpourri. Paroxysmal symptoms, seizures, fatigue, pregnancy, and more. Taylor RS. **Phys Med Rehabil Clin N Am** 1998 Aug;9(3):551–9, vi (31 ref.)
[Gait disturbance in aging and equilibrium disorders—body sway research no. 45] Akahira T. **Nippon Jibiinkoka Gakkai Kaiho** 1999 Feb;102(2):277–85 (Eng. Abstr.) **(Jpn)**
[A severe case of acute autonomic and sensory neuropathy] Adachi H, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):663–8 (Eng. Abstr.) **(Jpn)**

PREVENTION & CONTROL

Reduce risk of inducing spatial disorientation using physiologically compatible ground lighting. Schmidt RT. **Aviat Space Environ Med** 1999 Jun;70(6):598–603 (22 ref.)
School screening: comparing outcomes for Australian and overseas born children [letter] Leavy J, et al. **J Paediatr Child Health** 1998 Aug;34(4):399–400
[Advance in the study of restoration of sensation in skin flaps] Kuang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):94–6 (25 ref.) **(Chi)**

PSYCHOLOGY

A new measure for assessing the health-related quality of life of patients with vertigo, dizziness or imbalance: the VDI questionnaire. Prieto L, et al. **Qual Life Res** 1999; 8(1–2):131–9

THERAPY

Clinical observation on 219 cases of arm-numbness treated by acupuncture at the experiential point biling. Meng Q, et al. **J Tradit Chin Med** 1998 Mar;18(1):18–9
Paraneoplastic sensory neuropathy, demyelinating features, and response to immunotherapy [letter; comment] Antoine JC. **Muscle Nerve** 1998 Dec;21(12):1811–3. Comment on: Muscle Nerve 1997 Dec;20(12):1576–82.

SENSE ORGANS

see related
RECEPTORS, SENSORY

ANATOMY & HISTOLOGY

Comparative light and electron microscopic study of the auditory organs of two species of fishes (pisces): Hyphessobrycon simulans (Ostariophysi) and Poecilia reticulata (Acanthopterygii). Hertwig I, et al. **Eur J Morphol** 1999 Feb;37(1):17–28
The Chievitz juxtaparotid organ. D'Andrea V, et al. **G Chir** 1999 May;20(5):213–7 (37 ref.)
[Principles of the structural organization of the chemosensory system of freshwater gastropod mollusks] Zaitseva OV. **Morfologiia** 1998;114(5):7–18 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Development of dopamine-immunoreactive neurons associated with the antennal lobes of the honey bee, Apis mellifera. Kirchhof BS, et al. **J Comp Neurol** 1999 Sep 6;411(4):643–53

CYTOLOGY

Morphological and cytological ontogenesis of the ampullae of lorenzini and lateral line canals in the Oman shark, Iago omanensis Norman 1939 (Triakidae), from the Gulf of Aqaba, Red Sea. Fishelson L, et al. **Anat Rec** 1998 Dec; 252(4):532–45
A spatial map of olfactory receptor expression in the Drosophila antenna. Vosshall LB, et al. **Cell** 1999 Mar 5; 96(5):725–36
Primary culture of antennal mechanoreceptor neurons of Manduca sexta. Torkkeli PH, et al. **Cell Tissue Res** 1999 Aug;297(2):301–9
Cis-interactions between Delta and Notch modulate neurogenic signalling in Drosophila. Jacobsen TL, et al. **Development** 1998 Nov;125(22):4531–40
Mormyrid electrosensory lobe in vitro: morphology of cells and circuits. Han VZ, et al. **J Comp Neurol** 1999 Feb 15; 404(3):359–74

EMBRYOLOGY

Wingless signaling leads to an asymmetric response to decapentaplegic-dependent signaling during sense organ patterning on the notum of Drosophila melanogaster. Phillips RG, et al. **Dev Biol** 1999 Mar 1;207(1):150–62
Negative regulation of dorsoventral signaling by the homeotic gene Ultrabithorax during haltere development in Drosophila. Shashidhara LS, et al. **Dev Biol** 1999 Aug 15;212(2):491–502

ENZYMOLOGY

Preferential expression of biotransformation enzymes in the olfactory organs of Drosophila melanogaster, the antennae. Wang Q, et al. **J Biol Chem** 1999 Apr 9;274(15):10309–15

GROWTH & DEVELOPMENT

Patterning an epidermal field: Drosophila lozenge, a member of the AML-1/Runt family of transcription factors, specifies olfactory sense organ type in a dose-dependent manner. Gupta BP, et al. **Dev Biol** 1998 Nov 15; 203(2):400–11
Regulation of the spalt/spalt-related gene complex and its function during sensory organ development in the Drosophila thorax. de Celis JF, et al. **Development** 1999 Jun;126(12):2653–62
Revisiting the Drosophila microchaete lineage: a novel intrinsically asymmetric cell division generates a glial cell. Gho M, et al. **Development** 1999 Aug;126(16):3573–84
Antagonism of EGFR and notch signalling in the reiterative recruitment of Drosophila adult chordotonal sense organ precursors. zur Lage P, et al. **Development** 1999 Jun; 126(14):3149–57
The specificity of proneural genes in determining Drosophila sense organ identity. Jarman AP, et al. **Mech Dev** 1998 Aug;76(1–2):117–25
Sense organs in post-embryonic stages of Hyalomma marginatum marginatum Koch, 1844 (Acari: Ixodida: Ixodidae). I. Tarsal sensory system. Buczek A, et al. **Parassitologia** 1998 Sep;40(3):279–82

INNERVATION

Nerve dependency of developing and mature sensory receptor cells. Fritzsch B, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:14–27 (83 ref.)
Localization of odor-induced neuronal activity in the antennal lobes of the blowfly Calliphora vicina: a [3H] 2-deoxyglucose labeling study. Distler PG, et al. **Brain Res** 1998 Sep 14;805(1–2):263–6
Voltage-activated currents from adult honeybee (Apis mellifera) antennal motor neurons recorded in vitro and in situ. Kloppenburg P, et al. **J Neurophysiol** 1999 Jan; 81(1):39–48
Spatio-temporal activities in the antennal lobe analyzed by an optical recording method in the male silkworm moth Bombyx mori. Ai H, et al. **Neurosci Lett** 1998 Dec 24; 258(3):135–8

METABOLISM

Antagonism of EGFR and notch signalling in the reiterative recruitment of Drosophila adult chordotonal sense organ precursors. zur Lage P, et al. **Development** 1999 Jun; 126(14):3149–57

PHYSIOLOGY

Clock-spiking cells not only in the eye of the fly, but also in the antenna! Moro SD, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(4):277–81
Nerve dependency of developing and mature sensory receptor cells. Fritzsch B, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:14–27 (83 ref.)
Operant conditioning of antennal movements in the honey bee. Kisch J, et al. **Behav Brain Res** 1999 Feb 15; 99(1):93–102
Sensory systems [editorial] Eatock RA, et al. **Curr Opin Neurobiol** 1999 Aug;9(4):385–8
Mapping quantitative trait loci affecting sternopleural bristle number in Drosophila melanogaster using changes of marker allele frequencies in divergently selected lines. Nuzhdin SV, et al. **Genet Res** 1998 Oct;72(2):79–91
Odorant response of individual sensilla on the Drosophila antenna. Clyne P, et al. **Invert Neurosci** 1997 Sep-Dec; 3(2–3):127–35
Elements of the olfactory signaling pathways in insect antennae. Krieger J, et al. **Invert Neurosci** 1997 Sep-Dec; 3(2–3):137–44 (50 ref.)
Dipole source localization by mottled sculpin. III. Orientation after site-specific, unilateral denervation of the lateral line system. Conley RA, et al. **J Comp Physiol [A]** 1998 Sep;183(3):335–44
Biogenic amines and division of labor in honey bee colonies: behaviorally related changes in the antennal lobes and age-related changes in the mushroom bodies. Schulz DJ, et al. **J Comp Physiol [A]** 1999 May;184(5):481–8
High-frequency steering maneuvers mediated by tactile cues: antennal wall-following in the cockroach. Camhi JM, et al. **J Exp Biol** 1999 Mar;202 (Pt 5):631–43
Responses of Xenopus laevis water nose to water-soluble and volatile odorants. Iida A, et al. **J Gen Physiol** 1999 Jul;114(1):85–92
Inhibition evoked from primary afferents in the electrosensory lateral line lobe of the weakly electric fish (Apteronotus leptorhynchus). Berman NJ, et al. **J Neurophysiol** 1998 Dec;80(6):3173–96
Distal versus proximal inhibitory shaping of feedback excitation in the electrosensory lateral line lobe: implications for sensory filtering. Berman NJ, et al. **J Neurophysiol** 1998 Dec;80(6):3214–32
Active signaling of leg loading and unloading in the cockroach. Ridgel AL, et al. **J Neurophysiol** 1999 Mar; 81(3):1432–7
Direct comparison of serotonin effects on siphon versus tail sensory neurons in Aplysia. Wright WG, et al. **Learn Mem** 1995 May–Aug;2(3–4):178–84
The glomerular code for odor representation is species specific in the honeybee Apis mellifera. Galizia CG, et al. **Nat Neurosci** 1999 May;2(5):473–8
Odorant receptor gene expression in catfish taste tissue. Medler KF, et al. **Neuroreport** 1998 Dec 21;9(18):4103–7
Dominant-negative mutation in the beta2 and beta6 proteasome subunit genes affect alternative cell fate decisions in the Drosophila sense organ lineage. Schweisguth F. **Proc Natl Acad Sci U S A** 1999 Sep 28; 96(20):11382–6
Theoretical aspects of sensory substitution and of neurotransmission-related reorganization in spinal cord injury. Bach-y-Rita P. **Spinal Cord** 1999 Jul;37(7):465–74 (81 ref.)

ULTRASTRUCTURE

Distribution, morphology, and cytology of ampullae of Lorenzini in the Oman shark, Iago omanensis (Triakidae), from the Gulf of Aqaba, Red Sea. Fishelson L, et al. **Anat Rec** 1998 Aug;251(4):417–30

SENSITIVITY AND SPECIFICITY

Definition of sensitivity and specificity [letter; comment] Lazarus RM. **Am J Clin Nutr** 1999 Jan;69(1):158–9. Comment on: Am J Clin Nutr 1998 Jan;67(1):44–9.
Sensitivity, specificity, and vaccine efficacy. Lachenbruch PA. **Control Clin Trials** 1998 Dec;19(6):569–74
Estimation of test sensitivity and specificity when disease confirmation is limited to positive results. Walter SD. **Epidemiology** 1999 Jan;10(1):67–72
A statistical evaluation of the Youden Matched-Pairs Procedure. McClure FD. **J AOAC Int** 1999 Mar-Apr; 82(2):375–83
[Sensitivity and specificity revisited: significance of the terms in analytic and diagnostic language] Saah AJ, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):291–4 (26 ref.) (Eng. Abstr.) **(Fre)**

SENSITIVITY, CONTACT see **DERMATITIS, CONTACT**

SENSITIVITY TRAINING GROUPS

Cultural sensitivity training among foreign medical graduates. Majumdar B, et al. **Med Educ** 1999 Mar;33(3):177–84

SENSITIZATION, IMMUNOLOGIC see **IMMUNIZATION**

SENSORY AIDS

Base up prism spectacles as visual aid in patients treated for macular hole [letter] Crafoord S, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):241
Spectacle-mounted prisms as an aid in face-down positioning after vitrectomy surgery. Copeland CS, et al. **Am J Ophthalmol** 1999 Apr;127(4):480–1
The role of computer assistive technology in rehabilitation of the visually impaired: a personal perspective [editorial] Paul W. **Am J Ophthalmol** 1999 Jan;127(1):75–6
Head mounted video magnification devices for low vision rehabilitation: a comparison with existing technology. Harper R, et al. **Br J Ophthalmol** 1999 Apr;83(4):495–500
Using an orientation system for indoor travel and activity with persons with multiple disabilities. Lancioni GE, et al. **Disabil Rehabil** 1999 Mar;21(3):124–7
Design of a haptic data visualization system for people with visual impairments. Fritz JP, et al. **IEEE Trans Rehabil Eng** 1999 Sep;7(3):372–84

Three-dimensional tactile display for the blind. Shinohara M, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):249–56
A microfabricated electrostatic haptic display for persons with visual impairments. Tang H, et al.
IEEE Trans Rehabil Eng 1998 Sep;6(3):241–8
A spelling device for the paralysed [letter] Birbaumer N, et al. **Nature** 1999 Mar 25;398(6725):297–8
Potential perceptual bases for successful use of a vibrotactile speech perception aid. Bernstein LE, et al.
Scand J Psychol 1998 Sep;39(3):181–6
Blind children recognizing tactile pictures respond like sighted children given guidance in exploration. D'Angiulli A, et al. **Scand J Psychol** 1998 Sep;39(3):187–90
Theoretical aspects of sensory substitution and of neurotransmission-related reorganization in spinal cord injury. Bach-y-Rita P. **Spinal Cord** 1999 Jul;37(7):465–74 (81 ref.)
[Low Vision Enhancement System (LVES). Initial clinical experiences with a new kind of optoelectronic rehabilitation system] Thierfelder S, et al.
Ophthalmologe 1998 Nov;95(11):781–3 (Eng. Abstr.)
(Ger)

SENSORY AND AUTONOMIC NEUROPATHIES, HEREDITARY see **NEUROPATHIES, HEREDITARY SENSORY AND AUTONOMIC**

SENSORY DEPRIVATION

Reinterpreting physical violence: outcome of intense stimulation-seeking behavior [letter] Mawson AR.
Acad Emerg Med 1999 Aug;6(8):863–5 (12 ref.)
Reinnervation of flaps and grafts of the face. Lutz ME, et al. **Arch Dermatol** 1998 Oct;134(10):1271–4
Nonsurgical management of binocular diplopia induced by macular pathology. Silverberg M, et al.
Arch Ophthalmol 1999 Jul;117(7):900–3
Eye patching in unilateral spatial neglect: efficacy of two methods. Beis JM, et al. **Arch Phys Med Rehabil** 1999 Jan; 80(1):71–6
An efficient treatment and new criteria for cure of strabismic amblyopia: reading and Bangerter foils. Lang J.
Binocul Vis Strabismus Q 1999 Spring;14(1):9–10 (6 ref.)
Apoptosis in the visual system of normal and dark-reared rats. Papadopoulos GC, et al. **Brain Res** 1999 Aug 14; 838(1–2):214–7
Experience-dependent alteration of zinc-containing circuits in somatosensory cortex of the mouse. Quaye VL, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):283–7
Sensory deprivation and chronic pain: a review of the literature. Schofield P, et al. **Disabil Rehabil** 1998 Oct; 20(10):357–66 (75 ref.)
Column spacing in normal and visually deprived monkeys. Crawford ML. **Exp Brain Res** 1998 Dec;123(3):282–8
Experience-dependent regulation of adult hippocampal neurogenesis: effects of long-term stimulation and stimulus withdrawal. Kempermann G, et al. **Hippocampus** 1999; 9(3):321–32
The Lancaster red-green test before and after occlusion in the evaluation of incomitant strabismus. Hwang JM, et al. **J Aapos** 1999 Jun;3(3):151–6
Outcome of occlusion treatment for amblyopia. Beardsell R, et al. **J Pediatr Ophthalmol Strabismus** 1999 Jan–Feb; 36(1):19–24
Improvement of visual function in an adult amblyope. Simmers AJ, et al. **Optom Vis Sci** 1999 Feb;76(2):82–7
Form deprivation myopia in adolescent monkeys. Smith EL 3rd, et al. **Optom Vis Sci** 1999 Jun;76(6):428–32
Cone receptor sensitivity is altered in form deprivation myopia in the chicken. Westbrook AM, et al.
Optom Vis Sci 1999 May;76(5):326–38
The case for early identification of hearing loss in children. Auditory system development, experimental auditory deprivation, and development of speech perception and hearing. Sininger YS, et al. **Pediatr Clin North Am** 1999 Feb;46(1):1–14 (62 ref.)
Path completion after haptic exploration without vision: implications for haptic spatial representations. Klatzky RL.
Percept Psychophys 1999 Feb;61(2):220–35
Electronic monitoring of treatment compliance in patching for amblyopia. Simonsz HJ, et al. **Strabismus** 1999 Jun; 7(2):113–23

PHYSIOLOGY

Visual discrimination learning under switching procedure in visually deprived cats. Zernicki B. **Behav Brain Res** 1999 Apr;100(1–2):237–44
Effects of neonatal undernutrition and binaural ear occlusion on neuronal development of the superior olivary complex of rats. Torrero C, et al. **Biol Neonate** 1999;75(4):259–71
Experience-dependent changes in the importance of N-methyl-D-aspartate (NMDA) receptors for visual transmission in superior colliculus. Binns KE, et al.
Brain Res Dev Brain Res 1998 Oct 1;110(2):241–8
Ponto-geniculo-occipital-wave suppression amplifies lateral geniculate nucleus cell-size changes in monocularly deprived kittens. Shaffery JP, et al.
Brain Res Dev Brain Res 1999 Apr 12;114(1):109–19
Experience-dependent depression of vibrissae responses in adolescent rat barrel cortex. Glazewski S, et al.
Eur J Neurosci 1998 Jun;10(6):2107–16
Auditory activation of cortical visual areas in cats after early visual deprivation. Yaka R, et al. **Eur J Neurosci** 1999 Apr; 11(4):1301–12
Light deprivation soon after frontal brain trauma accelerates recovery from attentional deficits and promotes functional normalization of basal ganglia. Vargo JM, et al.
J Trauma 1999 Aug;47(2):265–72; discussion 273–4
Tissue plasminogen activator mediates reverse occlusion plasticity in visual cortex. Müller CM, et al.
Nat Neurosci 1998 May;1(1):47–53
Modulation of corticospinal output to human hand muscles following deprivation of sensory feedback. Rossi S, et al. **Neuroimage** 1998 Aug;8(2):163–75
Light-dependent suppression of the vestibulo-ocular reflex during development. Sebastian C, et al. **Neuroreport** 1999 Jan 18;10(1):171–6
Decreased glucose transporter densities, rate constants and glucose utilization in visual structures of rat brain during chronic visual deprivation. Duelli R, et al.
Neurosci Lett 1998 Jun 26;250(1):49–52
Comparable activity levels in developmentally deprived and non-deprived layer IV cortical columns of the adult rat primary somatosensory cortex. Gutiérrez-Ospina G, et al. **Neurosci Lett** 1998 May 8;247(1):5–8
Expression of the transcription factor Zif268 in the visual cortex of monocularly deprived rats: effects of nerve growth factor. Caleo M, et al. **Neuroscience** 1999; 91(3):1017–26
Dark rearing blocks the developmental down-regulation of brain-derived neurotrophic factor messenger RNA expression in layers IV and V of the rat visual cortex. Capsoni S, et al. **Neuroscience** 1999 Jan;88(2):393–403
Activity-dependent regulation of interleukin-1 beta immunoreactivity in the developing rat olfactory bulb. Lim JH, et al. **Neuroscience** 1999;93(1):371–4
Monocular deprivation decreases brain-derived neurotrophic factor immunoreactivity in the rat visual cortex. Rossi FM, et al. **Neuroscience** 1999 May;90(2):363–8
Retinoic acid increases in the retina of the chick with form deprivation myopia. Seko Y, et al. **Ophthalmic Res** 1998; 30(6):361–7
Role of aversively motivated behavior in the olfactory bulbectomy syndrome. Primeaux SD, et al.
Physiol Behav 1999 Aug 1;67(1):41–7
A study on polysomnographic observations and subjective experiences under sensory deprivation. Iwata K, et al.
Psychiatry Clin Neurosci 1999 Apr;53(2):129–31
Love as sensory stimulation: physiological consequences of its deprivation and expression. Komisaruk BR, et al.
Psychoneuroendocrinology 1998 Nov;23(8):927–44 (58 ref.)
Experience-dependent alteration of synaptic zinc in rat somatosensory barrel cortex. Land PW, et al.
Somatosens Mot Res 1999;16(2):139–50
The effect of vibrissa deprivation pattern on the form of plasticity induced in rat barrel cortex. Wallace H, et al.
Somatosens Mot Res 1999;16(2):122–38
Opiate and N-methyl-D-aspartate receptors in form-deprivation myopia. Fischer AJ, et al.
Vis Neurosci 1998 Nov-Dec;15(6):1089–96
Experimental eye enlargement in mature animals changes the retinal pigment epithelium. Harman AM, et al.
Vis Neurosci 1999 Jul-Aug;16(4):619–28

SENSORY GANGLIA see **GANGLIA, SENSORY**

SENSORY MOTOR PERFORMANCE see **PSYCHOMOTOR PERFORMANCE**

SENSORY NEUROPATHY, HEREDITARY see **NEUROPATHIES, HEREDITARY SENSORY AND AUTONOMIC**

SENSORY SYSTEM AGENTS

ADVERSE EFFECTS

Sensory irritation and multiple chemical sensitivity. Anderson RC, et al. **Toxicol Ind Health** 1999 Apr-Jun;15(3–4):339–45

SENSORY THRESHOLDS

Analysis of sensory function in Charcot-Marie-Tooth disease. Ericson U, et al. **Acta Neurol Scand** 1999 May; 99(5):291–6
Clinical and neurophysiological abnormalities before and after reconstruction of the anterior cruciate ligament of the knee. Valeriani M, et al. **Acta Neurol Scand** 1999 May; 99(5):303–7
The effects of biofeedback on rectal sensation and distal colonic motility in patients with disorders of rectal evacuation: evidence of an inhibitory rectocolonic reflex in humans? Mollen RM, et al. **Am J Gastroenterol** 1999 Mar;94(3):751–6
Esophageal hypersensitivity may be a major cause of heartburn. Rodriguez-Stanley S, et al.
Am J Gastroenterol 1999 Mar;94(3):628–31
Effect of age and height on vibrotactile threshold among 1,663 U.S. workers. Skov T, et al. **Am J Ind Med** 1998 Nov;34(5):438–44
A study of the relationship between the T&T olfactometer and the University of Pennsylvania Smell Identification Test in a Japanese population. Kondo H, et al.
Am J Rhinol 1998 Sep-Oct;12(5):353–8
Energy model for contrast detection: spatiotemporal characteristics of threshold vision. Manahilov V, et al.
Biol Cybern 1999 Jul;81(1):61–71
Remarkable capacity for perception of the direction of skin pull in man. Olausson H, et al. **Brain Res** 1998 Oct 12; 808(1):120–3
Reliability of cephalic thermal thresholds in healthy subjects. Becser N, et al. **Cephalalgia** 1998 Oct;18(8):574–82 (45 ref.)
Normative data of quantitative thermal and vibratory thresholds in normal subjects in Taiwan: gender and age effect. Liou JT, et al.
Chung Hua I Hsueh Tsa Chih (Taipei) 1999 Jul;62(7):431–7
Neurophysiological findings in vibration-exposed male workers. Strömberg T, et al. **J Hand Surg [Br]** 1999 Apr; 24(2):203–9
Thermosensory threshold: a sensitive test of HIV associated peripheral neuropathy? Huengsberg M, et al.
J Neurovirol 1998 Aug;4(4):433–7
Suprathreshold intensity and annoyance reactions in experimental challenge to toluene and n-butyl acetate among subjects with long-term solvent exposure. Orbaek P, et al. **Scand J Work Environ Health** 1998 Oct;24(5):432–8
Contour detection threshold: repeatability and learning with 'contour cards'. Pennefather PM, et al. **Spat Vis** 1999; 12(3):257–66

DRUG EFFECTS

Effects of octreotide on esophageal visceral perception and cerebral evoked potentials induced by balloon distension [see comments] Johnston BT, et al. **Am J Gastroenterol** 1999 Jan;94(1):65–70. Comment in: Am J Gastroenterol 1999 Jan;94(1):5–8.
Concentration of lidocaine affects intensity of sensory block during lumbar epidural anesthesia. Sakura S, et al.
Anesth Analg 1999 Jan;88(1):123–7
Intrathecal adenosine administration: a phase 1 clinical safety study in healthy volunteers, with additional evaluation of its influence on sensory thresholds and experimental pain. Rane K, et al. **Anesthesiology** 1998 Nov;89(5):1108–15; discussion 9A
Skin application of isoflurane attenuates the responses to a mechanical and an electrical stimulation. Fassoulaki A, et al. **Can J Anaesth** 1998 Dec;45(12):1151–5
Using olfactometry to measure intensity and threshold dilution ratio for evaluating swine odor. Chen Y, et al.
J Air Waste Manag Assoc 1999 Jul;49(7):847–53
Carbamazepine in the treatment of Lyme disease-induced hyperacusis. Nields JA, et al.
J Neuropsychiatry Clin Neurosci 1999 Winter;11(1):97–9
Absence of viscerosomatic inhibition with injections of lobeline designed to activate human pulmonary C fibres [see comments] Gandevia SC, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):289–300. Comment in: J Physiol (Lond) 1998 Aug 15;511 (Pt 1):2.
Increase in the threshold of pain and touch sensation in the human face with clonidine plus 30% nitrous oxide. Siiba S, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 Mar;87(3):294–8
Dose-dependent stereoselective activation of the trigeminal sensory system by nicotine in man. Thuerauf N, et al.
Psychopharmacology (Berl) 1999 Mar;142(3):236–43
Quantitative sensory changes in humans after intravenous regional block with mepivacaine. Kalman S, et al.
Reg Anesth Pain Med 1999 May-Jun;24(3):236–41

PHYSIOLOGY

Midlatency evoked potentials attenuation and augmentation reflect different aspects of sensory gating. Boutros NN, et al. **Biol Psychiatry** 1999 Apr 1;45(7):917–22
Prepulse inhibition and habituation of the startle response are stable neurobiological measures in a normal male population. Cadenhead KS, et al. **Biol Psychiatry** 1999 Feb 1;45(3):360–4
P50 suppression and prepulse inhibition of the startle reflex in humans: a correlational study. Oranje B, et al.
Biol Psychiatry 1999 Apr 1;45(7):883–90
Interhemispheric asymmetries in the perception of unimanual and bimanual cutaneous stimuli. A study using transcranial magnetic stimulation. Oliveri M, et al. **Brain** 1999 Sep;122 (Pt 9):1721–9
Attention and memory dysfunction after traumatic brain injury: cholinergic mechanisms, sensory gating, and a hypothesis for further investigation. Arciniegas D, et al.
Brain Inj 1999 Jan;13(1):1–13 (89 ref.)
A model for P300 generation based on responses to near-threshold visual stimuli. Devrim M, et al.
Brain Res Cogn Brain Res 1999 May;8(1):37–43
Thermal sensitivity in unilateral headaches. Becser N, et al.
Cephalalgia 1998 Dec;18(10):675–83; discussion 657
Pressure pain threshold and pain tolerance in episodic tension-type headache do not depend on the presence of headache. Bove GM, et al. **Cephalalgia** 1999 Apr; 19(3):174–8; discussion 135
Transient and permanent deficits in motion perception after lesions of cortical areas MT and MST in the macaque monkey. Rudolph K, et al. **Cereb Cortex** 1999 Jan–Feb; 9(1):90–100
Handedness is a determining factor in lateralized olfactory discrimination. Hummel T, et al. **Chem Senses** 1998 Oct; 23(5):541–4

SENSORY THRESHOLDS

Outcome on diabetic foot complications in relation to clinical examination and quantitative sensory testing: a case–control study. Coppini DV, et al. **Diabet Med** 1998 Sep; 15(9):765–71

Relation of olfactory event-related potentials to changes in stimulus concentration. Tateyama T, et al. **Electroencephalogr Clin Neurophysiol** 1998 Sep; 108(5):449–55

Threshold-duration functions of chinchilla auditory nerve fibers [letter] Eddins AC, et al. **Hear Res** 1998 Oct; 124(1–2):190

Changes in spontaneous neural activity in the dorsal cochlear nucleus following exposure to intense sound: relation to threshold shift. Kaltenbach JA, et al. **Hear Res** 1998 Oct; 124(1–2):78–84

Detection thresholds for brief sounds--are they a measure of auditory intensity integration? Krumbholz K, et al. **Hear Res** 1998 Oct;124(1–2):155–69

Magnetic stimulation of visual cortex: factors influencing the perception of phosphenes. Ray PG, et al. **J Clin Neurophysiol** 1998 Jul;15(4):351–7

Comparison of threshold visual perimetry and objective pupil perimetry in clinical patients. Yoshitomi T, et al. **J Neuroophthalmol** 1999 Jun;19(2):89–99

Spatio-temporal subthreshold receptive fields in the vibrissa representation of rat primary somatosensory cortex. Moore CI, et al. **J Neurophysiol** 1998 Dec;80(6):2882–92

Use of image-based information in judgments of surface-reflectance properties. Nishida S, et al. **J Opt Soc Am A Opt Image Sci Vis** 1998 Dec; 15(12):2951–65 (65 ref.)

Distributions of sensory spots in the hand and two-point discrimination thresholds in the hand, face and mouth in dental students. Sato T, et al. **J Physiol Paris** 1999 May–Jun;93(3):245–50

Relationship between cutaneous pressure threshold and two-point discrimination. Aszmann OC, et al. **J Reconstr Microsurg** 1998 Aug;14(6):417–21

Amplitude response and stimulus presentation frequency response of human primary visual cortex using BOLD EPI at 4 T. Thomas CG, et al. **Magn Reson Med** 1998 Aug; 40(2):203–9

Technology review: the Neurometer Current Perception Threshold (CPT). AAEM Equipment and Computer Committee. American Association of Electrodiagnostic Medicine. **Muscle Nerve** 1999 Apr;22(4):523–31 (56 ref.)

Neuroselective current perception threshold electrodiagnostic sensory test [letter; comment] Cohen RP. **Muscle Nerve** 1998 Dec;21(12):1810. Comment on: Muscle Nerve 1997 Sep;20(9):1200–3.

Correlation between two-point discrimination and median nerve sensory response. Marlowe ES, et al. **Muscle Nerve** 1999 Sep;22(9):1196–200

Limitations of quantitative sensory testing when patients are biased toward a bad outcome [letter; comment] Katims J. **Neurology** 1999 Mar 10;52(4):894; discussion 894–5. Comment on: Neurology 1998 May;50(5):1213.

Limitations of quantitative sensory testing when patients are biased toward a bad outcome [letter; comment] Ochoa J. **Neurology** 1999 Mar 10;52(4):894–5. Comment on: Neurology 1998 May;50(5):1213.

Limitations of quantitative sensory testing when patients are biased toward a bad outcome [letter; comment] Yarnitsky D, et al. **Neurology** 1999 Mar 10;52(4):894; discussion 894–5 . Comment on: Neurology 1998 May;50(5):1213.

The electrically elicited startle blink reflex in patients with schizophrenia: A threshold study of different reflex components. Meincke U, et al. **Neuropsychobiology** 1999; 39(2):76–80

OMP gene deletion causes an elevation in behavioral threshold sensitivity. Youngentob SL, et al. **Neuroreport** 1999 Jan 18;10(1):15–9

Sensory threshold changes without initial pain or alterations in cutaneous blood flow, in the area of secondary hyperalgesia caused by topical application of capsaicin in humans. Andrews K, et al. **Neurosci Lett** 1999 Apr 30; 266(1):45–8

Slow cortical potential shifts modulate the sensory threshold in human visual system. Devrim M, et al. **Neurosci Lett** 1999 Jul 23;270(1):17–20

Olfactory thresholds for nicotine and menthol in smokers (abstinent and nonabstinent) and nonsmokers. Rosenblatt MR, et al. **Physiol Behav** 1998 Dec 1;65(3):575–9

Nonsynaptic diffusion neurotransmission and some other emerging concepts. Bach-y-Rita P. **Proc West Pharmacol Soc** 1998;41:211–8 (89 ref.)

Measurement of olfactory threshold using an evoked potential technique. Wada M. **Rhinology** 1999 Mar; 37(1):25–8

Theoretical aspects of sensory substitution and of neurotransmission-related reorganization in spinal cord injury. Bach-y-Rita P. **Spinal Cord** 1999 Jul;37(7):465–74 (81 ref.)

Peripheral shift reduces visual sensitivity in cat geniculate neurones. Derrington AM, et al. **Vis Neurosci** 1998 Sep–Oct;15(5):875–80

Threshold fluctuations on temporally modulated backgrounds: a possible physiological explanation based upon a recent computational model. Hood DC, et al. **Vis Neurosci** 1998 Sep–Oct;15(5):957–67

Zebrafish visual sensitivity is regulated by a circadian clock. Li L, et al. **Vis Neurosci** 1998 Sep–Oct;15(5):851–7

Forced-choice staircases with fixed step sizes: asymptotic and small-sample properties. García-Pérez MA. **Vision Res** 1998 Jun;38(12):1861–81

Bayesian adaptive estimation of psychometric slope and threshold. Kontsevich LL, et al. **Vision Res** 1999 Aug; 39(16):2729–37

Scaled medial axis representation: evidence from position discrimination task. Wang X, et al. **Vision Res** 1998 Jun; 38(13):1947–59

SENTINEL HEALTH EVENT see **SENTINEL SURVEILLANCE**

SENTINEL SURVEILLANCE

The relationship of HIV prevalence in pregnant women to that in women of reproductive age: a validated method for adjustment [see comments] Nicoll A, et al. **AIDS** 1998 Oct 1;12(14):1861–7. Comment in: AIDS 1999 Mar 11;13(4):526–7.

Cost-effectiveness of hospital discharge records for reaching selected endpoints in the surveillance of silicosis [see comments] [published erratum appears in Am J Ind Med 1999 Jan;35(1):99] Geidenberger CA, et al. **Am J Ind Med** 1998 Nov;34(5):484–92. Comment in: Am J Ind Med 1999 Apr;35(4):434–5.

Hypersensitivity pneumonitis: a sentinel event investigation in a wet building. Weltermann BM, et al. **Am J Ind Med** 1998 Nov;34(5):499–505

National Nosocomial Infections Surveillance (NNIS) System report, data summary from October 1986–April 1998, issued June 1998. **Am J Infect Control** 1998 Oct; 26(5):522–33

Intensive Care Antimicrobial Resistance Epidemiology (ICARE) Surveillance Report, data summary from January 1996 through December 1997: A report from the National Nosocomial Infections Surveillance (NNIS) System. **Am J Infect Control** 1999 Jun;27(3):279–84

EMERGEncy ID NET: an emergency department–based emerging infections sentinel network. The EMERGEncy ID NET Study Group. Talan DA, et al. **Ann Emerg Med** 1998 Dec;32(6):703–11

Evaluation of dogs as sentinels of the transmission of Trypanosoma cruzi in a rural area of north-western Argentina. Castañera MB, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):671–83

Assessing the population burden from heart failure: need for sentinel population-based surveillance systems [editorial; comment] Goldberg RJ, et al. **Arch Intern Med** 1999 Jan 11;159(1):15–7. Comment on: Arch Intern Med 1998 Jan 11;159(1):29–34.

Surveillance data in CDI. **Commun Dis Intell** 1999 Feb 18; 23(2):55–8

Communicable diseases surveillance. **Commun Dis Intell** 1999 Feb 18;23(2):60–7

Weekly Returns Service of the Royal College of General Practitioners. Fleming DM. **Commun Dis Public Health** 1999 Jun;2(2):96–100 (22 ref.)

Enterovirus infections in England and Wales: laboratory surveillance data: 1975 to 1994. Maguire HC, et al. **Commun Dis Public Health** 1999 Jun;2(2):122–5

Sentinel surveillance in general practice--annual report for 1998. **Commun Dis Rep CDR Wkly** 1999 Sep 17;9(38):337

Sentinel surveillance for enterovirus 71, Taiwan, 1998. Wu TN, et al. **Emerg Infect Dis** 1999 May–Jun;5(3):458–60

Animals as sentinels of human health hazards of environmental chemicals. van der Schalie WH, et al. **Environ Health Perspect** 1999 Apr;107(4):309–15

Frequency of occurrence and antimicrobial susceptibility of bacterial pathogens associated with skin and soft tissue infections during 1997 from an International Surveillance Programme. SENTRY Participants Group. Jones ME, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jun;18(6):403–8

Prevalence of aminoglycoside resistance in 20 European university hospitals participating in the European SENTRY Antimicrobial Surveillance Programme. Schmitz FJ, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jun; 18(6):414–21

Status of poliomyelitis after pulse polio immunization [letter] Yelsangikar R. **Indian Pediatr** 1998 May;35(5):480–1

Comparative activities of six different fluoroquinolones against 9,682 clinical bacterial isolates from 20 European university hospitals participating in the European SENTRY surveillance programme. The SENTRY participants group. Schmitz FJ, et al. **Int J Antimicrob Agents** 1999 Aug;12(4):311–7

Surveillance of resistance against antimicrobial agents. Verhoef J, et al. **Int J Antimicrob Agents** 1999 Jul; 12(2):77–9

Does the Complications Screening Program flag cases with process of care problems? Using explicit criteria to judge processes. Iezzoni LI, et al. **Int J Qual Health Care** 1999 Apr;11(2):107–18

Routine reporting or sentinel surveys for HIV/AIDS surveillance in resource-poor settings: experience in South Africa, 1991–97. Stuart JM, et al. **Int J STD AIDS** 1999 May;10(5):328–30

Sentinel practices in evaluating longer periods of care: quality of life and drug therapy of terminally ill persons in Lower Saxony (Germany). Busse R, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:56S–60S

Surveillance of influenza-like illness in France. The example of the 1995/1996 epidemic. Carrat F, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:32S–38S

Participation of French general practitioners in public health surveillance: a multidisciplinary approach. Chauvin P, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:2S–8S

Epidemiology of chickenpox in France (1991–1995). Deguen S, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:46S–49S

Programme for the surveillance of influenza in Portugal: results of the period 1990–1996. Falcão iM, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:39S–42S

Audit of populations in general practice: the creation of a national resource for the study of morbidity in Scottish general practice. Milne RM, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:20S–24S

Contamination of human breast milk with organochlorine residues: a comparison between East and West Germany through sentinel practice networks. Raum E, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:50S–55S

Approaches to the denominator in practice-based epidemiology: a critical overview. Schlaud M, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:13S–19S (36 ref.)

Anonymous unlinked testing as a sentinel approach: experience in Germany. Siedler A, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:25S–27S

Surveillance of influenza in Wales: interpreting sentinel general practice rates using contemporaneous laboratory data. Opportunities and limitations. Thomas DR, et al. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:28S–31S

A study of reasons for an increase in acute respiratory tract infections reported by influenza sentinel practices in Germany. Uphoff H. **J Epidemiol Community Health** 1998 Apr;52 Suppl 1:43S–45S

Comparison of effectiveness and required time of two surveillance methods in intensive care patients. Boulétreau A, et al. **J Hosp Infect** 1999 Apr;41(4):281–9

Incident monitoring in psychiatry. Wright M, et al. **J Qual Clin Pract** 1998 Dec;18(4):249–61

GeoSentinel: the global emerging infections sentinel network of the International Society of Travel Medicine. Freedman DO, et al. **J Travel Med** 1999 Jun;6(2):94–8

Transmission of Helicobacter hepaticus infection to sentinel mice by contaminated bedding. Livingston RS, et al. **Lab Anim Sci** 1998 Jun;48(3):291–3

Imported epidemic typhus [letter; comment] Zanetti G, et al. **Lancet** 1998 Nov 21;352(9141):1709. Comment on: Lancet 1998 Aug 1;352(9125):353–8.

SWORD '97: surveillance of work-related and occupational respiratory disease in the UK. Ross DJ, et al. **Occup Med (Lond)** 1998 Nov;48(8):481–5 (9 ref.)

Surveillance of hepatitis B: an example of a vaccine preventable disease. Ramsay ME, et al. **Vaccine** 1998 Nov; 16 Suppl:S76–80 (12 ref.)

[Sentinel surveillance of diarrhea in Ksar-Hellal (Tunisia)] Soltani MS, et al. **Arch Pediatr** 1999 Jan;6(1):27–31 (Eng. Abstr.) **(Fre)**

[Main ways of optimizing the epidemiological surveillance of tuberculous infection] Grashchenkova OV. **Probl Tuberk** 1999;(2):13–5 **(Rus)**

[Is all that glitters gold? (letter)] de Mateo S, et al. **Gac Sanit** 1998 Jul–Aug;12(4):191–2 **(Spa)**

[Coordination of sentinel nets and new stages of epidemiological surveillance (letter)] Tomás Vega Alonso A, et al. **Gac Sanit** 1998 Jul–Aug;12(4):190–1 **(Spa)**

[The epidemiological surveillance of human immunodeficiency virus (HIV) infection in a hospital population of Catalonia. Collaborators in the VIHHOSP project] Blanch C, et al. **Med Clin (Barc)** 1998 Dec 5; 111(19):731–5 (Eng. Abstr.) **(Spa)**

[Automated sentinel system of infectious diseases in Cuba] González Ochoa E, et al. **Rev Cubana Med Trop** 1991; 43(3):197–202 (Eng. Abstr.) **(Spa)**

VETERINARY

Study of Akabane infection in Saudi Arabia by the use of sentinel ruminants. Abu Elzein EM, et al. **J Comp Pathol** 1998 Nov;119(4):473–8

SEOUL VIRUS see **HANTAVIRUS**

SEPARATION ANXIETY DISORDER see **ANXIETY, SEPARATION**

SEPHAROSE

Agarose overlays allow simplified staining of polyacrylamide gels. Rodzen JA, et al. **Biotechniques** 1998 Oct;25(4):584

Agarose-embedded tissue arrays for histologic and genetic analysis. Tsao-Wu GS, et al. **Biotechniques** 1998 Oct; 25(4):614–8

High-frequency alternating-crossed-field gel electrophoresis with neutral or slightly charged interpenetrating networks to improve DNA separation. Boyd BM, et al.

Electrophoresis 1998 Dec;19(18):3137–48

Use of rat hepatocytes immobilized in agarose gel threads for biosynthesis of metabolites of potential cytostatics. Trejtnar F, et al. **Exp Toxicol Pathol** 1999 Jul;51(4–5):432–5

Superporous agarose beads as a hydrophobic interaction chromatography support. Gustavsson PE, et al. **J Chromatogr A** 1999 Jan 15;830(2):275–84

Faster isolation of recombinant factor VIII SQ, with a superporous agarose matrix. Pålsson E, et al. **J Chromatogr A** 1999 Apr 23;840(1):39–50

ANALOGS & DERIVATIVES

Serum amine oxidase can specifically recognize and oxidize aminohexyl (AH) chains on AH–Sepharose support: single–step affinity immobilization. Befani O, et al. **Biotechnol Appl Biochem** 1998 Oct;28 (Pt 2):99–104

Structural heterogeneity of the binding sites of HSA for phenyl–groups and medium–chain fatty acids. Demonstration of equilibrium between different binding conformations. Lund M, et al. **Eur J Biochem** 1999 Mar; 260(2):470–6

Effect of phospholipase A2 digestion on the conformation and lysine/fibrinogen binding properties of human lipoprotein[a]. Fless GM, et al. **J Lipid Res** 1999 Apr; 40(4):583–92

Purification of lipases and phospholipases by heparin–sepharose chromatography. Farooqui AA, et al. **Methods Mol Biol** 1999;109:133–43 (40 ref.)

Purification of antibodies using protein A–sepharose and FPLC. Kent UM. **Methods Mol Biol** 1999;115:29–33 (13 ref.)

CHEMISTRY

Standardization of a method for characterizing low–concentration biogels: elastic properties of low–concentration agarose gels. Benkherourou M, et al. **J Biomech Eng** 1999 Apr;121(2):184–7

How interactions between drugs and agarose–carrageenan hydrogels influence the simultaneous transport of drugs. Sjöberg H, et al. **J Controlled Release** 1999 Jun 2; 59(3):391–400

Direct measurement of intraparticle fluid velocity in superporous agarose beads. Larsson PO, et al. **J Mol Recognit** 1998 Winter;11(1–6):270–2

Participation of chaperonin GroEL in the folding of D–glyceraldehyde–3–phosphate dehydrogenase. An approach based on the use of different oligomeric forms of the enzyme immobilized on sepharose. Bulatnikov IG, et al. **J Protein Chem** 1999 Jan;18(1):79–87

METABOLISM

Analysis of cell surface properties using derivatized agarose beads. Salbilla BA, et al. **Acta Histochem** 1999 Jul; 101(3):271–9

ULTRASTRUCTURE

Agarose gel structure using atomic force microscopy: gel concentration and ionic strength effects. Maaloum M, et al. **Electrophoresis** 1998 Jul;19(10):1606–10

The formation of small–pore gels by an electrically charged agarose derivative. Griess GA, et al. **J Struct Biol** 1998 Oct;123(2):134–42

SEPSIS

Plasma ferritin, premature rupture of membranes, and pregnancy outcome. Goldenberg RL, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1599–604

Sepsis: lessons learned in the last century and future directions. Chaudry IH. **Arch Surg** 1999 Sep;134(9):922–9

Bloodstream infections: epidemiology, pathophysiology and therapeutic perspectives. Salomão R, et al. **Infection** 1999 Jan–Feb;27(1):1–11 (165 ref.)

Peritoneal response to a septic challenge. Comparison between open laparotomy, pneumoperitoneum laparoscopy, and wall lift laparoscopy. Balagué C, et al. **Surg Endosc** 1999 Aug;13(8):792–6

[Sepsis and septic shock (letter)] Sinkovics J. **Orv Hetil** 1999 Jun 20;140(25):1437–8 **(Hun)**

[Sepsis, terminology and nature (impressions and thoughts of a participant of a consensus conference)] Kostiuchenko AL. **Vestn Khir Im I I Grek** 1999;158(3):86–8 **(Rus)**

[Diagnosis, treatment, prevention and prognostication of suppurative–septic complications in abdominal surgery] Ohonovs'kiĭ VK. **Klin Khir** 1999;(7):48–51 (45 ref.) **(Ukr)**

BLOOD

Circulating thrombopoietin levels in neonates with infection. Colarizi P, et al. **Acta Paediatr** 1999 Mar;88(3):332–7

Acute phase proteins as markers of systemic illness in acute diarrhoea. Darling JC, et al. **Acta Paediatr** 1999 Mar; 88(3):259–64

Lactate in sepsis and trauma––hindrance or help? Sladen RN. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Apr; 34(4):237–8 (14 ref.)

HLA–DR expression and soluble HLA–DR levels in septic patients after trauma. Ditschkowski M, et al. **Ann Surg** 1999 Feb;229(2):246–54

von Willebrand factor propeptide in vascular disorders: A tool to distinguish between acute and chronic endothelial cell perturbation. van Mourik JA, et al. **Blood** 1999 Jul 1;94(1):179–85

Procalcitonin––a sepsis parameter in severe burn injuries. von Heimburg D, et al. **Burns** 1998 Dec;24(8):745–50

Reduction of circulating cholesterol and apolipoprotein levels during sepsis. Fraunberger P, et al. **Clin Chem Lab Med** 1999 Mar;37(3):357–62 (59 ref.)

Levels of soluble Fc gammaRIII correlate with disease severity in sepsis. Muller Kobold AC, et al. **Clin Exp Immunol** 1998 Nov;114(2):220–7

Increased serum procalcitonin levels are not specific to sepsis in neonates [letter; comment] Monneret G, et al. **Clin Infect Dis** 1998 Dec;27(6):1559–61. Comment on: Clin Infect Dis 1998 Mar;26(3):664–72.

Searching for simple outcome markers in sepsis: an effort in futility? [editorial; comment] Boucher BA, et al. **Crit Care Med** 1999 Jul;27(7):1390–1. Comment on: Crit Care Med 1999 Jul;27(7):1303–8.

Activation of the extrinsic coagulation pathway in patients with severe sepsis and septic shock. Gando S, et al. **Crit Care Med** 1998 Dec;26(12):2005–9

Time course and prognostic significance of hemostatic changes in sepsis: relation to tumor necrosis factor–alpha [see comments] Martinez MA, et al. **Crit Care Med** 1999 Jul;27(7):1303–8. Comment in: Crit Care Med 1999 Jul;27(7):1390–1.

Deciphering the dark side of free hemoglobin in sepsis [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Apr;27(4):685–6 (10 ref.). Comment on: Crit Care Med 1999 Apr;27(4):771–8.

Relation of ex vivo stimulated blood cytokine synthesis to post–traumatic sepsis. Flach R, et al. **Cytokine** 1999 Feb; 11(2):173–8

Increased serum concentrations of soluble tumor necrosis factor receptors p55 and p75 in early onset neonatal sepsis. Doellner H, et al. **Early Hum Dev** 1998 Oct;52(3):251–61

Platelet–activating factor concentrations in healthy and septic neonates. Kültürsay N, et al. **Eur J Pediatr** 1999 Sep; 158(9):740–1 .

Leptin and interleukin–6 in sepsis. Torpy DJ, et al. **Horm Metab Res** 1998 Dec;30(12):726–9

Prognostic value of serum malon–dialdehyde in patients with sepsis. Altuntas I, et al. **J Basic Clin Physiol Pharmacol** 1999;10(2):151–2

Interleukin 1 receptor antagonist and E–selectin concentrations: a comparison in patients with severe acute pancreatitis and severe sepsis. Hynninen M, et al. **J Crit Care** 1999 Jun;14(2):63–8

The detection of pyrogens in sera from patients with symptoms of sepsis using an ex vivo whole blood culture assay. Pool EJ, et al. **J Immunoassay** 1999 Feb–May; 20(1–2):1–11

Detection of macrophage inflammatory protein (MIP)–1alpha and MIP–1beta during experimental endotoxemia and human sepsis. O'Grady NP, et al. **J Infect Dis** 1999 Jan;179(1):136–41

The imbalance between coagulation and fibrinolysis is related to the severity of the illness and the prognosis in sepsis. Park KJ, et al. **Korean J Intern Med** 1999 Jul;14(2):72–7

Coagulation and fibrinolysis in sepsis. Thijs GL. **Minerva Anestesiol** 1999 Jan–Feb;65(1–2 Suppl 1):61–4 (37 ref.)

Production of platelet–activating factor in patients with sepsis–associated acute renal failure. Mariano F, et al. **Nephrol Dial Transplant** 1999 May;14(5):1150–7

Endothelial cell and hemostatic activation in relation to cytokines in patients with sepsis. López–Aguirre Y, et al. **Thromb Res** 1999 Apr 15;94(2):95–101

[Lipid peroxidation and the function of the antioxidant system in sepsis in patients with soft–tissue suppurative and inflammatory lesions] Shapoval SD. **Klin Khir** 1998; (11):15–6 (Eng. Abstr.) **(Rus)**

[Bayesian prediction of chloramphenicol blood levels in children with sepsis and malnutrition] Lares–Asseff I, et al. **Rev Invest Clin** 1999 May–Jun;51(3):159–65 (Eng. Abstr.) **(Spa)**

CHEMICALLY INDUCED

Anticonvulsant hypersensitivity syndrome occurring as sepsis with multiorgan dysfunction. Marik P. **Pharmacotherapy** 1999 Mar;19(3):346–8

CLASSIFICATION

Sepsis and mediator–directed therapy: rethinking the target populations. Mediator–directed therapy in sepsis: rethinking the target populations. Toronto, Canada, 31 October–1 November 1998. Abraham E, et al. **Mol Med Today** 1999 Feb;5(2):56–8

[Optimizing the antibiotics policy in the Netherlands. IV. SWAB guidelines for antimicrobial therapy of adults with sepsis in hospitals (letter; comment)] van Leeuwen HJ. **Ned Tijdschr Geneeskd** 1999 Jun 5;143(23):1237. Comment on: Ned Tijdschr Geneeskd 1999 Mar 20;143(12):611–7. **(Dut)**

COMPLICATIONS

Pericardial abscess––a rare complication of sepsis. Capov I, et al. **Acta Chir Hung** 1999;38(1):19–21

Circulating thrombopoietin levels in neonates with infection. Colarizi P, et al. **Acta Paediatr** 1999 Mar;88(3):332–7

Acute phase proteins as markers of systemic illness in acute diarrhoea. Darling JC, et al. **Acta Paediatr** 1999 Mar; 88(3):259–64

Mechanisms of enhanced lung injury during sepsis. Czermak BJ, et al. **Am J Pathol** 1999 Apr;154(4):1057–65

Multiple organ failure after abdominal sepsis despite helpful irrigation [letter; comment] Bascom JU, et al. **Am J Surg** 1999 Apr;177(4):350. Comment on: Am J Surg 1997 Feb;173(2):134–5.

Assessing fluid responsiveness by the systolic pressure variation in mechanically ventilated patients. Systolic pressure variation as a guide to fluid therapy in patients with sepsis–induced hypotension [editorial; comment] Perel A. **Anesthesiology** 1998 Dec;89(6):1309–10. Comment on: Anesthesiology 1998 Dec;89(6):1313–21.

Systolic pressure variation as a guide to fluid therapy in patients with sepsis–induced hypotension [see comment's] Tavernier B, et al. **Anesthesiology** 1998 Dec;89(6):1313–21 . Comment in: Anesthesiology 1998 Dec;89(6):1309–10.

Use of extracorporeal life support for adult patients with respiratory failure and sepsis. Rich PB, et al. **ASAIO J** 1998 Jul–Aug;44(4):263–6

Study on delay two–phase multiple organ dysfunction syndrome. Hu S, et al. **Chin Med J (Engl)** 1998 Feb; 111(2):101–8

Renal–dose (low–dose) dopamine for the treatment of sepsis–related and other forms of acute renal failure: ineffective and probably dangerous. Power DA, et al. **Clin Exp Pharmacol Physiol Suppl** 1999 Apr;26:S23–8 (41 ref.)

Effects of ibuprofen on the physiology and survival of hypothermic sepsis. Ibuprofen in Sepsis Study Group [see comments] Arons MM, et al. **Crit Care Med** 1999 Apr; 27(4):699–707. Comment in: Crit Care Med 1999 Apr;27(4):669–70.

Activation of the extrinsic coagulation pathway in patients with severe sepsis and septic shock. Gando S, et al. **Crit Care Med** 1998 Dec;26(12):2005–9

Intestinal mucosal permeability: mechanisms and implications for treatment [editorial; comment] Marik PE, et al. **Crit Care Med** 1999 Aug;27(8):1650–1 (24 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1429–36.

Purpura fulminans complicating pneumococcal sepsis [letter] Galanakis E, et al. **Eur J Pediatr** 1999 Feb;158(2):171

Inflammation, sepsis, and coagulation. Esmon CT, et al. **Haematologica** 1999 Mar;84(3):254–9 (24 ref.)

Pressure sores and severe sepsis [letter; comment] Bliss MR. **Hosp Med** 1999 Feb;60(2):146. Comment on: Hosp Med 1998 Nov;59(11):896–7.

Bacterial sepsis–induced rhabdomyolysis. Betrosian A, et al. **Intensive Care Med** 1999 May;25(5):469–74

Antithrombin III and sepsis [editorial; comment] Mammen EF. **Intensive Care Med** 1998 Jul;24(7):649–50 (15 ref.). Comment on: Intensive Care Med 1998 Jul;24(7):663–72.

Sepsis–induced acute renal failure: unusual clinical presentation. Feriozzi S, et al. **J Nephrol** 1998 Sep–Oct; 11(5):261–5

Staged operative treatment in a septic patient with an infected, unstable pelvis, and a missed bladder rupture. Hulscher JB, et al. **J Trauma** 1999 May;46(5):965–6

Adult purpura fulminans and digital necrosis associated with sepsis and the factor V mutation [letter] Jackson RT, et al. **JAMA** 1998 Dec 2;280(21):1829–30

Production of platelet–activating factor in patients with sepsis–associated acute renal failure. Mariano F, et al. **Nephrol Dial Transplant** 1999 May;14(5):1150–7

Lemierre's syndrome. Vandenberg SJ, et al. **Otolaryngol Head Neck Surg** 1998 Nov;119(5):516–8

Sepsis evaluations in hospitalized infants with bronchiolitis [letter; comment] Kuppermann N. **Pediatr Infect Dis J** 1998 Oct;17(10):937–9. Comment on: Pediatr Infect Dis J 1998 Mar;17(3):231–6.

Prognosis in acute renal failure of septic origin: a multivariate analysis. Lombardi R, et al. **Ren Fail** 1998 Sep;20(5):725–32

[Immunotherapy as part of comprehensive therapy in abdominal reoperations with septic complications] Vyhnánek F, et al. **Acta Medica (Hradec Kralove) Suppl** 1997;40(2):97–100 (Eng. Abstr.) **(Cze)**

[Vascular prosthesis infected with Salmonella. A rare complication of Salmonella sepsis] Andersen PJ, et al. **Ugeskr Laeger** 1999 Jun 28;161(26):4010–1 (Eng. Abstr.) **(Dan)**

[Sepsis and organ failure––its pathogenesis and treatment] Hanasawa K, et al. **Nippon Geka Gakkai Zasshi** 1998 Aug; 99(8):523–7 (23 ref.) (Eng. Abstr.) **(Jpn)**

[A case of chronic glomerulonephritis nephrotic form remission complicated by nephrotic crisis and sepsis] Trigulova VS, et al. **Ter Arkh** 1999;71(6):72–3 **(Rus)**

[Meningococcal sepsis and septic shock: efficient measures and controversial treatments] Casado Flores J, et al. **An Esp Pediatr** 1999 Apr;50(4):346–52 (74 ref.) **(Spa)**

CONGENITAL

Rationale and potential use of cytokines in the prevention and treatment of neonatal sepsis. Goldman S, et al. **Clin Perinatol** 1998 Sep;25(3):699–710 (32 ref.)

DIAGNOSIS

Angiotropic large B–cell lymphoma misdiagnosed as urosepsis with multiple organ dysfunction syndrome. Deusch E, et al. **Acta Anaesthesiol Scand** 1999 Jan;

43(1):100–3
Chromobacterium violaceum sepsis accompanied by bacteria-associated hemophagocytic syndrome in a Japanese man [letter] Hiraoka N, et al. **Arch Intern Med** 1999 Jul 26;159(14):1623–4
Procalcitonin used as a marker of infection in the intensive care unit [see comments] Ugarte H, et al. **Crit Care Med** 1999 Mar;27(3):498–504. Comment in: Crit Care Med 1999 Mar;27(3):452–3.
Pseudosepsis secondary to bilateral adrenal hemorrhage. Gabbay DS, et al. **Heart Lung** 1998 Sep–Oct;27(5):348–51
Rapid diagnostic methods in the detection of sepsis. Carlet J. **Infect Dis Clin North Am** 1999 Jun;13(2):483–94, xi (54 ref.)
A case of cryptic miliary tuberculosis mimicking cholecystitis with sepsis. Siemann M, et al. **Infection** 1999 Jan–Feb; 27(1):44–5
The use of continuous monitoring blood culture systems in the diagnosis of catheter related sepsis. Rogers MS, et al. **J Clin Pathol** 1998 Aug;51(8):635–7
Assessment criteria in identifying the sick sepsis patient. Jones GR. **J Infect** 1998 Jul;37 Suppl 1:24–9
Maternal chorioamnionitis and umbilical vein interleukin-6 levels for identifying early neonatal sepsis. Smulian JC, et al. **J Matern Fetal Med** 1999 May–Jun;8(3):88–94
Interleukin-1 receptor antagonist and interleukin-6 for early diagnosis of neonatal sepsis 2 days before clinical manifestation [see comments] Küster H, et al. **Lancet** 1998 Oct 17;352(9136):1271–7. Comment in: Lancet 1999 Jan 16;353(9148):239–40.
Interleukin-6 concentrations in neonatal sepsis [letter; comment] Mehr S, et al. **Lancet** 1999 May 22; 353(9166):1798–9. Comment on: Lancet 1999 Jan 16;353(9148):239–40.
Interleukin-6 concentrations in neonatal sepsis [letter; comment] [see comments] Onal EE, et al. **Lancet** 1999 Jan 16;353(9148):239–40. Comment on: Lancet 1998 Oct 17;352(9136):1271–7. Comment in: Lancet 1999 May 22;353(9166):1798–9.
Procalcitonin--a novel biochemical marker for the mediator-directed therapy of sepsis [letter] Russwurm S, et al. **Mol Med Today** 1999 Jul;5(7):286–7
Clinical problem-solving. Chest pain with a surprising course. Thomas LR, et al. **N Engl J Med** 1999 Oct 7; 341(15):1134–8
Endoluminal brushing in catheter-related sepsis: a "sweeping" statement [editorial] Dobbins BM, et al. **Nutrition** 1999 Jan; 15(1):66–7
Persistent crying as predominant manifestation of sepsis in infants and newborns. Ruiz-Contreras J, et al. **Pediatr Emerg Care** 1999 Apr;15(2):113–5
The neonatal "sepsis work-up": personal reflections on the development of an evidence-based approach toward newborn infections in a managed care organization. Escobar GJ. **Pediatrics** 1999 Jan;103(1 Suppl E):360–73
[Septic sacroiliitis with a horseshoe-shaped abscess diagnosed by MR scanning] Rosenbeck J. **Ugeskr Laeger** 1999 Mar 22;161(12):1776–7 (Eng. Abstr.) **(Dan)**
[Meningococcal sepsis in 3 young men] Diet F, et al. **Dtsch Med Wochenschr** 1999 Apr 9;124(14):424–8 (10 ref.) (Eng. Abstr.) **(Ger)**
[Immunological indicators (IgM and C-reactive protein) in neonatal infections] Vaz FA, et al. **Rev Assoc Med Bras** 1998 Jul–Sep;44(3):185–95 (Eng. Abstr.) **(Por)**
[Criteria of systemic inflammatory response syndrome are unacceptable in the diagnosis of sepsis in patients with leukopenia] Galstian GM, et al. **Anesteziol Reanimatol** 1998 Nov–Dec;(6):72–6 (Eng. Abstr.) **(Rus)**
[The prognostic importance of temperature monitoring in patients with decompensated endotoxicosis] Chukhrai TG. **Lik Sprava** 1999 Mar;(2):113–6 (Eng. Abstr.) **(Rus)**
[Abdominal sepsis (based on materials from a roundtable)] Grinëv MV, et al. **Vestn Khir Im I I Grek** 1998; 157(3):98–102 **(Rus)**
[Sepsis. The importance of unified concepts (apropos the articles by M. V. Grinëv and M. I. Gromov "Sepsis. The polemical aspects of the problem" and I. A. Eriukhin and S. A. Shliapnikov "Generalized forms of the inflammatory reaction and of surgical infection. Current problems in the terminology and delimitation of concepts")] Maskin SS, et al. **Vestn Khir Im I I Grek** 1998;157(3):96–7 **(Rus)**
[Recurrent neonatal sepsis due to Streptococcus B] Casanovas Lax J, et al. **An Esp Pediatr** 1999 Jan;50(1):69–70 (10 ref.) **(Spa)**
[Late neonatal sepsis with meningitis due to meningococcus serogroup C (letter)] Falero Gallego MP, et al. **An Esp Pediatr** 1999 Jun;50(6):639–40 (10 ref.) **(Spa)**
[Sepsis due to azole-resistant Candida albicans in a high-risk premature infant] Martinez Suárez V, et al. **An Esp Pediatr** 1999 Jan;50(1):77–8 (22 ref.) **(Spa)**
[Campylobacter fetus sepsis, pulmonary thromboembolism and an occult neoplasm (letter)] Conde Martel A, et al. **An Med Interna** 1999 Feb;16(2):103 (7 ref.) **(Spa)**
[Streptococcus bovis sepsis, purulent meningitis and colonic diverticulosis (letter)] Fresco Benito FJ, et al. **An Med Interna** 1999 Jul;16(7):383–4 (10 ref.) **(Spa)**
[Spontaneous bacterial peritonitis and sepsis due to Aeromonas hydrophila (letter)] Córdoba López A, et al. **Gastroenterol Hepatol** 1999 Apr;22(4):208 **(Spa)**

DRUG THERAPY

Factors affecting gentamicin pharmacokinetics in septic patients. Tang GJ, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):726–30
Pentoxifylline prevents the transition from the hyperdynamic to hypodynamic response during sepsis. Yang S, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1036–44
Impact of immunomodulating therapy on morbidity in patients with severe sepsis. Pittet D, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):852–7
Lipopolyamines: novel antiendotoxin compounds that reduce mortality in experimental sepsis caused by gram-negative bacteria. David SA, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):912–9
Effect of interleukin-10 on gut-derived sepsis caused by Pseudomonas aeruginosa in mice. Matsumoto T, et al. **Antimicrob Agents Chemother** 1998 Nov;42(11):2853–7
Myeloid colony-stimulating factors: use in the newborn. Sreenan C, et al. **Arch Pediatr Adolesc Med** 1999 Sep; 153(9):984–8 (65 ref.)
Dehydroepiandrosterone: an inexpensive steroid hormone that decreases the mortality due to sepsis following trauma-induced hemorrhage. Angele MK, et al. **Arch Surg** 1998 Dec;133(12):1281–8
Continuous antibiotic treatment for experimental abdominal sepsis: effects on organ inflammatory cytokine expression and neutrophil sequestration [letter; comment] Mokbel K, et al. **Br J Surg** 1998 Nov;85(11):1595. Comment on: Br J Surg 1998 Mar;85(3):385–9.
Safety of gentamicin administered by intravenous bolus in the nursery. Bromiker R, et al. **Clin Pediatr (Phila)** 1999 Jul;38(7):433–5
Effects of ibuprofen on the physiology and survival of hypothermic sepsis. Ibuprofen in Sepsis Study Group [see comments] Arons MM, et al. **Crit Care Med** 1999 Apr; 27(4):699–707. Comment in: Crit Care Med 1999 Apr;27(4):669–70.
Dopexamine: much more than a vasoactive agent [editorial; comment] Bennett ED. **Crit Care Med** 1998 Oct; 26(10):1621–2 (10 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1639–45.
Influence of angiotensin-converting enzyme inhibitor enalaprilat on endothelial-derived substances in the critically ill [see comments] Boldt J, et al. **Crit Care Med** 1998 Oct;26(10):1663–70. Comment in: Crit Care Med 1998 Oct;26(10):1628–9.
Confirmatory platelet-activating factor receptor antagonist trial in patients with severe gram-negative bacterial sepsis: a phase III, randomized, double-blind, placebo-controlled, multicenter trial. BN 52021 Sepsis Investigator Group [see comments] Dhainaut JF, et al. **Crit Care Med** 1998 Dec; 26(12):1963–71. Comment in: Crit Care Med 1998 Dec;26(12):1927–31.
The effects of ibuprofen on eicosanoid synthesis in sepsis [editorial; comment] Fletcher JR. **Crit Care Med** 1999 Apr; 27(4):669–70 (11 ref.). Comment on: Crit Care Med 1999 Apr;27(4):699–707.
Lipid emulsions with different phospholipid/triglyceride ratio in critically ill septic and traumatic patients [letter; comment] García-de-Lorenzo A. **Crit Care Med** 1998 Dec; 26(12):2094–5. Comment on: Crit Care Med 1998 Jan;26(1):132–7.
Effect of the immunomodulating agent, pentoxifylline, in the treatment of sepsis in prematurely delivered infants: a placebo-controlled, double-blind trial [see comments] Lauterbach R, et al. **Crit Care Med** 1999 Apr;27(4):807–14 . Comment in: Crit Care Med 1999 Apr;27(4):695–7.
Dopexamine attenuates flow motion in ileal mucosal arterioles in normotensive sepsis [see comments] Madorin WS, et al. **Crit Care Med** 1999 Feb;27(2):394–400. Comment in: Crit Care Med 1999 Feb;27(2):257–8.
Acadesine during fluid resuscitation from shock and abdominal sepsis [see comments] Melton SM, et al. **Crit Care Med** 1999 Mar;27(3):565–75 (46 ref.). Comment in: Crit Care Med 1999 Mar;27(3):468–9.
The sirens' songs of confirmatory sepsis trials: selection bias and sampling error [editorial; comment] Natanson C, et al. **Crit Care Med** 1998 Dec;26(12):1927–31 (19 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1963–71.
Pentoxifylline--more evidence that it improves host defenses during sepsis [editorial; comment] Reynolds H. **Crit Care Med** 1999 Apr;27(4):681–3 (41 ref.). Comment on: Crit Care Med 1999 Apr;27(4):756–63.
ATP and sepsis [editorial; comment] Traber DL. **Crit Care Med** 1999 May;27(5):865–6 (16 ref.). Comment on: Crit Care Med 1999 May;27(5):959–64.
The unorthodox and orthodox: the therapeutic role of acadesine after traumatic injury and sepsis [editorial; comment] Unkle DW. **Crit Care Med** 1999 Mar;27(3):468–9 . Comment on: Crit Care Med 1999 Mar;27(3):565–7 5.
Salutary effects of ATP-MgCl2 on the depressed endothelium-dependent relaxation during hyperdynamic sepsis [see comments] Wang P, et al. **Crit Care Med** 1999 May;27(5):959–64. Comment in: Crit Care Med 1999 May;27(5):865–6.
Appraising the potential of pentoxifylline in septic premies [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Apr;27(4):695–7 (32 ref.). Comment on: Crit Care Med 1999 Apr;27(4):807–14.
Paradoxical synergistic effects of tumour necrosis factor and interleukin 1 in murine gut-derived sepsis with Pseudomonas aeruginosa. Matsumoto T, et al. **Cytokine** 1999 May;11(5):366–72
Treatment of sepsis: past and future avenues. Baumgartner JD, et al. **Drugs** 1999 Feb;57(2):127–32 (56 ref.)
Antithrombin replacement in patients with sepsis and septic shock. Giudici D, et al. **Haematologica** 1999 May; 84(5):452–60 (54 ref.)
The effects of prostaglandin E2 indomethacin & Ginkgo biloba extract on resistance to experimental sepsis. Cantürk NZ, et al. **Indian J Med Res** 1998 Sep;108:88–92
Pseudomonas aeruginosa bacteremia: an analysis of 123 episodes, with particular emphasis on the effect of antibiotic therapy. Siegman-Igra Y, et al. **Int J Infect Dis** 1998 Apr–Jun;2(4):211–5
Why immunomodulatory therapies have not worked in sepsis. Abraham E. **Intensive Care Med** 1999 Jun;25(6):556–66 (108 ref.)
Antithrombin III in patients with severe sepsis. A randomized, placebo-controlled, double-blind multicenter trial plus a meta-analysis on all randomized, placebo-controlled, double-blind trials with antithrombin III in severe sepsis [see comments] Eisele B, et al. **Intensive Care Med** 1998 Jul;24(7):663–72. Comment in: Intensive Care Med 1998 Jul;24(7):649–50.
IV milrinone for cardiac output increase and maintenance: comparison in nonhyperdynamic SIRS/sepsis and congestive heart failure. Heinz G, et al. **Intensive Care Med** 1999 Jun;25(6):620–4
Randomized comparative trial of cefpirome versus ceftazidime in the empirical treatment of suspected bacteraemia or sepsis. Multicentre Study Group. Norrby SR, et al. **J Antimicrob Chemother** 1998 Oct;42(4):503–9
Continuous infusion versus intermittent administration of meropenem in critically ill patients. Thalhammer F, et al. **J Antimicrob Chemother** 1999 Apr;43(4):523–7
Antibiotic-induced release of bacterial cell wall components in the pathogenesis of sepsis and septic shock: a review. Periti P, et al. **J Chemother** 1998 Dec;10(6):427–48 (126 ref.)
Detrimental effects of high dobutamine doses on gastric pHi determinations in a critically ill septic patient [letter] Fernandes CJ Jr, et al. **J Crit Care** 1998 Dec;13(4):214–5
IL-1ra administration does not improve cardiac function in patients with severe sepsis. Vincent JL, et al. **J Crit Care** 1999 Jun;14(2):69–72
A case of anthrax sepsis: non-fatal course [letter] Felek S, et al. **J Infect** 1999 May;38(3):201–2
Strategies to rationalize sepsis management--a review of 4 years' experience in Dundee. Nathwani D, et al. **J Infect** 1998 Jul;37 Suppl 1:10–7 (55 ref.)
Recombinant human interleukin-11 in experimental Pseudomonas aeruginosa sepsis in immunocompromised animals. Opal SM, et al. **J Infect Dis** 1998 Oct;178(4):1205–8
Gentamicin dosage intervals [letter] Davies MW. **J Paediatr Child Health** 1999 Aug;35(4):412
Empiric therapy of sepsis in the surgical intensive care unit with broad-spectrum antibiotics for 72 hours does not lead to the emergence of resistant bacteria. Namias N, et al. **J Trauma** 1998 Nov;45(5):887–91
Increase in sepsis due to multi-resistant enteric gram-negative bacilli in Papua New Guinea [letter] Duke T, et al. **Lancet** 1999 Jun 26;353(9171):2210–1
Sepsis and mediator-directed therapy: rethinking the target populations. Mediator-directed therapy in sepsis: rethinking the target populations. Toronto, Canada, 31 October–1 November 1998. Abraham E, et al. **Mol Med Today** 1999 Feb;5(2):56–8
Procalcitonin--a novel biochemical marker for the mediator-directed therapy of sepsis [letter] Russwurm S, et al. **Mol Med Today** 1999 Jul;5(7):286–7
Treating patients with severe sepsis [letter; comment] Meier-Hellmann A, et al. **N Engl J Med** 1999 Jul 1; 341(1):56; discussion 57. Comment on: N Engl J Med 1999 Jan 21;340(3):207–14.
Restored credibility for sepsis therapeutics? [news] Webber D. **Nat Biotechnol** 1998 Dec;16(13):1303
Once- versus twice-daily gentamicin dosing in neonates >/=34 Weeks' gestation: cost-effectiveness analyses. Thureen PJ, et al. **Pediatrics** 1999 Mar;103(3):594–8
Effects of nitric oxide synthase inhibition in lipopolysaccharide-induced sepsis in mice. Tunçtan B, et al. **Pharmacol Res** 1998 Nov;38(5):405–11
Selective gut microcirculatory control (SGMC) in septic rats: a novel approach with a locally applied vasoactive drug. Hersch M, et al. **Shock** 1998 Oct;10(4):292–7
Myocardial dysfunction in the septic rat heart: role of nitric oxide. McDonough KH, et al. **Shock** 1998 Nov;10(5):371–6
Low-dose intramuscular polymyxin B improves survival of septic rats. Mayumi T, et al. **Shock** 1999 Feb;11(2):82–6
Antibiotic treatment influences outcome in murine sepsis: mediators of increased morbidity. Newcomb D, et al. **Shock** 1998 Aug;10(2):110–7
Therapeutic implications of interleukin-10 in surgical disease. Selzman CH, et al. **Shock** 1998 Nov;10(5):309–18 (156 ref.)
Inhibiting early activation of tissue nuclear factor-kappa B and nuclear factor interleukin 6 with (1-->3)-beta-D-glucan increases long-term survival in polymicrobial sepsis. Williams DL, et al. **Surgery** 1999 Jul; 126(1):54–65
[Optimizing the antibiotics policy in the Netherlands. IV. SWAB- guidelines for antimicrobial therapy of adults with sepsis in hospitals. Foundation Antibiotics Policy Work Group (see comments)] van Kasteren ME, et al.

Ned Tijdschr Geneeskd 1999 Mar 20;143(12):611–7 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jun 5;143(23):1237. **(Dut)**

[Optimizing the antibiotics policy in the Netherlands. IV. SWAB guidelines for antimicrobial therapy of adults with sepsis in hospitals (letter; comment)] van Leeuwen HJ. **Ned Tijdschr Geneeskd** 1999 Jun 5;143(23):1237. Comment on: Ned Tijdschr Geneeskd 1999 Mar 20;143(12):611–7. **(Dut)**

[Adjuvant therapy for sepsis and ARDS] Thiel M. **Anaesthesist** 1998 Nov;47(11):943–4 **(Ger)**

[Several aspects of the treatment of suppurative-septic complications with regard to the state of the immune system] Erofeev VV, et al. **Anesteziol Reanimatol** 1999 Jan–Feb;(1):32–4 (Eng. Abstr.) **(Rus)**

[A strategy and procedure for the antibacterial therapy of abdominal sepsis] Gel'fand BR, et al. **Anesteziol Reanimatol** 1998 Jul–Aug;(4):16–9 (Eng. Abstr.) **(Rus)**

[Tactics of antibacterial therapy in abdominal sepsis in surgical patients] Gel'fand BR, et al. **Antibiot Khimioter** 1999;44(7):3–6 **(Rus)**

[Antibacterial therapy in pyo-sepsis complications of patients in intensive care units] Erofeev VV, et al. **Khirurgiia (Mosk)** 1998;(12):48–52 (Eng. Abstr.) **(Rus)**

[Role of antiinflammatory and anticoagulant therapy in subacute septic endocarditis] Sumarokov AV, et al. **Ter Arkh** 1998;70(9):49–52 (17 ref.) **(Rus)**

[Antithrombin III in severe sepsis and septic shock] Carrillo-Esper R, et al. **Gac Med Mex** 1999 Jul–Aug; 135(4):443–6 (30 ref.) **(Spa)**

[Monoclonal antibodies in the treatment of sepsis caused by Gram-negative microorganisms] Otero AJ, et al. **Rev Cubana Med Trop** 1998;50(1):31–5 (27 ref.) (Eng. Abstr.) **(Spa)**

ECONOMICS

The patient-related costs of care for sepsis patients in a United Kingdom adult general intensive care unit. Edbrooke DL, et al. **Crit Care Med** 1999 Sep;27(9):1760–7

ENZYMOLOGY

Selective in vivo inhibition of inducible nitric oxide synthase in a rat model of sepsis. Scott JA, et al. **J Appl Physiol** 1999 May;86(5):1739–44

GTP-binding protein mediated phospholipase A2 activation in rat liver during the progression of sepsis. Tong LJ, et al. **Mol Cell Biochem** 1998 Dec;189(1–2):55–61

Alterations of G-protein and adenylate cyclase signaling in rat liver during the progression of sepsis. Wu LL, et al. **Shock** 1999 Jan;11(1):39–43

EPIDEMIOLOGY

Variables affecting outcome in critically ill patients. Chernow B. **Chest** 1999 May;115(5 Suppl):71S–76S

The epidemiology of bacterial sepsis. Rangel-Frausto MS. **Infect Dis Clin North Am** 1999 Jun;13(2):299–312, vii (55 ref.)

Intrapartum antibiotic prophylaxis increases the incidence of gram-negative neonatal sepsis. Levine EM, et al. **Infect Dis Obstet Gynecol** 1999;7(4):210–3

Neonatal sepsis in hospital born babies. Kaushik SL, et al. **J Commun Dis** 1998 Sep;30(3):147–52

The clinical spectrum of severe septic bursitis in northwestern Spain: a 10 year study. García-Porrúa C, et al. **J Rheumatol** 1999 Mar;26(3):663–7

Increase in sepsis due to multi-resistant enteric gram-negative bacilli in Papua New Guinea [letter] Duke T, et al. **Lancet** 1999 Jun 26;353(9171):2210–1

Intrapartum antibiotics and early onset neonatal sepsis caused by group B Streptococcus and by other organisms in Australia. Australasian Study Group for Neonatal Infections. Isaacs D, et al. **Pediatr Infect Dis J** 1999 Jun; 18(6):524–8

[Epidemiologic features of hospital pyo-septic infection in a cardiosurgical hospital] Shkarin VV, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep–Oct;(5):43–7 (Eng. Abstr.) **(Rus)**

[Neonatal infection by Streptococcus agalactiae. Multicenter study in the area of Barcelona, Spain] Juncosa T, et al. **Enferm Infecc Microbiol Clin** 1998 Aug–Sep;16(7):312–5 (Eng. Abstr.) **(Spa)**

[Five year experience with neonatal sepsis in a pediatric center] Zamora-Castorena S, et al. **Rev Invest Clin** 1998 Nov–Dec;50(6):463–70 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Abdominal sepsis. Peetermans WE, et al. **Acta Clin Belg** 1998 Aug;53(4):251–4

Superoxide production of neutrophils after severe injury: impact of subsequent surgery and sepsis. Shih HC, et al. **Am J Emerg Med** 1999 Jan;17(1):15–8

Neonatal sepsis after betamethasone administration to patients with preterm premature rupture of membranes. Vermillion ST, et al. **Am J Obstet Gynecol** 1999 Aug;181(2):320–7

Urinary tract infections in the critically ill patient with a urinary catheter. Rosser CJ, et al. **Am J Surg** 1999 Apr; 177(4):287–90

Intrapartum epidural analgesia and neonatal sepsis evaluations: a casual or causal association? [editorial; comment] Camann W. **Anesthesiology** 1999 May; 90(5):1250–2. Comment on: Anesthesiology 1999 May;90(5):1271–5.

Pericardial injury following severe sepsis from faecal peritonitis--a case report on the use of continuous cardiac output monitoring. Forster MR, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):857–9

Case of the month: education of the pathologist. Autopsy Committee of the College of American Pathologists. Hanzlick R, et al. **Arch Intern Med** 1999 May 10; 159(9):907–8

Postsplenectomy Capnocytophaga canimorsus sepsis presenting as an acute abdomen. Sawmiller CJ, et al. **Arch Surg** 1998 Dec;133(12):1362–5

Septic arthritis following arthroscopic meniscus repair: a cluster of three cases. Blevins FT, et al. **Arthroscopy** 1999 Jan–Feb;15(1):35–40

Total parenteral nutrition via multilumen catheters does not increase the risk of catheter-related sepsis: a randomized, prospective study. Ma TY, et al. **Clin Infect Dis** 1998 Sep; 27(3):500–3

The ex vivo antimicrobial activity and colonization rate of two antimicrobial-bonded central venous catheters [see comments] Marik PE, et al. **Crit Care Med** 1999 Jun; 27(6):1128–31. Comment in: Crit Care Med 1999 Jun;27(6):1050–1.

Changes in blood lymphocyte populations after multiple trauma: association with posttraumatic complications [see comments] Menges T, et al. **Crit Care Med** 1999 Apr; 27(4):733–40. Comment in: Crit Care Med 1999 Apr;27(4):674–5.

Serious hand sepsis and diabetes mellitus: specific tropical syndrome with western counterparts. Gill GV, et al. **Diabet Med** 1998 Oct;15(10):858–62 (27 ref.)

Life-threatening retroperitoneal sepsis after hemorrhoid injection sclerotherapy: report of a case. Barwell J, et al. **Dis Colon Rectum** 1999 Mar;42(3):421–3

Laparoscopic cholecystectomy: unusual septic complications because of gallstone spillage. Carvalho N, et al. **Endoscopy** 1998 Nov;30(9):S104–5

Outcome of Staphylococcus aureus-triggered sepsis and arthritis in IL-4-deficient mice depends on the genetic background of the host. Hultgren O, et al. **Eur J Immunol** 1999 Aug;29(8):2400–5

Septic cholangitis occurring 11 years after inadvertent ligation of the right hepatic duct during cholecystectomy: a case report. Seyama Y, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1485–7

Structure-function relationships of bacterial endotoxins. Contribution to microbial sepsis. Morrison DC, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):313–40 (121 ref.)

Cytokines and anticytokines in the pathogenesis of sepsis. van der Poll T, et al. **Infect Dis Clin North Am** 1999 Jun; 13(2):413–26, ix (56 ref.)

Anesthesia in a patient with undiagnosed salicylate poisoning presenting as intraabdominal sepsis. Chui PT. **J Clin Anesth** 1999 May;11(3):251–3

Case of sepsis caused by Bifidobacterium longum. Ha GY, et al. **J Clin Microbiol** 1999 Apr;37(4):1227–8

Catheter sepsis due to Mycobacterium chelonae [letter] Wallace RJ Jr, et al. **J Clin Microbiol** 1998 Nov; 36(11):3444–5

Intravenous glutamine or short-chain fatty acids reduce central venous catheter infection in a model of total parenteral nutrition. McAndrew HF, et al. **J Pediatr Surg** 1999 Feb;34(2):281–5

Carboxyhemoglobin elevation in trauma victims. Moncure M, et al. **J Trauma** 1999 Mar;46(3):424–7

Relapse of vasculitis, sepsis, or azathioprine allergy? Stratton JD, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2927–8

Nitric oxide, sepsis, and the kidney. Schwartz D, et al. **Semin Nephrol** 1999 May;19(3):272–6 (28 ref.)

Animal models of sepsis and shock: a review and lessons learned. Edwin A Deitch. Shock 9(1):1–11, 1998 [letter; comment] Redl H, et al. **Shock** 1998 Dec;10(6):442–5 (35 ref.). Comment on: Shock 1998 Jan;9(1):1–11.

[Sepsis in neutropenia. Standard recommendations of the Work Group of Infections in Hematology and Oncology of the German Association for Hematology and Oncology] Ostermann H, et al. **Dtsch Med Wochenschr** 1999 Apr 9; 124 Suppl 1:S14–7 **(Ger)**

[Background factors and clinical course of patients with urosepsis] Shimizu T, et al. **Kansenshogaku Zasshi** 1999 Jul; 73(7):652–7 (Eng. Abstr.) **(Jpn)**

[Sepsis and the systemic inflammatory response syndrome] Shano VP, et al. **Anesteziol Reanimatol** 1998 Jul–Aug; (4):60–4 (93 ref.) **(Rus)**

[Septic metastatic complications in facial furuncles and carbuncles] Kudinova ES. **Stomatologiia (Mosk)** 1999; 78(3):22–5 (Eng. Abstr.) **(Rus)**

[Multiple abscesses (cerebral, splenic, cutaneous) and pulmonary infection] Camino X, et al. **Enferm Infecc Microbiol Clin** 1999 Apr;17(4):189–90 **(Spa)**

[Meningococcal sepsis without meningitis or cutaneous manifestations (letter)] Sánchez LA, et al. **Enferm Infecc Microbiol Clin** 1999 Mar;17(3):152–3 **(Spa)**

[Sepsis and central venous catheterization (editorial)] Rello J, et al. **Med Clin (Barc)** 1998 Nov 28;111(18):696–7 **(Spa)**

[Sepsis due to DF2 (letter; comment)] San Román CM, et al. **Med Clin (Barc)** 1999 Jan 23;112(2):79. Comment on: Med Clin (Barc) 1998 Jun 20;111(2):76. **(Spa)**

GENETICS

Relation of a TNF gene polymorphism to severe sepsis in trauma patients. Majetschak M, et al. **Ann Surg** 1999 Aug; 230(2):207–14

Is there an interleukin-1 genetic predisposition to developing severe sepsis? [editorial; comment] Dinarello CA. **Crit Care Med** 1999 Jul;27(7):1397–8. Comment on: Crit Care Med 1999 Jul;27(7):1330–4.

Comparison of two polymorphisms of the interleukin-1 gene family: interleukin-1 receptor antagonist polymorphism contributes to susceptibility to severe sepsis [see comments] Fang XM, et al. **Crit Care Med** 1999 Jul;27(7):1330–4. Comment in: Crit Care Med 1999 Jul;27(7):1397–8.

Analysis of two human leukocyte antigen-linked polymorphic heat shock protein 70 genes in patients with severe sepsis. Schroeder S, et al. **Crit Care Med** 1999 Jul; 27(7):1265–70

HISTORY

Ignaz Semmelweis and the conquest of puerperal sepsis. Jay V. **Arch Pathol Lab Med** 1999 Jul;123(7):561–2

IMMUNOLOGY

HLA-DR expression and soluble HLA-DR levels in septic patients after trauma. Ditschkowski M, et al. **Ann Surg** 1999 Feb;229(2):246–54

Early activation of hepatic NFkappaB and NF-IL6 in polymicrobial sepsis correlates with bacteremia, cytokine expression, and mortality. Williams DL, et al. **Ann Surg** 1999 Jul;230(1):95–104

The effect of surgical stress and endotoxin-induced sepsis on the NK-cell activity, distribution and pulmonary clearance of YAC-1 and melanoma cells. Toft P, et al. **APMIS** 1999 Apr;107(4):359–64

Is Fas ligand or endotoxin responsible for mucosal lymphocyte apoptosis in sepsis? Chung CS, et al. **Arch Surg** 1998 Nov;133(11):1213–20

Gender differences in human sepsis. Schröder J, et al. **Arch Surg** 1998 Nov;133(11):1200–5

Granulocyte colony-stimulating factor to prevent the progression of systemic nonresponsiveness in systemic inflammatory response syndrome and sepsis. Weiss M, et al. **Blood** 1999 Jan 15;93(2):425–39 (173 ref.)

Functional significance of CXCR2 downregulation on neutrophils from patients with severe sepsis. Goodman R, et al. **Chest** 1999 Jul;116(1 Suppl):111S–112S

Dopexamine: much more than a vasoactive agent [editorial; comment] Bennett ED. **Crit Care Med** 1998 Oct; 26(10):1621–2 (10 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1639–45.

Effect of a chimeric antibody to tumor necrosis factor-alpha on cytokine and physiologic responses in patients with severe sepsis--a randomized, clinical trial [see comments] Clark MA, et al. **Crit Care Med** 1998 Oct;26(10):1650–9. Comment in: Crit Care Med 1998 Oct;26(10):1625–6.

Sensitivity and specificity of various markers of inflammation for the prediction of tumor necrosis factor-alpha and interleukin-6 in patients with sepsis. Oberhoffer M, et al. **Crit Care Med** 1999 Sep;27(9):1814–8

Clinical gram-positive sepsis: does it fundamentally differ from gram-negative bacterial sepsis? [see comments] Opal SM, et al. **Crit Care Med** 1999 Aug;27(8):1608–16 (88 ref.) . Comment in: Crit Care Med 1999 Aug;27(8):1682–3.

Pentoxifylline--more evidence that it improves host defenses during sepsis [editorial; comment] Reynolds H. **Crit Care Med** 1999 Apr;27(4):681–3 (41 ref.). Comment on: Crit Care Med 1999 Apr;27(4):756–63.

Prostaglandin E2 down-regulation of T cell IL-2 production is independent of IL-10 during gram-negative sepsis. Choudhry MA, et al. **Immunol Lett** 1999 Apr 1; 67(2):125–30

Nuclear factor kappaB--a new therapeutic approach? [editorial; comment] Böhrer H, et al. **Intensive Care Med** 1998 Nov;24(11):1129–30 (13 ref.). Comment on: Intensive Care Med 1998 Nov;24(11):1131–8. Comment on: Intensive Care Med 1998 Nov;24(11):1199–208.

Effect of plasma and LPS on respiratory burst of neutrophils in septic patients. Pascual C, et al. **Intensive Care Med** 1998 Nov;24(11):1181–6

Complement factor D deficiency in an infant first seen with pneumococcal neonatal sepsis. Weiss SJ, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 1):1043–4

Interleukin 1 receptor antagonist and E-selectin concentrations: a comparison in patients with severe acute pancreatitis and severe sepsis. Hynninen M, et al. **J Crit Care** 1999 Jun;14(2):63–8

Multiple roles for IL-12 in a model of acute septic peritonitis. Steinhauser ML, et al. **J Immunol** 1999 May 1; 162(9):5437–43

IL-2 mediates protection against abscess formation in an experimental model of sepsis. Tzianabos AO, et al. **J Immunol** 1999 Jul 15;163(2):893–7

Detection of macrophage inflammatory protein (MIP)-1alpha and MIP-1beta during experimental endotoxemia and human sepsis. O'Grady NP, et al. **J Infect Dis** 1999 Jan;179(1):136–41

Immune response and cytokines in septic rats undergoing

blood transfusion. Salinas JC, et al. **J Surg Res** 1998 Dec; 80(2):295–9

Splenic immune suppression in sepsis: A role for IL–10–induced changes in P38 MAPK signaling. Song GY, et al. **J Surg Res** 1999 May 1;83(1):36–43

Synergistic effect of hyperoxia and immunoglobulin A on mucosal barrier defense. Diebel LN, et al. **J Trauma** 1999 Mar;46(3):374–8; discussion 378–9

Effects of trauma and sepsis on soluble L–selectin and cell surface expression of L–selectin and CD11b [letter; comment] Dressler J, et al. **J Trauma** 1998 Nov;45(5):981 . Comment on: J Trauma 1998 Mar;44(3):460–8.

Interleukin 10 in febrile patients and patients with sepsis [letter; comment] Bouchama A, et al. **Lancet** 1998 May 23;351(9115):1587–8. Comment on: Lancet 1998 Mar 28;351(9107):950–3.

Interleukin 10 in febrile patients and patients with sepsis [letter; comment] Muller Kobold AC, et al. **Lancet** 1998 May 23;351(9115):1587. Comment on: Lancet 1998 Mar 28;351(9107):950–3.

T–cryptantigen (TCA) activation in surgical neonates: a hidden problem. Grant HW, et al. **Pediatr Surg Int** 1998 Dec;14(3):204–7

Anti–TNF treatment of baboons with sepsis reduces TNF–alpha, IL–6 and IL–8, but not the degree of complement activation. Bengtsson A, et al. **Scand J Immunol** 1998 Nov;48(5):509–14

Interaction with complement receptor 1 (CD35) leads to amelioration of sepsis–triggered mortality but aggravation of arthritis during Staphylococcus aureus infection. Sakiniene E, et al. **Scand J Immunol** 1999 Sep;50(3):250–5

What is the role of interleukin 10 in polymicrobial sepsis: anti–inflammatory agent or immunosuppressant? Song GY, et al. **Surgery** 1999 Aug;126(2):378–83

[Several aspects of the treatment of suppurative–septic complications with regard to the state of the immune system] Erofeev VV, et al. **Anesteziol Reanimatol** 1999 Jan–Feb;(1):32–4 (Eng. Abstr.) **(Rus)**

METABOLISM

Alterations in hepatic gluconeogenesis, prostanoid, and intracellular calcium during sepsis. Maitra SR, et al. **Acad Emerg Med** 1999 Jun;6(6):588–95

Endogenous mediators in sepsis and septic shock. Beishuizen A, et al. **Adv Clin Chem** 1998;33:55–131 (464 ref.)

Clinical evaluation of noninvasive monitoring of oxygen saturation in critically ill patients. Smatlak P, et al. **Am J Crit Care** 1998 Sep;7(5):370–3

Transcriptional and posttranscriptional regulation of beta(2)–adrenergic receptor gene in rat liver during sepsis. Yang J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R132–9

Angiotensin II exacerbates lipopolysaccharide–induced contractile depression in rabbit cardiac myocytes. Yasuda S, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1442–9

Amniotic fluid interleukin–6 and the risk of early–onset sepsis among preterm infants. Figueroa–Damián R, et al. **Arch Med Res** 1999 May–Jun;30(3):198–202

Skeletal muscle phosphocreatine depletion depresses myocellular energy status during sepsis. Lara TM, et al. **Arch Surg** 1998 Dec;133(12):1316–21

Regulators of G–protein signaling (RGS) 1 and 16 are induced in response to bacterial lipopolysaccharide and stimulate c–fos promoter expression. Panetta R, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):550–6

Transcriptional regulation of alpha1–adrenoceptor gene in the rat liver during different phases of sepsis. Dong LW, et al. **Biochim Biophys Acta** 1999 Feb 24;1453(2):207–15

Upregulation of Kupffer cell beta–adrenoceptors and cAMP levels during the late stage of sepsis. Hahn PY, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):377–84

Is gut the major source of proinflammatory cytokine release during polymicrobial sepsis? Koo DJ, et al. **Biochim Biophys Acta** 1999 Aug 30;1454(3):289–95

Adrenomedullin is upregulated in the heart and aorta during the early and late stages of sepsis. Zhou M, et al. **Biochim Biophys Acta** 1999 Feb 24;1453(2):273–83

Antithrombin: facts and new hypotheses. Risberg B. **Blood Coagul Fibrinolysis** 1998 Nov;9 Suppl 3:S3–6 (26 ref.)

Selective impairment of glucose storage in human sepsis. Saeed M, et al. **Br J Surg** 1999 Jun;86(6):813–21

Nitric oxide production in neonatal and pediatric sepsis [editorial; comment] Carcillo JA. **Crit Care Med** 1999 Jun; 27(6):1063–5 (19 ref.). Comment on: Crit Care Med 1999 Jun;27(6):1187–90.

Impaired inducibility of heat shock protein 70 in peripheral blood lymphocytes of patients with severe sepsis. Schroeder S, et al. **Crit Care Med** 1999 Jun;27(6):1080–4

Pathways of muscle protein breakdown in injury and sepsis. Hasselgren PO. **Curr Opin Clin Nutr Metab Care** 1999 Mar; 2(2):155–60 (37 ref.)

Report of the IDECG Working Group on the modulating effect of stressors on the upper and lower limits of lipid and carbohydrate intake. International Dietary Energy Consultative Group. Blundell JE, et al. **Eur J Clin Nutr** 1999 Apr;53 Suppl 1:S179–81

Limitations of nutrient intake. The effect of stressors: trauma, sepsis and multiple organ failure. Campbell IT. **Eur J Clin Nutr** 1999 Apr;53 Suppl 1:S143–7 (56 ref.)

Sepsis as a modulator of adaptation to low and high carbohydrate and low and high fat intakes. Wolfe RR. **Eur J Clin Nutr** 1999 Apr;53 Suppl 1:S136–42 (52 ref.)

Carbapenem–induced endotoxin release in gram–negative bacterial sepsis rat models. Horii T, et al. **FEMS Immunol Med Microbiol** 1998 Aug;21(4):297–302

Early events in sepsis–associated cholestasis [editorial; comment] Jansen PL, et al. **Gastroenterology** 1999 Feb; 116(2):486–8. Comment on: Gastroenterology 1999 Feb;116(2):401–10.

Alterations in intracellular calcium during sepsis. Bhattacharyya J, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):344–52 (56 ref.)

A sustained rat model for studying the long–lasting catabolic state of sepsis. Breuille D, et al. **Infect Immun** 1999 Mar; 67(3):1079–85

Expression of heat shock protein 70 in leukocytes of patients with sepsis. Martins GA, et al. **Int J Mol Med** 1999 Apr; 3(4):401–4

Distribution of free and liposomal cefoxitin in plasma and peritoneal fluid in a porcine intra–abdominal sepsis model. Shek PN, et al. **J Drug Target** 1998;5(5):353–64

Targeted disruption of migration inhibitory factor gene reveals its critical role in sepsis. Bozza M, et al. **J Exp Med** 1999 Jan 18;189(2):341–6

Mucosal production of complement C3 and serum amyloid A is differentially regulated in different parts of the gastrointestinal tract during endotoxemia in mice. Wang Q, et al. **J Gastrointest Surg** 1998 Nov–Dec;2(6):537–46

Expression and function of the chemokine receptors CXCR1 and CXCR2 in sepsis. Cummings CJ, et al. **J Immunol** 1999 Feb 15;162(4):2341–6

Procalcitonin expression in human peripheral blood mononuclear cells and its modulation by lipopolysaccharides and sepsis–related cytokines in vitro. Oberhoffer M, et al. **J Lab Clin Med** 1999 Jul;134(1):49–55

Significance of fractional excretion of sodium and endothelin levels in the early diagnosis of renal failure in septic neonatal piglets. Lievano G, et al. **J Pediatr Surg** 1998 Oct; 33(10):1480–2

Anabolic recovery relative to degree of prematurity after acute injury in neonates. Tueting JL, et al. **J Pediatr Surg** 1999 Jan;34(1):13–6; discussion 16–7

The effects of trauma and sepsis on soluble L–selectin and cell surface expression on L–selectin and CD11b on leukocytes [letter; comment] Giannoudis PV, et al. **J Trauma** 1999 May;46(5):984. Comment on: J Trauma 1998 Mar;44(3):460–8.

Effects of long–term hemofiltration on circulating mediators and superoxide production during continuous endotoxin administration. Ishihara S, et al. **J Trauma** 1999 May; 46(5):894–9

Leukocyte glycolysis and lactate output in animal sepsis and ex vivo human blood. Haji–Michael PG, et al. **Metabolism** 1999 Jun;48(6):779–85

Mechanism of impaired oxygen extraction in sepsis. Shunt and the pO2 gap [editorial] Ince C. **Minerva Anestesiol** 1999 Jun;65(6):337–9 (10 ref.)

Role of the ubiquitin–proteasome pathway in sepsis–induced muscle catabolism. Hasselgren PO. **Mol Biol Rep** 1999 Apr; 26(1–2):71–6 (39 ref.)

Regulation of insulin–like growth factor–I in starvation and injury. Thissen JP, et al. **Nutr Rev** 1999 Jun;57(6):167–76 (53 ref.)

Does Fas ligand or endotoxin contribute to thymic apoptosis during polymicrobial sepsis? Ayala A, et al. **Shock** 1999 Mar;11(3):211–7

Hepatic gene expression and cytokine responses to sterile inflammation: comparison with cecal ligation and puncture sepsis in the rat. Bazel S, et al. **Shock** 1999 May; 11(5):347–55

Evidence of multi–step regulation of HSP72 expression in experimental sepsis. Chen HW, et al. **Shock** 1999 Jul; 12(1):63–8

The role of endothelin–1 in circulatory changes during hypodynamic sepsis in the rat. László Szalay, József Kaszaki, Sándor Nagy, and Mihály Boros. Shock 10(2):123–128, 1998 [letter; comment] Doherty JC, et al. **Shock** 1999 Feb;11(2):149–50. Comment on: Shock 1998 Aug;10(2):123–8.

Sepsis produces depression of testosterone and steroidogenic acute regulatory (StAR) protein. Sam AD 2nd, et al. **Shock** 1999 Apr;11(4):298–301

Evaluation of Fc–receptor positive (FcR+) and negative (FcR–) monocyte subsets in sepsis. Schinkel C, et al. **Shock** 1999 Apr;11(4):229–34

From mouse to man: or what have we learned about cytokine–based anti–inflammatory therapies? Tracey KJ, et al. **Shock** 1999 Mar;11(3):224–5 (9 ref.)

Adrenomedullin in sepsis and septic shock [editorial; comment] Wang P. **Shock** 1998 Nov;10(5):383–4 (23 ref.) . Comment on: Shock 1998 Jan;9(1):1–11. Comment on: Shock 1998 Aug;10(2):79–89. Comment on: Shock 1998 Aug;10(2):118–22. Comment on: Shock 1998 Oct;10(4):243–7.

Carnitine levels in severe infection and starvation: a possible key to the prolonged catabolic state. Border JR, et al. **Surgery** 1970 Jul;68(1):175–9

[Influence of recombinant growth hormone on protein metabolism during severe infection: an animal experiment] Gu J, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Feb; 35(2):104–7 (Eng. Abstr.) **(Chi)**

[Changes of calcium transport in rat liver nuclei during sepsis] Wang PY, et al. **Sheng Li Hsueh Pao** 1997 Apr;49(2):191–6 (Eng. Abstr.) **(Chi)**

[Oxygen delivery in sepsis. After 10 years more questions than answers] Bone HG, et al. **Anaesthesist** 1999 Feb; 48(2):63–79 (138 ref.) (Eng. Abstr.) **(Ger)**

[Oxygen transport in septic patients (editorial)] Kox WJ, et al. **Anaesthesist** 1999 Feb;48(2):61–2 **(Ger)**

[Cefuroxime Bayesian pharmacokinetics in severely ill septic children] Lares–Asseff I, et al. **Rev Invest Clin** 1998 Jul–Aug;50(4):311–6 (Eng. Abstr.) **(Spa)**

MICROBIOLOGY

Chromobacterium violaceum sepsis accompanied by bacteria–associated hemophagocytic syndrome in a Japanese man [letter] Hiraoka N, et al. **Arch Intern Med** 1999 Jul 26;159(14):1623–4

Prophylactic treatment with growth hormone and insulin–like growth factor I improve systemic bacterial clearance and survival in a murine model of burn–induced gut–derived sepsis. Fukushima R, et al. **Burns** 1999 Aug; 25(5):425–30

Subarachnoid hemorrhage due to septic embolic infarction in infective endocarditis. Krapf H, et al. **Cerebrovasc Dis** 1999 May–Jun;9(3):182–4

Clinical gram–positive sepsis: does it fundamentally differ from gram–negative bacterial sepsis? [see comments] Opal SM, et al. **Crit Care Med** 1999 Aug;27(8):1608–16 (88 ref.) . Comment in: Crit Care Med 1999 Aug;27(8):1682–3.

Therapy of sepsis: why have we made such little progress? [editorial; comment] Teplick R, et al. **Crit Care Med** 1999 Aug;27(8):1682–3 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1608–16.

Possible virulence factors of Staphylococcus aureus in a mouse septic model. Tao M, et al. **FEMS Immunol Med Microbiol** 1999 Feb;23(2):135–46

Incidence of post operative wound infection and their antibiogram in a teaching and referral hospital. Murthy R, et al. **Indian J Med Sci** 1998 Dec;52(12):553–5

Gram–positive sepsis. Mechanisms and differences from gram–negative sepsis. Sriskandan S, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):397–412 (99 ref.)

Mechanisms involved in the pathogenesis of sepsis are not necessarily reflected by in vitro cell activation studies. Amura CR, et al. **Infect Immun** 1998 Nov;66(11):5372–8

Central line sepsis in a child due to a previously unidentified mycobacterium. Hogg GG, et al. **J Clin Microbiol** 1999 Apr;37(4):1193–6

Community–acquired Chryseobacterium meningosepticum pneumonia and sepsis in a previously healthy child [letter] Sztajnbok J, et al. **J Infect** 1998 Nov;37(3):310–2

Community–acquired methicillin–resistant Staphylococcus aureus: a cause of musculoskeletal sepsis in children. Gwynne–Jones DP, et al. **J Pediatr Orthop** 1999 May–Jun; 19(3):413–6

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 17–1999. A 42–year–old asplenic man with gram–negative sepsis [clinical conference] **N Engl J Med** 1999 Jun 10;340(23):1819–26

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 8–1999. A 28–year–old man with gram–negative sepsis of uncertain cause [clinical conference] **N Engl J Med** 1999 Mar 18;340(11):869–76

Neonatal sepsis caused simultaneously by two serotypes of group B Streptococcus. Fernandez M, et al. **Pediatr Infect Dis J** 1999 Apr;18(4):391–3

Neonatal sepsis caused by Streptococcus pyogenes: resurgence of an old etiology? Greenberg D, et al. **Pediatr Infect Dis J** 1999 May;18(5):479–81 (15 ref.)

Group G streptococcus sacroiliitis with sepsis in a 15–y–old adolescent. Konrad D, et al. **Scand J Infect Dis** 1999; 31(1):100–2

[Use of genetic methods in the detection of pathogens in complications of extensive surgical procedures] Dendis M, et al. **Rozhl Chir** 1998 Dec;77(12):567–73 (Eng. Abstr.) **(Cze)**

[Septic encephalopathy] Bogdanski R, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Mar; 34(3):123–30 (39 ref.) (Eng. Abstr.) **(Ger)**

[Fulminant sepsis by Listeria monocytogenes in a patient with coinfection by human immunodeficiency virus (letter)] Ricart C, et al. **Enferm Infecc Microbiol Clin** 1999 Mar; 17(3):147–8 **(Spa)**

MORTALITY

Early activation of hepatic NFkappaB and NF–IL6 in polymicrobial sepsis correlates with bacteremia, cytokine expression, and mortality. Williams DL, et al. **Ann Surg** 1999 Jul;230(1):95–104

Dehydroepiandrosterone: an inexpensive steroid hormone that decreases the mortality due to sepsis following trauma–induced hemorrhage. Angele MK, et al. **Arch Surg** 1998 Dec;133(12):1281–8

A randomized and controlled trial of the effect of treatment aimed at maximizing oxygen delivery in patients with severe sepsis or septic shock. Alia I, et al. **Chest** 1999 Feb; 115(2):453–61

Deciphering the dark side of free hemoglobin in sepsis [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Apr;27(4):685–6 (10 ref.). Comment on: Crit Care Med 1999 Apr;27(4):771–8.

Overexpression of Bcl–2 in transgenic mice decreases apoptosis and improves survival in sepsis. Hotchkiss RS, et al. **J Immunol** 1999 Apr 1;162(7):4148–56

Heat shock treatment decreases the mortality of sepsis in rats.

Yang RC, et al.
Kao Hsiung I Hsueh Ko Hsueh Tsa Chih 1998 Nov; 14(11):664–72

Inducible nitric oxide synthase (iNOS) gene deficiency increases the mortality of sepsis in mice. Cobb JP, et al. **Surgery** 1999 Aug;126(2):438–42

NURSING

Sepsis. Shelton BK. **Semin Oncol Nurs** 1999 Aug;15(3):209–21 (105 ref.)

PATHOLOGY

Diaphragm sarcolemmal injury is induced by sepsis and alleviated by nitric oxide synthase inhibition. Lin MC, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1656–63

Porcine hepatic response to sepsis and its amplification by an adrenergic receptor alpha1 agonist and a beta2 antagonist. Tighe D, et al. **Clin Sci (Colch)** 1998 Oct; 95(4):467–78

Apoptotic cell death in patients with sepsis, shock, and multiple organ dysfunction [see comments] Hotchkiss RS, et al. **Crit Care Med** 1999 Jul;27(7):1230–51. Comment in: Crit Care Med 1999 Jul;27(7):1381–2.

Organ apoptosis in the septic patient: a potential therapeutic target? [editorial; comment] Moldawer LL.
Crit Care Med 1999 Jul;27(7):1381–2. Comment on: Crit Care Med 1999 Jul;27(7):1230–51.

Sepsis stimulates release of myofilaments in skeletal muscle by a calcium-dependent mechanism. Williams AB, et al. **FASEB J** 1999 Aug;13(11):1435–43

Effects of isoproterenol on myocardial structure and function in septic rats. Piper RD, et al. **J Appl Physiol** 1999 Mar; 86(3):993–1001

Overexpression of Bcl-2 in transgenic mice decreases apoptosis and improves survival in sepsis. Hotchkiss RS, et al. **J Immunol** 1999 Apr 1;162(7):4148–56

Does Fas ligand or endotoxin contribute to thymic apoptosis during polymicrobial sepsis? Ayala A, et al. **Shock** 1999 Mar;11(3):211–7

[Pathologic evaluation of the main cause of death in Japanese centenarians] Esaki Y, et al.
Nippon Ronen Igakkai Zasshi 1999 Feb;36(2):116–21 (Eng. Abstr.) **(Jpn)**

[Morphology of myorenal syndrome] Zimina LN, et al.
Anesteziol Reanimatol 1998 Nov–Dec;(6):45–9 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Severe sepsis in the emergency department and its association with a complicated clinical course. Smith SW, et al.
Acad Emerg Med 1998 Dec;5(12):1169–76

The role of nitric oxide in sepsis--an overview. Kirkebøen KA, et al. **Acta Anaesthesiol Scand** 1999 Mar;43(3):275–88 (143 ref.)

Sepsis attenuates the intensity of the neuromuscular blocking effect of d-tubocurarine and the antagonistic actions of neostigmine and edrophonium accompanying depression of muscle contractility of the diaphragm. Narimatsu E, et al. **Acta Anaesthesiol Scand** 1999 Feb;43(2):196–201

Endogenous mediators in sepsis and septic shock. Beishuizen A, et al. **Adv Clin Chem** 1998;33:55–131 (464 ref.)

Clinical evaluation of noninvasive monitoring of oxygen saturation in critically ill patients. Smatlak P, et al.
Am J Crit Care 1998 Sep;7(5):370–3

Pentoxifylline prevents the transition from the hyperdynamic to hypodynamic response during sepsis. Yang S, et al.
Am J Physiol 1999 Sep;277(3 Pt 2):H1036–44

A dobutamine test can disclose hepatosplanchnic hypoperfusion in septic patients. Creteur J, et al.
Am J Respir Crit Care Med 1999 Sep;160(3):839–45

Reversal of hypocalcemia and decreased afterload in sepsis. Effect on myocardial systolic and diastolic function. Kovacs A, et al. **Am J Respir Crit Care Med** 1998 Dec; 158(6):1990–8

Hepatic hemodynamics and cell functions in human and experimental sepsis. Pastor CM, et al. **Anesth Analg** 1999 Aug;89(2):344–52 (94 ref.)

Skeletal muscle phosphocreatine depletion depresses myocellular energy status during sepsis. Lara TM, et al. **Arch Surg** 1998 Dec;133(12):1316–21

Microvascular endothelial cell control of peripheral vascular resistance during sepsis. Tucker JJ, et al. **Arch Surg** 1998 Dec;133(12):1335–42

The pivotal role of adrenomedullin in producing hyperdynamic circulation during the early stage of sepsis. Wang P, et al. **Arch Surg** 1998 Dec;133(12):1298–304

Pulmonary clearance of adrenomedullin is reduced during the late stage of sepsis. Ornan DA, et al.
Biochim Biophys Acta 1999 Apr 19;1427(2):315–21

Sepsis facilitates brain serotonin activity and impairs learning ability in rats. Shimizu I, et al. **Brain Res** 1999 May 29; 830(1):94–100

Outcome prediction by traditional and new markers of inflammation in patients with sepsis. Oberhoffer M, et al.
Clin Chem Lab Med 1999 Mar;37(3):363–8

Myocardial dysfunction in sepsis. Piper RD.
Clin Exp Pharmacol Physiol 1998 Nov;25(11):951–4 (36 ref.)

The plasma kallikrein-kinin system in sepsis, inflammatory arthritis, and enterocolitis. Colman RW, et al.
Clin Rev Allergy Immunol 1998 Winter;16(4):365–84 (44 ref.)

Tumor necrosis factor-alpha and interleukin-1beta synergistically depress human myocardial function [see comments] Cain BS, et al. **Crit Care Med** 1999 Jul; 27(7):1309–18. Comment in: Crit Care Med 1999 Jul;27(7):1391–3.

Hemofiltration and left ventricular function in sepsis: mechanisms and clinical implications [editorial; comment] Dhainaut JF, et al. **Crit Care Med** 1999 Mar;27(3):473–4 (13 ref.). Comment on: Crit Care Med 1999 Mar;27(3):588–96.

On the accuracy of intra-arterial pressure measurement: the pressure gradient effect [editorial; comment] Hynson JM, et al. **Crit Care Med** 1998 Oct;26(10):1623–4 (15 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1646–9.

Microcirculatory oxygenation and shunting in sepsis and shock [see comments] Ince C, et al. **Crit Care Med** 1999 Jul;27(7):1369–77 (75 ref.). Comment in: Crit Care Med 1999 Jul;27(7):1400–1.

Cytokines and septic myocardial depression: nitric oxide versus sphingosine/ceramide? [editorial; comment] Kumar A, et al. **Crit Care Med** 1999 Jul;27(7):1391–3. Comment on: Crit Care Med 1999 Jul;27(7):1309–18.

Diastolic filling in human severe sepsis: an echocardiographic study [see comments] Munt B, et al. **Crit Care Med** 1998 Nov;26(11):1829–33. Comment in: Crit Care Med 1998 Nov;26(11):1777–8.

Doppler "diastology": a new twist to the study of sepsis [editorial; comment] Soble JS. **Crit Care Med** 1998 Nov; 26(11):1777–8 (21 ref.). Comment on: Crit Care Med 1998 Nov;26(11):1829–33.

Components of energy expenditure in patients with severe sepsis and major trauma: a basis for clinical care. Uehara M, et al. **Crit Care Med** 1999 Jul;27(7):1295–302

Sepsis in obstetric and gynecologic patients. Faro S.
Curr Clin Top Infect Dis 1999;19:60–82 (124 ref.)

Pathophysiology of meningococcal sepsis in children. de Kleijn ED, et al. **Eur J Pediatr** 1998 Nov;157(11):869–80 (143 ref.) .

Neutrophil and endothelial cell interactions in sepsis. The role of adhesion molecules. Parent C, et al.
Infect Dis Clin North Am 1999 Jun;13(2):427–47, x (208 ref.)

Nitric oxide in the pathogenesis of sepsis. Symeonides S, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):449–63, x (83 ref.)

Mechanisms of acute inflammatory lung injury induced by abdominal sepsis. Neumann B, et al. **Int Immunol** 1999 Feb; 11(2):217–27

Histamine H3 activation depresses cardiac function in experimental sepsis. Li X, et al. **J Appl Physiol** 1998 Nov; 85(5):1693–701

Effects of isoproterenol on myocardial structure and function in septic rats. Piper RD, et al. **J Appl Physiol** 1999 Mar; 86(3):993–1001

Role of neurosympathetic pathways in the vascular response to sepsis. Magder S, et al. **J Crit Care** 1998 Dec; 13(4):169–76

Comparison between intrathoracic blood volume and cardiac filling pressures in the early phase of hemodynamic instability of patients with sepsis or septic shock. Sakka SG, et al. **J Crit Care** 1999 Jun;14(2):78–83

IL-1ra administration does not improve cardiac function in patients with severe sepsis. Vincent JL, et al.
J Crit Care 1999 Jun;14(2):69–72

Adenosine receptor antagonism affects regional resting vascular resistance during rat peritoneal sepsis. Motew SJ, et al. **J Surg Res** 1998 Dec;80(2):326–32

Subacute sepsis impairs vascular smooth muscle contractile machinery and alters vasoconstrictor and dilator mechanisms. Price SA, et al. **J Surg Res** 1999 May 1; 83(1):75–80

Pulmonary capillary sieving of hetastarch is not altered by LPS-induced sepsis. Conhaim RL, et al. **J Trauma** 1999 May;46(5):800–8; discussion 808–10

Changes of cerebral hemodynamics and oxygenation in unstable septic newborns during exchange transfusion. Murakami Y, et al. **Kurume Med J** 1998;45(4):321–5

Endotoxin and renal function: perspectives to the understanding of septic acute renal failure and toxic shock [editorial] Khan RZ, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):814–8 (63 ref.)

Persistent crying as predominant manifestation of sepsis in infants and newborns. Ruiz-Contreras J, et al.
Pediatr Emerg Care 1999 Apr;15(2):113–5

Cardiac contractility and structure are not significantly compromised even during the late, hypodynamic stage of sepsis. Mian Zhou, Ping Wang, and Irshad H. Chaudry. Shock 9(5):352–358, 1998 [letter; comment] Abel FL.
Shock 1999 Jan;11(1):72–4. Comment on: Shock 1998 May;9(5):352–8.

Immunopathologic responses to non-lethal sepsis. Ebong SJ, et al. **Shock** 1999 Aug;12(2):118–26

Impaired energy metabolism in hearts of septic baboons: diminished activities of Complex I and Complex II of the mitochondrial respiratory chain. Gellerich FN, et al.
Shock 1999 May;11(5):336–41

Cardiovascular aspects of experimental meningococcal sepsis in young and older awake piglets: age-related differences. Hazelzet JA, et al. **Shock** 1999 Aug;12(2):145–54

Carnitine deprivation adversely affects cardiac performance in the lipopolysaccharide- and hypoxia/reoxygenation-stressed piglet heart. Penn D, et al. **Shock** 1999 Feb;11(2):120–6

The role of endothelin-1 in circulatory changes during hypodynamic sepsis in the rat [see comments] Szalay L, et al. **Shock** 1998 Aug;10(2):123–8. Comment in: Shock 1999 Feb;11(2):149–50.

Up-regulation of a novel potent vasodilatory peptide adrenomedullin during polymicrobial sepsis [see comments] Wang P, et al. **Shock** 1998 Aug;10(2):118–22. Comment in: Shock 1998 Nov;10(5):383–4.

[Hemodynamic changes and nitric oxide production in an experimental model of sepsis] Vasilev D, et al.
Khirurgiia (Sofiia) 1998;51(2):25–9 (Eng. Abstr.) **(Bul)**

[Cybernetic aspects of SIRS (Systemic Inflammation Reactions) (letter)] Kollár L. **Orv Hetil** 1999 Jul 18; 140(29):1657 **(Hun)**

[Sepsis: uncontrolled inflammation or inflammatory dysregulation? (editorial)] Del Bosco CG.
Medicina (B Aires) 1998;58(5 Pt 1):528–30 **(Spa)**

PREVENTION & CONTROL

Cytokine modulation by PX differently affects specific acute phase proteins during sepsis in rats. Voisin L, et al.
Am J Physiol 1998 Nov;275(5 Pt 2):R1412–9

Use of tunneled femoral catheters to prevent catheter-related infection. A randomized, controlled trial. Timsit JF, et al.
Ann Intern Med 1999 May 4;130(9):729–35

Protective effect of bactericidal/permeability-increasing protein (rBPI21) in baboon sepsis is related to its antibacterial, not antiendotoxin, properties. Schlag G, et al. **Ann Surg** 1999 Feb;229(2):262–71

Chronic groin sepsis following tension-free inguinal hernioplasty. Taylor SG, et al. **Br J Surg** 1999 Apr; 86(4):562–5

Is heparin daily flushing useful to decrease the incidence of catheter-related infections? [letter] Martinón-Torres F, et al. **Chest** 1998 Nov;114(5):1498–9

The ex vivo antimicrobial activity and colonization rate of two antimicrobial-bonded central venous catheters [see comments] Marik PE, et al. **Crit Care Med** 1999 Jun; 27(6):1128–31. Comment in: Crit Care Med 1999 Jun;27(6):1050–1.

Role of hematopoietic growth factors in non-neutropenic infections and sepsis. Held TK, et al.
Curr Opin Hematol 1999 May;6(3):176–83 (46 ref.)

Treatment of sepsis: past and future avenues. Baumgartner JD, et al. **Drugs** 1999 Feb;57(2):127–32 (56 ref.)

Influence of histamine H1+H2 receptor antagonists on abdominal infections following minimally invasive versus conventional surgery: studies in large samples of rats following the new concept of clinic modelling randomised trials (CMRT). Celik I, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S51–2

Effect of passive immunotherapy on murine gut-derived sepsis caused by Pseudomonas aeruginosa. Matsumoto T, et al. **J Med Microbiol** 1999 Aug;48(8):765–70

Sepsis, multi-organ dysfunction syndrome (MODS) and multiple organ failure (MOF). Prevention is better than treatment. Baue AE. **Minerva Anestesiol** 1999 Jul–Aug; 65(7–8):477–80; discussion 481 (10 ref.)

Sepsis and organ dysfunction/failure. An overview. Gullo A. **Minerva Anestesiol** 1999 Jul–Aug;65(7–8):529–40 (80 ref.)

Immunomodulation in sepsis: the role of hemofiltration. Kellum JA. **Minerva Anestesiol** 1999 Jun;65(6):410–8 (58 ref.)

Intrapartum antibiotics and early onset neonatal sepsis caused by group B Streptococcus and by other organisms in Australia. Australasian Study Group for Neonatal Infections. Isaacs D, et al. **Pediatr Infect Dis J** 1999 Jun; 18(6):524–8

Preliminary report: rhG-CSF may reduce the incidence of neonatal sepsis in prolonged preeclampsia-associated neutropenia. Kocherlakota P, et al. **Pediatrics** 1998 Nov; 102(5):1107–11

[Selective intestinal decontamination prevents death in intensive care patients (letter; comment)] van Ketel RJ, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1397–8 . Comment on: Ned Tijdschr Geneeskd 1999 Mar 20;143(12):602–6. **(Dut)**

[Ways of correcting immunodeficiency at different stages of burns with the aim of prevention and treatment of sepsis] Nazarov IP, et al. **Anesteziol Reanimatol** 1999 Jan–Feb; (1):63–8 (67 ref.) **(Rus)**

RADIOGRAPHY

Impact of CT in patients with sepsis of unknown origin. Barkhausen J, et al. **Acta Radiol** 1999 Sep;40(5):552–5

Case No. 1. Computed tomography (CT) of a 70-year-old male presenting with sepsis and right renal mass. Toh KL, et al. **Tech Urol** 1999 Jun;5(2):119, 120

SURGERY

Intermediate-term outcome of primary digit amputations in patients with diabetes mellitus who have forefoot sepsis requiring hospitalization and presumed adequate circulatory status. Nehler MR, et al. **J Vasc Surg** 1999 Sep; 30(3):509–17

[The treatment of acute endotoxicosis in diabetic patients with surgical diseases requiring emergency intervention] Gusha AL, et al. **Khirurgiia (Mosk)** 1998;(8):36–9 (Eng.

SEPSIS

Abstr.) **(Rus)**

THERAPY

Effect of hemoperfusion with polymyxin B-immobilized fiber on plasma endothelin-1 and endothelin-1 mRNA in monocytes from patients with sepsis. Ebihara I, et al. **Am J Kidney Dis** 1998 Dec;32(6):953-61

Emerging therapies for sepsis and septic shock. Oh HM. **Ann Acad Med Singapore** 1998 Sep;27(5):738-43 (40 ref.)

Albumin: saint or sinner? [letter] Nichani S. **Arch Dis Child** 1999 Aug;81(2):189

Therapeutic apheresis for septic patients with organ dysfunction: hemoperfusion using a polymyxin B immobilized column. Tani T, et al. **Artif Organs** 1998 Dec; 22(12):1038-44

A randomized and controlled trial of the effect of treatment aimed at maximizing oxygen delivery in patients with severe sepsis or septic shock. Alia I, et al. **Chest** 1999 Feb; 115(2):453-61

Supportive therapy of the sepsis syndrome. Meier-Hellmann A, et al. **Clin Chem Lab Med** 1999 Mar;37(3):333-9 (51 ref.)

Apheresis of plasma compounds as a therapeutic principle in severe sepsis and multiorgan dysfunction syndrome. Stegmayr B. **Clin Chem Lab Med** 1999 Mar;37(3):327-32 (73 ref.)

Supplemental immune globulins in sepsis. Werdan K. **Clin Chem Lab Med** 1999 Mar;37(3):341-9 (56 ref.)

Rationale and potential use of cytokines in the prevention and treatment of neonatal sepsis. Goldman S, et al. **Clin Perinatol** 1998 Sep;25(3):699-710 (32 ref.)

Practice parameters for hemodynamic support of sepsis in adult patients in sepsis. Task Force of the American College of Critical Care Medicine, Society of Critical Care Medicine. **Crit Care Med** 1999 Mar;27(3):639-60 (197 ref.)

Research in sepsis and acute respiratory distress syndrome: are we changing course? [comment] Bernard GR. **Crit Care Med** 1999 Feb;27(2):434-6. Comment on: Crit Care Med 1999 Feb;27(2):427-30. Comment on: Crit Care Med 1999 Feb;27(2):431-3.

Effect of a chimeric antibody to tumor necrosis factor-alpha on cytokine and physiologic responses in patients with severe sepsis--a randomized, clinical trial [see comments] Clark MA, et al. **Crit Care Med** 1998 Oct;26(10):1650-9. Comment in: Crit Care Med 1998 Oct;26(10):1625-6.

Sepsis research: we must change course [see comments] Nasraway SA Jr. **Crit Care Med** 1999 Feb;27(2):427-30 (45 ref.). Comment in: Crit Care Med 1999 Feb;27(2):434-6.

Therapy of sepsis: why have we made such little progress? [editorial; comment] Teplick R, et al. **Crit Care Med** 1999 Aug;27(8):1682-3 (14 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1608-16.

Peri-operative immune-modulation with intravenous immunoglobulins. Dominioni L. **Eur J Anaesthesiol** 1998 Nov;15(6):734-5

Vaccines and antibodies in the prevention and treatment of sepsis. Bhattacharjee AK, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):355-69, vii (63 ref.)

Current therapy for sepsis. Dellinger RP. **Infect Dis Clin North Am** 1999 Jun;13(2):495-509 (50 ref.)

Antiendotoxin strategies. Hellman J, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):371-86, ix

Clinical trials for severe sepsis. Past failures, and future hopes. Opal SM, et al. **Infect Dis Clin North Am** 1999 Jun; 13(2):285-97, vii (57 ref.)

Monitoring of immunotherapy by measuring monocyte HLA-DR expression and stimulated TNFalpha production during sepsis after liver transplantation [letter] Denzel C, et al. **Intensive Care Med** 1998 Dec;24(12):1343-4

Effect of plasma and LPS on respiratory burst of neutrophils in septic patients. Pascual C, et al. **Intensive Care Med** 1998 Nov;24(11):1181-6

Immune response and cytokines in septic rats undergoing blood transfusion. Salinas JC, et al. **J Surg Res** 1998 Dec; 80(2):295-9

Severe sepsis trials: why have they failed? [editorial] Dellinger RP. **Minerva Anestesiol** 1999 Jun;65(6):340-5 (36 ref.)

Present and future options in continuous renal replacement therapies of sepsis and MOF. Tetta C, et al. **Minerva Anestesiol** 1999 Jun;65(6):419-26 (63 ref.)

Treating patients with severe sepsis [letter; comment] Felbinger TW, et al. **N Engl J Med** 1999 Jul 1;341(1):56-7 . Comment on: N Engl J Med 1999 Jan 21;340(3):207-14.

Treating patients with severe sepsis [see comments] Wheeler AP, et al. **N Engl J Med** 1999 Jan 21;340(3):207-14 (90 ref.). Comment in: N Engl J Med 1999 Jul 1;341(1):56; discussion 57. Comment in: N Engl J Med 1999 Jul 1;341(1):56-7.

Total parenteral nutrition supplemented with medium-chain triacylglycerols prevents atrophy of the intestinal mucosa in septic rats. Iba T, et al. **Nutrition** 1998 Sep;14(9):667-71

Recent advances in the management of pleural sepsis: what is the evidence? Lim TK. **Respirology** 1999 Sep;4(3):207-12 (44 ref.)

From mouse to man: or what have we learned about cytokine-based anti-inflammatory therapies? Tracey KJ, et al. **Shock** 1999 Mar;11(3):224-5 (9 ref.)

Granulocyte colony-stimulating factor and neutrophil-related changes in local host defense during recovery from shock and intra-abdominal sepsis. Davis KA, et al. **Surgery** 1999 Aug;126(2):305-13

Extracorporeal endotoxin removal by polymyxin B immobilized fiber cartridge: designing and antiendotoxin efficacy in the clinical application [editorial] Shoji H, et al. **Ther Apher** 1998 Feb;2(1):3-12 (58 ref.)

[Results of extracorporeal membrane oxygenation in 100 newborns with cardiorespiratory insufficiency (published erratum appears in Ned Tijdschr Geneeskd 1999 Mar 20;143(12):648)] van Heijst AF, et al. **Ned Tijdschr Geneeskd** 1999 Feb 13;143(7):356-60 (Eng. Abstr.) **(Dut)**

[Sepsis in neutropenia. Standard recommendations of the Work Group of Infections in Hematology and Oncology of the German Association for Hematology and Oncology] Ostermann H, et al. **Dtsch Med Wochenschr** 1999 Apr 9; 124 Suppl 1:S14-7 **(Ger)**

[Clinical guidelines as part of total quality management. Analysis of heterogenous treatment concepts of sepsis in various clinics with computer assisted generation, logical testing and complexity assessment of clinical algorithms] Sitter H, et al. **Zentralbl Chir** 1999;124(4):318-26 (Eng. Abstr.) **(Ger)**

[Latest results of intensive care of sepsis, septic shock and multiple organ injuries] Incze F. **Orv Hetil** 1999 Mar 7; 140(10):515-20 (49 ref.) (Eng. Abstr.) **(Hun)**

[Use of octagam and pentaglobin in the treatment of severe sepsis in the neonatal period] Barinov AV, et al. **Anesteziol Reanimatol** 1999 May-Jun;(3):59-60 (Eng. Abstr.) **(Rus)**

[Hemodynamics and oxygen transport in patients with surgical sepsis during hemofiltration] Bobrinskaia IG, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):58-62 (Eng. Abstr.) **(Rus)**

[Detoxication of blood plasma by sodium hypochlorite. Criteria of reinfusion] Fedorovskiĭ NM, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):43-5 (Eng. Abstr.) **(Rus)**

[Problems and perspective approaches to correction of mediator response in sepsis] Mironov PI, et al. **Anesteziol Reanimatol** 1999 May-Jun;(3):54-9 (50 ref.) **(Rus)**

[Functional activity of placental, splenic and hepatic tissues in pyo-septic diseases under conditions of extracorporeal detoxication] Pisarevskiĭ AA, et al. **Khirurgiia (Mosk)** 1998; (7):40-3 (Eng. Abstr.) **(Rus)**

[Ozone hemotherapy and endogenous intoxication in gestoses] Chuev PN, et al. **Lik Sprava** 1999 Mar;(2):107-8 (Eng. Abstr.) **(Rus)**

[Meningococcal sepsis and septic shock: efficient measures and controversial treatments] Casado Flores J, et al. **An Esp Pediatr** 1999 Apr;50(4):346-52 (74 ref.) **(Spa)**

TRANSMISSION

[Diagnostic difficulties of transfusion incidents due to bacterial contamination: report of two cases] Renom P, et al. **Transfus Clin Biol** 1999 Apr;6(2):124-8 (Eng. Abstr.) **(Fre)**

ULTRASONOGRAPHY

Diastolic filling in human severe sepsis: an echocardiographic study [see comments] Munt B, et al. **Crit Care Med** 1998 Nov;26(11):1829-33. Comment in: Crit Care Med 1998 Nov;26(11):1777-8.

Doppler "diastology": a new twist to the study of sepsis [editorial; comment] Soble JS. **Crit Care Med** 1998 Nov; 26(11):1777-8 (21 ref.). Comment on: Crit Care Med 1998 Nov;26(11):1829-33.

VETERINARY

The sepsis-coagulant axis: a review. Weiss DJ, et al. **J Vet Intern Med** 1998 Sep-Oct;12(5):317-24 (103 ref.)

SEPSIS SYNDROME

see related

RESPIRATORY DISTRESS SYNDROME, ADULT

Evaluation of interleukin-6, tumour necrosis factor-alpha and interleukin-1beta for early diagnosis of neonatal sepsis [see comments] Silveira RC, et al. **Acta Paediatr** 1999 Jun; 88(6):647-50. Comment in: Acta Paediatr 1999 Jun;88(6):585-6.

Effects of cardiopulmonary bypass on leukocyte and endothelial adhesion molecules. Asimakopoulos G, et al. **Ann Thorac Surg** 1998 Dec;66(6):2135-44 (89 ref.)

Mechanisms of the systemic inflammatory response. Asimakopoulos G. **Perfusion** 1999 Jul;14(4):269-77 (85 ref.)

[Systemic inflammatory response syndrome and acute lung injury, multiple organ dysfunction syndrome (editorial)] Sun G, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Apr; 20(2):67-8 **(Chi)**

[In-depth discussion on systemic inflammatory response unbridling and regulation (editorial)] Mao B. **Chung Hua Nei Ko Tsa Chih** 1997;36(1):3-4 **(Chi)**

[SIRS (systemic inflammatory response syndrome): clinical entity, definitions, and the significance] Kushimoto S, et al. **Nippon Rinsho** 1999 Jan;57(1):227-35 (30 ref.) (Eng. Abstr.) **(Jpn)**

[Systemic inflammatory response syndrome (SIRS)] Aikawa N, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):241-4 (12 ref.) **(Jpn)**

BLOOD

Multivariate analysis of 9 disease-associated variables for outcome prediction in patients with sepsis. Calvano SE, et al. **Arch Surg** 1998 Dec;133(12):1347-50

Administration of albumin to patients with sepsis syndrome: a possible beneficial role in plasma thiol repletion. Quinlan GJ, et al. **Clin Sci (Colch)** 1998 Oct;95(4):459-65

Differential expression of tumor necrosis factor receptor subtypes on leukocytes in systemic inflammatory response syndrome [see comments] Hübl W, et al. **Crit Care Med** 1999 Feb;27(2):319-24. Comment in: Crit Care Med 1999 Feb;27(2):240-1.

Tumor necrosis factor receptor expression on inflammatory cells in sepsis [editorial; comment] Opal SM. **Crit Care Med** 1999 Feb;27(2):240-1 (10 ref.). Comment on: Crit Care Med 1999 Feb;27(2):319-24.

Change in the ratio of interleukin-6 to interleukin-10 predicts a poor outcome in patients with systemic inflammatory response syndrome. Taniguchi T, et al. **Crit Care Med** 1999 Jul;27(7):1262-4

Kinetics of interleukin-11 release after cardiopulmonary bypass. Meldrum DR, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):193-5

Nucleated red blood cells after cardiopulmonary bypass in infants and children: is there a relationship to the systemic inflammatory response syndrome? Frey B, et al. **Perfusion** 1999 May;14(3):173-80

Effect of low-dose methyl prednisolone on serum cytokine levels following extracorporeal circulation. Yilmaz M, et al. **Perfusion** 1999 May;14(3):201-6

Diagnostic value of procalcitonin: the influence of cardiopulmonary bypass, aprotinin, SIRS, and sepsis. Boeken U, et al. **Thorac Cardiovasc Surg** 1998 Dec; 46(6):348-51

[Evaluation of procalcitonin levels in patients with systemic inflammatory response syndrome as the diagnosis of infection and the severity of illness] Endo S, et al. **Kansenshogaku Zasshi** 1999 Mar;73(3):197-204 (Eng. Abstr.) **(Jpn)**

CHEMICALLY INDUCED

High-dose tumor necrosis factor-alpha leads to the systemic inflammatory response syndrome. Oldhafer KJ, et al. **Am J Med** 1998 Oct;105(4):346-7

COMPLICATIONS

Role of the systemic inflammatory response syndrome in the development of protein-caloric malnutrition in ESRD. Bistrian BR. **Am J Kidney Dis** 1998 Dec;32(6 Suppl 4):S113-7

Disseminated intravascular coagulation and sustained systemic inflammatory response syndrome predict organ dysfunctions after trauma: application of clinical decision analysis. Gando S, et al. **Ann Surg** 1999 Jan;229(1):121-7

Pancreatitis, cytokines, and SIRS: déjà vu all over again? [editorial; comment] Giroir BP. **Crit Care Med** 1999 Apr; 27(4):680-1 (13 ref.). Comment on: Crit Care Med 1999 Apr;27(4):749-55.

Posttraumatic complications and changes in blood lymphocyte populations after multiple trauma [editorial; comment] Moore FA. **Crit Care Med** 1999 Apr;27(4):674-5 (15 ref.). Comment on: Crit Care Med 1999 Apr;27(4):733-40.

Compositional, structural, and functional alterations in pulmonary surfactant in surgical patients after the early onset of systemic inflammatory response syndrome or sepsis [see comments] Raymondos K, et al. **Crit Care Med** 1999 Jan;27(1):82-9. Comment in: Crit Care Med 1999 Jan;27(1):12-3.

Sweet's syndrome associated with systemic inflammatory response syndrome [see comments] Matthews PC, et al. **Intensive Care Med** 1998 Oct;24(10):1106-9. Comment in: Intensive Care Med 1998 Oct;24(10):997-8.

Inhibition of the transcriptional activator protein nuclear factor kappaB prevents hemodynamic instability associated with the whole-body inflammatory response syndrome. Kovacich JC, et al. **J Thorac Cardiovasc Surg** 1999 Jul; 118(1):154-62

Possible role of systemic inflammatory reaction in vascular access thrombosis. Jurado R, et al. **South Med J** 1999 Sep; 92(9):877-81 (56 ref.)

[The role of a systemic inflammatory process in the atherogenic modification of lipoproteins and the development of hypercholesterolemia] Bratus' VV, et al. **Fiziol Zh** 1999;45(1-2):40-9 (Eng. Abstr.) **(Ukr)**

DIAGNOSIS

Quantitation of inflammatory responses to bacteria in young cystic fibrosis and control patients. Muhlebach MS, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):186-91

Increased plasma levels of adrenomedullin in patients with systemic inflammatory response syndrome. Ueda S, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):132-6

Limulus amebocyte lysate assay for detection of endotoxin in patients with sepsis syndrome. AMCC Sepsis Project Working Group. Bates DW, et al. **Clin Infect Dis** 1998 Sep;27(3):582-91

Cytokine and fibrinogen response in patients undergoing open abdominal aortic aneurysm surgery. Holmberg A, et al. **Eur J Vasc Endovasc Surg** 1999 Apr;17(4):294-300

Sepsis: definitions and diagnosis. Karzai W, et al. **Int J Clin Pract Suppl** 1998 Jun;95:44–8

C-reactive protein as an indicator of sepsis. Póvoa P, et al. **Intensive Care Med** 1998 Oct;24(10):1052–6

Lactate is an unreliable indicator of tissue hypoxia in injury or sepsis. James JH, et al. **Lancet** 1999 Aug 7; 354(9177):505–8 (47 ref.)

[Significance of systemic inflammation in 1,278 trauma patients] Ertel W, et al. **Unfallchirurg** 1998 Jul;101(7):520–6 (Eng. Abstr.) **(Ger)**

[Criteria of systemic inflammatory response syndrome are unacceptable in the diagnosis of sepsis in patients with leukopenia] Galstian GM, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):72–6 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

A comparison of the effects of dopexamine and prostacyclin in systemic inflammatory response syndrome. Blunt M, et al. **Anaesthesia** 1999 Apr;54(4):313–9

Selenium replacement in patients with severe systemic inflammatory response syndrome improves clinical outcome. Angstwurm MW, et al. **Crit Care Med** 1999 Sep; 27(9):1807–13

Total splanchnic resuscitation, SIRS, and MODS [editorial; comment] Marik PE. **Crit Care Med** 1999 Feb;27(2):257–8 (43 ref.). Comment on: Crit Care Med 1999 Feb;27(2):394–400.

Hemoglobin infusion augments the tumor necrosis factor response to bacterial endotoxin (lipopolysaccharide) in mice [see comments] Su D, et al. **Crit Care Med** 1999 Apr; 27(4):771–8. Comment in: Crit Care Med 1999 Apr;27(4):685–6.

Deciphering the oxyradical inflammation Rosetta stone: $O2^{\bullet}$-$NO^{\bullet}$, OONO-, polymorphonuclear neutrophils, poly(ADP-ribose) synthetase, systemic inflammatory response syndrome, and multiple organ dysfunction syndrome [editorial; comment] Vaughan D, et al. **Crit Care Med** 1999 Aug;27(8):1666–9 (30 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1517–23. Comment on: Crit Care Med 1999 Aug;27(8):1524–32.

Nuclear factor kappa B: a pivotal role in the systemic inflammatory response syndrome and new target for therapy [see comments] Christman JW, et al. **Intensive Care Med** 1998 Nov;24(11):1131–8 (81 ref.). Comment in: Intensive Care Med 1998 Nov;24(11):1129–30.

IV milrinone for cardiac output increase and maintenance: comparison in nonhyperdynamic SIRS/sepsis and congestive heart failure. Heinz G, et al. **Intensive Care Med** 1999 Jun;25(6):620–4

Pharmacokinetics of cefpirome during the posttraumatic systemic inflammatory response syndrome. Jacolot A, et al. **Intensive Care Med** 1999 May;25(5):486–91

Inhibition of the transcriptional activator protein nuclear factor kappaB prevents hemodynamic instability associated with the whole-body inflammatory response syndrome. Kovacich JC, et al. **J Thorac Cardiovasc Surg** 1999 Jul; 118(1):154–62

Vesnarinone and amrinone reduce the systemic inflammatory response syndrome. Takeuchi K, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):375–82

ENZYMOLOGY

Extracellular phospholipases A2 in relation to systemic inflammatory response syndrome (SIRS) and systemic complications in severe acute pancreatitis. Hietaranta A, et al. **Pancreas** 1999 May;18(4):385–91

ETIOLOGY

Intramucosal acidosis and the inflammatory response in acute pancreatitis. Soong CV, et al. **Am J Gastroenterol** 1999 Sep;94(9):2423–9

Monocyte human leukocyte antigen-DR expression correlates with intrapulmonary shunting after major trauma. Giannoudis PV, et al. **Am J Surg** 1999 Jun; 177(6):454–9

Relationship of systemic inflammatory response syndrome to organ dysfunction, length of stay, and mortality in critical surgical illness: effect of intensive care unit resuscitation. Talmor M, et al. **Arch Surg** 1999 Jan; 134(1):81–7

The inflammatory and coagulative response to prolonged extracorporeal membrane oxygenation. Peek GJ, et al. **ASAIO J** 1999 Jul-Aug;45(4):250–63 (197 ref.)

Bacterial infection and extent of necrosis are determinants of organ failure in patients with acute necrotizing pancreatitis. Isenmann R, et al. **Br J Surg** 1999 Aug; 86(8):1020–4

The gut as a potential trigger of exercise-induced inflammatory responses. Marshall JC. **Can J Physiol Pharmacol** 1998 May;76(5):479–84 (54 ref.)

Severe systemic inflammatory response syndrome with shock and ARDS resulting from Still's disease: clinical response with high-dose pulse methylprednisolone therapy. Iglesias J, et al. **Chest** 1999 Jun;115(6):1738–40

Systemic inflammatory response syndrome in patients hospitalized for gastrointestinal bleeding. Afessa B. **Crit Care Med** 1999 Mar;27(3):554–7

Subarachnoid hemorrhage, systemic immune response syndrome, and MODS: is there cross-talk between the injured brain and the extra-cerebral organ systems? Multiple organ dysfunction syndrome [editorial; comment] Kochanek PM, et al. **Crit Care Med** 1999 Mar;27(3):454–5 . Comment on: Crit Care Med 1999 Mar;27(3):505–14.

Is major liver surgery associated with an increased systemic inflammatory response? A prospective comparison of hemihepatectomy and other major abdominal surgery. Wiezer MJ, et al. **Liver** 1999 Jun;19(3):220–7

Neutrophil signaling alteration: an adverse inflammatory response after burn shock. Sayeed MM. **Medicina (B Aires)** 1998;58(4):386–92 (19 ref.)

Nitric oxide and intestinal barrier failure. Nadler EP, et al. **Semin Pediatr Surg** 1999 Aug;8(3):148–54 (88 ref.)

[Sepsis and the systemic inflammatory response syndrome] Shano VP, et al. **Anesteziol Reanimatol** 1998 Jul-Aug; (4):60–4 (93 ref.) **(Rus)**

GENETICS

Gene expression pattern in human monocytes as a surrogate marker for systemic inflammatory response syndrome (SIRS). Wiegand G, et al. **Mol Med** 1999 Mar;5(3):192–202

IMMUNOLOGY

Inflammatory response to cardiopulmonary bypass. Edmunds LH Jr. **Ann Thorac Surg** 1998 Nov;66(5 Suppl):S12–6; discussion S25–8 (13 ref.)

Tumor necrosis factor-alpha and cardiac surgical procedures: still more questions than answers [letter; comment] Markewitz A. **Ann Thorac Surg** 1999 Feb;67(2):595–6. Comment on: Ann Thorac Surg 1998 Jul;66(1):56–9.

Granulocyte colony-stimulating factor to prevent the progression of systemic nonresponsiveness in systemic inflammatory response syndrome and sepsis. Weiss M, et al. **Blood** 1999 Jan 15;93(2):425–39 (173 ref.)

Systemic inflammatory response syndrome without systemic inflammation in acutely ill patients admitted to hospital in a medical emergency. Takala A, et al. **Clin Sci (Colch)** 1999 Mar;96(3):287–95

Acute-phase responses and SIRS/MODS: the good, the bad, and the nebulous [editorial; comment] Deutschman CS. **Crit Care Med** 1998 Oct;26(10):1630–1 (22 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1683–9.

Pancreatitis, cytokines, and SIRS: déjà vu all over again? [editorial; comment] Giroir BP. **Crit Care Med** 1999 Apr; 27(4):680–1 (13 ref.). Comment on: Crit Care Med 1999 Apr;27(4):749–55.

Nitric oxide synthase inhibition and the induction of cytochrome P-450 affect heme oxygenase-1 messenger RNA expression after partial hepatectomy and acute inflammation in rats [see comments] Lyoumi S, et al. **Crit Care Med** 1998 Oct;26(10):1683–9. Comment in: Crit Care Med 1998 Oct;26(10):1630–1.

Posttraumatic complications and changes in blood lymphocyte populations after multiple trauma [editorial; comment] Moore FA. **Crit Care Med** 1999 Apr;27(4):674–5 (15 ref.). Comment on: Crit Care Med 1999 Apr;27(4):733–40.

Inflammation in severe pneumonia: act locally, not globally [editorial; comment] Niederman MS, et al. **Crit Care Med** 1999 Sep;27(9):2030–2 (9 ref.). Comment on: Crit Care Med 1999 Sep;27(9):1745–53.

Hemoglobin infusion augments the tumor necrosis factor response to bacterial endotoxin (lipopolysaccharide) in mice [see comments] Su D, et al. **Crit Care Med** 1999 Apr; 27(4):771–8. Comment in: Crit Care Med 1999 Apr;27(4):685–6.

A question of balance [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Jan;27(1):7–8. Comment on: Crit Care Med 1999 Jan;27(1):66–77.

Systemic inflammation in patients with heart failure [see comments] Hasper D, et al. **Eur Heart J** 1998 May; 19(5):761–5. Comment in: Eur Heart J 1998 May;19(5):681–2.

Time course of immunological markers in patients with the systemic inflammatory response syndrome: evaluation of sCD14, sVCAM-1, sELAM-1, MIP-1 alpha and TGF-beta 2. Stoiser B, et al. **Eur J Clin Invest** 1998 Aug; 28(8):672–8

Western blot analysis of bile or intestinal fluid from patients with septic shock or systemic inflammatory response syndrome, using antibodies to TNF-alpha, IL-1 alpha and IL-1 beta. Belov L, et al. **Immunol Cell Biol** 1999 Feb; 77(1):34–40

Endotoxin-core antibodies: time for a reappraisal? [editorial; comment] Barclay GR. **Intensive Care Med** 1999 May; 25(5):427–9. Comment on: Intensive Care Med 1999 May;25(5):435–44.

Nuclear factor kappa B: a pivotal role in the systemic inflammatory response syndrome and new target for therapy [see comments] Christman JW, et al. **Intensive Care Med** 1998 Nov;24(11):1131–8 (81 ref.). Comment in: Intensive Care Med 1998 Nov;24(11):1129–30.

Relationship of antibodies to endotoxin core to mortality in medical patients with sepsis syndrome [see comments] Strutz F, et al. **Intensive Care Med** 1999 May;25(5):435–44 . Comment in: Intensive Care Med 1999 May;25(5):427–9.

IL-10 is a major mediator of sepsis-induced impairment in lung antibacterial host defense. Steinhauser ML, et al. **J Immunol** 1999 Jan 1;162(1):392–9

Suppression of cytokine-mediated beta2-integrin activation on circulating neutrophils in critically ill patients. Rosenbloom AJ, et al. **J Leukoc Biol** 1999 Jul;66(1):83–9

Kinetics of interleukin-11 release after cardiopulmonary bypass. Meldrum DR, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):193–5

Complement activation, cytokines, and adhesion molecules in children undergoing cardiac surgery with or without cardiopulmonary bypass. Tárnok A, et al. **Pediatr Cardiol** 1999 Mar-Apr;20(2):113–25

Injury primes the immune system for an enhanced and lethal T-cell response against bacterial superantigen. Kell MR, et al. **Shock** 1999 Aug;12(2):139–44

Receptor and non-receptor mediated formation of superoxide anion and hydrogen peroxide in neutrophils of intensive care patients. Manhart N, et al. **Wien Klin Wochenschr** 1998 Nov 27;110(22):796–801

[Analysis of the inflammatory response in elderly hospitalized patients] Henry O, et al. **Ann Med Interne (Paris)** 1999 Apr;150(3):189–94 (Eng. Abstr.) **(Fre)**

[Significance of the heart-lung machine for the concept of minimal invasive heart surgery] Redling F, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1516–9 (Eng. Abstr.) **(Ger)**

[Induction of early endotoxin tolerance with atoxic endotoxin--a new method for preventing sepsis syndrome] Staubach KH, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1067–70 (Eng. Abstr.) **(Ger)**

METABOLISM

Acute phase proteins and the systemic inflammatory response [editorial; comment] Bistrian BR. **Crit Care Med** 1999 Mar; 27(3):452–3. Comment on: Crit Care Med 1999 Mar;27(3):498–504.

Dissociation of ACTH, beta-endorphin and cortisol in graded sepsis. Legakis I, et al. **Horm Metab Res** 1998 Sep; 30(9):570–4

The pharmacokinetics of morphine and lidocaine in critically ill patients. Berkenstadt H, et al. **Intensive Care Med** 1999 Jan;25(1):110–2

Circulating granulocyte macrophage colony-stimulating factor in plasma of patients with the systemic inflammatory response syndrome delays neutrophil apoptosis through inhibition of spontaneous reactive oxygen species generation. Fanning NF, et al. **Shock** 1999 Mar; 11(3):167–74

Circulating interleukin 6 and interleukin 10 in community acquired pneumonia. Glynn P, et al. **Thorax** 1999 Jan; 54(1):51–5

MORTALITY

Multivariate analysis of 9 disease-associated variables for outcome prediction in patients with sepsis. Calvano SE, et al. **Arch Surg** 1998 Dec;133(12):1347–50

Relationship of systemic inflammatory response syndrome to organ dysfunction, length of stay, and mortality in critical surgical illness: effect of intensive care unit resuscitation. Talmor M, et al. **Arch Surg** 1999 Jan; 134(1):81–7

PATHOLOGY

[Inflammation and plaque instability] Hoffmeister HM, et al. **Z Kardiol** 1998;87 Suppl 2:20–5 (51 ref.) (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Immunoendocrinology of preterm labor: the link between corticotropin-releasing hormone and inflammation. Dudley DJ. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 3):S251–6 (62 ref.)

Inappropriate sympathetic activation at onset of septic shock: a spectral analysis approach. Annane D, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):458–65

Intestinal mucosal injury in critically ill surgical patients: preliminary observations. Gollin G, et al. **Am Surg** 1999 Jan;65(1):19–21

Low systemic vascular resistance state in patients undergoing cardiopulmonary bypass [see comments] Kristof AS, et al. **Crit Care Med** 1999 Jun;27(6):1121–7. Comment in: Crit Care Med 1999 Jun;27(6):1048–50.

Myocardial dysfunction in sepsis: mechanisms and therapeutic implications. Price S, et al. **Eur Heart J** 1999 May;20(10):715–24 (93 ref.)

Hepatic and splanchnic microvascular responses to inflammation and shock. McCuskey RS. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1464–7 (49 ref.)

Clinical and electrophysiological findings in critical illness polyneuropathy. Zifko UA, et al. **J Neurol Sci** 1998 Aug 14;159(2):186–93

The natural history of the systemic inflammatory response syndrome and the evaluation of SIRS criteria as a predictor of severity in patients hospitalized through emergency services. Sun D, et al. **Keio J Med** 1999 Mar;48(1):28–37

PREVENTION & CONTROL

Effects of a protease inhibitor on reduction of surgical stress in esophagectomy. Ono S, et al. **Am J Surg** 1999 Jan; 177(1):78–82

Does high-dose methylprednisolone in aprotinin-treated patients attenuate the systemic inflammatory response during coronary artery bypass grafting procedures? Tassani P, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):165–72

SEPSIS SYNDROME

Influence of combined zero-balanced and modified ultrafiltration on the systemic inflammatory response during coronary artery bypass grafting. Tassani P, et al. **J Cardiothorac Vasc Anesth** 1999 Jun;13(3):285–91

Methylprednisolone reduces the inflammatory response to cardiopulmonary bypass in neonatal piglets: timing of dose is important. Lodge AJ, et al. **J Thorac Cardiovasc Surg** 1999 Mar;117(3):515–22

[Preventing the development of secondary infections in severe acute pancreatitis] Gürlich R, et al. **Rozhl Chir** 1999 Feb;78(2):63–7 (24 ref.) (Eng. Abstr.) **(Cze)**

[Is modification of systemic inflammatory response syndrome and multiple organ failure by parenteral feeding possible?] Bastian L, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1083–5 (Eng. Abstr.) **(Ger)**

SURGERY

[Surgical management of peritonitis and sepsis] Bruch HP, et al. **Zentralbl Chir** 1999;124(3):176–80 (22 ref.) (Eng. Abstr.) **(Ger)**

THERAPY

Systemic inflammatory response syndrome treatment by powdered sorbent pheresis: the BioLogic-Detoxification Plasma Filtration System. Levy H, et al. **ASAIO J** 1998 Sep–Oct;44(5):M659–65

Administration of albumin to patients with sepsis syndrome: a possible beneficial role in plasma thiol repletion. Quinlan GJ, et al. **Clin Sci (Colch)** 1998 Oct;95(4):459–65

Diffusive vs. convective therapy: effects on mediators of inflammation in patient with severe systemic inflammatory response syndrome [see comments] Kellum JA, et al. **Crit Care Med** 1998 Dec;26(12):1995–2000. Comment in: Crit Care Med 1998 Dec;26(12):1940–2.

Selenium replacement in severe systemic inflammatory response syndrome [editorial] Opal SM. **Crit Care Med** 1999 Sep;27(9):2042–3

Hemofiltration for SIRS: bloodletting, twentieth century style? [editorial; comment] Rodby RA. **Crit Care Med** 1998 Dec;26(12):1940–2 (10 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1995–2000.

Hyperbaric oxygen in systemic inflammation ... HBO is not just a movie channel anymore [editorial; comment] Slotman GJ. **Crit Care Med** 1998 Dec;26(12):1932–3 (28 ref.). Comment on: Crit Care Med 1998 Dec;26(12):1972–6.

Case 4—1999. Myocardial function improvement after hemofiltration in a septic patient [clinical conference] Oppenheim-Eden A, et al. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):484–9

Systemic inflammatory response syndrome (SIRS), multiple organ dysfunction syndrome (MODS), multiple organ failure (MOF): are we winning the battle? [see comments] Baue AE, et al. **Shock** 1998 Aug;10(2):79–89 (121 ref.). Comment in: Shock 1998 Nov;10(5):383–4.

Blood purification for critical care medicine: endotoxin adsorption. Kodama M, et al. **Ther Apher** 1997 Aug; 1(3):224–7

Mechanisms of immunomodulatory action of intravenous immunoglobulin in autoimmune and systemic inflammatory diseases [editorial] Vassilev T, et al. **Ther Apher** 1997 Feb; 1(1):38–41 (22 ref.)

Reducing the post-pump syndrome by using heparin-coated circuits, steroids, or aprotinin. Harig F, et al. **Thorac Cardiovasc Surg** 1999 Apr;47(2):111–8

[Immune stimulation with G-CSF (Neupogen) in septic patients with immune paralysis] Agnes A, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1077–9 (Eng. Abstr.) **(Ger)**

[Special therapeutic approaches for interrupting the cascade—from systemic inflammatory response syndrome to multiple organ failure] Bartels H, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:615–8 (Eng. Abstr.) **(Ger)**

[Plasma separation combined with CVVHF in septic and SIRS patients] Schmidt J, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1080–2 (Eng. Abstr.) **(Ger)**

[Comparative data on the use of a cryosupernatant and fresh-frozen plasma in the therapy of a protracted infectious-septic syndrome of disseminated intravascular coagulation] Barkagan ZS, et al. **Ter Arkh** 1998;70(7):70–2 (Eng. Abstr.) **(Rus)**

[Non-glucose carbohydrates in the parenteral nutrition of patients with systemic inflammatory response syndrome] López Martínez J, et al. **Nutr Hosp** 1999 Mar–Apr; 14(2):71–80 (35 ref.) (Eng. Abstr.) **(Spa)**

URINE

Organ failure, infection, and the systemic inflammatory response syndrome are associated with elevated levels of urinary intestinal fatty acid binding protein: study of 100 consecutive patients in a surgical intensive care unit. Lieberman JM, et al. **J Trauma** 1998 Nov;45(5):900–6

VIROLOGY

Rhinovirus-16 colds in healthy and in asthmatic subjects: similar changes in upper and lower airways. Fleming HE, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):100–8

SEPTAL NUCLEI

ANATOMY & HISTOLOGY

Projections of the mediolateral part of the lateral septum to the hypothalamus, revealed by Fos expression and axonal tracing in rats. Varoqueaux F, et al. **Anat Embryol (Berl)** 1998 Mar;199(3):249–63

CHEMISTRY

Angiotensin II receptor binding sites in the ventral portion of the bed nucleus of the stria terminalis are reduced by interruption of the medial forebrain bundle. Grove KL, et al. **Brain Res** 1998 Oct 26;809(1):5–11

Decrease in stress-induced c-Fos-like immunoreactivity in the lateral septal nucleus of learned helpless rats. Steciuk M, et al. **Brain Res** 1999 Mar 20;822(1–2):256–9

Postnatal development of muscarinic autoreceptors in the rat brain: lateral and medial septal nuclei and the diagonal band of Broca. Disko U, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):1–8

Absence of vasopressin expression by galanin neurons in the golden hamster: implications for species differences in extrahypothalamic vasopressin pathways. Miller MA, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):28–35

CYTOLOGY

Contribution of dopamine neurons in the medial zona incerta to the innervation of the central nucleus of the amygdala, horizontal diagonal band of Broca and hypothalamic paraventricular nucleus. Cheung S, et al. **Brain Res** 1998 Oct 19;808(2):174–81

Bidirectional connections of the medial amygdaloid nucleus in the Syrian hamster brain: simultaneous anterograde and retrograde tract tracing. Coolen LM, et al. **J Comp Neurol** 1998 Sep 21;399(2):189–209

Septal complex of the telencephalon of lizards: III. Efferent connections and general discussion. Font C, et al. **J Comp Neurol** 1998 Nov 30;401(4):525–48

Dexamethasone induces hypertrophy of developing medial septum cholinergic neurons: potential role of nerve growth factor. Shi B, et al. **J Neurosci** 1998 Nov 15;18(22):9326–34

Morphine reversed formalin-induced CA1 pyramidal cell suppression via an effect on septohippocampal neural processing. Khanna S, et al. **Neuroscience** 1999 Mar; 89(1):61–71

Effects of vasopressin and related peptides on neurons of the rat lateral septum and ventral hippocampus. Urban IJ. **Prog Brain Res** 1998;119:285–310 (168 ref.)

DRUG EFFECTS

Role of NGF in axotomy-induced c-Jun expression in medial septal cholinergic neurons. Haas CA, et al. **Int J Dev Neurosci** 1998 Nov–Dec;16(7–8):691–703 (103 ref.)

Septohippocampal adaptive GABAergic responses by AF64A treatment. Ayala-Grosso CA, et al. **J Neurosci Res** 1999 Jan 15;55(2):178–86

Effects of 5-hydroxytryptamine on neuronal activities in the rat dorsolateral septal nucleus [published erratum appears in Karume Med J 1999;46(1):following 90] Goto M. **Kurume Med J** 1998;45(4):301–12

TAK-147, an acetylcholinesterase inhibitor, increases choline acetyltransferase activity in cultured rat septal cholinergic neurons. Kato K, et al. **Neurosci Lett** 1999 Jan 22;260(1):5–8

Intraseptal infusions of a low dose of AP5, a NMDA receptor antagonist, improves memory in an object recognition task in rats. Puma C, et al. **Neurosci Lett** 1998 Jun 5;248(3):183–6

Hippocampal field CA1 interneuronal nociceptive responses: modulation by medial septal region and morphine. Zheng F, et al. **Neuroscience** 1999;93(1):45–55

EMBRYOLOGY

Choline availability alters embryonic development of the hippocampus and septum in the rat. Albright CD, et al. **Brain Res Dev Brain Res** 1999 Mar 12;113(1–2):13–20

ENZYMOLOGY

TAK-147, an acetylcholinesterase inhibitor, increases choline acetyltransferase activity in cultured rat septal cholinergic neurons. Kato K, et al. **Neurosci Lett** 1999 Jan 22;260(1):5–8

METABOLISM

Cholinergic cell expression in the developing rat medial septal nucleus in vitro is differentially controlled by GABAA and GABAB receptors. Kenigsberg RL, et al. **Brain Res** 1998 Sep 14;805(1–2):123–30

Vasopressin released within the septal brain area during swim stress modulates the behavioural stress response in rats. Ebner K, et al. **Eur J Neurosci** 1999 Mar;11(3):997–1002

Coping with stress in rats and mice: differential peptidergic modulation of the amygdala–lateral septum complex. Koolhaas JM, et al. **Prog Brain Res** 1998;119:437–48 (68 ref.)

The effect of repeated exposure to forced swimming on extracellular levels of 5-hydroxytryptamine in the rat. Kirby LG, et al. **Stress** 1998 Dec;2(4):251–63

PATHOLOGY

Persistence and atrophy of septal/diagonal band neurons expressing the p75 neurotrophin receptor in pilocarpine-induced chronic epilepsy in the rat. Correia L, et al. **Brain Res** 1998 Nov 2;809(2):288–93

PHYSIOLOGY

Differential involvement of the lateral and medial divisions of the septal area on spatial learning processes as revealed by intracranial self-administration of morphine in mice. Cazala P, et al. **Behav Brain Res** 1998 Dec;97(1–2):179–88

Differential modulation of lateral septal vasopressin receptor blockade in spatial learning, social recognition, and anxiety-related behaviors in rats. Everts HG, et al. **Behav Brain Res** 1999 Feb 15;99(1):7–16

Counteractive effects of a partial (sabcomeline) and a full (RS86) muscarinic receptor agonist on deficits in radial maze performance induced by S-AMPA lesions of the basal forebrain and medial septal area. Hodges H, et al. **Behav Brain Res** 1999 Feb 15;99(1):81–92

A comparison between the effects of medial septal lesions and entorhinal cortex lesions on performance of nonspatial working memory tasks and reversal learning. Yee BK, et al. **Behav Brain Res** 1998 Aug;94(2):281–300

Dual projection from the medial septum to the supramammillary nucleus in the rat. Borhegyi Z, et al. **Brain Res Bull** 1998 Jul 15;46(5):453–9

Action potentials and relations to the theta rhythm of medial septal neurons in vivo. Brazhnik ES, et al. **Exp Brain Res** 1999 Aug;127(3):244–58

Characterization of carbachol-induced rhythmic bursting discharges in neurons from guinea pig lateral septum slices. Carette B. **J Neurophysiol** 1998 Sep;80(3):1042–55

Different subtypes of GABAB receptors are present at pre- and postsynaptic sites within the rat dorsolateral septal nucleus. Yamada K, et al. **J Neurophysiol** 1999 Jun; 81(6):2875–83

Optical recording of neuronal excitability in the rat dorsolateral septal nucleus. Hasuo H, et al. **Kurume Med J** 1998;45(3):291–3

8-OH-DPAT in the median raphe nucleus decreases while in the medial septal area it may increase anxiety in female rats. De Almeida RM, et al. **Neurosci Biobehav Rev** 1998; 23(2):259–64

The entorhino-septo-supramammillary nucleus connection in the rat: morphological basis of a feedback mechanism regulating hippocampal theta rhythm. Leranth C, et al. **Neuroscience** 1999;88(3):701–18

PHYSIOPATHOLOGY

Atropine-induced convulsions in the septohippocampal system. I. Effects of cannula position and sex. Herink J. **Acta Medica (Hradec Kralove)** 1998;41(3):131–4

SEPTICEMIA

see related

ENDOTOXEMIA

Outcome of liver transplantation after acute rejection and sepsis. Avolio AW, et al. **Transplant Proc** 1998 Dec; 30(8):3962–6

BLOOD

Cytokine determinations and rapid diagnosis of early onset neonatal septicaemia [comment] Vesikari T. **Acta Paediatr** 1999 Jun;88(6):585–6. Comment on: Acta Paediatr 1999 Jun;88(6):647–50.

Serum leptin concentrations and their relation to metabolic abnormalities in human sepsis. Carlson GL, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E658–62

Indications of coagulation and/or fibrinolytic system activation in healthy and sick very-low-birth-weight neonates. Aronis S, et al. **Biol Neonate** 1998 Nov; 74(5):337–44

Passive deformability of mature, immature, and active neutrophils in healthy and septicemic neonates. Linderkamp O, et al. **Pediatr Res** 1998 Dec;44(6):946–50

CHEMICALLY INDUCED

Bone marrow suppression and klebsiella pneumonia septicemia due to ticlopidine and successful treatment with filgrastim; a case report [letter] Korkmaz ME, et al. **Int J Cardiol** 1998 Oct 30;66(3):317–8

COMPLICATIONS

Staphylococcal coronary arteritis as a complication of septicemia. Dishop MK, et al. **Arch Pathol Lab Med** 1999 Apr;123(4):332–4

Erythema nodosum secondary to meningococcal septicaemia. Whitton T, et al. **Clin Exp Dermatol** 1999 Mar;24(2):97–8

Capnocytophaga sepsis in a patient with Waldenström's macroglobulinemia. Guzman E, et al. **Clin Infect Dis** 1998 Aug;27(2):406–7

Pseudoaneurysm of the left ventricle after isolated pericarditis and Staphylococcus aureus septicemia. de Boer HD, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):97–9

Vibrio cholerae O2 sepsis in a patient with AIDS. Farina C, et al. **Eur J Clin Microbiol Infect Dis** 1999 Mar; 18(3):203–5

Enterococcus hirae septicemia in a patient with end-stage renal disease undergoing hemodialysis. Gilad J, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug;17(8):576–7

Stomatococcus mucilaginosus septicemia in a patient with acute lymphoblastic leukaemia. Treviño M, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):505–7

The instillated surfactant in the treatment of sepsis-induced ARDS: case report [letter] Imperatore F, et al. **Intensive Care Med** 1999 Mar;25(3):330–1

[Case of septicemia caused by Klebsiella pneumonia and systemic multiple abscess] Hika S, et al. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2311–3 **(Jpn)**

[Chronic hepatic dysfunction with fatal outcome due to Vibrio septicemia: report of 3 cases] Sugihara T, et al. **Nippon Naika Gakkai Zasshi** 1999 May 10;88(5):900–1 **(Jpn)**

DIAGNOSIS

Cytokine determinations and rapid diagnosis of early onset neonatal septicaemia [comment] Vesikari T. **Acta Paediatr** 1999 Jun;88(6):585–6. Comment on: Acta Paediatr 1999 Jun;88(6):647–50.

Initial emergency department diagnosis and return visits: risk versus perception. Gordon JA, et al. **Ann Emerg Med** 1998 Nov;32(5):569–73

Polymerase chain reaction: a new chapter in critical care diagnosis [editorial; comment] Teba L. **Crit Care Med** 1999 May;27(5):860–1 (15 ref.). Comment on: Crit Care Med 1999 May;27(5):937–40.

Abdominal pain as an atypical presentation of meningococcaemia. Winrow AP. **J Accid Emerg Med** 1999 May;16(3):227–9

Is the limulus amebocyte lysate the sole predictor of septic episodes in major thermal injuries? Heggers JP, et al. **J Burn Care Rehabil** 1998 Nov–Dec;19(6):512–5

[Systemic infection due to implanted leads of a cardiac pacemaker. Apropos of a case and review of the literature] Delpierre S, et al. **Ann Med Interne (Paris)** 1999 Apr; 150(3):265–8 (22 ref.) (Eng. Abstr.) **(Fre)**

[Interesting case no. 22. Acute pansinusitis with septicemic complications] Löhrer H. **Laryngorhinootologie** 1999 Mar; 78(3):160–2 **(Ger)**

[Diagnosis of sepsis based on the host response] Matsumoto T. **Rinsho Byori** 1999 Jun;47(6):494–500 (8 ref.) (Eng. Abstr.) **(Jpn)**

[Microbiological laboratories for sepsis in the 21st century] Matsuno Y, et al. **Rinsho Byori** 1999 Jun;47(6):501–8 (Eng. Abstr.) **(Jpn)**

[Non-culture based laboratory diagnosis of sepsis] Obayashi T. **Rinsho Byori** 1999 Jun;47(6):487–93 (6 ref.) (Eng. Abstr.) **(Jpn)**

[Ischemic stroke during sepsis and bacterial meningoencephalitis: a case report] Kępa L, et al. **Przegl Epidemiol** 1999;53(1–2):205–9 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Influence of antimicrobial treatment on mortality in septicemia. Behrendt G, et al. **J Chemother** 1999 Jun; 11(3):179–86

Survival following group A streptococcal septicaemia in a centenarian. Galloway A, et al. **J Infect** 1999 May; 38(3):193–4

The benefit of appropriate empirical antibiotic treatment in patients with bloodstream infection. Leibovici L, et al. **J Intern Med** 1998 Nov;244(5):379–86

Clinical outcome of cephalothin versus vancomycin therapy in the treatment of coagulase-negative staphylococcal septicemia in neonates: relation to methicillin resistance and mec A gene carriage of blood isolates. Krediet TG, et al. **Pediatrics** 1999 Mar;103(3):E29

[Advances in the treatment of severe refractory diseases. 3) Septicemia] Funada H. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2250–6 (5 ref.) **(Jpn)**

ECONOMICS

The attributable mortality and costs of primary nosocomial bloodstream infections in the intensive care unit. Digiovine B, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):976–81

EPIDEMIOLOGY

Septicaemia in an Austrian neonatal intensive care unit: a 7-year analysis. Berger A, et al. **Acta Paediatr** 1998 Oct; 87(10):1066–9

Raw shellfish consumption among renal disease patients. A risk factor for severe Vibrio vulnificus infection. Gholami P, et al. **Am J Prev Med** 1998 Oct;15(3):243–5

Prospective evaluation of risk factors for bloodstream infection in patients receiving home infusion therapy. Tokars JI, et al. **Ann Intern Med** 1999 Sep 7;131(5):340–7

Group B Streptococcal septicaemia/meningitis in neonates in a Singapore teaching hospital. Tan KW, et al. **Aust N Z J Obstet Gynaecol** 1998 Nov;38(4):418–23

Bloodstream infections can develop late (after day 100) and/or in the absence of neutropenia in children receiving allogeneic bone marrow transplantation. Romano V, et al. **Bone Marrow Transplant** 1999 Feb;23(3):271–5 (14 ref.)

Epidemiology of nosocomial bloodstream infections in Belgium, 1992–1996. Ronveaux O, et al. **Eur J Clin Microbiol Infect Dis** 1998 Oct;17(10):695–700

Risk factors for bloodstream infections at a cancer center. Velasco E, et al. **Eur J Clin Microbiol Infect Dis** 1998 Aug; 17(8):587–90

Catheter-associated primary bloodstream infections: epidemiology and preventive methods. Gastmeier P, et al. **Infection** 1999;27 Suppl 1:S1–6

Central venous catheter-related bloodstream infections: an analysis of incidence and risk factors in a cohort of 400 patients. Gowardman JR, et al. **Intensive Care Med** 1998 Oct;24(10):1034–9

A prospective study of community-acquired bloodstream infections among febrile adults admitted to Mulago Hospital in Kampala, Uganda. Ssali FN, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):484–9

Nosocomial bloodstream infections in HIV-infected patients: attributable mortality and extension of hospital stay. Tumbarello M, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):490–7

Septicemia in dialysis patients: incidence, risk factors, and prognosis. Powe NR, et al. **Kidney Int** 1999 Mar; 55(3):1081–90

Outbreak of Acinetobacter spp. bloodstream infections in a nursery associated with contaminated aerosols and air conditioners. McDonald LC, et al. **Pediatr Infect Dis J** 1998 Aug;17(8):716–22

Nosocomial infections in pediatric intensive care units in the United States. National Nosocomial Infections Surveillance System. Richards MJ, et al. **Pediatrics** 1999 Apr;103(4):e39

ETIOLOGY

Incidence and predictors of central venous catheter related infection in intensive care patients. McKinley S, et al. **Anaesth Intensive Care** 1999 Apr;27(2):164–9

Monoclonal gammopathy: benign or not? [letter] Wong P, et al. **Aust N Z J Med** 1999 Apr;29(2):278–9

Overwhelming septicaemia in a patient with sickle cell/beta(0) thalassaemia and partial splenectomy [letter] Svarch E, et al. **Br J Haematol** 1999 Mar;104(4):930

Postanginal septicaemia with external jugular venous thrombosis: case report. Schwartz HC, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):144–6

Risk of contamination from air vents during intravenous fluid administration. Useh MF, et al. **East Afr Med J** 1998 Jun; 75(6):322–6

Severe infection caused by Stomatococcus mucilaginosus in a neutropenic patient: case report and review of the literature. Gruson D, et al. **Hematol Cell Ther** 1998 Aug; 40(4):167–9

Impact of nosocomial infections on outcome: myths and evidence [editorial; comment] Rello J. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):392–4 (15 ref.). Comment on: Infect Control Hosp Epidemiol 1999 Jun;20(6):396–401.

Attributable morbidity and mortality of catheter-related septicemia in critically ill patients: a matched, risk-adjusted, cohort study [see comments] Soufir L, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):396–401. Comment in: Infect Control Hosp Epidemiol 1999 Jun;20(6):392–4.

Central venous catheter-related bloodstream infections: an analysis of incidence and risk factors in a cohort of 400 patients. Gowardman JR, et al. **Intensive Care Med** 1998 Oct;24(10):1034–9

Cost-effectiveness of antiseptic-impregnated central venous catheters for the prevention of catheter-related bloodstream infection. Veenstra DL, et al. **JAMA** 1999 Aug 11;282(6):554–60

Septicemia in dialysis patients: incidence, risk factors, and prognosis. Powe NR, et al. **Kidney Int** 1999 Mar; 55(3):1081–90

Fatal septicaemia after fibroid embolisation [letter] Vashisht A, et al. **Lancet** 1999 Jul 24;354(9175):307–8

[Infectious sequellae of 913 central catheters in oncology] Kriegel I, et al. **Pathol Biol (Paris)** 1998 Jun;46(6):431–4 (Eng. Abstr.) **(Fre)**

[Fatal posttransfusion Enterobacter amnigenus septicemia (letter)] Jan D, et al. **Presse Med** 1999 May 15;28(18):965 **(Fre)**

[Pseudomonas aeruginosa septicemia in onco-hematology. Report of 22 cases] Laatiri MA, et al. **Tunis Med** 1998 Aug–Sep;76(8–9):229–33 **(Fre)**

[Pneumococcal septicemia in functional asplenia: first manifestation of systemic autoimmune disease?] Germing U, et al. **Z Rheumatol** 1999 Feb;58(1):31–4 (Eng. Abstr.) **(Ger)**

[Infections in granulocytopenic patients] Funada H. **Rinsho Ketsueki** 1999 Mar;40(3):164–7 (9 ref.) **(Jpn)**

[Pulmonary and cardiac lesions in opium abusers with septicemia] Katiukhin VN, et al. **Klin Med (Mosk)** 1999; 77(7):36–9 **(Rus)**

[Diagnosis of catheter infection] Capdevila JA. **Enferm Infecc Microbiol Clin** 1999 Feb;17(2):105–7 **(Spa)**

[Primary septicemias in pediatric patients. Hospital Infantil de la Paz (1990–1993)] Casanova JF, et al. **Med Clin (Barc)** 1998 Dec 12;111(20):765–9 (Eng. Abstr.) **(Spa)**

[Septicemia associated with central venous catheterization in a children's hospital. A multivariate study] Herruzo Cabrera R, et al. **Med Clin (Barc)** 1998 Nov 28; 111(18):687–91 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Effects of rhG-CSF on neutrophil functions and survival in sepsis induced diabetic rats. Cantürk Z, et al. **Endocr Res** 1998 May;24(2):141–57

T helper cell subset ratios in patients with severe sepsis. Ferguson NR, et al. **Intensive Care Med** 1999 Jan; 25(1):106–9

Kupffer cells are responsible for producing inflammatory cytokines and hepatocellular dysfunction during early sepsis. Koo DJ, et al. **J Surg Res** 1999 May 15;83(2):151–7

METABOLISM

Endotoxin inhibits heat shock protein 70 (HSP70) expression in peripheral blood mononuclear cells of patients with severe sepsis. Schroeder S, et al. **Intensive Care Med** 1999 Jan;25(1):52–7

Sepsis increases intracellular free calcium in brain. Anderson SA, et al. **J Neurochem** 1999 Jun;72(6):2617–20

Early activation of pulmonary nuclear factor kappaB and nuclear factor interleukin-6 in polymicrobial sepsis. Browder W, et al. **J Trauma** 1999 Apr;46(4):590–6

MICROBIOLOGY

Subcutaneous nodules with pseudomonas septicaemia in an immunocompetent patient. Asumang A, et al. **Anaesth Intensive Care** 1999 Apr;27(2):213–5

Neonatal meningitis and septicaemia caused by Burkholderia pseudomallei. Halder D, et al. **Ann Trop Paediatr** 1998 Jun; 18(2):161–4 (9 ref.)

Antibiotic susceptibility of blood culture isolates after nearly two decades with netilmicin and ampicillin in neonatal septicaemia. Rønnestad A, et al. **APMIS** 1999 Feb; 107(2):257–62

Polymerase chain reaction: a new chapter in critical care diagnosis [editorial; comment] Teba L. **Crit Care Med** 1999 May;27(5):860–1 (15 ref.). Comment on: Crit Care Med 1999 May;27(5):937–40.

Bacterial profile of sepsis in a neonatal unit in south India. Kuruvilla KA, et al. **Indian Pediatr** 1998 Sep;35(9):851–8

Simplified surveillance for nosocomial bloodstream infections. Yokoe DS, et al. **Infect Control Hosp Epidemiol** 1998 Sep;19(9):657–60

Anaerobiospirillum succiniciproducens septicaemia: important aspects of diagnosis and management. Goddard WW, et al. **J Infect** 1998 Jul;37(1):68–70

Severe sepsis caused by Mobiluncus curtisii subsp. curtisii in a previously healthy female: case report and review. Hill DA, et al. **J Infect** 1998 Sep;37(2):194–6 (10 ref.)

An unusual cause of an 'acute abdomen'. Satchell SC, et al. **Postgrad Med J** 1998 Dec;74(878):749–51

Incidence of antibiotic resistance in blood and urine isolates from hospitalized patients. Report from a European collaborative study. European Study Group on Antibiotic Resistance (ESGAR). Dornbusch K, et al. **Scand J Infect Dis** 1998;30(3):281–8

Community-acquired septicaemia in southern Viet Nam: the importance of multidrug-resistant Salmonella typhi. Hoa NT, et al. **Trans R Soc Trop Med Hyg** 1998 Sep–Oct; 92(5):503–8

[Contribution of molecular biology to biotyping in epidemiological surveys of nosocomial infectious outbreaks] Ndoye B, et al. **Dakar Med** 1997;42(1):1–5 (Eng. Abstr.) **(Fre)**

[Sepsis due to Salmonella Oranienburg--a case report] Okumara T, et al. **Kansenshogaku Zasshi** 1999 Aug; 73(8):787–91 (Eng. Abstr.) **(Jpn)**

MORTALITY

The attributable mortality and costs of primary nosocomial bloodstream infections in the intensive care unit. Digiovine B, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):976–81

PATHOLOGY

Septicaemia and endomyocarditis caused by Aerococcus urinae. Gritsch W, et al. **Wien Klin Wochenschr** 1999 Jun 4;111(11):446–7

PHYSIOPATHOLOGY

Integrative aspects of a human model of endotoxemia. Ottaway CA, et al. **Can J Physiol Pharmacol** 1998 May; 76(5):473–8

The influence of extravascular lung water on cardiac output measurements using thoracic impedance cardiography. Raaijmakers E, et al. **Physiol Meas** 1998 Nov;19(4):491–9

PREVENTION & CONTROL

Effects of rhG-CSF on neutrophil functions and survival in sepsis induced diabetic rats. Cantürk Z, et al. **Endocr Res** 1998 May;24(2):141–57

Catheter-associated primary bloodstream infections: epidemiology and preventive methods. Gastmeier P, et al. **Infection** 1999;27 Suppl 1:S1–6

Role of antimicrobial central venous catheters for the prevention of associated infections. Elliott TS. **J Antimicrob Chemother** 1999 Apr;43(4):441–6 (63 ref.)

Efficacy of antiseptic-impregnated central venous catheters in preventing catheter-related bloodstream infection: a meta-analysis [see comments] Veenstra DL, et al. **JAMA** 1999 Jan 20;281(3):261–7. Comment in: ACP J Club

SEPTICEMIA

1999 Jul-Aug;131(1):15.
Cost-effectiveness of antiseptic-impregnated central venous catheters for the prevention of catheter-related bloodstream infection. Veenstra DL, et al. **JAMA** 1999 Aug 11;282(6):554-60
Randomised trial of glutamine-enriched enteral nutrition on infectious morbidity in patients with multiple trauma. Hammarqvist F. **JPEN J Parenter Enteral Nutr** 1999 Jan-Feb;23(1):43-4
Should we use vancomycin as prophylaxis to prevent neonatal nosocomial coagulase-negative staphylococcal septicemia? [letter; comment] Krediet TG, et al. **Pediatr Infect Dis J** 1998 Aug;17(8):763-4. Comment on: Pediatr Infect Dis J 1998 Mar;17(3):179-83.
[Modification of the nutritional septicemic risk (RSN) by means of perioperative transfusion] Larrea J, et al. **Nutr Hosp** 1998 Sep-Oct;13(5):210-4 (35 ref.) (Eng. Abstr.) **(Spa)**

THERAPY

Effect of antithrombin III supplementation on inflammatory response in patients with severe sepsis. Inthorn D, et al. **Shock** 1998 Aug;10(2):90-6
[The critically ill septic surgical patient] Greenberg R, et al. **Harefuah** 1998 Sep;135(5-6):229-35 (54 ref.) **(Heb)**
[Systemic management of patients under anti-infection treatment] Konishi M, et al. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2234-9 (7 ref.) **(Jpn)**
[The influence of the efferent and quantum methods of treatment on endotoxemia pathogenetical factors, the course and outcome of burns] Grigor'eva TG, et al. **Klin Khir** 1999;(3):35-9 (Eng. Abstr.) **(Rus)**

VETERINARY

Postmortem detection of acute septicemia in broilers. Fisher ME, et al. **Avian Dis** 1998 Jul-Sep;42(3):452-61
Molecular cloning and characterization of the afa-7 and afa-8 gene clusters encoding afimbrial adhesins in Escherichia coli strains associated with diarrhea or septicemia in calves. Lalioui L, et al. **Infect Immun** 1999 Oct;67(10):5048-59
Digital arterial thrombosis in a septicemic foal. Forrest LJ, et al. **J Vet Intern Med** 1999 Jul-Aug;13(4):382-5
Model to predict septicemia in diarrheic calves [see comments] [published erratum appears in J Vet Intern Med 1999 Jul-Aug;13(4):390-1] Lofstedt J, et al. **J Vet Intern Med** 1999 Mar-Apr;13(2):81-8. Comment in: J Vet Intern Med 1999 Mar-Apr;13(2):79-80.
Causes of mortality of the Wyoming toad. Taylor SK, et al. **J Wildl Dis** 1999 Jan;35(1):49-57
Serum antibody in equine neonatal septicaemia due to Actinobacillus equuli. Rycroft AN, et al. **Vet Rec** 1998 Aug 29;143(9):254-5
[Clinical examinations of gilts with puerperal septicemia and toxemia] Bostedt H, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Nov; 26(6):332-8 (Eng. Abstr.) **(Ger)**
[Effectiveness and disposition of the newly developed cephalosporin cefquinome in puerperal septicemia and toxemia in gilts] Heinritzi K, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):114-21 (Eng. Abstr.) **(Ger)**
[Use of sodium ceftiofur in the combined therapy of complicated septic diseases in cattle] Stanek C, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1998 Nov; 26(6):314-7 (Eng. Abstr.) **(Ger)**

SEPTICEMIA, HEMORRHAGIC see **HEMORRHAGIC BACTEREMIA**

SEPTUM PELLUCIDUM

ABNORMALITIES

Two cases of Septo-optic dysplasia (SOD). Furujo M, et al. **Endocr J** 1998 Apr;45 Suppl:S175-7
Why is the retention of gonadotrophin secretion common in children with panhypopituitarism due to septo-optic dysplasia? Nanduri VR, et al. **Eur J Endocrinol** 1999 Jan; 140(1):48-50
Isolated absence of the septum pellucidum. Supprian T, et al. **Neuroradiology** 1999 Aug;41(8):563-6
The true prevalence of Cavum Septi Pellucidi [letter] Nopoulos P. **Pediatr Neurol** 1999 Jul;21(1):506
Does selection bias determine the prevalence of the cavum septi pellucidi? Pauling KJ, et al. **Pediatr Neurol** 1998 Sep; 19(3):195-8
Frequency of septum pellucidum anomalies in non-psychotic population: a magnetic resonance imaging study. Aldur MM, et al. **Surg Radiol Anat** 1999;21(2):119-23
[Cutis verticis gyrata] Diederen PV, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1337-8 **(Dut)**
[Agenesis septum pellucidum in a schizophrenic patient] Supprian T, et al. **Nervenarzt** 1999 Mar;70(3):269-75 (Eng. Abstr.) **(Ger)**
[The incidence of cavum septum pellucidum in preterm and term newborns] Kasprzak E, et al. **Ginekol Pol** 1998 Dec; 69(12):1097-102 (Eng. Abstr.) **(Pol)**

ANATOMY & HISTOLOGY

The septal region and memory. von Cramon DY, et al. **Adv Tech Stand Neurosurg** 1998;24:3-40 (162 ref.)

CHEMISTRY

Maternal dietary choline availability alters mitosis, apoptosis and the localization of TOAD-64 protein in the developing fetal rat septum. Albright CD, et al. **Brain Res Dev Brain Res** 1999 Jun 2;115(2):123-9
Electron microscopic evidence for a cholinergic innervation of GABAergic parvalbumin-immunoreactive neurons in the rat medial septum. Brauer K, et al. **J Neurosci Res** 1998 Oct 15;54(2):248-53

CYTOLOGY

Lesion of septal-hippocampal neurons with 192 IgG-saporin alters function of M1 muscarinic receptors. Potter PE, et al. **Neuropharmacology** 1999 Apr;38(4):579-86
Axotomy-induced c-JUN expression in young medial septal neurons is regulated by nerve growth factor. Haas CA, et al. **Neuroscience** 1998 Dec;87(4):831-44

DRUG EFFECTS

Cognitive performance and biochemical markers in septum, hippocampus and striatum of rats after an i.c.v. injection of streptozotocin: a correlation analysis. Prickaerts J, et al. **Behav Brain Res** 1999 Jul;102(1-2):73-88
The septum and the hippocampus differentially mediate anxiolytic effects of R(+)-8-OH-DPAT. Menard J, et al. **Behav Pharmacol** 1998 Mar;9(2):93-101
Excitatory effects of muscarine on septohippocampal neurons: involvement of M3 receptors. Liu W, et al. **Brain Res** 1998 Sep 14;805(1-2):220-33
Norepinephrine inhibits neurons of the intermediate subnucleus of the lateral septum via alpha2-adrenoceptors. Liu W, et al. **Brain Res** 1998 Sep 21;806(1):36-54
Ganglioside GM1 potentiates NGF action on axotomised medial septal cholinergic neurons. Panni MK, et al. **Brain Res** 1998 Nov 23;812(1-2):76-80
Excitotoxic basolateral amygdala lesions potentiate the memory impairment effect of muscimol injected into the medial septal area. Spanis CW, et al. **Brain Res** 1999 Jan 23;816(2):329-36
Intra-septal injections of glucose and glibenclamide attenuate galanin-induced spontaneous alternation performance deficits in the rat. Stefani MR, et al. **Brain Res** 1998 Nov 30;813(1):50-6
Effect of intraseptal vasotocin and vasoactive intestinal polypeptide infusions on courtship song and aggression in the male zebra finch (Taeniopygia guttata). Goodson JL, et al. **J Neuroendocrinol** 1999 Jan;11(1):19-25
Nerve growth factor increases the synthesis and release of acetylcholine and the expression of vesicular acetylcholine transporter in primary cultured rat embryonic septal cells. Oosawa H, et al. **J Neurosci Res** 1999 Aug 1;57(3):381-7
Fimbria-fornix transection and excitotoxicity produce similar neurodegeneration in the septum. Ginsberg SD, et al. **Neuroscience** 1999;88(4):1059-71

ENZYMOLOGY

Effects of AF64A on gene expression of choline acetyltransferase (ChAT) in the septo-hippocampal pathway and striatum in vivo. Fan QI, et al. **Neurochem Res** 1999 Jan;24(1):15-24
Maitotoxin induces calpain but not caspase-3 activation and necrotic cell death in primary septo-hippocampal cultures. Zhao X, et al. **Neurochem Res** 1999 Mar;24(3):371-82

INJURIES

The influence of septal lesions on sodium and water retention induced by Walker 256 tumor. Guimarães F, et al. **Braz J Med Biol Res** 1999 Mar;32(3):309-17

METABOLISM

Norepinephrine inhibits neurons of the intermediate subnucleus of the lateral septum via alpha2-adrenoceptors. Liu W, et al. **Brain Res** 1998 Sep 21;806(1):36-54
Changes in the gene expression of GABAA receptor subunit mRNAs in the septum of rats subjected to pentylenetetrazol-induced kindling. Follesa P, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):1-8
Modulation of mRNA expression of the neurotrophins of the nerve-growth-factor family and their receptors in the septum and hippocampus of rats after transient postnatal thyroxine treatment. II. Effects on p75 and trk receptor expression. Roskoden T, et al. **Exp Brain Res** 1999 Aug; 127(3):307-13
Intercellular Transport-metabolic interactions in the nervous tissue developing under conditions of afferentation deficit (transplants in the anterior eye chamber). Zhuravleva ZN. **Membr Cell Biol** 1998;11(6):727-35
Differential increase in Fos immunoreactivity in hypothalamic and septal nuclei by arginine8-vasopressin and desglycinamide9-arginine8-vasopressin. Lança AJ, et al. **Neuroscience** 1999;91(4):1331-41

PATHOLOGY

Expanding septum pellucidum cyst due to a traumatic ventriculoperitoneal shunt. Chen CJ. **Neuroradiology** 1999 Aug;41(8):567-9
Fimbria-fornix transection and excitotoxicity produce similar neurodegeneration in the septum. Ginsberg SD, et al. **Neuroscience** 1999;88(4):1059-71
Does selection bias determine the prevalence of the cavum septi pellucidi? Pauling KJ, et al. **Pediatr Neurol** 1998 Sep; 19(3):195-8

PHYSIOLOGY

Effect of septal lesions on male song and aggression in the colonial zebra finch (Taeniopygia guttata) and the territorial field sparrow (Spizella pusilla) [corrected and republished in Behav Brain Res 1999 May;101(1):167-80] Goodson JL, et al. **Behav Brain Res** 1999 Jan;98(1):167-80
Opposite effects of lateral septal LTP and lateral septal lesions on contextual fear conditioning in mice. Vouimba RM, et al. **Behav Neurosci** 1998 Aug;112(4):875-84
Medial septum mediates the increase in post-ictal behaviors and hippocampal gamma waves after an electrically induced seizure. Ma J, et al. **Brain Res** 1999 Jun 26; 833(1):51-7
Septal cholinergic deafferentation of the dentate gyrus results in a loss of a subset of neuropeptide Y somata and an increase in synaptic area on remaining neuropeptide Y dendrites. Milner TA, et al. **Brain Res** 1999 Jun 12; 831(1-2):322-36
Effect of electrolytic and chemical lesion by ibotenic acid of the septal area on water and salt intake. Saad WA, et al. **Brain Res Bull** 1998 Sep 15;47(2):163-9
Nerve growth factor expressed in the medial septum following in vivo gene delivery using a recombinant adeno-associated viral vector protects cholinergic neurons from fimbria-fornix lesion-induced degeneration. Mandel RJ, et al. **Exp Neurol** 1999 Jan;155(1):59-64
Comparison of medial and lateral septal neuron activity during performance of spatial tasks in rats. Zhou TL, et al. **Hippocampus** 1999;9(3):220-34
Immunolesion of the cholinergic basal forebrain: effects on functional properties of hippocampal and septal neurons. Bassant MH, et al. **Int J Dev Neurosci** 1998 Nov-Dec; 16(7-8):613-32 (109 ref.)
Perception of species-specific vocalizations in rats: role of the cholinergic septo-hippocampal pathway and aging. Hörtnagl H, et al. **Int J Dev Neurosci** 1998 Nov-Dec; 16(7-8):715-27
Evidence that nerve growth factor influences recent memory through structural changes in septohippocampal cholinergic neurons. Gustilo MC, et al. **J Comp Neurol** 1999 Mar 22;405(4):491-507
Median raphe serotonergic innervation of medial septum/diagonal band of broca (MSDB) parvalbumin-containing neurons: possible involvement of the MSDB in the desynchronization of the hippocampal EEG. Leranth C, et al. **J Comp Neurol** 1999 Aug 9; 410(4):586-98
Coordinate expression of the vesicular acetylcholine transporter and choline acetyltransferase following septohippocampal pathway lesions. Gilmor ML, et al. **J Neurochem** 1998 Dec;71(6):2411-20
Mechanisms of neural synchrony in the septohippocampal pathways underlying hippocampal theta generation. Bland BH, et al. **J Neurosci** 1999 Apr 15;19(8):3223-37
Excitotoxic septal lesions result in spatial memory deficits and altered flexibility of hippocampal single-unit representations. Leutgeb S, et al. **J Neurosci** 1999 Aug 1; 19(15):6661-72
Focal hippocampal gain of NGF function elicits specific septal cholinergic reorganization. Brooks AI, et al. **Neuroreport** 1999 Feb 5;10(2):337-44
Can the hippocampus tell time? The temporo-septal engram shift model. Lytton WW, et al. **Neuroreport** 1999 Aug 2; 10(11):2301-6
Medial septal and median raphe innervation of vasoactive intestinal polypeptide-containing interneurons in the hippocampus. Papp EC, et al. **Neuroscience** 1999 May; 90(2):369-82
Pretraining tetanic fimbrial stimulation impairs the expression but not the acquisition of contextual fear conditioning in mice. Vouimba RM, et al. **Neuroscience** 1999;93(3):869-76
Septal vasopressin modulates motility and passive avoidance in pinealectomized rats. Appenrodt E, et al. **Physiol Behav** 1999 Jul;66(5):757-61

PHYSIOPATHOLOGY

Effects of lesions of the Substantia Innominata/Ventral Pallidum, globus pallidus and medial septum on rat's performance in object-recognition and radial-maze tasks: physostigmine and amphetamine treatments. Ennaceur A. **Pharmacol Res** 1998 Oct;38(4):251-63

RADIOGRAPHY

[Central neurocytoma: analysis of three cases and review of the literature] Katati MJ, et al. **Rev Neurol** 1999 Apr 1-15; 28(7):713-7 (38 ref.) (Eng. Abstr.) **(Spa)**

SURGERY

Transseptal illumination in endoscopic fenestration of septum pellucidum in the new-born. Hennig R, et al. **Acta Neurochir (Wien)** 1998;140(9):989-90
Endoscopic surgery for monoventricular hydrocephalus. Gangemi M, et al. **Surg Neurol** 1999 Sep;52(3):246-50; discussion 250-1

[Short-term effects of septo-hippocampal pathway transsection and cerebrolysin effects on glutathione-related enzymes in the rat brain] Cruz R, et al. **Rev Neurol** 1998 Apr;26(152):551-4 (Eng. Abstr.) **(Spa)**

TRANSPLANTATION

Pig fetal septal neurons implanted into the hippocampus of aged or cholinergic deafferented rats grow axons and form cross-species synapses in appropriate target regions. Deacon T, et al. **Cell Transplant** 1999 Jan-Feb;8(1):111-29

Morris water maze analysis of 192-IgG-saporin-lesioned rats and porcine cholinergic transplants to the hippocampus. LeBlanc CJ, et al. **Cell Transplant** 1999 Jan-Feb; 8(1):131-42

ULTRASONOGRAPHY

Ultrasound measurement of the fetal cavum septi pellucidi. Jou HJ, et al. **Ultrasound Obstet Gynecol** 1998 Dec; 12(6):419-21

SEQUENCE ALIGNMENT

Application of distance geometry to 3D visualization of sequence relationships. Forster M, et al. **Bioinformatics** 1999 Jan;15(1):89-90

Measurement of the effectiveness of transitive sequence comparison, through a third 'intermediate' sequence. Gerstein M. **Bioinformatics** 1998;14(8):707-14

Domain identification by clustering sequence alignments. Guan X, et al. **Bioinformatics** 1998;14(9):783-8

The effect of evenly spaced constant sites on the distribution of the random division of a molecular sequence. Sneath PH. **Bioinformatics** 1998;14(7):608-16

PIR-ALN: a database of protein sequence alignments. Srinivasarao GY, et al. **Bioinformatics** 1999 May; 15(5):382-90

BAliBASE: a benchmark alignment database for the evaluation of multiple alignment programs. Thompson JD, et al. **Bioinformatics** 1999 Jan;15(1):87-8

A strategy for finding regions of similarity in complete genome sequences. Vincens P, et al. **Bioinformatics** 1998; 14(8):715-25

Two strategies for sequence comparison: profile-preprocessed and secondary structure-induced multiple alignment. Heringa J. **Comput Chem** 1999 Jun 15; 23(3-4):341-64

Structural analysis of Arabidopsis thaliana chromosome 5. IX. Sequence features of the regions of 1,011,550 bp covered by seventeen P1 and TAC clones. Kaneko T, et al. **DNA Res** 1999 Jun 30;6(3):183-95

Structure of rat gamma-tubulin and its binding to HP33. Nakadai T, et al. **DNA Res** 1999 Jun 30;6(3):207-9

Human cytokine gene nucleotide sequence alignments: supplement 1. Bidwell JL, et al. **Eur J Immunogenet** 1999 Apr-Jun;26(2-3):135-223

Members of the insulin receptor family contain three fibronectin type III domains. Ward CW. **Growth Factors** 1999;16(4):315-22

Slipped misalignment mechanisms of deletion formation: in vivo susceptibility to nucleases. Bzymek M, et al. **J Bacteriol** 1999 Jan;181(2):477-82

DNA sequence comparison considering both amino acid and nucleotide insertions/deletions because of evolution and experimental error. Irie R, et al. **J Biotechnol** 1999 Mar 26;69(1):19-26

Dynamic programming alignment accuracy. Holmes I, et al. **J Comput Biol** 1998 Fall;5(3):493-504

A polyhedral approach to RNA sequence structure alignment. Lenhof HP, et al. **J Comput Biol** 1998 Fall; 5(3):517-30

Approximate statistics of gapped alignments. Mott R, et al. **J Comput Biol** 1999 Spring;6(1):91-112

Multiple genome rearrangement and breakpoint phylogeny. Sankoff D, et al. **J Comput Biol** 1998 Fall;5(3):555-70

An efficient computational method for globally optimal threading. Xu Y, et al. **J Comput Biol** 1998 Fall; 5(3):597-614

The number of multiple alignments. Slowinski JB. **Mol Phylogenet Evol** 1998 Oct;10(2):264-6

Pfam 3.1: 1313 multiple alignments and profile HMMs match the majority of proteins. Bateman A, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):260-2

New features of the Blocks Database servers. Henikoff JG, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):226-8

Protein folds and families: sequence and structure alignments. Holm L, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):244-7

Update of AMmtDB: a database of multi-aligned metazoa mitochondrial DNA sequences. Lanave C, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):134-7

Database of protein sequence alignments: PIR-ALN. Srinivasarao GY, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):284-5

Statistical significance of ungapped sequence alignments. Alexandrov NN, et al. **Pac Symp Biocomput** 1998;:463-72

Location of repetitive regions in sequences by optimizing a compression method. Delgrange O, et al. **Pac Symp Biocomput** 1999;:254-65

DINAMO: a coupled sequence alignment editor/molecular graphics tool for interactive homology modeling of proteins. Hansen M, et al. **Pac Symp Biocomput** 1998; :106-17

A probabilistic approach to consensus multiple alignment. Lazareva-Ulitsky B, et al. **Pac Symp Biocomput** 1999; :150-61

Protalign: a 3-dimensional protein alignment assessment tool. Meads D, et al. **Pac Symp Biocomput** 1999;:354-67

Optimizing Smith-Waterman alignments. Olsen R, et al. **Pac Symp Biocomput** 1999;:302-13

An information theoretic view of gapped and other alignments. Schmidt JP. **Pac Symp Biocomput** 1998;:561-72

Proclass protein family database: new version with motif alignments. Wu CH, et al. **Pac Symp Biocomput** 1998; :719-30

Protein structure alignment by incremental combinatorial extension (CE) of the optimal path. Shindyalov IN, et al. **Protein Eng** 1998 Sep;11(9):739-47

In unison: regularization of protein secondary structure predictions that makes use of multiple sequence alignments. Zimmermann K, et al. **Protein Eng** 1998 Oct;11(10):861-5

A novel clan of zinc metallopeptidases with possible intramembrane cleavage properties. Lewis AP, et al. **Protein Sci** 1999 Feb;8(2):439-42

HOMSTRAD: a database of protein structure alignments for homologous families. Mizuguchi K, et al. **Protein Sci** 1998 Nov;7(11):2469-71

Finding local structural similarities among families of unrelated protein structures: a generic non-linear alignment algorithm. Lehtonen JV, et al. **Proteins** 1999 Feb 15; 34(3):341-55

Hidden models in biopolymers. Amitai M. **Science** 1998 Nov 20;282(5393):1436-7

Protein structure at your desk. Basham B. **Science** 1999 Feb 19;283(5405):1132

Recombination as a point process along sequences. Wiuf C, et al. **Theor Popul Biol** 1999 Jun;55(3):248-59

INSTRUMENTATION

JavaShade: multiple sequence alignment box-and-shading on the World Wide Web. Southern MR, et al. **Bioinformatics** 1998;14(9):821-2

METHODS

Protein sequence alignment techniques. Barton GJ. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(1 (Pt 6)):1139-46

Multiple sequence alignment: algorithms and applications. Gotoh O. **Adv Biophys** 1999;36:159-206 (189 ref.)

A comparative molecular field analysis study on several bioactive peptides using the alignment rules derived from identification of commonly exposed groups. Lin TH, et al. **Biochim Biophys Acta** 1999 Jan 11;1429(2):476-85

DINAMO: interactive protein alignment and model building. Bentz J, et al. **Bioinformatics** 1999 Apr;15(4):309-16

Combining many multiple alignments in one improved alignment. Bucka-Lassen K, et al. **Bioinformatics** 1999 Feb; 15(2):122-30

Calign: aligning sequences with restricted affine gap penalties. Chao KM. **Bioinformatics** 1999 Apr; 15(4):298-304

ESPript: analysis of multiple sequence alignments in PostScript. Gouet P, et al. **Bioinformatics** 1999 Apr; 15(4):305-8

Family pairwise search with embedded motif models. Grundy WN, et al. **Bioinformatics** 1999 Jun;15(6):463-70

Blocks+: a non-redundant database of protein alignment blocks derived from multiple compilations. Henikoff S, et al. **Bioinformatics** 1999 Jun;15(6):471-9

Functional promoter modules can be detected by formal models independent of overall nucleotide sequence similarity. Klingenhoff A, et al. **Bioinformatics** 1999 Mar; 15(3):180-6

TargetFinder: searching annotated sequence databases for target genes of transcription factors. Lavorgna G, et al. **Bioinformatics** 1999 Feb;15(2):172-3

An exact solution for the segment-to-segment multiple sequence alignment problem. Lenhof HP, et al. **Bioinformatics** 1999 Mar;15(3):203-10

A RAPID algorithm for sequence database comparisons: application to the identification of vector contamination in the EMBL databases. Miller C, et al. **Bioinformatics** 1999 Feb;15(2):111-21

DIALIGN: finding local similarities by multiple sequence alignment. Morgenstern B, et al. **Bioinformatics** 1998; 14(3):290-4

DIALIGN 2: improvement of the segment-to-segment approach to multiple sequence alignment. Morgenstern B. **Bioinformatics** 1999 Mar;15(3):211-8

Local sequence alignments with monotonic gap penalties. Mott R. **Bioinformatics** 1999 Jun;15(6):455-62

SSMAL: similarity searching with alignment graphs. Nicodème P. **Bioinformatics** 1998;14(6):508-15

JavaShade: multiple sequence alignment box-and-shading on the World Wide Web. Southern MR, et al. **Bioinformatics** 1998;14(9):821-2

MIAH: automatic alignment of eukaryotic SSU rRNAs. Thébault P, et al. **Bioinformatics** 1999 Apr;15(4):341-2

BEAUTY-X: enhanced BLAST searches for DNA queries. Worley KC, et al. **Bioinformatics** 1998;14(10):890-1

BLAST PRINTS--alternative perspectives on sequence similarity. Wright W, et al. **Bioinformatics** 1999 Jun; 15(6):523-4

BLAST 2 Sequences, a new tool for comparing protein and nucleotide sequences [published erratum appears in FEMS Microbiol Lett 1999 Aug 1;177(1):187-8] Tatusova TA, et al. **FEMS Microbiol Lett** 1999 May 15;174(2):247-50

Hydropathy profile alignment: a tool to search for structural homologues of membrane proteins. Lolkema JS, et al. **FEMS Microbiol Rev** 1998 Oct;22(4):305-22 (39 ref.)

Protein-coding regions prediction combining similarity searches and conservative evolutionary properties of protein-coding sequences. Rogozin IB, et al. **Gene** 1999 Jan 8;226(1):129-37

A computer program for aligning a cDNA sequence with a genomic DNA sequence. Florea L, et al. **Genome Res** 1998 Sep;8(9):967-74

Segment-based scores for pairwise and multiple sequence alignments. Morgenstern B, et al. **Ismb** 1998;6:115-21

Bayesian protein family classifier. Qu K, et al. **Ismb** 1998; 6:131-9

Bayesian restoration of a hidden Markov chain with applications to DNA sequencing. Churchill GA, et al. **J Comput Biol** 1999 Summer;6(2):261-77

Positional statistical significance in sequence alignment. Yu L, et al. **J Comput Biol** 1999 Summer;6(2):253-9

GenTHREADER: an efficient and reliable protein fold recognition method for genomic sequences. Jones DT. **J Mol Biol** 1999 Apr 9;287(4):797-815

Sequence comparisons using multiple sequences detect three times as many remote homologues as pairwise methods. Park J, et al. **J Mol Biol** 1998 Dec 11;284(4):1201-10

A probabilistic treatment of phylogeny and sequence alignment. Mitchison GJ. **J Mol Evol** 1999 Jul;49(1):11-22

Multiple sequence alignment in HTML: colored, possibly hyperlinked, compact representations. Campagne F, et al. **J Mol Graph Model** 1998 Feb;16(1):6-10, 34-5

The GPRIME package: computer programs for identifying the best regions of aligned genes to target in nucleic acid hybridisation-based diagnostic tests, and their use with plant viruses. Gibbs A, et al. **J Virol Methods** 1998 Sep; 74(1):67-76

Flexible programs for the prediction of average amphipathicity of multiply aligned homologous proteins: application to integral membrane transport proteins. Le T, et al. **Mol Membr Biol** 1999 Apr-Jun;16(2):173-9

Alignment of whole genomes. Delcher AL, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2369-76

A comprehensive comparison of multiple sequence alignment programs. Thompson JD, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2682-90

Comparing protein sequence-based and predicted secondary structure-based methods for identification of remote homologs. Geetha V, et al. **Protein Eng** 1999 Jul; 12(7):527-34

Twilight zone of protein sequence alignments. Rost B. **Protein Eng** 1999 Feb;12(2):85-94

Combining sensitive database searches with multiple intermediates to detect distant homologues. Salamov AA, et al. **Protein Eng** 1999 Feb;12(2):95-100

CORA--topological fingerprints for protein structural families. Orengo CA. **Protein Sci** 1999 Apr;8(4):699-715

Protein structure comparison using iterated double dynamic programming. Taylor WR. **Protein Sci** 1999 Mar; 8(3):654-65

A homology identification method that combines protein sequence and structure information. Yu L, et al. **Protein Sci** 1998 Dec;7(12):2499-510

Protein fold recognition score functions: unusual construction strategies. Ayers DJ, et al. **Proteins** 1999 Sep 1;36(4):454-61

The art of matchmaking: sequence alignment methods and their structural implications. Smith TF. **Structure Fold Des** 1999 Jan 15;7(1):R7-R12 (41 ref.)

Multiple sequence alignment with Clustal X. Jeanmougin F, et al. **Trends Biochem Sci** 1998 Oct;23(10):403-5

STANDARDS

SCOP, Structural Classification of Proteins database: applications to evaluation of the effectiveness of sequence alignment methods and statistics of protein structural data. Hubbard TJ, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(1 (Pt 6)):1147-54

STATISTICS & NUMERICAL DATA

Hidden Markov models for detecting remote protein homologies. Karplus K, et al. **Bioinformatics** 1998; 14(10):846-56

Empirical estimation of the reliability of ribosomal RNA alignments. O'Brien EA, et al. **Bioinformatics** 1998; 14(10):830-8

SALSA: improved protein database searching by a new algorithm for assembly of sequence fragments into gapped alignments. Rognes T, et al. **Bioinformatics** 1998; 14(10):839-45

Calculating the exact probability of language-like patterns in biomolecular sequences. Atteson K. **Ismb** 1998;6:17-24

A statistical theory of sequence alignment with gaps. Drasdo D, et al. **Ismb** 1998;6:52-8

PSIC: profile extraction from sequence alignments with position-specific counts of independent observations. Sunyaev SR, et al. **Protein Eng** 1999 May;12(5):387-94

SEQUENCE ANALYSIS

Prediction of the coding sequences of unidentified human

SEQUENCE ANALYSIS

genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins in vitro. Kikuno R, et al. **DNA Res** 1999 Jun 30;6(3):197–205

After sequencing: quantitative analysis of protein localization. Boland MV, et al. **IEEE Eng Med Biol Mag** 1999 Sep–Oct; 18(5):115–9

Amino-terminal sequencing of sheep CD1 antigens and identification of a sheep CD1D gene. Rhind SM, et al. **Immunogenetics** 1999 Mar;49(3):225–30

RFLP and sequence analysis of the cytochrome b gene of selected animals and man: methodology and forensic application. Zehner R, et al. **Int J Legal Med** 1998; 111(6):323–7

Combinatorial peptide on-resin analysis: optimization of static nanoelectrospray ionization technique for sequence determination. Biederman KJ, et al. **J Pept Res** 1999 Mar; 53(3):234–43

Protein sequencing or genome sequencing. Where does mass spectrometry fit into the picture? Roepstorff P. **J Protein Chem** 1998 Aug;17(6):542–3

Human herpesvirus 6B genome sequence: coding content and comparison with human herpesvirus 6A. Dominguez G, et al. **J Virol** 1999 Oct;73(10):8040–52

Computer analysis of amino acid sequences. The case of plant virus capsid proteins. Koonin EV, et al. **Methods Mol Biol** 1998;81:319–37

Sequences annotated by structure: a tool to facilitate the use of structural information in sequence analysis. Milburn D, et al. **Protein Eng** 1998 Oct;11(10):855–9

Probing the modelled structure of wheatwin1 by controlled proteolysis and sequence analysis of unfractionated digestion mixtures. Caporale C, et al. **Proteins** 1999 Aug 1;36(2):192–204

All-in-one sequence analysis. Rajagopal I. **Science** 1999 Jan 29;283(5402):652–3

Computational sequence analysis of mammalian reovirus proteins. Bisaillon M, et al. **Virus Genes** 1999;18(1):13–37

HISTORY

Protein sequencing and the making of molecular genetics. de Chadarevian S. **Trends Biochem Sci** 1999 May; 24(5):203–6

INSTRUMENTATION

Protein sequence analysis using Hewlett-Packard biphasic sequencing cartridges in an applied biosystems 473A protein sequencer. Tang S, et al. **J Protein Chem** 1999 Jan; 18(1):75–7

METHODS

N-thiobenzoylsuccinimide as thioacylating reagent in the sequential analysis of peptides by the solid phase technique. Cavadore JC. **Anal Biochem** 1978 Nov;91(1):236–40

A two-dimensional peptide gel electrophoresis system for phosphopeptide mapping and amino acid sequencing. Gatti A, et al. **Anal Biochem** 1999 Jan 15;266(2):198–204

Protein sequencing by matrix-assisted laser desorption ionization-postsource decay-mass spectrometry analysis of the N-Tris(2,4,6-trimethoxyphenyl)phosphine-acetylated tryptic digests. Huang ZH, et al. **Anal Biochem** 1999 Mar 15;268(2):305–17

The effect of thiodiglycol and dithiothreitol on the alkaline hydrolysis products of certain amino acid phenylthiohydantoins. Jabusch JR, et al. **Anal Biochem** 1978 Dec;91(2):532–42

Identification of oxidized proteins based on sodium dodecyl sulfate-polyacrylamide gel electrophoresis, immunochemical detection, isoelectric focusing, and microsequencing. Yan LJ, et al. **Anal Biochem** 1998 Oct 1;263(1):67–71

On-target exoglycosidase digestions/MALDI-MS for determining the primary structures of carbohydrate chains. Colangelo J, et al. **Anal Chem** 1999 Apr 1;71(7):1479–82

Direct sequencing of neuropeptides in biological tissue by MALDI-PSD mass spectrometry. Jespersen S, et al. **Anal Chem** 1999 Feb 1;71(3):660–6

C-terminal peptide sequencing via multistage mass spectrometry. Lin T, et al. **Anal Chem** 1998 Dec 15; 70(24):5162–5

Sequence analysis of heparan sulphate and heparin oligosaccharides. Vivès RR, et al. **Biochem J** 1999 May 1;339 (Pt 3):767–73

Automated genome sequence analysis and annotation. Andrade MA, et al. **Bioinformatics** 1999 May;15(5):391–412

Detecting periodic patterns in biological sequences. Coward E, et al. **Bioinformatics** 1998;14(6):498–507

WebBLAST 2.0: an integrated solution for organizing and analyzing sequence data. Ferlanti ES, et al. **Bioinformatics** 1999 May;15(5):422–3

EDITtoTrEMBL: a distributed approach to high-quality automated protein sequence annotation. Möller S, et al. **Bioinformatics** 1999 Mar;15(3):219–27

New scoring schemes for protein fold recognition based on Voronoi contacts. Zimmer R, et al. **Bioinformatics** 1998; 14(3):295–308

Identification of unusual amino acids in peptides using automated sequential Edman degradation coupled to direct detection by electrospray-ionization mass spectrometry. Walk TB, et al. **Biopolymers** 1999 Apr;49(4):329–40

WinGene/WinPep: user-friendly software for the analysis of amino acid sequences. Hennig L. **Biotechniques** 1999 Jun;26(6):1170–2

Matrix-assisted laser desorption/ionization mass spectrometry of neutral and acidic oligosaccharides with collision-induced dissociation. Mechref Y, et al. **Carbohydr Res** 1998 Dec 15;313(3–4):145–55

Genomics and computational molecular biology. Brutlag DL. **Curr Opin Microbiol** 1998 Jun;1(3):340–5 (100 ref.)

Characterization of protein primary structure. Speicher DW. **Dev Biol Stand** 1998;96:27–8

Confirmed identities of proteins from a two-dimensional map of Syrian hamster embryo cells. Asquith TN, et al. **Electrophoresis** 1999 Jun;20(7):1646–51

A peptide concentration and purification method for protein characterization in the subpicomole range using matrix assisted laser desorption/ionization-postsource decay (MALDI-PSD) sequencing. Gevaert K, et al. **Electrophoresis** 1998 May;19(6):909–17

Human bronchoalveolar lavage fluid: two-dimensional gel electrophoresis, amino acid microsequencing and identification of major proteins. Wattiez R, et al. **Electrophoresis** 1999 Jun;20(7):1634–45

Treatment with crystalline ultra-pure urea reduces the aggregation of integral membrane proteins without inhibiting N-terminal sequencing. Soulié S, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):417–20

Iterative stepwise discriminant analysis: a meta-algorithm for detecting quantitative sequence motifs. Mallios RR. **J Comput Biol** 1998 Winter;5(4):703–11

Minimal-risk scoring matrices for sequence analysis. Wu TD, et al. **J Comput Biol** 1999 Summer;6(2):219–35

High-sensitivity analysis and sequencing of peptides and proteins by quadrupole ion trap mass spectrometry. Marina A, et al. **J Mass Spectrom** 1999 Jan;34(1):17–27

A new hybrid resin for stepwise screening of peptide libraries combined with single bead Edman sequencing. Hiemstra HS, et al. **J Pept Sci** 1998 Jun;4(4):282–8

Sequencing of gel-isolated proteins using microblotter capillary liquid chromatography-electrospray mass spectrometry. Bauer MD, et al. **J Protein Chem** 1999 Apr; 18(3):337–47

C-terminal sequencer analysis of proteins. Cederlund E, et al. **J Protein Chem** 1998 Aug;17(6):529–30

A novel C-terminal stepwise sequencing method. Kamo M, et al. **J Protein Chem** 1998 Aug;17(6):511–2

Application of new deblocking aminopeptidase from Pyrococcus furiosis for microsequence analysis of blocked proteins. Kamp RM, et al. **J Protein Chem** 1998 Aug; 17(6):512–3

Multiple-sites C-terminal sequencing methods of protein and identification of protein spots on one- and two-dimensional gel electrophoresis. Tsugita A, et al. **J Protein Chem** 1998 Aug;17(6):520–1

A wafer based micro reaction system for the Edman degradation of proteins and peptides. Wurzel C, et al. **J Protein Chem** 1998 Aug;17(6):561–4

Genetic polymorphism near HIV-1 reverse transcriptase resistance-associated codons is a major obstacle for the line probe assay as an alternative method to sequence analysis. Koch N, et al. **J Virol Methods** 1999 Jun; 80(1):25–31

Characterizing proteins from 2-DE gels by internal sequence analysis of peptide fragments. Strategies for microsample handling. Erdjument-Bromage H, et al. **Methods Mol Biol** 1999;112:467–72 (10 ref.)

Purification through affinity chromatography and microsequencing. Garlanda C. **Methods Mol Biol** 1999; 96:29–37 (12 ref.)

Peptide sequencing of 2-DE gel-isolated proteins by nanoelectrospray tandem mass spectrometry. Jensen ON, et al. **Methods Mol Biol** 1999;112:571–88 (34 ref.)

N-terminal amino acid sequencing of 2-DE spots. Kamo M, et al. **Methods Mol Biol** 1999;112:461–6 (5 ref.)

The Holy Grail of influenza virologists [news] Oxford JS, et al. **Nat Med** 1999 May;5(5):484–5

Rapid p53 sequence analysis in primary lung cancer using an oligonucleotide probe array. Ahrendt SA, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7382–7

A method for high-sensitivity peptide sequencing using postsource decay matrix-assisted laser desorption ionization mass spectrometry. Keough T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7131–6

A strategy for rapid sequencing of heparan sulfate and heparin saccharides. Turnbull JE, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2698–703

A homology identification method that combines protein sequence and structure information. Yu L, et al. **Protein Sci** 1998 Dec;7(12):2499–510

Different sequence patterns in signal peptides from mycoplasmas, other gram-positive bacteria, and Escherichia coli: a multivariate data analysis. Edman M, et al. **Proteins** 1999 May 1;35(2):195–205

Charge derivatization of peptides to simplify their sequencing with an ion trap mass spectrometer. Adamczyk M, et al. **Rapid Commun Mass Spectrom** 1999;13(14):1413–22

Magnetic sector-ion trap mass spectrometry with electrospray ionization for high sensitivity peptide sequencing. Loo JA, et al. **Rapid Commun Mass Spectrom** 1999;13(1):54–60

Complex grabbing. Sikorski R, et al. **Science** 1999 Sep 17; 285(5435):1868

STATISTICS & NUMERICAL DATA

Distance measures in terms of substitution processes. Baake E, et al. **Theor Popul Biol** 1999 Apr;55(2):166–75 (31 ref.)

TRENDS

What we do not know about sequence analysis and sequence databases [editorial] Karp PD. **Bioinformatics** 1998; 14(9):753–4

SEQUENCE ANALYSIS, DNA

The cystic fibrosis conductance regulator gene exon sequence is normal in a patient with edematous eosinophilic nasal polyps. Bucholtz GA, et al. **Am J Rhinol** 1999 May–Jun; 13(3):221–3

Cytosines adjacent to methylated CpG sites can be partially resistant to conversion in genomic bisulfite sequencing leading to methylation artifacts. Harrison J, et al. **Anal Biochem** 1998 Nov 1;264(1):129–32

Hybridization of complementary strand and single-base mutated oligonucleotides detected with an on-line acoustic wave sensor. Furtado LM, et al. **Analyst** 1998 Oct; 123(10):1937–45

Identification of sequence tagged sites in the Asian and African elephant. Burk NE, et al. **Anim Biotechnol** 1998; 9(2):155–60

Immunofluorometric assay of p53 protein versus sequencing of p53 exons 5 to 9 for the detection of p53 abnormalities in ovarian carcinoma. Lianidou ES, et al. **Anticancer Res** 1999 Jan–Feb;19(1B):749–56

Cloning, sequencing, and tissue expression of CYP3A27, a new member of the CYP3A subfamily from embryonic and adult rainbow trout livers. Lee SJ, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):53–61

Nucleotide sequence of the putative replicase gene of the sour cherry strain of plum pox potyvirus. Nemchinov L, et al. **Arch Virol** 1998;143(11):2247–52

Sequence polymorphisms in the apolipoprotein(a) gene and their association with lipoprotein(a) levels and myocardial infarction. The ECTIM Study. Brazier L, et al. **Atherosclerosis** 1999 Jun;144(2):323–33

Cloning and sequence analysis of a Trypanosoma cruzi alpha-tubulin cDNA. Gonzalez-Pino MJ, et al. **Biol Res** 1997;30(4):161–6

Design strategies and performance of custom DNA sequencing primers. Buck GA, et al. **Biotechniques** 1999 Sep;27(3):528–36

Sequencing of genomic DNA. Mahlknecht U, et al. **Biotechniques** 1999 Sep;27(3):406–8

Construction of larger-size sequencing templates from degraded DNA. Nasidze I, et al. **Biotechniques** 1999 Sep; 27(3):480–4, 488

cDNA sequence of the human erythroid alpha-spectrin: identification of a base deletion in the sequence database [letter] Galluzzi L, et al. **Blood** 1999 Apr 1;93(7):2421–2

Optimizing outcome after unrelated marrow transplantation by comprehensive matching of HLA class I and II alleles in the donor and recipient. Petersdorf EW, et al. **Blood** 1998 Nov 15;92(10):3515–20

Hepatitis C virus-specific DNA sequences in human DNA: differentiation by means of restriction enzyme analysis at the DNA level in healthy, anti-HCV-negative individuals. Dennin RH, et al. **Clin Chem Lab Med** 1999 Jun; 37(6):623–30

The Human Genome Project: from mapping to sequencing. Weissenbach J. **Clin Chem Lab Med** 1998 Aug;36(8):511–4

Ribosomal DNA sequencing as a tool for identification of bacterial pathogens. Kolbert CP, et al. **Curr Opin Microbiol** 1999 Jun;2(3):299–305 (52 ref.)

Sequence of the rag1 and rag2 intergenic region in zebrafish (Danio rerio). Bertrand FE 3rd, et al. **Dev Immunol** 1998; 5(3):211–4

Sequence analysis of the mouse RAG locus intergenic region. Bertrand FE 3rd, et al. **Dev Immunol** 1998;5(3):215–22

Myelin proteolipid protein intron 1 sequences do not appear to enhance myelin proteolipid protein gene transcription. Wight PA, et al. **Dev Neurosci** 1998;20(6):552–8

cDNA cloning and sequencing, gene expression, and immunolocalization of thrombomodulin in the Sprague-Dawley rat. Wang J, et al. **DNA Res** 1999 Feb 26;6(1):57–62

DNA sequence analysis of the genes for the fowl adenovirus serotype 10 putative 33K and pVIII. Sheppard M, et al. **DNA Seq** 1998 Mar;9(1):37–43

Multi-capillary optical waveguides for DNA sequencing. Quesada MA, et al. **Electrophoresis** 1998 Jun; 19(8–9):1415–27

5'-flanking and intragenic sequences confer androgenic and developmental regulation of mouse aldose reductase-like gene in vas deferens and adrenal in transgenic mice. Martinez A, et al. **Endocrinology** 1999 Mar;140(3):1338–48

Improved cycle sequencing of GC-rich DNA template. Choi JS, et al. **Exp Mol Med** 1999 Mar 31;31(1):20–4

DNA sequencing of the gene encoding Salmonella typhimurium-derived T-cell inhibitor (STI) and characterization of the gene product, cloned STI. Matsui K, et al. **FEMS Immunol Med Microbiol** 1998 Dec; 22(4):341–9

Sequence analysis of a cryptic plasmid from Flavobacterium sp. KP1, a psychrophilic bacterium. Ashiuchi M, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):243–9

Characterization of the Acinetobacter baumannii Fur regulator: cloning and sequencing of the fur homolog gene. Daniel C, et al. **FEMS Microbiol Lett** 1999 Jan 1; 170(1):199–209

Sample sequencing of a Salmonella typhimurium LT2 lambda library: comparison to the Escherichia coli K12 genome. Wong RM, et al. **FEMS Microbiol Lett** 1999 Apr 15; 173(2):411–23

Preimplantation genetic diagnosis of Marfan syndrome with the use of fluorescent polymerase chain reaction and the Automated Laser Fluorescence DNA Sequencer. Sermon K, et al. **Fertil Steril** 1999 Jan;71(1):163–6

Molecular cloning and comparative sequence analyses of rRNA operons in Streptomyces nodosus ATCC 14899. Yap WH, et al. **Gene** 1999 May 17;232(1):77–85

Analysis of distribution in the human, pig, and rat genomes points toward a general subtelomeric origin of minisatellite structures [published erratum appears in Genomics 1999 May 15;58(1):109–10] Amarger V, et al. **Genomics** 1998 Aug 15;52(1):62–71

Using BODIPY dye-primer chemistry in large-scale sequencing. Muzny DM, et al.
IEEE Eng Med Biol Mag 1998 Nov–Dec;17(6):88–93

Molecular cloning and sequencing of the cDNA for dog interleukin-4. van der Kaaij SY, et al. **Immunogenetics** 1999 Feb;49(2):142–3

Molecular analysis of sequence heterogeneity among genes encoding decorin binding proteins A and B of Borrelia burgdorferi sensu lato. Roberts WC, et al.
Infect Immun 1998 Nov;66(11):5275–85

The distribution of human TCR junctional region lengths shifts with age in both CD4 and CD8 T cells. Hall MA, et al. **Int Immunol** 1998 Oct;10(10):1407–19

Human papillomavirus-5b DNA integrated in a metastatic tumor: cloning, nucleotide sequence and genomic organization [letter] Yabe Y, et al. **Int J Cancer** 1999 Jan 18;80(2):334–5

Validation studies and characterization of variant alleles at the short tandem repeat locus D12S391. Junge A, et al. **Int J Legal Med** 1999;112(1):67–9

Genetic variation and sequence studies of a highly variable short tandem repeat at the D17S976 locus. Klintschar M, et al. **Int J Legal Med** 1999;112(1):50–4

Validation of mitochondrial DNA minisequencing for forensic casework. Morley JM, et al. **Int J Legal Med** 1999; 112(4):241–8

Construction and sequence analysis of subtraction complementary DNA libraries from human preimplantation embryos. Morozov G, et al.
J Assist Reprod Genet 1999 Apr;16(4):212–5

Mycobacterium bovis osteomyelitis as a complication of Bacille Calmette-Guérin (BCG) vaccination: rapid diagnosis with use of DNA sequencing analysis: a case report. Lin CJ, et al. **J Bone Joint Surg Am** 1999 Sep; 81(9):1305–11

Direct cloning and analysis of DNA sequences from a region of the Chinese hamster genome associated with aphidicolin-sensitive fragility. Palin AH, et al.
J Cell Sci 1998 Jun;111 (Pt 12):1623–34

Ciprofloxacin resistance in Campylobacter jejuni isolates: detection of gyrA resistance mutations by mismatch amplification mutation assay PCR and DNA sequence analysis. Zirnstein G, et al. **J Clin Microbiol** 1999 Oct; 37(10):3276–80

New techniques for DNA sequence classification. Wang JT, et al. **J Comput Biol** 1999 Summer;6(2):209–18

Cloning and characterization of mouse brush border myosin-I in adult and embryonic intestine. Skowron JF, et al. **J Exp Zool** 1999 Feb 15;283(3):242–57

Evidence of transmission of hepatitis B virus to spouses from sequence analysis of the viral genome. Huo TI, et al.
J Gastroenterol Hepatol 1998 Nov;13(11):1138–42

Multiple truncated transcripts of TSG101 in gastrointestinal cancers. Lin SY, et al. **J Gastroenterol Hepatol** 1998 Nov; 13(11):1111–4

Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus. Gomi S, et al. **J Gen Virol** 1999 May;80 (Pt 5):1323–37

Sequence analyses of human herpesvirus-8 strains from both African human immunodeficiency virus-negative and -positive childhood endemic Kaposi's sarcoma show a close relationship with strains identified in febrile children and high variation in the K1 glycoprotein. Kasolo FC, et al. **J Gen Virol** 1998 Dec;79 (Pt 12):3055–65

Complete sequence of the IncPbeta plasmid R751: implications for evolution and organisation of the IncP backbone. Thorsted PB, et al. **J Mol Biol** 1998 Oct 9; 282(5):969–90

Reducing the number of microlocations in oligonucleotide microchip matrices by the application of degenerate oligonucleotides. Sachadyn P, et al. **J Theor Biol** 1999 Apr 7;197(3):393–401

Identification and DNA sequence analysis of the Marek's disease virus serotype 2 genes homologous to the herpes simplex virus type 1 UL20 and UL21. Hatama S, et al.
J Vet Med Sci 1999 Jun;61(6):587–93

Comparison of the complete DNA sequences of human herpesvirus 6 variants A and B. Isegawa Y, et al.
J Virol 1999 Oct;73(10):8053–63

Detection of fetal RHD-specific sequences in maternal plasma [letter] Faas BH, et al. **Lancet** 1998 Oct 10; 352(9135):1196

US firm claims it can "sequence human genome in 3 years" [news] Putman L. **Lancet** 1998 May 23;351(9115):1566

Species identification of mycobacteria using rDNA sequencing. Kirschner P, et al. **Methods Mol Biol** 1998; 101:349–61

The Tenth International Genome Sequencing and Analysis Conference, Miami Beach, Florida, September 17–20, 1998. Doyle DJ. **Microb Comp Genomics** 1998;3(4):255–7

Lysogenic bacteriophage M1 from Selenomonas ruminantium: isolation, characterization and DNA sequence analysis of the integration site. Cheong JP, et al. **Microbiology** 1998 Aug;144 (Pt 8):2195–202

Genome organization is not conserved between Bacillus cereus and Bacillus subtilis. Okstad OA, et al.
Microbiology 1999 Mar;145 (Pt 3):621–31

Sequence survey of the Giardia lamblia genome. Smith MW, et al. **Mol Biochem Parasitol** 1998 Sep 15;95(2):267–80

Identification and grouping of Dichelobacter nodosus, using PCR and sequence analysis. John GH, et al.
Mol Cell Probes 1999 Feb;13(1):61–5

Microbial genomes. Pallen MJ. **Mol Microbiol** 1999 Jun; 32(5):907–12

Reanalysis and revision of the Cambridge reference sequence for human mitochondrial DNA [letter] Andrews RM, et al. **Nat Genet** 1999 Oct;23(2):147

Polymorphism analysis and gene detection by minisequencing on an array of gel-immobilized primers. Dubiley S, et al. **Nucleic Acids Res** 1999 Sep 15;27(18):e19

Did DNA replication evolve twice independently? Leipe DD, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3389–401

INFOGENE: a database of known gene structures and predicted genes and proteins in sequences of genome sequencing projects. Solovyev VV, et al.
Nucleic Acids Res 1999 Jan 1;27(1):248–50

HUGE: a database for human large proteins identified by Kazusa cDNA sequencing project. Suyama M, et al.
Nucleic Acids Res 1999 Jan 1;27(1):338–9

A clean data set of EST-confirmed splice sites from Homo sapiens and standards for clean-up procedures. Thanaraj TA. **Nucleic Acids Res** 1999 Jul 1;27(13):2627–37

Maximum A posteriori classification of DNA structure from sequence information. Loewenstern DM, et al.
Pac Symp Biocomput 1998;:669–80

Data mining parasite genomes: haystack searching with a computer. Lawson D. **Parasitology** 1999;118 Suppl:S15–8 (9 ref.)

Applications and extensions of subpopulation theory: a caseworkers guide. Harbison SA, et al. **Sci Justice** 1998 Oct–Dec;38(4):249–54

Genome sequence of the nematode C. elegans: a platform for investigating biology. The C. elegans Sequencing Consortium [published errata appear in Science 1999 Jan 1;283(5398):35 and 1999 Mar 26;283(5410):2103] **Science** 1998 Dec 11;282(5396):2012–8 (55 ref.)

Gene sequencers target malaria mosquito [news] Balter M. **Science** 1999 Jul 23;285(5427):508–9

Chromosome 2 sequence of the human malaria parasite Plasmodium falciparum [published erratum appears in Science 1998 Dec 4;282(5395):1827] Gardner MJ, et al. **Science** 1998 Nov 6;282(5391):1126–32

A genome sampler. Jasny BR, et al. **Science** 1998 Oct 23; 282(5389):651

A high-stakes gamble on genome sequencing [news] Marshall E. **Science** 1999 Jun 18;284(5422):1906–9

Human Genome Project. Sequencers endorse plan for a draft in 1 year [news] Marshall E. **Science** 1999 May 28; 284(5419):1439,1441

Arabidopsis thaliana: a model plant for genome analysis. Meinke DW, et al. **Science** 1998 Oct 23;282(5389):662, 679–82 (40 ref.)

DNA analysis: new kid on the block. Nishimura D.
Science 1999 Jul 16;285(5426):355–6

Team wrapping up sequence of first human chromosome [news] Normile D, et al. **Science** 1999 Sep 24; 285(5436):2038–9

Worming secrets from the C. elegans genome [news; comment] Pennisi E. **Science** 1998 Dec 11;282(5396):1972–4 . Comment on: Science 1998 Dec 11;282(5396):2018–22. Comment on: Science 1998 Dec 11;282(5396):2033–41.

First food-borne pathogen sequenced [news] Pennisi E. **Science** 1999 Feb 26;283(5406):1243

Academic sequencers challenge Celera in a sprint to the finish [news] Pennisi E. **Science** 1999 Mar 19;283(5409):1822–3

Fruit fly researchers sign pact with Celera [news] Pennisi E. **Science** 1999 Feb 5;283(5403):767

A bonanza for plant genomics [news] Pennisi E. **Science** 1998 Oct 23;282(5389):652–4

DNA sequences provide grist for microbiologists [news] Pennisi E. **Science** 1999 Feb 19;283(5405):1105–6

All-in-one sequence analysis. Rajagopal I. **Science** 1999 Jan 29;283(5402):652–3

Genome sequence of an obligate intracellular pathogen of humans: Chlamydia trachomatis [see comments] Stephens RS, et al. **Science** 1998 Oct 23;282(5389):754–9. Comment in: Science 1998 Oct 23;282(5389):638–9.

Virtual DNA analysis--a new tool for combination and standardised evaluation of SSO, SSP and sequencing-based typing results. Helmberg W, et al. **Tissue Antigens** 1998 Jun;51(6):587–92

Biochemical and functional properties of a palindromic sequence motif within the hepatitis B virus enhancer I. Kosovsky MJ, et al. **Virology** 1999 Jun 20;259(1):60–6

The GOR47-1 sequence in human DNA encoding for a potential autoantigen in connection with hepatitis C--a sequence not only reserved for humans. Dennin RH, et al. **Z Gastroenterol** 1998 Oct;36(10):877–82

[What we can learn from the whole genome sequences of thermophiles] Masui R, et al.
Tanpakushitsu Kakusan Koso 1999 Feb;44(2):165–70 (43 ref.) **(Jpn)**

ECONOMICS

Human genome project. Commercial firms win U.S. sequencing funds [news] Marshall E. **Science** 1999 Jul 16; 285(5426):310

Rice genome. U.S. adds $12 million to global sequencing push [news] Normile D. **Science** 1999 Oct 1;286(5437):24–5

HISTORY

How the worm was won. The C. elegans genome sequencing project. Wilson RK. **Trends Genet** 1999 Feb;15(2):51–8

INSTRUMENTATION

System for preparing microhybridization arrays on glass slides. Graves DJ, et al. **Anal Chem** 1998 Dec 1; 70(23):5085–92

Capillary array electrophoresis DNA sequencing. Kheterpal I, et al. **Anal Chem** 1999 Jan 1;71(1):31A–37A (46 ref.)

Large DNA fragment sizing using native acrylamide gels on an automated DNA sequencer and GENESCAN software. McEvoy CR, et al. **Biotechniques** 1998 Sep; 25(3):464–70

Simultaneous genetic typing from multiple short tandem repeat loci using a 96-capillary array electrophoresis system. Gao Q, et al. **Electrophoresis** 1999 Jun; 20(7):1518–26

Effect of gelation conditions on the gel structure and resolving power of agarose-based DNA sequencing gels. Kusukawa N, et al. **Electrophoresis** 1999 Jun;20(7):1455–61

An estimate of the crosstalk matrix in four-dye fluorescence-based DNA sequencing. Li L, et al.
Electrophoresis 1999 Jun;20(7):1433–42

Ultra-high throughput rotary capillary array electrophoresis scanner for fluorescent DNA sequencing and analysis. Scherer JR, et al. **Electrophoresis** 1999 Jun;20(7):1508–17

An automated sample preparation system for large-scale DNA sequencing. Marziali A, et al. **Genome Res** 1999 May; 9(5):457–62

Automated sequence preprocessing in a large-scale sequencing environment. Wendl MC, et al. **Genome Res** 1998 Sep;8(9):975–84

Development of DNA sequencer [letter] Dovichi N.
Science 1999 Aug 13;285(5430):1016

Techview: DNA sequencing. Sequencing the genome, fast [published erratum appears in Science 1999 Jun 11;284(5421):1776] Mullikin JC, et al. **Science** 1999 Mar 19;283(5409):1867–9

Coming soon: the pocket DNA sequencer [news] Service RF. **Science** 1998 Oct 16;282(5388):399–401

METHODS

Sequence analysis of bacterial DNA in the colon of an Andean mummy. Ubaldi M, et al.
Am J Phys Anthropol 1998 Nov;107(3):285–95

Mass spectrometric sequencing of site-specific carcinogen-modified oligodeoxyribonucleotides containing bulky benzo[a]pyrene diol epoxide-deoxyguanosyl adducts. Ni J, et al. **Anal Biochem** 1998 Nov 15;264(2):222–9

Direct dye terminator sequencing of lambda DNA and phage suspensions. Otte S, et al. **Anal Biochem** 1999 Jun 1; 270(2):332–4

Analyses of secondary structures in DNA by pyrosequencing. Ronaghi M, et al. **Anal Biochem** 1999 Feb 1;267(1):65–71

Bisulfite sequencing protocol displays both 5-methylcytosine and N4-methylcytosine. Vilkaitis G, et al.
Anal Biochem 1999 Jun 15;271(1):116–9

Sample stacking during membrane-mediated loading in automated DNA sequencing. Guttman A. **Anal Chem** 1999 Aug 15;71(16):3598–602

Chemical cleavage sequencing of DNA using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Isola NR, et al. **Anal Chem** 1999 Jul 1; 71(13):2266–9

Optimization of high-speed DNA sequencing on microfabricated capillary electrophoresis channels. Liu S, et al. **Anal Chem** 1999 Feb 1;71(3):566–73

Clinical analyzers. Microbiology. Mouritsen CL, et al.
Anal Chem 1999 Jun 15;71(12):366R–372R (79 ref.)

Determination of nearest neighbors in nucleic acids by mass spectrometry. Rozenski J, et al. **Anal Chem** 1999 Apr 1; 71(7):1454–9

Fiber bundle based scanning detection system for automated DNA sequencing. Trost P, et al. **Anal Chem** 1998 Sep 15; 70(18):3930–5

DNA microarray technology: the anticipated impact on the study of human disease. Khan J, et al.
Biochim Biophys Acta 1999 Mar 25;1423(2):M17–28 (20 ref.)

JaDis: computing distances between nucleic acid sequences. Gonçalves I, et al. **Bioinformatics** 1999 May;15(5):424–5

GeneGenerator--a flexible algorithm for gene prediction and its application to maize sequences. Kleffe J, et al.
Bioinformatics 1998;14(3):232–43

Transcription regulatory region analysis using signal detection and fuzzy clustering. Pickert L, et al. **Bioinformatics** 1998;14(3):244–51

Statistics of large-scale sequence searching. Spang R, et al. **Bioinformatics** 1998;14(3):279–84

Spreadsheet-based program for alignment of overlapping DNA sequences. Anbazhagan R, et al. **Biotechniques** 1999 Jun;26(6):1180–5

Anchored oligo(dT) primers for automated dye terminator DNA sequencing. Grayburn WS, et al. **Biotechniques** 1998 Sep;25(3):340–1, 344–6

Procedure for the investigation of bacterial genomes: random shot-gun cloning, sample sequencing and mutagenesis of Campylobacter jejuni. Karlyshev AV, et al. **Biotechniques** 1999 Jan;26(1):50–2, 54, 56

DNA analyses from biological material previously used for scanning electron microscopy studies. Landvik S. **Biotechniques** 1999 Aug;27(2):274–6

Quantitation of mixed-base populations of HIV-1 variants by automated DNA sequencing with BODIPY dye-labeled primers. Metzker ML, et al. **Biotechniques** 1998 Sep; 25(3):446–7, 450–2, 454, passim

Non-radioisotopic AFLP method using PCR primers fluorescently labeled with Cy5. Roman BL, et al. **Biotechniques** 1999 Feb;26(2):236–8

PCR-introduced loop structure as primer in DNA sequencing. Ronaghi M, et al. **Biotechniques** 1998 Nov; 25(5):876–8, 880–2, 884

Prevention of anomalous band mobility in A + G sequencing ladders of 3'-end-labeled DNA. Starrs S, et al. **Biotechniques** 1999 Jul;27(1):36–8, 42, 46

n-butanol purification of dye terminator sequencing reactions. Tillett D, et al. **Biotechniques** 1999 Apr; 26(4):606–8, 610

Peak height pattern in dichloro-rhodamine and energy transfer dye terminator sequencing. Zakeri H, et al. **Biotechniques** 1998 Sep;25(3):406–10, 412–4

Accessing genomic information: alternatives to PCR. Isaksson A, et al. **Curr Opin Biotechnol** 1999 Feb;10(1):11–5 (33 ref.)

Microbial genome sequencing and pathogenesis. Tang CM, et al. **Curr Opin Microbiol** 1998 Feb;1(1):12–6 (45 ref.)

A two-tier polymerase chain reaction direct sequencing method for detecting and typing human papillomaviruses in pathological specimens. Feoli-Fonseca JC, et al. **Diagn Mol Pathol** 1998 Dec;7(6):317–23

Membrane-mediated sample loading for automated DNA sequencing. Cassel SM, et al. **Electrophoresis** 1998 Jun; 19(8–9):1341–6

Models of local behavior of DNA electrophoresis peak parameters. Davies S, et al. **Electrophoresis** 1999 Jun; 20(7):1443–54

Simultaneous genetic typing from multiple short tandem repeat loci using a 96-capillary array electrophoresis system. Gao Q, et al. **Electrophoresis** 1999 Jun; 20(7):1518–26

Screening for nucleotide variations in ribosomal DNA arrays of Oesophagostomum bifurcum by polymerase chain reaction-coupled single-strand conformation polymorphism. Gasser RB, et al. **Electrophoresis** 1999 Jun; 20(7):1486–91

A three-wavelength labeling approach for DNA sequencing using energy transfer primers and capillary electrophoresis. Kheterpal I, et al. **Electrophoresis** 1998 Jun;19(8–9):1403–14

Effect of gelation conditions on the gel structure and resolving power of agarose-based DNA sequencing gels. Kusukawa N, et al. **Electrophoresis** 1999 Jun;20(7):1455–61

An estimate of the crosstalk matrix in four-dye fluorescence-based DNA sequencing. Li L, et al. **Electrophoresis** 1999 Jun;20(7):1433–42

Multiplexed short tandem repeat polymorphisms of the Weber 8A set of markers using tailed primers and infrared fluorescence detection. Oetting WS, et al. **Electrophoresis** 1998 Dec;19(18):3079–83

Truncated fragments in polymerase chain reaction-based DNA sequencing. Westberg J, et al. **Electrophoresis** 1999 Mar;20(3):502–10

High performance DNA sequencing, and the detection of mutations and polymorphisms, on the Clipper sequencer. Yager TD, et al. **Electrophoresis** 1999 Jun;20(6):1280–300

Application of DNA arrays to toxicology. Rockett JC, et al. **Environ Health Perspect** 1999 Aug;107(8):681–5

Population distribution of six PCR-amplified loci in Madeira Archipelago (Portugal). Corte-Real F, et al. **Forensic Sci Int** 1999 Mar 15;100(1–2):93–9

Genetic variation at six STR loci (HUMTH01, HUMTPOX, HUMCSF1PO, HUMFI3A01, HUMFES/FPS, HUMVWFA31) in Aragon (north Spain). Martinez Jarreta B, et al. **Forensic Sci Int** 1999 Mar 15;100(1–2):87–92

DNA short tandem repeat profiling of Chinese population in Taiwan determined by using an automated sequencer. Pu CE, et al. **Forensic Sci Int** 1998 Oct 12;97(1):47–51

Inquiries on intraspousal transmission of hepatitis C virus: benefits and limitations of genome sequencing and phylogenetic analysis. Ross RS, et al. **Forensic Sci Int** 1999 Mar 15;100(1–2):69–76

Tandem repeat structure of the duplicated Y-chromosomal STR locus DYS385 and frequency studies in the German and three Asian populations. Schneider PM, et al. **Forensic Sci Int** 1998 Oct 12;97(1):61–70

Similarity in oligonucleotide usage in introns and intergenic regions contributes to long-range correlation in the Caenorhabditis elegans genome. Frontali C, et al. **Gene** 1999 May 17;232(1):87–95

Genomic DNA sequencing by SPEL-6 primer walking using hexamer ligation. Kaczorowski T, et al. **Gene** 1998 Nov 26;223(1–2):83–91

Subdivision of the Escherichia coli K-12 genome for sequencing: manipulation and DNA sequence of transposable elements introducing unique restriction sites. Mahillon J, et al. **Gene** 1998 Nov 26;223(1–2):47–54

Identification of stable RNA hairpins causing band compression in transcriptional sequencing and their elimination by use of inosine triphosphate. Sasaki N, et al. **Gene** 1998 Nov 5;222(1):17–23

Differential sequencing with mass spectrometry. Graber JH, et al. **Genet Anal** 1999 Feb;14(5–6):215–9 (24 ref.)

Discrimination of DNA duplexes with matched and mismatched tandem repeats by T4 endonuclease VII. Surdi GA, et al. **Genet Anal** 1999 Feb;14(5–6):177–9

Glycosylase mediated polymorphism detection (GMPD)--a novel process for genetic analysis. Vaughan P, et al. **Genet Anal** 1999 Feb;14(5–6):169–75

The gene search system. A method for efficient detection and rapid molecular identification of genes in Drosophila melanogaster. Toba G, et al. **Genetics** 1999 Feb; 151(2):725–37

The mouse Aire gene: comparative genomic sequencing, gene organization, and expression. Blechschmidt K, et al. **Genome Res** 1999 Feb;9(2):158–66

Analysis of the quality and utility of random shotgun sequencing at low redundancies. Bouck J, et al. **Genome Res** 1998 Oct;8(10):1074–84

Fluorescence polarization in homogeneous nucleic acid analysis. Chen X, et al. **Genome Res** 1999 May;9(5):492–8

Analysis of 148 kb of genomic DNA around the wnt1 locus of Fugu rubripes. Gellner K, et al. **Genome Res** 1999 Mar; 9(3):251–8

A software system for data analysis in automated DNA sequencing. Giddings MC, et al. **Genome Res** 1998 Jun; 8(6):644–65

Large-scale sequencing of two regions in human chromosome 7q22: analysis of 650 kb of genomic sequence around the EPO and CUTL1 loci reveals 17 genes. Glöckner G, et al. **Genome Res** 1998 Oct;8(10):1060–73

Random shotgun fire [editorial] Goodman L. **Genome Res** 1998 Jun;8(6):567–8

An efficient DNA sequencing strategy based on the bacteriophage mu in vitro DNA transposition reaction. Haapa S, et al. **Genome Res** 1999 Mar;9(3):308–15

Improved DNA sequencing accuracy and detection of heterozygous alleles using manganese citrate and different fluorescent dye terminators. Korch C, et al. **Genome Res** 1999 Jun;9(6):588–95

An effective approach for analyzing "prefinished" genomic sequence data. Kuehl PM, et al. **Genome Res** 1999 Feb; 9(2):189–94

Complete genomic sequence and analysis of the prion protein gene region from three mammalian species. Lee IY, et al. **Genome Res** 1998 Oct;8(10):1022–37

An automated sample preparation system for large-scale DNA sequencing. Marziali A, et al. **Genome Res** 1999 May; 9(5):457–62

Comparative sequence analysis of human minisatellites showing meiotic repeat instability. Murray J, et al. **Genome Res** 1999 Feb;9(2):130–6

Analysis of sequence-tagged-connector strategies for DNA sequencing. Siegel AF, et al. **Genome Res** 1999 Mar; 9(3):297–307

Efficient approach to unique single-nucleotide polymorphism discovery. Taillon-Miller P, et al. **Genome Res** 1999 May; 9(5):499–505

Automated sequence preprocessing in a large-scale sequencing environment. Wendl MC, et al. **Genome Res** 1998 Sep;8(9):975–84

Bisulfite sequencing in preimplantation embryos: DNA methylation profile of the upstream region of the mouse imprinted H19 gene. Warnecke PM, et al. **Genomics** 1998 Jul 15;51(2):182–90

High-resolution analysis of cytosine methylation in the 5long terminal repeat of retroviral vectors. Wang L, et al. **Hum Gene Ther** 1998 Nov 1;9(16):2321–30

Optimal structure for automatic processing of DNA sequences. Davies SW, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1044–56

Multiplex PCR assay for the detection of mycobacterial DNA sequences directly from sputum. Ikonomopoulos JA, et al. **In Vivo** 1998 Sep–Oct;12(5):547–52

Gene discovery through expressed sequence Tag sequencing in Trypanosoma cruzi. Verdun RE, et al. **Infect Immun** 1998 Nov;66(11):5393–8

Sequence assembly validation by multiple restriction digest fragment coverage analysis. Rouchka EC, et al. **Ismb** 1998; 6:140–7

A modified version of the Cornell et al. force field with improved sugar pucker phases and helical repeat. Cheatham TE 3rd, et al. **J Biomol Struct Dyn** 1999 Feb;16(4):845–62

Overview of nucleic acid analysis programs. Lu XJ, et al. **J Biomol Struct Dyn** 1999 Feb;16(4):833–43 (42 ref.)

Purification and properties of the 5'-3' exonuclease D10A mutant of DNA polymerase I from Streptococcus pneumoniae: a new tool for DNA sequencing. Amblar M, et al. **J Biotechnol** 1998 Jul 30;63(1):17–27

High throughput analysis of differential gene expression. Carulli JP, et al. **J Cell Biochem Suppl** 1998;30–31:286–96 (33 ref.)

Indexing scheme and similarity measures for macromolecular sequences. Raychaudhury C, et al. **J Chem Inf Comput Sci** 1999 Mar–Apr;39(2):243–7

Bayesian restoration of a hidden Markov chain with applications to DNA sequencing. Churchill GA, et al. **J Comput Biol** 1999 Summer;6(2):261–77

AMASS: a structured pattern matching approach to shotgun sequence assembly. Kim S, et al. **J Comput Biol** 1999 Summer;6(2):163–86

Validation of highly polymorphic fluorescent multiplex short tandem repeat systems using two generations of DNA sequencers. Frégeau CJ, et al. **J Forensic Sci** 1999 Jan; 44(1):133–66

Sequencing microbial genomes--what will it do for microbiology? Jenks PJ. **J Med Microbiol** 1998 May; 47(5):375–82 (43 ref.)

Nucleotide sequence analysis of human T-cell lymphotropic virus type I pX and LTR regions from patients with sicca syndrome. Beby-Defaux A, et al. **J Med Virol** 1999 Oct; 59(2):245–55

Comparison of line probe assay (LIPA) and sequence analysis for detection of HIV-1 drug resistance. Puchhammer-Stöckl E, et al. **J Med Virol** 1999 Mar; 57(3):283–9

Detection and sequence analysis of hepatitis B virus integration in peripheral blood mononuclear cells. Laskus T, et al. **J Virol** 1999 Feb;73(2):1235–8

Interlaboratory concordance of DNA sequence analysis to detect reverse transcriptase mutations in HIV-1 proviral DNA. ACTG Sequencing Working Group. AIDS Clinical Trials Group. Demeter LM, et al. **J Virol Methods** 1998 Nov;75(1):93–104

Common polymorphisms of beta1-adrenoceptor: identification and rapid screening assay [letter] Maqbool A, et al. **Lancet** 1999 Mar 13;353(9156):897

Complete sequence of p53 gene in 20 patients with lung cancer: comparison with chemosensitivity and immunohistochemistry. Brattström D, et al. **Med Oncol** 1998 Dec;15(4):255–61

DNA sequencing. Badge J. **Methods Mol Biol** 1998;81:307–18

Sequencing of antibodies. Jarrin A, et al. **Methods Mol Biol** 1999;96:21–8 (5 ref.)

Characterization of mycoplasmas by PCR and sequence analysis with universal 16S rDNA primers. Johansson KE, et al. **Methods Mol Biol** 1998;104:145–65 (41 ref.)

Functional analysis of cell adhesion molecules. Simmons DL. **Methods Mol Biol** 1999;96:39–63 (25 ref.)

An efficient, automatable template preparation for high throughput sequencing. Engelstein M, et al. **Microb Comp Genomics** 1998;3(4):237–41

CRITICA: coding region identification tool invoking comparative analysis. Badger JH, et al. **Mol Biol Evol** 1999 Apr;16(4):512–24

Direct sequencing of long polymerase chain reaction fragments. Iannelli F, et al. **Mol Biotechnol** 1998 Oct; 10(2):183–5

Rapid preparation of denatured double-stranded DNA templates for sequencing. Kaczorowski T, et al. **Mol Biotechnol** 1999 Apr;11(2):199–200

Differential display. A general protocol. Liang P, et al. **Mol Biotechnol** 1998 Dec;10(3):261–7

Two-step cycle sequencing reduces premature terminations when using primers with high annealing temperatures. Prychitko TM, et al. **Mol Biotechnol** 1998 Dec;10(3):231–6

Gene digging. A method for obtaining species-specific sequence based on conserved segments of nucleotides in open reading frames. Sanyal A, et al. **Mol Biotechnol** 1998 Dec;10(3):223–30

Efficient identification of point mutations by automated DNA sequencing of artificial heterozygote samples. Staedtler F, et al. **Mol Biotechnol** 1998 Dec;10(3):269–72

Long-read direct infrared sequencing of crude PCR products for prediction of resistance to HIV-1 reverse transcriptase and protease inhibitors. Zazzi M, et al. **Mol Biotechnol** 1998 Aug;10(1):1–8

Primers for a PCR-based approach to mitochondrial genome sequencing in birds and other vertebrates. Sorenson MD, et al. **Mol Phylogenet Evol** 1999 Jul;12(2):105–14

Terminal branch haplotype analysis: a novel approach to investigate newly arisen variants of mitochondrial DNA in natural populations. Chen JZ, et al. **Mutat Res** 1999 Jul 30;434(3):219–31

Do you dig my groove? [news] Doolittle RF. **Nat Genet** 1999 Sep;23(1):6–8

Genome-wide analysis of DNA copy-number changes using cDNA microarrays. Pollack JR, et al. **Nat Genet** 1999 Sep; 23(1):41–6

The use of tailed octamer primers for cycle sequencing. Ball S, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5225–7

Tandem repeats finder: a program to analyze DNA sequences. Benson G. **Nucleic Acids Res** 1999 Jan 15; 27(2):573–80

Concordance analysis of microbial genomes. Bruccoleri RE, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4482–6

A simple method for sequencing small DNAs by inducing precise overlapping ends into restriction digestion fragments [letter; comment] Dorado G. **Nucleic Acids Res** 1998 Nov 15;26(22):5235. Comment on: Nucleic Acids Res 1998 Aug 15;26(16):3867–8.

High throughput direct end sequencing of BAC clones.

Kelley JM, et al. **Nucleic Acids Res** 1999 Mar 15; 27(6):1539–46

Identification of point mutations in mixtures by capillary electrophoresis hybridization. Khrapko K, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5738–40

Direct sequencing of RAPD fragments using 3'-extended oligonucleotide primers and dye terminator cycle-sequencing. Mitchelson KR, et al. **Nucleic Acids Res** 1999 Oct 1;27(19):e28

Urea improves efficiency of bisulphite-mediated sequencing of 5'-methylcytosine in genomic DNA. Paulin R, et al. **Nucleic Acids Res** 1998 Nov 1;26(21):5009–10

Preselection of shotgun clones by oligonucleotide fingerprinting: an efficient and high throughput strategy to reduce redundancy in large-scale sequencing projects. Radelof U, et al. **Nucleic Acids Res** 1998 Dec 1; 26(23):5358–64

Antisense display--a method for functional gene screening: evaluation in a cell-free system and isolation of angiogenesis-related genes. Yonekura H, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2591–600

Uniform band intensities in fluorescent dye terminator sequencing. Kumar S, et al. **Nucleosides Nucleotides** 1999 Apr–May;18(4–5):1101–3

Development of a new DNA sequencing method: 3'-ester cleavage catalyzed by Taq DNA polymerase. Rasolonjatovo I, et al. **Nucleosides Nucleotides** 1999 Apr–May;18(4–5):1021–2

Synthesis of fluorescent, photolabile 3'-O-protected nucleoside triphosphates for the base addition sequencing scheme. Welch MB, et al. **Nucleosides Nucleotides** 1999 Feb;18(2):197–201

Detecting patterns of protein distribution and gene expression in silico. Geraghty MT, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2937–42

Genome analysis: Assigning protein coding regions to three-dimensional structures. Salamov AA, et al. **Protein Sci** 1999 Apr;8(4):771–7

Comparison of three methods of microsatellite detection. Christensen M, et al. **Scand J Clin Lab Invest** 1999 May; 59(3):167–77

From the bioweapons trenches, new tools for battling microbes [news] Alper J. **Science** 1999 Jun 11; 284(5421):1754–5

Gene sequencing. Size matters. Sikorski R, et al. **Science** 1999 Jan 15;283(5400):349

Amplified rDNA restriction analysis and further genotypic characterisation of metal-resistant soil bacteria and related facultative hydrogenotrophs. Brim H, et al. **Syst Appl Microbiol** 1999 May;22(2):258–68

The PCR-SSP Manager computer program: a tool for maintaining sequence alignments and automatically updating the specificities of PCR-SSP primers and primer mixes. Bunce M, et al. **Tissue Antigens** 1998 Aug; 52(2):158–74

Identification of an HLA-C variant allele, Cw*0805, by sequencing based typing. Dunn PP, et al. **Tissue Antigens** 1998 Dec;52(6):587–9

New high resolution typing strategy for HLA-A locus alleles based on dye terminator sequencing of haplotypic group-specific PCR-amplicons of exon 2 and exon 3. Kurz B, et al. **Tissue Antigens** 1999 Jan;53(1):81–96

A reliable and efficient high resolution typing method for HLA-C using sequence-based typing. van der Vlies SA, et al. **Tissue Antigens** 1998 Dec;52(6):558–68

Molecular analysis and polymorphism of the DLA-DQB genes. Wagner JL, et al. **Tissue Antigens** 1998 Sep; 52(3):242–50

Optical mapping and its potential for large-scale sequencing projects. Aston C, et al. **Trends Biotechnol** 1999 Jul; 17(7):297–302 (26 ref.)

Microfluidic devices for DNA analysis. Ehrlich DJ, et al. **Trends Biotechnol** 1999 Aug;17(8):315–9

Electronic PCR: bridging the gap between genome mapping and genome sequencing. Schuler GD. **Trends Biotechnol** 1998 Nov;16(11):456–9 (16 ref.)

Genome-wide transcriptional analysis in S. cerevisiae by mini-array membrane hybridization. Cox KH, et al. **Yeast** 1999 Jun 15;15(8):703–13

A rapid technique for the determination of unknown plasmid library insert DNA sequence directly from intact yeast cells. Klebanow ER, et al. **Yeast** 1999 Apr;15(6):527–31

[pncA gene mutations in clinical isolates of tubercle bacillus by polymerase chain reaction-direct sequencing method: in relationship to pyrazinamide resistance] Hoashi S, et al. **Kekkaku** 1999 May;74(5):441–5 (Eng. Abstr.) **(Jpn)**

STANDARDS

Reproducibility of mtDNA analysis between laboratories: a report of the European DNA Profiling Group (EDNAP). Carracedo A, et al. **Forensic Sci Int** 1998 Nov 9; 97(2–3):165–70

Assessing the quality of the DNA sequence from the Human Genome Project. Felsenfeld A, et al. **Genome Res** 1999 Jan;9(1):1–4 (9 ref.)

Manganese citrate improves base-calling accuracy in DNA sequencing reactions using rhodamine-based fluorescent dye-terminators. Korch C, et al. **Nucleic Acids Res** 1999 Mar 1;27(5):1405–7

TRENDS

Status of protozoan genome analysis: trypanosomatids. Blackwell JM, et al. **Parasitology** 1999;118 Suppl:S11–4 (25 ref.)

Helminth genome analysis: the current status of the filarial and schistosome genome projects. Filarial Genome Project. Schistosome Genome Project. Williams SA, et al. **Parasitology** 1999;118 Suppl:S19–38 (80 ref.)

SEQUENCE ANALYSIS, RNA

Nucleotide sequences and taxonomy of satsuma dwarf virus. Iwanami T, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):793–7

Mutational analysis of cis-acting sequences in the 3'- and 5'-untranslated regions of RNA2 of red clover necrotic mosaic virus. Turner RL, et al. **Virology** 1999 Jan 5; 253(1):115–24

Sequence comparisons of medium RNA segment among 15 California serogroup viruses. Campbell WP, et al. **Virus Res** 1999 Jun;61(2):137–44

METHODS

Determination of nearest neighbors in nucleic acids by mass spectrometry. Rozenski J, et al. **Anal Chem** 1999 Apr 1; 71(7):1454–9

Systematic genomic screening and analysis of mRNA in untranslated regions and mRNA precursors: combining experimental and computational approaches. Dandekar T, et al. **Bioinformatics** 1998;14(3):271–8

MIAH: automatic alignment of eukaryotic SSU rRNAs. Thébault P, et al. **Bioinformatics** 1999 Apr;15(4):341–2

CapSelect: a highly sensitive method for 5' CAP-dependent enrichment of full-length cDNA in PCR-mediated analysis of mRNAs. Schmidt WM, et al. **Nucleic Acids Res** 1999 Nov 1;27(21):e31

SEQUENCE DATA, MOLECULAR see MOLECULAR SEQUENCE DATA

SEQUENCE DELETION

The effect of deletion of a conserved 11 nucleotide sequence on mouse hepatitis virus RNA replication. Repass JF, et al. **Adv Exp Med Biol** 1998;440:247–52

Hematopoietic differentiation activity of a recombinant human interleukin-6 (IL-6) isoform resulting from alternatively spliced deletion of the second exon. Kestler DP, et al. **Am J Hematol** 1999 Jul;61(3):169–77

Phenotypic variability of Filipino beta(o)-thalassemia/HbE patients in Indonesia. Setianingsih I, et al. **Am J Hematol** 1999 Sep;62(1):7–12

A chromosomal deletion map of human malformations. Brewer C, et al. **Am J Hum Genet** 1998 Oct;63(4):1153–9

Two exon-skipping mutations as the molecular basis of succinic semialdehyde dehydrogenase deficiency (4-hydroxybutyric aciduria). Chambliss KL, et al. **Am J Hum Genet** 1998 Aug;63(2):399–408

Identification of microdeletions spanning the Diamond-Blackfan anemia locus on 19q13 and evidence for genetic heterogeneity. Gustavsson P, et al. **Am J Hum Genet** 1998 Nov;63(5):1388–95

A comprehensive screen for TWIST mutations in patients with craniosynostosis identifies a new microdeletion syndrome of chromosome band 7p21.1 [see comments] Johnson D, et al. **Am J Hum Genet** 1998 Nov;63(5):1282–93 . Comment in: Am J Hum Genet 1998 Nov;63(5):1277–81.

A common and recurrent 13-bp deletion in the autoimmune regulator gene in British kindreds with autoimmune polyendocrinopathy type 1. Pearce SH, et al. **Am J Hum Genet** 1998 Dec;63(6):1675–84

CTNS mutations in an American-based population of cystinosis patients. Shotelersuk V, et al. **Am J Hum Genet** 1998 Nov;63(5):1352–62

Founder BRCA1 and BRCA2 mutations in French Canadian breast and ovarian cancer families. Tonin PN, et al. **Am J Hum Genet** 1998 Nov;63(5):1341–51

A new twist: some patients with Saethre-Chotzen syndrome have a microdeletion syndrome [editorial; comment] Zackai EH, et al. **Am J Hum Genet** 1998 Nov;63(5):1277–81 (33 ref.). Comment on: Am J Hum Genet 1998 Nov;63(5):1282–93.

Multiple origins of the mtDNA 9-bp deletion in populations of South India. Watkins WS, et al. **Am J Phys Anthropol** 1999 Jun;109(2):147–58

Total extent and cellular distribution of mitochondrial DNA mutations in aging. Kovalenko SA, et al. **Ann N Y Acad Sci** 1998 Nov 20;854:487

A de novo splice donor site mutation causes in-frame deletion of 14 amino acids in the proteolipid protein in Pelizaeus-Merzbacher disease. Aoyagi Y, et al. **Ann Neurol** 1999 Jul;46(1):112–5

Spinal muscular atrophy due to an isolated deletion of exon 8 of the telomeric survival motor neuron gene. Gambardella A, et al. **Ann Neurol** 1998 Nov;44(5):836–9

Status of the p53, Rb and MDM2 genes in canine osteosarcoma. Mendoza S, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4449–53

Aberrant p16 expression is correlated with hemizygous deletions at the 9p21-22 chromosome region in non-small cell lung carcinomas. Spanakis NE, et al. **Anticancer Res** 1999 May-Jun;19(3A):1893–9

Targeted cleavage of RNA molecules by human RNase P using minimized external guide sequences. Werner M, et al. **Antisense Nucleic Acid Drug Dev** 1999 Feb;9(1):81–8

The influence of deletion mutations on phospholipase C-gamma 1 activity. Horstman DA, et al. **Arch Biochem Biophys** 1999 Jan 1;361(1):149–55

Possible relationship between conditions associated with chronic hypoxia and brain mitochondrial DNA deletions; reduction of genomic 8-hydroxyguanine levels in human brain tissues containing elevated levels of the human mitochondrial DNA4977 deletion. Zullo SJ, et al. **Arch Biochem Biophys** 1999 Jul 1;367(1):140–2

Long-extension PCR to detect deleted mitochondrial DNA molecules is compromized by technical artefacts. Kajander OA, et al. **Biochem Biophys Res Commun** 1999 Jan 19; 254(2):507–14

A mutant of deleted variant of hepatocyte growth factor (dHGF) with alanine substitution in the N-terminal basic region has higher activity in vivo. Kinosaki M, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):363–7

Complementation of the fol2 deletion in Saccharomyces cerevisiae by human and Escherichia coli genes encoding GTP cyclohydrolase I. Mancini R, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):521–7

Mitochondrial DNA deletions in human cardiac tissue show a gross mosaic distribution. Zhang C, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):152–7

Cellular localisation of the most common mutant form of the CF gene protein, delta F508-CFTR. Morris MR, et al. **Biochem Soc Trans** 1998 Aug;26(3):S293

Expression of FAS-independent ADP-ribosyltransferase activity by a catalytic deletion peptide of Pseudomonas aeruginosa exoenzyme S. Knight DA, et al. **Biochemistry** 1999 May 4;38(18):5858–63

Incision at nucleotide insertions/deletions and base pair mismatches by the SP nuclease of spinach. Oleykowski CA, et al. **Biochemistry** 1999 Feb 16;38(7):2200–5

Comparative characterization of a wild type and transmembrane domain-deleted fatty acid amide hydrolase: identification of the transmembrane domain as a site for oligomerization. Patricelli MP, et al. **Biochemistry** 1998 Oct 27;37(43):15177–87

Kinetics of activation of the tyrosine kinase of a deletion mutant of epidermal growth factor receptor missing the sites of self-phosphorylation. Sherrill JM, et al. **Biochemistry** 1999 Mar 9;38(10):3106–11

Deletion of Ile1 changes the mechanism of streptokinase: evidence for the molecular sexuality hypothesis. Wang S, et al. **Biochemistry** 1999 Apr 20;38(16):5232–40

Estimating loop-helix interfaces in a polytopic membrane protein by deletion analysis. Wolin CD, et al. **Biochemistry** 1999 Jun 29;38(26):8590–7

Refolding studies on the tetrameric loop deletion mutant RM6 of ROP protein. Lassalle MW, et al. **Biol Chem** 1999 Apr;380(4):459–72

Frequencies of the CC chemokine receptor 5 delta 32 allele in various populations of defined racial background. Lucotte G. **Biomed Pharmacother** 1997;51(10):469–73

Adaptation of inverse PCR to generate an internal deletion. Xu Y, et al. **Biotechniques** 1999 Apr;26(4):639–41

Description and targeted deletion of 5' hypersensitive site 5 and 6 of the mouse beta-globin locus control region. Bender MA, et al. **Blood** 1998 Dec 1;92(11):4394–403

Molecular cytogenetic characterization of a critical region in bands 7q35-q36 commonly deleted in malignant myeloid disorders. Döhner K, et al. **Blood** 1998 Dec 1;92(11):4031–5

A single-base deletion in the thrombopoietin (TPO) gene causes familial essential thrombocythemia through a mechanism of more efficient translation of TPO mRNA [letter] Ghilardi N, et al. **Blood** 1999 Aug 15;94(4):1480–2

The C282Y mutation causing hereditary hemochromatosis does not produce a null allele. Levy JE, et al. **Blood** 1999 Jul 1;94(1):9–11

Somatic ATM mutations indicate a pathogenic role of ATM in B-cell chronic lymphocytic leukemia. Schaffner C, et al. **Blood** 1999 Jul 15;94(2):748–53

Deletions in the long arm of chromosome 10 in lymphomas with t(14;18): a pathogenetic role of the tumor supressor genes PTEN/MMAC1 and MXI1? [letter] Siebert R, et al. **Blood** 1998 Dec 1;92(11):4487–9

Dyskeratosis congenita caused by a 3' deletion: germline and somatic mosaicism in a female carrier. Vulliamy TJ, et al. **Blood** 1999 Aug 15;94(4):1254–60

The spectrum of somatic mutations in the PIG-A gene in paroxysmal nocturnal hemoglobinuria includes large deletions and small duplications. Nafa K, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):370–84

Modification of non-conservative double-strand break (DSB) rejoining activity after the induction of cisplatin resistance in human tumour cells. Britten RA, et al. **Br J Cancer** 1999 Feb;79(5–6):843–9

Identification of a C/G polymorphism in the promoter region of the BRCA1 gene and its use as a marker for rapid detection of promoter deletions. Catteau A, et al. **Br J Cancer** 1999 Feb;79(5–6):759–63

Exclusion of a major role for the PTEN tumour-suppressor gene in breast carcinomas. Freihoff D, et al. **Br J Cancer** 1999 Feb;79(5–6):754–8

Determination of the breakpoint of the common alpha-thalassaemia deletion in Filipinos in Hawaii. Hunt JA, et al. **Br J Haematol** 1999 Feb;104(2):284–7

Two regions of deletion in 9p23–24 in sporadic breast cancer.

An HX, et al. **Cancer Res** 1999 Aug 15;59(16):3941-3
High incidence of loss of heterozygosity in breast tumors from carriers of the BRCA2 999del5 mutation. Ingvarsson S, et al. **Cancer Res** 1998 Oct 1;58(19):4421-5
Identification of 12p as a region of frequent deletion in advanced prostate cancer. Kibel AS, et al. **Cancer Res** 1998 Dec 15;58(24):5652-5
The estrogen receptor variant lacking exon 5 has dominant negative activity in the human breast epithelial cell line HMT-3522S1. Ohlsson H, et al. **Cancer Res** 1998 Oct 1; 58(19):4264-8
Mutation of the MENIN gene in sporadic pancreatic endocrine tumors. Wang EH, et al. **Cancer Res** 1998 Oct 1;58(19):4417-20
Homozygous deletion in KVLQT1 associated with Jervell and Lange-Nielsen syndrome. Chen Q, et al. **Circulation** 1999 Mar 16;99(10):1344-7
A protocol for detection of mitochondrial DNA deletions: characterization of a novel deletion. Coulter-Mackie MB, et al. **Clin Biochem** 1998 Nov;31(8):627-32
A novel in-frame deletion mutation in a case of lactate dehydrogenase (LD) H subunit deficiency showing an atypical LD isoenzyme pattern in serum and erythrocytes. Sudo K, et al. **Clin Biochem** 1999 Mar;32(2):137-41 (8 ref.)
Biological and clinical significance of concurrent p53 gene alterations, MDR1 gene expression, and S-phase fraction analyses in breast cancer patients treated with primary chemotherapy or radiotherapy. Chevillard S, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2471-8
Incidence and timing of p53 mutations during astrocytoma progression in patients with multiple biopsies. Watanabe K, et al. **Clin Cancer Res** 1997 Apr;3(4):523-30
Rapid detection of a pentanucleotide deletion polymorphism in the human alpha2-macroglobulin gene [letter] Dodel RC, et al. **Clin Chem** 1999 Feb;45(2):307-17
Frequency of the CCR5 gene 32-basepair deletion in Hispanic Mexicans. Salas-Alanis JC, et al. **Clin Exp Dermatol** 1999 Mar;24(2):127-9
High frequency of de novo deletions in Mexican Duchenne and Becker muscular dystrophy patients. Implications for genetic counseling. Alcántara MA, et al. **Clin Genet** 1999 May;55(5):376-80
A deletion involving exons 2-4 in the iduronate-2-sulfatase gene of a patient with intermediate Hunter syndrome. Bonuccelli G, et al. **Clin Genet** 1998 Jun;53(6):474-7
Three novel small deletion mutations of the LDL receptor gene in Korean patients with familial hypercholesterolemia. Chae JJ, et al. **Clin Genet** 1999 May;55(5):325-31
Alternative splicing of exon 37 of FBN1 deletes part of an 'eight-cysteine' domain resulting in the Marfan syndrome. McGrory J, et al. **Clin Genet** 1999 Feb;55(2):118-21
Analysis of an interstitial deletion in a patient with Kallmann syndrome, X-linked ichthyosis and mental retardation. Weissörtel R, et al. **Clin Genet** 1998 Jul;54(1):45-51
Deletion analysis of the Drosophila Inscuteable protein reveals domains for cortical localization and asymmetric localization. Knoblich JA, et al. **Curr Biol** 1999 Feb 11; 9(3):155-8
High cancer susceptibility and embryonic lethality associated with mutation of the PTEN tumor suppressor gene in mice. Suzuki A, et al. **Curr Biol** 1998 Oct 22;8(21):1169-78
The RXRalpha ligand-dependent activation function 2 (AF-2) is important for mouse development. Mascrez B, et al. **Development** 1998 Dec;125(23):4691-707
UKPDS 31: Hepatocyte nuclear factor-1alpha (the MODY3 gene) mutations in late onset Type II diabetic patients in the United Kingdom. United Kingdom prospective diabetes study [letter] Cox RD, et al. **Diabetologia** 1999 Jan; 42(1):120-1
Complete DNA sequence and characterization of a 330-kb VNTR-rich region on chromosome 6q27 that is commonly deleted in ovarian cancer. Minaguchi T, et al. **DNA Res** 1999 Apr 30;6(2):131-6
Bioenergetic consequences of accumulating the common 4977-bp mitochondrial DNA deletion. Porteous WK, et al. **Eur J Biochem** 1998 Oct 1;257(1):192-201
Characterization of a truncated recombinant form of human membrane type 3 matrix metalloproteinase. Shimada T, et al. **Eur J Biochem** 1999 Jun;262(3):907-14
New type of the internalization-defective low-density lipoprotein receptor owing to two-nucleotide deletion (2199delCA or 2201delCA) in Japanese patients with familial hypercholesterolaemia. Tashiro J, et al. **Eur J Clin Invest** 1998 Sep;28(9):712-9
Molecular characterization of two mutations in platelet glycoprotein (GP) Ib alpha in two Finnish Bernard-Soulier syndrome families. Koskela S, et al. **Eur J Haematol** 1999 Mar;62(3):160-8
Novel six-nucleotide deletion in the hepatic fructose-1,6-bisphosphate aldolase gene in a patient with hereditary fructose intolerance and enzyme structure-function implications. Santamaria R, et al. **Eur J Hum Genet** 1999 May-Jun;7(4):409-14
Deletion mapping on chromosome 10p and definition of a critical region for the second DiGeorge syndrome locus (DGS2). Schuffenhauer S, et al. **Eur J Hum Genet** 1998 May-Jun;6(3):213-25
Activation of the insulin-like growth factor type 1 receptor by deletion of amino acids 870-905. Li S, et al. **Exp Cell Res** 1998 Sep 15;243(2):326-33
Delineation of genomic deletion in cardiomyopathic hamster. Sakamoto A, et al. **FEBS Lett** 1999 Mar 19;447(1):124-8
Deletions in the repeating sequences of the toxin A gene of toxin A-negative, toxin B-positive Clostridium difficile strains. Kato H, et al. **FEMS Microbiol Lett** 1999 Jun 15; 175(2):197-203
Microdeletions within the azoospermia factor subregions of the Y chromosome in patients with idiopathic azoospermia. Kim SW, et al. **Fertil Steril** 1999 Aug;72(2):349-53
Deletion of 24 open reading frames from chromosome XI from Saccharomyces cerevisiae and phenotypic analysis of the deletants. Zúñiga S, et al. **Gene** 1999 Jun 11; 233(1-2):141-50
Determination of the frequency of the common 657Del5 Nijmegen breakage syndrome mutation in the German population: no association with risk of breast cancer. Carlomagno F, et al. **Genes Chromosomes Cancer** 1999 Aug; 25(4):393-5
Deletions below 10 megabasepairs are detected in comparative genomic hybridization by standard reference intervals. Kirchhoff M, et al. **Genes Chromosomes Cancer** 1999 Aug;25(4):410-3
Deleterious mutations of both BRCA1 and BRCA2 in three siblings. Loader S, et al. **Genet Test** 1998;2(1):75-7
Is the hemochromatosis gene a modifier locus for cystic fibrosis? Rohlfs EM, et al. **Genet Test** 1998;2(1):85-8
High frequency of a common Bloom syndrome Ashkenazi mutation among Jews of Polish origin. Shahrabani-Gargir L, et al. **Genet Test** 1998;2(4):293-6
Retinal dystrophy of Swedish briard/briard-beagle dogs is due to a 4-bp deletion in RPE65. Veske A, et al. **Genomics** 1999 Apr 1;57(1):57-61
C-->T mutation at -158 G gamma HPFH associated with 4 bp deletion (-225-222) in the promoter region of the A gamma gene in homozygous beta 0 39 nonsense thalassemia [letter] Ataulfo Gonzalez F, et al. **Haematologica** 1999 Jan; 84(1):90-2
13q14 deletion in non-Hodgkin's lymphoma: correlation with clinicopathologic features. Cuneo A, et al. **Haematologica** 1999 Jul;84(7):589-93
DNA copy number changes in childhood acute lymphoblastic leukemia. Larramendy ML, et al. **Haematologica** 1998 Oct;83(10):890-5
Selective complement C1s deficiency caused by homozygous four-base deletion in the C1s gene. Inoue N, et al. **Hum Genet** 1998 Oct;103(4):415-8
Deletions in the Parkin gene and genetic heterogeneity in a Greek family with early onset Parkinson's disease. Leroy E, et al. **Hum Genet** 1998 Oct;103(4):424-7
A deletion/insertion leading to the generation of a direct repeat as a result of slipped mispairing and intragenic recombination in the factor VIII gene. Tavassoli K, et al. **Hum Genet** 1999 May;104(5):435-7
Detection of 6q deletions in breast carcinoma cell lines by fluorescence in situ hybridization. Zhang Y, et al. **Hum Genet** 1998 Dec;103(6):727-9
Congenital atrichia in five Arab Palestinian families resulting from a deletion mutation in the human hairless gene. Zlotogorski A, et al. **Hum Genet** 1998 Oct;103(4):400-4
Phenylketonuria mutations in Germany. Zschocke J, et al. **Hum Genet** 1999 May;104(5):390-8
A novel in frame deletion of codons 188-190 in the hMSH2 gene of a slovenian patient with hereditary non-polyposis colorectal cancer. Ravnik-Glavač M, et al. **Hum Hered** 1998 Sep-Oct;48(5):285-7
A frequent TG deletion near the polyadenylation signal of the human HEXB gene: occurrence of an irregular DNA structure and conserved nucleotide sequence motif in the 3' untranslated region. Kleiman FE, et al. **Hum Mutat** 1998; 12(5):320-9
Distribution of the CCR5 gene 32 base pair deletion and SDF1-3'A variant in healthy individuals from different populations. Magierowska M, et al. **Immunogenetics** 1998 Nov-Dec;48(6):417-9
FVB/N (H2(q)) mouse is resistant to arthritis induction and exhibits a genomic deletion of T-cell receptor V beta gene segments. Osman GE, et al. **Immunogenetics** 1999 Sep; 49(10):851-9
Epstein-barr virus in Hodgkin's disease: frequency of a 30-bp deletion in the latent membrane protein (LMP-1) oncogene in South African patients [letter] Essop MF, et al. **Int J Cancer** 1999 Aug 20;84(4):449-51
p16 involvement in primary bladder tumors: analysis of deletions and mutations. Baud E, et al. **Int J Oncol** 1999 Mar;14(3):441-5
Jacobsen syndrome: chromosome deletion at 11q23. Clang DR, et al. **J Am Osteopath Assoc** 1998 Oct;98(10):551-4
Large deletion of the 5' end of the ROMK1 gene causes antenatal Bartter syndrome. Feldmann D, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2357-9
TGF-beta1 gene mutations in insulin-dependent diabetes mellitus and diabetic nephropathy. Pociot F, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2302-7
Slipped misalignment mechanisms of deletion formation: in vivo susceptibility to nucleases. Bzymek M, et al. **J Bacteriol** 1999 Jan;181(2):477-82
IS6110-mediated deletions of wild-type chromosomes of Mycobacterium tuberculosis. Fang Z, et al. **J Bacteriol** 1999 Feb;181(3):1014-20
Deletion of new covalently linked cell wall glycoproteins alters the electrophoretic mobility of phosphorylated wall components of Saccharomyces cerevisiae. Mrsa V, et al. **J Bacteriol** 1999 May;181(10):3076-86
Secondary structures of synthetic peptides corresponding to the first membrane-contact portion of normal band 3 and its deletion mutant (Southeast Asian ovalocytosis). Kuma H, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):509-18
Proliferative defect and embryonic lethality in mice homozygous for a deletion in the p110alpha subunit of phosphoinositide 3-kinase. Bi L, et al. **J Biol Chem** 1999 Apr 16;274(16):10963-8
C-terminal truncations destabilize the cystic fibrosis transmembrane conductance regulator without impairing its biogenesis. A novel class of mutation. Haardt M, et al. **J Biol Chem** 1999 Jul 30;274(31):21873-7
Bethlem myopathy and engineered collagen VI triple helical deletions prevent intracellular multimer assembly and protein secretion. Lamandé SR, et al. **J Biol Chem** 1999 Jul 30;274(31):21817-22
Complete sequence of the 23-kilobase human COL9A3 gene. Detection of Gly-X-Y triplet deletions that represent neutral variants. Paassilta P, et al. **J Biol Chem** 1999 Aug 6;274(32):22469-75
Deletion mutation analysis of the mutS gene in Escherichia coli. Wu TH, et al. **J Biol Chem** 1999 Feb 26;274(9):5948-52
Mutational analysis of the structure and localization of the nucleolus in the yeast Saccharomyces cerevisiae. Oakes M, et al. **J Cell Biol** 1998 Oct 5;143(1):23-34
The Emery-Dreifuss muscular dystrophy phenotype arises from aberrant targeting and binding of emerin at the inner nuclear membrane. Fairley EA, et al. **J Cell Sci** 1999 Aug; 112 (Pt 15):2571-82
Identification of a three-amino acid deletion in the alpha2B-adrenergic receptor that is associated with reduced basal metabolic rate in obese subjects. Heinonen P, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2429-33
Complete androgen insensitivity caused by a new frameshift deletion of two base pairs in exon 1 of the human androgen receptor gene. Thiele B, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1751-3
A targeted deletion of a region upstream from the Jkappa cluster impairs kappa chain rearrangement in cis in mice and in the 103/bcl2 cell line. Cocea L, et al. **J Exp Med** 1999 May 3;189(9):1443-50
Mutation analysis of a Japanese patient with fucosidosis. Akagi M, et al. **J Hum Genet** 1999;44(5):323-6
A clinical and molecular study of a patient with Simpson-Golabi-Behmel syndrome. Okamoto N, et al. **J Hum Genet** 1999;44(5):327-9
Reduced IL-4-, lipopolysaccharide-, and IFN-gamma-induced MHC class II expression in mice lacking class II transactivator due to targeted deletion of the GTP-binding domain. Itoh-Lindstrom Y, et al. **J Immunol** 1999 Sep 1;163(5):2425-31
CCR5 delta32 deletion and reduced risk of toxoplasmosis in persons infected with human immunodeficiency virus type 1. The SEROCO-HEMOCO-SEROGEST Study Groups. Meyer L, et al. **J Infect Dis** 1999 Sep;180(3):920-4
A 32-bp deletion within the CCR5 locus protects against transmission of parenterally acquired human immunodeficiency virus but does not affect progression to AIDS-defining illness [see comments] Wilkinson DA, et al. **J Infect Dis** 1998 Oct;178(4):1163-6. Comment in: J Infect Dis 1999 May;179(5):1310-2.
A novel 4 bp deletion mutation in the FALDH gene segregating in a Turkish family with Sjögren-Larsson syndrome [letter] Willemsen MA, et al. **J Invest Dermatol** 1999 May;112(5):827-8
A microdeletion within DAX-1 in X-linked adrenal hypoplasia congenita and hypogonadotrophic hypogonadism. Wang J, et al. **J Investig Med** 1999 May; 47(5):232-5
A common DLX3 gene mutation is responsible for tricho-dento-osseous syndrome in Virginia and North Carolina families. Price JA, et al. **J Med Genet** 1998 Oct; 35(10):825-8
A small interstitial deletion in the GPC3 gene causes Simpson-Golabi-Behmel syndrome in a Dutch-Canadian family. Xuan JY, et al. **J Med Genet** 1999 Jan;36(1):57-8
Deletions in the hepatitis B virus core gene may influence the clinical outcome in hepatitis B e antigen-positive asymptomatic healthy carriers. Tsubota A, et al. **J Med Virol** 1998 Dec;56(4):287-93
Transproteomic evidence of a loop-deletion mechanism for enhancing protein thermostability. Thompson MJ, et al. **J Mol Biol** 1999 Jul 9;290(2):595-604
Analysis of the parkin deletion in sporadic and familial Parkinson's disease. Short communication. Krüger R, et al. **J Neural Transm** 1999;106(2):159-63
A new CYP2A6 gene deletion responsible for the in vivo polymorphic metabolism of (+)-cis-3,5-dimethyl-2-(3-pyridyl)thiazolidin-4-one hydrochloride in humans. Nunoya KI, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):437-42
Expression of exon 5 deleted estrogen receptor variant messenger RNA in human uterine myometrium and leiomyoma. Mito K, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(1):9-16
Deletion mutagenesis within the dimerization initiation site of human immunodeficiency virus type 1 results in delayed processing of the p2 peptide from precursor proteins. Liang C, et al. **J Virol** 1999 Jul;73(7):6147-51
Restoration of open reading frame resulting from skipping of an exon with an internal deletion in the COL7A1 gene. Cserhalmi-Friedman PB, et al. **Lab Invest** 1998 Dec; 78(12):1483-92

KIT mutation portends poor prognosis in gastrointestinal stromal/smooth muscle tumors. Ernst SI, et al. **Lab Invest** 1998 Dec;78(12):1633–6

Absence of brain Dp140 isoform and cognitive impairment in Becker muscular dystrophy [letter] Bardoni A, et al. **Lancet** 1999 Mar 13;353(9156):897–8

5q(–)survival: importance of gender and deleted 5q bands and survival analysis based on 324 published cases. Pedersen B. **Leuk Lymphoma** 1998 Oct;31(3–4):325–34 (49 ref.)

Identification of genes within the Krd deletion on mouse chromosome 19. Ji W, et al. **Mamm Genome** 1999 Apr; 10(4):399–401

Overview of QTL mapping software and introduction to map manager QT. Manly KF, et al. **Mamm Genome** 1999 Apr; 10(4):327–34 (53 ref.)

Analysis of transporter topology using deletion and epitope tagging. Clark JA. **Methods Enzymol** 1998;296:293–307

A dispensable region of the chromosome which is associated with an avirulence gene in Pseudomonas syringae pv. pisi. Arnold DL, et al. **Microbiology** 1999 Jan;145 (Pt 1):135–41

A 12.7 kb fragment of the Mycobacterium tuberculosis genome is not present in Mycobacterium bovis. Zumárraga M, et al. **Microbiology** 1999 Apr;145 (Pt 4):893–7

Double-strand break repair can lead to high frequencies of deletions within short CAG/CTG trinucleotide repeats. Richard GF, et al. **Mol Gen Genet** 1999 Jun; 261(4–5):871–82

Asymmetric crossing over in the spontaneous formation of large deletions in the tonB–trp region of the Escherichia coli K–12 chromosome. Uematsu N, et al. **Mol Gen Genet** 1999 Apr;261(3):523–9

Identification and detection of the common 65-kb deletion breakpoint in the nephropathic cystinosis gene (CTNS). Anikster Y, et al. **Mol Genet Metab** 1999 Feb;66(2):111–6

Mitochondrial DNA deletion in human oocytes and embryos. Brenner CA, et al. **Mol Hum Reprod** 1998 Sep;4(9):887–92

Deletion analysis of MotA and MotB, components of the force-generating unit in the flagellar motor of Salmonella. Muramoto K, et al. **Mol Microbiol** 1998 Sep;29(5):1191–202

Defining regions of the Y-chromosome responsible for male infertility and identification of a fourth AZF region (AZFd) by Y-chromosome microdeletion detection. Kent-First M, et al. **Mol Reprod Dev** 1999 May;53(1):27–41

Demonstration of the 4977 bp deletion in human mitochondrial DNA from intravital and postmortem blood. von Wurmb N, et al. **Mutat Res** 1998 Dec 3;422(2):247–54

Molecular diagnosis of the inherited long-QT syndrome in a woman who died after near-drowning. Ackerman MJ, et al. **N Engl J Med** 1999 Oct 7;341(15):1121–5

A human IFNGR1 small deletion hotspot associated with dominant susceptibility to mycobacterial infection [see comments] Jouanguy E, et al. **Nat Genet** 1999 Apr; 21(4):370–8. Comment in: Nat Genet 1999 Apr;21(4):345–6.

Identification of SLC7A7, encoding y+LAT–1, as the lysinuric protein intolerance gene. Torrents D, et al. **Nat Genet** 1999 Mar;21(3):293–6

VHL gene inactivation in an endolymphatic sac tumor associated with von Hippel–Lindau disease [see comments] Kawahara N, et al. **Neurology** 1999 Jul 13;53(1):208–10. Comment in: Neurology 1999 Jul 13;53(1):7–8.

Autosomal dominant progressive external ophthalmoplegia: distribution of multiple mitochondrial DNA deletions. Moslemi AR, et al. **Neurology** 1999 Jul 13;53(1):79–84

Identification of the mouse neuromuscular degeneration gene and mapping of a second site suppressor allele. Cox GA, et al. **Neuron** 1998 Dec;21(6):1327–37

Identification of break points in mutated PMP22 gene in a new Trembler (Tr–Ncnp) mouse. Sakai Y, et al. **Neuroscience** 1999;88(3):989–91

Analysis of internal (n–1)mer deletion sequences in synthetic oligodeoxyribonucleotides by hybridization to an immobilized probe array. Chen D, et al. **Nucleic Acids Res** 1999 Jan 15;27(2):389–95

Cell-by-cell scanning of whole mitochondrial genomes in aged human heart reveals a significant fraction of myocytes with clonally expanded deletions. Khrapko K, et al. **Nucleic Acids Res** 1999 Jun 1;27(11):2434–41

Deletion errors generated during replication of CAG repeats. Kroutil LC, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3481–6

Point and deletion mutations eliminate one or both methyl group transfers catalysed by the yeast TRM1 encoded tRNA (m22G26)dimethyltransferase. Liu J, et al. **Nucleic Acids Res** 1998 Nov 15;26(22):5102–8

The Glu632–Leu633 deletion in cysteine rich domain of Ret induces constitutive dimerization and alters the processing of the receptor protein. Bongarzone I, et al. **Oncogene** 1999 Aug 26;18(34):4833–8

Refinement of the LOH region 1 at 11q23.1 deleted in human breast carcinomas and sublocalization of 11 expressed sequence tags within the refined region. di Iasio MG, et al. **Oncogene** 1999 Feb 25;18(8):1635–8

Impairment of cell adhesion by expression of the mutant neurofibromatosis type 2 (NF2) genes which lack exons in the ERM-homology domain. Koga H, et al. **Oncogene** 1998 Aug 20;17(7):801–10

Detailed deletion mapping suggests the involvement of a tumor suppressor gene at 17p13.3, distal to p53, in the pathogenesis of lung cancers. Konishi H, et al. **Oncogene** 1998 Oct 22;17(16):2095–100

A novel region of deletion on chromosome 6q23.3 spanning less than 500 Kb in high grade invasive epithelial ovarian cancer. Shridhar V, et al. **Oncogene** 1999 Jul 1; 18(26):3913–8

Localization of common deletion regions on 1p and 19q in human gliomas and their association with histological subtype. Smith JS, et al. **Oncogene** 1999 Jul 15; 18(28):4144–52

Truncation of the TGF-beta type II receptor gene results in insensitivity to TGF-beta in human gastric cancer cells. Yang HK, et al. **Oncogene** 1999 Apr 1;18(13):2213–9

Abnormal transcripts of FHIT gene in Chinese brain tumors. Tsai TC, et al. **Oncol Rep** 1999 Mar–Apr;6(2):345–8

Structure and expression of variant BRCA2a lacking the transactivation domain. Zou JP, et al. **Oncol Rep** 1999 Mar–Apr;6(2):437–40

Severe juvenile retinoschisis associated with a 33-bps deletion in XLRS1 gene. Shinoda K, et al. **Ophthalmic Genet** 1999 Mar;20(1):57–61

Diagnosis of mitochondrial trifunctional protein deficiency in a blood spot from the newborn screening card by tandem mass spectrometry and DNA analysis. Matern D, et al. **Pediatr Res** 1999 Jul;46(1):45–9

Structure and promoter/leader deletion analysis of mirabilis mosaic virus (MMV) full-length transcript promoter in transgenic plants. Dey N, et al. **Plant Mol Biol** 1999 Jul; 40(5):771–82

Genetic deletion of proteins resembling Type IV pilins in Synechocystis sp. PCC 6803: their role in binding or transfer of newly synthesized chlorophyll. He Q, et al. **Plant Mol Biol** 1999 Apr;39(6):1175–88

Pitfalls in prenatal diagnosis of DMD due to placental mosaicism of the X-chromosomes: prenatal and postnatal findings in a fetus with a deletion of exons 67–71 of the dystrophin gene. Vondran S, et al. **Prenat Diagn** 1999 Jan; 19(1):64–7

Immunization against genital herpes with a vaccine virus that has defects in productive and latent infection. Da Costa XJ, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6994–8

A deletion within the murine Werner syndrome helicase induces sensitivity to inhibitors of topoisomerase and loss of cellular proliferative capacity. Lebel M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13097–102

Genetic background changes the pattern of forebrain commissure defects in transgenic mice underexpressing the beta-amyloid-precursor protein. Magara F, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4656–61

Comparative studies on mammalian Hoxc8 early enhancer sequence reveal a baleen whale-specific deletion of a cis-acting element. Shashikant CS, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15446–51

Mutations in HYAL1, a member of a tandemly distributed multigene family encoding disparate hyaluronidase activities, cause a newly described lysosomal disorder, mucopolysaccharidosis IX. Triggs-Raine B, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6296–300

Relative rates of insertion and deletion mutations in a microsatellite sequence in cultured cells. Twerdi CD, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2875–9

Dinucleotide deletions in neuronal transcripts: a novel type of mutation in non-familial Alzheimer's disease and Down syndrome patients. Hol EM, et al. **Prog Brain Res** 1998; 117:379–95

Common mutations in BRCA1 and BRCA2 do not contribute to early prostate cancer in Jewish men. Nastiuk KL, et al. **Prostate** 1999 Aug 1;40(3):172–7

Refolding, purification, and characterization of a loop deletion mutant of human Bcl-2 from bacterial inclusion bodies. Anderson M, et al. **Protein Expr Purif** 1999 Mar; 15(2):162–70

Probing the ligand binding domain of the GluR2 receptor by proteolysis and deletion mutagenesis defines domain boundaries and yields a crystallizable construct. Chen GQ, et al. **Protein Sci** 1998 Dec;7(12):2623–30

Deletion polymorphism in the angiotensin-converting enzyme gene as a thrombophilic risk factor after hip arthroplasty. Philipp CS, et al. **Thromb Haemost** 1998 Dec; 80(6):869–73

Vaccine potential of a herpes simplex virus type 2 mutant deleted in the PK domain of the large subunit of ribonucleotide reductase (ICP10). Aurelian L, et al. **Vaccine** 1999 Apr 9;17(15–16):1951–63

Point mutations and deletion responsible for the Bombay H null and the Reunion H weak blood groups. Fernandez-Mateos P, et al. **Vox Sang** 1998;75(1):37–46

[Update on a diagnostic test for choroideremia: the protein truncation test (PTT)] Beaufrere L, et al. **J Fr Ophtalmol** 1998 May;21(5):345–50 (Eng. Abstr.) **(Fre)**

[Thermostability of bacteriophage T4 fibritin and its deletion mutants] Londer Iula, et al. **Bioorg Khim** 1999 Apr; 25(4):257–63 (Eng. Abstr.) **(Rus)**

[Interstitial 9q deletion: a primary change in acute non-lymphoblastic leukemia?] Lloveras E, et al. **Sangre (Barc)** 1998 Oct;43(5):433–5 (Eng. Abstr.) **(Spa)**

GENETICS

32 bp deletion in CCR–5 gene and human immunodeficiency virus epidemic in the Czech Republic [letter] Drábek J, et al. **Acta Virol** 1998 Apr;42(2):121–2

Penetrances of BRCA1 1675delA and 1135insA with respect to breast cancer and ovarian cancer. Dørum A, et al. **Am J Hum Genet** 1999 Sep;65(3):671–9

Molecular characterization of CTNS deletions in nephropathic cystinosis: development of a PCR-based detection assay. Forestier L, et al. **Am J Hum Genet** 1999 Aug;65(2):353–9

Molecular and clinical correlation study of Williams–Beuren syndrome: No evidence of molecular factors in the deletion region or imprinting affecting clinical outcome. Wang MS, et al. **Am J Med Genet** 1999 Sep 3;86(1):34–43

The significance of the homozygous CYP2A6 deletion on nicotine metabolism: a new genotyping method of CYP2A6 using a single PCR–RFLP. Kitagawa K, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):146–51

The yeast Npi1/Rsp5 ubiquitin ligase lacking its N–terminal C2 domain is competent for ubiquitination but not for subsequent endocytosis of the gap1 permease. Springael JY, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):561–6

Expression of normal and truncated forms of human endoglin. Raab U, et al. **Biochem J** 1999 May 1;339 (Pt 3):579–88

Mismatch cleavage detects base deletion in cystic fibrosis gene. Hsu IC, et al. **Biotechniques** 1998 Oct;25(4):692–6

Sensitive detection of the 4977-bp deletion in human mitochondrial DNA of young individuals. Meissner C, et al. **Biotechniques** 1998 Oct;25(4):652–4

Two co-existing mechanisms account for the large-scale deletions of mitochondrial DNA in Podospora anserina that involve the 5'border of a group–II intron. Sainsard-Chanet A, et al. **Curr Genet** 1998 Oct;34(4):326–35

Spi(–) selection: An efficient method to detect gamma-ray-induced deletions in transgenic mice. Nohmi T, et al. **Environ Mol Mutagen** 1999;34(1):9–15

Transgenic Cre recombinase expression in germ cells and early embryogenesis directs homogeneous and ubiquitous deletion of loxP-flanked gene segments. Bergqvist I, et al. **FEBS Lett** 1998 Oct 30;438(1–2):76–80

A somatic BRCA2 mutation in RER+ endometrial carcinomas that specifically deletes the amino-terminal transactivation domain. Koul A, et al. **Genes Chromosomes Cancer** 1999 Mar;24(3):207–12

Gains, losses, and amplifications of genomic materials in primary gastric cancers analyzed by comparative genomic hybridization. Sakakura C, et al. **Genes Chromosomes Cancer** 1999 Apr;24(4):299–305

Organization and expression of the mitochondrial genome in the Nicotiana sylvestris CMSII mutant. Lelandais C, et al. **Genetics** 1998 Oct;150(2):873–82

Identification and characterization of a homozygous deletion found in ovarian ascites by representational difference analysis. Watson JE, et al. **Genome Res** 1999 Mar; 9(3):226–33

Twenty-seven base pair deletion in erythrocyte band 3 protein gene responsible for Southeast Asian ovalocytosis is not common among Southeast Asians. Kimura M, et al. **Hum Biol** 1998 Dec;70(6):993–1000

A large Alu-mediated deletion, identified by PCR, as the molecular basis for glycogen storage disease type II (GSDII). Huie ML, et al. **Hum Genet** 1999 Jan;104(1):94–8

alpha–Thalassaemia due to a single codon deletion in the alpha1–globin gene. Computational structural analysis of the new alpha-chain variant. Mutations in brief no. 132. Online. Ayala S, et al. **Hum Mutat** 1998;11(5):412

Identification and characterisation of a deletion (537delAT) in the protoporphyrinogen oxidase gene in a South African variegate porphyria family. Corrigall AV, et al. **Hum Mutat** 1998;12(6):403–7

Prevalence of Lithuanian mutation among St. Petersburg Jews with familial hypercholesterolemia. Mandelshtam M, et al. **Hum Mutat** 1998;12(4):255–8

Mutation 1091delC is highly prevalent in Spanish Sanfilippo syndrome type A patients. Montfort M, et al. **Hum Mutat** 1998;12(4):274–9

Deletion of the major proteolytic site of the Helicobacter pylori cytotoxin does not influence toxin activity but favors assembly of the toxin into hexameric structures. Burroni D, et al. **Infect Immun** 1998 Nov;66(11):5547–50

Sequence analysis of the ATM gene in 20 patients with RTOG grade 3 or 4 acute and/or late tissue radiation side effects. Oppitz U, et al. **Int J Radiat Oncol Biol Phys** 1999 Jul 15;44(5):981–8

Three-generation evaluation of Y-chromosome microdeletion. Kleiman SE, et al. **J Androl** 1999 May–Jun; 20(3):394–8

Singlet oxygen mediates the UVA-induced generation of the photoaging-associated mitochondrial common deletion. Berneburg M, et al. **J Biol Chem** 1999 May 28; 274(22):15345–9

Detection of gene deletions in Chinese patients with Duchenne/Becker muscular dystrophy using CDNA probes and the polymerase chain reaction method. Yuge L, et al. **Life Sci** 1999;65(9):863–9

Homology-dependent maternal inhibition of developmental excision of internal eliminated sequences in Paramecium tetraurelia. Duharcourt S, et al. **Mol Cell Biol** 1998 Dec; 18(12):7075–85

Detection of the '4977 bp' mitochondrial DNA deletion in human atherosclerotic lesions. Bogliolo M, et al. **Mutagenesis** 1999 Jan;14(1):77–82

Characterization of sequence elements involved in p53 stability regulation reveals cell type dependence for p53 degradation. Hengstermann A, et al. **Oncogene** 1998 Dec

SEQUENCE DELETION

3;17(22):2933–41
Mutation analysis in Emery–Dreifuss muscular dystrophy. Nevo Y, et al. **Pediatr Neurol** 1999 Jul;21(1):456–9
Analysis of intracellular trafficking and interactions of cytoplasmic HIV–1 Rev mutants in living cells. Stauber RH, et al. **Virology** 1998 Nov 10;251(1):38–48

SEQUENCE DETERMINATION see **SEQUENCE ANALYSIS**

SEQUENCE DETERMINATION, DNA see **SEQUENCE ANALYSIS, DNA**

SEQUENCE DETERMINATION, RNA see **SEQUENCE ANALYSIS, RNA**

SEQUENCE HOMOLOGY

In situ hybridization (FISH) maps chromosomal homologies between Alouatta belzebul (Platyrrhini, Cebidae) and other primates and reveals extensive interchromosomal rearrangements between howler monkey genomes. Consigliere S, et al. **Am J Primatol** 1998;46(2):119–33
When is homology not homology? Wray GA, et al. **Curr Opin Genet Dev** 1998 Dec;8(6):675–80 (47 ref.)
Homology modelling of human cytochromes P450 involved in xenobiotic metabolism and rationalization of substrate selectivity. Lewis DF. **Exp Toxicol Pathol** 1999 Jul; 51(4–5):369–74
Homologies of the thyroid sodium–iodide symporter with bacterial and viral proteins. Benvenga S, et al. **J Endocrinol Invest** 1999 Jul–Aug;22(7):535–40
Inferring admixture proportions from molecular data. Bertorelle G, et al. **Mol Biol Evol** 1998 Oct;15(10):1298–311

SEQUENCE HOMOLOGY, AMINO ACID

A novel developmentally regulated gene in lung mesenchyme: homology to a tumor–derived trypsin inhibitor. Kaplan F, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L1027–36
Identification of multidrug resistant protein 1 of mouse leukemia P388 cells on a PVDF membrane using 6–aminoquinolyl–carbamyl (AQC)–amino acid analysis and World Wide Web (WWW)–accessible tools. Shindo N, et al. **Anal Biochem** 1998 Nov 15;264(2):251–8
Crystal structure of myotoxin II, a monomeric Lys49–phospholipase A2 homologue isolated from the venom of Cerrophidion (Bothrops) godmani. Arni RK, et al. **Arch Biochem Biophys** 1999 Jun 15;366(2):177–82
Oligosaccharide and polypeptide homology of lupin (Lupinus luteus L.) acid phosphatase subunits. Olczak M, et al. **Arch Biochem Biophys** 1998 Dec 1;360(1):85–92
Potyvirus aphid transmission requires helper component and homologous coat protein for maximal efficiency. Flasinski S, et al. **Arch Virol** 1998;143(11):2159–72
Major capsid proteins of certain Vibrio and Aeromonas phages are homologous to the equivalent protein, gp23(*), of coliphage T4. Matsuzaki S, et al. **Arch Virol** 1999; 144(8):1647–51
Homologue scanning mutagenesis of heregulin reveals receptor specific binding epitopes. Harris A, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):220–4
Comparison of three classes of snake neurotoxins by homology modeling and computer simulation graphics. Juan HF, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):500–10
Effects of mutations in pleckstrin homology domain on beta–adrenergic receptor kinase activity in intact cells. Touhara K. **Biochem Biophys Res Commun** 1998 Nov 27; 252(3):669–74
Ribosome inactivating protein and lectin from bitter melon (Momordica charantia) seeds: sequence comparison with related proteins. Wang H, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):143–6
The activity of Escherichia coli dihydroorotate dehydrogenase is dependent on a conserved loop identified by sequence homology, mutagenesis, and limited proteolysis. Björnberg O, et al. **Biochemistry** 1999 Mar 9; 38(10):2899–908
Construction and characterization of a quadruplex DNA selective single–chain autoantibody from a viable motheaten mouse hybridoma with homology to telomeric DNA binding proteins. Brown JC, et al. **Biochemistry** 1998 Nov 17;37(46):16338–48
Possible arrangement of the five domains in human complement factor I as determined by a combination of X–ray and neutron scattering and homology modeling. Chamberlain D, et al. **Biochemistry** 1998 Oct 6; 37(40):13918–29
Pleckstrin homology domain 1 of mouse alpha 1–syntrophin binds phosphatidylinositol 4,5–bisphosphate. Chockalingam PS, et al. **Biochemistry** 1999 Apr 27;38(17):5596–602
A cyanobacterial gene family coding for single–helix proteins resembling part of the light–harvesting proteins from higher plants. Funk C, et al. **Biochemistry** 1999 Jul 20; 38(29):9397–404
Photoaffinity labeling of homologous Met–133 and Met–139 amino acids of rabbit and sheep sex hormone–binding globulins with the unsubstituted Delta 6–testosterone photoreagent. Kassab D, et al. **Biochemistry** 1998 Oct 6; 37(40):14088–97
Arg304 of human DNA primase is a key contributor to catalysis and NTP binding: primase and the family X polymerases share significant sequence homology. Kirk BW, et al. **Biochemistry** 1999 Jun 15;38(24):7727–36
Apoptosis–linked gene product ALG–2 is a new member of the calpain small subunit subfamily of Ca2+–binding proteins. Lo KW, et al. **Biochemistry** 1999 Jun 8; 38(23):7498–508
NMR solution structure of alpha–conotoxin ImI and comparison to other conotoxins specific for neuronal nicotinic acetylcholine receptors. Rogers JP, et al. **Biochemistry** 1999 Mar 30;38(13):3874–82
Secondary structure and fold homology of the ArsC protein from the Escherichia coli arsenic resistance plasmid R773. Stevens SY, et al. **Biochemistry** 1999 Aug 3;38(31):10178–86
Crystal structure of human D–dopachrome tautomerase, a homologue of macrophage migration inhibitory factor, at 1.54 A resolution. Sugimoto H, et al. **Biochemistry** 1999 Mar 16;38(11):3268–79
The EH1 domain of Eps15 is structurally classified as a member of the S100 subclass of EF–hand–containing proteins. Whitehead B, et al. **Biochemistry** 1999 Aug 31; 38(35):11271–7
Interchange of catalytic activity within the 2–enoyl–coenzyme A hydratase/isomerase superfamily based on a common active site template. Xiang H, et al. **Biochemistry** 1999 Jun 15;38(24):7638–52
Homology modeling, model and software evaluation: three related resources. Rodriguez R, et al. **Bioinformatics** 1998; 14(6):523–8
Homology models of the C domains of blood coagulation factors V and VIII: a proposed membrane binding mode for FV and FVIII C2 domains. Pellequer JL, et al. **Blood Cells Mol Dis** 1998 Dec;24(4):448–61
Cloning and characterization of a novel gene (C8orf2), a human representative of a novel gene family with homology to C. elegans C42.C1.9. Ikegawa S, et al. **Cytogenet Cell Genet** 1999;85(3–4):227–31
Association of the sea urchin EGF–related peptide, EGIP–D, with fasciclin I–related ECM proteins from the sea urchin Anthocidaris crassispina. Hirate Y, et al. **Dev Growth Differ** 1999 Aug;41(4):483–94
Drosophila center divider gene is expressed in CNS midline cells and encodes a developmentally regulated protein kinase orthologous to human TESK1. Matthews BB, et al. **DNA Cell Biol** 1999 Jun;18(6):435–48
Probing the structure of complex macromolecular interactions by homolog specificity scanning: the P1 and P7 plasmid partition systems. Radnedge L, et al. **EMBO J** 1998 Oct 15;17(20):6076–85
Motifer, a search tool for finding amino acid sequence patterns from nucleotide sequence databases. Jörnvall H. **FEBS Lett** 1999 Jul 30;456(1):85–8
Solution structure of the Eps15 homology domain of a human POB1 (partner of RalBP1). Koshiba S, et al. **FEBS Lett** 1999 Jan 15;442(2–3):138–42
Identification and characterization of a protein containing formin homology (FH1/FH2) domains. Westendorf JJ, et al. **Gene** 1999 May 31;232(2):173–82
Homologs of the yeast longevity gene LAG1 in Caenorhabditis elegans and human. Jiang JC, et al. **Genome Res** 1998 Dec;8(12):1259–72
Calcium channel beta 4 (CACNB4): human ortholog of the mouse epilepsy gene lethargic. Escayg A, et al. **Genomics** 1998 May 15;50(1):14–22
Isolation and characterization of human SGT and identification of homologues in Saccharomyces cerevisiae and Caenorhabditis elegans. Kordes E, et al. **Genomics** 1998 Aug 15;52(1):90–4
Response to reactive nitrogen intermediates in Mycobacterium tuberculosis: induction of the 16–kilodalton alpha–crystallin homolog by exposure to nitric oxide donors. Garbe TR, et al. **Infect Immun** 1999 Jan;67(1):460–5
The p29 and p35 immunodominant antigens of Neospora caninum tachyzoites are homologous to the family of surface antigens of Toxoplasma gondii. Howe DK, et al. **Infect Immun** 1998 Nov;66(11):5322–8
Characterization of a 34–kilodalton protein of Mycobacterium leprae that is isologous to the immunodominant 34–kilodalton antigen of Mycobacterium paratuberculosis. Silbaq FS, et al. **Infect Immun** 1998 Nov; 66(11):5576–9
Five homologous repeats of the protein G–related protein MIG cooperate in binding to goat immunoglobulin G. Vasi J, et al. **Infect Immun** 1999 Jan;67(1):413–6
Identification and characterisation of two allergens from the dust mite Acarus siro, homologous with fatty acid–binding proteins. Eriksson TL, et al. **Int Arch Allergy Immunol** 1999 Aug;119(4):275–81
Cloning and characterization of a close homologue of human UDP–N–acetyl–alpha–D–galactosamine:Polypeptide N–acetylgalactosaminyltransferase–T3, designated GalNAc–T6. Evidence for genetic but not functional redundancy. Bennett EP, et al. **J Biol Chem** 1999 Sep 3; 274(36):25362–70
IRS pleckstrin homology domains bind to acidic motifs in proteins. Burks DJ, et al. **J Biol Chem** 1998 Nov 20; 273(47):31061–7
Long QT syndrome–associated mutations in the Per–Arnt–Sim (PAS) domain of HERG potassium channels accelerate channel deactivation. Chen J, et al. **J Biol Chem** 1999 Apr 9;274(15):10113–8
Identification of the enzyme required for activation of the small ubiquitin–like protein SUMO–1. Desterro JM, et al. **J Biol Chem** 1999 Apr 9;274(15):10618–24
Specificity and promiscuity in phosphoinositide binding by pleckstrin homology domains. Kavran JM, et al. **J Biol Chem** 1998 Nov 13;273(46):30497–508
CIPER, a novel NF kappaB–activating protein containing a caspase recruitment domain with homology to Herpesvirus–2 protein E10. Koseki T, et al. **J Biol Chem** 1999 Apr 9;274(15):9955–61
SH2–B is required for nerve growth factor–induced neuronal differentiation. Rui L, et al. **J Biol Chem** 1999 Apr 9; 274(15):10590–4
The ADP–ribosylation factor (ARF)–related GTPase ARF–related protein binds to the ARF–specific guanine nucleotide exchange factor cytohesin and inhibits the ARF–dependent activation of phospholipase D. Schürmann A, et al. **J Biol Chem** 1999 Apr 2; 274(14):9744–51
A syntaxin homolog encoded by VAM3 mediates down–regulation of a yeast G protein–coupled receptor. Stefan CJ, et al. **J Biol Chem** 1999 Jan 15;274(3):1835–41
Equine herpesvirus–2 E10 gene product, but not its cellular homologue, activates NF–kappaB transcription factor and c–Jun N–terminal kinase. Thome M, et al. **J Biol Chem** 1999 Apr 9;274(15):9962–8
Bruton's tyrosine kinase as an inhibitor of the Fas/CD95 death–inducing signaling complex. Vassilev A, et al. **J Biol Chem** 1999 Jan 15;274(3):1646–56
The pleckstrin homology domain of protein kinase D interacts preferentially with the eta isoform of protein kinase C. Waldron RT, et al. **J Biol Chem** 1999 Apr 2; 274(14):9224–30
Molecular cloning and tissue–specific expression of Mrad9, a murine orthologue of the Schizosaccharomyces pombe rad9+ checkpoint control gene. Hang H, et al. **J Cell Physiol** 1998 Nov;177(2):241–7
The S. cerevisiae CLU1 and D. discoideum cluA genes are functional homologues that influence mitochondrial morphology and distribution. Fields SD, et al. **J Cell Sci** 1998 Jun;111 (Pt 12):1717–27
An intronless homolog of human proto–oncogene hPTTG is expressed in pituitary tumors: evidence for hPTTG family. Prezant TR, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1149–52
Homology detection via family pairwise search. Grundy WN. **J Comput Biol** 1998 Fall;5(3):479–91
Homologue scanning mutagenesis reveals CD66 receptor residues required for neisserial Opa protein binding. Bos MP, et al. **J Exp Med** 1999 Aug 2;190(3):331–40
Molecular cloning and functional characterization of the rat analogue of human decay–accelerating factor (CD55). Hinchliffe SJ, et al. **J Immunol** 1998 Nov 15; 161(10):5695–703
Genes encoding three new members of the leukocyte antigen 6 superfamily and a novel member of Ig superfamily, together with genes encoding the regulatory nuclear chloride ion channel protein (hRNCC) and an N omega–N omega–dimethylarginine dimethylaminohydrolase homologue, are found in a 30–kb segment of the MHC class III region. Ribas G, et al. **J Immunol** 1999 Jul 1; 163(1):278–87
The porcine 2A10 antigen is homologous to human CD163 and related to macrophage differentiation. Sánchez C, et al. **J Immunol** 1999 May 1;162(9):5230–7
Modularity and homology: modelling of the type II module family from titin. Fraternali F, et al. **J Mol Biol** 1999 Jul 9;290(2):581–93
Sequence homology and structural analysis of the clostridial neurotoxins. Lacy DB, et al. **J Mol Biol** 1999 Sep 3; 291(5):1091–104
A computer program to compare sequence fingerprints of homologous proteins for the rapid assessment of their primary structure differences. Caporale C, et al. **J Protein Chem** 1998 Nov;17(8):867–73
Antiendotoxin agents share molecular homology within their lipopolysaccharide binding domains. Kellogg TA, et al. **J Surg Res** 1999 Jul;85(1):136–41
Sequence analysis of the rat Brca1 homolog and its promoter region. Bennett LM, et al. **Mamm Genome** 1999 Jan; 10(1):19–25
Cloning and tissue expression of the mouse ortholog of AIM1, a betagamma–crystallin superfamily member. Teichmann U, et al. **Mamm Genome** 1998 Sep;9(9):715–20
Molecular cloning and biochemical characterization of a VCP homolog in African trypanosomes. Roggy JL, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):1–15
Homologs of animal eyes absent (eya) genes are found in higher plants. Takeda Y, et al. **Mol Gen Genet** 1999 Aug; 262(1):131–8
Expression of Epstein–Barr virus (EBV) transcripts encoding homologues to important human proteins in diverse EBV associated diseases. Hayes DP, et al. **Mol Pathol** 1999 Apr; 52(2):97–103
The patentability of algorithms. Alexander TD. **Nat Biotechnol** 1999 Apr;17(4):395–6
Human homologue of the Drosophila melanogaster lats tumour suppressor modulates CDC2 activity. Tao W, et al. **Nat Genet** 1999 Feb;21(2):177–81
Hephaestin, a ceruloplasmin homologue implicated in intestinal iron transport, is defective in the sla mouse. Vulpe

CD, et al. **Nat Genet** 1999 Feb;21(2):195–9
Structure and mutagenesis of the Dbl homology domain. Aghazadeh B, et al. **Nat Struct Biol** 1998 Dec; 5(12):1098–107
Exposition of a family of RNA m(5)C methyltransferases from searching genomic and proteomic sequences. Reid R, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3138–45
Effective query filtering for fast homology searching. Williams HE. **Pac Symp Biocomput** 1999;:214–25
Lon and Clp family proteases and chaperones share homologous substrate-recognition domains. Smith CK, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6678–82
Identification of the rat homologue of KAI1 and its expression in Dunning rat prostate cancers. Suzuki H, et al. **Prostate** 1998 Dec 1;37(4):253–60
Twilight zone of protein sequence alignments. Rost B. **Protein Eng** 1999 Feb;12(2):85–94
Combining sensitive database searches with multiple intermediates to detect distant homologues. Salamov AA, et al. **Protein Eng** 1999 Feb;12(2):95–100
Misleading local sequence alignments: implications for comparative protein modelling. Saqi MA, et al. **Protein Eng** 1998 Aug;11(8):627–30
A homology identification method that combines protein sequence and structure information. Yu L, et al. **Protein Sci** 1998 Dec;7(12):2499–510
Protein structure at your desk. Basham B. **Science** 1999 Feb 19;283(5405):1132
Detecting protein function and protein–protein interactions from genome sequences. Marcotte EM, et al. **Science** 1999 Jul 30;285(5428):751–3
Covalent structures of BmK AS and BmK AS-1, two novel bioactive polypeptides purified from Chinese scorpion Buthus martensi Karsch. Ji YH, et al. **Toxicon** 1999 Mar; 37(3):519–36
The PWI motif: a new protein domain in splicing factors. Blencowe BJ, et al. **Trends Biochem Sci** 1999 May; 24(5):179–80
No Sec7-homology domain in guanine-nucleotide-exchange factors that act on Ras and Rho [letter; comment] Ponting CP, et al. **Trends Biochem Sci** 1999 May;24(5):177–8. Comment on: Trends Biochem Sci 1998 Dec;23(12):472–3.
PH domains in WASP – a bug in the system? Wiskott-Aldrich syndrome protein [letter; comment] Insall R, et al. **Trends Cell Biol** 1999 Jun;9(6):211–2. Comment on: Trends Cell Biol 1999 Jan;9(1):15–9.

SEQUENCE HOMOLOGY DETERMINATION see **SEQUENCE ALIGNMENT**

SEQUENCE HOMOLOGY, NUCLEIC ACID

see related
SEQUENCE ALIGNMENT

Identification and localization of MEP1A-like sequences (MEP1AL1-4) in the human genome. Jiang W, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):163–8
RecA protein of Mycobacterium tuberculosis possesses pH-dependent homologous DNA pairing and strand exchange activities: implications for allele exchange in mycobacteria. Vaze MB, et al. **Biochemistry** 1999 Mar 9; 38(10):3175–86
Towards detection of orthologues in sequence databases. Yuan YP, et al. **Bioinformatics** 1998;14(3):285–9
Cloning and sequence analysis of a Trypanosoma cruzi alpha-tubulin cDNA. Gonzalez-Pino MJ, et al. **Biol Res** 1997;30(4):161–6
Simultaneous synthesis of partially homologous oligonucleotide sequences. Hendry P. **Biotechniques** 1998 Aug;25(2):234–8
An endogenous retrovirus with nucleic acid sequences similar to those of the multiple sclerosis associated retrovirus at the human T-cell receptor alpha, delta gene locus. Alliel PM, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep; 44(6):927–31
Ultrastructure of regions containing homologous loci in polytene chromosomes of Drosophila melanogaster and Drosophila subobscura. Cuenca JB, et al. **Chromosoma** 1998 May;107(2):113–26
Transvection and other homology effects. Wu CT, et al. **Curr Opin Genet Dev** 1999 Apr;9(2):237–46 (123 ref.)
A chicken homolog of mammalian interleukin-1 beta: cDNA cloning and purification of active recombinant protein. Weining KC, et al. **Eur J Biochem** 1998 Dec 15; 258(3):994–1000
Molecular analysis of the split cox1 gene from the Basidiomycota Agrocybe aegerita: relationship of its introns with homologous Ascomycota introns and divergence levels from common ancestral copies. Gonzalez P, et al. **Gene** 1998 Oct 5;220(1-2):45–53
Molecular mapping of chromosome 2 deletions in murine radiation-induced AML localizes a putative tumor suppressor gene to a 1.0 cM region homologous to human chromosome segment 11p11-12. Silver A, et al. **Genes Chromosomes Cancer** 1999 Feb;24(2):95–104
Fluorescence polarization in homogeneous nucleic acid analysis. Chen X, et al. **Genome Res** 1999 May;9(5):492–8
Radiation hybrid mapping of the two highly homologous human-variant pMCHL genes by PCR-SSCP. Miller CL, et al. **Genome Res** 1998 Jul;8(7):737–40
Cloning, structural characterization, and chromosomal localization of the human orthologue of Saccharomyces cerevisiae MSH5 gene. Her C, et al. **Genomics** 1998 Aug 15;52(1):50–61
The human homologue of the Drosophila tailless gene (TLX): characterization and mapping to a region of common deletion in human lymphoid leukemia on chromosome 6q21. Jackson A, et al. **Genomics** 1998 May 15;50(1):34–43
Cloning and molecular characterization of a cross-homologous zinc finger locus ZNF204. Partridge J, et al. **Genomics** 1998 May 15;50(1):116–8
Syntenic organization of the mouse distal chromosome 7 imprinting cluster and the Beckwith-Wiedemann syndrome region in chromosome 11p15.5. Paulsen M, et al. **Hum Mol Genet** 1998 Jul;7(7):1149–59
No sliding during homology search by RecA protein. Adzuma K. **J Biol Chem** 1998 Nov 20;273(47):31565–73
Discovery of a new endogenous type C retrovirus (FcEV) in cats: evidence for RD-114 being an FcEV(Gag-Pol)/baboon endogenous virus BaEV(Env) recombinant. van der Kuyl AC, et al. **J Virol** 1999 Oct; 73(10):7994–8002
Sequence homology within a minicircle class of the Leishmania donovani complex. Lambson B, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1-2):229–32
The patentability of algorithms. Alexander TD. **Nat Biotechnol** 1999 Apr;17(4):395–6
Taming of transposable elements by homology-dependent gene silencing [see comments] Jensen S, et al. **Nat Genet** 1999 Feb;21(2):209–12. Comment in: Nat Genet 1999 Feb;21(2):148–9.
Effective query filtering for fast homology searching. Williams HE. **Pac Symp Biocomput** 1999;:214–25
Allelic trans-sensing and imprinting. Páldi A, et al. **Results Probl Cell Differ** 1999;25:271–82 (30 ref.)
Detecting protein function and protein–protein interactions from genome sequences. Marcotte EM, et al. **Science** 1999 Jul 30;285(5428):751–3
Typing of HLA-B*15 alleles using sequence-specific primers. Yu N, et al. **Tissue Antigens** 1998 Sep;52(3):260–9
[Determination of sex using PCR of the X-Y homologous gene amelogenin] Jiang B, et al. **Fa I Hsueh Tsa Chih** 1997; 13(2):68–70, 128 (Eng. Abstr.) **(Chi)**
[The contact model of crossing over: definition of conditions required for the co-orientation of homologs] Chadov BF. **Genetika** 1999 May;35(5):592–9 (Eng. Abstr.) **(Rus)**
[Comparative study of the homology of DNA in thermophilic and mesophilic lactococcal strains of various origin] Averina OV, et al. **Mikrobiologiia** 1998 Nov–Dec; 67(6):792–8 (Eng. Abstr.) **(Rus)**

SEQUENCE TAGGED SITES

Revealing hidden interval graph structure in STS-content data. Harley E, et al. **Bioinformatics** 1999 Apr;15(4):278–85
Novel homozygous deletions of chromosomal band 18q22 in pancreatic adenocarcinoma identified by STS marker scanning. Hilgers W, et al. **Genes Chromosomes Cancer** 1999 Aug;25(4):370–5
Sequence-tagged microsatellite site markers for chickpea (Cicer arietinum L.). Hüttel B, et al. **Genome** 1999 Apr; 42(2):210–7
Analysis of sequence-tagged-connector strategies for DNA sequencing. Siegel AF, et al. **Genome Res** 1999 Mar; 9(3):297–307
A STS content physical and transcription map across the ky, kyphoscoliosis, nonrecombinant region. Blanco G, et al. **Genomics** 1998 Dec 15;54(3):415–23
Integrated YAC/STS physical and genetic map of 22.5 Mb of human Xq24–q26 at 56-kb inter-STS resolution. Nagaraja R, et al. **Genomics** 1998 Sep 15;52(3):247–66
Integrated STS/YAC physical, genetic, and transcript map of human Xq21.3 to q23/q24 (DXS1203–DXS1059). Srivastava AK, et al. **Genomics** 1999 Jun 1;58(2):188–201
A human genome map of comparative anchor tagged sequences. Chen ZQ, et al. **J Hered** 1999 Jul–Aug; 90(4):477–84
Development of comparative anchor tagged sequences (CATS) for canine genome mapping. Lyons LA, et al. **J Hered** 1999 Jan–Feb;90(1):15–26
Toward a dog radiation hybrid map. Vignaux F, et al. **J Hered** 1999 Jan–Feb;90(1):62–7
Characterization and mapping of sequence-tagged microsatellite sites in the chickpea (Cicer arietinum L.) genome. Winter P, et al. **Mol Gen Genet** 1999 Aug; 262(1):90–101
Sequence-tagged connectors: a sequence approach to mapping and scanning the human genome. Mahairas GG, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9739–44
Electronic PCR: bridging the gap between genome mapping and genome sequencing. Schuler GD. **Trends Biotechnol** 1998 Nov;16(11):456–9 (16 ref.)
[Isolation of 28 new STSs at Xq27.3] Qin X, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):1–5 (Eng. Abstr.) **(Chi)**

SEQUENCING BY HYBRIDIZATION see **OLIGONUCLEOTIDE ARRAY SEQUENCE ANALYSIS**

SEQUENTIAL HEMIBODY IRRADIATION see **HEMIBODY IRRADIATION**

SEQUIVIRUS

GENETICS

Original reverse transcription polymerase chain reaction method to obtain the full-length cDNA of rice tungro spherical virus. Perrin Y, et al. **J Virol Methods** 1999 May; 79(2):161–8

SERAZIDE see **BENSERAZIDE**

SERGENTOMYIA see **PSYCHODIDAE**

SERIAL EXTRACTION

The effect of first premolar extraction on vertical dimension. Kocadereli I. **Am J Orthod Dentofacial Orthop** 1999 Jul; 116(1):41–5
Comparison of soft tissue profile changes in serial extraction and late premolar extraction. Wilson JR, et al. **Angle Orthod** 1999 Apr;69(2):165–73; discussion 173–4

SERIAL LEARNING

Is the phonological loop responsible for intelligence-related differences in forward digit span? Conners FA, et al. **Am J Ment Retard** 1998 Jul;103(1):1–11
Auditory list memory and interference processes in monkeys. Wright AA. **J Exp Psychol Anim Behav Process** 1999 Jul; 25(3):284–96
Phonotactic influences on short-term memory. Gathercole SE, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan; 25(1):84–95
Unusual modality effects in less-skilled readers. Penney CG, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):284–9
Order information in short-term memory and time estimation. Fortin C, et al. **Mem Cognit** 1999 Jan; 27(1):54–62
A partial matching theory of the mirror effect in immediate probed recognition. Murray DJ, et al. **Mem Cognit** 1998 Nov;26(6):1196–213
Reversing the phonological similarity effect. Nairne JS, et al. **Mem Cognit** 1999 Jan;27(1):45–53
The importance of semantic similarity to the irrelevant speech effect. Neely CB, et al. **Mem Cognit** 1999 Jan;27(1):37–44
Verbal and visuospatial short-term memory in children: evidence for common and distinct mechanisms. Pickering SJ, et al. **Mem Cognit** 1998 Nov;26(6):1117–30
Hemispheric differences in serial reversal learning: a study with commissurotomy patients. Teng EL. **Neuropsychologia** 1998 Oct;36(10):1025–32
[Allocation of attentional resource and monitoring processes under rapid serial visual presentation] Nishiura K. **Shinrigaku Kenkyu** 1998 Aug;69(3):178–87 (Eng. Abstr.) **(Jpn)**
[Migration-of Kanji characters and their radicals in rapid serial visual presentation] Yokosawa K, et al. **Shinrigaku Kenkyu** 1998 Aug;69(3):216–22 (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Learning versus performance impairments following regional administration of MK-801 into nucleus accumbens and dorsomedial striatum. Cory-Slechta DA, et al. **Behav Brain Res** 1999 Jul;102(1-2):181–94
Effects of (+)-HA-966, CGS-19755, phencyclidine, and dizocilpine on repeated acquisition of response chains in pigeons: systemic manipulation of central glycine sites. Campbell CM, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):521–7

PHYSIOLOGY

Dynamic cortical involvement in implicit and explicit motor sequence learning. A PET study. Honda M, et al. **Brain** 1998 Nov;121 (Pt 11):2159–73
Implicit learning in Parkinson's disease: evidence from a verbal version of the serial reaction time task. Westwater H, et al. **J Clin Exp Neuropsychol** 1998 Jun;20(3):413–8
The time course of changes during motor sequence learning: a whole-brain fMRI study. Toni I, et al. **Neuroimage** 1998 Jul;8(1):50–61
Covert signs of expectancy in serial reaction time tasks revealed by event-related potentials. Sommer W, et al. **Percept Psychophys** 1999 Feb;61(2):342–53
Semantic similarity and immediate serial recall: is there a detrimental effect on order information? Saint-Aubin J, et al. **Q J Exp Psychol A** 1999 May;52(2):367–94

SERIAL PASSAGE

Experimental evolution of parasites. Ebert D. **Science** 1998 Nov 20;282(5393):1432–5 (78 ref.)

SERIAL PUBLICATIONS

[Publications] Skjaerbaek CB. **Ugeskr Laeger** 1999 Aug 16; 161(33):4644–6 (0 ref.) **(Dan)**
[Therapeutic goals for blood pressure in the press] Gulbrandsen P, et al. **Tidsskr Nor Laegeforen** 1998 Aug 30;118(20):3101 **(Nor)**
[The firing of JAMA's editor is a shame for the American Medical Society] Nylenna M. **Tidsskr Nor Laegeforen** 1999

Jan 30;119(3):351 **(Nor)**

[Exit Nordisk Medicin] Karlsson Y. **Lakartidningen** 1998 Dec 16;95(51-52):5861 **(Swe)**

[Don't forget the journals in the fight against research misconduct. Investigation of suspected misconduct should not be conducted by the universities themselves (see comments)] Zetterström R. **Lakartidningen** 1998 Oct 28; 95(44):4864-6 (7 ref.). Comment in: Lakartidningen 1998 Nov 18;95(47):5275. **(Swe)**

HISTORY

Sketches from The Lancet. Venereal diseases. Kandela P. **Lancet** 1999 Jan 30;353(9150):419

STANDARDS

[A survey of readers of Ugeskrift for Laeger 1998] **Ugeskr Laeger** 1998 Dec 21;160(52):7619 **(Dan)**

SERINE

Effect of mutagenesis at serine 653 of Arabidopsis thaliana acetohydroxyacid synthase on the sensitivity to imidazolinone and sulfonylurea herbicides. Lee YT, et al. **FEBS Lett** 1999 Jun 11;452(3):341-5

Ser-262 in human recombinant tau protein is a markedly more favorable site for phosphorylation by CaMKII than PKA or PhK. Sironi JJ, et al. **FEBS Lett** 1998 Oct 9; 436(3):471-5

Role of glycosylation at Ser63 in production of soluble pilin in pathogenic Neisseria. Marceau M, et al. **J Bacteriol** 1999 Jan;181(2):656-61

Identification of serine 356 and serine 363 as the amino acids involved in etorphine-induced down-regulation of the mu-opioid receptor. Burd AL, et al. **J Biol Chem** 1998 Dec 18;273(51):34488-95

The cellular localization of the murine serine/arginine-rich protein kinase CLK2 is regulated by serine 141 autophosphorylation. Nayler O, et al. **J Biol Chem** 1998 Dec 18;273(51):34341-8

Effects of serine mutations in transmembrane domain 7 of the human norepinephrine transporter on substrate binding and transport. Danek Burgess KS, et al. **J Neurochem** 1999 Aug;73(2):656-64

Phosphorylation of serine-880 in GluR2 by protein kinase C prevents its C terminus from binding with glutamate receptor-interacting protein. Matsuda S, et al. **J Neurochem** 1999 Oct;73(4):1765-8

Role of conserved serine residues in the interaction of agonists with D3 dopamine receptors. Sartania N, et al. **J Neurochem** 1999 Jun;72(6):2621-4

Mapping of a serine-rich domain essential for the transcriptional, antiapoptotic, and transforming activities of the v-Rel oncoprotein. Chen C, et al. **Mol Cell Biol** 1999 Jan;19(1):307-16

Transthyretin amyloidosis (serine 44) with headache, hearing loss, and peripheral neuropathy. Klein CJ, et al. **Neurology** 1998 Nov;51(5):1462-4

Effects of temperature and mexiletine on the F1473S Na+ channel mutation causing paramyotonia congenita. Fleischhauer R, et al. **Pflugers Arch** 1998 Oct;436(5):757-65

Novel role of phosphorylation in Fe-S cluster stability revealed by phosphomimetic mutations at Ser-138 of iron regulatory protein 1. Brown NM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15235-40

Two serine residues of the glutamate transporter GLT-1 are crucial for coupling the fluxes of sodium and the neurotransmitter. Zhang Y, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1710-5

ADVERSE EFFECTS

D-serine added to antipsychotics for the treatment of schizophrenia [see comments] Tsai G, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1081-9. Comment in: Biol Psychiatry 1998 Dec 1;44(11):1075-6.

ANALOGS & DERIVATIVES

Quantification of N-(glucitol)ethanolamine and N-(carboxymethyl)serine: two products of nonenzymatic modification of aminophospholipids formed in vivo. Fountain WC, et al. **Anal Biochem** 1999 Jul 15;272(1):48-55

A new route to L-threo-3-[4-(methylthio)phenylserine], a key intermediate for the synthesis of antibiotics: recombinant low-specificity D-threonine aldolase-catalyzed stereospecific resolution. Liu JQ, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):586-91

Eponemycin analogues: syntheses and use as probes of angiogenesis. Sin N, et al. **Bioorg Med Chem** 1998 Aug; 6(8):1209-17

Stereoselective syntheses of phosphorylated and sulfated glycosyl serines in glycosaminoglycan for biological probes. Tamura J, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1911-4

Conagenin derived from Streptomyces roseosporus enhances macrophage functions. Hamada M, et al. **J Antibiot (Tokyo)** 1999 Jun;52(6):548-51

[Action and molecular targets of anti cancer agents from microbial products] Ishizuka M. **Jpn J Antibiot** 1999 Feb; 52(2):174-5 **(Jpn)**

ANALYSIS

Flow injection analysis system for the supervision of industrial chromatographic downstream processing in biotechnology. Sosnitza P, et al. **Biosens Bioelectron** 1998 Dec 1;13(12):1251-5

BIOSYNTHESIS

Regulation of serine biosynthesis in Arabidopsis. Crucial role of plastidic 3-phosphoglycerate dehydrogenase in non-photosynthetic tissues. Ho CL, et al. **J Biol Chem** 1999 Jan 1;274(1):397-402

Plastidic pathway of serine biosynthesis. Molecular cloning and expression of 3-phosphoserine phosphatase from Arabidopsis thaliana. Ho CL, et al. **J Biol Chem** 1999 Apr 16;274(16):11007-12

Molecular characterization of plastidic phosphoserine aminotransferase in serine biosynthesis from Arabidopsis. Ho CL, et al. **Plant J** 1998 Nov;16(4):443-52

Purification of serine racemase: biosynthesis of the neuromodulator D-serine. Wolosker H, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):721-5

CHEMISTRY

Crystallization and preliminary X-ray analysis of a new L-aminopeptidase-D-amidase/D-esterase activated by a Gly-Ser peptide bond hydrolysis. Bompard-Gilles C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Mar;55 (Pt 3):699-701

The active site of phosphorylating glyceraldehyde-3-phosphate dehydrogenase is not designed to increase the nucleophilicity of a serine residue. Boschi-Muller S, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):259-66

Organization of the inter-alpha-inhibitor heavy chains on the chondroitin sulfate originating from Ser(10) of bikunin: posttranslational modification of Ialpha1-derived bikunin. Enghild JJ, et al. **Biochemistry** 1999 Sep 7;38(36):11804-13

Characterization of serine and threonine phosphorylation sites in beta-elimination/ethanethiol addition-modified proteins by electrospray tandem mass spectrometry and database searching. Jaffe H, et al. **Biochemistry** 1998 Nov 17;37(46):16211-24

Structural studies of octasaccharides derived from the low-sulfated repeating disaccharide region and octasaccharide serines derived from the protein linkage region of porcine intestinal heparin. Yamada S, et al. **Biochemistry** 1999 Jan 12;38(2):838-47

D-configuration of serine is crucial in maintaining the phalloidin-like conformation of viroisin. Zanotti G, et al. **Biochemistry** 1999 Aug 17;38(33):10723-9

Alteration of human leukotriene A4 hydrolase activity after site-directed mutagenesis: serine-415 is a regulatory residue. Rybina IV, et al. **Biochim Biophys Acta** 1999 May 18;1438(2):199-203

Role of ser-237 in the substrate specificity of the carbapenem-hydrolyzing class A beta-lactamase Sme-1. Sougakoff W, et al. **Biochim Biophys Acta** 1999 Aug 17; 1433(1-2):153-8

The amino acidic substitution of cysteine 167 by serine (C167S) in BstVI restriction endonuclease of Bacillus stearothermophilus V affects its conformation and thermostability. Loyola C, et al. **Biochimie** 1999 Mar; 81(3):261-6

Serine derived NK1 antagonists. 2: A pharmacophore model for arylsulfonamide binding. Elliott JM, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1851-6

Serine derived NK1 antagonists. 1: The effect of modifications to the serine substituents. Elliott JM, et al. **Bioorg Med Chem Lett** 1998 Jul 21;8(14):1845-50

Stereoselective syntheses of phosphorylated and sulfated glycosyl serines in glycosaminoglycan for biological probes. Tamura J, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1911-4

Analysis of the functional specificity of RS domains in vivo. Dauwalder B, et al. **EMBO J** 1998 Oct 15;17(20):6049-60

Increased osteoblastic c-fos expression by parathyroid hormone requires protein kinase A phosphorylation of the cyclic adenosine 3',5'-monophosphate response element-binding protein at serine 133. Tyson DR, et al. **Endocrinology** 1999 Mar;140(3):1255-61

Substrate specificity studies of Flavobacterium chondroitinase C and heparitinases towards the glycosaminoglycan--protein linkage region. Use of a sensitive analytical method developed by chromophore-labeling of linkage glycoserines using dimethylaminoazobenzenesulfonyl chloride. Tsuda H, et al. **Eur J Biochem** 1999 May;262(1):127-33

1H-NMR structural studies of a cystine-linked peptide containing residues 71-93 of transthyretin and effects of a Ser84 substitution implicated in familial amyloidotic polyneuropathy. Wilce JA, et al. **Eur J Biochem** 1999 Jun; 262(2):586-94

Ser-534 in the hinge 1 region of Arabidopsis nitrate reductase is conditionally required for binding of 14-3-3 proteins and in vitro inhibition. Kanamaru K, et al. **J Biol Chem** 1999 Feb 12;274(7):4160-5

Requirements of protein kinase cdelta for catalytic function. Role of glutamic acid 500 and autophosphorylation on serine 643. Stempka L, et al. **J Biol Chem** 1999 Mar 26; 274(13):8886-92

Mutation of a conserved serine residue in a quinolone-resistant type II topoisomerase alters the enzyme-DNA and drug interactions. Strumberg D, et al. **J Biol Chem** 1999 Mar 12;274(11):7292-301

Substitution of alanine for serine 250 in the murine fatty acid transport protein inhibits long chain fatty acid transport. Stuhlsatz-Krouper SM, et al. **J Biol Chem** 1998 Oct 30; 273(44):28642-50

Identification of the active site serine of penicillin-binding protein 2a from methicillin-resistant Staphylococcus aureus by electrospray mass spectrometry. Sun Y, et al. **J Mass Spectrom** 1998 Oct;33(10):1009-16

Corticotropin releasing factor (CRF) agonists with reduced amide bonds and Ser7 substitutions. Cervini L, et al. **J Med Chem** 1999 Feb 25;42(4):761-8

A recurring two-hydrogen-bond motif incorporating a serine or threonine residue is found both at alpha-helical N termini and in other situations. Wan WY, et al. **J Mol Biol** 1999 Mar 12;286(5):1651-62

Serine-23 is a major protein kinase A phosphorylation site on the amino-terminal head domain of the middle molecular mass subunit of neurofilament proteins. Sihag RK, et al. **J Neurochem** 1999 Feb;72(2):491-9

Hydrophilic interaction/cation-exchange chromatography for the purification of synthetic peptides from closely related impurities: serine side-chain acetylated peptides. Litowski JR, et al. **J Pept Res** 1999 Jul;54(1):1-11

Soybean beta-conglycinin alpha subunit is phosphorylated on two distinct serines by protein kinase CK2 in vitro. Ralet MC, et al. **J Protein Chem** 1999 Apr;18(3):315-23

Structural characterization of the membrane-associated regulatory subunit of type I cAMP-dependent protein kinase by mass spectrometry: identification of Ser81 as the in vivo phosphorylation site of RIalpha. Boeshans KM, et al. **Protein Sci** 1999 Jul;8(7):1515-22

Structural consequences of the active site substitution Cys181 ==> Ser in metallo-beta-lactamase from Bacteroides fragilis. Li Z, et al. **Protein Sci** 1999 Jan;8(1):249-52

DEFICIENCY

Continuing education in neurometabolic disorders--serine deficiency disorders. de Koning TJ, et al. **Neuropediatrics** 1999 Feb;30(1):1-4 (14 ref.)

GENETICS

Structure-function studies of Ser-289 in the class C beta-lactamase from Enterobacter cloacae P99. Trepanier S, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):543-8

Autosomal dominant nocturnal frontal lobe epilepsy in a Spanish family with a Ser252Phe mutation in the CHRNA4 gene. Sáenz A, et al. **Arch Neurol** 1999 Aug;56(8):1004-9

A novel Arg362Ser mutation in the sterol 27-hydroxylase gene (CYP27): its effects on pre-mRNA splicing and enzyme activity. Chen W, et al. **Biochemistry** 1998 Oct 27;37(43):15050-6

A single mutation Asp229 --> Ser confers upon Gs alpha the ability to interact with regulators of G protein signaling. Natochin M, et al. **Biochemistry** 1998 Sep 29; 37(39):13776-80

Contribution of hydrogen bonds to the conformational stability of human lysozyme: calorimetry and X-ray analysis of six Ser --> Ala mutants. Takano K, et al. **Biochemistry** 1999 May 18;38(20):6623-9

Reactivity of the human thioltransferase (glutaredoxin) C7S, C25S, C78S, C82S mutant and NMR solution structure of its glutathionyl mixed disulfide intermediate reflect catalytic specificity. Yang Y, et al. **Biochemistry** 1998 Dec 8;37(49):17145-56

Detection of more than 91% cystic fibrosis mutations in a sample of the population from Reunion Island and identification of two novel mutations (A309G, S1255L) and one novel polymorphism (L49L) [letter] Cartault F, et al. **Clin Genet** 1998 Nov;54(5):437-9

Molecular characterisation of the defective alpha 1-antitrypsin alleles PI Mwurzburg (Pro369Ser), Mheerlen (Pro369Leu), and Q0lisbon (Thr68Ile). Poller W, et al. **Eur J Hum Genet** 1999 Apr;7(3):321-31

Mutations of Ser-23 of the alpha1 subunit of the rat Na+/K+-ATPase to negatively charged amino acid residues mimic the functional effect of PKC-mediated phosphorylation. Vasilets LA, et al. **FEBS Lett** 1999 Jul 16;455(1-2):8-12

Posttranslational formation of formylglycine in prokaryotic sulfatases by modification of either cysteine or serine. Dierks T, et al. **J Biol Chem** 1998 Oct 2;273(40):25560-4

A PstI polymorphism detects the mutation of serine128 to arginine in CD 62E gene - a risk factor for coronary artery disease. Ye SQ, et al. **J Biomed Sci** 1999 Jan;6(1):18-21

Context-dependent immunogenicity of an S206G-substituted H-2Db-restricted simian virus 40 large T antigen epitope I variant. Mylin LM. **J Immunol** 1999 Feb 15;162(4):2171-9

The effect of low-profile serine substitutions in the V3 loop of HIV-1 gp120 IIIB/LAI on the immunogenicity of the envelope protein. Peet NM, et al. **Virology** 1998 Nov 10; 251(1):59-70

METABOLISM

Phosphorylated serine422 on tau proteins is a pathological epitope found in several diseases with neurofibrillary degeneration. Bussière T, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):221-30

Effects of pH changes on systems ASC and B in rabbit ileum.

Munck BG, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G173–84

Pyruvate kinase and the interaction of amino acid and carbohydrate metabolism in solid tumors. Eigenbrodt E, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3267–74

The active site of phosphorylating glyceraldehyde-3-phosphate dehydrogenase is not designed to increase the nucleophilicity of a serine residue. Boschi-Muller S, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):259–66

The anaerobic degradation of L-serine and L-threonine in enterobacteria: networks of pathways and regulatory signals. Sawers G. **Arch Microbiol** 1998 Dec;171(1):1–5 (30 ref.)

Differential serine phosphorylation regulates IkappaB-alpha inactivation. Chen CL, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):798–806

Phosphorylation of the cytoplasmic domain of Alzheimer's beta-amyloid precursor protein at Ser655 by a novel protein kinase. Isohara T, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):300–5

Insulin-stimulated kinase from rat fat cells that phosphorylates initiation factor 4E-binding protein 1 on the rapamycin-insensitive site (serine-111). Heesom KJ, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):39–48

Extracellular signal-regulated protein kinase (ERK)-dependent and ERK-independent pathways target STAT3 on serine-727 in human neutrophils stimulated by chemotactic factors and cytokines. Kuroki M, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):691–6

X-ray crystallography and mass spectroscopy reveal that the N-lobe of human transferrin expressed in Pichia pastoris is folded correctly but is glycosylated on serine-32. Bewley MC, et al. **Biochemistry** 1999 Feb 23;38(8):2535–41

Effect of serinate ligation at each of the iron sites of the [Fe4S4] cluster of Pyrococcus furiosus ferredoxin on the redox, spectroscopic, and biological properties. Brereton PS, et al. **Biochemistry** 1999 Aug 10;38(32):10594–605

Oxidation of glycosphingolipids under basic conditions: synthesis of glycosyl "serine acids" as opposed to "ceramide acids". Precursors for neoglycoconjugates with increased ligand binding affinity. Mylvaganam M, et al. **Biochemistry** 1999 Aug 17;38(33):10885–97

Identification of Ser424 as the protein kinase A phosphorylation site in CTP synthetase from Saccharomyces cerevisiae. Park TS, et al. **Biochemistry** 1999 Jul 6;38(27):8839–48

Contribution to Tl+, K+, and Na+ binding of Asn776, Ser775, Thr774, Thr772, and Tyr771 in cytoplasmic part of fifth transmembrane segment in alpha-subunit of renal Na,K-ATPase. Pedersen PA, et al. **Biochemistry** 1998 Dec 22;37(51):17818–27

Active serine involved in the stabilization of the active site loop in the Humicola lanuginosa lipase. Peters GH, et al. **Biochemistry** 1998 Sep 8;37(36):12375–83

Modulation of the affinity and selectivity of RGS protein interaction with G alpha subunits by a conserved asparagine/serine residue. Posner BA, et al. **Biochemistry** 1999 Jun 15;38(24):7773–9

D-serine and the therapeutic challenge posed by the N-methyl-D-aspartate antagonist model of schizophrenia [editorial; comment] Krystal JH, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1075–6. Comment on: Biol Psychiatry 1998 Dec 1;44(11):1081–9.

Activation of protein kinase A by dibutyryl cAMP treatment of NIH 3T3 cells inhibits proliferation but fails to induce Ser-133 phosphorylation and transcriptional activation of CREB. Seternes OM, et al. **Cell Signal** 1999 Mar; 11(3):211–9

An EXCEL-based method to search for potential Ser/Thr-phosphorylation sites in proteins. Wera S. **Comput Methods Programs Biomed** 1999 Jan;58(1):65–8

Serine and tyrosine phosphorylations cooperate in Raf-1, but not B-Raf activation. Mason CS, et al. **EMBO J** 1999 Apr 15;18(8):2137–48

Phosphorylation of splicing factor SF1 on Ser20 by cGMP-dependent protein kinase regulates spliceosome assembly. Wang X, et al. **EMBO J** 1999 Aug 16; 18(16):4549–59

Ser727-dependent recruitment of MCM5 by Stat1alpha in IFN-gamma-induced transcriptional activation. Zhang JJ, et al. **EMBO J** 1998 Dec 1;17(23):6963–71

Characterization of catalytic centre mutants of macrophage migration inhibitory factor (MIF) and comparison to Cys81Ser MIF. Kleemann R, et al. **Eur J Biochem** 1999 May;261(3):753–66

Purification of a serine and histidine phosphorylated mitochondrial nucleoside diphosphate kinase from Pisum sativum. Struglics A, et al. **Eur J Biochem** 1999 Jun; 262(3):765–73

HA1077, a protein kinase inhibitor, inhibits calponin phosphorylation on Ser175 in porcine coronary artery. Nagumo H, et al. **Eur J Pharmacol** 1998 Nov 6; 360(2–3):257–64

Transforming growth factor beta inhibits growth of more differentiated myeloid leukemia cells and retinoblastoma protein phosphorylation at serine 795. Hu X, et al. **Exp Hematol** 1999 Apr;27(4):605–14

Mutation S543N in the thumb subdomain of the Taq DNA polymerase large fragment suppresses pausing associated with the template structure. Ignatov KB, et al. **FEBS Lett** 1999 Apr 1;448(1):145–8

Casein kinase II is responsible for phosphorylation of NF-L at Ser-473. Nakamura Y, et al. **FEBS Lett** 1999 Jul 16; 455(1–2):83–6

The inhibitory effect of 2-deoxyglucose on insulin receptor autophosphorylation does not depend on known serine phosphorylation sites or other conserved serine residues of the receptor beta-subunit. Strack V, et al. **FEBS Lett** 1999 Apr 23;449(2–3):111–4

Phosphorylated seryl and threonyl, but not tyrosyl, residues are efficient specificity determinants for GSK-3beta and Shaggy. Williams DD, et al. **FEBS Lett** 1999 Apr 1; 448(1):86–90

Mutational evidence for the role of serine-283 in Cephalosporium acremonium isopenicillin N synthase. Loke P, et al. **FEMS Microbiol Lett** 1998 Aug 15; 165(2):353–6

A serine residue in the N-terminal acidic region of rat RPB6, one of the common subunits of RNA polymerases, is exclusively phosphorylated by casein kinase II in vitro. Kayukawa K, et al. **Gene** 1999 Jun 24;234(1):139–47

Rapid uptake and degradation of glycine by astroglial cells in culture: synthesis and release of serine and lactate. Verleysdonk S, et al. **Glia** 1999 Sep;27(3):239–48

Sodium taurocholate cotransporting polypeptide is a serine, threonine phosphoprotein and is dephosphorylated by cyclic adenosine monophosphate. Mukhopadhyay S, et al. **Hepatology** 1998 Dec;28(6):1629–36

Microtubule-damaging drugs triggered bcl2 phosphorylation-requirement of phosphorylation on both serine-70 and serine-87 residues of bcl2 protein. Basu A, et al. **Int J Oncol** 1998 Oct;13(4):659–64

Haloanaerobacter salinarius sp. nov., a novel halophilic fermentative bacterium that reduces glycine-betaine to trimethylamine with hydrogen or serine as electron donors; emendation of the genus Haloanaerobacter. Mouné S, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:103–12

Assembly of the K40 antigen in Escherichia coli: identification of a novel enzyme responsible for addition of L-serine residues to the glycan backbone and its requirement for K40 polymerization. Amor PA, et al. **J Bacteriol** 1999 Feb;181(3):772–80

Cloning and expression of the gene for the Na+-coupled serine transporter from Escherichia coli and characteristics of the transporter. Ogawa W, et al. **J Bacteriol** 1998 Dec; 180(24):6749–52

Functional similarities between the Listeria monocytogenes virulence regulator PrfA and cyclic AMP receptor protein: the PrfA* (Gly145Ser) mutation increases binding affinity for target DNA. Vega Y, et al. **J Bacteriol** 1998 Dec; 180(24):6655–60

Roles of the Ser146, Tyr159, and Lys163 residues in the catalytic action of 7alpha-hydroxysteroid dehydrogenase from Escherichia coli. Tanabe T, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):634–41

The small heat shock-related protein, HSP20, is phosphorylated on serine 16 during cyclic nucleotide-dependent relaxation. Beall A, et al. **J Biol Chem** 1999 Apr 16;274(16):11344–51

p40(phox) is phosphorylated on threonine 154 and serine 315 during activation of the phagocyte NADPH oxidase. Implication of a protein kinase c-type kinase in the phosphorylation process. Bouin AP, et al. **J Biol Chem** 1998 Nov 13;273(46):30097–103

Dopamine-induced endocytosis of Na+,K+-ATPase is initiated by phosphorylation of Ser-18 in the rat alpha subunit and Is responsible for the decreased activity in epithelial cells. Chibalin AV, et al. **J Biol Chem** 1999 Jan 22;274(4):1920–7

phi29 DNA polymerase residue Ser122, a single-stranded DNA ligand for 3'-5' exonucleolysis, is required to interact with the terminal protein. de Vega M, et al. **J Biol Chem** 1998 Oct 30;273(44):28966–77

Phosphorylation of eIF4E at a conserved serine in Aplysia. Dyer JR, et al. **J Biol Chem** 1998 Nov 6;273(45):29469–74

Ca2+/calmodulin-dependent kinase II phosphorylates the epidermal growth factor receptor on multiple sites in the cytoplasmic tail and serine 744 within the kinase domain to regulate signal generation. Feinmesser RL, et al. **J Biol Chem** 1999 Jun 4;274(23):16168–73

Cyclic GMP-dependent protein kinase activates cloned BKCa channels expressed in mammalian cells by direct phosphorylation at serine 1072. Fukao M, et al. **J Biol Chem** 1999 Apr 16;274(16):10927–35

Dynamic epigenetic regulation of initial O-glycosylation by UDP-N-Acetylgalactosamine:Peptide N-acetylgalactosaminyltransferases. site-specific glycosylation of MUC1 repeat peptide influences the substrate qualities at adjacent or distant Ser/Thr positions. Hanisch FG, et al. **J Biol Chem** 1999 Apr 9;274(15):9946–54

p38 kinase mediates UV-induced phosphorylation of p53 protein at serine 389. Huang C, et al. **J Biol Chem** 1999 Apr 30;274(18):12229–35

Phosphorylation of p53 serine 15 increases interaction with CBP. Lambert PF, et al. **J Biol Chem** 1998 Dec 4; 273(49):33048–53

Sialyltransferase isoforms are phosphorylated in the cis-medial Golgi on serine and threonine residues in their luminal sequences. Ma J, et al. **J Biol Chem** 1999 Mar 19; 274(12):8046–52

Ile-177 and Ser-180 in the S1 segment are critically important in Kv1.1 channel function. Mathur R, et al. **J Biol Chem** 1999 Apr 23;274(17):11487–93

Characterization of serine 916 as an in vivo autophosphorylation site for protein kinase D/Protein kinase Cmu. Matthews SA, et al. **J Biol Chem** 1999 Sep 10;274(37):26543–9

Dimerization of the calcium-sensing receptor occurs within the extracellular domain and is eliminated by Cys —> Ser mutations at Cys101 and Cys236. Pace AJ, et al. **J Biol Chem** 1999 Apr 23;274(17):11629–34

Protein kinase C-beta activates tyrosinase by phosphorylating serine residues in its cytoplasmic domain. Park HY, et al. **J Biol Chem** 1999 Jun 4;274(23):16470–8

Bradykinin-induced internalization of the human B2 receptor requires phosphorylation of three serine and two threonine residues at its carboxyl tail. Pizard A, et al. **J Biol Chem** 1999 Apr 30;274(18):12738–47

SPI-B activates transcription via a unique proline, serine, and threonine domain and exhibits DNA binding affinity differences from PU.1. Rao S, et al. **J Biol Chem** 1999 Apr 16;274(16):11115–24

Potentiation of human estrogen receptor alpha transcriptional activation through phosphorylation of serines 104 and 106 by the cyclin A-CDK2 complex. Rogatsky I, et al. **J Biol Chem** 1999 Aug 6;274(32):22296–302

SH2-B, a membrane-associated adapter, is phosphorylated on multiple serines/threonines in response to nerve growth factor by kinases within the MEK/ERK cascade. Rui L, et al. **J Biol Chem** 1999 Sep 10;274(37):26485–92

Activated G protein-coupled receptor induces tyrosine phosphorylation of STAT3 and agonist-selective serine phosphorylation via sustained stimulation of mitogen-activated protein kinase. Resultant effects on cell proliferation. Sellers LA, et al. **J Biol Chem** 1999 Jun 4; 274(23):16423–30

p90(RSK) is a serum-stimulated Na+/H+ exchanger isoform-1 kinase. Regulatory phosphorylation of serine 703 of Na+/H+ exchanger isoform-1. Takahashi E, et al. **J Biol Chem** 1999 Jul 16;274(29):20206–14

Dual specificity protein kinase activity of testis-specific protein kinase 1 and its regulation by autophosphorylation of serine-215 within the activation loop. Toshima J, et al. **J Biol Chem** 1999 Apr 23;274(17):12171–6

Activation of nuclear factor-kappaB-dependent transcription by tumor necrosis factor-alpha is mediated through phosphorylation of RelA/p65 on serine 529. Wang D, et al. **J Biol Chem** 1998 Nov 6;273(45):29411–6

Serine 318 is essential for the pyrimidine selectivity of the N2 Na+-nucleoside transporter. Wang J, et al. **J Biol Chem** 1999 Jan 22;274(4):2298–302

Flux of the L-serine metabolism in rat liver. The predominant contribution of serine dehydratase. Xue HH, et al. **J Biol Chem** 1999 Jun 4;274(23):16020–7

Flux of the L-serine metabolism in rabbit, human, and dog livers. Substantial contributions of both mitochondrial and peroxisomal serine:pyruvate/alanine:glyoxylate aminotransferase. Xue HH, et al. **J Biol Chem** 1999 Jun 4;274(23):16028–33

Differential control of the phosphorylation state of proline-juxtaposed serine residues Ser725 of Stat5a and Ser730 of Stat5b in prolactin-sensitive cells. Yamashita H, et al. **J Biol Chem** 1998 Nov 13;273(46):30218–24

Transportin-SR, a nuclear import receptor for SR proteins. Kataoka N, et al. **J Cell Biol** 1999 Jun 14;145(6):1145–52

Serine phosphorylation of SR proteins is required for their recruitment to sites of transcription in vivo. Misteli T, et al. **J Cell Biol** 1998 Oct 19;143(2):297–307

Dissociation of FAK/p130(CAS)/c-Src complex during mitosis: role of mitosis-specific serine phosphorylation of FAK. Yamakita Y, et al. **J Cell Biol** 1999 Jan 25; 144(2):315–24

A serine residue in ClC-3 links phosphorylation-dephosphorylation to chloride channel regulation by cell volume. Duan D, et al. **J Gen Physiol** 1999 Jan;113(1):57–70

Human CD5 signaling and constitutive phosphorylation of C-terminal serine residues by casein kinase II. Calvo J, et al. **J Immunol** 1998 Dec 1;161(11):6022–9

The functional synergy between IL-12 and IL-2 involves p38 mitogen-activated protein kinase and is associated with the augmentation of STAT serine phosphorylation. Gollob JA, et al. **J Immunol** 1999 Apr 15;162(8):4472–81

Separate quantification of doubly and singly 13C-labeled metabolites by HSQC-filtered J spectroscopy. Davison AP, et al. **J Magn Reson** 1999 Apr;137(2):448–50

Serine 948 and threonine 1042 are crucial residues for allosteric regulation of Escherichia coli carbamoylphosphate synthetase and illustrate coupling effects of activation and inhibition pathways. Delannay S, et al. **J Mol Biol** 1999 Mar 5;286(4):1217–28

Serine-23 is a major protein kinase A phosphorylation site on the amino-terminal head domain of the middle molecular mass subunit of neurofilament proteins. Sihag RK, et al. **J Neurochem** 1999 Feb;72(2):491–9

Optimal replication activity of vesicular stomatitis virus RNA polymerase requires phosphorylation of a residue(s) at carboxy-terminal domain II of its accessory subunit, phosphoprotein P. Hwang LN, et al. **J Virol** 1999 Jul; 73(7):5613–20

Phosphorylation and/or presence of serine 37 in the movement protein of tomato mosaic tobamovirus is essential for intracellular localization and stability in vivo. Kawakami S, et al. **J Virol** 1999 Aug;73(8):6831–40

D-serine content and D-[3H]serine binding in the brain

regions of the senescence-accelerated mouse. Nagata Y, et al. **Mech Ageing Dev** 1998 Aug 14;104(2):115–24

The development of cell processes induced by tau protein requires phosphorylation of serine 262 and 356 in the repeat domain and is inhibited by phosphorylation in the proline-rich domains. Biernat J, et al. **Mol Biol Cell** 1999 Mar;10(3):727–40

Serine and threonine phosphorylation of the paxillin LIM domains regulates paxillin focal adhesion localization and cell adhesion to fibronectin. Brown MC, et al. **Mol Biol Cell** 1998 Jul;9(7):1803–16

Cluster of differentiation antigen 4 (CD4) endocytosis and adaptor complex binding require activation of the CD4 endocytosis signal by serine phosphorylation. Pitcher C, et al. **Mol Biol Cell** 1999 Mar;10(3):677–91

Distinct roles for CTD Ser-2 and Ser-5 phosphorylation in the recruitment and allosteric activation of mammalian mRNA capping enzyme. Ho CK, et al. **Mol Cell** 1999 Mar; 3(3):405–11

Protein kinase CK2-dependent regulation of p53 function: evidence that the phosphorylation status of the serine 386 (CK2) site of p53 is constitutive and stable. McKendrick L, et al. **Mol Cell Biochem** 1999 Jan;191(1–2):187–99

Domain swapping used to investigate the mechanism of protein kinase B regulation by 3-phosphoinositide-dependent protein kinase 1 and Ser473 kinase. Andjelković M, et al. **Mol Cell Biol** 1999 Jul; 19(7):5061–72

Requirement of ATM in phosphorylation of the human p53 protein at serine 15 following DNA double-strand breaks. Nakagawa K, et al. **Mol Cell Biol** 1999 Apr;19(4):2828–34

BRCA1 is phosphorylated at serine 1497 in vivo at a cyclin-dependent kinase 2 phosphorylation site. Ruffner H, et al. **Mol Cell Biol** 1999 Jul;19(7):4843–54

The protein kinase Pak3 positively regulates Raf-1 activity through phosphorylation of serine 338. King AJ, et al. **Nature** 1998 Nov 12;396(6707):180–3

The double-stranded RNA activated protein kinase PKR physically associates with the tumor suppressor p53 protein and phosphorylates human p53 on serine 392 in vitro. Cuddihy AR, et al. **Oncogene** 1999 Apr 29;18(17):2690–702

Mutations in serines 15 and 20 of human p53 impair its apoptotic activity. Unger T, et al. **Oncogene** 1999 May 27; 18(21):3205–12

Site-directed mutagenesis of serine 158 demonstrates its role in spinach leaf sucrose-phosphate synthase modulation. Toroser D, et al. **Plant J** 1999 Feb;17(4):407–13

Inhibition of protein phosphatase 2A induces serine/threonine phosphorylation, subcellular redistribution, and functional inhibition of STAT3. Woetmann A, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10620–5

Molecular basis for the stereoselective interactions of catecholamines with alpha-adrenoceptors. Hieble JP, et al. **Proc West Pharmacol Soc** 1998;41:225–8 (19 ref.)

SR proteins are required for nematode trans-splicing in vitro. Sanford JR, et al. **RNA** 1999 Jul;5(7):918–28

PHARMACOKINETICS

D-Serine is reabsorbed in rat renal pars recta. Silbernagl S, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F857–63

Whole body autoradiographic study on the distribution of 14C-D-serine administered intravenously to rats. Imai K, et al. **Amino Acids** 1998;15(4):351–61

PHARMACOLOGY

Evidence for functional native NMDA receptors activated by glycine or D-serine alone in the absence of glutamatergic coagonist. Paudice P, et al. **Eur J Neurosci** 1998 Sep;10(9):2934–44

Effect of serine and ethanolamine administration on phospholipid-related compounds and neurotransmitter amino acids in the rabbit hippocampus. Buratta S, et al. **J Neurochem** 1998 Nov;71(5):2145–50

PHYSIOLOGY

Substitution of the two carboxyl-terminal serines by alanine causes retention of MAL, a component of the apical sorting machinery, in the endoplasmic reticulum. Puertollano R, et al. **Biochem Biophys Res Commun** 1999 Jun 24; 260(1):188–92

A single amino acid confers barbiturate sensitivity upon the GABA rho 1 receptor. Belelli D, et al. **Br J Pharmacol** 1999 Jun;127(3):601–4

Ser752 mutation to Pro or Ala in the beta3 integrin subunit differentially affects the kinetics of cell spreading to von Willebrand factor and fibrinogen. Perrault C, et al. **Cell Adhes Commun** 1998;6(4):335–48

Mutagenesis and crystallographic studies of Zymomonas mobilis tRNA-guanine transglycosylase to elucidate the role of serine 103 for enzymatic activity. Grädler U, et al. **FEBS Lett** 1999 Jul 2;454(1–2):142–6

Induction of resting microglia in culture medium devoid of glycine and serine. Tanaka J, et al. **Glia** 1998 Oct; 24(2):198–215

Serine 32 and serine 36 of IkappaBalpha are directly phosphorylated by protein kinase CKII in vitro. Taylor JA, et al. **J Mol Biol** 1999 Jul 23;290(4):839–50

Evidence for an important role of serine 16 and its phosphorylation in the stabilization of c-Mos. Pham CD, et al. **Oncogene** 1999 Jul 29;18(30):4287–94

SECRETION

Astrocytes modulate nitric oxide production by microglial cells through secretion of serine and glycine. Yang L, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):277–82

SERINE ALDOLASE see **GLYCINE HYDROXYMETHYLTRANSFERASE**

SERINE DEAMINASE see **L-SERINE DEHYDRATASE**

SERINE DEHYDRATASE see **L-SERINE DEHYDRATASE**

L-SERINE DEHYDRATASE

GENETICS

Glucocorticoids stimulate CREB binding to a cyclic-AMP response element in the rat serine dehydratase gene. Haas MJ, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):317–24

Nucleosome structure of the yeast CHA1 promoter: analysis of activation-dependent chromatin remodeling of an RNA-polymerase-II-transcribed gene in TBP and RNA pol II mutants defective in vivo in response to acidic activators. Moreira JM, et al. **EMBO J** 1998 Oct 15; 17(20):6028–38

Rat liver serine dehydratase. Bacterial expression and two folding domains as revealed by limited proteolysis. Ogawa H, et al. **J Biol Chem** 1999 Apr 30;274(18):12855–60

METABOLISM

Flux of the L-serine metabolism in rat liver. The predominant contribution of serine dehydratase. Xue HH, et al. **J Biol Chem** 1999 Jun 4;274(23):16020–7

SERINE HYDROXYMETHYLASE see **GLYCINE HYDROXYMETHYLTRANSFERASE**

SERINE HYDROXYMETHYLTRANSFERASE see **GLYCINE HYDROXYMETHYLTRANSFERASE**

SERINE PHOSPHATE see **PHOSPHOSERINE**

SERINE PHOSPHOGLYCERIDES see **PHOSPHATIDYLSERINES**

SERINE PROTEASE INHIBITORS see **SERINE PROTEINASE INHIBITORS**

SERINE PROTEASES see **SERINE PROTEINASES**

SERINE PROTEINASE ANTAGONISTS see **SERINE PROTEINASE INHIBITORS**

SERINE PROTEINASE INHIBITORS

see related
SERPINS

Serpins and regulation of cell death. Bird PI. **Results Probl Cell Differ** 1998;24:63–89 (130 ref.)

ADMINISTRATION & DOSAGE

Effects of a protease inhibitor on reduction of surgical stress in esophagectomy. Ono S, et al. **Am J Surg** 1999 Jan; 177(1):78–82

A prospective randomized double-blind trial of antithrombin III concentrate in the treatment of multiple-organ dysfunction syndrome during hematopoietic stem cell transplantation. Haire WD, et al. **Biol Blood Marrow Transplant** 1998;4(3):142–50

Antiprotease drugs and cardiopulmonary bypass [letter] Ceriana P, et al. **Blood Coagul Fibrinolysis** 1998 Jul; 9(5):445–6

'High dose' aprotinin and heparin-coated circuits: clinical efficacy and inflammatory response. Parolari A, et al. **Cardiovasc Surg** 1999 Jan;7(1):117–27

ADVERSE EFFECTS

Anaphylaxis induced by gabexate mesylate. Matsukawa Y, et al. **BMJ** 1998 Dec 5;317(7172):1563

ANALYSIS

The effect of immediate-hypersensitivity reactions on the level of SLPI, granulocyte elastase, alpha1-antitrypsin, and albumin in nasal secretions, by the method of unilateral antigen challenge. Westin U, et al. **Allergy** 1999 Aug; 54(8):857–64

Inter-alpha-inhibitor in calcium stones. Dawson CJ, et al. **Clin Sci (Colch)** 1998 Aug;95(2):187–93

Alpha-1-antichymotrypsin immunoreactivity in papillary carcinoma of the thyroid gland. Lai ML, et al. **Histopathology** 1998 Oct;33(4):332–6

Plasminogen activator inhibitor type 2 in human corneal epithelium. Williams DL, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1669–75

Bikunin, a serine protease inhibitor, is present on the cell boundary of epidermis. Cui CY, et al. **J Invest Dermatol** 1999 Aug;113(2):182–8

Improved hepatic and pancreatic localisation of the equine alpha-1-proteinase inhibitor family of serpins using an antigen enhancement technique and a monoclonal antibody. Dagleish MP, et al. **Res Vet Sci** 1998 Nov-Dec; 65(3):215–21

BIOSYNTHESIS

Up-regulation of a serine protease inhibitor in astrocytes mediates the neuroprotective activity of transforming growth factor beta1. Buisson A, et al. **FASEB J** 1998 Dec; 12(15):1683–91

Induction of SLPI (ALP/HUSI-I) in epidermal keratinocytes. Wingens M, et al. **J Invest Dermatol** 1998 Dec;111(6):996–1002

Production of recombinant human monocyte/neutrophil elastase inhibitor (rM/NEI). Cooley J, et al. **Protein Expr Purif** 1998 Oct;14(1):38–44

BLOOD

Changes of plasma hemostatic markers during percutaneous transluminal coronary angioplasty in patients with chronic coronary artery disease. Saito Y, et al. **Am J Hematol** 1999 Aug;61(4):238–42

Plasminogen activator inhibitor 1 in central serous chorioretinopathy. Iijima H, et al. **Am J Ophthalmol** 1999 Apr;127(4):477–8

Changes in plasma tissue factor pathway inhibitor levels during the clinical course of disseminated intravascular coagulation. Yamamuro M, et al. **Blood Coagul Fibrinolysis** 1998 Sep;9(6):491–7

Inter-alpha-inhibitor (Ialpha1) concentration in pig plasma is independent of acute phase protein response. Carrette O, et al. **Clin Chem Lab Med** 1999 May;37(5):521–5

Profiles of plasma serpins in patients with advanced malignant melanoma, gastric cancer and breast cancer. Wojtukiewicz MZ, et al. **Haemostasis** 1998 Jan-Feb;28(1):7–13

Increased serum concentrations of secretory leukoprotease inhibitor in patients with primary Sjögren's syndrome. Maruyama M, et al. **In Vivo** 1998 Sep-Oct;12(5):535–8

LEKTI, a novel 15-domain type of human serine proteinase inhibitor. Mägert HJ, et al. **J Biol Chem** 1999 Jul 30; 274(31):21499–502

Generation of catalytically active granzyme K from Escherichia coli inclusion bodies and identification of efficient granzyme K inhibitors in human plasma. Wilharm E, et al. **J Biol Chem** 1999 Sep 17;274(38):27331–7

[Clinical utility of the free prostate specific antigen (PSA), alpha 1-antichymotrypsin-complexed PSA, and free/total PSA ratio using the specific and sensitive enzyme-linked immunosorbent assay "E-plate EIKEN PSA"] Imai K, et al. **Hinyokika Kiyo** 1998 Oct;44(10):755–63 (Eng. Abstr.) **(Jpn)**

CHEMICAL SYNTHESIS

Synthesis and kinetic studies of an amidine-containing phosphonofluoridate: a novel potent inhibitor of trypsin-like enzymes. Ni LM, et al. **Bioorg Med Chem** 1998 Oct;6(10):1767–73

Design, synthesis and biological evaluation of selective boron-containing thrombin inhibitors. Wienand A, et al. **Bioorg Med Chem** 1999 Jul;7(7):1295–307

Leucine-phenylalanine dipeptide-based N-mesyloxysuccinimides: synthesis of all four stereoisomers and their assay against serine proteases. Abell AD, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):497–500

Peptidyl human heart chymase inhibitors. 1. Synthesis and inhibitory activity of difluoromethylene ketone derivatives bearing P' binding subsites [published erratum appears in Bioorg Med Chem Lett 1998 Jul 7;8(13):1778] Eda M, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):913–8

Peptidyl human heart chymase inhibitors. 2. Discovery of highly selective difluoromethylene ketone derivatives with Glu at P3 site [published erratum appears in Bioorg Med Chem Lett 1998 Jul 7;8(13):1779] Eda M, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):919–24

5,5-trans lactone-containing inhibitors of serine proteases: identification of a novel, acylating thrombin inhibitor. Finch H, et al. **Bioorg Med Chem Lett** 1998 Nov 3; 8(21):2955–60

The de novo design and synthesis of cyclic urea inhibitors of factor Xa: initial SAR studies. Galemmo RA Jr, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2705–10

Synthesis of potent and selective inhibitors of human plasma kallikrein. Garrett GS, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):301–6

Use of the 1,2,5-thiadiazolidin-3-one 1,1 dioxide and isothiazolidin-3-one 1,1 dioxide scaffolds in the design of potent inhibitors of serine proteinases. Kuang R, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):539–44

Studies on the C-terminal of hexapeptide inhibitors of the hepatitis C virus serine protease. Llinàs-Brunet M, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2719–24

Templates for design of inhibitors for serine proteases: application of the program DOCK to the discovery of novel inhibitors for thrombin. Massova I, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2463–6

Potent and selective bicyclic lactam inhibitors of thrombin: Part 2: P1 modifications. Plummer JS, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3409–14

Potent bicyclic lactam inhibitors of thrombin: Part I: P3 modifications. St-Denis Y, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3193–8

Dibasic benzo[b]thiophene derivatives as a novel class of

active site directed thrombin inhibitors. 2. Exploring interactions at the proximal (S2) binding site. Sall DJ, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2527–32

Design and construction of novel thrombin inhibitors featuring P3–P4 quaternary lactam dipeptide surrogates. Semple JE. **Bioorg Med Chem Lett** 1998 Sep 22; 8(18):2501–6

Automated parallel synthesis of a tetrahydroisoquinolin–based library: potential prolyl endopeptidase inhibitors. Vendeville S, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):437–42

Solid–phase synthesis of benzisothiazolones as serine protease inhibitors. Yu KL, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):663–6

From natural to synthetic multisite thrombin inhibitors. Lombardi A, et al. **Biopolymers** 1999;51(1):19–39

Secondary structure peptide mimetics: design, synthesis, and evaluation of beta–strand mimetic thrombin inhibitors. Boatman PD, et al. **J Med Chem** 1999 Apr 22;42(8):1367–75

1,2–Benzisothiazol–3–one 1,1–dioxide inhibitors of human mast cell tryptase. Combrink KD, et al. **J Med Chem** 1998 Nov 19;41(24):4854–60

Design of benzamidine–type inhibitors of factor Xa. Gabriel B, et al. **J Med Chem** 1998 Oct 22;41(22):4240–50

In vitro and in vivo activities of oligodeoxynucleotide–based thrombin inhibitors containing neutral formacetal linkages. He GX, et al. **J Med Chem** 1998 Oct 22;41(22):4224–31

Tetrahydro–isoquinoline–based factor Xa inhibitors. Kucznierz R, et al. **J Med Chem** 1998 Dec 3;41(25):4983–94

Syntheses of trans–5–oxo–hexahydro–pyrrolo[3,2–b]pyrroles and trans–5–oxo–hexahydro–furo[3,2–b]pyrroles (pyrrolidine trans–lactams and trans–lactones): new pharmacophores for elastase inhibition. Macdonald SJ, et al. **J Med Chem** 1998 Oct 8;41(21):3919–22

4–Heterocyclohexanone–based inhibitors of the serine protease plasmin. Sanders TC, et al. **J Med Chem** 1999 Jul 29;42(15):2969–76

Potent bivalent thrombin inhibitors: replacement of the scissile peptide bond at P(1)–P(1)' with arginyl ketomethylene isosteres. Steinmetzer T, et al. **J Med Chem** 1999 Aug 12;42(16):3109–15

Peptide aldehyde inhibitors of the kallikreins: an investigation of subsite interactions with tripeptides containing structural variations at the amino terminus. Garrett GS, et al. **J Pept Res** 1998 Jul;52(1):60–71

The asymmetric synthesis of arginine mimetics: derivatives of (S)–2–, 3– and 4–amidinophenylalanine suitable for incorporation into enzyme inhibitors and/or peptides. Kent DR, et al. **J Pept Res** 1998 Sep;52(3):201–7

CHEMISTRY

Endoproteinase–protein inhibitor interactions. Bode W, et al. **APMIS** 1999 Jan;107(1):3–10 (40 ref.)

Crystal structures of thrombin complexed to a novel series of synthetic inhibitors containing a 5,5–trans–lactone template. Jhoti H, et al. **Biochemistry** 1999 Jun 22; 38(25):7969–77

Oxyanion–mediated inhibition of serine proteases. Presnell SR, et al. **Biochemistry** 1998 Dec 1;37(48):17068–81

Thermodynamic criterion for the conformation of P1 residues of substrates and of inhibitors in complexes with serine proteinases. Qasim MA, et al. **Biochemistry** 1999 Jun 1; 38(22):7142–50

Mechanistic insights into the inhibition of serine proteases by monocyclic lactams. Wilmouth RC, et al. **Biochemistry** 1999 Jun 22;38(25):7989–98

Design of synthetic bactericidal peptides derived from the bactericidal domain P(18–39) of aprotinin. Pellegrini A, et al. **Biochim Biophys Acta** 1999 Aug 17;1433(1–2):122–31

Isolation and structure of SCH 351633: a novel hepatitis C virus (HCV) NS3 protease inhibitor from the fungus Penicillium griseofulvum. Chu M, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1949–52

Symmetrical anhydride–type serine protease inhibitors: structure–activity relationship studies of human chymase inhibitors. Iijima K, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):413–8

A potent dipeptide inhibitor of dipeptidyl peptidase IV. Yamada M, et al. **Bioorg Med Chem Lett** 1998 Jun 16; 8(12):1537–40

Peptidyl beta–homo–aspartals (3–amino–4–carboxybutyraldehydes): new specific inhibitors of caspases. Bajusz S, et al. **Biopolymers** 1999; 51(1):109–18

From natural to synthetic multisite thrombin inhibitors. Lombardi A, et al. **Biopolymers** 1999;51(1):19–39

Development of plasma kallikrein selective inhibitors. Okada Y, et al. **Biopolymers** 1999;51(1):41–50

Design of serine protease inhibitors with conformation restricted by amino acid side–chain–side–chain CH/pie interaction. Shimohigashi Y, et al. **Biopolymers** 1999; 51(1):9–17

Tyrosine–83 of human renin contributes to biphasic pH dependence of the renin–angiotensinogen reaction. Nasir UM, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1143–5

Serine proteinase inhibitors in arthropod immunity. Kanost MR. **Dev Comp Immunol** 1999 Jun–Jul;23(4–5):291–301 (74 ref.)

Amino–acid–sequence determination and biological activity of tessulin, a naturally occurring trypsin–chymotrypsin inhibitor isolated from the leech Theromyzon tessulatum. Chopin V, et al. **Eur J Biochem** 1998 Dec 1;258(2):662–8

The inhibitory properties and primary structure of a novel serine proteinase inhibitor from the fruiting body of the basidiomycete, Lentinus edodes. Odani S, et al. **Eur J Biochem** 1999 Jun;262(3):915–23

Purification and characterization of a complex containing matriptase and a Kunitz–type serine protease inhibitor from human milk. Lin CY, et al. **J Biol Chem** 1999 Jun 25; 274(26):18237–42

Antichymotrypsin interaction with chymotrypsin. Intermediates on the way to inhibited complex formation. Luo Y, et al. **J Biol Chem** 1999 Jun 18;274(25):17733–41

Novel mechanism of inhibition of elastase by beta–lactams is defined by two inhibitor crystal complexes. Taylor P, et al. **J Biol Chem** 1999 Aug 27;274(35):24901–5

Crystal structure of mung bean inhibitor lysine active fragment complex with bovine beta–trypsin at 1.8A resolution. Zhu Y, et al. **J Biomol Struct Dyn** 1999 Jun; 16(6):1219–24

Estimation of active conformations of drugs by a new molecular superposing procedure. Iwase K, et al. **J Comput Aided Mol Des** 1999 Sep;13(5):499–512

Combinatorial library of serine and cysteine protease inhibitors that interact with both the S and S' binding sites. Abato P, et al. **J Med Chem** 1999 Sep 23;42(19):4001–9

Bound structures of novel P3–P1' beta–strand mimetic inhibitors of thrombin. St. Charles R, et al. **J Med Chem** 1999 Apr 22;42(8):1376–83

Cross–enzyme inhibition by gabexate mesylate: formulation and reactivity study. Cortesi R, et al. **J Pharm Sci** 1998 Nov;87(11):1335–40

A novel two–chain proteinase inhibitor generated by circularization of a multidomain precursor protein. Lee MC, et al. **Nat Struct Biol** 1999 Jun;6(6):526–30

Crystal structure of a bacterial signal peptidase in complex with a beta–lactam inhibitor [see comments] [published erratum appears in Nature 1998 Dec 17;396(6712):707] Paetzel M, et al. **Nature** 1998 Nov 12;396(6707):186–90. Comment in: Nature 1998 Nov 12;396(6707):111, 113.

Folding of a pressure–denatured model protein. Mohana–Borges R, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7888–93

The reactive site loop of the serpin SCCA1 is essential for cysteine proteinase inhibition. Schick C, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13465–70

Comparison of protein–protein interactions in serine protease–inhibitor and antibody–antigen complexes: implications for the protein docking problem. Jackson RM. **Protein Sci** 1999 Mar;8(3):603–13

Variability of the canonical loop conformations in serine proteinases inhibitors and other proteins. Apostoluk W, et al. **Proteins** 1998 Sep 1;32(4):459–74

Modelling of factor Xa–inhibitor complexes: a computational flexible docking approach. Rao MS, et al. **Proteins** 1999 Feb 1;34(2):173–83

The 1.2 A crystal structure of hirustasin reveals the intrinsic flexibility of a family of highly disulphide–bridged inhibitors. Usón I, et al. **Structure Fold Des** 1999 Jan 15; 7(1):55–63

[Adsorption on synthetic membranes and immunogenic properties of aprotinin cross–linked by glutaraldehyde] Timofeeva TA, et al. **Bioorg Khim** 1999 Apr;25(4):264–9 (Eng. Abstr.) **(Rus)**

GENETICS

Structure of the murine secretory leukoprotease inhibitor (Slpi) gene and chromosomal localization of the human and murine SLPI genes. Kikuchi T, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):875–80

Growth hormone–mediated transcriptional activation of the rat serine protease inhibitor 2.1 gene involves both interleukin–1 beta–sensitive and –insensitive pathways. Le Cam A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):311–4

Temporal alterations in mRNA levels for proteinases and inhibitors and their potential regulators in the healing medial collateral ligament. Reno C, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):757–63

Phage display selection of P1 mutants of BPTI directed against five different serine proteinases. Kiczak L, et al. **Biol Chem** 1999 Jan;380(1):101–5

Cloning and nucleotide sequence of the gene encoding a serine proteinase inhibitor named marinostatin from a marine bacterium, Alteromonas sp. strain B–10–31. Miyamoto K, et al. **Biosci Biotechnol Biochem** 1998 Dec; 62(12):2446–9

A novel serpin expressed by blood–borne microfilariae of the parasitic nematode Brugia malayi inhibits human neutrophil serine proteinases. Zang X, et al. **Blood** 1999 Aug 15;94(4):1418–28

Tissue factor pathway inhibitor gene disruption. Broze GJ Jr. **Blood Coagul Fibrinolysis** 1998 Mar;9 Suppl 1:S89–92 (18 ref.)

Molecular characterisation of the defective alpha 1–antitrypsin alleles PI Mwurzburg (Pro369Ser), Mheerlen (Pro369Leu), and QOlisbon (Thr68Ile). Poller W, et al. **Eur J Hum Genet** 1999 Apr;7(3):321–31

Cloning, nucleotide sequence and expression of the gene encoding factor Xa inhibitor from the salivary glands of the tick, Ornithodoros savignyi. Joubert AM, et al. **Exp Appl Acarol** 1998 Oct;22(10):603–15

A new intracellular serine protease inhibitor expressed in the rat pituitary gland complexes with granzyme B. Hill RM, et al. **FEBS Lett** 1998 Dec 4;440(3):361–4

Rapid changes in the exon/intron structure of a mammalian thrombin inhibitor gene. Kamp PB, et al. **Gene** 1999 Mar 18;229(1–2):137–44

A murine ortholog of the human serpin SCCA2 maps to chromosome 1 and inhibits chymotrypsin–like serine proteinases. Bartuski AJ, et al. **Genomics** 1998 Dec 1; 54(2):297–306

Serine protease inhibitors expressed in the process of budding of tunicates as revealed by EST analysis. Kawamura K, et al. **J Biochem (Tokyo)** 1998 Nov;124(5):1004–12

Protease nexin I expression is up–regulated in human skeletal muscle by injury–related factors. Mbebi C, et al. **J Cell Physiol** 1999 Jun;179(3):305–14

The mRNA for protease nexin–1 is expressed in human dermal papilla cells and its level is affected by androgen. Sonoda T, et al. **J Invest Dermatol** 1999 Sep;113(3):308–13

Involvement of the C–terminal region of yeast proteinase B inhibitor 2 in its inhibitory action. Kojima S, et al. **J Mol Biol** 1999 Feb 26;286(3):775–85

Expression of bikunin mRNA in renal epithelial cells after oxalate exposure. Iida S, et al. **J Urol** 1999 Oct; 162(4):1480–6

Detection of bikunin mRNA in limited portions of rat brain. Takano M, et al. **Life Sci** 1999;65(8):757–62

The effect of number of days in culture and plasminogen activator inhibitor–1 (PAI–1) 4G/5G genotype on PAI–1 antigen release by cultured human umbilical vein endothelial cells. McCormack LJ, et al. **Thromb Res** 1998 Dec 1;92(5):199–206

Temporal expression of urokinase plasminogen activator, plasminogen activator inhibitor and gelatinase–B in chronic wound fluid switches from a chronic to acute wound profile with progression to healing. Wysocki AB, et al. **Wound Repair Regen** 1999 May–Jun;7(3):154–65

IMMUNOLOGY

Induction of atherosclerosis in Brown Norway rats by immunization with ovalbumin. Nishizono S, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):379–83

Aprotinin in fibrin tissue adhesives induces specific antibody response and increases antibody response of high–dose intravenous application. Scheule AM, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):348–53

Positive skin reaction test in haemodialysis patients allergic to nafamostat mesilate [letter] Okada H, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2166–7

ISOLATION & PURIFICATION

Capillary affinity chromatography and affinity capillary electrophoresis of heparin binding proteins. Wu X, et al. **Electrophoresis** 1998 Nov;19(15):2650–3

Savignin, a potent thrombin inhibitor isolated from the salivary glands of the tick Ornithodoros savignyi (Acari: Argasidae). Nienaber J, et al. **Exp Parasitol** 1999 Oct; 93(2):82–91

Evaluation of immunoglobulin A1 (IgA1) protease and IgA1 protease–inhibitory activity in human female genital infection with Neisseria gonorrhoeae. Hedges SR, et al. **Infect Immun** 1998 Dec;66(12):5826–32

Molecular studies define the primary structure of alpha1–antichymotrypsin (ACT) protease inhibitor in Alzheimer's disease brains. Comparison of act in hippocampus and liver. Hwang SR, et al. **J Biol Chem** 1999 Jan 15;274(3):1821–7

Alpha1–antichymotrypsin–like proteins I and II purified from bovine adrenal medulla are enriched in chromaffin granules and inhibit the proenkephalin processing enzyme "prohormone thiol protease". Hook VY, et al. **J Neurochem** 1999 Jul;73(1):59–69

Isolation and properties of a new kallikrein inhibitor from Tityus serrulatus venom. Ferreira LA, et al. **J Protein Chem** 1998 Nov;17(8):799–805

[An inhibitor of enteropeptidases and trypsin from the bovine duodenum] Mikhailova AG, et al. **Vopr Med Khim** 1998 Jul–Aug;44(4):338–46 (Eng. Abstr.) **(Rus)**

METABOLISM

Thrombin–antithrombin III complex in acute retinal vein occlusion [letter; comment] Sagripanti A, et al. **Am J Ophthalmol** 1999 Jul;128(1):124–5. Comment on: Am J Ophthalmol 1998 Nov;126(5):677–82.

Bikunin present in human peritoneal fluid is in part derived from the interaction of serum with peritoneal mesothelial cells. Thomas GJ, et al. **Am J Pathol** 1998 Oct; 153(4):1267–76

The interrelationship of sputum inflammatory markers in patients with chronic bronchitis. Hill AT, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):893–8

N–tosyl–L–phenylalanine chloromethyl ketone, a serine protease inhibitor, identifies glutamate 398 at the coenzyme–binding site of human aldehyde dehydrogenase. Evidence for a second "naked anion" at the active site. Dryjanski M, et al. **Biochemistry** 1998 Oct 6;37(40):14151–6

Inter–alpha–inhibitor binding to hyaluronan in the cumulus extracellular matrix is required for optimal ovulation and development of mouse oocytes. Hess KA, et al. **Biol Reprod** 1999 Aug;61(2):436–43

Prolyl endopeptidase inhibitors derived from actinomycetes. Kimura K, et al. **Biosci Biotechnol Biochem** 1997 Oct; 61(10):1754–6 (1 ref.)

SERINE PROTEINASE INHIBITORS

Probing intermolecular backbone H-bonding in serine proteinase-protein inhibitor complexes. Lu W, et al. **Chem Biol** 1999 Jul;6(7):419-27

Secretory leukocyte proteinase inhibitor is preferentially increased in patients with acute respiratory distress syndrome [see comments] Sallenave JM, et al. **Eur Respir J** 1999 May;13(5):1029-36. Comment in: Eur Respir J 1999 May;13(5):947-8.

Binding of human secretory leukocyte protease inhibitor in uterine cervical mucus to immunoglobulins: pathophysiology in immunologic infertility and local immune defense. Hirano M, et al. **Fertil Steril** 1999 Jun; 71(6):1108-14

Differentiating cells of murine stratified squamous epithelia constitutively express plasminogen activator inhibitor type 2 (PAI-2). Risse BC, et al. **Histochem Cell Biol** 1998 Dec; 110(6):559-69

Secretory leukocyte protease inhibitor interferes with uptake of lipopolysaccharide by macrophages. Ding A, et al. **Infect Immun** 1999 Sep;67(9):4485-9

Revisiting catalysis by chymotrypsin family serine proteases using peptide substrates and inhibitors with unnatural main chains. Coombs GS, et al. **J Biol Chem** 1999 Aug 20; 274(34):24074-9

Secretory leukocyte protease inhibitor concentration increases in amniotic fluid with the onset of labour in women: characterization of sites of release within the uterus. Denison FC, et al. **J Endocrinol** 1999 May; 161(2):299-306

Distribution of hepatocyte growth factor activator inhibitor type 1 (HAI-1) in human tissues. Cellular surface localization of HAI-1 in simple columnar epithelium and its modulated expression in injured and regenerative tissues. Kataoka H, et al. **J Histochem Cytochem** 1999 May; 47(5):673-82

Serpin = serine protease-like complexes within neurofilament conglomerates of motoneurons in amyotrophic lateral sclerosis. Chou SM, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S73-9

The SHAP-HA complex in sera from patients with rheumatoid arthritis and osteoarthritis. Kida D, et al. **J Rheumatol** 1999 Jun;26(6):1230-8

Myxoma virus Serp2 is a weak inhibitor of granzyme B and interleukin-1beta-converting enzyme in vitro and unlike CrmA cannot block apoptosis in cowpox virus-infected cells. Turner PC, et al. **J Virol** 1999 Aug;73(8):6394-404

Secretory leukocyte protease inhibitor (SLPI) concentrations in cervical mucus of women with normal menstrual cycle. Moriyama A, et al. **Mol Hum Reprod** 1999 Jul;5(7):656-61

The expression and localization of serine proteinase inhibitor P1-6 mRNA in developmental and ischemic mouse brain. Nakaya N, et al. **Neurosci Res** 1998 Nov;32(3):221-30

Constitutive activation of toll-mediated antifungal defense in serpin-deficient Drosophila. Levashina EA, et al. **Science** 1999 Sep 17;285(5435):1917-9

[Activity of elastase and its inhibitors in arterial tissues and blood serum under experimental arterio-atherosclerosis] Dosenko VIe. **Ukr Biokhim Zh** 1998 Jul-Aug;70(4):88-94 (Eng. Abstr.) **(Ukr)**

PHARMACOKINETICS

Cellular distribution of exogenous aprotinin in the rat kidney. Vio CP, et al. **Biol Chem** 1998 Oct;379(10):1271-7

Benzylamine-based selective and orally bioavailable inhibitors of thrombin. Lee K, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2563-8

Inhibition of elastase by a synthetic cotton-bound serine protease inhibitor: in vitro kinetics and inhibitor release. Edwards JV, et al. **Wound Repair Regen** 1999 Mar-Apr; 7(2):106-18

PHARMACOLOGY

Structure of 3,4-dichloroisocoumarin-inhibited factor D. Cole LB, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):711-7

Migration of neutrophils across human pulmonary endothelial cells is not blocked by matrix metalloproteinase or serine protease inhibitors. Jill Mackarel A, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1209-19

Addition of alpha1-antitrypsin to surfactant improves oxygenation in surfactant-deficient rats. Belai Y, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):917-23

The effects of aprotinin on outcome from cerebral ischemia in the rat. Grocott HP, et al. **Anesth Analg** 1999 Jan; 88(1):1-7

Serine protease inhibitors block invasion of host cells by Toxoplasma gondii. Conseil V, et al. **Antimicrob Agents Chemother** 1999 Jun;43(6):1358-61

Inhibition of human cytomegalovirus proteinase by salcomine derivatives. Watanabe S, et al. **Antivir Chem Chemother** 1998 May;9(3):269-74

Hepatitis C virus NS3/4A protease. Kwong AD, et al. **Antiviral Res** 1999 Feb;41(1):67-84 (100 ref.)

Neutrophil myeloperoxidase is a potent and selective inhibitor of mast cell tryptase. Cregar L, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):125-30

Aprotinin reduces the expression of p-selectin on the surface of platelet and leukocyte-platelet conjugates. Inui K, et al. **Artif Organs** 1998 Dec;22(12):1018-22

Effects of a factor Xa inhibitor, DX-9065a, in a novel rabbit model of venous thrombosis. Rogers KL, et al. **Basic Res Cardiol** 1999 Feb;94(1):15-22

Effect of a novel prolyl endopeptidase inhibitor, JTP-4819, on spatial memory and on cholinergic and peptidergic neurons in rats with ibotenate-induced lesions of the nucleus basalis magnocellularis. Shinoda M, et al. **Behav Brain Res** 1999 Feb 15;99(1):17-25

S 17092-1, a highly potent, specific and cell permeant inhibitor of human proline endopeptidase. Barelli H, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):657-61

Inhibition of murine neutrophil serine proteinases by human and murine secretory leukocyte protease inhibitor. Wright CD, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):614-7

Inhibition of elastase by N-sulfonylaryl beta-lactams: anatomy of a stable acyl-enzyme complex. Wilmouth RC, et al. **Biochemistry** 1998 Dec 15;37(50):17506-13

Phage display selection of P1 mutants of BPTI directed against five different serine proteinases. Kiczak L, et al. **Biol Chem** 1999 Jan;380(1):101-5

Uterine-associated serine protease inhibitors stimulate deoxyribonucleic acid synthesis in porcine endometrial glandular epithelial cells of pregnancy. Badinga L, et al. **Biol Reprod** 1999 Aug;61(2):380-7

Cyclic and linear oligocarbamate ligands for human thrombin. Cho CY, et al. **Bioorg Med Chem** 1999 Jun; 7(6):1171-9

Synthesis and kinetic studies of an amidine-containing phosphonofluoridate: a novel potent inhibitor of trypsin-like enzymes. Ni LM, et al. **Bioorg Med Chem** 1998 Oct;6(10):1767-73

Design, synthesis and biological evaluation of selective boron-containing thrombin inhibitors. Wienand A, et al. **Bioorg Med Chem** 1999 Jul;7(7):1295-307

Isolation and structure of SCH 351633: a novel hepatitis C virus (HCV) NS3 protease inhibitor from the fungus Penicillium griseofulvum. Chu M, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1949-52

Benzothiopyran-4-one based reversible inhibitors of the human cytomegalovirus (HCMV) protease. Dhanak D, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3677-82

The de novo design and synthesis of cyclic urea inhibitors of factor Xa: initial SAR studies. Galemmo RA Jr, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2705-10

Symmetrical anhydride-type serine protease inhibitors: structure-activity relationship studies of human chymase inhibitors. Iijima K, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):413-8

Studies on the C-terminal of hexapeptide inhibitors of the hepatitis C virus serine protease. Llinàs-Brunet M, et al. **Bioorg Med Chem Lett** 1998 Oct 6;8(19):2719-24

Peptide-based inhibitors of the hepatitis C virus serine protease. Llinàs-Brunet M, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1713-8

Inhibition of human cytomegalovirus protease by enedione derivatives of thieno[2,3-d]oxazinones through a novel dual acylation/alkylation mechanism. Pinto IL, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):449-52

Dibasic benzo[b]thiophene derivatives as a novel class of active site directed thrombin inhibitors. 2. Exploring interactions at the proximal (S2) binding site. Sall DJ, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2527-32

A potent dipeptide inhibitor of dipeptidyl peptidase IV. Yamada M, et al. **Bioorg Med Chem Lett** 1998 Jun 16; 8(12):1537-40

The human mucus protease inhibitor and its mutants are novel defensive compounds against infection with influenza A and Sendai viruses. Kido H, et al. **Biopolymers** 1999; 51(1):79-86

A novel serpin expressed by blood-borne microfilariae of the parasitic nematode Brugia malayi inhibits human neutrophil serine proteinases. Zang X, et al. **Blood** 1999 Aug 15;94(4):1418-28

Class specific inhibition of house dust mite proteinases which cleave cell adhesion, induce cell death and which increase the permeability of lung epithelium. Winton HL, et al. **Br J Pharmacol** 1998 Jul;124(6):1048-59

Coupling of palmitate to ovalbumin inhibits the induction of oral tolerance. Oliveira FM, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1421-4 (20 ref.)

Relationship between protease activity and neu oncogene expression in patients with oral leukoplakia treated with the Bowman Birk Inhibitor. Wan XS, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jul;8(7):601-8

N-acetylcysteine blocks apoptosis induced by N-alpha-tosyl-L-phenylalanine chloromethyl ketone in transformed T-cells. Heussler VT, et al. **Cell Death Differ** 1999 Apr;6(4):342-50

Vanadium inhibition of serine and cysteine proteases. Guerrieri N, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Mar; 122(3):331-6

Inhibitors of bacterial signal peptidases. Black MT, et al. **Curr Pharm Des** 1998 Apr;4(2):133-54 (80 ref.)

Succinimide and saccharin-based enzyme-activated inhibitors of serine proteases. Martyn DC, et al. **Curr Pharm Des** 1999 Jun;5(6):405-15 (49 ref.)

Expression of alpha-1 proteinase inhibitor in human islet microvascular endothelial cells. Lou J, et al. **Diabetes** 1999 Sep;48(9):1773-8

Effects of LEX032, a novel recombinant serine protease inhibitor, on N(G)-nitro-L-arginine methyl ester induced leukocyte-endothelial cell interactions. Bains AS, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):67-72

Release of neutrophil elastase and its role in tissue injury in acute inflammation: effect of the elastase inhibitor, FR134043. Fujie K, et al. **Eur J Pharmacol** 1999 Jun 11; 374(1):117-25

4-(2-Aminoethyl)benzenesulfonyl fluoride attenuates tumor-necrosis-factor-alpha-induced blood-brain barrier opening. Megyeri P, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):207-11

ONO-5046 is a potent inhibitor of neutrophil elastase in human pleural effusion after lobectomy. Sakuma T, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):273-9

Antithrombin increases pulmonary endothelins: inhibition by heparin and Ca2+ channel antagonism. Stangl K, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):57-61

Effect of ONO-5046, a specific neutrophil elastase inhibitor, on the phorbol myristate acetate-induced injury in isolated dog lung. Wang HG, et al. **Exp Lung Res** 1999 Jan-Feb; 25(1):55-67

Lysosomal protease inhibitors induce meganeurites and tangle-like structures in entorhinohippocampal regions vulnerable to Alzheimer's disease. Bi X, et al. **Exp Neurol** 1999 Aug;158(2):312-27

Different bronchial responsiveness to Ach between normal and OA-sensitized guinea pigs after acoustic stress: a role for adenosine. Nieri P, et al. **Immunopharmacology** 1998 Jun;39(3):235-42

Anti-arthritic effects of the novel dipeptidyl peptidase IV inhibitors TMC-2A and TSL-225. Tanaka S, et al. **Immunopharmacology** 1998 Jul;40(1):21-6

Effects and mechanism of tissue-type plasminogen activator and plasminogen activator inhibitor on vascular smooth muscle cell proliferation. Xiaoli M, et al. **Int J Cardiol** 1998 Oct 1;66 Suppl 1:S57-64; discussion S65

Activation of polymorphonuclear leukocytes in oleic acid-induced lung injury. Moriuchi H, et al. **Intensive Care Med** 1998 Jul;24(7):709-15

Regulation of the activities of thrombin and plasmin by cholesterol sulfate as a physiological inhibitor in human plasma. Iwamori M, et al. **J Biochem (Tokyo)** 1999 Mar; 125(3):594-601

The kunitz protease inhibitor form of the amyloid precursor protein (KPI/APP) inhibits the proneuropeptide processing enzyme prohormone thiol protease (PTP). Colocalization of KPI/APP and PTP in secretory vesicles. Hook VY, et al. **J Biol Chem** 1999 Jan 29;274(5):3165-72

New thrombin inhibitors based on D-cha-Pro-derivatives. Steinmetzer T, et al. **J Enzyme Inhib** 1999;14(3):203-16

Effects of serpins on cholesterol crystallization in model bile. Janciauskiene S, et al. **J Hepatol** 1998 Oct;29(4):541-9

Three-dimensional quantitative structure-activity relationship analyses using comparative molecular field analysis and comparative molecular similarity indices analysis to elucidate selectivity differences of inhibitors binding to trypsin, thrombin, and factor Xa. Böhm M, et al. **J Med Chem** 1999 Feb 11;42(3):458-77

Inhibition of neutrophil proteinases by recombinant serpin Lex032 reduces capillary no-reflow in ischemia/reperfusion-induced acute pancreatitis. von Dobschuetz E, et al. **J Pharmacol Exp Ther** 1999 Aug; 290(2):782-8

Secretory leukocyte protease inhibitor prevents allergen-induced pulmonary responses in animal models of asthma. Wright CD, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1007-14

Isolation and properties of a new kallikrein inhibitor from Tityus serrulatus venom. Ferreira LA, et al. **J Protein Chem** 1998 Nov;17(8):799-805

Effect of specific neutrophil elastase inhibitor on ischemia/reperfusion injury in rat liver transplantation. Soejima Y, et al. **J Surg Res** 1999 Sep;86(1):150-4

The effect of neutrophil elastase inhibitor in hepatectomy with ischemia in dogs. Tomizawa N, et al. **J Surg Res** 1999 Feb;81(2):230-7

Protective effect of a pancreatic elastase inhibitor against a variety of acute pancreatitis in rats. Yamano M, et al. **Jpn J Pharmacol** 1998 Jul;77(3):193-203

Effects of daphnodorin A, daphnodorin B and daphnodorin C on human chymase-dependent angiotensin II formation. Takai S, et al. **Life Sci** 1999;64(21):1889-96

Small, noncovalent serine protease inhibitors. Sanderson PE. **Med Res Rev** 1999 Mar;19(2):179-97 (103 ref.)

Improved glucose tolerance in rats treated with the dipeptidyl peptidase IV (CD26) inhibitor Ile-thiazolidide. Pauly RP, et al. **Metabolism** 1999 Mar;48(3):385-9

Aprotinin in ischemia-reperfusion injury: flap survival and neutrophil response in a rat skin flap model. Stadelmann WK, et al. **Microsurgery** 1998;18(6):354-61; discussion 362-3

Serine protease inhibitor TPCK prevents Taxol-induced cell death and blocks c-Raf-1 and Bcl-2 phosphorylation in human breast carcinoma cells. Huang Y, et al. **Oncogene** 1999 Jun 10;18(23):3431-9

Angiostatic activity of synthetic inhibitors of urokinase type plasminogen activator. Swiercz R, et al. **Oncol Rep** 1999 May-Jun;6(3):523-6

Screening of crude drug extracts for prolyl endopeptidase inhibitory activity. Tezuka Y, et al. **Phytomedicine** 1999 Jul;6(3):197-203

Reverse biochemistry: use of macromolecular protease inhibitors to dissect complex biological processes and identify a membrane-type serine protease in epithelial

cancer and normal tissue. Takeuchi T, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11054–61

3,4–Dichloroisocoumarin serine protease inhibitor induces DNA fragmentation and apoptosis in susceptible target cells. Hameed A, et al. **Proc Soc Exp Biol Med** 1998 Nov; 219(2):132–7

A leukocyte elastase inhibitor reduces thrombin–induced pulmonary oedema in the rat: mechanisms of action. Ahn CM, et al. **Pulm Pharmacol Ther** 1998;11(4):291–9

FUT–175 inhibits the production of IL–6 and IL–8 in human monocytes. Sugita H, et al. **Res Commun Mol Pathol Pharmacol** 1999 Jan;103(1):57–64

Action of aprotinin in myocardial ischemia – an investigation using a plasma–free model. Hoffmeister HM, et al. **Thorac Cardiovasc Surg** 1999 Apr;47(2):88–93

Inhibitory properties of human recombinant Arg24––>Gln type–2 tissue factor pathway inhibitor (R24Q TFPI–2). Kamei S, et al. **Thromb Res** 1999 May 1;94(3):147–52

Inhibition of elastase by a synthetic cotton–bound serine protease inhibitor: in vitro kinetics and inhibitor release. Edwards JV, et al. **Wound Repair Regen** 1999 Mar–Apr; 7(2):106–18

[Effects of secretory leukocyte protease inhibitor on the production of some cytokines and nitric oxide by murine peritoneal macrophages in response to lipopolysaccharide stimulation and M. avium complex infection] Sano C, et al. **Kekkaku** 1999 Jul;74(7):563–70 (Eng. Abstr.) **(Jpn)**

[Effect of contrical on proteolytic enzymes of blood serum in acute emotional–pain stress] Tarasenko LM, et al. **Ukr Biokhim Zh** 1998 Jul–Aug;70(4):130–4 (Eng. Abstr.) **(Rus)**

[Effect of blood plasma inhibitors on activity of serine and cysteine proteinases] Veremeenko KN, et al. **Ukr Biokhim Zh** 1998 Nov–Dec;70(6):35–42 (Eng. Abstr.) **(Rus)**

[Role of proteinase inhibitors in the process that provide coupling between body's functional systems] Gurin VN, et al. **Vestn Ross Akad Med Nauk** 1999;(6):25–9 (25 ref.) (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Effect of polynucleotides on the inhibition of neutrophil elastase by mucus proteinase inhibitor and alpha 1–proteinase inhibitor. Belorgey D, et al. **Biochemistry** 1998 Nov 17;37(46):16416–22

Chymase: its pathophysiological roles and inhibitors. Fukami H, et al. **Curr Pharm Des** 1998 Dec;4(6):439–53 (73 ref.)

Serine proteinase inhibitors in arthropod immunity. Kanost MR. **Dev Comp Immunol** 1999 Jun–Jul;23(4–5):291–301 (74 ref.)

Targeted overexpression of elafin protects mice against cardiac dysfunction and mortality following viral myocarditis. Zaidi SH, et al. **J Clin Invest** 1999 Apr; 103(8):1211–9

Regulatory effects of endogenous protease inhibitors in acute lung inflammatory injury. Gipson TS, et al. **J Immunol** 1999 Mar 15;162(6):3653–62

Inter–alpha–inhibitor: a protein family involved in the inhibition of calcium oxalate crystallization. Atmani F, et al. **Scanning Microsc** 1996;10(2):425–33; discussion 433–4

The effect of number of days in culture and plasminogen activator inhibitor–1 (PAI–1) 4G/5G genotype on PAI–1 antigen release by cultured human umbilical vein endothelial cells. McCormack LJ, et al. **Thromb Res** 1998 Dec 1;92(5):199–206

[Heparin cofactor II, a thrombin inhibitor with a still not clarified physiologic role] Rossi EB, et al. **Medicina (B Aires)** 1999;59(1):95–104 (77 ref.) (Eng. Abstr.) **(Spa)**

SECRETION

Assembly and secretion of recombinant chains of human inter–alpha–trypsin inhibitor in COS–7 cells. Martin–Vandelet N, et al. **Eur J Biochem** 1999 Jan; 259(1–2):476–84

THERAPEUTIC USE

Recombinant human Monocyte/Neutrophil elastase inhibitor protects rat lungs against injury from cystic fibrosis airway secretions. Rees DD, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):69–78

Blockage of skin invasion by schistosome cercariae by serine protease inhibitors. Lim KC, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):487–92

Activation of the protein C system during cardiopulmonary bypass with and without aprotinin. Speekenbrink RG, et al. **Ann Thorac Surg** 1998 Dec;66(6):1998–2002

Aprotinin–enhanced lung preservation solutions: is it worthwhile [letter; comment] Wittwer T, et al. **Ann Thorac Surg** 1999 May;67(5):1538–40. Comment on: Ann Thorac Surg 1998 Jul;66(1):225–30.

Efficacy of nafamostat mesilate as a regional anticoagulant in experimental direct hemoperfusion and in plasma exchange on humans. Abe H, et al. **Artif Organs** 1992 Apr; 16(2):206–8

Nafamostat mesilate, a kallikrein inhibitor, prevents pain on injection with propofol. Iwama H, et al. **Br J Anaesth** 1998 Dec;81(6):963–4

The treatment of heparin resistance with Antithrombin III in cardiac surgery. Kanbak M. **Can J Anaesth** 1999 Jun; 46(6):581–5

Alpha1–proteinase inhibitor in the newborn – A comment [editorial; comment] Kirpalani H. **Can Respir J** 1999 Mar–Apr;6(2):136–7. Comment on: Can Respir J 1999 Mar–Apr;6(2):138–40.

Reducing neutrophil elastase–induced lung injury [see comments] Stiskal JA, et al. **Can Respir J** 1999 Mar–Apr; 6(2):138–40. Comment in: Can Respir J 1999 Mar–Apr;6(2):136–7.

Gabexate mesilate, a synthetic protease inhibitor, reduces ischemia/reperfusion injury of rat liver by inhibiting leukocyte activation [see comments] Harada N, et al. **Crit Care Med** 1999 Sep;27(9):1958–64. Comment in: Crit Care Med 1999 Sep;27(9):2062–3.

What's the buzz (on protease inhibitors)...tell me what's (mechanistically) happening [editorial; comment] Zimmerman JJ. **Crit Care Med** 1999 Sep;27(9):2062–3. Comment on: Crit Care Med 1999 Sep;27(9):1958–64.

Inhibitors of tryptase for the treatment of mast cell–mediated diseases. Rice KD, et al. **Curr Pharm Des** 1998 Oct; 4(5):381–96 (122 ref.)

Longitudinal evaluation of the complexed–to–total prostate specific antigen ratio in men with prostate disease. Effect of treatment. España F, et al. **Eur J Cancer** 1998 Aug; 34(9):1375–80

The use of antithrombin III (ATIII) for disseminated intravascular coagulation (DIC) during septic shock [letter; comment] Cohendy R, et al. **Intensive Care Med** 1998 Dec; 24(12):1344. Comment on: Intensive Care Med 1998 Apr;24(4):336–42.

Secretory leukocyte protease inhibitor suppresses the inflammation and joint damage of bacterial cell wall–induced arthritis. Song Xy, et al. **J Exp Med** 1999 Aug 16;190(4):535–42

The effects of a neutrophil elastase inhibitor (ONO–5046.Na) and neutrophil depletion using a granulotrap (G–1) column on lung reperfusion injury in dogs. Tomizawa N, et al. **J Heart Lung Transplant** 1999 Jul;18(7):637–45

Effect of a specific synthetic inhibitor of neutrophil elastase (ONO–5046) on the course of acute hemorrhagic pancreatitis in dogs. Imamura M, et al. **J Hepatobiliary Pancreat Surg** 1998;5(4):422–8

High–dose antithrombin III treatment of severely injured patients: results of a prospective study. Waydhas C, et al. **J Trauma** 1998 Nov;45(5):931–40

An ataxia telangiectasia model: inefficient cell differentiation and possible reversal by serine protease inhibitors, tumor necrosis factor inhibitors, dexamethasone, and glutathione enhancers. Knittweis J. **Med Hypotheses** 1998 Jul; 51(1):53–7 (88 ref.)

A serine elastase inhibitor reduces inflammation and fibrosis and preserves cardiac function after experimentally–induced murine myocarditis. Lee JK, et al. **Nat Med** 1998 Dec;4(12):1383–91

Combination of serine protease inhibitor FUT–175 and thromboxane synthetase inhibitor OKY–046 decreases cerebral vasospasm in patients with subarachnoid hemorrhage. Kaminogo M, et al. **Neurol Med Chir (Tokyo)** 1998 Nov;38(11):704–8; discussion 708–9

Prevention of neointimal formation by a serine protease inhibitor, FUT–175, after carotid balloon injury in rats. Sawada M, et al. **Stroke** 1999 Mar;30(3):644–50

Reducing the post–pump syndrome by using heparin–coated circuits, steroids, or aprotinin. Harig F, et al. **Thorac Cardiovasc Surg** 1999 Apr;47(2):111–8

Treatment of post–transfusion graft–versus–host disease with nafmostat mesilate, a serine protease inhibitor. Ryo R, et al. **Vox Sang** 1999;76(4):241–6

TOXICITY

Anti–invasive activity of synthetic serine protease inhibitors and its combined effect with a matrix metalloproteinase inhibitor. Ikeda T, et al. **Anticancer Res** 1998 Nov–Dec; 18(6A):4259–65

Tumor growth inhibition induced in a murine model of human Burkitt's lymphoma by a proteasome inhibitor. Orlowski RZ, et al. **Cancer Res** 1998 Oct 1;58(19):4342–8

[Reproductive and developmental toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na (1). Fertility study in rats] Chihara N, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:503–14 (Eng. Abstr.) **(Jpn)**

[Reproductive and developmental toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (2). Study for effects on pre– and postnatal development in rats, including maternal function] Nishimura T, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:515–29 (Eng. Abstr.) **(Jpn)**

[Reproductive and developmental toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (3). Teratogenicity study in rabbits] Nishimura T, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:531–8 (Eng. Abstr.) **(Jpn)**

[Toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (5). 6–month repeated dose intravenous toxicity study in dogs with 1–month recovery test] Okamoto M, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:483–501 (Eng. Abstr.) **(Jpn)**

[Toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (3). 4–week repeated dose intravenous toxicity study in dogs with 4–week recovery test] Yamaguchi K, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:435–55 (Eng. Abstr.) **(Jpn)**

[Toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (4). 6–month repeated dose intravenous toxicity study in rats with 1–month recovery test] Yamaguchi K, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:457–82 (Eng. Abstr.) **(Jpn)**

[Toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (1). Single–dose intravenous toxicity studies in rats and dogs] Yanagi H, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:409–13 (Eng. Abstr.) **(Jpn)**

[Toxicity study of sodium N–[2–[4–(2,2–dimethylpropionyloxy) phenylsulfonylamino] benzoyl] aminoacetate tetrahydrate (ONO–5046.Na) (2). 4–week repeated dose intravenous toxicity study in rats with 4–week recovery test] Yanagi H, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:415–34 (Eng. Abstr.) **(Jpn)**

SERINE PROTEINASE INHIBITORS, ENDOGENOUS see **SERINE PROTEINASE INHIBITORS**

SERINE PROTEINASE INHIBITORS, EXOGENOUS see **SERINE PROTEINASE INHIBITORS**

SERINE PROTEINASES

Hepatitis C virus NS3/4A protease. Kwong AD, et al. **Antiviral Res** 1998 Dec;40(1–2):1–18 (98 ref.)

Structural features, physiological roles, and biotechnological applications of the membrane proteases of the OmpT bacterial endopeptidase family: a micro–review. Stathopoulos C. **Membr Cell Biol** 1998;12(1):1–8 (43 ref.)

Mitochondrial Lon of Saccharomyces cerevisiae is a ring–shaped protease with seven flexible subunits. Stahlberg H, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6787–90

Crotalase, a fibrinogen–clotting snake venom enzyme: primary structure and evidence for a fibrinogen recognition exosite different from thrombin. Henschen–Edman AH, et al. **Thromb Haemost** 1999 Jan;81(1):81–6

ANALYSIS

Expression of stratum corneum chymotryptic enzyme in human sebaceous follicles. Ekholm E, et al. **Acta Derm Venereol** 1998 Sep;78(5):343–7

Immunotherapy and mast cell activation. Carlos AG, et al. **Allerg Immunol (Paris)** 1998 Oct;30(8):257–8

Usefulness of UniCAP–Tryptase fluoroimmunoassay in the diagnosis of anaphylaxis. Enrique E, et al. **Allergy** 1999 Jun;54(6):602–6

Carnoy's fixative reduces the number of chymase–positive cells in immunocytochemical staining of cord–blood–derived human cultured mast cells. Kanbe N, et al. **Allergy** 1998 Oct;53(10):981–5

Viral protease assay based on GAL4 inactivation is applicable to high–throughput screening in mammalian cells. Lawler JF Jr, et al. **Anal Biochem** 1999 Apr 10;269(1):133–8

A continuous spectrophotometric assay for the hepatitis C virus serine protease. Zhang R, et al. **Anal Biochem** 1999 Jun 1;270(2):268–75

Spectrum of extracellular matrix degrading enzymes in normal and malignant T lymphocytes. Hauzenberger D, et al. **Anticancer Res** 1999 May–Jun;19(3A):1945–52

Cytotoxic protein expression in non–Hodgkin's lymphomas and Hodgkin's disease. Kanavaros P, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):1209–16

Stratum corneum chymotryptic enzyme in psoriasis. Ekholm E, et al. **Arch Dermatol Res** 1999 Apr;291(4):195–200

Identification and characterization of multiple forms of tryptase from human mast cells. Harvima RJ, et al. **Arch Dermatol Res** 1999 Feb–Mar;291(2–3):73–80

Characterization of a novel allergen, a major IgE–binding protein from Aspergillus flavus, as an alkaline serine protease. Yu CJ, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):669–75

Serine protease detection in mixed lymphocyte cultures: a histochemical method for possible prediction of graft–versus–host disease. Maiocchi MA, et al. **Haematologica** 1998 Aug;83(8):686–9

Enzyme histochemistry of rat mast cell tryptase. Valchanov KP, et al. **Histochem J** 1998 Feb;30(2):97–103

The diagnosis of amniotic fluid embolism: an immunohistochemical study for the quantification of pulmonary mast cell tryptase. Fineschi V, et al. **Int J Legal Med** 1998;111(5):238–43

Histamine and tryptase in nasal lavage fluid after allergen challenge: effect of 1 week of pretreatment with intranasal azelastine or systemic cetirizine. Jacobi HH, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):768–72

Affinity chromatography of serine proteases on the triazine dye ligand Cibacron Blue F3G–A. Koch C, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):41–6

Helicobacter pylori non-cytotoxic genotype enhances mucosal gastrin and mast cell tryptase. Basso D, et al. **J Clin Pathol** 1999 Mar;52(3):210-4

Detection of tryptase in bovine mast cells: comparison of enzyme- and immuno-histochemistry. Jolly S, et al. **J Comp Pathol** 1999 Apr;120(3):269-79

Localization of the P1 protein of potato Y potyvirus in association with cytoplasmic inclusion bodies and in the cytoplasm of infected cells. Arbatova J, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2319-23

Immunohistochemical distribution of the prohormone convertase PC5-A in rat brain. Villeneuve P, et al. **Neuroscience** 1999;92(2):641-54

[Immunoenzyme method of determination of savinase and caresime in the air] Rusakov NV, et al. **Gig Sanit** 1999 Jul-Aug;(4):66-8 **(Rus)**

ANTAGONISTS & INHIBITORS see SERINE PROTEINASE INHIBITORS

BIOSYNTHESIS

Expression of cytotoxic proteins by neoplastic T cells in mycosis fungoides increases with progression from plaque stage to tumor stage disease. Vermeer MH, et al. **Am J Pathol** 1999 Apr;154(4):1203-10

Heat shock induction of a 65 kDa ATP-binding proteinase in rat C6 glioma cells. Xu CS, et al. **Cell Res** 1999 Jun; 9(2):135-44

The levels of soluble granzyme A and B are elevated in plasma and synovial fluid of patients with rheumatoid arthritis (RA). Tak PP, et al. **Clin Exp Immunol** 1999 May; 116(2):366-70

The plasmid-encoded signal peptidase SipP can functionally replace the major signal peptidases SipS and SipT of Bacillus subtilis. Tjalsma H, et al. **J Bacteriol** 1999 Apr; 181(8):2448-54

Down-regulation of human granzyme B expression by glucocorticoids. Dexamethasone inhibits binding to the Ikaros and AP-1 regulatory elements of the granzyme B promoter. Wargnier A, et al. **J Biol Chem** 1998 Dec 25; 273(52):35326-31

An investigation into the influences of species and biotype on the type of IgA1 protease produced by isolates of Haemophilus. Senior BW, et al. **J Med Microbiol** 1999 Apr; 48(4):389-94

BLOOD

Lower activity of serum peptidases in abstinent alcohol-dependent patients. Maes M, et al. **Alcohol** 1999 Jan;17(1):1-6

Characterization of membrane-bound serine protease related to degradation of oxidatively damaged erythrocyte membrane proteins. Fujino T, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1-2):47-55

Serum tryptase measured with B12 and G5 antibody-based immunoassays in mastocytosis patients and its relation to histamine turnover. Granerus G, et al. **Br J Dermatol** 1998 Nov;139(5):858-61

Plasma acylation stimulating protein, adipsin and lipids in non-obese and obese populations [see comments] Maslowska M, et al. **Eur J Clin Invest** 1999 Aug; 29(8):679-86. Comment in: Eur J Clin Invest 1999 Aug;29(8):653-6.

Invasive isolates of Neisseria meningitidis possess enhanced immunoglobulin A1 protease activity compared to colonizing strains. Vitovski S, et al. **FASEB J** 1999 Feb; 13(2):331-7

Detection of a novel plasma serine protease during purification of vitamin K-dependent coagulation factors. Hunfeld A, et al. **FEBS Lett** 1999 Aug 6;456(2):290-4

Serum tryptase: an indicator of anaphylaxis following fluorescein angiography. Butrus SI, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 May;237(5):433-4

Proteolysis of insulin-like growth factor binding protein-3 in serum from pregnant, non-pregnant and fetal rats by matrix metalloproteinases and serine proteases. Wu HB, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):186-91

Increased postmortem serum mast cell tryptase in a fatal anaphylactoid reaction to nonionic radiocontrast medium. Brockow K, et al. **J Allergy Clin Immunol** 1999 Jul; 104(1):237-8

The potential clinical utility of serum alpha-protryptase levels. Kanthawatana S, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1092-9

Identification of basophilic cells that express mast cell granule proteases in the peripheral blood of asthma, allergy, and drug-reactive patients. Li L, et al. **J Immunol** 1998 Nov 1;161(9):5079-86

Expression of granzyme B during primary cytomegalovirus infection after renal transplantation. Wever PC, et al. **J Infect Dis** 1999 Mar;179(3):693-6

Lower serum activity of prolyl endopeptidase in fibromyalgia is related to severity of depressive symptoms and pressure hyperalgesia. Maes M, et al. **Psychol Med** 1998 Jul; 28(4):957-65

Effects of psychological stress on serum prolyl endopeptidase and dipeptidyl peptidase IV activity in humans: higher serum prolyl endopeptidase activity is related to stress-induced anxiety. Maes M, et al. **Psychoneuroendocrinology** 1998 Jul;23(5):485-95

Plasma proteolytic activity in liver transplant rejection. Scholz T, et al. **Transpl Int** 1999;12(2):100-7

Concomitant detection by flow cytometry of the intragranular antigen granzyme B and the intranuclear antigen Ki-67 in peripheral blood mononuclear cells from healthy individuals and patients with acute CMV infection after renal transplantation. Rentenaar RJ, et al. **Transplant Proc** 1998 Dec;30(8):3958-9

Increased systemic levels of soluble granzymes A and B during primary cytomegalovirus infection after renal transplantation. ten Berge IJ, et al. **Transplant Proc** 1998 Dec;30(8):3972-4

Selective expansion of a peripheral blood CD8+ memory T cell subset expressing both granzyme B and L-selectin during primary viral infection in renal allograft recipients. ten Berge IJ, et al. **Transplant Proc** 1998 Dec;30(8):3975-7

[Comparison of the levels of histamine, tryptase, and interleukin-6 for the investigation of anaphylactoid drug reactions] Sainte-Laudy J, et al. **Allerg Immunol (Paris)** 1998 Sep;30(7):209-11 (Eng. Abstr.) **(Fre)**

[Effect of contrical on proteolytic enzymes of blood serum in acute emotional-pain stress] Tarasenko LM, et al. **Ukr Biokhim Zh** 1998 Jul-Aug;70(4):130-4 (Eng. Abstr.) **(Rus)**

CEREBROSPINAL FLUID

Invasive isolates of Neisseria meningitidis possess enhanced immunoglobulin A1 protease activity compared to colonizing strains. Vitovski S, et al. **FASEB J** 1999 Feb; 13(2):331-7

CHEMISTRY

Crystallization and preliminary X-ray analysis of porcine muscle prolyl oligopeptidase. Böcskei Z, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1414-5

Construction of urea-resistant Staphylococcus aureus V8 protease derivatives and application in the releasing of peptide hormones from fusion proteins. Yabuta M, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:576-8

Phosphorylation of P'(1) serine inhibits peptide bond sensitivity to Staphylococcus aureus V8 protease. Zambrano R, et al. **Arch Biochem Biophys** 1999 Aug 1; 368(1):207-9

Activity in monomers of human cytomegalovirus protease. Holwerda B. **Biochem Biophys Res Commun** 1999 Jun 7; 259(2):370-3

Purification and partial characterization of a new proteolytic enzyme from the venom of Bothrops moojeni (CAISSACA). Oliveira F, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):1069-77

alpha-lytic protease precursor: characterization of a structured folding intermediate. Anderson DE, et al. **Biochemistry** 1999 Apr 13;38(15):4728-35

Thermodynamic criterion for the conformation of P1 residues of substrates and of inhibitors in complexes with serine proteinases. Qasim MA, et al. **Biochemistry** 1999 Jun 1; 38(22):7142-50

Induced fit activation mechanism of the exceptionally specific serine protease, complement factor D. Taylor FR, et al. **Biochemistry** 1999 Mar 2;38(9):2849-59

S' subsite mapping of serine proteases based on fluorescence resonance energy transfer. Grahn S, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):329-37

Weakly bound calcium ions involved in the thermostability of aqualysin I, a heat-stable subtilisin-type protease of Thermus aquaticus YT-1. Lin SJ, et al. **Biochim Biophys Acta** 1999 Aug 17;1433(1-2):132-8

Lack of effect of carbohydrate depletion on some properties of human mast cell chymase. Takao K, et al. **Biochim Biophys Acta** 1999 Mar 14;1427(1):74-81

The specificity of prolyl endopeptidase from Flavobacterium meningoseptum: mapping the S' subsites by positional scanning via acyl transfer. Bordusa F, et al. **Bioorg Med Chem** 1998 Oct;6(10):1775-80

Recombinant human mast cell tryptase beta: stable expression in Pichia pastoris and purification of fully active enzyme. Niles AL, et al. **Biotechnol Appl Biochem** 1998 Oct;28 (Pt 2):125-31

Heat shock induction of a 65 kDa ATP-binding proteinase in rat C6 glioma cells. Xu CS, et al. **Cell Res** 1999 Jun; 9(2):135-44

Structural and functional properties of Bos taurus tryptase: a search for a possible propeptide processing role. Fiorucci L, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun;120(2):239-45

Fibrinolytic and anticoagulative activities from the earthworm Eisenia foetida. Hrženjak T, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Apr; 119(4):825-32

Structural basis of profactor D activation: from a highly flexible zymogen to a novel self-inhibited serine protease, complement factor D. Jing H, et al. **EMBO J** 1999 Feb 15;18(4):804-14

Structural and energetic determinants of the S1-site specificity in serine proteases. Czapinska H, et al. **Eur J Biochem** 1999 Mar;260(3):571-95 (162 ref.)

Complete nucleotide sequence, origin of isoform and functional characterization of the mouse hepsin gene. Kawamura S, et al. **Eur J Biochem** 1999 Jun;262(3):755-64

Properties of a subtilisin-like proteinase from a psychrotrophic Vibrio species comparison with proteinase K and aqualysin I. Kristjánsson MM, et al. **Eur J Biochem** 1999 Mar;260(3):752-60

Two distinct forms of human mast cell chymase--differences in affinity for heparin and in distribution in skin, heart, and other tissues. McEuen AR, et al. **Eur J Biochem** 1998 Sep 1;256(2):461-70

Cloning and structural analysis of leydin, a novel human serine protease expressed by the Leydig cells of the testis. Poorafshar M, et al. **Eur J Biochem** 1999 Apr;261(1):244-50

Importance of heptameric ring integrity for activity of Escherichia coli ClpP. Thompson MW, et al. **Eur J Biochem** 1998 Dec 15;258(3):923-8

A molecular model of a point mutation (Val297Met) in the serine protease domain of protein C. Song KS, et al. **Exp Mol Med** 1999 Mar 31;31(1):47-51

Asp 280 residue is important in the activity of the Escherichia coli leader peptidase. Sung M, et al. **Exp Mol Med** 1999 Jun 30;31(2):64-9

Purification and characterization of two extracellular proteinases from Arthrobacter nicotianae 9458. Smacchi E, et al. **FEMS Microbiol Lett** 1999 Jan 15;170(2):327-33

Rational design and functional expression of a constitutively active single-chain NS4A-NS3 proteinase. Pasquo A, et al. **Fold Des** 1998;3(6):433-41

Human tryptases alpha and beta/II are functionally distinct due, in part, to a single amino acid difference in one of the surface loops that forms the substrate-binding cleft. Huang C, et al. **J Biol Chem** 1999 Jul 9;274(28):19670-6

Crystal structure of neuropsin, a hippocampal protease involved in kindling epileptogenesis. Kishi T, et al. **J Biol Chem** 1999 Feb 12;274(7):4220-4

Purification and characterization of a complex containing matriptase and a Kunitz-type serine protease inhibitor from human milk. Lin CY, et al. **J Biol Chem** 1999 Jun 25; 274(26):18237-42

Homology model of the dengue 2 virus NS3 protease: putative interactions with both substrate and NS2B cofactor. Brinkworth RI, et al. **J Gen Virol** 1999 May;80 (Pt 5):1167-77

Investigation of the covalent modification of the catalytic triad of human cytomegalovirus protease by pseudo-reversible beta-lactam inhibitors and a peptide chloromethylketone. Haley TM, et al. **J Mass Spectrom** 1998 Dec;33(12):1246-55

The solution structure of the N-terminal proteinase domain of the hepatitis C virus (HCV) NS3 protein provides new insights into its activation and catalytic mechanism. Barbato G, et al. **J Mol Biol** 1999 Jun 4;289(2):371-84

Structural characterization of the interactions of optimized product inhibitors with the N-terminal proteinase domain of the hepatitis C virus (HCV) NS3 protein by NMR and modelling studies. Cicero DO, et al. **J Mol Biol** 1999 Jun 4;289(2):385-96

Computational analysis of the binding of P1 variants of domain 3 of turkey ovomucoid inhibitor to Streptomyces griseus protease B. Fujinaga M, et al. **J Mol Biol** 1998 Dec 18;284(5):1683-94

Engineered Bacillus lentus subtilisins having altered flexibility. Graycar T, et al. **J Mol Biol** 1999 Sep 10; 292(1):97-109

Interscaffolding additivity: binding of P1 variants of bovine pancreatic trypsin inhibitor to four serine proteases. Krowarsch D, et al. **J Mol Biol** 1999 May 28;289(1):175-86

Altered flexibility in the substrate-binding site of related native and engineered high-alkaline Bacillus subtilisins. Mulder FA, et al. **J Mol Biol** 1999 Sep 10;292(1):111-23

The 2.2 A crystal structure of human chymase in complex with succinyl-Ala-Ala-Pro-Phe-chloromethylketone: structural explanation for its dipeptidyl carboxypeptidase specificity. Pereira PJ, et al. **J Mol Biol** 1999 Feb 12; 286(1):163-73

Auto-inactivation by cleavage within the dimer interface of Kaposi's sarcoma-associated herpesvirus protease. Pray TR, et al. **J Mol Biol** 1999 Jun 4;289(2):197-203

Histidine mapping of serine protease: a synergic study by IMAC and molecular modelling. Boden V, et al. **J Mol Recognit** 1998 Winter;11(1-6):32-9

Molecular recognition of cobalt(III)-ligated peptides by serine proteases: the role of electrostatic effects. Bagger S, et al. **J Pept Res** 1998 Oct;52(4):273-82

Reversible unfolding of intact and cleaved prolyl oligopeptidase from Flavobacterium meningosepticum induced by urea. Gagnon J, et al. **J Protein Chem** 1998 Aug;17(6):533

A LexA mutant repressor with a relaxed interdomain linker. Reinbolt J, et al. **J Protein Chem** 1998 Aug;17(6):518-9

Crystal structure determination of Escherichia coli ClpP starting from an EM-derived mask. Wang J, et al. **J Struct Biol** 1998 Dec 15;124(2-3):151-63

New insights into the ATP-dependent Clp protease: Escherichia coli and beyond. Porankiewicz J, et al. **Mol Microbiol** 1999 May;32(3):449-58 (78 ref.)

Metastable states and folding free energy barriers [news] Baker D. **Nat Struct Biol** 1998 Dec;5(12):1021-4

Switching serine protease specificity [news; comment] Esmon CT, et al. **Nat Struct Biol** 1998 Nov;5(11):933-7. Comment on: Nat Struct Biol 1998 Oct;5(10):917-23.

Structure of alpha-lytic protease complexed with its pro region. Sauter NK, et al. **Nat Struct Biol** 1998 Nov; 5(11):945-50

Crystal structure of a bacterial signal peptidase in complex with a beta-lactam inhibitor [see comments] [published

erratum appears in Nature 1998 Dec 17;396(6712):707] Paetzel M, et al. **Nature** 1998 Nov 12;396(6707):186–90. Comment in: Nature 1998 Nov 12;396(6707):111, 113.

Unfolded conformations of alpha-lytic protease are more stable than its native state. Sohl JL, et al. **Nature** 1998 Oct 22;395(6704):817–9

An alpha2-macroglobulin-serine proteinase complex from human carcinomatous ascites and pleural effusion: isolation, monoclonal antibody preparation, and immunohistochemical study. Arima K, et al. **Oncol Res** 1998;10(10):499–507

Ligand-receptor 3-D similarity studies using multiple 4-point pharmacophores. Mason JS, et al. **Pac Symp Biocomput** 1999;:456–67

Kinetic stability as a mechanism for protease longevity. Cunningham EL, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11008–14

Unexpected crucial role of residue 225 in serine proteases. Guinto ER, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1852–7

The structure of the human beta[I-tryptase tetramer: fo(u)r better or worse. Sommerhoff CP, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):10984–91

Here's the hook: similar substrate binding sites in the chaperone domains of Clp and Lon. Wickner S, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8318–20

Directed evolution converts subtilisin E into a functional equivalent of thermitase. Zhao H, et al. **Protein Eng** 1999 Jan;12(1):47–53

The insect immune protein scolexin is a novel serine proteinase homolog. Finnerty CM, et al. **Protein Sci** 1999 Jan;8(1):242–8

Cluster analysis of consensus water sites in thrombin and trypsin shows conservation between serine proteases and contributions to ligand specificity. Sanschagrin PC, et al. **Protein Sci** 1998 Oct;7(10):2054–64

Catalytic triads and their relatives. Dodson G, et al. **Trends Biochem Sci** 1998 Sep;23(9):347–52 (41 ref.)

[Suc-Phe-Leu-Phe-SBzl--a new substrate for functional study of Escherichia coli ATP-dependent Lon-proteinase and its modified forms (letter)] Mel'nikov EE, et al. **Bioorg Khim** 1998 Aug;24(8):638–40 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Two lineages of mannose-binding lectin-associated serine protease (MASP) in vertebrates. Endo Y, et al. **J Immunol** 1998 Nov 1;161(9):4924–30

DRUG EFFECTS

Neutrophil myeloperoxidase is a potent and selective inhibitor of mast cell tryptase. Cregar L, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):125–30

Phage display selection of P1 mutants of BPTI directed against five different serine proteinases. Kiczak L, et al. **Biol Chem** 1999 Jan;380(1):101–5

Prolyl endopeptidase inhibitors from the underground part of Rhodiola sacra S. H. Fu. Fan W, et al. **Biol Pharm Bull** 1999 Feb;22(2):157–61

Design and synthesis of monocyclic beta-lactams as mechanism-based inhibitors of human cytomegalovirus protease. Borthwick AD, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):365–70

Benzothiopyran-4-one based reversible inhibitors of the human cytomegalovirus (HCMV) protease. Dhanak D, et al. **Bioorg Med Chem Lett** 1998 Dec 15;8(24):3677–82

Symmetrical anhydride-type serine protease inhibitors: structure-activity relationship studies of human chymase inhibitors. Iijima K, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):413–8

Inhibition of human cytomegalovirus protease by enedione derivatives of thieno[2,3-d]oxazinones through a novel dual acylation/alkylation mechanism. Pinto IL, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):449–52

Automated parallel synthesis of a tetrahydroisoquinolin-based library: potential prolyl endopeptidase inhibitors. Vendeville S, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):437–42

Tranilast suppresses vascular chymase expression and neointima formation in balloon-injured dog carotid artery. Shiota N, et al. **Circulation** 1999 Mar 2;99(8):1084–90

Inhibitors of tryptase for the treatment of mast cell-mediated diseases. Rice KD, et al. **Curr Pharm Des** 1998 Oct; 4(5):381–96 (122 ref.)

Effects of daphnodorin A, daphnodorin B and daphnodorin C on human chymase-dependent angiotensin II formation. Takai S, et al. **Life Sci** 1999;64(21):1889–96

GENETICS

The gene (DYT1) for early-onset torsion dystonia encodes a novel protein related to the Clp protease/heat shock family. Ozelius LJ, et al. **Adv Neurol** 1998;78:93–105 (49 ref.)

Chymase gene locus is not associated with myocardial infarction and is not linked to heart size or blood pressure. Pfeufer A, et al. **Am J Cardiol** 1998 Oct 15;82(8):979–81

Molecular cloning, characterization, and differential expression pattern of mouse lung surfactant convertase. Krishnasamy S, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L969–75

Prolyl endopeptidase from Sphingomonas capsulata: isolation and characterization of the enzyme and nucleotide sequence of the gene. Kabashima T, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):141–8

Effect of 12-O-tetradecanoyl-phorbol ester and incisional wounding on neuropsin mRNA and its protein expression in murine skin. Kitayoshi H, et al. **Arch Dermatol Res** 1999 Jun;291(6):333–8

Cloning and tissue distribution of a novel serine protease esp-1 from human eosinophils. Inoue M, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):307–12

A novel serine protease overexpressed in the hair follicles of nude mice. Meier N, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):374–8

Expression and purification of recombinant human granzyme B from Pichia pastoris. Sun J, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):251–5

Characterization of a novel allergen, a major IgE-binding protein from Aspergillus flavus, as an alkaline serine protease. Yu CJ, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):669–75

Cloning, sequence analysis and expression in E. coli of the cDNA of the thrombin-like enzyme (pallabin) from the venom of Agkistrodon halys pallas. Fan CY, et al. **Biochem Mol Biol Int** 1999 Feb;47(2):217–25

Engineering of S2 site of aqualysin I; alteration of P2 specificity by excluding P2 side chain. Tanaka T, et al. **Biochemistry** 1998 Dec 15;37(50):17402–7

Cloning and expression of Der f 6, a serine protease allergen from the house dust mite, Dermatophagoides farinae. Kawamoto S, et al. **Biochim Biophys Acta** 1999 Jul 7; 1454(2):201–7

Cloning of a Lysobacter enzymogenes gene that encodes an arginyl endopeptidase (endoproteinase Arg-C). Wright DS, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):369–74

Oviductin, the Xenopus laevis oviductal protease that processes egg envelope glycoprotein gp43, increases sperm binding to envelopes, and is translated as part of an unusual mosaic protein composed of two protease and several CUB domains. Lindsay LL, et al. **Biol Reprod** 1999 Apr; 60(4):989–95

Deficient transcription of mouse mast cell protease 4 gene in mutant mice of mi/mi genotype. Jippo T, et al. **Blood** 1999 Mar 15;93(6):1942–50

The 5' flanking region of the human granzyme H gene directs expression to T/natural killer cell progenitors and lymphokine-activated killer cells in transgenic mice. MacIvor DM, et al. **Blood** 1999 Feb 1;93(3):963–73

A novel function for transforming growth factor-beta1: upregulation of the expression and the IgE-independent extracellular release of a mucosal mast cell granule-specific beta-chymase, mouse mast cell protease-1. Miller HR, et al. **Blood** 1999 May 15;93(10):3473–86

Injury induces neuropsin mRNA in the central nervous system. Tomizawa K, et al. **Brain Res** 1999 Apr 10; 824(2):308–11

Expression of a serine protease (motopsin PRSS12) mRNA in the mouse brain: in situ hybridization histochemical study. Iijima N, et al. **Brain Res Mol Brain Res** 1999 Mar 20;66(1-2):141–9

The pro-protein convertase PC1 is induced in the transected sciatic nerve and is present in cultured Schwann cells: comparison with PC5, furin and PC7, implication in pro-BDNF processing. Marcinkiewicz M, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):229–46

Identification of a novel serine protease-like molecule in human brain. Meckelein B, et al. **Brain Res Mol Brain Res** 1998 Apr;55(2):181–97

cDNA cloning and expression of a novel serine protease in the mouse brain. Suemoto T, et al. **Brain Res Mol Brain Res** 1999 Jul 5;70(2):273–81

Testisin, a new human serine proteinase expressed by premeiotic testicular germ cells and lost in testicular germ cell tumors. Hooper JD, et al. **Cancer Res** 1999 Jul 1; 59(13):3199–205

Prostate-localized and androgen-regulated expression of the membrane-bound serine protease TMPRSS2. Lin B, et al. **Cancer Res** 1999 Sep 1;59(17):4180–4

Cloning of tumor-associated differentially expressed gene-14, a novel serine protease overexpressed by ovarian carcinoma. Underwood LJ, et al. **Cancer Res** 1999 Sep 1; 59(17):4435–9

Association between mast cell chymase genotype and atopic eczema: comparison between patients with atopic eczema alone and those with atopic eczema and atopic respiratory disease. Tanaka K, et al. **Clin Exp Allergy** 1999 Jun; 29(6):800–3

Identification of APC2, a homologue of the adenomatous polyposis coli tumour suppressor. van Es JH, et al. **Curr Biol** 1999 Jan 28;9(2):105–8

Assignment of the gene encoding the neuronal multidomain serine protease neurotrypsin (PRSS12) to human chromosome band 4q25-->q26 by in situ hybridization. Kozlov SV, et al. **Cytogenet Cell Genet** 1999;84(1-2):107–8

Assignment of the gene encoding mannan-binding lectin-associated serine protease 2 (MASP2) to human chromosome 1p36.3-->p36.2 by in situ hybridization and somatic cell hybrid analysis. Stover CM, et al. **Cytogenet Cell Genet** 1999;84(3-4):148–9

Characterization and localization of the genes for mouse proteinase-3 (Prtn3) and neutrophil elastase (Ela2). Sturrock A, et al. **Cytogenet Cell Genet** 1998;83(1-2):104–8

The cortical granule serine protease CGSP1 of the sea urchin, Strongylocentrotus purpuratus, is autocatalytic and contains a low-density lipoprotein receptor-like domain. Haley SA, et al. **Dev Biol** 1999 Jul 1;211(1):1–10

Opsonic complement system of the solitary ascidian, Halocynthia roretzi. Nonaka M, et al. **Dev Comp Immunol** 1999 Jun-Jul;23(4-5):421–7

Identification of a Drosophila prolyl endopeptidase and analysis of its expression. Amin A, et al. **DNA Cell Biol** 1999 Aug;18(8):605–10

Loss of a prolyl oligopeptidase confers resistance to lithium by elevation of inositol (1,4,5) trisphosphate. Williams RS, et al. **EMBO J** 1999 May 17;18(10):2734–45

Complete nucleotide sequence, origin of isoform and functional characterization of the mouse hepsin gene. Kawamura S, et al. **Eur J Biochem** 1999 Jun;262(3):755–64

Molecular cloning of cDNA for pro-phenol-oxidase-activating factor I, a serine protease is induced by lipopolysaccharide or 1,3-beta-glucan in coleopteran insect, Holotrichia diomphalia larvae. Lee SY, et al. **Eur J Biochem** 1998 Nov 1;257(3):615–21

A novel form of human neuropsin, a brain-related serine protease, is generated by alternative splicing and is expressed preferentially in human adult brain. Mitsui S, et al. **Eur J Biochem** 1999 Mar;260(3):627–34

Structural organization and chromosomal localization of the human hepatocyte growth factor activator gene--phylogenetic and functional relationship with blood coagulation factor XII, urokinase, and tissue-type plasminogen activator. Miyazawa K, et al. **Eur J Biochem** 1998 Dec 1;258(2):355–61

Cloning and structural analysis of leydin, a novel human serine protease expressed by the Leydig cells of the testis. Poorafshar M, et al. **Eur J Biochem** 1999 Apr;261(1):244–50

A kinetic analysis of the expression of mast cell protease mRNA in the intestines of Nippostrongylus brasiliensis-infected rats. Lützelschwab C, et al. **Eur J Immunol** 1998 Nov;28(11):3730–7

Proteinase 3 mRNA expression is induced in monocytes but not in neutrophils of patients with cystic fibrosis. Just J, et al. **FEBS Lett** 1999 Sep 3;457(3):437–40

Enhanced mitochondrial biogenesis is associated with increased expression of the mitochondrial ATP-dependent Lon protease. Luciakova K, et al. **FEBS Lett** 1999 Feb 12;444(2-3):186–8

Cloning and expression of the Campylobacter jejuni lon gene detected by RNA arbitrarily primed PCR. Thies FL, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):329–34

Upstream elements bestow T-cell and haemopoietic progenitor-specific activity on the granzyme B promoter. Johnson BA, et al. **Gene** 1999 Jun 24;234(1):101–7

Fibroblast activation protein: a cell surface dipeptidyl peptidase and gelatinase expressed by stellate cells at the tissue remodelling interface in human cirrhosis. Levy MT, et al. **Hepatology** 1999 Jun;29(6):1768–78

No evidence for an association between a variant of the mast cell chymase gene and atopic dermatitis based on case-control and haplotype-relative-risk analyses. Kawashima T, et al. **Hum Hered** 1998 Sep-Oct;48(5):271–4

Cloning and chromosomal mapping of a gene isolated from thymic stromal cells encoding a new mouse type II membrane serine protease, epithin, containing four LDL receptor modules and two CUB domains. Kim MG, et al. **Immunogenetics** 1999 May;49(5):420–8

Characterization of candidate live oral Salmonella typhi vaccine strains harboring defined mutations in aroA, aroC, and htrA. Lowe DC, et al. **Infect Immun** 1999 Feb; 67(2):700–7

Cloning of the cDNA encoding Scg-SPRP, an unusual Ser-protease-related protein from vitellogenic female desert locusts (Schistocerca gregaria). Chiou SJ, et al. **Insect Biochem Mol Biol** 1998 Oct;28(10):801–8

Molecular cloning of Soli E2: an elastase-like serine proteinase from the imported red fire ant (Solenopsis invicta). Whitworth ST, et al. **Insect Biochem Mol Biol** 1999 Mar;29(3):249–54

Cloning of a family of serine protease genes from the cat flea Ctenocephalides felis. Gaines PJ, et al. **Insect Mol Biol** 1999 Feb;8(1):11–22

Four serine proteinases expressed in Manduca sexta haemocytes. Jiang H, et al. **Insect Mol Biol** 1999 Feb; 8(1):39–53

Cloning and sequence of a cDNA for a highly basic protease from the digestive juice of the silkworm, Bombyx mori. Kotani E, et al. **Insect Mol Biol** 1999 May;8(2):299–304

Cloning of the human homolog of mouse transmembrane tryptase. Wong GW, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):419–21

A truncated form of mannose-binding lectin-associated serine protease (MASP)-2 expressed by alternative polyadenylation is a component of the lectin complement pathway. Takahashi M, et al. **Int Immunol** 1999 May; 11(5):859–63

A large subset of neutrophils expressing membrane proteinase 3 is a risk factor for vasculitis and rheumatoid arthritis. Witko-Sarsat V, et al. **J Am Soc Nephrol** 1999 Jun; 10(6):1224–33

Accumulation of the enterobacterial common antigen lipid II biosynthetic intermediate stimulates degP transcription in Escherichia coli. Danese PN, et al. **J Bacteriol** 1998 Nov; 180(22):5875–84

A conserved domain in Escherichia coli Lon protease is involved in substrate discriminator activity. Ebel W, et al. **J Bacteriol** 1999 Apr;181(7):2236–43

Identification and transcriptional control of the genes encoding the Caulobacter crescentus ClpXP protease. Osterås M, et al. **J Bacteriol** 1999 May;181(10):3039–50

Signal peptide peptidase- and ClpP-like proteins of Bacillus subtilis required for efficient translocation and processing of secretory proteins. Bolhuis A, et al. **J Biol Chem** 1999 Aug 27;274(35):24585–92

Human HtrA, an evolutionarily conserved serine protease identified as a differentially expressed gene product in osteoarthritic cartilage. Hu SI, et al. **J Biol Chem** 1998 Dec 18;273(51):34406–12

Structure and localization of the mouse prolyl oligopeptidase gene. Kimura A, et al. **J Biol Chem** 1999 Aug 20; 274(34):24047–53

Molecular cloning of cDNA for matriptase, a matrix-degrading serine protease with trypsin-like activity. Lin CY, et al. **J Biol Chem** 1999 Jun 25;274(26):18231–6

An enhancer located between the neutrophil elastase and proteinase 3 promoters is activated by Sp1 and an Ets factor. Nuchprayoon I, et al. **J Biol Chem** 1999 Jan 8; 274(2):1085–91

Characterization of genes encoding known and novel human mast cell tryptases on chromosome 16p13.3. Pallaoro M, et al. **J Biol Chem** 1999 Feb 5;274(6):3355–62

Localization of a new prostate-specific antigen-related serine protease gene, KLK4, is evidence for an expanded human kallikrein gene family cluster on chromosome 19q13.3–13.4. Stephenson SA, et al. **J Biol Chem** 1999 Aug 13; 274(33):23210–4

Trichophyton antigens associated with IgE antibodies and delayed type hypersensitivity. Sequence homology to two families of serine proteinases. Woodfolk JA, et al. **J Biol Chem** 1998 Nov 6;273(45):29489–96

Corin, a mosaic transmembrane serine protease encoded by a novel cDNA from human heart. Yan W, et al. **J Biol Chem** 1999 May 21;274(21):14926–35

Two constituents of the initiation complex of the mannan-binding lectin activation pathway of complement are encoded by a single structural gene. Stover CM, et al. **J Immunol** 1999 Mar 15;162(6):3481–90

Donor-recipient polymorphism of the proteinase 3 gene: a potential target for T-cell alloresponses to myeloid leukemia. Clave E, et al. **J Immunother** 1999 Jan;22(1):1–6

Differential expression of angiotensin-converting enzyme and chymase in dogs with chronic mitral regurgitation. Su X, et al. **J Mol Cell Cardiol** 1999 May;31(5):1033–45

Bacillus intermedius glutamyl endopeptidase. Molecular cloning and nucleotide sequence of the structural gene. Rebrikov DV, et al. **J Protein Chem** 1999 Jan;18(1):21–7

Identification and sequence analysis of the Marek's disease virus serotype 2 homologous genes of the herpes simplex virus type 1 UL25, UL26 and UL26.5 genes. Kato K, et al. **J Vet Med Sci** 1999 Jul;61(7):787–93

Genetic mapping of modifier loci affecting malignant hypertension in TGRmRen2 rats. Kantachuvesiri S, et al. **Kidney Int** 1999 Aug;56(2):414–20

Cytosine demethylation of the proteinase-3/myeloblastin primary granule protease gene during phagocyte development. Lübbert M, et al. **Leukemia** 1999 Sep; 13(9):1420–7

Genomic organization and chromosomal localization of mouse proteinase 3 (Myeloblastin). Belaaouaj A, et al. **Mamm Genome** 1999 Mar;10(3):210–2

The large plasmids of Shiga-toxin-producing Escherichia coli (STEC) are highly variable genetic elements. Brunder W, et al. **Microbiology** 1999 May;145 (Pt 5):1005–14

ISP-4 and CWBP52 are proteins encoded by the same gene in Bacillus subtilis. Hageman JH, et al. **Microbiology** 1999 Feb;145 (Pt 2):281

Functional analysis of upstream regulating regions from the Yarrowia lipolytica XPR2 promoter. Madzak C, et al. **Microbiology** 1999 Jan;145 (Pt 1):75–87

Molecular identification of the sterol-regulated luminal protease that cleaves SREBPs and controls lipid composition of animal cells. Sakai J, et al. **Mol Cell** 1998 Oct;2(4):505–14

A second gene for type I signal peptidase in Bradyrhizobium japonicum, sipF, is located near genes involved in RNA processing and cell division. Bairl A, et al. **Mol Gen Genet** 1998 Nov;260(4):346–56

The expression of genes involved in parasitism by Trichoderma harzianum is triggered by a diffusible factor. Cortés C, et al. **Mol Gen Genet** 1998 Nov;260(2–3):218–25

Gene structure of the P100 serine-protease component of the human Ra-reactive factor. Takayama Y, et al. **Mol Immunol** 1999 Jun;36(8):505–14

Alteration of the synthesis of the Clp ATP-dependent protease affects morphological and physiological differentiation in Streptomyces. de Crécy-Lagard V, et al. **Mol Microbiol** 1999 May;32(3):505–17

CtsR, a novel regulator of stress and heat shock response, controls clp and molecular chaperone gene expression in gram-positive bacteria. Derré I, et al. **Mol Microbiol** 1999 Jan;31(1):117–31

The mutA mistranslator tRNA-induced mutator phenotype requires recA and recB genes, but not the derepression of lexA-regulated functions. Ren L, et al. **Mol Microbiol** 1999 May;32(3):607–15

ZapA, the IgA-degrading metalloprotease of Proteus mirabilis, is a virulence factor expressed specifically in swarmer cells. Walker KE, et al. **Mol Microbiol** 1999 May; 32(4):825–36

Identification of a serine protease with nerve growth promoting activity from snake venom. Guo LY, et al. **Neuroreport** 1998 Nov 16;9(16):3577–81

Molecular analysis of an unstable genomic region at chromosome band 11q23 reveals a disruption of the gene encoding the alpha2 subunit of platelet-activating factor acetylhydrolase (Pafah1a2) in human lymphoma. Lecointe N, et al. **Oncogene** 1999 May 6;18(18):2852–9

Synergy of PEBP2/CBF with mi transcription factor (MITF) for transactivation of mouse mast cell protease 6 gene. Ogihara H, et al. **Oncogene** 1999 Aug 12;18(32):4632–9

Identification of a developmentally regulated Schistosoma mansoni serine protease homologous to mouse plasma kallikrein and human factor I. Cocude C, et al. **Parasitology** 1999 Apr;118 (Pt 4):389–96

Identification of clp genes expressed in senescing Arabidopsis leaves. Nakabayashi K, et al. **Plant Cell Physiol** 1999 May; 40(5):504–14

Clp protease complexes and their diversity in chloroplasts. Sokolenko A, et al. **Planta** 1998 Dec;207(2):286–95

Characterization of a multicopy family of genes encoding a surface-expressed serine endoprotease in rat Pneumocystis carinii. Russian DA, et al. **Proc Assoc Am Physicians** 1999 Jul-Aug;111(4):347–56

Molecular cloning and characterization of prostase, an androgen-regulated serine protease with prostate-restricted expression. Nelson PS, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3114–9

Lon and Clp family proteases and chaperones share homologous substrate-recognition domains. Smith CK, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6678–82

Organization of the chromosomal region containing the genes lexA and topA in Thermotoga neapolitana. Primary structure of LexA reveals phylogenetic relevance. Zverlov VV, et al. **Syst Appl Microbiol** 1999 May;22(2):174–8

Molecular cloning of capillary permeability-increasing enzyme-2 from Agkistrodon caliginosus (Korean viper). Hahn BS, et al. **Toxicon** 1998 Dec;36(12):1887–93

Proteolytically activated receptor-3. A member of an emerging gene family of protease receptors expressed on vascular endothelial cells and platelets. Cupit LD, et al. **Trends Cardiovasc Med** 1999 Jan-Feb;9(1–2):42–8 (39 ref.)

[The expression of MLC2-chymase fusion gene in cultured neonatal myocardial cells] He Q, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr; 19(2):100–6 (Eng. Abstr.) **(Chi)**

[Cloning and identification of recombinant cDNA to a rabbit oviductin "DPF-1"] Liu CJ, et al. **Shih Yen Sheng Wu Hsueh Pao** 1996 Dec;29(4):395–401 (Eng. Abstr.) **(Chi)**

[Cloning and expression of a serine proteinase gene from Thermoactinomyces sp. in Bacillus subtilis cells] Akimkina TV, et al. **Mol Gen Mikrobiol Virusol** 1999;(1):18–20 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Alternating antineutrophil cytoplasmic antibody specificity: drug-induced vasculitis in a patient with Wegener's granulomatosis. Choi HK, et al. **Arthritis Rheum** 1999 Feb; 42(2):384–8

Characterization of a novel allergen, a major IgE-binding protein from Aspergillus flavus, as an alkaline serine protease. Yu CJ, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):669–75

Anti-proteinase-3 (PR3) antibodies (C-ANCA) recognize various targets on the human umbilical vein endothelial cell (HUVEC) membrane. De Bandt M, et al. **Clin Exp Immunol** 1999 Feb;115(2):362–8

A proportion of proteinase 3 (PR3)-specific anti-neutrophil cytoplasmic antibodies (ANCA) only react with PR3 after cleavage of its N-terminal activation dipeptide. Sun J, et al. **Clin Exp Immunol** 1998 Nov;114(2):320–6

Anti-neutrophil cytoplasmic antibodies in 566 European patients with systemic lupus erythematosus: prevalence, clinical associations and correlation with other autoantibodies. European Concerted Action on the Immunogenetics of SLE. Galeazzi M, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):541–6

Determination of primary amino acid sequence and unique three-dimensional structure of WGH1, a monoclonal human IgM antibody with anti-PR3 specificity. Davis JA, et al. **Clin Immunol Immunopathol** 1998 Oct;89(1):35–43

Clinical significance of antiproteinase 3 antibody positivity in cANCA-positive patients. van Pesch V, et al. **Clin Rheumatol** 1999;18(4):279–82

Interaction of purified human proteinase 3 (PR3) with reconstituted lipid bilayers. Goldmann WH, et al. **Eur J Biochem** 1999 Apr;261(1):155–62

Cloning, expression, and immunological evaluation of two putative secreted serine protease antigens of Mycobacterium tuberculosis. Skeiky YA, et al. **Infect Immun** 1999 Aug;67(8):3998–4007

Alkaline serine proteinase is a major allergen of Aspergillus flavus, a prevalent airborne Aspergillus species in the Taipei area. Chou H, et al. **Int Arch Allergy Immunol** 1999 Aug;119(4):282–90

Interaction of human mast cell tryptase with endothelial cells to stimulate inflammatory cell recruitment. Compton SJ, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr; 118(2–4):204–5

Novel autocrine and paracrine loops of the stem cell factor/chymase network. de Paulis A, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2–4):422–5

The importance of serine proteinases as aeroallergens associated with asthma. Shen HD, et al. **Int Arch Allergy Immunol** 1999 Aug;119(4):259–64 (40 ref.)

In vitro neutrophil activation by antibodies to proteinase 3 and myeloperoxidase from patients with crescentic glomerulonephritis. Franssen CF, et al. **J Am Soc Nephrol** 1999 Jul;10(7):1506–15

Nuclear targeting of the serine protease granzyme A (fragmentin-1). Jans DA, et al. **J Cell Sci** 1998 Sep;111 (Pt 17):2645–54

Cleavage by granzyme B is strongly predictive of autoantigen status: implications for initiation of autoimmunity. Casciola-Rosen L, et al. **J Exp Med** 1999 Sep 20; 190(6):815–26

Proteinase-3-antineutrophil cytoplasmic antibody (PR3-ANCA) positive crescentic glomerulonephritis in a patient with Down's syndrome and infectious endocarditis. Haseyama T, et al. **Nephrol Dial Transplant** 1998 Aug; 13(8):2142–6

A comparison of commercial and in-house ELISAs for antineutrophil cytoplasmic antibodies directed against proteinase 3 and myeloperoxidase. Pollock W, et al. **Pathology** 1999 Feb;31(1):38–43

Human antibody responses to A and C capsular polysaccharides, IgA1 protease and transferrin-binding protein complex stimulated by infection with Neisseria meningitidis of subgroup IV-1 or ET-37 complex. Brieske N, et al. **Vaccine** 1999 Feb 26;17(7–8):731–44

Dissociation between high anti-PR3 titers (c-ANCA) and the clinical course of disease in a case of Wegener granulomatosis. Lang SM, et al. **Wien Klin Wochenschr** 1998 Oct 16;110(19):691–4

[Usefulness of anti-neutrophil cytoplasmic antibodies, anti-proteinase 3 and anti-myeloperoxidase in management of small vessel vasculitis] Ara J, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):536–8 (Eng. Abstr.) **(Spa)**

ISOLATION & PURIFICATION

Purification, characterization, crystallization and preliminary X-ray diffraction of acuthrombin-B, a thrombin-like enzyme from Agkistrodon acutus venom. Liu SJ, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1193–7

Cold-active serine alkaline protease from the psychrotrophic bacterium Shewanella strain ac10: gene cloning and enzyme purification and characterization. Kulakova L, et al. **Appl Environ Microbiol** 1999 Feb;65(2):611–7

Prolyl endopeptidase from Sphingomonas capsulata: isolation and characterization of the enzyme and nucleotide sequence of the gene. Kabashima T, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):141–8

Expression and purification of recombinant human granzyme B from Pichia pastoris. Sun J, et al. **Biochem Biophys Res Commun** 1999 Aug 2;261(2):251–5

Purification and characterization of a serine protease with fibrinolytic activity from Tenodera sinensis (praying mantis). Hahn BS, et al. **Biochim Biophys Acta** 1999 Mar 19;1430(2):376–86

Isolation, properties and N-terminal amino acid sequence of a factor V activator from Vipera lebetina (Levantine viper) snake venom. Siigur E, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):239–48

Purification and characterization of prolyl endopeptidase from the Pacific herring, Clupea pallasi, and its role in the activation of sperm motility. Yoshida K, et al. **Dev Growth Differ** 1999 Apr;41(2):217–25

Interaction of purified human proteinase 3 (PR3) with reconstituted lipid bilayers. Goldmann WH, et al. **Eur J Biochem** 1999 Apr;261(1):155–62

Purification and characterization of an intracellular heat-stable proteinase (pernilase) from the marine hyperthermophilic archaeon Aeropyrum pernix K1. Chavez Croocker P, et al. **Extremophiles** 1999 Jan;3(1):3–9

Taraxalisin — a serine proteinase from dandelion Taraxacum officinale Webb s.l. Rudenskaya GN, et al. **FEBS Lett** 1998 Oct 23;437(3):237–40

Purification and characterization of a serine protease in erythrocyte cytosol that is adherent to oxidized membranes and preferentially degrades proteins modified by oxidation and glycation. Fujino T, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1077–85

Prolyl tripeptidyl peptidase from Porphyromonas gingivalis. A novel enzyme with possible pathological implications for the development of periodontitis. Banbula A, et al. **J Biol Chem** 1999 Apr 2;274(14):9246–52

Purification, characterization, and role of nucleases and serine proteases in Streptomyces differentiation. Analogies with the biochemical processes described in late steps of eukaryotic apoptosis. Nicieza RG, et al. **J Biol Chem** 1999 Jul 16;274(29):20366–75

A Ca++ activated serine protease (LOPAP) could be responsible for the haemorrhagic syndrome caused by the caterpillar Lonomia obliqua. L obliqua Prothrombin Activator Protease [letter] Reis CV, et al. **Lancet** 1999 Jun 5;353(9168):1942

House-dust mite and cat allergens in the Antarctic [letter] Siebers R, et al. **Lancet** 1999 Jun 5;353(9168):1942

Identification of a developmentally regulated Schistosoma mansoni serine protease homologous to mouse plasma kallikrein and human factor I. Cocude C, et al. **Parasitology** 1999 Apr;118 (Pt 4):389–96

Cucumisin like protease from the sarcocarp of Benincasa hispida var. Ryukyu. Uchikoba T, et al. **Phytochemistry** 1998 Dec;49(8):2215–9

Reverse biochemistry: use of macromolecular protease inhibitors to dissect complex biological processes and identify a membrane-type serine protease in epithelial cancer and normal tissue. Takeuchi T, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11054–61

Recombinant human cytomegalovirus protease with a C-terminal (His)6 extension: purification, autocatalytic release of the mature enzyme, and biochemical characterization. Tomasselli AG, et al. **Protein Expr Purif** 1998 Dec;14(3):343–52

[Serine protease of Bacillus subtilis R] Grebeshova RN, et al. **Prikl Biokhim Mikrobiol** 1999 Mar–Apr;35(2):150–4 (Eng. Abstr.) **(Rus)**

METABOLISM

Structural insights into the regulation of SOS mutagenesis. Gonzalez M, et al. **Acta Biochim Pol** 1998;45(1):163–72

Decreased chymase activity is associated with increased levels of protease inhibitors in mast cells of psoriatic lesions. Harvima IT, et al. **Acta Derm Venereol** 1999 Mar; 79(2):98–104

Perforin is not co-expressed with granzyme A within cytotoxic granules in CD8 T lymphocytes present in lymphoid tissue during chronic HIV infection. Andersson J, et al. **AIDS** 1999 Jul 30;13(11):1295–303

Functional evidence for alternative ANG II-forming pathways in hamster cardiovascular system. Nishimura H, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1307–12

Proteinase 3, a potent secretagogue in airways, is present in cystic fibrosis sputum. Witko-Sarsat V, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):729–36

Hepatitis C virus NS3/4A protease. Kwong AD, et al. **Antiviral Res** 1999 Feb;41(1):67–84 (100 ref.)

Cold-active serine alkaline protease from the psychrotrophic bacterium Shewanella strain ac10: gene cloning and enzyme purification and characterization. Kulakova L, et al. **Appl Environ Microbiol** 1999 Feb;65(2):611–7

Can foreign proteins imported into yeast mitochondria interfere with PIM1p protease and/or chaperone function? Saveliev AS, et al. **Arch Biochem Biophys** 1999 Mar 15; 363(2):373–6

Highly efficient inhibition of human chymase by alpha(2)-macroglobulin. Walter M, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):276–84

Effect of 12-O-tetradecanoyl-phorbol ester and incisional wounding on neuropsin mRNA and its protein expression in murine skin. Kitayoshi H, et al. **Arch Dermatol Res** 1999 Jun;291(6):333–8

Tenascin-C degradation in chronic wounds is dependent on serine proteinase activity. Latijnhouwers MA, et al. **Arch Dermatol Res** 1998 Sep;290(9):490–6

Role of medullasin in nifedipine-induced gingival overgrowth in rats. Ozaki Y, et al. **Arch Oral Biol** 1998 Oct;43(10):801–10

Prolyl endopeptidase inhibitors from caryophylli flos. Lee KH, et al. **Arch Pharm Res** 1998 Apr;21(2):207–11

Activation of matrix-degrading metalloproteinases by mast cell proteases in atherosclerotic plaques. Johnson JL, et al. **Arterioscler Thromb Vasc Biol** 1998 Nov;18(11):1707–15

S 17092-1, a highly potent, specific and cell permeant inhibitor of human proline endopeptidase. Barelli H, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):657–61

Cloning and tissue distribution of a novel serine protease esp-1 from human eosinophils. Inoue M, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):307–12

Purification and characterization of brevinase, a heterogeneous two-chain fibrinolytic enzyme from the venom of Korean snake, Agkistrodon blomhoffii brevicaudus. Lee JW, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):665–70

Alkaline protease inhibitor: a novel class of antifungal proteins against phytopathogenic fungi. Vernekar JV, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):702–7

Autocrine regulation of growth stimulation in human epithelial ovarian carcinoma by serine-proteinase-catalysed release of the urinary-type-plasminogen-activator N-terminal fragment. Fishman DA, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):765–9

Endoprotease PACE4 is Ca2+-dependent and temperature-sensitive and can partly rescue the phenotype of a furin-deficient cell strain. Sucic JF, et al. **Biochem J** 1999 May 1;339 (Pt 3):639–47

Novel gelatinolytic activities in rat organs. Kubota S, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):579–85

Proteinase-activated receptors: a growing family of heptahelical receptors for thrombin, trypsin and tryptase. Dery O, et al. **Biochem Soc Trans** 1999 Feb;27(2):246–54 (50 ref.)

Modulation of hepatitis C virus NS3 protease and helicase activities through the interaction with NS4A. Gallinari P, et al. **Biochemistry** 1999 Apr 27;38(17):5620–32

Mechanism by which heparin proteoglycan modulates mast cell chymase activity. Pejler G, et al. **Biochemistry** 1999 Sep 14;38(37):12187–95

Oxyanion-mediated inhibition of serine proteases. Presnell SR, et al. **Biochemistry** 1998 Dec 1;37(48):17068–81

Engineering of S2 site of aqualysin I; alteration of P2 specificity by excluding P2 side chain. Tanaka T, et al. **Biochemistry** 1998 Dec 15;37(50):17402–7

Multiple determinants influence complex formation of the hepatitis C virus NS3 protease domain with its NS4A cofactor peptide. Urbani A, et al. **Biochemistry** 1999 Apr 20;38(16):5206–15

Regulation of the activity of secreted human lung mast cell tryptase by mast cell proteoglycans. Lindstedt KA, et al. **Biochim Biophys Acta** 1998 Nov 27;1425(3):617–27

Human chymase, an enzyme forming novel bioactive 31-amino acid length endothelins. Kido H, et al. **Biol Chem** 1998 Jul;379(7):885–91

The specificity of prolyl endopeptidase from Flavobacterium meningoseptum: mapping the S' subsites by positional scanning via acyl transfer. Bordusa F, et al. **Bioorg Med Chem** 1998 Oct;6(10):1775–80

Inhibition of human cytomegalovirus protease N(o) with monocyclic beta-lactams. Déziel R, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1437–42

Peptidyl human heart chymase inhibitors. 2. Discovery of highly selective difluoromethylene ketone derivatives with Glu at P3 site [published erratum appears in Bioorg Med Chem Lett 1998 Jul 7;8(13):1779] Eda M, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):919–24

Peptidyl human heart chymase inhibitors. 1. Synthesis and inhibitory activity of difluoromethylene ketone derivatives bearing P' binding subsites [published erratum appears in Bioorg Med Chem Lett 1998 Jul 7;8(13):1778] Eda M, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):913–8

Peptide-based inhibitors of the hepatitis C virus serine protease. Llinàs-Brunet M, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1713–8

A DNA self-assembled monolayer for the specific attachment of unmodified double- or single-stranded DNA. Bamdad C. **Biophys J** 1998 Oct;75(4):1997–2003

Prolyl endopeptidase inhibitors derived from actinomycetes. Kimura K, et al. **Biosci Biotechnol Biochem** 1997 Oct; 61(10):1754–6 (1 ref.)

P1 specificity of aqualysin I (a subtilisin-type serine protease) from Thermus aquaticus YT-1, using P1-substituted derivatives of Streptomyces subtilisin inhibitor. Tanaka T, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):2035–8

Metabolic flux analysis for serine alkaline protease fermentation by Bacillus licheniformis in a defined medium: effects of the oxygen transfer rate. Calik P, et al. **Biotechnol Bioeng** 1999 Jul 20;64(2):151–67

A novel function for transforming growth factor-beta1: upregulation of the expression and the IgE-independent extracellular release of a mucosal mast cell granule-specific beta-chymase, mouse mast cell protease-1. Miller HR, et al. **Blood** 1999 May 15;93(10):3473–86

Class specific inhibition of house dust mite proteinases which cleave cell adhesion, induce cell death and which increase the permeability of lung epithelium. Winton HL, et al. **Br J Pharmacol** 1998 Jul;124(6):1048–59

Proteolysis of cell adhesion molecules by serine proteases: a role in long term potentiation? Hoffman KB, et al. **Brain Res** 1998 Nov 16;811(1-2):29–33

The role of cysteine and serine proteases in colorectal carcinoma. Herszényi L, et al. **Cancer** 1999 Oct 1; 86(7):1135–42

A temperature-dependent switch from chaperone to protease in a widely conserved heat shock protein. Spiess C, et al. **Cell** 1999 Apr 30;97(3):339–47

Evidence that non-caspase proteases are required for chromatin degradation during apoptosis. Hughes FM Jr, et al. **Cell Death Differ** 1998 Dec;5(12):1017–27

Perforin-dependent nuclear entry of granzyme B precedes apoptosis, and is not a consequence of nuclear membrane dysfunction. Trapani JA, et al. **Cell Death Differ** 1998 Jun; 5(6):488–96

Ionizing radiation-induced, Bax-mediated cell death is dependent on activation of cysteine and serine proteases. Gong B, et al. **Cell Growth Differ** 1999 Jul;10(7):491–502

Modulation of perforin, granzyme A, and granzyme B in murine natural killer (NK), IL2 stimulated NK, and lymphokine-activated killer cells by alcohol consumption. Spitzer JH, et al. **Cell Immunol** 1999 Jun 15;194(2):205–12

Probing intermolecular backbone H-bonding in serine proteinase-protein inhibitor complexes. Lu W, et al. **Chem Biol** 1999 Jul;6(7):419–27

Evidence for angiotensin-converting enzyme- and chymase-mediated angiotensin II formation in the interstitial fluid space of the dog heart in vivo. Wei CC, et al. **Circulation** 1999 May 18;99(19):2583–9

Mast cell tryptase stimulates both human dermal fibroblast proliferation and type I collagen production [see comments] Abe M, et al. **Clin Exp Allergy** 1998 Dec;28(12):1509–17 . Comment in: Clin Exp Allergy 1998 Dec;28(12):1460–3.

Mast cell tryptase and its role in tissue remodelling [editorial; comment] Cairns JA. **Clin Exp Allergy** 1998 Dec; 28(12):1460–3. Comment on: Clin Exp Allergy 1998 Dec;28(12):1509–17.

Mast cell tryptase in dermal neurogenic inflammation. Schmelz M, et al. **Clin Exp Allergy** 1999 May;29(5):695–702

Cell lines of pulmonary and non-pulmonary origin as tools to study the effects of house dust mite proteinases on the regulation of epithelial permeability. Winton HL, et al. **Clin Exp Allergy** 1998 Oct;28(10):1273–85

Cathepsin G in degenerating and healthy discal tissue. Konttinen YT, et al. **Clin Exp Rheumatol** 1999 Mar–Apr; 17(2):197–204

Characteristics of the protease activity in synovial fluid from patients with rheumatoid arthritis and osteoarthritis. Nakano S, et al. **Clin Exp Rheumatol** 1999 Mar–Apr; 17(2):161–70

Combinatorial strategies for the discovery of novel protease specificities. Lien S, et al. **Comb Chem High Throughput Screen** 1999 Apr;2(2):73–90 (87 ref.)

Energetic dissection of specificity in serine proteases. Vindigni A. **Comb Chem High Throughput Screen** 1999 Jun; 2(3):139–53 (63 ref.)

Structural and functional properties of Bos taurus tryptase: a search for a possible propeptide processing role. Fiorucci L, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun;120(2):239–45

Inhibitors of bacterial signal peptidases. Black MT, et al. **Curr Pharm Des** 1998 Apr;4(2):133–54 (80 ref.)

Molecular basis for oviductin-mediated processing from gp43 to gp41, the predominant glycoproteins of Xenopus egg envelopes. Kubo H, et al. **Dev Genet** 1999;25(2):123–9

Difference of acrosomal serine protease system between mouse and other rodent sperm. Yamagata K, et al. **Dev Genet** 1999;25(2):115–22

Role of Nudel protease activation in triggering dorsoventral polarization of the Drosophila embryo. LeMosy EK, et al. **Development** 1998 Oct;125(20):4045–53

Oligopeptidase B-dependent signaling mediates host cell invasion by Trypanosoma cruzi. Caler EV, et al. **EMBO J** 1998 Sep 1;17(17):4975–86

An essential protease involved in bacterial cell-cycle control. Jenal U, et al. **EMBO J** 1998 Oct 1;17(19):5658–69

Pim kinase expression is induced by LTP stimulation and required for the consolidation of enduring LTP. Konietzko U, et al. **EMBO J** 1999 Jun 15;18(12):3359–69

Controlled cleavage of KLH1 and KLH2 by the V8 protease from Staphylococcus aureus reassociation, electrophoretic and transmission electron microscopy study of peptide fragments. Gebauer W, et al. **Eur J Biochem** 1999 May; 262(1):166–75

Importance of heptameric ring integrity for activity of Escherichia coli ClpP. Thompson MW, et al. **Eur J Biochem** 1998 Dec 15;258(3):923–8

Effects of prolyl endopeptidase inhibitors and neuropeptides on delayed neuronal death in rats. Shishido Y, et al. **Eur J Pharmacol** 1999 May 14;372(2):135–42

Chymase processes big-endothelin-2 to endothelin-2-(1-31) that induces contractile responses in the isolated monkey trachea. Takai S, et al. **Eur J Pharmacol** 1998 Oct 9; 358(3):229–33

Effects of alkaline protease or restrictocin deficient mutants of Aspergillus fumigatus on human polymorphonuclear leukocytes. Ikegami Y, et al. **Eur Respir J** 1998 Sep; 12(3):607–11

Mast cell chymase and tryptase during tissue turnover: analysis on in vitro mitogenesis of fibroblasts and keratinocytes and alterations in cutaneous scars. Algermissen B, et al. **Exp Dermatol** 1999 Jun;8(3):193–8

Asp 280 residue is important in the activity of the Escherichia coli leader peptidase. Sung M, et al. **Exp Mol Med** 1999 Jun 30;31(2):64–9

A new intracellular serine protease inhibitor expressed in the rat pituitary gland complexes with granzyme B. Hill RM, et al. **FEBS Lett** 1998 Dec 4;440(3):361–4

Factors limiting display of foreign peptides on the major coat protein of filamentous bacteriophage capsids and a potential role for leader peptidase. Malik P, et al. **FEBS Lett** 1998 Oct 2;436(2):263–6

Functional characterization of Kunitz domains in hepatocyte growth factor activator inhibitor type 2. Qin L, et al. **FEBS Lett** 1998 Sep 25;436(1):111–4

Programming of enzyme specificity by substrate mimetics: investigations on the Glu-specific V8 protease reveals a novel general principle of biocatalysis. Wehofsky N, et al. **FEBS Lett** 1999 Jan 25;443(2):220–4

Occurrence of an HIV-1 gp160 endoproteolytic activity in low-density vesicles and evidence for a distinct density distribution from endogenously expressed furin and PC7/LPC convertases. Wouters S, et al. **FEBS Lett** 1999 Jul 30;456(1):97–102

Cloning and expression of the Campylobacter jejuni lon gene detected by RNA arbitrarily primed PCR. Thies FL, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):329–34

Species variation in ATP-dependent protein degradation: protease profiles differ between mycobacteria and protease functions differ between Mycobacterium smegmatis and Escherichia coli. Knipfer N, et al. **Gene** 1999 Apr 29; 231(1-2):95–104

Lon-mediated proteolysis of the Escherichia coli UmuD mutagenesis protein: in vitro degradation and identification of residues required for proteolysis. Gonzalez M, et al. **Genes Dev** 1998 Dec 15;12(24):3889–99

Pit cells (Hepatic natural killer cells) of the rat induce apoptosis in colon carcinoma cells by the perforin/granzyme pathway. Vermijlen D, et al. **Hepatology** 1999 Jan;29(1):51–6

Assessment and diagnostic utility of the cytotoxic T-lymphocyte phenotype using the specific markers granzyme-B and TIA-1 in esophageal mucosal biopsies. Resnick MB, et al. **Hum Pathol** 1999 Apr;30(4):397–402

Increased chymase-dependent angiotensin II formation in human atherosclerotic aorta. Ihara M, et al. **Hypertension** 1999 Jun;33(6):1399–405

Regulation of pro-apoptotic leucocyte granule serine proteinases by intracellular serpins. Bird PI.

Immunol Cell Biol 1999 Feb;77(1):47-57 (96 ref.)
Structure and functions of proteases which cleave human C3 and are expressed on normal or tumor human cells: some are involved in tumorigenic and metastatic properties of human melanoma cells. Frade R.
Immunopharmacology 1999 May;42(1-3):39-45 (37 ref.)
An extracellular protease of Streptococcus gordonii hydrolyzes type IV collagen and collagen analogues. Juarez ZE, et al. **Infect Immun** 1999 Jan;67(1):271-8
Characterization of the avian pathogenic Escherichia coli hemagglutinin Tsh, a member of the immunoglobulin A protease-type family of autotransporters. Stathopoulos C, et al. **Infect Immun** 1999 Feb;67(2):772-81
Increases in mast cells and chymase in fibroproliferative paws of collagen-induced arthritic mice. Kakizoe E, et al.
Inflamm Res 1999 Jun;48(6):318-24
Procoagulant and anticoagulant activities of resident and inflammatory peritoneal cells. Pejler G. **Inflamm Res** 1999 Jun;48(6):344-50
A large subset of neutrophils expressing membrane proteinase 3 is a risk factor for vasculitis and rheumatoid arthritis. Witko-Sarsat V, et al. **J Am Soc Nephrol** 1999 Jun; 10(6):1224-33
Convertase activity in alveolar surfactant and lamellar bodies in fetal, newborn, and adult rabbits. Oulton M, et al.
J Appl Physiol 1999 Jan;86(1):71-7
Autolysis of Lactococcus lactis is influenced by proteolysis. Buist G, et al. **J Bacteriol** 1998 Nov;180(22):5947-53
Efficiency of the pTF-FC2 pas poison-antidote stability system in Escherichia coli is affected by the host strain, and antidote degradation requires the lon protease. Smith ASG, et al. **J Bacteriol** 1998 Oct;180(20):5458-62
Disruption of PMR1, encoding a Ca2+-ATPase homolog in Yarrowia lipolytica, affects secretion and processing of homologous and heterologous proteins. Sohn YS, et al.
J Bacteriol 1998 Dec;180(24):6736-42
Redundant in vivo proteolytic activities of Escherichia coli Lon and the ClpYQ (HslUV) protease. Wu WF, et al.
J Bacteriol 1999 Jun;181(12):3681-7
Purification and characterization of a serine protease in erythrocyte cytosol that is adherent to oxidized membranes and preferentially degrades proteins modified by oxidation and glycation. Fujino T, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1077-85
Involvement of both caspase-like proteases and serine proteases in apoptotic cell death induced by ricin, modeccin, diphtheria toxin, and pseudomonas toxin. Komatsu N, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):1038-44
Bacteriolytic activity and specificity of Achromobacter beta-lytic protease. Li S, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):332-9
Subtilisin-like proprotein convertases, PACE4 and PC8, as well as furin, are endogenous proalbumin convertases in HepG2 cells. Mori K, et al. **J Biochem (Tokyo)** 1999 Mar; 125(3):627-33
An endogenous target protease, SAM-P26, of Streptomyces protease inhibitor (SSI): primary structure, enzymatic characterization, and its interaction with SSI. Taguchi S, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):804-10
Different mechanisms for thermal inactivation of Bacillus subtilis signal peptidase mutants. Bolhuis A, et al.
J Biol Chem 1999 May 28;274(22):15865-8
Revisiting catalysis by chymotrypsin family serine proteases using peptide substrates and inhibitors with unnatural main chains. Coombs GS, et al. **J Biol Chem** 1999 Aug 20; 274(34):24074-9
Autocatalytic processing of site-1 protease removes propeptide and permits cleavage of sterol regulatory element-binding proteins. Espenshade PJ, et al.
J Biol Chem 1999 Aug 6;274(32):22795-804
Recognition, targeting, and hydrolysis of the lambda O replication protein by the ClpP/ClpX protease. Gonciarz-Swiatek M, et al. **J Biol Chem** 1999 May 14; 274(20):13999-4005
Definition and redesign of the extended substrate specificity of granzyme B. Harris JL, et al. **J Biol Chem** 1998 Oct 16;273(42):27364-73
BCL-2 blocks perforin-induced nuclear translocation of granzymes concomitant with protection against the nuclear events of apoptosis. Jans DA, et al. **J Biol Chem** 1999 Feb 12;274(7):3953-61
A novel mechanism for bradykinin production at inflammatory sites. Diverse effects of a mixture of neutrophil elastase and mast cell tryptase versus tissue and plasma kallikreins on native and oxidized kininogens. Kozik A, et al. **J Biol Chem** 1998 Dec 11;273(50):33224-9
Solution structure of substrate-based ligands when bound to hepatitis C virus NS3 protease domain. LaPlante SR, et al. **J Biol Chem** 1999 Jun 25;274(26):18618-24
Oligopeptidase B from Trypanosoma brucei, a new member of an emerging subgroup of serine oligopeptidases. Morty RE, et al. **J Biol Chem** 1999 Sep 10;274(37):26149-56
Concurrent chaperone and protease activities of ClpAP and the requirement for the N-terminal ClpA ATP binding site for chaperone activity. Pak M, et al. **J Biol Chem** 1999 Jul 2;274(27):19316-22
Topology of the stable serpin-protease complexes revealed by an autoantibody that fails to react with the monomeric conformers of antithrombin. Picard V, et al.
J Biol Chem 1999 Feb 19;274(8):4586-93
Efficient nuclear targeting of granzyme B and the nuclear consequences of apoptosis induced by granzyme B and perforin are caspase-dependent, but cell death is caspase-independent. Trapani JA, et al. **J Biol Chem** 1998 Oct 23;273(43):27934-8
The catalytic mechanism of endoplasmic reticulum signal peptidase appears to be distinct from most eubacterial signal peptidases. VanValkenburgh C, et al. **J Biol Chem** 1999 Apr 23;274(17):11519-25
Generation of catalytically active granzyme K from Escherichia coli inclusion bodies and identification of efficient granzyme K inhibitors in human plasma. Wilharm E, et al. **J Biol Chem** 1999 Sep 17;274(38):27331-7
Granzyme B mimics apical caspases. Description of a unified pathway for trans-activation of executioner caspase-3 and -7. Yang X, et al. **J Biol Chem** 1998 Dec 18; 273(51):34278-83
The biodegradation of poly(urethane)s by the esterolytic activity of serine proteases and oxidative enzyme systems. Labow RS, et al. **J Biomater Sci Polym Ed** 1999; 10(7):699-713
Protein secretion and possible roles for multiple signal peptidases for precursor processing in bacilli. Bron S, et al. **J Biotechnol** 1998 Sep 17;64(1):3-13 (21 ref.)
Regulation of bone morphogenetic protein activity by pro domains and proprotein convertases. Constam DB, et al.
J Cell Biol 1999 Jan 11;144(1):139-49
A cytotoxic phenotype does not predict clinical outcome in anaplastic large cell lymphomas. Dukers DF, et al.
J Clin Pathol 1999 Feb;52(2):129-36
Enzyme histochemistry of tryptase in stomach mucosal mast cells of the mouse. Valchanov KP, et al.
J Histochem Cytochem 1999 May;47(5):617-22
Roles of vascular angiotensin converting enzyme and chymase in two-kidney, one clip hypertensive hamsters. Jin D, et al. **J Hypertens** 1998 May;16(5):657-64
Relative localization of angiotensin-converting enzyme, chymase and angiotensin II in human coronary atherosclerotic lesions. Ohishi M, et al. **J Hypertens** 1999 Apr;17(4):547-53
1,2-Benzisothiazol-3-one 1,1-dioxide inhibitors of human mast cell tryptase. Combrink KD, et al. **J Med Chem** 1998 Nov 19;41(24):4854-60
Fibrinogenolytic activity of a novel trypsin-like enzyme found in human airway. Yoshinaga S, et al.
J Med Invest 1998 Aug;45(1-4):77-86
The solution structure of the N-terminal proteinase domain of the hepatitis C virus (HCV) NS3 protein provides new insights into its activation and catalytic mechanism. Barbato G, et al. **J Mol Biol** 1999 Jun 4;289(2):371-84
Structural characterization of the interactions of optimized product inhibitors with the N-terminal proteinase domain of the hepatitis C virus (HCV) NS3 protein by NMR and modelling studies. Cicero DO, et al. **J Mol Biol** 1999 Jun 4;289(2):385-96
Computational analysis of the binding of P1 variants of domain 3 of turkey ovomucoid inhibitor to Streptomyces griseus protease B. Fujinaga M, et al. **J Mol Biol** 1998 Dec 18;284(5):1683-94
Interscaffolding additivity: binding of P1 variants of bovine pancreatic trypsin inhibitor to four serine proteases. Krowarsch D, et al. **J Mol Biol** 1999 May 28;289(1):175-86
Enzyme specificity under dynamic control: a normal mode analysis of alpha-lytic protease. Miller DW, et al.
J Mol Biol 1999 Feb 12;286(1):267-78
Auto-inactivation by cleavage within the dimer interface of Kaposi's sarcoma-associated herpesvirus protease. Pray TR, et al. **J Mol Biol** 1999 Jun 4;289(2):197-203
Quanolirones I and II, two new human cytomegalovirus protease inhibitors produced by Streptomyces sp. WC76535. Qian-Cutrone J, et al. **J Nat Prod** 1998 Nov; 61(11):1379-82
Distinct secretases, a cysteine protease and a serine protease, generate the C termini of amyloid beta-proteins Abeta1-40 and Abeta1-42, respectively. Figueiredo-Pereira ME, et al. **J Neurochem** 1999 Apr;72(4):1417-22
Serpin=serine protease-like complexes within neurofilament conglomerates of motoneurons in amyotrophic lateral sclerosis. Chou SM, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S73-9
Mast cell subpopulations in the synovial tissue of patients with osteoarthritis: selective increase in numbers of tryptase-positive, chymase-negative mast cells. Buckley MG, et al. **J Pathol** 1998 Sep;186(1):67-74
Chromogenic and fluorogenic glycosylated and acetylglycosylated peptides as substrates for serine, thiol and aspartyl proteases. Juliano MA, et al. **J Pept Res** 1999 Feb;53(2):109-19
Thrombin and mast cell tryptase regulate guinea-pig myenteric neurons through proteinase-activated receptors-1 and -2. Corvera CU, et al.
J Physiol (Lond) 1999 Jun 15;517 (Pt 3):741-56
Chemistry of the "molecular trap" of protease-catalyzed splicing reaction of complementary segments of alpha-subunit of hemoglobin A. Sahni G, et al.
J Protein Chem 1998 Oct;17(7):669-78
Theoretical evaluation of a model of the catalytic triads of serine and cysteine proteases by ab initio molecular orbital calculation. Nishihira J, et al. **J Theor Biol** 1999 Feb 21; 196(4):513-9
In vitro assembly of alphavirus cores by using nucleocapsid protein expressed in Escherichia coli. Tellinghuisen TL, et al. **J Virol** 1999 Jul;73(7):5309-19
Myxoma virus Serp2 is a weak inhibitor of granzyme B and interleukin-1beta-converting enzyme in vitro and unlike CrmA cannot block apoptosis in cowpox virus-infected cells. Turner PC, et al. **J Virol** 1999 Aug;73(8):6394-404
A high throughput assay of the hepatitis C virus nonstructural protein 3 serine proteinase. Kakiuchi N, et al.
J Virol Methods 1999 Jun;80(1):77-84
Perforin and granzyme B lytic protein expression during chronic viral and autoimmune hepatitis. Tordjmann T, et al. **Liver** 1998 Dec;18(6):391-7
Exocellular proteolytic activity of Paracoccidioides brasiliensis: cleavage of components associated with the basement membrane. Puccia R, et al. **Med Mycol** 1998 Oct; 36(5):345-8
IL-8 degradation by Porphyromonas gingivalis proteases. Zhang J, et al. **Microb Pathog** 1999 May;26(5):275-80
ISP-4 and CWBP52 are proteins encoded by the same gene in Bacillus subtilis. Hageman JH, et al. **Microbiology** 1999 Feb;145 (Pt 2):281
An evaluation of chromogenic substrates for characterization of serine protease produced by pathogenic Vibrio alginolyticus. Chen FR, et al. **Microbios** 1999;98(389):27-34
Alteration of the synthesis of the Clp ATP-dependent protease affects morphological and physiological differentiation in Streptomyces. de Crécy-Lagard V, et al.
Mol Microbiol 1999 May;32(3):505-17
ClpP participates in the degradation of misfolded protein in Lactococcus lactis. Frees D, et al. **Mol Microbiol** 1999 Jan; 31(1):79-87
The ATP-dependent Clp protease is essential for acclimation to UV-B and low temperature in the cyanobacterium Synechococcus. Porankiewicz J, et al. **Mol Microbiol** 1998 Jul;29(1):275-83
New insights into the ATP-dependent Clp protease: Escherichia coli and beyond. Porankiewicz J, et al.
Mol Microbiol 1999 May;32(3):449-58 (78 ref.)
Protein unfolding. Trapped in the act [news; comment] Baker TA. **Nature** 1999 Sep 2;401(6748):29-30. Comment on: Nature 1999 Sep 2;401(6748):90-3.
Heparin is essential for the storage of specific granule proteases in mast cells [see comments] Humphries DE, et al. **Nature** 1999 Aug 19;400(6746):769-72. Comment in: Nature 1999 Aug 19;400(6746):714-5.
Life and death of a signal peptide [news; comment] von Heijne G. **Nature** 1998 Nov 12;396(6707):111, 113. Comment on: Nature 1998 Nov 12;396(6707):186-90.
Global unfolding of a substrate protein by the Hsp100 chaperone ClpA [see comments] Weber-Ban EU, et al.
Nature 1999 Sep 2;401(6748):90-3. Comment in: Nature 1999 Sep 2;401(6748):29-30.
CD4dullCD8bright double-positive T-lymphocytes have a phenotype of granzyme Bpos CD8pos memory T-lymphocytes. Rentenaar RJ, et al.
Nephrol Dial Transplant 1999 Jun;14(6):1430-4
Immunolocalization of tripeptidyl peptidase II, a cholecystokinin-inactivating enzyme, in rat brain. Facchinetti P, et al. **Neuroscience** 1999;88(4):1225-40
Ligand-receptor 3-D similarity studies using multiple 4-point pharmacophores. Mason JS, et al. **Pac Symp Biocomput** 1999;:456-67
Mucosal mast cell responses and release of mast cell protease-I in infections of mice with Hymenolepis diminuta and H. microstoma: modulation by cyclosporin A. McLauchlan PE, et al. **Parasite Immunol** 1999 Mar; 21(3):151-61
Limited proteolysis of the IGF binding protein-2 (IGFBP-2) by a specific serine protease activity in early breast milk. Elmlinger MW, et al. **Pediatr Res** 1999 Jul;46(1):76-81
ZTTA, a prolyl endopeptidase inhibitor, potentiates the arginine-vasopressin-induced incorporation of [14C]leucine in rat amygdaloid and cortical slices. Shishido Y, et al. **Pharm Res** 1999 Mar;16(3):463-5
Effect of ZTTA, a prolyl endopeptidase inhibitor, on memory impairment in a passive avoidance test of rats with basal forebrain lesions. Shishido Y, et al. **Pharm Res** 1998 Dec;15(12):1907-10
Screening of crude drug extracts for prolyl endopeptidase inhibitory activity. Tezuka Y, et al. **Phytomedicine** 1999 Jul;6(3):197-203
Potent selective nonpeptidic inhibitors of human lung tryptase. Burgess LE, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8348-52
Converting enzyme-independent release of tumor necrosis factor alpha and IL-1beta from a stimulated human monocytic cell line in the presence of activated neutrophils or purified proteinase 3. Coeshott C, et al.
Proc Natl Acad Sci U S A 1999 May 25;96(11):6261-6
Unexpected crucial role of residue 225 in serine proteases. Guinto ER, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):1852-7
The role of the ClpA chaperone in proteolysis by ClpAP. Hoskins JR, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12135-40
Pro-phenol oxidase activating proteinase from an insect, Manduca sexta: a bacteria-inducible protein similar to Drosophila easter. Jiang H, et al.
Proc Natl Acad Sci U S A 1998 Oct 13;95(21):12220-5
Differential protease-mediated turnover of H-NS and StpA revealed by a mutation altering protein stability and stationary-phase survival of Escherichia coli. Johansson J, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10776-81

Dipeptidyl peptidase I is required for the processing and activation of granzymes A and B in vivo [see comments] Pham CT, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20; 96(15):8627-32. Comment in: Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8312-4.

Substrate sequestration by a proteolytically inactive Lon mutant. Van Melderen L, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6064-71

Formation of the preprimosome protects lambda O from RNA transcription-dependent proteolysis by ClpP/ClpX. Zylicz M, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15259-63

Expression and characterization of recombinant mast cell tryptase. Chan H, et al. **Protein Expr Purif** 1999 Apr; 15(3):251-7

An uniquely purified HCV NS3 protease and NS4A(21-34) peptide form a highly active serine protease complex in peptide hydrolysis. Sardana VV, et al. **Protein Expr Purif** 1999 Aug;16(3):440-7

Electrostatic reversal of serine proteinase substrate specificity. Caputo A, et al. **Proteins** 1999 Jun 1; 35(4):415-24

A giant protease with potential to substitute for some functions of the proteasome. Geier E, et al. **Science** 1999 Feb 12;283(5404):978-81

Mast cell chymase in pulmonary hypertension. Mitani Y, et al. **Thorax** 1999 Jan;54(1):88-90

Preliminary characterisation of extracellular serine proteases of Dermatophilus congolensis isolates from cattle, sheep and horses. Ambrose NC, et al. **Vet Microbiol** 1998 Aug 15;62(4):321-35

The role of subtilisin-like proprotein convertases for cleavage of the measles virus fusion glycoprotein in different cell types. Bolt G, et al. **Virology** 1998 Dec 20;252(2):387-98

Internal processing of hepatitis C virus NS3 protein. Shoji I, et al. **Virology** 1999 Feb 15;254(2):315-23

[A test system based on the lux-regulon from Vibrio fischeri for studying the functional activity of mutant forms of Escherichia coli lon-proteinase] Manukhov IV, et al. **Bioorg Khim** 1999 May;25(5):365-8 (Eng. Abstr.) **(Rus)**

[On the pathogenesis of chronic dust-related bronchitis (according to the status of immune and thrombin-plasmin systems] Kurilo SN. **Med Tr Prom Ekol** 1999;(4):23-8 (Eng. Abstr.) **(Rus)**

[Features of the functional organization of glutamylendopeptidase] Demidiuk IV, et al. **Mol Biol (Mosk)** 1999 Jan-Feb;33(1):100-5 (23 ref.) **(Rus)**

[Serine protease of Bacillus subtilis R] Grebeshova RN, et al. **Prikl Biokhim Mikrobiol** 1999 Mar-Apr;35(2):150-4 (Eng. Abstr.) **(Rus)**

[Effect of blood plasma inhibitors on activity of serine and cysteine proteinases] Veremeenko KN, et al. **Ukr Biokhim Zh** 1998 Nov-Dec;70(6):35-42 (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Staphylococcal scalded skin syndrome: exfoliative toxin A (ETA) induces serine protease activity when combined with A431 cells. Ladhani S, et al. **Acta Paediatr** 1999 Jul; 88(7):776-9

Depletion of pre beta 1LpA1 and LpA4 particles by mast cell chymase reduces cholesterol efflux from macrophage foam cells induced by plasma. Lee M, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):1066-74

A trypsin-like platelet protease propagates protease-activated receptor-1 cleavage and platelet activation. Ofosu FA, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):283-5

Oviductin, the Xenopus laevis oviductal protease that processes egg envelope glycoprotein gp43, increases sperm binding to envelopes, and is translated as part of an unusual mosaic protein composed of two protease and several CUB domains. Lindsay LL, et al. **Biol Reprod** 1999 Apr; 60(4):989-95

Effects of a new C5a receptor antagonist on C5a- and endotoxin-induced neutropenia in the rat. Short A, et al. **Br J Pharmacol** 1999 Feb;126(3):551-4

Bcl-2-mediated resistance to apoptosis is associated with glutathione-induced inhibition of AP24 activation of nuclear DNA fragmentation. Wright SC, et al. **Cancer Res** 1998 Dec 1;58(23):5570-6

The induction of a prolonged increase in microvascular permeability by human mast cell chymase. He S, et al. **Eur J Pharmacol** 1998 Jul 3;352(1):91-8

Structural changes of human epidermis induced by human leukocyte-derived proteases. Ludolph-Hauser D, et al. **Exp Dermatol** 1999 Feb;8(1):46-52

Granzyme A loading induces rapid cytolysis and a novel form of DNA damage independently of caspase activation [published erratum appears in Immunity 1999 Jun;10(6):following 768] Beresford PJ, et al. **Immunity** 1999 May;10(5):585-94

Granzyme A initiates an alternative pathway for granule-mediated apoptosis. Shresta S, et al. **Immunity** 1999 May;10(5):595-605

Mitochondria-dependent and -independent regulation of Granzyme B-induced apoptosis. MacDonald G, et al. **J Exp Med** 1999 Jan 4;189(1):131-44

FLIP prevents apoptosis induced by death receptors but not by perforin/granzyme B, chemotherapeutic drugs, and gamma irradiation. Kataoka T, et al. **J Immunol** 1998 Oct 15;161(8):3936-42

Biochemical and pharmacological properties of thrombin-like protein from Agkistrodon caliginosus. Kim YS, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 2:218-23

Fibrinolytic activity of earthworms extract (G-90) on lysis of fibrin clots originated from the venous blood of patients with malignant tumors. Hrzenjak TM, et al. **Pathol Oncol Res** 1998;4(3):206-11

[Preliminary studies on the rabbit oviductin "DPF-1"] Shen H, et al. **Shih Yen Sheng Wu Hsueh Pao** 1996 Dec; 29(4):403-12 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Skin mast cell promotion of matrix remodeling in burn wound healing in mice: relevance of chymase. Nishikori Y, et al. **Arch Dermatol Res** 1998 Oct;290(10):553-60

Effect of a novel prolyl endopeptidase inhibitor, JTP-4819, on spatial memory and on cholinergic and peptidergic neurons in rats with ibotenate-induced lesions of the nucleus basalis magnocellularis. Shinoda M, et al. **Behav Brain Res** 1999 Feb 15;99(1):17-25

A bacterial signal peptidase enhances processing of a recombinant single chain antibody fragment in insect cells. Ailor E, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):444-50

Plasmin, substilisin-like endoproteases, tissue plasminogen activator, and urokinase plasminogen activator are involved in activation of latent TGF-beta 1 in human seminal plasma. Chu TM, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):128-34

Hepatocyte growth factor activator: a possible regulator of morphogenesis during fetal development of the rat gastrointestinal tract. Matsubara Y, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):477-84

A secreted proform of neutrophil proteinase 3 regulates the proliferation of granulopoietic progenitor cells. Sköld S, et al. **Blood** 1999 Feb 1;93(3):849-56

Human mast cell chymase induces the accumulation of neutrophils, eosinophils and other inflammatory cells in vivo. He S, et al. **Br J Pharmacol** 1998 Dec;125(7):1491-500

Relationship between protease activity and neu oncogene expression in patients with oral leukoplakia treated with the Bowman Birk Inhibitor. Wan XS, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jul;8(7):601-8

The role for NES1 serine protease as a novel tumor suppressor. Goyal J, et al. **Cancer Res** 1998 Nov 1; 58(21):4782-6

Chymase-dependent angiotensin II formation in human vascular tissue. Takai S, et al. **Circulation** 1999 Aug 10; 100(6):654-8

Mast cell tryptase as a mediator of hyperresponsiveness in human isolated bronchi. Berger P, et al. **Clin Exp Allergy** 1999 Jun;29(6):804-12

Chymase: its pathophysiological roles and inhibitors. Fukami H, et al. **Curr Pharm Des** 1998 Dec;4(6):439-53 (73 ref.)

The rat mucosal mast cell chymase, RMCP-II, alters epithelial cell monolayer permeability in association with altered distribution of the tight junction proteins ZO-1 and occludin. Scudamore CL, et al. **Eur J Cell Biol** 1998 Apr; 75(4):321-30

Neutrophil serine proteinases and defensins in chronic obstructive pulmonary disease: effects on pulmonary epithelium [see comments] Hiemstra PS, et al. **Eur Respir J** 1998 Nov;12(5):1200-8 (103 ref.). Comment in: Eur Respir J 1998 Dec;12(6):1250-1.

Proteolytic enzymes and airway diseases [editorial; comment] Nadel JA, et al. **Eur Respir J** 1998 Dec;12(6):1250-1. Comment on: Eur Respir J 1998 Nov;12(5):1200-8. Comment on: Eur Respir J 1998 Dec;12(6):1454-62.

Proteinase-activated receptor-2 in human skin: tissue distribution and activation of keratinocytes by mast cell tryptase. Steinhoff M, et al. **Exp Dermatol** 1999 Aug; 8(4):282-94

Ozone-induced airway hyperresponsiveness in patients with asthma: role of neutrophil-derived serine proteinases. Hiltermann TJ, et al. **Free Radic Biol Med** 1998 Apr; 24(6):952-8

MASP1 (MBL-associated serine protease 1). Matsushita M, et al. **Immunobiology** 1998 Aug;199(2):340-7 (26 ref.)

MASP-2, the C3 convertase generating protease of the MBLectin complement activating pathway. Vorup-Jensen T, et al. **Immunobiology** 1998 Aug;199(2):348-57 (36 ref.)

Perforin-dependent nuclear targeting of granzymes: A central role in the nuclear events of granule-exocytosis-mediated apoptosis? Blink EJ, et al. **Immunol Cell Biol** 1999 Jun;77(3):206-15 (101 ref.)

A Neisseria gonorrhoeae immunoglobulin A1 protease mutant is infectious in the human challenge model of urethral infection. Johannsen DB, et al. **Infect Immun** 1999 Jun;67(6):3009-13

Plasticity-related serine proteases in the brain (review). Yoshida S, et al. **Int J Mol Med** 1999 Apr;3(4):405-9 (55 ref.)

Proteolytic processing in the secretory pathway. Zhou A, et al. **J Biol Chem** 1999 Jul 23;274(30):20745-8 (111 ref.)

Functional role of chymase in angiotensin II formation in human vascular tissue. Takai S, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):826-33

Apoptosis induced by granzyme B-glycosaminoglycan complexes: implications for granule-mediated apoptosis in vivo. Galvin JP, et al. **J Immunol** 1999 May 1; 162(9):5345-50

Influenza C virus CM2 protein is produced from a 374-amino-acid protein (P42) by signal peptidase cleavage. Hongo S, et al. **J Virol** 1999 Jan;73(1):46-50

Proteolytic processing of the open reading frame 1b-encoded part of arterivirus replicase is mediated by nsp4 serine protease and Is essential for virus replication. van Dinten LC, et al. **J Virol** 1999 Mar;73(3):2027-37

Tryptase mediates hyperresponsiveness in isolated guinea pig bronchi. Barrios VE, et al. **Life Sci** 1998;63(26):2295-303

Effect of IgA1 protease on the ability of secretory IgA1 antibodies to inhibit the adherence of Streptococcus mutans. Tyler BM, et al. **Microbiol Immunol** 1998; 42(7):503-8

The Haemophilus influenzae Hap serine protease promotes adherence and microcolony formation, potentiated by a soluble host protein. Hendrixson DR, et al. **Mol Cell** 1998 Dec;2(6):841-50

Role of lon and ClpX in the post-translational regulation of a sigma subunit of RNA polymerase required for cellular differentiation in Bacillus subtilis. Liu J, et al. **Mol Microbiol** 1999 Jul;33(2):415-28

Oxygen-dependent injury by a human plasma factor associated with minimal change disease. Cheung PK, et al. **Pediatr Nephrol** 1998 Aug;12(6):452-8

Apoptosis of human endometrium mediated by perforin and granzyme B of NK cells and cytotoxic T lymphocytes. Konno R, et al. **Tohoku J Exp Med** 1999 Feb;187(2):149-55

[Granzyme B: an essential protease for the inflammatory response] Berthou C, et al. **Pathol Biol (Paris)** 1998 Oct; 46(8):617-24 (35 ref.) (Eng. Abstr.) **(Fre)**

[Role of angiotensin II-forming enzymes, angiotensin-converting enzyme and chymase] Takai S, et al. **Nippon Rinsho** 1999 May;57(5):1078-83 (16 ref.) (Eng. Abstr.) **(Jpn)**

[Angiotensin II formation by chymase in the cardiovascular tissue] Okunishi H. **Nippon Yakurigaku Zasshi** 1998 Sep; 112(3):203-12 (50 ref.) (Eng. Abstr.) **(Jpn)**

SECRETION

Evaluation of immunoglobulin A1 (IgA1) protease and IgA1 protease-inhibitory activity in human female genital infection with Neisseria gonorrhoeae. Hedges SR, et al. **Infect Immun** 1998 Dec;66(12):5826-32

Secreted site-1 protease cleaves peptides corresponding to luminal loop of sterol regulatory element-binding proteins. Cheng D, et al. **J Biol Chem** 1999 Aug 6;274(32):22805-12

Autotransporters: protein contortionists whose carboxyl termini translocate their own amino-terminal domains [letter] Holland B. **Trends Microbiol** 1998 Oct;6(10):388-9

TOXICITY

Cytoskeletal effects induced by pet, the serine protease enterotoxin of enteroaggregative Escherichia coli. Navarro-García F, et al. **Infect Immun** 1999 May; 67(5):2184-92

ULTRASTRUCTURE

At sixes and sevens: characterization of the symmetry mismatch of the ClpAP chaperone-assisted protease. Beuron F, et al. **J Struct Biol** 1998 Nov;123(3):248-59

Crystal structure determination of Escherichia coli ClpP starting from an EM-derived mask. Wang J, et al. **J Struct Biol** 1998 Dec 15;124(2-3):151-63

SERINE-SPECIFIC TRNA see **RNA, TRANSFER, SER**

SERINE SULFHYDRASE see **CYSTATHIONINE BETA-SYNTHASE**

SERINE-THREONINE PROTEIN KINASES see **PROTEIN-SERINE-THREONINE KINASES**

SERINE TRANSHYDROXYMETHYLASE see **GLYCINE HYDROXYMETHYLTRANSFERASE**

SERINE-TRNA LIGASE

CHEMISTRY

The dual identities of mammalian tRNA(Sec) for SerRS and selenocysteine synthase. Mizutani T, et al. **Mol Biol Rep** 1998 Nov;25(4):211-6

GENETICS

Sequence divergence of seryl-tRNA synthetases in archaea. Kim HS, et al. **J Bacteriol** 1998 Dec;180(24):6446-9

METABOLISM

Archaeabacterial seryl-tRNA synthetases: adaptation to extreme environments and evolutionary analysis. Taupin CM, et al. **J Mol Evol** 1999 Apr;48(4):408-20

tRNA recognition and evolution of determinants in seryl-tRNA synthesis. Lenhard B, et al. **Nucleic Acids Res** 1999 Feb 1;27(3):721-9 (96 ref.)

PHARMACOLOGY

C-terminal truncation of yeast SerRS is toxic for Saccharomyces cerevisiae due to altered mechanism of substrate recognition. Lenhard B, et al. **FEBS Lett** 1998 Nov 20;439(3):235-40

SERMORELIN

ANALOGS & DERIVATIVES

Inhibition of growth, production of insulin-like growth factor-II (IGF-II), and expression of IGF-II mRNA of human cancer cell lines by antagonistic analogs of growth hormone-releasing hormone in vitro. Csernus VJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3098-103

Decrease in telomerase activity in U-87MG human glioblastomas after treatment with an antagonist of growth hormone-releasing hormone. Kiaris H, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):226-31

THERAPEUTIC USE

Growth-hormone-releasing factor for growth hormone deficiency. **Med Lett Drugs Ther** 1999 Jan 1;41(1043):2-3

SERODIAGNOSIS see **SEROLOGIC TESTS**

SEROEPIDEMIOLOGIC STUDIES

Seroepidemiologic studies of hepatitis C virus infection in a population of Okayama Prefecture screened for liver disease. Uesugi S, et al. **Acta Med Okayama** 1999 Feb; 53(1):31-8

Anti-Malassezia furfur antibodies in the population. Faggi E, et al. **Mycoses** 1998 Sep-Oct;41(7-8):273-5

The absence of clinical disease in cattle in communal grazing areas where farmers are changing from an intensive dipping programme to one of endemic stability to tick-borne diseases. Tice GA, et al. **Onderstepoort J Vet Res** 1998 Sep;65(3):169-75

Incidence and sexual risk factors of cytomegalovirus seroconversion in HIV-infected subjects. The SEROCO Study Group. Robain M, et al. **Sex Transm Dis** 1998 Oct; 25(9):476-80

[Fall in the seroprevalence of hepatitis A in French youth] Joussemet M, et al. **Gastroenterol Clin Biol** 1999 Apr; 23(4):447-5 (Eng. Abstr.) **(Fre)**

SEROLOGIC TESTS

Serology versus ARMS-PCR in prospective HLA-class I typing for bone marrow transplantation. Usichenko T, et al. **Ann Hematol** 1998 Sep;77(3):97-100

Assays to predict the clinical significance of blood group antibodies. Zupańska B. **Curr Opin Hematol** 1998 Nov; 5(6):412-6 (43 ref.)

A prospective study of the influence of HIV status on the seroreversion of serological tests for syphilis. Janier M, et al. **Dermatology** 1999;198(4):362-9

Evaluation of a serologic test for the diagnosis of tuberculosis. Mathur ML, et al. **Int J Tuberc Lung Dis** 1999 Aug; 3(8):732-5

Limits in reliability of glycoprotein G-based type-specific serologic assays for herpes simplex virus types 1 and 2. Schmid DS, et al. **J Clin Microbiol** 1999 Feb;37(2):376-9

Influenza virus serology--a comparative study. Rothbarth PH, et al. **J Virol Methods** 1999 Mar;78(1-2):163-9

Serodiagnosis of histoplasmosis, paracoccidioidomycosis and penicilliosis marneffei; current status and future trends. Hamilton AJ. **Med Mycol** 1998 Dec;36(6):351-64 (148 ref.)

Hepatitis B serology. Spearman CA, et al. **S Afr Med J** 1999 Jan;89(1):44

Evaluation of serological platelet antibody assays. Kaplan C. **Vox Sang** 1998;74 Suppl 2:355-8 (28 ref.)

[Common antigenicity of lipopolysaccharides between Rickettsiae and Proteus in the Weil-Felix test] Amano K. **Nippon Saikingaku Zasshi** 1998 Nov;53(4):599-610 (43 ref.) **(Jpn)**

METHODS

Microbiological and serological diagnostic tests for Helicobacter pylori: an overview. Glupczynski Y. **Acta Gastroenterol Belg** 1998 Jul-Sep;61(3):321-6 (44 ref.)

"De-Nol test" for rapid diagnosis of Helicobacter pylori in childhood [letter] Nijevitch AA, et al. **Acta Paediatr** 1999 Feb;88(2):234-5

Serodiagnosis of hepatitis C virus. Effect of new evaluation of cutoff values for enzyme-linked immunosorbent assay in Brazilian patients. dos Santos VA, et al. **Am J Clin Pathol** 1999 Sep;112(3):418-24

Serologic and molecular diagnosis of Colorado tick fever viral infections. Attoui H, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):763-8

Evaluation of an IgM immunoblot kit for dengue diagnosis. Kuno G, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):757-62

Evaluation of the western blot in the confirmatory serologic diagnosis of Chagas' disease. Reiche EM, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):750-6

The serodiagnosis of infections caused by Verocytotoxin-producing Escherichia coli. Chart H, et al. **J Appl Microbiol** 1999 May;86(5):731-40 (90 ref.)

Comparison between PCR and detection of antigen in sera for diagnosis of pulmonary aspergillosis. Kawamura S, et al. **J Clin Microbiol** 1999 Jan;37(1):218-20

Detection of antibody to avian influenza A (H5N1) virus in human serum by using a combination of serologic assays. Rowe T, et al. **J Clin Microbiol** 1999 Apr;37(4):937-43

beta 2-Glycoprotein I-dependence of anticardiolipin antibodies in multibacillary leprosy patients. Fiallo P, et al. **Lepr Rev** 1998 Dec;69(4):376-81

Standardization of procedures of Plasmodium falciparum antigen preparation for serologic tests. Avila SL, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct;40(5):309-16

Accuracy of IgG serology and other tests in confirming Helicobacter pylori eradication. Lerang F, et al. **Scand J Gastroenterol** 1998 Jul;33(7):710-5

Evaluation of Meridian ImmunoCard Mycoplasma test for the detection of Mycoplasma pneumoniae-specific IgM in paediatric patients. Matas L, et al. **Scand J Infect Dis** 1998; 30(3):289-93

[Diagnosis of mycobacterial disease by biochemical and immunological parameters] Yoshikawa M, et al. **Nippon Rinsho** 1998 Dec;56(12):3057-61 (21 ref.) (Eng. Abstr.) **(Jpn)**

[Electrophoretic and immunologic comparative analysis of Mycoplasma pneumoniae and Mycoplasma genitalium proteins] Rastawicki W, et al. **Med Dosw Mikrobiol** 1998; 50(3-4):259-67 (Eng. Abstr.) **(Pol)**

[Comparative study of the Brucellacapt test versus the Coombs test for Brucella] Gómez MC, et al. **Enferm Infecc Microbiol Clin** 1999 Jun-Jul;17(6):283-5 (Eng. Abstr.) **(Spa)**

STANDARDS

Standardization of procedures of Plasmodium falciparum antigen preparation for serologic tests. Avila SL, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep-Oct;40(5):309-16

Rapid serological field tests for diagnosis of tuberculosis in South Africa--reasons for caution [editorial] Weyer K, et al. **S Afr Med J** 1999 May;89(5):532-3

[Assay of specific anti-Chlamydia pneumoniae antibodies by ELISA method. 3. Setting of serological criteria] Kishimoto T, et al. **Kansenshogaku Zasshi** 1999 May; 73(5):457-66 (Eng. Abstr.) **(Jpn)**

SEROMUCOID see **OROSOMUCOID**

SEROPREVALENCE see **SEROEPIDEMIOLOGIC STUDIES**

SEROSITIS

EPIDEMIOLOGY

Extra-articular rheumatoid arthritis: prevalence and mortality. Turesson C, et al. **Rheumatology (Oxford)** 1999 Jul;38(7):668-74

IMMUNOLOGY

Clearance of Chlamydia trachomatis-induced polyserositis in SCID mice requires both CD4+ and CD8+ cells. Thoma-Uszynski S, et al. **Med Microbiol Immunol (Berl)** 1998 Oct;187(2):71-8

SEROTHERAPY see **IMMUNIZATION, PASSIVE**

SEROTONIN

see related
RECEPTORS, SEROTONIN
SEROTONIN AGENTS

Serotonin transporter (SERT) mRNA and binding site densities in male rat brain affected by sex steroids. McQueen JK, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):241-7

Circadian rhythmicity in serotonin-induced acute gastric mucosal injury in rats. Gidener S, et al. **Int J Exp Pathol** 1998 Apr;79(2):105-8

The hormonal response to a d-fenfluramine challenge in trained and sedentary men. Strachan AT, et al. **Med Sci Sports Exerc** 1999 Apr;31(4):547-53

ADMINISTRATION & DOSAGE

The correlation of the weakening effect on gastric mucosal integrity by 5-HT with neutrophil activation. Ko JK, et al. **Free Radic Biol Med** 1998 Apr;24(6):1007-14

[The effect of selective serotonin administration into different portions of the coronary vascular bed on the retrograde (collateral) coronary blood flow in myocardial ischemia in dogs] Azarov VI, et al. **Fiziol Zh** 1999;45(1-2):26-34 (Eng. Abstr.) **(Ukr)**

ADVERSE EFFECTS

Participation of histamine H1 and H2 receptors in passive cutaneous anaphylaxis-induced scratching behavior in ICR mice. Inagaki N, et al. **Eur J Pharmacol** 1999 Feb 19; 367(2-3):361-71

Erythrocytes and proinflammatory mediators in wound drainage. Mottl-Link S, et al. **Vox Sang** 1998;75(3):205-11

AGONISTS see SEROTONIN AGONISTS

ANALOGS & DERIVATIVES

Time-dependent hypoxic ventilatory responses in rats: effects of ketanserin and 5-carboxamidotryptamine. Kinkead R, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R658-66

Acute vasoconstriction-induced insulin resistance in rat muscle in vivo. Rattigan S, et al. **Diabetes** 1999 Mar; 48(3):564-9

Effects of the non-selective 5-HT receptor agonist, 5-carboxamidotryptamine, on plasma glucose levels in rats. Yamada J, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):81-6

N-acetylserotonin is a better extra- and intracellular antioxidant than melatonin. Wölfler A, et al. **FEBS Lett** 1999 Apr 23;449(2-3):206-10

5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53-60

The pineal and extra-pineal origins of 5-sulphatoxy N-acetyl-serotonin in humans. Di WL, et al. **J Pineal Res** 1999 May;26(4):221-6

Red light suppresses N-acetylserotonin but does not elevate 5-HT and 5-HIAA of the rat pineal glands at night. Chen LW, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Feb;15(2):113-8

Selective labelling of 5-HT7 receptor recognition sites in rat brain using [3H]5-carboxamidotryptamine. Stowe RL, et al. **Neuropharmacology** 1998 Dec;37(12):1611-9

The role of glucuronidation in N-(3,5-dichlorophenyl)succinimide (NDPS) nephrotoxicity: nephrotoxic potential of NDPS and NDPS metabolites in Gunn, Wistar, and Fischer 344 rats. Hong SK, et al. **Toxicol Appl Pharmacol** 1999 Jan 15; 154(2):170-80

[Use of serotonin adipinate in combined therapy of hemodynamic disorders in acute poisoning by psychopharmacological preparations] Il'iashenko KK, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):36-8 (Eng. Abstr.) **(Rus)**

[Myoelectric activity and functional relations in various parts of the gastroduodenal complex during vagotomy and serotonin administration] Zav'ialov AV, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):384-6 **(Rus)**

[Use of serotonin for treatment of patients with diabetic angiopathies] Simonenkov AP, et al. **Khirurgiia (Mosk)** 1998;(12):38-41 (Eng. Abstr.) **(Rus)**

[The concept of the clinical use of serotonin adipinate in treating surgical patients] Fedorov VD, et al. **Vestn Khir Im I I Grek** 1998;157(3):15-9 (24 ref.) (Eng. Abstr.) **(Rus)**

ANALYSIS

Functional chemical neuroanatomy of serotonergic neurons and their targets: antibody production and immunohistochemistry (IHC) for 5-HT, its precursor (5-HTP) and metabolite (5-HIAA), biosynthetic enzyme (TPH), transporter (SERT), and three receptors (5-HT2A, 5-ht5a, 5-HT7). Brownfield MS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:232-3

Serotonin in human allergic contact dermatitis. An immunohistochemical and high-performance liquid chromatographic study. Lundeberg L, et al. **Arch Dermatol Res** 1999 May;291(5):269-74

Low blood cholesterol and low platelet serotonin levels in violent suicide attempters. Alvarez JC, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1066-9

Studies on the role of dopamine in the degeneration of 5-HT nerve endings in the brain of Dark Agouti rats following 3,4-methylenedioxymethamphetamine (MDMA or 'ecstasy') administration. Colado MI, et al. **Br J Pharmacol** 1999 Feb;126(4):911-24

Activation of serotonin-immunoreactive cells in the dorsal raphe nucleus in rats exposed to an uncontrollable stressor. Grahn RE, et al. **Brain Res** 1999 Apr 24;826(1):35-43

Immunohistochemical demonstration of serotonin-containing axons in the hypothalamus of the white-footed mouse, Peromyscus leucopus. Phelix CF, et al. **Brain Res** 1998 Oct 19;808(2):197-219

Influence of hypergravity on the development of monoaminergic systems in the rat spinal cord. Giménez y Ribotta M, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):147-57

Serotonin-like immunoreactivity in the stomatogastric nervous systems of crayfishes from four genera. Tierney AJ, et al. **Cell Tissue Res** 1999 Mar;295(3):537-51

Chromogranin A-, somatostatin- and serotonin- containing endocrine cells in the corporal gastric mucosa of patients with Helicobacter pylori associated chronic gastritis. Tzaneva M, et al. **Endocr Regul** 1999 Jun;33(2):79-82

Single-photon emission tomography imaging of serotonin transporters in the non-human primate brain with the selective radioligand [(123)I]IDAM. Acton PD, et al. **Eur J Nucl Med** 1999 Aug;26(8):854-61

Characterization of [(123)I]IDAM as a novel single-photon emission tomography tracer for serotonin transporters. Kung MP, et al. **Eur J Nucl Med** 1999 Aug;26(8):844-53

Immunolocalization of regulatory peptides and 5-HT in bovine male urogenital apparatus. Arrighi S, et al. **Histol Histopathol** 1998 Oct;13(4):1049-59

Platelet 5-HT and plasma MHPG levels in patients with bipolar I and bipolar II depressions and normal controls. Shiah IS, et al. **J Affect Disord** 1999 Jan-Mar; 52(1-3):101-10

Topographic organization of serotonergic and dopaminergic neurons in the cerebral ganglia and their peripheral projection patterns in the head areas of the snail Helix pomatia. Hernádi L, et al. **J Comp Neurol** 1999 Aug 23; 411(2):274-87

Ovarian hormones differentially influence immunoreactivity for dopamine beta- hydroxylase, choline acetyltransferase, and serotonin in the dorsolateral prefrontal cortex of adult

rhesus monkeys. Kritzer MF, et al. **J Comp Neurol** 1999 Jul 5;409(3):438–51

Altered serotonin innervation patterns in the forebrain of monkeys treated with (+/–)3,4–methylenedioxymethamphetamine seven years previously: factors influencing abnormal recovery. Hatzidimitriou G, et al. **J Neurosci** 1999 Jun 15; 19(12):5096–107

Ultrastructural localization of the serotonin transporter in limbic and motor compartments of the nucleus accumbens. Pickel VM, et al. **J Neurosci** 1999 Sep 1;19(17):7356–66

Effects of Hypericum perforatum on levels of 5–hydroxytryptamine, noradrenaline and dopamine in the cortex, diencephalon and brainstem of the rat. Calapai G, et al. **J Pharm Pharmacol** 1999 Jun;51(6):723–8

Red light suppresses N–acetylserotonin but does not elevate 5–HT and 5–HIAA of the rat pineal glands at night. Chen LW, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Feb;15(2):113–8

The distribution of histamine and serotonin in the barnacle's nervous system. Callaway JC, et al. **Microsc Res Tech** 1999 Jan 15–Feb 1;44(2–3):94–104

GABA and serotonin immunoreactivity during postembryonic brain development in the beetle Tenebrio molitor. Wegerhoff R. **Microsc Res Tech** 1999 May 1; 45(3):154–64 (55 ref.)

HPLC detection of serotonin within the rat cochlea. Vicente–Torres A, et al. **Neuroreport** 1998 Nov 16; 9(16):3699–701

Serotonin–immunoreactive structures in the central nervous system of the garfish Lepisosteus productus (Semionotiformes, Osteichthyes). Chiba A, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):73–6

Dopamine and serotonin imbalances in the left anterior cingulate and pyriform cortices following the repeated intermittent administration of cocaine. Heidbreder CA, et al. **Neuroscience** 1999 Mar;89(3):701–15

The acute effect in rats of 3,4–methylenedioxyethamphetamine (MDEA, "eve") on body temperature and long term degeneration of 5–HT neurones in brain: a comparison with MDMA ("ecstasy"). Colado MI, et al. **Pharmacol Toxicol** 1999 Jun;84(6):261–6

Studies on the localization of 5–hydroxytryptamine and its receptors in human placenta. Huang WQ, et al. **Placenta** 1998 Nov;19(8):655–61

Behavioral neurochemistry reveals a new functional dichotomy in the shell subregion of the nucleus accumbens. Heidbreder CA, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):99–132

Intensity dependence of auditory evoked potentials (AEPs) as biological marker for cerebral serotonin levels: effects of tryptophan depletion in healthy subjects. Dierks T, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):101–7

Nicotine's effect on hypothalamic neurotransmitters and appetite regulation. Miyata G, et al. **Surgery** 1999 Aug; 126(2):255–63

Effects of antihistamines on 3, 4–methylenedioxymethamphetamine–induced depletion of serotonin in rats. Yeh SY, et al. **Synapse** 1999 Sep 1; 33(3):207–17

Ultrastructure and serotonin immunocytochemistry of the parietal–pineal complex in the Japanese grass lizard, Takydromus tachydromoides. Ohshima K, et al. **Tissue Cell** 1999 Apr;31(2):126–37

Dual expression of GABA or serotonin and dopamine in Xenopus amacrine cells is transient and may be regulated by laminar cues. Huang S, et al. **Vis Neurosci** 1998 Sep–Oct; 15(5):969–77

ANTAGONISTS & INHIBITORS see SEROTONIN ANTAGONISTS

BIOSYNTHESIS

Altered daily rhythms of brain and pituitary indolamines and neuropeptides in long–term hypoxic rats. Poncet L, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R66–75

The effects of serotonin biosynthesis inhibition on nicotine and nifedipine–induced analgesia in rats. Hunt TE, et al. **Anesth Analg** 1998 Nov;87(5):1109–12

Developmental changes in brain serotonin synthesis capacity in autistic and nonautistic children. Chugani DC, et al. **Ann Neurol** 1999 Mar;45(3):287–95

Effects of cocaethylene on dopamine and serotonin synthesis in Long–Evans and Sprague–Dawley brains. Baumann MH, et al. **Brain Res** 1998 Sep 7;804(2):316–9

The effect of MDMA (3,4–methylenedioxymethamphetamine) on the 5–HT synthesis rate in the rat brain: an autoradiographic study. Mück–Seler D, et al. **Brain Res** 1998 Nov 9;810(1–2):76–86

Serotonin synthesis in murine embryonic stem cells. Walther DJ, et al. **Brain Res Mol Brain Res** 1999 May 7; 68(1–2):55–63

Differential distribution of serotonin and tryptophan hydroxylase in the human gastrointestinal tract. Meyer T, et al. **Digestion** 1999 Jan–Feb;60(1):63–8

The development of the synaptic organization of the serotonergic system differs in brain areas with different functions. Dori IE, et al. **Exp Neurol** 1998 Nov; 154(1):113–25

Validation of a less–invasive method for measurement of serotonin synthesis rate with alpha–[11C]methyl–tryptophan. Nishizawa S, et al. **J Cereb Blood Flow Metab** 1998 Oct;18(10):1121–9

Effects of acute and chronic administration of the serotonin1A agonist buspirone on serotonin synthesis in the rat brain. Okazawa H, et al. **J Neurochem** 1999 May; 72(5):2022–31

Extrapineal melatonin and exogenous serotonin in seasonal affective disorder. Partonen T. **Med Hypotheses** 1998 Nov; 51(5):441–2 (5 ref.)

NAMS/Solvay Resident Essay Award. Relationship between estrogen, serotonin, and depression. Archer JS. **Menopause** 1999 Spring;6(1):71–8 (49 ref.)

Acute effects of 3,4–methylenedioxymethamphetamine on brain serotonin synthesis in the dog studied by positron emission tomography. Nishisawa S, et al. **Neurochem Int** 1999 Jan;34(1):33–40

GR 127935 and (+)–WAY 100135 do not affect TFMPP–induced inhibition of 5–HT synthesis in the midbrain and hippocampus of Wistar–Kyoto rats. Chaouloff F, et al. **Neuropharmacology** 1998 Sep; 37(9):1159–67

The validity of the PET/alpha–[11C]methyl–L–tryptophan method for measuring rates of serotonin synthesis in the human brain [letter; comment] Benkelfat C, et al. **Neuropsychopharmacology** 1999 Jul;21(1):153–7. Comment on: Neuropsychopharmacology 1998 Nov;19(5):345–53.

Brain serotonin synthesis rates in rhesus monkeys determined by [11C]alpha–methyl–L–tryptophan and positron emission tomography compared to CSF 5–hydroxyindole–3–acetic acid concentrations [see comments] Shoaf SE, et al. **Neuropsychopharmacology** 1998 Nov;19(5):345–53. Comment in: Neuropsychopharmacology 1999 Jul;21(1):153–7.

Systemic PCP treatment elevates brain extracellular 5–HT: a microdialysis study in awake rats. Martin P, et al. **Neuroreport** 1998 Sep 14;9(13):2985–8

Inhibition of hippocampal 5–HT synthesis by fluoxetine and paroxetine: evidence for the involvement of both 5–HT1A and 5–HT1B/D autoreceptors. Barton CL, et al. **Synapse** 1999 Jan;31(1):13–9

Differential effect of immobilization stress on in vivo synthesis rate of monoamines in medial prefrontal cortex and nucleus accumbens of conscious rats. Nakahara D, et al. **Synapse** 1999 Jun 1;32(3):238–42

BLOOD

Circulatory levels of catecholamines, serotonin and lipids in attention deficit hyperactivity disorder. Spivak B, et al. **Acta Psychiatr Scand** 1999 Apr;99(4):300–4

Overt behavior problems and serotonergic function in middle childhood among male and female offspring of alcoholic fathers. Twitchell GR, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1340–8

Genetic variation in the serotonin transporter promoter region affects serotonin uptake in human blood platelets. Greenberg BD, et al. **Am J Med Genet** 1999 Feb 5; 88(1):83–7

Regulated phosphorylation and trafficking of antidepressant–sensitive serotonin transporter proteins. Blakely RD, et al. **Biol Psychiatry** 1998 Aug 1;44(3):169–78 (65 ref.)

Pretreatment platelet 5–HT concentration predicts the short–term response to paroxetine in major depression. Grupo de Trastornos Afectivos. Figueras G, et al. **Biol Psychiatry** 1999 Aug 15;46(4):518–24

Whole blood serotonin and plasma beta–endorphin in autistic probands and their first–degree relatives. Leboyer M, et al. **Biol Psychiatry** 1999 Jan 15;45(2):158–63

Tryptophan depletion and depressive vulnerability. Moreno FA, et al. **Biol Psychiatry** 1999 Aug 15;46(4):498–505

Platelet serotonin, plasma cortisol, and dexamethasone suppression test in schizophrenic patients. Mück–Seler D, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1433–9

Low platelet–poor plasma concentrations of serotonin in patients with combat–related posttraumatic stress disorder. Spivak B, et al. **Biol Psychiatry** 1999 Apr 1;45(7):840–5

Serotoninergic status in patients with hereditary vascular retinopathy syndrome. Storimans CW, et al. **Br J Ophthalmol** 1998 Aug;82(8):897–900

Dynamic changes of cognitive habituation and serotonin metabolism during the migraine interval [see comments] Evers S, et al. **Cephalalgia** 1999 Jun;19(5):485–91. Comment in: Cephalalgia 1999 Jun;19(5):477.

Prediction of migraine attacks [editorial; comment] Kropp P. **Cephalalgia** 1999 Jun;19(5):477. Comment on: Cephalalgia 1999 Jun;19(5):485–91.

Serotonin is associated with coronary artery disease and cardiac events. Vikenes K, et al. **Circulation** 1999 Aug 3; 100(5):483–9

The clinical relevance of hemoglobin, platelet, and serotonin changes in sequestered and circulating blood during cardiopulmonary bypass. McNulty SE, et al. **J Cardiothorac Vasc Anesth** 1998 Aug;12(4):402–7

Plasma serotonin monitoring by blood microdialysis coupled to high–performance liquid chromatography with electrochemical detection in humans. Páez X, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1–2):33–8

Sex differences, season of birth and platelet 5–HT levels in schizophrenic patients. Mück–Seler D, et al. **J Neural Transm** 1999;106(3–4):337–47

Plasma levels of 5–HT and 5–HIAA increased after intestinal ischemia/reperfusion in rats. Teramoto Y, et al. **Jpn J Physiol** 1998 Oct;48(5):333–9

Phentermine and other monoamine–oxidase inhibitors may increase plasma serotonin when given with fenfluramines [letter] [see comments] Maher TJ, et al. **Lancet** 1999 Jan 2;353(9146):38. Comment in: Lancet 1999 Apr 17;353(9161):1362–3.

Effects of peripheral stem–cell or bone–marrow reinfusion on peripheral serotonin metabolism [letter] Wymenga AN, et al. **Lancet** 1999 Jan 23;353(9149):293–4

Carcinoid tumors [letter; comment] Kema IP, et al. **N Engl J Med** 1999 Aug 5;341(6):453–4; discussion 454–5 . Comment on: N Engl J Med 1999 Mar 18;340(11):858–68.

Hemostasis, platelet functions, serotonin and serum lipids during omega–3 fatty acid treatment in patients with glomerulonephritis [letter] Malyszko JS, et al. **Nephron** 1998 Sep;80(1):94–6

Upregulation of the platelet Serotonin2A receptor and low blood serotonin in suicidal psychiatric patients. Rao ML, et al. **Neuropsychobiology** 1998;38(2):84–9

Differences in whole blood serotonin levels based on a typology of parasuicide. Rilke O, et al. **Neuropsychobiology** 1998;38(2):70–2

The influence of alprazolam on the monoaminergic neurotransmitter systems in dysthymic patients. Relationship to clinical response. Santagostino G, et al. **Pharmacopsychiatry** 1998 Jul;31(4):131–6

Stress and self–injurious behavior; hormonal and serotonergic parameters in mentally retarded subjects. Verhoeven WM, et al. **Pharmacopsychiatry** 1999 Jan;32(1):13–20

Pharmacoclinical strategy in neuroleptic resistant schizophrenic patients treated by clozapine: clinical evolution, concentration of plasma and red blood cell clozapine and desmethylclozapine, whole blood serotonin and tryptophan. Aymard N, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):25–41

Platelet serotonin functions in untreated major depression. Neuger J, et al. **Psychiatry Res** 1999 Feb 22;85(2):189–98

Mood correlates with blood serotonin, but not with glucose measures in patients with recurrent suicidal behavior. Verkes RJ, et al. **Psychiatry Res** 1998 Sep 21;80(3):239–48

Plasma serotonin level after 1 day of fluoxetine treatment: a biological predictor for antidepressant response? Alvarez JC, et al. **Psychopharmacology (Berl)** 1999 Mar; 143(1):97–101

Relationships of plasma tryptophan availability to course of illness and clinical features of alcoholism: a preliminary study. Swann AC, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):380–4

On the accurate measurement of serotonin in whole blood. Xiao R, et al. **Scand J Clin Lab Invest** 1998 Oct; 58(6):505–10

The swirling phenomenon in stored platelets is influenced by their endogenous serotonin. Hervig T, et al. **Transfus Med** 1999 Jun;9(2):139–45

[The histamine and serotonin levels in the blood plasma of diabetic patients] Shvets NV, et al. **Lik Sprava** 1999 Jan–Feb;(1):59–62 (Eng. Abstr.) **(Rus)**

[Decrease in the platelet level of 43 kDa immunoreactive fraction of serotonin transporting protein correlates with depressive symptoms in patients with somatoform disorders] Belous AR, et al. **Vopr Med Khim** 1999 May–Jun; 45(3):256–62 (Eng. Abstr.) **(Rus)**

[The enterochromaffin–serotonin system and Helicobacter infection in the mechanisms of the staged development of peptic ulcer] Abrahamovych Ie(O)S, et al. **Lik Sprava** 1998 Dec;(8):73–9 (Eng. Abstr.) **(Ukr)**

CEREBROSPINAL FLUID

Central nervous system serotonin and personality as variables contributing to excessive alcohol consumption in non–human primates. Higley JD, et al. **Alcohol Alcohol** 1999 May–Jun;34(3):402–18 (152 ref.)

Continuous covariability of dopamine and serotonin metabolites in human cerebrospinal fluid. Geracioti TD Jr, et al. **Biol Psychiatry** 1998 Aug 1;44(3):228–33

Opposite changes in dopamine metabolites and met–enkephalin levels in the ventricular CSF of patients subjected to thalamic electrical stimulation. Bourgoin S, et al. **Clin Neuropharmacol** 1999 Jul–Aug;22(4):231–8

The serotonin transporter and depression. Owens MJ, et al. **Depress Anxiety** 1998;8 Suppl 1:5–12 (68 ref.)

Serotonin and externalizing behavior in young children. Clarke RA, et al. **Psychiatry Res** 1999 Apr 19;86(1):29–40

[Cerebrospinal fluid serotonin concentration in pyogenic and tick–borne encephalomeningitis] Siwak EB, et al. **Neurol Neurochir Pol** 1999 Mar–Apr;33(2):339–49 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Oxidation, nitrosation, and nitration of serotonin by nitric oxide–derived nitrogen oxides: biological implications in the rat vascular system. Blanchard B, et al. **Nitric Oxide** 1997;1(6):442–52

[Serotonin––structure, activity and clinical significance] Zdrojewicz Z, et al. **Postepy Hig Med Dosw** 1998; 52(6):637–54 (76 ref.) (Eng. Abstr.) **(Pol)**

DEFICIENCY

Morphometry of the dorsal raphe nucleus serotonergic

neurons in suicide victims. Underwood MD, et al. **Biol Psychiatry** 1999 Aug 15;46(4):473–83

Effect of activity blockade on changes in vibrissae-related patterns in the rat's primary somatosensory cortex induced by serotonin depletion. Rhoades RW, et al. **J Comp Neurol** 1998 Dec 14;402(2):276–83

N-tert-butyl-alpha-phenylnitrone protects against 3,4-methylenedioxymethamphetamine-induced depletion of serotonin in rats. Yeh SY. **Synapse** 1999 Mar 1; 31(3):169–77

[Male depression--stress reaction combined with serotonin deficiency? (see comments)] Rutz W, et al. **Lakartidningen** 1999 Mar 10;96(10):1177–8 (14 ref.) (Eng. Abstr.). Comment in: Lakartidningen 1999 Jun 9;96(23):2836. **(Swe)**

GENETICS

Genetic variation in the serotonin transporter promoter region affects serotonin uptake in human blood platelets. Greenberg BD, et al. **Am J Med Genet** 1999 Feb 5; 88(1):83–7

Linkage and association analysis of chromosomal regions containing genes related to neuroendocrine or serotonin function in families with early-onset, recurrent major depression. Neiswanger K, et al. **Am J Med Genet** 1998 Sep 7;81(5):443–9

Genetic association analysis of serotonin system genes in bipolar affective disorder. Vincent JB, et al. **Am J Psychiatry** 1999 Jan;156(1):136–8

Role of the serotonin transporter promoter polymorphism in anxiety-related traits. Mazzanti CM, et al. **Arch Gen Psychiatry** 1998 Oct;55(10):936–40

Selective genotyping for the role of 5-HT2A, 5-HT2C, and GABA alpha 6 receptors and the serotonin transporter in the level of response to alcohol: a pilot study. Schuckit MA, et al. **Biol Psychiatry** 1999 Mar 1;45(5):647–51

Specification of dopaminergic and serotonergic neurons in the vertebrate CNS. Hynes M, et al. **Curr Opin Neurobiol** 1999 Feb;9(1):26–36 (85 ref.)

High ethanol tolerance in young adults is associated with the low-activity variant of the promoter of the human serotonin transporter gene. Türker T, et al. **Neurosci Lett** 1998 Jun 5;248(3):147–50

Regulation of the transmitter phenotype of rostral and caudal groups of cultured serotonergic raphe neurons. Galter D, et al. **Neuroscience** 1999 Jan;88(2):549–59

A variable-number-tandem-repeat of the serotonin transporter gene and anxiety disorders. Ohara K, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):55–65

Association of a serotonin transporter gene promoter polymorphism with harm avoidance behaviour in an elderly population. Ricketts MH, et al. **Psychiatr Genet** 1998 Summer;8(2):41–4

Behavioral effects of tryptophan depletion in seasonal affective disorder associated with the serotonin transporter gene? Lenzinger E, et al. **Psychiatry Res** 1999 Mar 22; 85(3):241–6

Serotonin transporter gene not associated with psychotic symptomatology of mood disorders. Serretti A, et al. **Psychiatry Res** 1999 Apr 19;86(1):59–65

Serotonin transporter gene is not associated with symptomatology of schizophrenia. Serretti A, et al. **Schizophr Res** 1999 Jan 4;35(1):33–9

HISTORY

The discovery of serotonin and its role in neuroscience. Whitaker-Azmitia PM. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):2S–8S

IMMUNOLOGY

A serotonin-like immunoreactivity is present in human cutaneous melanocytes. Johansson O, et al. **J Invest Dermatol** 1998 Dec;111(6):1010–4

Plasma anti-serotonin and serotonin anti-idiotypic antibodies are elevated in panic disorder. Coplan JD, et al. **Neuropsychopharmacology** 1999 Apr;20(4):386–91

[Suppression by antibodies to serotonin of the increased alcohol consumption caused by adoptive transfer of splenocytes from animals with abstinence syndrome] Davydova TV, et al. **Biull Eksp Biol Med** 1998 Sep; 126(9):328–30 **(Rus)**

[The effect of antibodies to the serotonin-modulating protein SMP-69 on passive avoidance behavior in rats] Mekhtiev MM, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec;48(6):1107–10 (Eng. Abstr.) **(Rus)**

ISOLATION & PURIFICATION

Serotonin immunoreactivity in the peripheral nervous system of oligochaeta. Reglödi D, et al. **Acta Biol Hung** 1997; 48(4):439–51

METABOLISM

The UV-responsive melanocyte system: a peripheral network for photoperiodic time measurements. a function of indoleamine expression. Iyengar B. **Acta Anat (Basel)** 1998; 163(4):173–8

Serotonin-immune interactions in elderly volunteers and in patients with Alzheimer's disease (DAT): lower plasma tryptophan availability to the brain in the elderly and increased serum interleukin-6 in DAT. Bonaccorso S, et al. **Aging (Milano)** 1998 Aug;10(4):316–23

Differential effects of monoaminergic agonists on alcohol intake in rats fed a tryptophan-enhanced diet. Halladay AK, et al. **Alcohol** 1999 May;18(1):55–64

Effects of morphine on metabolism of dopamine and serotonin in brains of alcohol-preferring AA and alcohol-avoiding ANA rats. Honkanen A, et al. **Alcohol** 1999 May;18(1):3–10

Introduction to personality-biological interactions in alcoholism: 'The Markku Linnoila Memorial Symposium'. Janowsky DS. **Alcohol Alcohol** 1999 May-Jun;34(3):357–8

Association between preference for sweets and excessive alcohol intake: a review of animal and human studies. Kampov-Polevoy AB, et al. **Alcohol Alcohol** 1999 May-Jun;34(3):386–95

Development of rapid tolerance to ethanol-stimulated serotonin release in the ventral hippocampus. Bare DJ, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1272–6

Effect of VIP and PACAP on basal release of serotonin from isolated vascularly and luminally perfused rat duodenum. Fujimiya M, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G731–9

Serotonergic neurons and processes in the adult and developing retina of Ichthyophis kohtaoensis (Amphibia; Gymnophiona). Dünker N. **Anat Embryol (Berl)** 1999 Jan; 199(1):35–43

Discrepancies between the in vitro and in vivo 5-HT and norepinephrine re-uptake blocking properties of venlafaxine. Béïque JC, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:290–1

Serotonin transporter function in vivo: assessment by chronoamperometry. Frazer A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:217–29 (48 ref.)

Effect of VIP and PACAP on vascular and luminal release of serotonin from isolated perfused rat duodenum. Fujimiya M, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:495–502

Signaling pathways and targets of the 5-HT2B receptor in the 1C11 serotonergic cell line. Kellermann O, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:248

The 5-HT2B receptor controls the overall 5-HT transport system in the 1C11 serotonergic cell line. Launay JM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:247

Consequences of 5-HT re-uptake blockade on postsynaptic 5-HT1A receptor activation: an electrophysiological and neurochemical study in guinea pig dorsal raphe and hippocampus. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:272–3

[3H]5-HT binding to cloned human, dog, and rat 5-HT1D and 5-HT1B receptors. Stanton J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:266

Expression of UDP-glucuronosyltransferases (UGTs) 2B7 and 1A6 in the human brain and identification of 5-hydroxytryptamine as a substrate. King CD, et al. **Arch Biochem Biophys** 1999 May 1;365(1):156–62

Hippocampal type 1 (movement-related) theta rhythm positively correlates with serotonergic activity. Gemma C, et al. **Arch Ital Biol** 1999 May;137(2–3):151–60

Serotonin in an antigen-induced arthritis of the rabbit temporomandibular joint. Tominaga K, et al. **Arch Oral Biol** 1999 Jul;44(7):595–601

Differential contributions of medullary, thalamic, and amygdaloid serotonin to the antinociceptive action of morphine administered into the periaqueductal gray: a model of morphine analgesia. Borszcz GS. **Behav Neurosci** 1999 Jun;113(3):612–31

Characterization of serotonergic mechanisms involved in the behavioural inhibition induced by 5-hydroxytryptophan in a modified light-dark test in mice. Artaiz I, et al. **Behav Pharmacol** 1998 Mar;9(2):103–12

Effects of desferrithiocin and its derivatives on peripheral iron and striatal dopamine and 5-hydroxytryptamine metabolism in the ferrocene-loaded rat. Dexter DT, et al. **Biochem Pharmacol** 1999 Jul 1;58(1):151–5

Inhibition by tetanus toxin of sodium-dependent, high-affinity [3H]5-hydroxytryptamine uptake in rat synaptosomes. Inserte J, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):111–20

Endogenous serotonin-2A and -2C receptors in Balb/c-3T3 cells revealed in serotonin-free medium: desensitization and down-regulation by serotonin. Saucier C, et al. **Biochem Pharmacol** 1998 Nov 15;56(10):1347–57

Nongenomic steroidal modulation of high-affinity serotonin transport. Chang AS, et al. **Biochim Biophys Acta** 1999 Feb 4;1417(1):157–66

Effect of long-term administration of antidepressant treatments on serotonin release in brain regions involved in obsessive-compulsive disorder. Bergqvist PB, et al. **Biol Psychiatry** 1999 Jan 15;45(2):164–74

Essential fatty acids predict metabolites of serotonin and dopamine in cerebrospinal fluid among healthy control subjects, and early- and late-onset alcoholics. Hibbeln JR, et al. **Biol Psychiatry** 1998 Aug 15;44(4):235–42

A replication study of violent and nonviolent subjects: cerebrospinal fluid metabolites of serotonin and dopamine are predicted by plasma essential fatty acids. Hibbeln JR, et al. **Biol Psychiatry** 1998 Aug 15;44(4):243–9

Serotonergic functioning in depressed abused children: clinical and familial correlates. Kaufman J, et al. **Biol Psychiatry** 1998 Nov 15;44(10):973–81

Genetically driven variation in serotonin uptake: is there a link to affective spectrum, neurodevelopmental, and neurodegenerative disorders? Lesch KP, et al. **Biol Psychiatry** 1998 Aug 1;44(3):179–92 (75 ref.)

Salivary prolactin as a marker for central serotonin turnover. Lindell SG, et al. **Biol Psychiatry** 1999 Aug 15;46(4):568–72

Peripheral serotonin measures in prepubertal psychiatric inpatients and normal children: associations with suicidal behavior and its risk factors. Pfeffer CR, et al. **Biol Psychiatry** 1998 Oct 1;44(7):568–77

Photomodulation of the melanocyte cell cycle by indoleamines. Iyengar B. **Biol Signals Recept** 1998 Nov-Dec;7(6):345–50

Simultaneous measurement of dopamine, serotonin, their metabolites and tryptophan in mouse brain homogenates by high-performance liquid chromatography with dual coulometric detection. Alvarez JC, et al. **Biomed Chromatogr** 1999 Jun;13(4):293–8

Synthesis of a potent wide-spectrum serotonin-, norepinephrine-, dopamine-reuptake inhibitor (SNDRI) and a species-selective dopamine-reuptake inhibitor based on the gamma-amino alcohol functional group. Carlier PR, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):487–92

Blockade of 5-hydroxytryptamine and noradrenaline uptake by venlafaxine: a comparative study with paroxetine and desipramine. Béïque JC, et al. **Br J Pharmacol** 1998 Oct; 125(3):526–32

Pindolol-insensitive [3H]-5-hydroxytryptamine binding in the rat hypothalamus; identity with 5-hydroxytryptamine7 receptors. Clemett DA, et al. **Br J Pharmacol** 1999 May; 127(1):236–42

Brain-to-blood partition and in vivo inhibition of 5-hydroxytryptamine reuptake and quipazine-mediated behaviour of nefazodone and its main active metabolites in rodents. Nacca A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1617–23

Increased dopaminergic and 5-hydroxytryptaminergic activities in male rat brain following long-term treatment with anabolic androgenic steroids. Thiblin I, et al. **Br J Pharmacol** 1999 Mar;126(6):1301–6

5-HT2 neurotransmission in major depression [letter; comment] Ramasubbu R. **Br J Psychiatry** 1998 Jun;172:541 . Comment on: Br J Psychiatry 1998 Jan;172:49–52.

Alteration of central serotonin modifies onset and severity of adjuvant-induced arthritis in the rat. Harbuz MS, et al. **Br J Rheumatol** 1998 Oct;37(10):1077–83

Escapable and inescapable stress differentially alter extracellular levels of 5-HT in the basolateral amygdala of the rat. Amat J, et al. **Brain Res** 1998 Nov 23; 812(1–2):113–20

Effects of fenfluramine and phentermine (fen-phen) on dopamine and serotonin release in rat striatum: in vivo microdialysis study in conscious animals. Balcioglu A, et al. **Brain Res** 1998 Nov 30;813(1):67–72

Distribution of 5-hydroxytryptamine-immunoreactive boutons on immunohistochemically-identified Renshaw cells in cat and rat lumbar spinal cord. Carr PA, et al. **Brain Res** 1999 Mar 27;823(1–2):198–201

Selective increases in serotonin 5-HT1B/1D and 5-HT2A/2C binding sites in adult rat basal ganglia following lesions of serotonergic neurons. Compan V, et al. **Brain Res** 1998 May 18;793(1–2):103–11

Nitric oxide modulates the release of serotonin in the rat hypothalamus. Kachler ST, et al. **Brain Res** 1999 Jul 24; 835(2):346–9

Adrenocortical suppression blocks the enhancement of memory storage produced by exposure to psychological stress in rats. Liu L, et al. **Brain Res** 1999 Mar 6; 821(1):134–40

Estrous cycle modulation of extracellular serotonin in mediobasal hypothalamus: role of the serotonin transporter and terminal autoreceptors. Maswood S, et al. **Brain Res** 1999 Jun 12;831(1–2):146–54

The effects of median raphé electrical stimulation on serotonin release in the dorsal hippocampal formation of prenatally protein malnourished rats. Mokler DJ, et al. **Brain Res** 1999 Aug 14;838(1–2):95–103

In vivo microdialysis measures of extracellular serotonin in the rat hippocampus during sleep-wakefulness. Park SP, et al. **Brain Res** 1999 Jul 3;833(2):291–6

Dopaminergic regulation of serotonin release in the substantia nigra of the freely moving rat using microdialysis. Thorré K, et al. **Brain Res** 1998 Jun 15;796(1–2):107–16

Dorsal raphe nucleus serotonergic neurons innervate the rostral ventrolateral medulla in rat. Underwood MD, et al. **Brain Res** 1999 Apr 3;824(1):45–55

Noradrenaline and serotonin levels in the guinea pig hippocampus following unilateral vestibular deafferentation. Zheng Y, et al. **Brain Res** 1999 Jul 31; 836(1–2):199–202

Modulation of 5-hydroxytryptamine release in hippocampal slices of rats: effects of fimbria-fornix lesions on 5-HT1B-autoreceptor and alpha2-heteroreceptor function. Jackisch R, et al. **Brain Res Bull** 1999 Jan 1;48(1):49–59

The effects of ibogaine on dopamine and serotonin transport in rat brain synaptosomes. Wells GB, et al. **Brain Res Bull** 1999 Apr;48(6):641–7

Functional analysis of a novel human serotonin transporter gene promoter in immortalized raphe cells. Mortensen OV, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):141–8

Bulbospinal serotonergic activity during changes in thyroid status. Henley WN, et al. **Can J Physiol Pharmacol** 1998 Dec;76(12):1120–31

Serotonin, I(f) and human atrial arrhythmia [editorial;

comment] Workman AJ, et al. **Cardiovasc Res** 1998 Dec; 40(3):436–7 (12 ref.). Comment on: Cardiovasc Res 1998 Dec;40(3):516–22.

5-Hydroxytryptamine-induced phosphoinositide hydrolysis and Ca2+ mobilisation in canine cultured aorta smooth muscle cells. Chiu CT, et al. **Cell Signal** 1999 May; 11(5):361–70

Regulation of 5-hydroxytryptamine-induced signal transduction in canine cultured aorta smooth muscle cells by phorbol ester. Yang CM, et al. **Cell Signal** 1999 Aug; 11(8):581–9

Immunohistochemical evidence for the presence of tryptophan hydroxylase and serotonin in the rodent Harderian gland. Djeridane Y, et al. **Cell Tissue Res** 1999 Jun;296(3):517–23

Neurohormonal peptides, serotonin, and nitric oxide synthase in the enteric nervous system and endocrine cells of the gastrointestinal tract of neotenic and thyroid hormone-treated axolotls (Ambystoma mexicanum). Maake C, et al. **Cell Tissue Res** 1999 Jul;297(1):91–101

Tryptamine-4,5-dione, a putative endotoxic metabolite of the superoxide-mediated oxidation of serotonin, is a mitochondrial toxin: possible implications in neurodegenerative brain disorders. Jiang XR, et al. **Chem Res Toxicol** 1999 May;12(5):429–36

Aminorex, fenfluramine, and chlorphentermine are serotonin transporter substrates. Implications for primary pulmonary hypertension. Rothman RB, et al. **Circulation** 1999 Aug 24;100(8):869–75

Magnolol decreases body temperature by reducing 5-hydroxytryptamine release in the rat hypothalamus. Hsieh MT, et al. **Clin Exp Pharmacol Physiol** 1998 Oct; 25(10):813–7

Brain monoamine output alterations after a single venlafaxine challenge in experimental hepatic encephalopathy. Wikell C, et al. **Clin Neuropharmacol** 1998 Sep–Oct;21(5):296–306

Human obesity is associated with a chronic elevation in brain 5-hydroxytryptamine turnover. Lambert GW, et al. **Clin Sci (Colch)** 1999 Feb;96(2):191–7

Axotomized neurons of the pteropod mollusc Clione limacina develop novel sites of transmitter release in the absence of their normal muscle target. Panchin YV, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):185–91

The serotonin transporter and depression. Owens MJ, et al. **Depress Anxiety** 1998;8 Suppl 1:5–12 (68 ref.)

Characterisation of serotonin transport mechanisms in rainbow trout peripheral blood lymphocytes: role in PHA-induced lymphoproliferation. Ferriere F, et al. **Dev Comp Immunol** 1999 Jan–Feb;23(1):37–50

DNA sequence polymorphisms in genes involved in the regulation of dopamine and serotonin metabolism in rhesus macaques. Trefilov A, et al. **Electrophoresis** 1999 Jun; 20(8):1771–7

Synergism between interleukin-6 and interleukin-1beta in hypothalamic serotonin release: a reverse in vivo microdialysis study in F344 rats. Wu Y, et al. **Eur Cytokine Netw** 1999 Mar;10(1):57–64

Activities of human alcohol dehydrogenases in the metabolic pathways of ethanol and serotonin. Svensson S, et al. **Eur J Biochem** 1999 Jun;262(2):324–9

Immunohistochemical localization of bioactive substances in the epidermis of the earthworm, Lumbricus terrestris (Annelida, oligochaeta). Licata A, et al. **Eur J Histochem** 1998;42(4):303–8

The paraventricular organ of mormyrid fish: uptake or release of intraventricular biogenic amines? Meek J. **Eur J Morphol** 1999 Apr;37(2–3):107–11

Regulation of the release of 5-hydroxytryptamine in the median raphe nucleus of the rat by catecholaminergic afferents. Adell A, et al. **Eur J Neurosci** 1999 Jul; 11(7):2305–11

Differential regulation of distinct phenotypic features of serotonergic neurons by bone morphogenetic proteins. Galter D, et al. **Eur J Neurosci** 1999 Jul;11(7):2444–52

Differential effects of adenosine receptor subtypes on release and reuptake of hippocampal serotonin. Okada M, et al. **Eur J Neurosci** 1999 Jan;11(1):1–9

Iodine-123 labelled nor-beta-CIT binds to the serotonin transporter in vivo as assessed by biodistribution studies in rats. Booij J, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1666–9

The effect of serotonin depletion on motor activity habituation, and [3H]muscimol binding in the rat hippocampus. Bidzinski A, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):5–12

Release studies with rat brain cortical synaptosomes indicate that tramadol is a 5-hydroxytryptamine uptake blocker and not a 5-hydroxytryptamine releaser. Gobbi M, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):23–6

Long-term effects on serotonin transporter mRNA expression of chronic neonatal exposure to a serotonin reuptake inhibitor. Hansen HH, et al. **Eur J Pharmacol** 1998 Jul 10;352(2–3):307–15

Effects of conditioned fear stress on serotonin neurotransmission and freezing behavior in rats. Hashimoto S, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):23–30

Effect of antipsychotic drugs on extracellular serotonin levels in rat medial prefrontal cortex and nucleus accumbens. Ichikawa J, et al. **Eur J Pharmacol** 1998 Jun 19; 351(2):163–71

Facilitation by endogenous acetylcholine and nitric oxide of luminal serotonin release from the guinea-pig colon. Kojima S, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):51–5

Involvement of dopamine D2 receptors in apomorphine-induced facilitation of forebrain serotonin output. Mendlin A, et al. **Eur J Pharmacol** 1998 Jun 26; 351(3):291–8

Antiemetic effects of sendide, a peptide tachykinin NK1 receptor antagonist, in the ferret. Minami M, et al. **Eur J Pharmacol** 1998 Dec 11;363(1):49–55

The dopamine D2 receptor antagonist sulpiride causes long-lasting serotonin release. Nakazato T, et al. **Eur J Pharmacol** 1998 Dec 11;363(1):29–34

Effects of the NMDA receptor antagonist D-CPPene on extracellular levels of dopamine and dopamine and serotonin metabolites in striatum of kindled and non-kindled rats. Potschka H, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):175–87

Acetylsalicylic acid potentiates the antinociceptive effect of morphine in the rat: involvement of the central serotonergic system. Sandrini M, et al. **Eur J Pharmacol** 1998 Aug 21; 355(2–3):133–40

Synergistic neurochemical and behavioral effects of fluoxetine and 5-HT1A receptor antagonists. Trillat AC, et al. **Eur J Pharmacol** 1998 Sep 18;357(2–3):179–84

Effects of lithium treatment on extracellular serotonin levels in the dorsal hippocampus and wet-dog shakes in the rat. Mørk A. **Eur Neuropsychopharmacol** 1998 Dec;8(4):267–72

Hippocampal 5-HT and NE release in the transgenic rat TGR(mREN2)27 related to behavior on the elevated plus maze. Voigt JP, et al. **Eur Neuropsychopharmacol** 1999 Jun; 9(4):279–85

Inducible expression of tryptophan hydroxylase without serotonin synthesis in hypothalamic dopaminergic neurons. Vanhatalo S, et al. **Exp Neurol** 1999 Jun;157(2):305–16

Effect of acetylsalicylic acid on formalin test and on serotonin system in the rat brain. Vitale G, et al. **Gen Pharmacol** 1998 Nov;31(5):753–8

Comparative distribution of nitric oxide synthase- and serotonin-containing neurons in the raphe nuclei of four mammalian species. Léger L, et al. **Histochem Cell Biol** 1998 Nov;110(5):517–25

Age-related changes in antral endocrine cells in mice. Sandström O, et al. **Histol Histopathol** 1999 Jan;14(1):31–6

Role of mast cells and monoamines in the thrombocytopaenia and mortality elicited by tumour necrosis factor in mice. Piguet PF, et al. **Immunology** 1998 Sep;95(1):111–6

Effect of drugs influencing central serotonergic mechanisms on pentazocine-induced catalepsy in mice. Umrani DN, et al. **Indian J Exp Biol** 1998 Dec;36(12):1273–5

The potentiation of analgesic activity of paracetamol plus morphine involves the serotonergic system in rat brain. Sandrini M, et al. **Inflamm Res** 1999 Mar;48(3):120–7

Risperidone is associated with blunting of D-fenfluramine evoked serotonergic responses in schizophrenia. Jones H, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):199–203

Serotonin, serotonergic receptors, selective serotonin reuptake inhibitors and sexual behaviour. Olivier B, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S9–14 (27 ref.)

Action of serotonin antagonists on cytoplasmic calcium levels in early embryos of sea urchin Lytechinus pictus. Shmukler YB, et al. **Int J Dev Biol** 1999 Mar;43(2):179–82

Hydroxyzine inhibits neurogenic bladder mast cell activation. Minogiannis P, et al. **Int J Immunopharmacol** 1998 Oct; 20(10):553–63

Serotonin: a behaviorally active compound in the caudate nucleus of cats. Cools AR. **Isr J Med Sci** 1973;9 Suppl:5–16

Thin-layer chromatographic determination of catecholamines, 5-hydroxytryptamine, and their metabolites in biological samples: a review. Alemany G, et al. **J AOAC Int** 1999 Jan–Feb;82(1):17–24 (44 ref.)

Critical amino acid residues in transmembrane span 7 of the serotonin transporter identified by random mutagenesis. Penado KM, et al. **J Biol Chem** 1998 Oct 23; 273(43):28098–106

Effects of serotonin depletion by p-chlorophenylalanine, p-chloroamphetamine or 5,7-dihydroxytryptamine on central dopaminergic neurons: focus on tuberoinfundibular dopaminergic neurons and serum prolactin. Yang IC, et al. **J Biomed Sci** 1999 May-Jun;6(3):183–93

Changes in GAD- and GABA- immunoreactivity in the spinal dorsal horn after peripheral nerve injury and promotion of recovery by lumbar transplant of immortalized serotonergic precursors. Eaton MJ, et al. **J Chem Neuroanat** 1998 Dec;16(1):57–72

Regional distribution of 5-HT transporters in the brain of wild type and 'Purkinje cell degeneration' mutant mice: a quantitative autoradiographic study with [3H]citalopram. Le Marec N, et al. **J Chem Neuroanat** 1998 Sep; 15(3):155–71

Involvement of serotonin and dopamine in the mechanism of action of novel antidepressant drugs: a review. Bonhomme N, et al. **J Clin Psychopharmacol** 1998 Dec; 18(6):447–54 (103 ref.)

Distribution of serotonin (5HT)-immunoreactive structures in the central nervous system of two chondrostean species (Acipenser baeri and Huso huso). Adrio F, et al. **J Comp Neurol** 1999 May 10;407(3):333–48

Indoleamine-accumulating amacrine cells are presynaptic to rod bipolar cells through GABA(C) receptors. Fletcher EL, et al. **J Comp Neurol** 1999 Oct 11;413(1):155–67

The distribution of a CRF-like diuretic peptide in the blood-feeding bug Rhodnius prolixus. Te Brugge VA, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2017–27

Gastric mucosal damage induced by compound 48/80: roles of serotonin and nitric oxide [see comments] Yasuhiro T, et al. **J Gastroenterol Hepatol** 1998 Nov;13(11):1099–106. Comment in: J Gastroenterol Hepatol 1998 Nov;13(11):1081–3.

Anxiety traits associated with a polymorphism in the serotonin transporter gene regulatory region in the Japanese. Murakami F, et al. **J Hum Genet** 1999;44(1):15–7

Endothelin-1 and serotonin: mediators of primary and secondary pulmonary hypertension? MacLean MR. **J Lab Clin Med** 1999 Aug;134(2):105–14 (133 ref.)

Synthesis and biological properties of new 2beta-alkyl- and 2beta-aryl-3-(substituted phenyl)tropane derivatives: stereochemical effect of C-3 on affinity and selectivity for neuronal dopamine and serotonin transporters. Kozikowski AP, et al. **J Med Chem** 1998 Dec 3;41(25):4973–82

Characterization of the 5-HT4 binding site in human brain. Arranz B, et al. **J Neural Transm** 1998;105(6–7):575–86

Effects of antipsychotic drugs on dopamine and serotonin contents and metabolites, dopamine and serotonin transporters, and serotonin1A receptors. Ase AR, et al. **J Neural Transm** 1999;106(1):75–105

Clozapine, haloperidol, and the D4 antagonist PNU-101387G: in vivo effects on mesocortical, mesolimbic, and nigrostriatal dopamine and serotonin release. Broderick PA, et al. **J Neural Transm** 1998; 105(6–7):749–67

Hypothesis: is infantile autism a hypoglutamatergic disorder? Relevance of glutamate – serotonin interactions for pharmacotherapy. Carlsson ML. **J Neural Transm** 1998; 105(4–5):525–35 (72 ref.)

Effect of repeated immobilization on serotonin metabolism in different rat brain areas and on serum corticosterone. Clement HW, et al. **J Neural Transm** 1998; 105(10–12):1155–70

Role of tryptophan in the elevated serotonin-turnover in hepatic encephalopathy. Herneth AM, et al. **J Neural Transm** 1998;105(8–9):975–86

Rodent data and general hypothesis: antipsychotic action exerted through 5-Ht2A receptor antagonism is dependent on increased serotonergic tone. Martin P, et al. **J Neural Transm** 1998;105(4–5):365–96

The role of the hippocampus and 5-HT/GABA interaction in the central effects of benzodiazepine receptor ligands. Nazar M, et al. **J Neural Transm** 1999;106(5–6):369–81

Biochemical and autoradiographic measurements of brain serotonin synthesis rate in the freely moving rat: a reexamination of the alpha-methyl-L-tryptophan method. Gharib A, et al. **J Neurochem** 1999 Jun;72(6):2593–600

Serotonin 5-HT2C receptor RNA editing alters receptor basal activity: implications for serotonergic signal transduction. Herrick-Davis K, et al. **J Neurochem** 1999 Oct;73(4):1711–7

Clostridium neurotoxins influence serotonin uptake and release differently in rat brain synaptosomes. Najib A, et al. **J Neurochem** 1999 May;72(5):1991–8

Mazindol attenuates the 3,4-methylenedioxymethamphetamine-induced formation of hydroxyl radicals and long-term depletion of serotonin in the striatum. Shankaran M, et al. **J Neurochem** 1999 Jun; 72(6):2516–22

The effects of oestrogen and progesterone on serotonin and its metabolite in the lateral septum, medial preoptic area and ventromedial hypothalamic nucleus of female rats. Lu H, et al. **J Neuroendocrinol** 1998 Dec;10(12):919–26

Serotonergic innervation of the pituitary pars intermedia of xenopus laevis. Ubink R, et al. **J Neuroendocrinol** 1999 Mar; 11(3):211–9

In vivo assessment of the midbrain raphe nuclear regulation of serotonin release in the hamster suprachiasmatic nucleus. Dudley TE, et al. **J Neurophysiol** 1999 Apr;81(4):1469–77

Levels of serotonin in the hemolymph of Aplysia are modulated by light/dark cycles and sensitization training. Levenson J, et al. **J Neurosci** 1999 Sep 15;19(18):8094–103

An escalating dose "binge" model of amphetamine psychosis: behavioral and neurochemical characteristics. Segal DS, et al. **J Neurosci** 1997 Apr 1;17(7):2551–66

Serotonin modulation of sensory inputs to the lateral amygdala: dependency on corticosterone. Stutzmann GE, et al. **J Neurosci** 1998 Nov 15;18(22):9529–38

Laser-induced native fluorescence (LINF) imaging of serotonin depletion in depolarized neurons. Parpura V, et al. **J Neurosci Methods** 1998 Aug 1;82(2):151–8

Serotonin depletion in the adult rat produces differential changes in highly polysialylated form of neural cell adhesion molecule and tenascin-C immunoreactivity. Brezun JM, et al. **J Neurosci Res** 1999 Jan 1;55(1):54–70

Effect of neutron-gamma radiation on dopamine and serotonin metabolism in the rat brain: a regional analysis. Foulon O, et al. **J Neurosci Res** 1999 Mar 15;55(6):770–5

Developmental regulation of the serotonergic transmitter phenotype in rostral and caudal raphe neurons by transforming growth factor-betas. Galter D, et al. **J Neurosci Res** 1999 Jun 1;56(5):531–8

Serotonergic hyperinnervation of the frontal cortex in an animal model of depression, the bulbectomized rat. Zhou D, et al. **J Neurosci Res** 1998 Oct 1;54(1):109–16

Liquid concentrates are lower in bioavailable tryptophan than powdered infant formulas, and tryptophan supplementation of formulas increases brain tryptophan and serotonin in

rats. Sarwar G, et al. **J Nutr** 1999 Sep;129(9):1692–7
Effects of fluoxetine and norfluoxetine on 5–hydroxytryptamine metabolism in blood platelets and brain after administration to rats. Bourdeaux R, et al. **J Pharm Pharmacol** 1998 Dec;50(12):1387–92
Effects of tamoxifen on striatal dopamine and 5–hydroxytryptamine release in freely moving male rats: an in–vivo microdialysis investigation. Chaurasia CS, et al. **J Pharm Pharmacol** 1998 Dec;50(12):1377–85
Multiple subtypes of serotonin receptors are expressed in rat sensory neurons in culture. Chen JJ, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1119–27
Periaqueductal gray stimulation–induced inhibition of nociceptive dorsal horn neurons in rats is associated with the release of norepinephrine, serotonin, and amino acids. Cui M, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):868–76
Characteristics of drug interactions with recombinant biogenic amine transporters expressed in the same cell type. Eshleman AJ, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):877–85
Chronic clomipramine and triiodothyronine increase serotonin levels in rat frontal cortex in vivo: relationship to serotonin autoreceptor activity. Gur E, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):81–7
Propulsion in guinea pig colon induced by 5–hydroxytryptamine (HT) via 5–HT4 and 5–HT3 receptors. Jin JG, et al. **J Pharmacol Exp Ther** 1999 Jan; 288(1):93–7
Oxytocin inhibits the uptake of serotonin into uterine mast cells. Rudolph MI, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):389–94
Escalating dose–binge treatment with methylphenidate: role of serotonin in the emergent behavioral profile. Segal DS, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):19–30
Effects of a single melatonin treatment on brain regional serotonin metabolism in the Syrian hamster. Miguez JM, et al. **J Physiol Biochem** 1998 Mar;54(1):51–2
Neurotransmitters and neuromodulators controlling the hypoxic respiratory response in anaesthetized cats [see comments] Richter DW, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):567–78. Comment in: J Physiol (Lond) 1999 Jan 15;514 (Pt 2):303.
Serotonin and learned helplessness: a regional study of 5–HT1A, 5–HT2A receptors and the serotonin transport site in rat brain. Wu J, et al. **J Psychiatr Res** 1999 Jan–Feb; 33(1):17–22
Psychopharmacological profile of the selective serotonin reuptake inhibitor, paroxetine: implication of noradrenergic and serotonergic mechanisms. Redrobe JP, et al. **J Psychopharmacol** 1998;12(4):348–55
Serotonin–independent model of cisplatin–induced emesis in the ferret. Rudd JA, et al. **Jpn J Pharmacol** 1998 Nov; 78(3):253–60
Carbon dioxide–induced anesthesia has no effect on brain biogenic amine concentrations in mice. Jones DM, et al. **Lab Anim Sci** 1999 Jun;49(3):316–8
Toxic effect of MDMA on brain serotonin neurons [letter; comment] Jansen KL, et al. **Lancet** 1999 Apr 10; 353(9160):1270–1. Comment on: Lancet 1998 Oct 31;352(9138):1433–7.
Toxic effect of MDMA on brain serotonin neurons [letter; comment] Kuikka JT, et al. **Lancet** 1999 Apr 10; 353(9160):1269; discussion 1270–1. Comment on: Lancet 1998 Oct 31;352(9138):1433–7.
Positron emission tomographic evidence of toxic effect of MDMA ("Ecstasy") on brain serotonin neurons in human beings [see comments] McCann UD, et al. **Lancet** 1998 Oct 31;352(9138):1433–7. Comment in: Lancet 1999 Feb 13;353(9152):592–3. Comment in: Lancet 1999 Apr 10;353(9160):1268; discussion 1270–1. Comment in: Lancet 1999 Apr 10;353(9160):1268–9; discussion 1270–1. Comment in: Lancet 1999 Apr 10;353(9160):1269; discussion 1270–1. Comment in: Lancet 1999 Apr 10;353(9160):1269–70; discussion 1270–1. Comment in: Lancet 1999 Apr 10;353(9160):1270–1.
Toxic effect of MDMA on brain serotonin neurons [letter; comment] Morgan JF. **Lancet** 1999 Apr 10; 353(9160):1268–9; discussion 1270–1. Comment on: Lancet 1998 Oct 31;352(9138):1433–7.
Toxic effect of MDMA on brain serotonin neurons [letter; comment] Reed LJ, et al. **Lancet** 1999 Apr 10; 353(9160):1268; discussion 1270–1. Comment on: Lancet 1998 Oct 31;352(9138):1433–7.
The level of serotonin in the superficial masseter muscle in relation to local pain and allodynia. Ernberg M, et al. **Life Sci** 1999;65(3):313–25
Morphine tolerance in arthritic rats and serotonergic system. Li JY, et al. **Life Sci** 1999;64(10):PL111–6
Caco–2 cells in culture synthesize and degrade dopamine and 5–hydroxytryptamine: a comparison with rat jejunal epithelial cells. Vieira–Coelho MA, et al. **Life Sci** 1999; 64(1):69–81
Biosynthesis, N–glycosylation, and surface trafficking of biogenic amine transporter proteins. Ramamoorthy S, et al. **Methods Enzymol** 1998;296:347–70
Abnormal central serotonergic activities in spontaneously hypertensive rats (SHR). Kim SJ, et al. **Methods Find Exp Clin Pharmacol** 1998 Jul–Aug; 20(6):473–8
Melatonin, its precursors, and synthesizing enzyme activities in the human ovary. Itoh MT, et al. **Mol Hum Reprod** 1999 May;5(5):402–8
Association of unipolar major depressive disorder with genes of the serotonergic and dopaminergic pathways. Frisch A, et al. **Mol Psychiatry** 1999 Jul;4(4):389–92
In vitro studies on the mechanism by which (+)–norfenfluramine induces serotonin and dopamine release from the vesicular storage pool. Gobbi M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):323–7
In vivo control of 5–hydroxytryptamine release by terminal autoreceptors in rat brain areas differentially innervated by the dorsal and median raphe nuclei. Hervás I, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):315–22
Effects of local MAO inhibition in the locus coeruleus on extracellular serotonin and 5–HIAA during exposure to sensory and cardiovascular stimuli. Kaehler ST, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Mar; 359(3):187–93
Release of serotonin in the locus coeruleus of normotensive and spontaneously hypertensive rats (SHR). Kaehler ST, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jun; 359(6):460–5
Dependence of serotonin release in the locus coeruleus on dorsal raphe neuronal activity. Kaehler ST, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):386–93
Synergism between 5–HT1B/1D and 5–HT1A receptor antagonists on turnover and release of 5–HT in guinea–pig brain in vivo. Stenfors C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):110–6
Mouse interleukin–6 stimulates the HPA axis and increases brain tryptophan and serotonin metabolism. Wang J, et al. **Neurochem Int** 1998 Aug;33(2):143–54
Molecular mechanisms of actions of interleukin–6 on the brain, with special reference to serotonin and the hypothalamo–pituitary–adrenocortical axis. Barkhudaryan N, et al. **Neurochem Res** 1999 Sep;24(9):1169–80 (183 ref.)
Intrastriatal injection of 5,7–dihydroxytryptamine decreased 5–HT levels in the striatum and suppressed locomotor activity in C57BL/6 mice. Chia LG, et al. **Neurochem Res** 1999 Jun;24(6):719–22
Influence of repeated levodopa administration on rabbit striatal serotonin metabolism, and comparison between striatal and CSF alterations. Loeffler DA, et al. **Neurochem Res** 1998 Dec;23(12):1521–5
Inactivation of 5–HT1A and [3H]5–HT binding sites by N–ethoxycarbonyl–2–ethoxy–1, 2–dihydroquinoline (EEDQ) in rat brain. Subhash MN, et al. **Neurochem Res** 1998 Oct;23(10):1321–6
Serotonin neurotoxicity: implications for cognitive neuroscience and neurology [editorial; comment] D'Esposito M. **Neurology** 1998 Dec;51(6):1529–30. Comment on: Neurology 1998 Dec;51(6):1532–7.
Investigation of the presynaptic effects of quinine and quinidine on the release and uptake of monoamines in rat brain tissue. Clement EM, et al. **Neuropharmacology** 1998 Jul;37(7):945–51
In vivo evidence against clomethiazole being neuroprotective against MDMA ('ecstasy')–induced degeneration of rat brain 5–HT nerve terminals by a free radical scavenging mechanism. Colado MI, et al. **Neuropharmacology** 1999 Feb;38(2):307–14
Effects of venlafaxine on extracellular concentrations of 5–HT and noradrenaline in the rat frontal cortex: augmentation via 5–HT1A receptor antagonism. Dawson LA, et al. **Neuropharmacology** 1999 Aug;38(8):1153–63
Serotonin (5–HT)2A receptor activation enhances dialysate levels of dopamine and noradrenaline, but not 5–HT, in the frontal cortex of freely–moving rats. Gobert A, et al. **Neuropharmacology** 1999 Feb;38(2):315–7
Influence of 5–HT1A receptors on central noradrenergic activity: microdialysis studies using (+/–)–MDL 73005EF and its enantiomers. Hajós–Korcsok E, et al. **Neuropharmacology** 1999 Feb;38(2):299–306
Serotonin (5–HT)2C receptors tonically inhibit dopamine (DA) and noradrenaline (NA), but not 5–HT, release in the frontal cortex in vivo. Millan MJ, et al. **Neuropharmacology** 1998 Jul;37(7):953–5
(–)–Pindolol increases dialysate concentrations of dopamine and noradrenaline, but not serotonin, in the frontal cortex of freely–moving rats. Millan MJ, et al. **Neuropharmacology** 1999 Jun;38(6):909–12
Effect of acute, short– and long–term milnacipran administration on rat locus coeruleus noradrenergic and dorsal raphe serotonergic neurons. Mongeau R, et al. **Neuropharmacology** 1998 Jul;37(7):905–18
The relationship between the degree of neurodegeneration of rat brain 5–HT nerve terminals and the dose and frequency of administration of MDMA ('ecstasy'). O'Shea E, et al. **Neuropharmacology** 1998 Jul;37(7):919–26
Simultaneous effects of local dexfenfluramine application on extracellular glutamate and serotonin levels in rat frontal cortex: a reverse microdialysis study. Rocher C, et al. **Neuropharmacology** 1999 Apr;38(4):513–23
Effects of 5–HT–releasing agents on the extracellular hippocampal 5–HT of rats. Implications for the development of novel antidepressants with a short onset of action. Scorza C, et al. **Neuropharmacology** 1999 Jul; 38(7):1055–61
Manipulations of brain 5–HT levels affect gene expression for BDNF in rat brain. Zetterström TS, et al. **Neuropharmacology** 1999 Jul;38(7):1063–73
Effects of neonatal clomipramine treatment on locomotor activity, anxiety–related behavior and serotonin turnover in Syrian hamsters. Yannielli PC, et al. **Neuropsychobiology** 1999 May;39(4):200–6
Effects of mCPP on the extracellular concentrations of serotonin and dopamine in rat brain. Eriksson E, et al. **Neuropsychopharmacology** 1999 Mar;20(3):287–96
Modulation of dialysate levels of dopamine, noradrenaline, and serotonin (5–HT) in the frontal cortex of freely–moving rats by (–)–pindolol alone and in association with 5–HT reuptake inhibitors: comparative roles of beta–adrenergic, 5–HT1A, and 5–HT1B receptors. Gobert A, et al. **Neuropsychopharmacology** 1999 Aug;21(2):268–84
Serotonin transporter genotype and seasonal variation in serotonin function [letter] Hanna GL, et al. **Neuropsychopharmacology** 1999 May;20(5):506–8
Electrical stimulation of rat medial prefrontal cortex enhances forebrain serotonin output: implications for electroconvulsive therapy and transcranial magnetic stimulation in depression. Juckel G, et al. **Neuropsychopharmacology** 1999 Sep;21(3):391–8
Cerebrospinal fluid monoaminergic metabolites differ in wild anubis and hybrid (Anubis hamadryas) baboons: possible relationships to life history and behavior. Kaplan JR, et al. **Neuropsychopharmacology** 1999 Jun;20(6):517–24
d,l–fenfluramine response in impulsive personality disorder assessed with [18F]fluorodeoxyglucose positron emission tomography. Siever LJ, et al. **Neuropsychopharmacology** 1999 May;20(5):413–23
Effect of tryptophan treatment on self–biting and central nervous system serotonin metabolism in rhesus monkeys (Macaca mulatta). Weld KP, et al. **Neuropsychopharmacology** 1998 Oct;19(4):314–21
The appetite suppressant d–fenfluramine induces apoptosis in human serotonergic cells. Bengel D, et al. **Neuroreport** 1998 Sep 14;9(13):2989–93
Postsynaptic 5–HT1A receptors control 5–HT release in the rat medial prefrontal cortex. Casanovas JM, et al. **Neuroreport** 1999 May 14;10(7):1441–5
Contrasting effects of chronic paroxetine on 5–HT1A control of dorsal raphe cell firing and 5–HT release. Davidson C, et al. **Neuroreport** 1998 Aug 3;9(11):2535–8
Feeding pattern in obese Zucker rats after dopaminergic and serotonergic LHA grafts. Meguid MM, et al. **Neuroreport** 1999 Apr 6;10(5):1049–53
Delayed 5–HT release in the developing cortex of microencephalic rats. Ueda S, et al. **Neuroreport** 1999 Apr 26;10(6):1215–9
Serotonin–containing cell bodies in novel brain locations: effects of light input [published erratum appears in Neuroreport 1999 Apr 26;10(6):inside back cover] Yamazaki S, et al. **Neuroreport** 1999 Feb 5;10(2):431–5
The potentiation of amphetamine–induced hyperlocomotion by fimbria–fornix lesions in rats is abolished by intrahippocampal grafts rich in serotonergic neurons. Balse E, et al. **Neurosci Lett** 1999 Apr 16;265(2):79–82
Co–localization of 5–HT1B– and 5–HT1D receptor mRNA in serotonergic cell bodies in guinea pig dorsal raphé nucleus: a double labeling in situ hybridization histochemistry study. Bonaventure P, et al. **Neurosci Lett** 1998 Sep 25;254(2):113–6
Increase in fiber density for immunoreactive serotonin, substance P, enkephalin and thyrotropin–releasing hormone occurs during the early presymptomatic period of motoneuron disease in Wobbler mouse spinal cord ventral horn. Bose P, et al. **Neurosci Lett** 1999 Feb 5;260(3):196–200
5–HT1B antagonists modulate clearance of extracellular serotonin in rat hippocampus. Daws LC, et al. **Neurosci Lett** 1999 May 14;266(3):165–8
1–Trichloromethyl–1,2,3,4–tetrahydro–beta–carboline increases extracellular serotonin and stimulates hydroxyl radical production in rats. Gerlach M, et al. **Neurosci Lett** 1998 Nov 20;257(1):17–20
Hyperforin enhances the extracellular concentrations of catecholamines, serotonin and glutamate in the rat locus coeruleus. Kaehler ST, et al. **Neurosci Lett** 1999 Mar 12; 262(3):199–202
Serotonin levels are abnormally elevated in the fetus of the monoamine oxidase–A–deficient transgenic mouse. Lajard AM, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):41–4
In Syrian hamsters, 5–HT fibres within the suprachiasmatic nuclei are necessary for the expression of 8–OH–DPAT induced phase–advance of locomotor activity rhythm. Schuhler S, et al. **Neurosci Lett** 1998 Oct 30;256(1):33–6
Postnatal development of dopamine and serotonin transporters in rat caudate–putamen and nucleus accumbens septi. Tarazi FI, et al. **Neurosci Lett** 1998 Sep 18;254(1):21–4
Effects of gonadal steroids on the serotonin synthesis and metabolism in the early developing tilapia brain. Tsai CL, et al. **Neurosci Lett** 1999 Apr 2;264(1–3):45–8
Chronic amitriptyline administration increases serotonin transporter binding sites in the hippocampus of aged rats. Yau JL, et al. **Neurosci Lett** 1999 Feb 19;261(3):183–5
Nitric oxide transforms serotonin into an inactive form and this affects neuromodulation. Fossier P, et al. **Neuroscience** 1999;93(2):597–603
Serotonergic and GABAergic neurons in the medial rostral ventral medulla express kappa–opioid receptor immunoreactivity. Kalyuzhny AE, et al. **Neuroscience** 1999 Apr;90(1):229–34

Intraregional variation in expression of serotonin transporter messenger RNA by 5-hydroxytryptamine neurons. Rattray M, et al. **Neuroscience** 1999 Jan;88(1):169-83

Serotonin hyperinnervation in the adult rat ventral mesencephalon following unilateral transection of the medial forebrain bundle. Correlation with reactive microglial and astroglial populations. Revuelta M, et al. **Neuroscience** 1999;91(2):567-77

Monoaminergic-cholinergic interactions in the primate basal forebrain. Smiley JF, et al. **Neuroscience** 1999;93(3):817-29

Variations of nucleus accumbens dopamine and serotonin following systemic interleukin-1, interleukin-2 or interleukin-6 treatment. Song C, et al. **Neuroscience** 1999; 88(3):823-36

Serotonin and acetylcholine release response in the rat hippocampus during a spatial memory task. Stancampiano R, et al. **Neuroscience** 1999;89(4):1135-43

Galanin-5-hydroxytryptamine interactions: electrophysiological, immunohistochemical and in situ hybridization studies on rat dorsal raphe neurons with a note on galanin R1 and R2 receptors. Xu ZQ, et al. **Neuroscience** 1998 Nov;87(1):79-94

Enhancement of cocaine-induced hyperthermia fails to elicit neurotoxicity. Cappon GD, et al. **Neurotoxicol Teratol** 1998 Sep-Oct;20(5):531-5

Methamphetamine-induced dopamine and serotonin reductions in neostriatum are not gender specific in rats with comparable hyperthermic responses. Fukumura M, et al. **Neurotoxicol Teratol** 1998 Jul-Aug;20(4):441-8

Animal models for studying serotonin (5-HT) receptor subtypes: relationship to 5-HT system pathologies. Ogren SO, et al. **Nucl Med Biol** 1998 Nov;25(8):747-9

Effects of carotid sinus nerve transection on changes in neuropeptide Y and indolamines induced by long-term hypoxia in rats. Poncet L, et al. **Pflugers Arch** 1998 Dec; 437(1):130-8

Genetic contribution to pathological gambling: possible association between a functional DNA polymorphism at the serotonin transporter gene (5-HTT) and affected men. Pérez de Castro I, et al. **Pharmacogenetics** 1999 Jun; 9(3):397-400

Ceruletide inhibits phencyclidine-induced dopamine and serotonin release in rat prefrontal cortex. Etou K, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):427-34

Effect of 3,4-methylenedioxymethamphetamine (MDMA) on hippocampal dopamine and serotonin. Shankaran M, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):361-6

Interleukin-1alpha injection into ventromedial hypothalamic nucleus of normal rats depresses food intake and increases release of dopamine and serotonin. Yang ZJ, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):61-5

Infusion of nicotine into the LHA enhances dopamine and 5-HT release and suppresses food intake. Yang ZJ, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):155-9

Autoregulation of serotonin neurons: role in antidepressant drug action. Piñeyro G, et al. **Pharmacol Rev** 1999 Sep; 51(3):533-91 (787 ref.)

5-Hydroxytryptamine2-family receptors (5-hydroxytryptamine2A, 5-hydroxytryptamine2B, 5-hydroxytryptamine2C): where structure meets function. Roth BL, et al. **Pharmacol Ther** 1998 Sep;79(3):231-57 (258 ref.)

Determination, using microdialysis, of hypothalamic serotonin variations in response to different macronutrients. Rouch C, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):653-7

Effects of age and ethanol on dopamine and serotonin release in the rat nucleus accumbens. Yoshimoto K, et al. **Physiol Behav** 1998 Jun 1;64(3):347-51

Changes in the pituitary metabolism of monoamines (dopamine, norepinephrine, and serotonin) in female and male rainbow trout (Oncorhynchus mykiss) during gonadal recrudescence. Hernandez-Rauda R, et al. **Physiol Biochem Zool** 1999 May-Jun;72(3):352-9

Interstitial adenosine and serotonin in the feline lumbar spinal cord during short-term ischaemia. Kolenda H, et al. **Physiol Res** 1997;46(4):295-302

Serotonin in migraine: theories, animal models and emerging therapies. Johnson KW, et al. **Prog Drug Res** 1998; 51:219-44 (123 ref.)

Effects of mesulergine treatment on diet selection, brain serotonin (5-HT) and dopamine (DA) turnover in free feeding rats. Giannakopoulos G, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):803-13

Neurotoxic effects of amphetamine plus L-DOPA. Myers CS, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May;23(4):731-40

Characteristics of agonist displacement of [3H]ketanserin binding to platelet 5-HT2A receptors: implications for psychiatric research. Gurguis GN, et al. **Psychiatry Res** 1998 Sep 21;80(3):227-38

Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9-28

Serotonin transporter gene not associated with psychotic symptomatology of mood disorders. Serretti A, et al. **Psychiatry Res** 1999 Apr 19;86(1):59-65

Peripheral hormonal responses to D-fenfluramine as a probe of central serotonergic function in humans. Abel KM, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):68-72

Ca2+ dependency of serotonin and dopamine release from CNS slices of chronically isolated rats. Jaffe EH. **Psychopharmacology (Berl)** 1998 Oct;139(3):255-60

Effect of central 5-hydroxytryptamine depletion on tolerance of delay of reinforcement: evidence from performance in a discrete-trials "time-left" procedure. Al-Ruwaitea AS, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):22-9

Granisetron, a 5-HT3 receptor antagonist, inhibited cisplatin-induced 5-hydroxytryptamine release in the isolated ileum of ferrets. Endo T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jun;100(3):243-53

Phosphorylation and sequestration of serotonin transporters differentially modulated by psychostimulants. Ramamoorthy S, et al. **Science** 1999 Jul 30;285(5428):763-6

The effect of repeated exposure to forced swimming on extracellular levels of 5-hydroxytryptamine in the rat. Kirby LG, et al. **Stress** 1998 Dec;2(4):251-63

Local treatments of dorsal raphe nucleus induce changes in serotonergic activity in rat major cerebral arteries. Marco EJ, et al. **Stroke** 1999 Aug;30(8):1695-701

Venlafaxine: discrepancy between in vivo 5-HT and NE reuptake blockade and affinity for reuptake sites. Béïque JC, et al. **Synapse** 1999 Jun 1;32(3):198-211

Microdialysis study of the effects of the antiparkinsonian drug budipine on L-DOPA-induced release of dopamine and 5-hydroxytryptamine by rat substantia nigra and corpus striatum. Biggs CS, et al. **Synapse** 1999 Oct;34(1):36-46

Effects of 5,7-dihydroxytryptamine depletion of tissue serotonin levels on extracellular serotonin in the striatum assessed with in vivo microdialysis: relationship to behavior. Hall FS, et al. **Synapse** 1999 Jul;33(1):16-25

Origin of the serotonergic innervation to the rat dorsolateral hypothalamus: retrograde transport of cholera toxin and upregulation of tryptophan hydroxylase mRNA expression following selective nerve terminals lesion. Ljubic-Thibal V, et al. **Synapse** 1999 Jun 1;32(3):177-86

Corticosterone regulation of serotonin transporter and 5-HT1A receptor expression in the aging brain. Maines LW, et al. **Synapse** 1999 Apr;32(1):58-66

Comparative in vivo study of iodine-123-labeled beta-CIT and nor-beta-CIT binding to serotonin transporters in rat brain. Reneman L, et al. **Synapse** 1999 Oct;34(1):77-80

Discovery of novel peptidic dopamine transporter ligands by screening a positional scanning combinatorial hexapeptide library. Rothman RB, et al. **Synapse** 1999 Sep 1;33(3):239-46

Is phentermine an inhibitor of monoamine oxidase? A critical appraisal [letter] [retracted by Rothman RB. In: Synapse 1999 Jul;33(1):81; discussion 82] Rothman RB. **Synapse** 1999 May;32(2):141-5.

Effects of antihistamines on fenfluramine-induced depletion of indoles in the brain of rats. Yeh SY. **Synapse** 1999 Jun 15;32(4):301-11

Polychlorinated biphenyls (PCBs) selectively disrupt serotonergic cell growth in the developing Spisula embryo. Smith CR, et al. **Toxicol Sci** 1999 Jul;50(1):54-63

Increased serotonin in the developing superior colliculus affects receptive-field size of retinotectal afferents but not that of postsynaptic neurons. Ke M, et al. **Vis Neurosci** 1999 Jan-Feb;16(1):121-30

[Effect of dorsal raphe nucleus stimulation on unit discharges of light-sensitive neurons of suprachiasmatic nucleus in rats] Yu GD, et al. **Sheng Li Hsueh Pao** 1997 Jun; 49(3):314-20 (Eng. Abstr.) **(Chi)**

[Homozygote mice deficient in serotonin 5-HT1B receptor and antidepressant effect of selective serotonin reuptake inhibitors] Trillat AC, et al. **C R Seances Soc Biol Fil** 1998; 192(6):1139-47 (Eng. Abstr.) **(Fre)**

[Effect of fluoxetine treatment on serotonin and MHPG in 32 patients with major depressive disorder] Bourdeaux R, et al. **Encephale** 1999 Jan-Feb;25(1):37-43 (Eng. Abstr.) **(Fre)**

[Evaluation of dopamine and serotonin turnover induced by some intravenous anesthetics] Amantea B, et al. **Minerva Anestesiol** 1981 Jul;47(7):405-8 **(Ita)**

[Aggregation and 3H-serotonin release from thrombocytes stimulated by serotonin in patients with migraine] Pukhal'skaia TG, et al. **Biull Eksp Biol Med** 1998 Aug; 126(8):156-9 **(Rus)**

[Activation of serotoninergic neurons by metabolic precursors of serotonin: increase in frequency and duration of action potentials] Chistopol'skiĭ IA, et al. **Dokl Akad Nauk** 1998 Oct;362(4):561-3 **(Rus)**

[Effect of water deprivation on serotonin metabolism in rat brain] Naumenko KS, et al. **Dokl Akad Nauk** 1999 Mar; 365(3):413-5 **(Rus)**

[The role and place of central mediators and peptide bioregulators in the pathogenesis of emotional disorders in neurotic patients] Maruta NA. **Lik Sprava** 1998 Oct-Nov;(7):82-5 (Eng. Abstr.) **(Rus)**

[Interaction central GABA-B receptors with serotoninergic brain system during regulation of the hypothalamo-hypophyseal-testicular axis by the negative feedback mechanism in rats] Amikishieva AV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May-Jun; 84(5-6):474-9 (Eng. Abstr.) **(Rus)**

PHARMACOKINETICS

Regulation of the platelet serotonin transporter by protein kinase C in the young and elderly. Marazziti D, et al. **Biol Psychiatry** 1999 Feb 15;45(4):443-7

Lamotrigine inhibits monoamine uptake in vitro and modulates 5-hydroxytryptamine uptake in rats. Southam E, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):19-24

Transmembrane domain I contributes to the permeation pathway for serotonin and ions in the serotonin transporter. Barker EL, et al. **J Neurosci** 1999 Jun 15;19(12):4705-17

Serotonin uptake stimulating peptide found in plasma of normal individuals and in some autistic urines. Pedersen OS, et al. **J Pept Res** 1999 Jun;53(6):641-6

Suicidal behavior in depression: relationship to platelet serotonin transporter. Roy A. **Neuropsychobiology** 1999; 39(2):71-5

PHARMACOLOGY

In vitro perfusion studies of single umbilical artery cords: the vasoactive effects of serotonin. Haugen G, et al. **Acta Obstet Gynecol Scand** 1999 Apr;78(4):285-9

Differential effects of methanol on rat aortic smooth muscle. Li W, et al. **Alcohol** 1998 Oct;16(3):221-9

Comparison of response to serotonin of radial artery grafts and internal mammary grafts to native coronary arteries and the effect of diltiazem. Sperti G, et al. **Am J Cardiol** 1999 Feb 15;83(4):592-6, A8

Reactivities to serotonin and histamine in umbilical and placental vessels during the third trimester after normotensive pregnancies and pregnancies complicated by preeclampsia. Bertrand C, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):650-9

5-HT is present in nerves of guinea pig sphincter of Oddi and depolarizes sphincter of Oddi neurons. Hillsley K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1018-27

5-HT activates nitric oxide-generating neurons to stimulate chloride secretion in guinea pig distal colon. Kuwahara A, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G829-34

Serotonin stimulates mitogen-activated protein kinase activity through the formation of superoxide anion. Lee SL, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):L282-91

Multiple receptor subtypes mediate the effects of serotonin on rat subfornical organ neurons. Scrogin KE, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R2035-42

The antinociceptive effects of morphine, desipramine, and serotonin and their combinations after intrathecal injection in the rat [published erratum appears in Anesth Analg 1999 Jun;88(6):1231] Reimann W, et al. **Anesth Analg** 1999 Jan; 88(1):141-5

Operational studies of synergistic interactions with 5-HT1B/1D receptors. Martin GR, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:251-2

Pharmacological characterization of the "silent" 5-HT1B-like receptors of rabbit ear artery. Movahedi H, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:258

5-HT receptors in rat jugular vein: information from RT-PCR and operational studies. Pulido-Rios TM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:260-1

Neurons of the bed nucleus of the stria terminalis (BNST). Electrophysiological properties and their response to serotonin. Rainnie DG. **Ann N Y Acad Sci** 1999 Jun 29; 877:695-9

Imidazoline-induced inhibition of firing rate of 5-HT neurons in rat dorsal raphe by modulation of extracellular 5-HT levels. Ugedo L, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:365-8

Characterization of 5-HT- and ionomycin-stimulated changes in levels of intracellular calcium and PI hydrolysis in P11 cells. Wohlpart KL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:240-1

Effect of 5-hydroxytryptamine infusion on microcirculation in the rabbit masseter muscle measured by laser-Doppler flowmetry. Kurita H, et al. **Arch Oral Biol** 1999 May; 44(5):377-82

Effect of 5-hydroxytryptamine-2 and alpha-adrenergic receptor antagonists on the 5-hydroxytryptamine-induced decrease in rabbit masseter muscle blood flow. Kurita H, et al. **Arch Oral Biol** 1999 Aug;44(8):651-6

Regulation by serotonin of tooth-germ morphogenesis and gene expression in mouse mandibular explant cultures. Moiseiwitsch JR, et al. **Arch Oral Biol** 1998 Oct; 43(10):789-800

Serotonin fails to induce proliferation of endothelial cells preloaded with eicosapentaenoic acid and docosahexaenoic acid. Pakala R, et al. **Atherosclerosis** 1999 Jul;145(1):137-46

Behavioural pharmacology of dopamine, serotonin and putative aminergic ligands in the mushroom bodies of the honeybee (Apis mellifera). Blenau W, et al. **Behav Brain Res** 1998 Nov;96(1-2):115-24

Serotonin-induced platelet intracellular Ca2+ responses in untreated depressed patients and imipramine responders in remission. Tomiyoshi R, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1042-8

Comparative desensitization of the human 5-HT2A and 5-HT2C receptors expressed in the human neuroblastoma cell line SH-SY5Y. Briddon SJ, et al. **Br J Pharmacol** 1998 Oct;125(4):727-34

Involvement of 5-HT1B receptors in collar-induced hypersensitivity to 5-hydroxytryptamine of the rabbit carotid artery. Geerts IS, et al. **Br J Pharmacol** 1999 Jul; 127(6):1327-36

5-hydroxytryptamine stimulation of phospholipase D activity in the rabbit isolated mesenteric artery. Hinton JM, et al. **Br J Pharmacol** 1999 Apr;126(7):1601-8

Characterization of the 5-hydroxytryptamine receptors mediating contraction in the intestine of Suncus murinus. Javid FA, et al. **Br J Pharmacol** 1999 Aug;127(8):1867-75

Serotonin, via 5-HT2A receptors, increases EPSCs in layer V pyramidal cells of prefrontal cortex by an asynchronous mode of glutamate release. Aghajanian GK, et al. **Brain Res** 1999 Apr 17;825(1-2):161-71

5-HT agonist-induced phase-advances of the circadian pacemaker are diminished by chronic antidepressant drug treatment. Duncan WC Jr, et al. **Brain Res** 1999 Jan 2; 815(1):126-30

Actions of 5-HT on human neocortical neurones in vitro. Newberry NR, et al. **Brain Res** 1999 Jun 26;833(1):93-100

Effects of postmortem delay on serotonin and (+)8-OH-DPAT-mediated inhibition of adenylyl cyclase activity in rat and human brain tissues [published erratum appears in Brain Res 1999 Apr 24;826(1):155] Palego L, et al. **Brain Res** 1999 Jan 16;816(1):165-74

5-HT4 receptor involvement in the serotonin-enhanced dopamine efflux from the substantia nigra of the freely moving rat: a microdialysis study. Thorré K, et al. **Brain Res** 1998 Jun 15;796(1-2):117-24

Effect of 5-hydroxytryptamine and pineal metabolites on the secretion of neurohypophysial hormones. Kostoglou-Athanassiou I, et al. **Brain Res Bull** 1998 Jul 15;46(5):417-22

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125-34

5-Hydroxytryptamine inhibits P2X2 receptor channel pore mutants. Nakazawa K, et al. **Cell Mol Neurobiol** 1999 Oct; 19(5):665-9

Serotonin-stimulated calcium responses in human platelets: assay buffer dependency. Fowler CJ, et al. **Cell Signal** 1998 Sep;10(8):561-8

Dissociation of intracellular Ca2+ release and Ca2+ entry response to 5-hydroxytryptamine in cultured canine tracheal smooth muscle cells. Yang CM. **Cell Signal** 1998 Nov;10(10):735-42

Dual effects of 5-hydroxytryptamine on stable analogue of thromboxane A2-induced aggregation and release reaction in rabbit platelets. Li BY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):171-4

Enhancement of ADP-induced aggregation by 5-HT in rabbit platelets. Li BY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):58-62

Induction of serotonin transporter by hypoxia in pulmonary vascular smooth muscle cells. Relationship with the mitogenic action of serotonin. Eddahibi S, et al. **Circ Res** 1999 Feb 19;84(3):329-36

Serotonin stimulation of calcium mobilisation in human platelets: choice of units of measurement, effects of age and tobacco use, and correlation with serotonin2A receptor density. Fowler CJ, et al. **Clin Chim Acta** 1999 Sep; 287(1-2):1-18

Concentration-dependent stimulation of intestinal phase III of migrating motor complex by circulating serotonin in humans. Lördal M, et al. **Clin Sci (Colch)** 1998 Jun; 94(6):663-70

Increased reactivity to 5-hydroxytryptamine of portal veins from mice infected with Schistosoma mansoni. Silva CL, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jul;120(3):417-23

Serotonin receptor agonists that increase cyclic AMP positively regulate IGF-I in mouse mandibular mesenchymal cells. Lambert HW, et al. **Dev Neurosci** 1999; 21(2):105-12

Mesenteric afferent sensitivity to cholecystokinin and 5-hydroxytryptamine. Grundy D, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):466-8

Serotoninergic modulation of cell volume response to estramustine: an image-analysis study on perifused individual glioma cells. Behnam-Motlagh P, et al. **Eur J Cancer** 1999 Jan;35(1):145-53

A pre- and postsynaptic modulatory action of 5-HT and the 5-HT2A, 2C receptor agonist DOB on NMDA-evoked responses in the rat medial prefrontal cortex. Arvanov VL, et al. **Eur J Neurosci** 1999 Aug;11(8):2917-34

Serotonin depresses excitatory synaptic transmission and depolarization-evoked Ca2+ influx in rat basolateral amygdala via 5-HT1A receptors. Cheng LL, et al. **Eur J Neurosci** 1998 Jun;10(6):2163-72

The serotonin inhibition of high-voltage-activated calcium currents is relieved by action potential-like depolarizations in dissociated cholinergic nucleus basalis neurons of the guinea-pig. Williams S, et al. **Eur J Neurosci** 1998 Oct; 10(10):3291-4

The response of rat colonic mucosa to 5-hydroxytryptamine in health and following restraint stress. Goldhill J, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):289-96

Decreased protein kinase C activation mediates inhibitory effect of norathyriol on serotonin-mediated endothelial permeability. Lee HZ, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):303-13

Supersensitivity to serotonin- and histamine-induced arterial contraction following ovariectomy. Ma L, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):191-200

Block by 5-hydroxytryptamine and apomorphine of recombinant human neuronal nicotinic receptors. Nakazawa K, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):293-9

5-HT3 receptors are not involved in conditioned taste aversions induced by 5-hydroxytryptamine, ipecacuanha or cisplatin. Rudd JA, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):143-9

ADP, adrenaline and serotonin stimulate inositol 1,4,5-trisphosphate production in human platelets. Vanags DM, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):93-100

The platelet intracellular calcium response to serotonin and thrombin in patients with panic disorder. Plein H, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):107-10

In vitro modulation of primate coronary vascular muscle cell reactivity by ovarian steroid hormones. Minshall RD, et al. **FASEB J** 1998 Oct;12(13):1419-29

The pulmonary neuroendocrine system and drainage of the fetal lung: effects of serotonin. Chua BA, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):374-87

Serotonergic stimulation of avian prolactin secretion requires an intact dopaminergic system. Youngren OM, et al. **Gen Comp Endocrinol** 1998 Oct;112(1):63-8

Serotonin induces four pharmacologically separable contractile responses in the pharynx of the leech Hirudo medicinalis. O'Gara BA, et al. **Gen Pharmacol** 1999 Jun; 32(6):669-81

Acceleration of widespread adenoviral gene transfer to intact rabbit hearts by coronary perfusion with low calcium and serotonin. Donahue JK, et al. **Gene Ther** 1998 May; 5(5):630-4

Endothelium-derived prostanoids reduce 5-hydroxytryptamine-induced contraction in the human uterine artery. Karlsson C, et al. **Hum Reprod** 1998 Jul; 13(7):1947-51

The platelet intracellular calcium response to serotonin in subsyndromal depression. Berk M, et al. **Int Clin Psychopharmacol** 1998 May;13(3):107-10

Serotonergic function after (+/-)3,4-methylene-dioxymethamphetamine ('Ecstasy') in humans. Gerra G, et al. **Int Clin Psychopharmacol** 1998 Jan;13(1):1-9

Biphasic responses of equine colonic vessel rings to vasoactive inflammatory mediators. Venugopalan CS, et al. **J Auton Pharmacol** 1998 Aug;18(4):231-7

Serotonin derivative, N-(p-Coumaroyl)serotonin, isolated from safflower (Carthamus tinctorius L.) oil cake augments the proliferation of normal human and mouse fibroblasts in synergy with basic fibroblast growth factor (bFGF) or epidermal growth factor (EGF). Takii T, et al. **J Biochem (Tokyo)** 1999 May;125(5):910-5

Influence of galanin and serotonin on the endocrine response to Hexarelin, a synthetic peptidyl GH-secretagogue, in normal women. Arvat E, et al. **J Endocrinol Invest** 1998 Nov;21(10):673-9

The anterior and posterior 'stomach' regions of larval Aedes aegypti midgut: regional specialization of ion transport and stimulation by 5-hydroxytryptamine. Clark TM, et al. **J Exp Biol** 1999 Feb;202 (Pt 3):247-52

Depression and anxiety in Parkinson's disease: possible effect of genetic variation in the serotonin transporter. Menza MA, et al. **J Geriatr Psychiatry Neurol** 1999 Summer; 12(2):49-52

Aromatic alcohols as neuroprotectants. Uhr M, et al. **J Neural Transm Suppl** 1998;54:287-94

Adrenocorticotropic hormone secretion in rats induced by stimulation with serotonergic compounds. hsj@mfi.ku.dk. Jørgensen H, et al. **J Neuroendocrinol** 1999 Apr; 11(4):283-90

5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53-60

Recovery of locomotion after ventral and ventrolateral spinal lesions in the cat. II. Effects of noradrenergic and serotoninergic drugs. Brustein E, et al. **J Neurophysiol** 1999 Apr;81(4):1513-30

Protein synthesis-dependent and mRNA synthesis-independent intermediate phase of memory in Hermissenda. Crow T, et al. **J Neurophysiol** 1999 Jul; 82(1):495-500

5-Hydroxytryptamine responses in immature rat rostral ventrolateral medulla neurons in vitro. Hwang LL, et al. **J Neurophysiol** 1998 Sep;80(3):1033-41

Serotonin modulates glutamate responses in isolated suprachiasmatic nucleus neurons. Quintero JE, et al. **J Neurophysiol** 1999 Aug;82(2):533-9

Serotonin modulates spike backpropagation and associated [Ca2+]i changes in the apical dendrites of hippocampal CA1 pyramidal neurons. Sandler VM, et al. **J Neurophysiol** 1999 Jan;81(1):216-24

Serotonin reduces polysynaptic inhibition via 5-HT1A receptors in the superficial entorhinal cortex. Schmitz D, et al. **J Neurophysiol** 1998 Sep;80(3):1116-21

Serotonin differentially modulates responses to tones and frequency-modulated sweeps in the inferior colliculus. Hurley LM, et al. **J Neurosci** 1999 Sep 15;19(18):8071-82

Serotonin enhances central olfactory neuron responses to female sex pheromone in the male sphinx moth manduca sexta. Kloppenburg P, et al. **J Neurosci** 1999 Oct 1; 19(19):8172-81

Neurotransmitter activation of inwardly rectifying potassium current in dissociated hippocampal CA3 neurons: interactions among multiple receptors. Sodickson DL, et al. **J Neurosci** 1998 Oct 15;18(20):8153-62

Developmental dissociation of serotonin-induced spike broadening and synaptic facilitation in Aplysia sensory neurons. Stark LL, et al. **J Neurosci** 1999 Jan 1;19(1):334-46

Serotonin-induced activation of the network for locomotion in adult spinal rats. Feraboli-Lohnherr D, et al. **J Neurosci Res** 1999 Jan 1;55(1):87-98

The action of 5-hydroxytryptamine on normal and cystic fibrosis mouse colon: effects on secretion and intracellular calcium. Hardcastle J, et al. **J Pharm Pharmacol** 1999 Apr; 51(4):449-56

Electrochemical detection of nitric oxide production in perfused pig coronary artery: comparison of the performances of two electrochemical sensors. Villeneuve N, et al. **J Pharmacol Toxicol Methods** 1998 Aug; 40(2):95-100

Serotonergic modulation of hyperpolarization-activated current in acutely isolated rat dorsal root ganglion neurons. Cardenas CG, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):507-23

Involvement of protein kinase C in 5-HT-stimulated ciliary activity in Helisoma trivolvis embryos. Christopher KJ, et al. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):511-22

5-HT modulates multiple conductances in immature rat rostral ventrolateral medulla neurones in vitro. Hwang LL, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):217-28

Presynaptic serotonergic inhibition of GABAergic synaptic transmission in mechanically dissociated rat basolateral amygdala neurons. Koyama S, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):525-38

Serotonin unmasks functional NK-2 receptors in vagal sensory neurones of the guinea-pig. Moore KA, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):111-24

Influences of endothelium on the time course of noradrenaline-, 5-HT-, prostaglandin F2alpha- and high-K+-induced contractions in aortae of WKY and SHRSP. Matsuda K, et al. **J Smooth Muscle Res** 1998 Oct-Dec;34(5-6):207-19

Endothelium-independent relaxant effect of 5-hydroxytryptamine (5-HT) on the isolated rabbit facial vein. Tsuru H, et al. **J Smooth Muscle Res** 1998 Jun; 34(3):101-10

Contractile potentiation by endothelin-1 involves protein kinase C-delta activity in the porcine coronary artery. Obara K, et al. **Jpn J Physiol** 1999 Apr;49(2):175-83

Serotonin enhances the production of type IV collagen by human mesangial cells. Kasho M, et al. **Kidney Int** 1998 Oct;54(4):1083-92

Effects of 5-hydroxytryptamine on neuronal activities in the rat dorsolateral septal nucleus [published erratum appears in Karume Med J 1999;46(1):following 90] Goto M. **Kurume Med J** 1998;45(4):301-12

Differential induction of long-term synaptic facilitation by spaced and massed applications of serotonin at sensory neuron synapses of Aplysia californica. Mauelshagen J, et al. **Learn Mem** 1998 Jul-Aug;5(3):246-56

Serotonin, bradykinin and endothelin signalling in a sheep choroid plexus cell line. Albert O, et al. **Life Sci** 1999; 64(10):859-67

The androgenic effect of norethisterone and 5alpha-norethisterone on the contractile response of the rat vas deferens to methoxamine and serotonin. Campos MG, et al. **Life Sci** 1999;64(20):PL227-33

5-Hydroxytryptamine inhibits the tachycardia induced by selective preganglionic sympathetic stimulation in pithed rats. Villalón CM, et al. **Life Sci** 1999;64(20):1839-47

Portal veins of mice infected with Schistosoma mansoni exhibit an increased reactivity to 5-hydroxytryptamine. Silva CL, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:153-5

Serotonin-inducible transcription of interleukin-1alpha in uterine smooth muscle cells requires an AP-1 site: cloning and partial characterization of the rat IL-1alpha promoter. Huang TT, et al. **Mol Cell Endocrinol** 1999 Jun 25; 152(1-2):21-35

Structural specificity of serotonin effect on human erythrocyte fragility. Gilboa-Garber N, et al. **Mol Genet Metab** 1998 Aug;64(4):283-5

Ionic interactions in the Drosophila serotonin transporter identify it as a serotonin channel. Petersen CI, et al. **Nat Neurosci** 1999 Jul;2(7):605-10

Regulation of glial Na+/K+-ATPase by serotonin: identification of participating receptors. Peña-Rangel MT, et al. **Neurochem Res** 1999 May;24(5):643-9

Direct action of serotonin on prolactin, growth hormone, corticotropin and luteinizing hormone release in cocultures of anterior and posterior pituitary lobes: autocrine and/or paracrine action of vasoactive intestinal peptide. Balsa JA, et al. **Neuroendocrinology** 1998 Nov;68(5):326-33

Serotonin stimulates migrating myoelectric complex via 5-HT3-receptors dependent on cholinergic pathways in rat small intestine. Lördal M, et al. **Neurogastroenterol Motil** 1999 Feb;11(1):1-10

Serotonin induces temporally and mechanistically distinct phases of persistent PKA activity in Aplysia sensory neurons. Müller U, et al. **Neuron** 1998 Dec;21(6):1423-34

Interactive effects of cholecystokinin-8S and serotonin on spontaneously active neurons in ventromedial hypothalamic slices. Heidel E, et al. **Neuropeptides** 1998 Oct;32(5):423-9

Effects of local application of 5-hydroxytryptamine into the dorsal or median raphe nuclei on haloperidol-induced catalepsy in the rat. Wadenberg ML, et al. **Neuropharmacology** 1999 Jan;38(1):151-6

Electromyographic effects of serotonin application into the lateral vestibular nucleus. Li Volsi G, et al. **Neuroreport** 1998 Aug 3;9(11):2539-43

Serotonin induces an increase in D-myo-inositol (1,4,5)-trisphosphate 3-kinase activity in rat brainstem slices. Collin T. **Neurosci Lett** 1998 Oct 16;255(2):67–70

Serotonin and cholecystokinin activate different populations of rat mesenteric vagal afferents. Hillsley K, et al. **Neurosci Lett** 1998 Oct 16;255(2):63–6

Dorsal facial area of cat medulla; 5-HT2 action on glutamate release in regulating common carotid blood flow. Kuo JS, et al. **Neurosci Lett** 1999 May 7;266(2):137–40

Serotonergic modulation of eye blinks in cat and monkey. LeDoux MS, et al. **Neurosci Lett** 1998 Aug 28;253(1):61–4

Serotonin depolarizes hippocampal interneurones in the rat stratum oriens by interaction with 5HT2 receptors. Lee K, et al. **Neurosci Lett** 1999 Jul 23;270(1):56–8

Serotonin increases cytoplasmic Ca2+ concentration in PC12h cells: effect of tachykinin peptides. Takenouchi T, et al. **Neurosci Lett** 1998 May 1;246(3):141–4

Inhibitory effects of 5-hydroxytryptamine microinjection into thalamic nucleus submedius on rat tail flick reflex are mediated by 5-HT2 receptors. Xiao DQ, et al. **Neurosci Lett** 1999 Jan 29;260(2):85–8

Development of the spatial pattern of 5-HT-induced locomotor rhythm in the lumbar spinal cord of rat fetuses in vitro. Iizuka M, et al. **Neurosci Res** 1998 Jun;31(2):107–11

5-Hydroxytryptamine and glutamate modulate velocity and extent of intercellular calcium signalling in hippocampal astroglial cells in primary cultures. Blomstrand F, et al. **Neuroscience** 1999;88(4):1241–53

Ionic mechanisms underlying excitatory effects of serotonin on embryonic rat motoneurons in long-term culture. Elliott P, et al. **Neuroscience** 1999;90(4):1311–23

Effects of serotonin on neurite outgrowth from thalamic neurons in vitro. Lieske V, et al. **Neuroscience** 1999 Mar; 90(3):967–74

5-Hydroxytryptamine-induced excitatory postsynaptic currents in neocortical layer V pyramidal cells: suppression by mu-opiate receptor activation. Marek GJ, et al. **Neuroscience** 1998 Sep;86(2):485–97

Experimental human muscle pain and muscular hyperalgesia induced by combinations of serotonin and bradykinin. Babenko V, et al. **Pain** 1999 Jul;82(1):1–8

5-hydroxytryptamine blocks the fetal more potently than the adult mouse muscle acetylcholine receptor. Grassi F. **Pflugers Arch** 1999 May;437(6):903–9

Pharmacological analysis of 5-hydroxytryptamine effects on human isolated ureter. Gidener S, et al. **Pharmacol Res** 1999 Jun;39(6):487–91

Serotonin-induced inhibition of locomotor rhythm of the rat isolated spinal cord is mediated by the 5-HT1 receptor class. Beato M, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 7;265(1410):2073–80

5-hydroxytryptamine evokes endothelial nitric oxide synthase activation in bovine aortic endothelial cell cultures. McDuffie JE, et al. **Proc Soc Exp Biol Med** 1999 Sep;221(4):386–90

Bradykinin and phorbol ester but not 5-HT2B receptor activation stimulate phospholipase D activity in the rat stomach fundus. Cox DA, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 May; 23(4):697–704

Serotonin inhibits the induction of long-term potentiation in rat primary visual cortex. Edagawa Y, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Aug; 22(6):983–97

Serotonin and carbachol induced suppression of synaptic responses in rat CA1 hippocampal area: effects of corticosteroid receptor activation in vivo. Karten YJ, et al. **Stress** 1998 Jul;2(3):183–200

Species differences in the responses of pulmonary vascular preparations to 5-hydroxytryptamine. Morcillo EJ, et al. **Therapie** 1999 Jan–Feb;54(1):93–7

Cardiovascular response to intravenous administration of 5-hydroxytryptamine after type-2 receptor blockade, by metrenperone, in healthy calves. Linden A, et al. **Vet J** 1999 Jan;157(1):31–7

[Effects of serotonin on the proliferation of pulmonary arterial smooth muscle cell under hypoxia] Liu J, et al. **Sheng Li Hsueh Pao** 1997 Jun;49(3):292–8 (Eng. Abstr.) **(Chi)**

[Effect of serotonin on unidirectional ion fluxes in rat intestine in vivo] Grishina O, et al. **Gastroenterol Clin Biol** 1998 Oct;22(10):792–800 (Eng. Abstr.) **(Fre)**

[New properties of heparin-serotonin complex] Kondashevskaia MV, et al. **Biull Eksp Biol Med** 1998 Oct; 126(10):425–7 **(Rus)**

[Serotonin both stimulates and inhibits sexual behavior of rats. New possibilities to understand the effects and side-effects of serotonergic drugs] Larsson K, et al. **Lakartidningen** 1999 Jun 9;96(23):2854–6 (22 ref.) **(Swe)**

[The modulating action of serotonin on single calcium channels in the neurons of the snail Helix pomatia] Luk'ianets' OO, et al. **Fiziol Zh** 1998;44(5–6):27–34 (Eng. Abstr.) **(Ukr)**

PHYSIOLOGY

Vulnerability to aging in the rat serotonergic system. Nishimura A, et al. **Acta Neuropathol (Berl)** 1998 Dec; 96(6):581–95

Anxiety and increased aggression as pacemakers of depression. van Praag HM. **Acta Psychiatr Scand Suppl** 1998;393:81–8 (57 ref.)

Dopamine, serotonin, and schizophrenia. van Veelen NM, et al. **Adv Neurol** 1999;80:425–9 (51 ref.)

The role of serotonin in craving: from basic research to human studies. Ciccocioppo R. **Alcohol Alcohol** 1999 Mar–Apr;34(2):244–53 (105 ref.)

Irritable bowel syndrome and the role of 5-HT. Proceedings of a roundtable meeting. New Orleans, Louisiana, USA. May 1998. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:1–82

Review article: roles played by 5-hydroxytryptamine in the physiology of the bowel. Gershon MD. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:15–30 (117 ref.)

Impairment of serotonin-mediated nitric oxide release across the coronary bed in patients with coronary spastic angina. Shimada T, et al. **Am J Cardiol** 1999 Mar 15;83(6):953–5, A9

5-HT is present in nerves of guinea pig sphincter of Oddi and depolarizes sphincter of Oddi neurons. Hillsley K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1018–27

Reduced central serotonin transporters in alcoholism. Heinz A, et al. **Am J Psychiatry** 1998 Nov;155(11):1544–9

Serotonin and the regulation of mammalian circadian rhythmicity. Morin LP. **Ann Med** 1999 Feb;31(1):12–33 (172 ref.)

Inhibition by propofol of 5-HT3 receptors in excised patches of NIE-115 cells. Barann M, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:278–9

Role of somatodendritic 5-HT autoreceptors in modulating 5-HT neurotransmission. Blier P, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:204–16 (51 ref.)

Mouse 5-HT2B receptor-mediated serotonin trophic functions. Choi DS, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:67–73 (20 ref.)

Galanin modulates 5-hydroxytryptamine functions. Focus on galanin and galanin fragment/5-hydroxytryptamine1A receptor interactions in the brain. Fuxe K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:274–90 (38 ref.)

Galanin in ascending systems. Focus on coexistence with 5-hydroxytryptamine and noradrenaline. Hökfelt T, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:252–63 (48 ref.)

Modulation of acetylcholine and serotonin transmission by galanin. Relationship to spatial and aversive learning. Ögren SO, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:342–63 (77 ref.)

Oleamide-induced modulation of 5-hydroxytryptamine receptor-mediated signaling. Thomas EA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:183–9

Imidazoline-induced inhibition of firing rate of 5-HT neurons in rat dorsal raphe by modulation of extracellular 5-HT levels. Ugedo L, et al. **Ann N Y Acad Sci** 1999 Jun 21; 881:365–8

Transplant-mediated locomotion is improved by selective serotonergic agonists. Yi DK, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:524–7

Alterations in serotonin activity and psychiatric symptoms after recovery from bulimia nervosa. Kaye WH, et al. **Arch Gen Psychiatry** 1998 Oct;55(10):927–35

Symptomatic relapse in bulimia nervosa following acute tryptophan depletion. Smith KA, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):171–6

Central serotonin depletion impairs both the acquisition and performance of a symmetrically reinforced go/no-go conditional visual discrimination. Harrison AA, et al. **Behav Brain Res** 1999 Apr;100(1–2):99–112

Behavioral disinhibition following basal forebrain excitotoxin lesions: alcohol consumption, defensive aggression, impulsivity and serotonin levels. Johansson AK, et al. **Behav Brain Res** 1999 Jul;102(1–2):17–29

Involvement of the serotonergic neuronal system in phencyclidine-induced place aversion in rats. Kitaichi K, et al. **Behav Brain Res** 1999 Aug;103(1):105–11

Serotonin and feedback effects of behavioral activity on circadian rhythms in mice. Mistlberger RE, et al. **Behav Brain Res** 1998 Nov;96(1–2):93–9

Forebrain serotonin depletion facilitates the acquisition and performance of a conditional visual discrimination task in rats. Ward BO, et al. **Behav Brain Res** 1999 Apr; 100(1–2):51–65

Neonatal monoaminergic depletion in mice (Mus musculus) improves performance of a novel odor discrimination task. Berger-Sweeney J, et al. **Behav Neurosci** 1998 Dec; 112(6):1318–26

Serotonin plays a permissive role in conditioned olfactory learning induced by norepinephrine in the neonate rat. Price TL, et al. **Behav Neurosci** 1998 Dec;112(6):1430–7

Alterations in serotonergic responsiveness during cocaine withdrawal in rats: similarities to major depression in humans. Baumann MH, et al. **Biol Psychiatry** 1998 Oct 1;44(7):578–91

Possible serotonergic mechanisms underlying the antidepressant and anti-obsessive-compulsive disorder responses. Blier P, et al. **Biol Psychiatry** 1998 Sep 1; 44(5):313–23 (61 ref.)

Serotonergic function in cocaine addicts: prolactin responses to sequential D,L-fenfluramine challenges. Buydens-Branchey L, et al. **Biol Psychiatry** 1999 May 15; 45(10):1300–6

Serotonin, a major player in the regulation of feeding and affect [editorial] Casper RC. **Biol Psychiatry** 1998 Nov 1; 44(9):795–7

Assessment of serotonergic function in major depression using d-fenfluramine: relation to clinical variables and antidepressant response. Cleare AJ, et al. **Biol Psychiatry** 1998 Oct 1;44(7):555–61

D-fenfluramine challenge in posttraumatic stress disorder. Davis LL, et al. **Biol Psychiatry** 1999 Apr 1;45(7):928–30

Serotonin: how much we have learned! So much to discover... [editorial] Greden JF. **Biol Psychiatry** 1998 Sep 1;44(5):309–12

Serotonin and neuropeptides in affiliative behaviors. Insel TR, et al. **Biol Psychiatry** 1998 Aug 1;44(3):207–19 (45 ref.)

Estrogen, serotonin, and mood disturbance: where is the therapeutic bridge? Joffe H, et al. **Biol Psychiatry** 1998 Nov 1;44(9):798–811 (125 ref.)

Serotonin neuronal function and selective serotonin reuptake inhibitor treatment in anorexia and bulimia nervosa. Kaye W, et al. **Biol Psychiatry** 1998 Nov 1;44(9):825–38 (152 ref.)

Hypothalamic serotonin in control of eating behavior, meal size, and body weight. Leibowitz SF, et al. **Biol Psychiatry** 1998 Nov 1;44(9):851–64 (166 ref.)

Serotonergic basis of antipsychotic drug effects in schizophrenia. Lieberman JA, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1099–117 (213 ref.)

The spectrum of behaviors influenced by serotonin. Lucki I. **Biol Psychiatry** 1998 Aug 1;44(3):151–62 (115 ref.)

Reduced brain serotonin transporter availability in major depression as measured by [123I]-2 beta-carbomethoxy-3 beta-(4-iodophenyl)tropane and single photon emission computed tomography [see comments] Malison RT, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1090–8. Comment in: Biol Psychiatry 1998 Dec 1;44(11):1077–8.

The role of in vivo neurotransmitter system imaging studies in understanding major depression [editorial; comment] Mann JJ. **Biol Psychiatry** 1998 Dec 1;44(11):1077–8. Comment on: Biol Psychiatry 1998 Dec 1;44(11):1090–8.

The electrophysiology of prefrontal serotonin systems: therapeutic implications for mood and psychosis. Marek GJ, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1118–27 (85 ref.)

Fenfluramine challenge test as a marker of serotonin activity in patients with Alzheimer's dementia and agitation. Mintzer J, et al. **Biol Psychiatry** 1998 Nov 1;44(9):918–21

A longitudinal study of neurobiological mechanisms in boys with attention-deficit hyperactivity disorder: preliminary findings. Pick LH, et al. **Biol Psychiatry** 1999 Feb 1; 45(3):371–3

Development of serotonergic neurons and their projections. Rubenstein JL. **Biol Psychiatry** 1998 Aug 1;44(3):145–50 (40 ref.)

Estrogen-serotonin interactions: implications for affective regulation. Rubinow DR, et al. **Biol Psychiatry** 1998 Nov 1;44(9):839–50 (137 ref.)

Social subordination stress, behavior, and central monoaminergic function in female cynomolgus monkeys. Shively CA. **Biol Psychiatry** 1998 Nov 1;44(9):882–91

Platelet [3H]paroxetine and [3H]lysergic acid diethylamide binding in seasonal affective disorder and the effect of bright light therapy. Smedh K, et al. **Biol Psychiatry** 1999 Feb 15;45(4):464–70

Imaging of the serotonergic system: interactions of neuroanatomical and functional abnormalities of depression. Staley JK, et al. **Biol Psychiatry** 1998 Oct 1; 44(7):534–49 (148 ref.)

Serotonin and schizophrenia [editorial] Tamminga CA. **Biol Psychiatry** 1998 Dec 1;44(11):1079–80

Effects of (-)-tertatolol, (-)-penbutolol and (+/-)-pindolol in combination with paroxetine on presynaptic 5-HT function: an in vivo microdialysis and electrophysiological study. Gartside SE, et al. **Br J Pharmacol** 1999 May; 127(1):145–52

Role of the medial prefrontal cortex in 5-HT1A receptor-induced inhibition of 5-HT neuronal activity in the rat. Hajós M, et al. **Br J Pharmacol** 1999 Apr; 126(8):1741–50

A comparison of the effects on central 5-HT function of sibutramine hydrochloride and other weight-modifying agents. Heal DJ, et al. **Br J Pharmacol** 1998 Sep; 125(2):301–8

Involvement of serotonin and calcium channels in the intestinal fluid secretion evoked by bile salt and cholera toxin. Peregrin AT, et al. **Br J Pharmacol** 1999 Jun; 127(4):887–94

Serotonin and panic. Bell CJ, et al. **Br J Psychiatry** 1998 Jun;172:465–71 (42 ref.)

Role of serotonin in obsessive-compulsive disorder. Baumgarten HG, et al. **Br J Psychiatry Suppl** 1998; (35):13–20 (73 ref.)

Role of serotonin in the immune system and in neuroimmune interactions. Mössner R, et al. **Brain Behav Immun** 1998 Dec;12(4):249–71 (135 ref.)

Serotonin-dependent maintenance of spatial performance and electroencephalography activation after cholinergic blockade: effects of serotonergic receptor antagonists. Dringenberg HC, et al. **Brain Res** 1999 Aug 7; 837(1–2):242–53

Serotonergic involvement in stress-induced ACTH release. Jørgensen H, et al. **Brain Res** 1998 Nov 16;811(1–2):10–20

Morphological relationship between serotonergic neurons and nitrergic neurons for electrolytes secretion in the submucous plexus of the guinea pig distal colon. Kadowaki M, et al. **Brain Res** 1999 Jun 12;831(1–2):288–91

Serotonin-immunoreactive neurones in the visual system of the praying mantis: an immunohistochemical, confocal laser scanning and electron microscopic study. Leitinger G, et

al. **Brain Res** 1999 Mar 27;823(1-2):11-23
Salt appetite: interaction of forebrain angiotensinergic and hindbrain serotonergic mechanisms. Menani JV, et al. **Brain Res** 1998 Aug 10;801(1-2):29-35
Melatonin inhibits in vitro serotonergic phase shifts of the suprachiasmatic circadian clock. Prosser RA. **Brain Res** 1999 Feb 13;818(2):408-13
Sepsis facilitates brain serotonin activity and impairs learning ability in rats. Shimizu I, et al. **Brain Res** 1999 May 29; 830(1):94-100
Synaptic density of the prefrontal cortex regulated by dopamine instead of serotonin in rats. Sugahara M, et al. **Brain Res** 1998 Dec 14;814(1-2):143-56
Volatile anesthetics directly activate baseline S K + channels in aplysia neurons. Winegar BD, et al. **Brain Res** 1998 Oct 5;807(1-2):255-62
Noradrenergic and serotonergic projections to the superior olive: potential for modulation of olivocochlear neurons. Woods CI, et al. **Brain Res** 1999 Jul 31;836(1-2):9-18
Raphe serotonergic neurons projecting to the olfactory bulb contain galanin or somatostatin but not neurotensin. Araneda S, et al. **Brain Res Bull** 1999 Jun;49(3):209-14
Effects of assisted feeding on Wobbler mouse motoneuron disease and on serotonergic and peptidergic sprouting in the cervical spinal ventral horn. Bose P, et al. **Brain Res Bull** 1999 Mar 1;48(4):429-39
Serotonin innervation of Lurcher mutant mice: basic data and manipulation with a combination of amantadine, thiamine and L-tryptophan. Le Marec N, et al. **Brain Res Bull** 1999 Jan 15;48(2):195-201
The study of genetic polymorphisms related to serotonin in Alzheimer's disease: a new perspective in a heterogenic disorder. Oliveira JR, et al. **Braz J Med Biol Res** 1999 Apr;32(4):463-7 (40 ref.)
Role of peripheral serotonin in the regulation of central sleep apneas in rats. Carley DW, et al. **Chest** 1999 May; 115(5):1397-401
Is sleeping sickness a circadian disorder? The serotonergic hypothesis. Buguet A. **Chronobiol Int** 1999 Jul;16(4):477-89
Effects of 5-HT released from platelets on thrombin-induced aggregation and ATP release in rabbit platelets in vitro. Li BY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul; 19(4):383-6
Central serotonergic responsiveness in neurocardiogenic syncope: a clomipramine test challenge. Theodorakis GN, et al. **Circulation** 1998 Dec 15;98(24):2724-30
Gender differences and endothelium- and platelet-derived factors in the coronary circulation. Miller VM, et al. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):132-6
Effects of carbamazepine on hippocampal serotonergic system. Okada M, et al. **Epilepsy Res** 1998 Aug; 31(3):187-98
Biphasic effects of zonisamide on serotonergic system in rat hippocampus. Okada M, et al. **Epilepsy Res** 1999 Apr; 34(2-3):187-97
Cisplatin impairs fluid and electrolyte absorption in rat small intestine: a role for 5-hydroxytryptamine. Bearcroft CP, et al. **Gut** 1999 Feb;44(2):174-9
The role of serotonin in panic, anxiety and depression. Deakin JF. **Int Clin Psychopharmacol** 1998 Apr;13 Suppl 4:S1-5 (19 ref.)
Noradrenaline and serotonin in depression: consensus and controversies. Racagni G. **Int Clin Psychopharmacol** 1999 May;14 Suppl 1:S1
Physiology to functionality: the brain and neurotransmitter activity. Racagni G, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 1:S3-7 (22 ref.)
Serotonergic neuronal atrophy with synaptic inactivation, not axonal degeneration, are the main hallmarks of multiple sclerosis. Sandyk R. **Int J Neurosci** 1998 Jul;95(1-2):133-40 (58 ref.)
Excitatory amino acids and serotonin uptake blockers reveal two physiologically distinct serotonin systems in the retina of the skate, Raja erinacea. Schuette E, et al. **Int J Neurosci** 1998 Jul;95(1-2):115-32
Acute and long-term actions of the antidepressant drug mirtazapine on central 5-HT neurotransmission. Haddjeri N, et al. **J Affect Disord** 1998 Dec;51(3):255-66
Possible role of serotonin in Merkel-like basal cells of the taste buds of the frog, Rana nigromaculata. Hamasaki K, et al. **J Anat** 1998 Nov;193 (Pt 4):599-610
Functional evaluation of 5-hydroxytryptamine receptor activity in rat resistance vessels. Potenza MA, et al. **J Auton Pharmacol** 1998 Apr;18(2):75-81
Serotonin (5-Hydroxytryptamine), a novel regulator of glucose transport in rat skeletal muscle. Hajduch E, et al. **J Biol Chem** 1999 May 7;274(19):13563-8
Destruction of serotonergic neurons in the median raphe nucleus blocks circadian rhythm phase shifts to triazolam but not to novel wheel access. Meyer-Bernstein EL, et al. **J Biol Rhythms** 1998 Dec;13(6):494-505
Thermal response to serotonergic challenge and aggression in attention deficit hyperactivity disorder children. Donovan AM, et al. **J Child Adolesc Psychopharmacol** 1999; 9(2):85-91
Monoamine dysfunction and the pathophysiology and treatment of depression. Charney DS. **J Clin Psychiatry** 1998;59 Suppl 14:11-4 (22 ref.)
The neurobiology of suicide risk: a review for the clinician. **Mann JJ**, et al. **J Clin Psychiatry** 1999;60 Suppl 2:7-11; discussion 18-20, 113-6 (50 ref.)
Brain serotonin neurotransmission: an overview and update with an emphasis on serotonin subsystem heterogeneity, multiple receptors, interactions with other neurotransmitter systems, and consequent implications for understanding the actions of serotonergic drugs. Murphy DL, et al. **J Clin Psychiatry** 1998;59 Suppl 15:4-12 (118 ref.)
Noradrenergic versus serotonergic antidepressants: predictors of treatment response. Schatzberg AF. **J Clin Psychiatry** 1998;59 Suppl 14:15-8 (32 ref.)
Serotonergic neurons in the brainstem of the wallaby, Macropus eugenii. Ferguson IA, et al. **J Comp Neurol** 1999 Sep 6;411(4):535-49
Median raphe serotonergic innervation of medial septum/diagonal band of broca (MSDB) parvalbumin-containing neurons: possible involvement of the MSDB in the desynchronization of the hippocampal EEG. Leranth C, et al. **J Comp Neurol** 1999 Aug 9; 410(4):586-98
Serotoninergic neurons in the brainstem expressing FOS protein after orofacial noxious stimulation: an immunocytochemical double-labeling study. Lang B, et al. **J Hirnforsch** 1998;39(2):263-8
The potential role of serotonin in the pathogenesis of neurocardiogenic syncope and related autonomic disturbances. Grubb BP, et al. **J Interv Card Electrophysiol** 1998 Dec;2(4):325-32 (75 ref.)
GTP cyclohydrolase I feedback regulatory protein is expressed in serotonin neurons and regulates tetrahydrobiopterin biosynthesis. Kapatos G, et al. **J Neurochem** 1999 Feb;72(2):669-75
Fluoxetine increases extracellular dopamine in the prefrontal cortex by a mechanism not dependent on serotonin: a comparison with citalopram. Pozzi L, et al. **J Neurochem** 1999 Sep;73(3):1051-7
Serotonergic innervation of the foot of the pond snail Lymnaea stagnalis (L.). McKenzie JD, et al. **J Neurocytol** 1998 Jun;27(6):459-70
Serotoninergic and suprachiasmatic nucleus involvement in the corticotropic response to systemic endotoxin challenge in rats. Givalois L, et al. **J Neuroendocrinol** 1999 Aug; 11(8):629-36
Effect of a serotonergic extrinsic modulatory neuron (MCC) on radula mechanoafferent function in Aplysia. Alexeeva V, et al. **J Neurophysiol** 1998 Oct;80(4):1609-22
Serotonergic modulation of synapses in the developing gerbil lateral superior olive. Fitzgerald KK, et al. **J Neurophysiol** 1999 Jun;81(6):2743-52
Serotonergic modulation of neurotransmission in the rat basolateral amygdala. Rainnie DG. **J Neurophysiol** 1999 Jul;82(1):69-85
Functional consequences of central serotonin depletion produced by repeated fenfluramine administration in rats. Baumann MH, et al. **J Neurosci** 1998 Nov 1;18(21):9069-77
H+ permeation and pH regulation at a mammalian serotonin transporter. Cao Y, et al. **J Neurosci** 1997 Apr 1; 17(7):2257-66
Cervical dorsal rhizotomy enhances serotonergic innervation of phrenic motoneurons and serotonin-dependent long-term facilitation of respiratory motor output in rats. Kinkead R, et al. **J Neurosci** 1998 Oct 15;18(20):8436-43
Long-term effects of transcranial magnetic stimulation on hippocampal reactivity to afferent stimulation. Levkovitz Y, et al. **J Neurosci** 1999 Apr 15;19(8):3198-203
Lateral hypothalamic serotonin inhibits nucleus accumbens dopamine: implications for sexual satiety. Lorrain DS, et al. **J Neurosci** 1999 Sep 1;19(17):7648-52
Excess of serotonin (5-HT) alters the segregation of ispilateral and contralateral retinal projections in monoamine oxidase A knock-out mice: possible role of 5-HT uptake in retinal ganglion cells during development. Upton AL, et al. **J Neurosci** 1999 Aug 15;19(16):7007-24
Inhibition of serotonin-induced vascular smooth muscle cell proliferation by sarpogrelate. Sharma SK, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1475-81
Characteristics of 5-HT-containing chemoreceptor cells of the chicken aortic body. Ito S, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):49-59
Developmental pharmacodynamics: implications for child and adolescent psychopharmacology. Carrey N, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):274-6 (16 ref.)
Hallucinogens, serotonin and obsessive-compulsive disorder. Delgado PL, et al. **J Psychoactive Drugs** 1998 Oct-Dec; 30(4):359-66 (63 ref.)
Information processing in anxiety: a pilot study of the effect of manipulating 5-HT function. Andrews TM, et al. **J Psychopharmacol** 1998;12(2):155-60
Hippocampal EEG and unit activity responses to modulation of serotonergic median raphe neurons in the freely behaving rat. Nitz DA, et al. **Learn Mem** 1999 Mar-Apr; 6(2):153-67
Direct comparison of serotonin effects on siphon versus tail sensory neurons in Aplysia. Wright WG, et al. **Learn Mem** 1995 May-Aug;2(3-4):178-84
Vitamin D and serotonin in winter. Partonen T. **Med Hypotheses** 1998 Sep;51(3):267-8 (4 ref.)
Pharmacological evidence supporting a role for IL-1, IL-2 and serotonin in the inflammation induced by Schistosoma mansoni Soluble Egg Antigen (SEA) in rat paws. Pacheco CM, et al. **Mediators Inflamm** 1998;7(4):261-7
Serotonin transport in cultured leech neurons. Bruns D. **Methods Enzymol** 1998;296:593-607
Fluctuation analysis of norepinephrine and serotonin transporter currents. DeFelice LJ, et al. **Methods Enzymol** 1998;296:578-93
Early appearance of acetylcholinergic, serotoninergic, and peptidergic neurons and fibers in the developing human central nervous system. Yew DT, et al. **Microsc Res Tech** 1999 Jun 15;45(6):389-400 (123 ref.)
Ovarian steroids and serotonin neural function. Bethea CL, et al. **Mol Neurobiol** 1998 Oct;18(2):87-123 (269 ref.)
Comparison of the effects of serotonin in the hippocampus and the entorhinal cortex. Schmitz D, et al. **Mol Neurobiol** 1998 Winter;17(1-3):59-72 (85 ref.)
Role of serotonin in the development of Chinese herbs nephropathy? Colson CR, et al. **Nephrol Dial Transplant** 1999;14 Suppl 4:16
Counteraction of spaceflight-induced changes in the rat central serotonergic system by adrenalectomy and corticosteroid replacement. Blanc S, et al. **Neurochem Int** 1998 Oct;33(4):375-82
Structural basis of the cholinergic and serotonergic modulation of GABAergic neurons in the hippocampus. Gulyás AI, et al. **Neurochem Int** 1999 May;34(5):359-72 (102 ref.)
Effects of denervation and hyperinnervation on dopamine and serotonin systems in the rat neostriatum: implications for human Parkinson's disease. Reader TA, et al. **Neurochem Int** 1999 Jan;34(1):1-21 (242 ref.)
Covariation of activity in habenula and dorsal raphé nuclei following tryptophan depletion. Morris JS, et al. **Neuroimage** 1999 Aug;10(2):163-72
Serotonin and hallucinogens. Aghajanian GK, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):16S-23S (49 ref.)
Serotonin neurons, neuroplasticity, and homeostasis of neural tissue. Azmitia EC. **Neuropsychopharmacology** 1999 Aug; 21(2 Suppl):33S-45S (137 ref.)
Agonist-directed signaling of serotonin 5-HT2C receptors: differences between serotonin and lysergic acid diethylamide (LSD). Backstrom JR, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):77S-81S (25 ref.)
Serotonin and drug-induced therapeutic responses in major depression, obsessive-compulsive and panic disorders. Blier P, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):91S-98S (58 ref.)
Serotonin and stress. Chaouloff F, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):28S-32S (37 ref.)
Serotonin and hippocampal neurogenesis. Gould E. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):46S-51S (64 ref.)
Effect of ergotamine on serotonin-mediated responses in the rodent and human brain. Haddjeri N, et al. **Neuropsychopharmacology** 1998 Nov;19(5):365-80
Activity of serotonergic neurons in behaving animals. Jacobs BL, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):9S-15S (26 ref.)
Sleep and serotonin: an unfinished story. Jouvet M. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):24S-27S (21 ref.)
Neuroendocrine evidence for age-related decline in central serotonergic function [letter] Lerer B, et al. **Neuropsychopharmacology** 1999 Aug;21(2):321-2
Serotonergic and noradrenergic markers of post-traumatic stress disorder with and without major depression. Maes M, et al. **Neuropsychopharmacology** 1999 Feb;20(2):188-97
Role of the serotonergic system in the pathogenesis of major depression and suicidal behavior. Mann JJ. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):99S-105S (65 ref.)
In vivo assessment of aging changes in serotonin function [letter] Meltzer CC, et al. **Neuropsychopharmacology** 1999 Aug;21(2):323-4
The role of serotonin in antipsychotic drug action. Meltzer HY. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):106S-115S (82 ref.)
Inverse agonists and serotonergic transmission: from recombinant, human serotonin (5-HT)1B receptors to G-protein coupling and function in corticolimbic structures in vivo. Millan MJ, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):61S-67S (37 ref.)
5-HT modulation of dopamine release in basal ganglia in psilocybin-induced psychosis in man--a PET study with [11C]raclopride. Vollenweider FX, et al. **Neuropsychopharmacology** 1999 May;20(5):424-33
Altered emotional states in knockout mice lacking 5-HT1A or 5-HT1B receptors. Zhuang X, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):52S-60S (67 ref.)
Stressor-induced alterations in serotonergic activity in an animal model of depression. Connor TJ, et al. **Neuroreport** 1999 Feb 25;10(3):523-8
On the relationship of 5-hydroxytryptamine neurons to 5-hydroxytryptamine 2A receptor-immunoreactive neuronal processes in the brain stem of rats. A double immunolabelling analysis. Jansson A, et al. **Neuroreport** 1998 Aug 3;9(11):2505-11
Role of serotonergic neurons in L-DOPA-derived extracellular dopamine in the striatum of 6-OHDA-lesioned rats. Tanaka H, et al. **Neuroreport** 1999 Feb 25;10(3):631-4
Effects of serotonin levels on postsynaptically induced potentiation of snail neuron responses. Malyshev AYu, et al. **Neurosci Behav Physiol** 1998 Sep-Oct;28(5):556-63

Delta-sleep-inducing peptide and its analogs and the serotoninergic system in the development of anticonvulsive influences. Shandra AA, et al. **Neurosci Behav Physiol** 1998 Sep-Oct;28(5):521-6

Serotonin imitates several of the neuronal effects of nociceptive sensitization in the common snail. Shevelkin AV, et al. **Neurosci Behav Physiol** 1998 Sep-Oct; 28(5):547-55

Role of enkephalinergic brain structures in regulating motivated behavior in rats with lesioned serotoninergic neurons. Shugalev NP. **Neurosci Behav Physiol** 1998 Jul-Aug;28(4):376-9

Decrement of the response of a serotonergic modulatory neuron (the metacerebral cell) in Aplysia, during repeated presentation of appetitive (food) stimuli. Horn CC, et al. **Neurosci Lett** 1999 Jun 4;267(3):161-4

Serotonin and human information processing: an electromyographic study of the effects of fluvoxamine on choice reaction time. Rihet P, et al. **Neurosci Lett** 1999 Apr 16;265(2):143-6

Cholinergic and serotonergic alterations in the rat hippocampus following trimethyltin exposure and fetal neural transplantation. Roy A, et al. **Neurosci Lett** 1999 Jan 15;259(3):173-6

Effect of WAY-100135 on the hippocampal acetylcholine release potentiated by 8-OH-DPAT, a serotonin1A receptor agonist, in normal and p-chlorophenylalanine-treated rats as measured by in vivo microdialysis. Nakai K, et al. **Neurosci Res** 1998 May; 31(1):23-9

Behavioral, neuroendocrine and serotonergic consequences of single social defeat and repeated fluoxetine pretreatment in the Lewis rat strain. Berton O, et al. **Neuroscience** 1999; 92(1):327-41

Depletion in serotonin decreases neurogenesis in the dentate gyrus and the subventricular zone of adult rats. Brezun JM, et al. **Neuroscience** 1999;89(4):999-1002

Central serotonin depletion modulates the behavioural, endocrine and physiological responses to repeated social stress and subsequent c-fos expression in the brains of male rats. Chung KK, et al. **Neuroscience** 1999;92(2):613-25

Decreased chaos of midbrain dopaminergic neurons after serotonin denervation. Di Mascio M, et al. **Neuroscience** 1999;92(1):237-43

Nitric oxide transforms serotonin into an inactive form and this affects neuromodulation. Fossier P, et al. **Neuroscience** 1999;93(2):597-603

Serotonergic input to cholinergic neurons in the substantia innominata and nucleus basalis magnocellularis in the rat. Gasbarri A, et al. **Neuroscience** 1999;91(3):1129-42

Dopamine and serotonin interactions in the modulation of the expression of the immediate-early transcription factor, nerve growth factor-inducible B, in the striatum. Gervais J, et al. **Neuroscience** 1999;91(3):1045-54

Serotonin-2 receptor stimulation normalizes striatal preprotachykinin messenger RNA in an animal model of Parkinson's disease. Gresch PJ, et al. **Neuroscience** 1999; 93(3):831-41

Serotonin modulates synaptic transmission in immature rat ventrolateral medulla neurons in vitro. Hwang LL, et al. **Neuroscience** 1999;91(3):959-70

Hypothalamic serotonergic activity correlates better with brain temperature than with sleep-wake cycle and muscle tone in rats. Imeri L, et al. **Neuroscience** 1999;89(4):1241-6

D-Fenfluramine induces serotonin-mediated Fos expression in corticotropin-releasing factor and oxytocin neurons of the hypothalamus, and serotonin-independent Fos expression in enkephalin and neurotensin neurons of the amygdala. Javed A, et al. **Neuroscience** 1999 Mar; 90(3):851-8

Involvement of serotonergic pathways in mediating the neuronal activity and genetic transcription of neuroendocrine corticotropin-releasing factor in the brain of systemically endotoxin-challenged rats. Laflamme N, et al. **Neuroscience** 1999 Jan;88(1):223-40

Endogenous serotonin inhibits epileptiform activity in rat hippocampal CA1 neurons via 5-hydroxytryptamine1A receptor activation. Lu KT, et al. **Neuroscience** 1998 Oct; 86(3):729-37

The ascending serotonergic system in the hamster: comparison with projections of the dorsal and median raphe nuclei. Morin LP, et al. **Neuroscience** 1999; 91(1):81-105

Corticotropic-releasing hormone and serotonin interact in the human brainstem: behavioral implications. Ruggiero DA, et al. **Neuroscience** 1999;91(4):1343-54

D-amphetamine and L-5-hydroxytryptophan-induced behaviours in mice with genetically-altered expression of the alpha2C-adrenergic receptor subtype. Sallinen J, et al. **Neuroscience** 1998 Oct;86(3):959-65

Regional and temporal separation of serotonergic activity mediating social stress. Summers CH, et al. **Neuroscience** 1998 Nov;87(2):489-96

Molecular and behavioral effects mediated by Gs-coupled adenosine A2a, but not serotonin 5-Ht4 or 5-Ht6 receptors following antipsychotic administration. Ward RP, et al. **Neuroscience** 1999 Mar;89(3):927-38

Effects of oxyhemoglobin on vasoconstriction in response to 5-hydroxytryptamine in isolated, perfused canine basilar arteries. Orz YI, et al. **Neurosurgery** 1998 Nov; 43(5):1176-84

5-HT2A receptor subtype is involved in the thermal hyperalgesic mechanism of serotonin in the periphery. Tokunaga A, et al. **Pain** 1998 Jun;76(3):349-55

Role of endogenous serotonin and histamine in the pathogenesis of gastric mucosal lesions in unanaesthetised rats with a single treatment of compound 48/80, a mast cell degranulator. Ohta Y, et al. **Pharmacol Res** 1999 Apr; 39(4):261-7

Autoinhibition of serotonin cells: an intrinsic regulatory mechanism sensitive to the pattern of usage of the cells. Heinrich R, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2473-8

Serotonin receptor knockouts: a moody subject [comment] Julius D. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15153-4 (17 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14476-81. Comment on: Proc Natl Acad Sci U S A 1998 Dec 8;95(25):15049-54.

Modulation of central serotonergic neurotransmission by risperidone: underlying mechanism(s) and significance of action. Hertel P, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):815-34

Retinal and optic nerve head ischemic disorders and atherosclerosis: role of serotonin. Hayreh SS. **Prog Retin Eye Res** 1999 Mar;18(2):191-221 (168 ref.)

Serotonin-induced endothelial cell proliferation is blocked by omega-3 fatty acids [published erratum appears in Prostaglandins Leukot Essent Fatty Acids 1999 Apr;60(4):283] Pakala R, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Feb; 60(2):115-23

Serotonergic function in social phobia: comparison to normal control and obsessive-compulsive disorder subjects. Hollander E, et al. **Psychiatry Res** 1998 Jul 13;79(3):213-7

Effects of tryptophan depletion on anxiety and on panic provoked by carbon dioxide challenge. Klaassen T, et al. **Psychiatry Res** 1998 Feb 27;77(3):167-74

Thyroid axis activity and serotonin function in major depressive episode. Duval F, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):695-712

Effect of central 5-hydroxytryptamine depletion on performance in the free-operant psychophysical procedure: facilitation of switching, but no effect on temporal differentiation of responding. Chiang TJ, et al. **Psychopharmacology (Berl)** 1999 Apr;143(2):166-73

Effect of central 5-hydroxytryptamine depletion on changeover behaviour in concurrent schedules of reinforcement. Al-Ruwaitea AS, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):264-71

The potentiating effect of sertraline and fluoxetine on amphetamine-induced locomotor activity is not mediated by serotonin. Sills TL, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):426-32

Serotonin depletion attenuates cocaine-seeking behavior in rats. Tran-Nguyen LT, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):60-6

Physiological, pathophysiological and therapeutic roles of 5-HT systems in learning and memory. Meneses A. **Rev Neurosci** 1998;9(4):275-89 (89 ref.)

Role of serotonin in the paradoxical calming effect of psychostimulants on hyperactivity [see comments] Gainetdinov RR, et al. **Science** 1999 Jan 15; 283(5400):397-401. Comment in: Science 1999 Jan 15;283(5400):306.

How stimulant drugs may calm hyperactivity [news; comment] Marx J. **Science** 1999 Jan 15;283(5400):306. Comment on: Science 1999 Jan 15;283(5400):397-401.

Melatonin attenuates methamphetamine-induced toxic effects on dopamine and serotonin terminals in mouse brain. Hirata H, et al. **Synapse** 1998 Oct;30(2):150-5

Cellular electrophysiological effects of chronic fluoxetine and duloxetine administration on serotonergic responses in the aging hippocampus. Smith JE, et al. **Synapse** 1998 Nov; 30(3):318-28

Role of serotonin in the pathogenesis of acute and chronic pulmonary hypertension. Egermayer P, et al. **Thorax** 1999 Feb;54(2):161-8 (186 ref.)

A synergistic effect of serotonin transporter gene polymorphism and smoking in association with CHD. Arinami T, et al. **Thromb Haemost** 1999 Jun;81(6):853-6

Paracrine neurotransmission in the CNS: involvement of 5-HT. Bunin MA, et al. **Trends Neurosci** 1999 Sep; 22(9):377-82 (50 ref.)

[5HT-moduline an new peptide specifically interactive with the serotonergic system: physiopathologic implications] Fillion G. **Ann Pharm Fr** 1998;56(4):145-7 (7 ref.) (Eng. Abstr.) **(Fre)**

[Heredity and role of serotonin in aggressive impulsive behavior] Staner L, et al. **Encephale** 1998 Jul-Aug; 24(4):355-64 (90 ref.) (Eng. Abstr.) **(Fre)**

[Treatment of depression and sleep disorders. Significance of serotonin and L-tryptophan in pathophysiology and therapy] Riemann D, et al. **Fortschr Med** 1998 Nov 20; 116(32):40-2 (25 ref.) (Eng. Abstr.) **(Ger)**

[The impact of the central serotonin system on alcoholism and therapeutic consequences] Peter H, et al. **Fortschr Neurol Psychiatr** 1998 Oct;66(10):459-65 (50 ref.) (Eng. Abstr.) **(Ger)**

[Impulse control disorders and other serotonin function disorders] Pöldinger W. **Schweiz Rundsch Med Prax** 1998 Oct 7;87(41):1348-55 (33 ref.) (Eng. Abstr.) **(Ger)**

[Serotonin--structure, activity and clinical significance] Zdrojewicz Z, et al. **Postepy Hig Med Dosw** 1998; 52(6):637-54 (76 ref.) (Eng. Abstr.) **(Pol)**

[Role of neuropeptides and "pain substances" in the formation of humoral mechanisms of experimental and postoperative pain] Nazyrova LA, et al. **Anesteziol Reanimatol** 1998 Sep-Oct;(5):21-3 (Eng. Abstr.) **(Rus)**

[Effect of 5,6-dihydroxytryptamine on membrane and threshold potentials of command neurons during long-term sensitization in the Helix snail] Gainutdinova TKh, et al. **Dokl Akad Nauk** 1998 Jul;361(2):268-71 **(Rus)**

[Effect of serotonin on the contractile activity of the cat duodenum] Berezina TP. **Ross Fiziol Zh Im I M Sechenova** 1998 Sep;84(9):940-8 (Eng. Abstr.) **(Rus)**

[Sexual and interhemispheric differences in the involvement of serotonin from the hippocampus and amygdaloid body in the processing of new and repeatedly presented information in rats] Molodtsova GF. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 May-Jun; 49(3):408-15 (Eng. Abstr.) **(Rus)**

SECRETION

Mucosal mast cell secretion processes imaged using three-photon microscopy of 5-hydroxytryptamine autofluorescence. Williams RM, et al. **Biophys J** 1999 Apr; 76(4):1835-46

A microdialysis study of the in vivo release of 5-HT in the median raphe nucleus of the rat. Adell A, et al. **Br J Pharmacol** 1998 Nov;125(6):1361-7

The structural requirements for phorbol esters to enhance serotonin and acetylcholine release from rat brain cortex. Iannazzo L, et al. **Br J Pharmacol** 1999 Jul;127(5):1177-89

Rabbit mononuclear leukocytes cause contraction of isolated aorta by the release of serotonin. Hart-Favaloro JL, et al. **Cardiovasc Res** 1999 Jan;41(1):246-54

Phosphodiesterase inhibitors suppress alpha2-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits. Freitag A, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):67-71

Effect of fluoxetine on extracellular 5-hydroxytryptamine in rat brain. Role of 5-HT autoreceptors. Hervás I, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):9-18

KW-5092, a novel gastrokinetic agent, facilitates luminal serotonin release from the guinea-pig colon. Kojima S. **Eur J Pharmacol** 1999 Jun 11;374(1):113-5

SB-236057, a selective 5-HT1B receptor inverse agonist, blocks the 5-HT human terminal autoreceptor. Middlemiss DN, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):359-65

The effect of some anti-inflammatory drugs on histamine and serotonin release from rat peritoneal mast cells. Lipnik-Stangelj M, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S21-2

Metabotropic glutamate receptors modulate serotonin release in the rat periaqueductal gray matter. Maione S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):411-7

Synergism between 5-HT1B/1D and 5-HT1A receptor antagonists on turnover and release of 5-HT in guinea-pig brain in vivo. Stenfors C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):110-6

Stimulation by neurotensin of (3H)5-hydroxytryptamine (5HT) release from rat frontal cortex slices. Héaulme M, et al. **Neuropeptides** 1998 Oct;32(5):465-71

The antipsychotic drug risperidone interacts with auto- and hetero-receptors regulating serotonin output in the rat frontal cortex. Hertel P, et al. **Neuropharmacology** 1999 Aug;38(8):1175-84

Interaction between purinoceptor subtypes on hippocampal serotonergic transmission using in vivo microdialysis. Okada M, et al. **Neuropharmacology** 1999 May;38(5):707-15

Dopaminergic input is required for increases in serotonin output produced by behavioral activation: an in vivo microdialysis study in rat forebrain. Mendlin A, et al. **Neuroscience** 1999;93(3):897-905

Effective long-term inhibition of thromboxane production but not of serotonin release in patients with coronary heart disease by 30 mg/d acetylsalicylic acid dosage. Gajdos M, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Jul; 59(1):17-21

[Signal transduction of serotonin release from enterochromaffin cells in mouse ileal crypts] Hirafuji M, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:133P-137P (Eng. Abstr.) **(Jpn)**

[The effect of mineral water on serotonin and insulin production (an experimental study)] Polushina ND. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Jul-Aug;(4):9-10 (Eng. Abstr.) **(Rus)**

[Octreotide and a serotonin-secreting glomus tumor] García Galán F, et al. **Rev Esp Anestesiol Reanim** 1999 May; 46(5):219-22 (Eng. Abstr.) **(Spa)**

THERAPEUTIC USE

Use of serotonin (5-HT) and opiate-based drugs in the pharmacotherapy of alcohol dependence: an overview of the preclinical data. Lê AD, et al. **Alcohol Alcohol Suppl** 1996 Mar;1:27-32 (51 ref.)

URINE

Gynecologic laparoscopic surgery is not associated with an increase of serotonin metabolites excretion. Borgeat A, et al. **Anesth Analg** 1998 Nov;87(5):1104-8

SEROTONIN

Coupled-column liquid chromatographic analysis of catecholamines, serotonin, and metabolites in human urine. Panholzer TJ, et al. **Clin Chem** 1999 Feb;45(2):262-8

Fluorescence derivatizing procedure for 5-hydroxytryptamine and 5-hydroxyindoleacetic acid using 1,2-diphenylethylenediamine reagent and their sensitive liquid chromatographic determination. Kai M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):25-31

SEROTONIN ACETYLTRANSFERASE see **ARYLAMINE N-ACETYLTRANSFERASE**

SEROTONIN AGENTS

ADVERSE EFFECTS

Toxic effect of MDMA on brain serotonin neurons [letter; comment] Jansen KL, et al. **Lancet** 1999 Apr 10; 353(9160):1270-1. Comment on: Lancet 1998 Oct 31;352(9138):1433-7.

Toxic effect of MDMA on brain serotonin neurons [letter; comment] Klugman A, et al. **Lancet** 1999 Apr 10; 353(9160):1269-70; discussion 1270-1. Comment on: Lancet 1998 Oct 31;352(9138):1433-7.

Toxic effect of MDMA on brain serotonin neurons [letter; comment] Kuikka JT, et al. **Lancet** 1999 Apr 10; 353(9160):1269; discussion 1270-1. Comment on: Lancet 1998 Oct 31;352(9138):1433-7.

Positron emission tomographic evidence of toxic effect of MDMA ("Ecstasy") on brain serotonin neurons in human beings [see comments] McCann UD, et al. **Lancet** 1998 Oct 31;352(9138):1433-7. Comment in: Lancet 1999 Feb 13;353(9152):592-3. Comment in: Lancet 1999 Apr 10;353(9160):1268; discussion 1270-1. Comment in: Lancet 1999 Apr 10;353(9160):1268-9; discussion 1270-1. Comment in: Lancet 1999 Apr 10;353(9160):1269; discussion 1270-1. Comment in: Lancet 1999 Apr 10;353(9160):1269-70; discussion 1270-1. Comment in: Lancet 1999 Apr 10;353(9160):1270-1.

Toxic effect of MDMA on brain serotonin neurons [letter; comment] Morgan JF. **Lancet** 1999 Apr 10; 353(9160):1268-9; discussion 1270-1. Comment on: Lancet 1998 Oct 31;352(9138):1433-7.

Toxic effect of MDMA on brain serotonin neurons [letter; comment] Reed LJ, et al. **Lancet** 1999 Apr 10; 353(9160):1268; discussion 1270-1. Comment on: Lancet 1998 Oct 31;352(9138):1433-7.

CHEMICAL SYNTHESIS

A search for new 5-HT1A/5-HT2A receptor ligands. In vitro and in vivo studies of 1-[omega-(4-aryl-1-piperazinyl)alkyl]indolin-2(1H)-ones. Mokrosz MJ, et al. **Arch Pharm (Weinheim)** 1998 Oct; 331(10):325-30

Dimers of 5HT1 ligands preferentially bind to 5HT1B/1D receptor subtypes. Perez M, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1407-12

Quinolizidinyl derivatives of 2,3-dihydro-2-oxo-1H-benzimidazole-1-carboxylic acid and 1-homolupinanoyl benzimidazolones as ligands for 5-HT3 and 5-HT4 receptors. Sparatore A, et al. **Farmaco** 1999 Apr 30;54(4):248-54

A novel (benzodifuranyl)aminoalkane with extremely potent activity at the 5-HT2A receptor. Parker MA, et al. **J Med Chem** 1998 Dec 17;41(26):5148-9

Conformationally constrained butyrophenones with mixed dopaminergic (D(2)) and serotoninergic (5-HT(2A), 5-HT(2C)) affinities: synthesis, pharmacology, 3D-QSAR, and molecular modeling of (aminoalkyl)benzo- and -thienocycloalkanones as putative atypical antipsychotics. Raviña E, et al. **J Med Chem** 1999 Jul 29;42(15):2774-97

CHEMISTRY

Structural analogues of 5-OMe-BPAT: synthesis and interactions with dopamine D2, D3, and serotonin 5-HT1A receptors. Homan EJ, et al. **Bioorg Med Chem** 1999 Jun; 7(6):1111-21

DIAGNOSTIC USE

D-fenfluramine challenge in posttraumatic stress disorder. Davis LL, et al. **Biol Psychiatry** 1999 Apr 1;45(7):928-30

Fenfluramine challenge test as a marker of serotonin activity in patients with Alzheimer's dementia and agitation. Mintzer J, et al. **Biol Psychiatry** 1998 Nov 1;44(9):918-21

Differential pharmacology between the guinea-pig and the gorilla 5-HT1D receptor as probed with isochromans (5-HT1D-selective ligands). Pregenzer JF, et al. **Br J Pharmacol** 1999 May;127(2):468-72

Fenfluramine and idiopathic pain: a serotonergic study in non-psychiatric patients with functional gastrointestinal disorder. Tanum L, et al. **Scand J Gastroenterol** 1998 Jul; 33(7):684-90

METABOLISM

Platelet [3H]paroxetine and [3H]lysergic acid diethylamide binding in seasonal affective disorder and the effect of bright light therapy. Smedh K, et al. **Biol Psychiatry** 1999 Feb 15;45(4):464-70

N-substituted-3-arylpyrrolidines: potent and selective ligands at serotonin 1A receptor. Ahn KH, et al. **Bioorg Med Chem Lett** 1999 May 17;9(10):1379-84

PHARMACOKINETICS

5-Hydroxytryptamine2-family receptors (5-hydroxytryptamine2A, 5-hydroxytryptamine2B, 5-hydroxytryptamine2C): where structure meets function. Roth BL, et al. **Pharmacol Ther** 1998 Sep;79(3):231-57 (258 ref.)

PHARMACOLOGY

The influence of prolactin response to d-fenfluramine on executive functioning in major depression. Degl'Innocenti A, et al. **Biol Psychiatry** 1999 Aug 15;46(4):512-7

Effect of acute intravenous clomipramine and antiobsessional response to proserotonergic drugs: is gender a predictive variable? Mundo E, et al. **Biol Psychiatry** 1999 Feb 1; 45(3):290-4

Facilitation and inhibition of male rat ejaculatory behaviour by the respective 5-HT1A and 5-HT1B receptor agonists 8-OH-DPAT and anpirtoline, as evidenced by use of the corresponding new and selective receptor antagonists NAD-299 and NAS-181. Hillegaart V, et al. **Br J Pharmacol** 1998 Dec;125(8):1733-43

The effect of MDMA (3,4-methylenedioxymethamphetamine) on the 5-HT synthesis rate in the rat brain: an autoradiographic study. Mück-Seler D, et al. **Brain Res** 1998 Nov 9;810(1-2):76-86

Differential sensitivity of tachykinin vs. enkephalin gene expression in the posterior striatum in response to acute p-chloroamphetamine treatment during postnatal development. Basura GJ, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):155-7

Acute p-chloroamphetamine increases striatal preprotachykinin mRNA: role of the serotonin 2A/2C receptor. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):190-3

Evidence for different 5-HT1B/1D receptors mediating vasoconstriction of equine digital arteries and veins. Bailey SR, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):175-87

Agonist and antagonist actions of antipsychotic agents at 5-HT1A receptors: a [35S]GTPgammaS binding study. Newman-Tancredi A, et al. **Eur J Pharmacol** 1998 Aug 21;355(2-3):245-56

p-Chloroamphetamine, a serotonin-releasing drug, elicited in rats a hyperglycemia mediated by the 5-HT1A and 5-HT2B/2C receptors. Yamada J, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):185-90

Inverse relationship between fenfluramine-induced prolactin release and blood pressure in humans. Muldoon MF, et al. **Hypertension** 1998 Dec;32(6):972-5

Effect of drugs influencing central serotonergic mechanisms on pentazocine-induced catalepsy in mice. Umrani DN, et al. **Indian J Exp Biol** 1998 Dec;36(12):1273-5

Brain serotonin neurotransmission: an overview and update with an emphasis on serotonin subsystem heterogeneity, multiple receptors, interactions with other neurotransmitter systems, and consequent implications for understanding the actions of serotonergic drugs. Murphy DL, et al. **J Clin Psychiatry** 1998;59 Suppl 15:4-12 (118 ref.)

Adrenocorticotropic hormone secretion in rats induced by stimulation with serotonergic compounds. hsj@mfi.ku.dk. Jørgensen H, et al. **J Neuroendocrinol** 1999 Apr; 11(4):283-90

Altered serotonin innervation patterns in the forebrain of monkeys treated with (+/-)3,4-methylenedioxymethamphetamine seven years previously: factors influencing abnormal recovery. Hatzidimitriou G, et al. **J Neurosci** 1999 Jun 15; 19(12):5096-107

Quantitative PET analysis of regional cerebral blood flow and glucose and oxygen metabolism in response to fenfluramine in living porcine brain. Smith DF, et al. **J Neurosci Methods** 1998 Dec 31;86(1):17-23

Pharmacological studies of the acute and chronic effects of (+)-3, 4-methylenedioxymethamphetamine on locomotor activity: role of 5-hydroxytryptamine(1A) and 5-hydroxytryptamine(1B/1D) receptors. McCreary AC, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):965-73

Comparison of effects of a range of 5-HT receptor modulators on consumption and preference for a sweetened ethanol solution in rats. Silvestre JS, et al. **J Psychopharmacol** 1998;12(2):168-76

Region-specific decrease of dopamine and its metabolites in brains of mice given ergotamine. Filipov NM, et al. **J Toxicol Environ Health** 1999 Jan 8;56(1):47-58

Acute effects of 3,4-methylenedioxymethamphetamine on brain serotonin synthesis in the dog studied by positron emission tomography. Nishisawa S, et al. **Neurochem Int** 1999 Jan;34(1):33-40

GR 127935 and (+)-WAY 100135 do not affect TFMPP-induced inhibition of 5-HT synthesis in the midbrain and hippocampus of Wistar-Kyoto rats. Chaouloff F, et al. **Neuropharmacology** 1998 Sep; 37(9):1159-67

Effect of chronic serotonin-2 receptor agonist or antagonist administration on serotonin-1A receptor sensitivity. Hensler JG, et al. **Neuropsychopharmacology** 1998 Nov; 19(5):354-64

Characterization of the translocation of protein kinase C (PKC) by 3,4-methylenedioxymethamphetamine (MDMA/ecstasy) in synaptosomes: evidence for a presynaptic localization involving the serotonin transporter (SERT). Kramer HK, et al. **Neuropsychopharmacology** 1998 Oct;19(4):265-77

Ultrasonic vocalizations in rat pups: effects of serotonergic ligands. Olivier B, et al. **Neurosci Biobehav Rev** 1998; 23(2):215-27

D-Fenfluramine induces serotonin-mediated Fos expression in corticotropin-releasing factor and oxytocin neurons of the hypothalamus, and serotonin-independent Fos expression in enkephalin and neurotensin neurons of the amygdala. Javed A, et al. **Neuroscience** 1999 Mar; 90(3):851-8

The distribution of 3,4-methylenedioxymethamphetamine "Ecstasy"-induced c-fos expression in rat brain. Stephenson CP, et al. **Neuroscience** 1999;92(3):1011-23

Ethopharmacological analysis of 5-HT ligands on the rat elevated plus-maze. Setem J, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):515-21

Antidepressant-like properties of some serotonin receptor ligands and calcium channel antagonists measured with the forced swimming test in mice. Biala G. **Pol J Pharmacol** 1998 Mar-Apr;50(2):117-24

Plasma prolactin response to D-fenfluramine is blunted in bulimic patients with frequent binge episodes. Monteleone P, et al. **Psychol Med** 1998 Jul;28(4):975-83

Seasonal variation in plasma prolactin response to D-fenfluramine in healthy subjects. Monteleone P, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):201-8

Peripheral hormonal responses to D-fenfluramine as a probe of central serotonergic function in humans. Abel KM, et al. **Psychopharmacology (Berl)** 1999 Feb;142(1):68-72

Persistent loss of thermoregulation in the rat induced by 3,4-methylenedioxymethamphetamine (MDMA or "Ecstasy") but not by fenfluramine. Dafters RI, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):207-12

Effect of central 5-hydroxytryptamine depletion on tolerance of delay of reinforcement: evidence from performance in a discrete-trials "time-left" procedure. Al-Ruwaitea AS, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):154-61

Locomotor response to MDMA is attenuated in knockout mice lacking the 5-HT1B receptor. Scearce-Levie K, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):154-61

Opposite effects of 3,4-methylenedioxymethamphetamine (MDMA) on sensorimotor gating in rats versus healthy humans. Vollenweider FX, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):365-72

Effects of 5,7-dihydroxytryptamine depletion of tissue serotonin levels on extracellular serotonin in the striatum assessed with in vivo microdialysis: relationship to behavior. Hall FS, et al. **Synapse** 1999 Jul;33(1):16-25

N-tert-butyl-alpha-phenylnitrone protects against 3,4-methylenedioxymethamphetamine-induced depletion of serotonin in rats. Yeh SY. **Synapse** 1999 Mar 1; 31(3):169-77

THERAPEUTIC USE

A placebo-controlled clinical trial of L-tryptophan in premenstrual dysphoria. Steinberg S, et al. **Biol Psychiatry** 1999 Feb 1;45(3):313-20

Methysergide. Silberstein SD. **Cephalalgia** 1998 Sep; 18(7):421-35 (152 ref.)

Pharmacological treatment of alcohol dependence: a review of the evidence. Garbutt JC, et al. **JAMA** 1999 Apr 14; 281(14):1318-25

TOXICITY

Memory impairment in abstinent MDMA ("Ecstasy") users [see comments] Bolla KI, et al. **Neurology** 1998 Dec; 51(6):1532-7. Comment in: Neurology 1998 Dec;51(6):1529-30.

SEROTONIN AGONISTS

A mesenteric mass in a chronic LSD user [letter] Berk SI, et al. **Am J Med** 1999 Aug;107(2):188-9

ADMINISTRATION & DOSAGE

Efficacy and safety of rizatriptan wafer for the acute treatment of migraine. Rizatriptan Wafer Protocol 049 Study Group. Ahrens SP, et al. **Cephalalgia** 1999 Jun; 19(5):525-30

Effect of prolonged administration of the serotonin4 (5-HT4) receptor agonist cisapride on aldosterone secretion in healthy volunteers. Lefebvre H, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):749-52

Comparative clinical pharmacokinetics of single doses of sumatriptan following subcutaneous, oral, rectal and intranasal administration. Duquesnoy C, et al. **Eur J Pharm Sci** 1998 Apr;6(2):99-104

A Canadian multicenter study of three fixed doses of controlled-release ipsapirone in outpatients with moderate to severe major depression. Lapierre YD, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):268-73

Effects of acute and chronic administration of the serotonin1A agonist buspirone on serotonin synthesis in the rat brain. Okazawa H, et al. **J Neurochem** 1999 May; 72(5):2022-31

[Correct use of serotonin agonists in migraine: oral or injectable form?] Joffroy A. **Rev Med Brux** 1998 Sep; 19(4):A393-7 (Eng. Abstr.) **(Fre)**

[Pharmacy-clinic medication of the month. Naratriptan (naramig)] Scheen AJ. **Rev Med Liege** 1999 Mar; 54(3):189–91 (Eng. Abstr.) **(Fre)**

[New triptan preparations can help the migraine patient. Pharmacodynamic and pharmacokinetic progresses] Dahlöf CG. **Lakartidningen** 1998 Nov 11;95(46):5175, 5178–82, 5184–6 (60 ref.) (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Altered oesophageal motility following the administration of the 5-HT1 agonist, sumatriptan. Foster JM, et al. **Aliment Pharmacol Ther** 1999 Jul;13(7):927–36

Respiratory distress after use of droperidol for agitation [letter] Heard K, et al. **Ann Emerg Med** 1999 Sep; 34(3):410–1

Risks and benefits of cisapride [letter] Jones SW, et al. **Arch Dis Child** 1999 Jun;80(6):582

The association of the combination of sumatriptan and methysergide in myocardial infarction in a premenopausal woman. Liston H, et al. **Arch Intern Med** 1999 Mar 8; 159(5):511–3

A surfeit of serotonin: sumatriptan and serotonergic antidepressants [letter; comment] Schwartz CE. **Arch Intern Med** 1999 May 24;159(10):1141–2. Comment on: Arch Intern Med 1998 Sep 28;158(17):1946–8.

Drug interactions and spasticity [letter] Stolp-Smith KA, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1117

Cardiovascular safety of 5HT1B/1D agonists--is there a cause for concern? Dahlöf CG, et al. **Cephalalgia** 1998 Oct; 18(8):539–45 (73 ref.)

Safety trial with the 5HT1B/1D agonist avitriptan (BMS-180048) in patients with migraine who have experienced pressure, tightness, and/or pain in the chest, neck, and/or throat following sumatriptan. Dahlöf CG, et al. **Cephalalgia** 1998 Oct;18(8):546–51

Sumatriptan-induced axial dystonia in a patient with cluster headache [letter] Oterino A, et al. **Cephalalgia** 1998 Jul-Aug;18(6):360–1

Sumatriptan and ergotamine overuse and drug-induced headache: a clinicoepidemiologic study. Evers S, et al. **Clin Neuropharmacol** 1999 Jul-Aug;22(4):201–6

8OH-DPAT-Induced ocular hypotension: sites and mechanisms of action. Chu TC, et al. **Exp Eye Res** 1999 Aug;69(2):227–38

A comparison of the pharmacokinetics and tolerability of the novel antimigraine compound zolmitriptan in adolescents and adults. Dixon R, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):35–42

Drug-induced headaches [letter; comment] Dowson A. **Lancet** 1999 Jul 17;354(9174):254–5. Comment on: Lancet 1999 Jan 30;353(9150):378.

Headache after frequent use of serotonin agonists zolmitriptan and naratriptan [letter] [see comments] Limmroth V, et al. **Lancet** 1999 Jan 30;353(9150):378. Comment in: Lancet 1999 Apr 17;353(9161):1363. Comment in: Lancet 1999 Apr 17;353(9161):1363–4. Comment in: Lancet 1999 Jul 17;354(9174):254–5.

Headache after frequent triptan use [letter; comment] Mathew N. **Lancet** 1999 Apr 17;353(9161):1363–4. Comment on: Lancet 1999 Jan 30;353(9150):378.

Headache after frequent triptan use [letter; comment] Minton N, et al. **Lancet** 1999 Apr 17;353(9161):1363. Comment on: Lancet 1999 Jan 30;353(9150):378.

Exercise testing in patients with chest pain to sumatriptan. Ottervanger JP, et al. **Neth J Med** 1998 Dec;53(6):245–8

Psilocybin induces schizophrenia-like psychosis in humans via a serotonin-2 agonist action. Vollenweider FX, et al. **Neuroreport** 1998 Dec 1;9(17):3897–902

Adverse neuropsychiatric events associated with dexfenfluramine and fenfluramine. McCann UD, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1087–102

Serotonin syndrome after challenge with the 5-HT agonist meta-chlorophenylpiperazine. Klaassen T, et al. **Psychiatry Res** 1998 Jul 13;79(3):207–12

[Safety profile of 311C90 (zolmitriptan)] Morales Asín F. **Neurologia** 1998 Oct;13 Suppl 2:25–30 (13 ref.) (Eng. Abstr.) **(Spa)**

BLOOD

Grapefruit juice substantially increases plasma concentrations of buspirone. Lilja JJ, et al. **Clin Pharmacol Ther** 1998 Dec; 64(6):655–60

Determination of buspirone and 1-(2-pyrimidinyl)-piperazine (1-PP) in human plasma by capillary gas chromatography. Kivistö KT, et al. **Ther Drug Monit** 1999 Jun;21(3):317–21

CHEMICAL SYNTHESIS

Serotonergic ergoline derivatives. Mantegani S, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1117–22

Dimerization of sumatriptan as an efficient way to design a potent, centrally and orally active 5-HT1B agonist. Perez M, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):675–80

Functional characteristics of a series of N4-substituted 1-(2,3-dihydro-1,4-benzodioxin-5-yl)piperazines as 5-HT1A receptor ligands. Structure-activity relationships. van Steen BJ, et al. **Bioorg Med Chem Lett** 1998 Sep 22; 8(18):2457–62

Synthesis of the selective 5-hydroxytryptamine 4 (5-HT4) receptor agonist (+)-(S)-2-chloro-5-methoxy-4-[5-(2-piperidylmethyl)-1,2,4-oxadiazol-3-y l]aniline. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):120–2

N-Substituted (2,3-dihydro-1,4-benzodioxin-2-yl)methylamine derivatives as D(2) antagonists/5-HT(1A) partial agonists with potential as atypical antipsychotic agents. Birch AM, et al. **J Med Chem** 1999 Aug 26;42(17):3342–55

Thieno[3,2-b]- and thieno[2,3-b]pyrrole bioisosteric analogues of the hallucinogen and serotonin agonist N,N-dimethyltryptamine. Blair JB, et al. **J Med Chem** 1999 Mar 25;42(6):1106–11

Novel potent and selective central 5-HT3 receptor ligands provided with different intrinsic efficacy. 2. Molecular basis of the intrinsic efficacy of arylpiperazine derivatives at the central 5-HT3 receptors. Cappelli A, et al. **J Med Chem** 1999 May 6;42(9):1556–75

3-(Piperazinylpropyl)indoles: selective, orally bioavailable h5-HT1D receptor agonists as potential antimigraine agents. Chambers MS, et al. **J Med Chem** 1999 Feb 25; 42(4):691–705

Cycloalkanecarboxylic esters derived from lysergol, dihydrolysergol-I, and elymoclavine as partial agonists and antagonists at rat 5-HT2A receptors: pharmacological evidence that the indolo[4,3-fg]quinoline system of the ergolines is responsible for high 5-HT2A receptor affinity. Pertz HH, et al. **J Med Chem** 1999 Feb 25;42(4):659–68

Synthesis and serotonergic activity of 3-[2-(pyrrolidin-1-yl)ethyl]indoles: potent agonists for the h5-HT1D receptor with high selectivity over the h5-HT1B receptor. Sternfeld F, et al. **J Med Chem** 1999 Feb 25;42(4):677–90

2,3-Dihydro-2-oxo-1H-benzimidazole-1-carboxamides with selective affinity for the 5-HT(4) receptor: synthesis and structure-affinity and structure-activity relationships of a new series of partial agonist and antagonist derivatives. Tapia I, et al. **J Med Chem** 1999 Jul 29;42(15):2870–80

Novel derivatives of 2-pyridinemethylamine as selective, potent, and orally active agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1999 May 6;42(9):1648–60

Design and synthesis of a series of 6-substituted-2-pyridinylmethylamine derivatives as novel, high-affinity, selective agonists at 5-HT1A receptors. Vacher B, et al. **J Med Chem** 1998 Dec 3;41(25):5070–83

CHEMISTRY

1-[omega-(4-arylpiperazin-1-yl)alkyl]-3-diphenylmethylene-2,5- pyrrolidinediones as 5-HT1A receptor ligands: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodríguez ML, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):581–6

Definition of a pharmacophore for partial agonists of serotonin 5-HT3 receptors. Daveu C, et al. **J Chem Inf Comput Sci** 1999 Mar-Apr;39(2):362–9

Suppression of mutagenic activity of a series of 5HT2c receptor agonists by the incorporation of a gem-dimethyl group: SAR using the Ames test and a DNA unwinding assay. Albertini S, et al. **Mutagenesis** 1998 Jul;13(4):397–403

DIAGNOSTIC USE

5-HT1A receptor hypersensitivity in migraine is suggested by the m-chlorophenylpiperazine test. Leone M, et al. **Neuroreport** 1998 Aug 3;9(11):2605–8

Serotonergic function in social phobia: comparison to normal control and obsessive-compulsive disorder subjects. Hollander E, et al. **Psychiatry Res** 1998 Jul 13;79(3):213–7

IMMUNOLOGY

Production and characterization of 22 monoclonal antibodies directed against S 20499, a new potent 5-HT1A chiral agonist: influence of the hapten structure on specificity and stereorecognition. Got P, et al. **Pharm Res** 1999 May; 16(5):725–35

METABOLISM

Agonist and antagonist binding to rabbit cortical 5-HT2A receptors: opposite effects of magnesium. Aloyo VJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:280

Pharmacological characterization of the constitutively activated state of the serotonin 5-HT2C receptor. Herrick-Davis K, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:140–5

Parallel evaluation of 5-HT1A receptor localization and functionality: autoradiographic studies with [35S]-GTP gamma S and the novel, selective radioligand, [3H]-S 15535. Newman-Tancredi A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:263–4

Human CYP2D6 and metabolism of m-chlorophenylpiperazine. Rotzinger S, et al. **Biol Psychiatry** 1998 Dec 1;44(11):1185–91

Novel derivatives of 3-(dipropylamino)chroman. Interactions with 5-HT1A and D2A receptors. Caldirola P, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1583–6

1-[omega-(4-arylpiperazin-1-yl)alkyl]-3-diphenylmethylene-2,5- pyrrolidinediones as 5-HT1A receptor ligands: study of the steric requirements of the terminal amide fragment on 5-HT1A affinity/selectivity. López-Rodriguez ML, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):581–6

Modulation of agonist and antagonist interactions in serotonin 1A receptors by alcohols. Harikumar KG, et al. **FEBS Lett** 1998 Oct 30;438(1-2):96–100

High-affinity agonist binding correlates with efficacy (intrinsic activity) at the human serotonin 5-HT2A and 5-HT2C receptors: evidence favoring the ternary complex and two-state models of agonist action. Fitzgerald LW, et al. **J Neurochem** 1999 May;72(5):2127–34

Characteristics of agonist displacement of [3H]ketanserin binding to platelet 5-HT2A receptors: implications for psychiatric research. Gurguis GN, et al. **Psychiatry Res** 1998 Sep 21;80(3):227–38

PHARMACOKINETICS

Pharmacokinetics and tolerability of intravenous rizatriptan in healthy females. Lee Y, et al. **Biopharm Drug Dispos** 1998 Dec;19(9):577–81

Evaluation of the effect of food on the pharmacokinetics of avitriptan. Marathe PH, et al. **Biopharm Drug Dispos** 1998 Sep;19(6):381–94

Integrated modelling of the clinical pharmacokinetics of SDZ HTF 919, a novel selective 5-HT4 receptor agonist, following oral and intravenous administration. Appel-Dingemanse S, et al. **Br J Clin Pharmacol** 1999 May; 47(5):483–91

Pharmacokinetics and tolerability of oral rizatriptan in healthy male and female volunteers. Lee Y, et al. **Br J Clin Pharmacol** 1999 Apr;47(4):373–8

The absolute bioavailability and effect of food on the pharmacokinetics of zolmitriptan in healthy volunteers. Seaber EJ, et al. **Br J Clin Pharmacol** 1998 Nov;46(5):433–9

The effects of moclobemide on the pharmacokinetics of the 5-HT1B/1D agonist rizatriptan in healthy volunteers. Van Haarst AD, et al. **Br J Clin Pharmacol** 1999 Aug; 48(2):190–6

The effect of fluvoxamine on the pharmacokinetics and pharmacodynamics of buspirone. Lamberg TS, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):761–6

Comparative clinical pharmacokinetics of single doses of sumatriptan following subcutaneous, oral, rectal and intranasal administration. Duquesnoy C, et al. **Eur J Pharm Sci** 1998 Apr;6(2):99–104

A comparison of the pharmacokinetics and tolerability of the novel antimigraine compound zolmitriptan in adolescents and adults. Dixon R, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):35–42

Effect of hepatic impairment on the pharmacokinetics of zolmitriptan. Dixon R, et al. **J Clin Pharmacol** 1998 Aug; 38(8):694–701

The pharmacodynamics of sumatriptan in nitroglycerin-induced headache. Fullerton T, et al. **J Clin Pharmacol** 1999 Jan;39(1):17–29

Pharmacokinetics and pharmacodynamics of avitriptan during intravenous administration in healthy subjects. Sharma A, et al. **J Clin Pharmacol** 1999 Jul;39(7):685–94

Pharmacokinetics and pharmacodynamics of zolmitriptan in patients with mild to moderate hypertension: a double-blind, placebo-controlled study. Smith DA, et al. **J Clin Pharmacol** 1998 Aug;38(8):685–93

Pharmacokinetic and pharmacodynamic profile of oral and intravenous meta-chlorophenylpiperazine in healthy volunteers. Gijsman HJ, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):289–95

In vivo evaluation of the absorption and gastrointestinal transit of avitriptan in fed and fasted subjects using gamma scintigraphy. Marathe PH, et al. **J Pharmacokinet Biopharm** 1998 Feb;26(1):1–20

In vivo biodistribution of a radiotracer for imaging serotonin-1A receptor sites with PET:[11C]LY274601. Suehiro M, et al. **Life Sci** 1998;63(17):1533–42

Effects of PNU-109,291, a selective 5-HT1D receptor agonist, on electrically induced dural plasma extravasation and capsaicin-evoked c-fos immunoreactivity within trigeminal nucleus caudalis. Cutrer FM, et al. **Neuropharmacology** 1999 Jul;38(7):1043–53

PHARMACOLOGY

Interaction of CCK and 8-OH-DPAT in the satiation of alcohol intake. Kulkosky PJ, et al. **Alcohol** 1998 Nov; 16(4):305–9

An investigation into the effects of 5-HT agonists and receptor antagonists on ethanol self-administration in the rat. Wilson AW, et al. **Alcohol** 1998 Oct;16(3):249–70

5-HT4 receptor agonists and delta-opioid receptor antagonists act synergistically to stimulate colonic propulsion. Foxx-Orenstein AE, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G979–83

Reflex pressor response to arterial phenylbiguanide: role of abdominal sympathetic visceral afferents. Fu LW, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2025–35

Time-dependent hypoxic ventilatory responses in rats: effects of ketanserin and 5-carboxamidotryptamine. Kinkead R, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R658–66

The effects of 8-hydroxy-2-(di-n-propylamino)tetralin on the cholinergic contraction in guinea pig and human airways in vitro. Dupont LJ, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1479–86

Pleiotropic behavior of 5-HT2A and 5-HT2C receptor agonists. Berg KA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:104–10 (13 ref.)

Creation of a constitutively activated state of the 5-HT2A

receptor by site-directed mutagenesis: revelation of inverse agonist activity of antagonists. Egan C, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:136-9

Involvement of 5-HT1A receptors in the consolidation of learning in cognitively impaired rats. Meneses A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:286-7

Evidence for the putative 5-HT7 receptor mediating direct relaxation to 5-hydroxytryptamine in canine cerebral blood vessels. Terrón JA. **Ann N Y Acad Sci** 1998 Dec 15;861:283

Pharmacological profile of the prejunctional 5-HT1 receptors mediating inhibition of sympathetic vasopressor outflow in the pithed rat. Villalón CM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:281-2

Pharmacological characterization of LB50016, N-(4-amino)butyl 3-phenylpyrrolidine derivative, as a new 5-HT1A receptor agonist. Lee CH, et al. **Arch Pharm Res** 1999 Apr;22(2):157-64

Synthesis and analgesic activity of some deaza derivatives of anpirtoline. Rádl S, et al. **Arch Pharm (Weinheim)** 1999 Jan;332(1):13-8

Effects of serotonergic drugs on lateralized aggression and aggressive displays in Anolis carolinensis. Deckel AW, et al. **Behav Brain Res** 1998 Oct;95(2):227-32

Effects of amygdaloid lesions, hippocampal lesions, and buspirone on black-white exploration and food carrying in rats. Dringenberg HC, et al. **Behav Brain Res** 1998 Nov; 96(1-2):161-72

Antidepressant-like effects of 5-hydroxytryptamine1A receptor agonists on operant responding under a response duration differentiation schedule. Kinney GG, et al. **Behav Pharmacol** 1998 Jul;9(4):309-18

Antagonism of meta-chlorophenylpiperazine-induced inhibition of exploratory activity in an emergence procedure, the open field test, in rats. Meert TF, et al. **Behav Pharmacol** 1997 Aug;8(4):353-63

Stimulation of serotonin (5-HT)1A receptors attenuates the locomotor, but not the discriminative, effects of amphetamine and cocaine in rats. Przegaliński E, et al. **Behav Pharmacol** 1997 Dec;8(8):699-706

5-HT(2A/2C) receptor agonist-induced increase in urinary isatin excretion in rats: reversal by both diazepam and dexamethasone. Tozawa Y, et al. **Biochem Pharmacol** 1999 Oct 15;58(8):1329-34

Effects of meta-chlorophenylpiperazine on cerebral blood flow in obsessive-compulsive disorder and controls. Hott Pian KL, et al. **Biol Psychiatry** 1998 Sep 1;44(5):367-70

The haemodynamic effect of the 5HT1 agonist BMS-180048: a class effect of triptans? Swan L, et al. **Br J Clin Pharmacol** 1999 Feb;47(2):189-94

Dural vasodilation causes a sensitization of rat caudal trigeminal neurones in vivo that is blocked by a 5-HT1B/1D agonist. Cumberbatch MJ, et al. **Br J Pharmacol** 1999 Mar;126(6):1478-86

Investigation of the role of 5-HT1B and 5-HT1D receptors in the sumatriptan-induced constriction of porcine carotid arteriovenous anastomoses. De Vries P, et al. **Br J Pharmacol** 1999 May;127(2):405-12

G-protein activation at 5-HT1A receptors by the 5-ht1F ligand LY334370 in guinea-pig brain sections and recombinant cell lines. Dupuis DS, et al. **Br J Pharmacol** 1998 May;124(2):283-90

Characterization of the 5-hydroxytryptamine receptors mediating contraction in the intestine of Suncus murinus. Javid FA, et al. **Br J Pharmacol** 1999 Aug;127(8):1867-75

Analysis of the 5-HT1A receptor involvement in passive avoidance in the rat. Misane I, et al. **Br J Pharmacol** 1998 Oct;125(3):499-509

Potentiating action of MKC-242, a selective 5-HT1A receptor agonist, on the photic entrainment of the circadian activity rhythm in hamsters. Moriya T, et al. **Br J Pharmacol** 1998 Nov;125(6):1281-7

The central action of the 5-HT2 receptor agonist 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI) on cardiac inotropy and vascular resistance in the anaesthetized cat [published erratum appears in Br J Pharmacol 1999 Apr;126(7):1681-4] Ramage AG, et al. **Br J Pharmacol** 1998 Nov;125(6):1172-9

Electrophysiological examination of the effects of sustained flibanserin administration on serotonin receptors in rat brain. Rueter LE, et al. **Br J Pharmacol** 1999 Feb; 126(3):627-38

Functional effects of the muscarinic receptor agonist, xanomeline, at 5-HT1 and 5-HT2 receptors. Watson J, et al. **Br J Pharmacol** 1998 Dec;125(7):1413-20

5-Hydroxytryptaminergic receptor agonists: effects on neuropeptide Y potentiation of feeding and respiratory quotient. Currie PJ, et al. **Brain Res** 1998 Aug 24; 803(1-2):212-7

Comparison of the effects of aging on 5-HT7 and 5-HT1A receptors in discrete regions of the circadian timing system in hamsters. Duncan MJ, et al. **Brain Res** 1999 May 22; 829(1-2):39-45

5-HT agonist-induced phase-advances of the circadian pacemaker are diminished by chronic antidepressant drug treatment. Duncan WC Jr, et al. **Brain Res** 1999 Jan 2; 815(1):126-30

The 5-HT1A agonist 8-OH-DPAT increases the number of spike-wave discharges in a genetic rat model of absence epilepsy. Gerber K, et al. **Brain Res** 1998 Oct 5; 807(1-2):243-5

Dose-dependent effects of estradiol benzoate on 5-HT1A receptor agonist action. Jackson A, et al. **Brain Res** 1998 Jun 15;796(1-2):299-302

Serotonin 5-HT2c agonists mimic the effect of light pulses on circadian rhythms. Kennaway DJ, et al. **Brain Res** 1998 Sep 28;806(2):257-70

Serotonin 5-HT(1B/1D) agonist-stimulated [(35)S]GTPgammaS binding in rat and guinea pig striatal membranes. Mize AL, et al. **Brain Res** 1999 Jul 31; 836(1-2):229-36

Modification of sexual behavior of Long-Evans male rats by drugs acting on the 5-HT1A receptor. Rehman J, et al. **Brain Res** 1999 Mar 13;821(2):414-25

Attenuation of the lordosis-inhibiting effects of 8-OH-DPAT by TFMPP and quipazine. Wolf A, et al. **Brain Res** 1998 Sep 7;804(2):206-11

Magnitude of 5-HT1B and 5-HT1A receptor activation in guinea-pig and rat brain: evidence from sumatriptan dimer-mediated [35S]GTPgammaS binding responses. Dupuis DS, et al. **Brain Res Mol Brain Res** 1999 Apr 6; 67(1):107-23

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125-34

Electro-oscillographic correlation between dorsal raphe nucleus, neocortex and hippocampus during wakefulness before and after serotoninergic inactivation. Fonoff ET, et al. **Braz J Med Biol Res** 1999 Apr;32(4):469-72 (14 ref.)

Metal ion and guanine nucleotide modulations of agonist interaction in G-protein-coupled serotonin1A receptors from bovine hippocampus. Harikumar KG, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):535-53

Differential effects of the 5HT1B/1D receptor agonist naratriptan on trigeminal versus spinal nociceptive responses. Cumberbatch MJ, et al. **Cephalalgia** 1998 Dec; 18(10):659-63

Effects of zolmitriptan (Zomig) on central serotonergic neurotransmission as assessed by active oddball auditory event-related potentials in volunteers without migraine. Hughes AM, et al. **Cephalalgia** 1999 Mar;19(2):100-6; discussion 73

Differential effects of migraine drugs on cerebral blood flow autoregulation. Vraamark T, et al. **Cephalalgia** 1998 Jul-Aug;18(6):306-12

Synthesis of the selective 5-hydroxytryptamine 4 (5-HT4) receptor agonist (+)-(S)-2-chloro-5-methoxy-4-[5-(2-piperidylmethyl)-1,2,4-oxadiazol-3-y l]aniline. Suzuki T, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):120-2

Hemodynamic and coronary effects of intravenous eletriptan, a 5HT1B/1D-receptor agonist. Muir DF, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):85-90

Serotonin receptor agonists that increase cyclic AMP positively regulate IGF-I in mouse mandibular mesenchymal cells. Lambert HW, et al. **Dev Neurosci** 1999; 21(2):105-12

The effects of 8-OH-DPAT and (+/-)-pindolol on isolation-induced ultrasonic vocalizations in 3-, 10-, and 14-day-old rats. Joyce MP, et al. **Dev Psychobiol** 1999 Mar; 34(2):109-17

A pre- and postsynaptic modulatory action of 5-HT and the 5-HT2A, 2C receptor agonist DOB on NMDA-evoked responses in the rat medial prefrontal cortex. Arvanov VL, et al. **Eur J Neurosci** 1999 Aug;11(8):2917-34

Pre- or post-training injection of buspirone impaired retention in the inhibitory avoidance task: involvement of amygdala 5-HT1A receptors. Liang KC. **Eur J Neurosci** 1999 May;11(5):1491-500

Modification of haloperidol-induced pattern of c-fos expression by serotonin agonists. Tremblay PO, et al. **Eur J Neurosci** 1998 Nov;10(11):3546-55

The effects of 5-HT1A, 5-HT1B and 5-HT1D receptor agonists on trigeminal nociceptive neurotransmission in anaesthetized rats. Cumberbatch MJ, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):43-6

Discriminative stimulus properties of the 5-HT1A receptor agonist BAY x 3702 in the rat. De Vry J, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):1-8

Human 5-HT1B receptor stimulated inositol phospholipid hydrolysis in CHO cells: synergy with Gq-coupled receptors. Dickenson JM, et al. **Eur J Pharmacol** 1998 May 8;348(2-3):279-85

Differential effects of (R)- and (S)-8-hydroxy-2-(di-n-propylamino)tetralin on the monosynaptic spinal reflex in rats. Honda M, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):171-9

Partial agonism at serotonin 5-HT1B and dopamine D2L receptors using a luciferase reporter gene assay. Kemp DM, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):215-22

Chronic alnespirone-induced desensitization of somatodendritic 5-HT1A autoreceptors in the rat dorsal raphe nucleus. Le Poul E, et al. **Eur J Pharmacol** 1999 Jan 22;365(2-3):165-73

Acute rise in corticosterone facilitates 5-HT(1A) receptor-mediated behavioural responses. Meijer OC, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):7-14

Both 5-HT1B and 5-HT1F receptors modulate c-fos expression within rat trigeminal nucleus caudalis. Mitsikostas DD, et al. **Eur J Pharmacol** 1999 Mar 26; 369(3):271-7

Identification of a domain affecting agonist potency of meta-chlorophenylbiguanide in 5-HT3 receptors. Mochizuki S, et al. **Eur J Pharmacol** 1999 Mar 12; 369(1):125-32

Effects of accumbens m-chlorophenylbiguanide microinjections on sleep and waking in intact and 6-hydroxydopamine-treated rats. Monti JM, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):89-98

GR46611 potentiates 5-HT1A receptor-mediated locomotor activity in the guinea pig. O'Neill MF, et al. **Eur J Pharmacol** 1999 Apr 9;370(2):85-92

Neuroprotection against N-methyl-D-aspartate-induced excitotoxicity in rat magnocellular nucleus basalis by the 5-HT1A receptor agonist 8-OH-DPAT. Oosterink BJ, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):147-52

The cataleptogenic effects of the neuroleptic nemonapride are attenuated by its 5-HT1A receptor agonist properties. Prinssen EP, et al. **Eur J Pharmacol** 1998 Sep 4; 356(2-3):189-92

BMS-181885, a 5-HT1B/1D receptor ligand, in experimental models predictive of antimigraine activity and coronary side-effect potential. Saxena PR, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):329-39

Neuroprotective effect of 5-HT1A receptor agonist, Bay X 3702, demonstrated in vitro and in vivo. Semkova I, et al. **Eur J Pharmacol** 1998 Oct 23;359(2-3):251-60

Flesinoxan treatment reduces 5-HT1A receptor mRNA in the dentate gyrus independently of high plasma corticosterone levels. Sibug RM, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):207-14

The 5-HT1A receptor agonist BAY x 3702 prevents staurosporine-induced apoptosis. Suchanek B, et al. **Eur J Pharmacol** 1998 Aug 14;355(1):95-101

External carotid effects of 2-(2-aminoethyl)-quinoline (D-1997) in vagosympathectomized dogs. Villalón CM, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):15-23

Effects of the non-selective 5-HT receptor agonist, 5-carboxamidotryptamine, on plasma glucose levels in rats. Yamada J, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):81-6

Anxiolytic effect of intra-amygdala injection of midazolam and 8-hydroxy-2-(di-n-propylamino)tetralin in the elevated T-maze. Zangrossi H Jr, et al. **Eur J Pharmacol** 1999 Mar 26;369(3):267-70

Antagonism of the 5-HT1A receptor stimulus in a conditioned taste aversion procedure. Berendsen HH, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):345-9

Antiaversive effects of 5HT2C receptor agonists and fluoxetine in a model of panic-like anxiety in rats. Jenck F, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):161-8

(+)-S-20499 -- a potential antidepressant? A behavioural and neurochemical investigation in the olfactory bulbectomised rat. McGrath C, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):21-7

Evidence for 5-HT1A receptor control of pineal melatonin concentrations in the rat. Nathan PJ, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):183-6

Role of impaired gastric accommodation to a meal in functional dyspepsia [see comments] Tack J, et al. **Gastroenterology** 1998 Dec;115(6):1346-52. Comment in: Gastroenterology 1998 Dec;115(6):1586-7.

Selective stimulation of colonic transit by the benzofuran 5HT4 agonist, prucalopride, in healthy humans. Bouras EP, et al. **Gut** 1999 May;44(5):682-6

Characterization of 5-hydroxytryptamine receptors mediating circular smooth muscle contraction in the human umbilical artery. Karlsson C, et al. **Gynecol Obstet Invest** 1999;47(2):102-7

Reduced efficacy of 8-OH-DPAT's inhibition of lordosis behavior by prior estrogen treatment. Trevino A, et al. **Horm Behav** 1999 Jun;35(3):215-23

Influence of selective 5-HT agonists and myocardial preconditioning on ischaemia/reperfusion induced changes in isolated heart of the rat. Deptuch TW, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S96-7

Neuroendocrine and hypothermic effects of 5-HT1A receptor stimulation with ipsapirone in healthy men: a placebo-controlled study. Cleare AJ, et al. **Int Clin Psychopharmacol** 1998 Jan;13(1):23-32

Role of endothelial factors in the specific response of mouse tumour-feeding arterioles to stimulation of 5-HT1 receptors. Laemmel E, et al. **Int J Radiat Biol** 1999 Mar; 75(3):365-71

Hypothermic, ACTH, and cortisol responses to ipsapirone in patients with mania and healthy controls. Yatham LN, et al. **J Affect Disord** 1999 Aug;54(3):295-301

Modulation of sympathetic nerve activity by microinjection of the 5-HT1A receptor agonist 8-OH-DPAT into the rostroventrolateral medulla. Bago M, et al. **J Auton Nerv Syst** 1999 May 28;76(2-3):127-34

Functional evaluation of 5-hydroxytryptamine receptor activity in rat resistance vessels. Potenza MA, et al. **J Auton Pharmacol** 1998 Apr;18(2):75-81

Roles of suprachiasmatic nuclei and intergeniculate leaflets in mediating the phase-shifting effects of a serotonergic agonist and their photic modulation during subjective day [published erratum appears in J Biol Rhythms 1998 Dec;13(6):539] Challet E, et al. **J Biol Rhythms** 1998 Oct; 13(5):410-21

Serotonin agonist quipazine induces photic-like phase shifts of the circadian activity rhythm and c-Fos expression in the rat suprachiasmatic nucleus. Kohler M, et al. **J Biol Rhythms** 1999 Apr;14(2):131-40

Cardiovascular responses produced by microinjection of serotonin-receptor agonists into the paraventricular

nucleus in conscious rats. Bell AA, et al. **J Cardiovasc Pharmacol** 1999 Feb;33(2):175–80

Effects of subcutaneous naratriptan on systemic and pulmonary haemodynamics and coronary artery diameter in humans. Hood S, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):89–94

Effects of sumatriptan on coronary flow and left ventricular function in the isolated perfused guinea pig heart. Le Grand B, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):435–42

Effects of the novel antimigraine agent, frovatriptan, on coronary and cardiac function in dogs. Parsons AA, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):995–1000

Definition of a pharmacophore for partial agonists of serotonin 5-HT3 receptors. Daveu C, et al. **J Chem Inf Comput Sci** 1999 Mar–Apr;39(2):362–9

N-Methyl-5-tert-butyltryptamine: A novel, highly potent 5-HT1D receptor agonist. Xu YC, et al. **J Med Chem** 1999 Feb 11;42(3):526–31

Effect of acute and chronic administration of dehydroepiandrosterone on (+/–)-1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane-induced wet dog shaking behavior in rats. Inagaki M, et al. **J Neural Transm** 1999;106(1):23–33

Pharmacological effects of venlafaxine, a new antidepressant, given repeatedly, on the alpha 1-adrenergic, dopamine and serotonin systems. Maj J, et al. **J Neural Transm** 1999; 106(2):197–211

Differential regulation of somatodendritic serotonin 5-HT1A receptors by 2-week treatments with the selective agonists alnespirone (S-20499) and 8-hydroxy-2-(Di-n-propylamino)tetralin: microdialysis and autoradiographic studies in rat brain. Casanovas JM, et al. **J Neurochem** 1999 Jan;72(1):262–72

5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53–60

Serotonergic modulation of neurotransmission in the rat basolateral amygdala. Rainnie DG. **J Neurophysiol** 1999 Jul;82(1):69–85

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213–24

5-Hydroxytryptamine(1F) receptors do not participate in vasoconstriction: lack of vasoconstriction to LY344864, a selective serotonin(1F) receptor agonist in rabbit saphenous vein. Cohen ML, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):935–9

Intestinal prokinesia by two esters of 4-amino-5-chloro-2-methoxybenzoic acid: involvement of 5-hydroxytryptamine-4 receptors and dissociation from cardiac effects in vivo. Crema F, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1045–52

Selective antiaggressive effects of alnespirone in resident-intruder test are mediated via 5-hydroxytryptamine1A receptors: A comparative pharmacological study with 8-hydroxy-2-dipropylaminotetralin, ipsapirone, buspirone, eltoprazine, and WAY-100635. de Boer SF, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1125–33

Pindolol suppresses serotonergic neuronal activity and does not block the inhibition of serotonergic neurons produced by 8-hydroxy-2-(di-n-propylamino)tetralin in awake cats. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):229–38

Inhibition of delayed rectifier K+ channels by dexfenfluramine (Redux). Hu S, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):480–6

F 11440, a potent, selective, high efficacy 5-HT1A receptor agonist with marked anxiolytic and antidepressant potential. Koek W, et al. **J Pharmacol Exp Ther** 1998 Oct; 287(1):266–83

S-16924 [(R)-2-[1-[2-(2,3-dihydro-benzo[1,4]dioxin-5-yloxy)-ethyl]- pyrrolidin-3yl]-1-(4-fluorophenyl)-ethanone], a novel, potential antipsychotic with marked serotonin1A agonist properties: III. Anxiolytic actions in comparison with clozapine and haloperidol. Millan MJ, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1002–14

S-16924, a novel, potential antipsychotic with marked serotonin1A agonist properties. IV. A drug discrimination comparison with clozapine. Millan MJ, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):427–36

Effects of various serotonin agonists, antagonists, and uptake inhibitors on the discriminative stimulus effects of methamphetamine in rats. Munzar P, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):239–50

Sustained desensitization of hypothalamic 5-Hydroxytryptamine1A receptors after discontinuation of fluoxetine: inhibited neuroendocrine responses to 8-hydroxy-2-(Dipropylamino)Tetralin in the absence of changes in Gi/o/z proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):561–7

Precontraction with elevated concentrations of extracellular potassium enables both 5-HT1B and 5-HT2A "silent" receptors in rabbit ear artery. Smith JR, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):354–60

Anxiolytic 5-hydroxytryptamine1A agonists suppress firing activity of dorsal hippocampus CA1 pyramidal neurons through a postsynaptic mechanism: single-unit study in unanesthetized, unrestrained rats. Tada K, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):843–8

Full and partial 5-HT1A receptor agonists disrupt learning and performance in rats. Winsauer PJ, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):335–47

Discriminative stimulus properties of indorenate, a serotonin agonist. Velázquez-Martínez DN, et al. **J Psychiatry Neurosci** 1999 Mar;24(2):122–30

Effect of a long-term low tryptophan diet on the prolactin responses to the 5-HT1A and 5-HT2C agonists, 8-OH-DPAT and mCPP in the male rat. Franklin M, et al. **J Psychopharmacol** 1999;13(1):58–63

The 5-HT1A receptor agonist flesinoxan increases aversion in a model of panic-like anxiety in rats. Jenck F, et al. **J Psychopharmacol** 1999;13(2):166–70

5-HT1A receptor agonist (8-OH-DPAT) and 5-HT2 receptor agonist (DOI) disrupt the non-cognitive performance of rats in a working memory task. Ruotsalainen S, et al. **J Psychopharmacol** 1998;12(2):177–85

Reduction of wrap restraint stress-induced defecation by MKC-242, a novel benzodioxan derivative, via 5-HT1A-receptor agonist action in rats. Abe M, et al. **Jpn J Pharmacol** 1998 Jul;77(3):211–7

Identification of SK-951, a novel benzofuran derivative, as an agonist to 5-HT4 receptors. Takeda M, et al. **Jpn J Pharmacol** 1999 Feb;79(2):203–12

Pharmacological and molecular characterization of 5-hydroxytryptamine(7) receptors in the rat adrenal gland. Contesse V, et al. **Mol Pharmacol** 1999 Sep;56(3):552–61

Suppression of mutagenic activity of a series of 5HT2c receptor agonists by the incorporation of a gem-dimethyl group: SAR using the Ames test and a DNA unwinding assay. Albertini S, et al. **Mutagenesis** 1998 Jul;13(4):397–403

Differences in agonist-independent activity of 5-Ht2A and 5-HT2c receptors revealed by heterologous expression. Grotewiel MS, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):21–7

Dimerization of 8-OH-DPAT increases activity at serotonin 5-HT1A receptors. Pauwels PJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):404–10

Porcine carotid vascular effects of eletriptan (UK-116,044): a new 5-HT1B/1D receptor agonist with anti-migraine activity. Willems E, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):212–9

Effect of TKS159, a novel 5-hydroxytryptamine4 agonist, on gastric contractile activity in conscious dogs. Haga N, et al. **Neurogastroenterol Motil** 1998 Aug;10(4):295–303

Prevention by 5-HT1A receptor agonists of restraint stress- and yohimbine-induced release of cholecystokinin in the frontal cortex of the freely moving rat. Becker C, et al. **Neuropharmacology** 1999 Apr;38(4):525–32

Discriminative stimulus properties of the novel serotonin (5-HT)2C receptor agonist, RO 60-0175: a pharmacological analysis. Dekeyne A, et al. **Neuropharmacology** 1999 Mar;38(3):415–23

SB 242084, a selective serotonin2C receptor antagonist, increases dopaminergic transmission in the mesolimbic system. Di Matteo V, et al. **Neuropharmacology** 1999 Aug; 38(8):1195–205

Influence of 5-HT1A receptors on central noradrenergic activity: microdialysis studies using (+/–)-MDL 73005EF and its enantiomers. Hajós-Korcsok E, et al. **Neuropharmacology** 1999 Feb;38(2):299–306

Effect of reserpine on behavioural responses to agonists at 5-HT1A, 5-HT1B, 5-HT2A, and 5-HT2C receptor subtypes. Heslop KE, et al. **Neuropharmacology** 1999 Jun; 38(6):883–91

Anxiolytic-like actions of BW 723C86 in the rat Vogel conflict test are 5-HT2B receptor mediated. Kennett GA, et al. **Neuropharmacology** 1998 Dec;37(12):1603–10

Bidirectional allosteric modulation of strychnine-sensitive glycine receptors by tropeines and 5-HT3 serotonin receptor ligands. Maksay G. **Neuropharmacology** 1998 Dec; 37(12):1633–41

Serotonin (5-HT)2C receptors tonically inhibit dopamine (DA) and noradrenaline (NA), but not 5-HT, release in the frontal cortex in vivo. Millan MJ, et al. **Neuropharmacology** 1998 Jul;37(7):953–5

Interaction of the anxiogenic agent, RS-30199, with 5-HT1A receptors: modulation of sexual activity in the male rat. Spedding M, et al. **Neuropharmacology** 1998 Jun; 37(6):769–80

Agonist-directed signaling of serotonin 5-HT2C receptors: differences between serotonin and lysergic acid diethylamide (LSD). Backstrom JR, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):77S–81S (25 ref.)

Effects of mCPP on the extracellular concentrations of serotonin and dopamine in rat brain. Eriksson E, et al. **Neuropsychopharmacology** 1999 Mar;20(3):287–96

5-HT1A receptor function in normal subjects on clinical doses of fluoxetine: blunted temperature and hormone responses to ipsapirone challenge. Lerer B, et al. **Neuropsychopharmacology** 1999 Jun;20(6):628–39

Inverse agonists and serotonergic transmission: from recombinant, human serotonin (5-HT)1B receptors to G-protein coupling and function in corticolimbic structures in vivo. Millan MJ, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):61S–67S (37 ref.)

Aggressive behaviour in transgenic mice expressing APP is alleviated by serotonergic drugs. Moechars D, et al. **Neuroreport** 1998 Nov 16;9(16):3561–4

Serotonergic agonists behave as partial agonists at the dopamine D2 receptor. Rinken A, et al. **Neuroreport** 1999 Feb 25;10(3):493–5

Testosterone and its metabolites modulate 5HT1A and 5HT1B agonist effects on intermale aggression. Simon NG, et al. **Neurosci Biobehav Rev** 1998;23(2):325–36 (104 ref.)

A serotonin-1A receptor agonist and an N-methyl-D-aspartate receptor antagonist oppose each others effects in a genetic rat epilepsy model. Filakovszky J, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):89–92

Homologous regulation of 5-HT1A receptor mRNA in adult rat hippocampal dentate gyrus. Huang J, et al. **Neurosci Lett** 1999 Jul 23;270(1):5–8

Enhancement of cortical and hippocampal cholinergic neurotransmission through 5-HT1A receptor-mediated pathways by BAY x 3702 in freely moving rats. Koyama T, et al. **Neurosci Lett** 1999 Apr 9;265(1):33–6

In Syrian hamsters, 5-HT fibres within the suprachiasmatic nuclei are necessary for the expression of 8-OH-DPAT induced phase-advance of locomotor activity rhythm. Schuhler S, et al. **Neurosci Lett** 1998 Oct 30;256(1):33–6

Development of the spatial pattern of 5-HT-induced locomotor rhythm in the lumbar spinal cord of rat fetuses in vitro. Iizuka M, et al. **Neurosci Res** 1998 Jun;31(2):107–11

Effect of WAY-100135 on the hippocampal acetylcholine release potentiated by 8-OH-DPAT, a serotonin1A receptor agonist, in normal and p-chlorophenylalanine-treated rats as measured by in vivo microdialysis. Nakai K, et al. **Neurosci Res** 1998 May; 31(1):23–9

5-Hydroxytryptamine2A receptor stimulation induces activator protein-1 and cyclic AMP-responsive element binding with cyclic AMP-responsive element-binding protein and Jun D as common components in cerebellar neurons. Chalecka-Franaszek E, et al. **Neuroscience** 1999; 88(3):885–98

Serotonin-2 receptor stimulation normalizes striatal preprotachykinin messenger RNA in an animal model of Parkinson's disease. Gresch PJ, et al. **Neuroscience** 1999; 93(3):831–41

Endogenous serotonin inhibits epileptiform activity in rat hippocampal CA1 neurons via 5-hydroxytryptamine1A receptor activation. Lu KT, et al. **Neuroscience** 1998 Oct; 86(3):729–37

Effects of oxyhemoglobin on vasoconstriction in response to 5-hydroxytryptamine in isolated, perfused canine basilar arteries. Orz YI, et al. **Neurosurgery** 1998 Nov; 43(5):1176–84

Effect of sumatriptan on external pancreatic secretion and its interaction with endogenous norepinephrine in the rat. Nagain-Domaine C, et al. **Pancreas** 1999 Jul;19(1):56–61

Behavioral effects of flibanserin (BIMT 17). Borsini F, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):137–46

Combined effects of Gepirone and (+)WAY 100135 on territorial aggression in mice. Lopez-Mendoza D, et al. **Pharmacol Biochem Behav** 1998 Sep;61(1):1–8

5-HT2A and 5-HT2C/5-HT1B receptors are differentially involved in alcohol preference and consummatory behavior in cAA rats. Maurel S, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):89–96

Antiaggresive and anxiolytic effects of gepirone in mice, and their attenuation by WAY 100635. Mendoza DL, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):499–509

Agonist properties of N,N-dimethyltryptamine at serotonin 5-HT2A and 5-HT2C receptors. Smith RL, et al. **Pharmacol Biochem Behav** 1998 Nov;61(3):323–30

Systemic chlorophenylpiperazine increases acetylcholine release from rat hippocampus-implication of 5-HT2C receptors. Zhelyazkova-Savova M, et al. **Pharmacol Res** 1999 Aug;40(2):165–70

Androgens and estrogens modulate 5-HT1A and 5-HT1B agonist effects on aggression. Cologer-Clifford A, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):823–8

Production of serotonin syndrome by 8-OH DPAT in Cryptotis parva. Darmani NA, et al. **Physiol Behav** 1998 Nov 15;65(2):327–31

Interactive modulation by dopamine and serotonin neurons of receptor sensitivity of the alternate neurochemical system. Kostrzewa RM, et al. **Pol J Pharmacol** 1999 Jan–Feb;51(1):39–47 (84 ref.)

Effect of linking bridge modifications on the 5-HT1A receptor activity of some 4-(omega-benzotriazol-1-yl)alkyl-1-(2-methoxy-phenyl) piperazines. Paluchowska MH, et al. **Pol J Pharmacol** 1998 Jul–Oct;50(4–5):341–7

Direct effects of new indorenate analogs on blood pressure of pithed rats. Pérez-Alvarez V, et al. **Proc West Pharmacol Soc** 1998;41:95–7

Evidence that methiothepin enhances the anorectic effect of indorenate. Ramirez JI, et al. **Proc West Pharmacol Soc** 1998;41:57–8

Temporal gradient of the discriminative stimulus properties of indorenate. Sánchez H, et al. **Proc West Pharmacol Soc** 1998;41:121–2

The 5-HT1A receptor and its ligands: structure and function. Olivier B, et al. **Prog Drug Res** 1999;52:103–65 (285 ref.)

Selectivity of action of typical and atypical anti-psychotic drugs as antagonists of the behavioral effects of 1-[2,5-dimethoxy-4-iodophenyl]-2-aminopropane (DOI). Wettstein JG, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Apr;

23(3):533–44
Effects of the CCK(B) antagonist CI-988 on responses to mCPP in generalized anxiety disorder. Goddard AW, et al. **Psychiatry Res** 1999 Mar 22;85(3):225–40
Ipsapirone neuroendocrine challenge: relationship to aggression as measured in the human laboratory. Moeller FG, et al. **Psychiatry Res** 1998 Oct 19;81(1):31–8
Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9–28
Attenuated response to m-CPP and to pentagastrin after repeated m-CPP in panic disorder [letter] Benjamin J, et al. **Psychopharmacology (Berl)** 1999 Apr;143(2):215–6
Comparative effects of novel 5-HT1A receptor ligands, LY293284, LY315712 and LY297996, on plus-maze anxiety in mice. Cao BJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):185–94
GR 127935 reduces basal locomotor activity and prevents RU 24969-, but not D-amphetamine-induced hyperlocomotion, in the Wistar-Kyoto hyperactive (WKHA) rat. Chaouloff F, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):326–31
Prolactin response to buspirone was reduced in violent compared to nonviolent parolees. Cherek DR, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):144–8
The pharmacology of impulsive behaviour in rats IV: the effects of selective serotonergic agents on a paced fixed consecutive number schedule. Evenden JL. **Psychopharmacology (Berl)** 1998 Dec;140(3):319–30
Activation of 5-HT1B receptors in the nucleus accumbens reduces amphetamine-induced enhancement of responding for conditioned reward. Fletcher PJ, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):165–74
Discriminative stimulus properties of mCPP: evidence for a 5-HT2C receptor mode of action. Gommans J, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):292–302
RU 24969, a 5-HT1A/1B agonist, elevates brain stimulation reward thresholds: an effect reversed by GR 127935, a 5-HT1B/1D antagonist. Harrison AA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):242–50
Effect of 5-HT2 receptor antagonists on a cranial nerve reflex in the rabbit: evidence for inverse agonism. Harvey JA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):162–8
The effects of 5-HT1A receptor agonists, 5-HT1A receptor antagonists and their interaction on the fear-potentiated startle response. Joordens RJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):383–90
Lack of an effect of zolmitriptan (Zomig, 311C90) on psychometric task performance: results of a placebo-controlled study in healthy volunteers. Mercer AJ, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):398–404
Alcohol-heightened aggression in mice: attenuation by 5-HT1A receptor agonists. Miczek KA, et al. **Psychopharmacology (Berl)** 1998 Sep;139(1-2):160–8
Effects of dopamine and serotonin-releasing agents on methamphetamine discrimination and self-administration in rats. Munzar P, et al. **Psychopharmacology (Berl)** 1999 Jan; 141(3):287–96
Low doses of ipsapirone increase growth hormone but not oxytocin secretion in normal male and female subjects. Newman ME, et al. **Psychopharmacology (Berl)** 1999 Jul; 145(1):99–104
Allelic variation in the 5-HT2C receptor (HTR2C) and functional responses to the 5-HT2C receptor agonist, m-chlorophenylpiperazine [letter] Quested DJ, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):306–7
Mechanism of tolerance development to 2,5-dimethoxy-4-iodoamphetamine in rats: down-regulation of the 5-HT2A, but not 5-HT2C, receptor. Smith RL, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):248–54
Zolmitriptan-induced growth hormone release in humans: mediation by 5-HT1D receptors? Whale R, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):223–6
Na(+)-dependent metabolic coupling upon 5-HT1B receptor activation by sumatriptan and related agonists. Pauwels PJ. **Receptors Channels** 1998;5(6):367–73
Induction of burst firing in ventral tegmental area dopaminergic neurons by activation of serotonin (5-HT)1A receptors: WAY 100,635-reversible actions of the highly selective ligands, flesinoxan and S 15535. Lejeune F, et al. **Synapse** 1998 Oct;30(2):172–80
Agonist- and antagonist-induced plasticity of rat 5-HT1A receptor in hippocampal cell culture. Nishi M, et al. **Synapse** 1999 Mar 1;31(3):186–95
RU 24969, a 5-HT1B/1A receptor agonist, potentiates cocaine-induced increases in nucleus accumbens dopamine. Parsons LH, et al. **Synapse** 1999 May;32(2):132–5
Effects of gastrointestinal prokinetic agents, TKS159 and cisapride, on the in situ canine heart assessed by cardiohemodynamic and electrophysiological monitoring. Sugiyama A, et al. **Toxicol Appl Pharmacol** 1998 Sep; 152(1):261–9
[Effects of serotonergic drugs on the up-regulation of dopamine D2 receptors induced by haloperidol in rat striatum] Ishikane T. **Hokkaido Igaku Zasshi** 1998 Sep; 73(5):441–9 (Eng. Abstr.) **(Jpn)**
[The role of agonists of serotonin receptor 5HT1B/D in pathogenesis and treatment of migraine attacks] Stępień A. **Pol Merkuriusz Lek** 1999 Jun;6(36):341–3 (28 ref.) (Eng. Abstr.) **(Pol)**
[Effects of 5-HT1a serotonin receptor agonists on sex motivation in male mice] Amstislavskaia TG, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):224–6 **(Rus)**

THERAPEUTIC USE

Profiles of 5-HT 1B/1D agonists in acute migraine with special reference to second generation agents. Deleu D, et al. **Acta Neurol Belg** 1999 Jun;99(2):85–95 (89 ref.)
Subcutaneous sumatriptan compared with usual acute treatments for migraine: clinical and pharmacoeconomic evaluation. Laloux P, et al. **Acta Neurol Belg** 1998 Dec; 98(4):332–41
Cisapride in the treatment of visual hallucinations caused by vision loss: the Charles Bonnet syndrome. Ranen NG, et al. **Am J Geriatr Psychiatry** 1999 Summer;7(3):264–6
Oral migraine drug approved for marketing [news] **Am J Health Syst Pharm** 1998 Aug 15;55(16):1656
The use of sumatriptan in the treatment of postdural puncture headache after accidental lumbar puncture complicated a blood patch procedure [letter] [see comments] Sprigge JS. **Anaesthesia** 1999 Jan;54(1):95–6. Comment in: Anaesthesia 1999 Jun;54(6):611–2. Comment in: Anaesthesia 1999 Jun;54(6):612.
Sumatriptan was effective in electroconvulsive therapy (ECT) headache [letter] Oms A, et al. **Anesthesiology** 1998 Nov;89(5):1291–2
Naratriptan: an alternative for migraine. Dulli DA. **Ann Pharmacother** 1999 Jun;33(6):704–11 (39 ref.)
Changes in resource use and outcomes for patients with migraine treated with sumatriptan: a managed care perspective. Lofland JH, et al. **Arch Intern Med** 1999 Apr 26;159(8):857–63
Zolmitriptan. **Can Fam Physician** 1999 Jun;45:1491–4, 1497–501 **(Eng, Fre)**
An important drug interaction. Williams CN. **Can J Gastroenterol** 1998 Nov-Dec;12(8):535 (9 ref.)
Re: Sertraline-clozapine interaction [letter; comment] Chong SA, et al. **Can J Psychiatry** 1998 Oct;43(8):856–7. Comment on: Can J Psychiatry 1998 Feb;43(1):84–5.
Subcutaneous naratriptan [editorial; comment] **Cephalalgia** 1998 Sep;18(7):419. Comment on: Cephalalgia 1998 Sep;18(7):476–80.
Acute treatment of migraine attacks: efficacy and safety of a nonsteroidal anti-inflammatory drug, diclofenac-potassium, in comparison to oral sumatriptan and placebo. The Diclofenac-K/Sumatriptan Migraine Study Group. **Cephalalgia** 1999 May;19(4):232–40
Cough headache responsive to methysergide. Bahra A, et al. **Cephalalgia** 1998 Sep;18(7):495–6
Effects of the antimigraine compound zolmitriptan ('Zomig') on psychomotor performance alone and in combination with diazepam in healthy volunteers. Dixon R, et al. **Cephalalgia** 1998 Sep;18(7):468–75
Effect of operationalized computer diagnosis on the therapeutic results of sumatriptan in general practice [see comments] Göbel H, et al. **Cephalalgia** 1998 Sep;18(7):481–6. Comment in: Cephalalgia 1998 Sep;18(7):419–20.
Vasoconstrictive properties of the 5HT1B/1D agonists: response to Dahlöf and Mathew [letter] Goldstein D. **Cephalalgia** 1999 Jun;19(5):536–7
Endothelin in migraine patients. Kallela M, et al. **Cephalalgia** 1998 Jul-Aug;18(6):329–32
Prolonged migraine aura without headache arrested by sumatriptan. A case report with further considerations. Kowacs PA, et al. **Cephalalgia** 1999 May;19(4):241–2
Prospective large-scale study of the tolerability of subcutaneous sumatriptan injection for acute treatment of migraine. O'Quinn S, et al. **Cephalalgia** 1999 May; 19(4):223–31; discussion 200
Sumatriptan is effective in the treatment of menstrual migraine: a review of prospective studies and retrospective analyses. Salonen R, et al. **Cephalalgia** 1999 Jan;19(1):16–9 (16 ref.)
Efficacy and adverse events of subcutaneous, oral, and intranasal sumatriptan used for migraine treatment: a systematic review based on number needed to treat. Tfelt-Hansen P. **Cephalalgia** 1998 Oct;18(8):532–8 (56 ref.)
Effect of subcutaneous naratriptan on forearm blood flow [see comments] Yogendran L, et al. **Cephalalgia** 1998 Sep; 18(7):476–80. Comment in: Cephalalgia 1998 Sep;18(7):419.
Present and future of 5-HT receptor agonists as antimigraine drugs. Pauwels PJ, et al. **Clin Neuropharmacol** 1999 May-Jun;22(3):123–36 (137 ref.)
Cranial vascular effects of zolmitriptan, a centrally active 5-HT1B/1D receptor partial agonist for the acute treatment of migraine. MacLennan SJ, et al. **Eur J Pharmacol** 1998 Nov 20;361(2-3):191–7
Treatment of severe, drug resistant obsessive compulsive disorder with the 5HT1D agonist sumatriptan. Stern L, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):325–8
Role of impaired gastric accommodation to a meal in functional dyspepsia [see comments] Tack J, et al. **Gastroenterology** 1998 Dec;115(6):1346–52. Comment in: Gastroenterology 1998 Dec;115(6):1586–7.
Migraine: which triptan? Peatfield RC. **Hosp Med** 1999 Apr; 60(4):277–80
Antinociceptive effect of sumatriptan in mice. Jain NK, et al. **Indian J Exp Biol** 1998 Oct;36(10):973–9
The use of selective serotonin reuptake inhibitors for depression and psychosis complicating dementia'--1997, 12, 519–527 [letter; comment] Lawlor B. **Int J Geriatr Psychiatry** 1998 Jul;13(7):496. Comment on: Int J Geriatr Psychiatry 1997 May;12(5):519–25.
Adult abdominal migraine and sumatriptan: a case report [letter] Moran JA. **Ir Med J** 1998 Dec;91(6):215–6
Buspirone in ODD [letter; comment] Dunne JE. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):942. Comment on: J Am Acad Child Adolesc Psychiatry 1995 Oct;34(10):1260.
Pharmacokinetics and pharmacodynamics of zolmitriptan in patients with mild to moderate hypertension: a double-blind, placebo-controlled study. Smith DA, et al. **J Clin Pharmacol** 1998 Aug;38(8):685–93
Buspirone augmentation of antidepressant therapy. Dimitriou EC, et al. **J Clin Psychopharmacol** 1998 Dec;18(6):465–9
Sumatriptan for post-ECT headache. Fantz RM, et al. **J ECT** 1998 Dec;14(4):272–4
A triptan too far? [letter; comment] Klein KB. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):121–2. Comment on: J Neurol Neurosurg Psychiatry 1998 Feb;64(2):143–7.
A triptan too far? [letter; comment] Meijler W. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):121; discussion 122. Comment on: J Neurol Neurosurg Psychiatry 1998 Feb;64(2):143–7.
A triptan too far? [letter; comment] van der Kuy PH, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):121; discussion 122. Comment on: J Neurol Neurosurg Psychiatry 1998 Feb;64(2):143–7.
New "triptans" and other drugs for migraine. **Med Lett Drugs Ther** 1998 Oct 9;40(1037):97–100
Essential palatal tremor: evidence of heterogeneity based on clinical features and response to Sumatriptan. Pakiam AS, et al. **Mov Disord** 1999 Jan;14(1):179–80
Current concepts of migraine and its treatment. Dahlöf CG. **Neurologia** 1999 Feb;14(2):67–77 (72 ref.)
A review of central 5-HT receptors and their function. Barnes NM, et al. **Neuropharmacology** 1999 Aug; 38(8):1083–152 (650 ref.)
A comparison of sibutramine and dexfenfluramine in the treatment of obesity. Hanotin C, et al. **Obes Res** 1998 Jul; 6(4):285–91
Differential effects of low dose CP122,288 and eletriptan on fos expression due to stimulation of the superior sagittal sinus in cat. Goadsby PJ, et al. **Pain** 1999 Jul;82(1):15–22
Serotonin in migraine: theories, animal models and emerging therapies. Johnson KW, et al. **Prog Drug Res** 1998; 51:219–44 (123 ref.)
Serotonin hypothesis of winter depression: behavioral and neuroendocrine effects of the 5-HT(1A) receptor partial agonist ipsapirone in patients with seasonal affective disorder and healthy control subjects. Schwartz PJ, et al. **Psychiatry Res** 1999 Apr 19;86(1):9–28
Attenuated response to m-CPP and to pentagastrin after repeated m-CPP in panic disorder [letter] Benjamin J, et al. **Psychopharmacology (Berl)** 1999 Apr;143(2):215–6
The effect of m-CPP on tics and obsessive-compulsive phenomena in Gilles de la Tourette syndrome. Cath DC, et al. **Psychopharmacology (Berl)** 1999 May;144(2):137–43
Physiological, pathophysiological and therapeutic roles of 5-HT systems in learning and memory. Meneses A. **Rev Neurosci** 1998;9(4):275–89 (89 ref.)
[Treatment of adjustment disorder with anxiety: efficacy and tolerance of etifoxine in a double-blind controlled study] Servant D, et al. **Encephale** 1998 Nov-Dec;24(6):569–74 (Eng. Abstr.) **(Fre)**
[Zolmitriptan] Monseu G, et al. **Rev Med Brux** 1998 Dec; 19(6):495–9 (Eng. Abstr.) **(Fre)**
[Anti-migraine treatment: present and future] Schoenen J. **Rev Med Liege** 1999 Feb;54(2):79–86 (52 ref.) (Eng. Abstr.) **(Fre)**
[Anxiety and depression—patients with comorbidity. Advances in therapy with dual-serotonergic action] **Nervenarzt** 1998 Dec;69(12 Suppl Fortschrit):1–4 **(Ger)**
[The efficacy of subcutaneous sumatriptan for the treatment of migraine attack] Stępień A. **Pol Merkuriusz Lek** 1999 Jun;6(36):326–7 (Eng. Abstr.) **(Pol)**
[The role of agonists of serotonin receptor 5HT1B/D in pathogenesis and treatment of migraine attacks] Stępień A. **Pol Merkuriusz Lek** 1999 Jun;6(36):341–3 (28 ref.) (Eng. Abstr.) **(Pol)**
[Clinical efficacy of zolmitriptan in migraine] Leira R, et al. **Neurologia** 1998 Oct;13 Suppl 2:16–24 (20 ref.) (Eng. Abstr.) **(Spa)**
[Mechanism of action of zolmitriptan] Pascual J. **Neurologia** 1998 Oct;13 Suppl 2:9–15 (49 ref.) (Eng. Abstr.) **(Spa)**

TOXICITY

Prevention of DOI-mediated wet dog shakes by inhibitors of nitric oxide synthase. Xu X, et al. **Brain Res** 1998 Sep 7;804(2):337–40

SEROTONIN ANTAGONISTS

see related
SEROTONIN UPTAKE INHIBITORS

A mesenteric mass in a chronic LSD user [letter] Berk SI, et al. **Am J Med** 1999 Aug;107(2):188–9
Pinacidil suppression on 5-HT3 receptor-mediated contraction of guinea pig ileum in vitro. Yuan YM, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):31–5
Simultaneous measurement of blood and brain

microdialysates of granisetron in rat by high-performance liquid chromatography with fluorescence detection. Huang CT, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):251-5

ADMINISTRATION & DOSAGE

Antiemetic effects of Lerisetron in radiation-induced emesis in the dog. Gomez-de-Segura IA, et al. **Acta Oncol** 1998; 37(7-8):759-63

Oral granisetron prevents postoperative vomiting in children. Fujii Y, et al. **Br J Anaesth** 1998 Sep;81(3):390-2

Role of dexamethasone dosage in combination with 5-HT3 antagonists for prophylaxis of acute chemotherapy-induced nausea and vomiting. Münstedt K, et al. **Br J Cancer** 1999 Feb;79(3-4):637-9

Prophylactic therapy with combined granisetron and dexamethasone for the prevention of post-operative vomiting in children. Fujii Y, et al. **Eur J Anaesthesiol** 1999 Jun;16(6):376-9

Granisetron reduces post-operative vomiting in children: a dose-ranging study. Fujii Y, et al. **Eur J Anaesthesiol** 1999 Jan;16(1):62-5

Comparison of ondansetron and tropisetron combined with droperidol for the prevention of emesis in women with a history of post-operative nausea and vomiting. Koivuranta M, et al. **Eur J Anaesthesiol** 1999 Jun; 16(6):390-5

Topical ondansetron attenuates nociceptive and inflammatory effects of intradermal capsaicin in humans. Giordano J, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):R13-4

Cyproheptadine and SSRIs [letter] Boon F. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):112

Atypical antipsychotics [letter] Jefferson AM, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Dec; 37(12):1243-4

Kinetic analysis of [11C]McN5652: a serotonin transporter radioligand. Szabo Z, et al. **J Cereb Blood Flow Metab** 1999 Sep;19(9):967-81

Relief from profound fatigue associated with chronic liver disease by long-term ondansetron therapy [letter] Jones EA. **Lancet** 1999 Jul 31;354(9176):397

Open-label comparison of the antiemetic efficacy of single intravenous doses of dolasetron mesylate in pediatric cancer patients receiving moderately to highly emetogenic chemotherapy. Coppes MJ, et al. **Med Pediatr Oncol** 1999 Aug;33(2):99-105

About the antiemetic effectivity of granisetron in chemotherapy-induced acute emesis: a comparison of results with intravenous and oral dosing. Lehoczky O. **Neoplasma** 1999;46(2):73-9 (50 ref.)

Effect of ondansetron, a 5-HT3 receptor antagonist, on the dynamic association between bulimic behaviors and pain thresholds. Faris PL, et al. **Pain** 1998 Sep;77(3):297-303

Onset of the effects of the 5-HT1A antagonist, WAY-100635, alone, and in combination with paroxetine, on olfactory bulbectomy and 8-OH-DPAT-induced changes in the rat. Cryan JF, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):333-8

[Effect of naftidrofuryl (praxilene) on optic nerve head blood flow in the patient with glaucoma] Achache F, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):260-2 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Adverse reactions to antinauseants in common use in the UK. Soukop M. **Adverse Drug React Toxicol Rev** 1998 Jun-Sep; 17(2-3):91-113 (57 ref.)

Risperidone-induced mania [letter] Zolezzi M, et al. **Ann Pharmacother** 1999 Mar;33(3):380-1

The association of the combination of sumatriptan and methysergide in myocardial infarction in a premenopausal woman. Liston H, et al. **Arch Intern Med** 1999 Mar 8; 159(5):511-3

Efficacy of 5-HT3 receptor antagonists in radiotherapy-induced nausea and vomiting: a quantitative systematic review. Tramèr MR, et al. **Eur J Cancer** 1998 Nov;34(12):1836-44

Is there a role for the alpha2 antagonism in the exacerbation of hallucinogen-persisting perception disorder with risperidone? [letter; comment] Alcántara AG. **J Clin Psychopharmacol** 1998 Dec;18(6):487-8. Comment on: J Clin Psychopharmacol 1996 Jun;16(3):238-41. Comment on: J Clin Psychopharmacol 1997 Aug;17(4):327-8.

Mirtazapine and the granulocytes--so far so good [letter] Meyboom RH, et al. **N Z Med J** 1999 Mar 26;112(1084):104

Tolerance to acute anxiolysis but no withdrawal anxiogenesis in mice treated chronically with 5-HT1A receptor antagonist, WAY 100635. Cao BJ, et al. **Neurosci Biobehav Rev** 1998;23(2):247-57

[SIADH and treatment with selective inhibitors of serotonin recapture (letter)] Cano Ballesteros JC, et al. **Rev Clin Esp** 1998 Dec;198(12):851-2 **(Spa)**

ANALYSIS

Chimeric receptor analysis of the ketanserin binding site in the human 5-Hydroxytryptamine1D receptor: importance of the second extracellular loop and fifth transmembrane domain in antagonist binding. Wurch T, et al. **Mol Pharmacol** 1998 Dec;54(6):1088-96

BLOOD

Serum protein binding of lerisetron, a novel specific 5HT3 antagonist, in patients with cancer. Calvo R, et al. **Cancer Chemother Pharmacol** 1998;42(5):418-22

Determination of a specific 5-HT2a antagonist (M100907) in rat and dog plasma at the femtomole/milliliter level by gas chromatography-mass spectrometry. Emmons GT, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):161-9

CHEMICAL SYNTHESIS

Design and synthesis of 2-[4-[4-(m-(ethylsulfonamido)-phenyl) piperazin-1-yl]butyl]-1,3-dioxoperhydropyrrolo[1,2-c]imidazole (EF-7412) using neural networks. A selective derivative with mixed 5-HT1A/D2 antagonist properties. López-Rodriguez ML, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1679-82

Design and synthesis of new potent, silent 5-HT1A antagonists by covalent coupling of aminopropanol derivatives with selective serotonin reuptake inhibitors. Perez M, et al. **Bioorg Med Chem Lett** 1998 Dec 1; 8(23):3423-8

Novel potent and selective central 5-HT3 receptor ligands provided with different intrinsic efficacy. 2. Molecular basis of the intrinsic efficacy of arylpiperazine derivatives at the central 5-HT3 receptors. Cappelli A, et al. **J Med Chem** 1999 May 6;42(9):1556-75

Tetrahydrobenzindoles: selective antagonists of the 5-HT7 receptor. Kikuchi C, et al. **J Med Chem** 1999 Feb 25; 42(4):533-5

Development of fluorine-18-labeled 5-HT1A antagonists. Lang L, et al. **J Med Chem** 1999 May 6;42(9):1576-86

Spiperone: influence of spiro ring substituents on 5-HT2A serotonin receptor binding. Metwally KA, et al. **J Med Chem** 1998 Dec 3;41(25):5084-93

Synthesis and serotonergic activity of substituted 2, N-benzylcarboxamido-5-(2-ethyl-1-dioxoimidazolidinyl) -N, N-dimethyltryptamine derivatives: novel antagonists for the vascular 5-HT(1B)-like receptor. Moloney GP, et al. **J Med Chem** 1999 Jul 15;42(14):2504-26

Cycloalkanecarboxylic esters derived from lysergol, dihydrolysergol-I, and elymoclavine as partial agonists and antagonists at rat 5-HT2A receptors: pharmacological evidence that the indolo[4,3-fg]quinoline system of the ergolines is responsible for high 5-HT2A receptor affinity. Pertz HH, et al. **J Med Chem** 1999 Feb 25;42(4):659-68

2,3-Dihydro-2-oxo-1H-benzimidazole-1-carboxamides with selective affinity for the 5-HT(4) receptor: synthesis and structure-affinity and structure-activity relationships of a new series of partial agonist and antagonist derivatives. Tapia I, et al. **J Med Chem** 1999 Jul 29;42(15):2870-80

DIAGNOSTIC USE

Serotonin 5-HT1A receptor imaging in the human brain with PET. Co-ordination of the standardisation and dissemination of methodology. Workshop on [carbonyl-11C]WAY-100635 radiochemistry and metabolite analysis 30-31 March 1999. MRC Cyclotron Unit, London, UK [news] Pike VW. **Eur J Nucl Med** 1999 Aug;26(8):946-8

Workshop on 5-HT1A receptor imaging--modelling of [carbonyl-11C]WAY-100635 in the human brain. 6 May 1999, PET Centre, San Raffaele, Milan, Italy [news] Pike VW. **Eur J Nucl Med** 1999 Aug;26(8):948-50

Quantitative analyses of carbonyl-carbon-11-WAY-100635 binding to central 5-hydroxytryptamine-1A receptors in man. Farde L, et al. **J Nucl Med** 1998 Nov;39(11):1965-71

Localization of 5-HT1A receptors in the living human brain using [carbonyl-11C]WAY-100635: PET with anatomic standardization technique. Ito H, et al. **J Nucl Med** 1999 Jan;40(1):102-9

METABOLISM

Agonist and antagonist binding to rabbit cortical 5-HT2A receptors: opposite effects of magnesium. Aloyo VJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:280

Pharmacological characterization of the constitutively activated state of the serotonin 5-HT2C receptor. Herrick-Davis K, et al. **Ann N Y Acad Sci** 1998 Dec 15; 861:140-5

Single- and multiple-dose pharmacokinetics of oral dolasetron and its active metabolites in healthy volunteers: part 2. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):41-8

[3H]-Mesulergine labels 5-HT7 sites in rat brain and guinea-pig ileum but not rat jejunum. Hemedah M, et al. **Br J Pharmacol** 1999 Jan;126(1):179-88

Receptor binding characteristics of [3H]NAD-299, a new selective 5-HT1A receptor antagonist. Jerning E, et al. **Eur J Pharmacol** 1998 Nov 6;360(2-3):219-25

Clonidine potentiates the effects of 5-HT1A, 5-HT1B and 5-HT2A/2C antagonists and 8-OH-DPAT in the mouse forced swimming test. Redrobe JP, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):169-73

Modulation of agonist and antagonist interactions in serotonin 1A receptors by alcohols. Harikumar KG, et al. **FEBS Lett** 1998 Oct 30;438(1-2):96-100

Functional antagonism of gonadal steroids at the 5-hydroxytryptamine type 3 receptor. Wetzel CH, et al. **Mol Endocrinol** 1998 Sep;12(9):1441-51

Autoradiographic localization of the [3H]-(S)-zacopride labelled 5-HT3 receptor in porcine brain. Fletcher S, et al. **Neurosci Lett** 1999 Jul 9;269(2):91-4

Radiosynthesis and autoradiographic evaluation of [11C]NAD-299, a radioligand for visualization of the 5-HT1A receptor. Sandell J, et al. **Nucl Med Biol** 1999 Feb;26(2):159-64

Brain 5-HT2A receptor occupancy of deramciclane in humans after a single oral administration--a positron emission tomography study. Kanerva H, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):76-81

PHARMACOKINETICS

Absorption and brain penetration of a high affinity, highly selective 5-HT2C receptor antagonist, RS-102221. Bonhaus DW, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:269

Influence of age on the pharmacokinetics of naftidrofuryl after single oral administration in elderly versus young healthy volunteers. Hulot T, et al. **Arzneimittelforschung** 1998 Sep;48(9):900-4

Intravenous pharmacokinetics and absolute oral bioavailability of dolasetron in healthy volunteers: part 1. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan; 20(1):29-39

Single- and multiple-dose pharmacokinetics of oral dolasetron and its active metabolites in healthy volunteers: part 2. Dimmitt DC, et al. **Biopharm Drug Dispos** 1999 Jan;20(1):41-8

Pharmacokinetics of dolasetron with coadministration of cimetidine or rifampin in healthy subjects. Dimmitt DC, et al. **Cancer Chemother Pharmacol** 1999;43(2):126-32

Heterogeneity in systemic availability of ondansetron and granisetron following oral administration. Corrigan BW, et al. **Drug Metab Dispos** 1999 Jan;27(1):110-2

Application of overpressured layer chromatography combined with digital autoradiography and mass spectrometry in the study of deramciclane metabolism. Ludányi K, et al. **J AOAC Int** 1999 Mar-Apr;82(2):231-8

Pharmacokinetics of oral and intravenous dolasetron mesylate in patients with renal impairment. Dimmitt DC, et al. **J Clin Pharmacol** 1998 Sep;38(9):798-806

Positron emission tomographic analysis of dose-dependent MDL 100,907 binding to 5-hydroxytryptamine-2A receptors in the human brain. Andrée B, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):317-23

Whole-body autoradiography and quantitative organ-level distribution study of deramciclane in rats. Hazai I, et al. **J Pharm Pharmacol** 1999 Feb;51(2):165-74

Pharmacokinetics of granisetron in rat blood and brain by microdialysis. Huang CT, et al. **Life Sci** 1999; 64(21):1921-31

Tracer kinetic modeling of the 5-HT1A receptor ligand [carbonyl-11C]WAY-100635 for PET. Gunn RN, et al. **Neuroimage** 1998 Nov;8(4):426-40

[Pharmacokinetics of azasetron (Serotone), a selective 5-HT3 receptor antagonist] Tsukagoshi S. **Gan To Kagaku Ryoho** 1999 Jun;26(7):1001-8 (Eng. Abstr.) **(Jpn)**

PHARMACOLOGY

Behavioral and neurochemical alterations evoked by p-Chlorophenylalanine application in rats examined in the light-dark crossing test. Koprowska M, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(1):15-22

An investigation into the effects of 5-HT agonists and receptor antagonists on ethanol self-administration in the rat. Wilson AW, et al. **Alcohol** 1998 Oct;16(3):249-70

Review article: effects of the 5-HT3 receptor antagonist alosetron on neuromuscular transmission in canine and human intestinal muscle. Audolfsson G, et al. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:39-47 (16 ref.)

Review article: evaluation of drugs in experimental gut distension models. Pappas TN, et al. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:54-6 (20 ref.)

5-HT is present in nerves of guinea pig sphincter of Oddi and depolarizes sphincter of Oddi neurons. Hillsley K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1018-27

5-HT2B-receptor antagonist LY-272015 is antihypertensive in DOCA-salt-hypertensive rats. Watts SW, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H944-52

Enhancement of CO2-induced anxiety in healthy volunteers with the serotonin antagonist metergoline. Ben-Zion IZ, et al. **Am J Psychiatry** 1999 Oct;156(10):1635-7

The effects of serotonin biosynthesis inhibition on nicotine and nifedipine-induced analgesia in rats. Hunt TE, et al. **Anesth Analg** 1998 Nov;87(5):1109-12

Creation of a constitutively activated state of the 5-HT2A receptor by site-directed mutagenesis: revelation of inverse agonist activity of antagonists. Egan C, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:136-9

The selective 5-HT1B receptor inverse agonist SB-224289, potently blocks terminal 5-HT autoreceptor function both in vitro and in vivo. Gaster LM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:270-1

Involvement of 5-HT1A receptors in the consolidation of learning in cognitively impaired rats. Meneses A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:286-7

Effects of acute and chronic treatment with clozapine on dopamine release in rat nucleus accumbens slice

preparations. Mylecharane EJ, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:284–5

5-HT1A agonist activity of pindolol: reversal of the inhibitory effects on cell firing in the dorsal raphe nucleus but not in the hippocampus by WAY-100,635. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:274–5

Evidence for the putative 5-HT7 receptor mediating direct relaxation to 5-hydroxytryptamine in canine cerebral blood vessels. Terrón JA. **Ann N Y Acad Sci** 1998 Dec 15;861:283

Pharmacological profile of the prejunctional 5-HT1 receptors mediating inhibition of sympathetic vasopressor outflow in the pithed rat. Villalón CM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:281–2

Serotonergic antagonist effects on trafficking of serotonin 5-HT2A receptors in vitro and in vivo. Willins DL, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:121–7

Effect of 5-hydroxytryptamine-2 and alpha-adrenergic receptor antagonists on the 5-hydroxytryptamine-induced decrease in rabbit masseter muscle blood flow. Kurita H, et al. **Arch Oral Biol** 1999 Aug;44(8):651–6

Cerebrovascular effects of dotarizine, a piperazine derivative, in the goat. An in vivo and in vitro complementary study. Torregrosa G, et al. **Arzneimittelforschung** 1999 Aug; 49(8):668–72

Antagonism of meta-chlorophenylpiperazine-induced inhibition of exploratory activity in an emergence procedure, the open field test, in rats. Meert TF, et al. **Behav Pharmacol** 1997 Aug;8(4):353–63

Potentiation of the time-dependent, antidepressant-induced changes in the agonistic behaviour of resident rats by the 5-HT1A receptor antagonist, WAY-100635. Mitchell PJ, et al. **Behav Pharmacol** 1997 Nov;8(6–7):585–606

The effects of serotonin3 receptor blockade on the psychobiological response to intravenous clomipramine in healthy human subjects. Leatherman ME, et al. **Biol Psychiatry** 1999 Jan 15;45(2):238–40

Enhancement of antipsychoticlike properties of raclopride in rats using the selective serotonin2A receptor antagonist MDL 100,907. Wadenberg ML, et al. **Biol Psychiatry** 1998 Sep 15;44(6):508–15

Design and synthesis of 2-[4-[4-(m-(ethylsulfonamido)-phenyl) piperazin-1-yl]butyl]-1,3-dioxoperhydropyrrolo[1,2-c]imidazole (EF-7412) using neural networks. A selective derivative with mixed 5-HT1A/D2 antagonist properties. López-Rodriguez ML, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1679–82

Vasoconstriction in human isolated middle meningeal arteries: determining the contribution of 5-HT1B- and 5-HT1F-receptor activation. Razzaque Z, et al. **Br J Clin Pharmacol** 1999 Jan;47(1):75–82

Investigation of stretching behaviour induced by the selective 5-HT6 receptor antagonist, Ro 04-6790, in rats. Bentley JC, et al. **Br J Pharmacol** 1999 Apr;126(7):1537–42

The 5-HT4 receptor antagonist ML10375 inhibits the constitutive activity of human 5-HT4(c) receptor. Blondel O, et al. **Br J Pharmacol** 1998 Oct;125(4):595–7

RS-127445: a selective, high affinity, orally bioavailable 5-HT2B receptor antagonist. Bonhaus DW, et al. **Br J Pharmacol** 1999 Jul;127(5):1075–82

Involvement of 5-HT6 receptors in nigro-striatal function in rodents. Bourson A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1562–6

Mode of action of ICS 205,930, a novel type of potentiator of responses to glycine in rat spinal neurones. Chesnoy-Marchais D. **Br J Pharmacol** 1999 Feb; 126(3):801–9

Pindolol-insensitive [3H]-5-hydroxytryptamine binding in the rat hypothalamus; identity with 5-hydroxytryptamine7 receptors. Clemett DA, et al. **Br J Pharmacol** 1999 May; 127(1):236–42

Modulation of the vagal bradycardia evoked by stimulation of upper airway receptors by central 5-HT1 receptors in anaesthetized rabbits. Dando SB, et al. **Br J Pharmacol** 1998 Sep;125(2):409–17

G-protein activation at 5-HT1A receptors by the 5-ht1F ligand LY334370 in guinea-pig brain sections and recombinant cell lines. Dupuis DS, et al. **Br J Pharmacol** 1998 May;124(2):283–90

Citalopram-induced hypophagia is enhanced by blockade of 5-HT(1A) receptors: role of 5-HT(2C) receptors. Grignaschi G, et al. **Br J Pharmacol** 1998 Aug; 124(8):1781–7

Role of the medial prefrontal cortex in 5-HT1A receptor-induced inhibition of 5-HT neuronal activity in the rat. Hajós M, et al. **Br J Pharmacol** 1999 Apr; 126(8):1741–50

Characterization of the 5-hydroxytryptamine receptors mediating contraction in the intestine of Suncus murinus. Javid FA, et al. **Br J Pharmacol** 1999 Aug;127(8):1867–75

Respiratory and cardiovascular effects of the mu-opioid receptor agonist [Lys7]dermorphin in awake rats. Negri L, et al. **Br J Pharmacol** 1998 May;124(2):345–55

Attenuation of haloperidol-induced catalepsy by a 5-HT2C receptor antagonist. Reavill C, et al. **Br J Pharmacol** 1999 Feb;126(3):572–4

SB-224289--a novel selective (human) 5-HT1B receptor antagonist with negative intrinsic activity. Selkirk JV, et al. **Br J Pharmacol** 1998 Sep;125(1):202–8

Functional characterisation of the human cloned 5-HT7 receptor (long form); antagonist profile of SB-258719. Thomas DR, et al. **Br J Pharmacol** 1998 Jul;124(6):1300–6

5-HT1B receptor-mediated contractions in human temporal artery: evidence from selective antagonists and 5-HT receptor mRNA expression. Verheggen R, et al. **Br J Pharmacol** 1998 Aug;124(7):1345–54

Serotonin antagonists do not attenuate activity-induced phase shifts of circadian rhythms in the Syrian hamster. Antle MC, et al. **Brain Res** 1998 Nov 30;813(1):139–49

Serotonin-dependent maintenance of spatial performance and electroencephalography activation after cholinergic blockade: effects of serotonergic receptor antagonists. Dringenberg HC, et al. **Brain Res** 1999 Aug 7; 837(1-2):242–53

The 5-HT3 receptor antagonist, MDL 72222, dose-dependently potentiates morphine-induced immediate-early gene expression in the rat caudate putamen. Frankel PS, et al. **Brain Res** 1998 Dec 14; 814(1-2):186–93

Serotonergic involvement in stress-induced ACTH release. Jørgensen H, et al. **Brain Res** 1998 Nov 16;811(1-2):10–20

Partial antagonism of 8-OH-DPAT'S effects on male rat sexual behavior with a D2, but not a 5-HT1A, antagonist. Matuszewich L, et al. **Brain Res** 1999 Feb 27; 820(1-2):55–62

Behavioral effects of anti-muscarinic, anti-serotonergic, and anti-NMDA treatments: hippocampal and neocortical slow wave electrophysiology predict the effects on grooming in the rat. Robertson BJ, et al. **Brain Res** 1999 Aug 14; 838(1-2):234–40

Ketanserin and tetrabenazine abolish aggression in mice lacking monoamine oxidase A. Shih JC, et al. **Brain Res** 1999 Jul 24;835(2):104–12

Synaptogenesis in the postnatal rat fascia dentata is influenced by 5-HT1a receptor activation. Faber KM, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):245–52

Rabbit mononuclear leukocytes cause contraction of isolated aorta by the release of serotonin. Hart-Favaloro JL, et al. **Cardiovasc Res** 1999 Jan;41(1):246–54

Effect of 5-HT4 receptor stimulation on the pacemaker current I(f) in human isolated atrial myocytes [see comments] Pino R, et al. **Cardiovasc Res** 1998 Dec; 40(3):516–22. Comment in: Cardiovasc Res 1998 Dec;40(3):436–7.

8-(N,N-diethylamino)-n-octyl-3,4,5-trimethoxybenzoate reduced [Ca2+]i elevation induced by histamine, serotonin, and glutamate in cultured calf basilar artery smooth muscle cells. Wang B, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):251–3

The 5-HT2 receptor antagonist sarpogrelate reduces urinary and plasma levels of thromboxane A2 and urinary albumin excretion in non-insulin-dependent diabetes mellitus patients. Ogawa S, et al. **Clin Exp Pharmacol Physiol** 1999 May-Jun;26(5-6):461–4

Serotonin receptor agonists that increase cyclic AMP positively regulate IGF-I in mouse mandibular mesenchymal cells. Lambert HW, et al. **Dev Neurosci** 1999; 21(2):105–12

The effects of 8-OH-DPAT and (+/-)-pindolol on isolation-induced ultrasonic vocalizations in 3-, 10-, and 14-day-old rats. Joyce MP, et al. **Dev Psychobiol** 1999 Mar; 34(2):109–17

Central modulation of rectal distension-induced blood pressure changes by alosetron, a 5-HT3 receptor antagonist. Miura M, et al. **Dig Dis Sci** 1999 Jan;44(1):20–4

Effects of tropisetron, a 5-HT3 receptor antagonist, on proximal gastric motor and sensory function in nonulcer dyspepsia. Klatt S, et al. **Digestion** 1999 Mar-Apr; 60(2):147–52

Serotoninergic modulation of cell volume response to estramustine: an image-analysis study on perifused individual glioma cells. Behnam-Motlagh P, et al. **Eur J Cancer** 1999 Jan;35(1):145–53

The 5-HT1A receptor agonist Bay x 3702 inhibits apoptosis induced by serum deprivation in cultured neurons. Ahlemeyer B, et al. **Eur J Pharmacol** 1999 Apr 9; 370(2):211–6

The 5-HT1A receptor antagonist p-MPPI blocks 5-HT1A autoreceptors and increases dorsal raphe unit activity in awake cats. Bjorvatn B, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):167–78

Pharmacological aspects of experimental headache models in relation to acute antimigraine therapy. De Vries P, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):61–74 (176 ref.)

The canine external carotid vasoconstrictor 5-HT1 receptor: blockade by 5-HT1B (SB224289), but not by 5-HT1D (BRL15572) receptor antagonists. De Vries P, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):69–72

Characterisation of the contractile activity of eletriptan at the canine vascular 5-HT1B receptor. Gupta P, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):283–90

Modulatory effect of p-chlorophenylalanine microinjected into the dorsal and median raphe nuclei on cocaine-induced behaviour in the rat. Herges S, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):329–40

Blockade of accumbens 5-HT3 receptor down-regulation by ondansetron administered during continuous cocaine administration. King GR, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):79–87

Decreased protein kinase C activation mediates inhibitory effect of norathyriol on serotonin-mediated endothelial permeability. Lee HZ, et al. **Eur J Pharmacol** 1998 Jul 24;353(2-3):303–13

SB-236057, a selective 5-HT1B receptor inverse agonist, blocks the 5-HT human terminal autoreceptor. Middlemiss DN, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):359–65

5-HT1A receptor antagonists neither potentiate nor inhibit the effects of fluoxetine and befloxatone in the forced swim test in rats. Moser PC, et al. **Eur J Pharmacol** 1999 May 14;372(2):127–34

5-HT2A receptor antagonists block MK-801-induced stereotypy and hyperlocomotion. Ninan I, et al. **Eur J Pharmacol** 1998 Oct 2;358(2):111–6

5-HT4 receptor antagonism does not affect motor and reward mechanisms in the rat. Reavill C, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):115–20

Synergistic neurochemical and behavioral effects of fluoxetine and 5-HT1A receptor antagonists. Trillat AC, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):179–84

Effect of deramciclane, a new 5-HT receptor antagonist, on cholecystokinin-induced changes in rat gastrointestinal function. Varga G, et al. **Eur J Pharmacol** 1999 Feb 19; 367(2-3):315–23

In vivo intrinsic efficacy of the 5-HT1A receptor antagonists NAD-299, WAY-100,635 and (S)-(-)-UH-301 at rat brain monoamine receptors. Ahlenius S, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):15–9

Clonidine potentiates the effects of 5-HT1A, 5-HT1B and 5-HT2A/2C antagonists and 8-OH-DPAT in the mouse forced swimming test. Redrobe JP, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):169–73

N-ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline studies on the role of 5-HT1A and 5-HT2 receptors in mediating foot-shock-induced ultrasonic vocalisation in adult rats. Sánchez C, et al. **Eur Neuropsychopharmacol** 1999 Jun; 9(4):287–94

Intracolonic glycerol induces abdominal contractions in rats: role of 5-HT3 receptors. Botella A, et al. **Fundam Clin Pharmacol** 1998;12(6):619–23

Effects of granisetron and its combination with dexamethasone on cisplatin-induced delayed emesis in the ferret. Fukunaka N, et al. **Gen Pharmacol** 1998 Nov; 31(5):775–81

Improvement of cisplatin-induced emesis and delayed gastric emptying by KB-R6933, a novel 5-HT3 receptor antagonist. Ozaki A, et al. **Gen Pharmacol** 1999 Sep; 33(3):283–8

Characterization of 5-hydroxytryptamine receptors mediating circular smooth muscle contraction in the human umbilical artery. Karlsson C, et al. **Gynecol Obstet Invest** 1999;47(2):102–7

Action of serotonin antagonists on cytoplasmic calcium levels in early embryos of sea urchin Lytechinus pictus. Shmukler YB, et al. **Int J Dev Biol** 1999 Mar;43(2):179–82

Improvement of exercise capacity by sarpogrelate as a result of augmented collateral circulation in patients with effort angina. Tanaka T, et al. **J Am Coll Cardiol** 1998 Dec; 32(7):1982–6

Beneficial effect of serotonin 5-HT2-receptor antagonism on renal blood flow autoregulation in cyclosporin-treated rats. Verbeke M, et al. **J Am Soc Nephrol** 1999 Jan;10(1):28–34

Functional evaluation of 5-hydroxytryptamine receptor activity in rat resistance vessels. Potenza MA, et al. **J Auton Pharmacol** 1998 Apr;18(2):75–81

Effect of ketanserin on central haemodynamics and coronary circulation. Hood S, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):983–7

Influence of ondansetron on thiopental hypnotic requirements. Kostopanagiotou G, et al. **J Clin Pharmacol** 1998 Sep;38(9):825–9

D2 and 5-HT2 receptor effects of antipsychotics: bridging basic and clinical findings using PET. Remington G, et al. **J Clin Psychiatry** 1999;60 Suppl 10:15–9 (50 ref.)

5-Chloro-N-(4-methoxy-3-piperazin-1-yl-phenyl)-3-methyl-2-benzothiophenesulfon- amide (SB-271046): a potent, selective, and orally bioavailable 5-HT6 receptor antagonist. Bromidge SM, et al. **J Med Chem** 1999 Jan 28;42(2):202–5

The 5-HT2A receptor antagonist M100907 is more effective in counteracting NMDA antagonist- than dopamine agonist-induced hyperactivity in mice. Carlsson ML, et al. **J Neural Transm** 1999;106(2):123–9

The silent and selective 5-HT1A antagonist, WAY 100635, produces via an indirect mechanism, a 5-HT2A receptor-mediated behaviour in mice during the day but not at night. Short communication. Darmani NA. **J Neural Transm** 1998;105(6-7):635–43

Serotonin 5-HT3 receptor antagonists prevent cisplatin-induced emesis in Cryptotis parva: a new experimental model of emesis. Darmani NA. **J Neural Transm** 1998;105(10-12):1143–54

Rodent data and general hypothesis: antipsychotic action exerted through 5-Ht2A receptor antagonism is dependent on increased serotonergic tone. Martin P, et al. **J Neural Transm** 1998;105(4-5):365–96

The influence of serotonin depletion on rat behavior in the Vogel test and brain 3H-zolpidem binding. Nazar M, et al. **J Neural Transm** 1999;106(5-6):355–68

Selective blocking effects of tropisetron and atropine on recombinant glycine receptors. Maksay G, et al. **J Neurochem** 1999 Aug;73(2):802–6

Clostridium neurotoxins influence serotonin uptake and release differently in rat brain synaptosomes. Najib A, et al. **J Neurochem** 1999 May;72(5):1991–8

Long-term antidepressant treatments result in a tonic activation of forebrain 5-HT1A receptors. Haddjeri N, et

al. **J Neurosci** 1998 Dec 1;18(23):10150–6

Simple O-acylated derivatives of lysergol and dihydrolysergol–I: synthesis and interaction with 5–HT2A, 5–HT2C and 5–HT1B receptors, and alpha1 adrenergic receptors. Pertz HH, et al. **J Pharm Pharmacol** 1999 Mar; 51(3):319–30

Competitive antagonism of the mouse 5–hydroxytryptamine3 receptor by bisindolylmaleimide I, a "selective" protein kinase C inhibitor. Coultrap SJ, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):76–82

Pindolol suppresses serotonergic neuronal activity and does not block the inhibition of serotonergic neurons produced by 8–hydroxy–2–(di–n–propylamino)tetralin in awake cats. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):229–38

Pindolol, a putative 5–hydroxytryptamine(1A) antagonist, does not reverse the inhibition of serotonergic neuronal activity induced by fluoxetine in awake cats: comparison to WAY–100635. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):220–8

Characterization of (S)–des–4–amino–3–[125I]iodozacopride ([125I]DAIZAC), a selective high–affinity radioligand for 5–hydroxytryptamine3 receptors. Hewlett WA, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):221–31

Antagonism of 5–hydroxytryptamine(4) receptors attenuates hyperactivity induced by cocaine: putative role for 5–hydroxytryptamine(4) receptors in the nucleus accumbens shell. McMahon LR, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):300–7

Electrophysiological comparison of 5–Hydroxytryptamine1A receptor antagonists on dorsal raphe cell firing. Martin LP, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):820–6

Atypical neuroleptics enhance histamine turnover in brain via 5–Hydroxytryptamine2A receptor blockade. Morisset S, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):590–6

Effects of various serotonin agonists, antagonists, and uptake inhibitors on the discriminative stimulus effects of methamphetamine in rats. Munzar P, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):239–50

Effects of 5–hydroxytryptamine2 receptor antagonism on the behavioral activation and immediate early gene expression induced by dizocilpine. O'Neill MF, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):839–46

Inhibition of serotonin–induced vascular smooth muscle cell proliferation by sarpogrelate. Sharma SK, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1475–81

Characterization of interaction of 3,4,5–trimethoxybenzoic acid 8–(diethylamino)octyl ester with Torpedo californica nicotinic acetylcholine receptor and 5–hydroxytryptamine3 receptor. Sun H, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):129–35

Effect of several 5–hydroxytryptamine(1A) receptor ligands on the micturition reflex in rats: comparison with WAY 100635. Testa R, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1258–69

Inhibitory effect of ondansetron on glycine response of dissociated rat hippocampal neurons. Ye JH, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):104–11

Psychopharmacological profile of the selective serotonin reuptake inhibitor, paroxetine: implication of noradrenergic and serotonergic mechanisms. Redrobe JP, et al. **J Psychopharmacol** 1998;12(4):348–55

Selective 5–hydroxytryptamine3 (5–HT3) receptor blocking activity of KB–R6933, a novel benzimidazole derivative. Ozaki A, et al. **Jpn J Pharmacol** 1999 May;80(1):25–32

Enhancement of serotonin 2C receptor mRNA expression by antidepressants possessing the receptor–blocking activity in the rat brain. Tohda M, et al. **Jpn J Pharmacol** 1998 Dec;78(4):515–7

Serotonin–4 receptor antagonists reverse cocaine–induced cardiac arrhythmia. Ohuoha DC, et al. **Life Sci** 1998; 63(19):1673–8

Novel actions of inverse agonists on 5–HT2C receptor systems. Berg KA, et al. **Mol Pharmacol** 1999 May; 55(5):863–72

Pharmacological and molecular characterization of 5–hydroxytryptamine(7) receptors in the rat adrenal gland. Contesse V, et al. **Mol Pharmacol** 1999 Sep;56(3):552–61

Synergism between 5–HT1B/1D and 5–HT1A receptor antagonists on turnover and release of 5–HT in guinea–pig brain in vivo. Stenfors C, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Feb; 359(2):110–6

5HT antagonists attenuate MK801–impaired radial arm maze performance in rats. Boast C, et al. **Neurobiol Learn Mem** 1999 May;71(3):259–71

5–HT1A receptors modulate the consolidation of learning in normal and cognitively impaired rats. Meneses A, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):207–18

Clozapine's antipsychotic effects do not depend on blockade of 5–HT3 receptors. Squires RF, et al. **Neurochem Res** 1999 May;24(5):659–67

Inactivation of 5–HT1A and [3H]5–HT binding sites by N–ethoxycarbonyl–2–ethoxy–1, 2–dihydroquinoline (EEDQ) in rat brain. Subhash MN, et al. **Neurochem Res** 1998 Oct;23(10):1321–6

Animal model of posthypoxic myoclonus: effects of serotonergic antagonists [see comments] Pappert EJ, et al. **Neurology** 1999 Jan 1;52(1):16–21. Comment in: Neurology 1999 Jan 1;52(1):7–8.

WAY 100635, a 5–HT1A receptor antagonist, prevents the impairment of spatial learning caused by blockade of hippocampal NMDA receptors. Carli M, et al. **Neuropharmacology** 1999 Aug;38(8):1165–73

Discriminative stimulus properties of the novel serotonin (5–HT)2C receptor agonist, RO 60–0175: a pharmacological analysis. Dekeyne A, et al. **Neuropharmacology** 1999 Mar;38(3):415–23

SB 242084, a selective serotonin2C receptor antagonist, increases dopaminergic transmission in the mesolimbic system. Di Matteo V, et al. **Neuropharmacology** 1999 Aug; 38(8):1195–205

Inhibition of anaesthetic–induced emesis by a NK1 or 5–HT3 receptor antagonist in the house musk shrew, Suncus murinus. Gardner C, et al. **Neuropharmacology** 1998 Dec; 37(12):1643–4

Anxiolytic–like actions of BW 723C86 in the rat Vogel conflict test are 5–HT2B receptor mediated. Kennett GA, et al. **Neuropharmacology** 1998 Dec;37(12):1603–10

Bidirectional allosteric modulation of strychnine–sensitive glycine receptors by tropeines and 5–HT3 serotonin receptor ligands. Maksay G. **Neuropharmacology** 1998 Dec; 37(12):1633–41

Effects of 5–HT–releasing agents on the extracellullar hippocampal 5–HT of rats. Implications for the development of novel antidepressants with a short onset of action. Scorza C, et al. **Neuropharmacology** 1999 Jul; 38(7):1055–61

Serotonin–2 receptors and human sleep: effect of a selective antagonist on EEG power spectra. Landolt HP, et al. **Neuropsychopharmacology** 1999 Sep;21(3):455–66

Inverse agonists and serotonergic transmission: from recombinant, human serotonin (5–HT)1B receptors to G–protein coupling and function in corticolimbic structures in vivo. Millan MJ, et al. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):61S–67S (37 ref.)

M100907, a serotonin 5–HT2A receptor antagonist and putative antipsychotic, blocks dizocilpine–induced prepulse inhibition deficits in Sprague–Dawley and Wistar rats. Varty GB, et al. **Neuropsychopharmacology** 1999 Apr; 20(4):311–21

Tolerance to acute anxiolysis but no withdrawal anxiogenesis in mice treated chronically with 5–HT1A receptor antagonist, WAY 100635. Cao BJ, et al. **Neurosci Biobehav Rev** 1998;23(2):247–57

5–HT1B antagonists modulate clearance of extracellular serotonin in rat hippocampus. Daws LC, et al. **Neurosci Lett** 1999 May 14;266(3):165–8

5–HT4 receptor antagonism potentiates inhibition of intestinal allodynia by 5–HT3 receptor antagonism in conscious rats. Smith MI, et al. **Neurosci Lett** 1999 Aug 13;271(1):61–4

mRNAs for clozapine–sensitive receptors co–localize in rat prefrontal cortex neurons. Vysokanov A, et al. **Neurosci Lett** 1998 Dec 24;258(3):179–82

Prenatal administration of para–chlorophenylalanine results in suppression of serotonergic system and disturbance of swimming movements in newborn rats. Nakajima K, et al. **Neurosci Res** 1998 Jun;31(2):155–69

Selective blockade of serotonin–2C/2B receptors enhances mesolimbic and mesostriatal dopaminergic function: a combined in vivo electrophysiological and microdialysis study. Di Giovanni G, et al. **Neuroscience** 1999; 91(2):587–97

Blockade of 5–hydroxytryptamine (serotonin)–2 receptors alters interleukin–1–induced changes in rat sleep. Imeri L, et al. **Neuroscience** 1999;92(2):745–9

Tonic adrenergic and serotonergic inhibition of a withdrawal reflex in rabbits subjected to different levels of surgical preparation. Ogilvie J, et al. **Neuroscience** 1999; 89(4):1247–58

Clozapine and other 5–hydroxytryptamine–2A receptor antagonists alter the subcellular distribution of 5–hydroxytryptamine–2A receptors in vitro and in vivo. Willins DL, et al. **Neuroscience** 1999;91(2):599–606

Level of punishment determines anticonflict activity of ondansetron in pigeons: comparison with buspirone and diazepam. Castejón AM, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):451–7

Onset of the effects of the 5–HT1A antagonist, WAY–100635, alone, and in combination with paroxetine, on olfactory bulbectomy and 8–OH–DPAT–induced changes in the rat. Cryan JF, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):333–8

Combined effects of Gepirone and (+)WAY 100135 on territorial aggression in mice. Lopez–Mendoza D, et al. **Pharmacol Biochem Behav** 1998 Sep;61(1):1–8

5–HT2A and 5–HT2C/5–HT1B receptors are differentially involved in alcohol preference and consummatory behavior in cAA rats. Maurel S, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):89–96

Antiaggresive and anxiolytic effects of gepirone in mice, and their attenuation by WAY 100635. Mendoza DL, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):499–509

5–HT2 receptor antagonism reduces hyperactivity induced by amphetamine, cocaine, and MK–801 but not D1 agonist C–APB. O'Neill MF, et al. **Pharmacol Biochem Behav** 1999 Jun;63(2):237–43

Anxiolytic–like effects of perospirone, a novel serotonin–2 and dopamine–2 antagonist (SDA)–type antipsychotic agent. Sakamoto H, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):873–8

Open–field and LPS–induced sickness behavior in young chickens: effects of embryonic cocaine and/or ritanserin. Schrott LM, et al. **Pharmacol Biochem Behav** 1998 Sep; 61(1):9–17

The discriminative stimulus properties of EGb 761, an extract of Ginkgo biloba. Winter JC, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):543–7

The cardiovascular effects of amperozide: interactions with cocaine. Jones EA, et al. **Pharmacol Toxicol** 1999 Feb; 84(2):53–8

Effects of magnesium on human umbilical arteries: role of intracellular calcium stores. Tiritilli A. **Pharmacology** 1998 Dec;57(6):295–304

Does the addition of pindolol accelerate or enhance the response to selective serotonin reuptake inhibitor antidepressants? Puzantian T, et al. **Pharmacotherapy** 1999 Feb;19(2):205–12 (12 ref.)

Alterations in swim stress–induced analgesia and hypothermia following serotonergic or NMDA antagonists in the rostral ventromedial medulla of rats. Hopkins E, et al. **Physiol Behav** 1998 Jun 1;64(3):219–25

Antagonism of the relaxant 5–HT receptor in the dog basilar artery by the high–affinity 5–HT7 receptor ligand, LY215840. Terrón JA. **Proc West Pharmacol Soc** 1998; 41:129–30

The 5–HT1A receptor and its ligands: structure and function. Olivier B, et al. **Prog Drug Res** 1999;52:103–65 (285 ref.)

Effects of mesulergine treatment on diet selection, brain serotonin (5–HT) and dopamine (DA) turnover in free feeding rats. Giannakopoulos G, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):803–13

WAY–100635 reverses 8–OH–DPAT–induced performance impairment in the radial maze. Helsley S, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Oct; 22(7):1179–84

Modulation of central serotonergic neurotransmission by risperidone: underlying mechanism(s) and significance of action. Hertel P, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):815–34

Hostility is associated with a heightened prolactin response to meta–chlorophenylpiperazine in abstinent cocaine addicts. Handelsman L, et al. **Psychiatry Res** 1998 Jul 27; 80(1):1–12

Pindolol binding to 5–HT1A receptors in the human brain confirmed with positron emission tomography. Andrée B, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):303–5

Comparative effects of novel 5–HT1A receptor ligands, LY293284, LY315712 and LY297996, on plus–maze anxiety in mice. Cao BJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):185–94

GR 127935 reduces basal locomotor activity and prevents RU 24969–, but not D–amphetamine–induced hyperlocomotion, in the Wistar–Kyoto hyperactive (WKHA) rat. Chaouloff F, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):326–31

The pharmacology of impulsive behaviour in rats IV: the effects of selective serotonergic agents on a paced fixed consecutive number schedule. Evenden JL. **Psychopharmacology (Berl)** 1998 Dec;140(3):319–30

Delayed obsessive–compulsive disorder symptom exacerbation after a single dose of a serotonin antagonist in fluoxetine–treated but not untreated patients. Greenberg BD, et al. **Psychopharmacology (Berl)** 1998 Dec; 140(4):434–44

Behavioural profiles in the mouse defence test battery suggest anxiolytic potential of 5–HT(1A) receptor antagonists. Griebel G, et al. **Psychopharmacology (Berl)** 1999 May; 144(2):121–30

RU 24969, a 5–HT1A/1B agonist, elevates brain stimulation reward thresholds: an effect reversed by GR 127935, a 5–HT1B/1D antagonist. Harrison AA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):242–50

Effect of 5–HT2 receptor antagonists on a cranial nerve reflex in the rabbit: evidence for inverse agonism. Harvey JA, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):162–8

Two selective 5–HT1A receptor antagonists, WAY–100 635 and NDL–249, stimulate locomotion in rats acclimatised to their environment and alter their behaviour: a behavioural analysis. Jackson DM, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):300–10

The effects of 5–HT1A receptor agonists, 5–HT1A receptor antagonists and their interaction on the fear–potentiated startle response. Joordens RJ, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):383–90

Clozapine pretreatment modifies haloperidol–elicited forebrain Fos induction: a regionally–specific double dissociation. Young CD, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):255–63

Granisetron, a 5–HT3 receptor antagonist, inhibited cisplatin–induced 5–hydroxytryptamine release in the isolated ileum of ferrets. Endo T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Jun;100(3):243–53

Effects of drugs on walking after spinal cord injury. Norman KE, et al. **Spinal Cord** 1998 Oct;36(10):699–715

Induction of burst firing in ventral tegmental area dopaminergic neurons by activation of serotonin (5–HT)1A receptors: WAY 100,635–reversible actions of the highly selective ligands, flesinoxan and S 15535. Lejeune F, et al. **Synapse** 1998 Oct;30(2):172–80

Agonist– and antagonist–induced plasticity of rat 5–HT1A receptor in hippocampal cell culture. Nishi M, et al.

Synapse 1999 Mar 1;31(3):186–95

A potent 5-hydroxytryptamine receptor (5-HT2A) antagonist, DV-7028, delays arterial thrombosis development in rats. Pawlak D, et al. **Thromb Res** 1998 Jun 15;90(6):259–70

Cardiovascular response to intravenous administration of 5-hydroxytryptamine after type-2 receptor blockade, by metrenperone, in healthy calves. Linden A, et al. **Vet J** 1999 Jan;157(1):31–7

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Ritanserin in relapse prevention in abstinent alcoholics: results from a placebo-controlled double-blind international multicenter trial. Ritanserin in Alcoholism Work Group. Wiesbeck GA, et al. **Alcohol Clin Exp Res** 1999 Feb;23(2):230–5

Irritable bowel syndrome and the role of 5-HT. Proceedings of a roundtable meeting. New Orleans, Louisiana, USA. May 1998. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:1–82

Effect of alosetron on responses to colonic distension in patients with irritable bowel syndrome. Delvaux M, et al. **Aliment Pharmacol Ther** 1998 Sep;12(9):849–55

Review article: clinical pharmacology of alosetron. Gunput MD. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:70–6 (25 ref.)

Review article: the therapeutic potential of 5-HT3 receptor antagonists in the treatment of irritable bowel syndrome. Humphrey PP, et al. **Aliment Pharmacol Ther** 1999 May; 13 Suppl 2:31–8 (70 ref.)

Review article: the safety and efficacy of alosetron, a 5-HT3 receptor antagonist, in female irritable bowel syndrome patients. Mangel AW, et al. **Aliment Pharmacol Ther** 1999 May;13 Suppl 2:77–82 (14 ref.)

Prospective randomized comparison of tropisetron with and without dexamethasone against high-dose metoclopramide in prophylaxis of acute and delayed cisplatin-induced nausea and vomiting. Malik I, et al. **Am J Clin Oncol** 1999 Apr;22(2):126–30

Serotonin receptor antagonists in prophylaxis of acute and delayed emesis induced by moderately emetogenic, single-day chemotherapy: a randomized study. Yalçin S, et al. **Am J Clin Oncol** 1999 Feb;22(1):94–6

Ketanserin treatment of Tourette's syndrome in children [letter] Bonnier C, et al. **Am J Psychiatry** 1999 Jul; 156(7):1122–3

Placebo-controlled study of the D4/5-HT2A antagonist fananserin in the treatment of schizophrenia. Truffinet P, et al. **Am J Psychiatry** 1999 Mar;156(3):419–25

Ondansetron pretreatment to alleviate pain on propofol injection: a randomized, controlled, double-blinded study. Ambesh SP, et al. **Anesth Analg** 1999 Jul;89(1):197–9

Comparison of ramosetron and granisetron for preventing postoperative nausea and vomiting after gynecologic surgery. Fujii Y, et al. **Anesth Analg** 1999 Aug;89(2):476–9

Prevention of chemotherapy- and radiotherapy-induced emesis: results of Perugia Consensus Conference. Antiemetic Subcommittee of the Multinational Association of Supportive Care in Cancer (MASCC). **Ann Oncol** 1998 Aug;9(8):811–9 (103 ref.)

Tropisetron in the prevention of acute and delayed nausea and vomiting over six courses of emetogenic chemotherapy. Bleiberg H, et al. **Anticancer Drugs** 1998 Oct;9(9):773–7

Antipruritic potency of serotonin type 3 (5-HT3) receptor antagonists--a reply [letter; comment] Weisshaar E, et al. **Arch Dermatol** 1999 May;135(5):599–600. Comment on: Arch Dermatol 1998 Aug;134(8):925–6.

5-HT3 receptor antagonists ameliorate emesis in the ferret evoked by neutron or proton radiation. King GL, et al. **Aviat Space Environ Med** 1999 May;70(5):485–92

Serotonin and schizophrenia [editorial] Tamminga CA. **Biol Psychiatry** 1998 Dec 1;44(11):1079–80

Prophylactic antiemetic therapy with granisetron in women undergoing thyroidectomy [see comments] Fujii Y, et al. **Br J Anaesth** 1998 Oct;81(4):526–8. Comment in: Br J Anaesth 1999 Mar;82(3):481–3.

Management of opioid-induced pruritus: a role for 5-HT3 antagonists? Kyriakides K, et al. **Br J Anaesth** 1999 Mar; 82(3):439–41

Pindolol augmentation of antidepressant therapy [letter; comment] McAllister-Williams RH, et al. **Br J Psychiatry** 1998 Dec;173:536–7. Comment on: Br J Psychiatry 1998 Sep;173:203–8.

Pindolol augmentation of antidepressant therapy [published erratum appears in Br J Psychiatry 1998 Nov;173:443] [see comments] McAskill R, et al. **Br J Psychiatry** 1998 Sep; 173:203–8 (19 ref.). Comment in: Br J Psychiatry 1998 Dec;173:536–7.

Treatment of neuroleptic-induced akathisia with the 5-HT2 antagonist mianserin. Double-blind, placebo-controlled study. Poyurovsky M, et al. **Br J Psychiatry** 1999 Mar; 174:238–42

5-HT2A receptor blockade in patients with schizophrenia treated with risperidone or clozapine. A SPET study using the novel 5-HT2A ligand 123I-5-I-R-91150. Travis MJ, et al. **Br J Psychiatry** 1998 Sep;173:236–41

Hospital days in clozapine-treated patients. Dickson RA, et al. **Can J Psychiatry** 1998 Nov;43(9):945–8

Clozapine and substance abuse in patients with schizophrenia [letter] Lee ML, et al. **Can J Psychiatry** 1998 Oct; 43(8):855–6

Risperidone treatment for a patient suffering from schizophrenia and IDDM [letter] Melamed Y, et al. **Can J Psychiatry** 1998 Nov;43(9):956

Serotonergic blockade in the treatment of the cancer anorexia-cachexia syndrome. Edelman MJ, et al. **Cancer** 1999 Aug 15;86(4):684–8

Use of 5-HT3 receptor antagonists to prevent nausea and emesis caused by chemotherapy for patients with breast carcinoma in community practice settings. Hickok JT, et al. **Cancer** 1999 Jul 1;86(1):64–71

Diffuse cutaneous mastocytosis responding to cyproheptadine. Enomoto U, et al. **Clin Exp Dermatol** 1999 Jan;24(1):16–8

Comparison of an orally disintegrating ondansetron tablet with the conventional ondansetron tablet for cyclophosphamide-induced emesis in cancer patients: a multicenter, double-masked study. Ondansetron Orally Disintegrating Tablet Emesis Study Group. Davidson N, et al. **Clin Ther** 1999 Mar;21(3):492–502

Effects of ondansetron on gastrointestinal symptoms in carcinoid syndrome. Wymenga AN, et al. **Eur J Cancer** 1998 Jul;34(8):1293–4

Treatment of pruritus in chronic liver disease with the 5-hydroxytryptamine receptor type 3 antagonist ondansetron: a randomized, placebo-controlled, double-blind cross-over trial. Müller C, et al. **Eur J Gastroenterol Hepatol** 1998 Oct;10(10):865–70

Head and whole-body jerking in guinea pigs are differentially modulated by 5-HT1A, 5-HT1B/1D and 5-HT2A receptor antagonists. Nielsen CK. **Eur J Pharmacol** 1998 Nov 20;361(2-3):185–90

The problem of delayed emesis after cancer chemotherapy: a possible new treatment. Hasler WL. **Gastroenterology** 1999 Sep;117(3):737–8

Adjunctive nefazodone in neuroleptic-treated schizophrenic patients with predominantly negative symptoms: an open prospective pilot study. Joffe G, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):233–8

Effect of adjuvant pindolol on the antiobsessional response to fluvoxamine: a double-blind, placebo-controlled study. Mundo E, et al. **Int Clin Psychopharmacol** 1998 Sep; 13(5):219–24

One year real world prospective follow-up study of a major depressive episode of patients treated with paroxetine and pindolol or paroxetine for 6 weeks. Tome MB, et al. **Int Clin Psychopharmacol** 1998 Jul;13(4):169–74

Cost effectiveness study of a year follow-up of selective serotonin reuptake inhibitor (SSRI) and augmentor combination compared with SSRI and placebo. Tome MB, et al. **Int Clin Psychopharmacol** 1998 Jul;13(4):175–82

Is bipolar disorder still underdiagnosed? Are antidepressants overutilized? Ghaemi SN, et al. **J Affect Disord** 1999 Jan-Mar;52(1-3):135–44

Oral 5-HT3-receptor antagonists: expanding the options for Medicare outpatients [letter] Dempsey CL, et al. **J Am Pharm Assoc (Wash)** 1998 Sep-Oct;38(5):515–6

Use of cyproheptadine to control urine spraying and masturbation in a cat. Schwartz S. **J Am Vet Med Assoc** 1999 Feb 1;214(3):369–71, 351–2

Use of cyproheptadine to control urine spraying in a castrated male domestic cat. Schwartz S. **J Am Vet Med Assoc** 1999 Aug 15;215(4):501–2, 482

Brief report: two-year control of behavioral symptoms with risperidone in two profoundly retarded adults with autism. Dartnall NA, et al. **J Autism Dev Disord** 1999 Feb; 29(1):87–91

Risperidone addition in serotonin reuptake inhibitor-resistant trichotillomania: three cases. Epperson CN, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):43–9

Treatment of venlafaxine discontinuation symptoms with ondansetron [letter] Raby WN. **J Clin Psychiatry** 1998 Nov; 59(11):621–2

Antidepressant treatment of the depressed patient with insomnia. Thase ME. **J Clin Psychiatry** 1999;60 Suppl 17:28–31; discussion 46–8 (8 ref.)

Pilot study of zatosetron (LY277359) maleate, a 5-hydroxytryptamine-3 antagonist, in the treatment of anxiety. Smith WT, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):125–31

Faster onset of action of fluvoxamine in combination with pindolol in the treatment of delusional depression: a controlled study. Zanardi R, et al. **J Clin Psychopharmacol** 1998 Dec;18(6):441–6

Nausea and vomiting after laparoscopic gynecologic surgery: a study of the incidence and the effects of tropisetron prophylaxis. Jakobsson J, et al. **J Laparoendosc Adv Surg Tech A** 1999 Apr;9(2):141–5

The effect of preoperative ondansetron on the incidence of postoperative nausea and vomiting in patients undergoing outpatient dentoalveolar surgery and general anesthesia. Wagley C, et al. **J Oral Maxillofac Surg** 1999 Oct; 57(10):1195–200

Safety, tolerability, antiemetic efficacy, and pharmacokinetics of oral dolasetron mesylate in pediatric cancer patients receiving moderately to highly emetogenic chemotherapy. Coppes MJ, et al. **J Pediatr Hematol Oncol** 1999 Jul-Aug; 21(4):274–83

Tropisetron (Navoban) in the control of nausea and vomiting induced by combined cancer chemotherapy in children. Ozkan A, et al. **Jpn J Clin Oncol** 1999 Feb;29(2):92–5

Effect of the 5-hydroxytryptamine3 (5-HT3)-receptor antagonist KB-R6933 on experimental diarrhea models. Ozaki A, et al. **Jpn J Pharmacol** 1999 May;80(1):93–6

Cognitive implications for H3 and 5-HT3 receptor modulation of cortical cholinergic function: a parallel story. Passani MB, et al. **Methods Find Exp Clin Pharmacol** 1998 Oct;20(8):725–33 (96 ref.)

Polymorphism within the promoter of the serotonin transporter gene and antidepressant efficacy of fluvoxamine [see comments] Smeraldi E, et al. **Mol Psychiatry** 1998 Nov; 3(6):508–11. Comment in: Mol Psychiatry 1998 Nov;3(6):475–6.

5-HT1A receptors modulate the consolidation of learning in normal and cognitively impaired rats. Meneses A, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):207–18

The pharmacological properties of the novel selective 5-HT3 receptor antagonist, alosetron, and its effects on normal and perturbed small intestinal transit in the fasted rat. Clayton NM, et al. **Neurogastroenterol Motil** 1999 Jun; 11(3):207–17

SB-207266: 5-HT4 receptor antagonism in human isolated gut and prevention of 5-HT-evoked sensitization of peristalsis and increased defaecation in animal models. Sanger GJ, et al. **Neurogastroenterol Motil** 1998 Aug; 10(4):271–9

Ritanserin, a 5-HT2 receptor antagonist, increases subcortical blood flow following photothrombotic middle cerebral artery occlusion in rats. Back T, et al. **Neurol Res** 1998 Oct;20(7):643–7

A review of central 5-HT receptors and their function. Barnes NM, et al. **Neuropharmacology** 1999 Aug; 38(8):1083–152 (650 ref.)

Effects of the 5-HT2C/2B antagonist SB 206553 on hyperactivity induced by cocaine. McCreary AC, et al. **Neuropsychopharmacology** 1999 Jun;20(6):556–64

No evidence for association of serotonin-2A receptor variant (102T/C) with schizophrenia or clozapine response in a Chinese population. Lin CH, et al. **Neuroreport** 1999 Jan 18;10(1):57–60

Hyperalgesia due to nerve damage: role of nerve growth factor. Theodosiou M, et al. **Pain** 1999 Jun;81(3):245–55

Ondansetron and tropisetron in the control of nausea and vomiting in children receiving combined cancer chemotherapy. Stiakaki E, et al. **Pediatr Hematol Oncol** 1999 Mar-Apr;16(2):101–8

Effects of granisetron, a selective 5-HT3 receptor antagonist, on ouabain-induced emesis in ferrets. Endo T, et al. **Res Commun Mol Pathol Pharmacol** 1998 Dec; 102(3):227–39

Physiological, pathophysiological and therapeutic roles of 5-HT systems in learning and memory. Meneses A. **Rev Neurosci** 1998;9(4):275–89 (89 ref.)

The anti-emetic efficacy of tropisetron plus dexamethasone in patients treated with high-dose chemotherapy and stem cell transplantation. Barbounis V, et al. **Support Care Cancer** 1999 Mar;7(2):79–83

[Relationship between cancer chemotherapeutic drug-induced delayed emesis and plasma levels of substance P in two patients with small cell lung cancer] Matsumoto S, et al. **Gan To Kagaku Ryoho** 1999 Mar; 26(4):535–8 (Eng. Abstr.) **(Jpn)**

[Clinical studies of oral antiemetic drugs on delayed emesis induced by cancer chemotherapy] Sawaguchi K, et al. **Gan To Kagaku Ryoho** 1999 Jan;26(1):117–23 (Eng. Abstr.) **(Jpn)**

[Usefulness of ramosetron hydrochloride on nausea and vomiting in CMF or CEF therapy for breast cancer] Taguchi T, et al. **Gan To Kagaku Ryoho** 1999 Jul; 26(8):1163–70 (Eng. Abstr.) **(Jpn)**

[Controlled study of iprazochrome effectiveness (Divascan) in prophylactic treatment of migraine] Kozubski W, et al. **Neurol Neurochir Pol** 1999 Mar-Apr;33(2):369–76 (Eng. Abstr.) **(Pol)**

[Combination of risperidone and serotonergic antidepressants in refractory obsessive-compulsive disorder] Salmerón JM, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Nov-Dec;26(6):399–402 (Eng. Abstr.) **(Spa)**

[Ondansetron for cholestatic pruritus (letter)] Lamelo Alfonsín F, et al. **An Med Interna** 1998 Aug;15(8):456 **(Spa)**

SEROTONIN BLOCKADERS see **SEROTONIN ANTAGONISTS**

SEROTONIN RECEPTOR AGONISTS see **SEROTONIN AGONISTS**

SEROTONIN RECEPTORS see **RECEPTORS, SEROTONIN**

SEROTONIN REUPTAKE INHIBITORS see **SEROTONIN UPTAKE INHIBITORS**

SEROTONIN SYNDROME

see related
MONOAMINE OXIDASE INHIBITORS
SEROTONIN
SEROTONIN UPTAKE INHIBITORS

The serotonin syndrome as a learning opportunity [letter] Brooks SA. **Can J Psychiatry** 1998 Aug;43(6):646

Serotonin syndrome: history and risk. Gillman PK. **Fundam Clin Pharmacol** 1998;12(5):482–91 (166 ref.)

CHEMICALLY INDUCED

Meperidine as a potential cause of serotonin syndrome in the emergency department. Weiner AL.
Acad Emerg Med 1999 Feb;6(2):156–8

Serotonin syndrome in a child after a single dose of fluvoxamine. Gill M, et al. **Ann Emerg Med** 1999 Apr; 33(4):457–9

Respiratory distress after use of droperidol for agitation [letter] Heard K, et al. **Ann Emerg Med** 1999 Sep; 34(3):410–1

Fatal combined intoxication with new antidepressants. Human cases and an experimental study of postmortem moclobemide redistribution. Rogde S, et al.
Forensic Sci Int 1999 Mar 15;100(1–2):109–16

Serotonin syndrome with mirtazapine–fluoxetine combination [letter] Benazzi F. **Int J Geriatr Psychiatry** 1998 Jul;13(7):495–6

Serotonin syndrome due to venlafaxine overdose. Daniels RJ. **J Accid Emerg Med** 1998 Sep;15(5):333–4

Serotonin syndrome caused by overdose with paroxetine and moclobemide. FitzSimmons CR, et al.
J Accid Emerg Med 1999 Jul;16(4):293–5

Serotonin syndrome in a teenager following overdose of dothiepine hydrochloride. Radomski JW.
J Child Adolesc Psychopharmacol 1998;8(4):201–4

Selective serotonin reuptake inhibitor syndrome: precipitated by concomitant clozapine? [letter] Lu ML, et al.
J Clin Psychopharmacol 1999 Aug;19(4):386–7

Serotonin syndrome as a result of clomipramine monotherapy [letter] Rosebush PI, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):285–7

Ayahuasca preparations and serotonin reuptake inhibitors: a potential combination for severe adverse interactions. Callaway JC, et al. **J Psychoactive Drugs** 1998 Oct–Dec; 30(4):367–9

Serotonin syndrome resulting from drug interactions. Chan BS, et al. **Med J Aust** 1998 Nov 16;169(10):523–5

Serotonin syndrome in a child associated with erythromycin and sertraline. Lee DO, et al. **Pharmacotherapy** 1999 Jul; 19(7):894–6

Production of serotonin syndrome by 8-OH DPAT in Cryptotis parva. Darmani NA, et al. **Physiol Behav** 1998 Nov 15;65(2):327–31

Serotonin syndrome after sertraline, buspirone and loxapine? [letter] Bonin B, et al. **Therapie** 1999 Mar–Apr;54(2):269–71

[Carbamazepine overdose following administration of sertraline: relation to serotonergic syndrome? (letter)] Vercueil L, et al. **Therapie** 1998 Sep–Oct;53(5):502–4 **(Fre)**

[Serotonin syndrome with fatal outcome caused by selective serotonin reuptake inhibitors (see comments)] Apelland T, et al. **Tidsskr Nor Laegeforen** 1999 Feb 20;119(5):647–50 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 Apr 30;119(11):1646–7. **(Nor)**

[Serotonergic syndrome. Serotonergic syndrome caused by paroxetine (letter; comment)] Hilberg T, et al.
Tidsskr Nor Laegeforen 1999 Apr 30;119(11):1646–7. Comment on: Tidsskr Nor Laegeforen 1999 Feb 20;119(5):647–50. **(Nor)**

DRUG THERAPY

SSRI-induced extrapyramidal side-effects and akathisia: implications for treatment. Lane RM.
J Psychopharmacol 1998;12(2):192–214 (265 ref.)

ETIOLOGY

Treatment of obsessive–compulsive spectrum disorders with SSRIs. Hollander E. **Br J Psychiatry Suppl** 1998;(35):7–12 (50 ref.)

PHYSIOPATHOLOGY

The serotonin syndrome and its treatment. Gillman PK.
J Psychopharmacol 1999;13(1):100–9 (140 ref.)

PSYCHOLOGY

Production of serotonin syndrome by 8-OH DPAT in Cryptotis parva. Darmani NA, et al. **Physiol Behav** 1998 Nov 15;65(2):327–31

THERAPY

The serotonin syndrome and its treatment. Gillman PK.
J Psychopharmacol 1999;13(1):100–9 (140 ref.)

SEROTONIN UPTAKE INHIBITORS

see related
ADRENERGIC UPTAKE INHIBITORS
ANTIDEPRESSIVE AGENTS, SECOND-GENERATION

Re: Selective serotonin reuptake inhibitor discontinuation syndrome: putative mechanisms and prevention strategies [letter] Benazzi F. **Can J Psychiatry** 1999 Feb;44(1):95–6

Sensitive, high-throughput gas chromatographic–mass spectrometric assay for fluoxetine and norfluoxetine in human plasma and its application to pharmacokinetic studies. Addison RS, et al.
J Chromatogr B Biomed Sci Appl 1998 Sep 25; 716(1–2):153–60

Whole human brain autoradiography of serotonin re-uptake inhibitors. Qume M, et al. **Methods Mol Biol** 1999; 106:215–29 (13 ref.)

Alterations in the levels of monoamines in discrete brain regions of clomipramine-induced animal model of endogenous depression. Vijayakumar M, et al.
Neurochem Res 1999 Mar;24(3):345–9

Citalopram in the treatment of depression and other potential uses in psychiatry. Tan JY, et al. **Pharmacotherapy** 1999 Jun;19(6):675–89 (76 ref.)

[Veterinary drug profile. Clomipramine (Clomicalm)] Pellicaan CH, et al. **Tijdschr Diergeneeskd** 1999 May 15; 124(10):313–5 (14 ref.) **(Dut)**

[The happy pill (letter; comment)] Botten S.
Tidsskr Nor Laegeforen 1999 Jun 30;119(17):2559. Comment on: Tidsskr Nor Laegeforen 1999 Jan 10;119(15):2157–60. **(Nor)**

[Is drug advertising reliable?] Spigset O.
Tidsskr Nor Laegeforen 1998 Dec 10;118(30):4637–41 (48 ref.) (Eng. Abstr.) **(Nor)**

ADMINISTRATION & DOSAGE

Comparative effects of low and high doses of clomipramine and placebo in panic disorder: a double-blind controlled study. French University Antidepressant Group. Caillard V, et al. **Acta Psychiatr Scand** 1999 Jan;99(1):51–8

Fluoxetine and norfluoxetine [letter; comment] Mattes JA. **Am J Psychiatry** 1998 Nov;155(11):1637. Comment on: Am J Psychiatry 1997 Jul;154(7):963–9.

Serotonergic synergism: the risks and benefits of combining the selective serotonin reuptake inhibitors with other serotonergic drugs. DeBattista C, et al. **Biol Psychiatry** 1998 Sep 1;44(5):341–7

Intravenous clomipramine challenge in obsessive–compulsive disorder: predicting response to oral therapy at eight weeks. Sallee FR, et al. **Biol Psychiatry** 1998 Aug 1;44(3):220–7

Clomipramine dose–effect study in patients with depression: clinical end points and pharmacokinetics. Danish University Antidepressant Group (DUAG).
Clin Pharmacol Ther 1999 Aug;66(2):152–65

Comparative bioavailability of two sertraline tablet formulations in healthy human volunteers after a single dose administration. Moraes ME, et al.
Int J Clin Pharmacol Ther 1998 Dec;36(12):661–5

Citalopram and fluvoxamine in Tourette's disorder [letter] Bajo S, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):230–1

Cyproheptadine and SSRIs [letter] Boon F.
J Am Acad Child Adolesc Psychiatry 1999 Feb;38(2):112

SSRIs for "difficult" temperament [letter] Burke MG.
J Am Acad Child Adolesc Psychiatry 1998 Oct; 37(10):1008–9

Timing of discontinuing SSRIs in OCD [letter; comment] Manassis K, et al. **J Am Acad Child Adolesc Psychiatry** 1999 May;38(5):499–500. Comment on: J Am Acad Child Adolesc Psychiatry 1998 Oct;37(10 Suppl):27S–45S.

Risperidone augmentation of serotonin reuptake inhibitor treatment of pediatric obsessive compulsive disorder. Fitzgerald KD, et al. **J Child Adolesc Psychopharmacol** 1999;9(2):115–23

Once-weekly dosing of fluoxetine in the maintenance of remission in panic disorder. Emmanuel NP, et al.
J Clin Psychiatry 1999 May;60(5):299–301

Trends in the use of selective serotonin reuptake inhibitors in nine Department of Veterans Affairs outpatient facilities. Voris JC. **J Clin Psychol** 1999 Jan;55(1):129–33

Olanzapine augmentation of fluoxetine in the treatment of refractory obsessive–compulsive disorder [letter] Potenza MN, et al. **J Clin Psychopharmacol** 1998 Oct;18(5):423–4

Mitchell B. Balter Award--1998. Pindolol and major affective disorders: a three-year follow-up study of 30,485 patients. Räsänen P, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):297–302

Accelerating antidepressant response in geriatric depression: a post hoc comparison of combined sleep deprivation and paroxetine versus monotherapy with paroxetine, nortriptyline, or placebo. Green TD, et al.
J Geriatr Psychiatry Neurol 1999 Summer;12(2):67–71

Functional consequences of central serotonin depletion produced by repeated fenfluramine administration in rats. Baumann MH, et al. **J Neurosci** 1998 Nov 1;18(21):9069–77

Onset of the effects of the 5-HT1A antagonist, WAY-100635, alone, and in combination with paroxetine, on olfactory bulbectomy and 8-OH-DPAT-induced changes in the rat. Cryan JF, et al. **Pharmacol Biochem Behav** 1999 Jun; 63(2):333–8

Short-term analysis of the effects of as needed use of sertraline at 5 PM for the treatment of premature ejaculation. Kim SW, et al. **Urology** 1999 Sep;54(3):544–7

Efficacy of fluoxetine in Austrian patients with obsessive–compulsive disorder. Zitterl W, et al.
Wien Klin Wochenschr 1999 Jun 4;111(11):439–42

[Indications for the use of serotonin uptake inhibitors in children and adolescents] Thomsen H. **Ugeskr Laeger** 1998 Dec 7;160(50):7285–90 (30 ref.) **(Dan)**

[Is there a relationship between clinical efficacy and antidepressant dosage in major depression?] Corruble E, et al. **Encephale** 1999 Jun;25 Spec No 2:39–43; discussion 44–6 (9 ref.) (Eng. Abstr.) **(Fre)**

[From valium to the happy pill? (see comments)] Thormodsen M, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10; 119(15):2157–60 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 Jun 30;119(17):2559. **(Nor)**

ADVERSE EFFECTS

Sildenafil treatment of paroxetine-induced anorgasmia in a woman [letter] Ashton AK. **Am J Psychiatry** 1999 May; 156(5):800

Sexual functioning with selective serotonin reuptake inhibitors [letter; comment] Balon R. **Am J Psychiatry** 1999 May;156(5):807–8. Comment on: Am J Psychiatry 1997 Dec;154(12):1757–9.

Antidepressants in depressed patients with irritable bowel syndrome [letter] Efremova I, et al. **Am J Psychiatry** 1998 Nov;155(11):1627–8

Possible nefazodone withdrawal syndrome [letter] Kotlyar M, et al. **Am J Psychiatry** 1999 Jul;156(7):1117

Citalopram and sexual side effects of selective serotonin reuptake inhibitors [letter] Pallanti S, et al.
Am J Psychiatry 1999 May;156(5):796

Sildenafil citrate for SSRI-induced sexual side effects [letter] Rosenberg KP. **Am J Psychiatry** 1999 Jan;156(1):157

Sildenafil citrate for SSRI-induced sexual side effects [letter] Schaller JL, et al. **Am J Psychiatry** 1999 Jan;156(1):156–7

Raynaud's syndrome in a patient treated with milnacipran [letter] Bourgade B, et al. **Ann Pharmacother** 1999 Sep; 33(9):1009–10

Comment: hyponatremia with venlafaxine [letter; comment] Boyd IW. **Ann Pharmacother** 1998 Sep;32(9):981–2. Comment on: Ann Pharmacother 1998 Jan;32(1):49–51.

Acute liver damage possibly related to sertraline and venlafaxine ingestion [letter] Kim KY, et al.
Ann Pharmacother 1999 Mar;33(3):381–2

Acute dystonia associated with fluvoxamine–metoclopramide [letter] Palop V, et al. **Ann Pharmacother** 1999 Mar; 33(3):382

Management of SSRI-induced sexual dysfunction. Woodrum ST, et al. **Ann Pharmacother** 1998 Nov;32(11):1209–15 (49 ref.)

Adverse effects of selective serotonin reuptake inhibitors [letter] Goldberg RJ. **Arch Fam Med** 1999 May–Jun; 8(3):196–7

Syndrome of inappropriate secretion of antidiuretic hormone induced by paroxetine [letter] Monmany J, et al.
Arch Intern Med 1999 Sep 27;159(17):2089–90

A surfeit of serotonin: sumatriptan and serotonergic antidepressants [letter; comment] Schwartz CE.
Arch Intern Med 1999 May 24;159(10):1141–2. Comment on: Arch Intern Med 1998 Sep 28;158(17):1946–8.

An unusually rapid onset of hyponatraemia following paroxetine [letter] Paul S, et al. **Aust N Z J Med** 1998 Dec;28(6):840

Sexual dysfunction and selective serotonin reuptake inhibitors [letter] Gagnon M, et al. **Biol Psychiatry** 1998 Sep 1; 44(5):374

Drug-induced hyponatraemia in elderly patients [letter; comment] Schwab M, et al. **Br J Clin Pharmacol** 1999 Jul; 48(1):105–6. Comment on: Br J Clin Pharmacol 1999 Feb;47(2):211–7.

Acute glaucoma, chronic glaucoma, and serotoninergic drugs [letter; comment] Eke T, et al. **Br J Ophthalmol** 1998 Aug; 82(8):976–8. Comment on: Br J Ophthalmol 1997 Mar;81(3):252.

Fluoxetine–terfenadine and sexual dysfunction [letter] Valmana A, et al. **Br J Psychiatry** 1998 Aug;173:186–7

Are the new SSRIs safe for pregnant women? Kulin NA, et al. **Can Fam Physician** 1998 Oct;44:2081–3

Outcome of pregnancy following mothers' use of new SSRIs. Potvin W, et al. **Can Fam Physician** 1999 Jun;45:1477–9

Urinary retention with sertraline, haloperidol, and clonazepam combination [letter] Benazzi F.
Can J Psychiatry 1998 Dec;43(10):1051–2

The serotonin syndrome as a learning opportunity [letter] Brooks SA. **Can J Psychiatry** 1998 Aug;43(6):646

Are there special considerations in the prescription of serotonin reuptake inhibitors for women? Stewart DE.
Can J Psychiatry 1998 Nov;43(9):900–4 (28 ref.)

Clomipramine-induced urinary retention in a cat. Pfeiffer E, et al. **Can Vet J** 1999 Apr;40(4):265–7

Watch out for drug-drug interactions, too! [letter; comment] Dresser G. **CMAJ** 1999 Feb 23;160(4):479. Comment on: CMAJ 1998 Nov 17;159(10):1245–52.

Discontinuation reactions associated with SSRIs [news] Macdonald L. **CMAJ** 1998 Oct 6;159(7):846–7; 850–2 **(Eng, Fre)**

Adverse effects associated with selective serotonin reuptake inhibitors and tricyclic antidepressants: a meta-analysis [see comments] Trindade E, et al. **CMAJ** 1998 Nov 17; 159(10):1245–52. Comment in: CMAJ 1999 Feb 23;160(4):479. Comment in: CMAJ 1999 Apr 6;160(7):987–8.

Treatment of children with antidepressants: focus on selective serotonin reuptake inhibitors. Emslie GJ, et al.
Depress Anxiety 1998;8 Suppl 1:13–7

SSRI-induced sexual dysfunction treated with sildenafil. Gupta S, et al. **Depress Anxiety** 1999;9(4):180–2

Adverse reactions of selective serotonin reuptake inhibitors: reports from a spontaneous reporting system. Spigset O.
Drug Saf 1999 Mar;20(3):277–87

Serotonergic syndrome with trazodone. Rao R.
Hosp Med 1998 Jan;59(1):79

Treatment of antidepressant-induced sexual dysfunction. Moore BE, et al. **Hosp Pract (Off Ed)** 1999 Jan 15; 34(1):89–91, 95–6

Differences in interactions of SSRIs. Brøsen K.
Int Clin Psychopharmacol 1998 Sep;13 Suppl 5:S45–7 (3

ref.)
Efficacy and safety of the selective serotonin reuptake inhibitors in treating depression in elderly patients. Montgomery SA. **Int Clin Psychopharmacol** 1998 Sep;13 Suppl 5:S49–54 (40 ref.)
Metabolic interactions of central nervous system medications and selective serotonin reuptake inhibitors. Naranjo CA, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S35–47 (120 ref.)
Serotonin, serotonergic receptors, selective serotonin reuptake inhibitors and sexual behaviour. Olivier B, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S9–14 (27 ref.)
Cardiac side-effects of two selective serotonin reuptake inhibitors in middle-aged and elderly depressed patients [published erratum appears in Int Clin Psychopharmacol 1999 Mar;14(2):138] Strik JJ, et al. **Int Clin Psychopharmacol** 1998 Nov;13(6):263–7
Selective serotonin reuptake inhibitor-induced sexual dysfunction: clinical and research considerations. Waldinger MD, et al. **Int Clin Psychopharmacol** 1998 Jul; 13 Suppl 6:S27–33 (50 ref.)
Fluoxetine-induced QTU interval prolongation, T wave alternans and syncope [letter] Raviña T, et al. **Int J Cardiol** 1998 Aug;65(3):311–3
Serotonin syndrome with mirtazapine-fluoxetine combination [letter] Benazzi F. **Int J Geriatr Psychiatry** 1998 Jul;13(7):495–6
The incidence of akathisia in bipolar affective disorder treated with neuroleptics--a preliminary report. Brüne M. **J Affect Disord** 1999 May;53(2):175–7
SSRIs and movement disorders [letter] Boyle SF. **J Am Acad Child Adolesc Psychiatry** 1999 Apr;38(4):354–5
Dystonia as a side effect of nonneuroleptics [letter] Chong Y, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul; 38(7):793–5
SSRI-induced mania in obsessive-compulsive disorder [letter] Diler RS, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jan;38(1):6–7
Movement disorders associated with fluvoxamine [letter] Lenti C. **J Am Acad Child Adolesc Psychiatry** 1999 Aug; 38(8):942–3
Murder, minors, selective serotonin reuptake inhibitors, and the involuntary intoxication defense. Myers WC, et al. **J Am Acad Psychiatry Law** 1998;26(3):487–96
Antidepressants and drug interactions: prescriber beware. Morris MR. **J Am Coll Health** 1999 Jan;47(4):191–2
SSRI-induced SIADH in older people [letter] Christe C, et al. **J Am Geriatr Soc** 1999 May;47(5):630–1
Hyponatremia in an older patient [letter] Kelly RE, et al. **J Am Geriatr Soc** 1999 Aug;47(8):1037–8
Atrium and paroxetine-related severe hepatitis. Cadranel JF, et al. **J Clin Gastroenterol** 1999 Jan;28(1):52–5
Sildenafil treatment of serotonin reuptake inhibitor-induced sexual dysfunction [letter] Ashton AK, et al. **J Clin Psychiatry** 1999 Mar;60(3):194–5
Relief of SSRI-induced sexual dysfunction with mirtazapine treatment [letter] Farah A. **J Clin Psychiatry** 1999 Apr; 60(4):260–1
SSRI-induced parkinsonism may be an early sign of future Parkinson's disease [letter] Gönül AS, et al. **J Clin Psychiatry** 1999 Jun;60(6):410
Incidence of sexual dysfunction in healthy volunteers on fluvoxamine therapy [published erratum appears in J Clin Psychiatry 1999 May;60(5):341] Nafziger AN, et al. **J Clin Psychiatry** 1999 Mar;60(3):187–90
Cognitive effects of paroxetine in older depressed patients. Nebes RD, et al. **J Clin Psychiatry** 1999;60 Suppl 20:26–9
Sildenafil for iatrogenic serotonergic antidepressant medication-induced sexual dysfunction in 4 patients. Nurnberg HG, et al. **J Clin Psychiatry** 1999 Jan;60(1):33–5
Discontinuation symptoms and SSRIs [letter; comment] Pollock BG. **J Clin Psychiatry** 1998 Oct;59(10):535–7. Comment on: J Clin Psychiatry 1997;58 Suppl 7:23–7. Comment on: J Clin Psychiatry 1997;58 Suppl 7:37–40.
Treatment of venlafaxine discontinuation symptoms with ondansetron [letter] Raby WN. **J Clin Psychiatry** 1998 Nov; 59(11):621–2
Priapism in a patient taking sertraline [letter] Rand EH. **J Clin Psychiatry** 1998 Oct;59(10):538
Changes in adverse events reported by patients during 6 months of fluoxetine therapy. Zajecka J, et al. **J Clin Psychiatry** 1999 Jun;60(6):389–94
Effect of buspirone on sexual dysfunction in depressed patients treated with selective serotonin reuptake inhibitors. Landén M, et al. **J Clin Psychopharmacol** 1999 Jun; 19(3):268–71
Selective serotonin reuptake inhibitor syndrome: precipitated by concomitant clozapine? [letter] Lu ML, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):386–7
Serotonin syndrome as a result of clomipramine monotherapy [letter] Rosebush PI, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):285–7
Possible venlafaxine-induced mania [letter] Stoner SC, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):184–5
Fluoxetine for serotonin reuptake inhibitor discontinuation syndrome [letter] Benazzi F. **J Psychiatry Neurosci** 1998 Sep;23(4):241–2
Adverse reactions associated with fluvoxamine [letter] Zedkova L, et al. **J Psychiatry Neurosci** 1998 Sep; 23(4):242–3
Ayahuasca preparations and serotonin reuptake inhibitors: a potential combination for severe adverse interactions. Callaway JC, et al. **J Psychoactive Drugs** 1998 Oct–Dec; 30(4):367–9
The serotonin syndrome and its treatment. Gillman PK. **J Psychopharmacol** 1999;13(1):100–9 (140 ref.)
Selective serotonin reuptake inhibitors in the treatment of affective disorders--III. Tolerability, safety and pharmacoeconomics. Goldstein BJ, et al. **J Psychopharmacol** 1998;12(3 Suppl B):S55–87 (370 ref.)
Selective serotonin reuptake inhibitors and hyponatraemia: review and proposed mechanisms in the elderly. Kirchner V, et al. **J Psychopharmacol** 1998;12(4):396–400 (52 ref.)
SSRI-induced extrapyramidal side-effects and akathisia: implications for treatment. Lane RM. **J Psychopharmacol** 1998;12(2):192–214 (265 ref.)
Sildenafil in the treatment of female sexual dysfunction induced by selective serotonin reuptake inhibitors. Shen WW, et al. **J Reprod Med** 1999 Jun;44(6):535–42 (61 ref.)
A possible dopaminergic mechanism in the serotonergic antidepressant-induced sexual dysfunctions. Alcántara AG. **J Sex Marital Ther** 1999 Apr–Jun;25(2):125–9 (34 ref.)
Fluvoxamine-induced erectile dysfunction responding to sildenafil. Balon R. **J Sex Marital Ther** 1998 Oct–Dec; 24(4):313–7
Safety of antidepressant use in pregnant and nursing women [news] Lamberg L. **JAMA** 1999 Jul 21;282(3):222–3
Acute hepatitis due to fluoxetine therapy. Cai Q, et al. **Mayo Clin Proc** 1999 Jul;74(7):692–4
Serotonin syndrome resulting from drug interactions. Chan BS, et al. **Med J Aust** 1998 Nov 16;169(10):523–5
Complex movement disorder associated with fluvoxamine. Bronner IM, et al. **Mov Disord** 1998 Sep;13(5):848–50
Do serotonin reuptake inhibitor antidepressants worsen Parkinson's disease? A retrospective case series. Richard IH, et al. **Mov Disord** 1999 Jan;14(1):155–7
Antidepressants and falls among nursing home residents [letter; comment] Slaughter JR, et al. **N Engl J Med** 1999 Jan 28;340(4):320. Comment on: N Engl J Med 1998 Sep 24;339(13):875–82.
Extrapyramidal side effects and serotonin syndrome with fluoxetine and biperiden [letter]. Posada IJ, et al. **Neurologia** 1998 Oct;13(8):405
Female genital disorder as adverse symptom of lamotrigine treatment. A serotoninergic effect? Erfurth A, et al. **Neuropsychobiology** 1998 Oct;38(3):200–1
Negative immunoregulatory effects of antidepressants: inhibition of interferon-gamma and stimulation of interleukin-10 secretion. Maes M, et al. **Neuropsychopharmacology** 1999 Apr;20(4):370–9
Gynecomastia with risperidone-fluoxetine combination. Benazzi F. **Pharmacopsychiatry** 1999 Jan;32(1):41
Assessment of adverse drug reactions in psychiatric inpatients with the AMSP drug safety program: methods and first results for tricyclic antidepressants and SSRI. Grohmann R, et al. **Pharmacopsychiatry** 1999 Jan;32(1):21–8
Serotonin syndrome in a child associated with erythromycin and sertraline. Lee DO, et al. **Pharmacotherapy** 1999 Jul; 19(7):894–6
Chronic fluoxetine inhibits sexual behavior in the male rat: reversal with oxytocin. Cantor JM, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):355–62
Is inhibition of nitric oxide synthase a mechanism for SSRI-induced bleeding? [letter] Shen WW, et al. **Psychosomatics** 1999 May–Jun;40(3):268–9
Selective serotonin reuptake inhibitors (SSRIs) and falls in the elderly depressed patient. Mort JR. **S D J Med** 1999 Jun;52(6):201–2 (5 ref.)
Hyponatremia associated with paroxetine use [letter] Madhusoodanan S, et al. **South Med J** 1999 Aug;92(8):843
Serotonin syndrome after sertraline, buspirone and loxapine? [letter] Bonin B, et al. **Therapie** 1999 Mar–Apr;54(2):269–71
Lack of adverse reaction when switching SSRIs to NASSRIs in polymedicated depressed inpatients [letter] Haffen E, et al. **Therapie** 1999 Mar–Apr;54(2):267–9
Tonic clonic seizures and tachycardia induced by fluoxetine (Prozac) overdose. Neely JL. **W V Med J** 1998 Sep–Oct; 94(5):283–5
[Withdrawal symptoms in connection with the use of selective serotonin reuptake inhibitors (SSRI)] Gram LF. **Ugeskr Laeger** 1998 Dec 7;160(50):7291–3 **(Dan)**
[Hemorrhage and thrombocytopenia caused by selective serotonin uptake inhibitors (SSRI)] Gram LF. **Ugeskr Laeger** 1999 May 3;161(18):2697–8 **(Dan)**
[Severe withdrawal symptoms with fever during paroxetine tapering off] Peeters FP, et al. **Ned Tijdschr Geneeskd** 1999 Jul 3;143(27):1429–31 (Eng. Abstr.) **(Dut)**
[Clinical and toxicologic aspects of the use of Ecstasy (see comments)] Pennings EJ, et al. **Ned Tijdschr Geneeskd** 1998 Aug 29;142(35):1942–6 (36 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Oct 17;142(42):2321–2. **(Dut)**
[Exasperating hematomas] Carli P, et al. **Rev Med Interne** 1999;20 Suppl 2:267s–268s **(Fre)**
[Carbamazepine overdose following administration of sertraline: relation to serotonergic syndrome? (letter)] Vercueil L, et al. **Therapie** 1998 Sep–Oct;53(5):502–4 **(Fre)**
[Serotonin syndrome with fatal outcome caused by selective serotonin reuptake inhibitors (see comments)] Apelland T, et al. **Tidsskr Nor Laegeforen** 1999 Feb 20;119(5):647–50 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 Apr 30;119(11):1646–7. **(Nor)**
[Serotonergic syndrome. Serotonergic syndrome caused by paroxetine (letter; comment)] Hilberg T, et al. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1646–7. Comment on: Tidsskr Nor Laegeforen 1999 Feb 20;119(5):647–50. **(Nor)**
[Cerebral infarction in an adolescent girl following an overdose of paroxetine and caffedrine combined with theodrenaline] Conde López VJ, et al. **Actas Luso Esp Neurol Psiquiatr Cienc Afines** 1998 Sep–Oct;26(5):333–8 (Eng. Abstr.) **(Spa)**
[Hematological changes and antidepressive treatment (letter)] Rafols Crestani A, et al. **Aten Primaria** 1999 Feb 28; 23(3):179–80 **(Spa)**
[The inappropriate antidiuretic hormone secretion syndrome and citalopram (letter)] Berrocal E, et al. **Med Clin (Barc)** 1999 Jan 23;112(2):78 (9 ref.) **(Spa)**
[Neuroleptic malignant syndrome associated with olanzapine (letter)] García López MM, et al. **Med Clin (Barc)** 1999 Sep 4;113(6):239 (8 ref.) **(Spa)**
[Reversible parkinsonism secondary to the use of sertraline (letter)] Pina Latorre MA, et al. **Neurologia** 1998 Nov; 13(9):444–5 **(Spa)**

ANALYSIS

Voltammetry of trazodone by platinum electrode and its determination in tablets using DP technique in the rotating conditions. Dogrukol-Ak D, et al. **Eur J Pharm Sci** 1999 Feb;7(3):215–20

BLOOD

Fluoxetine and norfluoxetine [letter; comment] Mattes JA. **Am J Psychiatry** 1998 Nov;155(11):1637. Comment on: Am J Psychiatry 1997 Jul;154(7):963–9.
Analysis of the enantiomers of citalopram and its demethylated metabolites using chiral liquid chromatography. Kosel M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 20; 719(1–2):234–8
Determination of paroxetine in plasma by high-performance liquid chromatography for bioequivalence studies. López-Calull C, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19;724(2):393–8
Rapid simple high-performance liquid chromatographic determination of paroxetine in human plasma. Shin JG, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25; 713(2):452–6

CHEMICAL SYNTHESIS

Synthesis and pharmacological evaluation of new (indol-3-yl)alkylamides and alkylamines acting as potential serotonin uptake inhibitors. Fouchard F, et al. **Arzneimittelforschung** 1999 Feb;49(2):96–105

CHEMISTRY

Paroxetine hydrochloride hemihydrate. Ibers JA. **Acta Crystallogr C** 1999 Mar 15;55 (Pt 3):432–4
New approaches to rapid onset antidepressants [published erratum appears in Curr Pharm Des 1999 Feb;5(2):139] Briner K, et al. **Curr Pharm Des** 1998 Aug;4(4):291–302 (144 ref.)
Analytical profile of 4-methylthioamphetamine (4-MTA), a new street drug. Poortman AJ, et al. **Forensic Sci Int** 1999 Mar 29;100(3):221–33
Effect of modifications of the alkylpiperazine moiety of trazodone on 5HT2A and alpha1 receptor binding affinity. Giannangeli M, et al. **J Med Chem** 1999 Feb 11; 42(3):336–45

DIAGNOSTIC USE

Assessment of serotonergic function in major depression using d-fenfluramine: relation to clinical variables and antidepressant response. Cleare AJ, et al. **Biol Psychiatry** 1998 Oct 1;44(7):555–61
Prolactin response to d-fenfluramine in major depression before and after treatment with serotonin reuptake inhibitors. Kavoussi RJ, et al. **Biol Psychiatry** 1999 Feb 1;45(3):295–9
Parenteral clomipramine challenge in depressed adolescents: mood and neuroendocrine response. Sallee FR, et al. **Biol Psychiatry** 1998 Oct 1;44(7):562–7
Risperidone is associated with blunting of D-fenfluramine evoked serotonergic responses in schizophrenia. Jones H, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):199–203
Regional distribution of 5-HT transporters in the brain of wild type and 'Purkinje cell degeneration' mutant mice: a quantitative autoradiographic study with [3H]citalopram. Le Marec N, et al. **J Chem Neuroanat** 1998 Sep; 15(3):155–71
Prolactin response to D-fenfluramine in outpatients with major depression. Kavoussi RJ, et al. **Psychiatry Res** 1998 Jul 13;79(3):199–205
Effects of haloperidol treatment on prolactin response to D-fenfluramine challenge in acute schizophrenia. Mohr P, et al. **Psychopharmacology (Berl)** 1999 Jan;141(3):322–5

ECONOMICS

Determining the most economical SSRI for a Medicare risk contract. Valdez C, et al. **Am J Health Syst Pharm** 1999 Jan 1;56(1):23–4

TCAs vs SSRIs. Same bang for whose buck? [editorial; comment] Gallo JJ. **Arch Fam Med** 1999 Jul-Aug; 8(4):326-7. Comment on: Arch Fam Med 1999 Jul-Aug;8(4):319-25.

METABOLISM

Metabolism and pharmacokinetics of selective serotonin reuptake inhibitors. DeVane CL. **Cell Mol Neurobiol** 1999 Aug;19(4):443-66 (120 ref.)

Economic consequences of selective serotonin reuptake inhibitor use with drugs also metabolized by the cytochrome P-450 system. Ozminkowski RJ, et al. **Clin Ther** 1998 Jul-Aug;20(4):780-96

Effect of modifications of the alkylpiperazine moiety of trazodone on 5HT2A and alpha1 receptor binding affinity. Giannangeli M, et al. **J Med Chem** 1999 Feb 11; 42(3):336-45

The stereoselective metabolism of fluoxetine in poor and extensive metabolizers of sparteine. Fjordside L, et al. **Pharmacogenetics** 1999 Feb;9(1):55-60

Variations in [3H]imipramine and 5-HT2A but not [3H]paroxetine binding sites in suicide brains. Rosel P, et al. **Psychiatry Res** 1998 Jun 30;82(3):161-70

Polymorphic human cytochrome P450 enzymes: an opportunity for individualized drug treatment. Ingelman-Sundberg M, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):342-9 (79 ref.)

PHARMACOKINETICS

Fluvoxamine distribution in postmortem cases. Kunsman GW, et al. **Am J Forensic Med Pathol** 1999 Mar;20(1):78-83

Effect of activated charcoal alone or given after gastric lavage in reducing the absorption of diazepam, ibuprofen and citalopram. Lapatto-Reiniluoto O, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):148-53

Brain-to-blood partition and in vivo inhibition of 5-hydroxytryptamine reuptake and quipazine-mediated behaviour of nefazodone and its main active metabolites in rodents. Nacca A, et al. **Br J Pharmacol** 1998 Dec; 125(7):1617-23

Transport mechanisms for the antidepressant citalopram in brain microvessel endothelium. Rochat B, et al. **Brain Res** 1999 Jun 12;831(1-2):229-36

Sertraline N-demethylation is catalyzed by multiple isoforms of human cytochrome P-450 in vitro. Kobayashi K, et al. **Drug Metab Dispos** 1999 Jul;27(7):763-6

Uptake and distribution of a new SSRI, NS2381, studied by PET in living porcine brain. Smith DF, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):351-9

Care of depression in the elderly: comparative pharmacokinetics of SSRIs. Baumann P. **Int Clin Psychopharmacol** 1998 Sep;13 Suppl 5:S35-43 (58 ref.)

Metabolic interactions of central nervous system medications and selective serotonin reuptake inhibitors. Naranjo CA, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S35-47 (120 ref.)

Comparative bioavailability of two sertraline tablet formulations in healthy human volunteers after a single dose administration. Moraes ME, et al. **Int J Clin Pharmacol Ther** 1998 Dec;36(12):661-5

Bioequivalence evaluation of two sertraline tablet formulations in healthy male volunteers after a single dose administration. Zhu CJ, et al. **Int J Clin Pharmacol Ther** 1999 Mar;37(3):120-4

Paroxetine pharmacokinetics in depressed children and adolescents. Findling RL, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):952-9

Excretion of paroxetine into breast milk. Ohman R, et al. **J Clin Psychiatry** 1999 Aug;60(8):519-23

Pharmacodynamic and pharmacokinetic factors in a case of neuroleptic malignant syndrome [letter; comment] Shad MU, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):346-7 . Comment on: J Clin Psychopharmacol 1997 Feb;17(1):65-6.

Detection of fluoxetine in brain, blood, liver and hair of rats using gas chromatography-mass spectrometry. Lefebvre M, et al. **Life Sci** 1999;64(9):805-11

The role of lysosomes in the cellular distribution of thioridazine and potential drug interactions. Daniel WA, et al. **Toxicol Appl Pharmacol** 1999 Jul 15;158(2):115-24

PHARMACOLOGY

Fluoxetine action upon human T lymphocyte proliferation. Ayelli Edgar V, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(4):191-7

Effects of fluoxetine, phentermine, and venlafaxine on pulmonary arterial pressure and electrophysiology. Reeve HL, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L213-9

Alteration of personality by serotonergic intervention [letter; comment] Balon R. **Am J Psychiatry** 1999 Jun;156(6):985 . Comment on: Am J Psychiatry 1998 Feb;155(2):290-2. Comment on: Am J Psychiatry 1998 Mar;155(3):373-9.

Discrepancies between the in vitro and in vivo 5-HT and norepinephrine re-uptake blocking properties of venlafaxine. Béïque JC, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:290-1

Serotonin transporter function in vivo: assessment by chronoamperometry. Frazer A, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:217-29 (48 ref.)

Consequences of 5-HT re-uptake blockade on postsynaptic 5-HT1A receptor activation: an electrophysiological and neurochemical study in guinea pig dorsal raphe and hippocampus. Sprouse J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:272-3

Ritonavir-fluoxetine interaction [letter; comment] Eralp Bellibas S. **Antimicrob Agents Chemother** 1999 Jul; 43(7):1815. Comment on: Antimicrob Agents Chemother 1998 Dec;42(12):3107-12.

Inhibition by tetanus toxin of sodium-dependent, high-affinity [3H]5-hydroxytryptamine uptake in rat synaptosomes. Inserte J, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):111-20

Can the antidysphoric and anxiolytic profiles of selective serotonin reuptake inhibitors be related to their ability to increase brain 3 alpha, 5 alpha-tetrahydroprogesterone (allopregnanolone) availability? Guidotti A, et al. **Biol Psychiatry** 1998 Nov 1;44(9):865-73 (42 ref.)

Alterations in serum and brain trace element levels after antidepressant treatment: part I. Zinc. Nowak G, et al. **Biol Trace Elem Res** 1999 Jan;67(1):85-92

Design and synthesis of new potent, silent 5-HT1A antagonists by covalent coupling of aminopropanol derivatives with selective serotonin reuptake inhibitors. Perez M, et al. **Bioorg Med Chem Lett** 1998 Dec 1; 8(23):3423-8

Blockade of 5-hydroxytryptamine and noradrenaline uptake by venlafaxine: a comparative study with paroxetine and desipramine. Béïque JC, et al. **Br J Pharmacol** 1998 Oct; 125(3):526-32

Effects of (-)-tertatolol, (-)-penbutolol and (+/-)-pindolol in combination with paroxetine on presynaptic 5-HT function: an in vivo microdialysis and electrophysiological study. Gartside SE, et al. **Br J Pharmacol** 1999 May; 127(1):145-52

Citalopram-induced hypophagia is enhanced by blockade of 5-HT(1A) receptors: role of 5-HT(2C) receptors. Grignaschi G, et al. **Br J Pharmacol** 1998 Aug; 124(8):1781-7

Evidence from microdialysis and synaptosomal studies of rat cortex for noradrenaline uptake sites with different sensitivities to SSRIs. Hughes ZA, et al. **Br J Pharmacol** 1998 Jul;124(6):1141-8

Block by fluoxetine of volume-regulated anion channels. Maertens C, et al. **Br J Pharmacol** 1999 Jan;126(2):508-14

Serotonin reuptake inhibitor, fluoxetine, dilates isolated skeletal muscle arterioles. Possible role of altered Ca2+ sensitivity. Pacher P, et al. **Br J Pharmacol** 1999 Jun; 127(3):740-6

Diurnal variation in 5-HT1B autoreceptor function in the anterior hypothalamus in vivo: effect of chronic antidepressant drug treatment. Sayer TJ, et al. **Br J Pharmacol** 1999 Apr;126(8):1777-84

Modulation of noradrenergic neuronal firing by selective serotonin reuptake blockers. Szabo ST, et al. **Br J Pharmacol** 1999 Feb;126(3):568-71

Fluoxetine-induced plasticity in the rodent visual system. Bastos EF, et al. **Brain Res** 1999 Apr 3;824(1):28-35

Effects of fluoxetine administration on mu-opoid receptor immunostaining in the rat forebrain. de Gandarias JM, et al. **Brain Res** 1999 Jan 30;817(1-2):236-40

Autoreceptors remain functional after prolonged treatment with a serotonin reuptake inhibitor. Hjorth S, et al. **Brain Res** 1999 Jul 24;835(2):224-8

Hypericum LI 160 inhibits uptake of serotonin and norepinephrine in astrocytes. Neary JT, et al. **Brain Res** 1999 Jan 23;816(2):358-63

Selective serotonin reuptake inhibitors reduce the spontaneous activity of dopaminergic neurons in the ventral tegmental area. Di Mascio M, et al. **Brain Res Bull** 1998 Aug;46(6):547-54

Anxiogenic-like effect of acute and chronic fluoxetine on rats tested on the elevated plus-maze. Silva MT, et al. **Braz J Med Biol Res** 1999 Mar;32(3):333-9

Inhibition of imipramine N-demethylation by fluvoxamine in Chinese young men. Xu ZH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Sep;17(5):399-402

Brain monoamine output alterations after a single venlafaxine challenge in experimental hepatic encephalopathy. Wikell C, et al. **Clin Neuropharmacol** 1998 Sep-Oct;21(5):296-306

Clomipramine dose-effect study in patients with depression: clinical end points and pharmacokinetics. Danish University Antidepressant Group (DUAG). **Clin Pharmacol Ther** 1999 Aug;66(2):152-65

Speculations on difference between tricyclic and selective serotonin reuptake inhibitor antidepressants on their cardiac effects. Is there any? Pacher P, et al. **Curr Med Chem** 1999 Jun;6(6):469-80 (202 ref.)

Review of cardiovascular effects of fluoxetine, a selective serotonin reuptake inhibitor, compared to tricyclic antidepressants. Pacher P, et al. **Curr Med Chem** 1998 Oct; 5(5):381-90 (125 ref.)

Inhibition of CYP2C9 by selective serotonin reuptake inhibitors: in vitro studies with tolbutamide and (S)-warfarin using human liver microsomes. Hemeryck A, et al. **Eur J Clin Pharmacol** 1999 Feb;54(12):947-51

The effect of fluvoxamine on the pharmacokinetics and pharmacodynamics of buspirone. Lamberg TS, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):761-6

Fluvoxamine is a potent inhibitor of tacrine metabolism in vivo. Larsen JT, et al. **Eur J Clin Pharmacol** 1999 Jul; 55(5):375-82

Fluvoxamine inhibits the CYP2C19-catalysed metabolism of proguanil in vitro. Rasmussen BB, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):735-40

Release studies with rat brain cortical synaptosomes indicate that tramadol is a 5-hydroxytryptamine uptake blocker and not a 5-hydroxytryptamine releaser. Gobbi M, et al. **Eur J Pharmacol** 1999 Apr 1;370(1):23-6

Venlafaxine: acute and chronic effects on 5-hydroxytryptamine levels in rat brain in vivo. Gur E, et al. **Eur J Pharmacol** 1999 May 7;372(1):17-24

Inhibition by fluoxetine of voltage-activated ion channels in rat PC12 cells. Hahn SJ, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):113-8

Long-term effects on serotonin transporter mRNA expression of chronic neonatal exposure to a serotonin reuptake inhibitor. Hansen HH, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):307-15

Effect of fluoxetine on extracellular 5-hydroxytryptamine in rat brain. Role of 5-HT autoreceptors. Hervás I, et al. **Eur J Pharmacol** 1998 Sep 25;358(1):9-18

5-HT receptor ligands differentially affect operant oral self-administration of ethanol in the rat. Maurel S, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):217-23

Citalopram elicits a discriminative stimulus in rats at a dose selectively increasing extracellular levels of serotonin vs. dopamine and noradrenaline. Millan MJ, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):147-50

Synergistic neurochemical and behavioral effects of fluoxetine and 5-HT1A receptor antagonists. Trillat AC, et al. **Eur J Pharmacol** 1998 Sep 18;357(2-3):179-84

Antagonism of the 5-HT1A receptor stimulus in a conditioned taste aversion procedure. Berendsen HH, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):345-9

The influence of selective serotonin reuptake inhibitors on the plasma and brain pharmacokinetics of the simplest phenothiazine neuroleptic promazine in the rat. Daniel WA, et al. **Eur Neuropsychopharmacol** 1999 Jun;9(4):337-44

Antiaversive effects of 5HT2C receptor agonists and fluoxetine in a model of panic-like anxiety in rats. Jenck F, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):161-8

Lack of beta adrenoceptor desensitization in brain following the dual noradrenaline and serotonin reuptake inhibitor venlafaxine. Nalepa I, et al. **Eur Neuropsychopharmacol** 1998 Aug;8(3):227-32

Conventional and spectral power analysis of all-night sleep EEG after subchronic treatment with paroxetine in healthy male volunteers. Schlösser R, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):273-8

Patterns of c-fos expression induced by fluvoxamine are different after acute vs. chronic oral administration. Veening JG, et al. **Eur Neuropsychopharmacol** 1998 Aug; 8(3):213-26

The influence of selective serotonin reuptake inhibitors (SSRIs) on the pharmacokinetics of thioridazine and its metabolites: in vivo and in vitro studies. Daniel WA, et al. **Exp Toxicol Pathol** 1999 Jul;51(4-5):309-14

Decreased plasma leptin levels in lean and obese Zucker rats after treatment with the serotonin reuptake inhibitor fluoxetine. Dryden S, et al. **Horm Metab Res** 1999 Jun; 31(6):363-6

Excitatory amino acids and serotonin uptake blockers reveal two physiologically distinct serotonin systems in the retina of the skate, Raja erinacea. Schuette E, et al. **Int J Neurosci** 1998 Jul;95(1-2):115-32

Mechanism of action of serotonin selective reuptake inhibitors. Serotonin receptors and pathways mediate therapeutic effects and side effects. Stahl SM. **J Affect Disord** 1998 Dec;51(3):215-35 (131 ref.)

Clomipramine and imipramine suppress clinical signs and T and B cell response to myelin proteins in experimental autoimmune neuritis in Lewis rats. Zhu J, et al. **J Autoimmun** 1998 Aug;11(4):319-27

Persistently increased density of serotonin transporters in the frontal cortex of rats treated with fluoxetine during early juvenile life. Wegerer V, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):13-24; discussion 25-6

Cardiovascular effects of antidepressant drugs: updated. Glassman AH. **J Clin Psychiatry** 1998;59 Suppl 15:13-8 (33 ref.)

Using secondary binding properties to select a not so selective serotonin reuptake inhibitor. Stahl SM. **J Clin Psychiatry** 1998 Dec;59(12):642-3

Effects of "Ecstasy" blocked by serotonin reuptake inhibitors [letter] Stein DJ, et al. **J Clin Psychiatry** 1999 Jul;60(7):485

Effects of SSRIs on sexual function: a critical review. Rosen RC, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):67-85 (255 ref.)

Effect of SSRI antidepressants on ejaculation: a double-blind, randomized, placebo-controlled study with fluoxetine, fluvoxamine, paroxetine, and sertraline. Waldinger MD, et al. **J Clin Psychopharmacol** 1998 Aug;18(4):274-81

Weight suppression and weight rebound in ex-smokers treated with fluoxetine. Borrelli B, et al. **J Consult Clin Psychol** 1999 Feb;67(1):124-31

Fluoxetine increases extracellular dopamine in the prefrontal cortex by a mechanism not dependent on serotonin: a comparison with citalopram. Pozzi L, et al. **J Neurochem** 1999 Sep;73(3):1051-7

Acute and long-term treatments with the selective serotonin reuptake inhibitor citalopram modulate the HPA axis activity at different levels in male rats. Jensen JB, et al. **J Neuroendocrinol** 1999 Jun;11(6):465-71

Effects of fluoxetine and norfluoxetine on 5-hydroxytryptamine metabolism in blood platelets and brain after administration to rats. Bourdeaux R, et al. **J Pharm Pharmacol** 1998 Dec;50(12):1387–92

Pindolol, a putative 5-hydroxytryptamine(1A) antagonist, does not reverse the inhibition of serotonergic neuronal activity induced by fluoxetine in awake cats: comparison to WAY-100635. Fornal CA, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):220–8

Chronic clomipramine and triiodothyronine increase serotonin levels in rat frontal cortex in vivo: relationship to serotonin autoreceptor activity. Gur E, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):81–7

Mechanism of sodium channel block by venlafaxine in guinea pig ventricular myocytes. Khalifa M, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):280–4

Effects of various serotonin agonists, antagonists, and uptake inhibitors on the discriminative stimulus effects of methamphetamine in rats. Munzar P, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):239–50

Sustained desensitization of hypothalamic 5-Hydroxytryptamine1A receptors after discontinuation of fluoxetine: inhibited neuroendocrine responses to 8-hydroxy-2-(Dipropylamino)Tetralin in the absence of changes in Gi/o/z proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):561–7

Daily injections of fluoxetine induce dose-dependent desensitization of hypothalamic 5-HT1A receptors: reductions in neuroendocrine responses to 8-OH-DPAT and in levels of Gz and Gi proteins. Raap DK, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):98–106

Hyperforin, a major antidepressant constituent of St. John's Wort, inhibits serotonin uptake by elevating free intracellular Na+I. Singer A, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1363–8

Effect of venlafaxine on pineal melatonin and noradrenaline in the male rat. Franklin M, et al. **J Psychopharmacol** 1998; 12(4):371–4

Selective serotonin reuptake inhibitors in affective disorders—I. Basic pharmacology. Goodnick PJ, et al. **J Psychopharmacol** 1998;12(3 Suppl B):S5–20 (228 ref.)

Debate resolved: there are differential effects of serotonin selective reuptake inhibitors on cytochrome P450 enzymes. Preskorn SH. **J Psychopharmacol** 1998;12(3 Suppl B):S89–97 (59 ref.)

Psychopharmacological profile of the selective serotonin reuptake inhibitor, paroxetine: implication of noradrenergic and serotonergic mechanisms. Redrobe JP, et al. **J Psychopharmacol** 1998;12(4):348–55

Sertraline, a selective serotonin reuptake inhibitor modulates extracellular noradrenaline in the rat frontal cortex. Thomas DN, et al. **J Psychopharmacol** 1998;12(4):366–70

Selective serotonin reuptake inhibitors and neuroendocrine function. Raap DK, et al. **Life Sci** 1999;65(12):1217–35 (228 ref.)

In vitro studies on the mechanism by which (+)-norfenfluramine induces serotonin and dopamine release from the vesicular storage pool. Gobbi M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):323–7

In vivo control of 5-hydroxytryptamine release by terminal autoreceptors in rat brain areas differentially innervated by the dorsal and median raphe nuclei. Hervás I, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):315–22

The GABA(A) receptor complex as a target for fluoxetine action. Tunnicliff G, et al. **Neurochem Res** 1999 Oct; 24(10):1271–6

Effects of venlafaxine on extracellular concentrations of 5-HT and noradrenaline in the rat frontal cortex: augmentation via 5-HT1A receptor antagonism. Dawson LA, et al. **Neuropharmacology** 1999 Aug;38(8):1153–63

Effect of acute, short- and long-term milnacipran administration on rat locus coeruleus noradrenergic and dorsal raphe serotonergic neurons. Mongeau R, et al. **Neuropharmacology** 1998 Jul;37(7):905–18

Simultaneous effects of local dexfenfluramine application on extracellular glutamate and serotonin levels in rat frontal cortex: a reverse microdialysis study. Rocher C, et al. **Neuropharmacology** 1999 Apr;38(4):513–23

Effects of 5-HT-releasing agents on the extracellullar hippocampal 5-HT of rats. Implications for the development of novel antidepressants with a short onset of action. Scorza C, et al. **Neuropharmacology** 1999 Jul; 38(7):1055–61

O- and N-demethylation of venlafaxine in vitro by human liver microsomes and by microsomes from cDNA-transfected cells: effect of metabolic inhibitors and SSRI antidepressants. Fogelman SM, et al. **Neuropsychopharmacology** 1999 May;20(5):480–90

Modulation of dialysate levels of dopamine, noradrenaline, and serotonin (5-HT) in the frontal cortex of freely-moving rats by (-)-pindolol alone and in association with 5-HT reuptake inhibitors: comparative roles of beta-adrenergic, 5-HT1A, and 5-HT1B receptors. Gobert A, et al. **Neuropsychopharmacology** 1999 Aug;21(2):268–84

5-HT1A receptor function in normal subjects on clinical doses of fluoxetine: blunted temperature and hormone responses to ipsapirone challenge. Lerer B, et al. **Neuropsychopharmacology** 1999 Jun;20(6):628–39

Aggression, impulsivity, and central nervous system serotonergic responsivity in a nonpatient sample. Manuck SB, et al. **Neuropsychopharmacology** 1998 Oct;19(4):287–99

Subchronic administration of fluoxetine impairs estrous behavior in intact female rats. Matuszczyk JV, et al. **Neuropsychopharmacology** 1998 Dec;19(6):492–8

Serotonin and human information processing: an electromyographic study of the effects of fluvoxamine on choice reaction time. Rihet P, et al. **Neurosci Lett** 1999 Apr 16;265(2):143–6

Behavioral, neuroendocrine and serotonergic consequences of single social defeat and repeated fluoxetine pretreatment in the Lewis rat strain. Berton O, et al. **Neuroscience** 1999; 92(1):327–41

Fluoxetine induces the transcription of genes encoding c-fos, corticotropin-releasing factor and its type 1 receptor in rat brain. Torres G, et al. **Neuroscience** 1998 Nov; 87(2):463–77

Reduction of fat and protein intakes but not carbohydrate intake following acute and chronic fluoxetine in female rats. Heisler LK, et al. **Pharmacol Biochem Behav** 1999 Jul; 63(3):377–85

Feeding and reward interactions from chronic paroxetine treatment. Konkle AT, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):435–40

Paradoxical effects of serotonin and opioids in pemoline-induced self-injurious behavior. Turner C, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):361–6

Limited access to ethanol in genetic drinking rats is suppressed while feeding is enhanced by the mixed 5-HT1A agonist/5-HT2A antagonist FG5938. West MW, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):823–8

Effect of fluoxetine on maximal electroshock seizures in mice: acute vs chronic administration. Raju SS, et al. **Pharmacol Res** 1999 Jun;39(6):451–4

Fluvoxamine is a potent inhibitor of the metabolism of caffeine in vitro. Rasmussen BB, et al. **Pharmacol Toxicol** 1998 Dec;83(6):240–5

Acute and chronic citalopram treatment differently modulates rat exploratory behavior in the exploration box test: no evidence for increased anxiety or changes in the [3H]raclopride binding. Matto V, et al. **Pharmacology** 1999 Feb;58(2):59–69

Does the addition of pindolol accelerate or enhance the response to selective serotonin reuptake inhibitor antidepressants? Puzantian T, et al. **Pharmacotherapy** 1999 Feb;19(2):205–12 (12 ref.)

Comparison of the effects of venlafaxine, paroxetine and desipramine on the pupillary light reflex in man. Bitsios P, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):286–92

Clinical doses of fluoxetine and cerebral blood flow in healthy volunteers. Bonne O, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):24–8

Stimulus properties of fluvoxamine in a conditioned taste aversion procedure. Gommans J, et al. **Psychopharmacology (Berl)** 1998 Dec;140(4):496–502

Differential effects of withdrawal from chronic amphetamine or fluoxetine administration on brain stimulation reward in the rat--interactions between the two drugs. Lin D, et al. **Psychopharmacology (Berl)** 1999 Aug;145(3):283–94

5-HT2C receptors are involved in the discriminative stimulus effects of citalopram in rats. Millan MJ, et al. **Psychopharmacology (Berl)** 1999 Mar;142(4):432–4

Differential effects of olanzapine at dopamine D1 and D2 receptors in dopamine depleted animals. Ninan I, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):175–81

Behavioral sensitization to nicotine is associated with behavioral disinhibition; counteraction by citalopram. Olausson P, et al. **Psychopharmacology (Berl)** 1999 Feb; 142(2):111–9

Dose-dependent influence of buspirone on the activities of selective serotonin reuptake inhibitors in the mouse forced swimming test. Redrobe JP, et al. **Psychopharmacology (Berl)** 1998 Jul;138(2):198–206

Clomipramine enhances the cortisol response to 5-HTP: implications for the therapeutic role of 5-HT2 receptors. Sargent PA, et al. **Psychopharmacology (Berl)** 1998 Nov; 140(1):120–2

The potentiating effect of sertraline and fluoxetine on amphetamine-induced locomotor activity is not mediated by serotonin. Sills TL, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):426–32

Acute fluoxetine treatment potentiates amphetamine hyperactivity and amphetamine-induced nucleus accumbens dopamine release: possible pharmacokinetic interaction. Sills TL, et al. **Psychopharmacology (Berl)** 1999 Feb;141(4):421–7

Reduced satiating effect of d-fenfluramine in serotonin 5-HT(2C) receptor mutant mice. Vickers SP, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):309–14

Fluoxetine blocks expression but not development of sensitization to morphine-induced oral stereotypy in rats. Wennemer HK, et al. **Psychopharmacology (Berl)** 1999 Sep 1;146(1):19–23

Fenfluramine potentiates canine pulmonary vasoreactivity to endothelin-1. Barman SA, et al. **Pulm Pharmacol Ther** 1998 Apr-Jun;11(2-3):183–7

Effects of serotonin re-uptake inhibition on ventilatory control in goats. Henderson DR, et al. **Respir Physiol** 1999 Jan 1;115(1):1–10

Effect of serotonin uptake inhibition on breathing during sleep and daytime symptoms in obstructive sleep apnea. Kraiczi H, et al. **Sleep** 1999 Feb 1;22(1):61–7

Fluoxetine dilates isolated small cerebral arteries of rats and attenuates constrictions to serotonin, norepinephrine, and a voltage-dependent Ca(2+) channel opener. Ungvari Z, et al. **Stroke** 1999 Sep;30(9):1949–54

Inhibition of hippocampal 5-HT synthesis by fluoxetine and paroxetine: evidence for the involvement of both 5-HT1A and 5-HT1B/D autoreceptors. Barton CL, et al. **Synapse** 1999 Jan;31(1):13–9

Venlafaxine: discrepancy between in vivo 5-HT and NE reuptake blockade and affinity for reuptake sites. Béïque JC, et al. **Synapse** 1999 Jun 1;32(3):198–211

Induction of Fos-like-immunoreactivity in the central extended amygdala by antidepressant drugs. Morelli M, et al. **Synapse** 1999 Jan;31(1):1–4

Open channel block of NMDA receptors by conformationally restricted analogs of milnacipran and their protective effect against NMDA-induced neurotoxicity. Noguchi T, et al. **Synapse** 1999 Feb; 31(2):87–96

[Homozygote mice deficient in serotonin 5-HT1B receptor and antidepressant effect of selective serotonin reuptake inhibitors] Trillat AC, et al. **C R Seances Soc Biol Fil** 1998; 192(6):1139–47 (Eng. Abstr.) **(Fre)**

[Effect of fluoxetine treatment on serotonin and MHPG in 32 patients with major depressive disorder] Bourdeaux R, et al. **Encephale** 1999 Jan-Feb;25(1):37–43 (Eng. Abstr.) **(Fre)**

[Psychopharmacological profile of venlafaxine] Bourin M. **Encephale** 1999 Jun;25 Spec No 2:21–2; discussion 23–5 (7 ref.) (Eng. Abstr.) **(Fre)**

[Effects of serotonergic drugs on the up-regulation of dopamine D2 receptors induced by haloperidol in rat striatum] Ishikane T. **Hokkaido Igaku Zasshi** 1998 Sep; 73(5):441–9 (Eng. Abstr.) **(Jpn)**

[Differential features of SSRIs] Cervera S. **Rev Med Univ Navarra** 1997 Oct-Dec;41(4):245–57 (95 ref.) (Eng. Abstr.) **(Spa)**

POISONING

Fatal combined intoxication with new antidepressants. Human cases and an experimental study of postmortem moclobemide redistribution. Rogde S, et al. **Forensic Sci Int** 1999 Mar 15;100(1-2):109–16

Life-threatening fluvoxamine overdose in a 4-year-old child [letter] Fraser J, et al. **Intensive Care Med** 1999 May; 25(5):548

Serotonin syndrome caused by overdose with paroxetine and moclobemide. FitzSimmons CR, et al. **J Accid Emerg Med** 1999 Jul;16(4):293–5

Antidepressants and suicide mortality. Ohberg A, et al. **J Affect Disord** 1998 Sep;50(2-3):225–33

SSRI safety in overdose. Barbey JT, et al. **J Clin Psychiatry** 1998;59 Suppl 15:42–8 (36 ref.)

Fatal venlafaxine overdose [letter; comment] Banham ND. **Med J Aust** 1998 Oct 19;169(8):445, 448. Comment on: Med J Aust 1997 Jul 7;167(1):54. Comment on: Med J Aust 1998 May 18;168(10:523. Comment on: Med J Aust 1998 May 18;168(10):523–4.

[Convulsions and circulatory arrest from fluvoxamine and paroxetine poisoning (published erratum appears in Therapie 1998 Jul-Aug;53(4):401)] Chen Y, et al. **Therapie** 1998 Mar-Apr;53(2):165–7 **(Fre)**

THERAPEUTIC USE

Therapeutical aspects of using citalopram in burns. Bláha J, et al. **Acta Chir Plast** 1999;41(1):25–32

Paroxetine in social anxiety disorder: a randomized placebo-controlled study. Allgulander C. **Acta Psychiatr Scand** 1999 Sep;100(3):193–8

Fluvoxamine for phobia of storms. Balon R. **Acta Psychiatr Scand** 1999 Sep;100(3):244–5; discussion 245–6

Mode of inheritance in mood disorder families according to fluvoxamine response. Serretti A, et al. **Acta Psychiatr Scand** 1998 Dec;98(6):443–50

Adjuvant trazodone in the treatment of alcoholism: an open study. Janiri L, et al. **Alcohol Alcohol** 1998 Jul-Aug; 33(4):362–5

Use of serotonin (5-hydroxytryptamine) reuptake inhibitors in the treatment of alcoholism. Lejoyeux M. **Alcohol Alcohol Suppl** 1996 Mar;1:69–75 (38 ref.)

Sertraline in the treatment of obsessive-compulsive disorder [letter; comment] Clary CM. **Am Fam Physician** 1999 Jan 1;59(1):49. Comment on: Am Fam Physician 1998 Apr 1;57(7):1623–8, 1632–4.

Depression, coronary events, platelet inhibition, and serotonin reuptake inhibitors [editorial] Nair GV, et al. **Am J Cardiol** 1999 Aug 1;84(3):321–3, A8 (30 ref.)

Comparative efficacy of sertraline vs. fluoxetine in patients age 70 or over with major depression. Finkel SI, et al. **Am J Geriatr Psychiatry** 1999 Summer;7(3):221–7

Citalopram approved for treatment of depression [news] **Am J Health Syst Pharm** 1998 Oct 1;55(19):1963

Long-term maintenance of weight loss after a very-low-calorie diet: a randomized blinded trial of the efficacy and tolerability of sibutramine. Apfelbaum M, et al. **Am J Med** 1999 Feb;106(2):179–84

Occurrence and management of depression in the context of naltrexone treatment of alcoholism [clinical conference] Farren CK, et al. **Am J Psychiatry** 1999 Aug; 156(8):1258–62

Fluoxetine versus phenelzine in obsessive-compulsive

disorder [letter; comment] Golwyn DH, et al. **Am J Psychiatry** 1999 Jan;156(1):159–60. Comment on: Am J Psychiatry 1997 Sep;154(9):1261–4.

Combination treatment with venlafaxine and bupropion [letter] Kirsch MA, et al. **Am J Psychiatry** 1999 Mar; 156(3):494

Prospective study of fluoxetine treatment and suicidal behavior in affectively ill subjects. Leon AC, et al. **Am J Psychiatry** 1999 Feb;156(2):195–201

Use of factor-analyzed symptom dimensions to predict outcome with serotonin reuptake inhibitors and placebo in the treatment of obsessive-compulsive disorder. Mataix-Cols D, et al. **Am J Psychiatry** 1999 Sep; 156(9):1409–16

Changes in weight during a 1-year trial of fluoxetine. Michelson D, et al. **Am J Psychiatry** 1999 Aug; 156(8):1170–6

Treatment of major depression with nortriptyline and paroxetine in patients with ischemic heart disease. Nelson JC, et al. **Am J Psychiatry** 1999 Jul;156(7):1024–8

Addition of naltrexone to fluoxetine in the treatment of binge eating disorder [letter] Neumeister A, et al. **Am J Psychiatry** 1999 May;156(5):797

Sertraline in the treatment of clozapine-induced obsessive-compulsive behavior [letter] Rahman MS, et al. **Am J Psychiatry** 1998 Nov;155(11):1629–30

Selective serotonin reuptake inhibitors and delusional depression [letter; comment] Rothschild AJ, et al. **Am J Psychiatry** 1999 Jun;156(6):977–8. Comment on: Am J Psychiatry 1996 Mar;153(3):414–6. Comment on: Am J Psychiatry 1996 Dec;153(12):1631–3.

New behavioral approach to trichotillomania [letter] Salama SA, et al. **Am J Psychiatry** 1999 Sep;156(9):1469–70

Fluvoxamine treatment of social phobia (social anxiety disorder): a double-blind, placebo-controlled study. Stein MB, et al. **Am J Psychiatry** 1999 May;156(5):756–60

Clozapine and paroxetine in the treatment of schizophrenia with obsessive-compulsive features [letter] Strous RD, et al. **Am J Psychiatry** 1999 Jun;156(6):973–4

Melancholia with onset during treatment with SSRIs. Swartz CM, et al. **Ann Clin Psychiatry** 1998 Dec;10(4):177–9

An open-label trial of sertraline for the treatment of major depression in primary care. Taragano F, et al. **Ann Clin Psychiatry** 1999 Jun;11(2):67–71

TCAs vs SSRIs. Same bang for whose buck? [editorial; comment] Gallo JJ. **Arch Fam Med** 1999 Jul-Aug; 8(4):326–7. Comment on: Arch Fam Med 1999 Jul-Aug;8(4):319–25.

Luteal phase sertraline treatment for premenstrual dysphoric disorder. Results of a double-blind, placebo-controlled, crossover study. Jermain DM, et al. **Arch Fam Med** 1999 Jul-Aug;8(4):328–32

A double-blind, randomized, placebo-controlled trial of pindolol augmentation in depressive patients resistant to serotonin reuptake inhibitors. Grup de Recerca en Trastorns Afectius. Pérez V, et al. **Arch Gen Psychiatry** 1999 Apr;56(4):375–9

Sertraline in the treatment of panic disorder: a flexible-dose multicenter trial. Pollack MH, et al. **Arch Gen Psychiatry** 1998 Nov;55(11):1010–6

Compulsive voyeurism and exhibitionism: a clinical response to paroxetine. Abouesh A, et al. **Arch Sex Behav** 1999 Feb; 28(1):23–30

SSRIs: are they the benzodiazepines of the 1990s? [letter] Fernando N. **Aust N Z J Psychiatry** 1998 Aug;32(4):590–1

Assessment of serotonergic function in major depression using d-fenfluramine: relation to clinical variables and antidepressant response. Cleare AJ, et al. **Biol Psychiatry** 1998 Oct 1;44(7):555–61

Pretreatment platelet 5-HT concentration predicts the short-term response to paroxetine in major depression. Grupo de Trastornos Afectivos. Figueras G, et al. **Biol Psychiatry** 1999 Aug 15;46(4):518–24

Serotonin neuronal function and selective serotonin reuptake inhibitor treatment in anorexia and bulimia nervosa. Kaye W, et al. **Biol Psychiatry** 1998 Nov 1;44(9):825–38 (152 ref.)

Clinical utility of the selective serotonin reuptake inhibitors in the spectrum of anxiety. Kent JM, et al. **Biol Psychiatry** 1998 Nov 1;44(9):812–24 (115 ref.)

Combination of inositol and serotonin reuptake inhibitors in the treatment of depression. Levine J, et al. **Biol Psychiatry** 1999 Feb 1;45(3):270–3

Placebo-controlled study of sertraline in depressed recently abstinent alcoholics. Roy A. **Biol Psychiatry** 1998 Oct 1; 44(7):633–7

Child and adolescent mood disorders--experience with serotonin-based therapies. Ryan ND, et al. **Biol Psychiatry** 1998 Sep 1;44(5):336–40 (46 ref.)

Treatment of depersonalization disorder with clomipramine. Simeon D, et al. **Biol Psychiatry** 1998 Aug 15;44(4):302–3

Modulation of delta9-tetrahydrocannabinol-induced hypothermia by fluoxetine in the rat. Malone DT, et al. **Br J Pharmacol** 1998 Aug;124(7):1419–24

Serotonin and panic. Bell CJ, et al. **Br J Psychiatry** 1998 Jun;172:465–71 (42 ref.)

Sertraline in the treatment of panic disorder. A multi-site, double-blind, placebo-controlled, fixed-dose investigation. Londborg PD, et al. **Br J Psychiatry** 1998 Jul;173:54–60

Different roles for serotonin in anti-obsessional drug action and the pathophysiology of obsessive-compulsive disorder. Delgado PL, et al. **Br J Psychiatry Suppl** 1998;(35):21–5 (30 ref.)

Pharmacotherapy for obsessive-compulsive disorder. Greist JH, et al. **Br J Psychiatry Suppl** 1998;(35):64–70 (92 ref.)

Combination of behaviour therapy with fluvoxamine in comparison with behaviour therapy and placebo. Results of a multicentre study. Hohagen F, et al. **Br J Psychiatry Suppl** 1998;(35):71–8

Paroxetine and amotivational syndrome [letter] Abel L, et al. **Brain Inj** 1998 Aug;12(8):721–2

Treatment of aggression and irritability after head injury. Kant R, et al. **Brain Inj** 1998 Aug;12(8):661–6

Selective serotonin reuptake inhibitor treatment of post-traumatic Klüver-Bucy syndrome. Slaughter J, et al. **Brain Inj** 1999 Jan;13(1):59–62

Regulation of CCK mRNA expression in the rat brain by stress and treatment with sertraline, a selective serotonin re-uptake inhibitor. Giardino L, et al. **Brain Res** 1999 Apr 10;824(2):304–7

Re: Sertraline-clozapine interaction [letter; comment] Chong SA, et al. **Can J Psychiatry** 1998 Oct;43(8):856–7. Comment on: Can J Psychiatry 1998 Feb;43(1):84–5.

Cognitive-behaviour therapy and medication in the treatment of obsessive-compulsive disorder: a controlled study. O'Connor K, et al. **Can J Psychiatry** 1999 Feb;44(1):64–71

Successful paroxetine treatment of major depression in an adult form of metachromatic leukodystrophy with cognitive disturbances [letter] Vella G, et al. **Can J Psychiatry** 1998 Sep;43(7):748–9

Pharmacotherapy in children and adolescents with obsessive-compulsive disorder. Grados M, et al. **Child Adolesc Psychiatr Clin N Am** 1999 Jul;8(3):617–34, x (131 ref.)

The treatment of kleptomania with serotonin reuptake inhibitors. Lepkifker E, et al. **Clin Neuropharmacol** 1999 Jan-Feb;22(1):40–3

A placebo-controlled comparison of the antidepressant efficacy and effects on sexual functioning of sustained-release bupropion and sertraline. Croft H, et al. **Clin Ther** 1999 Apr;21(4):643–58

Comparison of extended-release venlafaxine, selective serotonin reuptake inhibitors, and tricyclic antidepressants in the treatment of depression: a meta-analysis of randomized controlled trials. Einarson TR, et al. **Clin Ther** 1999 Feb;21(2):296–308

Selective serotonin reuptake inhibitor utilization patterns: consistency across research designs. Hutchins DS, et al. **Clin Ther** 1998 Jul-Aug;20(4):797–805

Economic consequences of selective serotonin reuptake inhibitor use with drugs also metabolized by the cytochrome P-450 system. Ozminkowski RJ, et al. **Clin Ther** 1998 Jul-Aug;20(4):780–96

The role of fluoxetine in the treatment of premenstrual dysphoric disorder. Romano S, et al. **Clin Ther** 1999 Apr; 21(4):615–33; discussion 613 (67 ref.)

Sexual functioning in depressed outpatients taking mirtazapine. Boyarsky BK, et al. **Depress Anxiety** 1999; 9(4):175–9

SSRIs in the treatment of obsessive-compulsive disorder. Cartwright C, et al. **Depress Anxiety** 1998;8 Suppl 1:105–13 (69 ref.)

Treatment of dysthymic disorder. Dunner DL. **Depress Anxiety** 1998;8 Suppl 1:54–8 (39 ref.)

SSRIs in the treatment of panic disorder. Goddard AW, et al. **Depress Anxiety** 1998;8 Suppl 1:114–20 (54 ref.)

Outcome of children exposed in utero to fluoxetine: a critical review. Koren G, et al. **Depress Anxiety** 1998;8 Suppl 1:27–31

Comparison of the tolerability and efficacy of citalopram and amitriptyline in elderly depressed patients treated in general practice. Kyle CJ, et al. **Depress Anxiety** 1998;8(4):147–53

Treatment of geriatric depression. Small GW. **Depress Anxiety** 1998;8 Suppl 1:32–42 (102 ref.)

Use of the selective serotonin reuptake inhibitor citalopram in a possible animal analogue of obsessive-compulsive disorder. Stein DJ, et al. **Depress Anxiety** 1998;8(1):39–42

Ten years of fluoxetine. Stokes PE. **Depress Anxiety** 1998; 8 Suppl 1:1–4 (11 ref.)

Systematic review and guide to selection of selective serotonin reuptake inhibitors. Edwards JG, et al. **Drugs** 1999 Apr;57(4):507–33

Moclobemide and fluoxetine for panic disorder. International Panic Disorder Study Group. Tiller JW, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249 Suppl 1:S7–10

Combination treatment with clozapine and paroxetine in schizophrenia: safety and tolerability data from a prospective open clinical trial. Anghelescu I, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):315–20

A comparison of the effects of different serotonin reuptake blockers on sexual behaviour of the male rat. Mos J, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):123–35

A double-blind crossover comparison of clomipramine and desipramine in the treatment of panic disorder. Sasson Y, et al. **Eur Neuropsychopharmacol** 1999 Mar;9(3):191–6

Fluoxetine in orthostatic hypotension of Parkinson's disease: a clinical and experimental pilot study. Montastruc JL, et al. **Fundam Clin Pharmacol** 1998;12(4):398–402

Fluvoxamine for somatoform disorders: an open trial. Noyes R Jr, et al. **Gen Hosp Psychiatry** 1998 Nov;20(6):339–44

Depression: treating the patient with comorbid cardiac disease. Roose SP, et al. **Geriatrics** 1999 Feb;54(2):20–1, 25–6, 29–31 passim (30 ref.)

Strategies for augmentation of SSRI treatment: a survey of an academic psychopharmacology practice. Mischoulon D, et al. **Harv Rev Psychiatry** 1999 Mar-Apr;6(6):322–6

Paroxetine and its uses in psychiatry. Bell C, et al. **Hosp Med** 1999 May;60(5):353–6

Fluoxetine: therapeutic and undesirable effects. Cookson J, et al. **Hosp Med** 1998 Aug;59(8):622–6 (27 ref.)

Venlafaxine in social phobia: a study in selective serotonin reuptake inhibitor non-responders. Altamura AC, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):239–45

Comorbidity of panic and depression: implications for clinical management. Ballenger JC. **Int Clin Psychopharmacol** 1998 Apr;13 Suppl 4:S13–7 (31 ref.)

The issue of comorbidity in the treatment of panic. Dunner DL. **Int Clin Psychopharmacol** 1998 Apr;13 Suppl 4:S19–24 (40 ref.)

Personality disorder comorbidity with major depression and response to treatment with sertraline or citalopram. Ekselius L, et al. **Int Clin Psychopharmacol** 1998 Sep; 13(5):205–11

Serotonin reuptake inhibitors for the treatment of premenstrual dysphoria. Eriksson E. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S27–33 (36 ref.)

Response to venlafaxine in a previously antidepressant treatment-resistant combat veteran with post-traumatic stress disorder. Hamner MB, et al. **Int Clin Psychopharmacol** 1998 Sep;13(5):233–4

Predicting response: serotonin reuptake inhibition. Mendlewicz J. **Int Clin Psychopharmacol** 1999 May;14 Suppl 1:S17–20 (40 ref.)

Efficacy and safety of the selective serotonin reuptake inhibitors in treating depression in elderly patients. Montgomery SA. **Int Clin Psychopharmacol** 1998 Sep;13 Suppl 5:S49–54 (40 ref.)

Beyond depression: citalopram for obsessive-compulsive disorder. Pato MT. **Int Clin Psychopharmacol** 1999 May; 14 Suppl 2:S19–26 (45 ref.)

Light treatment of seasonal affective disorder in combination with citalopram or placebo with 1-year follow-up. Thorell LH, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S7–11

Cost effectiveness study of a year follow-up of selective serotonin reuptake inhibitor (SSRI) and augmentor combination compared with SSRI and placebo. Tome MB, et al. **Int Clin Psychopharmacol** 1998 Jul;13(4):175–82

One year real world prospective follow-up study of a major depressive episode of patients treated with paroxetine and pindolol or paroxetine for 6 weeks. Tome MB, et al. **Int Clin Psychopharmacol** 1998 Jul;13(4):169–74

Are serotonin selective reuptake inhibitors effective in underweight anorexia nervosa? Ferguson CP, et al. **Int J Eat Disord** 1999 Jan;25(1):11–7

The use of selective serotonin reuptake inhibitors for depression and psychosis complicating dementia'--1997, 12, 519–527 [letter; comment] Lawlor B. **Int J Geriatr Psychiatry** 1998 Jul;13(7):496. Comment on: Int J Geriatr Psychiatry 1997 May;12(5):519–25.

A double-blind trial of four medications to treat severe premenstrual syndrome. Diegoli MS, et al. **Int J Gynaecol Obstet** 1998 Jul;62(1):63–7

Treatment of premature ejaculation with sertraline hydrochloride. McMahon CG. **Int J Impot Res** 1998 Sep; 10(3):181–4; discussion 185

Sertraline in the treatment of premature ejaculation: a double-blind placebo controlled study. Biri H, et al. **Int Urol Nephrol** 1998;30(5):611–5

SSRI antidepressant use patterns and their relation to clinical global impression scores: a naturalistic study. Hylan TR, et al. **J Affect Disord** 1999 Jan-Mar;52(1–3):111–9

Selective serotonin reuptake inhibitors have broadened the utilisation of antidepressant treatment in accordance with recommendations. Findings from a Swedish prescription database. Isacsson G, et al. **J Affect Disord** 1999 Apr; 53(1):15–22

The clinical relevance of treating social phobia. Lader M. **J Affect Disord** 1998 Sep;50 Suppl 1:S29–34 (30 ref.)

Fluoxetine and compulsive sexual behavior [letter] Aguirre B. **J Am Acad Child Adolesc Psychiatry** 1999 Aug;38(8):943

Behavior therapy versus clomipramine for the treatment of obsessive-compulsive disorder in children and adolescents. de Haan E, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Oct;37(10):1022–9

Paroxetine in autism [letter] Posey DI, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):111–2

Paroxetine open-label treatment of pediatric outpatients with obsessive-compulsive disorder. Rosenberg DR, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Sep;38(9):1180–5

Medication-induced hypomania in Asperger's disorder [letter] Storch DD. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):110–1

Effects of paroxetine hydrochloride, a selective serotonin reuptake inhibitor, on refractory vasovagal syncope: a randomized, double-blind, placebo-controlled study. Di Girolamo E, et al. **J Am Coll Cardiol** 1999 Apr; 33(5):1227–30

Resolution of fear of flying with fluoxetine treatment. Abene MV, et al. **J Anxiety Disord** 1998 Nov-Dec;12(6):599–603

Fluoxetine in treatment of adolescent patients with autism: a longitudinal open trial. Fatemi SH, et al. **J Autism Dev Disord** 1998 Aug;28(4):303–7

Risperidone addition in serotonin reuptake inhibitor-resistant trichotillomania: three cases. Epperson CN, et al. **J Child Adolesc Psychopharmacol** 1999;9(1):43–9

An adolescent male with multiple paraphilias successfully treated with fluoxetine. Galli VB, et al. **J Child Adolesc Psychopharmacol** 1998;8(3):195–7

Use of selective serotonin reuptake inhibitors for the treatment of childhood panic disorder: a pilot study. Renaud J, et al. **J Child Adolesc Psychopharmacol** 1999; 9(2):73–83

Combination of clomipramine and nortriptyline in the treatment of obsessive–compulsive disorder: a double–blind, placebo–controlled trial. Noorbala AA, et al. **J Clin Pharm Ther** 1998 Apr;23(2):155–9

The role of norepinephrine in the treatment of depression. **J Clin Psychiatry** 1999 Sep;60(9):623–31

Risperidone augmentation of paroxetine in a case of severe, treatment–refractory obsessive–compulsive disorder without comorbid psychopathology [letter] Agid O, et al. **J Clin Psychiatry** 1999 Jan;60(1):55–6

Paroxetine treatment of episodic rages associated with Tourette's disorder. Bruun RD, et al. **J Clin Psychiatry** 1998 Nov;59(11):581–4

Pharmacotherapy of social anxiety disorder. Davidson JR. **J Clin Psychiatry** 1998;59 Suppl 17:47–53 (27 ref.)

Treatment of intermittent explosive disorder with sertraline in 3 patients [letter] Feder R. **J Clin Psychiatry** 1999 Mar; 60(3):195–6

Introduction. Optimizing clinical use of SSRIs: theory and practice. Glassman AH. **J Clin Psychiatry** 1998;59 Suppl 15:3

Obsessive–compulsive disorder: diagnosis and treatment. Goodman WK. **J Clin Psychiatry** 1999;60 Suppl 18:27–32 (67 ref.)

SSRIs and SMRIs: broad spectrum of efficacy beyond major depression. Gorman JM, et al. **J Clin Psychiatry** 1999;60 Suppl 4:33–8; discussion 39 (35 ref.)

The long–term outcome of dysthymia in private practice: clinical features, temperament, and the art of management. Haykal RF, et al. **J Clin Psychiatry** 1999 Aug;60(8):508–18

Efficacy of SSRIs and newer antidepressants in severe depression: comparison with TCAs. Hirschfeld RM. **J Clin Psychiatry** 1999 May;60(5):326–35 (58 ref.)

Predictors of response to acute treatment of chronic and double depression with sertraline or imipramine. Hirschfeld RM, et al. **J Clin Psychiatry** 1998 Dec;59(12):669–75

Managing aggressive behavior in patients with obsessive–compulsive disorder and borderline personality disorder. Hollander E. **J Clin Psychiatry** 1999;60 Suppl 15:38–44 (36 ref.)

Comorbid social anxiety and body dysmorphic disorder: managing the complicated patient. Hollander E, et al. **J Clin Psychiatry** 1999;60 Suppl 9:27–31

The treatment of chronic depression, part 2: a double–blind, randomized trial of sertraline and imipramine. Keller MB, et al. **J Clin Psychiatry** 1998 Nov;59(11):598–607

A randomized, double–blind, placebo–controlled trial of buspirone in combination with an SSRI in patients with treatment–refractory depression. Landén M, et al. **J Clin Psychiatry** 1998 Dec;59(12):664–8

The effects of venlafaxine on social activity level in depressed outpatients. Lenderking WR, et al. **J Clin Psychiatry** 1999 Mar;60(3):157–63

Do depressed subjects who have failed both fluoxetine and a tricyclic antidepressant respond to the combination? Levitt AJ, et al. **J Clin Psychiatry** 1999 Sep;60(9):613–6

Update on the diagnosis and treatment of social anxiety disorder. Liebowitz MR. **J Clin Psychiatry** 1999;60 Suppl 18:22–6 (34 ref.)

Reboxetine versus fluoxetine: an overview of efficacy and tolerability. Massana J. **J Clin Psychiatry** 1998;59 Suppl 14:8–10

The use of selective serotonin reuptake inhibitors in eating disorders. Mayer LE, et al. **J Clin Psychiatry** 1998;59 Suppl 15:28–34 (44 ref.)

Comparing the efficacy and safety of fluoxetine and venlafaxine in outpatient depression [letter; comment] Michelson D. **J Clin Psychiatry** 1999 May;60(5):338–40. Comment on: J Clin Psychiatry 1998 Jul;59(7):352–7.

The treatment of chronic depression, part 3: psychosocial functioning before and after treatment with sertraline or imipramine. Miller IW, et al. **J Clin Psychiatry** 1998 Nov; 59(11):608–19

A double–blind randomized comparison of nortriptyline and paroxetine in the treatment of late–life depression: 6–week outcome. Mulsant BH, et al. **J Clin Psychiatry** 1999;60 Suppl 20:16–20

Treatment of antidepressant nonresponders: augmentation or switch? Nelson JC. **J Clin Psychiatry** 1998;59 Suppl 15:35–41 (83 ref.)

Residual symptoms in depressed patients who respond acutely to fluoxetine. Nierenberg AA, et al. **J Clin Psychiatry** 1999 Apr;60(4):221–5

Antidepressant medication change in a clinical treatment setting: a comparison of the effectiveness of selective serotonin reuptake inhibitors. Nurnberg HG, et al. **J Clin Psychiatry** 1999 Sep;60(9):574–9

Care of depressed patients with anxiety symptoms. Nutt DJ. **J Clin Psychiatry** 1999;60 Suppl 17:23–7; discussion 46–8 (26 ref.)

Risperidone augmentation of selective serotonin reuptake inhibitors in major depression. Ostroff RB, et al. **J Clin Psychiatry** 1999 Apr;60(4):256–9

A review of the efficacy of selective serotonin reuptake inhibitors in obsessive–compulsive disorder. Pigott TA, et al. **J Clin Psychiatry** 1999 Feb;60(2):101–6 (50 ref.)

Early augmentation of sertraline with methylphenidate [letter] Postolache TT, et al. **J Clin Psychiatry** 1999 Feb; 60(2):123–4

The treatment of chronic depression, part 1: study design and rationale for evaluating the comparative efficacy of sertraline and imipramine as acute, crossover, continuation, and maintenance phase therapies. Rush AJ, et al. **J Clin Psychiatry** 1998 Nov;59(11):589–97

Current concepts in the treatment of panic disorder. Sheehan DV. **J Clin Psychiatry** 1999;60 Suppl 18:16–21 (43 ref.)

Cognitive–behavioral therapy as an adjunct to serotonin reuptake inhibitors in obsessive–compulsive disorder: an open trial. Simpson HB, et al. **J Clin Psychiatry** 1999 Sep; 60(9):584–90

Efficacy of fluvoxamine in the treatment of major depression with comorbid anxiety disorders. Sonawalla SB, et al. **J Clin Psychiatry** 1999 Sep;60(9):580–3

Using secondary binding properties to select a not so selective serotonin reuptake inhibitor. Stahl SM. **J Clin Psychiatry** 1998 Dec;59(12):642–3

The pharmacotherapy of depressive illness in adolescents: an open–label comparison of fluoxetine with imipramine–treated historical controls. Strober M, et al. **J Clin Psychiatry** 1999 Mar;60(3):164–9

Mirtazapine versus selective serotonin reuptake inhibitors. Thompson C. **J Clin Psychiatry** 1999;60 Suppl 17:18–22; discussion 46–8 (8 ref.)

Continuation and maintenance pharmacotherapy in geriatric depression: an open–trial comparison of paroxetine and nortriptyline in patients older than 70 years. Walters G, et al. **J Clin Psychiatry** 1999;60 Suppl 20:21–5

Olanzapine addition in obsessive–compulsive disorder refractory to selective serotonin reuptake inhibitors: an open–label case series. Weiss EL, et al. **J Clin Psychiatry** 1999 Aug;60(8):524–7

Full– or half–cycle treatment of severe premenstrual syndrome with a serotonergic antidepressant. Freeman EW, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):3–8

Selective serotonin re–uptake inhibitors for the treatment of perseverative and maladaptive behaviours of people with intellectual disability. Branford D, et al. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):301–6

Antidepressants and posttraumatic stress disorder. Meek JK, et al. **J La State Med Soc** 1998 Oct;150(10):487–9 (16 ref.)

Rapid response of emotional incontinence to selective serotonin reuptake inhibitors. Nahas Z, et al. **J Neuropsychiatry Clin Neurosci** 1998 Fall;10(4):453–5

Citalopram treatment of traumatic brain damage in a 6–year–old boy. Andersen G, et al. **J Neurotrauma** 1999 Apr;16(4):341–4

Absenteeism among employees treated for depression. Claxton AJ, et al. **J Occup Environ Med** 1999 Jul; 41(7):605–11

Fluoxetine for serotonin reuptake inhibitor discontinuation syndrome [letter] Benazzi F. **J Psychiatry Neurosci** 1998 Sep;23(4):241–2

Is psychopharmacological treatment effective for the symptoms of borderline personality disorder (BPD)? Paris J. **J Psychiatry Neurosci** 1999 May;24(3):262

Efficacy and tolerability of venlafaxine in the treatment of primary dysthymia. Ravindran AV, et al. **J Psychiatry Neurosci** 1998 Nov;23(5):288–92

Selective serotonin reuptake inhibitor efficacy in severe and melancholic depression. Amsterdam JD. **J Psychopharmacol** 1998;12(3 Suppl B):S99–111 (109 ref.)

SSRIs in depression: a decade of progress. Goldstein BJ. **J Psychopharmacol** 1998;12(3 Suppl B):S3

Selective serotonin reuptake inhibitors in affective disorders--II. Efficacy and quality of life. Goodnick PJ, et al. **J Psychopharmacol** 1998;12(3 Suppl B):S21–54 (222 ref.)

The analgesic effects of selective serotonin reuptake inhibitors. Smith AJ. **J Psychopharmacol** 1998;12(4):407–13 (40 ref.)

Pharmacological treatment of paraphilias with a focus on antidepressants. Balon R. **J Sex Marital Ther** 1998 Oct–Dec;24(4):241–54 (62 ref.)

Treatment of an unusual case of masochism. Shiwach RS, et al. **J Sex Marital Ther** 1998 Oct–Dec;24(4):303–7

Clomipramine in the treatment of rapid (premature) ejaculation. Strassberg DS, et al. **J Sex Marital Ther** 1999 Apr–Jun;25(2):89–101

The effects of fluoxetine on several neurophysiological variables in patients with premature ejaculation. Yilmaz U, et al. **J Urol** 1999 Jan;161(1):107–11

Relapse of depressive symptoms after discontinuing sertraline [letter; comment] Baldessarini RJ, et al. **JAMA** 1999 Jul 28;282(4):323–4. Comment on: JAMA 1998 Nov 18;280(19):1665–72.

Maintenance phase efficacy of sertraline for chronic depression: a randomized controlled trial [see comments] Keller MB, et al. **JAMA** 1998 Nov 18;280(19):1665–72. Comment in: JAMA 1999 Jul 28;282(4):323–4.

Sertraline in children and adolescents with obsessive–compulsive disorder: a multicenter randomized controlled trial [see comments] March JS, et al. **JAMA** 1998 Nov 25;280(20):1752–6. Comment in: JAMA 1998 Nov 25;280(20):1785.

Child psychopharmacology comes of age [editorial; comment] Rapoport JL. **JAMA** 1998 Nov 25;280(20):1785 . Comment on: JAMA 1998 Nov 25;280(20):1752–6.

Substance–P antagonists: a new treatment for depression? Nutt D. **Lancet** 1998 Nov 21;352(9141):1644–6

SSRI antidepressant drug use patterns in the naturalistic setting: a multivariate analysis. Hylan TR, et al. **Med Care** 1999 Apr;37(4 Suppl Lilly):AS36–44

SSRI antidepressants are effective for treating delusional hypochondriasis [letter] Perkins RJ. **Med J Aust** 1999 Feb 1;170(3):140–1

Citalopram for depression. **Med Lett Drugs Ther** 1998 Dec 4;40(1041):113–4

Successful treatment of hemichorea with olanzapine. Safirstein B, et al. **Mov Disord** 1999 May;14(3):532–3

Effects of repeated fluoxetine on anxiety–related behaviours, central serotonergic systems, and the corticotropic axis axis in SHR and WKY rats. Durand M, et al. **Neuropharmacology** 1999 Jun;38(6):893–907

d,l–fenfluramine response in impulsive personality disorder assessed with [18F]fluorodeoxyglucose positron emission tomography. Siever LJ, et al. **Neuropsychopharmacology** 1999 May;20(5):413–23

Selective serotonin reuptake inhibitors in pregnancy and lactation. Gupta S, et al. **Obstet Gynecol Surv** 1998 Dec; 53(12):733–6 (17 ref.)

Peripheral antinociceptive actions of desipramine and fluoxetine in an inflammatory and neuropathic pain test in the rat. Sawynok J, et al. **Pain** 1999 Aug;82(2):149–58

Pharmacologic treatment for children and adolescents with anxiety disorders. Birmaher B, et al. **Pediatr Clin North Am** 1998 Oct;45(5):1187–204 (102 ref.)

The new antidepressants. Selective serotonin reuptake inhibitors. Labellarte MJ, et al. **Pediatr Clin North Am** 1998 Oct;45(5):1137–55, ix (61 ref.)

Newer antidepressants. Beyond selective serotonin reuptake inhibitor antidepressants. McConville BJ, et al. **Pediatr Clin North Am** 1998 Oct;45(5):1157–71 (54 ref.)

Double–blind, multicenter comparative study of sertraline and amitriptyline in hospitalized patients with major depression. Möller HJ, et al. **Pharmacopsychiatry** 1998 Sep; 31(5):170–7

Fluvoxamine or placebo in the treatment of panic disorder and relationship to blood concentrations of fluvoxamine. Sandmann J, et al. **Pharmacopsychiatry** 1998 Jul; 31(4):117–21

Pharmacotherapy of primary obsessive–compulsive disorder: review of the literature. Ellingrod VL. **Pharmacotherapy** 1998 Sep–Oct;18(5):936–60 (98 ref.)

Concomitant therapy with anxiolytics or hypnotics and maintenance of initial SSRI therapy. Shields SA, et al. **Pharmacotherapy** 1998 Nov–Dec;18(6):1298–303

Fluoxetine–maintained obese humans: effect on food intake and body weight. Ward AS, et al. **Physiol Behav** 1999 Jul; 66(5):815–21

Fluoxetine and pregnancy a safe mix? Nerhood RC. **Postgrad Med** 1998 Nov;104(5):37–8

A depressed woman receiving long–term SSRI therapy. Haslam D, et al. **Practitioner** 1999 Jan;243(1594):9–12, 14 (0 ref.)

Course of antidepressant treatment drug type, and prescriber's specialty. Fairman KA, et al. **Psychiatr Serv** 1998 Sep;49(9):1180–6

Selective alteration of personality in response to noradrenergic and serotonergic antidepressant medication in depressed sample: evidence of non–specificity. Bagby RM, et al. **Psychiatry Res** 1999 Jun 30;86(3):211–6

Dopamine D2 receptor binding before and after treatment of major depression measured by [123I]IBZM SPECT. Klimke A, et al. **Psychiatry Res** 1999 Apr 26;90(2):91–101

In vivo determination of striatal dopamine D2 receptor occupancy in patients treated with olanzapine. Raedler TJ, et al. **Psychiatry Res** 1999 Apr 26;90(2):81–90

Antidepressant agents: from tricyclics to serotonin uptake inhibitors. Garattini S, et al. **Psychol Med** 1998 Sep; 28(5):1169–78 (98 ref.)

Effects of fluoxetine versus bright light in the treatment of seasonal affective disorder. Ruhrmann S, et al. **Psychol Med** 1998 Jul;28(4):923–33

Plasma serotonin level after 1 day of fluoxetine treatment: a biological predictor for antidepressant response? Alvarez JC, et al. **Psychopharmacology (Berl)** 1999 Mar; 143(1):97–101

Altered open–field behavior in experimental chronic hepatic encephalopathy after single venlafaxine and citalopram challenges. Apelqvist G, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):408–16

Delayed obsessive–compulsive disorder symptom exacerbation after a single dose of a serotonin antagonist in fluoxetine–treated but not untreated patients. Greenberg BD, et al. **Psychopharmacology (Berl)** 1998 Dec; 140(4):434–44

Near–fatal skin picking from delusional body dysmorphic disorder responsive to fluvoxamine. O'Sullivan RL, et al. **Psychosomatics** 1999 Jan–Feb;40(1):79–81

Successful outcome in a patient with chemical sensitivity. Treatment with psychological desensitization and selective serotonin reuptake inhibitor. Stenn P, et al. **Psychosomatics** 1998 Nov–Dec;39(6):547–50

Development of obsessive–compulsive symptoms during clozapine treatment in schizophrenia and its positive response to clomipramine. [letter] Biondi M, et al. **Psychother Psychosom** 1999 Mar–Apr;68(2):111–2

Citalopram: another SSRI antidepressant. Price PL. **S D J Med** 1999 Mar;52(3):99–100

A comparative study of sertraline versus imipramine in postpsychotic depressive disorder of schizophrenia. Kirli S, et al. **Schizophr Res** 1998 Sep 7;33(1-2):103-11
Effect of serotonin uptake inhibition on breathing during sleep and daytime symptoms in obstructive sleep apnea. Kraiczi H, et al. **Sleep** 1999 Feb 1;22(1):61-7
Antidepressant drug use in Italy since the introduction of SSRIs: national trends, regional differences and impact on suicide rates. Barbui C, et al.
Soc Psychiatry Psychiatr Epidemiol 1999 Mar;34(3):152-6
Pharmacokinetic consequences of a citalopram treatment discontinuation. Voirol P, et al. **Ther Drug Monit** 1999 Jun; 21(3):263-6
Guidelines for treating depression using non-selective serotonin reuptake inhibitors. Withersty DJ, et al.
W V Med J 1999 Jan-Feb;95(1):20-3
[Serotonin uptake inhibitors (SSRI) in the treatment of children and adolescents (editorial)] Jørgensen OS.
Ugeskr Laeger 1998 Dec 7;160(50):7240 **(Dan)**
[Two new antidepressants: mirtazapine and venlafaxine] Birkenhäger TK, et al. **Ned Tijdschr Geneeskd** 1999 May 1;143(18):934-7 (26 ref.) (Eng. Abstr.) **(Dut)**
[Effect of fluoxetine treatment on serotonin and MHPG in 32 patients with major depressive disorder] Bourdeaux R, et al. **Encephale** 1999 Jan-Feb;25(1):37-43 (Eng. Abstr.) **(Fre)**
[Mirtazapin--fast and strong effects]
Fortschr Neurol Psychiatr 1998 Oct;66(10 Suppl Mirtazapin):1-4 **(Ger)**
[The impact of the central serotonin system on alcoholism and therapeutic consequences] Peter H, et al.
Fortschr Neurol Psychiatr 1998 Oct;66(10):459-65 (50 ref.) (Eng. Abstr.) **(Ger)**
[Olanzapine in the treatment of depressive disorders with psychotic symptoms] Adli M, et al. **Nervenarzt** 1999 Jan; 70(1):68-71 (Eng. Abstr.) **(Ger)**
[Prophylaxis of migraine: open study with venlafaxine in 42 patients] Nascimento ED. **Arq Neuropsiquiatr** 1998 Dec; 56(4):744-6 (Eng. Abstr.) **(Por)**
[Comparative naturalistic study of the efficacy and tolerability of new antidepressants] Arias F, et al.
Actas Luso Esp Neurol Psiquiatr Cienc Afines 1998 Nov-Dec;26(6):351-7 (Eng. Abstr.) **(Spa)**

TOXICITY

The promotion effect of anorectic drugs on aflatoxin B(1)-induced hepatic preneoplastic foci. Lin X, et al.
Carcinogenesis 1999 Sep;20(9):1793-9
Effects of neonatal clomipramine treatment on locomotor activity, anxiety-related behavior and serotonin turnover in Syrian hamsters. Yannielli PC, et al.
Neuropsychobiology 1999 May;39(4):200-6
d-Fenfluramine produces neuronal degeneration in localized regions of the cortex, thalamus, and cerebellum of the rat. Schmued L, et al. **Toxicol Sci** 1999 Mar;48(1):100-6
[Clinical and toxicologic aspects of the use of Ecstasy (see comments)] Pennings EJ, et al. **Ned Tijdschr Geneeskd** 1998 Aug 29;142(35):1942-6 (36 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Oct 17;142(42):2321-2. **(Dut)**

SEROTYPING

Bacterial vaccines and serotype replacement: lessons from Haemophilus influenzae and prospects for Streptococcus pneumoniae. Lipsitch M. **Emerg Infect Dis** 1999 May-Jun; 5(3):336-45
The MHC of a broiler chicken line: serology, B-G genotypes, and B-F/B-LB sequences. Li L, et al. **Immunogenetics** 1999 Mar;49(3):215-24
Supplement 1997 (no. 41) to the Kauffmann-White scheme. Popoff MY, et al. **Res Microbiol** 1998 Sep;149(8):601-4
Serotaxonomic analysis of glycolipids from Mycobacterium chelonae-M. fortuitum complex and bovine farcy strains. Hamid ME, et al. **Zentralbl Bakteriol** 1998 Jul;288(1):23-34
[Comparison of selective screening of verotoxin-producing Escherichia coli (VTEC) isolation depending on O-serotyping and hemolysis from faeces of healthy persons] Kozaki A, et al. **Kansenshogaku Zasshi** 1998 Aug; 72(8):853-4 **(Jpn)**

METHODS

Distribution of rotavirus VP4 genotype and VP7 serotype among Chinese children. Adhikary AK, et al.
Acta Paediatr Jpn 1998 Dec;40(6):641-3
Comparison of three different methods in monoclonal antibody-based detection of Streptococcus agalactiae protein serotype markers. Moyo SR, et al. **APMIS** 1999 Mar;107(3):263-9
Pulsed field gel electrophoresis identifies an outbreak of Salmonella enterica serotype Montevideo infection associated with a supermarket hot food outlet. Threlfall EJ, et al. **Commun Dis Public Health** 1999 Sep;2(3):207-9
Molecular typing of Salmonella serotype Thompson strains isolated from human and animal sources. Chisholm SA, et al. **Epidemiol Infect** 1999 Feb;122(1):33-9
Klebsiella pneumoniae lipopolysaccharide O typing: revision of prototype strains and O-group distribution among clinical isolates from different sources and countries. Hansen DS, et al. **J Clin Microbiol** 1999 Jan;37(1):56-62
Serotyping of Streptococcus pneumoniae by coagglutination with 12 pooled antisera. Lalitha MK, et al.
J Clin Microbiol 1999 Jan;37(1):263-5
Multiplex PCR for typing and subtyping influenza and respiratory syncytial viruses. Stockton J, et al.
J Clin Microbiol 1998 Oct;36(10):2990-5
Evaluation of tube coagulase and a fluorogenic substrate for rapid detection of methicillin-resistant Staphylococcus aureus from selective enrichment broth in an outbreak of EMRSA 15. Ford M, et al. **J Hosp Infect** 1999 Feb; 41(2):133-5
A multiplex PCR for Massachusetts and Arkansas serotypes of infectious bronchitis virus. Wang X, et al.
Mol Cell Probes 1999 Feb;13(1):1-7
Characterization of avian Chlamydia psittaci strains using omp1 restriction mapping and serovar-specific monoclonal antibodies. Vanrompay D, et al. **Res Microbiol** 1997 May; 148(4):327-33
[Evaluation of the usefulness of selected commercial systems for identification of Streptococcus species] Fordymacki P, et al. **Med Dosw Mikrobiol** 1998;50(3-4):171-7 (Eng. Abstr.) **(Pol)**
[The use of minipigs to produce diagnostic sera for the serological identification of bacteria in the genus Morganella] Gurdina VV, et al.
Zh Mikrobiol Epidemiol Immunobiol 1999 Mar-Apr; (2):8-10 (Eng. Abstr.) **(Rus)**

STANDARDS

Proposed standardization of Neisseria meningitidis PorA variable-region typing nomenclature. Sacchi CT, et al.
Clin Diagn Lab Immunol 1998 Nov;5(6):845-55

VETERINARY

Identification of serotype by use of serologic assay and detection of the enterotoxin gene of Escherichia coli by means of a polymerase chain reaction assay for isolates from pigs, chickens, and cows. Jung HK.
Am J Vet Res 1999 Apr;60(4):468-72

SEROUS MEMBRANE

Serosal metastasis presenting as a cutaneous mass [letter] Robinson P, et al. **Eur Radiol** 1999;9(6):1238

ANATOMY & HISTOLOGY

The subserous thoracoabdominal continuum: embryologic basis and diagnostic imaging of disease spread. Oliphant M, et al. **Abdom Imaging** 1999 May-Jun;24(3):211-9

METABOLISM

Presence of H type 3/4 chains of ABO histo-blood group system in serous cells of human submandibular gland and regulation of their expression by the secretor gene (FUT2). Liu Y, et al. **J Histochem Cytochem** 1999 Jul;47(7):889-94

SURGERY

Serous-lined extramural tunnel technique for uretero-ileal implantation in urinary diversion. Kato H, et al.
Int J Urol 1999 Mar;6(3):145-8

SERPENTINE (MINERAL) see **ASBESTOS, SERPENTINE**

SERPENTINE ASBESTOS see **ASBESTOS, SERPENTINE**

SERPIN SUPERFAMILY see **SERPINS**

SERPINS

ANALYSIS

Evidence for the synthesis and secretion of a CBG-like serpin by human cumulus oophorus and fallopian tubes. Baltes P, et al. **Andrologia** 1998 Aug-Sep;30(4-5):249-53
The intracellular serpin proteinase inhibitor 6 is expressed in monocytes and granulocytes and is a potent inhibitor of the azurophilic granule protease, cathepsin G. Scott FL, et al. **Blood** 1999 Mar 15;93(6):2089-97
Use of reverse-transcriptase polymerase chain reaction (RT-PCR) for carcinoembryonic antigen, cytokeratin 19, and maspin in the detection of tumor cells in leukapheresis products from patients with breast cancer: comparison with immunocytochemistry. López-Guerrero JA, et al.
J Hematother 1999 Feb;8(1):53-61
[Assay and detection methods for urokinase-type plasminogen activator and its related-factors] Kimura K, et al. **Gan To Kagaku Ryoho** 1999 Jun;26(7):1009-17 (Eng. Abstr.) **(Jpn)**

BIOSYNTHESIS

Age-related expression of PEDF/EPC-1 in human endometrial stromal fibroblasts: implications for interactive senescence. Palmieri D, et al. **Exp Cell Res** 1999 Feb 25; 247(1):142-7
Bcl-2- and CrmA-inhibitable dephosphorylation and cleavage of retinoblastoma protein during etoposide-induced apoptosis. An B, et al.
Int J Mol Med 1998 Jan;1(1):131-6
Effects of donor age on the expression of a marker of replicative senescence (EPC-1) in human dermal fibroblasts. Tresini M, et al. **J Cell Physiol** 1999 Apr; 179(1):11-7

BLOOD

Profiles of plasma serpins in patients with advanced malignant melanoma, gastric cancer and breast cancer. Wojtukiewicz MZ, et al. **Haemostasis** 1998 Jan-Feb;28(1):7-13
Relevance of SCC-Ag, CEA, CA 19.9 and CA 125 for diagnosis and follow-up in oral cancer. Krimmel M, et al. **J Craniomaxillofac Surg** 1998 Aug;26(4):243-8
The clearance of thrombin-antithrombin and related serpin-enzyme complexes from the circulation: role of various hepatocyte receptors. Wells MJ, et al.
Thromb Haemost 1999 Mar;81(3):325-37 (179 ref.)

CHEMICAL SYNTHESIS

An efficient stereoselective synthesis of [3S(1S,9S)]-3-[[[9-(benzoylamino) octahydro-6,10-dioxo-6H-pyridazino-(1,2-a)(1,2)-diazepin-1-yl]-carbonyl]amino]-4-oxobutanoic acid, an interleukin converting enzyme (ICE) inhibitor. Chen MH, et al. **Bioorg Med Chem Lett** 1999 Jun 7;9(11):1587-92

CHEMISTRY

Purification and crystallization of a novel membrane-anchored protein: the Schistosoma haematobium serpin. Huang W, et al.
Acta Crystallogr D Biol Crystallogr 1999 Jan;55 (Pt 1):350-2
Effect of a polyhistidine terminal extension on eglin c stability. Waldner JC, et al. **Anal Biochem** 1998 Oct 1; 263(1):116-8
The protein Z-dependent protease inhibitor is a serpin. Han X, et al. **Biochemistry** 1999 Aug 24;38(34):11073-8
Conformational changes and disease--serpins, prions and Alzheimer's. Carrell RW, et al. **Curr Opin Struct Biol** 1998 Dec;8(6):799-809 (59 ref.)
The reactive site loop of the serpin SCCA1 is essential for cysteine proteinase inhibition. Schick C, et al.
Proc Natl Acad Sci U S A 1998 Nov 10;95(23):13465-70
Solution structure and dynamics of a serpin reactive site loop using interleukin 1beta as a presentation scaffold. Arico-Muendel CC, et al. **Protein Eng** 1999 Mar; 12(3):189-202
Protein engineering of chimeric Serpins: an investigation into effects of the serpin scaffold and reactive centre loop length. Bottomley SP, et al. **Protein Eng** 1998 Dec; 11(12):1243-7
Serpins in the Caenorhabditis elegans genome. Whisstock JC, et al. **Proteins** 1999 Jul 1;36(1):31-41
The crystal structure of plasminogen activator inhibitor 2 at 2.0 A resolution: implications for serpin function. Harrop SJ, et al. **Structure Fold Des** 1999 Jan 15;7(1):43-54
The structure of active serpin 1K from Manduca sexta. Li J, et al. **Structure Fold Des** 1999 Jan 15;7(1):103-9
Structure-function relationships in serpins: current concepts and controversies. Gils A, et al. **Thromb Haemost** 1998 Oct; 80(4):531-41 (161 ref.)

GENETICS

Regulation of Spi 2.1 and 2.2 gene expression after turpentine inflammation: discordant responses to IL-6. Berry SA, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1374-82
A novel serpin expressed by blood-borne microfilariae of the parasitic nematode Brugia malayi inhibits human neutrophil serine proteinases. Zang X, et al. **Blood** 1999 Aug 15;94(4):1418-28
The C-D interhelical domain of the serpin plasminogen activator inhibitor-type 2 is required for protection from TNF-alpha induced apoptosis. Dickinson JL, et al.
Cell Death Differ 1998 Feb;5(2):163-71
A serpin gene cluster on human chromosome 6p25 contains PI6, PI9 and ELANH2 which have a common structure almost identical to the 18q21 ovalbumin serpin genes. Sun J, et al. **Cytogenet Cell Genet** 1998;82(3-4):273-7
Inhibition of apoptosis and clonogenic survival of cells expressing crmA variants: optimal caspase substrates are not necessarily optimal inhibitors. Ekert PG, et al.
EMBO J 1999 Jan 15;18(2):330-8
A new intracellular serine protease inhibitor expressed in the rat pituitary gland complexes with granzyme B. Hill RM, et al. **FEBS Lett** 1998 Dec 4;440(3):361-4
Long-range chromatin reorganization of the human serpin gene cluster at 14q32.1 accompanies gene activation and extinction in microcell hybrids. Rollini P, et al.
Genomics 1999 Feb 15;56(1):22-30
An 18q- syndrome breakpoint resides between the duplicated serpins SCCA1 and SCCA2 and arises via a cryptic rearrangement with satellite III DNA. Katz SG, et al.
Hum Mol Genet 1999 Jan;8(1):87-92
Four polymorphic variations in the PEDF gene identified during the mutation screening of patients with Leber congenital amaurosis. Koenekoop R, et al. **Mol Vis** 1999 Jul 2;5:10
Familial dementia caused by polymerization of mutant neuroserpin. Davis RL, et al. **Nature** 1999 Sep 23; 401(6751):376-9
The HNF-4/HNF-1alpha transactivation cascade regulates gene activity and chromatin structure of the human serine protease inhibitor gene cluster at 14q32.1. Rollini P, et al.
Proc Natl Acad Sci U S A 1999 Aug 31;96(18):10308-13

SERPINS

SCCA1 and SCCA2 are proteinase inhibitors that map to the serpin cluster at 18q21.3. Silverman GA, et al. **Tumour Biol** 1998;19(6):480–7 (23 ref.)

Vaccinia virus serpin-1 deletion mutant exhibits a host range defect characterized by low levels of intermediate and late mRNAs. Shisler JL, et al. **Virology** 1999 Sep 30; 262(2):298–311

ISOLATION & PURIFICATION

Purification and crystallization of a novel membrane-anchored protein: the Schistosoma haematobium serpin. Huang W, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):350–2

METABOLISM

Binding of ovine uterine serpin to lymphocytes. Liu WJ, et al. **Am J Reprod Immunol** 1999 Jun;41(6):428–32

Use of the yeast three-hybrid system as a tool to study caspases. Van Criekinge W, et al. **Anal Biochem** 1998 Oct 1;263(1):62–6

Identification of a novel complex between human kallikrein 2 and protease inhibitor-6 in prostate cancer tissue. Mikolajczyk SD, et al. **Cancer Res** 1999 Aug 15; 59(16):3927–30

Crm-A, bcl-2 and NDGA inhibit CD95L-induced apoptosis of malignant glioma cells at the level of caspase 8 processing. Wagenknecht B, et al. **Cell Death Differ** 1998 Oct;5(10):894–900

Identification and characterization of a serpin with differential expression during the life cycle of the sea lamprey. Robson P, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jun; 120(2):253–63

Inhibition of apoptosis and clonogenic survival of cells expressing crmA variants: optimal caspase substrates are not necessarily optimal inhibitors. Ekert PG, et al. **EMBO J** 1999 Jan 15;18(2):330–8

Proteinase inhibitor 6 (PI-6) expression in human skin: induction of PI-6 and a PI-6/proteinase complex during keratinocyte differentiation. Scott FL, et al. **Exp Cell Res** 1998 Dec 15;245(2):263–71

Transforming growth factor-beta1 as a regulator of the serpins/t-PA axis in cerebral ischemia. Docagne F, et al. **FASEB J** 1999 Aug;13(11):1315–24

Cellular localization of kallistatin and tissue kallikrein in human pancreas and salivary glands. Wolf WC, et al. **Histochem Cell Biol** 1998 Nov;110(5):477–84

Regulation of pro-apoptotic leucocyte granule serine proteinases by intracellular serpins. Bird PI. **Immunol Cell Biol** 1999 Feb;77(1):47–57 (96 ref.)

Identification of a nuclear targeting domain in the insertion between helices C and D in protease inhibitor-10. Chuang TL, et al. **J Biol Chem** 1999 Apr 16;274(16):11194–8

Modularity of serpins. A bifunctional chimera possessing alpha1-proteinase inhibitor and thyroxine-binding globulin properties. Grasberger H, et al. **J Biol Chem** 1999 May 21;274(21):15046–51

MENT, a heterochromatin protein that mediates higher order chromatin folding, is a new serpin family member. Grigoryev SA, et al. **J Biol Chem** 1999 Feb 26; 274(9):5626–36

Multiple pathways of apoptosis in PC12 cells. CrmA inhibits apoptosis induced by beta-amyloid. Ivins KJ, et al. **J Biol Chem** 1999 Jan 22;274(4):2107–12

Role of thrombin anion-binding exosite-I in the formation of thrombin-serpin complexes. Myles T, et al. **J Biol Chem** 1998 Nov 20;273(47):31203–8

Localization and expression of tissue kallikrein and kallistatin in human blood vessels. Wolf WC, et al. **J Histochem Cytochem** 1999 Feb;47(2):221–8

Serpin=serine protease-like complexes within neurofilament conglomerates of motoneurons in amyotrophic lateral sclerosis. Chou SM, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S73–9

Myxoma virus Serp2 is a weak inhibitor of granzyme B and interleukin-1beta-converting enzyme in vitro and unlike CrmA cannot block apoptosis in cowpox virus-infected cells. Turner PC, et al. **J Virol** 1999 Aug;73(8):6394–404

How serpins are shaping up [comment] Carrell RW. **Science** 1999 Sep 17;285(5435):1861. Comment on: Science 1999 Sep 17;285(5435):1926–8.

Constitutive activation of toll-mediated antifungal defense in serpin-deficient Drosophila. Levashina EA, et al. **Science** 1999 Sep 17;285(5435):1917–9

The crystal structure of plasminogen activator inhibitor 2 at 2.0 A resolution: implications for serpin function. Harrop SJ, et al. **Structure Fold Des** 1999 Jan 15;7(1):43–54

PHARMACOLOGY

Inactivation of papain by antithrombin due to autolytic digestion: a model of serpin inactivation of cysteine proteinases. Björk I, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):701–9

A novel serpin expressed by blood-borne microfilariae of the parasitic nematode Brugia malayi inhibits human neutrophil serine proteinases. Zang X, et al. **Blood** 1999 Aug 15;94(4):1418–28

Gene expression in activated brain microglia: identification of a proteinase inhibitor that increases microglial cell number. Thakker-Varia S, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):99–107

maspin suppresses the invasive phenotype of human breast carcinoma. Seftor RE, et al. **Cancer Res** 1998 Dec 15; 58(24):5681–5

Effects of LEX032, a novel recombinant serine protease inhibitor, on N(G)-nitro-L-arginine methyl ester induced leukocyte-endothelial cell interactions. Bains AS, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):67–72

PEDF (pigment epithelium-derived factor) promotes increase and maturation of pigment granules in pigment epithelial cells in neonatal albino rat retinal cultures. Malchiodi-Albedi F, et al. **Int J Dev Neurosci** 1998 Aug; 16(5):423–32

The kunitz protease inhibitor form of the amyloid precursor protein (KPI/APP) inhibits the proneuropeptide processing enzyme prohormone thiol protease (PTP). Colocalization of KPI/APP and PTP in secretory vesicles. Hook VY, et al. **J Biol Chem** 1999 Jan 29;274(5):3165–72

Pigment epithelium-derived factor promotes the survival and differentiation of developing spinal motor neurons. Houenou LJ, et al. **J Comp Neurol** 1999 Sep 27; 412(3):506–14

Pigment epithelium-derived factor (PEDF) protects motor neurons from chronic glutamate-mediated neurodegeneration. Bilak MM, et al. **J Neuropathol Exp Neurol** 1999 Jul;58(7):719–28

Pigment epithelium-derived factor protects cultured retinal neurons against hydrogen peroxide-induced cell death. Cao W, et al. **J Neurosci Res** 1999 Sep 15;57(6):789–800

Neuroprotection by pigment epithelial-derived factor against glutamate toxicity in developing primary hippocampal neurons. DeCoster MA, et al. **J Neurosci Res** 1999 Jun 15;56(6):604–10

Inhibition of neutrophil proteinases by recombinant serpin Lex032 reduces capillary no-reflow in ischemia/reperfusion-induced acute pancreatitis. von Dobschuetz E, et al. **J Pharmacol Exp Ther** 1999 Aug; 290(2):782–8

Selective regulation of apoptosis: the cytotoxic lymphocyte serpin proteinase inhibitor 9 protects against granzyme B-mediated apoptosis without perturbing the Fas cell death pathway. Bird CH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6387–98

Pigment epithelium-derived factor: a potent inhibitor of angiogenesis. Dawson DW, et al. **Science** 1999 Jul 9; 285(5425):245–8

Influence of low molecular weight heparin and low molecular weight dextran sulfate on the inhibition of coagulation factor XIa by serpins. Mauron T, et al. **Thromb Haemost** 1998 Jul;80(1):82–6

PHYSIOLOGY

Prenyltransferase inhibitors induce apoptosis in proliferating thyroid cells through a p53-independent CrmA-sensitive, and caspase-3-like protease-dependent mechanism. Vitale M, et al. **Endocrinology** 1999 Feb;140(2):698–704

Viral modulation of the host response via crmA/SPI-2 expression. Turner S, et al. **Immunol Cell Biol** 1999 Jun; 77(3):236–41 (88 ref.)

Two distinct urokinase-serpin interactions regulate the initiation of cell surface-associated plasminogen activation. Schwartz BS, et al. **J Biol Chem** 1999 May 21; 274(21):15278–83

Poxvirus-encoded serpins do not prevent cytolytic T cell-mediated recovery from primary infections. Müllbacher A, et al. **J Immunol** 1999 Jun 15; 162(12):7315–21

Selective regulation of apoptosis: the cytotoxic lymphocyte serpin proteinase inhibitor 9 protects against granzyme B-mediated apoptosis without perturbing the Fas cell death pathway. Bird CH, et al. **Mol Cell Biol** 1998 Nov; 18(11):6387–98

Suppression of breast cancer growth and metastasis by a serpin myoepithelium-derived serine proteinase inhibitor expressed in the mammary myoepithelial cells. Xiao G, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3700–5

Serpins and regulation of cell death. Bird PI. **Results Probl Cell Differ** 1998;24:63–89 (130 ref.)

Pigment epithelium-derived factor: a potent inhibitor of angiogenesis. Dawson DW, et al. **Science** 1999 Jul 9; 285(5425):245–8

Structure-function relationships in serpins: current concepts and controversies. Gils A, et al. **Thromb Haemost** 1998 Oct; 80(4):531–41 (161 ref.)

Biological role of SCC antigen. Suminami Y, et al. **Tumour Biol** 1998;19(6):488–93 (42 ref.)

SERPULA HYODYSENTERIAE see **SERPULINA HYODYSENTERIAE**

SERPULA INNOCENS see **SERPULINA**

SERPULINA

Isolation of Serpulina murdochii from the joint fluid of a lame pig. Hampson DJ, et al. **Aust Vet J** 1999 Jan;77(1):48

[Diagnosis of swine dysentery and spirochaetal diarrhea. 2. Effort of macrorestriction analysis for differentiation of intestinal Serpulina relative to determination by culture-biochemical markers following species classification] Feltrup C, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jun;106(6):234–41 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Lipo-oligosaccharide profiles of Serpulina pilosicoli strains and their serological cross-reactivities. Lee BJ, et al. **J Med Microbiol** 1999 Apr;48(4):411–5

DRUG EFFECTS

In vitro activity of four antimicrobial agents against North American isolates of porcine Serpulina pilosicoli. Duhamel GE, et al. **J Vet Diagn Invest** 1998 Oct;10(4):350–6

Minimum inhibitory concentration of selected antimicrobial agents for Serpulina isolated from chickens and rheas. Trampel DW, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):379–82

GENETICS

Variation amongst human isolates of Brachyspira (Serpulina) pilosicoli based on biochemical characterization and 16S rRNA gene sequencing. De Smet KA, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1257–63

Differentiation of Serpulina species by NADH oxidase gene (nox) sequence comparisons and nox-based polymerase chain reaction tests. Atyeo RF, et al. **Vet Microbiol** 1999 Jun 1;67(1):47–60

ISOLATION & PURIFICATION

Specific detection of the genus Serpulina, S. hyodysenteriae and S. pilosicoliin porcine intestines by fluorescent rRNA in situ hybridization. Boye M, et al. **Mol Cell Probes** 1998 Oct;12(5):323–30

SERPULINA HYODYSENTERIAE

Presence of 22- and 17-kDa proteins reacting with sera in mice experimentally infected with Brachyspira (Serpulina) hyodysenteriae. Sakurai T, et al. **J Vet Med Sci** 1998 Aug; 60(8):985–7

Treatment of swine dysentery--problems of antibiotic resistance and concurrent salmonellosis [letter] Gresham AC, et al. **Vet Rec** 1998 Nov 28;143(22):619

[Diagnosis of swine dysentery and spirochaetal diarrhea. 2. Effort of macrorestriction analysis for differentiation of intestinal Serpulina relative to determination by culture-biochemical markers following species classification] Feltrup C, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jun;106(6):234–41 (Eng. Abstr.) **(Ger)**

CLASSIFICATION

Analysis of Serpulina hyodysenteriae strain variation and its molecular epidemiology using pulsed-field gel electrophoresis. Atyeo RF, et al. **Epidemiol Infect** 1999 Aug;123(1):133–8

DRUG EFFECTS

Genetic basis of macrolide and lincosamide resistance in Brachyspira (Serpulina) hyodysenteriae. Karlsson M, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):255–60

ISOLATION & PURIFICATION

Association of Serpulina hyodysenteriae with the colonic mucosa in experimental swine dysentery studied by fluorescent in situ hybridization. Jensen TK, et al. **APMIS** 1998 Nov;106(11):1061–8

Specific detection of the genus Serpulina, S. hyodysenteriae and S. pilosicoliin porcine intestines by fluorescent rRNA in situ hybridization. Boye M, et al. **Mol Cell Probes** 1998 Oct;12(5):323–30

SERPULINA INNOCENS see **SERPULINA**

SERRATIA

CHEMISTRY

Characterization of porins isolated from the outer membrane of Serratia liquefaciens. Nitzan Y, et al. **Curr Microbiol** 1999 Feb;38(2):71–9

The active site of Serratia endonuclease contains a conserved magnesium-water cluster. Miller MD, et al. **J Mol Biol** 1999 May 21;288(5):975–87

ENZYMOLOGY

Cloning and expression of the gene encoding phospholipase A1 from Serratia sp. MK1 in Escherichia coli. Song JK, et al. **J Biotechnol** 1999 Jun 11;72(1-2):103–14

ISOLATION & PURIFICATION

Serratia ficaria: a misidentified or unidentified rare cause of human infections in fig tree culture zones. Anahory T, et al. **J Clin Microbiol** 1998 Nov;36(11):3266–72

METABOLISM

The Serratia marcescens hemolysin is secreted but not activated by stable protoplast-type L-forms of Proteus mirabilis. Sieben S, et al. **Arch Microbiol** 1998 Oct; 170(4):236–42

Mass balance studies with 14C-labeled 2,4,6-trinitrotoluene (TNT) mediated by an Anaerobic desulfovibrio species and an Aerobic serratia species. Drzyzga O, et al. **Curr Microbiol** 1998 Dec;37(6):380-6

PATHOGENICITY

Serratia odorifera biogroup I: an emerging pathogen. Cook MA, et al. **J Am Osteopath Assoc** 1998 Sep;98(9):505-7 (9 ref.)

Serratia ficaria: a misidentified or unidentified rare cause of human infections in fig tree culture zones. Anahory T, et al. **J Clin Microbiol** 1998 Nov;36(11):3266-72

PHYSIOLOGY

Surface motility of serratia liquefaciens MG1. Eberl L, et al. **J Bacteriol** 1999 Mar;181(6):1703-12 (96 ref.)

N-Acyl-L-homoserine lactone autoinducers control production of an extracellular lipopeptide biosurfactant required for swarming motility of Serratia liquefaciens MG1. Lindum PW, et al. **J Bacteriol** 1998 Dec; 180(23):6384-8

VIROLOGY

Flagellar determinants of bacterial sensitivity to chi-phage. Samuel AD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9863-6

SERRATIA INFECTIONS

[Serratia marcescens brain abscess in a newborn] Sakata H, et al. **Kansenshogaku Zasshi** 1998 Aug;72(8):845-8 (Eng. Abstr.) **(Jpn)**

[Serratia marcescens pneumonia] Nakamura J, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):381-3 (9 ref.) **(Jpn)**

COMPLICATIONS

Serratia marcescens renal abscess with endophthalmitis: a case report. Lin MF, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Dec;31(4):245-8

Epidemiological analysis defining concurrent outbreaks of Serratia marcescens and methicillin-resistant Staphylococcus aureus in a neonatal intensive-care unit. Campbell JR, et al. **Infect Control Hosp Epidemiol** 1998 Dec;19(12):924-8

[Pseudo-hemoptysis due to Serratia marcescens, an etiology to remember (letter)] Hurtado Ayuso JE, et al. **Arch Bronconeumol** 1999 Apr;35(4):194-5 **(Spa)**

DIAGNOSIS

Painful red nodules of the legs: a manifestation of chronic infection with gram-negative organisms. Nieves DS, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):319-21

Serratia marcescens pseudobacteraemia in neonates associated with a contaminated blood glucose/lactate analyzer confirmed by molecular typing. Neal TJ, et al. **J Hosp Infect** 1999 Mar;41(3):219-22

Use of real time pulsed field gel electrophoresis to guide interventions during a nursery outbreak of Serratia marcescens infection. Hoyen C, et al. **Pediatr Infect Dis J** 1999 Apr;18(4):357-60

[Serratia odorifera biovar 1 bronchial infection (letter)] Ceccaldi B, et al. **Rev Med Interne** 1999 Jan;20(1):84-5 **(Fre)**

DRUG THERAPY

Serratia marcescens bacteremia: clinical features and antimicrobial susceptibilities of the isolates. Yu WL, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Sep;31(3):171-9

Serratia marcescens bacteremia after carotid endarterectomy and coronary artery bypass grafting. Demetriou CA, et al. **Heart Lung** 1999 Jul-Aug;28(4):293-4

EPIDEMIOLOGY

Repeated epidemics caused by extended-spectrum beta-lactamase-producing Serratia marcescens strains [published erratum appears in Eur J Clin Microbiol Infect Dis 1999 Jan;18(1):81] Luzzaro F, et al. **Eur J Clin Microbiol Infect Dis** 1998 Sep;17(9):629-36

Epidemiological analysis defining concurrent outbreaks of Serratia marcescens and methicillin-resistant Staphylococcus aureus in a neonatal intensive-care unit. Campbell JR, et al. **Infect Control Hosp Epidemiol** 1998 Dec;19(12):924-8

Epidemiological analysis of imipenem-resistant Serratia marcescens in hospitalized patients. Troillet N, et al. **J Hosp Infect** 1999 May;42(1):37-43

ETIOLOGY

Hyperbaric oxygen therapy elicits acute arthritis attack and exacerbation of infection in a patient with infected tophaceous gout and vascular insufficiency [letter] Kung YY, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):764

An outbreak of Serratia marcescens infections related to contaminated chlorhexidine. Vigeant P, et al. **Infect Control Hosp Epidemiol** 1998 Oct;19(10):791-4

Serratia ficaria: a misidentified or unidentified rare cause of human infections in fig tree culture zones. Anahory T, et al. **J Clin Microbiol** 1998 Nov;36(11):3266-72

MICROBIOLOGY

Serratia odorifera biogroup I: an emerging pathogen. Cook MA, et al. **J Am Osteopath Assoc** 1998 Sep;98(9):505-7 (9 ref.)

Typing of nosocomial strains of Serratia marcescens: comparison of pulsed-field gel electrophoresis of macrorestriction fragments with biotyping, esterase typing and ribotyping. Chetoui H, et al. **Res Microbiol** 1998 Feb; 149(2):137-43

Superficial hydrophobicity in Serratia marcescens strains of clinical origin. Coria-Jimenez R, et al. **Res Microbiol** 1998 Jan;149(1):27-9

PREVENTION & CONTROL

Investigation of a nosocomial outbreak due to Serratia marcescens in a maternity hospital. Berthelot P, et al. **Infect Control Hosp Epidemiol** 1999 Apr;20(4):233-6

Risk factors for acquisition of Serratia marcescens in a surgical intensive care unit. van der Sar-van der Brugge S, et al. **J Hosp Infect** 1999 Apr;41(4):291-9

[Control of a Serratia marcescens epidemic in neonatology (letter)] Ganga-Zandzou PS, et al. **Arch Pediatr** 1999 Mar; 6(3):343-5 **(Fre)**

TRANSMISSION

Leech-borne Serratia marcescens infection following complex hand injury. Pereira JA, et al. **Br J Plast Surg** 1998 Dec;51(8):640-1

Serratia marcescens cellulitis following an iguana bite. Hsieh S, et al. **Clin Infect Dis** 1999 May;28(5):1181-2

Temporally overlapping nosocomial outbreaks of Serratia marcescens infections: an unexpected result revealed by pulsed-field gel electrophoresis [letter] Peltroche-Llacsahuanga H, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):387-8

Fatal Serratia marcescens meningitis and myocarditis in a patient with an indwelling urinary catheter. Johnson JS, et al. **J Clin Pathol** 1998 Oct;51(10):789-90

Risk factors for acquisition of Serratia marcescens in a surgical intensive care unit. van der Sar-van der Brugge S, et al. **J Hosp Infect** 1999 Apr;41(4):291-9

SERRATIA MARCESCENS

Leech-borne Serratia marcescens infection following complex hand injury. Pereira JA, et al. **Br J Plast Surg** 1998 Dec;51(8):640-1

Serratia marcescens renal abscess with endophthalmitis: a case report. Lin MF, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Dec;31(4):245-8

Serratia marcescens bacteremia after carotid endarterectomy and coronary artery bypass grafting. Demetriou CA, et al. **Heart Lung** 1999 Jul-Aug;28(4):293-4

Investigation of a nosocomial outbreak due to Serratia marcescens in a maternity hospital. Berthelot P, et al. **Infect Control Hosp Epidemiol** 1999 Apr;20(4):233-6

Epidemiological analysis defining concurrent outbreaks of Serratia marcescens and methicillin-resistant Staphylococcus aureus in a neonatal intensive-care unit. Campbell JR, et al. **Infect Control Hosp Epidemiol** 1998 Dec;19(12):924-8

Painful red nodules of the legs: a manifestation of chronic infection with gram-negative organisms. Nieves DS, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):319-21

Fatal Serratia marcescens meningitis and myocarditis in a patient with an indwelling urinary catheter. Johnson JS, et al. **J Clin Pathol** 1998 Oct;51(10):789-90

[Control of a Serratia marcescens epidemic in neonatology (letter)] Ganga-Zandzou PS, et al. **Arch Pediatr** 1999 Mar; 6(3):343-5 **(Fre)**

[Serratia marcescens brain abscess in a newborn] Sakata H, et al. **Kansenshogaku Zasshi** 1998 Aug;72(8):845-8 (Eng. Abstr.) **(Jpn)**

[Serratia marcescens pneumonia] Nakamura J, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):381-3 (9 ref.) **(Jpn)**

[Pseudo-hemoptysis due to Serratia marcescens, an etiology to remember (letter)] Hurtado Ayuso JE, et al. **Arch Bronconeumol** 1999 Apr;35(4):194-5 **(Spa)**

[Bartolomeo Bizio and the phenomenon of "purpurine polenta": unknown history of Serratia marcescens infections] Aragona F. **Arch Esp Urol** 1999 Mar; 52(2):105-11 (Eng. Abstr.) **(Spa)**

CHEMISTRY

NMR studies of the C-terminal secretion signal of the haem-binding protein, HasA. Izadi-Pruneyre N, et al. **Eur J Biochem** 1999 Apr;261(2):562-8

T-cell specific immunosuppression by prodigiosin isolated from Serratia marcescens. Han SB, et al. **Int J Immunopharmacol** 1998 Jan-Mar;20(1-3):1-13

The crystal structure of HasA, a hemophore secreted by Serratia marcescens. Arnoux P, et al. **Nat Struct Biol** 1999 Jun;6(6):516-20

CLASSIFICATION

Temporally overlapping nosocomial outbreaks of Serratia marcescens infections: an unexpected result revealed by pulsed-field gel electrophoresis [letter] Peltroche-Llacsahuanga H, et al. **Infect Control Hosp Epidemiol** 1999 Jun;20(6):387-8

Different O and K serotype distributions among clinical and environmental strains of Serratia marcescens. Aucken HM, et al. **J Med Microbiol** 1998 Dec;47(12):1097-104

Typing of nosocomial strains of Serratia marcescens: comparison of pulsed-field gel electrophoresis of macrorestriction fragments with biotyping, esterase typing and ribotyping. Chetoui H, et al. **Res Microbiol** 1998 Feb; 149(2):137-43

DRUG EFFECTS

A close look at alcohol gel as an antimicrobial sanitizing agent. Paulson DS, et al. **Am J Infect Control** 1999 Aug; 27(4):332-8

Effects of Ca2+ ions on survival, growth, and cell size in Serratia marcescens SMG40 exposed to mecillinam. Gratia JP. **Arch Physiol Biochem** 1998 Aug;105(4):347-57

Serratia marcescens bacteremia: clinical features and antimicrobial susceptibilities of the isolates. Yu WL, et al. **Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih** 1998 Sep;31(3):171-9

Epidemiological analysis of imipenem-resistant Serratia marcescens in hospitalized patients. Troillet N, et al. **J Hosp Infect** 1999 May;42(1):37-43

Antibiotic resistance and putative virulence factors of Serratia marcescens with respect to O and K serotypes. Aucken HM, et al. **J Med Microbiol** 1998 Dec; 47(12):1105-13

ENZYMOLOGY

Extracellular proteinases from extremophiles. Morita Y, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:300-4

Regulation of activity of chloroperoxidase from Serratia marcescens. Burd VN, et al. **Biochemistry (Mosc)** 1998 Nov;63(11):1299-301

A basal-defined medium for the study of proteolytic activity of Serratia marcescens. Bromke BJ, et al. **Can J Microbiol** 1999 Jan;45(1):88-91

Repeated epidemics caused by extended-spectrum beta-lactamase-producing Serratia marcescens strains [published erratum appears in Eur J Clin Microbiol Infect Dis 1999 Jan;18(1):81] Luzzaro F, et al. **Eur J Clin Microbiol Infect Dis** 1998 Sep;17(9):629-36

An upstream sequence element required for NucC-dependent expression of the Serratia marcescens extracellular nuclease. Winslow RH, et al. **J Bacteriol** 1998 Nov; 180(22):6064-7

On the advantage of being a dimer, a case study using the dimeric Serratia nuclease and the monomeric nuclease from Anabaena sp. strain PCC 7120. Franke I, et al. **J Biol Chem** 1999 Jan 8;274(2):825-32

Temperature effects on the allosteric responses of native and chimeric aspartate transcarbamoylases. Liu L, et al. **J Mol Biol** 1998 Oct 2;282(4):891-901

Synthesis and biochemical characterization of obligatory dimers of the sugar non-specific nuclease from Serratia marcescens using specifically designed bismaleimidoalkanes as SH-specific crosslinking reagents. Franke I, et al. **J Protein Chem** 1999 Jan;18(1):137-46

The NucE and NucD lysis proteins are not essential for secretion of the Serratia marcescens extracellular nuclease. Strych U, et al. **Microbiology** 1999 May;145 (Pt 5):1209-16

Expression of a Serratia marcescens chitinase gene in Sinorhizobium fredii USDA191 and Sinorhizobium meliloti RCR2011 impedes soybean and alfalfa nodulation. Krishnan HB, et al. **Mol Plant Microbe Interact** 1999 Aug; 12(8):748-51

GENETICS

Molecular genetics of carbapenem antibiotic biosynthesis. McGowan SJ, et al. **Antonie Van Leeuwenhoek** 1999 Jan-Feb;75(1-2):135-41 (45 ref.)

Metabolic engineering of Serratia marcescens with the bacterial hemoglobin gene: alterations in fermentation pathways. Wei ML, et al. **Biotechnol Bioeng** 1998 Sep 5; 59(5):640-6

Genetic engineering of Serratia marcescens with bacterial hemoglobin gene: effects on growth, oxygen utilization, and cell size. Wei ML, et al. **Biotechnol Bioeng** 1998 Feb 20;57(4):477-83

Characterization of a dam mutant of Serratia marcescens and nucleotide sequence of the dam region. Ostendorf T, et al. **J Bacteriol** 1999 Jul;181(13):3880-5

Genetic analysis of the Serratia marcescens N28b O4 antigen gene cluster. Saigi F, et al. **J Bacteriol** 1999 Mar; 181(6):1883-91

Expression of a Serratia marcescens chitinase gene in Sinorhizobium fredii USDA191 and Sinorhizobium meliloti RCR2011 impedes soybean and alfalfa nodulation. Krishnan HB, et al. **Mol Plant Microbe Interact** 1999 Aug; 12(8):748-51

GROWTH & DEVELOPMENT

Genetic engineering of Serratia marcescens with bacterial

hemoglobin gene: effects on growth, oxygen utilization, and cell size. Wei ML, et al. **Biotechnol Bioeng** 1998 Feb 20;57(4):477–83

A basal-defined medium for the study of proteolytic activity of Serratia marcescens. Bromke BJ, et al. **Can J Microbiol** 1999 Jan;45(1):88–91

IMMUNOLOGY

Genetic analysis of the Serratia marcescens N28b O4 antigen gene cluster. Saigi F, et al. **J Bacteriol** 1999 Mar; 181(6):1883–91

ISOLATION & PURIFICATION

Serratia marcescens cellulitis following an iguana bite. Hsieh S, et al. **Clin Infect Dis** 1999 May;28(5):1181–2

Long-lasting contamination of a vitrectomy apparatus with Serratia marcescens. Kappstein I, et al. **Infect Control Hosp Epidemiol** 1999 Mar;20(3):192–5

An outbreak of Serratia marcescens infections related to contaminated chlorhexidine. Vigeant P, et al. **Infect Control Hosp Epidemiol** 1998 Oct;19(10):791–4

Bullous cellulitis caused by Serratia marcescens. Cooper CL, et al. **Int J Infect Dis** 1998 Jul-Sep;3(1):36–8

Application of infrequent-restriction-site PCR to clinical isolates of Acinetobacter baumannii and Serratia marcescens. Yoo JH, et al. **J Clin Microbiol** 1999 Oct; 37(10):3108–12

Serratia marcescens pseudobacteraemia in neonates associated with a contaminated blood glucose/lactate analyzer confirmed by molecular typing. Neal TJ, et al. **J Hosp Infect** 1999 Mar;41(3):219–22

Epidemiological analysis of imipenem-resistant Serratia marcescens in hospitalized patients. Troillet N, et al. **J Hosp Infect** 1999 May;42(1):37–43

Risk factors for acquisition of Serratia marcescens in a surgical intensive care unit. van der Sar-van der Brugge S, et al. **J Hosp Infect** 1999 Apr;41(4):291–9

Use of real time pulsed field gel electrophoresis to guide interventions during a nursery outbreak of Serratia marcescens infection. Hoyen C, et al. **Pediatr Infect Dis J** 1999 Apr;18(4):357–60

Characterization of nosocomial Serratia marcescens isolates: comparison of Fourier-transform infrared spectroscopy with pulsed-field gel electrophoresis of genomic DNA fragments and multilocus enzyme electrophoresis. Irmscher HM, et al. **Zentralbl Bakteriol** 1999 Jul;289(3):249–63

METABOLISM

Molecular genetics of carbapenem antibiotic biosynthesis. McGowan SJ, et al. **Antonie Van Leeuwenhoek** 1999 Jan-Feb;75(1-2):135–41 (45 ref.)

Biochemical oxygen demand sensor using Serratia marcescens LSY 4. Kim MN, et al. **Biosens Bioelectron** 1999 Jan 1;14(1):1–7

Cytotoxic action of Serratia marcescens hemolysin on human epithelial cells. Hertle R, et al. **Infect Immun** 1999 Feb; 67(2):817–25

Biosynthesis of endochitinase of Serratia marcescens. Gabdrakhmanova LA, et al. **Microbios** 1998;96(385):157–63

The haemolysin-secreting ShlB protein of the outer membrane of Serratia marcescens: determination of surface-exposed residues and formation of ion-permeable pores by ShlB mutants in artificial lipid bilayer membranes. Könninger UW, et al. **Mol Microbiol** 1999 Jun; 32(6):1212–25

Fatty acid profiles in pigmented and non-pigmented strains of S. marcescens. Pizzimenti FC, et al. **New Microbiol** 1999 Apr;22(2):91–8

PATHOGENICITY

Antibiotic resistance and putative virulence factors of Serratia marcescens with respect to O and K serotypes. Aucken HM, et al. **J Med Microbiol** 1998 Dec; 47(12):1105–13

PHYSIOLOGY

Superficial hydrophobicity in Serratia marcescens strains of clinical origin. Coria-Jiménez R, et al. **Res Microbiol** 1998 Jan;149(1):27–9

VIROLOGY

Two genes in prophage γ of Serratia marcescens with functional counterparts in prophage Psi tested by Mu insertions as to order and homology. Steiger H, et al. **J Basic Microbiol** 1999;39(3):197–211

SERTOLI CELL TUMOR

CHEMISTRY

Testicular Sertoli cell tumor with a heterologous sarcomatous component: immunohistochemical assessment of Sertoli cell differentiation. Gilcrease MZ, et al. **Arch Pathol Lab Med** 1998 Oct;122(10):907–11

COMPLICATIONS

Carney complex: in a patient with multiple blue naevi and lentigines, suspect cardiac myxoma. Bleasel NR, et al. **Australas J Dermatol** 1999 Aug;40(3):158–60

Sertoli tumour presenting with stress incontinence in a patient with testicular feminization. Hawkyard S, et al. **BJU Int** 1999 Aug;84(3):382–3

Sertoli cell tumour in a boy with Peutz-Jeghers syndrome [letter] Ros P, et al. **Histopathology** 1999 Jan;34(1):84–6

Malignant large cell calcifying sertoli cell tumor with endocrine overactivity. Tanaka Y, et al. **J Urol** 1999 May; 161(5):1575

DIAGNOSIS

Sertoli cell tumor causing precocious puberty in a girl with Peutz-Jeghers syndrome. Zung A, et al. **Gynecol Oncol** 1998 Sep;70(3):421–4

[Ovarian gonadal tumors in materials of the clinic of gynecological endocrinology of the Medical Academy in Poznań (1970–1998)] Warenik-Szymankiewicz A, et al. **Ginekol Pol** 1999 May;70(5):242–5 (Eng. Abstr.) **(Pol)**

PATHOLOGY

Testicular Sertoli cell tumors NOS, the final word? Higgins JP, et al. **Adv Anat Pathol** 1999 Mar;6(2):103–13

Gonadoblastoma with proliferation resembling Sertoli cell tumor. Nomura K, et al. **Int J Gynecol Pathol** 1999 Jan; 18(1):91–3

A case of large cell calcifying Sertoli cell tumor in a child with a history of nasal myxoid tumor in infancy. Tanaka Y, et al. **Pathol Int** 1999 May;49(5):471–6

Sclerosing sertoli cell tumor of the testis--a case report and review of the literature. Gravas S, et al. **Scand J Urol Nephrol** 1999 Jun;33(3):197–9 (8 ref.)

Large cell calcifying Sertoli cell tumor of the testis: a clinicopathological, immunohistochemical, and ultrastructural study of two cases. Cano-Valdez AM, et al. **Ultrastruct Pathol** 1999 Jul-Aug;23(4):259–65

[Sertoli cell tumor. Case report] Monica B, et al. **Minerva Urol Nefrol** 1998 Dec;50(4):257–9 (Eng. Abstr.) **(Ita)**

[A testicular tumor with features of a sex cord tumor with annular tubules and calcified large-cell Sertoli tumor] Zámečník M, et al. **Cesk Patol** 1999 Jan;35(1):20–3 (Eng. Abstr.) **(Slo)**

SECONDARY

Malignant Sertoli cell tumor of the ovary metastatic to the lung mimicking neuroendocrine carcinoma: report of a case. Phadke DM, et al. **Ann Diagn Pathol** 1999 Aug; 3(4):213–9

Metastatic testicular Sertoli-cell tumor: cytopathologic findings on fine-needle aspiration. Kronz JD, et al. **Diagn Cytopathol** 1998 Aug;19(2):127–30

SURGERY

[Giant bilateral ovarian tumor in a 14-year-old girl] Pietrzak P, et al. **Ginekol Pol** 1999 May;70(5):295–7 (Eng. Abstr.) **(Pol)**

VETERINARY

Treatment of aggressive testicular tumors in four dogs. Dhaliwal RS, et al. **J Am Anim Hosp Assoc** 1999 Jul-Aug; 35(4):311–8 (43 ref.)

What is your diagnosis? Sertoli cell tumor. Nuttall T. **J Small Anim Pract** 1998 Nov;39(11):509, 546

SERTOLI CELLS

CHEMISTRY

Plectin is concentrated at intercellular junctions and at the nuclear surface in morphologically differentiated rat Sertoli cells. Guttman JA, et al. **Anat Rec** 1999 Mar;254(3):418–28

Anti-MIC2 as a tool in examination of testicular biopsies. Visfeldt J, et al. **APMIS** 1999 Jul;107(7):631–5

Gene encoding a human testis Sertoli cell component related to LIM domain protein. Yang JX, et al. **Biochem Mol Biol Int** 1998 Sep;46(1):11–9

Ultrastructural and biochemical evidence for gap junction and connexin 43 expression in a clonal Sertoli cell line: a potential model in the study of junctional complex formation. Lablack A, et al. **Cell Tissue Res** 1998 Nov; 294(2):279–87

Claudin-11/OSP-based tight junctions of myelin sheaths in brain and Sertoli cells in testis. Morita K, et al. **J Cell Biol** 1999 May 3;145(3):579–88

CYTOLOGY

Effects of rapamycin and FK 506 on rat Sertoli cells in vitro. Clemann N, et al. **Adv Exp Med Biol** 1998;444:67–70; discussion 70–1

Cell culture systems for the analysis of the male germinal differentiation. Rassoulzadegan M, et al. **Adv Exp Med Biol** 1998;444:51–6; discussion 56–7

Sertoli cells of the mouse testis originate from the coelomic epithelium. Karl J, et al. **Dev Biol** 1998 Nov 15; 203(2):323–33

Glial cell line-derived neurotropic factor stimulates sertoli cell proliferation in the early postnatal period of rat testis development. Hu J, et al. **Endocrinology** 1999 Aug; 140(8):3416–21

Development of Sertoli cell binding competency in the peripubertal rat. Cameron DF, et al. **J Androl** 1998 Sep-Oct;19(5):573–9

Potential daily sperm production, Sertoli cell number, and seminiferous tubule characteristics in beef bulls fed conventional or gossypol-enriched diets. Cerelli JS, et al. **J Androl** 1999 Jul-Aug;20(4):519–28

Evidence for cross-talk between Sertoli and germ cells using selected cathepsins as markers. Chung SS, et al. **J Androl** 1998 Nov-Dec;19(6):686–703

Evidence for catecholaminergic, neuronlike cells in the adult human testis: changes associated with testicular pathologies. Mayerhofer A, et al. **J Androl** 1999 May-Jun; 20(3):341–7

Evidence that in a physiological setting Sertoli cell number is the major determinant of circulating concentrations of inhibin B in the adult male rhesus monkey (Macaca mulatta). Ramaswamy S, et al. **J Androl** 1999 May-Jun; 20(3):430–4

Inhibin B levels in plasma of the male rat from birth to adulthood: effect of experimental manipulation of Sertoli cell number. Sharpe RM, et al. **J Androl** 1999 Jan-Feb; 20(1):94–101

A rapid method of Sertoli cell isolation by DSA lectin, allowing mitotic analyses. Scarpino S, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):121–7

Ram lambs need FSH for normal testicular growth, Sertoli cell numbers and onset of spermatogenesis. Kilgour RJ, et al. **Reprod Nutr Dev** 1998 Sep-Oct;38(5):539–50

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291–4

The central role of Sertoli cells in spermatogenesis [see comments] Griswold MD. **Semin Cell Dev Biol** 1998 Aug; 9(4):411–6 (41 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379–91.

Exposure to constant light during testis development increases daily sperm production in adult Wistar rats. Rocha DC, et al. **Tissue Cell** 1999 Jun;31(3):372–9

Characterization of stage-specific tyrosinated alpha-tubulin immunoperoxidase staining patterns in Sertoli cells of rat seminiferous tubules by light microscopic image analysis. Wenz JR, et al. **Tissue Cell** 1998 Oct;30(5):492–501

DRUG EFFECTS

Effect of increasing glucose concentrations on Sertoli cell viability in the nonobese diabetic mouse. Gondos B, et al. **Ann Clin Lab Sci** 1998 Jul-Aug;28(4):236–41

Abnormalities in functional development of the Sertoli cells in rats treated neonatally with diethylstilbestrol: a possible role for estrogens in Sertoli cell development. Sharpe RM, et al. **Biol Reprod** 1998 Nov;59(5):1084–94

The in vitro effect of the tumor promoter 12-O-tetradecanoylphorbol-13-acetate on Sertoli cell morphology. Kouloukoussa M, et al. **Cancer Detect Prev** 1999;23(4):280–9

Distinct roles of oncostatin M and leukemia inhibitory factor in the development of primordial germ cells and sertoli cells in mice. Hara T, et al. **Dev Biol** 1998 Sep 15; 201(2):144–53

E-box and cyclic adenosine monophosphate response elements are both required for follicle-stimulating hormone-induced transferrin promoter activation in Sertoli cells. Chaudhary J, et al. **Endocrinology** 1999 Mar; 140(3):1262–71

Heregulins or neu differentiation factors and the interactions between peritubular myoid cells and Sertoli cells. Hoeben E, et al. **Endocrinology** 1999 May;140(5):2216–23

Bradykinin stimulates prepubertal rat germ cell proliferation in vitro. Atanassova N, et al. **Immunopharmacology** 1998 Nov;40(3):173–8

Direct stimulatory effects of insulin-like growth factor-I (IGF-I) on nuclear RNA polymerase II activity and overall protein synthesis in immature rat Sertoli cells. Palmero S, et al. **Ital J Biochem** 1998 Sep;47(3):163–9

Hormonal regulation of inhibin B secretion by immature rat sertoli cells in vitro: possible use as a bioassay for estrogen detection. Depuydt CE, et al. **J Androl** 1999 Jan-Feb; 20(1):54–62

Follicle-stimulating hormone and testosterone stimulation of immature and mature Sertoli cells in vitro: inhibin and N-cadherin levels and round spermatid binding. Lampa J, et al. **J Androl** 1999 May-Jun;20(3):399–406

Sodium chlorate induces undersulfation of cellular proteoglycans and increases in FSH-stimulated estradiol production in immature rat Sertoli cells. Phamantu NT, et al. **J Androl** 1999 Mar-Apr;20(2):241–50

Characterization and hormonal modulation of immunoreactive thiamin carrier protein in immature rat Sertoli cells in culture. Subramanian S, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1-2):23–30

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291–4

Effects of relatively low levels of mono-(2-ethylhexyl) phthalate on cocultured Sertoli cells and gonocytes from neonatal rats. Li LH, et al. **Toxicol Appl Pharmacol** 1998 Dec;153(2):258–65

Toxic effects of octylphenol on cultured rat spermatogenic cells and Sertoli cells. Raychoudhury SS, et al. **Toxicol Appl Pharmacol** 1999 Jun 15;157(3):192–202

ENZYMOLOGY

Possible involvement of proteases in the regulation of spermatogenesis. Monsees TK, et al. **Andrologia** 1998 Aug–Sep;30(4–5):185–91

Interleukin 1alpha stimulates lactate dehydrogenase A expression and lactate production in cultured porcine sertoli cells. Nehar D, et al. **Biol Reprod** 1998 Dec; 59(6):1425–32

Calcium/phospholipid-dependent protein kinases in rat Sertoli cells: regulation of androgen receptor messenger ribonucleic acid. Ree AH, et al. **Biol Reprod** 1999 May; 60(5):1257–62

Tumor necrosis factor-alpha stimulates lactate dehydrogenase A expression in porcine cultured sertoli cells: mechanisms of action. Boussouar F, et al. **Endocrinology** 1999 Jul;140(7):3054–62

Influence of age, hormones and germ cells on glutathione S-transferase activity in cultured Sertoli cells. Castellón EA. **Int J Androl** 1999 Feb;22(1):49–55

METABOLISM

Expression of the basic helix-loop-helix protein REBalpha in rat testicular Sertoli cells. Chaudhary J, et al. **Biol Reprod** 1999 May;60(5):1244–50

Acute effects of adenosine triphosphates, cyclic 3',5'-adenosine monophosphates, and follicle-stimulating hormone on cytosolic calcium level in cultured immature rat Ssertoli cells. Lalevée N, et al. **Biol Reprod** 1999 Aug; 61(2):343–52

Stage- and subcellular-specific expression of Id proteins in male germ and Sertoli cells implicates distinctive regulatory roles for Id proteins during meiosis, spermatogenesis, and Sertoli cell function. Sablitzky F, et al. **Cell Growth Differ** 1998 Dec;9(12):1015–24

Mesonephric cell migration induces testis cord formation and Sertoli cell differentiation in the mammalian gonad. Tilmann C, et al. **Development** 1999 Jul;126(13):2883–90

Ethane dimethane sulfonate and NNN'N'-tetrakis-(2-pyridylmethyl)ethylenediamine inhibit steroidogenic acute regulatory (StAR) protein expression in MA-10 Leydig cells and rat Sertoli cells. King SR, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):469–78

Thyroid hormone and follicle-stimulating hormone regulate Müllerian-inhibiting substance messenger ribonucleic acid expression in cultured neonatal rat Sertoli cells. Arambepola NK, et al. **Endocrinology** 1998 Nov; 139(11):4489–95

Regulation of tissue-type plasminogen activator and its inhibitor (PAI-1) by lipopolysaccharide-induced phagocytosis in a Sertoli cell line. Bourdon V, et al. **Exp Cell Res** 1999 Mar 15;247(2):367–72

Sertoli and Leydig cells of the human testis express neurofilament triplet proteins. Davidoff MS, et al. **Histochem Cell Biol** 1999 Mar;111(3):173–87

Sertoli cell expression of galectin-1 and -3 and accessible binding sites in normal human testis and Sertoli cell only-syndrome. Wollina U, et al. **Histol Histopathol** 1999 Jul;14(3):779–84

Lipid dismetabolism in Leydig and Sertoli cells isolated from streptozotocin-diabetic rats. Hurtado de Catalfo GE, et al. **Int J Biochem Cell Biol** 1998 Sep;30(9):1001–10

The human SRY protein is present in fetal and adult Sertoli cells and germ cells. Salas-Cortés L, et al. **Int J Dev Biol** 1999 Mar;43(2):135–40

Expression of cyclin-dependent kinase 5 and associated cyclins in Leydig and Sertoli cells of the testis. Musa FR, et al. **J Androl** 1998 Nov–Dec;19(6):657–66

Evidence that in a physiological setting Sertoli cell number is the major determinant of circulating concentrations of inhibin B in the adult male rhesus monkey (Macaca mulatta). Ramaswamy S, et al. **J Androl** 1999 May–Jun; 20(3):430–4

Constitutive Fas ligand gene transcription in Sertoli cells is regulated by Sp1. McClure RF, et al. **J Biol Chem** 1999 Mar 19;274(12):7756–62

Role of class B scavenger receptor type I in phagocytosis of apoptotic rat spermatogenic cells by Sertoli cells. Shiratsuchi A, et al. **J Biol Chem** 1999 Feb 26;274(9):5901–8

mRNAs encoding a von Ebner's-like protein and the Huntington disease protein are induced in rat male germ cells by Sertoli cells. Syed V, et al. **J Biol Chem** 1999 Apr 16;274(16):10737–42

Regulated anion secretion in cultured epithelia from Sertoli cells of immature rats. Ko WH, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):471–80

Characterization and hormonal modulation of immunoreactive thiamin carrier protein in immature rat Sertoli cells in culture. Subramanian S, et al. **J Steroid Biochem Mol Biol** 1999 Jan;68(1–2):23–30

Prolactin receptors are expressed and hormonally regulated in rat Sertoli cells. Guillaumot P, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):163–8

In vitro regulation of rat Sertoli cell transferrin expression by tumor necrosis factor alpha and retinoic acid. Sigillo F, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1–2):163–70

Beta2 adrenergic receptors mediate cAMP, tissue-type plasminogen activator and transferrin production in rat Sertoli cells. Troispoux C, et al. **Mol Cell Endocrinol** 1998 Jul 25;142(1–2):75–86

Basic helix-loop-helix proteins can act at the E-box within the serum response element of the c-fos promoter to influence hormone-induced promoter activation in Sertoli cells. Chaudhary J, et al. **Mol Endocrinol** 1999 May; 13(5):774–86

Stage-specific nuclear expression of NF-kappaB in mammalian testis. Delfino F, et al. **Mol Endocrinol** 1998 Nov;12(11):1696–707

Multiple promoter elements contribute to activity of the follicle-stimulating hormone receptor (FSHR) gene in testicular Sertoli cells. Heckert LL, et al. **Mol Endocrinol** 1998 Oct;12(10):1499–512

Developmental stage- and germ cell-regulated expression of a calcium-binding protein mRNA in mouse Sertoli cells. Kraszucka K, et al. **Mol Reprod Dev** 1999 Nov;54(3):232–43

Effect of surgically induced varicocele on testicular blood flow and Sertoli cell function. Li H, et al. **Urology** 1999 Jun;53(6):1258–62

[Mechanisms of polarized targeting of the FSH receptor] Beau I, et al. **J Soc Biol** 1999;193(2):139–45 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Sertoli cell tumor of the testis. Report of a case with imprint cytology findings. Terayama K, et al. **Acta Cytol** 1998 Nov–Dec;42(6):1458–60

Association of terminal chromosome 1 deletion with sertoli cell–only syndrome. Hathout EH, et al. **Am J Med Genet** 1998 Dec 4;80(4):396–8

Testicular Sertoli cell tumor with a heterologous sarcomatous component: immunohistochemical assessment of Sertoli cell differentiation. Gilcrease MZ, et al. **Arch Pathol Lab Med** 1998 Oct;122(10):907–11

Clinical aspects associated with Sertoli-cell–only histology. Bettocchi C, et al. **Br J Urol** 1998 Oct;82(4):534–7

Reversion of the differentiated phenotype and maturation block in Sertoli cells in pathological human testis. Steger K, et al. **Hum Reprod** 1999 Jan;14(1):136–43

Classification of several types of maturational arrest of spermatogonia according to Sertoli cell morphology: an approach to aetiology. Nistal M, et al. **Int J Androl** 1998 Dec;21(6):317–26

Alteration of Sertoli cell differentiation in the presence of carcinoma in situ in human testes. Kliesch S, et al. **J Urol** 1998 Nov;160(5):1894–8

PHYSIOLOGY

Analysis of gene regulation in Sertoli cells by a gene trap approach. López-Fernández LA, et al. **Adv Exp Med Biol** 1998;444:153–62

Effects of spinal cord injury on spermatogenesis and the expression of messenger ribonucleic acid for sertoli cell proteins in rat Sertoli cell–enriched testes. Huang HF, et al. **Biol Reprod** 1999 Mar;60(3):635–41

A novel testicular haploid expressed gene (THEG) involved in mouse spermatid-sertoli cell interaction. Nayernia K, et al. **Biol Reprod** 1999 Jun;60(6):1488–95

Abnormalities in functional development of the Sertoli cells in rats treated neonatally with diethylstilbestrol: a possible role for estrogens in Sertoli cell development. Sharpe RM, et al. **Biol Reprod** 1998 Nov;59(5):1084–94

Sertoli cells decrease microglial response and increase engraftment of human hNT neurons in the hemiparkinsonian rat striatum. Willing AE, et al. **Brain Res Bull** 1999 Mar 1;48(4):441–4

The mouse Tsx gene is expressed in Sertoli cells of the adult testis and transiently in premeiotic germ cells during puberty. Cunningham DB, et al. **Dev Biol** 1998 Dec 15; 204(2):345–60

Cell death patterns of the rat spermatogonial cell progeny induced by sertoli cell geometric changes and Fas (CD95) agonist. Tres LL, et al. **Dev Dyn** 1999 Apr;214(4):361–71

Isoform-specific regulation of the CCAAT/enhancer-binding protein family of transcription factors by 3',5'-cyclic adenosine monophosphate in Sertoli cells. Grønning LM, et al. **Endocrinology** 1999 Feb; 140(2):835–43

Constitutive expression of interleukin-1alpha messenger ribonucleic acid in rat Sertoli cells is dependent upon interaction with germ cells. Jonsson CK, et al. **Endocrinology** 1999 Aug;140(8):3755–61

The Fas system, a regulator of testicular germ cell apoptosis, is differentially up-regulated in Sertoli cell versus germ cell injury of the testis. Lee J, et al. **Endocrinology** 1999 Feb;140(2):852–8

45T-1, an established cell line with characteristics of Sertoli cells, forms organized aggregates in vitro after exposure to tumor necrosis factor alpha. Szalay K, et al. **Eur J Cell Biol** 1999 May;78(5):331–8

Reversion of the differentiated phenotype and maturation block in Sertoli cells in pathological human testis. Steger K, et al. **Hum Reprod** 1999 Jan;14(1):136–43

Effects of hypercholesterolaemia on Leydig and Sertoli cell secretory function and the overall sperm fertilizing capacity in the rabbit. Yamamoto Y, et al. **Hum Reprod** 1999 Jun; 14(6):1516–21

Radiation effect on rat Sertoli cell function in vitro and in vivo. Guitton N, et al. **Int J Radiat Biol** 1999 Mar; 75(3):327–33

Different roles of prepubertal and postpubertal germ cells and Sertoli cells in the regulation of serum inhibin B levels. Andersson AM, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4451–8

Human spermatogenesis in vitro: respective effects of follicle-stimulating hormone and testosterone on meiosis, spermiogenesis, and Sertoli cell apoptosis. Tesarik J, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4467–73

Ultrastructural studies demonstrate that epithelial polarity is established in cultured mouse pre-Sertoli cells by extracellular matrix components. Mackay S, et al. **J Electron Microsc (Tokyo)** 1999;48(2):159–65

Inhibition by cAMP of calcium-activated chloride currents in cultured Sertoli ceils from immature testis. Lalevée N, et al. **J Membr Biol** 1999 Jun 1;169(3):167–74

Inducible cAMP early repressor ICER down-regulation of CREB gene expression in Sertoli cells. Walker WH, et al. **Mol Cell Endocrinol** 1998 Aug 25;143(1–2):167–78

Tyro-3 family receptors are essential regulators of mammalian spermatogenesis. Lu Q, et al. **Nature** 1999 Apr 22;398(6729):723–8

The central role of Sertoli cells in spermatogenesis [see comments] Griswold MD. **Semin Cell Dev Biol** 1998 Aug; 9(4):411–6 (41 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379–91.

Co-encapsulation of Sertoli enriched testicular cell fractions further prolongs fish-to-mouse islet xenograft survival. Yang H, et al. **Transplantation** 1999 Mar 27;67(6):815–20

RADIATION EFFECTS

Radiation effect on rat Sertoli cell function in vitro and in vivo. Guitton N, et al. **Int J Radiat Biol** 1999 Mar; 75(3):327–33

SECRETION

Recombinant human follicle-stimulating hormone administration increases testosterone production in men, possibly by a Sertoli cell–secreted nonsteroid factor. Levalle O, et al. **J Clin Endocrinol Metab** 1998 Nov; 83(11):3973–6

TRANSPLANTATION

Intrastriatal transplantation of Sertoli cells may improve amphetamine-induced rotation and tyrosine hydroxylase immunoreactivity of the striatum in hemiparkinsonian rats. Liu HW, et al. **Brain Res** 1999 Aug 14;838(1–2):227–33

Sertoli cells enhance the survival of co-transplanted dopamine neurons. Willing AE, et al. **Brain Res** 1999 Mar 20;822(1–2):246–50

Sertoli cell transplants: their use in the treatment of neurodegenerative disease. Willing AE, et al. **Mol Med Today** 1998 Nov;4(11):471–7 (45 ref.)

Acceptance of islet allografts transplanted with Fas ligand expressing testicular allografts. Takeda Y, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):624

ULTRASTRUCTURE

Spermatid translocation in the rat seminiferous epithelium: coupling membrane trafficking machinery to a junction plaque. Beach SF, et al. **Biol Reprod** 1999 Apr; 60(4):1036–46

SERTOLI-LEYDIG CELL TUMOR

DRUG THERAPY

Gonadotropin-releasing hormone-agonist as a neoadjuvant therapy for Sertoli-Leydig cell tumors of the ovary. Chao HT, et al. **Int J Gynaecol Obstet** 1999 Aug;66(2):189–90

METABOLISM

Fulminant recurrence of a Sertoli-Leydig cell tumour during pregnancy. Widschwendter M, et al. **Br J Obstet Gynaecol** 1999 Mar;106(3):284–5

Relaxin-like factor expression in a human ovarian Sertoli-Leydig cell tumor [letter] Klonisch T, et al. **Fertil Steril** 1999 Sep;72(3):546–8

PATHOLOGY

Hepatocytic differentiation in retiform Sertoli-Leydig cell tumors: distinguishing a heterologous element from Leydig cells. Mooney EE, et al. **Hum Pathol** 1999 Jun;30(6):611–7

Metastatic Sertoli-Leydig cell ovarian cancer manifested as a frontal sinus mass. Campisi P, et al. **J Otolaryngol** 1998 Dec;27(6):361–2

SERTRALINE

ADMINISTRATION & DOSAGE

Fluoxetine and sertraline dosages in major depression. Cantrell R, et al. **Depress Anxiety** 1999;9(2):78–82

Comparative bioavailability of two sertraline tablet formulations in healthy human volunteers after a single dose administration. Moraes ME, et al. **Int J Clin Pharmacol Ther** 1998 Dec;36(12):661–5

Trends in the use of selective serotonin reuptake inhibitors in nine Department of Veterans Affairs outpatient facilities. Voris JC. **J Clin Psychol** 1999 Jan;55(1):129–33

CYP2D6 status of extensive metabolizers after multiple-dose fluoxetine, fluvoxamine, paroxetine, or sertraline. Alfaro CL, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):155–63

A double-blind study of adjunctive sertraline in haloperidol-stabilized patients with chronic schizophrenia.

Lee MS, et al. **J Clin Psychopharmacol** 1998 Oct; 18(5):399–403

Co-administration of sertraline and haloperidol. Lee MS, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S193–8

Short-term analysis of the effects of as needed use of sertraline at 5 PM for the treatment of premature ejaculation. Kim SW, et al. **Urology** 1999 Sep;54(3):544–7

ADVERSE EFFECTS

Antidepressants in depressed patients with irritable bowel syndrome [letter] Efremova I, et al. **Am J Psychiatry** 1998 Nov;155(11):1627–8

Sildenafil citrate for SSRI-induced sexual side effects [letter] Schaller JL, et al. **Am J Psychiatry** 1999 Jan;156(1):156–7

Sertraline-related night sweats [letter] Babbott SF, et al. **Ann Intern Med** 1999 Feb 2;130(3):242–3

Acute liver damage possibly related to sertraline and venlafaxine ingestion [letter] Kim KY, et al. **Ann Pharmacother** 1999 Mar;33(3):381–2

A cautionary tale [letter] Karim A. **Aust Fam Physician** 1999 Apr;28(4):311

A possible tetracycline-risperidone-sertraline interaction in an adolescent. Steele M, et al. **Can J Clin Pharmacol** 1999 Spring;6(1):15–7

Hypoglycemia associated with high doses of sertraline and sulphonylurea compound in a noninsulin-dependent diabetes mellitus patient. Takhar J, et al. **Can J Clin Pharmacol** 1999 Spring;6(1):12–4

Urinary retention with sertraline, haloperidol, and clonazepam combination [letter] Benazzi F. **Can J Psychiatry** 1998 Dec;43(10):1051–2

Symptomatic liver injury probably related to sertraline [letter]. Hautekeete ML, et al. **Gastroenterol Clin Biol** 1998 Mar;22(3):364–5

Absence of cardiovascular adverse effects of sertraline in children and adolescents. Wilens TE, et al. **J Am Acad Child Adolesc Psychiatry** 1999 May;38(5):573–7

Sertraline-induced hyponatremia in an older patient [letter] [published erratum appears in J Am Geriatr Soc 1999 Mar;47(3):365] Levsky ME, et al. **J Am Geriatr Soc** 1998 Dec;46(12):1582–3

Priapism in a patient taking sertraline [letter] Rand EH. **J Clin Psychiatry** 1998 Oct;59(10):538

Visual hallucinations associated with fluoxetine and sertraline [letter] Bourgeois JA, et al. **J Clin Psychopharmacol** 1998 Dec;18(6):482–3

Dystonia associated with sertraline [letter] Stanislav SW, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):98–100

Catatonia-like events after valproic acid with risperidone and sertraline. Lauterbach EC. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Jul; 11(3):157–63

Negative immunoregulatory effects of antidepressants: inhibition of interferon-gamma and stimulation of interleukin-10 secretion. Maes M, et al. **Neuropsychopharmacology** 1999 Apr;20(4):370–9

Serotonin syndrome in a child associated with erythromycin and sertraline. Lee DO, et al. **Pharmacotherapy** 1999 Jul; 19(7):894–6

Extrapyramidal adverse effects associated with sertraline. Lambert MT, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):741–8

Is inhibition of nitric oxide synthase a mechanism for SSRI-induced bleeding? [letter] Shen WW, et al. **Psychosomatics** 1999 May-Jun;40(3):268–9

Serotonin syndrome after sertraline, buspirone and loxapine? [letter] Bonin B, et al. **Therapie** 1999 Mar-Apr;54(2):269–71

[Carbamazepine overdose following administration of sertraline: relation to serotonergic syndrome? (letter)] Vercueil L, et al. **Therapie** 1998 Sep-Oct;53(5):502–4 **(Fre)**

[Reversible parkinsonism secondary to the use of sertraline (letter)] Pina Latorre MA, et al. **Neurologia** 1998 Nov; 13(9):444–5 **(Spa)**

PHARMACOKINETICS

Sertraline N-demethylation is catalyzed by multiple isoforms of human cytochrome P-450 in vitro. Kobayashi K, et al. **Drug Metab Dispos** 1999 Jul;27(7):763–6

Comparative bioavailability of two sertraline tablet formulations in healthy human volunteers after a single dose administration. Moraes ME, et al. **Int J Clin Pharmacol Ther** 1998 Dec;36(12):661–5

Bioequivalence evaluation of two sertraline tablet formulations in healthy male volunteers after a single dose administration. Zhu CJ, et al. **Int J Clin Pharmacol Ther** 1999 Mar;37(3):120–4

PHARMACOLOGY

Activity and onset of action of reboxetine and effect of combination with sertraline in an animal model of depression. Harkin A, et al. **Eur J Pharmacol** 1999 Jan 8; 364(2-3):123–32

Sertraline, a selective serotonin reuptake inhibitor modulates extracellular noradrenaline in the rat frontal cortex. Thomas DN, et al. **J Psychopharmacol** 1998;12(4):366–70

The potentiating effect of sertraline and fluoxetine on amphetamine-induced locomotor activity is not mediated by serotonin. Sills TL, et al. **Psychopharmacology (Berl)** 1999 Apr;143(4):426–32

POISONING

Fatal multiple drug intoxication following acute sertraline use. Milner DA, et al. **J Anal Toxicol** 1998 Oct;22(6):545–8

Commentary on McIntyre IM, King CV, Staikos V, Gall J, Drummer OH. A fatality involving moclobemide, sertraline and pimozide. J Forensic Sci 1997;42:951–53 [letter; comment] Desta Z, et al. **J Forensic Sci** 1999 Jan; 44(1):231–2. Comment on: J Forensic Sci 1997 Sep;42(5):951–3.

THERAPEUTIC USE

Sertraline in the treatment of obsessive-compulsive disorder [letter; comment] Clary CM. **Am Fam Physician** 1999 Jan 1;59(1):49. Comment on: Am Fam Physician 1998 Apr 1;57(7):1623–8, 1632–4.

An open-label preliminary trial of sertraline for treatment of major depression after acute myocardial infarction (the SADHAT Trial). Sertraline Anti-Depressant Heart Attack Trial. Shapiro PA, et al. **Am Heart J** 1999 Jun; 137(6):1100–6

Depression, coronary events, platelet inhibition, and serotonin reuptake inhibitors [editorial] Nair GV, et al. **Am J Cardiol** 1999 Aug 1;84(3):321–3, A8 (30 ref.)

Comparative efficacy of sertraline vs. fluoxetine in patients age 70 or over with major depression. Finkel SI, et al. **Am J Geriatr Psychiatry** 1999 Summer;7(3):221–7

Sertraline in the treatment of clozapine-induced obsessive-compulsive behavior [letter] Rahman MS, et al. **Am J Psychiatry** 1998 Nov;155(11):1629–30

Treatment of primary dysthymia with group cognitive therapy and pharmacotherapy: clinical symptoms and functional impairments. Ravindran AV, et al. **Am J Psychiatry** 1999 Oct;156(10):1608–17

An open-label trial of sertraline for the treatment of major depression in primary care. Taragano F, et al. **Ann Clin Psychiatry** 1999 Jun;11(2):67–71

Luteal phase sertraline treatment for premenstrual dysphoric disorder. Results of a double-blind, placebo-controlled, crossover study. Jermain DM, et al. **Arch Fam Med** 1999 Jul-Aug;8(4):328–32

Sertraline in the treatment of panic disorder: a flexible-dose multicenter trial. Pollack MH, et al. **Arch Gen Psychiatry** 1998 Nov;55(11):1010–6

Placebo-controlled study of sertraline in depressed recently abstinent alcoholics. Roy A. **Biol Psychiatry** 1998 Oct 1; 44(7):633–7

Sertraline in the treatment of panic disorder. A multi-site, double-blind, placebo-controlled, fixed-dose investigation. Londborg PD, et al. **Br J Psychiatry** 1998 Jul;173:54–60

Treatment of aggression and irritability after head injury. Kant R, et al. **Brain Inj** 1998 Aug;12(8):661–6

Regulation of CCK mRNA expression in the rat brain by stress and treatment with sertraline, a selective serotonin re-uptake inhibitor. Giardino L, et al. **Brain Res** 1999 Apr 10;824(2):304–7

Re: Sertraline-clozapine interaction [letter; comment] Chong SA, et al. **Can J Psychiatry** 1998 Oct;43(8):856–7. Comment on: Can J Psychiatry 1998 Feb;43(1):84–5.

A placebo-controlled comparison of the antidepressant efficacy and effects on sexual functioning of sustained-release bupropion and sertraline. Croft H, et al. **Clin Ther** 1999 Apr;21(4):643–58

Personality disorder comorbidity with major depression and response to treatment with sertraline or citalopram. Ekselius L, et al. **Int Clin Psychopharmacol** 1998 Sep; 13(5):205–11

Treatment of premature ejaculation with sertraline hydrochloride. McMahon CG. **Int J Impot Res** 1998 Sep; 10(3):181–4; discussion 185

Comparative efficacy and safety of sertraline versus nortriptyline in major depression in patients 70 and older. Finkel SI, et al. **Int Psychogeriatr** 1999 Mar;11(1):85–99

Sertraline in the treatment of premature ejaculation: a double-blind placebo controlled study. Biri H, et al. **Int Urol Nephrol** 1998;30(5):611–5

Multicenter open-label sertraline study in adolescent outpatients with major depression. Ambrosini PJ, et al. **J Am Acad Child Adolesc Psychiatry** 1999 May; 38(5):566–72

Sertraline treatment of mood disorder associated with prednisone: a case report. Beshay H, et al. **J Child Adolesc Psychopharmacol** 1998;8(3):187–93

Treatment of intermittent explosive disorder with sertraline in 3 patients [letter] Feder R. **J Clin Psychiatry** 1999 Mar; 60(3):195–6

Predictors of response to acute treatment of chronic and double depression with sertraline or imipramine. Hirschfeld RM, et al. **J Clin Psychiatry** 1998 Dec;59(12):669–75

The treatment of chronic depression, part 2: a double-blind, randomized trial of sertraline and imipramine. Keller MB, et al. **J Clin Psychiatry** 1998 Nov;59(11):598–607

The treatment of chronic depression, part 3: psychosocial functioning before and after treatment with sertraline or imipramine. Miller IW, et al. **J Clin Psychiatry** 1998 Nov; 59(11):608–19

Antidepressant medication change in a clinical treatment setting: a comparison of the effectiveness of selective serotonin reuptake inhibitors. Nurnberg HG, et al. **J Clin Psychiatry** 1999 Sep;60(9):574–9

Early augmentation of sertraline with methylphenidate [letter] Postolache TT, et al. **J Clin Psychiatry** 1999 Feb; 60(2):123–4

The treatment of chronic depression, part 1: study design and rationale for evaluating the comparative efficacy of sertraline and imipramine as acute, crossover, continuation, and maintenance phase therapies. Rush AJ, et al. **J Clin Psychiatry** 1998 Nov;59(11):589–97

Full- or half-cycle treatment of severe premenstrual syndrome with a serotonergic antidepressant. Freeman EW, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):3–8

Placebo-controlled, multicenter study of sertraline treatment for obsessive-compulsive disorder. Kronig MH, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):172–6

Pharmacological treatment of paraphilias with a focus on antidepressants. Balon R. **J Sex Marital Ther** 1998 Oct-Dec;24(4):241–54 (62 ref.)

Relapse of depressive symptoms after discontinuing sertraline [letter; comment] Baldessarini RJ, et al. **JAMA** 1999 Jul 28;282(4):323–4. Comment on: JAMA 1998 Nov 18;280(19):1665–72.

Maintenance phase efficacy of sertraline for chronic depression: a randomized controlled trial [see comments] Keller MB, et al. **JAMA** 1998 Nov 18;280(19):1665–72. Comment in: JAMA 1999 Jul 28;282(4):323–4.

Sertraline in children and adolescents with obsessive-compulsive disorder: a multicenter randomized controlled trial [see comments] March JS, et al. **JAMA** 1998 Nov 25;280(20):1752–6. Comment in: JAMA 1998 Nov 25;280(20):1785.

SSRI antidepressants are effective for treating delusional hypochondriasis [letter] Perkins RJ. **Med J Aust** 1999 Feb 1;170(3):140–1

Double-blind, multicenter comparative study of sertraline and amitriptyline in hospitalized patients with major depression. Möller HJ, et al. **Pharmacopsychiatry** 1998 Sep; 31(5):170–7

Major depression and its response to sertraline in primary care vs. psychiatric office practice patients. Results of an open-label trial in Argentina. Lyketsos CG, et al. **Psychosomatics** 1999 Jan-Feb;40(1):70–5

A comparative study of sertraline versus imipramine in postpsychotic depressive disorder of schizophrenia. Kirli S, et al. **Schizophr Res** 1998 Sep 7;33(1-2):103–11

TOXICITY

Preclinical toxicological evaluation of sertraline hydrochloride [corrected and republished article originally printed in Drug Chem Toxicol 1998 May;21(2):163–79] Davies TS, et al. **Drug Chem Toxicol** 1998 Nov; 21(4):521–37

SERUM A RELATED PROTEIN see **AMYLOID PROTEIN SAA**

SERUM ALBUMIN

Recombinant human albumin as a stabilizer for biological materials and for the preparation of international reference reagents. Tarelli E, et al. **Biologicals** 1998 Dec;26(4):331–46

Chiral discrimination in the transport of ketoprofen and ibuprofen esters through an aqueous phase mediated by various serum albumins. Nakagawa H, et al. **Chirality** 1999; 11(5-6):516–9

Endotoxin adsorbent based on immobilized human serum albumin. Zimmermann M, et al. **Clin Chem Lab Med** 1999 Mar;37(3):373–9

A comparative study of the rifampicin binding and elution characteristics for collagen- and albumin-sealed vascular grafts. Lovering AM, et al. **Eur J Vasc Endovasc Surg** 1999 Apr;17(4):347–50

Peroral administration of 14C-poly(D,L-lactic acid) nanoparticles coated with human serum albumin or polyvinyl alcohol to guinea pigs. Landry FB, et al. **J Drug Target** 1998;6(4):293–307

Albumin and the Medicines Control Agency [letter] Drummond G. **Lancet** 1999 Sep 18;354(9183):1038

Intravascular large cell lymphoma associated with hypoalbuminemia. Suzumiya J, et al. **Leuk Lymphoma** 1998 Dec;32(1-2):179–82

The development of recombinant human serum albumin. Kobayashi K, et al. **Ther Apher** 1998 Nov;2(4):257–62 (17 ref.)

Hydrazine-conjugated cellulose for adsorption of glycated proteins. Kojima S, et al. **Ther Apher** 1999 May;3(2):186–9

[Alloalbuminemia] Maruyama Y, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):561–4 (17 ref.) **(Jpn)**

ADMINISTRATION & DOSAGE

Colloidal blood volume expansion during high intracranial pressure. Kirkeby OJ, et al. **Acta Neurochir (Wien)** 1999; 141(1):37–43; discussion 44

Albumin infusion in humans does not model exercise induced hypervolaemia after 24 hours. Haskell A, et al. **Acta Physiol Scand** 1998 Nov;164(3):277–84

A protocol-based treatment for intradialytic hypotension in hospitalized hemodialysis patients. Emili S, et al. **Am J Kidney Dis** 1999 Jun;33(6):1107–14

Effect of increasing serum albumin on plasma D-dimer, von Willebrand factor, and platelet aggregation in CAPD patients. Kim SB, et al. **Am J Kidney Dis** 1999 Feb; 33(2):312–7

Phase I trial of methotrexate-albumin in a weekly intravenous bolus regimen in cancer patients. Phase I Study Group of the Association for Medical Oncology of the German Cancer Society. Hartung G, et al. **Clin Cancer Res** 1999 Apr;5(4):753-9

Human albumin administration in critically ill patients. Ferguson ND, et al. **Intensive Care Med** 1999 Mar; 25(3):323-5

Protein encapsulation within polyethylene glycol-coated nanospheres. I. Physicochemical characterization. Quellec P, et al. **J Biomed Mater Res** 1998 Oct;42(1):45-54

Oral administration of polymer-grafted starch microparticles activates gut-associated lymphocytes and primes mice for a subsequent systemic antigen challenge. Heritage PL, et al. **Vaccine** 1998 Dec;16(20):2010-7

[Are there still indications for albumin? (letter)] Fanconi S. **Wien Klin Wochenschr** 1999 Jun 4;111(11):451; discussion 451-3 **(Ger)**

[Are there still indications for albumin? (editorial)] Hiesmayr M, et al. **Wien Klin Wochenschr** 1999 Jan 15;111(1):1-4 **(Ger)**

[Are there still indications for albumin? (letter)] Mayr A, et al. **Wien Klin Wochenschr** 1999 Jun 4;111(11):449-50; discussion 451-3 **(Ger)**

[Are there still indications for albumin? (letter)] Salomon F. **Wien Klin Wochenschr** 1999 Jun 4;111(11):449; discussion 451-3 **(Ger)**

[Are there still indications for albumin? (letter)] Simpson K. **Wien Klin Wochenschr** 1999 Jun 4;111(11):448-9; discussion 451-3 **(Ger)**

[Are there still indications for albumin? (letter)] Steurer J. **Wien Klin Wochenschr** 1999 Jun 4;111(11):450-1; discussion 451-3 **(Ger)**

ADVERSE EFFECTS

Health care personnel alerted to problems with lipid-based products, albumin [news] **Am J Health Syst Pharm** 1998 Oct 15;55(20):2078-9

Albumin and the Medicines Control Agency [letter] Roberts I, et al. **Lancet** 1999 Aug 21;354(9179):686

[Increased risk of death in critically ill patients after treatment with human albumin? (letter; comment)] van Aken WG, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2162-3. Comment on: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1855-8. **(Dut)**

[Increased risk of death in critically ill patients after treatment with human albumin? (letter; comment)] Woittiez AJ, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2161-2. Comment on: Ned Tijdschr Geneeskd 1998 Aug 15;142(33):1855-8. **(Dut)**

ANALYSIS

Further comments on Prognostic factors of small-cell lung cancer in Okayama Lung Cancer Study Group Trials. How about a more precise laboratory technique? [letter; comment] [published erratum appears in Acta Med Okayama 1999 Jun;53(3):147] Watine J. **Acta Med Okayama** 1999 Apr;53(2):99-101. Comment on: Acta Med Okayama 1998 Apr;52(2):105-11.

Human serum albumin and immunoglobulin on Dracunculus medinensis. Bloch P, et al. **Acta Trop** 1999 Jul 30; 73(2):135-41

Re: Elis et al. Comparison of the relative diagnostic value of the ascitic-fluid-to-serum ratio of bilirubin to the serum-ascites albumin gradient [letter; comment] Richards RJ, et al. **Am J Gastroenterol** 1998 Nov;93(11):2307-8. Comment on: Am J Gastroenterol 1998 Mar;93(3):401-3.

Correlation between serum-ascites albumin concentration gradient and endoscopic parameters of portal hypertension. Torres E, et al. **Am J Gastroenterol** 1998 Nov;93(11):2172-8

Absence of hypoalbuminemia despite massive proteinuria in focal segmental glomerulosclerosis secondary to hyperfiltration. Praga M, et al. **Am J Kidney Dis** 1999 Jan; 33(1):52-8

Reanalysis of solute retention on immobilized human serum albumin using fractal geometry. Peyrin E, et al. **Anal Chem** 1999 Apr 15;71(8):1496-9

Detection of lactate dehydrogenase isoenzyme-M in body fluids containing albumin. Javed MH, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):250-1

No relationship between serum lipoprotein(a) and albumin concentrations in patients with acute phase response. Min WK, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):617-21

Unusually slow-migrating albumin variants: rapid confirmation using immunofixation. Ooi DS, et al. **Ann Clin Biochem** 1999 Jul;36 (Pt 4):514-5

Serum fructosamine and fructosamine-albumin ratio as screening tests for gestational diabetes mellitus. Bor MV, et al. **Arch Gynecol Obstet** 1999;262(3-4):105-11

Preoperative serum albumin level as a predictor of operative mortality and morbidity: results from the National VA Surgical Risk Study. Gibbs J, et al. **Arch Surg** 1999 Jan; 134(1):36-42

Association of rheumatic fever with serum albumin concentration and body iron stores in Bangladeshi children: case-control study. Zaman MM, et al. **BMJ** 1998 Nov 7; 317(7168):1287-8

Nutritional status of children with solid tumors. Elhasid R, et al. **Cancer** 1999 Jul 1;86(1):119-25

Serum albumin concentration as a prognostic indicator for acute surgical patients. Kung SP, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Feb;62(2):61-7

Automated albumin method underestimates pharmaceutical-grade albumin in vivo. Børmer OP, et al. **Clin Chem** 1999 Jul;45(7):1082-4

Electrospray ionization mass analysis of normal and genetic variants of human serum albumin. Brennan SO. **Clin Chem** 1998 Nov;44(11):2264-9

Bisalbuminuria in an adult with bisalbuminemia and nephrotic syndrome. Hoang MP, et al. **Clin Chim Acta** 1999 Jun 15; 284(1):101-7

Hemorheological changes in nephrotic syndrome. Sahu S, et al. **Clin Hemorheol Microcirc** 1998 Sep;19(1):17-20

Prealbumin measurement as a screening tool for protein calorie malnutrition in emergency hospital admissions: a pilot study. Potter MA, et al. **Clin Invest Med** 1999 Apr; 22(2):44-52

Nutritional status at submission for dietetic services and screening for malnutrition at admission to hospital [editorial; comment] Micklewright A. **Clin Nutr** 1999 Feb; 18(1):3-4. Comment on: Clin Nutr 1999 Feb;18(1):15-21.

Identification of a chemical marker of environmental exposure to formaldehyde. Carraro E, et al. **Environ Res** 1999 Feb;80(2 Pt 1):132-7

Comparative utility of sero ascites albumin gradient and ascitic fluid total protein for differential diagnosis of ascites. Das B, et al. **Indian Pediatr** 1998 Jun;35(6):542-5

Serum markers of treatment success in leprosy. MacLean S, et al. **Int J Lepr Other Mycobact Dis** 1999 Mar; 67(1):19-23

Serum albumin and deep infection in femoral neck fractures. A study of 437 cases followed for one year. Hedström M, et al. **Int Orthop** 1998;22(3):182-4

Checking the integrity of albumin after pasteurisation: a fluorescent assay for quantitating monomeric albumin using anthroyloxy-fatty acids analogs. Gallez B, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1-2):5-9

Determination of albumin adducts of (+)-anti-benzo[a]pyrene-diol-epoxide using an high-performance liquid chromatographic column switching technique for sample preparation and gas chromatography-mass spectrometry for the final detection. Frank S, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25;713(2):331-7

Smoking, blood pressure and serum albumin are major determinants of carotid atherosclerosis in dialysis patients. CREED Investigators. Cardiovascular Risk Extended Evaluation in Dialysis patients. Malatino LS, et al. **J Nephrol** 1999 Jul-Aug;12(4):256-60

Risk of hospitalization in undernourished home health care patients: prognostic value of serum albumin level [letter] Bisbal L, et al. **J Pain Symptom Manage** 1999 Jun; 17(6):389-90

Fatty acids and squalene carried by alpha fetoprotein, and fetal and adult serum albumin from chicken. Comparison with these from mammals. Copado MA, et al. **J Protein Chem** 1999 May;18(4):413-24

Albumin: what influences its level in the blood? [news] Donaldson D. **J R Soc Health** 1998 Apr;118(2):75

Study of plasma albumin, transferrin, and fibronectin in children with mild to moderate protein-energy malnutrition. Hassanein el-S A, et al. **J Trop Pediatr** 1998 Dec;44(6):362-5

A simultaneous study of the metabolism of apolipoprotein B and albumin in nephrotic patients. Demant T, et al. **Kidney Int** 1998 Dec;54(6):2064-80

Favourable effect of K, Mg aspartate on serum proteins in aging rats. Chlebovská K, et al. **Mech Ageing Dev** 1999 May 3;108(2):127-38

Protein deficiency impairs the schistosomicidal action of praziquantel. Lima SF, et al. **Mem Inst Oswaldo Cruz** 1998; 93 Suppl 1:271-2

Effect of increasing serum albumin on haemostatic factors synthesized in the liver in CAPD patients. Kim SB, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2053-8

Postdialysis serum albumin is more rational than predialysis value [letter] Chen YC, et al. **Nephron** 1999;82(3):284-5

Serum albumin and bone mineral density in healthy older men and women: the Rancho Bernardo Study. Lunde AV, et al. **Osteoporos Int** 1998;8(6):547-51

Influence of serum albumin on renal function in nephrotic syndrome. Löwenborg EK, et al. **Pediatr Nephrol** 1999 Jan; 13(1):19-25

Residual proteinuria in CAPD diminishes the value of serum albumin in audit. Bennett-Jones DN, et al. **Perit Dial Int** 1999 Jan-Feb;19(1):75-8

[Serum albumin level and activities of daily living in centenarians] Nozaki H, et al. **Nippon Ronen Igakkai Zasshi** 1998 Oct;35(10):741-7 (Eng. Abstr.) **(Jpn)**

[The usefulness of normalized protein catabolic rate (NPCR) and serum albumin concentration measurement for evaluation of clinical status in patients treated with continuous ambulatory peritoneal dialysis] Stompór T, et al. **Przegl Lek** 1998;55(6):309-14 (Eng. Abstr.) **(Pol)**

[Non-Hodgkin lymphoma in adults. Protein profile of CSF and serum in 25 patients] Mielli SR, et al. **Arq Neuropsiquiatr** 1998 Dec;56(4):769-71 (Eng. Abstr.) **(Por)**

[Spectrofluorometric analysis of protein fractions of blood serum of health donors and patients with kidney diseases] Parkhomenko TV, et al. **Tsitologiia** 1998;40(8-9):786-91 (Eng. Abstr.) **(Rus)**

[Prognosis of the course of suppurative-inflammatory surgical diseases of the abdominal cavity when using a fluorescent test for albumin] Rodoman GV, et al. **Vestn Khir Im I I Grek** 1999;158(3):42-5 (Eng. Abstr.) **(Rus)**

[Comparative analysis of the serum albumin level by immunochemical, radioisotopic, and dye-sorption protein identification in rat tissues during hyperoxia] Sinichkin AA. **Zh Evol Biokhim Fiziol** 1999 Jan-Feb;35(1):33-5 **(Rus)**

[Hyperoxia effect on the serum albumin level in rat tissues. Results of the electrophoretic analysis] Sinichkin AA. **Zh Evol Biokhim Fiziol** 1999 Jan-Feb;35(1):54-6 **(Rus)**

BIOSYNTHESIS

Age effect on fibrinogen and albumin synthesis in humans. Fu A, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E1023-30

Investigation of albumin-synthesizing ability in rat cirrhotic liver-derived hepatocytes using primary hepatocyte culture. Koura T, et al. **J Hepatol** 1999 Aug;31(2):293-9

In vivo and in vitro expression of human serum albumin genomic sequences in mammary epithelial cells with beta-lactoglobulin and whey acidic protein promoters. Barash I, et al. **Mol Reprod Dev** 1999 Mar;52(3):241-52

Effect of parenteral and enteral nutrition on hepatic albumin synthesis in rats. Tsujinaka T, et al. **Nutrition** 1999 Jan; 15(1):18-22

CEREBROSPINAL FLUID

Contribution of extracranial lymphatics and arachnoid villi to the clearance of a CSF tracer in the rat. Boulton M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R818-23

Detection of lactate dehydrogenase isoenzyme-M in body fluids containing albumin. Javed MH, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):250-1

CHEMISTRY

Studies of protein binding to nonpolar solutes by using zonal elution and high-performance affinity chromatography: interactions of cis- and trans-clomiphene with human serum albumin in the presence of beta-cyclodextrin. Hage DS, et al. **Anal Chem** 1998 Nov 1;70(21):4602-9

HSA-solute interactions, enantioselectivity, and binding site geometrical characteristics. Peyrin E, et al. **Anal Chem** 1998 Oct 15;70(20):4235-40

Binding interactions and conformational changes induced by sulfonated aluminum phthalocyanines in human serum albumin. Gantchev TG, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):21-30

Conformational alteration in serum albumin as a carrier for pyridoxal phosphate: a distinction from pyridoxal phosphate-dependent glutamate decarboxylase. Zhang F, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):195-202

Fractionated plasma separation and adsorption system: a novel system for blood purification to remove albumin bound substances. Falkenhagen D, et al. **Artif Organs** 1999 Jan;23(1):81-6

Characterisation of domain fragments of recombinant human albumin. Twine SM, et al. **Biochem Soc Trans** 1998 Aug; 26(3):S279

Reduction of nitrite by glycosylated amino acids and glycosylated albumin. Stepuro II, et al. **Biochemistry (Mosc)** 1999 Jan;64(1):86-90

Albumin banks peninsula: a new termination variant characterised by electrospray mass spectrometry. Brennan SO, et al. **Biochim Biophys Acta** 1999 Aug 17; 1433(1-2):321-6

Interactive binding to the two principal ligand binding sites of human serum albumin: effect of the neutral-to-base transition. Yamasaki K, et al. **Biochim Biophys Acta** 1999 Jul 13;1432(2):313-23

Physicochemical properties and O2-coordination structure of human serum albumin incorporating tetrakis(o-pivalamido)phenylporphyrinatoiron(II) derivatives. Komatsu T, et al. **Bioconjug Chem** 1999 Jan-Feb;10(1):82-6

Effect of charged groups on the adsorption and penetration of proteins onto and into carboxymethylated poly(HEMA) hydrogels. Garrett Q, et al. **Biomaterials** 1998 Dec; 19(23):2175-86

Irreversible adsorption of human serum albumin to hydrogel contact lenses: a study using electron spin resonance spectroscopy. Garrett Q, et al. **Biomaterials** 1999 Jul; 20(14):1345-56

Competitive protein adsorption as observed by surface plasmon resonance. Green RJ, et al. **Biomaterials** 1999 Feb; 20(4):385-91

Ligand-dependent conformational equilibria of serum albumin revealed by tryptophan fluorescence quenching. Chadborn N, et al. **Biophys J** 1999 Apr;76(4):2198-207

Characterization of solute binding at human serum albumin site II and its geometry using a biochromatographic approach. Peyrin E, et al. **Biophys J** 1999 Sep;77(3):1206-12

Binding of the Promen fluorescent probe to human serum albumin: a fluorescence spectroscopic study. Moreno F, et al. **Chem Biol Interact** 1999 Aug 1;121(3):237-52

A new assay for albumin and hemoglobin adducts of 1,2- and 1,4-benzoquinones. Waidyanatha S, et al. **Chem Biol Interact** 1998 Sep 4;115(2):117-39

Alkylation of human serum albumin by sulfur mustard in vitro and in vivo: mass spectrometric analysis of a cysteine adduct as a sensitive biomarker of exposure. Noort D, et

al. **Chem Res Toxicol** 1999 Aug;12(8):715–21

Chicken serum albumin hydrolyzes dichlorophenyl phosphoramidates by a mechanism based on transient phosphorylation. Sogorb MA, et al. **Chem Res Toxicol** 1998 Dec;11(12):1441–6

Association equilibrium of d-methamphetamine and l-methamphetamine with serum albumin. Yanagisawa Y, et al. **Chirality** 1998;10(8):742–6

Identification of a peptide from mammal albumins responsible for enhanced pigment production by group B streptococci. Rosa-Fraile M, et al. **Clin Diagn Lab Immunol** 1999 May; 6(3):425–6

Study of interaction between drug enantiomers and serum albumin by capillary electrophoresis. Ding Y, et al. **Electrophoresis** 1999 Jul;20(9):1890–4

Acein-1, a novel angiotensin-I-converting enzyme inhibitory peptide isolated from tryptic hydrolysate of human plasma. Nakagomi K, et al. **FEBS Lett** 1998 Nov 6;438(3):255–7

Damage to hemoglobin by radiation-generated serum albumin radicals. Puchała M, et al. **Free Radic Biol Med** 1999 May;26(9–10):1284–91

Dextran restores albumin-inhibited surface activity of pulmonary surfactant extract. Kobayashi T, et al. **J Appl Physiol** 1999 Jun;86(6):1778–84

Kinetics of peroxynitrite reaction with amino acids and human serum albumin. Alvarez B, et al. **J Biol Chem** 1999 Jan 8;274(2):842–8

Human serum albumin and fibrinogen interactions with an adsorbed RGD-containing peptide. Olivieri MP, et al. **J Biomed Mater Res** 1999 Sep 5;46(3):355–9

Development of tryptophan-modified human serum albumin columns for site-specific studies of drug-protein interactions by high-performance affinity chromatography. Chattopadhyay A, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 11;715(1):183–90

Chromatographic study of magnesium and calcium binding to immobilized human serum albumin. Guillaume YC, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 28; 728(2):167–74

Non-covalent labeling of human serum albumin with indocyanine green: a study by capillary electrophoresis with diode laser-induced fluorescence detection. Moody ED, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1–2):55–64

Targeting of naproxen covalently linked to HSA to sinusoidal cell types of the liver. Melgert BN, et al. **J Drug Target** 1998;5(5):329–42

Indirect immobilization of recombinant proteins to a solid phase using the albumin binding domain of streptococcal protein G and immobilized albumin. Baumann S, et al. **J Immunol Methods** 1998 Dec 1;221(1–2):95–106

A circular dichroism and fluorescence quenching study of the interactions between rhodium(II) complexes and human serum albumin. Espósito BP, et al. **J Inorg Biochem** 1999 May 30;75(1):55–61

Studies on the interactions between human serum albumin and imidazolium [trans-tetrachlorobis(imidazol)ruthenate(III)]. Trynda-Lemiesz L, et al. **J Inorg Biochem** 1999 Mar; 73(3):123–8

H-NMR and CD studies on the structural transition of serum albumin in the acidic region--the N-->F transition. Era S, et al. **J Pept Res** 1998 Dec;52(6):431–42

Stability study of human serum albumin pharmaceutical preparations. Oliva A, et al. **J Pharm Pharmacol** 1999 Apr; 51(4):385–92

From the Centers for Disease Control and Prevention. Hemolysis associated with 25% human albumin diluted with sterile water--United States, 1994–1998. **JAMA** 1999 Mar 24–31;281(12):1076–7

Photochemiluminescent detection of antiradical activity. VI. Antioxidant characteristics of human blood plasma, low density lipoprotein, serum albumin and amino acids during in vitro oxidation. Popov I, et al. **Luminescence** 1999 May-Jun;14(3):169–74

Hemolysis associated with 25% human albumin diluted with sterile water--United States, 1994–1998. **MMWR Morb Mortal Wkly Rep** 1999 Mar 5;48(8):157–9

Photobinding of tiaprofenic acid and suprofen to proteins and cells: a combined study using radiolabeling, antibodies and laser flash photolysis of model bichromophores. Castell JV, et al. **Photochem Photobiol** 1998 Nov;68(5):660–5

Structural volume changes upon photoisomerization of the bilirubin-albumin complex: a laser-induced optoacoustic study. Williams RM, et al. **Photochem Photobiol** 1998 Oct; 68(4):433–7

Crystal structure of human serum albumin at 2.5 A resolution. Sugio S, et al. **Protein Eng** 1999 Jun;12(6):439–46

Investigation of suramin-albumin binding by electrospray mass spectrometry. Roboz J, et al. **Rapid Commun Mass Spectrom** 1998;12(19):1319–22

Study of human serum albumin structure by dynamic light scattering: two types of reactions under different pH and interaction with physiologically active compounds [letter] Luik AI, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Sep; 54A(10):1503–7

DEFICIENCY

Suppression of the 5' splice site mutation in the Nagase analbuminemic rat with mutated U1snRNA. Hitomi Y, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):11–6

Hypoalbuminemia as a cause of pleural effusions. Eid AA, et al. **Chest** 1999 Apr;115(4):1066–9

Influence of methodology on the detection and diagnosis of congenital analbuminemia. Lyon AW, et al. **Clin Chem** 1998 Nov;44(11):2365–7

Hypoalbuminemia accelerates erythrocyte membrane lipid peroxidation in chronic hemodialysis patients. Soejima A, et al. **Clin Nephrol** 1999 Feb;51(2):92–7

Relationship between serum albumin and bone mineral density in postmenopausal women and in patients with hypoalbuminemia. D'Erasmo E, et al. **Horm Metab Res** 1999 Jun;31(6):385–8

Engraftment syndrome and survival after respiratory failure post-bone marrow transplantation. Marin D, et al. **Intensive Care Med** 1998 Jul;24(7):732–5

The predictive value of combined hypoalbuminemia and hypocholesterolemia in high functioning community-dwelling older persons: MacArthur Studies of Successful Aging. Reuben DB, et al. **J Am Geriatr Soc** 1999 Apr;47(4):402–6

Biological basis of hypoalbuminemia in ESRD. Kaysen GA. **J Am Soc Nephrol** 1998 Dec;9(12):2368–76 (91 ref.)

Catabolic consequences of infection and injury: the role of plasma protein (albumin) loss [letter; comment] Stehle G, et al. **JPEN J Parenter Enteral Nutr** 1999 Mar-Apr; 23(2):114–6. Comment on: JPEN J Parenter Enteral Nutr 1998 May-Jun;22(3):156–66.

Coordinate augmentation in expression of genes encoding transcription factors and liver secretory proteins in hypo-oncotic states. Kang J, et al. **Kidney Int** 1999 Aug; 56(2):452–60

Role of hypoalbuminemia and hypocholesterolemia as copredictors of mortality in acute renal failure. Obialo CI, et al. **Kidney Int** 1999 Sep;56(3):1058–63

Hypoalbuminemia increases lysophosphatidylcholine in low-density lipoprotein of normocholesterolemic subjects. Vuong TD, et al. **Kidney Int** 1999 Mar;55(3):1005–10

Glomerular deposits and hypoalbuminemia in acute post-streptococcal glomerulonephritis. West CD, et al. **Pediatr Nephrol** 1998 Aug;12(6):471–4

Role of hypoalbuminemia in the genesis of cardiovascular disease in dialysis patients. Kim SB, et al. **Perit Dial Int** 1999;19 Suppl 2:S144–9 (59 ref.)

The impact of hypoalbuminemia in kidney-pancreas transplant recipients. Becker BN, et al. **Transplantation** 1999 Jul 15;68(1):72–5

[Congenital analbuminemia] Imaizumi M. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):557–60 (13 ref.) **(Jpn)**

[Acquired hypoalbuminemia] Kato H, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):565–8 (10 ref.) **(Jpn)**

[Friedreich's type of ataxia with hypoalbuminemia and hyperlipidemia (FHH)] Yuasa T. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):215–7 (8 ref.) **(Jpn)**

DIAGNOSTIC USE

Pulmonary transit of sonicated albumin microbubbles during controlled mechanical ventilation: a transthoracic echocardiographic study. Bilotta F, et al. **Anesth Analg** 1999 Aug;89(2):273–7

DRUG EFFECTS

Novel inhibitors of advanced glycation endproducts. Rahbar S, et al. **Biochem Biophys Res Commun** 1999 Sep 7; 262(3):651–6

Albumin modified with mannose 6-phosphate: A potential carrier for selective delivery of antifibrotic drugs to rat and human hepatic stellate cells. Beljaars L, et al. **Hepatology** 1999 May;29(5):1486–93

The influence of pH alteration and pharmacological modulators of adenylate cyclase system on human serum albumin conformation. Luik AI, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):109–14

[The effect of clofelin on the transudation of plasma proteins into the dura mater induced by stimulation of the trigeminal ganglion] Amelin AV, et al. **Eksp Klin Farmakol** 1999 Mar-Apr;62(2):12–5 (Eng. Abstr.) **(Rus)**

GENETICS

Suppression of albumin and alpha-fetoprotein gene expression by butyrolactone I, a selective inhibitor of the cdk family, in HuH-7 human hepatoma cells. Hida D, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4317–22

Suppression of the 5' splice site mutation in the Nagase analbuminemic rat with mutated U1snRNA. Hitomi Y, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):11–6

Upstream region of rat serum albumin gene promoter contributes to promoter activity: presence of functional binding site for hepatocyte nuclear factor-3. Hsiang CH, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):241–9

Structural characterization, stability and fatty acid-binding properties of two French genetic variants of human serum albumin. Minchiotti L, et al. **Biochim Biophys Acta** 1999 Apr 12;1431(1):223–31

Structural investigations of a new familial dysalbuminemic hyperthyroxinemia genotype. Petersen CE, et al. **Clin Chem** 1999 Aug;45(8 Pt 1):1248–54

Perioperative change in albumin messenger RNA levels in patients with hepatocellular carcinoma. Gion T, et al. **Hepatology** 1998 Dec;28(6):1663–8

Growth factors and gene expression in cultured rat hepatocytes. Grunnet N, et al. **J Hepatol** 1999 Jul; 31(1):117–22

Differential regulation of albumin gene expression by heparin-binding epidermal growth factor-like growth factor in alpha-fetoprotein-producing and -nonproducing human hepatoma cells. Ishikawa H, et al. **Tumour Biol** 1999 May-Jun;20(3):130–8

Albumin gene expression in adenocarcinomas with hepatoid differentiation. Foschini MP, et al. **Virchows Arch** 1998 Dec;433(6):537–41

IMMUNOLOGY

Comparison of carbohydrate-deficient transferrin, immunoglobulin A antibodies reactive with acetaldehyde-modified protein and acetaldehyde-modified albumin with conventional markers of alcohol consumption. Worrall S, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):1921–6

Heterophile antibodies to bovine and caprine proteins causing false-positive human immunodeficiency virus type 1 and other enzyme-linked immunosorbent assay results. Willman JH, et al. **Clin Diagn Lab Immunol** 1999 Jul;6(4):615–6

Peptide fragments induce a more rapid immune response than intact proteins in earthworms. Hanusová R, et al. **Dev Comp Immunol** 1999 Mar-Apr;23(2):113–21

Effects of structure modifications on IgE binding properties of serum albumins. Restani P, et al. **Int Arch Allergy Immunol** 1998 Oct;117(2):113–9

Inhibition by dexamethasone of antigen-induced c-Jun N-terminal kinase activation in rat basophilic leukemia cells. Hirasawa N, et al. **J Immunol** 1998 Nov 1; 161(9):4939–43

Cytokine secretion patterns of T cells responding to haptenized-human serum albumin in toluene diisocyanate (TDI)-induced asthma patients. Lee M, et al. **J Korean Med Sci** 1998 Oct;13(5):459–65

Induction of anaphylaxis in mouse intestine by orally administered antigen and its prevention with soluble high affinity receptor for IgE. Ohtsuka Y, et al. **Pediatr Res** 1999 Mar;45(3):300–5

ISOLATION & PURIFICATION

Chromatographic removal and heat inactivation of hepatitis B virus during the manufacture of human albumin. Adcock WL, et al. **Biotechnol Appl Biochem** 1998 Oct;28 (Pt 2):169–78

Purification of human albumin by the combination of the method of Cohn with liquid chromatography. Tanaka K, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1383–8

Checking the integrity of albumin after pasteurisation: a fluorescent assay for quantitating monomeric albumin using anthroyloxy-fatty acids analogs. Gallez B, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1–2):5–9

Visualization of serum albumin on electrophoretic gels using the specific ligand bilirubin. Khan MM, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1–2):47–52

Use of metabolic profiles in dairy cattle in tropical and subtropical countries on smallholder dairy farms. Whitaker DA, et al. **Prev Vet Med** 1999 Jan 27;38(2–3):119–31

Removal and inactivation of hepatitis B virus from contaminated pooled plasma in a large-scale manufacturing process for factor VIII and human serum albumin. Murozuka T, et al. **Vox Sang** 1999;76(3):181–6

METABOLISM

Intravenous endotoxin does not increase tissue extravasation of albumin in rats. Metcalf K, et al. **Acta Anaesthesiol Scand** 1998 Sep;42(8):966–73

Effect of increasing serum albumin on plasma D-dimer, von Willebrand factor, and platelet aggregation in CAPD patients. Kim SB, et al. **Am J Kidney Dis** 1999 Feb; 33(2):312–7

Is peritoneal dialysis a good option for black patients? Raj DS, et al. **Am J Kidney Dis** 1999 Feb;33(2):325–33

Association of acidosis and nutritional parameters in hemodialysis patients. Uribarri J, et al. **Am J Kidney Dis** 1999 Sep;34(3):493–9

Factors influencing serum albumin in dialysis patients. Yeun JY, et al. **Am J Kidney Dis** 1998 Dec;32(6 Suppl 4):S118–25

Protein intake seems to respond to increases in Kt/V despite baseline Kt/V greater than 1.2. Marcus RG, et al. **Am J Nephrol** 1999;19(4):500–4

Modified hemoglobins produce venular interendothelial gaps and albumin leakage in the rat mesentery. Baldwin AL. **Am J Physiol** 1999 Aug;277(2 Pt 2):H650–9

Neutrophil-dependent augmentation of PAF-induced vasoconstriction and albumin flux in coronary arterioles. Huang Q, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1138–47

Blood-borne, albumin-bound prostaglandin E2 may be involved in fever. Romanovsky AA, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1840–4

Contribution of serum albumin to the transport of orally administered L-tryptophan into liver of rats with L-tryptophan depletion. Sasaki E, et al. **Amino Acids** 1999; 16(1):29–39

Serum albumin and colloid osmotic pressure in survivors and nonsurvivors of prolonged critical illness. Blunt MC, et al. **Anaesthesia** 1998 Aug;53(8):755–61

Characterization of minor site probes for human serum albumin by high-performance affinity chromatography. Sengupta A, et al. **Anal Chem** 1999 Sep 1;71(17):3821-7

What's the serum albumin? [letter; comment] Everitt N. **Ann R Coll Surg Engl** 1998 Sep;80(5):375-6. Comment on: Ann R Coll Surg Engl 1998 Mar;80(2):157-8.

The interaction of sarin and soman with plasma proteins: the identification of a novel phosphonylation site. Black RM, et al. **Arch Toxicol** 1999 Mar;73(2):123-6

Human serum albumin-bound synthetic hemes as an oxygen carrier: determination of equilibrium constants for heme binding to host albumin. Komatsu T, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1998 Nov; 26(5-6):519-27

Phospholipid hydroperoxide cysteine peroxidase activity of human serum albumin. Hurst R, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):723-8

Interactions of photosensitized tetracycline with serum albumin. Khan MA, et al. **Biochem Mol Biol Int** 1998 Dec; 46(5):943-50

Degradation of transferrin and albumin by radical reactions in human plasma evaluated by immunoblot. Yamada Y, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):733-8

Kinetics of anthracycline accumulation in multidrug-resistant tumor cells: relationship to drug lipophilicity and serum albumin binding. Demant EJ, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1209-17

Characterisation of domain fragments of recombinant human albumin. Twine SM, et al. **Biochem Soc Trans** 1998 Aug; 26(3):S279

The binding of 3,6-disubstituted bile salts to human serum albumin induces conformational change on the molecule of this protein. Farruggia B, et al. **Biochim Biophys Acta** 1999 Jan 11;1429(2):299-306

Ligand binding to a human serum albumin stationary phase: use of same-drug competition to discriminate pharmacologically relevant interactions. Ascoli GA, et al. **Biomed Chromatogr** 1998 Sep-Oct;12(5):248-54

Bilirubin-human serum albumin interaction monitored by capillary zone electrophoresis. Zhang B, et al. **Biomed Chromatogr** 1999 Jun;13(4):267-71

Blood partition and protein binding of a new reversible proton pump inhibitor, YH1885. Han KS, et al. **Biopharm Drug Dispos** 1998 Sep;19(6):413-5

Interaction of human serum albumin with furosemide glucuronide: a role of albumin in isomerization, hydrolysis, reversible binding and irreversible binding of a 1-O-acyl glucuronide metabolite. Mizuma T, et al. **Biopharm Drug Dispos** 1999 Apr;20(3):131-6

Serum protein binding of tolterodine and its major metabolites in humans and several animal species. Påhlman I, et al. **Biopharm Drug Dispos** 1999 Mar;20(2):91-9

Photoinduced covalent binding of frusemide and frusemide glucuronide to human serum albumin. Mizuma T, et al. **Br J Clin Pharmacol** 1999 Jul;48(1):79-87

Study of the effect of total serum protein and albumin concentrations on canine fructosamine concentration [published erratum appears in Can J Vet Res 1999 Jul;63(3):223] Loste A, et al. **Can J Vet Res** 1999 Apr; 63(2):138-41

Serum protein binding of lerisetron, a novel specific 5HT3 antagonist, in patients with cancer. Calvo R, et al. **Cancer Chemother Pharmacol** 1998;42(5):418-22

Detectable levels of serum aflatoxin B1-albumin adducts in the United Kingdom population: implications for aflatoxin-B1 exposure in the United Kingdom. Turner PC, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May; 7(5):441-7

Effect of nonenzymatic glycation of albumin and superoxide dismutase by glucuronic acid and suprofen acyl glucuronide on their functions in vitro. Chiou YJ, et al. **Chem Biol Interact** 1999 Jul 1;121(2):141-59

Spectroscopy features of the binding of polyene antibiotics to human serum albumin. Romanini D, et al. **Chem Biol Interact** 1998 Oct 2;115(3):247-60

Stereoselective allosteric binding interaction on human serum albumin between ibuprofen and lorazepam acetate. Fitos I, et al. **Chirality** 1999;11(2):115-20

Epimerization of moxalactam by albumin and simulation of in vivo epimerization by a physiologically based pharmacokinetic model. Yoshikawa T, et al. **Chirality** 1999; 11(4):309-15

Albumin microbubble persistence during myocardial contrast echocardiography is associated with microvascular endothelial glycocalyx damage. Lindner JR, et al. **Circulation** 1998 Nov 17;98(20):2187-94

Anion gap and hypoalbuminemia [see comments] Figge J, et al. **Crit Care Med** 1998 Nov;26(11):1807-10. Comment in: Crit Care Med 1998 Nov;26(11):1771-2.

Reduced plasma cortisol binding to albumin in ocular hypertension and primary open-angle glaucoma. McCarty GR, et al. **Curr Eye Res** 1999 Jun;18(6):467-76

Transcapillary escape rate and albuminuria in Type II diabetes. Effects of short-term treatment with low-molecular weight heparin. Nielsen S, et al. **Diabetologia** 1999 Jan;42(1):60-7

Helicobacter pylori-associated protein-losing hypertrophic gastropathy with hypercholesterolemia. Kapsoritakis AN, et al. **Dig Dis Sci** 1999 Sep;44(9):1843-7

Using difference spectrophotometry to study the influence of different ions and buffer systems on drug protein binding. Afifi NN. **Drug Dev Ind Pharm** 1999 Jun;25(6):735-43

Role of plasma protein binding on renal metabolism and dynamics of furosemide in the rabbit. Pichette V, et al. **Drug Metab Dispos** 1999 Jan;27(1):81-5

EDTA-resistant and sensitive phosphotriesterase activities associated with albumin and lipoproteins in rabbit serum. Sogorb MA, et al. **Drug Metab Dispos** 1999 Jan;27(1):53-9

Structural heterogeneity of the binding sites of HSA for phenyl-groups and medium-chain fatty acids. Demonstration of equilibrium between different binding conformations. Lund M, et al. **Eur J Biochem** 1999 Mar; 260(2):470-6

Association of low preoperative serum albumin concentrations and the acute phase response. Haupt W, et al. **Eur J Surg** 1999 Apr;165(4):307-13

Glutathione-dependent ascorbate recycling activity of rat serum albumin. Vethanayagam JG, et al. **Free Radic Biol Med** 1999 Jun;26(11-12):1591-8

Restoration of serum albumin levels in nagase analbuminemic rats by hepatocyte transplantation. Oren R, et al. **Hepatology** 1999 Jan;29(1):75-81

Microalbuminuria and transcapillary albumin leakage in essential hypertension. Pedrinelli R, et al. **Hypertension** 1999 Sep;34(3):491-5

Accumulation of albumin in renal cytosol of hamsters treated with estradiol and in estrogen-induced hamster kidney tumors. Bhat HK, et al. **Int J Oncol** 1998 Nov; 13(5):1087-91

Albumin-binding surfaces: synthesis and characterization. McFarland CD, et al. **J Biomater Sci Polym Ed** 1998; 9(11):1207-25

Albumin-binding surfaces: in vitro activity. McFarland CD, et al. **J Biomater Sci Polym Ed** 1998;9(11):1227-39

In vitro protein adsorption to 2 intraocular lens materials. Johnston RL, et al. **J Cataract Refract Surg** 1999 Aug; 25(8):1109-15

Characterisation of the binding of digitoxin and acetyldigitoxin to human serum albumin by high-performance affinity chromatography. Hage DS, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 5; 724(1):91-100

Stereoselective binding of ketoprofen enantiomers to human serum albumin studied by high-performance liquid affinity chromatography. Zhivkova ZD, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):277-83

Portal decompression by transjugular intrahepatic portosystemic shunt and changes in serum-ascites albumin gradient. Younossi ZM, et al. **J Clin Gastroenterol** 1998 Sep;27(2):149-51

Inability of intact cells of Treponema denticola to degrade human serum proteins IgA, IgG and albumin. Hollmann R, et al. **J Clin Periodontol** 1999 Jul;26(7):477-9

Displacement effect of valproate on bilirubin-albumin binding in human plasma. Yu HY, et al. **J Formos Med Assoc** 1999 Mar;98(3):201-4

Targeting of sugar- and charge-modified albumins to fibrotic rat livers: the accessibility of hepatic cells after chronic bile duct ligation. Beljaars L, et al. **J Hepatol** 1998 Oct; 29(4):579-88

Simultaneous analysis of eosinophil and neutrophil adhesion to plasma and tissue fibronectin, fibrinogen, and albumin. Xu X, et al. **J Immunol Methods** 1999 Jun 24; 226(1-2):93-104

The interaction between human and bovine serum albumin and zinc studied by a competitive spectrophotometry. Ohyoshi E, et al. **J Inorg Biochem** 1999 Jun 30;75(3):213-8

Albumin modifies the metabolism of hydroxyeicosatetraenoic acids via 12-lipoxygenase in human platelets. Dadaian M, et al. **J Lipid Res** 1999 May;40(5):940-7

Presurgical serum albumin levels predict survival time from glioblastoma multiforme. Schwartzbaum JA, et al. **J Neurooncol** 1999 May;43(1):35-41

Degradation of serum albumin by rat liver and kidney lysosomes. Ohshita T, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct;44(5):641-53

Scrutinize the question [letter; comment] Ahlfors CE. **J Pediatr** 1999 May;134(5):659. Comment on: J Pediatr 1998 Feb;132(2):343-4.

Determination of the affinity of drugs toward serum albumin by measurement of the quenching of the intrinsic tryptophan fluorescence of the protein. Epps DE, et al. **J Pharm Pharmacol** 1999 Jan;51(1):41-8

Protein binding of piroxicam studied by means of affinity chromatography and circular dichroism. Russeva V, et al. **J Pharm Pharmacol** 1999 Jan;51(1):49-52

Molecular basis of indomethacin-human serum albumin interaction. Trivedi VD, et al. **J Pharm Pharmacol** 1999 May;51(5):591-600

Relationships of liver weight, cholesterol, albumin and alpha2-macroglobulin concentrations with ovarian function in swine. Wise T, et al. **J Steroid Biochem Mol Biol** 1998 Dec;67(5-6):383-90

Direct current reduces accumulation of Evans Blue albumin in full-thickness burns. Chu CS, et al. **J Trauma** 1999 Aug; 47(2):294-9

Lipoprotein(a) levels in relation to albumin concentration in childhood nephrotic syndrome. Noto D, et al. **Kidney Int** 1999 Jun;55(6):2433-9

Histiocytic sarcoma of the spleen associated with hypoalbuminemia, hypo gamma-globulinemia and thrombocytopenia as a possibly unique clinical entity--report of three cases. Kimura H, et al. **Leuk Lymphoma** 1998 Sep;31(1-2):217-24

Glycation of human serum albumin by acylglucuronides of nonsteroidal anti-inflammatory drugs of the series of phenylpropionates. Georges H, et al. **Life Sci** 1999; 65(12):PL151-6

Evidence of a strong interaction of 2,4-dichlorophenoxyacetic acid herbicide with human serum albumin. Rosso SB, et al. **Life Sci** 1998; 63(26):2343-51

The effects of diminishing albumin binding to some Endothelin receptor antagonists. Szczepankiewicz BG, et al. **Life Sci** 1998;63(21):1905-12

The pool of fatty acids covalently bound to platelet proteins by thioester linkages can be altered by exogenously supplied fatty acids. Muszbek L, et al. **Lipids** 1999;34 Suppl:S331-7

Effect of hyaluronidase on albumin diffusion in lung interstitium. Qiu XL, et al. **Lung** 1999;177(5):273-88

Regional pleural filtration and absorption measured by fluorescent tracers in rabbits. Wang PM, et al. **Lung** 1999; 177(5):289-309

In vitro effect of Cl2Ca and Cl2Mg on warfarin-human serum albumin (HSA) binding. Pérez Gallardo L. **Magnes Res** 1999 Mar;12(1):43-8

Modulation of adriamycin-induced changes in serum free fatty acids, albumin and cardiac oxidative stress. Iliskovic N, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):161-6

Correction of metabolic acidosis increases serum albumin concentrations and decreases kinetically evaluated protein intake in haemodialysis patients: a prospective study. Movilli E, et al. **Nephrol Dial Transplant** 1998 Jul; 13(7):1719-22

In vivo microvascular clearance of albumin in renal and extrarenal tissues in puromycin aminonucleoside (PAN) induced nephrotic syndrome. Oqvist BW, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):1898-903

Lower serum zinc in relation to serum albumin and proinflammatory cytokines in detoxified alcohol-dependent patients without apparent liver disease. De Vos N, et al. **Neuropsychobiology** 1999;39(3):144-50

Interaction between two dicarboxylate endogenous substances, bilirubin and an uremic toxin, 3-carboxy-4-methyl-5-propyl-2-furanpropanoic acid, on human serum albumin. Tsutsumi Y, et al. **Pharm Res** 1999 Jun;16(6):916-23

The fluorescent probe prodan characterizes the warfarin binding site on human serum albumin. Moreno F, et al. **Photochem Photobiol** 1999 Jan;69(1):8-15

Photophysical properties of tin ethyl etiopurpurin I (SnET2) and tin octaethylbenzochlorin (SnOEBC) in solution and bound to albumin. Pogue BW, et al. **Photochem Photobiol** 1998 Dec;68(6):809-15

The use of optical sensors to understand cellular interactions with renal cells. Newman DJ, et al. **Ren Fail** 1999 May-Jul; 21(3-4):349-57

Stability, blood partition, and protein binding of a chemoprotective agent, 2-(allylthio)pyrazine. Han KS, et al. **Res Commun Mol Pathol Pharmacol** 1998 Aug; 101(2):171-8

Study of human serum albumin structure by dynamic light scattering: two types of reactions under different pH and interaction with physiologically active compounds [letter] Luik AI, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Sep; 54A(10):1503-7

NMR diffusion and relaxation study of drug-protein interaction [letter] Luo RS, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Aug; 55A(9):1897-901

Plasma total phenytoin: a possibly misleading test in developing countries. Fedler C, et al. **Ther Drug Monit** 1999 Apr;21(2):155-60

Salsalate and salicylate binding to and their displacement of thyroxine from thyroxine-binding globulin, transthyrin, and albumin. Wang R, et al. **Thyroid** 1999 Apr;9(4):359-64

Kinetic modeling of slow dissociation of bromosulphophthalein from albumin in perfused rat liver: toxicological implications. Foy BD, et al. **Toxicol Sci** 1999 Jul;50(1):20-9

The serum albumin-binding region of streptococcal protein G (BB) potentiates the immunogenicity of the G130-230 RSV-A protein. Libon C, et al. **Vaccine** 1999 Feb 5; 17(5):406-14

[The albumin question in fasting] Steiniger J, et al. **Forsch Komplementarmed** 1999 Feb;6(1):49-51 **(Ger)**

[The effect of total protein and albumin levels in serum on retinal detachment due to EPH-gestosis] Kokot W, et al. **Klin Oczna** 1998;100(3):167-9 (Eng. Abstr.) **(Pol)**

[Albumin, transport of saturated fatty acids, and metabolic stress-syndrome (literature review)] Titov VN. **Klin Lab Diagn** 1999 Apr;(4):3-11 (93 ref.) **(Rus)**

[The albumin-binding capacity of the blood serum in diphtheria patients] Zhukova LI, et al. **Klin Lab Diagn** 1999 May;(5):16-9 (Eng. Abstr.) **(Rus)**

[The blood serum albumin transport function in patients with acute and chronic leukemias] Litvinov AV, et al. **Ter Arkh** 1998;70(7):72-4 (Eng. Abstr.) **(Rus)**

PHARMACOKINETICS

Pulmonary transit of sonicated albumin microbubbles during controlled mechanical ventilation: a transthoracic echocardiographic study. Bilotta F, et al. **Anesth Analg** 1999 Aug;89(2):273-7

SERUM ALBUMIN

Distribution of normal saline and 5% albumin infusions in septic patients [see comments] Ernest D, et al. **Crit Care Med** 1999 Jan;27(1):46–50. Comment in: Crit Care Med 1999 Jan;27(1):3.

Diamine–plasma treated and Cu(II)–incorporated poly(hydroxyethylmethacrylate) microbeads for albumin adsorption. Denizli A, et al. **J Biomater Sci Polym Ed** 1999; 10(3):305–18

Adsorption of serum albumin to thin films of poly(lactide–co–glycolide). Butler SM, et al. **J Controlled Release** 1999 Apr 19;58(3):335–47

Effects of endogenous absorption in human albumin solder for acute laser wound closure. Massicotte JM, et al. **Lasers Surg Med** 1998;23(1):18–24

In vivo topical EPR spectroscopy and imaging of nitroxide free radicals and polynitroxyl–albumin. Kuppusamy P, et al. **Magn Reson Med** 1998 Dec;40(6):806–11

Molecular mechanisms of the adsorption of a model protein (human serum albumin) on poly(methylidene malonate 2.1.2) nanoparticles. Bousquet Y, et al. **Pharm Res** 1999 Jan;16(1):141–7

Specific uptake of alpha–fetoprotein and albumin by rat Morris 7777 hepatoma cells. Alava MA, et al. **Tumour Biol** 1999 Jan–Feb;20(1):52–64

PHARMACOLOGY

False–negative biopsy urease test in bleeding ulcers caused by the buffering effects of blood [see comments] Leung WK, et al. **Am J Gastroenterol** 1998 Oct;93(10):1914–8. Comment in: Am J Gastroenterol 1999 May;94(5):1421–2.

Glycated albumin stimulation of PKC–beta activity is linked to increased collagen IV in mesangial cells. Cohen MP, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F684–90

Plasma volume expansion with solutions of hemoglobin, albumin, and Ringer lactate in sheep. Fischer SR, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2194–203

Glycated serum albumin–induced nitric oxide production in vascular smooth muscle cells by nuclear factor kappaB–dependent transcriptional activation of inducible nitric oxide synthase. Hattori Y, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):128–32

Mechanism of anti–HIV activity of succinylated human serum albumin. Kuipers ME, et al. **Biochem Pharmacol** 1999 Apr 15;57(8):889–98

Effectiveness of recombinant human serum albumin in the treatment of ascites in liver cirrhosis: evidence from animal model. Horie S, et al. **Gen Pharmacol** 1998 Nov;31(5):811–5

Systemic effects of ethanolamine oleate in analbuminemic rats. Kishihara F, et al. **Hepatogastroenterology** 1999 Jan–Feb;46(25):376–80

Apical proteins stimulate complement synthesis by cultured human proximal tubular epithelial cells. Tang S, et al. **J Am Soc Nephrol** 1999 Jan;10(1):69–76

Antioxidant potential of human serum albumin: role in the recovery of high quality human spermatozoa for assisted reproductive technology. Armstrong JS, et al. **J Androl** 1998 Jul–Aug;19(4):412–9

Anti–HIV–1 activity of combinations and covalent conjugates of negatively charged human serum albumins (NCAs) and AZT. Kuipers ME, et al. **J Drug Target** 1999; 6(5):323–35

Serum albumin inhibits echovirus 7 uncoating. Ward T, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):283–90

Improvement in liver fibrosis, functionality and hemodynamics in CCl4–cirrhotic rats after injection of the Liver Growth Factor. Diaz–Gil JJ, et al. **J Hepatol** 1999 Jun;30(6):1065–72

Sensitivity of synthetic surfactants to albumin inhibition in preterm rabbits. Mbagwu N, et al. **Mol Genet Metab** 1999 Jan;66(1):40–8

The neoglycoprotein mannose–bovine serum albumin, but not progesterone, activates T–type calcium channels in human spermatozoa. Blackmore PF, et al. **Mol Hum Reprod** 1999 Jun;5(6):498–506

PHYSIOLOGY

Serum albumin: touchstone or totem? Margarson MP, et al. **Anaesthesia** 1998 Aug;53(8):789–803 (108 ref.)

Serum albumin as a potential carrier for the apocrine secretion of proteins in the rat coagulating gland. Wilhelm B, et al. **Eur J Cell Biol** 1999 Apr;78(4):256–64

Molecular interactions between albumin and proximal tubular cells. Brunskill NJ. **Exp Nephrol** 1998 Nov–Dec;6(6):491–5 (23 ref.)

Albumin's role in steroid hormone action and the origins of vertebrates: is albumin an essential protein? Baker ME. **FEBS Lett** 1998 Nov 13;439(1–2):9–12

Albumin interferes with the uptake metabolism of arachidonic acid by human leukocytes. Dadaian M, et al. **Lipids** 1999;34 Suppl:S181

[Effect of albumin on the Na, K–ATPase activity in the rat erythrocytes during immobilization stress] Sinichkin AA, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov; 84(11):1247–51 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Damage to hemoglobin by radiation–generated serum albumin radicals. Puchala M, et al. **Free Radic Biol Med** 1999 May;26(9–10):1284–91

SECRETION

Determination of hindlimb transplantation–induced vascular albumin leakage and leukocyte activation during the acute phase of rejection. Gudemez E, et al. **J Reconstr Microsurg** 1999 Feb;15(2):133–41

STANDARDS

[Review of the regulations on quality control of human albumin] Poprzen V. **Vojnosanit Pregl** 1998 Sep–Oct; 55(5):529–31 **(Scc)**

THERAPEUTIC USE

Peri–operative tolerance to large–dose 6% HES 200/0.5 in major urological procedures compared with 5% human albumin. Vogt N, et al. **Anaesthesia** 1999 Feb;54(2):121–7

Methotrexate–albumin conjugate causes tumor growth delay in Dunning R3327 H1 prostate cancer–bearing rats. Stehle G, et al. **Anticancer Drugs** 1999 Apr;10(4):405–11

Albumin: saint or sinner? Nadel S, et al. **Arch Dis Child** 1998 Nov;79(5):384–5

The effect of high–dose albumin therapy on local cerebral perfusion after transient focal cerebral ischemia in rats. Huh PW, et al. **Brain Res** 1998 Aug 31;804(1):105–13

Phase I trial of methotrexate–albumin in a weekly intravenous bolus regimen in cancer patients. Phase I Study Group of the Association for Medical Oncology of the German Cancer Society. Hartung G, et al. **Clin Cancer Res** 1999 Apr;5(4):753–9

Comparison of albumin versus bicarbonate treatment for neonatal metabolic acidosis. Dixon H, et al. **Eur J Pediatr** 1999 May;158(5):414–5

Use of albumin in intensive care unit patients––is continuous quality assessment necessary? Natsch S, et al. **J Clin Pharm Ther** 1998 Jun;23(3):179–83

Intravenous albumin with diuretics: protean lessons to be learnt? [editorial; comment] Blendis L, et al. **J Hepatol** 1999 Apr;30(4):727–30. Comment on: J Hepatol 1999 Apr;30(4):639–45.

Albumin improves the response to diuretics in patients with cirrhosis and ascites: results of a randomized, controlled trial [see comments] Gentilini P, et al. **J Hepatol** 1999 Apr; 30(4):639–45. Comment in: J Hepatol 1999 Apr;30(4):727–30.

Early effects of total paracentesis and albumin infusion on muscle sympathetic nerve activity in cirrhotic patients with tense ascites. Pozzi M, et al. **J Hepatol** 1999 Jan; 30(1):95–100

Coadministration of albumin and furosemide in patients with the nephrotic syndrome. Fliser D, et al. **Kidney Int** 1999 Feb;55(2):629–34

Clinical practice guidelines for the use of albumin: results of a drug use evaluation in a Paris hospital. Tenon Hospital Paris. Debrix I, et al. **Pharm World Sci** 1999 Feb;21(1):11–6

Diffusion–weighted magnetic resonance imaging confirms marked neuroprotective efficacy of albumin therapy in focal cerebral ischemia. Belayev L, et al. **Stroke** 1998 Dec; 29(12):2587–99

Long–term treatment of patients with acute exacerbation of chronic liver failure by albumin dialysis. Seige M, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1371–5

[Substitution with human albumin] Dieterich HJ. **Anaesthesist** 1999 Jul;48(7):481–2 **(Ger)**

URINE

Prevention of protein adsorption: effect on patient results for microalbuminuria. Bakker AJ, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):163–7

Detection of lactate dehydrogenase isoenzyme–M in body fluids containing albumin. Javed MH, et al. **Ann Clin Biochem** 1999 Mar;36 (Pt 2):250–1

The 5–HT2 receptor antagonist sarpogrelate reduces urinary and plasma levels of thromboxane A2 and urinary albumin excretion in non–insulin–dependent diabetes mellitus patients. Ogawa S, et al. **Clin Exp Pharmacol Physiol** 1999 May–Jun;26(5–6):461–4

Microalbuminuria prevalence varies with age, sex, and puberty in children with type 1 diabetes followed from diagnosis in a longitudinal study. Oxford Regional Prospective Study Group. Schultz CJ, et al. **Diabetes Care** 1999 Mar;22(3):495–502

SERUM ALBUMIN, BOVINE

Effects of bovine serum albumin on function of cryopreserved stallion spermatozoa during medium culture and uterine tube epithelial cell coculture. Ellington JE, et al. **Am J Vet Res** 1999 Mar;60(3):363–7

Chemoenzymatic synthesis of spacer–linked oligosaccharides for the preparation of neoglycoproteins. Gonzalez Lio R, et al. **Carbohydr Res** 1999 Apr 30;317(1–4):180–90

Alterations in the relative abundance of gene transcripts in preimplantation bovine embryos cultured in medium supplemented with either serum or PVA. Wrenzycki C, et al. **Mol Reprod Dev** 1999 May;53(1):8–18

[Ellipsometric study of adsorption behavior of blood proteins fibrinogen and serum albumin to solid body surfaces] Leistner T, et al. **Biomed Tech (Berl)** 1998;43 Suppl:494–5 **(Ger)**

ADMINISTRATION & DOSAGE

Intracellular regulation of macromolecules using pH–sensitive liposomes and nuclear localization signal: qualitative and quantitative evaluation of intracellular trafficking. Tachibana R, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):538–44

Formulation of a protein with propellant HFA 134a for aerosol delivery. Williams RO 3rd, et al. **Eur J Pharm Sci** 1999 Jan;7(2):137–44

Enhanced immune response after subcutaneous and oral immunization with biodegradable PLGA microspheres. Igartua M, et al. **J Controlled Release** 1998 Dec 4; 56(1–3):63–73

Chronic oral antigen exposure induces lymphocyte migration in anaphylactic mouse intestine. Ohtsuka Y, et al. **Pediatr Res** 1998 Nov;44(5):791–7

ADVERSE EFFECTS

Anaphylactic reaction to bovine serum albumin after embryo transfer. Wehner–Caroli J, et al. **Fertil Steril** 1998 Oct; 70(4):771–3

ANALYSIS

Automated flow injection gradient technique for binding studies of micromolecules to proteins using potentiometric sensors: application to bovine serum albumin with anilinonaphthalenesulfonate probe and drugs. Georgiou ME, et al. **Anal Chem** 1999 Jul 1;71(13):2541–50

High resolution of DL–tryptophan at high flow rates using a bovine serum albumin–multilayered porous hollow–fiber membrane. Nakamura M, et al. **Anal Chem** 1999 Apr 1; 71(7):1323–5

Albumin–loaded PLA and PLGA microspheres: in vitro evaluation. Filipović–Grčić J, et al. **Boll Chim Farm** 1999 Jan;138(1):14–8

Application of the two–film theory to the determination of mass transfer coefficients for bovine serum albumin on anion–exchange columns. Hansen E, et al. **J Chromatogr A** 1998 Dec 11;827(2):259–67

Chiral separation of DL–tryptophan using porous membranes containing multilayered bovine serum albumin crosslinked with glutaraldehyde. Nakamura M, et al. **J Chromatogr A** 1998 Sep 25;822(1):53–8

Use of capillary electrophoresis–based competitive immunoassay for a large molecule. Ou JP, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1–2):63–71

Measurement of S–nitrosoalbumin by gas chromatography–mass spectrometry. II. Quantitative determination of S–nitrosoalbumin in human plasma using S–[15N]nitrosoalbumin as internal standard. Tsikas D, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1–2):13–24

Bovine immunoglobulin G, beta–lactoglobulin, alpha–lactalbumin and serum albumin in colostrum and milk during the early post partum period. Levieux D, et al. **J Dairy Res** 1999 Aug;66(3):421–30

BIOSYNTHESIS

Use of the KlADH4 promoter for ethanol–dependent production of recombinant human serum albumin in Kluyveromyces lactis. Saliola M, et al. **Appl Environ Microbiol** 1999 Jan;65(1):53–60

CHEMISTRY

Generation of acetate and production of ethyl–lysine in the reaction of acetaldehyde plus serum albumin. Moncada C, et al. **Alcohol** 1999 Jan;17(1):87–91

High–mass–measurement accuracy and 100% sequence coverage of enzymatically digested bovine serum albumin from an ESI–FTICR mass spectrum. Bruce JE, et al. **Anal Chem** 1999 Jul 15;71(14):2595–9

Bound volatile general anesthetics alter both local protein dynamics and global protein stability. Johansson JS, et al. **Anesthesiology** 1999 Jan;90(1):235–45

The hydroxyl free radical reactions of ascorbyl palmitate as measured in various in vitro models. Perricone N, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):661–5

Noncovalent complexes between poly(ethylene glycol) and proteins. Topchieva IN, et al. **Biochemistry (Mosc)** 1998 Nov;63(11):1312–8

Enantioselective binding sites on bovine serum albumin to dansyl amino acids. Abe Y, et al. **Biochim Biophys Acta** 1999 Aug 17;1433(1–2):188–97

Hydroxopentaamminechromium(III) promoted phosphorylation of bovine serum albumin: its potential implications in understanding biotoxicity of chromium. Balamurugan K, et al. **Biochim Biophys Acta** 1999 May 24;1427(3):357–66

Halothane, an inhalational anesthetic agent, increases folding stability of serum albumin. Tanner JW, et al. **Biochim Biophys Acta** 1999 Feb 10;1430(1):46–56

Study of the behavior of biological molecules in a thin gap by refractive index and force measurements with an automatic surface force apparatus. Gauthier–Manuel B, et al. **Biochimie** 1998 May–Jun;80(5–6):391–9

Optimized conditions to couple two water–soluble biomolecules through alkylamine thiolation and thioetherification. Meunier L, et al. **Bioconjug Chem** 1999 Mar–Apr;10(2):206–12

Quantitative analysis of derivatized proteins prepared with pyridyl disulfide-containing cross-linkers by high-performance liquid chromatography. Na DH, et al. **Bioconjug Chem** 1999 Mar-Apr;10(2):306-10

The corrosion behaviour of Ti-6Al-4V, Ti-6Al-7Nb and Ti-13Nb-13Zr in protein solutions. Khan MA, et al. **Biomaterials** 1999 Apr;20(7):631-7

SPR analysis of the total reduction of protein adsorption to surfaces coated with mixtures of long- and short-chain polyethylene oxide block copolymers. Pavey KD, et al. **Biomaterials** 1999 May;20(9):885-90

Ultrafiltration membrane surfaces with grafted polymer 'tentacles': preparation, characterization and application for covalent protein binding. Ulbricht M, et al. **Biomaterials** 1998 Jul;19(14):1229-37

Analysis of bovine serum albumin adsorption on calcium phosphate and titanium surfaces. Zeng H, et al. **Biomaterials** 1999 Feb;20(4):377-84

Proteins and cells on PEG immobilized silicon surfaces. Zhang M, et al. **Biomaterials** 1998 May;19(10):953-60

Effect of salt addition on the fractal structure of aggregates formed by heating dilute BSA solutions. Kumagai H, et al. **Biosci Biotechnol Biochem** 1999 Jan;63(1):223-5

Effect of ion binding on protein transport through ultrafiltration membranes. Menon MK, et al. **Biotechnol Bioeng** 1999 May 5;63(3):298-307

Influence of protein surface morphology on the ultrafiltration flux resistance of bovine serum albumin. Elysée-Collen B, et al. **Biotechnol Prog** 1999 Jul-Aug;15(4):732-9

Kinetic study of the concentration dependence of the mass transfer rate coefficient in anion-exchange chromatography of bovine serum albumin. Miyabe K, et al. **Biotechnol Prog** 1999 Jul-Aug;15(4):740-52

Synthesis of a neoglycoprotein containing the Lewis X analogous trisaccharide beta-D-GalpNAc-(1-->4)[alpha-L-Fucp-(1-->3)]-beta-D-GlcpNAc. Bartek J, et al. **Carbohydr Res** 1998 Jun; 308(3-4):259-73

Observation of a new nonfluorescent malondialdehyde-acetaldehyde-protein adduct by 13C NMR spectroscopy. Kearley ML, et al. **Chem Res Toxicol** 1999 Jan;12(1):100-5

Side-chain selective and covalent labelling of proteins by organometallic complexes of heavy transition metals--possible application in radio-crystallography of proteins. Salmain M, et al. **Eur J Biochem** 1998 Nov 15; 258(1):192-9

Effect of pH, phosphate and copper on the interaction of glucose with albumin. Tessier F, et al. **Glycoconj J** 1998 Jun;15(6):571-4

Preparation and characterization of protein-loaded poly(epsilon-caprolactone) microparticles for oral vaccine delivery. Benoit MA, et al. **Int J Pharm** 1999 Jul 5; 184(1):73-84

Protein encapsulation in biodegradable amphiphilic microspheres. Bouillot P, et al. **Int J Pharm** 1999 Apr 30; 181(2):159-72

Interaction of 7-hydroxy-8-(phenylazo)1,3-naphthalenedisulfonate with bovine plasma albumin. Spectroscopic studies. Patel AB, et al. **J Biol Chem** 1999 Jul 30;274(31):21755-62

Bovine serum albumin adsorption on titania surfaces and its relation to wettability aspects. Valagão Amadeu do Serro AP, et al. **J Biomed Mater Res** 1999 Sep 5;46(3):376-81

Incorporation of bovine serum albumin in calcium phosphate coating on titanium. Wen HB, et al. **J Biomed Mater Res** 1999 Aug;46(2):245-52

FTIR characterization of the secondary structure of proteins encapsulated within PLGA microspheres. Fu K, et al. **J Controlled Release** 1999 Apr 19;58(3):357-66

Protein mediated magnetic coupling between lactate and water protons. Swanson SD. **J Magn Reson** 1998 Nov; 135(1):248-55

Ultrasonic atomization for spray drying: a versatile technique for the preparation of protein loaded biodegradable microspheres. Bittner B, et al. **J Microencapsul** 1999 May-Jun;16(3):325-41

Preparation of albumin microspheres by an improved process. Katti D, et al. **J Microencapsul** 1999 Mar-Apr;16(2):231-42

Effects of preparation conditions on the monodispersity of albumin microspheres. el-Mahdy M, et al. **J Microencapsul** 1998 Sep-Oct;15(5):661-73

H-NMR and CD studies on the structural transition of serum albumin in the acidic region--the N-->F transition. Era S, et al. **J Pept Res** 1998 Dec;52(6):431-42

Grafting of aliphatic and aromatic probes on bovine serum albumin: influence on its structural and physicochemical characteristics. Gerbanowski A, et al. **J Protein Chem** 1999 Apr;18(3):325-36

Investigation of slow dynamics of the sulfhydryl in the solution and gel states of bovine serum albumin: A vector electron paramagnetic resonance study. Hayashi T, et al. **Jpn J Physiol** 1999 Feb;49(1):27-33

Solubility study of albumin solders for laser tissue-welding. Lauto A, et al. **Lasers Surg Med** 1998;23(5):258-62

Steric hindrance is not required for n-alkanol cutoff in soluble proteins. Eckenhoff RG, et al. **Mol Pharmacol** 1999 Aug; 56(2):414-8

Analysis of 3-nitrotyrosine in biological fluids and protein hydrolyzates by high-performance liquid chromatography using a postseparation, on-line reduction column and electrochemical detection: results with various nitrating agents. Ohshima H, et al. **Nitric Oxide** 1999;3(2):132-41

Differential inhibition of Maillard protein fluorescence by nitric oxide donors. Suárez G, et al. **Nitric Oxide** 1998; 2(6):475-80

The properties of polyesteramide and the effects on the stability of bovine serum albumin. Ye WP, et al. **Pharm Dev Technol** 1999 Jan;4(1):97-106

Peroxynitrite-mediated modification of proteins at physiological carbon dioxide concentration: pH dependence of carbonyl formation, tyrosine nitration, and methionine oxidation. Tien M, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7809-14

DRUG EFFECTS

Chronic ethanol consumption impairs receptor-mediated endocytosis of formaldehyde-treated albumin by isolated rat liver endothelial cells. Thiele GM, et al. **Hepatology** 1999 May;29(5):1511-7

Do specific or nonspecific interactions with proteins underlie inhalational anesthetic action? Eckenhoff RG. **Mol Pharmacol** 1998 Oct;54(4):610-5

GENETICS

Use of the KlADH4 promoter for ethanol-dependent production of recombinant human serum albumin in Kluyveromyces lactis. Saliola M, et al. **Appl Environ Microbiol** 1999 Jan;65(1):53-60

IMMUNOLOGY

Binding reaction of aflatoxin B1 with immunoglobulin G against aflatoxin B1-bovine serum albumin complex. Odunola OA, et al. **Afr J Med Med Sci** 1998 Mar-Jun; 27(1-2):1-4

Heat treatment modifies the allergenicity of beef and bovine serum albumin. Fiocchi A, et al. **Allergy** 1998 Aug; 53(8):798-802

Formaldehyde exposure levels and serum antibodies to formaldehyde-human serum albumin of Korean medical students. Kim H, et al. **Arch Environ Health** 1999 Mar-Apr; 54(2):115-8

Effects of carrier and hapten array on the production of anti-hapten antibodies analyzed by two-dimensional affinity electrophoresis. Wang P, et al. **Electrophoresis** 1998 Jun;19(8-9):1506-10

The influence of antibody functional affinity on the effector functions involved in the clearance of circulating immune complexes anti-BSA IgG/BSA. Marzocchi-Machado CM, et al. **Immunol Invest** 1999 Mar-May;28(2-3):89-101

Enhanced immune response after subcutaneous and oral immunization with biodegradable PLGA microspheres. Igartua M, et al. **J Controlled Release** 1998 Dec 4; 56(1-3):63-73

An improved method for the production of antibodies to lipophilic carboxylic hapten using small amount of hapten-carrier conjugate. Pauillac S, et al. **J Immunol Methods** 1998 Nov 1;220(1-2):105-14

Escherichia coli O157 serology: false-positive ELISA results caused by human antibodies binding to bovine serum albumin. Chart H, et al. **Lett Appl Microbiol** 1998 Aug; 27(2):76-8

Chronic oral antigen exposure induces lymphocyte migration in anaphylactic mouse intestine. Ohtsuka Y, et al. **Pediatr Res** 1998 Nov;44(5):791-7

Low responsiveness to immunization with immunoglobulin E/antigen and immunoglobulin G/antigen complexes in H-2Ab mice. Gustavsson S, et al. **Scand J Immunol** 1999 Jul;50(1):45-51

[Frequency of appearance of antibodies to bovine serum albumin in children with diabetes type I] Ciślak D, et al. **Pol Arch Med Wewn** 1998 Aug;100(2):106-10 (Eng. Abstr.) **(Pol)**

ISOLATION & PURIFICATION

Continuous separation of serum proteins using a stirred cell charged with carboxylated and sulfonated microspheres. Lee JH, et al. **Biomed Chromatogr** 1998 Nov-Dec; 12(6):330-4

Expanded and packed bed albumin adsorption on fluoride modified zirconia. Mullick A, et al. **Biotechnol Bioeng** 1998 Nov 5;60(3):333-40

METABOLISM

Binding of [3H]palmitate to BSA. Elmadhoun BM, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G638-44

Bovine serum albumin-(7-hydroxycoumarin-4-acetic acid) complex: applications to the fluorometric measurement of fatty acid concentrations. Demant EJ. **Anal Biochem** 1999 Feb 15;267(2):366-72

Comparison of antibody and albumin catalyzed hydrolysis of steroidal p-nitrophenylcarbonates. Riva S, et al. **Appl Biochem Biotechnol** 1998 Oct;75(1):33-44

Protein cleavage by transition metal complexes bearing amino acid substituents. Buranaprapuk A, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):309-16

An enantioselective fluorimetric assay for alcohol dehydrogenases using albumin-catalyzed beta-elimination of umbelliferone. Klein G, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1113-6

Glucose and free radicals impair the antioxidant properties of serum albumin. Bourdon E, et al. **FASEB J** 1999 Feb; 13(2):233-44

The ability to bind albumin is correlated with nitric oxide sensitivity in Moraxella catarrhalis. Maluszynska GM, et al. **FEMS Microbiol Lett** 1998 Sep 15;166(2):249-55

Interaction of glycated albumin-gold complexes with mouse brain microvascular endothelium. Vorbrodt AW, et al. **Folia Histochem Cytobiol** 1999;37(1):3-10

Chronic ethanol consumption impairs receptor-mediated endocytosis of formaldehyde-treated albumin by isolated rat liver endothelial cells. Thiele GM, et al. **Hepatology** 1999 May;29(5):1511-7

Ultrastructural study of the clearance of intracerebrally infused native and modified albumin-gold complexes. Dobrogowska DH, et al. **Histol Histopathol** 1998 Jul; 13(3):647-56

The potent platelet inhibitory effects of S-nitrosated albumin coating of artificial surfaces. Maalej N, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1408-14

Effect of antifungal agents on the binding of Candida albicans to immobilized amino acids and bovine serum albumin. Islam K, et al. **J Antimicrob Chemother** 1999 Apr; 43(4):583-7

Interaction of 7-hydroxy-8-(phenylazo)1,3-naphthalenedisulfonate with bovine plasma albumin. Spectroscopic studies. Patel AB, et al. **J Biol Chem** 1999 Jul 30;274(31):21755-62

Measurement of S-nitrosoalbumin by gas chromatography-mass spectrometry. I. Preparation, purification, isolation, characterization and metabolism of S-[15N]nitrosoalbumin in human blood in vitro. Tsikas D, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1-2):1-12

In vivo fate of folate-BSA in non-tumor- and tumor-bearing mice. Shinoda T, et al. **J Pharm Sci** 1998 Dec;87(12):1521-6

Binding of long-term glycated low density lipoprotein and AGE-albumin by peripheral monocytes and endothelial cells. Sobal G, et al. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):267-81

Iron protoporphyrin IX-albumin complexing increases the capacity and avidity of its binding to the periodontopathogen Porphyromonas gingivalis. Smalley JW, et al. **Microb Pathog** 1999 Mar;26(3):131-7

Do specific or nonspecific interactions with proteins underlie inhalational anesthetic action? Eckenhoff RG. **Mol Pharmacol** 1998 Oct;54(4):610-5

Binding affinities of gallotannin analogs with bovine serum albumin: ramifications for polyphenol-protein molecular recognition. Feldman KS, et al. **Phytochemistry** 1999 Aug; 51(7):867-72

PHARMACOKINETICS

Leakage responses to L-NAME differ with the fluorescent dye used to label albumin. Rumbaut RE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H333-9

Intracellular regulation of macromolecules using pH-sensitive liposomes and nuclear localization signal: qualitative and quantitative evaluation of intracellular trafficking. Tachibana R, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):538-44

Effect of ion binding on protein transport through ultrafiltration membranes. Menon MK, et al. **Biotechnol Bioeng** 1999 May 5;63(3):298-307

Influence of shaking and surfactants on the release of bsa from plga microspheres. Hernádez RM, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr-Jun;23(2):92-6

Macromolecular transport across the rabbit proximal and distal colon. Hardin JA, et al. **Gut** 1999 Feb;44(2):218-25

Cibacron blue F3G-A-attached uniform and macroporous poly(styrene-co-divinylbenzene) particles for specific albumin adsorption. Camli ST, et al. **J Biomater Sci Polym Ed** 1999;10(8):875-89

Partial liquid ventilation decreases albumin leak in the setting of acute lung injury. Colton DM, et al. **J Crit Care** 1998 Sep;13(3):136-9

Pharmacokinetic evaluation of mannosylated bovine serum albumin as a liver cell-specific carrier: quantitative comparison with other hepatotropic ligands. Ogawara K, et al. **J Drug Target** 1999;6(5):349-60

Disposition of radioactivity after injection of liver-targeted proteins labeled with 111In or 125I. Effect of labeling on distribution and excretion of radioactivity in rats. Staud F, et al. **J Pharm Sci** 1999 Jun;88(6):577-85

Intestinal macromolecule absorption in the fetal pig after infusion of colostrum in utero. Sangild PT, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):595-602

PHARMACOLOGY

Structure-stabilizing effect of albumin on rat ovarian LH/hCG receptors. Kolena J, et al. **Biochim Biophys Acta** 1999 Jan 12;1416(1-2):208-16

Rat oocytes fertilized in modified rat 1-cell embryo culture medium containing a high sodium chloride concentration and bovine serum albumin maintain developmental ability to the blastocyst stage. Oh SH, et al. **Biol Reprod** 1998 Oct;59(4):884-9

Bovine serum albumin reverses inhibition of RT-PCR by melanin. Giambernardi TA, et al. **Biotechniques** 1998 Oct; 25(4):564-6

Advanced glycated albumin impairs protein degradation in the kidney proximal tubules cell line LLC-PK1. Sebeková K, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;

SERUM ALBUMIN, BOVINE

44(7):1051–60

Modulation of arachidonic acid release and membrane fluidity by albumin in vascular smooth muscle and endothelial cells. Beck R, et al. **Circ Res** 1998 Nov 2; 83(9):923–31

High molecular weight hyaluronic acid inhibits advanced glycation endproduct–induced NF–kappaB activation and cytokine expression. Neumann A, et al. **FEBS Lett** 1999 Jun 25;453(3):283–7

Trace amounts of albumin protect against ischemia and reperfusion injury in isolated rat hearts. Watts JA, et al. **J Mol Cell Cardiol** 1999 Sep;31(9):1653–62

A method of computationally enhanced detection of chromatogram regions with apparent high relative agonist activity. Price JA. **J Pharmacol Toxicol Methods** 1998 Aug; 40(2):117–21

The neoglycoprotein mannose–bovine serum albumin, but not progesterone, activates T–type calcium channels in human spermatozoa. Blackmore PF, et al. **Mol Hum Reprod** 1999 Jun;5(6):498–506

Inhibition of choline acetyltransferase activity by serum albumin modified with octanoic acid and other fatty acids. Ninomiya Y, et al. **Neurochem Res** 1998 Oct;23(10):1303–11

Mechanisms of apomorphine cytoxicity towards rat glioma C6 cells: protection by bovine serum albumin and formation of apomorphine–protein conjugates. El–Bachá RS, et al. **Neurosci Lett** 1999 Mar 19;263(1):25–8

RADIATION EFFECTS

The hydroxyl free radical reactions of ascorbyl palmitate as measured in various in vitro models. Perricone N, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):661–5

Microwaves and heat in aldehyde fixation: model experiments with bovine serum albumin. Hopwood D. **Methods** 1998 Jun;15(2):119–22

THERAPEUTIC USE

Selective targeting and photodynamic destruction of intimal hyperplasia by scavenger–receptor mediated protein–chlorin e6 conjugates. Nagae T, et al. **J Cardiovasc Surg (Torino)** 1998 Dec;39(6):709–15

SERUM ALBUMIN, RADIO–IODINATED

PHARMACOKINETICS

Clearance of tracer albumin from peritoneal cavity to plasma at low intraperitoneal volumes and hydrostatic pressures. Zhu Q, et al. **Perit Dial Int** 1998 Sep–Oct;18(5):497–504

SERUM AMYLOID PROTEIN A see **AMYLOID PROTEIN SAA**

SERUM BACTERICIDAL TEST

The significance of serum vs tissue levels of antibiotics in the treatment of penicillin–resistant Streptococcus pneumoniae and community–acquired pneumonia: are we looking in the wrong place? Siegel RE. **Chest** 1999 Aug; 116(2):535–8

Microbiological assay of ampicillin in serum and aqueous humor of patients given ampicillin–sulbactam injection. Madhavan HN, et al. **Indian J Ophthalmol** 1998 Jun; 46(2):97–101

Comparison of bactericidal activity after multidose administration of clarithromycin, azithromycin, and ceruroxime axetil against Streptococcus pneumoniae. Lacy MK, et al. **Int J Antimicrob Agents** 1998 Nov;10(4):279–83

SERUM COMPLEMENT TITER see **COMPLEMENT HEMOLYTIC ACTIVITY ASSAY**

SERUM–FREE MEDIA see **CULTURE MEDIA, SERUM–FREE**

SERUM GLOBULINS

GENETICS

alpha2–macroglobulin– and murinoglobulin–1– deficient mice. A mouse model for acute pancreatitis. Umans L, et al. **Am J Pathol** 1999 Sep;155(3):983–93

Assignment of the alpha–1–microglobulin bikunin precursor (AMBP) gene to porcine chromosome 1 via a new PCR–based polymorphism. Allen MJ, et al. **J Anim Sci** 1999 Mar;77(3):789–90

Functional characterization of the bovine conglutinin promoter: presence of a novel element for transcriptional regulation of a C–type mammalian lectin containing a collagen–like domain. Kawasaki N, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1188–97

IMMUNOLOGY

Reactivity of native conglutinin in bovine serum with rabbit antibody against recombinant bovine conglutinin with deletion of the N–terminal and collagen–like regions. Sugii S, et al. **J Vet Med Sci** 1998 Nov;60(11):1255–7

ISOLATION & PURIFICATION

Use of metabolic profiles in dairy cattle in tropical and subtropical countries on smallholder dairy farms. Whitaker DA, et al. **Prev Vet Med** 1999 Jan 27;38(2–3):119–31

METABOLISM

Relationships between protein C, protein S, von Willebrand factor and euglobulin lysis time and cardiovascular risk factors in subjects with and without coronary heart disease. Dart AM, et al. **Atherosclerosis** 1998 Sep;140(1):55–64

SERUM MARKERS see **BIOLOGICAL MARKERS**

SERUM PROTEINS see **BLOOD PROTEINS**

SERUM SIALOMUCIN see **OROSOMUCOID**

SERUM SICKNESS

CHEMICALLY INDUCED

Suspected allergy to lamotrigine. Gücüyener K, et al. **Allergy** 1999 Jul;54(7):767–8

Bupropion hydrochloride induced serum sickness–like reaction. Tripathi A, et al. **Ann Allergy Asthma Immunol** 1999 Aug;83(2):165–6

Serum sickness–like reaction to itraconazole [letter] Park H, et al. **Ann Pharmacother** 1998 Nov;32(11):1249

Serum sickness induced by bupropion. Yolles JC, et al. **Ann Pharmacother** 1999 Sep;33(9):931–3

New warning about cefaclor and serum sickness in children [letter] Phillips R. **Aust Fam Physician** 1999 Jun;28(6):539

Serum sickness in a paediatric emergency department: the role of cefaclor [letter] Parshuram CS, et al. **J Paediatr Child Health** 1999 Apr;35(2):223–4 (6 ref.)

Cefaclor–associated serum sickness [letter; comment] Boyd IW. **Med J Aust** 1998 Oct 19;169(8):443–4. Comment on: Med J Aust 1998 Jul 20;169(2):116.

Serum sickness from funnelweb spider antivenom [letter] Miller MK, et al. **Med J Aust** 1999 Jul 5;171(1):54

ETIOLOGY

Serum sickness–like syndrome due to mosquito bite. Gaig P, et al. **J Investig Allergol Clin Immunol** 1999 May–Jun; 9(3):190–2

[Serum sickness in diphtheria] Vozianova ZhI, et al. **Lik Sprava** 1999 Apr–May;(3):126–8 (Eng. Abstr.) **(Ukr)**

IMMUNOLOGY

Expression of adhesion molecules in chronic serum sickness in rats. Benatuil L, et al. **Clin Immunol** 1999 Feb; 90(2):196–202

[Role of hyperbaric oxygenation in mechanisms correcting the immunological reactivity in endotoxic shock and serum sickness] D'iachkova SIa, et al. **Anesteziol Reanimatol** 1999 Jan–Feb;(1):56–8 (Eng. Abstr.) **(Rus)**

THERAPY

[Role of hyperbaric oxygenation in mechanisms correcting the immunological reactivity in endotoxic shock and serum sickness] D'iachkova SIa, et al. **Anesteziol Reanimatol** 1999 Jan–Feb;(1):56–8 (Eng. Abstr.) **(Rus)**

SERUM THYMIC FACTOR see **THYMIC FACTOR, CIRCULATING**

SERVICE, SOCIAL see **SOCIAL WORK**

SERVICES, HOSPITAL ANCILLARY see **ANCILLARY SERVICES, HOSPITAL**

SERVICES, OUTSOURCED see **OUTSOURCED SERVICES**

SERYL T RNA SYNTHETASE see **SERINE–TRNA LIGASE**

SERYLTRIHYDROXYBENZYLHYDRAZINE see **BENSERAZIDE**

SESAME OIL

ADVERSE EFFECTS

A case of sesame seed–induced anaphylaxis. Asero R, et al. **Allergy** 1999 May;54(5):526–7

Immediate hypersensitivity to sesame in foods and cosmetics. Pecquet C, et al. **Contact Dermatitis** 1998 Dec;39(6):313

SESAMOID BONES

Disorders of the hallux sesamoid complex: MR features. Karasick D, et al. **Skeletal Radiol** 1998 Aug;27(8):411–8 (30 ref.)

Congenital absence of the lateral metatarso–phalangeal sesamoid bone of the human hallux: a case report. Le Minor JM. **Surg Radiol Anat** 1999;21(3):225–7

INJURIES

Dislocation of the first metatarsophalangeal joint with fracture of fibular sesamoid. A case report. Hussain A. **Clin Orthop** 1999 Feb;(359):209–12

Sesamoid displacement: a rare cause of 'clicking thumb'. Deshmukh NV, et al. **Injury** 1999 Mar;30(2):141–3

Hallucal sesamoid pain: causes and surgical treatment. Richardson EG. **J Am Acad Orthop Surg** 1999 Jul–Aug; 7(4):270–8 (18 ref.)

Arthroscopic removal of abaxial fracture fragments of the proximal sesamoid bones in horses: 47 cases (1989–1997). Southwood LL, et al. **J Am Vet Med Assoc** 1998 Oct 1; 213(7):1016–21

Apical fracture of the proximal sesamoid bone in standardbred horses: 43 cases (1990–1996). Woodie JB, et al. **J Am Vet Med Assoc** 1999 Jun 1;214(11):1653–6

Use of electrocautery probes in arthroscopic removal of apical sesamoid fracture fragments in 18 Standardbred horses. Bouré L, et al. **Vet Surg** 1999 Jul–Aug;28(4):226–32

An in vitro biomechanical comparison of two fixation methods for transverse osteotomies of the medial proximal forelimb sesamoid bones in horses. Wilson DA, et al. **Vet Surg** 1999 Sep–Oct;28(5):355–67

[A case of sesamoid bone fragmentation in the leg as the cause of lameness in a female Rottweiler] Zabka A, et al. **Schweiz Arch Tierheilkd** 1999;141(4):195–201 (Eng. Abstr.) **(Ger)**

INNERVATION

Innervation of the equine mature and immature proximal sesamoid bone by calcitonin gene–related peptide and substance P–containing nerves. Cornelissen BP, et al. **Am J Vet Res** 1998 Nov;59(11):1378–85

RADIOGRAPHY

What is your diagnosis? A large, elongated mineral opacity extending proximal from the navicular bone. Blaik MA, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):481–2

Popliteal sesamoid displacement associated with cruciate rupture in the dog. de Rooster H, et al. **J Small Anim Pract** 1999 Jul;40(7):316–8

SURGERY

Arthroscopic medial bipartite sesamoidectomy of the great toe. Perez Carro L, et al. **Arthroscopy** 1999 Apr;15(3):321–3

Use of electrocautery probes in arthroscopic removal of apical sesamoid fracture fragments in 18 Standardbred horses. Bouré L, et al. **Vet Surg** 1999 Jul–Aug;28(4):226–32

SESQUITERPENES

Huperzine A—an interesting anticholinesterase compound from the Chinese herbal medicine. Patočka J. **Acta Medica (Hradec Kralove)** 1998;41(4):155–7 (19 ref.)

Huperzine A (shuangyiping): a promising drug for Alzheimer's disease. Tang XC. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov;17(6):481–4 (41 ref.)

[Contragestational effects of dihydroartemisinin and artesunate] Xu JH, et al. **Yao Hsueh Hsueh Pao** 1996; 31(9):657–61 (Eng. Abstr.) **(Chi)**

ADMINISTRATION & DOSAGE

Influence of blister packaging on the efficacy of artesunate + mefloquine over artesunate alone in community–based treatment of non–severe falciparum malaria in Myanmar. Shwe T, et al. **Bull World Health Organ** 1998;76 Suppl 1:35–41

Microscopic observations on livers of rabbits and dogs infected with Schistosoma japonicum cercariae and early treatment with artemether or praziquantel. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):167–70

Allergic contact dermatitis in food handlers, with patch tests positive to Compositae mix but negative to sesquiterpene lactone mix. Shum KW, et al. **Contact Dermatitis** 1998 Oct; 39(4):207–8

Intra–tumor injection of an angiogenesis inhibitor, TNP–470, in rabbits bearing VX2 carcinoma of the tongue. Matsumoto K, et al. **Int J Oral Maxillofac Surg** 1999 Apr; 28(2):118–24

Targeted delivery of anti–angiogenic agent TNP–470 using water–soluble polymer in the treatment of choroidal neovascularization. Yasukawa T, et al. **Invest Ophthalmol Vis Sci** 1999 Oct;40(11):2690–6

Inhibition of liver metastasis of human pancreatic carcinoma by angiogenesis inhibitor TNP–470 in combination with cisplatin. Shishido T, et al. **Jpn J Cancer Res** 1998 Sep; 89(9):963–9

Intrarectal artemisinin derivatives. Nosten F, et al. **Med Trop (Mars)** 1998;58(3 Suppl):63–4 (10 ref.)

ADVERSE EFFECTS

Adverse effects in patients with acute falciparum malaria treated with artemisinin derivatives. Price R, et al. **Am J Trop Med Hyg** 1999 Apr;60(4):547–55 (25 ref.)

Neurotoxicity of artemisinin: possible counseling and treatment of side effects. Elias Z, et al. **Clin Infect Dis** 1999 Jun;28(6):1330–1

Sesquiterpene lactone mix contact sensitivity and its relationship to chronic actinic dermatitis: a follow–up study. du P. Menagé H, et al. **Contact Dermatitis** 1998 Sep; 39(3):119–22

Allergic contact dermatitis associated with photosensitivity, from alantolactone in a chrysanthemum farmer. Kuno Y, et al. **Contact Dermatitis** 1999 Apr;40(4):224–5

Compositae mix is a more sensitive test for Compositae dermatitis than the sesquiterpene lactone mix. von der Werth JM, et al. **Contact Dermatitis** 1999 May;40(5):273–6

Factors relating to neurotoxicity of artemisinin antimalarial drugs "listening to arteether". Brewer TG, et al. **Med Trop (Mars)** 1998;58(3 Suppl):22–7 (20 ref.)

Neurotoxicity and artemisinin compounds do the observations in animals justify limitation of clinical use? Dayan AD. **Med Trop (Mars)** 1998;58(3 Suppl):32–7 (9 ref.)

In vitro neurotoxicity of artemisinin derivatives. McLean WG, et al. **Med Trop (Mars)** 1998;58(3 Suppl):28–31

Safety of artemisinin and its derivatives. A review of published and unpublished clinical trials. Ribeiro IR, et al. **Med Trop (Mars)** 1998;58(3 Suppl):50–3 (2 ref.)

Evidence for [2 + 2] photoreaction of alpha-methylene-gamma-butyrolactones with thymine: an explanation for chronic actinic dermatitis to sesquiterpene lactones? Berl V, et al. **Photochem Photobiol** 1999 Jun; 69(6):653–7

ANALYSIS

Rapid determination of artemisinin and related analogues using high-performance liquid chromatography and an evaporative light scattering detector. Avery BA, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 25;730(1):71–80

Qualitative and quantitative determination of sesquiterpenoids in Achillea species by reversed-phase high-performance liquid chromatography, mass-spectrometry and thin-layer chromatography. Glasl S, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1–2):361–8

BLOOD

Declining concentrations of dihydroartemisinin in plasma during 5-day oral treatment with artesunate for Falciparum malaria. Khanh NX, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):690–2

Plasma containing artemether-pyrimethamine has ex vivo blood schizonticidal activity against Plasmodium falciparum. Tan-ariya P, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):213–24

CHEMICAL SYNTHESIS

Synthesis and anticholinesterase activity of huperzine A analogues containing phenol and catechol replacements for the pyridone ring. Campiani G, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1413–8

Synthesis and acetylcholinesterase inhibitory activity of (+/-)-14-fluorohuperzine A. Zeng F, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1661–4

Current progress in the chemistry, medicinal chemistry and drug design of artemisinin based antimalarials. Vroman JA, et al. **Curr Pharm Des** 1999 Feb;5(2):101–38 (133 ref.)

Synthesis, in vitro pharmacology, and molecular modeling of very potent tacrine-huperzine A hybrids as acetylcholinesterase inhibitors of potential interest for the treatment of Alzheimer's disease. Camps P, et al. **J Med Chem** 1999 Aug 26;42(17):3227–42

Synthesis and antimalarial activities of fluoroalkyl derivatives of dihydroartemisinin. Thanh Nga TT, et al. **J Med Chem** 1998 Oct 8;41(21):4101–8

CHEMISTRY

Yomogin, an inhibitor of nitric oxide production in LPS-activated macrophages. Ryu JH, et al. **Arch Pharm Res** 1998 Aug;21(4):481–4

RAPD profile based genetic characterization of chemotypic variants of Artemisia annua L. Sangwan RS, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):935–44

Ptaquiloside Z, a new toxic unstable sesquiterpene glucoside from the neotropical bracken fern Pteridium aquilinum var. caudatum. Castillo UF, et al. **Bioorg Med Chem** 1998 Nov; 6(11):2229–33

KM-01, a brassinolide inhibitor, its production, isolation and structure from two fungi Drechslera avenae and Pycnoporus coccineus. Kim SK, et al. **Bioorg Med Chem** 1998 Nov;6(11):1975–82

Potent, easily synthesized huperzine A–tacrine hybrid acetylcholinesterase inhibitors. Carlier PR, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2335–8

Stability of acetal and non acetal-type analogs of artemisinin in simulated stomach acid. Jung M, et al. **Bioorg Med Chem Lett** 1998 May 5;8(9):1003–6

Interpreting the effect of methyl group at the three carbon bridge of (-)-huperzine A on its anticholinesterase activity by molecular dynamics method. Liu DX, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):419–22

Molecular dynamics of mouse acetylcholinesterase complexed with huperzine A. Tara S, et al. **Biopolymers** 1999 Oct 5;50(4):347–59

Stereoelectronic properties of antimalarial artemisinin analogues in relation to neurotoxicity. Bhattacharjee AK, et al. **Chem Res Toxicol** 1999 May;12(5):422–8

Biosynthesis of 3-acetyldeoxynivalenol and sambucinol. Identification of the two oxygenation steps after trichodiene. Zamir LO, et al. **J Biol Chem** 1999 Apr 30; 274(18):12269–77

Comparative molecular field analysis of artemisinin derivatives: ab initio versus semiempirical optimized structures. Tonmunphean S, et al. **J Comput Aided Mol Des** 1998 Jul;12(4):397–409

Comparison of 3D quantitative structure-activity relationship methods: analysis of the in vitro antimalarial activity of 154 artemisinin analogues by hypothetical active-site lattice and comparative molecular field analysis. Woolfrey JR, et al. **J Comput Aided Mol Des** 1998 Mar;12(2):165–81

Orally active, hydrolytically stable, semisynthetic, antimalarial trioxanes in the artemisinin family. Posner GH, et al. **J Med Chem** 1999 Jan 28;42(2):300–4

How Chinese scientists discovered qinghaosu (artemisinin) and developed its derivatives? What are the future perspectives? Li Y, et al. **Med Trop (Mars)** 1998;58(3 Suppl):9–12 (26 ref.)

The rational use of qinghaosu and its derivatives: what is the future of new compounds? Looareesuwan S, et al. **Med Trop (Mars)** 1998;58(3 Suppl):89–92 (10 ref.)

In vitro neurotoxicity of artemisinin derivatives. McLean WG, et al. **Med Trop (Mars)** 1998;58(3 Suppl):28–31

Positioning, labelling and control of medical information: artesunate strategy and Arsumax development story. Moneton P, et al. **Med Trop (Mars)** 1998;58(3 Suppl):70–2

Positioning, labelling, and medical information control of co-artemether tablets (CPG 56697): a fixed novel combination of artemether and benflumetol. Novartis Co-Artemether International Development Team. Skelton-Stroud P, et al. **Med Trop (Mars)** 1998;58(3 Suppl):77–81 (4 ref.)

Bioactive sesquiterpenes from Santolina rosmarinifolia subsp. Canescens. A conformational analysis of the germacrane ring. Barrero AF, et al. **Phytochemistry** 1999 Jun; 51(4):529–41

Sesquiterpene lactone glycosides from Lapsana communis L. subsp. communis. Fontanel D, et al. **Phytochemistry** 1999 Aug;51(8):999–1004

A sesquiterpene lactone glucoside from Ixeris denticulata f. pinnatipartita. Ma JY, et al. **Phytochemistry** 1999 Jan; 50(1):113–5

DIAGNOSTIC USE

Routine patch testing with the sesquiterpene lactone mix in Europe: a 2-year experience. A multicentre study of the EECDRG. Paulsen E, et al. **Contact Dermatitis** 1999 Feb; 40(2):72–6

ECONOMICS

Cost-effectiveness analysis of artesunate and quinine + tetracycline for the treatment of uncomplicated falciparum malaria in Chanthaburi, Thailand. Honrado ER, et al. **Bull World Health Organ** 1999;77(3):235–43

IMMUNOLOGY

The development of an immunoassay for the detection of artemisinin compounds in urine. Eggelte TA, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):449–56

ISOLATION & PURIFICATION

Structural analogues of cumambrin B from the flower of Chrysanthemum boreale. Jang DS, et al. **Arch Pharm Res** 1998 Oct;21(5):591–4

Medicinal flowers. I. Aldose reductase inhibitors and three new eudesmane-type sesquiterpenes, kikkanols A, B, and C, from the flowers of Chrysanthemum indicum L. Yoshikawa M, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar; 47(3):340–5

New sesquiterpenes from Crossopetalum tonduzii. Tincusi BM, et al. **J Nat Prod** 1998 Dec;61(12):1520–3

Cytotoxic activities of hypocretenolides from Leontodon hispidus. Zidorn C, et al. **J Nat Prod** 1999 Jul;62(7):984–7

Highly oxygenated bisabolenes and an acetylene from Matricaria aurea. Ahmed AA, et al. **Phytochemistry** 1999 Jun;51(4):551–4

Guaianolides from Centaurea nicolai: antifungal activity. Vajs V, et al. **Phytochemistry** 1999 Oct;52(3):383–6

Antimycobacterial eudesmanolides from Inula helenium and Rudbeckia subtomentosa. Cantrell CL, et al. **Planta Med** 1999 May;65(4):351–5

Cytotoxic sesquiterpene lactones from Inula britannica [letter] Park EJ, et al. **Planta Med** 1998 Dec;64(8):752–4

A new antiviral and antimicrobial sesquiterpene from Glyptopetalum sclerocarpum [letter] Sotanaphun U, et al. **Planta Med** 1999 Apr;65(3):257–8

Mono- and sesquiterpenes and antifungal constituents from Artemisia species. Tan RX, et al. **Planta Med** 1999 Feb; 65(1):64–7

Five new bioactive sesquiterpenes from the fungus Radulomyces confluens (Fr.) Christ. Fabian K, et al. **Z Naturforsch [C]** 1998 Nov-Dec;53(11-12):939–45

METABOLISM

Incorporation of 1-[1-(13)C]Deoxy-D-xylulose in chamomile sesquiterpenes. Adam KP, et al. **Arch Biochem Biophys** 1999 Sep 1;369(1):127–32

Airborne Compositae dermatitis: monoterpenes and no parthenolide are released from flowering Tanacetum parthenium (feverfew) plants. Christensen LP, et al. **Arch Dermatol Res** 1999 Jul-Aug;291(7-8):425–31

Drug uptake and cellular targets of hydroxymethylacylfulvene (HMAF). Herzig MC, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):217–25

Metabolism of antitumor hydroxymethylacylfulvene by rat liver cytosol. McMorris TC, et al. **Drug Metab Dispos** 1999 Sep;27(9):983–5

The contribution of the enzymes CYP2D6 and CYP2C19 in the demethylation of artemether in healthy subjects. van Agtmael MA, et al. **Eur J Drug Metab Pharmacokinet** 1998 Jul-Sep;23(3):429–36

EPR evidence for the involvement of free radicals in the iron-catalysed decomposition of qinghaosu (artemisinin) and some derivatives; antimalarial action of some polycyclic endoperoxides. Butler AR, et al. **Free Radic Res** 1998 May;28(5):471–6

Cloning and expression of a novel juvenile hormone-metabolizing epoxide hydrolase during larval-pupal metamorphosis of the cabbage looper, Trichoplusia ni. VanHook Harris S, et al. **Insect Mol Biol** 1999 Feb;8(1):85–96

Plant cell membranes as biochemical targets of the phytotoxin helminthosporol. Briquet M, et al. **J Bioenerg Biomembr** 1998 Jun;30(3):285–95

Comparison of 3D quantitative structure-activity relationship methods: analysis of the in vitro antimalarial activity of 154 artemisinin analogues by hypothetical active-site lattice and comparative molecular field analysis. Woolfrey JR, et al. **J Comput Aided Mol Des** 1998 Mar;12(2):165–81

Artemisinin and its derivatives are transported by a vacuolar-network of Plasmodium falciparum and their anti-malarial activities are additive with toxic sphingolipid analogues that block the network. Akompong T, et al. **Mol Biochem Parasitol** 1999 Jun 25;101(1–2):71–9

Microbial metabolism of artemisitene. Orabi KY, et al. **Phytochemistry** 1999 May;51(2):257–61

Cloning and bacterial expression of sesquiterpene cyclase, a key branch point enzyme for the synthesis of sesquiterpenoid phytoalexin capsidiol in UV-challenged leaves of Capsicum annuum. Back K, et al. **Plant Cell Physiol** 1998 Sep;39(9):899–904

Metabolism of artelinic acid to dihydroqinqhaosu by human liver cytochrome P4503A. Grace JM, et al. **Xenobiotica** 1999 Jul;29(7):703–17

PHARMACOKINETICS

A pharmacokinetic and pharmacodynamic study of artesunate for vivax malaria. Batty KT, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):823–7

The pharmacokinetics of artemisinin after administration of two different suppositories to healthy Vietnamese subjects. Koopmans R, et al. **Am J Trop Med Hyg** 1999 Feb; 60(2):244–7

Declining concentrations of dihydroartemisinin in plasma during 5-day oral treatment with artesunate for Falciparum malaria. Khanh NX, et al. **Antimicrob Agents Chemother** 1999 Mar;43(3):690–2

Pharmacokinetics of mefloquine combined with artesunate in children with acute falciparum malaria. Price R, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):341–6

Population pharmacokinetics and therapeutic response of CGP 56697 (artemether + benflumetol) in malaria patients. Ezzet F, et al. **Br J Clin Pharmacol** 1998 Dec;46(6):553–61

Assessment of the effect of malaria infection on hepatic clearance of dihydroartemisinin using rat liver perfusions and microsomes. Batty KT, et al. **Br J Pharmacol** 1998 Sep;125(1):159–67

Metabolic drug interactions between angiogenic inhibitor, TNP-470 and anticancer agents in primary cultured hepatocytes and microsomes. Placidi L, et al. **Drug Metab Dispos** 1999 May;27(5):623–6

High in situ rat intestinal permeability of artemisinin unaffected by multiple dosing and with no evidence of P-glycoprotein involvement. Svensson USH, et al. **Drug Metab Dispos** 1999 Feb;27(2):227–32

Grapefruit juice increases the bioavailability of artemether. van Agtmael MA, et al. **Eur J Clin Pharmacol** 1999 Jul; 55(5):405–10

Multiple dose pharmacokinetics of artemether in Chinese patients with uncomplicated falciparum malaria. van Agtmael MA, et al. **Int J Antimicrob Agents** 1999 Jul; 12(2):151–8

Pharmacokinetic and pharmacodynamic interactions of mefloquine and dihydroartemisinin. Na-Bangchang K, et al. **Int J Clin Pharmacol Res** 1999;19(1):9–17

Development of anti-influenza virus drugs I: improvement of oral absorption and in vivo anti-influenza activity of Stachyflin and its derivatives. Yagi S, et al. **Pharm Res** 1999 Jul;16(7):1041–6

Pharmacokinetic interactions of artemether and pyrimethamine in healthy male Thais. Tan-ariya P, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):18–23

The pharmacokinetics of artemisinin suppositories in Vietnamese patients with malaria. Koopmans R, et al. **Trans R Soc Trop Med Hyg** 1998 Jul-Aug;92(4):434–6

Pharmacology and toxicology of artelinic acid: preclinical investigations on pharmacokinetics, metabolism, protein and red blood cell binding, and acute and anorectic toxicities. Li QG, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):332–40

Quantitative in vivo and in vitro sex differences in artemisinin metabolism in rat. Ashton M, et al. **Xenobiotica** 1999 Feb;

29(2):195–204

PHARMACOLOGY

A pharmacokinetic and pharmacodynamic study of artesunate for vivax malaria. Batty KT, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):823–7

Synergism of benflumetol and artemether in Plasmodium falciparum. Hassan Alin M, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):439–45

In vitro activity of dihydroartemisinin against clinical isolates of Plasmodium falciparum in Yaounde, Cameroon. Ringwald P, et al. **Am J Trop Med Hyg** 1999 Aug; 61(2):187–92

Cytotoxic effects of MGI 114 are independent of tumor p53 or p21 expression. Izbicka E, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):1299–307

Yomogin, an inhibitor of nitric oxide production in LPS-activated macrophages. Ryu JH, et al. **Arch Pharm Res** 1998 Aug;21(4):481–4

Identification of a novel HA conformational change inhibitor of human influenza virus. Yoshimoto J, et al. **Arch Virol** 1999;144(5):865–78

Induction of low-density lipoprotein catabolism in Hep G2 cells by a fungal sesquiterpene ester, FR111142. Harada T, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):830–4

Sesquiterpene lactones inhibit inducible nitric oxide synthase gene expression in cultured rat aortic smooth muscle cells. Wong HR, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):375–80

Synthetic analogues of TNP-470 and ovalicin reveal a common molecular basis for inhibition of angiogenesis and immunosuppression. Turk BE, et al. **Bioorg Med Chem** 1998 Aug;6(8):1163–9

Interpreting the effect of methyl group at the three carbon bridge of (-)-huperzine A on its anticholinesterase activity by molecular dynamics method. Liu DX, et al. **Bioorg Med Chem Lett** 1998 Mar 3;8(5):419–22

Inhibitory effect and action mechanism of sesquiterpenes from Zedoariae Rhizoma on D-galactosamine/lipopolysaccharide-induced liver injury. Matsuda H, et al. **Bioorg Med Chem Lett** 1998 Feb 17; 8(4):339–44

Synthesis and acetylcholinesterase inhibitory activity of (+/-)-14-fluorohuperzine A. Zeng F, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1661–4

Increased transcriptional activity of prostate-specific antigen in the presence of TNP-470, an angiogenesis inhibitor. Horti J, et al. **Br J Cancer** 1999 Mar;79(9–10):1588–93

Synergistic action of apoptosis induced by eicosapentaenoic acid and TNP-470 on human breast cancer cells. Yamamoto D, et al. **Breast Cancer Res Treat** 1999 May; 55(2):149–60

In vitro sensitivity of Plasmodium falciparum to artesunate in Thailand. Wongsrichanalai C, et al. **Bull World Health Organ** 1999;77(5):392–8

Characterization of MGI 114 (HMAF) histiospecific toxicity in human tumor cell lines. Kelner MJ, et al. **Cancer Chemother Pharmacol** 1999;44(3):235–40

Inhibitory effect of artemether on proteinase of Schistosoma japonicum. Gong PL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 May;18(3):198–201

Facilitatory effect of huperzine-A on mouse neuromuscular transmission in vitro. Lin JH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul;17(4):299–301

Comparison between huperzine A, tacrine, and E2020 on cholinergic transmission at mouse neuromuscular junction in vitro. Lin JH, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jan;18(1):6–10

Effects of synthetic (-)-huperzine A on cholinesterase activities and mouse water maze performance. Liu J, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):413–6

Effects of suberogorgin and its derivates on learning and memory in mice. Peng WD, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):215–8

Inhibitory effect of suberogorgin on acetylcholinesterase. Peng WD, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Jul; 17(4):369–72

Anticholinesterase effects of huperzine A, E2020, and tacrine in rats. Wang H, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):27–30

Effect of artemether on glyceraldehyde-3-phosphate dehydrogenase, phosphoglycerate kinase, and pyruvate kinase of Schistosoma japonicum harbored in mice. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May; 19(3):279–81

Effect of artemether on glucose uptake and glycogen content in Schistosoma japonicum. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):363–7

Tegument changes of Schistosoma japonicum and Schistosoma mansoni in mice treated with artemether. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Nov; 17(6):535–7

Effects of huperzine A on nucleus basalis magnocellularis lesion-induced spatial working memory deficit. Xiong ZQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):128–32

Artemisinin blocks activating and slowly activating K+ current in guinea pig ventricular myocytes. Yang BF, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):269–72

Angiogenesis inhibitors endostatin or TNP-470 reduce intimal neovascularization and plaque growth in apolipoprotein E-deficient mice [see comments] Moulton KS, et al. **Circulation** 1999 Apr 6;99(13):1726–32. Comment in: Circulation 1999 Apr 6;99(13):1653–5.

Is feverfew a pharmacologic agent? [letter; comment] Wong HC. **CMAJ** 1999 Jan 12;160(1):21–2. Comment on: CMAJ 1998 Jul 14;159(1):47–54.

TNP-470 (a fungus-derived inhibitor of angiogenesis) reduces proliferation of cultured fibroblasts isolated from primary pterygia: a possible drug therapy for pterygia. Kria L, et al. **Curr Eye Res** 1998 Oct;17(10):986–93

Effect of dehydroleucodine on mucus production: a quantitative study. Penissi AB, et al. **Dig Dis Sci** 1999 Apr; 44(4):708–12

An analysis of low level doses of cholinesterase inhibitors in cultured neurons and hippocampal slices of rats. Rocha ES, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:191–200

Metabolic drug interactions between angiogenic inhibitor, TNP-470 and anticancer agents in primary cultured hepatocytes and microsomes. Placidi L, et al. **Drug Metab Dispos** 1999 May;27(5):623–6

Caulerpenyne interferes with microtubule-dependent events during the first mitotic cycle of sea urchin eggs. Pesando D, et al. **Eur J Cell Biol** 1998 Sep;77(1):19–26

Absence of an interaction between artesunate and atovaquone--proguanil. van Vugt M, et al. **Eur J Clin Pharmacol** 1999 Aug;55(6):469–74

Dialdehyde sesquiterpenes and other terpenoids as vanilloids. Szallasi A, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):81–9

The effect of the angiogenesis inhibitor TNP-470 on luteal establishment and function in the primate. Fraser HM, et al. **Hum Reprod** 1999 Aug;14(8):2054–60

Pharmacokinetic and pharmacodynamic interactions of mefloquine and dihydroartemisinin. Na-Bangchang K, et al. **Int J Clin Pharmacol Res** 1999;19(1):9–17

Induction of vascular endothelial growth factor (VEGF) by hyperthermia and/or an angiogenesis inhibitor. Kanamori S, et al. **Int J Hyperthermia** 1999 Jul–Aug;15(4):267–78

The anti-inflammatory sesquiterpene lactone helenalin inhibits the transcription factor NF-kappaB by directly targeting p65. Lyss G, et al. **J Biol Chem** 1998 Dec 11; 273(50):33508–16

Artemisinin, an endoperoxide antimalarial, disrupts the hemoglobin catabolism and heme detoxification systems in malarial parasite. Pandey AV, et al. **J Biol Chem** 1999 Jul 2;274(27):19383–8

Synthesis and antimalarial activities of fluoroalkyl derivatives of dihydroartemisinin. Thanh Nga TT, et al. **J Med Chem** 1998 Oct 8;41(21):4101–8

Alertenone, a dimer of suberosenone from Alertigorgia sp. Bokesch HR, et al. **J Nat Prod** 1999 Apr;62(4):633–5

Antimycobacterial activities of dehydrocostus lactone and its oxidation products. Cantrell CL, et al. **J Nat Prod** 1998 Oct;61(10):1181–6

Bioactive sesquiterpenes from a Taiwanese marine sponge Parahigginsia sp. Chen CY, et al. **J Nat Prod** 1999 Apr; 62(4):573–6

New melampolides from Schkuhria schkuhrioides. Delgado G, et al. **J Nat Prod** 1998 Sep;61(9):1082–5

Sesquiterpene esters from Celastrus orbiculatus and their structure-activity relationship on the modulation of multidrug resistance. Kim SE, et al. **J Nat Prod** 1999 May; 62(5):697–700

Phytoalexins from hairy roots of Hyoscyamus albus treated with methyl jasmonate. Kuroyanagi M, et al. **J Nat Prod** 1998 Dec;61(12):1516–9

Sesquiterpene esters of aristolochic acid from the root and stem of Aristolochia heterophylla. Wu TS, et al. **J Nat Prod** 1999 Mar;62(3):415–8

Guaianolides as immunomodulators. Synthesis and biological activities of dehydrocostus lactone, mokko lactone, eremanthin, and their derivatives. Yuuya S, et al. **J Nat Prod** 1999 Jan;62(1):22–30

Improving effects of huperzine A on spatial working memory in aged monkeys and young adult monkeys with experimental cognitive impairment. Ye JW, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):814–9

Screening of lipase inhibitors from marine algae. Bitou N, et al. **Lipids** 1999 May;34(5):441–5

Pharmacokinetics and pharmacodynamics of qinghaosu derivatives: how do they impact on the choice of drug and the dosage regimens? Kyle DE, et al. **Med Trop (Mars)** 1998;58(3 Suppl):38–44 (32 ref.)

In vitro susceptibility of African Plasmodium falciparum isolates to dihydroartemisinin and the risk factors for resistance to qinghaosu. Le Bras J. **Med Trop (Mars)** 1998; 58(3 Suppl):18–21

Artemisinin antimalarials: mechanisms of action and resistance. Meshnick SR. **Med Trop (Mars)** 1998;58(3 Suppl):13–7 (56 ref.)

Anti-tumor effect of angiogenesis inhibitor TNP-470 on the human nasopharyngeal carcinoma cell line NPC/HK1. Qian CN, et al. **Oncology** 1999 Jul;57(1):36–41

In vitro susceptibility of Gabonese wild isolates of Plasmodium falciparum to artemether, and comparison with chloroquine, quinine, halofantrine and amodiaquine. Pradines B, et al. **Parasitology** 1998 Dec;117 (Pt 6):541–5

In vitro sensitivity of artemeter in Plasmodium falciparum-infected beta-thalassaemic trait erythrocytes. Senok AC, et al. **Parasitology** 1999 Feb;118 (Pt 2):145–9

Development of anti-influenza virus drugs I: improvement of oral absorption and in vivo anti-influenza activity of Stachyflin and its derivatives. Yagi S, et al. **Pharm Res** 1999 Jul;16(7):1041–6

The rat Subcutaneous Air Sac model: a quantitative assay of antiangiogenesis in induced vessels. Lichtenberg J, et al. **Pharmacol Toxicol** 1999 Jan;84(1):34–40

Artemisinin-derived sesquiterpene lactones as potential antitumour compounds: cytotoxic action against bone marrow and tumour cells. Beekman AC, et al. **Planta Med** 1998 Oct;64(7):615–9

Inhibitory effect of sesquiterpene lactones from Saussurea lappa on tumor necrosis factor-alpha production in murine macrophage-like cells. Cho JY, et al. **Planta Med** 1998 Oct; 64(7):594–7

Effect of several sesquiterpene lactones on lipid peroxidation and glutathione level. Jodynis-Liebert J, et al. **Planta Med** 1999 May;65(4):320–4

A sesquiterpene, dehydrocostus lactone, inhibits the expression of inducible nitric oxide synthase and TNF-alpha in LPS-activated macrophages. Lee HJ, et al. **Planta Med** 1999 Mar;65(2):104–8

In vitro antifungal susceptibilities of Candida albicans and other fungal pathogens to polygodial, a sesquiterpene dialdehyde. Lee SH, et al. **Planta Med** 1999 Apr; 65(3):204–8

Low concentrations of the feverfew component parthenolide inhibit in vitro growth of tumor lines in a cytostatic fashion. Ross JJ, et al. **Planta Med** 1999 Mar;65(2):126–9

Antinociception caused by the extract of Hedyosmum brasiliense and its active principle, the sesquiterpene lactone 13-hydroxy-8,9-dehydroshizukanolide. Trentin AP, et al. **Planta Med** 1999 Aug;65(6):517–21

Molecular recognition of angiogenesis inhibitors fumagillin and ovalicin by methionine aminopeptidase 2. Griffith EC, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15183–8

Inhibition of tumor growth and microvascular angiogenesis by the potent angiogenesis inhibitor, TNP-470, in rats. Niwano M, et al. **Surg Today** 1998;28(9):915–22

Sensitivity in vitro of Plasmodium falciparum to three currently used antimalarial drugs on the western border of Thailand. Fèvre EM, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):180–4

[Study in the combining quantity of Con A-binding sites on membrane surface of artesunate-resistance strain of Plasmodium berghei] Liu AR, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar; 17(3):160–1 (Eng. Abstr.) **(Chi)**

RADIATION EFFECTS

Evidence for [2 + 2] photoreaction of alpha-methylene-gamma-butyrolactones with thymine: an explanation for chronic actinic dermatitis to sesquiterpene lactones? Berl V, et al. **Photochem Photobiol** 1999 Jun; 69(6):653–7

THERAPEUTIC USE

A randomized, double-blind, comparative trial of a new oral combination of artemether and benflumetol (CGP 56697) with mefloquine in the treatment of acute Plasmodium falciparum malaria in Thailand. Looareesuwan S, et al. **Am J Trop Med Hyg** 1999 Feb;60(2):238–43

Artesunate versus artemether for the treatment of recrudescent multidrug-resistant falciparum malaria. Price R, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):883–8

Efficacy of six doses of artemether-lumefantrine (benflumetol) in multidrug-resistant Plasmodium falciparum malaria. Vugt MV, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):936–42

Antitumour effects of the angiogenesis inhibitor AGM-1470 on rat urinary bladder tumours induced by N-butyl-N-(4-hydroxybutyl) nitrosamine. Osawa S, et al. **BJU Int** 1999 Jan;83(1):123–8

Compliance with artesunate and quinine + tetracycline treatment of uncomplicated falciparum malaria in Thailand. Fungladda W, et al. **Bull World Health Organ** 1998;76 Suppl 1:59–66

Antitumor effect of the angiogenesis inhibitor TNP-470 on human digestive organ malignancy. Konno H. **Cancer Chemother Pharmacol** 1999;43 Suppl:S85–9

Enhanced antitumor activity of 6-hydroxymethylacylfulvene in combination with irinotecan and 5-fluorouracil in the HT29 human colon tumor xenograft model. Britten CD, et al. **Cancer Res** 1999 Mar 1;59(5):1049–53

A novel animal model for hemangiomas: inhibition of hemangioma development by the angiogenesis inhibitor TNP-470. Liekens S, et al. **Cancer Res** 1999 May 15; 59(10):2376–83

Feverfew as a preventive treatment for migraine: a systematic review. Vogler BK, et al. **Cephalalgia** 1998 Dec; 18(10):704–8 (30 ref.)

Preventive effect of artemether on schistosome infection [published erratum appears in Chin Med J (Engl) 1998 May;111(5):465] Song Y, et al. **Chin Med J (Engl)** 1998 Feb;111(2):123–7

Preventive effect of artemether in rabbits infected with Schistosoma japonicum cercariae. Xiao SH, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):63–6

A phase I study of TNP-470 administered to patients with advanced squamous cell cancer of the cervix. Kudelka AP, et al. **Clin Cancer Res** 1997 Sep;3(9):1501–5

Suppression of coronary vasculitis in a murine model of Kawasaki disease using an angiogenesis inhibitor. Brahn E, et al. **Clin Immunol** 1999 Jan;90(1):147–51

Artemether for severe malaria: a meta-analysis of randomized

clinical trials. Pittler MH, et al. **Clin Infect Dis** 1999 Mar; 28(3):597–601

Efficacy of the fumagillin analog TNP–470 for Nucleospora salmonis and Loma salmonae infections in chinook salmon Oncorhynchus tshawytscha. Higgins MJ, et al. **Dis Aquat Organ** 1998 Sep 11;34(1):45–9

Comparison of rectal artemisinin with intravenous quinine in the treatment of severe malaria in Ethiopia. Birku Y, et al. **East Afr Med J** 1999 Mar;76(3):154–9

Efficacy of MGI 114 (6–hydroxymethylacylfulvene, HMAF) against the mdr1/gp170 metastatic MV522 lung carcinoma xenograft. Kelner MJ, et al. **Eur J Cancer** 1998 May; 34(6):908–13

Effect of alpha,beta–arteether against primary amoebic meningoencephalitis in Swiss mice. Gupta S, et al. **Indian J Exp Biol** 1998 Aug;36(8):824–5

Antiinflammatory potency of dehydrocurdione, a zedoary–derived sesquiterpene. Yoshioka T, et al. **Inflamm Res** 1998 Dec;47(12):476–81

The comparative efficacy and tolerability of CGP 56697 (artemether + lumefantrine) versus halofantrine in the treatment of uncomplicated falciparum malaria in travellers returning from the Tropics to The Netherlands and France. van Agtmael M, et al. **Int J Antimicrob Agents** 1999 Jul; 12(2):159–69

Therapeutic potential of the anti–angiogenesis drug TNP–470. Gervaz P, et al. **Int J Exp Pathol** 1998 Dec; 79(6):359–62 (30 ref.)

A comparison of three different dihydroartemisinin formulations for the treatment of acute uncomplicated falciparum malaria in Thailand. Wilairatana P, et al. **Int J Parasitol** 1998 Aug;28(8):1213–8

Inhibitory effect of TNP–470 on experimental choroidal neovascularization in a rat model. Ishida K, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1512–9

The antiangiogenic agents TNP–470 and 2–methoxyestradiol inhibit the growth of angiosarcoma in mice. Arbiser JL, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):925–9

Plasma levels of the interleukin–6 cytokine family in persons with severe Plasmodium falciparum malaria. Wenisch C, et al. **J Infect Dis** 1999 Mar;179(3):747–50

Primary study in experimental antiangiogenic therapy of nasopharyngeal carcinoma with AGM–1470 (TNP–470). Qian CN, et al. **J Laryngol Otol** 1998 Sep;112(9):849–53

Effect of the chloroform extract of Tanacetum vulgare and one of its active principles, parthenolide, on experimental gastric ulcer in rats. Tournier H, et al. **J Pharm Pharmacol** 1999 Feb;51(2):215–9

Telomerase activity correlates with growth of transplantable osteosarcomas in rats treated with cis–diammine dichloroplatinum or the angiogenesis inhibitor AGM–1470. Kido A, et al. **Jpn J Cancer Res** 1998 Oct;89(10):1074–81

Averting a malaria disaster [see comments] White NJ, et al. **Lancet** 1999 Jun 5;353(9168):1965–7. Comment in: Lancet 1999 Jul 17;354(9174):258.

The rational use of qinghaosu and its derivatives in the treatment of malaria in 1998 [editorial] Ambroise–Thomas P. **Med Trop (Mars)** 1998;58(3 Suppl):6–8 **(Eng, Fre)**

The role of the qinghaosu derivatives in the treatment of severe malaria. Boele van Hensbroek M. **Med Trop (Mars)** 1998;58(3 Suppl):59–60 (10 ref.)

Neurotoxicity and artemisinin compounds do the observations in animals justify limitation of clinical use? Dayan AD. **Med Trop (Mars)** 1998;58(3 Suppl):32–7 (9 ref.)

What role can public health institutions play in drug development for the poor? A case study of artesunate. Gomes M, et al. **Med Trop (Mars)** 1998;58(3 Suppl):97–100 (10 ref.)

What have been the strategies for the registration, positioning and control of medical information for intramuscular artemether? Helenport JP, et al. **Med Trop (Mars)** 1998;58(3 Suppl):73–6 (22 ref.)

Pharmacokinetics and pharmacodynamics of qinghaosu derivatives: how do they impact on the choice of drug and the dosage regimens? Kyle DE, et al. **Med Trop (Mars)** 1998;58(3 Suppl):38–44 (32 ref.)

How Chinese scientists discovered qinghaosu (artemisinin) and developed its derivatives? What are the future perspectives? Li Y, et al. **Med Trop (Mars)** 1998;58(3 Suppl):9–12 (26 ref.)

The rational use of qinghaosu and its derivatives: what is the future of new compounds? Looareesuwan S, et al. **Med Trop (Mars)** 1998;58(3 Suppl):89–92 (10 ref.)

Treatment of uncomplicated malaria with artemisinin derivatives. A systematic review of randomised controlled trials. McIntosh HM, et al. **Med Trop (Mars)** 1998;58(3 Suppl):57–8 (1 ref.)

Treatment of severe malaria with artemisinin derivatives. A systematic review of randomised controlled trials. McIntosh HM, et al. **Med Trop (Mars)** 1998;58(3 Suppl):61–2

Positioning, labelling and control of medical information: artesunate strategy and Arsumax development story. Moneton P, et al. **Med Trop (Mars)** 1998;58(3 Suppl):70–2

Use of artemisinin derivatives for the control of malaria [published erratum appears in Med Trop (Mars) 1998;58(4):368] Nosten F, et al. **Med Trop (Mars)** 1998;58(3 Suppl):45–9 (13 ref.)

Artemisinin and its derivatives: the regulatory and policy implications for African countries. Salako L. **Med Trop (Mars)** 1998;58(3 Suppl):82–4

What are the World Health Organization's strategies for meeting regulatory requirements? A case study of artesunate. Tabusso G, et al. **Med Trop (Mars)** 1998;58(3 Suppl):65–9

Artemisinin and derivatives in the treatment of uncomplicated malaria. White NJ, et al. **Med Trop (Mars)** 1998;58(3 Suppl):54–6 (28 ref.)

Qinghaosu in combinations. White NJ. **Med Trop (Mars)** 1998;58(3 Suppl):85–8 (19 ref.)

Studies on hepatic oxidative stress and antioxidant defence systems during arteether treatment of Plasmodium yoelii nigeriensis infected mice. Siddiqi NJ, et al. **Mol Cell Biochem** 1999 Jun;196(1–2):169–73

Time until initiation of tumor growth is an effective measure of the anti–angiogenic effect of TNP–470 on human glioblastoma in nude mice. Kragh M, et al. **Oncol Rep** 1999 Jul–Aug;6(4):759–62

Clinical trials referral resource. Clinical trials of MGI–114. Murgo A, et al. **Oncology (Huntingt)** 1999 Feb;13(2):233, 237–8 (13 ref.)

Effectiveness of alpha–beta arteether in clearing Plasmodium falciparum parasitemia in central India (Madhya Pradesh). Singh N, et al. **Southeast Asian J Trop Med Public Health** 1998 Jun; 29(2):225–7

Importance of timing and length of administration of angiogenesis inhibitor TNP–470 in the treatment of K12/TRb colorectal hepatic metastases in BD–IX rats. Watson JC, et al. **Surgery** 1999 Aug;126(2):358–63

Two patients with falciparum malaria and poor in vivo responses to artesunate. Luxemburger C, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec;92(6):668–9

Artemisinin derivatives in the treatment of falciparum malaria in pregnancy. McGready R, et al. **Trans R Soc Trop Med Hyg** 1998 Jul–Aug;92(4):430–3

Artesunate and mefloquine in the treatment of uncomplicated multidrug–resistant hyperparasitaemic falciparum malaria. Price R, et al. **Trans R Soc Trop Med Hyg** 1998 Mar–Apr; 92(2):207–11

Artemisinin drugs in the treatment of malaria: from medicinal herb to registered medication. van Agtmael MA, et al. **Trends Pharmacol Sci** 1999 May;20(5):199–205 (110 ref.)

Short course of azithromycin/artesunate against falciparum malaria: no full protection against recrudescence [letter] de Vries PI, et al. **Trop Med Int Health** 1999 May; 4(5):407–8

Regression of metastatic breast cancer in a patient treated with the anti–angiogenic drug TNP–470. Offodile R, et al. **Tumori** 1999 Jan–Feb;85(1):51–3

[Efficacy of dihydroartemisinin in treatment of 37 malaria cases] Xu C, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Mar; 36(3):187–9 (Eng. Abstr.) **(Chi)**

[Comparison on treatment of falciparum malaria with different courses of artesunate tablet] Li GQ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar; 17(3):143–4 (Eng. Abstr.) **(Chi)**

[Current data on major novel antiamalaria drugs: Artemisinin (qinghaosu) derivatives] Ambroise–Thomas P. **Bull Acad Natl Med** 1999;183(4):797–80; discussion 810–3 (60 ref.) (Eng. Abstr.) **(Fre)**

[Rapid resolution of Plasmodium ovale malarial attacks using artesunate (Arsumax)] Same–Ekobo A, et al. **Med Trop (Mars)** 1999;59(1):43–5 (Eng. Abstr.) **(Fre)**

[New antimalarial drugs] Ambroise–Thomas P. **Rev Prat** 1998 Feb 1;48(3):287–90 (21 ref.) (Eng. Abstr.) **(Fre)**

[Therapeutic effect of angiogenesis inhibitors on liver metastases of human colorectal carcinoma] Konno H, et al. **Nippon Geka Gakkai Zasshi** 1998 Jul;99(7):441–5 (17 ref.) (Eng. Abstr.) **(Jpn)**

[Therapeutic evaluation of artesunate in experimental Schistosoma mansoni infection] Araújo N, et al. **Rev Soc Bras Med Trop** 1999 Jan–Feb;32(1):7–12 (Eng. Abstr.) **(Por)**

TOXICITY

Assessment of the neurotoxicity of parenteral artemisinin derivatives in mice. Nontprasert A, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):519–22

Stereoelectronic properties of antimalarial artemisinin analogues in relation to neurotoxicity. Bhattacharjee AK, et al. **Chem Res Toxicol** 1999 May;12(5):422–8

The role of iron in neurotoxicity: a study of novel antimalarial drugs. Smith SL, et al. **Neurotoxicology** 1998 Aug–Oct; 19(4–5):557–9

URINE

The development of an immunoassay for the detection of artemisinin compounds in urine. Eggelte TA, et al. **Am J Trop Med Hyg** 1999 Sep;61(3):449–56

SET (PSYCHOLOGY)

Mental health expectancy: an indicator to bridge the gap between clinical and public health perspectives of population mental health. Gispert R, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):182–6

Two tests of instance–based and abstract rule–based accounts of invariant learning. Ward G, et al. **Acta Psychol (Amst)** 1998 Sep;99(3):235–53

A prototype analysis of psychological situations through the lens of alcohol expectancies and gender. Corcoran KJ, et al. **Addict Behav** 1998 Sep–Oct;23(5):685–91

Improving credibility of instructions in the balanced placebo design: a misattribution manipulation. Epps J, et al. **Addict Behav** 1998 Jul–Aug;23(4):427–35

Social skills, expectancies, and drinking in adolescents. Gaffney LR, et al. **Addict Behav** 1998 Sep–Oct;23(5):587–99

Verbal expectancies and performance after alcohol. Hammersley R, et al. **Addict Behav** 1998 Jul–Aug; 23(4):489–96

Habit control expectancy for drinking, smoking, and eating. Schneider HG, et al. **Addict Behav** 1998 Sep–Oct; 23(5):601–7

Differences in alcohol expectancy between aggressive and nonaggressive social drinkers. Bjork JM, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):1943–50

Do young children of alcoholics hold more positive or negative alcohol–related expectancies than controls? Wiers RW, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1855–63

Fear of blushing: fearful preoccupation irrespective of facial coloration. Mulkens S, et al. **Behav Res Ther** 1999 Nov; 37(11):1119–28

Enhanced visual latent inhibition in obsessive–compulsive disorder. Swerdlow NR, et al. **Biol Psychiatry** 1999 Feb 15;45(4):482–8

Signal–, set– and movement–related activity in the human brain: an event–related fMRI study [published erratum appears in Cereb Cortex 1999 Mar;9(2):196] Toni I, et al. **Cereb Cortex** 1999 Jan–Feb;9(1):35–49

Effects of priming positive and negative outcomes on drinking responses. Carter JA, et al. **Exp Clin Psychopharmacol** 1998 Nov;6(4):399–405

Possible precursors of gender drinking differences. Johnson HL, et al. **J Addict Dis** 1998;17(3):1–12

Perceiving individuals and groups: expectancies, dispositional inferences, and causal attributions. Susskind J, et al. **J Pers Soc Psychol** 1999 Feb;76(2):181–91

Measuring treatment process beliefs among staff of specialized addiction treatment services [letter; comment] Franken IH. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):1 , Comment on: J Subst Abuse Treat 1998 Jul–Aug;15(4):301–12.

When believing is seeing: the effect of scripts on eyewitness memory. Greenberg MS, et al. **Law Hum Behav** 1998 Dec; 22(6):685–94

Preoperative expectations of pain and recovery in relation to postoperative disappointment in patients undergoing lumbar surgery. de Groot KI, et al. **Med Care** 1999 Feb; 37(2):149–56

Cue set size effects: sampling activated associates or cross–target interference? Nelson DL, et al. **Mem Cognit** 1999 May;27(3):465–77

The popout in some conjunction searches is due to perceptual grouping. Hegdé J, et al. **Neuroreport** 1999 Jan 18; 10(1):143–8

Can new objects override attentional control settings? Folk CL, et al. **Percept Psychophys** 1999 May;61(4):727–39

Covert signs of expectancy in serial reaction time tasks revealed by event–related potentials. Sommer W, et al. **Percept Psychophys** 1999 Feb;61(2):342–53

Stressful events, pessimism, natural killer cell cytotoxicity, and cytotoxic/suppressor T cells in HIV+ black women at risk for cervical cancer. Byrnes DM, et al. **Psychosom Med** 1998 Nov–Dec;60(6):714–22

[Individual differences in spatial organization of cortical electrical activity during formation of a set to visual stimuli] Cheremushkin EA. **Fiziol Cheloveka** 1998 Sep–Oct; 24(5):129–31 **(Rus)**

[The formation of a set based on illusory representations and during the perception of concrete visual stimuli] Kostandov EA. **Fiziol Cheloveka** 1999 Jan–Feb;25(1):5–14 **(Rus)**

[The neurochemical set of the brain––an extra–immune mechanism of psychoneuroimmunomodulation] Devoino LV, et al. **Vestn Ross Akad Med Nauk** 1998;(9):19–24 (Eng. Abstr.) **(Rus)**

[Changes in the cortical electrical activity during the formation in man of a visual set] Cheremushkin EA, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Jul–Aug; 48(4):757–65 (Eng. Abstr.) **(Rus)**

SETARIA

CHEMISTRY

Apoptosis induced by filarial parasitic sheath protein in HEp 2 cell lines blocked by ectopic expression of bcl 2. Krishnamoorthy B, et al. **Cell Biol Int** 1998;22(7–8):483–92

DRUG EFFECTS

Quinone analogue irrecoverably paralyses the filarial parasites in vitro. Sivan VM, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):81–3

5/6/7/8 mono or disubstituted 1H/1–phenyl–9H–pyrido [3,4 b] indoles––a new class of antifilarial agents and their relationship with voltage sensitive calcium channels in Setaria cervi. Kapoor S, et al. **Indian J Exp Biol** 1998 Sep; 36(9):887–90

Antifilarial activity of Mallotus philippensis Lam. on Setaria cervie (Nematoda: Filarioidea) in vitro. Singh R, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):397–403

ENZYMOLOGY

Characterization of secretory acetylcholinesterase from

SETARIA

Setaria cervi microfilariae: a potential antigen for diagnosis of human filariasis. Sharma S, et al. **Trop Med Int Health** 1999 May;4(5):341–8

GENETICS

Molecular characterisation of a hsp70 gene from the filarial parasite Setaria digitata. Jayasena SM, et al. **Int J Parasitol** 1999 Apr;29(4):581–91

IMMUNOLOGY

Immune response of electroeluted detergent soluble 29 kDa antigen from Setaria digitata (Von Linstow). John L, et al. **Indian J Exp Biol** 1998 Sep;36(9):862–6

ISOLATION & PURIFICATION

Setaria digitata in cattle of Thailand identified by sodium dodecyl sulfate polyacrylamide gel electrophoresis. Subhachalat P, et al. **J Vet Med Sci** 1999 Apr;61(4):443–5

Patent infection with Setaria digitata in goats in Saudi Arabia. El-Azazy OM, et al. **Vet Parasitol** 1999 Mar 31;82(2):161–6

A sensitive polymerase chain reaction based assay for the detection of Setaria digitata: the causative organism of cerebrospinal nematodiasis in goats, sheep and horses. Wijesundera WS, et al. **Vet Parasitol** 1999 Mar 1; 81(3):225–33

METABOLISM

Presence and formation of heme and occurrence of certain heme proteins in the filarial parasite Setaria digitata. Kumar RA, et al. **Biochem Biophys Res Commun** 1998 Dec 9; 253(1):49–52

SETARIASIS

DIAGNOSIS

A sensitive polymerase chain reaction based assay for the detection of Setaria digitata: the causative organism of cerebrospinal nematodiasis in goats, sheep and horses. Wijesundera WS, et al. **Vet Parasitol** 1999 Mar 1; 81(3):225–33

EPIDEMIOLOGY

Setaria digitata in cattle of Thailand identified by sodium dodecyl sulfate polyacrylamide gel electrophoresis. Subhachalat P, et al. **J Vet Med Sci** 1999 Apr;61(4):443–5

Patent infection with Setaria digitata in goats in Saudi Arabia. El-Azazy OM, et al. **Vet Parasitol** 1999 Mar 31;82(2):161–6

IMMUNOLOGY

Delayed clearance of filarial infection and enhanced Th1 immunity due to modulation of macrophage APC functions in xid mice. Mukhopadhyay S, et al. **J Immunol** 1999 Jul 15;163(2):875–83

PARASITOLOGY

Delayed clearance of filarial infection and enhanced Th1 immunity due to modulation of macrophage APC functions in xid mice. Mukhopadhyay S, et al. **J Immunol** 1999 Jul 15;163(2):875–83

17TH CENT. HISTORY see **HISTORY OF MEDICINE, 17TH CENT.**

17TH CENT. HISTORY (MEDICINE) see **HISTORY OF MEDICINE, 17TH CENT.**

17TH CENT. MEDICINE see **HISTORY OF MEDICINE, 17TH CENT.**

SEVENTH CRANIAL NERVE see **FACIAL NERVE**

SEVENTH-DAY ADVENTISTS see **CHRISTIANITY**

SEVERE COMBINED IMMUNODEFICIENCY

Transplantation of CD34 human cells into mice with severe combined immunodeficiency results in functional T cells 4 weeks after transplantation. Polcaro J, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):80–6

Severe combined immunodeficiency with B-lymphocytes (T-B+SCID): report of two cases. Lin JS, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1998 Nov-Dec;39(6):406–11

[Bare lymphocyte syndrome] Kokawa T. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):245–6 (11 ref.) **(Jpn)**

[Adenosine deaminase deficiency] Okawa H. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):240–2 (10 ref.) **(Jpn)**

[Reticular dysgenesis] Okawa H. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):243–4 (6 ref.) **(Jpn)**

[Severe combined immunodeficiency] Okawa H. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):235–9 (12 ref.) **(Jpn)**

COMPLICATIONS

Severe combined immunodeficiency: otolaryngological presentation and management. Stocks RM, et al. **Ann Otol Rhinol Laryngol** 1999 Apr;108(4):403–7

Oral and genital ulceration: a unique presentation of immunodeficiency in Athabascan-speaking American Indian children with severe combined immunodeficiency. Kwong PC, et al. **Arch Dermatol** 1999 Aug;135(8):927–31

Interferon alpha treatment of molluscum contagiosum in immunodeficiency. Hourihane J, et al. **Arch Dis Child** 1999 Jan;80(1):77–9

Severe combined immunodeficiency in an infant with multiple congenital abnormalities. Tangsinmankong N, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1222–3

CONGENITAL

Association of reticular dysgenesis (thymic alymphoplasia and congenital aleukocytosis) with bilateral sensorineural deafness. Small TN, et al. **J Pediatr** 1999 Sep;135(3):387–9

Treatment of severe combined immunodeficiency [letter; comment] Flake AW, et al. **N Engl J Med** 1999 Jul 22; 341(4):291–2. Comment on: N Engl J Med 1999 Feb 18;340(7):508–16.

DIAGNOSIS

Simplified method of identifying severe combined immunodeficient (SCID) mice versus non-SCID mice by flow cytometric analysis of peripheral blood. Murray S, et al. **Cytometry** 1998 Aug 1;32(4):274–9

Association of reticular dysgenesis (thymic alymphoplasia and congenital aleukocytosis) with bilateral sensorineural deafness. Small TN, et al. **J Pediatr** 1999 Sep;135(3):387–9

Prenatal diagnosis of JAK3 deficient SCID. Schumacher RF, et al. **Prenat Diagn** 1999 Jul;19(7):653–6

EMBRYOLOGY

Immune reconstitution after in utero bone marrow transplantation in a fetus with severe combined immunodeficiency with natural killer cells. Gil J, et al. **Transplant Proc** 1999 Sep;31(6):2581

Stem cell transplants in utero for genetic diseases: treatment and a model for induction of immunologic tolerance. Touraine JL, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):681-2

ETIOLOGY

Expansion of gammadelta T cells in an infant with severe combined immunodeficiency syndrome after disseminated BCG infection and bone marrow transplantation. Fisch P, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1218–9

[PNP deficiency] Sato T, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):228–31 (16 ref.) **(Jpn)**

GENETICS

Adenosine deaminase deficiency: genotype-phenotype correlations based on expressed activity of 29 mutant alleles. Arredondo-Vega FX, et al. **Am J Hum Genet** 1998 Oct;63(4):1049–59

Interleukin-2 signaling and inherited immunodeficiency. Cacalano NA, et al. **Am J Hum Genet** 1999 Aug; 65(2):287–93 (30 ref.)

The bare lymphocyte syndrome: molecular clues to the transcriptional regulation of major histocompatibility complex class II genes. DeSandro A, et al. **Am J Hum Genet** 1999 Aug;65(2):279–86 (41 ref.)

T-cell receptor analysis in Omenn's syndrome: evidence for defects in gene rearrangement and assembly. Brooks EG, et al. **Blood** 1999 Jan 1;93(1):242–50

gammac gene transfer in the presence of stem cell factor, FLT-3L, interleukin-7 (IL-7), IL-1, and IL-15 cytokines restores T-cell differentiation from gammac(-) X-linked severe combined immunodeficiency hematopoietic progenitor cells in murine fetal thymic organ cultures. Hacein-Bey S, et al. **Blood** 1998 Dec 1;92(11):4090–7

Functional role of interleukin-4 (IL-4) and IL-7 in the development of X-linked severe combined immunodeficiency. Kumaki S, et al. **Blood** 1999 Jan 15; 93(2):607–12

Molecular and biochemical characterization of JAK3 deficiency in a patient with severe combined immunodeficiency over 20 years after bone marrow transplantation: implications for treatment. Bozzi F, et al. **Br J Haematol** 1998 Sep;102(5):1363–6

Identification of X-linked severe combined immunodeficiency by mutation analysis of blood and hair roots. Ting SS, et al. **Br J Haematol** 1999 Jul;106(1):190–4

A novel mutant gammac chain from a patient with typical phenotype of X-linked severe combined immunodeficiency (SCID) has partial signalling function for mediating IL-2 and IL-4 receptor action. Kumaki S, et al. **Clin Exp Immunol** 1999 Feb;115(2):356–61

Autosomal SCID caused by a point mutation in the N-terminus of Jak3: mapping of the Jak3-receptor interaction domain. Cacalano NA, et al. **EMBO J** 1999 Mar 15;18(6):1549–58

Mutations in the gene for the common gamma chain (gammac) in X-linked severe combined immunodeficiency. Fugmann SD, et al. **Hum Genet** 1998 Dec;103(6):730–1

A G to A transition at the last nucleotide of exon 6 of the gamma c gene (868G—>A) may result in either a splice or missense mutation in patients with X-linked severe combined immunodeficiency [published erratum appears in Hum Genet 1999 Feb;104(2):196] Kanai N, et al. **Hum Genet** 1999 Jan;104(1):36–42

Seven novel mutations in the adenosine deaminase (ADA) gene in patients with severe and delayed onset combined immunodeficiency: G74C, V129M, G140E, R149W, Q199P, 462delG, and E337del. Mutations in brief no. 142. Online Arrendondo-Vega FX, et al. **Hum Mutat** 1998; 11(6):482

A defect in the nuclear translocation of CIITA causes a form of type II bare lymphocyte syndrome. Cressman DE, et al. **Immunity** 1999 Feb;10(2):163–71

RFX-B is the gene responsible for the most common cause of the bare lymphocyte syndrome, an MHC class II immunodeficiency [published erratum appears in Immunity 1999 Mar;10(3):399] Nagarajan UM, et al. **Immunity** 1999 Feb;10(2):153–62

Targeted disruption of the catalytic subunit of the DNA-PK gene in mice confers severe combined immunodeficiency and radiosensitivity. Taccioli GE, et al. **Immunity** 1998 Sep; 9(3):355–66

Absence of MHC class II gene expression in a patient with a single amino acid substitution in the class II transactivator protein CIITA. Quan V, et al. **Immunogenetics** 1999 Oct; 49(11-12):957–63

Omenn syndrome: a disorder of Rag1 and Rag2 genes. Villa A, et al. **J Clin Immunol** 1999 Mar;19(2):87–97 (70 ref.)

Splice acceptor site mutation of the transporter associated with antigen processing-1 gene in human bare lymphocyte syndrome. Furukawa H, et al. **J Clin Invest** 1999 Mar; 103(5):755–8

Immunodeficiency due to defective antigen processing: the molecular basis for type 1 bare lymphocyte syndrome. Raghavan M. **J Clin Invest** 1999 Mar;103(5):595–6

A novel immunodeficient mouse model--RAG2 x common cytokine receptor gamma chain double mutants--requiring exogenous cytokine administration for human hematopoietic stem cell engraftment. Mazurier F, et al. **J Interferon Cytokine Res** 1999 May;19(5):533–41

Mosaicism in X-linked severe combined immunodeficiency. Ting SS, et al. **J Pediatr** 1998 Oct;133(4):575–6

Signal joint formation is inhibited in murine scid preB cells and fibroblasts in substrates with homopolymeric coding ends. Sun T, et al. **Mol Immunol** 1999 Jun;36(8):551–8

Defective IL7R expression in T(-)B(+)NK(+) severe combined immunodeficiency. Puel A, et al. **Nat Genet** 1998 Dec;20(4):394–7

X-linked SCID and other defects of cytokine pathways. Uribe L, et al. **Semin Hematol** 1998 Oct;35(4):299–309 (70 ref.)

IMMUNOLOGY

T-cell receptor analysis in Omenn's syndrome: evidence for defects in gene rearrangement and assembly. Brooks EG, et al. **Blood** 1999 Jan 1;93(1):242–50

Immune reconstitution after bone marrow transplantation for combined immunodeficiencies: down-modulation of Bcl-2 and high expression of CD95/Fas account for increased susceptibility to spontaneous and activation-induced lymphocyte cell death. Brugnoni D, et al. **Bone Marrow Transplant** 1999 Mar;23(5):451–7

Successful human umbilical cord blood stem cell transplantation without conditioning in severe combined immune deficiency. Toren A, et al. **Bone Marrow Transplant** 1999 Feb;23(4):405–8

Accumulation of immunoglobulin-containing cells in the gut mucosa and presence of faecal immunoglobulin in severe combined immunodeficient (scid) mice with T cell-induced inflammatory bowel disease (IBD). Bregenholt S, et al. **Clin Exp Immunol** 1998 Oct;114(1):19–25

Elevation of serum IgE level and peripheral eosinophil count during T lymphocyte-directed gene therapy for ADA deficiency: implication of Tc2-like cells after gene transduction procedure. Kawamura N, et al. **Immunol Lett** 1998 Nov;64(1):49–53

Ecto-ADA in the development of the immune system [letter; comment] Lluis C, et al. **Immunol Today** 1998 Nov; 19(11):533–4. Comment on: Immunol Today 1997 Aug;18(8):371–4.

The extracellular versus intracellular mechanisms of inhibition of TCR-triggered activation in thymocytes by adenosine under conditions of inhibited adenosine deaminase. Apasov SG, et al. **Int Immunol** 1999 Feb; 11(2):179–89

A comparison of an anti-gastrin antibody and cytotoxic drugs in the therapy of human gastric ascites in SCID mice. Watson SA, et al. **Int J Cancer** 1999 Apr 12;81(2):248–54

Immunodeficiency due to defective antigen processing: the molecular basis for type 1 bare lymphocyte syndrome. Raghavan M. **J Clin Invest** 1999 Mar;103(5):595–6

Colitis-inducing potency of CD4+ T cells in immunodeficient, adoptive hosts depends on their state of activation, IL-12 responsiveness, and CD45RB surface phenotype. Claesson MH, et al. **J Immunol** 1999 Mar 15; 162(6):3702–10

In vivo kinetics of transduced cells in peripheral T cell-directed gene therapy: role of CD8+ cells in improved immunological function in an adenosine deaminase (ADA)-SCID patient. Kawamura N, et al. **J Immunol** 1999

Aug 15;163(4):2256–61
IL–10 transgenic mice present a defect in T cell development reminiscent of SCID patients. Rouleau M, et al. **J Immunol** 1999 Aug 1;163(3):1420–7
Signal joint formation is inhibited in murine scid preB cells and fibroblasts in substrates with homopolymeric coding ends. Sun T, et al. **Mol Immunol** 1999 Jun;36(8):551–8
Formation of coding joints in V(D)J recombination–inducible severe combined immune deficient pre–B cell lines. Chang Y, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):191–6
Interleukin–13 and human immunoglobulin E production in severe combined immunodeficiency mice transplanted with human peripheral blood lymphocytes. Steinsvik TE, et al. **Scand J Immunol** 1999 Jan;49(1):67–72
X–linked SCID and other defects of cytokine pathways. Uribe L, et al. **Semin Hematol** 1998 Oct;35(4):299–309 (70 ref.)
[Molecular biology basis of combined (T + B) primary immunodeficiency] Litzman J, et al. **Bratisl Lek Listy** 1998 Aug–Sep;99(8–9):435–8 **(Cze)**

PATHOLOGY

Combined immunodeficiency associated with increased apoptosis of lymphocytes and radiosensitivity fibroblasts. Peake J, et al. **Cancer Res** 1999 Jul 15;59(14):3454–60
Multiple gamma c–dependent cytokines regulate T–cell development. Malek TR, et al. **Immunol Today** 1999 Feb; 20(2):71–6 (55 ref.)
IL–10 transgenic mice present a defect in T cell development reminiscent of SCID patients. Rouleau M, et al. **J Immunol** 1999 Aug 1;163(3):1420–7
Cytomegalovirus encephalitis in a child with adenosine deaminase–deficient severe combined immune deficiency: a neuropathologic study. Takano T, et al. **Neuropediatrics** 1998 Jun;29(3):151–4
The neoplastic transformation of SCID cells by radiation. Lun M, et al. **Radiat Res** 1999 Aug;152(2):180–9
[Severe combined immunodefficiency disease, 4 autopsy case reports] Yan P, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Apr;26(2):103–5 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Systemic lymphocyte activation modulates the severity of diet–induced acute pancreatitis in mice. Mayer J, et al. **Pancreas** 1999 Jul;19(1):62–8

SURGERY

Human renal cell carcinoma xenografts in SCID mice: tumorigenicity correlates with a poor clinical prognosis. Angevin E, et al. **Lab Invest** 1999 Jul;79(7):879–88
A murine model of HIV encephalitis: xenotransplantation of HIV–infected human neuroglia into SCID mouse brain. Sanders VJ, et al. **Neuropathol Appl Neurobiol** 1998 Dec; 24(6):461–7

THERAPY

Gene therapy for severe combined immunodeficiency caused by adenosine deaminase deficiency: improved retroviral vectors for clinical trials. Onodera M, et al. **Acta Haematol** 1999;101(2):89–96 (30 ref.)
Canine lymphocyte expression of retrovirally transferred human common gamma chain. Whitwam T, et al. **Ann N Y Acad Sci** 1999 Apr 30;872:387–90
Engraftment of severe combined immune deficient mice receiving allogeneic bone marrow via In utero or postnatal transfer. Blazar BR, et al. **Blood** 1998 Nov 15; 92(10):3949–59
Rapid regeneration of normally functional naive CD4(+) T cells after bone marrow transplantation from unrelated donors for combined immunodeficiency [letter] Brugnoni D, et al. **Blood** 1998 Nov 1;92(9):3484–6
Incomplete T–cell immune reconstitution in two major histocompatibility complex class II–deficiency/bare lymphocyte syndrome patients after HLA–identical sibling bone marrow transplantation. Godthelp BC, et al. **Blood** 1999 Jul 1;94(1):348–58
Bone marrow transplantation in non–malignant disorders. Kriván G, et al. **Bone Marrow Transplant** 1998 Dec;22 Suppl 4:S80–3
Successful human umbilical cord blood stem cell transplantation without conditioning in severe combined immune deficiency. Toren A, et al. **Bone Marrow Transplant** 1999 Feb;23(4):405–8
Parainfluenza virus and respiratory syncytial virus infection in infants undergoing bone marrow transplantation for severe combined immunodeficiency. Taylor CE, et al. **Commun Dis Public Health** 1998 Sep;1(3):202–3
Characterization of an MDR1 retroviral bicistronic vector for correction of X–linked severe combined immunodeficiency. Kleiman SE, et al. **Gene Ther** 1998 May; 5(5):671–6
Relevance of donor source to T–cell regeneration after bone marrow transplantation for severe combined immunodeficiency [letter] Airò P, et al. **Haematologica** 1999 Mar;84(3):285–7
Amendment to Clinical Research Project. Project 90–C–195. April 1, 1993. Treatment of severe combined immunodeficiency disease (SCID) due to adenosine deaminase deficiency with autologous lymphocytes transduced with a human ADA gene. Dunbar C, et al. **Hum Gene Ther** 1999 Feb 10;10(3):477–88
Kinetics of T–cell development of umbilical cord blood transplantation in severe T–cell immunodeficiency disorders. Knutsen AP, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):823–32
In vivo kinetics of transduced cells in peripheral T cell–directed gene therapy: role of CD8+ cells in improved immunological function in an adenosine deaminase (ADA)–SCID patient. Kawamura N, et al. **J Immunol** 1999 Aug 15;163(4):2256–61
Influence of severe combined immunodeficiency phenotype on the outcome of HLA non–identical, T–cell–depleted bone marrow transplantation: a retrospective European survey from the European group for bone marrow transplantation and the european society for immunodeficiency. Bertrand Y, et al. **J Pediatr** 1999 Jun; 134(6):740–8
Why do in utero stem cell transplants sometimes fail? Jones DR. **Mol Med Today** 1999 Jul;5(7):288–91
Hematopoietic stem–cell transplantation for the treatment of severe combined immunodeficiency [see comments] Buckley RH, et al. **N Engl J Med** 1999 Feb 18; 340(7):508–16. Comment in: N Engl J Med 1999 Feb 18;340(7):559–61. Comment in: N Engl J Med 1999 Jul 22;341(4):291–2.
Thirty years of bone marrow transplantation for severe combined immunodeficiency [editorial; comment] Fischer A. **N Engl J Med** 1999 Feb 18;340(7):559–61. Comment on: N Engl J Med 1999 Feb 18;340(7):508–16.
Treatment of severe combined immunodeficiency [letter; comment] Flake AW, et al. **N Engl J Med** 1999 Jul 22; 341(4):291–2. Comment on: N Engl J Med 1999 Feb 18;340(7):508–16.
Virus–specific immunity after gene therapy in a murine model of severe combined immunodeficiency. Bunting KD, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):232–7
Immune reconstitution after in utero bone marrow transplantation in a fetus with severe combined immunodeficiency with natural killer cells. Gil J, et al. **Transplant Proc** 1999 Sep;31(6):2581
Stem cell transplants in utero for genetic diseases: treatment and a model for induction of immunologic tolerance. Touraine JL, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):681–2

VETERINARY

Equine SCID: mechanistic analysis and comparison with murine SCID. Leber R, et al. **Vet Immunol Immunopathol** 1998 Sep 16;65(1):1–9
Estimation of the prevalence of severe combined immunodeficiency disease in UK Arab horses as determined by a DNA–based test. Swinburne J, et al. **Vet Rec** 1999 Jul 3;145(1):22–3

VIROLOGY

Spontaneous low–virulence mouse hepatitis virus infection in severe combined immunodeficiency mice. Choi YK, et al. **Lab Anim Sci** 1999 Jun;49(3):324–7

SEVERE COMBINED IMMUNODEFICIENT MICE see **MICE, SCID**

SEVERITY OF ILLNESS INDEX

Added value of CT criteria compared to the clinical SAP score in patients with acute pancreatitis. van den Biezenbos AR, et al. **Abdom Imaging** 1998 Nov–Dec;23(6):622–6
Impact of patient acuity on preference for information and autonomy in decision making. Davis MA, et al. **Acad Emerg Med** 1999 Aug;6(8):781–5
Comparison of actual psoriasis surface area and the psoriasis area and severity index by the human eye and machine vision methods in following the treatment of psoriasis. Savolainen L, et al. **Acta Derm Venereol** 1998 Nov; 78(6):466–7
Evaluation of rheumatoid arthritis using a scoring system devised from magnetic resonance imaging of rheumatoid knees. Takeuchi K, et al. **Acta Med Okayama** 1998 Aug; 52(4):211–24
Evaluation of clinical benefit of chemotherapy in patients with upper gastrointestinal cancer. Hoffman K, et al. **Acta Oncol** 1998;37(7–8):651–9
Classification of avascular necrosis: a comparative study. Steinberg ME. **Acta Orthop Belg** 1999;65 Suppl 1:45–6
Scoring in forefoot surgery: a statistical evaluation of single variables and rating systems. Schneider W, et al. **Acta Orthop Scand** 1998 Oct;69(5):498–504
ABDEFS' scoring system: a new method of evaluating chronic ulcers. Oluwatosin OM, et al. **Afr J Med Med Sci** 1998 Sep–Dec;27(3–4):153–4
A new prognostic scoring system in neonatal tetanus. Osinusi K, et al. **Afr J Med Med Sci** 1997 Sep–Dec;26(3–4):123–5
An attempted prospective testing of an asthma severity index and a quality of life survey for 1 year in ambulatory patients with asthma. Kucera CM, et al. **Allergy Asthma Proc** 1999 Jan–Feb;20(1):29–38
Measurement of dyspnea in patients treated with mechanical ventilation. Powers J, et al. **Am J Crit Care** 1999 Jul; 8(4):254–61
A study of 1000 malocclusions selected by the HLD (CalMod) Index. Parker WS. **Am J Orthod Dentofacial Orthop** 1999 Apr;115(4):343–51
Rapid simultaneous comparison system for subjective grading scales grading scales for facial paralysis. Ahrens A, et al. **Am J Otol** 1999 Sep;20(5):667–71
Review of objective topographic facial nerve evaluation methods. Dulguerov P, et al. **Am J Otol** 1999 Sep; 20(5):672–8 (32 ref.)
Comorbidities in stroke patients as assessed with a newly developed comorbidity scale. Liu M, et al. **Am J Phys Med Rehabil** 1999 Sep–Oct;78(5):416–24
Perinatal risk and severity of illness in newborns at 6 neonatal intensive care units. Richardson DK, et al. **Am J Public Health** 1999 Apr;89(4):511–6
Severe community–acquired pneumonia. Assessment of severity criteria. Ewig S, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1102–8
Severity of illness models for respiratory syncytial virus–associated hospitalization. Moler FW, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1234–40
Severity staging in chronic sinusitis: are CT scan findings related to patient symptoms? Stewart MG, et al. **Am J Rhinol** 1999 May–Jun;13(3):161–7
Severity of illness scoring systems and performance appraisal. Ridley S. **Anaesthesia** 1998 Dec;53(12):1185–94 (48 ref.)
The effect of lead time bias on severity of illness scoring, mortality prediction and standardised mortality ratio in intensive care—a pilot study [see comments] Tunnell RD, et al. **Anaesthesia** 1998 Nov;53(11):1045–53. Comment in: Anaesthesia 1999 Apr;54(4):399.
Severity scoring systems in the modern intensive care unit. Clermont G, et al. **Ann Acad Med Singapore** 1998 May; 27(3):397–403 (44 ref.)
Cincinnati Prehospital Stroke Scale: reproducibility and validity [see comments] Kothari RU, et al. **Ann Emerg Med** 1999 Apr;33(4):373–8. Comment in: Ann Emerg Med 1999 Apr;33(4):450–1.
Early stroke diagnosis saves time [editorial; comment] Marler JR. **Ann Emerg Med** 1999 Apr;33(4):450–1. Comment on: Ann Emerg Med 1999 Apr;33(4):373–8.
Length of stay of stroke rehabilitation inpatients: prediction through the functional independence measure. Franchignoni F, et al. **Ann Ist Super Sanita** 1998; 34(4):463–7
POSSUM scoring system as an instrument of audit in lung resection surgery. Physiological and operative severity score for the enumeration of mortality and morbidity. Brunelli A, et al. **Ann Thorac Surg** 1999 Feb;67(2):329–31
The role of the Glasgow meningococcal septicaemia prognostic score in the emergency management of meningococcal disease [letter] Carrol ED, et al. **Arch Dis Child** 1999 Sep;81(3):281–2
Progression of parkinsonian signs in Parkinson disease. Louis ED, et al. **Arch Neurol** 1999 Mar;56(3):334–7
Ischemic stroke: relation of age, lesion location, and initial neurologic deficit to functional outcome. Macciocchi SN, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1255–7
Validity of the PULSES profile compared with the Functional Independence Measure for measuring disability in a stroke rehabilitation setting. Marshall SC, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):760–5
Functional changes in back muscle activity correlate with pain intensity and prediction of low back pain during pregnancy. Sihvonen T, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1210–2
The relationship between self–induced water intoxication and severity of psychiatric symptoms. May DL. **Arch Psychiatr Nurs** 1998 Dec;12(6):335–43
A comparison of nine WAIS–R short forms in individuals with mild to severe traumatic brain injury. Guilmette TJ, et al. **Assessment** 1999 Mar;6(1):33–42
A severity score for spontaneous canine acute pancreatitis. Ruaux CG, et al. **Aust Vet J** 1998 Dec;76(12):804–8
Performance of red–green color deficient subjects on the Farnsworth Lantern (FALANT). Birch J, et al. **Aviat Space Environ Med** 1999 Jan;70(1):62–7
Systematic investigation of physiological correlates of motion sickness induced by viewing an optokinetic rotating drum. Hu S, et al. **Aviat Space Environ Med** 1999 Aug; 70(8):759–65
Optokinetic nystagmus correlates with severity of vection–induced motion sickness and gastric tachyarrhythmia. Hu S, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1162–5
Assessment of acute mountain sickness by different score protocols in the Swiss Alps. Maggiorini M, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1186–92
Wet bulb globe temperature (WBGT)—to what extent is GT essential? Moran DS, et al. **Aviat Space Environ Med** 1999 May;70(5):480–4
Outcome after treatment of neurological decompression illness is predicted by a published clinical scoring system. Pitkin AD, et al. **Aviat Space Environ Med** 1999 May; 70(5):517–21
Arterial oxygen saturation for prediction of acute mountain sickness. Roach RC, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1182–5
Bladder outlet obstruction index, bladder contractility index and bladder voiding efficiency: three simple indices to define bladder voiding function. Abrams P. **BJU Int** 1999 Jul;84(1):14–5
The International Prognostic Index correlates to survival in

patients with aggressive lymphoma in relapse: analysis of the PARMA trial. Parma Group. Blay J, et al. **Blood** 1998 Nov 15;92(10):3562–8

Methods for assessment of graft–versus–host disease [letter] Martin PJ, et al. **Blood** 1998 Nov 1;92(9):3479–81

ABC of intensive care: outcome data and scoring systems. Gunning K, et al. **BMJ** 1999 Jul 24;319(7204):241–4 (0 ref.)

Error in the original description of the psoriasis area and severity index [letter] Finlay AY, et al. **Br J Dermatol** 1998 Sep;139(3):534

Prospective study of serum and urinary nitrate levels in patients with systemic lupus erythematosus. Gonzalez–Crespo MR, et al. **Br J Rheumatol** 1998 Sep; 37(9):972–7

Risk scoring in surgical patients. Jones HJ, et al. **Br J Surg** 1999 Feb;86(2):149–57 (72 ref.)

Estimation of mortality and morbidity risk in vascular surgery using POSSUM and the Portsmouth predictor equation. Midwinter MJ, et al. **Br J Surg** 1999 Apr;86(4):471–4

Comparison of POSSUM and the Portsmouth predictor equation for predicting death following vascular surgery [letter; comment] Tekkis P, et al. **Br J Surg** 1999 May; 86(5):713–4. Comment on: Br J Surg 1998 Feb;85(2):209–12.

The Crohn's Disease Activity Index, its derivatives and the Inflammatory Bowel Disease Questionnaire: a review of instruments to assess Crohn's disease. Yoshida EM. **Can J Gastroenterol** 1999 Jan–Feb;13(1):65–73 (47 ref.)

Assessing coronary artery stenosis severity: in vitro validation of the concept of fractional flow reserve. Segers P, et al. **Catheter Cardiovasc Interv** 1999 Mar;46(3):375–9

To discharge or not to discharge: does it have to be a question? [editorial; comment] Bernstein IL. **Chest** 1998 Oct;114(4):952–3. Comment on: Chest 1998 Oct;114(4):1016–21.

Relationship between TIMI frame count and clinical outcomes after thrombolytic administration. Thrombolysis In Myocardial Infarction (TIMI) Study Group. Gibson CM, et al. **Circulation** 1999 Apr 20;99(15):1945–50

PREDICT: A simple risk score for clinical severity and long–term prognosis after hospitalization for acute myocardial infarction or unstable angina: the Minnesota heart survey. Jacobs DR Jr, et al. **Circulation** 1999 Aug 10;100(6):599–607

Mortality prediction in cardiac surgery patients: comparative performance of Parsonnet and general severity systems. Martínez–Alario J, et al. **Circulation** 1999 May 11; 99(18):2378–82

Classification of asthma severity: should the international guidelines be changed? Sawyer G, et al. **Clin Exp Allergy** 1998 Dec;28(12):1565–70

Neonatal risk scoring systems. Can they predict mortality and morbidity? Richardson DK, et al. **Clin Perinatol** 1998 Sep;25(3):591–611 (126 ref.)

The Northwick Park Dependency Score (NPDS): a measure of nursing dependency in rehabilitation. Turner–Stokes L, et al. **Clin Rehabil** 1998 Aug;12(4):304–18

A comparison of clinical and photographic scoring using the TF and modified DDE indices. Sabieha AM, et al. **Community Dent Health** 1998 Jun;15(2):82–7

Comparison of ultrasound and the Alvarado score for the diagnosis of acute appendicitis. Stephens PL, et al. **Conn Med** 1999 Mar;63(3):137–40

Severity scoring and outcome assessment. Computerized predictive models and scoring systems. Marik PE, et al. **Crit Care Clin** 1999 Jul;15(3):633–46, viii (67 ref.)

Quantification of organ dysfunction: seeking standardization [editorial; comment] Bernard GR. **Crit Care Med** 1998 Nov; 26(11):1767–8 (19 ref.). Comment on: Crit Care Med 1998 Nov;26(11):1793–800.

Helium–oxygen improves Clinical Asthma Scores in children with acute bronchiolitis [see comments] Hollman G, et al. **Crit Care Med** 1998 Oct;26(10):1731–6. Comment in: Crit Care Med 1998 Oct;26(10):1633–5.

The Multiple Organ Dysfunction Score as a descriptor of patient outcome in septic shock compared with two other scoring systems [see comments] Jacobs S, et al. **Crit Care Med** 1999 Apr;27(4):741–4. Comment in: Crit Care Med 1999 Apr;27(4):676–8.

Charting the course of critical illness: prognostication and outcome description in the intensive care unit [editorial; comment] Marshall JC. **Crit Care Med** 1999 Apr; 27(4):676–8 (14 ref.). Comment on: Crit Care Med 1999 Apr;27(4):741.

Bispectral Index: better information for sedation in the intensive care unit? [editorial; comment] Shapiro BA. **Crit Care Med** 1999 Aug;27(8):1663–4 (20 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1499–1504.

Assessing sedation during intensive care unit mechanical ventilation with the Bispectral Index and the Sedation–Agitation Scale [see comments] Simmons LE, et al. **Crit Care Med** 1999 Aug;27(8):1499–504. Comment in: Crit Care Med 1999 Aug;27(8):1663–4.

Sounding the improvement in outcomes in pediatric critical care: are we listening for only what we want to hear? [editorial; comment] Vardis R, et al. **Crit Care Med** 1998 Oct;26(10):1635–6 (12 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1737–43.

Use of the SOFA score to assess the incidence of organ dysfunction/failure in intensive care units: results of a multicenter, prospective study. Working group on "sepsis–related problems" of the European Society of Intensive Care Medicine [see comments] Vincent JL, et al. **Crit Care Med** 1998 Nov;26(11):1793–800. Comment in: Crit Care Med 1998 Nov;26(11):1767–8.

Prognostic usefulness of scoring systems in critically ill patients with severe acute pancreatitis. Williams M, et al. **Crit Care Med** 1999 May;27(5):901–7

Further psychometric assessment of the TOP–8: a brief interview–based measure of PTSD. Connor KM, et al. **Depress Anxiety** 1999;9(3):135–7

The Dyshidrotic Eczema Area and Severity Index – A score developed for the assessment of dyshidrotic eczema. Vocks E, et al. **Dermatology** 1999;198(3):265–9

The scope for rehabilitation in severely disabled stroke patients. Gladman JR, et al. **Disabil Rehabil** 1998 Oct; 20(10):391–4 (30 ref.)

Asthma severity and psychopathology in a tertiary care department for children and adolescent. Vila G, et al. **Eur Child Adolesc Psychiatry** 1998 Sep;7(3):137–44

Predictors of recurrence of fulminant bacterial peritonitis after discontinuation of antibiotics in open management of the abdomen [see comments] Visser MR, et al. **Eur J Surg** 1998 Nov;164(11):825–9. Comment in: Eur J Surg 1998 Nov;164(11):831–2.

Construct and longitudinal validity of a modified Huang clinical scoring system in adult cystic fibrosis patients. Matouk E, et al. **Eur Respir J** 1999 Mar;13(3):552–9

Usefulness of history–taking, physical examination and diagnostic scoring in acute renal colic. Eskelinen M, et al. **Eur Urol** 1998 Dec;34(6):467–73

The inter–rate reliability of a generic measure of severity of illness. Shiels C, et al. **Fam Pract** 1997 Dec;14(6):466–71

Prognostic scoring systems for risk assessment in myelodysplastic syndromes. Greenberg PL, et al. **Forum (Genova)** 1999 Jan–Mar;9(1):17–31 (99 ref.)

Quantitative analysis of the pendulum test: application to multiple sclerosis patients treated with botulinum toxin. Bianchi L, et al. **Funct Neurol** 1999 Apr–Jun;14(2):79–92

Toward a heart rate and axillary temperature chronome in schizophrenia: gauge of disease severity. Denisov M, et al. **Funct Neurol** 1999 Jan–Mar;14(1):13–20

Prospective comparison of faecal incontinence grading systems. Vaizey CJ, et al. **Gut** 1999 Jan;44(1):77–80

Multiple myeloma index: verification of a new prognostic approach with evaluation of treatment response. Bettini R, et al. **Haematologica** 1998 Aug;83(8):708–13

Evaluation of prognostic factors in patients with acute pancreatitis. Brisinda G, et al. **Hepatogastroenterology** 1999 May–Jun;46(27):1990–7

Major clinical events, signs and severity assessment scores related to actual survival in patients who died from primary biliary cirrhosis. A long–term historical cohort study. van Dam GM, et al. **Hepatogastroenterology** 1999 Jan–Feb; 46(25):108–15

Prognostic scores and design of clinical studies. Ohmann C. **Infection** 1998 Sep–Oct;26(5):342–4

Management of severe colitis/ileocolitis. Grand RJ. **Inflamm Bowel Dis** 1998 Aug;4(3):225–7 (22 ref.)

Is the Crohn's Disease Activity Index outdated? Yes. Is it the gold standard that clinicians should use? No. Korelitz BI. **Inflamm Bowel Dis** 1999 May;5(2):139–40; discussion 141–3

The Crohn's Disease Activity Index is a useful tool in clinical practice of gastroenterology. Singleton JW. **Inflamm Bowel Dis** 1999 May;5(2):138; discussion 141–3

Reliability of a Crohn's disease clinical classification scheme based on disease behavior. Steinhart AH, et al. **Inflamm Bowel Dis** 1998 Aug;4(3):228–34

Exercise performance in patients with dilated cardiomyopathy: relationship to resting left ventricular function. Güleç S, et al. **Int J Cardiol** 1998 Aug; 65(3):247–53

'Dysphagia Severity Score' system: clinical outcomes in paediatric dysphagia. Dick J. **Int J Lang Commun Disord** 1998;33 Suppl:268–72

In response to Brock, IJROBP 43:473–474, 1999 [letter; comment] Rubin P, et al. **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):246–7. Comment on: Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):473–4.

Reliability and validity of a new measure of severity of delirium. McCusker J, et al. **Int Psychogeriatr** 1998 Dec; 10(4):421–33

The relation between TISS and real paediatric ICU costs: a case study with generalizable methodology [see comments] de Keizer NF, et al. **Intensive Care Med** 1998 Oct;24(10):1062–9. Comment in: Intensive Care Med 1998 Oct;24(10):995–6.

Relationship between TISS and ICU cost [see comments] Dickie H, et al. **Intensive Care Med** 1998 Oct; 24(10):1009–17. Comment in: Intensive Care Med 1998 Oct;24(10):995–6.

Relationship between TISS and costs in intensive care [editorial; comment] Edbrooke D, et al. **Intensive Care Med** 1998 Oct;24(10):995–6 (13 ref.). Comment on: Intensive Care Med 1998 Oct;24(10):1009–17. Comment on: Intensive Care Med 1998 Oct;24(10):1062–9.

Decision support issues using a physiology based score. Marcin JP, et al. **Intensive Care Med** 1998 Dec; 24(12):1299–304

Prognostic performance and customization of the SAPS II: results of a multicenter Austrian study. Simplified Acute Physiology Score [see comments] Metnitz PG, et al. **Intensive Care Med** 1999 Feb;25(2):192–7. Comment in: Intensive Care Med 1999 Feb;25(2):140–2.

Acute hypoxemic respiratory failure in children: case mix and the utility of respiratory severity indices. Peters MJ, et al. **Intensive Care Med** 1998 Jul;24(7):699–705

When to customize a severity model [editorial; comment] Teres D, et al. **Intensive Care Med** 1999 Feb;25(2):140–2 . Comment on: Intensive Care Med 1999 Feb;25(2):192–7.

"Crohn's disease activity index" is inaccurate to detect the post–operative recurrence in Crohn's disease. A GISC study. Gruppo Italiano per lo Studio del Colon e del Retto [see comments] Viscido A, et al. **Ital J Gastroenterol Hepatol** 1999 May;31(4):274–9. Comment in: Ital J Gastroenterol Hepatol 1999 May;31(4):280–2.

Prediction of hospital readmission for heart failure: development of a simple risk score based on administrative data. Philbin EF, et al. **J Am Coll Cardiol** 1999 May; 33(6):1560–6

The General Medical Health Rating: a bedside global rating of medical comorbidity in patients with dementia. Lyketsos CG, et al. **J Am Geriatr Soc** 1999 Apr;47(4):487–91

Validation and application of the pneumonia prognosis index to nursing home residents with pneumonia [see comments] Mylotte JM, et al. **J Am Geriatr Soc** 1998 Dec; 46(12):1538–44. Comment in: J Am Geriatr Soc 1999 Jul;47(7):913–4.

Alzheimer's disease symptom severity in blacks and whites. Shadlen MF, et al. **J Am Geriatr Soc** 1999 Apr;47(4):482–6

A brief medical necessity scale for mental disorders: reliability, validity, and clinical utility. Roy–Byrne P, et al. **J Behav Health Serv Res** 1998 Nov;25(4):412–24

Accuracy of recall of dyspnea after exercise training sessions. Stulbarg MS, et al. **J Cardiopulm Rehabil** 1999 Jul–Aug; 19(4):242–8

Pro: All elective coronary artery bypass grafting patients are American Society of Anesthesiologists' Physical Status IV [see comments] Swamidoss CP, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):225–7 (19 ref.) . Comment in: J Cardiothorac Vasc Anesth 1999 Apr;13(2):228–30.

Con: All elective coronary artery bypass grafting patients are not American Society of Anesthesiologists' Physical Status IV [comment] Wiklund RA. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):228–30 (19 ref.) . Comment on: J Cardiothorac Vasc Anesth 1999 Apr;13(2):225–7.

How should importance and severity ratings be combined for item reduction in the development of health status instruments? Marx RG, et al. **J Clin Epidemiol** 1999 Mar; 52(3):193–7

Support for the continuity hypothesis of bulimic pathology. Stice E, et al. **J Consult Clin Psychol** 1998 Oct;66(5):784–90

The SAPASI is valid and responsive to psoriasis disease severity changes in a multi–center clinical trial. Fleischer AB Jr, et al. **J Dermatol** 1999 Apr;26(4):210–5

Validation of the pneumonia severity index. Importance of study–specific recalibration. Flanders WD, et al. **J Gen Intern Med** 1999 Jun;14(6):333–40

Insight in dementia: when does it occur? Evidence for a nonlinear relationship between insight and cognitive status. Zanetti O, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):P100–6

Sensitivity of three recent questionnaires to mild traumatic brain injury–related effects. Paniak C, et al. **J Head Trauma Rehabil** 1999 Jun;14(3):211–9

Primary end points in phase III clinical trials of severe head trauma: DRS versus GOS. The American Brain Injury Consortium Study Group. Choi SC, et al. **J Neurotrauma** 1998 Oct;15(10):771–6

Patient classification systems, Part 1: The third generation. Malloch K, et al. **J Nurs Adm** 1999 Jul–Aug;29(7–8):49–56

Reliability and validity of the functional performance inventory in patients with moderate to severe chronic obstructive pulmonary disease. Larson JL, et al. **J Nurs Meas** 1998 Summer;6(1):55–73

The development of a practical and reliable assessment measure for atopic dermatitis (ADAM). Charman D, et al. **J Outcome Meas** 1999;3(1):21–34

Grades of severity and the validation of an atopic dermatitis assessment measure (ADAM). Charman DP, et al. **J Outcome Meas** 1999;3(2):162–75

An orthopaedic scoring system for nail–patella syndrome and application to a kindred with variable expressivity and glaucoma. Farley FA, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):624–31

Analysis of radiographic measurements as prognostic indicators of treatment success in patients with developmental dysplasia of the hip. Rosen A, et al. **J Pediatr Orthop B** 1999 Apr;8(2):118–21

Free radical formation in infants: the effect of critical illness, parenteral nutrition, and enteral feeding. Basu R, et al. **J Pediatr Surg** 1999 Jul;34(7):1091–5

Is atypical depression a moderate severity depression? A 536–case study. Benazzi F. **J Psychiatry Neurosci** 1999 May;24(3):244–7

Surgical patients with methicillin resistant staphylococcus aureus infection: an analysis of outcome using P–POSSUM. Menon KV, et al. **J R Coll Surg Edinb** 1999 Jun;44(3):161–3

Conceptual issues in scoring radiographic progression in rheumatoid arthritis. Kirwan JR. **J Rheumatol** 1999 Mar; 26(3):720–5 (33 ref.)

Can health utility measures be used in lupus research? A comparative validation and reliability study of 4 utility

indices. Moore AD, et al. **J Rheumatol** 1999 Jun; 26(6):1285–90

A new method of scoring radiographic change in rheumatoid arthritis. Rau R, et al. **J Rheumatol** 1998 Nov; 25(11):2094–107

Comparison of the Dougados Functional Index and the Bath Ankylosing Spondylitis Functional Index. A literature review. Ruof J, et al. **J Rheumatol** 1999 Apr;26(4):955–60 (38 ref.)

A comparative study of the usefulness of the Bath Ankylosing Spondylitis Functional Index and the Dougados Functional Index in the assessment of ankylosing spondylitis. Spoorenberg A, et al. **J Rheumatol** 1999 Apr;26(4):961–5

Development of a clinical chart to compute different disease activity indices for systemic lupus erythematosus. Vitali C, et al. **J Rheumatol** 1999 Feb;26(2):498–501

The VISA score: an index of severity of symptoms in patients with jumper's knee (patellar tendinosis). Victorian Institute of Sport Tendon Study Group. Visentini PJ, et al. **J Sci Med Sport** 1998 Jan;1(1):22–8

Left heart hypoplasia and neonatal aortic arch obstruction: is the Rhodes left ventricular adequacy score applicable? Tani LY, et al. **J Thorac Cardiovasc Surg** 1999 Jul; 118(1):81–6

The ICD-9-based illness severity score: a new model that outperforms both DRG and APR-DRG as predictors of survival and resource utilization. Rutledge R, et al. **J Trauma** 1998 Oct;45(4):791–9

Effects of varying scoring rules of the Clinician Administered PTSD Scale (CAPS) for the diagnosis of PTSD after acute burn injury. Fleming MP, et al. **J Trauma Stress** 1999 Jul; 12(3):535–42

A proposal for a new histological classification scheme for predicting short-term tumor recurrence and death in patients with invasive ductal carcinoma of the breast. Hasebe T, et al. **Jpn J Cancer Res** 1998 Dec;89(12):1358–73

Procalcitonin as a marker of severity in septic shock. Schröder J, et al. **Langenbecks Arch Surg** 1999 Feb; 384(1):33–8

Improved method of reporting disability grades in POD programmes [letter] Malaviya GN. **Lepr Rev** 1999 Jun; 70(2):212–3

Grading impairment in leprosy. van Brakel WH, et al. **Lepr Rev** 1999 Jun;70(2):180–8

Assessment of asthma severity in adults with asthma treated by family practitioners, allergists, and pulmonologists. Eisner MD, et al. **Med Care** 1998 Nov;36(11):1567–77

Development and estimation of a pediatric chronic disease score using automated pharmacy data. Fishman PA, et al. **Med Care** 1999 Sep;37(9):874–83

A comprehensive prognostic index to predict survival based on multiple comorbidities: a focus on breast cancer. Fleming ST, et al. **Med Care** 1999 Jun;37(6):601–14

The SF-36 Health Survey as a generic outcome measure in clinical trials of patients with osteoarthritis and rheumatoid arthritis: relative validity of scales in relation to clinical measures of arthritis severity. Kosinski M, et al. **Med Care** 1999 May;37(5 Suppl):MS23–39

Health utilities in Alzheimer's disease: a cross-sectional study of patients and caregivers. Neumann PJ, et al. **Med Care** 1999 Jan;37(1):27–32

Relationship between ovarian production of estrone, estradiol, testosterone, and androstenedione and the ovarian degree of stromal hyperplasia in postmenopausal women [see comments] Sluijmer AV, et al. **Menopause** 1998 Winter; 5(4):207–10. Comment in: Menopause 1998 Winter;5(4):205–6.

Severe community-acquired pneumonia: how to assess illness severity. Ewig S, et al. **Monaldi Arch Chest Dis** 1999 Jun; 54(3):250–4 (26 ref.)

Worsening of levodopa-induced dyskinesias by motor and mental tasks. Durif F, et al. **Mov Disord** 1999 Mar; 14(2):242–5

Quantification of impairment in MS: discussion of the scales in use. Amato MP, et al. **Mult Scler** 1999 Aug;5(4):216–9 (17 ref.)

MRI in multiple sclerosis: correlation with expanded disability status scale (EDSS). Barkhof F. **Mult Scler** 1999 Aug;5(4):283–6 (35 ref.)

Recent developments in the assessment of quality of life in multiple sclerosis (MS). Fischer JS, et al. **Mult Scler** 1999 Aug;5(4):251–9 (52 ref.)

Design of a European multicenter study dedicated to the evaluation of the EDMUS system: EVALUED. European Database for MUltiple Sclerosis. EVALUation of the EDMUS system. Grimaud J, et al. **Mult Scler** 1999 Aug; 5(4):234–8

The Fatigue Descriptive Scale (FDS): a useful tool to evaluate fatigue in multiple sclerosis. Iriarte J, et al. **Mult Scler** 1999 Feb;5(1):10–6

Use of composite scores in the quantification of deterioration in multiple sclerosis. Lienert C, et al. **Mult Scler** 1999 Aug; 5(4):220–2 (8 ref.)

The revision of the International Classification of Impairments, Disabilities and Handicaps and its application in MS. Lux JB, et al. **Mult Scler** 1999 Aug;5(4):291–2 (4 ref.)

The Guy's Neurological Disability Scale (GNDS): a new disability measure for multiple sclerosis. Sharrack B, et al. **Mult Scler** 1999 Aug;5(4):223–33

Measuring handicap in multiple sclerosis. Thompson AJ. **Mult Scler** 1999 Aug;5(4):260–2 (17 ref.)

Comparing the severity of obstructive sleep apnea in patients referred by urban and rural physicians. McCall WV, et al. **N C Med J** 1998 Nov-Dec;59(6):358–61

Prognostic factors in advanced Hodgkin's disease--can they guide therapeutic decisions? [editorial; comment] Brice P. **N Engl J Med** 1998 Nov 19;339(21):1547–9. Comment on: N Engl J Med 1998 Nov 19;339(21):1506–14.

A prognostic score for advanced Hodgkin's disease. International Prognostic Factors Project on Advanced Hodgkin's Disease [see comments] Hasenclever D, et al. **N Engl J Med** 1998 Nov 19;339(21):1506–14. Comment in: N Engl J Med 1998 Nov 19;339(21):1547–9. Comment in: N Engl J Med 1999 Apr 22;340(16):1288–9; discussion 1289–90. Comment in: N Engl J Med 1999 Apr 22;340(16):1289–90.

Prognostic score for Hodgkin's disease [letter; comment] Jack FR, et al. **N Engl J Med** 1999 Apr 22;340(16):1288–9; discussion 1289–90. Comment on: N Engl J Med 1998 Nov 19;339(21):1506–14.

Prognostic score for Hodgkin's disease [letter; comment] Watine J. **N Engl J Med** 1999 Apr 22;340(16):1289–90. Comment on: N Engl J Med 1998 Nov 19;339(21):1506–14.

A modified quantitative subjective global assessment of nutrition for dialysis patients. Kalantar-Zadeh K, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1732–8

Relationship between denial of memory deficit and dementia severity in Alzheimer disease. Sevush S. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Apr; 12(2):88–94

The International Prostate Symptom score in both sexes: a urodynamics-based comparison. Madersbacher S, et al. **Neurourol Urodyn** 1999;18(3):173–82

Comment on "Value of the Danish Prostate Symptom score compared to the AUA Symptom Score and pressure/flow studies in the preoperative evaluation of men with symptomatic benign hyperplasia," Neurourol Urodynam (1998):17:9–18 [letter; comment] Schou J, et al. **Neurourol Urodyn** 1998;17(6):637–8. Comment on: Neurourol Urodyn 1998;17(1):9–18.

Psychometric properties of the functional performance inventory in patients with chronic obstructive pulmonary disease. Leidy NK. **Nurs Res** 1999 Jan-Feb;48(1):20–8

Symptom perception and evaluation in childhood asthma. Yoos HL, et al. **Nurs Res** 1999 Jan-Feb;48(1):2–8

Bariatric analysis and reporting outcome system (BAROS) applied to laparoscopic gastric banding patients. Favretti F, et al. **Obes Surg** 1998 Oct;8(5):500–4

Bariatric analysis and reporting outcome system (BAROS). Oria HE, et al. **Obes Surg** 1998 Oct;8(5):487–99

The Index of Nausea, Vomiting, and Retching: a new format of the Index of Nausea and Vomiting. Rhodes VA, et al. **Oncol Nurs Forum** 1999 Jun;26(5):889–94

Clinical-severity staging system for oral cavity cancer: five-year survival rates. Pugliano FA, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):38–45

Pediatric ambulance utilization in a large American city: a systems analysis approach [see comments] Foltin GL, et al. **Pediatr Emerg Care** 1998 Aug;14(4):254–8. Comment in: Pediatr Emerg Care 1998 Dec;14(6):453–4.

Significance of the atherosclerogenic index and body fat in children as markers for future, potential coronary heart disease. Washino K, et al. **Pediatr Int** 1999 Jun;41(3):260–5

Rectal-scalp temperature difference predicts brain death in children. Miller G, et al. **Pediatr Neurol** 1999 Apr; 20(4):267–9

Risk adjustment for quality improvement. Richardson D, et al. **Pediatrics** 1999 Jan;103(1 Suppl E):255–65 (76 ref.)

Emergency medical services transport of patients with headache: mode of arrival may indicate serious etiology. Nemer JA, et al. **Prehosp Emerg Care** 1998 Oct-Dec; 2(4):304–7

New advances and validation of knowledge management tools for critical care using classifier techniques. Frize M, et al. **Proc AMIA Symp** 1998;:553–7

Development and preliminary validation of the multiattribute Rhinitis Symptom Utility Index. Revicki DA, et al. **Qual Life Res** 1998 Dec;7(8):693–702

Comparison of the Health Assessment Questionnaire and Arthritis Impact Measurement Scale in patients with psoriatic arthritis. Taccari E, et al. **Rev Rhum Engl Ed** 1998 Dec;65(12):751–8

Behçet's disease: evaluation of a new instrument to measure clinical activity. Bhakta BB, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):728–33

Defining disease activity in ankylosing spondylitis: is a combination of variables (Bath Ankylosing Spondylitis Disease Activity Index) an appropriate instrument? Calin A, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):878–82

Reliability and validity of the EuroQol in patients with osteoarthritis of the knee. Fransen M, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):807–13

Evaluation of the Turkish translation of a disease activity form for Behçet's syndrome. Hamuryudan V, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):734–6

A patient-derived disease activity score can substitute for a physician-derived disease activity score in clinical research. Houssien DA, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):48–52

Childhood Behçet's disease: clinical features and comparison with adult-onset disease. Krause I, et al. **Rheumatology (Oxford)** 1999 May;38(5):457–62

Knee injury and Osteoarthritis Outcome Score (KOOS)--validation of a Swedish version. Roos EM, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):439–48

The Swedish version of the Bath ankylosing spondylitis functional index. Reliability and validity. Cronstedt H, et al. **Scand J Rheumatol Suppl** 1999;111:1–9

The Swedish version of the Bath ankylosing spondylitis disease activity index. Reliability and validity. Waldner A, et al. **Scand J Rheumatol Suppl** 1999;111:10–6

Liverpool Seizure Severity Scale revisited. Baker GA, et al. **Seizure** 1998 Jun;7(3):201–5

A comparison of two functional tests in quadriplegia: the quadriplegia index of function and the functional independence measure. Yavuz N, et al. **Spinal Cord** 1998 Dec;36(12):832–7

A multivariate approach for assessing severity of acute graft-versus-host disease in bone marrow transplantation. Parrish RS, et al. **Stat Med** 1999 Feb 28;18(4):423–40

An empirical study of the effect of the control rate as a predictor of treatment efficacy in meta-analysis of clinical trials. Schmid CH, et al. **Stat Med** 1998 Sep 15; 17(17):1923–42 (75 ref.)

Reliability and validity of estimating the NIH stroke scale score from medical records. Kasner SE, et al. **Stroke** 1999 Aug;30(8):1534–7

Use of the Barthel index and modified Rankin scale in acute stroke trials. Sulter G, et al. **Stroke** 1999 Aug;30(8):1538–41

Staging of acute pancreatitis. Is it important? McKay CJ, et al. **Surg Clin North Am** 1999 Aug;79(4):733–43 (38 ref.)

Evaluation of the POSSUM scoring system in lung surgery. Physiological and Operative Severity Score for the enUmeration of Mortality and Morbidity. Brunelli A, et al. **Thorac Cardiovasc Surg** 1998 Jun;46(3):141–6

Original articles: ease of wound closure as an endpoint of treatment efficacy [see comments] Robson MC, et al. **Wound Repair Regen** 1999 Mar-Apr;7(2):90–6. Comment in: Wound Repair Regen 1999 Mar-Apr;7(2):77.

[Natural development of non-traumatic osteonecrosis of the hip] Arlet J, et al. **Acta Orthop Belg** 1999;65 Suppl 1:47–50 (15 ref.) **(Fre)**

[Natural development and indications for surgical treatment of femoral condyle osteonecrosis] Fairen MF, et al. **Acta Orthop Belg** 1999;65 Suppl 1:116–22 **(Fre)**

[Importance of other therapeutic medications administered parenterally in severe acute asthma] Perrotin D. **Ann Fr Anesth Reanim** 1998;17 Suppl 2:44s–47s (10 ref.) (Eng. Abstr.) **(Fre)**

[PGA index: a way to screen for portal hypertension in an asymptomatic alcoholic patient (letter)] Latrive JP, et al. **Gastroenterol Clin Biol** 1998 Nov;22(11):977–9 **(Fre)**

[Evaluation of the severity of gastroesophageal reflux: can the spontaneous course and therapeutic response be predicted?] Veyrac M. **Gastroenterol Clin Biol** 1999 Jan; 23(1 Pt 2):S229–36 (58 ref.) **(Fre)**

[Difficult asthmas. Pitfalls and nosological limits] Chanez P, et al. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S48–50 (16 ref.) **(Fre)**

[Severe malaria] Gachot B, et al. **Rev Prat** 1998 Feb 1; 48(3):273–8 (30 ref.) (Eng. Abstr.) **(Fre)**

[Asthma-grading amplified. The German Ligue of Respiratory Diseases distinguishes only four stages] **Fortschr Med** 1999 Apr 10;117(10):33–5 **(Ger)**

[Value of the Hannover Intensive Score (HIS) in internal medicine intensive care] von Bierbrauer A, et al. **Med Klin** 1998 Sep 15;93(9):524–32 (Eng. Abstr.) **(Ger)**

[Mannhein index in the prognosis and treatment of acute peritonitis] Liverani A, et al. **Minerva Chir** 1998 May; 53(5):385–9 (Eng. Abstr.) **(Ita)**

[Evaluation of procalcitonin levels in patients with systemic inflammatory response syndrome as the diagnosis of infection and the severity of illness] Endo S, et al. **Kansenshogaku Zasshi** 1999 Mar;73(3):197–204 (Eng. Abstr.) **(Jpn)**

[Epidemiological study of intrapelvic venous congestion syndrome (IVCS) using new IVCS symptom score] Minamiguchi N. **Nippon Hinyokika Gakkai Zasshi** 1998 Nov;89(11):863–70 (Eng. Abstr.) **(Jpn)**

[Severity and pathophysiology of kidney failure] Hishida A. **Nippon Naika Gakkai Zasshi** 1998 Jul 10;87(7):1241–6 (3 ref.) **(Jpn)**

[Comparison between the poisoning severity score and specific grading scales used at the Department of Clinical Toxicology in Krakow] Pach J, et al. **Przegl Lek** 1999; 56(6):401–8 (Eng. Abstr.) **(Pol)**

[A comparative study of clinical score and lung function tests in the classification of asthma by severity of disease] Nakaie CM, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Mar-Apr;53(2):68–74 (Eng. Abstr.) **(Por)**

[A scale for the quantitative evaluation of male copulative function (the MCF scale)] Loran OB, et al. **Urol Nefrol (Mosk)** 1998 Sep-Oct;(5):24–7 (Eng. Abstr.) **(Rus)**

[The use of a method for the quantitative determination of HIV-1 RNA for assessing the severity and prognosis of the development of the disease] Smol'skaia TT, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan-Feb;(1):57–9 (Eng. Abstr.) **(Rus)**

[Re-evaluation of the etiology of community-acquired pneumonia: the impact of the age of comorbidity and of the severity of the pneumonia and of other additional factors] Torres A. **Arch Bronconeumol** 1999 May;35 Suppl 3:62–4 **(Spa)**

[Is severity related to the utilization of resources? An

exploration of the Duke Severity of Illness Scale (DUSOI)] Martinez C, et al. **Aten Primaria** 1998 Sep 30;22(5):285–92 (Eng. Abstr.) **(Spa)**

SEWAGE

Sewer workers: occupational risk for hepatitis C—report of two cases and review of literature. Brautbar N, et al. **Arch Environ Health** 1999 Sep–Oct;54(5):328–30

Analysis of endogenous process behavior in activated sludge. Keesman KJ, et al. **Biotechnol Bioeng** 1998 Jan 20; 57(2):155–63

Formation of octa- and heptachlorodibenzo-p-dioxins during semi anaerobic digestion of sewage sludge. Klimm C, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2003–11

Sewage contamination of drinking water in Bolton [published erratum appears in Commun Dis Rep CDR Wkly 1998 Dec 11;8(50):442] **Commun Dis Rep CDR Wkly** 1998 Dec 4;8(49):431

Have virus, will travel [news] **Environ Health Perspect** 1999 Jul;107(7):A347–8

Risk screening for exposure to groundwater pollution in a wastewater irrigation district of the Mexico City region. Downs TJ, et al. **Environ Health Perspect** 1999 Jul; 107(7):553–61

Mosquito breeding associated with urban sewage system in Anand City (Gujarat). Haq S, et al. **Indian J Malariol** 1998 Mar;35(1):31–4

PHA production by activated sludge. Satoh H, et al. **Int J Biol Macromol** 1999 Jun–Jul;25(1–3):105–9

Methods for assessing the public health impact of outflows from combined sewer systems. Colford JM Jr, et al. **J Air Waste Manag Assoc** 1999 Apr;49(4):454–62

Cultural control of larval mosquito production in a fallow citrus grove used for disposal of secondary-treated sewage effluent. Taylor DS, et al. **J Am Mosq Control Assoc** 1999 Mar;15(1):65–8

The effect of a new sewage treatment plant on faecal indicator numbers, campylobacters and bathing water compliance in Morecambe Bay. Obiri-Danso K, et al. **J Appl Microbiol** 1999 Apr;86(4):603–14

Analysis of wastewater for anionic and cationic nutrients by ion chromatography in a single run with sequential flow injection analysis. Karmarkar SV. **J Chromatogr A** 1999 Jul 30;850(1–2):303–9

Microbial dechlorination of 2,4,6-trichlorophenol in anaerobic sewage sludge. Chang BV, et al. **J Environ Sci Health B** 1999 May;34(3):491–507

Anaerobic treatment of poultry mortalities in a modified LB–UASB system. Chen TH. **J Environ Sci Health B** 1999 May;34(3):527–47

Genotoxicity of wastewater samples from sewage and industrial effluent detected by the Allium root anaphase aberration and micronucleus assays. Grover IS, et al. **Mutat Res** 1999 May 19;426(2):183–8

Risk of hepatitis A infection in sewage workers. Brugha R, et al. **Occup Environ Med** 1998 Aug;55(8):567–9

Health effects among workers in sewage treatment plants. Rylander R. **Occup Environ Med** 1999 May;56(5):354–7

Abdominal symptoms among sewage workers. Friis L, et al. **Occup Med (Lond)** 1998 May;48(4):251–3

Persistent cognitive and motor deficits following acute hydrogen sulphide poisoning. Schneider JS, et al. **Occup Med (Lond)** 1998 May;48(4):255–60

Pontiac fever at a sewage treatment plant in the food industry. Gregersen P, et al. **Scand J Work Environ Health** 1999 Jun;25(3):291–5

[Evaluation of parasitic risks for the population bordering on the Mbeubeuss public waste disposal, Dakar] Faye O, et al. **Dakar Med** 1998;43(1):90–4 (Eng. Abstr.) **(Fre)**

[Hygienic assessment of damaging exposure of schoolchildren to butyl mercaptan] Tibekin AT. **Gig Sanit** 1998 Sep–Oct; (5):68–9 **(Rus)**

ADVERSE EFFECTS

Morphological and reproductive characteristics of male mosquitofish (Gambusia affinis holbrooki) inhabiting sewage-contaminated waters in New South Wales, Australia. Batty J, et al. **Arch Environ Contam Toxicol** 1999 Apr;36(3):301–7

A study of toxic effects of heavy metal contaminants from sludge-supplemented diets on male Wistar rats. Bag S, et al. **Ecotoxicol Environ Saf** 1999 Feb;42(2):163–70

Increase of metallothionein-immunopositive chloride cells in the gills of brown trout and rainbow trout after exposure to sewage treatment plant effluents. Burkhardt-Holm P, et al. **Histochem J** 1999 Jun;31(6):339–46

Coming to grips with a slippery issue: human waste disposal in cold climates. Meyer-Rochow VB. **Int J Circumpolar Health** 1999 Jan;58(1):57–62 (33 ref.)

Estimates of the severity of illnesses associated with bathing in marine recreational waters contaminated with domestic sewage. Fleisher JM, et al. **Int J Epidemiol** 1998 Aug; 27(4):722–6

Development of a sensitive E-screen assay for quantitative analysis of estrogenic activity in municipal sewage plant effluents. Körner W, et al. **Sci Total Environ** 1999 Jan 12; 225(1–2):33–48

[Sewage sludge is the cause of increased levels of cadmium (letter)] Lindgren G. **Lakartidningen** 1998 Sep 30; 95(40):4329 **(Swe)**

ANALYSIS

Anaerobic formation and degradation of toxic aromatic compounds in agricultural and communal sewage deposits. Hofmann K, et al. **Chemosphere** 1999 May;38(11):2561–8

New method for determination of fecal sterols in urine using non-chlorinated solvents. Börjesson E, et al. **J Chromatogr B Biomed Sci Appl** 1998 Aug 25; 713(2):438–42

The influence of organic amendment and nickel pollution on tomato fruit yield and quality. Palacios G, et al. **J Environ Sci Health B** 1999 Jan;34(1):133–50

Screening of illicit toxic substances discharged in chemical toilet sludge. Robidoux PY, et al. **Qual Assur** 1998 Jan–Mar;6(1):23–44

Mass balance and distribution of sludge-borne trace elements in a silt loam soil following long-term applications of sewage sludge. Baveye P, et al. **Sci Total Environ** 1999 Feb 16;227(1):13–28

Analysis and occurrence of estrogenic hormones and their glucuronides in surface water and waste water in The Netherlands. Belfroid AC, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):101–8

Development of a sensitive E-screen assay for quantitative analysis of estrogenic activity in municipal sewage plant effluents. Körner W, et al. **Sci Total Environ** 1999 Jan 12; 225(1–2):33–48

European hospitals as a source for platinum in the environment in comparison with other sources. Kümmerer K, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):155–65

Polar drug residues in sewage and natural waters in the state of Rio de Janeiro, Brazil. Stumpf M, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):135–41

Behavior and occurrence of estrogens in municipal sewage treatment plants—I. Investigations in Germany, Canada and Brazil. Ternes TA, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):81–90

Behaviour and occurrence of estrogens in municipal sewage treatment plants—II. Aerobic batch experiments with activated sludge. Ternes TA, et al. **Sci Total Environ** 1999 Jan 12;225(1–2):91–9

CHEMISTRY

Development of a solid-phase microextraction GC-NPD procedure for the determination of free volatile amines in wastewater and sewage-polluted waters. Abalos M, et al. **Anal Chem** 1999 Aug 15;71(16):3531–7

Isolation of priority polycyclic aromatic hydrocarbons from natural sediments and sludge reference materials by an anti-fluorene immunosorbent followed by liquid chromatography and diode array detection. Pérez S, et al. **Anal Chem** 1998 Dec 1;70(23):4996–5001

Diversity of arbuscular mycorrhizal fungus populations in heavy-metal-contaminated soils. Del Val C, et al. **Appl Environ Microbiol** 1999 Feb;65(2):718–23

Levels of dioxin-like compounds in sewage sludge determined with a bioassay based on EROD induction in chicken embryo liver cultures. Engwall M, et al. **Chemosphere** 1999 Apr;38(10):2327–43

Impact assessment of a wastewater treatment plant effluent using the fish biomarker ethoxyresorufin-O-deethylase: field and on-site experiments. Kosmala A, et al. **Ecotoxicol Environ Saf** 1998 Sep;41(1):19–28

Toxicity of chromium to activated sludge. Vanková S, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):16–21

Determination of 17 beta-estradiol and its metabolites in sewage effluent by solid-phase extraction and gas chromatography/mass spectrometry. Lee HB, et al. **J AOAC Int** 1998 Nov–Dec;81(6):1209–16

Quantitative determination of polycyclic aromatic hydrocarbons, polychlorinated biphenyls and organochlorine pesticides in sewage sludges using supercritical fluid extraction and mass spectrometric detection. Berset JD, et al. **J Chromatogr A** 1999 Aug 13; 852(2):545–58

Efficiency of supercritical fluid extraction for determining 4-nonylphenol in municipal sewage sludge. Lin JG, et al. **J Chromatogr A** 1999 Apr 23;840(1):71–9

Antimony speciation in environmental samples by interfacing capillary electrophoresis on-line to an inductively coupled plasma mass spectrometer. Michalke B, et al. **J Chromatogr A** 1999 Feb 26;834(1–2):341–8

Optimization and validation of solvent and supercritical-fluid extractions for the trace-determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection. Miège C, et al. **J Chromatogr A** 1998 Oct 9; 823(1–2):219–30

Factors influencing suspended solids concentrations in activated sludge settling tanks. Kim Y, et al. **J Hazard Mater** 1999 May 31;67(1):95–109

Determination of polyhydroxyalkanoates in activated sludge by ion chromatographic and enzymatic methods. Hesselmann RP, et al. **J Microbiol Methods** 1999 Mar; 35(2):111–9

Genotoxicity testing of wastewater sludge using the Allium cepa anaphase-telophase chromosome aberration assay. Rank J, et al. **Mutat Res** 1998 Oct 12;418(2-3):113–9

LEGISLATION & JURISPRUDENCE

[The microbiological quality of purified sludge intended for agriculture: its conformity to clause IIb of D.L. 99/92] Stampi S, et al. **Ann Ig** 1998 Jul–Aug;10(4):283–9 **(Ita)**

MICROBIOLOGY

An attempt to use selected strains of bacteria adapted to high concentrations of petroleum oil to increase the effective removal of petroleum products in excess activated sludge in laboratory conditions. Bieszkiewicz E, et al. **Acta Microbiol Pol** 1998;47(3):305–12

In situ detection of rhodococci associated with activated sludge foams. Davenport RJ, et al. **Antonie Van Leeuwenhoek** 1998 Jul–Oct;74(1–3):41–8

Thermal gradient gel electrophoresis analysis of bioprotection from pollutant shocks in the activated sludge microbial community. Eichner CA, et al. **Appl Environ Microbiol** 1999 Jan;65(1):102–9

Antibiotic resistance in Acinetobacter spp. isolated from sewers receiving waste effluent from a hospital and a pharmaceutical plant. Guardabassi L, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3499–502

PCR detection of genes encoding nitrite reductase in denitrifying bacteria. Hallin S, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1652–7

Anaerobic degradation of phthalate isomers by methanogenic consortia. Kleerebezem R, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1152–60

Combination of fluorescent in situ hybridization and microautoradiography-a new tool for structure-function analyses in microbial ecology. Lee N, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1289–97

High-rate anaerobic treatment of wastewater at low temperatures. Lettinga G, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1696–702

Monitoring methanotrophic bacteria in hybrid anaerobic-aerobic reactors with PCR and a catabolic gene probe. Miguez CB, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):381–8

Identification of a novel group of bacteria in sludge from a deteriorated biological phosphorus removal reactor. Nielsen AT, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):1251–8

Immobilization patterns and dynamics of acetate-utilizing methanogens immobilized in sterile granular sludge in upflow anaerobic sludge blanket reactors. Schmidt JE, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1050–4

Fluorescence in situ hybridization using 16S rRNA-targeted oligonucleotides reveals localization of methanogens and selected uncultured bacteria in mesophilic and thermophilic sludge granules. Sekiguchi Y, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1280–8

Sunlight inactivation of fecal bacteriophages and bacteria in sewage-polluted seawater. Sinton LW, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3605–13

Isolation of a bacterial strain able to degrade branched nonylphenol. Tanghe T, et al. **Appl Environ Microbiol** 1999 Feb;65(2):746–51

Detection of small numbers of Campylobacter jejuni and Campylobacter coli cells in environmental water, sewage, and food samples by a seminested PCR assay. Waage AS, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1636–43

An outbreak of nonflocculating catabolic populations caused the breakdown of a phenol-digesting activated-sludge process. Watanabe K, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2813–9

Molecular detection, isolation, and physiological characterization of functionally dominant phenol-degrading bacteria in activated sludge. Watanabe K, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4396–402

Effects of nitrogen limitation on biofilm formation in a hydrocarbon-degrading trickle-bed filter. Holubar P, et al. **Appl Microbiol Biotechnol** 1999 Apr;51(4):536–40

Methanogenic and perchloroethylene-dechlorinating activity of anaerobic granular sludge. Kennes C, et al. **Appl Microbiol Biotechnol** 1998 Oct;50(4):484–8

Disposable sensor for measuring the biochemical oxygen demand for nitrification and inhibition of nitrification in wastewater. König A, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):112–7

Towards a reduction in excess sludge production in activated sludge processes: biomass physicochemical treatment and biodegradation. Rocher M, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):883–90

Biodegradation of azo dyes in cocultures of anaerobic granular sludge with aerobic aromatic amine degrading enrichment cultures. Tan NC, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):865–71

13C-NMR study of propionate metabolism by sludges from bioreactors treating sulfate and sulfide rich wastewater. Lens PN, et al. **Biodegradation** 1998;9(3–4):179–86

Microsensors as a tool to determine chemical microgradients and bacterial activity in wastewater biofilms and flocs. Santegoeds CM, et al. **Biodegradation** 1998;9(3–4):159–67 (46 ref.)

Fate of Cryptosporidium oocysts, Giardia cysts, and microbial indicators during wastewater treatment and anaerobic sludge digestion. Chauret C, et al. **Can J Microbiol** 1999 Mar;45(3):257–62

Microbial degradation of nitrobenzene and mono-nitrophenol by bacteria enriched from municipal activated sludge. Zhao JS, et al. **Can J Microbiol** 1999 May;45(5):427–32

Monitoring the toxicity of phenolic chemicals to activated sludge using a novel optical scanning respirometer. Chan CM, et al. **Chemosphere** 1999 Oct;39(9):1421–32

Microbial dechlorination of polychlorinated biphenyls in anaerobic sewage sludge. Chang BV, et al. **Chemosphere** 1999 Jul;39(1):45–54

Transformation of a non-oestrogenic steroid metabolite to an oestrogenically active substance by minimal bacterial activity. Panter GH, et al. **Chemosphere** 1999 Jun; 38(15):3579–96

A genomically modified marker strain of Escherichia coli. Ammons D, et al. **Curr Microbiol** 1998 Nov;37(5):341–6

Toxicity of chromium to activated sludge. Vanková S, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):16–21

Monitoring the conjugal transfer of plasmid RP4 in activated sludge and in situ identification of the transconjugants. Geisenberger O, et al. **FEMS Microbiol Lett** 1999 May 1;174(1):9–17

Coming to grips with a slippery issue: human waste disposal in cold climates. Meyer-Rochow VB. **Int J Circumpolar Health** 1999 Jan;58(1):57–62 (33 ref.)

Coprothermobacter platensis sp. nov., a new anaerobic proteolytic thermophilic bacterium isolated from an anaerobic mesophilic sludge. Etchebehere C, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1297–304

Syntrophobacter fumaroxidans sp. nov., a syntrophic propionate-degrading sulfate-reducing bacterium. Harmsen HJ, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1383–7

Tessaracoccus bendigoensis gen. nov., sp. nov., a gram-positive coccus occurring in regular packages or tetrads, isolated from activated sludge biomass. Maszenan AM, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:459–68

Desulfobacca acetoxidans gen. nov., sp. nov., a novel acetate-degrading sulfate reducer isolated from sulfidogenic granular sludge. Oude Elferink SJ, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:345–50

Chlorination and ozonation of waste-water: comparative analysis of efficacy through the effect on Escherichia coli membranes. Arana I, et al. **J Appl Microbiol** 1999 May; 86(5):883–8

Biodegradation of gasoline: kinetics, mass balance and fate of individual hydrocarbons. Solano-Serena F, et al. **J Appl Microbiol** 1999 Jun;86(6):1008–16

Disinfection of hospital waste sludge using hypochlorite and chlorine dioxide. Tsai CT, et al. **J Appl Microbiol** 1999 May;86(5):827–33

Analysis of the structural diversity of mycolic acids of Rhodococcus and Gordonia [correction of Gordonla] isolates from activated sludge foams by selective ion monitoring gas chromatography-mass spectrometry (SIM GC-MS) [published erratum appears in J Microbiol Methods 1999 Apr;35(3):261] Stratton HM, et al. **J Microbiol Methods** 1999 Feb;35(1):53–63

Isolation of enterohaemorrhagic Escherichia coli from municipal sewage [letter] Höller C, et al. **Lancet** 1999 Jun 12;353(9169):2039

The effect of wind speed and direction on the distribution of sewage-associated bacteria. Smith P, et al. **Lett Appl Microbiol** 1999 Mar;28(3):184–8

Phylogenetic diversity of mesophilic and thermophilic granular sludges determined by 16S rRNA gene analysis. Sekiguchi Y, et al. **Microbiology** 1998 Sep;144 (Pt 9):2655–65

Biodiversity of an Acinetobacter population isolated from activated sludge. Barberio C, et al. **Res Microbiol** 1998 Oct; 149(9):665–73

Genotypic diversity of Acidovorax strains isolated from activated sludge and description of Acidovorax defluvii sp. nov. Schulze R, et al. **Syst Appl Microbiol** 1999 May; 22(2):205–14

Occurrence of Listeria monocytogenes in sewage sludge. De Luca G, et al. **Zentralbl Hyg Umweltmed** 1998 Sep; 201(3):269–77

Detection of Budvicia aquatica and Pragia fontium and occurrence in surface waters. Schubert RH, et al. **Zentralbl Hyg Umweltmed** 1998 Dec;201(4–5):371–6

Occurrence, removal and seasonal variation of thermophilic campylobacters and Arcobacter in sewage sludge. Stampi S, et al. **Zentralbl Hyg Umweltmed** 1999 Jun;202(1):19–27

[Enteric viruses and other microorganisms of fecal origin in waters affected by sewage effluents] Aulicino FA, et al. **Ann Ig** 1999 Jan-Feb;11(1):35–42 (Eng. Abstr.) **(Ita)**

[The microbiological quality of purified sludge intended for agriculture: its conformity to clause IIb of D.L. 99/92] Stampi S, et al. **Ann Ig** 1998 Jul-Aug;10(4):283–9 **(Ita)**

[The microbial purification of sewage containing toxic substances] Nenasheva MN, et al. **Gig Sanit** 1999 Jan-Feb; (1):52–4 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Fate of Cryptosporidium oocysts, Giardia cysts, and microbial indicators during wastewater treatment and anaerobic sludge digestion. Chauret C, et al. **Can J Microbiol** 1999 Mar;45(3):257–62

The effect of waste water reuse in irrigation on the contamination level of food crops by Giardia cysts and Ascaris eggs. Amahmid O, et al. **Int J Food Microbiol** 1999 Aug 1;49(1–2):19–26

Description of Opisthonecta matiensis n. sp. (Protozoa, Ciliophora), a new peritrich ciliate from wastewater. Martin-Cereceda M, et al. **J Eukaryot Microbiol** 1999 May-Jun;46(3):283–9

VIROLOGY

A double-selective tissue culture system for isolation of wild-type poliovirus from sewage applied in a long-term environmental surveillance. Manor Y, et al. **Appl Environ Microbiol** 1999 Apr;65(4): 94–7

Viral pollution in the environment and in shellfish: human adenovirus detection by PCR as an index of human viruses. Pina S, et al. **Appl Environ Microbiol** 1998 Sep; 64(9):3376–82

Characterization of a strain of infectious hepatitis E virus isolated from sewage in an area where hepatitis E is not endemic. Pina S, et al. **Appl Environ Microbiol** 1998 Nov; 64(11):4485–8

Diversity of bacteroides fragilis strains in their capacity to recover phages from human and animal wastes and from fecally polluted wastewater. Puig A, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1772–6

Absence of human astrovirus RNA in sewage and environmental samples. Egglestone SI, et al. **J Appl Microbiol** 1999 Apr;86(4):709–14

Occurrence and levels of phages proposed as surrogate indicators of enteric viruses in different types of sludges. Lasobras J, et al. **J Appl Microbiol** 1999 Apr;86(4):723–9

Comparative study of techniques used to recover viruses from residual urban sludge. Mignotte B, et al. **J Virol Methods** 1999 Mar;78(1–2):71–80

Assessment of microbial parameters as indicators of viral contamination of aerosol from urban sewage treatment plants. Carducci A, et al. **Lett Appl Microbiol** 1999 Mar; 28(3):207–10

Inactivation of poliovirus by gamma irradiation of wastewater sludges. Kaupert N, et al. **Rev Argent Microbiol** 1999 Jan-Mar;31(1):49–52

[Enteric viruses and other microorganisms of fecal origin in waters affected by sewage effluents] Aulicino FA, et al. **Ann Ig** 1999 Jan-Feb;11(1):35–42 (Eng. Abstr.) **(Ita)**

[Identification of enteroviruses in environmental samples using PCR coupled with a colorimetric microwell method] Gualillo O, et al. **Ann Ig** 1999 May-Jun;11(3):179–85 **(Ita)**

[Sewage sludges: application of a technique for recovering Enterovirus] Caillou S, et al. **Rev Argent Microbiol** 1998 Apr-Jun;30(2):96–9 (Eng. Abstr.) **(Spa)**

SEX

see related
LIBIDO
PSYCHOSEXUAL DEVELOPMENT
RELIGION AND SEX

Gender: what's the difference? [editorial; comment] Stotland NL. **Am J Psychiatry** 1999 Jun;156(6):813–4. Comment on: Am J Psychiatry 1999 Jun;156(6):857–62.

Dissimulation in phallometric testing of rapists' sexual preferences. Harris GT, et al. **Arch Sex Behav** 1999 Jun; 28(3):223–32

Anomalies occur in registrations of fetal deaths in multiple pregnancies [letter] Pharoah PO. **BMJ** 1999 Jul 17; 319(7203):188

Gender does not affect fetal heart rate variation. Oguch O, et al. **Br J Obstet Gynaecol** 1998 Dec;105(12):1312–4

The impact of gender, puberty and body mass on reference values for urinary growth hormone (GH) excretion in normally growing non-obese and obese children. Bona G, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):775–81

Science, sex and semantics: the firing of George Lundberg [editorial] Hoey J, et al. **CMAJ** 1999 Feb 23;160(4):507–8

Gender, migration, and career trajectories in Malaysia [published erratum appears in Demography 1998 Nov;35(4):376] Chattopadhyay A. **Demography** 1998 Aug; 35(3):335–44

Chronic intermittent immobilization of male rats throughout sexual development: a stress protocol. Almeida SA, et al. **Exp Physiol** 1998 Sep;83(5):701–4

Family communication about sex: what are parents saying and are their adolescents listening? Miller KS, et al. **Fam Plann Perspect** 1998 Sep-Oct;30(5):218–22, 235

Does hybrid lethality depend on sex or genotype? [letter] Orr HA. **Genetics** 1999 Aug;152(4):1767–9

Sex and the evolution of intrahost competition in RNA virus phi6. Turner PE, et al. **Genetics** 1998 Oct;150(2):523–32

Evolving ideals of male body image as seen through action toys. Pope HG Jr, et al. **Int J Eat Disord** 1999 Jul; 26(1):65–72

Family size and sex preferences and eventual fertility in Botswana. Campbell EK, et al. **J Biosoc Sci** 1997 Apr; 29(2):191–204

Birth interval and the sex of children in a traditional African population: an evolutionary analysis. Mace R, et al. **J Biosoc Sci** 1997 Oct;29(4):499–507

Parental investment theory and birth sex ratios in Nepal. Strickland SS, et al. **J Biosoc Sci** 1997 Jul;29(3):283–95

Sexual function in 1,202 aging males: differentiating aspects. Bortz WM 2nd, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):M237–41

The sexual revolution in science: what gender-based research is telling us. Thompson PM, et al. **J Investig Med** 1999 Mar;47(3):106–13 (40 ref.)

Gender congruence in confirmatory and compensatory drinking. Williams RJ, et al. **J Psychol** 1999 May; 133(3):323–31

The effects of gender and music video imagery on sexual attitudes. Kalof L. **J Soc Psychol** 1999 Jun;139(3):378–85

Individual sex preferences and the population sex ratio of newborns. Chu CY, et al. **J Theor Biol** 1998 Oct 7; 194(3):383–90

The cost of sex revisited: effects of male gamete output of hermaphrodites that are asexual in their female capacity. Joshi A, et al. **J Theor Biol** 1998 Dec 21;195(4):533–42

What pair formation can do to the battle of the sexes: towards more realistic game dynamics. Mylius SD. **J Theor Biol** 1999 Apr 21;197(4):469–85

On sex, mate selection and the red queen. Ochoa G, et al. **J Theor Biol** 1999 Jul 7;199(1):1–9

Risky business: sexual and asexual reproduction in variable environments. Robson AJ, et al. **J Theor Biol** 1999 Apr 21;197(4):541–56

Teaching on gender-related issues; a survey of psychiatry faculty and residents. Des Rosiers P, et al. **Med Educ** 1998 Sep;32(5):522–6

Serum leptin levels and leptin expression in growth hormone (GH)-deficient and healthy adults: influence of GH treatment, gender, and fasting. Kristensen K, et al. **Metabolism** 1998 Dec;47(12):1514–9

The influence of age, sex and smoking habits on the background level of fish-detected translocations. Pressl S, et al. **Mutat Res** 1999 Jun 25;442(2):89–95

Effect of parental donor sex on rejection in pediatric renal transplantation: a report of the North American Pediatric Renal Transplant Cooperative Study. Neu AM, et al. **Pediatr Transplant** 1998 Nov;2(4):309–12

Potential errors resulting from sex and age difference in assessing family history of diabetes. Saito T, et al. **Prev Med** 1999 Jan;28(1):33–9

Gender-specific frequency of background somatic mutations at the hypoxanthine phosphoribosyltransferase locus in cord blood T lymphocytes from preterm newborns. Yoshioka M, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):586–91

Gender matters: an integrated model for understanding men's and women's health. Bird CE, et al. **Soc Sci Med** 1999 Mar;48(6):745–55 (51 ref.)

Drug identity change processes, race, and gender. II. Microlevel motivational concepts. Anderson TL. **Subst Use Misuse** 1998 Oct;33(12):2469–83

Incorporating gender in the anthropology of infectious diseases [see comments] Vlassoff C, et al. **Trop Med Int Health** 1998 Dec;3(12):1011–9 (45 ref.). Comment in: Trop Med Int Health 1998 Dec;3(12):993–5.

EDUCATION see SEX EDUCATION

SEX ATTRACTANTS

Actographic analysis of the effects of an esterase inhibitor on male moth responses to sex pheromone. Renou M, et al. **Chem Senses** 1999 Aug;24(4):423–8

Presence of sex pheromones in Anocentor nitens (Acari: Ixodidae). Borges LM, et al. **J Med Entomol** 1999 Jan; 36(1):50–4

[A new generation of acaricide--attractant acaricidal granules] Riazantseva GA, et al. **Med Parazitol (Mosk)** 1998 Oct-Dec;(4):22–4 (Eng. Abstr.) **(Rus)**

ANALYSIS

Proteinaceous pheromone affecting female receptivity in a terrestrial salamander. Rollmann SM, et al. **Science** 1999 Sep 17;285(5435):1907–9

BIOSYNTHESIS

Identification and characterization of a determinant (eep) on the Enterococcus faecalis chromosome that is involved in production of the peptide sex pheromone cAD1. An FY, et al. **J Bacteriol** 1999 Oct;181(19):5915–21

CHEMISTRY

Biochemical variations of male scent markers alter the attractiveness in the female rats, Rattus norvegicus. Kannan S, et al. **Acta Physiol Hung** 1997-98;85(2):175–81

Analysis of the clumping-mediating domain(s) of sex pheromone plasmid pAD1-encoded aggregation substance. Muscholl-Silberhorn A. **Eur J Biochem** 1998 Dec 1; 258(2):515–20

Physico-chemical properties of the female sex pheromone of Heterodera schachtii (Nematoda: Heteroderidae). Aumann J, et al. **Int J Parasitol** 1998 Nov;28(11):1691–4

Controlled release of insect sex pheromones from paraffin wax and emulsions. Atterholt CA, et al. **J Controlled Release** 1999 Feb 22;57(3):233–47

GENETICS

cDNA cloning of an adult male putative lipocalin specific to tergal gland aphrodisiac secretion in an insect (Leucophaea maderae). Korchi A, et al. **FEBS Lett** 1999 Apr 23;449(2–3):125–8

Isolation and identification of the cDNA encoding the pheromone biosynthesis activating neuropeptide and additional neuropeptides in the oriental tobacco budworm, Helicoverpa assulta (Lepidoptera: Noctuidae). Choi MY, et al. **Insect Biochem Mol Biol** 1998 Oct;28(10):759–66

Molecular cloning of a novel sex pheromone responsible for the release of a different sex pheromone in Closterium

SEX ATTRACTANTS

peracerosum-strigosum-littorale complex. Sekimoto H, et al. **Plant Cell Physiol** 1998 Nov;39(11):1169-75

ISOLATION & PURIFICATION

Sodefrin: a novel sex pheromone in a newt. Kikuyama S, et al. **Rev Reprod** 1999 Jan;4(1):1-4 (18 ref.)

METABOLISM

Molecular cloning of newt sex pheromone precursor cDNAs: evidence for the existence of species-specific forms of pheromones. Iwata T, et al. **FEBS Lett** 1999 Sep 3; 457(3):400-4

Pheromone binding proteins in the European and Asian corn borers: no protein change associated with pheromone differences. Willett CS, et al. **Insect Biochem Mol Biol** 1999 Mar;29(3):277-84

Multiple sex pheromones and receptors of a mushroom-producing fungus elicit mating in yeast. Fowler TJ, et al. **Mol Biol Cell** 1999 Aug;10(8):2559-72

Regulation of the Enterococcus faecalis pAD1-related sex pheromone response: analyses of traD expression and its role in controlling conjugation functions. do Carmo de Freire Bastos M, et al. **Mol Microbiol** 1998 Oct; 30(2):381-92

PHARMACOLOGY

Pheromonal influences [letter; comment] Wysocki CJ, et al. **Arch Sex Behav** 1998 Dec;27(6):627-34. Comment on: Arch Sex Behav 1998 Feb;27(1):1-13.

MK-801 and male odours induce c-fos expression in the AOB of juvenile female mice. McLellan RA, et al. **Neuroreport** 1998 Dec 1;9(17):3919-24

Effect of juvenile hormone on the central nervous processing of sex pheromone in an insect. Anton S, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5764-7

PHYSIOLOGY

Biochemical variations of male scent markers alter the attractiveness in the female rats, Rattus norvegicus. Kannan S, et al. **Acta Physiol Hung** 1997-98;85(2):175-81

Chemical signals in the reproduction of Asian (Elephas maximus) and African (Loxodonta africana) elephants. Rasmussen LE, et al. **Anim Reprod Sci** 1998 Oct; 53(1-4):19-34 (92 ref.)

Discrimination of pheromonal cues in fish: emerging parallels with insects. Sorensen PW, et al. **Curr Opin Neurobiol** 1998 Aug;8(4):458-67 (61 ref.)

Perception of scent over-marks by golden hamsters (Mesocricetus auratus): novel mechanisms for determining which individual's mark is on top. Johnston RE, et al. **J Comp Psychol** 1998 Sep;112(3):230-43

Molecular cloning of a novel sex pheromone responsible for the release of a different sex pheromone in Closterium peracerosum-strigosum-littorale complex. Sekimoto H, et al. **Plant Cell Physiol** 1998 Nov;39(11):1169-75

SEX BEHAVIOR

see related

SEXUAL PARTNERS

Patterns of sexual and injecting risk behaviours in French intravenous drug users not reporting HIV and hepatitis C virus seropositivities. Vidal-Trécan G, et al. **Addiction** 1998 Nov;93(11):1657-68

Sexually transmitted diseases, unintended pregnancy, and adolescent health promotion. Santelli JS, et al. **Adolesc Med** 1999 Feb;10(1):87-108, vi (180 ref.)

Factors associated with the sexual experiences of underprivileged Mexican adolescents. Huerta-Franco R, et al. **Adolescence** 1999 Summer;34(134):389-401

Early sexual experiences among pregnant and parenting adolescents. Kellogg ND, et al. **Adolescence** 1999 Summer; 34(134):293-303

Sexuality and quality of life among young people. McCabe MP, et al. **Adolescence** 1998 Winter;33(132):761-73

Sexual activity among Zambian female teenagers: the role of interpersonal skills. Pillai VK, et al. **Adolescence** 1999 Summer;34(134):381-7

Gender differences in adolescent sexual attitudes: the influence of individual and family factors. Werner-Wilson RJ. **Adolescence** 1998 Fall;33(131):519-31

HIV/AIDS prevention-related social skills and knowledge among adolescents in Sierra Leone, West Africa. Lahai-Momoh JC, et al. **Afr J Reprod Health** 1997 Mar; 1(1):37-44

HIV testing and counseling among men attending sexually transmitted disease clinics in Pune, India: changes in condom use and sexual behavior over time. Bentley ME, et al. **AIDS** 1998 Oct 1;12(14):1869-77

Self-reported sexual behaviour and HIV risk taking among men who have sex with men in Fortaleza, Brazil. Kerr-Pontes LR, et al. **AIDS** 1999 Apr 16;13(6):709-17

Reductions in risk behaviour provide the most consistent explanation for declining HIV-1 prevalence in Uganda. Kilian AH, et al. **AIDS** 1999 Feb 25;13(3):391-8

Social marketing sexually transmitted disease and HIV prevention: a consumer-centered approach to achieving behaviour change. Lamptey PR, et al. **AIDS** 1998;12 Suppl 2:S1-9

Who may be engaging in high-risk sex due to medical treatment advances? [letter] Remien RH, et al. **AIDS** 1998 Aug 20;12(12):1560-1

Sexual behaviours, perception of risk of HIV infection, and factors associated with attending HIV post-test counselling in Ethiopia. Sahlu T, et al. **AIDS** 1999 Jul 9;13(10):1263-72

Prevalence of unprotected sex among men with AIDS in Los Angeles County, California 1995-1997. Simon PA, et al. **AIDS** 1999 May 28;13(8):987-90

Predictors of visits to commercial sex workers by male attendees at sexually transmitted disease clinics in southern Vietnam. Thuy NT, et al. **AIDS** 1999 Apr 16;13(6):719-25

Sexual, contraceptive, and drug use behaviors of women with HIV and those at high risk for infection: results from the Women's Interagency HIV Study. Wilson TE, et al. **AIDS** 1999 Apr 1;13(5):591-8

Is acculturation associated with sexual risk behaviours? An investigation of HIV-positive Latino men and women. Marks G, et al. **AIDS Care** 1998 Jun;10(3):283-95

Sexual and reproductive health among primary and secondary school pupils in Mwanza, Tanzania: need for intervention. Matasha E, et al. **AIDS Care** 1998 Oct; 10(5):571-82

Close relationships and safer sex among HIV-infected men with haemophilia. Norman LR, et al. **AIDS Care** 1998 Jun; 10(3):339-54

Factors associated with changes in sex behaviour among drug users in Puerto Rico. Robles RR, et al. **AIDS Care** 1998 Jun;10(3):329-38

Young people and HIV in Cambodia: meanings, contexts and sexual cultures. Tarr CM, et al. **AIDS Care** 1999 Jun; 11(3):375-84

The association between characteristics of dating relationships and condom use among heterosexual young adults. Civic D. **AIDS Educ Prev** 1999 Aug;11(4):343-52

Effects of an HIV risk reduction project on sexual risk behavior of low-income STD patients. O'Leary A, et al. **AIDS Educ Prev** 1998 Dec;10(6):483-92

Maintenance of safe sex behavior by HIV-serodiscordant heterosexual couples. Skurnick JH, et al. **AIDS Educ Prev** 1998 Dec;10(6):493-505

Inappropriate sexual behaviors in dementia: a preliminary report. Tsai SJ, et al. **Alzheimer Dis Assoc Disord** 1999 Jan;13(1):60-2

Drug abuse treatment and risky sex: evidence for a cumulative treatment effect? Longshore D, et al. **Am J Drug Alcohol Abuse** 1998 Aug;24(3):439-51

Readmissions to drug abuse treatment and HIV risk behavior. McCusker J, et al. **Am J Drug Alcohol Abuse** 1998 Nov; 24(4):523-40

Methamphetamine use and sexual and injection risk behaviors among out-of-treatment injection drug users. Molitor F, et al. **Am J Drug Alcohol Abuse** 1999 Aug;25(3):475-93

Application of computer-assisted interviews to sexual behavior research. Kissinger P, et al. **Am J Epidemiol** 1999 May 15;149(10):950-4

Shedding light on the sexual history. Warner PH, et al. **Am J Nurs** 1999 Jun;99(6):34-40; quiz 41 (11 ref.)

Condom practices of urban teens using Norplant contraceptive implants, oral contraceptives, and condoms for contraception. Darney PD, et al. **Am J Obstet Gynecol** 1999 Apr;180(4):929-37

A brief HIV intervention for adolescents and young adults. Rotheram-Borus MJ, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):553-64

Elimination and reintroduction of a sexually transmitted disease: lessons to be learned? [editorial; comment] Aral S. **Am J Public Health** 1999 Jul;89(7):995-7. Comment on: Am J Public Health 1999 Jul;89(7):1093-7.

Sexual health risk assessment and counseling in primary care: how involved are general practitioners and obstetrician-gynecologists? [see comments] Haley N, et al. **Am J Public Health** 1999 Jun;89(6):899-902. Comment in: Am J Public Health 1999 Jun;89(6):815-8.

The impact of condom availability [correction of distribution] in Seattle schools on sexual behavior and condom use [published erratum appears in Am J Public Health 1999 Mar;89(3):422] Kirby D, et al. **Am J Public Health** 1999 Feb;89(2):182-7

Effects of HIV counseling and testing on sexual risk behavior: a meta-analytic review of published research, 1985-1997. Weinhardt LS, et al. **Am J Public Health** 1999 Sep; 89(9):1397-405

Reliability of the timeline follow-back sexual behavior interview. Weinhardt LS, et al. **Ann Behav Med** 1998 Winter;20(1):25-30

Understanding and promoting sexual and reproductive health behavior: theory and method. Fisher WA, et al. **Annu Rev Sex Res** 1998;9:39-76 (138 ref.)

Sexuality and late modernity. Schmidt G. **Annu Rev Sex Res** 1998;9:224-41 (51 ref.)

Evaluating interviewing techniques for the sexual practices history. Use of video trigger tapes to assess patient comfort. Floyd M, et al. **Arch Fam Med** 1999 May-Jun;8(3):218-23

Relationship between use of the intrauterine device and pelvic inflammatory disease [letter] Sarma S. **Arch Fam Med** 1999 May-Jun;8(3):197

Sexually transmitted diseases in a health maintenance organization teen clinic: associations of race, partner's age, and marijuana use. Boyer CB, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):838-44

Beach week: a high school graduation rite of passage for sun, sand, suds, and sex. Schwartz RH, et al. **Arch Pediatr Adolesc Med** 1999 Feb;153(2):180-3

Male and female differences in reports of women's heterosexual initiation and aggression. Anderson PB, et al. **Arch Sex Behav** 1999 Jun;28(3):243-53

The relation between sexual orientation and penile size. Bogaert AF, et al. **Arch Sex Behav** 1999 Jun;28(3):213-21

Monthly measures of salivary testosterone predict sexual activity in adolescent males. Halpern CT, et al. **Arch Sex Behav** 1998 Oct;27(5):445-65

Swinging: a review of the literature. Jenks RJ. **Arch Sex Behav** 1998 Oct;27(5):507-21 (36 ref.)

Experiences with sexual aggression within the general population in the Czech Republic. Weiss P, et al. **Arch Sex Behav** 1999 Jun;28(3):265-9

A family history study of male sexual orientation using three independent samples. Bailey JM, et al. **Behav Genet** 1999 Mar;29(2):79-86

Evaluation of sexual life after orchidectomy followed by radiotherapy for early-stage seminoma of the testis. Caffo O, et al. **BJU Int** 1999 Mar;83(4):462-8

ABC of sexual health: a woman's sexual life after an operation. de Marquiegui A, et al. **BMJ** 1999 Jan 16; 318(7177):178-81 (0 ref.)

Sex and drugs and rock and roll. Britain can learn lessons from Europe on the health of adolescents [editorial; comment] McKee M. **BMJ** 1999 May 15;318(7194):1300-1 . Comment on: BMJ 1999 May 15;318(7194):1321-2.

Inclusive questions are needed when taking a sexual history [letter; comment] Meacher P. **BMJ** 1999 May 8; 318(7193):1289. Comment on: BMJ 1998 Dec 5;317(7172):1573-6.

Sexual lifestyle of long distance lorry drivers in India: questionnaire survey [see comments] Rao KS, et al. **BMJ** 1999 Jan 16;318(7177):162-3. Comment in: BMJ 1999 Jun 5;318(7197):1559.

Young peoples' understanding of safer sex and their attitude to referral for STI screening-two audits from London Brook Advisory Centres. Vanhegan G, et al. **Br J Fam Plann** 1999 Apr;25(1):22-3

The sexual competition hypothesis for eating disorders. Abed RT. **Br J Med Psychol** 1998 Dec;71 (Pt 4):525-47

Sexual activity questionnaires in clinical trials: acceptability to patients with gynaecological disorders. Stead ML, et al. **Br J Obstet Gynaecol** 1999 Jan;106(1):50-4

Medroxyprogesterone in the treatment of aggressive hypersexual behavior in traumatic brain injury. Britton KR. **Brain Inj** 1998 Aug;12(8):703-7

Re: Sexual boundary violations and science [letter; comment] Morissette L. **Can J Psychiatry** 1998 Oct;43(8):853-4. Comment on: Can J Psychiatry 1997 Sep;42(7):758-63.

Acculturation and Pap smear screening practices among college-aged Vietnamese women in the United States. Yi JK. **Cancer Nurs** 1998 Oct;21(5):335-41

Sexual activity after first acute myocardial infarction in middle-aged men: demographic, psychological and medical predictors. Drory Y, et al. **Cardiology** 1998 Dec; 90(3):207-11

AIDS related knowledge and sexual behaviour among commercial farm residents in Zimbabwe. Chikovore J, et al. **Cent Afr J Med** 1999 Jan;45(1):7-10

Alcohol intake and sexually transmitted diseases. Tüzün B, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):469-78 (130 ref.)

Kluver Bucy syndrome in young children. Pradhan S, et al. **Clin Neurol Neurosurg** 1998 Dec;100(4):254-8

Literature reviews: adolescent medicine. Braverman PK. **Clin Pediatr (Phila)** 1999 Mar;38(3):183-4 (0 ref.)

Adolescents' views regarding sexual history taking. Rosenthal SL, et al. **Clin Pediatr (Phila)** 1999 Apr; 38(4):227-33

Active surveillance of sexual behaviour among homosexual men in London. Nardone A, et al. **Commun Dis Public Health** 1998 Sep;1(3):197-201

Contraceptive status and sexual function of climacteric Chinese women. Chen J, et al. **Contraception** 1999 Feb; 59(2):85-90

Allegations of sexual abuse in an intensive care unit. Hansen-Flaschen J, et al. **Crit Care Med** 1999 Feb; 27(2):437-40 (32 ref.)

Possible allegations of sexual abuse in an intensive care unit: an editorial [editorial] Mohindra V, et al. **Crit Care Med** 1999 Feb;27(2):268-9 (10 ref.)

Development of sexual orientation among adolescent and young adult women. Diamond LM. **Dev Psychol** 1998 Sep; 34(5):1085-95

Social contagion, adolescent sexual behavior, and pregnancy: a nonlinear dynamic EMOSA model [see comments] Rodgers JL, et al. **Dev Psychol** 1998 Sep;34(5):1096-113. Comment in: Dev Psychol 1998 Sep;34(5):1114-6; discussion 1117-8.

Comment on "Social contagion, adolescent sexual behavior, and pregnancy: a nonlinear dynamic EMOSA model" [comment] Stoolmiller M. **Dev Psychol** 1998 Sep; 34(5):1114-6; discussion 1117-8. Comment on: Dev Psychol 1998 Sep;34(5):1096-13.

Finger and penile tactile sensitivity in sexually functional and dysfunctional diabetic men. Morrissette DL, et al. **Diabetologia** 1999 Mar;42(3):336-42

Drug and alcohol consumption and sexual risk behaviour among young adults: results from a national survey. Castilla J, et al. **Drug Alcohol Depend** 1999 Aug 2;56(1):47-53

Non-injection substance use correlates with risky sex among men having sex with men: data from HIVNET. Woody

GE, et al. **Drug Alcohol Depend** 1999 Feb 1;53(3):197–205
Sexual behaviour in untreated and treated coeliac patients. Ciacci C, et al. **Eur J Gastroenterol Hepatol** 1998 Aug; 10(8):649–51
Pregnancy without penetration [letter] Sheiner E, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Mar;83(1):121
Sex talk: what makes it hard to learn sexual history taking? O'Keefe R, et al. **Fam Med** 1999 May;31(5):315–6
Issues in statutory rape law enforcement: the views of district attorneys in Kansas. Miller HL, et al. **Fam Plann Perspect** 1998 Jul–Aug;30(4):177–81
Sexual culture of gypsy population. Semerdjieva M, et al. **Folia Med (Plovdiv)** 1998;40(3B Suppl 3):72–5
The pill: safe sex and Crohn's disease? [comment] Alstead EM. **Gut** 1999 Aug;45(2):165–6. Comment on: Gut 1999 Aug;45(2):218–22.
Sex in the New World: an empowerment model for HIV prevention in Latina immigrant women. Gómez CA, et al. **Health Educ Behav** 1999 Apr;26(2):200–12
Reinforcement value of unsafe sex as a predictor of condom use and continued HIV/AIDS risk behavior among gay and bisexual men. Kelly JA, et al. **Health Psychol** 1998 Jul;17(4):328–35
Risky sex behavior and substance use among young adults. Staton M, et al. **Health Soc Work** 1999 May;24(2):147–54
Current status of reproductive behaviour in Africa. Bambra CS. **Hum Reprod Update** 1999 Jan–Feb;5(1):1–20 (158 ref.)
A mathematical analysis of the spread of HIV/AIDS in Japan [published erratum appears in IMA J Math Appl Med Biol 1999 Mar;16(1):111–2] Kakehashi M. **IMA J Math Appl Med Biol** 1998 Dec;15(4):299–311
Sexual behavior patterns and knowledge of sexually transmitted diseases in adolescent boys in urban slums of Lucknow, north India. Awasthi S, et al. **Indian Pediatr** 1998 Nov;35(11):1105–9
Risk behaviours and AIDS knowledge in a rural community of Senegal: relationship with sources of AIDS information. Lagarde E, et al. **Int J Epidemiol** 1998 Oct;27(5):890–6
Current approach to STD management in women. Amaral E. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S183–9 (28 ref.)
Changing behavior to prevent STDs/AIDS. Fishbein M. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S175–81 (26 ref.)
Sexually transmitted diseases and reproductive tract infections among contraceptive users. Guerreiro D, et al. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S167–73
Teaching safe sex in school. Short R. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S147–50 (4 ref.)
Cynicism: its function in the perversions. Eiguer A. **Int J Psychoanal** 1999 Aug;80 (Pt 4):671–84
Sexuality and gender identity. Morales AT. **Int J Psychoanal** 1998 Oct;79 (Pt 5):999–1001
Review of the psychoanalytic theory of sexuality. Stein R. **Int J Psychoanal** 1998 Oct;79 (Pt 5):995–8
Behavioural risk factors for HIV/AIDS in a low-HIV prevalence Muslim nation: Bangladesh. Gibney L, et al. **Int J STD AIDS** 1999 Mar;10(3):186–94
Injector-inmates and anal sex with another man in prison [letter] Gore SM, et al. **Int J STD AIDS** 1998 Dec;9(12):781
Brief behavioural skills building intervention for female controlled methods of STD-HIV prevention: outcomes of a randomized clinical field trial. Kalichman SC, et al. **Int J STD AIDS** 1999 Mar;10(3):174–81
Transsexual orientation in HIV risk behaviours in an adult male prison. Stephens T, et al. **Int J STD AIDS** 1999 Jan; 10(1):28–31
Young injectors: a comparative analysis of risk behaviour. Cassin S, et al. **Ir J Med Sci** 1998 Oct–Dec;167(4):234–7
HIV knowledge, beliefs and sexual behavior of male heterosexual drug users and non-drug users attending an HIV testing clinic in Israel. Soskolne V, et al. **Isr J Psychiatry Relat Sci** 1998;35(4):307–17
Prevalence of sexual and drug-related HIV risk behaviors in the U.S. adult population: results of the 1996 National Household Survey on Drug Abuse. Anderson JE, et al. **J Acquir Immune Defic Syndr** 1999 Jun 1;21(2):148–56
Effect of receptive oral sex and smoking on the incidence of hairy leukoplakia in HIV-positive gay men. Shiboski CH, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1; 21(3):236–42
Gallagher lecture. Thirty years in pursuit of the magic bullet. Dryfoos JG. **J Adolesc Health** 1998 Dec;23(6):338–43
Alternative methods in the investigation of adolescents' sexual life. Michaud PA, et al. **J Adolesc Health** 1999 Jul; 25(1):84–90
Condom use by Hispanic and African-American adolescent girls who use hormonal contraception [see comments] Roye CF. **J Adolesc Health** 1998 Oct;23(4):205–11. Comment in: J Adolesc Health 1999 Jun;24(6):374–5.
High school athletic participation, sexual behavior and adolescent pregnancy: a regional study [see comments] Sabo DF, et al. **J Adolesc Health** 1999 Sep;25(3):207–16. Comment in: J Adolesc Health 1999 Sep;25(3):173.
Sexual orientation, sexual behaviors, and pregnancy among American Indian adolescents. Saewyc EM, et al. **J Adolesc Health** 1998 Oct;23(4):238–47
The sexual practices of Asian and Pacific Islander high school students. Schuster MA, et al. **J Adolesc Health** 1998 Oct; 23(4):221–31
Sexual practices in a cohort of US women with and without human immunodeficiency virus. HERS Study. HIV Epidemiology Research Study. Zierler S, et al. **J Am Med Womens Assoc** 1999 Spring;54(2):79–83
Scripted role play: a technique for teaching sexual history taking. Schweickert EA, et al. **J Am Osteopath Assoc** 1999 May;99(5):275–6
Results of simplified screening for Chlamydia in female military recruits suggest testing for all sexually active young women [news] **J Assoc Nurses AIDS Care** 1999 Mar–Apr;10(2):86–7
HIV/AIDS in migrant and seasonal farm workers. Aranda-Naranjo B, et al. **J Assoc Nurses AIDS Care** 1998 Sep–Oct;9(5):80–3
Practice what we preach? HIV knowledge, beliefs, and behaviors of adolescents and adolescent peer educators. Villarruel AM, et al. **J Assoc Nurses AIDS Care** 1998 Sep–Oct;9(5):61–72
Psychosocial factors and high-risk sexual behavior: race differences among urban adolescents. Doljanac RF, et al. **J Behav Med** 1998 Oct;21(5):451–67
Exploring associations in developmental trends of adolescent substance use and risky sexual behavior in a high-risk population. Duncan SC, et al. **J Behav Med** 1999 Feb; 22(1):21–34
The relation of birth order to sexual orientation in men and women. Blanchard R, et al. **J Biosoc Sci** 1998 Oct; 30(4):511–9
Sexual activity among junior secondary school girls in Zambia. Pillai VK, et al. **J Biosoc Sci** 1997 Jul; 29(3):297–301
Impact of disfiguring burn scars on adolescent sexual development. Robert RS, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):430–5
Getting a high response rate of sexual behavior survey among the general population in Japan: three different methods of survey on sexual behavior. Hayashi M, et al. **J Epidemiol** 1999 Apr;9(2):107–13
Cost of preventing HIV infection after sexual exposure. Lindbloom EJ, et al. **J Fam Pract** 1998 Oct;47(4):251–2
The psychosexual impact of human papillomavirus cervical infections. Reed BD, et al. **J Fam Pract** 1999 Feb; 48(2):110–6
Sexual behaviour and papillomavirus exposure in cervical intraepithelial neoplasia: a population-based case-control study. Kjellberg L, et al. **J Gen Virol** 1999 Feb;80 (Pt 2):391–8
Exploring the links between interpersonal trust and the reasons underlying gay and bisexual males' disclosure of their sexual orientation to their mothers. Boon SD, et al. **J Homosex** 1999;37(3):45–68
Risk factors for human T cell lymphotropic virus type II infection among the Guaymi Indians of Panama. Maloney EM, et al. **J Infect Dis** 1999 Sep;180(3):876–9
Human immunodeficiency virus (HIV)-specific IgA and HIV neutralizing activity in the serum of exposed seronegative partners of HIV-seropositive persons. Mazzoli S, et al. **J Infect Dis** 1999 Sep;180(3):871–5
Strengthening domestic violence theories: intersections of race, class, sexual orientation, and gender. Bograd M. **J Marital Fam Ther** 1999 Jun;25(3):275–89 (92 ref.)
Oral cancer risk in relation to sexual history and evidence of human papillomavirus infection [see comments] Schwartz SM, et al. **J Natl Cancer Inst** 1998 Nov 4; 90(21):1626–36. Comment in: J Natl Cancer Inst 1998 Nov 4;90(21):1585–6.
Individual, family, and relationship predictors of young women's sexual risk perceptions. Hutchinson MK. **J Obstet Gynecol Neonatal Nurs** 1999 Jan–Feb;28(1):60–7
Relationship between perceived parental monitoring and young adolescent girls' sexual and substance use behaviors. Baker JG, et al. **J Pediatr Adolesc Gynecol** 1999 Feb; 12(1):17–22
Adolescent sexuality and sexually transmitted diseases: attitudes, beliefs, knowledge, and values. Johnson LS, et al. **J Pediatr Nurs** 1999 Jun;14(3):177–85
A new perspective on gender orientation measurement with the MMPI-2: development of the Masculine-Feminine Pathology Scale. McGrath RE, et al. **J Pers Assess** 1998 Jun;70(3):551–63
Motivations for sex and risky sexual behavior among adolescents and young adults: a functional perspective. Cooper ML, et al. **J Pers Soc Psychol** 1998 Dec; 75(6):1528–58
HIV serostatus and risk behaviors in a multisite sample of drug users. Deren S, et al. **J Psychoactive Drugs** 1998 Jul–Sep;30(3):239–45
Premarital sexual, child rearing, and family attitudes of Iranian men and women in the United States and in Iran. Hojat M, et al. **J Psychol** 1999 Jan;133(1):19–31
Too much sex. Is there such a thing? [news] **J Psychosoc Nurs Ment Health Serv** 1999 Mar;37(3):8–9
College students' AIDS risk perception. Brown EJ. **J Psychosoc Nurs Ment Health Serv** 1998 Sep;36(9):25–30
Seasonal variations in sexual activity and their implications for sexual health promotion. Wellings K, et al. **J R Soc Med** 1999 Feb;92(2):60–4
Sexual behavior changes with vulvar vestibulitis syndrome. White G, et al. **J Reprod Med** 1998 Sep;43(9):783–9
Reflections on two decades of research on teen sexual behavior and pregnancy. Kirby D. **J Sch Health** 1999 Mar; 69(3):89–94 (43 ref.)
Abstinence—more than a slogan [editorial] Villarruel AM. **J Soc Pediatr Nurs** 1998 Jul–Sep;3(3):91–2
Sexual satisfaction and sexual drive in spinal cord injured women. Black K, et al. **J Spinal Cord Med** 1998 Jul; 21(3):240–4
Relationships of substance use to attitudes toward gender roles, family and cohabitation. Lye DN, et al. **J Subst Abuse** 1998;10(2):185–98
HIV-risk behaviors in adolescent substance abusers. Deas-Nesmith D, et al. **J Subst Abuse Treat** 1999 Mar; 16(2):169–72
Relating body image to psychological and sexual functioning in child sexual abuse survivors. Wenninger K, et al. **J Trauma Stress** 1998 Jul;11(3):543–62
Are preventive HIV interventions at airports effective? Gehring TM, et al. **J Travel Med** 1998 Dec;5(4):205–9
Safer sex strategies for women: the hierarchical model in methadone treatment clinics. Stein Z, et al. **J Urban Health** 1999 Mar;76(1):62–72
Sex and the mature woman. Pariser SF, et al. **J Womens Health** 1998 Sep;7(7):849–59 (38 ref.)
From the Centers for Disease Control and Prevention. Trends in sexual risk behaviors among high school students—United States, 1991–1997. **JAMA** 1998 Dec 2; 280(21):1819–20
From the Centers for Disease Control and Prevention. Trends in HIV-related sexual risk behaviors among high school students—selected US cities, 1991–1997. **JAMA** 1999 Jul 21;282(3):228–30
Sex at risk: politically or factually correct? [letter] Brody S. **JAMA** 1998 Nov 4;280(17):1482
Would you say you "had sex" if...? Sanders SA, et al. **JAMA** 1999 Jan 20;281(3):275–7
Sexual behaviour in travellers [letter; comment] Abdullah AS, et al. **Lancet** 1999 Feb 13;353(9152):595. Comment on: Lancet 1998 Nov 21;352(9141):1664–8.
Concern voiced over "dry sex" practices in South Africa [news] Baleta A. **Lancet** 1998 Oct 17;352(9136):1292
Audio-computer interviewing to measure risk behaviour for HIV among injecting drug users: a quasi-randomised trial. Des Jarlais DC, et al. **Lancet** 1999 May 15; 353(9165):1657–61
Sexual behaviour in travellers [letter; comment] Mulhall BP. **Lancet** 1999 Feb 13;353(9152):595–6. Comment on: Lancet 1998 Nov 21;352(9141):1664–8.
Female genital surgeries: the known, the unknown, and the unknowable. Obermeyer CM. **Med Anthropol Q** 1999 Mar; 13(1):79–106 (85 ref.)
The Lundberg affair [editorial] van der Weyden MB. **Med J Aust** 1999 Feb 15;170(4):151
Surviving cancer: the importance of sexual self-concept. Andersen BL. **Med Pediatr Oncol** 1999 Jul;33(1):15–23 (45 ref.)
Trends in HIV-related sexual risk behaviors among high school students—selected U.S. cities, 1991–1997. **MMWR Morb Mortal Wkly Rep** 1999 Jun 4;48(21):440–3
Postsexual exposure prophylaxis [news] Klaus BD, et al. **Nurse Pract** 1998 Aug;23(8):70, 72–3
Redefining empowerment and sexual negotiation for women living with HIV. Zorrilla CD, et al. **P R Health Sci J** 1998 Sep;17(3):253–6
Teen childbearing trends: which tide turned when and why? [comment] Stevens-Simon C, et al. **Pediatrics** 1998 Nov; 102(5):1205–6. Comment on: Pediatrics 1998 Nov;102(5):1141–7.
Children, adolescents, and the media: issues and solutions. Strasburger VC, et al. **Pediatrics** 1999 Jan;103(1):129–39 (156 ref.)
Observers of childhood sexual behavior [letter] Warshak RA. **Pediatrics** 1999 Apr;103(4 Pt 1):853–4
The transmission dynamics of gonorrhoea: modelling the reported behaviour of infected patients from Newark, New Jersey. Garnett GP, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Apr 29; 354(1384):787–97
Social transmission of reproductive behavior increases frequency of inherited disorders in a young-expanding population. Austerlitz F, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15140–4
Impact of market value on human mate choice decisions. Pawlowski B, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):281–5
Psychosocial correlates of heterosexual condom use: a meta-analysis. Sheeran P, et al. **Psychol Bull** 1999 Jan; 125(1):90–132
Sex education sources and attitudes about premarital sex of Seventh Day Adventist youth. Ali HK, et al. **Psychol Rep** 1999 Feb;84(1):312
Are perceived professional qualities affected by knowledge of a counselor's sexual orientation? Kurdelak LM, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1145–6
HIV/AIDS prevention through changing risky sexual behavior among heterosexual college students: a 1990's bibliography. Livingston MM. **Psychol Rep** 1998 Dec;83(3 Pt 1):781–2
Ranking of romantic acts among Cape Verdean and Portuguese students. Neto F, et al. **Psychol Rep** 1998 Dec; 83(3 Pt 2):1315–8
Public displays of affection among Asian and Latino heterosexual couples. Regan PC, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1201–2
Impact of different adjuvant therapy strategies on quality of life in breast cancer survivors. Ganz PA, et al.

Recent Results Cancer Res 1998;152:396–411

Influence of HIV positive status on sexual behavior among males. Ventura-Filipe EM, et al. **Rev Saude Publica** 1998 Dec;32(6):503–13

Human monogamy [letter] Clark GA. **Science** 1998 Nov 6; 282(5391):1047–8

More questions about the provider's role [news] Hagmann M. **Science** 1999 Feb 5;283(5403):777

Sexual network patterns as determinants of STD rates: paradigm shift in the behavioral epidemiology of STDs made visible [editorial; comment] Aral SO. **Sex Transm Dis** 1999 May;26(5):262–4. Comment on: Sex Transm Dis 1999 May;26(5):250–61.

Group counseling to prevent sexually transmitted disease and HIV: a randomized controlled trial. Branson BM, et al. **Sex Transm Dis** 1998 Nov;25(10):553–60

Sexual activity, substance use, and HIV/STD knowledge among detained male adolescents with multiple versus first admissions. Harwell TS, et al. **Sex Transm Dis** 1999 May; 26(5):265–71

Hepatitis C virus infection in Chicago women with or at risk for HIV infection: evidence for sexual transmission. Hershow RC, et al. **Sex Transm Dis** 1998 Nov; 25(10):527–32

Self-reported sexual activity and condom use among symptomatic clients attending STD clinics. Irwin DE, et al. **Sex Transm Dis** 1999 May;26(5):286–90

Epidemiologic aspects of male gonococcal infection in Greece. Kyriakis KP, et al. **Sex Transm Dis** 1999 Jan; 26(1):43–8

Development of a multi-item scale to quantitatively assess sexual behaviors and the transmission of high- and low-risk human papillomaviruses. Morrison EA, et al. **Sex Transm Dis** 1998 Nov;25(10):509–15

Sexual experiences and condom use of heterosexual, low-income African American and Hispanic youth practicing relative monogamy, serial monogamy, and nonmonogamy. Norris AE, et al. **Sex Transm Dis** 1999 Jan; 26(1):17–25

Concurrent sex partners and risk for sexually transmitted diseases among adolescents. Rosenberg MD, et al. **Sex Transm Dis** 1999 Apr;26(4):208–12

A geographic relation between alcohol availability and gonorrhea rates. Scribner RA, et al. **Sex Transm Dis** 1998 Nov;25(10):544–8

Reliability of self-reported sexual histories: test-retest and interpartner comparison in a sexually transmitted diseases clinic. Van Duynhoven YT, et al. **Sex Transm Dis** 1999 Jan;26(1):33–42

Gender difference in persistent at-risk sexual behavior after a diagnosed sexually transmitted disease. ACSF-Investigators. Warszawski J, et al. **Sex Transm Dis** 1998 Sep;25(8):437–42

Establishing efficient partner notification periods for patients with chlamydia. Zimmerman-Rogers H, et al. **Sex Transm Dis** 1999 Jan;26(1):49–54

The practice and prevalence of dry sex among men and women in South Africa: a risk factor for sexually transmitted infections? Beksinska ME, et al. **Sex Transm Infect** 1999 Jun;75(3):178–80

The evolution of monogamy in humans. Birley H, et al. **Sex Transm Infect** 1999 Apr;75(2):126

Oral sex and the transmission of non-viral STIs [letter] Stanley B. **Sex Transm Infect** 1999 Feb;75(1):77

Attitudes to taking a sexual history in general practice in Victoria, Australia. Temple-Smith MJ, et al. **Sex Transm Infect** 1999 Feb;75(1):41–4

Chlamydia trachomatis prevalence and sexual behaviour among female adolescents in Belgium. Vuylsteke B, et al. **Sex Transm Infect** 1999 Jun;75(3):152–5

Sexual regimes and sexual networking: the risk of an HIV/AIDS epidemic in Bangladesh. Caldwell B, et al. **Soc Sci Med** 1999 Apr;48(8):1103–16

HIV-related sexual risk assessment among Asian/Pacific Islander American women: an inductive model. Chin D. **Soc Sci Med** 1999 Jul;49(2):241–51

Gender, sexuality, and the prevention of sexually transmissible diseases: a Brazilian study of clinical practice. Giffin K, et al. **Soc Sci Med** 1999 Feb;48(3):283–92

Sexual behaviour and risk assessment of HIV seroconvertors among urban male factory workers in Zimbabwe. Ray S, et al. **Soc Sci Med** 1998 Nov;47(10):1431–43

Legal issues associated with sexual activity between adults and minors in Texas: a review. Smith PB, et al. **Tex Med** 1999 Jul;95(7):65–9

Sexual selection by male choice in monogamous and polygynous human populations. Ihara Y, et al. **Theor Popul Biol** 1999 Feb;55(1):77–93

Traditional healers and sexually transmitted diseases [editorial; comment] Jones M. **Trop Doct** 1999 Jan;29(1):1 . Comment on: Trop Doct 1999 Jan;29(1):36–8.

Sexual coercion history, calloused sexual beliefs and judgments of sexual coercion in a date rape analogue. Bernat JA, et al. **Violence Vict** 1999 Summer;14(2):147–60

Testing a mediational model of sexually aggressive behavior in nonincarcerated perpetrators. Ouimette PC, et al. **Violence Vict** 1998 Summer;13(2):117–30

Women HIV sexual risk takers: related behaviors, interpersonal issues, and attitudes. Harlow LL, et al. **Womens Health** 1998 Winter;4(4):407–39 (85 ref.)

[The loss of virginity and sexual activity in adolescence] Vasileva P, et al. **Akush Ginekol (Sofiia)** 1998;37(3):46–8 (Eng. Abstr.) **(Bul)**

[Adolescents and sexuality in family practice. A pilot study] Graugaard CL, et al. **Ugeskr Laeger** 1998 Dec 7; 160(50):7262–5 (Eng. Abstr.) **(Dan)**

["Safe sex" among HIV-positive heterosexual couples] Weis NM, et al. **Ugeskr Laeger** 1999 Jun 14;161(24):3666–9 (Eng. Abstr.) **(Dan)**

[Sexual repercussions of prostatic adenoma surgery for the man and his partner. Role of retrograde ejaculation] Gellman R, et al. **Ann Urol (Paris)** 1998;32(6–7):329–32 (Eng. Abstr.) **(Fre)**

[Hormones and sexuality in the young and aging woman] Buvat-Herbaut M. **Contracept Fertil Sex** 1999 Jan; 27(1):17–22 (57 ref.) **(Fre)**

[Questions about sexual ethics related to AIDS] Colpin H. **Contracept Fertil Sex** 1998 Nov;26(11):812–8 (29 ref.) (Eng. Abstr.) **(Fre)**

[Contraception during the first sexual intercourse: a survey concerning 467 female teenagers, 13 to 21 years in the Nantes area] Lemort MF, et al. **Contracept Fertil Sex** 1999 Mar;27(3):197–202 (17 ref.) (Eng. Abstr.) **(Fre)**

[Sexual behavior, knowledge and attitudes to AIDS and sexually transmitted diseases of students at the University of Benin (Togo)] Sallah ED, et al. **Sante** 1999 Mar–Apr; 9(2):101–9 (Eng. Abstr.) **(Fre)**

[HIV post-exposure prophylaxis after sexual risk contact (editorial; comment)] Battegay M, et al. **Schweiz Med Wochenschr** 1999 Feb 27;129(8):311–3. Comment on: Schweiz Med Wochenschr 1999 Feb 27;129(8):314–8. **(Ger)**

[Post-exposure HIV prevention: eligibility of patients recently infected by sexual exposure (see comments)] Sudre P, et al. **Schweiz Med Wochenschr** 1999 Feb 27;129(8):314–8 (Eng. Abstr.). Comment in: Schweiz Med Wochenschr 1999 Feb 27;129(8):311–3. **(Ger)**

[Sexuality in pregnancy: survey of the DFG project "Parenthood, couple relations and sexuality" and first preliminary findings] von Sydow K, et al. **Zentralbl Gynakol** 1999;121 Suppl 1:35–40 **(Ger)**

[Sexual behaviors and the HIV/AIDS risk in the general population: the methodological aspects of a national study within the context of a European Concerted Action] Renzi C, et al. **Ann Ig** 1999 Mar–Apr;11(2):83–94 (Eng. Abstr.) **(Ita)**

[Sexuality in menopause. Importance of adequate replacement therapy] Grio R, et al. **Minerva Ginecol** 1999 Mar;51(3):59–62 (Eng. Abstr.) **(Ita)**

[Sex life of pregnant women with cardiopathies] Korbel M. **Ceska Gynekol** 1998 Aug;63(4):305–12 (Eng. Abstr.) **(Slo)**

[Psychosexual features of people with permanent colostomy (editorial)] Ospina de González B. **Acta Gastroenterol Latinoam** 1998;28(4):315–7 (Eng. Abstr.) **(Spa)**

[Health-related behaviors in secondary-school students: sexual relations and tobacco, alcohol and cannabis consumption] Diez E, et al. **Gac Sanit** 1998 Nov–Dec; 12(6):272–80 (Eng. Abstr.) **(Spa)**

[Characteristics of sex behavior of men in Mexico City] Hernández-Girón C, et al. **Salud Publica Mex** 1999 Mar–Apr;41(2):95–100 (Eng. Abstr.) **(Spa)**

[Condom use by men with non-stable partners in Mexico City] Nieto-Andrade B, et al. **Salud Publica Mex** 1999 Mar–Apr;41(2):85–94 (Eng. Abstr.) **(Spa)**

[Sex in Sweden--population based survey. Changed sexual pattern mirrors trends in the society] Lundberg PO. **Lakartidningen** 1999 Apr 21;96(16):1991–2, 1995–6 (Eng. Abstr.) **(Swe)**

[The nature of male patients being informed about sexual relations and venereal diseases] Fedorenko Ole. **Lik Sprava** 1999 Mar;(2):87–91 (Eng. Abstr.) **(Ukr)**

CLASSIFICATION

Treatment. The fix for a fixation [news] Haugh R. **Hosp Health Netw** 1999 Feb;73(2):32

Patterns of sexual partnerships among adolescent females [see comments] Howard MM, et al. **J Adolesc Health** 1999 May; 24(5):300–3. Comment in: J Adolesc Health 1999 May;24(5):299.

DRUG EFFECTS

Sexual function in hypertensive males treated with lisinopril or atenolol: a cross-over study. Fogari R, et al. **Am J Hypertens** 1998 Oct;11(10):1244–7

Pheromonal influences [letter; comment] Wysocki CJ, et al. **Arch Sex Behav** 1998 Dec;27(6):627–34. Comment on: Arch Sex Behav 1998 Feb;27(1):1–13.

Antiepileptic drug therapy and sexual function in men with epilepsy. Duncan S, et al. **Epilepsia** 1999 Feb;40(2):197–204

Pharmacology of alpha-adrenoceptors in male sexual function. Rampin O. **Eur Urol** 1999;36 Suppl 1:103–6 (19 ref.)

Serotonin, serotonergic receptors, selective serotonin reuptake inhibitors and sexual behaviour. Olivier B, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S9–14 (27 ref.)

Pharmacologic treatment of hypersexuality and paraphilias in nursing home residents. Levitsky AM, et al. **J Am Geriatr Soc** 1999 Feb;47(2):231–4 (26 ref.)

Sexual behaviors in autism: problems of definition and management. Realmuto GM, et al. **J Autism Dev Disord** 1999 Apr;29(2):121–7

Estrogen and estrogen-androgen replacement in postmenopausal women dissatisfied with estrogen-only therapy. Sexual behavior and neuroendocrine responses. Sarrel P, et al. **J Reprod Med** 1998 Oct;43(10):847–56

Facilitation of sexual behavior in male rats following d-amphetamine-induced behavioral sensitization. Fiorino DF, et al. **Psychopharmacology (Berl)** 1999 Feb; 142(2):200–8

Alcohol's possible covert role: brain dysfunction, paraphilias, and sexually aggressive behaviors. Williams S. **Sex Abuse** 1999 Apr;11(2):147–58 (54 ref.)

Doing a shotgun: a drug use practice and its relationship to sexual behaviors and infection risk. Perlman DC, et al. **Soc Sci Med** 1999 May;48(10):1441–8

ETHNOLOGY

Theoretical perspectives on female sexual behaviour in Africa: a review and conceptual model. Djamba YK. **Afr J Reprod Health** 1997 Sep;1(2):67–78 (57 ref.)

Condom use in sexual exchange relationships among young single adults in Ghana. Ankomah A. **AIDS Educ Prev** 1998 Aug;10(4):303–16

The effectiveness of the Reach for Health Community Youth Service learning program in reducing early and unprotected sex among urban middle school students. O'Donnell L, et al. **Am J Public Health** 1999 Feb; 89(2):176–81

Sexual aggression among Asian Americans: risk and protective factors. Hall GC, et al. **Cult Divers Ment Health** 1998;4(4):305–18

Influence of family tradition on reproductive behavior of Gypsy population. Semerdjieva M, et al. **Folia Med (Plovdiv)** 1999;41(1):116–20

Machos and sluts: gender, sexuality, and violence among a cohort of Puerto Rican adolescents. Asencio MW. **Med Anthropol Q** 1999 Mar;13(1):107–26

The gamesmanship of sex: a model based on African American adolescent accounts. Eyre SL, et al. **Med Anthropol Q** 1998 Dec;12(4):467–89

A randomized, controlled trial of a behavioral intervention to prevent sexually transmitted disease among minority women. Shain RN, et al. **N Engl J Med** 1999 Jan 14; 340(2):93–100

Intergenerational concepts of adolescent sexuality: implications for community-based reproductive health care with Haitian immigrants. DeSantis L, et al. **Public Health Nurs** 1999 Apr;16(2):102–13

Partner violence and sexual HIV-risk behaviors among women in an inner-city emergency department. El-Bassel N, et al. **Violence Vict** 1998 Winter;13(4):377–93

Sexual functioning and intimacy in African American and white breast cancer survivors: a descriptive study. Wyatt GE, et al. **Womens Health** 1998 Winter;4(4):385–405

HISTORY

Adaptive sex ratio variation in pre-industrial human (Homo sapiens) populations? Lummaa V, et al. **Proc R Soc Lond B Biol Sci** 1998 Apr 7;265(1396):563–8

Archetype and interpretation. Burston D. **Psychoanal Rev** 1999 Feb;86(1):35–62

PHYSIOLOGY

Sexual activity as a trigger for cardiovascular events: what is the risk? Muller JE. **Am J Cardiol** 1999 Sep 9; 84(5B):2N–5N (22 ref.)

Sexual activity and the cardiovascular patient: guidelines. Taylor HA Jr. **Am J Cardiol** 1999 Sep 9;84(5B):6N–10N (19 ref.)

Out on campus: sexual orientation and academic climate in a university context. Waldo CR. **Am J Community Psychol** 1998 Oct;26(5):745–74

Changes in the sexual orientation of six heterosexual male-to-female transsexuals. Daskalos CT. **Arch Sex Behav** 1998 Dec;27(6):605–14

Neuroanatomical correlates of visually evoked sexual arousal in human males. Stoléru S, et al. **Arch Sex Behav** 1999 Feb;28(1):1–21

Sexual behaviour during pregnancy. Oruç S, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):48–50

Sexual function in women suffering from aortoiliac occlusive disease. Hultgren R, et al. **Eur J Vasc Endovasc Surg** 1999 Apr;17(4):306–12

The new heterozygosity theory of mate choice and the MHC. Brown JL. **Genetica** 1998–99;104(3):215–21 (87 ref.)

Biology and sexuality. Olagaray J. **Int J Psychoanal** 1998 Oct;79 (Pt 5):991–4

Sexual function in 1,202 aging males: differentiating aspects. Bortz WM 2nd, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):M237–41

Lesbian erotic role identification: behavioral, morphological, and hormonal correlates. Singh D, et al. **J Pers Soc Psychol** 1999 Jun;76(6):1035–49

Therapeutic uses of sexually explicit materials in the United States and the Czech and Slovak Republics: a qualitative study. Robinson BE, et al. **J Sex Marital Ther** 1999 Apr–Jun;25(2):103–19

Visual cues to female physical attractiveness. Tovée MJ, et al. **Proc R Soc Lond B Biol Sci** 1999 Jan 22;266(1415):211–8

Love as sensory stimulation: physiological consequences of its deprivation and expression. Komisaruk BR, et al.

Psychoneuroendocrinology 1998 Nov;23(8):927–44 (58 ref.)

Male sexual performance and hormonal studies in uremic patients and renal transplant recipients. Chu SH, et al. **Transplant Proc** 1998 Nov;30(7):3062–3

[Change in sexual desire in the menopausal woman: a succinct evaluation] Mouchamps E, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jun;28(3):232–8 (Eng. Abstr.) **(Fre)**

[Sexual satisfaction and sociological factors] Raboch J Jr, et al. **Zentralbl Gynakol** 1998;120(11):545–7 (Eng. Abstr.) **(Ger)**

[The regulation of male sexual behavior by the sex hormones] Gladkova AI. **Usp Fiziol Nauk** 1999 Jan–Mar;30(1):97–105 (64 ref.) (Eng. Abstr.) **(Rus)**

PSYCHOLOGY

Dating couples and their relationships: intimacy and contraceptive use. Davis MJ, et al. **Adolescence** 1999 Spring;34(133):1–7

Theoretical perspectives on female sexual behaviour in Africa: a review and conceptual model. Djamba YK. **Afr J Reprod Health** 1997 Sep;1(2):67–78 (57 ref.)

HIV-related attitudes and risk behavior of young adolescent mothers. Brown LK, et al. **AIDS Educ Prev** 1998 Dec; 10(6):565–73

An investigation of the effects of HIV on the sex lives of infected individuals. Cranson DA, et al. **AIDS Educ Prev** 1998 Dec;10(6):506–22

Alcohol and AIDS-related sexual behavior among Hispanics: acculturation and gender differences. Hines AM, et al. **AIDS Educ Prev** 1998 Dec;10(6):533–47

Reducing HIV risk-associated sexual behavior among African American adolescents: testing the generality of intervention effects. Jemmott JB 3rd, et al. **Am J Community Psychol** 1999 Apr;27(2):161–87

Women inmates' risky sex and drug behaviors: are they related? Cotten-Oldenburg NU, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):129–49

Longitudinal changes in sexual risk behavior among HIV+ and HIV- male injecting drug users. Dolezal C, et al. **Am J Drug Alcohol Abuse** 1999 May;25(2):281–303

On sexual orientation and family development [letter; comment] Friedman RC. **Am J Orthopsychiatry** 1998 Oct; 68(4):653. Comment on: Am J Orthopsychiatry 1998 Jul;68(3):352–60.

Sexual mixing patterns in the spread of gonococcal and chlamydial infections. Aral SO, et al. **Am J Public Health** 1999 Jun;89(6):825–33

Involving men in reproductive health: the Young Men's Clinic. Armstrong B, et al. **Am J Public Health** 1999 Jun; 89(6):902–5

Men's bodies, men's minds: seminal emissions and sexual anxiety in the Middle Ages. Murray J. **Annu Rev Sex Res** 1997;8:1–26 (66 ref.)

The experience of relapse to unsafe sexual behavior among HIV-positive, heterosexual, minority men. Sherman DW, et al. **Appl Nurs Res** 1999 May;12(2):91–100

Sexual satisfaction in male infertility. Müller MJ, et al. **Arch Androl** 1999 May–Jun;42(3):137–43

Intersexuality: recommendations for management [letter] Diamond M. **Arch Sex Behav** 1998 Dec;27(6):634–41

Determinants of item nonresponse in a large national sex survey. Kupek E. **Arch Sex Behav** 1998 Dec;27(6):581–94

Dyadic coorientation: reexamination of a method for studying interpersonal communication. Purnine DM, et al. **Arch Sex Behav** 1999 Feb;28(1):45–62

Sexual activity prior to coital initiation: a comparison between males and females. Schwartz IM. **Arch Sex Behav** 1999 Feb;28(1):63–9

Sexual behaviour during pregnancy. Oruç S, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):48–50

Sex, lies and training programs: the ethics of consensual sexual relationships between psychiatrists and trainee psychiatrists [letter; comment] Fitzgerald P. **Aust N Z J Psychiatry** 1999 Feb;33(1):119–20. Comment on: Aust N Z J Psychiatry 1998 Jun;32(3):387–91.

Sex knowledge and sexual attitudes among medical and nursing students. McKelvey RS, et al. **Aust N Z J Psychiatry** 1999 Apr;33(2):260–6

The respondent conditioning of male sexual arousal. Plaud JJ, et al. **Behav Modif** 1999 Feb;23(2):254–68

Teenage sexual behaviour: attitudes towards and declared sexual activity. Burack R. **Br J Fam Plann** 1999 Jan; 24(4):145–8

Attenders at young people's clinics in Southampton: variations in contraceptive use. Coleman L, et al. **Br J Fam Plann** 1998 Oct;24(3):101–4

Childhood sexual abuse and revictimization in adolescence. Krahé B, et al. **Child Abuse Negl** 1999 Apr;23(4):383–94

Effects of body fat on weight concerns, dating, and sexual activity: a longitudinal analysis of black and white adolescent girls. Halpern CT, et al. **Dev Psychol** 1999 May; 35(3):721–36

Perception of risk, sexual behaviour and STD/HIV prevalence in western Kenya. Wools KK, et al. **East Afr Med J** 1998 Dec;75(12):679–83

Targeting "risky" gender ideologies: constructing a community-driven, theory-based HIV prevention intervention for youth. Laub C, et al. **Health Educ Behav** 1999 Apr;26(2):185–99

Self-efficacy and disclosure of HIV-positive serostatus to sex partners. Kalichman SC, et al. **Health Psychol** 1999 May;18(3):281–7

AIDS treatment advances and behavioral prevention setbacks: preliminary assessment of reduced perceived threat of HIV-AIDS. Kalichman SC, et al. **Health Psychol** 1998 Nov;17(6):546–50

Domestically violent and nonviolent male inmates' responses to their partners' requests for condom use: testing a social-information processing model. Neighbors CJ, et al. **Health Psychol** 1999 Jul;18(4):427–31

Understanding the unprotected sexual behaviors of gay, lesbian, and bisexual youths: an empirical test of the cognitive-environmental model. Rosario M, et al. **Health Psychol** 1999 May;18(3):272–80

A comparative test of the theory of reasoned action and the theory of planned behavior in the prediction of condom use intentions in a national sample of English young people. Sutton S, et al. **Health Psychol** 1999 Jan;18(1):72–81

Truck crew and risk of contraction of STDS, including HIV: encouraging the use of condoms by the method of applying theories. Bansal RK, et al. **Indian J Med Sci** 1998 Jun; 52(6):253–64

Sexuality in the age of AIDS [letter] Blechner MJ. **Int J Psychoanal** 1998 Oct;79 (Pt 5):1007–8

Perversion. Leigh R. **Int J Psychoanal** 1998 Dec;79 (Pt 6):1217–20

The sexual preferences of incest offenders. Seto MC, et al. **J Abnorm Psychol** 1999 May;108(2):267–72

Stimulant abuse treatment as HIV prevention. Shoptaw S, et al. **J Addict Dis** 1998;17(4):19–32

The effects of partner insistence of condom usage on perceptions of the partner, the relationship, and the experience. Hocking JE, et al. **J Adolesc** 1999 Jun; 22(3):355–67

First sexual intercourse: anticipation and communication. Interviews with young people in England. Mitchell K, et al. **J Adolesc** 1998 Dec;21(6):717–26

Mum's the word: mothers' perspectives on communication about sexuality with adolescents. Rosenthal DA, et al. **J Adolesc** 1998 Dec;21(6):727–43

Risky sexual behaviors among adolescents with alcohol use disorders. Bailey SL, et al. **J Adolesc Health** 1999 Sep; 25(3):179–81

Adolescents' recall of sexual behavior: consistency of self-report and effect of variations in recall duration. McFarlane M, et al. **J Adolesc Health** 1999 Sep; 25(3):199–206

Adolescent males involved in pregnancy: associations of forced sexual contact and risk behaviors. Pierre N, et al. **J Adolesc Health** 1998 Dec;23(6):364–9

Preventing the high-risk sexual behavior of adolescents: focus on HIV/AIDS transmission, unintended pregnancy, or both? Whaley AL. **J Adolesc Health** 1999 Jun; 24(6):376–82 (49 ref.)

Effects of psycho-educational interventions on sexual health risks and psycho-social adaptation in young adults with genital herpes. Swanson JM, et al. **J Adv Nurs** 1999 Apr; 29(4):840–51

Psychosexual dysfunction in males with genital anomalies: late adolescence, Tanner stages IV to VI. Reiner WG, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul; 38(7):865–72

Sexual burglaries and sexual homicide: clinical, forensic, and investigative considerations. Schlesinger LB, et al. **J Am Acad Psychiatry Law** 1999;27(2):227–38

Reliability and validity of a self-efficacy instrument for protective sexual behaviors. Cecil H, et al. **J Am Coll Health** 1998 Nov;47(3):113–21

Femininity as a barrier to positive sexual health for adolescent girls. Tolman DL. **J Am Med Womens Assoc** 1999 Summer; 54(3):133–8

Sexual offending and antisocial sexual behavior among patients with schizophrenia. Phillips SL, et al. **J Clin Psychiatry** 1999 Mar;60(3):170–5

Sexual risk behavior among youth: modeling the influence of prosocial activities and socioeconomic factors. Ramirez-Valles J, et al. **J Health Soc Behav** 1998 Sep; 39(3):237–53

The pattern of sexual politics: feminism, homosexuality and pedophilia. Mirkin H. **J Homosex** 1999;37(2):1–24

Morality and multiplicity: perspectives on the treatment of violence in intimate life. Goldner V. **J Marital Fam Ther** 1999 Jun;25(3):325–36 (24 ref.)

Intimate justice. II: Fostering mutuality, reciprocity, and accommodation in therapy for psychological abuse. Jory B, et al. **J Marital Fam Ther** 1999 Jun;25(3):349–63

Understanding HIV-related risk among persons with a severe and persistent mental illness: insights from qualitative inquiry. Gordon CM, et al. **J Nerv Ment Dis** 1999 Apr; 187(4):208–16

Rorschach assessment of malevolence in sexually abused girls. Ornduff SR, et al. **J Pers Assess** 1999 Aug;73(1):100–9

Men's sexual self-schema. Andersen BL, et al. **J Pers Soc Psychol** 1999 Apr;76(4):645–61

Lesbian erotic role identification: behavioral, morphological, and hormonal correlates. Singh D, et al. **J Pers Soc Psychol** 1999 Jun;76(6):1035–49

Family planning knowledge, attitudes and practices in women with schizophrenic spectrum disorders. Miller LJ, et al. **J Psychosom Obstet Gynaecol** 1998 Dec;19(4):210–7

Gender differences related to heterosexual condom use: the influence of negotiation styles. Carter JA, et al. **J Sex Marital Ther** 1999 Jul–Sep;25(3):217–25

The sexual struggles of 23 clergymen: a follow-up study. Fones CS, et al. **J Sex Marital Ther** 1999 Jul–Sep; 25(3):183–95

The nonsexual marriage: assessing viability and treatment options. McCarthy BW. **J Sex Marital Ther** 1999 Jul–Sep; 25(3):227–36

Sexuality following breast cancer. Meyerowitz BE, et al. **J Sex Marital Ther** 1999 Jul–Sep;25(3):237–50

Dynamics of self-acceptance and mate acceptance in sexual life [letter] Slosarz WJ. **J Sex Marital Ther** 1999 Jan–Mar; 25(1):9–10

The effects of gender and music video imagery on sexual attitudes. Kalof L. **J Soc Psychol** 1999 Jun;139(3):378–85

The influence of perceived responsibility and personality characteristics on the emotional and behavioral reactions to people with AIDS. Steins G, et al. **J Soc Psychol** 1999 Aug;139(4):487–95

Intoxicated sexual risk taking: an expectancy or cognitive impairment explanation? Fromme K, et al. **J Stud Alcohol** 1999 Jan;60(1):54–63

Differences in sexual risk behaviour between young men and women travelling abroad from the UK [see comments] Bloor M, et al. **Lancet** 1998 Nov 21;352(9141):1664–8. Comment in: Lancet 1999 Feb 13;353(9152):595. Comment in: Lancet 1999 Feb 13;353(9152):595–6.

A survey of under-18 year old and 20-29 year old primigravidae delivered at the Port Moresby General Hospital: a comparative study of their sociodemographic and sexuality characteristics and contraceptive knowledge and experience. Klufio CA, et al. **P N G Med J** 1997 Mar; 40(1):26–38

Child sexual behavior inventory: A Dutch-speaking normative sample. Schoentjes E, et al. **Pediatrics** 1999 Oct; 104(4 Pt 1):885–93

Test-retest reliability of the Hurlbert Index of Sexual Assertiveness. Pierce AP, et al. **Percept Mot Skills** 1999 Feb;88(1):31–4

The Holden Psychological Screening Inventory and sexual efficacy in urological patients with erectile dysfunction. Holden RR. **Psychol Rep** 1999 Feb;84(1):255–8

Exploring the relationship of erotic life to bulimia nervosa [letter] Lock J. **Psychosom Med** 1998 Sep–Oct;60(5):661

The effect of alcohol on the responses of sexually coercive and noncoercive men to an experimental rape analogue. Marx BP, et al. **Sex Abuse** 1999 Apr;11(2):131–45

Alcohol's possible covert role: brain dysfunction, paraphilias, and sexually aggressive behaviors. Williams S. **Sex Abuse** 1999 Apr;11(2):147–58 (54 ref.)

Alcohol use and sexual behavior among "Black" adolescents. Strunin L. **Subst Use Misuse** 1999 Oct;34(12):1665–87

Study on Chlamydia trachomatis infection among students and pregnant women in Japan: a step toward developing a reliable method for sexual behavior study. Umenai T, et al. **Tohoku J Exp Med** 1999 Feb;187(2):189–92

Male sexual performance and hormonal studies in uremic patients and renal transplant recipients. Chu SH, et al. **Transplant Proc** 1998 Nov;30(7):3062–3

An examination of social cognitive theory with differences among sexually aggressive, physically aggressive and nonaggressive children in state care. Burton DL. **Violence Vict** 1999 Summer;14(2):161–78

Conceptualizing sexual health in cancer care. Butler L, et al. **West J Nurs Res** 1998 Dec;20(6):683–99; discussion 700–5

Sexual risk behavior changes among HIV+ and HIV-female injecting drug users over 4 years. Dolezal C, et al. **Women Health** 1998;27(4):1–17

Women's self-reported condom use: intra and interpersonal factors. Soet JE, et al. **Women Health** 1998;27(4):19–32

[Sexual fantasies and sexual dreams: a sexoanalytical exploration] Crépault C, et al. **Contracept Fertil Sex** 1999 Mar;27(3):231–7 (12 ref.) (Eng. Abstr.) **(Fre)**

[Sexual practices in the school milieu] Hodonou KA, et al. **Contracept Fertil Sex** 1999 Apr;27(4):313–7 (Eng. Abstr.) **(Fre)**

[Sexual satisfaction for thE handicapped. "Society is the one to determine handicap". Series: Sex Medicine, 6. Conversation with Inge Plangger, dipl. ped., dipl psych.] Plangger I. **Fortschr Med** 1999 Apr 10;117(10):42–3 **(Ger)**

[Sexual dissatisfaction and somatic complaints in male infertility] Schilling G, et al. **Psychother Psychosom Med Psychol** 1999 Aug;49(8):256–63 (36 ref.) (Eng. Abstr.) **(Ger)**

[Sexual satisfaction and sociological factors] Raboch J Jr, et al. **Zentralbl Gynakol** 1998;120(11):545–7 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Sexual behaviour and condom use in the general population of Spain, 1996. Castilla J, et al. **AIDS Care** 1998 Dec; 10(6):667–76

Underlying reasons for sexual conduct and condom use among expatriates posted in AIDS endemic areas. de Graaf R, et al. **AIDS Care** 1998 Dec;10(6):651–65

Prepubertal boys' sexual behavior and behavior problems. Meyer-Bahlburg HF, et al. **AIDS Educ Prev** 1999 Apr; 11(2):174–86

Per-contact risk of human immunodeficiency virus transmission between male sexual partners. Vittinghoff E, et al. **Am J Epidemiol** 1999 Aug 1;150(3):306–11

Sexual mixing patterns in the spread of gonococcal and

chlamydial infections. Aral SO, et al. **Am J Public Health** 1999 Jun;89(6):825–33

Implementation of condom social marketing in Louisiana, 1993 to 1996. Cohen DA, et al. **Am J Public Health** 1999 Feb;89(2):204–8

Increase in unprotected anal intercourse with casual partners among Sydney gay men in 1996–98. Van de Ven P, et al. **Aust N Z J Public Health** 1998 Dec;22(7):814–8

Australian university students agree with Clinton's definition of sex [letter] Richters J, et al. **BMJ** 1999 Apr 10; 318(7189):1011–12

Changes in the sexual lifestyles of young people in Somerset, 1990–1996. Ford NJ, et al. **Br J Fam Plann** 1999 Jul; 25(2):55–8

Sexual and physical abuse among incarcerated youth: implications for sexual behavior, contraceptive use, and teenage pregnancy. Mason WA, et al. **Child Abuse Negl** 1998 Oct;22(10):987–95

Condom use and HIV risk behaviors among U.S. adults: data from a national survey. Anderson JE, et al. **Fam Plann Perspect** 1999 Jan–Feb;31(1):24–8

Sex, contraception and childbearing among high-risk youth: do different factors influence males and females? Kowaleski-Jones L, et al. **Fam Plann Perspect** 1998 Jul–Aug;30(4):163–9

Understanding changes in sexual activity among young metropolitan men: 1979–1995. Ku L, et al. **Fam Plann Perspect** 1998 Nov–Dec;30(6):256–62

Increased condom use among teenage males, 1988–1995: the role of attitudes. Murphy JJ, et al. **Fam Plann Perspect** 1998 Nov–Dec;30(6):276–80, 303

Multiple sexual partners among U.S. adolescents and young adults. Santelli JS, et al. **Fam Plann Perspect** 1998 Nov–Dec;30(6):271–5

Sexual behavior among U.S. high school students, 1990–1995. Warren CW, et al. **Fam Plann Perspect** 1998 Jul–Aug; 30(4):170–2, 200

Substance use and risky sexual behavior among homeless and runaway youth. Bailey SL, et al. **J Adolesc Health** 1998 Dec;23(6):378–88

Reproductive health risk behavior survey of Colombian high school students. Becher JC, et al. **J Adolesc Health** 1999 Mar;24(3):220–5

Partner condom use among adolescent girls with sexually transmitted diseases. Shrier LA, et al. **J Adolesc Health** 1999 May;24(5):357–61

Alcohol use, drug use, and sexual activity among pharmacy students at three institutions. Noormohamed SE, et al. **J Am Pharm Assoc (Wash)** 1998 Sep–Oct;38(5):609–13

Distribution along a stages-of-behavioral-change continuum for condom and contraceptive use among women accessed in different settings. Prevention of HIV in Women and Infants Demonstration Projects. O'Campo P, et al. **J Community Health** 1999 Feb;24(1):61–72

Sexual behavior and AIDS-related knowledge among community college students in Orange County, California. Shapiro J, et al. **J Community Health** 1999 Feb;24(1):29–43

Sexual behaviour of commercial sex workers and their clients in Cambodia. Japan-Cambodia Collaborating Research Group. Morio S, et al. **J Epidemiol** 1999 Jun;9(3):175–82

Past and current STDs in a Thai adolescent population. Piya-Anant M, et al. **J Med Assoc Thai** 1999 May; 82(5):444–50

Developing surveillance for HIV transmission and risk behaviours among high-risk groups in a central London health district. Nardone A, et al. **J Public Health Med** 1999 Jun;21(2):208–14

Junior high school students' perceptions regarding nonconsensual sexual behavior. Jordan TR, et al. **J Sch Health** 1998 Sep;68(7):289–96

Self-reports of alcohol use, drug use and sexual behavior: expanding the Timeline Follow-back technique. Midanik LT, et al. **J Stud Alcohol** 1998 Nov;59(6):681–9

From the Centers for Disease Control and Prevention. Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994–1997. **JAMA** 1999 Feb 24;281(8):696–7

Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California, 1994–1997. **MMWR Morb Mortal Wkly Rep** 1999 Jan 29;48(3):45–8

A survey of under-18 year old and 20–29 year old primigravidae delivered at the Port Moresby General Hospital: a comparative study of their sociodemographic and sexuality characteristics and contraceptive knowledge and experience. Klufio CA, et al. **P N G Med J** 1997 Mar; 40(1):26–38

Cocaine use and high-risk sexual behavior among STD clinic patients. Hser YI, et al. **Sex Transm Dis** 1999 Feb;26(2):82–6

Recording sexual behavior: comparison of recall questionnaires with a coital diary. Ramjee G, et al. **Sex Transm Dis** 1999 Aug;26(7):374–80

Under the influence: risky sexual behavior and substance abuse among driving under the influence offenders. Siegal HA, et al. **Sex Transm Dis** 1999 Feb;26(2):87–92

Sexual practices and prevalence of HIV, HTLV-I/II, and Treponema pallidum among clandestine female sex workers in Lima, Peru. Trujillo L, et al. **Sex Transm Dis** 1999 Feb; 26(2):115–8

Drug use, sexual behaviour and HIV risk of the homeless in Port-of-Spain, Trinidad. Reid SD. **West Indian Med J** 1999 Jun;48(2):57–60

[Sexual practices in the school milieu] Hodonou KA, et al. **Contracept Fertil Sex** 1999 Apr;27(4):313–7 (Eng. Abstr.) **(Fre)**

SEX BEHAVIOR, ANIMAL

Mating system of Microcebus murinus. Fietz J. **Am J Primatol** 1999;48(2):127–33

Female mating strategy in an enclosed group of Japanese macaques. Soltis J, et al. **Am J Primatol** 1999;47(4):263–78

Fertility of beef cattle females with mating stimuli around insemination. Rodriguez RO, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):221–6

Scent of a Ewe: transmission of a social cue by conspecifics affects sexual performance in male sheep. Maina D, et al. **Biol Reprod** 1999 Jun;60(6):1373–7

Courtship behaviour of ostriches (Struthio camelus) towards humans under farming conditions in Britain. Bubier NE, et al. **Br Poult Sci** 1998 Sep;39(4):477–81

The partner preference paradigm: a method to study sexual motivation and performance of female rats. Avitsur R, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):320–5

Male–female interactions and socio-sexual isolation of Mus spicilegus toward two other species of east-European mice, M. macedonicus and M. m. musculus. Ivantcheva A, et al. **C R Acad Sci III** 1999 Jul;322(7):597–605

Sexual behaviour in Drosophila is irreversibly programmed during a critical period. Arthur BI Jr, et al. **Curr Biol** 1998 Oct 22;8(21):1187–90

Sexual behaviour: Courting dissatisfaction. O'Kane CJ, et al. **Curr Biol** 1999 Apr 22;9(8):R289–92 (14 ref.)

Incomplete sexual suppression in Leontopithecus chrysomelas: a behavioural and hormonal study in a semi-natural environment. Chaoui NJ, et al. **Folia Primatol (Basel)** 1999 Jan–Feb;70(1):47–54

Sexual behavior and extragroup copulations in a wild population of common marmosets (Callithrix jacchus). Digby LJ. **Folia Primatol (Basel)** 1999;70(3):136–45

Polygyny and infanticide in common marmosets in a fragment of the Atlantic forest of Brazil. Roda SA, et al. **Folia Primatol (Basel)** 1998;69(6):372–6

Male homosexual behaviour accompanied by ejaculation in a free-ranging troop of Japanese macaques (Macaca fuscata). Takenoshita Y. **Folia Primatol (Basel)** 1998; 69(6):364–7

Sex steroid and corticosterone levels of Adélie penguins (Pygoscelis adeliae) during courtship and incubation. McQueen SM, et al. **Gen Comp Endocrinol** 1999 Apr; 114(1):11–8

Intraspecific variation in the effects of mating on emigration activity and fecundity in a natural population of Drosophila melanogaster. Mikasa K. **Genes Genet Syst** 1998 Aug; 73(4):263–9

Analysis of the doublesex female protein in Drosophila melanogaster: role on sexual differentiation and behavior and dependence on intersex. Waterbury JA, et al. **Genetics** 1999 Aug;152(4):1653–67

Variability and evolvability of male song characters in Drosophila montana populations. Suvanto L, et al. **Hereditas** 1999;130(1):13–8

Is the heritability for courtship and mating speed in Drosophila (fruit fly) low? Hoffmann AA. **Heredity** 1999 Feb;82 (Pt 2):158–62

New perspectives on mate choice and the MHC. Jordan WC, et al. **Heredity** 1998 Sep;81 (Pt 3):239–45 (57 ref.)

New perspectives on mate choice and the MHC. Jordan WC, et al. **Heredity** 1998 Aug;81 (Pt 2):127–33 (55 ref.)

Behavioral analysis of Drosophila mutants displaying abnormal male courtship. Orgad S, et al. **Invert Neurosci** 1997 Sep–Dec;3(2–3):175–83

Behavior and endocrine changes in high-performing, low-performing, and male-oriented domestic rams following exposure to rams and ewes in estrus when copulation is precluded. Alexander BM, et al. **J Anim Sci** 1999 Jul;77(7):1869–74

Perception of scent over-marks by golden hamsters (Mesocricetus auratus): novel mechanisms for determining which individual's mark is on top. Johnston RE, et al. **J Comp Psychol** 1998 Sep;112(3):230–43

On sperm competition games: raffles and roles revisited. Mesterton-Gibbons M. **J Math Biol** 1999 Aug;39(2):91–108

Effect of age and multiple mating on the mating behavior of Culicoides nubeculosus (Diptera: Ceratopogonidae). Mair J, et al. **J Med Entomol** 1998 Nov;35(6):996–1001

Peripeduncular lesion alters expression of c-fos induced in the female rat brain by male mounting. Wedemeyer C, et al. **J Neuroendocrinol** 1999 Mar;11(3):221–8

Factors affecting the harem formation process by young Misaki feral stallions. Khalil AM, et al. **J Vet Med Sci** 1999 Jun;61(6):667–71

Male reproductive success in a promiscuous mammal: behavioural estimates compared with genetic paternity. Coltman DW, et al. **Mol Ecol** 1999 Jul;8(7):1199–209

Genetic conflicts and the private life of Peromyscus polionotus [letter; comment] Haig D. **Nat Genet** 1999 Jun; 22(2):131. Comment on: Nat Genet 1998 Dec;20(4):315–6.

Imprinting and monogamy [letter; comment] Moore T, et al. **Nat Genet** 1999 Jun;22(2):130–1. Comment on: Nat Genet 1998 Dec;20(4):362–5.

A polycystic kidney-disease gene homologue required for male mating behaviour in C. elegans [see comments] Barr MM, et al. **Nature** 1999 Sep 23;401(6751):386–9. Comment in: Nature 1999 Sep 23;401(6751):339–40.

Primate socioecology: new insights from males. Kappeler PM. **Naturwissenschaften** 1999 Jan;86(1):18–29 (147 ref.)

Dissatisfaction encodes a tailless-like nuclear receptor expressed in a subset of CNS neurons controlling Drosophila sexual behavior. Finley KD, et al. **Neuron** 1998 Dec;21(6):1363–74

Forty generations of bidirectional selection for mating frequency in male Japanese quail. Yang N, et al. **Poult Sci** 1998 Oct;77(10):1469–77

Experimental removal of sexual selection reverses intersexual antagonistic coevolution and removes a reproductive load. Holland B, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5083–8

Genetic benefits enhance the reproductive success of polyandrous females. Newcomer SD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10236–41

Polyandrous females discriminate against previous mates. Zeh JA, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13732–6

Paternal kin discrimination in wild baboons. Alberts SC. **Proc R Soc Lond B Biol Sci** 1999 Jul 22;266(1427):1501–6

Evolutionary change in a receiver bias: a comparison of female preference functions. Basolo AL. **Proc R Soc Lond B Biol Sci** 1998 Nov 22;265(1411):2223–8

Carotenoids, sexual signals and immune function in barn swallows from Chernobyl. Camplani A, et al. **Proc R Soc Lond B Biol Sci** 1999 Jun 7;266(1424):1111–6

On the origin of species by means of assortative mating. Kondrashov AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 7;265(1412):2273–8 (25 ref.)

Parasite-induced risk of mortality elevates reproductive effort in male Drosophila. Polak M, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 22; 265(1411):2197–201

Parasitism, host immune function, and sexual selection. Møller AP, et al. **Q Rev Biol** 1999 Mar;74(1):3–20

The handy-dandy kitchen device [letter; comment] Abramson PR, et al. **Science** 1998 Dec 11;282(5396):1993–4 . Comment on: Science 1998 Jun 19;280(5371):1837–8. Comment on: Science 1998 Jun 19;280(5371):1928–30.

Female x male interactions in Drosophila sperm competition. Clark AG, et al. **Science** 1999 Jan 8;283(5399):217–20

Male attractiveness and differential testosterone investment in zebra finch eggs [see comments] Gil D, et al. **Science** 1999 Oct 1;286(5437):126–8. Comment in: Science 1999 Oct 1;286(5437):23.

Evolution. Handsome finches win a boost for their offspring [news; comment] Vogel G. **Science** 1999 Oct 1;286(5437):23 . Comment on: Science 1999 Oct 1;286(5437):126–8.

Stochastic effects in LMC models. Courteau J, et al. **Theor Popul Biol** 1999 Apr;55(2):127–36

DRUG EFFECTS

Eurycoma longifolia increases sexual motivation in sexually naive male rats. Ang HH, et al. **Arch Pharm Res** 1998 Dec; 21(6):779–81

GABA(A), D1, and D5, but not progestin receptor, antagonist and anti-sense oligonucleotide infusions to the ventral tegmental area of cycling rats and hamsters attenuate lordosis. Frye CA, et al. **Behav Brain Res** 1999 Aug;103(1):23–34

Intracerebroventricular infusion of the galanin antagonist M40 attenuates heterosexual partner preference in ferrets. Park JJ, et al. **Behav Neurosci** 1999 Apr;113(2):391–400

Dopamine-stimulated sexual behavior is testosterone dependent in mice. Szczypka MS, et al. **Behav Neurosci** 1998 Oct;112(5):1229–35

Facilitation and inhibition of male rat ejaculatory behaviour by the respective 5-HT1A and 5-HT1B receptor agonists 8-OH-DPAT and anpirtoline, as evidenced by use of the corresponding new and selective receptor antagonists NAD-299 and NAS-181. Hillegaart V, et al. **Br J Pharmacol** 1998 Dec;125(8):1733–43

Cytokines inhibit sexual behavior in female rats: I. Synergistic effects of tumor necrosis factor alpha and interleukin-1. Avitsur R, et al. **Brain Behav Immun** 1999 Mar;13(1):14–32

Cytokines inhibit sexual behavior in female rats: II. Prostaglandins mediate the suppressive effects of interleukin-1beta. Avitsur R, et al. **Brain Behav Immun** 1999 Mar;13(1):33–45

Progesterone has rapid and membrane effects in the facilitation of female mouse sexual behavior. Frye CA, et al. **Brain Res** 1999 Jan 9;815(2):259–69

Dose-dependent effects of estradiol benzoate on 5-HT1A receptor agonist action. Jackson A, et al. **Brain Res** 1998 Jun 15;796(1–2):299–302

Effects of a D1 antagonist and of sexual experience on copulation-induced Fos-like immunoreactivity in the medial preoptic nucleus. Lumley LA, et al. **Brain Res** 1999 May 22;829(1–2):55–68

Partial antagonism of 8-OH-DPAT'S effects on male rat sexual behavior with a D2, but not a 5-HT1A, antagonist. Matuszewich L, et al. **Brain Res** 1999 Feb 27; 820(1–2):55–62

Attenuation of the lordosis-inhibiting effects of 8-OH-DPAT by TFMPP and quipazine. Wolf A, et al. **Brain Res** 1998 Sep 7;804(2):206–11

Effects of brain testosterone implants on appetitive and consummatory components of male sexual behavior in Japanese quail. Riters LV, et al. **Brain Res Bull** 1998 Sep 1;47(1):69–79

Effects of perinatal exposure to polychlorinated biphenyls

on development of female sexual behavior. Chung YW, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):664–70
Effects of antiepileptic drugs carbamazepine and sodium valproate on fertility of male rats. Soliman GA, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Mar;106(3):110–3
Guppy sexual behavior as an effect biomarker of estrogen mimics. Bayley M, et al. **Ecotoxicol Environ Saf** 1999 May; 43(1):68–73
Modifications of testosterone-dependent behaviors by estrogen receptor-alpha gene disruption in male mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5058–69
Yohimbine interacts with the dopaminergic system to reverse sexual satiation: further evidence for a role of sexual motivation in sexual exhaustion. Rodriguez-Manzo G. **Eur J Pharmacol** 1999 May 7;372(1):1–8
A comparison of the effects of different serotonin reuptake blockers on sexual behaviour of the male rat. Mos J, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):123–35
Use of a GnRH agonist to suppress testosterone in wild male Hawaiian monk seals (Monachus schauinslandi). Atkinson S, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):178–82
11-ketotestosterone induces male-type sexual behavior and gonadotropin secretion in gynogenetic crucian carp, Carassius auratus langsdorfii. Kobayashi M, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):178–87
Indomethacin inhibits lordosis induced by ring A-reduced progestins: possible role of 3alpha-oxoreduction in progestin-facilitated lordosis. Beyer C, et al. **Horm Behav** 1999 Feb;35(1):1–8
Inhibition of estrogen-induced sexual receptivity by androgens: role of the androgen receptor. Blasberg ME, et al. **Horm Behav** 1998 Dec;34(3):283–93
Conjugated estradiol increases female sexual receptivity in response to oxytocin infused into the medial preoptic area and medial basal hypothalamus. Caldwell JD, et al. **Horm Behav** 1999 Feb;35(1):38–46
Regulation of male sexual behavior by progesterone receptor, sexual experience, and androgen. Phelps SM, et al. **Horm Behav** 1998 Dec;34(3):294–302
Rapid, corticosterone-induced disruption of medullary sensorimotor integration related to suppression of amplectic clasping in behaving roughskin newts (Taricha granulosa). Rose JD, et al. **Horm Behav** 1998 Dec;34(3):268–82
Facilitatory and inhibitory effects of beta-endorphin on lordosis in female rats: relation to time of administration. Torii M, et al. **Horm Behav** 1999 Jun;35(3):271–8
Reduced efficacy of 8-OH-DPAT's inhibition of lordosis behavior by prior estrogen treatment. Trevino A, et al. **Horm Behav** 1999 Jun;35(3):215–23
Assessment of aggression, sexual behavior and fertility in adult male rat following long-term ingestion of four industrial metals salts. Bataineh H, et al. **Hum Exp Toxicol** 1998 Oct;17(10):570–6
An experimental study of the influences of tobacco smoke on fertility and reproduction. Florek E, et al. **Hum Exp Toxicol** 1999 Apr;18(4):272–8
Serotonin, serotonergic receptors, selective serotonin reuptake inhibitors and sexual behaviour. Olivier B, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S9–14 (27 ref.)
Facilitation of sexual behavior in French-Alpine goats treated with intravaginal progesterone-releasing devices and estradiol during the breeding and nonbreeding seasons. Billings HJ, et al. **J Anim Sci** 1999 Aug;77(8):2073–8
Organizational effects of estrogens on brain vasotocin and sexual behavior in quail. Panzica GC, et al. **J Neurobiol** 1998 Dec;37(4):684–99
Effect of intraseptal vasotocin and vasoactive intestinal polypeptide infusions on courtship song and aggression in the male zebra finch (Taeniopygia guttata). Goodson JL, et al. **J Neuroendocrinol** 1999 Jan;11(1):19–25
Ovarian hormone dependence of alpha(1)-adrenoceptor activation of the nitric oxide-cGMP pathway: relevance for hormonal facilitation of lordosis behavior. Chu HP, et al. **J Neurosci** 1999 Aug 15;19(16):7191–7
Facilitation of sexual behavior and enhanced dopamine efflux in the nucleus accumbens of male rats after D-amphetamine-induced behavioral sensitization. Fiorino DF, et al. **J Neurosci** 1999 Jan 1;19(1):456–63
Effect of acute delta9-THC treatment on hypothalamic catecholamines and sexual behaviour in male rats. Hernández-Tristán R, et al. **J Physiol Biochem** 1999 Mar; 55(1):53–4
GABAergic drugs and sexual behaviour in the rabbit: evidence for species-specific effects. Paredes RG, et al. **J Psychopharmacol** 1998;12(2):186–91
Reproductive and endocrine function in rams exposed to the organochlorine pesticides lindane and pentachlorophenol from conception. Beard AP, et al. **J Reprod Fertil** 1999 Mar;115(2):303–14
Interaction of the anxiogenic agent, RS-30199, with 5-HT1A receptors: modulation of sexual activity in the male rat. Spedding M, et al. **Neuropharmacology** 1998 Jun; 37(6):769–80
Subchronic administration of fluoxetine impairs estrous behavior in intact female rats. Matuszczyk JV, et al. **Neuropsychopharmacology** 1998 Dec;19(6):492–8
Ethanol exposure during the last week of gestation in the rat: inhibition of the prenatal testosterone surge in males without long-term alterations in sex behavior. McGivern RF, et al. **Neurotoxicol Teratol** 1998 Jul–Aug;20(4):483–90
Effects of centrally injected amylin on sexually behavior of male rats. Clementi G, et al. **Peptides** 1999;20(3):379–82
Opioid receptor blockade promotes weight loss and improves the display of sexual behaviors in obese Zucker female rats. Marin-Bivens CL, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):515–20
A nitric oxide synthesis inhibitor administered into the medial preoptic area increases seminal emissions in an ex copula reflex test. Moses J, et al. **Pharmacol Biochem Behav** 1999 Jul;63(3):345–8
Effects of losartan on the sexual behavior of male rats. Chan P, et al. **Pharmacology** 1999 Mar;58(3):132–9
Effects of fadrozole on sexual displays and reproductive activity in the female canary. Leboucher G, et al. **Physiol Behav** 1998 Nov 15;65(2):233–40
Effects of naloxone on the acquisition and expression of appetitive and consummatory sexual behavior in male Japanese quail. Riters LV, et al. **Physiol Behav** 1999 Jul; 66(5):763–73
Effects of prenatal morphine exposure on rat heterotypical sexual behavior. Vathy I. **Physiol Behav** 1999 Jun; 66(4):667–71
Permanent effects of prenatal exposure to diazepam on sexual behavior of male mice. Hernandez-Alvarez LA, et al. **Proc West Pharmacol Soc** 1998;41:167–9
Stimulating property of Turnera diffusa and Pfaffia paniculata extracts on the sexual-behavior of male rats. Arletti R, et al. **Psychopharmacology (Berl)** 1999 Mar;143(1):15–9
Chronic fluoxetine inhibits sexual behavior in the male rat: reversal with oxytocin. Cantor JM, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):355–62
Neonatal exposure to technical methoxychlor alters pregnancy outcome in female mice. Swartz WJ, et al. **Reprod Toxicol** 1998 Nov–Dec;12(6):565–73
The estrogenic and antiandrogenic pesticide methoxychlor alters the reproductive tract and behavior without affecting pituitary size or LH and prolactin secretion in male rats. Gray LE Jr, et al. **Toxicol Ind Health** 1999 Jan–Mar; 15(1–2):37–47
[Evaluation on the method to test the sex-improve function and its key points] Yu Q, et al. **Wei Sheng Yen Chiu** 1997 Mar;26(2):130–2 (Eng. Abstr.) **(Chi)**
[Effects of 5-HT1a serotonin receptor agonists on sex motivation in male mice] Amstislavskaia TG, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):224–6 **(Rus)**
[Serotonin both stimulates and inhibits sexual behavior of rats. New possibilities to understand the effects and side-effects of serotonergic drugs] Larsson K, et al. **Lakartidningen** 1999 Jun 9;96(23):2854–6 (22 ref.) **(Swe)**

PHYSIOLOGY

Biochemical variations of male scent markers alter the attractiveness in the female rats, Rattus norvegicus. Kannan S, et al. **Acta Physiol Hung** 1997–98;85(2):175–81
Oxytocin, vasopressin, and the neuroendocrine basis of pair bond formation. Insel TR, et al. **Adv Exp Med Biol** 1998; 449:215–24 (50 ref.)
Functional significance of behavioral, morphological, and endocrine correlates across the ovarian cycle in semifree ranging female Tonkean macaques. Aujard F, et al. **Am J Primatol** 1998;46(4):285–309
Behavioral discrimination between circumgenital odor from peri-ovulatory dominant and anovulatory female common marmosets (Callithrix jacchus). Smith TE, et al. **Am J Primatol** 1998;46(4):265–84
Gonadal steroid-dependent GAL-IR cells within the medial preoptic nucleus (MPN) and the stimulatory effects of GAL within the MPN on sexual behaviors. Bloch GJ, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:188–205 (88 ref.)
Brain and sexual behavior. Larsson K, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:292–308 (86 ref.)
The medial extended amygdala in male reproductive behavior. A node in the mammalian social behavior network. Newman SW. **Ann N Y Acad Sci** 1999 Jun 29; 877:242–57 (103 ref.)
The Japanese quail as a model system for the investigation of steroid-catecholamine interactions mediating appetitive and consummatory aspects of male sexual behavior. Balthazart J, et al. **Annu Rev Sex Res** 1998;9:96–176 (215 ref.)
Role of the medial preoptic area/anterior hypothalamus in the control of masculine sexual behavior. Paredes RG, et al. **Annu Rev Sex Res** 1997;8:68–101 (176 ref.)
Sexual behavior in same-sexed nonhuman primates: is it relevant to understanding human homosexuality? Wallen K, et al. **Annu Rev Sex Res** 1997;8:195–223 (74 ref.)
Testosterone stimulation of the medial preoptic area and medial amygdala in the control of male hamster sexual behavior: redundancy without amplification. Coolen LM, et al. **Behav Brain Res** 1999 Jan;98(1):143–53
The selectivity of sexual responses to song displays: effects of partial chemical lesion of the HVC in female canaries. Del Negro C, et al. **Behav Brain Res** 1998 Nov; 96(1–2):151–9
Effect of septal lesions on male song and aggression in the colonial zebra finch (Taeniopygia guttata) and the territorial field sparrow (Spizella pusilla) [corrected and republished in Behav Brain Res 1999 May;101(1):167–80] Goodson JL, et al. **Behav Brain Res** 1999 Jan;98(1):167–80
Sexual behavior and wet dog shakes in the male rat: regulation by corticosterone. Gorzalka BB, et al. **Behav Brain Res** 1998 Dec;97(1–2):143–51
Sexual experience sensitizes mating-related nucleus accumbens dopamine responses of female Syrian hamsters. Kohlert JG, et al. **Behav Brain Res** 1999 Feb 15;99(1):45–52
Blockade of the establishment of the sexual inhibition resulting from sexual exhaustion by the Coolidge effect. Rodriguez-Manzo G. **Behav Brain Res** 1999 Apr; 100(1–2):245–54
Developmental isolation and subsequent adult behavior of Drosophila paulistorum. V. Survey of six sibling species. Kim YK, et al. **Behav Genet** 1999 Jan;29(1):65–73
How does offspring quality change with age in male Drosophila melanogaster? Price DK, et al. **Behav Genet** 1998 Sep;28(5):395–402
Courtship bout duration in per circadian period mutants in Drosophila melanogaster. Roche JP, et al. **Behav Genet** 1998 Sep;28(5):391–4
Flank-marking behavior and the neural distribution of vasopressin innervation in golden hamsters with suprachiasmatic lesions. Delville Y, et al. **Behav Neurosci** 1998 Dec;112(6):1486–501
Time course of VMN lesion effects on lordosis and ultrasound production in hamsters. Gibson BM, et al. **Behav Neurosci** 1998 Oct;112(5):1236–46
Analgesic responses of male mice exposed to the odors of parasitized females: effects of male sexual experience and infection status. Kavaliers M, et al. **Behav Neurosci** 1998 Aug;112(4):1001–11
Functions of the caudal periaqueductal gray in lactating rats: kyphosis, lordosis, maternal aggression, and fearfulness. Lonstein JS, et al. **Behav Neurosci** 1998 Dec;112(6):1502–18
Intracerebroventricular infusion of the galanin antagonist M40 attenuates heterosexual partner preference in ferrets. Park JJ, et al. **Behav Neurosci** 1999 Apr;113(2):391–400
Lesions centered on the medial amygdala impair scent-marking and sex-odor recognition but spare discrimination of individual odors in female golden hamsters. Petrulis A, et al. **Behav Neurosci** 1999 Apr; 113(2):345–57
Cortisol facilitates induction of sexual behavior in the female musk shrew (Suncus murinus). Schiml PA, et al. **Behav Neurosci** 1999 Feb;113(1):166–75
Disruption of sexual behavior in male aromatase-deficient mice lacking exons 1 and 2 of the cyp19 gene. Honda S, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):445–9
An ethogram of body patterning behavior in the biomedically and commercially valuable squid Loligo pealei off Cape Cod, Massachusetts. Hanlon RT, et al. **Biol Bull** 1999 Aug; 197(1):49–62
Mating vocalizations of female frogs: control and evolutionary mechanisms. Emerson SB, et al. **Brain Behav Evol** 1999;53(4):187–97 (122 ref.)
The neurosteroids, progesterone and 3alpha,5alpha-THP, enhance sexual motivation, receptivity, and proceptivity in female rats. Frye CA, et al. **Brain Res** 1998 Oct 12; 808(1):72–83
Induction of fos-like immunoreactivity in musk shrews after mating. Gill CJ, et al. **Brain Res** 1998 Nov 16;811(1–2):21–8
Site and behavioral specificity of periaqueductal gray lesions on postpartum sexual, maternal, and aggressive behaviors in rats. Lonstein JS, et al. **Brain Res** 1998 Aug 31; 804(1):21–35
Functional integration among 5-hydroxytryptamine receptor families in the control of female rat sexual behavior. Maswood N, et al. **Brain Res** 1998 Aug 17;802(1–2):98–103
Lesions of the medial preoptic area/anterior hypothalamus (MPOA/AH) modify partner preference in male rats. Paredes RG, et al. **Brain Res** 1998 Nov 30;813(1):1–8
Sex with knockout models: behavioral studies of estrogen receptor alpha. Rissman EF, et al. **Brain Res** 1999 Jul 17; 835(1):80–90 (88 ref.)
5-HT2C receptor involvement in female rat lordosis behavior. Wolf A, et al. **Brain Res** 1999 Apr 17; 825(1–2):146–51
Effects of sexual behavioral manipulation on brain plasticity in adult rats. Prince KN, et al. **Brain Res Bull** 1998 Nov 1;47(4):349–55
Juvenile hormone regulation of HMG-R gene expression in the bark beetle Ips paraconfusus (Coleoptera: Scolytidae): implications for male aggregation pheromone biosynthesis. Tittiger C, et al. **Cell Mol Life Sci** 1999 Jan;55(1):121–7
Control of luteinizing hormone and prolactin secretion in birds. Sharp PJ, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):275–82 (88 ref.)
Female preferences in a fish genus without female mate choice. Gould JL, et al. **Curr Biol** 1999 May 6;9(9):497–500
Temporal coincidence between the excitation of ventromedial hypothalamic efferents and the induction of lordosis reflex in ovariectomized estrogen-primed rats. Tashiro S, et al. **Endocr J** 1998 Aug;45(4):519–28
Roles of estrogen receptor-alpha gene expression in reproduction-related behaviors in female mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5070–81
Embryonic temperature and gonadal sex organize male-typical sexual and aggressive behavior in a lizard with temperature-dependent sex determination. Rhen T, et al. **Endocrinology** 1999 Oct;140(10):4501–8
Sexual selection and evolution of the seminal vesicles in primates. Dixson AF. **Folia Primatol (Basel)** 1998; 69(5):300–6
Injuries to the sexual skin of female chimpanzees at Mahale and their effect on behaviour. Matsumoto-Oda A.

Folia Primatol (Basel) 1998;69(6):400–4
Scent marking and contact call production in ring-tailed Lemurs (Lemur catta). Oda R. **Folia Primatol (Basel)** 1999 Mar–Apr;70(2):121–4
Habitat exploitation, diet and some data on reproductive behaviour in a semi-free-ranging colony of Cercopithecus lhoesti solatus, a guenon species recently discovered in Gabon. Peignot P, et al. **Folia Primatol (Basel)** 1999 Jan–Feb;70(1):29–36
A review of MHC-based mate preferences and fostering experiments in two congenic strains of mice. Arcaro KF, et al. **Genetica** 1998–99;104(3):241–4
Use of the MHC for mate choice in wild house mice (Mus domesticus). Eklund AC. **Genetica** 1998–99;104(3):245–8
Investigation of the role of postnatal testosterone in the expression of sex differences in behavior in infant rhesus macaques (Macaca mulatta). Brown GR, et al.
Horm Behav 1999 Apr;35(2):186–94
Forebrain arginine vasotocin correlates of alternative mating strategies in cricket frogs. Marler CA, et al.
Horm Behav 1999 Aug;36(1):53–61
Protein synthesis in the medial preoptic area is important for the mating-induced decrease in estrus duration in hamsters. Ramos SM, et al. **Horm Behav** 1999 Apr; 35(2):177–85
Seasonal specificity of hormonal, behavioral, and coloration responses to within- and between-sex encounters in male lizards (Sceloporus undulatus). Smith LC, et al.
Horm Behav 1999 Aug;36(1):39–52
Close proximity of the heterosexual partner reduces the physiological and behavioral consequences of novel-cage housing in black tufted-ear marmosets (Callithrix kuhli). Smith TE, et al. **Horm Behav** 1998 Dec;34(3):211–22
Descending projections from the nucleus retroambiguus to the iliopsoas motoneuronal cell groups in the female golden hamster: possible role in reproductive behavior. Gerrits PO, et al. **J Comp Neurol** 1999 Jan 11;403(2):219–28
Colocalization of androgen receptors and mating-induced FOS immunoreactivity in neurons that project to the central tegmental field in male rats. Gréco B, et al.
J Comp Neurol 1999 May 31;408(2):220–36
Temporal aspects of female musk shrew (Suncus murinus) sexual behavior. Schiml PA, et al. **J Comp Psychol** 1999 Mar;113(1):85–90
3alpha,5alpha-THP in the midbrain ventral tegmental area of rats and hamsters is increased in exogenous hormonal states associated with estrous cyclicity and sexual receptivity. Frye CA, et al. **J Endocrinol Invest** 1999 Jun; 22(6):455–64
Photoperiod regulates neuronal bromodeoxyuridine labeling in the brain of a seasonally breeding mammal. Huang L, et al. **J Neurobiol** 1998 Sep 5;36(3):410–20
Cyclic GMP may potentiate lordosis behaviour by progesterone receptor activation. Chu HP, et al.
J Neuroendocrinol 1999 Feb;11(2):107–13
Hormonal and cellular brain mechanisms regulating the amplexus of male and female water frog (Rana esculenta). Gobbetti A, et al. **J Neuroendocrinol** 1999 Aug;11(8):589–96
Neuroendocrine suppression of female courtship in a wild passerine: corticotropin-releasing factor and endogenous opioids. Maney DL, et al. **J Neuroendocrinol** 1998 Aug; 10(8):593–9
Central neuronal circuit innervating the lordosis-producing muscles defined by transneuronal transport of pseudorabies virus. Daniels D, et al. **J Neurosci** 1999 Apr 1;19(7):2823–33
Lateral hypothalamic serotonin inhibits nucleus accumbens dopamine: implications for sexual satiety. Lorrain DS, et al. **J Neurosci** 1999 Sep 1;19(17):7648–52
An ideal husband in the wild(e)? Sharp D. **Lancet** 1999 Aug 28;354(9180):700
Mapping of the anatomical circuit of CaM kinase-dependent courtship conditioning in Drosophila. Joiner MA, et al. **Learn Mem** 1999 Mar–Apr;6(2):177–92
Drosophila conditioned courtship: two ways of testing memory. Kamyshev NG, et al. **Learn Mem** 1999 Jan–Feb; 6(1):1–20 (50 ref.)
For whom the bird sings: context-dependent gene expression [see comments] Jarvis ED, et al. **Neuron** 1998 Oct; 21(4):775–88. Comment in: Neuron 1998 Oct;21(4):645–7.
The organization of preoptic-medullary circuits in the male rat: evidence for interconnectivity of neural structures involved in reproductive behavior, antinociception and cardiovascular regulation. Murphy AZ, et al.
Neuroscience 1999;91(3):1103–16
The inter-relationship between gonadal steroids and POMC peptides, beta-endorphin and alpha-MSH, in the control of sexual behavior in the female rat. Medina F, et al.
Peptides 1998;19(8):1309–16
Chronic stress effects on sexual behavior in male and female rats: mediation by 5-HT2A receptors. Gorzalka BB, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):405–12
Control of reproductive and energetic status by environmental cues in a desert rodent, Shaw's jird. El-Bakry HA, et al. **Physiol Behav** 1999 Jun;66(4):657–66
Effects of cold exposure on estrous behavior and neural estrogen receptor in Syrian hamsters. Early AH, et al.
Physiol Behav 1999 Jan 1–15;65(4–5):763–8
Vaginocervical stimulation inhibits female-female mounting in laboratory rats. Fang J, et al. **Physiol Behav** 1999 Aug 1;67(1):75–9
Socio-sexual behavior in male rats after lesions of the dorsolateral tegmentum. Giordano M, et al.
Physiol Behav 1998 Aug;65(1):89–94
Physiological suppression of sexual function of subordinate males: a subtle form of intrasexual competition among male sifakas (Propithecus verreauxi)? Kraus C, et al.
Physiol Behav 1999 Jul;66(5):855–61
Effects of vomeronasal organ removal on individual odor discrimination, sex-odor preference, and scent marking by female hamsters. Petrulis A, et al. **Physiol Behav** 1999 Mar; 66(1):73–83
Scent-marking and cortisol response in the small-eared bushbaby (Otolemur garnettii). Watson SL, et al.
Physiol Behav 1999 Jun;66(4):695–9
Aromatase activity and regulation of sexual behaviors in the green anole lizard. Winkler SM, et al. **Physiol Behav** 1998 Jul;64(5):723–31
Genetic elimination of known pheromones reveals the fundamental chemical bases of mating and isolation in Drosophila. Savarit F, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9015–20
Widespread accumulation of [(3)H]testosterone in the spinal cord of a wild bird with an elaborate courtship display. Schultz JD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10428–32
Interactions of mating, egg production and death rates in females of the Mediterranean fruit fly, Ceratitis capitata. Chapman T, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1879–94 (145 ref.)
The logic of Ménage à Trois. Enquist M, et al.
Proc R Soc Lond B Biol Sci 1998 Apr 7;265(1396):609–13 (34 ref.)
Information asymmetries among males: implications for fertilization success in the thirteen-lined ground squirrel. Schwagmeyer PL, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1861–5
Good genes, oxidative stress and condition-dependent sexual signals. von Schantz T, et al.
Proc R Soc Lond B Biol Sci 1999 Jan 7;266(1414):1–12 (162 ref.)
A peptidergic basis for sexual behavior in mammals. Smock T, et al. **Prog Brain Res** 1998;119:467–81 (113 ref.)
Dual modulation of male sexual behavior in rats by central prolactin: relationship with in vivo striatal dopaminergic activity. Cruz-Casallas PE, et al.
Psychoneuroendocrinology 1999 Oct;24(7):681–93
An optimized approach for the assessment of sexual behavior in male rats. Chahoud I, et al. **Reprod Toxicol** 1998 Nov–Dec;12(6):667–71
Neural oxytocinergic systems as genomic targets for hormones and as modulators of hormone-dependent behaviors. Pfaff DW, et al. **Results Probl Cell Differ** 1999; 26:91–105 (75 ref.)
Sex determination and female reproductive development in the genus Schistosoma: a review. Ribeiro-Paes JT, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov–Dec;39(6):337–44 (136 ref.)
Proteinaceous pheromone affecting female receptivity in a terrestrial salamander. Rollmann SM, et al. **Science** 1999 Sep 17;285(5435):1907–9
A neurobehavioral model for rapid actions of corticosterone on sensorimotor integration. Rose JD, et al. **Steroids** 1999 Jan–Feb;64(1–2):92–9 (29 ref.)
[Alkaline phosphatase in Drosophila melanogaster strains differing in male mating activity and their F1 hybrids] Sukhanova MZh, et al. **Genetika** 1998 Sep;34(9):1239–42 (Eng. Abstr.) **(Rus)**
[Isolation of memory-deficient Drosophila mutants in conditioned courtship suppression paradigm] Kamyshev NG, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan; 85(1):84–92 (Eng. Abstr.) **(Rus)**
[The regulation of male sexual behavior by the sex hormones] Gladkova AI. **Usp Fiziol Nauk** 1999 Jan–Mar;30(1):97–105 (64 ref.) (Eng. Abstr.) **(Rus)**

SEX BIAS see **PREJUDICE**

SEX CHARACTERISTICS

A comparative study of femoral head diameters and sex differentiation in Nigerians. Asala SA, et al.
Acta Anat (Basel) 1998;162(4):232–7
Association of fatty liver with increased ratio of visceral to subcutaneous adipose tissue in obese men. Mahmood S, et al. **Acta Med Okayama** 1998 Aug;52(4):225–31
Effects of age, sex and physical exercise on the phagocytic process of murine peritoneal macrophages. Ferrandez MD, et al. **Acta Physiol Scand** 1999 May;166(1):47–53
Greater sciatic notch in sex differentiation in Nigerian skeletal samples. Akpan TB, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):43–6
Gender and longitudinal changes in physical activities in later life. Bennett KM. **Age Ageing** 1998 Dec;27 Suppl 3:24–8
Sex differences in HIV-1 viral load and TNF-alpha plasmatic level? [letter] Savès M, et al. **AIDS** 1999 Jul 30; 13(11):1414–5
Ethanol consumption by C57BL/6 mice: influence of gender and procedural variables. Middaugh LD, et al. **Alcohol** 1999 Apr;17(3):175–83
Operant ethanol reward in C57BL/6 mice: influence of gender and procedural variables. Middaugh LD, et al.
Alcohol 1999 Apr;17(3):185–94
Food restriction and sex differences on concurrent, oral ethanol and water reinforcers in juvenile rhesus monkeys. Pakarinen ED, et al. **Alcohol** 1999 Jan;17(1):35–40
Effect of long-term ethanol consumption on ability to produce cytokine-induced neutrophil chemoattractant-1 in the rat liver and its gender difference. Yamada S, et al.
Alcohol Clin Exp Res 1999 Apr;23(4 Suppl):61S–66S
Review article: gender-related differences in functional gastrointestinal disorders. Mayer EA, et al.
Aliment Pharmacol Ther 1999 May;13 Suppl 2:65–9 (44 ref.)
Gender differences in language of Alzheimer disease patients revisited. Bayles KA, et al. **Alzheimer Dis Assoc Disord** 1999 Jul–Sep;13(3):138–46
JTc prolongation with d,l-sotalol in women versus men. Lehmann MH, et al. **Am J Cardiol** 1999 Feb 1;83(3):354–9
Gender differences in symptom presentation associated with coronary heart disease. Milner KA, et al. **Am J Cardiol** 1999 Aug 15;84(4):396–9
Relative influences of sex, race, environment, and HIV infection on body composition in adults. Kotler DP, et al.
Am J Clin Nutr 1999 Mar;69(3):432–9
Anticipation in Crohn's disease may be influenced by gender and ethnicity of the transmitting parent [see comments] Heresbach D, et al. **Am J Gastroenterol** 1998 Dec; 93(12):2368–72. Comment in: Am J Gastroenterol 1998 Dec;93(12):2322–5. Comment in: Am J Gastroenterol 1999 Jul;94(7):1996.
Sex difference in myeloperoxidase activity of neutrophils [letter] Kabutomori O, et al. **Am J Hematol** 1999 Apr; 60(4):312–3
Sexual function in hypertensive males treated with lisinopril or atenolol: a cross-over study. Fogari R, et al.
Am J Hypertens 1998 Oct;11(10):1244–7
Resting diastolic function and left ventricular mass are related to exercise capacity in hypertensive men but not in women. Gharavi AG, et al. **Am J Hypertens** 1998 Oct;11(10):1252–7
Fetal heart rate patterns in term labor vary with sex, gestational age, epidural analgesia, and fetal weight. Dawes NW, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):181–7
A simple method for visualization of influential landmarks when using euclidean distance matrix analysis. Cole TM 3rd, et al. **Am J Phys Anthropol** 1998 Nov;107(3):273–83 (32 ref.)
Technical note: a blind test of mandibular ramus flexure as a morphologic indicator of sexual dimorphism in the human skeleton. Donnelly SM, et al. **Am J Phys Anthropol** 1998 Nov;107(3):363–6
The form of the supraorbital margin as a criterion in identification of sex from the skull: investigations based on modern human skulls. Graw M, et al.
Am J Phys Anthropol 1999 Jan;108(1):91–6
Canine tip wear in male and female anthropoids. Greenfield LO. **Am J Phys Anthropol** 1998 Sep;107(1):87–96
Use of ordinal categorical variables in skeletal assessment of sex from the cranium. Konigsberg LW, et al.
Am J Phys Anthropol 1998 Sep;107(1):97–112
Sexual dimorphism in the face of Australopithecus africanus. Lockwood CA. **Am J Phys Anthropol** 1999 Jan; 108(1):97–127
Reproductive hormone profiles in captive male orangutans: implications for understanding developmental arrest. Maggioncalda AN, et al. **Am J Phys Anthropol** 1999 May; 109(1):19–32
Univariate estimates of sexual dimorphism: the effects of intrasexual variability. Marini E, et al.
Am J Phys Anthropol 1999 Aug;109(4):501–8
Degrees of sexual dimorphism in Cebus and other New World monkeys. Masterson TJ, et al.
Am J Phys Anthropol 1998 Nov;107(3):243–56
Correlated response, competition, and female canine size in primates. Plavcan JM. **Am J Phys Anthropol** 1998 Dec; 107(4):401–16
The use of the supero-inferior femoral neck diameter as a sex assessor. Seidemann RM, et al.
Am J Phys Anthropol 1998 Nov;107(3):305–13
Gender differences in autonomic functions associated with blood pressure regulation. Convertino VA.
Am J Physiol 1998 Dec;275(6 Pt 2):R1909–20
Dose-response study of GH effects on circulating IGF-I and IGFBP-3 levels in healthy young men and women. Ghigo E, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1009–13
Gender differences in coronary artery diameter reflect changes in both endothelial Ca2+ and ecNOS activity. Knot HJ, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H961–9
Does gender influence the strength and mechanisms of the muscle metaboreflex during dynamic exercise in dogs? Laprad SL, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1203–8
Can gender differences during exercise-heat stress be assessed by the physiological strain index? Moran DS, et al.
Am J Physiol 1999 Jun;276(6 Pt 2):R1798–804
Sex differences and role of nitric oxide in blood flow of canine urinary bladder. Pontari MA, et al.
Am J Physiol 1999 Feb;276(2 Pt 2):R407–13
Centrally mediated effect of 17beta-estradiol on parasympathetic tone in male rats. Saleh TM, et al.
Am J Physiol 1999 Feb;276(2 Pt 2):R474–81
Characterization of the mechanisms involved in the gender differences in hepatic taurocholate uptake. Simon FR, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G556–65
Muscarinic blockade inhibits gastric emptying of mixed-nutrient meal: effects of weight and gender. Teff KL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R707–14
Images in neuroscience. Brain development, XI: sexual

dimorphism. Goldstein JM, et al. **Am J Psychiatry** 1999 Mar;156(3):352

The DD genotype of the angiotensin converting enzyme gene is negatively associated with right ventricular hypertrophy in male patients with chronic obstructive pulmonary disease. van Suylen RJ, et al.
Am J Respir Crit Care Med 1999 Jun;159(6):1791–5

Gender-related efficacy difference to an extended duration formulation of topical N,N-diethyl-m-toluamide (DEET). Golenda CF, et al. **Am J Trop Med Hyg** 1999 Apr; 60(4):654–7

Sex difference in target seeking behavior of developing cremaster muscles and the resulting first visible sign of somatic sexual differentiation in marsupial mammals. van der Schoot P, et al. **Anat Rec** 1999 Jun 1;255(2):130–41

Gender-related analysis of thrombopoietic cytokine pattern in patients with immune thrombocytopenic purpura. Balleari E, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:387–90

Gender differences in adrenal and gonadal responses to inflammatory aggression. Da Silva JA, et al.
Ann N Y Acad Sci 1999 Jun 22;876:148–51

Emerging concepts for sexual predilection in the disease systemic lupus erythematosus. Lahita RG.
Ann N Y Acad Sci 1999 Jun 22;876:64–9; discussion 69–70 (45 ref.)

LHRH and sexual dimorphism. Merchenthaler I.
Ann N Y Acad Sci 1998 Dec 21;863:175–87 (44 ref.)

Neural plasticity and the development of sex differences. Juraska JM. **Annu Rev Sex Res** 1998;9:20–38 (61 ref.)

Study on long bones: variation in angular traits with sex, age, and laterality. Gualdi-Russo E. **Anthropol Anz** 1998 Dec;56(4):289–99

Gender differences in human sepsis. Schröder J, et al.
Arch Surg 1998 Nov;133(11):1200–5

Effects of age, gender and ear side on SOAE parameters in infancy and childhood. Lamprecht-Dinnesen A, et al.
Audiol Neurootol 1998 Nov–Dec;3(6):386–401

Female exposure to high G: echocardiographic evaluation for chronic changes in cardiac function. Albery WB, et al. **Aviat Space Environ Med** 1998 Sep;69(9):857–61

Female exposure to high G: performance of simulated flight after 24 hours of sleep deprivation. Chelette TL, et al.
Aviat Space Environ Med 1998 Sep;69(9):862–8

Female exposure to high G: chronic adaptations of cardiovascular functions. Convertino VA, et al.
Aviat Space Environ Med 1998 Sep;69(9):875–82

Male/female SACM endurance comparison: support for the Armstrong Laboratory modifications to the CSU-13B/P anti-G suit. Hearon CM, et al.
Aviat Space Environ Med 1998 Dec;69(12):1141–5

Gender and effect of impact acceleration on neck motion. Morris CE, et al. **Aviat Space Environ Med** 1999 Sep; 70(9):851–6

Thermal and metabolic responses of high and low fat women to cold water immersion. Prisby R, et al.
Aviat Space Environ Med 1999 Sep;70(9):887–91

Gender differences in astronaut selection [letter] Rowe WJ.
Aviat Space Environ Med 1999 Sep;70(9):939

Modeling analysis of women litter bearers during heat stress. Santee WR, et al. **Aviat Space Environ Med** 1999 Apr; 70(4):340–5

Female exposure to high G: effects of simulated combat sorties on cerebral and arterial O2 saturation. Tripp LD, et al. **Aviat Space Environ Med** 1998 Sep;69(9):869–74

Cognitive performance and physiological changes in females at high G while protected with COMBAT EDGE and ATAGS. Zhang L. **Aviat Space Environ Med** 1999 Sep; 70(9):857–62

The influence of maturation and gender on the anti-arrhythmic effect of ischaemic preconditioning in rats. Humphreys RA, et al. **Basic Res Cardiol** 1999 Feb;94(1):1–8

Women and heart disease. Maxwell SR.
Basic Res Cardiol 1998;93 Suppl 2:79–84 (33 ref.)

Sex differences in pain. Berkley KJ. **Behav Brain Sci** 1997 Sep;20(3):371–80; discussion 435–513

Effects of gonadectomy in infancy and adulthood on handedness in male and female Mongolian gerbils. Clark MM, et al. **Behav Neurosci** 1998 Aug;112(4):1026–9

Laterally asymmetrical cell number in a sexually dimorphic nucleus in the gerbil hypothalamus is correlated with vocal emission rates. Holman SD, et al. **Behav Neurosci** 1998 Aug; 112(4):979–90

Effects of tobacco smoking and gender on interhemispheric cognitive function: performance and confidence measures. Algan O, et al. **Behav Pharmacol** 1997 Oct;8(5):416–28

Postnatal exposure to androgens alters renal ornithine decarboxylase ontogeny and abolishes renal sexual dimorphism in mice. Sánchez-Capelo A, et al.
Biol Neonate 1999 Aug;76(2):72–83

Gender differences in pharmacokinetics and pharmacodynamics of azosemide in rats. Lee YS, et al.
Biopharm Drug Dispos 1999 May;20(4):225–9

The structural basis of bone fragility in men. Seeman E.
Bone 1999 Jul;25(1):143–7 (50 ref.)

Drugs and sex differences: a review of drugs relating to anaesthesia. Ciccone GK, et al. **Br J Anaesth** 1999 Feb; 82(2):255–65 (99 ref.)

The effects of age and gender on the pharmacokinetics of irbesartan. Vachharajani NN, et al.
Br J Clin Pharmacol 1998 Dec;46(6):611–3

Influence of age, sex and cross on body concentrations of trace elements (zinc, iron, copper and manganese) in chickens. Mohanna C, et al. **Br Poult Sci** 1998 Sep; 39(4):536–43

The size and fibre composition of the corpus callosum with respect to gender and schizophrenia: a post-mortem study. Highley JR, et al. **Brain** 1999 Jan;122 (Pt 1):99–110

Sex and species differences in mouse and rat forebrain commissures depend on the method of adjusting for brain size. Bishop KM, et al. **Brain Res** 1999 Jan 9;815(2):358–66

Microinjection of morphine into the rostral ventromedial medulla produces greater antinociception in male compared to female rats. Boyer JS, et al. **Brain Res** 1998 Jun 15; 796(1–2):315–8

The medial preoptic and anterior hypothalamic regions of the rhesus monkey: cytoarchitectonic comparison with the human and evidence for sexual dimorphism. Byne W.
Brain Res 1998 May 18;793(1–2):346–50

Sex differences in cocaine- and nicotine-induced antinociception in the rat. Craft RM, et al. **Brain Res** 1998 Oct 26;809(1):137–40

Influence of gender on chronic ethanol-induced alterations in GABAA receptors in rats. Devaud LL, et al.
Brain Res 1998 Jun 15;796(1–2):222–30

Testosterone increases the number of substance P-like immunoreactive neurons in a specific sub-division of the lateral hypothalamus of the weakly electric, brown ghost knifefish, Apteronotus leptorhynchus. Dulka JG, et al.
Brain Res 1999 Apr 24;826(1):1–9

Relations of hippocampal volume and dentate gyrus width to gonadal hormone levels in male and female meadow voles. Galea LA, et al. **Brain Res** 1999 Mar 13; 821(2):383–91

Human somatosensory cortical activation strengths: comparison between males and females and age-related changes. Huttunen J, et al. **Brain Res** 1999 Feb 13; 818(2):196–203

Sex differences in late behavioral response to subcutaneous formalin injection in mice. Kim SJ, et al. **Brain Res** 1999 May 22;829(1–2):185–9

Morphine antinociception elicited from the ventrolateral periaqueductal gray is sensitive to sex and gonadectomy differences in rats. Krzanowska EK, et al. **Brain Res** 1999 Mar 6;821(1):224–30

Inositol-1,4,5-trisphosphate accumulation induced by urinary pheromones in female rat vomeronasal epithelium. Sasaki K, et al. **Brain Res** 1999 Mar 27;823(1–2):161–8

Sex difference and laterality in the volume of mouse dentate gyrus granule cell layer. Tabibnia G, et al. **Brain Res** 1999 May 8;827(1–2):41–5

Volumetric analysis of sexually dimorphic limbic nuclei in normal and sex-reversed whiptail lizards. Wennstrom KL, et al. **Brain Res** 1999 Aug 14;838(1–2):104–9

Gender effects on odor-stimulated functional magnetic resonance imaging. Yousem DM, et al. **Brain Res** 1999 Feb 13;818(2):480–7

Effects of sexual behavioral manipulation on brain plasticity in adult rats. Prince KN, et al. **Brain Res Bull** 1998 Nov 1;47(4):349–55

The preoptic area/anterior hypothalamus of different strains of mice: sex differences and development. Brown AE, et al. **Brain Res Dev Brain Res** 1999 Jun 2;115(2):171–82

Neural and behavioral effects of intracranial 192 IgG-saporin in neonatal rats: sexually dimorphic effects? Sherren N, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):49–62

Sex differences in estrogenic regulation of preproenkephalin mRNA levels in the medial preoptic area of prepubertal rats. Segarra AC, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):133–9

Spectral acoustic structure of barking in roe deer (Capreolus capreolus). Sex-, age- and individual-related variations. Reby D, et al. **C R Acad Sci III** 1999 Apr;322(4):271–9

Gender differences in cardiovascular and catecholamine responses to cold-air exposure at rest. Pettit SE, et al.
Can J Appl Physiol 1999 Apr;24(2):131–47

Gender and fat metabolism during exercise: a review. Tate CA, et al. **Can J Appl Physiol** 1998 Dec;23(6):570–82 (72 ref.)

Short-term recovery from cardiac surgery in women: suggestions for practice. King KM, et al. **Can J Cardiol** 1998 Nov;14(11):1367–71

Gender issues in patients with extremity soft-tissue sarcoma: a pilot study. Znajda TL, et al. **Cancer Nurs** 1999 Apr; 22(2):111–8

A simple assay for platelet-mediated hemostasis in flowing whole blood (PFA-100): reproducibility and effects of sex and age. Sestito A, et al. **Cardiologia** 1999 Jul;44(7):661–5

The influence of gender and age on neonatal rat hypothalamic 5-HT1A and 5-HT2A receptors. Ferrari PF, et al. **Cell Mol Neurobiol** 1999 Dec;19(6):775–84

Sex differences in the effects of early neocortical injury on neuronal size distribution of the medial geniculate nucleus in the rat are mediated by perinatal gonadal steroids. Rosen GD, et al. **Cereb Cortex** 1999 Jan–Feb;9(1):27–34

Gender differences in the oxygen transport system during maximal exercise in hypertensive subjects. Reybrouck T, et al. **Chest** 1999 Mar;115(3):788–92

Gender differences in survival in advanced heart failure. Insights from the FIRST study. Adams KF Jr, et al.
Circulation 1999 Apr 13;99(14):1816–21

Women versus men regarding outcome of CABG or PTCA [letter; comment] Cheng TO. **Circulation** 1999 Apr 13; 99(14):1925–6. Comment on: Circulation 1998 Sep 29;98(13):1279–85.

'The fat lady sings', but what is she telling us? [comment] Stewart PM. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):9–10. Comment on: Clin Endocrinol (Oxf) 1998 Jul;49(1):13–20.

Sexual dimorphism in 11 beta hydroxysteroid dehydrogenase activity and its relation to fat distribution and insulin sensitivity; a study in hypopituitary subjects [see comments] Weaver JU, et al. **Clin Endocrinol (Oxf)** 1998 Jul; 49(1):13–20. Comment in: Clin Endocrinol (Oxf) 1998 Jul;49(1):9–10.

Mice with early onset of death (EOD) due to lupus glomerulonephritis. Honda S, et al. **Clin Exp Immunol** 1999 Apr;116(1):153–63

The influence of age and gender on serum dehydroepiandrosterone sulphate (DHEA-S), IL-6, IL-6 soluble receptor (IL-6 sR) and transforming growth factor beta 1 (TGF-beta1) levels in normal healthy blood donors. Young DG, et al. **Clin Exp Immunol** 1999 Sep; 117(3):476–81

Gender differences in sympathetic nervous system regulation. Hinojosa-Laborde C, et al. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):122–6 (50 ref.)

Gender differences and endothelium- and platelet-derived factors in the coronary circulation. Miller VM, et al.
Clin Exp Pharmacol Physiol 1999 Feb;26(2):132–6

Role of androgens in mediating hypertension and renal injury. Reckelhoff JF, et al. **Clin Exp Pharmacol Physiol** 1999 Feb; 26(2):127–31

Myocardial sestamibi uptake in healthy subjects is related to age, gender and habitus. Bouvier F, et al.
Clin Physiol 1999 Jan;19(1):76–83

Body size, not sex, is responsible for differences in type of dialysis [see comments] Florakas C, et al. **CMAJ** 1999 Mar 23;160(6):818–9. Comment in: CMAJ 1999 Mar 23;160(6):828–9.

Sex or body size? Selection of dialysis type revisited [editorial; comment] Levin A. **CMAJ** 1999 Mar 23; 160(6):828–9 (10 ref.). Comment on: CMAJ 1999 Mar 23;160(6):818–9.

Gender does not influence neuromuscular properties in dimorphic skeletal muscles of the toad. Lima-Landman MT, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Oct;121(2):119–26

Experimental critical care in rats: gender differences in anesthesia, ventilation, and gas exchange. Torbati D, et al.
Crit Care Med 1999 Sep;27(9):1878–84

Human spatial navigation: cognitive maps, sexual dimorphism, and neural substrates. Maguire EA, et al.
Curr Opin Neurobiol 1999 Apr;9(2):171–7 (76 ref.)

Characteristics of agoraphobia in women and men with panic disorder with agoraphobia. Starcevic V, et al.
Depress Anxiety 1998;8(1):8–13

pcdr, a novel gene with sexually dimorphic expression in the pigment cells of the Drosophila eye. Brunel CA, et al. **Dev Genes Evol** 1998 Aug;208(6):327–35

Mechanisms underlying the absence of the pubertal shift in the playful defense of female rats. Smith LK, et al.
Dev Psychobiol 1998 Sep;33(2):147–56

Relationships of fasting and postload glucose levels to sex and alcohol consumption. Are American Diabetes Association criteria biased against detection of diabetes in women? Pomerleau J, et al. **Diabetes Care** 1999 Mar; 22(3):430–3

Microalbuminuria prevalence varies with age, sex, and puberty in children with type 1 diabetes followed from diagnosis in a longitudinal study. Oxford Regional Prospective Study Group. Schultz CJ, et al.
Diabetes Care 1999 Mar;22(3):495–502

Arterial compliance and distensibility are modulated by body composition in both men and women but by insulin sensitivity only in women. Giltay EJ, et al.
Diabetologia 1999 Feb;42(2):214–21

Patterns of keratins 8, 18 and 19 during gonadal differentiation in the mouse: sex- and time-dependent expression of keratin 19. Appert A, et al.
Differentiation 1998 Sep;63(5):273–84

Lactose malabsorption is associated with early signs of mental depression in females: a preliminary report. Ledochowski M, et al. **Dig Dis Sci** 1998 Nov;43(11):2513–7

Sex- and stress-steroids interactions and the immune system: evidence for a neuroendocrine-immunological sexual dimorphism. Gaillard RC, et al.
Domest Anim Endocrinol 1998 Sep;15(5):345–52 (18 ref.)

11Beta-HSD and 17beta-HSD as biological markers of depression: sex differences and correlation with symptom severity. Raven PW, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):659–62

Physiologic and endocrinologic characterization of male sex-biased diabetes in C57BLKS/J mice congenic for the fat mutation at the carboxypeptidease E locus. Leiter EH, et al. **Endocrine** 1999 Feb;10(1):57–66

Gender-biased activity of the novel prolactin releasing peptides: comparison with thyrotropin releasing hormone reveals only pharmacologic effects. Samson WK, et al.
Endocrine 1998 Dec;9(3):289–91

Modifications of testosterone-dependent behaviors by estrogen receptor-alpha gene disruption in male mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5058–69

Roles of estrogen receptor-alpha gene expression in reproduction-related behaviors in female mice. Ogawa S, et al. **Endocrinology** 1998 Dec;139(12):5070–81

Gender differences in the responsiveness of the sex-dependent isoforms of hepatic P450 to the feminine

plasma growth hormone profile. Pampori NA, et al. **Endocrinology** 1999 Mar;140(3):1245–54

Alteration in sexually dimorphic testosterone biotransformation profiles as a biomarker of chemically induced androgen disruption in mice. Wilson VS, et al. **Environ Health Perspect** 1999 May;107(5):377–84

Muscle oxygenation during incremental arm and leg exercise in men and women. Bhambhani Y, et al. **Eur J Appl Physiol** 1998 Oct;78(5):422–31

Sex difference in plasma ammonia but not in muscle inosine monophosphate accumulation following sprint exercise in humans. Esbjörnsson-Liljedahl M, et al. **Eur J Appl Physiol** 1999 Apr;79(5):404–8

Morphological and functional differences in the elbow extensor muscle between highly trained male and female athletes. Ichinose Y, et al. **Eur J Appl Physiol** 1998 Jul; 78(2):109–14

Gender differences in patients with severe aortic stenosis: impact on preoperative left ventricular geometry and function, as well as early postoperative morbidity and mortality. Bech-Hanssen O, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):24–30

Preferences, quantities and concerns: socio-cultural perspectives on the gendered consumption of foods. O'Doherty Jensen K, et al. **Eur J Clin Nutr** 1999 May; 53(5):351–9 (66 ref.)

CYP2D6 and CYP2C19 activity in a large population of Dutch healthy volunteers: indications for oral contraceptive-related gender differences. Tamminga WJ, et al. **Eur J Clin Pharmacol** 1999 May;55(3):177–84

Oestrogen deficiency in men: where are we today? Faustini-Fustini M, et al. **Eur J Endocrinol** 1999 Feb; 140(2):111–29 (155 ref.)

Sexual dimorphism in the maturation of the pituitary-gonadal axis, assessed by GnRH agonist challenge. Potau N, et al. **Eur J Endocrinol** 1999 Jul;141(1):27–34

Salivary gland sexual dimorphism: a brief review. Pinkstaff CA. **Eur J Morphol** 1998 Aug;36 Suppl:31–4 (22 ref.)

Nitric oxide production is increased in the paraventricular nucleus of the hypothalamus of male rats during non-contact penile erections and copulation. Melis MR, et al. **Eur J Neurosci** 1998 Jun;10(6):1968–74

Development of bladder and bowel control: significance of prematurity, perinatal risk factors, psychomotor development and gender. Largo RH, et al. **Eur J Pediatr** 1999 Feb;158(2):115–22

Postjunctional alpha2-adrenoceptors in the rat tail artery: effect of sex and castration. Chen DC, et al. **Eur J Pharmacol** 1999 May 21;372(3):247–52

Sex differences in extracellular and intracellular calcium-mediated vascular reactivity to vasopressin in rat aorta. Eatman D, et al. **Eur J Pharmacol** 1998 Nov 20; 361(2–3):207–16

Gender differences in response to nicotine replacement therapy: objective and subjective indexes of tobacco withdrawal. Wetter DW, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):135–44

Myeloperoxidase polymorphism is associated with gender specific risk for Alzheimer's disease. Reynolds WF, et al. **Exp Neurol** 1999 Jan;155(1):31–41

Gender modulates the energy cost of muscle contraction in untrained healthy subjects. A 31P magnetic resonance spectroscopy analysis. Mattei JP, et al. **FEBS Lett** 1999 May 7;450(3):173–7

Growth of marmoset monkeys Callithrix jacchus in captivity. Peters VM, et al. **Folia Primatol (Basel)** 1998;69(5):266–72

Sexual dimorphism in the humerus: a comparative analysis of Chinese, Japanese and Thais. Işcan MY, et al. **Forensic Sci Int** 1998 Nov 30;98(1–2):17–29

Sexual dimorphism in the crania and mandibles of South African whites. Steyn M, et al. **Forensic Sci Int** 1998 Nov 30;98(1–2):9–16

Sexual differentiation of the vertebrate brain: principles and mechanisms. Cooke B, et al. **Front Neuroendocrinol** 1998 Oct;19(4):323–62 (222 ref.)

Androgen receptors in two androgen-mediated, sexually dimorphic characters of frogs. Emerson SB, et al. **Gen Comp Endocrinol** 1999 May;114(2):173–80

The effect of sex steroids on primary and secondary sex differentiation in the sexually dichromatic reedfrog (Hyperolius argus: Hyperolidae) from the Arabuko Sokoke Forest of Kenya. Hayes TB, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):188–99

Suppressor genes with gender differences in activity in natural populations of Drosophila robusta: another approach to wild-type. Levitan M. **Genet Res** 1997 Apr; 69(2):81–8

Sexual dimorphism in white campion: deletion on the Y chromosome results in a floral asexual phenotype. Farbos I, et al. **Genetics** 1999 Mar;151(3):1187–96

Sexual dimorphism in white campion: complex control of carpel number is revealed by y chromosome deletions. Lardon A, et al. **Genetics** 1999 Mar;151(3):1173–85

Influence of intrauterine blood supply on cranial growth and sexual dimorphism at birth. Oyhenart EE, et al. **Growth Dev Aging** 1998 Winter;62(4):187–98

Development and sexual difference in embryonic heart rates in pregnancies resulting from in vitro fertilization. Tezuka N, et al. **Gynecol Obstet Invest** 1998;46(4):217–9

Increased susceptibility of male rats to kanamycin-induced cochleotoxicity. Mills CD, et al. **Hear Res** 1999 Feb; 128(1–2):75–9

Gender distinctions and lateral asymmetry in the low-level auditory brainstem response of the human neonate. Sininger YS, et al. **Hear Res** 1998 Dec;126(1–2):58–66

Sex and hepatic fibrosis [editorial; comment] Bissell DM. **Hepatology** 1999 Mar;29(3):988–9. Comment on: Hepatology 1999 Mar;29(3):719–27.

Multiple genetic alterations, 4q28, a new suppressor region, and potential gender differences in human hepatocellular carcinoma. Hammond C, et al. **Hepatology** 1999 May; 29(5):1479–85

Induction of cytochrome P450 enzymes and generation of protein-aldehyde adducts are associated with sex-dependent sensitivity to alcohol-induced liver disease in micropigs. Niemelä O, et al. **Hepatology** 1999 Oct; 30(4):1011–7

Effects of early androgens on sex-typed activities and interests in adolescents with congenital adrenal hyperplasia. Berenbaum SA. **Horm Behav** 1999 Feb;35(1):102–10

Investigation of the role of postnatal testosterone in the expression of sex differences in behavior in infant rhesus macaques (Macaca mulatta). Brown GR, et al. **Horm Behav** 1999 Apr;35(2):186–94

Spatial cognition in rhesus monkeys: male superiority declines with age. Lacreuse A, et al. **Horm Behav** 1999 Aug; 36(1):70–6

Effect of long-term castration and long-term androgen treatment on sexually dimorphic estrogen-inducible progesterone receptor mRNA levels in the ventromedial hypothalamus of whiptail lizards. Wennstrom KL, et al. **Horm Behav** 1998 Aug;34(1):11–6

Age- and sex-related changes in type-1 iodothyronine deiodinase messenger ribonucleic acid in rat liver and kidney. Ogawa Y, et al. **Horm Metab Res** 1999 May; 31(5):295–9

Identifying global anatomical differences: deformation-based morphometry. Ashburner J, et al. **Hum Brain Mapp** 1998; 6(5–6):348–57

Lack of sex-specific effects on the association between angiotensin-converting enzyme gene polymorphism and hypertension in Japanese. Sugiyama T, et al. **Hypertens Res** 1999 Mar;22(1):55–9

Evidence for a difference in nitric oxide biosynthesis between healthy women and men. Forte P, et al. **Hypertension** 1998 Oct;32(4):730–4

Body composition by a three compartment model in adult Indian male and female subjects. Borgonha S, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):227–33

No sex difference in the urinary excretion of the histamine metabolite methylimidazoleacetic acid (MeImAA) when corrected for creatinine excretion. Granerus G, et al. **Inflamm Res** 1999 Apr;48 Suppl 1:S92–3

Influence of gender on the pharmacokinetics and pharmacodynamics of drugs. Thürmann PA, et al. **Int J Clin Pharmacol Ther** 1998 Nov;36(11):586–90 (37 ref.)

Gender- and age-dependent differences in latent inhibition following pre-weaning non-handling: implications for a neurodevelopmental animal model of schizophrenia. Shalev U, et al. **Int J Dev Neurosci** 1998 Jun–Jul;16(3–4):279–88

Sex and age differences of neurons expressing GABA-immunoreactivity in the rat bed nucleus of the stria terminalis. Stefanova N, et al. **Int J Dev Neurosci** 1998 Oct;16(6):443–8

Gender differences in sympathoadrenal activity in rats at rest and in response to footshock stress. Weinstock M, et al. **Int J Dev Neurosci** 1998 Jun–Jul;16(3–4):289–95

Association of fetal gender with pregnancy-induced hypertension and pre-eclampsia. Makhseed M, et al. **Int J Gynaecol Obstet** 1998 Oct;63(1):55–6

Interactive effects of cocaine and gender on thymocytes: a study of in vivo repeated cocaine exposure. Xu W, et al. **Int J Immunopharmacol** 1998 Dec;20(12):737–49

Sex differences in naturally occurring leg muscle pain and exertion during maximal cycle ergometry. Cook DB, et al. **Int J Neurosci** 1998 Sep;95(3–4):183–202

The prenatal attenuation of brain/body development through interactions between growth hormone, triiodothyronine and testosterone during prenatal development of female neonates. Tan U, et al. **Int J Neurosci** 1998 Sep; 95(3–4):237–45

Curvelinear correlations between total testosterone levels and fluid intelligence in men and women. Tan U, et al. **Int J Neurosci** 1993 Jul;95(1–2):77–83

Gender difference in the effect of body composition on energy metabolism. Dionne I, et al. **Int J Obes Relat Metab Disord** 1999 Mar;23(3):312–9

The sugar-fat relationship revisited: differences in consumption between men and women of varying BMI. Macdiarmid JI, et al. **Int J Obes Relat Metab Disord** 1998 Nov;22(11):1053–61

Gender differences in fat mass of 5–7-year old children. Mast M, et al. **Int J Obes Relat Metab Disord** 1998 Sep; 22(9):878–84

Gender differences in relation to leptin concentration and insulin sensitivity in nondiabetic Chinese subjects. Sheu WH, et al. **Int J Obes Relat Metab Disord** 1999 Jul; 23(7):754–9

P300, handedness, and corpus callosal size: gender, modality, and task. Hoffman LD, et al. **Int J Psychophysiol** 1999 Jan;31(2):163–74

Muscle strength and hormonal levels in adolescents: gender related differences. Ramos E, et al. **Int J Sports Med** 1998 Nov;19(8):526–31

Pancreatic lipase-related protein 1 mRNA in female mouse lacrimal gland. Remington SG, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1081–90

Dynamic phosphorus-31 magnetic resonance spectroscopy of the quadriceps muscle: effects of age and sex on spectroscopic results. Schunk K, et al. **Invest Radiol** 1999 Feb;34(2):116–25

Gender differences in sleep patterns for early adolescents. Lee KA, et al. **J Adolesc Health** 1999 Jan;24(1):16–20

Development of the cerebral cortex: XI. Sexual dimorphism in the brain. Kirn J, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1228–30

Value of exercise treadmill testing in women [published erratum appears in J Am Coll Cardiol 1999 Jan;33(1):289] Alexander KP, et al. **J Am Coll Cardiol** 1998 Nov 15; 32(6):1657–64

Gender differences in myocardial blood flow dynamics: lipid profile and hemodynamic effects. Duvernoy CS, et al. **J Am Coll Cardiol** 1999 Feb;33(2):463–70

Gender differences in molecular remodeling in pressure overload hypertrophy. Weinberg EO, et al. **J Am Coll Cardiol** 1999 Jul;34(1):264–73

Misreporting of total energy intake in older men and women. Tomoyasu NJ, et al. **J Am Geriatr Soc** 1999 Jun;47(6):710–5

The influence of gender on the ocular surface. Connor CG, et al. **J Am Optom Assoc** 1999 Mar;70(3):182–6

Dietary soy protein effects on inherited polycystic kidney disease are influenced by gender and protein level. Aukema HM, et al. **J Am Soc Nephrol** 1999 Feb;10(2):300–8

Evaluation of carcass, live, and real-time ultrasound measures in feedlot cattle: I. Assessment of sex and breed effects. Hassen A, et al. **J Anim Sci** 1999 Feb;77(2):273–82

Metabolic utilization of energy and maintenance requirements in growing pigs: effects of sex and genotype. Noblet J, et al. **J Anim Sci** 1999 May;77(5):1208–16

Genetic parameters for sex-specific traits in beef cattle. Splan RK, et al. **J Anim Sci** 1998 Sep;76(9):2272–8

Peroxisome proliferator-activated receptor alpha-isoform deficiency leads to progressive dyslipidemia with sexually dimorphic obesity and steatosis. Costet P, et al. **J Biol Chem** 1998 Nov 6;273(45):29577–85

Distinctive roles of STAT5a and STAT5b in sexual dimorphism of hepatic P450 gene expression. Impact of STAT5a gene disruption. Park SH, et al. **J Biol Chem** 1999 Mar 12;274(11):7421–30

Israeli military IQ tests: gender differences small; IQ gains large [see comments] Flynn JR. **J Biosoc Sci** 1998 Oct; 30(4):541–53. Comment in: J Biosoc Sci 1998 Oct;30(4):555–9.

X-linkage, lyonization and a female premium in the verbal IQ results of Orkney schoolchildren, 1947–75. Goodman JD, et al. **J Biosoc Sci** 1997 Jan;29(1):63–72

Analysis of the VIQ scores of families of three or more Orkney brothers. Goodman JD, et al. **J Biosoc Sci** 1997 Apr;29(2):181–90

Sex differences in intelligence: a rejoinder to Mackintosh [comment] Lynn R. **J Biosoc Sci** 1998 Oct;30(4):529–32; discussion 533–9. Comment on: J Biosoc Sci 1996 Oct;28(4):559–71.

Sex differences in intelligence: some comments on Mackintosh and Flynn [comment] Lynn R. **J Biosoc Sci** 1998 Oct;30(4):555–9. Comment on: J Biosoc Sci 1998 Oct;30(4):541–53.

Age- and gender-related differences in vertebral bone mass, density, and strength. Ebbesen EN, et al. **J Bone Miner Res** 1999 Aug;14(8):1394–403

Gender differences in psychosocial profile at entry into cardiac rehabilitation. Brezinka V, et al. **J Cardiopulm Rehabil** 1998 Nov–Dec;18(6):445–9

Relationship between hyperinsulinemia and ambulatory blood pressure monitoring of lean and overweight male hypertensives. Feldstein CA, et al. **J Cardiovasc Risk** 1998 Feb;5(1):25–30

Longitudinal study of leptin concentrations during puberty: sex differences and relationship to changes in body composition. Ahmed ML, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):899–905

A search for the possible molecular mechanisms of thyroid dysgenesis: sex ratios and associated malformations. Devos H, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2502–6

Cortisol metabolism in healthy young adults: sexual dimorphism in activities of A-ring reductases, but not 11beta-hydroxysteroid dehydrogenases. Finken MJ, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3316–21

A sexually dimorphic pattern of growth hormone secretion in the elderly. Hindmarsh PC, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2679–85

Predictors of short-term changes in serum intact parathyroid hormone levels in hemodialysis patients: role of phosphorus, calcium, and gender. Indridason OS, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3860–6

Tissue composition affects measures of postabsorptive human skeletal muscle metabolism: comparison across genders. Jahn LA, et al. **J Clin Endocrinol Metab** 1999 Mar; 84(3):1007–10

Bone mass in prepubertal children: gender differences and the role of physical activity and sunlight exposure. Jones G, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4274–9

Long-term prospective study of body composition and lipid profiles during and after growth hormone (GH) treatment in children with GH deficiency: gender-specific metabolic

effects. Kuromaru R, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3890–6

Association between insulin-like growth factor I and bone mineral density in older women and men: the Framingham Heart Study [see comments] Langlois JA, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4257–62. Comment in: J Clin Endocrinol Metab 1999 May;84(5):1760–1.

Sex differences in circulating human leptin pulse amplitude: clinical implications. Licinio J, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4140–7

Clinical review 107: Role of gonadal steroids in the sexual dimorphisms in body composition and circulating concentrations of leptin. Rosenbaum M, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1784–9 (94 ref.)

Gender differences in basal protein kinetics in young adults. Volpi E, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4363–7

Lack of sex difference in cerebrospinal fluid (CSF) leptin levels and contribution of CSF/plasma ratios to variations in body mass index in children. Wiedenhöft A, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3021–4

Leptin is released from the human brain: influence of adiposity and gender [see comments] Wiesner G, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2270–4. Comment in: J Clin Endocrinol Metab 1999 Jul;84(7):2267–8.

Pediatric ethics and the surgical assignment of sex. Kipnis K, et al. **J Clin Ethics** 1998 Winter;9(4):398–410 (56 ref.)

Management of intersex: a shifting paradigm. Wilson BE, et al. **J Clin Ethics** 1998 Winter;9(4):360–9 (32 ref.)

Relationships between sex and the size and number of forebrain gonadotropin-releasing hormone-immunoreactive neurones in the ballan wrasse (Labrus berggylta), a protogynous hermaphrodite. Elofsson UO, et al. **J Comp Neurol** 1999 Jul 19;410(1):158–70

Arcuate nucleus of the hypothalamus: effects of age and sex. Leal S, et al. **J Comp Neurol** 1998 Nov 9;401(1):65–88

The effect of genotype, age, sex, and caste on response thresholds to sucrose and foraging behavior of honey bees (Apis mellifera L.). Pankiw T, et al. **J Comp Physiol [A]** 1999 Aug;185(2):207–13

Circadian modulation of QT rate dependence in healthy volunteers: gender and age differences. Extramiana F, et al. **J Electrocardiol** 1999 Jan;32(1):33–43

Gender-dependent characteristics of the hypothalamo-corticotrope axis function in glucocorticoid-replete and glucocorticoid-depleted rats. Chisari AN, et al. **J Endocrinol Invest** 1998 Dec; 21(11):737–43

Gender difference in growth hormone response in adults. Johansson AG. **J Endocrinol Invest** 1999;22(5 Suppl):58–60 (22 ref.)

Age and sex-related variation in hyoid bone morphology. Miller KW, et al. **J Forensic Sci** 1998 Nov;43(6):1138–43

A visual method of determining the sex of skeletal remains using the distal humerus. Rogers TL. **J Forensic Sci** 1999 Jan;44(1):57–60

Osteometric analysis of sexual dimorphism in the sternal end of the rib in a west African population. Wiredu EK, et al. **J Forensic Sci** 1999 Sep;44(5):921–5

Bone density, bone turnover, and hormone levels in men over age 75. Kenny AM, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M419–25

Sex differences in brain/body relationships of Rhesus monkeys and humans [news] Falk D, et al. **J Hum Evol** 1999 Feb;36(2):233–8

Patterns of sexual dimorphism in the hominoid distal humerus. Lague MR, et al. **J Hum Evol** 1999 Apr; 36(4):379–99

Statistics of sexual size dimorphism. Smith RJ. **J Hum Evol** 1999 Apr;36(4):423–58 (150 ref.)

Gender specific differences in left ventricular adaptation to obesity and hypertension. Kuch B, et al. **J Hum Hypertens** 1998 Oct;12(10):685–91

Sex differences in antihypertensive drug use: determinants of the choice of medication for hypertension. Klungel OH, et al. **J Hypertens** 1998 Oct;16(10):1545–53

Genetic analysis of disease subtypes and sexual dimorphisms in mouse experimental allergic encephalomyelitis (EAE): relapsing/remitting and monophasic remitting/nonrelapsing EAE are immunogenetically distinct. Butterfield RJ, et al. **J Immunol** 1999 Mar 1; 162(5):3096–102

Decreased IL-12 production underlies the decreased ability of male lymph node cells to induce experimental autoimmune encephalomyelitis. Kim S, et al. **J Immunol** 1999 May 1;162(9):5561–8

Plasma leptin levels are associated with abnormal fibrinolysis in men and postmenopausal women. Söderberg S, et al. **J Intern Med** 1999 May;245(5):533–43

Genomic imprinting of the X chromosome: a novel mechanism for the evolution of sexual dimorphism. Skuse DH. **J Lab Clin Med** 1999 Jan;133(1):23–32 (47 ref.)

Prediction of olfactory response based on age, gender and smoking habits. Davies CW, et al. **J Med Eng Technol** 1999 Mar-Apr;23(2):73–6

Sex differences, season of birth and platelet 5-HT levels in schizophrenic patients. Mück-Seler D, et al. **J Neural Transm** 1999;106(3–4):337–47

Sexually dimorphic responses to neonatal basal forebrain lesions in mice: I. Behavior and neurochemistry. Arters J, et al. **J Neurobiol** 1998 Dec;37(4):582–94

Sexually dimorphic responses to neonatal basal forebrain lesions in mice: II. Cortical morphology. Hohmann CF, et al. **J Neurobiol** 1998 Dec;37(4):595–606

Fibroblast growth factor-2 stimulates cell proliferation and decreases sexually dimorphic cell death in an avian song control nucleus. Nordeen EJ, et al. **J Neurobiol** 1998 Dec; 37(4):573–81

Androgen receptor immunoreactivity in the male and female Syrian hamster brain. Wood RI, et al. **J Neurobiol** 1999 Jun 5;39(3):359–70

Aromatase in developing sensory systems of the rat brain. Horvath TL, et al. **J Neuroendocrinol** 1999 Feb;11(2):77–84

Correlation of hypothalamic somatostatin mRNA expression and peptide content with secretion: sexual dimorphism and differential regulation by gonadal factors. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):27–33

Ontogeny and sexual differentiation of somatostatin biosynthesis and secretion in the hypothalamic periventricular-median eminence pathway. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):35–42

Intracranial androgenic activation of male-typical behaviours in house mice: concurrent stimulation of the medial preoptic area and medial nucleus of the amygdala. Sipos ML, et al. **J Neuroendocrinol** 1998 Aug;10(8):577–86

Sexually dimorphic expression of sst1 and sst2 somatostatin receptor subtypes in the arcuate nucleus and anterior pituitary of adult rats. Zhang WH, et al. **J Neuroendocrinol** 1999 Feb;11(2):129–36

Gender-related effects of indomethacin on cerebrovascular CO2 reactivity [see comments] Kastrup A, et al. **J Neurol Sci** 1999 Jan 15;162(2):127–32. Comment in: J Neurol Sci 1999 Jan 15;162(2):113.

Gender differences in cerebral perfusion [editorial; comment] Meyer JS, et al. **J Neurol Sci** 1999 Jan 15;162(2):113. Comment on: J Neurol Sci 1999 Jan 15;162(2):127–32.

The human cerebral cortex: gender differences in structure and function. de Courten-Myers GM. **J Neuropathol Exp Neurol** 1999 Mar;58(3):217–26

The sexually dimorphic expression of androgen receptors in the song nucleus hyperstriatalis ventrale pars caudale of the zebra finch develops independently of gonadal steroids. Gahr M, et al. **J Neurosci** 1999 Apr 1;19(7):2628–36

Sex differences in brain gray and white matter in healthy young adults: correlations with cognitive performance. Gur RC, et al. **J Neurosci** 1999 May 15;19(10):4065–72

Sex dimorphisms in the rate of age-related decline in spatial memory: relevance to alterations in the estrous cycle. Markowska AL. **J Neurosci** 1999 Sep 15;19(18):8122–33

Tissue phylloquinone and menaquinones in rats are affected by age and gender. Huber AM, et al. **J Nutr** 1999 May; 129(5):1039–44

Effect of sex hormones on rat liver cytosolic alcohol dehydrogenase activity. Harada S, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct;44(5):625–39

Fatigue and other symptoms in patients with chronic obstructive pulmonary disease: do women and men differ? Gift AG, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Mar-Apr;28(2):201–8

Differences in soft tissue profile changes following mandibular setback in Chinese men and women. Hu J, et al. **J Oral Maxillofac Surg** 1999 Oct;57(10):1182–6

Effects of sex and gonadectomy on cocaine metabolism in the rat. Bowman BP, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1316–23

Sexual dimorphism in phencyclidine in vitro metabolism and pharmacokinetics in rats. Shelnutt SR, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1292–8

Sexual dimorphism in N-acetyltransferase and melatonin levels in the giant freshwater prawn Macrobrachium rosenbergii de Man. Withyachumnarnkul B, et al. **J Pineal Res** 1999 Apr;26(3):174–7

Sexual differentiation of oestradiol-LH positive feedback in a marsupial. Rudd CD, et al. **J Reprod Fertil** 1999 Mar; 115(2):269–74

Gender differences in physical activity and physical fitness in young children in Crete. Manios Y, et al. **J Sports Med Phys Fitness** 1999 Mar;39(1):24–30

Submaximal exercise and maturation in 12-year-olds. Armstrong N, et al. **J Sports Sci** 1999 Feb;17(2):107–14

Steroid metabolising enzymes in the determination of brain gender. Hutchison JB, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1–6):85–96 (64 ref.)

Prenatal stress and glucocorticoid effects on the developing gender-related brain. Reznikov AG, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun;69(1–6):109–15 (40 ref.)

The effects of anesthesia and gender on intraocular pressure in lions (Panthera leo). Ofri R, et al. **J Zoo Wildl Med** 1998 Sep;29(3):307–10

The neurobiology of cannabinoid dependence: sex differences and potential interactions between cannabinoid and opioid systems. Ambrosio E, et al. **Life Sci** 1999;65(6–7):687–94 (52 ref.)

Gender-related differences in vascular smooth muscle cell proliferation: implications for prevention of atherosclerosis. Fitzpatrick LA, et al. **Lupus** 1999;8(5):397–401

The epidemiology of gender-discrepant illness. Gabriel SE. **Lupus** 1999;8(5):339–45

Osteoporosis: gender differences and similarities. Khosla S, et al. **Lupus** 1999;8(5):393–6 (24 ref.)

Gender, biology and human disease: report of a conference. Lockshin MD, et al. **Lupus** 1999;8(5):335–8

Gender differences: the perspective from biology. Lockshin RA. **Lupus** 1999;8(5):361–4 (11 ref.)

Gender and vascular reactivity. Miller VM. **Lupus** 1999; 8(5):409–15 (76 ref.)

Gender differences in cellular response. Nikezic-Ardolic M, et al. **Lupus** 1999;8(5):375–9

Sex-based differences in gene transmission and gene expression. Ostrer H. **Lupus** 1999;8(5):365–9 (63 ref.)

Sex differences in the epidemiology and outcomes of heart disease: population-based trends. Roger VV, et al. **Lupus** 1999;8(5):346–50

Gender differences in some host defense mechanisms. Spitzer JA. **Lupus** 1999;8(5):380–3

Modulation of stress-induced murine lymphoid tissue involution by age, sex and strain: role of bone marrow. Dominguez-Gerpe L, et al. **Mech Ageing Dev** 1998 Aug 14;104(2):195–205

Age-related changes in adaptive mechanisms of macronutrient self-selection: evidence for a sexual dimorphism. Veyrat-Durebex C, et al. **Mech Ageing Dev** 1998 Jul 15;103(3):223–34

Changes in the mechanical properties, biochemical contents and wall structure of the human coronary arteries with age and sex. Ozolanta I, et al. **Med Eng Phys** 1998 Oct; 20(7):523–33

Gender effect on beta-endorphin response to exercise. Goldfarb AH, et al. **Med Sci Sports Exerc** 1998 Dec; 30(12):1672–6

Parental allele-specific chromatin configuration in a boundary-imprinting-control element upstream of the mouse H19 gene. Khosla S, et al. **Mol Cell Biol** 1999 Apr; 19(4):2556–66

Genetic detection of sex-biased dispersal. Mossman CA, et al. **Mol Ecol** 1999 Jun;8(6):1063–7

Rapid detection of male-specific DNA sequence in bovine embryos using fluorescence in situ hybridization. Kobayashi J, et al. **Mol Reprod Dev** 1998 Dec;51(4):390–4

Sex, lies and virtual reality. Viaud-Delmon I, et al. **Nat Neurosci** 1998 May;1(1):15–6

Female gene flow stratifies Hindu castes [letter] Bamshad MJ, et al. **Nature** 1998 Oct 15;395(6703):651–2

The bio-logic of facial geometry [letter] Meyer DA, et al. **Nature** 1999 Feb 25;397(6721):661–2

Effects of sexual dimorphism on facial attractiveness [see comments] Perrett DI, et al. **Nature** 1998 Aug 27; 394(6696):884–7. Comment in: Nature 1998 Aug 27;394(6696):826–7.

Renal function and renal disease in males or females--vive la petite difference. Zeier M, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2195–8 (63 ref.)

An enhanced conversion from tightly bound to loosely bound form of NGF in selected regions of brains from male mice. Katoh-Semba R, et al. **Neurochem Int** 1998 Oct; 33(4):327–34

Large somal size is associated with the expression of galanin but not with neuronal birthdate in the sexually dimorphic male nucleus of ferret's preoptic area/anterior hypothalamus. Park JJ, et al. **Neuroendocrinology** 1998 Oct; 68(4):235–43

Sexual dimorphism in growth as measured by microknemometry: different responses to GH deficiency and exogenous GH administration. Rol de Lama MA, et al. **Neuroendocrinology** 1998 Sep;68(3):210–9

Evidence for nodular epileptogenicity and gender differences in periventricular nodular heterotopia. Sisodiya SM, et al. **Neurology** 1999 Jan 15;52(2):336–41

Topography of evoked brain activity during mental arithmetic and language tasks: sex differences. Skrandies W, et al. **Neuropsychologia** 1999 Apr;37(4):421–30

Sex differences in morphology of the brain stem and cerebellum with normal ageing. Oguro H, et al. **Neuroradiology** 1998 Dec;40(12):788–92

Handedness in opposite and same-sex dizygotic twins: testing the testosterone hypothesis. Elkadi S, et al. **Neuroreport** 1999 Feb 5;10(2):333–6

Re-evaluation of sexual dimorphism in human corpus callosum. Oka S, et al. **Neuroreport** 1999 Apr 6;10(5):937–40

Sex-specific expression of N-methyl D-aspartate receptor (NMDAR) in the preoptic area of neonatal rats. Hsu C, et al. **Neurosci Lett** 1999 Mar 5;262(2):85–8

Gamma-aminobutyric acid-immunoreactive neurons in the amygdala of the rat – sex differences and effect of early postnatal castration. Stefanova N. **Neurosci Lett** 1998 Oct 23;255(3):175–7

Patterns of expression of the immediate-early gene egr-1 in the accessory olfactory bulb of female mice exposed to pheromonal constituents of male urine. Brennan PA, et al. **Neuroscience** 1999;90(4):1463–70

Developmental sex differences in amino acid neurotransmitter levels in hypothalamic and limbic areas of rat brain. Davis AM, et al. **Neuroscience** 1999; 90(4):1471–82

Sex and seasonal differences in the rate of cell proliferation in the dentate gyrus of adult wild meadow voles. Galea LA, et al. **Neuroscience** 1999 Mar;89(3):955–64

Methamphetamine-induced dopamine and serotonin reductions in neostriatum are not gender specific in rats with comparable hyperthermic responses. Fukumura M, et al. **Neurotoxicol Teratol** 1998 Jul-Aug;20(4):441–8

Assessment of cocaethylene lethality in Long-Evans female and male rats. Sobel BF, et al. **Neurotoxicol Teratol** 1998

Jul-Aug;20(4):459-63
Differences between men and women as regards the effects of protein-energy malnutrition on the hypothalamic-pituitary-gonadal axis. Lado-Abeal J, et al. **Nutrition** 1999 May;15(5):351-8
Psychological and behavioral predictors of body fat distribution: age and gender effects. Nelson TL, et al. **Obes Res** 1999 Mar;7(2):199-207
Gender differences in changes in subcutaneous and intra-abdominal fat during weight reduction: an ultrasound study. Wirth A, et al. **Obes Res** 1998 Nov;6(6):393-9
Sexual dimorphism in the tooth crown dimensions of the second deciduous and first permanent molars of Taiwan Chinese. Kondo S, et al. **Okajimas Folia Anat Jpn** 1998 Dec;75(5):239-46
A comparison of diffuse noxious inhibitory controls in men and women. France CR, et al. **Pain** 1999 May;81(1-2):77-84
Sex differences in opioid and N-methyl-D-aspartate mediated non-opioid biting fly exposure induced analgesia in deer mice. Kavaliers M, et al. **Pain** 1998 Aug; 77(2):163-71
The relationship between gender and family history of pain with current pain experience and awareness of pain in others. Koutantji M, et al. **Pain** 1998 Jul;77(1):25-31
Sex differences in response to cutaneous anesthesia: a double blind randomized study. Robinson ME, et al. **Pain** 1998 Aug;77(2):143-9
Gender differences in associations between trauma history and adjustment among chronic pain patients. Spertus IL, et al. **Pain** 1999 Jul;82(1):97-102
Sex differences and in vitro effects of steroids on serum aminopeptidase activities. Martinez JM, et al. **Peptides** 1998; 19(9):1637-40
Sex differences in neuropeptide distribution in the rat brain. Rugarn O, et al. **Peptides** 1999;20(1):81-6
Gender- and age-related differences in the regulatory influence of thyroid hormone on the contractility and myosin composition of single rat soleus muscle fibres. Yu F, et al. **Pflugers Arch** 1998 Dec;437(1):21-30
Sex differences in discriminative stimulus and diuretic effects of the kappa opioid agonist U69,593 in the rat. Craft RM, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):395-403
Effects of nicotine and stress on startle amplitude and sensory gating depend on rat strain and sex. Faraday MM, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):273-84
Sex differences in effects of opioid blockade on stress-induced freezing behavior. Klein LC, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):413-7
Effect of gender on the pharmacokinetics of ofloxacin. Sowinski KM, et al. **Pharmacotherapy** 1999 Apr;19(4):442-6
Cytosolic free calcium response to angiotensin II in aortic VSMC isolated from male and female SHR. Loukotová J, et al. **Physiol Res** 1998;47(6):507-10
Brain cell RNA: sexual differences in the rat. Sterc J, et al. **Physiol Res** 1998;47(6):477-87
Sexual dimorphism in physiological performance of whiptail lizards (genus Cnemidophorus). Cullum AJ. **Physiol Zool** 1998 Sep-Oct;71(5):541-52
Sex differences in the resistance of turkeys to Escherichia coli challenge after immunosuppression with dexamethasone. Huff GR, et al. **Poult Sci** 1999 Jan; 78(1):38-44
Risk of abnormal triple screen for Down syndrome is significantly higher in patients with female fetuses. Spong CY, et al. **Prenat Diagn** 1999 Apr;19(4):337-9
Carotenoids, sexual signals and immune function in barn swallows from Chernobyl. Camplani A, et al. **Proc R Soc Lond B Biol Sci** 1999 Jun 7;266(1424):1111-6
Hormone-dependent regulation of GABAA receptor gamma subunit mRNAs in sexually dimorphic regions of the rat brain. Clark AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1853-9
Gender differences in substance use disorders. Brady KT, et al. **Psychiatr Clin North Am** 1999 Jun;22(2):241-52 (51 ref.)
Gender difference of slow wave sleep in middle aged and elderly subjects. Fukuda N, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):151-3
Gender differences in self-esteem: a meta-analysis. Kling KC, et al. **Psychol Bull** 1999 Jul;125(4):470-500
Sexual differentiation modifies the allopregnanolone anxiolytic actions in rats. Fernández-Guasti A, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):251-67
Effects of Alzheimer's disease and gender on the hypothalamic-pituitary-adrenal axis response to lumbar puncture stress. Petrie EC, et al. **Psychoneuroendocrinology** 1999 May;24(4):385-95
Sex differences and menstrual cycle effects in human spatial memory. Postma A, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):175-92
Activating effects of cross-sex hormones on cognitive functioning: a study of short-term and long-term hormone effects in transsexuals. Slabbekoorn D, et al. **Psychoneuroendocrinology** 1999 May;24(4):423-47
Sexually-dimorphic patterns of cortical asymmetry, and the role for sex steroid hormones in determining cortical patterns of lateralization. Wisniewski AB. **Psychoneuroendocrinology** 1998 Jul;23(5):519-47 (130 ref.)
Sex differences in leukocyte invasion in injured murine skeletal muscle. St. Pierre Schneider B, et al. **Res Nurs Health** 1999 Jun;22(3):243-50
Nota bene: evolutionary biology. The male's dilemma. Gallagher RB. **Science** 1999 May 14;284(5417):1140
A gender gap in autoimmunity. Whitacre CC, et al. **Science** 1999 Feb 26;283(5406):1277-8
Measurements of vertebral shape by radiographic morphometry: sex differences and relationships with vertebral level and lumbar lordosis. Cheng XG, et al. **Skeletal Radiol** 1998 Jul;27(7):380-4
Gender matters: an integrated model for understanding men's and women's health. Bird CE, et al. **Soc Sci Med** 1999 Mar;48(6):745-55 (51 ref.)
Sex differences in heat pain thresholds as a function of assessment method and rate of rise. Fillingim RB, et al. **Somatosens Mot Res** 1999;16(1):57-62
Evaluation of sex difference in tissue repair following acute carbon tetrachloride toxicity in male and female Sprague-Dawley rats. Moghaddam AP, et al. **Toxicology** 1998 Sep 15;130(2-3):95-105
Male fetuses are particularly affected by maternal alloimmunization to D antigen. Ulm B, et al. **Transfusion** 1999 Feb;39(2):169-73
Quality of life, functional status, and depression in male liver transplant recipients with recurrent viral hepatitis C. Singh N, et al. **Transplantation** 1999 Jan 15;67(1):69-72
Intersex infants and otoacoustic emissions [letter] McFadden D. **Urology** 1999 Jan;53(1):240
Female cats have lower rates of apoptosis in peripheral blood lymphocytes than male cats: correlation with estradiol-17beta, but not with progesterone blood levels. Hofmann-Lehmann R, et al. **Vet Immunol Immunopathol** 1998 Oct 23;65(2-4):151-60
Quantitative in vivo and in vitro sex differences in artemisinin metabolism in rat. Ashton M, et al. **Xenobiotica** 1999 Feb; 29(2):195-204
Patterns of faciodental sexual dimorphism in Hispanopithecus. Cameron DW. **Z Morphol Anthropol** 1998;82(1):47-58
Formation of morphological traits of the quadriceps femoris muscle (QFM) before and after birth. Part IV. Vastus intermedius muscle (VIM). Lewandowski J. **Z Morphol Anthropol** 1998;82(1):75-86
Size comparison of the male and female human corpus callosum from autopsy samples. Matano S, et al. **Z Morphol Anthropol** 1998;82(1):67-73
[Precocious maturation of auditory evoked potentials in prematures: influence of gestational age and sex] Morlet T, et al. **Arch Pediatr** 1999 Jan;6(1):75-8 (Eng. Abstr.) **(Fre)**
[Dynamic 31-phosphorus magnetic resonance spectroscopy of the m. quadriceps: the effect of sex and age on the spectroscopic parameters] Schunk K, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 May;170(5):427-35 (Eng. Abstr.) **(Ger)**
[Anthropometric measurements of the male inguinal canal] Valenti G, et al. **Minerva Chir** 1998 Sep;53(9):715-8 (Eng. Abstr.) **(Ita)**
[Recognition on the gender of point-light walkers moving in different directions] Hirashima S. **Shinrigaku Kenkyu** 1999 Jun;70(2):149-53 (Eng. Abstr.) **(Jpn)**
[Hunting for "womanhood"] Forsmo S. **Tidsskr Nor Laegeforen** 1998 Dec 10;118(30):4753-7 **(Nor)**
[Differences in the treatment of men and women (letter)] Malterud K. **Tidsskr Nor Laegeforen** 1999 Apr 10; 119(9):1337-8 **(Nor)**
[The effect of sex and menopause on basal blood levels of homocysteine and after methionine loading] Reis RP, et al. **Rev Port Cardiol** 1999 Feb;18(2):155-9 (Eng. Abstr.) **(Por)**
[Age-related changes in the auditory, speech and visual memories of boys and girls 6-12 years old] Davydova Elu, et al. **Fiziol Cheloveka** 1999 Mar-Apr;25(2):14-20 **(Rus)**
[Alkaline phosphatase in Drosophila melanogaster strains differing in male mating activity and their F1 hybrids] Sukhanova MZh, et al. **Genetika** 1998 Sep;34(9):1239-42 (Eng. Abstr.) **(Rus)**
[Induction of synthesis specific for females of variants growth hormone receptor mRNA in liver of male rats] Babasian SA, et al. **Mol Biol (Mosk)** 1998 Sep-Oct;32(5):830-1 **(Rus)**
[Laryngeal extra-organic lymphatic vessels in postnatal ontogenesis] Sergeĭ OI. **Morfologiia** 1998;114(5):78-80 (Eng. Abstr.) **(Rus)**
[The intergroup variability and sex dimorphism in the size of the human dental arches in personal identification] Pashinian GA, et al. **Sud Med Ekspert** 1999 May-Jun; 42(3):14-6 (Eng. Abstr.) **(Rus)**
[Sex dimorphism in the functional organization of the cerebral hemispheres during the memorization of verbal information] Vol'f NV. **Vestn Ross Akad Med Nauk** 1998; (9):30-5 (Eng. Abstr.) **(Rus)**
[The effect of anosmia on sex dimorphism in the patterns of orienting-exploratory, emotional and passive defensive behaviors in rats] Makarchuk NE. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec; 48(6):997-1003 (Eng. Abstr.) **(Rus)**
[Sexual and interhemispheric differences in the involvement of serotonin from the hippocampus and amygdaloid body in the processing of new and repeatedly presented information in rats] Molodtsova GF. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 May-Jun; 49(3):408-15 (Eng. Abstr.) **(Rus)**
[Effect of gonadal hormones on sexual dimorphism in malnutrition substrates] Orden AB, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(3):157-63 (Eng. Abstr.) **(Spa)**
[Insulin secretion in women and insulin sensitivity in men constitute independent determinants of serum leptin concentration] Fernández-Real JM, et al. **Med Clin (Barc)** 1999 Apr 17;112(13):485-8 (Eng. Abstr.) **(Spa)**
[Genetic variation of MSX1 has a sexual dimorphism in non syndromic cleft palate in the Chilean population] Blanco R, et al. **Rev Med Chil** 1998 Jul;126(7):781-7 (Eng. Abstr.) **(Spa)**
[Sexual dimorphism in human medial raphe nuclei. Preliminary study with the Golgi cox method] Cordero ME, et al. **Rev Med Chil** 1999 May;127(5):532-8 (Eng. Abstr.) **(Spa)**

SEX CHROMATIN

see related
SEX DETERMINATION (ANALYSIS)

SEX CHROMOSOME ABNORMALITIES

X chromosome inactivation in carriers of Barth syndrome. Orstavik KH, et al. **Am J Hum Genet** 1998 Nov; 63(5):1457-63
Rare sex chromosome aneuploidies in humans: report of six patients with 48,XXYY, 49,XXXXY, and 48,XXXX karyotypes [letter] Cammarata M, et al. **Am J Med Genet** 1999 Jul 2;85(1):86-7 (26 ref.)
An adult with 49,XYYYY karyotype: case report and endocrine studies. Shanske A, et al. **Am J Med Genet** 1998 Nov 2;80(2):103-6
De novo duplication xq22-q23 in a girl with short stature and gonadal dysgenesis. Correa-Cerro L, et al. **Ann Genet** 1999;42(1):41-4 (20 ref.)
Long-term outcome in children of sex chromosome abnormalities. Ratcliffe S. **Arch Dis Child** 1999 Feb; 80(2):192-5
A baboon (Papio hamadryas) with an isochromosome for the long arm of the X. Moore CM, et al. **Cytogenet Cell Genet** 1998;82(1-2):80-2
Pathogenetics of 45,X/46,XY gonadal mosaicism. Reddy KS, et al. **Cytogenet Cell Genet** 1998;82(1-2):52-7
Genetic abnormalities and male infertility. A comprehensive review. Thielemans BF, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Dec;81(2):217-25 (85 ref.)
Pentasomy X and hyper IgE syndrome: co-existence of two distinct genetic disorders. Boeck A, et al. **Eur J Pediatr** 1999 Sep;158(9):723-6
Mutations in the gene for the common gamma chain (gammac) in X-linked severe combined immunodeficiency. Fugmann SD, et al. **Hum Genet** 1998 Dec;103(6):730-1
Analysis of sex chromosome aneuploidy in sperm from fathers of Turner syndrome patients. Martinez-Pasarell O, et al. **Hum Genet** 1999 Apr;104(4):345-9
The gene mutated in bare patches and striated mice encodes a novel 3beta-hydroxysteroid dehydrogenase. Liu XY, et al. **Nat Genet** 1999 Jun;22(2):182-7
Short stature in a 46,XX male adolescent. Wu CJ, et al. **South Med J** 1999 Sep;92(9):921-3
[A case of neonatal 49,XXXXY syndrome] Ságodi L, et al. **Orv Hetil** 1999 Aug 8;140(32):1787-90 (Eng. Abstr.) **(Hun)**

DIAGNOSIS

Low rates of pregnancy termination for prenatally diagnosed Klinefelter syndrome and other sex chromosome polysomies. Meschede D, et al. **Am J Med Genet** 1998 Dec 4;80(4):330-4
Léri-Weill syndrome as part of a contiguous gene syndrome at Xp22.3. Spranger S, et al. **Am J Med Genet** 1999 Apr 23;83(5):367-71
Role of multicolor fluorescence in situ hybridization (FISH) in simultaneous detection of probe sets for chromosome 18, X and Y in uncultured amniotic fluid cells. Kim JI, et al. **J Korean Med Sci** 1999 Aug;14(4):438-42
45,X/46,X,r(Y) karyotype transmitted by father to son after intracytoplasmic sperm injection for oligospermia. A case report. Bofinger MK, et al. **J Reprod Med** 1999 Jul; 44(7):645-8
Biphenotypic lymphoblastic non-Hodgkin lymphoma with a balanced translocation t(1;9)(p10;q10): unusual presentation with poor outcome. Chan GC, et al. **Med Pediatr Oncol** 1999 Jun;32(6):450-2
Prenatal identification of mos 45,X/46,X,+mar in a normal male baby by cytogenetic and molecular analysis. Hoshi N, et al. **Prenat Diagn** 1998 Dec;18(12):1316-22
A fetus with a 90,XX karyotype [letter] Sánchez JM, et al. **Prenat Diagn** 1999 Feb;19(2):178-9

DRUG THERAPY

Androgen replacement in a 48, XXYY-male patient [letter] Heuser I, et al. **Arch Gen Psychiatry** 1999 Feb;56(2):194-5

ENZYMOLOGY

Steroid sulfatase activity in leukocytes: a comparative study

in 45,X; 46,Xi(Xq) and carriers of steroid sulfatase deficiency. Miranda-Duarte A, et al. **Biochem Mol Biol Int** 1999 Jan;47(1):137-42

ETIOLOGY

Non-random chromosome positioning in human sperm and sex chromosome anomalies following intracytoplasmic sperm injection [letter] Luetjens CM, et al. **Lancet** 1999 Apr 10;353(9160):1240

GENETICS

Reply to Inglehearn [letter] Bergen AA, et al. **Am J Hum Genet** 1998 Oct;63(4):1232-4

Psychosocial competence of unselected young adults with sex chromosome abnormalities. Bender BG, et al. **Am J Med Genet** 1999 Apr 16;88(2):200-6

Random X-inactivation in a girl with duplication Xp11.21-p21.3: report of a patient and review of the literature. Matsuo M, et al. **Am J Med Genet** 1999 Sep 3;86(1):44-50 (50 ref.)

45,X/46,X,idic(Yq) mosaicism: clinical, cytogenetic, and molecular studies in four individuals. Teraoka M, et al. **Am J Med Genet** 1998 Aug 6;78(5):424-8

Complete androgen insensitivity in a 47,XXY patient with uniparental disomy for the X chromosome. Uehara S, et al. **Am J Med Genet** 1999 Sep 10;86(2):107-11

Partial Xp duplication due to a translocation t(X;15) in two male and two female patients: a familial case report and review of the literature. Melaragno MI, et al. **Ann Genet** 1998;41(4):189-94 (27 ref.)

Sex chromosome aneuploidies in sperm of 47,XYY men. Morel F, et al. **Arch Androl** 1999 Jul-Aug;43(1):27-36 (28 ref.)

Deletion of Y chromosome involving the DAZ (deleted in azoospermia) gene in XX males. Tateno T, et al. **Arch Androl** 1999 May-Jun;42(3):179-83

XX-male syndrome bearing the sex-determining region Y. Tomomasa H, et al. **Arch Androl** 1999 Mar-Apr;42(2):89-96

Advances in Y chromosome mapping. Yen PH. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):275-81 (71 ref.)

Asynchronous replication of alleles in genomes carrying an extra autosome. Amiel A, et al. **Eur J Hum Genet** 1999 Feb-Mar;7(2):223-30

doublecortin is the major gene causing X-linked subcortical laminar heterotopia (SCLH). des Portes V, et al. **Hum Mol Genet** 1998 Jul;7(7):1063-70

Polysomies but not Y chromosome losses have prognostic significance in pTa/pT1 urinary bladder cancer. Neuhaus M, et al. **Hum Pathol** 1999 Jan;30(1):81-6

A familial case of X chromosome deletion ascertained by cytogenetic screening of women with premature ovarian failure. Davison RM, et al. **Hum Reprod** 1998 Nov; 13(11):3039-41

Transmission of a Y chromosomal deletion involving the deleted in azoospermia (DAZ) and chromodomain (CDY1) genes from father to son through intracytoplasmic sperm injection: case report. Kamischke A, et al. **Hum Reprod** 1999 Sep;14(9):2320-2

Investigation of a unique male and female sibship with Kallmann's syndrome and 46,XX gonadal dysgenesis with short stature. Persson JW, et al. **Hum Reprod** 1999 May; 14(5):1207-12

Developmental and genetic disorders in spermatogenesis. Diemer T, et al. **Hum Reprod Update** 1999 Mar-Apr; 5(2):120-40 (154 ref.)

Maternally inherited cardiomyopathy: clinical and molecular characterization of a large kindred harboring the A4300G point mutation in mitochondrial deoxyribonucleic acid. Casali C, et al. **J Am Coll Cardiol** 1999 May;33(6):1584-9

Mutation at histidine 338 of gp91(phox) depletes FAD and affects expression of cytochrome b558 of the human NADPH oxidase. Yoshida LS, et al. **J Biol Chem** 1998 Oct 23;273(43):27879-86

Molecular, cytogenetic, and clinical characterisation of six XX males including one prenatal diagnosis. Margarit E, et al. **J Med Genet** 1998 Sep;35(9):727-30

Spastic paraplegia, optic atrophy, microcephaly with normal intelligence, and XY sex reversal: a new autosomal recessive syndrome? Teebi AS, et al. **J Med Genet** 1998 Sep;35(9):759-62

Risk of gonadoblastoma in female patients with Y chromosome abnormalities and dysgenetic gonads. Gibbons B, et al. **J Paediatr Child Health** 1999 Apr;35(2):210-3

X-chromosome abnormalities in women with premature ovarian failure. Devi A, et al. **J Reprod Med** 1999 Apr; 44(4):321-4

Doublecortin: the latest breakthrough in neuronal migration and cortical development [news] Chelly J. **Mol Psychiatry** 1998 Jul;3(4):290-2

X-linked subcortical laminar heterotopia and lissencephaly: a new family. Puche A, et al. **Neuropediatrics** 1998 Oct; 29(5):276-8

Case report of a 22-week fetus with 47,XXX karyotype and multiple lower mesodermal defects. Hoang MP, et al. **Pediatr Dev Pathol** 1999 Jan-Feb;2(1):58-61 (17 ref.)

Prenatal identification of mos 45,X/46,X,+mar in a normal male baby by cytogenetic and molecular analysis. Hoshi N, et al. **Prenat Diagn** 1998 Dec;18(12):1316-22

A 39,X/40,XY true hermaphrodite mouse with normal ovarian function. Ishikawa H, et al. **Reprod Fertil Dev** 1997; 9(8):775-9

X-linked SCID and other defects of cytokine pathways. Uribe L, et al. **Semin Hematol** 1998 Oct;35(4):299-309 (70 ref.)

Infertility and multiple urogenital abnormalities in a male with mosaic 46,XY/45,XO/47,XXY karyotype and mixed phenotype. Filiadis IF, et al. **Urol Int** 1998;61(2):111-4

[Clinical case of the month. A male with 46,XX karyotype] Marquet F, et al. **Rev Med Liege** 1998 Sep;53(9):515-7 (Eng. Abstr.) **(Fre)**

[X-chromosomal recessive spinobulbar muscular atrophy (Kennedy type). Description of a family, clinical aspects, molecular genetics, differential diagnosis and therapy] Kuhlenbäumer G, et al. **Nervenarzt** 1998 Aug;69(8):660-5 (19 ref.) (Eng. Abstr.) **(Ger)**

[X-linked recessive bulbospinal neuronopathy--Kennedy's syndrome] Andersen KV, et al. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1591-4 (Eng. Abstr.) **(Nor)**

[Abnormalities of sex chromosomes and relationship with reproduction disorders] Baez-Reyes MR, et al. **Ginecol Obstet Mex** 1998 Sep;66:367-70 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Another observation of microphthalmia in an XX male: microphthalmia with linear skin defects syndrome without linear skin lesions. Kono T, et al. **J Hum Genet** 1999; 44(1):63-8 (34 ref.)

ULTRASONOGRAPHY

Prenatal diagnosis of 46,XX male fetuses. Ginsberg NA, et al. **Am J Obstet Gynecol** 1999 Apr;180(4):1006-7

VETERINARY

Detection of the X chromosomes in a Klinefelter boar using a whole human X chromosome painting probe. Mäkinen A, et al. **Anim Reprod Sci** 1998 Oct 9;52(4):317-23

SEX CHROMOSOMES

Trizygotic pregnancy consisting of two fetuses and a complete hydatidiform mole with dispermic androgenesis. Higashino M, et al. **Am J Med Genet** 1999 Jan 1;82(1):67-9

On the origin of sex chromosomes. Lucchesi JC. **Bioessays** 1999 Mar;21(3):188-90 (16 ref.)

Molecular differentiation of sex chromosomes probed by comparative genomic hybridization. Traut W, et al. **Chromosoma** 1999 Jul;108(3):173-80

Heterogeneity and meiotic behaviour of B and sex chromosomes, banding patterns and localization of (TTAGGG)n sequences by fluorescence in situ hybridization in the neotropical water rat Nectomys (Rodentia, Cricetidae). de Jesus Silva MJ, et al. **Chromosome Res** 1998 Sep;6(6):455-62

Construction of chromosome-specific paints for meta- and submetacentric autosomes and the sex chromosomes in the horse and their use to detect homologous chromosomal segments in the donkey. Raudsepp T, et al. **Chromosome Res** 1999;7(2):103-14

Evidence for heteromorphic sex chromosomes in males of Rana tagoi and Rana sakuraii in Nishitama district of Tokyo (Anura: Ranidae). Ryuzaki M, et al. **Chromosome Res** 1999; 7(1):31-42

Supernumerary chromosome variation, heteromorphic sex chromosomes and banding patterns in microteiid lizards of the genus Micrablepharus (Squamata, Gymnophthalmidae) Yonenaga-Yassudal Y, et al. **Chromosome Res** 1999;7(1):21-9

Identification of the sex chromosomes of the medaka, Oryzias latipes, by fluorescence in situ hybridization. Matsuda M, et al. **Cytogenet Cell Genet** 1998;82(3-4):257-62

Analysis of sex-mismatched human corneal transplants by fluorescence in situ hybridization of the sex-chromosomes. Wollensak G, et al. **Exp Eye Res** 1999 Mar;68(3):341-6

Ultrarapid detection of sex chromosomes with the use of fluorescence in situ hybridization with direct label DNA probes in single human blastomeres, spermatozoa, amniocytes, and lymphocytes. Liu J, et al. **Fertil Steril** 1998 Nov;70(5):927-32

The Amylase gene cluster on the evolving sex chromosomes of Drosophila miranda. Steinemann S, et al. **Genetics** 1999 Jan;151(1):151-61

Stepwise chromosome evolution in Drosophila albomicans. Yu YC, et al. **Heredity** 1999 Jul;83 (Pt 1):39-45

Characterization of genes encoding translation initiation factor eIF-2gamma in mouse and human: sex chromosome localization, escape from X-inactivation and evolution. Ehrmann IE, et al. **Hum Mol Genet** 1998 Oct;7(11):1725-37

A missense mutation in the GHR gene of Cornell sex-linked dwarf chickens does not abolish serum GH binding. Hull KL, et al. **J Endocrinol** 1999 Jun;161(3):495-501

Advanced FISH with directly labeled X, Y and 18 DNA probes as a tool for rapid prenatal diagnosis. Aviram-Goldring A, et al. **J Reprod Med** 1999 Jun; 44(6):497-503

ABNORMALITIES see SEX CHROMOSOME ABNORMALITIES

GENETICS

Prenatal diagnosis of 46,XY/46,XX mosaicism: a case report. Yaron Y, et al. **Am J Med Genet** 1999 May 7;84(1):12-4

Genetic control of gonadal differentiation. Lim HN, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):1-16 (61 ref.)

Sex chromosomes: evolving dosage compensation. Charlesworth B. **Curr Biol** 1998 Dec 17-31;8(25):R931-3

Interspecific movement of the paternal sex ratio chromosome. Dobson SL, et al. **Heredity** 1998 Sep;81 (Pt 3):261-9

Absence of dosage compensation at the transcription level of a sex-linked gene in a female heterogametic insect, Bombyx mori. Suzuki MG, et al. **Heredity** 1998 Sep;81 (Pt 3):275-83

The origin and evolution of the pseudoautosomal regions of human sex chromosomes. Graves JAM, et al. **Hum Mol Genet** 1998 Dec;7(13):1991-6 (50 ref.)

Sex-determining mechanism in Buergeria buergeri (Anura, Rhacophoridae). III. Does the ZZW triploid frog become female or male? Ohta S, et al. **J Exp Zool** 1999 Feb 15; 283(3):295-306

Simultaneous detection of multiple STR loci on sex chromosomes for forensic testing of sex and identity. Tun Z, et al. **J Forensic Sci** 1999 Jul;44(4):772-7

Volumetric magnetic resonance imaging study of the brain in subjects with sex chromosome aneuploidies. Warwick MM, et al. **J Neurol Neurosurg Psychiatry** 1999 May; 66(5):628-32

Avian sexing: an optimized protocol using polymerase chain reaction-single-strand conformation polymorphism. Cortés O, et al. **J Vet Diagn Invest** 1999 May;11(3):297-9

The origin and differentiation of the heteromorphic sex chromosomes Z, W, X, and Y in the frog Rana rugosa, inferred from the sequences of a sex-linked gene, ADP/ATP translocase. Miura I, et al. **Mol Biol Evol** 1998 Dec;15(12):1612-9

300 million years of conserved synteny between chicken Z and human chromosome 9 [letter] Nanda I, et al. **Nat Genet** 1999 Mar;21(3):258-9

Prenatal interphase detection by FISH of a sex chromosome mosaicism when cytogenetics reports a pseudomosaicism. Pettenati MJ, et al. **Prenat Diagn** 1999 Jan;19(1):25-8

Effective size and F-statistics of subdivided populations for sex-linked loci. Wang J. **Theor Popul Biol** 1999 Apr; 55(2):176-88

[Molecular cytogenetic diagnosis of Klinefelter's syndrome in men more frequently detects sex chromosome mosaicism than classical cytogenetic methods] Kurková S, et al. **Cas Lek Cesk** 1999 Apr 19;138(8):235-8 (Eng. Abstr.) **(Cze)**

[Undescended testis and hypospadia in sex chromosomal aberrations] Raff R, et al. **Klin Padiatr** 1998 Nov-Dec; 210(6):400-5 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Sex chromosomes and sex-determining genes: insights from marsupials and monotremes. Pask A, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):864-75 (76 ref.)

Role of the male specific lethal (msl) genes in modifying the effects of sex chromosomal dosage in Drosophila. Bhadra U, et al. **Genetics** 1999 May;152(1):249-68

SEX CORD-STROMAL TUMOR

DIAGNOSIS

Sclerosing stromal tumor of the ovary: MRI. Ihara N, et al. **J Comput Assist Tomogr** 1999 Jul-Aug;23(4):555-7

Sex cord-stromal and steroid cell tumors of the ovary. Outwater EK, et al. **Radiographics** 1998 Nov-Dec; 18(6):1523-46 (82 ref.)

[Ovarian gonadal tumors in materials of the clinic of gynecological endocrinology of the Medical Academy in Poznań (1970-1998)] Warenik-Szymankiewicz A, et al. **Ginekol Pol** 1999 May;70(5):242-5 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

An active chemotherapy regimen for advanced ovarian sex cord-stromal tumors [editorial; comment] Colombo N, et al. **Gynecol Oncol** 1999 Feb;72(2):129-30. Comment on: Gynecol Oncol 1999 Feb;72(2):131-7.

Bleomycin, etoposide, and cisplatin combination therapy of ovarian granulosa cell tumors and other stromal malignancies: A Gynecologic Oncology Group study [see comments] Homesley HD, et al. **Gynecol Oncol** 1999 Feb; 72(2):131-7. Comment in: Gynecol Oncol 1999 Feb;72(2):129-30.

GENETICS

Loss of the Y-chromosome in the primary metastasis of a male sex cord stromal tumor: pathogenetic implications. de Graaff WE, et al. **Cancer Genet Cytogenet** 1999 Jul 1; 112(1):21-5

METABOLISM

Inhibin and CD99 (MIC2) expression in uterine stromal neoplasms with sex-cord-like elements. Baker RJ, et al. **Hum Pathol** 1999 Jun;30(6):671-9

Relaxin-like factor (RLF): a new specific marker for Leydig cells in the ovary. Bamberger AM, et al. **Int J Gynecol Pathol** 1999 Apr;18(2):163-8

CD99, keratin, and vimentin staining of sex cord-stromal

tumors, normal ovary, and testis. Gordon MD, et al. **Mod Pathol** 1998 Aug;11(8):769–73

Inhibin A is a sensitive and specific marker for testicular sex cord-stromal tumors. Iczkowski KA, et al. **Mod Pathol** 1998 Aug;11(8):774–9

PATHOLOGY

Testicular fibroma of gonadal stromal origin with minor sex cord elements: clinicopathologic and immunohistochemical study of 2 cases. de Pinieux G, et al. **Arch Pathol Lab Med** 1999 May;123(5):391–4 (12 ref.)

Protocol for the examination of specimens from patients with malignant germ cell and sex cord-stromal tumors of the testis, exclusive of paratesticular malignancies: a basis for checklists. Cancer Committee, College of American Pathologists. Ulbright TM. **Arch Pathol Lab Med** 1999 Jan; 123(1):14–9

Masculinizing sclerosing stromal cell tumor in pregnancy: report of a case and review of the literature. Duska LR, et al. **Eur J Gynaecol Oncol** 1998;19(5):441–3 (10 ref.)

Uterine tumours resembling ovarian sex cord tumours: immunohistochemical evidence for true sex cord differentiation [letter] McCluggage WG. **Histopathology** 1999 Apr;34(4):375–6

Sclerosing stromal tumour of the ovary--a case report. Gupta S. **Indian J Pathol Microbiol** 1999 Jan;42(1):97–9

Classification and pathology of testicular germ cell and sex cord-stromal tumors. Cheville JC. **Urol Clin North Am** 1999 Aug;26(3):595–609 (110 ref.)

[A testicular tumor with features of a sex cord tumor with annular tubules and calcified large-cell Sertoli tumor] Zámečník M, et al. **Cesk Patol** 1999 Jan;35(1):20–3 (Eng. Abstr.) **(Slo)**

ULTRASONOGRAPHY

Sonographic presentation of uterine sex cord-stromal tumor. Franco A, et al. **J Clin Ultrasound** 1999 May;27(4):199–201

SEX COUNSELING

The effect of patient-education tools on physicians' discussions with young adolescents about sex. Boekeloo BO, et al. **Acad Med** 1998 Oct;73(10 Suppl):S84–7

Demand for psychosocial counselling of young wheelchair users. Voll R, et al. **Int J Rehabil Res** 1999 Jun;22(2):119–22

Importance and timing of sexual counseling after myocardial infarction. Steinke EE, et al. **J Cardiopulm Rehabil** 1998 Nov-Dec;18(6):401–7

Premarital counseling clinic at Chulalongkorn Hospital. Reinprayoon D, et al. **J Med Assoc Thai** 1998 Dec; 81(12):993–7

Comparing women's views on family and sexual problems in family and gynecological practices. Himmel W, et al. **J Psychosom Obstet Gynaecol** 1999 Sep;20(3):127–35

[Adolescents and sexuality in family practice. A pilot study] Graugaard CL, et al. **Ugeskr Laeger** 1998 Dec 7; 160(50):7262–5 (Eng. Abstr.) **(Dan)**

[Building confidence through plain talk. How to talk about sexuality? Series: Medicine of Sexuality, 3: Free therapeutic talk] Wagner B. **Fortschr Med** 1999 Jan 30;117(3):44–5 **(Ger)**

UTILIZATION

Treatment. The fix for a fixation [news] Haugh R. **Hosp Health Netw** 1999 Feb;73(2):32

SEX DETERMINATION (ANALYSIS)

Correlation between fetal sex and human chorionic gonadotropin in peripheral maternal blood and amniotic fluid in second and third trimester normal pregnancies. Steier JA, et al. **Acta Obstet Gynecol Scand** 1999 May; 78(5):367–71

A W-chromosome linked marker for gender identification in the zebra finch. Runciman D, et al. **Anim Genet** 1999 Feb;30(1):66–7

Prenatal sexing and sex determination in infants with ambiguous genitalia by polymerase chain reaction. Caenazzo L, et al. **Genet Test** 1997-98;1(4):289–91

Rapid sexing of bovine preimplantation embryos using polymerase chain reaction: production of calves with predetermined sex under field conditions. Taneja M, et al. **Indian J Exp Biol** 1998 Dec;36(12):1201–8

Validation of capillary electrophoresis for analysis of the X-Y homologous amelogenin gene. LaFountain M, et al. **J Forensic Sci** 1998 Nov;43(6):1188–94

AL 288-1--Lucy or Lucifer: gender confusion in the Pliocene. Tague RG, et al. **J Hum Evol** 1998 Jul;35(1):75–94

Psychological and obstetrical responses of mothers following antenatal fetal sex identification. Kamel HS, et al. **J Obstet Gynaecol Res** 1999 Feb;25(1):43–50

Nuclear transfer from sexed parent embryos in cattle: efficiency and birth of offspring. Le Bourhis D, et al. **J Reprod Fertil** 1998 Jul;113(2):343–8

Overwhelming maternal cell contamination in amniotic fluid samples from patients with oligohydramnios can lead to false prenatal interphase FISH results [letter] Estabrooks LL, et al. **Prenat Diagn** 1999 Feb;19(2):179–81

Diagnosis of sex and cystic fibrosis status in fetal erythroblasts isolated from cord blood. Griffin DK, et al. **Prenat Diagn** 1999 Feb;19(2):172–4

[Sex determination of human preimplantation embryo blastomere using dualcolor fluorescence in situ hybridization] Li W, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Aug; 16(4):255–8 (Eng. Abstr.) **(Chi)**

[Determination of sex using PCR of the X-Y homologous gene amelogenin] Jiang B, et al. **Fa I Hsueh Tsa Chih** 1997; 13(2):68–70, 128 (Eng. Abstr.) **(Chi)**

METHODS

First-trimester fetal sex prediction by deoxyribonucleic acid analysis of maternal peripheral blood. Falcinelli C, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):675–80

The form of the supraorbital margin as a criterion in identification of sex from the skull: investigations based on modern human skulls. Graw M, et al. **Am J Phys Anthropol** 1999 Jan;108(1):91–6

Use of ordinal categorical variables in skeletal assessment of sex from the cranium. Konigsberg LW, et al. **Am J Phys Anthropol** 1998 Sep;107(1):97–112

Sexual dimorphism in the face of Australopithecus africanus. Lockwood CA. **Am J Phys Anthropol** 1999 Jan; 108(1):97–127

Sexing potential of fragmentary and pathological metacarpals. Stojanowski CM. **Am J Phys Anthropol** 1999 Jun;109(2):245–52

Recycling of a single human blastomere fixed on a microscopic slide for sexing and diagnosis of specific mutations by various types of polymerase chain reaction. He ZY, et al. **Fertil Steril** 1999 Aug;72(2):341–8

Detection of foetal cells in maternal blood and prenatal sex determination by in situ hybridization. Procedure verification. Chiesa J, et al. **Genet Anal** 1999 Apr;15(2):41–5

Enrichment of fetal trophoblasts and nucleated erythrocytes from maternal blood by an immunomagnetic colloid system. Lim TH, et al. **Hum Genet** 1999 May; 104(5):399–404

A visual method of determining the sex of skeletal remains using the distal humerus. Rogers TL. **J Forensic Sci** 1999 Jan;44(1):57–60

Simultaneous detection of multiple STR loci on sex chromosomes for forensic testing of sex and identity. Tun Z, et al. **J Forensic Sci** 1999 Jul;44(4):772–7

DNA extraction from urine and sex identification of birds. Nota Y, et al. **Mol Ecol** 1999 Jul;8(7):1237–8

Same day diagnosis of Down's syndrome and sex in single cells using multiplex fluorescent PCR. Findlay I, et al. **Mol Pathol** 1998 Jun;51(3):164–7

Protocol for rapid fetal sex determination in chorionic villus through polimerase chain reaction. Domenice S, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Mar-Apr; 53(2):80–2

A rapid and reliable PCR-based assay for gene transmission and sex determination in newborn transgenic mice. Lavrovsky Y, et al. **Transgenic Res** 1998 Jul;7(4):319–20

Early fetal gender determination [comment] Benott B. **Ultrasound Obstet Gynecol** 1999 May;13(5):299–300. Comment on: Ultrasound Obstet Gynecol 1999 May;13(5):301–4. Comment on: Ultrasound Obstet Gynecol 1999 May;13(5):305–7.

First-trimester determination of fetal gender by ultrasound [see comments] Efrat Z, et al. **Ultrasound Obstet Gynecol** 1999 May;13(5):305–7. Comment in: Ultrasound Obstet Gynecol 1999 May;13(5):299–300.

Biometrical threshold of biparietal diameter for certain fetal sex assignment by ultrasound. Mazza V, et al. **Ultrasound Obstet Gynecol** 1999 May;13(5):308–11

The sonographic identification of fetal gender from 11 to 14 weeks of gestation [see comments] Whitlow BJ, et al. **Ultrasound Obstet Gynecol** 1999 May;13(5):301–4. Comment in: Ultrasound Obstet Gynecol 1999 May;13(5):299–300.

VETERINARY

Avian sexing: an optimized protocol using polymerase chain reaction-single-strand conformation polymorphism. Cortés O, et al. **J Vet Diagn Invest** 1999 May;11(3):297–9

Molecular sexing of individual kakapo, Strigops habroptilus Aves, from feces. Robertson BC, et al. **Mol Ecol** 1999 Aug; 8(8):1349–50

Rapid detection of male-specific DNA sequence in bovine embryos using fluorescence in situ hybridization. Kobayashi J, et al. **Mol Reprod Dev** 1998 Dec;51(4):390–4

SEX DETERMINATION (GENETICS)

Sexual dimorphism in the neonatal gonad. Hughes IA, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):23–30 (54 ref.)

XX-male syndrome bearing the sex-determining region Y. Tomomasa H, et al. **Arch Androl** 1999 Mar-Apr;42(2):89–96

Mammalian sex determination: joining pieces of the genetic puzzle. Jiménez R, et al. **Bioessays** 1998 Sep;20(9):696–9 (24 ref.)

Sexing of human and other primate DNA. Wilson JF, et al. **Biol Chem** 1998 Oct;379(10):1287–8

Reverse transcription-polymerase chain reaction analysis of genes involved in gonadal differentiation in pigs. Parma P, et al. **Biol Reprod** 1999 Sep;61(3):741–8

Analysis of chicken embryonic development after removal of blastodermal cells for sexing. Klein S, et al. **Br Poult Sci** 1998 Sep;39(4):482–7

Evaluation of selected endocrine disrupting compounds on sex determination in Daphnia magna using reduced photoperiod and different feeding rates. Baer KN, et al. **Bull Environ Contam Toxicol** 1999 Feb;62(2):214–21

The TRA-1A sex determination protein of C. elegans regulates sexually dimorphic cell deaths by repressing the egl-1 cell death activator gene [see comments] Conradt B, et al. **Cell** 1999 Aug 6;98(3):317–27. Comment in: Cell 1999 Aug 6;98(3):277–80.

Sex, cell death, and the genome of C. elegans [comment] Hodgkin J. **Cell** 1999 Aug 6;98(3):277–80 (16 ref.). Comment on: Cell 1999 Aug 6;98(3):317–27.

DAX-1, an 'antitestis' gene. Goodfellow PN, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):857–63 (26 ref.)

The one-to-four rule and paralogues of sex-determining genes. Ohno S. **Cell Mol Life Sci** 1999 Jun;55(6-7):824–30 (19 ref.)

Genes essential for early events in gonadal development. Parker KL, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):831–8 (55 ref.)

Sex chromosomes and sex-determining genes: insights from marsupials and monotremes. Pask A, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):864–75 (76 ref.)

Amphibian sex determination and sex reversal. Wallace H, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):901–9 (69 ref.)

Distribution of heterochromatin on the mitotic chromosomes of Musca domestica L. in relation to the activity of male-determining factors. Hediger M, et al. **Chromosoma** 1998 Sep;107(4):267–71

XY sex reversal in the wood lemming is associated with deletion of Xp21-23 as revealed by chromosome microdissection and fluorescence in situ hybridization. Liu WS, et al. **Chromosome Res** 1998 Aug;6(5):379–83

Developmental effects on intersexual and intrasexual variation in growth and reproduction in a lizard with temperature-dependent sex determination. Crews D, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):229–41 (83 ref.)

Sex determination in plants. Juarez C, et al. **Curr Opin Plant Biol** 1998 Feb;1(1):68–72 (39 ref.)

Developmental genetics of Caenorhabditis elegans sex determination. Kuwabara PE. **Curr Top Dev Biol** 1999; 41:99–132 (106 ref.)

Identification of the sex chromosomes of the medaka, Oryzias latipes, by fluorescence in situ hybridization. Matsuda M, et al. **Cytogenet Cell Genet** 1998;82(3-4):257–62

Germ-line regulation of the Caenorhabditis elegans sex-determining gene tra-2. Kuwabara PE, et al. **Dev Biol** 1998 Dec 1;204(1):251–62

Temperature-dependent sex determination: upregulation of SOX9 expression after commitment to male development. Western PS, et al. **Dev Dyn** 1999 Mar;214(3):171–7

A Caenorhabditis elegans homeobox gene expressed in the male tail, a link between pattern formation and sexual dimorphism? Kagoshima H, et al. **Dev Genes Evol** 1999 Jan;209(1):59–62

Suppression of distinct ovo phenotypes in the Drosophila female germline by maleless- and Sex-lethal. Oliver B, et al. **Dev Genet** 1998;23(4):335–46

Cell death and cell protection genes determine the fate of pistils in maize. Calderon-Urrea A, et al. **Development** 1999 Feb;126(3):435–41

Similarity of DNA binding and transcriptional regulation by Caenorhabditis elegans MAB-3 and Drosophila melanogaster DSX suggests conservation of sex determining mechanisms. Yi W, et al. **Development** 1999 Feb;126(5):873–81

Repression by the 3' UTR of fem-3, a sex-determining gene, relies on a ubiquitous mog-dependent control in Caenorhabditis elegans. Gallegos M, et al. **EMBO J** 1998 Nov 2;17(21):6337–47

The STAR protein, GLD-1, is a translational regulator of sexual identity in Caenorhabditis elegans. Jan E, et al. **EMBO J** 1999 Jan 4;18(1):258–69

The structure of a glycosylated protein hormone responsible for sex determination in the isopod, Armadillidium vulgare. Martin G, et al. **Eur J Biochem** 1999 Jun;262(3):727–36

Production of donor-derived offspring by transfer of primordial germ cells in Japanese quail. Ono T, et al. **Exp Anim** 1998 Oct;47(4):215–9

Retroactive DNA analysis for sex determination and dystrophin gene by polymerase chain reaction with archived cytogenetic slides. Choi SK, et al. **Exp Mol Med** 1999 Mar 31;31(1):36–41

Sexism and racism in preconceptive trait selection [editorial; comment] Berkowitz JM. **Fertil Steril** 1999 Mar;71(3):415–7 . Comment on: Fertil Steril 1999 Mar;71(3):418–9.

Political correctness and the abridgment of reproductive choice [editorial; comment] Paulson RJ. **Fertil Steril** 1999 Mar;71(3):418–9. Comment on: Fertil Steril 1999 Mar;71(3):415–7.

Sex reversal effects of environmentally relevant xenobiotic concentrations on the red-eared slider turtle, a species with temperature-dependent sex determination. Willingham E, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):429–35

Mammalian sex determination: a molecular drama. Swain A, et al. **Genes Dev** 1999 Apr 1;13(7):755–67 (87 ref.)

The primary sex determination signal of Caenorhabditis elegans. Carmi I, et al. **Genetics** 1999 Jul;152(3):999–1015

The female-determining gene F of the housefly, Musca domestica, acts maternally to regulate its own zygotic

activity. Dübendorfer A, et al. **Genetics** 1998 Sep; 150(1):221–6

The male-determining activity on the Y chromosome of the housefly (Musca domestica L.) consists of separable elements. Hediger M, et al. **Genetics** 1998 Oct;150(2):651–61

Genetic and molecular analysis of fox-1, a numerator element involved in Caenorhabditis elegans primary sex determination. Skipper M, et al. **Genetics** 1999 Feb; 151(2):617–31

Homologs of the Caenorhabditis elegans masculinizing gene her-1 in C. briggsae and the filarial parasite Brugia malayi. Streit A, et al. **Genetics** 1999 Aug;152(4):1573–84

Bm kettin, homologue of the Drosophila kettin gene, is located on the Z chromosome in Bombyx mori and is not dosage compensated. Suzuki MG, et al. **Heredity** 1999 Feb; 82 (Pt 2):170–9

A region of human chromosome 9p required for testis development contains two genes related to known sexual regulators. Raymond CS, et al. **Hum Mol Genet** 1999 Jun; 8(6):989–96

Novel mutation in the SRY gene results in 46,XY gonadal dysgenesis. Cameron FJ, et al. **Hum Mutat** 1998;Suppl 1:S110–1

Mutation in the 5' noncoding region of the SRY gene in an XY sex-reversed patient. Poulat F, et al. **Hum Mutat** 1998;Suppl 1:S192–4

In vitro binding and expression studies demonstrate a role for the mouse Sry Q-rich domain in sex determination. Zhang J, et al. **Int J Dev Biol** 1999 May;43(3):219–27

Sex reversal by aromatase inhibitor treatment in the newt Pleurodeles waltl. Chardard D, et al. **J Exp Zool** 1999 Jan 1;283(1):43–50

Sex-determining mechanism in Buergeria buergeri (Anura, Rhacophoridae). III. Does the ZZW triploid frog become female or male? Ohta S, et al. **J Exp Zool** 1999 Feb 15; 283(3):295–306

Genes, cells and organs: recent developments in the molecular genetics of mammalian sex determination. Greenfield A. **Mamm Genome** 1998 Sep;9(9):683–7 (47 ref.)

Sex and the single worm: sex determination in the nematode C. elegans. Hansen D, et al. **Mech Dev** 1999 May; 83(1-2):3–15 (103 ref.)

Hgm1, a novel male-specific gene from Heterodera glycines identified by differential mRNA display. Llado RR, et al. **Mol Biochem Parasitol** 1998 Sep 1;95(1):45–52

Protein phosphorylation plays an essential role in the regulation of alternative splicing and sex determination in Drosophila. Du C, et al. **Mol Cell** 1998 Dec;2(6):741–50

The Caenorhabditis elegans sex determination gene mog-1 encodes a member of the DEAH-Box protein family. Puoti A, et al. **Mol Cell Biol** 1999 Mar;19(3):2189–97

The identification of a sex-specific DNA marker in the ostrich using a random amplified polymorphic DNA (RAPD) assay. Bello N, et al. **Mol Ecol** 1999 Apr; 8(4):667–9

The use of amplified fragment length polymorphism (AFLP) in the isolation of sex-specific markers. Griffiths R, et al. **Mol Ecol** 1999 Apr;8(4):671–4

Mammalian sex determination: from gonads to brain. Vilain E, et al. **Mol Genet Metab** 1998 Oct;65(2):74–84 (76 ref.)

Hypothesis: sex determination and germline formation are committed at the pronucleate stage in mammalian embryos. Edwards RG, et al. **Mol Hum Reprod** 1999 Jul;5(7):595–606 (148 ref.)

Clinical experience of sex determination by fluorescent in-situ hybridization for preimplantation genetic diagnosis. Staessen C, et al. **Mol Hum Reprod** 1999 Apr;5(4):382–9

Gender determination in single bovine blastomeres by polymerase chain reaction amplification of sex-specific polymorphic fragments in the amelogenin gene. Chen CM, et al. **Mol Reprod Dev** 1999 Nov;54(3):209–14

Sry requires a CAG repeat domain for male sex determination in Mus musculus. Bowles J, et al. **Nat Genet** 1999 Aug; 22(4):405–8

Ahch and the feminine mystique [news; comment] Parker KL, et al. **Nat Genet** 1998 Dec;20(4):318–9. Comment on: Nat Genet 1998 Dec;20(4):353–7.

Picture story. Sex and the single male X chromosome. **Nat Struct Biol** 1998 Oct;5(10):854

The nuclear hormone receptor SEX-1 is an X-chromosome signal that determines nematode sex [see comments] Carmi I, et al. **Nature** 1998 Nov 12;396(6707):168–73. Comment in: Nature 1998 Nov 12;396(6707):115, 117.

Developmental genetics. Too much sex is bad for males [news; comment] Swain A, et al. **Nature** 1998 Nov 12; 396(6707):115, 117. Comment on: Nature 1998 Nov 12;396(6707):168–73.

ANI1. A sex pheromone-induced gene in ceratopteris gametophytes and its possible role in sex determination. Wen CK, et al. **Plant Cell** 1999 Jul;11(7):1307–18

Differentiating between parthenogenetic and "positive development" embryos in turkeys by molecular sexing [comment] Cassar G, et al. **Poult Sci** 1998 Oct; 77(10):1463–8. Comment on: Poult Sci 1998 Oct;77(10):1457–62.

Analysis of fetal sex in TCC sample DNA: a contribution to the validation of this approach. Falcinelli C, et al. **Prenat Diagn** 1998 Nov;18(11):1109–16

Fetal cells in maternal blood: the use of primed in situ (PRINS) labelling technique for fetal cell detection and sex assessment. Orsetti B, et al. **Prenat Diagn** 1998 Oct; 18(10):1014–22

Recent developments in embryo sexing and its field application. Bredbacka P. **Reprod Nutr Dev** 1998 Nov-Dec; 38(6):605–13 (24 ref.)

Mammalian Y chromosome evolution and the male-specific functions of Y chromosome-borne genes. Delbridge ML, et al. **Rev Reprod** 1999 May;4(2):101–9 (63 ref.)

Dosage compensation proteins targeted to X chromosomes by a determinant of hermaphrodite fate [see comments] Dawes HE, et al. **Science** 1999 Jun 11;284(5421):1800–4. Comment in: Science 1999 Jun 11;284(5421):1787–9.

Sex and repression [comment] Kuroda MI, et al. **Science** 1999 Jun 11;284(5421):1787–8. Comment on: Science 1999 Jun 11;284(5421):1800–4.

[Sex determination in mammals: state of the art] Berta P, et al. **Contracept Fertil Sex** 1999 Jun;27(6):423–33 (78 ref.) (Eng. Abstr.) **(Fre)**

[Genes, hormones and the risk factors in the development of the male phenotype] Shishkina GT, et al. **Usp Fiziol Nauk** 1999 Jul-Sep;30(3):49–61 (155 ref.) (Eng. Abstr.) **(Rus)**

SEX DETERMINATION TECHNIQUES see **SEX DETERMINATION (ANALYSIS)**

SEX DEVIATIONS see **PARAPHILIAS**

SEX DIFFERENCES see **SEX CHARACTERISTICS**

SEX DIFFERENTIATION

Development of the penis and clitoris in the tammar wallaby, Macropus eugenii. Butler CM, et al. **Anat Embryol (Berl)** 1999 May;199(5):451–7

Differences in genetic backgrounds affecting gonadal differentiation between two local populations of the Japanese wrinkled frog (Rana rugosa). Takase M. **Anat Embryol (Berl)** 1998 Aug;198(2):141–8

Sex differentiation of growth hormone-releasing hormone and somatostatin neurons in the mouse hypothalamus: an immunohistochemical and morphological study. Nurhidayat, et al. **Brain Res** 1999 Mar 13;821(2):309–21

Sex-dependent differences in the activities of acetylsalicylic acid-esterases in mouse kidneys. Benedito MA. **Braz J Med Biol Res** 1999 Mar;32(3):275–8

Gender differences in the activities of aspirin-esterases in rat tissues. Benedito MA. **Braz J Med Biol Res** 1998 Sep; 31(9):1113–8

Immunocytochemical study on the localization and distribution of the somatolactin cells in the pituitary gland and the brain of Oreochromis niloticus (Teleostei, cichlidae). Mousa MA, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):197–211

The roles of steroidogenic factor 1 in endocrine development and function. Parker KL. **Mol Cell Endocrinol** 1998 May 25;140(1-2):59–63 (25 ref.)

Sexually dimorphic development of the mammalian reproductive tract requires Wnt-7a. Parr BA, et al. **Nature** 1998 Oct 15;395(6703):707–10

Changes in hypothalamic calmodulin concentration induced by perinatal hormone manipulation in the rat. Rodriguez-Medina MA, et al. **Pharmacol Biochem Behav** 1998 Dec;61(4):445–50

[Function and expression of transcription factors implicated in gonadal differentiation] Morohashi K. **Nippon Rinsho** 1998 Jul;56(7):1739–44 (19 ref.) (Eng. Abstr.) **(Jpn)**

[Frequency distribution patterns of HLA antigens, genes, and haplotypesin the migrant population of northwestern Russia in relation to time of residence in the region and sex differentiation] Pereverzeva VV, et al. **Genetika** 1999 Apr; 35(4):504–8 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Prenatal exposure to anticonvulsants and psychosexual development. Dessens AB, et al. **Arch Sex Behav** 1999 Feb; 28(1):31–44

Sexual differentiation and environmental endocrine disrupters. Toppari J, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):143–56 (67 ref.)

Postnatal choline supplementation in preweanling mice: sexually dimorphic behavioral and neurochemical effects. Ricceri L, et al. **Behav Neurosci** 1998 Dec;112(6):1387–92

Impairment of cingulothalamic learning-related neuronal coding in rabbits exposed to cocaine in utero: general and sex-specific effects. Taylor CL, et al. **Behav Neurosci** 1999 Feb;113(1):62–77

Sperm and oocyte treatments to improve the formation of male and female pronuclei and subsequent development following intracytoplasmic sperm injection into bovine oocytes. Rho GJ, et al. **Biol Reprod** 1998 Oct;59(4):918–24

Developmental synergism of steroidal estrogens in sex determination. Bergeron JM, et al. **Environ Health Perspect** 1999 Feb;107(2):93–7

No threshold dose for estradiol-induced sex reversal of turtle embryos: how little is too much? Sheehan DM, et al. **Environ Health Perspect** 1999 Feb;107(2):155–9

The effect of sex steroids on primary and secondary sex differentiation in the sexually dichromatic reedfrog (Hyperolius argus: Hyperolidae) from the Arabuko Sokoke Forest of Kenya. Hayes TB, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):188–99

Effects of prenatal morphine exposure on rat heterotypical sexual behavior. Vathy I. **Physiol Behav** 1999 Jun; 66(4):667–71

Fetal alcohol exposure blocks full masculinization of the dorsolateral nucleus in rat spinal cord. Ward IL, et al. **Physiol Behav** 1999 Jun;66(4):571–5

Dieldrin reduces male production and sex ratio in Daphnia galeata mendotae. Dodson SI, et al. **Toxicol Ind Health** 1999 Jan-Mar;15(1-2):192–9

Methods for studying xenoestrogenic effects in birds. Berg C, et al. **Toxicol Lett** 1998 Dec 28;102-103:671–6

Xenoendocrine disrupters: laboratory studies on male reproductive effects. Gray LE Jr. **Toxicol Lett** 1998 Dec 28;102-103:331–5 (24 ref.)

GENETICS

Abnormalities of gonadal differentiation. Berkovitz GD, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):133–42 (42 ref.)

Physiology and pathophysiology of androgen action. Hiort O, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr; 12(1):115–32 (96 ref.)

Genetic control of gonadal differentiation. Lim HN, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):1–16 (61 ref.)

Embryology and endocrinology of genital development. Rey R, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr; 12(1):17–33 (55 ref.)

Natural potent androgens: lessons from human genetic models. Zhu YS, et al. **Baillieres Clin Endocrinol Metab** 1998 Apr;12(1):83–113 (170 ref.)

DAX-1, an 'antitestis' gene. Goodfellow PN, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):857–63 (26 ref.)

Temperature-dependent sex determination and gonadal differentiation in reptiles. Pieau C, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):887–900 (92 ref.)

Amphibian sex determination and sex reversal. Wallace H, et al. **Cell Mol Life Sci** 1999 Jun;55(6-7):901–9 (69 ref.)

Expression of chicken steroidogenic factor-1 during gonadal sex differentiation. Smith CA, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):187–96

Negative regulation of male development in Caenorhabditis elegans by a protein-protein interaction between TRA-2A and FEM-3. Mehra A, et al. **Genes Dev** 1999 Jun 1; 13(11):1453–63

Analysis of the doublesex female protein in Drosophila melanogaster: role on sexual differentiation and behavior and dependence on intersex. Waterbury JA, et al. **Genetics** 1999 Aug;152(4):1653–67

Sexual differentiation: from genes to gender. Migeon CJ, et al. **Horm Res** 1998;50(5):245–51 (42 ref.)

An N-terminal truncation uncouples the sex-transforming and dosage compensation functions of sex-lethal. Yanowitz JL, et al. **Mol Cell Biol** 1999 Apr;19(4):3018–28

Modulation of androgen receptor (AR)-mediated transcriptional activity by EGF in the developing mouse reproductive tract primary cells. Gupta C. **Mol Cell Endocrinol** 1999 Jun 25;152(1-2):169–78

Inactivation of the luteinizing hormone/chorionic gonadotropin receptor by an insertional mutation in Leydig cell hypoplasia. Wu SM, et al. **Mol Endocrinol** 1998 Nov; 12(11):1651–60

An apparent excess of sex- and reproduction-related genes on the human X chromosome. Saifi GM, et al. **Proc R Soc Lond B Biol Sci** 1999 Jan 22;266(1415):203–9

Bilateral cryptorchidism associated with terminal deletion of 10q. Suzuki Y, et al. **Urol Int** 1998;61(3):186–7

[Advances in the study of the mechanisms of sex differentiation] Salamanca-Gómez F. **Gac Med Mex** 1998 May-Jun;134(3):363–4 **(Spa)**

PHYSIOLOGY

A role for ovarian hormones in sexual differentiation of the brain. Fitch RH, et al. **Behav Brain Sci** 1998 Jun; 21(3):311–27; discussion 327–52 (352 ref.)

Virilization of the male pouch young of the tammar wallaby does not appear to be mediated by plasma testosterone or dihydrotestosterone. Wilson JD, et al. **Biol Reprod** 1999 Aug;61(2):471–5

Early expression of AMH in chicken embryonic gonads precedes testicular SOX9 expression. Oreal E, et al. **Dev Dyn** 1998 Aug;212(4):522–32

Activational and organizational actions of gonadal hormones and the sex-specific effects of prolactin on food intake by rats. Heil SH. **Dev Psychobiol** 1999 Jul;35(1):61–7

The size of the splenium of the rat corpus callosum: influence of hormones, sex ratio, and neonatal cryoanesthesia. Nuñez JL, et al. **Dev Psychobiol** 1998 Dec;33(4):295–303

Embryonic temperature and gonadal sex organize male-typical sexual and aggressive behavior in a lizard with temperature-dependent sex determination. Rhen T, et al. **Endocrinology** 1999 Oct;140(10):4501–8

Sexual differentiation: from genes to gender. Migeon CJ, et al. **Horm Res** 1998;50(5):245–51 (42 ref.)

Development of the cerebral cortex: XV. Sexual differentiation of the central nervous system. Gorski RA. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):344–6 (7 ref.)

Development of sexually dimorphic vasotocinergic system in the bed nucleus of stria terminalis in chickens. Jurkevich A, et al. **J Comp Neurol** 1999 May 24;408(1):46–60

Steroid contents of and steroidogenesis in vitro by the

SEX DIFFERENTIATION

developing gonad and mesonephros around sexual differentiation in fetal sheep. Lun S, et al. **J Reprod Fertil** 1998 Sep;114(1):131–9

Female development in mammals is regulated by Wnt-4 signalling. Vainio S, et al. **Nature** 1999 Feb 4; 397(6718):405–9

Neuronal cell death during sexual differentiation and lateralisation of vocal communication. Holman SD. **Neurosci Biobehav Rev** 1998 Oct;22(6):725–34 (94 ref.)

SEX DIFFERENTIATION DISORDERS

see related
TRANSSEXUALISM

Disorders of sexual differentiation. Warne GL, et al. **Endocrinol Metab Clin North Am** 1998 Dec;27(4):945–67, x (92 ref.)

Advances and challenges with intersex disorders. Warne GL. **Reprod Fertil Dev** 1998;10(1):79–85 (41 ref.)

BLOOD

Evaluation of gonadal function in 107 intersex patients by means of serum antimüllerian hormone measurement. Rey RA, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):627–31

COMPLICATIONS

Onchocerciasis, epilepsy and hyposexual dwarfism [letter; comment] Duke BO. **Trans R Soc Trop Med Hyg** 1998 Mar–Apr;92(2):236. Comment on: Trans R Soc Trop Med Hyg 1997 Sep–Oct;91(5):525–7.

DIAGNOSIS

Clinical utility of adrenal ultrasonography in the diagnosis of congenital adrenal hyperplasia. Al-Alwan I, et al. **J Pediatr** 1999 Jul;135(1):71–5

[Diagnosis and management of patients with sex differentiation disorders: experience at the Unit of Medical Genetics of the University of Zulia, Maracaibo, Venezuela] Alvarez-Nava F, et al. **Invest Clin** 1998 Dec;39(4):273–92 (Eng. Abstr.) **(Spa)**

EMBRYOLOGY

[Malformations of the scrotum and its contents] Marzotto Caotorta M, et al. **Arch Ital Urol Androl** 1998 Dec; 70(5):251–62 (15 ref.) (Eng. Abstr.) **(Ita)**

GENETICS

Novel missense mutation in the HMG box of SOX9 gene in a Japanese XY male resulted in campomelic dysplasia and severe defect in masculinization. Goji K, et al. **Hum Mutat** 1998;Suppl 1:S114–6

Inherited disorders in sexual development. Meyers-Wallen VN. **J Hered** 1999 Jan–Feb;90(1):93–5 (19 ref.)

PHYSIOPATHOLOGY

Intersex infants and otoacoustic emissions [letter] McFadden D. **Urology** 1999 Jan;53(1):240

PREVENTION & CONTROL

Administration of metformin to a diabetic woman with extreme hyperandrogenemia of nontumoral origin: management of infertility and prevention of inadvertent masculinization of a female fetus. Sarlis NJ, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1510–2

PSYCHOLOGY

Gender assignment and the pediatric urologist [editorial; comment] Glassberg KI. **J Urol** 1999 Apr;161(4):1308–10 . Comment on: J Urol 1996 Sep;156(3):1139–40.

THERAPY

Gender assignment and the pediatric urologist [editorial; comment] Glassberg KI. **J Urol** 1999 Apr;161(4):1308–10 . Comment on: J Urol 1996 Sep;156(3):1139–40.

ULTRASONOGRAPHY

Prenatal diagnosis of Smith-Lemli-Opitz syndrome in a pregnancy with low maternal serum oestriol and a sex-reversed fetus. Bick DP, et al. **Prenat Diagn** 1999 Jan; 19(1):68–71 (16 ref.)

VETERINARY

[Disorders of sex development in dogs] Tammer I, et al. **Tierarztl Prax Ausg K Kleintiere Heimtiere** 1998 Nov; 26(6):390–5 (Eng. Abstr.) **(Ger)**

SEX DIMORPHISM see **SEX CHARACTERISTICS**

SEX DISORDERS

ABC of sexual health: assessing and managing male sexual problems. Gregoire A. **BMJ** 1999 Jan 30;318(7179):315–7 (5 ref.)

The role of imagery in sexual arousal disturbances in the male traumatically brain injured individual. Crowe SF, et al. **Brain Inj** 1999 May;13(5):347–54

JAMA patient page: sexual dysfunction. **JAMA** 1999 Feb 10;281(6):584

Survey says patients expect little physician help on sex [news] Marwick C. **JAMA** 1999 Jun 16;281(23):2173–4

Ileal J-pouch--anal anastomosis, sexual dysfunction, and fertility. Tiainen J, et al. **Scand J Gastroenterol** 1999 Feb; 34(2):185–8

Female sexual dysfunction: incidence, pathophysiology, evaluation, and treatment options. Berman JR, et al. **Urology** 1999 Sep;54(3):385–91 (26 ref.)

CHEMICALLY INDUCED

Lack of sexual adverse effects with mirtazapine [letter; comment] Farah A. **Am J Health Syst Pharm** 1998 Oct 15;55(20):2195–6. Comment on: Am J Health Syst Pharm 1998 Jun 1;55(11):1167–9.

Sexual dysfunction and selective serotonin reuptake inhibitors [letter] Gagnon M, et al. **Biol Psychiatry** 1998 Sep 1; 44(5):374

Effects of prenatal exposure to low concentrations of carbon monoxide on sexual behaviour and mesolimbic dopaminergic function in rat offspring. Cagiano R, et al. **Br J Pharmacol** 1998 Oct;125(4):909–15

Fluoxetine-terfenadine and sexual dysfunction [letter] Valmana A, et al. **Br J Psychiatry** 1998 Aug;173:186–7

A placebo-controlled comparison of the antidepressant efficacy and effects on sexual functioning of sustained-release bupropion and sertraline. Croft H, et al. **Clin Ther** 1999 Apr;21(4):643–58

Psychotropic drug-induced sexual function disorders: diagnosis, incidence and management. Clayton DO, et al. **Drug Saf** 1998 Oct;19(4):299–312 (109 ref.)

Antidepressant-induced sexual dysfunction: review, classification, and suggestions for treatment. Ellison JM. **Harv Rev Psychiatry** 1998 Nov-Dec;6(4):177–89 (118 ref.)

Treatment of antidepressant-induced sexual dysfunction. Moore BE, et al. **Hosp Pract (Off Ed)** 1999 Jan 15; 34(1):89–91, 95–6

The use of mirtazapine in a group of 11 patients following poor compliance to selective serotonin reuptake inhibitor treatment due to sexual dysfunction. Koutouvidis N, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):253–5

Erectile function and nocturnal penile tumescence in patients with prostate cancer undergoing luteinizing hormone-releasing hormone agonist therapy. Marumo K, et al. **Int J Urol** 1999 Jan;6(1):19–23

Ginkgo biloba for antidepressant-induced sexual dysfunction? [letter; comment] Balon R. **J Sex Marital Ther** 1999 Jan-Mar;25(1):1–2. Comment on: J Sex Marital Ther 1998 Apr-Jun;24(2):139–43.

Fluvoxamine-induced erectile dysfunction responding to sildenafil. Balon R. **J Sex Marital Ther** 1998 Oct-Dec; 24(4):313–7

Caution recommended [letter; comment] Levine SB. **J Sex Marital Ther** 1999 Jan-Mar;25(1):2–5. Comment on: J Sex Marital Ther 1998 Apr-Jun;24(2):139–43.

Female genital disorder as adverse symptom of lamotrigine treatment. A serotoninergic effect? Erfurth A, et al. **Neuropsychobiology** 1998 Oct;38(3):200–1

COMPLICATIONS

Neuropsychologic implications in erotomania: two case studies. Fujii DE, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Apr; 12(2):110–6

DIAGNOSIS

ABC of sexual health: taking a sexual history [see comments] Tomlinson J. **BMJ** 1998 Dec 5;317(7172):1573–6 (0 ref.). Comment in: BMJ 1999 May 8;318(7193):1289.

Psychotropic drug-induced sexual function disorders: diagnosis, incidence and management. Clayton DO, et al. **Drug Saf** 1998 Oct;19(4):299–312 (109 ref.)

Taking a sexual history. Tomlinson J, et al. **West J Med** 1999 May;170(5):284–6

[Concerning some important sexual problems] Van Cauwenberge JR. **Rev Med Liege** 1999 May;54(5):477–80 (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Fluoxetine-terfenadine and sexual dysfunction [letter] Valmana A, et al. **Br J Psychiatry** 1998 Aug;173:186–7

Medroxyprogesterone in the treatment of aggressive hypersexual behavior in traumatic brain injury. Britton KR. **Brain Inj** 1998 Aug;12(8):703–7

Antidepressant-induced sexual dysfunction: review, classification, and suggestions for treatment. Ellison JM. **Harv Rev Psychiatry** 1998 Nov-Dec;6(4):177–89 (118 ref.)

Treatment of premature ejaculation with sertraline hydrochloride. McMahon CG. **Int J Impot Res** 1998 Sep; 10(3):181–4; discussion 185

Sertraline in the treatment of premature ejaculation: a double-blind placebo controlled study. Biri H, et al. **Int Urol Nephrol** 1998;30(5):611–5

Fluvoxamine-induced erectile dysfunction responding to sildenafil. Balon R. **J Sex Marital Ther** 1998 Oct-Dec; 24(4):313–7

Clomipramine in the treatment of rapid (premature) ejaculation. Strassberg DS, et al. **J Sex Marital Ther** 1999 Apr-Jun;25(2):89–101

Psychosocial side effects of sildenafil therapy for erectile dysfunction. Wise TN. **J Sex Marital Ther** 1999 Apr-Jun; 25(2):145–50

Treatment of premature ejaculation with paroxetine hydrochloride as needed: 2 single-blind placebo controlled crossover studies. McMahon CG, et al. **J Urol** 1999 Jun; 161(6):1826–30

The effects of fluoxetine on several neurophysiological variables in patients with premature ejaculation. Yilmaz U, et al. **J Urol** 1999 Jan;161(1):107–11

Sildenafil in postmenopausal women with sexual dysfunction [letter] Berman JR, et al. **Urology** 1999 Sep;54(3):578–9

Safety and efficacy of sildenafil in postmenopausal women with sexual dysfunction. Kaplan SA, et al. **Urology** 1999 Mar;53(3):481–6

Short-term analysis of the effects of as needed use of sertraline at 5 PM for the treatment of premature ejaculation. Kim SW, et al. **Urology** 1999 Sep;54(3):544–7

[Painful erections related to sleeping] Menéndez López V, et al. **Actas Urol Esp** 1999 Jun;23(6):539–41 (7 ref.) (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

Late side effects unchanged 4–8 years after radiotherapy for prostate carcinoma: a comparison with age-matched controls. Fransson P, et al. **Cancer** 1999 Feb 1;85(3):678–88

Prevalence of sexual disorders in a selection-free diabetic population (JEVIN). Schiel R, et al. **Diabetes Res Clin Pract** 1999 May;44(2):115–21

Sexual problems: a study of the prevalence and need for health care in the general population. Dunn KM, et al. **Fam Pract** 1998 Dec;15(6):519–24

Sexual dysfunction in the United States: prevalence and predictors [published erratum appears in JAMA 1999 Apr 7;281(13):1174] Laumann EO, et al. **JAMA** 1999 Feb 10; 281(6):537–44

Vaginal changes and sexuality in women with a history of cervical cancer. Bergmark K, et al. **N Engl J Med** 1999 May 6;340(18):1383–9

ETIOLOGY

The cause and management of bladder, sexual and bowel symptoms in multiple sclerosis. Fowler CJ. **Baillieres Clin Neurol** 1997 Oct;6(3):447–66 (48 ref.)

Ejaculatory failure and hypogonadotrophic hypogonadism caused by haemochromatosis. Stopforth HB, et al. **BJU Int** 1999 Apr;83(6):728

ABC of sexual health: female sexual problems I: loss of desire--what about the fun? Butcher J. **BMJ** 1999 Jan 2; 318(7175):41–3 (0 ref.)

ABC of sexual health: examination of patients with sexual problems. Dean J. **BMJ** 1998 Dec 12;317(7173):1641–3 (0 ref.)

ABC of sexual health: sexual problems of disabled patients. Glass C, et al. **BMJ** 1999 Feb 20;318(7182):518–21 (0 ref.)

ABC of sexual health: male sexual problems. Gregoire A. **BMJ** 1999 Jan 23;318(7178):245–7 (0 ref.)

ABC of sexual health: sexual problems associated with infertility, pregnancy, and ageing. Read J. **BMJ** 1999 Feb 27;318(7183):587–9 (0 ref.)

Long-term effects on sexual function and fertility after treatment of testicular cancer. Hartmann JT, et al. **Br J Cancer** 1999 May;80(5–6):801–7

The evaluation of sexual function in men presenting with symptomatic benign prostatic hyperplasia. Namasivayam S, et al. **Br J Urol** 1998 Dec;82(6):842–6

A review of the effect of traumatic brain injury on the human sexual response. Aloni R, et al. **Brain Inj** 1999 Apr; 13(4):269–80 (57 ref.)

Medroxyprogesterone in the treatment of aggressive hypersexual behavior in traumatic brain injury. Britton KR. **Brain Inj** 1998 Aug;12(8):703–7

Severe adverse impact on sexual functioning and fertility of bone marrow transplantation, either allogeneic or autologous, compared with consolidation chemotherapy alone: analysis of the MRC AML 10 trial. Watson M, et al. **Cancer** 1999 Oct 1;86(7):1231–9

Sexual dysfunction in men with multiple sclerosis--a comprehensive pilot-study into etiology. Lottman PE, et al. **Int J Impot Res** 1998 Dec;10(4):233–7

Penile sensitivity in men with premature ejaculation. Paick JS, et al. **Int J Impot Res** 1998 Dec;10(4):247–50

Long-term morbidity and quality of life in patients with localized prostate cancer undergoing definitive radiotherapy or radical prostatectomy. Lilleby W, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):735–43

Sexual dysfunction of persons after traumatic brain injury: perceptions of professionals. Katz S, et al. **Int J Rehabil Res** 1999 Mar;22(1):45–53

Effect of long-term alcohol abuse on male sexual function and serum gonadal hormone levels. Gümüş B, et al. **Int Urol Nephrol** 1998;30(6):755–9

Sexual dysfunction in patients with diabetes [editorial; comment] Herter CD. **J Am Board Fam Pract** 1998 Jul-Aug;11(4):327–30. Comment on: J Am Board Fam Pract 1998 Jul-Aug;11(4):259–63.

Sexual dysfunction in uremia. Palmer BF. **J Am Soc Nephrol** 1999 Jun;10(6):1381–8 (33 ref.)

Association of sexual problems with social, psychological, and physical problems in men and women: a cross sectional population survey. Dunn KM, et al. **J Epidemiol Community Health** 1999 Mar;53(3):144–8

Painful ejaculation after inguinal hernia repair. Butler JD, et al. **J R Soc Med** 1998 Aug;91(8):432-3
Sexual behavior changes with vulvar vestibulitis syndrome. White G, et al. **J Reprod Med** 1998 Sep;43(9):783-9
Sexual dysfunction in the United States [letter] Rosen RC, et al. **JAMA** 1999 Oct 6;282(13):1229
Surviving cancer: the importance of sexual self-concept. Andersen BL. **Med Pediatr Oncol** 1999 Jul;33(1):15-23 (45 ref.)
Incidence of sexual dysfunction in surgically menopausal women [letter] Shifren JL, et al. **Menopause** 1998 Fall; 5(3):189-90
L4-5 disk lesion resulting in back pain with bowel, bladder and sexual dysfunction without paraparesis. Nesathurai S, et al. **Spinal Cord** 1999 Mar;37(3):228-30
[Disorders in sexual function following hysterectomy] Popov I, et al. **Akush Ginekol (Sofiia)** 1998;37(3):38-41 (Eng. Abstr.) **(Bul)**
[Urinary and sexual alterations in multiple sclerosis: population based study (letter)] Pina MA, et al. **Neurologia** 1998 Nov;13(9):446-7 **(Spa)**

METABOLISM

Effects of fenfluramine on ejaculatory function, luteinizing hormone and testosterone levels in men with hypogonadotropic hypogonadism and premature ejaculation. Cohen PG, et al. **Int Clin Psychopharmacol** 1999 Mar;14(2):91-4

PHYSIOPATHOLOGY

Ejaculatory dysfunction. Vale J. **BJU Int** 1999 Mar; 83(5):557-63 (46 ref.)
Finger and penile tactile sensitivity in sexually functional and dysfunctional diabetic men. Morrissette DL, et al. **Diabetologia** 1999 Mar;42(3):336-42
Bulbocavernosus-reflex latencies and pudendal nerve SSEP compared to penile vascular testing in 669 patients with erectile failure and other sexual dysfunction. Fabra M, et al. **Int J Impot Res** 1999 Jun;11(3):167-75

PSYCHOLOGY

Inappropriate sexual behaviors in dementia: a preliminary report. Tsai SJ, et al. **Alzheimer Dis Assoc Disord** 1999 Jan;13(1):60-2
The use of mirtazapine in a group of 11 patients following poor compliance to selective serotonin reuptake inhibitor treatment due to sexual dysfunction. Koutouvidis N, et al. **Int Clin Psychopharmacol** 1999 Jul;14(4):253-5
Psychosocial side effects of sildenafil therapy for erectile dysfunction. Wise TN. **J Sex Marital Ther** 1999 Apr-Jun; 25(2):145-50

REHABILITATION

Sexual dysfunction of persons after traumatic brain injury: perceptions of professionals. Katz S, et al. **Int J Rehabil Res** 1999 Mar;22(1):45-53

THERAPY

Sexual health is an important part of people's lives and doctors need to understand its variety [editorial; comment] Adler MW. **BMJ** 1998 Nov 28;317(7171):1470. Comment on: BMJ 1998 Nov 28;317(7171):1509-12.
ABC of sexual problems: management of sexual problems [see comments] Ramage M. **BMJ** 1998 Nov 28; 317(7171):1509-12 (0 ref.). Comment in: BMJ 1998 Nov 28;317(7171):1470.
Treatment alternatives for retro-grade ejaculation [letter; comment] Matthews GJ. **Fertil Steril** 1999 Apr;71(4):779 . Comment on: Fertil Steril 1997 Sep;68(3):542-4. Comment on: Fertil Steril 1998 Jun;69(6):1160-1.
Sexual dysfunction in uremia. Palmer BF. **J Am Soc Nephrol** 1999 Jun;10(6):1381-8 (33 ref.)
Ginkgo biloba for antidepressant-induced sexual dysfunction? [letter; comment] Balon R. **J Sex Marital Ther** 1999 Jan-Mar;25(1):1-2. Comment on: J Sex Marital Ther 1998 Apr-Jun;24(2):139-43.
Caution recommended [letter; comment] Levine SB. **J Sex Marital Ther** 1999 Jan-Mar;25(1):2-5. Comment on: J Sex Marital Ther 1998 Apr-Jun;24(2):139-43.
Therapeutic uses of sexually explicit materials in the United States and the Czech and Slovak Republics: a qualitative study. Robinson BE, et al. **J Sex Marital Ther** 1999 Apr-Jun;25(2):103-19

SEX DISTRIBUTION

Influence of sex on clinical features, laboratory findings, and complications of typhoid fever. Khan M, et al. **Am J Trop Med Hyg** 1999 Jul;61(1):41-6
Are sex and educational level independent predictors of dementia and Alzheimer's disease? Incidence data from the PAQUID project. Letenneur L, et al. **J Neurol Neurosurg Psychiatry** 1999 Feb;66(2):177-83
[Gender differences in the influence of housework on health (see comments] Artazcoz L, et al. **Gac Sanit** 1999 May-Jun; 13(3):201-7 (Eng. Abstr.). Comment in: Gac Sanit 1999 May-Jun;13(3):173-6. **(Spa)**
[What is the truth about sex distribution? (letter)] Berntsson C. **Lakartidningen** 1999 Mar 17;96(11):1292 **(Swe)**

SEX EDUCATION

The effect of patient-education tools on physicians' discussions with young adolescents about sex. Boekeloo BO, et al. **Acad Med** 1998 Oct;73(10 Suppl):S84-7
Sexuality and sex education at home and school. Kirby D. **Adolesc Med** 1999 Jun;10(2):195-209, v (76 ref.)
Sex education and contraceptive methods: knowledge and sources of information among the Estonian population. Kalda R, et al. **Adv Contracept** 1998 Jun;14(2):121-30
Sexual and reproductive health among primary and secondary school pupils in Mwanza, Tanzania: need for intervention. Matasha E, et al. **AIDS Care** 1998 Oct; 10(5):571-82
The birds, the bees ... and the sperm banks: how lesbian mothers talk with their children about sex and reproduction. Mitchell V. **Am J Orthopsychiatry** 1998 Jul; 68(3):400-9
UK government announces sex health strategy [news] Madden V. **BMJ** 1999 Apr 3;318(7188):894
Do young people attend genitourinary medicine clinics when referred by a community based Brook Advisory Centre? Vanhegan G, et al. **Br J Fam Plann** 1999 Apr;25(1):23-4
School-based sexuality education: the issues and challenges. Donovan P. **Fam Plann Perspect** 1998 Jul-Aug; 30(4):188-93
Current approach to STD management in women. Amaral E. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S183-9 (28 ref.)
Diary entries from the "teachers' professional development playground": multiculturalism meets multisexualities in Australian education. Pallotta-Chiarolli M. **J Homosex** 1999;36(3-4):183-205
Abstinence and safer sex among adolescents [letter; comment] Cameron P, et al. **JAMA** 1999 Apr 28;281(16):1485-6; discussion 1487. Comment on: JAMA 1998 May 20;279(19):1529-36.
Abstinence and safer sex among adolescents [letter; comment] Masdeu JC. **JAMA** 1999 Apr 28;281(16):1486-8. Comment on: JAMA 1998 May 20;279(19):1529-36. Comment on: JAMA 1998 May 20;279(19):1574-5.
Abstinence and safer sex among adolescents [letter; comment] Moore TL. **JAMA** 1999 Apr 28;281(16):1486; discussion 1487. Comment on: JAMA 1998 May 20;279(19):1529-36. Comment on: JAMA 1998 May 20;279(19):1574-5.
Abstinence and safer sex among adolescents [letter; comment] Panzer RA. **JAMA** 1999 Apr 28;281(16):1486; discussion 1487-8. Comment on: JAMA 1998 May 20;279(19):1529-36. Comment on: JAMA 1998 May 20;279(19):1574-5.
Sex education is key to combatting AIDS in Brazil [news] Csillag C. **Lancet** 1999 Jun 26;353(9171):2221
Teen childbearing trends: which tide turned when and why? [comment] Stevens-Simon C, et al. **Pediatrics** 1998 Nov; 102(5):1205-6. Comment on: Pediatrics 1998 Nov;102(5):1141-7.
Sex education sources and attitudes about premarital sex of Seventh Day Adventist youth. Ali HK, et al. **Psychol Rep** 1999 Feb;84(1):312
Program evaluation of a sex education curriculum for women with mental retardation. McDermott S, et al. **Res Dev Disabil** 1999 Mar-Apr;20(2):93-106
Discussing sex with disabled patients. Huang CE. **West J Med** 1999 Aug;171(2):76-7
[Attitudes toward condoms and experience with their use among sex education teachers] Procházka I, et al. **Cas Lek Cesk** 1998 Aug 24;137(16):493-5 (Eng. Abstr.) **(Cze)**
[Adolescents and sexuality in family practice. A pilot study] Graugaard CL, et al. **Ugeskr Laeger** 1998 Dec 7; 160(50):7262-5 (Eng. Abstr.) **(Dan)**

METHODS

Sexual health risk assessment and counseling in primary care: how involved are general practitioners and obstetrician-gynecologists? [see comments] Haley N, et al. **Am J Public Health** 1999 Jun;89(6):899-902. Comment in: Am J Public Health 1999 Jun;89(6):815-8.
Sexual health advice at a day centre [letter] Gupta S. **Br J Fam Plann** 1999 Apr;25(1):29
Adolescent abstinence and condom use: are we sure we are really teaching what is safe? Haignere CS, et al. **Health Educ Behav** 1999 Feb;26(1):43-54 (65 ref.)
Teaching safe sex in school. Short R. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S147-50 (4 ref.)
Sex, drugs and alcohol: two peer-led approaches in Tamaki Makaurau/Auckland, Aotearoa/New zealand. Elliott KJ, et al. **J Adolesc** 1999 Aug;22(4):503-13
The use of focus group methodology--with selected examples from sexual health research. Robinson N. **J Adv Nurs** 1999 Apr;29(4):905-13
Effects of psycho-educational interventions on sexual health risks and psycho-social adaptation in young adults with genital herpes. Swanson JM, et al. **J Adv Nurs** 1999 Apr; 29(4):840-51
Safer-sex education for persons with mental illness. Hajagos K, et al. **J Psychosoc Nurs Ment Health Serv** 1998 Aug; 36(8):33-7
Sexual coercion content in 21 sexuality education curricula. Beyer CE, et al. **J Sch Health** 1998 Nov;68(9):370-5
A replication study of Reducing the Risk, a theory-based sexuality curriculum for adolescents. Hubbard BM, et al. **J Sch Health** 1998 Aug;68(6):243-7
Reflections on two decades of research on teen sexual behavior and pregnancy. Kirby D. **J Sch Health** 1999 Mar; 69(3):89-94 (43 ref.)
Sex education to grade seven students in Papua New Guinea, yes or no? Bouten M. **P N G Med J** 1996 Sep;39(3):225-7 (0 ref.)
Behavioural intervention trials for HIV/STD prevention in schools: are they feasible? Stephenson JM, et al. **Sex Transm Infect** 1998 Dec;74(6):405-8
AIDS talks for adolescents. Manuel C, et al. **World Health Forum** 1998;19(3):294-7

ORGANIZATION & ADMINISTRATION

The impact of condom availability [correction of distribution] in Seattle schools on sexual behavior and condom use [published erratum appears in Am J Public Health 1999 Mar;89(3):422] Kirby D, et al. **Am J Public Health** 1999 Feb;89(2):182-7
The effectiveness of the Reach for Health Community Youth Service learning program in reducing early and unprotected sex among urban middle school students. O'Donnell L, et al. **Am J Public Health** 1999 Feb; 89(2):176-81
Sex education should begin in primary school [letter] Ejidokun O, et al. **BMJ** 1999 Jan 2;318(7175):57
Prevention and intervention of sexually transmitted diseases in adolescents. D'Souza CM, et al. **Curr Opin Pediatr** 1999 Aug;11(4):287-91 (34 ref.)
Review of sexuality education in the United States for health professionals working with adolescents. Middleman AB. **Curr Opin Pediatr** 1999 Aug;11(4):283-6 (15 ref.)
Sex education in school: preventing unwanted pregnancy in adolescents. Saito MI. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S157-60 (17 ref.)
The status of middle level HIV/STD education as assessed by state and local education agencies. Wolff WJ, et al. **J Sch Health** 1999 Aug;69(6):239-42

STATISTICS & NUMERICAL DATA

Construction and psychometric properties of sexuality scales: sex knowledge, experience, and needs scales for people with intellectual disabilities (SexKen-ID), people with physical disabilities (SexKen-PD), and the general population (SexKen-GP). McCabe MP, et al. **Res Dev Disabil** 1999 Jul-Aug;20(4):241-54

SEX FACTOR, BACTERIAL see **F FACTOR**

SEX FACTOR F see **F FACTOR**

SEX FACTORS

Sex differences in genetic determinants of craniofacial variations--a study based on twin kinships. Sharma K. **Acta Genet Med Gemellol (Roma)** 1998;47(1):31-41
Illicit drug use among Mexicans and Mexican Americans in California: the effects of gender and acculturation. Vega WA, et al. **Addiction** 1998 Dec;93(12):1839-50
Sex-specific migration patterns in Central Asian populations, revealed by analysis of Y-chromosome short tandem repeats and mtDNA. Pérez-Lezaun A, et al. **Am J Hum Genet** 1999 Jul;65(1):208-19
Sex of affected sibpairs and genetic linkage to type 1 diabetes. Paterson AD, et al. **Am J Med Genet** 1999 May 7;84(1):15-9
Gender differences in the use of linguistic devices by youths with mental retardation: a preliminary analysis. Wilkinson KM. **Am J Ment Retard** 1999 May;104(3):227-35
A population-based study of age and gender differences in patterns of health-related behaviors. Liang W, et al. **Am J Prev Med** 1999 Jul;17(1):8-17
Total antioxidant power of plasma: male-female differences and effect of anticoagulant used. Benzie IF, et al. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):104-6
A preface to the discussions in gender difference. Akamatsu T. **Appl Human Sci** 1998 Jul;17(4):151-2
Differences in treatment and outcome for women with acute myocardial infarction [letter; comment] Bing M, et al. **Arch Intern Med** 1998 Dec 7-21;158(22):2513-4. Comment on: Arch Intern Med 1998 May 11;158(9):981-8.
Use of asthma drugs is less among women pregnant with boys rather than girls [letter; comment] Dodds L, et al. **BMJ** 1999 Apr 10;318(7189):1011. Comment on: BMJ 1998 Sep 26;317(7162):856-7.
Patients' preference for male or female breast surgeons: questionnaire study [see comments] Reid I. **BMJ** 1998 Oct 17;317(7165):1051. Comment in: BMJ 1999 May 1;318(7192):1213.
Social roles and gender difference in the prevalence of common mental disorders. Weich S, et al. **Br J Psychiatry** 1998 Dec;173:489-93
Age relationships and sex differences in serum levels of pregnenolone and 17-hydroxypregnenolone in healthy subjects. Hill M, et al. **Clin Chem Lab Med** 1999 Apr; 37(4):439-47
The influence of gender on traffic accidents--the case of the Republic of Slovenia. Bilban M. **Coll Antropol** 1998 Dec;22(2):551-62
The prognostic role of gender in survival of adult cancer patients. EUROCARE Working Group. Micheli A, et al.

SEX FACTORS

Eur J Cancer 1998 Dec;34(14 Spec No):2271–8

Influence of sex, smoking and age on human hprt mutation frequencies and spectra. Curry J, et al. **Genetics** 1999 Jul; 152(3):1065–77

Gender differences in fears related to coronary arteriography. Heikkilä J, et al. **Heart Lung** 1999 Jan–Feb;28(1):20–30

Different effects of (CIS + TRANS) 1,3-dichloropropene in renal cortical slices derived from male and female rats. Secondin L, et al. **Hum Exp Toxicol** 1999 Feb;18(2):106–10

Effect of gender and left ventricular dysfunction on the incidence of hypotension induced by dobutamine stress echocardiography. Khanal S, et al.
J Am Soc Echocardiogr 1998 Dec;11(12):1134–8

Sex differences in prognosis for children with acute lymphoblastic leukemia. Pui CH, et al. **J Clin Oncol** 1999 Mar;17(3):818–24

Gender inequalities in health and health care services use in Catalonia (Spain). Fernandez E, et al.
J Epidemiol Community Health 1999 Apr;53(4):218–22

Gender and the socioeconomic gradient in mortality. McDonough P, et al. **J Health Soc Behav** 1999 Mar; 40(1):17–31

Low birth weight in relation to sex of baby, maternal age and parity: a hospital based study on Tangsa tribe from Arunachal Pradesh. Mondal B. **J Indian Med Assoc** 1998 Dec;96(12):362–4

Improvement in quality of life differs between women and men after coronary artery bypass surgery. Sjöland H, et al. **J Intern Med** 1999 May;245(5):445–54

Sympathetic modulation of lipolysis in subcutaneous adipose tissue: effects of gender and energy restriction [see comments] Flechtner-Mors M, et al. **J Lab Clin Med** 1999 Jul;134(1):33–41. Comment in: J Lab Clin Med 1999 Jul;134(1):4–6.

Activity of vasopressinergic neurones of the human supraoptic nucleus is age- and sex-dependent. Ishunina TA, et al. **J Neuroendocrinol** 1999 Apr;11(4):251–8

Sex specific X chromosome expression caused by genomic imprinting. Iwasa Y, et al. **J Theor Biol** 1999 Apr 21; 197(4):487–95

Lack of sex difference in CD4 to HIV-1 RNA viral load ratio [letter] Moore RD, et al. **Lancet** 1999 Feb 6; 353(9151):463–4

Gender differences in medical graduates' assessment of their personal attributes. Clack GB, et al. **Med Educ** 1999 Feb; 33(2):101–5

Gender comparisons of medical students' psychosocial profiles. Hojat M, et al. **Med Educ** 1999 May;33(5):342–9

Gender differences in normalized clearances in CAPD: role of body size and normalizing parameters. Tzamaloukas AH, et al. **Perit Dial Int** 1999 Mar–Apr;19(2):165–9

Gender differences in health in later life: the new paradox? Arber S, et al. **Soc Sci Med** 1999 Jan;48(1):61–76

Making use of official statistics in research on gender and health status: recent British data. Dunnell K, et al.
Soc Sci Med 1999 Jan;48(1):117–27 (26 ref.)

Problematizing gender, work and health: the relationship between gender, occupational grade, working conditions and minor morbidity in full-time bank employees. Emslie C, et al. **Soc Sci Med** 1999 Jan;48(1):33–48

Gender, social relations and mental health: prospective findings from an occupational cohort (Whitehall II study). Fuhrer R, et al. **Soc Sci Med** 1999 Jan;48(1):77–87

Relocating gender and morbidity: examining men's and women's health in contemporary Western societies. Introduction to Special Issue on Gender and Health [editorial] Hunt K, et al. **Soc Sci Med** 1999 Jan;48(1):1–5

Women's status and the health of women and men: a view from the States. Kawachi I, et al. **Soc Sci Med** 1999 Jan; 48(1):21–32

Gender differences in illhealth in Finland: patterns, magnitude and change. Lahelma E, et al. **Soc Sci Med** 1999 Jan;48(1):7–19

Social inequalities in health: are there gender differences? Matthews S, et al. **Soc Sci Med** 1999 Jan;48(1):49–60

SEX HORMONE-BINDING GLOBULIN

ANALYSIS

The effect of intrauterine and oral levonorgestrel administration on serum concentrations of sex hormone-binding globulin, insulin and insulin-like growth factor binding protein-1. Pakarinen P, et al.
Acta Obstet Gynecol Scand 1999 May;78(5):423–8

Oestradiol and sex hormone-binding globulin in premenopausal and post-menopausal meat-eaters, vegetarians and vegans. Thomas HV, et al.
Br J Cancer 1999 Jul;80(9):1470–5

Decreased estradiol levels and free androgen index and elevated sex hormone-binding globulin levels in male idiopathic osteoporosis. Gillberg P, et al.
Calcif Tissue Int 1999 Mar;64(3):209–13

Serum testosterone and sex hormone-binding globulin concentrations and the risk of prostate carcinoma: a longitudinal study. Heikkilä R, et al. **Cancer** 1999 Jul 15; 86(2):312–5

Characterization of serum SHBG isoforms in prepubertal and pubertal girls. Bedecarrás P, et al.
Clin Endocrinol (Oxf) 1998 Nov;49(5):603–8

Serum prostate specific antigen, sex hormone binding globulin and free androgen index as markers of pubertal development in boys. Kim MR, et al.
Clin Endocrinol (Oxf) 1999 Feb;50(2):203–10

Behaviour of vaginal epithelial maturation and sex hormone binding globulin in post-menopausal breast cancer patients during the first year of tamoxifen therapy. Bertolissi A, et al. **Cytopathology** 1998 Aug;9(4):263–70

Antiepileptic drug therapy and sexual function in men with epilepsy. Duncan S, et al. **Epilepsia** 1999 Feb;40(2):197–204

Lisinopril decreases plasma free testosterone in male hypertensive patients and increases sex hormone binding globulin in female hypertensive patients. Koshida H, et al. **Hypertens Res** 1998 Dec;21(4):279–82

Predictors of sex hormone levels among the elderly: a study in Greece. Hsieh CC, et al. **J Clin Epidemiol** 1998 Oct; 51(10):837–41

Is the free androgen index a useful clinical marker in male patients? Brannian JD, et al. **S D J Med** 1998 Dec; 51(12):449–51

Monoclonal antibodies to human sex hormone-binding globulin (SHBG): characterization and use in a simple enzyme-linked immunosorbent assay (ELISA) of SHBG in plasma. Lewis JG, et al. **Steroids** 1999 Apr;64(4):259–65

Normal serum concentrations of sex hormone binding-globulin in patients with hyperthyroidism due to subacute thyroiditis. Vierhapper H, et al. **Thyroid** 1998 Dec; 8(12):1107–11

BIOSYNTHESIS

Estradiol increases the production of sex hormone-binding globulin but not insulin-like growth factor binding protein-1 in cultured human hepatoma cells. Kalme T, et al. **Fertil Steril** 1999 Aug;72(2):325–9

Heterologous expression of wild type and deglycosylated human sex steroid-binding protein (SBP or SHBG) in the yeast, Pichia pastoris. Characterization of the recombinant proteins. Sui LM, et al. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):119–27

DEFICIENCY

Low levels of sex hormone-binding globulin and hyperproinsulinemia as markers of increased pancreatic beta-cell demand in men. Reis AF, et al.
Braz J Med Biol Res 1998 Dec;31(12):1545–51

GENETICS

The additionally glycosylated variant of human sex hormone-binding globulin (SHBG) is linked to estrogen-dependence of breast cancer. Becchis M, et al.
Breast Cancer Res Treat 1999 Mar;54(2):101–7

Expression and regulation of human sex hormone-binding globulin transgenes in mice during development. Jänne M, et al. **Endocrinology** 1999 Sep;140(9):4166–74

Hepatocyte nuclear factor-4 controls transcription from a TATA-less human sex hormone-binding globulin gene promoter. Jänne M, et al. **J Biol Chem** 1998 Dec 18; 273(51):34105–14

Expression of sex hormone-binding globulin exon 7 splicing variant mRNA in secondary spreading lesions of gynecological cancers. Misao R, et al.
J Steroid Biochem Mol Biol 1999 Feb;68(3–4):103–9

Sex hormone binding globulin expression and colocalization with estrogen receptor in the human Fallopian tube. Noé G. **J Steroid Biochem Mol Biol** 1999 Feb;68(3–4):111–7

ISOLATION & PURIFICATION

[A new method for isolating and purifying estrogen-binding globulin from retroplacental serum] Selkov SA, et al.
Vopr Med Khim 1998 Jul–Aug;44(4):399–404 (Eng. Abstr.) **(Rus)**

METABOLISM

Photoaffinity labeling of homologous Met-133 and Met-139 amino acids of rabbit and sheep sex hormone-binding globulins with the unsubstituted Delta 6-testosterone photoreagent. Kassab D, et al. **Biochemistry** 1998 Oct 6; 37(40):14088–97

Sex hormone binding globulin and free levonorgestrel index in the first week after insertion of Norplant implants. Alvarez F, et al. **Contraception** 1998 Oct;58(4):211–4

Hormonal status and NIDDM in the European and Melanesian populations of New Caledonia: a case-control study. The CALedonia DIAbetes Mellitus (CALDIA) Study Group. Defay R, et al.
Int J Obes Relat Metab Disord 1998 Sep;22(9):927–34

Hormones and hair patterning in men: a role for insulin-like growth factor 1? Signorello LB, et al.
J Am Acad Dermatol 1999 Feb;40(2 Pt 1):200–3

Testosterone, sex hormone-binding globulin, lipoproteins, and vascular disease risk. Dickerman RD, et al.
J Cardiovasc Risk 1997 Oct–Dec;4(5–6):363–6

Serum dioxin, insulin, fasting glucose, and sex hormone-binding globulin in veterans of Operation Ranch Hand. Michalek JE, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1540–3

Sex hormone-binding globulin, its membrane receptor, and breast cancer: a new approach to the modulation of estradiol action in neoplastic cells. Fortunati N, et al.
J Steroid Biochem Mol Biol 1999 Apr–Jun;69(1–6):473–9 (45 ref.)

Hyperinsulinism and sex hormones in young adult African Americans. Falkner B, et al. **Metabolism** 1999 Jan; 48(1):107–12

Effects of diet and exercise on insulin, sex hormone-binding globulin, and prostate-specific antigen. Tymchuk CN, et al. **Nutr Cancer** 1998;31(2):127–31

Xenoestrogen interaction with human sex hormone-binding globulin (hSHBG). Dechaud H, et al. **Steroids** 1999 May; 64(5):328–34

Variations of sex hormone-binding globulin in thyroid dysfunction. Brenta G, et al. **Thyroid** 1999 Mar;9(3):273–7

PHARMACOLOGY

Differential binding of estradiol and testosterone to SHBG. Relation to circulating estradiol levels. Knochenhauer ES, et al. **J Reprod Med** 1998 Aug;43(8):665–70

PHYSIOLOGY

Sex hormone binding globulin inhibits strongly the uptake of estradiol by human breast carcinoma cells via a deprivative mechanism. Zeginiadou T, et al.
Cancer Biochem Biophys 1998 Oct;16(3):253–63

Levels of sex hormone-binding globulin and corticosteroid-binding globulin mRNAs in corpus luteum of human subjects: correlation with serum steroid hormone levels. Misao R, et al. **Gynecol Endocrinol** 1999 Apr; 13(2):82–8

Sex hormone-binding globulin: not only a transport protein. What news is around the corner? Fortunati N.
J Endocrinol Invest 1999 Mar;22(3):223–34 (114 ref.)

Sex hormone-binding globulin mediates steroid hormone signal transduction at the plasma membrane. Rosner W, et al. **J Steroid Biochem Mol Biol** 1999 Apr–Jun; 69(1–6):481–5 (26 ref.)

Comparative breast tumor imaging and comparative in vitro metabolism of 16alpha-[18F]fluoroestradiol-17beta and 16beta-[18F]fluoromoxestrol in isolated hepatocytes. Jonson SD, et al. **Nucl Med Biol** 1999 Jan;26(1):123–30

SEX HORMONES

Hormonal and reproductive influences and risk of melanoma in women. Smith MA, et al. **Int J Epidemiol** 1998 Oct; 27(5):751–7

Psychoneuroendocrine aspects of temporolimbic epilepsy. Part I. Brain, reproductive steroids, and emotions. Herzog AG. **Psychosomatics** 1999 Mar–Apr;40(2):95–101 (82 ref.)

Psychoneuroendocrine aspects of temporolimbic epilepsy. Part II: Epilepsy and reproductive steroids. Herzog AG. **Psychosomatics** 1999 Mar–Apr;40(2):102–8

Center for Veterinary Medicine's perspective on the beef hormone case. Leighton JK.
Vet Clin North Am Food Anim Pract 1999 Mar; 15(1):167–80, x (9 ref.)

ADMINISTRATION & DOSAGE

Enhanced skin permeation of sex hormones with novel topical spray vehicles. Morgan TM, et al. **J Pharm Sci** 1998 Oct;87(10):1213–8

Enhanced transdermal delivery of sex hormones in swine with a novel topical aerosol. Morgan TM, et al.
J Pharm Sci 1998 Oct;87(10):1219–25

ADVERSE EFFECTS

Oral contraceptives and estrogen combinations (excluding progestogens) during the first trimester--clearly increased the risk of overall birth defects [letter; comment] Martinez-Frias ML, et al. **Teratology** 1998 Aug;58(2):29. Comment on: Teratology 1995 Jan;51(1):30–6.

[Hormonal treatment of constitutionally tall children (letter; comment)] Drenth JJ. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1290. Comment on: Ned Tijdschr Geneeskd 1998 Mar 28;142(13):693–7. **(Dut)**

ANALYSIS

Complex relation between increasing fat mass and decreasing high density lipoprotein cholesterol levels: evidence from a population-based study of premenopausal women. Sowers M, et al. **Am J Epidemiol** 1999 Jan 1;149(1):47–54

Seasonal patterns of sex steroids determined from feces in different social categories of Greylag geese (Anser anser). Hirschenhauser K, et al. **Gen Comp Endocrinol** 1999 Apr; 114(1):67–79

Profiling steroid hormones in amniotic fluid of midpregnancy by routine stable isotope dilution/gas chromatography-mass spectrometry: reference values and concentrations in fetuses at risk for 21-hydroxylase deficiency. Wudy SA, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2724–8

Scientific cross-claims fly in continuing beef war [news] Balter M. **Science** 1999 May 28;284(5419):1453,1455

ANTAGONISTS & INHIBITORS

Hormonal manipulations may also reduce breast cancer risk [news] Nelson NJ. **J Natl Cancer Inst** 1999 Jun 2; 91(11):910–1

BIOSYNTHESIS

The use of computational chemistry in the study of sex steroid

biosynthesis. Auchus RJ. **Endocr Res** 1998 Aug-Nov; 24(3-4):541-7 (24 ref.)

BLOOD

The hormone status of patients with multiple sclerosis [letter] James WH. **Acta Neurol Scand** 1999 Sep;100(3):209

The prevalence of polycystic ovaries in healthy women. Koivunen R, et al. **Acta Obstet Gynecol Scand** 1999 Feb; 78(2):137-41

Acute effect of alcohol on estradiol, estrone, progesterone, prolactin, cortisol, and luteinizing hormone in premenopausal women. Sarkola T, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):976-82

Hormonal, lifestyle, and dietary factors in relation to leptin among elderly men. Lagiou P, et al. **Ann Nutr Metab** 1999; 43(1):23-9

Serum concentrations of various environmental contaminants and their relationship to sex steroid concentrations and phallus size in juvenile American alligators. Guillette LJ Jr, et al. **Arch Environ Contam Toxicol** 1999 May; 36(4):447-55

Associations of obesity markers, insulin, and sex hormones with HDL-cholesterol levels in Turkish and German individuals. Hergenç G, et al. **Atherosclerosis** 1999 Jul; 145(1):147-56

Endogenous sex hormones and prostate cancer: a quantitative review of prospective studies. Eaton NE, et al. **Br J Cancer** 1999 Jun;80(7):930-4

Low-fat high-carbohydrate diet and plasma sex hormones [letter; comment] Key TJ. **Br J Cancer** 1998 Nov; 78(9):1256-7. Comment on: Br J Cancer 1997;76(1):127-35.

Maternal pregnancy hormone levels in an area with a high incidence (Boston, USA) and in an area with a low incidence (Shanghai, China) of breast cancer. Lipworth L, et al. **Br J Cancer** 1999 Jan;79(1):7-12

Investigation of female survival benefit in metastatic melanoma. Richardson B, et al. **Br J Cancer** 1999 Aug; 80(12):2025-33

The effect of six months treatment with a 100 mg daily dose of dehydroepiandrosterone (DHEA) on circulating sex steroids, body composition and muscle strength in age-advanced men and women. Morales AJ, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):421-32

Effects of chronic opioid antagonism on gonadotrophin and ovarian sex steroid secretion during the luteal phase. Rossmanith WG, et al. **Clin Endocrinol (Oxf)** 1998 Sep; 49(3):343-51

Hormonal profiles and immunological studies of male lupus in Taiwan. Chang DM, et al. **Clin Rheumatol** 1999; 18(2):158-62

Rank dependent seasonal levels of IGF-1, cortisol and reproductive hormones in male pudu (Pudu puda). Bartoš L, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun;120(2):373-8

A randomized cross-over study on various hormonal parameters of two triphasic oral contraceptives. Aden U, et al. **Contraception** 1998 Aug;58(2):75-81

Six-week treatment with Ukrain in rabbits. Part II: Serum levels of gonadal hormones. Jagiello-Wójtowicz E, et al. **Drugs Exp Clin Res** 1998;24(5-6):301-4

Serum sex hormones are altered in patients with chronic temporal lobe epilepsy receiving anticonvulsant medication. Stoffel-Wagner B, et al. **Epilepsia** 1998 Nov; 39(11):1164-73

Changes in sex hormones during an oral glucose tolerance test in healthy premenopausal women. Ivandić A, et al. **Fertil Steril** 1999 Feb;71(2):268-73

Serum ionized magnesium and calcium in women after menopause: inverse relation of estrogen with ionized magnesium. Muneyyirci-Delale O, et al. **Fertil Steril** 1999 May;71(5):869-72

Sex steroid and corticosterone levels of Adélie penguins (Pygoscelis adeliae) during courtship and incubation. McQueen SM, et al. **Gen Comp Endocrinol** 1999 Apr; 114(1):11-8

Reproductive condition and behavior in relation to plasma levels of gonadal steroids in the spiny damselfish Acanthochromis polyacanthus. Pankhurst NW, et al. **Gen Comp Endocrinol** 1999 Jul;115(1):53-69

Steroid levels and reproductive cycle of the Galápagos tortoise, Geochelone nigra, living under seminatural conditions on Santa Cruz Island (Galápagos). Schramm BG, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):108-20

Insulin sensitivity and sex steroid hormone levels during the menstrual cycle in healthy women with non-insulin-dependent diabetic parents. González-Ortiz M, et al. **Gynecol Obstet Invest** 1998;46(3):187-90

Longitudinal analysis of maternal serum leptin levels during pregnancy, at birth and up to six weeks after birth: relation to body mass index, skinfolds, sex steroids and umbilical cord blood leptin levels. Schubring C, et al. **Horm Res** 1998;50(5):276-83

Hormones and hair patterning in men: a role for insulin-like growth factor 1? Signorello LB, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):200-3

Endogenous levels of dehydroepiandrosterone sulfate, but not other sex hormones, are associated with depressed mood in older women: the Rancho Bernardo Study. Barrett-Connor E, et al. **J Am Geriatr Soc** 1999 Jun; 47(6):685-91

Involvement of gonadal steroid hormone disturbance in altered prolactin receptor gene expression in the liver of diabetic mice. Yasui T, et al. **J Endocrinol** 1999 Apr; 161(1):33-40

Plasma steroid hormone profiles and reproductive biology of the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **J Exp Zool** 1999 Oct 1;284(5):586-94

Alterations in serum steroid concentrations in the clearnose skate, Raja eglanteria: correlations with season and reproductive status. Rasmussen LE, et al. **J Exp Zool** 1999 Oct 1;284(5):575-85

The hypothalamus-pituitary-gonad axis and testicular function in male patients after treatment for haematological malignancies [see comments] Kauppila M, et al. **J Intern Med** 1998 Nov;244(5):411-6. Comment in: J Intern Med 1999 Jul;246(1):122-3.

Re: Plasma sex steroid hormone levels and risk of breast cancer in postmenopausal women [letter; comment] Chobanyan NS. **J Natl Cancer Inst** 1999 Apr 21;91(8):724-5 . Comment on: J Natl Cancer Inst 1998 Sep 2;90(17):1292-9.

Re: Plasma sex steroid hormone levels and risk of breast cancer in postmenopausal women [letter; comment] Dorgan JF, et al. **J Natl Cancer Inst** 1999 Feb 17; 91(4):380-1. Comment on: J Natl Cancer Inst 1998 Sep 2;90(17):1292-9.

Health of tree swallows (Tachycineta bicolor) nesting in pesticide-sprayed apple orchards in Ontario, Canada. II. Sex and thyroid hormone concentrations and testes development. Bishop CA, et al. **J Toxicol Environ Health** 1998 Dec 25;55(8):561-81

Sex steroid and prolactin profiles in male American black bears (Ursus americanus) during denning. Tsubota T, et al. **J Vet Med Sci** 1999 Jan;61(1):81-3

Relationship between dermato-physiological changes and hormonal status in pre-, peri-, and postmenopausal women. Ohta H, et al. **Maturitas** 1998 Sep 20;30(1):55-62

Age-related changes in sex hormones affect the sex difference in serum leptin independently of changes in body fat. Baumgartner RN, et al. **Metabolism** 1999 Mar;48(3):378-84

Hyperinsulinism and sex hormones in young adult African Americans. Falkner B, et al. **Metabolism** 1999 Jan; 48(1):107-12

Serum leptin in elderly people: associations with sex hormones, insulin, and adipose tissue volumes. Baumgartner RN, et al. **Obes Res** 1999 Mar;7(2):141-9

Semen quality and sex hormones among organic and traditional Danish farmers. ASCLEPIOS Study Group. Larsen SB, et al. **Occup Environ Med** 1999 Feb;56(2):139-44

Growth, puberty, and endocrine functions in patients with sporadic or familial neurofibromatosis type 1: a longitudinal study. Carmi D, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1257-62

Antipsychotic drugs and reproductive hormones: relationship to body weight regulation. Baptista T, et al. **Pharmacol Biochem Behav** 1999 Mar;62(3):409-17

Effects of short-term suppression of ovarian hormones on cardiovascular and neuroendocrine reactivity to stress in women. Matthews KA, et al. **Psychoneuroendocrinology** 1998 May;23(4):307-22

A longitudinal study of semen quality in pesticide spraying Danish farmers. The ASCLEPIOS Study Group. Larsen SB, et al. **Reprod Toxicol** 1998 Nov-Dec;12(6):581-9

The clinical and biologic significance of serum inhibins in subfertile men. Mahmoud AM, et al. **Reprod Toxicol** 1998 Nov-Dec;12(6):591-9

Toxic equivalency factors of polychlorinated dibenzo-p-dioxins in an ovulation model: validation of the toxic equivalency concept for one aspect of endocrine disruption. Gao X, et al. **Toxicol Appl Pharmacol** 1999 Jun 1;157(2):107-16

Developmental exposure of rats to a reconstituted PCB mixture or aroclor 1254: effects on organ weights, aromatase activity, sex hormone levels, and sweet preference behavior. Hany J, et al. **Toxicol Appl Pharmacol** 1999 Aug 1;158(3):231-43

[Serum inhibin B as a marker of spermatogenesis] Andersson AM, et al. **Ugeskr Laeger** 1999 Jan 4;161(1):51 **(Dan)**

[Sex steroid hormones and their receptors in pancreatic neoplasms] Kushlinskii NE, et al. **Biull Eksp Biol Med** 1998 Aug;126(8):197-200 **(Rus)**

[The level of sex steroid hormones in the blood of women with duodenal peptic ulcer] Petrov EE. **Lik Sprava** 1998 Oct-Nov;(7):61-3 (Eng. Abstr.) **(Rus)**

[The role of an imbalance of sex and calcium-regulating hormones in osteoarthrosis deformans in women] Makarova NI, et al. **Ter Arkh** 1999;71(5):54-6 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Molecular cloning in the marmoset shows that semenogelin is not the precursor of the TRH-like peptide pGlu-Glu-Pro amide. Huber AE, et al. **Biochim Biophys Acta** 1998 Sep 8;1387(1-2):143-52

The structure of a glycosylated protein hormone responsible for sex determination in the isopod, Armadillidium vulgare. Martin G, et al. **Eur J Biochem** 1999 Jun;262(3):727-36

DEFICIENCY

[The effect of a deficiency of the hormones of the peripheral endocrine glands on behavioral, learning and memory processes] Fedotova IuO. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Jan-Feb; 49(1):39-47 (Eng. Abstr.) **(Rus)**

GENETICS

Characterization of recombinant precursor proteins of the human seminal plasma sperm motility inhibitor synthesized in insect cells. Murakami J, et al. **Int J Mol Med** 1998 Dec;2(6):693-700

Determination by modified RT-PCR of transcript amounts from genes involved in sex-steroid synthesis in chicken organs including brain. Nomura O, et al. **J Steroid Biochem Mol Biol** 1998 Oct;67(2):143-8

IMMUNOLOGY

Sex- and stress-steroids interactions and the immune system: evidence for a neuroendocrine-immunological sexual dimorphism. Gaillard RC, et al. **Domest Anim Endocrinol** 1998 Sep;15(5):345-52 (18 ref.)

METABOLISM

Study of the metabolism of testosterone, nandrolone and estradiol in cattle. Samuels TP, et al. **Analyst** 1998 Dec; 123(12):2401-4

Alcohol ingestion, hormonal changes, and the skin. Shulman A, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):405-9 (46 ref.)

Reduced androgen levels in adult turner syndrome: influence of female sex steroids and growth hormone status. Hojbjerg Gravholt C, et al. **Clin Endocrinol (Oxf)** 1999 Jun; 50(6):791-800

Hormonal aspects of epithelial ovarian cancer: review of epidemiological evidence. Riman T, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):695-707 (154 ref.)

Hormonal control of "tissue" transglutaminase induction during programmed cell death in frog liver. Assisi L, et al. **Exp Cell Res** 1999 Mar 15;247(2):339-46

Immunoneutralization of follicle stimulating hormone does not affect gonadotrophin surge-inhibiting factor/attenuating factor bioactivity during the rat ovarian cycle. Tio S, et al. **Hum Reprod** 1998 Oct;13(10):2731-7

Semen quality and reproductive hormones before orchiectomy in men with testicular cancer. Petersen PM, et al. **J Clin Oncol** 1999 Mar;17(3):941-7

Tobacco smoking as a risk factor in anal carcinoma: an antiestrogenic mechanism? Frisch M, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):708-15

Pelvic ultrasound measurements in normal girls: relation to puberty and sex hormone concentration. Orbak Z, et al. **J Pediatr Endocrinol Metab** 1998 Jul-Aug;11(4):525-30

Steroid contents of and steroidogenesis in vitro by the developing gonad and mesonephros around sexual differentiation in fetal sheep. Lun S, et al. **J Reprod Fertil** 1998 Sep;114(1):131-9

Is transposition of the great arteries a consequence of maternal hormone imbalance? Evidence from the sex ratios of relatives of probands. James WH. **J Theor Biol** 1999 Jun 7;198(3):301-3

Sex hormone receptor status of the dental pulp and lesions of pulpal origin. Whitaker SB, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Feb;87(2):233-7

[The regulation of steroidogenesis by 17 alpha-hydroxylase/17,20-lyase (P450c17)] Katagiri M, et al. **Nippon Yakurigaku Zasshi** 1998 Jul;112(1):43-50 (43 ref.) (Eng. Abstr.) **(Jpn)**

["Prostatic" kallikreins, sex hormones and insulin-like growth factors: complex of male and female regulatory elements in health and carcinogenesis] Zezerov EG, et al. **Vestn Ross Akad Med Nauk** 1999;(3):49-56 (63 ref.) (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Effect of sex hormones on eosinophilic inflammation in nasal mucosa. Hamano N, et al. **Allergy Asthma Proc** 1998 Sep-Oct;19(5):263-9

Sex steroids regulate pro- and anti-inflammatory cytokine release by macrophages after trauma-hemorrhage. Angele MK, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):C35-42

Sex steroids and the initiation of puberty in male African catfish (Clarias gariepinus). Cavaco JE, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1793-802

Regulation of leptin by steroid hormones in rat adipose tissue. Kristensen K, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):624-30

A detailed study on the role of sex steroid milieu in determining plasma leptin concentrations in adult male and female rats. Watanobe H, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):56-9

Effects of gonadal hormones on the morphology of neurons from the medial amygdaloid nucleus of rats. Rasia-Filho AA, et al. **Brain Res Bull** 1999 Jan 15;48(2):173-83

Prostase/KLK-L1 is a new member of the human kallikrein gene family, is expressed in prostate and breast tissues, and is hormonally regulated. Yousef GM, et al. **Cancer Res** 1999 Sep 1;59(17):4252-6

Effects of sex hormones on action potential and contraction of guinea pig papillary muscle. Zhang Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):248-50

Gap junction connexin genes cx26 and cx43 are differentially regulated by ovarian steroid hormones in rat endometrium. Grümmer R, et al. **Endocrinology** 1999 Jun;140(6):2509-16

Complex interactions between sex steroids and cytokines in the human pregnant myometrium: evidence for an autocrine signaling system at term. Hatthachote P, et al.

Endocrinology 1999 Jun;140(6):2533–40

In vivo and in vitro ob gene expression and leptin secretion in rat adipocytes: evidence for a regional specific regulation by sex steroid hormones. Machinal F, et al. **Endocrinology** 1999 Apr;140(4):1567–74

Tachykinin receptor and neutral endopeptidase gene expression in the rat uterus: characterization and regulation in response to ovarian steroid treatment. Pinto FM, et al. **Endocrinology** 1999 Jun;140(6):2526–32

Rapid responses to steroid hormones. 1st International meeting. Mannheim, Germany, September 18–20, 1998. Abstracts. **Exp Clin Endocrinol Diabetes** 1998; 106(6):A39–61

Effects of steroid hormones on gene expression of glial markers in the central and peripheral nervous system: variations induced by aging. Melcangi RC, et al. **Exp Gerontol** 1998 Nov–Dec;33(7–8):827–36 (45 ref.)

Effect of sex steroids on beta-endorphin levels at rest and during submaximal treadmill exercise in anovulatory and ovulatory runners. Meyer WR, et al. **Fertil Steril** 1999 Jun; 71(6):1085–91

The effect of sex steroids on primary and secondary sex differentiation in the sexually dichromatic reedfrog (Hyperolius argus: Hyperolidae) from the Arabuko Sokoke Forest of Kenya. Hayes TB, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):188–99

Dehydroepiandrosterone, pregnenolone and sex steroids down-regulate reactive astroglia in the male rat brain after a penetrating brain injury. Garcia-Estrada J, et al. **Int J Dev Neurosci** 1999 Apr;17(2):145–51

Characterization of recombinant precursor proteins of the human seminal plasma sperm motility inhibitor synthesized in insect cells. Murakami J, et al. **Int J Mol Med** 1998 Dec;2(6):693–700

Phospholipase C-beta and ovarian sex steroids in pig granulosa cells. Lieberherr M, et al. **J Cell Biochem** 1999 Jul 1;74(1):50–60

Suppression of the secretion of luteinizing hormone due to isolation/restraint stress in gonadectomised rams and ewes is influenced by sex steroids. Tilbrook AJ, et al. **J Endocrinol** 1999 Mar;160(3):469–81

Plasma nitrate+nitrite levels are regulated by ovarian steroids but do not correlate with trabecular bone mineral density in rats. van Bezooijen RL, et al. **J Endocrinol** 1998 Oct;159(1):27–34

Non-steroidal factors in bovine follicular fluid inhibit or facilitate the action of pulsatile administration of GnRH on LH release in the female rat. van Dieten JA, et al. **J Endocrinol** 1999 May;161(2):237–43

Regulation of vascular endothelial growth factor secretion in human meningioma cells. Tsai JC, et al. **J Formos Med Assoc** 1999 Feb;98(2):111–7

Effects of sex steroids on gonadotropin (FSH and LH) regulation in coho salmon (Oncorhynchus kisutch). Dickey JT, et al. **J Mol Endocrinol** 1998 Dec;21(3):291–306

Gonadal steroids promote glial differentiation and alter neuronal morphology in the developing hypothalamus in a regionally specific manner. Mong JA, et al. **J Neurosci** 1999 Feb 15;19(4):1464–72

Decreased [Ca(2+)](i) during inhibition of coronary smooth muscle contraction by 17beta-estradiol, progesterone, and testosterone. Murphy JG, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):44–52

Regulatory effect of steroid hormones and fetal tissues on expression of oxytocin receptor in the endometrium of late pregnant ewes. Leung ST, et al. **J Reprod Fertil** 1999 Mar; 115(2):243–50

Effects of age and gonadal steroids on the localization of antigen-presenting cells, and T and B cells in the chicken oviduct. Zheng WM, et al. **J Reprod Fertil** 1998 Sep; 114(1):45–54

The effects of sex steroids on human umbilical artery and vein. Fausett MB, et al. **J Soc Gynecol Investig** 1999 Jan–Feb;6(1):27–31

The influence of sex hormones on obesity across the female life span. Lovejoy JC. **J Womens Health** 1998 Dec; 7(10):1247–56 (53 ref.)

Positive association between cytoskeletal changes, melanoma cell attachment and invasion in vitro. Dewhurst LO, et al. **Melanoma Res** 1998 Aug;8(4):303–11

Localization and sex steroid regulation of androgen receptor gene expression in rhesus monkey uterus. Adesanya-Famuyiwa OO, et al. **Obstet Gynecol** 1999 Feb; 93(2):265–70

Activating effects of cross-sex hormones on cognitive functioning: a study of short-term and long-term hormone effects in transsexuals. Slabbekoorn D, et al. **Psychoneuroendocrinology** 1999 May;24(4):423–47

Effect of diazepam and sex hormones on EEG of gonadectomized male and female rats. Ugalde E, et al. **Psychoneuroendocrinology** 1998 Oct;23(7):701–12

Clinically relevant basic science studies of gender differences and sex hormone effects. McEwen BS, et al. **Psychopharmacol Bull** 1998;34(3):251–9 (91 ref.)

[The Research Encouragement Award. Effects of sex hormones on sexual difference of experimental paracoccidioidomycosis] Sano A, et al. **Nippon Ishinkin Gakkai Zasshi** 1999;40(1):1–8 (40 ref.) (Eng. Abstr.) **(Jpn)**

[The action of sex hormones on conditioned reflex and behavioral reactions] Fedotova IuO. **Patol Fiziol Eksp Ter** 1998 Oct–Dec;(4):8–11 (Eng. Abstr.) **(Rus)**

[The effect of hormones from the peripheral endocrine glands on behavioral, learning and memory processes] Fedotova IuO. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov–Dec; 48(6):980–8 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Are pancreatic tumors hormone dependent?: A case report of unusual, rapidly growing pancreatic tumor during pregnancy, its possible relationship to female sex hormones, and review of the literature. Ganepola GA, et al. **Am Surg** 1999 Feb;65(2):105–11 (18 ref.)

Effects of sex steroids on sleep. Empson JA, et al. **Ann Med** 1999 Apr;31(2):141–5 (93 ref.)

Sex hormones and glucocorticoids: interactions with the immune system. Da Silva JA. **Ann N Y Acad Sci** 1999 Jun 22;876:102–17; discussion 117–8 (78 ref.)

Sex hormones and pregnancy in rheumatoid arthritis and systemic lupus erythematosus. Ostensen M. **Ann N Y Acad Sci** 1999 Jun 22;876:131–43; discussion 144 (95 ref.)

Relations between steroid hormones and cytokines in rheumatoid arthritis and systemic lupus erythematosus. Cutolo M, et al. **Ann Rheum Dis** 1998 Oct;57(10):573–7 (67 ref.)

Interactions between somatometric parameters and endogenous hormone levels as well as hormonal induced events in females. Kirchengast S. **Anthropol Anz** 1998 Sep; 56(3):251–65

Effect of sex hormones on lipid peroxidation in rat liver. Huh K, et al. **Arch Pharm Res** 1994 Apr;17(2):109–14

Role of sex steroids in the Th1/Th2 cytokine balance: comment on the article by Miossec and van den Berg [letter; comment] van Vollenhoven RF. **Arthritis Rheum** 1998 Oct;41(10):1897–8. Comment on: Arthritis Rheum 1997 Dec;40(12):2105–15.

A role for ovarian hormones in sexual differentiation of the brain. Fitch RH, et al. **Behav Brain Sci** 1998 Jun; 21(3):311–27; discussion 327–52 (352 ref.)

The hormonal assessment of the infertile male [letter; comment] Pandiyan N. **BJU Int** 1999 Apr;83(6):738–9. Comment on: Br J Urol 1998 Jul;82(1):69–75.

The influence of female sex hormones on skin thickness: evaluation using 20 MHz sonography. Eisenbeiss C, et al. **Br J Dermatol** 1998 Sep;139(3):462–7

Cardiovascular steroid actions: swift swallows or sluggish snails? Christ M, et al. **Cardiovasc Res** 1998 Oct;40(1):34–44 (105 ref.)

Semenogelin I: a coagulum forming, multifunctional seminal vesicle protein. Robert M, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):944–60 (95 ref.)

Sex steroid control of mood, mental state and memory. Fink G, et al. **Clin Exp Pharmacol Physiol** 1998 Oct; 25(10):764–75 (163 ref.)

Sex-steroid actions on neurotransmission. Bicknell RJ. **Curr Opin Neurol** 1998 Dec;11(6):667–71 (40 ref.)

The brain as a new frontier for reproductive endocrinology [editorial] Genazzani AR, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):237–40

The role of sex hormones in systemic lupus erythematosus. Lahita RG. **Curr Opin Rheumatol** 1999 Sep;11(5):352–6 (29 ref.)

Activational and organizational actions of gonadal hormones and the sex-specific effects of prolactin on food intake by rats. Heil SH. **Dev Psychobiol** 1999 Jul;35(1):61–7

The size of the splenium of the rat corpus callosum: influence of hormones, sex ratio, and neonatal cryoanesthesia. Nuñez JL, et al. **Dev Psychobiol** 1998 Dec;33(4):295–303

Mechanisms underlying the absence of the pubertal shift in the playful defense of female rats. Smith LK, et al. **Dev Psychobiol** 1998 Sep;33(2):147–56

Wellness in women after 40 years of age: the role of sex hormones and pheromones. Cutler WB, et al. **Dis Mon** 1998 Sep;44(9):421–546 (255 ref.)

The influence of reproductive and hormonal factors on the risk of colon and rectal cancer in women. Talamini R, et al. **Eur J Cancer** 1998 Jun;34(7):1070–6

Steroid hormone-dependent myometrial zonal differentiation in the non-pregnant human uterus. Brosens JJ, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Dec;81(2):247–51 (37 ref.)

Effects of aging and sex steroids on the localization of T cell subsets in the ovary of chicken, Gallus domesticus. Barua A, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):28–35

Hormonal interactions in ovarian cancer. Emons G, et al. **Hematol Oncol Clin North Am** 1999 Feb;13(1):145–61, ix (103 ref.)

Significance of sex steroids in roles of cadherin subfamily and its related proteins in the uterine endometrium and placenta. Fujimoto J, et al. **Horm Res** 1998;50 Suppl 2:30–6

Arthur C. Corcoran Memorial Lecture. Hormones and vasoprotection. Oparil S. **Hypertension** 1999 Jan;33(1 Pt 2):170–6 (56 ref.)

Neuroendocrine system and mental function in sedentary and endurance-trained elderly males. Strüder HK, et al. **Int J Sports Med** 1999 Apr;20(3):159–66

Development of the cerebral cortex: XV. Sexual differentiation of the central nervous system. Gorski RA. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):344–6 (7 ref.)

Development of the cerebral cortex: XI. Sexual dimorphism in the brain. Kirn J, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1228–30

The Women's Ischemia Syndrome Evaluation (WISE) study: protocol design, methodology and feasibility report. Merz CN, et al. **J Am Coll Cardiol** 1999 May;33(6):1453–61

Short-term increase and long-term decrease of blood pressure in response to oxytocin-potentiating effect of female steroid hormones. Petersson M, et al. **J Cardiovasc Pharmacol** 1999 Jan;33(1):102–8

Clinical review 107: Role of gonadal steroids in the sexual dimorphisms in body composition and circulating concentrations of leptin. Rosenbaum M, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1784–9 (94 ref.)

Glial-neuronal interactions in the neuroendocrine control of mammalian puberty: facilitatory effects of gonadal steroids. Ojeda SR, et al. **J Neurobiol** 1999 Sep 15;40(4):528–40 (95 ref.)

Sex differences in the parental behaviour of adult virgin prairie voles: independence from gonadal hormones and vasopressin. Lonstein JS, et al. **J Neuroendocrinol** 1999 Jun; 11(6):441–9

Effect of sex hormones on rat liver cytosolic alcohol dehydrogenase activity. Harada S, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct;44(5):625–39

Effect of sex hormones on oxalate-synthesizing enzymes in male and female rat livers. Yoshihara H, et al. **J Urol** 1999 Feb;161(2):668–73

Cellular composition of the adult rat anterior pituitary is influenced by the neonatal sex steroid environment. González-Parra S, et al. **Neuroendocrinology** 1998 Sep; 68(3):152–62

Epilepsy in women: the science of why it is special. Morrell MJ. **Neurology** 1999;53(4 Suppl 1):S42–8 (46 ref.)

Clinical application of the vaginal maturation index. McEndree B. **Nurse Pract** 1999 Sep;24(9):48, 51–2, 55–6 (31 ref.)

The inter-relationship between gonadal steroids and POMC peptides, beta-endorphin and alpha-MSH, in the control of sexual behavior in the female rat. Medina F, et al. **Peptides** 1998;19(8):1309–16

Influence of sex and female hormones on nicotine-induced changes in locomotor activity in rats. Kanýt L, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):179–87

Hormone-dependent regulation of GABAA receptor gamma subunit mRNAs in sexually dimorphic regions of the rat brain. Clark AS, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 7;265(1408):1853–9

Genetic and hormonal regulation of murine hepatocarcinogenesis. Chiaverotti T, et al. **Prog Exp Tumor Res** 1999;35:131–42 (52 ref.)

Sexually-dimorphic patterns of cortical asymmetry, and the role for sex steroid hormones in determining cortical patterns of lateralization. Wisniewski AB. **Psychoneuroendocrinology** 1998 Jul;23(5):519–47 (130 ref.)

Hormone measures in reproductive endocrine-related mood disorders: diagnostic issues. Rubinow DR, et al. **Psychopharmacol Bull** 1998;34(3):289–90 (10 ref.)

Blood pressure, plasma NPY and catecholamines during physical exercise in relation to menstrual cycle, ovariectomy, and estrogen replacement. Lewandowski J, et al. **Regul Pept** 1998 Sep 25;75-76:239–45

Angiotensin II: a reproductive hormone too? Speth RC, et al. **Regul Pept** 1999 Jan 1;79(1):25–40 (151 ref.)

The sex ratio of offspring of people exposed to boron [letter; comment] [see comments] James WH. **Reprod Toxicol** 1998 Nov–Dec;12(6):673–4. Comment on: Reprod Toxicol 1998 May–Jun;12(3):297–304. Comment in: Reprod Toxicol 1999 May–Jun;13(3):235.

[Role of sex steroids and their receptors in the pathophysiology of hepatocellular carcinoma] Clavière C, et al. **Gastroenterol Clin Biol** 1998 Jan;22(1):73–86 (166 ref.) **(Fre)**

[The regulation of male sexual behavior by the sex hormones] Gladkova AI. **Usp Fiziol Nauk** 1999 Jan–Mar;30(1):97–105 (64 ref.) (Eng. Abstr.) **(Rus)**

[Genes, hormones and the risk factors in the development of the male phenotype] Shishkina GT, et al. **Usp Fiziol Nauk** 1999 Jul–Sep;30(3):49–61 (155 ref.) (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Visceral fat accumulation is an important determinant of PAI-1 levels in young, nonobese men and women: modulation by cross-sex hormone administration. Giltay EJ, et al. **Arterioscler Thromb Vasc Biol** 1998 Nov; 18(11):1716–22

Hormonal treatment of endometrial cancer. Quinn MA. **Hematol Oncol Clin North Am** 1999 Feb;13(1):163–87, ix (168 ref.)

Hormonal manipulations may also reduce breast cancer risk [news] Nelson NJ. **J Natl Cancer Inst** 1999 Jun 2; 91(11):910–1

SEX MATURATION

Articular cartilage compressive stiffness following oophorectomy or treatment with 17beta-estradiol in young postpubertal rabbits. Räsänen T, et al. **Acta Obstet Gynecol Scand** 1999 May;78(5):357–62

Body image and psychopathology in adolescence: a controlled clinical study. Laukkanen E, et al. **Acta Psychiatr Scand** 1998 Jul;98(1):47–53

Priming effect of exogenous oestradiol on luteinizing hormone secretion in prepubertal lambs. Meikle A, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):75–85

Influence of a past history of Gambian sleeping sickness on physical growth, sexual maturity and academic performance of children in Fontem, Cameroon. Aroke AH, et al. **Ann Trop Med Parasitol** 1998 Dec;92(8):829–35

Spermatids of prepubertal male rats are susceptible to carbendazim during early spermiogenesis. Nakai M, et al. **Arch Histol Cytol** 1998 Dec;61(5):433–7

The influence of maturation and gender on the anti-arrhythmic effect of ischaemic preconditioning in rats. Humphreys RA, et al. **Basic Res Cardiol** 1999 Feb;94(1):1–8

Developmental profile of a caltrin-like protease inhibitor, P12, in mouse seminal vesicle and characterization of its binding sites on sperm surface. Chen LY, et al. **Biol Reprod** 1998 Dec;59(6):1498–505

Opposing changes in 3alpha-hydroxysteroid dehydrogenase oxidative and reductive activities in rat leydig cells during pubertal development. Ge RS, et al. **Biol Reprod** 1999 Apr; 60(4):855–60

Prepubertal exposure to zearalenone or genistein reduces mammary tumorigenesis. Hilakivi-Clarke L, et al. **Br J Cancer** 1999 Aug;80(11):1682–8

Correlations between yolk size and age, egg weight or body weight at sexual maturity. Lewis PD, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S54–6

Sex differences in estrogenic regulation of preproenkephalin mRNA levels in the medial preoptic area of prepubertal rats. Segarra AC, et al. **Brain Res Mol Brain Res** 1998 Sep 18;60(1):133–9

Decreased spermatogenic and androgenic testicular functions in adult rats submitted to immobilization-induced stress from prepuberty. Almeida SA, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1443–8

Effect of neonatal exposure to estrogenic compounds on development of the excurrent ducts of the rat testis through puberty to adulthood. Fisher JS, et al. **Environ Health Perspect** 1999 May;107(5):397–405

Feedback control of gonadotropins in Atlantic salmon, Salmo salar, male parr.I. Castration effects in rematuring and nonrematuring fish. Antonopoulou E, et al. **Gen Comp Endocrinol** 1999 Apr;114(1):132–41

Pheromones elicit equivalent levels of Fos-immunoreactivity in prepubertal and adult male Syrian hamsters. Romeo RD, et al. **Horm Behav** 1998 Aug;34(1):48–55

Self-assessment of sexual maturation in adolescent females with anorexia nervosa [see comments] Hick KM, et al. **J Adolesc Health** 1999 Mar;24(3):206–11. Comment in: J Adolesc Health 1999 Mar;24(3):157.

Development of Sertoli cell binding competency in the peripubertal rat. Cameron DF, et al. **J Androl** 1998 Sep–Oct;19(5):573–9

Murine progesterone receptor expression in proliferating mammary epithelial cells during normal pubertal development and adult estrous cycle. Association with eralpha and erbeta status. Zeps N, et al. **J Histochem Cytochem** 1999 Oct;47(10):1323–30

An increase in glutamate release follows a decrease in gamma aminobutyric acid and the pubertal increase in luteinizing hormone releasing hormone release in the female rhesus monkeys. Terasawa E, et al. **J Neuroendocrinol** 1999 Apr; 11(4):275–82

Mechanisms underlying the effects of estrogen on nocturnal melatonin synthesis in peripubertal female rats: relation to norepinephrine and adenylate cyclase. Hayashi K, et al. **J Pineal Res** 1999 Apr;26(3):178–83

Effect of estrogen on melatonin synthesis in female peripubertal rats as related to adenylate cyclase activity. Okatani Y, et al. **J Pineal Res** 1998 Dec;25(4):245–50

Sexual differences in the role of kainate receptors in controlling gonadotrophin secretion in prepubertal rats. Pinilla L, et al. **J Reprod Fertil** 1998 Jul;113(2):269–73

Four-week ethanol intake decreases food intake and body weight but does not affect plasma leptin, corticosterone, and insulin levels in pubertal rats. Strbák V, et al. **Metabolism** 1998 Oct;47(10):1269–73

Epidermal growth factor tyrosine kinase receptors and the neuroendocrine control of mammalian puberty. Ojeda SR, et al. **Mol Cell Endocrinol** 1998 May 25;140(1-2):101–6 (49 ref.)

Localization of macrophages in the chicken oviduct: effects of age and gonadal steroids. Zheng WM, et al. **Poult Sci** 1999 Jul;78(7):1014–8

Follicular size affects the meiotic competence of in vitro matured prepubertal and adult oocytes in sheep. Ledda S, et al. **Reprod Nutr Dev** 1999 Jul–Aug;39(4):503–8

Effects of Trypanosoma congolense infection and diet on puberty, age at first lambing and haematology changes in Djallonké ewe lambs. Osaer S, et al. **Vet Parasitol** 1999 Jan 14;80(3):215–30

[Studies on bone density in healthy girls during their period of growth spurt] Wu J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jan;31(1):24–6 (Eng. Abstr.) **(Chi)**

[The influence of obesity on sexual development in pubertal children] Zhang H, et al. **Wei Sheng Yen Chiu** 1997 Jul; 26(4):247–50 (Eng. Abstr.) **(Chi)**

[Disorders of sex development in dogs] Tammer I, et al. **Tierarztl Prax Ausg K Klientiere Heimtiere** 1998 Nov; 26(6):390–5 (Eng. Abstr.) **(Ger)**

[The assessment and prediction of the weight-height ratio in boys during sexual maturation] Prusov PK. **Gig Sanit** 1999 Mar–Apr;(2):21–4 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Reversal of ethanol-induced testosterone suppression in peripubertal male rats by opiate blockade. Emanuele MA, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1199–204

Treatment with 17beta-oestradiol does not influence age and weight at puberty in Bos indicus heifers. Rodrigues HD, et al. **Anim Reprod Sci** 1999 May 17;56(1):1–10

Role of PACAP in the regulation of gonadotroph hormone secretion during ontogenesis: a single neonatal injection of PACAP delays puberty and its intracerebroventricular administration before the critical period of proestrous stage blocks ovulation in adulthood. Köves K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:590–4

Morphological masculinization in poeciliid females from a paper mill effluent receiving tributary of the St. Johns River, Florida, USA. Bortone SA, et al. **Bull Environ Contam Toxicol** 1999 Aug;63(2):150–6

Premature sexual development in children following the use of estrogen- or placenta-containing hair products. Tiwary CM. **Clin Pediatr (Phila)** 1998 Dec;37(12):733–9 (29 ref.)

Effect of anthelmintic treatment on sexual maturation in prepubertal beef heifers. Whittier JC, et al. **J Anim Sci** 1999 Mar;77(3):736–41

Chronic administration of leptin into the lateral ventricle induces sexual maturation in severely food-restricted female rats. Gruaz NM, et al. **J Neuroendocrinol** 1998 Aug; 10(8):627–33

Precocious estrus and reproductive ability induced by PG 600 in prepuberal gilts. Iwamura S, et al. **J Vet Med Sci** 1999 Jan;61(1):7–11

The effects of valproate, carbamazepine, and oxcarbazepine on growth and sexual maturation in girls with epilepsy. Rättyä J, et al. **Pediatrics** 1999 Mar;103(3):588–93

Effects of prenatal morphine exposure on rat heterotypical sexual behavior. Vathy I. **Physiol Behav** 1999 Jun; 66(4):667–71

Fetal alcohol exposure blocks full masculinization of the dorsolateral nucleus in rat spinal cord. Ward IL, et al. **Physiol Behav** 1999 Jun;66(4):571–5

Effects of transient treatment with 6-N-propyl-2-thiouracil on testis development and function in breeder turkeys. Knowlton JA, et al. **Poult Sci** 1999 Jul;78(7):999–1005

Effect of diazepam and sex hormones on EEG of gonadectomized male and female rats. Ugalde E, et al. **Psychoneuroendocrinology** 1998 Oct;23(7):701–12

Sexual maturation and fertility of male and female mice exposed prenatally and postnatally to trivalent and hexavalent chromium compounds. Al-Hamood MH, et al. **Reprod Fertil Dev** 1998;10(2):179–83

Disruption of androgen-regulated male reproductive development by di(n-butyl) phthalate during late gestation in rats is different from flutamide. Mylchreest E, et al. **Toxicol Appl Pharmacol** 1999 Apr 15;156(2):81–95

Furazolidone treatment suppresses pubertal testosterone secretion in male broiler breeder birds (Gallus domesticus). Andrabi SM, et al. **Vet Hum Toxicol** 1998 Dec;40(6):321–5

GENETICS

The Oct-2 POU domain gene in the neuroendocrine brain: a transcriptional regulator of mammalian puberty. Ojeda SR, et al. **Endocrinology** 1999 Aug;140(8):3774–89

Estimation of genetic parameters for scrotal circumference, age at puberty in heifers, and hip height in Brahman cattle. Vargas CA, et al. **J Anim Sci** 1998 Oct;76(10):2536–41

IMMUNOLOGY

Effects of active immunization against growth-hormone releasing factor on puberty and reproductive development in gilts. Swanchara KW, et al. **J Anim Sci** 1999 Jul; 77(7):1807–14

PHYSIOLOGY

Prepubertal regulation of the rat dioxin-inducible aldehyde dehydrogenase (ALDH3). Stephanou P, et al. **Adv Exp Med Biol** 1999;463:143–50

The adolescent spurt and sexual maturation in girls active and not active in sport. Geithner CA, et al. **Ann Hum Biol** 1998 Sep–Oct;25(5):415–23

Comparative effects of neonatal and prepubertal castration on craniofacial growth in rats. Verdonck A, et al. **Arch Oral Biol** 1998 Nov;43(11):861–71

Isolation rearing affects sequential organization of motor behavior in post-pubertal but not pre-pubertal Lister and Sprague-Dawley rats. Paulus MP, et al. **Behav Brain Res** 1998 Aug;94(2):271–80

Circulating concentrations of estradiol, luteinizing hormone, and follicle-stimulating hormone during waves of ovarian follicular development in prepubertal cattle. Melvin EJ, et al. **Biol Reprod** 1999 Feb;60(2):405–12

Immunofluorescent localization of estrogen receptor-alpha in growth plates of rabbits, but not in rats, at sexual maturity. Kennedy J, et al. **Bone** 1999 Jan;24(1):9–16

Histomorphometry and bone biomarkers in cynomolgus females: a study in young, mature, and old monkeys. Lees CJ, et al. **Bone** 1999 Jan;24(1):25–8

Behavioural and hormonal changes associated with sexual maturity in layer pullets. McKeegan DE, et al. **Br Poult Sci** 1998 Dec;39 Suppl:S6–7

Regional changes in GnRH immunoreactivity with puberty in the male Syrian hamster. Richardson HN, et al. **Brain Res** 1999 Jan 30;817(1-2):232–5

The development of POMC gene expression in the medial basal hypothalamus of prepubertal rats. Mann PE, et al. **Brain Res Dev Brain Res** 1999 Aug 5;116(1):21–8

Annual changes in serum calcium and inorganic phosphate levels and correlation with gonadal status of a freshwater murrel, Channa punctatus (Bloch). Srivastav SK, et al. **Braz J Med Biol Res** 1998 Aug;31(8):1069–73

A unique urinary constituent, 6-hydroxy-6-methyl-3-heptanone, is a pheromone that accelerates puberty in female mice. Novotny MV, et al. **Chem Biol** 1999 Jun;6(6):377–83

Developmental effects on intersexual and intrasexual variation in growth and reproduction in a lizard with temperature-dependent sex determination. Crews D, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):229–41 (83 ref.)

Growth hormone, sexual maturity and steroids in male carp (Cyprinus carpio). Degani G, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Oct;120(3):433–40

The mouse Tsx gene is expressed in Sertoli cells of the adult testis and transiently in premeiotic germ cells during puberty. Cunningham DB, et al. **Dev Biol** 1998 Dec 15; 204(2):345–60

Activational and organizational actions of gonadal hormones and the sex-specific effects of prolactin on food intake by rats. Heil SH. **Dev Psychobiol** 1999 Jul;35(1):61–7

Mechanisms underlying the absence of the pubertal shift in the playful defense of female rats. Smith LK, et al. **Dev Psychobiol** 1998 Sep;33(2):147–56

Regulation of growth hormone secretion by alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptors in infantile, prepubertal, and adult male rats. González LC, et al. **Endocrinology** 1999 Mar; 140(3):1279–84

Characterization of unique truncated prolactin receptor transcripts, corresponding to the intracellular domain, in the testis of the sexually mature chicken. Mao JN, et al. **Endocrinology** 1999 Mar;140(3):1165–74

Prenatal dihydrotestosterone differentially masculinizes tonic and surge modes of luteinizing hormone secretion in sheep. Masek KS, et al. **Endocrinology** 1999 Aug;140(8):3459–66

Androgenic regulation of hypothalamic aromatase activity in prepubertal and postpubertal male golden hamsters. Romeo RD, et al. **Endocrinology** 1999 Jan;140(1):112–7

Sex-related influence of body size and sexual maturation on blood pressure in adolescents. Leccia G, et al. **Eur J Clin Nutr** 1999 Apr;53(4):333–7

Seasonal and social correlates of fecal testosterone and cortisol levels in wild male muriquis (Brachyteles arachnoides). Strier KB, et al. **Horm Behav** 1999 Apr; 35(2):125–34

The degenerative fate of germ cells not conforming to stage in the pubertal golden hamster testis. Miething A. **J Anat** 1998 Nov;193 (Pt 4):519–27

Temporal relation between leptin and various indices of sexual maturation in the male rat. Nazian SJ, et al. **J Androl** 1999 Jul–Aug;20(4):487–91

Effects of stair-step nutrition and trace mineral supplementation on attainment of puberty in beef heifers of three sire breeds. Grings EE, et al. **J Anim Sci** 1999 Apr;77(4):810–5

Effect of prepubertal feeding regimen on reproductive development of gilts. Klindt J, et al. **J Anim Sci** 1999 Aug; 77(8):1968–76

Developmental changes in LH secretion by male pituitaries in vitro: from the infantile to adult period. Bello-Pineda J, et al. **J Endocrinol** 1999 Mar;160(3):333–41

Insulin-like growth factor-I stimulates gonadotrophin production from eel pituitary cells: a possible metabolic signal for induction of puberty. Huang YS, et al. **J Endocrinol** 1998 Oct;159(1):43–52

Indirect assessment of pulsatile gonadotropin-releasing hormone release in agonadal prepubertal rhesus monkeys (Macaca mulatta). Suter KJ, et al. **J Endocrinol** 1999 Jan; 160(1):35–41

Changes in the suppressive effects of recombinant inhibin A on FSH secretion in ram lambs during sexual maturation: evidence for alterations in the clearance rate of inhibin. Tilbrook AJ, et al. **J Endocrinol** 1999 May;161(2):219–29

Contribution of insulin-like growth factor (IGF)-I and IGF-binding protein-3 to mitogenic activity in bovine mammary extracts and serum. Weber MS, et al. **J Endocrinol** 1999 Jun;161(3):365–73

Plasma steroid hormone profiles and reproductive biology of the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **J Exp Zool** 1999 Oct 1;284(5):586–94

Glial-neuronal interactions in the neuroendocrine control of mammalian puberty: facilitatory effects of gonadal steroids. Ojeda SR, et al. **J Neurobiol** 1999 Sep 15;40(4):528–40 (95 ref.)

GnRH mRNA increases with puberty in the male Syrian hamster brain. Parfitt DB, et al. **J Neuroendocrinol** 1999 Aug;11(8):621–7

Testosterone, LH and FSH episodic secretory patterns in GnRH-immunized bulls. Finnerty M, et al. **J Reprod Fertil** 1998 Sep;114(1):85–94

Changes in circulating and ovarian concentrations of

bioactive tumour necrosis factor alpha during the first ovulation at puberty in rats and in gonadotrophin-treated immature rats. Rice VM, et al. **J Reprod Fertil** 1998 Jul; 113(2):337-41

Regulation of urokinase- and tissue-type plasminogen activator by relaxin in the uterus and cervix of the prepubertal gilt. Wang-Lee JL, et al. **J Reprod Fertil** 1998 Sep;114(1):119-25

Circumferential hymen elasticity. A marker of physiologic maturity. Pokorny SF, et al. **J Reprod Med** 1998 Nov; 43(11):943-8

Submaximal exercise and maturation in 12-year-olds. Armstrong N, et al. **J Sports Sci** 1999 Feb;17(2):107-14

Expression of prolactin messenger ribonucleic acid in the mouse gonads during sexual maturation. Imaoka T, et al. **Life Sci** 1998;63(25):2251-8

Metabolic control of sexual function and growth: role of neuropeptide Y and leptin. Aubert ML, et al. **Mol Cell Endocrinol** 1998 May 25;140(1-2):107-13 (32 ref.)

Ontogeny of the diurnal rhythm of tuberoinfundibular dopaminergic neuronal activity in peripubertal female rats: possible involvement of cholinergic and opioidergic systems. Shieh K, et al. **Neuroendocrinology** 1998 Dec; 68(6):395-402

Estrogen receptor immunoreactivity in prepubertal and adult male Syrian hamsters. Romeo RD, et al. **Neurosci Lett** 1999 Apr 23;265(3):167-70

Clinical application of the vaginal maturation index. McEndree B. **Nurse Pract** 1999 Sep;24(9):48, 51-2, 55-6 (31 ref.)

Maturation-related compressive properties of rabbit knee articular cartilage and volume fraction of subchondral tissue. Wei X, et al. **Osteoarthritis Cartilage** 1998 Nov; 6(6):400-9

Organization of territorial marking behavior by testosterone during puberty in male tree shrews. Eichmann F, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):785-91

Plasma cocaine levels and locomotor activity after systemic injection in virgin and in lactating maternal female rats. Vernotica EM, et al. **Physiol Behav** 1998 Jun 1; 64(3):399-407

Cadmium affects testes and semen of rabbits exposed before and after puberty. Foote RH. **Reprod Toxicol** 1999 Jul-Aug;13(4):269-77

Sex determination and female reproductive development in the genus Schistosoma: a review. Ribeiro-Paes JT, et al. **Rev Inst Med Trop Sao Paulo** 1997 Nov-Dec;39(6):337-44 (136 ref.)

Disruption of androgen-regulated male reproductive development by di(n-butyl) phthalate during late gestation in rats is different from flutamide. Mylchreest E, et al. **Toxicol Appl Pharmacol** 1999 Apr 15;156(2):81-95

[Allozyme heterozygosity, sexual maturation rate, and longevity] Altukhov IuP. **Genetika** 1998 Jul;34(7):908-19 (Eng. Abstr.) **(Rus)**

RADIATION EFFECTS

Effects on female fertility and germinal cells in prepubertal and adult rats (Rattus norvegicus) after X-ray irradiation. Martinez-Flores I, et al. **Adv Exp Med Biol** 1998;444:215-9

Effects of prenatal exposure to gamma rays on circling and activity behavior in prepubertal and postpubertal rats. Mintz M, et al. **Behav Brain Res** 1999 Jan;98(1):45-51

SEX OFFENSES

Prevalence of sexual assault history among women with common gynecologic symptoms [published erratum appears in Am J Obstet Gynecol 1999 Jan;180(1 Pt 1):255] Golding JM, et al. **Am J Obstet Gynecol** 1998 Oct; 179(4):1013-9

Birth order in homosexual versus heterosexual sex offenders against children, pubescents, and adults. Blanchard R, et al. **Arch Sex Behav** 1998 Dec;27(6):595-603

Cognitive factors involved in the onset and maintenance of posttraumatic stress disorder (PTSD) after physical or sexual assault. Dunmore E, et al. **Behav Res Ther** 1999 Sep; 37(9):809-29

In vitro fertilisation, sex offending and confidentiality. Geelan S. **Br J Obstet Gynaecol** 1999 May;106(5):399-401

Comparative study of pelvic and non-pelvic pain/the prevalence of chronic pelvic pain [letter; comment] Stewart P, et al. **Br J Obstet Gynaecol** 1998 Dec;105(12):1338-9. Comment on: Br J Obstet Gynaecol 1998 Jan;105(1):87-92. Comment on: Br J Obstet Gynaecol 1998 Jan;105(1):93-9.

Serious sex offending against women by men with schizophrenia. Relationship of illness and psychotic symptoms to offending. Smith AD, et al. **Br J Psychiatry** 1999 Mar;174:233-7

Aggression and sexual offense in Asperger's syndrome. Kohn Y, et al. **Isr J Psychiatry Relat Sci** 1998;35(4):293-9

Unwanted sexual experiences reported by nursing students: implications for nurse education and training. Hardman A, et al. **J Adv Nurs** 1998 Nov;28(5):1158-67

Responses to treatment for sex offenders with intellectual disability: a comparison of men with 1- and 2-year probation sentences. Lindsay WR, et al. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):346-53

Sadistic personality disorder in sex offenders: relationship to antisocial personality disorder and sexual sadism. Berger P, et al. **J Personal Disord** 1999 Summer;13(2):175-86

Yoga, meditation, help teen sex offenders [news] **J Psychosoc Nurs Ment Health Serv** 1999 Jun;37(6):6

Sexual abuse and adolescent pregnancy [letter; comment] Kempen PM. **JAMA** 1999 Feb 10;281(6):512; discussion 513. Comment on: JAMA 1998 Aug 19;280(7):648-9.

Educating physicians to prevent sex-related contact with patients [letter; comment] Thomasson GO. **JAMA** 1999 Feb 3;281(5):419-20. Comment on: JAMA 1998 Jun 17;279(23):1883-8.

Sexual abuse and adolescent pregnancy [letter; comment] Wenk RE, et al. **JAMA** 1999 Feb 10;281(6):512-3. Comment on: JAMA 1998 Aug 19;280(7):648-9.

Sexual abuse and adolescent pregnancy [letter; comment] Zanga JR. **JAMA** 1999 Feb 10;281(6):511-2; discussion 513 . Comment on: JAMA 1998 Aug 19;280(7):648-9.

Effects of abuse on maternal complications and birth weight in adult and adolescent women. Curry MA, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 1):530-4

The impact of health care reform: a survey of victim and offender treatment providers. Berliner L, et al. **Sex Abuse** 1999 Jan;11(1):5-16

Sexual offender treatment in Europe: an impression of cross-cultural differences. Frenken J. **Sex Abuse** 1999 Jan; 11(1):87-93 (2 ref.)

Factors associated with treatment compliance in a population of juvenile sexual offenders [see comments] Hunter JA Jr, et al. **Sex Abuse** 1999 Jan;11(1):49-67. Comment in: Sex Abuse 1999 Jan;11(1):1-3.

Pathways in the offending process of extrafamilial sexual child molesters. Proulx J, et al. **Sex Abuse** 1999 Apr; 11(2):117-29

Factors related to recidivism among juvenile sexual offenders [see comments] Rasmussen LA. **Sex Abuse** 1999 Jan; 11(1):69-85. Comment in: Sex Abuse 1999 Jan;11(1):1-3.

Integrated clinical service for sexual assault victims in a genitourinary setting. Bottomley CP, et al. **Sex Transm Infect** 1999 Apr;75(2):116-9

CLASSIFICATION

Use of physical force as an offense characteristic in subtyping juvenile sexual offenders. Butz C, et al. **Sex Abuse** 1999 Jul;11(3):217-32

The potter's box [editorial; comment] Maletzky BM. **Sex Abuse** 1999 Jan;11(1):1-3. Comment on: Sex Abuse 1999 Jan;11(1):49-67. Comment on: Sex Abuse 1999 Jan;11(1):69-85.

HISTORY

The seductions of history: sexual trauma in Freud's theory and historiography. Makari GJ. **Int J Psychoanal** 1998 Oct; 79 (Pt 5):857-69

Return of the past: the policy of the SED and the laws against homosexuality in Eastern Germany between 1946 and 1968. Sozialistische Einheitspartei Deutschlands. Grau G. **J Homosex** 1999;37(4):1-21

LEGISLATION & JURISPRUDENCE

Sex offenders, mental illness and criminal responsibility: the constitutional boundaries of civil commitment after Kansas v. Hendricks. Falk AJ. **Am J Law Med** 1999;25(1):117-47

The medico-legal status of young sex offenders: forensic psychiatric evaluations in Sweden 1988-1995. Långström N, et al. **Behav Sci Law** 1999;17(2):219-25

Sexual burglaries and sexual homicide: clinical, forensic, and investigative considerations. Schlesinger LB, et al. **J Am Acad Psychiatry Law** 1999;27(2):227-38

Psychiatric features of 36 men convicted of sexual offenses. McElroy SL, et al. **J Clin Psychiatry** 1999 Jun;60(6):414-20; quiz 421-2

What is an 'intact' hymen? A critique of the literature. Goodyear-Smith FA, et al. **Med Sci Law** 1998 Oct; 38(4):289-300 (60 ref.)

The place of bigamy in the pantheon of crime? Soothill K, et al. **Med Sci Law** 1999 Jan;39(1):65-71

Treatment of adolescent sex offenders with intellectual disabilities. Lindsay WR, et al. **Ment Retard** 1999 Jun; 37(3):201-11

Therapist-patient sex. From boundary violations to sexual misconduct. Simon RI. **Psychiatr Clin North Am** 1999 Mar; 22(1):31-47 (54 ref.)

Sexual predators. Zonana HV, et al. **Psychiatr Clin North Am** 1999 Mar;22(1):109-27, vii (68 ref.)

The paraphilias, obsessive compulsive spectrum disorder, and the treatment of sexually deviant behaviour. Bradford JM. **Psychiatr Q** 1999 Fall;70(3):209-19 (44 ref.)

The "mad" vs. the "bad" revisited: managing predatory behavior. Tucker W. **Psychiatr Q** 1999 Fall;70(3):221-30 (12 ref.)

APA task force report urges strong opposition to laws committing sexual predators to mental health facilities. American Psychiatric Association [news] **Psychiatr Serv** 1998 Oct;49(10):1375-6

Sexual predators and the abuse of psychiatry [editorial; comment] Maier GJ. **Psychiatr Serv** 1999 Mar;50(3):295. Comment on: Psychiatr Serv 1999 Mar;50(3):349-61.

A mischaracterization [letter] Zonana HV. **Psychiatr Serv** 1999 Jun;50(6):835-6

Sexual offender treatment efficacy revisited. Alexander MA. **Sex Abuse** 1999 Apr;11(2):101-16

[Transsexual development after committing an offense] Weitze C, et al. **Psychiatr Prax** 1999 Mar;26(2):93-5 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Understanding sexual and reproductive violence: an overview. Barzelatto J. **Int J Gynaecol Obstet** 1998 Dec; 63 Suppl 1:S13-8 (10 ref.)

Sexual victimization: analyzing the analysis [letter; comment] Spence-Diehl E. **J Am Coll Health** 1998 Sep;47(2):93-5. Comment on: J Am Coll Health 1998 Jan;46(4):151-8.

Harm reduction or harm facilitation? A reply to Maletzky. Laws DR. **Sex Abuse** 1999 Jul;11(3):233-41 (15 ref.)

Methodological issues concerning evaluation of treatment for sexual offenders: randomization, treatment dropouts, untreated controls, and within-treatment studies [see comments] McConaghy N. **Sex Abuse** 1999 Jul; 11(3):183-93 (32 ref.). Comment in: Sex Abuse 1999 Jul;11(3):179-81.

Groups of one [editorial; comment] Maletzky BM. **Sex Abuse** 1999 Jul;11(3):179-81. Comment on: Sex Abuse 1999 Jul;11(3):183-93.

PSYCHOLOGY

Sexual abuse and the subsequent development of alcohol problems. Moncrieff J, et al. **Alcohol Alcohol** 1998 Nov-Dec;33(6):592-601 (40 ref.)

Sexual and severe physical violence among high school students. Power beliefs, gender, and relationship. Bennett L, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):645-52

Health-related quality of life and symptom profiles of female survivors of sexual abuse. Dickinson LM, et al. **Arch Fam Med** 1999 Jan-Feb;8(1):35-43

Detection of minimization of psychopathology on the Rorschach in cleric and noncleric alleged sex offenders. Wasyliw OE, et al. **Assessment** 1998 Dec;5(4):389-97

Cognitive distortions and blame attribution in sex offenders against adults and children. Blumenthal S, et al. **Child Abuse Negl** 1999 Feb;23(2):129-43

Old duties and new: recovered memories and the question of third-party liability. Behnke SH. **J Am Acad Psychiatry Law** 1999;27(2):279-300

Homicidal sex offenders: psychological, phallometric, and diagnostic features. Firestone P, et al. **J Am Acad Psychiatry Law** 1998;26(4):537-52

Sadism and psychopathy in violent and sexually violent offenders. Holt SE, et al. **J Am Acad Psychiatry Law** 1999; 27(1):23-32

The relevance of self-concepts discriminating in long-term incarcerated sex offenders. Fruehwald S, et al. **J Behav Ther Exp Psychiatry** 1998 Dec;29(4):267-78

Sexual offending and antisocial sexual behavior among patients with schizophrenia. Phillips SL, et al. **J Clin Psychiatry** 1999 Mar;60(3):170-5

Dissociation, posttraumatic symptomatology, and sexual revictimization: a prospective examination of mediator and moderator effects. Sandberg DA, et al. **J Trauma Stress** 1999 Jan;12(1):127-38

Characteristics of sexual abuse against pregnant Hispanic women by their male intimates. McFarlane J, et al. **J Womens Health** 1998 Aug;7(6):739-45

The aggressive patient/inmate: beyond denial. Maier GJ. **Psychiatr Q** 1999 Fall;70(3):199-208 (33 ref.)

Are sex offenders treatable? A research overview [see comments] Grossman LS, et al. **Psychiatr Serv** 1999 Mar; 50(3):349-61 (98 ref.). Comment in: Psychiatr Serv 1999 Mar;50(3):295.

In defense of the assault cycle: a commentary. Carich MS. **Sex Abuse** 1999 Jul;11(3):249-51 (8 ref.)

Obesity among sexually abused women: an adaptive function for some? Wiederman MW, et al. **Women Health** 1999; 29(1):89-100

[Social networks and social support in a sample of mentally ill sex offenders] Gutiérrez-Lobos K, et al. **Psychiatr Prax** 1999 Mar;26(2):85-8 (Eng. Abstr.) **(Ger)**

[Transsexual development after committing an offense] Weitze C, et al. **Psychiatr Prax** 1999 Mar;26(2):93-5 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Psychiatric comorbidity in pedophilic sex offenders. Raymond NC, et al. **Am J Psychiatry** 1999 May; 156(5):786-8

Sexual victimization: analyzing the analysis [letter; comment] Spence-Diehl E. **J Am Coll Health** 1998 Sep;47(2):93-5. Comment on: J Am Coll Health 1998 Jan;46(4):151-8.

Sexual abuse, parental bonding, social support, and program retention for women in substance abuse treatment. Cosden M, et al. **J Subst Abuse Treat** 1999 Mar;16(2):149-55

Substance abuse and sexual trauma in a female veteran population. Davis TM, et al. **J Subst Abuse Treat** 1999 Mar;16(2):123-7

Domestic violence and sexually transmitted diseases: the experience of prenatal care patients. Martin SL, et al. **Public Health Rep** 1999 May-Jun;114(3):262-8

Substance use and sexual assault. Seifert SA. **Subst Use Misuse** 1999 May;34(6):935-45

SEX ORGANS, ACCESSORY see **GENITALIA**

SEX ORGANS, ACCESSORY, FEMALE see **GENITALIA, FEMALE**

SEX ORGANS, ACCESSORY, MALE see **GENITALIA, MALE**

SEX PHEROMONES see **SEX ATTRACTANTS**

SEX PILI see **PILI, SEX**

SEX PREDETERMINATION see **SEX PRESELECTION**

SEX PREFERENCE see **SEX**

SEX PRESELECTION

Indian medical authorities act on antenatal sex selection [news] Mudur G. **BMJ** 1999 Aug 14;319(7207):401

Sex preselection: an aid to couples or a threat to humanity? Benagiano G, et al. **Hum Reprod** 1999 Apr;14(4):868–70

Sperm separation for sex selection [letter; comment] Bernstein ME. **Hum Reprod** 1998 Sep;13(9):2658–9. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

The reproductive option of sex selection. Simpson JL, et al. **Hum Reprod** 1999 Apr;14(4):870–2

Gender selection: a crime against humanity or the exercise of a fundamental right? Sureau C. **Hum Reprod** 1999 Apr; 14(4):867–6

Sperm separation for sex selection [letter; comment] Wang JX, et al. **Hum Reprod** 1998 Sep;13(9):2659. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

Swimming upstream: views on the ethics of preconception gender selection. Mastroianni L Jr. **J Androl** 1999 May–Jun; 20(3):332–5

GATTACA rising: sorting sperm by favored traits [editorial] Healy BP. **J Womens Health** 1998 Oct;7(8):933–4

METHODS

Gender preselection in cattle with intracytoplasmically injected, flow cytometrically sorted sperm heads. Hamano K, et al. **Biol Reprod** 1999 May;60(5):1194–7

A controlled study for gender selection using swim-up separation. Khatamee MA, et al. **Gynecol Obstet Invest** 1999;48(1):7–13

Births of normal daughters after MicroSort sperm separation and intrauterine insemination, in-vitro fertilization, or intracytoplasmic sperm injection [see comments] Fugger EF, et al. **Hum Reprod** 1998 Sep;13(9):2367–70. Comment in: Hum Reprod 1999 May;14(5):1403–4.

Sex ratios following the use of the Ericsson method of sex selection, and following ICSI [letter; comment] James WH. **Hum Reprod** 1998 Sep;13(9):2659–60. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

Separating X-bearing human spermatozoa through a discontinuous Percoll density gradient proved to be inefficient by double-label fluorescent in situ hybridization. Lin SP, et al. **J Assist Reprod Genet** 1998 Oct;15(9):565–9

SEX RATIO

Placenta previa: preponderance of male sex at birth. Demissie K, et al. **Am J Epidemiol** 1999 May 1;149(9):824–30

Re: "Male pesticide exposure and pregnancy outcome" [letter; comment] James WH. **Am J Epidemiol** 1999 Feb 1; 149(3):290–1. Comment on: Am J Epidemiol 1997 Dec 15;146(12):1025–36.

Interpreting the female excess among births to women with adverse chemical or occupational exposures [letter; comment] James WH. **Am J Ind Med** 1999 Jun;35(6):664–5 . Comment on: Am J Ind Med 1997 Nov;32(5):557–61.

Birth order, estrogens and sex-ratio adaptation in African wild dogs (Lycaon pictus). Creel S, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):315–20

Birth order and sibling sex ratio in homosexual and heterosexual non-white men. Bogaert AF. **Arch Sex Behav** 1998 Oct;27(5):467–73

Severe periconceptional life events and the sex ratio in offspring: follow up study based on five national registers. Hansen D, et al. **BMJ** 1999 Aug 28;319(7209):548–9

Indian medical authorities act on antenatal sex selection [news] Mudur G. **BMJ** 1999 Aug 14;319(7207):401

Offspring sex ratio in the assessment of the effects of endocrine modulators [letter] James WH. **Crit Rev Toxicol** 1998 Nov;28(6):509–10

Sex allocation: At the females' whim. Sheldon BC. **Curr Biol** 1999 Jul 1;9(13):R487–9

Effect of dichlorodiphenyltrichloroethane on sex determination of the common snapping turtle (Chelydra serpentina serpentina). Portelli MJ, et al. **Ecotoxicol Environ Saf** 1999 Jul;43(3):284–91

Re: the use of offspring sex ratios in the search for endocrine disruptors [letter; comment] James WH. **Environ Health Perspect** 1998 Oct;106(10):A472–3. Comment on: Environ Health Perspect 1998 Feb;106 Suppl 1:11–56.

Birth weight and sex of children and the correlation to the body burden of PCDDs/PCDFs and PCBs of the mother. Vartiainen T, et al. **Environ Health Perspect** 1998 Feb; 106(2):61–6

Sex ratio of total energy intake in adults: an analysis of dietary surveys. Zhang J, et al. **Eur J Clin Nutr** 1999 Jul; 53(7):542–51

Environmental toxicants and sex ratios—effects? [letter; comment] James WH. **Fertil Steril** 1999 Apr;71(4):775–6. Comment on: Fertil Steril 1998 Oct;70(4):613–22.

Does polyglycerol polyricinoleate alter offspring sex ratios? [letter] James WH. **Food Chem Toxicol** 1999 Aug;37(8):919

Mitochondrial DNA polymorphism, sex ratio distorters and population genetics in the isopod Armadillidium vulgare. Rigaud T, et al. **Genetics** 1999 Aug;152(4):1669–77

Interspecific movement of the paternal sex ratio chromosome. Dobson SL, et al. **Heredity** 1998 Sep;81 (Pt 3):261–9

Is maternal malnutrition associated with a low sex ratio at birth? Andersson R, et al. **Hum Biol** 1998 Dec;70(6):1101–6

Sex ratio and parental age gap. Astolfi P, et al. **Hum Biol** 1999 Feb;71(1):135–41

Parental HLA genes, hormone level and offspring sex ratios: a reply to James' letter [letter; comment] Astolfi P, et al. **Hum Hered** 1998 Sep–Oct;48(5):293–4. Comment on: Hum Hered 1997 Jan–Feb;47(1):60.

Male to female ratio in newborns of grand grand multiparous women. Almagor M, et al. **Hum Reprod** 1998 Aug; 13(8):2323–4

Gestation length and sex of child [letter; comment] Bernstein ME. **Hum Reprod** 1998 Oct;13(10):2975–6. Comment on: Hum Reprod 1996 Jan;11(1):7–8.

Time of insemination within the cycle and offspring sex ratio [letter; comment] Bernstein ME. **Hum Reprod** 1998 Nov; 13(11):3280–1. Comment on: Hum Reprod 1995 Oct;10(10):2529–31.

Decline in sex ratio at birth after Kobe earthquake. Fukuda M, et al. **Hum Reprod** 1998 Aug;13(8):2321–2

The status of the hypothesis that the human sex ratio at birth is associated with the cycle day of conception [letter] James WH. **Hum Reprod** 1999 Aug;14(8):2177–8

Parental age gap and child sex ratio—fact or fiction? [letter] Hakko H, et al. **Int J Epidemiol** 1998 Oct;27(5):929–30

Reduced ratio of male to female births in Japan [letter] Ohmi H, et al. **Int J Epidemiol** 1999 Jun;28(3):597

Spiroplasma poulsonii sp. nov., a new species associated with male-lethality in Drosophila willistoni, a neotropical species of fruit fly. Williamson DL, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:611–8

Earnings and feminization of the veterinary profession [letter] Tasker JB. **J Am Vet Med Assoc** 1998 Oct 1;213(7):952; discussion 952,954

Sex and bias: reply to Boyd [letter; comment] Smith T, et al. **J Autism Dev Disord** 1998 Aug;28(4):343–4. Comment on: J Autism Dev Disord 1998 Jun;28(3):211–5.

The relation of closed birth intervals to the sex of the preceding child and the sexual orientation of the succeeding child. Blanchard R, et al. **J Biosoc Sci** 1997 Jan;29(1):111–8

Birth interval and the sex of children in a traditional African population: an evolutionary analysis. Mace R, et al. **J Biosoc Sci** 1997 Oct;29(4):499–507

Parental investment theory and birth sex ratios in Nepal. Strickland SS, et al. **J Biosoc Sci** 1997 Jul;29(3):283–95

Effect of time of artificial insemination on pregnancy rates, calving rates, pregnancy loss, and gender ratio after synchronization of ovulation in lactating dairy cows. Pursley JR, et al. **J Dairy Sci** 1998 Aug;81(8):2139–44

Pregnancy in female house mice exposed to urinary chemosignals from other females. Drickamer LC. **J Reprod Fertil** 1999 Mar;115(2):233–41

Individual sex preferences and the population sex ratio of newborns. Chu CY, et al. **J Theor Biol** 1998 Oct 7; 194(3):383–90

Further evidence relating offspring sex ratios to parental hormone levels around the time of conception [letter] James WH. **J Theor Biol** 1999 Mar 21;197(2):261–3

Is transposition of the great arteries a consequence of maternal hormone imbalance? Evidence from the sex ratios of relatives of probands. James WH. **J Theor Biol** 1999 Jun 7;198(3):301–3

Sex ratio after exposure to dioxin-like chemicals in Taiwan [letter] Rogan WJ, et al. **Lancet** 1999 Jan 16; 353(9148):206–7

Sex ratios at birth and environmental temperatures. Lerchl A. **Naturwissenschaften** 1999 Jul;86(7):340–2

The sex ratio, suicide, and homicide in nations of the world. Lester D. **Percept Mot Skills** 1998 Aug;87(1):50

Pregnancies complicated by retained placenta: sex ratio and relation to pre-eclampsia. Khong TY, et al. **Placenta** 1998 Nov;19(8):577–80

Experimental demonstration that offspring sex ratio varies with maternal condition. Nager RG, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):570–3

Prenatal bias in sex ratios in a marsupial, Antechinus agilis. Davison MJ, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 7;265(1410):2095–9

Adaptive sex ratio variation in pre-industrial human (Homo sapiens) populations? Lummaa V, et al. **Proc R Soc Lond B Biol Sci** 1998 Apr 7;265(1396):563–8

Offspring sex ratio as a monitor of the potential reproductive hazard of exposure to microwave radiation [letter; comment] James WH. **Reprod Toxicol** 1999 May–Jun; 13(3):233–4. Comment on: Reprod Toxicol 1998 Jul–Aug;12(4):495–6.

The sex ratio of offspring of people exposed to boron [letter; comment] James WH. **Reprod Toxicol** 1999 May–Jun; 13(3):235. Comment on: Reprod Toxicol 1998 Nov–Dec;12(6):673–4.

The sex ratio of offspring of people exposed to boron [letter; comment] [see comments] James WH. **Reprod Toxicol** 1998 Nov–Dec;12(6):673–4. Comment on: Reprod Toxicol 1998 May–Jun;12(3):297–304. Comment in: Reprod Toxicol 1999 May–Jun;13(3):235.

A few good men [letter] Gough M. **Sci Am** 1998 Nov; 279(5):8–9

Stochastic effects in LMC models. Courteau J, et al. **Theor Popul Biol** 1999 Apr;55(2):127–36

Population dynamics under parasitic sex ratio distortion. Hatcher MJ, et al. **Theor Popul Biol** 1999 Aug;56(1):11–28

Relationship between sex ratio and time of insemination according to both time of ovulation and maturational state of oocyte. Gutiérrez-Adán A, et al. **Zygote** 1999 Feb; 7(1):37–43

[Sex ratio and male killing in Siberian populations of Harmonia axyridis (Pass.)] Zakharov IA, et al. **Genetika** 1999 Jun;35(6):771–6 (Eng. Abstr.) **(Rus)**

SEX REVERSAL, GONADAL

Two cases with interstitial deletions of chromosome 2 and sex reversal in one. Slavotinek A, et al. **Am J Med Genet** 1999 Sep 3;86(1):75–81

Volumetric analysis of sexually dimorphic limbic nuclei in normal and sex-reversed whiptail lizards. Wennstrom KL, et al. **Brain Res** 1999 Aug 14;838(1–2):104–9

Amphibian sex determination and sex reversal. Wallace H, et al. **Cell Mol Life Sci** 1999 Jun;55(6–7):901–9 (69 ref.)

XY sex reversal in the wood lemming is associated with deletion of Xp21–23 as revealed by chromosome microdissection and fluorescence in situ hybridization. Liu WS, et al. **Chromosome Res** 1998 Aug;6(5):379–83

No threshold dose for estradiol-induced sex reversal of turtle embryos: how little is too much? Sheehan DM, et al. **Environ Health Perspect** 1999 Feb;107(2):155–9

Sex reversal effects of environmentally relevant xenobiotic concentrations on the red-eared slider turtle, a species with temperature-dependent sex determination. Willingham E, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):429–35

Eating disorder in a transgendered patient: a case report. Surgenor LJ, et al. **Int J Eat Disord** 1998 Dec;24(4):449–52

Gonadal sex reversal in triploid rainbow trout (Oncorhynchus mykiss). Krisfalusi M, et al. **J Exp Zool** 1999 Sep 1;284(4):466–72

Molecular, cytogenetic, and clinical characterisation of six XX males including one prenatal diagnosis. Margarit E, et al. **J Med Genet** 1998 Sep;35(9):727–30

Spastic paraplegia, optic atrophy, microcephaly with normal intelligence, and XY sex reversal: a new autosomal recessive syndrome? Teebi AS, et al. **J Med Genet** 1998 Sep;35(9):759–62

Evidence of sex reversal in the gonads of chicken embryos after oestrogen treatment as detected by expression of lutropin receptor. Akazome Y, et al. **J Reprod Fertil** 1999 Jan;115(1):9–14

Candidate genes in complete and partial XY sex reversal: mutation analysis of SRY, SRY-related genes and FTZ-F1. Lim HN, et al. **Mol Cell Endocrinol** 1998 May 25; 140(1–2):51–8 (60 ref.)

Sry-negative XX sex reversal in purebred dogs. Meyers-Wallen VN, et al. **Mol Reprod Dev** 1999 Jul; 53(3):266–73

A mutation in the gene encoding steroidogenic factor-1 causes XY sex reversal and adrenal failure in humans [letter] Achermann JC, et al. **Nat Genet** 1999 Jun; 22(2):125–6

SEX ROLE see **GENDER IDENTITY**

SEX SELECTION see **SEX PRESELECTION**

SEX STEROID-BINDING PROTEIN see **SEX HORMONE-BINDING GLOBULIN**

SEXISM see **PREJUDICE**

SEXOLOGY see **SEX**

SEXTUPLETS see **MULTIPLE BIRTH OFFSPRING**

SEXUAL ABSTINENCE

Post-partum sexual abstinence in West Africa: implications for AIDS-control and family planning programmes. Cleland JG, et al. **AIDS** 1999 Jan 14;13(1):125–31

Use caution when determining "virginal" vs "nonvirginal" status [letter; comment] Bravender T, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):773–4. Comment on: Arch Pediatr Adolesc Med 1999 Jan;153(1):91–2.

Personal hormone monitoring for contraception. Bonnar J, et al. **Br J Fam Plann** 1999 Jan;24(4):128–34

Abstinence and safer sex HIV risk-reduction interventions for African-American adolescents. Braverman PK. **Clin Pediatr (Phila)** 1999 Mar;38(3):184–7 (0 ref.)

Adolescent abstinence and condom use: are we sure we are really teaching what is safe? Haignere CS, et al. **Health Educ Behav** 1999 Feb;26(1):43–54 (65 ref.)

Sociodemographic correlates of virginity in seventh-grade black and Latino students. Raine TR, et al. **J Adolesc Health** 1999 May;24(5):304–12

Abstinence and safer sex among adolescents [letter; comment] Berman SM, et al. **JAMA** 1999 Apr 28;281(16):1485; discussion 1487–8. Comment on: JAMA 1998 May 20;279(19):1529–36.

Abstinence and safer sex among adolescents [letter; comment] Cameron P, et al. **JAMA** 1999 Apr 28;281(16):1485–6;

discussion 1487. Comment on: JAMA 1998 May 20;279(19):1529–36.
Virginity examinations in Turkey: role of forensic physicians in controlling female sexuality. Frank MW, et al. **JAMA** 1999 Aug 4;282(5):485–90
Abstinence and safer sex among adolescents [letter; comment] Masdeu JC. **JAMA** 1999 Apr 28;281(16):1486–8. Comment on: JAMA 1998 May 20;279(19):1529–36. Comment on: JAMA 1998 May 20;279(19):1574–5.
Abstinence and safer sex among adolescents [letter; comment] Panzer RA. **JAMA** 1999 Apr 28;281(16):1486; discussion 1487–8. Comment on: JAMA 1998 May 20;279(19):1529–36. Comment on: JAMA 1998 May 20;279(19):1574–5.
[The loss of virginity and sexual activity in adolescence] Vasileva P, et al. **Akush Ginekol (Sofiia)** 1998;37(3):46–8 (Eng. Abstr.) **(Bul)**

SEXUAL ABUSE, CHILD see **CHILD ABUSE, SEXUAL**

SEXUAL ABUSE OF CHILD see **CHILD ABUSE, SEXUAL**

SEXUAL AND GENDER DISORDERS

CHEMICALLY INDUCED

An open trial of oral sildenafilin antidepressant-induced sexual dysfunction. Fava M, et al. **Psychother Psychosom** 1998;67(6):328–31

DRUG THERAPY

An open trial of oral sildenafilin antidepressant-induced sexual dysfunction. Fava M, et al. **Psychother Psychosom** 1998;67(6):328–31

SEXUAL AROUSAL DISORDER see **SEXUAL DYSFUNCTIONS, PSYCHOLOGICAL**

SEXUAL AVERSION DISORDER see **SEXUAL DYSFUNCTIONS, PSYCHOLOGICAL**

SEXUAL DYSFUNCTIONS, PSYCHOLOGICAL

HIV risk behaviours among male-to-female transgenders in comparison with homosexual or bisexual males and heterosexual females. Nemoto T, et al. **AIDS Care** 1999 Jun;11(3):297–312
JAMA patient page: sexual dysfunction. **JAMA** 1999 Feb 10;281(6):584
[Primary absolute anorgasmy in the male. Report of three clinical cases] Michetti PM, et al. **Minerva Urol Nefrol** 1999 Mar;51(1):23–6 (Eng. Abstr.) **(Ita)**

CHEMICALLY INDUCED

Sildenafil treatment of paroxetine-induced anorgasmia in a woman [letter] Ashton AK. **Am J Psychiatry** 1999 May; 156(5):800
Sexual functioning with selective serotonin reuptake inhibitors [letter; comment] Balon R. **Am J Psychiatry** 1999 May;156(5):807–8. Comment on: Am J Psychiatry 1997 Dec;154(12):1757–9.
Sexual disturbances during clozapine and haloperidol treatment for schizophrenia. Hummer M, et al. **Am J Psychiatry** 1999 Apr;156(4):631–3
Gabapentin-induced ejaculatory failure and anorgasmia [letter] Labbate LA, et al. **Am J Psychiatry** 1999 Jun; 156(6):972
Sildenafil for sexual dysfunction in women taking antidepressants [letter] Nurnberg HG, et al. **Am J Psychiatry** 1999 Oct;156(10):1664
Citalopram and sexual side effects of selective serotonin reuptake inhibitors [letter] Pallanti S, et al. **Am J Psychiatry** 1999 May;156(5):796
Sildenafil citrate for SSRI-induced sexual side effects [letter] Rosenberg KP. **Am J Psychiatry** 1999 Jan;156(1):157
Sildenafil citrate for SSRI-induced sexual side effects [letter] Schaller JL, et al. **Am J Psychiatry** 1999 Jan;156(1):156–7
Bupropion-SR-induced increased libido and spontaneous orgasm [letter] Labbate LA. **Can J Psychiatry** 1998 Aug; 43(6):644–5
A placebo-controlled comparison of the antidepressant efficacy and effects on sexual functioning of sustained-release bupropion and sertraline. Croft H, et al. **Clin Ther** 1999 Apr;21(4):643–58
The behavioural toxicity of antidepressants: effects on cognition and sexual function. Hindmarch I. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S5–8 (13 ref.)
Selective serotonin reuptake inhibitor-induced sexual dysfunction: clinical and research considerations. Waldinger MD, et al. **Int Clin Psychopharmacol** 1998 Jul; 13 Suppl 6:S27–33 (50 ref.)
Sildenafil treatment of serotonin reuptake inhibitor-induced sexual dysfunction [letter] Ashton AK, et al. **J Clin Psychiatry** 1999 Mar;60(3):194–5
Hyperprolactinemia and male sexual dysfunction [letter] Dickson RA, et al. **J Clin Psychiatry** 1999 Feb;60(2):125
Relief of SSRI-induced sexual dysfunction with mirtazapine treatment [letter] Farah A. **J Clin Psychiatry** 1999 Apr; 60(4):260–1
Management of sexual side effects of antidepressant therapy. Hirschfeld RM. **J Clin Psychiatry** 1999;60 Suppl 14:27–30; discussion 31–5 (15 ref.)
Incidence of sexual dysfunction in healthy volunteers on fluvoxamine therapy [published erratum appears in J Clin Psychiatry 1999 May;60(5):341] Nafziger AN, et al. **J Clin Psychiatry** 1999 Mar;60(3):187–90
Sildenafil for iatrogenic serotonergic antidepressant medication-induced sexual dysfunction in 4 patients. Nurnberg HG, et al. **J Clin Psychiatry** 1999 Jan;60(1):33–5
Switching to moclobemide to reverse fluoxetine-induced sexual dysfunction in patients with depression. Ramasubbu R. **J Psychiatry Neurosci** 1999 Jan;24(1):45–50
Sildenafil in the treatment of female sexual dysfunction induced by selective serotonin reuptake inhibitors. Shen WW, et al. **J Reprod Med** 1999 Jun;44(6):535–42 (61 ref.)
A possible dopaminergic mechanism in the serotonergic antidepressant-induced sexual dysfunctions. Alcántara AG. **J Sex Marital Ther** 1999 Apr-Jun;25(2):125–9 (34 ref.)
Phenelzine-induced sexual dysfunction treated with sildenafil. Gupta S, et al. **J Sex Marital Ther** 1999 Apr-Jun; 25(2):131–5
Problems assessing nonserious adverse drug reactions: antidepressant drug therapy and sexual dysfunction. Michels KB. **Pharmacotherapy** 1999 Apr;19(4):424–9 (43 ref.)
Sildenafil for women patients with antidepressant-induced sexual dysfunction. Nurnberg HG, et al. **Psychiatr Serv** 1999 Aug;50(8):1076–8

CLASSIFICATION

Classification of sexual dysfunctions: towards DSM-V and ICD-11. Vroege JA, et al. **Compr Psychiatry** 1998 Nov-Dec;39(6):333–7

COMPLICATIONS

Sexual dysfunction in stroke patients. Korpelainen JT, et al. **Acta Neurol Scand** 1998 Dec;98(6):400–5
Compulsive sexual behaviors--difficult aeromedical disposition. Koffman RL, et al. **Aviat Space Environ Med** 1998 Oct;69(10):1001–6
Dyspareunia and vulvar disease. Marin MG, et al. **J Reprod Med** 1998 Nov;43(11):952–8

DIAGNOSIS

Classification of sexual dysfunctions: towards DSM-V and ICD-11. Vroege JA, et al. **Compr Psychiatry** 1998 Nov-Dec;39(6):333–7
Psychosexual dysfunction in males with genital anomalies: late adolescence, Tanner stages IV to VI. Reiner WG, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul; 38(7):865–72
Does vaginismus exist? A critical review of the literature. Reissing ED, et al. **J Nerv Ment Dis** 1999 May; 187(5):261–74 (110 ref.)
Dyspareunia and vulvar disease. Marin MG, et al. **J Reprod Med** 1998 Nov;43(11):952–8
Routine psychophysiological screening of 384 men with erectile dysfunction. Slob AK, et al. **J Sex Marital Ther** 1998 Oct-Dec;24(4):273–9
The Golombok Rust Inventory of Sexual Satisfaction (GRISS): psychometric properties within a Dutch population. ter Kuile MM, et al. **J Sex Marital Ther** 1999 Jan-Mar;25(1):59–71

DRUG THERAPY

Sildenafil treatment of paroxetine-induced anorgasmia in a woman [letter] Ashton AK. **Am J Psychiatry** 1999 May; 156(5):800
Sildenafil for sexual dysfunction in women taking antidepressants [letter] Nurnberg HG, et al. **Am J Psychiatry** 1999 Oct;156(10):1664
Sildenafil citrate for SSRI-induced sexual side effects [letter] Rosenberg KP. **Am J Psychiatry** 1999 Jan;156(1):157
Sildenafil citrate for SSRI-induced sexual side effects [letter] Schaller JL, et al. **Am J Psychiatry** 1999 Jan;156(1):156–7
Management of SSRI-induced sexual dysfunction. Woodrum ST, et al. **Ann Pharmacother** 1998 Nov;32(11):1209–15 (49 ref.)
Effect of amantadine on sexual dysfunction in neuroleptic-treated male schizophrenic patients. Valevski A, et al. **Clin Neuropharmacol** 1998 Nov-Dec;21(6):355–7
SSRI-induced sexual dysfunction treated with sildenafil. Gupta S, et al. **Depress Anxiety** 1999;9(4):180–2
Sildenafil treatment of serotonin reuptake inhibitor-induced sexual dysfunction [letter] Ashton AK, et al. **J Clin Psychiatry** 1999 Mar;60(3):194–5
Relief of SSRI-induced sexual dysfunction with mirtazapine treatment [letter] Farah A. **J Clin Psychiatry** 1999 Apr; 60(4):260–1
Care of the sexually active depressed patient. Hirschfeld RM. **J Clin Psychiatry** 1999;60 Suppl 17:32–5; discussion 46–8 (20 ref.)
Sildenafil for iatrogenic serotonergic antidepressant medication-induced sexual dysfunction in 4 patients. Nurnberg HG, et al. **J Clin Psychiatry** 1999 Jan;60(1):33–5
Effect of buspirone on sexual dysfunction in depressed patients treated with selective serotonin reuptake inhibitors. Landén M, et al. **J Clin Psychopharmacol** 1999 Jun; 19(3):268–71
Sildenafil in the treatment of female sexual dysfunction induced by selective serotonin reuptake inhibitors. Shen WW, et al. **J Reprod Med** 1999 Jun;44(6):535–42 (61 ref.)
Phenelzine-induced sexual dysfunction treated with sildenafil. Gupta S, et al. **J Sex Marital Ther** 1999 Apr-Jun; 25(2):131–5
Commentary: pharmacological agents for erectile dysfunction and the human sexual response cycle. Perelman MA. **J Sex Marital Ther** 1998 Oct-Dec;24(4):309–12
Life-long absence of sexual drive in a woman associated with 5-dihydrotestosterone deficiency. Riley AJ. **J Sex Marital Ther** 1999 Jan-Mar;25(1):73–8
Oral phentolamine and female sexual arousal disorder: a pilot study. Rosen RC, et al. **J Sex Marital Ther** 1999 Apr-Jun; 25(2):137–44
Female hypoactive sexual disorder: case studies of physiologic androgen replacement. Warnock JK, et al. **J Sex Marital Ther** 1999 Jul-Sep;25(3):175–82
Sildenafil for women patients with antidepressant-induced sexual dysfunction. Nurnberg HG, et al. **Psychiatr Serv** 1999 Aug;50(8):1076–8
[Sildenafil (Viagra) for the treatment of erectile disorder (see comments)] Meuleman EJ, et al. **Ned Tijdschr Geneeskd** 1998 Oct 24;142(43):2337–41 (31 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Oct 24;142(43):2332–3. Comment in: Ned Tijdschr Geneeskd 1998 Oct 24;142(43):2333–6. **(Dut)**

EPIDEMIOLOGY

Prepubertal boys' sexual behavior and behavior problems. Meyer-Bahlburg HF, et al. **AIDS Educ Prev** 1999 Apr; 11(2):174–86
Prevalence of sexual assault history among women with common gynecologic symptoms [published erratum appears in Am J Obstet Gynecol 1999 Jan;180(1 Pt 1):255] Golding JM, et al. **Am J Obstet Gynecol** 1998 Oct; 179(4):1013–9
Incidence of sexual dysfunction in TBI patients during the early post-traumatic in-patient rehabilitation phase. Aloni A, et al. **Brain Inj** 1999 Feb;13(2):89–97
Care of the sexually active depressed patient. Hirschfeld RM. **J Clin Psychiatry** 1999;60 Suppl 17:32–5; discussion 46–8 (20 ref.)
Incidence of sexual dysfunction in healthy volunteers on fluvoxamine therapy [published erratum appears in J Clin Psychiatry 1999 May;60(5):341] Nafziger AN, et al. **J Clin Psychiatry** 1999 Mar;60(3):187–90
Prevalence of sexual dysfunction in women seeking services at family planning centers in Tehran. Shokrollahi P, et al. **J Sex Marital Ther** 1999 Jul-Sep;25(3):211–5
Sexual dysfunction in the United States: prevalence and predictors [published erratum appears in JAMA 1999 Apr 7;281(13):1174] Laumann EO, et al. **JAMA** 1999 Feb 10; 281(6):537–44

ETIOLOGY

Sexual behaviour during pregnancy. Oruç S, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):48–50
Sexuality after hypospadias repair. Bracka A. **BJU Int** 1999 Apr;83 Suppl 3:29–33 (21 ref.)
ABC of sexual health: female sexual problems II: sexual pain and sexual fears [see comments] Butcher J. **BMJ** 1999 Jan 9;318(7176):110–2 (0 ref.). Comment in: BMJ 1999 Jun 5;318(7197):1559.
Incidence of sexual dysfunction in TBI patients during the early post-traumatic in-patient rehabilitation phase. Aloni A, et al. **Brain Inj** 1999 Feb;13(2):89–97
Factors associated with sexual behavior problems in young sexually abused children [see comments] Hall DK, et al. **Child Abuse Negl** 1998 Oct;22(10):1045–63. Comment in: Child Abuse Negl 1998 Oct;22(10):1043–4.
Sexual behavior problems among sexually abused children [editorial; comment] Jones DP. **Child Abuse Negl** 1998 Oct; 22(10):1043–4. Comment on: Child Abuse Negl 1998 Oct;22(10):1045–63.
Sexual functioning in depressed outpatients taking mirtazapine. Boyarsky BK, et al. **Depress Anxiety** 1999; 9(4):175–9
Psychosexual dysfunction in males with genital anomalies: late adolescence, Tanner stages IV to VI. Reiner WG, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul; 38(7):865–72
Life-long absence of sexual drive in a woman associated with 5-dihydrotestosterone deficiency. Riley AJ. **J Sex Marital Ther** 1999 Jan-Mar;25(1):73–8
Sexual response in women with spinal cord injuries: implications for our understanding of the able bodied. Sipski ML, et al. **J Sex Marital Ther** 1999 Jan-Mar; 25(1):11–22
Cardiac autonomic function during sleep in psychogenic and organic erectile dysfunction. Lavie P, et al. **J Sleep Res** 1999 Jun;8(2):135–42
[Disorders in sexual function following hysterectomy] Popov I, et al. **Akush Ginekol (Sofiia)** 1998;37(3):38–41 (Eng. Abstr.) **(Bul)**
[Study on the quality of life in patients with prostate cancer] Du SF, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Apr; 18(2):95–7 (Eng. Abstr.) **(Chi)**
[Sexual dysfunctions in depressed patients] Zięba A, et al. **Psychiatr Pol** 1998 Sep-Oct;32(5):621–8 (38 ref.) (Eng. Abstr.) **(Pol)**

METABOLISM

A possible dopaminergic mechanism in the serotonergic antidepressant-induced sexual dysfunctions. Alcántara AG. **J Sex Marital Ther** 1999 Apr-Jun;25(2):125-9 (34 ref.)

PATHOLOGY

Vigorous prostatic massage: a simple method to retrieve spermatozoa for intracytoplasmic sperm injection in psychogenic anejaculation: case report. Fahmy I, et al. **Hum Reprod** 1999 Aug;14(8):2050-3

PHYSIOPATHOLOGY

Effects of epilepsy on women's reproductive health. Morrell MJ. **Epilepsia** 1998;39 Suppl 8:S32-7 (61 ref.)

Nocturnal sperm emission in men with psychogenic anejaculation. Hovav Y, et al. **Fertil Steril** 1999 Aug; 72(2):364-5

Voluntary control over pelvic floor muscles in women with and without vaginistic reactions. van der Velde J, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(4):230-6

PSYCHOLOGY

Sexual problems in healthy and depressed persons. Angst J. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S1-4 (7 ref.)

Sexual functioning in ambulatory men with HIV/AIDS. Newshan G, et al. **Int J STD AIDS** 1998 Nov;9(11):672-6

Sex and relationship dysfunction in neurological disability. Chandler BJ, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):877-80

The Golombok Rust Inventory of Sexual Satisfaction (GRISS): psychometric properties within a Dutch population. ter Kuile MM, et al. **J Sex Marital Ther** 1999 Jan-Mar;25(1):59-71

[Various forms of risk factors of antidepressive agents for influencing sexual functions. Moclobemid is first choice for the therapy of sexually active patients with depression] **Fortschr Neurol Psychiatr** 1999 May;67(5 Suppl Unterschie):1-4 **(Ger)**

THERAPY

Empirically validated treatment for sexual dysfunction. Heiman JR, et al. **Annu Rev Sex Res** 1997;8:148-94 (182 ref.)

Premature ejaculation: psychophysiological considerations in theory, research, and treatment. Rowland DL, et al. **Annu Rev Sex Res** 1997;8:224-53

Therapy for vaginismus: in vivo versus in vitro desensitization. Schnyder U, et al. **Can J Psychiatry** 1998 Nov;43(9):941-4

Psychotherapy for male sexual dysfunction: a review. O'Donohue WT, et al. **Clin Psychol Rev** 1999 Aug; 19(5):591-630 (91 ref.)

Management of sexual side effects of antidepressant therapy. Hirschfeld RM. **J Clin Psychiatry** 1999;60 Suppl 14:27-30; discussion 31-5 (15 ref.)

Bibliotherapy in the treatment of sexual dysfunctions: a meta-analysis. van Lankveld JJ. **J Consult Clin Psychol** 1998 Aug;66(4):702-8

The nonsexual marriage: assessing viability and treatment options. McCarthy BW. **J Sex Marital Ther** 1999 Jul-Sep; 25(3):227-36

Prevalence of sexual dysfunction in women seeking services at family planning centers in Tehran. Shokrollahi P, et al. **J Sex Marital Ther** 1999 Jul-Sep;25(3):211-5

Characteristics of couples applying for bibliotherapy via different recruitment strategies: a multivariate comparison. van Lankveld JJ, et al. **J Sex Marital Ther** 1999 Jul-Sep; 25(3):197-209

And now for female sexual dysfunction.... van der Linde I. **S Afr Med J** 1998 Oct;88(10):1291-2

[Somatization of erectile disorders by the introduction of sildenafil (see comments) (comment)] Hengeveld MW. **Ned Tijdschr Geneeskd** 1998 Oct 24;142(43):2333-6 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Oct 24;142(43):2332-3. Comment on: Ned Tijdschr Geneeskd 1998 Oct 24;142(43):2333-6. **(Dut)**

[Problems with sexuality, erotic aspects and love in elderly patients in medical consultation] Pöldinger W. **Wien Med Wochenschr** 1998;148(15-16):377-80 (Eng. Abstr.) **(Ger)**

SEXUAL HARASSMENT

Sexual harassment: identifying risk factors. O'Hare EA, et al. **Arch Sex Behav** 1998 Dec;27(6):561-80

Outcomes of self-labeling sexual harassment. Magley VJ, et al. **J Appl Psychol** 1999 Jun;84(3):390-402

Validation of a Trauma Questionnaire in veteran women. McIntyre LM, et al. **J Gen Intern Med** 1999 Mar; 14(3):186-9

Inappropriate sexual behaviours of patients towards practising physiotherapists: a study using qualitative methods. O'Sullivan V, et al. **Physiother Res Int** 1999; 4(1):28-42

Measuring sexual harassment: development and validation of the Sexual Harassment Inventory. Murdoch M, et al. **Violence Vict** 1998 Fall;13(3):203-16

Childhood maltreatment history as a risk factor for sexual harassment among U.S. Army soldiers. Rosen LN, et al. **Violence Vict** 1998 Fall;13(3):269-86

Sexual harassment in academia: a hazard to women's health. van Roosmalen E, et al. **Women Health** 1998;28(2):33-54

[Sexual harassment: there is no specific symptomatic. Interview] Grundhuber L. **Fortschr Med** 1999 Feb 28; 117(6):44-5 **(Ger)**

[Sexualization in therapeutic relations] Sudmann T. **Tidsskr Nor Laegeforen** 1999 Jan 20;119(2):249-51 **(Nor)**

[Abuse in health care--routines for management of incidents?] Aldén K. **Lakartidningen** 1999 Aug 25; 96(34):3509 **(Swe)**

HISTORY

Political opportunism and the harassment of homosexuals in Florida, 1952-1965. Sullivan G. **J Homosex** 1999; 37(4):57-81

LEGISLATION & JURISPRUDENCE

New sexual harassment rules under Title VII of the Civil Rights Act of 1964. Williams KG. **Am J Health Syst Pharm** 1999 Jan 15;56(2):117-8; 120

Addressing bias in the forensic assessment of sexual harassment claims. Gold LH. **J Am Acad Psychiatry Law** 1998;26(4):563-78

Sexual harassment [news] **J Ky Med Assoc** 1998 Nov; 96(11):437-8

Protecting your healthcare organization from liability for sexual harassment by employees and non-employees. Moore HL, et al. **J Nurs Adm** 1999 Feb;29(2):10-3

Forensic aspects of sexual harassment. Rosman JP, et al. **Psychiatr Clin North Am** 1999 Mar;22(1):129-45 (31 ref.)

Minimizing an employer's risk of liability for sexual harassment. Cohen M. **WMJ** 1998 Dec;97(11):62-3

PREVENTION & CONTROL

Sexual coercion content in 21 sexuality education curricula. Beyer CE, et al. **J Sch Health** 1998 Nov;68(9):370-5

Sexual harassment policies in Florida school districts. Moore MJ, et al. **J Sch Health** 1998 Aug;68(6):237-42

MSMS adopts "model" harassment policy. Cuzydlo C. **Mich Med** 1998 Dec;97(12):14-6

Stalking. An old behavior, a new crime. Meloy JR. **Psychiatr Clin North Am** 1999 Mar;22(1):85-99 (49 ref.)

PSYCHOLOGY

Sexual harassment and generalized workplace abuse among university employees: prevalence and mental health correlates. Richman JA, et al. **Am J Public Health** 1999 Mar;89(3):358-63

Inappropriate sexual behaviour experienced by speech-language therapists. Williams TH, et al. **Int J Lang Commun Disord** 1999 Jan-Mar;34(1):99-111

Effects of practitioners' sexual misconduct: a follow-up study. Luepker ET. **J Am Acad Psychiatry Law** 1999; 27(1):51-63

Structural equation models of sexual harassment: longitudinal explorations and cross-sectional generalizations. Glomb TM, et al. **J Appl Psychol** 1999 Feb;84(1):14-28

The psychological impact of stalking on female undergraduates. Westrup D, et al. **J Forensic Sci** 1999 May; 44(3):554-7

Stalking. An old behavior, a new crime. Meloy JR. **Psychiatr Clin North Am** 1999 Mar;22(1):85-99 (49 ref.)

[Sexual violence in the reality of life in mentally handicapped young girls and women--results of a research project] Klein S, et al. **Prax Kinderpsychol Kinderpsychiatr** 1999 Sep;48(7):497-513 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Sexual harassment and generalized workplace abuse among university employees: prevalence and mental health correlates. Richman JA, et al. **Am J Public Health** 1999 Mar;89(3):358-63

Lifetime prevalence, characteristics, and associated problems of non-consensual sex in men: cross sectional survey. Coxell A, et al. **BMJ** 1999 Mar 27;318(7187):846-50

Substance abuse and sexual trauma in a female veteran population. Davis TM, et al. **J Subst Abuse Treat** 1999 Mar;16(2):123-7

Sexual harassment of psychiatric trainees: experiences and attitudes. Morgan JF, et al. **Postgrad Med J** 1999 Jul; 75(885):410-3

SEXUAL INTERCOURSE see **COITUS**

SEXUAL MASOCHISM see **MASOCHISM**

SEXUAL ORIENTATION see **SEX BEHAVIOR**

SEXUAL PARTNERS

Rates of HIV-1 transmission within marriage in rural Uganda in relation to the HIV sero-status of the partners. Carpenter LM, et al. **AIDS** 1999 Jun 18;13(9):1083-9

Sexual risk behaviour among gay men in a relationship. Elford J, et al. **AIDS** 1999 Jul 30;13(11):1407-11

HIV serostatus of sexual partners of HIV-positive and HIV-negative homosexual men in Sydney [letter] Grulich AE, et al. **AIDS** 1998 Dec 24;12(18):2508

Molar pregnancy and risk for cancer in women and their male partners. Olsen JH, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):630-4

Estimation of the number of sexual partners for the nonrespondents to a large national survey. Kupek E. **Arch Sex Behav** 1999 Jun;28(3):233-42

Hepatitis C. Issues for women and their partners. Mazza D. **Aust Fam Physician** 1998 Sep;27(9):795-8

The dangerous nature of intimate relationship stalking: threats, violence, and associated risk factors. Palarea RE, et al. **Behav Sci Law** 1999;17(3):269-83

Human herpesvirus-8 and relatives of patients with plasmocytic diseases [letter; comment] Jaccard A, et al. **Blood** 1998 Nov 1;92(9):3488. Comment on: Blood 1997 Dec 1;90(11):4278-82. Comment on: Blood 1998 Jun 1;91(11):4391-3.

Sexual partnering and risk of HIV/STD among Aboriginals. Calzavara LM, et al. **Can J Public Health** 1999 May-Jun; 90(3):186-91

Couple-friendly services in a metropolitan sexually transmitted disease clinic: views of clients and providers. Danielson R, et al. **Fam Plann Perspect** 1999 Jul-Aug; 31(4):195-9

Age differences between sexual partners in the United States. Darroch JE, et al. **Fam Plann Perspect** 1999 Jul-Aug; 31(4):160-7

Multiple sexual partners among U.S. adolescents and young adults. Santelli JS, et al. **Fam Plann Perspect** 1998 Nov-Dec;30(6):271-5

Inquiries on intraspousal transmission of hepatitis C virus: benefits and limitations of genome sequencing and phylogenetic analysis. Ross RS, et al. **Forensic Sci Int** 1999 Mar 15;100(1-2):69-76

Risk for HIV infection among bisexual men seeking HIV-prevention services and risks posed to their female partners. Kalichman SC, et al. **Health Psychol** 1998 Jul; 17(4):320-7

High prevalence of HCV-RNA in the saliva cell fraction of patients with chronic hepatitis C but no evidence of HCV transmission among sexual partners. Fabris P, et al. **Infection** 1999 Mar-Apr;27(2):86-91

Sexual histories, partnerships and networks associated with the transmission of gonorrhoea. Day S, et al. **Int J STD AIDS** 1998 Nov;9(11):666-71

Patient-led partner referral enhances sexually transmitted disease service delivery in two towns in the Central African Republic. Koumans EH, et al. **Int J STD AIDS** 1999 Jun; 10(6):376-82

Contact tracing for gonorrhoea in homosexual and heterosexual men. Rogstad KE, et al. **Int J STD AIDS** 1999 Aug;10(8):536-8

Gynaecological conditions associated with HIV infection in women who are partners of HIV-positive Thai blood donors. Rugpao S, et al. **Int J STD AIDS** 1998 Nov; 9(11):677-82

Epidemiologic evidence for time variation in HIV infectivity. Shiboski SC, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):527-35

Partner condom use among adolescent girls with sexually transmitted diseases. Shrier LA, et al. **J Adolesc Health** 1999 May;24(5):357-61

Study of environmental, social, and paternal factors in preterm delivery using sibs and half sibs. A population-based study in Denmark. Basso O, et al. **J Epidemiol Community Health** 1999 Jan;53(1):20-3

Intimate partner violence against women: do victims cost health plans more? Wisner CL, et al. **J Fam Pract** 1999 Jun;48(6):439-43

Partner notification and focused intervention as a means of identifying HIV-positive patients. Jordan WC, et al. **J Natl Med Assoc** 1998 Sep;90(9):542-6

Using social science to inform the law of intestacy: the case of unmarried committed partners. Johnson MK, et al. **Law Hum Behav** 1998 Oct;22(5):479-99

A new design of stochastic partnership models for epidemics of sexually transmitted diseases with stages. Mode CJ, et al. **Math Biosci** 1999 Mar 1;156(1-2):95-122

A computer exploration of some properties of non-linear stochastic partnership models for sexually transmitted diseases with stages. Sleeman CK, et al. **Math Biosci** 1999 Mar 1;156(1-2):123-45

Chlamydia infections in female military recruits [letter; comment] Soteriades ES, et al. **N Engl J Med** 1999 Jan 21;340(3):237; discussion 237-8. Comment on: N Engl J Med 1998 Sep 10;339(11):739-44.

Impact of market value on human mate choice decisions. Pawlowski B, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):281-5

Human monogamy [letter] Clark GA. **Science** 1998 Nov 6; 282(5391):1047-8

Sexual network patterns as determinants of STD rates: paradigm shift in the behavioral epidemiology of STDs made visible [editorial; comment] Aral SO. **Sex Transm Dis** 1999 May;26(5):262-4. Comment on: Sex Transm Dis 1999 May;26(5):250-61.

Forgetting as a cause of incomplete reporting of sexual and drug injection partners. Brewer DD, et al. **Sex Transm Dis** 1999 Mar;26(3):166-76

Racial/ethnic group differences in the prevalence of sexually transmitted diseases in the United States: a network explanation [see comments] Laumann EO, et al. **Sex Transm Dis** 1999 May;26(5):250-61. Comment in: Sex

SEXUAL PARTNERS

Transm Dis 1999 May;26(5):262–4.
Disclosure of HIV status to sexual partners: predictors and temporal patterns. Niccolai LM, et al. **Sex Transm Dis** 1999 May;26(5):281–5
Networks of persons with syphilis and at risk for syphilis in Louisiana: evidence of core transmitters. Rosenberg D, et al. **Sex Transm Dis** 1999 Feb;26(2):108–14
Reliability of self-reported sexual histories: test–retest and interpartner comparison in a sexually transmitted diseases clinic. Van Duynhoven YT, et al. **Sex Transm Dis** 1999 Jan;26(1):33–42
The geography of sexual partnerships in Baltimore: applications of core theory dynamics using a geographic information system. Zenilman JM, et al. **Sex Transm Dis** 1999 Feb;26(2):75–81
Where young people with multiple sexual partners seek medical care: implications for screening for chlamydial infection. Dickson N, et al. **Sex Transm Infect** 1998 Dec; 74(6):445–7
Sampling biases and missing data in explorations of sexual partner networks for the spread of sexually transmitted diseases. Ghani AC, et al. **Stat Med** 1998 Sep 30; 17(18):2079–97
A Markov model for measuring vaccine efficacy for both susceptibility to infection and reduction in infectiousness for prophylactic HIV vaccines. Longini IM Jr, et al. **Stat Med** 1999 Jan 15;18(1):53–68
[The consistent use of condoms among intravenous drug users and their regular partners (see comments)] Romero M, et al. **Gac Sanit** 1999 Mar–Apr;13(2):96–101 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar–Apr;13(2):79–81. **(Spa)**
[Condom use by men with non-stable partners in Mexico City] Nieto-Andrade B, et al. **Salud Publica Mex** 1999 Mar–Apr;41(2):85–94 (Eng. Abstr.) **(Spa)**

CLASSIFICATION

Patterns of sexual partnerships among adolescent females [see comments] Howard MM, et al. **J Adolesc Health** 1999 May; 24(5):300–3. Comment in: J Adolesc Health 1999 May;24(5):299.

PSYCHOLOGY

The onset of drug injection among sex partners of injection drug users. Ouellet LJ, et al. **AIDS Educ Prev** 1998 Aug; 10(4):341–50
Sexual mixing patterns in the spread of gonococcal and chlamydial infections. Aral SO, et al. **Am J Public Health** 1999 Jun;89(6):825–33
The effect of male circumcision on the sexual enjoyment of the female partner. O'Hara K, et al. **BJU Int** 1999 Jan;83 Suppl 1:79–84
The effects of partner insistence of condom usage on perceptions of the partner, the relationship, and the experience. Hocking JE, et al. **J Adolesc** 1999 Jun; 22(3):355–67
Sex differences in perceived controllability of mate value: an evolutionary perspective. Ben Hamida S, et al. **J Pers Soc Psychol** 1998 Oct;75(4):953–66
Generic aspects of primate attachments: parents, offspring and mates. Mason WA, et al. **Psychoneuroendocrinology** 1998 Nov;23(8):765–78 (97 ref.)
Coitus-dependent family planning methods: observations from Bangladesh. Gray A, et al. **Stud Fam Plann** 1999 Mar; 30(1):43–53
Violent pornography and abuse of women: theory to practice. Cramer E, et al. **Violence Vict** 1998 Winter;13(4):319–32
[Role of intimacy in the relationships of young men of homosexual orientation] Thériault J. **Contracept Fertil Sex** 1998 Oct;26(10):736–43 **(Fre)**

SEXUAL SADISM see **SADISM**

SEXUALITY

see related
PSYCHOSEXUAL DEVELOPMENT
Sexuality and sex education at home and school. Kirby D. **Adolesc Med** 1999 Jun;10(2):195–209, v (76 ref.)
Sexuality, culture, and political economy: recent developments in anthropological and cross-cultural sex research. Parker R, et al. **Annu Rev Sex Res** 1998;9:1–19 (106 ref.)
Sexual orientation and risk of suicide attempts among a representative sample of youth. Garofalo R, et al. **Arch Pediatr Adolesc Med** 1999 May;153(5):487–93
Diabetes mellitus and female sexuality: a review of 25 years' research [see comments] Enzlin P, et al. **Diabet Med** 1998 Oct;15(10):809–15 (40 ref.). Comment in: Diabet Med 1998 Oct;15(10):807–6.
Diabetes and female sexuality [editorial; comment] Steel JM. **Diabet Med** 1998 Oct;15(10):807–8. Comment on: Diabet Med 1998 Oct;15(10):809–15.
Prostate and sexuality: An overview. Burger B, et al. **Eur Urol** 1999;35(3):177–84 (44 ref.)
The analyst's sexuality and the analytic process. Adams-Silvan A. **Int J Psychoanal** 1998 Aug;79 (Pt 4):790–3
Sexuality, sublimation and psychic activity. Amati-Mehler J, et al. **Int J Psychoanal** 1998 Aug;79 (Pt 4):802–5
Manifestations of sexuality in child analysis. Frankiel RV. **Int J Psychoanal** 1998 Aug;79 (Pt 4):794–7
The psychoanalytic interpretation of sexuality. Perdigão HG. **Int J Psychoanal** 1998 Aug;79 (Pt 4):787–9
First sexual intercourse: anticipation and communication. Interviews with young people in England. Mitchell K, et al. **J Adolesc** 1998 Dec;21(6):717–26
Mum's the word: mothers' perspectives on communication about sexuality with adolescents. Rosenthal DA, et al. **J Adolesc** 1998 Dec;21(6):727–43
Communication about sexual issues: mothers, fathers, and friends. Dilorio C, et al. **J Adolesc Health** 1999 Mar; 24(3):181–9
The management of embarrassment and sexuality in health care. Meerabeau L. **J Adv Nurs** 1999 Jun;29(6):1507–13 (55 ref.)
Impact of disfiguring burn scars on adolescent sexual development. Robert RS, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):430–5
Sexuality during pregnancy and the year postpartum. Byrd JE, et al. **J Fam Pract** 1998 Oct;47(4):305–8
Congenital hypogonadotropic hypogonadism and micropenis: effect of testosterone treatment on adult penile size why sex reversal is not indicated. Bin-Abbas B, et al. **J Pediatr** 1999 May;134(5):579–83
Should boys with micropenis be reared as girls? [editorial] Calikoglu AS. **J Pediatr** 1999 May;134(5):537–8
Sexual function following high energy microwave thermotherapy: results of a randomized controlled study comparing transurethral microwave thermotherapy to transurethral prostatic resection. Francisca EA, et al. **J Urol** 1999 Feb;161(2):486–90
Speaking women's bodies: a conversation. Starr A, et al. **Lit Med** 1998 Fall;17(2):231–54
Incidence and sexual risk factors of cytomegalovirus seroconversion in HIV-infected subjects. The SEROCO Study Group. Robain M, et al. **Sex Transm Dis** 1998 Oct; 25(9):476–80
Physical fitness, aging, and sexuality. Bortz WM 2nd, et al. **West J Med** 1999 Mar;170(3):167–9
Discussing sex with disabled patients. Huang CE. **West J Med** 1999 Aug;171(2):76–7
[Building confidence through plain talk. How to talk about sexuality? Series: Medicine of Sexuality, 3: Free therapeutic talk] Wagner B. **Fortschr Med** 1999 Jan 30;117(3):44–5 **(Ger)**
[Sexuality and pregnancy] Sueiro E, et al. **Aten Primaria** 1998 Oct 15;22(6):340–6 (Eng. Abstr.) **(Spa)**
[On virility, eroticism and sexuality (letter)] Widakowich J. **Lakartidningen** 1999 Mar 10;96(10):1161 **(Swe)**

DRUG EFFECTS

Drinking, menstrual cycle, and female sexuality: a diary study. Lindman RE, et al. **Alcohol Clin Exp Res** 1999 Jan; 23(1):169–73
Psychotropics and sexuality. Demyttenaere K, et al. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S35–41 (72 ref.)
Effects of SSRIs on sexual function: a critical review. Rosen RC, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):67–85 (255 ref.)
Dehydroepiandrosterone replacement in women with adrenal insufficiency [see comments] Arlt W, et al. **N Engl J Med** 1999 Sep 30;341(14):1013–20. Comment in: N Engl J Med 1999 Sep 30;341(14):1073–4.

ETHNOLOGY

Demographics of sexual orientation among American-Indian adolescents. Saewyc EM, et al. **Am J Orthopsychiatry** 1998 Oct;68(4):590–600

HISTORY

"Squalid with joy": scobie, sex, and race in Lawrence Durrell's Alexandria quartet. Bowen R. **J Homosex** 1998; 36(2):87–97

PHYSIOLOGY

The biological basis of female sexuality. Graziottin A. **Int Clin Psychopharmacol** 1998 Jul;13 Suppl 6:S15–22 (36 ref.)
Sexual function following radical radiotherapy for bladder cancer. Little FA, et al. **Radiother Oncol** 1998 Nov; 49(2):157–61

PSYCHOLOGY

Lesbian, gay, and bisexual youth and their families: disclosure of sexual orientation and its consequences. D'Augelli AR, et al. **Am J Orthopsychiatry** 1998 Jul;68(3):361–71; discussion 372–5
Fulfilling the promise: community response to the needs of sexual minority youth and families [see comments] James SE. **Am J Orthopsychiatry** 1998 Jul;68(3):447–54. Comment in: Am J Orthopsychiatry 1999 Apr;69(2):267–9.
The social construction of love and sexuality in a women's prison. Maeve MK. **ANS Adv Nurs Sci** 1999 Mar; 21(3):46–65
Technical management of highly erotic transferences. Eickhoff FW. **Int J Psychoanal** 1998 Jun;79 (Pt 3):587–91
Sexuality and somatic illness. Nasir Ilahi M. **Int J Psychoanal** 1998 Jun;79 (Pt 3):579–82
Problems of female sexuality: the defensive function of certain phantasies about the body. Squitieri LM. **Int J Psychoanal** 1999 Aug;80 (Pt 4):645–60
Characteristics of male attractiveness for women [letter] Maisey DS, et al. **Lancet** 1999 May 1;353(9163):1500
Urbanization, youth and sexuality: insights for an AIDS campaign for youth in Papua New Guinea. Jenkins C, et al. **P N G Med J** 1996 Sep;39(3):248–51
The enigmatic dimension of sexual experience: the "otherness" of sexuality and primal seduction. Stein R. **Psychoanal Q** 1998 Oct;67(4):594–625 (54 ref.)

SEXUALLY TRANSMITTED DISEASES

Continuing medical education versus clinic-based STD and HIV education interventions for primary care service providers: replication and extension. Neff JA, et al. **AIDS Educ Prev** 1998 Oct;10(5):417–32
Syndromic management of sexually transmitted diseases. Part 2--The management of genital discharge. Latif AS. **Cent Afr J Med** 1998 Sep;44(9):236–41 (14 ref.)
Sexually transmitted diseases in adolescents: an update. Krowchuk DP. **Compr Ther** 1999 May;25(5):265–71 (44 ref.)
Proceedings of the 80th annual meeting of the Swiss Society for Dermatology and Venereology. Lausanne, September 17–19, 1998. **Dermatology** 1999;198(4):409–41
Women's interest in vaginal microbicides. Darroch JE, et al. **Fam Plann Perspect** 1999 Jan–Feb;31(1):16–23
Epidemiological and virological analysis of couples infected with hepatitis C virus [see comments] Zylberberg H, et al. **Gut** 1999 Jul;45(1):112–6. Comment in: Gut 1999 Jul;45(1):7–8.
Surveillance of sexually transmitted infections: fit for purpose? [comment] Catchpole MA, et al. **Int J STD AIDS** 1999 Aug;10(8):493–4 (14 ref.). Comment on: Int J STD AIDS 1999 Aug;10(8):554–6.
Patient-led partner referral enhances sexually transmitted disease service delivery in two towns in the Central African Republic. Koumans EH, et al. **Int J STD AIDS** 1999 Jun; 10(6):376–82
22nd National Conference of the Indian Association for the Study of Sexually Transmitted Diseases and AIDS (IASSTD) 6–8 March 1998, Mumbai, India. Maniar JK, et al. **Int J STD AIDS** 1998 Oct;9(10):620–1
Frequency of alcohol use and its association with STD/HIV-related risk practices, attitudes and knowledge among an African-American community-recruited sample. Morrison TC, et al. **Int J STD AIDS** 1998 Oct;9(10):608–12
STD-related knowledge, beliefs and attitudes of Xhosa-speaking patients attending STD primary health-care clinics in South Africa. Reddy P, et al. **Int J STD AIDS** 1999 Jun;10(6):392–400
A general practitioner STD training programme: meeting education and service provision needs. Wray L, et al. **Int J STD AIDS** 1998 Dec;9(12):731–5
An overview of sexually transmitted diseases. Part I. Brown TJ, et al. **J Am Acad Dermatol** 1999 Oct;41(4):511–32 (155 ref.)
Sexually transmitted diseases. Czelusta AJ, et al. **J Am Acad Dermatol** 1999 Oct;41(4):614–23
7th Congress of the European Academy of Dermatology and Venereology. Nice, France, October 7–11, 1998. Abstracts. **J Eur Acad Dermatol Venereol** 1998 Sep;11 Suppl 2:S1–356
A piece of my mind. The intervention. Kiomento H. **JAMA** 1998 Nov 4;280(17):1477
Funding authority interferes with sexual-health services [news] Coney S. **Lancet** 1999 Feb 27;353(9154):733
Partner notification of sexually transmitted disease in an obstetric and gynecologic setting. Seubert DE, et al. **Obstet Gynecol** 1999 Sep;94(3):399–402
Adolescents and sexually transmitted diseases. Gevelber MA, et al. **Pediatr Clin North Am** 1999 Aug;46(4):747–66 (69 ref.)
Anal warts, sexually transmitted diseases, and anorectal conditions associated with human immunodeficiency virus. El-Attar SM, et al. **Prim Care** 1999 Mar;26(1):81–100 (32 ref.)
From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Fleming DT, et al. **Sex Transm Infect** 1999 Feb;75(1):3–17 (81 ref.)
The learning curve: health education in STI clinics in South Africa. Reddy P, et al. **Soc Sci Med** 1998 Nov; 47(10):1445–53
[Progresses in the study of dermatology and venereology in China, 1997] Zhu T. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):942–3 (0 ref.) **(Chi)**
[Molluscum contagiosum (genital)] Honda M, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):74–6 (5 ref.) **(Jpn)**
[Hepatitis viruses] Kashiwagi S. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):62–5 (15 ref.) **(Jpn)**

CLASSIFICATION

An audit of diagnostic coding in genitourinary medicine clinics. Trent Region Genitourinary Medicine Audit Group [see comments] Carlin EM, et al. **Int J STD AIDS** 1999 Aug;10(8):554–6. Comment in: Int J STD AIDS 1999 Aug;10(8):493–4.

COMPLICATIONS

Managing infertility in general practice must include screening for sexual infections [letter] Winter AJ, et al. **BMJ** 1998 Nov 28;317(7171):1526

Treatment for common STDs may not always reduce the spread of HIV [news] **Bull World Health Organ** 1999; 77(4):361

Alcohol intake and sexually transmitted diseases. Tüzün B, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):469-78 (130 ref.)

Link between HIV risk and other STDs debated at forum. Silversides A. **CMAJ** 1999 Apr 6;160(7):1048

Sexually transmitted diseases in HIV-positive patients. Ormond P, et al. **Dermatol Clin** 1998 Oct;16(4):853-7, xvi (52 ref.)

Risk of human immunodeficiency virus infection and genital ulcer disease among persons attending a sexually transmitted disease clinic in Italy. Corona R, et al. **Epidemiol Infect** 1998 Dec;121(3):623-30

Sexually transmitted diseases in 1161 HIV-positive patients: a 38-month prospective study in southern Spain. Muñoz-Pérez MA, et al. **J Eur Acad Dermatol Venereol** 1998 Nov;11(3):221-6

Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. The Genital Ulcer Disease Surveillance Group. Mertz KJ, et al. **J Infect Dis** 1998 Dec;178(6):1795-8

Seroprevalence of anti-human parvovirus B19 antibodies in patients attending a centre for sexually transmitted diseases. Salvatori L, et al. **New Microbiol** 1999 Jul;22(3):181-6

Sexually transmitted infections in women infected with the human immunodeficiency virus. Terry Beirn Community Programs for Clinical Research on AIDS (CPCRA). Capps L, et al. **Sex Transm Dis** 1998 Sep;25(8):443-7

Lower genital tract infections among HIV-infected and high-risk uninfected women: findings of the Women's Interagency HIV Study (WIHS). Greenblatt RM, et al. **Sex Transm Dis** 1999 Mar;26(3):143-51

Prevalence of sexually transmitted disease in tuberculosis patients in Malawi [letter] Harries AD, et al. **Trop Doct** 1999 Jan;29(1):55-6

DIAGNOSIS

Sexually transmitted diseases: testing and treating. Rome ES. **Adolesc Med** 1999 Jun;10(2):231-41, vi (40 ref.)

A troubled teen: matters of confidentiality. Bhatia S. **Am Fam Physician** 1999 Jul;60(1):300, 303

Amplified DNA testing for sexually transmitted diseases: new opportunities and new questions [editorial; comment] Joffe A. **Arch Pediatr Adolesc Med** 1999 Feb;153(2):111-3. Comment on: Arch Pediatr Adolesc Med 1999 Feb;153(2):119-25.

Is the routine pelvic examination needed with the advent of urine-based screening for sexually transmitted diseases? [see comments] Shafer MA, et al. **Arch Pediatr Adolesc Med** 1999 Feb;153(2):119-25. Comment in: Arch Pediatr Adolesc Med 1999 Feb;153(2):111-3.

STI screening. Mazza D. **Aust Fam Physician** 1999 Aug; 28(8):827-8

Getting yourself checked out for sexually transmitted infections. Mazza D. **Aust Fam Physician** 1999 Aug; 28(8):830

Urethritis and cervicitis. Molodysky E. **Aust Fam Physician** 1999 Apr;28(4):333-8 (6 ref.)

Do young people attend genitourinary medicine clinics when referred by a community based Brook Advisory Centre? Vanhegan G, et al. **Br J Fam Plann** 1999 Apr;25(1):23-4

Screening for sexually transmitted diseases in rural women in Papua New Guinea: are WHO therapeutic algorithms appropriate for case detection? Passey M, et al. **Bull World Health Organ** 1998;76(4):401-11

Canadian STD guidelines--1998 edition. Ketchum P. **Can Fam Physician** 1998 Sep;44:1907-9 **(Eng, Fre)**

Syndromic management of sexually transmitted diseases. Part 1--An overview. Latif AS. **Cent Afr J Med** 1998 Aug; 44(8):210-3 (15 ref.)

Syndromic management of sexually transmitted diseases. Part 4--The management of lower abdominal pain in women. Latif AS. **Cent Afr J Med** 1998 Nov;44(11):293-6

Diagnosis and treatment of sexually acquired proctitis and proctocolitis: an update. Rompalo AM. **Clin Infect Dis** 1999 Jan;28 Suppl 1:S84-90 (95 ref.)

Sexually transmitted diseases in children. A practical approach. Hadlich SF, et al. **Dermatol Clin** 1998 Oct; 16(4):859-61, xvi

Screening for sexually transmitted infections. Kinghorn GR. **Dermatol Clin** 1998 Oct;16(4):663-7

Genital ulcers. Evaluation and treatment. Rosen T, et al. **Dermatol Clin** 1998 Oct;16(4):673-85, x (88 ref.)

Etiology of nongonococcal nonchlamydial urethritis. Schwartz MA, et al. **Dermatol Clin** 1998 Oct;16(4):727-33, xi (72 ref.)

The enigmatic cervix. Sweet RL. **Dermatol Clin** 1998 Oct; 16(4):739-45, xii (28 ref.)

Nucleic acid tests for the diagnosis of sexually transmitted diseases. Chernesky MA. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):437-46 (46 ref.)

Correct samples for diagnostic tests in sexually transmitted diseases: which sample for which test? Stary A. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):455-9 (30 ref.)

Symptoms and signs in single and mixed genital infections. Mårdh PA, et al. **Int J Gynaecol Obstet** 1998 Nov; 63(2):145-52

Outcome of inflammatory smears managed in a genitourinary medicine clinic [letter; comment] Hicks DA. **Int J STD AIDS** 1998 Nov;9(11):713. Comment on: Int J STD AIDS 1998 May;9(5):299-300.

An assessment of care provided by a public sector STD clinic in Cape Town. Mathews C, et al. **Int J STD AIDS** 1998 Nov;9(11):689-94

Syphilis brephotrophica [letter; comment] Siegfried EC, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1041-2. Comment on: J Am Acad Dermatol 1998 Apr;38(4):638-9.

Predictors of positivity for hepatitis B and the derivation of a selective screening rule in a Canadian sexually transmitted disease clinic. Sellors J, et al. **J Clin Virol** 1998 Jul 24;11(1):85-91

The medical evaluation of the sexually abused child: lessons from a decade of research. Atabaki S, et al. **Pediatrics** 1999 Jul;104(1 Pt 2):178-86 (76 ref.)

The sensitivity of a syndromic management approach in detecting sexually transmitted diseases in patients at a public health clinic in Cape Town. Mathews C, et al. **S Afr Med J** 1998 Oct;88(10):1337-40

Newly available and future laboratory tests for sexually transmitted diseases (STDs) other than HIV. Chernesky M, et al. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S8-11 (13 ref.)

Perceived monogamy and type of clinic as barriers to seeking care for suspected STD or HIV infection: results from a brief survey of low-income women attending Women, Infants, and Children (WIC) clinics in Missouri. Crosby RA, et al. **Sex Transm Dis** 1999 Aug;26(7):399-403

Prospective evaluation of a flow chart using a risk assessment for the diagnosis of STDs in primary healthcare centres in Libreville, Gabon. Bourgeois A, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S128-32

Screening for sexually transmitted disease and HIV infection in termination of pregnancy services: a survey in South Thames region [letter] Harper R, et al. **Sex Transm Infect** 1999 Jun;75(3):203

Evaluation of sexually transmitted diseases diagnostic algorithms among family planning clients in Dar es Salaam, Tanzania. Kapiga SH, et al. **Sex Transm Infect** 1998 Jun; 74 Suppl 1:S132-8

Diagnosis of sexually transmitted infections in female prostitutes in Dakar, Senegal. Ndoye I, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S112-7

Risk assessment, symptoms, and signs as predictors of vulvovaginal and cervical infections in an urban US STD clinic: implications for use of STD algorithms. Ryan CA, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S59-76

Syndromic approach to STD case management: where do we go from here? van Dam CJ, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S175-8

Syndromic management of sexually transmitted diseases: is it rational or scientific? Bosu WK. **Trop Med Int Health** 1999 Feb;4(2):114-9 (26 ref.)

[Behcet's disease] ten Hoopen-Neumann H, et al. **Ned Tijdschr Geneeskd** 1999 Jan 23;143(4):177-80 (Eng. Abstr.) **(Dut)**

[Treatment of sexually transmitted diseases and pelvic infections in gynecology] Judlin P. **Contracept Fertil Sex** 1999 Apr;27(4):263-8 **(Fre)**

[Sexually transmitted infections: to be diagnosed in time!] Hofstetter A. **Fortschr Med** 1999 Apr 20;117(11):21 **(Ger)**

[HPV infection as a disease of couples. Prevalence of the infection in the male partner] Atlante M, et al. **Minerva Ginecol** 1999 May;51(5):161-4 (Eng. Abstr.) **(Ita)**

[Sexually transmitted diseases: laboratory diagnosis] Corsini V, et al. **Minerva Pediatr** 1998 Jun;50(6):239-42 (6 ref.) **(Ita)**

[Laboratory diagnosis of viral infections. 12. Urogenital diseases and sexually transmitted diseases] Kubota T. **Rinsho Byori** 1998 Nov;Suppl 108:128-31 (2 ref.) **(Jpn)**

DRUG THERAPY

Sexually transmitted diseases: testing and treating. Rome ES. **Adolesc Med** 1999 Jun;10(2):231-41, vi (40 ref.)

The role of pharmacists in HIV/STD prevention: evaluation of an STD syndromic management intervention in Nepal. Tuladhar SM, et al. **AIDS** 1998;12 Suppl 2:S81-7

Treatment for common STDs may not always reduce the spread of HIV [news] **Bull World Health Organ** 1999; 77(4):361

Canadian STD guidelines--1998 edition. Ketchum P. **Can Fam Physician** 1998 Sep;44:1907-9 **(Eng, Fre)**

Syndromic management of sexually transmitted diseases. Part 3--The management of genital ulcers and inguinal buboes. Latif AS. **Cent Afr J Med** 1998 Oct;44(10):266-71

Diagnosis and treatment of sexually acquired proctitis and proctocolitis: an update. Rompalo AM. **Clin Infect Dis** 1999 Jan;28 Suppl 1:S84-90 (95 ref.)

Anaerobes in pelvic inflammatory disease: implications for the Centers for Disease Control and Prevention's guidelines for treatment of sexually transmitted diseases. Walker CK, et al. **Clin Infect Dis** 1999 Jan;28 Suppl 1:S29-36 (92 ref.)

Urethritis treatment. Erbelding EJ, et al. **Dermatol Clin** 1998 Oct;16(4):735-8, xi-xii (16 ref.)

Increasing antimicrobial resistance in STDs and the need for surveillance: Neisseria gonorrhoeae as a model. Bal C. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):447-53

Assessment of office-based care of sexually transmitted diseases and vaginitis and antibiotic decision-making by obstetrician-gynecologists. McGregor JA, et al. **Infect Dis Obstet Gynecol** 1998;6(6):247-51

Inadequate treatment for sexually transmitted diseases in the South African private health sector. Connolly AM, et al. **Int J STD AIDS** 1999 May;10(5):324-7

Received social support for sexually transmitted disease-related care-seeking among adolescents. Fortenberry JD, et al. **J Adolesc Health** 1999 Sep; 25(3):174-8

Preventing HIV-1: lessons from Mwanza and Rakai [letter; comment] Nicoll A, et al. **Lancet** 1999 May 1; 353(9163):1522; discussion 1523-4. Comment on: Lancet 1995 Aug 26;346(8974):530-6. Comment on: Lancet 1999 Feb 13;353(9152):513-5. Comment on: Lancet 1999 Feb 13;353(9152):525-35.

Prevention better than cure? [news] Stevenson P. **Lancet** 1999 Jan 16;353(9148):217

Control of sexually transmitted diseases for AIDS prevention in Uganda: a randomised community trial. Rakai Project Study Group [see comments] Wawer MJ, et al. **Lancet** 1999 Feb 13;353(9152):525-35. Comment in: Lancet 1999 Feb 13;353(9152):513-5. Comment in: Lancet 1999 May 1;353(9163):1522; discussion 1523-4. Comment in: Lancet 1999 May 1;353(9163):1522-3; discussion 1523-4. Comment in: Lancet 1999 May 1;353(9163):1523-4.

Issues in the management of sexually transmitted diseases in Papua New Guinea. Passey M. **P N G Med J** 1996 Sep; 39(3):252-60 (14 ref.)

Sexually transmitted diseases in adolescents. Kreipe RE. **Pediatr Infect Dis J** 1998 Oct;17(10):921-2

STD syndrome packets: improving syndromic management of sexually transmitted diseases in developing countries. Wilkinson D, et al. **Sex Transm Dis** 1999 Mar;26(3):152-6

Syndromic management of STDs in pharmacies: evaluation and randomised intervention trial. Garcia PJ, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S153-8

Hydrogels containing monocaprin have potent microbicidal activities against sexually transmitted viruses and bacteria in vitro. Thormar H, et al. **Sex Transm Infect** 1999 Jun; 75(3):181-5

Drugs for STD management in developing countries: choice, procurement, cost, and financing. Van der Veen F, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S166-74

[Treatment of sexually transmitted diseases and pelvic infections in gynecology] Judlin P. **Contracept Fertil Sex** 1999 Apr;27(4):263-8 **(Fre)**

[Optimizing the choice of drugs in sexually transmitted diseases] Khveshchuk PF, et al. **Voen Med Zh** 1999 Mar; 320(3):22-8 (28 ref.) **(Rus)**

ECONOMICS

Cost benefit analysis of sexually transmitted diseases. Bulut A. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):461-7 (20 ref.)

Effectiveness, impact and cost of syndromic management of sexually transmitted diseases in Tanzania. Mayaud P, et al. **Int J STD AIDS** 1998;9 Suppl 1:11-4

What about money? Effect of small monetary incentives on enrollment, retention, and motivation to change behaviour in an HIV/STD prevention counselling intervention. The Project RESPECT Study Group [see comments] Kamb ML, et al. **Sex Transm Infect** 1998 Aug;74(4):253-5. Comment in: Sex Transm Infect 1998 Aug;74(4):239-42.

EPIDEMIOLOGY

Where have all the STDs gone? Fawole OI, et al. **Afr J Med Med Sci** 1998 Sep-Dec;27(3-4):193-5

Africa faces reproductive crisis [editorial] Caldwell JC. **Afr J Reprod Health** 1997 Sep;1(2):10-4 **(Eng, Fre)**

Decline in sexually transmitted disease prevalence in female Bolivian sex workers: impact of an HIV prevention project. Levine WC, et al. **AIDS** 1998 Oct 1;12(14):1899-906

HIV incidence among repeat HIV testers with sexually transmitted diseases in Italy. STD Surveillance Working Group. Suligoi B, et al. **AIDS** 1999 May 7;13(7):845-50

Incidence of HIV and sexually transmitted diseases (STD) in a cohort of HIV-negative men who have sex with men (MSM). Tabet SR, et al. **AIDS** 1998 Oct 22;12(15):2041-8

Predictors of visits to commercial sex workers by male attendees at sexually transmitted disease clinics in southern Vietnam. Thuy NT, et al. **AIDS** 1999 Apr 16;13(6):719-25

Validity of self-report of drug use among STD patients, ER patients, and arrestees. Hser YI, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):81-91

Group B streptococcal colonization in a developing country: its association with sexually transmitted disease and socioeconomic factors. Collins TS, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):633-6

Sexually transmitted diseases in a health maintenance organization teen clinic: associations of race, partner's age, and marijuana use. Boyer CB, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):838-44

Sexual health of teenagers in England and Wales: analysis of national data [see comments] Nicoll A, et al. **BMJ** 1999 May 15;318(7194):1321-2. Comment in: BMJ 1999 May 15;318(7194):1300-1.

Unrecognized sexually transmitted infections in rural South African women: a hidden epidemic. Wilkinson D, et al. **Bull World Health Organ** 1999;77(1):22–8

Sexually transmitted disease (STD) and acquired immunodeficiency syndrome (AIDS) in South East Asia. Ismail R. **Clin Dermatol** 1999 Mar–Apr;17(2):127–35; discussion 105–6

Sexually transmitted diseases in abused children and adolescent and adult victims of rape: review of selected literature. Beck-Sagué CM, et al. **Clin Infect Dis** 1999 Jan; 28 Suppl 1:S74–83 (101 ref.)

Outbreak of hepatitis A in Rotterdam associated with visits to 'darkrooms' in gay bars. Reintjes R, et al. **Commun Dis Public Health** 1999 Jan;2(1):43–6

Sexually transmitted diseases quarterly report: sexually transmitted diseases in England and Wales acquired through sexual intercourse between men [published erratum appears in Commun Dis Rep CDR Wkly 1999 Jun 4;9(23):204] **Commun Dis Rep CDR Wkly** 1999 Apr 30; 9(18):156–7

Use of sexually transmitted disease risk assessment algorithms for selection of intrauterine device candidates. Morrison CS, et al. **Contraception** 1999 Feb;59(2):97–106

Resurgence of sexually transmitted diseases in Russia and eastern Europe. Gomberg MA, et al. **Dermatol Clin** 1998 Oct;16(4):659–62, ix–x

Drug and alcohol consumption and sexual risk behaviour among young adults: results from a national survey. Castilla J, et al. **Drug Alcohol Depend** 1999 Aug 2;56(1):47–53

Perception of risk, sexual behaviour and STD/HIV prevalence in western Kenya. Wools KK, et al. **East Afr Med J** 1998 Dec;75(12):679–83

Sexually transmitted diseases in Ukraine [letter] Ivanov DI. **Emerg Infect Dis** 1999 May–Jun;5(3):486–7

Limitations of current surveillance programs for sexually transmitted infections and allied conditions affecting reproductive health care. Mårdh PA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):147–54 (11 ref.)

Sexually transmitted diseases (STDs) in the world. Ağaçfidan A, et al. **FEMS Immunol Med Microbiol** 1999 Jul 15; 24(4):431–5

Epidemiological and virological analysis of couples infected with hepatitis C virus [see comments] Zylberberg H, et al. **Gut** 1999 Jul;45(1):112–6. Comment in: Gut 1999 Jul;45(1):7–8.

Incidence of ectopic pregnancy and sexually transmitted disease in the Canadian Central Arctic. Orr PH, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:127–34

Demographic, clinical and social factors associated with human immunodeficiency virus infection and other sexually transmitted diseases in a cohort of women from the United Kingdom and Ireland. MRC Collaborative Study of women with HIV. Madge S, et al. **Int J Epidemiol** 1998 Dec;27(6):1068–71

Sexually transmitted diseases and reproductive tract infections among contraceptive users. Guerreiro D, et al. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S167–73

STD surveillance in the Russian Federation. Borisenko K. **Int J STD AIDS** 1998;9 Suppl 1:15

HIV infection and asymptomatic sexually transmitted infections in a rural South African community. Colvin M, et al. **Int J STD AIDS** 1998 Sep;9(9):548–50

Perceptions and patterns of reproductive tract infections in a young rural population in North-West Namibia. Harms G, et al. **Int J STD AIDS** 1998 Dec;9(12):744–50

High prevalence of sexually transmitted and blood-borne infections amongst the inmates of a district jail in Northern India. Singh S, et al. **Int J STD AIDS** 1999 Jul;10(7):475–8

Task force for the urgent response to the epidemics of sexually transmitted diseases in eastern Europe and central Asia. Waugh MA. **Int J STD AIDS** 1999 Jan;10(1):60–2

HIV infection among patients with sexually transmitted diseases in rural South Africa. Wilkinson D, et al. **Int J STD AIDS** 1998 Dec;9(12):736–9

Evaluation of an STD-prevention program for Swedish university students. Tydén T, et al. **J Am Coll Health** 1998 Sep;47(2):70–5

Seroepidemiology of HIV, HBV, HCV and treponemal infections. Kaur H, et al. **J Commun Dis** 1998 Mar; 30(1):29–31

Sexual behaviour of commercial sex workers and their clients in Cambodia. Japan-Cambodia Collaborating Research Group. Morio S, et al. **J Epidemiol** 1999 Jun;9(3):175–82

Sexually transmitted disease acquisition among women infected with human immunodeficiency virus type 1. Bersoff-Matcha SJ, et al. **J Infect Dis** 1998 Oct; 178(4):1174–7

Effect of circumcision on incidence of human immunodeficiency virus type 1 and other sexually transmitted diseases: a prospective cohort study of trucking company employees in Kenya. Lavreys L, et al. **J Infect Dis** 1999 Aug;180(2):330–6

Hormonal contraception, sexually transmitted diseases, and risk of heterosexual transmission of human immunodeficiency virus type 1. Martin HL Jr, et al. **J Infect Dis** 1998 Oct;178(4):1053–9

High rates of transmission of subtype E human immunodeficiency virus type 1 among heterosexual couples in Northern Thailand: role of sexually transmitted diseases and immune compromise. Nelson KE, et al. **J Infect Dis** 1999 Aug;180(2):337–43

Past and current STDs in a Thai adolescent population. Piya-Anant M, et al. **J Med Assoc Thai** 1999 May; 82(5):444–50

Re: Sexually transmitted diseases among women in Coventry [letter; comment] **J R Soc Health** 1998 Apr;118(2):126–7 . Comment on: J R Soc Health 1997 Feb;117(1):37–40.

Sexually active adolescents and young adults: a high-risk group for Chlamydia trachomatis infection. Bavastrelli M, et al. **J Travel Med** 1998 Jun;5(2):57–60

From the Centers for Disease Control and Prevention. Impact of closure of a sexually transmitted disease clinic on public health surveillance of sexually transmitted diseases--Washington, D.C., 1995. **JAMA** 1999 Jan 13; 281(2):127–8

Preventing HIV infection: lessons from Mwanza and Rakai [comment] [see comments] Hitchcock P, et al. **Lancet** 1999 Feb 13;353(9152):513–5. Comment on: Lancet 1999 Feb 13;353(9152):525–35. Comment in: Lancet 1999 May 1;353(9163):1522; discussion 1523–4. Comment in: Lancet 1999 May 1;353(9163):1522–3; discussion 1523–4. Comment in: Lancet 1999 May 1;353(9163):1523–4.

Preventing HIV-1: lessons from Mwanza and Rakai [letter; comment] Kvåle G. **Lancet** 1999 May 1;353(9163):1522–3; discussion 1523–4. Comment on: Lancet 1995 Aug 26;346(8974):530–6. Comment on: Lancet 1999 Feb 13;353(9152):513–5. Comment on: Lancet 1999 Feb 13;353(9152):525–35.

Core recruitment effects in SIS models with constant total populations. Kribs-Zaleta CM. **Math Biosci** 1999 Sep; 160(2):109–58

Impact of closure of a sexually transmitted disease clinic on public health surveillance of sexually transmitted diseases--Washington, D.C., 1995. **MMWR Morb Mortal Wkly Rep** 1998 Dec 18; 47(49):1067–9

Domestic violence and sexually transmitted diseases: the experience of prenatal care patients. Martin SL, et al. **Public Health Rep** 1999 May–Jun;114(3):262–8

Sexual network patterns as determinants of STD rates: paradigm shift in the behavioral epidemiology of STDs made visible [editorial; comment] Aral SO. **Sex Transm Dis** 1999 May;26(5):262–4. Comment on: Sex Transm Dis 1999 May;26(5):250–61.

Estimates of the incidence and prevalence of sexually transmitted diseases in the United States. American Social Health Association Panel. Cates W Jr. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S2–7 (35 ref.)

Trichomonas vaginalis--no longer a minor STD [letter; comment] Hook EW 3rd. **Sex Transm Dis** 1999 Aug; 26(7):388–9. Comment on: Sex Transm Dis 1999 Aug;26(7):381–7.

Cocaine use and high-risk sexual behavior among STD clinic patients. Hser YI, et al. **Sex Transm Dis** 1999 Feb;26(2):82–6

Investigation of a suspected outbreak of vaginal trichomoniasis among female inmates. Klausner JD, et al. **Sex Transm Dis** 1999 Jul;26(6):335–8

Historical findings in subjects from a high socioeconomic group who have genital infections with herpes simplex virus. Knox SR, et al. **Sex Transm Dis** 1982 Jan–Mar; 9(1):15–20

South Africa: host to a new and emerging HIV epidemic [editorial] Abdool Karim Q, et al. **Sex Transm Infect** 1999 Jun;75(3):139–40

Prospective analysis of STD related genital ulcers from Hamburg [letter] Abeck D, et al. **Sex Transm Infect** 1998 Oct;74(5):380

Sexually transmitted diseases are common in women attending Jamaican family planning clinics and appropriate detection tools are lacking. Behets FM, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S123–7

The practice and prevalence of dry sex among men and women in South Africa: a risk factor for sexually transmitted infections? Beksinska ME, et al. **Sex Transm Infect** 1999 Jun;75(3):178–80

Genital ulcer disease in Africa: many pieces are still missing from the puzzle [editorial; comment] Buvé A. **Sex Transm Infect** 1999 Apr;75(2):85–6. Comment on: Sex Transm Infect 1999 Apr;75(2):98–102.

How common are sexually transmitted infections in the elderly? [letter] Cranston RD, et al. **Sex Transm Infect** 1998 Oct;74(5):379

Global prevalence and incidence estimates of selected curable STDs. Gerbase AC, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S12–6 (14 ref.)

Contact tracing [letter] Hiscock E. **Sex Transm Infect** 1999 Feb;75(1):76–7

Sexually transmitted infections among Nigerian adolescent schoolgirls. Ikimalo J, et al. **Sex Transm Infect** 1999 Apr; 75(2):121

Seroprevalence and incidence of genital ulcer infections in a rural Ugandan population [see comments] Kamali A, et al. **Sex Transm Infect** 1999 Apr;75(2):98–102. Comment in: Sex Transm Infect 1999 Apr;75(2):85–6.

HIV-1 and other sexually transmitted infections in a cohort of female sex workers in Chiang Rai, Thailand. Limpakarnjanarat K, et al. **Sex Transm Infect** 1999 Feb; 75(1):30–5

Prevalence of sexually transmitted diseases in pregnant women in Suva, Fiji [letter] Mathai E, et al. **Sex Transm Infect** 1998 Aug;74(4):305–6

Asymptomatic non-ulcerative genital tract infections in a rural Ugandan population. Paxton LA, et al. **Sex Transm Infect** 1998 Dec;74(6):421–5

No differences in the prevalence of venereological disease in Norwegians compared with non-Norwegians. Selvaag E. **Sex Transm Infect** 1999 Feb;75(1):68

HIV infection and sexually transmitted diseases in a referral STD centre in south India. Thappa DM, et al. **Sex Transm Infect** 1999 Jun;75(3):191

Concurrent STIs in women referred to a GUM clinic with chlamydial infection [letter] Thompson C. **Sex Transm Infect** 1999 Apr;75(2):131

Task force for the urgent response to the epidemics of sexually transmitted diseases in eastern Europe and central Asia. Waugh MA. **Sex Transm Infect** 1999 Feb;75(1):72–3

Things ain't what they ought to be: social forces underlying racial disparities in rates of sexually transmitted diseases in a rural North Carolina county. Thomas JC, et al. **Soc Sci Med** 1999 Oct;49(8):1075–84

Naming names. TDH implements HIV/STD reporting changes. Franke J. **Tex Med** 1999 Apr;95(4):14–5

Prevalence of sexually transmitted disease in tuberculosis patients in Malawi [letter] Harries AD, et al. **Trop Doct** 1999 Jan;29(1):55–6

Update on public health in correctional facilities. Puisis M. **West J Med** 1998 Dec;169(6):374

[Epidemiological features of sexually transmitted diseases among children below age 15 at the National STD Surveillance sites] Gong X, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Oct; 19(5):259–62 (Eng. Abstr.) **(Chi)**

[Sexually transmitted diseases---past, present and future in China] Zhang J. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1998 Apr; 19(2):118–21 (0 ref.) **(Chi)**

[Epidemiology of sexually transmitted diseases in the catchment area of the Rostock University Dermatology Clinic after 1945] Heise H, et al. **Hautarzt** 1998 Oct; 49(10):777–80 (Eng. Abstr.) **(Ger)**

[Adolescents and sexually transmitted diseases. Epidemiologic, preventive and social aspects] Schwarzenberg TL, et al. **Minerva Pediatr** 1998 Jun; 50(6):231–7 **(Ita)**

[An analysis of the social hygiene research devoted to the venereal disease problem in Ukraine] Voronenko IuV, et al. **Lik Sprava** 1998 Oct–Nov;(7):182–5 **(Rus)**

[Survey of sexually transmitted diseases in the region of Rio Cuarto] Barberis IL, et al. **Medicina (B Aires)** 1998;58(5 Pt 1):469–73 (Eng. Abstr.) **(Spa)**

[AIDS and sexually transmitted diseases in the Americas (letter)] **Rev Panam Salud Publica** 1999 Sep;6(3):215–9 (Eng. Abstr.) **(Spa)**

ETHNOLOGY

Ethnic differences in STD rates among female adolescents. Buzi RS, et al. **Adolescence** 1998 Summer;33(130):313–8

Sexual partnering and risk of HIV/STD among Aboriginals. Calzavara LM, et al. **Can J Public Health** 1999 May–Jun; 90(3):186–91

A randomized, controlled trial of a behavioral intervention to prevent sexually transmitted disease among minority women. Shain RN, et al. **N Engl J Med** 1999 Jan 14; 340(2):93–100

Racial/ethnic group differences in the prevalence of sexually transmitted diseases in the United States: a network explanation [see comments] Laumann EO, et al. **Sex Transm Dis** 1999 May;26(5):250–61. Comment in: Sex Transm Dis 1999 May;26(5):262–4.

Are race and ethnicity in STD analyses still of relevance? [letter; comment] Harry TC, et al. **Sex Transm Infect** 1998 Jun;74(3):231. Comment on: Sex Transm Infect 1998 Feb;74(1):2–3.

Prevalence of HIV-1 among attenders at sexually transmitted disease clinics: analyses according to country of birth. McGarrigle CA, et al. **Sex Transm Infect** 1998 Dec; 74(6):415–20

Latinas and sexually transmitted diseases: implications of recent research for prevention. Suarez ZE, et al. **Soc Work Health Care** 1998;28(1):1–19 (61 ref.)

ETIOLOGY

Sexually transmitted diseases and risk of HIV infection in men attending a sexually transmitted diseases clinic in Dakar, Senegal. Thior I, et al. **Afr J Reprod Health** 1997 Sep;1(2):26–35

Prophylaxis for STDs after sexual assault [letter; comment] Fieg EL. **Am Fam Physician** 1999 Jun;59(11):2983–4. Comment on: Am Fam Physician 1998 Sep 15;58(4):920–6, 929–30.

Relationship between use of the intrauterine device and pelvic inflammatory disease [letter] Sarma S. **Arch Fam Med** 1999 May–Jun;8(3):197

Does circumcision influence sexually transmitted diseases?: a literature review. Van Howe RS. **BJU Int** 1999 Jan;83 Suppl 1:52–62 (104 ref.)

Social and cultural vulnerability to sexually transmitted infection: the work of exotic dancers. Maticka-Tyndale E, et al. **Can J Public Health** 1999 Jan–Feb;90(1):19–22

Genital infections among women using various contraceptive methods in Basra, Iraq. Sharief M. **East Mediterr Health J** 1998 Dec;4(3):487–92

Sexually transmitted organisms in children and child sexual abuse [see comments] Robinson AJ. **Int J STD AIDS** 1998

Sep;9(9):501–10; quiz 510–1 (82 ref.). Comment in: Int J STD AIDS 1999 Mar;10(3):209–10.
Individual, family, and relationship predictors of young women's sexual risk perceptions. Hutchinson MK. **J Obstet Gynecol Neonatal Nurs** 1999 Jan–Feb;28(1):60–7
Re: Sexually transmitted diseases among women in Coventry [letter; comment] Gbolade BA. **J R Soc Health** 1998 Aug; 118(4):250. Comment on: J R Soc Health 1997 Feb;117(1):37–40.
Global risk of sexually transmitted diseases. Wang CC, et al. **Med Clin North Am** 1999 Jul;83(4):975–95, vi (78 ref.)
Sexually transmitted diseases and gynecologic symptoms and signs in women with a history of induced abortion. Hellberg D, et al. **Sex Transm Dis** 1999 Apr;26(4):197–200
Etiology of genital ulcer disease and its relationship to HIV infection [editorial; comment] Morse SA. **Sex Transm Dis** 1999 Jan;26(1):63–5. Comment on: Sex Transm Dis 1999 Jan;26(1):55–62.
The etiology of genital ulcer disease by multiplex polymerase chain reaction and relationship to HIV infection among patients attending sexually transmitted disease clinics in Pune, India [see comments] Risbud A, et al. **Sex Transm Dis** 1999 Jan;26(1):55–62. Comment in: Sex Transm Dis 1999 Jan;26(1):63–5.
Concurrent sex partners and risk for sexually transmitted diseases among adolescents. Rosenberg MD, et al. **Sex Transm Dis** 1999 Apr;26(4):208–12

HISTORY

Sketches from The Lancet. Venereal diseases. Kandela P. **Lancet** 1999 Jan 30;353(9150):419
[Henry IV the Great (1553–1610) and his urogenital diseases] Androutsos G. **Prog Urol** 1998 Sep;8(4):593–8 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Increased interleukin-10 in the the endocervical secretions of women with non-ulcerative sexually transmitted diseases: a mechanism for enhanced HIV-1 transmission? Cohen CR, et al. **AIDS** 1999 Feb 25;13(3):327–32
Relationship between immunoclinical status and prevalence of viral sexually transmitted diseases among human immunodeficiency virus-1 seropositive patients in Ghana. Brandful JA, et al. **Viral Immunol** 1999;12(2):131–7

MICROBIOLOGY

Bile salts: natural detergents for the prevention of sexually transmitted diseases. Herold BC, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):745–51
Sexually transmitted organisms in sexually abused children. Robinson AJ, et al. **Arch Dis Child** 1998 Oct;79(4):356–8
The prevalence of antimicrobial resistance among uropathogens causing acute uncomplicated cystitis in young women. Gupta K, et al. **Int J Antimicrob Agents** 1999 May;11(3–4):305–8
Transmission of Chlamydia trachomatis and Neisseria gonorrhoeae among men with urethritis and their female sex partners. Lin JS, et al. **J Infect Dis** 1998 Dec; 178(6):1707–12
Comparison of detection methods for Chlamydia trachomatis in specimens obtained from pediatric victims of suspected sexual abuse. Matthews-Greer J, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):165–7
[Comparison of strain specificity of yeasts from various organs of women with vaginal candidiasis] Mendling W, et al. **Mycoses** 1998;41 Suppl 2:23–5 (Eng. Abstr.) **(Ger)**

NURSING

Sexually transmitted diseases and reproductive health in women. Burst HV. **J Nurse Midwifery** 1998 Nov–Dec; 43(6):431–44 (71 ref.)
Adolescent sexuality and sexually transmitted diseases: attitudes, beliefs, knowledge, and values. Johnson LS, et al. **J Pediatr Nurs** 1999 Jun;14(3):177–85

PARASITOLOGY

Trichomonas vaginalis--no longer a minor STD [letter; comment] Hook EW 3rd. **Sex Transm Dis** 1999 Aug; 26(7):388–9. Comment on: Sex Transm Dis 1999 Aug;26(7):381–7.
[Sexually transmitted parasitoses and mycoses] Vahlensieck W. **Fortschr Med** 1999 May 10;117(13):32–5 (42 ref.) **(Ger)**

PATHOLOGY

Pap smear follow-up of possible role of mucopurulent exudate as a prognosticator of a negative pregnancy outcome. Bedrossian UK, et al. **Diagn Cytopathol** 1999 Jul; 21(1):4–6
Outcome of inflammatory smears managed in a genitourinary medicine clinic [letter; comment] Harry TC. **Int J STD AIDS** 1999 May;10(5):351–2. Comment on: Int J STD AIDS 1998 May;9(5):299–300.
Pap smear screening in an urban STD clinic. Yield of screening and predictors of abnormalities. Shlay JC, et al. **Sex Transm Dis** 1998 Oct;25(9):468–75

PHYSIOPATHOLOGY

Sexually transmitted diseases. Present problems-future prospects. Freedman D. **Dermatol Clin** 1998 Oct; 16(4):649–54, ix
[Vaginal infections and sexually transmitted diseases] van den Brûle F. **Rev Med Liege** 1999 Apr;54(4):296–302 (25 ref.) (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Strengthening STD/HIV/AIDS work in the framework of sexual-reproductive health/family planning projects. 29 January 1998, Heidelberg. Dehne KL. **Afr J Reprod Health** 1998 Apr;2(1):90–4
HIV testing and counseling among men attending sexually transmitted disease clinics in Pune, India: changes in condom use and sexual behavior over time. Bentley ME, et al. **AIDS** 1998 Oct 1;12(14):1869–77
Gonorrhea incidence and HIV testing and counseling among adolescents and young adults seen at a clinic for sexually transmitted diseases. Chamot E, et al. **AIDS** 1999 May 28; 13(8):971–9
Is HIV/STD control in Jamaica making a difference? Figueroa JP, et al. **AIDS** 1998;12 Suppl 2:S89–98
Protection against sexually transmitted diseases by granting sex workers in Thailand the choice of using the male or female condom: results from a randomized controlled trial. Fontanet AL, et al. **AIDS** 1998 Oct 1;12(14):1851–9
Social marketing sexually transmitted disease and HIV prevention: a consumer-centered approach to achieving behaviour change. Lamptey PR, et al. **AIDS** 1998;12 Suppl 2:S1–9
Decline in sexually transmitted disease prevalence in female Bolivian sex workers: impact of an HIV prevention project. Levine WC, et al. **AIDS** 1998 Oct 1;12(14):1899–906
AVERT: a user-friendly model to estimate the impact of HIV/sexually transmitted disease prevention interventions on HIV transmission. Rehle TM, et al. **AIDS** 1998;12 Suppl 2:S27–35
Foundations for effective strategies to control sexually transmitted infections: voices from rural Kenya. Moss W, et al. **AIDS Care** 1999 Feb;11(1):95–113
Acceptability of the female condom among STD clinic patients. el-Bassel N, et al. **AIDS Educ Prev** 1998 Oct; 10(5):465–80
This is my story: a descriptive analysis of a peer education HIV/STD risk reduction program for women living in housing developments. Downing M, et al. **AIDS Educ Prev** 1999 Jun;11(3):243–61
Effects of an HIV risk reduction project on sexual risk behavior of low-income STD patients. O'Leary A, et al. **AIDS Educ Prev** 1998 Dec;10(6):483–92
Prophylaxis for STDs after sexual assault [letter; comment] Fieg EL. **Am Fam Physician** 1999 Jun;59(11):2983–4. Comment on: Am Fam Physician 1998 Sep 15;58(4):920–6, 929–30.
STD prevention in the United States. Lessons from history for the new millennium. Cates JR, et al. **Am J Prev Med** 1999 Jan;16(1):75–7
Prevention of sexually transmitted diseases. A model for overcoming barriers between managed care and public health. The IOM Workshop on the Role of Health Plans in STD Prevention. Eng TR. **Am J Prev Med** 1999 Jan; 16(1):60–9
Implementation of condom social marketing in Louisiana, 1993 to 1996. Cohen DA, et al. **Am J Public Health** 1999 Feb;89(2):204–8
Vaccinating high school students against hepatitis B: a school/STD clinic collaboration. Peavey L, et al. **Am J Public Health** 1999 Mar;89(3):412–3
Prevention of sexually transmitted diseases: the need for social and behavioral science expertise in public health departments [editorial; comment] Van Devanter N. **Am J Public Health** 1999 Jun;89(6):815–8 (38 ref.). Comment on: Am J Public Health 1999 Jun;89(6):899–902.
Features of sexually transmitted disease services important to African American adolescents. Lane MA, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):829–33
Early effects of a school-based human immunodeficiency virus infection and sexual risk prevention intervention. Siegel DM, et al. **Arch Pediatr Adolesc Med** 1998 Oct; 152(10):961–70
Getting yourself checked out for sexually transmitted infections. Mazza D. **Aust Fam Physician** 1999 Aug; 28(8):830
Design of a "microbicide" for prevention of sexually transmitted diseases using "inactive" pharmaceutical excipients. Neurath AR, et al. **Biologicals** 1999 Mar; 27(1):11–21
Professional development in reproductive and sexual health--a pilot study from Suffolk, UK. Reader FC, et al. **Br J Fam Plann** 1999 Jan;24(4):135–40
Young peoples' understanding of safer sex and their attitude to referral for STI screening-two audits from London Brook Advisory Centres. Vanhegan G, et al. **Br J Fam Plann** 1999 Apr;25(1):22–3
Impact of HIV counselling and testing on HIV seroconversion and reported STD incidence among male factory workers in Harare, Zimbabwe. Machekano R, et al. **Cent Afr J Med** 1998 Apr;44(4):98–102
Women's preferences for vaginal antimicrobial contraceptives. IV. Attributes of a formulation that would protect from STD/AIDS. Hardy E, et al. **Contraception** 1998 Oct;58(4):251–5
Prevention and intervention of sexually transmitted diseases in adolescents. D'Souza CM, et al. **Curr Opin Pediatr** 1999 Aug;11(4):287–91 (34 ref.)
Sexually transmitted diseases. Management and prevention strategies around the world. Waugh MA. **Dermatol Clin** 1998 Oct;16(4):655–8, ix
Sexually transmitted diseases in Ukraine [letter] Ivanov DI. **Emerg Infect Dis** 1999 May–Jun;5(3):486–7
Using monoclonal antibodies to prevent mucosal transmission of epidemic infectious diseases. Zeitlin L, et al. **Emerg Infect Dis** 1999 Jan–Feb;5(1):54–64 (127 ref.)
Double Dutch: looking at the usage of combined pill plus condom in girls under 25. Gregson J, et al. **Eur J Contracept Reprod Health Care** 1999 Mar;4(1):45–8
Limitations of current surveillance programs for sexually transmitted infections and allied conditions affecting reproductive health care. Mårdh PA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):147–54 (11 ref.)
Improvement of surveillance programs for sexually transmitted infections and related conditions. Mårdh PA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):136–46 (26 ref.)
The FemCap: a new contraceptive choice. Shihata AA. **Eur J Contracept Reprod Health Care** 1998 Sep;3(3):160–6 (10 ref.)
Condom use among women choosing long-term hormonal contraception. Cushman LF, et al. **Fam Plann Perspect** 1998 Sep–Oct;30(5):240–3
Couple-friendly services in a metropolitan sexually transmitted disease clinic: views of clients and providers. Danielson R, et al. **Fam Plann Perspect** 1999 Jul–Aug; 31(4):195–9
Conflicting advice? Australian adolescents' use of condoms or the pill. Lindsay J, et al. **Fam Plann Perspect** 1999 Jul–Aug;31(4):190–4
Preventing the spread of genital warts: using fear appeals to promote self-protective behaviors. Witte K, et al. **Health Educ Behav** 1998 Oct;25(5):571–85
Truck crew and risk of contraction of STDS, including HIV: encouraging the use of condoms by the method of applying theories. Bansal RK, et al. **Indian J Med Sci** 1998 Jun; 52(6):253–64
Sexual behavior patterns and knowledge of sexually transmitted diseases in adolescent boys in urban slums of Lucknow, north India. Awasthi S, et al. **Indian Pediatr** 1998 Nov;35(11):1105–9
ACOG committee opinion. Condom availability for adolescents. Number 154 -- April 1995. Committee on Adolescent Health Care. American College of Obstetricians and Gynecologists. **Int J Gynaecol Obstet** 1995 Jun;49(3):347–51
Changing behavior to prevent STDs/AIDS. Fishbein M. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S175–81 (26 ref.)
Teaching safe sex in school. Short R. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S147–50 (4 ref.)
Strategies for the prevention and treatment of sexually transmitted diseases. Adler M. **Int J STD AIDS** 1998;9 Suppl 1:8–10
Website as a tool for patient education in sexually transmitted diseases [letter] Harry TC, et al. **Int J STD AIDS** 1998 Dec;9(12):779–80
Syndromic management for sexually transmitted diseases: back to the drawing board. Hudson CP. **Int J STD AIDS** 1999 Jul;10(7):423–34 (88 ref.)
Risk profile of female sex workers who participate in a routine penicillin prophylaxis programme in Surabaya, Indonesia. Joesoef MR, et al. **Int J STD AIDS** 1998 Dec; 9(12):756–60
Brief behavioural skills building intervention for female controlled methods of STD-HIV prevention: outcomes of a randomized clinical field trial. Kalichman SC, et al. **Int J STD AIDS** 1999 Mar;10(3):174–81
An assessment of care provided by a public sector STD clinic in Cape Town. Mathews C, et al. **Int J STD AIDS** 1998 Nov;9(11):689–94
A survey of contact tracing practice for sexually transmitted diseases in GUM clinics in England and Wales. Stokes T, et al. **Int J STD AIDS** 1999 Jan;10(1):17–21
Views of Cameroonian sex workers on a woman-controlled method of contraception and disease protection. Visness CM, et al. **Int J STD AIDS** 1998 Nov;9(11):695–9
Condom use by Hispanic and African-American adolescent girls who use hormonal contraception [see comments] Roye CF. **J Adolesc Health** 1998 Oct;23(4):205–11. Comment in: J Adolesc Health 1999 Jun;24(6):374–5.
Reliability and validity of a self-efficacy instrument for protective sexual behaviors. Cecil H, et al. **J Am Coll Health** 1998 Nov;47(3):113–21
College health needs to participate in the national STD debate. Rothenberger JH, et al. **J Am Coll Health** 1998 Nov;47(3):140–2
Evaluation of an STD-prevention program for Swedish university students. Tydén T, et al. **J Am Coll Health** 1998 Sep;47(2):70–5
Femininity as a barrier to positive sexual health for adolescent girls. Tolman DL. **J Am Med Womens Assoc** 1999 Summer; 54(3):133–8
Psychosocial factors associated with the stages of change for condom use among women at risk for HIV and STDs: implications for intervention development. Stark MJ, et

al. **J Consult Clin Psychol** 1998 Dec;66(6):967–78

Antibiotic use for the control of sexually transmitted infections in developing countries--too much or not enough? [editorial] Richens J. **J Med Microbiol** 1999 Mar; 48(3):221–2

Sexually transmitted diseases and reproductive health in women. Burst HV. **J Nurse Midwifery** 1998 Nov–Dec; 43(6):431–44 (71 ref.)

Adolescent sexuality and sexually transmitted diseases: attitudes, beliefs, knowledge, and values. Johnson LS, et al. **J Pediatr Nurs** 1999 Jun;14(3):177–85

Short-term impact of safer choices: a multicomponent, school-based HIV, other STD, and pregnancy prevention program. Coyle K, et al. **J Sch Health** 1999 May; 69(5):181–8

The status of middle level HIV/STD education as assessed by state and local education agencies. Wolff WJ, et al. **J Sch Health** 1999 Aug;69(6):239–42

Observations from the CDC. The urgent need for new HIV/STD prevention options for women. Irwin K, et al. **J Womens Health** 1998 Nov;7(9):1081–6 (27 ref.)

Abstinence and safer sex among adolescents [letter; comment] Berman SM, et al. **JAMA** 1999 Apr 28;281(16):1485; discussion 1487–8. Comment on: JAMA 1998 May 20;279(19):1529–36.

Abstinence and safer sex among adolescents [letter; comment] Moore TL. **JAMA** 1999 Apr 28;281(16):1486; discussion 1487. Comment on: JAMA 1998 May 20;279(19):1529–36. Comment on: JAMA 1998 May 20;279(19):1574–5.

Abstinence and safer sex among adolescents [letter; comment] Panzer RA. **JAMA** 1999 Apr 28;281(16):1486; discussion 1487–8. Comment on: JAMA 1998 May 20;279(19):1529–36. Comment on: JAMA 1998 May 20;279(19):1574–5.

Report offers vision for microbicide development [news] Stephenson J. **JAMA** 1999 Feb 3;281(5):405

"Inactive" polymer is active against sexually transmitted diseases [news] Larkin M. **Lancet** 1999 Jul 31;354(9176):399

Preventing HIV-1: lessons from Mwanza and Rakai [letter; comment] Matthys F, et al. **Lancet** 1999 May 1; 353(9163):1523–4. Comment on: Lancet 1999 Feb 13;353(9152):513–5. Comment on: Lancet 1999 Feb 13;353(9152):525–35.

Japan tackles sexually transmitted diseases [news] Watts J. **Lancet** 1999 Jul 31;354(9176):405

A randomized, controlled trial of a behavioral intervention to prevent sexually transmitted disease among minority women. Shain RN, et al. **N Engl J Med** 1999 Jan 14; 340(2):93–100

Ethnographic results of a community STD study in the Eastern Highlands Province. Lemeki M, et al. **P N G Med J** 1996 Sep;39(3):239–42

Knowledge about sexually transmitted diseases in rural and periurban communities of the Asaro Valley of Eastern Highlands Province: the health education component of an STD study. Lupiwa S, et al. **P N G Med J** 1996 Sep; 39(3):243–7

A STD/HIV prevention trial among adolescents in managed care. Boekeloo BO, et al. **Pediatrics** 1999 Jan;103(1):107–15

GATHER guide to counseling. Rinehart W, et al. **Popul Rep J** 1998 Dec;(48):1–31

Trial marriage: Florida's experience in consolidating HIV/AIDS, STD, and TB programs. Wroten JE, et al. **Public Health Rep** 1999 Jan–Feb;114(1):74–80

Should condom use be promoted for contraception to prevent transmission of sexual transmitted diseases and AIDS? ACSF Group. French National Survey of Sexual behavior. Bajos N, et al. **Rev Epidemiol Sante Publique** 1998 Nov; 46(5):391–7

A community medicine project involving an educational session in sexually transmitted diseases for high school students. Scott JL, et al. **S D J Med** 1998 Sep;51(9):345–6

Commercial sex work and STD: the need for policy interventions to change societal patterns [editorial; comment] Aral SO, et al. **Sex Transm Dis** 1998 Oct; 25(9):455–6. Comment on: Sex Transm Dis 1998 Oct;25(9):451–4.

Group counseling to prevent sexually transmitted disease and HIV: a randomized controlled trial. Branson BM, et al. **Sex Transm Dis** 1998 Nov;25(10):553–60

Accelerated Campaign to Enhance STD Services (ACCESS) for youth: successes, challenges, and lessons learned. DeLisle S, et al. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S28–41; discussion S42–3 (11 ref.)

The role of IPA/medical group network model managed care organizations in STD control: is information technology the key? Finch M. **Sex Transm Dis** 1999 Apr; 26(4 Suppl):S23–5; discussion S26–7

Subsequent sexually transmitted infections among adolescent women with genital infection due to Chlamydia trachomatis, Neisseria gonorrhoeae, or Trichomonas vaginalis. Fortenberry JD, et al. **Sex Transm Dis** 1999 Jan; 26(1):26–32

Sexual activity, substance use, and HIV/STD knowledge among detained male adolescents with multiple versus first admissions. Harwell TS, et al. **Sex Transm Dis** 1999 May; 26(5):265–71

Self-reported sexual activity and condom use among symptomatic clients attending STD clinics. Irwin DE, et al. **Sex Transm Dis** 1999 May;26(5):286–90

Assessment of health services for treatment of sexually transmitted infections among Nigerian adolescents. Okonofua FE, et al. **Sex Transm Dis** 1999 Mar;26(3):184–90

Invoking, monitoring, and relinquishing a public health power: the health hold order. Potterat JJ, et al. **Sex Transm Dis** 1999 Jul;26(6):345–9

Patterns of general health care and STD services use among high-risk youth in Denver participating in community-based urine chlamydia screening. Rietmeijer CA, et al. **Sex Transm Dis** 1998 Oct;25(9):457–63

The use of epidemiologic mass treatment and syndrome management for sexually transmitted disease control. Steen R, et al. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S12–20; discussion S21–2 (93 ref.)

Roles for pharmacists in the prevention and control of sexually transmitted diseases. Stergachis A. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S44–7; discussion S48

Reliability of self-reported sexual histories: test-retest and interpartner comparison in a sexually transmitted diseases clinic. Van Duynhoven YT, et al. **Sex Transm Dis** 1999 Jan;26(1):33–42

Integrated clinical service for sexual assault victims in a genitourinary setting. Bottomley CP, et al. **Sex Transm Infect** 1999 Apr;75(2):116–9

Problems, solutions, and challenges in syndromic management of sexually transmitted diseases. Dallabetta GA, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S1–11 (88 ref.)

Monetary incentives: a useful strategy for enhancing enrollment and promoting participation in HIV/STD risk reduction interventions [editorial; comment] Diclemente R, et al. **Sex Transm Infect** 1998 Aug;74(4):239–40. Comment on: Sex Transm Infect 1998 Aug;74(4):253–55.

From Mwanza and Rakai to Beijing and Moscow? STD control and HIV prevention [editorial] Grosskurth H. **Sex Transm Infect** 1999 Apr;75(2):83–5

Contact tracing--where do we go from here? [editorial; comment] Radcliffe K, et al. **Sex Transm Infect** 1998 Oct; 74(5):313–5. Comment on: Sex Transm Infect 1999 Apr;75(2):130–1.

Systematic analysis of STD control: an operational model. Rao P, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S17–22

Evaluation of behavioural interventions in HIV/STI prevention. Stephenson JM. **Sex Transm Infect** 1999 Feb; 75(1):69–71 (21 ref.)

Monetary incentives in research and participation in HIV/STD risk reduction programmes [editorial] Talbot M. **Sex Transm Infect** 1999 Feb;75(1):1–2

Services in genitourinary medicine: hospital and primary care sites have different patient populations [letter] Tanner S, et al. **Sex Transm Infect** 1998 Dec;74(6):455

Gender, sexuality, and the prevention of sexually transmissible diseases: a Brazilian study of clinical practice. Giffin K, et al. **Soc Sci Med** 1999 Feb;48(3):283–92

Latinas and sexually transmitted diseases: implications of recent research for prevention. Suarez ZE, et al. **Soc Work Health Care** 1998;28(1):1–19 (61 ref.)

Traditional healers and sexually transmitted diseases [editorial; comment] Jones M. **Trop Doct** 1999 Jan;29(1):1 . Comment on: Trop Doct 1999 Jan;29(1):36–8.

Traditional healers as a source of information and advice for people with sexually transmitted diseases in rural Zambia [see comments] Ndubani P, et al. **Trop Doct** 1999 Jan;29(1):36–8. Comment in: Trop Doct 1999 Jan;29(1):1.

Methods and meanings in anthropological, epidemiological and clinical encounters: the case of sexually transmitted disease and human immunodeficiency virus control and prevention in India [see comments] Lambert H. **Trop Med Int Health** 1998 Dec;3(12):1002–10 (38 ref.). Comment in: Trop Med Int Health 1998 Dec;3(12):993–5.

Confronting STDs: a challenge for managed care. Gonen JS. **Womens Health Issues** 1999 Mar–Apr;9(2 Suppl):36S–46S (25 ref.)

Correlates of condom coupon redemption among urban sexually transmitted disease clinic patients. Witte S, et al. **Womens Health Issues** 1999 Jan–Feb;9(1):56–64

[Screening for Chlamydia trachomatis infection: which group should be targeted and at what price? (comment)] van Vloten WA. **Ned Tijdschr Geneeskd** 1999 Mar 27; 143(13):652–3 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 Mar 27;143(13):668–72. Comment on: Ned Tijdschr Geneeskd 1999 Mar 27;143(13):672–6. Comment on: Ned Tijdschr Geneeskd 1999 Mar 27;143(13):677–81. **(Dut)**

[Sexual behavior, knowledge and attitudes to AIDS and sexually transmitted diseases of students at the University of Benin (Togo)] Sallah ED, et al. **Sante** 1999 Mar–Apr; 9(2):101–9 (Eng. Abstr.) **(Fre)**

[Adolescents and sexually transmitted diseases. Epidemiologic, preventive and social aspects] Schwarzenberg TL, et al. **Minerva Pediatr** 1998 Jun; 50(6):231–7 **(Ita)**

[The prevention of HIV infection and STDs among injection drug addicts in Ukraine] Andrushchak LI. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb;(1):86–9 (Eng. Abstr.) **(Rus)**

[The nature of male patients being informed about sexual relations and venereal diseases] Fedorenko Ole. **Lik Sprava** 1999 Mar;(2):87–91 (Eng. Abstr.) **(Ukr)**

PSYCHOLOGY

Sexually transmitted diseases, unintended pregnancy, and adolescent health promotion. Santelli JS, et al. **Adolesc Med** 1999 Feb;10(1):87–108, vi (180 ref.)

Treatment seeking behaviour in sexually transmitted diseases. Roy V, et al. **Indian J Public Health** 1998 Oct–Dec; 42(4):133–5

Delay in symptom presentation among a sample of older GUM clinic attenders. Gott CM, et al. **Int J STD AIDS** 1999 Jan;10(1):43–6

Patterns of sexual partnerships among adolescent females [see comments] Howard MM, et al. **J Adolesc Health** 1999 May; 24(5):300–3. Comment in: J Adolesc Health 1999 May;24(5):299.

Partner condom use among adolescent girls with sexually transmitted diseases. Shrier LA, et al. **J Adolesc Health** 1999 May;24(5):357–61

Some peoples' psychological experiences of attending a sexual health clinic and having a sexually transmitted infection. Holgate HS, et al. **J R Soc Health** 1998 Apr; 118(2):94–6

Tobacco use and other risk behaviors among adolescents in an STD clinic. MacKenzie TD, et al. **Prev Med** 1998 Nov–Dec;27(6):792–7

Sexualization of the female foot as a response to sexually transmitted epidemics: a preliminary study. Giannini AJ, et al. **Psychol Rep** 1998 Oct;83(2):491–8

Gender difference in persistent at-risk sexual behavior after a diagnosed sexually transmitted disease. ACSF-Investigators. Warszawski J, et al. **Sex Transm Dis** 1998 Sep;25(8):437–42

Correlates of condom coupon redemption among urban sexually transmitted disease clinic patients. Witte S, et al. **Womens Health Issues** 1999 Jan–Feb;9(1):56–64

SURGERY

Management of sexually transmitted disease by surgeons. Hunt LM, et al. **Ann R Coll Surg Engl** 1998 Sep;80(5):356–8

THERAPY

Targeted intervention research studies on sexually transmitted diseases (STD): methodology, selected findings and implications for STD service delivery and communications. Field ML, et al. **AIDS** 1998;12 Suppl 2:S119–26

Cost of providing sexually transmitted disease services in Bangkok. Forsythe S, et al. **AIDS** 1998;12 Suppl 2:S73–80

Improving sexually transmitted disease management in the private sector: the Jamaica experience. Green M, et al. **AIDS** 1998;12 Suppl 2:S67–72

Improving quality of sexually transmitted disease case management in rural South Africa. Harrison A, et al. **AIDS** 1998 Dec 3;12(17):2329–35

Indicators and the measurement of STD case management in developing countries. STD PI6&7 Working Group. Saidel TJ, et al. **AIDS** 1998;12 Suppl 2:S57–65 (30 ref.)

Community based study of treatment seeking among subjects with symptoms of sexually transmitted disease in rural Uganda. Paxton LA, et al. **BMJ** 1998 Dec 12; 317(7173):1630–1

Syndromic management of sexually transmitted diseases. Part 4--The management of lower abdominal pain in women. Latif AS. **Cent Afr J Med** 1998 Nov;44(11):293–6

Syndromic management of sexually transmitted diseases. Part 1--An overview. Latif AS. **Cent Afr J Med** 1998 Aug; 44(8):210–3 (15 ref.)

1998 Guidelines for the Treatment of Sexually Transmitted Diseases. Proceedings of a meeting. Atlanta, Georgia, USA. 10–12 February 1997. **Clin Infect Dis** 1999 Jan;28 Suppl 1:S1–90

1998 guidelines for the treatment of sexually transmitted diseases. Introduction. Workowski KA, et al. **Clin Infect Dis** 1999 Jan;28 Suppl 1:S1–3

Where do people go for treatment of sexually transmitted diseases? Brackbill RM, et al. **Fam Plann Perspect** 1999 Jan–Feb;31(1):10–5

Current approach to STD management in women. Amaral E. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S183–9 (28 ref.)

Referral patterns between primary care and genitourinary medicine. Champion JK, et al. **Int J STD AIDS** 1999 Feb; 10(2):121–3

Treatment delay and reliance on private physicians among patients with sexually transmitted diseases in China. Choi KH, et al. **Int J STD AIDS** 1999 May;10(5):309–15

Emergency unit care of sexually transmitted infections. Jarvis RR, et al. **Int J STD AIDS** 1998 Sep;9(9):543–4

Provision of a dedicated 'men only clinic' (MOC) within a mixed sex GUM clinic increases uptake of sexual health services by men [letter] Walsh JC, et al. **Int J STD AIDS** 1998 Dec;9(12):780

Sexual assault: the physician's role in prevention and treatment. Beebe DK. **J Miss State Med Assoc** 1998 Oct; 39(10):366–9

The use of epidemiologic mass treatment and syndrome management for sexually transmitted disease control. Steen R, et al. **Sex Transm Dis** 1999 Apr;26(4 Suppl):S12–20; discussion S21–2 (93 ref.)

Sexually transmitted infection in the elderly [editorial] Cranston RD, et al. **Sex Transm Infect** 1998 Oct;74(5):314–5

Evaluating outreach clinics [comment] Davidson EA. **Sex Transm Infect** 1999 Jun;75(3):198–9 (11 ref.). Comment on: Sex Transm Infect 1999 Jun;75(3):195–7.

Sexually transmitted infections in the elderly [letter] Gott

M. **Sex Transm Infect** 1999 Apr;75(2):131

Sexually transmitted diseases and communications with general practitioners [letter; comment] Hiscock E. **Sex Transm Infect** 1999 Jun;75(3):204. Comment on: Sex Transm Infect 1999 Feb;75(1):45–8.

A novel approach to outcome evaluation [see comments] Horn CK, et al. **Sex Transm Infect** 1999 Jun;75(3):195–7 (6 ref.). Comment in: Sex Transm Infect 1999 Jun;75(3):146–7. Comment in: Sex Transm Infect 1999 Jun;75(3):198–9.

After Bristol—how should genitourinary medicine respond? [editorial] Kinghorn GR. **Sex Transm Infect** 1999 Jun; 75(3):144–6

Notes from the field: practical issues in upgrading STD services based on experience from primary healthcare facilities in two Rwandan towns. Steen R, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S159–65

Evaluating outreach clinics—are we asking too much? [editorial; comment] Ward H. **Sex Transm Infect** 1999 Jun; 75(3):146–7. Comment on: Sex Transm Infect 1999 Jun;75(3):195–7.

Sexually transmitted diseases and communications with general practitioners [see comments] Winceslaus J, et al. **Sex Transm Infect** 1999 Feb;75(1):45–8. Comment in: Sex Transm Infect 1999 Jun;75(3):204.

Syndromic management of sexually transmitted diseases: is it rational or scientific? Bosu WK. **Trop Med Int Health** 1999 Feb;4(2):114–9 (26 ref.)

Confronting STDs: a challenge for managed care. Gonen JS. **Womens Health Issues** 1999 Mar–Apr;9(2 Suppl):36S–46S (25 ref.)

[The holistic–medicinal approach of diagnosis and treatment of sexual transmitted diseases by integrated traditional and Western medicine] Wang MH, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1996 Nov; 16(11):690–2 (Eng. Abstr.) **(Chi)**

[Treatment of sexually transmitted diseases] Raudrant D, et al. **Contracept Fertil Sex** 1998 Dec;26(12):830–6 (21 ref.) **(Fre)**

[Gynecological infections in general practice] Lauper U, et al. **Schweiz Rundsch Med Prax** 1999 Apr 1;88(14):633–8 (2 ref.) (Eng. Abstr.) **(Ger)**

TRANSMISSION

Sexually transmitted diseases in children: a serious consequence of sexual abuse and an indication of possible victimization of other children [comment] Lagerberg D. **Acta Paediatr** 1998 Dec;87(12):1214–7. Comment on: Acta Paediatr 1998 Dec;87(12):1295–6.

Use of sexually transmitted disease risk assessment algorithms for selection of intrauterine device candidates. Morrison CS, et al. **Contraception** 1999 Feb;59(2):97–106

Human papillomavirus in head and neck squamous cell carcinoma: are some head and neck cancers a sexually transmitted disease? Gillison ML, et al. **Curr Opin Oncol** 1999 May;11(3):191–9 (110 ref.)

Partner notification techniques. Fenton KA, et al. **Dermatol Clin** 1998 Oct;16(4):669–72

Correlation between cervical intraepithelial neoplasia and human papillomavirus male infections: a longitudinal study. Frega A, et al. **Eur J Gynaecol Oncol** 1999;20(3):228–30

Sex and drugs and HCV? [comment] Rosenberg W. **Gut** 1999 Jul;45(1):7–8. Comment on: Gut 1999 Jul;45(1):112–6.

Measuring the effectiveness of contact tracing [editorial] FitzGerald M, et al. **Int J STD AIDS** 1998 Nov;9(11):645–6

Sexually transmitted organisms in children and child sexual abuse—what do we mean by children? [letter; comment] Thomas AJ, et al. **Int J STD AIDS** 1999 Mar;10(3):209–10 . Comment on: Int J STD AIDS 1998 Sep;9(9):501–10; quiz 510–1.

Subsequent infection among adolescent African–American males attending a sexually transmitted disease clinic. Wagstaff DA, et al. **J Adolesc Health** 1999 Sep;25(3):217–26

Transmission of Chlamydia trachomatis and Neisseria gonorrhoeae among men with urethritis and their female sex partners. Lin JS, et al. **J Infect Dis** 1998 Dec; 178(6):1707–12

Genital human papillomavirus infection in women who have sex with women. Marrazzo JM, et al. **J Infect Dis** 1998 Dec;178(6):1604–9

Serologic evidence of human herpesvirus 8 transmission by homosexual but not heterosexual sex. Smith NA, et al. **J Infect Dis** 1999 Sep;180(3):600–6

Investigation of venereal, transplacental, and contact transmission of the Lyme disease spirochete, Borrelia burgdorferi, in Syrian hamsters. Woodrum JE, et al. **J Parasitol** 1999 Jun;85(3):426–30

Structured models for heterosexual disease transmission. Kribs–Zaleta CM. **Math Biosci** 1999 Aug;160(1):83–108

Ethnographic results of a community STD study in the Eastern Highlands Province. Lemeki M, et al. **P N G Med J** 1996 Sep;39(3):239–42

HIV/STD transmission in gold–mining areas of Bolivar State, Venezuela: interventions for diagnosis, treatment, and prevention. Faas L, et al. **Rev Panam Salud Publica** 1999 Jan;5(1):58–65

Self–reported sexual activity and condom use among symptomatic clients attending STD clinics. Irwin DE, et al. **Sex Transm Dis** 1999 May;26(5):286–90

Partner notification in the real world: a four site time–allocation study. Macke BA, et al. **Sex Transm Dis** 1998 Nov;25(10):561–8

Sexually transmitted diseases in sexually abused children: medical and legal implications. Hammerschlag MR. **Sex Transm Infect** 1998 Jun;74(3):167–74 (67 ref.)

Contact tracing [letter] Rashid S, et al. **Sex Transm Infect** 1999 Feb;75(1):77

Heterosexual HIV transmission and STD prevalence: predictions of a theoretical model. Renton AM, et al. **Sex Transm Infect** 1998 Oct;74(5):339–44

Sampling biases and missing data in explorations of sexual partner networks for the spread of sexually transmitted diseases. Ghani AC, et al. **Stat Med** 1998 Sep 30; 17(18):2079–97

[Kaposi's sarcoma: a sexually transmitted cancer?] Sousa Escandón MA, et al. **Actas Urol Esp** 1999 Feb;23(2):89–94 (34 ref.) (Eng. Abstr.) **(Spa)**

VETERINARY

Possibility of sexual transmission of foot–and–mouth disease from African buffalo to cattle. Bastos AD, et al. **Vet Rec** 1999 Jul 17;145(3):77–9

VIROLOGY

Evidence of transmission of hepatitis B virus to spouses from sequence analysis of the viral genome. Huo TI, et al. **J Gastroenterol Hepatol** 1998 Nov;13(11):1138–42

[Clinical characteristics of HCV infection in pregnancy: the role of sexual transmission] Minola E, et al. **Minerva Ginecol** 1999 Apr;51(4):121–3 (Eng. Abstr.) **(Ita)**

SEXUALLY TRANSMITTED DISEASES, BACTERIAL

COMPLICATIONS

Simultaneous detection of HPV and other sexually transmitted agents in chronic urethritis. Chiarini F, et al. **Minerva Urol Nefrol** 1998 Dec;50(4):225–31

DIAGNOSIS

Pelvic inflammatory disease. From diagnosis to prevention. Paavonen J. **Dermatol Clin** 1998 Oct;16(4):747–56, xii (56 ref.)

Urethritis. Diagnosis of nongonococcal urethritis. Stary A. **Dermatol Clin** 1998 Oct;16(4):723–6, xi

Detection of viral and bacterial infections in women with normal and abnormal colposcopy. Pisani S, et al. **Eur J Gynaecol Oncol** 1999;20(1):69–73

Diagnostic tests that are worthwhile for patients with sexually transmitted bacterial infections in industrialized countries. Taylor–Robinson D, et al. **Int J STD AIDS** 1999 Jan;10(1):1–4 (31 ref.)

PCR testing of genital and urine specimens compared with culture for the diagnosis of chlamydial infection in men and women. Young H, et al. **Int J STD AIDS** 1998 Nov; 9(11):661–5

Simultaneous detection of HPV and other sexually transmitted agents in chronic urethritis. Chiarini F, et al. **Minerva Urol Nefrol** 1998 Dec;50(4):225–31

Validation of national algorithms for the diagnosis of sexually transmitted diseases in Brazil: results from a multicentre study. Moherdaui F, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S38–43

[Sexually transmitted diseases] Ferraz L. **Acta Med Port** 1999 Jan–Mar;12(1–3):69–73 (Eng. Abstr.) **(Por)**

DRUG THERAPY

Practical recommendations for the drug treatment of bacterial infections of the male genital tract including urethritis, epididymitis and prostatitis. Joly–Guillou ML, et al. **Drugs** 1999 May;57(5):743–50 (31 ref.)

Bacterial sexually transmitted infections: current management strategies. Tariq A, et al. **J Clin Pharm Ther** 1999 Feb; 24(1):53–6 (25 ref.)

EPIDEMIOLOGY

New cases seen at genitourinary medicine clinics: England 1997. Hughes G, et al. **Commun Dis Rep CDR Suppl** 1998 Dec;8(7):S1–11

Correlates of sexually transmitted bacterial infections among U.S. women in 1995. Miller HG, et al. **Fam Plann Perspect** 1999 Jan–Feb;31(1):4–9, 23

Screening for sexually transmitted diseases in rural South African women. Schneider H, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S147–52

[Sexually transmitted bacterial diseases. 2. Granuloma inguinale, lymphogranuloma venereum, genital Chlamydia and Mycoplasma infection] Hofstetter AG. **Fortschr Med** 1999 Apr 30;117(12):26–8 **(Ger)**

[Bacterial sexually transmitted diseases (STD). 1. Gonorrhea, syphilis, ulcus molle] Hofstetter AG. **Fortschr Med** 1999 Apr 20;117(11):30–2 **(Ger)**

ETIOLOGY

[Sexually transmitted diseases produced by Chlamydia trachomatis and their treatment] Perea Pérez EJ. **Rev Clin Esp** 1998 Sep;198 Suppl 1:44–50 (38 ref.) **(Spa)**

HISTORY

Arthritis associated with venereal disease in nineteenth century London. Storey GO, et al. **Clin Rheumatol** 1998; 17(6):500–4

PREVENTION & CONTROL

Sexual transmission and reinfection of group B streptococci between spouses. Yamamoto T, et al. **J Obstet Gynaecol Res** 1999 Jun;25(3):215–9

Contact tracing—is this the way to go? [letter; comment] Elliott SA. **Sex Transm Infect** 1999 Apr;75(2):130–1. Comment on: Sex Transm Infect 1998 Oct;74(5):313–5.

THERAPY

Comparison of clinically directed, disease specific, and syndromic protocols for the management of genital ulcer disease in Lesotho. Htun Y, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S23–8

Reproductive tract infections in primary healthcare, family planning, and dermatovenereology clinics: evaluation of syndromic management in Morocco. Ryan CA, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S95–105

VETERINARY

Health status of bulls used for natural breeding on farms in south west Scotland. McGowan AC, et al. **Zentralbl Veterinarmed [B]** 1999 Jun;46(5):311–21

SEXUALLY TRANSMITTED DISEASES, VIRAL

Classic Kaposi's sarcoma after multiple–partner heterosexual behavior in Central Africa. Simonart T, et al. **J Am Acad Dermatol** 1999 Oct;41(4):648–9

COMPLICATIONS

[Sexually transmitted infection as a cause of anal cancer] Frisch M, et al. **Ugeskr Laeger** 1998 Nov 30; 160(49):7109–17 (Eng. Abstr.) **(Dan)**

DIAGNOSIS

Human papillomavirus. Subclinical and atypical manifestations. Strand A, et al. **Dermatol Clin** 1998 Oct; 16(4):817–22

Detection of viral and bacterial infections in women with normal and abnormal colposcopy. Pisani S, et al. **Eur J Gynaecol Oncol** 1999;20(1):69–73

[Sexually transmitted diseases] Ferraz L. **Acta Med Port** 1999 Jan–Mar;12(1–3):69–73 (Eng. Abstr.) **(Por)**

DRUG THERAPY

[Viral sexually transmitted diseases and their treatments] Parent D, et al. **Rev Med Brux** 1998 Sep;19(4):A185–90 (16 ref.) (Eng. Abstr.) **(Fre)**

EPIDEMIOLOGY

Human herpesvirus–8 and relatives of patients with plasmocytic diseases [letter; comment] Jaccard A, et al. **Blood** 1998 Nov 1;92(9):3488. Comment on: Blood 1997 Dec 1;90(11):4278–82. Comment on: Blood 1998 Jun 1;91(11):4391–3.

New cases seen at genitourinary medicine clinics: England 1997. Hughes G, et al. **Commun Dis Rep CDR Suppl** 1998 Dec;8(7):S1–11

Seroprevalence of herpes simplex virus type 2 antibodies in an STD clinic in Paris. Janier M, et al. **Int J STD AIDS** 1999 Aug;10(8):522–6

Low prevalence of hepatitis B markers among Mexican female sex workers. Juárez–Figueroa L, et al. **Sex Transm Infect** 1998 Dec;74(6):448–50

Prevalence of GB virus type C/hepatitis G virus RNA and of anti–E2 in individuals at high or low risk for blood–borne or sexually transmitted viruses: evidence of sexual and parenteral transmission. Lefrère JJ, et al. **Transfusion** 1999 Jan;39(1):83–94

[Viral sexually transmitted urogenital infections. Increased importance of viral STD in industrial countries] Schneede P, et al. **Fortschr Med** 1999 Apr 20;117(11):22–6, 28 (Eng. Abstr.) **(Ger)**

GENETICS

Atopy, anergic status, and cytokine expression in HIV–infected subjects. Empson M, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):833–42

IMMUNOLOGY

Atopy, anergic status, and cytokine expression in HIV–infected subjects. Empson M, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):833–42

PATHOLOGY

HHV–8 and multiple myeloma. Berenson JR, et al. **Pathol Biol (Paris)** 1999 Feb;47(2):115–8 (25 ref.)

PREVENTION & CONTROL

Sexually transmitted diseases and HIV. A female perspective. Horgan M, et al. **Dermatol Clin** 1998 Oct;16(4):847–51,

xv-xvi
Carrageenan-based nonoxynol-9 spermicides for prevention of sexually transmitted infections. Maguire RA, et al. **Sex Transm Dis** 1998 Oct;25(9):494-500
Behavioural intervention trials for HIV/STD prevention in schools: are they feasible? Stephenson JM, et al. **Sex Transm Infect** 1998 Dec;74(6):405-8

THERAPY

Comparison of clinically directed, disease specific, and syndromic protocols for the management of genital ulcer disease in Lesotho. Htun Y, et al. **Sex Transm Infect** 1998 Jun;74 Suppl 1:S23-8

TRANSMISSION

Local spread of molluscum contagiosum by electrolysis. Rich JD, et al. **Clin Infect Dis** 1999 May;28(5):1171
Kaposi's sarcoma-associated herpesvirus: a sexually transmissible infection? Grulich AE, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 1;20(4):387-93
Transmission of hepatitis C virus infection to spouses of patients undergoing chronic hemodialysis [letter] Akarsu E, et al. **Nephron** 1999;82(4):359-60
High risk genital papillomavirus infections are not spread vertically. Dillner J, et al. **Rev Med Virol** 1999 Jan-Mar; 9(1):23-9 (63 ref.)
Sexual transmission and prevention of the hepatitis viruses A-E and G. Brook MG. **Sex Transm Infect** 1998 Dec; 74(6):395-8 (61 ref.)
Sexual transmission of hepatitis C virus infection. Rooney G, et al. **Sex Transm Infect** 1998 Dec;74(6):399-404 (77 ref.)

VETERINARY

Health status of bulls used for natural breeding on farms in south west Scotland. McGowan AC, et al. **Zentralbl Veterinarmed [B]** 1999 Jun;46(5):311-21

VIROLOGY

[Viral sexually transmitted diseases and their treatments] Parent D, et al. **Rev Med Brux** 1998 Sep;19(4):A185-90 (16 ref.) (Eng. Abstr.) **(Fre)**

SEZARY SYNDROME

Sezary syndrome: a case report and a review of the molecular pathomechanism and management. Ng PP, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):864-7
Characterization of a canine long-term T cell line (DLC 01) established from a dog with Sézary syndrome and producing retroviral particles. Ghernati I, et al. **Leukemia** 1999 Aug;13(8):1281-90
Mycosis fungoides and the Sézary syndrome. Kim YH, et al. **Semin Oncol** 1999 Jun;26(3):276-89 (86 ref.)
[Sézary syndrome] Sasaki M, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):276-8 (12 ref.) **(Jpn)**

CHEMICALLY INDUCED

Sezary syndrome - unmasked by cyclosporine [letter] Thomas M, et al. **Int J Dermatol** 1998 Dec;37(12):957-8

COMPLICATIONS

Ophthalmic abnormalities in patients with cutaneous T-cell lymphoma. Cook BE Jr, et al. **Ophthalmology** 1999 Jul; 106(7):1339-44

DIAGNOSIS

[CD30 positive pilotropic lymphoma] Trémeau-Martinage C, et al. **Ann Dermatol Venereol** 1999 May;126(5):434-8 (Eng. Abstr.) **(Fre)**
[The Sézary syndrome] Ferreira F, et al. **Acta Med Port** 1998 Dec;11(12):1135-9 (11 ref.) (Eng. Abstr.) **(Por)**

DRUG THERAPY

Thrombotic thrombocytopenic purpura-hemolytic uremic syndrome (TTP-HUS) following treatment with deoxycoformycin in a patient with cutaneous T-cell lymphoma (Sezary syndrome): A case report. Leach JW, et al. **Am J Hematol** 1999 Aug;61(4):268-70
Sézary syndrome, cutaneous T-cell lymphoma, and extracorporeal photopheresis [letter; comment] Edelson RL. **Arch Dermatol** 1999 May;135(5):600-1. Comment on: Arch Dermatol 1998 Aug;134(8):1001-5.
A case of pre-Sézary syndrome preceded by hand lesions. Lee NH, et al. **J Dermatol** 1999 Jul;26(7):465-8
The use of amitriptyline in mycosis fungoides [letter] Coe P. **Palliat Med** 1999 May;13(3):264

GENETICS

Genotypic, phenotypic and functional analysis of CD4+CD7+ and CD4+CD7- T lymphocyte subsets in Sézary syndrome. Dummer R, et al. **Arch Dermatol Res** 1999 Jun;291(6):307-11
T-cell receptor gene analysis in the diagnosis of Sézary syndrome. Russell-Jones R, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):254-9 (53 ref.)
Notable losses at specific regions of chromosomes 10q and 13q in the Sézary syndrome detected by comparative genomic hybridization [letter] Karenko L, et al. **J Invest Dermatol** 1999 Mar;112(3):392-5

IMMUNOLOGY

Progressive outer retinal necrosis in a patient with cutaneous non-Hodgkin's T cell lymphoma (Sézary syndrome) [letter] Njoo FL, et al. **Br J Ophthalmol** 1998 Oct;82(10):1218-9
Depressed IL-12-mediated signal transduction in T cells from patients with Sézary syndrome is associated with the absence of IL-12 receptor beta 2 mRNA and highly reduced levels of STAT4. Showe LC, et al. **J Immunol** 1999 Oct 1;163(7):4073-9

MORTALITY

Prognostic factor analysis in mycosis fungoides/Sézary syndrome. Diamandidou E, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):914-24

PATHOLOGY

Prognostic factors in Sézary syndrome: a multivariate analysis of clinical, haematological and immunological features. Bernengo MG, et al. **Ann Oncol** 1998 Aug; 9(8):857-63
Comparative analysis of histological and immunohistological features in mycosis fungoides and Sézary syndrome. Kamarashev J, et al. **J Cutan Pathol** 1998 Sep;25(8):407-12
Sezary syndrome--a case report. Narayan S, et al. **J Indian Med Assoc** 1998 Sep;96(9):283-4

PHYSIOPATHOLOGY

Genotypic, phenotypic and functional analysis of CD4+CD7+ and CD4+CD7- T lymphocyte subsets in Sézary syndrome. Dummer R, et al. **Arch Dermatol Res** 1999 Jun;291(6):307-11

RADIOTHERAPY

Total skin electron radiation for patients with erythrodermic cutaneous T-cell lymphoma (mycosis fungoides and the Sézary syndrome). Jones GW, et al. **Cancer** 1999 May 1; 85(9):1985-95

THERAPY

Effectiveness of photopheresis in Sézary syndrome [letter; comment] Stevens SR, et al. **Arch Dermatol** 1999 Aug; 135(8):995-7. Comment on: Arch Dermatol 1998 Aug;134(8):1001-5.
[Cutaneous lymphoma of the Sézary and Bouvrain type. Progress in physiopathologic and therapeutic outlook] Bagot M. **Bull Acad Natl Med** 1998;182(5):927-37; discussion 937-8 (Eng. Abstr.) **(Fre)**

ULTRASTRUCTURE

Sezary cells with hairy projections. Nair CN, et al. **Leuk Res** 1999 Feb;23(2):195-7

SGOT see **ASPARTATE TRANSAMINASE**

SGPT see **ALANINE TRANSAMINASE**

SH DOMAINS see **SRC HOMOLOGY DOMAINS**

SH-REAGENTS see **SULFHYDRYL REAGENTS**

SHALLOTS see **ALLIUM**

SHAMANISM

Hallucinogenic drugs and plants in psychotherapy and shamanism. Metzner R. **J Psychoactive Drugs** 1998 Oct-Dec;30(4):333-41 (46 ref.)
Indigenous mental health care among Gurkha soldiers based in the United Kingdom [see comments] Jolly A. **J R Army Med Corps** 1999 Feb;145(1):15-7. Comment in: J R Army Med Corps 1999 Jun;145(2):109.
Mediation between the shamanistic model and the psychiatric model in a shamanistic climate: a viewpoint of medical anthropology. Shimoji A, et al. **Psychiatry Clin Neurosci** 1998 Dec;52(6):581-6

SHAME

The impact of embarrassment on condom purchase behaviour. Dahl DW, et al. **Can J Public Health** 1998 Nov-Dec;89(6):368-70
Guilt, shame, and symptoms in children. Ferguson TJ, et al. **Dev Psychol** 1999 Mar;35(2):347-57
Shame and internalized homophobia in gay men. Allen DJ, et al. **J Homosex** 1999;37(3):33-43
Are shame and guilt related to distinct self-discrepancies? A test of Higgins's (1987) hypotheses. Tangney JP, et al. **J Pers Soc Psychol** 1998 Jul;75(1):256-68
So what? Life cycles [letter] Gaffin J. **Paediatr Perinat Epidemiol** 1998 Oct;12(4):368-9
Variations on a theme of shame: Chekhov, Glenn Gould, and the "cased-in-man" syndrome. Sperber M. **Psychoanal Rev** 1999 Apr;86(2):175-89
Suicide and the shame of exposure. Lester D. **Psychol Rep** 1998 Aug;83(1):106

SHARED PARANOID DISORDER

DIAGNOSIS

Folie à deux dissociative disorder in prepubertal children. Report of two cases with EEGs. Chapman AH, et al. **Arq Neuropsiquiatr** 1998 Sep;56(3B):646-9
Induction, identification or folie à deux? Psychodynamics and genesis of Munchausen syndromes by proxy and false allegations of sexual abuse in adolescents. Günter M. **Med Law** 1998;17(3):359-79

PSYCHOLOGY

[Communicated insanity, folie a deux and shared psychotic disorder. Different concepts and a case from Mallorca] Arenz D, et al. **Fortschr Neurol Psychiatr** 1999 Jun; 67(6):249-55 (31 ref.) (Eng. Abstr.) **(Ger)**
["Folie a deux hallucinatoire"--a new case of induced hallucinatory psychosis. A new entity?] Tényi T, et al. **Orv Hetil** 1999 Jun 20;140(25):1417-8 (Eng. Abstr.) **(Hun)**

SHARED PSYCHOTIC DISORDER see **SHARED PARANOID DISORDER**

SHARED PURCHASING see **GROUP PURCHASING**

SHARKS

The effect of shark cartilage extracts on the growth and metastatic spread of the SCCVII carcinoma. Horsman MR, et al. **Acta Oncol** 1998;37(5):441-5
Haemorrhagic septicaemia by Aeromonas salmonicida subsp. salmonicida in a black-tip reef shark (Carcharhinus melanopterus). Briones V, et al. **Zentralbl Veterinarmed [B]** 1998 Sep;45(7):443-5

ANATOMY & HISTOLOGY

Distribution, morphology, and cytology of ampullae of Lorenzini in the Oman shark, Iago omanensis (Triakidae), from the Gulf of Aqaba, Red Sea. Fishelson L, et al. **Anat Rec** 1998 Aug;251(4):417-30
Morphological and cytological ontogenesis of the ampullae of lorenzini and lateral line canals in the Oman shark, Iago omanensis Norman 1939 (Triakidae), from the Gulf of Aqaba, Red Sea. Fishelson L, et al. **Anat Rec** 1998 Dec; 252(4):532-45

BLOOD

Serum steroid hormones including 11-ketotestosterone, 11-ketoandrostenedione, and dihydroprogesterone in juvenile and adult bonnethead sharks, Sphyrna tiburo. Manire CA, et al. **J Exp Zool** 1999 Oct 1;284(5):595-603

GENETICS

Tracing keratin evolution: catalog, expression patterns and primary structure of shark (Scyliorhinus stellaris) keratins. Schaffeld M, et al. **Eur J Cell Biol** 1998 Oct;77(2):69-80
A long form of the skate IgX gene exhibits a striking resemblance to the new shark IgW and IgNARC genes. Anderson MK, et al. **Immunogenetics** 1999 Jan;49(1):56-67
What sharks can tell us about the evolution of MHC genes. Bartl S. **Immunol Rev** 1998 Dec;166:317-31 (99 ref.)
Antibodies of sharks: revolution and evolution. Marchalonis JJ, et al. **Immunol Rev** 1998 Dec;166:103-22 (109 ref.)
The complete mitochondrial DNA sequence of the shark Mustelus manazo: evaluating rooting contradictions to living bony vertebrates. Cao Y, et al. **Mol Biol Evol** 1998 Dec;15(12):1637-46
Substitution rates of organelle and nuclear genes in sharks: implicating metabolic rate (again). Martin AP. **Mol Biol Evol** 1999 Jul;16(7):996-1002

IMMUNOLOGY

Isolation of transporter associated with antigen processing genes, TAP1 and TAP2, from the horned shark Heterodontus francisci. Ohta Y, et al. **Immunogenetics** 1999 Oct;49(11-12):981-6
Shark complement: an assessment. Smith SL. **Immunol Rev** 1998 Dec;166:67-78 (92 ref.)
Somatic hypermutation of the new antigen receptor gene (NAR) in the nurse shark does not generate the repertoire: possible role in antigen-driven reactions in the absence of germinal centers. Diaz M, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14343-8

METABOLISM

Differential inhibition of AE1 and AE2 anion exchangers by oxonol dyes and by novel polyaminosterol analogs of the shark antibiotic squalamine. Alper SL, et al. **Biochem Cell Biol** 1998;76(5):799-806
Shark cartilage-containing preparation: protection against reactive oxygen species. Felzenszwalb I, et al. **Food Chem Toxicol** 1998 Dec;36(12):1079-84
Comparative vascular responses in elasmobranchs to different structures of neuropeptide Y and peptide YY. Preston E, et al. **Regul Pept** 1998 Nov 30;78(1-3):57-67

PARASITOLOGY

The occurrence, distribution and pathology associated with gnathiid isopod larvae infecting the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **Int J Parasitol** 1999 Feb;29(2):321–30

New host and ocean records for the copepod Ommatokoita elongata (Siphonostomatoida: Lernaeopodidae), a parasite of the eyes of sleeper sharks. Benz GW, et al. **J Parasitol** 1998 Dec;84(6):1271–4

Scyphophyllidium uruguayense n. sp. (Eucestoda: Tetraphyllidea) in Mustelus mento (Cope, 1877) (Chondrichthyes: Carcharhiniformes: Triakidae) from La Paloma, Uruguay. Brooks DR, et al. **J Parasitol** 1999 Jun; 85(3):490–4

Trebius shiinoi n. sp. (Trebiidae: Siphonostomatoida: Copepoda) from uteri and embryos of the Japanese angelshark (Squatina japonica) and the clouded angelshark (Squatina nebulosa), and redescription of Trebius longicaudatus. Nagasawa K, et al. **J Parasitol** 1998 Dec; 84(6):1218–30

Disseminated granulomas associated with nematode larvae in a shortfin mako shark. Borucinska JD, et al. **J Wildl Dis** 1999 Jan;35(1):98–100

PHYSIOLOGY

Mechanics of ventilation in swellsharks, Cephaloscyllium ventriosum (Scyliorhinidae). Ferry-Graham LA. **J Exp Biol** 1999 Jun;202 (Pt 11):1501–10

Brain blood flow and blood pressure during hypoxia in the epaulette shark Hemiscyllium ocellatum, a hypoxia-tolerant elasmobranch. Söderström V, et al. **J Exp Biol** 1999 Apr;202 (Pt 7):829–35

Serum T(4) and serum T(3) concentrations in immature captive whitetip reef sharks, Triaenodon obesus. Crow GL, et al. **J Exp Zool** 1999 Oct 1;284(5):500–4

Plasma steroid hormone profiles and reproductive biology of the epaulette shark, Hemiscyllium ocellatum. Heupel MR, et al. **J Exp Zool** 1999 Oct 1;284(5):586–94

Comparative vascular responses in elasmobranchs to different structures of neuropeptide Y and peptide YY. Preston E, et al. **Regul Pept** 1998 Nov 30;78(1–3):57–67

Purification and characterization of liver ferritins from different animal species. Suryakala S, et al. **Vet Res Commun** 1999 May;23(3):165–81

SHARP SYNDROME see **MIXED CONNECTIVE TISSUE DISEASE**

SHEEHAN'S SYNDROME see **HYPOPITUITARISM**

SHEEP

A simplified arteriovenous malformation model in sheep: feasibility study. Qian Z, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):765–70

Effects of pregnancy on lymphocytes within sheep uterine interplacentomal epithelium. Fox A, et al. **Am J Reprod Immunol** 1998 Oct;40(4):295–302

Membrane integrity and fertilizing potential of cryopreserved spermatozoa in European mouflon. Naitana S, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):105–12

Diurnal changes in light intensity inside the pregnant uterus in sheep. Parraguez VH, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):123–30

PrP genotype frequencies of the most dominant sheep breed in a country free from scrapie. Bossers A, et al. **Arch Virol** 1999;144(4):829–34

Molecular cloning of the ovine Growth/Differentiation factor-9 gene and expression of growth/differentiation factor-9 in ovine and bovine ovaries. Bodensteiner KJ, et al. **Biol Reprod** 1999 Feb;60(2):381–6

Glutathione-independent prostaglandin D2 synthase in ram and stallion epididymal fluids: origin and regulation. Fouchécourt S, et al. **Biol Reprod** 1999 Mar;60(3):558–66

Distribution of estrogen receptor-beta messenger ribonucleic acid in the male sheep hypothalamus. Hileman SM, et al. **Biol Reprod** 1999 Jun;60(6):1279–84

Expression of the interferon tau inducible ubiquitin cross-reactive protein in the ovine uterus. Johnson GA, et al. **Biol Reprod** 1999 Jul;61(1):312–8

Cellular source in ewes of prostaglandin-endoperoxide synthase-2 in uterine arteries following stimulation with lipopolysaccharide. Vagnoni KE, et al. **Biol Reprod** 1999 Sep;61(3):563–8

A trial of clodronate-liposomes as anti-macrophage treatment in a sheep model of arthritis. Highton J, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):43–8

Ventricular fibrillation and defibrillation thresholds in sheep and dogs. Wan YK, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Sep; 121(1):77–82

Tularemia: a case transmitted from a sheep. Senol M, et al. **Cutis** 1999 Jan;63(1):49–51

The amino acid sequence of the ram spermatidal protein 3—a transition protein TP3 or TP4? Chevaillier P, et al. **Eur J Biochem** 1998 Dec 1;258(2):460–4

Detection of anionic antimicrobial peptides in ovine bronchoalveolar lavage fluid and respiratory epithelium. Brogden KA, et al. **Infect Immun** 1998 Dec;66(12):5948–54

Determination of fat, protein, and total solids in ovine milk by near-infrared spectroscopy. Albanell E, et al. **J AOAC Int** 1999 May–Jun;82(3):753–8

Monitoring chlorinated pesticides and toxic elements in tissues of food-producing animals in Yugoslavia. Spiric A, et al. **J AOAC Int** 1998 Nov–Dec;81(6):1240–4

Effects of sheep alpha s1-casein CC, CD and DD genotypes on milk composition and cheesemaking properties. Pirisi A, et al. **J Dairy Res** 1999 Aug;66(3):409–19

Sensitivity of Staphylococcus aureus and Lactobacillus helveticus in ovine milk subjected to high hydrostatic pressure. Gervilla R, et al. **J Dairy Sci** 1999 Jun; 82(6):1099–107

Ovine neuronal ceroid lipofuscinosis: a large animal model syntenic with the human neuronal ceroid lipofuscinosis variant CLN6. Broom MF, et al. **J Med Genet** 1998 Sep; 35(9):717–21

Prevalence of Coxiella burnetii infections among North Dakota sheep producers. Guo HR, et al. **J Occup Environ Med** 1998 Nov;40(11):999–1006

A sheep model for temporomandibular joint ankylosis. Miyamoto H, et al. **J Oral Maxillofac Surg** 1999 Jul; 57(7):812–7

Sheepskin bedding and the sudden infant death syndrome. New Zealand Cot Death Study Group. Mitchell EA, et al. **J Pediatr** 1998 Nov;133(5):701–4

Aberrant fetal growth and development after in vitro culture of sheep zygotes. Sinclair KD, et al. **J Reprod Fertil** 1999 May;116(1):177–86

Selectivity of atipamezole, yohimbine and tolazoline for alpha-2 adrenergic receptor subtypes: implications for clinical reversal of alpha-2 adrenergic receptor mediated sedation in sheep. Schwartz DD, et al. **J Vet Pharmacol Ther** 1998 Oct;21(5):342–7

Uptake and transport by the ovine placenta of neutral nonmetabolizable amino acids with different transport system affinities. Jóźwik M, et al. **Placenta** 1998 Sep; 19(7):531–8

Seroprevalence of Toxoplasma gondii infection in sheep and alpacas (Llama pacos) in Chile. Gorman T, et al. **Prev Vet Med** 1999 Jun 11;40(3–4):143–9

Supplement strategies for ruminants and management of feeding to maximize utilization of roughages. Orskov ER. **Prev Vet Med** 1999 Jan 27;38(2–3):179–85

Follicular size affects the meiotic competence of in vitro matured prepubertal and adult oocytes in sheep. Ledda S, et al. **Reprod Nutr Dev** 1999 Jul–Aug;39(4):503–8

The influence of fungi on the long-term behaviour of radiocaesium in Norwegian sheep. Mehli H, et al. **Sci Total Environ** 1998 Dec 11;224(1–3):9–17

Occurrence of autoantibodies to cilia in lambs with a 'coughing syndrome'. Niang M, et al. **Vet Immunol Immunopathol** 1998 Jul 31;64(3):191–205

Export procedures: MAFF sets out its plans [news] **Vet Rec** 1999 Apr 24;144(17):458–9

A review of the road transport of slaughter sheep. Knowles TG. **Vet Rec** 1998 Aug 22;143(8):212–9 (69 ref.)

Verocytotoxin-producing Escherichia coli O157 in sheep milk [letter] Rubini S, et al. **Vet Rec** 1999 Jan 9;144(2):56

Reduced fertility after artificial insemination in a ram with a high incidence of knobbed acrosomes. Söderquist L. **Vet Rec** 1998 Aug 22;143(8):227–8

A preliminary comparison of epidural lidocaine and xylazine during total intravenous anaesthesia in Iranian fat-tailed sheep. Vesal N, et al. **Zentralbl Veterinarmed A** 1998 Sep; 45(6–7):353–60

ABNORMALITIES

Incidence risk and aetiology of mammary abnormalities in dry ewes in 10 flocks in southern Greece. Saratsis P, et al. **Prev Vet Med** 1998 Dec 1;37(1–4):173–83

Abattoir survey of congenital reproductive abnormalities in ewes. Smith KC, et al. **Vet Rec** 1998 Dec 19–26; 143(25):679–85

ANATOMY & HISTOLOGY

Anatomic and surgical approach to the ethmoidal nerve and parasympathetic innervation of the nasal and cerebral circulation in sheep. Acocella F, et al. **Am J Vet Res** 1999 Jan;60(1):105–8

Distribution of the Purkinje fibres in the sheep heart. Ansari A, et al. **Anat Rec** 1999 Jan;254(1):92–7

Sensory nerve endings in the anterior cruciate ligament (Lig. cruciatum anterius) of sheep. Halata Z, et al. **Anat Rec** 1999 Jan;254(1):13–21

Co-localization of Rab3B and oxytocin to electron dense granules of the sheep corpus luteum during the estrous cycle. Al-Matubsi HY, et al. **Anat Rec** 1999 Feb 1; 254(2):214–21

Morphological and functional evidence, and clinical importance, of vascular anastomoses in the latissimus dorsi muscle of the sheep. Salmons S, et al. **J Anat** 1998 Jul;193 (Pt 1):93–104

Postmortem proteolysis and calpain/calpastatin activity in callipyge and normal lamb biceps femoris during extended postmortem storage. Geesink GH, et al. **J Anim Sci** 1999 Jun;77(6):1490–501

Effects of postmortem storage on the ultrastructure of the endomysium and myofibrils in normal and callipyge longissimus. Taylor RG, et al. **J Anim Sci** 1998 Nov; 76(11):2811–7

Afferents to the rostral olfactory bulb in sheep with special emphasis on the cholinergic, noradrenergic and serotonergic connections. Lévy F, et al. **J Chem Neuroanat** 1999 Jun;16(4):245–63

Populations of granulosa cells in small follicles of the sheep ovary. Lundy T, et al. **J Reprod Fertil** 1999 Mar; 115(2):251–62

Abattoir survey of acquired reproductive abnormalities in ewes. Smith KC, et al. **Vet Rec** 1999 May 1;144(18):491–6

Ultrastructural study of sheep lacrimal glands. Gargiulo AM, et al. **Vet Res** 1999 Jul–Aug;30(4):345–51

The surgical anatomy of the stifle joint in sheep. Allen MJ, et al. **Vet Surg** 1998 Nov–Dec;27(6):596–605

[Comparative tomography of the lymph nodes of the Peulh Peulh sheep and the Sahel goat. II. Lymph nodes of the caudal vascular net. (Pelvic limbs, pelvis, abdomen and thorax)] Agba KC, et al. **Dakar Med** 1996;41(1):11–20 (Eng. Abstr.) **(Fre)**

[Comparative tomography of the lymph nodes of the Peulh Peulh sheep and the Sahel goat. I: Lymph nodes of the cranial vascular net (head, neck and thoracic limb)] Agba KC, et al. **Dakar Med** 1996;41(1):41–6 (Eng. Abstr.) **(Fre)**

[Arterial vascularization of the amygdaloid nucleus in man and in sheep] Goetzen B, et al. **Morphologie** 1999 Mar; 83(260):29–30 (Eng. Abstr.) **(Fre)**

[Histochemical and morphometric studies of the musculature of the forelimb of sheep with reference to its function. 2. Flexor and extensor of carpal and toe joints] Menzel M. **Anat Anz** 1999 Jul;181(4):385–95 (Eng. Abstr.) **(Ger)**

[Histochemical and morphometric investigations of the musculature of forelimb mass of sheep with reference to its function. 1. Bending and extension of elbow joints] Menzel M. **Anat Anz** 1999 May;181(3):283–91 (Eng. Abstr.) **(Ger)**

BLOOD

Assay for endogenous heparin in plasma of livestock using a synthetic chromogenic substrate. Ledwożyw A, et al. **Arch Vet Pol** 1993;33(3–4):269–73

The estimation of factor VIII levels in horse, cattle, sheep and pig plasma by the use of synthetic chromogenic substrate. Ledwożyw A, et al. **Arch Vet Pol** 1993; 33(3–4):275–81

Specific components of adult sheep serum inhibit wool growth in tissue culture. Winder LM. **Exp Dermatol** 1999 Aug;8(4):320–2

Sheep Hb I variant, or beta13(A10)Gly—>Ser, in breeds from Corsica: detection by gene sequencing. Serreri E, et al. **Hemoglobin** 1998 Sep–Nov;22(5–6):525–8

Purification and properties of proline-rich antimicrobial peptides from sheep and goat leukocytes. Shamova O, et al. **Infect Immun** 1999 Aug;67(8):4106–11

Transient lowering of plasma vitamin B12 concentrations in Ouessant sheep fed on a potassium-rich ration. Smit JJ, et al. **Int J Vitam Nutr Res** 1999 Jul;69(4):273–6

Influence of intravenous L-carnitine administration in sheep preceding an oral urea drench. Chapa AM, et al. **J Anim Sci** 1998 Nov;76(11):2930–7

Treatment of heartwater: potential adverse effects of furosemide administration on certain homeostatic parameters in normal sheep. Shakespeare AS, et al. **J S Afr Vet Assoc** 1998 Dec;69(4):129–36

Quantification of flumequine enantiomers in plasma by high-performance liquid chromatography. Besse S, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):330–2

Pharmacokinetics of indomethacin in sheep after intravenous and intramuscular administration. Vinagre E, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):309–14

The influence of extruding corn grain on glucose metabolism in pregnant ewes. Landau S, et al. **Reprod Nutr Dev** 1999 Mar–Apr;39(2):181–7

Differences between blood and plasma concentrations of acetate, beta-hydroxybutyrate, glucose, ammonia and urea: implications for measurement of portal net fluxes in ewes. Nozière P, et al. **Reprod Nutr Dev** 1998 Sep–Oct; 38(5):509–18

Blood polymorphism in west African breeds of sheep. Missohou A, et al. **Trop Anim Health Prod** 1999 Jun; 31(3):175–9

EMBRYOLOGY

Morphology and development of the distal ganglion of the vagus nerve (ganglion distale n. vagi) in sheep during the prenatal period. Pospieszny N, et al. **Anat Histol Embryol** 1998 Oct;27(5):307–11

Fetal hepatic oxygen consumption under normal conditions in the fetal lamb. Holcomb RG, et al. **Biol Neonate** 1999 May;75(5):310–8

The renin-angiotensin system and the development of the kidney and adrenal in sheep. Wintour EM, et al. **Clin Exp Pharmacol Physiol Suppl** 1998 Nov;25:S97–100 (39 ref.)

Effects of intense noise exposure on fetal sheep auditory brain stem response and inner ear histology. Gerhardt KJ, et al. **Ear Hear** 1999 Feb;20(1):21–32

Ontogeny of angiotensin II type 1 receptor (AT1R) in the sheep adrenal gland. Coulter CL, et al. **Endocr Res** 1998 Aug–Nov;24(3–4):935–6

Ontogeny of innervation of rat and ovine fetal adrenals. Engeland WC, et al. **Endocr Res** 1998 Aug–Nov; 24(3–4):889–98

Activation of the adult mode of ovine growth hormone

receptor gene expression by cortisol during late fetal development. Li J, et al. **FASEB J** 1999 Mar;13(3):545–52
Ovine vascular endothelial growth factor: nucleotide sequence and expression in fetal tissues. Cheung CY, et al. **Growth Factors** 1998;16(1):11–22
Production and lambing rate of blastocysts derived from in vitro matured oocytes after gonadotropin treatment of prepubertal ewes. Ledda S, et al. **J Anim Sci** 1999 Aug; 77(8):2234–9
Spatial and temporal expression of insulin-like growth factor-I, insulin-like growth factor-II and the insulin-like growth factor-I receptor in the sheep fetal mammary gland. Forsyth IA, et al. **J Dairy Res** 1999 Feb;66(1):35–44
Structure of the ovine pineal gland during prenatal development. Regodón S, et al. **J Pineal Res** 1998 Dec; 25(4):229–39
Steroid contents of and steroidogenesis in vitro by the developing gonad and mesonephros around sexual differentiation in fetal sheep. Lun S, et al. **J Reprod Fertil** 1998 Sep;114(1):131–9
Early, middle, and late stages of neural cells from ovine embryo in primary cultures. Richard O, et al. **Neurosci Res** 1998 May;31(1):61–8
Effect of corticosteroids on brain growth in fetal sheep. Huang WL, et al. **Obstet Gynecol** 1999 Aug;94(2):213–8

GENETICS

Zootechnical and genetic aspects of a prolific merino program. Magyar K, et al. **Acta Vet Hung** 1999;47(1):17–31
The actin multigene family and livestock speciation using the polymerase chain reaction. Fairbrother KS, et al. **Anim Biotechnol** 1998;9(2):89–100
Wool production in transgenic sheep: results from first-generation adults and second-generation lambs. Su HY, et al. **Anim Biotechnol** 1998;9(2):135–47
Genetic relationships among Spanish sheep using microsatellites. Arranz JJ, et al. **Anim Genet** 1998 Dec; 29(6):435–40
PCR-RFLP test for direct determination of beta-lactoglobulin genotype in sheep. Feligini M, et al. **Anim Genet** 1998 Dec;29(6):473–4
Extreme fragment lengths differences of the microsatellite in the expressed MHC-DRB gene of Merinoland sheep. Griesinger I, et al. **Anim Genet** 1999 Feb;30(1):77–8
A diagnostic assay discriminating between two major Ovis aries mitochondrial DNA haplogroups. Hiendleder S, et al. **Anim Genet** 1999 Jun;30(3):211–3
Linkage mapping of genes encoding bone morphogenetic proteins 1, 4 and 5 in sheep. Jenkins ZA, et al. **Anim Genet** 1999 Apr;30(2):163–4
Genetic mapping of the ovine homologue of the mouse Hacl1 gene to sheep chromosome 1. Jenkins ZA, et al. **Anim Genet** 1999 Feb;30(1):74
Applicability of SSCP analysis for MHC genotyping: fingerprinting of Ovar-DRB1 exon 2 alleles from Finnish and Russian breeds. Kostia S, et al. **Anim Genet** 1998 Dec; 29(6):453–5
High-resolution gametic map of the sheep callipyge region: linkage heterogeneity among rams detected by sperm typing. Lien S, et al. **Anim Genet** 1999 Feb;30(1):42–6
Isolation and mapping of the first ruminant multidrug resistance genes. Longley M, et al. **Anim Genet** 1999 Jun; 30(3):207–10
A five allele single strand conformational polymorphism in the third intron of the ovine CD3D gene. Maddox JF, et al. **Anim Genet** 1999 Aug;30(4):316–7
Single strand conformational polymorphisms (SSCPs) in the ovine IL1A and IL6 genes. Maddox JF, et al. **Anim Genet** 1999 Aug;30(4):317–8
Thirteen bovine microsatellite markers that are polymorphic in sheep. Nijman IJ, et al. **Anim Genet** 1998 Dec;29(6):474–5
Catalase gene is associated with facial eczema disease resistance in sheep. Phua SH, et al. **Anim Genet** 1999 Aug; 30(4):286–95
Ten restriction fragment length polymorphisms at the ovine catalase (CAT) locus. Phua SH, et al. **Anim Genet** 1999 Jun;30(3):242–4
Genotyping of alpha-s1 casein in sheep. Pilla F, et al. **Anim Genet** 1998 Dec;29(6):472–3
Allelic variation of ovine MHC class II DQA1 and DQA2 genes. Snibson KJ, et al. **Anim Genet** 1998 Oct;29(5):356–62
Chromatin structures of goat and sheep beta-lactoglobulin gene differ. Pena RN, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):649–53
Apolipoprotein E polymorphism in sheep. Tsunoda K, et al. **Biochem Genet** 1998 Dec;36(11–12):395–405
Identification of a functional transcriptional factor AP-1 site in the sheep interferon tau gene that mediates a response to PMA in JEG3 cells. Yamaguchi H, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):767–73
Comparative expression of luteinizing hormone and follicle-stimulating hormone receptors in ovarian follicles from high and low prolific sheep breeds. Abdennebi L, et al. **Biol Reprod** 1999 Apr;60(4):845–54
T-cell receptor TCRG1 and TCRG2 clusters map separately in two different regions of sheep chromosome 4. Massari S, et al. **Chromosome Res** 1998 Aug;6(5):419–20
Location of ganglioside GM2 activator protein gene expression in sheep. Butkus A, et al. **Clin Exp Pharmacol Physiol Suppl** 1998 Nov;25:S28–33
Expression of obese mRNA in genetically lean and fat selection lines of sheep. Kumar B, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):543–8
Standard G-, Q-, and R-banded ideograms of the domestic sheep (Ovis aries): homology with cattle (Bos taurus). Report of the committee for the standardization of the sheep karyotype. Ansari HA, et al. **Cytogenet Cell Genet** 1999;85(3–4):317–24
Assignment of the bovine aromatase encoding gene CYP19 to 10q26 in goat and 7q24-->q31 in sheep. Goldammer T, et al. **Cytogenet Cell Genet** 1999;85(3–4):258–9
Comparative FISH-mapping of six expressed gene loci to river buffalo and sheep chromosomes. Iannuzzi L, et al. **Cytogenet Cell Genet** 1999;84(3–4):161–3
Cytogenetic study of some tissues and age-related changes in cell proportions in a goat-sheep chimera. Jaszczak K, et al. **Cytogenet Cell Genet** 1999;84(1–2):55–7
Physical mapping of the bovine, caprine and ovine homologues of the paired box gene PAX8. Lòpez-Corrales NL, et al. **Cytogenet Cell Genet** 1999;84(3–4):179–81
The application of AFLP fingerprinting to construct a YAC contig containing ADH2 and MTP on sheep chromosome 6. Lumsden JM, et al. **Cytogenet Cell Genet** 1999; 84(3–4):225–9
Analysis of conserved microsatellite sequences suggests closer relationship between water buffalo Bubalus bubalis and sheep Ovis aries. Mattapallil MJ, et al. **DNA Cell Biol** 1999 Jun;18(6):513–9
The characterization of ovine genes for atrial, brain, and C-type natriuretic peptides. Aitken GD, et al. **Domest Anim Endocrinol** 1999 Feb;16(2):115–21
Effect of exogenous FSH on ovulation rate in homozygous carriers or noncarriers of the Booroola FecB gene after hypothalamic-pituitary disconnection or after treatment with a GnRH agonist. Hudson NL, et al. **Domest Anim Endocrinol** 1999 Jan;16(1):69–80
Isolation of an ovine genomic sequence containing the full-length angiotensin II type-1 receptor. Millican DS, et al. **Endocr Res** 1998 Aug-Nov;24(3–4):387–90
Pro-opiomelanocortin gene expression and translation in ovine skin. Porter JA, et al. **Exp Dermatol** 1999 Aug; 8(4):361–2
Chimaeras overcome the genotype X environment interaction. Scobie DR, et al. **Exp Dermatol** 1999 Aug; 8(4):365–6
Cloning and expression analysis of the sheep ceruloplasmin cDNA. Lockhart PJ, et al. **Gene** 1999 Aug 20;236(2):251–7
Sheep Hb 1 variant, or beta13(A10)Gly-->Ser, in breeds from Corsica: detection by gene sequencing. Serreri E, et al. **Hemoglobin** 1998 Sep-Nov;22(5–6):525–8
Regional assignment of elastin (ELN) to sheep chromosome 24q16-qter. Broad TE, et al. **Hereditas** 1998;129(2):181–2
Amino-terminal sequencing of sheep CD1 antigens and identification of a sheep CD1D gene. Rhind SM, et al. **Immunogenetics** 1999 Mar;49(3):225–30
Evaluation of the ovine callipyge locus: III. genotypic effects on meat quality traits. Freking BA, et al. **J Anim Sci** 1999 Sep;77(9):2336–44
Evaluation of the ovine callipyge locus: II. Genotypic effects on growth, slaughter, and carcass traits. Freking BA, et al. **J Anim Sci** 1998 Oct;76(10):2549–59
Quantification of ovine and bovine calpain I, calpain II, and calpastatin mRNA by ribonuclease protection assay. Ilian MA, et al. **J Anim Sci** 1999 Apr;77(4):853–64
Genetic parameters for growth traits for a composite terminal sire breed of sheep. Mousa E, et al. **J Anim Sci** 1999 Jul; 77(7):1659–65
The U.S. National Sheep Improvement Program: across-flock genetic evaluations and new trait development. Notter DR. **J Anim Sci** 1998 Sep; 76(9):2324–30
Genotypic expression at different ages: I. Prolificacy traits of sheep. Okut H, et al. **J Anim Sci** 1999 Sep;77(9):2357–65
Genotypic expression at different ages: II. Wool traits of sheep. Okut H, et al. **J Anim Sci** 1999 Sep;77(9):2366–71
Genotypic expression with different ages of dams: III. Weight traits of sheep. Okut H, et al. **J Anim Sci** 1999 Sep; 77(9):2372–8
Nucleotide sequence of ovine C/EBPepsilon gene. Sabatakos G, et al. **J Anim Sci** 1998 Nov;76(11):2953–4
Genetic parameters of lactation cell counts and milk and protein yields in dairy ewes. el-Saied UM, et al. **J Dairy Sci** 1999 Mar;82(3):639–44
A partial cDNA sequence of the ovine insulin receptor gene: evidence for alternative splicing of an exon 11 region and for tissue-specific regulation of receptor isoform expression in sheep muscle, adipose tissue and liver. McGrattan PD, et al. **J Endocrinol** 1998 Dec;159(3):381–7
Duplicate growth hormone genes in sheep and goat. Wallis M, et al. **J Mol Endocrinol** 1998 Aug;21(1):1–5 (28 ref.)
The complete mitochondrial DNA sequence of the domestic sheep (Ovis aries) and comparison with the other major ovine haplotype. Hiendleder S, et al. **J Mol Evol** 1998 Oct; 47(4):441–8
cDNA cloning, structural organization, and expression of the sheep NRAMP1 gene. Bussmann V, et al. **Mamm Genome** 1998 Dec;9(12):1027–31
Localization of the locus causing Spider Lamb Syndrome to the distal end of ovine Chromosome 6. Cockett NE, et al. **Mamm Genome** 1999 Jan;10(1):35–8
Genomic imprinting in ruminants: allele-specific gene expression in parthenogenetic sheep. Feil R, et al. **Mamm Genome** 1998 Oct;9(10):831–4
Comparison of the human with the sheep genomes by use of human chromosome-specific painting probes. Iannuzzi L, et al. **Mamm Genome** 1999 Jul;10(7):719–23
Genomic imprinting of the insulin-like growth factor 2 gene in sheep. McLaren RJ, et al. **Mamm Genome** 1999 Jun; 10(6):588–91
Molecular and pharmacological characterization of dominant black coat color in sheep. Våge DI, et al. **Mamm Genome** 1999 Jan;10(1):39–43
Construction and characterization of a sheep BAC library of three genome equivalents. Vaiman D, et al. **Mamm Genome** 1999 Jun;10(6):585–7
Rapid analysis of allelic variants of the sheep PrP gene by oligonucleotide probes. Ishiguro N, et al. **Microbiol Immunol** 1998;42(8):579–82
Population subdivision among desert bighorn sheep (Ovis canadensis) ewes revealed by mitochondrial DNA analysis. Boyce WM, et al. **Mol Ecol** 1999 Jan;8(1):99–106
Male reproductive success in a promiscuous mammal: behavioural estimates compared with genetic paternity. Coltman DW, et al. **Mol Ecol** 1999 Jul;8(7):1199–209
Splicing variants in sheep CLN3, the gene underlying juvenile neuronal ceroid lipofuscinosis. Oswald MJ, et al. **Mol Genet Metab** 1999 Jun;67(2):169–75
Mitochondrial DNA genotypes in nuclear transfer-derived cloned sheep. Evans MJ, et al. **Nat Genet** 1999 Sep; 23(1):90–3
Analysis of telomere lengths in cloned sheep [letter] Shiels PG, et al. **Nature** 1999 May 27;399(6734):316–7
Molecular screening of sheep for bovine spongiform encephalopathy. Hill AF, et al. **Neurosci Lett** 1998 Oct 23;255(3):159–62
Population dynamics of scrapie in a sheep flock. Woolhouse ME, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Apr 29;354(1384):751–6
High prolificacy in Belle-Ile sheep (Brittany, France): major effects of a putative single gene and the Awh colour gene on ovulation rate and litter size. Malher X, et al. **Reprod Nutr Dev** 1998 Jul-Aug;38(4):473–84
Population genetics and paternity in Rasa Aragonesa sheep using DNA fingerprinting. Ferreira E, et al. **Res Vet Sci** 1999 Aug;67(1):23–6
Expression of a wool intermediate filament keratin transgene in sheep fibre alters structure. Bawden CS, et al. **Transgenic Res** 1998 Jul;7(4):273–87
Expression of human blood clotting factor VIII in the mammary gland of transgenic sheep. Niemann H, et al. **Transgenic Res** 1999 Jun;8(3):237–47
[Cloning--two years after Dolly] Nørby S. **Ugeskr Laeger** 1999 Aug 23;161(34):4733–5 **(Dan)**
[Chromosome localization and analysis of synteny analysis of some genes in swine, cattle, and sheep (Artiodactyla)] Kuznetsov SB, et al. **Genetika** 1998 Sep;34(9):1200–4 (Eng. Abstr.) **(Rus)**
[The isolation and analysis of the highly repetitive DNA from the argali] Fedorova EV, et al. **Tsitol Genet** 1998 Sep-Oct; 32(5):67–74 (Eng. Abstr.) **(Rus)**
[The genetic structure of Kulunda sheep] Glazko VI, et al. **Tsitol Genet** 1999 Mar-Apr;33(2):69–73 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Reproductive seasonality and maturation throughout the complete life-cycle in the mouflon ram (Ovis musimon). Lincoln GA. **Anim Reprod Sci** 1998 Oct;53(1–4):87–105
In vitro development of sheep preantral follicles. Cecconi S, et al. **Biol Reprod** 1999 Mar;60(3):594–601
Effects of variations in live weight gain on bone growth and composition and on markers of bone turnover in lambs. Nicodemo ML, et al. **Exp Physiol** 1999 May;84(3):579–87
Protein supplementation improves the performance of parasitised sheep fed a straw-based diet. Datta FU, et al. **Int J Parasitol** 1998 Aug;28(8):1269–78
Biologically based coefficients for partitioning lamb and wool production costs. Blackburn HD, et al. **J Anim Sci** 1999 Jun;77(6):1353–63
Effects of bovine somatotropin and ruminally undegraded protein on feed intake, live weight gain, and mohair production by yearling Angora wethers. Davis JJ, et al. **J Anim Sci** 1999 May;77(5):1029–36
Influence of management system on litter size, lamb growth, and carcass characteristics in sheep. Dimsoski P, et al. **J Anim Sci** 1999 May;77(5):1037–43
Energy source and ionophore supplementation effects on lamb growth, carcass characteristics, visceral organ mass, diet digestibility, and nitrogen metabolism. Fluharty FL, et al. **J Anim Sci** 1999 Apr;77(4):816–23
Dietary protein and chromium tripicolinate in Suffolk wether lambs: effects on production characteristics, metabolic and hormonal responses, and immune status. Gentry LR, et al. **J Anim Sci** 1999 May;77(5):1284–94
Heat energy for growing goats and sheep grazing different pastures in the summer. Herselman MJ, et al. **J Anim Sci** 1999 May;77(5):1258–65
Genetic parameters for growth traits for a composite terminal sire breed of sheep. Mousa E, et al. **J Anim Sci** 1999 Jul; 77(7):1659–65
Effects of underfeeding and refeeding on weight and cellularity of splanchnic organs in ewes. Nozière P, et al. **J Anim Sci** 1999 Aug;77(8):2279–90
Influence of nutrition on testicular growth in Corriedale rams during spring. Pérez-Clariget R, et al.

Reprod Nutr Dev 1998 Sep-Oct;38(5):529-38

IMMUNOLOGY

Single strand conformational polymorphisms (SSCPs) in the ovine IL1A and IL6 genes. Maddox JF, et al. **Anim Genet** 1999 Aug;30(4):317-8

Allelic variation of ovine MHC class II DQA1 and DQA2 genes. Snibson KJ, et al. **Anim Genet** 1998 Oct;29(5):356-62

Diet and humoral responsiveness of lines of chickens divergently selected for antibody response to sheep red blood cells. Boa-Amponsem K, et al. **Avian Dis** 1998 Jul-Sep;42(3):565-71

A new epitope on sheep CD45R molecule detected by a monoclonal antibody. Mateo A, et al. **Comp Immunol Microbiol Infect Dis** 1999 Apr;22(2):125-36

Effects of pulsed or continuous infusion of cortisol on immune function in sheep. Rhind SM, et al. **Domest Anim Endocrinol** 1999 Jan;16(1):1-9

Analysis of sheep T-cell receptor beta-chain heterogeneity. Halsey WA Jr, et al. **Immunogenetics** 1999 Mar; 49(3):206-14

Sheep CD4(+) alphabeta T cells express novel members of the T19 multigene family. O'Keeffe MA, et al. **Immunogenetics** 1999 Jan;49(1):45-55

B-1-like cells exist in sheep. Characterization of their phenotype and behaviour. Chevallier N, et al. **Immunology** 1998 Oct;95(2):178-84

Local immune responses in afferent and efferent lymph. Haig DM, et al. **Immunology** 1999 Feb;96(2):155-63 (70 ref.)

In vitro effect of swainsonine on bovine and ovine lymphoblastogenesis. Taylor JB, et al. **J Anim Sci** 1998 Nov;76(11):2857-62

Comparison of immunomodulatory properties of purified lactoferrin, lactoperoxidase and beta-casein in sheep. Wong CW, et al. **J Dairy Res** 1998 Nov;65(4):697-701

INJURIES

Multifocal cerebellar granular layer necrosis in traumatically head-injured lambs. Finnie JW, et al. **Vet Pathol** 1999 May; 36(3):256-8

Welfare implications of sheep ear tags. Edwards DS, et al. **Vet Rec** 1999 May 29;144(22):603-6

METABOLISM

A mathematical model of luteinizing hormone release from ovine pituitary cells in perifusion. Heinze K, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E1061-71

Effects of interleukins on secretion of luteinizing hormone from ovine pituitary cells. Braden TD, et al. **Am J Vet Res** 1998 Nov;59(11):1488-93

Bicarbonate as an interference in B. stearothermophilus assays. Erasmuson AF, et al. **Analyst** 1998 Dec; 123(12):2497-9

Catalase gene is associated with facial eczema disease resistance in sheep. Phua SH, et al. **Anim Genet** 1999 Aug; 30(4):286-95

Effect of glucose availability on pulsatile luteinizing hormone release in rams before and after castration. Kittok RJ. **Anim Reprod Sci** 1999 Feb 12;55(1):35-45

Steroid regulation of retinol-binding protein in the ovine oviduct. Eberhardt DM, et al. **Biol Reprod** 1999 Mar; 60(3):714-20

Estradiol up-regulates estrogen receptor-alpha messenger ribonucleic acid in sheep endometrium by increasing its stability. Ing NH, et al. **Biol Reprod** 1999 Jan;60(1):134-9

Large-format, two-dimensional polyacrylamide gel electrophoresis of ovine periimplantation uterine luminal fluid proteins: identification of aldose reductase, cytoplasmic actin, and transferrin as conceptus-synthesized proteins. Lee RS, et al. **Biol Reprod** 1998 Oct;59(4):743-52

Effects of the estrous cycle and early pregnancy on uterine expression of Mx protein in sheep (Ovis aries). Ott TL, et al. **Biol Reprod** 1998 Oct;59(4):784-94

Transfers of N metabolites across the ovine liver in response to short-term infusions of an amino acid mixture into the mesenteric vein. Lobley GE, et al. **Br J Nutr** 1998 Oct; 80(4):371-9

Uptake of acetylated peptides from the small intestine in sheep and their nutritive value in rats. Wallace RJ, et al. **Br J Nutr** 1998 Jul;80(1):101-8

Rapid expression of polymorphic ovine prion proteins and studies on their protease sensitivity. Dear DV, et al. **Brain Res Bull** 1999 Jan 1;48(1):89-92

Copper, zinc, cadmium, and lead in sheep grazing in North Greece. Zantopoulos N, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):691-9

Late steps of aldosterone biosynthesis: sheep are not rats. Boon WC, et al. **Clin Exp Pharmacol Physiol Suppl** 1998 Nov;25:S21-7

Pharmacokinetic study of 45Ca administered intravenously following intramuscular injection of vitamin D3 or 25-hydroxyvitamin D3 in early weaned lambs. Hidiroglou M, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Feb;122(2):277-82

Tissue sequestration of C-labelled bicarbonate [HCO3-] in fed and fasted young sheep. Ram L, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Mar; 122(3):323-30

Purification and characterization of ovine pancreatic elastase. Erlendsson LS, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):549-57

Dietary fat manipulation and signal transduction in ovine skin. McCarroll J, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):571-7

Co-expression of transforming growth factor beta and interferon tau during peri-implantation period in the ewe. Imakawa K, et al. **Endocr J** 1998 Aug;45(4):441-50

Effect of infusing gamma-aminobutyric acid receptor agonists and antagonists into the medial preoptic area and ventromedial hypothalamus on prolactin secretion in male sheep. Ferreira SA, et al. **Endocrine** 1998 Dec;9(3):303-12

Luteal expression of steroidogenic factor-1 mRNA during the estrous cycle and in response to luteotropic and luteolytic stimuli in ewes. Juengel JL, et al. **Endocrine** 1998 Dec;9(3):227-32

Uterine milk protein, a novel activin-binding protein, is present in ovine allantoic fluid. McFarlane JR, et al. **Endocrinology** 1999 Oct;140(10):4745-52

Discovery and characterization of endometrial epithelial messenger ribonucleic acids using the ovine uterine gland knockout model. Spencer TE, et al. **Endocrinology** 1999 Sep;140(9):4070-80

Effects of variations in live weight gain on bone growth and composition and on markers of bone turnover in lambs. Nicodemo ML, et al. **Exp Physiol** 1999 May;84(3):579-87

Net nutrient flux in visceral tissues of lambs fed diets differing in supplemental nitrogen source. Bohnert DW, et al. **J Anim Sci** 1999 Sep;77(9):2545-53

Tissue distribution of a peptide transporter mRNA in sheep, dairy cows, pigs, and chickens. Chen H, et al. **J Anim Sci** 1999 May;77(5):1277-83

Nitrogen retention by lambs fed oscillating dietary protein concentrations. Cole NA. **J Anim Sci** 1999 Jan;77(1):215-22

Copper status of ewes fed increasing amounts of copper from copper sulfate or copper proteinate. Eckert GE, et al. **J Anim Sci** 1999 Jan;77(1):244-9

Effects of corn processing and dietary fiber source on feedlot performance, visceral organ weight, diet digestibility, and nitrogen metabolism in lambs. Hejazi S, et al. **J Anim Sci** 1999 Mar;77(3):507-15

Metabolism and excretion of ochratoxin A fed to sheep. Höhler D, et al. **J Anim Sci** 1999 May;77(5):1217-23

Effects of frequency of supplementation on dry matter intake and net portal and hepatic flux of nutrients in mature ewes that consume low-quality forage. Krehbiel CR, et al. **J Anim Sci** 1998 Sep;76(9):2464-73

Glycyl-L-sarcosine absorption across ovine omasal epithelium during coincubation with other peptide substrates and volatile fatty acids. McCollum MQ, et al. **J Anim Sci** 1998 Oct;76(10):2706-11

Metabolic adaptation to experimentally increased glucose demand in ruminants. Overton TR, et al. **J Anim Sci** 1998 Nov;76(11):2938-46

Effects of feed restriction and cold exposure on glucose metabolism in response to feeding and insulin in sheep. Sano H, et al. **J Anim Sci** 1999 Sep;77(9):2564-73

Ruminally undegraded intake protein in sheep fed low-quality forage: effect on weight, growth, cell proliferation, and morphology of visceral organs. Swanson KC, et al. **J Anim Sci** 1999 Jan;77(1):198-205

The extent of proteolysis is independent of sarcomere length in lamb longissimus and psoas major. Wheeler TL, et al. **J Anim Sci** 1999 Sep;77(9):2444-51

Different techniques to study rumen fermentation characteristics of maturing grass and grass silage. Cone JW, et al. **J Dairy Sci** 1999 May;82(5):957-66

Magnesium absorption by wethers fed potassium bicarbonate in combination with different dietary magnesium concentrations. Ram L, et al. **J Dairy Sci** 1998 Sep; 81(9):2485-92

Ovine chorionic somatomammotrophin (oCS) production by isolated cotyledon cells from sheep in early and mid gestation: auto-regulation by recombinant oCS. Soares MC, et al. **J Endocrinol** 1999 May;161(2):289-98

Changes in the suppressive effects of recombinant inhibin A on FSH secretion in ram lambs during sexual maturation: evidence for alterations in the clearance rate of inhibin. Tilbrook AJ, et al. **J Endocrinol** 1999 May;161(2):219-29

Seasonal changes in the negative feedback regulation of the secretion of the gonadotrophins by testosterone and inhibin in rams. Tilbrook AJ, et al. **J Endocrinol** 1999 Jan; 160(1):155-67

The ovine melatonin-related receptor: cloning and preliminary distribution and binding studies. Drew JE, et al. **J Neuroendocrinol** 1998 Sep;10(9):651-61

Photoperiod affects the ability of testosterone to alter proopiomelanocortin mRNA, but not luteinizing hormone-releasing hormone mRNA, levels in male sheep. Hileman SM, et al. **J Neuroendocrinol** 1998 Aug; 10(8):587-92

Expression of a cytosolic phospholipase A2 by ovine endometrium on days 11-14 of a simulated oestrous cycle. Graf GA, et al. **J Reprod Fertil** 1999 Mar;115(2):357-63

Morphometric and endocrine analyses of the effects of nutrition on the testis of mature Merino rams. Hötzel MJ, et al. **J Reprod Fertil** 1998 Jul;113(2):217-30

Steady-state concentrations of mRNA encoding two inhibitors of protein kinase C in ovine luteal tissue. Juengel JL, et al. **J Reprod Fertil** 1998 Jul;113(2):299-305

Regulatory effect of steroid hormones and fetal tissues on expression of oxytocin receptor in the endometrium of late pregnant ewes. Leung ST, et al. **J Reprod Fertil** 1999 Mar; 115(2):243-50

In vivo and ex vivo uptake of albendazole and its sulphoxide metabolite by cestode parasites: relationship with their kinetic behaviour in sheep. Alvarez LI, et al. **J Vet Pharmacol Ther** 1999 Apr;22(2):77-86

Pharmacokinetic studies of flunixin meglumine and phenylbutazone in plasma, exudate and transudate in sheep. Cheng Z, et al. **J Vet Pharmacol Ther** 1998 Aug; 21(4):315-21

Pharmacokinetics and pharmacodynamics of tilmicosin in sheep and cattle. Modric S, et al. **J Vet Pharmacol Ther** 1998 Dec;21(6):444-52

Interspecies differences in the metabolism of ethidium bromide by rat, sheep and pig hepatocytes. Tettey JN, et al. **J Vet Pharmacol Ther** 1999 Aug;22(4):283-5

Variation in the metabolism of radiocaesium between individual sheep. Beresford NA, et al. **Radiat Environ Biophys** 1998 Dec;37(4):277-81

Differential expression pattern of inhibin alpha and betaA subunits in the ovaries of postnatal and prepubertal lambs. Braw-Tal R, et al. **Reprod Fertil Dev** 1997;9(8):825-32

Uterine luminal content of insulin-like growth factor (IGF)-I and endometrial expression of mRNA encoding IGF-binding proteins 1 and 2 during the oestrous cycle and early pregnancy in the ewe. Cann CH, et al. **Reprod Fertil Dev** 1998;10(2):155-63

The proteolysis of insulin-like growth factor binding proteins in ovine uterine luminal fluid. Peterson AJ, et al. **Reprod Fertil Dev** 1998;10(4):309-14

Pharmacokinetics of oxytetracycline after intramuscular administration with lidocaine in sheep, comparison with a conventional formulation. Moreno L, et al. **Res Vet Sci** 1998 Nov-Dec;65(3):209-13

Expression of a wool intermediate filament keratin transgene in sheep fibre alters structure. Bawden CS, et al. **Transgenic Res** 1998 Jul;7(4):273-87

Interactions in sheep between tall fescue ergot alkaloids and hepatotoxic carbon tetrachloride and Senecio pyrrolizidine alkaloids. Debessai WT, et al. **Vet Hum Toxicol** 1999 Jun; 41(3):129-33

Evaluation of hepatic changes and weight gains in sheep grazing Kochia scoparia. Kirkpatrick JG, et al. **Vet Hum Toxicol** 1999 Apr;41(2):67-70

A preliminary study on the effects of dietary energy and melatonin on the ex vivo production of progesterone and prostaglandin F2alpha by the corpora lutea and endometrial tissue of ewes. Abecia JA, et al. **Vet Res Commun** 1999 Mar;23(2):115-21

Influence of diet type and pretreatment fasting on the disposition kinetics of albendazole in sheep. Singh D, et al. **Vet Res Commun** 1999 Jun;23(4):229-40

Comparative disposition kinetics of albendazole in sheep following oral and intraruminal administration. Swarnkar CP, et al. **Vet Res Commun** 1998 Dec;22(8):545-51

Pharmacokinetics of indomethacin after intraruminal administration to sheep. Vinagre E, et al. **Zentralbl Veterinarmed A** 1999 Aug;46(6):361-6

MICROBIOLOGY

Polymerase chain reaction techniques for differentiating cytotoxic and noncytotoxic Pasteurella trehalosi from Rocky Mountain bighorn sheep. Green AL, et al. **Am J Vet Res** 1999 May;60(5):583-8

Analysis of Escherichia coli O157:H7 survival in ovine or bovine manure and manure slurry. Kudva IT, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3166-74

Isolation and characterization of proteolytic ruminal bacteria from sheep and goats fed the tannin-containing shrub legume Calliandra calothyrsus. McSweeney CS, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3075-83

Intermittent shedding of thermophilic campylobacters by sheep at pasture. Jones K, et al. **J Appl Microbiol** 1999 Mar;86(3):531-6

Evaluation of modified BACTEC 12B radiometric medium and solid media for culture of Mycobacterium avium subsp. paratuberculosis from sheep. Whittington RJ, et al. **J Clin Microbiol** 1999 Apr;37(4):1077-83

Shiga toxin-producing Escherichia coli in sheep and pre-slaughter lambs in eastern Australia. Fegan N, et al. **Lett Appl Microbiol** 1999 May;28(5):335-9

Preliminary characterisation of extracellular serine proteases of Dermatophilus congolensis isolates from cattle, sheep and horses. Ambrose NC, et al. **Vet Microbiol** 1998 Aug 15;62(4):321-35

PARASITOLOGY

Activities of Bacillus thuringiensis insecticidal crystal proteins Cyt1Aa and Cyt2Aa against three species of sheep blowfly. Chilcott CN, et al. **Appl Environ Microbiol** 1998 Oct;64(10):4060-1

Genetic resistance to gastrointestinal nematode parasites in Polish long-wool sheep. Bouix J, et al. **Int J Parasitol** 1998 Nov;28(11):1797-804

Detection of Toxoplasma gondii in tissues of sheep orally challenged with different doses of oocysts. Esteban-Redondo I, et al. **Int J Parasitol** 1998 Sep; 28(9):1459-66

Variation between hosts in the developmental success of the free-living stages of trichostrongyle infections of sheep. Jørgensen LT, et al. **Int J Parasitol** 1998 Sep;28(9):1347-52

Infection of sheep with adult and larval Ostertagia circumcincta: abomasal morphology. Scott I, et al. **Int J Parasitol** 1998 Sep;28(9):1383–92

Rumen ciliate protozoal fauna of native sheep, friesian cattle and dromedary camel in Libya. Selim HM, et al. **J Vet Med Sci** 1999 Mar;61(3):303–5

In vivo and ex vivo uptake of albendazole and its sulphoxide metabolite by cestode parasites: relationship with their kinetic behaviour in sheep. Alvarez LI, et al. **J Vet Pharmacol Ther** 1999 Apr;22(2):77–86

Infection kinetics and developmental biology of Cryptosporidium muris (strain MCR) in Korean native kids and Corriedale lambs. Rhee JK, et al. **Korean J Parasitol** 1998 Sep;36(3):171–81

Galectins from sheep gastrointestinal nematode parasites are highly conserved. Greenhalgh CJ, et al. **Mol Biochem Parasitol** 1999 Jan 25;98(2):285–9

Fitness of benzimidazole-resistant and -susceptible worms of Teladorsagia circumcincta, a nematode parasite of small ruminants. Elard L, et al. **Parasitology** 1998 Dec;117 (Pt 6):571–8

The effect of continuous drug exposure on the immune response of lambs challenged with drug-susceptible or drug-resistant nematode larvae. Sutherland IA, et al. **Vet Res Commun** 1998 Jul;22(5):305–14

Evaluation of techniques for the enumeration of Dicrocoelium eggs in sheep faeces. Rehbein S, et al. **Zentralbl Veterinarmed A** 1999 Apr;46(3):133–9

PHYSIOLOGY

Minor redistribution of ventilation and perfusion within the lung during exercise in sheep. Melsom MN, et al. **Acta Physiol Scand** 1999 Mar;165(3):283–92

Hypoxia and hyperoxia both transiently affect distribution of pulmonary perfusion but not ventilation in awake sheep. Melsom MN, et al. **Acta Physiol Scand** 1999 Jun; 166(2):151–8

Effects of melatonin, progestagens, and the ram on out-of-season reproduction in Swedish Landrace finewool sheep. Gates PJ, et al. **Acta Vet Scand** 1998;39(4):499–510

Sperm viability in ram semen diluted and stored in three different extenders. López A, et al. **Acta Vet Scand** 1999; 40(1):1–9

Central Fos expression in fetal and adult sheep after intraperitoneal hypertonic saline. Caston-Balderrama A, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H725–35

Influence of grazing management on the seasonal change in testicular morphology in Corriedale rams. Bielli A, et al. **Anim Reprod Sci** 1999 Jun 28;56(2):93–105

Delayed luteolysis after intra-uterine infusions of nordihydroguaiaretic acid in the ewe. Cooke RG, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):113–21

Effects of the presence of rams during pregnancy on lambing performance in ewes. Al-Gubory KH. **Anim Reprod Sci** 1998 Sep 11;52(3):205–11

Reproductive seasonality and maturation throughout the complete life-cycle in the mouflon ram (Ovis musimon). Lincoln GA. **Anim Reprod Sci** 1998 Oct;53(1–4):87–105

Opioidergic and nutritional involvement in the control of luteinizing hormone secretion of postpartum Rasa Aragonesa ewes lambing in the mid-breeding season. Lozano JM, et al. **Anim Reprod Sci** 1998 Oct 9;52(4):267–77

Priming effect of exogenous oestradiol on luteinizing hormone secretion in prepubertal lambs. Meikle A, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):75–85

Ovulation and luteal characteristics following removal of the ovine corpus luteum (lutectomy) at four times during the oestrous cycle. Muñoz-Gutiérrez M, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):87–94

Development of a nutritional strategy for increasing lamb survival in Merino ewes mated in late spring/early summer. Nottle MB, et al. **Anim Reprod Sci** 1998 Sep 11;52(3):213–9

Effect of adrenocorticotrophic hormone (ACTH1–24) on ovine pituitary gland responsiveness to exogenous pulsatile GnRH and oestradiol-induced LH release in vivo. Phogat JB, et al. **Anim Reprod Sci** 1999 Apr 31;55(3–4):193–203

Effects of level of food intake on ovarian follicle number, size and steroidogenic capacity in the ewe. Rhind SM, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):131–8

Studies on the measurement of phospholipase A2 (PLA2) and PLA2 inhibitor activities in ram semen. Upreti GC, et al. **Anim Reprod Sci** 1999 Jun 28;56(2):107–21

Effects of adrenocorticotrophin (ACTH) and progesterone on luteinising hormone (LH) secretion in recently castrated rams. Van Lier E, et al. **Anim Reprod Sci** 1999 Mar 19; 55(2):115–26

Dynamics of steroid regulation of GnRH secretion during the oestrus cycle of the ewe. Caraty A, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):68–78 (45 ref.)

The use of an in vitro cellulase enzyme technique for predicting the digestibility of tropical feeds and fodders. Mohan DV, et al. **Arch Tierernahr** 1998;51(4):307–18

The comparison of in vitro fermentation kinetics estimated by three different methods. Váradyová Z, et al. **Arch Tierernahr** 1998;51(4):319–26

Effect of stress-like concentrations of cortisol on estradiol-dependent expression of gonadotropin-releasing hormone receptor in orchidectomized sheep. Adams TE, et al. **Biol Reprod** 1999 Jan;60(1):164–8

Effect of stress-like concentrations of cortisol on gonadotroph function in orchidectomized sheep. Daley CA, et al. **Biol Reprod** 1999 Jan;60(1):158–63

Retinol administration to superovulated ewes improves in vitro embryonic viability. Eberhardt DM, et al. **Biol Reprod** 1999 Jun;60(6):1483–7

Effect of labor induction on the expression of oxytocin receptor, cytochrome P450 aromatase, and estradiol receptor in the reproductive tract of the late-pregnant ewe. Leung ST, et al. **Biol Reprod** 1999 Apr;60(4):814–20

Prolactin replacement fails to inhibit reactivation of gonadotropin secretion in rams treated with melatonin under long days. Lincoln GA, et al. **Biol Reprod** 1999 Mar; 60(3):602–10

Scent of a Ewe: transmission of a social cue by conspecifics affects sexual performance in male sheep. Maina D, et al. **Biol Reprod** 1999 Jun;60(6):1373–7

Insulin-like growth factor-I, insulin-like growth factor-binding proteins, and gonadotropins in the hypothalamic-pituitary axis and serum of nutrient-restricted ewes. Snyder JL, et al. **Biol Reprod** 1999 Jul;61(1):219–24

Seasonal variation in long-day stimulation of prolactin secretion in ewes. Sweeney T, et al. **Biol Reprod** 1999 Jan; 60(1):128–33

Passage through the rumen and the large intestine of sheep estimated from faecal marker excretion curves and slaughter trials. de Vega A, et al. **Br J Nutr** 1998 Oct; 80(4):381–9

Spatial distribution of myosin heavy chain isoforms and lactate dehydrogenase M4 in the limb musculature of two crossbred lambs. Sayd T, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 May; 120(1):153–63

Photo-neuroendocrine control of seasonal cycles in body weight, pelage growth and reproduction: lessons from the HPD sheep model. Lincoln GA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):283–94 (78 ref.)

Temporal effects of estradiol (E) on luteinizing hormone-releasing hormone (LHRH) and LH release in castrated male sheep. Lubbers LS, et al. **Domest Anim Endocrinol** 1998 Nov;15(6):511–24

Effect of immunization against melatonin on prolactin concentrations and the timing of reproductive transitions in ewes. O'Callaghan D, et al. **Domest Anim Endocrinol** 1999 May;16(4):207–17

Effects of intense noise exposure on fetal sheep auditory brain stem response and inner ear histology. Gerhardt KJ, et al. **Ear Hear** 1999 Feb;20(1):21–32

Long-term ovarian function in sheep after ovariectomy and transplantation of autografts stored at -196 C. Baird DT, et al. **Endocrinology** 1999 Jan;140(1):462–71

Progesterone priming is essential for the full expression of the positive feedback effect of estradiol in inducing the preovulatory gonadotropin-releasing hormone surge in the ewe. Caraty A, et al. **Endocrinology** 1999 Jan;140(1):165–70

The secretory patterns of growth hormone in pregnant and hysterectomized ewes. Al-Gubory KH, et al. **Eur J Endocrinol** 1999 Jul;141(1):83–9

Acute reserpine treatment alters the catecholamine, glucocorticoid and opioid response to walking exercise in sheep. Pierzchala-Koziec K, et al. **Exp Clin Endocrinol Diabetes** 1999;107(1):85–8

Vagotomy suppresses cephalic phase insulin release in sheep. Herath CB, et al. **Exp Physiol** 1999 May;84(3):559–69

Incipient ovarian failure associated with raised levels of follicle stimulating hormone and reduced levels of inhibin A in older sheep. de Souza CJ, et al. **Hum Reprod** 1998 Nov;13(11):3016–22

Biochemical and hormonal characterization of follicles from follicular and luteal phase ovaries of goat and sheep. Singh D, et al. **Indian J Exp Biol** 1999 May;37(5):434–8

Long-term effects of short-term provision of protein-enriched diets on resistance to nematode infection, and live-weight gain and wool growth in sheep. Datta FU, et al. **Int J Parasitol** 1999 Mar;29(3):479–88

Comparison of weigh-suckle-weigh and machine milking for measuring ewe milk production. Benson ME, et al. **J Anim Sci** 1999 Sep;77(9):2330–5

Validation of the main modeling methods for the estimation of marker mean retention times in the different compartments of the gastrointestinal tract in sheep. Bernard L, et al. **J Anim Sci** 1998 Sep;76(9):2485–95

Ultrasonic evaluation for the time of ovulation in ewes treated with norgestomet and norgestomet followed by pregnant mare's serum gonadotropin. Cardwell BE, et al. **J Anim Sci** 1998 Sep;76(9):2235–8

Effect of ruminal cellulolytic bacterial concentrations on in situ digestion of forage cellulose. Dehority BA, et al. **J Anim Sci** 1998 Nov;76(11):2905–11

The effect of ram exposure on uterine involution and luteal function during the postpartum period of hair sheep ewes in the tropics. Godfrey RW, et al. **J Anim Sci** 1998 Dec; 76(12):3090–4

Effects of birth weight and postnatal nutrition on neonatal sheep: I. Body growth and composition, and some aspects of energetic efficiency. Greenwood PL, et al. **J Anim Sci** 1998 Sep;76(9):2354–67

Substrate utilization for hepatic gluconeogenesis is altered by increased glucose demand in ruminants. Overton TR, et al. **J Anim Sci** 1999 Jul;77(7):1940–51

Technical note: measuring portal blood flow in sheep using an ultrasonic transit time flow probe. Rémond D, et al. **J Anim Sci** 1998 Oct;76(10):2712–6

Variation in food selection among lambs: effects of basal diet and foods offered in a meal. Scott LL, et al. **J Anim Sci** 1999 Sep;77(9):2391–7

Nutrient-specific preferences by lambs conditioned with intraruminal infusions of starch, casein, and water. Villalba JJ, et al. **J Anim Sci** 1999 Feb;77(2):378–87

Bayesian analysis of birth weight and litter size in Baluchi sheep using Gibbs sampling. Yazdi MH, et al. **J Anim Sci** 1999 Mar;77(3):533–40

Histaminergic neurons in the sheep diencephalon. Tillet Y, et al. **J Comp Neurol** 1998 Oct 26;400(3):317–33

Effects of calcium soaps and rumen undegradable protein on the milk production and composition of dairy ewes. Casals R, et al. **J Dairy Res** 1999 May;66(2):177–91

Insulin secretion and intestinal peptides during lactation in sheep. Faulkner A, et al. **J Dairy Res** 1999 Feb;66(1):45–52

Relationship of portal-drained viscera and liver net flux of glucose, lactate, volatile fatty acids, and nitrogen metabolites to milk production in the ewe. Freetly HC, et al. **J Dairy Sci** 1999 Mar;82(3):597–604

Effect of administration of vitamin E and selenium during the dry period on mammary health and milk cell counts in dairy ewes. Morgante M, et al. **J Dairy Sci** 1999 Mar; 82(3):623–31

Insulin-glucocorticoid interactions in the regulation of acetyl-CoA carboxylase-alpha transcript diversity in ovine adipose tissue. Travers MT, et al. **J Mol Endocrinol** 1999 Feb;22(1):71–9

Cardiopulmonary effects of the alpha2-adrenoceptor agonists medetomidine and ST-91 in anesthetized sheep. Celly CS, et al. **J Pharmacol Exp Ther** 1999 May;289(2):712–20

Ovarian antral follicular dynamics and their relationships with endocrine variables throughout the oestrous cycle in breeds of sheep differing in prolificacy. Bartlewski PM, et al. **J Reprod Fertil** 1999 Jan;115(1):111–24

Ovarian follicular dynamics during anoestrus in ewes. Bartlewski PM, et al. **J Reprod Fertil** 1998 Jul; 113(2):275–85

Transport of uterine PGF2 alpha to the ovaries by systemic circulation and local lymphovenous-arterial diffusion during luteolysis in sheep. Bonnin P, et al. **J Reprod Fertil** 1999 May;116(1):199–210

Active immunization with a synthetic fragment of pig inhibin alpha-subunit increases ovulation rate and embryo production in superovulated ewes but season affects its efficiency. D'Alessandro A, et al. **J Reprod Fertil** 1999 Jan; 115(1):185–91

Effect of immunization against the amino-terminal peptide (alpha N) of the alpha 43-subunit of inhibin on follicular atresia and expression of tissue inhibitor of matrix metalloproteinase (TIMP-1) in ovarian follicles of sheep. Dhar A, et al. **J Reprod Fertil** 1998 Sep;114(1):147–55

Effect of transport on pulsatile and surge secretion of LH in ewes in the breeding season. Dobson H, et al. **J Reprod Fertil** 1999 May;116(1):1–8

Ovulation, fertilization and lambing rates, and peripheral progesterone concentrations, in ewes inseminated at a natural oestrus during November or February. Mitchell LM, et al. **J Reprod Fertil** 1999 Jan;115(1):133–40

Effect of prolonged exposure to oestradiol on subsequent LH secretion in ewes. Ozturk M, et al. **J Reprod Fertil** 1998 Sep;114(1):1–9

Effect of transport on pituitary responsiveness to exogenous pulsatile GnRH and oestradiol-induced LH release in intact ewes. Phogat JB, et al. **J Reprod Fertil** 1999 May; 116(1):9–18

Markers of follicle function in Belclare-cross ewes differing widely in ovulation rate. Reynaud K, et al. **J Reprod Fertil** 1999 May;116(1):51–61

Effect of progesterone on the GnRH-induced secretion of oestradiol and androstenedione from the autotransplanted ovary of the anoestrous ewe. Scaramuzzi RJ, et al. **J Reprod Fertil** 1999 May;116(1):127–32

Regulation of prostaglandin F2 alpha and E receptor mRNA by prostaglandin F 2 alpha in ovine corpora lutea. Tsai SJ, et al. **J Reprod Fertil** 1998 Sep;114(1):69–75

Regulation of ovine GnRH receptor gene expression by progesterone and oestradiol. Turzillo AM, et al. **J Reprod Fertil** 1998 Jul;113(2):251–6

Oestrogen and progesterone receptor immunoreactivity and c-fos expression in the ovine cervix. Zhao Y, et al. **J Reprod Fertil** 1999 Mar;115(2):287–92

Sheep model for study of maternal adrenal gland function during pregnancy. Keller-Wood M, et al. **Lab Anim Sci** 1998 Oct;48(5):507–12

Follicle selection in sheep with breed differences in ovulation rate. Baird DT, et al. **Mol Cell Endocrinol** 1998 Oct 25; 145(1–2):89–95 (28 ref.)

Colostrum mediates the development of mother preference by newborn lambs. Goursaud AP, et al. **Physiol Behav** 1999 Aug 1;67(1):49–56

Delayed vasoconstriction of the umbilico-placental circulation by angiotensin in fetal sheep [letter] [published erratum appears in Placenta 1999 Mar-Apr;20(2-3):257] Faber JJ, et al. **Placenta** 1998 Nov;19(8):675–6

Influence of maternal bodyweight on adaptation after birth in near-term lambs delivered by Caesarean section. Symonds ME, et al. **Reprod Fertil Dev** 1998;10(4):333–9

Reproductive and productive performance in Chios ewes mated in spring or in autumn. Avdi M, et al. **Reprod Nutr Dev** 1998 Sep-Oct;38(5):551–8

Effects of photoperiod and feeding level on perirenal adipose

tissue metabolic activity and leptin synthesis in the ovariectomized ewe. Bocquier F, et al. **Reprod Nutr Dev** 1998 Sep–Oct;38(5):489–98

The effect of Saccharomyces cerevisiae and Aspergillus oryzae on the digestion of the cell wall fraction of a mixed diet in defaunated and refaunated sheep rumen. Jouany JP, et al. **Reprod Nutr Dev** 1998 Jul–Aug;38(4):401–16

Ram lambs need FSH for normal testicular growth, Sertoli cell numbers and onset of spermatogenesis. Kilgour RJ, et al. **Reprod Nutr Dev** 1998 Sep–Oct;38(5):539–50

Embryo transfer and related technologies in sheep reproduction. Loi P, et al. **Reprod Nutr Dev** 1998 Nov–Dec; 38(6):615–28 (123 ref.)

Psychobiological consequences of two different weaning methods in sheep. Orgeur P, et al. **Reprod Nutr Dev** 1999 Mar–Apr;39(2):231–44

Characterisation of the cardiovascular pharmacology of medetomidine in the horse and sheep. Bryant CE, et al. **Res Vet Sci** 1998 Sep–Oct;65(2):149–54

The effect of gonadotrophin releasing hormone and follicle stimulating hormone in conjunction with pregnant mare serum gonadotrophin on the superovulatory response in crossbred sheep in India. Naqvi SM, et al. **Trop Anim Health Prod** 1998 Dec;30(6):369–76

Changes in the capacity of the vagina and the compliance of the vaginal wall in ovariectomized, normal cyclical and pregnant ewes, before and after treatment with exogenous oestradiol and progesterone. Ayen E, et al. **Vet J** 1998 Sep;156(2):133–43

The role of phosphate on the rates of mineral absorption from the forestomach of sheep. Dua K, et al. **Vet J** 1999 Jan;157(1):51–5

Near infrared spectroscopy in large animals: optical pathlength and influence of hair covering and epidermal pigmentation. Pringle J, et al. **Vet J** 1999 Jul;158(1):48–52

The effect of diclofenac Na (Voltarol) on the haematopoietic cells of bone marrow in sheep. Naeini AT, et al. **Vet Res Commun** 1998 Sep;22(6):401–3

Effects of hypertonic saline infusion on the adrenocortical response to thiopental–halothane anesthesia in sheep after premedication with acepromazine. Taylor PM. **Vet Surg** 1999 Jan–Feb;28(1):77–82

[Histochemical and morphometric studies of the musculature of the forelimb of sheep with reference to its function. 2. Flexor and extensor of carpal and toe joints] Menzel M. **Anat Anz** 1999 Jul;181(4):385–95 (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

Psychobiological consequences of two different weaning methods in sheep. Orgeur P, et al. **Reprod Nutr Dev** 1999 Mar–Apr;39(2):231–44

SURGERY

Anaesthesia for lambs undergoing spinal surgery: a case series. Clutton RE, et al. **Lab Anim** 1998 Oct;32(4):414–21

The surgical anatomy of the stifle joint in sheep. Allen MJ, et al. **Vet Surg** 1998 Nov–Dec;27(6):596–605

VIROLOGY

Treatment of visna virus infection in lambs with the acyclic nucleoside phosphonate analogue 9-(2-phosphonylmethoxyethyl)adenine (PMEA). Thormar H, et al. **Antivir Chem Chemother** 1998 May;9(3):245–52

Isolation of bluetongue virus serotype 2 from native sheep in India. Sreenivasulu D, et al. **Vet Rec** 1999 Apr 17; 144(16):452–3

SHEEP DISEASES

Large offspring syndrome in cattle and sheep. Young LE, et al. **Rev Reprod** 1998 Sep;3(3):155–63 (61 ref.)

Prevalence of traumatic myiasis in Hungary: a questionnaire survey of veterinarians. Farkas R, et al. **Vet Rec** 1998 Oct 17;143(16):440–3

BLOOD

Eicosanoid production by adult Fasciola hepatica and plasma eicosanoid patterns during fasciolosis in sheep. Ali SF, et al. **Int J Parasitol** 1999 May;29(5):743–8

A comparison of serum biochemical changes in two breeds of sheep (Red Masai and Dorper) experimentally infected with Fasciola gigantica. Waweru JG, et al. **Onderstepoort J Vet Res** 1999 Mar;66(1):47–9

Haematological changes and antibody response in trypanotolerant sheep and goats following experimental Trypanosoma congolense infection. Goossens B, et al. **Vet Parasitol** 1998 Nov 27;79(4):283–97

Differential haematological effects of tick-borne fever in sheep and goats. Gokce HI, et al. **Zentralbl Veterinarmed [B]** 1999 Mar;46(2):105–15

The effects of Ehrlichia (Cytoecetes) phagocytophila on the clinical chemistry of sheep and goats. Gokce HI, et al. **Zentralbl Veterinarmed [B]** 1999 Mar;46(2):93–103

CHEMICALLY INDUCED

Histopathologic alterations induced in the lungs of sheep by use of alpha2-adrenergic receptor agonists. Celly CS, et al. **Am J Vet Res** 1999 Feb;60(2):154–61

Alpha-2 receptor agonists and a species-specific mechanism of hypoxaemia [letter] Jones JG. **Anaesthesia** 1999 Jun; 54(6):607–8

Genetically modified ruminal bacteria protect sheep from fluoroacetate poisoning. Gregg K, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3496–8

Optic neuropathy and retinopathy in closantel toxicosis of sheep and goats. Gill PA, et al. **Aust Vet J** 1999 Apr; 77(4):259–61

Development of a toxin-binding agent as a treatment for tunicaminyluracil toxicity: protection against tunicamycin poisoning of sheep. May C, et al. **Aust Vet J** 1998 Nov; 76(11):752–6

Selenium toxicosis in a flock of Katahdin hair sheep. Smith BI, et al. **Can Vet J** 1999 Mar;40(3):192–4

Diagnosis and treatment of copper toxicosis in ruminants. Auza NJ, et al. **J Am Vet Med Assoc** 1999 Jun 1; 214(11):1624–8 (32 ref.)

Ovine copper poisoning and pteridium aquilium-associated bovine urinary bladder tumor in Korea. Kim DY, et al. **J Toxicol Sci** 1998 Oct;23 Suppl 4:645–6

Rumen bacteria are involved in the onset of onion-induced hemolytic anemia in sheep. Selim HM, et al. **J Vet Med Sci** 1999 Apr;61(4):369–74

Clinical and analytical studies of sheep dosed with various preparations of Astragalus lusitanicus. Abdennebi EH, et al. **Vet Hum Toxicol** 1998 Dec;40(6):327–31

Scouring in lambs following treatment with Vecoxan [letter] Gradwell DV. **Vet Rec** 1999 May 29;144(22):623

CONGENITAL

Congenital Baylisascaris sp. larval migrans in a newborn lamb. Anderson BC. **J Parasitol** 1999 Feb;85(1):128–9

Abattoir survey of congenital reproductive abnormalities in ewes. Smith KC, et al. **Vet Rec** 1998 Dec 19–26; 143(25):679–85

DIAGNOSIS

Effectiveness of small workshops for improving farmers' knowledge about ovine footrot. Thompson GK, et al. **Aust Vet J** 1999 May;77(5):318–21

Use of a recombinant maedi-visna virus protein ELISA for the serologic diagnosis of lentivirus infections in small ruminants. Pasick J. **Can J Vet Res** 1998 Oct;62(4):307–10

Focal symmetrical encephalomalacia in a 6-month-old Dorset sheep. Sattler N, et al. **Can Vet J** 1998 Jul; 39(7):434–7

Potential value of major antigenic protein 2 for serological diagnosis of heartwater and related ehrlichial infections. Bowie MV, et al. **Clin Diagn Lab Immunol** 1999 Mar; 6(2):209–15

Performance of competitive and indirect enzyme-linked immunosorbent assays, gel immunoprecipitation with native hapten polysaccharide, and standard serological tests in diagnosis of sheep brucellosis. Marin CM, et al. **Clin Diagn Lab Immunol** 1999 Mar;6(2):269–72

Preparation of a high titre Salmonella abortusovis H-antigen and antiserum and improvement of the microagglutination test. Giannati A, et al. **J Microbiol Methods** 1999 Apr; 35(3):219–23

A case of ovine lymphosarcoma in Kenya. Maribei JM, et al. **J S Afr Vet Assoc** 1998 Sep;69(3):105–7

Diagnosis of malignant catarrhal fever by PCR using formalin-fixed, paraffin-embedded tissues. Crawford TB, et al. **J Vet Diagn Invest** 1999 Mar;11(2):111–6

Detection of false-positive sera in contagious agalactia with a multiantigen ELISA and their elimination with a protein G conjugate. Lambert M, et al. **J Vet Diagn Invest** 1998 Oct;10(4):326–30

PCR detection of Clostridium perfringens type D in formalin-fixed, paraffin-embedded tissues of goats and sheep. Warren AL, et al. **Lett Appl Microbiol** 1999 Jul; 29(1):15–9

Epididymitis by Brucella ovis: experimental infection in virgin ram lambs. Cerri D, et al. **New Microbiol** 1999 Jul; 22(3):227–31

Monoclonal antibody sandwich immunoassay detection of coproantigen to evaluate the efficacy of treatment in natural ovine fasciolosis. Duménigo BE, et al. **Res Vet Sci** 1999 Apr;66(2):165–7

Efficacy of ELISA compared to conventional tests (RBPT and CFT) for the diagnosis of Brucella melitensis infection in sheep. Jacques I, et al. **Vet Microbiol** 1998 Nov; 64(1):61–73

Kinetics of antibody-based antigen detection in serum and faeces of sheep experimentally infected with Fasciola hepatica. Duménigo BE, et al. **Vet Parasitol** 1999 Sep 15; 86(1):23–31

A sensitive polymerase chain reaction based assay for the detection of Setaria digitata: the causative organism of cerebrospinal nematodiasis in goats, sheep and horses. Wijesundera WS, et al. **Vet Parasitol** 1999 Mar 1; 81(3):225–33

Evaluation of a direct ELISA for the serodiagnosis of Oestrus ovis infections in sheep. Goddard P, et al. **Vet Rec** 1999 May 1;144(18):497–501

Comparison of polyclonal, monoclonal and protein G peroxidase conjugates in an enzyme-linked immunosorbent assay for the diagnosis of Brucella ovis in sheep. Marin CM, et al. **Vet Rec** 1998 Oct 3;143(14):390–4

Evaluation of techniques for the enumeration of Dicrocoelium eggs in sheep faeces. Rehbein S, et al. **Zentralbl Veterinarmed A** 1999 Apr;46(3):133–9

Detection and identification of Mycoplasma conjunctivae in infectious keratoconjunctivitis by PCR based on the 16S rRNA gene. Giacometti M, et al. **Zentralbl Veterinarmed [B]** 1999 Apr;46(3):173–80

Clinical, clinico-pathological and serological studies of Babesia ovis in experimentally infected sheep. Yeruham I, et al. **Zentralbl Veterinarmed [B]** 1998 Sep;45(7):385–94

[Clinical findings and differential diagnosis in ketosis and hypocalcemia in sheep] Bickhardt K, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Nov;105(11):413–9 (Eng. Abstr.) **(Ger)**

[Investigations on manifestations of vitamin E and selenium deficiency in sheep and goats] Bickhardt K, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jun;106(6):242–7 (Eng. Abstr.) **(Ger)**

[Calcinosis in sheep. Case report] Benesch C, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):83–6 (Eng. Abstr.) **(Ger)**

[Detection and quantification of Fasciola hepatica antigens in sheep] Duménigo Ripoll BE, et al. **Rev Cubana Med Trop** 1998;50(1):82–4 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Pharmacokinetics of an ampicillin-sulbactam combination after intravenous and intramuscular administration to sheep. Escudero E, et al. **Can J Vet Res** 1999 Jan;63(1):25–30

Influence of ruminal bypass on the pharmacokinetics and efficacy of benzimidazole anthelmintics in sheep. Steel JW, et al. **Int J Parasitol** 1999 Feb;29(2):305–14

Treatment of heartwater: potential adverse effects of furosemide administration on certain homeostatic parameters in normal sheep. Shakespeare AS, et al. **J S Afr Vet Assoc** 1998 Dec;69(4):129–36

Moxidectin: persistence and efficacy against drug-resistant Ostertagia circumcincta. Sutherland IA, et al. **J Vet Pharmacol Ther** 1999 Feb;22(1):2–5

Monoclonal antibody sandwich immunoassay detection of coproantigen to evaluate the efficacy of treatment in natural ovine fasciolosis. Duménigo BE, et al. **Res Vet Sci** 1999 Apr;66(2):165–7

Anthelmintic resistance in sheep and goat farms on Peninsular Malaysia. Chandrawathani P, et al. **Vet Parasitol** 1999 May; 82(4):305–10

Frontiers in anthelmintic pharmacology. Geary TG, et al. **Vet Parasitol** 1999 Aug 1;84(3–4):275–95 (98 ref.)

The relationship between faecal egg count reduction and the lethal dose 50% in the egg hatch assay and larval development assay. Maingi N, et al. **Vet Parasitol** 1998 Jun 15;77(2–3):133–45

Treatment of psoroptic mange with reference to epidemiology and history. O'Brien DJ. **Vet Parasitol** 1999 Jun 30;83(3–4):177–85

Treatment and prophylaxis of psoroptic mange (sheep scab) using an ivermectin intraruminal controlled-release bolus for sheep. O'Brien DJ, et al. **Vet Parasitol** 1999 Aug 16; 85(1):79–85

Further studies on anthelmintic resistance in sheep at an organised farm in arid region of Rajasthan. Swarnkar CP, et al. **Vet Parasitol** 1999 Mar 22;82(1):81–4

Economic benefits of prophylaxis with diclazuril against subclinical coccidiosis in lambs reared indoors. Alzieu JP, et al. **Vet Rec** 1999 Apr 17;144(16):442–4

ECONOMICS

Preliminary estimates of the direct costs associated with endemic diseases of livestock in Great Britain. Bennett R, et al. **Prev Vet Med** 1999 Apr 9;39(3):155–71

The control of heartwater on large-scale commercial and smallholder farms in Zimbabwe. Chamboko T, et al. **Prev Vet Med** 1999 Apr 9;39(3):191–210

An assessment of the economic impact of heartwater (Cowdria ruminantium infection) and its control in Zimbabwe. Mukhebi AW, et al. **Prev Vet Med** 1999 Apr 9;39(3):173–89

ENZYMOLOGY

Catalase gene is associated with facial eczema disease resistance in sheep. Phua SH, et al. **Anim Genet** 1999 Aug; 30(4):286–95

Temporal variations in blood glutathione peroxidase (GSHPx) activity in sheep at pasture in a Mediterranean area. Andres S, et al. **Vet J** 1999 Mar;157(2):186–8

EPIDEMIOLOGY

Serum antibodies to bovine coronavirus in Swedish sheep. Trävén M, et al. **Acta Vet Scand** 1999;40(1):69–74

Hyperendemic focus of Q fever related to sheep and wind. Tissot-Dupont H, et al. **Am J Epidemiol** 1999 Jul 1; 150(1):67–74

Update on footrot in south-west Germany. Younan M, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Feb;106(2):66–7

Determination of farm-level risk factors for abnormalities observed during post-mortem meat inspection of lambs: a feasibility study. Edwards DS, et al. **Epidemiol Infect** 1999 Aug;123(1):109–19

PCR-RFLP of outer membrane proteins gene of Dichelobacter nodosus: a new tool in the epidemiology of footrot. Ghimire SC, et al. **Epidemiol Infect** 1999 Jun; 122(3):521–8

Study of Akabane infection in Saudi Arabia by the use of sentinel ruminants. Abu Elzein EM, et al. **J Comp Pathol** 1998 Nov;119(4):473–8

Oestrid myiasis in European mouflon from Spain. Moreno V, et al. **J Wildl Dis** 1999 Jan;35(1):78–81

Epidemic of transmissible spongiform encephalopathy in sheep and goats in Italy [letter] Agrimi U, et al. **Lancet** 1999 Feb 13;353(9152):560–1

A study on bluetongue virus infection in Saudi Arabia using sentinel ruminants. Abu Elzein EM, et al. **Onderstepoort J Vet Res** 1998 Dec;65(4):243–51

Traumatic myiasis of sheep in Europe: a review. Hall MJ. **Parasitologia** 1997 Dec;39(4):409–13 (50 ref.)

Persistence of human myiasis by Oestrus ovis L. (Diptera: Oestridae) among shepherds of the Etnean area (Sicily) for over 150 years. Pampiglione S, et al. **Parassitologia** 1997 Dec;39(4):415–8

Seroprevalence of Toxoplasma gondii infection in sheep and alpacas (Llama pacos) in Chile. Gorman T, et al. **Prev Vet Med** 1999 Jun 11;40(3–4):143–9

Associations of veterinary services and farmer characteristics with the prevalences of brucellosis and border disease in small ruminants in Spain. Mainar-Jaime RC, et al. **Prev Vet Med** 1999 Jun 11;40(3–4):193–205

Incidence risk and aetiology of mammary abnormalities in dry ewes in 10 flocks in southern Greece. Saratsis P, et al. **Prev Vet Med** 1998 Dec 1;37(1–4):173–83

Coenurus cerebralis infection in Ethiopian highland sheep: incidence and observations on pathogenesis and clinical signs. Achenef M, et al. **Trop Anim Health Prod** 1999 Feb; 31(1):15–24

The prevalence of coccidian species in sheep in Kars Province of Turkey. Arslan MO, et al. **Trop Anim Health Prod** 1999 Jun;31(3):161–5

Rinderpest antibody detected in sheep and goats before an outbreak of rinderpest reported in cattle in northern Tanzania. Wambura PN, et al. **Trop Anim Health Prod** 1999 Feb;31(1):9–14

Rift valley fever surveillance in the lower Senegal river basin: update 10 years after the epidemic. Thonnon J, et al. **Trop Med Int Health** 1999 Aug;4(8):580–5

The role of small ruminants in the epidemiology and transmission of foot-and-mouth disease. Barnett PV, et al. **Vet J** 1999 Jul;158(1):6–13 (60 ref.)

Serosurvey on theileriosis in Awassi sheep in Syria. Alyasino Y, et al. **Vet Parasitol** 1999 Mar 15;81(4):275–80

The effect of farm management strategies on the incidence of sheep strike in Britain: a simulation analysis. Fenton A, et al. **Vet Parasitol** 1998 Nov 27;79(4):341–57

Seroprevalence of Babesia ovis in sheep in Catalonia, northeastern Spain. Ferrer D, et al. **Vet Parasitol** 1998 Nov 27;79(4):275–81

Sheep scab outbreaks in Great Britain between 1973 and 1992: spatial and temporal patterns. French NP, et al. **Vet Parasitol** 1999 Jun 30;83(3–4):187–200

The incidence and economic significance of ovine toxoplasmosis in Uruguay [corrected and republished article originally printed in Vet Parasitol 1997 Dec 15;73(1–2):13–5] Freyre A, et al. **Vet Parasitol** 1999 Feb 1;81(1):85–8

Prevalence of Sarcocystis spp. in meat-producing animals in Iraq. Latif BM, et al. **Vet Parasitol** 1999 Jul;84(1–2):85–90

Prevalence of Echinococcus granulosus infection in stray dogs and herbivores in Shiraz, Iran. Mehrabani D, et al. **Vet Parasitol** 1999 Oct 1;86(3):217–20

Modelling the prevalence of Echinococcus and Taenia species in small ruminants of different ages in northern Jordan. Torgerson PR, et al. **Vet Parasitol** 1998 Sep; 79(1):35–51

Prevalence and clustering of louse infestation in Queensland sheep flocks. Ward MP, et al. **Vet Parasitol** 1999 Apr 12; 82(3):243–50

Outbreak of Listeria ivanovii abortion in sheep in India. Chand P, et al. **Vet Rec** 1999 Jul 17;145(3):83–4

Case control study of diarrhoea and faecal soiling in two- to six-month-old lambs. French NP, et al. **Vet Rec** 1998 Oct 10;143(15):408–12

Abattoir survey of congenital reproductive abnormalities in ewes. Smith KC, et al. **Vet Rec** 1998 Dec 19–26; 143(25):679–85

Epidemiological observations in a Corriedale flock affected by Brucella ovis. Robles CA, et al. **Vet Res Commun** 1998 Nov;22(7):435–43

Erysipelothrix septicaemia in neonatal lambs. Rad M, et al. **Zentralbl Veterinarmed [B]** 1998 Nov;45(9):573–5

[Calcinosis in sheep. Case report] Benesch C, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):83–6 (Eng. Abstr.) **(Ger)**

ETIOLOGY

Ammoniated forage poisoning: concentrations of alkylimidazoles in ammoniated forage and in milk, plasma and urine in sheep and cow. Müller L, et al. **Acta Vet Scand** 1998;39(4):511–4

Studies on the pathogenicity of bovine herpesvirus type 5 in sheep. Belák K, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jul;22(3):207–20

Quantification of the pain and distress responses to castration in young lambs. Thornton PD, et al. **Res Vet Sci** 1999 Apr; 66(2):107–18

GENETICS

Development and usefulness of new polymerase chain reaction-based tests for detection of different alleles at codons 136 and 171 of the ovine prion protein gene. Yuzbasiyan-Gurkan V, et al. **Am J Vet Res** 1999 Jul; 60(7):884–7

Catalase gene is associated with facial eczema disease resistance in sheep. Phua SH, et al. **Anim Genet** 1999 Aug; 30(4):286–95

Hereditary deficiency of vitamin-K-dependent coagulation factors in Rambouillet sheep. Baker DC, et al. **Blood Coagul Fibrinolysis** 1999 Mar;10(2):75–80

Expression of obese mRNA in genetically lean and fat selection lines of sheep. Kumar B, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):543–8

Quantitation of sheep-associated malignant catarrhal fever viral DNA by competitive polymerase chain reaction. Hua Y, et al. **J Vet Diagn Invest** 1999 Mar;11(2):117–21

Heritable variation in resistance to gastro-intestinal nematodes in an unmanaged mammal population. Smith JA, et al. **Proc R Soc Lond B Biol Sci** 1999 Jun 22; 266(1425):1283–90

High incidence of otognathia in a sheep population. De Jonghe S, et al. **Vet Rec** 1999 Jan 23;144(4):96–8

Cerebellar abiotrophy in a pedigree Charollais sheep flock. Milne EM, et al. **Vet Rec** 1998 Aug 22;143(8):224–5

IMMUNOLOGY

Humoral immune response to equine chorionic gonadotropin in ewes: association with major histocompatibility complex and interference with subsequent fertility. Roy F, et al. **Biol Reprod** 1999 Jul;61(1):209–18

Development and evaluation of various enzyme-linked immunosorbent assays for the detection of Clostridium perfringens beta anti-toxins. Krt B. **FEMS Immunol Med Microbiol** 1999 Jul;24(3):293–7

Genetic resistance to gastrointestinal nematode parasites in Polish long-wool sheep. Bouix J, et al. **Int J Parasitol** 1998 Nov;28(11):1797–804

Long-term effects of short-term provision of protein-enriched diets on resistance to nematode infection, and live-weight gain and wool growth in sheep. Datta FU, et al. **Int J Parasitol** 1999 Mar;29(3):479–88

Studies on the role of mucus and mucosal hypersensitivity reactions during rejection of Trichostrongylus colubriformis from the intestine of immune sheep using an experimental challenge model. Harrison GB, et al. **Int J Parasitol** 1999 Mar;29(3):459–68

Mechanisms underlying resistance to nematode infection. Stear MJ, et al. **Int J Parasitol** 1999 Jan;29(1):51–6; discussion 73–5 (14 ref.)

The intramammary inflammatory response of genetically resistant Merino ewes infected with Haemonchus contortus. Thamsborg SM, et al. **Int J Parasitol** 1999 Mar; 29(3):451–8

B-cell (CD79a+) lymphoma affecting the tarsal joint synovia in a sheep. Pearson GR, et al. **J Comp Pathol** 1999 Apr; 120(3):295–9

Variation in resistance to haemonchosis: selection of female sheep resistant to Haemonchus contortus. Hooda V, et al. **J Helminthol** 1999 Jun;73(2):137–42

Humoral immune response and antigenemia in sheep experimentally infected with Schistosoma bovis. Cross-reactivity with Fasciola hepatica antigens. Rodriguez-Osorio M, et al. **J Parasitol** 1999 Jun; 85(3):585–7

Differential serologic response to Mycoplasma ovipneumoniae and Mycoplasma arginini in lambs affected with chronic respiratory disease. Niang M, et al. **J Vet Diagn Invest** 1999 Jan;11(1):34–40

Vaccine-induced cytotoxic T lymphocytes protect against retroviral challenge. Hislop AD, et al. **Nat Med** 1998 Oct; 4(10):1193–6

IFN gamma and IL-10 production by hepatic lymph node and peripheral blood lymphocytes in Fasciola hepatica infected sheep. Moreau E, et al. **Parasite** 1998 Dec; 5(4):307–15

IgE antibody during infection with the ovine abomasal nematode, Teladorsagia circumcincta: primary and secondary responses in serum and gastric lymph of sheep. Huntley JF, et al. **Parasite Immunol** 1998 Nov; 20(11):565–71

The recognition of molecules from fourth-stage larvae of Ostertagia circumcincta by IgA from infected sheep. Strain SA, et al. **Parasite Immunol** 1999 Mar;21(3):163–8

Epitope specificities and antibody responses to the EG95 hydatid vaccine. Woollard DJ, et al. **Parasite Immunol** 1998 Nov;20(11):535–40

Changes in peripheral blood lymphocyte subpopulations and parasite-specific antibody responses in Trypanosoma evansi infection of sheep. Onah DN, et al. **Parasitol Res** 1999 Apr; 85(4):263–9

A study of immunological responses of sheep clinically-affected with paratuberculosis (Johne's disease). The relationship of blood, mesenteric lymph node and intestinal lymphocyte responses to gross and microscopic pathology. Burrells C, et al. **Vet Immunol Immunopathol** 1998 Dec 11;66(3–4):343–58

Occurrence of autoantibodies to cilia in lambs with a 'coughing syndrome'. Niang M, et al. **Vet Immunol Immunopathol** 1998 Jul 31;64(3):191–205

Characterisation of the primary local and systemic immune response in gnotobiotic lambs against rotavirus infection. van Pinxteren LA, et al. **Vet Immunol Immunopathol** 1998 Aug 31;64(4):349–65

Development of a protective immunity against Ostertagia leptospicularis in trickle-infected sheep and parallel changes of serum gastrin, pepsinogen and antibody levels [see comments] Hertzberg H, et al. **Vet J** 1999 Mar; 157(2):148–59. Comment in: Vet J 1999 Mar;157(2):111.

Nematode burdens and cellular responses in the abomasal mucosa and blood of Florida Native, Rambouillet and crossbreed lambs. Amarante AF, et al. **Vet Parasitol** 1999 Jan 28;80(4):311–24

Effect of Fasciola gigantica somatic extracts and excretory/secretory products on superoxide production by activated neutrophils. El-Ghaysh A, et al. **Vet Parasitol** 1999 Jul;84(1–2):91–100

Lymphocyte responses to mitogens and rickettsial antigens in sheep experimentally infected with Ehrlichia (Cytoecetes) phagocytophila. Gokce HI, et al. **Vet Parasitol** 1999 Jun 1;83(1):55–64

Serum antibody response of Castellana sheep to Haemonchus contortus infection and challenge: relationship to abomasal worm burdens. Gómez-Muñoz MT, et al. **Vet Parasitol** 1999 Mar 15;81(4):281–93

The susceptibility of Djallonké and Djallonké-Sahelian crossbred sheep to Trypanosoma congolense and helminth infection under different diet levels. Goossens B, et al. **Vet Parasitol** 1999 Aug 16;85(1):25–41

Infectivity and cross-immunity studies of Theileria lestoquardi and Theileria annulata in sheep and cattle: I. In vivo responses. Leemans I, et al. **Vet Parasitol** 1999 Apr 12;82(3):179–92

Infectivity and cross-immunity studies of Theileria lestoquardi and Theileria annulata in sheep and cattle: II. In vitro studies. Leemans I, et al. **Vet Parasitol** 1999 Apr 12;82(3):193–204

The effect of continuous drug exposure on the immune response to Trichostrongylus colubriformis in sheep. Sutherland IA, et al. **Vet Parasitol** 1999 Jan 14;80(3):261–71

Prominence of gammadelta T cells in the elicitation phase of dinitrochlorobenzene-induced contact hypersensitivity in lambs. Jörundsson E, et al. **Vet Pathol** 1999 Jan; 36(1):42–50

Lack of humoral and cellular responses against glutathione S-transferases in Fasciola hepatica experimentally infected sheep. Moreau E, et al. **Vet Res** 1998 Nov-Dec; 29(6):585–91

Infection-induced protection against Haemonchus contortus in merino and manchego sheep. Relationship to serum antibody response. Gómez-Muñoz MT, et al. **Zentralbl Veterinarmed [B]** 1998 Oct;45(8):449–59

The effect of experimental infectious mastitis on leukocyte subpopulations and cytokine production in non-lactating ewes. Waller KP, et al. **Zentralbl Veterinarmed [B]** 1999 Jun;46(5):289–99

METABOLISM

Impairment of gas exchange due to alveolar oedema during xylazine sedation in sheep; absence of a free radical mediated inflammatory mechanism. Bacon PJ, et al. **Res Vet Sci** 1998 Jul-Aug;65(1):71–5

Interferon-gamma and interleukin-2 release by lymphocytes derived from the blood, mesenteric lymph nodes and intestines of normal sheep and those affected with paratuberculosis (Johne's disease). Burrells C, et al. **Vet Immunol Immunopathol** 1999 May;68(2–4):139–48

Secretion of magnesium and calcium in the total saliva of sheep and its relevance to hypomagnesaemia. Dua K, et al. **Vet J** 1998 Nov;156(3):217–21

MICROBIOLOGY

Experimental infection of lambs with an equine granulocytic Ehrlichia species resembling the agent that causes human granulocytic ehrlichiosis (HGE). Stuen S, et al. **Acta Vet Scand** 1998;39(4):491–7

Streptococcus parasanguinis: new pathogen associated with asymptomatic mastitis in sheep. Fernández-Garayzábal JF, et al. **Emerg Infect Dis** 1998 Oct-Dec;4(4):645–7

Typing of sheep clinical isolates and identification of enterotoxigenic Clostridium perfringens strains by classical methods and by polymerase chain reaction (PCR). Kadra B, et al. **FEMS Immunol Med Microbiol** 1999 Jul; 24(3):259–66

Characterisation of strain-specific sequences from an abortifacient strain of ovine Chlamydia psittaci using subtraction hybridisation. Creelan JL, et al. **FEMS Microbiol Lett** 1999 Feb 1;171(1):17–25

Human but not ovine isolates of Bordetella parapertussis are highly clonal as determined by PCR-based RAPD fingerprinting. Yuk MH, et al. **Infection** 1998 Sep-Oct; 26(5):270–3

Characterization of nonenterotoxigenic Escherichia coli strains producing F17 fimbriae isolated from diarrheic lambs and goat kids. Cid D, et al. **J Clin Microbiol** 1999 May;37(5):1370–5

Rapid identification and typing of Staphylococcus aureus by PCR-restriction fragment length polymorphism analysis of the aroA gene. Marcos JY, et al. **J Clin Microbiol** 1999 Mar;37(3):570–4

Differential serologic response to Mycoplasma ovipneumoniae and Mycoplasma arginini in lambs affected with chronic respiratory disease. Niang M, et al. **J Vet Diagn Invest** 1999 Jan;11(1):34–40

Identification and grouping of Dichelobacter nodosus, using PCR and sequence analysis. John GH, et al. **Mol Cell Probes** 1999 Feb;13(1):61–5

PCR–restriction endonuclease analysis for identification and strain typing of Mycobacterium avium subsp. paratuberculosis and Mycobacterium avium subsp. avium based on polymorphisms in IS1311. Marsh I, et al. **Mol Cell Probes** 1999 Apr;13(2):115–26

A study of an experimental infection of sheep with Mycoplasma agalactiae. Buonavoglia D, et al. **New Microbiol** 1999 Jan;22(1):27–30

The effect of subclinical experimental Cowdria ruminantium infection on the health and reproductive performance of breeding ewes. Martinez TA, et al. **Prev Vet Med** 1999 Jul 20;41(2–3):89–103

The effect of subclinical experimental Cowdria ruminantium infection in ewes on the growth and milk consumption of pre–weaning lambs. Martinez TA, et al. **Prev Vet Med** 1999 Jul 20;41(2–3):105–18

Bacteria isolated from arthritic and omphalatic lesions in lambs in England and Wales. Watkins GH, et al. **Vet J** 1998 Nov;156(3):235–8

Preliminary characterisation of extracellular serine proteases of Dermatophilus congolensis isolates from cattle, sheep and horses. Ambrose NC, et al. **Vet Microbiol** 1998 Aug 15;62(4):321–35

A method for purification and characterisation of Mycobacterium avium subsp. paratuberculosis from the intestinal mucosa of sheep with Johne's disease. Choy E, et al. **Vet Microbiol** 1998 Nov;64(1):51–60

Identification and characterisation of serogroup M among Nepalese isolates of Dichelobacter nodosus, the transmitting agent of footrot in small ruminants. Ghimire SC, et al. **Vet Microbiol** 1998 Jul;62(3):217–33

Characterization of flagellin from Clostridium chauvoei. Kojima A, et al. **Vet Microbiol** 1999 Jun 30;67(3):231–7

Molecular analysis of Dichelobacter nodosus isolated from footrot in sheep in Malaysia. Zakaria Z. et al. **Vet Microbiol** 1998 Jul;62(3):243–50

Isolation of Escherichia fergusonii in cases clinically suggestive of salmonellosis [letter] Bain MS, et al. **Vet Rec** 1999 May 1;144(18):511

Detection of Brucella species DNA in the stomach content of aborted sheep fetuses by PCR. Cetinkaya B, et al. **Vet Rec** 1999 Feb 27;144(9):239–40

Actinobacillus seminis as a cause of abortion in a UK sheep flock. Foster G, et al. **Vet Rec** 1999 Apr 24;144(17):479–80

Outbreak of acute ovine mastitis associated with Pseudomonas aeruginosa infection. Las Heras A, et al. **Vet Rec** 1999 Jul 24;145(4):111–2

Isolation of spirochaetes from an incident of severe virulent ovine footrot. Naylor RD, et al. **Vet Rec** 1998 Dec 19–26; 143(25):690–1

Acute phase protein response of ewes and the release of .PGFM in relation to uterine involution and the presence of intrauterine bacteria. Regassa F, et al. **Vet Rec** 1999 May 1;144(18):502–6

Resistance of ovine, caprine and bovine endothelial cells to Clostridium perfringens type D epsilon toxin in vitro. Uzal FA, et al. **Vet Res Commun** 1999 Aug;23(5):275–84

Serotypes of Pasteurella haemolytica and Pasteurella trehalosi isolated from farm animals in Hungary. Fodor L, et al. **Zentralbl Veterinarmed [B]** 1999 May;46(4):241–7

[Resistance patterns of ovine mastitis pathogens] Winter P, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun–Jul; 112(6–7):216–22 (Eng. Abstr.) **(Ger)**

PARASITOLOGY

Characterization of porcine and ovine Oesophagostomum spp. by isoenzymatic patterns and restriction-fragment-length polymorphisms (RFLPs). Cutillas C, et al. **Acta Trop** 1999 May 25;73(1):59–71

Echinococcus granulosus larvae in the livers of sheep in Tunisia: the effects of host age. Lahmar S, et al. **Ann Trop Med Parasitol** 1999 Jan;93(1):75–81

Antigens of the sheep scab mite Psoroptes ovis. Jayawardena KG, et al. **Folia Parasitol (Praha)** 1998;45(3):239–44

Detection of Toxoplasma gondii in tissues of sheep orally challenged with different doses of oocysts. Esteban-Redondo I, et al. **Int J Parasitol** 1998 Sep; 28(9):1459–66

Variation between hosts in the developmental success of the free–living stages of trichostrongyle infections of sheep. Jørgensen LT, et al. **Int J Parasitol** 1998 Sep;28(9):1347–52

The establishment rate of Ostertagia circumcincta and Trichostrongylus colubriformis in lactating Romney ewes. Leathwick DM, et al. **Int J Parasitol** 1999 Feb;29(2):315–20

Infection of sheep with adult and larval Ostertagia circumcincta: abomasal morphology. Scott I, et al. **Int J Parasitol** 1998 Sep;28(9):1383–92

Seasonal variation of gastrointestinal nematodes of sheep in the region of Joannina, Greece. Theodoropoulos G, et al. **Int J Parasitol** 1998 Aug;28(8):1287–92

Morphological variability in Fasciola hepatica eggs in ruminants, rodents and lagomorphs. Abrous M, et al. **J Helminthol** 1998 Dec;72(4):313–7

Morphological and developmental characteristics of Echinococcus granulosus derived from sheep, cattle and camels in Iran. Hosseini SH, et al. **J Helminthol** 1998 Dec; 72(4):337–41

Biological control of Haemonchus contortus infective larvae in ovine faeces by administering an oral suspension of Duddingtonia flagrans chlamydospores to sheep. Mendoza de Gives P, et al. **J Helminthol** 1998 Dec;72(4):343–7

Studies on the viability of metacercariae of Fasciola gigantica. Prasad A, et al. **J Helminthol** 1999 Jun; 73(2):163–6

An erratic parasitism found in the lungs of sheep during experimental infection with Fasciola gigantica (Japanese strain). Yoshihara S, et al. **J Helminthol** 1998 Sep; 72(3):227–30

A simple parasite model with complicated dynamics. Roberts MG, et al. **J Math Biol** 1998 Sep;37(3):272–90

Genotyping of Toxoplasma gondii associated with abortion in sheep. Owen MR, et al. **J Parasitol** 1999 Apr;85(2):382–4

Seasonal occurrence of coccidia in a mixed herd of sheep and goats at Nebo, northern province, South Africa. Harper CK, et al. **J S Afr Vet Assoc** 1998 Sep;69(3):93–4

Serum and skin surface antibodies and their associations with sheep biting lice, Bovicola ovis, on experimentally infested sheep. James PJ, et al. **Med Vet Entomol** 1998 Jul; 12(3):276–83

Stable and unstable environments influence the genetic diversity of the nematode Teladorsagia circumcincta, a parasite of small ruminants. Gasnier N, et al. **Parasitol Res** 1998 Aug;84(8):676–81

The processes influencing the distribution of parasitic nematodes among naturally infected lambs. Stear MJ, et al. **Parasitology** 1998 Aug;117 (Pt 2):165–71

The relationship between the number and size of nematodes in the abomasum and the concentration of pepsinogen in ovine plasma. Stear MJ, et al. **Res Vet Sci** 1999 Aug; 67(1):89–92

The effect of dietary protein levels before turnout on subsequent faecal nematode egg output of grazing sheep in the Joannina region of Greece. Theodoropoulos G, et al. **Res Vet Sci** 1998 Nov–Dec;65(3):269–71

Oocyst counts in crossbred ewes under tree–crop plantation in the forest zone of Ghana. Nuvor SV, et al. **Trop Anim Health Prod** 1998 Oct;30(5):279–85

Comparison of naturally acquired parasite burdens among Florida native, Rambouillet and crossbreed ewes. Amarante AF, et al. **Vet Parasitol** 1999 Aug 16;85(1):61–9

Studies of infectivity and pathogenicity of an isolate of Trypanosoma evansi in Yankasa sheep. Audu PA, et al. **Vet Parasitol** 1999 Oct 1;86(3):185–90

Inter- and intra-specific variation within the genus Psoroptes (Acari: Psoroptidae). Bates PG. **Vet Parasitol** 1999 Jun 30; 83(3–4):201–17 (105 ref.)

Nutrition–parasite interaction. Coop RL, et al. **Vet Parasitol** 1999 Aug 1;84(3–4):187–204 (95 ref.)

Detection of T. gondii in tissues of sheep and cattle following oral infection. Esteban–Redondo I, et al. **Vet Parasitol** 1999 Oct 1;86(3):155–71

Spatial distribution and spread of sheep biting lice, Bovicola ovis, from point infestations. James PJ, et al. **Vet Parasitol** 1999 Mar 15;81(4):323–39

Repetitive abortion in Neospora–infected ewes. Jolley WR, et al. **Vet Parasitol** 1999 Apr 12;82(3):251–7

The influence of energy intake on some blood biochemical parameters in Scottish Blackface sheep infected with Trypanosoma congolense. Katunguka–Rwakishaya E, et al. **Vet Parasitol** 1999 Jul;84(1–2):1–11

The construction of a cDNA expression library for the sheep scab mite Psoroptes ovis. Lee AJ, et al. **Vet Parasitol** 1999 Jun 30;83(3–4):241–52

The effect of previous cold storage on the subsequent recovery of infective third stage nematode larvae from sheep faeces. McKenna PB. **Vet Parasitol** 1998 Dec 31; 80(2):167–72

Health and productivity of traditionally managed Djallonke sheep and West African dwarf goats under high and moderate trypanosomosis risk. Osaer S, et al. **Vet Parasitol** 1999 Mar 31;82(2):101–19

Serological survey of antibodies to Toxoplasma gondii in goats, sheep, cattle and water buffaloes in Bahia State, Brazil. Pita Gondim LF, et al. **Vet Parasitol** 1999 May; 82(4):273–6

The distribution of pepsinogen within the abomasa of cattle and sheep infected with Ostertagia spp. and sheep infected with Haemonchus contortus. Scott I, et al. **Vet Parasitol** 1999 Mar 31;82(2):145–59

The effects of temperature and humidity on the off-host survival of Psoroptes ovis and Psoroptes cuniculi. Smith KE, et al. **Vet Parasitol** 1999 Jun 30;83(3–4):265–75

Breed and season effects on the peri–parturient rise in nematode egg output in indigenous ewes in a cool tropical environment. Tembely S, et al. **Vet Parasitol** 1998 Jun 15; 77(2–3):123–32

Simulation analysis of the population dynamics of the mite, Psoroptes ovis, infesting sheep. Wall R, et al. **Vet Parasitol** 1999 Jun 30;83(3–4):253–64

Rhabditis dermatitis in sheep in Saudi Arabia [letter] Abbas B, et al. **Vet Rec** 1999 Jul 24;145(4):115–6

Chewing lice, sheep scab and systemic endectocides [letter] [see comments] Bates P. **Vet Rec** 1999 Feb 27;144(9):243 . Comment in: Vet Rec 1999 Mar 6;144(10):271–2.

Chewing lice, sheep scab and systemic endectocides [letter; comment] Dennis JD. **Vet Rec** 1999 Mar 6;144(10):271–2 Comment on: Vet Rec 1999 Feb 27;144(9):243.

Dicrocoelium dendriticum infestation of mouflons (Ovis musimon) in Catalonia. Lavin S, et al. **Vet Rec** 1998 Oct 3;143(14):396

Triclabendazole–resistant liver fluke in Scottish sheep [letter] Mitchell GB, et al. **Vet Rec** 1998 Oct 3;143(14):399

Persistence of Ehrlichia phagocytophila infection in lambs in relation to clinical parameters and antibody responses. Stuen S, et al. **Vet Rec** 1998 Nov 14;143(20):553–5

[Endoparasitic infections in sheep from the Swabian Alb] Rehbein S, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Nov;105(11):419–24 (Eng. Abstr.) **(Ger)**

PATHOLOGY

Relation between pathologic findings and cellular immune responses in sheep with naturally acquired paratuberculosis. Pérez V, et al. **Am J Vet Res** 1999 Jan;60(1):123–7

Structural responses of pulmonary intravascular macrophages in lentivirus–infected and/or recombinant ovine interferon–tau–treated lambs. Singh B, et al. **Anat Rec** 1998 Aug;251(4):472–85

Case report: umbilical foreign–body granuloma in a lamb. Yeruham I, et al. **Berl Munch Tierarztl Wochenschr** 1999 Feb;112(2):44–5

Infection of sheep with adult and larval Ostertagia circumcincta: gastrin. Scott I, et al. **Int J Parasitol** 1998 Sep;28(9):1393–401

A pathological study of experimental long–standing Schistosoma bovis infection in sheep. Ferreras–Estrada MC, et al. **J Comp Pathol** 1998 Nov;119(4):479–84

Comparison of the effects of Clostridium perfringens type D culture supernates in ligated intestinal loops of goats and sheep. Uzal FA, et al. **J Comp Pathol** 1999 Aug; 121(2):127–38

Pathological changes in cobalt–supplemented and non–supplemented twin lambs in relation to blood concentrations of methylmalonic acid and homocysteine. Vellema P, et al. **Vet Q** 1999 Jun;21(3):93–8

Spontaneous vaginal rupture in pregnant ewes. Mosdøl G. **Vet Rec** 1999 Jan 9;144(2):38–41

Intestinal adenocarcinoma in sheep in Spain. Pérez V, et al. **Vet Rec** 1999 Jan 16;144(3):76–7

[Embryonal rhabdomyosarcoma in a lamb of the Texel breed] Herfen K, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):87–91 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Effect of melengestrol acetate on development of 3–methylindole–induced pulmonary edema and emphysema in sheep. Popp JD, et al. **Can J Vet Res** 1998 Oct; 62(4):268–74

A multi–level model of data with repeated measures of the effect of lamb diarrhoea on weight. Green LE, et al. **Prev Vet Med** 1998 Aug 7;36(2):85–94

Effects of Trypanosoma congolense and nutritional supplements in Djallonké ewes on live weight during pregnancy, post partum weight, haematology parameters and lamb performance. Osaer S, et al. **Res Vet Sci** 1998 Jul–Aug;65(1):65–9

The effects of urea supplementation on production and parasitological responses of sheep infected with Haemonchus contortus and Trichostrongylus colubriformis. Knox MR, et al. **Vet Parasitol** 1999 Jun 15; 83(2):123–35

Effects of Trypanosoma congolense infection and diet on puberty, age at first lambing and haematology changes in Djallonké ewe lambs. Osaer S, et al. **Vet Parasitol** 1999 Jan 14;80(3):215–30

Hypocalcaemia in 23 ataxic/recumbent ewes: clinical signs and likelihood ratios. Cockcroft PD, et al. **Vet Rec** 1999 May 8;144(19):529–32

Changing reactivity of caprine and ovine mononuclear phagocytes throughout part of the life cycle of Oestrus ovis: assessment through spontaneous and inductible NO production. Duranton C, et al. **Vet Res** 1999 Jul–Aug; 30(4):371–6

AFA and F17 adhesins produced by pathogenic Escherichia coli strains in domestic animals. Le Bouguénec C, et al. **Vet Res** 1999 Mar–Jun;30(2–3):317–42 (103 ref.)

The effects of ovine lentivirus infection on some productive aspects in a Sardinian sheep flock from Italy. Legrottaglie R, et al. **Vet Res Commun** 1999 Mar;23(2):123–31

Clinical, clinico–pathological and serological studies of Babesia ovis in experimentally infected sheep. Yeruham I, et al. **Zentralbl Veterinarmed [B]** 1998 Sep;45(7):385–94

[Reactions of cells of nasal and sinusoidal mucosa of goats and sheep naturally infected by Oestrus ovis Linné 1758 (Diptera: Oestridae)] Nguyen VK, et al. **Parasite** 1999 Jun; 6(2):141–9 (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Long–lasting prevention against blowfly strike using the insect growth regulator dicyclanil. Bowen FL, et al. **Aust Vet J** 1999 Jul;77(7):454–60

Effectiveness of small workshops for improving farmers' knowledge about ovine footrot. Thompson GK, et al. **Aust Vet J** 1999 May;77(5):318–21

Use of sentinel lambs to survey the effect of an education programme on control of transmission of Echinococcus granulosus in south Powys, Wales. Lloyd S, et al. **Bull World Health Organ** 1998;76(5):469–73

Passive immunisation of neonatal lambs via colostrum and milk of ewes previously immunised with live attenuated Salmonella typhimurium protects neonatal lambs from experimental salmonellosis. Mukkur TK, et al. **Comp Immunol Microbiol Infect Dis** 1998 Oct;21(4):327-36

Vaccination with cathepsin L proteinases and with leucine aminopeptidase induces high levels of protection against fascioliasis in sheep. Piacenza L, et al. **Infect Immun** 1999 Apr;67(4):1954-61

Schistosoma bovis: vaccine effects of a recombinant homologous glutathione S-transferase in sheep. Boulanger D, et al. **Int J Parasitol** 1999 Mar;29(3):415-8

Workshop on irradiated larval vaccines. Le Jambre LF, et al. **Int J Parasitol** 1999 Jan;29(1):193-8

Vaccination trials in Australia and Argentina confirm the effectiveness of the EG95 hydatid vaccine in sheep. Lightowlers MW, et al. **Int J Parasitol** 1999 Apr; 29(4):531-4

Immunologic responses of domestic and bighorn sheep to a multivalent Pasteurella haemolytica vaccine. Ward AC, et al. **J Wildl Dis** 1999 Apr;35(2):285-96

Immunization with an affinity purified protein extract from the adult parasite protects lambs against infection with Haemonchus contortus. Knox DP, et al. **Parasite Immunol** 1999 Apr;21(4):201-10

Further immunization and biochemical studies with a protective antigen complex from the microvillar membrane of the intestine of Haemonchus contortus. Smith SK, et al. **Parasite Immunol** 1999 Apr;21(4):187-99

Effects of molybdenum intake on primary infection and subsequent challenge by the nematode parasite Trichostrongylus colubriformis in weaned Merino lambs. McClure SJ, et al. **Res Vet Sci** 1999 Aug;67(1):17-22

Use of mass vaccination with a reduced dose of REV 1 vaccine for Brucella melitensis control in a population of small ruminants. Scharp DW, et al. **Trop Anim Health Prod** 1999 Jun;31(3):135-41

An experimental multivalent bovine virus diarrhea virus E2 subunit vaccine and two experimental conventionally inactivated vaccines induce partial fetal protection in sheep. Bruschke CJ, et al. **Vaccine** 1999 Apr 9;17(15-16):1983-91

Emergency vaccination of sheep against foot-and-mouth disease: protection against disease and reduction in contact transmission. Cox SJ, et al. **Vaccine** 1999 Apr 9; 17(15-16):1858-68

Synthetic peptide antigens induce antibodies to Taenia ovis oncospheres. Dadley-Moore DL, et al. **Vaccine** 1999 Mar 17;17(11-12):1506-15

Efficacy of an ovine caseous lymphadenitis vaccine formulated using a genetically inactive form of the Corynebacterium pseudotuberculosis phospholipase D. Hodgson AL, et al. **Vaccine** 1999 Feb 26;17(7-8):802-8

Up-regulation of tumor necrosis factor alpha mRNA is associated with bovine-leukemia virus (BLV) elimination in the early phase of infection. Kabeya H, et al. **Vet Immunol Immunopathol** 1999 May;68(2-4):255-65

Production of malignant catarrhal fever virus-free sheep. Li H, et al. **Vet Microbiol** 1999 Mar 1;65(2):167-72

The in vitro response of sheep scab mites to pyrethroid insecticides. Coles GC, et al. **Vet Parasitol** 1999 Jun 30; 83(3-4):327-30

The effects of oviposition aggregation on the incidence of sheep blowfly strike. Fenton A, et al. **Vet Parasitol** 1999 Jun 15;83(2):137-50

A review of the use of a controlled-release formulation of ivermectin in the treatment and prophylaxis of Psoroptes ovis infestations in sheep. Forbes AB, et al. **Vet Parasitol** 1999 Jun 30;83(3-4):319-26 (21 ref.)

Biological control of nematode parasites of livestock in Fiji: screening of fresh dung of small ruminants for the presence of nematophagous fungi. Manueli PR, et al. **Vet Parasitol** 1999 Feb 1;81(1):39-45

Production, faecal egg counts and worm burdens of ewe lambs which grazed six contrasting forages. Niezen JH, et al. **Vet Parasitol** 1998 Dec 15;80(1):15-27

The use of moxidectin for the prevention and treatment of psoroptic mange (scab) in sheep. Parker LD, et al. **Vet Parasitol** 1999 Jun 30;83(3-4):301-8

Field efficacy of the insect growth regulator dicyclanil for flystrike prevention on lambs. Schmid HR, et al. **Vet Parasitol** 1999 Sep 30;86(2):147-51

The immune response of sheep to larval challenge with Ostertagia circumcincta and O. ostertagi. Sutherland IA, et al. **Vet Parasitol** 1999 Jul;84(1-2):125-35

Sheep scab--environmental considerations of treatment with doramectin. Taylor SM. **Vet Parasitol** 1999 Jun 30; 83(3-4):309-17

Manufacturers asked to improve packaging for OP sheep dips [news] **Vet Rec** 1999 Jul 31;145(5):118

Control of sheep ectoparasites using shower dips, spray races and jetting wands [letter] Bates P. **Vet Rec** 1999 Aug 7; 145(6):175

Cydectin 1 per cent injectable solution for sheep [letter] Brown D. **Vet Rec** 1999 Jul 31;145(5):147

Avoiding introduction of levamisole-resistant nematodes [letter] Coles GC, et al. **Vet Rec** 1998 Dec 12;143(24):667

Controlling sheep dip pollution [letter] Henderson DJ. **Vet Rec** 1999 Jun 19;144(25):708

Efficacy of a single dose of oral antibiotic given within two hours of birth in preventing watery mouth disease and illthrift in colostrum-deficient lambs. Hodgson JC, et al. **Vet Rec** 1999 Jul 17;145(3):67-71

The pharmacokinetics and efficacy of long-term low-level and split-dose administration of albendazole through in-feed formulations against ovine and caprine parasitic gastroenteritis. Sanyal PK. **Vet Res Commun** 1998 Nov; 22(7):467-77

PSYCHOLOGY

The behaviour of sheep with sheep scab, Psoroptes ovis infestation. Corke MJ, et al. **Vet Parasitol** 1999 Jun 30; 83(3-4):291-300

RADIOGRAPHY

What is your diagnosis? Osteolysis of the cranial aspect of C5 and cranial and caudal vertebral bodies of C6 and C7. Freshwater R, et al. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):333-4

TRANSMISSION

Hyperendemic focus of Q fever related to sheep and wind. Tissot-Dupont H, et al. **Am J Epidemiol** 1999 Jul 1; 150(1):67-74

Transmission of virulent footrot between sheep and goats. Ghimire SC, et al. **Aust Vet J** 1999 Jul;77(7):450-3

Emergency vaccination of sheep against foot-and-mouth disease: protection against disease and reduction in contact transmission. Cox SJ, et al. **Vaccine** 1999 Apr 9; 17(15-16):1858-68

Chemo- and thermosensory neurons: structure and function in animal parasitic nematodes. Ashton FT, et al. **Vet Parasitol** 1999 Aug 1;84(3-4):297-316 (49 ref.)

Within-flock transmission of sheep scab in naive sheep housed with single infested sheep. Berriatua E, et al. **Vet Parasitol** 1999 Jun 30;83(3-4):277-89

Limited role of lagomorphs (Oryctolagus cuniculus and Lepus capensis) in the dispersion of parasite nematodes of ruminants. Saulai M, et al. **Vet Parasitol** 1998 Jun 30; 77(4):301-4

Export procedures: MAFF sets out its plans [news] **Vet Rec** 1999 Apr 24;144(17):458-9

Experimental Brucella ovis infection in pregnant ewes. Grilló MJ, et al. **Vet Rec** 1999 May 15;144(20):555-8

ULTRASONOGRAPHY

Spermatic granuloma in the ram: diagnosis by ultrasonography and semen characteristics. Karaca F, et al. **Vet Radiol Ultrasound** 1999 Jul-Aug;40(4):402-6

[Real-time ultrasonographic (B-mode) pregnancy diagnosis in sheep. 4. Results of a field study in Germany] Kaulfuss KH, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr;27(2):74-82 (Eng. Abstr.) **(Ger)**

VIROLOGY

Maedi-visna virus and caprine arthritis-encephalitis virus: distinct species or quasispecies and its implications for laboratory diagnosis. Pasick J. **Can J Vet Res** 1998 Oct; 62(4):241-4

Studies on the pathogenicity of bovine herpesvirus type 5 in sheep. Belák K, et al. **Comp Immunol Microbiol Infect Dis** 1999 Jul;22(3):207-20

Acute pulmonary lesions in sheep experimentally infected with bovine viral diarrhoea virus. Meehan JT, et al. **J Comp Pathol** 1998 Oct;119(3):277-92

Analysis of ruminant respiratory syncytial virus isolates by RNAse protection of the G glycoprotein transcripts. Alansari H, et al. **J Vet Diagn Invest** 1999 May;11(3):215-20

Immunohistochemical detection of peste des petits ruminants viral antigen in formalin-fixed, paraffin-embedded tissues from cases of naturally occurring infection. Eligulashvili R, et al. **J Vet Diagn Invest** 1999 May;11(3):286-8

Complete sequence of enzootic nasal tumor virus, a retrovirus associated with transmissible intranasal tumors of sheep. Cousens C, et al. **J Virol** 1999 May;73(5):3986-93

Improved detection of capripoxvirus in biopsy samples by PCR. Ireland DC, et al. **J Virol Methods** 1998 Sep;74(1):1-7

Experimental infection of sheep with bovine herpesvirus type-5 (BHV-5): acute and latent infection. Silva AM, et al. **Vet Microbiol** 1999 Apr 1;66(2):89-99

Isolation of Vibrio cholerae from diseased farm animals and surface water in The Netherlands. Visser IJ, et al. **Vet Rec** 1999 Apr 17;144(16):451-2

Concealed locations of lentiviruses in caprine arthritis encephalitis system. Perk K. **Virology** 1999 Jan 5;253(1):8-9

SHEEPPOX VIRUS see **CAPRIPOXVIRUS**

SHELLFISH

see related
CLAMS
CRABS
CRAYFISH
LOBSTERS
MUSSELS
OYSTERS
SHRIMP

Aerosolized snow-crab allergens in a processing facility. Weytjens K, et al. **Allergy** 1999 Aug;54(8):892-3

Raw shellfish consumption among renal disease patients. A risk factor for severe Vibrio vulnificus infection. Gholami P, et al. **Am J Prev Med** 1998 Oct;15(3):243-5

Removal of cadmium from scallop hepatopancreas by microbial processes. Obara T, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):500-5

Arctic snow crab-related lung disease. Smith DD, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:601-8

Analysis of domoic acid in shellfish by thin-layer chromatography [see comments] Quilliam MA, et al. **Nat Toxins** 1998;6(3-4):147-52. Comment in: Nat Toxins 1998 ;6(3-4):91-2.

Occurrence of okadaic acid-producing Prorocentrum lima on the Sanriku coast, northern Japan. Koike K, et al. **Toxicon** 1998 Dec;36(12):2039-42

ANALYSIS

Fluorometric measurement of yessotoxins in shellfish by high-pressure liquid chromatography. Yasumoto T, et al. **Biosci Biotechnol Biochem** 1997 Oct;61(10):1775-7

Detection of antibacterial agents in warm water prawns. Willis C, et al. **Commun Dis Public Health** 1999 Sep; 2(3):210-4

Bioaccumulation of mycotoxins by shellfish: contamination of mussels by metabolites of a Trichoderma koningii strain isolated in the marine environment. Sallenave C, et al. **Toxicon** 1999 Jan;37(1):77-83

MICROBIOLOGY

Genetic relatedness among environmental, clinical, and diseased-eel Vibrio vulnificus isolates from different geographic regions by ribotyping and randomly amplified polymorphic DNA PCR. Arias CR, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3403-10

Modification of the standard method used in the United Kingdom for counting Escherichia coli in live bivalve molluscs. Donovan TJ, et al. **Commun Dis Public Health** 1998 Sep;1(3):188-96

Crayfish: a newly recognized vehicle for vibrio infections. Bean NH, et al. **Epidemiol Infect** 1998 Oct;121(2):269-73

Microbiological quality of Icelandic cooked-peeled shrimp (Pandalus borealis). Valdimarsson G, et al. **Int J Food Microbiol** 1998 Dec 8;45(2):157-61

Low incidence of Vibrio vulnificus among Vibrio isolates from sea water and shellfish of the western Mediterranean coast. Arias CR, et al. **J Appl Microbiol** 1999 Jan; 86(1):125-34

Combined effect of nisin and moderate heat on destruction of Listeria monocytogenes in cold-pack lobster meat. Budu-Amoako E, et al. **J Food Prot** 1999 Jan;62(1):46-50

Extension of shelf life of whole and peeled shrimp with organic acid salts and bifidobacteria. Al-Dagal MM, et al. **J Food Prot** 1999 Jan;62(1):51-6

Detection of total and hemolysin-producing Vibrio parahaemolyticus in shellfish using multiplex PCR amplification of tl, tdh and trh. Bej AK, et al. **J Microbiol Methods** 1999 Jun;36(3):215-25

From the Centers for Disease Control and Prevention. Outbreak of Vibrio parahaemolyticus infection associated with eating raw oysters and clams harvested from Long Island Sound--Connecticut, New Jersey, and New York, 1998. **JAMA** 1999 Feb 17;281(7):603-4

Outbreak of Vibrio parahaemolyticus infection associated with eating raw oysters and clams harvested from Long Island Sound--Connecticut, New Jersey, and New York, 1998. **MMWR Morb Mortal Wkly Rep** 1999 Jan 29; 48(3):48-51

PARASITOLOGY

Prevalence and distribution of QPX, Quahog Parasite Unknown, in hard clams Mercenaria mercenaria in Virginia, USA. Ragone Calvo LM, et al. **Dis Aquat Organ** 1998 Jul 30;33(3):209-19

Detection of Cryptosporidium oocysts and Giardia cysts in the tissues of eastern oysters (Crassostrea virginica) carrying principal oyster infectious diseases. Graczyk TK, et al. **J Parasitol** 1998 Oct;84(5):1039-42

POISONING

Fluorometric detection of paralytic shellfish poisoning toxins. Indrasena WM, et al. **Anal Biochem** 1998 Nov 15; 264(2):230-6

Pfiesteria, "the cell from hell," and other toxic algal nightmares. Morris JG Jr. **Clin Infect Dis** 1999 Jun; 28(6):1191-6; quiz 1197-8 (22 ref.)

The world's mine oyster. Aronson SM. **Med Health R I** 1998 Sep;81(9):282-3

TOXICITY

Toxic effects, pharmacokinetics and clearance of saxitoxin, a component of paralytic shellfish poison (PSP), in cats. Andrinolo D, et al. **Toxicon** 1999 Mar;37(3):447-64

Esters of okadaic acid and dinophysistoxin-2 in Portuguese bivalves related to human poisonings. Vale P, et al. **Toxicon** 1999 Aug;37(8):1109-21

VIROLOGY

Quantification of hepatitis A virus in shellfish by competitive reverse transcription-PCR with coextraction of standard RNA. Arnal C, et al. **Appl Environ Microbiol** 1999 Jan; 65(1):322-6

Viral pollution in the environment and in shellfish: human

adenovirus detection by PCR as an index of human viruses. Pina S, et al. **Appl Environ Microbiol** 1998 Sep; 64(9):3376–82

Characterization of a non-occluded baculovirus-like agent pathogenic to penaeid shrimp. Nadala EC Jr, et al. **Dis Aquat Organ** 1998 Jul 30;33(3):221–9

A comparative study of three different isolates of white spot virus. Nadala EC Jr, et al. **Dis Aquat Organ** 1998 Jul 30; 33(3):231–4

Feline calicivirus as a model system for heat inactivation studies of small round structured viruses in shellfish. Slomka MJ, et al. **Epidemiol Infect** 1998 Oct;121(2):401–7

Detection of hepatitis A virus in shellfish by nested reverse transcription-PCR. Croci L, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):67–71

Distribution of Norwalk virus within shellfish following bioaccumulation and subsequent depuration by detection using RT-PCR. Schwab KJ, et al. **J Food Prot** 1998 Dec; 61(12):1674–80

Comparison of seven RNA extraction methods on stool and shellfish samples prior to hepatitis A virus amplification. Arnal C, et al. **J Virol Methods** 1999 Jan;77(1):17–26

SHELTERED WORKSHOPS

see related
EMPLOYMENT, SUPPORTED

Purposeful activity for people with enduring mental health problems: reflections from a case study. Mitchell D. **Arch Psychiatr Nurs** 1998 Oct;12(5):282–7 (26 ref.)

Functional disabilities of disabled workers in vocational aid facilities and a social welfare factory. Hachisuka K, et al. **Sangyo Ika Daigaku Zasshi** 1998 Dec 1;20(4):297–306

[Hepatitis A, B, and C in an occupational center for the mentally handicapped] Arnedo A, et al. **Enferm Infecc Microbiol Clin** 1998 Oct;16(8):370–3 (Eng. Abstr.) **(Spa)**

SHEPHERD'S BEAKED WHALE see **WHALES**

SHERMAN ANTITRUST ACT see **ANTITRUST LAWS**

SHIATSU see **ACUPRESSURE**

SHIATZU see **ACUPRESSURE**

SHIGELLA

see related
DYSENTERY, BACILLARY

CLASSIFICATION

Typing and characterization of mechanisms of resistance of Shigella spp. isolated from feces of children under 5 years of age from Ifakara, Tanzania. Navia MM, et al. **J Clin Microbiol** 1999 Oct;37(10):3113–7

A study on transferable R-plasmids among Shigella species at Lucknow. Agarwal SK, et al. **J Commun Dis** 1997 Dec; 29(4):351–4

Population-based study of the incidence of Shigella diarrhea and causative serotypes in Santiago, Chile. Prado V, et al. **Pediatr Infect Dis J** 1999 Jun;18(6):500–5

[Shigellae isolated in 1997--plasmid profiles and antibiotic resistance] Jelesić Z, et al. **Med Pregl** 1998 Jul-Aug; 51(7-8):305–9 (Eng. Abstr.) **(Scr)**

DRUG EFFECTS

Multiresistant Shigella species isolated from pediatric patients with acute diarrheal disease. Flores A, et al. **Am J Med Sci** 1998 Dec;316(6):379–84

Antimicrobial susceptibilities and beta-lactamase production of Shigella isolates in Crete, Greece, during the period 1991–1995. Maraki S, et al. **APMIS** 1998 Sep;106(9):879–83

An evaluation of susceptibility testing methods for ampicillin–sulbactam using a panel of beta-lactamase-producing bacteria. Siu LK, et al. **APMIS** 1999 Jul;107(7):703–8

Natural antibiotic susceptibility of Escherichia coli, Shigella, E. vulneris, and E. hermannii strains. Stock I, et al. **Diagn Microbiol Infect Dis** 1999 Mar;33(3):187–99

Shigella and the fluorinated quinolones. Ballal M, et al. **Indian J Pathol Microbiol** 1998 Oct;41(4):453–6

[Antimicrobial multiresistance of Shigella sp strains in a semi rural community of northern Santiago] Prado V, et al. **Rev Med Chil** 1998 Dec;126(12):1464–71 (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Antimicrobial susceptibilities and beta-lactamase production of Shigella isolates in Crete, Greece, during the period 1991–1995. Maraki S, et al. **APMIS** 1998 Sep;106(9):879–83

Induction of cytokines in a human colon epithelial cell line by Shiga toxin 1 (Stx1) and Stx2 but not by non-toxic mutant Stx1 which lacks N-glycosidase activity. Yamasaki C, et al. **FEBS Lett** 1999 Jan 15;442(2-3):231–4

GENETICS

Shigella and enteroinvasive Escherichia coli strains are derived from distinct ancestral strains of E. coli. Rolland K, et al. **Microbiology** 1998 Sep;144 (Pt 9):2667–72

The Shigella virulence gene regulatory cascade: a paradigm of bacterial gene control mechanisms. Dorman CJ, et al. **Mol Microbiol** 1998 Aug;29(3):677–84 (38 ref.)

A role for H-NS in the regulation of the virF gene of Shigella and enteroinvasive Escherichia coli. Prosseda G, et al. **Res Microbiol** 1998 Jan;149(1):15–25

IMMUNOLOGY

Safety and immunogenicity of Shigella sonnei and Shigella flexneri 2a O-specific polysaccharide conjugates in children. Ashkenazi S, et al. **J Infect Dis** 1999 Jun; 179(6):1565–8

Antibodies to Shiga toxin in the serum of children with Shigella-associated haemolytic uraemic syndrome. Azim T, et al. **J Med Microbiol** 1999 Jan;48(1):11–6

Age-related prevalence of Shigella and Salmonella antibodies and their association with diarrhoeal diseases in Peruvian children. Nguyen BM, et al. **Scand J Infect Dis** 1998; 30(2):159–64

ISOLATION & PURIFICATION

Multiresistant Shigella species isolated from pediatric patients with acute diarrheal disease. Flores A, et al. **Am J Med Sci** 1998 Dec;316(6):379–84

Evaluation of xylose-galactosidase medium, a new plate for the isolation of Salmonella, Shigella, Yersinia and Aeromonas species. García-Aguayo JM, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jan;18(1):77–8

Detection of Shigellae from stools of dysentery patients by culture and polymerase chain reaction techniques. Islam MS, et al. **J Diarrhoeal Dis Res** 1998 Dec;16(4):248–51

Contamination of weaning foods: organisms, channels, and sequelae. Afifi ZE, et al. **J Trop Pediatr** 1998 Dec; 44(6):335–7

[Recovery and its evaluation of Shigella bacilli or Salmonella from healthy food handlers in Tokyo (1961–1997)] Yamada S, et al. **Kansenshogaku Zasshi** 1999 Aug;73(8):758–65 (Eng. Abstr.) **(Jpn)**

PATHOGENICITY

Topics in dose-response modeling. Coleman M, et al. **J Food Prot** 1998 Nov;61(11):1550–9

Shigella and Escherichia coli strategies for survival at low pH. Small PL. **Jpn J Med Sci Biol** 1998;51 Suppl:S81–9 (22 ref.)

The Shigella virulence gene regulatory cascade: a paradigm of bacterial gene control mechanisms. Dorman CJ, et al. **Mol Microbiol** 1998 Aug;29(3):677–84 (38 ref.)

PHYSIOLOGY

Tyrosine phosphorylation is required for actin-based motility of vaccinia but not Listeria or Shigella. Frischknecht F, et al. **Curr Biol** 1999 Jan 28;9(2):89–92

Mechanism of Shigella entry into epithelial cells. Nhieu GT, et al. **Curr Opin Microbiol** 1999 Feb;2(1):51–5 (23 ref.)

IpaC induces actin polymerization and filopodia formation during Shigella entry into epithelial cells. Tran Van Nhieu G, et al. **EMBO J** 1999 Jun 15;18(12):3249–62

Shigella-induced apoptosis is dependent on caspase-1 which binds to IpaB. Hilbi H, et al. **J Biol Chem** 1998 Dec 4; 273(49):32895–900

SHIGELLA BOYDII

ISOLATION & PURIFICATION

Identification of Shigella boydii in colonic malacoplakia by universal bacterial 16S ribosomal DNA-based amplification in a human immunodeficiency virus-infected patient. Raguin G, et al. **Clin Infect Dis** 1999 Jan;28(1):142–3

Severe shigellosis in childhood. Sirivichayakul C, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):555–9

SHIGELLA DYSENTERIAE

Predictors of mortality in children hospitalized with dysentery in Harare, Zimbabwe. Nathoo KJ, et al. **Cent Afr J Med** 1998 Nov;44(11):272–6

Shigella at a wake in Adelaide, June 1998. Givney R, et al. **Commun Dis Intell** 1998 Dec 24;22(13):297

Sequence analysis of Stx2-converting phage VT2-Sa shows a great divergence in early regulation and replication regions. Miyamoto H, et al. **DNA Res** 1999 Aug 31; 6(4):235–40

The rediscovery of Shiga toxin and its role in clinical disease. Keusch GT. **Jpn J Med Sci Biol** 1998;51 Suppl:S5–22

The spread of Shigella dysenteriae type I in Africa. Wittenberg DF. **Jpn J Med Sci Biol** 1998;51 Suppl:S36–42

Central nervous system manifestations of childhood shigellosis: prevalence, risk factors, and outcome. Khan WA, et al. **Pediatrics** 1999 Feb;103(2):E18

Emerging and re-emerging diseases--epidemic enterohaemorrhagic infections 100 years after Shiga [editorial] Wittenberg DF. **S Afr Med J** 1999 Jul; 89(7):750–2

Risk factors for death in hospitalized dysentery patients in Rwanda. Legros D, et al. **Trop Med Int Health** 1999 Jun; 4(6):428–32

[Ciprofloxacin in the treatment of dysentery caused by type 1 Shigella dysenteriae during an epidemic in Rwandan refugees in Goma in 1994] Laureillard D, et al. **Sante** 1998 Jul-Aug;8(4):303–5 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Synthesis of tri- and tetrasaccharide fragments of the Shigella dysenteriae type 1 O-antigen deoxygenated and fluorinated at position 3 of the methyl alpha-D-galactopyranoside terminus. Mulard LA, et al. **Carbohydr Res** 1998 Sep; 311(3):121–33

Characterization of Shigella dysenteriae type 1 capsular polysaccharide by immunochemical methods. Nasher K, et al. **Folia Microbiol (Praha)** 1998;43(6):707–12

DRUG EFFECTS

Laboratory surveillance of Shigella dysenteriae type 1 in KwaZulu-Natal. Karas JA, et al. **S Afr Med J** 1999 Jan; 89(1):59–63

[Effect of hydroxylamine hydrochloride on the bacterium Shigella dysenteriae 1 and antigens isolated from them] Zakharova NE, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):82–3 **(Rus)**

ENZYMOLOGY

Molecular characterization of the SHV-11 beta-lactamase of Shigella dysenteriae. Ahamed J, et al. **Antimicrob Agents Chemother** 1999 Aug;43(8):2081–3

GENETICS

Evaluation of pulsed-field gel electrophoresis for typing of Shigella dysenteriae type 1. Talukder KA, et al. **J Med Microbiol** 1999 Aug;48(8):781–4

IMMUNOLOGY

Binding of modified fragments of the Shigella dysenteriae type 1 O-specific polysaccharide to monoclonal IgM 3707 E9 and docking of the immunodeterminant to its modeled Fv. Miller CE, et al. **Carbohydr Res** 1998 Jul;309(3):219–26

Protein conjugates of synthetic saccharides elicit higher levels of serum IgG lipopolysaccharide antibodies in mice than do those of the O-specific polysaccharide from Shigella dysenteriae type 1. Pozsgay V, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5194–7

ISOLATION & PURIFICATION

Shigellosis in children: a clinico-epidemiological comparison between Shigella dysenteriae type I and Shigella flexneri. Faruque AS, et al. **Ann Trop Paediatr** 1998 Sep; 18(3):197–201

Severe shigellosis in childhood. Sirivichayakul C, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):555–9

PATHOGENICITY

Shigella infection as observed in the experimentally inoculated domestic pig, Sus scrofa domestica. Maurelli AT, et al. **Microb Pathog** 1998 Oct;25(4):189–96

SHIGELLA FLEXNERI

Index of suspicion. Case 2. Diagnosis: bacillary dysentery and campylobacter infections. Brady RC, et al. **Pediatr Rev** 1998 Dec;19(12):429, 431–2

[Lipopolysaccharide from photosynthetic bacteria blocks Ca2+ response of human neutrophils induced by endotoxins from Shigella flexneri and its Re-mutant] Astashkin EI, et al. **Dokl Akad Nauk** 1999 Feb;364(5):700–2 **(Rus)**

[The assessment of the course of an infectious process by the membrane status of the peripheral blood lymphocytes] Antonova TV, et al. **Klin Lab Diagn** 1999 Jul;(7):23–4 (Eng. Abstr.) **(Rus)**

[Kaopectate in the combined treatment of patients with intestinal infections] Gebesh VV, et al. **Lik Sprava** 1999 Apr-May;(3):140–2 (Eng. Abstr.) **(Rus)**

[The efficacy of Intetrix in the combined treatment of patients with shigelloses] Sukhov IuA. **Lik Sprava** 1998 Dec; (8):144–6 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

Serotype 1a O-antigen modification: molecular characterization of the genes involved and their novel organization in the Shigella flexneri chromosome. Adhikari P, et al. **J Bacteriol** 1999 Aug;181(15):4711–8

Identification of Shigella flexneri subserotype 1c in rural Egypt. El-Gendy A, et al. **J Clin Microbiol** 1999 Mar; 37(3):873–4

An untypeable Shigella flexneri strain associated with an outbreak in California. Trevejo RT, et al. **J Clin Microbiol** 1999 Jul;37(7):2352–3

DRUG EFFECTS

Novel combination of mutations in the DNA gyrase and topoisomerase IV genes in laboratory-grown fluoroquinolone-resistant Shigella flexneri mutants [letter] Chu YW, et al. **Antimicrob Agents Chemother** 1998 Nov; 42(11):3051–2

Antibiotic susceptibilities and plasmid profiles of Shigella

SHIGELLA FLEXNERI

flexneri isolates from children with diarrhoea in Islamabad, Pakistan [letter] Sohail M, et al.
J Antimicrob Chemother 1998 Dec;42(6):838–9

Short-chain fatty acids improve clinical, pathologic, and microbiologic features of experimental shigellosis. Rabbani GH, et al. **J Infect Dis** 1999 Feb;179(2):390–7

Drug resistance of Shigella strains isolated in Ankara, Turkey, 1993–1996. Aysev AD, et al.
Scand J Infect Dis 1998;30(4):351–3

[A case of bacillary dysentery caused by new quinolone-resistant Shigella flexneri 2a] Yoshimura K, et al. **Kansenshogaku Zasshi** 1998 Sep;72(9):935–8 (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Rho family GTPases control entry of Shigella flexneri into epithelial cells but not intracellular motility. Mounier J, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2069–80

GENETICS

Thermoregulation of Shigella and Escherichia coli EIEC pathogenicity. A temperature-dependent structural transition of DNA modulates accessibility of virF promoter to transcriptional repressor H-NS. Falconi M, et al.
EMBO J 1998 Dec 1;17(23):7033–43

Identification of two Shigella flexneri chromosomal loci involved in intercellular spreading. Hong M, et al.
Infect Immun 1998 Oct;66(10):4700–10

Establishment of unipolar localization of IcsA in Shigella flexneri 2a is not dependent on virulence plasmid determinants. Sandlin RC, et al. **Infect Immun** 1999 Jan; 67(1):350–6

Serotype 1a O-antigen modification: molecular characterization of the genes involved and their novel organization in the Shigella flexneri chromosome. Adhikari P, et al. **J Bacteriol** 1999 Aug;181(15):4711–8

Mucosal DNA vaccine immunization against measles with a highly attenuated Shigella flexneri vector. Fennelly GJ, et al. **J Immunol** 1999 Feb 1;162(3):1603–10

The selC-associated SHI-2 pathogenicity island of Shigella flexneri. Moss JE, et al. **Mol Microbiol** 1999 Jul;33(1):74–83

The aerobactin iron transport system genes in Shigella flexneri are present within a pathogenicity island. Vokes SA, et al. **Mol Microbiol** 1999 Jul;33(1):63–73

IMMUNOLOGY

Killed oral Shigella vaccine made from Shigella flexneri 2a protects against challenge in the rabbit model of shigellosis. Chakrabarti MK, et al. **Acta Paediatr** 1999 Feb;88(2):161–5

Protein-protein interactions in the assembly of Shigella flexneri invasion plasmid antigens IpaB and IpaC into protein complexes. Davis R, et al.
Biochim Biophys Acta 1998 Dec 8;1429(1):45–56

Vaccination against shigellosis with attenuated Shigella flexneri 2a strain SC602. Coster TS, et al.
Infect Immun 1999 Jul;67(7):3437–43

Strategy for cross-protection among Shigella flexneri serotypes. Noriega FR, et al. **Infect Immun** 1999 Feb; 67(2):782–8

Treatment with succinic anhydride improves the immunogenicity of Shigella flexneri type 2a O-specific polysaccharide-protein conjugates in mice. Pavliakova D, et al. **Infect Immun** 1999 Oct;67(10):5526–9

Thymic independence of adaptive immunity to the intracellular pathogen Shigella flexneri serotype 2a. Way SS, et al. **Infect Immun** 1999 Aug;67(8):3970–9

Adaptive immune response to Shigella flexneri 2a cydC in immunocompetent mice and mice lacking immunoglobulin A. Way SS, et al. **Infect Immun** 1999 Apr;67(4):2001–4

Mucosal DNA vaccine immunization against measles with a highly attenuated Shigella flexneri vector. Fennelly GJ, et al. **J Immunol** 1999 Feb 1;162(3):1603–10

Novel self-sampling culture method to monitor excretion of live, oral Shigella flexneri 2a vaccine SC602 during a community-based phase 1 trial. Teska JD, et al.
J Lab Clin Med 1999 Aug;134(2):141–6

ISOLATION & PURIFICATION

Shigellosis in children: a clinico-epidemiological comparison between Shigella dysenteriae type 1 and Shigella flexneri. Faruque AS, et al. **Ann Trop Paediatr** 1998 Sep; 18(3):197–201

Detection of Shigella spp. in food with a nested PCR method-sensitivity and performance compared with a conventional culture method. Lindqvist R.
J Appl Microbiol 1999 Jun;86(6):971–8

[Importance of the eradication of the focus of infection and the synchronized correction of disturbed intestinal microflora in shigellosis patients] Shakhmardanov MZ, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):71–3 (Eng. Abstr.) **(Rus)**

METABOLISM

Establishment of unipolar localization of IcsA in Shigella flexneri 2a is not dependent on virulence plasmid determinants. Sandlin RC, et al. **Infect Immun** 1999 Jan; 67(1):350–6

Trafficking of Shigella lipopolysaccharide in polarized intestinal epithelial cells. Beatty WL, et al. **J Cell Biol** 1999 May 17;145(4):689–98

Interferon alpha inhibits a Src-mediated pathway necessary for Shigella-induced cytoskeletal rearrangements in epithelial cells. Duménil G, et al. **J Cell Biol** 1998 Nov 16;143(4):1003–12

The unipolar Shigella surface protein IcsA is targeted directly to the bacterial old pole: IcsP cleavage of IcsA occurs over the entire bacterial surface. Steinhauer J, et al. **Mol Microbiol** 1999 Apr;32(2):367–77

PATHOGENICITY

Molecular bases of epithelial cell invasion by Shigella flexneri. Sansonetti PJ, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):191–7 (50 ref.)

Rupture of the intestinal epithelial barrier and mucosal invasion by Shigella flexneri. Sansonetti PJ, et al.
Clin Infect Dis 1999 Mar;28(3):466–75 (71 ref.)

Enteropathogenic E. coli, Salmonella, and Shigella: masters of host cell cytoskeletal exploitation. Goosney DL, et al.
Emerg Infect Dis 1999 Mar-Apr;5(2):216–23 (63 ref.)

Shigella flexneri YSH6000 induces two types of cell death, apoptosis and oncosis, in the differentiated human monoblastic cell line U937. Nonaka T, et al.
FEMS Microbiol Lett 1999 May 1;174(1):89–95

Expression of the virulence plasmid-carried apyrase gene (apy) of enteroinvasive Escherichia coli and Shigella flexneri is under the control of H-NS and the VirF and VirB regulatory cascade. Berlutti F, et al. **Infect Immun** 1998 Oct;66(10):4957–64

Identification of two Shigella flexneri chromosomal loci involved in intercellular spreading. Hong M, et al.
Infect Immun 1998 Oct;66(10):4700–10

The mxi-Spa type III secretory pathway of Shigella flexneri requires an outer membrane lipoprotein, MxiM, for invasin translocation. Schuch R, et al. **Infect Immun** 1999 Apr; 67(4):1982–91

Impact of either elevated or decreased levels of cytochrome bd expression on Shigella flexneri virulence. Way SS, et al. **J Bacteriol** 1999 Feb;181(4):1229–37

Rho family GTPases control entry of Shigella flexneri into epithelial cells but not intracellular motility. Mounier J, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2069–80

A functional role for ezrin during Shigella flexneri entry into epithelial cells. Skoudy A, et al. **J Cell Sci** 1999 Jul;112 (Pt 13):2059–68

Comparison of survival of diarrhoeagenic agents in two local weaning foods (ogi and koko). Bakare S, et al.
J Trop Pediatr 1998 Dec;44(6):332–4

N-WASP is an important protein for the actin-based motility of Shigella flexneri in the infected epithelial cells. Suzuki T, et al. **Jpn J Med Sci Biol** 1998;51 Suppl:S63–8 (22 ref.)

Shigella infection as observed in the experimentally inoculated domestic pig, Sus scrofa domestica. Maurelli AT, et al. **Microb Pathog** 1998 Oct;25(4):189–96

[Modern views on the molecular biological foundations of the pathogenesis of Shigella infections] Bondarenko VM, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Nov-Dec; (6):88–92 **(Rus)**

PHYSIOLOGY

Acid-sensitive enteric pathogens are protected from killing under extremely acidic conditions of pH 2.5 when they are inoculated onto certain solid food sources. Waterman SR, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3882–6

Interleukin-8 controls bacterial transepithelial translocation at the cost of epithelial destruction in experimental shigellosis. Sansonetti PJ, et al. **Infect Immun** 1999 Mar; 67(3):1471–80

Functional analysis of a rickettsial OmpA homology domain of Shigella flexneri icsA. Charles M, et al. **J Bacteriol** 1999 Feb;181(3):869–78

A comparative study of the actin-based motilities of the pathogenic bacteria Listeria monocytogenes, Shigella flexneri and Rickettsia conorii. Gouin E, et al.
J Cell Sci 1999 Jun;112 (Pt 11):1697–708

N-WASP is an important protein for the actin-based motility of Shigella flexneri in the infected epithelial cells. Suzuki T, et al. **Jpn J Med Sci Biol** 1998;51 Suppl:S63–8 (22 ref.)

RADIATION EFFECTS

The virulence plasmid-encoded impCAB operon enhances survival and induced mutagenesis in Shigella flexneri after exposure to UV radiation. Runyen-Janecky LJ, et al.
Infect Immun 1999 Mar;67(3):1415–23

VIROLOGY

Functional analysis of the O antigen glucosylation gene cluster of Shigella flexneri bacteriophage SfX. Guan S, et al. **Microbiology** 1999 May;145 (Pt 5):1263–73

SHIGELLA INFECTIONS see **DYSENTERY, BACILLARY**

SHIGELLA SONNEI

Shigella outbreak in a school associated with eating canteen food and person to person spread. Maguire HC, et al.
Commun Dis Public Health 1998 Dec;1(4):279–80

[Kaopectate in the combined treatment of patients with intestinal infections] Gebesh VV, et al. **Lik Sprava** 1999 Apr-May;(3):140–2 (Eng. Abstr.) **(Rus)**

[The efficacy of Intetrix in the combined treatment of patients with shigelloses] Sukhov IuA. **Lik Sprava** 1998 Dec; (8):144–6 (Eng. Abstr.) **(Rus)**

[The inductive immunosuppressive activity of the lipopolysaccharide from Shigella sonnei R forms] Borisova EV. **Mikrobiol Z** 1998 May-Jun;60(3):63–9 (Eng. Abstr.) **(Rus)**

[Water-borne epidemics of Sonne dysentery--a myth or reality?] Solodovnikov IuP. **Voen Med Zh** 1998 Aug; 319(8):34–8 **(Rus)**

[Waterborne epidemics (large outbreaks) of dysentery sonnei--myth or reality?] Solodovnikov IuP.
Zh Mikrobiol Epidemiol Immunobiol 1998 Sep-Oct; (5):112–8 **(Rus)**

[Septicemia due to Shigella. A case report and review of the literature] Ben Salas C, et al.
Rev Cubana Med Trop 1995;47(2):131–4 (9 ref.) (Eng. Abstr.) **(Spa)**

CLASSIFICATION

Isolation of Shigella sonnei lysogenic for a bacteriophage encoding gene for production of Shiga toxin [letter] Beutin L, et al. **Lancet** 1999 May 1;353(9163):1498

DRUG EFFECTS

Drug resistance of Shigella strains isolated in Ankara, Turkey, 1993–1996. Aysev AD, et al.
Scand J Infect Dis 1998;30(4):351–3

GENETICS

Genetic analysis of Shigella sonnei form I antigen: identification of a novel IS630 as an essential element for the form I antigen expression. Houng HS, et al.
Microb Pathog 1998 Oct;25(4):165–73

ISOLATION & PURIFICATION

From the Centers for Disease Control and Prevention. Outbreaks of Shigella sonnei infection associated with eating fresh parsley--United States and Canada, July-August 1998. **JAMA** 1999 May 19;281(19):1785–7

Outbreaks of Shigella sonnei infection associated with eating fresh parsley--United States and Canada, July-August 1998. **MMWR Morb Mortal Wkly Rep** 1999 Apr 16; 48(14):285–9

[Strains of Shigella sonnei recently isolated in Tokyo] Matsushita S, et al. **Kansenshogaku Zasshi** 1999 May; 73(5):414–20 (Eng. Abstr.) **(Jpn)**

[Atypical Shigella sonnei strains isolated overseas travelers] Seto K, et al. **Kansenshogaku Zasshi** 1999 Jul;73(7):707–8 **(Jpn)**

SHIITAKE MUSHROOMS see **LENTINUS**

SHIKIMIC ACID

ANALOGS & DERIVATIVES

Targeting the shikimate pathway in the malaria parasite Plasmodium falciparum. McConkey GA.
Antimicrob Agents Chemother 1999 Jan;43(1):175–7

Evidence for a major structural change in Escherichia coli chorismate synthase induced by flavin and substrate binding. Macheroux P, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):319–27

Fed-batch fermentor synthesis of 3-dehydroshikimic acid using recombinant Escherichia coli. Li K, et al.
Biotechnol Bioeng 1999 Jul 5;64(1):61–73

Effects of sample preparation conditions on biomolecular solid-state NMR lineshapes. Jakeman DL, et al.
J Biomol NMR 1998 Oct;12(3):417–21

METABOLISM

Targeting the shikimate pathway in the malaria parasite Plasmodium falciparum. McConkey GA.
Antimicrob Agents Chemother 1999 Jan;43(1):175–7

The biosynthesis of shikimate metabolites. Knaggs AR.
Nat Prod Rep 1999 Aug;16(4):525–60 (73 ref.)

A unique reaction in a common pathway: mechanism and function of chorismate synthase in the shikimate pathway. Macheroux P, et al. **Planta** 1999 Jan;207(3):325–34 (70 ref.)

SHIKIMOL see **SAFROLE**

SHINER see **CYPRINIDAE**

SHINGLES see **HERPES ZOSTER**

SHIPPING FEVER see **PASTEURELLOSIS, PNEUMONIC**

SHIPPING FEVER VIRUS see **PARAMYXOVIRUS**

SHIPS

Descriptive epidemiology of injury and illness among cruise ship passengers. Peake DE, et al. **Ann Emerg Med** 1999 Jan;33(1):67–72

Marine vessel control using the tiller-motor system. Lulham R, et al. **Appl Ergon** 1999 Aug;30(4):331–40

Measurements of mineral oil mist, hydrocarbon vapor, and noise in engine rooms of ships. Svendsen K, et al.

Appl Occup Environ Hyg 1999 Mar;14(3):186–91
Recent cattle deaths at sea [letter] Arnold P. **Aust Vet J** 1999 Apr;77(4):269
Relationship between motion sickness, migraine and menstruation in crew members of a "round the world" yacht race. Grunfeld E, et al. **Brain Res Bull** 1998 Nov 15; 47(5):433–6
Oil contamination along oil tanker routes off the United Arab Emirates (the Arabian Gulf and the Gulf of Oman). Shriadah MA. **Bull Environ Contam Toxicol** 1999 Aug; 63(2):203–10
Influenza in travellers to Alaska, the Yukon Territory, and on west coast cruise ships, summer of 1999. **Can Commun Dis Rep** 1999 Aug 15;25(16):137–9; discussion 139–41 **(Eng, Fre)**
Misleading information [letter] Bell W, et al. **Can Fam Physician** 1999 Sep;45:2038, 2040
On PMWs and two-stroke engines [editorial] Bell W, et al. **Can Fam Physician** 1998 Sep;44:1775–7, 1787–90 (14 ref.) **(Eng, Fre)**
Unique aspects of anticipated shipboard vascular trauma. Sturtz DL, et al. **Cardiovasc Surg** 1998 Aug;6(4):337–41
Legionnaires' disease on a cruise ship linked to the water supply system: clinical and public health implications [see comments] Castellani Pastoris M, et al. **Clin Infect Dis** 1999 Jan;28(1):33–8. Comment in: Clin Infect Dis 1999 Jan;28(1):39–41.
Sea, wind, and pneumonia [editorial; comment] Edelstein PH, et al. **Clin Infect Dis** 1999 Jan;28(1):39–41. Comment on: Clin Infect Dis 1999 Jan;28(1):33–8.
Legionellosis associated with ships: 1977 to 1997. Rowbotham TJ. **Commun Dis Public Health** 1998 Sep; 1(3):146–51 (32 ref.)
Influenza on a cruise ship in the Mediterranean. **Commun Dis Rep CDR Wkly** 1999 Jun 11;9(24):209, 212
Rectal injury caused by a personal watercraft accident: report of a case. Parsons DP, et al. **Dis Colon Rectum** 1999 Jul; 42(7):959–60
Breathing zone particle size and lead concentration from sanding operations to remove lead based paints. Alexander WK, et al. **Drug Chem Toxicol** 1999 Feb;22(1):41–56
The electric field induced in the human body when exposed to electromagnetic fields at 1–30 MHz on shipboard. King RW. **IEEE Trans Biomed Eng** 1999 Jun;46(6):747–51
Are life vests worn? A multiregional observational study of personal flotation device use in small boats. Quan L, et al. **Inj Prev** 1998 Sep;4(3):203–5
Preventing deaths in Alaska's commercial fishing industry. Conway GA, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:503–9
Water traffic accidents, drowning and alcohol in Finland, 1969–1995. Lunetta P, et al. **Int J Epidemiol** 1998 Dec; 27(6):1038–43
Incidence of lung cancer among shipyard welders investigated for siderosis. Danielsen TE, et al. **Int J Occup Environ Health** 1998 Apr–Jun;4(2):85–8
Marine taphonomy: adipocere formation in a series of bodies recovered from a single shipwreck. Kahana T, et al. **J Forensic Sci** 1999 Sep;44(5):897–901
Adriatic nautical academy--medical manual for nautical tourists [letter] Nikolić N. **J Travel Med** 1998 Sep; 5(3):158–9
Surgery aboard ship: is it safe? Fontana M, et al. **Mil Med** 1999 Sep;164(9):613–5
Stress and coping in male and female health care providers during the Persian Gulf War: the USNS Comfort hospital ship. Slusarcick AL, et al. **Mil Med** 1999 Mar;164(3):166–73
Dangers at the dock. Nelson K. **Occup Health Saf** 1999 Mar; 68(3):57–62
A land-water interface collision. Marvez E, et al. **Prehosp Emerg Care** 1999 Jul–Sep;3(3):260–2
Stress among seamen. Agterberg G, et al. **Psychol Rep** 1998 Oct;83(2):708–10
Extreme exposure: the Sydney to Hobart yacht race and the role of prediction. Guest C. **Public Health Rep** 1999 May–Jun;114(3):278–80
Long distance telementoring. A novel tool for laparoscopy aboard the USS Abraham Lincoln. Cubano M, et al. **Surg Endosc** 1999 Jul;13(7):673–8
[Toxicological studies as a stage in the hygienic expertise of polymeric materials for ship building] Khaĭtsev NV, et al. **Gig Sanit** 1999 Jan–Feb;(1):61–3 **(Rus)**
[How Norrköping took care of the relatives of the Estonia-victims (letter; comment)] Berggren R. **Lakartidningen** 1999 Feb 3;96(5):447. Comment on: Lakartidningen 1998 Dec 2;95(49):5609–11, 5614–6. **(Swe)**
[A private hospital listened to the relatives and survivors from the ship Estonia. The Ersta hospital voluntarily took over from the crisis intervention groups (see comments)] Nordfeldt S. **Lakartidningen** 1998 Dec 2;95(49):5609–11, 5614–6. Comment in: Lakartidningen 1999 FEb 3;96(5):447. **(Swe)**
[Admiral Nelson--naval hero with handicaps] Schöldström U. **Lakartidningen** 1999 Apr 7;96(14):1755 **(Swe)**

MANPOWER

Planning a worksite health promotion program: health profile of a population of Greek sailors [letter] Tsamandouraki K, et al. **Scand J Soc Med** 1998 Sep;26(3):181–2

STANDARDS

Cattle deaths spark call for 'black boxes' [news] **Aust Vet J** 1998 Sep;76(9):587

STATISTICS & NUMERICAL DATA

The underestimated impact of personal watercraft injuries. White MW, et al. **Am Surg** 1999 Sep;65(9):865–9
The health care system for seafarers in Latvia. Shatalova A, et al. **Bull Inst Marit Trop Med Gdynia** 1998; 49(1–4):23–6

SHIVERING

Rash, fever, and chills after intravenous fluorescein angiography. Johnson RN, et al. **Am J Ophthalmol** 1998 Dec;126(6):837–8
Shivering complicating the treatment of neurologically impaired surgical and intensive care unit patients. Keegan MT, et al. **Anesthesiology** 1999 Sep;91(3):874–6
Shivering and shivering-like tremor during labor with and without epidural analgesia. Panzer O, et al. **Anesthesiology** 1999 Jun;90(6):1609–16
Postanaesthetic shivering--a comparison of thiopentone and propofol. Cheong KF, et al. **Ann Acad Med Singapore** 1998 Sep;27(5):729–32
Fever, shivering...and blue urine. Prischl FC, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2245–6
[Analgesia and treatment of muscular shivering during the period of postanesthetic adaptation in oncologic patients] Saltanov AI, et al. **Anesteziol Reanimatol** 1998 Sep–Oct; (5):32–5 **(Rus)**

DRUG EFFECTS

Pre-anesthetic oral clonidine is effective to prevent post-spinal shivering. Mao CC, et al. **Acta Anaesthesiol Sin** 1998 Sep;36(3):137–42
Nefopam and clonidine in the prevention of postanaesthetic shivering. Piper SN, et al. **Anaesthesia** 1999 Jul;54(7):695–9
The effects of prostaglandin E1 on intraoperative temperature changes and the incidence of postoperative shivering during deliberate mild hypothermia for neurosurgical procedures. Kawaguchi M, et al. **Anesth Analg** 1999 Feb;88(2):446–51
A comparison among nalbuphine, meperidine, and placebo for treating postanesthetic shivering. Wang JJ, et al. **Anesth Analg** 1999 Mar;88(3):686–9
Dexamethasone decreases the incidence of shivering after cardiac surgery: a randomized, double-blind, placebo-controlled study. Yared JP, et al. **Anesth Analg** 1998 Oct;87(4):795–9
Non-thermoregulatory shivering in patients recovering from isoflurane or desflurane anesthesia. Horn EP, et al. **Anesthesiology** 1998 Oct;89(4):878–86
Relative contribution of skin and core temperatures to vasoconstriction and shivering thresholds during isoflurane anesthesia. Lenhardt R, et al. **Anesthesiology** 1999 Aug; 91(2):422–9
I.v. clonidine prevents post-extradural shivering. Sia S. **Br J Anaesth** 1998 Aug;81(2):145–6
Misoprostol dose-related shivering and pyrexia in the third stage of labour. WHO Collaborative Trial of Misoprostol in the Management of the Third Stage of Labour. Lumbiganon P, et al. **Br J Obstet Gynaecol** 1999 Apr; 106(4):304–8
Control of shivering under regional anesthesia in obstetric patients with tramadol. Chan AM, et al. **Can J Anaesth** 1999 Mar;46(3):253–8
[Prophylactic nefopam administration for post-anesthetic shivering] Piper SN, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1998 Dec; 33(12):786–9 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Hypoxemia decreases the shivering threshold in rabbits anesthetized with 0.2 minimum alveolar anesthetic concentration isoflurane. Iwashita H, et al. **Anesth Analg** 1998 Dec;87(6):1408–11
Disinhibition of lower midbrain neurons enhances non-shivering thermogenesis in anesthetized rats. Shibata M, et al. **Brain Res** 1999 Jul 3;833(2):242–50
Prediction of shivering heat production from core and mean skin temperatures. Tikuisis P, et al. **Eur J Appl Physiol** 1999 Feb;79(3):221–9
The effect of exercise training in cold on shivering and nonshivering thermogenesis in adult and aged C57BL/6J mice. Shefer VI, et al. **Exp Gerontol** 1998 Aug;33(5):467–76
Age-related changes in oxygen and nutrient uptake by hindquarters in newborn pigs during cold-induced shivering. Lossec G, et al. **Exp Physiol** 1998 Nov; 83(6):793–807
Moderate exercise increases postexercise thresholds for vasoconstriction and shivering. Kenny GP, et al. **J Appl Physiol** 1998 Oct;85(4):1357–61
Shivering thermogenesis in leg and breast muscles of galliform chicks and nestlings of the domestic pigeon. Marjoniemi K, et al. **Physiol Biochem Zool** 1999 Jul–Aug; 72(4):484–92

SHOCK

Shock Society 4th International Shock Congress and 22nd Annual Conference on Shock. Philadelphia, Pennsylvania, USA. June 12–16, 1999. Abstracts. **Shock** 1999;11 Suppl 1:1–86
8th Congress of the European Shock Society. La Hulpe, Belgium, October 15–17, 1998. Abstracts. **Shock** 1998;10 Suppl:1–19
Findings in a fox rescued from hounds [letter; comment] Ross CM. **Vet Rec** 1999 Apr 24;144(17):484. Comment on: Vet Rec 1999 Feb 27;144(9):243–4. Comment on: Vet Rec 1999 Apr 3;144(14):392.
[Shock] Kovačević D, et al. **Med Pregl** 1998 Sep–Oct; 51(9–10):449–55 (16 ref.) (Eng. Abstr.) **(Scr)**
[Fetal encephalopathy secondary to maternal shock] Sampere Villagrasa MP, et al. **An Esp Pediatr** 1999 Mar;50(3):285–6 **(Spa)**

BLOOD

Sublingual capnometry: a new noninvasive measurement for diagnosis and quantitation of severity of circulatory shock [see comments] Weil MH, et al. **Crit Care Med** 1999 Jul; 27(7):1225–9. Comment in: Crit Care Med 1999 Jul;27(7):1380–1.

CHEMICALLY INDUCED

Catecholamine-resistant cardiovascular collapse after propofol, atracurium and gentamicin. Sneyd JR. **Eur J Anaesthesiol** 1998 Sep;15(5):600–2
Hemodynamic abnormalities in sodium monofluoroacetate intoxication. Chi CH, et al. **Hum Exp Toxicol** 1999 Jun; 18(6):351–3
Shock syndrome induced by bromocriptine test in a patient with prolactinoma--case report. Nakasu Y, et al. **Neurol Med Chir (Tokyo)** 1998 Oct;38(10):669–71
Hypotensive shock as a complication of infracyanine green injection. Bonte CA, et al. **Retina** 1998;18(5):476–7

COMPLICATIONS

Study on delay two-phase multiple organ dysfunction syndrome. Hu S, et al. **Chin Med J (Engl)** 1998 Feb; 111(2):101–8
Reexpansion pulmonary edema with acute hypovolemia [letter] Cinnella G, et al. **Intensive Care Med** 1998 Oct; 24(10):1117
Delayed hypovolemic hypotension exacerbates the hemodynamic and histopathologic consequences of thromboembolic stroke in rats. Dietrich WD, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):918–26
Relationship between blood lactate and early hepatic dysfunction in acute circulatory failure. De Jonghe B, et al. **J Crit Care** 1999 Mar;14(1):7–11
Neutrophil signaling alteration: an adverse inflammatory response after burn shock. Sayeed MM. **Medicina (B Aires)** 1998;58(4):386–92 (19 ref.)
[Hypopituitarism and shock in an 88 year old woman (clinical conference)] **Medicina (B Aires)** 1998;58(6):741–6 **(Spa)**

DIAGNOSIS

Sublingual capnometry: a new noninvasive measurement for diagnosis and quantitation of severity of circulatory shock [see comments] Weil MH, et al. **Crit Care Med** 1999 Jul; 27(7):1225–9. Comment in: Crit Care Med 1999 Jul;27(7):1380–1.
Detection of histamine-induced capillary protein leakage and hypovolaemia by determination of indocyanine green and glucose dilution method in dogs. Suzuki A, et al. **Intensive Care Med** 1999 Mar;25(3):304–10
The differential diagnosis of shock [clinical conference] Brown DF, et al. **J Emerg Med** 1999 Jan–Feb;17(1):105–9
Is this patient hypovolemic? [see comments] McGee S, et al. **JAMA** 1999 Mar 17;281(11):1022–9. Comment in: ACP J Club 1999 Sep–Oct;131(2):48.
[Acute shock encephalopathy syndrome in a girl with Sotos syndrome--with special reference to differentiation from Reye syndrome] Kimura S, et al. **No To Hattatsu** 1999 Jul;31(4):355–8 (Eng. Abstr.) **(Jpn)**

DRUG THERAPY

Recombinant human erythropoietin inhibits iNOS activity and reverts vascular dysfunction in splanchnic artery occlusion shock. Squadrito F, et al. **Br J Pharmacol** 1999 May;127(2):482–8
Therapy of shock with naloxone: a meta-analysis. Boeuf B, et al. **Crit Care Med** 1998 Nov;26(11):1910–6
Sulfatide reduces leucocyte accumulation and reverts vascular failure in splanchnic artery occlusion shock. Squadrito F, et al. **Eur J Pharmacol** 1998 Nov 13; 361(1):101–8
Management of vasodilatory shock after cardiac surgery: identification of predisposing factors and use of a novel pressor agent. Argenziano M, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):973–80
The effects of diaspirin cross-linked hemoglobin on hemodynamics, metabolic acidosis, and survival in burned rats. Soltero RG, et al. **J Trauma** 1999 Feb;46(2):286–91
Protective effect of N-acetylcysteine on cellular energy depletion in a non-septic shock model induced by zymosan in the rat. Cuzzocrea S, et al. **Shock** 1999 Feb;11(2):143–8
Factors influencing outcome of prolonged norepinephrine therapy for shock in critical surgical illness. Goncalves JA Jr, et al. **Shock** 1998 Oct;10(4):231–6

SHOCK

Simultaneous targeting or multiple pathways of shock: how promising, how novel? [editorial; comment] Szabó C. **Shock** 1999 Apr;11(4):296–7. Comment on: Shock 1999 Apr;11(4):264–8.

Effect of lazaroid U–74389G and methylprednisolone on endotoxin–induced shock in mice. Fukuma K, et al. **Surgery** 1999 Apr;125(4):421–30

[Hydrocortisone in catecholamine regulated circulatory insufficiency] Briegel J. **Anaesthesist** 1999 Apr;48(4):263–5 **(Ger)**

[Does prehospital hypertonic infusion therapy improve the survival of trauma patients?] Haljamäe H. **Lakartidningen** 1999 Mar 3;96(9):1014–7 (21 ref.) (Eng. Abstr.) **(Swe)**

ENZYMOLOGY

Heat shock inhibits cytokine–induced nitric oxide synthase expression by rat and human islets. Scarim AL, et al. **Endocrinology** 1998 Dec;139(12):5050–7

ETIOLOGY

Abdominal distention and shock in an infant. Carubelli CM, et al. **Am J Emerg Med** 1999 Jul;17(4):342–4

Acute systemic reaction and lung alterations induced by an antiplatelet integrin gpIIb/IIIa antibody in mice. Nieswandt B, et al. **Blood** 1999 Jul 15;94(2):684–93

Bacterial infection and extent of necrosis are determinants of organ failure in patients with acute necrotizing pancreatitis. Isenmann R, et al. **Br J Surg** 1999 Aug; 86(8):1020–4

Acute causes of circulatory collapse and neurologic dysfunction after trauma [letter] Ho AM. **Can J Anaesth** 1998 Dec;45(12):1223

Severe systemic inflammatory response syndrome with shock and ARDS resulting from Still's disease: clinical response with high–dose pulse methylprednisolone therapy. Iglesias J, et al. **Chest** 1999 Jun;115(6):1738–40

Shock in the pediatric emergency service: five years' experience [see comments] Chang P, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan–Feb;40(1):9–12. Comment in: Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hu 1999 Jan–Feb;40(1):4.

Idiopathic hypovolemia: a self–perpetuating autonomic dysfunction? Kuchel O, et al. **Clin Auton Res** 1998 Dec; 8(6):341–6

Acute eosinophilic pneumonia associated with shock [see comments] Buddharaju VL, et al. **Crit Care Med** 1999 Sep; 27(9):2014–6. Comment in: Crit Care Med 1999 Sep;27(9):2069–70.

Severe shock during upper GI endoscopy in a patient with systemic mastocytosis. Schwab D, et al. **Gastrointest Endosc** 1999 Aug;50(2):264–7

IL–6 knock–out mice exhibit resistance to splanchnic artery occlusion shock. Cuzzocrea S, et al. **J Leukoc Biol** 1999 Sep;66(3):471–80

Diffuse pulmonary infiltrates in immunocompromised patients. Fijen JW, et al. **Neth J Med** 1999 Jul;55(1):23–8

Profound circulatory shock following heroin overdose. Remskar M, et al. **Resuscitation** 1998 Jul;38(1):51–3 (6 ref.)

Animal models of sepsis and shock: a review and lessons learned. Edwin A Deitch. Shock 9(1):1–11, 1998 [letter; comment] Redl H, et al. **Shock** 1998 Dec;10(6):442–5 (35 ref.). Comment on: Shock 1998 Jan;9(1):1–11.

Massive intraperitoneal hemorrhage and hypovolemic shock due to rupture of a coronary vessel of a uterine leiomyoma: a report of two cases. Akahira J, et al. **Tohoku J Exp Med** 1998 Jul;185(3):217–22

[Clinical thinking and decision–making in the practice. A young man in shock (see comments)] Vonk AB, et al. **Ned Tijdschr Geneeskd** 1999 Jan 30;143(5):246–2 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 May 1;143(18):961; discussion 961–2. **(Dut)**

[Post–traumatic diaphagmatic hernia: a rare cause of acute circulatory insufficiency (letter)] Bouaggad A, et al. **Ann Fr Anesth Reanim** 1999 May;18(5):604–5 **(Fre)**

[Apropos of vascular filling. Interview with Prof. J.F. Baron] Baron JF. **Presse Med** 1999 May 1–8;28(17):928–30 **(Fre)**

[Hypovolemic shock caused by ascites in hereditary angioedema] Bork K. **Med Klin** 1998 Sep 15;93(9):554 **(Ger)**

[Genetic effects of mitotic poisons and their modification by heat–shock in strains of Drosophila melanogaster having defective adaptive response] Isaenko OA, et al. **Genetika** 1999 May;35(5):619–30 (Eng. Abstr.) **(Rus)**

[FMRFa and FMRFamide–like peptides (FaRPs) in the pathogenesis of shock] Tiniakov RL, et al. **Usp Fiziol Nauk** 1998 Jul–Sep;29(3):56–65 (62 ref.) (Eng. Abstr.) **(Rus)**

[Diagnosis of Whipple's disease in a patient admitted to the intensive care unit with suspected hypovolemic shock (letter)] Burguera M, et al. **Rev Esp Anestesiol Reanim** 1999 Jan;46(1):47–8 **(Spa)**

GENETICS

[Frequency of embryonal lethality in various strains of Drosophila melanogaster under conditions of destabilization of microtubule apparatus and as affected by heat shock] Shvartsman PIa, et al. **Genetika** 1999 May; 35(5):712–5 (Eng. Abstr.) **(Rus)**

HISTORY

What, if anything, is spinal shock? Nacimiento W, et al. **Arch Neurol** 1999 Aug;56(8):1033–5

Septic shock. 1964. [classical article] Frank ED. **Int Anesthesiol Clin** 1999 Winter;37(1):129–36

Cardiac deterioration in shock: I. Its progressive nature. 1964. [classical article] Guyton AC, et al. **Int Anesthesiol Clin** 1999 Winter;37(1):119–28

[Historical vision of shock] Dosne Pasqualini C. **Medicina (B Aires)** 1998;58(4):337–40 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Lactoferrin. Its role in maturation and function of cells of the immune system and protection against shock in mice. Zimecki M, et al. **Adv Exp Med Biol** 1998;443:331–6

Epinephrine and endotoxin tolerance differentially modulate serum cytokine levels to high–dose lipopolysaccharide challenge in a murine model. Baykal A, et al. **Surgery** 1999 Apr;125(4):403–10

METABOLISM

Intraperitoneal and sigmoid colon tonometry in porcine hypoperfusion and endotoxin shock models [see comments] Koga I, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):702–7. Comment in: Acta Anaesthesiol Scand 1999 Aug;43(7):691–4.

Inhibition of myocardial TNF–alpha production by heat shock. A potential mechanism of stress–induced cardioprotection against postischemic dysfunction. Meng X, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:69–82

Cardiovascular actions of cannabinoids and their generation during shock. Wagner JA, et al. **J Mol Med** 1998 Nov–Dec; 76(12):824–36 (121 ref.)

Protective effect of melatonin on cellular energy depletion mediated by peroxynitrite and poly (ADP–ribose) synthetase activation in a non–septic shock model induced by zymosan in the rat. Cuzzocrea S, et al. **J Pineal Res** 1998 Sep;25(2):78–85

Threshold values of intramucosal pH and mucosal–arterial CO2 gap during shock resuscitation. Miller PR, et al. **J Trauma** 1998 Nov;45(5):868–72

Simultaneous targeting or multiple pathways of shock: how promising, how novel? [editorial; comment] Szabó C. **Shock** 1999 Apr;11(4):296–7. Comment on: Shock 1999 Apr;11(4):264–8.

[Heat shock modulates xenobiotic cytotoxicity in vivo] Egorova AB, et al. **Biull Eksp Biol Med** 1998 Nov; 126(11):546–7 **(Rus)**

[Shock: concepts for a definition] Poderoso JJ, et al. **Medicina (B Aires)** 1998;58(4):341–9 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Experimental study of hypovolaemic shock–induced gastric mucosal lesions in the rat. Zöllei I. **Ann Acad Med Singapore** 1999 Jan;28(1):85–9

[Ultrastructural changes in the pancreas and their role in pathogenesis of myocardial damage during endotoxin–induced shock] Bardakhch'ian EA, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):587–93 **(Rus)**

PHYSIOPATHOLOGY

Nitric oxide and circulatory shock. Rubanyi GM. **Adv Exp Med Biol** 1998;454:165–72 (62 ref.)

Evidence for a role of kallikrein–P6nin system in patients with shock after blunt trauma. Sugimoto K, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1556–60

Role of KATP channel in heat shock and pharmacological preconditioning. Kukreja RC. **Ann N Y Acad Sci** 1999 Jun 30;874:211–21

The renin–angiotensin system in swine during hypovolaemic shock combined with low–flow ischaemia of the sigmoid colon. Yilmaz EN, et al. **Cardiovasc Surg** 1999 Aug; 7(5):539–44

Human cardiovascular variability, baroreflex and hormonal adaptations to a blood donation. Fortrat JO, et al. **Clin Sci (Colch)** 1998 Sep;95(3):269–75

Microcirculatory oxygenation and shunting in sepsis and shock [see comments] Ince C, et al. **Crit Care Med** 1999 Jul;27(7):1369–77 (75 ref.). Comment in: Crit Care Med 1999 Jul;27(7):1400–1.

Role of interleukin–6 in a non–septic shock model induced by zymosan. Cuzzocrea S, et al. **Eur Cytokine Netw** 1999 Jun;10(2):191–203

The effects of nitric oxide on shock caused by temporary hepatic inflow occlusion in pigs. Saito A, et al. **Hepatogastroenterology** 1999 Jan–Feb;46(25):436–42

Hemodynamic abnormalities in sodium monofluoroacetate intoxication. Chi CH, et al. **Hum Exp Toxicol** 1999 Jun; 18(6):351–3

Delayed hypovolemic hypotension exacerbates the hemodynamic and histopathologic consequences of thromboembolic stroke in rats. Dietrich WD, et al. **J Cereb Blood Flow Metab** 1999 Aug;19(8):918–26

Clusterin gene expression mediates resistance to apoptotic cell death induced by heat shock and oxidative stress. Viard I, et al. **J Invest Dermatol** 1999 Mar;112(3):290–6

Compensated shock and dopamine [letter; comment] Evans N, et al. **J Pediatr** 1999 Jul;135(1):135–6. Comment on: J Pediatr 1998 Dec;133(6):728–34.

Influence of hypovolemia on the pharmacokinetics and the electroencephalographic effect of etomidate in the rat. De Paepe P, et al. **J Pharmacol Exp Ther** 1999 Sep; 290(3):1048–53

Sudden infant death syndrome and the modulation of neuropeptides released during shock. Reid GM. **Med Hypotheses** 1998 Jul;51(1):23–6 (26 ref.)

Pressure–volume relationships in sheep mesenteric lymphatic vessels in situ: response to hypovolemia. Li B, et al. **Microvasc Res** 1998 Sep;56(2):127–38

Fibroblasts from Alzheimer's disease donors do not differ from controls in response to heat shock. Arosio B, et al. **Neurosci Lett** 1998 Oct 30;256(1):25–8

Role of Küpffer cells and PMN leukocytes in hepatic and systemic oxidative stress in rats subjected to tourniquet shock. Vega VL, et al. **Shock** 1999 Jun;11(6):403–10

[Progresses in the study of microcirculation in China, 1997] Jin H. **Chung Hua I Hsueh Tsa Chih** 1997 Dec;77(12):938–9 (0 ref.) **(Chi)**

[The effect of NO–like relaxing factor on vascular reactivity in tourniquet shock rat] Dong S, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):261–3 (Eng. Abstr.) **(Chi)**

[Vascular filling in relative or absolute hypovolemia] **Ann Fr Anesth Reanim** 1997;16(8):fi8–14 **(Fre)**

[Vascular filling in relative or absolute hypovolemia] **Presse Med** 1999 May 1–8;28(17):923–8 **(Fre)**

[Pathophysiology of hemodynamic shock (circulatory failure). Part 2] Kovač Z, et al. **Liječ Vjesn** 1999 Jan–Feb; 121(1–2):34–41 (42 ref.) (Eng. Abstr.) **(Scr)**

[Physiological basis of the clinical course and treatment of shock] Del Bosco CG. **Medicina (B Aires)** 1998;58(4):374–6 (Eng. Abstr.) **(Spa)**

PREVENTION & CONTROL

Lactoferrin. Its role in maturation and function of cells of the immune system and protection against shock in mice. Zimecki M, et al. **Adv Exp Med Biol** 1998;443:331–6

Tacrolimus suppresses tumour necrosis factor–alpha and protects against splanchnic artery occlusion shock. Squadrito F, et al. **Br J Pharmacol** 1999 May; 127(2):498–504

Protective effects of the new lazaroid "U–83836E" in splanchnic artery occlusion (SAO) shock. Campo GM, et al. **Free Radic Res** 1998 May;28(5):477–84

RADIOGRAPHY

Intense contrast enhancement of the adrenal glands: another abdominal CT finding associated with hypoperfusion complex in children. O'Hara SM, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):995–7

SURGERY

[The characteristics of treating patients with perforated stomach and duodenal ulcers in the primary shock period] Tutchenko NI, et al. **Klin Khir** 1998;(9–10):88–9 **(Rus)**

THERAPY

Volume kinetics of Ringer's solution in hypovolemic volunteers. Drobin D, et al. **Anesthesiology** 1999 Jan; 90(1):81–91

Comparison of resuscitation with diaspirin crosslinked hemoglobin (DCLHb) vs fresh blood in a rat burn shock model. Soltero RG, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Mar; 27(2):135–52

Volume loading for acute circulatory failure from pulmonary embolism [editorial; comment] Brower RG. **Crit Care Med** 1999 Mar;27(3):461–2. Comment on: Crit Care Med 1999 Mar;27(3):540–4.

Selectin neutralization: does it make biological sense? [editorial; comment] Lin E, et al. **Crit Care Med** 1999 Sep; 27(9):2050–3. Comment on: Crit Care Med 1999 Sep;27(9):1900–7.

Effects of hyperbaric oxygen exposure on a zymosan–induced shock model [see comments] Luongo C, et al. **Crit Care Med** 1998 Dec;26(12):1972–6. Comment in: Crit Care Med 1998 Dec;26(12):1932–3.

Hemodynamic effects of fluid loading in acute massive pulmonary embolism [see comments] Mercat A, et al. **Crit Care Med** 1999 Mar;27(3):540–4. Comment in: Crit Care Med 1999 Mar;27(3):461–3.

The calcaneum as a site for intraosseous infusion. McCarthy G, et al. **J Accid Emerg Med** 1998 Nov;15(6):421

An evaluation of the end points of resuscitation. Elliott DC. **J Am Coll Surg** 1998 Nov;187(5):536–47 (84 ref.)

Initial management of patients in trauma and shock. Takrouri MS. **Middle East J Anesthesiol** 1998 Oct;14(6):407–15

How reliable is 'the test of time'? Silverman WA. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):238–42; discussion 242–4

Exploding the albumin myth. Tjoeng MM, et al. **Pharm World Sci** 1999 Feb;21(1):17–20 (31 ref.)

The Mt. Tyndall incident. Braude D, et al. **Prehosp Emerg Care** 1999 Apr–Jun;3(2):167–9

Pharmacokinetics and pharmacodynamics of hydroxyethyl starch in hypovolemic pigs; a comparison of peripheral and intraosseous infusion. Kentner R, et al. **Resuscitation** 1999 Jan;40(1):37–44

Intraosseous access using butterfly needle. Daga SR, et al.

Trop Doct 1999 Jul;29(3):142–4

Circulatory effects of whole blood, packed red cells, albumin, starch, and crystalloids in resuscitation of shock and acute critical illness. Shoemaker WC, et al. **Vox Sang** 1998;74 Suppl 2:69–74 (17 ref.)

[Vascular filling in relative or absolute hypovolemia] **Ann Fr Anesth Reanim** 1997;16(8):fi8–14 **(Fre)**

[Are there still indications for albumin? (letter)] Fanconi S. **Wien Klin Wochenschr** 1999 Jun 4;111(11):451; discussion 451–3 **(Ger)**

[Are there still indications for albumin? (letter)] Mayr A, et al. **Wien Klin Wochenschr** 1999 Jun 4;111(11):449–50; discussion 451–3 **(Ger)**

[Are there still indications for albumin? (letter)] Salomon F. **Wien Klin Wochenschr** 1999 Jun 4;111(11):449; discussion 451–3 **(Ger)**

[Are there still indications for albumin? (letter)] Simpson K. **Wien Klin Wochenschr** 1999 Jun 4;111(11):448–9; discussion 451–3 **(Ger)**

[Are there still indications for albumin? (letter)] Steurer J. **Wien Klin Wochenschr** 1999 Jun 4;111(11):450–1; discussion 451–3 **(Ger)**

[Physiological basis of the clinical course and treatment of shock] Del Bosco CG. **Medicina (B Aires)** 1998;58(4):374–6 (Eng. Abstr.) **(Spa)**

VETERINARY

Pathologic findings in dogs with shock induced by intravenous administration of heartworm extract. Kitoh K, et al. **Am J Vet Res** 1998 Nov;59(11):1417–22

Effect of acute haemorrhage on QRS amplitude of the lead II canine electrocardiogram. Della Torre PK, et al. **Aust Vet J** 1999 May;77(5):298–300

Findings in a fox rescued from hounds [letter] [see comments] Edwards R. **Vet Rec** 1999 Feb 27;144(9):243–4. Comment in: Vet Rec 1999 Apr 3;144(14):392. Comment in: Vet Rec 1999 Apr 10;144(15):424.

SHOCK, ANAPHYLACTIC see **ANAPHYLAXIS**

SHOCK, CARDIOGENIC

CHEMICALLY INDUCED

An unusual cause of shock in a woman with chest pain. Alberio L, et al. **Hosp Pract (Off Ed)** 1999 Apr 15; 34(4):155–6, 158, 161

Dextropropoxyphene-induced cardiogenic shock: treatment with intra-aortic balloon pump and milrinone [letter] Gillard P, et al. **Intensive Care Med** 1999 Mar;25(3):335

Toxic cardiogenic shock in a patient receiving weekly 24-h infusion of high-dose 5-fluorouracil and leucovorin. Wang WS, et al. **Jpn J Clin Oncol** 1998 Sep;28(9):551–4

COMPLICATIONS

Cardiogenic shock complicating acute myocardial infarction: predictors of death. GUSTO Investigators. Global Utilization of Streptokinase and Tissue-Plasminogen Activator for Occluded Coronary Arteries. Hasdai D, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):21–31

The effect of positive pressure airway support on mortality and the need for intubation in cardiogenic pulmonary edema: a systematic review. [see comments] Pang D, et al. **Chest** 1998 Oct;114(4):1185–92 (23 ref.). Comment in: ACP J Club 1999 May–Jun;130(3):58.

Mild hypothermia for temporary brain ischemia during cardiopulmonary support systems: report of three cases. Yamashita C, et al. **Surg Today** 1999;29(2):182–5

[Clinical outcome of emergency coronary artery bypass grafting for acute myocardial infarction with cardiogenic shock] Tobe M, et al. **Kyobu Geka** 1999 Jul;52(8 Suppl):611–4 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Undetected cardiogenic shock in patients with congestive heart failure presenting to the emergency department. Ander DS, et al. **Am J Cardiol** 1998 Oct 1;82(7):888–91

[Guidelines for the diagnosis and management of heart failure and cardiogenic shock. Informe del Grupo de Trabajo de Insuficiencia Carddiacade la Sociedad Espanñola de Cardiologia] Navarro-López F, et al. **Rev Esp Cardiol** 1999; 52 Suppl 2:1–54 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Inhalation of nitric oxide as a life-saving therapy in a patient after pulmonary embolectomy. Schenk P, et al. **Br J Anaesth** 1999 Mar;82(3):444–7

Frequency and clinical outcome of cardiogenic shock during acute myocardial infarction among patients receiving reteplase or alteplase. Results from GUSTO-III. Global Use of Strategies to Open Occluded Coronary Arteries [see comments] Hasdai D, et al. **Eur Heart J** 1999 Jan; 20(2):128–35. Comment in: Eur Heart J 1999 Jan;20(2):88–9.

Intravenous thyroid hormone supplementation in heart failure with cardiogenic shock. Malik FS, et al. **J Card Fail** 1999 Mar;5(1):31–7

[The effect of milrinone for the shock patients after cardiac surgery] Kochi K, et al. **Kyobu Geka** 1999 Mar;52(3):239–42 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Temporal trends in cardiogenic shock complicating acute myocardial infarction. Goldberg RJ, et al. **N Engl J Med** 1999 Apr 15;340(15):1162–8

ETIOLOGY

Cardiogenic shock complicating acute myocardial infarction: predictors of death. GUSTO Investigators. Global Utilization of Streptokinase and Tissue-Plasminogen Activator for Occluded Coronary Arteries. Hasdai D, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):21–31

Efficacy of invasive strategy for the management of acute myocardial infarction complicated by cardiogenic shock. Pérez-Castellano N, et al. **Am J Cardiol** 1999 Apr 1; 83(7):989–93

Cardiogenic shock. Hollenberg SM, et al. **Ann Intern Med** 1999 Jul 6;131(1):47–59 (143 ref.)

Cardiogenic shock due to coronary narrowings one day after a MAZE III procedure. Berreklouw E, et al. **Ann Thorac Surg** 1999 Sep;68(3):1065–6

Crisis after angiography [see comments] Brueckel J, et al. **Lancet** 1998 Oct 17;352(9136):1278. Comment in: Lancet 1998 Dec 12;352(9144):1940.

Dynamic left ventricular outflow tract obstruction in acute coronary syndromes: an important cause of new systolic murmur and cardiogenic shock. Haley JH, et al. **Mayo Clin Proc** 1999 Sep;74(9):901–6

Intramural anomalous left coronary artery from the right sinus of Valsalva supported with venoarterial extracorporeal membrane oxygenation. Reich JD, et al. **South Med J** 1999 Jul;92(7):714–6

[Cardiogenic shock presenting a cardiac sarcoidosis. Apropos of a case] Messas E, et al. **Arch Mal Coeur Vaiss** 1998 Jun;91(6):771–6 (Eng. Abstr.) **(Fre)**

[Cardiogenic shock] Bertel O, et al. **Schweiz Med Wochenschr** 1998 Sep 26;128(39):1428–35 (30 ref.) (Eng. Abstr.) **(Ger)**

MORTALITY

Frequency and clinical outcome of cardiogenic shock during acute myocardial infarction among patients receiving reteplase or alteplase. Results from GUSTO-III. Global Use of Strategies to Open Occluded Coronary Arteries [see comments] Hasdai D, et al. **Eur Heart J** 1999 Jan; 20(2):128–35. Comment in: Eur Heart J 1999 Jan;20(2):88–9.

PHYSIOPATHOLOGY

Gastric tonometry: in vivo comparison of saline and air tonometry in patients with cardiogenic shock. Janssens U, et al. **Br J Anaesth** 1998 Nov;81(5):676–80

The efficacy of the high volume counterpulsation technique at very low levels of aortic pressure. Charitos CE, et al. **J Cardiovasc Surg (Torino)** 1998 Oct;39(5):625–32

Catecholamine refractoriness and their mechanisms in cardiocirculatory shock and chronic heart failure. Böhm M. **Thorac Cardiovasc Surg** 1998 Sep;46 Suppl 2:270–5; discussion 276 (41 ref.)

[Volume loading experiment in dogs with large area infarction of right and left ventricles] Li Y, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):36–9 (Eng. Abstr.) **(Chi)**

[Comparative study of artificial circulation for the liver after cardiogenic shock: pulsatile or nonpulsatile?] Kohjima T. **Jpn J Thorac Cardiovasc Surg** 1998 Nov;46(11):1117–25 (Eng. Abstr.) **(Jpn)**

PREVENTION & CONTROL

Role of PTCA and mechanical devices in cardiogenic shock. Shawl FA. **Indian Heart J** 1998 Oct;50 Suppl 1:57–61 (50 ref.)

SURGERY

Pseudointima in inflow conduits of left ventricular assist devices. Houel R, et al. **Ann Thorac Surg** 1999 Aug; 68(2):717–23

Acute and temporary ventricular support with BioMedicus centrifugal pump. Noon GP, et al. **Ann Thorac Surg** 1999 Aug;68(2):650–4

Aortic function in patients during intra-aortic balloon pumping determined by the pressure-diameter relation [see comments] Stefanadis C, et al. **J Thorac Cardiovasc Surg** 1998 Dec;116(6):1052–9. Comment in: J Thorac Cardiovasc Surg 1999 Jun;117(6):1231–3.

Successful use of Phoenix-7 total artificial heart. Wei J, et al. **Transplant Proc** 1998 Nov;30(7):3403–4

THERAPY

SHould we emergently revascularize Occluded Coronaries for cardiogenic shocK: an international randomized trial of emergency PTCA/CABG-trial design. The SHOCK Trial Study Group. Hochman JS, et al. **Am Heart J** 1999 Feb;137(2):313–21

Reperfusion therapy in cardiogenic shock complicating acute myocardial infarction. Santoro GM, et al. **Am Heart J** 1999 Aug;138(2 Pt 2):126–31 (47 ref.)

Intra-aortic balloon counterpulsation before primary percutaneous transluminal coronary angioplasty reduces catheterization laboratory events in high-risk patients with acute myocardial infarction. Brodie BR, et al. **Am J Cardiol** 1999 Jul 1;84(1):18–23

Use of percutaneous cardiopulmonary support of patients with fulminant myocarditis and cardiogenic shock for improving prognosis. Kato S, et al. **Am J Cardiol** 1999 Feb 15;83(4):623–5, A10

Usefulness of extracorporeal membrane oxygenation for treatment of fulminant myocarditis and circulatory collapse. Kawahito K, et al. **Am J Cardiol** 1998 Oct 1; 82(7):910–1

Cardiogenic shock. Hollenberg SM, et al. **Ann Intern Med** 1999 Jul 6;131(1):47–59 (143 ref.)

Dofetilide enhances shock-induced extension of refractoriness and lowers defibrillation threshold. Davis DR, et al. **Can J Cardiol** 1999 Feb;15(2):193–200 (47 ref.)

Percutaneous balloon mitral valvotomy as a bridge to elective mitral valve replacement [letter; comment] Chow WH, et al. **Cathet Cardiovasc Diagn** 1998 Sep;45(1):102. Comment on: Cathet Cardiovasc Diagn 1998 Feb;43(2):195–7.

Worsening hypotension in a 60-year-old man requiring intra-aortic balloon counterpulsation. Parrillo J. **Chest** 1999 Sep;116(3):801–2

Randomized trials in cardiogenic shock: what's the problem? [editorial; comment] Norell MS. **Eur Heart J** 1999 Jul; 20(14):987–8. Comment on: Eur Heart J 1999 Jul;20(14):1030–8.

Cardiogenic shock: a failure in reperfusion. Time for a strategic change? [editorial; comment] Serruys PW, et al. **Eur Heart J** 1999 Jan;20(2):88–9 (10 ref.). Comment on: Eur Heart J 1999 Jan;20(2):128–35.

A randomized evaluation of early revascularization to treat shock complicating acute myocardial infarction. The (Swiss) Multicenter Trial of Angioplasty for Shock-(S)MASH [see comments] Urban P, et al. **Eur Heart J** 1999 Jul;20(14):1030–8. Comment in: Eur Heart J 1999 Jul;20(14):987–8.

Children may survive severe myocarditis with prolonged use of biventricular assist devices. Stiller B, et al. **Heart** 1999 Aug;82(2):237–40

Primary angioplasty for cardiogenic shock complicating acute myocardial infarction. Calton R, et al. **Indian Heart J** 1999 Jan–Feb;51(1):47–54

The use of an implantable left ventricular assist device in a patient with cardiogenic shock following acute myocardial infarction. Chua TP, et al. **Int J Cardiol** 1998 Sep 1;66(1):55–8

Dextropropoxyphene-induced cardiogenic shock: treatment with intra-aortic balloon pump and milrinone [letter] Gillard P, et al. **Intensive Care Med** 1999 Mar;25(3):335

Survival using percutaneous cardiopulmonary support after acute myocardial infarction due to occlusion of the left main coronary artery—a report of two cases. Yuda S, et al. **Jpn Circ J** 1998 Oct;62(10):779–82

Early revascularization in acute myocardial infarction complicated by cardiogenic shock. SHOCK Investigators. Should We Emergently Revascularize Occluded Coronaries for Cardiogenic Shock [see comments] Hochman JS, et al. **N Engl J Med** 1999 Aug 26; 341(9):625–34. Comment in: N Engl J Med 1999 Aug 26;341(9):687–8.

Early revascularization in cardiogenic shock—a positive view of a negative trial [editorial; comment] Ryan TJ. **N Engl J Med** 1999 Aug 26;341(9):687–8. Comment on: N Engl J Med 1999 Aug 26;341(9):625–34.

Interventional cardiology in the treatment of cardiogenic shock. Nanas JN. **Rev Port Cardiol** 1998 Nov;17 Suppl 3:III73–5 (12 ref.)

Intramural anomalous left coronary artery from the right sinus of Valsalva supported with venoarterial extracorporeal membrane oxygenation. Reich JD, et al. **South Med J** 1999 Jul;92(7):714–6

Successful treatment of a Novacor LVAD malfunction without repeat sternotomy. Hammel D, et al. **Thorac Cardiovasc Surg** 1998 Jun;46(3):154–6

Ventricular assist as a bridge to heart transplantation. Wang SS, et al. **Transplant Proc** 1998 Nov;30(7):3401–2

[Current status of post-infarction cardiogenic shock and revascularization] Grollier G, et al. **Arch Mal Coeur Vaiss** 1998 Sep;91(9):1145–9 (Eng. Abstr.) **(Fre)**

[Non-invasive positive pressure ventilation in cardiogenic pulmonary edema] Hoffmann B, et al. **Med Klin** 1999 Apr; 94(1 Spec No):58–61 (Eng. Abstr.) **(Ger)**

[Deformation of a coronary stent as a sequela of resuscitation (published erratum appears in Z Kardiol 1999 May;88(5):381)] Vogtmann T, et al. **Z Kardiol** 1999 Apr; 88(4):296–9 (Eng. Abstr.) **(Ger)**

[Interposed abdominal compression in mechanical cardiopulmonary resuscitation. Description of a clinical case] Villa GF, et al. **Minerva Anestesiol** 1998 Sep; 64(9):415–8 (Eng. Abstr.) **(Ita)**

[Prognosis and management in patients with left main shock syndrome—emergency PTCA following CABG] Tomioka H, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec; 46(12):1253–9 (Eng. Abstr.) **(Jpn)**

[Guidelines for the diagnosis and management of heart failure and cardiogenic shock. Informe del Grupo de Trabajo de Insuficiencia Carddiacade la Sociedad Espanñola de Cardiologia] Navarro-López F, et al. **Rev Esp Cardiol** 1999; 52 Suppl 2:1–54 (Eng. Abstr.) **(Spa)**

SHOCK, ENDOTOXIC see **SHOCK, SEPTIC**

SHOCK, HEMORRHAGIC

Initial resuscitation volume in uncontrolled hemorrhage: effects on organ function. Haizlip TM Jr, et al. **Am Surg** 1999 Mar;65(3):215–7

[Hemorrhagic shock] Vallet B, et al. **Rev Prat** 1999 Jan 15; 49(2):203–7 (0 ref.) **(Fre)**

[A patient with multiple trauma with recurrent hemorrhagic shock] Liljedal J Jr, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1299–302 **(Nor)**

BLOOD

Plasma concentration of adrenomedullin is increased in hemorrhagic shock in dogs. Fujioka S, et al. **Anesth Analg** 1999 Feb;88(2):326–8

Effects of recombinant human endothelial-derived interleukin-8 on hemorrhagic shock in rats. Wang LZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):434–6

Leukocyte adherence and sequestration following hemorrhagic shock and total ischemia in rats. Childs EW, et al. **Shock** 1999 Apr;11(4):248–52

Bactericidal/permeability-increasing protein ameliorates hypercoagulability after hemorrhagic shock. Yamashita M. **Thromb Res** 1997 Aug 1;87(3):323–9

Strong increase of 9-hydroxy-10,12-octadecadienoic acid in low density lipoprotein after a hemorrhagic shock. Kreil P, et al. **Z Naturforsch [C]** 1998 Sep-Oct;53(9-10):876–82

[Modulation mechanism of IL-1 in hemorrhagic shock in relation to endotoxin] Shi HP, et al. **Sheng Li Hsueh Pao** 1997 Apr;49(2):173–7 (Eng. Abstr.) **(Chi)**

[Low-energy laser irradiation of blood as a method of prevention of blood circulation decompensation in hemorrhagic shock] Kozhura VL, et al. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):47–50 (Eng. Abstr.) **(Rus)**

COMPLICATIONS

Hemorrhage decreases macrophage inflammatory protein 2 and interleukin-6 release: a possible mechanism for increased wound infection. Angele MK, et al. **Ann Surg** 1999 May;229(5):651–60; discussion 660–1

Reversal by vasopressin of intractable hypotension in the late phase of hemorrhagic shock. Morales D, et al. **Circulation** 1999 Jul 20;100(3):226–9

Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417–23

Complement activation mediates intestinal injury after resuscitation from hemorrhagic shock. Spain DA, et al. **J Trauma** 1999 Feb;46(2):224–33

DRUG THERAPY

Hepatosplanchnic and peripheral tissue oxygenation during treatment of hemorrhagic shock: the effects of pentoxifylline administration. Nordin A, et al. **Ann Surg** 1998 Dec;228(6):741–7

Beneficial effects of mercaptoethylguanidine, an inhibitor of the inducible isoform of nitric oxide synthase and a scavenger of peroxynitrite, in a porcine model of delayed hemorrhagic shock. Szabó A, et al. **Crit Care Med** 1999 Jul;27(7):1343–50

The unorthodox and orthodox: the therapeutic role of acadesine after traumatic injury and sepsis [editorial; comment] Unkle DW. **Crit Care Med** 1999 Mar;27(3):468–9 . Comment on: Crit Care Med 1999 Mar;27(3):565–7 5.

A shocking state of affairs [comment] Luft FC. **J Mol Med** 1999 Jan;77(1):1–2. Comment on: J Mol Med 1999 Jan;77(1):8–13.

Lactated ringer's is superior to normal saline in a model of massive hemorrhage and resuscitation. Healey MA, et al. **J Trauma** 1998 Nov;45(5):894–9

Modulation of hemorrhagic shock by intestinal mucosal NG-nitro-L-arginine and L-arginine in the anesthetized rat. Mailman D. **Shock** 1999 Aug;12(2):155–60

A novel fluid resuscitation therapy for hemorrhagic shock. Roy JW, et al. **Shock** 1998 Sep;10(3):213–7

3-Aminobenzamide, an inhibitor of poly (ADP-ribose) synthetase, improves hemodynamics and prolongs survival in a porcine model of hemorrhagic shock. Szabó A, et al. **Shock** 1998 Nov;10(5):347–53

Glycine improves survival after hemorrhagic shock in the rat. Zhong Z, et al. **Shock** 1999 Jul;12(1):54–62

[Observation of therapeutic effect by combined administration of Salvia miltiorrhiza, ligustrazine and Panax notoginseng on late hemorrhagic shock of rabbits] Wang ZW, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 May;17(5):292–4 (Eng. Abstr.) **(Chi)**

ENZYMOLOGY

Hemorrhagic shock-induced changes in the cathepsin D activity in the intestinal wall and blood serum in rats. Dzienis-Koronkiewicz E, et al. **Eur J Pediatr Surg** 1998 Oct;8(5):288–94

ETIOLOGY

Case control study of thermal environment preceding haemorrhagic shock encephalopathy syndrome. Bacon CJ, et al. **Arch Dis Child** 1999 Aug;81(2):155–8

Coeliac disease presenting with intraperitoneal haemorrhage. Cameron EA, et al. **Eur J Gastroenterol Hepatol** 1998 Jul; 10(7):619–20

Childhood retroperitoneal lymphangioma presenting following minor trauma. Freud E, et al. **Injury** 1999 Jun; 30(5):380–3

Liver laceration in the hemodynamically unstable post-cardiac massage patient: early recognition and management--case report. Rosen J, et al. **J Trauma** 1999 Aug;47(2):408–9

Massive prehospital transfusion in multiple blunt trauma [see comments] Garner AA, et al. **Med J Aust** 1999 Jan 4; 170(1):23–5. Comment in: Med J Aust 1999 Apr 19;170(8):394.

[Hemorrhagic shock death caused by not so severe injury during the medication of anticoagulants] Hitosugi M, et al. **Nippon Hoigaku Zasshi** 1998 Oct;52(5):331–5 (Eng. Abstr.) **(Jpn)**

GENETICS

Induction of a rat enteric defensin gene by hemorrhagic shock. Condon MR, et al. **Infect Immun** 1999 Sep; 67(9):4787–93

IMMUNOLOGY

Hemorrhagic shock impairs mucosal immunity to gut-derived antigens. Saini MS, et al. **Am Surg** 1999 Jul; 65(7):637–42

Immunological consequences of trauma and shock. Catania RA, et al. **Ann Acad Med Singapore** 1999 Jan;28(1):120–32 (147 ref.)

Immunomodulatory effects of hypertonic resuscitation on the development of lung inflammation following hemorrhagic shock. Rizoli SB, et al. **J Immunol** 1998 Dec 1; 161(11):6288–96

L-arginine: a unique amino acid for restoring the depressed macrophage functions after trauma-hemorrhage. Angele MK, et al. **J Trauma** 1999 Jan;46(1):34–41

Do different rates of fluid resuscitation adversely or beneficially influence immune responses after trauma-hemorrhage? Knöferl MW, et al. **J Trauma** 1999 Jan;46(1):23–33

METABOLISM

Fentanyl pharmacokinetics in hemorrhagic shock: a porcine model. Egan TD, et al. **Anesthesiology** 1999 Jul; 91(1):156–66

Gut-derived mesenteric lymph but not portal blood increases endothelial cell permeability and promotes lung injury after hemorrhagic shock. Magnotti LJ, et al. **Ann Surg** 1998 Oct; 228(4):518–27

Rapid and simultaneous activation of Stat3 and production of interleukin 6 in resuscitated hemorrhagic shock. Hierholzer C, et al. **Arch Orthop Trauma Surg** 1999; 119(5-6):332–6

Activation of STAT proteins in the lung of rats following resuscitation from hemorrhagic shock. Hierholzer C, et al. **Arch Orthop Trauma Surg** 1998;117(6-7):372–5

Distribution of endotoxins in tissues and circulation and its effects following hemorrhagic shock. Jiang J, et al. **Chin Med J (Engl)** 1998 Feb;111(2):118–22

Comparison of skeletal muscle PO2, PCO2, and pH with gastric tonometric P(CO2) and pH in hemorrhagic shock [see comments] McKinley BA, et al. **Crit Care Med** 1999 Sep;27(9):1869–77. Comment in: Crit Care Med 1999 Sep;27(9):2047–8.

Monitoring in shock: stomach or muscle? [editorial; comment] Waxman K. **Crit Care Med** 1999 Sep; 27(9):2047–8. Comment on: Crit Care Med 1999 Sep;27(9):1869–77.

The influence of hemorrhagic shock on the pharmacokinetics and the analgesic effect of morphine in the rat. De Paepe P, et al. **Fundam Clin Pharmacol** 1998;12(6):624–30

Changes in gastric mucosal permeability induced by haemorrhagic shock in the anaesthetized rat: modulation by acid. Calatayud S, et al. **J Pharm Pharmacol** 1998 Oct; 50(10):1095–100

Adrenergic antagonists reduce lactic acidosis in response to hemorrhagic shock. Luchette FA, et al. **J Trauma** 1999 May;46(5):873–80

Brain tissue oxygenation during hemorrhagic shock, resuscitation, and alterations in ventilation. Manley GT, et al. **J Trauma** 1999 Feb;46(2):261–7

BN 52021, PAF-receptor antagonist, improves diminished antioxidant defense system of lungs in experimentally induced haemorrhagic shock. Makarewicz-Płońska M, et al. **Pol J Pharmacol** 1998 May-Jun;50(3):265–9

Role of reperfusion with polyelectrolyte solution and BN 52021 in hemorrhagic shock-induced changes in rat lungs. Makarewicz-Płońska M, et al. **Pol J Pharmacol** 1999 Mar-Apr;51(2):137–42

Priming of Peyer's patch lymphoid cells by hemorrhagic shock and resuscitation to produce superoxide radical. Chamulitrat W, et al. **Shock** 1999 Feb;11(2):136–42

Influence of L-arginine, aminoguanidine, and NG-nitro-L-arginine methyl ester (L-name) on the survival rate in a rat model of hemorrhagic shock. Hua TC, et al. **Shock** 1999 Jan;11(1):51–7

Utility of clinical parameters of tissue oxygenation in a quantitative model of irreversible hemorrhagic shock. Shah NS, et al. **Shock** 1998 Nov;10(5):343–6

Oxyradical-mediated hepatocellular Ca2+ alterations during hemorrhagic shock and resuscitation. Silomon M, et al. **Shock** 1999 Mar;11(3):193–8

Early up-regulation of intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 expression in rats with hemorrhagic shock and resuscitation. Sun LL, et al. **Shock** 1999 Jun;11(6):416–22

Novel roles of nitric oxide in hemorrhagic shock. Szabó C, et al. **Shock** 1999 Jul;12(1):1–9 (113 ref.)

Neutrophil accumulation and damage to the gastric mucosa in resuscitated hemorrhagic shock is independent of inducible nitric oxide synthase. Tsukada K, et al. **Shock** 1999 May;11(5):319–24

Effect of mesenteric ischemia and reperfusion or hemorrhagic shock on intestinal mucosal permeability and ATP content in rats. Wattanasirichaigoon S, et al. **Shock** 1999 Aug; 12(2):127–33

[Protective effect of stress adaptation to damages caused hemorrhagic shock: the role of the antioxidant system] Kizichenko NV, et al. **Biull Eksp Biol Med** 1998 Sep; 126(9):270–3 **(Rus)**

[The biogenic amine content of rat tissues in the postresuscitation period following hemorrhagic shock and the effect of the preparation semax] Bastrikova NA, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):19–22 (Eng. Abstr.) **(Rus)**

MORTALITY

A novel nitric oxide scavenger decreases liver injury and improves survival after hemorrhagic shock. Menezes J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):G144–51

Influence of L-arginine, aminoguanidine, and NG-nitro-L-arginine methyl ester (L-name) on the survival rate in a rat model of hemorrhagic shock. Hua TC, et al. **Shock** 1999 Jan;11(1):51–7

Utility of clinical parameters of tissue oxygenation in a quantitative model of irreversible hemorrhagic shock. Shah NS, et al. **Shock** 1998 Nov;10(5):343–6

3-Aminobenzamide, an inhibitor of poly (ADP-ribose) synthetase, improves hemodynamics and prolongs survival in a porcine model of hemorrhagic shock. Szabó A, et al. **Shock** 1998 Nov;10(5):347–53

PATHOLOGY

A novel nitric oxide scavenger decreases liver injury and improves survival after hemorrhagic shock. Menezes J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):G144–51

Hemorrhagic shock results in intestinal muscularis intercellular adhesion molecule (ICAM-1) expression, neutrophil infiltration, and smooth muscle dysfunction. Kalff JC, et al. **Arch Orthop Trauma Surg** 1999; 119(1-2):89–93

Protective action of capsaicin and chilli on haemorrhagic shock-induced gastric mucosal injury in the rat. Teng CH, et al. **J Gastroenterol Hepatol** 1998 Oct;13(10):1007–14

Antioxidative resuscitation solution prevents leukocyte adhesion in the liver after hemorrhagic shock. Bauer C, et al. **J Trauma** 1999 May;46(5):886–93

An autopsy case of unusual massive gastrointestinal hemorrhaging. Sannohe S, et al. **Nippon Hoigaku Zasshi** 1998 Jun;52(3):207–10

PHYSIOPATHOLOGY

Effect of cerebral ischaemia on the cerebrovascular and cardiovascular response to haemorrhage. Rise IR, et al. **Acta Neurochir (Wien)** 1998;140(7):699–705; discussion 705–6

Effect of hemorrhagic hypotension on hydroxyl radicals in cat brain. Song D, et al. **Adv Exp Med Biol** 1998;454:173–80

Intestinal microvascular pO2 measurement with Pd-porphyrin phosphorescence in the mechanically ventilated mouse. van Bommel J, et al. **Adv Exp Med Biol** 1998;454:189–93

A correlation of intravital microscopically assessed NADH fluorescence, tissue oxygenation, and organ function during shock and resuscitation of the rat liver. Vollmar B, et al. **Adv Exp Med Biol** 1998;454:95–101

Systemic and microcirculatory effects of autologous whole blood resuscitation in severe hemorrhagic shock. Kerger H, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2035–43

Inhibition of beta-adrenergic-dependent alveolar epithelial clearance by oxidant mechanisms after hemorrhagic shock. Modelska K, et al. **Am J Physiol** 1999 May;276(5 Pt 1):L844–57

Changes in resistance vessels during hemorrhagic shock and resuscitation in conscious hamster model. Sakai H, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H563–71

Hemorrhagic shock results in intestinal muscularis intercellular adhesion molecule (ICAM-1) expression, neutrophil infiltration, and smooth muscle dysfunction. Kalff JC, et al. **Arch Orthop Trauma Surg** 1999; 119(1-2):89–93

Tumour necrosis factor-alpha as a target of melanocortins in haemorrhagic shock, in the anaesthetized rat. Altavilla D, et al. **Br J Pharmacol** 1998 Aug;124(8):1587–90

Effects of ethanol on brain lactate in experimental traumatic brain injury with hemorrhagic shock. Zink BJ, et al. **Brain Res** 1999 Aug 7;837(1-2):1–7

Prognostic value of blood lactate, base deficit, and oxygen-derived variables in an LD50 model of penetrating trauma. Moomey CB Jr, et al. **Crit Care Med** 1999 Jan; 27(1):154–61

Cardiovascular effects of noradrenaline in hypovolemic haemorrhage: role of inducible nitric oxide synthase. Tabrizchi R. **Eur J Pharmacol** 1998 Nov 20; 361(2-3):227-34

Haemorrhagic shock and encephalopathy syndrome: neurological course and predictors of outcome. Thébaud B, et al. **Intensive Care Med** 1999 Mar;25(3):293-9

Decreases in organ blood flows associated with increases in sublingual PCO2 during hemorrhagic shock. Jin X, et al. **J Appl Physiol** 1998 Dec;85(6):2360-4

Essential role of P-selectin in the initiation of the inflammatory response induced by hemorrhage and reinfusion. Scalia R, et al. **J Exp Med** 1999 Mar 15; 189(6):931-8

A shocking state of affairs [comment] Luft FC. **J Mol Med** 1999 Jan;77(1):1-2. Comment on: J Mol Med 1999 Jan;77(1):8-13.

Monoclonal antibody to tumor necrosis factor-alpha modulates hepatocellular Ca2+ homeostasis during hemorrhagic shock in the rat [see comments] Pizanis A, et al. **J Mol Med** 1999 Jan;77(1):8-13. Comment in: J Mol Med 1999 Jan;77(1):1-2.

Acute ethanol intoxication in a model of traumatic brain injury with hemorrhagic shock: effects on early physiological response. Zink BJ, et al. **J Neurosurg** 1998 Dec;89(6):983-90

Rebound intracranial hypertension in dogs after resuscitation with hypertonic solutions from hemorrhagic shock accompanied by an intracranial mass lesion. Prough DS, et al. **J Neurosurg Anesthesiol** 1999 Apr;11(2):102-11

Microvascular oxygen pressure in the pig intestine during haemorrhagic shock and resuscitation. Sinaasappel M, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):245-53

Resuscitation with hypertonic saline dextran reduces endothelial cell swelling and improves hepatic microvascular perfusion and function after hemorrhagic shock. Corso CO, et al. **J Surg Res** 1998 Dec;80(2):210-20

Induction of tolerance to hemorrhagic or endotoxic shock involves activation of NF-kappaB. Kramer AA, et al. **J Surg Res** 1999 May 15;83(2):89-94

Hypertonic immunomodulation is reversible and accompanied by changes in CD11b expression. Rizoli SB, et al. **J Surg Res** 1999 May 15;83(2):130-5

Posthemorrhagic shock mesenteric lymph primes circulating neutrophils and provokes lung injury. Zallen G, et al. **J Surg Res** 1999 May 15;83(2):83-8

Modification of the cardiovascular response to hemorrhage by somatic afferent nerve stimulation with special reference to gut and skeletal muscle blood flow. Mackway-Jones K, et al. **J Trauma** 1999 Sep;47(3):481-5

Vascular tone in patients with hemorrhagic shock. Miyagatani Y, et al. **J Trauma** 1999 Aug;47(2):282-7

Continuous measurement of gut pH with near-infrared spectroscopy during hemorrhagic shock. Puyana JC, et al. **J Trauma** 1999 Jan;46(1):9-15

Central sympathetic modulation of tissue cytokine response to hemorrhage. Molina PE, et al. **Neuroimmunomodulation** 1999 May-Jun;6(3):193-200

Endogenous neuropeptide Y mediates vasoconstriction during endotoxic and hemorrhagic shock. Qureshi NU, et al. **Regul Pept** 1998 Sep 25;75-76:215-20

Effects of N(omega)-nitro-L-arginine (L-NOARG) on blood flow and. vasomotion in rat diaphragm microcirculation during hemorrhagic hypotension. Chen CW, et al. **Shock** 1999 Jul;12(1):69-74

Selective microvascular endothelial cell dysfunction in the small intestine following resuscitated hemorrhagic shock. Fruchterman TM, et al. **Shock** 1998 Dec;10(6):417-22

Intrinsic myocardial function in hemorrhagic shock. McDonough KH, et al. **Shock** 1999 Mar;11(3):205-10

Post-hemorrhagic shock mesenteric lymph is cytotoxic to endothelial cells and activates neutrophils [see comments] Upperman JS, et al. **Shock** 1998 Dec;10(6):407-14. Comment in: Shock 1998 Dec;10(6):415-6.

Complement inhibition prevents gut ischemia and endothelial cell dysfunction after hemorrhage/resuscitation. Fruchterman TM, et al. **Surgery** 1998 Oct;124(4):782-91; discussion 791-2

[Effects of lymph on ventricular contractile function in rats during hemorrhagic shock] Qiu L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 May; 13(2):170 **(Chi)**

[Cardiocirculatory effects of intravenous anesthetic induction in an experimental model of acute hypovolemia] Errando CL, et al. **Rev Esp Anestesiol Reanim** 1998 Oct;45(8):333-9 (Eng. Abstr.) **(Spa)**

PREVENTION & CONTROL

Prophylactic octreotide reduces the severity of histopathologic changes and hemodynamic shock in early taurodeoxycholate-induced experimental pancreatitis. Chen CC, et al. **Proc Natl Sci Counc Repub China B** 1999 Jan;23(1):1-6

[The use of tranexamic acid as an anesthetic component in ENT surgeries in patients with high surgical-anesthetic risk and in hemorrhagic shock intensive therapy] Kuiian SM, et al. **Vestn Otorinolaringol** 1999;(1):47-51 (Eng. Abstr.) **(Rus)**

THERAPY

Systemic and microcirculatory effects of autologous whole blood resuscitation in severe hemorrhagic shock. Kerger H, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2035-43

Rapid and simultaneous activation of Stat3 and production of interleukin 6 in resuscitated hemorrhagic shock. Hierholzer C, et al. **Arch Orthop Trauma Surg** 1999; 119(5-6):332-6

Activation of STAT proteins in the lung of rats following resuscitation from hemorrhagic shock. Hierholzer C, et al. **Arch Orthop Trauma Surg** 1998;117(6-7):372-5

Is there a role for first generation blood substitutes in the resuscitation of hemorrhagic shock? [editorial] Chang TM. **Artif Cells Blood Substit Immobil Biotechnol** 1998 Nov; 26(5-6):ix-xi

The application of animal models to critical care patients [editorial; comment] Erstad BL, et al. **Crit Care Med** 1999 Sep;27(9):2045-6. Comment on: Crit Care Med 1999 Sep;27(9):1856-61.

Acadesine during fluid resuscitation from shock and abdominal sepsis [see comments] Melton SM, et al. **Crit Care Med** 1999 Mar;27(3):565-75 (46 ref.). Comment in: Crit Care Med 1999 Mar;27(3):468-9.

Anti-L-selectin antibody treatment of hemorrhagic-traumatic shock in baboons [see comments] Schlag G, et al. **Crit Care Med** 1999 Sep;27(9):1900-7. Comment in: Crit Care Med 1999 Sep;27(9):2050-2.

Mild or moderate hypothermia but not increased oxygen breathing prolongs survival during lethal uncontrolled hemorrhagic shock in rats, with monitoring of visceral dysoxia. Takasu A, et al. **Crit Care Med** 1999 Aug; 27(8):1557-64

Low-volume resuscitation with a hemoglobin-based oxygen carrier after hemorrhage improves gut microvascular oxygenation in swine. van Iterson M, et al. **J Lab Clin Med** 1998 Nov;132(5):421-31

Rebound intracranial hypertension in dogs after resuscitation with hypertonic solutions from hemorrhagic shock accompanied by an intracranial mass lesion. Prough DS, et al. **J Neurosurg Anesthesiol** 1999 Apr;11(2):102-11

Resuscitation with hypertonic saline dextran reduces endothelial cell swelling and improves hepatic microvascular perfusion and function after hemorrhagic shock. Corso CO, et al. **J Surg Res** 1998 Dec;80(2):210-20

Hypertonic immunomodulation is reversible and accompanied by changes in CD11b expression. Rizoli SB, et al. **J Surg Res** 1999 May 15;83(2):130-5

Controlled resuscitation for uncontrolled hemorrhagic shock. Burris D, et al. **J Trauma** 1999 Feb;46(2):216-23

Resuscitation with lactated Ringer's solution in rats with hemorrhagic shock induces immediate apoptosis. Deb S, et al. **J Trauma** 1999 Apr;46(4):582-8; discussion 588-9

Do different rates of fluid resuscitation adversely or beneficially influence immune responses after trauma-hemorrhage? Knöferl MW, et al. **J Trauma** 1999 Jan;46(1):23-33

The effects of varying fluid volume and rate of resuscitation during uncontrolled hemorrhage. Soucy DM, et al. **J Trauma** 1999 Feb;46(2):209-15

Massive prehospital transfusion in multiple blunt trauma [see comments] Garner AA, et al. **Med J Aust** 1999 Jan 4; 170(1):23-5. Comment in: Med J Aust 1999 Apr 19;170(8):394.

Hypertonic saline resuscitation. Rocha e Silva M. **Medicina (B Aires)** 1998;58(4):393-402 (186 ref.)

Transfusion medicine [letter; comment] Kelly JS, et al. **N Engl J Med** 1999 Jul 8;341(2):126-7. Comment on: N Engl J Med 1999 Feb 11;340(6):438-47. Comment on: N Engl J Med 1999 Feb 18;340(7):525-33.

Treatment of the survivors from the Nagoya air crash. Oyama H, et al. **Neurol Med Chir (Tokyo)** 1998 Jul; 38(7):438-43

Effects of massive transfusion on oxygen availability. Auler Júnior JO, et al. **Rev Paul Med** 1998 Mar-Apr; 116(2):1675-80

Is aortic occlusion advisable in the management of massive hemorrhage? Experimental study in dogs. Mitteldorf C, et al. **Shock** 1998 Aug;10(2):141-5

Early up-regulation of intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 expression in rats with hemorrhagic shock and resuscitation. Sun LL, et al. **Shock** 1999 Jun;11(6):416-22

Hypertonic saline prevents early bacterial translocation in hemorrhagic shock. Topaloğlu U, et al. **Surg Today** 1999; 29(1):47-50

Effect of liposome-encapsulated hemoglobin, neo red cells, on hemorrhagic shock. Usuba A, et al. **Surg Today** 1998; 28(10):1027-35

Granulocyte colony-stimulating factor and neutrophil-related changes in local host defense during recovery from shock and intra-abdominal sepsis. Davis KA, et al. **Surgery** 1999 Aug;126(2):305-13

Effect of hypertonic saline solution and dextran on ventricular blood flow and heart-lung interaction after hemorrhagic shock. Diebel LN, et al. **Surgery** 1998 Oct; 124(4):642-9; discussion 649-50

[Clinical thinking and decision making in practice. A young man in shock (letter)] Meeuwis JD. **Ned Tijdschr Geneeskd** 1999 May 1;143(18):962 **(Dut)**

[Prehospital and early hospital management of a state of hemorrhagic shock of traumatic origin. 3rd Conference of experts in emergency medicine of the southeastern region] Martin C, et al. **Ann Fr Anesth Reanim** 1997;16(8):1030-6 (0 ref.) **(Fre)**

[Artificial oxygen carriers. Alternatives to homologous blood transfusion?] Habler O, et al. **Zentralbl Chir** 1999; 124(4):260-70 (68 ref.) (Eng. Abstr.) **(Ger)**

[Stages of disseminated intravascular coagulation after resuscitation in patients with massive hemorrhage and severe multiple trauma] Zolotokrylina ES. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):13-8 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

[Hemorrhagic shock during laparoscopic cholecystectomy detected by transesophageal echocardiography] Nagase K, et al. **Masui** 1998 Nov;47(11):1358-61 (Eng. Abstr.) **(Jpn)**

SHOCK LUNG see **RESPIRATORY DISTRESS SYNDROME, ADULT**

SHOCK, SEPTIC

Traumatic and septic shock alias post-trauma critical illness. Hardaway RM. **Br J Surg** 1998 Nov;85(11):1473-9 (107 ref.)

A case of severe neonatal exanthematous disease accompanied with septicemia caused by methicillin-resistant Staphylococcus aureus. Ishiwada N, et al. **Kansenshogaku Zasshi** 1999 Jun;73(6):606-8

Pediatric septic shock. Schexnayder SM. **Pediatr Rev** 1999 Sep;20(9):303-7; quiz 308

[Latest results of intensive care of sepsis, septic shock and multiple organ injuries] Incze F. **Orv Hetil** 1999 Mar 7; 140(10):515-20 (49 ref.) (Eng. Abstr.) **(Hun)**

[Sepsis and septic shock (letter)] Sinkovics J. **Orv Hetil** 1999 Jun 20;140(25):1437-8 **(Hun)**

[Streptococcal toxic shock-like syndrome] Shimizu Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):115-8 (9 ref.) **(Jpn)**

[Toxic shock-like syndrome] Shiseki M. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):237-40 (12 ref.) **(Jpn)**

[Septic shock] Totsuka K. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):248-51 (3 ref.) **(Jpn)**

[Toxic shock syndrome (TSS)] Totsuka K. **Ryoikibetsu Shokogun Shirizu** 1999;(23 Pt 1):15-9 (6 ref.) **(Jpn)**

BLOOD

Modulation of plasma metalloproteinase-9 concentrations and peripheral blood monocyte mRNA levels in patients with septic shock: effect of fiber-immobilized polymyxin B treatment. Nakamura T, et al. **Am J Med Sci** 1998 Dec; 316(6):355-60

Role of nitric oxide and cGMP in human septic serum-induced depression of cardiac myocyte contractility. Kumar A, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R265-76

Multivariate analysis of 9 disease-associated variables for outcome prediction in patients with sepsis. Calvano SE, et al. **Arch Surg** 1998 Dec;133(12):1347-50

Dynamic study of nitric oxide and endothelin-1 during endotoxin shock and effects of their antagonists on hemodynamics. Wang S, et al. **Chin Med J (Engl)** 1998 Mar;111(3):242-7

Endotoxin release and cytokine production in acute and chronic meningococcaemia. Prins JM, et al. **Clin Exp Immunol** 1998 Nov;114(2):215-9

Activation of the extrinsic coagulation pathway in patients with severe sepsis and septic shock. Gando S, et al. **Crit Care Med** 1998 Dec;26(12):2005-9

Fibronectin and meningococcal disease [letter; comment] Leclerc F, et al. **Eur J Pediatr** 1999 Jan;158(1):81-2. Comment on: Eur J Pediatr 1997 Jun;156(6):451-3.

Tumour necrosis factor-alpha and interleukin-10 production in septic patients and the regulatory effect of plasma. Haupt W, et al. **Eur J Surg** 1999 Feb;165(2):95-100

Oxidative injury and survival during endotoxemia. Basu S, et al. **FEBS Lett** 1998 Nov 6;438(3):159-60

Changes in plasma erythropoietin and interleukin-6 concentrations in patients with septic shock after hemoperfusion with polymyxin B-immobilized fiber. Nakamura T, et al. **Intensive Care Med** 1998 Dec; 24(12):1272-6

Cytokine removal during continuous hemofiltration in septic patients. De Vriese AS, et al. **J Am Soc Nephrol** 1999 Apr; 10(4):846-53

Relationship of plasma leptin to plasma cytokines and human survivalin sepsis and septic shock. Arnalich F, et al. **J Infect Dis** 1999 Sep;180(3):908-11

Procalcitonin as a marker of severity in septic shock. Schröder J, et al. **Langenbecks Arch Surg** 1999 Feb; 384(1):33-8

Effects of a combined antithrombin III and protein C supplementation in porcine acute endotoxic shock. Fourrier F, et al. **Shock** 1998 Nov;10(5):364-70

Association of serum tumor necrosis factor levels with decrease of cholesterol during septic shock. Fraunberger P, et al. **Shock** 1998 Nov;10(5):359-63

[The effects of removing circulated TNF by immunoadsorption on renal changes in rabbits with endotoxin shock] Lin Y, et al. **Chung Hua I Hsueh Tsa Chih** 1997 May;77(5):359-62 (Eng. Abstr.) **(Chi)**

[The evaluation of the effect of permanent magnetic waves with geomagnetic strength on the severity of endotoxicosis] Garilevich VA, et al. **Aviakosm Ekolog Med** 1998; 32(3):58–62 (Eng. Abstr.) **(Rus)**

CHEMICALLY INDUCED

Can silver nitrate instillation for the treatment of chyluria be fatal? Mandhani A, et al. **Br J Urol** 1998 Dec;82(6):926–7

Protective effect of N-acetylcysteine on multiple organ failure induced by zymosan in the rat [see comments] Cuzzocrea S, et al. **Crit Care Med** 1999 Aug;27(8):1524–32 . Comment in: Crit Care Med 1999 Aug;27(8):1666–9.

Induction of lethal shock and tolerance by Porphyromonas gingivalis lipopolysaccharide in D-galactosamine-sensitized C3H/HeJ mice. Tanamoto K. **Infect Immun** 1999 Jul;67(7):3399–402

[Refractory Pasteurella multocida septic shock after inoculation: implications of angiotensin II inhibitors (letter)] Hazouard E, et al. **Presse Med** 1998 Nov 7;27(34):1733 **(Fre)**

COMPLICATIONS

Adrenal insufficiency in septic shock. Hatherill M, et al. **Arch Dis Child** 1999 Jan;80(1):51–5

Persistent gastric intramucosal ischemia in patients with sepsis following resuscitation from shock. Oud L, et al. **Chest** 1999 May;115(5):1390–6

Norwegian scabies and a toxic shock syndrome toxin 1-producing strain of Staphylococcus aureus endocarditis in a patient with trisomy 21 [see comments] Bonomo RA, et al. **Clin Infect Dis** 1998 Sep;27(3):645–6. Comment in: Clin Infect Dis 1998 Sep;27(3):646–8.

Liver as a focus of impaired oxygenation and cytokine production in a porcine model of endotoxicosis. Bathe OF, et al. **Crit Care Med** 1998 Oct;26(10):1698–706

Activation of the extrinsic coagulation pathway in patients with severe sepsis and septic shock. Gando S, et al. **Crit Care Med** 1998 Dec;26(12):2005–9

The Multiple Organ Dysfunction Score as a descriptor of patient outcome in septic shock compared with two other scoring systems [see comments] Jacobs S, et al. **Crit Care Med** 1999 Apr;27(4):741–4. Comment in: Crit Care Med 1999 Apr;27(4):676–8.

Effects of inhaled nitric oxide on pulmonary hemodynamics in a porcine model of endotoxin shock [see comments] Lambermont B, et al. **Crit Care Med** 1999 Sep;27(9):1953–7 . Comment in: Crit Care Med 1999 Sep;27(9):2060–1.

Myocardial dysfunction in sepsis: injury or depression? [editorial; comment] Parker MM. **Crit Care Med** 1999 Sep; 27(9):2035–6. Comment on: Crit Care Med 1999 Sep;27(9):1775–80.

Myocardial cell injury in septic shock [see comments] Turner A, et al. **Crit Care Med** 1999 Sep;27(9):1775–80. Comment in: Crit Care Med 1999 Sep;27(9):2035–6.

Are there specific haemostatic abnormalities in children surviving septic shock with purpura and having skin necrosis or limb ischaemia that need skin grafts or limb amputations? Cremer R, et al. **Eur J Pediatr** 1999 Feb; 158(2):127–32

Cardiac dysfunction in sepsis [letter; comment] Jardin F, et al. **Intensive Care Med** 1998 Sep;24(9):990–2. Comment on: Intensive Care Med 1998 Apr;24(4):286–95.

Sweet's syndrome associated with systemic inflammatory response syndrome [see comments] Matthews PC, et al. **Intensive Care Med** 1998 Oct;24(10):1106–9. Comment in: Intensive Care Med 1998 Oct;24(10):997–8.

Effect of urokinase on disseminated intravascular coagulation. Vasquez Y, et al. **J Appl Physiol** 1998 Oct; 85(4):1421–8

A case of Aspergillus myocarditis associated with septic shock. Rouby Y, et al. **J Infect** 1998 Nov;37(3):295–7

Dengue shock syndrome and acute respiratory distress syndrome [letter; comment] Thong MK. **Lancet** 1998 Nov 21;352(9141):1712. Comment on: Lancet 1998 Sep 19;352(9132):971–7.

Group A streptococcal toxic shock syndrome and associated respiratory distress. Friedman O, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):566–9

Group A streptococcal tracheitis associated with toxic shock syndrome. Burns JA, et al. **Pediatr Infect Dis J** 1998 Oct; 17(10):933–5

Effect of haemofiltration on pathological fibrinolysis due to severe sepsis: a case report. Perouansky M, et al. **Resuscitation** 1999 Jan;40(1):53–6

Eosinophilia in toxic shock syndrome: review of 20 cases [letter] Mert A, et al. **Scand J Infect Dis** 1998;30(3):320

[Group A streptococcal pleuropneumopathy with toxic shock syndrome] Mohammedi I, et al. **Ann Fr Anesth Reanim** 1999 Aug;18(7):815 **(Fre)**

DIAGNOSIS

Emergency management of meningococcal disease. Pollard AJ, et al. **Arch Dis Child** 1999 Mar;80(3):290–6

The Multiple Organ Dysfunction Score as a descriptor of patient outcome in septic shock compared with two other scoring systems [see comments] Jacobs S, et al. **Crit Care Med** 1999 Apr;27(4):741–4. Comment in: Crit Care Med 1999 Apr;27(4):676–8.

Early diagnosis of septic shock: a simple test for a complex condition? [editorial; comment] Palombo JD, et al. **Crit Care Med** 1999 Mar;27(3):465–6. Comment on: Crit Care Med 1999 Mar;27(3):549–53.

Toxic shock-like syndrome resembling phlegmasia cerulea dolens. Nao T, et al. **Intern Med** 1999 Sep;38(9):747–50

Altered mental status and shock. Sagarin MJ, et al. **J Emerg Med** 1998 Nov–Dec;16(6):887–90

Assessment criteria in identifying the sick sepsis patient. Jones GR. **J Infect** 1998 Jul;37 Suppl 1:24–9

Life-threatening rashes: dermatologic signs of four infectious diseases. Drage LA. **Mayo Clin Proc** 1999 Jan;74(1):68–72 (10 ref.)

Severe left ventricular dysfunction and arrhythmias as complications of gram-positive sepsis: rapid recovery in children. Ferdman B, et al. **Pediatr Cardiol** 1998 Nov–Dec; 19(6):482–6

Index of suspicion. Case #1. Diagnosis: toxic shock syndrome. Spentzas T. **Pediatr Rev** 1999 Jun;20(6):199–201

Another toxic shock syndrome. Streptococcal infection is even more dangerous than the staphylococcal form. Hauser AR. **Postgrad Med** 1998 Dec;104(6):31–4, 39, 43–4 (18 ref.)

Purulent pericarditis misdiagnosed as septic shock. Arsura EL, et al. **South Med J** 1999 Mar;92(3):285–8

[Warning signs preceding the development of septic shock in patients with neutropenia treated for hematologic malignancies] Kubešová H, et al. **Cas Lek Cesk** 1999 Mar 1;138(5):147–51 (Eng. Abstr.) **(Cze)**

["Streptococcal toxic shock-like syndrome"] Broll R, et al. **Chirurg** 1998 Aug;69(8):806–12 (41 ref.) (Eng. Abstr.) **(Ger)**

[Toxic shock syndrome caused by group A beta hemolytic Streptococcus: diagnostic criteria] Villaseñor-Sierra A, et al. **Gac Med Mex** 1999 Mar–Apr;135(2):205–7 **(Spa)**

DIET THERAPY

A choline-rich diet improves survival in a rat model of endotoxin shock. Rivera CA, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 1):G862–7

DRUG THERAPY

Modulation of plasma metalloproteinase-9 concentrations and peripheral blood monocyte mRNA levels in patients with septic shock: effect of fiber-immobilized polymyxin B treatment. Nakamura T, et al. **Am J Med Sci** 1998 Dec; 316(6):355–60

Influence of antithrombin III on coagulation and inflammation in porcine septic shock. Dickneite G, et al. **Arterioscler Thromb Vasc Biol** 1999 Jun;19(6):1566–72

Effect of nitric oxide donors and nitric oxide synthase inhibitors in neonatal rat endotoxic shock. Cochran JB, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):687–91

Suppression of murine endotoxic shock by sPLA2 inhibitor, indoxam, through group IIA sPLA2-independent mechanisms. Yokota Y, et al. **Biochim Biophys Acta** 1999 May 18;1438(2):213–22

Adrenal failure in the critically ill [letter; comment] Knighton JD, et al. **Br J Anaesth** 1999 Jan;82(1):152–3. Comment on: Br J Anaesth 1998 Sep;81(3):308–10. Comment on: Br J Anaesth 1998 Sep;81(3):468–70.

Inhibition of tumour necrosis factor and reversal of endotoxin-induced shock by U-83836E, a 'second generation' lazaroid in rats. Altavilla D, et al. **Br J Pharmacol** 1998 Jul;124(6):1293–9

Nitric oxide synthase inhibition in septic shock--a question of the right time, the right drug, and the right model? [editorial; comment] Bone HG. **Crit Care Med** 1998 Dec; 26(12):1945–7 (18 ref.). Comment on: Crit Care Med 1998 Dec;26(12):2021–8.

Stress doses of hydrocortisone reverse hyperdynamic septic shock: a prospective, randomized, double-blind, single-center study [see comments] Briegel J, et al. **Crit Care Med** 1999 Apr;27(4):723–32. Comment in: Crit Care Med 1999 Apr;27(4):672–4.

From mega to more reasonable doses of corticosteroids: a decade to recreate hope [editorial; comment] Carlet J. **Crit Care Med** 1999 Apr;27(4):672–4 (26 ref.). Comment on: Crit Care Med 1999 Apr;27(4):723–32.

Use of nitric oxide synthase inhibitors to treat septic shock: the light has changed from yellow to red [editorial; comment] Cobb JP. **Crit Care Med** 1999 May;27(5):855–6 (21 ref.). Comment on: Crit Care Med 1999 May;27(5):913–22.

Protective effect of N-acetylcysteine on multiple organ failure induced by zymosan in the rat [see comments] Cuzzocrea S, et al. **Crit Care Med** 1999 Aug;27(8):1524–32 . Comment in: Crit Care Med 1999 Aug;27(8):1666–9.

Radial artery pressure monitoring underestimates central arterial pressure during vasopressor therapy in critically ill surgical patients [see comments] Dorman T, et al. **Crit Care Med** 1998 Oct;26(10):1646–9. Comment in: Crit Care Med 1998 Oct;26(10):1623–4.

Effects of epinephrine, norepinephrine, or the combination of norepinephrine and dobutamine on gastric mucosa in septic shock. Duranteau J, et al. **Crit Care Med** 1999 May; 27(5):893–900

Steroid therapy for late septic shock [letter; comment] Ellison RT 3rd. **Crit Care Med** 1999 Jul;27(7):1402. Comment on: Crit Care Med 1998 Apr;26(4):645–50.

Combined antithrombin III and C1-esterase inhibitor treatment decreases intravascular fibrin deposition and attenuates cardiorespiratory impairment in rabbits exposed to Escherichia coli endotoxin. Giebler R, et al. **Crit Care Med** 1999 Mar;27(3):597–604

Treating septic shock with norepinephrine [editorial; comment] Groeneveld AB, et al. **Crit Care Med** 1999 Sep; 27(9):2022–3. Comment on: Crit Care Med 1999 Sep;27(9):1708–13.

An open-label dose escalation study of the nitric oxide synthase inhibitor, N(G)-methyl-L-arginine hydrochloride (546C88), in patients with septic shock. Glaxo Wellcome International Septic Shock Study Group [see comments] Grover R, et al. **Crit Care Med** 1999 May;27(5):913–22. Comment in: Crit Care Med 1999 May;27(5):855–6. Comment in: Crit Care Med 1999 May;27(5):857–8.

Fighting fire with fire [editorial; comment] Kan H, et al. **Crit Care Med** 1998 Oct;26(10):1628–9 (11 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1663–70.

Nitric oxide synthase inhibitors--a mechanism-based treatment of septic shock [editorial; comment] Kilbourn R. **Crit Care Med** 1999 May;27(5):857–8 (13 ref.). Comment on: Crit Care Med 1999 May;27(5):913–22.

An intensivist's dilemma: support of the splanchnic circulation in critical illness [editorial; comment] Marshall JC. **Crit Care Med** 1998 Oct;26(10):1637–8 (20 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1749–58.

Effects of norepinephrine plus dobutamine or norepinephrine alone on left ventricular performance of septic shock patients [see comments] Martin C, et al. **Crit Care Med** 1999 Sep;27(9):1708–13. Comment in: Crit Care Med 1999 Sep;27(9):2022–3.

Treatment of septic shock in rats with nitric oxide synthase inhibitors and inhaled nitric oxide [see comments] Pedoto A, et al. **Crit Care Med** 1998 Dec;26(12):2021–8. Comment in: Crit Care Med 1998 Dec;26(12):1945–7.

Treatment of sepsis: past and future avenues. Baumgartner JD, et al. **Drugs** 1999 Feb;57(2):127–32 (56 ref.)

Antithrombin replacement in patients with sepsis and septic shock. Giudici D, et al. **Haematologica** 1999 May; 84(5):452–60 (54 ref.)

Treatment with polymyxin B-immobilized fiber reduces platelet activation in septic shock patients: decrease in plasma levels of soluble P-selectin, platelet factor 4 and beta-thromboglobulin. Nakamura T, et al. **Inflamm Res** 1999 Apr;48(4):171–5

New criteria for selecting the proper antimicrobial chemotherapy for severe sepsis and septic shock. Periti P, et al. **Int J Antimicrob Agents** 1999 Jul;12(2):97–105 (74 ref.)

A role for dopexamine hydrochloride in septic shock [letter] Murphy R. **Ir Med J** 1998 Oct–Nov;91(5):180

Effects of nitric oxide synthase inhibitors on systemic hypotension, cytokines and inducible nitric oxide synthase expression and lung injury following endotoxin administration in rats. Wang D, et al. **J Biomed Sci** 1999 Jan;6(1):28–35

Appropriateness of a 4 mg/kg gentamicin or tobramycin loading dose in post-operative septic shock patients. Oparaoji EC, et al. **J Clin Pharm Ther** 1998 Jun; 23(3):185–90

Use of methylene blue in patients with refractory septic shock: impact on hemodynamics and gas exchange. Andresen M, et al. **J Crit Care** 1998 Dec;13(4):164–8

Gallium nitrate suppresses the production of nitric oxide and liver damage in a murine model of LPS-induced septic shock. Krecic-Shepard ME, et al. **Life Sci** 1999; 65(13):1359–71

Haemodynamic improvement in a child with meningococcal sepsis following methylprednisolone: restoration of beta-adrenergic receptor responsiveness? O'Brien K, et al. **Paediatr Anaesth** 1998;8(5):419–20

Effects of a combined antithrombin III and protein C supplementation in porcine acute endotoxic shock. Fourrier F, et al. **Shock** 1998 Nov;10(5):364–70

Randomized, blinded, placebo-controlled trial of tissue factor pathway inhibitor in porcine septic shock. Goldfarb RD, et al. **Shock** 1998 Oct;10(4):258–64

Diethyldithiocarbamate prolongs survival of mice in a lipopolysaccharide-induced endotoxic shock model: evidence for multiple mechanisms [see comments] Kishnani NS, et al. **Shock** 1999 Apr;11(4):264–8. Comment in: Shock 1999 Apr;11(4):296–7.

Beneficial effects of L-canavanine, a selective inhibitor of inducible nitric oxide synthase, on lactate metabolism and muscle high energy phosphates during endotoxic shock in rats. Levy B, et al. **Shock** 1999 Feb;11(2):98–103

Oral spermine administration inhibits nitric oxide-mediated intestinal damage and levels of systemic inflammatory mediators in a mouse endotoxin model. ter Steege JC, et al. **Shock** 1999 Feb;11(2):115–9

Melagatran, a low molecular weight thrombin inhibitor, counteracts endotoxin-induced haemodynamic and renal dysfunctions in the pig. Eriksson M, et al. **Thromb Haemost** 1998 Dec;80(6):1022–6

Recombinant antitrypsin Pittsburgh undergoes proteolytic cleavage during E. coli sepsis and fails to prevent the associated coagulopathy in a primate model. Harper PL, et al. **Thromb Haemost** 1998 Nov;80(5):816–21

[Integrated traditional Chinese medicine and Western medicine in the treatment of infectious shock] Dong QZ. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Oct; 17(10):638–40 **(Chi)**

[Toxic shock-like syndrome caused by streptococci (see comments)] van Dissel JT, et al. **Ned Tijdschr Geneeskd** 1999 Jul 10;143(28):1452–5 (33 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jul

10;143(28):1452–5. **(Dut)**

[Antithrombin III in severe sepsis and septic shock] Carrillo-Esper R, et al. **Gac Med Mex** 1999 Jul–Aug; 135(4):443–6 (30 ref.) **(Spa)**

ENZYMOLOGY

Nitric oxide in septic shock. Titheradge MA. **Biochim Biophys Acta** 1999 May 5;1411(2–3):437–55 (109 ref.)

Effects of a novel guanylyl cyclase inhibitor on the vascular actions of nitric oxide and peroxynitrite in immunostimulated smooth muscle cells and in endotoxic shock [see comments] Zingarelli B, et al. **Crit Care Med** 1999 Sep;27(9):1701–7. Comment in: Crit Care Med 1999 Sep;27(9):2019–22.

Poly (ADP-ribose) synthetase activation mediates pulmonary microvascular and intestinal mucosal dysfunction in endotoxin shock. Szabó A, et al. **Life Sci** 1998; 63(23):2133–9

Diethylmaleate and buthionine sulfoximine, glutathione-depleting agents, differentially inhibit expression of inducible nitric oxide synthase in endotoxemic mice. Kang KW, et al. **Nitric Oxide** 1999 Jun;3(3):265–71

The effect of a tyrosine kinase inhibitor on endotoxin mortality and splenocyte mediator production in the neonatal rat. Cochran JB, et al. **Shock** 1999 Jan;11(1):35–8

EPIDEMIOLOGY

The effect of chronic alcohol abuse on the incidence of ARDS and the severity of the multiple organ dysfunction syndrome in adults with septic shock: an interim and multivariate analysis. Moss M, et al. **Chest** 1999 Jul;116(1 Suppl):97S–98S

Epidemiological and clinical aspects of invasive group A streptococcal infections and the streptococcal toxic shock syndrome. Eriksson BK, et al. **Clin Infect Dis** 1998 Dec; 27(6):1428–36

ETIOLOGY

LPS challenge in D-galactosamine-sensitized mice accounts for caspase-dependent fulminant hepatitis, not for septic shock. Mignon A, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1308–15

The etiology and treatment of traumatic and septic shock. Hardaway RM. **Compr Ther** 1999 Jun–Jul;25(6–7):330–4

Fulminant septic shock in AIDS patients caused by disseminated cryptococcosis. Lozano F, et al. **Eur J Clin Microbiol Infect Dis** 1999 Feb;18(2):151–2

The role of IL-4 in the staphylococcal enterotoxin B-triggered immune response: increased susceptibility to shock and deletion of CD8Vbeta8+ T cells in IL-4 knockout mice. Aroeira LS, et al. **Eur J Immunol** 1999 Apr;29(4):1397–405

Role of nitric oxide in lipopolysaccharide-induced hepatic injury in D-galactosamine-sensitized mice as an experimental endotoxic shock model. Morikawa A, et al. **Infect Immun** 1999 Mar;67(3):1018–24

Septic shock in a 31-year-old male with a superficial bladder tumor. Frey HM. **Int J Infect Dis** 1998 Apr–Jun;2(4):226–9

Toxic shock syndrome secondary to a dental abscess. Fardy CH, et al. **Int J Oral Maxillofac Surg** 1999 Feb;28(1):60–1

Toxic shock syndrome following influenza A infection [letter] Sharkey R, et al. **Intensive Care Med** 1999 Mar; 25(3):335–6

Pathogenesis of septic shock in Pseudomonas aeruginosa pneumonia. Kurahashi K, et al. **J Clin Invest** 1999 Sep; 104(6):743–50

Septic shock due to Helicobacter fennelliae in a non-human immunodeficiency virus-infected heterosexual patient. Hsueh PR, et al. **J Clin Microbiol** 1999 Jun;37(6):2084–6

A fatal cytokine-induced systemic inflammatory response reveals a critical role for NK cells. Carson WE, et al. **J Immunol** 1999 Apr 15;162(8):4943–51

The flesh-eating bacterium: what's next? Stevens DL. **J Infect Dis** 1999 Mar;179 Suppl 2:S366–74 (96 ref.)

Toxic shock syndrome after a closed comminuted fracture surgery at the distal end of the humerus. Kato N, et al. **J Shoulder Elbow Surg** 1999 Mar–Apr;8(2):165–9

Toxic shock syndrome after closed reduction of a nasal fracture. Keller JL, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):569–70

A mechanism for shock following stomach rupture in the newborn. Goto M, et al. **Pediatr Int** 1999 Aug;41(4):374–8

Hypophysectomy, high tumor necrosis factor levels, and hemoglobinemia in lethal endotoxemic shock. Bloom O, et al. **Shock** 1998 Dec;10(6):395–400

Multiple organ failure and septic shock in disseminated tuberculosis. Lim KH, et al. **Singapore Med J** 1999 Mar; 40(3):176–8

[Septic shock during the immediate post-partum period revealing a liver abscess in a woman with Crohn's disease] Dominguez S, et al. **Gastroenterol Clin Biol** 1999 Jun–Jul; 23(6–7):775–8 (Eng. Abstr.) **(Fre)**

[Septic shock with coma revealing typhoid fever] Hazouard E, et al. **Presse Med** 1998 Sep 5;27(25):1275–6 (Eng. Abstr.) **(Fre)**

[Emphysematous pyelonephritis--a rare cause of sepsis] Schaal M. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1998 Oct; 33(10):681–4 (Eng. Abstr.) **(Ger)**

[Clinical study on 6 cases of urosepsis associated with septic shock] Miki M, et al. **Hinyokika Kiyo** 1998 Nov; 44(11):795–800 (Eng. Abstr.) **(Jpn)**

[Rapidly fatal prognosis caused by Aeromonas sobria septic shock in a patient with myelodysplastic syndrome] Fukuda M, et al. **Kansenshogaku Zasshi** 1999 Mar;73(3):257–8 **(Jpn)**

[The case of purulent epiglottitis complicated by the cervical and mediastinum phlegmon with septic shock] Ejdys R, et al. **Otolaryngol Pol** 1997;51 Suppl 25:345–8 (Eng. Abstr.) **(Pol)**

[Meningococcal sepsis and septic shock: efficient measures and controversial treatments] Casado Flores J, et al. **An Esp Pediatr** 1999 Apr;50(4):346–52 (74 ref.) **(Spa)**

[Vibrio vulnificus septicemia in Spain] Garcia Cuevas M, et al. **An Med Interna** 1998 Sep;15(9):485–6 (Eng. Abstr.) **(Spa)**

GENETICS

Unresponsiveness of MyD88-deficient mice to endotoxin. Kawai T, et al. **Immunity** 1999 Jul;11(1):115–22

Variation in plasminogen-activator-inhibitor-1 gene and risk of meningococcal septic shock. Westendorp RG, et al. **Lancet** 1999 Aug 14;354(9178):561–3

The molecular pathogenesis of endotoxic shock and organ failure. Karima R, et al. **Mol Med Today** 1999 Mar; 5(3):123–32 (58 ref.)

Lethality of endotoxin in mice genetically deficient in the respiratory burst oxidase, inducible nitric oxide synthase, or both. Nicholson SC, et al. **Shock** 1999 Apr;11(4):253–8

cDNA cloning of canine adrenomedullin and its gene expression in the heart and blood vessels in endotoxin shock [see comments] Ono Y, et al. **Shock** 1998 Oct;10(4):243–7 . Comment in: Shock 1998 Nov;10(5):383–4.

IMMUNOLOGY

Pentoxifylline inhibits superantigen-induced toxic shock and cytokine release. Krakauer T, et al. **Clin Diagn Lab Immunol** 1999 Jul;6(4):594–8

Antibodies to TNF-alpha: too little, too late? [editorial; comment] Kirschenbaum L, et al. **Crit Care Med** 1998 Oct; 26(10):1625–6 (11 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1650–9.

Neutrophil function capacity to express CD10 is decreased in patients with septic shock [see comments] Martens A, et al. **Crit Care Med** 1999 Mar;27(3):549–53. Comment in: Crit Care Med 1999 Mar;27(3):465–6.

Molecular basis of host-pathogen interaction in septic shock. Heumann D, et al. **Curr Opin Microbiol** 1998 Feb; 1(1):49–55 (77 ref.)

Endotoxins and endocrine system. Bertók L. **Domest Anim Endocrinol** 1998 Sep;15(5):305–8 (21 ref.)

Resistance to endotoxic shock as a consequence of defective NF-kappaB activation in poly (ADP-ribose) polymerase-1 deficient mice. Oliver FJ, et al. **EMBO J** 1999 Aug 16; 18(16):4446–54

Unresponsiveness of MyD88-deficient mice to endotoxin. Kawai T, et al. **Immunity** 1999 Jul;11(1):115–22

Western blot analysis of bile or intestinal fluid from patients with septic shock or systemic inflammatory response syndrome, using antibodies to TNF-alpha, IL-1 alpha and IL-1 beta. Belov L, et al. **Immunol Cell Biol** 1999 Feb; 77(1):34–40

Structure and function of streptococcal and staphylococcal superantigens in septic shock. Bannan J, et al. **Infect Dis Clin North Am** 1999 Jun;13(2):387–96, ix (69 ref.)

Complement activation in relation to capillary leakage in children with septic shock and purpura. Hazelzet JA, et al. **Infect Immun** 1998 Nov;66(11):5350–6

IL-18-deficient mice are resistant to endotoxin-induced liver injury but highly susceptible to endotoxin shock. Sakao Y, et al. **Int Immunol** 1999 Mar;11(3):471–80

CD14 transgenic mice expressing membrane and soluble forms: comparisons of levels of cytokines and lethalities in response to lipopolysaccharide between transgenic and non-transgenic mice. Tamura Y, et al. **Int Immunol** 1999 Mar;11(3):333–9

Effect of L-NAME, an inhibitor of nitric oxide synthesis, on plasma levels of IL-6, IL-8, TNF alpha and nitrite/nitrate in human septic shock. Avontuur JA, et al. **Intensive Care Med** 1998 Jul;24(7):673–9

Superantigens in human disease. Bernal A, et al. **J Clin Immunol** 1999 May;19(3):149–57 (83 ref.)

CD14 plays no major role in shock induced by Staphylococcus aureus but down-regulates TNF-alpha production. Haziot A, et al. **J Immunol** 1999 Apr 15; 162(8):4801–5

Inhibition of a membrane complement regulatory protein by a monoclonal antibody induces acute lethal shock in rats primed with lipopolysaccharide. Mizuno M, et al. **J Immunol** 1999 May 1;162(9):5477–82

Monocyte anergy in septic shock is associated with a predilection to apoptosis and is reversed by granulocyte-macrophage colony-stimulating factor ex vivo. Williams MA, et al. **J Infect Dis** 1998 Nov; 178(5):1421–33

Genetic factors in septic shock [editorial; comment] Kumar A, et al. **JAMA** 1999 Aug 11;282(6):579–81. Comment on: JAMA 1999 Aug 11;282(6):561–8.

Association of TNF2, a TNF-alpha promoter polymorphism, with septic shock susceptibility and mortality: a multicenter study [see comments] Mira JP, et al. **JAMA** 1999 Aug 11; 282(6):561–8. Comment in: JAMA 1999 Aug 11;282(6):579–81.

Influence of granulocyte-macrophage colony-stimulating factor (GM-CSF) on whole blood endotoxin responsiveness following trauma, cardiopulmonary bypass, and severe sepsis. Flohé S, et al. **Shock** 1999 Jul;12(1):17–24

[Controversies in septic shock] Dhainaut JF, et al. **Rev Prat** 1999 Mar 1;49(5):461–3 **(Fre)**

[Induction of early endotoxin tolerance with atoxic endotoxin--a new method for preventing sepsis syndrome] Staubach KH, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1067–70 (Eng. Abstr.) **(Ger)**

[Bile acids and endotoxins: physico-chemical defense of the body] Bertók L. **Orv Hetil** 1999 Jan 3;140(1):3–8 (38 ref.) (Eng. Abstr.) **(Hun)**

[Role of hyperbaric oxygenation in mechanisms correcting the immunological reactivity in endotoxic shock and serum sickness] D'iachkova SIa, et al. **Anesteziol Reanimatol** 1999 Jan–Feb;(1):56–8 (Eng. Abstr.) **(Rus)**

METABOLISM

Intraperitoneal and sigmoid colon tonometry in porcine hypoperfusion and endotoxin shock models [see comments] Koga I, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):702–7. Comment in: Acta Anaesthesiol Scand 1999 Aug;43(7):691–4.

Direct detection of tissue nitric oxide in septic mice. James PE, et al. **Adv Exp Med Biol** 1998;454:181–7

Norepinephrine and nomega-monomethyl-L-arginine in porcine septic shock: effects on hepatic O2 exchange and energy balance. Träger K, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1758–65

Nitric oxide in septic shock: directions for future therapy? Hon WM, et al. **Ann Acad Med Singapore** 1998 May; 27(3):414–21 (70 ref.)

Expression of cytokines and activation of transcription factors in lipopolysaccharide-administered rats and their inhibition by phenyl N-tert-butylnitrone (PBN). Sang H, et al. **Arch Biochem Biophys** 1999 Mar 15;363(2):341–8

Phenyl-N-tert-butylnitrone demonstrates broad-spectrum inhibition of apoptosis-associated gene expression in endotoxin-treated rats. Stewart CA, et al. **Arch Biochem Biophys** 1999 May 1;365(1):71–4

Decline in the expression of copper/zinc superoxide dismutase in the kidney of rats with endotoxic shock: effects of the superoxide anion radical scavenger, tempol, on organ injury. Leach M, et al. **Br J Pharmacol** 1998 Oct; 125(4):817–25

Effect of increased cardiac output on liver blood flow, oxygen exchange and metabolic rate during longterm endotoxin-induced shock in pigs. Santak B, et al. **Br J Pharmacol** 1998 Aug;124(8):1689–97

Effects of Arg-Gly-Asp-Ser on Ca2+ transport of myocardial sarcoplasmic reticulum in rat septic shock. Ji Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar; 17(2):129–32

Inhibition of NF-kappaB activation by pyrrolidine dithiocarbamate prevents In vivo expression of proinflammatory genes. Liu SF, et al. **Circulation** 1999 Sep 21;100(12):1330–7

Pharmacokinetics of the nitric oxide synthase inhibitor L-NG-methylarginine hydrochloride in patients with septic shock. Glaxo Wellcome International Septic Shock Study Group. Hussein Z, et al. **Clin Pharmacol Ther** 1999 Jan;65(1):1–9

Elevated hypoxanthine in endotoxic shock [editorial; comment] Alston TA. **Crit Care Med** 1999 Apr;27(4):690–1 (12 ref.). Comment on: Crit Care Med 1999 Apr;27(4):790–7.

Tissue hypoxanthine reflects gut vulnerability in porcine endotoxin shock [see comments] Oldner A, et al. **Crit Care Med** 1999 Apr;27(4):790–7. Comment in: Crit Care Med 1999 Apr;27(4):690–1.

Distribution and metabolism of N(G)-nitro-L-arginine methyl ester in patients with septic shock. Avontuur JA, et al. **Eur J Clin Pharmacol** 1998 Oct;54(8):627–31

The neuronal death induced by endotoxic shock but not that induced by excitatory amino acids requires TNF-alpha. de Bock F, et al. **Eur J Neurosci** 1998 Oct;10(10):3107–14

Platelet and brain alpha 2-adrenoceptors and cardiovascular sensitivity to agonists in dogs suffering from endotoxic shock. Hikasa Y, et al. **Fundam Clin Pharmacol** 1998; 12(5):498–509

Dissociation of ACTH, beta-endorphin and cortisol in graded sepsis. Legakis I, et al. **Horm Metab Res** 1998 Sep; 30(9):570–4

Effect of L-NAME, an inhibitor of nitric oxide synthesis, on plasma levels of IL-6, IL-8, TNF alpha and nitrite/nitrate in human septic shock. Avontuur JA, et al. **Intensive Care Med** 1998 Jul;24(7):673–9

Beta-adrenergic receptor-dependent and -independent stimulation of adenylate cyclase is impaired during severe sepsis in humans. Bernardin G, et al. **Intensive Care Med** 1998 Dec;24(12):1315–22

Endotoxin reduces maximal oxygen consumption in hepatocytes independent of any hypoxic insult. Rosser DM, et al. **Intensive Care Med** 1998 Jul;24(7):725–9

Endotoxic nitrosopenia [editorial; comment] Salzman AL. **Intensive Care Med** 1998 Dec;24(12):1239–41. Comment on: Intensive Care Med 1998 Dec;24(12):1257–63.

Increasing doses of pentoxifylline as a continuous infusion

in canine septic shock. Quezado ZM, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):107–13

Ex vivo EPR detection of nitric oxide in brain tissue. Fujii H, et al. **Magn Reson Med** 1999 Sep;42(3):599–602

In vivo imaging of spin-trapped nitric oxide in rats with septic shock: MRI spin trapping. Fujii H, et al. **Magn Reson Med** 1999 Aug;42(2):235–9

Co-production of staphylococcal enterotoxin A with toxic shock syndrome toxin-1 (TSST-1) enhances TSST-1 mediated mortality in a D-galactosamine sensitized mouse model of lethal shock. De Boer ML, et al. **Microb Pathog** 1999 Aug;27(2):61–70

Role of tumor necrosis factor and interferon gamma in endotoxin-induced E-selectin expression. Eppihimer MJ, et al. **Shock** 1999 Feb;11(2):93–7

Circulating endothelin and nitrate-nitrite relate to hemodynamic and metabolic variables in human septic shock. Groeneveld AB, et al. **Shock** 1999 Mar;11(3):160–6

Angiotensin II receptor antagonism increases gut oxygen delivery but fails to improve intestinal mucosal acidosis in porcine endotoxin shock. Oldner A, et al. **Shock** 1999 Feb;11(2):127–35

Adrenomedullin in sepsis and septic shock [editorial; comment] Wang P. **Shock** 1998 Nov;10(5):383–4 (23 ref.) . Comment on: Shock 1998 Jan;9(1):1–11. Comment on: Shock 1998 Aug;10(2):79–89. Comment on: Shock 1998 Aug;10(2):118–22. Comment on: Shock 1998 Oct;10(4):243–7.

Discordant tumor necrosis factor-alpha superfamily gene expression in bacterial peritonitis and endotoxemic shock. Tannahill CL, et al. **Surgery** 1999 Aug;126(2):349–57

MICROBIOLOGY

Febrile lady with acute renal failure and desquamating erythema. Roth S, et al. **Am J Kidney Dis** 1999 Jul; 34(1):150–4

Staphylococcus aureus isogenic mutant, deficient in toxic shock syndrome toxin-1 but not staphylococcal enterotoxin A production, exhibits attenuated virulence in a tampon-associated vaginal infection model of toxic shock syndrome. De Boer ML, et al. **Can J Microbiol** 1999 Mar; 45(3):250–6

Septic shock caused by Staphylococcus lugdunensis. Castro JG, et al. **Clin Infect Dis** 1999 Mar;28(3):681–2

Primary peritonitis associated with streptococcal toxic shock-like syndrome. Watson WJ, et al. **Clin Pediatr (Phila)** 1999 Mar;38(3):175–7

Septic shock caused by Mycobacterium tuberculosis in a non-HIV patient [letter] Angoulvant D, et al. **Intensive Care Med** 1999 Feb;25(2):238

Endotoxin reduces maximal oxygen consumption in hepatocytes independent of any hypoxic insult. Rosser DM, et al. **Intensive Care Med** 1998 Jul;24(7):725–9

Involvement of enterotoxins G and I in staphylococcal toxic shock syndrome and staphylococcal scarlet fever. Jarraud S, et al. **J Clin Microbiol** 1999 Aug;37(8):2446–9

Toxic shock-like syndrome caused by group G Streptococcus [letter] Kugi M, et al. **J Infect** 1998 Nov; 37(3):308–9

Microbiologic findings and correlations with serum tumor necrosis factor-alpha in patients with severe sepsis and septic shock. Cohen J, et al. **J Infect Dis** 1999 Jul; 180(1):116–21

Invasive group A streptococcal infections: T1M1 isolates expressing pyrogenic exotoxins A and B in combination with selective lack of toxin-neutralizing antibodies are associated with increased risk of streptococcal toxic shock syndrome. Eriksson BK, et al. **J Infect Dis** 1999 Aug; 180(2):410–8

Extreme lymphocytopenia associated with toxic shock syndrome. Galus MA, et al. **J Intern Med** 1998 Oct; 244(4):351–4

Co-production of staphylococcal enterotoxin A with toxic shock syndrome toxin-1 (TSST-1) enhances TSST-1 mediated mortality in a D-galactosamine sensitized mouse model of lethal shock. De Boer ML, et al. **Microb Pathog** 1999 Aug;27(2):61–70

Postoperative toxic shock syndrome caused by a highly virulent methicillin-resistant Staphylococcus aureus strain. Cui L, et al. **Scand J Infect Dis** 1999;31(2):208–9

Septic shock caused by gram-positive bacteria. Teti G. **Trends Microbiol** 1999 Mar;7(3):100–1

[Toxic shock-like syndrome caused by streptococci (see comments)] van Dissel JT, et al. **Ned Tijdschr Geneeskd** 1999 Jul 10;143(28):1452–5 (33 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jul 10;143(28):1452–5. **(Dut)**

[Toxic shock-like syndrome in two adults caused by group A beta-hemolytic streptococci] Yuen W, et al. **Ned Tijdschr Geneeskd** 1999 Jul 10;143(28):1474–7 (Eng. Abstr.) **(Dut)**

[Toxic shock syndrome by group A beta-hemolytic streptococcus. Study of clonal relationship between a case and its contacts] Fernández J, et al. **Rev Med Chil** 1998 Aug;126(8):972–7 (Eng. Abstr.) **(Spa)**

MORTALITY

Tolerance to shock: an exploration of mechanism. Mendez C, et al. **Ann Surg** 1999 Jun;229(6):843–9; discussion 849–50

Multivariate analysis of 9 disease-associated variables for outcome prediction in patients with sepsis. Calvano SE, et al. **Arch Surg** 1998 Dec;133(12):1347–50

A randomized and controlled trial of the effect of treatment aimed at maximizing oxygen delivery in patients with severe sepsis or septic shock. Alia I, et al. **Chest** 1999 Feb; 115(2):453–61

Reduced mortality from septic shock--lessons for the future [editorial; comment] Cohen NH. **Crit Care Med** 1998 Dec; 26(12):1956–8 (25 ref.). Comment on: Crit Care Med 1998 Dec;26(12):2078–86.

Has the mortality of septic shock changed with time [see comments] Friedman G, et al. **Crit Care Med** 1998 Dec; 26(12):2078–86 (144 ref.). Comment in: Crit Care Med 1998 Dec;26(12):1956–8.

A fatal cytokine-induced systemic inflammatory response reveals a critical role for NK cells. Carson WE, et al. **J Immunol** 1999 Apr 15;162(8):4943–51

The effect of a tyrosine kinase inhibitor on endotoxin mortality and splenocyte mediator production in the neonatal rat. Cochran JB, et al. **Shock** 1999 Jan;11(1):35–8

Randomized, blinded, placebo-controlled trial of tissue factor pathway inhibitor in porcine septic shock. Goldfarb RD, et al. **Shock** 1998 Oct;10(4):258–64

PATHOLOGY

Endogenous vasopressin increases acute endotoxin shock-provoked gastrointestinal mucosal injury in the rat. Varga C, et al. **Eur J Pharmacol** 1998 Jul 10; 352(2–3):257–61

Pyrrolidine dithiocarbamate prevents I-kappaB degradation and reduces microvascular injury induced by lipopolysaccharide in multiple organs. Liu SF, et al. **Mol Pharmacol** 1999 Apr;55(4):658–67

Alpha1-antitrypsin deficiency and toxic shock: a Japanese autopsy case. Nakade O, et al. **Pathol Int** 1999 Jan; 49(1):79–84 (33 ref.)

Fulminant lethal tuberculous pneumonia (Sepsis tuberculosis gravissima) with ARDS in a non-immunocompromised western European middle-aged man. Peck-Radosavljevic M, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):157–60

[An autopsy case of sudden death caused by untreated sepsis after complete remission of acute promyelocytic leukemia] Hitosugi M, et al. **Nippon Hoigaku Zasshi** 1998 Dec; 52(6):355–9 (Eng. Abstr.) **(Jpn)**

[The ultrastructural bases of multiple organ failure in the pathogenesis of endotoxic shock] Bardakhch'ian EA, et al. **Patol Fiziol Eksp Ter** 1999 Jul–Sep;(3):22–5 (39 ref.) (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Intestinal and hepatic perfusion and metabolism in hypodynamic endotoxic shock. Effects of nitric oxide synthase inhibition. Dahm PL, et al. **Acta Anaesthesiol Scand** 1999 Jan;43(1):56–63

Effects of dobutamine, norepinephrine and epinephrine on intramucosal pH and hemodynamics of dogs during endotoxic shock. Hayes JK, et al. **Acta Anaesthesiol Sin** 1998 Sep;36(3):113–26

Adaptation of hearts to chronic hypoxia increases tolerance to subsequent ischemia by increased nitric oxide production. Baker JE, et al. **Adv Exp Med Biol** 1998; 454:203–17

Nitric oxide-independent activation of soluble guanylyl cyclase contributes to endotoxin shock in rats. Wu CC, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1148–57

Inappropriate sympathetic activation at onset of septic shock: a spectral analysis approach. Annane D, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):458–65

Right heart catheterization in acute lung injury: an observational study. Marinelli WA, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):69–76

The effects of vasopressin on endotoxin-induced attenuation of contractile responses in human gastroepiploic arteries in vitro. Hamu Y, et al. **Anesth Analg** 1999 Mar;88(3):542–8

Continuous cardiac output in septic shock by simulating a model of the aortic input impedance: a comparison with bolus injection thermodilution. Jellema WT, et al. **Anesthesiology** 1999 May;90(5):1317–28

The effect of vasoactive intestinal peptide (VIP) and inhibition of nitric oxide synthase on survival rate in rats exposed to endotoxin shock. Tunçel N, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:586–9

Capillary refill and core-peripheral temperature gap as indicators of haemodynamic status in paediatric intensive care patients. Tibby SM, et al. **Arch Dis Child** 1999 Feb; 80(2):163–6

Impaired pressor sensitivity to noradrenaline in septic shock patients with and without impaired adrenal function reserve. Annane D, et al. **Br J Clin Pharmacol** 1998 Dec; 46(6):589–97

Analysis of endotoxin effects on the intact pulmonary circulation. Lambermont B, et al. **Cardiovasc Res** 1999 Jan; 41(1):275–81

Endothelin-1 and blood pressure after inhibition of nitric oxide synthesis in human septic shock. Avontuur JA, et al. **Circulation** 1999 Jan 19;99(2):271–5

Induction of nitric oxide synthase and dual effects of nitric oxide and cyclooxygenase products in regulation of arterial contraction in human septic shock. Stoclet JC, et al. **Circulation** 1999 Jul 13;100(2):107–12

Mechanisms and management of myocardial dysfunction in septic shock [editorial; comment] Carpati CM, et al. **Crit Care Med** 1999 Feb;27(2):231–2 (24 ref.). Comment on: Crit Care Med 1999 Feb;27(2):286–92.

Modulating the L-arginine-nitric oxide pathway in septic shock: choosing the proper point of attack [editorial; comment] Fink MP. **Crit Care Med** 1999 Sep;27(9):2019–22 . Comment on: Crit Care Med 1999 Sep;27(9):1701–7.

Porcine endotoxemic shock is associated with increased expired nitric oxide [see comments] Mehta S, et al. **Crit Care Med** 1999 Feb;27(2):385–93. Comment in: Crit Care Med 1999 Feb;27(2):255–6.

Acute effect of tumor necrosis factor-alpha is minimal on mechanics but significant on energetics in blood-perfused canine left ventricles [see comments] Miyano H, et al. **Crit Care Med** 1999 Jan;27(1):168–76. Comment in: Crit Care Med 1999 Jan;27(1):29–30.

Expired nitric oxide and shock in higher order species [editorial; comment] Traber DL. **Crit Care Med** 1999 Feb; 27(2):255–6 (11 ref.). Comment on: Crit Care Med 1999 Feb;27(2):385–93.

Mechanics and energetics of tumor necrosis factor-alpha in the left ventricle [editorial; comment] Walley KR. **Crit Care Med** 1999 Jan;27(1):29–30. Comment on: Crit Care Med 1999 Jan;27(1):168–76.

Myocardial dysfunction in sepsis: mechanisms and therapeutic implications. Price S, et al. **Eur Heart J** 1999 May;20(10):715–24 (93 ref.)

Systemic pressure-flow reactivity to norepinephrine in rabbits: impact of endotoxin and fluid loading. Ricard-Hibon A, et al. **Intensive Care Med** 1998 Sep; 24(9):959–66

Heterotrimeric G proteins physically associated with the lipopolysaccharide receptor CD14 modulate both in vivo and in vitro responses to lipopolysaccharide. Solomon KR, et al. **J Clin Invest** 1998 Dec 1;102(11):2019–27

Comparison between intrathoracic blood volume and cardiac filling pressures in the early phase of hemodynamic instability of patients with sepsis or septic shock. Sakka SG, et al. **J Crit Care** 1999 Jun;14(2):78–83

Cerebral blood flow is proportional to cardiac index in patients with septic shock. Smith SM, et al. **J Crit Care** 1998 Sep;13(3):104–9

Induction of tolerance to hemorrhagic or endotoxic shock involves activation of NF-kappaB. Kramer AA, et al. **J Surg Res** 1999 May 15;83(2):89–94

Hepato-splanchnic blood flow and oxygen extraction capabilities during experimental tamponade: effects of endotoxin. Zhang H, et al. **J Surg Res** 1999 Feb; 81(2):129–38

Effects of endotoxic shock in several functions of murine peritoneal macrophages. Victor VM, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):25–31

The molecular pathogenesis of endotoxic shock and organ failure. Karima R, et al. **Mol Med Today** 1999 Mar; 5(3):123–32 (58 ref.)

Treating patients with severe sepsis [letter; comment] Luan FL. **N Engl J Med** 1999 Jul 1;341(1):56; discussion 57. Comment on: N Engl J Med 1999 Jan 21;340(3):207–14.

Endotoxin and renal function: perspectives to the understanding of septic acute renal failure and toxic shock [editorial] Khan RZ, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):814–8 (63 ref.)

Endogenous neuropeptide Y mediates vasoconstriction during endotoxic and hemorrhagic shock. Qureshi NU, et al. **Regul Pept** 1998 Sep 25;75–76:215–20

Myocardial dysfunction in sepsis: clinical and experimental investigations. Suffredini AF. **Schweiz Med Wochenschr** 1998 Sep 26;128(39):1444–52 (51 ref.)

Vascular permeability increase and plasma volume loss induced by endotoxin was attenuated by hypertonic saline with or without dextran. de Carvalho H, et al. **Shock** 1999 Jul;12(1):75–80

[Pathogenesis of pancreatogenic sepsis] Runkel N. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:439–42 (6 ref.) (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Control of endotoxin shock by the dried preparation of low virulent Streptococcus pyogenes OK-432. Nose M, et al. **Cell Immunol** 1998 Sep 15;188(2):97–104

Pyrrolidine dithiocarbamate protects mice from lethal shock induced by LPS or TNF-alpha. Lauzurica P, et al. **Eur J Immunol** 1999 Jun;29(6):1890–900

Gamma globulin, Evan's blue, aprotinin A PLA2 inhibitor, tetracycline and antioxidants protect epithelial cells against damage induced by synergism among streptococcal hemolysins, oxidants and proteinases: relation to the prevention of post-streptococcal sequelae and septic shock. Ginsburg I, et al. **FEMS Immunol Med Microbiol** 1998 Nov; 22(3):247–56

Subcellular membrane impairment and application of phospholipase A2 inhibitors in endotoxic shock. Song SM, et al. **Injury** 1999 Jan;30(1):9–14

Protective effect of pentoxifylline plus thalidomide against septic shock in mice. Arrieta O, et al. **Int J Exp Pathol** 1999 Feb;80(1):11–6

Inhibition of tumor necrosis factor and subsequent endotoxin shock by pirfenidone. Cain WC, et al. **Int J Immunopharmacol** 1998 Dec;20(12):685–95

Antibiotic-induced release of bacterial cell wall components in the pathogenesis of sepsis and septic shock: a review. Periti P, et al. **J Chemother** 1998 Dec;10(6):427–48 (126 ref.)

Resistance of CD7-deficient mice to lipopolysaccharide-induced shock syndromes. Sempowski GD, et al. **J Exp Med** 1999 Mar 15;189(6):1011-6

A novel receptor tyrosine kinase, Mer, inhibits TNF-alpha production and lipopolysaccharide-induced endotoxic shock. Camenisch TD, et al. **J Immunol** 1999 Mar 15; 162(6):3498-503

Vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activation polypeptide (PACAP) protect mice from lethal endotoxemia through the inhibition of TNF-alpha and IL-6. Delgado M, et al. **J Immunol** 1999 Jan 15;162(2):1200-5

Immunization with meningococcal outer-membrane protein vesicles containing lipooligosaccharide protects mice against lethal experimental group B Neisseria meningitidis infection and septic shock. Quakyi EK, et al. **J Infect Dis** 1999 Sep;180(3):747-54

Androstenediol and dehydroepiandrosterone protect mice against lethal bacterial infections and lipopolysaccharide toxicity. Ben-Nathan D, et al. **J Med Microbiol** 1999 May; 48(5):425-31

Vascular permeability increase and plasma volume loss induced by endotoxin was attenuated by hypertonic saline with or without dextran. de Carvalho H, et al. **Shock** 1999 Jul;12(1):75-80

Protective effect of tyrphostin AG-556 on shock induced by endotoxin or gram positive bacteria. Ogura S, et al. **Shock** 1999 Aug;12(2):105-10

RADIOGRAPHY

Quiz case 5. Pneumococcal sepsis in a patient with hereditary hypoplasia of the spleen. Henk C, et al. **Eur J Radiol** 1999 Mar;29(3):259-61

THERAPY

Nitric oxide in septic shock: directions for future therapy? Hon WM, et al. **Ann Acad Med Singapore** 1998 May; 27(3):414-21 (70 ref.)

Emerging therapies for sepsis and septic shock. Oh HM. **Ann Acad Med Singapore** 1998 Sep;27(5):738-43 (40 ref.)

Effects of synchronous pulsatile extracorporeal membrane oxygenation in an endotoxin-induced shock model: an experimental study. Okuyama H, et al. **Artif Organs** 1992 Oct;16(5):477-84

Hemoperfusion with polymyxin B-immobilized fiber attenuates the increased plasma levels of thrombomodulin and von Willebrand factor from patients with septic shock. Nakamura T, et al. **Blood Purif** 1998;16(4):179-86

A randomized and controlled trial of the effect of treatment aimed at maximizing oxygen delivery in patients with severe sepsis or septic shock. Alia I, et al. **Chest** 1999 Feb; 115(2):453-61

Effects of removing circulatory tumor necrosis factor by immunoadsorption on experimental endotoxin shock animals. Zhang X, et al. **Chin Med J (Engl)** 1997 Nov; 110(11):843-6

The etiology and treatment of traumatic and septic shock. Hardaway RM. **Compr Ther** 1999 Jun-Jul;25(6-7):330-4

Crystalloid-colloid controversy revisited [editorial; comment] Astiz ME, et al. **Crit Care Med** 1999 Jan; 27(1):34-5. Comment on: Crit Care Med 1999 Jan;27(1):200-10.

Crystalloids vs. colloids in fluid resuscitation: a systematic review [see comments] Choi PT, et al. **Crit Care Med** 1999 Jan;27(1):200-10. Comment in: Crit Care Med 1999 Jan;27(1):34-5.

Reduced mortality from septic shock--lessons for the future [editorial; comment] Cohen NH. **Crit Care Med** 1998 Dec; 26(12):1956-8 (25 ref.). Comment on: Crit Care Med 1998 Dec;26(12):2078-86.

Distribution of normal saline and 5% albumin infusions in septic patients [see comments] Ernest D, et al. **Crit Care Med** 1999 Jan;27(1):46-50. Comment in: Crit Care Med 1999 Jan;27(1):3.

Antibodies to TNF-alpha: too little, too late? [editorial; comment] Kirschenbaum L, et al. **Crit Care Med** 1998 Oct; 26(10):1625-6 (11 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1650-9.

Large-pore hemodialysis in acute endotoxin shock [see comments] Kline JA, et al. **Crit Care Med** 1999 Mar; 27(3):588-96. Comment in: Crit Care Med 1999 Mar;27(3):473-4.

Impact of exogenous beta-adrenergic receptor stimulation on hepatosplanchnic oxygen kinetics and metabolic activity in septic shock [see comments] Reinelt H, et al. **Crit Care Med** 1999 Feb;27(2):325-31. Comment in: Crit Care Med 1999 Feb;27(2):242-3.

Continuous venovenous hemofiltration improves cardiac performance by mechanisms other than tumor necrosis factor-alpha attenuation during endotoxic shock. Rogiers P, et al. **Crit Care Med** 1999 Sep;27(9):1848-55

Crystalloids, colloids, and fluid compartments [editorial; comment] Weil MH. **Crit Care Med** 1999 Jan;27(1):3. Comment on: Crit Care Med 1999 Jan;27(1):46-50.

Urgent bedside endoscopic nasobiliary drainage without fluoroscopic monitoring. Sreenivas DV, et al. **Hepatogastroenterology** 1998 Nov-Dec;45(24):2042-3

Push-pull sorbent-based pheresis treatment in an experimental canine endotoxemia model: preliminary report. Peter AT, et al. **Int J Artif Organs** 1999 Mar; 22(3):177-88

Changes in plasma erythropoietin and interleukin-6 concentrations in patients with septic shock after hemoperfusion with polymyxin B-immobilized fiber. Nakamura T, et al. **Intensive Care Med** 1998 Dec; 24(12):1272-6

Cytokine removal during continuous hemofiltration in septic patients. De Vriese AS, et al. **J Am Soc Nephrol** 1999 Apr; 10(4):846-53

Case 4--1999. Myocardial function improvement after hemofiltration in a septic patient [clinical conference] Oppenheim-Eden A, et al. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):484-9

Effects of hemoperfusion with polymyxin B-immobilized fibre on serum neopterin and soluble interleukin-2 receptor concentrations in patients with septic shock. Nakamura T, et al. **J Infect** 1998 Nov;37(3):241-7

Therapeutic implications of microglia activation by lipopolysaccharide and reactive oxygen species generation in septic shock and central nervous system pathologies: a review. Mayer AM. **Medicina (B Aires)** 1998;58(4):377-85 (137 ref.)

Another toxic shock syndrome. Streptococcal infection is even more dangerous than the staphylococcal form. Hauser AR. **Postgrad Med** 1998 Dec;104(6):31-4, 39, 43-4 (18 ref.)

[Plasma separation combined with CVVHF in septic and SIRS patients] Schmidt J, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1080-2 (Eng. Abstr.) **(Ger)**

[Role of hyperbaric oxygenation in mechanisms correcting the immunological reactivity in endotoxic shock and serum sickness] D'iachkova SIa, et al. **Anesteziol Reanimatol** 1999 Jan-Feb;(1):56-8 (Eng. Abstr.) **(Rus)**

[Oxygen regimen during various intensive care methods in severe exotoxic shock] Shapovalova NV, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):26-8 (Eng. Abstr.) **(Rus)**

[Choice of surgical management and methods of detoxication in patients with acute intestinal obstruction] Chernov VN, et al. **Khirurgiia (Mosk)** 1999;(5):45-8 (Eng. Abstr.) **(Rus)**

[Meningococcal sepsis and septic shock: efficient measures and controversial treatments] Casado Flores J, et al. **An Esp Pediatr** 1999 Apr;50(4):346-52 (74 ref.) **(Spa)**

VETERINARY

Relatedness of Streptococcus canis from canine streptococcal toxic shock syndrome and necrotizing fasciitis. DeWinter LM, et al. **Can J Vet Res** 1999 Apr;63(2):90-5

Staphylococcus intermedius cellulitis and toxic shock in a dog. Girard C, et al. **Can Vet J** 1999 Jul;40(7):501-2

SHOCK, SURGICAL

COMPLICATIONS

Clarithromycin attenuates the inflammatory response induced by surgical trauma in a guinea pig model. Woo PC, et al. **Pharmacol Res** 1999 Jan;39(1):49-54

SHOCK THERAPY see **CONVULSIVE THERAPY**

SHOCK THERAPY, ELECTRIC see **ELECTROCONVULSIVE THERAPY**

SHOCK THERAPY, INSULIN see **CONVULSIVE THERAPY**

SHOCK, TOXIC see **SHOCK, SEPTIC**

SHOCK, TRAUMATIC

Traumatic and septic shock alias post-trauma critical illness. Hardaway RM. **Br J Surg** 1998 Nov;85(11):1473-9 (107 ref.)

DIAGNOSIS

Early continuous noninvasive haemodynamic monitoring after severe blunt trauma. Velmahos GC, et al. **Injury** 1999 Apr;30(3):209-14

[The course of the traumatic disease in multiple trauma] Sheiko VD. **Klin Khir** 1998;(9-10):70-3; discussion 73-4 (49 ref.) **(Ukr, Rus)**

DRUG THERAPY

L-arginine attenuates endothelial dysfunction and prolongs survival in rats subjected to traumatic shock. Hayward R, et al. **Endothelium** 1998;6(1):71-9

Administration of polymerized bovine hemoglobin improves survival in a rat model of traumatic shock. Hayward R, et al. **Methods Find Exp Clin Pharmacol** 1999 Jul-Aug; 21(6):427-33

ETIOLOGY

The etiology and treatment of traumatic and septic shock. Hardaway RM. **Compr Ther** 1999 Jun-Jul;25(6-7):330-4

[Application of the principles of the systemic approach to interpretation of the pathogenesis of traumatic shock and traumatic disease] Seleznev SA, et al. **Patol Fiziol Eksp Ter** 1999 Apr-Jun;(2):19-21 (Eng. Abstr.) **(Rus)**

GENETICS

Endothelin-1, endothelin receptors and ecNOS gene transcription in vital organs during traumatic shock in rats. Minchenko AG, et al. **Endothelium** 1999;6(4):303-14

IMMUNOLOGY

[Effect of phagocyte stimulation on the nonspecific resistance of the body to shock] Kharin GM, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):548-51 **(Rus)**

METABOLISM

Elevation in pulmonary neutrophils and prolonged production of pulmonary macrophage inflammatory protein-2 after burn injury with prior alcohol exposure. Patel PJ, et al. **Am J Respir Cell Mol Biol** 1999 Jun; 20(6):1229-37

[Effect of melatonin on the antioxidant system and free radical lipid oxidation during traumatic shock] Slepushkin VD, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):387-91 **(Rus)**

MORTALITY

Administration of polymerized bovine hemoglobin improves survival in a rat model of traumatic shock. Hayward R, et al. **Methods Find Exp Clin Pharmacol** 1999 Jul-Aug; 21(6):427-33

PATHOLOGY

Major burn trauma in rats promotes cardiac and gastrointestinal apoptosis. Lightfoot E Jr, et al. **Shock** 1999 Jan;11(1):29-34

[A morphological assessment of periodontal tissue status in the postshock traumatic period in an experiment] Struev IV, et al. **Stomatologiia (Mosk)** 1999;78(2):4-7 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Effect of recombinant soluble P-selectin glycoprotein ligand-1 on leukocyte-endothelium interaction in vivo. Role in rat traumatic shock. Scalia R, et al. **Circ Res** 1999 Jan 8-22;84(1):93-102

Shock after blast wave injury is caused by a vagally mediated reflex. Irwin RJ, et al. **J Trauma** 1999 Jul;47(1):105-10

Spinal shock--spinal man [editorial; comment] White RJ, et al. **J Trauma** 1999 May;46(5):979-80. Comment on: J Trauma 1993 Oct;35(4):578-82; discussion 582-3.

THERAPY

The etiology and treatment of traumatic and septic shock. Hardaway RM. **Compr Ther** 1999 Jun-Jul;25(6-7):330-4

Anti-L-selectin antibody treatment of hemorrhagic-traumatic shock in baboons [see comments] Schlag G, et al. **Crit Care Med** 1999 Sep;27(9):1900-7. Comment in: Crit Care Med 1999 Sep;27(9):2050-2.

The management of shock and local injury in traumatic rhabdomyolysis. Nespoli A, et al. **Minerva Anestesiol** 1999 May;65(5):256-62 (36 ref.)

SHOCK WAVES, HIGH-ENERGY see **HIGH-ENERGY SHOCK WAVES**

SHOCKWAVES, ULTRASONIC see **ULTRASONICS**

SHOES

Deceptive advertising of athletic footwear [letter; comment] Chappell J. **Br J Sports Med** 1998 Sep;32(3):265. Comment on: Br J Sports Med 1997 Dec;31(4):299-303.

Prevention of stress fractures using custom biomechanical shoe orthoses. Finestone A, et al. **Clin Orthop** 1999 Mar; (360):182-90

Pulpitis of the fingers from a shoe glue containing 1,2-benzisothiazolin-3-one (BIT). Ayadi M, et al. **Contact Dermatitis** 1999 Feb;40(2):115-6

Reliability of F-scan in-shoe measurements of plantar pressure. Ahroni JH, et al. **Foot Ankle Int** 1998 Oct; 19(10):668-73

Evaluation of multidensity orthotic materials used in footwear for patients with diabetes [published erratum appears in Foot Ankle Int 1999 Feb;20(2):143] Foto JG, et al. **Foot Ankle Int** 1998 Dec;19(12):836-41

Natural selection of high heel usage [letter] Roeder B. **Foot Ankle Int** 1999 Jul;20(7):470

Natural selection and high heels. Smith EO, et al. **Foot Ankle Int** 1999 Jan;20(1):55-7

Effects of shoe collar height and sole hardness on balance in older women. Lord SR, et al. **J Am Geriatr Soc** 1999 Jun;47(6):681-4

Footwear and postural stability in older people. Menz HB, et al. **J Am Podiatr Med Assoc** 1999 Jul;89(7):346-57 (100 ref.)

The effect of muscle stiffness and damping on simulated impact force peaks during running. Nigg BM, et al. **J Biomech** 1999 Aug;32(8):849-56

Individual effects on biomechanical variables during landing in tennis shoes with varying midsole density. Hreljac A. **J Sports Sci** 1998 Aug;16(6):531-7

Women's shoe wear: an orthopaedist's advice. Frey C, et al. **J Womens Health** 1999 Jan-Feb;8(1):45-9 (14 ref.)

SHOES

Toward optimal health: the experts discuss foot care [interview by Jodi Godfrey Meisler] Rudicel S, et al. **J Womens Health** 1998 Aug;7(6):659–63

Shoe inserts and orthotics for sport and physical activities. Nigg BM, et al. **Med Sci Sports Exerc** 1999 Jul;31(7 Suppl):S421–8 (61 ref.)

Use of computed tomography and plantar pressure measurement for management of neuropathic ulcers in patients with diabetes. Mueller MJ, et al. **Phys Ther** 1999 Mar;79(3):296–307

Patient compliance and effect of orthopaedic shoes. Philipsen AB, et al. **Prosthet Orthot Int** 1999 Apr;23(1):59–62

[Special manufactured shoes for prevention of recurrent ulcer in diabetic foot syndrome] Striesow F. **Med Klin** 1998 Dec 15;93(12):695–700 (Eng. Abstr.) **(Ger)**

[Efficacy of shoe outer and inner edge elevation in medial and lateral knee osteoarthrosis] Breitenfelder J. **Z Orthop Ihre Grenzgeb** 1998 Sep–Oct;136(5):Oa24–5 **(Ger)**

[Measuring plantar weight distribution of shoes with forefoot support] Notni A, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun;137(3):280–3 (Eng. Abstr.) **(Ger)**

[High tech athletic shoes. Foot form and running style determine the shoe] Schlünsen C. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):Oa18–22 **(Ger)**

[Rupture of the Achilles tendon--conservative functional treatment] Thermann H. **Z Orthop Ihre Grenzgeb** 1998 Sep–Oct;136(5):Oa20–2 **(Ger)**

[Technical orthopedic therapy of diabetic foot] Stinus H. **Zentralbl Chir** 1999;124 Suppl 1:65–8 (13 ref.) (Eng. Abstr.) **(Ger)**

[An outbreak of n-hexane-induced polyneuritis in a footwear factory (letter)] Mateos Ramos A, et al. **Aten Primaria** 1999 Jan;23(1):47–9 **(Spa)**

ADVERSE EFFECTS

Severe contact allergy to footwear responding to handmade shoes. Downs AM, et al. **Contact Dermatitis** 1999 Apr; 40(4):218

Foot and ankle injuries related to rock climbing. The role of footwear. Killian RB, et al. **J Am Podiatr Med Assoc** 1998 Aug;88(8):365–74

The effects of increasing heel height on forefoot peak pressure. Mandato MG, et al. **J Am Podiatr Med Assoc** 1999 Feb;89(2):75–80

Traumatically induced inclusion cyst secondary to shoe impingement: report of three cases. Coulter PD, et al. **J Foot Ankle Surg** 1999 Jul–Aug;38(4):271–7

STANDARDS

In-shoe pressure measurements with a viscoelastic heel orthosis. Hsi WL, et al. **Arch Phys Med Rehabil** 1999 Jul; 80(7):805–10

Use of computerized insole sensor system to evaluate the efficacy of a modified ankle-foot orthosis for redistributing heel pressures. Randolph AL, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):801–4

Improving balance. Robbins S, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1363–70

Walking boot design: a gait analysis study. Pollo FE, et al. **Orthopedics** 1999 May;22(5):503–7

[Functional evaluation of shoes for children based on gait analysis of children in the learning to walk stage] Kristen KH, et al. **Z Orthop Ihre Grenzgeb** 1998 Sep–Oct; 136(5):457–62 (Eng. Abstr.) **(Ger)**

SHOPE FIBROMA VIRUS see **FIBROMA VIRUS, RABBIT**

SHOPE PAPILLOMA VIRUS see **PAPILLOMAVIRUS, COTTONTAIL RABBIT**

SHORT BOWEL SYNDROME

Short bowel syndrome. Booth IW, et al. **Baillieres Clin Gastroenterol** 1998 Dec;12(4):739–73 (142 ref.)

Short bowel syndrome in pediatric patients. Goulet O. **Nutrition** 1998 Oct;14(10):784–7 (58 ref.)

[Short bowel syndrome] Calomino N, et al. **Minerva Chir** 1998 Oct;53(10):819–26 (Eng. Abstr.) **(Ita)**

BLOOD

Amitriptyline absorption in a patient with short bowel syndrome. Robbins B, et al. **Am J Gastroenterol** 1999 Aug; 94(8):2302–4

Decrease in plasma levels of vasoactive intestinal polypeptide in short bowel syndrome: experimental study. Martin Del Olmo JC, et al. **Int Surg** 1998 Apr–Jun;83(2):150–3

Insulinlike growth factor I and insulinlike growth factor 3: indices of intestinal failure in children. Barksdale EM Jr, et al. **J Pediatr Surg** 1999 May;34(5):655–61; discussion 661–2

COMPLICATIONS

Xerophthalmia and short bowel syndrome [letter] Mokete B, et al. **Br J Ophthalmol** 1998 Nov;82(11):1340–1

D-lactic acidosis in short bowel syndrome. Day AS, et al. **N Z Med J** 1999 Jul 23;112(1092):277–8 (13 ref.)

Favorable nutritional outcome after isolated liver transplantation for liver failure in a child with short bowel syndrome. Gottrand F, et al. **Transplantation** 1999 Feb 27; 67(4):632–4

[Malnutrition in a patient with short-bowel syndrome] Večeř J, et al. **Vnitr Lek** 1998 Aug;44(8):475–7 (Eng. Abstr.) **(Cze)**

DIET THERAPY

SBS diet needs to address individual physiology [letter; comment] Kander R. **J Am Diet Assoc** 1999 May; 99(5):529–30. Comment on: J Am Diet Assoc 1998 Mar;98(3):309–15.

Lactose and other intake prohibitions in small-bowel syndrome [letter; comment] Karkeck JM. **J Am Diet Assoc** 1999 May;99(5):529. Comment on: J Am Diet Assoc 1998 Mar;98(3):309–15.

Dietary lipids influence intestinal adaptation after massive bowel resection. Kollman KA, et al. **J Pediatr Gastroenterol Nutr** 1999 Jan;28(1):41–5

DRUG THERAPY

Conjugated bile acid replacement therapy for short-bowel syndrome. Gruy-Kapral C, et al. **Gastroenterology** 1999 Jan;116(1):15–21

Enteral glutamine does not enhance the effects of hepatocyte growth factor in short bowel syndrome. Alavi K, et al. **J Pediatr Surg** 1998 Nov;33(11):1666–9

Small bowel adaptation with growth hormone and glutamine after massive resection of rat's small bowel. Waitzberg DL, et al. **Nutr Hosp** 1999 Mar–Apr;14(2):81–90 (66 ref.)

Warfarin, short bowel syndrome, and intravenous lipids [comment] Lutomski DM. **Pharmacotherapy** 1998 Nov–Dec;18(6):1375–6. Comment on: Pharmacotherapy 1998 May–Jun;18(3):646–9.

[Cholysarkosin in treatment of bile acid deficiency syndrome] Weinand I, et al. **Z Gastroenterol** 1999 Jul;37(7):675–7 **(Ger)**

[Growth hormone therapy in short bowel syndrome (letter)] Moreno Villares JM, et al. **An Esp Pediatr** 1998 Nov; 49(5):544–5 **(Spa)**

ETIOLOGY

[Difficulties of artificial nutrition in short bowel syndrome] Petri M, et al. **Orv Hetil** 1999 Mar 7;140(10):541–3 (Eng. Abstr.) **(Hun)**

GENETICS

Cytokine gene transcription by NF-kappa B family members in patients with inflammatory bowel disease. Neurath MF, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:149–59

IMMUNOLOGY

Cytokine gene transcription by NF-kappa B family members in patients with inflammatory bowel disease. Neurath MF, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:149–59

METABOLISM

Differences in essential fatty acid requirements by enteral and parenteral routes of administration in patients with fat malabsorption. Jeppesen PB, et al. **Am J Clin Nutr** 1999 Jul;70(1):78–84

Renal arginine metabolism in fasted rats with subacute short bowel syndrome. Dejong CH, et al. **Clin Sci (Colch)** 1998 Oct;95(4):409–18

Importance of colonic bacterial fermentation in short bowel patients: small intestinal malabsorption of easily digestible carbohydrate. Olesen M, et al. **Dig Dis Sci** 1999 Sep; 44(9):1914–23

Effect of intravenous ranitidine and omeprazole on intestinal absorption of water, sodium, and macronutrients in patients with intestinal resection. Jeppesen PB, et al. **Gut** 1998 Dec; 43(6):763–9

Short bowel syndrome, intestinal permeability and glutamine [letter; comment] Brewster D, et al. **J Pediatr Gastroenterol Nutr** 1998 Nov;27(5):614–6. Comment on: J Pediatr Gastroenterol Nutr 1998 Feb;26(2):123–8.

MICROBIOLOGY

Importance of colonic bacterial fermentation in short bowel patients: small intestinal malabsorption of easily digestible carbohydrate. Olesen M, et al. **Dig Dis Sci** 1999 Sep; 44(9):1914–23

Bacterial translocation and T-lymphocyte populations in experimental short-bowel syndrome. Aldazabal P, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):247–50

Treatment strategies for small bowel bacterial overgrowth in short bowel syndrome. Vanderhoof JA, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):155–60

Effect of growth hormone on bacterial translocation in experimental short-bowel syndrome. Eizaguirre I, et al. **Pediatr Surg Int** 1999;15(3–4):160–3

MORTALITY

[Survival after massive resection of the intestine in an 82-year-old male (letter)] Güemes A, et al. **Rev Esp Enferm Dig** 1998 Sep;90(9):671–2 **(Spa)**

PHYSIOPATHOLOGY

Clinical models of intestinal adaptation. Schulzke JD, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:127–38

Surgical approaches to improving intestinal function in the short-bowel syndrome. Thompson JS, et al. **Arch Surg** 1999 Jul;134(7):706–9; discussion 709–11

Expression of SPARC (secreted protein, acidic and rich in cysteine) in healing intestinal anastomoses and short bowel syndrome in rats. Puolakkainen P, et al. **Dig Dis Sci** 1999 Aug;44(8):1554–64

SBS diet needs to address individual physiology [letter; comment] Kander R. **J Am Diet Assoc** 1999 May; 99(5):529–30. Comment on: J Am Diet Assoc 1998 Mar;98(3):309–15.

Intrinsic myenteric denervation: a new model to increase the intestinal absorptive surface in short-bowel syndrome. Garcia SB, et al. **J Surg Res** 1999 Aug;85(2):200–3

[An experimental study of the short bowel syndrome. Its functional and morphological aspects (letter)] Huidobro A, et al. **Rev Esp Enferm Dig** 1999 Mar;91(3):226–7 **(Spa)**

PREVENTION & CONTROL

Conservative intestinal surgery to avoid short-bowel syndrome in multiple intestinal atresias and necrotizing enterocolitis: 6 cases treated by multiple anastomoses and Santulli-type enterostomy. Sapin E, et al. **Eur J Pediatr Surg** 1999 Feb;9(1):24–8

SURGERY

Reversal of a small-bowel segment so as to decrease transit time and increase the absorptive capability of the bowel [letter; comment] Santiago-Delpin EA. **Ann Surg** 1999 Mar;229(3):447. Comment on: Ann Surg 1997 Apr;225(4):401–7.

Short bowel syndrome in patients studied at the National Institute of Pediatrics in Mexico. Care, cost and perspectives [published erratum appears in Arch Med Res 1999 Mar–Apr;30(2):159] Varela-Fascinetto G, et al. **Arch Med Res** 1998 Winter;29(4):337–40 (17 ref.)

Surgical approaches to improving intestinal function in the short-bowel syndrome. Thompson JS, et al. **Arch Surg** 1999 Jul;134(7):706–9; discussion 709–11

Autogenic allotopic small-bowel mucosa transplantation in beagles. A new perspective for treatment of small-bowel syndrome? Zachariou Z, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):230–3

The first case report of the use of a zoom videoendoscope for the evaluation of small bowel graft mucosa in a human after intestinal transplantation. Kato T, et al. **Gastrointest Endosc** 1999 Aug;50(2):257–61

A modification of the Bianchi intestinal lengthening procedure with a single anastomosis. Chahine AA, et al. **J Pediatr Surg** 1998 Aug;33(8):1292–3

Mucous fistula refeeding in neonates with short bowel syndrome. Al-Harbi K, et al. **J Pediatr Surg** 1999 Jul; 34(7):1100–3

Up-to-date evolution of small bowel transplantation in children with intestinal failure. Jan D, et al. **J Pediatr Surg** 1999 May;34(5):841–3; discussion 843–4

Living-related small bowel transplantation: the first case in Japan [see comments] Uemoto S, et al. **Pediatr Transplant** 1998 Feb;2(1):40–4. Comment in: Pediatr Transplant 1998 Feb;2(1):1–2.

Long-term outcome of intestinal lengthening procedure for short-bowel syndrome: a case report. Uen YH, et al. **Surgery** 1999 Jan;125(1):117–20

Living-related donor small bowel transplantation: first case in Japan. Fujimoto Y, et al. **Transplant Proc** 1998 Nov; 30(7):3441–2

[Bowel elongation technique by using omentum as vascular pedicle in beagle dogs] Fu T, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):106–8 (Eng. Abstr.) **(Chi)**

[Short bowel syndrome--surgical aspects] Grebeldinger S, et al. **Med Pregl** 1998 Sep–Oct;51(9–10):405–9 (12 ref.) (Eng. Abstr.) **(Scr)**

[Therapeutic options for patients with short bowel syndrome (editorial)] Rodriguez Montes JA, et al. **Nutr Hosp** 1998 Sep–Oct;13(5):207–9 **(Spa)**

THERAPY

CAPD as fluid replacement in a patient with short-bowel syndrome. Traynor JP, et al. **Nephrol Dial Transplant** 1998 Nov;13(11):2947–8

Management of patients with a short bowel. Nightingale JM. **Nutrition** 1999 Jul–Aug;15(7–8):633–7 (66 ref.)

Research data: source of information for patient education materials. Smith CE, et al. **Nutrition** 1999 Feb;15(2):180–1

Managing disagreements in the management of short bowel and hypoplastic left heart syndrome. Cooper TR, et al. **Pediatrics** 1999 Oct;104(4):e48

Significance of a preserved colon for parenteral energy requirements in patients receiving home parenteral nutrition. Jeppesen PB, et al. **Scand J Gastroenterol** 1998 Nov;33(11):1175–9

[Therapy of Crohn disease in internal medicine: short bowel syndrome and toxic megacolon] Forssmann K, et al. **Schweiz Rundsch Med Prax** 1998 Nov 26;87(48):1652–6 (14 ref.) (Eng. Abstr.) **(Ger)**

SHORT INCREMENT SENSITIVITY INDEX see **RECRUITMENT DETECTION (AUDIOLOGY)**

SHORT INTERSPERSED DNA SEQUENCE ELEMENTS see **SHORT INTERSPERSED NUCLEOTIDE ELEMENTS**

SHORT INTERSPERSED NUCLEOTIDE ELEMENTS

Analysis of major repetitive DNA sequences in the dog (Canis familiaris) genome. Bentolila S, et al. **Mamm Genome** 1999 Jul;10(7):699–705

Genetic relationships among hippopotamus, whales, and bovine based on SINE insertion analysis. Nomura O, et al. **Mamm Genome** 1999 May;10(5):526–7

Distribution of the ERE–1 family in Perissodactyla. Sakagami M, et al. **Mamm Genome** 1999 Sep;10(9):930–3

Genomic and evolutionary analysis of Feilai, a diverse family of highly reiterated SINEs in the yellow fever mosquito, Aedes aegypti. Tu Z. **Mol Biol Evol** 1999 Jun;16(6):760–72

Rapid SINE–mediated detection of cisplatin:DNA adduct formation in vitro and in vivo in blood. Wang G, et al. **Mutat Res** 1999 Jun 23;434(2):67–74

Short interspersed DNA element–mediated detection of UVB–induced DNA damage and repair in the mouse genome, in vitro, and in vivo in skin. Wang G, et al. **Mutat Res** 1999 Apr 9;433(3):147–57

Silk worm Bm1 SINE RNA increases following cellular insults. Kimura RH, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3380–7

S1 SINE retroposons are methylated at symmetrical and non–symmetrical positions in Brassica napus: identification of a preferred target site for asymmetrical methylation [published erratum appears in Plant Mol Biol 1999 May;40(1):197] Goubely C, et al. **Plant Mol Biol** 1999 Jan; 39(2):243–55

[The evidence of close phylogenetic relationship between Gliridae and Sciuridae families based on the study of short retroposon B1–dID] Kramerov DA. **Dokl Akad Nauk** 1999 Jan;364(2):277–80 **(Rus)**

GENETICS

Conserved nucleotide differences and subfamily structure of porcine short interspersed elements. Brenig B. **Anim Genet** 1999 Apr;30(2):120–5

Evolutionary applications of MIRs and SINEs. Buchanan F, et al. **Anim Genet** 1999 Feb;30(1):47–50

Wide distribution of short interspersed elements among eukaryotic genomes. Borodulina OR, et al. **FEBS Lett** 1999 Sep 3;457(3):409–13

The evolutionary position of dormice (Gliridae) in Rodentia determined by a novel short retroposon [letter] Kramerov D, et al. **Mol Biol Evol** 1999 May;16(5):715–7

Retropositional parasitism of SINEs on LINEs: identification of SINEs and LINEs in elasmobranchs. Ogiwara I, et al. **Mol Biol Evol** 1999 Sep;16(9):1238–50

Genealogy of families of SINEs in cetaceans and artiodactyls: the presence of a huge superfamily of tRNA(Glu)–derived families of SINEs. Shimamura M, et al. **Mol Biol Evol** 1999 Aug;16(8):1046–60

Does SINE evolution preclude Alu function? Schmid CW. **Nucleic Acids Res** 1998 Oct 15;26(20):4541–50 (89 ref.)

SHORT RIB–POLYDACTYLY SYNDROME

PATHOLOGY

Short–rib–polydactyly syndrome type Verma–Naumoff–Le Marec in a fetus with histological hallmarks of type Saldino–Noonan but lacking internal organ abnormalities. Hentze S, et al. **Am J Med Genet** 1998 Nov 16;80(3):281–5

ULTRASONOGRAPHY

Recurrent short rib–polydactyly syndrome with unusual associations. Shindel B, et al. **J Clin Ultrasound** 1999 Mar–Apr;27(3):143–6

Transvaginal sonographic diagnosis of short–rib polydactyly dysplasia at 13 weeks' gestation. Hill LM, et al. **Prenat Diagn** 1998 Nov;18(11):1198–201

SHORT–SNOUTED WHITE–BELLY DOLPHIN see **DOLPHINS**

SHORT–TERM PSYCHOTHERAPY see **PSYCHOTHERAPY, BRIEF**

SHORT–WAVE THERAPY

Temperature change in human muscle during and after pulsed short–wave diathermy. Draper DO, et al. **J Orthop Sports Phys Ther** 1999 Jan;29(1):13–8; discussion 19–22

[Therapeutic effects of ultrashort wave and He–Ne laser on experimental infection in skin flaps of rabbits] Wang L, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):55–7 (Eng. Abstr.) **(Chi)**

SHORT WAVES see **RADIO WAVES**

SHOTGUNS see **FIREARMS**

SHOULDER

Labor abnormalities as a risk factor for shoulder dystocia. Gemer O, et al. **Acta Obstet Gynecol Scand** 1999 Sep; 78(8):735–6

Peripartum emergencies [letter; comment] Weigand JM. **Am Fam Physician** 1999 Jun;59(11):2984, 2989; discussion 2990. Comment on: Am Fam Physician 1998 Nov 1;58(7):1593–604.

Shoulder girdle abscess due to Streptococcus agalactiae complicating esophageal dilation. Popa A, et al. **Am J Gastroenterol** 1999 May;94(5):1410–1

Objective definition of shoulder dystocia: a prospective evaluation. Beall MH, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):934–7

Time for resolving shoulder dystocia [letter; comment] Beer E, et al. **Am J Obstet Gynecol** 1998 Nov;179(5):1376–7. Comment on: Am J Obstet Gynecol 1997 Aug;177(2):463–4. Comment on: Am J Obstet Gynecol 1998 Mar;178(3):631; discussion 631–2.

Shoulder dystocia maneuvers [letter] Escamilla JO. **Am J Obstet Gynecol** 1999 May;180(5):1312

Brachial plexus palsy: an in utero injury? Gherman RB, et al. **Am J Obstet Gynecol** 1999 May;180(5):1303–7 (52 ref.)

Obstetric maneuvers for shoulder dystocia [letter] Iffy L, et al. **Am J Obstet Gynecol** 1998 Nov;179(5):1379–80

A gigantic epidermal cyst [letter] Itoh Y, et al. **Ann Plast Surg** 1999 May;42(5):572

Effects of arm suspension in simulated assembly line work: muscular activity and posture angles. Feng Y, et al. **Appl Ergon** 1999 Jun;30(3):247–53

Tumor of the right shoulder in a newborn. Bossed hemangioma with telangiectasia and peripheral pallor. Patrizi A, et al. **Arch Dermatol** 1998 Sep;134(9):1146, 1148–9

Tikhoff–Linberg procedure for bone and soft tissue tumors of the shoulder girdle. Voggenreiter G, et al. **Arch Surg** 1999 Mar;134(3):252–7

Lipoblastomatosis of the shoulder: unusual MR appearance. Wang SF, et al. **Br J Radiol** 1998 Aug;71(848):884–5

Timing of shoulder exercise after modified radical mastectomy: a prospective study. Chen SC, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Mar;22(1):37–43

Shoulder dystocia. Gherman RB, et al. **Curr Opin Obstet Gynecol** 1998 Dec;10(6):459–63 (35 ref.)

Simple home program for frozen shoulder to improve patients' assessment of shoulder function and health status. O'Kane JW, et al. **J Am Board Fam Pract** 1999 Jul–Aug; 12(4):270–7

Nuchal fibroma of the shoulder involving skeletal muscle: a radiographic and clinicopathological study. A case report. Hameed M, et al. **J Bone Joint Surg Am** 1998 Nov; 80(11):1684–6

Results of transfer of the pectoralis major tendon to treat paralysis of the serratus anterior muscle. Perlmutter GS, et al. **J Bone Joint Surg Am** 1999 Mar;81(3):377–84

Isolated and combined lesions of the axillary nerve. A review of 146 cases. Bonnard C, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):212–7 (25 ref.)

Limb–girdle muscular dystrophies: an overview. Bönnemann CG. **J Child Neurol** 1999 Jan;14(1):31–3

Shoulder dystocia: fifteen years' experience in Ramathibodi Hospital. Roungsipragarn R, et al. **J Med Assoc Thai** 1998 Nov;81(11):821–3

Resolving shoulder dystocia [letter; comment] Gherman R. **J Reprod Med** 1998 Oct;43(10):922–4. Comment on: J Reprod Med 1998 May;43(5):439–43.

Can shoulder dystocia be predicted? Preconceptive and prenatal factors. Lewis DF, et al. **J Reprod Med** 1998 Aug; 43(8):654–8

Dissecting the rugby tackle: do shoulder pads contribute to cervical spine injuries? [letter; comment] Quinn DI. **Med J Aust** 1998 Nov 2;169(9):501–2. Comment on: Med J Aust 1998 Apr 20;168(8):379–81. Comment on: Med J Aust 1998 Apr 20;168(8):418.

Shoulder girdle dyskinesia associated with a thalamic infarct. Wali GM. **Mov Disord** 1999 Mar;14(2):375–7

Combination of low back pain and previous low back pain and shoulder stiffness in construction employees. Shirai Y, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):307–11

Shoulder dystocia. Wagner RK, et al. **Obstet Gynecol Clin North Am** 1999 Jun;26(2):371–83 (49 ref.)

Suprascapular entrapment neuropathy and ganglion cysts about the shoulder. Ferrick MR, et al. **Orthopedics** 1999 Apr;22(4):430–4; discussion 434–5; quiz 436–7 (47 ref.)

[Interscalene block and infections of the shoulder] Hempel V. **Anaesthesist** 1998 Nov;47(11):940 **(Ger)**

[The DASH(Disability of Arm–Shoulder–Hand) Questionnaire––a new instrument for evaluating upper extremity treatment outcome] Germann G, et al. **Handchir Mikrochir Plast Chir** 1999 May;31(3):149–52 (Eng. Abstr.) **(Ger)**

ABNORMALITIES

Intracapsular origin of the long head of the biceps tendon. Yeh L, et al. **Skeletal Radiol** 1999 Mar;28(3):178–81

ANATOMY & HISTOLOGY

Calibration of the "Flock of Birds" electromagnetic tracking device and its application in shoulder motion studies. Meskers CG, et al. **J Biomech** 1999 Jun;32(6):629–33

Open 'Bankart' repair for recurrent anterior dislocation of the shoulder. Sait MS, et al. **J R Coll Surg Edinb** 1999 Aug;44(4):245–50

Surgical anatomy of the posterior shoulder: effects of arm position and anterior–inferior capsular shift. Bailie DS, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):307–13

A technique for determining the spatial relationship between the rotator cuff and the subacromial space in arm abduction using MR1 and 3D image processing. Graichen H, et al. **Magn Reson Med** 1998 Oct;40(4):640–3

Shoulder sonography. State of the art. Teefey SA, et al. **Radiol Clin North Am** 1999 Jul;37(4):767–85, ix (30 ref.)

Subacromial space width changes during abduction and rotation––a 3–D MR imaging study. Graichen H, et al. **Surg Radiol Anat** 1999;21(1):59–64

Ultrasonography of the equine shoulder: technique and normal appearance. Tnibar MA, et al. **Vet Radiol Ultrasound** 1999 Jan–Feb;40(1):44–57

BLOOD SUPPLY

Anatomical study of the blood supply in the human shoulder region. de la Garza O, et al. **Acta Anat (Basel)** 1992; 145(4):412–5

Variation in the branching of the axillary artery. A description of a rare case. Kogan I, et al. **Acta Anat (Basel)** 1998;162(4):238–40

GROWTH & DEVELOPMENT

Newborn shoulder width: a prospective study of 2222 consecutive measurements. Verspyck E, et al. **Br J Obstet Gynaecol** 1999 Jun;106(6):589–93

INJURIES

Shoulder and elbow injuries and painful syndromes. Kelly AM, et al. **Adolesc Med** 1998 Oct;9(3):569–87, vii (22 ref.)

Superior labral anteroposterior lesions: MR arthrography with arm traction. Chan KK, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1117–22

Imaging findings in the dominant shoulder of throwing athletes: comparison of radiography, arthrography, CT arthrography, and MR arthrography with arthroscopic correlation. Roger B, et al. **AJR Am J Roentgenol** 1999 May;172(5):1371–80

Little Leaguer's shoulder: a report of 23 cases [letter] Hale CJ. **Am J Sports Med** 1999 Mar–Apr;27(2):269

Musculoskeletal rehabilitation and sports medicine. 2. Shoulder and upper extremity injuries. Ellen MI, et al. **Arch Phys Med Rehabil** 1999 May;80(5 Suppl 1):S50–8 (101 ref.)

Shoulder injuries in competitive swimmers. McMaster WC. **Clin Sports Med** 1999 Apr;18(2):349–59, vii (51 ref.)

Overuse epiphyseal injury of the coracoid process as a result of archery. Naraen A, et al. **Int J Sports Med** 1999 Jan; 20(1):53–5

Freezing soft tissue injury from propane gas. VanGelder CM, et al. **J Trauma** 1999 Feb;46(2):355–6

MR imaging of rotator interval, long biceps, and associated injuries in the overhead–throwing athlete. Ho CP. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):23–37 (18 ref.)

MR imaging of the thrower's shoulder. Internal impingement, latissimus dorsi/subscapularis strains, and related injuries. Schickendantz MS, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):39–49

Chronic avulsive injury of the deltoid insertion in adolescents: imaging findings in three cases. Donnelly LF, et al. **Radiology** 1999 Apr;211(1):233–6

[Paralytic shoulder secondary to post–traumatic peripheral nerve lesions in the adult] Alnot JY. **Acta Orthop Belg** 1999 Mar;65(1):10–22 (50 ref.) (Eng. Abstr.) **(Fre)**

[Clinical examination of the shoulder] König DP, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):94–101 (14 ref.) (Eng. Abstr.) **(Ger)**

INNERVATION

Representation of the midline trunk, bilateral arms, and shoulders in the monkey postcentral somatosensory cortex. Taoka M, et al. **Exp Brain Res** 1998 Dec;123(3):315–22

The relationship of the axillary nerve and the acromion. Vathana P, et al. **J Med Assoc Thai** 1998 Dec;81(12):953–7

Monosynaptic Ia pathways at the cat shoulder. Caicoya AG, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):825–41

Reconstruction of accessory nerve defects with vascularized long thoracic vs. non–vascularized thoracodorsal nerve. Schultes G, et al. **J Reconstr Microsurg** 1999 May; 15(4):265–70; discussion 270–1

Axillary nerve injuries in contact sports: recommendations for treatment and rehabilitation. Perlmutter GS, et al. **Sports Med** 1998 Nov;26(5):351–61 (30 ref.)

[Paralytic shoulder secondary to post–traumatic peripheral nerve lesions in the adult] Alnot JY. **Acta Orthop Belg** 1999 Mar;65(1):10–22 (50 ref.) (Eng. Abstr.) **(Fre)**

PATHOLOGY

An unusual cause of shoulder pain. Wong P, et al.

SHOULDER

Ann Rheum Dis 1999 May;58(5):264–5

Brachioradial pruritus: a recurrent solar dermopathy. Wallengren J. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):803–6

Magnetic resonance arthrography (MRA) in the postoperative shoulder. Rand T, et al. **Magn Reson Imaging** 1999 Jul;17(6):843–50

PHYSIOLOGY

The muscular load on the lower back and shoulders due to lifting at different lifting heights and frequencies. Nielsen PK, et al. **Appl Ergon** 1998 Dec;29(6):445–50

One-year reproducibility and stability of the signal amplitude ratio and other variables of the electromyogram: test–retest of a shoulder forward flexion test in female workers with neck and shoulder problems. Elert J, et al. **Clin Physiol** 1998 Nov;18(6):529–38

Recruitment of low threshold motor-units in the trapezius muscle in different static arm positions. Kadefors R, et al. **Ergonomics** 1999 Feb;42(2):359–75

X-ray kinematic analysis of shoulder movements during target reaching and food taking in the cat. Boczek-Funcke A, et al. **Eur J Neurosci** 1999 Mar;11(3):986–96

Independent coactivation of shoulder and elbow muscles. Gribble PL, et al. **Exp Brain Res** 1998 Dec;123(3):355–60

On the kinematic modelling and the parameter estimation of the human shoulder. Bao H, et al. **J Biomech** 1999 Sep; 32(9):943–50

A model predicting individual shoulder muscle forces based on relationship between electromyographic and 3D external forces in static position. Laursen B, et al. **J Biomech** 1998 Aug;31(8):731–9

A study of the reproducibility of three different normalisation methods in intramuscular dual fine wire electromyography of the shoulder. Morris AD, et al. **J Electromyogr Kinesiol** 1998 Oct;8(5):317–22

Corticomotoneuronal postspike effects in shoulder, elbow, wrist, digit, and intrinsic hand muscles during a reach and prehension task. McKiernan BJ, et al. **J Neurophysiol** 1998 Oct;80(4):1961–80

Effects of isokinetic muscle activity on pressure in the supraspinatus muscle and shoulder torque. Sporrong H, et al. **J Orthop Res** 1999 Jul;17(4):546–53

Biomechanics of windmill softball pitching with implications about injury mechanisms at the shoulder and elbow. Barrentine SW, et al. **J Orthop Sports Phys Ther** 1998 Dec; 28(6):405–15

Skin temperature of the shoulder: circadian rhythms in normal and pathologic shoulders. Miyakoshi N, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):625–8

Non-noxious stimulation of the glenohumeral joint capsule elicits strong inhibition of active shoulder muscles in conscious human subjects. Voigt M, et al. **Neurosci Lett** 1998 Sep 25;254(2):105–8

[An MR-based technique for determination of the subacromial space width in subjects with and without shoulder muscle activity] Graichen H, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan–Feb;137(1):2–6 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Shoulder muscle co-ordination during chronic and acute experimental neck-shoulder pain. An occupational pain study. Madeleine P, et al. **Eur J Appl Physiol** 1999 Jan; 79(2):127–40

Non-invasive evaluation of shoulder problems after stroke [letter] Price CI, et al. **Lancet** 1999 Jan 23;353(9149):298

Pathological mechanisms implicated in localized female trapezius myalgia. Kadi F, et al. **Pain** 1998 Dec;78(3):191–6

The long-term course of shoulder complaints: a prospective study in general practice. Winters JC, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):160–3

Relationship between shoulder muscle strength and functional independence measure (FIM) score among C6 tetraplegics. Fujiwara T, et al. **Spinal Cord** 1999 Jan; 37(1):58–61

[Quantification of shoulder power in trained and untrained paraplegic wheelchair athletes] Mayer F, et al. **Sportverletz Sportschaden** 1998 Dec;12(4):147–51 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

X-ray kinematic analysis of shoulder movements during target reaching and food taking in the cat. Boczek-Funcke A, et al. **Eur J Neurosci** 1999 Mar;11(3):986–96

Dose reduction in CT by on-line tube current control: principles and validation on phantoms and cadavers. Kalender WA, et al. **Eur Radiol** 1999;9(2):323–28

RADIONUCLIDE IMAGING

Uptake of Tc-99m MDP in shoulder muscle caused by the use of elbow crutches. Bern G, et al. **Clin Nucl Med** 1999 Sep;24(9):691–2

SURGERY

Beta-adrenergic blockers and vasovagal episodes during shoulder surgery in the sitting position under interscalene block. Kahn RL, et al. **Anesth Analg** 1999 Feb;88(2):378–81

A comparison of 0.5% bupivacaine, 0.5% ropivacaine, and 0.75% ropivacaine for interscalene brachial plexus block. Klein SM, et al. **Anesth Analg** 1998 Dec;87(6):1316–9

Management of aggressive benign and malignant bone tumors of the shoulder region. Hsu RW, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Mar;22(1):52–60

Long-term results of multiple muscle transfer to reconstruct shoulder function in patients with birth palsy: eleven-year follow-up. Suenaga N, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):669–71

Magnetic resonance arthrography (MRA) in the postoperative shoulder. Rand T, et al. **Magn Reson Imaging** 1999 Jul;17(6):843–50

[Tikhoff-Linberg interscapulothoracic resection in extra-compartmental tumors of the shoulder girdle] Voggenreiter G, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1414–6 (Eng. Abstr.) **(Ger)**

[Continuous parascalene block for shoulder surgery] Monzó E, et al. **Rev Esp Anestesiol Reanim** 1998 Nov;45(9):377–83 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Shoulder sonography. State of the art. Teefey SA, et al. **Radiol Clin North Am** 1999 Jul;37(4):767–85, ix (30 ref.)

[Shoulder complaints in the family practice: a simple strategy (letter; comment)] Avenarius HA. **Ned Tijdschr Geneeskd** 1998 Aug 8;142(32):1832–3. Comment on: Ned Tijdschr Geneeskd 1998 May 30;142(22):1241–4. **(Dut)**

[Significance of the hypoechoic area around the long biceps tendon in shoulder sonography--underlying pathology] Rupp S, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan–Feb; 137(1):7–9 (Eng. Abstr.) **(Ger)**

SHOULDER DISLOCATION

CLASSIFICATION

Evolution of lesions of the labrum-ligament complex in posttraumatic anterior shoulder instability: a prospective study. Habermeyer P, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):66–74

COMPLICATIONS

Contralateral intrathoracic migration of humeral head fracture dislocation. Abbott GF, et al. **AJR Am J Roentgenol** 1999 May;172(5):1403–4

Complications of shoulder dislocation. Beeson MS. **Am J Emerg Med** 1999 May;17(3):288–95 (53 ref.)

Irreducible anterior shoulder dislocation with fracture of the greater tuberosity. Ilahi OA. **Am J Orthop** 1998 Aug; 27(8):576–8 (7 ref.)

Evaluation and treatment of shoulder subluxation in hemiplegia: relationship between subluxation and pain. Ikai T, et al. **Am J Phys Med Rehabil** 1998 Sep–Oct;77(5):421–6

Vascular complication of anterior dislocation of shoulder with associated brachial plexus injury--a case report. Mullett H, et al. **Ir J Med Sci** 1998 Jul–Sep;167(3):196

The incidence of nerve injury in anterior dislocation of the shoulder and its influence on functional recovery. A prospective clinical and EMG study. Visser CP, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):679–85

Acromion fracture associated with posterior shoulder dislocation. Goodrich JA, et al. **J Orthop Trauma** 1998 Sep–Oct;12(7):521–3

Glenoid version in children with obstetric brachial plexus palsy. Beischer AD, et al. **J Pediatr Orthop** 1999 May–Jun; 19(3):359–61

Primary anterior shoulder dislocation and rotator cuff tears. Berbig R, et al. **J Shoulder Elbow Surg** 1999 May–Jun; 8(3):220–5

DIAGNOSIS

Biceps load test: a clinical test for superior labrum anterior and posterior lesions in shoulders with recurrent anterior dislocations. Kim SH, et al. **Am J Sports Med** 1999 May–Jun;27(3):300–3

Inferior dislocation of the glenohumeral joint combined with the compartment syndrome of the upper arm: case report. Yen CY, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Sep; 21(3):358–61

Posterior labrocapsular periosteal sleeve avulsion complicating locked posterior shoulder dislocation. Simons P, et al. **Skeletal Radiol** 1998 Oct;27(10):588–90 (5 ref.)

[Arthroscopic extra-articular Bankart procedure] Golser K, et al. **Orthopade** 1998 Aug;27(8):532–41 (Eng. Abstr.) **(Ger)**

[Clinical and nuclear magnetic resonance tomography diagnosis of glenoid labrum injuries] Wallny T, et al. **Unfallchirurg** 1998 Aug;101(8):613–8 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Use of botulinum A toxin in irreducible shoulder dislocation caused by spasm of pectoralis major. Sinha A, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):75–6

EPIDEMIOLOGY

A prevalence study of recurrent shoulder dislocations in young adults. Milgrom C, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):621–4

ETIOLOGY

Bilateral anterior shoulder fracture-dislocation. A case report and a review of the literature. Dinopoulos HT, et al. **Int Orthop** 1999;23(2):128–30 (20 ref.)

The mechanism of creation of superior labrum, anterior, and posterior lesions in a dynamic biomechanical model of the shoulder: the role of inferior subluxation. Bey MJ, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):397–401

Restraining patients and shoulder dislocations during seizures. DeToledo JC, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):300–2 (32 ref.)

Powerlifting versus weightlifting [letter; comment] Herrick RT. **Orthopedics** 1998 Aug;21(8):837. Comment on: Orthopedics 1997 Dec;20(12):1180–3; discussion 1183–4.

Prevention of shoulder subluxation after stroke with electrical stimulation. Linn SL, et al. **Stroke** 1999 May; 30(5):963–8

[Management of old neglected posttraumatic acromioclavicular joint instability and arthrosis] Hedtmann A, et al. **Orthopade** 1998 Aug;27(8):556–66 (60 ref.) (Eng. Abstr.) **(Ger)**

[Shoulder joint instability after primary arthroplasty] Löhr JF, et al. **Orthopade** 1998 Aug;27(8):571–5 (Eng. Abstr.) **(Ger)**

[Posterior shoulder joint instability. Classification, pathomechanism,diagnosis, conservative and surgical management] Seebauer L, et al. **Orthopade** 1998 Aug; 27(8):542–55 (Eng. Abstr.) **(Ger)**

[Brachial plexus palsy associated with birth. A review of 30 cases] Garcia Bravo A, et al. **An Esp Pediatr** 1999 May; 50(5):485–90 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Magnetic resonance imaging appearance of teres major tendon injury in a baseball pitcher. Malcolm PN, et al. **Am J Sports Med** 1999 Jan–Feb;27(1):98–100

[Subnormal functional activity in a neglected posterior dislocation of the shoulder] Ghafil D, et al. **Acta Orthop Belg** 1998 Sep;64(3):339–42 (Eng. Abstr.) **(Fre)**

PHYSIOPATHOLOGY

Evolution of lesions of the labrum-ligament complex in posttraumatic anterior shoulder instability: a prospective study. Habermeyer P, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):66–74

[Proprioceptive abilities of patients with post-traumatic instability of the glenohumeral joint] Jerosch J, et al. **Z Orthop Ihre Grenzgeb** 1998 May–Jun;136(3):230–7 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Radiology for the surgeon. Musculoskeletal. Case 2: inferior dislocation of the glenohumeral joint (luxatio erecta). Munk PL. **Can J Surg** 1999 Feb;42(1):10, 64–5

Missed posterior fracture-dislocation of the humeral head. A case report with a fifteen-year follow-up after delayed open reduction and internal fixation. Kaar TK, et al. **J Bone Joint Surg Am** 1999 May;81(5):708–10

Bilateral unfused coracoid process: report of a case. Kim SJ, et al. **J Korean Med Sci** 1998 Oct;13(5):563–5

The natural history of primary anterior dislocation of the shoulder in the young. Hovelius L. **J Orthop Sci** 1999; 4(4):307–17

[Intrathoracic dislocation fracture of the head of the humerus] al-Kaar M, et al. **J Radiol** 1998 Jan;79(1):57–9 (6 ref.) (Eng. Abstr.) **(Fre)**

[Computerized tomography measurement of anteroposterior humeral dislocation. Proposing a method. Application to centered osteoarthritis] Badet R, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct; 84(6):508–14 (Eng. Abstr.) **(Fre)**

REHABILITATION

Shoulder pain and dysfunction in hemiplegia: effects of functional electrical stimulation. Chantraine A, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):328–31

Prospective randomized clinical trial comparing the effectiveness of immediate arthroscopic stabilization versus immobilization and rehabilitation in first traumatic anterior dislocations of the shoulder. Kirkley A, et al. **Arthroscopy** 1999 Jul–Aug;15(5):507–14

[Conservative treatment after first traumatic shoulder dislocation] Lill H, et al. **Chirurg** 1998 Nov;69(11):1230–7 (Eng. Abstr.) **(Ger)**

SURGERY

Irreducible anterior shoulder dislocation with fracture of the greater tuberosity. Ilahi OA. **Am J Orthop** 1998 Aug; 27(8):576–8 (7 ref.)

Biomechanics of the Bankart repair: the relationship between glenohumeral translation and labral fixation site. Black KP, et al. **Am J Sports Med** 1999 May–Jun;27(3):339–44

Open capsulorrhaphy with suture anchors for recurrent anterior dislocation of the shoulder [see comments] Ferretti A, et al. **Am J Sports Med** 1998 Sep–Oct;26(5):625–9. Comment in: Am J Sports Med 1999 Jan–Feb;27(1):122.

Open capsulorrhaphy with suture anchors for recurrent anterior dislocation of the shoulder [letter; comment]

Schottenfeld MA. **Am J Sports Med** 1999 Jan-Feb; 27(1):122. Comment on: Am J Sports Med 1998 Sep-Oct;26(5):625-9.

Four-part posterior fracture--dislocations of the shoulder. Treatment by limited open reduction and percutaneous stabilization. Altay T, et al. **Arch Orthop Trauma Surg** 1999; 119(1-2):35-8

Arthroscopic or open Bankart procedures: what are the costs? Barber FA, et al. **Arthroscopy** 1998 Oct;14(7):671-4

Recurrence rate using Caspari's technique for arthroscopic Bankart repair [letter; comment] Fleiss DJ. **Arthroscopy** 1998 Sep;14(6):663. Comment on: Arthroscopy 1998 Apr;14(3):295-301.

Arthroscopic treatment of acute traumatic anterior glenohumeral dislocation and greater tuberosity fracture. Gartsman GM, et al. **Arthroscopy** 1999 Sep;15(6):648-50

A multicenter study of 210 rotator cuff tears treated by arthroscopic acromioplasty. Kempf JF, et al. **Arthroscopy** 1999 Jan-Feb;15(1):56-66

Prospective randomized clinical trial comparing the effectiveness of immediate arthroscopic stabilization versus immobilization and rehabilitation in first traumatic anterior dislocations of the shoulder. Kirkley A, et al. **Arthroscopy** 1999 Jul-Aug;15(5):507-14

Primary replacement of the humeral head in iatrogenically displaced fracture-dislocations of the shoulder: a report about six cases. Demirhan M, et al. **Injury** 1998 Sep; 29(7):525-8

The treatment of displaced supracondylar fractures of the humerus in children. A comparison of three methods. Ababneh M, et al. **Int Orthop** 1998;22(4):263-5

Modified Bankart procedure for recurrent anterior dislocation and subluxation of the shoulder in athletes. Takeda H, et al. **Int Orthop** 1998;22(6):361-5

Open 'Bankart' repair for recurrent anterior dislocation of the shoulder. Sait MS, et al. **J R Coll Surg Edinb** 1999 Aug;44(4):245-50

Outcome after primary and secondary hemiarthroplasty in elderly patients with fractures of the proximal humerus. Bosch U, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct; 7(5):479-84

The results of the Putti-Platt operation with particular reference to arthritis, pain, and limitation of external rotation. Kiss J, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct; 7(5):495-500

Glenohumeral osteoarthrosis after Putti-Platt repair. van der Zwaag HM, et al. **J Shoulder Elbow Surg** 1999 May-Jun; 8(3):252-8

Modification of the Bankart reconstruction using a suture anchor. Traina SM, et al. **J South Orthop Assoc** 1998 Fall; 7(3):180-6

How do we treat first time traumatic shoulder dislocations in young athletes? [editorial] Eriksson E. **Knee Surg Sports Traumatol Arthrosc** 1999;7(3):137

Recurrent post-traumatic anterior shoulder dislocation--open versus arthroscopic repair. Jørgensen U, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(2):118-24

Magnetic resonance arthrography (MRA) in the postoperative shoulder. Rand T, et al. **Magn Reson Imaging** 1999 Jul;17(6):843-50

Bioabsorbable tacks for arthroscopic treatment of recurrent anterior shoulder dislocation. Karlsson J, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):411-5

Early arthroscopic treatment of primary traumatic anterior shoulder dislocation. A follow-up study. Valentin A, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):405-10

[Anatomo-clinical consequences of the vertical sectioning of the subscapular muscle in Latarjet intervention] Picard F, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):217-23 (Eng. Abstr.) **(Fre)**

[Changes in proprioceptive capacities of the shoulder joint in ventral shoulder instability. A comparative study before and after arthroscopic labrum refixation] Machner A, et al. **Sportverletz Sportschaden** 1998 Dec;12(4):138-41 (Eng. Abstr.) **(Ger)**

[Locked dorsal shoulder dislocation and contralateral ventral shoulder dislocation fracture. A rare combination] Gehr J, et al. **Unfallchirurg** 1999 May;102(5):393-7 (Eng. Abstr.) **(Ger)**

[Arthroscopic stabilization of anterior shoulder instability with bioresorbable tacks] Hehl G, et al. **Unfallchirurg** 1998 Jul;101(7):537-42 (Eng. Abstr.) **(Ger)**

[Results of posterior inferior capsular shift in posterior shoulder instability] Jerosch J, et al. **Unfallchirurg** 1998 Oct; 101(10):755-61 (39 ref.) (Eng. Abstr.) **(Ger)**

[Value of glenoid osteotomy in treatment of posterior shoulder instability] Graichen H, et al. **Z Orthop Ihre Grenzgeb** 1998 May-Jun;136(3):238-42 (Eng. Abstr.) **(Ger)**

[Arthroscopic labral reconstruction for anterior shoulder instability. Failure analysis in 187 patients] Jäger A, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan-Feb;137(1):17-24 (Eng. Abstr.) **(Ger)**

[Long-term outcome of Putti-Platt operation in recurrent traumatic ventral shoulder dislocations] Pap G, et al. **Zentralbl Chir** 1998;123(11):1227-31 (Eng. Abstr.) **(Ger)**

[Results of Bankart arthroplasty procedure in the treatment of recurrent dislocation of the shoulder] Niedźwiedzki T, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(6):521-8 (Eng. Abstr.) **(Pol)**

[Results of treatment of acute grade III acro-myo-clavicular dislocation by closed reduction and Kirschner wires fixation] Zarzycki W, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(3):209-15 (Eng. Abstr.) **(Pol)**

THERAPY

Current concepts in the treatment of anterior shoulder dislocations. Wen DY. **Am J Emerg Med** 1999 Jul; 17(4):401-7 (50 ref.)

Evaluation and treatment of shoulder subluxation in hemiplegia: relationship between subluxation and pain. Ikai T, et al. **Am J Phys Med Rehabil** 1998 Sep-Oct;77(5):421-6

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Immobilisation after first anterior shoulder dislocation. Dollery W. **J Accid Emerg Med** 1998 Nov;15(6):382-3

Anterior glenohumeral dislocation [letter; comment] Lannigan A. **J Accid Emerg Med** 1998 Sep;15(5):365. Comment on: J Accid Emerg Med 1998 Jan;15(1):7-12.

Position of immobilization after dislocation of the shoulder. A cadaveric study. Itoi E, et al. **J Bone Joint Surg Am** 1999 Mar;81(3):385-90

The natural history of primary anterior dislocation of the shoulder in the young. Hovelius L. **J Orthop Sci** 1999; 4(4):307-17

Posterior shoulder dislocation associated with fracture of the humeral anatomic neck: treatment guidelines and long-term outcome. Ogawa K, et al. **J Trauma** 1999 Feb;46(2):318-23

Arthroscopic lavage reduced the recurrence rate following primary anterior shoulder dislocation. A randomised multicentre study with 1-year follow-up. Wintzell G, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(3):192-6

[Arthroscopic labral reconstruction for anterior shoulder instability. Failure analysis in 187 patients] Jäger A, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan-Feb;137(1):17-24 (Eng. Abstr.) **(Ger)**

[The results of treatment of posterior shoulder dislocation] Fabiś J, et al. **Chir Narzadow Ruchu Ortop Pol** 1998; 63(5):455-61 (Eng. Abstr.) **(Pol)**

[Nonoperative treatment of acute, grade III acromioclavicular dislocation in judo competing athletes] Zarzycki W, et al. **Chir Narzadow Ruchu Ortop Pol** 1998; 63(4):321-7 (Eng. Abstr.) **(Pol)**

[Shoulder instability should be treated more actively. Good results with early stabilization and physical therapy] Norlin R. **Lakartidningen** 1998 Oct 7;95(41):4444-5 **(Swe)**

ULTRASONOGRAPHY

The value of ultrasonography in the diagnosis of labral lesions in patients with anterior shoulder dislocation. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):107-13

Hill-Sachs lesion in recurrent shoulder dislocation: sonographic detection. Čičak N, et al. **J Ultrasound Med** 1998 Sep;17(9):557-60

SHOULDER FRACTURES

COMPLICATIONS

Contralateral intrathoracic migration of humeral head fracture dislocation. Abbott GF, et al. **AJR Am J Roentgenol** 1999 May;172(5):1403-4

Irreducible anterior shoulder dislocation with fracture of the greater tuberosity. Ilahi OA. **Am J Orthop** 1998 Aug; 27(8):576-8 (7 ref.)

[Incidence of humeral head osteonecrosis after fracture of the superior end of the humerus] Zygas P. **Acta Orthop Belg** 1999;65 Suppl 1:99-103 (19 ref.) **(Fre)**

DIAGNOSIS

Occult fractures of the greater tuberosity of the humerus: radiographic and MR imaging findings. Mason BJ, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):469-73

MR imaging for traumatic tears of the rotator cuff: high prevalence of greater tuberosity fractures and subscapularis tendon tears. Zanetti M, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):463-7

Glenoid fracture nonunion presenting as instability in a young athlete. Warner JJ, et al. **Arthroscopy** 1998 Oct;14(7):738-40

Homicide or accident off the coast of Florida: trauma analysis of mutilated human remains. Stubblefield PR. **J Forensic Sci** 1999 Jul;44(4):716-9

ETIOLOGY

Bilateral anterior shoulder fracture-dislocation. A case report and a review of the literature. Dinopoulos HT, et al. **Int Orthop** 1999;23(2):128-30 (20 ref.)

PHYSIOPATHOLOGY

Poor function after shoulder replacement in fracture patients. A retrospective evaluation of 29 patients followed for 2-12 years. Movin T, et al. **Acta Orthop Scand** 1998 Aug; 69(4):392-6

RADIOGRAPHY

Tossed on the horn of humerus: a legal case report. Finnbogason T, et al. **Eur Radiol** 1998;8(8):1495-6

Missed posterior fracture-dislocation of the humeral head. A case report with a fifteen-year follow-up after delayed open reduction and internal fixation. Kaar TK, et al. **J Bone Joint Surg Am** 1999 May;81(5):708-10

[Intrathoracic dislocation fracture of the head of the humerus] al-Kaar M, et al. **J Radiol** 1998 Jan;79(1):57-9 (6 ref.) (Eng. Abstr.) **(Fre)**

[Juvenile shoulder injury] Erlemann R, et al. **Radiologe** 1999 May;39(5):429-31 **(Ger)**

[Direct shoulder injury] Pointinger H, et al. **Radiologe** 1999 Jun;39(6):483-6 **(Ger)**

SURGERY

Operative treatment of displaced proximal humeral fractures: two-year results in 99 cases. Hessmann M, et al. **Acta Chir Belg** 1998 Oct;98(5):212-9

Intramedullary bone-cement fixation for proximal humeral fracture in elderly patients. A report of 5 cases. Matsuda M, et al. **Acta Orthop Scand** 1999 Jun;70(3):283-5

Poor function after shoulder replacement in fracture patients. A retrospective evaluation of 29 patients followed for 2-12 years. Movin T, et al. **Acta Orthop Scand** 1998 Aug; 69(4):392-6

Irreducible anterior shoulder dislocation with fracture of the greater tuberosity. Ilahi OA. **Am J Orthop** 1998 Aug; 27(8):576-8 (7 ref.)

Arthroscopic reduction and internal fixation of an anterior glenoid fracture. Cameron SE. **Arthroscopy** 1998 Oct; 14(7):743-6

Arthroscopic-assisted reduction and percutaneous external fixation of a displaced intra-articular glenoid fracture. Carro LP, et al. **Arthroscopy** 1999 Mar;15(2):211-4

Arthroscopic treatment of acute traumatic anterior glenohumeral dislocation and greater tuberosity fracture. Gartsman GM, et al. **Arthroscopy** 1999 Sep;15(6):648-50

Osteosynthesis with percutaneous wiring in fractures of the proximal humerus. Bungaro P, et al. **Chir Organi Mov** 1998 Oct-Dec;83(4):381-6 **(Eng, Ita)**

Primary replacement of the humeral head in iatrogenically displaced fracture-dislocations of the shoulder: a report about six cases. Demirhan M, et al. **Injury** 1998 Sep; 29(7):525-8

The treatment of displaced supracondylar fractures of the humerus in children. A comparison of three methods. Ababneh M, et al. **Int Orthop** 1998;22(4):263-5

Operative treatment of malunion of a fracture of the proximal aspect of the humerus [published erratum appears in J Bone Joint Surg Am 1999 Mar;81(3):439] Beredjiklian PK, et al. **J Bone Joint Surg Am** 1998 Oct;80(10):1484-97

Outcome after primary and secondary hemiarthroplasty in elderly patients with fractures of the proximal humerus. Bosch U, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct; 7(5):479-84

Semitubular blade plate fixation in proximal humeral fractures: a biomechanical study in a cadaveric model. Instrum K, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct; 7(5):462-6

Closed management and percutaneous fixation of unstable proximal humerus fractures. Chen CY, et al. **J Trauma** 1998 Dec;45(6):1039-45

Spiral bundle nailing for subcapital humeral fractures: preliminary report of the method of Henning. Habernek H, et al. **J Trauma** 1999 Mar;46(3):400-6

Locked nailing for displaced surgical neck fractures of the humerus. Lin J, et al. **J Trauma** 1998 Dec;45(6):1051-7

Brown-Sequard syndrome caused by a Kirschner wire as a complication of clavicular osteosynthesis. Loncán LI, et al. **Spinal Cord** 1998 Nov;36(11):797-9

[Fractures of the proximal end of the humerus treated by the Kapandji centro-medullary nailing technic. A review of 21 cases] Monin S, et al. **Acta Orthop Belg** 1999 Jun; 65(2):176-81 (Eng. Abstr.) **(Fre)**

[Prognostic factors during rehabilitation after shoulder prostheses for fracture] Boileau P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May; 85(2):106-16 (Eng. Abstr.) **(Fre)**

[Conservative treatment of fractures of the upper end of the humerus] Duparc F, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct;84 Suppl 1:121-89 **(Fre)**

[Isolated avulsion fracture of the lesser tuberosity of the humerus. Apropos of a case] Kanso I, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Oct; 84(6):554-7 (Eng. Abstr.) **(Fre)**

[Antegrade or retrograde intramedullary nailing in diaphyseal or sub-capital humeral fractures in the adult] Togninalli D, et al. **Swiss Surg** 1998;(4):193-7 (Eng. Abstr.) **(Fre)**

[Dislocated proximal humerus fracture--results after stabilization with a double plate] Wanner GA, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1211-2 (Eng. Abstr.) **(Ger)**

[Locked dorsal shoulder dislocation and contralateral ventral shoulder dislocation fracture. A rare combination] Gehr J, et al. **Unfallchirurg** 1999 May;102(5):393-7 (Eng. Abstr.) **(Ger)**

[Fractures of the proximal humerus (editorial)] Szyszkowitz R. **Unfallchirurg** 1999 Jun;102(6):421 **(Ger)**

[Fractures of the proximal humerus] Szyszkowitz R, et al. **Unfallchirurg** 1999 Jun;102(6):422-8 (23 ref.) (Eng. Abstr.) **(Ger)**

[Results of shoulder hemiarthroplasty in patients with acute and old fractures of the proximal humerus] Göbel F, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan-Feb;137(1):25-30 (Eng. Abstr.) **(Ger)**

[Retrograde intramedullary nailing in proximal fracture of the humerus in the elderly patient. Results of a minimally

invasive management concept] Hoffmann R, et al. **Zentralbl Chir** 1998;123(11):1232–8 (Eng. Abstr.) **(Ger)**

[Management of patients with pyogenic complications of long bones open fractures] Okhotskii VP, et al. **Khirurgiia (Mosk)** 1998;(10):51–3 (Eng. Abstr.) **(Rus)**

THERAPY

Non-operative treatment of comminuted fractures of the proximal humerus in elderly patients. Zyto K. **Injury** 1998 Jun;29(5):349–52

Treatment of displaced proximal humeral fractures in elderly patients [letter; comment] Karladani HA. **J Bone Joint Surg Br** 1999 Jan;81(1):181–2. Comment on: J Bone Joint Surg Br 1997 May;79(3):412–7.

VETERINARY

Complete biceps brachii tenotomy to facilitate internal fixation of supraglenoid tubercle fractures in three horses. Bleyaert HF, et al. **Vet Surg** 1999 Jan-Feb;28(1):48–53

SHOULDER-GIRDLE NEUROPATHY see **CERVICO-BRACHIAL NEURALGIA**

SHOULDER-HAND SYNDROME see **REFLEX SYMPATHETIC DYSTROPHY**

SHOULDER IMPINGEMENT SYNDROME

Current concepts review. Subacromial impingement syndrome (79-A: 1854–1868, Dec. 1997) [letter; comment] Cohen J. **J Bone Joint Surg Am** 1998 Dec;80(12):1851–2. Comment on: J Bone Joint Surg Am 1997 Dec;79(12):1854–68.

Current concepts review. Subacromial impingement syndrome (79-A: 1854–1868, Dec. 1997) [letter; comment] Nasca RJ, et al. **J Bone Joint Surg Am** 1998 Dec;80(12):1852–3. Comment on: J Bone Joint Surg Am 1997 Dec;79(12):1854–68.

Current concepts review. Subacromial impingement syndrome (79-A: 1854–1868, Dec. 1997) [letter; comment] Sarkisian GC. **J Bone Joint Surg Am** 1998 Dec;80(12):1851. Comment on: J Bone Joint Surg Am 1997 Dec;79(12):1854–68.

[Impingement syndrome of the subacromial area: analysis of 42 cases] Huang G, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jan;35(1):35–7 (Eng. Abstr.) **(Chi)**

DIAGNOSIS

Greater tuberosity changes as revealed by radiography: lack of clinical usefulness in patients with rotator cuff disease. Huang LF, et al. **AJR Am J Roentgenol** 1999 May;172(5):1381–8

Internal impingement of the shoulder: comparison of findings between the throwing and nonthrowing shoulders of college baseball players. Halbrecht JL, et al. **Arthroscopy** 1999 Apr;15(3):253–8

You're the flight surgeon. C-130 pilot with supraspinalus muscle tear. Kapp EZ. **Aviat Space Environ Med** 1998 Dec;69(12):1219–20

Rotator cuff tear arthropathy. Jensen KL, et al. **J Bone Joint Surg Am** 1999 Sep;81(9):1312–24 (101 ref.)

Introduction of a new physical examination procedure for the differentiation of acromioclavicular joint lesions and subacromial impingement. Buchberger DJ. **J Manipulative Physiol Ther** 1999 Jun;22(5):316–21 (20 ref.)

MR imaging of the thrower's shoulder. Internal impingement, latissimus dorsi/subscapularis strains, and related injuries. Schickendantz MS, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):39–49

Is the pain and dysfunction of shoulder impingement lesion really second rib syndrome in disguise? Two case reports. Boyle JJ. **Man Ther** 1999 Feb;4(1):44–8

Shoulder MRI after impingement test injection. Bergman AG, et al. **Skeletal Radiol** 1998 Jul;27(7):365–8

ETIOLOGY

Impingement syndrome following total shoulder arthroplasty and humeral hemiarthroplasty: treatment with arthroscopic acromioplasty. Freedman KB, et al. **Arthroscopy** 1998 Oct;14(7):665–70

Clavicular malunion with consequent impingement syndrome. Naert PA, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):548–50

Suprascapular neuropathy related to a glenohumeral joint cyst. McCluskey L, et al. **Muscle Nerve** 1999 Jun;22(6):772–7

Shoulder impingement syndrome in relation to shoulder intensive work. Frost P, et al. **Occup Environ Med** 1999 Jul;56(7):494–8

PATHOLOGY

Subcoracoid impingement after ossification of the subscapularis tendon. Peidro L, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):170–1

Structural changes of the rotator cuff caused by experimental subacromial impingement in the rat. Schneeberger AG, et al. **J Shoulder Elbow Surg** 1998 Jul-Aug;7(4):375–80

PHYSIOPATHOLOGY

The measurement of subacromial contact pressure in patients with impingement syndrome. Nordt WE 3rd, et al. **Arthroscopy** 1999 Mar;15(2):121–5

Mechanical environment associated with rotator cuff tears. Luo ZP, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):616–20

[An MR-based technique for determination of the subacromial space width in subjects with and without shoulder muscle activity] Graichen H, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan-Feb;137(1):2–6 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Multiplanar analysis of acromion morphology. MacGillivray JD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):836–40

Troubleshooting the supraspinatus outlet view. Duralde XA, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):314–9

RADIONUCLIDE IMAGING

Technetium-99m human immunoglobulin imaging in patients with subacromial impingement or adhesive capsulitis. Clunie GP, et al. **Clin Rheumatol** 1998;17(5):419–21

REHABILITATION

Self-training versus physiotherapist-supervised rehabilitation of the shoulder in patients treated with arthroscopic subacromial decompression: a clinical randomized study. Anderson NH, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):99–101

The subacromial impingement syndrome. A study of results of treatment with special emphasis on predictive factors and pain-generating mechanisms. Rahme H, et al. **Scand J Rehabil Med** 1998 Dec;30(4):253–62

[Interscalene plexus block for mobilizing chronic shoulder stiffness] Lierz P, et al. **Wien Klin Wochenschr** 1998 Nov 13;110(21):766–9 (Eng. Abstr.) **(Ger)**

SURGERY

Treatment of advanced impingement syndrome by arthroscopic subacromial decompression. Petré D, et al. **Acta Orthop Belg** 1998 Sep;64(3):257–62

Open versus arthroscopic decompression for subacromial impingement. A comprehensive review of the literature from the last 25 years. Checroun AJ, et al. **Bull Hosp Jt Dis** 1998;57(3):145–51 (41 ref.)

Long-term functional outcome of repair of large and massive chronic tears of the rotator cuff. Rokito AS, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):991–7

Open acromioplasty does not prevent the progression of an impingement syndrome to a tear [letter] Bernstein J. **J Bone Joint Surg Br** 1999 Jul;81(4):743

Self-training versus physiotherapist-supervised rehabilitation of the shoulder in patients treated with arthroscopic subacromial decompression: a clinical randomized study. Anderson NH, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):99–101

Arthroscopic surgery versus supervised exercises in patients with rotator cuff disease (stage II impingement syndrome): a prospective, randomized, controlled study in 125 patients with a 2 1/2-year follow-up. Brox JI, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):102–11

Rotator interval lesions and their relation to coracoid impingement syndrome. Dumontier C, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):130–5

Cost-benefit comparison: holmium laser versus electrocautery in arthroscopic acromioplasty. Murphy MA, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):275–8

Arthroscopic subacromial decompression: results and factors affecting outcome. Patel VR, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):231–7

Successful osteosynthesis of an unstable mesoacromion in 6 shoulders: a new technique. Satterlee CC. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):125–9

The subacromial impingement syndrome. A study of results of treatment with special emphasis on predictive factors and pain-generating mechanisms. Rahme H, et al. **Scand J Rehabil Med** 1998 Dec;30(4):253–62

[Results of anterior shoulder decompression surgery according to Neer for shoulder impingement syndrome; little effect on fitness for work] Diercks RL, et al. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1266–9 (Eng. Abstr.) **(Dut)**

THERAPY

Role of scapular stabilizers in etiology and treatment of impingement syndrome. Schmitt L, et al. **J Orthop Sports Phys Ther** 1999 Jan;29(1):31–8

SHOULDER JOINT

Anatomy and function of the bursa subacromialis. Birnbaum K, et al. **Acta Anat (Basel)** 1992;145(4):354–63

Shoulder instability in young athletes. Mahaffey BL, et al. **Am Fam Physician** 1999 May 15;59(10):2773–82, 2787 (24 ref.)

Examination under anesthesia for evaluation of anterior shoulder instability. Oliashirazi A, et al. **Am J Sports Med** 1999 Jul-Aug;27(4):464–8

Tikhoff-Linberg procedure for bone and soft tissue tumors of the shoulder girdle. Voggenreiter G, et al. **Arch Surg** 1999 Mar;134(3):252–7

Arthroscopic Bankart repair with extracapsular and extra-articular knot using the Mitek suture anchor. Cicak N, et al. **Arthroscopy** 1999 Sep;15(6):653–9

Arthroscopic Bankart repair: some aspects of suture and knot management. De Beer JF. **Arthroscopy** 1999 Sep;15(6):660–2

Glenohumeral osteoarthritis following a "color test" during rotator cuff repair. A case report and a review of the literature. Nakagawa Y, et al. **Bull Hosp Jt Dis** 1998;57(4):216–8 (12 ref.)

Interscapulo-thoracic resection for malignant tumors of the shoulder joint region. 1928 [classical article] Linberg BE. **Clin Orthop** 1999 Jan;(358):3–7

Long-term effectiveness of translational manipulation for adhesive capsulitis. Placzek JD, et al. **Clin Orthop** 1998 Nov;(356):181–91

The use of combined suprascapular and circumflex (articular branches) nerve blocks in the management of chronic arthritis of the shoulder joint. Lewis RN. **Eur J Anaesthesiol** 1999 Jan;16(1):37–41

Magnetic resonance imaging or arthrography for shoulder problems: a randomised study. Blanchard TK, et al. **Eur J Radiol** 1999 Apr;30(1):5–10

Osteonecrosis of the humeral head. Loebenberg MI, et al. **Instr Course Lect** 1999;48:349–57 (34 ref.)

Effectiveness of glenoid osteotomy in atraumatic posterior instability of the shoulder associated with excessive retroversion and flatness of the glenoid. Graichen H, et al. **Int Orthop** 1999;23(2):95–9

Symptomatic scapulothoracic crepitus and bursitis. Kuhn JE, et al. **J Am Acad Orthop Surg** 1998 Sep-Oct;6(5):267–73 (30 ref.)

The rotator cuff-deficient arthritic shoulder: diagnosis and surgical management. Zeman CA, et al. **J Am Acad Orthop Surg** 1998 Nov-Dec;6(6):337–48 (34 ref.)

Non-Hodgkin's lymphoma as an unexpected diagnosis in a shoulder arthroplasty. Arredondo J, et al. **J Arthroplasty** 1999 Jan;14(1):108–11

Geometric analysis of commonly used prosthetic systems for proximal humeral replacement. Pearl ML, et al. **J Bone Joint Surg Am** 1999 May;81(5):660–71

Isolation and characterization of polyethylene wear debris associated with osteolysis following total shoulder arthroplasty. Wirth MA, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):29–37

Anterior instability of the glenohumeral joint with humeral avulsion of the glenohumeral ligament. A review of 41 cases. Bokor DJ, et al. **J Bone Joint Surg Br** 1999 Jan;81(1):93–6

Cartilage injuries in the shoulder joint caused by migration of suture anchors or mini screw. Ekelund A. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):537–9

The anterior band of the inferior glenohumeral ligament: biomechanical properties from tensile testing in the position of apprehension. McMahon PJ, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):467–71

Surgical removal of pseudotumoral calcified bursitis of the shoulder in a patient with hemodialysis. Mestdagh H, et al. **J Shoulder Elbow Surg** 1998 Jul-Aug;7(4):437–9

Enormous glomus tumor of the shoulder. Roberts SN, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):365–6

A ganglion of the spinoglenoid notch. Steinwachs MR, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):550–4 (25 ref.)

Clinical application of the tonification method in orthopedics and traumatology. Ni L, et al. **J Tradit Chin Med** 1998 Jun;18(2):115–7

Alternative and effective treatment of shoulder ganglion cyst: ultrasonographically guided aspiration. Chiou HJ, et al. **J Ultrasound Med** 1999 Aug;18(8):531–5

Pigmented villonodular synovitis of the shoulder: review and case report. Müller LP, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(4):249–56 (39 ref.)

Imaging of the painful shoulder. King LJ, et al. **Man Ther** 1999 Feb;4(1):11–8 (45 ref.)

Intraosseous ganglion of the glenoid. Urayama M, et al. **Orthopedics** 1999 Jul;22(7):705–6

Suppurative arthritis complicating otitis media. Saslaw MM, et al. **Pediatr Infect Dis J** 1999 May;18(5):475–6

Comparative efficacy and safety of nimesulide and diclofenac in patients with acute shoulder, and a meta-analysis of controlled studies with nimesulide. Wober W. **Rheumatology (Oxford)** 1999 May;38 Suppl 1:33–8

Shoulder instability. Review of current trends in treatment. Norlin R, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):394–7 (14 ref.)

Atraumatic shoulder instability. Discussion of classification and results after capsular imbrication. Salomonsson B, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):398–404

Multidirectional hyperlaxity of the shoulder: results of treatment. Tillander B, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):421–5

Treatment of "frozen shoulder" with distension and glucorticoid compared with glucorticoid alone. A randomised controlled trial. Gam AN, et al. **Scand J Rheumatol** 1998;27(6):425–30

[Shoulder complaints in family practice; a simple approach (see comments)] Winters JC, et al. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1241–4 (16

ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Aug 8;142(32:1832. Comment in: Ned Tijdschr Geneeskd 1998 Aug 8;142(32:1832–3. **(Dut)**

[Role of arthroscopy in shoulder osteonecrosis] Baillon JM, et al. **Acta Orthop Belg** 1999;65 Suppl 1:104 **(Fre)**

[Arthroplasty with a mobile cup for shoulder arthrosis with irreparable rotator cuff rupture: preliminary results and cineradiographic study] Petroff E, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jun; 85(3):245–56 (Eng. Abstr.) **(Fre)**

[Shoulder arthritis in acute hepatitis A (letter)] Nizou C, et al. **Rev Med Interne** 1999 Apr;20(4):371–2 **(Fre)**

[Persistent arthralgias in Ross-River-Virus disease after travel to the South Pacific] Pröll S, et al. **Dtsch Med Wochenschr** 1999 Jun 18;124(24):759–62 (Eng. Abstr.) **(Ger)**

[The mechanical effects of shock waves in extracorporeal shock wave treatment of calcific tendinitis--an in vitro model] Perlick L, et al. **Z Orthop Ihre Grenzgeb** 1999 Jan-Feb;137(1):10–6 (27 ref.) (Eng. Abstr.) **(Ger)**

[Humero-scapular periarthritis--a diagnosis which does not need to be used] Čičak N. **Lijec Vjesn** 1999 Mar; 121(3):87–93 (Eng. Abstr.) **(Scr)**

[Septic arthritis caused by S. pneumoniae. Report of 2 cases with unusual location] Ruiz Martin JM, et al. **Rev Clin Esp** 1998 Sep;198(9):596–7 (13 ref.) (Eng. Abstr.) **(Spa)**

[Shoulder instability should be treated more actively. Good results with early stabilization and physical therapy] Norlin R. **Lakartidningen** 1998 Oct 7;95(41):4444–5 **(Swe)**

ABNORMALITIES

Congenital anomaly of the biceps tendon and anatomy within the shoulder joint. MacDonald PB. **Arthroscopy** 1998 Oct; 14(7):741–2

Deltoid contracture: a radiographic survey of bone and joint abnormalities. Ogawa K, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):22–5

ANATOMY & HISTOLOGY

Articular facets of the coracoclavicular joint in Koreans. Cho BP, et al. **Acta Anat (Basel)** 1998;163(1):56–62

Anterior labroligamentous structures of the glenohumeral joint: correlation of MR arthrography and anatomic dissection in cadavers. Yeh L, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1229–36

Multiplanar analysis of acromion morphology. MacGillivray JD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):836–40

Calibration of the "Flock of Birds" electromagnetic tracking device and its application in shoulder motion studies. Meskers CG, et al. **J Biomech** 1999 Jun;32(6):629–33

Anatomy and histological characteristics of the spinoglenoid ligament. Cummins CA, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1622–5

Variations in the retroversion of the humeral head. Edelson G. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):142–5

Glenoid bone architecture. Frich LH, et al. **J Shoulder Elbow Surg** 1998 Jul-Aug;7(4):356–61

Subacromial space width changes during abduction and rotation--a 3-D MR imaging study. Graichen H, et al. **Surg Radiol Anat** 1999;21(1):59–64

[Preferential direction of collagen fibrils in the sub-chondral bone bone and the hip and shoulder joint] Vogt S, et al. **Anat Anz** 1999 Mar;181(2):181–9 (Eng. Abstr.) **(Ger)**

[Histopathological findings in the proprioception of the shoulder joint] Gohlke F, et al. **Orthopade** 1998 Aug; 27(8):510–7 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Analysis of collagen and elastic fibers in shoulder capsule in patients with shoulder instability. Rodeo SA, et al. **Am J Sports Med** 1998 Sep-Oct;26(5):634–43

DRUG EFFECTS

Adhesive capsulitis of the shoulder induced by protease inhibitor therapy. Three new cases [letter; comment] Léone J, et al. **Rev Rhum Engl Ed** 1998 Dec;65(12):800–1. Comment on: Rev Rhum Engl Ed 1998 Jan;65(1):72–4.

INJURIES

Superior labral anteroposterior lesions: MR arthrography with arm traction. Chan KK, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1117–22

The glenolabral articular disruption lesion: MR arthrography with arthroscopic correlation. Sanders TG, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):171–5

The glenolabral articular disruption lesion: similarities to the glenoid osteochondral defect [letter] Yu JS. **AJR Am J Roentgenol** 1999 Sep;173(3):850–1

Scapular dislocation. Muñiz AE. **Am J Emerg Med** 1998 Nov; 16(7):690–1

Open surgical treatment of anterior glenohumeral instability: an historical perspective and review of the literature. Part I. Rokito AS, et al. **Am J Orthop** 1998 Nov;27(11):723–5 (0 ref.)

Glenohumeral joint kinematics and kinetics for three coordinate system representations during wheelchair propulsion. Cooper RA, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):435–46

Upper extremity weight-training modifications for the injured athlete. A clinical perspective [see comments] Fees M, et al. **Am J Sports Med** 1998 Sep-Oct;26(5):732–42. Comment in: Am J Sports Med 1999 May-Jun;27(3):391–3. Comment in: Am J Sports Med 1999 Jul-Aug;27(4):545–6.

Injury of the suprascapular nerve at the spinoglenoid notch. The natural history of infraspinatus atrophy in volleyball players. Ferretti A, et al. **Am J Sports Med** 1998 Nov-Dec; 26(6):759–63

Which is more useful, the "full can test" or the "empty can test," in detecting the torn supraspinatus tendon? Itoi E, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):65–8

Upper extremity weight-training modifications for the injured athlete: a clinical perspective [letter; comment] Keeves RK, et al. **Am J Sports Med** 1999 Jul-Aug; 27(4):545–6. Comment on: Am J Sports Med 1998 Sep-Oct;26(5):732–42.

The development and evaluation of a disease-specific quality of life measurement tool for shoulder instability. The Western Ontario Shoulder Instability Index (WOSI). Kirkley A, et al. **Am J Sports Med** 1998 Nov-Dec; 26(6):764–72

Posterior labral injury in contact athletes. Mair SD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):753–8

Magnetic resonance imaging appearance of teres major tendon injury in a baseball pitcher. Malcolm PN, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):98–100

Symptomatic thrower's exostosis. Arthroscopic evaluation and treatment [published erratum appears in Am J Sports Med 1999 May-Jun;27(3):379] Meister K, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):133–6

A new pain provocation test for superior labral tears of the shoulder. Mimori K, et al. **Am J Sports Med** 1999 Mar-Apr; 27(2):137–42

Biomechanical performance of Bankart repairs in a human cadaveric shoulder model. Mohammed KD, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):831–5

The active compression test: a new and effective test for diagnosing labral tears and acromioclavicular joint abnormality. O'Brien SJ, et al. **Am J Sports Med** 1998 Sep-Oct;26(5):610–3

Avulsion injury to the conjoined tendons of the latissimus dorsi and teres major muscles. Spinner RJ, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):847–9

Posterior capsular avulsion in a college football player. Weinberg J, et al. **Am J Sports Med** 1999 Mar-Apr; 27(2):235–7

Comparison of the Single Assessment Numeric Evaluation method and two shoulder rating scales. Outcomes measures after shoulder surgery. Williams GN, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):214–21

Bankart procedure augmented by coracoid transfer for contact athletes with traumatic anterior shoulder instability. Yoneda M, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):21–6

Four-part posterior fracture--dislocations of the shoulder. Treatment by limited open reduction and percutaneous stabilization. Altay T, et al. **Arch Orthop Trauma Surg** 1999; 119(1-2):35–8

Specificity of the Speed's test: arthroscopic technique for evaluating the biceps tendon at the level of the bicipital groove. Bennett WF. **Arthroscopy** 1998 Nov-Dec; 14(8):789–96

The peel-back mechanism: its role in producing and extending posterior type II SLAP lesions and its effect on SLAP repair rehabilitation. Burkhart SS, et al. **Arthroscopy** 1998 Sep;14(6):637–40

SLAP lesions: a retrospective multicenter study. Handelberg F, et al. **Arthroscopy** 1998 Nov-Dec;14(8):856–62

Modified Caspari technique for traumatic anterior shoulder instability: comparison of absorbable sutures versus absorbable plus nonabsorbable sutures. Kagaya K, et al. **Arthroscopy** 1999 May;15(4):400–7

Type II SLAP lesions: three subtypes and their relationships to superior instability and rotator cuff tears. Morgan CD, et al. **Arthroscopy** 1998 Sep;14(6):553–65

Paralabral cyst: an unusual cause of quadrilateral space syndrome. Sanders TG, et al. **Arthroscopy** 1999 Sep; 15(6):632–7

Dysbaric osteonecrosis of the shoulder in a sport scuba diver. Wilmshurst P, et al. **Br J Sports Med** 1998 Dec;32(4):344–5

Rupture of the triceps muscle at its attachments. Dev S, et al. **Injury** 1999 Jan;30(1):70–1

Combined subclavian artery and brachial plexus injury following blunt trauma to the shoulder. Karkos CD, et al. **Injury** 1998 Jun;29(5):395–6

Shoulder joint luxation in large animals: 14 cases (1976–1997). Semevolos SA, et al. **J Am Vet Med Assoc** 1998 Dec 1; 213(11):1608–11

Aunt Minnie's Corner. Superior labral tear with associated paralabral cyst in the spinoglenoid notch, and infraspinatus denervation myositis. Sheets J, et al. **J Comput Assist Tomogr** 1999 Jan-Feb;23(1):167

Resistance properties of Thera-Band tubing during shoulder abduction exercise. Hughes CJ, et al. **J Orthop Sports Phys Ther** 1999 Jul;29(7):413–20

Translation of the glenohumeral joint in patients with anterior instability: awake examination versus examination with the patient under anesthesia. Faber KJ, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):320–3

Evolution of lesions of the labrum-ligament complex in posttraumatic anterior shoulder instability: a prospective study. Habermeyer P, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):66–74

Early results of Bankart repair with a patient-controlled rehabilitation program. McDermott DM, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):146–50

Modification of the Bankart reconstruction using a suture anchor. Traina SM, et al. **J South Orthop Assoc** 1998 Fall; 7(3):180–6

Recurrent post-traumatic anterior shoulder dislocation--open versus arthroscopic repair. Jørgensen U, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(2):118–24

Post-traumatic shoulder 'dystonia': persistent abnormal postures of the shoulder after minor trauma. Thyagarajan D, et al. **Neurology** 1998 Oct;51(4):1205–7

Arthroscintigraphy in suspected rotator cuff rupture. Gratz S, et al. **Nuklearmedizin** 1998;37(8):272–8

A guest editorial from abroad: meditations on a nightmare of modern midwifery: shoulder dystocia [editorial] Pecorari D. **Obstet Gynecol Surv** 1999 Jun;54(6):353–4

Humeral fracture following shoulder arthroplasty. Kligman M, et al. **Orthopedics** 1999 May;22(5):511–3

Arthroscopic shoulder stabilization using transglenoid sutures. Ekelund A, et al. **Scand J Med Sci Sports** 1998 Dec;8(6):416–20

[Bipolar luxation of the clavicle. A case report] Caranfil R. **Acta Orthop Belg** 1999 Mar;65(1):102–4 (Eng. Abstr.) **(Fre)**

[Ultrasonographic diagnosis of an epiphyseal detachment of the upper end of the humerus due to birth injury] Schmit P, et al. **J Radiol** 1999 May;80(5):466–8 (Eng. Abstr.) **(Fre)**

[Arthroscopic extra-articular Bankart procedure] Golser K, et al. **Orthopade** 1998 Aug;27(8):532–41 (Eng. Abstr.) **(Ger)**

[Posterior shoulder joint instability. Classification, pathomechanism,diagnosis, conservative and surgical management] Seebauer L, et al. **Orthopade** 1998 Aug; 27(8):542–55 (Eng. Abstr.) **(Ger)**

[Initial data on shoulder pathology in workers exposed to the risk of lifting patients in different rest homes in Trento Province] Uber D, et al. **Med Lav** 1999 Mar-Apr; 90(2):342–50 (Eng. Abstr.) **(Ita)**

[Subacromial pain syndromes as a possible results of errors in the initial diagnosis and therapy of the shoulder joint] Hadžiahmetović Z. **Med Arh** 1999;53(2):93–5 (Eng. Abstr.) **(Scr)**

INNERVATION

Neural response of mechanoreceptors to acute inflammation in the rotator cuff of the shoulder joint in rabbits. Yamashita T, et al. **Acta Orthop Scand** 1999 Apr;70(2):137–40

A morphometric analysis of protein gene product 9.5-, substance P-, and calcitonin gene-related peptide immunoreactive innervation in the shoulder joint of the Japanese macaque. Tarumoto R, et al. **J Shoulder Elbow Surg** 1998 Sep-Oct;7(5):522–8

Arthroscopic relationship of the axillary nerve to the shoulder joint capsule: an anatomic study. Uno A, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):226–30

Periarticular neural elements in the shoulder joint. Guanche CA, et al. **Orthopedics** 1999 Jun;22(6):615–7

METABOLISM

Increased interleukin-1beta production in the synovium of glenohumeral joints with anterior instability. Gotoh M, et al. **J Orthop Res** 1999 May;17(3):392–7

PATHOLOGY

An unusual localization and presentation of Kaposi's sarcoma. Hallet Y, et al. **Acta Orthop Belg** 1999 Mar;65(1):109–12

Frozen shoulder--an algoneurodystrophic process? Müller LP, et al. **Acta Orthop Belg** 1998 Dec;64(4):434–40

Primary glenohumeral osteoarthritis: clinical and radiographic classification. The Aequalis Group. Walch G, et al. **Acta Orthop Belg** 1998;64 Suppl 2:46–52

Clinical impact of MR arthrography of the shoulder. Zanetti M, et al. **Acta Radiol** 1999 May;40(3):296–302

Imaging findings in the dominant shoulder of throwing athletes: comparison of radiography, arthrography, CT arthrography, and MR arthrography with arthroscopic correlation. Roger B, et al. **AJR Am J Roentgenol** 1999 May;172(5):1371–80

The glenolabral articular disruption lesion: MR arthrography with arthroscopic correlation. Sanders TG, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):171–5

MR imaging-guided MR arthrography of the shoulder: clinical experience on a conventional closed high-field system. Trattnig S, et al. **AJR Am J Roentgenol** 1999 Jun; 172(6):1572–4

Adhesive capsulitis: a sticky issue. Siegel LB, et al. **Am Fam Physician** 1999 Apr 1;59(7):1843–52 (21 ref.)

Noncontrast magnetic resonance imaging of superior labral lesions. 102 cases confirmed at arthroscopic surgery. Connell DA, et al. **Am J Sports Med** 1999 Mar-Apr; 27(2):208–13

Histologic evaluation of the glenohumeral joint capsule after the laser-assisted capsular shift procedure for glenohumeral instability. Hayashi K, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):162–7

Diagnostic classification of shoulder disorders: interobserver agreement and determinants of disagreement. de Winter AF, et al. **Ann Rheum Dis** 1999 May;58(5):272–7

Evaluation of humeral head erosions in rheumatoid arthritis:

a comparison of ultrasonography, magnetic resonance imaging, computed tomography and plain radiography. Alasaarela E, et al. **Br J Rheumatol** 1998 Nov;37(11):1152–6

Destructive arthritis of the shoulder triggered by trauma in a patient with polymyositis [letter] Tani Y, et al. **Clin Exp Rheumatol** 1999 Jul–Aug;17(4):514

Shoulder MRI after surgical treatment of instability. Vahlensieck M, et al. **Eur J Radiol** 1999 Apr;30(1):2–4

Real-time MR-guided joint puncture and arthrography: preliminary results. Hilfiker PR, et al. **Eur Radiol** 1999; 9(2):201–4

Gorham disease: correlation of MR findings with histopathologic changes. Manisali M, et al. **Eur Radiol** 1998; 8(9):1647–50

Indirect MR arthrography of the unexercised glenohumeral joint in patients with rotator cuff tears. Allmann KH, et al. **Invest Radiol** 1999 Jun;34(6):435–40

Lesions of the reflection pulley of the long biceps tendon. MR arthrographic findings. Weishaupt D, et al. **Invest Radiol** 1999 Jul;34(7):463–9

The acromioclavicular joint cyst: glenohumeral joint communication revealed by MR arthrography. Cvitanic O, et al. **J Comput Assist Tomogr** 1999 Jan–Feb;23(1):141–3

Aunt Minnie's Corner. Superior labral tear with associated paralabral cyst in the spinoglenoid notch, and infraspinatus denervation myositis. Sheets J, et al. **J Comput Assist Tomogr** 1999 Jan–Feb;23(1):167

Incidence of acromioclavicular joint involvement in rheumatoid arthritis: a 15 year endpoint study. Lehtinen JT, et al. **J Rheumatol** 1999 Jun;26(6):1239–41

Spontaneous detachment of the deltoid muscle origin. Blazar PE, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):389–92

Calcific tendinitis of the trapezius insertion. Nofsinger CC, et al. **J Shoulder Elbow Surg** 1999 Mar–Apr;8(2):162–4

Massive osteolysis of the shoulder (Gorham–Stout syndrome). Pans S, et al. **J Shoulder Elbow Surg** 1999 May–Jun;8(3):281–3

Structural changes of the rotator cuff caused by experimental subacromial impingement in the rat. Schneeberger AG, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):375–80

Comparison of magnetic resonance imaging and arthroscopy in the evaluation of shoulder pathology. Torstensen ET, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):42–5

Surgical management of heterotopic ossification of the shoulder. Warner JJ, et al. **J Shoulder Elbow Surg** 1999 Mar–Apr;8(2):175–8

Arthrodesis of the shoulder for synovial osteochondromatosis. Edinger DT, et al. **J Small Anim Pract** 1998 Aug;39(8):397–400

Magnetic resonance arthrography (MRA) in the postoperative shoulder. Rand T, et al. **Magn Reson Imaging** 1999 Jul;17(6):843–50

A commonsense approach to shoulder problems. Steinfeld R, et al. **Mayo Clin Proc** 1999 Aug;74(8):785–94 (15 ref.)

Neuropathic shoulder arthropathy associated with syringomyelia [letter; comment] Swift TR, et al. **Neurology** 1999 Jan 1;52(1):220. Comment on: Neurology 1998 Mar;50(3):825–7.

Magnetic resonance imaging findings in idiopathic adhesive capsulitis of the shoulder. Carrillon Y, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):201–6

Shoulder joint impairment among Finns aged 30 years or over: prevalence, risk factors and co-morbidity. Mäkelä M, et al. **Rheumatology (Oxford)** 1999 Jul;38(7):656–62

Glenohumeral instability: evaluation using MR arthrography of the shoulder. Shankman S, et al. **Skeletal Radiol** 1999 Jul;28(7):365–82 (35 ref.)

Indirect MR arthrography of anterior shoulder instability in the ABER and the apprehension test positions: a prospective comparative study of two different shoulder positions during MRI using intravenous gadodiamide contrast for enhancement of the joint fluid. Wintzell G, et al. **Skeletal Radiol** 1998 Sep;27(9):488–94

[Useful imaging data before intervention for an unstable shoulder] Dumontier C, et al. **Ann Radiol (Paris)** 1997; 40(3):153–65 (47 ref.) (Eng. Abstr.) **(Fre)**

[Lesions of the glenoid labrum] Setbon S, et al. **Ann Radiol (Paris)** 1997;40(3):166–75 (24 ref.) (Eng. Abstr.) **(Fre)**

[Suspicious pulmonary opacity and shoulder pain] Taille C, et al. **Rev Mal Respir** 1999 Jun;16(3):400–1 **(Fre)**

[Role of magnetic resonance in hemodialysis patients with amyloid shoulder arthropathy] Della Sala SW, et al. **Radiol Med (Torino)** 1998 Oct;96(4):300–9 (Eng. Abstr.) **(Ita)**

[Double oblique MR images of the shoulder: comparison with conventional images] Sasaki T, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Jul; 58(8):426–32 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Intra- and interobserver reproducibility of the shoulder laxity examination. Levy AS, et al. **Am J Sports Med** 1999 Jul–Aug;27(4):460–3

Thoracic position effect on shoulder range of motion, strength, and three-dimensional scapular kinematics. Kebaetse M, et al. **Arch Phys Med Rehabil** 1999 Aug; 80(8):945–50

Glenohumeral motion after complete capsular release. Moskal MJ, et al. **Arthroscopy** 1999 May;15(4):408–16

Glenohumeral joint: internal and external rotation range of motion in javelin throwers. Herrington L. **Br J Sports Med** 1998 Sep;32(3):226–8

The effects of concentric versus eccentric isokinetic strength training of the rotator cuff in the plane of the scapula at various speeds. Bast SC, et al. **Bull Hosp Jt Dis** 1998; 57(3):139–44

Dynamic stability of glenohumeral joint during scapular plane elevation. Xue Q, et al. **Chin Med J (Engl)** 1998 May; 111(5):447–9

Effect of speed and precision demands on human shoulder muscle electromyography during a repetitive task. Laursen B, et al. **Eur J Appl Physiol** 1998 Nov;78(6):544–8

A static dynamometer measuring simultaneous torques exerted at the upper limb. Boissy P, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):309–15

Glenoid cancellous bone strength and modulus. Anglin C, et al. **J Biomech** 1999 Oct;32(10):1091–7

Mechanical energetic processes during the giant swing exercise before dismounts and flight elements on the high bar and the uneven parallel bars. Arampatzis A, et al. **J Biomech** 1999 Aug;32(8):811–20

On the kinematic modelling and the parameter estimation of the human shoulder. Bao H, et al. **J Biomech** 1999 Sep; 32(9):943–50

Active responses decrease impact forces at the hip and shoulder in falls to the side. Sabick MB, et al. **J Biomech** 1999 Sep;32(9):993–8

Three-dimensional modelling of the motion range of axial rotation of the upper arm. Wang X, et al. **J Biomech** 1998 Oct;31(10):899–908

An analytical approach to determine the in situ forces in the glenohumeral ligaments. Debski RE, et al. **J Biomech Eng** 1999 Jun;121(3):311–5

Rotational action of the supraspinatus muscle on the shoulder joint. Ihashi K, et al. **J Electromyogr Kinesiol** 1998 Oct; 8(5):337–46

Intratester and intertester reliability of goniometric measurement of passive lateral shoulder rotation. MacDermid JC, et al. **J Hand Ther** 1999 Jul–Sep; 12(3):187–92

Multijoint muscle regulation mechanisms examined by measured human arm stiffness and EMG signals. Osu R, et al. **J Neurophysiol** 1999 Apr;81(4):1458–68

An unlearned principle for controlling natural movements. Zaal FT, et al. **J Neurophysiol** 1999 Jul;82(1):255–9

Task-dependent viscoelasticity of human multijoint arm and its spatial characteristics for interaction with environments. Gomi H, et al. **J Neurosci** 1998 Nov 1;18(21):8965–78

Testing isokinetic muscular fatigue of shoulder internal and external rotation in elite junior tennis players. Ellenbecker TS, et al. **J Orthop Sports Phys Ther** 1999 May;29(5):275–81

Reliability and validity of a new method of measuring posterior shoulder tightness. Tyler TF, et al. **J Orthop Sports Phys Ther** 1999 May;29(5):262–9; discussion 270–4

Functional assessment of the shoulder following latissimus dorsi muscle donation in the handicapped. Hui KC, et al. **J Reconstr Microsurg** 1999 Feb;15(2):101–3

The mechanism of creation of superior labrum, anterior, and posterior lesions in a dynamic biomechanical model of the shoulder: the role of inferior subluxation. Bey MJ, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):397–401

Effect of humeral head component size on hemiarthroplasty translations and rotations. Blevins FT, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):591–8

Radiographic evaluation of glenohumeral kinematics: a muscle fatigue model. Chen SK, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):49–52

Contribution of the passive properties of the rotator cuff to glenohumeral stability during anterior–posterior loading. Debski RE, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug; 8(4):324–9

Electromyographic study during isometric exercise of the shoulder in head–out water immersion. Fujisawa H, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct;7(5):491–4

Articular contact patterns of the normal glenohumeral joint. Warner JJ, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug; 7(4):381–8

Effect of joint compression on inferior stability of the glenohumeral joint. Warner JJ, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):31–6

Normal shoulder proprioception and the effect of lidocaine injection. Zuckerman JD, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):11–6

The static rotator cuff does not affect inferior translation of the humerus at the glenohumeral joint. Itoi E, et al. **J Trauma** 1999 Jul;47(1):55–9

Isokinetic profile of baseball pitchers' internal/external rotation 180, 300, 450 degrees.s-1. Newsham KR, et al. **Med Sci Sports Exerc** 1998 Oct;30(10):1489–95

Localized muscle fatigue decreases the acuity of the movement sense in the human shoulder. Pedersen J, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):1047–52

The effect of loads carried on the shoulders. Vacheron JJ, et al. **Mil Med** 1999 Aug;164(8):597–9

Non-noxious stimulation of the glenohumeral joint capsule elicits strong inhibition of active shoulder muscles in conscious human subjects. Voigt M, et al. **Neurosci Lett** 1998 Sep 25;254(2):105–8

Electromyography of the shoulder: an analysis of passive modes of exercise. Dockery ML, et al. **Orthopedics** 1998 Nov;21(11):1181–4

Dependence of deltoid muscle activity upon initial angles of shoulder abduction prior to flexion. Kawanishi M, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):879–91

Glenohumeral relationships during physiologic shoulder motion and stress testing: initial experience with open MR imaging and active imaging-plane registration. Beaulieu CF, et al. **Radiology** 1999 Sep;212(3):699–705

Concentric and eccentric shoulder and elbow muscle strength in female volleyball players and non-active females. Alfredson H, et al. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 1):265–70

PHYSIOPATHOLOGY

Glenohumeral joint kinematics and kinetics for three coordinate system representations during wheelchair propulsion. Cooper RA, et al. **Am J Phys Med Rehabil** 1999 Sep–Oct;78(5):435–46

Case report. Recovery of shoulder movement in patients with complete axillary nerve palsy. Palmer SH, et al. **Ann R Coll Surg Engl** 1998 Nov;80(6):413–5

Resistance to passive shoulder external rotation in persons with hemiplegia: evaluation of an assessment system. Mngoma NF, et al. **Arch Phys Med Rehabil** 1999 May; 80(5):531–5

Guidance-based quantification of arm impairment following brain injury: a pilot study. Reinkensmeyer DJ, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):1–11

A study of shoulder motions as a control source for adolescents with C4 level SCI. Sarver JJ, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):27–34

Total shoulder arthroplasty biomechanics: a study of the forces and strains at the glenoid component. Karduna AR, et al. **J Biomech Eng** 1998 Feb;120(1):92–9

Increased substance P in subacromial bursa and shoulder pain in rotator cuff diseases. Gotoh M, et al. **J Orthop Res** 1998 Sep;16(5):618–21

Long-term results of multiple muscle transfer to reconstruct shoulder function in patients with birth palsy: eleven-year follow-up. Suenaga N, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):669–71

Shoulder reaction time and muscle-firing patterns in response to an anterior translation force. Latimer HA, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):610–5

Mechanical environment associated with rotator cuff tears. Luo ZP, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec; 7(6):616–20

Normal kinematics of the unconstrained glenohumeral joint under coupled moment loads. Novotny JE, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):629–39

Shoulder function after extracorporal shock wave therapy for calcific tendinitis. Rompe JD, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct;7(5):505–9

A commonsense approach to shoulder problems. Steinfeld R, et al. **Mayo Clin Proc** 1999 Aug;74(8):785–94 (15 ref.)

Long-term functional results after manipulation of the frozen shoulder. Reichmister JP, et al. **Md Med J** 1999 Jan–Feb; 48(1):7–11

Coracoclavicular involvement--an atypical manifestation in rheumatoid arthritis. Lehtinen JT, et al. **Scand J Rheumatol** 1999;28(4):252–3

[Arthroscopic shoulder stabilization. Differentiated treatment strategy with Suretac, Fastak, Holmium: YAG-laser and electrosurgery] Imhoff AB, et al. **Orthopade** 1998 Aug; 27(8):518–31 (114 ref.) (Eng. Abstr.) **(Ger)**

[Instability of the shoulder region (editorial)] Löhr JF, et al. **Orthopade** 1998 Aug;27(8):509 **(Ger)**

[Radiation therapy in humero-scapular peri-arthropathy. Indication, method, results obtained by authors, review of the literature] Heyd R, et al. **Rontgenpraxis** 1998; 51(11):403–12 (105 ref.) **(Ger)**

RADIATION EFFECTS

[Radiotherapy of humero-scapular periarthritis using ultra-hard photons. Evaluation by MRI findings] Zwicker C, et al. **Radiologe** 1998 Sep;38(9):774–8 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

Imaging findings in the dominant shoulder of throwing athletes: comparison of radiography, arthrography, CT arthrography, and MR arthrography with arthroscopic correlation. Roger B, et al. **AJR Am J Roentgenol** 1999 May;172(5):1371–80

Desmoid fibromatosis of the shoulder and of the upper chest wall following a clavicular fracture. Icard P, et al. **Eur J Cardiothorac Surg** 1999 May;15(5):723–5

The anterior tilt of the acromion: radiographic evaluation and correlation with shoulder diseases. Prato N, et al. **Eur Radiol** 1998;8(9):1639–46

Radiographic evaluation of glenohumeral kinematics: a muscle fatigue model. Chen SK, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):49–52

Deltoid contracture: a radiographic survey of bone and joint abnormalities. Ogawa K, et al. **J Shoulder Elbow Surg** 1999 Jan–Feb;8(1):22–5

Adhesive capsulitis of the shoulder: therapeutic contribution of subacromial bursography. Andrieu V, et al. **Rev Rhum Engl Ed** 1998 Dec;65(12):771–7

Gorham–Stout disease (phantom bone) of the shoulder girdle [letter] Hofbauer LC, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):904–5

[What is it? Pseudotumoral calcinosis] Diniz RL, et al.

J Radiol 1999 Jun;80(6):597-9 **(Fre)**

RADIONUCLIDE IMAGING

Technetium-99m human immunoglobulin imaging in patients with subacromial impingement or adhesive capsulitis. Clunie GP, et al. **Clin Rheumatol** 1998;17(5):419-21

Arthroscintigraphy in suspected rotator cuff rupture. Gratz S, et al. **Nuklearmedizin** 1998;37(8):272-8

SURGERY

Continuous interscalene brachial plexus block for postoperative analgesia following shoulder surgery. Lehtipalo S, et al. **Acta Anaesthesiol Scand** 1999 Mar; 43(3):258-64

Negative-pressure pulmonary edema: a complication of shoulder arthroscopy. Langan P, et al. **Am J Orthop** 1999 Jan;28(1):56-8

Open surgical treatment of anterior glenohumeral instability: an historical perspective and review of the literature. Part II. Rokito AS, et al. **Am J Orthop** 1998 Dec;27(12):784-90 (60 ref.)

The effects of laser-induced collagen shortening on the biomechanical properties of the inferior glenohumeral ligament complex. Selecky MT, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):168-72

Comparison of the Single Assessment Numeric Evaluation method and two shoulder rating scales. Outcomes measures after shoulder surgery. Williams GN, et al. **Am J Sports Med** 1999 Mar-Apr;27(2):214-21

Bankart procedure augmented by coracoid transfer for contact athletes with traumatic anterior shoulder instability. Yoneda M, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):21-6

Interscalene regional anesthesia in the prevention of autonomic hyperreflexia in a quadriplegic patient undergoing shoulder surgery. Habibi A, et al. **Anesth Analg** 1999 Jan;88(1):98-9

The use of metoprolol and glycopyrrolate to prevent hypotensive/bradycardic events during shoulder arthroscopy in the sitting position under interscalene block. Liguori GA, et al. **Anesth Analg** 1998 Dec;87(6):1320-5

Postoperative ossifications of the shoulder. Incidence and clinical impact. Erggelet C, et al. **Arch Orthop Trauma Surg** 1999;119(3-4):168-70

Arthroscopic release of the glenohumeral joint in shoulder stiffness: a review of 26 cases. French Society for Arthroscopy. Beaufils P, et al. **Arthroscopy** 1999 Jan-Feb; 15(1):49-55

Complications in arthroscopic shoulder surgery. Berjano P, et al. **Arthroscopy** 1998 Nov-Dec;14(8):785-8

Impingement syndrome following total shoulder arthroplasty and humeral hemiarthroplasty: treatment with arthroscopic acromioplasty. Freedman KB, et al. **Arthroscopy** 1998 Oct; 14(7):665-70

Arthroscopic rotator interval repair in glenohumeral instability: description of an operative technique. Gartsman GM, et al. **Arthroscopy** 1999 Apr;15(3):330-2

A novel surgical procedure for osteonecrosis of the humeral head: reposition of the joint surface and bone engraftment. Nakagawa Y, et al. **Arthroscopy** 1999 May;15(4):433-8

An arthroscopic technique for treating patients with frozen shoulder. Pearsall AW 4th, et al. **Arthroscopy** 1999 Jan-Feb;15(1):2-11

Patient-controlled interscalene analgesia with ropivacaine after major shoulder surgery: PCIA vs PCA. Borgeat A, et al. **Br J Anaesth** 1998 Oct;81(4):603-5

Reconstruction of the shoulder joint using an acetabular allograft. A report of two cases [published erratum appears in Clin Orthop 1999 Jul;(364):283] Lee FY, et al. **Clin Orthop** 1998 Dec;(357):116-21

Shoulder fusion combined with an elbow stabilizing orthosis [letter; comment] Sol AA, et al. **Clin Orthop** 1999 Jul; (364):281-3. Comment on: Clin Orthop 1997 Jul;(340):95-101.

Shoulder reconstruction in patients with chronic brachial plexus birth palsy. A case control study. Waters PM, et al. **Clin Orthop** 1999 Jul;(364):144-52

Shoulder joint replacement for osteoarthrosis in association with thalidomide-induced phocomelia. Newman RJ. **Clin Rehabil** 1999 Jun;13(3):250-2

Shoulder MRI after surgical treatment of instability. Vahlensieck M, et al. **Eur J Radiol** 1999 Apr;30(1):2-4

Complications of shoulder surgery. Gill TJ, et al. **Instr Course Lect** 1999;48:359-74 (81 ref.)

Use of the suture anchor in modified open Bankart reconstruction. Martínez Martín AA, et al. **Int Orthop** 1998; 22(5):312-5

Closed reduction and tendon transfer for treatment of dislocation of the glenohumeral joint secondary to brachial plexus birth palsy [letter; comment] Cullu E. **J Bone Joint Surg Am** 1999 Aug;81(8):1198. Comment on: J Bone Joint Surg Am 1998 Jul;80(7):997-1001.

Complications and functional outcomes of reconstruction with an osteoarticular allograft after intra-articular resection of the proximal aspect of the humerus. Getty PJ, et al. **J Bone Joint Surg Am** 1999 Aug;81(8):1138-46

Ipsilateral total shoulder and elbow arthroplasties in patients who have rheumatoid arthritis. Gill DR, et al. **J Bone Joint Surg Am** 1999 Aug;81(8):1128-37

"Revision Total Shoulder Arthroplasty for the Treatment of Glenoid Arthrosis" by Sperling and Cofield (80-A: 860-867, June 1998) [letter; comment] Gutow AP. **J Bone Joint Surg Am** 1999 Apr;81(4):592. Comment on: J Bone Joint Surg Am 1998 Jun;80(6):860-7.

Neer hemiarthroplasty and Neer total shoulder arthroplasty in patients fifty years old or less. Long-term results [letter; comment] Neer CS 2nd. **J Bone Joint Surg Am** 1999 Feb; 81(2):295-6. Comment on: J Bone Joint Surg Am 1998 Apr;80(4):464-73.

Geographic variations in the rates of operative procedures involving the shoulder, including total shoulder replacement, humeral head replacement, and rotator cuff repair. Vitale MG, et al. **J Bone Joint Surg Am** 1999 Jun; 81(6):763-72

Resurfacing of the glenoid in total shoulder arthroplasty. A comparison, at a mean of five years, of prostheses inserted with and without cement. Wallace AL, et al. **J Bone Joint Surg Am** 1999 Apr;81(4):510-8

Capsulorrhaphy through an anterior approach for the treatment of atraumatic posterior glenohumeral instability with multidirectional laxity of the shoulder. Wirth MA, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1570-8

The inferior capsular shift operation for instability of the shoulder. Long-term results in 34 shoulders. Hamada K, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):218-25

Total shoulder arthroplasty -- current problems and possible solutions. Skirving AP. **J Orthop Sci** 1999;4(1):42-53 (33 ref.)

Evaluation of surgeries for rheumatoid shoulder based on the destruction pattern. Wakitani S, et al. **J Rheumatol** 1999 Jan;26(1):41-6

Effect of humeral head component size on hemiarthroplasty translations and rotations. Blevins FT, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):591-8

A simple suture shuttle in rotator cuff repairs: a technical note. Cyprien JM, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):159-61

Rotational dissociation of glenoid components in a total shoulder prosthesis: an indication that sagittal torque forces may be important in glenoid component design. Feldman AY, et al. **J Shoulder Elbow Surg** 1999 May-Jun; 8(3):279-80

Surgical treatment of full-thickness rotator cuff tears in patients 40 years of age or younger. Hawkins RJ, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):259-65

Neurologic complications of surgery for anterior shoulder instability. Ho E, et al. **J Shoulder Elbow Surg** 1999 May-Jun;8(3):266-70

Shoulder arthroplasty in recreational golfers. Jensen KL, et al. **J Shoulder Elbow Surg** 1998 Jul-Aug;7(4):362-7

Aseptic loosening of the humeral component in total shoulder arthroplasty. Klimkiewicz JJ, et al. **J Shoulder Elbow Surg** 1998 Jul-Aug;7(4):422-6

Posteroinferior glenoplasty can change glenoid shape and increase the mechanical stability of the shoulder. Metcalf MH, et al. **J Shoulder Elbow Surg** 1999 May-Jun; 8(3):205-13

Aberrant muscle anterior to the shoulder joint: its clinical relevance. Ogawa K, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):46-8

Stress analyses of glenoid components in total shoulder arthroplasty. Stone KD, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):151-8

Recurrences after the open Bankart repair: a potential risk with use of suture anchors. Tamai K, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):37-41

Arthroscopic treatment of multidirectional instability. Treacy SH, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):345-50

Dissociation of the glenoid component in cementless total shoulder arthroplasty. Wallace AL, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb;8(1):81-4

The teres major muscle: an anatomic study of its use as a tendon transfer. Wang AA, et al. **J Shoulder Elbow Surg** 1999 Jul-Aug;8(4):334-8

Revision shoulder stabilization: 2- to 10-year results. Zabinski SJ, et al. **J Shoulder Elbow Surg** 1999 Jan-Feb; 8(1):58-65

Periprosthetic fractures of the humerus and scapula: management and prevention. Cameron B, et al. **Orthop Clin North Am** 1999 Apr;30(2):305-18 (28 ref.)

Treatment of symptomatic glenoid loosening following unconstrained shoulder arthroplasty. Hawkins RJ, et al. **Orthopedics** 1999 Feb;22(2):229-34

Analgesic effect of interscalene block using low-dose bupivacaine for outpatient arthroscopic shoulder surgery. Al-Kaisy A, et al. **Reg Anesth Pain Med** 1998 Sep-Oct; 23(5):469-73

The safety and efficacy of intrabursal oxycodone and bupivacaine in analgesia after shoulder surgery. Muittari P, et al. **Reg Anesth Pain Med** 1998 Sep-Oct;23(5):474-8

[Application of artificial humeral head in the treatment of tumor of upper end of humerus] Zhang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):139-41 (Eng. Abstr.) **(Chi)**

[Prosthesis of the upper extremity] Rozing PM. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1256-61 (12 ref.) (Eng. Abstr.) **(Dut)**

[Clinical and radiologic outcome of humeral implants in shoulder arthroplasty] Maynou C, et al. **Acta Orthop Belg** 1999 Mar;65(1):57-64 (Eng. Abstr.) **(Fre)**

[How I effected a brachial plexus block for shoulder arthroscopy] Dupré LJ. **Ann Fr Anesth Reanim** 1999 Apr; 18(4):fi57-9 **(Fre)**

[Pigmented villonodular synovitis of the shoulder joint] Müller LP, et al. **Zentralbl Chir** 1998;123(11):1288-91 (Eng. Abstr.) **(Ger)**

[The endoprosthesis problem of the shoulder joint] Neverov VA, et al. **Vestn Khir Im I I Grek** 1999;158(1):54-6 (Eng. Abstr.) **(Rus)**

[Possible air embolism during shoulder arthroplasty (letter)] Bisbe E, et al. **Rev Esp Anestesiol Reanim** 1999 Jun-Jul; 46(6):273 **(Spa)**

[New knowledge of the mysterious "frozen shoulder". Surgical treatment can accelerate the recovery in more serious cases] Ekelund A. **Lakartidningen** 1998 Nov 25; 95(48):5472-4, 5477 (20 ref.) (Eng. Abstr.) **(Swe)**

[National registries for shoulder and elbow arthroplasties are established] Rahme H, et al. **Lakartidningen** 1999 Jul 28; 96(30-31):3338 **(Swe)**

ULTRASONOGRAPHY

The value of ultrasonography in the diagnosis of labral lesions in patients with anterior shoulder dislocation. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):107-13

Post-mortem ultrasonographic assessment of the anterior glenoid labrum. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):129-33

Ultrasonographic examination of the glenoid labrum of healthy volunteers. Schydlowsky P, et al. **Eur J Ultrasound** 1998 Nov;8(2):85-9

Ultrasonic measurement of the anterior translation in the shoulder joint. Krarup AL, et al. **J Shoulder Elbow Surg** 1999 Mar-Apr;8(2):136-41

Ultrasound appearance of synovial osteochondromatosis of the shoulder. Campeau NG, et al. **Mayo Clin Proc** 1998 Nov;73(11):1079-81

Ultrasonographic evaluation of the canine shoulder. Long CD, et al. **Vet Radiol Ultrasound** 1999 Jul-Aug;40(4):372-9

[Standard ultrasound sections of the upper extremity--shoulder and elbow joint] Konermann W, et al. **Ultraschall Med** 1998 Jun;19(3):130-8 (Eng. Abstr.) **(Ger)**

[Long biceps brachii instability. Role of ultrasonography] Gandolfo N, et al. **Radiol Med (Torino)** 1998 Jul-Aug; 96(1-2):18-22 (Eng. Abstr.) **(Ita)**

ULTRASTRUCTURE

Shoulder involvement in rheumatic diseases. Sonographic findings. Coari G, et al. **J Rheumatol** 1999 Mar;26(3):668-73

SHOULDER PAIN

Assessing the reliability and responsiveness of 5 shoulder questionnaires. Beaton D, et al. **J Shoulder Elbow Surg** 1998 Nov-Dec;7(6):565-72

Relations between self-rated musculoskeletal symptoms and signs and psychological distress in chronic neck and shoulder pain. Dyrehag LE, et al. **Scand J Rehabil Med** 1998 Dec;30(4):235-42

CLASSIFICATION

Characteristics of pain drawings in the neck-shoulder region among the working population. Toomingas A. **Int Arch Occup Environ Health** 1999 Mar;72(2):98-106

COMPLICATIONS

Shoulder pain in patients with Parkinson's disease. Vaserman-Lehuédé N, et al. **Rev Rhum Engl Ed** 1999 Apr; 66(4):220-3 (16 ref.)

DIAGNOSIS

Specificity of the Speed's test: arthroscopic technique for evaluating the biceps tendon at the level of the bicipital groove. Bennett WF. **Arthroscopy** 1998 Nov-Dec; 14(8):789-96

Magnetic resonance imaging diagnosis, sonographically directed percutaneous aspiration, and arthroscopic treatment of a painful shoulder ganglion cyst associated with a SLAP lesion. Leitschuh PH, et al. **Arthroscopy** 1999 Jan-Feb;15(1):85-7

Quick examination of shoulder muscles [see comments] Taylor MD. **Aust Fam Physician** 1998 Oct;27(10):951. Comment in: Aust Fam Physician 1999 Mar;28(3):206-7.

Diagnostic and therapeutic impact of MRI and arthrography in the investigation of full-thickness rotator cuff tears. Blanchard TK, et al. **Eur Radiol** 1999;9(4):638-42

Attitudes toward management of patients with subacromial pain in Swedish primary care. Johansson K, et al. **Fam Pract** 1999 Jun;16(3):233-7

Imaging the painful shoulder: an update. Peh WC. **Hosp Med** 1998 Oct;59(10):783-7 (21 ref.)

Introduction of a new physical examination procedure for the differentiation of acromioclavicular joint lesions and subacromial impingement. Buchberger DJ. **J Manipulative Physiol Ther** 1999 Jun;22(5):316-21 (20 ref.)

Imaging of the painful shoulder. King LJ, et al. **Man Ther** 1999 Feb;4(1):11-8 (45 ref.)

The long-term course of shoulder complaints: a prospective study in general practice. Winters JC, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):160-3

Clinical symptoms related to musculoskeletal neck-shoulder pain and mobility in the cervico-thoracic spine. Norlander S, et al. **Scand J Rehabil Med** 1998 Dec;30(4):243-51

SHOULDER PAIN

[Lesions of the glenoid labrum] Setbon S, et al. **Ann Radiol (Paris)** 1997;40(3):166–75 (24 ref.) (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Effectiveness of corticosteroid injections versus physiotherapy for treatment of painful stiff shoulder in primary care: randomised trial. van der Windt DA, et al. **BMJ** 1998 Nov 7;317(7168):1292–6

EPIDEMIOLOGY

The results of the Putti–Platt operation with particular reference to arthritis, pain, and limitation of external rotation. Kiss J, et al. **J Shoulder Elbow Surg** 1998 Sep–Oct; 7(5):495–500

ETIOLOGY

Evaluation and treatment of shoulder subluxation in hemiplegia: relationship between subluxation and pain. Ikai T, et al. **Am J Phys Med Rehabil** 1998 Sep–Oct;77(5):421–6

Shoulder pain after stroke: case report and review [letter] Gamble GE, et al. **Ann Rheum Dis** 1999 Jul;58(7):451

An unusual cause of shoulder pain. Wong P, et al. **Ann Rheum Dis** 1999 May;58(5):264–5

Shoulder pain in wheelchair users with tetraplegia and paraplegia. Curtis KA, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):453–7

Extra-abdominal desmoid tumor: an unusual subcutaneous lesion presenting as shoulder pain. Simpson JL, et al. **Int J Dermatol** 1998 Oct;37(10):780–4

Shoulder disorders related to work organization and other occupational factors among supermarket cashiers. Niedhammer I, et al. **Int J Occup Environ Health** 1998 Jul–Sep;4(3):168–78

Psychophysiological stress responses, muscle tension, and neck and shoulder pain among supermarket cashiers. Lundberg U, et al. **J Occup Health Psychol** 1999 Jul; 4(3):245–55

Shoulder pain in female wheelchair basketball players. Curtis KA, et al. **J Orthop Sports Phys Ther** 1999 Apr; 29(4):225–31

"Ouch, my aching back, again!" [letter] Iyer SR. **J Sch Health** 1999 Aug;69(6):219

Relation between the painful shoulder and the cervical spine with narrow canal in patients without obvious radiculopathy. Mimori K, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):303–6

Synovial chondromatosis in a child: an unusual cause of shoulder pain case report. Nashi M, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):642–3

Is the pain and dysfunction of shoulder impingement lesion really second rib syndrome in disguise? Two case reports. Boyle JJ. **Man Ther** 1999 Feb;4(1):44–8

Shoulder pain in patients with Parkinson's disease. Vaserman-Lehuédé N, et al. **Rev Rhum Engl Ed** 1999 Apr; 66(4):220–3 (16 ref.)

[Shoulder complaints in the family practice: a simple strategy (letter; comment)] Avenarius HA. **Ned Tijdschr Geneeskd** 1998 Aug 8;142(32):1832–3. Comment on: Ned Tijdschr Geneeskd 1998 May 30;142(22):1241–4. **(Dut)**

[Paralysis of the M. serratus anterior as an occupational disease in a scaffolder] Elders LA, et al. **Ned Tijdschr Geneeskd** 1999 Feb 27;143(9):474–7 (Eng. Abstr.) **(Dut)**

[Shoulder complaints in the family practice: a simple strategy (letter; comment)] Mens JM, et al. **Ned Tijdschr Geneeskd** 1998 Aug 8;142(32):1832. Comment on: Ned Tijdschr Geneeskd 1998 May 30;142(22):1241–4. **(Dut)**

[Shoulder complaints in the family practice: a simple strategy (letter)] Willems WJ. **Ned Tijdschr Geneeskd** 1998 Aug 8; 142(32):1833 **(Dut)**

[Desmoid tumor of the thoracic wall. A case manifesting as painful stiffness of the shoulder] Giraudet-Le Quintrec JS, et al. **Presse Med** 1998 Nov 7;27(34):1727–30 (Eng. Abstr.) **(Fre)**

[Subacromial pain syndromes as a possible results of errors in the initial diagnosis and therapy of the shoulder joint] Hadžiahmetović Z. **Med Arh** 1999;53(2):93–5 (Eng. Abstr.) **(Scr)**

PHYSIOPATHOLOGY

Worsening of neck and shoulder complaints in humans are correlated with frequency parameters of electromyogram recorded 1-year earlier. Lundblad I, et al. **Eur J Appl Physiol** 1998 Dec;79(1):7–16

Shoulder muscle co-ordination during chronic and acute experimental neck-shoulder pain. An occupational pain study. Madeleine P, et al. **Eur J Appl Physiol** 1999 Jan; 79(2):127–40

Predictors of chronic shoulder pain: a population based prospective study. Macfarlane GJ, et al. **J Rheumatol** 1998 Aug;25(8):1612–5

PREVENTION & CONTROL

A prospective randomized trial of intraoperative bupivacaine irrigation for management of shoulder-tip pain following laparoscopy. Cunniffe MG, et al. **Am J Surg** 1998 Sep; 176(3):258–61

The effect of CO2 insufflation rate on the postlaparoscopic shoulder pain. Berberoğlu M, et al. **J Laparoendosc Adv Surg Tech A** 1998 Oct;8(5):273–7

PSYCHOLOGY

Neck/shoulder and low-back disorders in the forestry industry: relationship to work tasks and perceived psychosocial job stress. Hagen KB, et al. **Ergonomics** 1998 Oct;41(10):1510–8

The experience of pain from the shoulder-neck area related to the total body pain, self-experienced health and mental distress. The Malmö Shoulder-Neck Study group. Ektor-Andersen J, et al. **Pain** 1999 Sep;82(3):289–95

RADIOGRAPHY

The use of radiographs to evaluate shoulder pain in the ED. Fraenkel L, et al. **Am J Emerg Med** 1998 Oct;16(6):560–3

REHABILITATION

Shoulder pain and dysfunction in hemiplegia: effects of functional electrical stimulation. Chantraine A, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):328–31

Effectiveness of corticosteroid injections versus physiotherapy for treatment of painful stiff shoulder in primary care: randomised trial. van der Windt DA, et al. **BMJ** 1998 Nov 7;317(7168):1292–6

Inflamed costovertebral joint as the source of shoulder pain [editorial] Boyling JD. **Man Ther** 1999 May;4(2):61–2

[Orthopedic pain therapy of the shoulder] Ludwig J, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug;136(4):Oa10–3 **(Ger)**

SURGERY

Surgical management of calcific tendinitis of the shoulder: an analysis of 26 cases. Rochwerger A, et al. **Clin Rheumatol** 1999;18(4):313–6

Bipolar shoulder arthroplasty for painful conditions of the shoulder. Worland RL, et al. **J Arthroplasty** 1998 Sep; 13(6):631–7

The treatment of symptomatic os acromiale. Ryu RK, et al. **Orthopedics** 1999 Mar;22(3):325–8

THERAPY

No effect of bipolar interferential electrotherapy and pulsed ultrasound for soft tissue shoulder disorders: a randomised controlled trial. van Der Heijden GJ, et al. **Ann Rheum Dis** 1999 Sep;58(9):530–40

The use of combined suprascapular and circumflex (articular branches) nerve blocks in the management of chronic arthritis of the shoulder joint. Lewis RN. **Eur J Anaesthesiol** 1999 Jan;16(1):37–41

Attitudes toward management of patients with subacromial pain in Swedish primary care. Johansson K, et al. **Fam Pract** 1999 Jun;16(3):233–7

Clinical observation on treatment of 83 cases of posthemiplegic omalgia. Chen L, et al. **J Tradit Chin Med** 1998 Sep;18(3):215–7

Educational benefits and cost savings from an interactive multimedia "best practice". Levy DH, et al. **Medinfo** 1998; 9 Pt 2:716–9

Effect of a standard exercise protocol on shoulder pain in long-term wheelchair users. Curtis KA, et al. **Spinal Cord** 1999 Jun;37(6):421–9

SHOW FEVER see **FELINE PANLEUKOPENIA**

SHREWS

[Features of the parasitic system of Ixodid ticks--Borrelia--small mammals in the Russian Northwest] Grigor'eva LA, et al. **Parazitologiia** 1998 Sep–Oct; 32(5):422–30 (Eng. Abstr.) **(Rus)**

ANATOMY & HISTOLOGY

A parasympathetic ganglion innervating the harderian gland and lacrimal gland of the musk shrew (Suncus murinus): fluorescent tracing and immunohistochemical studies. Ito H, et al. **Exp Anim** 1999 Jul;48(3):145–52

Periodontitis in the house musk shrew (Suncus murinus): a potential animal model for human periodontal disease. Takata T, et al. **J Periodontol** 1999 Feb;70(2):195–200

Distinctive neuronal organization of the olfactory bulb of the laboratory shrew. Kosaka K, et al. **Neuroreport** 1999 Feb 5;10(2):267–73

CLASSIFICATION

[Biogeography and taxonometric diversity of shrews of northeastern Asia] Dokuchaev NE. **Dokl Akad Nauk** 1999 Jan;364(3):420–2 **(Rus)**

GENETICS

Meiotic drive favors Robertsonian metacentric chromosomes in the common shrew (Sorex araneus, Insectivora, mammalia). Wyttenbach A, et al. **Cytogenet Cell Genet** 1998;83(3–4):199–206

Feasibility of micronucleus methods for monitoring genetic damage in two feral species of small mammals. Meier JR, et al. **Environ Mol Mutagen** 1999;33(3):219–25

Delayed development of reflexes and hyperactive locomotion in the spontaneous mutant "waltzing" of the musk shrew, Suncus murinus. Matsuura A, et al. **Exp Anim** 1999 Jul; 48(3):191–7

Inheritance of male hybrid sterility in the house musk shrew (Suncus murinus, Insectivora, Soricidae). Axenovich TI, et al. **Genome** 1998 Dec;41(6):825–31

Chromosomal segregation and fertility in Robertsonian chromosomal heterozygotes of the house musk shrew (Suncus murinus, Insectivora, Soricidae). Rogatcheva MB, et al. **Heredity** 1998 Sep;81 (Pt 3):335–41

Molecular phylogeny and evolution of Sorex shrews (Soricidae: insectivora) inferred from mitochondrial DNA sequence data. Fumagalli L, et al. **Mol Phylogenet Evol** 1999 Mar;11(2):222–35

[Karyologic differentiation in the common shrew Sorex araneus L. from the upper and middle Volga river basin (Insectivora, mammalia)] Bulatova NSh, et al. **Dokl Akad Nauk** 1999 May;366(3):416–9 **(Rus)**

[Chromosomal localization of 10 genes on the cytogenetic map of the common shrew Sorex araneus L.] Matiakhina LD, et al. **Genetika** 1999 Apr;35(4):493–8 (Eng. Abstr.) **(Rus)**

GROWTH & DEVELOPMENT

Calbindin and calmodulin localization in the developing vestibular organ of the musk shrew (Suncus murinus). Karita K, et al. **Acta Otolaryngol Suppl** 1999;540:16–21

METABOLISM

Induction of fos-like immunoreactivity in musk shrews after mating. Gill CJ, et al. **Brain Res** 1998 Nov 16;811(1–2):21–8

Sex differences in mammalian and chicken-II gonadotropin-releasing hormone immunoreactivity in musk shrew brain. Rissman EF, et al. **Gen Comp Endocrinol** 1998 Dec;112(3):346–55

Diversity of the calretinin immunoreactivity in the dentate gyrus of gerbils, hamsters, guinea pigs, and laboratory shrews. Murakawa R, et al. **J Comp Neurol** 1999 Aug 30; 411(3):413–30

Localization of nitric oxide synthase in the tree shrew retina. Cao QL, et al. **Vis Neurosci** 1999 May–Jun;16(3):399–409

PARASITOLOGY

Blood parasites of shrews from Pennsylvania. Laakkonen J, et al. **J Parasitol** 1998 Dec;84(6):1300–3

Seasonal dynamics of Pneumocystis carinii in the field vole, Microtus agrestis, and in the common shrew, Sorex araneus, in Finland. Laakkonen J, et al. **Parasitology** 1999 Jan;118 (Pt 1):1–5

PHYSIOLOGY

Cortisol facilitates induction of sexual behavior in the female musk shrew (Suncus murinus). Schiml PA, et al. **Behav Neurosci** 1999 Feb;113(1):166–75

Mast cells in the neonate musk shrew brain: implications for neuroendocrine immune interactions. Gill CJ, et al. **Brain Res Dev Brain Res** 1998 Nov 1;111(1):129–36

Neonatal androgen affects copulatory behavior in the female musk shrew. Freeman LM, et al. **Horm Behav** 1998 Dec; 34(3):231–8

Brainstem origin of the efferent components of the cervical vagus nerve in the house musk shrew, Suncus murinus. Won MH, et al. **J Auton Nerv Syst** 1998 Jun 30;71(1):55–63

Cortical organization in shrews: evidence from five species. Catania KC, et al. **J Comp Neurol** 1999 Jul 19;410(1):55–72

Cortical connections of striate and extrastriate visual areas in tree shrews. Lyon DC, et al. **J Comp Neurol** 1998 Nov 9;401(1):109–28

Local excitatory circuits in the intermediate gray layer of the superior colliculus. Pettit DL, et al. **J Neurophysiol** 1999 Mar;81(3):1424–7

Variables of movement amplitude and frequency in the development of motion sickness in Suncus murinus. Javid FA, et al. **Pharmacol Biochem Behav** 1999 Sep;64(1):115–22

Production of serotonin syndrome by 8-OH DPAT in Cryptotis parva. Darmani NA, et al. **Physiol Behav** 1998 Nov 15;65(2):327–31

SHREWS, TREE see **TUPAIIDAE**

SHRIMP

Acute toxicity of ammonia to juvenile shrimp Penaeus vannamei Boone. Frias-Espericueta MG, et al. **Bull Environ Contam Toxicol** 1999 May;62(5):646–52

PCBs in cod (Gadus morhua), flounder (Platichthys flesus), blue mussel (Mytilus edulis) and brown shrimp (Crangon crangon) from the Belgian continental shelf: relation to biological parameters and trend analysis. Roose P, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2199–210

Detection of antibacterial agents in warm water prawns. Willis C, et al. **Commun Dis Public Health** 1999 Sep; 2(3):210–4

Characterization of chromatophorotropic neuropeptides from the kuruma prawn Penaeus japonicus. Yang WJ, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):415–24

CHEMISTRY

Isolation of an acid fraction from a fish protein hydrolysate with a calcitonin-gene-related-peptide-like biological

activity. Fouchereau-Peron M, et al.
Biotechnol Appl Biochem 1999 Feb;29 (Pt 1):87-92

Heavy metals in the shrimp Xiphopenaeus kroyeri (Heller, 1862) (Crustacea, penaeidae) from Ubatuba Bay, São Paulo, Brazil. Mantelatto FL, et al.
Bull Environ Contam Toxicol 1999 Feb;62(2):152-9

Identification and characterization of a hyperglycemic hormone from freshwater giant prawn, Macrobrachium rosenbergii. Lin CY, et al.
Comp Biochem Physiol A Mol Integr Physiol 1998 Dec; 121(4):315-21

The hemolymph clottable proteins of tiger shrimp, Penaeus monodon, and related species. Yeh MS, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 Oct; 121(2):169-76

Shrimp plasma HDL and beta-glucan binding protein (BGBP): comparison of biochemical characteristics. Yepiz-Plascencia G, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 Nov; 121(3):309-14

Purification and characterization of an isoform of crustacean hyperglycemic hormone from the eyestalk of Macrobrachium rosenbergii. Sithigorngul W, et al.
J Exp Zool 1999 Jul 1;284(2):217-24

Antibacterial activity of shrimp chitosan against Escherichia coli. Tsai GJ, et al. **J Food Prot** 1999 Mar;62(3):239-43

Sexual dimorphism in N-acetyltransferase and melatonin levels in the giant freshwater prawn Macrobrachium rosenbergii de Man. Withyachumnarnkul B, et al.
J Pineal Res 1999 Apr;26(3):174-7

[Methods for extracting chitin from shrimp shell waste] Pinelli Saavedra A, et al. **Arch Latinoam Nutr** 1998 Mar; 48(1):58-61 (Eng. Abstr.) **(Spa)**

CYTOLOGY

Fenestration nodes and the wide submyelinic space form the basis for the unusually fast impulse conduction of shrimp myelinated axons. Xu K, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):1979-89 (35 ref.)

DRUG EFFECTS

Sensitivity of the mysid Mysidopsis bahia to a weathered oils. Barron MG, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):266-71

Parasitism, feeding rate, and hydrocarbon uptake of pink shrimp Pandalus borealis fed a crude oil contaminated diet. Moles A. **Bull Environ Contam Toxicol** 1999 Mar; 62(3):259-65

Storage duration and temperature and the acute toxicities of estuarine sediments to Mysidopsis bahia and Leptocheirus plumulosus. Norton BL, et al.
Bull Environ Contam Toxicol 1999 Aug;63(2):157-66

Combined chromium and phenol pollution in a marine prawn fishery. Qixing Z. **Bull Environ Contam Toxicol** 1999 Apr; 62(4):476-82

Effects of inorganic mercury on the respiration and the swimming activity of shrimp larvae, Pandalus borealis. St-Amand L, et al.
Comp Biochem Physiol C Pharmacol Toxicol Endocrinol 1999 Jan;122(1):33-43

Preliminary antifungal and cytotoxicity studies of extracts of Ritchiea capparoides var. longipedicellata. Ajaiyeoba EO, et al. **J Ethnopharmacol** 1998 Oct;62(3):243-6

ENZYMOLOGY

Kinetics of inhibition of Penaeus penicillatus acid phosphatase by bromoacetic acid. Chen QX, et al.
Biochem Mol Biol Int 1998 Oct;46(2):215-23

Kinetics of inactivation of Penaeus penicillatus acid phosphatase during inhibition by N-bromosuccinimide. Yang PZ, et al. **Biochem Mol Biol Int** 1998 Aug; 45(5):953-62

Prophenoloxidase from brown shrimp (Penaeus californiensis) hemocytes. Gollas-Galván T, et al.
Comp Biochem Physiol B Biochem Mol Biol 1999 Jan; 122(1):77-82

Molecular cloning and characterization of prophenoloxidase in the black tiger shrimp, Penaeus monodon. Sritunyalucksana K, et al. **Dev Comp Immunol** 1999 Apr; 23(3):179-86

GENETICS

Three polymorphic microsatellites in the shrimp Penaeus stylirostris. Vonau V, et al. **Anim Genet** 1999 Jun; 30(3):234-5

Identification of abundant and informative microsatellites from shrimp (Penaeus monodon) genome. Xu Z, et al.
Anim Genet 1999 Apr;30(2):150-6

The hemolymph clottable proteins of tiger shrimp, Penaeus monodon, and related species. Yeh MS, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 Oct; 121(2):169-76

The role of wingless in the development of multibranched crustacean limbs. Nulsen C, et al. **Dev Genes Evol** 1999 Jun;209(6):340-8

Characterization of the shrimp eyestalk cDNA encoding a novel fushi tarazu-factor 1 (FTZ-F1). Chan SM, et al.
FEBS Lett 1999 Jul 2;454(1-2):109-14

Cloning of a shrimp (Metapanaeus ensis) cDNA encoding a nuclear receptor superfamily member: an insect homologue of E75 gene. Chan SM. **FEBS Lett** 1998 Oct 9;436(3):395-400

Molecular cloning of Ras cDNA from Penaeus japonicus (Crustacea, decapoda): geranylgeranylation and guanine nucleotide binding. Huang CF, et al. **Gene** 1998 Dec 11; 224(1-2):117-22

Facilitated geranylgeranylation of shrimp ras-encoded p25 fusion protein by the binding with guanosine diphosphate. Huang CF, et al. **J Exp Zool** 1999 May 1;283(6):510-21

Molecular phylogeny and biogeography of the marine shrimp Penaeus. Baldwin JD, et al. **Mol Phylogenet Evol** 1998 Dec; 10(3):399-407

Site of vitellogenin synthesis determined from a cDNA encoding a vitellogenin fragment in the freshwater giant prawn, Macrobrachium rosenbergii. Chen YN, et al.
Mol Reprod Dev 1999 Nov;54(3):215-22

GROWTH & DEVELOPMENT

Altered growth and metabolism of an estuarine shrimp (Palaemonetes pugio) during and after metamorphosis onto fenvalerate-laden sediment. McKenney CL Jr, et al.
Arch Environ Contam Toxicol 1998 Oct;35(3):464-71

Antioxidant system of Black Sea animals in early development. Rudneva II.
Comp Biochem Physiol C Pharmacol Toxicol Endocrinol 1999 Feb;122(2):265-71

Dietary biotin requirement for maximum growth of juvenile grass shrimp, Penaeus monodon. Shiau SY, et al.
J Nutr 1998 Dec;128(12):2494-7

IMMUNOLOGY

B- and T-cell epitopes of tropomyosin, the major shrimp allergen. Subba Rao PV, et al. **Allergy** 1998;53(46 Suppl):44-7 (20 ref.)

Active immunisation of black tiger prawn (Penaeus monodon) against vibriosis in Thailand. Böhnel H, et al.
Berl Munch Tierarztl Wochenschr 1999 Aug;112(8):289-95

IgE-binding epitopes of shrimp tropomyosin, the major allergen Pen a 1. Reese G, et al.
Int Arch Allergy Immunol 1999 Feb-Apr;118(2-4):300-1

Immunological characterisation of the acrosomal filament in the marine shrimp Sicyonia ingentis. Baldwin JD, et al.
Zygote 1998 Nov;6(4):329-39

METABOLISM

Altered growth and metabolism of an estuarine shrimp (Palaemonetes pugio) during and after metamorphosis onto fenvalerate-laden sediment. McKenney CL Jr, et al.
Arch Environ Contam Toxicol 1998 Oct;35(3):464-71

Structural features and anticoagulant activities of a novel natural low molecular weight heparin from the shrimp Penaeus brasiliensis. Dietrich CP, et al.
Biochim Biophys Acta 1999 Aug 5;1428(2-3):273-83

alpha-MeGlc and D-glucose transport by hepatopancreatic brush border membrane vesicles from prawn. Blaya JA, et al. **J Physiol Biochem** 1998 Mar;54(1):1-7

MICROBIOLOGY

Arbitrarily primed PCR to type Vibrio spp. pathogenic for shrimp. Goarant C, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):1145-51

Vibrios associated with Litopenaeus vannamei larvae, postlarvae, broodstock, and hatchery probionts. Vandenberghe J, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2592-7

Active immunisation of black tiger prawn (Penaeus monodon) against vibriosis in Thailand. Böhnel H, et al.
Berl Munch Tierarztl Wochenschr 1999 Aug;112(8):289-95

Isolation and characterization of an Enterococcus-like bacterium causing muscle necrosis and mortality in Macrobrachium rosenbergii in Taiwan. Cheng W, et al.
Dis Aquat Organ 1998 Oct 8;34(2):93-101

Enterococcus-like infections in Macrobrachium rosenbergii are exacerbated by high pH and temperature but reduced by low salinity. Cheng W, et al. **Dis Aquat Organ** 1998 Oct 8;34(2):103-8

Microbiological quality of Icelandic cooked-peeled shrimp (Pandalus borealis). Valdimarsson G, et al.
Int J Food Microbiol 1998 Dec 8;45(2):157-61

Extension of shelf life of whole and peeled shrimp with organic acid salts and bifidobacteria. Al-Dagal MM, et al.
J Food Prot 1999 Jan;62(1):51-6

Evaluation of TaqMan PCR assay for detecting Salmonella in raw meat and shrimp. Kimura B, et al. **J Food Prot** 1999 Apr;62(4):329-35

Survival of Vibrio cholerae 01 strains in shrimp subjected to freezing and boiling. Nascumento DR, et al.
J Food Prot 1998 Oct;61(10):1317-20

Cysteine protease is a major exotoxin of pathogenic luminous Vibrio harveyi in the tiger prawn, Penaeus monodon. Liu PC, et al. **Lett Appl Microbiol** 1999 Jun;28(6):428-30

[Survey of disease of cultural shrimp in Taiwan] Liu WY, et al.
Chung Hua Min Kuo Wei Sheng Wu Chi Mien I Hsueh Tsa Chih 1995 Feb;28(1):59-69 (Eng. Abstr.) **(Chi)**

PARASITOLOGY

Discapseudes holthuisi (Crustacea: Tanaidacea) as an intermediate host of Caballerorhynchus lamothei (Acanthocephala: Cavisomidae). Escobar-Briones E, et al.
J Parasitol 1999 Feb;85(1):134-7

PHYSIOLOGY

Vibrios associated with Litopenaeus vannamei larvae, postlarvae, broodstock, and hatchery probionts. Vandenberghe J, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2592-7

Dietary pantothenic acid requirement of juvenile grass shrimp, Penaeus monodon. Shiau SY, et al. **J Nutr** 1999 Mar;129(3):718-21

Diurnal variation and effects of feeding on blood glucose in the giant tiger prawn, Penaeus monodon. Hall MR, et al. **Physiol Zool** 1998 Sep-Oct;71(5):574-83

VIROLOGY

Yellow head virus from Thailand and gill-associated virus from Australia are closely related but distinct prawn viruses. Cowley JA, et al. **Dis Aquat Organ** 1999 May 12; 36(2):153-7

Experimental transmission of white spot syndrome virus (WSSV) from crabs to shrimp Penaeus monodon. Kanchanaphum P, et al. **Dis Aquat Organ** 1998 Sep 11; 34(1):1-7

Histopathology of cultured shrimp showing gross signs of yellow head syndrome and white spot syndrome during 1994 Indian epizootics. Mohan CV, et al.
Dis Aquat Organ 1998 Sep 11;34(1):9-12

Characterization of a non-occluded baculovirus-like agent pathogenic to penaeid shrimp. Nadala EC Jr, et al.
Dis Aquat Organ 1998 Jul 30;33(3):221-9

A comparative study of three different isolates of white spot virus. Nadala EC Jr, et al. **Dis Aquat Organ** 1998 Jul 30; 33(3):231-4

Reverse transcription polymerase chain reaction (RT-PCR) used for the detection of Taura syndrome virus (TSV) in experimentally infected shrimp. Nunan LM, et al.
Dis Aquat Organ 1998 Oct 8;34(2):87-91

Putative spawner-isolated mortality virus associated with mid-crop mortality syndrome in farmed Penaeus monodon from northern Australia. Owens L, et al.
Dis Aquat Organ 1998 Nov 30;34(3):177-85

An infectious viral disease of penaeid shrimp newly found in Korea. Park JH, et al. **Dis Aquat Organ** 1998 Sep 11; 34(1):71-5

A yellow head virus gene probe: nucleotide sequence and application for in situ hybridization. Tang KF, et al.
Dis Aquat Organ 1999 Feb 26;35(3):165-73

Colourimetric PCR-based detection of monodon baculovirus in whole Penaeus monodon postlarvae. Belcher CR, et al.
J Virol Methods 1998 Sep;74(1):21-9

SHUT-INS see **HOMEBOUND PERSONS**

SHUTTLE VECTORS see **GENETIC VECTORS**

SHWARTZMAN PHENOMENON

IMMUNOLOGY

Are circulating neutrophils intravascularly activated in patients with anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitides? Muller Kobold AC, et al. **Clin Exp Immunol** 1998 Dec;114(3):491-9

PATHOLOGY

Expression of Fas and Fas ligand on mouse renal tubular epithelial cells in the generalized shwartzman reaction and its relationship to apoptosis. Koide N, et al.
Infect Immun 1999 Aug;67(8):4112-8

SHWARTZMAN REACTION see **SHWARTZMAN PHENOMENON**

SHY-DRAGER SYNDROME

[Shy-Drager syndrome (SDS)] Kita K.
Ryoikibetsu Shokogun Shirizu 1999;(27 Pt 2):258-61 (11 ref.) **(Jpn)**

COMPLICATIONS

[A case of impending neuroleptic malignant syndrome associated with Shy-Drager syndrome] Kumagai R, et al.
No To Shinkei 1998 Aug;50(8):745-9 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

[Shy-Drager syndrome: a rare cause of orthostatic hypotension] Oldenburg O, et al.
Dtsch Med Wochenschr 1999 Jan 8;124(1-2):8-12 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Cerebral blood flow and metabolism in multiple system atrophy of the Shy-Drager syndrome type: a PET study. Ogawa M, et al. **J Neurol Sci** 1998 Jun 30;158(2):173-9

PSYCHOLOGY

Occurrence of depressive symptoms in Shy-Drager syndrome. Gill CE, et al. **Clin Auton Res** 1999 Feb;9(1):1-4

SHY-DRAGER SYNDROME

RADIONUCLIDE IMAGING

Cerebral blood flow and metabolism in multiple system atrophy of the Shy-Drager syndrome type: a PET study. Ogawa M, et al. **J Neurol Sci** 1998 Jun 30;158(2):173-9

THERAPY

Novel therapeutic strategy against central baroreflex failure: a bionic baroreflex system. Sato T, et al. **Circulation** 1999 Jul 20;100(3):299-304

SHY-MAGEE SYNDROME see **NEMALINE MYOPATHY**

SHYNESS

Predicting mothers' beliefs about preschool-aged children's social behavior: evidence for maternal attitudes moderating child effects. Hastings PD, et al. **Child Dev** 1999 May-Jun; 70(3):722-41

Behavioral inhibition, heart period, and respiratory sinus arrhythmia in young children. Marshall PJ, et al. **Dev Psychobiol** 1998 Nov;33(3):283-92

The contributions of eye movements to the efficacy of brief exposure treatment for reducing fear of public speaking. Carrigan MH, et al. **J Anxiety Disord** 1999 Jan-Apr; 13(1-2):101-18

Shyness, friendship quality, and adjustment during middle childhood. Fordham K, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):757-68

Shyness and sociotropy: additive and interactive relations in predicting interpersonal concerns. Bruch MA, et al. **J Pers** 1999 Apr;67(2):373-406

SH1 DOMAIN see **SRC HOMOLOGY DOMAINS**

SH2 DOMAIN see **SRC HOMOLOGY DOMAINS**

SH3 DOMAIN see **SRC HOMOLOGY DOMAINS**

SI UNITS see **INTERNATIONAL SYSTEM OF UNITS**

SIADH see **INAPPROPRIATE ADH SYNDROME**

SIALADENITIS

COMPLICATIONS

A case of coprophagia presenting with sialadenitis. Donnellan CA, et al. **Age Ageing** 1999 Mar;28(2):233-4

Jaw and leg claudication in a patient with temporal arteritis, chronic sialoadenitis and previous hepatitis C virus infection. Ferraccioli GF, et al. **Clin Exp Rheumatol** 1998 Jul-Aug;16(4):463-8

DIAGNOSIS

Lymphoma presenting as parotid xanthogranulomatous sialadenitis. Esson MD, et al. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):465-7

[Clinical, histopathologic and immunohistochemical studies of chronic sialectatic parotitis in childhood and adolescence] Ussmüller J, et al. **Klin Padiatr** 1999 May-Jun; 211(3):165-71 (Eng. Abstr.) **(Ger)**

[Painful unilateral swelling of the submandibular gland, erythema of the throat and fever. Acute sialadenitis of the submandibular gland with beginning phlegmon of the mouth floor] Spicher T. **Schweiz Rundsch Med Prax** 1998 Dec 3;87(49):1713-5 **(Ger)**

ECONOMICS

Symptomatic sialoadenitis and sialolithiasis in the English population, an estimate of the cost of hospital treatment. Escudier MP, et al. **Br Dent J** 1999 May 8;186(9):463-6

ENZYMOLOGY

Immunolocalization of aromatase in human minor salivary glands of the lower lip with primary Sjögren's syndrome. Onodera K, et al. **Pathol Int** 1998 Oct;48(10):786-90

EPIDEMIOLOGY

Symptomatic sialoadenitis and sialolithiasis in the English population, an estimate of the cost of hospital treatment. Escudier MP, et al. **Br Dent J** 1999 May 8;186(9):463-6

Complicated neonatal submandibular suppurative sialadenitis. Bafaqeeh SA. **Int J Pediatr Otorhinolaryngol** 1998 Aug 10; 44(3):267-71 (8 ref.)

ETIOLOGY

Acute pseudotongue enlargement after general anesthesia [see comments] Finck M, et al. **Anesth Analg** 1998 Dec; 87(6):1443-5. Comment in: Anesth Analg 1999 Sep;89(3):804.

Xanthogranulomatous sialadenitis following diagnosis of Warthin's tumour: a possible complication of fine needle aspiration (FNA). Stephen MR, et al. **Cytopathology** 1999 Aug;10(4):276-9

Aseptic sialadenitis in preterm infants associated with long-term oro-gastric tube feeding. Lindgren C, et al. **Eur J Pediatr** 1998 Dec;157(12):1014-6

Persistent sialadenitis after radioactive iodine therapy: report of two cases. Mandel SJ, et al. **J Oral Maxillofac Surg** 1999 Jun;57(6):738-41

PATHOLOGY

Fine needle aspiration cytodiagnosis of sialadenitis with crystalloids. Gupta RK, et al. **Acta Cytol** 1999 May-Jun; 43(3):390-2

Lymphoepithelial cyst with crystalloid formation. Cytologic features of two cases. López-Ríos F, et al. **Acta Cytol** 1999 Mar-Apr;43(2):277-80 (9 ref.)

Kuttner tumor (chronic sclerosing sialadenitis) of the submandibular gland: an underrecognized entity. Chan JK. **Adv Anat Pathol** 1998 Jul;5(4):239-51

Relation of preoperative sialographic findings with histopathological diagnosis in cases of obstructive sialadenitis of the parotid and submandibular glands: retrospective study. Tighe JV, et al. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):290-3

Parotid sialolithiasis. Bodner L. **J Laryngol Otol** 1999 Mar; 113(3):266-7 (15 ref.)

Discordance of sialography and scintigraphy in unilateral chronic sialadenitis. Ilgan S, et al. **Nuklearmedizin** 1998; 37(6):218-20

Chronic sclerosing sialadenitis of the submandibular gland associated with idiopathic retroperitoneal fibrosis. Sekine S, et al. **Pathol Int** 1999 Jul;49(7):663-7

Chronic submandibular sialadenitis: ultrastructure and phosphatase histochemistry. Harrison JD, et al. **Ultrastruct Pathol** 1998 Nov-Dec;22(6):431-7

Lymphoepithelial duct lesions in Sjögren-type sialadenitis. Ihrler S, et al. **Virchows Arch** 1999 Apr;434(4):315-23

[Histopathogenesis of chronic sialectatic parotitis as precursor of myoepithelial sialadenitis lesion (Sjögren syndrome)] Ussmüller J, et al. **Laryngorhinootologie** 1998 Dec;77(12):723-7 (Eng. Abstr.) **(Ger)**

[Chronic sclerosing non-specific sialadenitis of the submandibular gland (Küttner tumor). Report of one case] Yáñez M, et al. **Rev Med Chil** 1999 May;127(5):600-3 (Eng. Abstr.) **(Spa)**

RADIOGRAPHY

Relation of preoperative sialographic findings with histopathological diagnosis in cases of obstructive sialadenitis of the parotid and submandibular glands: retrospective study. Tighe JV, et al. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):290-3

SURGERY

Frey's syndrome following submandibular gland excision: an unusual postoperative complication. Teague A, et al. **ORL J Otorhinolaryngol Relat Spec** 1998 Nov-Dec; 60(6):346-8 (30 ref.)

SIALIC ACID see **N-ACETYLNEURAMINIC ACID**

SIALIC ACIDS

Structure, function and metabolism of sialic acids. Traving C, et al. **Cell Mol Life Sci** 1998 Dec;54(12):1330-49 (143 ref.)

ADMINISTRATION & DOSAGE

Coadministration of orally inhaled zanamivir with inactivated trivalent influenza vaccine does not adversely affect the production of antihaemagglutinin antibodies in the serum of healthy volunteers. Webster A, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:51-8

Randomised trial of efficacy and safety of inhaled zanamivir in treatment of influenza A and B virus infections. The MIST (Management of Influenza in the Southern Hemisphere Trialists) Study Group [see comments] [published errata appear in Lancet 1999 Feb 6;353(9151):504 and 1999 Mar 27;353(9158):1104] **Lancet** 1998 Dec 12;352(9144):1877-81. Comment in: Lancet 1998 Dec 12;352(9144):1872-3. Comment in: Lancet 1999 Feb 20;353(9153):668-9. Comment in: Lancet 1999 Feb 20;353(9153):669.

[Influenza: new therapeutic perspectives] Bricaire F. **Presse Med** 1998 Dec;27 Suppl 5:24-6 (Eng. Abstr.) **(Fre)**

ADVERSE EFFECTS

Safety and efficacy of intravenous zanamivir in preventing experimental human influenza A virus infection. Calfee DP, et al. **Antimicrob Agents Chemother** 1999 Jul;43(7):1616-20

ANALYSIS

Detection by the lectins from Maackia amurensis and Sambucus nigra of 3- and 6-linked sialic acid in gangliosides with neolacto chains separated on thin-layer chromatograms and blotted to PVDF membranes. Johansson L, et al. **Anal Biochem** 1999 Feb 1;267(1):239-41

Capillary electrophoresis of N-acetylneuraminic acid polymers and hyaluronic acid: correlation between migration order reversal and biological functions. Kakehi K, et al. **Anal Chem** 1999 Apr 15;71(8):1592-6

Identification of the glycosidically bound sialic acid in mucin glycoproteins that reacts as "free sialic acid" in the Warren assay. Bhavanandan VP, et al. **Glycobiology** 1998 Nov; 8(11):1077-86

Synaptogenesis and ultrastructural localization of the polysialylated neural cell adhesion molecule in the developing striatum. Uryu K, et al. **J Comp Neurol** 1999 Mar 8;405(2):216-32

Cell-surface sialoglycoconjugate structures in wild-type and mutant Crithidia fasciculata. do Valle Matta MA, et al. **Parasitol Res** 1999 Apr;85(4):293-9

BIOSYNTHESIS

Expression of highly polysialylated neural cell adhesion molecule in pancreatic cancer neural invasive lesion. Kameda K, et al. **Cancer Lett** 1999 Apr 1;137(2):201-7

Adrenalectomy increases neurogenesis but not PSA-NCAM expression in aged dentate gyrus. Montaron MF, et al. **Eur J Neurosci** 1999 Apr;11(4):1479-85

Complex regulation of the expression of the polysialylated form of the neuronal cell adhesion molecule by glucocorticoids in the rat hippocampus. Rodriguez JJ, et al. **Eur J Neurosci** 1998 Sep;10(9):2994-3006

Regulation of capsular polysialic acid biosynthesis by temperature in Pasteurella haemolytica A2. Barrallo S, et al. **FEBS Lett** 1999 Feb 26;445(2-3):325-8

Uptake of N-acetyl-D-mannosamine: an essential intermediate in polysialic acid biosynthesis by Escherichia coli K92 [published erratum appears in FEBS Lett 1999 Aug 13;456(3):417] Revilla-Nuin B, et al. **FEBS Lett** 1999 Apr 23;449(2-3):183-6

Biochemical conditions for the production of polysialic acid by Pasteurella haemolytica A2. Puente-Polledo L, et al. **Glycoconj J** 1998 Sep;15(9):855-61

The (alpha2-->8)-linked polysialic acid capsule and lipooligosaccharide structure both contribute to the ability of serogroup B Neisseria meningitidis to resist the bactericidal activity of normal human serum. Kahler CM, et al. **Infect Immun** 1998 Dec;66(12):5939-47

Differential and cooperative polysialylation of the neural cell adhesion molecule by two polysialyltransferases, PST and STX. Angata K, et al. **J Biol Chem** 1998 Oct 23; 273(43):28524-32

On the biosynthesis of alternating alpha-2,9/alpha-2,8 heteropolymer of sialic acid catalyzed by the sialyltransferase of Escherichia coli Bos-12. Chao CF, et al. **J Biol Chem** 1999 Jun 25;274(26):18206-12

Expression of L1 and PSA during sprouting and regeneration in the adult hippocampal formation. Aubert I, et al. **J Comp Neurol** 1998 Sep 14;399(1):1-19

Multistratified expression of polysialic acid and its relationship to VAChT-containing neurons in the inner plexiform layer of adult rat retina. Sawaguchi A, et al. **J Histochem Cytochem** 1999 Jul;47(7):919-28

Multiple roles of neural cell adhesion molecule, neural cell adhesion molecule-polysialic acid, and L1 adhesion molecules during sensory innervation of the otic epithelium in vitro. Hrynkow SH, et al. **Neuroscience** 1998 Nov; 87(2):423-37

Spatio-temporal diversity in the microenvironments for neural cell adhesion molecule, neural cell adhesion molecule-polysialic acid, and L1-cell adhesion molecule expression by sensory neurons and their targets during cochleo-vestibular innervation. Hrynkow SH, et al. **Neuroscience** 1998 Nov;87(2):401-22

UDP-GlcNAc 2-epimerase: a regulator of cell surface sialylation. Keppler OT, et al. **Science** 1999 May 21; 284(5418):1372-6

BLOOD

Analysis of sialyllactoses in blood and urine by high-performance liquid chromatography. Fu D, et al. **Anal Biochem** 1999 Apr 10;269(1):113-23

Investigation of sialic acids and sialyltransferase activity in blood of patients with systemic scleroderma. Gabrielyan ND, et al. **Biochemistry (Mosc)** 1999 May;64(5):561-4

Serum alpha 1-acid glycoprotein, sialic acid, and protein binding of disopyramide in normal subjects and cardiac patients. Chu JS, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):408-10

Polysialylated neural cell adhesion molecule in childhood ganglioneuroma and neuroblastoma of different histological grade and clinical stage. Glüer S, et al. **Langenbecks Arch Surg** 1998 Oct;383(5):340-4

Isolation and characterization of lectin from Thai marine crab (Scylla serrata) with binding specificity to sialoglycoconjugates and its application. Kongtawelert P. **Mol Mar Biol Biotechnol** 1998 Dec;7(4):280-6

Polysialylated neural cell adhesion molecule serum levels in normal children. Glüer S, et al. **Pediatr Res** 1998 Dec; 44(6):915-9

Correlation between alpha 1-acid glycoprotein and total sialic acid in serum from dogs with tumours. Thougaard AV, et al. **Zentralbl Veterinarmed A** 1999 May;46(4):231-7

CEREBROSPINAL FLUID

[Polysialylated NCAM in CSF, a marker for invasive medulloblastoma] Dubois C, et al. **C R Seances Soc Biol Fil** 1998;192(2):289-96 (Eng. Abstr.) **(Fre)**

CHEMICAL SYNTHESIS

Inhibition of viral adhesion and infection by sialic-acid-conjugated dendritic polymers. Reuter JD, et al. **Bioconjug Chem** 1999 Mar-Apr;10(2):271-8

The synthesis and enzymatic incorporation of sialic acid derivatives for use as tools to study the structure, activity, and inhibition of glycoproteins and other glycoconjugates. Martin R, et al. **Bioorg Med Chem** 1998 Aug;6(8):1283–92

CHEMISTRY

Fluorescent-assisted detection of oligosialyl units in glycoconjugates. Sato C, et al. **Anal Biochem** 1999 Jan 1; 266(1):102–9

Bicarbonate concentration and osmolality are key determinants in the inhibition of CHO cell polysialylation under elevated pCO(2) or pH. Zanghi JA, et al. **Biotechnol Bioeng** 1999 Oct 20;65(2):182–91

Sialylation of the sialic acid binding lectin sialoadhesin regulates its ability to mediate cell adhesion. Barnes YC, et al. **Blood** 1999 Feb 15;93(4):1245–52

Polysialic acid: three-dimensional structure, biosynthesis and function. Mühlenhoff M, et al. **Curr Opin Struct Biol** 1998 Oct;8(5):558–64 (65 ref.)

Simple synthesis of sialyllactose-carrying polystyrene and its binding with influenza virus. Tsuchida A, et al. **Glycoconj J** 1998 Nov;15(11):1047–54

Acid-catalyzed lactonization of alpha2,8-linked oligo/polysialic acids studied by high performance anion-exchange chromatography. Zhang Y, et al. **J Biol Chem** 1999 Mar 5;274(10):6183–9

Transfer of 131I and fluoresceinyl sialic acid derivatives into the oligosaccharide chains of IgG: a new method for site-specific labeling of antibodies. Schwarz U, et al. **Nucl Med Biol** 1999 May;26(4):383–8

Modification of lipoprotein lipase catalytic activity by sialic acids. Tashiro J, et al. **Scand J Clin Lab Invest** 1999 Apr; 59(2):71–6

[Synthesis of Neu5Ac(alpha2-->6)[Gal(alpha1-->3)]GalNAcalpha and Neu5Ac(alpha2-->6)[Gal(beta1-->3)]GalNAcalpha trisaccharides as protected trifluoroacetamidopropyl glycosides] Simeoni LA, et al. **Bioorg Khim** 1999 Jan; 25(1):62–9 (Eng. Abstr.) **(Rus)**

GENETICS

Temporal and spacial relationships between PSA-NCAM-expressing, newly generated granule cells, and radial glia-like cells in the adult dentate gyrus. Seki T, et al. **J Comp Neurol** 1999 Aug 2;410(3):503–13

Polysialylated neural cell adhesion molecule-positive CNS precursors generate both oligodendrocytes and Schwann cells to remyelinate the CNS after transplantation. Keirstead HS, et al. **J Neurosci** 1999 Sep 1;19(17):7529–36

N-methyl-D-aspartate receptor blockade affects polysialylated neural cell adhesion molecule expression and synaptic density during striatal development. Butler AK, et al. **Neuroscience** 1999;89(4):1169–81

IMMUNOLOGY

Pancreatic tumour marker anti-mucin antibody CAM 17.1 reacts with a sialyl blood group antigen, probably I, which is expressed throughout the human gastrointestinal tract. Eccleston DW, et al. **Digestion** 1998 Nov-Dec;59(6):665–70

Identification of antibodies directed against O-acetylated sialic acids in visceral leishmaniasis: its diagnostic and prognostic role. Chatterjee M, et al. **Glycoconj J** 1998 Dec; 15(12):1141–7

METABOLISM

Neural cell adhesion molecules (NCAM) and NCAM-PSA expression in neuroendocrine lung tumors. Lantuejoul S, et al. **Am J Surg Pathol** 1998 Oct;22(10):1267–76

Molecular analysis of sialoside binding to sialoadhesin by NMR and site-directed mutagenesis. Crocker PR, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):355–61

Up-regulation of the alpha2,6-sialyltransferase messenger ribonucleic acid increases glycoconjugates containing alpha2, 6-linked sialic acid residues in granulosa cells during follicular atresia of porcine ovaries. Kimura Y, et al. **Biol Reprod** 1999 Jun;60(6):1475–82

Improvement of interferon-gamma sialylation in Chinese hamster ovary cell culture by feeding of N-acetylmannosamine. Gu X, et al. **Biotechnol Bioeng** 1998 Jun 20;58(6):642–8

Role of nucleotide sugar pools in the inhibition of NCAM polysialylation by ammonia. Zanghi JA, et al. **Biotechnol Prog** 1998 Nov-Dec;14(6):834–44

Sialylation of E-cadherin does not change the spontaneous or ET-18-OMe-mediated aggregation of MCF-7 human breast cancer cells. Steelant WF, et al. **Clin Exp Metastasis** 1999 May;17(3):245–53

Polysialic acid: three-dimensional structure, biosynthesis and function. Mühlenhoff M, et al. **Curr Opin Struct Biol** 1998 Oct;8(5):558–64 (65 ref.)

Imbalances in N-CAM, SAM and polysialic acid may underlie the paranodal ion channel barrier defect in diabetic neuropathy. Merry AC, et al. **Diabetes Res Clin Pract** 1998 Jun;40(3):153–60

Occurrence of sialic acids in healthy humans and different disorders. Sillanaukee P, et al. **Eur J Clin Invest** 1999 May; 29(5):413–25 (123 ref.)

Expression of the polysialyltransferase ST8Sia1V: polysialylation interferes with adhesion of PC12 cells in vitro. Horstkorte R, et al. **Exp Cell Res** 1999 Jan 10; 246(1):122–8

Expression of polysialylated NCAM but not L1 or N-cadherin by regenerating adult mouse optic fibers in vitro. Bates CA, et al. **Exp Neurol** 1999 Jan;155(1):128–39

Enzymatic 4-O-acetylation of N-acetylneuraminic acid in guinea-pig liver. Iwersen M, et al. **Glycoconj J** 1998 Sep; 15(9):895–904

Histochemical studies on sialic acids in the epididymis during post-natal development of the rat. Ueda T, et al. **Histochem J** 1998 Sep;30(9):667–76

Relevance of sialoglycoconjugates in murine thymocytes during maturation and selection in the thymus. Alvarez G, et al. **Immunol Invest** 1999 Jan;28(1):9–18

Alpha 1,6-linked fucose affects the expression and stability of polysialic acid-carrying glycoproteins in Chinese hamster ovary cells. Kojima N, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):726–37

Molecular cloning of a novel alpha2,3-sialyltransferase (ST3Gal VI) that sialylates type II lactosamine structures on glycoproteins and glycolipids. Okajima T, et al. **J Biol Chem** 1999 Apr 23;274(17):11479–86

A role for polysialic acid in neural cell adhesion molecule heterophilic binding to proteoglycans. Storms SD, et al. **J Biol Chem** 1998 Oct 16;273(42):27124–9

The polysialic acid units of the neural cell adhesion molecule N-CAM form filament bundle networks. Toikka J, et al. **J Biol Chem** 1998 Oct 30;273(44):28557–9

Ammonia inhibits neural cell adhesion molecule polysialylation in Chinese hamster ovary and small cell lung cancer cells. Zanghi JA, et al. **J Cell Physiol** 1998 Nov; 177(2):248–63

Determination of sialic acids in biological fluids using reversed-phase ion-pair high-performance liquid chromatography. Siskos PA, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):205–12

Different polysialic acid-neural cell adhesion molecule expression patterns in distinct types of mossy fiber boutons in the adult hippocampus. Seki T, et al. **J Comp Neurol** 1999 Jul 19;410(1):115–25

Polysialic acid facilitates migration of luteinizing hormone-releasing hormone neurons on vomeronasal axons. Yoshida K, et al. **J Neurosci** 1999 Jan 15; 19(2):794–801

Serotonin depletion in the adult rat produces differential changes in highly polysialylated form of neural cell adhesion molecule and tenascin-C immunoreactivity. Brezun JM, et al. **J Neurosci Res** 1999 Jan 1;55(1):54–70

Polysialylated neural cell adhesion molecule expression in the dentate gyrus of the human hippocampal formation from infancy to old age. Ni Dhúill CM, et al. **J Neurosci Res** 1999 Jan 1;55(1):99–106

Increased brain glucose utilization in Salla disease (free sialic acid storage disorder). Suhonen-Polvi H, et al. **J Nucl Med** 1999 Jan;40(1):12–8

Polysialylated neural cell adhesion molecule as a marker for differential diagnosis in pediatric tumors. Glüer S, et al. **J Pediatr Surg** 1998 Oct;33(10):1516–20

Polysialic acid, a unique glycan that is developmentally regulated by two polysialyltransferases, PST and STX, in the central nervous system: from biosynthesis to function. Nakayama J, et al. **Pathol Int** 1998 Sep;48(9):665–77 (67 ref.)

PHARMACOKINETICS

Deposition and disposition of [11C]zanamivir following administration as an intranasal spray. Evaluation with positron emission tomography. Bergstrom M, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:33–9

Effect of renal impairment on the pharmacokinetics of intravenous zanamivir. Cass LM, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:13–9

Pharmacoscintigraphic evaluation of lung deposition of inhaled zanamivir in healthy volunteers. Cass LM, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:21–31

Pharmacokinetics of zanamivir after intravenous, oral, inhaled or intranasal administration to healthy volunteers. Cass LM, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:1–11

PHARMACOLOGY

Sialidase inhibitors related to zanamivir: synthesis and biological evaluation of 4H-pyran 6-ether and ketone. Smith PW, et al. **Bioorg Med Chem Lett** 1999 Feb 22; 9(4):601–4

Zanamivir. A potent and selective inhibitor of influenza A and B viruses. Aoki FY, et al. **Clin Pharmacokinet** 1999; 36 Suppl 1:v–ix (24 ref.)

The low potential for drug interactions with zanamivir. Daniel MJ, et al. **Clin Pharmacokinet** 1999;36 Suppl 1:41–50

Ammonia inhibits neural cell adhesion molecule polysialylation in Chinese hamster ovary and small cell lung cancer cells. Zanghi JA, et al. **J Cell Physiol** 1998 Nov; 177(2):248–63

PHYSIOLOGY

Endothelial alpha 2,6-linked sialic acid inhibits VCAM-1-dependent adhesion under flow conditions. Abe Y, et al. **J Immunol** 1999 Sep 1;163(5):2867–76

Role of polysialic acid on outgrowth of rat olfactory receptor neurons. Aoki K, et al. **Mech Dev** 1999 Jul;85(1-2):103–10

Polysialic acid, a unique glycan that is developmentally regulated by two polysialyltransferases, PST and STX, in the central nervous system: from biosynthesis to function. Nakayama J, et al. **Pathol Int** 1998 Sep;48(9):665–77 (67 ref.)

THERAPEUTIC USE

Novel therapies for Helicobacter pylori infection. Opekun AR, et al. **Aliment Pharmacol Ther** 1999 Jan;13(1):35–42

Preclinical development of low toxicity drugs: focus on zanamivir, an anti-influenza drug. Dines GD, et al. **Drug Saf** 1998 Sep;19(3):233–41 (19 ref.)

The relentless flu drug [news] **Environ Health Perspect** 1998 Aug;106(8):A372–3

Nasal cytokine and chemokine responses in experimental influenza A virus infection: results of a placebo-controlled trial of intravenous zanamivir treatment. Fritz RS, et al. **J Infect Dis** 1999 Sep;180(3):586–93

Evidence for zanamivir resistance in an immunocompromised child infected with influenza B virus. Gubareva LV, et al. **J Infect Dis** 1998 Nov;178(5):1257–62

Characterization of influenza A/HongKong/156/97 (H5N1) virus in a mouse model and protective effect of zanamivir on H5N1 infection in mice. Gubareva LV, et al. **J Infect Dis** 1998 Dec;178(6):1592–6

Efficacy and safety of the neuraminidase inhibitor zanamivirin the treatment of influenza A and B virus infections. Monto AS, et al. **J Infect Dis** 1999 Aug; 180(2):254–61

Zanamivir in the prevention of influenza among healthy adults: a randomized controlled trial [see comments] Monto AS, et al. **JAMA** 1999 Jul 7;282(1):31–5. Comment in: JAMA 1999 Jul 7;282(1):75–7.

New options for prevention and control of influenza [editorial; comment] Patriarca PA. **JAMA** 1999 Jul 7; 282(1):75–7. Comment on: JAMA 1999 Jul 7;282(1):31–5.

Progress treating, preventing influenza [news] Stephenson J. **JAMA** 1998 Nov 25;280(20):1729–30

Treating influenza with zanamivir [letter; comment] Fleming DM. **Lancet** 1999 Feb 20;353(9153):668–9. Comment on: Lancet 1998 Dec 12;352(9144):1872–3. Comment on: Lancet 1998 Dec 12;352(9144):1877–81.

New ways to tackle influenza highlighted at ICAAC. Interscience Conference on Antimicrobial Agents and Chemotherapy [news] Ostroff S, et al. **Lancet** 1998 Oct 3;352(9134):1123

Treating influenza with zanamivir [comment] [see comments] Read RC. **Lancet** 1998 Dec 12;352(9144):1872–3. Comment on: Lancet 1998 Dec 12;352(9144):1877–81. Comment in: Lancet 1999 Feb 20;353(9153):668–9. Comment in: Lancet 1999 Feb 20;353(9153):669.

Treating influenza with zanamivir. Management of Influenza in the Southern Hemisphere Trialists [letter; comment] Silagy CA. **Lancet** 1999 Feb 20;353(9153):669. Comment on: Lancet 1998 Dec 12;352(9144):1872–3. Comment on: Lancet 1998 Dec 12;352(9144):1877–81.

Glaxo's antiviral ills not deemed contagious [news] Dove A. **Nat Biotechnol** 1999 Apr;17(4):322–3

Disarming flu viruses. Laver WG, et al. **Sci Am** 1999 Jan; 280(1):78–87

Efficacy of zanamivir for chemoprophylaxis of nursing home influenza outbreaks. Schilling M, et al. **Vaccine** 1998 Nov; 16(18):1771–4

[HIV, hepatitis, influenza: new antiviral agents] **Dtsch Med Wochenschr** 1999 Jan 8;124(1-2):A16 **(Ger)**

URINE

Analysis of sialyllactoses in blood and urine by high-performance liquid chromatography. Fu D, et al. **Anal Biochem** 1999 Apr 10;269(1):113–23

Sialuria in a Portuguese girl: clinical, biochemical, and molecular characteristics. Ferreira H, et al. **Mol Genet Metab** 1999 Jun;67(2):131–7

SIALIDASE see **NEURAMINIDASE**

SIALOGLYCOPEPTIDES see **SIALOGLYCOPROTEINS**

SIALOGLYCOPROTEINS

see related
ASIALOGLYCOPROTEINS

ADMINISTRATION & DOSAGE

Efficacy of sustained blood levels of interleukin-1 receptor antagonist in animal models of arthritis: comparison of efficacy in animal models with human clinical data. Bendele A, et al. **Arthritis Rheum** 1999 Mar;42(3):498–506

Lymphotactin acts as an innate mucosal adjuvant. Lillard JW Jr, et al. **J Immunol** 1999 Feb 15;162(4):1959–65

Effects of interleukin 1 receptor antagonist alone and in combination with methotrexate in adjuvant arthritic rats. Bendele A, et al. **J Rheumatol** 1999 Jun;26(6):1225–9

Effects of interleukin-1 receptor antagonist in a slow-release hylan vehicle on rat type II collagen arthritis. Bendele A, et al. **Pharm Res** 1998 Oct;15(10):1557–61

ANALYSIS

Gene expressions of antiinflammatory mediators in THR retrieved interfacial membranes. Nabae M, et al. **Acta Orthop Scand** 1999 Apr;70(2):149–54

Frequency of CD43 expression in non-Hodgkin lymphoma. A survey of 742 cases and further characterization of rare CD43+ follicular lymphomas. Lai R, et al. **Am J Clin Pathol** 1999 Apr;111(4):488–94

Osteopontin and bone sialoprotein distribution at the bone graft recipient site. Alberius P, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec;124(12):1382–6

Detection of mouse osteopontin by western blotting. Rittling SR, et al. **Biochem Biophys Res Commun** 1998 Sep 18; 250(2):287–92

Osteopontin localization in the Holstein bull reproductive tract. Cancel AM, et al. **Biol Reprod** 1999 Feb;60(2):454–60

Ovarian interleukin-1 receptor antagonist in rats: gene expression, cellular localization, cyclic variation, and hormonal regulation of a potential determinant of interleukin-1 action. Kol S, et al. **Biol Reprod** 1999 Jul; 61(1):274–82

Acquisition of CD24 expression by Lin-CD43+B220(low)ckit(hi) cells coincides with commitment to the B cell lineage. Hunte BE, et al. **Eur J Immunol** 1998 Nov;28(11):3850–6

Confocal and electron microscopy to characterize sialoglycoconjugates in mouse sublingual gland acinar cells. Menghi G, et al. **Eur J Morphol** 1998 Aug;36 Suppl:222–9

Dentin sialoprotein, dentin phosphoprotein, enamelysin and ameloblastin: tooth-specific molecules that are distinctively expressed during murine dental differentiation. Bègue-Kirn C, et al. **Eur J Oral Sci** 1998 Oct;106(5):963–70

Evidence for phosphoprotein microspheres in bone. Carter DH, et al. **Histochem J** 1998 Sep;30(9):677–86

Plasma interference in an enzyme-linked immunosorbant assay using a commercial matched antibody pair. Nemzek JA, et al. **Immunol Invest** 1999 Jul;28(4):209–21

Detection of CD43 (leukosialin) in colon adenoma and adenocarcinoma by novel monoclonal antibodies against its intracellular domain. Sikut R, et al. **Int J Cancer** 1999 Jul 2;82(1):52–8

Interleukin-1 receptor antagonist expression in epithelial cells of human endometrium. Fukuda M, et al. **Int J Gynaecol Obstet** 1995 Jun;49(3):305–10

Osteopontin expression in fetal and mature human kidney. Hudkins KL, et al. **J Am Soc Nephrol** 1999 Mar; 10(3):444–57

Determination of interleukin-1 receptor antagonist, interleukin-10, and transforming growth factor-beta1 in synovial fluid aspirates of patients with temporomandibular disorders. Fang PK, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):922–8; discussion 928–9

Immunolocalization of anti-agglutinin for spermatozoa in boars. Harayama H, et al. **Mol Reprod Dev** 1999 Mar; 52(3):269–76

Immunohistochemical localization of interleukin-1beta, interleukin-1 receptor antagonist and interleukin-1beta converting enzyme/caspase-1 in the rat brain after peripheral administration of kainic acid. Eriksson C, et al. **Neuroscience** 1999;93(3):915–30

Lectin-cytochemistry of experimental rat nephrolithiasis. de Bruijn WC, et al. **Scanning Microsc** 1996;10(2):557–76

BIOSYNTHESIS

Relationship between interleukin-1 and interleukin-1 receptor antagonist during the development of fever in the rat. Cartmell T, et al. **Ann N Y Acad Sci** 1998 Sep 29; 856:252–5

Collagen-PVP accelerates new bone formation of experimentally induced bone defects in rat skull and promotes the expression of osteopontin and SPARC during bone repair of rat femora fractures. Chimal-Monroy J, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:232–6

Enhanced osteopontin expression and macrophage infiltration in MRL-Fas(lpr) mice with lupus nephritis. Wüthrich RP, et al. **Autoimmunity** 1998;28(3):139–50

Expression of osteopontin in Kupffer cells and hepatic macrophages and Stellate cells in rat liver after carbon tetrachloride intoxication: a possible factor for macrophage migration into hepatic necrotic areas. Kawashima R, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):527–31

Interleukin-4 (IL-4) and IL-13 enhance the effect of IL-1beta on production of IL-1 receptor antagonist by human primary hepatocytes and hepatoma HepG2 cells: differential effect on C-reactive protein production. Gabay C, et al. **Blood** 1999 Feb 15;93(4):1299–307

Restricted and coordinated expression of beta3-integrin and bone sialoprotein during cultured osteoblast differentiation. Schneider GB, et al. **Bone** 1999 Apr;24(4):321–7

Development of avian tibial dyschondroplasia: gene expression and protein synthesis. Pines M, et al. **Calcif Tissue Int** 1998 Dec;63(6):521–7

Transcription of the bone sialoprotein gene is stimulated by v-Src acting through an inverted CCAAT box. Kim RH, et al. **Cancer Res** 1999 Feb 1;59(3):565–71

Overexpression of sialomucin complex, a rat homologue of MUC4, inhibits tumor killing by lymphokine-activated killer cells. Komatsu M, et al. **Cancer Res** 1999 May 1; 59(9):2229–36

Induction of interleukin 1 receptor antagonist after interleukin 1 therapy in patients with cancer. Kopp WC, et al. **Clin Cancer Res** 1996 Mar;2(3):501–6

Hormonal profiles and immunological studies of male lupus in Taiwan. Chang DM, et al. **Clin Rheumatol** 1999; 18(2):158–62

Expression of dentin sialoprotein (DSP) and other molecular determinants by a new cell line from dental papillae, MDPC-23. Sun ZL, et al. **Connect Tissue Res** 1998; 37(3–4):251–61

Exposure of T lymphocytes to leflunomide but not to dexamethasone favors the production by monocytic cells of interleukin-1 receptor antagonist and the tissue-inhibitor of metalloproteinases-1 over that of interleukin-1beta and metalloproteinases. Déage V, et al. **Eur Cytokine Netw** 1998 Dec;9(4):663–8

Differential expression of interleukin 1 receptor antagonist isoforms in human intestinal epithelial cells. Böcker U, et al. **Gastroenterology** 1998 Dec;115(6):1426–38

Expression of osteopontin in Meckel's cartilage cells during phenotypic transdifferentiation in vitro, as detected by in situ hybridization and immunocytochemical analysis. Ishizeki K, et al. **Histochem Cell Biol** 1998 Nov; 110(5):457–66

Osteopontin expression in ovarian carcinomas and tumors of low malignant potential (LMP). Tiniakos DG, et al. **Hum Pathol** 1998 Nov;29(11):1250–4

Myocardial osteopontin expression coincides with the development of heart failure. Singh K, et al. **Hypertension** 1999 Feb;33(2):663–70

Inducible expression of nuclear factor IL-6 increases endogenous gene expression of macrophage inflammatory protein-1 alpha, osteopontin and CD14 in a monocytic leukemia cell line. Matsumoto M, et al. **Int Immunol** 1998 Dec;10(12):1825–35

Human IL-1 receptor antagonist from Escherichia coli: large-scale microbial growth and protein purification. Zanette D, et al. **J Biotechnol** 1998 Oct 8;64(2–3):187–96

Arthritis: is the cure in your genes? Herndon JH, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):152–7 (36 ref.)

Activin A regulates the production of mature interleukin-1beta and interleukin-1 receptor antagonist in human monocytic cells. Ohguchi M, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):491–8

Expression of osteopontin and osteonectin in breast cancer. Kim YW, et al. **J Korean Med Sci** 1998 Dec;13(6):652–7

Lipopolysaccharide from Actinobacillus actinomycetemcomitans stimulates production of interleukin-1beta, tumor necrosis factor-alpha, interleukin-6 and interleukin-1 receptor antagonist in human whole blood. Schytte Blix IJ, et al. **J Periodontal Res** 1999 Jan;34(1):34–40

Interleukin-1 receptor antagonist synthesis by peripheral blood mononuclear cells in hemodialysis patients. Balakrishnan VS, et al. **Kidney Int** 1998 Dec;54(6):2106–12

Differences in osteopontin up-regulation between proximal and distal tubules after renal ischemia/reperfusion. Persy VP, et al. **Kidney Int** 1999 Aug;56(2):601–11

Altered expression of interleukin-1 receptor antagonist in different stages of mouse skin carcinogenesis. La E, et al. **Mol Carcinog** 1999 Apr;24(4):276–86

Differential expression of sialoglycoproteins in the rat hippocampus and its changes during aging. Sato Y, et al. **Neurosci Lett** 1999 Feb 26;262(1):49–52

[Production of IL-1 and IL-1 RA in different stages of arthritis] Smith MD, et al. **Rev Prat** 1998 Nov 1;48 Suppl 17:S16–23 **(Fre)**

BLOOD

Serum concentrations of cartilage oligomeric matrix protein and bone sialoprotein in hip osteoarthritis: a one year prospective study. Conrozier T, et al. **Ann Rheum Dis** 1998 Sep;57(9):527–32

Changes in serum levels of sialoglycoproteins in mice exposed to UV-B radiation. Yamamoto K, et al. **Biol Pharm Bull** 1998 Sep;21(9):1000–2

Increasing levels of interleukin (IL)-1Ra and IL-6 during the first 2 days of hospitalization in unstable angina are associated with increased risk of in-hospital coronary events. Biasucci LM, et al. **Circulation** 1999 Apr 27; 99(16):2079–84

Elevated plasma osteopontin in metastatic breast cancer associated with increased tumor burden and decreased survival. Singhal H, et al. **Clin Cancer Res** 1997 Apr; 3(4):605–11

Imbalances in serum proinflammatory cytokines and their soluble receptors: a putative role in the progression of idiopathic IgA nephropathy (IgAN) and Henoch-Schönlein purpura nephritis, and a potential target of immunoglobulin therapy? Rostoker G, et al. **Clin Exp Immunol** 1998 Dec;114(3):468–76

Increased circulating cytokine receptors and ex vivo interleukin-1 receptor antagonist and interleukin-1beta production but decreased tumour necrosis factor-alpha production after a 5-km run [see comments] Drenth JP, et al. **Eur J Clin Invest** 1998 Oct;28(10):866–72. Comment in: Eur J Clin Invest 1998 Oct;28(10):873–4.

Are circulating cytokine receptors and ex vivo interleukin-1 receptor antagonist and interleukin-1beta production increased and tumour necrosis factor-alpha production decreased after a 5-km run? [comment] Gleeson M. **Eur J Clin Invest** 1998 Oct;28(10):873–4. Comment on: Eur J Clin Invest 1998 Oct;28(10):866–72.

Interleukin 1 receptor antagonist and E-selectin concentrations: a comparison in patients with severe acute pancreatitis and severe sepsis. Hynninen M, et al. **J Crit Care** 1999 Jun;14(2):63–8

Intracerebroventricular injection of interleukin-1 stimulates the release of high levels of interleukin-6 and interleukin-1 receptor antagonist into peripheral blood in the primate. Xiao E, et al. **J Neuroimmunol** 1999 Jun 1;97(1–2):70–6

Interleukin-1 receptor antagonist and interleukin-6 for early diagnosis of neonatal sepsis 2 days before clinical manifestation [see comments] Küster H, et al. **Lancet** 1998 Oct 17;352(9136):1271–7. Comment in: Lancet 1999 Jan 16;353(9148):239–40.

Identification of 9-O acetyl sialoglycoconjugates (9-OAcSGs) as biomarkers in childhood acute lymphoblastic leukemia using a lectin, AchatininH, as a probe. Sinha D, et al. **Leukemia** 1999 Jan;13(1):119–25

Inhalation of swine-house dust increases the concentrations of interleukin-1 beta (IL-1 beta) and interleukin-1 receptor antagonist (IL-1ra) in peripheral blood. Wang Z, et al. **Respir Med** 1998 Aug;92(8):1022–7

Circulating interleukin-1 receptor antagonist (IL-1RA) serum levels in patients undergoing orthotopic heart transplantation. Thiele RI, et al. **Transpl Int** 1998; 11(6):443–8

[Changes of serum cytokine levels after thoracoscopic esophagectomy] Takemura M, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1305–10 (Eng. Abstr.) **(Jpn)**

CHEMICAL SYNTHESIS

The synthesis and enzymatic incorporation of sialic acid derivatives for use as tools to study the structure, activity, and inhibition of glycoproteins and other glycoconjugates. Martin R, et al. **Bioorg Med Chem** 1998 Aug;6(8):1283–92

CHEMISTRY

The synthesis and enzymatic incorporation of sialic acid derivatives for use as tools to study the structure, activity, and inhibition of glycoproteins and other glycoconjugates. Martin R, et al. **Bioorg Med Chem** 1998 Aug;6(8):1283–92

Core 2-containing O-glycans on CD43 are preferentially expressed in the memory subset of human CD4 T cells. Mukasa R, et al. **Int Immunol** 1999 Feb;11(2):259–68

Structural requirements for CD43 function. Walker J, et al. **J Immunol** 1999 Apr 1;162(7):4109–14

Probing cell-surface architecture through synthesis: an NMR-determined structural motif for tumor-associated mucins. Live DH, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3489–93

[Structural characteristics of osteopontin for calcium oxalate crystal] Umekawa T. **Nippon Hinyokika Gakkai Zasshi** 1999 Mar;90(3):436–44 (Eng. Abstr.) **(Jpn)**

DEFICIENCY

Osteopontin-deficient mice are resistant to ovariectomy-induced bone resorption. Yoshitake H, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8156–60

GENETICS

Redox regulation of c-Ha-ras and osteopontin signaling in vascular smooth muscle cells: implications in chemical atherogenesis. Ramos KS. **Annu Rev Pharmacol Toxicol** 1999;39:243–65 (145 ref.)

Interleukin-1beta, interleukin-1 receptor antagonist, interleukin-4, and interleukin-10 gene polymorphisms: relationship to occurrence and severity of rheumatoid arthritis. Cantagrel A, et al. **Arthritis Rheum** 1999 Jun; 42(6):1093–100

Altered susceptibility to collagen-induced arthritis in transgenic mice with aberrant expression of interleukin-1 receptor antagonist. Ma Y, et al. **Arthritis Rheum** 1998 Oct; 41(10):1798–805

Enhanced expression of osteopontin by high glucose in cultured rat aortic smooth muscle cells. Takemoto M, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):722–6

Tooth-specific expression conferred by the regulatory sequences of rat dentin sialoprotein gene in transgenic mice. Yamazaki H, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):433–40

Cloning and characterization of gp36, a human mucin-type glycoprotein preferentially expressed in vascular endothelium. Zimmer G, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):277–84

Expression of interleukin-1 system genes in human gametes. de los Santos MJ, et al. **Biol Reprod** 1998 Dec;59(6):1419–24

Allelic variation at the interleukin-1 receptor antagonist gene is associated with early postmenopausal bone loss at the spine. Keen RW, et al. **Bone** 1998 Oct;23(4):367–71

Overexpression of IL-1ra gene up-regulates interleukin-1beta converting enzyme (ICE) gene expression: possible mechanism underlying IL-1beta-resistance of cancer cells. Sumitomo M, et al. **Br J Cancer** 1999 Sep;81(2):277–86

Expression of intercellular adhesion molecule 1 (ICAM-1) is reduced in permanent focal cerebral ischemic mouse brain using an adenoviral vector to induce overexpression of interleukin-1 receptor antagonist. Yang GY, et al. **Brain Res Mol Brain Res** 1999 Mar 5;65(2):143–50

Interleukin-1 receptor antagonist mRNA expression and the progression of gastric carcinoma. Iizuka N, et al. **Cancer Lett** 1999 Aug 3;142(2):179–84

Activation of the osteopontin promoter by the orphan nuclear receptor estrogen receptor related alpha. Vanacker JM, et al. **Cell Growth Differ** 1998 Dec;9(12):1007–14

Expression of mRNAs for type-I collagen, bone sialoprotein, osteocalcin, and osteopontin at different stages of osteoblastic differentiation and their regulation by 1,25 dihydroxyvitamin D3. Bellows CG, et al. **Cell Tissue Res** 1999 Aug;297(2):249–59

Imbalance of IL-1 beta and IL-1 receptor antagonist mRNA in liver tissue from hepatitis C virus (HCV)-related chronic hepatitis. Gramantieri L, et al. **Clin Exp Immunol** 1999 Mar; 115(3):515–20

The human intracellular interleukin 1 receptor antagonist promoter appropriately regulates gene expression in keratinocytes and gastrointestinal epithelial cells in vivo. Gabay C, et al. **Cytokine** 1999 Aug;11(8):561–70

Adenoviral gene transfer of the interleukin-1 receptor antagonist protein to human islets prevents IL-1beta-induced beta-cell impairment and activation of islet cell apoptosis in vitro. Giannoukakis N, et al. **Diabetes** 1999 Sep;48(9):1730–6

Expression of multiple forms of IL-1 receptor antagonist (IL-1ra) by human retinal pigment epithelial cells: identification of a new IL-1ra exon. Holtkamp GM, et al. **Eur J Immunol** 1999 Jan;29(1):215–24

CD28 co-stimulation results in down-regulation of lymphotactin expression in human CD4(+) but not CD8(+) T cells via an IL-2-dependent mechanism. Olive D, et al. **Eur J Immunol** 1999 Aug;29(8):2443–53

Upstream stimulatory factor 1 regulates osteopontin expression in smooth muscle cells. Malyankar UM, et al. **Exp Cell Res** 1999 Aug 1;250(2):535–47

The influence of interleukin-1 receptor antagonist transgene on spiral ganglion neurons. Komeda M, et al. **Hear Res** 1999 May;131(1-2):1–10

Adenoviral vectors expressing lymphotactin and interleukin 2 or lymphotactin and interleukin 12 synergize to facilitate tumor regression in murine breast cancer models [see comments]. Emtage PC, et al. **Hum Gene Ther** 1999 Mar 20;10(5):697–709. Comment in: Hum Gene Ther 1999 Mar 20;10(5):695–6.

Enhanced therapeutic efficacy of tumor RNA-pulsed dendritic cells after genetic modification with lymphotactin. Zhang W, et al. **Hum Gene Ther** 1999 May 1;10(7):1151–61

Two common polymorphisms in the coding part of the CD43 gene are not associated with atopy. Kruse S, et al. **Int Arch Allergy Immunol** 1998 Dec;117(4):244–7

Melatonin promotes osteoblast differentiation and bone formation. Roth JA, et al. **J Biol Chem** 1999 Jul 30; 274(31):22041–7

Arthritis: is the cure in your genes? Herndon JH, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):152–7 (36 ref.)

Cloning of a 2.5 kb murine bone sialoprotein promoter fragment and functional analysis of putative Osf2 binding sites. Benson MD, et al. **J Bone Miner Res** 1999 Mar; 14(3):396–405

Altered expression of bone sialoproteins in vitamin D-deficient rBSP2.7Luc transgenic mice. Chen JJ, et al. **J Bone Miner Res** 1999 Feb;14(2):221–9

Influence of polymorphism in the genes for the interleukin (IL)-1 receptor antagonist and IL-1beta on tuberculosis. Wilkinson RJ, et al. **J Exp Med** 1999 Jun 21; 189(12):1863–74

Lymphotactin gene-modified bone marrow dendritic cells act as more potent adjuvants for peptide delivery to induce specific antitumor immunity. Cao X, et al. **J Immunol** 1998 Dec 1;161(11):6238–44

An activation-responsive element in single C motif-1/lymphotactin promoter is a site of constitutive and inducible DNA-protein interactions involving nuclear factor of activated T cell. Yoshida T, et al. **J Immunol** 1999 Sep 15;163(6):3295–303

Relationship between Ureaplasma urealyticum vaginal colonization and polymorphism in the interleukin-1 receptor antagonist gene. Jeremias J, et al. **J Infect Dis** 1999 Sep;180(3):912–4

Identification of a chicken "C" chemokine related to lymphotactin. Rossi D, et al. **J Leukoc Biol** 1999 Jan; 65(1):87–93

Regulation of proximal tubular osteopontin in experimental hydronephrosis in the rat. Diamond JR, et al. **Kidney Int** 1998 Nov;54(5):1501–9

Obstructive uropathy in the mouse: role of osteopontin in interstitial fibrosis and apoptosis. Ophascharoensuk V, et al. **Kidney Int** 1999 Aug;56(2):571–80

Tumor cells are the source of osteopontin and bone sialoprotein expression in human breast cancer. Sharp JA, et al. **Lab Invest** 1999 Jul;79(7):869–77

Expression of an IL-1 receptor antagonist during mouse hepatocarcinogenesis demonstrated by differential display analysis. Yamada Y, et al. **Lab Invest** 1999 Sep; 79(9):1059–67

Synergetic effect between interleukin-1 receptor antagonist allele (IL1RN*2) and MHC class II (DR17,DQ2) in determining susceptibility to systemic lupus erythematosus. Tjernström F, et al. **Lupus** 1999;8(2):103–8

Regulation of osteopontin gene expression during egg shell formation in the laying hen by mechanical strain. Lavelin I, et al. **Matrix Biol** 1998 Dec;17(8-9):615–23

Transcriptional regulation of osteopontin gene in vivo by PEBP2alphaA/CBFA1 and ETS1 in the skeletal tissues. Sato M, et al. **Oncogene** 1998 Sep 24;17(12):1517–25

Significant differences in the interleukin-1beta and interleukin-1 receptor antagonist gene polymorphisms in a Hungarian population with inflammatory bowel disease. Nemetz A, et al. **Scand J Gastroenterol** 1999 Feb; 34(2):175–9

Resistance to human cytomegalovirus infection may be influenced by genetic polymorphisms of the tumour necrosis factor-alpha and interleukin-1 receptor antagonist genes. Hurme M, et al. **Scand J Infect Dis** 1998;30(5):447–9

The interleukin-1 receptor antagonist gene shows no allelic association with three autoimmune diseases [letter]. Heward J, et al. **Thyroid** 1999 Jun;9(6):627–8

Mycophenolic acid inhibits PDGF-induced osteopontin expression in rat mesangial cells. Wang W, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1176–7

Expression of osteopontin mRNA in normal and stone-forming rat kidney. Jiang XJ, et al. **Urol Res** 1998; 26(6):389–94

The effect of takusha, a kampo medicine, on renal stone formation and osteopontin expression in a rat urolithiasis model. Yasui T, et al. **Urol Res** 1999 Jun;27(3):194–9

Alendronate inhibits osteopontin expression enhanced by parathyroid hormone-related peptide (PTHrP) in the rat kidney. Yasui T, et al. **Urol Res** 1998;26(5):355–60

[In vitro transduction of human osteoblast cell populations with retroviral vectors] Baltzer AW, et al. **Z Rheumatol** 1999 Apr;58(2):88–94 (Eng. Abstr.) **(Ger)**

[Two proteins from the nuclear matrix bind osteopontin gene promoter (published erratum appears in Tsitologiia 1998;40(11):following 1007)] Urusov AG, et al. **Tsitologiia** 1998;40(7):627–32 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Detection of various epitopes of murine osteopontin by monoclonal antibodies. Hotta H, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):6–11

Rat osteopontin antibody is cross-reactive to a novel myelin-associated protein in chick. Kang TC, et al. **Brain Res** 1999 Feb 13;818(2):527–30

An antiserum raised against the recombinant cytoplasmic tail of the human CD43 glycoprotein identifies CD43 in many mammalian species. Szlanka T, et al. **Immunology** 1999 Jan; 96(1):74–82

Effects of interleukin-1 receptor antagonist overexpression on infection by Listeria monocytogenes. Irikura VM, et al. **Infect Immun** 1999 Apr;67(4):1901–9

Endogenous superallergen protein Fv interacts with the VH3 region of IgE to induce cytokine secretion from human basophils. Patella V, et al. **Int Arch Allergy Immunol** 1999 Feb-Apr;118(2-4):197–9

Generation and characterization of a monoclonal antibody recognizing a fetal brain enriched O-linked sialoglycoprotein, FOG100. Imamura T, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):534–9

Cross-linking of membrane CD43 mediates dendritic cell maturation. Corinti S, et al. **J Immunol** 1999 Jun 1; 162(11):6331–6

Lymphotactin acts as an innate mucosal adjuvant. Lillard JW Jr, et al. **J Immunol** 1999 Feb 15;162(4):1959–65

The CBF.78 monoclonal antibody to human sialophorin has distinct properties giving new insights into the CD43 marker and its activation pathway. Tkaczuk J, et al. **Tissue Antigens** 1999 Jul;54(1):1–15

METABOLISM

Switch of osteonectin and osteopontin mRNA expression in the process of cartilage-to-bone transition during fracture repair. Nakase T, et al. **Acta Histochem** 1998 Jul; 100(3):287–95

Podocalyxin in rat platelets and megakaryocytes. Miettinen A, et al. **Am J Pathol** 1999 Mar;154(3):813–22

IL-1 up-regulates osteopontin expression in experimental crescentic glomerulonephritis in the rat. Yu XQ, et al. **Am J Pathol** 1999 Mar;154(3):833–41

Acute-phase responses in transgenic mice with CNS overexpression of IL-1 receptor antagonist. Lundkvist J, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R644–51

Gestational age-dependent extravillous cytotrophoblast osteopontin immunolocalization differentiates between normal and preeclamptic pregnancies. Gabinskaya T, et al. **Am J Reprod Immunol** 1998 Nov;40(5):339–46

IL-1 and IL-1 receptor antagonist regulation during keratinocyte cell cycle and differentiation in normal and psoriatic epidermis. Hammerberg C, et al. **Arch Dermatol Res** 1998 Jul;290(7):367–74

Possible relation of osteopontin to development of psammoma bodies in human papillary thyroid cancer. Tunio GM, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1087–90

Noncollagenous bone matrix proteins, calcification, and thrombosis in carotid artery atherosclerosis. Bini A, et al. **Arterioscler Thromb Vasc Biol** 1999 Aug;19(8):1852–61

Biochemical and MALDI analysis of the human sperm antigen gp20, homologue of leukocyte CD52. Focarelli R, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):639–43

Role of sialoglycan structures for the function of the epidermal growth factor receptor and the in vitro proliferation of head and neck cancer. Bergler W, et al. **Eur Arch Otorhinolaryngol** 1998;255(8):414–9

Characterization of type II intracellular IL-1 receptor antagonist (IL-1ra3): a depot IL-1ra. Muzio M, et al. **Eur J Immunol** 1999 Mar;29(3):781–8

CD28 co-stimulation results in down-regulation of lymphotactin expression in human CD4(+) but not CD8(+) T cells via an IL-2-dependent mechanism. Olive D, et al. **Eur J Immunol** 1999 Aug;29(8):2443–53

PECAM-1 and leukosialin (CD43) expression correlate with heightened inflammation in rat adjuvant-induced arthritis. Volin MV, et al. **Exp Mol Pathol** 1999 Aug;66(3):211–9

Characterization of SPACR, a sialoprotein associated with cones and rods present in the interphotoreceptor matrix of the human retina: immunological and lectin binding analysis. Acharya S, et al. **Glycobiology** 1998 Oct; 8(10):997–1006

Identification of megalin as the sole rat kidney sialoglycoprotein containing poly alpha2,8 deaminoneuraminic acid. Ziak M, et al. **J Am Soc Nephrol** 1999 Feb;10(2):203–9

Cross-linking of osteopontin by tissue transglutaminase increases its collagen binding properties. Kaartinen MT, et al. **J Biol Chem** 1999 Jan 15;274(3):1729–35

Modulation of osteopontin post-translational state by 1, 25-(OH)2-vitamin D3. Dependence on Ca2+ influx. Safran JB, et al. **J Biol Chem** 1998 Nov 6;273(45):29935–41

Attachment, morphology, and protein expression of rat marrow stromal cells cultured on charged substrate surfaces. Qiu Q, et al. **J Biomed Mater Res** 1998 Oct; 42(1):117–27

Osteopontin in skeletal tissue homeostasis: An emerging picture of the autocrine/paracrine functions of the extracellular matrix [editorial; comment] Gerstenfeld LC. **J Bone Miner Res** 1999 Jun;14(6):850–5 (85 ref.). Comment on: J Bone Miner Res 1999 Jun;14(6):839–49.

CD44 is not an adhesive receptor for osteopontin. Smith LL, et al. **J Cell Biochem** 1999 Apr 1;73(1):20–30

A novel CD8 T cell-restricted CD45RB epitope shared by CD43 is differentially affected by glycosylation. Carlow DA, et al. **J Immunol** 1999 Aug 1;163(3):1441–8

Cross-linking of membrane CD43 mediates dendritic cell maturation. Corinti S, et al. **J Immunol** 1999 Jun 1; 162(11):6331–6

Intracellular IL-1 receptor antagonist is elevated in human dermal fibroblasts that overexpress intracellular precursor IL-1 alpha. Higgins GC, et al. **J Immunol** 1999 Oct 1; 163(7):3969–75

Osteopontin is associated with T cells in sarcoid granulomas and has T cell adhesive and cytokine-like properties in vitro. O'Regan AW, et al. **J Immunol** 1999 Jan 15; 162(2):1024–31

TCR signaling induces selective exclusion of CD43 from the T cell-antigen-presenting cell contact site. Sperling AI, et al. **J Immunol** 1998 Dec 15;161(12):6459–62

Rhinovirus regulation of IL-1 receptor antagonist in vivo and in vitro: a potential mechanism of symptom resolution. Yoon HJ, et al. **J Immunol** 1999 Jun 15;162(12):7461–9

Suppressed alloantigen presentation, increased TNF-alpha, IL-1, IL-1Ra, IL-10, and modulation of TNF-R in UV-irradiated human skin. Barr RM, et al. **J Invest Dermatol** 1999 May;112(5):692–8

Osteopontin (OPN) distribution in premalignant and malignant lesions of oral epithelium and expression in cell lines derived from squamous cell carcinoma of the oral cavity. Devoll RE, et al. **J Oral Pathol Med** 1999 Mar; 28(3):97–101

The association of peripheral monocyte derived interleukin 1beta (IL-1beta), IL-1 receptor antagonist, and tumor necrosis factor-alpha with osteoarthritis in the elderly. Fraenkel L, et al. **J Rheumatol** 1998 Sep;25(9):1820–6

Retinoic acid differentially regulates interleukin-1beta and interleukin-1 receptor antagonist production by human alveolar macrophages. Hashimoto S, et al. **Leuk Res** 1998 Nov;22(11):1057–61

Expression of core binding factor Osf2/Cbfa-1 and bone sialoprotein in tooth development. Jiang H, et al. **Mech Dev** 1999 Mar;81(1-2):169–73

A sialoglycoprotein, gp20, of the human capacitated sperm surface is a homologue of the leukocyte CD52 antigen: analysis of the effect of anti-CD52 monoclonal antibody (CAMPATH-1) on capacitated spermatozoa. Focarelli R, et al. **Mol Hum Reprod** 1999 Jan;5(1):46–51

Ectopic expression of bone sialoprotein in human thyroid cancer. Bellahcène A, et al. **Thyroid** 1998 Aug;8(8):637–41

Assembly in vitro of vitelline envelope components induced by a cortical alveolus sialoglycoprotein of eggs of the fish Tribolodon hakonensis. Kudo S, et al. **Zygote** 1998 Aug; 6(3):193–201

PHARMACOLOGY

Cytokines mediate protective stimulation of glucocorticoid output during autoimmunity: involvement of IL-1. del Rey A, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1146–51

Osteopontin inhibits inducible nitric oxide synthase activity in rat vascular tissue. Scott JA, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2258–65

Interleukin-1 receptor antagonist inhibits interleukin-8 expression in A549 respiratory epithelial cells infected in vitro with a replication-deficient recombinant adenovirus vector. Schwarz YA, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):388–94

Anterior hypothalamic interleukin-1 receptors are involved in mediation of fever during bacterial sepsis in rats. Gourine AV, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:266–9

Interleukin 1 receptor antagonist suppresses allosensitization in corneal transplantation. Yamada J, et al.

SIALOGLYCOPROTEINS

Arch Ophthalmol 1998 Oct;116(10):1351-7
Gastric mucosal inflammatory responses to Helicobacter pylori lipopolysaccharide: down-regulation of nitric oxide synthase-2 and caspase-3 by sulglycotide. Slomiany BL, et al. **Biochem Biophys Res Commun** 1999 Jul 22; 261(1):15-20
The carboxyl-terminal fragment of osteopontin suppresses arginine-glycine-asparatic acid-dependent cell adhesion. Takahashi K, et al. **Biochem Mol Biol Int** 1998 Dec; 46(6):1081-92
Modulatory in vitro effects of interleukin-1 receptor antagonist (IL-1Ra) or antisense oligonucleotide to interleukin-1 beta converting enzyme (ICE) on acute myeloid leukaemia (AML) cell growth. Stošić-Grujičić S, et al. **Clin Lab Haematol** 1999 Jun;21(3):173-85
Inhibition of cyclin D-cdk activity in cell cycle arrest of Swiss 3T3 cells by CeReS-18, a novel cell regulatory sialoglycopeptide. Zhao K, et al. **Exp Cell Res** 1998 Oct 10;244(1):295-301
Interleukin-1 receptor antagonist prevents embryonic implantation by a direct effect on the endometrial epithelium. Simón C, et al. **Fertil Steril** 1998 Nov; 70(5):896-906
Regulation of prostaglandin production in intact fetal membranes by interleukin-1 and its receptor antagonist. Brown NL, et al. **J Endocrinol** 1998 Dec;159(3):519-26
[Study on the effect of continuous administration of IL-1ra in BXSB mice] Yang G, et al.
Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao 1997 Dec; 19(6):409-13 (Eng. Abstr.) **(Chi)**

PHYSIOLOGY

Ovarian interleukin-1 receptor antagonist in rats: gene expression, cellular localization, cyclic variation, and hormonal regulation of a potential determinant of interleukin-1 action. Kol S, et al. **Biol Reprod** 1999 Jul; 61(1):274-82
Biomimetic peptide surfaces that regulate adhesion, spreading, cytoskeletal organization, and mineralization of the matrix deposited by osteoblast-like cells. Rezania A, et al. **Biotechnol Prog** 1999 Jan-Feb;15(1):19-32
Modulation of integrin function in hematopoietic progenitor cells by CD43 engagement: possible involvement of protein tyrosine kinase and phospholipase C-gamma. Anzai N, et al. **Blood** 1999 May 15;93(10):3317-26
A common signaling pathway via Syk and Lyn tyrosine kinases generated from capping of the sialomucins CD34 and CD43 in immature hematopoietic cells. Tada J, et al. **Blood** 1999 Jun 1;93(11):3723-35
Distinct roles of osteopontin in host defense activity and tumor survival during squamous cell carcinoma progression in vivo. Crawford HC, et al. **Cancer Res** 1998 Nov 15; 58(22):5206-15
CD44 variants but not CD44s cooperate with beta1-containing integrins to permit cells to bind to osteopontin independently of arginine-glycine-aspartic acid, thereby stimulating cell motility and chemotaxis. Katagiri YU, et al. **Cancer Res** 1999 Jan 1;59(1):219-26
Osteopontin. Between a rock and a hard plaque. Demer LL, et al. **Circ Res** 1999 Feb 5;84(2):250-2
Calcification of vascular smooth muscle cell cultures: inhibition by osteopontin. Wada T, et al. **Circ Res** 1999 Feb 5;84(2):166-78
Osteopontin function in pathology: lessons from osteopontin-deficient mice. Rittling SR, et al.
Exp Nephrol 1999 Mar-Apr;7(2):103-13 (91 ref.)
The Roman god Janus: a paradigm for the function of CD43. Ostberg JR, et al. **Immunol Today** 1998 Dec;19(12):546-50 (79 ref.)
Lymphotactin: a key regulator of lymphocyte trafficking during acute graft rejection. Wang JD, et al.
Immunology 1998 Sep;95(1):56-61
Attenuated host resistance against Mycobacterium bovis BCG infection in mice lacking osteopontin. Nau GJ, et al. **Infect Immun** 1999 Aug;67(8):4223-30
Role of osteopontin in bone remodeling caused by mechanical stress [see comments] Terai K, et al. **J Bone Miner Res** 1999 Jun;14(6):839-49. Comment in: J Bone Miner Res 1999 Jun;14(6):850-5.
Osteopontin expression and function: role in bone remodeling. Denhardt DT, et al. **J Cell Biochem Suppl** 1998;30-31:92-102 (65 ref.)
The functional paradox of CD43 in leukocyte recruitment: a study using CD43-deficient mice. Woodman RC, et al. **J Exp Med** 1998 Dec 7;188(11):2181-6
Endogenous superallergen protein Fv induces IL-4 secretion from human Fc epsilon RI+ cells through interaction with the VH3 region of IgE. Patella V, et al. **J Immunol** 1998 Nov 15;161(10):5647-55
Structural requirements for CD43 function. Walker J, et al. **J Immunol** 1999 Apr 1;162(7):4109-14
CD43 is associated with tyrosine kinase activity in human neutrophils. Skubitz KM, et al. **J Leukoc Biol** 1998 Dec; 64(6):800-2
Reduced tolerance to acute renal ischemia in mice with a targeted disruption of the osteopontin gene. Noiri E, et al. **Kidney Int** 1999 Jul;56(1):74-82
Introduction of an osteopontin gene confers the increase in B1 cell population and the production of anti-DNA autoantibodies. Iizuka J, et al. **Lab Invest** 1998 Dec; 78(12):1523-33
Alphav integrin regulates TNF-alpha-induced nitric oxide synthesis in rat mesangial cells--possible role of osteopontin. Nagasaki T, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):1861-6
The complex role of osteopontin in renal disease [editorial] Wüthrich RP. **Nephrol Dial Transplant** 1998 Oct; 13(10):2448-50 (45 ref.)
Differential expression of sialoglycoproteins in the rat hippocampus and its changes during aging. Sato Y, et al. **Neurosci Lett** 1999 Feb 26;262(1):49-52
Osteopontin induces increased invasiveness and plasminogen activator expression of human mammary epithelial cells. Tuck AB, et al. **Oncogene** 1999 Jul 22;18(29):4237-46
Hyperoxia and glucocorticoid modify retinal vessel growth and interleukin-1 receptor antagonist in newborn rabbits. Lawas-Alejo PA, et al. **Pediatr Res** 1999 Mar;45(3):313-7
Osteopontin-deficient mice are resistant to ovariectomy-induced bone resorption. Yoshitake H, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8156-60
CeReS-18 inhibits growth and induces apoptosis in human prostatic cancer cells. Fattaey HK, et al. **Prostate** 1999 Mar 1;38(4):285-95
[Relationship between osteopontin expression and autoimmune disease--analysis of osteopontin expressed in transgenic mice] Iizuka J. **Hokkaido Igaku Zasshi** 1998 Sep; 73(5):487-95 (Eng. Abstr.) **(Jpn)**
[Integrin signal transduction via FAK in osteoblasts--early differentiation triggered by osteopontin] Nemoto A, et al. **Seikagaku** 1999 Feb;71(2):140-5 (17 ref.) **(Jpn)**
[Differentiation and function of bone cells induced by bone matrix proteins: osteopontin in bone remodeling] Uemura T, et al. **Tanpakushitsu Kakusan Koso** 1999 Feb;44(2):143-8 (32 ref.) **(Jpn)**

RADIATION EFFECTS

Changes in serum levels of sialoglycoproteins in mice exposed to UV-B radiation. Yamamoto K, et al.
Biol Pharm Bull 1998 Sep;21(9):1000-2

SECRETION

Spontaneous secretion of interleukin 1 receptor antagonist (IL-1ra) by cells isolated from herniated lumbar discal tissue after discectomy. Koch H, et al. **Cytokine** 1998 Sep; 10(9):703-5

THERAPEUTIC USE

In vivo transfer of interleukin-1 receptor antagonist gene in osteoarthritic rabbit knee joints: prevention of osteoarthritis progression. Fernandes J, et al.
Am J Pathol 1999 Apr;154(4):1159-69
Treatment of rheumatoid arthritis with recombinant human interleukin-1 receptor antagonist [see comments] Bresnihan B, et al. **Arthritis Rheum** 1998 Dec;41(12):2196-204. Comment in: Arthritis Rheum 1999 Aug;42(8):1781-2.
Antitumor and immunotherapeutic effects of activated invasive T lymphoma cells that display short-term interleukin 1alpha expression. Voronov E, et al.
Cancer Res 1999 Mar 1;59(5):1029-35
Suppression of gastric mucosal inflammatory responses to Helicobacter pylori lipopolysaccharide by sulglycotide. Slomiany BL, et al. **Gen Pharmacol** 1999 Feb;32(2):251-7
IL-1ra administration does not improve cardiac function in patients with severe sepsis. Vincent JL, et al.
J Crit Care 1999 Jun;14(2):69-72
Treatment of rheumatoid arthritis with IL-1 inhibitors. Gabay C, et al. **Springer Semin Immunopathol** 1998; 20(1-2):229-46 (90 ref.)
[Treatment of chronic polyarthritis with a human recombinant interleukin 1 receptor antagonist] Rau R, et al. **Z Rheumatol** 1998 Oct;57(5):312-9 **(Ger)**

URINE

Does increased urinary interleukin-1 receptor antagonist/interleukin-1beta ratio indicate good prognosis in renal transplant recipients? Teppo AM, et al.
Transplantation 1998 Oct 27;66(8):1009-14

SIALOGLYCOSPHINGOLIPIDS see **GANGLIOSIDES**

SIALOGRAPHY

Relation of preoperative sialographic findings with histopathological diagnosis in cases of obstructive sialadenitis of the parotid and submandibular glands: retrospective study. Tighe JV, et al.
Br J Oral Maxillofac Surg 1999 Aug;37(4):290-3
[Comparative sonographic, x-ray and morphological studies of the salivary glands in Sjögren's syndrome] Varshavskil AI, et al. **Ter Arkh** 1999;71(5):61-7 (Eng. Abstr.) **(Rus)**

METHODS

Sjögren syndrome: comparison of assessments with MR sialography and conventional sialography. Ohbayashi N, et al. **Radiology** 1998 Dec;209(3):683-8
[Estimation of the scintigraphy, sialography and fine needle aspiration biopsy use in the diagnosis of the benign parotid gland neoplasms] Gierek T, et al. **Otolaryngol Pol** 1998; 52(5):551-5 (Eng. Abstr.) **(Pol)**

UTILIZATION

Primary sialoangiectasia--a diagnostic pitfall in Sjögren's syndrome: case report. Kalk WW, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 May;87(5):568-71

SIALOLITHIASIS see **SALIVARY GLAND CALCULI**

SIALOLITHIASIS, DUCTAL see **SALIVARY DUCT CALCULI**

SIALOMETAPLASIA, NECROTIZING

ETIOLOGY

Necrotizing sialometaplasia in two patients with bulimia and chronic vomiting. Schöning H, et al.
Int J Oral Maxillofac Surg 1998 Dec;27(6):463-5

SIALOPROTEINS see **SIALOGLYCOPROTEINS**

SIALORRHEA

Clozapine and sialorrhea: a new intervention for this bothersome and potentially dangerous side effect [letter] Antonello C, et al. **J Psychiatry Neurosci** 1999 May; 24(3):250

CHEMICALLY INDUCED

More about: irinotecan-related cholinergic syndrome induced by coadministration of oxaliplatin [letter; comment] Dodds HM, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):91-2. Comment on: J Natl Cancer Inst 1998 Jan 21;90(2):160.

DRUG THERAPY

A study of salivary secretion in Parkinson's disease. Bagheri H, et al. **Clin Neuropharmacol** 1999 Jul-Aug;22(4):213-5

ETIOLOGY

Use of glycopyrrolate and other anticholinergic medications for sialorrhea in children with cerebral palsy. Bachrach SJ, et al. **Clin Pediatr (Phila)** 1998 Aug;37(8):485-90
[Hypersalivation after tumor operation] Helms J. **HNO** 1998 Aug;46(8):768 **(Ger)**

SURGERY

Four-duct ligation: a simple and effective treatment for chronic aspiration from sialorrhea. Klem C, et al.
Arch Otolaryngol Head Neck Surg 1999 Jul;125(7):796-800
Long-term follow-up of submandibular duct rerouting for the treatment of sialorrhea in the pediatric population. Mankarious LA, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):303-7

SIALYL SSEA-1 see **ANTIGENS, CD15**

SIALYLLACTOSYLCERAMIDE see **G(M3) GANGLIOSIDE**

SIALYLTRANSFERASES

ANALYSIS

Quantitative analysis of expression of mouse sialyltransferase genes by competitive PCR. Takashima S, et al.
Biochem Biophys Res Commun 1999 Jun 24;260(1):23-7
GD3 and GM2 synthase activities in rat testes during the period of sexual development. Gamallo LL, et al.
Lipids 1998 Nov;33(11):1089-92

ANTAGONISTS & INHIBITORS

Heavy metals mercury, cadmium, and chromium inhibit the activity of the mammalian liver and kidney sulfate transporter sat-1. Markovich D, et al.
Toxicol Appl Pharmacol 1999 Jan 15;154(2):181-7

BIOSYNTHESIS

Molecular cloning and functional expression of a fifth-type alpha 2,3-sialyltransferase (mST3Gal V: GM3 synthase). Kono M, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):170-5
Stable expression of human alpha-2,6-sialyltransferase in Chinese hamster ovary cells: functional consequences for human erythropoietin expression and bioactivity. Zhang X, et al. **Biochim Biophys Acta** 1998 Nov 27;1425(3):441-52
Identification of an alpha2,6-sialyltransferase induced early after lymphocyte activation. Kaufmann M, et al.
Int Immunol 1999 May;11(5):731-8
Alpha(1,3)-fucosyltransferase VII and alpha(2,3)-sialyltransferase IV are up-regulated in activated CD4 T cells and maintained after their differentiation into Th1 and migration into inflammatory sites. Blander JM, et al. **J Immunol** 1999 Oct 1; 163(7):3746-52

BLOOD

Investigation of sialic acids and sialyltransferase activity in blood of patients with systemic scleroderma. Gabrielyan ND, et al. **Biochemistry (Mosc)** 1999 May;64(5):561-4

CHEMISTRY

Enzymatic alpha(2-3)sialylation of non-natural type-I (Lewisc) disaccharides with recombinant sialyl-transferase. Baisch G, et al. **Bioorg Med Chem Lett** 1998 Jan 20; 8(2):157-60

Enzymatic synthesis of Kdn oligosaccharides by a bacterial alpha-(2-->6)-sialyltransferase. Kajihara Y, et al. **Carbohydr Res** 1999 Jan 31;315(1-2):137-41

Glycan engineering of proteins with whole living yeast cells expressing rat liver alpha2,3-sialytransferase in the porous cell wall. Sievi E, et al. **FEBS Lett** 1998 Dec 18; 441(2):177-80

Enzymic glycosphingolipid synthesis on polymer supports. III. Synthesis of GM3, its analog [NeuNAcalpha(2-3)Galbeta(1-4)Glcbeta(1-3)Cer] and their lyso-derivatives. Zehavi U, et al. **Glycoconj J** 1998 Jul;15(7):657-62

[Structure and function of GM3 synthase] Ishii A, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2349-57 (52 ref.) **(Jpn)**

[Sialyltransferase superfamily: structure and function] Tsuji S. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2338-48 (49 ref.) **(Jpn)**

GENETICS

Mutation analysis of a putative sialyltransferase gene, the SFRS2 splicing factor gene and the c-myb ET-locus in two families with hereditary neuralgic amyotrophy (HNA). Kuhlenbaeumer G, et al. **Ann Hum Genet** 1998 Sep;62 (Pt 5):397-400

Cloning and expression of cDNA for a human Sia alpha 2,3Gal beta 1, 4GlcNA:alpha 2,8-sialyltransferase (hST8Sia III). Lee YC, et al. **Arch Biochem Biophys** 1998 Dec 1; 360(1):41-6

Molecular cloning and functional expression of a fifth-type alpha 2,3-sialyltransferase (mST3Gal V: GM3 synthase). Kono M, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):170-5

Epithelial-cell-specific transcriptional regulation of human Galbeta1,3GalNAc/Galbeta1,4GlcNAc alpha2,3-sialyltransferase (hST3Gal IV) gene. Taniguchi A, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):516-22

Alteration of ganglioside composition by stable transfection with antisense vectors against GD3-synthase gene expression. Zeng G, et al. **Biochemistry** 1999 Jul 6; 38(27):8762-9

Up-regulation of the alpha2,6-sialyltransferase messenger ribonucleic acid increases glycoconjugates containing alpha2, 6-linked sialic acid residues in granulosa cells during follicular atresia of porcine ovaries. Kimura Y, et al. **Biol Reprod** 1999 Jun;60(6):1475-82

Differentiation elicits negative regulation of human beta-galactoside alpha2,6-sialyltransferase at the mRNA level in the HL-60 cell line. Taniguchi A, et al. **FEBS Lett** 1998 Dec 18;441(2):191-4

Genomic organization of the murine polysialyltransferase gene ST8SiaIV (PST-1). Eckhardt M, et al. **Glycobiology** 1998 Dec;8(12):1165-72

Differential expression of the hepatic transcript of beta-galactoside alpha2,6-sialyltransferase in human colon cancer cell lines. Dall'Olio F, et al. **Int J Cancer** 1999 Apr 12;81(2):243-7

Haemophilus ducreyi produces a novel sialyltransferase. Identification of the sialyltransferase gene and construction of mutants deficient in the production of the sialic acid-containing glycoform of the lipooligosaccharide. Bozue JA, et al. **J Biol Chem** 1999 Feb 12;274(7):4106-14

Expression cloning of mouse cDNA of CMP-NeuAc:Lactosylceramide alpha2,3-sialyltransferase, an enzyme that initiates the synthesis of gangliosides. Fukumoto S, et al. **J Biol Chem** 1999 Apr 2;274(14):9271-6

Expression cloning and functional characterization of human cDNA for ganglioside GM3 synthase. Ishii A, et al. **J Biol Chem** 1998 Nov 27;273(48):31652-5

Molecular cloning and functional expression of two members of mouse NeuAcalpha2,3Galbeta1,3GalNAc GalNAcalpha2,6-sialyltransferase family, ST6GalNAc III and IV. Lee YC, et al. **J Biol Chem** 1999 Apr 23; 274(17):11958-67

Molecular cloning of a novel alpha2,3-sialyltransferase (ST3Gal VI) that sialylates type II lactosamine structures on glycoproteins and glycolipids. Okajima T, et al. **J Biol Chem** 1999 Apr 23;274(17):11479-86

Up-regulation of alpha2,6 sialylation during myeloid maturation: a potential role in myeloid cell release from the bone marrow. Le Marer N, et al. **J Cell Physiol** 1999 Jun;179(3):315-24

Isolation of 10 differentially expressed cDNAs in differentiated Neuro2a cells induced through controlled expression of the GD3 synthase gene. Liu H, et al. **J Neurochem** 1999 May;72(5):1781-90

Characterization of a sialyltransferase-deficient mutant of Neisseria gonorrhoeae strain F62: instability of transposon Tn1545 delta3 in gonococci and evidence that multiple genetic loci are essential for lipooligosaccharide sialylation. Crooke H, et al. **Microb Pathog** 1998 Nov;25(5):237-52

Virulence in Trypanosoma cruzi infection correlates with the expression of a distinct family of sialidase superfamily genes. Weston D, et al. **Mol Biochem Parasitol** 1999 Jan 5;98(1):105-16

Intracistronic transcription termination in polysialyltransferase gene (siaD) affects phase variation in Neisseria meningitidis. Lavitola A, et al. **Mol Microbiol** 1999 Jul;33(1):119-27

Targeting of active sialyltransferase to the plant Golgi apparatus. Wee EG, et al. **Plant Cell** 1998 Oct; 10(10):1759-68

METABOLISM

Comparative study of sialidase activity and G(M3) content in B16 melanoma variants with different metastatic potential. Sawada M, et al. **Acta Biochim Pol** 1998; 45(2):343-9

trans-sialidase of Trypanosoma cruzi: location of galactose-binding site(s). Chuenkova M, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):549-56

Alteration of ganglioside composition by stable transfection with antisense vectors against GD3-synthase gene expression. Zeng G, et al. **Biochemistry** 1999 Jul 6; 38(27):8762-9

Elevation of alpha2-->6 sialyltransferase and alpha1-->2 fucosyltransferase activities in human choriocarcinoma. Fukushima K, et al. **Cancer Res** 1998 Oct 1;58(19):4301-6

Expression of the polysialyltransferase ST8SiaIV: polysialylation interferes with adhesion of PC12 cells in vitro. Horstkorte R, et al. **Exp Cell Res** 1999 Jan 10; 246(1):122-8

Biosynthesis of sialylated and fucosylated selectin ligands of HL-60 cells in vitro. Midchain alpha3-fucose units inhibit terminal alpha6-sialylation but not alpha3-sialylation of polylactosamines. Natunen J, et al. **FEBS Lett** 1999 Jun 11;452(3):272-6

Alteration of sialyl Lewis epitope expression in pterygium. Creuzot-Garcher C, et al. **Invest Ophthalmol Vis Sci** 1999 Jul;40(8):1631-6

Alpha 1,6-linked fucose affects the expression and stability of polysialic acid-carrying glycoproteins in Chinese hamster ovary cells. Kojima N, et al. **J Biochem (Tokyo)** 1998 Oct;124(4):726-37

Differential and cooperative polysialylation of the neural cell adhesion molecule by two polysialyltransferases, PST and STX. Angata K, et al. **J Biol Chem** 1998 Oct 23; 273(43):28524-32

On the biosynthesis of alternating alpha-2,9/alpha-2,8 heteropolymer of sialic acid catalyzed by the sialyltransferase of Escherichia coli Bos-12. Chao CF, et al. **J Biol Chem** 1999 Jun 25;274(26):18206-12

In vivo autopolysialylation and localization of the polysialyltransferases PST and STX. Close BE, et al. **J Biol Chem** 1998 Dec 18;273(51):34586-93

Sialyltransferase isoforms are phosphorylated in the cis-medial Golgi on serine and threonine residues in their luminal sequences. Ma J, et al. **J Biol Chem** 1999 Mar 19; 274(12):8046-52

Heterogeneous expression of the polysialyltransferases ST8Sia II and ST8Sia IV during postnatal rat brain development. Hildebrandt H, et al. **J Neurochem** 1998 Dec; 71(6):2339-48

Chronic ethanol consumption leads to destabilization of rat liver beta-galactoside alpha2,6-sialyltransferase mRNA. Rao MN, et al. **Metabolism** 1999 Jun;48(6):797-803

Polysialic acid, a unique glycan that is developmentally regulated by two polysialyltransferases, PST and STX, in the central nervous system: from biosynthesis to function. Nakayama J, et al. **Pathol Int** 1998 Sep;48(9):665-77 (67 ref.)

Targeting of active sialyltransferase to the plant Golgi apparatus. Wee EG, et al. **Plant Cell** 1998 Oct; 10(10):1759-68

PHARMACOLOGY

Modification of sticholysin II hemolytic activity by free radicals. Pazos IF, et al. **Toxicon** 1998 Oct;36(10):1383-93

PHYSIOLOGY

Long-term ethanol consumption selectively impairs ganglioside pathway in rat brain. Ghosh P, et al. **Alcohol Clin Exp Res** 1998 Sep;22(6):1220-6

Myxoma virus encodes an alpha2,3-sialyltransferase that enhances virulence. Jackson RJ, et al. **J Virol** 1999 Mar; 73(3):2376-84

[Structure and function of GM3 synthase] Ishii A, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2349-57 (52 ref.) **(Jpn)**

[Sialyltransferase superfamily: structure and function] Tsuji S. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2338-48 (49 ref.) **(Jpn)**

SIAMANG see **HYLOBATES**

SIAMESE TWINS see **TWINS, CONJOINED**

SIB MATING see **INBREEDING**

SIBERIAN HAMSTER see **PHODOPUS**

SIBLING RELATIONS

Bereavement and loss in childhood. Geis HK, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Jan;7(1):73-85, viii (65 ref.)

Family relationships and children's emotional adjustment as correlates of maternal and paternal differential treatment: a replication with toddler and preschool siblings. Volling BL, et al. **Child Dev** 1998 Dec;69(6):1640-56

Comparison of Korean-American adoptees and biological children of their adoptive parents: a pilot study. Kim WJ, et al. **Child Psychiatry Hum Dev** 1999 Spring;29(3):221-8

Behavior patterns of young children and their offspring: a two-generation study [see comments] Cohen P, et al. **Dev Psychol** 1998 Nov;34(6):1202-8. Comment in: Dev Psychol 1998 Nov;34(6):1263-8. Comment in: Dev Psychol 1998 Nov;34(6):1269-73.

Parental beliefs about managing sibling conflict. Perozynski L, et al. **Dev Psychol** 1999 Mar;35(2):489-99

Sibling accounts of attention deficit hyperactivity disorder (ADHD). Kendall J. **Fam Process** 1999 Spring;38(1):117-36

Social functioning among girls with fragile X or Turner syndrome and their sisters. Mazzocco MM, et al. **J Autism Dev Disord** 1998 Dec;28(6):509-17

Sibling interactions, self-regulation, and cynical hostility in adult male twins. Smith TW, et al. **J Behav Med** 1998 Aug; 21(4):337-49

Towards a cognitive phenotype for autism: increased prevalence of executive dysfunction and superior spatial span amongst siblings of children with autism. Hughes C, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):705-18

Siblings of children with cancer: a review of the literature. Murray JS. **J Pediatr Oncol Nurs** 1999 Jan;16(1):25-34 (20 ref.)

Moral values of only and sibling children in mainland China. Shen J, et al. **J Psychol** 1999 Jan;133(1):115-24

Well siblings living with schizophrenia. Impact of associated behaviors. Friedrich RM, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):11-9

Inexorably bound in an identical relationship. Bannister A. **Lancet** 1999 Aug 7;354(9177):522

The contextual influences of sibling and dating relations on adolescents' personal relations with their close friends, dating partners, and parents: the Sullivan-Piaget-Hartup hypothesis considered. Bigelow BJ, et al. **New Dir Child Adolesc Dev** 1999 Summer;(84):71-86

Chinese herbal medicine, sibship, and blood lead in children. Cheng TJ, et al. **Occup Environ Med** 1998 Aug;55(8):573-6

Treasure Weekend: supporting bereaved siblings. Potts S, et al. **Palliat Med** 1999 Jan;13(1):51-6

SICCA SYNDROME see **SJOGREN'S SYNDROME**

SICK BUILDING SYNDROME

Developing case definitions for symptom-based conditions: the problem of specificity. Hyams KC. **Epidemiol Rev** 1998; 20(2):148-56 (124 ref.)

Sick building syndrome. Seidner A. **Hosp Pract (Off Ed)** 1999 Apr 15;34(4):127-9

Visual analogue scales for detecting changes in symptoms of the sick building syndrome in an intervention study. Kildesø J, et al. **Scand J Work Environ Health** 1999 Aug; 25(4):361-7

DIAGNOSIS

Neurological symptoms of the sick building syndrome: analysis of a questionnaire. Citterio A, et al. **Funct Neurol** 1998 Jul-Sep;13(3):225-30

The sick building syndrome: a diagnostic dilemma. Thörn A. **Soc Sci Med** 1998 Nov;47(9):1307-12

The sick building syndrome as a subjective perception-theoretical approach and assessment methods. von Mackensen S, et al. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2-4):243-8

[The non-specific environmental syndromes MCS (Multiple Chemical Sensitivity), IEI (Idiopathic Environmental Intolerance) and SBS (Sick Building Syndrome)] Csef H. **Fortschr Med** 1998 Nov 30;116(33):18-20, 22, 24 (Eng. Abstr.) **(Ger)**

[Sick building syndrome: three case reports] Bogacka E. **Pol Merkuriusz Lek** 1999 May;6(35):273-5 (Eng. Abstr.) **(Pol)**

EPIDEMIOLOGY

Hypersensitivity pneumonitis: a sentinel event investigation in a wet building. Weltermann BM, et al. **Am J Ind Med** 1998 Nov;34(5):499-505

Sick-building symptoms in office workers in northeastern France: a pilot study. Teculescu DB, et al. **Int Arch Occup Environ Health** 1998 Jul;71(5):353-6

Building-related health problems: reflections on different symptom prevalence among pupils and teachers. Thörn A. **Int J Circumpolar Health** 1998 Oct;57(4):249-56

A comparison of two studies reporting the prevalence of the sick building syndrome in New Zealand and England. Phipps RA, et al. **N Z Med J** 1999 Jun 25;112(1090):228-30

The sick-building-syndrome--do women suffer more? Bullinger M, et al. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2-4):235-41

ETIOLOGY

Dampness and airway inflammation and systemic symptoms in office building workers. Wan GH, et al. **Arch Environ Health** 1999 Jan-Feb;54(1):58-63

Sick building syndrome in an office building formerly used

by a pharmaceutical company: a case study. Engelhart S, et al. **Indoor Air** 1999 Jun;9(2):139–43

Perceived air quality, sick building syndrome (SBS) symptoms and productivity in an office with two different pollution loads. Wargocki P, et al. **Indoor Air** 1999 Sep; 9(3):165–79

Prevalence of irritative symptoms in a nonproblem air–conditioned office building. Muzi G, et al. **Int Arch Occup Environ Health** 1998 Sep;71(6):372–8

Aeroantigens in office building workers [letter] Marinkovich VA. **J Allergy Clin Immunol** 1998 Nov;102(5):878

Indoor–air quality and ocular discomfort. Backman H, et al. **J Am Optom Assoc** 1999 May;70(5):309–16

Building–related illness and employee lost time following application of hot asphalt roof: a call for prevention. Lynch RM, et al. **Toxicol Ind Health** 1998 Nov–Dec;14(6):857–68

[Indoor pollution and health] Kummer J. **Rev Med Brux** 1998 Sep;19(4):A363–6 (7 ref.) (Eng. Abstr.) **(Fre)**

[Housing and health] Fiedler K. **Gesundheitswesen** 1998 Nov; 60(11):656–60 (5 ref.) (Eng. Abstr.) **(Ger)**

MICROBIOLOGY

Evaluation of microbiological contamination in a museum. Krake AM, et al. **Appl Occup Environ Hyg** 1999 Aug; 14(8):499–509

Continually measured fungal profiles in sick building syndrome. McGrath JJ, et al. **Curr Microbiol** 1999 Jan; 38(1):33–6

The source of sick buildings [news] **Environ Health Perspect** 1999 Feb;107(2):A63–4

Correlation between the prevalence of certain fungi and sick building syndrome. Cooley JD, et al. **Occup Environ Med** 1998 Sep;55(9):579–84

PREVENTION & CONTROL

Germicidal ultraviolet irradiation in air conditioning systems: effect on office worker health and wellbeing: a pilot study. Menzies D, et al. **Occup Environ Med** 1999 Jun; 56(6):397–402

PSYCHOLOGY

Allergic and non–allergic students' perception of the same high school environment. Lundin L. **Indoor Air** 1999 Jun; 9(2):92–102

The sick–building–syndrome––do women suffer more? Bullinger M, et al. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2–4):235–41

The sick building syndrome as a subjective perception–theoretical approach and assessment methods. von Mackensen S, et al. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):243–8

SICK DAYS see **SICK LEAVE**

SICK LEAVE

Pre–operative advice given by general practitioners and consultants to patients concerning return to work. Jarrett ME. **Ann R Coll Surg Engl** 1998 Jul;80(4 Suppl):171–3

Sickness certification [letter] Church DS. **Br J Gen Pract** 1998 Oct;48(435):1701–2

Surgery and psychiatric practice [letter] Schneiderman G. **Can J Psychiatry** 1998 Sep;43(7):750

The effect of vocational rehabilitation on later sick leave. Selander J, et al. **Disabil Rehabil** 1999 Apr;21(4):175–80

The importance of income protection for doctors. Hartman V. **Hosp Med** 1998 Nov;59(11):902

Sick leave and disability pension before and after treatment for obesity: a report from the Swedish Obese Subjects (SOS) study. Narbro K, et al. **Int J Obes Relat Metab Disord** 1999 Jun;23(6):619–24

Workplace as an origin of health inequalities. Vahtera J, et al. **J Epidemiol Community Health** 1999 Jul;53(7):399–407

Time off work after occupational hand injuries. Skov O, et al. **J Hand Surg [Br]** 1999 Apr;24(2):187–9

Time off work due to scaphoid fractures and other carpal injuries in The Netherlands in the period 1990 to 1993. van der Molen AB, et al. **J Hand Surg [Br]** 1999 Apr; 24(2):193–8

Prognostic factors for musculoskeletal sickness absence and return to work among welders and metal workers. Burdorf A, et al. **Occup Environ Med** 1998 Jul;55(7):490–5

Smoking as a predictor of long–term work disability in physically active and inactive people. Eriksen W, et al. **Occup Med (Lond)** 1998 Jul;48(5):315–20

Sick certificates [letter; comment] Mosese M. **S Afr Med J** 1998 Dec;88(12):1536–7. Comment on: S Afr Med J 1998 Jun;88(6):732.

[Pregnancy–related and work–related sick leave of pregnant women] Tophøj A, et al. **Ugeskr Laeger** 1999 Sep 6; 161(36):5009–13 (Eng. Abstr.) **(Dan)**

[Duration of maternity leave and sick leave during pregnancy] Tophøj A, et al. **Ugeskr Laeger** 1999 Sep 6; 161(36):5014–9 (Eng. Abstr.) **(Dan)**

[Time off of work after inguinal hernia repair. Results of a multicenter prospective study] Johanet H, et al. **Ann Chir** 1999;53(4):297–301 (Eng. Abstr.) **(Fre)**

[Disease and sick leave, the same thing?] Bjørang G. **Tidsskr Nor Laegeforen** 1998 Sep 10;118(21):3315–6 **(Nor)**

[Sick leave and physical training at the workplace (letter; comment)] Brox JI. **Tidsskr Nor Laegeforen** 1999 Jan 10; 119(1):85. Comment on: Tidsskr Nor Laegeforen 1998 Apr 30;118(11):1718–21. **(Nor)**

[Sick–listing––the easiest way?] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Jun 20;119(16):2369–70 **(Nor)**

[Sick–listing––and family practice as a garbage can (letter)] Prydz P. **Tidsskr Nor Laegeforen** 1998 Nov 20;118(28):4416 **(Nor)**

[The effect of systemic changes on sick–day absenteeism in the workplace. II. Causes of work disability among persons under termination of employment] Szubert Z, et al. **Med Pr** 1998;49(6):517–25 (Eng. Abstr.) **(Pol)**

[Temporary disability: analysis strategies (see comments)] Benavides F, et al. **Gac Sanit** 1999 May–Jun;13(3):185–90 (Eng. Abstr.). Comment in: Gac Sanit 1999 May–Jun;13(3):173–6. **(Spa)**

[Considerations about sick–listing (letter)] Ahström SE. **Lakartidningen** 1999 May 26;96(21):2581 **(Swe)**

["I shall sick–list myself", we say (letter)] Genberg–Mikaelsson I. **Lakartidningen** 1999 Jan 27; 96(4):306 **(Swe)**

[Use psychotherapy instead of paralysing sick–listing (letter)] Stålfors S. **Lakartidningen** 1998 Dec 9;95(50):5731–2 **(Swe)**

ECONOMICS

The labor productivity effects of chronic backache in the United States. Rizzo JA, et al. **Med Care** 1998 Oct; 36(10):1471–88

LEGISLATION & JURISPRUDENCE

How can the Family and Medical Leave Act protect you? Nguyen BQ. **Am J Nurs** 1999 Feb;99(2):78

STATISTICS & NUMERICAL DATA

Variations in sickness absence and use of social benefits among pregnant women in a Swedish community 1978–1997. Sydsjö G, et al. **Acta Obstet Gynecol Scand** 1999 May;78(5):383–7

Back pain prevalence in US industry and estimates of lost workdays. Guo HR, et al. **Am J Public Health** 1999 Jul; 89(7):1029–35

Effect of declining mental health service use on employees of a large corporation. Rosenheck RA, et al. **Health Aff (Millwood)** 1999 Sep–Oct;18(5):193–203

Sickness absence in a rubber plant in Poland. Szubert Z, et al. **Int J Occup Med Environ Health** 1998;11(2):179–88

Longitudinal, population–based study of self reported alcohol habits, high levels of sickness absence, and disability pensions. Upmark M, et al. **J Epidemiol Community Health** 1999 Apr;53(4):223–9

Sports injuries not a drain on working time [letter] Every M. **J R Nav Med Serv** 1998;84(1):47

The effect of a modified physical training program in reducing injury and medical discharge rates in Australian Army recruits. Rudzki SJ, et al. **Mil Med** 1999 Sep; 164(9):648–52

Absence attributed to incapacity and occupational disease/accidents among female and male workers in the fish–processing industry. Pälsson B, et al. **Occup Med (Lond)** 1998 Jul;48(5):289–95

Psychosocial correlates of long–term sick–leave among patients with musculoskeletal pain. Grossi G, et al. **Pain** 1999 Apr;80(3):607–19

Gender trends in sick–listing with musculoskeletal symptoms in a Swedish county during a period of rapid increase in sickness absence. Leijon M, et al. **Scand J Soc Med** 1998 Sep;26(3):204–13

Validity and reliability of self–reported retrospectively collected data on sick leave related to musculoskeletal diseases. Fredriksson K, et al. **Scand J Work Environ Health** 1998 Oct;24(5):425–31

A technique to take leave into account in shift–rota design. Gärtner J, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:103–8

Shift work and sick leave. Kleiven M, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:128–33

Sick–leave in women with alcohol dependence or abuse: effects of additional psychiatric disorders. Spak F, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):613–9

Work incapacity from low back pain in the general population. Hagen KB, et al. **Spine** 1998 Oct 1; 23(19):2091–5

The effects of prework functional screening on lowering an employer's injury rate, medical costs, and lost work days. Nassau DW. **Spine** 1999 Feb 1;24(3):269–74

Increase in sick leave rates caused by back pain among pregnant Swedish women after amelioration of social benefits. A paradox. Sydsjö A, et al. **Spine** 1998 Sep 15; 23(18):1986–90

TRENDS

Trends in disability duration and cost of workers' compensation low back pain claims (1988–1996). Hashemi L, et al. **J Occup Environ Med** 1998 Dec;40(12):1110–9

Psychosocial factors at work and sickness absence in the Gazel cohort: a prospective study. Niedhammer I, et al. **Occup Environ Med** 1998 Nov;55(11):735–41

SICK ROLE

Quality of life after a first ischemic stroke. Long–term developments and correlations with changes in neurological deficit, mood and cognitive impairment. Jonkman EJ, et al. **Acta Neurol Scand** 1998 Sep; 98(3):169–75

Mechanisms of the behavioural effects of cytokines. Dantzer R, et al. **Adv Exp Med Biol** 1999;461:83–105 (77 ref.)

Health–related quality of life: a primer for gastroenterologists. Eisen GM, et al. **Am J Gastroenterol** 1999 Aug;94(8):2017–21 (17 ref.)

Psychological distress in women seeking genetic counseling for breast–ovarian cancer risk: the contributions of personality and appraisal. Audrain J, et al. **Ann Behav Med** 1998 Fall;19(4):370–7

Neuropsychological, physical, and psychosocial functioning of individuals with end–stage renal disease. Bremer BA, et al. **Ann Behav Med** 1998 Fall;19(4):348–52

Psychological aspects of end–stage renal disease: an emerging context for behavioral medicine research. Christensen AJ. **Ann Behav Med** 1998 Fall;19(4):323–4

The marital context of end–stage renal disease: illness intrusiveness and perceived changes in family environment. Devins GM, et al. **Ann Behav Med** 1998 Fall;19(4):325–32

A comparison of attributions, health beliefs, and negative emotions as predictors of fluid adherence in renal dialysis patients: a prospective analysis. Friend R, et al. **Ann Behav Med** 1998 Fall;19(4):344–7

The impact of a brief problem–solving training intervention for relatives of recently diagnosed breast cancer patients. Schwartz MD, et al. **Ann Behav Med** 1998 Winter; 20(1):7–12

Misunderstanding in cancer patients: why shoot the messenger? Gattellari M, et al. **Ann Oncol** 1999 Jan; 10(1):39–46

Reduced health–related quality of life among Hodgkin's disease survivors: a comparative study with general population norms. Loge JH, et al. **Ann Oncol** 1999 Jan; 10(1):71–7

Wandering in dementia. Algase DL. **Annu Rev Nurs Res** 1999;17:185–217 (136 ref.)

Illness as a problem of meaning: moving culture from the classroom to the clinic. McGrath BB. **ANS Adv Nurs Sci** 1998 Dec;21(2):17–29 (40 ref.)

Emotional and behavioral adjustment after traumatic brain injury. Hanks RA, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):991–7

Fatigue after stroke. Ingles JL, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):173–8

Poststroke depression and its role in rehabilitation of inpatients. Paolucci S, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):985–90

Fibromyalgia and physical and emotional trauma: how are they related? Comment on the article by Aaron et al [letter; comment] Ferrari R, et al. **Arthritis Rheum** 1999 Apr; 42(4):828–30. Comment on: Arthritis Rheum 1997 Mar;40(3):453–60. Comment on: Arthritis Rheum 1998 Apr;41(4):758–9.

Cognition and the perception of physical symptoms in the community–dwelling elderly. Frisoni GB, et al. **Behav Med** 1999 Spring;25(1):5–12

How daughters of women with breast cancer cope with the threat of the illness. Gilbar O, et al. **Behav Med** 1998 Fall; 24(3):115–21

Intrusive memories and depression in cancer patients. Brewin CR, et al. **Behav Res Ther** 1998 Dec;36(12):1131–42

Factor analytic investigation of the Illness Attitudes Scale in a chronic pain sample. Hadjistavropoulos HD, et al. **Behav Res Ther** 1998 Dec;36(12):1185–95

The psychosocial effects of rheumatoid arthritis on the patient and the well partner. Walsh JD, et al. **Behav Res Ther** 1999 Mar;37(3):259–71

The 'heartsink' patient revisited. The Welsh Philosophy And General Practice discussion Group. Butler CC, et al. **Br J Gen Pract** 1999 Mar;49(440):230–3

Illness behaviour in elite middle and long distance runners. Currie A, et al. **Br J Sports Med** 1999 Feb;33(1):19–21

Measuring impact of nursing intervention on cancer patients' ability to control symptoms. Benor DE, et al. **Cancer Nurs** 1998 Oct;21(5):320–34

When mom's sick: changes in a mother's role and in the family after her diagnosis of cancer. Fitch MI, et al. **Cancer Nurs** 1999 Feb;22(1):58–63

Cancer patients' reported experiences of suffering. Kuuppelomäki M, et al. **Cancer Nurs** 1998 Oct;21(5):364–9

Hospice patients' and nurses' perceptions of self–care deficits based on symptom experience. Rhodes VA, et al. **Cancer Nurs** 1998 Oct;21(5):312–9

Personality traits and psychological reactions to mental stress of female migraine patients [see comments] Stronks DL, et al. **Cephalalgia** 1999 Jul;19(6):566–74. Comment in: Cephalalgia 1999 Jul;19(6):541.

Parental health attitudes, illnesses and supports and the referral of children to medical specialists. Gulhati A, et al. **Child Care Health Dev** 1998 Jul;24(4):295–313

A little lady called Pandora: an exploration of philosophical traditions of humanism and existentialism in nursing ill children. Holyoake DD. **Child Care Health Dev** 1998 Jul; 24(4):325–36 (51 ref.)

A longitudinal examination of athletes' emotional and cognitive responses to anterior cruciate ligament injury.

Morrey MA, et al. **Clin J Sport Med** 1999 Apr;9(2):63–9
Psychological correlates of outcome following rehabilitation from stroke. Clark MS, et al. **Clin Rehabil** 1999 Apr; 13(2):129–40
Addiction: weakness of will, just plain ill, or something in–between? [editorial; comment] Backlar P. **Community Ment Health J** 1998 Aug;34(4):329–30. Comment on: Community Ment Health J 1998 Aug;34(4):331–6. Comment on: Community Ment Health J 1998 Aug;34(4):337–50.
Research notes on social order and subjectivity: individuals' experience of susto and fallen fontanelle in a rural community in central Mexico. Castro R, et al. **Cult Med Psychiatry** 1998 Jun;22(2):203–30
Diabetes mellitus and major depressive disorder: an overview of prevalence, complications, and treatment. Carney C. **Depress Anxiety** 1998;7(4):149–57 (70 ref.)
Young children's predictions of illness: failure to recognize probabilistic causation. Kalish CW. **Dev Psychol** 1998 Sep; 34(5):1046–58
Chronic disease and perceived developmental progression in adolescence. Seiffge–Krenke I. **Dev Psychol** 1998 Sep; 34(5):1073–84
Development of a health–related quality–of–life questionnaire for individuals with gastroesophageal reflux disease: a validation study. Colwell HH, et al. **Dig Dis Sci** 1999 Jul; 44(7):1376–83
Occupational role performance in persons with back pain. Kopec JA, et al. **Disabil Rehabil** 1998 Oct;20(10):373–9
The benefits of back pain. Chew CA, et al. **Fam Pract** 1997 Dec;14(6):461–5
Chronic low back pain in general practice: the challenge of the consultation. Chew–Graham C, et al. **Fam Pract** 1999 Feb;16(1):46–9
Transcultural differences in illness behaviour and clinical outcome: an underestimated aspect of general practice? de Melker RA, et al. **Fam Pract** 1997 Dec;14(6):472–7
Frequent attenders without organic disease in a gastroenterology clinic. Patient characteristics and health care use. Bass C, et al. **Gen Hosp Psychiatry** 1999 Jan–Feb; 21(1):30–8
The relationship of hypochondriasis to anxiety disorders [see comments] Noyes R Jr. **Gen Hosp Psychiatry** 1999 Jan–Feb;21(1):8–17 (87 ref.). Comment in: Gen Hosp Psychiatry 1999 Jan–Feb;21(1):5–7.
A naturalistic study of the chronic fatigue syndrome among women in primary care. Saltzstein BJ, et al. **Gen Hosp Psychiatry** 1998 Sep;20(5):307–16
Phantom loss of function in traumatic brain injury. Fo WS, et al. **Hawaii Med J** 1998 Sep;57(9):629–33
Cognitive mapping: capitalizing on listening [comment] Bellis JM, et al. **Health Educ Behav** 1999 Aug;26(4):454–6. Comment on: Health Educ Behav 1999 Aug;26(4):443–53.
Illness representations: mapping the experience of lupus [see comments] Wiginton KL. **Health Educ Behav** 1999 Aug; 26(4):443–53. Comment in: Health Educ Behav 1999 Aug;26(4):454–6.
Physical symptoms, distress, and breast cancer risk perceptions in women with benign breast problems. Cunningham LL, et al. **Health Psychol** 1998 Jul;17(4):371–5
Temporomandibular disorders: evidence for significant overlap with psychopathology. Kight M, et al. **Health Psychol** 1999 Mar;18(2):177–82
Gender disparities in the attribution of cardiac–related symptoms: contribution of common sense models of illness. Martin R, et al. **Health Psychol** 1998 Jul;17(4):346–57
Avoidance as a predictor of the biological course of HIV infection over a 7–year period in gay men. Mulder CL, et al. **Health Psychol** 1999 Mar;18(2):107–13
Of needles and skinned knees: children's coping with medical procedures and minor injuries for self and other. Peterson L, et al. **Health Psychol** 1999 Mar;18(2):197–200
Facial expression and the affective component of cynical hostility in male coronary heart disease patients. Rosenberg EL, et al. **Health Psychol** 1998 Jul;17(4):376–80
Concerns about breast cancer and relations to psychosocial well–being in a multiethnic sample of early–stage patients. Spencer SM, et al. **Health Psychol** 1999 Mar;18(2):159–68
Social comparison and adjustment to breast cancer: an experimental examination of upward affiliation and downward evaluation. Stanton AL, et al. **Health Psychol** 1999 Mar;18(2):151–8
Why patients do not attend cardiac rehabilitation: role of intentions and illness beliefs. Cooper A, et al. **Heart** 1999 Aug;82(2):234–6
Social comparisons and temporal comparisons after coronary artery surgery. King KB, et al. **Heart Lung** 1999 Sep–Oct; 28(5):316–25
Linking concepts of enduring, uncertainty, suffering, and hope. Morse JM, et al. **Image J Nurs Sch** 1999;31(2):145–50
Accounts of experiences of bulimia: a discourse analytic study. Brooks A, et al. **Int J Eat Disord** 1998 Sep; 24(2):193–205
Prevalence of somatic indicators of distress in diabetes patients: comparison to psychiatric patients and community nonpatients. Aikens JE. **Int J Psychiatry Med** 1998; 28(3):265–72
Functional status and depression among men and women with congestive heart failure. Murberg TA, et al. **Int J Psychiatry Med** 1998;28(3):273–91
Rehabilitation hospitalism. Barolin GS. **Int J Rehabil Res** 1998 Jun;21(2):211–22
Psychological evaluations of patients operated for idiopathic scoliosis by the Harrington method. Orvomaa E. **Int J Rehabil Res** 1998 Jun;21(2):169–78
A framework for the study of coping, illness behaviour and outcomes. Shaw C. **J Adv Nurs** 1999 May;29(5):1246–55
Self–efficacy as a psychological moderator of chronic fatigue syndrome. Findley JC, et al. **J Behav Med** 1998 Aug; 21(4):351–62
Assessing illness representations of chronic illness: explorations of their disease–specific nature. Heijmans M, et al. **J Behav Med** 1998 Oct;21(5):485–503
Practitioner review: long–term consequences of childhood cancer. Eiser C. **J Child Psychol Psychiatry** 1998 Jul; 39(5):621–33 (60 ref.)
Practitioner review: communicating with hospitalised children: review and application of research pertaining to children's understanding of health and illness. Rushforth H. **J Child Psychol Psychiatry** 1999 Jul;40(5):683–91 (55 ref.)
Alteration of memory in the reduction of children's distress during repeated aversive medical procedures. Chen E, et al. **J Consult Clin Psychol** 1999 Aug;67(4):481–90
Intrusive thoughts and psychological distress among cancer patients: the role of spouse avoidance and criticism. Manne SL. **J Consult Clin Psychol** 1999 Aug;67(4):539–46
Functional disability in adolescents and young adults with symptoms of irritable bowel syndrome: the role of academic, social, and athletic competence. Claar RL, et al. **J Pediatr Psychol** 1999 Jun;24(3):271–80
Psychological adjustment of adolescents with sickle cell disease: relations with demographic, medical, and family competence variables. Kell RS, et al. **J Pediatr Psychol** 1998 Oct;23(5):301–12
The highly structured climate in families of adolescents with diabetes: functional or dysfunctional for metabolic control? Seiffge–Krenke I. **J Pediatr Psychol** 1998 Oct;23(5):313–22
Identifying psychological contributions to chronic pain complaints with the MMPI–2: the role of the K scale. McGrath RE, et al. **J Pers Assess** 1998 Jun;70(3):448–59
Diagnosing depression in the medically ill: validity of a lay–administered structured diagnostic interview. Booth BM, et al. **J Psychiatr Res** 1998 Nov–Dec;32(6):353–60
Well siblings living with schizophrenia. Impact of associated behaviors. Friedrich RM, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):11–9
Illness beliefs and treatment outcome in chronic fatigue syndrome. Deale A, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):77–83
Coping and adaptive outcome in chronic fatigue syndrome: importance of illness cognitions. Heijmans MJ. **J Psychosom Res** 1998 Jul;45(1 Spec No):39–51
Do women who undergo further investigation for breast screening suffer adverse psychological consequences? A multi–centre follow–up study comparing different breast screening result groups five months after their last breast screening appointment. Brett J, et al. **J Public Health Med** 1998 Dec;20(4):396–403
An asymptomatic 41–year–old man with HIV infection, 1 year later. Delbanco T, et al. **JAMA** 1999 Sep 22–29; 282(12):1176
Lessons outside the lecture hall. Reirden DH. **JAMA** 1999 Sep 1;282(9):820–1
Angels and spirits in the world of illness. Rahman F. **Lancet** 1998 Oct 10;352(9135):1218–9
Psychological issues in diabetes [letter; comment] Zambanini A, et al. **Lancet** 1999 Jul 3;354(9172):74. Comment on: Lancet 1999 Feb 20;353(9153):617–22.
Caring for patients who experience chemotherapy–induced side effects: the meaning for oncology nurses. Fall–Dickson JM, et al. **Oncol Nurs Forum** 1999 Jun;26(5):901–7
Health–related quality–of–life assessment of patients with life–threatening ventricular arrhythmias. Herbst JH, et al. **Pacing Clin Electrophysiol** 1999 Jun;22(6 Pt 1):915–26
A self–administered instrument to measure psychiatric discomfort of persons with serious mental illness. Betemps EJ. **Psychiatr Serv** 1999 Jan;50(1):107–8
In sickness and in health: dilemmas of the person with severe mental illness. Barham P, et al. **Psychiatry** 1998 Summer; 61(2):163–70
Application of the Zung self–rating depression scale to patients before and after introduction to haemodialysis. Miura H, et al. **Psychiatry Clin Neurosci** 1999 Jun; 53(3):381–5
General practitioners' attitudes to psychiatric and medical illness. Lawrie SM, et al. **Psychol Med** 1998 Nov; 28(6):1463–7
Life after a myocardial infarction—the wives' point of view. Arefjord K, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1203–16
Dimensions of the Center of Epidemiological Studies–Depression Scale for people with arthritis from the UK. Barlow JH, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):915–9
Pets and health. Brasić JR. **Psychol Rep** 1998 Dec;83(3 Pt 1):1011–24 (100 ref.)
Disease and depression in older medical patients. Hodges EP, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):1081–2
Beck Depression Inventory in the detection of depression among neurological inpatients. Lykouras L, et al. **Psychopathology** 1998;31(4):213–9
Social support and hostility as predictors of depressive symptoms in cardiac patients one month after hospitalization: a prospective study. Brummett BH, et al. **Psychosom Med** 1998 Nov–Dec;60(6):707–13
Fatigue in HIV illness: relationship to depression, physical limitations, and disability. Ferrando S, et al. **Psychosom Med** 1998 Nov–Dec;60(6):759–64
Psychological factors in functional gastrointestinal disorders: characteristics of the disorder or of the illness behavior? Herschbach P, et al. **Psychosom Med** 1999 Mar–Apr; 61(2):148–53
Self–efficacy and self–reported functional status in coronary heart disease: a six–month prospective study. Sullivan MD, et al. **Psychosom Med** 1998 Jul–Aug;60(4):473–8
Sociosomatics and illness in chronic fatigue syndrome [see comments] Ware NC. **Psychosom Med** 1998 Jul–Aug; 60(4):394–401. Comment in: Psychosom Med 1999 Mar–Apr;61(2):256.
PRISM: Pictorial Representation of Illness and Self Measure. A brief nonverbal measure of illness impact and therapeutic aid in psychosomatic medicine. Büchi S, et al. **Psychosomatics** 1999 Jul–Aug;40(4):314–20
Depression in pediatric chronic illness. A diathesis–stress model. Burke P, et al. **Psychosomatics** 1999 Jan–Feb; 40(1):5–17 (102 ref.)
The Millon Behavioral Health Inventory Life Threat Reactivity Scale as a predictor of mortality in patients awaiting heart transplantation. Coffman KL, et al. **Psychosomatics** 1999 Jan–Feb;40(1):44–9
Blindness, fear of sight loss, and suicide. De Leo D, et al. **Psychosomatics** 1999 Jul–Aug;40(4):339–44 (30 ref.)
Delivering mental health care to HIV–positive individuals. A comparison of two models. Gomez MF, et al. **Psychosomatics** 1999 Jul–Aug;40(4):321–4
Integrating medical and psychiatric treatment in an inpatient medical setting. The type IV program. Kishi Y, et al. **Psychosomatics** 1999 Jul–Aug;40(4):345–55
Cardiac ventricular support. Considerations for psychiatry. Petrucci R, et al. **Psychosomatics** 1999 Jul–Aug; 40(4):298–303
Psychiatric aspects of excellent end–of–life care. Ad Hoc Committee on End–of–Life Care. The Academy of Psychosomatic Medicine [editorial] Shuster JL Jr, et al. **Psychosomatics** 1999 Jan–Feb;40(1):1–4
Diagnosing demoralization in consultation psychiatry. Slavney PR. **Psychosomatics** 1999 Jul–Aug;40(4):325–9
Interactive patterns of social support and individual coping strategies in melanoma patients and their correlations with adjustment to illness. Söllner W, et al. **Psychosomatics** 1999 May–Jun;40(3):239–50
Illness behavior, emotional stress and psychosocial factors among asymptomatic HIV–infected patients. Grassi L, et al. **Psychother Psychosom** 1999;68(1):31–8
First person account: talking through medication issues: one family's experience. Mann SB. **Schizophr Bull** 1999; 25(2):407–9
Self–assessment of well–being in a group of children with epilepsy. Norrby U, et al. **Seizure** 1999 Jun;8(4):228–34
Do women 'over–report' morbidity? Men's and women's responses to structured prompting on a standard question on long standing illness. Macintyre S, et al. **Soc Sci Med** 1999 Jan;48(1):89–98
Roles of physicians, attorneys, and illness experience in advance directives. Mansell D, et al. **South Med J** 1999 Feb;92(2):197–203
Waddell signs in patients with chronic low back pain [letter; comment] Ferrari R. **Spine** 1999 Feb 1;24(3):306–7. Comment on: Spine 1997 Jul 15;22(14):1618–21.
Effectiveness of Waddell's nonorganic signs in predicting a delayed return to regular work in patients experiencing acute occupational low back pain. Gaines WG Jr, et al. **Spine** 1999 Feb 15;24(4):396–400; discussion 401
Behavioral responses to examination. A reappraisal of the interpretation of "nonorganic signs". Main CJ, et al. **Spine** 1998 Nov 1;23(21):2367–71
A statistical consideration of CLAU–S: a disease specific questionnaire for the assessment of quality of life in patients with intermittent claudication. Spengel FA, et al. **Vasa** 1998 Nov;27(4):253
Concepts of illness in populations as applied to fibromyalgia syndromes: a biopsychosocial perspective. Masi AT. **Z Rheumatol** 1998;57 Suppl 2:31–5 (20 ref.)
Affective distress in fibromyalgia syndrome is associated with pain severity. Walter B, et al. **Z Rheumatol** 1998;57 Suppl 2:101–4
[Bearing witness. "To pretend"] Blais J. **Encephale** 1998 Dec; 24 Spec No 2:25–6 **(Fre)**
[Subjective perception of the effect of neuroleptics by outpatient schizophrenic patients: a cross–sectional study] Bonsack C, et al. **Encephale** 1998 Jul–Aug;24(4):315–23 (Eng. Abstr.) **(Fre)**
[Images and representations of cancer] Hoerni B, et al. **Encephale** 1998 Dec;24 Spec No 2:53–8 **(Fre)**
[Psychological aspects of cancer in the child] Oppenheim D. **Encephale** 1998 Dec;24 Spec No 2:28–34 **(Fre)**
[Chronic pain and psychological distress: a universal causal relationship?] Vallée JP. **Presse Med** 1998 Nov 28; 27(37):1899 **(Fre)**
[Violence our medical trauma in specialized multidisciplinary consultation] Albrecht E, et al. **Schweiz Rundsch Med Prax** 1999 Feb 11;88(7):280–4 (4 ref.) (Eng. Abstr.) **(Fre)**
[Cognitive restructuring in chronic pain. Help your patients understand their pain in a new light. Pain Therapy Series, 3: Active pain coping works (news)] Friebe H.

Fortschr Med 1999 Feb 20;117(5):53 **(Ger)**

[Coping with illness and quality of life of patients with port-wine stains treated with laser therapy] Augustin M, et al. **Hautarzt** 1998 Sep;49(9):714–8 (Eng. Abstr.) **(Ger)**

[Prevalence of psychological symptoms in dermatologic patients of an acute clinic] Windemuth D, et al. **Hautarzt** 1999 May;50(5):338–43 (Eng. Abstr.) **(Ger)**

[Rehabilitation of families of children and adolescents with cancer—long-term psychosocial outcome] van Buiren M, et al. **Klin Padiatr** 1998 Jul-Aug;210(4):304–9 (Eng. Abstr.) **(Ger)**

[Coping with illness in myasthenia gravis in comparison with other chronic neuromuscular diseases] Glücker H, et al. **Nervenarzt** 1998 Oct;69(10):858–63 (Eng. Abstr.) **(Ger)**

[Familial coping with cancer in childhood and adolescence. Possibilities for standardized assessment with a self-assessment method: results of an empirical pilot study] Goldbeck L. **Prax Kinderpsychol Kinderpsychiatr** 1998 Oct; 47(8):552–73 (Eng. Abstr.) **(Ger)**

[Disease as a biographical event] Bittner G. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S21–4 **(Ger)**

[Coping—status of knowledge in the 90's] Heim E. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):321–37 (150 ref.) (Eng. Abstr.) **(Ger)**

[Practicability and clinical relevance of routine psychological screening of patients in general internal medicine units] Herrmann C, et al. **Psychother Psychosom Med Psychol** 1999 Feb;49(2):48–54 (Eng. Abstr.) **(Ger)**

[Mutual stress and support in couples with one cancer patient] Keller M, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct;48(9–10):358–68 (Eng. Abstr.) **(Ger)**

[Psycho-oncologic interventions—critical review] Larbig W. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):381–9 (75 ref.) (Eng. Abstr.) **(Ger)**

[Psycho-oncology in the Herford district clinic—the Herford model] Schlömer-Doll U, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):408–16 (Eng. Abstr.) **(Ger)**

[Psychological problems and treatment possibilities in intensive care medicine exemplified by bone marrow transplantation] Schulz-Kindermann F, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):390–7 (55 ref.) (Eng. Abstr.) **(Ger)**

[Melanoma patients: psychosocial stress, coping with illness and social support. A systematic review] Söllner W, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):338–48 (62 ref.) (Eng. Abstr.) **(Ger)**

[Need for psychosocial management of facial and skin tumor patients] Strittmatter G, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):349–57 (Eng. Abstr.) **(Ger)**

[Effect of subjective theories on the coping with illness process—exemplified by patients with chronic pancreatitis] Wagner RF. **Psychother Psychosom Med Psychol** 1998 Dec; 48(12):491–8 (Eng. Abstr.) **(Ger)**

[Need for psycho-oncologic management in Germany—a comparison of present status and future needs] Weis J, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):417–24 (Eng. Abstr.) **(Ger)**

[Rehabilitation-related expectations and motivations in patients with nonspecific backache. The development of a standardized questionnaire] Deck R, et al. **Rehabilitation (Stuttg)** 1998 Aug;37(3):140–6 (Eng. Abstr.) **(Ger)**

["You must live with this pain" (editorial)] Adler RH. **Schweiz Rundsch Med Prax** 1999 Feb 11;88(7):257–8 **(Ger)**

[Pre-eclampsia and its psychosocial sequelae] Cignacco E, et al. **Schweiz Rundsch Med Prax** 1998 Aug 12; 87(33):1019–23 (Eng. Abstr.) **(Ger)**

[Can psychosomatic concepts make a contribution in surgery?] Adler RH. **Swiss Surg** 1999;5(4):167–9 (Eng. Abstr.) **(Ger)**

[Everything was done—patient still not satisfied: introduction to evidence-based surgery] Dubs L. **Swiss Surg** 1999; 5(4):160–6 (Eng. Abstr.) **(Ger)**

[Psychological aspects in surgery—surgical aspects in psychology: psychosomatic medicine in routine practice?] Hontschik B. **Swiss Surg** 1999;5(4):170–6 (Eng. Abstr.) **(Ger)**

[Psychosocial aspects of malignant melanoma] Denz MD. **Ther Umsch** 1999 Jun;56(6):342–7 (Eng. Abstr.) **(Ger)**

[Recollections of ventilated patients after a stay in the intensive care unit] Rosé D, et al. **Wien Klin Wochenschr** 1999 Feb 26;111(4):148–52 (Eng. Abstr.) **(Ger)**

[Prevalence and follow-up of psychiatric diseases in internal medicine departments] Wancata J, et al. **Wien Klin Wochenschr** 1998 Sep 18;110(17):597–603 (Eng. Abstr.) **(Ger)**

[Effect pf anti-dementia drugs on the daily routine and attitude of dementia patients] Kurz A. **Z Gerontol Geriatr** 1999 Jun;32(3):167–71 (19 ref.) (Eng. Abstr.) **(Ger)**

[Perspectives of patients with terminal renal failure: quality of life and psychological adjustment before and in the first year after heart transplantation] Riedmayr MI, et al. **Z Kardiol** 1998 Oct;87(10):808–16 (Eng. Abstr.) **(Ger)**

[Illness due to "upright posture". Backache from the psychosomatic viewpoint] Albrecht H. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug;136(4):Oa14–7 **(Ger)**

SICK SINUS SYNDROME

CHEMICALLY INDUCED

Carbamazepine-induced sinus node dysfunction and atrioventricular block in elderly women. Takayanagi K, et al. **Jpn Heart J** 1998 Jul;39(4):469–79

Possible involvement of hypothyroidism as a cause of lithium-induced sinus node dysfunction. Numata T, et al. **Pacing Clin Electrophysiol** 1999 Jun;22(6 Pt 1):954–7

COMPLICATIONS

Is sinus bradycardia a factor facilitating overt heart failure? Alboni P, et al. **Eur Heart J** 1999 Feb;20(4):252–5 (34 ref.)

Arterial thromboembolism in patients with sick sinus syndrome: prediction from pacing mode, atrial fibrillation, and echocardiographic findings. Andersen HR, et al. **Heart** 1999 Apr;81(4):412–8

Chylothorax in a polysplenia infant with cor triatriatum, pulmonary stenosis and sick sinus syndrome. Noguchi A, et al. **Heart Vessels** 1997;12(5):247–9

Unexpected recurrence of sinus rhythm in chronic atrial fibrillation due to sick sinus disease [letter] Lehmann G, et al. **Int J Cardiol** 1998 Aug;65(3):317–20

Exercise-induced uncommon atrioventricular nodal reentrant tachycardia with sick sinus syndrome: a case report. Komori S, et al. **Jpn Circ J** 1999 Aug;63(8):649–51

DIAGNOSIS

Use of intravenous adenosine as a noninvasive diagnostic test for sick sinus syndrome [see comments] Burnett D, et al. **Am Heart J** 1999 Mar;137(3):435–8. Comment in: Am Heart J 1999 Mar;137(3):377–80.

Is an adenosine challenge a useful test for diagnosing sick sinus syndrome? [editorial; comment] Sorrentino RA. **Am Heart J** 1999 Mar;137(3):377–80. Comment on: Am Heart J 1999 Mar;137(3):435–8.

Clinical study on accentuated antagonism in the regulation of heart rate in children. Miyazoe H, et al. **Jpn Heart J** 1998 Jul;39(4):481–7

ETIOLOGY

[Sinus node dysfunction after complete correction of tetralogy of Fallot. Report of a case] Ben Ameur Y, et al. **Arch Mal Coeur Vaiss** 1998 Dec;91(12):1519–23 (Eng. Abstr.) **(Fre)**

[Sick sinus syndrome after chemotherapy for malignant lymphoma with right atrial tumor at initial presentation] Miyata A, et al. **Rinsho Ketsueki** 1998 Dec;39(12):1190–3 (Eng. Abstr.) **(Jpn)**

GENETICS

Familial sick sinus syndrome with atrioventricular conduction disturbance. Isobe M, et al. **Jpn Circ J** 1998 Oct;62(10):788–90

Dynamic left ventricular arterial pressure gradient and sick sinus syndrome with heterozygous Fabry's disease improved following implantation of a dual chamber pacemaker. Nakayama Y, et al. **Pacing Clin Electrophysiol** 1999 Jul;22(7):1114–5

MORTALITY

Effect of pacing mode on morbidity and mortality: update of clinical pacing trials. McComb JM, et al. **Am J Cardiol** 1999 Mar 11;83(5B):211D–213D (23 ref.)

PHYSIOPATHOLOGY

The natural course of untreated sick sinus syndrome and identification of the variables predictive of unfavorable outcome. Menozzi C, et al. **Am J Cardiol** 1998 Nov 15; 82(10):1205–9

Sick sinus syndrome with and without atrial fibrillation: atrial refractoriness and conduction characteristics. De Sisti A, et al. **Cardiologia** 1999 Apr;44(4):361–7

Atrioventricular nodal reentry tachycardia in patients with sinus node dysfunction: electrophysiologic characteristics, clinical presentation, and results of slow pathway ablation [see comments] Kreiner G, et al. **J Cardiovasc Electrophysiol** 1998 May;9(5):470–8. Comment in: J Cardiovasc Electrophysiol 1998 May;9(5):479.

Can alteration of dual atrioventricular nodal pathway physiology be related to sinus node dysfunction? [editorial; comment] Sung RJ. **J Cardiovasc Electrophysiol** 1998 May; 9(5):479–80 (12 ref.). Comment on: J Cardiovasc Electrophysiol 1998 May;9(5):470–8.

Familial sick sinus syndrome with atrioventricular conduction disturbance. Isobe M, et al. **Jpn Circ J** 1998 Oct;62(10):788–90

[Usefulness of atrial vulnerability in predicting atrial fibrillation in patients with sick sinus syndrome treated with DDD pacemaker] Chiarandà G, et al. **G Ital Cardiol** 1999 Jan;29(1):59–62 (Eng. Abstr.) **(Ita)**

SURGERY

Atrioventricular nodal reentry tachycardia in patients with sinus node dysfunction: electrophysiologic characteristics, clinical presentation, and results of slow pathway ablation [see comments] Kreiner G, et al. **J Cardiovasc Electrophysiol** 1998 May;9(5):470–8. Comment in: J Cardiovasc Electrophysiol 1998 May;9(5):479.

[Implantation of atrial pacemaker in patients with sinoatrial failure] Gundersen T. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3758–60 (Eng. Abstr.) **(Nor)**

THERAPY

AAI pacing for sick sinus syndrome: first choice on all counts [editorial; comment] Marshall HJ, et al. **Heart** 1998 Oct; 80(4):315–6. Comment on: Heart 1998 Oct;80(4):387–9.

Excessive sinus pauses and their elimination in a patient with sleep apnea syndrome. Efremidis M, et al. **Int J Cardiol** 1998 Dec 31;67(3):265–6

Loss of atrial capture during DDD pacing: what is the mechanism? Barold SS. **Pacing Clin Electrophysiol** 1998 Oct;21(10):1988–9

Experience with a low profile bipolar, active fixation pacing lead in pediatric patients. Campbell RM, et al. **Pacing Clin Electrophysiol** 1999 Aug;22(8):1152–7

Relationship between atrioventricular delay and oxygen consumption in patients with sick sinus syndrome: relevance to rate responsive pacing. Meine M, et al. **Pacing Clin Electrophysiol** 1999 Jul;22(7):1054–63

Lead failure due to the subclavian crush syndrome in a patient implanted with both standard and thin bipolar spiral wound leads. Weiner S, et al. **Pacing Clin Electrophysiol** 1999 Jun; 22(6 Pt 1):975–6

[Single-chamber atrial pacing is better than single chamber ventricular pacing in patients with sick sinus syndrome. Results of long-term follow up in a prospective randomized study] Nielsen JC, et al. **Ugeskr Laeger** 1999 Feb 1; 161(5):587–92 (Eng. Abstr.) **(Dan)**

[Control algorithm for the "dromotropic" cardiac pacemaker concept] Meine M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:350–1 **(Ger)**

[A technical regulating approach to dromotropic control of closed-loop frequency adjustment] Molina A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:352–3 **(Ger)**

ULTRASONOGRAPHY

[A 56-year-old woman complaining of faintness] Okada H, et al. **J Cardiol** 1999 Feb;33(2):109–10 **(Jpn)**

SICKLE CELL HEMOGLOBIN C DISEASE see **HEMOGLOBIN SC DISEASE**

SICKLE CELL TRAIT

BLOOD

Subtle brain abnormalities in children with sickle cell disease: relationship to blood hematocrit [see comments] Steen RG, et al. **Ann Neurol** 1999 Mar;45(3):279–86. Comment in: Ann Neurol 1999 Mar;45(3):277–8.

Fibrinolytic activity in adult Kenyan patients with sickle cell disease. Aluoch JR. **East Afr Med J** 1998 Jun;75(6):351–2

[Phospholipid composition and content of the erythrocyte membrane in carriers of sickle cell trait] Sarr NG, et al. **Dakar Med** 1998;43(1):5–8 (Eng. Abstr.) **(Fre)**

[Erythrocyte glutathione reductase in pregnant women with hemoglobin AA and AS] López N, et al. **Sangre (Barc)** 1999 Jun;44(3):195–8 (Eng. Abstr.) **(Spa)**

COMPLICATIONS

Splenic calcifications in heterozygote sickle cell patients. Ozgen A, et al. **Abdom Imaging** 1999 Mar-Apr;24(2):188–90

Renal medullary carcinoma: an aggressive neoplasm in patients with sickle cell trait. Pickhardt PJ. **Abdom Imaging** 1998 Sep–Oct;23(5):531–2

Sickle cell trait and sudden death in athletes [letter; comment] Holmes PS, et al. **Am Fam Physician** 1998 Nov 15; 58(8):1760–1. Comment on: Am Fam Physician 1998 Jun;57(11):2763–70.

Splenic crisis at high altitude in 2 white men with sickle cell trait. Tiernan CJ. **Ann Emerg Med** 1999 Feb; 33(2):230–3

A new look at neuropathology in sickle cell disease [editorial; comment] Dover GJ. **Ann Neurol** 1999 Mar;45(3):277–8. Comment on: Ann Neurol 1999 Mar;45(3):279–86.

Hematuria associated with sickle cell trait during pregnancy. Videlefsky A, et al. **J Am Board Fam Pract** 1998 Jul-Aug; 11(4):321–3

Absence of severe haemolysis in an adult patient with an aortic mechanical prosthesis and a rare form of sickle cell trait [letter] Agnino A, et al. **J Cardiovasc Surg (Torino)** 1999 Feb;40(1):171–2

Sudden death in police pursuit. Thogmartin JR. **J Forensic Sci** 1998 Nov;43(6):1228–31

Prolonged survival of a patient with sickle cell trait and metastatic renal medullary carcinoma. Pirich LM, et al. **J Pediatr Hematol Oncol** 1999 Jan–Feb;21(1):67–9

Immunolocalization of fibronectin in renal biopsy sections of sickle cell nephropathy patients [letter] Mukhatar A. **Minerva Urol Nefrol** 1998 Sep;50(3):223

An unusual cause of haematuria. Macdonald A. **N Z Med J** 1999 Mar 12;112(1083):78

Renal medullary carcinoma in an adolescent with sickle cell trait. Warren KE, et al. **Pediatrics** 1999 Feb;103(2):E22 (8 ref.)

Hyponatraemia: biochemical and clinical perspectives. Gill G, et al. **Postgrad Med J** 1998 Sep;74(875):516–23

[Vitreo-retinal complications of hemoglobinopathy SC]

Ndiaye PA, et al. **Dakar Med** 1998;43(1):21-4 (Eng. Abstr.) **(Fre)**

[Epidemiology of stroke in Guadeloupe and role of sickle cell trait] Lannuzel A, et al. **Rev Neurol (Paris)** 1999 May; 155(5):351-6 (Eng. Abstr.) **(Fre)**

[Sickle cell trait: clinical presentation as acute liver failure] Ferrari AH, et al. **Arq Gastroenterol** 1998 Jan-Mar; 35(1):49-53 (Eng. Abstr.) **(Por)**

DIAGNOSIS

A midlife crisis. Wrenn K, et al. **Lancet** 1999 May 22; 353(9166):1760

DRUG THERAPY

Addressing the crisis of care for sickle-cell disease [news] Morris K. **Lancet** 1999 May 1;353(9163):1504

ETHNOLOGY

Does race influence the provision of care to persons with sickle cell disease? Perceptions of multidisciplinary providers. Telfair J, et al.
J Health Care Poor Underserved 1998 May;9(2):184-95

GENETICS

[Influence of the sickle cell trait heterozygote on energy abilities] Bitanga E, et al. **Pathol Biol (Paris)** 1998 Jan; 46(1):46-52 (50 ref.) (Eng. Abstr.) **(Fre)**

[Splenic infarct in heterozygote sickle cell trait (Hb AS)] von Känel R, et al. **Schweiz Med Wochenschr** 1998 Oct 17;128(42):1614-7 (Eng. Abstr.) **(Ger)**

IMMUNOLOGY

Longitudinal study of Plasmodium falciparum infection and immune responses in infants with or without the sickle cell trait. Le Hesran JY, et al. **Int J Epidemiol** 1999 Aug; 28(4):793-8

PATHOLOGY

A new look at neuropathology in sickle cell disease [editorial; comment] Dover GJ. **Ann Neurol** 1999 Mar;45(3):277-8. Comment on: Ann Neurol 1999 Mar;45(3):279-86.

Subtle brain abnormalities in children with sickle cell disease: relationship to blood hematocrit [see comments] Steen RG, et al. **Ann Neurol** 1999 Mar;45(3):279-86. Comment in: Ann Neurol 1999 Mar;45(3):277-8.

Morphological features of the human umbilical vein in normal, sickle cell trait, and sickle cell disease pregnancies. Decastel M, et al. **Hum Pathol** 1999 Jan;30(1):13-20

SURGERY

Fast-track cardiac anesthesia in patients with sickle cell abnormalities. Djaiani GN, et al. **Anesth Analg** 1999 Sep; 89(3):598-603

SICKNESS IMPACT PROFILE

Methodological considerations in the assessment of health-related quality of life in children. Erling A.
Acta Paediatr Suppl 1999 Feb;88(428):106-7 (3 ref.)

Health-related quality of life: a primer for gastroenterologists. Eisen GM, et al.
Am J Gastroenterol 1999 Aug;94(8):2017-21 (17 ref.)

A screening version of the Dizziness Handicap Inventory (DHI-S). Jacobson GP, et al. **Am J Otol** 1998 Nov; 19(6):804-8

Pitfalls in grading severity of chemotherapy-induced peripheral neuropathy. Postma TJ, et al. **Ann Oncol** 1998 Jul;9(7):739-44

The cognitive-spiritual dimension--an important addition to the assessment of quality of life: validation of a questionnaire (SELT-M) in patients with advanced cancer. van Wegberg B, et al. **Ann Oncol** 1998 Oct;9(10):1091-6

Predictive validity of the pain and impairment relationship scale in a chronic nonmalignant pain population. Guck TP, et al. **Arch Phys Med Rehabil** 1999 Jan;80(1):91-5

The SF-36 and the assessment of HRQoL [editorial] Dahlöf C. **Cephalalgia** 1998 Nov;18(9):592

Validation of a migraine work and productivity loss questionnaire for use in migraine studies. Davies GM, et al. **Cephalalgia** 1999 Jun;19(5):497-502

Quality of life in migraine and chronic daily headache patients. Monzón MJ, et al. **Cephalalgia** 1998 Nov; 18(9):638-43

One-year follow-up of quality of life in adults with untreated growth hormone deficiency. Badia X, et al.
Clin Endocrinol (Oxf) 1998 Dec;49(6):765-71

Structured assessment of the consequences of composite resection. Ackerstaff AH, et al. **Clin Otolaryngol** 1998 Aug; 23(4):339-44

Application of statistical graphics to facilitate selection of health status measures for clinical practice and evaluative research. Stucki G, et al. **Clin Rheumatol** 1999;18(2):101-5

Productivity-cost controversies in cost-effectiveness analysis: review and research agenda. Rothermich EA, et al. **Clin Ther** 1999 Jan;21(1):255-67

Effects of comorbidity on health-related quality-of-life scores: an analysis of clinical trial data. Xuan J, et al.
Clin Ther 1999 Feb;21(2):383-403

Development of a health-related quality-of-life questionnaire for individuals with gastroesophageal reflux disease: a validation study. Colwell HH, et al. **Dig Dis Sci** 1999 Jul; 44(7):1376-83

Telephone validation of the Quality of Life in Epilepsy Inventory-89 (QOLIE-89). Leidy NK, et al. **Epilepsia** 1999 Jan;40(1):97-106

Measuring patient distress in primary care. Seelert KR, et al. **Fam Med** 1999 Jul-Aug;31(7):483-7

Methods in outcomes research in hepatology: definitions and domains of quality of life. Bayliss MS. **Hepatology** 1999 Jun;29(6 Suppl):3S-6S

Validation of health-related quality of life instruments. Cohen RD. **Hepatology** 1999 Jun;29(6 Suppl):7S-8S

The development of a paediatric quality of life questionnaire to measure post-operative pain following tonsillectomy. Myatt HM, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jul 10;44(2):115-23

Development of a head and neck companion module for the quality of life-radiation therapy instrument (QOL-RTI) [published erratum appears in Int J Radiat Oncol Biol Phys 1998 Dec 1;42(5):1181-2] Trotti A, et al.
Int J Radiat Oncol Biol Phys 1998 Sep 1;42(2):257-61

A quality of life assessment package: disease specific measure for pacemaker and cardiac rehabilitation patients. Woodend AK, et al. **Int J Rehabil Res** 1998 Mar;21(1):71-8

The impact of asthma on health-related quality of life. Schmier JK, et al. **J Asthma** 1998;35(7):585-97 (81 ref.)

A cross-cultural study of oral health values. Allison P, et al. **J Dent Res** 1999 Feb;78(2):643-9

Retrospective analysis of the impact of HIV infection and alcohol use on chronic hepatitis C in a large cohort of drug users [letter; comment] Bonacini M. **J Hepatol** 1999 Feb;30(2):347-8. Comment on: J Hepatol 1998 Jun;28(6):945-50.

Health related quality of life in a population sample with arthritis. Hill CL, et al. **J Rheumatol** 1999 Sep; 26(9):2029-35

Evaluation of a Hebrew version of the revised and expanded Arthritis Impact Measurement Scales (AIMS2) in patients with fibromyalgia. Neumann L, et al. **J Rheumatol** 1999 Aug;26(8):1816-21

Expected long-term outcome after a tibial shaft fracture. Faergemann C, et al. **J Trauma** 1999 Apr;46(4):683-6

Capturing the patient's view of change as a clinical outcome measure. Fischer D, et al. **JAMA** 1999 Sep 22-29; 282(12):1157-62

Health-related quality of life as a predictor of mortality following coronary artery bypass graft surgery. Participants of the Department of Veterans Affairs Cooperative Study Group on Processes, Structures, and Outcomes of Care in Cardiac Surgery. Rumsfeld JS, et al. **JAMA** 1999 Apr 14;281(14):1298-303

Measurement of health-related quality of life in patients with amyotrophic lateral sclerosis in clinical trials of new therapies. Damiano AM, et al. **Med Care** 1999 Jan; 37(1):15-26

An international comparison of the reliability and responsiveness of the Duke Health Profile for measuring health-related quality of life of patients treated with alprostadil for erectile dysfunction. Parkerson GR Jr, et al. **Med Care** 1999 Jan;37(1):56-67

Epworth Sleepiness Scale and sleep studies in patients with obstructive sleep apnea syndrome. Furuta H, et al.
Psychiatry Clin Neurosci 1999 Apr;53(2):301-2

PRISM: Pictorial Representation of Illness and Self Measure. A brief nonverbal measure of illness impact and therapeutic aid in psychosomatic medicine. Büchi S, et al.
Psychosomatics 1999 Jul-Aug;40(4):314-20

Factor structure of the Disability and Impact Profile in patients with multiple sclerosis. Cohen L, et al.
Qual Life Res 1999;8(1-2):141-50

[Evaluation of symptoms of gastroesophageal reflux and their impact on quality of life] Amouretti M.
Gastroenterol Clin Biol 1999 Jan;23(1 Pt 2):S45-9 (33 ref.) **(Fre)**

[Can tinnitus be measured? Methods for assessment of tinnitus-specific disability and presentation of the Tinnitus Disability Questionnaire] Greimel KV, et al. **HNO** 1999 Mar;47(3):196-201 **(Ger)**

[Cross cultural adaptation of a health related quality of life measurement: the Spanish version of the COOP/WONCA cartoons] Lizán Tudela L, et al. **Aten Primaria** 1999 Jun 30;24(2):75-82 (Eng. Abstr.) **(Spa)**

SIDEROPHILIN see **TRANSFERRIN**

SIDEROPHORES

Fluorescent siderophore-based chemosensors: iron(III) quantitative determinations. Palanché T, et al.
J Biol Inorg Chem 1999 Apr;4(2):188-98

BIOSYNTHESIS

The virulence of Staphylococcus aureus isolates differing by siderophore production. Różalska B, et al.
Acta Microbiol Pol 1998;47(2):185-94

Environmental factors modulating antibiotic and siderophore biosynthesis by Pseudomonas fluorescens biocontrol strains. Duffy BK, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2429-38

Functional analysis of the two zinc fingers of SRE, a GATA-type factor that negatively regulates siderophore synthesis in Neurospora crassa. Zhou L, et al.
Biochemistry 1999 Apr 6;38(14):4335-41

Iron acquisition in plague: modular logic in enzymatic biogenesis of yersiniabactin by Yersinia pestis. Gehring AM, et al. **Chem Biol** 1998 Oct;5(10):573-86

Identification of a Mycobacterium tuberculosis gene cluster encoding the biosynthetic enzymes for assembly of the virulence-conferring siderophore mycobactin. Quadri LE, et al. **Chem Biol** 1998 Nov;5(11):631-45

Quorum-sensing and siderophore biosynthesis in Pseudomonas aeruginosa: lasR/lasI mutants exhibit reduced pyoverdine biosynthesis. Stintzi A, et al.
FEMS Microbiol Lett 1998 Sep 15;166(2):341-5

Interaction of Bacillus subtilis Fur (ferric uptake repressor) with the dhb operator in vitro and in vivo. Bsat N, et al.
J Bacteriol 1999 Jul;181(14):4299-307

The Aspergillus nidulans GATA factor SREA is involved in regulation of siderophore biosynthesis and control of iron uptake. Haas H, et al. **J Biol Chem** 1999 Feb 19; 274(8):4613-9

CHEMICAL SYNTHESIS

Novel catecholate-type siderophore analogs based on a myo-inositol scaffold. Schnabelrauch M, et al.
Biometals 1998 Sep;11(3):243-51

Synthesis and ESR study of new dihydroxamic acid siderophores S as scavengers of hydroxyl radicals. Nguyen MV, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):227-32

Synthesis and biological evaluation of a carbocyclic azanoraristeromycin siderophore conjugate. Ghosh A, et al. **Nucleosides Nucleotides** 1999 Feb;18(2):217-25

CHEMISTRY

Bacterial iron transport: 1H NMR determination of the three-dimensional structure of the gallium complex of pyoverdin G4R, the peptidic siderophore of Pseudomonas putida G4R. Atkinson RA, et al. **Biochemistry** 1998 Nov 10;37(45):15965-73

Novel catecholate-type siderophore analogs based on a myo-inositol scaffold. Schnabelrauch M, et al.
Biometals 1998 Sep;11(3):243-51

IC202A, a new siderophore with immunosuppressive activity produced by Streptoalloteichus sp. 1454-19. II. Physico-chemical properties and structure elucidation. Iijima M, et al. **J Antibiot (Tokyo)** 1999 Jan;52(1):25-8

A fast screening method for the identification of siderophores from fluorescent Pseudomonas spp. by liquid chromatography/electrospray mass spectrometry. Kilz S, et al. **J Mass Spectrom** 1999 Apr;34(4):281-90

Yersiniabactin from Yersinia pestis: biochemical characterization of the siderophore and its role in iron transport and regulation. Perry RD, et al. **Microbiology** 1999 May;145 (Pt 5):1181-90

The crystal structure of HasA, a hemophore secreted by Serratia marcescens. Arnoux P, et al. **Nat Struct Biol** 1999 Jun;6(6):516-20

GENETICS

Identification of a Mycobacterium tuberculosis gene cluster encoding the biosynthetic enzymes for assembly of the virulence-conferring siderophore mycobactin. Quadri LE, et al. **Chem Biol** 1998 Nov;5(11):631-45

YbtP and YbtQ: two ABC transporters required for iron uptake in Yersinia pestis. Fetherston JD, et al.
Mol Microbiol 1999 Apr;32(2):289-99

ISOLATION & PURIFICATION

Purification of catechol siderophores by boronate affinity chromatography: identification of chrysobactin from Erwinia carotovora subsp. carotovora. Barnes HH, et al.
Biometals 1999 Mar;12(1):83-7

Yersiniabactin from Yersinia pestis: biochemical characterization of the siderophore and its role in iron transport and regulation. Perry RD, et al. **Microbiology** 1999 May;145 (Pt 5):1181-90

METABOLISM

Ferrioxamine-mediated Iron(III) utilization by Salmonella enterica. Kingsley RA, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1610-8

Copurification of the FpvA ferric pyoverdin receptor of Pseudomonas aeruginosa with its iron-free ligand: implications for siderophore-mediated iron transport. Schalk IJ, et al. **Biochemistry** 1999 Jul 20;38(29):9357-65

The siderophore 2,3-dihydroxybenzoic acid is not required for virulence of Brucella abortus in BALB/c mice. Bellaire BH, et al. **Infect Immun** 1999 May;67(5):2615-8

Essential role of the iron-regulated outer membrane receptor FauA in alcaligin siderophore-mediated iron uptake in Bordetella species. Brickman TJ, et al. **J Bacteriol** 1999 Oct;181(19):5958-66

Salmonella typhimurium IroN and FepA proteins mediate uptake of enterobactin but differ in their specificity for other siderophores. Rabsch W, et al. **J Bacteriol** 1999 Jun; 181(11):3610-2

Detection of siderophore production from several fungi and bacteria by a modification of chrome azurol S (CAS) agar plate assay. Milagres AM, et al. **J Microbiol Methods** 1999 Jul;37(1):1-6

Transmembrane topology of the two FhuB domains

representing the hydrophobic components of bacterial ABC transporters involved in the uptake of siderophores, haem and vitamin B12. Groeger W, et al. **Microbiology** 1998 Oct;144 (Pt 10):2759–69

Siderophore–mediated iron uptake in Saccharomyces cerevisiae: the SIT1 gene encodes a ferrioxamine B permease that belongs to the major facilitator superfamily. Lesuisse E, et al. **Microbiology** 1998 Dec;144 (Pt 12):3455–62

Siderotyping of fluorescent pseudomonads: characterization of pyoverdines of Pseudomonas fluorescens and Pseudomonas putida strains from Antarctica. Meyer JM, et al. **Microbiology** 1998 Nov;144 (Pt 11):3119–26

The fhu genes of Rhizobium leguminosarum, specifying siderophore uptake proteins: fhuDCB are adjacent to a pseudogene version of fhuA. Stevens JB, et al. **Microbiology** 1999 Mar;145 (Pt 3):593–601

Two iron–regulated putative ferric siderophore receptor genes in Bordetella bronchiseptica and Bordetella pertussis. Beall B. **Res Microbiol** 1998 Mar;149(3):189–201

[Utilization of siderophores from the Acinetobacter genus by staphylococcal bacilli] Szarapińska–Kwaszewska J, et al. **Med Dosw Mikrobiol** 1998;50(1–2):9–19 (Eng. Abstr.) **(Pol)**

[Utilization of siderophores from mycobacteria by Staphylococcus] Szarapińska–Kwaszewska J, et al. **Med Dosw Mikrobiol** 1998;50(3–4):239–49 (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

IC202A, a new siderophore with immunosuppressive activity produced by Streptoalloteichus sp. 1454–19. I. Taxonomy, fermentation, isolation and biological activity. Iijima M, et al. **J Antibiot (Tokyo)** 1999 Jan;52(1):20–4

Effect of microbial siderophores on matrix metalloproteinase–2 activity. Gendron R, et al. **J Periodontal Res** 1999 Jan;34(1):50–3

SIDEROSIS

see related
HEMOSIDEROSIS

COMPLICATIONS

Hearing loss in siderosis. Palacios E, et al. **Ear Nose Throat J** 1999 May;78(5):336

Surgical treatment of superficial siderosis associated with a spinal arteriovenous malformation. Case report. Schievink WI, et al. **J Neurosurg** 1998 Dec;89(6):1029–31

DIAGNOSIS

Ferumoxide–enhanced MRI of sideronecrosis superimposed on genetic hemochromatosis. Aizenstein RI, et al. **J Comput Assist Tomogr** 1999 Jan–Feb;23(1):90–3

Superficial CNS siderosis in the newborn: MR diagnosis [letter] Glasier CM, et al. **Pediatr Radiol** 1999 Jan; 29(1):76–7

[Anatomic–clinical study of two cases of ocular siderosis] Janssens D, et al. **Bull Soc Belge Ophtalmol** 1999;272:115–9 **(Fre)**

[Focal intrahepatic siderosis, diagnostic pitfall, iatrogenic image] Arteaga C, et al. **J Radiol** 1998 Feb;79(2):157–8 (Eng. Abstr.) **(Fre)**

[Superficial siderosis of the central nervous system] Durieux A, et al. **Rev Neurol (Paris)** 1999 Mar;155(3):201–7 (35 ref.) (Eng. Abstr.) **(Fre)**

[A case of superficial siderosis of the central nervous system—findings of the neuro–otological tests and evoked potentials] Nakane S, et al. **No To Shinkei** 1999 Feb; 51(2):155–9 (Eng. Abstr.) **(Jpn)**

ETIOLOGY

Superficial siderosis of the CNS associated with multiple cavernous malformations. Hsu WC, et al. **AJNR Am J Neuroradiol** 1999 Aug;20(7):1245–8

Siderosis bulbi resulting from an intralenticular foreign body. O'Duffy D, et al. **Am J Ophthalmol** 1999 Feb;127(2):218–9

Corneal iron deposits after laser in situ keratomileusis. Vongthongsri A, et al. **Am J Ophthalmol** 1999 Jan; 127(1):85–6

Corneal iron ring after hyperopic laser–assisted in situ keratomileusis. Ozdamar A, et al. **Cornea** 1999 Mar; 18(2):243–5

Incidence of lung cancer among shipyard welders investigated for siderosis. Danielsen TE, et al. **Int J Occup Environ Health** 1998 Apr–Jun;4(2):85–8

Corneal iron ring after hyperopic photorefractive keratectomy. Bilgihan K, et al. **J Cataract Refract Surg** 1999 May;25(5):685–7

Pseudo–Fleischer ring after hyperopic laser in situ keratomileusis. Probst LE, et al. **J Cataract Refract Surg** 1999 Jun;25(6):868–70

Superficial siderosis of the central nervous system: a late complication of cerebellar tumors. Anderson NE, et al. **Neurology** 1999 Jan 1;52(1):163–9

[Superficial siderosis appeared in a case of suprasellar embryonal carcinoma] Kato K, et al. **No To Shinkei** 1998 Oct;50(10):936–40 (Eng. Abstr.) **(Jpn)**

METABOLISM

Assessment of iron stores in children with transfusion siderosis by biomagnetic liver susceptometry. Fischer R, et al. **Am J Hematol** 1999 Apr;60(4):289–99

Hepatic iron overload in patients with chronic viral hepatitis: role of HFE gene mutations. Piperno A, et al. **Hepatology** 1998 Oct;28(4):1105–9

PATHOLOGY

Transport of siderotic Kupffer cells to the lung and bronchial excretion of iron in experimental iron–overload. Hertz T, et al. **Acta Anat (Basel)** 1992;145(4):378–81

Storage of iron in bone marrow plasma cells. Ultrastructural characterization, mobilization, and diagnostic significance. Wulfhekel U, et al. **Acta Haematol** 1999 Mar;101(1):7–15

RADIONUCLIDE IMAGING

[Long–term follow–up study with PET in a case of superficial siderosis] Terashi H, et al. **Rinsho Shinkeigaku** 1998 Jun;38(6):506–11 (Eng. Abstr.) **(Jpn)**

SURGERY

Surgical treatment of superficial siderosis associated with a spinal arteriovenous malformation. Case report. Schievink WI, et al. **J Neurosurg** 1998 Dec;89(6):1029–31

[Anatomic–clinical study of two cases of ocular siderosis] Janssens D, et al. **Bull Soc Belge Ophtalmol** 1999;272:115–9 **(Fre)**

SIDS see **SUDDEN INFANT DEATH**

SIGA see **IGA, SECRETORY**

SIGMA ELEMENT see **SIGMA FACTOR**

SIGMA FACTOR

ANTAGONISTS & INHIBITORS

The anti–sigma factors. Hughes KT, et al. **Annu Rev Microbiol** 1998;52:231–86 (282 ref.)

Anti–sigma factors. Helmann JD. **Curr Opin Microbiol** 1999 Apr;2(2):135–41 (54 ref.)

RsrA, an anti–sigma factor regulated by redox change. Kang JG, et al. **EMBO J** 1999 Aug 2;18(15):4292–8

The flagellar anti–sigma factor FlgM actively dissociates Salmonella typhimurium sigma28 RNA polymerase holoenzyme. Chadsey MS, et al. **Genes Dev** 1998 Oct 1; 12(19):3123–36

The Staphylococcus aureus rsbW (orf159) gene encodes an anti–sigma factor of SigB. Miyazaki E, et al. **J Bacteriol** 1999 May;181(9):2846–51

[Molecular regulation of sigma factor and anti–sigma factor in prokaryote differentiation] Tan H. **Wei Sheng Wu Hsueh Pao** 1997 Jun;37(3):234–6 (5 ref.) **(Chi)**

BIOSYNTHESIS

Exposure to antibiotics induces expression of the Mycobacterium tuberculosis sigF gene: implications for chemotherapy against mycobacterial persistors. Michele TM, et al. **Antimicrob Agents Chemother** 1999 Feb; 43(2):218–25

The general stress sigma factor sigmaS of Escherichia coli is induced during diauxic shift from glucose to lactose. Fischer D, et al. **J Bacteriol** 1998 Dec;180(23):6203–6

Analysis of rpoS mRNA in Salmonella dublin: identification of multiple transcripts with growth–phase–dependent variation in transcript stability. Paesold G, et al. **J Bacteriol** 1999 Feb;181(4):1264–8

Expression of the sigmaB–dependent general stress regulon confers multiple stress resistance in Bacillus subtilis. Völker U, et al. **J Bacteriol** 1999 Jul;181(13):3942–8

Synthesis of the sigmaD protein is not sufficient to trigger expression of motility functions in Bacillus subtilis. Yang DH, et al. **J Bacteriol** 1999 May;181(9):2942–6

sigmaK can negatively regulate sigE expression by two different mechanisms during sporulation of Bacillus subtilis. Zhang B, et al. **J Bacteriol** 1999 Jul;181(13):4081–8

Role of lon and ClpX in the post–translational regulation of a sigma subunit of RNA polymerase required for cellular differentiation in Bacillus subtilis. Liu J, et al. **Mol Microbiol** 1999 Jul;33(2):415–28

CHEMISTRY

Mapping protein–protein interactions with a library of tethered cutting reagents: the binding site of sigma 70 on Escherichia coli RNA polymerase. Traviglia SL, et al. **Biochemistry** 1999 Apr 6;38(14):4259–65

Correlation between chlamydial infection and autoimmune response: molecular mimicry between RNA polymerase major sigma subunit from Chlamydia trachomatis and human L7. Hemmerich P, et al. **Eur J Immunol** 1998 Nov; 28(11):3857–66

Region 1 modifies DNA–binding domain conformation of sigma 54 within the holoenzyme. Casaz P, et al. **J Mol Biol** 1999 Jan 15;285(2):507–14

Core RNA polymerase from E. coli induces a major change in the domain arrangement of the sigma 70 subunit. Callaci S, et al. **Mol Cell** 1999 Feb;3(2):229–38

Picture story. Move over and bind. Konforti B. **Nat Struct Biol** 1999 Apr;6(4):309

GENETICS

Lethality of a heat– and phosphate–catalyzed glucose by–product to Escherichia coli O157:H7 and partial protection conferred by the rpoS regulon. Byrd JJ, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2396–401

Characterization of the group 1 and group 2 sigma factors of the green sulfur bacterium Chlorobium tepidum and the green non–sulfur bacterium Chloroflexus aurantiacus. Gruber TM, et al. **Arch Microbiol** 1998 Oct;170(4):285–96

The Streptomyces aureofaciens homologue of the sporulation gene whiH is dependent on rpoZ–encoded sigma factor. Kormanec J, et al. **Biochim Biophys Acta** 1999 Jan 18; 1444(1):80–4

Regulation in the rpoS regulon of Escherichia coli. Loewen PC, et al. **Can J Microbiol** 1998 Aug;44(8):707–17 (113 ref.)

Regulation of the heat–shock response. Yura T, et al. **Curr Opin Microbiol** 1999 Apr;2(2):153–8 (66 ref.)

Cloning and sequencing of rpoH and identification of ftsE–ftsX in Pseudomonas putida PpG1. Aramaki H, et al. **DNA Res** 1999 Aug 31;6(4):241–5

A mutation in region 1.1 of sigma70 affects promoter DNA binding by Escherichia coli RNA polymerase holoenzyme. Bowers CW, et al. **EMBO J** 1999 Feb 1;18(3):709–16

sigmaR, an RNA polymerase sigma factor that modulates expression of the thioredoxin system in response to oxidative stress in Streptomyces coelicolor A3(2). Paget MS, et al. **EMBO J** 1998 Oct 1;17(19):5776–82

Circadian–regulated expression of a nuclear–encoded plastid sigma factor gene (sigA) in wheat seedlings. Morikawa K, et al. **FEBS Lett** 1999 May 28;451(3):275–8

Positive regulation of Bacillus subtilis sigD by C–terminal truncated LacR at translational level. Ogura M, et al. **FEBS Lett** 1999 Aug 20;457(1):112–6

The variant rpoS allele of S. enteritidis strain 27655R does not affect virulence in a chick model nor constitutive curliation but does generate a cold–sensitive phenotype. Allen–Vercoe E, et al. **FEMS Microbiol Lett** 1998 Oct 15; 167(2):245–53

The Mycobacterium marinum G13 promoter is a strong sigma 70–like promoter that is expressed in Escherichia coli and mycobacteria species. Barker LP, et al. **FEMS Microbiol Lett** 1999 Jun 1;175(1):79–85

A new gene, sigG, encoding a putative alternative sigma factor of Streptomyces coelicolor A3(2). Kormanec J, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):153–8

pH–dependent activation of the alternative transcriptional factor sigmaB in Bacillus subtilis. Kovács T, et al. **FEMS Microbiol Lett** 1998 Aug 15;165(2):323–8

Cloning and characterization in Escherichia coli of the gene encoding the principal sigma factor of an extreme thermophile, Thermus thermophilus. Nishiyama M, et al. **FEMS Microbiol Lett** 1999 Mar 15;172(2):179–86

The rpoS mutant allele of Salmonella typhi Ty2 is identical to that of the live typhoid vaccine Ty21a. Robbe–Saule V, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):141–3

Cloning and characterization of Planctomyces limnophilus rpoN: complementation of a Salmonella typhimurium rpoN mutant strain. Leary BA, et al. **Gene** 1998 Oct 9; 221(1):151–7

A new sigma factor, SigD, essential for stationary phase is also required for multicellular differentiation in Myxococcus xanthus. Ueki T, et al. **Genes Cells** 1998 Jun; 3(6):371–85

A surface of Escherichia coli sigma 70 required for promoter function and antitermination by phage lambda Q protein. Ko DC, et al. **Genes Dev** 1998 Oct 15;12(20):3276–85

Isolation and characterization of a sigB deletion mutant of Staphylococcus aureus. Nicholas RO, et al. **Infect Immun** 1999 Jul;67(7):3667–9

Characterization of rpoS alleles in Escherichia coli O157:H7 and in other E. coli serotypes. Ferreira A, et al. **J Appl Microbiol** 1999 Feb;86(2):295–301

Identification and characterization of the Erwinia amylovora rpoS gene: RpoS is not involved in induction of fireblight disease symptoms. Anderson M, et al. **J Bacteriol** 1998 Dec; 180(24):6789–92

Influence of a putative ECF sigma factor on expression of the major outer membrane protein, OprF, in Pseudomonas aeruginosa and Pseudomonas fluorescens. Brinkman FS, et al. **J Bacteriol** 1999 Aug;181(16):4746–54

RpoS synthesis is growth rate regulated in Salmonella typhimurium, but its turnover is not dependent on acetyl phosphate synthesis or PTS function. Cunning C, et al. **J Bacteriol** 1999 Aug;181(16):4853–62

The yvyD gene of Bacillus subtilis is under dual control of sigmaB and sigmaH. Drzewiecki K, et al. **J Bacteriol** 1998 Dec;180(24):6674–80

A mycobacterial extracytoplasmic sigma factor involved in survival following heat shock and oxidative stress. Fernandes ND, et al. **J Bacteriol** 1999 Jul;181(14):4266–74

Targeted mutagenesis of sigma54 activator proteins in Myxococcus xanthus. Gorski L, et al. **J Bacteriol** 1998 Nov; 180(22):5896–905

The Legionella pneumophila rpoS gene is required for growth within Acanthamoeba castellanii. Hales LM, et al. **J Bacteriol** 1999 Aug;181(16):4879–89

Transcription of two sigma 70 homologue genes, sigA and sigB, in stationary–phase Mycobacterium tuberculosis. Hu

Y, et al. **J Bacteriol** 1999 Jan;181(2):469–76
Transcriptional organization and in vivo role of the Escherichia coli rsd gene, encoding the regulator of RNA polymerase sigma D. Jishage M, et al. **J Bacteriol** 1999 Jun;181(12):3768–76
Sigma factor displacement from RNA polymerase during Bacillus subtilis sporulation. Ju J, et al. **J Bacteriol** 1999 Aug;181(16):4969–77
Identification of sigma(B)–dependent genes in Bacillus subtilis using a promoter consensus–directed search and oligonucleotide hybridization. Petersohn A, et al. **J Bacteriol** 1999 Sep;181(18):5718–24
Identification of conserved, RpoS–dependent stationary–phase genes of Escherichia coli. Schellhorn HE, et al. **J Bacteriol** 1998 Dec;180(23):6283–91
Effect of rpoS mutation on the stress response and expression of virulence factors in Pseudomonas aeruginosa. Suh SJ, et al. **J Bacteriol** 1999 Jul;181(13):3890–7
Identification of an N–terminal region of sigma 54 required for enhancer responsiveness. Syed A, et al. **J Bacteriol** 1998 Nov;180(21):5619–25
The fur–regulated gene encoding the alternative sigma factor PvdS is required for iron–dependent expression of the LysR–type regulator ptxR in Pseudomonas aeruginosa. Vasil ML, et al. **J Bacteriol** 1998 Dec;180(24):6784–8
Multiple in vivo roles for the –12–region elements of sigma 54 promoters. Wang L, et al. **J Bacteriol** 1998 Nov;180(21):5626–31
Regulation of motility behavior in Myxococcus xanthus may require an extracytoplasmic–function sigma factor. Ward MJ, et al. **J Bacteriol** 1998 Nov;180(21):5668–75
Synthesis of the sigmaD protein is not sufficient to trigger expression of motility functions in Bacillus subtilis. Yang DH, et al. **J Bacteriol** 1999 May;181(9):2942–6
An intrinsic DNA curvature found in the cyanobacterium Microcystis aeruginosa K–81 affects the promoter activity of rpoD1 encoding a principal sigma factor. Asayama M, et al. **J Biochem (Tokyo)** 1999 Mar;125(3):460–8
Organization of open complexes at Escherichia coli promoters. Location of promoter DNA sites close to region 2.5 of the sigma70 subunit of RNA polymerase. Bown JA, et al. **J Biol Chem** 1999 Jan 22;274(4):2263–70
The IIANtr (PtsN) protein of Pseudomonas putida mediates the C source inhibition of the sigma54–dependent Pu promoter of the TOL plasmid. Cases I, et al. **J Biol Chem** 1999 May 28;274(22):15562–8
Function of the sigma(54) region I in trans and implications for transcription activation. Gallegos MT, et al. **J Biol Chem** 1999 Sep 3;274(36):25285–90
Contributions of the domains of the Bacillus subtilis response regulator Spo0A to transcription stimulation of the spoIIG operon. Rowe–Magnus DA, et al. **J Biol Chem** 1998 Oct 2;273(40):25818–24
Transcription initiation at the flagellin promoter by RNA polymerase carrying sigma28 from Salmonella typhimurium. Schaubach OL, et al. **J Biol Chem** 1999 Mar 26;274(13):8757–63
Effect of mutations in the "extended –10" motif of three Bacillus subtilis sigmaA–RNA polymerase–dependent promoters. Camacho A, et al. **J Mol Biol** 1999 Feb 26;286(3):683–93
Induction of rpoS in Salmonella typhimurium by nutrient–poor and depleted media is slower than that achieved by a competitive microflora. Aldsworth TG, et al. **Lett Appl Microbiol** 1999 Apr;28(4):255–7
Conservation of putative promoter sequences located upstream of chlamydial major sigma factor gene, sigA among Chlamydia spp. Ochiai Y, et al. **Microbiol Immunol** 1999;43(5):419–24
Two genes from Bacillus subtilis under the sole control of the general stress transcription factor sigmaB. Akbar S, et al. **Microbiology** 1999 May;145 (Pt 5):1069–78
Structure and expression of the fliA operon of Salmonella typhimurium. Ikebe T, et al. **Microbiology** 1999 Jun;145 (Pt 6):1389–96
RpoS–dependent stress tolerance in Pseudomonas aeruginosa. Jørgensen F, et al. **Microbiology** 1999 Apr;145 (Pt 4):835–44
Bacillus subtilis 168 gene lytF encodes a gamma–D–glutamate–meso–diaminopimelate muropeptidase expressed by the alternative vegetative sigma factor, sigmaD. Margot P, et al. **Microbiology** 1999 Jan;145 (Pt 1):57–65
Identification and transcriptional analysis of new members of the sigmaB regulon in Bacillus subtilis. Petersohn A, et al. **Microbiology** 1999 Apr;145 (Pt 4):869–80
Identification of protease and rpoN–associated genes of uropathogenic Proteus mirabilis by negative selection in a mouse model of ascending urinary tract infection. Zhao H, et al. **Microbiology** 1999 Jan;145 (Pt 1):185–95
Regulation of sigmaB–dependent transcription of sigB and asp23 in two different Staphylococcus aureus strains. Gertz S, et al. **Mol Gen Genet** 1999 Apr;261(3):558–66
A putative sigma factor from Streptomyces sp. strain A21 can activate the expression of the cryptic operon bgl in Escherichia coli K–12. Marri L, et al. **Mol Gen Genet** 1999 Feb;261(1):201–7
The ftsQ1p gearbox promoter of Escherichia coli is a major sigma S–dependent promoter in the ddlB–ftsA region. Ballesteros M, et al. **Mol Microbiol** 1998 Oct;30(2):419–30
Functional analysis of the Helicobacter pylori principal sigma subunit of RNA polymerase reveals that the spacer region is important for efficient transcription. Beier D, et al. **Mol Microbiol** 1998 Oct;30(1):121–34
Involvement of the FtsH (HflB) protease in the activity of sigma 54 promoters. Carmona M, et al. **Mol Microbiol** 1999 Jan;31(1):261–70
The type III secretion determinants of the flagellar anti–transcription factor, FlgM, extend from the amino–terminus into the anti–sigma28 domain. Chilcott GS, et al. **Mol Microbiol** 1998 Dec;30(5):1029–40
Negative regulation by RpoS: a case of sigma factor competition. Farewell A, et al. **Mol Microbiol** 1998 Aug;29(4):1039–51
Characterization of a morphological checkpoint coupling cell–specific transcription to septation in Bacillus subtilis. Feucht A, et al. **Mol Microbiol** 1999 Sep;33(5):1015–26
sigA is an essential gene in Mycobacterium smegmatis. Gomez M, et al. **Mol Microbiol** 1998 Jul;29(2):617–28
Non–specific, general and multiple stress resistance of growth–restricted Bacillus subtilis cells by the expression of the sigmaB regulon. Hecker M, et al. **Mol Microbiol** 1998 Sep;29(5):1129–36 (55 ref.)
Identification of target promoters for the Bacillus subtilis extracytoplasmic function sigma factor, sigma W. Huang X, et al. **Mol Microbiol** 1999 Jan;31(1):361–71
Transcription of rpoH, encoding the Escherichia coli heat–shock regulator sigma32, is negatively controlled by the cAMP–CRP/CytR nucleoprotein complex [see comments] Kallipolitis BH, et al. **Mol Microbiol** 1998 Aug;29(4):1091–9. Comment in: Mol Microbiol 1999 Jan;31(1):393.
Identification and characterization of a stress–responsive promoter in the macromolecular synthesis operon of Bacillus subtilis. Liao CT, et al. **Mol Microbiol** 1999 Jul;33(2):377–88
Differential expression of 10 sigma factor genes in Mycobacterium tuberculosis. Manganelli R, et al. **Mol Microbiol** 1999 Jan;31(2):715–24
Crl stimulates RpoS activity during stationary phase. Pratt LA, et al. **Mol Microbiol** 1998 Sep;29(5):1225–36
The alarmone (p)ppGpp mediates physiological–responsive control at the sigma 54–dependent Po promoter. Sze CC, et al. **Mol Microbiol** 1999 Feb;31(4):1217–28
The response regulator expM is essential for the virulence of Erwinia carotovora subsp. carotovora and acts negatively on the sigma factor RpoS (sigma s). Andersson RA, et al. **Mol Plant Microbe Interact** 1999 Jul;12(7):575–84
Regulation of RpoS proteolysis in Escherichia coli: the response regulator RssB is a recognition factor that interacts with the turnover element in RpoS. Becker G, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6439–44
The role of an alternative sigma factor in motility and pilus formation in the cyanobacterium Synechocystis sp. strain PCC6803. Bhaya D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3188–93
DsrA RNA regulates translation of RpoS message by an anti–antisense mechanism, independent of its action as an antisilencer of transcription. Majdalani N, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12462–7
Characterization of two chloroplast RNA polymerase sigma factors from Zea mays: photoregulation and differential expression. Tan S, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5316–21

IMMUNOLOGY

Comparison of the abilities of Salmonella typhimurium rpoS, aroA and rpoS aroA strains to elicit humoral immune responses in BALB/c mice and to cause lethal infection in athymic BALB/c mice. Coynault C, et al. **Microb Pathog** 1999 Jun;26(6):299–305

METABOLISM

A Bacillus–specific factor is needed to trigger the stress–activated phosphatase/kinase cascade of sigmaB induction. Scott JM, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):106–10
Specific recognition of the cyanobacterial psbA promoter by RNA polymerases containing principal sigma factors. Shibato J, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2–3):296–303
General method of analysis of kinetic equations for multistep reversible mechanisms in the single–exponential regime: application to kinetics of open complex formation between Esigma70 RNA polymerase and lambdaP(R) promoter DNA. Tsodikov OV, et al. **Biophys J** 1999 Mar;76(3):1320–9
Restricted transcription from sigma H or phosphorylated spo0A dependent promoters in the temperature–sensitive secA341 mutant of Bacillus subtilis. Asai K, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1707–13
Interaction of Escherichia coli sigma 70 with core RNA polymerase. Burgess RR, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:277–87 (99 ref.)
The functional and regulatory roles of sigma factors in transcription. Gross CA, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:141–55 (98 ref.)
Summary: three decades after sigma. Losick R. **Cold Spring Harb Symp Quant Biol** 1998;63:653–66 (0 ref.)
Interplay of global regulators and cell physiology in the general stress response of Escherichia coli. Hengge–Aronis R. **Curr Opin Microbiol** 1999 Apr;2(2):148–52 (47 ref.)
The sigmaE and Cpx regulatory pathways: overlapping but distinct envelope stress responses. Raivio TL, et al. **Curr Opin Microbiol** 1999 Apr;2(2):159–65 (52 ref.)
Active recruitment of sigma54–RNA polymerase to the Pu promoter of Pseudomonas putida: role of IHF and alphaCTD. Bertoni G, et al. **EMBO J** 1998 Sep 1;17(17):5120–8
A mutation in region 1.1 of sigma70 affects promoter DNA binding by Escherichia coli RNA polymerase holoenzyme. Bowers CW, et al. **EMBO J** 1999 Feb 1;18(3):709–16
Positioning of sigma(S), the stationary phase sigma factor, in Escherichia coli RNA polymerase–promoter open complexes. Colland F, et al. **EMBO J** 1999 Jul 15;18(14):4049–59
A fork junction DNA–protein switch that controls promoter melting by the bacterial enhancer–dependent sigma factor. Guo Y, et al. **EMBO J** 1999 Jul 1;18(13):3736–45
Wrapping of DNA around the E.coli RNA polymerase open promoter complex. Rivetti C, et al. **EMBO J** 1999 Aug 16;18(16):4464–75
Positive regulation of Bacillus subtilis sigD by C–terminal truncated LacR at translational level. Ogura M, et al. **FEBS Lett** 1999 Aug 20;457(1):112–6
Differential inhibition of transcription from sigma70– and sigma32–dependent promoters by rifampicin. Wegrzyn A, et al. **FEBS Lett** 1998 Nov 27;440(1–2):172–4
High levels of transcription factor RpoS (sigma S) in mviA mutants negatively affect 1,2–propanediol–dependent transcription of the cob/pdu regulon of Salmonella typhimurium LT2. Rondon MR, et al. **FEMS Microbiol Lett** 1998 Dec 1;169(1):147–53
Amino–terminal sequences of sigmaN (sigma54) inhibit RNA polymerase isomerization. Cannon W, et al. **Genes Dev** 1999 Feb 1;13(3):357–70
The flagellar anti–sigma factor FlgM actively dissociates Salmonella typhimurium sigma28 RNA polymerase holoenzyme. Chadsey MS, et al. **Genes Dev** 1998 Oct 1;12(19):3123–36
Septation, dephosphorylation, and the activation of sigmaF during sporulation in Bacillus subtilis. King N, et al. **Genes Dev** 1999 May 1;13(9):1156–67
Role of the alternative sigma factor sigmaS in expression of the AlkS regulator of the Pseudomonas oleovorans alkane degradation pathway. Canosa I, et al. **J Bacteriol** 1999 Mar;181(6):1748–54
Role of bkdR, a transcriptional activator of the sigL–dependent isoleucine and valine degradation pathway in Bacillus subtilis. Debarbouille M, et al. **J Bacteriol** 1999 Apr;181(7):2059–66
Effect of ppGpp on Escherichia coli cyclopropane fatty acid synthesis is mediated through the RpoS sigma factor (sigmaS). Eichel J, et al. **J Bacteriol** 1999 Jan;181(2):572–6
uspB, a new sigmaS–regulated gene in Escherichia coli which is required for stationary–phase resistance to ethanol. Farewell A, et al. **J Bacteriol** 1998 Dec;180(23):6140–7
The LysR homolog LrhA promotes RpoS degradation by modulating activity of the response regulator sprE. Gibson KE, et al. **J Bacteriol** 1999 Jan;181(2):563–71
The "pro" sequence of the sporulation–specific sigma transcription factor sigma(E) directs it to the mother cell side of the sporulation septum. Ju J, et al. **J Bacteriol** 1999 Oct;181(19):6171–5
Mutant forms of Salmonella typhimurium sigma54 defective in transcription initiation but not promoter binding activity. Kelly MT, et al. **J Bacteriol** 1999 Jun;181(11):3351–7
The Bacillus subtilis yaaH gene is transcribed by SigE RNA polymerase during sporulation, and its product is involved in germination of spores. Kodama T, et al. **J Bacteriol** 1999 Aug;181(15):4584–91
The Escherichia coli Ada protein can interact with two distinct determinants in the sigma70 subunit of RNA polymerase according to promoter architecture: identification of the target of Ada activation at the alkA promoter. Landini P, et al. **J Bacteriol** 1999 Mar;181(5):1524–9
Replacement of vegetative sigmaA by sporulation–specific sigmaF as a component of the RNA polymerase holoenzyme in sporulating Bacillus subtilis. Lord M, et al. **J Bacteriol** 1999 Apr;181(8):2346–50
Evidence that the extracytoplasmic function sigma factor sigmaE is required for normal cell wall structure in Streptomyces coelicolor A3(2). Paget MSB, et al. **J Bacteriol** 1999 Jan;181(1):204–11
Identification of sigma(B)–dependent genes in Bacillus subtilis using a promoter consensus–directed search and oligonucleotide hybridization. Petersohn A, et al. **J Bacteriol** 1999 Sep;181(18):5718–24
Identification of conserved, RpoS–dependent stationary–phase genes of Escherichia coli. Schellhorn HE, et al. **J Bacteriol** 1998 Dec;180(23):6283–91
Role of the sporulation protein BofA in regulating activation of the Bacillus subtilis developmental transcription factor sigmaK. Resnekov O. **J Bacteriol** 1999 Sep;181(17):5384–8
Obg, an essential GTP binding protein of Bacillus subtilis, is necessary for stress activation of transcription factor sigma(B). Scott JM, et al. **J Bacteriol** 1999 Aug;181(15):4653–60
Study of the interaction between bacteriophage T4 asiA and Escherichia coli sigma(70), using the yeast two–hybrid system: neutralization of asiA toxicity to E. coli cells by coexpression of a truncated sigma(70) fragment. Sharma UK, et al. **J Bacteriol** 1999 Sep;181(18):5855–9
The two–component regulators GacS and GacA influence

accumulation of the stationary-phase sigma factor sigmaS and the stress response in Pseudomonas fluorescens Pf-5. Whistler CA, et al. **J Bacteriol** 1998 Dec;180(24):6635-41

Localization of a sigma70 binding site on the N terminus of the Escherichia coli RNA polymerase beta' subunit. Arthur TM, et al. **J Biol Chem** 1998 Nov 20; 273(47):31381-7

Conformational changes of Escherichia coli RNA polymerase sigma70 factor induced by binding to the core enzyme. Callaci S, et al. **J Biol Chem** 1998 Dec 4; 273(49):32995-3001

Abortive initiation of transcription at a hybrid promoter. An analysis of the sliding clamp activator of bacteriophage T4 late transcription, and a comparison of the sigma70 and T4 gp55 promoter recognition proteins. Fu TJ, et al. **J Biol Chem** 1998 Dec 18;273(51):34042-8

Architecture of a complex between the sigma70 subunit of Escherichia coli RNA polymerase and the nontemplate strand oligonucleotide. Luminescence resonance energy transfer study. Heyduk E, et al. **J Biol Chem** 1999 Feb 5;274(6):3315-22

RpoS function in Salmonella Typhimurium LT2 monitored in a skim milk model food. Thompson JM, et al. **J Food Prot** 1999 Jan;62(1):70-2

Sequences in sigmaN determining holoenzyme formation and properties. Gallegos MT, et al. **J Mol Biol** 1999 May 14; 288(4):539-53

Evidence for common sites of contact between the antisigma factor SpoIIAB and its partners SpoIIAA and the developmental transcription factor sigmaF in Bacillus subtilis. Garsin DA, et al. **J Mol Biol** 1998 Dec 4; 284(3):557-68

The kinase activity of the antisigma factor SpoIIAB is required for activation as well as inhibition of transcription factor sigmaF during sporulation in Bacillus subtilis. Garsin DA, et al. **J Mol Biol** 1998 Dec 4;284(3):569-78

Sigma competition: the contest between bacteriophage T4 middle and late transcription. Kolesky S, et al. **J Mol Biol** 1999 Aug 13;291(2):267-81

Identification of a contact site for different transcription activators in region 4 of the Escherichia coli RNA polymerase sigma70 subunit. Lonetto MA, et al. **J Mol Biol** 1998 Dec 18;284(5):1353-65

Activator-sigma interaction: A hydrophobic segment mediates the interaction of a sigma family promoter recognition protein with a sliding clamp transcription activator. Wong K, et al. **J Mol Biol** 1998 Nov 27; 284(2):195-203

RpoS-dependent stress tolerance in Pseudomonas aeruginosa. Jørgensen F, et al. **Microbiology** 1999 Apr;145 (Pt 4):835-44

The katX gene of Bacillus subtilis is under dual control of sigmaB and sigmaF. Petersohn A, et al. **Mol Gen Genet** 1999 Aug;262(1):173-9

Functional analysis of the Helicobacter pylori principal sigma subunit of RNA polymerase reveals that the spacer region is important for efficient transcription. Beier D, et al. **Mol Microbiol** 1998 Oct;30(1):121-34

On the mechanism of FtsH-dependent degradation of the sigma 32 transcriptional regulator of Escherichia coli and the role of the Dnak chaperone machine. Blaszczak A, et al. **Mol Microbiol** 1999 Jan;31(1):157-66

The Spo0A sof mutations reveal regions of the regulatory domain that interact with a sensor kinase and RNA polymerase. Cervin MA, et al. **Mol Microbiol** 1999 Jan; 31(2):597-607

Negative regulation by RpoS: a case of sigma factor competition. Farewell A, et al. **Mol Microbiol** 1998 Aug; 29(4):1039-51

Serine kinase activity of a Bacillus subtilis switch protein is required to transduce environmental stress signals but not to activate its target PP2C phosphatase. Kang CM, et al. **Mol Microbiol** 1998 Oct;30(1):189-96

The XylS-dependent Pm promoter is transcribed in vivo by RNA polymerase with sigma 32 or sigma 38 depending on the growth phase. Marqués S, et al. **Mol Microbiol** 1999 Feb;31(4):1105-13

The structure of an ECF-sigma-dependent, light-inducible promoter from the bacterium Myxococcus xanthus. Martínez-Argudo I, et al. **Mol Microbiol** 1998 Nov; 30(4):883-93

RpoN-dependent transcription of rpoH? [letter; comment] Pallen M. **Mol Microbiol** 1999 Jan;31(1):393. Comment on: Mol Microbiol 1998 Aug;29(4):1091-9.

Osmoregulation of the opuE proline transport gene from Bacillus subtilis: contributions of the sigma A- and sigma B-dependent stress-responsive promoters. Spiegelhalter F, et al. **Mol Microbiol** 1998 Jul;29(1):285-96

Heat shock regulation in the ftsH null mutant of Escherichia coli: dissection of stability and activity control mechanisms of sigma32 in vivo. Tatsuta T, et al. **Mol Microbiol** 1998 Nov;30(3):583-93

Picture story. Move over and bind. Konforti B. **Nat Struct Biol** 1999 Apr;6(4):309

Characterisation of holoenzyme lacking sigmaN regions I and II. Cannon W, et al. **Nucleic Acids Res** 1999 Jun 15; 27(12):2478-86

Regulation of RpoS proteolysis in Escherichia coli: the response regulator RssB is a recognition factor that interacts with the turnover element in RpoS. Becker G, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6439-44

Interactions of Escherichia coli sigma(70) within the transcription elongation complex. Daube SS, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8390-5

[Interaction of an isolated subunit of sigma-70 with oligodeoxyribonucleotides, identical to regions -10 and -35 of the spc promoter] Tulokhonov II, et al. **Mol Biol (Mosk)** 1999 Mar-Apr;33(2):169-73 **(Rus)**

PHYSIOLOGY

Analysis of the expression and function of the sigmaB-dependent general stress regulon of Bacillus subtilis during slow growth. Schweder T, et al. **Arch Microbiol** 1999 May-Jun;171(6):439-43

Growth rate related concentration changes of the starvation response regulators sigmaS and ppGpp in glucose-limited fed-batch and continuous cultures of Escherichia coli. Teich A, et al. **Biotechnol Prog** 1999 Jan-Feb;15(1):123-9

The OxyS regulatory RNA represses rpoS translation and binds the Hfq (HF-I) protein. Zhang A, et al. **EMBO J** 1998 Oct 15;17(20):6061-8

Eubacterial sigma-factors. Wösten MM. **FEMS Microbiol Rev** 1998 Sep;22(3):127-50 (206 ref.)

A new sigma factor, SigD, essential for stationary phase is also required for multicellular differentiation in Myxococcus xanthus. Ueki T, et al. **Genes Cells** 1998 Jun; 3(6):371-85

A surface of Escherichia coli sigma 70 required for promoter function and antitermination by phage lambda Q protein. Ko DC, et al. **Genes Dev** 1998 Oct 15;12(20):3276-85

Hyperproduction of alpha-hemolysin in a sigB mutant is associated with elevated SarA expression in Staphylococcus aureus. Cheung AL, et al. **Infect Immun** 1999 Mar;67(3):1331-7

The alternative sigma factor, sigmaE, is critically important for the virulence of Salmonella typhimurium. Humphreys S, et al. **Infect Immun** 1999 Apr;67(4):1560-8

The Staphylococcus aureus alternative sigma factor sigmaB controls the environmental stress response but not starvation survival or pathogenicity in a mouse abscess model. Chan PF, et al. **J Bacteriol** 1998 Dec;180(23):6082-9

Sigma M, an ECF RNA polymerase sigma factor of Bacillus subtilis 168, is essential for growth and survival in high concentrations of salt. Horsburgh MJ, et al. **Mol Microbiol** 1999 Apr;32(1):41-50

Control of sigma factor activity during Bacillus subtilis sporulation. Kroos L, et al. **Mol Microbiol** 1999 Mar; 31(5):1285-94 (51 ref.)

A putative two-component signal transduction system regulates sigmaE, a sigma factor required for normal cell wall integrity in Streptomyces coelicolor A3(2). Paget MS, et al. **Mol Microbiol** 1999 Jul;33(1):97-107

[Molecular regulation of sigma factor and anti-sigma factor in prokaryote differentiation] Tan H. **Wei Sheng Wu Hsueh Pao** 1997 Jun;37(3):234-6 (5 ref.) **(Chi)**

ULTRASTRUCTURE

Scanning force microscopy of Escherichia coli RNA polymerase.sigma54 holoenzyme complexes with DNA in buffer and in air. Schulz A, et al. **J Mol Biol** 1998 Nov 6;283(4):821-36

SIGMA INITIATION FACTOR see **SIGMA FACTOR**

SIGMA RECEPTORS see **RECEPTORS, SIGMA**

SIGMA SUBUNIT see **SIGMA FACTOR**

SIGMODON see **HESPEROMYINAE**

SIGMOID

see related
SIGMOIDOSCOPY

Water intubation of the sigmoid colon: water instillation speeds up left-sided colonoscopy. Baumann UA. **Endoscopy** 1999 May;31(4):314-7

Colonoscopic clipping closure of a divot after the removal of an impacted chicken bone [letter; comment] Matsushita M, et al. **Gastrointest Endosc** 1998 Sep;48(3):337-8. Comment on: Gastrointest Endosc 1997 Aug;46(2):193-5.

[Laparoscopic treatment of generalized peritonitis with diverticular perforation of the sigmoid colon. Report of 10 cases] Rizk N, et al. **Chirurgie** 1998 Sep;123(4):358-62 (Eng. Abstr.) **(Fre)**

[Usefulness of magnetic resonance imaging for the diagnosis of sigmoidovesical fistula: report of a case] Johnin K, et al. **Hinyokika Kiyo** 1998 Dec;44(12):879-82 (Eng. Abstr.) **(Jpn)**

ANATOMY & HISTOLOGY

[Correlations between topography of the main structures of the temporal bone and the location of the sigmoid sinus] Wysocki J. **Otolaryngol Pol** 1998;52(3):287-90 (Eng. Abstr.) **(Pol)**

BLOOD SUPPLY

The renin-angiotensin system in swine during hypovolaemic shock combined with low-flow ischaemia of the sigmoid colon. Yilmaz EN, et al. **Cardiovasc Surg** 1999 Aug; 7(5):539-44

Type 2 arteriovenous malformation of the sigmoid colon with unusual angiographic and characteristic histologic appearances. Kulkarni SG, et al. **Endoscopy** 1998 Aug; 30(6):S75-6

DRUG EFFECTS

Effects of sodium selenite on deoxycholic acid-induced hyperproliferation of human colonic mucosa in short-term culture. Bartram HP, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1085-9

INJURIES

Ovary sealing colonoscopic perforation. Losanoff JE, et al. **Endoscopy** 1998 Nov;30(9):S105-6

Conservative management of colonoscopic perforation can be misleading. Soliman A, et al. **Endoscopy** 1998 Nov; 30(9):790-2

Bowel entrapment within pelvic fractures: a case report and review of the literature. Stubbart JR, et al. **J Orthop Trauma** 1999 Feb;13(2):145-8 (24 ref.)

[Late infection of breast implant, complication of colonic perforation. Review of the literature. Role of preventive treatment] Petit F, et al. **Ann Chir Plast Esthet** 1998 Oct; 43(5):559-62 (Eng. Abstr.) **(Fre)**

METABOLISM

Intraperitoneal and sigmoid colon tonometry in porcine hypoperfusion and endotoxin shock models [see comments] Koga I, et al. **Acta Anaesthesiol Scand** 1999 Aug; 43(7):702-7. Comment in: Acta Anaesthesiol Scand 1999 Aug;43(7):691-4.

PATHOLOGY

Disparate surgical margin lengths of colorectal resection specimens between in vivo and in vitro measurements. The effects of surgical resection and formalin fixation on organ shrinkage. Goldstein NS, et al. **Am J Clin Pathol** 1999 Mar; 111(3):349-51

Rectum and sigmoid colon necrosis due to cholesterol embolization after implantation of an aortic stent-graft. Jaeger HJ, et al. **J Vasc Interv Radiol** 1999 Jun;10(6):751-5

Colonic obstruction due to sigmoid muscular hyperplasia. Harig B, et al. **Mt Sinai J Med** 1999 Mar;66(2):106-8

Qualitative and quantitative analysis of synapses in Hirschsprung's disease. Wiedenmann B, et al. **Pediatr Surg Int** 1998 Sep;13(7):468-73

PHYSIOLOGY

Direct mucosal targeting of colonic receptors by prokinetic drugs in an experimental model. Ho YH, et al. **Ann Acad Med Singapore** 1999 Jan;28(1):31-6

Role of rectosigmoid junction in fecal continence: an experimental study. Shafik A, et al. **Front Biosci** 1999 Oct 1;4:B9-13

A study of the effect of distension of the rectosigmoid junction on the rectum and anal canal with evidence of a rectosigmoid-rectal reflex. Shafik A. **J Surg Res** 1999 Mar;82(1):73-7

PHYSIOPATHOLOGY

Cartography of barrier defects in human colon by low-resolution conductance scanning. Gitter AH, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:285-9

RADIOGRAPHY

Lateral dural sinus thrombosis in childhood. Holzmann D, et al. **Laryngoscope** 1999 Apr;109(4):645-51

[Computed tomography study of the sigmoid colon: discriminating diagnostic criteria and interobserver correlations] Lefèvre F, et al. **J Radiol** 1999 May; 80(5):447-56 (Eng. Abstr.) **(Fre)**

SURGERY

Same admission colon resection with primary anastomosis for acute diverticulitis. Maggard MA, et al. **Am Surg** 1999 Oct;65(10):927-30

Pouch perineal rectosigmoidectomy gives better functional results than conventional rectosigmoidectomy in elderly patients with rectal prolapse. Yoshioka K, et al. **Br J Surg** 1998 Nov;85(11):1525-6

Anal pressures impaired by stapler insertion during colorectal anastomosis: a randomized, controlled trial. Ho YH, et al. **Dis Colon Rectum** 1999 Jan;42(1):89-95

Feminizing genital reconstruction, sigmoid vaginal replacement and anorectoplasty as a one-stage procedure for anorectal atresia associated with ambiguous genitalia. Glüer S, et al. **Eur J Pediatr Surg** 1999 Apr;9(2):121-3

Laparoscopic sigmoid resection: a comparative experimental study between double-stapling and foreign material free-biostent technique (TESA). Transient endoluminally stented anastomosis. Hetzer F, et al. **J Laparoendosc Adv Surg Tech A** 1998 Oct;8(5):285-93

Rectosigmoid urinary diversion: the functional significance of creating an intussuscepted colorectal valve. Shoma AM, et al. **J Urol** 1999 Feb;161(2):415-7

The experiences of rectosigmoid pouch as a continent urinary diversion after radical cystectomy. Chiang PH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Mar; 14(3):132-8

Laparoscopic rectosigmoid colpopoiesis: does it benefit our transsexual patients? Maas SM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):518–24

Treatment of severe actinic rectitis. Rossi BM, et al. **Rev Paul Med** 1998 Jan–Feb;116(1):1629–33

Elective laparoscopic management of sigmoid diverticulitis. Results in a series of 110 patients. Berthou JC, et al. **Surg Endosc** 1999 May;13(5):457–60

Laparoscopic sigmoid resection for acute and chronic diverticulitis. An outcomes comparison with laparoscopic resection for nondiverticular disease. Schlachta CM, et al. **Surg Endosc** 1999 Jul;13(7):649–53

Elective laparoscopic sigmoid colectomy for diverticulitis. Results of a prospective study. Smadja C, et al. **Surg Endosc** 1999 Jul;13(7):645–8

A laparoscopic pull-through operation for Hirschsprung's disease: report of two infant cases. Hirose R, et al. **Surg Today** 1999;29(4):371–4

The effectiveness of perineal rectosigmoidectomy for the treatment of rectal prolapse in elderly and high-risk patients. Takesue Y, et al. **Surg Today** 1999;29(3):290–3

[Stricture of the colon induced by hyperthermia--in connection with irrigation via sigmoidostomy] Søholm LM, et al. **Ugeskr Laeger** 1999 Aug 23;161(34):4760–1 (Eng. Abstr.) **(Dan)**

[Treatment of complete rectal prolapse with rectopexy to the pelvic floor with prosthesis and sigmoid resection. Anatomoclinical results of a prospective study] Lechaux JP, et al. **Chirurgie** 1998 Sep;123(4):351–7 (Eng. Abstr.) **(Fre)**

[The facial nerve and the retrosigmoid approach] Charachon R. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(3):155–7 (Eng. Abstr.) **(Fre)**

[Problems of bone mineralization secondary to ureter sigmoid diversion (letter)] Mugnier B, et al. **Rev Med Interne** 1999 Aug;20(8):723–5 **(Fre)**

TRANSPLANTATION

A new approach to bladder augmentation in children: seromuscular enterocystoplasty. Dayanç M, et al. **BJU Int** 1999 Jul;84(1):103–7

Experience with the Mainz modification of ureterosigmoidostomy [see comments] Gerharz EW, et al. **Br J Surg** 1998 Nov;85(11):1512–6. Comment in: Br J Surg 1999 Mar;86(3):427.

Experience with the Mainz modification of ureterosigmoidostomy [letter; comment] Jongen JH, et al. **Br J Surg** 1999 Mar;86(3):427. Comment on: Br J Surg 1998 Nov;85(11):1512–6.

Treatment of the Mayer-Rokitansky-Küster-Hauser syndrome in Bangladesh: results of 10 total vaginal replacements with sigmoid colon at a missionary hospital. Del Rossi C, et al. **J Urol** 1999 Sep;162(3 Pt 2):1138–9; discussion 1140

Autoaugmentation demucosalized enterocystoplasty. Dewan PA. **World J Urol** 1998;16(4):255–61

SIGMOID DISEASES

CHEMICALLY INDUCED

Colon ischaemia secondary to barolith obstruction. Champman AH, et al. **Br J Radiol** 1998 Sep;71(849):983–4

COMPLICATIONS

Abscess complicating colic adenocarcinoma and leading to systemic venous air embolization. Chevallier P, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):557

Preservation and peeling of the inferior mesenteric artery in the anterior resection for complicated diverticular disease. Messinetti S, et al. **Ann Ital Chir** 1998 Jul–Aug; 69(4):479–82; discussion 482–3 (13 ref.)

Coloenteric fistula from chicken-bone perforation of the sigmoid colon. Read TE, et al. **Surgery** 1999 Mar; 125(3):354–6

[Septic pylephlebitis with detection of gas in the portal vein: a rare complication of sigmoid diverticulitis] Häner C, et al. **Schweiz Med Wochenschr** 1998 Sep 5;128(36):1339–44 (Eng. Abstr.) **(Ger)**

[The observation of fistula from the sigmoid colon diverticulum into the bladder] Kryvoruk MI, et al. **Klin Khir** 1998;(6):51–2 **(Ukr)**

DIAGNOSIS

Acute intestinal obstruction caused by endometriosis mimicking sigmoid carcinoma. de Bree E, et al. **Acta Gastroenterol Belg** 1998 Jul–Sep;61(3):376–8

Rectosigmoid endometriosis: diagnosis and surgical management. Azzena A, et al. **Clin Exp Obstet Gynecol** 1998;25(3):94–6

Trend of small intestinal volvulus in north western Ethiopia. Ghebrat K. **East Afr Med J** 1998 Sep;75(9):549–52

Treatment of sigmoid volvulus: experience in Gondar, north-west Ethiopia. Ali MK. **Ethiop Med J** 1998 Jan; 36(1):47–52

Intussusception in infants: an emergency in diagnosis and treatment. Roeyen G, et al. **Eur J Emerg Med** 1999 Mar; 6(1):73–6

Multiple pyogenic granulomas in sigmoid colon. Chen TC, et al. **Gastrointest Endosc** 1999 Feb;49(2):257–9

Well differentiated "lipoma-like" liposarcoma of the sigmoid mesocolon and multiple lipomatosis of the rectosigmoid colon. Report of a case. Amato G, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2151–6

Ileosigmoid knotting in a 6-year-old child. Meier DE, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):407–8

[Encapsulated hematoma of the sigmoid mesocolon. Apropos of an unusual case in Niger] Théry Y, et al. **J Radiol** 1999 Mar;80(3):312–6 (19 ref.) (Eng. Abstr.) **(Fre)**

[Images in medicine. Melanosis coli] Mennecier D, et al. **Presse Med** 1999 Jan 16;28(2):106 **(Fre)**

[Severe hematochezia in a 76-year-old woman] Cordero Torres JA, et al. **Rev Clin Esp** 1998 Sep;198(9):625–6 **(Spa)**

EPIDEMIOLOGY

Trend of small intestinal volvulus in north western Ethiopia. Ghebrat K. **East Afr Med J** 1998 Sep;75(9):549–52

ETIOLOGY

Sigmoid colon perforation due to geophagia. Ilhan Y, et al. **Acta Chir Belg** 1999 May–Jun;99(3):130–1

Acute intestinal obstruction caused by endometriosis mimicking sigmoid carcinoma. de Bree E, et al. **Acta Gastroenterol Belg** 1998 Jul–Sep;61(3):376–8

Perforation of the sigmoid colon due to geophagia. Woywodt A, et al. **Arch Surg** 1999 Jan;134(1):88–9

Intestinal occlusion and spigelian hernia [letter] Benito MP, et al. **J Clin Gastroenterol** 1999 Sep;29(2):213–4

Perforation of the sigmoid colon with ischemic change due to polyarteritis nodosa. Okada M, et al. **J Gastroenterol** 1999 Jun;34(3):400–4 (12 ref.)

Bowel entrapment within pelvic fractures: a case report and review of the literature. Stubbart JR, et al. **J Orthop Trauma** 1999 Feb;13(2):145–8 (24 ref.)

A lethal ectopic denture: an unusual case of sigmoid perforation due to unnoticed swallowed dental plate. Ghori A, et al. **J R Coll Surg Edinb** 1999 Jun;44(3):203–4

Sigmoido-appendiceal fistula due to diverticulitis. Yiangou C, et al. **J R Soc Med** 1998 Oct;91(10):544

Ovarian carcinoma with fistula formation to the sigmoid colon and ileum: report of a case. Kim SJ, et al. **Surg Today** 1999;29(5):449–52

[Ischemic colitis after a colonoscopy (letter)] Prignet JM, et al. **Gastroenterol Clin Biol** 1998 Dec;22(12):1116–7 **(Fre)**

[Subacute intestinal obstruction due to bladder distension] Ghebontni L, et al. **J Radiol** 1998 Sep;79(9):880–2 (Eng. Abstr.) **(Fre)**

[Reno-sigmoid fistula in a tuberculous pelvic ectopic kidney] el Otmany A, et al. **Prog Urol** 1999 Feb;9(1):122–4 (Eng. Abstr.) **(Fre)**

[Entero-vesical fistula caused by a foreign body] Garritano A, et al. **Minerva Urol Nefrol** 1999 Jun;51(2):125–7 (Eng. Abstr.) **(Ita)**

[Sigmoid perforation caused by drug-induced vasculitis: findings with computerized tomography. A case] Ferrozzi F, et al. **Radiol Med (Torino)** 1999 May;97(5):438–9 **(Ita)**

MICROBIOLOGY

[Fistulated sigmoid pseudodiverticulitis of tuberculous origin (letter)] Kaplanski G, et al. **Rev Med Interne** 1998 Jun; 19(6):447–8 **(Fre)**

PATHOLOGY

Granulomatous inflammation in sigmoid diverticulitis: two diseases or one? Burroughs SH, et al. **Histopathology** 1998 Oct;33(4):349–53

Giant sigmoid diverticulum: a rare manifestation of diverticular disease. Kuganeswaran E, et al. **South Med J** 1998 Oct;91(10):952–5

[Sigmoido-ureteric fistula. Report of an exceptional case] Metzger H, et al. **Ann Chir** 1999;53(5):447–8 **(Fre)**

PHYSIOPATHOLOGY

Electrosigmoidogram in the various pathologic conditions of the sigmoid colon. Shafik A. **Front Biosci** 1998 Oct 15; 3:B11–4

PREVENTION & CONTROL

Minimizing recurrence after sigmoid volvulus [letter; comment] Daniels IR, et al. **Br J Surg** 1999 Jul;86(7):966–7 . Comment on: Br J Surg 1999 Feb;86(2):231–3.

RADIOGRAPHY

The northern exposure sign: a newly described finding in sigmoid volvulus. Javors BR, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):571–4

Giant sigmoid diverticulum: a report of three cases. Naing T, et al. **Clin Radiol** 1999 Mar;54(3):179–81

Perforating sigmoid diverticulitis. Reijnierse M, et al. **J Belge Radiol** 1998 Oct;81(5):246

[Computed tomography study of the sigmoid colon: discriminating diagnostic criteria and interobserver correlations] Lefèvre F, et al. **J Radiol** 1999 May; 80(5):447–56 (Eng. Abstr.) **(Fre)**

[Giant diverticulum of the sigmoid] Roseau G. **Presse Med** 1998 Sep 26;27(28):1458 **(Fre)**

[Sigmoid perforation caused by drug-induced vasculitis: findings with computerized tomography. A case] Ferrozzi F, et al. **Radiol Med (Torino)** 1999 May;97(5):438–9 **(Ita)**

SURGERY

Giant true diverticulum of sigmoid colon. Grover H, et al. **Am J Gastroenterol** 1998 Nov;93(11):2267–8

Giant colonic diverticulum: report of a case. Havenstrite KA, et al. **Am Surg** 1999 Jun;65(6):578–80

Preservation and peeling of the inferior mesenteric artery in the anterior resection for complicated diverticular disease. Messinetti S, et al. **Ann Ital Chir** 1998 Jul–Aug; 69(4):479–82; discussion 482–3 (13 ref.)

Minimizing recurrence after sigmoid volvulus [see comments] Chung YF, et al. **Br J Surg** 1999 Feb;86(2):231–3. Comment in: Br J Surg 1999 Jul;86(7):966–7.

Hospital stay of 2 days after open sigmoidectomy with a multimodal rehabilitation programme [see comments] Kehlet H, et al. **Br J Surg** 1999 Feb;86(2):227–30. Comment in: Br J Surg 1999 Jul;86(7):968–9.

Hospital stay of 2 days after open sigmoidectomy with a multimodal rehabilitation programme [letter; comment] Willemsen PJ, et al. **Br J Surg** 1999 Jul;86(7):968–9. Comment on: Br J Surg 1999 Feb;86(2):227–30.

Rectosigmoid endometriosis: diagnosis and surgical management. Azzena A, et al. **Clin Exp Obstet Gynecol** 1998;25(3):94–6

Sigmoid volvulus: study from a north Indian hospital. Khanna AK, et al. **Dis Colon Rectum** 1999 Aug; 42(8):1081–4

Treatment of sigmoid volvulus: experience in Gondar, north-west Ethiopia. Ali MK. **Ethiop Med J** 1998 Jan; 36(1):47–52

Argon plasma coagulation therapy for hemorrhagic radiation proctosigmoiditis. Silva RA, et al. **Gastrointest Endosc** 1999 Aug;50(2):221–4

Sigmoidopexy (tube sigmoidostomy) as definitive surgical procedure for sigmoid volvulus. Jagetia A, et al. **Indian J Gastroenterol** 1998 Oct–Dec;17(4):129–30

Bowel entrapment within pelvic fractures: a case report and review of the literature. Stubbart JR, et al. **J Orthop Trauma** 1999 Feb;13(2):145–8 (24 ref.)

One-stage procedure in the management of acute sigmoid volvulus. Sule AZ, et al. **J R Coll Surg Edinb** 1999 Jun; 44(3):164–6

Facilitating intracorporeal colorectal anastomoses. Bergamaschi R, et al. **J Soc Laparoendosc Surg** 1998 Jan–Mar;2(1):47–9

Ileosigmoid knotting in a 6-year-old child. Meier DE, et al. **Pediatr Surg Int** 1999 Jul;15(5–6):407–8

Elective laparoscopic management of sigmoid diverticulitis. Results in a series of 110 patients. Berthou JC, et al. **Surg Endosc** 1999 May;13(5):457–60

Elective laparoscopic-assisted colectomy for diverticular disease. A prospective study in 50 patients. Bouillot JL, et al. **Surg Endosc** 1998 Dec;12(12):1393–6

Laparoscopic resection of sigmoid diverticulitis. Results of a multicenter study. Laparoscopic Colorectal Surgery Study Group. Köckerling F, et al. **Surg Endosc** 1999 Jun; 13(6):567–71

Laparoscopic-assisted colectomy for diverticular sigmoiditis. A single-surgeon prospective study of 65 patients. Siriser F. **Surg Endosc** 1999 Aug;13(8):811–3

[The value of peroperative colonic lavage in urgent colonic surgery. Apropos of 54 patients] Meyer C, et al. **J Chir (Paris)** 1997 Dec;134(7–8):271–4 (Eng. Abstr.) **(Fre)**

[Surgical therapy of complicated sigmoid diverticulitis: single stage or multi-stage operation?] Gertsch P, et al. **Zentralbl Chir** 1998;123(12):1386–9 (26 ref.) (Eng. Abstr.) **(Ger)**

[Laparoscopic therapy of diverticulitis] Petropoulos P, et al. **Zentralbl Chir** 1998;123(12):1390–3 (Eng. Abstr.) **(Ger)**

[Comments on the contributions by Seiler ChA, Brügger L, Maurer CA, Renzulli P, Büchler MW. Peritonitis in diverticulitis: the Bern concept.Gertsch P, Al-Muaid J, Pelloni A, Bogen M. Surgical therapy of complicated sigmoid diverticulitis: single or multi-stage therapy? (letter)] Schröter M. **Zentralbl Chir** 1999;124(5):470–2 **(Ger)**

[Radical resective surgery for the management of rectosigmoidal endometriosis. Clinical case] Bannura G, et al. **Rev Med Chil** 1998 Nov;126(11):1372–6 (Eng. Abstr.) **(Spa)**

THERAPY

Transcatheter treatment of life-threatening lower gastrointestinal bleeding due to advanced pelvic malignancy. Spinosa DJ, et al. **Cardiovasc Intervent Radiol** 1998 Nov–Dec;21(6):503–5

Management of uncomplicated acute diverticulitis: results of a survey. Schechter S, et al. **Dis Colon Rectum** 1999 Apr; 42(4):470–5; discussion 475–6

Treatment of a radiation-induced sigmoid stricture with an expandable metal stent. Yates MR 3rd, et al. **Gastrointest Endosc** 1999 Sep;50(3):422–6

[Percutaneous drainage of peri-sigmoid abscesses (letter)] Roseau E. **Presse Med** 1999 Apr 10;28(14):742 **(Fre)**

ULTRASONOGRAPHY

[Percutaneous drainage of peri-sigmoid abscesses or how to

SIGMOID DISEASES

avoid colostomy] d'Alincourt A, et al. **Presse Med** 1998 Dec 5;27(38):1951-4 (Eng. Abstr.) **(Fre)**

[Value of ultrasonography as the initial diagnostic method in acute sigmoid diverticulitis] Esteban Hernández JM, et al. **Gastroenterol Hepatol** 1998 Nov;21(9):423-6 (Eng. Abstr.) **(Spa)**

SIGMOID NEOPLASMS

COMPLICATIONS

Bowel gas explosion during argon plasma coagulation. Zinsser E, et al. **Endoscopy** 1999 May;31(4):S26

[Cushing syndrome due to ectopic ACTH secretion: an uncommon case presentation, diagnosis and therapy] Eggenberger C, et al. **Schweiz Med Wochenschr** 1999 Jun 12;129(23):890-5 (Eng. Abstr.) **(Ger)**

[Clinical course of surgery-related diseases with hormonally active tumors] Mal'tsev V, et al. **Klin Khir** 1999;(2):55 **(Rus)**

[Strategy of the surgical treatment of postoperative complications in patients with obstructive ileus of the colon of tumorous etiology] Aliev SA. **Vestn Khir Im I I Grek** 1999;158(3):66-70 (Eng. Abstr.) **(Rus)**

[Acute intestinal obstruction caused by mesenchymoma] Sukharev VF, et al. **Vestn Khir Im I I Grek** 1999; 158(3):80-1 **(Rus)**

[Intestinal obstruction caused by solitary colonic metastasis of breast carcinoma (letter; comment)] Martín Pérez E, et al. **Rev Esp Enferm Dig** 1998 Nov;90(11):818-9. Comment on: Rev Esp Enferm Dig 1997 Aug;89(8):647-9. **(Spa)**

DIAGNOSIS

Colonoscopy for small adenomas [letter; comment] Hurowitz JC. **Ann Intern Med** 1999 Apr 20;130(8):700; discussion 701. Comment on: Ann Intern Med 1998 Aug 15;129(4):273-8. Comment on: Ann Intern Med 1998 Aug 15;129(4):309-16.

Colonoscopy for small adenomas [letter; comment] Read TE, et al. **Ann Intern Med** 1999 Apr 20;130(8):700-1. Comment on: Ann Intern Med 1998 Aug 15;129(4):273-8.

Colonoscopy for small adenomas [letter; comment] Stubbs KW. **Ann Intern Med** 1999 Apr 20;130(8):700; discussion 701. Comment on: Ann Intern Med 1998 Aug 15;129(4):273-8. Comment on: Ann Intern Med 1998 Aug 15;129(4):309-16.

Colonoscopy for small adenomas [letter] Wallace MB, et al. **Ann Intern Med** 1999 Apr 20;130(8):701

Appendicular involvement in perforated sigmoid disease: US and CT findings. Ripollés T, et al. **Eur Radiol** 1999; 9(4):697-700

Is colonoscopy indicated for small adenomas found be screening flexible sigmoidoscopy? Calleja JL, et al. **Gastrointest Endosc** 1999 Sep;50(3):443-4; discussion 444-5

Well differentiated "lipoma-like" liposarcoma of the sigmoid mesocolon and multiple lipomatosis of the rectosigmoid colon. Report of a case. Amato G, et al. **Hepatogastroenterology** 1998 Nov-Dec;45(24):2151-6

Abscess of the abdominal wall--an unusual presenting sign of colonic carcinoma [letter] Grunewald B, et al. **N Z Med J** 1999 Jul 9;112(1091):262

Sigmoid colon cancer presenting as complete rectal prolapse: report of a case. Yamazaki T, et al. **Surg Today** 1999; 29(3):266-7

[A large testis disclosing a tumor of the colon (letter)] Le Caë A, et al. **Presse Med** 1998 May 2-9;27(17):807 **(Fre)**

[Cushing syndrome due to ectopic ACTH secretion: an uncommon case presentation, diagnosis and therapy] Eggenberger C, et al. **Schweiz Med Wochenschr** 1999 Jun 12;129(23):890-5 (Eng. Abstr.) **(Ger)**

[Metastasis of a sigmoid carcinoma to the breast] Scholz C, et al. **Zentralbl Gynakol** 1998;120(10):518-20 (Eng. Abstr.) **(Ger)**

[A pathognomic symptom of a tumor of the rectosigmoid colon in acute intestinal obstruction] Semeniuk IuS, et al. **Klin Khir** 1998;(9-10):93 **(Ukr)**

DRUG THERAPY

[Remission due to CYVADIC chemotherapy of primary leiomyosarcoma derived from mesentelium of the sigmoid colon: a case report] Takano M, et al. **Gan To Kagaku Ryoho** 1999 Sep;26(10):1487-90 (Eng. Abstr.) **(Jpn)**

[A case of recurrent colon cancer with complete response to modulation chemotherapy using low-dose leucovorin and 5-fluorouracil] Umehara A, et al. **Gan To Kagaku Ryoho** 1999 Jul;26(8):1189-92 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Glucose intolerance and adenomas of the sigmoid colon in Japanese men (Japan). Kono S, et al. **Cancer Causes Control** 1998 Aug;9(4):441-6

ETIOLOGY

Sigmoid adenocarcinoma complicating ureterosigmoidostomy. Giannini O, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):124-6

PATHOLOGY

Staging of rectosigmoid neoplasia with colonoscopic endoluminal ultrasonography. Norton SA, et al. **Br J Surg** 1999 Jul;86(7):942-6

Diffuse cavernous hemangioma of the rectum and sigmoid colon. Demircan O, et al. **Dig Surg** 1998;15(6):713-5

Endoscopic image of early mucinous carcinoma of the sigmoid colon. Yoshikane H, et al. **Endoscopy** 1998 Nov; 30(9):S111

Prospective determination of distal colon findings in average-risk patients with proximal colon cancer. Rex DK, et al. **Gastrointest Endosc** 1999 Jun;49(6):727-30

Pre-operative staging of recto-sigmoid colon carcinoma by upper gastrointestinal endoscopic ultrasonography. Tseng LJ, et al. **Hepatogastroenterology** 1999 Mar-Apr; 46(26):891-3

Small sigmoid colon cancer with liver metastasis [letter] Adachi Y, et al. **J Clin Gastroenterol** 1999 Apr;28(3):278

Diaphragma sellae metastasis from colon carcinoma mimicking a meningioma. A case report. Neroni M, et al. **Neurochirurgie** 1999 May;45(2):160-3

Mediastinal lymph node metastasis of colon cancer: report of a case. Kuba H, et al. **Surg Today** 1999;29(4):375-7

[A case of recurrent cancer in sigmoid colon with submucosal spread and hepatic metastasis 4 years and 6 months after polypectomy] Koseki K, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Apr;96(4):403-7 **(Jpn)**

RADIOGRAPHY

Diffuse cavernous hemangioma of the rectosigmoid colon: imaging findings. Djouhri H, et al. **J Comput Assist Tomogr** 1998 Nov-Dec;22(6):851-5

RADIONUCLIDE IMAGING

Fluorine-18 fluorodeoxyglucose uptake in tubovillous adenoma of the colon. Alibazoglu H, et al. **Clin Nucl Med** 1999 May;24(5):357-8

RADIOTHERAPY

Intraoperative irradiation after surgery for locally recurrent rectal cancer. Hashiguchi Y, et al. **Dis Colon Rectum** 1999 Jul;42(7):886-93; discussion 893-5

Results of external beam radiotherapy alone for incompletely resected carcinoma of rectosigmoid or rectum: Peter MacCallum Cancer Institute experience 1981-1990. Guiney MJ, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1; 43(3):531-6

SECONDARY

[Intestinal obstruction caused by solitary colonic metastasis of breast carcinoma (letter; comment)] Martín Pérez E, et al. **Rev Esp Enferm Dig** 1998 Nov;90(11):818-9. Comment on: Rev Esp Enferm Dig 1997 Aug;89(8):647-9. **(Spa)**

SURGERY

Anal pressures impaired by stapler insertion during colorectal anastomosis: a randomized, controlled trial. Ho YH, et al. **Dis Colon Rectum** 1999 Jan;42(1):89-95

Abdominoinguinal incision in adenocarcinoma of the sigmoid or cecum: report of two cases. Karakousis CP, et al. **Dis Colon Rectum** 1998 Oct;41(10):1322-7

Endoscopic preoperative colonic tattooing: a clinical and surgical complication. Dell'Abate P, et al. **Endoscopy** 1999 Mar;31(3):271-3

Grasping forceps assisted endoscopic resection of large pedunculated GI polypoid lesions. Akahoshi K, et al. **Gastrointest Endosc** 1999 Jul;50(1):95-8

Transmesenteric hernia after laparoscopic-assisted sigmoid colectomy. Kawamura YJ, et al. **JSLS** 1999 Jan-Mar; 3(1):79-81

Blood dissemination of colonic epithelial cells during no-touch surgery for rectosigmoid cancer [letter] Sales JP, et al. **Lancet** 1999 Jul 31;354(9176):392

Bowel perforation caused by silicone drains: a report of two cases. Nomura T, et al. **Surg Today** 1998;28(9):940-2

[Endoscopic ligation in the prevention of hemorrhage after polypectomy: our experience] Pietropaolo V, et al. **G Chir** 1999 Jan-Feb;20(1-2):51-2 (Eng. Abstr.) **(Ita)**

[A surgical case for concomitant coronary artery disease and ASO with advanced colon cancer] Fukunaga Y, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Aug;46(8):798-801 (Eng. Abstr.) **(Jpn)**

[Clinical course of surgery-related diseases with hormonally active tumors] Mal'tsev V, et al. **Klin Khir** 1999;(2):55 **(Rus)**

THERAPY

Self-expandable metallic stents in the palliation of rectosigmoidal carcinoma: a follow-up study. Tack J, et al. **Gastrointest Endosc** 1998 Sep;48(3):267-71

[Iliaco-ureteral fistula and its treatment with a stent graft] Krenzien J, et al. **Chirurg** 1998 Sep;69(9):977-80 (Eng. Abstr.) **(Ger)**

SIGMOIDOSCOPES see **ENDOSCOPES**

SIGMOIDOSCOPY

Flexible sigmoidoscopy: screening for colorectal cancer [see comments] [corrected and republished in Am Fam Physician 1999 Mar 15;59(6):1537-46] Johnson BA. **Am Fam Physician** 1999 Jan 15;59(2):313-24, 327-8 (21 ref.) . Comment in: Am Fam Physician 1999 Jan 15;59(2):270, 273.

Flexible sigmoidoscopy: screening for colorectal cancer [corrected and republished article originally printed in Am Fam Physician 1999 Jan 15;59(2):313-24, 327-8] Johnson BA. **Am Fam Physician** 1999 Mar 15;59(6):1537-46 (21 ref.)

Flexible sigmoidoscopy: the unkept promise of cancer prevention [editorial; comment] Rodney WM. **Am Fam Physician** 1999 Jan 15;59(2):270, 273. Comment on: Am Fam Physician 1999 Jan 15;59(2):313-24, 327-28.

A comparison of bowel preparations for flexible sigmoidoscopy: oral magnesium citrate combined with oral bisacodyl, one hypertonic phosphate enema, or two hypertonic phosphate enemas. Fincher RK, et al. **Am J Gastroenterol** 1999 Aug;94(8):2122-7

Hyperphosphatemia-hypocalcemia in gastroschisis [letter; comment] Pfitzer L, et al. **Am J Gastroenterol** 1999 Jul; 94(7):1991-2. Comment on: Am J Gastroenterol 1998 Dec;93(12):2577-9.

Correlation between endoscopic severity and the clinical activity index in ulcerative colitis. Seo M, et al. **Am J Gastroenterol** 1998 Nov;93(11):2124-9

Flexing up for screening by flexible sigmoidoscopy [editorial; comment] Macrae F. **Aust N Z J Surg** 1999 Jan;69(1):2-3 . Comment on: Aust N Z J Surg 1999 Jan;69(1):19-21.

Difficult or incomplete flexible sigmoidoscopy: implications for a screening programme [see comments] Stewart BT, et al. **Aust N Z J Surg** 1999 Jan;69(1):19-21. Comment in: Aust N Z J Surg 1999 Jan;69(1):2-3.

Endoscopic image of early mucinous carcinoma of the sigmoid colon. Yoshikane H, et al. **Endoscopy** 1998 Nov; 30(9):S111

Screening flexible sigmoidoscopy: effectiveness is not enough. [editorial; comment] Fletcher RH, et al. **Gastroenterology** 1999 Aug;117(2):486-8. Comment on: Gastroenterology 1999 Aug;117(2):304-11. Comment on: Gastroenterology 1999 Aug;117(2):312-8.

Accuracy of polyp detection by gastroenterologists and nurse endoscopists during flexible sigmoidoscopy: a randomized trial [see comments] Schoenfeld P, et al. **Gastroenterology** 1999 Aug;117(2):312-8. Comment in: Gastroenterology 1999 Aug;117(2):486-9.

Flexible sigmoidoscopy. American Society for Gastrointestinal Endoscopy. **Gastrointest Endosc** 1998 Dec; 48(6):695-6

Endoscopic screening of relatives of patients with colorectal cancer. Bond JH. **Gastrointest Endosc** 1999 Jan;49(1):131-2

Sublingual hyoscyamine for patient comfort during screening sigmoidoscopy: a randomized, double-blind, placebo-controlled clinical trial. Dumot JA, et al. **Gastrointest Endosc** 1998 Sep;48(3):283-6

Diverticular disease-associated colitis: progression to severe chronic ulcerative colitis after sigmoid surgery. Pereira MC. **Gastrointest Endosc** 1998 Nov;48(5):520-3

A UK training programme for nurse practitioner flexible sigmoidoscopy and a prospective evaluation of the practice of the first UK trained nurse flexible sigmoidoscopist. Duthie GS, et al. **Gut** 1998 Nov;43(5):711-4

Sigmoidopexy (tube sigmoidostomy) as definitive surgical procedure for sigmoid volvulus. Jagetia A, et al. **Indian J Gastroenterol** 1998 Oct-Dec;17(4):129-30

Virtual reality flexible sigmoidoscopy simulator training: impact on resident performance [see comments] Tuggy ML. **J Am Board Fam Pract** 1998 Nov-Dec;11(6):426-33 . Comment in: J Am Board Fam Pract 1998 Nov-Dec;11(6):492-6.

The small polyp at flexible sigmoidoscopy: an historical perspective on why practices still vary. Rex DK. **J Clin Gastroenterol** 1999 Jan;28(1):19-22 (27 ref.)

Predicting advanced proximal colonic neoplasia with screening sigmoidoscopy. Levin TR, et al. **JAMA** 1999 May 5;281(17):1611-7

Possible advantages and drawbacks of adding flexible sigmoidoscopy to hemoccult-II in screening for colorectal cancer. A randomized study [see comments] Rasmussen M, et al. **Scand J Gastroenterol** 1999 Jan;34(1):73-8. Comment in: Scand J Gastroenterol 1999 Jan;34(1):2-3.

Sigmoidofiberscopic incision plus balloon dilatation for anastomotic cicatricial stricture after anterior resection of the rectum. Hagiwara A, et al. **World J Surg** 1999 Jul; 23(7):717-20

ADVERSE EFFECTS

Glutaraldehyde as a possible cause of diarrhoea after sigmoidoscopy. Hanson JM, et al. **Br J Surg** 1998 Oct; 85(10):1385-7

Sigmoidoscopy and rectal biopsy--failure of infection control. **Commun Dis Rep CDR Wkly** 1999 Apr 16; 9(16):139

Prospective assessment of the risk of bacteremia in cirrhotic patients undergoing lower intestinal endoscopy. Llach J, et al. **Gastrointest Endosc** 1999 Feb;49(2):214-7

ECONOMICS

Sigmoidoscopy costs and the limits of altruism [editorial;

comment] Shaheen NJ, et al. **Am J Med** 1999 Sep; 107(3):286–7. Comment on: Am J Med 1999 Sep;107(3):214–8.
Barriers to office-based screening sigmoidoscopy: does reimbursement cover costs? Lewis JD, et al. **Ann Intern Med** 1999 Mar 16;130(6):525–30
Reimbursement for flexible sigmoidoscopy [letter; comment] [see comments] Mulvey JR. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):182. Comment on: J Am Board Fam Pract 1998 Nov–Dec;11(6):492–6. Comment in: J Am Board Fam Pract 1999 May–Jun;12(3):262–3.
Reimbursement for flexible sigmoidoscopy [letter; comment] Rodney WM. **J Am Board Fam Pract** 1999 May–Jun; 12(3):262–3. Comment on: J Am Board Fam Pract 1999 Mar–Apr;12(2):182.

INSTRUMENTATION

Fiberoptic flexible sigmoidoscopy and pelvic masses [letter; comment] Peller T. **Gastrointest Endosc** 1999 Jun; 49(6):817–8. Comment on: Gastrointest Endosc 1998 May;47(5):350–3.
Argon plasma coagulation therapy for hemorrhagic radiation proctosigmoiditis. Silva RA, et al. **Gastrointest Endosc** 1999 Aug;50(2):221–4
Rigid videosigmoidoscopy vs conventional sigmoidoscopy. A randomized controlled study. Taffinder NJ, et al. **Surg Endosc** 1999 Aug;13(8):814–6

METHODS

Sigmoidoscopy. Is it a general practice procedure? Iseli A. **Aust Fam Physician** 1999 Jan;28(1):61–4
A randomised trial of hospital versus home administered enemas for flexible sigmoidoscopy. Lund JN, et al. **BMJ** 1998 Oct 31;317(7167):1201
The reach of flexible sigmoidoscopy--not enough? [editorial; comment] Baillie J. **Endoscopy** 1999 Mar;31(3):269–70. Comment on: Endoscopy 1999 Mar;31(3):227–31.
Depth of insertion at flexible sigmoidoscopy: implications for colorectal cancer screening and instrument design [see comments] Painter J, et al. **Endoscopy** 1999 Mar; 31(3):227–31. Comment in: Endoscopy 1999 Mar;31(3):269–70.
Colonoscopic clipping closure of a divot after the removal of an impacted chicken bone [letter; comment] Matsushita M, et al. **Gastrointest Endosc** 1998 Sep;48(3):337–8. Comment on: Gastrointest Endosc 1997 Aug;46(2):193–5.
Flexible sigmoidoscopy. Illuminating the pearls for passage. Davis PW, et al. **Postgrad Med** 1999 Jun;105(7):51–4, 59–60, 62 (5 ref.)

NURSING

Effectiveness and patient satisfaction with screening flexible sigmoidoscopy performed by registered nurses [see comments] Schoenfeld PS, et al. **Gastrointest Endosc** 1999 Feb;49(2):158–62. Comment in: Gastrointest Endosc 1999 Feb;49(2):262.
Screening flexible sigmoidoscopy by nonphysician endoscopists: it's here to stay, but is it the right test to do? [editorial; comment] Wong RC. **Gastrointest Endosc** 1999 Feb;49(2):262–4. Comment on: Gastrointest Endosc 1999 Feb;49(2):158–62.

STANDARDS

Screening for colorectal cancer with flexible sigmoidoscopy by nonphysician endoscopists [see comments] Wallace MB, et al. **Am J Med** 1999 Sep;107(3):214–8. Comment in: Am J Med 1999 Sep;107(3):286–7.
A UK training programme for nurse practitioner flexible sigmoidoscopy [letter; comment] Levine DF, et al. **Gut** 1999 Jun;44(6):897. Comment on: Gut 1998 Nov;43(5):711–4.
Bowel preparation for flexible sigmoidoscopy: which method yields the best results? Manoucheri M, et al. **J Fam Pract** 1999 Apr;48(4):272–4

STATISTICS & NUMERICAL DATA

Population-based surveillance by colonoscopy: effect on the incidence of colorectal cancer. Telemark Polyp Study I. Thiis-Evensen E, et al. **Scand J Gastroenterol** 1999 Apr; 34(4):414–20

UTILIZATION

Prevalence of upper and lower gastrointestinal tract findings in liver transplant candidates undergoing screening endoscopic evaluation [see comments] Zaman A, et al. **Am J Gastroenterol** 1999 Apr;94(4):895–9. Comment in: Am J Gastroenterol 1999 Apr;94(4):871–2.
Implementation of on-site screening sigmoidoscopy positively influences utilization by primary care providers [see comments] Schroy PC, et al. **Gastroenterology** 1999 Aug;117(2):304–11. Comment in: Gastroenterology 1999 Aug;117(2):486–9.
Licensure, use, and training of paramedical personnel to perform screening flexible sigmoidoscopy. Cash BD, et al. **Gastrointest Endosc** 1999 Feb;49(2):163–9
Will our healthcare system permit paramedical personnel to do endoscopy? [editorial; comment] Floch MH. **J Clin Gastroenterol** 1999 Mar;28(2):95–6. Comment on: J Clin Gastroenterol 1999 Mar;28(2):110–6.
Flexible sigmoidoscopy by paramedical personnel [see comments] Schoenfeld P. **J Clin Gastroenterol** 1999 Mar; 28(2):110–6 (40 ref.). Comment in: J Clin Gastroenterol 1999 Mar;28(2):95–6.
Primary care physicians' decisions to perform flexible sigmoidoscopy. Lewis JD, et al. **J Gen Intern Med** 1999 May;14(5):297–302

SIGN LANGUAGE

Role of speech therapy and sign language prior to cochlear implantation. Deggouj N, et al. **Acta Otorhinolaryngol Belg** 1998;52(4):275–9
Lexidactylophobia: the (irrational) fear of fingerspelling. Grushkin DA. **Am Ann Deaf** 1998 Dec;143(5):404–15 (66 ref.)
Development of text structure knowledge as assessed by spoken and signed retellings of a deaf second-grade student. Luetke-Stahlman B, et al. **Am Ann Deaf** 1998 Oct; 143(4):337–46
The diagnostic interview schedule for deaf patients on interactive video: a preliminary investigation. Steinberg AG, et al. **Am J Psychiatry** 1998 Nov;155(11):1603–4
Speaking sign language from birth can make deaf children confident [letter; comment] Hindley P, et al. **BMJ** 1999 May 29;318(7196):1491. Comment on: BMJ 1999 Jan 9;318(7176):72–3.
On the nature of left hemisphere specialization for signed language. Corina DP. **Brain Lang** 1999 Sep;69(2):230–40 (34 ref.)
Discourse deficits following right hemisphere damage in deaf signers. Hickok G, et al. **Brain Lang** 1999 Feb 1; 66(2):233–48
Hemispheric organization of local- and global-level visuospatial processes in deaf signers and its relation to sign language aphasia. Hickok G, et al. **Brain Lang** 1998 Nov;65(2):276–86
Mental rotation within linguistic and non-linguistic domains in users of American sign language. Emmorey K, et al. **Cognition** 1998 Sep;68(3):221–46
Issues in designing an assessment of British Sign Language development. Herman R. **Int J Lang Commun Disord** 1998; 33 Suppl:332–7
Cochlear implants and sign language. Delore C, et al. **Int J Pediatr Otorhinolaryngol** 1999 Feb 15;47(2):209–11
Voice onset time in speech produced by inexperienced signers during simultaneous communication. Schiavetti N, et al. **J Commun Disord** 1999 Jan–Feb;32(1):37–48; quiz 48–9
Temporal characteristics of speech produced by inexperienced signers during simultaneous communication. Whitehead RL, et al. **J Commun Disord** 1999 Mar–Apr; 32(2):79–94; quiz 94–5
A speechreading expert: the case of MM. Rönnberg J, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):5–20
Sign language 'heard' in the auditory cortex [letter] Nishimura H, et al. **Nature** 1999 Jan 14;397(6715):116
Categorical perception of face actions: their role in sign language and in communicative facial displays. Campbell R, et al. **Q J Exp Psychol A** 1999 Feb;52(1):67–95

SIGNAL DETECTION (PSYCHOLOGY)

Characteristics of successful and unsuccessful dieters: an application of signal detection methodology. Kiernan M, et al. **Ann Behav Med** 1998 Winter;20(1):1–6
Determining the visibility of noise in motion signals. Burns NR, et al. **Aust N Z J Ophthalmol** 1999 Jun–Aug; 27(3–4):254–7
Covert visual search: a comparison of performance by humans and macaques (Macaca mulatta). Buracas GT, et al. **Behav Neurosci** 1999 Jun;113(3):451–64
Spreadsheet signal detection. Sorkin RD. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):46–54
Calculation of signal detection theory measures. Stanislaw H, et al. **Behav Res Methods Instrum Comput** 1999 Feb; 31(1):137–49
The differential effects of cueing on recall in Parkinson's disease and normal subjects. Knoke D, et al. **Brain Cogn** 1998 Nov;38(2):261–74
Limitations of the signal detection model of the remember-know paradigm: a reply to Hirshman [comment] Gardiner JM, et al. **Conscious Cogn** 1998 Jun;7(2):285–8. Comment on: Conscious Cogn 1998 Mar;7(1):103–7.
Subconscious detection of threat as reflected by an enhanced response bias. Windmann S, et al. **Conscious Cogn** 1998 Dec;7(4):603–33
Measures and interpretations of vigilance performance: evidence against the detection criterion. Balakrishnan JD. **Hum Factors** 1998 Dec;40(4):601–23
Expectancy and suggestibility: are the effects of environmental enhancement due to detection? Kirsch I, et al. **Int J Clin Exp Hypn** 1999 Jan;47(1):40–5
The role of level, spectral, and temporal cues in children's detection of masked signals. Allen P, et al. **J Acoust Soc Am** 1998 Nov;104(5):2997–3005
Visual search and visual target detection in patients with infarctions of the left or right posterior or the right middle brain artery. Hildebrandt H, et al. **J Clin Exp Neuropsychol** 1999 Feb;21(1):94–107
Allocation of attention in dichotic listening: effects on the detection and localization of targets within lists. Hiscock M, et al. **J Clin Exp Neuropsychol** 1999 Apr;21(2):265–78
In-hospital smoking cessation programs: who responds, who doesn't? Smith PM, et al. **J Consult Clin Psychol** 1999 Feb; 67(1):19–27
On the difference between strength-based and frequency-based mirror effects in recognition memory. Stretch V, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov;24(6):1379–96
Decision rules for recognition memory confidence judgments. Stretch V, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov;24(6):1397–410
Body size perception in anorexia nervosa: a signal detection approach. Smeets MA, et al. **J Psychosom Res** 1999 May; 46(5):465–77
The time-course of negative priming: little evidence for episodic trace retrieval. Conway AR. **Mem Cognit** 1999 Jul;27(4):575–83
Effects of temporal cueing on residual visual discrimination in blindsight. Kentridge RW, et al. **Neuropsychologia** 1999 Apr;37(4):479–83
Functional anatomy of intrinsic alertness: evidence for a fronto-parietal-thalamic-brainstem network in the right hemisphere. Sturm W, et al. **Neuropsychologia** 1999 Jun; 37(7):797–805
Recollection and familiarity deficits in amnesia: convergence of remember-know, process dissociation, and receiver operating characteristic data. Yonelinas AP, et al. **Neuropsychology** 1998 Jul;12(3):323–39
Threshold effect in visual perception of geometrical figures. Di Maio V. **Percept Mot Skills** 1998 Aug;87(1):340–2 (9 ref.)
Reducing gist-based false recognition in older adults: encoding and retrieval manipulations. Koutstaal W, et al. **Psychol Aging** 1999 Jun;14(2):220–37
Inhibition in the processing of garden-path sentences. May CP, et al. **Psychol Aging** 1999 Jun;14(2):304–13
One signal or two? [letter; comment] Rowe C. **Science** 1999 Apr 30;284(5415):743–4. Comment on: Science 1999 Feb 26;283(5406):1272–3.

DRUG EFFECTS

Spatial signal detection in rats is differentially disrupted by delta-9-tetrahydrocannabinol, scopolamine, and MK-801. Presburger G, et al. **Behav Brain Res** 1999 Feb 15; 99(1):27–34

PHYSIOLOGY

Adaptive denoising and multiscale detection of the V wave in brainstem auditory evoked potentials. Popescu M, et al. **Audiol Neurootol** 1999 Jan–Feb;4(1):38–50
A generalized signal detection model to predict rational variation in base rate use. Mueser PR, et al. **Cognition** 1999 Jan 1;69(3):267–312
Spatial perception of speech in various signal to noise ratios. Abouchacra KS, et al. **Ear Hear** 1998 Aug;19(4):298–309
Across-species comparisons of psychophysical detection thresholds for electrical stimulation of the cochlea: I. Sinusoidal stimuli. Miller AL, et al. **Hear Res** 1999 Aug; 134(1–2):89–104
Behavioral assessment of acoustic parameters relevant to signal recognition and preference in a vocal fish. McKibben JR, et al. **J Acoust Soc Am** 1998 Dec;104(6):3520–33
Attentional effects on preattentive vision: spatial precues affect the detection of simple features. Theeuwes J, et al. **J Exp Psychol Hum Percept Perform** 1999 Apr;25(2):341–7
Detection in fixed and random noise in foveal and parafoveal vision explained by template learning. Beard BL, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):755–63
Visual signal detection with two-component noise: low-pass spectrum effects. Burgess AE. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):694–704
The Rose model, revisited. Burgess AE. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):633–46
Prediction of human observer performance by numerical observers: an experimental study. Narayan TK, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):679–93
Role of phase information and eye pursuit in the detection of moving objects in noise. Wilson DL, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):669–78
Hand-centred coding of target location in visuo-spatial working memory. Chieffi S, et al. **Neuropsychologia** 1999 Apr;37(4):495–502
Ultra-precise quantal timing: evidence from simultaneity thresholds in long-range apparent movement. Geissler HG, et al. **Percept Psychophys** 1999 May;61(4):707–26
An area theorem for the same-different experiment. Irwin RJ, et al. **Percept Psychophys** 1999 May;61(4):766–9
Examining the effect of practice on inhibition of return in static displays. Pratt J, et al. **Percept Psychophys** 1999 May; 61(4):756–65
Connectionist and diffusion models of reaction time. Ratcliff R, et al. **Psychol Rev** 1999 Apr;106(2):261–300
Cognition as a bridge between signal and dialogue: communication in the hearing impaired and deaf. Rönnberg J, et al. **Scand Audiol Suppl** 1998;49:101–8

RADIATION EFFECTS

Are recognition deficits following occipital lobe TMS explained by raised detection thresholds? Kammer T, et al. **Neuropsychologia** 1998 Nov;36(11):1161–6

SIGNAL INTERPRETATION, COMPUTER-ASSISTED
see **SIGNAL PROCESSING, COMPUTER-ASSISTED**

SIGNAL PATHWAYS see **SIGNAL TRANSDUCTION**

SIGNAL PEPTIDES

see related

NUCLEAR LOCALIZATION SIGNAL

Overexpression of the cytoplasmic retention signal region of cyclin B2, but not of cyclin B1, inhibits bipolar spindle formation in Xenopus oocytes. Yoshitome S, et al. **Biol Cell** 1998 Oct;90(6-7):509-18

Levansucrase from Acetobacter diazotrophicus SRT4 is secreted via periplasm by a signal-peptide-dependent pathway. Hernández L, et al. **Curr Microbiol** 1999 Sep; 39(3):146-52

SmpB, a unique RNA-binding protein essential for the peptide-tagging activity of SsrA (tmRNA). Karzai AW, et al. **EMBO J** 1999 Jul 1;18(13):3793-9

Immunogenicity of DNA vaccines expressing tuberculosis proteins fused to tissue plasminogen activator signal sequences. Li Z, et al. **Infect Immun** 1999 Sep;67(9):4780-6

Molecular characterization of caveolin association with the Golgi complex: identification of a cis-Golgi targeting domain in the caveolin molecule. Luetterforst R, et al. **J Cell Biol** 1999 Jun 28;145(7):1443-59

The C-terminal region of the hepatitis C virus E1 glycoprotein confers localization within the endoplasmic reticulum. Flint M, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):1943-7

Utilization of splicing elements and polyadenylation signal elements in the coupling of polyadenylation and last-intron removal. Cooke C, et al. **Mol Cell Biol** 1999 Jul; 19(7):4971-9

A new signal sequence trap using alkaline phosphatase as a reporter. Chen H, et al. **Nucleic Acids Res** 1999 Feb 15; 27(4):1219-22

ANALYSIS

Demonstration by mass spectrometry that purified native Treponema pallidum rare outer membrane protein 1 (Tromp1) has a cleaved signal peptide. Blanco DR, et al. **J Bacteriol** 1999 Aug;181(16):5094-8

Machine learning approaches for the prediction of signal peptides and other protein sorting signals. Nielsen H, et al. **Protein Eng** 1999 Jan;12(1):3-9 (39 ref.)

Different sequence patterns in signal peptides from mycoplasmas, other gram-positive bacteria, and Escherichia coli: a multivariate data analysis. Edman M, et al. **Proteins** 1999 May 1;35(2):195-205

BIOSYNTHESIS

Expression of a gene for cyclophilin which contains an amino-terminal endoplasmic reticulum-targeting signal. Saito T, et al. **Plant Cell Physiol** 1999 Jan;40(1):77-87

BLOOD

Properties of the retained N-terminal hydrophobic leader sequence in human serum paraoxonase/arylesterase. Sorenson RC, et al. **Chem Biol Interact** 1999 May 14; 119-120:243-9

CHEMISTRY

Sequencing the gene encoding desulfovibrio desulfuricans ATCC 27774 nine-heme cytochrome c. Saraiva LM, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):629-34

Expression and export of Pseudomonas putida NTU-8 creatinase by Escherichia coli using the chitinase signal sequence of Aeromonas hydrophila. Hong MC, et al. **Biochem Genet** 1998 Dec;36(11-12):407-15

Fatty acylation of proteins: new insights into membrane targeting of myristoylated and palmitoylated proteins. Resh MD. **Biochim Biophys Acta** 1999 Aug 12;1451(1):1-16 (138 ref.)

The structural flexibility of the preferredoxin transit peptide. Wienk HL, et al. **FEBS Lett** 1999 Jun 25;453(3):318-26

A neural network method for identification of prokaryotic and eukaryotic signal peptides and prediction of their cleavage sites. Nielsen H, et al. **Int J Neural Syst** 1997 Oct-Dec;8(5-6):581-99

Prediction of signal peptides and signal anchors by a hidden Markov model. Nielsen H, et al. **Ismb** 1998;6:122-30

A regional net charge and structural compensation model to explain how negatively charged amino acids can be accepted within a mitochondrial leader sequence. Heard TS, et al. **J Biol Chem** 1998 Nov 6;273(45):29389-93

The medium subunits of adaptor complexes recognize distinct but overlapping sets of tyrosine-based sorting signals. Ohno H, et al. **J Biol Chem** 1998 Oct 2;273(40):25915-21

Cobrotoxin: structure and function. Yang CC. **J Nat Toxins** 1999 Jun;8(2):221-33

Theileria parva 104 kDa microneme--rhoptry protein is membrane-anchored by a non-cleaved amino-terminal signal sequence for entry into the endoplasmic reticulum. Ebel T, et al. **Mol Biochem Parasitol** 1999 May 15; 100(1):19-26

A structural explanation for the recognition of tyrosine-based endocytotic signals. Owen DJ, et al. **Science** 1998 Nov 13; 282(5392):1327-32

GENETICS

Association of the insertion/deletion gene polymorphism of the apolipoprotein B signal peptide with myocardial infarction. Gardemann A, et al. **Atherosclerosis** 1998 Nov; 141(1):167-75

Functional heterogeneity of C-terminal peroxisome targeting signal 1 in PEX5-defective patients. Shimozawa N, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):504-8

Optimising the signal peptide for glycosyl phosphatidylinositol modification of human acetylcholinesterase using mutational analysis and peptide-quantitative structure-activity relationships. Bucht G, et al. **Biochim Biophys Acta** 1999 May 18;1431(2):471-82

Genetically structured mathematical modeling of trp attenuator mechanism. Koh BT, et al. **Biotechnol Bioeng** 1998 Jun 5;58(5):502-9

The deletion of the C-terminal tail and addition of an endoplasmic reticulum targeting signal to Alzheimer's amyloid precursor protein change its localization, secretion, and intracellular proteolysis. Kouchi Z, et al. **Eur J Biochem** 1998 Dec 1;258(2):291-300

A signal peptide cleavage site mutation in the cationic trypsinogen gene is strongly associated with chronic pancreatitis. Witt H, et al. **Gastroenterology** 1999 Jul; 117(1):7-10

Cloning of mouse gamma-glutamyl hydrolase in the form of two cDNA variants with different 5' ends and encoding alternate leader peptide sequences. Esaki T, et al. **Gene** 1998 Sep 28;219(1-2):37-44

Triplet repeat variability in the signal peptide sequence of the Xmrk receptor tyrosine kinase gene in Xiphophorus fish. Schartl M, et al. **Gene** 1998 Dec 11;224(1-2):17-21

Ethnic variation in the mitochondrial targeting sequence polymorphism of MnSOD. Van Landeghem GF, et al. **Hum Hered** 1999 Jul;49(4):190-3

Molecular and evolutionary analysis of Borrelia burgdorferi 297 circular plasmid-encoded lipoproteins with OspE- and OspF-like leader peptides. Akins DR, et al. **Infect Immun** 1999 Mar;67(3):1526-32

Constitutive lysosomal targeting and degradation of bovine endothelin-converting enzyme-1a mediated by novel signals in its alternatively spliced cytoplasmic tail. Emoto N, et al. **J Biol Chem** 1999 Jan 15;274(3):1509-18

Effect of transforming RNA on the synthesis of a protein with a secretory signal sequence in vitro. Hamada K, et al. **J Biol Chem** 1999 May 28;274(22):15786-96

Apolipoprotein B signal peptide and apolipoprotein E genotypes as determinants of the hepatic secretion of VLDL apoB in obese men. Riches FM, et al. **J Lipid Res** 1998 Sep;39(9):1752-8

A genetic selection for isolating cDNA clones that encode signal peptides. Jacobs KA, et al. **Methods Enzymol** 1999; 303:468-79

Bacillus subtilis tetA(L) gene expression: evidence for regulation by translational reinitiation. Stasinopoulos SJ, et al. **Mol Microbiol** 1998 Dec;30(5):923-32

Association of a leucine(7)-to-proline(7) polymorphism in the signal peptide of neuropeptide Y with high serum cholesterol and LDL cholesterol levels. Karvonen MK, et al. **Nat Med** 1998 Dec;4(12):1434-7

Silent mutations in the Escherichia coli ompA leader peptide region strongly affect transcription and translation in vivo. Deana A, et al. **Nucleic Acids Res** 1998 Oct 15; 26(20):4778-82

High level expression and secretion of Fc-X fusion proteins in mammalian cells. Lo KM, et al. **Protein Eng** 1998 Jun; 11(6):495-500

Analysis of the peroxisomal acyl-CoA oxidase gene product from Pichia pastoris and determination of its targeting signal. Koller A, et al. **Yeast** 1999 Aug;15(11):1035-44

IMMUNOLOGY

Cutting edge: requirement of class I signal sequence-derived peptides for HLA-E recognition by a mouse cytotoxic T cell clone. Martinozzi S, et al. **J Immunol** 1999 May 15; 162(10):5662-5

[Production of various antibodies and single chain Fv molecule against signal-transducing proteins] Kurose H, et al. **Nippon Yakurigaku Zasshi** 1998 Jul;112(1):59-68 (10 ref.) (Eng. Abstr.) **(Jpn)**

METABOLISM

Nuclear export of LIM-kinase 1, mediated by two leucine-rich nuclear-export signals within the PDZ domain. Yang N, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):793-8

Orientation of LamB signal peptides in bilayers: influence of lipid probes on peptide binding and interpretation of fluorescence quenching data. Voglino L, et al. **Biochemistry** 1999 Jun 8;38(23):7509-16

Processing of artificial peptide-DNA-conjugates by the mitochondrial intermediate peptidase (MIP). Seibel M, et al. **Biol Chem** 1999 Jul-Aug;380(7-8):961-7

Leader peptide efficiency correlates with signal recognition particle dependence in Saccharomyces cerevisiae. Arnold CE, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):286-93

Identification of a signal sequence necessary for the unconventional secretion of Engrailed homeoprotein. Joliot A, et al. **Curr Biol** 1998 Jul 16;8(15):856-63

Inhibitors of bacterial signal peptidases. Black MT, et al. **Curr Pharm Des** 1998 Apr;4(2):133-54 (80 ref.)

Competition between Sec- and TAT-dependent protein translocation in Escherichia coli. Cristóbal S, et al. **EMBO J** 1999 Jun 1;18(11):2982-90

Adult carboxypeptidase E-deficient fat/fat mice have a near-total depletion of brain CCK 8 accompanied by a massive accumulation of glycine and arginine extended CCK: identification of CCK 8 Gly as the immediate precursor of CCK 8 in rodent brain. Wang W, et al. **Endocrine** 1998 Dec;9(3):329-32

The propeptide of prohormone convertase PC2 acts as a transferable aggregation and membrane-association signal. Jan G, et al. **Eur J Biochem** 1998 Oct 1;257(1):41-6

Nuclear distribution of human DNA topoisomerase IIbeta: a nuclear targeting signal resides in the 116-residue C-terminal tail. Cowell IG, et al. **Exp Cell Res** 1998 Sep 15;243(2):232-40

The N-terminal 77 amino acids from tobacco N-acetylglucosaminyltransferase I are sufficient to retain a reporter protein in the Golgi apparatus of Nicotiana benthamiana cells. Essl D, et al. **FEBS Lett** 1999 Jun 18; 453(1-2):169-73

Bacterial proteins carrying twin-R signal peptides are specifically targeted by the delta pH-dependent transport machinery of the thylakoid membrane system. Halbig D, et al. **FEBS Lett** 1999 Mar 19;447(1):95-8

Studies of the subtilin leader peptide as a translocation signal in Escherichia coli K12. Paul LK, et al. **FEMS Microbiol Lett** 1999 Jul 1;176(1):45-50

The "pro" sequence of the sporulation-specific sigma transcription factor sigma(E) directs it to the mother cell side of the sporulation septum. Ju J, et al. **J Bacteriol** 1999 Oct;181(19):6171-5

Mechanism of endoplasmic reticulum retention of mutant vasopressin precursor caused by a signal peptide truncation associated with diabetes insipidus. Beuret N, et al. **J Biol Chem** 1999 Jul 2;274(27):18965-72

Dual targeting property of the N-terminal signal sequence of P4501A1. Targeting of heterologous proteins to endoplasmic reticulum and mitochondria. Bhagwat SV, et al. **J Biol Chem** 1999 Aug 20;274(34):24014-22

Signal peptide peptidase- and ClpP-like proteins of Bacillus subtilis required for efficient translocation and processing of secretory proteins. Bolhuis A, et al. **J Biol Chem** 1999 Aug 27;274(35):24585-92

The propeptide domain of membrane type 1 matrix metalloproteinase is required for binding of tissue inhibitor of metalloproteinases and for activation of pro-gelatinase A. Cao J, et al. **J Biol Chem** 1998 Dec 25;273(52):34745-52

Identification of a nuclear targeting domain in the insertion between helices C and D in protease inhibitor-10. Chuang TL, et al. **J Biol Chem** 1999 Apr 16;274(16):11194-8

Constitutive lysosomal targeting and degradation of bovine endothelin-converting enzyme-1a mediated by novel signals in its alternatively spliced cytoplasmic tail. Emoto N, et al. **J Biol Chem** 1999 Jan 15;274(3):1509-18

Translocation, folding, and stability of the HflKC complex with signal anchor topogenic sequences. Kihara A, et al. **J Biol Chem** 1998 Nov 6;273(45):29770-5

The difference in recognition of terminal tripeptides as peroxisomal targeting signal 1 between yeast and human is due to different affinities of their receptor Pex5p to the cognate signal and to residues adjacent to it. Lametschwandtner G, et al. **J Biol Chem** 1998 Dec 11; 273(50):33635-43

Protein transport into "complex" diatom plastids utilizes two different targeting signals. Lang M, et al. **J Biol Chem** 1998 Nov 20;273(47):30973-8

RAG1 and RAG2 cooperate in specific binding to the recombination signal sequence in vitro. Mo X, et al. **J Biol Chem** 1999 Mar 12;274(11):7025-31

In vivo mitochondrial import. A comparison of leader sequence charge and structural relationships with the in vitro model resulting in evidence for co-translational import. Ni L, et al. **J Biol Chem** 1999 Apr 30; 274(18):12685-91

Efficient endocytosis of the cystic fibrosis transmembrane conductance regulator requires a tyrosine-based signal. Prince LS, et al. **J Biol Chem** 1999 Feb 5;274(6):3602-9

Intrinsic signals for the assembly of hepatitis A virus particles. Role of structural proteins VP4 and 2A. Probst C, et al. **J Biol Chem** 1999 Feb 19;274(8):4527-31

Dual signal peptides mediate the signal recognition particle/Sec-independent insertion of a thylakoid membrane polyprotein, PsbY. Thompson SJ, et al. **J Biol Chem** 1999 Feb 12;274(7):4059-66

Delta psi stimulates membrane translocation of the C-terminal part of a signal sequence. van Dalen A, et al. **J Biol Chem** 1999 Jul 9;274(28):19913-8

The nucleolar targeting signal (NTS) of parathyroid hormone related protein mediates endocytosis and nucleolar translocation. Aarts MM, et al. **J Bone Miner Res** 1999 Sep;14(9):1493-503

Reconstitution of retrograde transport from the Golgi to the ER in vitro. Spang A, et al. **J Cell Biol** 1998 Nov 2; 143(3):589-99

Processing, secretion, and anti-HIV-1 activity of IL-16 with or without a signal peptide in CD4+ T cells. Zhou P, et al. **J Immunol** 1999 Jul 15;163(2):906-12

Identification of a cytoplasmic targeting/retention signal in a retroviral Gag polyprotein. Choi G, et al. **J Virol** 1999 Jul;73(7):5431-7

Tim23p contains separate and distinct signals for targeting

to mitochondria and insertion into the inner membrane. Davis AJ, et al. **Mol Biol Cell** 1998 Sep;9(9):2577–93

Different bioactivities of human thyrotropin receptors with different signal peptides. Park JY, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):133–42

Mechanisms of progesterone receptor export from nuclei: role of nuclear localization signal, nuclear export signal, and ran guanosine triphosphate. Tyagi RK, et al. **Mol Endocrinol** 1998 Nov;12(11):1684–95

The proteasome inhibitor lactacystin prevents the generation of an endoplasmic reticulum leader-derived T cell epitope. Gallimore A, et al. **Mol Immunol** 1998 Jul;35(10):581–91

Preprotein transfer to the Escherichia coli translocase requires the co-operative binding of SecB and the signal sequence to SecA. Fekkes P, et al. **Mol Microbiol** 1998 Sep;29(5):1179–90

A signal sequence trap based on a constitutively active cytokine receptor. Kojima T, et al. **Nat Biotechnol** 1999 May;17(5):487–90

Life and death of a signal peptide [news; comment] von Heijne G. **Nature** 1998 Nov 12;396(6707):111, 113. Comment on: Nature 1998 Nov 12;396(6707):186–90.

A plasma membrane localization signal in the HIV-1 envelope cytoplasmic domain prevents localization at sites of vesicular stomatitis virus budding and incorporation into VSV virions. Johnson JE, et al. **Virology** 1998 Nov 25; 251(2):244–52

PHARMACOLOGY

Signal presequences increase mitochondrial permeability and open the multiple conductance channel. Kushnareva YE, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):107–15

PHYSIOLOGY

Targeting of tissue plasminogen activator into the regulated secretory pathway of neuroendocrine cells. Santell L, et al. **Brain Res** 1999 Jan 16;816(1):258–65

The novel signal peptides, pedibin and Hym-346, lower positional value thereby enhancing foot formation in hydra. Grens A, et al. **Development** 1999 Feb;126(3):517–24

Expression of plastocyanin and cytochrome f of the cyanobacterium Phormidium laminosum in Escherichia coli and Paracoccus denitrificans and the role of leader peptides. Schlarb BG, et al. **Gene** 1999 Jul 8;234(2):275–83

The pathway for processing leader-derived peptides that regulate the maturation and expression of Qa-1b. Bai A, et al. **Immunity** 1998 Sep;9(3):413–21

Influence of mutation of the amino-terminal signal anchor sequence of cytochrome P450 2B4 on the enzyme structure and electron transfer processes. Lehnerer M, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):396–403

The Gab1 protein is a docking site for multiple proteins involved in signaling by the B cell antigen receptor. Ingham RJ, et al. **J Biol Chem** 1998 Nov 13;273(46):30630–7

A factor required for nonsense-mediated mRNA decay in yeast is exported from the nucleus to the cytoplasm by a nuclear export signal sequence. Shirley RL, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3129–43

Modulation of the expression level of human acidic lipases by various signal peptides. Canaan S, et al. **Methods Mol Biol** 1999;109:203–13 (17 ref.)

Anti-cancer activity of targeted pro-apoptotic peptides. Ellerby HM, et al. **Nat Med** 1999 Sep;5(9):1032–8

Prepro-leaders lacking N-linked glycosylation for secretory expression in the yeast Saccharomyces cerevisiae. Kjeldsen T, et al. **Protein Expr Purif** 1998 Dec;14(3):309–16

Signal sequences: more than just greasy peptides. Martoglio B, et al. **Trends Cell Biol** 1998 Oct;8(10):410–5 (60 ref.)

SIGNAL PROCESSING, COMPUTER-ASSISTED

EEG bispectral index monitoring in sevoflurane or propofol anaesthesia: analysis of direct costs and immediate recovery. Yli-Hankala A, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):545–9

Can power spectral analysis of arterial pressure be a clinical monitor for autonomic functions during spinal anesthesia? [editorial] Lui PW. **Acta Anaesthesiol Sin** 1998 Mar; 36(1):1–2

Power spectral analysis of arterial blood pressure after spinal anesthesia. Yang MW, et al. **Acta Anaesthesiol Sin** 1998 Mar;36(1):3–10

Power spectral analysis of heart rate variability by autoregressive modelling and fast Fourier transform: a comparative study. Fagard RH, et al. **Acta Cardiol** 1998; 53(4):211–8

Slowing on quantitative spectral EEG is a marker for rate of subsequent cognitive and functional decline in early Alzheimer disease. Claus JJ, et al. **Alzheimer Dis Assoc Disord** 1998 Sep;12(3):167–74

Evaluation of captioning features to inform development of digital television captioning capabilities. Kirkland CE. **Am Ann Deaf** 1999 Jul;144(3):250–60

Relation between infarct artery patency at late angiography after acute myocardial infarction and signal-averaged electrocardiography. Chandrasekaran S, et al. **Am J Cardiol** 1999 Sep 15;84(6):734–6, A8

Automated electrocardiographic scores to estimate myocardial injury size during the course of acute myocardial infarction. Porela P, et al. **Am J Cardiol** 1999 Mar 15;83(6):949–52, A9

Assessing the accuracy of partial weight-bearing instruction. Gray FB, et al. **Am J Orthop** 1998 Aug;27(8):558–60

Bilateral cochlear implants controlled by a single speech processor. Lawson DT, et al. **Am J Otol** 1998 Nov; 19(6):758–61

Glenohumeral joint kinematics and kinetics for three coordinate system representations during wheelchair propulsion. Cooper RA, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):435–46

Automated sensory nerve conduction testing using fuzzy logic. Gitter A, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):425–34

Electromyography--high tech--now what? [editorial] Johnson EW. **Am J Phys Med Rehabil** 1999 May-Jun; 78(3):201

Automated measurement of peak widths for the determination of peak capacity in complex chromatograms. Lan K, et al. **Anal Chem** 1999 Feb 1;71(3):709–14

A primer for EEG signal processing in anesthesia [see comments] Rampil IJ. **Anesthesiology** 1998 Oct; 89(4):980–1002 (61 ref.). Comment in: Anesthesiology 1998 Oct;89(4):815–7. Comment in: Anesthesiology 1999 Jun;90(6):1796–8.

Imaging epicardial oxygen. Barlow CH, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):76–85

A field-compatible method for interpolating biopotentials. Burnes JE, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):37–47

Noninvasive delineation of normal right ventricular contractile motion with magnetic resonance imaging myocardial tagging. Klein SS, et al. **Ann Biomed Eng** 1998 Sep-Oct;26(5):756–63

Variational approaches toward nonlinear time-series analysis. Sammon M. **Ann Biomed Eng** 1999 Mar-Apr;27(2):274–85

Optimized overcomplete signal representation and its applications to time-frequency analysis of electrogastrogram. Wang Z, et al. **Ann Biomed Eng** 1998 Sep-Oct;26(5):859–69

Predicting the relative efficacy of shock waveforms for transthoracic defibrillation in dogs. White JB, et al. **Ann Emerg Med** 1999 Sep;34(3):309–20

In-shoe pressure measurements with a viscoelastic heel orthosis. Hsi WL, et al. **Arch Phys Med Rehabil** 1999 Jul; 80(7):805–10

Use of computerized insole sensor system to evaluate the efficacy of a modified ankle-foot orthosis for redistributing heel pressures. Randolph AL, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):801–4

Transcutaneous optical telemetry system with infrared laser diode. Inoue K, et al. **ASAIO J** 1998 Nov-Dec;44(6):841–4

Female voice communications in high level aircraft cockpit noises--part II: vocoder and automatic speech recognition systems. Nixon C, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1087–94

Transcription regulatory region analysis using signal detection and fuzzy clustering. Pickert L, et al. **Bioinformatics** 1998;14(3):244–51

An ultra-high common-mode rejection ratio (CMRR) AC instrumentation amplifier for laplacian electrocardiographic measurement. Lu CC, et al. **Biomed Instrum Technol** 1999 Jan-Feb;33(1):76–83

Adaptive Morse code recognition using variable degree variable step size LMS for persons with disabilities. Yang CH. **Biomed Mater Eng** 1998;8(5–6):343–52

Insect-based BioFETs with improved signal characteristics. Schroth P, et al. **Biosens Bioelectron** 1999 Mar 15; 14(3):303–8

Signal averaged laser Doppler measurements of activation-flow coupling in the rat forepaw somatosensory cortex. Detre JA, et al. **Brain Res** 1998 Jun 15;796(1–2):91–8

Reproducibility of resting heart rate variability with short sampling periods. Marks BL, et al. **Can J Appl Physiol** 1999 Aug;24(4):337–48

Digital images. Balter S. **Catheter Cardiovasc Interv** 1999 Apr; 46(4):487–96

Predicting severe angiographic coronary artery disease using computerization of clinical and exercise test data. Do D, et al. **Chest** 1998 Nov;114(5):1437–45

Digital assessment of the epicardial electrocardiogram: novel methodology for a core laboratory for clinical studies. Bertolet BE, et al. **Clin Cardiol** 1999 Apr;22(4):311–5

Spectral analysis of blood pressure: is it pointing in a useful direction? [comment] Cameron JD, et al. **Clin Sci (Colch)** 1999 Aug;97(2):253–4. Comment on: Clin Sci (Colch) 1999 Aug;97(2):129–39.

Broad-band spectral analysis of 24 h continuous finger blood pressure: comparison with intra-arterial recordings [see comments] Castiglioni P, et al. **Clin Sci (Colch)** 1999 Aug; 97(2):129–39. Comment in: Clin Sci (Colch) 1999 Aug;97(2):253–4.

A central gamma-aminobutyric acid mechanism in cardiac vagal control in man revealed by studies with intravenous midazolam. Farmer MR, et al. **Clin Sci (Colch)** 1998 Sep; 95(3):241–8

Reproducibility of three different methods of measuring baroreflex sensitivity in normal subjects [see comments] Lord SW, et al. **Clin Sci (Colch)** 1998 Nov;95(5):575–81. Comment in: Clin Sci (Colch) 1999 Apr;96(4):437.

The forced expiratory volume-time curve estimation using the electrocardiogram. Abboud S, et al. **Comput Biol Med** 1998 May;28(3):193–206

Gain optimized cosine transform domain LMS algorithm for adaptive filtering of EEG. Olkkonen H, et al. **Comput Biol Med** 1999 Mar;29(2):129–36

Estimation of latency changes and relative amplitudes in somatosensory evoked potentials using wavelets and regression. Angel A, et al. **Comput Biomed Res** 1999 Jun; 32(3):209–51

Spatial and temporal distribution enhancement of movement-related brain macropotentials. Filligoi GC, et al. **Comput Biomed Res** 1999 Jun;32(3):198–208

Application of high-order boundary elements to the electrocardiographic inverse problem. Fischer G, et al. **Comput Methods Programs Biomed** 1999 Feb;58(2):119–31

A graphic orientated data analysis system for hemodynamic research. Hu WC, et al. **Comput Methods Programs Biomed** 1999 Jun;59(3):197–214

A comparative study for stepwise correlated binary regression. Sohn SY. **Comput Methods Programs Biomed** 1999 Jun;59(3):181–6

Generalized linear least squares algorithm for non-uniformly sampled biomedical system identification with possible repeated eigenvalues. Wong KP, et al. **Comput Methods Programs Biomed** 1998 Nov;57(3):167–77

Development of a 3-D measurement and evaluation system for facial forms with a liquid crystal range finder. Yamada T, et al. **Comput Methods Programs Biomed** 1999 Feb; 58(2):159–73

A randomized, controlled trial of computerized physiologic trend monitoring in an intensive care unit [see comments] Cunningham S, et al. **Crit Care Med** 1998 Dec; 26(12):2053–60. Comment in: Crit Care Med 1998 Dec;26(12):1951.

Brain eigenfrequency shifting as a sensitive index of cerebral compliance in an experimental model of epidural hematoma in the rabbit: preliminary study [see comments] Douzinas EE, et al. **Crit Care Med** 1999 May;27(5):978–84. Comment in: Crit Care Med 1999 May;27(5):869–70.

Measurement inside the box [editorial; comment] Gibbons KJ. **Crit Care Med** 1999 May;27(5):869–70 (11 ref.). Comment on: Crit Care Med 1999 May;27(5):978–84.

Semicontinuous cardiac output monitoring using a neural network [see comments] Healey C, et al. **Crit Care Med** 1999 Aug;27(8):1505–10. Comment in: Crit Care Med 1999 Aug;27(8):1665–6.

Cardiac output minute to minute with a standard pulmonary artery catheter, without fluid overload? [editorial; comment] Tremper KK. **Crit Care Med** 1999 Aug; 27(8):1665–6 (16 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1505–10.

Corrected formula for the calculation of the electrical heart axis. Novosel D, et al. **Croat Med J** 1999 Mar;40(1):77–9

Resolution of dimly fluorescent particles: a practical measure of fluorescence sensitivity. Chase ES, et al. **Cytometry** 1998 Oct 1;33(2):267–79

Fundamental flow cytometer properties governing sensitivity and resolution. Wood JC. **Cytometry** 1998 Oct 1; 33(2):260–6

Voltage associated with spontaneous embryonic motility in the developing chicken: an automated characterization during mid-late embryogenesis. Bollweg GL, et al. **Dev Psychobiol** 1999 Jan;34(1):5–19

Digital imaging: an accurate and easy method of measuring foot ulcers. Rajbhandari SM, et al. **Diabet Med** 1999 Apr; 16(4):339–42

Human hand-transmitted vibration measurements on pedestrian controlled tractor operators by a laser scanning vibrometer. Deboli R, et al. **Ergonomics** 1999 Jun; 42(6):880–8

Wavelet decomposition analysis of the signal averaged electrocardiogram used for risk stratification of patients with hypertrophic cardiomyopathy. Englund A, et al. **Eur Heart J** 1998 Sep;19(9):1383–90

Comparison of cephalometric analysis using a non-radiographic sonic digitizer (DigiGraph Workstation) with conventional radiography. Tsang KH, et al. **Eur J Orthod** 1999 Feb;21(1):1–13

Spectral broadening of clinical Doppler signals using FFT and autoregressive modelling. Keeton PI, et al. **Eur J Ultrasound** 1998 Aug;7(3):209–18

Orthostatic intolerance, blood pressure and its variability. Halmai L, et al. **Fundam Clin Pharmacol** 1998;12 Suppl 1:35s–41s

Signal-averaged electrocardiography. Graham AA, et al. **Health Technol Assess (Rockv)** 1998 May;(11):i–vi, 1–15 (74 ref.)

Prognostic significance of electrical alternans versus signal averaged electrocardiography in predicting the outcome of electrophysiological testing and arrhythmia-free survival. Armoundas AA, et al. **Heart** 1998 Sep;80(3):251–6

A new physiological method for heart rate correction of the QT interval. Davey P. **Heart** 1999 Aug;82(2):183–6

Effect of partition coefficient, permeability surface product, and radioisotope on the signal-to-noise ratio in PET functional brain mapping: a computer simulation. Martin CC, et al. **Hum Brain Mapp** 1999;7(3):151–60

Signal-processing techniques for cochlear implants. Loizou PC. **IEEE Eng Med Biol Mag** 1999 May-Jun;18(3):34–46 (54 ref.)

A data-reduction process for long-term EEGs. Feature extraction through digital processing in a multiresolution framework. Sirne RO, et al. **IEEE Eng Med Biol Mag** 1999 Jan-Feb;18(1):56–61

SVD-based on-line exercise ECG signal orthogonalization.

Acar B, et al. **IEEE Trans Biomed Eng** 1999 Mar; 46(3):311-21

Combined MEG and EEG source imaging by minimization of mutual information. Baillet S, et al. **IEEE Trans Biomed Eng** 1999 May;46(5):522-34

Inverse electrocardiography by simultaneous imposition of multiple constraints. Brooks DH, et al. **IEEE Trans Biomed Eng** 1999 Jan;46(1):3-18

Mean-shape vector quantizer for ECG signal compression. Cárdenas-Barrera JL, et al. **IEEE Trans Biomed Eng** 1999 Jan;46(1):62-70

Denoising of the uterine EHG by an undecimated wavelet transform. Carré P, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1104-13

A wavelet transform-based ECG compression method guaranteeing desired signal quality. Chen J, et al. **IEEE Trans Biomed Eng** 1998 Dec;45(12):1414-9

Electromyogram amplitude estimation with adaptive smoothing window length. Clancy EA. **IEEE Trans Biomed Eng** 1999 Jun;46(6):717-29

Probability density of the surface electromyogram and its relation to amplitude detectors. Clancy EA, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):730-9

A low-complexity intracardiac electrogram compression algorithm. Coggins RJ, et al. **IEEE Trans Biomed Eng** 1999 Jan;46(1):82-91

New statistical method for detection and quantification of respiratory sinus arrhythmia. Dinh TP, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1161-5

Automatic detection of conduction block based on time-frequency analysis of unipolar electrograms. Evans FG, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1090-7

Decomposition of multiunit electromyographic signals. Fang J, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):685-97

Parametric model derivation of transfer function for noninvasive estimation of aortic pressure by radial tonometry. Fetics B, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):698-706

Least squares acceleration filtering for the estimation of signal derivatives and sharpness at extrema. Frei MG, et al. **IEEE Trans Biomed Eng** 1999 Aug;46(8):971-7

In vivo high-frequency ultrasonic characterization of human dermis. Guittet C, et al. **IEEE Trans Biomed Eng** 1999 Jun; 46(6):740-6

Single-sweep analysis of event-related potentials by wavelet networks--methodological basis and clinical application. Heinrich H, et al. **IEEE Trans Biomed Eng** 1999 Jul; 46(7):867-79

Wavelet transform-based QRS complex detector. Kadambe S, et al. **IEEE Trans Biomed Eng** 1999 Jul;46(7):838-48

Enhancement of spectral analysis of myoelectric signals during static contractions using wavelet methods. Karlsson S, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):670-84

Using neural networks and genetic algorithms to enhance performance in an electronic nose. Kermani BG, et al. **IEEE Trans Biomed Eng** 1999 Apr;46(4):429-39

Principal component elimination method for the improvement of S/N in evoked neuromagnetic field measurements. Kobayashi T, et al. **IEEE Trans Biomed Eng** 1999 Aug;46(8):951-8

Latency change estimation for evoked potentials via frequency selective adaptive phase spectrum analyzer. Kong X, et al. **IEEE Trans Biomed Eng** 1999 Aug; 46(8):1004-12

Adaptive estimation of latency change in evoked potentials by direct least mean p-norm time-delay estimation. Kong X, et al. **IEEE Trans Biomed Eng** 1999 Aug;46(8):994-1003

Quantification of injury-related EEG signal changes using distance measures. Kong X, et al. **IEEE Trans Biomed Eng** 1999 Jul;46(7):899-901

Time-scale detection of microemboli in flowing blood with Doppler ultrasound. Krongold BS, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1081-9

ECG data compression using cut and align beats approach and 2-D transforms. Lee H, et al. **IEEE Trans Biomed Eng** 1999 May;46(5):556-64

Preamplifier with a second-order high-pass filtering characteristic. Lin YD, et al. **IEEE Trans Biomed Eng** 1999 May;46(5):609-12

Three-dimensional filtering approach to brain potential mapping. Lo PC. **IEEE Trans Biomed Eng** 1999 May; 46(5):574-83

Quantification of force abnormalities during passive and active-assisted upper-limb reaching movements in post-stroke hemiparesis. Lum PS, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):652-62

Modeling of surface myoelectric signals--Part II: Model-based signal interpretation. Merletti R, et al. **IEEE Trans Biomed Eng** 1999 Jul;46(7):821-9

Visualization of epileptogenic phenomena using cross-correlation analysis: localization of epileptic foci and propagation of epileptiform discharges. Mizuno-Matsumoto Y, et al. **IEEE Trans Biomed Eng** 1999 Mar;46(3):271-9

The use of fuzzy integrals and bispectral analysis of the electroencephalogram to predict movement under anesthesia. Muthuswamy J, et al. **IEEE Trans Biomed Eng** 1999 Mar;46(3):291-9

Spectral analysis of periodic fluctuations in electrocardiographic repolarization. Narayan SM, et al. **IEEE Trans Biomed Eng** 1999 Feb;46(2):203-12

The effect of artifact rejection by signal-space projection on source localization accuracy in MEG measurements. Nolte G, et al. **IEEE Trans Biomed Eng** 1999 Apr; 46(4):400-8

Two-dimensional filter to facilitate detection of transient-evoked otoacoustic emissions. Ravazzani P, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1089-96

Stochastic complexity measures for physiological signal analysis. Rezek IA, et al. **IEEE Trans Biomed Eng** 1998 Sep;45(9):1186-91

MEG spatio-temporal analysis using a covariance matrix calculated from nonaveraged multiple-epoch data. Sekihara K, et al. **IEEE Trans Biomed Eng** 1999 May; 46(5):515-21

Dominant pattern extraction from 3-D kinematic data. Stokes VP, et al. **IEEE Trans Biomed Eng** 1999 Jan;46(1):100-6

Observer of the human cardiac sympathetic nerve activity using noncausal blind source separation. Vetter R, et al. **IEEE Trans Biomed Eng** 1999 Mar;46(3):322-30

Enhancement of deep epileptiform activity in the EEG via 3-D adaptive spatial filtering. Ward DM, et al. **IEEE Trans Biomed Eng** 1999 Jun;46(6):707-16

Time-frequency matching of warped depth-EEG seizure observations. Wendling F, et al. **IEEE Trans Biomed Eng** 1999 May;46(5):601-5

Multiple window time-frequency distribution and coherence of EEG using Slepian sequences and hermite functions. Xu Y, et al. **IEEE Trans Biomed Eng** 1999 Jul;46(7):861-6

Characterization of signals and noise rejection with bipolar longitudinal intrafascicular electrodes. Yoshida K, et al. **IEEE Trans Biomed Eng** 1999 Feb;46(2):226-34

Synthesis and decomposition of transient-evoked otoacoustic emissions based on an active auditory model. Zheng L, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1098-106

Adaptive template filtering for signal-to-noise ratio enhancement in magnetic resonance imaging [letter] Ahn CB, et al. **IEEE Trans Med Imaging** 1999 Jun;18(6):549-59

Control of FES thumb force using slip information obtained from the cutaneous electroneurogram in quadriplegic man. Haugland M, et al. **IEEE Trans Rehabil Eng** 1999 Jun; 7(2):215-27

Speech modifications algorithms used for training language learning-impaired children. Nagarajan SS, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):257-68

Separability of EEG signals recorded during right and left motor imagery using adaptive autoregressive parameters. Pfurtscheller G, et al. **IEEE Trans Rehabil Eng** 1998 Sep; 6(3):316-25

EEG-based communication: improved accuracy by response verification. Wolpaw JR, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):326-33

Prediction of atrial fibrillation recurrence after cardioversion by P wave signal-averaged electrocardiography. Aytemir K, et al. **Int J Cardiol** 1999 Jul 1;70(1):15-21

A wavelet-based reduction of heart sound noise from lung sounds. Hadjileontiadis LJ, et al. **Int J Med Inf** 1998 Oct-Dec;52(1-3):183-90

ECG pattern recognition and classification using non-linear transformations and neural networks: a review. Maglaveras N, et al. **Int J Med Inf** 1998 Oct-Dec;52(1-3):191-208 (54 ref.)

Nonlinear analysis of the performance and reliability of wavelet singularity detection based denoising for Doppler ultrasound fetal heart rate signals. Papadimitriou S, et al. **Int J Med Inf** 1999 Jan;53(1):43-60

Pressure measurement evaluation and accuracy validation: the Gabarith test. Billiet E, et al. **Intensive Care Med** 1998 Dec;24(12):1323-6

Detection of endotracheal tube obstruction by analysis of the expiratory flow signal. Guttmann J, et al. **Intensive Care Med** 1998 Nov;24(11):1163-72

Noninvasive assessment of coronary flow reserve with transthoracic signal-enhanced Doppler echocardiography. Lambertz H, et al. **J Am Soc Echocardiogr** 1999 Mar; 12(3):186-95

Acoustic quantification indexes of left ventricular size and function: effects of signal averaging. Mor-Avi V, et al. **J Am Soc Echocardiogr** 1998 Aug;11(8):792-802

Comparison of MPEG digital video with super VHS tape for diagnostic echocardiographic readings. Soble JS, et al. **J Am Soc Echocardiogr** 1998 Aug;11(8):819-25

Digital echocardiographic laboratory: where do we stand? Thomas JD, et al. **J Am Soc Echocardiogr** 1998 Oct; 11(10):978-83 (16 ref.)

Load sharing between solid and fluid phases in articular cartilage: I--Experimental determination of in situ mechanical conditions in a porcine knee. Mukherjee N, et al. **J Biomech Eng** 1998 Oct;120(5):614-9

Local mechanical anisotropy in human cranial dura mater allografts. Sacks MS, et al. **J Biomech Eng** 1998 Aug; 120(4):541-4

An instrumented wheel for kinetic analysis of wheelchair propulsion. Wu HW, et al. **J Biomech Eng** 1998 Aug; 120(4):533-5

Advanced pulse oximeter signal processing technology compared to simple averaging. I. Effect on frequency of alarms in the operating room. Rheineck-Leyssius AT, et al. **J Clin Anesth** 1999 May;11(3):192-5

Advanced pulse oximeter signal processing technology compared to simple averaging. II. Effect on frequency of alarms in the postanesthesia care unit. Rheineck-Leyssius AT, et al. **J Clin Anesth** 1999 May;11(3):196-200

Reflectance pulse oximetry--principles and obstetric application in the Zurich system. König V, et al. **J Clin Monit Comput** 1998 Aug;14(6):403-12

Cross-country digital EEG survey 1998. Brenner RP, et al. **J Clin Neurophysiol** 1998 Nov;15(6):485-8

Comparison of digital and conventional EEG interpretation [see comments] Levy SR, et al. **J Clin Neurophysiol** 1998 Nov;15(6):476-80. Comment in: J Clin Neurophysiol 1998 Nov;15(6):547-51.

Assessing digital and quantitative EEG in clinical settings. Nuwer MR. **J Clin Neurophysiol** 1998 Nov;15(6):458-63

Subclinical rhythmic electrographic discharges of adults (SREDA) revisited: a study using digital EEG analysis. O'Brien TJ, et al. **J Clin Neurophysiol** 1998 Nov; 15(6):493-501

Technical advantages of digital EEG [see comments] Van Cott A, et al. **J Clin Neurophysiol** 1998 Nov;15(6):464-75 . Comment in: J Clin Neurophysiol 1998 Nov;15(6):547-51.

Routine clinical protocol. Wong PK. **J Clin Neurophysiol** 1998 Nov;15(6):481-4

New developments. Wong PK, et al. **J Clin Neurophysiol** 1998 Nov;15(6):489-92

Validation of continuous thermodilution cardiac output in critically ill patients with analysis of systematic errors. Medin DL, et al. **J Crit Care** 1998 Dec;13(4):184-9

An interactive graphical system for automated mapping and display of cardiac rhythms. He YH, et al. **J Electrocardiol** 1999 Jul;32(3):225-41

Assessment of right artrial mapping and P wave-triggered signal-average in patients with paroxysmal atrial fibrillation. Yamagata T, et al. **J Electrocardiol** 1999 Jul; 32(3):243-51

Methods to reduce the variability of EMG power spectrum estimates. Baratta RV, et al. **J Electromyogr Kinesiol** 1998 Oct;8(5):279-85

The motion path of the digits. Gupta A, et al. **J Hand Surg [Am]** 1998 Nov;23(6):1038-42

Analysis of stained objects in histological sections by spectral imaging and differential absorption. Ornberg RL, et al. **J Histochem Cytochem** 1999 Oct;47(10):1307-14

Analysis of J coupling-induced fat suppression in DIET imaging. Stables LA, et al. **J Magn Reson** 1999 Feb; 136(2):143-51

Digital wavelet-encoded MRI: a new wavelet-encoding methodology. Panych LP, et al. **J Magn Reson Imaging** 1998 Sep-Oct;8(5):1135-44

Partial wavelet encoding: a new approach for accelerating temporal resolution in contrast-enhanced MR imaging. Shimizu K, et al. **J Magn Reson Imaging** 1999 May; 9(5):717-24

Comparison of the heart rate variability parameters obtained from the electrocardiogram and the blood pressure wave. Carrasco S, et al. **J Med Eng Technol** 1998 Sep-Oct; 22(5):195-205

Spectral analysis of heart period variance (HPV)--a tool to stratify risk following myocardial infarction. Láng E, et al. **J Med Eng Technol** 1998 Nov-Dec;22(6):248-56

Rapid and convenient method of autoradiography for DNA cloning using digital imaging analysis. Taketani Y, et al. **J Med Invest** 1998 Aug;45(1-4):111-3

Tissue blood flow assessment of pulsed Doppler ultrasound using autoregressive modeling. Bay OF, et al. **J Med Syst** 1999 Feb;23(1):77-81

Semi-automated analysis of NMDA-mediated toxicity in digitised colour images from rat hippocampus. Manahan-Vaughan D, et al. **J Neurosci Methods** 1998 Jul 1;82(1):85-95

Digital video: a tool for correlating neuronal firing patterns with hand motor behavior. Ro JY, et al. **J Neurosci Methods** 1998 Aug 1;82(2):215-31

A model of signal processing at a mammalian sympathetic neurone. Sacchi O, et al. **J Neurosci Methods** 1998 Apr 30;80(2):171-80

Detection improvement in spatially filtered x-ray fluoroscopy image sequences. Jabri KN, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Mar;16(3):742-9

CMDME (curved mesh diagram of mandibular excursion) method for visualization and diagnosis of mandibular movement. Hayasaki H, et al. **J Oral Rehabil** 1998 Sep; 25(9):672-6

Evaluation of neurocardiac signals in pediatric patients with cyclic vomiting syndrome through power spectral analysis of heart rate variability [see comments] To J, et al. **J Pediatr** 1999 Sep;135(3):363-6. Comment in: J Pediatr 1999 Sep;135(3):276-7.

Intracranial pressure monitoring by time domain analysis. Penson RP, et al. **J R Soc Health** 1998 Oct;118(5):289-94 (09 ref.)

A new tool for measuring the suckling stimulus during breastfeeding in humans: the orokinetogram and the Fourier series. Voloschin LM, et al. **J Reprod Fertil** 1998 Nov;114(2):219-24

Video transmission for telemedicine. Squibb NJ. **J Telemed Telecare** 1999;5(1):1-10 (11 ref.)

Use of a digital still camera in surgery [letter] Vassallo D. **J Telemed Telecare** 1999;5(1):70

Fourier analysis of the intra-aortic balloon pump. Poullis M. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):827-8

Non-dipolarity of heart potentials estimated by magnetocardiography in normal subjects. Izumida N, et al. **Jpn Heart J** 1998 Nov;39(6):731-42

Diagnosis of orthostatic hypotension [letter; comment] Boddaert J, et al. **Lancet** 1998 Nov 21;352(9141):1705-6.

Comment on: Lancet 1998 Aug 8;352(9126):458.
Signal losses in diffusion preparation: comparison between spin-echo, stimulated echo and SEASON. Schick F. **MAGMA** 1998 Aug;6(1):53-61
Examples of uniform-penalty inversion of multiexponential relaxation data. Borgia GC, et al. **Magn Reson Imaging** 1998 Jun-Jul;16(5-6):549-52
Automatic compensation of motion artifacts in MRI. Atkinson D, et al. **Magn Reson Med** 1999 Jan;41(1):163-70
Radiofrequency power calibration for magnetic resonance imaging using signal phase as indicator. Bosak E, et al. **Magn Reson Med** 1999 Mar;41(3):474-8
Proton spectroscopy without water suppression: the oversampled J-resolved experiment. Hurd RE, et al. **Magn Reson Med** 1998 Sep;40(3):343-7
Analytical model of susceptibility-induced MR signal dephasing: effect of diffusion in a microvascular network. Kiselev VG, et al. **Magn Reson Med** 1999 Mar; 41(3):499-509
In vivo lactate and beta-hydroxybutyrate editing using a pure-phase refocusing pulse train. Shen J, et al. **Magn Reson Med** 1998 Nov;40(5):783-8
Coronary flow and flow reserve in canines using MR phase difference and complex difference processing. Wedding KL, et al. **Magn Reson Med** 1998 Nov;40(5):656-65
Non-linear qualitative signal processing for biological systems: application to the algal growth in bioreactors. Bernard O, et al. **Math Biosci** 1999 Mar 15;157(1-2):357-72
Estimation of evoked potentials using total least squares prony technique. Akkin T, et al. **Med Biol Eng Comput** 1998 Sep;36(5):544-8
QT interval analysis on ambulatory electrocardiogram recordings: a selective beat averaging approach. Badilini F, et al. **Med Biol Eng Comput** 1999 Jan;37(1):71-9
Evoked potential estimation using modified time-sequenced adaptive filter. Chan FH, et al. **Med Biol Eng Comput** 1998 Jul;36(4):407-14
Development of a cardiac acoustic mapping system. Cozic M, et al. **Med Biol Eng Comput** 1998 Jul;36(4):431-7
Artefact cancellation in motor-sensory evoked potentials: two approaches using adaptive filtration and exponential approximation. Dotsinsky I, et al. **Med Biol Eng Comput** 1999 Jan;37(1):87-92
Fragmentation of bandpass-filtered QRS-complex of patients prone to malignant arrhythmia. Endt P, et al. **Med Biol Eng Comput** 1998 Nov;36(6):723-8
A tracing evoked potential estimator. Fung KS, et al. **Med Biol Eng Comput** 1999 Mar;37(2):218-27
Feature-based classification of myoelectric signals using artificial neural networks. Gallant PJ, et al. **Med Biol Eng Comput** 1998 Jul;36(4):485-9
Feature extraction and state identification in biomedical signals using hierarchical fuzzy clustering. Geva AB. **Med Biol Eng Comput** 1998 Sep;36(5):608-14
Analysis of the ST-T complex of the electrocardiogram using the Karhunen--Loève transform: adaptive monitoring and alternans detection. Laguna P, et al. **Med Biol Eng Comput** 1999 Mar;37(2):175-89
Improving the detection of low concentration metabolites in magnetic resonance spectroscopy by digital filtering. Lemaire L, et al. **Med Biol Eng Comput** 1999 Mar; 37(2):244-6
Recovery of beat-to-beat variations of QRS. Lund K, et al. **Med Biol Eng Comput** 1998 Jul;36(4):438-44
A fast recursive-least-squares adaptive notch filter and its applications to biomedical signals. Ma WK, et al. **Med Biol Eng Comput** 1999 Jan;37(1):99-103
Comparison of heart rate variability spectra using generic relationships of their input signals. Mitov IP, et al. **Med Biol Eng Comput** 1998 Sep;36(5):573-80
Application of a wavelet adaptive filter to minimise distortion of the ST-segment. Park KL, et al. **Med Biol Eng Comput** 1998 Sep;36(5):581-6
Temporal and spatial complexity measures for electroencephalogram based brain-computer interfacing. Roberts SJ, et al. **Med Biol Eng Comput** 1999 Jan;37(1):93-8
Wavelet based ST-segment analysis. Sahambi JS, et al. **Med Biol Eng Comput** 1998 Sep;36(5):568-72
Prediction of epileptic seizures from two-channel EEG. Salant Y, et al. **Med Biol Eng Comput** 1998 Sep;36(5):549-56
Blind separation of multichannel electrogastrograms using independent component analysis based on a neural network. Wang ZS, et al. **Med Biol Eng Comput** 1999 Jan;37(1):80-6
Ventricular late potential analysis with musical and harmonic wavelets. Batista A, et al. **Med Eng Phys** 1998 Dec; 20(10):773-9
On the design and assessment of a 2.45 GHz radio telecommand system for remote patient monitoring. Crumley GC, et al. **Med Eng Phys** 1998 Dec;20(10):750-5
Electrocardiogram signal preprocessing for automatic detection of QRS boundaries. Daskalov IK, et al. **Med Eng Phys** 1999 Jan;21(1):37-44
Fundamentals of power spectra of extracellular potentials produced by a skeletal muscle fibre of finite length. Part II: Effect of parameters altering with functional state. Dimitrov GV, et al. **Med Eng Phys** 1998 Nov-Dec; 20(9):702-7
Two-electrode telemetric instrument for infant heart rate and apnea monitoring. Dobrev D, et al. **Med Eng Phys** 1998 Dec;20(10):729-34
The method of linear transformation in revealing EEG polyharmonic components in comparison to the Fourier analysis. Draganova R. **Med Eng Phys** 1999 Jan;21(1):9-14
Tuning non-linear adaptive compensators in non-ideal noise environment. Girard A, et al. **Med Eng Phys** 1998 Nov-Dec;20(9):689-96
Nonlinear analysis of the EEG of schizophrenics with optimal embedding dimension. Jeong J, et al. **Med Eng Phys** 1998 Nov-Dec;20(9):669-76
A method for assessment and processing of biomedical signals containing trend and periodic components. Mitov IP. **Med Eng Phys** 1998 Nov-Dec;20(9):660-8
Using simulated noise to define optimal QT intervals for computer analysis of ambulatory ECG. Tikkanen PE, et al. **Med Eng Phys** 1999 Jan;21(1):15-25
The formal specification of an electrocardiogram compressor. Todd BS, et al. **Med Inform Internet Med** 1999 Jan-Mar; 24(1):11-32
A signal analysis method for retinal image velocity computation of vestibular-ocular reflex eye movement investigations. Juhola M. **Medinfo** 1998;9 Pt 2:1247-9
Cepstral distance measures of hormone concentration time series. Milosavljevic M, et al. **Medinfo** 1998;9 Pt 1:385-8
Multimodal time-variant signal analysis of neonatal EEG burst patterns. Witte H, et al. **Medinfo** 1998;9 Pt 2:1250-4
Positive sharp wave and fibrillation potential modeling. Dumitru D, et al. **Muscle Nerve** 1999 Feb;22(2):242-51
Blind separation of a mixture of uniformly distributed source signals: A novel approach. Basak J, et al. **Neural Comput** 1999 May 15;11(4):1011-34
Random neural networks with multiple classes of signals. Gelenbe E, et al. **Neural Comput** 1999 May 15;11(4):953-63
Development of a computer-controlled tensiometer for real-time measurements of tension in tubular organs. Gregersen H, et al. **Neurogastroenterol Motil** 1999 Apr; 11(2):109-18
Improved signal-to-noise ratio in parametric images by cluster analysis. Kimura Y, et al. **Neuroimage** 1999 May; 9(5):554-61
Radiation oncology digital image chart system (RO-DICS) at Samsung Medical Center. Huh SJ, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Oct; 58(12):712-5
QT interval and QT dispersion measured with the threshold method depend on threshold level. Batchvarov V, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2372-5
Assessment of the coupling between RTapex and RR interval as an index of temporal dispersion of ventricular repolarization. Lombardi F, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2396-400
QT variability before and after episodes of nonsustained ventricular tachycardia in patients with hypertrophic cardiomyopathy. Mezilis NE, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2387-91
Magnetocardiographic QT interval dispersion in postmyocardial infarction patients with sustained ventricular tachycardia: validation of automated QT measurements. Oikarinen L, et al. **Pacing Clin Electrophysiol** 1998 Oct;21(10):1934-42
Comparative reproducibility of QT, QT peak, and T peak-T end intervals and dispersion in normal subjects, patients with myocardial infarction, and patients with hypertrophic cardiomyopathy. Savelieva I, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2376-81
Autonomic effects of dipyridamole stress testing on frequency distribution of RR and QT interval variability. Theres H, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2401-6
Characteristics of the signal-averaged P wave in orthotopic heart transplant recipients. Volgman AS, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2327-30
T wave complexity in patients with hypertrophic cardiomyopathy. Yi G, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2382-6
Two-dimensional autoregressive analysis of carotid artery blood flow waveform in children with isolated atrial septal defect. Kojo M, et al. **Pediatr Int** 1999 Jun;41(3):292-8
A quantitative method for the detection of edges in noisy time-series. Smith DA. **Philos Trans R Soc Lond B Biol Sci** 1998 Dec 29; 353(1378):1969-81
Magnetocardiographic analysis of the two-dimensional distribution of intra-QRS fractionated activation. Müller HP, et al. **Phys Med Biol** 1999 Jan;44(1):105-20
Non-linear analysis of the sleep EEG. Kobayashi T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):159-61
Topographic mapping of EEG spectral power and coherence in delta activity during the transition from wakefulness to sleep. Tanaka H, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):155-7
Power spectral analysis of heart rate variability in psychiatry. Cohen H, et al. **Psychother Psychosom** 1999 Mar-Apr; 68(2):59-66 (55 ref.)
Wavelet transform in the time-frequency analysis of patients with articulation disorders. Ogut F, et al. **Rev Laryngol Otol Rhinol (Bord)** 1999;120(2):115-6
Clinical evaluation of a portable digital hearing aid with narrow-band loudness compensation. Hidaka H, et al. **Scand Audiol** 1998;27(4):225-36
Power spectral analysis of arterial and central venous pressure signals during graded hemorrhage in anesthetized rats. Shyr MH, et al. **Shock** 1999 Mar;11(3):187-92
Wheezing Lung Sounds Analysis with adaptive local trigonometric transform. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):41-51
Time-scale segmentation of respiratory sounds. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):53-63
Higher-order spectral analysis in laser-Doppler flowmetry signal processing. Alexopoulos V, et al. **Technol Health Care** 1999;7(2-3):85-101
Time-variant spectral analysis of LDF signals on the basis of multivariate autoregressive modelling. Arnold M, et al. **Technol Health Care** 1999;7(2-3):103-12
Different flowmotion patterns in healthy controls and patients with Raynaud's phenomenon. Bertuglia S, et al. **Technol Health Care** 1999;7(2-3):113-23
Doppler Monte Carlo simulations of light scattering in tissue to support laser-Doppler perfusion measurements. de Mul FF, et al. **Technol Health Care** 1999;7(2-3):171-83
Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Eberhard L, et al. **Technol Health Care** 1999;7(4):243-59
Localisation and characterisation of auditory perception through Functional Magnetic Resonance Imaging. Formisano E, et al. **Technol Health Care** 1998 Sep; 6(2-3):111-23
A method for digital signal processing based laser-Doppler flowmetry. Greitans M, et al. **Technol Health Care** 1999; 7(2-3):125-35
Extraction of principal components from biosignals by neural net. Krajca V, et al. **Technol Health Care** 1999; 7(2-3):137-41
Spectral analysis of laser-Doppler perfusion signal measured during thermal test. Maniewski R, et al. **Technol Health Care** 1999;7(2-3):163-9
Laser-Doppler Flowmetry for microcirculation monitoring. Introduction. Möller KO, et al. **Technol Health Care** 1999; 7(2-3):i-ii
The Traveling Shutter Wave analyses non-linear compliance during mechanical ventilation. Mols G, et al. **Technol Health Care** 1999;7(4):309-17
Tissue motion--a disturbance in the laser-Doppler blood flow signal? Oberg PA. **Technol Health Care** 1999; 7(2-3):185-92
Classification of respiratory sounds based on wavelet packet decomposition and learning vector quantization. Pesu L, et al. **Technol Health Care** 1998 Jun;6(1):65-74
Inverse filtering applied to upper airway sounds. Plante F, et al. **Technol Health Care** 1998 Jun;6(1):23-32
Dynamic characteristics of laser-Doppler flux in normal individuals and patients with Raynaud's phenomenon before and after treatment with nifedipine under different thermal conditions. Popivanov D, et al. **Technol Health Care** 1999;7(2-3):193-203
Dynamic characteristics of laser-Doppler flux data. Popivanov D, et al. **Technol Health Care** 1999; 7(2-3):205-18
Placing crackles on the flow-volume plane: a study of the relationship between the time position, the flow and the volume. Rossi M, et al. **Technol Health Care** 1998 Jun; 6(1):91-7
Processing of laser-Doppler signals from free flaps. Söderström T, et al. **Technol Health Care** 1999; 7(2-3):219-23
A new versatile PC-based lung sound analyzer with automatic crackle analysis (HeLSA); repeatability of spectral parameters and sound amplitude in healthy subjects. Sovijärvi AR, et al. **Technol Health Care** 1998 Jun;6(1):11-22
Linear and nonlinear analysis of blood flow in healthy subjects and in subjects with Raynaud's phenomenon. Stefanovska A, et al. **Technol Health Care** 1999; 7(2-3):225-41
Real time analysis of lung sounds. Sun X, et al. **Technol Health Care** 1998 Jun;6(1):3-10
Estimation of analogue pre-filtering characteristics for CORSA standardisation. Sun XQ, et al. **Technol Health Care** 1998 Nov;6(4):275-83
Time-frequency distribution methods for the analysis of click-evoked otoacoustic emissions. Tognola G, et al. **Technol Health Care** 1998 Sep;6(2-3):159-75
Distribution of crackles on the flow-volume plane in different pulmonary diseases. Vanderschoot J, et al. **Technol Health Care** 1998 Jun;6(1):81-9
A new method to detect crackles in respiratory sounds. Vannuccini L, et al. **Technol Health Care** 1998 Jun; 6(1):75-9
A new method for automatic wheeze detection. Waris M, et al. **Technol Health Care** 1998 Jun;6(1):33-40
Cell for measurements of biological tissue complex conductivity. Wtorek J, et al. **Technol Health Care** 1998 Sep;6(2-3):177-93
Data compression methods for EEG. Ylöstalo J. **Technol Health Care** 1999;7(4):285-300 (36 ref.)
Deriving meteorological variables across Africa for the study and control of vector-borne disease: a comparison of remote sensing and spatial interpolation of climate. Hay SI, et al. **Trop Med Int Health** 1999 Jan;4(1):58-71
The use of the wavelet transform to describe embolic signals. Aydin N, et al. **Ultrasound Med Biol** 1999 Jul;25(6):953-8
Evaluation of off-line automated intima-media thickness detection of the common carotid artery based on M-line signal processing. Willekes C, et al. **Ultrasound Med Biol** 1999 Jan;25(1):57-64
Use of a digital camera in the urologic setting. Kuo RL, et al. **Urology** 1999 Mar;53(3):613-6

[The measurement of ST-T segment parameters in ambulatory ECG] Fan X, et al.
Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih 1997 Mar; 14(1):51-3, 72 (Eng. Abstr.) **(Chi)**

[Data sampling under the interface of windows in the EEG signal processing system & analysis] Li Y, et al.
Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih 1997 Mar; 14(1):92-4 (Eng. Abstr.) **(Chi)**

[An attempt on the normalization of the moduli spectrum of pulmonary pressure and flow waveforms in canine] Wu X, et al.
Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih 1997 Mar; 14(1):45-7 (Eng. Abstr.) **(Chi)**

[Spectral analysis of R-R intervals in adolesent persons during mental stress] Zheng D, et al.
Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih 1997 Mar; 14(1):38-41 (Eng. Abstr.) **(Chi)**

[Vital signs information representation--on the way to a standard for communication of medical devices in anesthesia and intensive care medicine; 2: Nomenclature and data dictionary] Krämer M, et al.
Biomed Tech (Berl) 1998;43 Suppl:572-3 **(Ger)**

[Modular PC-based data acquisition and processing system for biological signals] Lanmüller H, et al.
Biomed Tech (Berl) 1999 Mar;44(3):52-7 (Eng. Abstr.) **(Ger)**

[Concept of the "ECG signal analysis" teaching trial] Rabenau M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:466-7 **(Ger)**

[New technology and methods for analysis of representation of signal variability in ventricular repolarization] Cerutti S, et al. **Cardiologia** 1998 Jun;43 Suppl 1:13-4 **(Ita)**

[Improvement of detectability of microcalcifications by magnification digital mammography] Higashida Y, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Aug; 58(9):473-8 (Eng. Abstr.) **(Jpn)**

[Evaluation of the signal-to-noise ratio--"Kullback information"--in the spectrum of cardiointervals in arterial hypertension patients depending on cosmophysical factors] Agulova LP, et al. **Biofizika** 1998 Jul-Aug;43(4):659-65 (Eng. Abstr.) **(Rus)**

[An automatic system of processing and analyzing electrocardiograms of children and adolescents] Chernyshov VN, et al. **Med Tekh** 1998 Sep-Oct;(5):15-7 (Eng. Abstr.) **(Rus)**

[Computer-assisted diagnostic system based on the analysis of the rhythmic pattern of a radial artery pulse signal] Desova AA, et al. **Med Tekh** 1999 Mar-Apr;(2):3-5 (Eng. Abstr.) **(Rus)**

[Theoretical bases and software application of planimetric analysis of real-time cardiac signals] Kalantar VA, et al. **Med Tekh** 1999 Jan-Feb;(1):26-30 (Eng. Abstr.) **(Rus)**

[Synchronous automated analysis of a spirogram and cardiac intervalogram] Kalantar VA, et al. **Med Tekh** 1999 Jul-Aug;(4):37-9 (Eng. Abstr.) **(Rus)**

[Digital analysis of the acoustic signal in vocal pathology diagnosis. Sensitivity and specificity of shimmer and jitter measurements] Preciado JA, et al.
Acta Otorrinolaringol Esp 1998 Aug-Sep;49(6):475-81 (Eng. Abstr.) **(Spa)**

[Modern hearing-aids at the cutting edge of microelectronics. Increased possibilities for individual customization] Arlinger S. **Lakartidningen** 1999 Aug 25;96(34):3524-8 (Eng. Abstr.) **(Swe)**

INSTRUMENTATION

Modelling and mapping of the cardiac electrical field. d'Alché EP. **Acta Cardiol** 1998;53(2):111-5

Evolution of the Glasgow program for computer-assisted reporting of electrocardiograms--1964/1998. Macfarlane PW. **Acta Cardiol** 1998;53(2):117-20

Real-time multiparametric monitoring of the injured human cerebral cortex--a new approach. Mayevsky A, et al.
Acta Neurochir Suppl (Wien) 1998;71:78-81

Multimodal cerebral monitoring in comatose head-injured patients. Bardt TF, et al. **Acta Neurochir (Wien)** 1998; 140(4):357-65

Postoperative multichannel magnetoencephalography in patients with recurrent seizures after epilepsy surgery. Kirchberger K, et al. **Acta Neurol Scand** 1998 Jul;98(1):1-7

Clinical significance of multiple sensor options: rate response optimization, sensor blending, and trending. Clémenty J, et al. **Am J Cardiol** 1999 Mar 11;83(5B):166D-171D (20 ref.)

Future of bradyarrhythmia therapy systems: automaticity. Jones BR, et al. **Am J Cardiol** 1999 Mar 11; 83(5B):192D-201D (64 ref.)

Taking advantage of sophisticated pacemaker diagnostics. Nowak B. **Am J Cardiol** 1999 Mar 11;83(5B):172D-179D (22 ref.)

How smart should pacemakers Be? Saoudi N, et al.
Am J Cardiol 1999 Mar 11;83(5B):180D-186D (32 ref.)

A microchip-based enzyme assay for protein kinase A. Cohen CB, et al. **Anal Biochem** 1999 Aug 15;273(1):89-97

Adaptive Wiener filtering for improved acquisition of distortion product otoacoustic emissions. Ozdamar O, et al. **Ann Biomed Eng** 1998 Sep-Oct;26(5):883-91

Trusting computerized data reduction too much: a critique of Anderson's ambulatory respiratory monitor. Wilhelm FH, et al. **Biol Psychol** 1998 Sep;49(1-2):215-9; discussion 221-2

Telemetric transmission of energy and data for implantable systems. Krieger KL, et al. **Biomed Tech (Berl)** 1998;43 Suppl:550-1

Applying neural network techniques to plethysmographic pulse shape analysis. Weng J, et al. **Biomed Tech (Berl)** 1998;43 Suppl:92-3

Automatic classification of transiently evoked otoacoustic emissions using an artificial neural network. Buller G, et al. **Br J Audiol** 1998 Aug;32(4):235-47

Minimal standards for digital/quantitative electroencephalography in Canada. McLachlan R, et al. **Can J Neurol Sci** 1999 May;26(2):153

Portable computerized polysomnography in attended and unattended settings [see comments] Mykytyn IJ, et al. **Chest** 1999 Jan;115(1):114-22. Comment in: Chest 1999 Jan;115(1):6-7.

Development of an endoscopic navigation system based on digital image processing. Scholz M, et al.
Comput Aided Surg 1998;3(3):134-43

Nonlinear multivariable modeling and analysis of sleep apnea time series. Aguirre LA, et al. **Comput Biol Med** 1999 May; 29(3):207-28

Detection of bursts of microneurographic activity and estimation of burst parameters. Baker L, et al.
Comput Biol Med 1999 May;29(3):175-89

A software package for non-invasive, real-time beat-to-beat monitoring of stroke volume, blood pressure, total peripheral resistance and for assessment of autonomic function. Gratze G, et al. **Comput Biol Med** 1998 Mar; 28(2):121-42

Generation and characterization of correlated spike trains. Halliday DM. **Comput Biol Med** 1998 Mar;28(2):143-52

Multiresolution restoration of medical signals using the renormalization group and the super-coupling transforms. Samonas M, et al. **Comput Biol Med** 1999 May; 29(3):191-206

Electrogastrography in cyclic vomiting syndrome. Chong SK. **Dig Dis Sci** 1999 Aug;44(8 Suppl):64S-73S

Hewlett-Packard Viridia Telemetry System can disable Viridia Information Center central station.
Health Devices 1998 Sep-Oct;27(9-10):365-7

Transcutaneous electrogastrography: a non-invasive method to evaluate post-operative gastric disorders? Kauer WK, et al. **Hepatogastroenterology** 1999 Mar-Apr;46(26):1244-8

An artefact suppressing fast-recovery myoelectric amplifier. Thorsen R. **IEEE Trans Biomed Eng** 1999 Jun;46(6):764-6

Role of bipolar electrogram polarity mapping in localizing recurrent conduction in the isthmus early and late after ablation of atrial flutter. Yamabe H, et al.
J Am Coll Cardiol 1999 Jan;33(1):39-45

Detection of concealed left sided accessory atrioventricular pathway by P wave signal averaged electrocardiogram. Yoshida T, et al. **J Am Coll Cardiol** 1999 Jan;33(1):55-62

Incidence of spikes and paroxysmal rhythmic events in overnight ambulatory computer-assisted EEGs of normal subjects: a multicenter study. Schachter SC, et al.
J Clin Neurophysiol 1998 May;15(3):251-5

Nuclear longitudinal relaxation time images by radiofrequency field gradients. Humbert F, et al.
J Magn Reson 1999 May;138(1):164-6

Single-shot experiments for the acquisition of coherence-transfer functions in real time. Luy B, et al.
J Magn Reson 1999 May;138(1):187-90

PFG-omega1-filtered TOCSY experiments for the determination of long-range heteronuclear and homonuclear coupling constants and estimation of J-coupling "crosstalk" artifacts in 2-D omega1-filtered "E. COSY-style" spectra. Xu G, et al. **J Magn Reson** 1999 May; 138(1):127-34

The NMR-mouse: construction, excitation, and applications. Blümich B, et al. **Magn Reson Imaging** 1998 Jun-Jul; 16(5-6):479-84

Multiple bond 13C-13C spin-spin coupling provides complementary information in a 13C NMR isotopomer analysis of glutamate. Carvalho RA, et al.
Magn Reson Med 1999 Jul;42(1):197-200

In vitro and in vivo studies of 1H NMR visibility to detect deoxyhemoglobin and deoxymyoglobin signals in myocardium. Chen W, et al. **Magn Reson Med** 1999 Jul; 42(1):1-5

Detecting natural abundance carbon signal of NAA metabolite within 12-cm3 localized volume of human brain using 1H-[13C] NMR spectroscopy. Chen W, et al.
Magn Reson Med 1998 Aug;40(2):180-4

A practical double-tuned 1H/31P quadrature birdcage headcoil optimized for 31P operation. Matson GB, et al.
Magn Reson Med 1999 Jul;42(1):173-82

Multicomponent T2 relaxation of in vivo skeletal muscle. Saab G, et al. **Magn Reson Med** 1999 Jul;42(1):150-7

Comparing individual signal-averaged spectra. Spencer RG.
Magn Reson Med 1998 Aug;40(2):327-9

Prospective MR signal-based cardiac triggering. Vasanawala SS, et al. **Magn Reson Med** 1999 Jul;42(1):82-6

A wideband high common mode rejection ratio amplifier and phase-locked loop demodulator for multifrequency impedance measurement. Goovaerts HG, et al.
Med Biol Eng Comput 1998 Nov;36(6):761-7

The number of independent signals in body surface maps. Hoekema R, et al. **Methods Inf Med** 1999 Jun;38(2):119-24

Neuroimage of voluntary movement: topography of the Bereitschaftspotential, a 64-channel DC current source density study. Cui RQ, et al. **Neuroimage** 1999 Jan; 9(1):124-34

Clinical design and evaluation of the prototype of a new digital audioprosthesis for profound hearing loss: speech recognition aspects. Urquiza R, et al.
ORL J Otorhinolaryngol Relat Spec 1999 May-Jun; 61(3):133-41

Quantification of the modifications in the dominant frequency of ventricular fibrillation under conditions of ischemia and reperfusion: an experimental study. Chorro FJ, et al.
Pacing Clin Electrophysiol 1998 Sep;21(9):1716-23

The potential for inappropriate ventricular tachycardia confirmation using the Intracardiac Electrogram (EGM) Width Criterion. Duru F, et al.
Pacing Clin Electrophysiol 1999 Jul;22(7):1039-46

The mean ventricular fibrillation cycle length: a potentially useful parameter for programming implantable cardioverter defibrillators. Li H, et al. **Pacing Clin Electrophysiol** 1998 Sep;21(9):1789-94

A comparison of period amplitude analysis and FFT power spectral analysis of all-night human sleep EEG. Uchida S, et al. **Physiol Behav** 1999 Aug 1;67(1):121-31

Linear automatic detection of eye movements during the transition between wake and sleep. Hiroshige Y.
Psychiatry Clin Neurosci 1999 Apr;53(2):179-81

Night-day-night sleep-wakefulness monitoring by ambulatory integrated circuit memories. Yamamoto M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):171-3

Optimal EMG signal bandwidth and interelectrode distance for the recording of acoustic, electrocutaneous, and photic blink reflexes. van Boxtel A, et al. **Psychophysiology** 1998 Nov;35(6):690-7

Ceptral voice analysis: link with perception and stroboscopy. Dejonckere PH. **Rev Laryngol Otol Rhinol (Bord)** 1998; 119(4):245-6

Non-linear signal processing in digital hearing aids. Lunner T, et al. **Scand Audiol Suppl** 1998;49:40-9

Rhinoresistometry versus rhinomanometry--an evaluation. Temmel AF, et al. **Wien Klin Wochenschr** 1998 Sep 18; 110(17):612-5

Postprandial changes of electrical activity of the stomach after different meals. Kuhlbusch R, et al.
Z Gastroenterol 1998 Oct;36(10):885-6, 889-91

[Complexity of PP intervals in a nonlinear model of patients after heart surgery intervention] Bieberle T, et al.
Biomed Tech (Berl) 1998;43 Suppl:294-5 **(Ger)**

[Exhalation monitoring with online analysis equipment--ppb and sub-ppb analysis with a improved sensors] Bischoff R, et al. **Biomed Tech (Berl)** 1998;43 Suppl:266-7 **(Ger)**

[ECG analysis by signal pattern comparison] Bousseljot RD, et al. **Biomed Tech (Berl)** 1998;43 Suppl:156-7 **(Ger)**

[Results of ECG analysis by signal pattern comparison] Bousseljot RD, et al. **Biomed Tech (Berl)** 1998;43 Suppl:234-5 **(Ger)**

[Development of a 4 camera system for localizing an electrode series on the thorax] de Boer IH, et al.
Biomed Tech (Berl) 1998;43 Suppl:56-7 **(Ger)**

[EEG analysis of the HP Component Monitoring System] Detschew V, et al. **Biomed Tech (Berl)** 1998;43 Suppl:94-5 **(Ger)**

[The contribution of EMG for monitoring controlled electrostimulation in paralysis. 2.) Applications of EMG] Eck U, et al. **Biomed Tech (Berl)** 1998;43 Suppl:118-20 **(Ger)**

[Automatic artefact detection in intraoperative EEG monitoring] Eckert O. **Biomed Tech (Berl)** 1998 Sep; 43(9):236-42 (Eng. Abstr.) **(Ger)**

[Technical realization of a neural feedback system] Fink A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:254-5 **(Ger)**

[Containment sensors: manufacture in technical production facilities--technical and economic aspects] Finke L.
Biomed Tech (Berl) 1998;43 Suppl:582-3 **(Ger)**

[Interactive computer program for separating respiratory pressure in newborn infants into its elastic, viscous and inert components] Foitzik B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:278-9 **(Ger)**

[In vitro evaluation of an implantable measuring system for impedance spectroscopy for evaluating tissue status] Gerhäusser A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:258-9 **(Ger)**

[Modeling the magnetoencephalogram from extended sources] Haberkorn W, et al. **Biomed Tech (Berl)** 1998;43 Suppl:226-7 **(Ger)**

[In vitro determination of substance concentration in scattering media with NIR laser remssionspectroscopy] Hampel U, et al. **Biomed Tech (Berl)** 1998;43 Suppl:116-7 **(Ger)**

[An endotracheal tube with sensors] Heiliger R, et al.
Biomed Tech (Berl) 1998;43 Suppl:138-9 **(Ger)**

[A method for baseline correction of magnetocardiography field recordings] Hoenecke O, et al. **Biomed Tech (Berl)** 1998;43 Suppl:160-1 **(Ger)**

[Development of an analytic standard for evaluating heart rate variability in cardiovascular autonomic neuropathy in diabetes: comparison of short-term spectral analysis with Ewing's standard battery of reflex tests as reference method] Howorka K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:568-9 **(Ger)**

[Determining hemodynamic status using intramyocardial electrocardiograms] Hutten H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:88-9 **(Ger)**

[Topologic distribution of slow EEG components using various stimulation paradigms] Ivanova G, et al.
Biomed Tech (Berl) 1998;43 Suppl:248-9 **(Ger)**

[Design of a gavanically isolated wide SCSI processor

equipment interface for bidirectional data transfer with a data rate of 10 MByte/s] Käser M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:544–5 **(Ger)**

[Experimental development of non-dispersive measurement of 13C/12C isotope relations in gases] Kelling M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:280–1 **(Ger)**

[Development of an optical calibrator for commercial pulse oximeters: initial successes] Knoop P, et al. **Biomed Tech (Berl)** 1998;43 Suppl:128–9 **(Ger)**

[Multi-thread application for multi-channel signal processing and interpretation for laser Doppler flowmetry] Koop T, et al. **Biomed Tech (Berl)** 1998;43 Suppl:102–3 **(Ger)**

[Imaging cardiac impedance changes in the human thorax using impedance tomography] Li JH, et al. **Biomed Tech (Berl)** 1998;43 Suppl:52–3 **(Ger)**

[Software platform for analysis of electro- and magnetocardiography databanks] Link S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:96–7 **(Ger)**

[Comparison of different evaluation methods for a multi-wavelength pulse oximeter] Lutter N, et al. **Biomed Tech (Berl)** 1998;43 Suppl:114–5 **(Ger)**

[Multi-gas mainstream sensory for gas anesthesia monitoring] Lutter N, et al. **Biomed Tech (Berl)** 1998;43 Suppl:140–1 **(Ger)**

[Fetal sinus bradycardia in the magnetocardiogram as an expression of sympatho-vagal imbalance in the 2nd trimester] Menéndez T, et al. **Biomed Tech (Berl)** 1998;43 Suppl:238–9 **(Ger)**

[A technical regulating approach to dromotropic control of closed-loop frequency adjustment] Molina A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:352–3 **(Ger)**

[Laser Doppler flowmetry for microcirculation monitoring. A concerted European action] Möller KO. **Biomed Tech (Berl)** 1998;43 Suppl:574–7 **(Ger)**

[Magnetocardiography analysis of intraventricular activation by two-dimensional mapping of fragmentation of the band filtered QRS complex] Müller HP, et al. **Biomed Tech (Berl)** 1998;43 Suppl:158–9 **(Ger)**

[Automatic EEG data processing in a multicenter study] Nahm W, et al. **Biomed Tech (Berl)** 1998;43 Suppl:146–7 **(Ger)**

[Time and frequency parameters for analysis of IVUS (intravascular ultrasound) echo signals] Niendorf M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:104–5 **(Ger)**

[MEG studies of the somatosensory system by passive hand movement] Nowak H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:252–3 **(Ger)**

[Dielectric spectroscopy for noninvasive examination of corneal tissue] Oltrup T, et al. **Biomed Tech (Berl)** 1999 Apr;44(4):78–82 (Eng. Abstr.) **(Ger)**

[Acoustic emission analysis of human bones within the scope of clinical diagnosis] Orth J, et al. **Biomed Tech (Berl)** 1998 Jul-Aug;43(7-8):194–201 (Eng. Abstr.) **(Ger)**

[Active shielding for improved interference field suppression of magnetically shielded chambers] Platzek D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:272–3 **(Ger)**

[Improved risk stratification by calculating QT dispersion in patients with dilated cardiomyopathy using biplanar technique in magnetocardiography] Pohle K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:164–5 **(Ger)**

[Risk stratification by analysis of QT dispersion and late potentials in the electrocardiogram and biplanar magnetocardiogram in patients with coronary heart disease] Pohle K, et al. **Biomed Tech (Berl)** 1998;43 Suppl:236–7 **(Ger)**

[Signal technique in biomedical devices] Poll R. **Biomed Tech (Berl)** 1998;43 Suppl:86–7 **(Ger)**

[Validation of a filtration vessel to determine regional blood flow of the heart using fluorescent microspheres] Raab S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:538–9 **(Ger)**

[Signal analysis of high resolution and intracardial electrocardiograms--use of the adaptative wavelet packet transformation for endocardial mapping] Rauwolf TP, et al. **Biomed Tech (Berl)** 1998;43 Suppl:100–1 **(Ger)**

[Technical measurement problems in a new procedure for noncontact intraocular pressure measurement] Rothe R, et al. **Biomed Tech (Berl)** 1998;43 Suppl:110–1 **(Ger)**

[Contribution of EMG to monitoring controlled electrostimulation in paralysis: 1) Realization of a modular EMG recording hardware] Rupp R, et al. **Biomed Tech (Berl)** 1998;43 Suppl:242–4 **(Ger)**

[Solution to the forward problem in electrocardiography from isotropic and anisotropic models of cardiac signal propagation] Sachse FB, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:154–5 **(Ger)**

[Vector magnetometer module for biomagnetic measurements] Schleyerbach H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:488–9 **(Ger)**

[Model studies for determining inertia of the respiratory system in ventilated newborn infants with jet impulses] Schmidt M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:132–3 **(Ger)**

[Optimizing electrode positions for solving the inverse problem in electrocardiography] Schneider F, et al. **Biomed Tech (Berl)** 1998;43 Suppl:58–9 **(Ger)**

[Detection of partial obstructions of the endotracheal tube] Schumann S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:308–9 **(Ger)**

[Signal analysis of the hemodynamics of extracorporeal circulation for the evaluation of patient status] Schwarzhaupt A, et al. **Biomed Tech (Berl)** 1999 May; 44(5):120–8 (11 ref.) (Eng. Abstr.) **(Ger)**

[Comparison of numerically calculated surface potentials with and without considering anisotropic muscle tissue] Starck W, et al. **Biomed Tech (Berl)** 1998;43 Suppl:54–5 **(Ger)**

[Event-related analysis of interval sequences] Staude G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:256–7 **(Ger)**

[Segmenting image series based on complex adaptive estimates] Steuer D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:44–5 **(Ger)**

[Validation of a robot for determination of regional perfusion with fluorescent microspheres] Thein E, et al. **Biomed Tech (Berl)** 1998;43 Suppl:536–7 **(Ger)**

[Technical microsystem monitoring for determination of metabolic parameters] Urban G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:184 **(Ger)**

[Expert system for knowledge-based Holter data analysis] Urbaszek A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:346–7 **(Ger)**

[Evaluation of VISY-1 in an in vivo test: sampling and glucose determination] Vering T, et al. **Biomed Tech (Berl)** 1998;43 Suppl:562–3 **(Ger)**

[Analysis of brief blood pressure and heart rate variability] Voss A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:106–7 **(Ger)**

[Blood flow measurement for implantable devices. Experimental results] Wagner SM, et al. **Biomed Tech (Berl)** 1998;43 Suppl:134–5 **(Ger)**

[Relation of defibrillation threshold on shock duration and discharge capacity. Determination of chronoaxis-rheobase relations of defibrillators] Wagner SM, et al. **Biomed Tech (Berl)** 1998;43 Suppl:358–9 **(Ger)**

[Telemetry unit for transmission of performance and data from medical implants] Walter M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:124–5 **(Ger)**

[Early detection of cardiac arrhythmias by computer-assisted online analysis of monophasic action potentials] Weiss I, et al. **Biomed Tech (Berl)** 1998;43 Suppl:90–1 **(Ger)**

[Comparative assessment of isotropic and anisotropic models of signal transmission in the heart] Werner CD, et al. **Biomed Tech (Berl)** 1998;43 Suppl:98–9 **(Ger)**

[Effect of tissue impedance on the ECG and MCG signal: a phantom study] Winklmaier M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:354–5 **(Ger)**

[Intraoperative monitoring of the function of the peroneal nerve in knee joint operations] Wissel H, et al. **Biomed Tech (Berl)** 1998 Nov;43(11):326–9 (Eng. Abstr.) **(Ger)**

[Cell meets silicon--biomedical sensing for diagnosis and therapy] Wolf B, et al. **Biomed Tech (Berl)** 1998;43 Suppl:178–81 **(Ger)**

[Measuring para-DC biomagnetic fields of the head using a horizontal modulated patient cot] Wübbeler G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:232–3 **(Ger)**

[Micromechanical pressure sensors for medical evaluation of blood vessels and bypasses after surgical intervention] Zacheja J, et al. **Biomed Tech (Berl)** 1998;43 Suppl:182–3 **(Ger)**

[Development and characterization of a modified external fixator for inducing and monitoring micro-movement in fracture zones] Zacheja J, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:190–1 **(Ger)**

[A totally implantable hearing aid for inner ear deafness: TICA LZ 3001] Leysieffer H, et al. **HNO** 1998 Oct; 46(10):853–63 (Eng. Abstr.) **(Ger)**

[Neonatal hearing screening with the Echosensor automated device for otoacoustic emissions. A comparative study] Reuter G, et al. **HNO** 1998 Nov;46(11):932–41 (Eng. Abstr.) **(Ger)**

[Validating a 7-channel ambulatory polygraph unit. 2: Simultaneous polysomnography] Verse T, et al. **HNO** 1999 Apr;47(4):256–61 (Eng. Abstr.) **(Ger)**

[Validating a 7-channel ambulatory polygraphy unit. 1: Operating instructions for the physician and patient] Verse T, et al. **HNO** 1999 Apr;47(4):249–55 (Eng. Abstr.) **(Ger)**

[First implantation of a totally implantable electronic hearing aid in patients with inner ear hearing loss] Zenner HP, et al. **HNO** 1998 Oct;46(10):844–52 (Eng. Abstr.) **(Ger)**

[The electroretinogram (ERG) of the mouse: normal values, optimal stimulation and recording] Kueng-Hitz N, et al. **Klin Monatsbl Augenheilkd** 1999 May;214(5):288–90 (Eng. Abstr.) **(Ger)**

[From the symptom to electroretinography diagnosis] Niemeyer G. **Klin Monatsbl Augenheilkd** 1999 May; 214(5):328–31 (Eng. Abstr.) **(Ger)**

[Technique for the assessment of vestibular compensation--clinical observation/quantitative neuro-otometry?] Krückels G, et al. **Laryngorhinootologie** 1999 Apr;78(4):204–9 (Eng. Abstr.) **(Ger)**

[Orientational evaluation of otolith function by eye counter-rolling in patients with various kinds of vertigo] Maurer J, et al. **Laryngorhinootologie** 1999 Apr;78(4):210–6 (Eng. Abstr.) **(Ger)**

[Comparison of methods for reducing residual noise in suprathreshold early auditory evoked potential registration] Mühler R, et al. **Laryngorhinootologie** 1998 Jul;77(7):382–7 (Eng. Abstr.) **(Ger)**

[Improvement of hearing aid fitting with digital aids and new fitting strategies] Schorn K, et al. **Laryngorhinootologie** 1999 Jan;78(1):14–9 (Eng. Abstr.) **(Ger)**

[Cardiology update. I: Electrophysiology] Weismüller P, et al. **Med Klin** 1999 Jan 15;94(1):15–28 (173 ref.) **(Ger)**

[Quantitative diagnosis of hypernasality in cleft lip and palate patients by computerized nasal quality assessment] Bressmann T, et al. **Mund Kiefer Gesichtschir** 1999 May; 3 Suppl 1:S154–7 (Eng. Abstr.) **(Ger)**

[Multifocal electroretinogram (MF-ERG) in diagnosis of macular changes. Example: senile macular degeneration] Palmowski AM, et al. **Ophthalmologe** 1999 Mar; 96(3):166–73 (Eng. Abstr.) **(Ger)**

[Dysfunctions of transvenous cardioverter/defibrillator electrode systems: clinical significance of system integrated diagnosis and measurement function--possibilities of partially automated system control] Schulte B, et al. **Z Kardiol** 1998 Aug;87(8):630–9 (Eng. Abstr.) **(Ger)**

[Intraoperative computer-assisted measurement of stimulation threshold of the common peroneal nerve in osteotomy of the head of the tibia] Nebelung W, et al. **Zentralbl Chir** 1998;123(11):1267–70 (Eng. Abstr.) **(Ger)**

[Data processing system using PC9800 and Autonics APC204 digitizer] Kikuda F. **Nippon Seirigaku Zasshi** 1998; 60(4):171–85 **(Jpn)**

[Ways of using digital signal processing for expanding the potentials of hearing aids] Babkina LN, et al. **Vestn Otorinolaringol** 1998;(4):18–21 (Eng. Abstr.) **(Rus)**

SIGNAL PROCESSING, DIGITAL see **SIGNAL PROCESSING, COMPUTER-ASSISTED**

SIGNAL RECOGNITION PARTICLE

Conjugation of drug to poly(D,L-lactic-co-glycolic acid) for controlled release from biodegradable microspheres. Oh JE, et al. **J Controlled Release** 1999 Feb 22;57(3):269–80

A signal recognition particle receptor gene from the early-diverging eukaryote, Giardia lamblia. Svärd SG, et al. **Mol Biochem Parasitol** 1999 Jan 25;98(2):253–64

The Signal Recognition Particle Database (SRPDB). Samuelsson T, et al. **Nucleic Acids Res** 1999 Jan 1; 27(1):169–70

CHEMISTRY

Structure of the most conserved internal loop in SRP RNA. Schmitz U, et al. **Nat Struct Biol** 1999 Jul;6(7):634–8

Expression, purification, and crystallography of the conserved methionine-rich domain of human signal recognition particle 54 kDa protein. Gowda K, et al. **Protein Sci** 1999 May;8(5):1144–51

GENETICS

Functional divergence of the plastid and cytosolic forms of the 54-kDa subunit of signal recognition particle. Schuenemann D, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):253–8

Systematic mutagenesis of the fission yeast Srp54 protein. Martinez-Force E, et al. **Curr Genet** 1999 Mar;35(2):88–102

Domain structure, GTP-hydrolyzing activity and 7S RNA binding of Acidianus ambivalens ffh-homologous protein suggest an SRP-like complex in archaea. Moll R, et al. **Eur J Biochem** 1999 Jan;259(1-2):441–8

Molecular cloning and phylogenetic analysis of the small cytoplasmic RNA from Listeria monocytogenes. Barry T, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):47–53

Accurate 3' end processing and adenylation of human signal recognition particle RNA and alu RNA in vitro. Chen Y, et al. **J Biol Chem** 1998 Dec 25;273(52):35023–31

Signal recognition particle receptor (SRPR) is downregulated in a rat model of cyclosporin A-induced gingival overgrowth. Marley JJ, et al. **J Periodontal Res** 1999 May;34(4):188–96

Streptococcus mutans ffh, a gene encoding a homologue of the 54 kDa subunit of the signal recognition particle, is involved in resistance to acid stress. Gutierrez JA, et al. **Microbiology** 1999 Feb;145 (Pt 2):357–66

A mutation in the secretion pathway of the yeast Yarrowia lipolytica that displays synthetic lethality in combination with a mutation affecting the signal recognition particle. Boisramé A, et al. **Mol Gen Genet** 1999 Jun;261(4-5):601–9

ISOLATION & PURIFICATION

Expression, purification, and crystallography of the conserved methionine-rich domain of human signal recognition particle 54 kDa protein. Gowda K, et al. **Protein Sci** 1999 May;8(5):1144–51

METABOLISM

Interaction of guanine nucleotides with the signal recognition particle from Escherichia coli. Jagath JR, et al. **Biochemistry** 1998 Nov 3;37(44):15408–13

New insights into signal recognition and elongation arrest activities of the signal recognition particle. Bui N, et al. **Biol Chem** 1999 Feb;380(2):135–45 (74 ref.)

Leader peptide efficiency correlates with signal recognition particle dependence in Saccharomyces cerevisiae. Arnold CE, et al. **Biotechnol Bioeng** 1998 Aug 5;59(3):286–93

Protein targeting: getting into the groove. Bernstein HD. **Curr Biol** 1998 Oct 8;8(20):R715–8 (23 ref.)

Depletion of Escherichia coli 4.5S RNA leads to an increase in the amount of protein elongation factor EF-G associated with ribosomes. Nakamura K, et al. **Eur J Biochem** 1999 Jan;259(1-2):543–50

Unregulated exposure of the ribosomal M-site caused by NAC depletion results in delivery of non-secretory polypeptides to the Sec61 complex. Möller I, et al. **FEBS Lett** 1998 Dec 11;441(1):1-5

The structure of multiple polypeptide domains determines the signal recognition particle targeting requirement of Escherichia coli inner membrane proteins. Newitt JA, et al. **J Bacteriol** 1999 Aug;181(15):4561-7

Enhancing effect of Bacillus subtilis Ffh, a homologue of the SRP54 subunit of the mammalian signal recognition particle, on the binding of SecA to precursors of secretory proteins in vitro. Bunai K, et al. **J Biochem (Tokyo)** 1999 Jan;125(1):151-9

The signal recognition particle-targeting pathway does not necessarily deliver proteins to the sec-translocase in Escherichia coli. Cristóbal S, et al. **J Biol Chem** 1999 Jul 16;274(29):20068-70

Bacillus subtilis histone-like protein, HBsu, is an integral component of a SRP-like particle that can bind the Alu domain of small cytoplasmic RNA. Nakamura K, et al. **J Biol Chem** 1999 May 7;274(19):13569-76

SecA is required for the insertion of inner membrane proteins targeted by the Escherichia coli signal recognition particle. Qi HY, et al. **J Biol Chem** 1999 Mar 26;274(13):8993-7

Dual signal peptides mediate the signal recognition particle/Sec-independent insertion of a thylakoid membrane polyprotein, PsbY. Thompson SJ, et al. **J Biol Chem** 1999 Feb 12;274(7):4059-66

The 72-kDa component of signal recognition particle is cleaved during apoptosis. Utz PJ, et al. **J Biol Chem** 1998 Dec 25;273(52):35362-70

Protein targeting to the endoplasmic reticulum in yeast. 1997 Fleming Lecture. Stirling CJ. **Microbiology** 1999 May;145 (Pt 5):991-8 (65 ref.)

In vitro studies with purified components reveal signal recognition particle (SRP) and SecA/SecB as constituents of two independent protein-targeting pathways of Escherichia coli. Koch HG, et al. **Mol Biol Cell** 1999 Jul; 10(7):2163-73

Expression, purification, and crystallography of the conserved methionine-rich domain of human signal recognition particle 54 kDa protein. Gowda K, et al. **Protein Sci** 1999 May;8(5):1144-51

SIGNAL SEQUENCES see **SIGNAL PEPTIDES**

SIGNAL SEQUENCES, PEPTIDES see **SIGNAL PEPTIDES**

SIGNAL TRANSDUCTION

see related
ION CHANNELS

4-Hydroxy-2,3-nonenal as a signal for cell function and differentiation. Dianzani MU, et al. **Acta Biochim Pol** 1999; 46(1):61-75 (74 ref.)

Differential regulation of signaling pathways for insulin and insulin-like growth factor I. Lopaczynski W. **Acta Biochim Pol** 1999;46(1):51-60 (52 ref.)

Glycolipid-protein interaction in the mechanism of signal transduction: studies with a photoactivable ganglioside analogue. Masserini M, et al. **Acta Biochim Pol** 1998; 45(2):393-401

Crystallization and preliminary X-ray analysis of Saccharomyces cerevisiae Ypd1p, a key intermediate in phosphorelay signal transduction. Lee MG, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jun;55 (Pt 6):1219-21

Crystallization and preliminary X-ray studies of the Rhizobium meliloti DctD two-component receiver domain. Staley M, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1416-8

Advances in molecular labels, signaling and detection--CHI Second Annual Conference. Enhancing sensitivity, accuracy and speed. Owicki JC. **Acta Histochem** 1998 Nov; 100(4):339-43

Dubrovnik Conference on Signal Transduction: an opportunity for education of young scientists [editorial] Dikić I, et al. **Acta Med Croatica** 1999;53(1):1-4

Signal transduction in fungi--the role of protein phosphorylation. Fehér Z, et al. **Acta Microbiol Immunol Hung** 1999;46(2-3):269-71 (6 ref.)

Radiation-induced apoptosis--the ceramide-SAPK signaling pathway and clinical aspects. Verheij M, et al. **Acta Oncol** 1998;37(6):575-81

Analysis of transmembrane signalling and T cell defects associated with idiopathic thrombocytopenic purpura (ITP). Lazarus AH, et al. **Acta Paediatr Suppl** 1998 Jun; 424:21-5 (29 ref.)

Bradykinin causes contraction in rat uterus through the same signal pathway as oxytocin. Wassdal I, et al. **Acta Physiol Scand** 1998 Sep;164(1):47-52

Effect of electroacupuncture on the activities of tyrosine protein kinase in subcellular fractions of activated T lymphocytes from the traumatized rats. Cheng XD, et al. **Acupunct Electrother Res** 1998;23(3-4):161-70

Tumor necrosis factor-alpha mediated activation of signal transduction cascades and transcription factors in 3T3-L1 adipocytes. Jain RG, et al. **Adv Enzyme Regul** 1998; 38:333-47

Characterization of PKC isozyme specific functions in cellular signaling. Kampfer S, et al. **Adv Enzyme Regul** 1998;38:35-48

Novel advances in the regulation of signal transduction activity. Weber G, et al. **Adv Enzyme Regul** 1998;38:49-62

Nuclear inositol signaling: a structural and functional approach. York JD, et al. **Adv Enzyme Regul** 1998; 38:365-74

Primary role of alcohol dehydrogenase pathway in acute ethanol-induced impairment of protein kinase C-dependent signaling system. Domenicotti C, et al. **Adv Exp Med Biol** 1999;463:321-30

Function of alcohol dehydrogenase and aldehyde dehydrogenase gene families in retinoid signaling. Duester G. **Adv Exp Med Biol** 1999;463:311-9 (53 ref.)

Insulin signaling and glucose transport in insulin resistant skeletal muscle. Special reference to GLUT4 transgenic and GLUT4 knockout mice. Galuska D, et al. **Adv Exp Med Biol** 1998;441:73-85 (67 ref.)

Signal transduction pathways that regulate the fate of B lymphocytes. Craxton A, et al. **Adv Immunol** 1999; 73:79-152 (506 ref.)

Biology of the interleukin-2 receptor. Nelson BH, et al. **Adv Immunol** 1998;70:1-81 (442 ref.)

Functional integrity of the CD28 co-stimulatory pathway in T lymphocytes from elderly subjects. Vidán MT, et al. **Age Ageing** 1999 Mar;28(2):221-7

B7 cosignal potentiates apoptosis of uninfected CD4+ T lymphocytic cell lines primed by HIV envelope proteins. Coito C, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10; 15(6):509-21

Insulin signaling in the arterial wall. Hsueh WA, et al. **Am J Cardiol** 1999 Jul 8;84(1A):21J-24J (35 ref.)

Interleukin-2 signaling and inherited immunodeficiency. Cacalano NA, et al. **Am J Hum Genet** 1999 Aug; 65(2):287-93 (30 ref.)

Oxytocin activates mitogen-activated protein kinase and up-regulates cyclooxygenase-2 and prostaglandin production in human myometrial cells. Molnár M, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):42-9

In situ visualization of intratumor growth factor signaling: immunohistochemical localization of activated ERK/MAP kinase in glial neoplasms. Mandell JW, et al. **Am J Pathol** 1998 Nov;153(5):1411-23

Transduction pathways involved in rapid hormone receptor regulation in the mammary epithelium. Bolander FF Jr. **Am J Physiol** 1998 Oct;275(4 Pt 1):E553-7

TNF-alpha impairs insulin signaling and insulin stimulation of glucose uptake in C2C12 muscle cells. del Aguila LF, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E849-55

Rapid reversal of the effects of the portal signal under hyperinsulinemic conditions in the conscious dog. Hsieh PS, et al. **Am J Physiol** 1999 May;276(5 Pt 1):E930-7

Src kinase and PI 3-kinase as a transduction pathway in ceramide-induced contraction of colonic smooth muscle. Ibitayo AI, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G705-11

Ischemic preconditioning triggers tyrosine kinase signaling: a potential role for MAPKAP kinase 2. Maulik N, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1857-64

Evaluation of signals activating ubiquitin-proteasome proteolysis in a model of muscle wasting. Mitch WE, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1132-8

Calcium-calmodulin mediates bradykinin-induced MAPK phosphorylation and c-fos induction in vascular cells. Naidu PS, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H1061-8

Cytosolic [Ca2+] signaling pathway in macula densa cells. Peti-Peterdi J, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F472-6

Signaling at the fetomaternal interface [editorial; comment] Clark DA. **Am J Reprod Immunol** 1999 Mar;41(3):169-73 . Comment on: Am J Reprod Immunol 1999 Mar;41(3):174-82.

Jeg-3 human choriocarcinoma-induced immunosuppression: downregulation of interleukin-2, interleukin-2 receptor alpha-chain, and its Jak/Stat signaling pathway. Kilic M, et al. **Am J Reprod Immunol** 1999 Jan;41(1):61-9

Tyrosine phosphatases as targets in metal-induced signaling in human airway epithelial cells. Samet JM, et al. **Am J Respir Cell Mol Biol** 1999 Sep;21(3):357-64

Transfection-mediated cell-cycle signaling: considerations for transient transfection-based cell-cycle studies. Rodriguez A, et al. **Anal Biochem** 1999 Aug 1;272(2):171-81

Involvement of long- and short-range signalling during early tendon development. D'Souza D, et al. **Anat Embryol (Berl)** 1999 Oct;200(4):367-75

Mechanism of GnRH receptor signaling: from the membrane to the nucleus. Shacham S, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):79-88 (85 ref.)

Afferent pathways of pyrogen signaling. Blatteis CM, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:95-107 (87 ref.)

Tumor suppressor gene Smad4/DPC4, its downstream target genes, and regulation of cell cycle. Chiao PJ, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:31-7

Visualizing odor detection in olfactory cilia by calcium imaging. Leinders-Zufall T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:205-7

Salty and sour transduction. Multiple mechanisms and strain differences. Miyamoto T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:128-33

How cells respond to interferons. Stark GR, et al. **Annu Rev Biochem** 1998;67:227-64 (319 ref.)

Phosphoinositide lipids as signaling molecules: common themes for signal transduction, cytoskeletal regulation, and membrane trafficking. Martin TF. **Annu Rev Cell Dev Biol** 1998;14:231-64 (198 ref.)

Signal transduction in the protozoan host Hartmannella vermiformis upon attachment and invasion by Legionella micdadei. Abu Kwaik Y, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3134-9

Evaluation of bottlenecks in the late stages of protein secretion in Bacillus subtilis. Bolhuis A, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2934-41

Two-component transcriptional regulation of N-acyl-homoserine lactone production in Pseudomonas aureofaciens. Chancey ST, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2294-9

Phosphatidylinositol 3-kinase regulates differentiation of H9c2 cardiomyoblasts mainly through the protein kinase B/Akt-independent pathway. Kim JM, et al. **Arch Biochem Biophys** 1999 Jul 1;367(1):67-73

The anaerobic degradation of L-serine and L-threonine in enterobacteria: networks of pathways and regulatory signals. Sawers G. **Arch Microbiol** 1998 Dec;171(1):1-5 (30 ref.)

Lysophosphatidylcholine activates mitogen-activated protein kinases by a tyrosine kinase-dependent pathway in bovine aortic endothelial cells. Ozaki H, et al. **Atherosclerosis** 1999 Apr;143(2):261-6

Cross-talk between angiotensin II and interleukin-6-induced signaling through Stat3 transcription factor. Bhat GJ, et al. **Basic Res Cardiol** 1998;93 Suppl 3:26-9 (20 ref.)

JNK/SAPK activation by platelet-derived growth factor in A431 cells requires both the phospholipase C-gamma and the phosphatidylinositol 3-kinase signaling pathways of the receptor. Assefa Z, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):641-5

Differential serine phosphorylation regulates IkappaB-alpha inactivation. Chen CL, et al. **Biochem Biophys Res Commun** 1999 Apr 21;257(3):798-806

Lack of correlation in JNK activation and p53-dependent Fas expression induced by apoptotic stimuli. Chen YR, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):595-9

G protein-mediated mitogen-activated protein kinase activation by two dopamine D2 receptors. Choi EY, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):33-40

VEGF stimulates MAPK through a pathway that is unique for receptor tyrosine kinases. Doanes AM, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):545-8

Senescence marker protein-30 (SMP30) rescues cell death by enhancing plasma membrane Ca(2+)-pumping activity in Hep G2 cells. Fujita T, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):374-80

Impaired CD45-associated tyrosine phosphatase activity during HIV-1 infection: implications for CD3 and CD4 receptor signalling. Guntermann C, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):69-77

Human immunodeficiency virus-1 infection requires pertussis toxin sensitive G-protein-coupled signalling and mediates cAMP downregulation. Guntermann C, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):429-35

Regulation of endothelial cell adherens junctions by a Ras-dependent signal transduction pathway. Hegland DD, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):371-6

Signal transduction pathways mediated by glycoprotein Ia/IIa in human platelets: comparison with those of glycoprotein VI. Inoue K, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):114-20

Active oxygen species in blue light mediated signal transduction in coleoptile tips. Laloraya MM, et al. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):293-8

Two divergent signaling pathways for TGF-beta separated by a mutation of its type II receptor gene. Lu SL, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):385-90

Induction of nitric oxide synthase mRNA by shear stress requires intracellular calcium and G-protein signals and is modulated by PI 3 kinase [published erratum appears in Biochem Biophys Res Commun 1999 Mar 5;256(1):255] Malek AM, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):231-42

Enhanced phosphatidylinositol 3-kinase activity and high phosphorylation state of its downstream signalling molecules mediated by ret with the MEN 2B mutation. Murakami H, et al. **Biochem Biophys Res Commun** 1999 Aug 19;262(1):68-75

Acute infection of Sindbis virus induces phosphorylation and intracellular translocation of small heat shock protein HSP27 and activation of p38 MAP kinase signaling pathway. Nakatsue T, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):59-64

EDG3 is a functional receptor specific for sphingosine 1-phosphate and sphingosylphosphorylcholine with signaling characteristics distinct from EDG1 and AGR16. Okamoto H, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):203-8

Threshold-dependent DNA synthesis by pure pressure in human aortic smooth muscle cells: Gialpha-dependent and -independent pathways. Ozaki T, et al. **Biochem Biophys Res Commun** 1999 Mar 5;256(1):212-7

Regulators of G-protein signaling (RGS) 1 and 16 are induced in response to bacterial lipopolysaccharide and stimulate c-fos promoter expression. Panetta R, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):550-6

Cross-linking of intercellular adhesion molecule-1 induces interleukin-8 and RANTES production through the

activation of MAP kinases in human vascular endothelial cells. Sano H, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):694–8

c-Src and phosphatidylinositol 3-kinase are involved in NGF-dependent tyrosine phosphorylation of Shc in PC12 cells. Sato K, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):223–8

Hypoxia up-regulates telomerase activity via mitogen-activated protein kinase signaling in human solid tumor cells. Seimiya H, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):365–70

The MH1 domains of smad2 and smad3 are involved in the regulation of the ALK7 signals. Watanabe R, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):707–12

Protein kinase C activation increases binding of transcription factor PU.1 in murine tissue macrophages. Xue Y, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):211–4

Muscarinic M3 and epidermal growth factor receptors activate mutually inhibitory signaling cascades in human neuroblastoma SH-SY5Y cells. Zhang L, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):774–7

Endothelin signalling in the development of neural crest-derived melanocytes. Opdecamp K, et al. **Biochem Cell Biol** 1998;76(6):1093–9

Cell lineages in the embryonic kidney: their inductive interactions and signalling molecules. Sariola H, et al. **Biochem Cell Biol** 1998;76(6):1009–16 (80 ref.)

Signal transduction pathway regulating prostaglandin EP3 receptor-induced neurite retraction: requirement for two different tyrosine kinases. Aoki J, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):365–9

Extracellular matrix and integrin signalling: the shape of things to come. Boudreau NJ, et al. **Biochem J** 1999 May 1;339 (Pt 3):481–8 (113 ref.)

Evidence for the involvement of p59fyn and p53/56lyn in collagen receptor signalling in human platelets. Briddon SJ, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):203–9

Dual coupling of the alpha-thrombin receptor to signal-transduction pathways involving phosphatidylinositol and phosphatidylcholine metabolism. Cheng J, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):97–104

Functional analysis of the T-cell-restricted protein tyrosine kinase Txk. Ellis JH, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):277–84

Functional co-operation between the subunits in heterodimeric platelet-derived growth factor receptor complexes. Emaduddin M, et al. **Biochem J** 1999 Aug 1; 341 (Pt 3):523–8

p44/42 mitogen-activated protein kinase is involved in the expression of ornithine decarboxylase in leukaemia L1210 cells. Flamigni F, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):363–9

The novel sphingosine 1-phosphate receptor AGR16 is coupled via pertussis toxin-sensitive and -insensitive G-proteins to multiple signalling pathways. Gonda K, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):67–75

SH2-Balpha is an insulin-receptor adapter protein and substrate that interacts with the activation loop of the insulin-receptor kinase. Kotani K, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):103–9

Genetic engineering in mice: impact on insulin signalling and action. Lamothe B, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):193–204 (107 ref.)

39-kDa receptor-associated protein (RAP) facilitates secretion and ligand binding of extracellular region of very-low-density-lipoprotein receptor: implications for a distinct pathway from low-density-lipoprotein receptor. Sato A, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):377–83

Activation of the protein tyrosine phosphatase SHP2 via the interleukin-6 signal transducing receptor protein gp130 requires tyrosine kinase Jak1 and limits acute-phase protein expression. Schaper F, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):557–65

Timing-dependence of insulin-receptor mitogenic versus metabolic signalling: a plausible model based on coincidence of hormone and effector binding. Shymko RM, et al. **Biochem J** 1999 May 1;339 (Pt 3):675–83

Redox regulation of signal transduction in vascular smooth muscle cells: thiol oxidizing agents induced phospholipase D. Taher MM, et al. **Biochem Mol Biol Int** 1998 Oct; 46(3):619–28

Role of HSP90 in mediating cross-talk between the estrogen receptor and the Ah receptor signal transduction pathways. Caruso JA, et al. **Biochem Pharmacol** 1999 Nov 1; 58(9):1395–403

Nongenomic signaling by vitamin D: a new face of Src. Gniadecki R. **Biochem Pharmacol** 1998 Nov 15; 56(10):1273–7 (27 ref.)

Ras, superoxide and signal transduction. Irani K, et al. **Biochem Pharmacol** 1998 May 1;55(9):1339–46 (90 ref.)

Modes of interactions between signaling pathways. Jordan JD, et al. **Biochem Pharmacol** 1998 May 1;55(9):1347–52 (35 ref.)

Defects of tyrosine289phenylalanine mutation on binding and functional properties of the human tachykinin NK2 receptor stably expressed in chinese hamster ovary cells. Renzetti AR, et al. **Biochem Pharmacol** 1999 Apr 15; 57(8):899–906

Signal transduction by the c-Jun N-terminal kinase. Davis RJ. **Biochem Soc Symp** 1999;64:1–12 (77 ref.)

Microtubule involvement in regulating cell contractility and adhesion-dependent signalling: a possible mechanism for polarization of cell motility. Elbaum M, et al. **Biochem Soc Symp** 1999;65:147–72 (197 ref.)

Making the connection: coupling of stress-activated ERK/MAPK (extracellular-signal-regulated kinase/mitogen-activated protein kinase) core signalling modules to extracellular stimuli and biological responses. Kyriakis JM. **Biochem Soc Symp** 1999;64:29–48 (87 ref.)

Phosphoinositide signal transduction in guard cells. Aitken FL, et al. **Biochem Soc Trans** 1998 Nov;26(4):S397

Tryptophan fluorescence monitors multiple conformational changes required for glutamine phosphoribosylpyrophosphate amidotransferase interdomain signaling and catalysis. Chen S, et al. **Biochemistry** 1999 Sep 7;38(36):11659–69

Stabilization of the phospho-aspartyl residue in a two-component signal transduction system in Thermotoga maritima. Goudreau PN, et al. **Biochemistry** 1998 Oct 13; 37(41):14575–84

Synthesis and biochemical characterization of an analogue of CheY-phosphate, a signal transduction protein in bacterial chemotaxis. Halkides CJ, et al. **Biochemistry** 1998 Sep 29;37(39):13674–80

Protease-activated receptor-1 can mediate responses to SFLLRN in thrombin-desensitized cells: evidence for a novel mechanism for preventing or terminating signaling by PAR1's tethered ligand. Hammes SR, et al. **Biochemistry** 1999 Feb 23;38(8):2486–93

Agonist-mediated downregulation of G alpha i via the alpha 2-adrenergic receptor is targeted by receptor-Gi interaction and is independent of receptor signaling and regulation. Jewell-Motz EA, et al. **Biochemistry** 1998 Nov 10;37(45):15720–5

Heparan sulfate proteoglycan modulates keratinocyte growth factor signaling through interaction with both ligand and receptor. LaRochelle WJ, et al. **Biochemistry** 1999 Feb 9; 38(6):1765–71

Mechanism of CheA protein kinase activation in receptor signaling complexes. Levit MN, et al. **Biochemistry** 1999 May 18;38(20):6651–8

Escherichia coli purine repressor: key residues for the allosteric transition between active and inactive conformations and for interdomain signaling. Lu F, et al. **Biochemistry** 1998 Nov 10;37(45):15680–90

Heme speciation in alkaline ferric FixL and possible tyrosine involvement in the signal transduction pathway for regulation of nitrogen fixation. Lukat-Rodgers GS, et al. **Biochemistry** 1998 Sep 29;37(39):13543–52

Modulation of transducin GTPase activity by chimeric RGS16 and RGS9 regulators of G protein signaling and the effector molecule. McEntaffer RL, et al. **Biochemistry** 1999 Apr 20;38(16):4931–7

Formation and biochemical characterization of tube/pelle death domain complexes: critical regulators of postreceptor signaling by the Drosophila toll receptor. Schiffmann DA, et al. **Biochemistry** 1999 Sep 7;38(36):11722–33

Crystal structure of a murine glutathione S-transferase in complex with a glutathione conjugate of 4-hydroxynon-2-enal in one subunit and glutathione in the other: evidence of signaling across the dimer interface. Xiao B, et al. **Biochemistry** 1999 Sep 14;38(37):11887–94

Phospholipid-binding protein domains. Bottomley MJ, et al. **Biochim Biophys Acta** 1998 Dec 8;1436(1-2):165–83 (145 ref.)

Phospholipid signalling in the nucleus. Een DAG uit het leven van de inositide signalering in de nucleus. D'Santos CS, et al. **Biochim Biophys Acta** 1998 Dec 8; 1436(1-2):201–32 (338 ref.)

Signalling functions of protein palmitoylation. Dunphy JT, et al. **Biochim Biophys Acta** 1998 Dec 8;1436(1-2):245–61 (109 ref.)

Signalling sphingomyelinases: which, where, how and why? Levade T, et al. **Biochim Biophys Acta** 1999 Apr 19; 1438(1):1–17 (186 ref.)

The role of ceramide in cell signaling. Perry DK, et al. **Biochim Biophys Acta** 1998 Dec 8;1436(1-2):233–43 (107 ref.)

First International Conference on Signal Transduction, Croatia. Pullen N, et al. **Biochim Biophys Acta** 1999 Jul 29;1424(1):R1–3

Proteasome participates in the alteration of signal transduction in T and B lymphocytes following trauma-hemorrhage. Samy TS, et al. **Biochim Biophys Acta** 1999 Jan 6;1453(1):92–104

Signal perception and transduction: the role of protein kinases. Schenk PW, et al. **Biochim Biophys Acta** 1999 Feb 4;1449(1):1–24 (174 ref.)

The versatility of inositol phosphates as cellular signals. Shears SB. **Biochim Biophys Acta** 1998 Dec 8; 1436(1-2):49–67 (200 ref.)

Oncogenes and growth control. EMBL-SALK Conference, Heidelberg, Germany, 18–22 April 1998. Vousden K. **Biochim Biophys Acta** 1999 Jan 29;1423(1):R29–33

Structural organization of mammalian lipid phosphate phosphatases: implications for signal transduction. Waggoner DW, et al. **Biochim Biophys Acta** 1999 Jul 30; 1439(2):299–316 (106 ref.)

Insulin/IGF-I hybrid receptors play a major role in IGF-I signaling in thyroid cancer. Belfiore A, et al. **Biochimie** 1999 Apr;81(4):403–7

Involvement of plasma membrane proteins in plant defense responses. Analysis of the cryptogein signal transduction in tobacco. Lebrun-Garcia A, et al. **Biochimie** 1999 Jun; 81(6):663–8 (52 ref.)

IFN-tau: a novel subtype I IFN1. Structural characteristics, non-ubiquitous expression, structure-function relationships, a pregnancy hormonal embryonic signal and cross-species therapeutic potentialities. Martal JL, et al. **Biochimie** 1998 Aug-Sep;80(8-9):755–77 (236 ref.)

Recent advances in the study of nod factor perception and signal transduction. Niebel A, et al. **Biochimie** 1999 Jun; 81(6):669–74 (50 ref.)

Glycosyl phosphatidylinositol (GPI)/inositolphosphate glycan (IPG): an intracellular signalling system involved in the control of thyroid cell proliferation. Petitfrere E, et al. **Biochimie** 1998 Dec;80(12):1063–7

Role of the interferon regulatory factors (IRFs) in virus-mediated signaling and regulation of cell growth. Pitha PM, et al. **Biochimie** 1998 Aug-Sep;80(8-9):651–8 (50 ref.)

Integrins: alternative splicing as a mechanism to regulate ligand binding and integrin signaling events. de Melker AA, et al. **Bioessays** 1999 Jun;21(6):499–509 (88 ref.)

CaM kinase II as frequency decoder of Ca2+ oscillations. Dupont G, et al. **Bioessays** 1998 Aug;20(8):607–10 (40 ref.)

Chemokines: extracellular messengers for all occasions? Gale LM, et al. **Bioessays** 1999 Jan;21(1):17–28 (98 ref.)

Signaling pathways in phagocytosis. Kwiatkowska K, et al. **Bioessays** 1999 May;21(5):422–31 (92 ref.)

E2F target genes and cell-cycle checkpoint control. Lavia P, et al. **Bioessays** 1999 Mar;21(3):221–30 (71 ref.)

The Nck SH2/SH3 adaptor protein: a regulator of multiple intracellular signal transduction events. McCarty JH. **Bioessays** 1998 Nov;20(11):913–21 (71 ref.)

Negative regulation of the JAK/STAT pathway. Starr R, et al. **Bioessays** 1999 Jan;21(1):47–52 (44 ref.)

Copper and signal transduction: platelets as a model to determine the role of copper in stimulus-response coupling. Johnson WT. **Biofactors** 1999;10(1):53–9 (36 ref.)

Lymphocyte antigen receptor signal integration and regulation by the SHC adaptor. Baldari CT, et al. **Biol Chem** 1999 Feb;380(2):129–34 (42 ref.)

Signalling properties of glycosylphosphatidylinositols and their regulated release from membranes in the turnover of glycosylphosphatidylinositol-anchored proteins. Brodbeck U. **Biol Chem** 1998 Aug-Sep;379(8-9):1041–4 (31 ref.)

New insights into signal recognition and elongation arrest activities of the signal recognition particle. Bui N, et al. **Biol Chem** 1999 Feb;380(2):135–45 (74 ref.)

Role of the ras-MAPK signaling pathway in the DNA methyltransferase response to DNA hypomethylation. Deng C, et al. **Biol Chem** 1998 Aug-Sep;379(8-9):1113–20

Signal transduction via Ras. Wittinghofer A. **Biol Chem** 1998 Aug-Sep;379(8-9):933–7 (14 ref.)

Sugars as signal molecules in plant seed development. Wobus U, et al. **Biol Chem** 1999 Jul-Aug;380(7-8):937–44 (40 ref.)

Characterization of an antagonist monoclonal antibody, GHBP116, specific for human growth hormone receptors. Takagi K, et al. **Biol Pharm Bull** 1999 Jul;22(7):734–7

Platelet membrane phospholipids in euthymic bipolar disorder patients: are they affected by lithium treatment? Soares JC, et al. **Biol Psychiatry** 1999 Feb 15;45(4):453–7

Evidence of juxtacrine signaling for transforming growth factor alpha in human endometrium. Bush MR, et al. **Biol Reprod** 1998 Dec;59(6):1522–9

Signal transduction and biological function of placenta growth factor in primary human trophoblast. Desai J, et al. **Biol Reprod** 1999 Apr;60(4):887–92

Mutations at the consensus phosphorylation sites in the third intracellular loop of the rat gonadotropin-releasing hormone receptor: effects on receptor ligand binding and signal transduction. Lin X, et al. **Biol Reprod** 1998 Dec; 59(6):1470–6

Ca2+/calmodulin-dependent protein kinase IV and calcium signaling. Anderson KA, et al. **Biometals** 1998 Dec; 11(4):331–43 (70 ref.)

Nuclear calcium: a key regulator of gene expression. Hardingham GE, et al. **Biometals** 1998 Dec;11(4):345–58 (120 ref.)

Src homology-2 domains: structure, mechanisms, and drug discovery. Sawyer TK. **Biopolymers** 1998;47(3):243–61 (44 ref.)

Biosensing with G-protein coupled receptor systems. Lundström I, et al. **Biosens Bioelectron** 1998 Sep 15; 13(6):689–95 (37 ref.)

Intracellular signalling proteins as 'smart' agents in parallel distributed processes. Fisher MJ, et al. **Biosystems** 1999 Jun;50(3):159–71

Fusion of the ets transcription factor TEL to Jak2 results in constitutive Jak-Stat signaling. Ho JM, et al. **Blood** 1999 Jun 15;93(12):4354–64

Functional differentiation signals mediated by distinct regions of the cytoplasmic domain of the granulocyte colony-stimulating factor receptor. Koay DC, et al. **Blood** 1999 Jun 1;93(11):3774–84

Constitutive activation of the JAK2/STAT5 signal transduction pathway correlates with growth factor independence of megakaryocytic leukemic cell lines. Liu RY, et al. **Blood** 1999 Apr 1;93(7):2369–79

Requirement of activation of JNK and p38 for environmental stress-induced erythroid differentiation and apoptosis and of inhibition of ERK for apoptosis. Nagata Y, et al. **Blood** 1999 Aug 1;94(3):853–63

Primitive myeloid cells express high levels of phospholipase

A(2) activity in the absence of leukotriene release: selective regulation by stem cell factor involving the MAP kinase pathway. Roberts PJ, et al. **Blood** 1999 Aug 15; 94(4):1261–72

Ceramide and cyclic adenosine monophosphate (cAMP) induce cAMP response elemen: binding protein phosphorylation via distinct signaling pathways while having opposite effects on myeloid cell survival. Scheid MP, et al. **Blood** 1999 Jan 1;93(1):217–25

GCKR links the Bcr–Abl oncogene and Ras to the stress-activated protein kinase pathway. Shi CS, et al. **Blood** 1999 Feb 15;93(4):1338–45

Tyrosine-dependent and -independent mechanisms of STAT3 activation by the human granulocyte colony-stimulating factor (G-CSF) receptor are differentially utilized depending on G-CSF concentration. Ward AC, et al. **Blood** 1999 Jan 1;93(1):113–24

Endothelin-1-induced interleukin-8 production in human brain-derived endothelial cells is mediated by the protein kinase C and protein tyrosine kinase pathways. Zidovetzki R, et al. **Blood** 1999 Aug 15;94(4):1291–9

Fibrinogen receptor and platelet signalling. Fitzgerald DJ. **Blood Coagul Fibrinolysis** 1999 Feb;10 Suppl 1:S77–9

Bidirectional signaling between stromal and hemopoietic cells regulates interleukin-1 expression during human osteoclast formation. Haynes DR, et al. **Bone** 1999 Sep;25(3):269–78

Implication of expression of GDNF/Ret signalling components in differentiation of bone marrow haemopoietic cells. Nakayama S, et al. **Br J Haematol** 1999 Apr;105(1):50–7

Signalling by CXC-chemokine receptors 1 and 2 expressed in CHO cells: a comparison of calcium mobilization, inhibition of adenylyl cyclase and stimulation of GTPgammaS binding induced by IL-8 and GROalpha. Hall DA, et al. **Br J Pharmacol** 1999 Feb;126(3):810–8

Signal transduction abnormalities in Alzheimer's disease: evidence of a pathogenic stimuli. McShea A, et al. **Brain Res** 1999 Jan 9;815(2):237–42

Thrombin and trypsin receptors: the same mechanism of signalling on cellular surfaces. Olejar T, et al. **Bratisl Lek Listy** 1999 Feb;100(2):75–9 (35 ref.)

JAK/STAT-deficient cell lines. Bonjardim CA. **Braz J Med Biol Res** 1998 Nov;31(11):1389–95

Influence of antiresorptive agent OST-766 on signal transduction pathways involved in parathyroid hormone action. Morris SA, et al. **Calcif Tissue Int** 1999 Feb; 64(2):148–53

Restoration of expression of signal-transduction molecules in lymphocytes from patients with metastatic renal cell cancer after combination immunotherapy. Gratama JW, et al. **Cancer Immunol Immunother** 1999 Aug;48(5):263–9

Generation of anti-allogeneic cytotoxic T lymphocytes depends upon a signal, not delivered by tumor cells, that can be provided in trans in the presence of exogenous interleukin-2. Zier KS, et al. **Cancer Immunol Immunother** 1999 Aug;48(5):247–52

The pivotal role of VEGF in tumor angiogenesis: molecular facts and therapeutic opportunities. Siemeister G, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):241–8 (70 ref.)

An insulin-like growth factor-mediated, phosphatidylinositol 3' kinase-independent survival signaling pathway in beta tumor cells. Burtscher I, et al. **Cancer Res** 1999 Aug 15; 59(16):3923–6

Restoration of transforming growth factor beta signaling pathway in human prostate cancer cells suppresses tumorigenicity via induction of caspase-1-mediated apoptosis. Guo Y, et al. **Cancer Res** 1999 Mar 15; 59(6):1366–71

Primary chemically induced tumors induce profound immunosuppression concomitant with apoptosis and alterations in signal transduction in T cells and NK cells. Horiguchi S, et al. **Cancer Res** 1999 Jun 15;59(12):2950–6

c-Met autocrine activation induces development of malignant melanoma and acquisition of the metastatic phenotype. Otsuka T, et al. **Cancer Res** 1998 Nov 15;58(22):5157–67

Fas (APO-1/CD95) signaling pathway is intact in radioresistant human glioma cells. Yount GL, et al. **Cancer Res** 1999 Mar 15;59(6):1362–5

Retinoic acid and 4-hydroxyphenylretinamide induce growth inhibition and tissue transglutaminase through different signal transduction pathways in mouse fibroblasts (NIH 3T3 cells). Giandomenico V, et al. **Carcinogenesis** 1999 Jun; 20(6):1133–5

Signal transduction in spontaneous myogenic tone in isolated arterioles from rat skeletal muscle. Bakker EN, et al. **Cardiovasc Res** 1999 Jan;41(1):229–36

Cellular and molecular aspects of contractile dysfunction in heart failure. Mittmann C, et al. **Cardiovasc Res** 1998 Aug; 39(2):267–75 (101 ref.)

Role of phosphatidylinositol 3-kinase activation in the hypertrophic growth of adult ventricular cardiomyocytes. Schlüter KD, et al. **Cardiovasc Res** 1998 Oct;40(1):174–81

Heme oxygenase-carbon monoxide signalling pathway in atherosclerosis: anti-atherogenic actions of bilirubin and carbon monoxide? Siow RC, et al. **Cardiovasc Res** 1999 Feb;41(2):385–94 (110 ref.)

Insulin signalling in heart involves insulin receptor substrates-1 and -2, activation of phosphatidylinositol 3-kinase and the JAK 2-growth related pathway. Velloso LA, et al. **Cardiovasc Res** 1998 Oct;40(1):96–102

Ins(1,4,5)P3 and cardiac dysfunction. Woodcock EA, et al. **Cardiovasc Res** 1998 Nov;40(2):251–6 (68 ref.)

Alteration of intracellular Ca2(+)-handling and receptor regulation in hypertensive cardiac hypertrophy: insights from Ren2-transgenic rats. Zolk O, et al. **Cardiovasc Res** 1998 Jul;39(1):242–56 (144 ref.)

SOCS1 is a critical inhibitor of interferon gamma signaling and prevents the potentially fatal neonatal actions of this cytokine. Alexander WS, et al. **Cell** 1999 Sep 3; 98(5):597–608

The Drosophila gene hid is a direct molecular target of Ras-dependent survival signaling [see comments] Bergmann A, et al. **Cell** 1998 Oct 30;95(3):331–41. Comment in: Cell 1998 Oct 30;95(3):295–8.

Structure of CheA, a signal-transducing histidine kinase. Bilwes AM, et al. **Cell** 1999 Jan 8;96(1):131–41

Lipoprotein receptors: signaling functions in the brain? Cooper JA, et al. **Cell** 1999 Jun 11;97(6):671–4 (20 ref.)

Reciprocal interactions of Pit1 and GATA2 mediate signaling gradient-induced determination of pituitary cell types. Dasen JS, et al. **Cell** 1999 May 28;97(5):587–98

Diverse signaling pathways activated by growth factor receptors induce broadly overlapping, rather than independent, sets of genes [see comments] Fambrough D, et al. **Cell** 1999 Jun 11;97(6):727–41. Comment in: Cell 1999 Jun 11;97(6):675–8.

Transmembrane signaling across the ligand-gated FhuA receptor: crystal structures of free and ferrichrome-bound states reveal allosteric changes. Locher KP, et al. **Cell** 1998 Dec 11;95(6):771–8

lin-35 and lin-53, two genes that antagonize a C. elegans Ras pathway, encode proteins similar to Rb and its binding protein RbAp48. Lu X, et al. **Cell** 1998 Dec 23;95(7):981–91

Protein kinase C as a molecular machine for decoding calcium and diacylglycerol signals. Oancea E, et al. **Cell** 1998 Oct 30;95(3):307–18

G protein signaling events are activated at the leading edge of chemotactic cells. Parent CA, et al. **Cell** 1998 Oct 2; 95(1):81–91

Signaling networks--do all roads lead to the same genes? [comment] Pawson T, et al. **Cell** 1999 Jun 11;97(6):675–8 (21 ref.). Comment on: Cell 1999 Jun 11;97(6):727–41.

A sonic hedgehog-independent, retinoid-activated pathway of neurogenesis in the ventral spinal cord. Pierani A, et al. **Cell** 1999 Jun 25;97(7):903–15

Signaling to p53: breaking the MDM2-p53 circuit. Prives C. **Cell** 1998 Oct 2;95(1):5–8 (24 ref.)

WRM-1 activates the LIT-1 protein kinase to transduce anterior/posterior polarity signals in C. elegans. Rocheleau CE, et al. **Cell** 1999 Jun 11;97(6):717–26

Adaptors and molecular scaffolds in immune cell signaling. Rudd CE. **Cell** 1999 Jan 8;96(1):5–8 (28 ref.)

CNK, a RAF-binding multidomain protein required for RAS signaling. Therrien M, et al. **Cell** 1998 Oct 30;95(3):343–53

An autoregulatory cascade of EGF receptor signaling patterns the Drosophila egg [see comments] Wasserman JD, et al. **Cell** 1998 Oct 30;95(3):355–64. Comment in: Cell 1998 Oct 30;95(3):291–4.

Antagonistic signaling by Caronte, a novel Cerberus-related gene, establishes left-right asymmetric gene expression. Yokouchi Y, et al. **Cell** 1999 Sep 3;98(5):573–83

Functional association of Nmi with Stat5 and Stat1 in IL-2- and IFNgamma-mediated signaling. Zhu M, et al. **Cell** 1999 Jan 8;96(1):121–30

Adhesion-induced intracellular signalling in endothelial cells depends on the nature of the matrix. Berge N, et al. **Cell Adhes Commun** 1999;7(1):29–41

Protein tyrosine kinase-mediated pathways in G protein-coupled receptor signaling. Dikic I, et al. **Cell Biochem Biophys** 1999;30(3):369–87 (84 ref.)

Regulatory and spatial aspects of inositol trisphosphate-mediated calcium signals. Horne JH. **Cell Biochem Biophys** 1999;30(2):267–86 (64 ref.)

Caspase-mediated activation of PAK2 during apoptosis: proteolytic kinase activation as a general mechanism of apoptotic signal transduction? Bokoch GM. **Cell Death Differ** 1998 Aug;5(8):637–45 (82 ref.)

ATP and adenosine prevent via different pathways the activation of caspases in apoptotic AKR-2B fibroblasts. Hoppe J, et al. **Cell Death Differ** 1999 Jun;6(6):546–56

bFGF inhibits the activation of caspase-3 and apoptosis of P19 embryonal carcinoma cells during neuronal differentiation. Miho Y, et al. **Cell Death Differ** 1999 May; 6(5):463–70

Phorbol ester-induced mononuclear cell differentiation is blocked by the mitogen-activated protein kinase kinase (MEK) inhibitor PD98059. He H, et al. **Cell Growth Differ** 1999 May;10(5):307–15

Retinoic acid is able to induce interferon regulatory factor 1 in squamous carcinoma cells via a STAT-1 independent signalling pathway. Percario ZA, et al. **Cell Growth Differ** 1999 Apr;10(4):263–70

Enkephalin receptors and receptor-mediated signal transduction in cultured human lymphocytes. Heagy W, et al. **Cell Immunol** 1999 Jan 10;191(1):34–48

Modulation of nitric oxide-induced apoptotic death of HL-60 cells by protein kinase C and protein kinase A through mitogen-activated protein kinases and CPP32-like protease pathways. Jun CD, et al. **Cell Immunol** 1999 May 25; 194(1):36–46

Microfilament assembly is involved in B-cell apoptosis. Melamed I, et al. **Cell Immunol** 1999 Jun 15;194(2):136–42

A diabetogenic gene prevents T cells from receiving costimulatory signals. Moore JK, et al. **Cell Immunol** 1999 May 25;194(1):90–7

Antibody-induced CD3–CD4 coligation inhibits TCR/CD3 activation in the absence of costimulatory signals in normal mouse CD4(+) T lymphocytes. Portolés P, et al. **Cell Immunol** 1999 Aug 1;195(2):96–109

Cell activation by glycated proteins. AGE receptors, receptor recognition factors and functional classification of AGEs. Thornalley PJ. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;44(7):1013–23 (70 ref.)

Understanding the molecular basis of Wiskott-Aldrich syndrome. Abo A. **Cell Mol Life Sci** 1998 Oct; 54(10):1145–53 (73 ref.)

The modular nature of apoptotic signaling proteins. Hofmann K. **Cell Mol Life Sci** 1999 Jul;55(8–9):1113–28 (108 ref.)

MAP kinases in plant signal transduction. Jonak C, et al. **Cell Mol Life Sci** 1999 Feb;55(2):204–13 (40 ref.)

RdgC/PP5-related phosphatases: novel components in signal transduction. Andreeva AV, et al. **Cell Signal** 1999 Aug; 11(8):555–62 (64 ref.)

Haloperidol effect on intracellular signals system coupled to alpha1-adrenergic receptor in rat cerebral frontal cortex. Borda T, et al. **Cell Signal** 1999 Apr;11(4):293–300

Crosstalk between protein kinase A and growth factor receptor signaling pathways in arterial smooth muscle. Bornfeldt KE, et al. **Cell Signal** 1999 Jul;11(7):465–77 (170 ref.)

Identification of distinct signalling pathways for somatostatin receptors SSTR1 and SSTR2 as revealed by microphysiometry. Chen L, et al. **Cell Signal** 1999 Jul; 11(7):499–505

Involvement of protein kinase C and rho GTPase in the nuclear signalling pathway by transforming growth factor-beta1 in rat-2 fibroblast cells. Choi SE, et al. **Cell Signal** 1999 Jan;11(1):71–6

Protein phosphatase 2A suppresses MAP kinase signalling and ectopic protein expression. Chung H, et al. **Cell Signal** 1999 Aug;11(8):575–80

An antigen receptor (NCCRP-1) on nonspecific cytotoxic cells is a phosphoprotein associated with the JAK-STAT activation pathway. Evans DL, et al. **Cell Signal** 1999 Apr; 11(4):287–92

What does insulin do to Ras? Goalstone ML, et al. **Cell Signal** 1998 May;10(5):297–301 (43 ref.)

Insulin activates caspase-3 by a phosphatidylinositol 3'-kinase-dependent pathway. Godbout JP, et al. **Cell Signal** 1999 Jan;11(1):15–23

Intensification of growth factor receptor signalling by phorbol treatment of ligand-primed cells implies a dimer-stabilizing effect of protein kinase C-dependent juxtamembrane domain phosphorylation. Gulliford T, et al. **Cell Signal** 1999 Apr;11(4):245–52

Involvement of intermediary metabolites in the pathway of extracellular Ca2+-induced mitogen-activated protein kinase activation in human fibroblasts. Huang S, et al. **Cell Signal** 1999 Apr;11(4):263–74

Role of STAT5 in interferon-alpha signal transduction in Ba/F3 cells. Jaster R, et al. **Cell Signal** 1999 May; 11(5):331–5

Intracellular mechanisms of L-selectin induced capping. Junge S, et al. **Cell Signal** 1999 Apr;11(4):301–8

Redox regulation of cellular signalling. Kamata H, et al. **Cell Signal** 1999 Jan;11(1):1–14 (270 ref.)

Signalling events mediating the activation of protein kinase C by interleukin-2 in cytotoxic T cells. Lu Y, et al. **Cell Signal** 1999 Apr;11(4):275–85

Intracellular signalling pathways induced by chemokines in natural killer cells. Maghazachi AA. **Cell Signal** 1999 Jun; 11(6):385–90 (63 ref.)

FGF-2 induces surfactant protein gene expression in foetal rat lung epithelial cells through a MAPK-independent pathway. Matsui R, et al. **Cell Signal** 1999 Mar;11(3):221–8

Involvement of protein kinase C and protein kinase A in the muscarinic receptor signalling pathways mediating phospholipase C activation, arachidonic acid release and calcium mobilisation. May LG, et al. **Cell Signal** 1999 Mar; 11(3):179–87

Insulin signalling: metabolic pathways and mechanisms for specificity. Nystrom FH, et al. **Cell Signal** 1999 Aug; 11(8):563–74 (162 ref.)

Rho guanine dissociation inhibitors: pivotal molecules in cellular signalling. Olofsson B. **Cell Signal** 1999 Aug; 11(8):545–54 (81 ref.)

Crowded little caves: structure and function of caveolae. Schlegel A, et al. **Cell Signal** 1998 Jul;10(7):457–63 (62 ref.)

Insulin-induced protein tyrosine phosphorylation cascade and signalling molecules are localized in a caveolin-enriched cell membrane domain. Smith RM, et al. **Cell Signal** 1998 May;10(5):355–62

Neuronal ion channel signalling pathways: modulation by angiotensin II. Sumners C, et al. **Cell Signal** 1998 May; 10(5):303–11 (109 ref.)

G protein-coupled receptor signalling in the kidney. Weiss RH. **Cell Signal** 1998 May;10(5):313–20 (82 ref.)

ERK2 signalling from internalised epidermal growth factor receptor in broken A431 cells. Xue L, et al. **Cell Signal** 1998 May;10(5):339–48

Regulation of 5-hydroxytryptamine-induced signal transduction in canine cultured aorta smooth muscle cells by phorbol ester. Yang CM, et al. **Cell Signal** 1999 Aug; 11(8):581–9

A new member of the GP138 multigene family implicated

in cell interactions in Dictyostelium discoideum. Hata T, et al. **Cell Struct Funct** 1999 Jun;24(3):123–9
Intracellular neuronal calcium sensor proteins: a family of EF-hand calcium-binding proteins in search of a function. Braunewell KH, et al. **Cell Tissue Res** 1999 Jan;295(1):1–12 (129 ref.)
Nerve growth factor receptor signaling in proliferation of normal adult rat chromaffin cells. Powers JF, et al. **Cell Tissue Res** 1999 Jan;295(1):21–32
The PIK-related kinases intercept conventional signaling pathways. Kuruvilla FG, et al. **Chem Biol** 1999 May; 6(5):R129–36 (70 ref.)
Mammalian phosphatidylinositol transfer proteins: emerging roles in signal transduction and vesicular traffic. Cockcroft S. **Chem Phys Lipids** 1999 Apr;98(1–2):23–33 (62 ref.)
Synergistic activation of a family of phosphoinositide 3-kinase via G-protein coupled and tyrosine kinase-related receptors. Katada T, et al. **Chem Phys Lipids** 1999 Apr; 98(1–2):79–86 (30 ref.)
Diacylglycerol kinases in signal transduction. van Blitterswijk WJ, et al. **Chem Phys Lipids** 1999 Apr; 98(1–2):95–108 (77 ref.)
Signal transduction by tumor necrosis factor: the Parker B. Francis Lectureship. Goeddel DV. **Chest** 1999 Jul;116(1 Suppl):69S–73S (37 ref.)
Involvement of a putative G-protein-coupled receptor and a branching pathway in argipressin (4–8) signal transduction in rat hippocampus. Qiao LY, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):15–20
Ischemic preconditioning and the beta-adrenergic signal transduction pathway. Lochner A, et al. **Circulation** 1999 Aug 31;100(9):958–66
Signal transduction abnormalities in T lymphocytes from patients with advanced renal carcinoma: clinical relevance and effects of cytokine therapy. Bukowski RM, et al. **Clin Cancer Res** 1998 Oct;4(10):2337–47
Modulation of drug-induced apoptosis by interruption of the protein kinase C signal transduction pathway: a new therapeutic strategy. Grant S, et al. **Clin Cancer Res** 1996 Dec;2(12):1915–20 (79 ref.)
The fas signaling pathway is functional in colon carcinoma cells and induces apoptosis. Houghton JA, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2205–9
Alterations in expression and function of signal-transducing proteins in tumor-associated T and natural killer cells in patients with ovarian carcinoma. Lai P, et al. **Clin Cancer Res** 1996 Jan;2(1):161–73
A potential role of an intracellular signaling defect in neutrophil functional abnormalities and promotion of tissue damage in patients with localized juvenile periodontitis. Leino L, et al. **Clin Chem Lab Med** 1999 Mar;37(3):215–22 (85 ref.)
Signal transduction pathways and modulation of gene activity. Weitzman JB, et al. **Clin Chem Lab Med** 1998 Aug;36(8):535–9 (24 ref.)
Angiotensin receptors: molecular biology and signalling. Inagami T, et al. **Clin Exp Pharmacol Physiol** 1999 Jul; 26(7):544–9 (53 ref.)
Signal transduction in T lymphocytes. Peterson EJ, et al. **Clin Exp Rheumatol** 1999 Jan–Feb;17(1):107–14 (111 ref.)
IL-12-Independent costimulation pathways for interferon-gamma production in familial disseminated Mycobacterium avium complex infection. Frucht DM, et al. **Clin Immunol** 1999 May;91(2):234–41
Signaling to chromatin through histone modifications: how clear is the signal? Mizzen C, et al. **Cold Spring Harb Symp Quant Biol** 1998;63:469–81 (109 ref.)
Phage display in proteolysis and signal transduction. Gram H. **Comb Chem High Throughput Screen** 1999 Feb; 2(1):19–28 (61 ref.)
Signaling pathway by which TGF-beta1 increases expression of latent TGF-beta binding protein-2 at the transcriptional level. Ahmed W, et al. **Connect Tissue Res** 1998; 37(3–4):263–76
Positive and negative thymocyte selection. Saito T, et al. **Crit Rev Immunol** 1998;18(4):359–70 (89 ref.)
Oncogenes and signal transduction pathways involved in the regulation of Na+ channel expression. Sashihara S, et al. **Crit Rev Oncog** 1998;9(1):19–34 (142 ref.)
Fly's eye view. **Curr Biol** 1999 Jan 14;9(1):R3
Interaction between Notch signalling and Lunatic fringe during somite boundary formation in the mouse. Barrantes IB, et al. **Curr Biol** 1999 May 6;9(9):470–80
The 14-3-3 proteins positively regulate rapamycin-sensitive signaling. Bertram PG, et al. **Curr Biol** 1998 Nov 19; 8(23):1259–67
Actin polymerization: Where the WASP stings. Bi E, et al. **Curr Biol** 1999 Mar 11;9(5):R160–3 (17 ref.)
A dileucine motif in HIV-1 Nef acts as an internalization signal for CD4 downregulation and binds the AP-1 clathrin adaptor. Bresnahan PA, et al. **Curr Biol** 1998 Nov 5; 8(22):1235–8
Lymphocyte signalling: a coordinating role for Vav? Cantrell D. **Curr Biol** 1998 Jul 16;8(15):R535–8 (15 ref.)
Reciprocal EGF signaling back to the uterus from the induced C. elegans vulva coordinates morphogenesis of epithelia. Chang C, et al. **Curr Biol** 1999 Mar 11;9(5):237–46
Shoot meristems: Intercellular signals keep the balance. Doerner P. **Curr Biol** 1999 May 20;9(10):R377–80 (18 ref.)
Cytokinin action: two receptors better than one? Estelle M. **Curr Biol** 1998 Jul 16;8(15):R539–41 (9 ref.)
Axon guidance: A balance of signals sets axons on the right track. Gallo G, et al. **Curr Biol** 1999 Jul 1;9(13):R490–2
The Rho1 effector Pkc1, but not Bni1, mediates signalling from Tor2 to the actin cytoskeleton. Helliwell SB, et al. **Curr Biol** 1998 Nov 5;8(22):1211–4
The hematopoietic-specific adaptor protein gads functions in T-cell signaling via interactions with the SLP-76 and LAT adaptors. Liu SK, et al. **Curr Biol** 1999 Jan 28; 9(2):67–75
The Wnts. Loureiro JJ. **Curr Biol** 1999 Jan 14;9(1):R4
Apoptosis: Ras to the rescue in the fly eye. McNeill H, et al. **Curr Biol** 1999 Mar 11;9(5):R176–9 (16 ref.)
Sonic hedgehog signaling by the patched-smoothened receptor complex. Murone M, et al. **Curr Biol** 1999 Jan 28;9(2):76–84
The Notch proteins. Nye JS. **Curr Biol** 1999 Feb 25;9(4):R118
TGFbeta signaling is necessary for carcinoma cell invasiveness and metastasis. Oft M, et al. **Curr Biol** 1998 Nov 19;8(23):1243–52
Intracellular signaling: Fleshing out the TGFbeta pathway. Padgett RW. **Curr Biol** 1999 Jun 3;9(11):R408–11 (14 ref.)
Nodal signalling and the roles of the transcription factors SnR and Pitx2 in vertebrate left-right asymmetry. Patel K, et al. **Curr Biol** 1999 Jun 3;9(11):609–12
Biological sensors: More than one way to sense oxygen. Pellequer JL, et al. **Curr Biol** 1999 Jun 3;9(11):R416–8 (12 ref.)
Imposing specificity by localization: mechanism and evolvability [published erratum appears in Curr Biol 1998 Dec 3;8(24):R897] [see comments] Ptashne M, et al. **Curr Biol** 1998 Nov 5;8(22):R812–22 (36 ref.). Comment in: Curr Biol 1999 Jan 14;9(1):R6–7.
Lymphocyte signaling: adapting new adaptors. Rudd CE. **Curr Biol** 1998 Nov 5;8(22):R805–8 (18 ref.)
Signal transduction: Gyrating protein kinases. Stock J. **Curr Biol** 1999 May 20;9(10):R364–7 (29 ref.)
An activity of Notch regulates JNK signalling and affects dorsal closure in Drosophila. Zecchini V, et al. **Curr Biol** 1999 May 6;9(9):460–9
A direct interaction between the adaptor protein Cbl-b and the kinase zap-70 induces a positive signal in T cells. Zhang Z, et al. **Curr Biol** 1999 Feb 25;9(4):203–6
Differential molecular interactions of beta-catenin and plakoglobin in adhesion, signaling and cancer. Ben-Ze'ev A, et al. **Curr Opin Cell Biol** 1998 Oct;10(5):629–39 (97 ref.)
Extracellular matrix signaling: integration of form and function in normal and malignant cells. Boudreau N, et al. **Curr Opin Cell Biol** 1998 Oct;10(5):640–6 (55 ref.)
Gastric H+/K(+)-ATPase: targeting signals in the regulation of physiologic function. Caplan MJ. **Curr Opin Cell Biol** 1998 Aug;10(4):468–73 (51 ref.)
Wnt signalling: pathway or network? Arias AM, et al. **Curr Opin Genet Dev** 1999 Aug;9(4):447–54 (82 ref.)
Extracellular modulation of the Hedgehog, Wnt and TGF-beta signalling pathways during embryonic development. Capdevila J, et al. **Curr Opin Genet Dev** 1999 Aug;9(4):427–33 (91 ref.)
BMPs, Smads and metalloproteases: extracellular and intracellular modes of negative regulation. Cho KW, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):443–9 (55 ref.)
Complexity of EGF receptor signalling revealed in Drosophila. Freeman M. **Curr Opin Genet Dev** 1998 Aug; 8(4):407–11 (46 ref.)
Propagation and localization of Wnt signaling. Gumbiner BM. **Curr Opin Genet Dev** 1998 Aug;8(4):430–5 (43 ref.)
New players and puzzles in the Hedgehog signaling pathway. Johnston RL, et al. **Curr Opin Genet Dev** 1998 Aug; 8(4):450–6 (77 ref.)
Pattern formation and developmental mechanisms. Converging views of diverging pathways [editorial] Kim SK, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):383–5
Somitogenesis: segmenting a vertebrate. McGrew MJ, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):487–93 (50 ref.)
Hox proteins meet more partners. Mann RS, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):423–9 (55 ref.)
Roles of the JNK signaling pathway in Drosophila morphogenesis. Noselli S, et al. **Curr Opin Genet Dev** 1999 Aug;9(4):466–72 (75 ref.)
Ras--a versatile cellular switch. Rommel C, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):412–8 (71 ref.)
Wnt signaling and dorso-ventral axis specification in vertebrates. Sokol SY. **Curr Opin Genet Dev** 1999 Aug; 9(4):405–10 (73 ref.)
Specificity in signaling pathways: assembly into multimolecular signaling complexes. Tsunoda S, et al. **Curr Opin Genet Dev** 1998 Aug;8(4):419–22 (39 ref.)
Notch signaling: direct or what? Weinmaster G. **Curr Opin Genet Dev** 1998 Aug;8(4):436–42 (67 ref.)
B cell development: signal transduction by antigen receptors and their surrogates. Benschop RJ, et al. **Curr Opin Immunol** 1999 Apr;11(2):143–51 (87 ref.)
Signal transduction in bacteria: molecular mechanisms of stimulus-response coupling. Goudreau PN, et al. **Curr Opin Microbiol** 1998 Apr;1(2):160–9 (82 ref.)
Two-component signal transduction systems in eukaryotic microorganisms. Loomis WF, et al. **Curr Opin Microbiol** 1998 Dec;1(6):643–8 (37 ref.)
Inhibition of host cell signal transduction by Leishmania: observations relevant to the selective impairment of IL-12 responses. McDowell MA, et al. **Curr Opin Microbiol** 1999 Aug;2(4):438–43 (67 ref.)
Signal transduction by MAP kinase cascades in budding yeast. Posas F, et al. **Curr Opin Microbiol** 1998 Apr; 1(2):175–82 (66 ref.)
Oligosaccharide recognition signals and defence reactions in marine plant-microbe interactions. Potin P, et al. **Curr Opin Microbiol** 1999 Jun;2(3):276–83 (64 ref.)
Autocrine loops, signal transduction, and cell cycle abnormalities in the molecular biology of lung cancer. Rozengurt E. **Curr Opin Oncol** 1999 Mar;11(2):116–22 (80 ref.)
Gibberellin signaling. Bethke PC, et al. **Curr Opin Plant Biol** 1998 Oct;1(5):440–6 (66 ref.)
ABA signal transduction. Grill E, et al. **Curr Opin Plant Biol** 1998 Oct;1(5):412–8 (69 ref.)
Signaling in plant embryogenesis. Harada JJ. **Curr Opin Plant Biol** 1999 Feb;2(1):23–7 (40 ref.)
Connections between virus movement, macromolecular signaling and assimilate allocation. Lucas WJ, et al. **Curr Opin Plant Biol** 1999 Jun;2(3):192–7 (51 ref.)
Auxin signaling in Arabidopsis flower development? Nemhauser JL, et al. **Curr Opin Plant Biol** 1998 Dec; 1(6):531–5 (36 ref.)
Cell walls: structures and signals. Pennell R. **Curr Opin Plant Biol** 1998 Dec;1(6):504–10 (50 ref.)
Defence signalling pathways in cereals. Piffanelli P, et al. **Curr Opin Plant Biol** 1999 Aug;2(4):295–300 (46 ref.)
Resistance response physiology and signal transduction. Scheel D. **Curr Opin Plant Biol** 1998 Aug;1(4):305–10 (67 ref.)
Ethylene gas: perception, signaling and response. Solano R, et al. **Curr Opin Plant Biol** 1998 Oct;1(5):393–8 (52 ref.)
The alphabet soup of plant intracellular signalling: enter cyclic nucleotides. Walden R. **Curr Opin Plant Biol** 1998 Oct;1(5):419–23 (39 ref.)
Signaling tip growth in plants. Yang Z. **Curr Opin Plant Biol** 1998 Dec;1(6):525–30 (54 ref.)
Parasitic plant responses to host plant signals: a model for subterranean plant-plant interactions. Yoder JI. **Curr Opin Plant Biol** 1999 Feb;2(1):65–70 (51 ref.)
Signaling and effector pathways. Müller-Ladner U, et al. **Curr Opin Rheumatol** 1999 May;11(3):194–201 (78 ref.)
Fibroblast growth factor signaling regulates growth and morphogenesis at multiple steps during brain development. Vaccarino FM, et al. **Curr Top Dev Biol** 1999;46:179–200 (111 ref.)
The unexpected complexity of Fc gamma RIIB signal transduction. Cambier JC, et al. **Curr Top Microbiol Immunol** 1999;244:43–55 (70 ref.)
The role of the SRC homology 2-containing inositol 5'-phosphatase in Fc epsilon R1-induced signaling. Huber M, et al. **Curr Top Microbiol Immunol** 1999;244:29–41 (39 ref.)
Signal transduction pathways activated during fibroblast contraction of collagen matrices. Grinnell F. **Curr Top Pathol** 1999;93:61–73 (106 ref.)
Mechanisms of cell signaling in immune-mediated inflammation. Bayón Y, et al. **Cytokines Cell Mol Ther** 1998 Dec;4(4):275–86 (140 ref.)
Dynamic expression of lunatic fringe suggests a link between notch signaling and an autonomous cellular oscillator driving somite segmentation. Aulehla A, et al. **Dev Biol** 1999 Mar 1;207(1):49–61
Constitutive activation of sonic hedgehog signaling in the chicken mutant talpid(2): Shh-independent outgrowth and polarizing activity. Caruccio NC, et al. **Dev Biol** 1999 Aug 1;212(1):137–49
Epithelial-mesenchymal transformation in the embryonic heart is mediated through distinct pertussis toxin-sensitive and TGFbeta signal transduction mechanisms. Boyer AS, et al. **Dev Dyn** 1999 Jan;214(1):81–91
sFRP-2 is a target of the Wnt-4 signaling pathway in the developing metanephric kidney. Lescher B, et al. **Dev Dyn** 1998 Dec;213(4):440–51
Non-autonomous regulation of a graded, PKA-mediated transcriptional activation signal for cell patterning. Balint-Kurti P, et al. **Development** 1998 Oct; 125(20):3947–54
A developmental pathway controlling outgrowth of the Xenopus tail bud. Beck CW, et al. **Development** 1999 Apr; 126(8):1611–20
Induction of the epibranchial placodes. Begbie J, et al. **Development** 1999 Feb;126(5):895–902
Regulation of midline development by antagonism of lefty and nodal signaling. Bisgrove BW, et al. **Development** 1999 Jun;126(14):3253–62
Signaling by the TGF-beta homolog decapentaplegic functions reiteratively within the network of genes controlling retinal cell fate determination in Drosophila. Chen R, et al. **Development** 1999 Feb;126(5):935–43
BMP signaling plays a role in visceral endoderm differentiation and cavitation in the early mouse embryo. Coucouvanis E, et al. **Development** 1999 Feb;126(3):535–46
Transforming growth factor-beta signalling in extraembryonic mesoderm is required for yolk sac vasculogenesis in mice. Goumans MJ, et al. **Development** 1999 Aug;126(16):3473–83
Delta-Notch signalling and the patterning of sensory cell differentiation in the zebrafish ear: evidence from the mind bomb mutant. Haddon C, et al. **Development** 1998 Dec; 125(23):4637–44
Synergistic signaling by two BMP ligands through the SAX and TKV receptors controls wing growth and patterning

in Drosophila. Haerry TE, et al. **Development** 1998 Oct; 125(20):3977–87
The smad5 mutation somitabun blocks Bmp2b signaling during early dorsoventral patterning of the zebrafish embryo. Hild M, et al. **Development** 1999 May; 126(10):2149–59
Eph receptors and ephrins: effectors of morphogenesis. Holder N, et al. **Development** 1999 May;126(10):2033–44 (104 ref.)
The vestigial gene product provides a molecular context for the interpretation of signals during the development of the wing in Drosophila. Klein T, et al. **Development** 1999 Feb; 126(5):913–25
Role of Nudel protease activation in triggering dorsoventral polarization of the Drosophila embryo. LeMosy EK, et al. **Development** 1998 Oct;125(20):4045–53
Control of digit formation by activin signalling. Merino R, et al. **Development** 1999 May;126(10):2161–70
Notch signaling imposes two distinct blocks in the differentiation of C2C12 myoblasts. Nofziger D, et al. **Development** 1999 Apr;126(8):1689–702
LvNotch signaling mediates secondary mesenchyme specification in the sea urchin embryo. Sherwood DR, et al. **Development** 1999 Apr;126(8):1703–13
Differential requirements of the fused kinase for hedgehog signalling in the Drosophila embryo. Thérond PP, et al. **Development** 1999 Sep;126(18):4039–51
A Drosophila Axin homolog, Daxin, inhibits Wnt signaling. Willert K, et al. **Development** 1999 Sep;126(18):4165–73
beta-catenin signalling modulates proliferative potential of human epidermal keratinocytes independently of intercellular adhesion. Zhu AJ, et al. **Development** 1999 May;126(10):2285–98
Mechanisms of coordination of Ca2+ signals in pancreatic islet cells. Bertuzzi F, et al. **Diabetes** 1999 Oct;48(10):1971–8
Altered cAMP and Ca2+ signaling in mouse pancreatic islets with glucagon-like peptide-1 receptor null phenotype. Flamez D, et al. **Diabetes** 1999 Oct;48(10):1979–86
Free fatty acid-induced insulin resistance is associated with activation of protein kinase C theta and alterations in the insulin signaling cascade. Griffin ME, et al. **Diabetes** 1999 Jun;48(6):1270–4
Endothelin-1 modulates insulin signaling through phosphatidylinositol 3-kinase pathway in vascular smooth muscle cells. Jiang ZY, et al. **Diabetes** 1999 May; 48(5):1120–30
Interorgan signaling between adipose tissue metabolism and skeletal muscle uncoupling protein homologs: is there a role for circulating free fatty acids? Samec S, et al. **Diabetes** 1998 Nov;47(11):1693–8
cAMP enhances insulin secretion by an action on the ATP-sensitive K+ channel-independent pathway of glucose signaling in rat pancreatic islets. Yajima H, et al. **Diabetes** 1999 May;48(5):1006–12
A new antidiabetic agent (JTT-501) rapidly stimulates glucose disposal rates by enhancing insulin signal transduction in skeletal muscle. Maegawa H, et al. **Diabetologia** 1999 Feb;42(2):151–9
Functional proteomics of signal transduction by membrane receptors. Godovac-Zimmermann J, et al. **Electrophoresis** 1999 Apr-May;20(4–5):952–61
Modulation of signal transduction pathways and global protein composition of macrophages by ionizing radiation. Stulik J, et al. **Electrophoresis** 1999 Apr-May;20(4–5):962–8
Activation of the dsRNA-dependent protein kinase, PKR, induces apoptosis through FADD-mediated death signaling. Balachandran S, et al. **EMBO J** 1998 Dec 1; 17(23):6888–902
All in the family? New insights and questions regarding interconnectivity of Ras, Rap1 and Ral. Bos JL. **EMBO J** 1998 Dec 1;17(23):6776–82 (75 ref.)
Socs1 binds to multiple signalling proteins and suppresses steel factor-dependent proliferation. De Sepulveda P, et al. **EMBO J** 1999 Feb 15;18(4):904–15
STAT3 orchestrates contradictory signals in cytokine-induced G1 to S cell-cycle transition. Fukada T, et al. **EMBO J** 1998 Nov 16;17(22):6670–7
The C-terminal domain of armadillo binds to hypophosphorylated teashirt to modulate wingless signalling in Drosophila. Gallet A, et al. **EMBO J** 1999 Apr 15;18(8):2208–17
Latent membrane protein 1 of Epstein-Barr virus interacts with JAK3 and activates STAT proteins. Gires O, et al. **EMBO J** 1999 Jun 1;18(11):3064–73
Efficient transition to growth on fermentable carbon sources in Saccharomyces cerevisiae requires signaling through the Ras pathway. Jiang Y, et al. **EMBO J** 1998 Dec 1; 17(23):6942–51
Signal transduction in hypoxic cells: inducible nuclear translocation and recruitment of the CBP/p300 coactivator by the hypoxia-inducible factor-1alpha. Kallio PJ, et al. **EMBO J** 1998 Nov 16;17(22):6573–86
A Caenorhabditis elegans JNK signal transduction pathway regulates coordinated movement via type-D GABAergic motor neurons. Kawasaki M, et al. **EMBO J** 1999 Jul 1; 18(13):3604–15
The hepatitis B virus X protein activates nuclear factor of activated T cells (NF-AT) by a cyclosporin A-sensitive pathway. Lara-Pezzi E, et al. **EMBO J** 1998 Dec 1; 17(23):7066–77
The yeast histidine protein kinase, Sln1p, mediates phosphotransfer to two response regulators, Ssk1p and Skn7p. Li S, et al. **EMBO J** 1998 Dec 1;17(23):6952–62
The TOR nutrient signalling pathway phosphorylates NPR1 and inhibits turnover of the tryptophan permease. Schmidt A, et al. **EMBO J** 1998 Dec 1;17(23):6924–31
A casein kinase I motif present in the cytoplasmic domain of members of the tumour necrosis factor ligand family is implicated in 'reverse signalling'. Watts AD, et al. **EMBO J** 1999 Apr 15;18(8):2119–26
Transcriptional repression due to high levels of Wingless signalling. Yu X, et al. **EMBO J** 1998 Dec 1;17(23):7021–32
Cell-to-cell signaling and Pseudomonas aeruginosa infections. Van Delden C, et al. **Emerg Infect Dis** 1998 Oct-Dec;4(4):551–60 (82 ref.)
Growth effects of regulatory peptides and intracellular signaling routes in human pancreatic cancer cell lines. Douziech N, et al. **Endocrine** 1998 Oct;9(2):171–83
Negative regulation of N-cadherin-mediated cell-cell adhesion by the estrogen receptor signaling pathway in rat pituitary GH3 cells. Heinrich CA, et al. **Endocrine** 1999 Feb;10(1):67–76
Prolactin receptor signaling: shared components with the T-cell antigen receptor in Nb2 lymphoma cells. Krumenacker JS, et al. **Endocrine** 1998 Dec;9(3):313–20
Characterization of a region of the lutropin receptor extracellular domain near transmembrane helix 1 that is important in ligand-mediated signaling. Alvarez CA, et al. **Endocrinology** 1999 Apr;140(4):1775–82
AP-1 and vitamin D receptor (VDR) signaling pathways converge at the rat osteocalcin VDR element: requirement for the internal activating protein-1 site for vitamin D-mediated trans-activation. Aslam F, et al. **Endocrinology** 1999 Jan;140(1):63–70
Signal transduction of arginine vasopressin-induced arachidonic acid release in H9c2 cardiac myoblasts: role of Ca2+ and the protein kinase C-dependent activation of p42 mitogen-activated protein kinase. Chen WC, et al. **Endocrinology** 1999 Apr;140(4):1639–48
Cell-specific signaling and structure-activity relations of parathyroid hormone analogs in mouse kidney cells. Friedman PA, et al. **Endocrinology** 1999 Jan;140(1):301–9
Thyrotropin regulates c-Jun N-terminal kinase (JNK) activity through two distinct signal pathways in human thyroid cells. Hara T, et al. **Endocrinology** 1999 Apr; 140(4):1724–30
High specificity of Müllerian-inhibiting substance signaling in vivo. Mishina Y, et al. **Endocrinology** 1999 May; 140(5):2084–8
Rat TRH receptor type 2 exhibits higher basal signaling activity than TRH receptor type 1. Wang W, et al. **Endocrinology** 1999 Oct;140(10):4916–9
Physiological and anatomical circuitry between Agouti-related protein and leptin signaling. Wilson BD, et al. **Endocrinology** 1999 May;140(5):2387–97
Interleukin-6 receptor signaling. II. Bio-availability of interleukin-6 in serum. Gaillard J, et al. **Eur Cytokine Netw** 1999 Sep;10(3):337–44
Deregulation of the signaling pathways controlling urokinase production. Its relationship with the invasive phenotype. Ghiso JA, et al. **Eur J Biochem** 1999 Jul;263(2):295–304 (118 ref.)
C-CAM-mediated adhesion leads to an outside-in dephosphorylation signal. Lucka L, et al. **Eur J Biochem** 1999 Jun;262(2):541–6
Separate roles for H-Ras and Rac in signaling by transforming growth factor (TGF)-beta. H-Ras is essential for activation of MAP kinase, partially required for transcriptional activation by TGF-beta, but not required for signaling of growth suppression by TGF-beta. Yamamoto H, et al. **Eur J Biochem** 1999 Aug;264(1):110–9
Expression of retinoic acid receptor and retinoid X receptor subtypes in rat liver cells: implications for retinoid signalling in parenchymal, endothelial, Kupffer and stellate cells. Ulven SM, et al. **Eur J Cell Biol** 1998 Oct;77(2):111–6
Requirement of PEST domain tyrosine phosphatase PEP in B cell antigen receptor-induced growth arrest and apoptosis. Hasegawa K, et al. **Eur J Immunol** 1999 Mar; 29(3):887–96
Induction of the Igkappa 3' enhancer by distinct pathways can be inhibited by cross-linking of the CD40 receptor. Meyer KB. **Eur J Immunol** 1999 Mar;29(3):872–7
CD40 ligand signals optimize T helper cell cytokine production: role in Th2 development and induction of germinal centers. Poudrier J, et al. **Eur J Immunol** 1998 Oct;28(10):3371–83
CD73 expression and fyn-dependent signaling on murine lymphocytes. Yamashita Y, et al. **Eur J Immunol** 1998 Oct; 28(10):2981–90
Endogenous histamine reduces plasma insulin-like growth factor I via H1 receptor-mediated pathway in the rat. Liao W, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):471–6
Nonspecific effects of the pharmacological probes commonly used to analyze signal transduction in rabbit parietal cells. Sugita Y, et al. **Eur J Pharmacol** 1999 Jan 15;365(1):77–89
Effect of chronic hypoxia on calcium signalling in airway smooth muscle cells. Belouchi NE, et al. **Eur Respir J** 1999 Jul;14(1):74–9
Surgical stress induces decreased expression of signal-transducing zeta molecules in T cells. Ichihara F, et al. **Eur Surg Res** 1999;31(2):138–46
Basic fibroblast growth factor release by human coronary artery endothelial cells is enhanced by matrix proteins, 17beta-estradiol, and a PKC signaling pathway. Albuquerque ML, et al. **Exp Cell Res** 1998 Nov 25; 245(1):163–9
Id4 expression induces apoptosis in astrocytic cultures and is down-regulated by activation of the cAMP-dependent signal transduction pathway. Andres-Barquin PJ, et al. **Exp Cell Res** 1999 Mar 15;247(2):347–55
Phenotype dictates the growth response of vascular smooth muscle cells to pulse pressure in vitro. Cappadona C, et al. **Exp Cell Res** 1999 Jul 10;250(1):174–86
Extracellular simian virus 40 transmits a signal that promotes virus enclosure within caveolae. Chen Y, et al. **Exp Cell Res** 1999 Jan 10;246(1):83–90
VEGF prevents apoptosis of human microvascular endothelial cells via opposing effects on MAPK/ERK and SAPK/JNK signaling. Gupta K, et al. **Exp Cell Res** 1999 Mar 15;247(2):495–504
Attenuation of NF-kappaB signaling response to UVB light during cellular senescence. Helenius M, et al. **Exp Cell Res** 1999 Apr 10;248(1):194–202
Characterization of Cbl-Nck and Nck-Pak1 interactions in myeloid FcgammaRII signaling. Izadi KD, et al. **Exp Cell Res** 1998 Dec 15;245(2):330–42
Signaling via fibroblast growth factor receptor-1 is dependent on extracellular matrix in capillary endothelial cell differentiation. Kanda S, et al. **Exp Cell Res** 1999 Apr 10;248(1):203–13
The CCN family of angiogenic regulators: the integrin connection. Lau LF, et al. **Exp Cell Res** 1999 Apr 10; 248(1):44–57 (101 ref.)
Signaling defect in the activation of caspase-3 and PKCdelta in human TUR leukemia cells is associated with resistance to apoptosis. Meinhardt G, et al. **Exp Cell Res** 1999 Mar 15;247(2):534–42
Reactivation of Delta-Notch signaling after injury: complementary expression patterns of ligand and receptor in dental pulp. Mitsiadis TA, et al. **Exp Cell Res** 1999 Feb 1;246(2):312–8
Actin polymerization is required for negative feedback regulation of epidermal growth factor-induced signal transduction. Rijken PJ, et al. **Exp Cell Res** 1998 Sep 15; 243(2):254–62
MPP+ inhibits proliferation of PC12 cells by a p21(WAF1/Cip1)-dependent pathway and induces cell death in cells lacking p21(WAF1/Cip1). Soldner F, et al. **Exp Cell Res** 1999 Jul 10;250(1):75–85
Cellular redistribution of PKCalpha, rhoA, and ROKalpha following smooth muscle agonist stimulation. Taggart MJ, et al. **Exp Cell Res** 1999 Aug 25;251(1):92–101
Establishment of persistent infection with HIV-1 abrogates the caspase-3-dependent apoptotic signaling pathway in U937 cells. Tanaka Y, et al. **Exp Cell Res** 1999 Mar 15; 247(2):514–24
Two distinct signaling pathways mediate DIF induction of prestalk gene expression in Dictyostelium. Verkerke-van Wijk I, et al. **Exp Cell Res** 1998 Nov 25;245(1):179–85
Caveolin is an inhibitor of platelet-derived growth factor receptor signaling. Yamamoto M, et al. **Exp Cell Res** 1999 Mar 15;247(2):380–8
Urokinase-type plasminogen activator binding to its receptor stimulates tumor cell migration by enhancing integrin-mediated signal transduction. Yebra M, et al. **Exp Cell Res** 1999 Jul 10;250(1):231–40
Lipopolysaccharide-induced NF-kappaB activation in human endothelial cells involves degradation of IkappaBalpha but not IkappaBbeta. Zen K, et al. **Exp Cell Res** 1998 Sep 15;243(2):425–33
A mutation that separates the RasG signals that regulate development and cytoskeletal function in Dictyostelium. Zhang T, et al. **Exp Cell Res** 1999 Mar 15;247(2):356–66
Crosstalk between insulin and angiotensin II signalling systems [see comments] Folli F, et al. **Exp Clin Endocrinol Diabetes** 1999;107(2):133–9 (21 ref.). Comment in: Exp Clin Endocrinol Diabetes 1999 ;107(2):111–2.
Insulin signal transduction: possible mechanisms for insulin resistance. Kellerer M, et al. **Exp Clin Endocrinol Diabetes** 1999;107(2):97–106 (93 ref.)
Signal transduction in keratinocytes. Mitev V, et al. **Exp Dermatol** 1999 Apr;8(2):96–108 (83 ref.)
Age-related changes of signal transduction in T cells. Hirokawa K. **Exp Gerontol** 1999 Jan;34(1):7–18 (68 ref.)
Changes in signal transduction downstream from the granulocyte-macrophage colony-stimulating factor receptor during differentiation of primary hemopoietic cells. Wheadon H, et al. **Exp Hematol** 1999 Jun; 27(6):1077–86
Signal transduction pathways in normal human monocytes stimulated by cytokines and mediators: comparative study with normal human neutrophils or transformed cells and the putative roles in functionality and cell biology. Yagisawa M, et al. **Exp Hematol** 1999 Jun;27(6):1063–76
Nucleolus contains signal molecules that constitute membrane-nucleolus linked pathway. Jeong JS, et al. **Exp Mol Med** 1998 Dec 31;30(4):205–13
Redox signaling: hydrogen peroxide as intracellular messenger. Rhee SG. **Exp Mol Med** 1999 Jun 30;31(2):53–9 (60 ref.)
Entamoeba histolytica: signaling through G proteins. Paveto C, et al. **Exp Parasitol** 1999 Feb;91(2):170–5
Entamoeba histolytica: identification of functional Gs and Gi proteins as possible signal transduction elements in the interaction of trophozoites with fibronectin. Soid-Raggi

LG, et al. **Exp Parasitol** 1998 Nov;90(3):262–9

Signal transduction–mediated CYP1A1 induction by omeprazole in human HepG2 cells. Kikuchi H, et al. **Exp Toxicol Pathol** 1999 Jul;51(4–5):342–6

Mechanotransduction in bone--role of the lacuno–canalicular network. Burger EH, et al. **FASEB J** 1999;13 Suppl:S101–12 (118 ref.)

A Sos-derived peptidimer blocks the Ras signaling pathway by binding both Grb2 SH3 domains and displays antiproliferative activity. Cussac D, et al. **FASEB J** 1999 Jan;13(1):31–8

Substitution of the insulin receptor transmembrane domain with that of glycophorin A inhibits insulin action. Gardin A, et al. **FASEB J** 1999 Aug;13(11):1347–57

The syndecans, tuners of transmembrane signaling. Zimmermann P, et al. **FASEB J** 1999;13 Suppl:S91–S100 (79 ref.)

Ligand-induced internalization of CD38 results in intracellular Ca2+ mobilization: role of NAD+ transport across cell membranes. Zocchi E, et al. **FASEB J** 1999 Feb;13(2):273–83

Activation of mitogen-activated protein kinase by the bradykinin B2 receptor is independent of receptor phosphorylation and phosphorylation-triggered internalization. Blaukat A, et al. **FEBS Lett** 1999 May 28; 451(3):337–41

Cannabinoid receptor CB1 activates the Na+/H+ exchanger NHE-1 isoform via Gi-mediated mitogen activated protein kinase signaling transduction pathways. Bouaboula M, et al. **FEBS Lett** 1999 Apr 16;449(1):61–5

Examination of the signal transduction pathways leading to activation of extracellular signal-regulated kinase by formyl–methionyl–leucyl–phenylalanine in rat neutrophils. Chang LC, et al. **FEBS Lett** 1999 Jul 2;454(1–2):165–8

Gastrin stimulates the formation of a p60Src/p125FAK complex upstream of the phosphatidylinositol 3–kinase signaling pathway. Daulhac L, et al. **FEBS Lett** 1999 Feb 26;445(2–3):251–5

Cytokine–inducible SH2 protein (CIS3) and JAK2 binding protein (JAB) abolish prolactin receptor–mediated STAT5 signaling. Helman D, et al. **FEBS Lett** 1998 Dec 18; 441(2):287–91

Effects of IL-1 receptor–associated kinase (IRAK) expression on IL-1 signaling are independent of its kinase activity. Knop J, et al. **FEBS Lett** 1999 Apr 1;448(1):81–5

Phospholipase C cDNAs from sponge and hydra: antiquity of genes involved in the inositol phospholipid signaling pathway. Koyanagi M, et al. **FEBS Lett** 1998 Nov 13; 439(1–2):66–70

The auxin–binding protein Nt–ERabp1 alone activates an auxin–like transduction pathway. Leblanc N, et al. **FEBS Lett** 1999 Apr 16;449(1):57–60

Oncogenic Ras–induced germinal vesicle breakdown is independent of phosphatidylinositol 3–kinase in Xenopus oocytes. López–Hernández E, et al. **FEBS Lett** 1999 May 28;451(3):284–8

cAMP–dependent protein kinase and phosphoproteins in mammalian mitochondria. An extension of the cAMP–mediated intracellular signal transduction. Papa S, et al. **FEBS Lett** 1999 Feb 12;444(2–3):245–9

Hepoxilin signaling in intact human neutrophils: biphasic elevation of intracellular calcium by unesterified hepoxilin A3. Reynaud D, et al. **FEBS Lett** 1999 Mar 12; 446(2–3):236–8

TNF inhibits insulin induced STAT5 activation in differentiated mouse muscle cells pmi28. Storz P, et al. **FEBS Lett** 1998 Nov 27;440(1–2):41–5

Differential potency of two crosslinking plant lectins to induce formation of haptenic–sugar–resistant aggregates of rat thymocytes by post–binding signaling. Timoshenko AV, et al. **FEBS Lett** 1999 Apr 16;449(1):75–8

Cyclooxygenase–dependent signalling: molecular events and consequences. Versteeg HH, et al. **FEBS Lett** 1999 Feb 19;445(1):1–5 (58 ref.)

An Arabidopsis protein that interacts with the cytokinin–inducible response regulator, ARR4, implicated in the His–Asp phosphorylay signal transduction. Yamada H, et al. **FEBS Lett** 1998 Sep 25;436(1):76–80

Involvement of the Cpx signal transduction pathway of E. coli in biofilm formation. Dorel C, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):169–75

4–Hydroxynonenal and cell signalling. Dianzani MU. **Free Radic Res** 1998 Jun;28(6):553–60 (53 ref.)

Nongenomic effects of progesterone on spermatozoa: mechanisms of signal transduction and clinical implications. Baldi E, et al. **Front Biosci** 1998 Nov 1;3:D1051–9 (86 ref.)

Signaling events during male germ cell differentiation: bases and perspectives. Berruti G. **Front Biosci** 1998 Nov 1; 3:D1097–108 (117 ref.)

Focal adhesion kinase in integrin–mediated signaling. Cary LA, et al. **Front Biosci** 1999 Jan 15;4:D102–13 (142 ref.)

Lymphocyte activation: the coming of the protein tyrosine phosphatases. Mustelin T, et al. **Front Biosci** 1998 Nov 1; 3:D1060–96 (473 ref.)

Signal relays in the VEGF system. Ortega N, et al. **Front Biosci** 1999 Feb 1;4:D141–52 (130 ref.)

T cell signaling: effect of age. Pahlavani MA. **Front Biosci** 1998 Nov 1;3:D1120–33 (144 ref.)

Role of PP2A in intracellular signal transduction pathways. Schönthal AH. **Front Biosci** 1998 Dec 15;3:D1262–73 (145 ref.)

Regulation of platelet–derived growth factor signaling by activated p21Ras. Stice LL, et al. **Front Biosci** 1999 Jan 15;4:D72–86 (113 ref.)

Signaling through protein kinase C. Toker A. **Front Biosci** 1998 Nov 1;3:D1134–47 (125 ref.)

Activating oligomerization as intermediate level of signal transduction: analysis of protein–protein contacts and active sites in several glycolytic enzymes. Torshin I. **Front Biosci** 1999 Jul 1;4:D557–70

Signal transduction pathways regulating differentiation and pathogenicity of Cryptococcus neoformans. Alspaugh JA, et al. **Fungal Genet Biol** 1998 Oct;25(1):1–14 (120 ref.)

Signal transduction and hepatocellular bile acid transport: cross talk between bile acids and second messengers. Bouscarel B, et al. **Gastroenterology** 1999 Aug; 117(2):433–52 (217 ref.)

Signal transduction–mediated adherence and entry of Helicobacter pylori into cultured cells. Su B, et al. **Gastroenterology** 1999 Sep;117(3):595–604

Development of interstitial cells of Cajal and pacemaking in mice lacking enteric nerves. Ward SM, et al. **Gastroenterology** 1999 Sep;117(3):584–94

Ras–mediated signaling pathway regulates the expression of a low–molecular–weight heat–shock protein in fission yeast. Danjoh I, et al. **Gene** 1999 Aug 20;236(2):347–52

Detection of polyadenylation signals in human DNA sequences. Tabaska JE, et al. **Gene** 1999 Apr 29; 231(1–2):77–86

Signaling pathways mediating the response to hypertrophic stress in the heart. Force T, et al. **Gene Expr** 1999; 7(4–6):337–48 (74 ref.)

Stress, superoxide, and signal transduction. Goldschmidt–Clermont PJ, et al. **Gene Expr** 1999; 7(4–6):255–60 (47 ref.)

Activation of the AP–1 transcription factor by inflammatory cytokines of the TNF family. Kyriakis JM. **Gene Expr** 1999; 7(4–6):217–31 (76 ref.)

Role of p300, a transcriptional coactivator, in signalling of TGF–beta. Nishihara A, et al. **Genes Cells** 1998 Sep; 3(9):613–23

Cytoskeletal reorganization by soluble Wnt–3a protein signalling. Shibamoto S, et al. **Genes Cells** 1998 Oct; 3(10):659–70

Critical role of the membrane–proximal, proline–rich motif of the interleukin–2 receptor gammac chain in the Jak3–independent signal transduction. Tsujino S, et al. **Genes Cells** 1999 Jun;4(6):363–73

Transmembrane tyrosine phosphatase LAR induces apoptosis by dephosphorylating and destabilizing p130Cas. Weng LP, et al. **Genes Cells** 1999 Mar;4(3):185–96

Control of the nuclear localization of Extradenticle by competing nuclear import and export signals. Abu–Shaar M, et al. **Genes Dev** 1999 Apr 15;13(8):935–45

Signaling by proinflammatory cytokines: oligomerization of TRAF2 and TRAF6 is sufficient for JNK and IKK activation and target gene induction via an amino–terminal effector domain. Baud V, et al. **Genes Dev** 1999 May 15; 13(10):1297–308

The subcellular localization of PBX1 and EXD proteins depends on nuclear import and export signals and is modulated by association with PREP1 and HTH. Berthelsen J, et al. **Genes Dev** 1999 Apr 15;13(8):946–53

Defects in Saccharomyces cerevisiae protein phosphatase type I activate the spindle/kinetochore checkpoint. Bloecher A, et al. **Genes Dev** 1999 Mar 1;13(5):517–22

Combinatorial signaling codes for the progressive determination of cell fates in the Drosophila embryonic mesoderm. Carmena A, et al. **Genes Dev** 1998 Dec 15; 12(24):3910–22

ebi regulates epidermal growth factor receptor signaling pathways in Drosophila. Dong X, et al. **Genes Dev** 1999 Apr 15;13(8):954–65

Interaction between FGF and BMP signaling pathways regulates development of metanephric mesenchyme. Dudley AT, et al. **Genes Dev** 1999 Jun 15;13(12):1601–13

Eph signaling is required for segmentation and differentiation of the somites. Durbin L, et al. **Genes Dev** 1998 Oct 1; 12(19):3096–109

A G–protein signaling network mediated by an RGS protein. Guan KL, et al. **Genes Dev** 1999 Jul 15;13(14):1763–7 (35 ref.)

Antagonism between G(o)alpha and G(q)alpha in Caenorhabditis elegans: the RGS protein EAT–16 is necessary for G(o)alpha signaling and regulates G(q)alpha activity. Hajdu–Cronin YM, et al. **Genes Dev** 1999 Jul 15; 13(14):1780–93

The FAR1 locus encodes a novel nuclear protein specific to phytochrome A signaling. Hudson M, et al. **Genes Dev** 1999 Aug 1;13(15):2017–27

Periodic repression of Notch pathway genes governs the segmentation of Xenopus embryos. Jen WC, et al. **Genes Dev** 1999 Jun 1;13(11):1486–99

c–Myc–induced sensitization to apoptosis is mediated through cytochrome c release. Juin P, et al. **Genes Dev** 1999 Jun 1;13(11):1367–81

Stress signaling from the lumen of the endoplasmic reticulum: coordination of gene transcriptional and translational controls. Kaufman RJ. **Genes Dev** 1999 May 15; 13(10):1211–33 (186 ref.)

Hrs, a FYVE finger protein localized to early endosomes, is implicated in vesicular traffic and required for ventral folding morphogenesis. Komada M, et al. **Genes Dev** 1999 Jun 1;13(11):1475–85

ECSIT is an evolutionarily conserved intermediate in the Toll/IL–1 signal transduction pathway. Kopp E, et al. **Genes Dev** 1999 Aug 15;13(16):2059–71

Premature senescence involving p53 and p16 is activated in response to constitutive MEK/MAPK mitogenic signaling. Lin AW, et al. **Genes Dev** 1998 Oct 1;12(19):3008–19

TRAF6 deficiency results in osteopetrosis and defective interleukin–1, CD40, and LPS signaling. Lomaga MA, et al. **Genes Dev** 1999 Apr 15;13(8):1015–24

Uncoupling integrin adhesion and signaling: the betaPS cytoplasmic domain is sufficient to regulate gene expression in the Drosophila embryo. Martin–Bermudo MD, et al. **Genes Dev** 1999 Mar 15;13(6):729–39

Sonic hedgehog promotes somitic chondrogenesis by altering the cellular response to BMP signaling. Murtaugh LC, et al. **Genes Dev** 1999 Jan 15;13(2):225–37

A PDK1 homolog is necessary and sufficient to transduce AGE–1 PI3 kinase signals that regulate diapause in Caenorhabditis elegans. Paradis S, et al. **Genes Dev** 1999 Jun 1;13(11):1438–52

FGF signaling inhibits chondrocyte proliferation and regulates bone development through the STAT–1 pathway. Sahni M, et al. **Genes Dev** 1999 Jun 1;13(11):1361–6

Indian hedgehog signaling regulates proliferation and differentiation of chondrocytes and is essential for bone formation. St–Jacques B, et al. **Genes Dev** 1999 Aug 15; 13(16):2072–86

Wnt pathway components orient a mitotic spindle in the early Caenorhabditis elegans embryo without requiring gene transcription in the responding cell. Schlesinger A, et al. **Genes Dev** 1999 Aug 1;13(15):2028–38

Signal–induced ubiquitination of IkappaBalpha by the F–box protein Slimb/beta–TrCP. Spencer E, et al. **Genes Dev** 1999 Feb 1;13(3):284–94

Polarity determination in the Drosophila eye: a novel role for unpaired and JAK/STAT signaling. Zeidler MP, et al. **Genes Dev** 1999 May 15;13(10):1342–53

Mapping of a yeast G protein betagamma signaling interaction. Dowell SJ, et al. **Genetics** 1998 Dec; 150(4):1407–17

Interorganelle signaling is a determinant of longevity in Saccharomyces cerevisiae. Kirchman PA, et al. **Genetics** 1999 May;152(1):179–90

A genetic study of signaling processes for repression of PHO5 transcription in Saccharomyces cerevisiae. Lau WW, et al. **Genetics** 1998 Dec;150(4):1349–59

Molecular evolution of a developmental pathway: phylogenetic analyses of transforming growth factor–beta family ligands, receptors and Smad signal transducers. Newfeld SJ, et al. **Genetics** 1999 Jun;152(2):783–95

Coding sequence, genomic organization, chromosomal localization, and expression pattern of the signalosome component Cops2: the mouse homologue of Drosophila alien. Schaefer L, et al. **Genomics** 1999 Mar 15;56(3):310–6

Signal transduction pathways induced by GM–CSF in microglia: significance in the control of proliferation. Liva SM, et al. **Glia** 1999 Jun;26(4):344–52

New insights in glycosphingolipid function: "glycosignaling domain," a cell surface assembly of glycosphingolipids with signal transducer molecules,involved in cell adhesion coupled with signaling [letter] Hakomori S, et al. **Glycobiology** 1998 Oct;8(10):xi–xix (66 ref.)

Biomolecular interaction analysis of IFN gamma–induced signaling events in whole–cell lysates: prevalence of latent STAT1 in high–molecular weight complexes. Lackmann M, et al. **Growth Factors** 1998;16(1):39–51

Evidence for distinct signaling properties and biological responses induced by the PDGF receptor alpha and beta subtypes. Rosenkranz S, et al. **Growth Factors** 1999; 16(3):201–16 (120 ref.)

Increased, not decreased activation of the insulin–like growth factor (IGF) receptor signalling pathway during ceramide–induced apoptosis. Stewart CE, et al. **Growth Horm IGF Res** 1999 Apr;9(2):131–42

Recent developments in hepatic circulatory physiology. Suematsu M. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1406–8 (23 ref.)

Induction of apoptosis in CD34+ cells by sera from patients with aplastic anemia. Liu H, et al. **Hiroshima J Med Sci** 1999 Jun;48(2):57–63

Adhesion–dependent signalling and the initiation of haemostasis and thrombosis. Andrews RK, et al. **Histol Histopathol** 1998 Jul;13(3):837–44 (70 ref.)

Integrin–mediated signal transduction pathways. Cary LA, et al. **Histol Histopathol** 1999 Jul;14(3):1001–9 (144 ref.)

Regulation of tumor cell invasion by extracellular matrix. Crowe DL, et al. **Histol Histopathol** 1999 Apr;14(2):665–71 (79 ref.)

Nitric oxide synthase in skeletal muscle fibers: a signaling component of the dystrophin–glycoprotein complex. Grozdanovic Z, et al. **Histol Histopathol** 1999 Jan; 14(1):243–56 (116 ref.)

Cell proliferation and cancer. López–Sáez JF, et al. **Histol Histopathol** 1998 Oct;13(4):1197–214 (109 ref.)

Lipid signaling and cell responses at the nuclear level. Neri LM, et al. **Histol Histopathol** 1999 Jan;14(1):321–35 (157 ref.)

Insulin receptors and signal transduction proteins in the hypothalamo–hypophyseal system: a review on morphological findings and functional implications. Unger JW, et al. **Histol Histopathol** 1998 Oct;13(4):1215–24 (74 ref.)

Differential signaling and hierarchical response thresholds induced by an immunodominant peptide of myelin basic protein and an altered peptide ligand in human T cells. Crowe PD, et al. **Hum Immunol** 1998 Nov;59(11):679–89

Inhibition of CD40 signaling pathway in antigen presenting cells by T suppressor cells. Liu Z, et al. **Hum Immunol** 1999 Jul;60(7):568–74

T cell signaling: a decision of life and death. Medema JP, et al. **Hum Immunol** 1999 May;60(5):403–11 (97 ref.)

Interleukin-1beta regulation of the human brain natriuretic peptide promoter involves Ras-, Rac-, and p38 kinase-dependent pathways in cardiac myocytes. He Q, et al. **Hypertension** 1999 Jan;33(1 Pt 2):283–9

Purinoceptor-mediated calcium signaling in preglomerular smooth muscle cells. Inscho EW, et al. **Hypertension** 1999 Jan;33(1 Pt 2):195–200

Intracellular sodium modulates the expression of angiotensin II subtype 2 receptor in PC12W cells. Tamura M, et al. **Hypertension** 1999 Feb;33(2):626–32

Correlating notch signaling with thymocyte maturation. Deftos ML, et al. **Immunity** 1998 Dec;9(6):777–86

Modulation of B lymphocyte antigen receptor signal transduction by a CD19/CD22 regulatory loop. Fujimoto M, et al. **Immunity** 1999 Aug;11(2):191–200

High- and low-potency ligands with similar affinities for the TCR: the importance of kinetics in TCR signaling. Kersh GJ, et al. **Immunity** 1998 Dec;9(6):817–26

Engagement of GPI-linked CD48 contributes to TCR signals and cytoskeletal reorganization: a role for lipid rafts in T cell activation. Moran M, et al. **Immunity** 1998 Dec; 9(6):787–96

Signalling spaces out. Raben DM, et al. **Immunol Cell Biol** 1998 Aug;76(4):318–22

Proceedings of the 10th Symposium on Signals and Signal Processing in the Immune System. Balatonöszöd, Hungary, 13–17 September 1998. **Immunol Lett** 1999 May 3; 68(1):1–195

C3a(desArg) does not bind to and signal through the human C3a receptor. Wilken HC, et al. **Immunol Lett** 1999 Apr 1;67(2):141–5

Negative signaling in health and disease. Coggeshall KM. **Immunol Res** 1999;19(1):47–64 (165 ref.)

Small GTPases in lymphocyte biology: Rho proteins take center stage. Henning S, et al. **Immunol Res** 1999; 20(1):29–42 (59 ref.)

Immune cell signaling aberrations in human lupus. Liossis SN, et al. **Immunol Res** 1998 Aug;18(1):27–39 (69 ref.)

Human cytomegalovirus, MHC class I and inhibitory signalling receptors: more questions than answers. Cosman D, et al. **Immunol Rev** 1999 Apr;168:177–85 (71 ref.)

Differential effects of anti-rat CD11b monoclonal antibodies on granulocyte adhesiveness. Drašković-Pavlović B, et al. **Immunology** 1999 Jan;96(1):83–9

Angiotensin II receptors-antagonists, molecular biology, and signal transduction. Jagadeesh G. **Indian J Exp Biol** 1998 Dec;36(12):1171–94 (223 ref.)

Enigmatic relationship of Pleckstrin homology domain with phospholipid breakdown mediated signal transduction. Tyagi MG, et al. **Indian J Exp Biol** 1999 Jan;37(1):1–5 (34 ref.)

Adapter molecules in T cell receptor signaling. Boerth NJ, et al. **Inflamm Bowel Dis** 1999 May;5(2):107–18 (116 ref.)

On the use of ionophores as probes for calcium signalling. Observations with rat mast cells. Grosman N. **Inflamm Res** 1999 Apr;48 Suppl 1:S25–6

Specific signaling pathways in the regulation of TNF-alpha mRNA synthesis and TNF-alpha secretion in RBL-2H3 mast cells stimulated through the high affinity IgE receptor. Pelletier C, et al. **Inflamm Res** 1998 Dec;47(12):493–500

Two different IL-13 receptor chains are expressed in normal human skin fibroblasts, and IL-4 and IL-13 mediate signal transduction through a common pathway. Murata T, et al. **Int Immunol** 1998 Aug;10(8):1103–10

Differential effects of manipulating signaling in early T cell development in intestinal intraepithelial lymphocytes and thymocytes. Page ST, et al. **Int Immunol** 1999 Feb; 11(2):169–77

B cell receptor-induced apoptosis in primary transitional murine B cells: signaling requirements and modulation by T cell help. Sater RA, et al. **Int Immunol** 1998 Nov; 10(11):1673–82

Epidermal growth factor pathway substrate 15, Eps15. Salcini AE, et al. **Int J Biochem Cell Biol** 1999 Aug; 31(8):805–9 (20 ref.)

FADD/MORT1, a signal transducer that can promote cell death or cell growth. Strasser A, et al. **Int J Biochem Cell Biol** 1999 May;31(5):533–7 (20 ref.)

STAT3 mediates the survival signal in oncogenic ras-transfected intestinal epithelial cells. Zushi S, et al. **Int J Cancer** 1998 Oct 29;78(3):326–30

Gene, interaction, signal generation, signal divergence and signal transduction of the LH/CG receptor. Ryu KS, et al. **Int J Gynaecol Obstet** 1998 Apr;60 Suppl 1:S9–20 (60 ref.)

Signaling pathway and pepsinogen secretion in Helicobacter pylori-infected human gastric adenocarcinoma. Chan EC, et al. **Int J Mol Med** 1999 Apr;3(4):421–5

Signal transduction via the interleukin-4 receptor and its correlation with atopy. Izuhara K, et al. **Int J Mol Med** 1999 Jan;3(1):3–10 (107 ref.)

Molecular dissection of B cell antigen receptor signaling (review). Kurosaki T. **Int J Mol Med** 1998 Mar;1(3):515–27 (115 ref.)

Structure of and signal transduction through interleukin-4 and interleukin-13 receptors (review). Murata T, et al. **Int J Mol Med** 1998 Mar;1(3):551–7 (95 ref.)

Signal transduction in arteriosclerosis: mechanical stress-activated MAP kinases in vascular smooth muscle cells (review). Zou Y, et al. **Int J Mol Med** 1998 May; 1(5):827–34 (60 ref.)

Post-beta-receptor defect in isolated hearts of obese-hypertensive rabbits. Carroll JF. **Int J Obes Relat Metab Disord** 1999 Aug;23(8):863–6

Defective signal transduction via TCR-CD3 complex in patients with systemic lupus erythematosus. Takeuchi T, et al. **Intern Med** 1999 Feb;38(2):169 (6 ref.)

Relationship between inositol 1,4,5-trisphosphate receptor isoforms and subcellular Ca2+ signaling patterns in nonpigmented ciliary epithelia. Hirata K, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2046–53

Interaction between Ca2+, cyclic 3',5' adenosine monophosphate, the superoxide anion, and tyrosine phosphorylation pathways in the regulation of human sperm capacitation. Leclerc P, et al. **J Androl** 1998 Jul-Aug;19(4):434–43

Adhesion and signaling proteins spatiotemporally associated with spermiation in the rat. Wine RN, et al. **J Androl** 1999 Mar-Apr;20(2):198–213

Two-component signal transduction in Bacillus subtilis: how one organism sees its world. Fabret C, et al. **J Bacteriol** 1999 Apr;181(7):1975–83 (32 ref.)

Sequence and function of LuxU: a two-component phosphorelay protein that regulates quorum sensing in Vibrio harveyi. Freeman JA, et al. **J Bacteriol** 1999 Feb; 181(3):899–906

An autoregulatory circuit affecting peptide signaling in Bacillus subtilis. Lazazzera BA, et al. **J Bacteriol** 1999 Sep; 181(17):5193–200

Signal-dependent phosphorylation of the membrane-bound NarX two-component sensor-transmitter protein of Escherichia coli: nitrate elicits a superior anion ligand response compared to nitrite. Lee AI, et al. **J Bacteriol** 1999 Sep;181(17):5309–16

Identification of a two-component signal transduction system from Corynebacterium diphtheriae that activates gene expression in response to the presence of heme and hemoglobin. Schmitt MP. **J Bacteriol** 1999 Sep; 181(17):5330–40

An ABC transporter plays a developmental aggregation role in Myxococcus xanthus. Ward MJ, et al. **J Bacteriol** 1998 Nov;180(21):5697–703

Identification of a conserved N-terminal sequence involved in transmembrane signal transduction in EnvZ. Waukau J, et al. **J Bacteriol** 1999 Sep;181(17):5534–8

Signal transduction of the TGF-beta superfamily by Smad proteins. Kawabata M, et al. **J Biochem (Tokyo)** 1999 Jan; 125(1):9–16 (67 ref.)

The structure and function of the histidine-containing phosphotransfer (HPt) signaling domain of the Escherichia coli ArcB sensor. Matsushika A, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):440–5

Activation of c-fos promoter by Gbetagamma-mediated signaling: involvement of Rho and c-Jun N-terminal kinase. Sun Y, et al. **J Biochem (Tokyo)** 1999 Mar; 125(3):515–21

Fyn and JAK2 mediate Ras activation by reactive oxygen species. Abe J, et al. **J Biol Chem** 1999 Jul 23; 274(30):21003–10

Src-mediated tyrosine phosphorylation of dynamin is required for beta2-adrenergic receptor internalization and mitogen-activated protein kinase signaling. Ahn S, et al. **J Biol Chem** 1999 Jan 15;274(3):1185–8

Nitric oxide controls src kinase activity through a sulfhydryl group modification-mediated Tyr-527-independent and Tyr-416-linked mechanism. Akhand AA, et al. **J Biol Chem** 1999 Sep 3;274(36):25821–6

Formyl peptide receptor signaling in HL-60 cells through sphingosine kinase. Alemany R, et al. **J Biol Chem** 1999 Feb 12;274(7):3994–9

Differential pharmacological properties and signal transduction of the sphingosine 1-phosphate receptors EDG-1, EDG-3, and EDG-5. Ancellin N, et al. **J Biol Chem** 1999 Jul 2;274(27):18997–9002

Phosphatidylinositol phosphate kinases, a multifaceted family of signaling enzymes. Anderson RA, et al. **J Biol Chem** 1999 Apr 9;274(15):9907–10 (65 ref.)

Second site suppressor mutations of a GTPase-deficient G-protein alpha-subunit. Selective inhibition of Gbeta gamma-mediated signaling. Apanovitch DM, et al. **J Biol Chem** 1998 Oct 30;273(44):28597–602

A short loop on the ALK-2 and ALK-4 activin receptors regulates signaling specificity but cannot account for all their effects on early Xenopus development. Armes NA, et al. **J Biol Chem** 1999 Mar 19;274(12):7929–35

Use of an antisense strategy to dissect the signaling role of protein-tyrosine phosphatase alpha. Arnott CH, et al. **J Biol Chem** 1999 Sep 10;274(37):26105–12

The specificity of the CRM1-Rev nuclear export signal interaction is mediated by RanGTP. Askjaer P, et al. **J Biol Chem** 1998 Dec 11;273(50):33414–22

The activation of the c-Jun N-terminal kinase and p38 mitogen-activated protein kinase signaling pathways protects HeLa cells from apoptosis following photodynamic therapy with hypericin. Assefa Z, et al. **J Biol Chem** 1999 Mar 26;274(13):8788–96

Interaction of frizzled related protein (FRP) with Wnt ligands and the frizzled receptor suggests alternative mechanisms for FRP inhibition of Wnt signaling. Bafico A, et al. **J Biol Chem** 1999 Jun 4;274(23):16180–7

Endoglin is an accessory protein that interacts with the signaling receptor complex of multiple members of the transforming growth factor-beta superfamily. Barbara NP, et al. **J Biol Chem** 1999 Jan 8;274(2):584–94

BAD enables ceramide to signal apoptosis via Ras and Raf-1. Basu S, et al. **J Biol Chem** 1998 Nov 13;273(46):30419–26

KSR-1 binds to G-protein betagamma subunits and inhibits beta gamma-induced mitogen-activated protein kinase activation. Bell B, et al. **J Biol Chem** 1999 Mar 19; 274(12):7982–6

Caveolin interacts with Trk A and p75(NTR) and regulates neurotrophin signaling pathways. Bilderback TR, et al. **J Biol Chem** 1999 Jan 1;274(1):257–63

Adaptor proteins Grb2 and Crk couple Pyk2 with activation of specific mitogen-activated protein kinase cascades. Blaukat A, et al. **J Biol Chem** 1999 May 21; 274(21):14893–901

Cloning of a novel receptor subunit, AcPL, required for interleukin-18 signaling. Born TL, et al. **J Biol Chem** 1998 Nov 6;273(45):29445–50

Signaling in human osteoblasts by extracellular nucleotides. Their weak induction of the c-fos proto-oncogene via Ca2+ mobilization is strongly potentiated by a parathyroid hormone/cAMP-dependent protein kinase pathway independently of mitogen-activated protein kinase. Bowler WB, et al. **J Biol Chem** 1999 May 14;274(20):14315–24

Identification of TATA-binding protein-free TAFII-containing complex subunits suggests a role in nucleosome acetylation and signal transduction. Brand M, et al. **J Biol Chem** 1999 Jun 25;274(26):18285–9

Cell cycle and hormonal control of nuclear-cytoplasmic localization of the serum- and glucocorticoid-inducible protein kinase, Sgk, in mammary tumor cells. A novel convergence point of anti-proliferative and proliferative cell signaling pathways. Buse P, et al. **J Biol Chem** 1999 Mar 12;274(11):7253–63

Association of the Ras to mitogen-activated protein kinase signal transduction pathway with microfilaments. Evidence for a p185(neu)-containing cell surface signal transduction particle linking the mitogenic pathway to a membrane-microfilament association site. Carraway CA, et al. **J Biol Chem** 1999 Sep 3;274(36):25659–67

An intramembrane modulator of the ErbB2 receptor tyrosine kinase that potentiates neuregulin signaling. Carraway KL 3rd, et al. **J Biol Chem** 1999 Feb 26;274(9):5263–6

Cross-talk between the aryl hydrocarbon receptor and hypoxia inducible factor signaling pathways. Demonstration of competition and compensation. Chan WK, et al. **J Biol Chem** 1999 Apr 23;274(17):12115–23

Identification and cloning of xp95, a putative signal transduction protein in Xenopus oocytes. Che S, et al. **J Biol Chem** 1999 Feb 26;274(9):5522–31

Interleukin-12 induces expression of interferon regulatory factor-1 via signal transducer and activator of transcription-4 in human T helper type 1 cells. Coccia EM, et al. **J Biol Chem** 1999 Mar 5;274(10):6698–703

c-E10 is a caspase-recruiting domain-containing protein that interacts with components of death receptors signaling pathway and activates nuclear factor-kappaB. Costanzo A, et al. **J Biol Chem** 1999 Jul 16;274(29):20127–32

Dissociation of apoptosis from proliferation, protein kinase B activation, and BAD phosphorylation in interleukin-3-mediated phosphoinositide 3-kinase signaling. Craddock BL, et al. **J Biol Chem** 1999 Apr 9; 274(15):10633–40

Differential signaling by the epidermal growth factor-like growth factors neuregulin-1 and neuregulin-2. Crovello CS, et al. **J Biol Chem** 1998 Oct 9;273(41):26954–61

Signaling mechanisms that regulate glucose transport. Czech MP, et al. **J Biol Chem** 1999 Jan 22;274(4):1865–8 (78 ref.)

The lck SH3 domain is required for activation of the mitogen-activated protein kinase pathway but not the initiation of T-cell antigen receptor signaling. Denny MF, et al. **J Biol Chem** 1999 Feb 19;274(8):5146–52

Regulators of G protein signaling proteins as determinants of the rate of desensitization of presynaptic calcium channels. Diversé-Pierluissi MA, et al. **J Biol Chem** 1999 May 14;274(20):14490–4

Thrombopoietin signal transduction requires functional JAK2, not TYK2. Drachman JG, et al. **J Biol Chem** 1999 May 7;274(19):13480–4

Amino-terminal cysteine residues of RGS16 are required for palmitoylation and modulation of Gi- and Gq-mediated signaling. Druey KM, et al. **J Biol Chem** 1999 Jun 25; 274(26):18836–42

Differential effects of cAMP in neurons and astrocytes. Role of B-raf. Dugan LL, et al. **J Biol Chem** 1999 Sep 3; 274(36):25842–8

The ubiquitin-proteasome pathway and serine kinase activity modulate adenomatous polyposis coli protein-mediated regulation of beta-catenin-lymphocyte enhancer-binding factor signaling. Easwaran V, et al. **J Biol Chem** 1999 Jun 4;274(23):16641–5

The carboxyl-terminal domains of gp130-related cytokine receptors are necessary for suppressing embryonic stem cell differentiation. Involvement of STAT3. Ernst M, et al. **J Biol Chem** 1999 Apr 2;274(14):9729–37

Control of G2/M transition in Xenopus by a member of the p21-activated kinase (PAK) family: a link between protein kinase A and PAK signaling pathways? Faure S, et al. **J Biol Chem** 1999 Feb 5;274(6):3573-9

Isolation and biochemical characterization of the human Dkk-1 homologue, a novel inhibitor of mammalian Wnt signaling. Fedi P, et al. **J Biol Chem** 1999 Jul 2; 274(27):19465-72

Ca2+/calmodulin-dependent kinase II phosphorylates the epidermal growth factor receptor on multiple sites in the cytoplasmic tail and serine 744 within the kinase domain to regulate signal generation. Feinmesser RL, et al. **J Biol Chem** 1999 Jun 4;274(23):16168-73

Activation of a CrkL-stat5 signaling complex by type I interferons. Fish EN, et al. **J Biol Chem** 1999 Jan 8; 274(2):571-3

Pseudomonas aeruginosa exoenzyme S disrupts Ras-mediated signal transduction by inhibiting guanine nucleotide exchange factor-catalyzed nucleotide exchange. Ganesan AK, et al. **J Biol Chem** 1999 Jul 30;274(31):21823-9

Complexes of the alpha1C and beta subunits generate the necessary signal for membrane targeting of class C L-type calcium channels. Gao T, et al. **J Biol Chem** 1999 Jan 22; 274(4):2137-44

Sequences within fibrinogen and intercellular adhesion molecule-1 (ICAM-1) modulate signals required for mitogenesis. Gardiner EE, et al. **J Biol Chem** 1999 Apr 23;274(17):11930-6

Signal decay through a reverse phosphorelay in the Arc two-component signal transduction system. Georgellis D, et al. **J Biol Chem** 1998 Dec 4;273(49):32864-9

Vascular endothelial growth factor regulates endothelial cell survival through the phosphatidylinositol 3'-kinase/Akt signal transduction pathway. Requirement for Flk-1/KDR activation. Gerber HP, et al. **J Biol Chem** 1998 Nov 13; 273(46):30336-43

The Dbl-related protein, Lfc, localizes to microtubules and mediates the activation of Rac signaling pathways in cells. Glaven JA, et al. **J Biol Chem** 1999 Jan 22;274(4):2279-85

Repression of dioxin signal transduction in fibroblasts. Identification Of a putative repressor associated with Arnt. Gradin K, et al. **J Biol Chem** 1999 May 7;274(19):13511-8

Interleukin-1beta-induced cyclooxygenase-2 expression requires activation of both c-Jun NH2-terminal kinase and p38 MAPK signal pathways in rat renal mesangial cells. Guan Z, et al. **J Biol Chem** 1998 Oct 30;273(44):28670-6

Stimulation of IRS-1-associated phosphatidylinositol 3-kinase and Akt/protein kinase B but not glucose transport by beta1-integrin signaling in rat adipocytes. Guilherme A, et al. **J Biol Chem** 1998 Dec 11; 273(50):33119-22

The SH2 domain-containing inositol 5'-phosphatase (SHIP) recruits the p85 subunit of phosphoinositide 3-kinase during FcgammaRIIb1-mediated inhibition of B cell receptor signaling. Gupta N, et al. **J Biol Chem** 1999 Mar 12; 274(11):7489-94

Continuous autotropic signaling by membrane-expressed tumor necrosis factor. Haas E, et al. **J Biol Chem** 1999 Jun 18;274(25):18107-12

Identification of an integration center for cross-talk between protein kinase C and G protein modulation of N-type calcium channels. Hamid J, et al. **J Biol Chem** 1999 Mar 5;274(10):6195-202

A novel pathway for tumor necrosis factor-alpha and ceramide signaling involving sequential activation of tyrosine kinase, p21(ras), and phosphatidylinositol 3-kinase. Hanna AN, et al. **J Biol Chem** 1999 Apr 30;274(18):12722-9

Insulin signaling is inhibited by micromolar concentrations of H(2)O(2). Evidence for a role of H(2)O(2) in tumor necrosis factor alpha-mediated insulin resistance. Hansen LL, et al. **J Biol Chem** 1999 Aug 27;274(35):25078-84

Transient increases in intracellular calcium result in prolonged site-selective increases in Tau phosphorylation through a glycogen synthase kinase 3beta-dependent pathway. Hartigan JA, et al. **J Biol Chem** 1999 Jul 23; 274(30):21395-401

Molecular uncoupling of fractalkine-mediated cell adhesion and signal transduction. Rapid flow arrest of CX3CR1-expressing cells is independent of G-protein activation. Haskell CA, et al. **J Biol Chem** 1999 Apr 9; 274(15):10053-8

Protein kinase C mu is negatively regulated by 14-3-3 signal transduction proteins. Hausser A, et al. **J Biol Chem** 1999 Apr 2;274(14):9258-64

Differentiated phenotype of smooth muscle cells depends on signaling pathways through insulin-like growth factors and phosphatidylinositol 3-kinase. Hayashi K, et al. **J Biol Chem** 1998 Oct 30;273(44):28860-7

Identification of a potassium channel site that interacts with G protein betagamma subunits to mediate agonist-induced signaling. He C, et al. **J Biol Chem** 1999 Apr 30; 274(18):12517-24

IQGAP1 integrates Ca2+/calmodulin and Cdc42 signaling. Ho YD, et al. **J Biol Chem** 1999 Jan 1;274(1):464-70

Different mitogen-activated protein kinase signaling pathways cooperate to regulate tumor necrosis factor alpha gene expression in T lymphocytes. Hoffmeyer A, et al. **J Biol Chem** 1999 Feb 12;274(7):4319-27

cAMP-dependent mobilization of intracellular Ca2+ stores by activation of ryanodine receptors in pancreatic beta-cells. A Ca2+ signaling system stimulated by the insulinotropic hormone glucagon-like peptide-1-(7-37). Holz GG, et al. **J Biol Chem** 1999 May 14;274(20):14147-56

Disruption of gap junctional communication by the platelet-derived growth factor is mediated via multiple signaling pathways. Hossain MZ, et al. **J Biol Chem** 1999 Apr 9;274(15):10489-96

Binding of xanthine oxidase to vascular endothelium. Kinetic characterization and oxidative impairment of nitric oxide-dependent signaling. Houston M, et al. **J Biol Chem** 1999 Feb 19;274(8):4985-94

Membrane expression of soluble endotoxin-binding proteins permits lipopolysaccharide signaling in Chinese hamster ovary fibroblasts independently of CD14. Ingalls RR, et al. **J Biol Chem** 1999 May 14;274(20):13993-8

Separation of "glycosphingolipid signaling domain" from caveolin-containing membrane fraction in mouse melanoma B16 cells and its role in cell adhesion coupled with signaling. Iwabuchi K, et al. **J Biol Chem** 1998 Dec 11;273(50):33766-73

Insulin inhibits growth hormone signaling via the growth hormone receptor/JAK2/STAT5B pathway. Ji S, et al. **J Biol Chem** 1999 May 7;274(19):13434-42

Regulation of the hypoxia-inducible transcription factor 1alpha by the ubiquitin-proteasome pathway. Kallio PJ, et al. **J Biol Chem** 1999 Mar 5;274(10):6519-25

Activation of the protein kinase ERK5/BMK1 by receptor tyrosine kinases. Identification and characterization of a signaling pathway to the nucleus. Kamakura S, et al. **J Biol Chem** 1999 Sep 10;274(37):26563-71

A novel serine kinase with specificity for beta3-subunits is tightly associated with GABA(A) receptors. Kannenberg K, et al. **J Biol Chem** 1999 Jul 23;274(30):21257-64

Constitutively active Galpha12, Galpha13, and Galphaq induce Rho-dependent neurite retraction through different signaling pathways. Katoh H, et al. **J Biol Chem** 1998 Oct 30;273(44):28700-7

Association of the p75 neurotrophin receptor with TRAF6. Khursigara G, et al. **J Biol Chem** 1999 Jan 29; 274(5):2597-600

The polycystic kidney disease 1 gene product modulates Wnt signaling. Kim E, et al. **J Biol Chem** 1999 Feb 19; 274(8):4947-53

Interdomain signaling in a two-domain fragment of the human glucocorticoid receptor. Kumar R, et al. **J Biol Chem** 1999 Aug 27;274(35):24737-41

Delta-induced Notch signaling mediated by RBP-J inhibits MyoD expression and myogenesis. Kuroda K, et al. **J Biol Chem** 1999 Mar 12;274(11):7238-44

Phosphorylation is required for alteration of kv1.5 K(+) channel function by the Kvbeta1.3 subunit. Kwak YG, et al. **J Biol Chem** 1999 Sep 3;274(36):25355-61

Signaling by the germinal center kinase family of protein kinases. Kyriakis JM. **J Biol Chem** 1999 Feb 26; 274(9):5259-62 (55 ref.)

A disulfide-bridged mutant of natriuretic peptide receptor-A displays constitutive activity. Role of receptor dimerization in signal transduction. Labrecque J, et al. **J Biol Chem** 1999 Apr 2;274(14):9752-9

The STAT3-independent signaling pathway by glycoprotein 130 in hepatic cells. Lai CF, et al. **J Biol Chem** 1999 Mar 19;274(12):7793-802

Fibroblast growth factor receptor-1-mediated endothelial cell proliferation is dependent on the Src homology (SH) 2/SH3 domain-containing adaptor protein Crk. Larsson H, et al. **J Biol Chem** 1999 Sep 3;274(36):25726-34

Regulation of AML2/CBFA3 in hematopoietic cells through the retinoic acid receptor alpha-dependent signaling pathway. Le XF, et al. **J Biol Chem** 1999 Jul 30; 274(31):21651-8

beta3-adrenoceptor control the cystic fibrosis transmembrane conductance regulator through a cAMP/protein kinase A-independent pathway. Leblais V, et al. **J Biol Chem** 1999 Mar 5;274(10):6107-13

Characterization of mouse dishevelled (Dvl) proteins in Wnt/Wingless signaling pathway. Lee JS, et al. **J Biol Chem** 1999 Jul 23;274(30):21464-70

Constitutive activation of the prolactin receptor results in the induction of growth factor-independent proliferation and constitutive activation of signaling molecules. Lee RC, et al. **J Biol Chem** 1999 Apr 9;274(15):10024-34

pp60(v-src) induction of cyclin D1 requires collaborative interactions between the extracellular signal-regulated kinase, p38, and Jun kinase pathways. A role for cAMP response element-binding protein and activating transcription factor-2 in pp60(v-src) signaling in breast cancer cells. Lee RJ, et al. **J Biol Chem** 1999 Mar 12; 274(11):7341-50

Cyclic strain stress-induced mitogen-activated protein kinase (MAPK) phosphatase 1 expression in vascular smooth muscle cells is regulated by Ras/Rac-MAPK pathways. Li C, et al. **J Biol Chem** 1999 Sep 3;274(36):25273-80

Dishevelled proteins lead to two signaling pathways. Regulation of LEF-1 and c-Jun N-terminal kinase in mammalian cells. Li L, et al. **J Biol Chem** 1999 Jan 1; 274(1):129-34

Association of atypical protein kinase C isotypes with the docker protein FRS2 in fibroblast growth factor signaling. Lim YP, et al. **J Biol Chem** 1999 Jul 2;274(27):19025-34

Induction of megakaryocyte differentiation by a novel pregnancy-specific hormone. Lin J, et al. **J Biol Chem** 1999 Jul 23;274(30):21485-9

A different intracellular distribution of a single reporter protein is determined at steady state by KKXX or KDEL retrieval signals. Lotti LV, et al. **J Biol Chem** 1999 Apr 9;274(15):10413-20

NSP1 defines a novel family of adaptor proteins linking integrin and tyrosine kinase receptors to the c-Jun N-terminal kinase/stress-activated protein kinase signaling pathway. Lu Y, et al. **J Biol Chem** 1999 Apr 9; 274(15):10047-52

Role of ceramide in lipopolysaccharide (LPS)-induced signaling. LPS increases ceramide rather than acting as a structural homolog. MacKichan ML, et al. **J Biol Chem** 1999 Jan 15;274(3):1767-75

DAP12-mediated signal transduction in natural killer cells. A dominant role for the Syk protein-tyrosine kinase. McVicar DW, et al. **J Biol Chem** 1998 Dec 4; 273(49):32934-42

The role of phosphatases in inositol signaling reactions. Majerus PW, et al. **J Biol Chem** 1999 Apr 16; 274(16):10669-72 (57 ref.)

Alternatively spliced EDA segment regulates fibronectin-dependent cell cycle progression and mitogenic signal transduction. Manabe R, et al. **J Biol Chem** 1999 Feb 26;274(9):5919-24

Pyropheophorbide-a methyl ester-mediated photosensitization activates transcription factor NF-kappaB through the interleukin-1 receptor-dependent signaling pathway. Matroule JY, et al. **J Biol Chem** 1999 Jan 29;274(5):2988-3000

Protein kinase C regulates integrin-induced activation of the extracellular regulated kinase pathway upstream of Shc. Miranti CK, et al. **J Biol Chem** 1999 Apr 9; 274(15):10571-81

Physical and functional interactions between Pim-1 kinase and Cdc25A phosphatase. Implications for the Pim-1-mediated activation of the c-Myc signaling pathway. Mochizuki T, et al. **J Biol Chem** 1999 Jun 25; 274(26):18659-66

Role of the STAT1-SH2 domain and STAT2 in the activation and nuclear translocation of STAT1. Mowen K, et al. **J Biol Chem** 1998 Nov 13;273(46):30073-6

Glutamate receptor signaling interplay modulates stress-sensitive mitogen-activated protein kinases and neuronal cell death. Mukherjee PK, et al. **J Biol Chem** 1999 Mar 5;274(10):6493-8

The COOH-terminal tyrosine phosphorylation sites on IRS-1 bind SHP-2 and negatively regulate insulin signaling. Myers MG Jr, et al. **J Biol Chem** 1998 Oct 9; 273(41):26908-14

The proximal tyrosines of the cytoplasmic domain of the beta chain of the type I interferon receptor are essential for signal transducer and activator of transcription (Stat) 2 activation. Evidence that two Stat2 sites are required to reach a threshold of interferon alpha-induced Stat2 tyrosine phosphorylation that allows normal formation of interferon-stimulated gene factor 3. Nadeau OW, et al. **J Biol Chem** 1999 Feb 12;274(7):4045-52

Identification of a STAT4 binding site in the interleukin-12 receptor required for signaling. Naeger LK, et al. **J Biol Chem** 1999 Jan 22;274(4):1875-8

Overexpression of proteins containing tyrosine- or leucine-based sorting signals affects transferrin receptor trafficking. Nordeng TW, et al. **J Biol Chem** 1999 Jul 23; 274(30):21139-48

Oncogenic Ras enhances NF-kappaB transcriptional activity through Raf-dependent and Raf-independent mitogen-activated protein kinase signaling pathways. Norris JL, et al. **J Biol Chem** 1999 May 14;274(20):13841-6

Regulated CD44 cleavage under the control of protein kinase C, calcium influx, and the Rho family of small G proteins. Okamoto I, et al. **J Biol Chem** 1999 Sep 3;274(36):25525-34

Characterization of a Rac1 signaling pathway to cyclin D(1) expression in airway smooth muscle cells. Page K, et al. **J Biol Chem** 1999 Jul 30;274(31):22065-71

CCAAT/enhancer-binding protein activates the CD14 promoter and mediates transforming growth factor beta signaling in monocyte development. Pan Z, et al. **J Biol Chem** 1999 Aug 13;274(33):23242-8

The type and the localization of cAMP-dependent protein kinase regulate transmission of cAMP signals to the nucleus in cortical and cerebellar granule cells. Paolillo M, et al. **J Biol Chem** 1999 Mar 5;274(10):6546-52

Isolation, cloning, and characterization of a new mammalian coronin family member, coroninse, which is regulated within the protein kinase C signaling pathway. Parente JA Jr, et al. **J Biol Chem** 1999 Jan 29;274(5):3017-25

Del1 induces integrin signaling and angiogenesis by ligation of alphaVbeta3. Penta K, et al. **J Biol Chem** 1999 Apr 16; 274(16):11101-9

Peroxisome proliferator-activated receptor alpha activation modulates cellular redox status, represses nuclear factor-kappaB signaling, and reduces inflammatory cytokine production in aging. Poynter ME, et al. **J Biol Chem** 1998 Dec 4;273(49):32833-41

A thematic series on kinases and phosphatases that regulate lipid signaling. Prescott SM. **J Biol Chem** 1999 Mar 26; 274(13):8345-6

alpha-Melanocyte-stimulating hormone signaling regulates expression of microphthalmia, a gene deficient in Waardenburg syndrome. Price ER, et al. **J Biol Chem** 1998 Dec 4;273(49):33042-7

CD40 signaling through tumor necrosis factor receptor-associated factors (TRAFs). Binding site specificity and activation of downstream pathways by

distinct TRAFs. Pullen SS, et al. **J Biol Chem** 1999 May 14;274(20):14246–54

Domain-specific interactions between the p185(neu) and epidermal growth factor receptor kinases determine differential signaling outcomes. Qian X, et al. **J Biol Chem** 1999 Jan 8;274(2):574–83

Interleukin-10 receptor signaling through the JAK-STAT pathway. Requirement for two distinct receptor-derived signals for anti-inflammatory action. Riley JK, et al. **J Biol Chem** 1999 Jun 4;274(23):16513–21

Rapid mechanotransduction in situ at the luminal cell surface of vascular endothelium and its caveolae. Rizzo V, et al. **J Biol Chem** 1998 Oct 9;273(41):26323–9

Androgen-independent induction of prostate-specific antigen gene expression via cross-talk between the androgen receptor and protein kinase A signal transduction pathways. Sadar MD. **J Biol Chem** 1999 Mar 19; 274(12):7777–83

The carboxyl-terminal domain of receptor-associated protein facilitates proper folding and trafficking of the very low density lipoprotein receptor by interaction with the three amino-terminal ligand-binding repeats of the receptor. Savonen R, et al. **J Biol Chem** 1999 Sep 3;274(36):25877–82

Inhibition of T cell signaling by mitogen-activated protein kinase-targeted hematopoietic tyrosine phosphatase (HePTP). Saxena M, et al. **J Biol Chem** 1999 Apr 23; 274(17):11693–700

Distinct and common pathways in the regulation of insulin-like growth factor-1 receptor gene expression by angiotensin II and basic fibroblast growth factor. Scheidegger KJ, et al. **J Biol Chem** 1999 Feb 5; 274(6):3522–30

Inhibition of receptor internalization by monodansylcadaverine selectively blocks p55 tumor necrosis factor receptor death domain signaling. Schütze S, et al. **J Biol Chem** 1999 Apr 9;274(15):10203–12

Activation of mitogen-activated protein kinase by the A(2A)-adenosine receptor via a rap1-dependent and via a p21(ras)-dependent pathway. Seidel MG, et al. **J Biol Chem** 1999 Sep 3;274(36):25833–41

Separate signals for agonist-independent and agonist-triggered trafficking of protease-activated receptor 1. Shapiro MJ, et al. **J Biol Chem** 1998 Oct 30; 273(44):29009–14

Nuclear integration of glucocorticoid receptor and nuclear factor-kappaB signaling by CREB-binding protein and steroid receptor coactivator-1. Sheppard KA, et al. **J Biol Chem** 1998 Nov 6;273(45):29291–4

Smad1 interacts with homeobox DNA-binding proteins in bone morphogenetic protein signaling. Shi X, et al. **J Biol Chem** 1999 May 7;274(19):13711–7

Regulation of translational effectors by amino acid and mammalian target of rapamycin signaling pathways. Possible involvement of autophagy in cultured hepatoma cells. Shigemitsu K, et al. **J Biol Chem** 1999 Jan 8; 274(2):1058–65

Factor VIIa-induced p44/42 mitogen-activated protein kinase activation requires the proteolytic activity of factor VIIa and is independent of the tissue factor cytoplasmic domain. Sørensen BB, et al. **J Biol Chem** 1999 Jul 23; 274(30):21349–54

Signal transducer and activator of transcription-1 and heat shock factor-1 interact and activate the transcription of the Hsp-70 and Hsp-90beta gene promoters. Stephanou A, et al. **J Biol Chem** 1999 Jan 15;274(3):1723–8

Molecular characterization of the signal responsible for the targeting of the interleukin 2 receptor beta chain toward intracellular degradation. Subtil A, et al. **J Biol Chem** 1998 Nov 6;273(45):29424–9

Redox regulation of cell signaling by selenocysteine in mammalian thioredoxin reductases. Sun QA, et al. **J Biol Chem** 1999 Aug 27;274(35):24522–30

CD40 signaling of monocyte inflammatory cytokine synthesis through an ERK1/2-dependent pathway. A target of interleukin (il)-4 and il-10 anti-inflammatory action. Suttles J, et al. **J Biol Chem** 1999 Feb 26;274(9):5835–42

E-selectin gene expression is induced synergistically with the coexistence of activated classic protein kinase C and signals elicited by interleukin-1beta but not tumor necrosis factor-alpha. Tamaru M, et al. **J Biol Chem** 1999 Feb 5; 274(6):3753–63

Possible involvement of a novel STAM-associated molecule "AMSH" in intracellular signal transduction mediated by cytokines. Tanaka N, et al. **J Biol Chem** 1999 Jul 2; 274(27):19129–35

The role of phosphatidylinositol 3-kinase in vascular endothelial growth factor signaling. Thakker GD, et al. **J Biol Chem** 1999 Apr 9;274(15):10002–7

Nuclear localization of mitogen-activated protein kinase kinase 1 (MKK1) is promoted by serum stimulation and G2-M progression. Requirement for phosphorylation at the activation lip and signaling downstream of MKK. Tolwinski NS, et al. **J Biol Chem** 1999 Mar 5; 274(10):6168–74

Reconstitution of Btk signaling by the atypical tec family tyrosine kinases Bmx and Txk. Tomlinson MG, et al. **J Biol Chem** 1999 May 7;274(19):13577–85

Mammalian diacylglycerol kinases, a family of lipid kinases with signaling functions. Topham MK, et al. **J Biol Chem** 1999 Apr 23;274(17):11447–50 (84 ref.)

CD28 ligation induces tyrosine phosphorylation of Pyk2 but not Fak in Jurkat T cells. Tsuchida M, et al. **J Biol Chem** 1999 Mar 5;274(10):6735–40

Activation of stress signaling pathways by the end product of lipid peroxidation. 4-hydroxy-2-nonenal is a potential inducer of intracellular peroxide production. Uchida K, et al. **J Biol Chem** 1999 Jan 22;274(4):2234–42

Growth and differentiation signals by the insulin-like growth factor 1 receptor in hemopoietic cells are mediated through different pathways. Valentinis B, et al. **J Biol Chem** 1999 Apr 30;274(18):12423–30

Bruton's tyrosine kinase as an inhibitor of the Fas/CD95 death-inducing signaling complex. Vassilev A, et al. **J Biol Chem** 1999 Jan 15;274(3):1646–56

Angiotensin II-induced tyrosine phosphorylation of signal transducers and activators of transcription 1 is regulated by Janus-activated kinase 2 and Fyn kinases and mitogen-activated protein kinase phosphatase 1. Venema RC, et al. **J Biol Chem** 1998 Nov 13;273(46):30795–800

Differential signaling by the thromboxane receptor isoforms via the novel GTP-binding protein, Gh. Vezza R, et al. **J Biol Chem** 1999 Apr 30;274(18):12774–9

Transmembrane helix 7 of the endothelin B receptor regulates downstream signaling. Vichi P, et al. **J Biol Chem** 1999 Apr 9;274(15):10331–8

Cholesterol efflux-mediated signal transduction in mammalian sperm. beta-cyclodextrins initiate transmembrane signaling leading to an increase in protein tyrosine phosphorylation and capacitation. Visconti PE, et al. **J Biol Chem** 1999 Jan 29;274(5):3235–42

The role of syndecan cytoplasmic domain in basic fibroblast growth factor-dependent signal transduction. Volk R, et al. **J Biol Chem** 1999 Aug 20;274(34):24417–24

CREB-binding protein is a nuclear integrator of nuclear factor-kappaB and p53 signaling. Wadgaonkar R, et al. **J Biol Chem** 1999 Jan 22;274(4):1879–82

RhoA signaling via serum response factor plays an obligatory role in myogenic differentiation. Wei L, et al. **J Biol Chem** 1998 Nov 13;273(46):30287–94

IRAK-M is a novel member of the Pelle/interleukin-1 receptor-associated kinase (IRAK) family. Wesche H, et al. **J Biol Chem** 1999 Jul 2;274(27):19403–10

Identification of kinase-phosphatase signaling modules composed of p70 S6 kinase-protein phosphatase 2A (PP2A) and p21-activated kinase-PP2A. Westphal RS, et al. **J Biol Chem** 1999 Jan 8;274(2):687–92

Engagement of Gab1 and Gab2 in erythropoietin signaling. Wickrema A, et al. **J Biol Chem** 1999 Aug 27; 274(35):24469–74

RGS proteins determine signaling specificity of Gq-coupled receptors. Xu X, et al. **J Biol Chem** 1999 Feb 5; 274(6):3549–56

Caveolin is an activator of insulin receptor signaling. Yamamoto M, et al. **J Biol Chem** 1998 Oct 9; 273(41):26962–8

Differential regulation of mitogen-activated protein kinase kinase 4 (MKK4) and 7 (MKK7) by signaling from G protein beta gamma subunit in human embryonal kidney 293 cells. Yamauchi J, et al. **J Biol Chem** 1999 Jan 22; 274(4):1957–65

Positive and negative modulation of vitamin D receptor function by transforming growth factor-beta signaling through smad proteins. Yanagi Y, et al. **J Biol Chem** 1999 May 7;274(19):12971–4

Role of clathrin-mediated endocytosis in CXCR2 sequestration, resensitization, and signal transduction. Yang W, et al. **J Biol Chem** 1999 Apr 16;274(16):11328–33

The role of Tec protein-tyrosine kinase in T cell signaling. Yang WC, et al. **J Biol Chem** 1999 Jan 8;274(2):607–17

Inositol 1,3,4-trisphosphate acts in vivo as a specific regulator of cellular signaling by inositol 3,4,5,6-tetrakisphosphate. Yang X, et al. **J Biol Chem** 1999 Jul 2;274(27):18973–80

A novel human STE20-related protein kinase, HGK, that specifically activates the c-Jun N-terminal kinase signaling pathway. Yao Z, et al. **J Biol Chem** 1999 Jan 22; 274(4):2118–25

Attenuation of interleukin 2 signal in the spleen cells of complex ganglioside-lacking mice. Zhao J, et al. **J Biol Chem** 1999 May 14;274(20):13744–7

Hematopoietic progenitor kinase 1 is a component of transforming growth factor beta-induced c-Jun N-terminal kinase signaling cascade. Zhou G, et al. **J Biol Chem** 1999 May 7;274(19):13133–8

Growth hormone stimulates the formation of a multiprotein signaling complex involving p130(Cas) and CrkII. Resultant activation of c-Jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK). Zhu T, et al. **J Biol Chem** 1998 Dec 11;273(50):33864–75

Signaling pathways activated by oncogenic forms of Abl tyrosine kinase. Zou X, et al. **J Biol Chem** 1999 Jun 25; 274(26):18141–4 (77 ref.)

Distinct calcium-dependent pathways of epidermal growth factor receptor transactivation and PYK2 tyrosine phosphorylation in PC12 cells. Zwick E, et al. **J Biol Chem** 1999 Jul 23;274(30):20989–96

HIV infection and signal transduction. Bovolenta C, et al. **J Biol Regul Homeost Agents** 1998 Jul-Sep;12(3):63–6 (56 ref.)

Signal transduction pathway for anterior-posterior development in Drosophila. Baek KH, et al. **J Biomed Sci** 1999 Sep-Oct;6(5):314–9 (55 ref.)

Activation of Stat3 by v-Src is through a Ras-independent pathway. Liu JJ, et al. **J Biomed Sci** 1998 Nov-Dec; 5(6):446–50

Signaling pathways for tumor necrosis factor-alpha and interleukin-6 expression in human macrophages exposed to titanium-alloy particulate debris in vitro [see comments] Nakashima Y, et al. **J Bone Joint Surg Am** 1999 May; 81(5):603–15. Comment in: J Bone Joint Surg Am 1999 May;81(5):599–602.

New horizons in orthopaedic research: elucidation of cellular signal transduction pathways [editorial; comment] Roebuck KA, et al. **J Bone Joint Surg Am** 1999 May;81(5):599–602. Comment on: J Bone Joint Surg Am 1999 May;81(5):603–15. Comment on: J Bone Joint Surg Am 1999 May;81(5):616–23.

The nucleolar targeting signal (NTS) of parathyroid hormone related protein mediates endocytosis and nucleolar translocation. Aarts MM, et al. **J Bone Miner Res** 1999 Sep;14(9):1493–503

In vivo and in vitro association of 14-3-3 epsilon isoform with calmodulin: implication for signal transduction and cell proliferation. Luk SC, et al. **J Cell Biochem** 1999 Apr 1;73(1):31–5

Evidence for ligand-independent homo-oligomerization of leptin receptor (OB-R) isoforms: a proposed mechanism permitting productive long-form signaling in the presence of excess short-form expression. White DW, et al. **J Cell Biochem** 1999 May 1;73(2):278–88

Involvement of intracellular signaling factors in the serum-enhanced Ca2+-binding protein regucalcin mRNA expression in the cloned rat hepatoma cells (H4-II-E). Yamaguchi M, et al. **J Cell Biochem** 1999 Jul 1;74(1):81–9

Impaired integrin-mediated adhesion and signaling in fibroblasts expressing a dominant-negative mutant PTP1B. Arregui CO, et al. **J Cell Biol** 1998 Nov 2;143(3):861–73

Characterization of integrin-tetraspanin adhesion complexes: role of tetraspanins in integrin signaling. Berditchevski F, et al. **J Cell Biol** 1999 Jul 26;146(2):477–92

Molecular bases for the recognition of tyrosine-based sorting signals. Bonifacino JS, et al. **J Cell Biol** 1999 May 31; 145(5):923–6 (42 ref.)

Employment of the epidermal growth factor receptor in growth factor-independent signaling pathways. Carpenter G. **J Cell Biol** 1999 Aug 23;146(4):697–702 (61 ref.)

Regulation of cell contraction and membrane ruffling by distinct signals in migratory cells. Cheresh DA, et al. **J Cell Biol** 1999 Sep 6;146(5):1107–16

Budding yeast Bub2 is localized at spindle pole bodies and activates the mitotic checkpoint via a different pathway from Mad2. Fraschini R, et al. **J Cell Biol** 1999 May 31; 145(5):979–91

Role of cholesterol in formation and function of a signaling complex involving alphavbeta3, integrin-associated protein (CD47), and heterotrimeric G proteins. Green JM, et al. **J Cell Biol** 1999 Aug 9;146(3):673–82

Heptahelical receptor signaling: beyond the G protein paradigm. Hall RA, et al. **J Cell Biol** 1999 May 31; 145(5):927–32 (66 ref.)

Changes in the balance of phosphoinositide 3-kinase/protein kinase B (Akt) and the mitogen-activated protein kinases (ERK/p38MAPK) determine a phenotype of visceral and vascular smooth muscle cells. Hayashi K, et al. **J Cell Biol** 1999 May 17;145(4):727–40

The Xenopus Chk1 protein kinase mediates a caffeine-sensitive pathway of checkpoint control in cell-free extracts. Kumagai A, et al. **J Cell Biol** 1998 Sep 21;142(6):1559–69

Drosophila APC2 is a cytoskeletally-associated protein that regulates wingless signaling in the embryonic epidermis. McCartney BM, et al. **J Cell Biol** 1999 Sep 20; 146(6):1303–18

Signaling to actin dynamics. Machesky LM, et al. **J Cell Biol** 1999 Jul 26;146(2):267–72 (54 ref.)

A morphogenesis checkpoint monitors the actin cytoskeleton in yeast. McMillan JN, et al. **J Cell Biol** 1998 Sep 21; 142(6):1487–99

Insulin-like growth factor II signaling in neoplastic proliferation is blocked by transgenic expression of the metalloproteinase inhibitor TIMP-1. Martin DC, et al. **J Cell Biol** 1999 Aug 23;146(4):881–92

The heterogeneity of ER Ca2+ stores has a key role in nonmuscle cell signaling and function. Meldolesi J, et al. **J Cell Biol** 1998 Sep 21;142(6):1395–8 (49 ref.)

Integrin-mediated activation of focal adhesion kinase is required for signaling to Jun NH2-terminal kinase and progression through the G1 phase of the cell cycle. Oktay M, et al. **J Cell Biol** 1999 Jun 28;145(7):1461–9

The Drosophila Ral GTPase regulates developmental cell shape changes through the Jun NH(2)-terminal kinase pathway. Sawamoto K, et al. **J Cell Biol** 1999 Jul 26; 146(2):361–72

Polyunsaturated fatty acids inhibit T cell signal transduction by modification of detergent-insoluble membrane domains. Stulnig TM, et al. **J Cell Biol** 1998 Nov 2;143(3):637–44

Regulation of mRNA localization by transmembrane signalling: local interaction of HB-GAM (heparin-binding growth-associated molecule) with the cell surface localizes beta-actin mRNA. Fages C, et al. **J Cell Sci** 1998 Oct;111 (Pt 20):3073–80

Distinct signal transduction pathways are utilized during the tube formation and survival phases of in vitro angiogenesis. Ilan N, et al. **J Cell Sci** 1998 Dec 18;111 (Pt 24):3621–31

Is arcA3 a possible mediator in the signal transduction pathway during agonist cell cycle arrest by salicylic acid and UV irradiation? Perennes C, et al. **J Cell Sci** 1999 Apr;

112 (Pt 8):1181–90
Activation of protein kinases in canine basilar artery in vasospasm. Fujikawa H, et al. **J Cereb Blood Flow Metab** 1999 Jan;19(1):44–52
The role of epidermal growth factor (EGF) and its receptor in mucosal protection, adaptation to injury, and ulcer healing: involvement of EGF-R signal transduction pathways. Tarnawski AS, et al. **J Clin Gastroenterol** 1998; 27 Suppl 1:S12–20 (63 ref.)
Hypothermic stress leads to activation of Ras–Erk signaling. Chan EY, et al. **J Clin Invest** 1999 May;103(9):1337–44
Recent developments in lymphocyte activation: linking kinases to downstream signaling events. Clements JL, et al. **J Clin Invest** 1999 Apr;103(7):925–9 (43 ref.)
Organization of kinases, phosphatases, and receptor signaling complexes. Schillace RV, et al. **J Clin Invest** 1999 Mar; 103(6):761–5 (27 ref.)
Mitogen-activated protein kinase inhibits 1,25-dihydroxyvitamin D3-dependent signal transduction by phosphorylating human retinoid X receptor alpha. Solomon C, et al. **J Clin Invest** 1999 Jun;103(12):1729–35
Protein-protein interaction in insulin signaling and the molecular mechanisms of insulin resistance. Virkamäki A, et al. **J Clin Invest** 1999 Apr;103(7):931–43 (186 ref.)
Accessory factors and the regulation of epithelial sodium channel activity. Warnock DG. **J Clin Invest** 1999 Mar; 103(5):593
A database for cell signaling networks. Takai-Igarashi T, et al. **J Comput Biol** 1998 Winter;5(4):747–54
Crosstalk between the interleukin-6 (IL-6)-JAK-STAT and the glucocorticoid-nuclear receptor pathway: synergistic activation of IL-6 response element by IL-6 and glucocorticoid. Takeda T, et al. **J Endocrinol** 1998 Nov; 159(2):323–30
Inducible NO synthase: role in cellular signalling. Beck KF, et al. **J Exp Biol** 1999 Mar;202 (Pt 6):645–53 (81 ref.)
Evolution of osmotic stress signaling via MAP kinase cascades. Kütz D, et al. **J Exp Biol** 1998 Nov;201 (Pt 22):3015–21 (37 ref.)
Grf40, A novel Grb2 family member, is involved in T cell signaling through interaction with SLP-76 and LAT. Asada H, et al. **J Exp Med** 1999 May 3;189(9):1383–90
CD5 expression is developmentally regulated by T cell receptor (TCR) signals and TCR avidity. Azzam HS, et al. **J Exp Med** 1998 Dec 21;188(12):2301–11
Involvement of guanosine triphosphatases and phospholipase C-gamma2 in extracellular signal-regulated kinase, c-Jun NH2-terminal kinase, and p38 mitogen-activated protein kinase activation by the B cell antigen receptor. Hashimoto A, et al. **J Exp Med** 1998 Oct 5;188(7):1287–95
Different protein tyrosine kinases are required for B cell antigen receptor-mediated activation of extracellular signal-regulated kinase, c-Jun NH2-terminal kinase 1, and p38 mitogen-activated protein kinase. Jiang A, et al. **J Exp Med** 1998 Oct 5;188(7):1297–306
Human toll-like receptor 2 confers responsiveness to bacterial lipopolysaccharide. Kirschning CJ, et al. **J Exp Med** 1998 Dec 7;188(11):2091–7
Stimulus-dependent synergism of the antiapoptotic tumor necrosis factor receptor-associated factor 2 (TRAF2) and nuclear factor kappaB pathways. Lee SY, et al. **J Exp Med** 1998 Oct 5;188(7):1381–4
The inositol polyphosphate 5-phosphatase ship is a crucial negative regulator of B cell antigen receptor signaling. Liu Q, et al. **J Exp Med** 1998 Oct 5;188(7):1333–42
B cell development in the spleen takes place in discrete steps and is determined by the quality of B cell receptor-derived signals. Loder F, et al. **J Exp Med** 1999 Jul 5;190(1):75–89
Integrin-mediated ras-extracellular regulated kinase (ERK) signaling regulates interferon gamma production in human natural killer cells. Mainiero F, et al. **J Exp Med** 1998 Oct 5;188(7):1267–75
The molecular ZPA. Pearse RV 2nd, et al. **J Exp Zool** 1998 Dec 15;282(6):677–90 (117 ref.)
Involvement of growth factor receptor-bound protein-2 in rat hepatocyte growth. Wada S, et al. **J Gastroenterol Hepatol** 1998 Jun;13(6):635–42
Erk-independent partial activation of AP-1 sites by the hepatitis B virus HBx protein. Henkler F, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2737–42
Inhibition of integrin signaling with Arg-Gly-Asp motifs in rat hepatic stellate cells. Iwamoto H, et al. **J Hepatol** 1998 Nov;29(5):752–9
Differential effects of jaundice and cirrhosis on beta-adrenoceptor signaling in three rat models of cirrhotic cardiomyopathy. Ma Z, et al. **J Hepatol** 1999 Mar; 30(3):485–91
A semiquantitative image-analytical method for the recording of dose-response curves in immunocytochemical preparations. Wicht H, et al. **J Histochem Cytochem** 1999 Mar;47(3):411–20
The human regulator of G-protein signaling protein 6 gene (RGS6) maps between markers WI-5202 and D14S277 on chromosome 14q24.3. Seki N, et al. **J Hum Genet** 1999; 44(2):138–40
ICAM-1 signaling pathways associated with Rho activation in microvascular brain endothelial cells. Etienne S, et al. **J Immunol** 1998 Nov 15;161(10):5755–61
Antigen receptor-induced signal transduction imbalances associated with the negative selection of immature B cells. King LB, et al. **J Immunol** 1999 Mar 1;162(5):2655–62
TCR signaling induces selective exclusion of CD43 from the T cell-antigen-presenting cell contact site. Sperling AI, et al. **J Immunol** 1998 Dec 15;161(12):6459–62
Kinases involved in MSP/RON signaling. Danilkovitch A, et al. **J Leukoc Biol** 1999 Mar;65(3):345–8 (47 ref.)
Signal transduction by reactive oxygen species in non-phagocytic cells. Finkel T. **J Leukoc Biol** 1999 Mar; 65(3):337–40 (35 ref.)
Integrin signal transduction in myeloid leukocytes. Lowell CA, et al. **J Leukoc Biol** 1999 Mar;65(3):313–20 (94 ref.)
Sphingosine 1-phosphate: a prototype of a new class of second messengers. Spiegel S. **J Leukoc Biol** 1999 Mar; 65(3):341–4 (41 ref.)
Flt3 signaling involves tyrosyl-phosphorylation of SHP-2 and SHIP and their association with Grb2 and Shc in Baf3/Flt3 cells. Zhang S, et al. **J Leukoc Biol** 1999 Mar; 65(3):372–80
Society for Leukocyte Biology 33rd annual meeting. Molecular Mechanisms of Leukocyte Signal Transduction. La Jolla, California, USA. August 22–25, 1998. Abstracts. **J Leukoc Biol Suppl** 1998;:9–35
Progesterone signaling and mammary gland morphogenesis. Shyamala G. **J Mammary Gland Biol Neoplasia** 1999 Jan; 4(1):89–104 (72 ref.)
Eukaryotic signalling domain homologues in archaea and bacteria. Ancient ancestry and horizontal gene transfer. Ponting CP, et al. **J Mol Biol** 1999 Jun 18;289(4):729–45
Myocardial glucose transporter GLUT1: translocation induced by insulin and ischemia. Egert S, et al. **J Mol Cell Cardiol** 1999 Jul;31(7):1337–44
The thrombin receptor elevates intracellular calcium in adult rat ventricular myocytes. Jiang T, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2193–9
Redox regulation of signal transduction in cardiac and smooth muscle. Suzuki YJ, et al. **J Mol Cell Cardiol** 1999 Feb;31(2):345–53 (72 ref.)
Ontogeny of cardiac beta-adrenoceptor desensitization mechanisms: agonist treatment enhances receptor/G-protein transduction rather than eliciting uncoupling. Zeiders JL, et al. **J Mol Cell Cardiol** 1999 Feb; 31(2):413–23
The patched signaling pathway in tumorigenesis and development: lessons from animal models. Hahn H, et al. **J Mol Med** 1999 Jun;77(6):459–68 (102 ref.)
Molecular aspects of adrenergic signal transduction in cardiac failure. Hajjar RJ, et al. **J Mol Med** 1998 Oct;76(11):747–55 (65 ref.)
Molecular pathogenesis of chronic lymphocytic leukemia: factors and signaling pathways regulating cell growth and survival. Meinhardt G, et al. **J Mol Med** 1999 Feb; 77(2):282–93 (155 ref.)
Cellular mechanisms of cardiac hypertrophy. Sugden PH, et al. **J Mol Med** 1998 Oct;76(11):725–46 (307 ref.)
Aberrancies in signal transduction and cell cycle related events in Alzheimer's disease. Arendt T, et al. **J Neural Transm Suppl** 1998;54:147–58 (82 ref.)
Serotonin 5-HT2C receptor RNA editing alters receptor basal activity: implications for serotonergic signal transduction. Herrick-Davis K, et al. **J Neurochem** 1999 Oct;73(4):1711–7
Frequency coding of melatonin signals sufficient to induce testicular growth in photoregressed Siberian hamsters. Prendergast BJ, et al. **J Neuroendocrinol** 1999 Apr; 11(4):237–41
Cytoskeletal assembly and ATP release regulate astrocytic calcium signaling. Cotrina ML, et al. **J Neurosci** 1998 Nov 1;18(21):8794–804
Rapid nuclear responses to target-derived neurotrophins require retrograde transport of ligand-receptor complex. Watson FL, et al. **J Neurosci** 1999 Sep 15;19(18):7889–900
Phytochrome-mediated light signals are transduced to nucleoside diphosphate kinase in Pisum sativum L. cv. Alaska. Tanaka N, et al. **J Photochem Photobiol B** 1998 Sep;45(2-3):113–21
Molecular and cellular analyses of melatonin receptor-mediated cAMP signaling in rat corpus epididymis. Li L, et al. **J Pineal Res** 1998 Dec;25(4):219–28
Receptor research prize 1998. Sponsored by NEN Life Science Products. Dr. Werner Schlegel. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):xxi–xxii
Mutagenesis of the human 5-HT1B receptor: differences from the closely related 5-HT1A receptor and the role of residue F331 in signal transduction. Gränäs C, et al. **J Recept Signal Transduct Res** 1998 Jul-Nov; 18(4-6):225–41
Splenic immune suppression in sepsis: A role for IL-10-induced changes in P38 MAPK signaling. Song GY, et al. **J Surg Res** 1999 May 1;83(1):36–43
Human insulin receptor and insulin signaling proteins in hepatic disease. Spector SA, et al. **J Surg Res** 1999 May 1;83(1):32–5
Optimal stoichiometric designs of ATP-producing systems as determined by an evolutionary algorithm. Stephani A, et al. **J Theor Biol** 1999 Jul 7;199(1):45–61
Stimulus amplification, efficacy, and the operational model. Part II--ternary complex occupancy mechanisms. Trzeciakowski JP. **J Theor Biol** 1999 Jun 7;198(3):347–74
Stimulus amplification, efficacy, and the operational model. Part I--binary complex occupancy mechanisms. Trzeciakowski JP. **J Theor Biol** 1999 Jun 7;198(3):329–46
A signaling pathway for stimulation of Na+ uptake induced by angiotensin II in primary cultured rabbit renal proximal tubule cells. Han HJ, et al. **J Vet Med Sci** 1999 Feb; 61(2):135–41
Middle T antigen activation of signal transduction pathways does not overcome p53-mediated growth arrest. Doherty J, et al. **J Virol** 1999 Sep;73(9):7882–5
Epstein-Barr virus-encoded latent membrane protein 1 activates the JNK pathway through its extreme C terminus via a mechanism involving TRADD and TRAF2. Eliopoulos AG, et al. **J Virol** 1999 Feb;73(2):1023–35
Divergent requirements for the MAPK(ERK) signal transduction pathway during initial virus infection of quiescent primary B cells and disruption of Epstein-Barr virus latency by phorbol esters. Fenton M, et al. **J Virol** 1999 Oct;73(10):8913–6
Polyomavirus large T antigen induces alterations in cytoplasmic signalling pathways involving Shc activation. Gottifredi V, et al. **J Virol** 1999 Feb;73(2):1427–37
Expression of hepatitis C virus proteins inhibits signal transduction through the Jak-STAT pathway. Heim MH, et al. **J Virol** 1999 Oct;73(10):8469–75
Prevention of encephalomyocarditis virus-induced diabetes in mice by inhibition of the tyrosine kinase signalling pathway and subsequent suppression of nitric oxide production in macrophages. Hirasawa K, et al. **J Virol** 1999 Oct;73(10):8541–8
The CC-chemokine RANTES increases the attachment of human immunodeficiency virus type 1 to target cells via glycosaminoglycans and also activates a signal transduction pathway that enhances viral infectivity. Trkola A, et al. **J Virol** 1999 Aug;73(8):6370–9
Human herpesvirus 8 interleukin-6 (vIL-6) signals through gp130 but has structural and receptor-binding properties distinct from those of human IL-6. Wan X, et al. **J Virol** 1999 Oct;73(10):8268–78
Hepatitis C virus core protein enhances NF-kappaB signal pathway triggering by lymphotoxin-beta receptor ligand and tumor necrosis factor alpha. You LR, et al. **J Virol** 1999 Feb;73(2):1672–81
Roles of extracellular signal-regulated kinase 1/2 and p38 mitogen-activated protein kinase in the signal transduction of basic fibroblast growth factor in endothelial cells during angiogenesis. Tanaka K, et al. **Jpn J Cancer Res** 1999 Jun; 90(6):647–54
In vivo molecular signal transduction of peripheral mechanisms of pain. Ueda H. **Jpn J Pharmacol** 1999 Mar; 79(3):263–8 (27 ref.)
Detection of ErbB2 oversignalling in a majority of breast cancers with phosphorylation-state-specific antibodies [letter] Ouyang X, et al. **Lancet** 1999 May 8; 353(9164):1591–2
Interleukin-10 and Gp130 cytokines in human multiple myeloma. Klein B, et al. **Leuk Lymphoma** 1999 Jun; 34(1-2):63–70 (66 ref.)
Retinoic acid and interferon signaling cross talk in normal and RA-resistant APL cells. Chelbi-Alix MK, et al. **Leukemia** 1999 Aug;13(8):1167–74 (107 ref.)
MDS1/EVI1 enhances TGF-beta1 signaling and strengthens its growth-inhibitory effect but the leukemia-associated fusion protein AML1/MDS1/EVI1, product of the t(3;21), abrogates growth-inhibition in response to TGF-beta1. Sood R, et al. **Leukemia** 1999 Mar;13(3):348–57
APS, an adaptor protein containing Pleckstrin homology (PH) and Src homology-2 (SH2) domains inhibits the JAK-STAT pathway in collaboration with c-Cbl. Wakioka T, et al. **Leukemia** 1999 May;13(5):760–7
An EGF receptor-mediated signal attenuates the inhibitory effect of LPA on an adenylate cyclase activity. Arimura S, et al. **Life Sci** 1998;63(17):1563–70
The generation of nitric oxide by G protein-coupled receptors. Christopoulos A, et al. **Life Sci** 1999;64(1):1–15 (104 ref.)
Muscarinic cholinergic signaling in cardiac myocytes: dynamic targeting of M2AChR to sarcolemmal caveolae and eNOS activation. Feron O, et al. **Life Sci** 1999; 64(6-7):471–7 (24 ref.)
Molecular events associated with the regulation of signaling by M2 muscarinic receptors. Hosey MM, et al. **Life Sci** 1999;64(6-7):363–8
Signal transduction of eicosanoid CB1 receptor ligands. Howlett AC, et al. **Life Sci** 1999;65(6-7):617–25 (32 ref.)
M2 signaling in smooth muscle cells. Kotlikoff MI, et al. **Life Sci** 1999;64(6-7):437–42 (29 ref.)
The influence of the cellular context on receptor function: a necessary consideration for physiologic interpretations of receptor expression studies. Logsdon CD. **Life Sci** 1999; 64(6-7):369–74 (38 ref.)
Dynamic regulation of the proinflammatory cytokine, interleukin-1beta: molecular biology for non-molecular biologists. Watkins LR, et al. **Life Sci** 1999;65(5):449–81 (290 ref.)
Downregulation of caveolin expression by cAMP signal. Yamamoto M, et al. **Life Sci** 1999;64(15):1349–57
The role of docosahexaenoic acid (22:6n-3) in neuronal signaling. Kim HY, et al. **Lipids** 1999;34 Suppl:S249–50
Sphingolipid metabolism in the regulation of bioactive molecules. Luberto C, et al. **Lipids** 1999;34 Suppl:S5–11 (62 ref.)
Signaling in human lupus T lymphocytes [editorial] Zouali M. **Lupus** 1998;7(8):499–502 (37 ref.)
Evidence that FGF receptor signaling is necessary for endoderm-regulated development of precardiac mesoderm. Zhu X, et al. **Mech Ageing Dev** 1999 Apr 1;108(1):77–85
Dishevelled: at the crossroads of divergent intracellular

signaling pathways. Boutros M, et al. **Mech Dev** 1999 May; 83(1-2):27-37 (67 ref.)

Local Gurken signaling and dynamic MAPK activation during Drosophila oogenesis. Peri F, et al. **Mech Dev** 1999 Mar;81(1-2):75-88

Evidence for age-related deamidation reactions in erythrocyte p55 and glycophorins C and D: implications for signal transduction involving tumour-suppressor proteins in higher eukaryotes. Lofthouse JT. **Med Hypotheses** 1998 Oct;51(4):321-4 (14 ref.)

Neutrophil signaling alteration: an adverse inflammatory response after burn shock. Sayeed MM. **Medicina (B Aires)** 1998;58(4):386-92 (19 ref.)

Ca2+ and intracellular signalling in plant cells: a role in phytochrome transduction. Volotovski ID. **Membr Cell Biol** 1998;12(5):721-42 (75 ref.)

Thrombopoietin signal transduction: studies from cell lines and primary cells. Drachman JG, et al. **Methods** 1999 Mar; 17(3):238-49 (80 ref.)

Protein-DNA interactions in interferon-gamma signaling. Park C, et al. **Methods** 1998 Jul;15(3):175-88 (89 ref.)

The identification of signaling molecules by the yeast two-hybrid system. Biffo S, et al. **Methods Mol Biol** 1999; 96:211-20 (7 ref.)

Induction of intracellular signals through binding of adhesive molecules. Activation of p125FAK tyrosine phosphorylation. Venturino M, et al. **Methods Mol Biol** 1999;96:191-8 (12 ref.)

Biochemical analysis of integrin-mediated Shc signaling. Wary KK, et al. **Methods Mol Biol** 1999;129:35-49

PAS domains: internal sensors of oxygen, redox potential, and light. Taylor BL, et al. **Microbiol Mol Biol Rev** 1999 Jun;63(2):479-506 (269 ref.)

Farnesol-induced growth inhibition in Saccharomyces cerevisiae by a cell cycle mechanism. Machida K, et al. **Microbiology** 1999 Feb;145 (Pt 2):293-9

Evidence that halogenated furanones from Delisea pulchra inhibit acylated homoserine lactone (AHL)-mediated gene expression by displacing the AHL signal from its receptor protein. Manefield M, et al. **Microbiology** 1999 Feb;145 (Pt 2):283-91

Nuclear activities of basic fibroblast growth factor: potentiation of low-serum growth mediated by natural or chimeric nuclear localization signals. Arese M, et al. **Mol Biol Cell** 1999 May;10(5):1429-44

Direct involvement of N-cadherin-mediated signaling in muscle differentiation. Goichberg P, et al. **Mol Biol Cell** 1998 Nov;9(11):3119-31

Hsp90 is required for pheromone signaling in yeast. Louvion JF, et al. **Mol Biol Cell** 1998 Nov;9(11):3071-83

Transduction of basolateral-to-apical signals across epithelial cells: ligand-stimulated transcytosis of the polymeric immunoglobulin receptor requires two signals. Luton F, et al. **Mol Biol Cell** 1999 May;10(5):1409-27

Cluster of differentiation antigen 4 (CD4) endocytosis and adaptor complex binding require activation of the CD4 endocytosis signal by serine phosphorylation. Pitcher C, et al. **Mol Biol Cell** 1999 Mar;10(3):677-91

The multisubstrate docking site of the MET receptor is dispensable for MET-mediated RAS signaling and cell scattering. Tulasne D, et al. **Mol Biol Cell** 1999 Mar; 10(3):551-65

Regulation of the actin cytoskeleton by thrombin in human endothelial cells: role of Rho proteins in endothelial barrier function. Vouret-Craviari V, et al. **Mol Biol Cell** 1998 Sep; 9(9):2639-53

Comparison of human COP9 signalsome and 26S proteasome lid. Henke W, et al. **Mol Biol Rep** 1999 Apr;26(1-2):29-34 (20 ref.)

Clostridial toxins: molecular probes of Rho-dependent signaling and apoptosis. Bobak DA. **Mol Cell Biochem** 1999 Mar;193(1-2):37-42 (28 ref.)

Signal transduction and transcriptional adaptation in embryonic heart development and during myocardial hypertrophy. Ghatpande S, et al. **Mol Cell Biochem** 1999 Jun;196(1-2):93-7 (50 ref.)

Involvement of signal transduction pathways in Salmonella typhimurium porin activated gut macrophages. Gupta S, et al. **Mol Cell Biochem** 1999 Apr;194(1-2):235-43

Dynamic regulation of intracellular calcium signals through calcium release channels. Iino M. **Mol Cell Biochem** 1999 Jan;190(1-2):185-90 (41 ref.)

Role of acylCoA binding protein in acylCoA transport, metabolism and cell signaling. Knudsen J, et al. **Mol Cell Biochem** 1999 Feb;192(1-2):95-103 (88 ref.)

The CD38-cyclic ADP-ribose signaling system in insulin secretion. Okamoto H. **Mol Cell Biochem** 1999 Mar; 193(1-2):115-8

Dissection of the impact of various intracellular signaling pathways on stable cell aggregate formation of rat thymocytes after initial lectin-dependent cell association of using a plant lectin as model and target-selective inhibitors. Timoshenko AV, et al. **Mol Cell Biochem** 1999 Jul;197(1-2):137-45

The IRS-signalling system: a network of docking proteins that mediate insulin action. White MF. **Mol Cell Biochem** 1998 May;182(1-2):3-11 (81 ref.)

p38 mitogen-activated protein kinase can be involved in transforming growth factor beta superfamily signal transduction in Drosophila wing morphogenesis. Adachi-Yamada T, et al. **Mol Cell Biol** 1999 Mar; 19(3):2322-9

Reactive oxygen intermediate-dependent NF-kappaB activation by interleukin-1beta requires 5-lipoxygenase or NADPH oxidase activity. Bonizzi G, et al. **Mol Cell Biol** 1999 Mar;19(3):1950-60

p70(s6k) integrates phosphatidylinositol 3-kinase and rapamycin-regulated signals for E2F regulation in T lymphocytes. Brennan P, et al. **Mol Cell Biol** 1999 Jul; 19(7):4729-38

Osmotic shock inhibits insulin signaling by maintaining Akt/protein kinase B in an inactive dephosphorylated state. Chen D, et al. **Mol Cell Biol** 1999 Jul;19(7):4684-94

RGS3 inhibits G protein-mediated signaling via translocation to the membrane and binding to Galpha11. Dulin NO, et al. **Mol Cell Biol** 1999 Jan;19(1):714-23

Regulation of myogenesis by fibroblast growth factors requires beta-gamma subunits of pertussis toxin-sensitive G proteins. Fedorov YV, et al. **Mol Cell Biol** 1998 Oct; 18(10):5780-7

NDT80 and the meiotic recombination checkpoint regulate expression of middle sporulation-specific genes in Saccharomyces cerevisiae. Hepworth SR, et al. **Mol Cell Biol** 1998 Oct;18(10):5750-61

The mitogen-activated protein kinase signaling pathway stimulates mos mRNA cytoplasmic polyadenylation during Xenopus oocyte maturation. Howard EL, et al. **Mol Cell Biol** 1999 Mar;19(3):1990-9

Separation and characterization of the activated pool of colony-stimulating factor 1 receptor forming distinct multimeric complexes with signalling molecules in macrophages. Kanagasundaram V, et al. **Mol Cell Biol** 1999 Jun;19(6):4079-92

Receptor inhibition of pheromone signaling is mediated by the Ste4p Gbeta subunit. Kim J, et al. **Mol Cell Biol** 1999 Jan;19(1):441-9

Role for Hsp90-associated cochaperone p23 in estrogen receptor signal transduction. Knoblauch R, et al. **Mol Cell Biol** 1999 May;19(5):3748-59

Protein kinase C-delta is an important signaling molecule in insulin-like growth factor I receptor-mediated cell transformation. Li W, et al. **Mol Cell Biol** 1998 Oct; 18(10):5888-98

Mutant cells that do not respond to interleukin-1 (IL-1) reveal a novel role for IL-1 receptor-associated kinase. Li X, et al. **Mol Cell Biol** 1999 Jul;19(7):4643-52

FAST-2 is a mammalian winged-helix protein which mediates transforming growth factor beta signals. Liu B, et al. **Mol Cell Biol** 1999 Jan;19(1):424-30

Mid2 is a putative sensor for cell integrity signaling in Saccharomyces cerevisiae. Rajavel M, et al. **Mol Cell Biol** 1999 Jun;19(6):3969-76

Mitogen-activated protein kinases: specific messages from ubiquitous messengers. Schaeffer HJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2435-44 (145 ref.)

Signals from the Ras, Rac, and Rho GTPases converge on the Pak protein kinase in Rat-1 fibroblasts. Tang Y, et al. **Mol Cell Biol** 1999 Mar;19(3):1881-91

Activated MEK stimulates expression of AP-1 components independently of phosphatidylinositol 3-kinase (PI3-kinase) but requires a PI3-kinase signal To stimulate DNA synthesis. Treinies I, et al. **Mol Cell Biol** 1999 Jan; 19(1):321-9

Glutamate induces phosphorylation of Elk-1 and CREB, along with c-fos activation, via an extracellular signal-regulated kinase-dependent pathway in brain slices. Vanhoutte P, et al. **Mol Cell Biol** 1999 Jan;19(1):136-46

Shp-2 tyrosine phosphatase functions as a negative regulator of the interferon-stimulated Jak/STAT pathway. You M, et al. **Mol Cell Biol** 1999 Mar;19(3):2416-24

Interdomain B in ZAP-70 regulates but is not required for ZAP-70 signaling function in lymphocytes. Zhao Q, et al. **Mol Cell Biol** 1999 Jan;19(1):948-56

Definition of a high affinity growth hormone DNA response element. Bergad PL, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):151-9

Signal transduction involving cyclic AMP-dependent and cyclic AMP-independent mechanisms in the control of steroidogenesis. Cooke BA. **Mol Cell Endocrinol** 1999 May 25;151(1-2):25-35 (100 ref.)

Role and regulation of 90 kDa ribosomal S6 kinase (RSK) in signal transduction. Frödin M, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):65-77 (82 ref.)

Adrenergic regulation of translocation of protein kinase C isozymes in rat pinealocytes. Ho AK, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):169-78

Local activation and inactivation of thyroid hormones: the deiodinase family. Köhrle J. **Mol Cell Endocrinol** 1999 May 25;151(1-2):103-19 (152 ref.)

The tail of the gonadotrophin-releasing hormone receptor: desensitization at, and distal to, G protein-coupled receptors. McArdle CA, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):129-36 (63 ref.)

Use of two-hybrid methodology for identifying proteins of interest in endocrinology. Pirson I, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):137-41 (42 ref.)

GnRH signalling pathways and GnRH-induced homologous desensitization in a gonadotrope cell line (alphaT3-1). Poulin B, et al. **Mol Cell Endocrinol** 1998 Jul 25; 142(1-2):99-117

Glucocorticoid signalling--multiple variations of a common theme. Reichardt HM, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):1-6 (38 ref.)

Transcriptional regulation of the StAR gene. Reinhart AJ, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):161-9 (86 ref.)

Mechanisms mediating multiple physiological responses to gonadotropin-releasing hormone. Stanislaus D, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):1-10 (73 ref.)

Downstream factors in transforming growth factor-beta family signaling. Visser JA, et al. **Mol Cell Endocrinol** 1998 Nov 25;146(1-2):7-17 (113 ref.)

Reconstitution of the protein kinase A response of the rat prolactin promoter: differential effects of distinct Pit-1 isoforms and functional interaction with Oct-1. Diamond SE, et al. **Mol Endocrinol** 1999 Feb;13(2):228-38

Termination of growth hormone pulse-induced STAT5b signaling. Gebert CA, et al. **Mol Endocrinol** 1999 Jan; 13(1):38-56

Functional and subcellular changes in the A-kinase-signaling pathway: relation to aromatase and Sgk expression during the transition of granulosa cells to luteal cells. Gonzalez-Robayna IJ, et al. **Mol Endocrinol** 1999 Aug; 13(8):1318-37

Hypothesis: Progesterone primes breast cancer cells for cross-talk with proliferative or antiproliferative signals. Lange CA, et al. **Mol Endocrinol** 1999 Jun;13(6):829-36 (39 ref.)

Roles of pathway-specific and inhibitory Smads in activin receptor signaling. Lebrun JJ, et al. **Mol Endocrinol** 1999 Jan;13(1):15-23

Compartmentation of cyclic adenosine 3',5'-monophosphate signaling in caveolae. Schwencke C, et al. **Mol Endocrinol** 1999 Jul;13(7):1061-70

Identification of a novel prohormone sorting signal-binding site on carboxypeptidase E, a regulated secretory pathway-sorting receptor. Zhang CF, et al. **Mol Endocrinol** 1999 Apr;13(4):527-36

Cell signaling defects and human disease. Mora-Garcia P, et al. **Mol Genet Metab** 1999 Mar;66(3):143-71 (255 ref.)

Janus kinases and focal adhesion kinases play in the 4.1 band: a superfamily of band 4.1 domains important for cell structure and signal transduction. Girault JA, et al. **Mol Med** 1998 Dec;4(12):751-69 (137 ref.)

Pho signal transduction network reveals direct transcriptional regulation of one two-component system by another two-component regulator: Bacillus subtilis PhoP directly regulates production of ResD. Birkey SM, et al. **Mol Microbiol** 1998 Dec;30(5):943-53

prhJ and hrpG, two new components of the plant signal-dependent regulatory cascade controlled by PrhA in Ralstonia solanacearum. Brito B, et al. **Mol Microbiol** 1999 Jan;31(1):237-51

Putative membrane components of signal transduction pathways for ambient pH regulation in Aspergillus and meiosis in saccharomyces are homologous. Denison SH, et al. **Mol Microbiol** 1998 Oct;30(2):259-64

Initial binding of Shiga toxin-producing Escherichia coli to host cells and subsequent induction of actin rearrangements depend on filamentous EspA-containing surface appendages. Ebel F, et al. **Mol Microbiol** 1998 Oct; 30(1):147-61

The FruA signal transduction protein provides a checkpoint for the temporal co-ordination of intercellular signals in Myxococcus xanthus development. Ellehauge E, et al. **Mol Microbiol** 1998 Nov;30(4):807-17

Heterotrimerization of PII-like signalling proteins: implications for PII-mediated signal transduction systems. Forchhammer K, et al. **Mol Microbiol** 1999 Jul; 33(2):338-49

Msn1p/Mss10p, Mss11p and Muc1p/Flo11p are part of a signal transduction pathway downstream of Mep2p regulating invasive growth and pseudohyphal differentiation in Saccharomyces cerevisiae. Gagiano M, et al. **Mol Microbiol** 1999 Jan;31(1):103-16

Serine kinase activity of a Bacillus subtilis switch protein is required to transduce environmental stress signals but not to activate its target PP2C phosphatase. Kang CM, et al. **Mol Microbiol** 1998 Oct;30(1):189-96

Ecs, an ABC transporter of Bacillus subtilis: dual signal transduction functions affecting expression of secreted proteins as well as their secretion. Leskelä S, et al. **Mol Microbiol** 1999 Jan;31(2):533-43

Ambient pH signal transduction in Aspergillus: completion of gene characterization. Negrete-Urtasun S, et al. **Mol Microbiol** 1999 Sep;33(5):994-1003

A mutation in Saccharomyces cerevisiae adenylate cyclase, Cyr1K1876M, specifically affects glucose- and acidification-induced cAMP signalling and not the basal cAMP level. Vanhalewyn M, et al. **Mol Microbiol** 1999 Jul;33(2):363-76

Angiotensin II type 1 receptor-modulated signaling pathways in neurons. Richards EM, et al. **Mol Neurobiol** 1999 Feb; 19(1):25-41 (117 ref.)

Gi protein modulation induced by a selective inverse agonist for the peripheral cannabinoid receptor CB2: implication for intracellular signalization cross-regulation. Bouaboula M, et al. **Mol Pharmacol** 1999 Mar;55(3):473-80

p38 but not p44/42 mitogen-activated protein kinase is required for nitric oxide synthase induction mediated by lipopolysaccharide in RAW 264.7 macrophages [published erratum appears in Mol Pharmacol 1999 Jun;55(6):1108] Chen CC, et al. **Mol Pharmacol** 1999 Mar;55(3):481-8

Selective regulation of G protein-coupled receptor-mediated signaling by G protein-coupled receptor kinase 2 in FRTL-5 cells: analysis of thyrotropin,

alpha(1B)-adrenergic, and A(1) adenosine receptor-mediated responses. Iacovelli L, et al. **Mol Pharmacol** 1999 Aug;56(2):316-24

A mutation in the second transmembrane region of the CB1 receptor selectively disrupts G protein signaling and prevents receptor internalization. Roche JP, et al. **Mol Pharmacol** 1999 Sep;56(3):611-8

Rho as a mediator of G protein-coupled receptor signaling. Seasholtz TM, et al. **Mol Pharmacol** 1999 Jun;55(6):949-56 (98 ref.)

Production of acyl-homoserine lactone quorum-sensing signals by gram-negative plant-associated bacteria. Cha C, et al. **Mol Plant Microbe Interact** 1998 Nov;11(11):1119-29

Regulation of protein tyrosine phosphorylation in boar sperm through a cAMP-dependent pathway. Kalab P, et al. **Mol Reprod Dev** 1998 Nov;51(3):304-14

Fibroblast growth factor 2 uses PLC-gamma1 for cell proliferation and PI3-kinase for alteration of cell shape and cell proliferation in corneal endothelial cells. Kay EP, et al. **Mol Vis** 1998 Oct 27;4:22

Apoptosis and heart failure. Williams RS. **N Engl J Med** 1999 Sep 2;341(10):759-60 (1 ref.)

Going mad with Smads. Zhou S, et al. **N Engl J Med** 1999 Oct 7;341(15):1144-6 (8 ref.)

Signal transduction 2000 [editorial] **Nat Biotechnol** 1999 Feb; 17(2):111

Signal transduction as a drug-discovery platform. Persidis A. **Nat Biotechnol** 1998 Nov;16(11):1082-3

Cell penetrating PNA constructs regulate galanin receptor levels and modify pain transmission in vivo. Pooga M, et al. **Nat Biotechnol** 1998 Sep;16(9):857-61

Conditional expression and signaling of a specifically designed Gi-coupled receptor in transgenic mice [see comments] Redfern CH, et al. **Nat Biotechnol** 1999 Feb; 17(2):165-9. Comment in: Nat Biotechnol 1999 Feb;17(2):111. Comment in: Nat Biotechnol 1999 Feb;17(2):131-2.

Peptide modulators of protein-protein interactions in intracellular signaling. Souroujon MC, et al. **Nat Biotechnol** 1998 Oct;16(10):919-24 (50 ref.)

A genome-wide functional assay of signal transduction in living mammalian cells [see comments] Whitney M, et al. **Nat Biotechnol** 1998 Dec;16(13):1329-33. Comment in: Nat Biotechnol 1998 Dec;16(13):1311-2.

Response of melanocortin-4 receptor-deficient mice to anorectic and orexigenic peptides. Marsh DJ, et al. **Nat Genet** 1999 Jan;21(1):119-22

Ocular albinism: evidence for a defect in an intracellular signal transduction system. Schiaffino MV, et al. **Nat Genet** 1999 Sep;23(1):108-12

A friendly signal [news; comment] Schwartzberg PL. **Nat Genet** 1999 Oct;23(2):128-30. Comment on: Nat Genet 1999 Oct;23(2):159-65.

Irs-2 coordinates Igf-1 receptor-mediated beta-cell development and peripheral insulin signalling. Withers DJ, et al. **Nat Genet** 1999 Sep;23(1):32-40

A mechanism for hormone-independent prostate cancer through modulation of androgen receptor signaling by the HER-2/neu tyrosine kinase [see comments] Craft N, et al. **Nat Med** 1999 Mar;5(3):280-5. Comment in: Nat Med 1999 Mar;5(3):264-5.

New pieces to the prostate cancer puzzle [news; comment] Visakorpi T. **Nat Med** 1999 Mar;5(3):264-5. Comment on: Nat Med 1999 Mar;5(3):275-9. Comment on: Nat Med 1999 Mar;5(3):280-5.

The GYF domain is a novel structural fold that is involved in lymphoid signaling through proline-rich sequences. Freund C, et al. **Nat Struct Biol** 1999 Jul;6(7):656-60

Autoinhibition by an internal nuclear localization signal revealed by the crystal structure of mammalian importin alpha [see comments] Kobe B. **Nat Struct Biol** 1999 Apr; 6(4):388-97. Comment in: Nat Struct Biol 1999 Apr;6(4):301-4.

Cross-talk between peptide- and steroid-mediated signalling pathways: clinical implications. Kumar VL. **Natl Med J India** 1998 Jul-Aug;11(4):178-9

Local inhibition and long-range enhancement of Dpp signal transduction by Sog [see comments] Ashe HL, et al. **Nature** 1999 Apr 1;398(6726):427-31. Comment in: Nature 1999 Apr 1;398(6726):375-6.

Developmental neurobiology. Decoding the Reelin signal [news] Bar I, et al. **Nature** 1999 Jun 17;399(6737):645-6

Signal transduction. Rhapsody in G proteins [news; comment] Bos JL, et al. **Nature** 1999 Aug 26; 400(6747):820-1. Comment on: Nature 1999 Aug 26;400(6747):891-4.

Homeobox gene Nkx2.2 and specification of neuronal identity by graded Sonic hedgehog signalling. Briscoe J, et al. **Nature** 1999 Apr 15;398(6728):622-7

Drosophila Tcf and Groucho interact to repress Wingless signalling activity. Cavallo RA, et al. **Nature** 1998 Oct 8; 395(6702):604-8

Vertebrate Hedgehog signalling modulated by induction of a Hedgehog-binding protein. Chuang PT, et al. **Nature** 1999 Feb 18;397(6720):617-21

Frizzled regulation of Notch signalling polarizes cell fate in the Drosophila eye. Cooper MT, et al. **Nature** 1999 Feb 11;397(6719):526-30

A presenilin-1-dependent gamma-secretase-like protease mediates release of Notch intracellular domain [see comments] De Strooper B, et al. **Nature** 1999 Apr 8; 398(6727):518-22. Comment in: Nature 1999 Apr 8;398(6727):466-7.

Control of neural crest cell fate by the Wnt signalling pathway. Dorsky RI, et al. **Nature** 1998 Nov 26; 396(6709):370-3

Signal transduction. Mating, channels and kidney cysts [news; comment] Emmons SW, et al. **Nature** 1999 Sep 23; 401(6751):339-40. Comment on: Nature 1999 Sep 23;401(6751):383-6. Comment on: Nature 1999 Sep 23;401(6751):386-9.

The AMPA receptor interacts with and signals through the protein tyrosine kinase Lyn. Hayashi T, et al. **Nature** 1999 Jan 7;397(6714):72-6

Signals from the reproductive system regulate the lifespan of C. elegans [see comments] Hsin H, et al. **Nature** 1999 May 27;399(6734):362-6. Comment in: Nature 1999 May 27;399(6734):308-9.

The TAK1-NLK-MAPK-related pathway antagonizes signalling between beta-catenin and transcription factor TCF. Ishitani T, et al. **Nature** 1999 Jun 24; 399(6738):798-802

Developmental biology. Antagonists on the left flank [news; comment] King T, et al. **Nature** 1999 Sep 16; 401(6750):222-3. Comment on: Nature 1999 Sep 16;401(6750):243-51.

Interaction of glutamic-acid-rich proteins with the cGMP signalling pathway in rod photoreceptors. Körschen HG, et al. **Nature** 1999 Aug 19;400(6746):761-6

Suppression of auxin signal transduction by a MAPK cascade in higher plants. Kovtun Y, et al. **Nature** 1998 Oct 15; 395(6703):716-20

Signalling through CD30 protects against autoimmune diabetes mediated by CD8 T cells. Kurts C, et al. **Nature** 1999 Mar 25;398(6725):341-4

Dally cooperates with Drosophila Frizzled 2 to transduce Wingless signalling [see comments] Lin X, et al. **Nature** 1999 Jul 15;400(6741):281-4. Comment in: Nature 1999 Jul 15;400(6741):213-5.

Enhanced long-term potentiation and impaired learning in mice with mutant postsynaptic density-95 protein [see comments] Migaud M, et al. **Nature** 1998 Dec 3; 396(6710):433-9. Comment in: Nature 1998 Dec 3;396(6710):414-5.

Signal transduction. A taste of things to come [news] Mitchell A. **Nature** 1999 Mar 4;398(6722):25

The kinase TAK1 can activate the NIK-I kappaB as well as the MAP kinase cascade in the IL-1 signalling pathway. Ninomiya-Tsuji J, et al. **Nature** 1999 Mar 18; 398(6724):252-6

Developmental biology. Sending all the right signals [news] Perrimon N, et al. **Nature** 1998 Nov 5;396(6706):18-9

Ca2+/calmodulin signals the completion of docking and triggers a late step of vacuole fusion [see comments] Peters C, et al. **Nature** 1998 Dec 10;396(6711):575-80. Comment in: Nature 1998 Dec 10;396(6711):514-5.

Casein kinase I transduces Wnt signals. Peters JM, et al. **Nature** 1999 Sep 23;401(6751):345-50

The head inducer Cerberus is a multifunctional antagonist of Nodal, BMP and Wnt signals. Piccolo S, et al. **Nature** 1999 Feb 25;397(6721):707-10

NF-kappaB is a target of AKT in anti-apoptotic PDGF signalling [see comments] Romashkova JA, et al. **Nature** 1999 Sep 2;401(6748):86-90. Comment in: Nature 1999 Sep 2;401(6748):33-4.

The X-linked lymphoproliferative-disease gene product SAP regulates signals induced through the co-receptor SLAM [see comments] Sayos J, et al. **Nature** 1998 Oct 1; 395(6701):462-9. Comment in: Nature 1998 Oct 1;395(6701):441, 443-4.

EPS8 and E3B1 transduce signals from Ras to Rac. Scita G, et al. **Nature** 1999 Sep 16;401(6750):290-3

Assembly of the Drosophila phototransduction cascade into a signalling complex shapes elementary responses. Scott K, et al. **Nature** 1998 Oct 22;395(6704):805-8

Skeletal muscle hypertrophy is mediated by a Ca2+-dependent calcineurin signalling pathway. Semsarian C, et al. **Nature** 1999 Aug 5;400(6744):576-81

Efficiency of signalling through cytokine receptors depends critically on receptor orientation. Syed RS, et al. **Nature** 1998 Oct 1;395(6701):511-6

Signal transduction. An anchor for activation [news] ten Dijke P, et al. **Nature** 1999 Jan 14;397(6715):109, 111

The cell-surface proteoglycan Dally regulates Wingless signalling in Drosophila [see comments] Tsuda M, et al. **Nature** 1999 Jul 15;400(6741):276-80. Comment in: Nature 1999 Jul 15;400(6741):213-5.

Inhibition of transforming growth factor-beta/SMAD signalling by the interferon-gamma/STAT pathway. Ulloa L, et al. **Nature** 1999 Feb 25;397(6721):710-3

A SMAD ubiquitin ligase targets the BMP pathway and affects embryonic pattern formation. Zhu H, et al. **Nature** 1999 Aug 12;400(6745):687-93

Pharmacology of NO:cGMP signal transduction [editorial; comment] Lohse MJ, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Jul; 358(1):111-2. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1998 Jul;358(1):113-22. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1998 Jul;358(1):123-6. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1998 Jul;358(1):127-33. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1998 Jul;358(1):134-9. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1998 Jul;358(1):140-4.

Corticotropin-releasing factor and vasoactive intestinal polypeptide activate gene transcription through the cAMP signaling pathway in a catecholaminergic immortalized neuron. Thiel G, et al. **Neurochem Int** 1999 Mar; 34(3):183-91

Stat3 participates in the metabotropic glutamate signaling pathway in Bergmann glial cells. Aguilera P, et al. **Neurochem Res** 1999 Aug;24(8):981-6

The phosphoinositide signaling cycle in myelin requires cooperative interaction with the axon. Chakraborty G, et al. **Neurochem Res** 1999 Feb;24(2):249-54

Extracellular ATP: a further modulator in neuroendocrine control of the thymus. Alves LA, et al. **Neuroimmunomodulation** 1999 Jan-Apr;6(1-2):81-9 (90 ref.)

A novel signaling pathway from rod photoreceptors to ganglion cells in mammalian retina. Soucy E, et al. **Neuron** 1998 Sep;21(3):481-93

Phosphorylation and inhibition of olfactory adenylyl cyclase by CaM kinase II in Neurons: a mechanism for attenuation of olfactory signals. Wei J, et al. **Neuron** 1998 Sep; 21(3):495-504

Galaninergic signalling and adenylate cyclase. Karelson E, et al. **Neuropeptides** 1998 Jun;32(3):197-210 (126 ref.)

Angiotensin II-induced calcium signalling in neurons and astrocytes of rat circumventricular organs. Gebke E, et al. **Neuroscience** 1998 Jul;85(2):509-20

Post-translational control of the MEF2A transcriptional regulatory protein. Ornatsky OI, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2646-54

SMART: identification and annotation of domains from signalling and extracellular protein sequences. Ponting CP, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):229-32

Protein kinase A-Ialpha subunit-directed antisense inhibition of ovarian cancer cell growth: crosstalk with tyrosine kinase signaling pathway. Alper O, et al. **Oncogene** 1999 Sep 2;18(35):4999-5004

Modulation of life and death by the TNF receptor superfamily. Baker SJ, et al. **Oncogene** 1998 Dec 24; 17(25):3261-70 (69 ref.)

Stress signals for apoptosis: ceramide and c-Jun kinase. Basu S, et al. **Oncogene** 1998 Dec 24;17(25):3277-85 (75 ref.)

Increasing complexity of Ras signaling. Campbell SL, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1395-413 (256 ref.)

C3G is tyrosine-phosphorylated after integrin-mediated cell adhesion in normal but not in Bcr/Abl expressing cells. de Jong R, et al. **Oncogene** 1998 Nov 26;17(21):2805-10

Signaling by dual specificity kinases. Dhanasekaran N, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1447-55 (117 ref.)

Cell signaling: an overview. Dhanasekaran N. **Oncogene** 1998 Sep 17;17(11 Reviews):1329-30 (0 ref.)

Regulation of cell proliferation by G proteins. Dhanasekaran N, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1383-94 (139 ref.)

Active signaling by Neu in transgenic mice. DiGiovanna MP, et al. **Oncogene** 1998 Oct 8;17(14):1877-84

Signal transduction pathways that regulate cell survival and cell death. Dragovich T, et al. **Oncogene** 1998 Dec 24; 17(25):3207-13 (62 ref.)

Rho-regulated signals induce apoptosis in vitro and in vivo by a p53-independent, but Bcl2 dependent pathway. Esteve P, et al. **Oncogene** 1998 Oct 8;17(14):1855-69

cbl-b inhibits epidermal growth factor receptor signaling. Ettenberg SA, et al. **Oncogene** 1999 Mar 11;18(10):1855-66

Epstein-Barr virus latent membrane protein-1 (LMP1) signalling is distinct from CD40 and involves physical cooperation of its two C-terminus functional regions. Floettmann JE, et al. **Oncogene** 1998 Nov 5;17(18):2383-92

Role of tyrosine residues and protein interaction domains of SHC adaptor in VEGF receptor 3 signaling. Fournier E, et al. **Oncogene** 1999 Jan 14;18(2):507-14

p21ras initiates Rac-1 but not phosphatidyl inositol 3 kinase/PKB, mediated signaling pathways in T lymphocytes. Genot E, et al. **Oncogene** 1998 Oct 1; 17(13):1731-8

Gas6-mediated survival in NIH3T3 cells activates stress signalling cascade and is independent of Ras. Goruppi S, et al. **Oncogene** 1999 Jul 22;18(29):4224-36

Cell growth control by G protein-coupled receptors: from signal transduction to signal integration. Gutkind JS. **Oncogene** 1998 Sep 17;17(11 Reviews):1331-42 (163 ref.)

Signaling through the antigen receptor of B lymphocytes activates a p53-independent pathway of c-Myc-induced apoptosis. Hagiyama H, et al. **Oncogene** 1999 Jul 15; 18(28):4091-8

Interaction of abl and raf with IL-7 signaling pathway and transformation of pre-B cells from resistant mice. Hilbert DM, et al. **Oncogene** 1998 Oct 22;17(16):2125-35

Constitutive activation of the 41-/43-kDa mitogen-activated protein kinase signaling pathway in human tumors. Hoshino R, et al. **Oncogene** 1999 Jan 21;18(3):813-22

Expression of an isoform of the novel signal transduction protein ST5 is linked to cell morphology. Hubbs AE, et al. **Oncogene** 1999 Apr 15;18(15):2519-25

Anti-apoptotic versus pro-apoptotic signal transduction: checkpoints and stop signs along the road to death. Jarpe MB, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1475-82 (79 ref.)

Signaling requirements for oncogenic forms of the Met tyrosine kinase receptor. Jeffers M, et al. **Oncogene** 1998 Nov 26;17(21):2691-700

The community effect in FGF-1 mediated tumor progression

of a rat bladder carcinoma does not involve a direct paracrine signaling. Jouanneau J, et al. **Oncogene** 1999 Jan 14;18(2):327–33

Repression of NF-kappaB impairs HeLa cell proliferation by functional interference with cell cycle checkpoint regulators. Kaltschmidt B, et al. **Oncogene** 1999 May 27; 18(21):3213–25

Cell cycle targets of Ras/Raf signalling. Kerkhoff E, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1457–62 (82 ref.)

Endothelial receptor tyrosine kinases activate the STAT signaling pathway: mutant Tie-2 causing venous malformations signals a distinct STAT activation response. Korpelainen EI, et al. **Oncogene** 1999 Jan 7;18(1):1–8

Signaling by integrin receptors. Kumar CC. **Oncogene** 1998 Sep 17;17(11 Reviews):1365–73 (92 ref.)

A balance of signaling by Rho family small GTPases RhoA, Rac1 and Cdc42 coordinates cytoskeletal morphology but not cell survival. Moorman JP, et al. **Oncogene** 1999 Jan 7;18(1):47–57

The germinal center kinase (GCK)-related protein kinases HPK1 and KHS are candidates for highly selective signal transducers of Crk family adapter proteins. Oehrl W, et al. **Oncogene** 1998 Oct 15;17(15):1893–901

Genetic analysis of mammalian G-protein signalling. Offermanns S, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1375–81 (66 ref.)

Tyrosine kinase receptor-activated signal transduction pathways which lead to oncogenesis. Porter AC, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1343–52 (106 ref.)

The opposing roles of the Akt and c-Myc signalling pathways in survival from CD95-mediated apoptosis. Rohn JL, et al. **Oncogene** 1998 Dec 3;17(22):2811–8

SHP-2 binds to Tyr763 and Tyr1009 in the PDGF beta-receptor and mediates PDGF-induced activation of the Ras/MAP kinase pathway and chemotaxis. Rönnstrand L, et al. **Oncogene** 1999 Jun 24;18(25):3696–702

Induction of cell transformation by mutated 16K vacuolar H+-atpase (ductin) is accompanied by down-regulation of gap junctional intercellular communication and translocation of connexin 43 in NIH3T3 cells. Saito T, et al. **Oncogene** 1998 Oct 1;17(13):1673–80

The many faces of Src: multiple functions of a prototypical tyrosine kinase. Schwartzberg PL. **Oncogene** 1998 Sep 17; 17(11 Reviews):1463–8 (65 ref.)

TNF-alpha activates at least two apoptotic signaling cascades. Sidoti-de Fraisse C, et al. **Oncogene** 1998 Oct 1;17(13):1639–51

From Src Homology domains to other signaling modules: proposal of the 'protein recognition code'. Sudol M. **Oncogene** 1998 Sep 17;17(11 Reviews):1469–74 (64 ref.)

Antigen receptor signaling: integration of protein tyrosine kinase functions. Tamir I, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1353–64 (203 ref.)

Anti-apoptotic signaling of the IGF-I receptor in fibroblasts following loss of matrix adhesion. Valentinis B, et al. **Oncogene** 1999 Mar 11;18(10):1827–36

Disruption of the antiproliferative TGF-beta signaling pathways in human pancreatic cancer cells. Villanueva A, et al. **Oncogene** 1998 Oct 15;17(15):1969–78

Cross-talk between the Smad1 and Ras/MEK signaling pathways for TGFbeta. Yue J, et al. **Oncogene** 1999 Mar 18;18(11):2033–7

Does "death receptor" signaling play a role in tumorigenesis and cancer therapy? Villunger A, et al. **Oncol Res** 1998; 10(11–12):541–50 (189 ref.)

Molecular mechanism of a cross-talk between estrogen and growth-factor signaling pathways. Kato S, et al. **Oncology** 1998 Dec;55 Suppl 1:5–10 (32 ref.)

Signal transduction pathway in human middle ear cholesteatoma. Myers EN, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):899–904

Induction of signalling anergy via the T-cell receptor in cultured Jurkat T cells by pre-exposure to a filarial nematode secreted product. Harnett MM, et al. **Parasite Immunol** 1998 Nov;20(11):551–63

Impaired signal transduction in neonatal platelets. Israels SJ, et al. **Pediatr Res** 1999 May;45(5 Pt 1):687–91

Signaling pathways via NK1 receptors and their desensitization in an AR42J cell line. Fukuhara S, et al. **Peptides** 1998;19(8):1349–57

Differential down-regulation of beta3-adrenergic receptor mRNA and signal transduction by cold exposure in brown adipose tissue of young and senescent rats. Scarpace PJ, et al. **Pflugers Arch** 1999 Feb;437(3):479–83

Pharmacodynamics and toxicodynamics of drug action: signaling in cell survival and cell death. Kong AN, et al. **Pharm Res** 1999 Jun;16(6):790–8 (122 ref.)

Regulation of beta-adrenoceptor signaling in cardiac function and disease. Dzimiri N. **Pharmacol Rev** 1999 Sep; 51(3):465–501 (357 ref.)

Probing for the threshold energy for visual transduction: red-shifted visual pigment analogs from 3-methoxy-3-dehydroretinal and related compounds. Imai H, et al. **Photochem Photobiol** 1999 Jul;70(1):111–5

Detrimental subtype-specific endothelin-1 (ET-1) signaling in myocardial cells: the ET(A) mediated proliferation and ET(B)receptor down-regulation. Drimal J, et al. **Physiol Res** 1999;48(1):9–19

Jasmonate-based wound signal transduction requires activation of WIPK, a tobacco mitogen-activated protein kinase. Seo S, et al. **Plant Cell** 1999 Feb;11(2):289–98

Constructing signal transduction pathways in Arabidopsis [comment] Smith HB. **Plant Cell** 1999 Mar;11(3):299–301 . Comment on: Plant Cell 1999 Mar;11(3):393–405.

The CLAVATA1 receptor-like kinase requires CLAVATA3 for its assembly into a signaling complex that includes KAPP and a Rho-related protein [see comments] Trotochaud AE, et al. **Plant Cell** 1999 Mar;11(3):393–406 . Comment in: Plant Cell 1999 Mar;11(3):299–301.

Allene oxide synthase: a major control point in Arabidopsis thaliana octadecanoid signalling. Laudert D, et al. **Plant J** 1998 Sep;15(5):675–84

Genetic identification of FIN2, a far red light-specific signaling component of Arabidopsis thaliana. Soh MS, et al. **Plant J** 1998 Nov;16(4):411–9

Lesion mimic mutants of rice with alterations in early signaling events of defense. Takahashi A, et al. **Plant J** 1999 Mar;17(5):535–45

Markers for hypersensitive response and senescence show distinct patterns of expression. Pontier D, et al. **Plant Mol Biol** 1999 Apr;39(6):1243–55

Oligopeptide signalling and the action of systemin. Schaller A. **Plant Mol Biol** 1999 Jul;40(5):763–9 (17 ref.)

Characterization of two subclasses of PR-10 transcripts in lily anthers and induction of their genes through separate signal transduction pathways. Wang CS, et al. **Plant Mol Biol** 1999 Jul;40(5):807–14

Arabidopsis contains at least four independent blue-light-activated signal transduction pathways. Lascève G, et al. **Plant Physiol** 1999 Jun;120(2):605–14

Polyamines and pectins. II. Modulation of pectic-signal transduction. Messiaen J, et al. **Planta** 1999 Apr; 208(2):247–56

A novel calcium sensor stimulating inositol phosphate formation and [Ca2+]i signaling expressed by GCT23 osteoclast-like cells. Seuwen K, et al. **Proc Assoc Am Physicians** 1999 Jan–Feb;111(1):70–81

Identification of a human nuclear receptor defines a new signaling pathway for CYP3A induction. Bertilsson G, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12208–13

Cytoplasmic RNA modulators of an inside-out signal-transduction cascade. Blind M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3606–10

Myocardial infarction mediated by endothelin receptor signaling in hypercholesterolemic mice. Caligiuri G, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6920–4

Long-range signaling within growing neurites mediated by neurotrophin-3. Chang S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4095–100

Impairing follicle-stimulating hormone (FSH) signaling in vivo: targeted disruption of the FSH receptor leads to aberrant gametogenesis and hormonal imbalance. Dierich A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13612–7

Glutamine synthetase inactivation by protein-protein interaction. García-Domínguez M, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7161–6

Role of DNA mismatch repair and p53 in signaling induction of apoptosis by alkylating agents. Hickman MJ, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10764–9

Receptor recruitment: a mechanism for interactions between G protein-coupled receptors. Holtbäck U, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7271–5

Targeting Gbeta gamma signaling in arterial vascular smooth muscle proliferation: a novel strategy to limit restenosis. Iaccarino G, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3945–50

G protein beta gamma subunit-dependent Rac-guanine nucleotide exchange activity of Ras-GRF1/CDC25(Mm). Kiyono M, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):4826–31

The intracellular domain of interferon-alpha receptor 2c (IFN-alphaR2c) chain is responsible for Stat activation. Kotenko SV, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5007–12

v-K-ras leads to preferential farnesylation of p21(ras) in FRTL-5 cells: multiple interference with the isoprenoid pathway. Laezza C, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13646–51

Leptin receptor activation of SH2 domain containing protein tyrosine phosphatase 2 modulates Ob receptor signal transduction. Li C, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9677–82

Target genes of beta-catenin-T cell-factor/lymphoid-enhancer-factor signaling in human colorectal carcinomas. Mann B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1603–8

Activation of erythropoietin receptor in the absence of hormone by a peptide that binds to a domain different from the hormone binding site. Naranda T, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7569–74

Three distinct domains of SSI-1/SOCS-1/JAB protein are required for its suppression of interleukin 6 signaling. Narazaki M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13130–4

Blockade of type beta transforming growth factor signaling prevents liver fibrosis and dysfunction in the rat. Qi Z, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2345–9

Comparison of the intracellular signaling responses by three chimeric fibroblast growth factor receptors in PC12 cells. Raffioni S, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22; 96(13):7178–83

Regulation of G1 progression by the PTEN tumor suppressor protein is linked to inhibition of the phosphatidylinositol 3-kinase/Akt pathway. Ramaswamy S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2110–5

The three yeast A kinases have specific signaling functions in pseudohyphal growth. Robertson LS, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13783–7

A quantitative analysis of signal transduction from activin receptor to nucleus and its relevance to morphogen gradient interpretation. Shimizu K, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6791–6

SLAP, a dimeric adapter protein, plays a functional role in T cell receptor signaling. Tang J, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9775–80

Termination of signaling by protease-activated receptor-1 is linked to lysosomal sorting. Trejo J, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13698–702

How plants learn [comment] Trewavas A. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4216–8 (23 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Apr 13;96(8):4718–23.

A new mechanism of neurodegeneration: a proinflammatory cytokine inhibits receptor signaling by a survival peptide. Venters HD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9879–84

Phospholipase A2 (EC 3.1.1.4) and D (EC 3.1.4.4) signalling in lymphocytes. Wakelam MJ, et al. **Proc Nutr Soc** 1998 Nov;57(4):551–4 (22 ref.)

A new perspective on cannabinoid signalling: complementary localization of fatty acid amide hydrolase and the CB1 receptor in rat brain. Egertová M, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 7;265(1410):2081–5

MAP kinase pathways. Cobb MH. **Prog Biophys Mol Biol** 1999;71(3–4):479–500 (205 ref.)

The role of SHIP in growth factor induced signalling. Huber M, et al. **Prog Biophys Mol Biol** 1999;71(3–4):423–34 (72 ref.)

Applications of mass spectrometry to signal transduction. Resing KA, et al. **Prog Biophys Mol Biol** 1999; 71(3–4):501–23 (166 ref.)

Signaling through focal adhesion kinase. Schlaepfer DD, et al. **Prog Biophys Mol Biol** 1999;71(3–4):435–78 (249 ref.)

The STAT family of proteins in cytokine signaling. Shuai K. **Prog Biophys Mol Biol** 1999;71(3–4):405–22 (117 ref.)

Recognition and regulation of primary-sequence motifs by signaling modular domains. Songyang Z. **Prog Biophys Mol Biol** 1999;71(3–4):359–72 (93 ref.)

Studying signal transduction in neuronal cells: the Trk/NGF system. Kaplan DR. **Prog Brain Res** 1998;117:35–46 (70 ref.)

Small GTPases of the Rho family and cell transformation. Fort P. **Prog Mol Subcell Biol** 1999;22:159–81 (146 ref.)

Cyclic nucleotide crosstalk and the regulation of cerebral vasodilation. Pelligrino DA, et al. **Prog Neurobiol** 1998 Oct; 56(1):1–18 (130 ref.)

What can the investigation of phosphoinositide signaling system in platelets of schizophrenic patients tell us? Strunecká A, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul;61(1):1–5 (47 ref.)

Opiate, cannabinoid, and eicosanoid signaling converges on common intracellular pathways nitric oxide coupling. Fimiani C, et al. **Prostaglandins Other Lipid Mediat** 1999 Jan;57(1):23–34 (86 ref.)

Inhibition of caspase activity does not prevent the signaling phase of apoptosis in prostate cancer cells. Denmeade SR, et al. **Prostate** 1999 Jun 1;39(4):269–79

The immune-inflammatory pathophysiology of fibromyalgia: increased serum soluble gp130, the common signal transducer protein of various neurotrophic cytokines. Maes M, et al. **Psychoneuroendocrinology** 1999 May;24(4):371–83

Signal transduction by the receptor tyrosine kinase Ret. van Weering DH, et al. **Recent Results Cancer Res** 1998; 154:271–81 (40 ref.)

Mutations of the DRY motif that preserve beta 2-adrenoceptor coupling. Seibold A, et al. **Receptors Channels** 1998;5(6):375–85

Signal transduction by cGMP-dependent protein kinases and their emerging roles in the regulation of cell adhesion and gene expression. Eigenthaler M, et al. **Rev Physiol Biochem Pharmacol** 1999;135:173–209 (151 ref.)

G protein signalling pathways in myometrium: affecting the balance between contraction and relaxation. Sanborn BM, et al. **Rev Reprod** 1998 Sep;3(3):196–205 (77 ref.)

Thrombin signal transduction of the fibrinolytic system in human adult venous endothelium in vitro. Rydholm HE, et al. **Scand J Clin Lab Invest** 1998 Jul;58(4):347–52

Low and nontoxic levels of ionic mercury interfere with the regulation of cell growth in the WEHI-231 B-cell lymphoma. McCabe MJ Jr, et al. **Scand J Immunol** 1999 Sep;50(3):233–41

Signal transduction pathways in guinea pig sperm. Li M, et al. **Sci China C Life Sci** 1996 Oct;39(5):484–90

EIN2, a bifunctional transducer of ethylene and stress responses in Arabidopsis. Alonso JM, et al. **Science** 1999 Jun 25;284(5423):2148–52

Notch signaling: cell fate control and signal integration in development. Artavanis-Tsakonas S, et al. **Science** 1999 Apr 30;284(5415):770–6 (92 ref.)

Emergent properties of networks of biological signaling pathways [see comments] Bhalla US, et al. **Science** 1999 Jan 15;283(5400):381–7. Comment in: Science 1999 Jan 15;283(5400):339–40.

Martin Rodbell (1925–1998). Birnbaumer L. **Science** 1999

Mar 12;283(5408):1656

Resolution of a signal transfer region from a general binding domain in gbeta for stimulation of phospholipase C-beta2. Buck E, et al. **Science** 1999 Feb 26;283(5406):1332–5

Crosstalk between Rac and Rho [comment] Burridge K. **Science** 1999 Mar 26;283(5410):2028–9. Comment on: Science 1999 Mar 26;283(5410):2083–5.

Cryptochromes: blue light receptors for plants and animals. Cashmore AR, et al. **Science** 1999 Apr 30;284(5415):760–5 (50 ref.)

Requirement for type 2 NO synthase for IL-12 signaling in innate immunity [published erratum appears in Science 1999 Jun 11;284(5421):1776] Diefenbach A, et al. **Science** 1999 May 7;284(5416):951–5

The when and where of floor plate induction. Dodd J, et al. **Science** 1998 Nov 27;282(5394):1654–7 (33 ref.)

BRCA1 inhibition of estrogen receptor signaling in transfected cells. Fan S, et al. **Science** 1999 May 21; 284(5418):1354–6

PKS1, a substrate phosphorylated by phytochrome that modulates light signaling in Arabidopsis. Fankhauser C, et al. **Science** 1999 May 28;284(5419):1539–41

Signaling of cell fate decisions by CLAVATA3 in Arabidopsis shoot meristems [see comments] Fletcher JC, et al. **Science** 1999 Mar 19;283(5409):1911–4. Comment in: Science 1999 Mar 19;283(5409):1825–6.

Perspectives: signal transduction. Proteins in motion [comment] Gerstein M, et al. **Science** 1999 Sep 10; 285(5434):1682–3. Comment on: Science 1999 Sep 10;285(5434):1751–4.

Integrin signaling. Giancotti FG, et al. **Science** 1999 Aug 13;285(5430):1028–32 (65 ref.)

Negative regulation of Wingless signaling by D-axin, a Drosophila homolog of axin. Hamada F, et al. **Science** 1999 Mar 12;283(5408):1739–42

SPA1, a WD-repeat protein specific to phytochrome A signal transduction. Hoecker U, et al. **Science** 1999 Apr 16;284(5413):496–9

Nuclear fusion of signaling pathways [comment] Janknecht R, et al. **Science** 1999 Apr 16;284(5413):443–4. Comment on: Science 1999 Apr 16;284(5413):479–82.

Prevention of constitutive TNF receptor 1 signaling by silencer of death domains [published erratum appears in Science 1999 Mar 19;283(5409):1852] Jiang Y, et al. **Science** 1999 Jan 22;283(5401):543–6

Plant biology and the Nobel Prize [letter] Kende H. **Science** 1998 Oct 23;282(5389):627

Orphan nuclear receptors: shifting endocrinology into reverse. Kliewer SA, et al. **Science** 1999 Apr 30; 284(5415):757–60 (37 ref.)

Molecular basis of T cell inactivation by CTLA-4. Lee KM, et al. **Science** 1998 Dec 18;282(5397):2263–6

Beta-arrestin-dependent formation of beta2 adrenergic receptor-Src protein kinase complexes [see comments] Luttrell LM, et al. **Science** 1999 Jan 29;283(5402):655–61 . Comment in: Science 1999 Jan 29;283(5402):650–1.

Signaling from Rho to the actin cytoskeleton through protein kinases ROCK and LIM-kinase. Maekawa M, et al. **Science** 1999 Aug 6;285(5429):895–8

Synergistic signaling in fetal brain by STAT3-Smad1 complex bridged by p300 [see comments] Nakashima K, et al. **Science** 1999 Apr 16;284(5413):479–82. Comment in: Science 1999 Apr 16;284(5413):443–4.

Genetic selection of peptide inhibitors of biological pathways. Norman TC, et al. **Science** 1999 Jul 23;285(5427):591–5

A piston model for transmembrane signaling of the aspartate receptor [see comments] Ottemann KM, et al. **Science** 1999 Sep 10;285(5434):1751–4. Comment in: Science 1999 Sep 10;285(5434):1682–3.

A cell's sense of direction. Parent CA, et al. **Science** 1999 Apr 30;284(5415):765–70 (35 ref.)

Defective LPS signaling in C3H/HeJ and C57BL/10ScCr mice: mutations in Tlr4 gene. Poltorak A, et al. **Science** 1998 Dec 11;282(5396):2085–8

The science of signal transduction. Introduction. Ray LB. **Science** 1999 Apr 30;284(5415):755–6

Interaction of RAFT1 with gephyrin required for rapamycin-sensitive signaling. Sabatini DM, et al. **Science** 1999 May 14;284(5417):1161–4

Requirement for Tec kinases Rlk and Itk in T cell receptor signaling and immunity. Schaeffer EM, et al. **Science** 1999 Apr 23;284(5414):638–41

Facilitation of signal onset and termination by adenylyl cyclase. Scholich K, et al. **Science** 1999 Feb 26; 283(5406):1328–31

Regulation of beta-catenin signaling by the B56 subunit of protein phosphatase 2A. Seeling JM, et al. **Science** 1999 Mar 26;283(5410):2089–91

Complexity in biological signaling systems. Weng G, et al. **Science** 1999 Apr 2;284(5411):92–6

Heterocyst pattern formation controlled by a diffusible peptide [see comments] Yoon HS, et al. **Science** 1998 Oct 30;282(5390):935–8. Comment in: Science 1998 Oct 30;282(5390):891–2.

A glial-neuronal signaling pathway revealed by mutations in a neurexin-related protein. Yuan LL, et al. **Science** 1999 Feb 26;283(5406):1343–5

The path to specificity [comment] Zuker CS, et al. **Science** 1999 Jan 29;283(5402):650–1. Comment on: Science 1999 Jan 29;283(5402):655–61.

Peptide growth factors and signal transduction. Sidawy AN, et al. **Semin Vasc Surg** 1998 Sep;11(3):149–55 (64 ref.)

Functional roles of STAT family proteins: lessons from knockout mice. Akira S. **Stem Cells** 1999;17(3):138–46 (80 ref.)

HGF activates signal transduction from EPO receptor on human cord blood CD34+/CD45+ cells. Iguchi T, et al. **Stem Cells** 1999;17(2):82–91

Sex hormone-binding globulin receptor signal transduction proceeds via a G protein. Nakhla AM, et al. **Steroids** 1999 Mar;64(3):213–6

Aldosterone and nuclear signaling in kidney. Oberleithner H. **Steroids** 1999 Jan-Feb;64(1-2):42–50

Androgen and estrogen signaling at the cell membrane via G-proteins and cyclic adenosine monophosphate. Rosner W, et al. **Steroids** 1999 Jan-Feb;64(1-2):100–6 (39 ref.)

The thyrotropin-releasing hormone-degrading ectoenzyme: the third element of the thyrotropin-releasing hormone-signaling system. Heuer H, et al. **Thyroid** 1998 Oct;8(10):915–20 (28 ref.)

Activation of NF-kappaB in normal rat kidney epithelial (NRK52E) cells is mediated via a redox-insensitive, calcium-dependent pathway. Woods JS, et al. **Toxicol Appl Pharmacol** 1999 Feb 1;154(3):219–27

Anti-HLA antibodies transduce proliferative signals in endothelial cells and smooth muscle cells. Bian H, et al. **Transplant Proc** 1999 Jun;31(4):1924

Down-modulation of IL-2-triggered JAK3-STAT5 signaling following CD4-ligand binding. Lowry RP, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):820–1 (16 ref.)

Single-cell analysis of T-cell responses in vitro and in vivo: role of costimulatory signals. Wells A, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):814–5

How regulated protein translocation can produce switch-like responses. Ferrell JE Jr. **Trends Biochem Sci** 1998 Dec; 23(12):461–5 (37 ref.)

Direct targets of phosphoinositide 3-kinase products in membrane traffic and signal transduction. Corvera S, et al. **Trends Cell Biol** 1998 Nov;8(11):442–6 (58 ref.)

Integrin-linked kinase (ILK): a regulator of integrin and growth-factor signalling. Dedhar S, et al. **Trends Cell Biol** 1999 Aug;9(8):319–23 (38 ref.)

Putting E. coli on a pedestal: a unique system to study signal transduction and the actin cytoskeleton. Goosney DL, et al. **Trends Cell Biol** 1999 Jan;9(1):11–4 (58 ref.)

Signal transduction by a protease cascade. LeMosy EK, et al. **Trends Cell Biol** 1999 Mar;9(3):102–7 (36 ref.)

ECM signalling: orchestrating cell behaviour and misbehaviour. Lukashev ME, et al. **Trends Cell Biol** 1998 Nov;8(11):437–41 (66 ref.)

Glycans in post-Golgi apical targeting: sorting signals or structural props? Rodriguez-Boulan E, et al. **Trends Cell Biol** 1999 Aug;9(8):291–4 (45 ref.)

Versatility in signalling: multiple responses to EGF receptor activation during Drosophila oogenesis. Van Buskirk C, et al. **Trends Cell Biol** 1999 Jan;9(1):1–4 (31 ref.)

The latest in signal transduction, 1999. Specificity in Signal Transduction, Keystone, Colorado, USA, 9–14 April 1999. Spana E, et al. **Trends Genet** 1999 Aug;15(8):301–2

Making sense of the COP9 signalosome. A regulatory protein complex conserved from Arabidopsis to human. Wei N, et al. **Trends Genet** 1999 Mar;15(3):98–103 (41 ref.)

Apoptosis: an innate immune response to virus infection. Everett H, et al. **Trends Microbiol** 1999 Apr;7(4):160–5 (57 ref.)

Virus interception of cytokine-regulated pathways. Kalvakolanu DV. **Trends Microbiol** 1999 Apr;7(4):166–71 (57 ref.)

Bordatella pertussis adenylate cyclase: a toxin with multiple talents. Ladant D, et al. **Trends Microbiol** 1999 Apr; 7(4):172–6 (31 ref.)

When the going gets tough: survival strategies and environmental signaling networks in Bacillus subtilis. Msadek T. **Trends Microbiol** 1999 May;7(5):201–7

Signalling pathways in two-component phosphorelay systems. Perraud AL, et al. **Trends Microbiol** 1999 Mar; 7(3):115–20 (38 ref.)

Throwing the switch in bacterial chemotaxis. Silversmith RE, et al. **Trends Microbiol** 1999 Jan;7(1):16–22 (26 ref.)

Signs and portents: molecular signals and infectious diseases. Snewin VA, et al. **Trends Microbiol** 1999 Feb;7(2):62–4

Sensitivity, cooperativity and gain in chemotaxis signal transduction. Stock J. **Trends Microbiol** 1999 Jan;7(1):1–4

Emerging roles for RGS proteins in cell signalling. Hepler JR. **Trends Pharmacol Sci** 1999 Sep;20(9):376–82 (84 ref.)

Hyperbaric oxygen as a signal transducer: upregulation of platelet derived growth factor-beta receptor in the presence of HBO2 and PDGF. Bonomo SR, et al. **Undersea Hyperb Med** 1998 Winter;25(4):211–6

Signaltransduction in vascular endothelium: the role of intracellular calcium and ion channels. Nilius B. **Verh K Acad Geneeskd Belg** 1998;60(3):215–50 (51 ref.)

The human papillomavirus E7 oncoprotein abrogates signaling mediated by interferon-alpha. Barnard P, et al. **Virology** 1999 Jul 5;259(2):305–13

Expression of the HPV E7 oncoprotein mimics but does not evoke a p53-dependent cellular DNA damage response pathway. Jones DL, et al. **Virology** 1999 Jun 5; 258(2):406–14

Hepatitis C virus core protein regulates cell growth and signal transduction pathway transmitting growth stimuli. Tsuchihara K, et al. **Virology** 1999 May 25;258(1):100–7

Human somatostatin receptor mediated antiproliferative action evokes subtype selective cytotoxic and cytostatic signaling. Srikant CB. **Yale J Biol Med** 1997 Sep-Dec; 70(5-6):541–8

Combining mutations in the incoming and outgoing pheromone signal pathways causes a synergistic mating defect in Saccharomyces cerevisiae. Giot L, et al. **Yeast** 1999 Jun 30;15(9):765–80

[Observation on human embryonic lung fibroblast proliferation mediated by mitogen activated protein kinase] Song L, et al. **Chung Hua Ping Li Hsueh Tsa Chih** 1997 Dec;26(6):352–5 (Eng. Abstr.) **(Chi)**

[Regulation of cardiovascular myogenic tone via G-protein-sensitive transmembrane signal pathways] Fang Y, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 May; 13(2):181–4 (Eng. Abstr.) **(Chi)**

[Hepatocyte growth factor is an important signal exchanger between mesenchyme and epithelia during development] Guo SH, et al. **Sheng Li Ko Hsueh Chin Chan** 1996 Jul; 27(3):249–51 (8 ref.) **(Chi)**

[Mitogen-activated protein kinase involved in intracellular signal transduction] Li TC, et al. **Sheng Li Ko Hsueh Chin Chan** 1996 Jul;27(3):258–60 (10 ref.) **(Chi)**

[Role of the multifunctional Trio protein in the control of the Rac1 and RhoA gtpase signaling pathways] Bellanger JM, et al. **C R Seances Soc Biol Fil** 1998;192(2):367–74 (Eng. Abstr.) **(Fre)**

[Signal transduction and thyroid pathology: environment and genetics] Pirson I, et al. **C R Seances Soc Biol Fil** 1998; 192(5):847–56 (86 ref.) **(Fre)**

[Angiotensin II receptors: classification, structure, and signal transduction] Miserey S, et al. **Therapie** 1998 May-Jun; 53(3):205–11 (29 ref.) (Eng. Abstr.) **(Fre)**

[Aldosterone receptors: new insights in hormonal signal transduction] Rafestin-Oblin ME, et al. **Therapie** 1998 May-Jun;53(3):227–35 (100 ref.) (Eng. Abstr.) **(Fre)**

[New therapeutic strategy for autoimmune diseases. 3) Treatment of autoimmune diseases by cytokine signal transduction inhibition] Nishimoto N, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1745–50 (20 ref.) **(Jpn)**

[Physiopathology of autoimmune diseases--recent findings. 2) Analysis of abnormalities of T cell receptor proximal signal transduction in systemic erythematodes] Takeuchi T, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10; 87(9):1724–8 **(Jpn)**

[Signal transduction of PI3-kinase] Fukui Y. **Nippon Rinsho** 1998 Jul;56(7):1773–8 (17 ref.) (Eng. Abstr.) **(Jpn)**

[Signal transductions by the MAP kinase cascades] Gotoh I, et al. **Nippon Rinsho** 1998 Jul;56(7):1779–83 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Recent advances in growth factor receptor research] Kanzaki M, et al. **Nippon Rinsho** 1998 Jul;56(7):1791–7 (18 ref.) (Eng. Abstr.) **(Jpn)**

[Intracellular signaling pathways of angiotensin II receptor type 1 involved in the development of cardiovascular diseases] Miyazaki H, et al. **Nippon Rinsho** 1998 Jul; 56(7):1906–11 (22 ref.) (Eng. Abstr.) **(Jpn)**

[Structures and functions of small GTPase and heterotrimeric G proteins] Saito Y. **Nippon Rinsho** 1998 Jul;56(7):1750–5 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Classification of cytokine receptor superfamily and signal transduction--structural feature and functional property] Tanaka M, et al. **Nippon Rinsho** 1998 Jul;56(7):1784–90 (25 ref.) (Eng. Abstr.) **(Jpn)**

[Endocrine signaling system mediated by nuclear receptors] Umesono K. **Nippon Rinsho** 1998 Jul;56(7):1693–8 (12 ref.) (Eng. Abstr.) **(Jpn)**

[Bone morphogenetic protein (BMP) receptors and signal transduction] Yamashita H, et al. **Nippon Rinsho** 1999 Jan; 57(1):220–6 (19 ref.) (Eng. Abstr.) **(Jpn)**

[Receptors and signal transduction for the TGF-beta related factors] Miyazono K. **Nippon Ronen Igakkai Zasshi** 1999 Mar;36(3):162–6 (27 ref.) **(Jpn)**

[Production of various antibodies and single chain Fv molecule against signal-transducing proteins] Kurose H, et al. **Nippon Yakurigaku Zasshi** 1998 Jul;112(1):59–68 (10 ref.) (Eng. Abstr.) **(Jpn)**

[Regulation of G protein-mediated signaling pathways by RGS proteins] Kozasa T. **Seikagaku** 1998 Dec; 70(12):1418–22 (21 ref.) **(Jpn)**

[Analysis of the unfolded protein response: an intracellular signaling pathway from the endoplasmic reticulum to the nucleus] Mori K. **Seikagaku** 1998 Jul;70(7):505–15 (42 ref.) **(Jpn)**

[Phospholipase C] Banno Y, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):989–97 **(Jpn)**

[The role of phosphatidylinositol turnover in nuclear] Fukami K. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):969–75 (32 ref.) **(Jpn)**

[Calcium waves as an intercellular signaling] Furuya K. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1547–54 (39 ref.) **(Jpn)**

[Diacylglycerol kinase: molecular diversity and gene expression in central nervous system] Goto K, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):976–82 (31 ref.) **(Jpn)**

[Phosphoinositide 3-kinase] Hazeki O. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):961–8 (83 ref.) **(Jpn)**

[Phosphatidic acid phosphatase] Kanoh H, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):983–8 (28 ref.) **(Jpn)**

[Glycosphingolipid microdomains/caveolae and signal transduction] Kasahara K, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2522–30 (46 ref.) **(Jpn)**

[Roles of phospholipase D in signal transduction] Nakashima S, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):998–1006 (80 ref.) **(Jpn)**

[Role of DARPP-32 in dopamine signal transduction in the striatum] Nishi A. **Tanpakushitsu Kakusan Koso** 1998 Dec; 43(15):2172–81 (55 ref.) **(Jpn)**

[Regulation of B cell receptor signaling through tyrosine kinases and phosphatases] Takata M, et al. **Tanpakushitsu Kakusan Koso** 1999 Apr;44(5):655–67 (43 ref.) **(Jpn)**

[Signal transduction related to sphingosine 1-phosphate] Yatomi Y, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec; 43(16 Suppl):2510–5 (44 ref.) **(Jpn)**

[Essays on modern molecular genetic. Essay 8. Genomic diseases and new molecular genetics. Part 2. Cancer--a genomic disease. "Cancer genes" and signal transduction in the cell] Sverdlov ED. **Mol Gen Mikrobiol Virusol** 1999; (2):3–22 **(Rus)**

[Participation of phosphoinositide-specific phospholipase Cgamma1 and STAT1 protein in the formation of latent complexes of signal proteins] Evdonin AL, et al. **Tsitologiia** 1998;40(7):648–51 (Eng. Abstr.) **(Rus)**

[The biological mechanisms underlying alcohol dependence] Alling C. **Lakartidningen** 1999 Jul 14;96(28–29):3248–52 (63 ref.) (Eng. Abstr.) **(Swe)**

[Increased possibility to affect cell signals following research break-through. Development of new therapeutic strategies] Orn P. **Lakartidningen** 1998 Oct 28;95(44):4828–9 **(Swe)**

[Transcriptional signal pathway for cardiac hypertrophy is discovered. New base for new drugs against heart failure?] Sylvén C. **Lakartidningen** 1998 Nov 11;95(46):5189–90 **(Swe)**

DRUG EFFECTS

Lactoferrin stimulates the mitogen-activated protein kinase in the human lymphoblastic T Jurkat cell line. Duthille I, et al. **Adv Exp Med Biol** 1998;443:257–60

Ethanol inhibition of insulin signaling in hepatocellular carcinoma cells. Banerjee K, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):2093–101

The intracellular signaling network as a target for ethanol. Hoek JB, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5 Suppl):224S–230S (46 ref.)

Ethanol acutely decreases calcium transients in cultured human myotubes. Nicolás JM, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):1086–92

Lysophosphatidylcholine activates mesangial cell PKC and MAP kinase by PLCgamma-1 and tyrosine kinase-Ras pathways. Bassa BV, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F328–37

Conducted signals within arteriolar networks initiated by bioactive amino acids. Frame MD. **Am J Physiol** 1999 Mar; 276(3 Pt 2):H1012–21

EGF-Receptor phosphorylation and signaling are targeted by H2O2 redox stress. Goldkorn T, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):786–98

Effects of temperature and volatile anesthetics on GABA(A) receptors. Jenkins A, et al. **Anesthesiology** 1999 Feb; 90(2):484–91

Responses to monosodium glutamate and guanosine 5'-monophosphate in rat fungiform taste cells. Lin W, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:407–11

First international conference on new molecular targets for anticancer therapy, Naples, 22–23 June 1998. Budillon A, et al. **Anticancer Drugs** 1999 Feb;10(2):249–56

Tamoxifen and genistein synergistically down-regulate signal transduction and proliferation in estrogen receptor-negative human breast carcinoma MDA-MB-435 cells. Shen F, et al. **Anticancer Res** 1999 May–Jun; 19(3A):1657–62

Antiproliferative and apoptosis-inducing effects of an antitumor glycoprotein from Streptococcus pyogenes. Yoshida J, et al. **Anticancer Res** 1999 May–Jun; 19(3A):1865–71

Multiple mechanisms of action for inhibitors of histidine protein kinases from bacterial two-component systems. Hilliard JJ, et al. **Antimicrob Agents Chemother** 1999 Jul; 43(7):1693–9

Differential activation by cytokines of mitogen-activated protein kinases in bovine temporomandibular-joint disc cells. Landesberg R, et al. **Arch Oral Biol** 1999 Jan; 44(1):41–8

Late and prolonged post-training memory modulation in entorhinal and parietal cortex by drugs acting on the cAMP/protein kinase A signalling pathway. Ardenghi P, et al. **Behav Pharmacol** 1997 Dec;8(8):745–51

Drugs acting upon the cyclic adenosine monophosphate/protein kinase A signalling pathway modulate memory consolidation when given late after training into rat hippocampus but not amygdala. Bevilaqua L, et al. **Behav Pharmacol** 1997 Aug;8(4):331–8

alpha-thrombin inhibits interleukin-6-induced Stat3 signaling and gp130 gene expression in primary cultures of human lung fibroblasts. Bhat GJ, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):626–30

L-Asparaginase inhibits the rapamycin-targeted signaling pathway. Iiboshi Y, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):534–9

Cross-talk between 2,3,7,8-tetrachlorodibenzo-p-dioxin and testosterone signal transduction pathways in LNCaP prostate cancer cells. Jana NR, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):462–8

MAP kinase pathways as a route for regulatory mechanisms of IL-10 and IL-4 which inhibit COX-2 expression in human monocytes. Niiro H, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):200–5

Serum amyloid A induces chemotaxis of human mast cells by activating a pertussis toxin-sensitive signal transduction pathway. Olsson N, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):143–6

Signaling transduction pathway of angiotensin II in human mesangial cells: mediation of focal adhesion and GTPase activating proteins. Shikata Y, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):234–8

In vitro binding and signaling profile of the novel mu opioid receptor agonist endomorphin 2 in rat brain membranes. Spetea M, et al. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):720–5

Evidence for the involvement of JAK/STAT pathway in the signaling mechanism of interleukin-17. Subramaniam SV, et al. **Biochem Biophys Res Commun** 1999 Aug 19; 262(1):14–9

A radicicol-related macrocyclic nonaketide compound, antibiotic LL-Z1640-2, inhibits the JNK/p38 pathways in signal-specific manner. Takehana K, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):19–23

Involvement of MAP kinase-independent protein kinase C signaling pathway in the EGF-induced p21(WAF1/Cip1) expression and growth inhibition of A431 cells. Toyoda M, et al. **Biochem Biophys Res Commun** 1998 Sep 18; 250(2):430–5

Insulin-mimetic signalling of synthetic phosphoinositolglycans in isolated rat adipocytes. Frick W, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):163–81

Role of the Janus kinase (JAK)/signal transducters and activators of transcription (STAT) cascade in advanced glycation end-product-induced cellular mitogenesis in NRK-49F cells. Huang JS, et al. **Biochem J** 1999 Aug 15; 342 (Pt 1):231–8

A collagen-related peptide regulates phospholipase Cgamma2 via phosphatidylinositol 3-kinase in human platelets. Pasquet JM, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):171–7

Cellular and molecular mechanisms involved in insulin's potentiation of glycogen synthase activity by metformin. Detaille D, et al. **Biochem Pharmacol** 1999 Nov 1; 58(9):1475–86

Induction of heme oxygenase-1 as a response in sensing the signals evoked by distinct nitric oxide donors. Hara E, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):227–36

Differential effects of ganodermic acid S on the thromboxane A2-signaling pathways in human platelets. Su CY, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):587–95

Nonselective effects of the putative phospholipase C inhibitor, U73122, on adenosine A1 receptor-mediated signal transduction events in Chinese hamster ovary cells. Walker EM, et al. **Biochem Pharmacol** 1998 Dec 1; 56(11):1455–62

Intracellular signalling and cyclosporin A-induced apoptosis in a renal cell line. Dempsey M, et al. **Biochem Soc Trans** 1998 Nov;26(4):S344

Cellular signalling and free-radical modulating activities of the novel peptidomimetic L-glutamyl-histamine. Babizhayev MA, et al. **Biochemistry (Mosc)** 1999 May; 64(5):510–22

Signal transduction triggered by lipid A-like molecules in 70Z/3 pre-B lymphocyte tumor cells. Garrett TA, et al. **Biochim Biophys Acta** 1999 Feb 25;1437(2):246–56

Effect of herbimycin A on tyrosine kinase receptors and platelet derived growth factor (PDGF)-induced signal transduction. Murakami Y, et al. **Biol Pharm Bull** 1998 Oct; 21(10):1030–5

Protein kinase B (c-Akt), phosphatidylinositol 3-kinase, and STAT5 are activated by erythropoietin (EPO) in HCD57 erythroid cells but are constitutively active in an EPO-independent, apoptosis-resistant subclone (HCD57-SREI cells). Bao H, et al. **Blood** 1999 Jun 1; 93(11):3757–73

Collagen mediates changes in intracellular calcium in primary mouse megakaryocytes through syk-dependent and -independent pathways. Briddon SJ, et al. **Blood** 1999 Jun 1;93(11):3847–55

Dexamethasone-induced thymocyte apoptosis: apoptotic signal involves the sequential activation of phosphoinositide-specific phospholipase C, acidic sphingomyelinase, and caspases. Cifone MG, et al. **Blood** 1999 Apr 1;93(7):2282–96

Src-dependence and pertussis-toxin sensitivity of urokinase receptor-dependent chemotaxis and cytoskeleton reorganization in rat smooth muscle cells. Degryse B, et al. **Blood** 1999 Jul 15;94(2):649–62

Megakaryocyte growth and development factor-induced proliferation and differentiation are regulated by the mitogen-activated protein kinase pathway in primitive cord blood hematopoietic progenitors. Fichelson S, et al. **Blood** 1999 Sep 1;94(5):1601–13

Genetic evidence for an additional factor required for erythropoietin-induced signal transduction. Gaffen SL, et al. **Blood** 1999 Jul 1;94(1):74–86

The somatostatin analog octreotide inhibits growth of interleukin-6 (IL-6)-dependent and IL-6-independent human multiple myeloma cell lines. Georgii-Hemming P, et al. **Blood** 1999 Mar 1;93(5):1724–31

Marked temperature dependence of the platelet calcium signal induced by human von Willebrand factor. Kermode JC, et al. **Blood** 1999 Jul 1;94(1):199–207

Interleukin-4 synergizes with Raf-1 to promote long-term proliferation and activation of c-jun N-terminal kinase. Levings MK, et al. **Blood** 1999 Jun 1;93(11):3694–702

Interleukin-9-induced expression of M-Ras/R-Ras3 oncogene in T-helper clones. Louahed J, et al. **Blood** 1999 Sep 1;94(5):1701–10

Heterodimerization of the alpha and beta chains of the interleukin-3 (IL-3) receptor is necessary and sufficient for IL-3-induced mitogenesis. Orban PC, et al. **Blood** 1999 Sep 1;94(5):1614–22

Thrombopoietin-induced activation of the mitogen-activated protein kinase (MAPK) pathway in normal megakaryocytes: role in endomitosis. Rojnuckarin P, et al. **Blood** 1999 Aug 15;94(4):1273–82

Induction of JNK and c-Abl signalling by cisplatin and oxaliplatin in mismatch repair-proficient and -deficient cells. Nehmé A, et al. **Br J Cancer** 1999 Mar; 79(7-8):1104–10

Cell-specific coupling of PGE2 to different transduction pathways in arginine vasopressin- and glucagon-sensitive segments of the rat renal tubule. Aarab L, et al. **Br J Pharmacol** 1999 Feb;126(4):1041–9

Tranilast inhibits protein kinase C-dependent signalling pathway linked to angiogenic activities and gene expression of retinal microcapillary endothelial cells. Koyama S, et al. **Br J Pharmacol** 1999 May;127(2):537–45

In vivo pathway of thermal hyperalgesia by intrathecal administration of alpha,beta-methylene ATP in mouse spinal cord: involvement of the glutamate-NMDA receptor system. Tsuda M, et al. **Br J Pharmacol** 1999 May; 127(2):449–56

Effects of chronic application of propranolol on beta-adrenergic signal transduction in heart ventricles from myopathic BIO TO2 and control hamsters. Witte K, et al. **Br J Pharmacol** 1998 Nov;125(5):1033–41

Neonatal alcohol exposure reduces NMDA induced Ca2+ signaling in developing cerebellar granule neurons. Gruol DL, et al. **Brain Res** 1998 May 18;793(1–2):12–20

Mechanisms of apoptosis in PC12 cells irreversibly differentiated with nerve growth factor and cyclic AMP. Lambeng N, et al. **Brain Res** 1999 Mar 6;821(1):60–8

A potential role of Ras-mediated signal transduction for the enhancement of depolarization-induced Ca2+ responses in hippocampal neurons by basic fibroblast growth factor. Katsuki H, et al. **Brain Res Dev Brain Res** 1998 Dec 7; 111(2):169–76

Signaling of lysophosphatidic acid-evoked chloride current: calcium release from inositol trisphosphate-sensitive store. Kakizawa K, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):232–7

Blocking signaling through the Gp130 receptor chain by interleukin-6 and oncostatin M inhibits PC-3 cell growth and sensitizes the tumor cells to etoposide and cisplatin-mediated cytotoxicity. Borsellino N, et al. **Cancer** 1999 Jan 1;85(1):134–44

Inhibition of apoptotic signaling pathways in cancer cells as a mechanism of chemotherapy resistance. Haq R, et al. **Cancer Metastasis Rev** 1998 Jun;17(2):233–9 (57 ref.)

Activation of the transforming growth factor beta signaling pathway and induction of cytostasis and apoptosis in mammary carcinomas treated with the anticancer agent perillyl alcohol. Ariazi EA, et al. **Cancer Res** 1999 Apr 15;59(8):1917–28

Activated Ki-Ras suppresses 12-O-tetradecanoylphorbol-13-acetate-induced activation of the c-Jun NH2-terminal kinase pathway in human colon cancer cells. Okumura K, et al. **Cancer Res** 1999 May 15; 59(10):2445–50

Epidermal growth factor (EGF) receptor blockade inhibits the action of EGF, insulin-like growth factor I, and a protein kinase A activator on the mitogen-activated protein kinase pathway in prostate cancer cell lines. Putz T, et al. **Cancer Res** 1999 Jan 1;59(1):227–33

Alkyl-lysophospholipids activate the SAPK/JNK pathway and enhance radiation-induced apoptosis. Ruiter GA, et al. **Cancer Res** 1999 May 15;59(10):2457–63

Posttranslational mechanisms contribute to the suppression of specific cyclin:CDK complexes by all-trans retinoic acid in human bronchial epithelial cells. Sueoka N, et al. **Cancer Res** 1999 Aug 1;59(15):3838–44

Effects of geldanamycin on signaling through activator-protein 1 in hypoxic HT29 human colon adenocarcinoma cells. Vasilevskaya IA, et al. **Cancer Res** 1999 Aug 15;59(16):3935–40

HGF-mediated apoptosis via p53/bax-independent pathway activating JNK1. Conner EA, et al. **Carcinogenesis** 1999 Apr;20(4):583–90

Suppression of extracellular signals and cell proliferation by the black tea polyphenol, theaflavin-3,3'-digallate [published erratum appears in Carcinogenesis 1999 Jul;20(7):1383] Liang YC, et al. **Carcinogenesis** 1999 Apr; 20(4):733–6

Activation of mitogen-activated protein kinase by fumonisin

B(1) stimulates cPLA(2) phosphorylation, the arachidonic acid cascade and cAMP production. Pinelli E, et al. **Carcinogenesis** 1999 Sep;20(9):1683–8

Beta-adrenergic signal transduction following carvedilol treatment in hypertensive cardiac hypertrophy. Böhm M, et al. **Cardiovasc Res** 1998 Oct;40(1):146–55

Platelet-derived growth factor induces cellular growth in cultured chick ventricular myocytes. Shimizu T, et al. **Cardiovasc Res** 1999 Mar;41(3):641–53

The role of corticosteriods in the regulation of vascular tone. Ullian ME. **Cardiovasc Res** 1999 Jan;41(1):55–64 (115 ref.)

Inhibition of transforming growth factor beta1-induced hepatoma cell apoptosis by liver tumor promoters: characterization of primary signaling events and effects on CPP32-like caspase activity. Buchmann A, et al. **Cell Death Differ** 1999 Feb;6(2):190–200

Relationships of apoptotic signaling mediated by ceramide and TNF-alpha in U937 cells. Karasavvas N, et al. **Cell Death Differ** 1999 Feb;6(2):115–23

In vivo signal transduction of tetrodotoxin-sensitive nociceptive responses by substance P given into the planta of the mouse hind limb. Inoue M, et al. **Cell Mol Neurobiol** 1998 Oct;18(5):555–61

Very low density lipoprotein-mediated signal transduction and plasminogen activator inhibitor type 1 in cultured HepG2 cells. Banfi C, et al. **Circ Res** 1999 Jul 23; 85(2):208–17

Thrombopoietin stimulates endothelial cell motility and neoangiogenesis by a platelet-activating factor-dependent mechanism. Brizzi MF, et al. **Circ Res** 1999 Apr 16; 84(7):785–96

Peroxisome proliferator-activated receptor activators inhibit thrombin-induced endothelin-1 production in human vascular endothelial cells by inhibiting the activator protein-1 signaling pathway. Delerive P, et al. **Circ Res** 1999 Sep 3;85(5):394–402

Angiotensin II type 2 receptor blockade amplifies the early signals of cardiac growth response to angiotensin II in hypertrophied hearts. Bartunek J, et al. **Circulation** 1999 Jan 5–12;99(1):22–5

4,5-bis(4-fluoroanilino)phthalimide: A selective inhibitor of the epidermal growth factor receptor signal transduction pathway with potent in vivo antitumor activity. Buchdunger E, et al. **Clin Cancer Res** 1995 Aug;1(8):813–21

K252a inhibits proliferation of glioma cells by blocking platelet-derived growth factor signal transduction. Chin LS, et al. **Clin Cancer Res** 1997 May;3(5):771–6

Inhibition of platelet-derived growth factor-mediated signal transduction and tumor growth by N-[4-(trifluoromethyl)-phenyl]5-methylisoxazole-4-carboxamide. Shawver LK, et al. **Clin Cancer Res** 1997 Jul;3(7):1167–77

Protein kinase C in the treatment of disease: signal transduction pathways, inhibitors, and agents in development. Goekjian PG, et al. **Curr Med Chem** 1999 Sep;6(9):877–903 (182 ref.)

Role of neurotrophin-trk interactions in oncology: the anti-tumor efficacy of potent and selective trk tyrosine kinase inhibitors in pre-clinical tumor models. Ruggeri BA, et al. **Curr Med Chem** 1999 Sep;6(9):845–57 (104 ref.)

Bibliography. Current world literature. Anabolic and catabolic signals. **Curr Opin Clin Nutr Metab Care** 1999 May;2(3):255–8

The protein kinase ABC's of signal transduction as targets for drug development. Glazer RI. **Curr Pharm Des** 1998 Jun;4(3):277–90 (207 ref.)

Reduction of tumour necrosis factor alpha expression and signalling in peripheral blood mononuclear cells from patients with thalassaemia or sickle cell anaemia upon treatment with desferrioxamine. Bellocq A, et al. **Cytokine** 1999 Feb;11(2):168–72

Effects of substance P on cellular signalling systems in the rat anterior pituitary. Mau SE. **Dan Med Bull** 1999 Feb; 46(1):35–56 (243 ref.)

Inhibition of small G proteins by clostridium sordellii lethal toxin activates cdc2 and MAP kinase in Xenopus oocytes. Rime H, et al. **Dev Biol** 1998 Dec 15;204(2):592–602

The teratogenic Veratrum alkaloid cyclopamine inhibits sonic hedgehog signal transduction. Incardona JP, et al. **Development** 1998 Sep;125(18):3553–62

Modulation of insulin receptor signalling by pancreastatin in HTC hepatoma cells. Sánchez-Margalet V. **Diabetologia** 1999 Mar;42(3):317–25

Folic acid stimulation of the Galpha4 G protein-mediated signal transduction pathway inhibits anterior prestalk cell development in Dictyostelium. Hadwiger JA, et al. **Differentiation** 1999 May;64(4):195–204

Serum and glucocorticoid-inducible kinase (SGK) is a target of the PI 3-kinase-stimulated signaling pathway. Park J, et al. **EMBO J** 1999 Jun 1;18(11):3024–33

Stepwise activation of the gonadotropic signal transduction pathway, and the ability of prostaglandin F2alpha to inhibit this activated pathway. Väänänen JE, et al. **Endocrine** 1998 Jun;8(3):301–7

Progesterone can block transmission of the estradiol-induced signal for luteinizing hormone surge generation during a specific period of time immediately after activation of the gonadotropin-releasing hormone surge-generating system. Harris TG, et al. **Endocrinology** 1999 Feb;140(2):827–34

The new antidiabetic drug MCC-555 acutely sensitizes insulin signaling in isolated cardiomyocytes. Liu LS, et al. **Endocrinology** 1998 Nov;139(11):4531–9

Leptin signaling in the hypothalamus of normal rats in vivo. McCowen KC, et al. **Endocrinology** 1998 Nov; 139(11):4442–7

Glicentin and oxyntomodulin modulate both the phosphoinositide and cyclic adenosine monophosphate signaling pathways in gastric myocytes [published erratum appears in Endocrinology 1999 Mar;140(3):1384] Rodier G, et al. **Endocrinology** 1999 Jan;140(1):22–8

Independent signal-transduction pathways for vanadate and for insulin in the activation of glycogen synthase and glycogenesis in rat adipocytes. Sekar N, et al. **Endocrinology** 1999 Mar;140(3):1125–31

Hormonal regulation of epidermal growth factor receptor content and signaling in bovine mammary tissue. Sheffield LG. **Endocrinology** 1998 Nov;139(11):4568–75

In vivo insulin signaling in the myocardium of streptozotocin-diabetic rats: opposite effects of diabetes on insulin stimulation of glycogen synthase and c-Fos. Wang PH, et al. **Endocrinology** 1999 Mar;140(3):1141–50

Modulation of calcium responses by altered peptide ligands in a human T cell clone. Chen YZ, et al. **Eur J Immunol** 1998 Dec;28(12):3929–39

Plant alkaloid tetrandrine downregulates protein kinase C-dependent signaling pathway in T cells. Ho LJ, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):389–98

Differential regulation of Na+/H+ exchange and DNA synthesis in vascular smooth muscle cells. Kanda Y, et al. **Eur J Pharmacol** 1999 Apr 23;371(1):69–74

Pituitary adenylate cyclase activating polypeptide induces multiple signaling pathways in rat peritoneal mast cells. Seebeck J, et al. **Eur J Pharmacol** 1998 Jul 10; 352(2–3):343–50

Magnolol induces cytosolic-free Ca2+ elevation in rat neutrophils primarily via inositol trisphosphate signalling pathway. Wang JP, et al. **Eur J Pharmacol** 1998 Jul 10; 352(2–3):329–34

Blockade of beta-adrenoceptors enhances cAMP signal transduction in vivo. Whalen EJ, et al. **Eur J Pharmacol** 1998 Aug 21;355(2–3):189–93

Sphingosine 1-phosphate regulates heat shock protein 27 induction by a p38 MAP kinase-dependent mechanism in aortic smooth muscle cells. Kozawa O, et al. **Exp Cell Res** 1999 Aug 1;250(2):376–80

Induction of multiple programmed cell death pathways by IFN-beta in human non-small-cell lung cancer cell lines. Zhang H, et al. **Exp Cell Res** 1999 Feb 25;247(1):133–41

Two pathways of apoptosis induced with all-trans retinoic acid and etoposide in the myeloid cell line P39. Hassan Z, et al. **Exp Hematol** 1999 Aug;27(8):1322–9

Colony-stimulating factor-1 impairs both proliferation and differentiation signals of erythropoietin during the commitment of bipotential NFS-60 cell line to the monocytic lineage. Pawlak G, et al. **Exp Hematol** 1999 May;27(5):797–805

Early BDNF, NT-3, and NT-4 signaling events. Yuen EC, et al. **Exp Neurol** 1999 Sep;159(1):297–308

Elementary [Ca2+]i signals generated by electroporation functionally mimic those evoked by hormonal stimulation. Bobanović F, et al. **FASEB J** 1999 Feb;13(2):365–76

Cell cycle control of PDGF-induced Ca(2+) signaling through modulation of sphingolipid metabolism. Fatatis A, et al. **FASEB J** 1999 Aug;13(11):1291–301

Interruption of transmembrane signaling as a novel antisecretory strategy to treat enterotoxigenic diarrhea. Zhang W, et al. **FASEB J** 1999 May;13(8):913–22

Leptin treatment increases suppressors of cytokine signaling in central and peripheral tissues. Emilsson V, et al. **FEBS Lett** 1999 Jul 16;455(1–2):170–4

Evidence of the role of protein kinase C during aclacinomycin induction of erythroid differentiation in K562 cells. Gillet R, et al. **FEBS Lett** 1999 Jul 9; 454(3):331–4

Differential effects of 17beta-estradiol on mitogen-activated protein kinase pathways in rat cardiomyocytes. Nuedling S, et al. **FEBS Lett** 1999 Jul 9;454(3):271–6

Role of ERK1/ERK2 and p70S6K pathway in insulin signalling of protein synthesis. Sale EM, et al. **FEBS Lett** 1999 Mar 5;446(1):122–6

Antisense oligonucleotides against receptor kinase GRK2 disrupt target selectivity of beta-adrenergic receptors in atrial myocytes. Wellner-Kienitz MC, et al. **FEBS Lett** 1999 May 28;451(3):279–83

D-myo inositol 1,2,6, triphosphate (alpha-trinositol, pp56): selective antagonist at neuropeptide Y (NPY) Y-receptors or selective inhibitor of phosphatidylinositol cell signaling? Bell D, et al. **Gen Pharmacol** 1998 Nov;31(5):689–96 (79 ref.)

CML and apoptosis: the ceramide pathway. Maguer-Satta V. **Hematol Cell Ther** 1998 Oct;40(5):233–6

Intracellular Ca2+ response of pancreatic acini in cerulein-induced acute pancreatitis in rats. Okada N, et al. **Hepatogastroenterology** 1998 May-Jun;45(21):840–5

Interference of eukaryotic signalling pathways by the bacteria Yersinia outer protein YopJ. Spiik AK, et al. **Immunol Lett** 1999 Jun 1;68(2–3):199–203 (44 ref.)

A caspase inhibitor protects thymocytes from diverse signal-mediated apoptosis but not from clonal deletion in fetal thymus organ culture. Toyooka K, et al. **Immunol Lett** 1998 Sep;63(2):83–9

Physiological concentrations of gangliosides GM1, GM2 and GM3 differentially modify basic-fibroblast-growth-factor-induced mitogenesis and the associated signalling pathway in endothelial cells. Slevin M, et al. **Int J Cancer** 1999 Jul 30;82(3):412–23

Estrogenic xenobiotics affect the intracellular activation signal in mitogen-induced human peripheral blood lymphocytes: immunotoxicological impact. Sakabe K, et al. **Int J Immunopharmacol** 1998 Apr-May;20(4–5):205–12

Inhibition of insulin-like growth factor I receptor signaling by the vitamin D analogue EB1089 in MCF-7 breast cancer cells: A role for insulin-like growth factor binding proteins. Rozen F, et al. **Int J Oncol** 1999 Sep;15(3):589–94

Radiation-sensitive tyrosine phosphorylation of cellular proteins: sensitive to changes in GSH content induced by pretreatment with N-acetyl-L-cysteine or L-buthionine-S,R-sulfoximine. Tuttle S, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):833–8

Interferon-gamma signaling in human retinal pigment epithelial cells mediated by STAT1, ICSBP, and IRF-1 transcription factors. Li W, et al. **Invest Ophthalmol Vis Sci** 1999 Apr;40(5):976–82

Up-regulation by human recombinant transforming growth factor beta-1 of collagen production in cultured dermal fibroblasts is mediated by the inhibition of nitric oxide signaling. Chu AJ, et al. **J Am Coll Surg** 1999 Mar; 188(3):271–80

Regulation of the endogenous NO pathway by prolonged inhaled NO in rats. Frank DU, et al. **J Appl Physiol** 1998 Sep;85(3):1070–8

Insulin regulates expression of metabolic genes through divergent signaling pathways. Hall RK, et al. **J Basic Clin Physiol Pharmacol** 1999;10(2):119–33 (47 ref.)

Inositolphosphoglycans (IPGs) as mediators of insulin's steroidogenic actions. Nestler JE. **J Basic Clin Physiol Pharmacol** 1998;9(2–4):197–204

C3 toxin activates the stress signaling pathways, JNK and p38, but antagonizes the activation of AP-1 in rat-1 cells. Beltman J, et al. **J Biol Chem** 1999 Feb 5;274(6):3772–80

Toll-like receptor-4 mediates lipopolysaccharide-induced signal transduction. Chow JC, et al. **J Biol Chem** 1999 Apr 16;274(16):10689–92

Distinct roles for STAT1, STAT3, and STAT5 in differentiation gene induction and apoptosis inhibition by interleukin-9. Demoulin JB, et al. **J Biol Chem** 1999 Sep 3;274(36):25855–61

Evidence for contribution by increased cytoplasmic Na+ to the insulinotropic action of PACAP38 in HIT-T15 cells. Filipsson K, et al. **J Biol Chem** 1998 Dec 4;273(49):32602–7

A Mycoplasma fermentans-derived synthetic lipopeptide induces AP-1 and NF-kappaB activity and cytokine secretion in macrophages via the activation of mitogen-activated protein kinase pathways. Garcia J, et al. **J Biol Chem** 1998 Dec 18;273(51):34391–8

Shc regulates epidermal growth factor-induced activation of the JNK signaling pathway. Hashimoto A, et al. **J Biol Chem** 1999 Jul 16;274(29):20139–43

Nitric oxide donors induce stress signaling via ceramide formation in rat renal mesangial cells. Huwiler A, et al. **J Biol Chem** 1999 Mar 12;274(11):7190–5

Induction of low density lipoprotein receptor (LDLR) transcription by oncostatin M is mediated by the extracellular signal-regulated kinase signaling pathway and the repeat 3 element of the LDLR promoter. Li C, et al. **J Biol Chem** 1999 Mar 5;274(10):6747–53

Constitutive activation of JAK2 confers murine interleukin-3-independent survival and proliferation of BA/F3 cells. Liu CB, et al. **J Biol Chem** 1999 Mar 5; 274(10):6342–9

Coordinate regulation of the alpha(2)-macroglobulin signaling receptor and the low density lipoprotein receptor-related protein/alpha(2)-macroglobulin receptor by insulin. Misra UK, et al. **J Biol Chem** 1999 Sep 3; 274(36):25785–91

Glucosylceramide synthase inhibitor inhibits the action of nerve growth factor in PC12 cells. Mutoh T, et al. **J Biol Chem** 1998 Oct 2;273(40):26001–7

Glycosphingolipid-enriched signaling domain in mouse neuroblastoma Neuro2a cells. Mechanism of ganglioside-dependent neuritogenesis. Prinetti A, et al. **J Biol Chem** 1999 Jul 23;274(30):20916–24

Granulocyte-macrophage colony-stimulating factor-activated signaling pathways in human neutrophils. Involvement of Jak2 in the stimulation of phosphatidylinositol 3-kinase. Al-Shami A, et al. **J Biol Chem** 1999 Feb 26;274(9):5333–8

Insulin activates protein kinases C-zeta and C-lambda by an autophosphorylation-dependent mechanism and stimulates their translocation to GLUT4 vesicles and other membrane fractions in rat adipocytes. Standaert ML, et al. **J Biol Chem** 1999 Sep 3;274(36):25308–16

Ret-dependent and -independent mechanisms of glial cell line-derived neurotrophic factor signaling in neuronal cells. Trupp M, et al. **J Biol Chem** 1999 Jul 23;274(30):20885–94

Heparan sulfate-modified CD44 promotes hepatocyte growth factor/scatter factor-induced signal transduction through the receptor tyrosine kinase c-Met. van der Voort R, et al. **J Biol Chem** 1999 Mar 5;274(10):6499–506

ADP-ribosylation factor 6 (ARF6) defines two insulin-regulated secretory pathways in adipocytes. Yang CZ, et al. **J Biol Chem** 1999 Sep 3;274(36):25297–300

Bacterial lipopolysaccharide activates nuclear factor-kappaB through interleukin-1 signaling mediators in cultured human dermal endothelial cells and mononuclear phagocytes. Zhang FX, et al. **J Biol Chem** 1999 Mar 19;

274(12):7611-4
Inhibition of epidermal-growth-factor-receptor-dependent signalling by tyrphostins A25 and AG1478 blocks growth and induces apoptosis in colorectal tumor cells in vitro. Partik G, et al. **J Cancer Res Clin Oncol** 1999 Jul; 125(7):379-88
Intracellular movement of green fluorescent protein-tagged phosphatidylinositol 3-kinase in response to growth factor receptor signaling. Gillham H, et al. **J Cell Biol** 1999 Aug 23;146(4):869-80
Depolarization and neurotrophins converge on the phosphatidylinositol 3-kinase-Akt pathway to synergistically regulate neuronal survival. Vaillant AR, et al. **J Cell Biol** 1999 Sep 6;146(5):955-66
Tumor necrosis factor-alpha initiated signal transduction in 3T3-L1 adipocytes. Jain RG, et al. **J Cell Physiol** 1999 Apr;179(1):58-66
Cobalt chloride-induced signaling in endothelium leading to the augmented adherence of sickle red blood cells and transendothelial migration of monocyte-like HL-60 cells is blocked by PAF-receptor antagonist. Sultana C, et al. **J Cell Physiol** 1999 Apr;179(1):67-78
Formation of distinct signalling complexes involving phosphatidylinositol 3-kinase activity with stimulation of epidermal growth factor or insulin-like growth factor-I in human skin fibroblasts. Takahashi Y, et al. **J Cell Physiol** 1999 Jan;178(1):69-75
H2O2 acts on cellular membranes to generate ceramide signaling and initiate apoptosis in tracheobronchial epithelial cells. Goldkorn T, et al. **J Cell Sci** 1998 Nov; 111 (Pt 21):3209-20
Beta-adrenergic receptor blockade arrests myocyte damage and preserves cardiac function in the transgenic G(salpha) mouse. Asai K, et al. **J Clin Invest** 1999 Sep;104(5):551-8
Heterotrimeric G proteins physically associated with the lipopolysaccharide receptor CD14 modulate both in vivo and in vitro responses to lipopolysaccharide. Solomon KR, et al. **J Clin Invest** 1998 Dec 1;102(11):2019-27
Modulation of CNS signal transduction pathways and gene expression by mood-stabilizing agents: therapeutic implications. Manji HK, et al. **J Clin Psychiatry** 1999;60 Suppl 2:27-39; discussion 40-1, 113-6 (138 ref.)
Involvement of the rapamycin-sensitive pathway in the insulin regulation of muscle protein synthesis in streptozotocin-diabetic rats. Grzelkowska K, et al. **J Endocrinol** 1999 Jan;160(1):137-45
Up-regulation of ICAM-1 by cytokines in human tracheal smooth muscle cells involves an NF-kappa B-dependent signaling pathway that is only partially sensitive to dexamethasone. Amrani Y, et al. **J Immunol** 1999 Aug 15; 163(4):2128-34
IL-7 reconstitutes multiple aspects of v-Abl-mediated signaling. Banerjee A, et al. **J Immunol** 1998 Nov 1; 161(9):4611-7
Prevention of experimental allergic encephalomyelitis via inhibition of IL-12 signaling and IL-12-mediated Th1 differentiation: an effect of the novel anti-inflammatory drug lisofylline. Bright JJ, et al. **J Immunol** 1998 Dec 15; 161(12):7015-22
Ligation of cell surface CD38 protein with agonistic monoclonal antibody induces a cell growth signal in myeloid leukemia cells. Konopleva M, et al. **J Immunol** 1998 Nov 1;161(9):4702-8
Oncostatin M up-regulates tissue inhibitor of metalloproteinases-3 gene expression in articular chondrocytes via de novo transcription, protein synthesis, and tyrosine kinase- and mitogen-activated protein kinase-dependent mechanisms. Li WQ, et al. **J Immunol** 1998 Nov 1;161(9):5000-7
Activation of phosphatidylinositol 3-kinase, protein kinase B, and p70 S6 kinases in lipopolysaccharide-stimulated Raw 264.7 cells: differential effects of rapamycin, Ly294002, and wortmannin on nitric oxide production. Salh B, et al. **J Immunol** 1998 Dec 15;161(12):6947-54
Isolation and characterization of a variant HL60 cell line defective in the activation of the NADPH oxidase by phorbol myristate acetate. Tardif M, et al. **J Immunol** 1998 Dec 15;161(12):6885-95
Rapid induction of mitogen-activated protein kinases by immune stimulatory CpG DNA. Yi AK, et al. **J Immunol** 1998 Nov 1;161(9):4493-7
Studies of IFN-induced transcriptional activation uncover the Jak-Stat pathway. Darnell JE Jr. **J Interferon Cytokine Res** 1998 Aug;18(8):549-54 (64 ref.)
JNK and p53 stress signaling cascades are altered in MCF-7 cells resistant to tumor necrosis factor-mediated apoptosis. Doman RK, et al. **J Interferon Cytokine Res** 1999 Mar; 19(3):261-9
Tumor necrosis factor-alpha signals to the IFN-gamma receptor complex to increase Stat1alpha activation. Han Y, et al. **J Interferon Cytokine Res** 1999 Jul;19(7):731-40
Molecular mechanisms of photoaging and its prevention by retinoic acid: ultraviolet irradiation induces MAP kinase signal transduction cascades that induce Ap-1-regulated matrix metalloproteinases that degrade human skin in vivo. Fisher GJ, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):61-8 (48 ref.)
ATP-induced inhibition of Na+, K+, Cl- cotransport in Madin-Darby canine kidney cells: lack of involvement of known purinoceptor-coupled signaling pathways. Gagnon F, et al. **J Membr Biol** 1999 Jan 15;167(2):193-204
Roles of Ca2+ and protein tyrosine kinase in insulin action on cell volume via Na+ and K+ channels and Na+/K+/2Cl- cotransporter in fetal rat alveolar type II pneumocyte. Marunaka Y, et al. **J Membr Biol** 1999 Mar 1;168(1):91-101
Pertussis toxin-insensitive signaling of the ORL1 receptor: coupling to Gz and G16 proteins. Chan JS, et al. **J Neurochem** 1998 Nov;71(5):2203-10
Prostaglandin E1 transported into cells blocks the apoptotic signals induced by nerve growth factor deprivation. Kawamura T, et al. **J Neurochem** 1999 May;72(5):1907-14
Amyloid beta protein (25-35) phosphorylates MARCKS through tyrosine kinase-activated protein kinase C signaling pathway in microglia. Nakai M, et al. **J Neurochem** 1999 Mar;72(3):1179-86
Calcium regulation of cyclic nucleotide signaling in lobster olfactory receptor neurons. Reich G, et al. **J Neurochem** 1999 Jul;73(1):147-52
Costimulatory signal blockade in murine relapsing experimental autoimmune encephalomyelitis. Schaub M, et al. **J Neuroimmunol** 1999 May 3;96(2):158-66
Requirement of receptor internalization for opioid stimulation of mitogen-activated protein kinase: biochemical and immunofluorescence confocal microscopic evidence. Ignatova EG, et al. **J Neurosci** 1999 Jan 1;19(1):56-63
Enhanced opioid efficacy in opioid dependence is caused by an altered signal transduction pathway. Ingram SL, et al. **J Neurosci** 1998 Dec 15;18(24):10269-76
Neurotrophin-3 contributes to the initiation of behavioral sensitization to cocaine by activating the Ras/Mitogen-activated protein kinase signal transduction cascade. Pierce RC, et al. **J Neurosci** 1999 Oct 1; 19(19):8685-95
Oligodendroglial survival factors, PDGF-AA and CNTF, activate similar JAK/STAT signaling pathways. Dell'Albani P, et al. **J Neurosci Res** 1998 Oct 15; 54(2):191-205
A novel neurotrophic pyrimidine compound MS-818 enhances neurotrophic effects of basic fibroblast growth factor. Sanjo N, et al. **J Neurosci Res** 1998 Dec 1; 54(5):604-12
Neuroligand-mediated calcium signaling in cultured human schwannoma cells. Mayer C, et al. **J Peripher Nerv Syst** 1999;4(2):99-105
Bradykinin activates a cross-signaling pathway between sensory and adrenergic nerve endings in the heart: a novel mechanism of ischemic norepinephrine release? Seyedi N, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):656-63
Comparison of the ligand binding and signaling properties of human dopamine D(2) and D(3) receptors in Chinese hamster ovary cells. Vanhauwe JF, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):908-16
Disruption of insulin-like growth factor-1 signaling and down-regulation of cdc2 by SC-alphaalphadelta9, a novel small molecule antisignaling agent identified in a targeted array library. Vogt A, et al. **J Pharmacol Exp Ther** 1998 Nov;287(2):806-13
Activation of multiple intracellular transduction signals by vasopressin in vasopressin-sensitive neurones of the rat supraoptic nucleus. Sabatier N, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):699-710
Glucocorticoid block of protein kinase C signalling in mouse pituitary corticotroph AtT20 D16:16 cells. Tian L, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):757-68
Activation of STAT1 alpha by phosphatase inhibitor vanadate in glomerular mesangial cells: involvement of tyrosine and serine phosphorylation. Bardgette J, et al. **J Recept Signal Transduct Res** 1999 Sep;19(5):865-84
Involvement of glucocorticoid receptor in the induction of differentiation by ginsenosides in F9 teratocarcinoma cells. Lee YN, et al. **J Steroid Biochem Mol Biol** 1998 Oct; 67(2):105-11
Ovarian cancer investigators aim at cell signaling pathways [news] Friedrich MJ. **JAMA** 1999 Mar 17;281(11):973-5
Interleukin-11 (IL-11) enhances clonal proliferation of acute myelogenous leukemia cells with strong expression of the IL-11 receptor alpha chain and signal transducing gp130. Kimura T, et al. **Leukemia** 1999 Jul;13(7):1018-27
Serotonin, bradykinin and endothelin signalling in a sheep choroid plexus cell line. Albert O, et al. **Life Sci** 1999; 64(10):859-67
Synergistic down-regulation of signal transduction and cytotoxicity by tiazofurin and quercetin in human ovarian carcinoma cells. Shen F, et al. **Life Sci** 1999;64(21):1869-76
Stimulation of beta1-integrin function by epidermal growth factor and heregulin-beta has distinct requirements for erbB2 but a similar dependence on phosphoinositide 3-OH kinase. Adelsman MA, et al. **Mol Biol Cell** 1999 Sep; 10(9):2861-78
Epigallocathechin-3 gallate selectively inhibits the PDGF-BB-induced intracellular signaling transduction pathway in vascular smooth muscle cells and inhibits transformation of sis-transfected NIH 3T3 fibroblasts and human glioblastoma cells (A172). Ahn HY, et al. **Mol Biol Cell** 1999 Apr;10(4):1093-104
A novel Ras-interacting protein required for chemotaxis and cyclic adenosine monophosphate signal relay in Dictyostelium. Lee S, et al. **Mol Biol Cell** 1999 Sep; 10(9):2829-45
Association of apoptosis with the inhibition of extracellular signal-regulated protein kinase activity in the tumor necrosis factor alpha-resistant ovarian carcinoma cell line UCI 101. Yazlovitskaya EM, et al. **Mol Carcinog** 1999 May; 25(1):14-20
TNF-alpha induced altered signaling mechanism in human neutrophil. Das S, et al. **Mol Cell Biochem** 1999 Jul; 197(1-2):97-108
The mitogen-activated protein kinase pathway contributes to vanadate toxicity in vascular smooth muscle cells. Daum G, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):97-103
Multifunctional actions of vanadium compounds on insulin signaling pathways: evidence for preferential enhancement of metabolic versus mitogenic effects. Fantus IG, et al. **Mol Cell Biochem** 1998 May;182(1-2):109-19 (89 ref.)
Inhibitory effects of TNF alpha on mouse tumor Leydig cells: possible role of ceramide in the mechanism of action. Budnik LT, et al. **Mol Cell Endocrinol** 1999 Apr 25; 150(1-2):39-46
The stimulatory effect of endothelin-1 on frog adrenocortical cells is mediated through both the phospholipase C and the adenylyl cyclase transduction pathways. Cartier F, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1-2):27-36
Estrogen and aryl hydrocarbon responsiveness of ECC-1 endometrial cancer cells. Castro-Rivera E, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):11-21
New molecular targets for anticancer therapy. The First International Conference on New Molecular Targets for Anticancer Therapy. Naples, Italy. June 22-23 1998. Normanno N, et al. **Mol Med Today** 1998 Dec;4(12):514-6
Evidence for involvement of mitogen-activated protein kinase, rather than stress-activated protein kinase, in potentiation of 1-beta-D-arabinofuranosylcytosine-induced apoptosis by interruption of protein kinase C signaling. Jarvis WD, et al. **Mol Pharmacol** 1998 Nov;54(5):844-56
CPCCOEt, a noncompetitive metabotropic glutamate receptor 1 antagonist, inhibits receptor signaling without affecting glutamate binding. Litschig S, et al. **Mol Pharmacol** 1999 Mar;55(3):453-61
Blockade of the MAP kinase pathway suppresses growth of colon tumors in vivo [see comments] Sebolt-Leopold JS, et al. **Nat Med** 1999 Jul;5(7):810-6. Comment in: Nat Med 1999 Jul;5(7):736-7.
Dopamine activation of endogenous cannabinoid signaling in dorsal striatum [see comments] Giuffrida A, et al. **Nat Neurosci** 1999 Apr;2(4):358-63. Comment in: Nat Neurosci 1999 Apr;2(4):303-4.
Adrenaline enhances odorant contrast by modulating signal encoding in olfactory receptor cells [see comments] Kawai F, et al. **Nat Neurosci** 1999 Feb;2(2):133-8. Comment in: Nat Neurosci 1999 Feb;2(2):106-8.
Suppression of Raf-1 kinase activity and MAP kinase signalling by RKIP. Yeung K, et al. **Nature** 1999 Sep 9; 401(6749):173-7
Angiotensin converting enzyme inhibitors block mitogenic signalling pathways in rat cardiac fibroblasts. van Eickels M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):394-9
The neurobiology of cannabinoid transmission: from anandamide signaling to higher cerebral functions and disease. Navarro M, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):379-85 (48 ref.)
Comparison of the effects of hydrogen peroxide, 4-hydroxy-2-nonenal and beta-amyloid (25-35) upon calcium signalling. Fowler CJ, et al. **Neurochem Int** 1998 Aug;33(2):161-72
Inhibition of receptor-mediated calcium responses by corticotrophin-releasing hormone in the CATH.a cell line. Bundey RA, et al. **Neuropharmacology** 1999 Jan;38(1):39-47
Long-lasting effects of chronic mu-opioid intake on the signal transmission via dopamine D1 receptors in the limbic forebrain of drug deprived rats. May T, et al. **Neuropharmacology** 1998 Aug;37(8):997-1006
Carbamazepine-induced upregulation of adenosine A1-receptors in astrocyte cultures affects coupling to the phosphoinositol signaling pathway. Biber K, et al. **Neuropsychopharmacology** 1999 Mar;20(3):271-8
GABA(B) receptor activation protects GABA(A) receptor from cyclic AMP-dependent down-regulation in rat cerebellar granule cells. Barilà B, et al. **Neuroscience** 1999; 93(3):1077-82
Spreading depression induces expression of calcium-independent protein kinase C subspecies in ischaemia-sensitive cortical layers: regulation by N-methyl-D-aspartate receptors and glucocorticoids. Koponen S, et al. **Neuroscience** 1999;93(3):985-93
N-methyl-D-aspartate signaling to nuclear activator protein-1 through mechanisms different from those for kainate signaling in murine brain. Yoneda Y, et al. **Neuroscience** 1999 May;90(2):519-33
Inhibition of excitatory neurotransmitter-nitric oxide signaling pathway by inhalational anesthetics. Zuo Z, et al. **Neuroscience** 1999;93(3):1167-72
Sulindac sulfide inhibits Ras signaling. Herrmann C, et al. **Oncogene** 1998 Oct 8;17(14):1769-76
Interleukin-6 and oncostatin M-induced growth inhibition of human A375 melanoma cells is STAT-dependent and involves upregulation of the cyclin-dependent kinase inhibitor p27/Kip1. Kortylewski M, et al. **Oncogene** 1999 Jun 24;18(25):3742-53
VEGF activates protein kinase C-dependent, but Ras-independent Raf-MEK-MAP kinase pathway for DNA synthesis in primary endothelial cells. Takahashi T, et al. **Oncogene** 1999 Apr 1;18(13):2221-30
Requirement of protein kinase (Krs/MST) activation for

MT-21-induced apoptosis. Watabe M, et al. **Oncogene** 1999 Sep 16;18(37):5211-20

Inhibition of PLC-gamma1 activity converts nerve growth factor from an anti-mitogenic to a mitogenic signal in CHO cells. Zapf-Colby A, et al. **Oncogene** 1999 Sep 2; 18(35):4908-19

Tamoxifen downregulates signal transduction and is synergistic with tiazofurin in human breast carcinoma MDA-MB-435 cells. Shen F, et al. **Oncol Res** 1998; 10(6):325-31

Activation and injury of endothelial cells by cytokines. Pober JS. **Pathol Biol (Paris)** 1998 Mar;46(3):159-63 (31 ref.)

Application of signal transduction inhibition as a therapeutic strategy for central nervous system tumors. Pollack IF, et al. **Pediatr Neurosurg** 1998 Nov;29(5):228-44 (213 ref.)

Interactions of signaling pathways in ACTH (1-24)-induced cell shape changes in invertebrate immunocytes. Sassi D, et al. **Peptides** 1998;19(6):1105-10

Differential effects of some cell signalling inhibitors upon nitric oxide synthase expression and nuclear factor-kappaB activation induced by lipopolysaccharide in rat aortic smooth muscle cells. Zhou J, et al. **Pharmacol Res** 1999 May;39(5):363-73

The delta-opioid receptor: molecular pharmacology, signal transduction, and the determination of drug efficacy. Quock RM, et al. **Pharmacol Rev** 1999 Sep;51(3):503-32 (280 ref.)

Pancreas development is promoted by cyclopamine, a hedgehog signaling inhibitor. Kim SK, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13036-41

TRP2: a candidate transduction channel for mammalian pheromone sensory signaling. Liman ER, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5791-6

Na(+)-dependent metabolic coupling upon 5-HT1B receptor activation by sumatriptan and related agonists. Pauwels PJ. **Receptors Channels** 1998;5(6):367-73

Chemotransduction by carotid body chemoreceptors is dependent on bicarbonate currents. Panisello JM, et al. **Respir Physiol** 1998 Jun;112(3):265-81

In vitro macrophage endotoxin tolerance: defective in vitro macrophage map kinase signal transduction after LPS pretreatment is not present in macrophages from C3H/HeJ endotoxin resistant mice. Kraatz J, et al. **Shock** 1999 Jan; 11(1):58-63

Therapy of rheumatoid arthritis by blocking IL-6 signal transduction with a humanized anti-IL-6 receptor antibody. Yoshizaki K, et al. **Springer Semin Immunopathol** 1998;20(1-2):247-59 (71 ref.)

Mannitol at clinical concentrations activates multiple signaling pathways and induces apoptosis in endothelial cells. Malek AM, et al. **Stroke** 1998 Dec;29(12):2631-40

Cytokines induce airway smooth muscle cell hyperresponsiveness to contractile agonists. Amrani Y, et al. **Thorax** 1998 Aug;53(8):713-6 (47 ref.)

Benzo(a)pyrene-induced alterations in growth-related gene expression and signaling in precision-cut adult rat liver and kidney slices. Parrish AR, et al. **Toxicol Appl Pharmacol** 1998 Oct;152(2):302-8

Nitrous oxide impairs the signaling of neutrophils downstream of receptors. Fröhlich D, et al. **Toxicol Lett** 1998 Nov 23;100-101:121-7

Agonist-stimulated alveolar macrophages: apoptosis and phospholipid signaling. Lütjohann J, et al. **Toxicol Lett** 1998 Aug;96-97:59-67

Effects of inhalational anesthetics on alpha2-adrenergic signaling in isolated platelets. Pentyala S, et al. **Toxicol Lett** 1998 Nov 23;100-101:115-20

Epigenetic toxicology as toxicant-induced changes in intracellular signalling leading to altered gap junctional intercellular communication. Trosko JE, et al. **Toxicol Lett** 1998 Dec 28;102-103:71-8 (51 ref.)

The nitric oxide-cyclic 3',5'-guanosine monophosphate signal transduction pathway in the mechanism of action of general anesthetics. Vulliemoz Y. **Toxicol Lett** 1998 Nov 23;100-101:103-8 (31 ref.)

Signal-transduction cascades as targets for therapeutic intervention by natural products. Cardenas ME, et al. **Trends Biotechnol** 1998 Oct;16(10):427-33 (71 ref.)

From Vanadis to Atropos: vanadium compounds as pharmacological tools in cell death signalling. Morinville A, et al. **Trends Pharmacol Sci** 1998 Nov;19(11):452-60 (89 ref.)

Serotonin receptors modulate rod signals: a neuropharmacological comparison of light- and dark-adapted retinas. Jin XT, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):891-902

[Regulation of traditional Chinese medicine formulae bailong on cAMP-PKA and DAG-PKC signal pathways of human gastric cancer cells] Gu SQ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jul; 17(7):404-7 (Eng. Abstr.) **(Chi)**

[The effect of NC-1900: its ameliorating effects on impairments of learning and memory in the CA1 neurons and its intracellular signal transduction pathways] Akaike N, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:44P-47P (11 ref.) (Eng. Abstr.) **(Jpn)**

[Cyclosporine as an inhibitor of signal transduction. Molecular mechanisms of action (editorial)] Sazykin IuO, et al. **Antibiot Khimioter** 1999;44(3):3-4 **(Rus)**

[Activation of astrocytes of by anaphylatoxins of the complement system] Gamalei IA, et al. **Tsitologiia** 1998; 40(8-9):768-72 (Eng. Abstr.) **(Rus)**

GENETICS

Signal transduction defects in growth hormone insensitivity. Clayton PE, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):174-8; discussion 179 (18 ref.)

STATs as mediators of cytokine-induced responses. Hoey T, et al. **Adv Immunol** 1999;71:145-62 (113 ref.)

Acceleration of c-myc-induced hepatocarcinogenesis by Co-expression of transforming growth factor (TGF)-alpha in transgenic mice is associated with TGF-beta1 signaling disruption. Santoni-Rugiu E, et al. **Am J Pathol** 1999 Jun; 154(6):1693-700

Establishment of a novel B cell clonality analysis using single-strand conformation polymorphism of immunoglobulin light chain messenger signals. Shiokawa S, et al. **Am J Pathol** 1998 Nov;153(5):1393-400

Syntenic assignment of CD3G to bovine chromosome 15. Amarante MR, et al. **Anim Genet** 1999 Feb;30(1):67-8

Expression and functional analysis of olfactory receptors. Breer H, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:175-81

Analysis of selected regulatory pathways for rat galanin gene transcription and their suitability as putative models for negative regulation by NGF. Corness J, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:14-21

Involvement of genes encoding a K+ channel (ether a go-go) and a Na+ channel (smellblind) in Drosophila olfaction. Dubin AE, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:212-22 (28 ref.)

Chemosignal transduction in the vomeronasal organ of garter snakes: cloning of a gene encoding adenylate cyclase from the vomeronasal organ of garter snakes. Liu W, et al. **Arch Biochem Biophys** 1998 Oct 15;358(2):204-10

Signal transduction and transcription factors in rheumatic disease. Firestein GS, et al. **Arthritis Rheum** 1999 Apr; 42(4):609-21 (126 ref.)

The human vasoactive intestinal Peptide/Pituitary adenylate cyclase activating peptide receptor 1 (VPAC1): constitutive activation by mutations at threonine 343. Gaudin P, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):15-20

Effect of long-term exercise on gene expression of insulin signaling pathway intermediates in skeletal muscle. Kim YB, et al. **Biochem Biophys Res Commun** 1999 Jan 27; 254(3):720-7

Reconstitution of IL6-inducible differentiation of a myeloid leukemia cell line by activated Stat factors. Piekorz R, et al. **Biochem Biophys Res Commun** 1998 Sep 18; 250(2):436-43

Uridine diphosphoglucose dehydrogenase regulates proteoglycan expression: cDNA cloning and antisense study. Wegrowski Y, et al. **Biochem Biophys Res Commun** 1998 Sep 18;250(2):206-11

Expression of I2PP2A, an inhibitor of protein phosphatase 2A, induces c-Jun and AP-1 activity. Al-Murrani SW, et al. **Biochem J** 1999 Jul 15;341 (Pt 2):293-8

A single mutation Asp229 --> Ser confers upon Gs alpha the ability to interact with regulators of G protein signaling. Natochin M, et al. **Biochemistry** 1998 Sep 29; 37(39):13776-80

JNK, cytoskeletal regulator and stress response kinase? A Drosophila perspective. Goberdhan DC, et al. **Bioessays** 1998 Dec;20(12):1009-19 (83 ref.)

Genetic evidence for an additional factor required for erythropoietin-induced signal transduction. Gaffen SL, et al. **Blood** 1999 Jul 1;94(1):74-86

Reduced expression of adhesion molecules and cell signaling receptors by chronic lymphocytic leukemia cells with 11q deletion. Sembries S, et al. **Blood** 1999 Jan 15;93(2):624-31

RESPONSIVE-TO-ANTAGONIST1, a Menkes/Wilson disease-related copper transporter, is required for ethylene signaling in Arabidopsis. Hirayama T, et al. **Cell** 1999 Apr 30;97(3):383-93

Characterization of a mutant T-cell hybridoma line with defects in the TCR-mediated apoptotic pathway. Morgan G, et al. **Cell Death Differ** 1999 Jan;6(1):36-47

Expression of genes that regulate Fas signalling and Fas-mediated apoptosis in colon carcinoma cells. Tillman DM, et al. **Cell Death Differ** 1998 May;5(5):450-7

Protein kinase-dependent overexpression of the nuclear protein pirin in c-JUN and RAS transformed fibroblasts. Bergman AC, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):467-71

Signalling and gene regulation by urea and NaCl in the renal medulla. Cohen DM. **Clin Exp Pharmacol Physiol** 1999 Jan; 26(1):69-73 (44 ref.)

Genetic dissection of R gene signal transduction pathways. Innes RW. **Curr Opin Plant Biol** 1998 Aug;1(4):299-304 (41 ref.)

Cytokinin signaling. Kakimoto T. **Curr Opin Plant Biol** 1998 Oct;1(5):399-403 (27 ref.)

Assignment1 of STAT1 to human chromosome 2q32 by FISH and radiation hybrids. Haddad B, et al. **Cytogenet Cell Genet** 1998;83(1-2):58-9

Dominant-negative Smad2 mutants inhibit activin/Vg1 signaling and disrupt axis formation in Xenopus. Hoodless PA, et al. **Dev Biol** 1999 Mar 15;207(2):364-79

erbB genes in the mouse uterus: cell-specific signaling by epidermal growth factor (EGF) family of growth factors during implantation. Lim H, et al. **Dev Biol** 1998 Dec 1; 204(1):97-110

Gap junction signalling mediated through connexin-43 is required for chick limb development. Makarenkova H, et al. **Dev Biol** 1999 Mar 15;207(2):380-92

WNT signaling in the control of hair growth and structure. Millar SE, et al. **Dev Biol** 1999 Mar 1;207(1):133-49

Wingless signaling leads to an asymmetric response to decapentaplegic-dependent signaling during sense organ patterning on the notum of Drosophila melanogaster. Phillips RG, et al. **Dev Biol** 1999 Mar 1;207(1):150-62

Mosaic analysis of the dominant mutant, Gnarley1-R, reveals distinct lateral and transverse signaling pathways during maize leaf development. Foster T, et al. **Development** 1999 Jan;126(2):305-13

Sprouty: a common antagonist of FGF and EGF signaling pathways in Drosophila. Kramer S, et al. **Development** 1999 Jun;126(11):2515-25

Specificity of TGFbeta signaling is conferred by distinct type I receptors and their associated SMAD proteins in Caenorhabditis elegans. Krishna S, et al. **Development** 1999 Jan;126(2):251-60

Transcriptional activation of gonadotropin-releasing hormone (GnRH) receptor gene by GnRH: involvement of multiple signal transduction pathways. Lin X, et al. **Endocrinology** 1999 Jan;140(1):358-64

Genetically modified animals in pharmacological research: future trends. Rudolph U, et al. **Eur J Pharmacol** 1999 Jun 30;375(1-3):327-37 (87 ref.)

Expression of the genes for guanyl-specific ribonucleases from Bacillus intermedius and Bacillus pumilus is regulated by the two component signal transduction system PhoP-PhoR in B. subtilis. Znamenskaya LV, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):217-22

Severe osteopetrosis, defective interleukin-1 signalling and lymph node organogenesis in TRAF6-deficient mice. Naito A, et al. **Genes Cells** 1999 Jun;4(6):353-62

Signaling for germ cells [see comments] McLaren A. **Genes Dev** 1999 Feb 15;13(4):373-6. Comment in: Genes Dev 1999 Feb 15;13(4):424-36.

Myoblast city, the Drosophila homolog of DOCK180/CED-5, is required in a Rac signaling pathway utilized for multiple developmental processes. Nolan KM, et al. **Genes Dev** 1998 Nov 1;12(21):3337-42

A genetic screen for novel components of the notch signaling pathway during Drosophila bristle development. Go MJ, et al. **Genetics** 1998 Sep;150(1):211-20

Identification of three putative signal transduction genes involved in R gene-specified disease resistance in Arabidopsis. Warren RF, et al. **Genetics** 1999 May; 152(1):401-12

The polymorphisms S503P and Q576R in the interleukin-4 receptor alpha gene are associated with atopy and influence the signal transduction. Kruse S, et al. **Immunology** 1999 Mar;96(3):365-71

Roles of reactive oxygen species: signaling and regulation of cellular functions. Gamaley IA, et al. **Int Rev Cytol** 1999; 188:203-55 (343 ref.)

A two-component signal transduction system essential for growth of Bacillus subtilis: implications for anti-infective therapy. Fabret C, et al. **J Bacteriol** 1998 Dec; 180(23):6375-83

Biochemical and genetic evidence for participation of DevR in a phosphorelay signal transduction pathway essential for heterocyst maturation in Nostoc punctiforme ATCC 29133. Hagen KD, et al. **J Bacteriol** 1999 Jul;181(14):4430-4

Nerve growth factor induces zif268 gene expression via MAPK-dependent and -independent pathways in PC12D cells. Kumahara E, et al. **J Biochem (Tokyo)** 1999 Mar; 125(3):541-53

Expression of c-Myc in response to colony-stimulating factor-1 requires mitogen-activated protein kinase kinase-1. Cheng M, et al. **J Biol Chem** 1999 Mar 5; 274(10):6553-8

Effect of epidermal growth factor receptor internalization on regulation of the phospholipase C-gamma1 signaling pathway. Haugh JM, et al. **J Biol Chem** 1999 Mar 26; 274(13):8958-65

Integration of Rac-dependent regulation of cyclin D1 transcription through a nuclear factor-kappaB-dependent pathway. Joyce D, et al. **J Biol Chem** 1999 Sep 3; 274(36):25245-9

Evidence for a p21(ras)/Raf-1/MEK-1/ERK-2-independent pathway in stimulation of IL-2 gene transcription in human primary T lymphocytes. Lafont V, et al. **J Biol Chem** 1999 Sep 3;274(36):25743-8

Stat protein transactivation domains recruit p300/CBP through widely divergent sequences. Paulson M, et al. **J Biol Chem** 1999 Sep 3;274(36):25343-9

Motif mutation of bradykinin B2 receptor second intracellular loop and proximal C terminus is critical for signal transduction, internalization, and resensitization. Prado GN, et al. **J Biol Chem** 1998 Dec 11;273(50):33548-55

Nuclear retention of IkappaBalpha protects it from signal-induced degradation and inhibits nuclear factor kappaB transcriptional activation. Rodriguez MS, et al. **J Biol Chem** 1999 Mar 26;274(13):9108-15

Signal transduction and hormone-dependent internalization of the thyrotropin-releasing hormone receptor in cells lacking Gq and G11. Yu R, et al. **J Biol Chem** 1999 May 28;274(22):15745-50

Dual regulation of T cell receptor-mediated signaling by oncogenic Cbl mutant 70Z. Zhang Z, et al. **J Biol Chem** 1999 Feb 19;274(8):4883-9

Raf signaling stimulates and represses the human collagen X promoter through distinguishable elements. Beier F, et

al. **J Cell Biochem** 1999 Mar 15;72(4):549–57
Differential kinetics for induction of interleukin–6 mRNA expression in murine peritoneal macrophages: evidence for calcium–dependent and independent–signalling pathways. Marriott I, et al. **J Cell Physiol** 1998 Nov;177(2):232–40
Analysis of mutations in genes of the follicle–stimulating hormone receptor signaling pathway in ovarian granulosa cell tumors. Ligtenberg MJ, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2233–4
SLP–76 deficiency impairs signaling via the high–affinity IgE receptor in mast cells. Pivniouk VI, et al. **J Clin Invest** 1999 Jun;103(12):1737–43
Vav regulates peptide–specific apoptosis in thymocytes. Kong YY, et al. **J Exp Med** 1998 Dec 7;188(11):2099–111
Point mutation causing constitutive signaling of CXCR2 leads to transforming activity similar to Kaposi's sarcoma herpesvirus–G protein–coupled receptor. Burger M, et al.
J Immunol 1999 Aug 15;163(4):2017–22
Differences between IL–4– and IL–4 receptor alpha–deficient mice in chronic leishmaniasis reveal a protective role for IL–13 receptor signaling. Mohrs M, et al. **J Immunol** 1999 Jun 15;162(12):7302–8
Expression of the JAK and STAT superfamilies in human meningiomas. Magrassi L, et al. **J Neurosurg** 1999 Sep; 91(3):440–6
A novel A–kinase anchoring protein in the heart interacts with G alpha 13. Suzuki M, et al. **Jpn Heart J** 1999 Mar; 40(2):199–208
Dissection of signaling pathways and cloning of new signal transducers in tyrosine kinase–induced pathways by genetic selection. Mahlmann S, et al. **Leukemia** 1998 Dec; 12(12):1858–65 (77 ref.)
Distinct expression patterns of notch family receptors and ligands during development of the mammalian inner ear. Lewis AK, et al. **Mech Dev** 1998 Nov;78(1–2):159–63
Drosophila ciD encodes a hybrid Pangolin/Cubitus interruptus protein that diverts the Wingless into the Hedgehog signaling pathway. Schweizer L, et al.
Mech Dev 1998 Nov;78(1–2):141–51
Use of gene knockouts in cultured cells to study apoptosis. Lahti JM. **Methods** 1999 Apr;17(4):305–12
Two–component signal–transducing systems involved in stress responses and vancomycin susceptibility in Lactobacillus sakei. Morel–Deville F, et al.
Microbiology 1998 Oct;144 (Pt 10):2873–83
Delta–1 activation of notch–1 signaling results in HES–1 transactivation. Jarriault S, et al. **Mol Cell Biol** 1998 Dec; 18(12):7423–31
The notch pathway intermediate HES–1 silences CD4 gene expression. Kim HK, et al. **Mol Cell Biol** 1998 Dec; 18(12):7166–75
The GnRH promoter: target of transcription factors, hormones, and signaling pathways. Nelson SB, et al.
Mol Cell Endocrinol 1998 May 25;140(1–2):151–5 (22 ref.)
A putative two–component signal transduction system regulates sigmaE, a sigma factor required for normal cell wall integrity in Streptomyces coelicolor A3(2). Paget MS, et al. **Mol Microbiol** 1999 Jul;33(1):97–107
Jasmonate signaling mutants of Arabidopsis are susceptible to the soil fungus Pythium irregulare. Staswick PE, et al.
Plant J 1998 Sep;15(6):747–54
Genetic and physical characterization of a region of Arabidopsis chromosome 1 containing the CLAVATA1 gene. Williams RW, et al. **Plant Mol Biol** 1999 Jan; 39(1):171–6
Costimulatory signals are required for induction of transcription factor Nur77 during negative selection of CD4(+)CD8(+) thymocytes. Amsen D, et al.
Proc Natl Acad Sci U S A 1999 Jan 19;96(2):622–7
Human T–cell leukemia retrovirus–Tax protein is a repressor of nuclear receptor signaling. Doucas V, et al.
Proc Natl Acad Sci U S A 1999 Mar 16;96(6):2633–8
Hsl7p, a negative regulator of Ste20p protein kinase in the Saccharomyces cerevisiae filamentous growth–signaling pathway. Fujita A, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8522–7
Regulation of the insulin–like developmental pathway of Caenorhabditis elegans by a homolog of the PTEN tumor suppressor gene. Gil EB, et al.
Proc Natl Acad Sci U S A 1999 Mar 16;96(6):2925–30
A Gsalpha mutant designed to inhibit receptor signaling through Gs. Iiri T, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):499–504
Cancer dormancy and cell signaling: induction of p21(waf1) initiated by membrane IgM engagement increases survival of B lymphoma cells. Marches R, et al.
Proc Natl Acad Sci U S A 1999 Jul 20;96(15):8711–5
Genetic evidence that Shp–2 tyrosine phosphatase is a signal enhancer of the epidermal growth factor receptor in mammals. Qu CK, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8528–33
Mutations of aromatic residues in the first transmembrane helix impair signalling by the secretin receptor. Di Paolo E, et al. **Receptors Channels** 1999;6(4):309–15
The taxonomy of developmental control in Caenorhabditis elegans [see comments] Ruvkun G, et al. **Science** 1998 Dec 11;282(5396):2033–41 (51 ref.). Comment in: Science 1998 Dec 11;282(5396):1972–4. Comment in: Science 1999 Jul 9;285(5425):167.
Neurofibromatosis type 1 peripheral nerve tumors: aberrant activation of the Ras pathway. Feldkamp MM, et al.
Surg Neurol 1999 Feb;51(2):211–8

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Interleukin–4 receptor signalling mechanisms and their biological significance. Nelms K, et al.
Adv Exp Med Biol 1998;452:37–43 (19 ref.)
The function of small GTPases in signaling by immune recognition and other leukocyte receptors. Altman A, et al. **Adv Immunol** 1999;72:1–101 (561 ref.)
Inhibitory pathways triggered by ITIM–containing receptors. Bolland S, et al. **Adv Immunol** 1999;72:149–77 (180 ref.)
Integrins in the immune system. Shimizu Y, et al.
Adv Immunol 1999;72:325–80 (456 ref.)
Reconstitution of killer cell inhibitory receptor–mediated signal transduction machinery in a cell–free model system. Cho HI, et al. **Arch Biochem Biophys** 1999 Aug 15; 368(2):221–31
MHC class II and negative regulators of hematopoiesis. Deeg HJ, et al. **Arch Immunol Ther Exp (Warsz)** 1998; 46(5):285–91 (46 ref.)
Alterations in signal transducing molecule CD3 zeta in patients with neoplastic diseases. Frydecka I, et al.
Arch Immunol Ther Exp (Warsz) 1998;46(6):355–9
The complexities of CD28 and CTLA–4 signalling: PI3K and beyond. Ward SG.
Arch Immunol Ther Exp (Warsz) 1999;47(2):69–75 (51 ref.)
Tumor necrosis factor alpha regulation of the FAS–mediated apoptosis–signaling pathway in synovial cells. Kobayashi T, et al. **Arthritis Rheum** 1999 Mar;42(3):519–26
Signaling pathways involved in thyroid hyperfunction and growth in Graves' disease. Di Cerbo A, et al.
Biochimie 1999 May;81(5):415–24 (118 ref.)
CD22 cross–linking generates B–cell antigen receptor–independent signals that activate the JNK/SAPK signaling cascade. Tuscano JM, et al. **Blood** 1999 Aug 15; 94(4):1382–92
Adhesion and signaling mediated by the cytoplasmic tails of leucocyte integrins. van Kooyk Y, et al.
Cell Adhes Commun 1998;6(2–3):247–54 (72 ref.)
Type I interferons: expression and signalization. Doly J, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1109–21 (136 ref.)
Prolactin, growth hormone and the immune system in humans. Velkeniers B, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1102–8 (75 ref.)
T–cell signal transduction and the role of protein kinase C. Wilkinson SE, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1122–44 (168 ref.)
Prolactin and growth hormone signal transduction in lymphohaemopoietic cells. Yu–Lee L, et al.
Cell Mol Life Sci 1998 Oct;54(10):1067–75 (103 ref.)
Immune–derived cytokines in the nervous system: epigenetic instructive signals or neuropathogenic mediators? Ensoli F, et al. **Crit Rev Immunol** 1999;19(2):97–116 (211 ref.)
Immune signalling: SHP–2 docks at multiple ports. Huyer G, et al. **Curr Biol** 1999 Feb 25;9(4):R129–32 (11 ref.)
Signal transduction from the B cell antigen–receptor. Campbell KS. **Curr Opin Immunol** 1999 Jun;11(3):256–64 (74 ref.)
T cell antigen–receptor signal transduction. van Leeuwen JE, et al. **Curr Opin Immunol** 1999 Jun;11(3):242–8 (81 ref.)
Regulation of B cell antigen receptor signaling by the Lyn/CD22/SHP1 pathway. Cornall RJ, et al.
Curr Top Microbiol Immunol 1999;244:57–68 (67 ref.)
Regulation of IL–17, IFN–gamma and IL–10 in human CD8(+) T cells by cyclic AMP–dependent signal transduction pathway. Shin HC, et al. **Cytokine** 1998 Nov; 10(11):841–50
The interleukin 1 receptor: ligand interactions and signal transduction. Auron PE. **Cytokine Growth Factor Rev** 1998 Sep–Dec;9(3–4):221–37 (91 ref.)
Severe B cell deficiency and disrupted splenic architecture in transgenic mice expressing the E41K mutated form of Bruton's tyrosine kinase. Dingjan GM, et al. **EMBO J** 1998 Sep 15;17(18):5309–20
Engagement of T cell receptor triggers its recruitment to low–density detergent–insoluble membrane domains. Montixi C, et al. **EMBO J** 1998 Sep 15;17(18):5334–48
Signaling and signaling dysfunction through the interferon gamma receptor. Rodig S, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):49–53 (25 ref.)
Bacterial DNA as an evolutionary conserved ligand signalling danger of infection to immune cells. Heeg K, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):464–9 (54 ref.)
Downregulation of the CD95 receptor and defect CD40–mediated signal transduction in B–chronic lymphocytic leukemia cells. Laytragoon–Lewin N, et al.
Eur J Haematol 1998 Oct;61(4):266–71
Activation of gp130 signaling in vivo by the IL–6 super–agonist K–7/D–6 accelerates repopulation of lymphoid organs after irradiation. Frasca D, et al.
Eur J Immunol 1999 Jan;29(1):300–10
Clusters of glycolipid and glycosylphosphatidylinositol–anchored proteins in lymphoid cells: accumulation of actin regulated by local tyrosine phosphorylation. Harder T, et al.
Eur J Immunol 1999 Feb;29(2):556–62
Enhanced murine CD4+ T cell responses induced by the CD2 ligand CD48. Latchman Y, et al. **Eur J Immunol** 1998 Dec;28(12):4325–31
Gamma–glutamyl transpeptidase, an ecto–enzyme regulator of intracellular redox potential, is a component of TM4 signal transduction complexes. Nichols TC, et al.
Eur J Immunol 1998 Dec;28(12):4123–9
Obligatory cross–talk with the tyrosine kinases assembled with the TCR/CD3 complex in CD4 signal transduction. Ulivieri C, et al. **Eur J Immunol** 1999 Aug;29(8):2625–35
Immunological defect in leprosy patients: altered T–lymphocyte signals. Sharma N, et al.
FEMS Immunol Med Microbiol 1999 Apr;23(4):355–62
Crippling of CD3–zeta ITAMs does not impair T cell receptor signaling. Ardouin L, et al. **Immunity** 1999 Apr; 10(4):409–20
Positive selection as a developmental progression initiated by alpha beta TCR signals that fix TCR specificity prior to lineage commitment. Bhandoola A, et al. **Immunity** 1999 Mar;10(3):301–11
Initiation of signal transduction through the T cell receptor requires the multivalent engagement of peptide/MHC ligands [corrected] [published erratum appears in Immunity 1998 Dec;9(6):891] Boniface JJ, et al. **Immunity** 1998 Oct; 9(4):459–66
Constitutive activation of Stat3 signaling confers resistance to apoptosis in human U266 myeloma cells. Catlett–Falcone R, et al. **Immunity** 1999 Jan;10(1):105–15
CD8 expression allows T cell signaling by monomeric peptide–MHC complexes. Delon J, et al. **Immunity** 1998 Oct;9(4):467–73
Four A6–TCR/peptide/HLA–A2 structures that generate very different T cell signals are nearly identical. Ding YH, et al. **Immunity** 1999 Jul;11(1):45–56
PU.1 and Spi–B are required for normal B cell receptor–mediated signal transduction. Garrett–Sinha LA, et al. **Immunity** 1999 Apr;10(4):399–408
Pre–TCR signaling and inactivation of p53 induces crucial cell survival pathways in pre–T cells. Haks MC, et al.
Immunity 1999 Jul;11(1):91–101
Distinct signals mediate maturation and allelic exclusion in lymphocyte progenitors. Iritani BM, et al. **Immunity** 1999 Jun;10(6):713–22
The role of caspases in development, immunity, and apoptotic signal transduction: lessons from knockout mice. Los M, et al. **Immunity** 1999 Jun;10(6):629–39 (87 ref.)
c–Cbl: a regulator of T cell receptor–mediated signalling. Thien CB, et al. **Immunol Cell Biol** 1998 Oct;76(5):473–82 (90 ref.)
Signalling mechanisms and the role of calcineurin in erythropoiesis. Magócsi M, et al. **Immunol Lett** 1999 May 3;68(1):187–95
A quantitative approach to signal transduction. Metzger H, et al. **Immunol Lett** 1999 May 3;68(1):53–7 (31 ref.)
Parameters determining the stimulatory capacity of the type I Fc epsilon–receptor. Schweitzer–Stenner R, et al.
Immunol Lett 1999 May 3;68(1):59–69 (54 ref.)
Involvement of protein kinases in signalling for nitric oxide (NO) and tumour necrosis factor alpha (TNF) production by monocytes stimulated with colorectal DeTa cancer cells: the lack of evidence for the role of TNF in the regulation of NO production. Siedlar M, et al.
Immunol Lett 1999 Feb;65(3):189–95
The role of B7 co–stimulation in activation and differentiation of CD4+ and CD8+ T cells. McAdam AJ, et al.
Immunol Rev 1998 Oct;165:231–47 (96 ref.)
Immune cell signaling defects in lupus: activation, anergy and death. Tsokos GC, et al. **Immunol Today** 1999 Mar; 20(3):119–24
Gamma interferon augments macrophage activation by lipopolysaccharide by two distinct mechanisms, at the signal transduction level and via an autocrine mechanism involving tumor necrosis factor alpha and interleukin–1. Held TK, et al. **Infect Immun** 1999 Jan;67(1):206–12
Signal transduction through interferon–gamma receptor on human eosinophils. Ochiai K, et al.
Int Arch Allergy Immunol 1999 Feb–Apr;118(2–4):443–6
Dimerization and activation of the common transducing chain (gp130) of the cytokines of the IL–6 family by mAb. Autissier P, et al. **Int Immunol** 1998 Dec;10(12):1881–9
Death signals from the B cell antigen receptor target mitochondria, activating necrotic and apoptotic death cascades in a murine B cell line, WEHI–231. Doi T, et al. **Int Immunol** 1999 Jun;11(6):933–41
CD40 signaling induces B cell responsiveness to multiple members of the gamma chain–common cytokine family. Griebel P, et al. **Int Immunol** 1999 Jul;11(7):1139–47
Functional analysis of LAT in TCR–mediated signaling pathways using a LAT–deficient Jurkat cell line. Zhang W, et al. **Int Immunol** 1999 Jun;11(6):943–50
Blockade of the Fas–triggered intracellular signaling pathway in human melanomas is circumvented by cytotoxic lymphocytes. Ferrarini M, et al. **Int J Cancer** 1999 May 17;81(4):573–9
Signal transduction through cytokine receptors. Hibi M, et al. **Int Rev Immunol** 1998;17(1–4):75–102 (150 ref.)
Nuclear factor kappaB––a new therapeutic approach? [editorial; comment] Böhrer H, et al.
Intensive Care Med 1998 Nov;24(11):1129–30 (13 ref.). Comment on: Intensive Care Med 1998 Nov;24(11):1131–8. Comment on: Intensive Care Med 1998 Nov;24(11):1199–208.
Signals involved in the early TH1/TH2 polarization of an immune response depending on the type of antigen. Bellinghausen I, et al. **J Allergy Clin Immunol** 1999 Feb; 103(2 Pt 1):298–306
Chemoattractant receptor cross–desensitization. Ali H, et al.
J Biol Chem 1999 Mar 5;274(10):6027–30 (52 ref.)
Tyrosine 319, a newly identified phosphorylation site of

ZAP-70, plays a critical role in T cell antigen receptor signaling. Di Bartolo V, et al. **J Biol Chem** 1999 Mar 5; 274(10):6285–94

FYN-T-FYB-SLP-76 interactions define a T-cell receptor zeta/CD3-mediated tyrosine phosphorylation pathway that up-regulates interleukin 2 transcription in T-cells. Raab M, et al. **J Biol Chem** 1999 Jul 23;274(30):21170–9

Actin microfilaments control the MHC class II antigen presentation pathway in B cells. Barois N, et al. **J Cell Sci** 1998 Jul;111 (Pt 13):1791–800

Cytotoxic T lymphocyte antigen 4 (CTLA-4) engagement delivers an inhibitory signal through the membrane-proximal region in the absence of the tyrosine motif in the cytoplasmic tail. Nakaseko C, et al. **J Exp Med** 1999 Sep 20;190(6):765–74

Alcohol (ethanol) inhibits IL-8 and TNF: role of the p38 pathway. Arbabi S, et al. **J Immunol** 1999 Jun 15; 162(12):7441–5

Dissociation between IFN-alpha-induced anti-viral and growth signaling pathways. Arora T, et al. **J Immunol** 1999 Mar 15;162(6):3289–97

A novel role for HEB downstream or parallel to the pre-TCR signaling pathway during alpha beta thymopoiesis. Barndt R, et al. **J Immunol** 1999 Sep 15; 163(6):3331–43

Alloantibody-mediated class I signal transduction in endothelial cells and smooth muscle cells: enhancement by IFN-gamma and TNF-alpha. Bian H, et al. **J Immunol** 1999 Jul 15;163(2):1010–8

Opposing roles of CD28:B7 and CTLA-4:B7 pathways in regulating in vivo alloresponses in murine recipients of MHC disparate T cells. Blazar BR, et al. **J Immunol** 1999 Jun 1;162(11):6368–77

Activation of the extracellular signal-related kinase/mitogen-activated protein kinase pathway discriminates CD4 versus CD8 lineage commitment in the thymus. Bommhardt U, et al. **J Immunol** 1999 Jul 15; 163(2):715–22

The CD3 epsilon subunit of the TCR contains endocytosis signals. Borroto A, et al. **J Immunol** 1999 Jul 1;163(1):25–31

Signaling through the EBV/C3d receptor (CR2, CD21) in human B lymphocytes: activation of phosphatidylinositol 3-kinase via a CD19-independent pathway. Bouillie S, et al. **J Immunol** 1999 Jan 1;162(1):136–43

Human CD5 signaling and constitutive phosphorylation of C-terminal serine residues by casein kinase II. Calvo J, et al. **J Immunol** 1998 Dec 1;161(11):6022–9

Role of the stress kinase pathway in signaling via the T cell costimulatory receptor 4-1BB. Cannons JL, et al. **J Immunol** 1999 Sep 15;163(6):2990–8

Signals transduced by CD3epsilon, but not by surface pre-TCR complexes, are able to induce maturation of an early thymic lymphoma in vitro. Carleton M, et al. **J Immunol** 1999 Sep 1;163(5):2576–85

Inflammatory cytokines IL-1 alpha, IL-1 beta, IL-6, and TNF-alpha impart neuroprotection to an excitotoxin through distinct pathways. Carlson NG, et al. **J Immunol** 1999 Oct 1;163(7):3963–8

Phospho-LAT-independent activation of the ras-mitogen-activated protein kinase pathway: a differential recruitment model of TCR partial agonist signaling. Chau LA, et al. **J Immunol** 1999 Aug 15; 163(4):1853–8

CD30 overexpression enhances negative selection in the thymus and mediates programmed cell death via a Bcl-2-sensitive pathway. Chiarle R, et al. **J Immunol** 1999 Jul 1;163(1):194–205

CD4-mediated signals induce T cell dysfunction in vivo. Chirmule N, et al. **J Immunol** 1999 Jul 15;163(2):644–9

Pre-T cell receptor signals are responsible for the down-regulation of Syk protein tyrosine kinase expression. Chu DH, et al. **J Immunol** 1999 Sep 1;163(5):2610–20

Determination of residues involved in ligand binding and signal transmission in the human IFN-alpha receptor 2. Chuntharapai A, et al. **J Immunol** 1999 Jul 15;163(2):766–73

Inflammatory cytokines provide a third signal for activation of naive CD4+ and CD8+ T cells. Curtsinger JM, et al. **J Immunol** 1999 Mar 15;162(6):3256–62

Tolerant CD8 T cells induced by multiple injections of peptide antigen show impaired TCR signaling and altered proliferative responses in vitro and in vivo. Dubois PM, et al. **J Immunol** 1998 Nov 15;161(10):5260–7

IL-2R alpha on one cell can present IL-2 to IL-2R beta/gamma(c) on another cell to augment IL-2 signaling. Eicher DM, et al. **J Immunol** 1998 Nov 15;161(10):5430–7

ICAM-1-coupled signaling pathways in astrocytes converge to cyclic AMP response element-binding protein phosphorylation and TNF-alpha secretion. Etienne-Manneville S, et al. **J Immunol** 1999 Jul 15; 163(2):668–74

CD19 amplifies B lymphocyte signal transduction by regulating Src-family protein tyrosine kinase activation. Fujimoto M, et al. **J Immunol** 1999 Jun 15;162(12):7088–94

Role for the Rac1 exchange factor Vav in the signaling pathways leading to NK cell cytotoxicity. Galandrini R, et al. **J Immunol** 1999 Mar 15;162(6):3148–52

Mu-surrogate light chain physicochemical interactions of the human preB cell receptor: implications for VH repertoire selection and cell signaling at the preB cell stage. Gauthier L, et al. **J Immunol** 1999 Jan 1;162(1):41–50

Cutting edge: TCR stimulation by antibody and bacterial superantigen induces Stat3 activation in human T cells. Gerwien J, et al. **J Immunol** 1999 Aug 15;163(4):1742–5

BASH, a novel signaling molecule preferentially expressed in B cells of the bursa of Fabricius. Goitsuka R, et al. **J Immunol** 1998 Dec 1;161(11):5804–8

The B cell antigen receptor activates the Akt (protein kinase B)/glycogen synthase kinase-3 signaling pathway via phosphatidylinositol 3-kinase. Gold MR, et al. **J Immunol** 1999 Aug 15;163(4):1894–905

Signaling pathways mediated by the TNF- and cytokine-receptor families target a common cis-element of the IFN regulatory factor 1 promoter. Gupta S, et al. **J Immunol** 1998 Dec 1;161(11):5997–6004

Adhesive and/or signaling functions of CD44 isoforms in human dendritic cells. Haegel-Kronenberger H, et al. **J Immunol** 1998 Oct 15;161(8):3902–11

CD3/TCR complex-associated lymphocyte activation gene-3 molecules inhibit CD3/TCR signaling. Hannier S, et al. **J Immunol** 1998 Oct 15;161(8):4058–65

Cutting edge: inflammatory signaling by Borrelia burgdorferi lipoproteins is mediated by toll-like receptor 2. Hirschfeld M, et al. **J Immunol** 1999 Sep 1;163(5):2382–6

Divergence of binding, signaling, and biological responses to recombinant human hybrid IFN. Hu R, et al. **J Immunol** 1999 Jul 15;163(2):854–60

TNF-alpha-induced growth suppression of CD34+ myeloid leukemic cell lines signals through TNF receptor type I and is associated with NF-kappa B activation. Hu X, et al. **J Immunol** 1999 Sep 15;163(6):3106–15

Mycobacterium avium infection of mouse macrophages inhibits IFN-gamma Janus kinase-STAT signaling and gene induction by down-regulation of the IFN-gamma receptor. Hussain S, et al. **J Immunol** 1999 Aug 15; 163(4):2041–8

CD11/CD18 and CD14 share a common lipid A signaling pathway. Ingalls RR, et al. **J Immunol** 1998 Nov 15; 161(10):5413–20

Cutting edge: association of phospholipase C-gamma 2 Src homology 2 domains with BLNK is critical for B cell antigen receptor signaling. Ishiai M, et al. **J Immunol** 1999 Aug 15;163(4):1746–9

Requirements for signal delivery through CD44: analysis using CD44-Fas chimeric proteins. Ishiwatari-Hayasaka H, et al. **J Immunol** 1999 Aug 1;163(3):1258–64

Augmentation of type I IL-1 receptor expression and IL-1 signaling by IL-6 and glucocorticoid in murine hepatocytes. Ito A, et al. **J Immunol** 1999 Apr 1; 162(7):4260–5

Serial TCR engagement and down-modulation by peptide:MHC molecule ligands: relationship to the quality of individual TCR signaling events. Itoh Y, et al. **J Immunol** 1999 Feb 15;162(4):2073–80

Cutting edge: species specificity of the CC chemokine 6Ckine signaling through the CXC chemokine receptor CXCR3: human 6Ckine is not a ligand for the human or mouse CXCR3 receptors. Jenh CH, et al. **J Immunol** 1999 Apr 1;162(7):3765–9

TNF receptor-associated factor-2 is involved in both IL-1 beta and TNF-alpha signaling cascades leading to NF-kappa B activation and IL-8 expression in human intestinal epithelial cells. Jobin C, et al. **J Immunol** 1999 Apr 15;162(8):4447–54

TCR signaling thresholds regulating T cell development and activation are dependent upon SHP-1. Johnson KG, et al. **J Immunol** 1999 Apr 1;162(7):3802–13

Overexpression of protein kinase C isoforms protects RAW 264.7 macrophages from nitric oxide-induced apoptosis: involvement of c-Jun N-terminal kinase/stress-activated protein kinase, p38 kinase, and CPP-32 protease pathways. Jun CD, et al. **J Immunol** 1999 Mar 15;162(6):3395–401

TNF receptor 1-dependent beta cell toxicity as an effector pathway in autoimmune diabetes. Kägi D, et al. **J Immunol** 1999 Apr 15;162(8):4598–605

Syk- and Lyn-dependent phosphorylation of Syk on multiple tyrosines following B cell activation includes a site that negatively regulates signaling. Keshvara LM, et al. **J Immunol** 1998 Nov 15;161(10):5276–83

Nitric oxide prevents IL-1beta and IFN-gamma-inducing factor (IL-18) release from macrophages by inhibiting caspase-1 (IL-1beta-converting enzyme). Kim YM, et al. **J Immunol** 1998 Oct 15;161(8):4122–8

CD38-mediated signaling events in murine pro-B cells expressing human CD38 with or without its cytoplasmic domain. Kitanaka A, et al. **J Immunol** 1999 Feb 15; 162(4):1952–8

Chemokine receptor expression and signaling in macaque and human fetal neurons and astrocytes: implications for the neuropathogenesis of AIDS. Klein RS, et al. **J Immunol** 1999 Aug 1;163(3):1636–46

Signal transduction pathways activated in endothelial cells following infection with Chlamydia pneumoniae. Krüll M, et al. **J Immunol** 1999 Apr 15;162(8):4834–41

Differential coupling of second signals for cytotoxicity and proliferation in CD8+ T cell effectors: amplification of the lytic potential by B7. Krummel MF, et al. **J Immunol** 1999 Sep 15;163(6):2999–3006

Human rheumatoid factor production is dependent on CD40 signaling and autoantigen. Kyburz D, et al. **J Immunol** 1999 Sep 15;163(6):3116–22

Differential interaction of Crkl with Cbl or C3G, Hef-1, and gamma subunit immunoreceptor tyrosine-based activation motif in signaling of myeloid high affinity Fc receptor for IgG (Fc gamma RI). Kyono WT, et al. **J Immunol** 1998 Nov 15;161(10):5555–63

TCR alpha beta-independent CD28 signaling and costimulation require non-CD4-associated Lck. Leung BL, et al. **J Immunol** 1999 Aug 1;163(3):1334–41

Thymic stromal lymphopoietin: a cytokine that promotes the development of IgM+ B cells in vitro and signals via a novel mechanism. Levin SD, et al. **J Immunol** 1999 Jan 15;162(2):677–83

Convergence of CD19 and B cell antigen receptor signals at MEK1 in the ERK2 activation cascade. Li X, et al. **J Immunol** 1998 Dec 1;161(11):5901–8

Products of sphingolipid catabolism block activation of the p21-activated protein kinases in neutrophils. Lian JP, et al. **J Immunol** 1998 Oct 15;161(8):4375–81

Cutting edge: SOCS-1 is a potent inhibitor of IL-4 signal transduction. Losman JA, et al. **J Immunol** 1999 Apr 1; 162(7):3770–4

Requirements for stimulating naive CD8+ T cells via signal 1 alone. Luxembourg AT, et al. **J Immunol** 1998 Nov 15; 161(10):5226–35

The role of Ets-1 in mast cell granulocyte-macrophage colony-stimulating factor expression and activation. McKinlay LH, et al. **J Immunol** 1998 Oct 15; 161(8):4098–105

Extinction of IL-12 signaling promotes Fas-mediated apoptosis of antigen-specific T cells. Marth T, et al. **J Immunol** 1999 Jun 15;162(12):7233–40

Intracellular signaling of gp34, the OX40 ligand: induction of c-jun and c-fos mRNA expression through gp34 upon binding of its receptor, OX40. Matsumura Y, et al. **J Immunol** 1999 Sep 15;163(6):3007–11

Inefficient phospholipase C activation and reduced Lck expression characterize the signaling defect of umbilical cord T lymphocytes. Miscia S, et al. **J Immunol** 1999 Sep 1;163(5):2416–24

Differences between IL-4- and IL-4 receptor alpha-deficient mice in chronic leishmaniasis reveal a protective role for IL-13 receptor signaling. Mohrs M, et al. **J Immunol** 1999 Jun 15;162(12):7302–8

Characterization of the signal transduction pathway activated in human monocytes and dendritic cells by MPIF-1, a specific ligand for CC chemokine receptor 1. Nardelli B, et al. **J Immunol** 1999 Jan 1;162(1):435–44

A new role for platelet-endothelial cell adhesion molecule-1 (CD31): inhibition of TCR-mediated signal transduction. Newton-Nash DK, et al. **J Immunol** 1999 Jul 15; 163(2):682–8

Signaling pathways activated by leukocyte function-associated Ag-1-dependent costimulation. Ni HT, et al. **J Immunol** 1999 May 1;162(9):5183–9

Lyn dissociation from phosphorylated Fc epsilon RI subunits: a new regulatory step in the Fc epsilon RI signaling cascade revealed by studies of Fc epsilon RI dimer signaling activity. Ortega E, et al. **J Immunol** 1999 Jan 1; 162(1):176–85

Multiple signal transduction pathways regulate TNF-induced actin reorganization in macrophages: inhibition of Cdc42-mediated filopodium formation by TNF. Peppelenbosch M, et al. **J Immunol** 1999 Jan 15; 162(2):837–45

A chondroitin sulfate proteoglycan on human neutrophils specifically binds platelet factor 4 and is involved in cell activation. Petersen F, et al. **J Immunol** 1998 Oct 15; 161(8):4347–55

CD47 signals T cell death. Pettersen RD, et al. **J Immunol** 1999 Jun 15;162(12):7031–40

Reactive oxygen intermediates enhance Fc gamma receptor signaling and amplify phagocytic capacity. Pricop L, et al. **J Immunol** 1999 Jun 15;162(12):7041–8

Chemokine receptor responses on T cells are achieved through regulation of both receptor expression and signaling. Rabin RL, et al. **J Immunol** 1999 Apr 1; 162(7):3840–50

Signal transduction pathways involved in the activation of NF-kappa B, AP-1, and c-fos by Mycoplasma fermentans membrane lipoproteins in macrophages. Rawadi G, et al. **J Immunol** 1999 Feb 15;162(4):2193–203

Activation of the Janus kinase 3-STAT5a pathway after CD40 triggering of human monocytes but not of resting B cells. Revy P, et al. **J Immunol** 1999 Jul 15;163(2):787–93

Evidence for distinct intracellular signaling pathways in CD34+ progenitor to dendritic cell differentiation from a human cell line model. St. Louis DC, et al. **J Immunol** 1999 Mar 15;162(6):3237–48

TCR and CD28 are coupled via ZAP-70 to the activation of the Vav/Rac-1-/PAK-1/p38 MAPK signaling pathway. Salojin KV, et al. **J Immunol** 1999 Jul 15; 163(2):844–53

Aberrant CD3- and CD28-mediated signaling events in cord blood T cells are associated with dysfunctional regulation of Fas ligand-mediated cytotoxicity. Sato K, et al. **J Immunol** 1999 Apr 15;162(8):4464–71

p38 alpha mitogen-activated protein kinase is activated by CD28-mediated signaling and is required for IL-4 production by human CD4+CD45RO+ T cells and Th2 effector cells. Schafer PH, et al. **J Immunol** 1999 Jun 15; 162(12):7110–9

T cell activation signals up-regulate p38 mitogen-activated protein kinase activity and induce TNF-alpha production in a manner distinct from LPS activation of monocytes. Schafer PH, et al. **J Immunol** 1999 Jan 15;162(2):659–68

The evolutionarily conserved sequence upstream of the

human Ig heavy chain S gamma 3 region is an inducible promoter: synergistic activation by CD40 ligand and IL-4 via cooperative NF-kappa B and STAT-6 binding sites. Schaffer A, et al. **J Immunol** 1999 May 1;162(9):5327-36

TNF-mediated activation of the stress-activated protein kinase pathway: TNF receptor-associated factor 2 recruits and activates germinal center kinase related. Shi CS, et al. **J Immunol** 1999 Sep 15;163(6):3279-85

Depressed IL-12-mediated signal transduction in T cells from patients with Sézary syndrome is associated with the absence of IL-12 receptor beta 2 mRNA and highly reduced levels of STAT4. Showe LC, et al. **J Immunol** 1999 Oct 1;163(7):4073-9

Cutting edge: purinergic signaling regulates radical-mediated bacterial killing mechanisms in macrophages through a P2X7-independent mechanism. Sikora A, et al. **J Immunol** 1999 Jul 15;163(2):558-61

Signaling through CD5 involves acidic sphingomyelinase, protein kinase C-zeta, mitogen-activated protein kinase kinase, and c-Jun NH2-terminal kinase. Simarro M, et al. **J Immunol** 1999 May 1;162(9):5149-55

Signaling functions of L-selectin in neutrophils: alterations in the cytoskeleton and colocalization with CD18. Simon SI, et al. **J Immunol** 1999 Sep 1;163(5):2891-901

Polarized transport of MHC class II molecules in Madin-Darby canine kidney cells is directed by a leucine-based signal in the cytoplasmic tail of the beta-chain. Simonsen A, et al. **J Immunol** 1999 Sep 1; 163(5):2540-8

Tyrosine phosphorylation of Vav stimulates IL-6 production in mast cells by a Rac/c-Jun N-terminal kinase-dependent pathway. Song JS, et al. **J Immunol** 1999 Jul 15; 163(2):802-10

Leukocyte entry into sites of inflammation requires overlapping interactions between the L-selectin and ICAM-1 pathways. Steeber DA, et al. **J Immunol** 1999 Aug 15;163(4):2176-86

Lipopolysaccharide induces in macrophages the synthesis of the suppressor of cytokine signaling 3 and suppresses signal transduction in response to the activating factor IFN-gamma. Stoiber D, et al. **J Immunol** 1999 Sep 1; 163(5):2640-7

Contact hypersensitivity responses following ribavirin treatment in vivo are influenced by type 1 cytokine polarization, regulation of IL-10 expression, and costimulatory signaling. Tam RC, et al. **J Immunol** 1999 Oct 1;163(7):3709-17

Negative regulation of human T cell activation by the receptor-type protein tyrosine phosphatase CD148. Tangye SG, et al. **J Immunol** 1998 Oct 15;161(8):3803-7

Cutting edge: human 2B4, an activating NK cell receptor, recruits the protein tyrosine phosphatase SHP-2 and the adaptor signaling protein SAP. Tangye SG, et al. **J Immunol** 1999 Jun 15;162(12):6981-5

The signal transduction pathway of CD23 (Fc epsilon RIIb) targets I kappa B kinase. Ten RM, et al. **J Immunol** 1999 Oct 1;163(7):3851-7

Impaired cytokine signaling in mice lacking the IL-1 receptor-associated kinase. Thomas JA, et al. **J Immunol** 1999 Jul 15;163(2):978-84

Macrophage colony-stimulating factor induces the expression of mitogen-activated protein kinase phosphatase-1 through a protein kinase C-dependent pathway. Valledor AF, et al. **J Immunol** 1999 Sep 1; 163(5):2452-62

Galectin-1 specifically modulates TCR signals to enhance TCR apoptosis but inhibit IL-2 production and proliferation. Vespa GN, et al. **J Immunol** 1999 Jan 15; 162(2):799-806

Characterization of RANTES- and aminooxypentane-RANTES-triggered desensitization signals reveals differences in recruitment of the G protein-coupled receptor complex. Vila-Coro AJ, et al. **J Immunol** 1999 Sep 15;163(6):3037-44

Cutting edge: effects of an allergy-associated mutation in the human IL-4R alpha (Q576R) on human IL-4-induced signal transduction. Wang HY, et al. **J Immunol** 1999 Apr 15;162(8):4385-9

IL-2 induces STAT4 activation in primary NK cells and NK cell lines, but not in T cells. Wang KS, et al. **J Immunol** 1999 Jan 1;162(1):299-304

A novel mechanism of CD4 lymphocyte depletion involves effects of HIV on resting lymphocytes: induction of lymph node homing and apoptosis upon secondary signaling through homing receptors. Wang L, et al. **J Immunol** 1999 Jan 1;162(1):268-76

JAK3, STAT, and MAPK signaling pathways as novel molecular targets for the tyrphostin AG-490 regulation of IL-2-mediated T cell response. Wang LH, et al. **J Immunol** 1999 Apr 1;162(7):3897-904

A NF-kappa B/c-myc-dependent survival pathway is targeted by corticosteroids in immature thymocytes. Wang W, et al. **J Immunol** 1999 Jan 1;162(1):314-22

Beta 1 integrin- and proteoglycan-mediated stimulation of T lymphoma cell adhesion and mitogen-activated protein kinase signaling by thrombospondin-1 and thrombospondin-1 peptides. Wilson KE, et al. **J Immunol** 1999 Oct 1;163(7):3621-8

Endothelial selectins and alpha4 integrins regulate independent pathways of T lymphocyte recruitment in the pulmonary immune response. Wolber FM, et al. **J Immunol** 1998 Oct 15;161(8):4396-403

Oxidized alpha2-macroglobulin (alpha2M) differentially regulates receptor binding by cytokines/growth factors: implications for tissue injury and repair mechanisms in inflammation. Wu SM, et al. **J Immunol** 1998 Oct 15; 161(8):4356-65

Cutting edge: extracellular signal-regulated kinase activates syk: a new potential feedback regulation of Fc epsilon receptor signaling. Xu R, et al. **J Immunol** 1999 Aug 1; 163(3):1110-4

Signaling events induced by lipopolysaccharide-activated toll-like receptor 2. Yang RB, et al. **J Immunol** 1999 Jul 15;163(2):639-43

Soluble CD14(1-152) confers responsiveness to both lipoarabinomannan and lipopolysaccharide in a novel HL-60 cell bioassay. Yu W, et al. **J Immunol** 1998 Oct 15;161(8):4244-51

TCR and IL-12 receptor signals cooperate to activate an individual response element in the IFN-gamma promoter in effector Th cells. Zhang F, et al. **J Immunol** 1999 Jul 15;163(2):728-35

Mutations in the activation loop tyrosines of protein tyrosine kinase Syk abrogate intracellular signaling but not kinase activity. Zhang J, et al. **J Immunol** 1998 Oct 15; 161(8):4366-74

p38 mitogen-activated protein kinase mediates signal integration of TCR/CD28 costimulation in primary murine T cells. Zhang J, et al. **J Immunol** 1999 Apr 1; 162(7):3819-29

CD45 is essential for Fc epsilon RI signaling by ZAP70, but not Syk, in Syk-negative mast cells. Zhang J, et al. **J Immunol** 1999 Sep 1;163(5):2508-16

CTLA4 signals are required to optimally induce allograft tolerance with combined donor-specific transfusion and anti-CD154 monoclonal antibody treatment. Zheng XX, et al. **J Immunol** 1999 Apr 15;162(8):4983-90

Multiple roles for PI 3-kinase in the regulation of PLCgamma activity and Ca2+ mobilization in antigen-stimulated mast cells. Barker SA, et al. **J Leukoc Biol** 1999 Mar;65(3):321-9 (55 ref.)

Intracellular CXCR4 signaling, neuronal apoptosis and neuropathogenic mechanisms of HIV-1-associated dementia. Zheng J, et al. **J Neuroimmunol** 1999 Aug 3; 98(2):185-200

Retinoid-mediated signaling pathways in CD38 antigen expression in myeloid leukemia cells. Mehta K, et al. **Leuk Lymphoma** 1999 Feb;32(5-6):441-9 (65 ref.)

Differential signalling by variant ligands of the T cell receptor and the kinetic model of T cell activation. Madrenas J. **Life Sci** 1999;64(9):717-31 (118 ref.)

An intact NF-kappa B signaling pathway is required for maintenance of mature B cell subsets. Bendall HH, et al. **Mol Immunol** 1999 Feb;36(3):187-95

Cellular signaling mechanisms for stimulation of growth hormone secretion and growth hormone primary transcripts by immunosuppressant agents, FK506 and cyclosporin A, in cultured rat pituitary cells. Ohye H, et al. **Neuroimmunomodulation** 1998 Nov-Dec;5(6):309-17

Interferon-gamma signal transduction during parasite infection: modulation of MAP kinases in the infection of human monocyte cells (THP1) by Toxoplasma gondii. Gomez-Marin JE, et al. **Parasite Immunol** 1998 Dec; 20(12):631-5

Alteration of signal-transducing molecules and phenotypical characteristics in peripheral blood lymphocytes from gastric carcinoma patients. Kim CW, et al. **Pathobiology** 1999 May-Jun;67(3):123-8

The Rho-family GTP exchange factor Vav is a critical transducer of T cell receptor signals to the calcium, ERK, and NF-kappaB pathways. Costello PS, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3035-40

Specific requirement for CD3epsilon in T cell development. DeJarnette JB, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):14909-14

CpG DNA: a potent signal for growth, activation, and maturation of human dendritic cells. Hartmann G, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9305-10

Adaptor proteins and T-cell antigen receptor signaling. Samelson LE. **Prog Biophys Mol Biol** 1999;71(3-4):393-403 (53 ref.)

Signalling through the TCR. Cantrell D, et al. **Res Immunol** 1998 Nov-Dec;149(9):866-7

Checkpoints in antibacterial immunity. Flesch IE, et al. **Res Immunol** 1998 Sep-Oct;149(7-8):693-7 (39 ref.)

Lymphocyte-mediated cytolysis: dual apoptotic mechanisms with overlapping cytoplasmic and nuclear signalling pathways. Trapani JA, et al. **Results Probl Cell Differ** 1999; 23:78-102 (147 ref.)

Signals involved in thymocyte positive and negative selection. Mariathasan S, et al. **Semin Immunol** 1999 Aug; 11(4):263-72 (104 ref.)

Staphylococcal enterotoxin-A directly stimulates signal transduction and interferon-gamma production in psoriatic T-cell lines. Nielsen MB, et al. **Tissue Antigens** 1998 Dec; 52(6):530-8

Positive and negative signaling pathways. Pratt JC, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):772-4 (23 ref.)

Mechanisms underlying the development of T-cell tolerance following interruption of signalling at the CD28/B7 and CD40/gp39 interface. Rastellini C, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):845

[Physiopathological and therapeutic therapy of collagen diseases based on results of clinical tests--disorders of lymphocyte signal transduction] Takeuchi T. **Nippon Naika Gakkai Zasshi** 1998 Dec 10;87(12):2446-52 (23 ref.) **(Jpn)**

[Antigen peptide/MHC complex as an initiator of a signal for lymphocyte T activation] Kuśnierczyk P. **Postepy Hig Med Dosw** 1999;53(2):331-41 (24 ref.) (Eng. Abstr.) **(Pol)**

PHYSIOLOGY

Identification of an autocrine signaling pathway that amplifies induction of endocardial cushion tissue in the avian heart. Ramsdell AF, et al. **Acta Anat (Basel)** 1998;162(1):1-15

Signaling pathways for transduction of the initial message of the glycocode into cellular responses. Villalobo A, et al. **Acta Anat (Basel)** 1998;161(1-4):110-29 (162 ref.)

Molecular signals for glial activation: pro- and anti-inflammatory cytokines in the injured brain. Raivich G, et al. **Acta Neurochir Suppl (Wien)** 1999;73:21-30 (87 ref.)

Heparin-binding epidermal growth factor-like growth factor stimulates mitogenic signaling and is highly expressed in human malignant gliomas. Mishima K, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):322-8

Stochastic resonance in cochlear signal transduction. Ehrenberger K, et al. **Acta Otolaryngol (Stockh)** 1999 Mar; 119(2):166-70

Intracellular targeting and protein kinase C in vascular smooth muscle cells: specific effects of different membrane-bound receptors. Haller H, et al. **Acta Physiol Scand** 1998 Dec;164(4):599-609

Nitric oxide--cyclic GMP pathway regulates vascular smooth muscle cell phenotypic modulation: implications in vascular diseases. Lincoln TM, et al. **Acta Physiol Scand** 1998 Dec;164(4):507-15

PKC-dependent signalling mechanisms in differentiated smooth muscle. Morgan KG, et al. **Acta Physiol Scand** 1998 Dec;164(4):495-505 (112 ref.)

Inhibitory mechanisms for cross-bridge cycling: the nitric oxide-cGMP signal transduction pathway in smooth muscle relaxation. Murphy RA, et al. **Acta Physiol Scand** 1998 Dec;164(4):373-80 (66 ref.)

The role of phospholamban and SERCA3 in regulation of smooth muscle-endothelial cell signalling mechanisms: evidence from gene-ablated mice. Paul RJ. **Acta Physiol Scand** 1998 Dec;164(4):589-97 (54 ref.)

Insulin signaling and glucose transport in insulin resistant skeletal muscle. Special reference to GLUT4 transgenic and GLUT4 knockout mice. Galuska D, et al. **Adv Exp Med Biol** 1998;441:73-85 (67 ref.)

Signal transmission and transduction in excitation-contraction coupling. Ikemoto N, et al. **Adv Exp Med Biol** 1998;453:199-207

General mechanisms of cytokine receptor signaling. Carpenter LR, et al. **Adv Protein Chem** 1998;52:109-40 (138 ref.)

Cytokines in endocrine function. Silva CM, et al. **Adv Protein Chem** 1998;52:199-221 (72 ref.)

The trophic effects of purines and purinergic signaling in pathologic reactions of astrocytes. Rathbone MP, et al. **Alzheimer Dis Assoc Disord** 1998;12 Suppl 2:S36-45

Receptor-mediated signaling pathways: potential targets of modulation by dietary fatty acids. Hwang D, et al. **Am J Clin Nutr** 1999 Oct;70(4):545-56 (82 ref.)

National Institutes of Health workshop: role of nutrient regulation of signal transduction in metabolic diseases. Kim SK. **Am J Clin Nutr** 1999 Oct;70(4):544

Specificity in transforming growth factor-beta signaling pathways. Ring CJ, et al. **Am J Hum Genet** 1999 Mar; 64(3):691-7 (37 ref.)

Overgrowth syndromes and the regulation of signaling complexes by proteoglycans. Selleck SB. **Am J Hum Genet** 1999 Feb;64(2):372-7 (30 ref.)

Lysophosphatidic acid stimulates protein kinase C isoforms alpha, beta, epsilon, and zeta in a pertussis toxin sensitive pathway in vascular smooth muscle cells. Seewald S, et al. **Am J Hypertens** 1999 May;12(5):532-7

Impairment of TNF-receptor-1 signaling but not fas signaling diminishes T-cell apoptosis in myelin oligodendrocyte glycoprotein peptide-induced chronic demyelinating autoimmune encephalomyelitis in mice. Bachmann R, et al. **Am J Pathol** 1999 May;154(5):1417-22

Cerebral endothelial activation and signal transduction mechanisms during inflammation and infectious disease. Kalaria RN. **Am J Pathol** 1999 May;154(5):1311-4

Signal transduction pathways involved in fluid flow-induced PGE2 production by cultured osteocytes. Ajubi NE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):E171-8

Membrane receptor location defines receptor interaction with signaling proteins in a polarized epithelium. Amsler K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C91-C101

Dissociation between regional dysfunction and beta-adrenergic receptor signaling in heart failure. Anzai T, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1267-73

ANG II- and TxA(2)-induced mesenteric vasoconstriction in rats is mediated by separate cell signaling pathways. Bauer J, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H1-7

Sphingosylphosphorylcholine stimulates mitogen-activated protein kinase via a Ca2+-dependent pathway. Chin TY, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1255-63

Osmotic stress induces both secretion and apoptosis in rat alveolar type II cells. Edwards YS, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L670-8

Chemical signaling from colonic smooth muscle cells to DRG neurons in culture. Ennes HS, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C602–10

Antagonism of CD95 signaling blocks butyrate induction of apoptosis in young adult mouse colonic cells. Fan YY, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):C310–9

Conducted signals within arteriolar networks initiated by bioactive amino acids. Frame MD. **Am J Physiol** 1999 Mar; 276(3 Pt 2):H1012–21

Endocardial endothelium mediates luminal ACh–NO signaling in isolated frog heart. Gattuso A, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H633–41

Phosphatidylinositol 3–kinase gamma mediates shear stress–dependent activation of JNK in endothelial cells. Go YM, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1898–904

Intracellular signaling leads to the hypertrophic effect of neuropeptide Y. Goldberg Y, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1207–15

Resistance to TNF–alpha cytotoxicity can be achieved through different signaling pathways in rat mesangial cells. Guo YL, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C435–41

CK inhibition accelerates transcytosolic energy signaling during rapid workload steps in isolated rabbit hearts. Harrison GJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H134–40

Prostanoid signaling, localization, and expression of IP receptors in rat thick ascending limb cells. Hébert RL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F904–14

A rapid feedback signal is not always necessary for termination of a drinking bout. Houpt TR, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1156–63

Hepatic glucose uptake rapidly decreases after removal of the portal signal in conscious dogs. Hsieh PS, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E987–92

A superfusion system to study border zones in confluent cultures of neonatal rat heart cells. Hyatt CJ, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2001–8

HSP27 in signal transduction and association with contractile proteins in smooth muscle cells. Ibitayo AI, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G445–54

III. Intracellular signaling in response to toxic liver injury. Jones BE, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G874–8 (40 ref.)

Regulating epithelia from the apical side: new insights. Focus on "Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells" [editorial; comment] Karnaky KJ Jr. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1417–8. Comment on: Am J Physiol 1998 Dec;275(6 Pt 1):C1419–28.

Intracellular signaling mechanisms of interleukin–1beta in synovial fibroblasts. Kolomytkin OV, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C9–C15

Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells [see comments] Kuwada SK, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1419–28 . Comment in: Am J Physiol 1998 Dec;275(6 Pt 1):C1417–8.

Expression of Grb7 growth factor receptor signaling protein in kidney development and in adult kidney. Leavey SF, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):F770–6

Regulation of angiotensin II–induced JAK2 tyrosine phosphorylation: roles of SHP–1 and SHP–2. Marrero MB, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1216–23

Molecular beta–adrenergic signaling abnormalities in failing rabbit hearts after infarction. Maurice JP, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1853–60

Adrenergic induction of bimodal myocardial protection: signal transduction and cardiac gene reprogramming. Meng X, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1525–33

Inactivation of kinase cascades in mesangial cells grown on collagen type I. Miralem T, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 2):F585–94

Mechanical activity in heart regulates translation of alpha–myosin heavy chain mRNA but not its localization. Nikcevic G, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2013–9

Amiloride–sensitive sodium signals and salt appetite: multiple gustatory pathways. Roitman MF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1732–8

Role of plasmalemmal caveolae in signal transduction. Shaul PW, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):L843–51 (109 ref.)

Activation of the JAK–STAT pathway by reactive oxygen species. Simon AR, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1640–52

Gastrin induces c–fos gene transcription via multiple signaling pathways. Stepan VM, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G415–24

Carbachol activates ERK2 in isolated gastric parietal cells via multiple signaling pathways. Takeuchi Y, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):G1484–92

ATP–stimulated smooth muscle cell proliferation requires independent ERK and PI3K signaling pathways. Wilden PA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1209–15

ROS stimulate reorganization of mesangial cell–collagen gels by tyrosine kinase signaling. Zent R, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F278–87

Enhanced Ca(2+) mobilization in airway smooth muscle contributes to airway hyperresponsiveness in an inbred strain of rat. Tao FC, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):446–53

Transforming growth factor betas and their signaling receptors in human hepatocellular carcinoma. Abou–Shady M, et al. **Am J Surg** 1999 Mar;177(3):209–15

The contributions of vestibular signals to the representations of space in the posterior parietal cortex. Andersen RA, et al. **Ann N Y Acad Sci** 1999 May 28;871:282–92 (44 ref.)

Amplification of angiotensin II signaling in cardiac myocytes by adenovirus–mediated overexpression of the AT1 receptor. Booz GW, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:20–6

Linear vestibular self–motion signals in monkey medial superior temporal area. Bremmer F, et al. **Ann N Y Acad Sci** 1999 May 28;871:272–81

Oxygen free radical signaling in ischemic preconditioning. Das DK, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:49–65 (107 ref.)

The I1–imidazoline receptor and its cellular signaling pathways. Ernsberger P. **Ann N Y Acad Sci** 1999 Jun 21; 881:35–53 (86 ref.)

The ins and outs of caveolar signaling. m2 muscarinic cholinergic receptors and eNOS activation versus neuregulin and ErbB4 signaling in cardiac myocytes. Feron O, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:11–9 (39 ref.)

Galanin modulates 5–hydroxytryptamine functions. Focus on galanin and galanin fragment/5–hydroxytryptamine1A receptor interactions in the brain. Fuxe K, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:274–90 (38 ref.)

An alternative approach to the central processing of canal and otolith signals. Green AM, et al. **Ann N Y Acad Sci** 1999 May 28;871:402–5 (8 ref.)

Otolith signal processing and motion sickness. Groen E, et al. **Ann N Y Acad Sci** 1999 May 28;871:406–9

The arginine taste receptor. Physiology, biochemistry, and immunohistochemistry. Grosvenor W, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:134–42

Galanin–galanin receptor systems in the hypothalamic paraventricular and supraoptic nuclei. Some recent findings and future challenges. Gundlach AL, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:241–51 (52 ref.)

Inertial processing of vestibulo–ocular signals. Hess BJ, et al. **Ann N Y Acad Sci** 1999 May 28;871:148–61

Signaling by the cytokine receptor superfamily. Ihle JN, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:1–9 (50 ref.)

Signaling pathways and targets of the 5–HT2B receptor in the 1C11 serotonergic cell line. Kellermann O, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:248

Signal processing related to the vestibulo–ocular reflex during combined angular rotation and linear translation of the head. McCrea RA, et al. **Ann N Y Acad Sci** 1999 May 28;871:65–80

The synaptic framework for chemical signaling in nucleus accumbens. Meredith GE. **Ann N Y Acad Sci** 1999 Jun 29;877:140–56 (84 ref.)

A simple model of vestibular canal–otolith signal fusion. Mergner T, et al. **Ann N Y Acad Sci** 1999 May 28;871:430–4

Molecular cloning and taste bud–specific expression of a novel cyclic nucleotide–gated channel. Misaka T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:150–9

Fibronectin and integrins in cell adhesion, signaling, and morphogenesis. Miyamoto S, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:119–29 (45 ref.)

Oleamide–induced modulation of 5–hydroxytryptamine receptor–mediated signaling. Thomas EA, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:183–9

Cardiac hypertrophy: signal transduction, transcriptional adaptation, and altered growth control. Wagner M, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:1–10 (36 ref.)

Role of cyclic GMP in olfactory transduction and adaptation. Zufall F, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:199–204 (29 ref.)

Intracellular signaling from the endoplasmic reticulum to the nucleus. Chapman R, et al. **Annu Rev Cell Dev Biol** 1998; 14:459–85 (74 ref.)

The ethylene gas signal transduction pathway: a molecular perspective. Johnson PR, et al. **Annu Rev Genet** 1998; 32:227–54 (124 ref.)

Virocrine transformation: the intersection between viral transforming proteins and cellular signal transduction pathways. DiMaio D, et al. **Annu Rev Microbiol** 1998; 52:397–421 (142 ref.)

Thinking about bacterial populations as multicellular organisms. Shapiro JA. **Annu Rev Microbiol** 1998;52:81–104 (187 ref.)

Beta–adrenergic receptors and receptor signaling in heart failure. Post SR, et al. **Annu Rev Pharmacol Toxicol** 1999; 39:343–60 (107 ref.)

Controversial issues in vertebrate olfactory transduction. Gold GH. **Annu Rev Physiol** 1999;61:857–71 (71 ref.)

Cellular mechanisms of taste transduction. Herness MS, et al. **Annu Rev Physiol** 1999;61:873–900 (175 ref.)

Current topics in signal transduction in bacteria. Hellingwerf KJ, et al. **Antonie Van Leeuwenhoek** 1998 Nov;74(4):211–27 (160 ref.)

Glycolytic metabolites and intracellular signaling in the pancreatic beta cell. Lubell A, et al. **Arch Biochem Biophys** 1999 Apr 15;364(2):178–84

Signaling via cAMP in fungi: interconnections with mitogen–activated protein kinase pathways. Kronstad J, et al. **Arch Microbiol** 1998 Nov;170(6):395–404 (66 ref.)

The combination of hypointense and hyperintense signal changes on T2–weighted magnetic resonance imaging sequences: a specific marker of multiple system atrophy? Kraft E, et al. **Arch Neurol** 1999 Feb;56(2):225–8

Ion transport and signalling in human labial glands. Turner RJ, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S15–9 (35 ref.)

Signal transduction in wound pharmacology. Kim WJ, et al. **Arch Pharm Res** 1998 Oct;21(5):487–95 (107 ref.)

Early steps in insulin action. Dorrestijn J, et al. **Arch Physiol Biochem** 1998 Oct;106(4):269–89 (207 ref.)

Urokinase activates the Jak/Stat signal transduction pathway in human vascular endothelial cells. Dumler I, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb;19(2):290–7

Low–density lipoprotein enhances platelet secretion via integrin–alpha IIbbeta3–mediated signaling. Hackeng CM, et al. **Arterioscler Thromb Vasc Biol** 1999 Feb;19(2):239–47

NGF activates similar intracellular signaling pathways in vascular smooth muscle cells as PDGF–BB but elicits different biological responses. Kraemer R, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):1041–50

Phosphatidylinositol 3–kinase and focal adhesion kinase are early signals in the growth factor–like responses to thrombospondin–1 seen in human vascular smooth muscle. Lymn JS, et al. **Arterioscler Thromb Vasc Biol** 1999 Sep; 19(9):2133–40

Cytokines, Jaks, Stats, health and disease. Brown MP. **Aust N Z J Med** 1999 Feb;29(1):73–8 (49 ref.)

Reduced transduction mechanisms in the anterior accumbal interface of an animal model of Attention–Deficit Hyperactivity Disorder. Papa M, et al. **Behav Brain Res** 1998 Jul;94(1):187–95

Role of IRS–1 signaling in insulin–induced modulation of estrogen receptors in breast cancer cells. Ando' S, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):315–9

Cytodifferentiation potentiates aFGF–induced p21(ras)/Erk signaling pathway in rat cultured astrocytes. Asada S, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):441–5

Osmotic induction of signaling cascades: role in regulation of cell function. Häussinger D, et al. **Biochem Biophys Res Commun** 1999 Feb 24;255(3):551–5 (78 ref.)

Cytoskeletal reorganization leads to induction of the urokinase–type plasminogen activator gene by activating FAK and Src and subsequently the Ras/Erk signaling pathway. Irigoyen JP, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):666–70

Requirement for geranylgeranyl transferase I and acyl transferase in the TGF–beta–stimulated pathway leading to elastin mRNA stabilization. Kucich U, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):111–6

RANK is the essential signaling receptor for osteoclast differentiation factor in osteoclastogenesis. Nakagawa N, et al. **Biochem Biophys Res Commun** 1998 Dec 18; 253(2):395–400

Is sperm galactosyltransferase a signaling subunit of a multimeric gamete receptor? Shur BD. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):537–43 (79 ref.)

Inhibition of MAPK pathway by a synthetic peptide corresponding to the activation segment of MAPK. Tokmakov AA, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):214–9

Lipocortin V may function as a signaling protein for vascular endothelial growth factor receptor–2/Flk–1. Wen Y, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):713–21

Apoptotic signal transduction: emerging pathways. Wilson MR. **Biochem Cell Biol** 1998;76(4):573–82 (66 ref.)

Activation of the signal transducer gp130 by interleukin–11 and interleukin–6 is mediated by similar molecular interactions. Dahmen H, et al. **Biochem J** 1998 May 1;331 (Pt 3):695–702

Signalling through the leukotriene B4 receptor involves both alphai and alpha16, but not alphaq or alpha11 G–protein subunits. Gaudreau R, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):15–8

Signal transduction of stress via ceramide. Mathias S, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):465–80 (303 ref.)

Osmotic swelling–induced activation of the extracellular–signal–regulated protein kinases Erk–1 and Erk–2 in intestine 407 cells involves the Ras/Raf–signalling pathway. van der Wijk T, et al. **Biochem J** 1998 May 1; 331 (Pt 3):863–9

Tyrosine phosphatase SHP–2 dephosphorylates the platelet–derived growth factor receptor but enhances its downstream signalling. Zhao R, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):35–9

Modulation of MAP kinase signaling and growth characteristics by the overexpression of protein kinase C in NIH3T3 cells. Chang YY, et al. **Biochem Mol Biol Int** 1998 Sep;45(6):1139–48

Differential signaling of human Mel1a and Mel1b melatonin receptors through the cyclic guanosine 3'–5'–monophosphate pathway. Petit L, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):633–9

ADP–induced platelet aggregation and inhibition of adenylyl cyclase activity stimulated by prostaglandins: signal transduction mechanisms. Puri RN. **Biochem Pharmacol** 1999 Apr 15;57(8):851–9

Protein kinase cascades in intracellular signalling by interleukin–1 and tumour necrosis factor. Saklatvala J, et al. **Biochem Soc Symp** 1999;64:63–77 (65 ref.)

Use of an antisense strategy to dissect the role of MAP kinases in cellular signalling. Sale EM, et al. **Biochem Soc Trans** 1998 Aug;26(3):S254

Effects of sphingosine 1–phosphate and bradykinin on phospholipid signalling in human epithelial A549 cells.

Vasta V, et al. **Biochem Soc Trans** 1998 Aug;26(3):S229
Signaling domain of the aspartate receptor is a helical hairpin with a localized kinase docking surface: cysteine and disulfide scanning studies. Bass RB, et al. **Biochemistry** 1999 Jul 20;38(29):9317–27
Antiapoptotic signaling by the insulin receptor in Chinese hamster ovary cells. Lee–Kwon W, et al. **Biochemistry** 1998 Nov 10;37(45):15747–57
Differential signaling of insulin and IGF–1 receptors to glycogen synthesis in murine hepatocytes. Park BC, et al. **Biochemistry** 1999 Jun 8;38(23):7517–23
Functional proteomics analysis of signal transduction pathways of the platelet–derived growth factor beta receptor. Soskic V, et al. **Biochemistry** 1999 Feb 9; 38(6):1757–64
Hormones as life regulators in the current molecular endocrinology. Pankov YA. **Biochemistry (Mosc)** 1998 Dec;63(12):1361–73 (125 ref.)
P2 receptor–mediated signal transduction in Ehrlich ascites tumor cells. Pedersen SF, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1–2):94–106
Cadherins and tissue formation: integrating adhesion and signaling. Vleminckx K, et al. **Bioessays** 1999 Mar; 21(3):211–20 (55 ref.)
Gap junction–mediated intercellular signalling in health and disease. Wilkins AS. **Bioessays** 1998 Aug;20(8):686–8
Role of cysteine and glutathione in signal transduction, immunopathology and cachexia. Dröge W, et al. **Biofactors** 1998;8(1–2):97–102 (23 ref.)
Drug–induced alterations in rat peritubular cell cytoskeleton result in proteoglycan synthesis modifications. Comparison with some intracellular signaling pathways. Thiébot B, et al. **Biol Cell** 1999 Mar;91(2):117–29
Melatonin receptors and signal transduction mechanisms. Barrett P, et al. **Biol Signals Recept** 1999 Jan–Apr; 8(1–2):6–14 (45 ref.)
Calcium–binding proteins and development. Beckingham K, et al. **Biometals** 1998 Dec;11(4):359–73 (117 ref.)
Peptide conjugates as tools for the study of biological signal transduction. Eisele F, et al. **Bioorg Med Chem** 1999 Feb; 7(2):193–224 (136 ref.)
Quantification of the relative contribution of parallel pathways to signal transfer: application to cellular energy transduction. Korzeniewski B, et al. **Biophys Chem** 1998 Oct 5;75(1):73–80
Mutational analysis of the histidine–containing phosphotransfer (HPt) signaling domain of the ArcB sensor in Escherichia coli. Matsushika A, et al. **Biosci Biotechnol Biochem** 1998 Nov;62(11):2236–8
Resolving conflicting signals: cross inhibition of cytokine signaling pathways. Begley CG, et al. **Blood** 1999 Mar 1; 93(5):1443–7 (59 ref.)
Signaling via Src family kinases is required for normal internalization of the receptor c–Kit. Broudy VC, et al. **Blood** 1999 Sep 15;94(6):1979–86
Role of cytokine signaling molecules in erythroid differentiation of mouse fetal liver hematopoietic cells: functional analysis of signaling molecules by retrovirus–mediated expression. Chida D, et al. **Blood** 1999 Mar 1;93(5):1567–78
The MKK6/p38 stress kinase cascade is critical for tumor necrosis factor–alpha–induced expression of monocyte–chemoattractant protein–1 in endothelial cells. Goebeler M, et al. **Blood** 1999 Feb 1;93(3):857–65
Erythropoietin– and stem cell factor–induced DNA synthesis in normal human erythroid progenitor cells requires activation of protein kinase Calpha and is strongly inhibited by thrombin. Haslauer M, et al. **Blood** 1999 Jul 1; 94(1):114–26
Genetic and pharmacological analyses of Syk function in alphaIIbbeta3 signaling in platelets. Law DA, et al. **Blood** 1999 Apr 15;93(8):2645–52
Hematopoietic growth factors signal through the formation of reactive oxygen species. Sattler M, et al. **Blood** 1999 May 1;93(9):2928–35
H–Ras is involved in the inside–out signaling pathway of interleukin–3–induced integrin activation. Shibayama H, et al. **Blood** 1999 Mar 1;93(5):1540–8
Involvement of Na+/Ca2+ exchanger in inside–out signaling through the platelet integrin IIbbeta3. Shiraga M, et al. **Blood** 1998 Nov 15;92(10):3710–20
A common signaling pathway via Syk and Lyn tyrosine kinases generated from capping of the sialomucins CD34 and CD43 in immature hematopoietic cells. Tada J, et al. **Blood** 1999 Jun 1;93(11):3723–35
Signal transduction by bone morphogenetic protein receptors: functional roles of Smad proteins. Miyazono K. **Bone** 1999 Jul;25(1):91–3 (39 ref.)
Molecular regulation of tooth development. Thesleff I, et al. **Bone** 1999 Jul;25(1):123–5 (24 ref.)
Smad4 (DPC4)––a potent tumour suppressor? Duff EK, et al. **Br J Cancer** 1998 Dec;78(12):1615–9 (49 ref.)
Signal transduction pathways regulated by the Rho family of small GTPases. Hall A. **Br J Cancer** 1999 Jul;80 Suppl 1:25–7 (17 ref.)
Activation of integrin and ceramide signalling pathways can inhibit the mitogenic effect of insulin–like growth factor I (IGF–I) in human breast cancer cell lines. Perks CM, et al. **Br J Cancer** 1999 Feb;79(5–6):701–6
Ineffective erythropoiesis in myelodysplastic syndromes: correlation with Fas expression but not with lack of erythropoietin receptor signal transduction.
Fontenay–Roupie M, et al. **Br J Haematol** 1999 Aug; 106(2):464–73
Signal transduction. Sandy JR. **Br J Orthod** 1998 Nov; 25(4):269–74 (31 ref.)
The recombinant 5–HT1A receptor: G protein coupling and signalling pathways. Raymond JR, et al. **Br J Pharmacol** 1999 Aug;127(8):1751–64 (160 ref.)
The signal transduction mechanism involved in kazinol B–stimulated superoxide anion generation in rat neutrophils. Wang JP, et al. **Br J Pharmacol** 1998 Oct; 125(3):517–25
Disruption in neuropeptide Y and leptin signaling in obese ventromedial hypothalamic–lesioned rats. Dube MG, et al. **Brain Res** 1999 Jan 16;816(1):38–46
Fatty acid incorporation depicts brain activity in a rat model of Parkinson's disease. Hayakawa T, et al. **Brain Res** 1998 Oct 5;807(1–2):177–81
Adrenergic modulation of astroglial phospholipase D activity and cell proliferation. Kötter K, et al. **Brain Res** 1999 May 29;830(1):138–45
Cytosolic phospholipase A2 (cPLA2) distribution in murine brain and functional studies indicate that cPLA2 does not participate in muscarinic receptor–mediated signaling in neurons. Lautens LL, et al. **Brain Res** 1998 Oct 26; 809(1):18–30
FlCRhR/cyclic AMP signaling in myenteric ganglia and calbindin–D28 intrinsic primary afferent neurons involves adenylyl cyclases I, III and IV. Liu CY, et al. **Brain Res** 1999 May 1;826(2):253–69
Leukemia inhibitory factor and NGF regulate signal transducers and activators of transcription activation in sympathetic ganglia: convergence of cytokine– and neurotrophin–signaling pathways. Rajan P, et al. **Brain Res** 1998 Aug 17;802(1–2):198–204
Analyses of signal transduction cascades in rat pinealocytes reveal a switch in cholinergic signaling during postnatal development. Schomerus C, et al. **Brain Res** 1999 Jun 26; 833(1):39–50
Independence of, and interactions between, cannabinoid and opioid signal transduction pathways in N18TG2 cells. Shapira M, et al. **Brain Res** 1998 Sep 21;806(1):26–35
Protective effects of the TNF–ceramide pathway against glutamate neurotoxicity on cultured mesencephalic neurons. Shinpo K, et al. **Brain Res** 1999 Feb 20; 819(1–2):170–3
Differential regulation of microglial activation by propentofylline via cAMP signaling. Si Q, et al. **Brain Res** 1998 Nov 23;812(1–2):97–104
Nerve growth factor–induced PKB/Akt activity is sustained by phosphoinositide 3–kinase dependent and independent signals in sympathetic neurons. Virdee K, et al. **Brain Res** 1999 Aug 7;837(1–2):127–42
Hypothalamic galanin: control by signals of fat metabolism. Wang J, et al. **Brain Res** 1998 Aug 31;804(1):7–20
Load signalling by cockroach trochanteral campaniform sensilla. Zill SN, et al. **Brain Res** 1999 Mar 20; 822(1–2):271–5
The p21–Ras signal transduction pathway and growth regulation in human high–grade gliomas. Bredel M, et al. **Brain Res Brain Res Rev** 1999 Apr;29(2–3):232–49 (257 ref.)
Impact of diabetes on CNS: role of signal transduction cascade. Bhardwaj SK, et al. **Brain Res Bull** 1999 Jun; 49(3):155–62
Role of nitric oxide in a fast retrograde signal during development. Posada A, et al. **Brain Res Dev Brain Res** 1999 Apr 12;114(1):37–42
Distinct localization of SAPK isoforms in neurons of adult mouse brain implies multiple signaling modes of SAPK pathway. Lee JK, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):116–24
Nicotinic receptors are regulated by protein kinase C activated via a nicotinic receptors–mediated signaling pathway. Nishizaki T, et al. **Brain Res Mol Brain Res** 1998 Oct 30;61(1–2):211–8
Disruption of neural signaling within the hypothalamic ventromedial nucleus upregulates galanin gene expression in association with hyperphagia: an in situ hybridization analysis. Pu S, et al. **Brain Res Mol Brain Res** 1999 Jan 22;64(1):85–91
Temporal profiles of vasoactive intestinal polypeptide precursor mRNA and its receptor mRNA in the rat suprachiasmatic nucleus. Shinohara K, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):262–7
Regulation of transcription factor C/ATF by the cAMP signal activation in hippocampal neurons, and molecular interaction of C/ATF with signal integrator CBP/p300. Yukawa K, et al. **Brain Res Mol Brain Res** 1999 May 21; 69(1):124–34
Backward signal from medial temporal lobe in neural circuit reorganization of primate inferotemporal cortex. Miyashita Y, et al. **C R Acad Sci III** 1998 Feb–Mar;321(2–3):185–92
Melatonin inhibition of cancer growth in vivo involves suppression of tumor fatty acid metabolism via melatonin receptor–mediated signal transduction events. Blask DE, et al. **Cancer Res** 1999 Sep 15;59(18):4693–701
ATP–dependent steps in apoptotic signal transduction. Eguchi Y, et al. **Cancer Res** 1999 May 1;59(9):2174–81
Regulation of cell growth and cyclin D1 expression by the constitutively active FRAP–p70s6K pathway in human pancreatic cancer cells. Grewe M, et al. **Cancer Res** 1999 Aug 1;59(15):3581–7
Nuclear matrix targeting of the protein kinase CK2 signal as a common downstream response to androgen or growth factor stimulation of prostate cancer cells. Guo C, et al. **Cancer Res** 1999 Mar 1;59(5):1146–51
Nitric oxide is an initiator of intercellular signal transduction for stress response after hyperthermia in mutant p53 cells of human glioblastoma. Matsumoto H, et al. **Cancer Res** 1999 Jul 1;59(13):3239–44
Growth factor signal transduction immediately after two–thirds partial hepatectomy in the rat. Stolz DB, et al. **Cancer Res** 1999 Aug 15;59(16):3954–60
Expression of AP–2 transcription factors in human breast cancer correlates with the regulation of multiple growth factor signalling pathways. Turner BC, et al. **Cancer Res** 1998 Dec 1;58(23):5466–72
Regulation of cardiovascular collagen synthesis by mechanical load. Bishop JE, et al. **Cardiovasc Res** 1999 Apr;42(1):27–44 (181 ref.)
Cardiac fibrosis and inflammation: interaction with hemodynamic and hormonal factors. Nicoletti A, et al. **Cardiovasc Res** 1999 Mar;41(3):532–43 (123 ref.)
Prostaglandin––a pluralistic hormone embracing divergent signal properties [editorial] Sack S. **Cardiovasc Res** 1998 Dec;40(3):438–9 (20 ref.)
Sprouty, an intracellular inhibitor of Ras signaling. Casci T, et al. **Cell** 1999 Mar 5;96(5):655–65
Solution structure of BID, an intracellular amplifier of apoptotic signaling. Chou JJ, et al. **Cell** 1999 Mar 5; 96(5):615–24
Generic signals and specific outcomes: signaling through Ca2+, calcineurin, and NF–AT. Crabtree GR. **Cell** 1999 Mar 5;96(5):611–4 (25 ref.)
Progression from extrinsic to intrinsic signaling in cell fate specification: a view from the nervous system. Edlund T, et al. **Cell** 1999 Jan 22;96(2):211–24 (141 ref.)
Increasing the complexity of coactivation in nuclear receptor signaling. Freedman LP. **Cell** 1999 Apr 2;97(1):5–8 (22 ref.)
The EGF–CFC protein one–eyed pinhead is essential for nodal signaling. Gritsman K, et al. **Cell** 1999 Apr 2; 97(1):121–32
Nuclear shuttling of yeast scaffold Ste5 is required for its recruitment to the plasma membrane and activation of the mating MAPK cascade. Mahanty SK, et al. **Cell** 1999 Aug 20;98(4):501–12
Spatially restricted activation of the SAX receptor by SCW modulates DPP/TKV signaling in Drosophila dorsal–ventral patterning. Neul JL, et al. **Cell** 1998 Nov 13;95(4):483–94
Interpretation of a BMP activity gradient in Drosophila embryos depends on synergistic signaling by two type I receptors, SAX and TKV. Nguyen M, et al. **Cell** 1998 Nov 13;95(4):495–506
PIF3, a phytochrome–interacting factor necessary for normal photoinduced signal transduction, is a novel basic helix–loop–helix protein. Ni M, et al. **Cell** 1998 Nov 25; 95(5):657–67
Splitting hairs: dissecting roles of signaling systems in epidermal development. Oro AE, et al. **Cell** 1998 Nov 25; 95(5):575–8 (18 ref.)
Nef–induced CD4 degradation: a diacidic–based motif in Nef functions as a lysosomal targeting signal through the binding of beta–COP in endosomes. Piguet V, et al. **Cell** 1999 Apr 2;97(1):63–73
Signal–regulated activation of serum response factor is mediated by changes in actin dynamics. Sotiropoulos A, et al. **Cell** 1999 Jul 23;98(2):159–69
Conspiracy theory: RAS and RAF do not act alone. Sternberg PW, et al. **Cell** 1998 Nov 13;95(4):447–50 (17 ref.)
Rapid and phosphoinositol–dependent binding of the SWI/SNF–like BAF complex to chromatin after T lymphocyte receptor signaling. Zhao K, et al. **Cell** 1998 Nov 25;95(5):625–36
Integrin signaling: cytoskeletal complexes, MAP kinase activation, and regulation of gene expression. Danen EH, et al. **Cell Adhes Commun** 1998;6(2–3):217–24 (46 ref.)
Cadherin–mediated transmembrane interactions. Levenberg S, et al. **Cell Adhes Commun** 1998;6(2–3):161–70
Regulation of steroid receptor subcellular trafficking. DeFranco DB. **Cell Biochem Biophys** 1999;30(1):1–24 (96 ref.)
Cell orientation induced by extracellular signals. Kemkemer R, et al. **Cell Biochem Biophys** 1999;30(2):167–92
Regulation of Ca2+ release by cAMP–dependent protein kinase. A mechanism for agonist–specific calcium signaling? Bugrim AE. **Cell Calcium** 1999 Mar;25(3):219–26 (56 ref.)
Life and death in a medieval atmosphere. Borner C, et al. **Cell Death Differ** 1999 Feb;6(2):201–6
p75NTR and the concept of cellular dependence: seeing how the other half die [see comments] Bredesen DE, et al. **Cell Death Differ** 1998 May;5(5):365–71 (39 ref.). Comment in: Cell Death Differ 1998 May;5(5):343–5.
The mitochondrion as an integrator/coordinator of cell death pathways. Kroemer G. **Cell Death Differ** 1998 Jun;5(6):547
Retinoic acids regulate apoptosis of T lymphocytes through an interplay between RAR and RXR receptors [see comments] Szondy Z, et al. **Cell Death Differ** 1998 Jan; 5(1):4–10 (78 ref.). Comment in: Cell Death Differ 1998 Jan;5(1):1–3.
Functional release of Stat5a–null mammary tissue through the activation of compensating signals including Stat5b. Liu X, et al. **Cell Growth Differ** 1998 Sep;9(9):795–803

A role for growth hormone and prolactin in leukaemia and lymphoma? Hooghe R, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1095–101 (85 ref.)

The order of exposure of tau to signal transduction kinases alters the generation of "AD-like" phosphoepitopes. Shea TB, et al. **Cell Mol Neurobiol** 1999 Apr;19(2):223–33

The Grb7 family of signalling proteins. Daly RJ. **Cell Signal** 1998 Oct;10(9):613–8 (49 ref.)

Phospholipase D: a novel major player in signal transduction. Gomez-Cambronero J, et al. **Cell Signal** 1998 Jun; 10(6):387–97 (161 ref.)

Cbl: complex formation and functional implications. Liu YC, et al. **Cell Signal** 1998 Jun;10(6):377–85 (120 ref.)

G-protein-linked receptors as tyrosine kinase substrates: new paradigms in signal integration. Malbon CC, et al. **Cell Signal** 1998 Sep;10(8):523–7 (23 ref.)

Activation of protein kinase C modulates alpha2-adrenergic signalling in rat pancreatic islets. El-Mansoury AM, et al. **Cell Signal** 1998 Oct;10(9):637–43

Signalling into the T-cell nucleus: NFAT regulation. Masuda ES, et al. **Cell Signal** 1998 Oct;10(9):599–611 (132 ref.)

Diversity and complexity of ceramide signalling in apoptosis. Okazaki T, et al. **Cell Signal** 1998 Nov;10(10):685–92 (91 ref.)

Signal transduction in islet hormone release: interaction of nitric oxide with basal and nutrient-induced hormone responses. Salehi A, et al. **Cell Signal** 1998 Oct;10(9):645–51

Signalling pathways for cardiac hypertrophy. Yamazaki T, et al. **Cell Signal** 1998 Nov;10(10):693–8 (59 ref.)

Ligand recognition by SH3 and WW domains: the role of N-alkylation in PPII helices. Aghazadeh B, et al. **Chem Biol** 1999 Sep;6(9):R241–6 (34 ref.)

Signalling to actin: the Cdc42-N-WASP-Arp2/3 connection. Carlier MF, et al. **Chem Biol** 1999 Sep; 6(9):R235–40 (28 ref.)

Recruitment of proteins to modulate protein-protein interactions. Liu JO. **Chem Biol** 1999 Aug;6(8):R213–5 (18 ref.)

Histidine kinases and two-component signal transduction systems. Pirrung MC. **Chem Biol** 1999 Jun;6(6):R167–75 (60 ref.)

The mitochondrial apoptotic pathway is activated by serum and glucose deprivation in cardiac myocytes. Bialik S, et al. **Circ Res** 1999 Sep 3;85(5):403–14

Angiotensin and endothelin: messengers that couple ventricular stretch to the Na+/H+ exchanger and cardiac hypertrophy [editorial] Dostal DE, et al. **Circ Res** 1998 Oct 19;83(8):870–3

Establishment of beta-adrenergic modulation of L-type Ca2+ current in the early stages of cardiomyocyte development. Maltsev VA, et al. **Circ Res** 1999 Feb 5; 84(2):136–45

Interferon induction of TAP1: the phosphatase SHP-1 regulates crossover between the IFN-alpha/beta and the IFN-gamma signal-transduction pathways. Min W, et al. **Circ Res** 1998 Oct 19;83(8):815–23

Mechanotransduction of rat aortic vascular smooth muscle cells requires RhoA and intact actin filaments. Numaguchi K, et al. **Circ Res** 1999 Jul 9;85(1):5–11

Modulation of Ras/Raf/extracellular signal-regulated kinase pathway by reactive oxygen species is involved in cyclic strain-induced early growth response-1 gene expression in endothelial cells. Wung BS, et al. **Circ Res** 1999 Apr 16;84(7):804–12

Neuregulin signaling in the heart. Dynamic targeting of erbB4 to caveolar microdomains in cardiac myocytes. Zhao YY, et al. **Circ Res** 1999 Jun 25;84(12):1380–7

Beta-protein kinase C and hypertrophic signaling in human heart failure [editorial; comment] Simpson PC. **Circulation** 1999 Jan 26;99(3):334–7. Comment on: Circulation 1999 Jan 26;99(3):384–91.

RGS4 inhibits G-protein signaling in cardiomyocytes. Tamirisa P, et al. **Circulation** 1999 Jan 26;99(3):441–7

Signaling pathways in reactive oxygen species-induced cardiomyocyte apoptosis. von Harsdorf R, et al. **Circulation** 1999 Jun 8;99(22):2934–41

Blockade of mitogen-activated protein kinase cascade signaling in interleukin 6-independent multiple myeloma cells. Ogata A, et al. **Clin Cancer Res** 1997 Jun;3(6):1017–22

Renal dopamine receptor signaling mechanisms in spontaneously hypertensive and Fischer 344 old rats. Hussain T, et al. **Clin Exp Hypertens** 1999 Jan–Feb; 21(1–2):25–36 (51 ref.)

Signal transduction by protein kinase C in mammalian cells. Kanashiro CA, et al. **Clin Exp Pharmacol Physiol** 1998 Dec; 25(12):974–85 (89 ref.)

Vascular biology of endothelin signal transduction. Neylon CB. **Clin Exp Pharmacol Physiol** 1999 Feb;26(2):149–53 (33 ref.)

Neuropharmacologic aspects of apoptosis: significance for neurodegenerative diseases. Michel PP, et al. **Clin Neuropharmacol** 1999 May–Jun;22(3):137–50 (296 ref.)

Insulin-like growth factor-I receptor signal transduction: at the interface between physiology and cell biology. Butler AA, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep;121(1):19–26 (59 ref.)

Osmoregulation of liver cell function: signalling, osmolytes and cell heterogeneity. Häussinger D. **Contrib Nephrol** 1998;123:185–204 (100 ref.)

Sensors and signal transduction in the activation of cell volume regulatory ion transport systems. Hoffmann EK, et al. **Contrib Nephrol** 1998;123:50–78 (184 ref.)

Intracellular signaling in response to osmotic stress. Kültz D, et al. **Contrib Nephrol** 1998;123:94–109 (70 ref.)

From preadipocyte to adipocyte: differentiation-directed signals of insulin from the cell surface to the nucleus. Sorisky A. **Crit Rev Clin Lab Sci** 1999 Feb;36(1):1–34 (159 ref.)

Sec14p-like domains in NF1 and Dbl-like proteins indicate lipid regulation of Ras and Rho signaling [letter] Aravind L, et al. **Curr Biol** 1999 Mar 25;9(6):R195–7

Intracellular signalling: PDK1--a kinase at the hub of things. Belham C, et al. **Curr Biol** 1999 Feb 11;9(3):R93–6 (21 ref.)

FGF8 functions in the specification of the right body side of the chick. Boettger T, et al. **Curr Biol** 1999 Mar 11; 9(5):277–80

Phosphorelay signalling: new tricks for an ancient pathway. Brown JM, et al. **Curr Biol** 1998 Sep 10;8(18):R662–5 (14 ref.)

Fever: links with an ancient receptor. Dinarello CA, et al. **Curr Biol** 1999 Feb 25;9(4):R147–50 (23 ref.)

Lipid signalling. Downes CP, et al. **Curr Biol** 1998 Dec 3; 8(24):R865–7 (6 ref.)

Going for the GAP. McCormick F. **Curr Biol** 1998 Sep 24; 8(19):R673–4 (5 ref.)

Signal transduction: fast lane to transcriptional activation. Rhodes D, et al. **Curr Biol** 1998 Oct 22;8(21):R765–7 (13 ref.)

Transformation mediated by RhoA requires activity of ROCK kinases. Sahai E, et al. **Curr Biol** 1999 Feb 11; 9(3):136–45

Apoptosis control by death and decoy receptors. Ashkenazi A, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):255–60 (66 ref.)

Costimulatory regulation of T cell function. Chambers CA, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):203–10 (81 ref.)

Regulation of LEF-1/TCF transcription factors by Wnt and other signals. Eastman Q, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):233–40 (102 ref.)

Organization and regulation of mitogen-activated protein kinase signaling pathways. Garrington TP, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):211–8 (58 ref.)

Microtubules and signal transduction. Gundersen GG, et al. **Curr Opin Cell Biol** 1999 Feb;11(1):81–94 (165 ref.)

Epidermal growth factor receptors: critical mediators of multiple receptor pathways. Hackel PO, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):184–9 (65 ref.)

Organization and regulation of proteins at synapses [published erratum appears in Curr Opin Cell Biol 1999 Jun;11(3):407–8] Kim JH, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):248–54 (64 ref.)

Signalling through phosphoinositide 3-kinases: the lipids take centre stage. Leevers SJ, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):219–25 (54 ref.)

Deciphering the pathways of life and death. Li H, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):261–6 (46 ref.)

Regulation of tyrosine kinase cascades by G-protein-coupled receptors. Luttrell LM, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):177–83 (56 ref.)

Multiple signals converging on NF-kappaB. Mercurio F, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):226–32 (50 ref.)

Multiple positive and negative regulators of signaling by the EGF-receptor. Moghal N, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):190–6 (64 ref.)

Bidirectional signaling between the cytoskeleton and integrins. Schoenwaelder SM, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):274–86 (156 ref.)

Interactions between mitogenic stimuli, or, a thousand and one connections. Schwartz MA, et al. **Curr Opin Cell Biol** 1999 Apr;11(2):197–202 (51 ref.)

Positive feedback interactions between microtubule and actin dynamics during cell motility. Waterman-Storer CM, et al. **Curr Opin Cell Biol** 1999 Feb;11(1):61–7 (58 ref.)

Membrane organization in immunoglobulin E receptor signaling. Sheets ED, et al. **Curr Opin Chem Biol** 1999 Feb; 3(1):95–9 (41 ref.)

Amino acid-dependent signal transduction and insulin sensitivity. Meijer AJ, et al. **Curr Opin Clin Nutr Metab Care** 1999 May;2(3):207–11 (31 ref.)

Establishing links between developmental signaling pathways and cell-cycle regulation in Drosophila. Duronio RJ. **Curr Opin Genet Dev** 1999 Feb;9(1):81–8 (64 ref.)

Integrins and signal transduction. Dedhar S. **Curr Opin Hematol** 1999 Jan;6(1):37–43 (60 ref.)

Signal transduction cascades regulating mating, filamentation, and virulence in Cryptococcus neoformans. Wang P, et al. **Curr Opin Microbiol** 1999 Aug;2(4):358–62 (33 ref.)

Central neural mechanisms for detecting second-order motion. Baker CL Jr. **Curr Opin Neurobiol** 1999 Aug; 9(4):461–6 (56 ref.)

Regulation of back-propagating action potentials in hippocampal neurons. Johnston D, et al. **Curr Opin Neurobiol** 1999 Jun;9(3):288–92 (34 ref.)

Assembly of signaling machinery at the postsynaptic membrane. Kirsch J. **Curr Opin Neurobiol** 1999 Jun; 9(3):329–35 (61 ref.)

Who does the hair cell's 'do? Rho GTPases and hair-bundle morphogenesis. Kollmar R. **Curr Opin Neurobiol** 1999 Aug; 9(4):394–8 (40 ref.)

Central mechanisms of pain modulation. Mason P. **Curr Opin Neurobiol** 1999 Aug;9(4):436–41 (33 ref.)

Calcium signalling and regulation in olfactory neurons. Menini A. **Curr Opin Neurobiol** 1999 Aug;9(4):419–26 (63 ref.)

Linking extracellular survival signals and the apoptotic machinery. Nuñez G, et al. **Curr Opin Neurobiol** 1998 Oct; 8(5):613–8 (59 ref.)

Mechanisms of stereoscopic vision: the disparity energy model. Ohzawa I. **Curr Opin Neurobiol** 1998 Aug; 8(4):509–15 (30 ref.)

Brain protein serine/threonine phosphatases. Price NE, et al. **Curr Opin Neurobiol** 1999 Jun;9(3):336–42 (68 ref.)

Molecular mechanisms of vertebrate photoreceptor light adaptation. Pugh EN Jr, et al. **Curr Opin Neurobiol** 1999 Aug;9(4):410–8 (61 ref.)

Neural coding of gustatory information. Smith DV, et al. **Curr Opin Neurobiol** 1999 Aug;9(4):427–35 (70 ref.)

Signal transduction underlying growth cone guidance by diffusible factors. Song HJ, et al. **Curr Opin Neurobiol** 1999 Jun;9(3):355–63 (88 ref.)

Effects of estrogen in the CNS. Woolley CS. **Curr Opin Neurobiol** 1999 Jun;9(3):349–54 (44 ref.)

The bacterial K+ channel structure and its implications for neuronal channels. Yellen G. **Curr Opin Neurobiol** 1999 Jun;9(3):267–73 (52 ref.)

Cellular mechanisms of wingless/Wnt signal transduction. Dierick H, et al. **Curr Top Dev Biol** 1999;43:153–90 (166 ref.)

EGF receptor signaling in Drosophila oogenesis. Nilson LA, et al. **Curr Top Dev Biol** 1999;44:203–43 (143 ref.)

Endothelin 1 receptors, signal transduction and effects on DNA and proteoglycan synthesis in rat articular chondrocytes. Khatib AM, et al. **Cytokine** 1998 Sep; 10(9):669–79

Acid sphingomyelinase-derived ceramide is not required for inflammatory cytokine signalling in murine macrophages. Manthey CL, et al. **Cytokine** 1998 Sep;10(9):654–61

Signal transduction by bone morphogenetic proteins. Kawabata M, et al. **Cytokine Growth Factor Rev** 1998 Mar; 9(1):49–61 (119 ref.)

Recent advances in cytokines, cytokine receptors and signal transduction. Rubinstein M, et al. **Cytokine Growth Factor Rev** 1998 Jun;9(2):175–81

Nuclear import and export of proteins: the molecular basis for intracellular signaling. Sekimoto T, et al. **Cytokine Growth Factor Rev** 1998 Sep–Dec;9(3–4):205–11 (61 ref.)

TNF receptor associated factors in cytokine signaling. Wajant H, et al. **Cytokine Growth Factor Rev** 1999 Mar; 10(1):15–26 (114 ref.)

The CIS family: negative regulators of JAK-STAT signaling. Yoshimura A. **Cytokine Growth Factor Rev** 1998 Sep–Dec; 9(3–4):197–204 (46 ref.)

Pharmacological modulation of cytokine action and production through signaling pathways. Young PR. **Cytokine Growth Factor Rev** 1998 Sep–Dec;9(3–4):239–57 (171 ref.)

Sympathetic activity and aging: relationship to smoking habits, physical fitness, blood volume, and intracellular signalling. Jensen EW. **Dan Med Bull** 1999 Apr; 46(2):106–17 (135 ref.)

Effects of substance P on cellular signalling systems in the rat anterior pituitary. Mau SE. **Dan Med Bull** 1999 Feb; 46(1):35–56 (243 ref.)

Multiple roles for activin-like kinase-2 signaling during mouse embryogenesis. Mishina Y, et al. **Dev Biol** 1999 Sep 15;213(2):314–26

Delta-notch signaling in odontogenesis: correlation with cytodifferentiation and evidence for feedback regulation. Mitsiadis TA, et al. **Dev Biol** 1998 Dec 15;204(2):420–31

The role of star in the production of an activated ligand for the EGF receptor signaling pathway. Pickup AT, et al. **Dev Biol** 1999 Jan 15;205(2):254–9

Activation of the Jak-STAT-signaling pathway in embryonic lens cells. Potts JD, et al. **Dev Biol** 1998 Dec 1;204(1):277–92

Comparative biology of calcium signaling during fertilization and egg activation in animals. Stricker SA. **Dev Biol** 1999 Jul 15;211(2):157–76 (306 ref.)

Anterior endomesoderm specification in Xenopus by Wnt/beta-catenin and TGF-beta signalling pathways. Zorn AM, et al. **Dev Biol** 1999 May 15;209(2):282–97

Hematopoietic induction and respecification of A-P identity by visceral endoderm signaling in the mouse embryo. Belaoussoff M, et al. **Development** 1998 Dec; 125(24):5009–18

Differential patterning of ventral midline cells by axial mesoderm is regulated by BMP7 and chordin. Dale K, et al. **Development** 1999 Jan;126(2):397–408

Wnt signaling from the dorsal neural tube is required for the formation of the medial dermomyotome. Ikeya M, et al. **Development** 1998 Dec;125(24):4969–76

Regionalization within the mammalian telencephalon is mediated by changes in responsiveness to Sonic Hedgehog. Kohtz JD, et al. **Development** 1998 Dec;125(24):5079–89

Wingless, decapentaplegic and EGF receptor signaling pathways interact to specify dorso-ventral pattern in the adult abdomen of Drosophila. Kopp A, et al. **Development** 1999 Aug;126(16):3495–507

Wingless signaling in the Drosophila embryo: zygotic requirements and the role of the frizzled genes. Müller H, et al. **Development** 1999 Feb;126(3):577–86

Disabled-1 acts downstream of Reelin in a signaling pathway that controls laminar organization in the mammalian brain. Rice DS, et al. **Development** 1998 Sep;125(18):3719–29

Signaling through the stromal epidermal growth factor receptor is necessary for mammary ductal development. Wiesen JF, et al. **Development** 1999 Jan;126(2):335–44

Activation of the sphingomyelinase/ceramide signal transduction pathway in insulin-secreting beta-cells: role in cytokine-induced beta-cell death. Major CD, et al. **Diabetes** 1999 Jul;48(7):1372–80

Activation of the hexosamine pathway by glucosamine in vivo induces insulin resistance of early postreceptor insulin signaling events in skeletal muscle. Patti ME, et al. **Diabetes** 1999 Aug;48(8):1562–71

Muscle fiber type-specific defects in insulin signal transduction to glucose transport in diabetic GK rats. Song XM, et al. **Diabetes** 1999 Mar;48(3):664–70

Thyroid hormone receptor is a negative regulator in p53-mediated signaling pathways. Barrera-Hernandez G, et al. **DNA Cell Biol** 1998 Sep;17(9):743–50

alpha-latrotoxin action probed with recombinant toxin: receptors recruit alpha-latrotoxin but do not transduce an exocytotic signal. Ichtchenko K, et al. **EMBO J** 1998 Nov 2;17(21):6188–99

Pyk2 and Src-family protein-tyrosine kinases compensate for the loss of FAK in fibronectin-stimulated signaling events but Pyk2 does not fully function to enhance FAK- cell migration. Sieg DJ, et al. **EMBO J** 1998 Oct 15; 17(20):5933–47

Kit signaling through PI 3-kinase and Src kinase pathways: an essential role for Rac1 and JNK activation in mast cell proliferation. Timokhina I, et al. **EMBO J** 1998 Nov 2; 17(21):6250–62

Pathogenic poxviruses reveal viral strategies to exploit the ErbB signaling network. Tzahar E, et al. **EMBO J** 1998 Oct 15;17(20):5948–63

Regulation of Rb and E2F by signal transduction cascades: divergent effects of JNK1 and p38 kinases. Wang S, et al. **EMBO J** 1999 Mar 15;18(6):1559–70

Extracellular signal-regulated activation of Rap1 fails to interfere in Ras effector signalling. Zwartkruis FJ, et al. **EMBO J** 1998 Oct 15;17(20):5905–12

Molecular mechanism of growth hormone signalling. Billestrup N, et al. **Endocr J** 1998 Apr;45 Suppl:S41–5 (34 ref.)

GH signalling in pancreatic beta-cells. Sekine N, et al. **Endocr J** 1998 Apr;45 Suppl:S33–40 (36 ref.)

Signaling events activated by angiotensin II receptors: what goes before and after the calcium signals. Balla T, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):335–44

Molecular control of immune/inflammatory responses: interactions between nuclear factor-kappa B and steroid receptor-signaling pathways. McKay LI, et al. **Endocr Rev** 1999 Aug;20(4):435–59 (271 ref.)

Aspects of novel sites of regulation of the insulin stimulus-secretion coupling in normal and diabetic pancreatic islets. Sjöholm A. **Endocrine** 1998 Aug;9(1):1–13 (226 ref.)

Vitamin D analogs, 20-Epi-22-oxa-24a,26a,27a,-trihomo-1alpha,25(OH)2-vitamin D3, 1,24(OH)2-22-ene-24-cyclopropyl-vitamin D3 and 1alpha,25(OH)2-lumisterol3 prime NB4 leukemia cells for monocytic differentiation via nongenomic signaling pathways, involving calcium and calpain. Berry DM, et al. **Endocrinology** 1999 Oct;140(10):4779–88

An in vivo model for elucidation of the mechanism of tumor necrosis factor-alpha (TNF-alpha)-induced insulin resistance: evidence for differential regulation of insulin signaling by TNF-alpha. Cheung AT, et al. **Endocrinology** 1998 Dec;139(12):4928–35

Role of signal transduction in internalization of the G protein-coupled receptor for parathyroid hormone (PTH) and PTH-related protein. Huang Z, et al. **Endocrinology** 1999 Mar;140(3):1294–300

An insulinotropic effect of vitamin D analog with increasing intracellular Ca2+ concentration in pancreatic beta-cells through nongenomic signal transduction. Kajikawa M, et al. **Endocrinology** 1999 Oct;140(10):4706–12

Coordinated and cell-specific regulation of membrane type matrix metalloproteinase 1 (MT1-MMP) and its substrate matrix metalloproteinase 2 (MMP-2) by physiological signals during follicular development and ovulation. Liu K, et al. **Endocrinology** 1998 Nov;139(11):4735–8

Molecular identification of adenylyl cyclase 3 in bovine corpus luteum and its regulation by prostaglandin F2alpha-induced signaling pathways. Mamluk R, et al. **Endocrinology** 1999 Oct;140(10):4601–8

Effects of streptozocin-induced diabetes and islet cell transplantation on insulin signaling in rat skeletal muscle. Markuns JF, et al. **Endocrinology** 1999 Jan;140(1):106–11

Pituitary adenylate cyclase-activating polypeptide (PACAP) 38 and PACAP27 activate common and distinct intracellular signaling pathways to stimulate growth hormone secretion from porcine somatotropes. Martinez-Fuentes AJ, et al. **Endocrinology** 1998 Dec; 139(12):5116–24

Synergistic role of the phosphatidylinositol 3-kinase and mitogen-activated protein kinase cascade in the regulation of insulin receptor trafficking. Sasaoka T, et al. **Endocrinology** 1999 Aug;140(8):3826–34

Bradykinin receptor localization and cell signaling pathways used by bradykinin in the regulation of gonadotropin-releasing hormone secretion. Shi B, et al. **Endocrinology** 1999 Oct;140(10):4669–76

Detection of prolactin receptor gene expression in the sheep pituitary gland and visualization of the specific translation of the signal in gonadotrophs. Tortonese DJ, et al. **Endocrinology** 1998 Dec;139(12):5215–23

Role of regulator of G protein signaling in desensitization of the glucose-dependent insulinotropic peptide receptor. Tseng CC, et al. **Endocrinology** 1998 Nov;139(11):4470–5

Modulation of CCAAT/enhancer-binding protein-alpha gene expression by metabolic signals in rodent adipocytes [see comments] Wang Y, et al. **Endocrinology** 1999 Jul; 140(7):2938–47. Comment in: Endocrinology 1999 Jul;140(7):2935–7.

Intracellular signaling in rat cultured vascular smooth muscle cells: roles of nuclear factor-kappaB and p38 mitogen-activated protein kinase on tumor necrosis factor-alpha production. Yamakawa T, et al. **Endocrinology** 1999 Aug;140(8):3562–72

Official satellite symposium of the forum meeting of the European Neuroscience Association. Signal transduction pathways in the blood-brain barrier. Hotel Intercontinental, Berlin, Germany. Blasig IE, et al. **Endothelium** 1999;6(4):341–61

Characterization of G protein-coupled receptors expressed by ECV304 human endothelial cells. Howl J, et al. **Endothelium** 1998;6(1):23–32

Tyrosine kinase substrates in interleukin-2 signaling. Gesbert F, et al. **Eur Cytokine Netw** 1998 Sep;9(3 Suppl):33–40 (70 ref.)

PTEN/MMAC1/TEP1 in signal transduction and tumorigenesis. Besson A, et al. **Eur J Biochem** 1999 Aug; 263(3):605–11 (61 ref.)

Pertussis toxin-sensitive and insensitive intracellular signalling pathways in undifferentiated 3T3-L1 cells stimulated by insulin converge with phosphatidylinositol 3-kinase upstream of the Ras mitogen-activated protein kinase cascade. Uehara T, et al. **Eur J Biochem** 1999 Feb; 259(3):801–8

Transcriptional regulation by cyclic AMP is essential for development, reproduction and survival: lessons from the transgenic mice. Groussin L, et al. **Eur J Endocrinol** 1998 Dec;139(6):571–2

Influence of descending forebrain projections on processing of acoustic signals and audiomotor integration in the anuran midbrain. Endepols H, et al. **Eur J Morphol** 1999 Apr; 37(2-3):182–4

Cross-talk in signal transduction pathways of rat submandibular acinar cells. Martinez JR, et al. **Eur J Morphol** 1998 Aug;36 Suppl:190–3

The puzzle of hydrodynamic information processing: how are complex water motions analyzed by the lateral line? Mogdans J, et al. **Eur J Morphol** 1999 Apr;37(2-3):195–9 (17 ref.)

Cleavage of the TrkA neurotrophin receptor by multiple metalloproteases generates signalling-competent truncated forms. Díaz-Rodríguez E, et al. **Eur J Neurosci** 1999 Apr; 11(4):1421–30

Activation of the extracellular signal-regulated kinase 2 by metabotropic glutamate receptors. Ferraguti F, et al. **Eur J Neurosci** 1999 Jun;11(6):2073–2082

Tenascin-R interferes with integrin-dependent oligodendrocyte precursor cell adhesion by a ganglioside-mediated signalling mechanism. Probstmeier R, et al. **Eur J Neurosci** 1999 Jul;11(7):2474–88

Dual intracellular signaling pathways mediated by the human cannabinoid CB1 receptor. Calandra B, et al. **Eur J Pharmacol** 1999 Jun 25;374(3):445–55

Signal transduction pathways associated with alpha1-adrenoceptor subtypes in cells and tissues including human prostate. Marshall I, et al. **Eur Urol** 1999;36 Suppl 1:42–7; discussion 65 (23 ref.)

Dendrite classification in rat hippocampal neurons according to signal propagation properties. Observation by multichannel optical recording in cultured neuronal networks. Kawaguchi H, et al. **Exp Brain Res** 1998 Oct; 122(4):378–92

Late signals from the PDGF receptors leading to the activation of the p70S6-kinase are necessary for the transition from G1 to S phase in AKR-2B cells. Simm A, et al. **Exp Cell Res** 1998 Nov 1;244(2):379–93

Cytoskeleton and integrin-mediated adhesion signaling in human CD34+ hemopoietic progenitor cells. Lévesque JP, et al. **Exp Hematol** 1999 Apr;27(4):579–86 (60 ref.)

Signaling pathways in thrombin-induced actin reorganization in pulmonary artery endothelial cells. Zhao Y, et al. **Exp Lung Res** 1999 Jan-Feb;25(1):23–39

Vascular endothelial growth factor: how it transmits its signal. Zachary I. **Exp Nephrol** 1998 Nov-Dec;6(6):480–7 (62 ref.)

Early BDNF, NT-3, and NT-4 signaling events. Yuen EC, et al. **Exp Neurol** 1999 Sep;159(1):297–308

Elementary [Ca2+]i signals generated by electroporation functionally mimic those evoked by hormonal stimulation. Bobanović F, et al. **FASEB J** 1999 Feb;13(2):365–76

Growth factor-induced signal transduction in adherent mammalian cells is sensitive to gravity. Boonstra J. **FASEB J** 1999;13 Suppl:S35–42 (77 ref.)

Cell cycle control of PDGF-induced Ca(2+) signaling through modulation of sphingolipid metabolism. Fatatis A, et al. **FASEB J** 1999 Aug;13(11):1291–301

Divergent effects of exercise on metabolic and mitogenic signaling pathways in human skeletal muscle. Widegren U, et al. **FASEB J** 1998 Oct;12(13):1379–89

Selective suppression of stress-activated protein kinase pathway by protein phosphatase 2C in mammalian cells. Hanada M, et al. **FEBS Lett** 1998 Oct 23;437(3):172–6

Lipid signaling in CD95-mediated apoptosis. Malisan F, et al. **FEBS Lett** 1999 Jun 4;452(1-2):100–3 (42 ref.)

Rho-kinase in human neutrophils: a role in signalling for myosin light chain phosphorylation and cell migration. Niggli V. **FEBS Lett** 1999 Feb 19;445(1):69–72

Isolated endosomes from quiescent rat liver contain the signal transduction machinery. Differential distribution of activated Raf-1 and Mek in the endocytic compartment. Pol A, et al. **FEBS Lett** 1998 Dec 11;441(1):34–8

Tyrosine kinase activity is associated with CD44 in human neutrophils. Skubitz KM, et al. **FEBS Lett** 1998 Nov 13; 439(1-2):97–100

Metabolic oxidative stress activates signal transduction and gene expression during glucose deprivation in human tumor cells. Blackburn RV, et al. **Free Radic Biol Med** 1999 Feb; 26(3-4):419–30

Mesalamine blocks tumor necrosis factor growth inhibition and nuclear factor kappaB activation in mouse colonocytes. Kaiser GC, et al. **Gastroenterology** 1999 Mar;116(3):602–9

Acetylcholine-induced calcium signaling along the rat colonic crypt axis. Lindqvist SM, et al. **Gastroenterology** 1998 Nov;115(5):1131–43

Alagille syndrome and the notch signaling pathway: new insights into human development [editorial; comment] Spinner NB. **Gastroenterology** 1999 May;116(5):1257–60. Comment on: Gastroenterology 1999 May;116(5):1141–8.

Blockade of kit signaling induces transdifferentiation of interstitial cells of cajal to a smooth muscle phenotype. Torihashi S, et al. **Gastroenterology** 1999 Jul;117(1):140–8

Dietary protein restriction stress in the domestic fowl (Gallus gallus domesticus) alters adrenocorticotropin-transmembranous signaling and corticosterone negative feedback in adrenal steroidogenic cells. McIlroy PJ, et al. **Gen Comp Endocrinol** 1999 Feb; 113(2):255–66

Grb10/GrbIR as an in vivo substrate of Tec tyrosine kinase. Mano H, et al. **Genes Cells** 1998 Jul;3(7):431–41

The Drosophila activin receptor baboon signals through dSmad2 and controls cell proliferation but not patterning during larval development. Brummel T, et al. **Genes Dev** 1999 Jan 1;13(1):98–111

The complexity of p53 modulation: emerging patterns from divergent signals. Giaccia AJ, et al. **Genes Dev** 1998 Oct 1;12(19):2973–83 (109 ref.)

Drosophila unpaired encodes a secreted protein that activates the JAK signaling pathway. Harrison DA, et al. **Genes Dev** 1998 Oct 15;12(20):3252–63

Heat-shock-induced activation of stress MAP kinase is regulated by threonine- and tyrosine-specific phosphatases. Nguyen AN, et al. **Genes Dev** 1999 Jul 1;13(13):1653–63

Genetic control of telomere integrity in Schizosaccharomyces pombe: rad3(+) and tel1(+) are parts of two regulatory networks independent of the downstream protein kinases chk1(+) and cds1(+). Matsuura A, et al. **Genetics** 1999 Aug;152(4):1501–12

Intercellular calcium signaling and gap junctional communication in astrocytes. Giaume C, et al. **Glia** 1998 Sep;24(1):50–64 (111 ref.)

Potentiation of ATP calcium responses by A2B receptor stimulation and other signals coupled to Gs proteins in type-1 cerebellar astrocytes. Jiménez AI, et al. **Glia** 1999 Apr;26(2):119–28

Intracellular signals and cytoskeletal elements involved in oligodendrocyte progenitor migration. Simpson PB, et al. **Glia** 1999 Mar;26(1):22–35

Take your partners, please--signal diversification by the erbB family of receptor tyrosine kinases. Daly RJ. **Growth Factors** 1999;16(4):255–63 (70 ref.)

Signal transduction of the growth hormone (GH) receptor, and GH-binding protein. Wojcik J, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:51–5 (41 ref.)

Focal adhesion kinase and its potential involvement in tumor invasion and metastasis. Kornberg LJ. **Head Neck** 1998 Dec;20(8):745–52 (52 ref.)

Structural basis for mechanical transduction in the frog vestibular sensory apparatus: III. The organization of the otoconial mass. Kurc M, et al. **Hear Res** 1999 May; 131(1-2):11–21

Mechano-electrical transduction in mice lacking the alpha-subunit of the epithelial sodium channel. Rüsch A, et al. **Hear Res** 1999 May;131(1-2):170–6

Involvement of gp130-mediated signaling in pressure overload-induced activation of the JAK/STAT pathway in rodent heart. Pan J, et al. **Heart Vessels** 1998; 13(4):199–208

Bile acids modulate the interferon signalling pathway. Podevin P, et al. **Hepatology** 1999 Jun;29(6):1840–7

Insulin and insulin-like growth factor-1 stimulate proliferation and type I collagen accumulation by human hepatic stellate cells: differential effects on signal transduction pathways. Svegliati-Baroni G, et al. **Hepatology** 1999 Jun;29(6):1743–51

Hepatic stellate cells (vitamin A-storing cells) change their cytoskeleton structure by extracellular matrix components through a signal transduction system. Kojima N, et al. **Histochem Cell Biol** 1998 Aug;110(2):121–8

Insulin-like growth factor [editorial] Le Roith D. **Horm Metab Res** 1999 Feb-Mar;31(2-3):41–2

Activation of extracellular signal-regulated kinases 1 and 2 by insulin-like growth factor I in human osteosarcoma

MG-63 cells. Lopaczynski W, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):65-9

Variation among cell types in the signaling pathways by which IGF-I stimulates specific cellular responses. Petley T, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):70-6 (51 ref.)

Insulin and IGF-I receptors signaling in protection from apoptosis. Prisco M, et al. **Horm Metab Res** 1999 Feb-Mar; 31(2-3):80-9

Regulation of PTP-1 and insulin receptor kinase by fractions from cinnamon: implications for cinnamon regulation of insulin signalling. Imparl-Radosevich J, et al. **Horm Res** 1998 Sep;50(3):177-82

[Apoptosis-inducing and -preventing signal transduction pathways in cultured cerebellar granule neurons] Ikeuchi T, et al. **Hum Cell** 1998 Sep;11(3):125-40 (88 ref.)

Cross talk between angiotensin II type 1 and type 2 receptors: cellular mechanism of angiotensin type 2 receptor-mediated cell growth inhibition. Xoriuchi M, et al. **Hypertens Res** 1999 Jul;22(2):67-74 (70 ref.)

Involvement of PYK2 in angiotensin II signaling of vascular smooth muscle cells. Eguchi S, et al. **Hypertension** 1999 Jan;33(1 Pt 2):201-6

Role of nitric oxide-cGMP pathway in adrenomedullin-induced vasodilation in the rat. Hayakawa H, et al. **Hypertension** 1999 Feb;33(2):689-93

Interleukin-1beta regulation of inducible nitric oxide synthase and cyclooxygenase-2 involves the p42/44 and p38 MAPK signaling pathways in cardiac myocytes. LaPointe MC, et al. **Hypertension** 1999 Jan;33(1 Pt 2):276-82

Role of calcium-sensitive tyrosine kinase Pyk2/CAKbeta/RAFTK in angiotensin II induced Ras/ERK signaling. Murasawa S, et al. **Hypertension** 1998 Oct;32(4):668-75

Angiotensin II signaling in vascular smooth muscle cells under high glucose conditions. Natarajan R, et al. **Hypertension** 1999 Jan;33(1 Pt 2):378-84

LAT is required for TCR-mediated activation of PLCgamma1 and the Ras pathway. Finco TS, et al. **Immunity** 1998 Nov;9(5):617-26

FGF signal transduction in PC12 cells: comparison of the responses induced by endogenous and chimeric receptors. Foehr ED, et al. **Immunol Cell Biol** 1998 Oct;76(5):406-13

Protein kinase C-delta is a target of B-cell antigen receptor signaling. Barbazuk SM, et al. **Immunol Lett** 1999 Aug 3; 69(2):259-67

Signal transduction in leucocytes via GPI-anchored proteins: an experimental artefact or an aspect of immunoreceptor function? Horejsi V, et al. **Immunol Lett** 1998 Sep; 63(2):63-73 (185 ref.)

Bacterial lipopolysaccharide induced B cell activation is mediated via a phosphatidylinositol 3-kinase dependent signaling pathway. Venkataraman C, et al. **Immunol Lett** 1999 Aug 3;69(2):233-8

A kinetic differentiation model for the action of altered TCR ligands. Lord GM, et al. **Immunol Today** 1999 Jan; 20(1):33-9 (48 ref.)

Cytokine pleiotropy and redundancy--gp130 cytokines in human implantation. Sánchez-Cuenca J, et al. **Immunol Today** 1999 Feb;20(2):57-9 (32 ref.)

Binding of HIV-2 envelope glycoprotein to CD8 molecules and related chemokine production. Akimoto H, et al. **Immunology** 1998 Oct;95(2):214-8

CD2 signalling induces phosphorylation of CREB in primary lymphocytes. Guyot DJ, et al. **Immunology** 1998 Dec; 95(4):544-52

CD147 monoclonal antibodies induce homotypic cell aggregation of monocytic cell line U937 via LFA-1/ICAM-1 pathway. Kasinrerk W, et al. **Immunology** 1999 Feb;96(2):184-92

Direct and rapid induction of migration in human CD4+ T lymphocytes within three-dimensional collagen matrices mediated by signalling via CD3 and/or CD2. Nikolai G, et al. **Immunology** 1998 Sep;95(1):62-8

Influence of probes for calcium-calmodulin and protein kinase C signalling on the plasma membrane Ca2+-ATPase activity of rat synaptosomes and leukocyte membranes. Grosman N. **Immunopharmacology** 1998 Aug; 40(2):163-71

Extracellular matrix (ECM) mediated adhesion and signaling in inflammation and cancer: new concepts, New York Academy of Sciences, May 21, 1998. Morgan DW, et al. **Inflamm Res** 1999 Mar;48(3):104-5

Signal transduction in activation of human eosinophils: G protein-dependent and -independent pathways. Kato M, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:63-7

Regulation of eosinophil apoptosis: transduction of survival and death signals. Simon H, et al. **Int Arch Allergy Immunol** 1999 Jan;118(1):7-14 (62 ref.)

CD44 signaling through p56lck involves lateral association with CD4 in human CD4+ T cells. Dianzani U, et al. **Int Immunol** 1999 Jul;11(7):1085-92

Negative signaling by anti-HLA class I antibodies is dependent upon two triggering events. Fayen J, et al. **Int Immunol** 1998 Sep;10(9):1347-58

Alteration of the daunorubicin-triggered sphingomyelin-ceramide pathway and apoptosis in MDR cells: influence of drug transport abnormalities. Côme MG, et al. **Int J Cancer** 1999 May 17;81(4):580-7

Expression of signal transducing T-cell receptor zeta molecules after adoptive immunotherapy in patients with gastric and colon cancer. Kono K, et al. **Int J Cancer** 1998 Oct 29;78(3):301-5

Signalling by proteolysis: death receptors induce apoptosis. Muzio M. **Int J Clin Lab Res** 1998;28(3):141-7 (53 ref.)

Notch-1 expression levels in 3T3-L1 cells influence ras signaling and transformation by oncogenic ras. Ruiz-Hidalgo MJ, et al. **Int J Oncol** 1999 Apr;14(4):777-83

Hyaluronan activates mitogen-activated protein kinase via Ras-signaling pathway. Serbulea M, et al. **Int J Oncol** 1999 Apr;14(4):733-8

alpha2beta1 integrin signaling via the mitogen activated protein kinase pathway modulates retinoic acid-dependent tumor cell invasion and transcriptional downregulation of matrix metalloproteinase 9 activity. Vo HP, et al. **Int J Oncol** 1998 Dec;13(6):1127-34

Proteinase-activated receptor-2-mediated signaling and inhibition of DNA synthesis in human pancreatic cancer cells. Kaufmann R, et al. **Int J Pancreatol** 1998 Oct; 24(2):97-102

Fibroblast growth factors as multifunctional signaling factors. Szebenyi G, et al. **Int Rev Cytol** 1999;185:45-106 (370 ref.)

An appreciation of molecular biology: signals, receptors, conveyors and processors (editorial). Wolf S. **Integr Physiol Behav Sci** 1998 Oct-Dec;33(4):309-10

Photoreceptor transduction. A new system. Minke B, et al. **Isr J Med Sci** 1973;9 Suppl:114-8

Analysis of cytokine signaling in patients with extrinsic asthma and hyperimmunoglobulin E. Miller RL, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):503-11

Infarct size reduction by AT1-receptor blockade through a signal cascade of AT2-receptor activation, bradykinin and prostaglandins in pigs [published erratum appears in J Am Coll Cardiol 1999 Feb;33(2):591] [see comments] Jalowy A, et al. **J Am Coll Cardiol** 1998 Nov 15; 32(6):1787-96. Comment in: J Am Coll Cardiol 1999 Jul;34(1):310-1.

Does dopamine use several signal pathways to inhibit Na-Pi transport in OK cells? Baines AD, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1604-12

Evidence of splanchnic-brain signaling in inhibition of ingestive behavior by middle molecules. Mamoun AH, et al. **J Am Soc Nephrol** 1999 Feb;10(2):309-14

Regulation of the endogenous NO pathway by prolonged inhaled NO in rats. Frank DU, et al. **J Appl Physiol** 1998 Sep;85(3):1070-8

Involvement of stretch-sensitive calcium flux in mechanical transduction in visceral afferents. Raybould HE, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):1-6

Inhibition of calcium channels by neurokinin receptor and signal transduction in hamster submandibular ganglion cells. Yamada T, et al. **J Auton Nerv Syst** 1999 Apr 16; 76(1):1-8

Mechanisms of insulin resistance in non-oxidative glucose metabolism: the role of glycogen synthase. Beck-Nielsen H. **J Basic Clin Physiol Pharmacol** 1998;9(2-4):255-79 (39 ref.)

The role of G proteins in insulin signalling. Rizzo MA, et al. **J Basic Clin Physiol Pharmacol** 1998;9(2-4):167-95 (159 ref.)

Opposite regulation of tyrosine-phosphorylation of p130(Cas) by insulin and insulin-like growth factor I. Fujita T, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1111-6

Double-stranded RNA-activated protein kinase (PKR) fused to green fluorescent protein induces apoptosis of human embryonic kidney cells: possible role in the Fas signaling pathway. Takizawa T, et al. **J Biochem (Tokyo)** 1999 Feb; 125(2):391-8

Nitric oxide modulates beta(2)-adrenergic receptor palmitoylation and signaling. Adam L, et al. **J Biol Chem** 1999 Sep 10;274(37):26337-43

Mediation of cyclic AMP signaling by the first intracellular loop of the gonadotropin-releasing hormone receptor. Arora KK, et al. **J Biol Chem** 1998 Oct 2;273(40):25581-6

Critical role for STAT3 in murine pituitary adrenocorticotropin hormone leukemia inhibitory factor signaling. Bousquet C, et al. **J Biol Chem** 1999 Apr 16; 274(16):10723-30

Identification of a domain on the integrin alpha5 subunit implicated in cell spreading and signaling. Cao Z, et al. **J Biol Chem** 1998 Nov 27;273(48):31670-9

Role of arrestins in endocytosis and signaling of alpha2-adrenergic receptor subtypes. DeGraff JL, et al. **J Biol Chem** 1999 Apr 16;274(16):11253-9

Heteromeric and homomeric transforming growth factor-beta receptors show distinct signaling and endocytic responses in epithelial cells. Doré JJ Jr, et al. **J Biol Chem** 1998 Nov 27;273(48):31770-7

Multiple ras effector pathways contribute to G(1) cell cycle progression. Gille H, et al. **J Biol Chem** 1999 Jul 30; 274(31):22033-40

RGSZ1, a Gz-selective regulator of G protein signaling whose action is sensitive to the phosphorylation state of Gzalpha. Glick JL, et al. **J Biol Chem** 1998 Oct 2; 273(40):26008-13

A novel mitogenic signaling pathway of bradykinin in the human colon carcinoma cell line SW-480 involves sequential activation of a Gq/11 protein, phosphatidylinositol 3-kinase beta, and protein kinase Cepsilon. Graness A, et al. **J Biol Chem** 1998 Nov 27; 273(48):32016-22

Protein-tyrosine phosphatase Shp-1 is a negative regulator of IL-4- and IL-13-dependent signal transduction. Haque SJ, et al. **J Biol Chem** 1998 Dec 18;273(51):33893-6

Identification of the rat adapter Grb14 as an inhibitor of insulin actions. Kasus-Jacobi A, et al. **J Biol Chem** 1998 Oct 2;273(40):26026-35

Insulin receptor substrate 2 and Shc play different roles in insulin-like growth factor I signaling. Kim B, et al. **J Biol Chem** 1998 Dec 18;273(51):34543-50

Calpain mediates integrin-induced signaling at a point upstream of Rho family members. Kulkarni S, et al. **J Biol Chem** 1999 Jul 23;274(30):21265-75

G(i) protein-mediated functional compartmentalization of cardiac beta(2)-adrenergic signaling. Kuschel M, et al. **J Biol Chem** 1999 Jul 30;274(31):22048-52

Insulin receptor substrate-1 as a signaling molecule for focal adhesion kinase pp125(FAK) and pp60(src). Lebrun P, et al. **J Biol Chem** 1998 Nov 27;273(48):32244-53

Differential regulation of direct repeat 3 vitamin D3 and direct repeat 4 thyroid hormone signaling pathways by the human TR4 orphan receptor. Lee YF, et al. **J Biol Chem** 1999 Jun 4;274(23):16198-205

Extracellular matrix selectively modulates the response of mammary epithelial cells to different soluble signaling ligands. Lee YJ, et al. **J Biol Chem** 1999 Aug 6; 274(32):22401-8

Specific activation of Smad1 signaling pathways by the BMP7 type I receptor, ALK2. Macias-Silva M, et al. **J Biol Chem** 1998 Oct 2;273(40):25628-36

Differential fMet-Leu-Phe- and platelet-activating factor-induced signaling toward Ral activation in primary human neutrophils. M'Rabet L, et al. **J Biol Chem** 1999 Jul 30;274(31):21847-52

Interaction between CD45-AP and protein-tyrosine kinases involved in T cell receptor signaling. Motoya S, et al. **J Biol Chem** 1999 Jan 15;274(3):1407-14

Differential regulation of phospholipase A2 (PLA2)-dependent Ca2+ signaling in smooth muscle by cAMP- and cGMP-dependent protein kinases. Inhibitory phosphorylation of PLA2 by cyclic nucleotide-dependent protein kinases. Murthy KS, et al. **J Biol Chem** 1998 Dec 18;273(51):34519-26

Cellular physiology of STAT3: Where's the cytoplasmic monomer? Ndubuisi MI, et al. **J Biol Chem** 1999 Sep 3; 274(36):25499-509

Membrane interactions of a constitutively active GFP-Ki-Ras 4B and their role in signaling. Evidence from lateral mobility studies. Niv H, et al. **J Biol Chem** 1999 Jan 15;274(3):1606-13

Regulation of cAMP-mediated signal transduction via interaction of caveolins with the catalytic subunit of protein kinase A. Razani B, et al. **J Biol Chem** 1999 Sep 10; 274(37):26353-60

The carboxyl tail of protease-activated receptor-1 is required for chemotaxis. Correlation of signal termination and directional migration. Sambrano GR, et al. **J Biol Chem** 1999 Jul 16;274(29):20178-84

Ret-dependent and -independent mechanisms of glial cell line-derived neurotrophic factor signaling in neuronal cells. Trupp M, et al. **J Biol Chem** 1999 Jul 23;274(30):20885-94

The nuclear cap-binding complex is a novel target of growth factor receptor-coupled signal transduction. Wilson KF, et al. **J Biol Chem** 1999 Feb 12;274(7):4166-73

A lymphoma growth inhibitor blocks some but not all prolactin-stimulated signaling pathways. Yamashita H, et al. **J Biol Chem** 1999 May 21;274(21):14699-705

Identification and characterization of a novel line of Drosophila Schneider S2 cells that respond to wingless signaling. Yanagawa S, et al. **J Biol Chem** 1998 Nov 27; 273(48):32353-9

Cross-talk between janus kinase-signal transducer and activator of transcription (JAK-STAT) and peroxisome proliferator-activated receptor-alpha (PPARalpha) signaling pathways. Growth hormone inhibition of pparalpha transcriptional activity mediated by stat5b. Zhou YC, et al. **J Biol Chem** 1999 Jan 29;274(5):2672-81

Signaling reactions induced in human fibroblasts during adhesion to cementum-derived attachment protein. Saito M, et al. **J Bone Miner Res** 1999 Jan;14(1):65-72

Dual signaling and ligand selectivity of the human PTH/PTHrP receptor. Takasu H, et al. **J Bone Miner Res** 1999 Jan;14(1):11-20

Signal transduction in ischemic preconditioning: the role of kinases and mitochondrial K(ATP) channels. Baines CP, et al. **J Cardiovasc Electrophysiol** 1999 May;10(5):741-54 (111 ref.)

Junctional communication between isolated pairs of canine atrial cells is mediated by homogeneous and heterogeneous gap junction channels. Elenes S, et al. **J Cardiovasc Electrophysiol** 1999 Jul;10(7):990-1004

Signaling mechanisms and molecular characteristics of G protein-coupled receptors for lysophosphatidic acid and sphingosine 1-phosphate. An S, et al. **J Cell Biochem Suppl** 1998;30-31:147-57 (46 ref.)

Signal transduction by transforming growth factor-beta: a cooperative paradigm with extensive negative regulation. Engel ME, et al. **J Cell Biochem Suppl** 1998;30-31:111-22 (61 ref.)

Oligosaccharide signaling of plant cells. Etzler ME. **J Cell Biochem Suppl** 1998;30-31:123-8 (35 ref.)

In search of cellular control: signal transduction in context. Ingber D. **J Cell Biochem Suppl** 1998;30-31:232-7 (32 ref.)

G-protein regulatory pathways: rocketing into the twenty-first century. Knall C, et al. **J Cell Biochem Suppl** 1998;30-31:137-46 (72 ref.)

A role for cadherins in cellular signaling and differentiation. Knudsen KA, et al. **J Cell Biochem Suppl** 1998; 30-31:168-76 (47 ref.)

A complex web of signal-dependent trafficking underlies the triorganellar distribution of P-selectin in neuroendocrine PC12 cells. Blagoveshchenskaya AD, et al. **J Cell Biol** 1999 Jun 28;145(7):1419-33

Spindle checkpoint protein Xmad1 recruits Xmad2 to unattached kinetochores. Chen RH, et al. **J Cell Biol** 1998 Oct 19;143(2):283-95

Extracellular matrix survival signals transduced by focal adhesion kinase suppress p53-mediated apoptosis. Ilić D, et al. **J Cell Biol** 1998 Oct 19;143(2):547-60

Reconstitution of mammary gland development in vitro: requirement of c-met and c-erbB2 signaling for branching and alveolar morphogenesis. Niemann C, et al. **J Cell Biol** 1998 Oct 19;143(2):533-45

Growth factors in the nucleolus? Pederson T. **J Cell Biol** 1998 Oct 19;143(2):279-81 (39 ref.)

Similarities and differences in RANTES- and (AOP)-RANTES-triggered signals: implications for chemotaxis. Rodriguez-Frade JM, et al. **J Cell Biol** 1999 Feb 22;144(4):755-65

Quantitative changes in integrin and focal adhesion signaling regulate myoblast cell cycle withdrawal. Sastry SK, et al. **J Cell Biol** 1999 Mar 22;144(6):1295-309

A role for caveolin and the urokinase receptor in integrin-mediated adhesion and signaling. Wei Y, et al. **J Cell Biol** 1999 Mar 22;144(6):1285-94

Intracellular targeting of the endoplasmic reticulum/nuclear envelope by retrograde transport may determine cell hypersensitivity to verotoxin via globotriaosyl ceramide fatty acid isoform traffic. Arab S, et al. **J Cell Physiol** 1998 Dec;177(4):646-60

Steps in integrin beta1-chain glycosylation mediated by TGFbeta1 signaling through Ras. Bellis SL, et al. **J Cell Physiol** 1999 Oct;181(1):33-44

Down-regulation of epidermal growth factor receptor-signaling pathway by binding of GRP78/BiP to the receptor under glucose-starved stress conditions. Cai B, et al. **J Cell Physiol** 1998 Nov;177(2):282-8

Protein tyrosine phosphatases as negative regulators of mitogenic signaling. Chernoff J. **J Cell Physiol** 1999 Aug; 180(2):173-81 (94 ref.)

Integrins interact with focal adhesions through multiple distinct pathways. David FS, et al. **J Cell Physiol** 1999 Oct;181(1):74-82

Comparative effects of TGFbeta on proliferation of 7- and 14-day-old chick embryo fibroblasts and lack of involvement of the ODC/PA system in the TGFbeta signaling pathway. Evangelisti R, et al. **J Cell Physiol** 1999 Mar;178(3):304-10

Physiological signals and oncogenesis mediated through Crk family adapter proteins. Feller SM, et al. **J Cell Physiol** 1998 Dec;177(4):535-52 (229 ref.)

Enterocytic differentiation of the human Caco-2 cell line correlates with alterations in integrin signaling. Lévy P, et al. **J Cell Physiol** 1998 Dec;177(4):618-27

Activation of the cAMP signaling pathway increases apoptosis in human B-precursor cells and is associated with downregulation of Mcl-1 expression. Myklebust JH, et al. **J Cell Physiol** 1999 Jul;180(1):71-80

Signal transduction pathways in the mitogenic response to G protein-coupled neuropeptide receptor agonists. Rozengurt E. **J Cell Physiol** 1998 Dec;177(4):507-17 (129 ref.)

Intracellular signaling of osteogenic protein-1 through Smad5 activation. Tamaki K, et al. **J Cell Physiol** 1998 Nov;177(2):355-63

Cloning and expression of a rat Smad1: regulation by TGFbeta and modulation by the Ras/MEK pathway. Yue J, et al. **J Cell Physiol** 1999 Mar;178(3):387-96

Signal-mediated nuclear transport in the amoeba. Feldherr CM, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):2043-8

A nuclear localization signal can enhance both the nuclear transport and expression of 1 kb DNA. Ludtke JJ, et al. **J Cell Sci** 1999 Jun;112 (Pt 12):2033-41

The tyrosinase tail mediates sorting to the lysosomal compartment in MDCK cells via a di-leucine and a tyrosine-based signal. Simmen T, et al. **J Cell Sci** 1999 Jan;112 (Pt 1):45-53

Identification of connexin43 as a functional target for Wnt signalling. van der Heyden MA, et al. **J Cell Sci** 1998 Jun; 111 (Pt 12):1741-9

Recent advances in the understanding of interleukin-2 signal transduction. Gesbert F, et al. **J Clin Immunol** 1998 Sep; 18(5):307-20 (123 ref.)

Preprocholecystokinin mRNA-expressing neurons in the rat parabrachial nucleus: subnuclear localization, efferent projection, and expression of nociceptive-related intracellular signaling substances. Hermanson O, et al. **J Comp Neurol** 1998 Oct 19;400(2):255-70

Signals in stochastically generated neurons. Winslow JL, et al. **J Comput Neurosci** 1999 Jan;6(1):5-26

Loss of sensitivity to insulin at early events of the insulin signaling pathway in the liver of growth hormone-transgenic mice. Dominici FP, et al. **J Endocrinol** 1999 Jun;161(3):383-92

Regulation of growth hormone secretion by signals produced by the adipose tissue. Pombo M, et al. **J Endocrinol Invest** 1999;22(5 Suppl):22-6 (28 ref.)

ZAP-70 protein promotes tyrosine phosphorylation of T cell receptor signaling motifs (ITAMs) in immature CD4(+)8(+) thymocytes with limiting p56(lck). Ashe JM, et al. **J Exp Med** 1999 Apr 5;189(7):1163-8

TRANCE, a tumor necrosis factor family member critical for CD40 ligand-independent T helper cell activation [see comments] Bachmann MF, et al. **J Exp Med** 1999 Apr 5;189(7):1025-31. Comment in: J Exp Med 1999 Apr 5;189(7):1017-20.

Augmentation of antigen receptor-mediated responses by histamine H1 receptor signaling. Banu Y, et al. **J Exp Med** 1999 Feb 15;189(4):673-82

TRANCE-RANK, a new signal pathway involved in lymphocyte development and T cell activation [comment] Green EA, et al. **J Exp Med** 1999 Apr 5;189(7):1017-20 . Comment on: J Exp Med 1999 Apr 5;189(7):1025-31.

Defective interleukin (IL)-18-mediated natural killer and T helper cell type 1 responses in IL-1 receptor-associated kinase (IRAK)-deficient mice. Kanakaraj P, et al. **J Exp Med** 1999 Apr 5;189(7):1129-38

Dendritic cell survival and maturation are regulated by different signaling pathways. Rescigno M, et al. **J Exp Med** 1998 Dec 7;188(11):2175-80

Signal transduction during liver regeneration. Brenner DA. **J Gastroenterol Hepatol** 1998 Sep;13 Suppl:S93-5 (11 ref.)

The mechanisms of hepatic sinusoidal endothelial cell regeneration: a possible communication system associated with vascular endothelial growth factor in liver cells. Mochida S, et al. **J Gastroenterol Hepatol** 1998 Sep;13 Suppl:S1-5

New kid on the block: a role for the Na/Ca exchanger in odor transduction [comment] Dionne VE. **J Gen Physiol** 1998 Nov;112(5):527-8 (5 ref.). Comment on: J Gen Physiol 1998 Nov;112(5):529-35.

Regulators of G protein signaling attenuate the G protein-mediated inhibition of N-type Ca channels. Melliti K, et al. **J Gen Physiol** 1999 Jan;113(1):97-110

Analysis of signal transduction pathways regulating cytokine-mediated Fc receptor activation on human eosinophils. Bracke M, et al. **J Immunol** 1998 Dec 15; 161(12):6768-74

Antagonistic roles for phospholipase D activities in B cell signaling: while the antigen receptors transduce mitogenic signals via a novel phospholipase D activity, phosphatidylcholine-phospholipase D mediates antiproliferative signals. Gilbert JJ, et al. **J Immunol** 1998 Dec 15;161(12):6575-84

MEK and ERK activation in ras-disabled RBL-2H3 mast cells and novel roles for geranylgeranylated and farnesylated proteins in Fc epsilonRI-mediated signaling. Graham TE, et al. **J Immunol** 1998 Dec 15;161(12):6733-44

Uncoupling activation-dependent HS1 phosphorylation from nuclear factor of activated T cells transcriptional activation in Jurkat T cells: differential signaling through CD3 and the costimulatory receptors CD2 and CD28. Hutchcroft JE, et al. **J Immunol** 1998 Nov 1;161(9):4506-12

Differential requirements for ZAP-70 in TCR signaling and T cell development. Kadlecek TA, et al. **J Immunol** 1998 Nov 1;161(9):4688-94

Characterization of fractalkine in rat brain cells: migratory and activation signals for CX3CR-1-expressing microglia. Maciejewski-Lenoir D, et al. **J Immunol** 1999 Aug 1; 163(3):1628-35

Dependence of both spontaneous and antibody-dependent, granule exocytosis-mediated NK cell cytotoxicity on extracellular signal-regulated kinases. Trotta R, et al. **J Immunol** 1998 Dec 15;161(12):6648-56

Nitric oxide synthase plays a signaling role in TCR-triggered apoptotic death. Williams MS, et al. **J Immunol** 1998 Dec 15;161(12):6526-31

NF-kappaB activation in CD27 signaling: involvement of TNF receptor-associated factors in its signaling and identification of functional region of CD27. Yamamoto H, et al. **J Immunol** 1998 Nov 1;161(9):4753-9

Polyethylene glycol-mediated infection of non-permissive mammalian cells with semliki forest virus: application to signal transduction studies. Arudchandran R, et al. **J Immunol Methods** 1999 Jan 1;222(1-2):197-208

Sphingolipids and cell signalling. Fredman P. **J Inherit Metab Dis** 1998 Aug;21(5):472-80 (38 ref.)

The interleukin-10 signal transduction pathway and regulation of gene expression in mononuclear phagocytes. Donnelly RP, et al. **J Interferon Cytokine Res** 1999 Jun; 19(6):563-73 (82 ref.)

Increased inducible activation of NF-kappaB and responsive genes in astrocytes deficient in the protein tyrosine phosphatase SHP-1. Massa PT, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):499-507

Death domain receptors and their role in cell demise. Singh A, et al. **J Interferon Cytokine Res** 1998 Jul;18(7):439-50 (129 ref.)

Binding of interleukin-18 to the interleukin-1 receptor homologous receptor IL-1Rrp1 leads to activation of signaling pathways similar to those used by interleukin-1. Thomassen E, et al. **J Interferon Cytokine Res** 1998 Dec; 18(12):1077-88

Selective DNA-binding activity of interleukin-10-stimulated STAT molecules in human monocytes. Yamaoka K, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):679-85

Evidence for a novel glutamate-mediated signaling pathway in keratinocytes. Genever PG, et al. **J Invest Dermatol** 1999 Mar;112(3):337-42

Pathways for eosinophil lipid body induction: differing signal transduction in cells from normal and hypereosinophilic subjects. Bozza PT, et al. **J Leukoc Biol** 1998 Oct; 64(4):563-9

Signaling in neuropeptide-induced migration of human eosinophils. Dunzendorfer S, et al. **J Leukoc Biol** 1998 Dec; 64(6):828-34

Cbl functions downstream of Src kinases in Fc gamma RI signaling in primary human macrophages. Erdreich-Epstein A, et al. **J Leukoc Biol** 1999 Apr; 65(4):523-34

Chemokines: signal lamps for trafficking of T and B cells for development and effector function. Kim CH, et al. **J Leukoc Biol** 1999 Jan;65(1):6-15 (111 ref.)

Activation of mitogen-activated protein kinase cascades during priming of human neutrophils by TNF-alpha and GM-CSF. McLeish KR, et al. **J Leukoc Biol** 1998 Oct; 64(4):537-45

Bacterial phagocytosis activates extracellular signal-regulated kinase and p38 mitogen-activated protein kinase cascades in human neutrophils. McLeish KR, et al. **J Leukoc Biol** 1998 Dec;64(6):835-44

Involvement of JAK2, but not PI 3-kinase/Akt and MAP kinase pathways, in anti-apoptotic signals of GM-CSF in human eosinophils. Miike S, et al. **J Leukoc Biol** 1999 May; 65(5):700-6

Altered signal pathway in granulocytes from patients with hypercholesterolemia. Paragh G, et al. **J Lipid Res** 1999 Sep;40(9):1728-33

Modulation of the plasma membrane Ca2+ pump. Penniston JT, et al. **J Membr Biol** 1998 Sep 15;165(2):101-9 (59 ref.)

The insulin signaling pathway. Taha C, et al. **J Membr Biol** 1999 May 1;169(1):1-12 (175 ref.)

Integrin signaling: tyrosine phosphorylation events in focal adhesions. Vuori K. **J Membr Biol** 1998 Oct 1;165(3):191-9 (125 ref.)

Signal transmission between subunits in the hemoglobin T-state. Englander JJ, et al. **J Mol Biol** 1998 Dec 18; 284(5):1707-16

Threonine phosphorylation of modulator protein RsbR governs its ability to regulate a serine kinase in the environmental stress signaling pathway of Bacillus subtilis. Gaidenko TA, et al. **J Mol Biol** 1999 Apr 23;288(1):29-39

Regulation of vascular smooth muscle migration by mitogen-activated protein kinase and calcium/calmodulin-dependent protein kinase II signaling pathways. Lundberg MS, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2377-89

Activation of a beta-adrenergic-sensitive signal transduction pathway by the secosteroid hormone 1,25-(OH)2-vitamin D3 in chick heart. Santillán GE, et al. **J Mol Cell Cardiol** 1999 May;31(5):1095-104

Activation of alpha1-adrenergic receptor during Ca2+ pre-conditioning elicits strong protection against Ca2+ overload injury via protein kinase C signaling pathway. Wang Y, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2423-35

Effects of endothelin-1 on Ca2+ signaling in guinea-pig ventricular myocytes: role of protein kinase C. Woo SH, et al. **J Mol Cell Cardiol** 1999 Mar;31(3):631-43

Retinoid signaling and activator protein-1 expression in ferrets given beta-carotene supplements and exposed to tobacco smoke [see comments] Wang XD, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):60-6. Comment in: J Natl Cancer Inst 1999 Jan 6;91(1):7-9.

Prominent 85-kDa oligomannosidic glycoproteins of rat brain are signal regulatory proteins and include the SHP substrate-1 for tyrosine phosphatases. Bartoszewicz ZP, et al. **J Neurochem** 1999 Apr;72(4):1688-93

Glia modulate NMDA-mediated signaling in primary cultures of cerebellar granule cells. Beaman-Hall CM, et al. **J Neurochem** 1998 Nov;71(5):1993-2005

Hydrogen peroxide activation of multiple mitogen-activated protein kinases in an oligodendrocyte cell line: role of extracellular signal-regulated kinase in hydrogen peroxide-induced cell death. Bhat NR, et al. **J Neurochem** 1999 Jan;72(1):112-9

Expression and signaling of group I metabotropic glutamate receptors in astrocytes and microglia. Biber K, et al. **J Neurochem** 1999 Apr;72(4):1671-80

Association of the dystroglycan complex isolated from bovine brain synaptosomes with proteins involved in signal transduction. Cavaldesi M, et al. **J Neurochem** 1999 Apr; 72(4):1648-55

G Protein-coupled cyclic AMP signaling in postmortem brain of subjects with mood disorders: effects of diagnosis, suicide, and treatment at the time of death. Dowlatshahi D, et al. **J Neurochem** 1999 Sep;73(3):1121-6

Different signalling pathways mediate the opposite effects of endogenous versus exogenous nitric oxide on hydroperoxide toxicity in CHP100 neuroblastoma cells. Guidarelli A, et al. **J Neurochem** 1999 Oct;73(4):1667-73

Signaling mechanisms involved in the activation of arachidonic acid metabolism in human astrocytoma cells by tumor necrosis factor-alpha: phosphorylation of cytosolic phospholipase A2 and transactivation of cyclooxygenase-2. Hernández M, et al. **J Neurochem** 1999 Oct;73(4):1641-9

Glutathione and signal transduction in the mammalian CNS. Janáky R, et al. **J Neurochem** 1999 Sep;73(3):889-902 (99 ref.)

A novel juxtamembrane deletion in rat TrkA blocks differentiative but not mitogenic cell signaling in response to nerve growth factor. Meakin SO, et al.

J Neurochem 1998 Nov;71(5):1875–88
Wnt signaling induces GLT-1 expression in rat C6 glioma cells. Palos TP, et al. **J Neurochem** 1999 Sep;73(3):1012–23
Regulation of transmembrane signaling by ganglioside GM1: interaction of anti-GM1 with Neuro2a cells. Ravichandra B, et al. **J Neurochem** 1999 Aug;73(2):557–67
Different neuroligands and signal transduction pathways stimulate CREB phosphorylation at specific developmental stages along oligodendrocyte differentiation. Sato-Bigbee C, et al. **J Neurochem** 1999 Jan;72(1):139–47
Requirement of caveolae microdomains in extracellular signal-regulated kinase and focal adhesion kinase activation induced by endothelin-1 in primary astrocytes. Teixeira A, et al. **J Neurochem** 1999 Jan;72(1):120–8
SPARC: a signal of astrocytic neoplastic transformation and reactive response in human primary and xenograft gliomas. Rempel SA, et al. **J Neuropathol Exp Neurol** 1998 Dec; 57(12):1112–21
Analysis of the role of inhibition in shaping responses to sinusoidally amplitude-modulated signals in the inferior colliculus. Burger RM, et al. **J Neurophysiol** 1998 Oct; 80(4):1686–701
Hypothesis for shared central processing of canal and otolith signals. Green AM, et al. **J Neurophysiol** 1998 Oct; 80(4):2222–8
Contribution of supragranular layers to sensory processing and plasticity in adult rat barrel cortex. Huang W, et al. **J Neurophysiol** 1998 Dec;80(6):3261–71
A1 adenosine receptors modulate respiratory activity of the neonatal mouse via the cAMP-mediated signaling pathway. Mironov SL, et al. **J Neurophysiol** 1999 Jan;81(1):247–55
Sour transduction involves activation of NPPB-sensitive conductance in mouse taste cells. Miyamoto T, et al. **J Neurophysiol** 1998 Oct;80(4):1852–9
Changing properties of GABA(A) receptor-mediated signaling during early neocortical development. Owens DF, et al. **J Neurophysiol** 1999 Aug;82(2):570–83
Active signaling of leg loading and unloading in the cockroach. Ridgel AL, et al. **J Neurophysiol** 1999 Mar; 81(3):1432–7
Possible novel mechanism for bitter taste mediated through cGMP. Rosenzweig S, et al. **J Neurophysiol** 1999 Apr; 81(4):1661–5
The anterior thalamic head-direction signal is abolished by bilateral but not unilateral lesions of the lateral mammillary nucleus. Blair HT, et al. **J Neurosci** 1999 Aug 1; 19(15):6673–83
Ceramide signaling downstream of the p75 neurotrophin receptor mediates the effects of nerve growth factor on outgrowth of cultured hippocampal neurons. Brann AB, et al. **J Neurosci** 1999 Oct 1;19(19):8199–206
The amyloid precursor protein interacts with Go heterotrimeric protein within a cell compartment specialized in signal transduction. Brouillet E, et al. **J Neurosci** 1999 Mar 1;19(5):1717–27
Identification of a signaling pathway activated specifically in the somatodendritic compartment by a heparan sulfate that regulates dendrite growth. Calvet S, et al. **J Neurosci** 1998 Dec 1;18(23):9751–65
Identification of microglial signal transduction pathways mediating a neurotoxic response to amyloidogenic fragments of beta-amyloid and prion proteins. Combs CK, et al. **J Neurosci** 1999 Feb 1;19(3):928–39
Citron, a Rho-target, interacts with PSD-95/SAP-90 at glutamatergic synapses in the thalamus. Furuyashiki T, et al. **J Neurosci** 1999 Jan 1;19(1):109–18
Distinct signaling pathways mediate touch and osmosensory responses in a polymodal sensory neuron. Hart AC, et al. **J Neurosci** 1999 Mar 15;19(6):1952–8
Presenilin 1 facilitates the constitutive turnover of beta-catenin: differential activity of Alzheimer's disease-linked PS1 mutants in the beta-catenin-signaling pathway. Kang DE, et al. **J Neurosci** 1999 Jun 1; 19(11):4229–37
Nitric oxide acts as a postsynaptic signaling molecule in calcium/calmodulin-induced synaptic potentiation in hippocampal CA1 pyramidal neurons. Ko GY, et al. **J Neurosci** 1999 Aug 15;19(16):6784–94
Neuron-glia signaling via alpha(1) adrenoceptor-mediated Ca(2+) release in Bergmann glial cells in situ. Kulik A, et al. **J Neurosci** 1999 Oct 1;19(19):8401–8
Inactivation of Rho signaling pathway promotes CNS axon regeneration. Lehmann M, et al. **J Neurosci** 1999 Sep 1; 19(17):7537–47
Signal transfer in passive dendrites with nonuniform membrane conductance. London M, et al. **J Neurosci** 1999 Oct 1;19(19):8219–33
Multiple roles of bone morphogenetic protein signaling in the regulation of cortical cell number and phenotype. Mabie PC, et al. **J Neurosci** 1999 Aug 15;19(16):7077–88
Differentiation of oligodendroglial progenitors derived from cortical multipotent cells requires extrinsic signals including activation of gp130/LIFbeta receptors. Marmur R, et al. **J Neurosci** 1998 Dec 1;18(23):9800–11
Biphasic, opposing modulation of cloned neuronal alpha1E Ca channels by distinct signaling pathways coupled to M2 muscarinic acetylcholine receptors. Meza U, et al. **J Neurosci** 1999 Aug 15;19(16):6806–17
Nature of the retrograde signal from injured nerves that induces interleukin-6 mRNA in neurons. Murphy PG, et al. **J Neurosci** 1999 May 15;19(10):3791–800
Developmental requirement of gp130 signaling in neuronal survival and astrocyte differentiation. Nakashima K, et al. **J Neurosci** 1999 Jul 1;19(13):5429–34
The metabotropic receptor mGluR6 may signal through G(o), but not phosphodiesterase, in retinal bipolar cells. Nawy S. **J Neurosci** 1999 Apr 15;19(8):2938–44
Mitogenic signaling by ATP/P2Y purinergic receptors in astrocytes: involvement of a calcium-independent protein kinase C, extracellular signal-regulated protein kinase pathway distinct from the phosphatidylinositol-specific phospholipase C/calcium pathway. Neary JT, et al. **J Neurosci** 1999 Jun 1;19(11):4211–20
Pituitary adenylate cyclase-activating polypeptide activates a phospholipase C-dependent signal pathway in chick ciliary ganglion neurons that selectively inhibits alpha7-containing nicotinic receptors. Pardi D, et al. **J Neurosci** 1999 Aug 1;19(15):6327–37
The mitogen-activated protein kinase pathway mediates estrogen neuroprotection after glutamate toxicity in primary cortical neurons. Singer CA, et al. **J Neurosci** 1999 Apr 1;19(7):2455–63
Estrogen-induced activation of mitogen-activated protein kinase in cerebral cortical explants: convergence of estrogen and neurotrophin signaling pathways. Singh M, et al. **J Neurosci** 1999 Feb 15;19(4):1179–88
Overlapping and divergent actions of estrogen and the neurotrophins on cell fate and p53-dependent signal transduction in conditionally immortalized cerebral cortical neuroblasts. Wade SB, et al. **J Neurosci** 1999 Aug 15; 19(16):6994–7006
A model of signal processing at a mammalian sympathetic neurone. Sacchi O, et al. **J Neurosci Methods** 1998 Apr 30;80(2):171–80
Membrane properties that shape the auditory code in three nuclei of the central nervous system. Schwarz DW, et al. **J Otolaryngol** 1998 Dec;27(6):311–7
A tyrosine kinase signaling pathway, regulated by calcium entry and dissociated from tyrosine phosphorylation of phospholipase Cgamma-1, is involved in inositol phosphate production by activated G protein-coupled receptors in myometrium. Palmier B, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1022–30
A-Current down-modulated by sigma receptor in frog pituitary melanotrope cells through a G protein-dependent pathway. Soriani O, et al. **J Pharmacol Exp Ther** 1999 Apr; 289(1):321–8
Recent progress in insulin signal transduction. Hei YJ. **J Pharmacol Toxicol Methods** 1998 Oct;40(3):123–35 (95 ref.)
The cAMP transduction cascade mediates the PGE2-induced inhibition of potassium currents in rat sensory neurones. Evans AR, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):163–78
Overexpression of nerve growth factor in the heart alters ion channel activity and beta-adrenergic signalling in an adult transgenic mouse. Heath BM, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):779–91
Integrin and cytoskeletal involvement in signalling cell volume changes to glutamine transport in rat skeletal muscle. Low SY, et al. **J Physiol (Lond)** 1998 Oct 15;512 (Pt 2):481–5
Regulation of gene expression by trans-synaptic activity: a role for the transcription factor NF-kappa B. Gisiger V. **J Physiol Paris** 1998 Jun-Aug;92(3-4):163–6 (35 ref.)
Specificity of signaling by hematopoietic cytokine receptors: instructive versus permissive effects. Skoda RC. **J Recept Signal Transduct Res** 1999 Jan-Jul;19(1-4):741–72 (163 ref.)
Sex hormone-binding globulin mediates steroid hormone signal transduction at the plasma membrane. Rosner W, et al. **J Steroid Biochem Mol Biol** 1999 Apr-Jun; 69(1-6):481–5 (26 ref.)
Spatial patterning via PTP adhesive phosphatases. Cummings FW. **J Theor Biol** 1999 Jan 7;196(1):19–26
Waves of pattern formation and signal pathways. Cummings FW. **J Theor Biol** 1999 Jan 7;196(1):27–31
A continuum analysis of the chemotactic signal seen by Dictyostelium discoideum. Dallon JC, et al. **J Theor Biol** 1998 Oct 21;194(4):461–83
Analysis of receptor internalization as a mechanism for modulating signal transduction. Haugh JM, et al. **J Theor Biol** 1998 Nov 21;195(2):187–218
Cell behaviour as a dynamic attractor in the intracellular signalling system. James A, et al. **J Theor Biol** 1999 Feb 7;196(3):269–88
Network vascular communication initiated by increases in tissue adenosine. Rivers RJ, et al. **J Vasc Res** 1999 May-Jun;36(3):193–200
Intra- and intercellular Ca2+ signaling in paraneurons and other secretory cells. Kanno T. **Jpn J Physiol** 1998 Aug; 48(4):219–27 (73 ref.)
Axoplasmic transport and its signal transduction mechanism. Takenaka T, et al. **Jpn J Physiol** 1998 Dec;48(6):413–20 (20 ref.)
Transforming growth factor beta signal transduction in the kidney. Böttinger EP, et al. **Kidney Blood Press Res** 1998; 21(2-4):259–61 (19 ref.)
Activation of mesangial cell signaling cascades in response to mechanical strain. Ingram AJ, et al. **Kidney Int** 1999 Feb;55(2):476–85
Pleiotropic effects of hepatocyte growth factor in proximal tubule involve different signaling pathways. Jehle PM, et al. **Kidney Int Suppl** 1998 Sep;67:S152–4
Identification of ceramide targets in interleukin-1 and tumor necrosis factor-alpha signaling in mesangial cells. Pfeilschifter J, et al. **Kidney Int Suppl** 1998 Sep;67:S34–9 (34 ref.)
Luminal signal in tubuloglomerular feedback: what about potassium? Vallon V, et al. **Kidney Int Suppl** 1998 Sep; 67:S177–9 (11 ref.)
Complement as a promiscuous signal transduction device. Asghar SS, et al. **Lab Invest** 1998 Oct;78(10):1203–25 (157 ref.)
Recent advances in the molecular basis of TNF signal transduction. Ledgerwood EC, et al. **Lab Invest** 1999 Sep; 79(9):1041–50 (113 ref.)
Potential roles of metalloprotease mediated ectodomain cleavage in signaling by the endothelial receptor tyrosine kinase Tie-1. McCarthy MJ, et al. **Lab Invest** 1999 Jul; 79(7):889–95
Signaling mechanisms mediating BDNF modulation of synaptic plasticity in the hippocampus. Gottschalk WA, et al. **Learn Mem** 1999 May-Jun;6(3):243–56
Signal transduction, cell cycle regulatory, and anti-apoptotic pathways regulated by IL-3 in hematopoietic cells: possible sites for intervention with anti-neoplastic drugs. Blalock WL, et al. **Leukemia** 1999 Aug;13(8):1109–66 (871 ref.)
The roles of signaling by the p42/p44 mitogen-activated protein (MAP) kinase pathway; a potential route to radio- and chemo-sensitization of tumor cells resulting in the induction of apoptosis and loss of clonogenicity. Dent P, et al. **Leukemia** 1998 Dec;12(12):1843–50 (114 ref.)
Phosphorylation substrates and altered signalling in leukemias caused by BCR/ABL. Groffen J, et al. **Leukemia** 1999 Apr; 13 Suppl 1:S81–2
Lack of constitutive activation of MAP kinase pathway in human acute myeloid leukemia cells with N-Ras mutation. Iida M, et al. **Leukemia** 1999 Apr;13(4):585–9
Suppression of G-CSF-mediated Stat signalling by IL-3. Steinman RA, et al. **Leukemia** 1999 Jan;13(1):54–61
The CIS/JAB family: novel negative regulators of JAK signaling pathways. Yoshimura A. **Leukemia** 1998 Dec; 12(12):1851–7 (47 ref.)
Lithium homeostasis in Xenopus oocytes: implications for the study of signal transduction. Gomez JR, et al. **Life Sci** 1998;63(19):1715–24
Mathematical modelling of juxtacrine cell signalling. Owen MR, et al. **Math Biosci** 1998 Nov;153(2):125–50
Modulation of Hedgehog target gene expression by the Fused serine-threonine kinase in wing imaginal discs. Alves G, et al. **Mech Dev** 1998 Nov;78(1-2):17–31
Protein-tyrosine phosphatases in development. den Hertog J. **Mech Dev** 1999 Jul;85(1-2):3–14 (117 ref.)
Cloning and characterization of Sel-11, a murine homolog of the C. elegans sel-1 gene. Donoviel DB, et al. **Mech Dev** 1998 Nov;78(1-2):203–7
Requirement for EphA receptor signaling in the segregation of Xenopus third and fourth arch neural crest cells. Helbling PM, et al. **Mech Dev** 1998 Nov;78(1-2):63–79
The Notch signalling pathway in hair growth. Powell BC, et al. **Mech Dev** 1998 Nov;78(1-2):189–92
In vitro system to study role of blood flow on nitric oxide production and cell signaling in endothelial cells. Go YM, et al. **Methods Enzymol** 1999;301:513–22
Signal transduction through ion channels associated with excitatory amino acid receptors. Ogita K, et al. **Methods Enzymol** 1999;294:385–410
Probing the role of H-Ras lipidation for signaling functions in Xenopus laevis oocytes. Dudler T, et al. **Methods Mol Biol** 1999;116:161–76 (19 ref.)
Cell shape and integrin signaling regulate the differentiation state of mammary epithelial cells. Somasiri A, et al. **Methods Mol Biol** 1999;129:271–83
Trks: signal transduction and intracellular pathways. Klesse LJ, et al. **Microsc Res Tech** 1999 May 15-Jun 1; 45(4-5):210–6 (73 ref.)
Changes in NMDA receptor/nitric oxide signaling pathway in the brain with aging. Yamada K, et al. **Microsc Res Tech** 1998 Oct 1;43(1):68–74 (75 ref.)
Selection of gbeta subunits with point mutations that fail to activate specific signaling pathways in vivo: dissecting cellular responses mediated by a heterotrimeric G protein in Dictyostelium discoideum. Jin T, et al. **Mol Biol Cell** 1998 Oct;9(10):2949–61
Kinase activity-dependent nuclear export opposes stress-induced nuclear accumulation and retention of Hog1 mitogen-activated protein kinase in the budding yeast Saccharomyces cerevisiae. Reiser V, et al. **Mol Biol Cell** 1999 Apr;10(4):1147–61
Actin filaments and microtubules are involved in different membrane traffic pathways that transport sphingolipids to the apical surface of polarized HepG2 cells. Zegers MM, et al. **Mol Biol Cell** 1998 Jul;9(7):1939–49
Phosphorylation of the nuclear receptor SF-1 modulates cofactor recruitment: integration of hormone signaling in reproduction and stress. Hammer GD, et al. **Mol Cell** 1999 Apr;3(4):521–6
Pim-1 kinase and p100 cooperate to enhance c-Myb activity. Leverson JD, et al. **Mol Cell** 1998 Oct;2(4):417–25
The Drosophila protein Dof is specifically required for FGF signaling [published erratum appears in Mol Cell 1999 Apr;3(4):following 540] Vincent S, et al. **Mol Cell** 1998 Oct;2(4):515–25
Insulin signal transduction through protein kinase cascades. Avruch J. **Mol Cell Biochem** 1998 May;182(1-2):31–48 (211

ref.)
Protein-tyrosine phosphatase-1B acts as a negative regulator of insulin signal transduction. Byon JC, et al. **Mol Cell Biochem** 1998 May;182(1-2):101-8 (51 ref.)
Insulin receptor internalization and signalling. Di Guglielmo GM, et al. **Mol Cell Biochem** 1998 May;182(1-2):59-63 (41 ref.)
Regulation of the insulin signalling pathway by cellular protein-tyrosine phosphatases. Goldstein BJ, et al. **Mol Cell Biochem** 1998 May;182(1-2):91-9 (74 ref.)
Binding of SH2 containing proteins to the insulin receptor: a new way for modulating insulin signalling. Liu F, et al. **Mol Cell Biochem** 1998 May;182(1-2):73-8 (42 ref.)
Role of binding proteins to IRS-1 in insulin signalling. Ogawa W, et al. **Mol Cell Biochem** 1998 May;182(1-2):13-22 (108 ref.)
A Ras-dependent pathway regulates RNA polymerase II phosphorylation in cardiac myocytes: implications for cardiac hypertrophy. Abdellatif M, et al. **Mol Cell Biol** 1998 Nov;18(11):6729-36
Bradykinin B(2) receptor-mediated mitogen-activated protein kinase activation in COS-7 cells requires dual signaling via both protein kinase C pathway and epidermal growth factor receptor transactivation. Adomeit A, et al. **Mol Cell Biol** 1999 Aug;19(8):5289-97
Engagement of the cellular receptor for glycoprotein B of human cytomegalovirus activates the interferon-responsive pathway. Boyle KA, et al. **Mol Cell Biol** 1999 May; 19(5):3607-13
Protein kinase A-dependent and -independent signaling pathways contribute to cyclic AMP-stimulated proliferation. Cass LA, et al. **Mol Cell Biol** 1999 Sep; 19(9):5882-91
B-Raf inhibits programmed cell death downstream of cytochrome c release from mitochondria by activating the MEK/Erk pathway. Erhardt P, et al. **Mol Cell Biol** 1999 Aug;19(8):5308-15
Enhancement of beta-globin locus control region-mediated transactivation by mitogen-activated protein kinases through stochastic and graded mechanisms. Forsberg EC, et al. **Mol Cell Biol** 1999 Aug;19(8):5565-75
The Wnt/Wg signal transducer beta-catenin controls fibronectin expression. Gradl D, et al. **Mol Cell Biol** 1999 Aug;19(8):5576-87
Neutrophils stimulated with a variety of chemoattractants exhibit rapid activation of p21-activated kinases (Paks): separate signals are required for activation and inactivation of paks. Huang R, et al. **Mol Cell Biol** 1998 Dec; 18(12):7130-8
Akt/Protein kinase B inhibits cell death by preventing the release of cytochrome c from mitochondria. Kennedy SG, et al. **Mol Cell Biol** 1999 Aug;19(8):5800-10
Dual signaling role of the protein tyrosine phosphatase SHP-2 in regulating expression of acute-phase plasma proteins by interleukin-6 cytokine receptors in hepatic cells. Kim H, et al. **Mol Cell Biol** 1999 Aug;19(8):5326-38
Ssy1p and Ptr3p are plasma membrane components of a yeast system that senses extracellular amino acids. Klasson H, et al. **Mol Cell Biol** 1999 Aug;19(8):5405-16
Akt-dependent and -independent survival signaling pathways utilized by insulin-like growth factor I. Kulik G, et al. **Mol Cell Biol** 1998 Nov;18(11):6711-8
Signaling from polyomavirus middle T and small T defines different roles for protein phosphatase 2A. Mullane KP, et al. **Mol Cell Biol** 1998 Dec;18(12):7556-64
A function for phosphatidylinositol 3-kinase beta (p85alpha-p110beta) in fibroblasts during mitogenesis: requirement for insulin- and lysophosphatidic acid-mediated signal transduction. Roche S, et al. **Mol Cell Biol** 1998 Dec;18(12):7119-29
Kinase suppressor of Ras forms a multiprotein signaling complex and modulates MEK localization. Stewart S, et al. **Mol Cell Biol** 1999 Aug;19(8):5523-34
Cyclic-GMP-dependent protein kinase inhibits the Ras/Mitogen-activated protein kinase pathway. Suhasini M, et al. **Mol Cell Biol** 1998 Dec;18(12):6983-94
Raf-1 physically interacts with Rb and regulates its function: a link between mitogenic signaling and cell cycle regulation. Wang S, et al. **Mol Cell Biol** 1998 Dec; 18(12):7487-98
The ubiquitin system in gametogenesis. Baarends WM, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):5-16 (120 ref.)
A role for NAD+ and cADP-ribose in melatonin signal transduction. Bubis M, et al. **Mol Cell Endocrinol** 1998 Feb; 137(1):59-67
Estrogen receptor binding to estrogen response elements slows ligand dissociation and synergistically activates reporter gene expression. Klinge CM. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):99-111
New insights into adipokinetic hormone signaling. Vroemen SF, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):7-12 (40 ref.)
Retinoid signaling in immortalized and carcinoma-derived human uroepithelial cells. Waliszewski P, et al. **Mol Cell Endocrinol** 1999 Feb 25;148(1-2):55-65
GDNF family neurotrophic factor signaling: four masters, one servant? Airaksinen MS, et al. **Mol Cell Neurosci** 1999 May;13(5):313-25 (117 ref.)
The role of ErbB receptor signaling in cell fate decisions by cortical progenitors: evidence for a biased, lineage-based responsiveness to different ligands. Eagleson KL, et al. **Mol Cell Neurosci** 1998 Dec;12(6):349-62
Rapid phosphorylation of Elk-1 transcription factor and activation of MAP kinase signal transduction pathways in response to visual stimulation. Kaminska B, et al. **Mol Cell Neurosci** 1999 Jun;13(6):405-14
Distinct neurite outgrowth signaling pathways converge on ERK activation. Perron JC, et al. **Mol Cell Neurosci** 1999 May;13(5):362-78
Transcriptional regulation of the beta-casein gene by cytokines: cross-talk between STAT5 and other signaling molecules. Chida D, et al. **Mol Endocrinol** 1998 Nov; 12(11):1792-806
Down-regulation of liver JAK2-STAT5b signaling by the female plasma pattern of continuous growth hormone stimulation. Gebert CA, et al. **Mol Endocrinol** 1999 Feb; 13(2):213-27
Effects of dystrophin isoforms on signal transduction through neural retina: genotype-phenotype analysis of duchenne muscular dystrophy mouse mutants. Pillers DA, et al. **Mol Genet Metab** 1999 Feb;66(2):100-10
Neuronal signaling systems and ethanol dependence. Pandey SC. **Mol Neurobiol** 1998 Winter;17(1-3):1-15 (100 ref.)
Spontaneous beta(2)-adrenergic signaling fails to modulate L-type Ca(2+) current in mouse ventricular myocytes. Zhou YY, et al. **Mol Pharmacol** 1999 Sep;56(3):485-93
Calcium tsunamis: do astrocytes transmit cell death messages via gap junctions during ischemia? [news; comment] Budd SL, et al. **Nat Neurosci** 1998 Oct;1(6):431-2. Comment on: Nat Neurosci 1998 Oct;1(6):494-500.
Dissociation of visual, motor and predictive signals in parietal cortex during visual guidance. Eskandar EN, et al. **Nat Neurosci** 1999 Jan;2(1):88-93
Transduction of temporal patterns by single neurons [see comments] Hooper SL. **Nat Neurosci** 1998 Dec;1(8):720-6 . Comment in: Nat Neurosci 1998 Dec;1(8):643-5.
Mechanoelectrical transduction assisted by Brownian motion: a role for noise in the auditory system. Jaramillo F, et al. **Nat Neurosci** 1998 Sep;1(5):384-8
Expectation of reward modulates cognitive signals in the basal ganglia. Kawagoe R, et al. **Nat Neurosci** 1998 Sep; 1(5):411-6
He's got rhythm: single neurons signal timing on a scale of seconds [news; comment] Kristan WB Jr. **Nat Neurosci** 1998 Dec;1(8):643-5. Comment on: Nat Neurosci 1998 Dec;1(8):720-6.
The metabolic cost of neural information. Laughlin SB, et al. **Nat Neurosci** 1998 May;1(1):36-41
G-protein-coupled receptors act via protein kinase C and Src to regulate NMDA receptors. Lu WY, et al. **Nat Neurosci** 1999 Apr;2(4):331-8
Hepatocyte growth factor, a versatile signal for developing neurons. Maina F, et al. **Nat Neurosci** 1999 Mar;2(3):213-7 (50 ref.)
How do you feel? Neurotrophins and mechanotransduction [news; comment] Snider WD. **Nat Neurosci** 1998 May; 1(1):5-6. Comment on: Nat Neurosci 1998 May;1(1):42-6.
An antagonist peptide-EPO receptor complex suggests that receptor dimerization is not sufficient for activation [see comments] Livnah O, et al. **Nat Struct Biol** 1998 Nov; 5(11):993-1004. Comment in: Nat Struct Biol 1998 Nov;5(11):938-40.
Cross-talk between peptide- and steroid-mediated signalling pathways: clinical implications. Kumar VL. **Natl Med J India** 1998 Jul-Aug;11(4):178-9
Nobel award stirs up debate on nitric oxide breakthrough [news] [see comments] Howlett R. **Nature** 1998 Oct 15; 395(6703):625-6. Comment in: Nature 1998 Dec 17;396(6712):614.
Signal transduction. Neither straight nor narrow [news; comment] Peifer M. **Nature** 1999 Jul 15;400(6741):213-5. Comment on: Nature 1999 Jul 15;400(6741):271-5. Comment on: Nature 1999 Jul 15;400(6741):276-80. Comment on: Nature 1999 Jul 15;400(6741):281-4.
G-Proteins and their regulators [editorial; comment] Lohse MJ. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jul; 360(1):3-4. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1999 Jul;360(1):5-13. Comment on: Naunyn Schmiedebergs Arch Pharmacol 1999 Jul;360(1):14-26.
New insights into the in vivo function of heterotrimeric G-proteins through gene deletion studies [see comments] Offermanns S. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jul;360(1):5-13 (79 ref.). Comment in: Naunyn Schmiedebergs Arch Pharmacol 1999 Jul;360(1):3-4.
Regulators of G-protein signalling: a novel protein family involved in timely deactivation and desensitization of signalling via heterotrimeric G proteins [see comments] Wieland T, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jul; 360(1):14-26 (112 ref.). Comment in: Naunyn Schmiedebergs Arch Pharmacol 1999 Jul;360(1):3-4.
Integrated regulation of signal coding and plasticity by NMDA receptors at a central synapse. D'Angelo E, et al. **Neural Plast** 1998 Jul-Sep;6(3):8-16 (38 ref.)
Endogenous cannabinoid signaling. Piomelli D, et al. **Neurobiol Dis** 1998 Dec;5(6 Pt B):462-73 (79 ref.)
Regulation of M1 muscarinic receptor-mediated signaling in intact cells by exogenous, but not endogenously produced, nitric oxide. Parsons AM, et al. **Neurochem Res** 1999 Jan; 24(1):85-94
Molecular mechanisms and putative signalling events controlling utrophin expression in mammalian skeletal muscle fibres. Gramolini AO, et al. **Neuromuscul Disord** 1998 Aug;8(6):351-61 (144 ref.)
Artemin, a novel member of the GDNF ligand family, supports peripheral and central neurons and signals through the GFRalpha3-RET receptor complex. Baloh RH, et al. **Neuron** 1998 Dec;21(6):1291-302
Harm's way: polyglutamine repeats and the activation of an apoptotic pathway [comment] Green DR. **Neuron** 1999 Mar;22(3):416-7. Comment on: Neuron 1999 Mar;22(3):623-33.
Regulation of CBP-mediated transcription by neuronal calcium signaling. Hu SC, et al. **Neuron** 1999 Apr; 22(4):799-808
Making new connections: role of ERK/MAP kinase signaling in neuronal plasticity. Impey S, et al. **Neuron** 1999 May; 23(1):11-4 (21 ref.)
Expression of RGS2 alters the coupling of metabotropic glutamate receptor 1a to M-type K+ and N-type Ca2+ channels. Kammermeier PJ, et al. **Neuron** 1999 Apr; 22(4):819-29
Phospholipase C-gamma and phosphoinositide 3-kinase mediate cytoplasmic signaling in nerve growth cone guidance. Ming G, et al. **Neuron** 1999 May;23(1):139-48
Sorting out receptor trafficking [comment] Trimmer JS. **Neuron** 1999 Mar;22(3):411-2. Comment on: Neuron 1999 Mar;22(3):525-36.
Functional dissociation of mu opioid receptor signaling and endocytosis: implications for the biology of opiate tolerance and addiction [see comments] Whistler JL, et al. **Neuron** 1999 Aug;23(4):737-46. Comment in: Neuron 1999 Aug;23(4):629-31.
Semaphorin signaling: a little less per-plexin. Yu HH, et al. **Neuron** 1999 Jan;22(1):11-4 (20 ref.)
A new ER trafficking signal regulates the subunit stoichiometry of plasma membrane K(ATP) channels. Zerangue N, et al. **Neuron** 1999 Mar;22(3):537-48
Evidence for increased GDNF signaling in aged sensory and motor neurons. Ming Y, et al. **Neuroreport** 1999 May 14; 10(7):1529-35
Delayed neuronal cell death in the rat hippocampus is mediated by the mitogen-activated protein kinase signal transduction pathway. Ozawa H, et al. **Neurosci Lett** 1999 Feb 26;262(1):57-60
Primitivism and plasticity of pain--implication of polymodal receptors. Kumazawa T. **Neurosci Res** 1998 Sep;32(1):9-31 (218 ref.)
Constitutive expression of cytoplasmic activator protein-1 with DNA binding activity and responsiveness to ionotropic glutamate signals in the murine hippocampus. Azuma Y, et al. **Neuroscience** 1999;92(4):1295-308
Re-expression of p75NTR by adult motor neurons after axotomy is triggered by retrograde transport of a positive signal from axons regrowing through damaged or denervated peripheral nerve tissue. Bussmann KA, et al. **Neuroscience** 1999;91(1):273-81
Dopamine receptor coupling to adenylyl cyclase in rat olfactory pathway: a combined pharmacological-radioautographic approach. Coronas V, et al. **Neuroscience** 1999 Apr;90(1):69-78
Finding of the endocannabinoid signalling system in Hydra, a very primitive organism: possible role in the feeding response. De Petrocellis L, et al. **Neuroscience** 1999; 92(1):377-87
Differential signaling of glial cell line-derived neurotrophic factor and brain-derived neurotrophic factor in cultured ventral mesencephalic neurons. Feng L, et al. **Neuroscience** 1999;93(1):265-73
Role of mitochondrial dysfunction in calcium signalling alterations in dorsal root ganglion neurons of mice with experimentally-induced diabetes. Kostyuk E, et al. **Neuroscience** 1999 May;90(2):535-41
Fast retrograde effects on neuronal death and dendritic organization in development: the role of calcium influx. Posada A, et al. **Neuroscience** 1999 Mar;89(2):399-408
Intercellular signaling initiated by nitric oxide produced in heat-shocked human glioblastoma cells. Matsumoto H, et al. **Nitric Oxide** 1999;3(2):180-9
Gap junction-mediated intercellular signalling in health and disease. Proceedings of a meeting. London, United Kingdom, 2-5 March 1998. **Novartis Found Symp** 1999; 219:1-284
The oncogenic TEL/PDGFR beta fusion protein induces cell death through JNK/SAPK pathway. Atfi A, et al. **Oncogene** 1999 Jul 1;18(26):3878-85
Activated Raf inhibits avian myogenesis through a MAPK-dependent mechanism. Dorman CM, et al. **Oncogene** 1999 Sep 16;18(37):5167-76
Tyrosine phosphorylation of C-Cbl facilitates adhesion and spreading while suppressing anchorage-independent growth of V-Abl-transformed NIH3T3 fibroblasts. Feshchenko EA, et al. **Oncogene** 1999 Jun 24; 18(25):3703-15
Differential involvement of the CD95 (Fas/APO-1) receptor/ligand system on apoptosis induced by the wild-type p53 gene transfer in human cancer cells. Fukazawa T, et al. **Oncogene** 1999 Apr 1;18(13):2189-99
Regulation of myeloid cell growth by distinct effectors of Ras. Matsuguchi T, et al. **Oncogene** 1998 Nov 26; 17(21):2701-9
Cellular functions of TC10, a Rho family GTPase: regulation of morphology, signal transduction and cell growth. Murphy GA, et al. **Oncogene** 1999 Jul 1;18(26):3831-45
Human T-cell leukemia virus type 1 Tax protein induces the expression of STAT1 and STAT5 genes in T-cells.

Nakamura N, et al. **Oncogene** 1999 Apr 29;18(17):2667-75

Prolonged vs transient roles for early cell cycle signaling components. Rose DW, et al. **Oncogene** 1998 Aug 20; 17(7):889-99

The retinoblastoma susceptibility gene product/Sp1 signalling pathway is modulated by Ca2+/calmodulin kinases II and IV activity. Sohm F, et al. **Oncogene** 1999 Apr 29;18(17):2762-9

The transmembrane protein tyrosine phosphatase RPTPsigma modulates signaling of the epidermal growth factor receptor in A431 cells. Suárez Pestana E, et al. **Oncogene** 1999 Jul 15;18(28):4069-79

Tpl-2 induces IL-2 expression in T-cell lines by triggering multiple signaling pathways that activate NFAT and NF-kappaB. Tsatsanis C, et al. **Oncogene** 1998 Nov 19; 17(20):2609-18

Evidence that downregulation of the M-CSF receptor is not dependent upon receptor kinase activity. Uden M, et al. **Oncogene** 1999 Jul 1;18(26):3846-51

Loss of the exon encoding the juxtamembrane domain is essential for the oncogenic activation of TPR-MET. Vigna E, et al. **Oncogene** 1999 Jul 22;18(29):4275-81

Stress activated protein kinase p38 is involved in IL-6 induced transcriptional activation of STAT3. Zauberman A, et al. **Oncogene** 1999 Jul 1;18(26):3886-93

CD80 and IL-2 signals cooperate in the regression of tumors transplanted in congenitally athymic mice. Sobota V, et al. **Oncol Rep** 1999 May-Jun;6(3):669-73

The extracellular matrix, interstitial fluid and ions as a mechanical signal transducer in articular cartilage. Mow VC, et al. **Osteoarthritis Cartilage** 1999 Jan;7(1):41-58 (81 ref.)

Cell signal transduction through the mitogen-activated protein kinase pathway. Schnaper HW. **Pediatr Nephrol** 1998 Nov;12(9):790-5 (9 ref.)

GABAergic cells and signals in CNS development. Barker JL, et al. **Perspect Dev Neurobiol** 1998;5(2-3):305-22 (56 ref.)

GABA as a developmental signal in the inner retina and optic nerve. Sandell JH. **Perspect Dev Neurobiol** 1998; 5(2-3):269-78 (137 ref.)

Use of replication-deficient adenoviruses to study signal transduction pathways. Muscarinic responses in HSG and HT29 epithelial cell lines are mediated by G protein betagamma-subunits. Poronnik P, et al. **Pflugers Arch** 1999 Jun;438(1):79-85

Signal transduction in the wound response of tomato plants. Bowles D. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29;353(1374):1495-510 (148 ref.)

Signalling of abscisic acid to regulate plant growth. Himmelbach A, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29; 353(1374):1439-44 (77 ref.)

Plant hormone perception and action: a role for G-protein signal transduction? Hooley R. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29; 353(1374):1425-30 (55 ref.)

Signal transduction and ion channels in guard cells. MacRobbie EA. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29;353(1374):1475-88 (87 ref.)

The molecular basis of ethylene signalling in Arabidopsis. Woeste K, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Sep 29;353(1374):1431-8 (66 ref.)

A search for the metabolic signal that sensitizes lateral hypothalamic self-stimulation in food-restricted rats. Cabeza De Vaca S, et al. **Physiol Behav** 1998 Jun 1; 64(3):251-60

Signaling mechanisms underlying the vascular myogenic response. Davis MJ, et al. **Physiol Rev** 1999 Apr; 79(2):387-423 (402 ref.)

Signal transduction from the endoplasmic reticulum to the cell nucleus. Pahl HL. **Physiol Rev** 1999 Jul;79(3):683-701 (117 ref.)

Hepatocyte growth factor/scatter factor-MET signaling in neural crest-derived melanocyte development. Kos L, et al. **Pigment Cell Res** 1999 Feb;12(1):13-21

A history of stress alters drought calcium signalling pathways in Arabidopsis. Knight H, et al. **Plant J** 1998 Dec; 16(6):681-7

Calcium-dependent signal transduction pathways in plants--phytochrome mechanism of action as an example. Tretyn A. **Pol J Pharmacol** 1999 Mar-Apr;51(2):145-51 (45 ref.)

Dissecting Fas signaling with an altered-specificity death-domain mutant: requirement of FADD binding for apoptosis but not Jun N-terminal kinase activation. Chang HY, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16; 96(4):1252-6

Prolonged activation of the N-methyl-D-aspartate receptor-Ca2+ transduction pathway causes spontaneous recurrent epileptiform discharges in hippocampal neurons in culture. DeLorenzo RJ, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14482-7

Ca2+/calmodulin-kinase II enhances channel conductance of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate type glutamate receptors. Derkach V, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3269-74

Specific intercellular binding of the beta-amyloid precursor protein to the presenilins induces intercellular signaling: its significance for Alzheimer's disease. Dewji NN, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15055-60

Calcium signaling induces acquisition of dendritic cell characteristics in chronic myelogenous leukemia myeloid progenitor cells. Engels FH, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10332-7

Ezrin, a plasma membrane-microfilament linker, signals cell survival through the phosphatidylinositol 3-kinase/Akt pathway. Gautreau A, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7300-5

Myogenic signaling of phosphatidylinositol 3-kinase requires the serine-threonine kinase Akt/protein kinase B. Jiang BH, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2; 96(5):2077-81

Calcium/calmodulin-dependent protein kinase II is associated with the N-methyl-D-aspartate receptor. Leonard AS, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3239-44

Chemokines regulate hippocampal neuronal signaling and gp120 neurotoxicity. Meucci O, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14500-5

Growth factor-mediated Fyn signaling regulates alpha-amino-3- hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor expression in rodent neocortical neurons [published erratum appears in Proc Natl Acad Sci U S A 1999 May 11;96(10):5890] Narisawa-Saito M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2461-6

Schwann cell survival mediated by the signaling phospholipid lysophosphatidic acid. Weiner JA, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5233-8

Reverse genetic analysis of Caenorhabditis elegans presenilins reveals redundant but unequal roles for sel-12 and hop-1 in Notch-pathway signaling. Westlund B, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2497-502

Model of maltose-binding protein/chemoreceptor complex supports intrasubunit signaling mechanism. Zhang Y, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):939-44

Nitric oxide as a signaling molecule in visual system development. Cramer KS, et al. **Prog Brain Res** 1998; 118:101-14 (109 ref.)

Regulation of neuronal nitric oxide synthase and identification of novel nitric oxide signaling pathways. Dawson TM, et al. **Prog Brain Res** 1998;118:3-11 (56 ref.)

Nitric oxide as a retrograde messenger during long-term potentiation in hippocampus. Hawkins RD, et al. **Prog Brain Res** 1998;118:155-72 (137 ref.)

Signal transduction pathways of the human V1-vascular, V2-renal, V3-pituitary vasopressin and oxytocin receptors. Thibonnier M, et al. **Prog Brain Res** 1998;119:147-61 (67 ref.)

Radiation-induced progressive decrease in fluid secretion in rat submandibular glands is related to decreased acinar volume and not impaired calcium signaling. O'Connell AC, et al. **Radiat Res** 1999 Feb;151(2):150-8

Signaling in and regulation of ionizing radiation-induced apoptosis in endothelial cells. Billis W, et al. **Recent Prog Horm Res** 1998;53:85-92; discussion 93 (29 ref.)

Signaling via JAK tyrosine kinases: growth hormone receptor as a model system. Carter-Su C, et al. **Recent Prog Horm Res** 1998;53:61-82; discussion 82-3 (78 ref.)

Nitric oxide signaling: would you believe that a simple free radical could be a second messenger, autacoid, paracrine substance, neurotransmitter, and hormone? Murad F. **Recent Prog Horm Res** 1998;53:43-59; discussion 59-60 (47 ref.)

The IRS-signaling system: a network of docking proteins that mediate insulin and cytokine action. White MF. **Recent Prog Horm Res** 1998;53:119-38 (125 ref.)

Angiotensin AT1 receptor subtypes in the rabbit pulmonary artery. A ligand binding study. Sim MK, et al. **Receptors Channels** 1998;5(6):323-9

On the mechanism of relaxin action: the involvement of adenylyl cyclase signalling system. Kuznetsova L, et al. **Regul Pept** 1999 Mar 17;80(1-2):33-9

Angiotensin II and nitric oxide: a question of balance. Millatt LJ, et al. **Regul Pept** 1999 May 31;81(1-3):1-10 (83 ref.)

Angiotensin II signal transduction pathways. Sayeski PP, et al. **Regul Pept** 1998 Nov 30;78(1-3):19-29 (93 ref.)

Polymorphism and signalling of melatonin receptors. Brydon L, et al. **Reprod Nutr Dev** 1999 May-Jun;39(3):315-24

The death receptors. Peter ME, et al. **Results Probl Cell Differ** 1999;23:25-63 (280 ref.)

Roles of lipid peroxidation in modulation of cellular signaling pathways, cell dysfunction, and death in the nervous system. Keller JN, et al. **Rev Neurosci** 1998;9(2):105-16 (100 ref.)

The insulin receptor and metabolic signaling. Gustafson TA, et al. **Rev Physiol Biochem Pharmacol** 1999;137:71-190 (523 ref.)

Signal transduction and regulation in smooth muscle: problems and progress. Murphy RA. **Rev Physiol Biochem Pharmacol** 1999;134:1-6

Transduction and transmission properties of primary nociceptive afferents. Treede RD. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan;85(1):205-11 (45 ref.)

Regulative development of the sea urchin embryo: signalling cascades and morphogen gradients. Angerer LM, et al. **Semin Cell Dev Biol** 1999 Jun;10(3):327-34 (42 ref.)

Signalling in cell type specification [see comments] Dolan L, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):149-56 (33 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):117-9.

Intersecting signalling and transcriptional pathways in Drosophila heart specification. Frasch M. **Semin Cell Dev Biol** 1999 Feb;10(1):61-71 (45 ref.)

Signaling in pollen-pistil interactions [see comments] Gaude T, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):139-47 (73 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):117-9.

Histone acetyltransferase complexes [see comments] Grant PA, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):169-77 (95 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165-7.

Histone deacetylases: complex transducers of nuclear signals [see comments] Johnson CA, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):179-88 (80 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165-7.

Morphogen propagation and action: towards molecular models. Kerszberg M. **Semin Cell Dev Biol** 1999 Jun; 10(3):297-302 (30 ref.)

Histone acetylation in signal transduction by growth regulatory signals [see comments] Magnaghi-Jaulin L, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):197-203 (105 ref.) . Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165-7.

Modulators of Notch signaling. Panin VM, et al. **Semin Cell Dev Biol** 1998 Dec;9(6):609-17 (83 ref.)

Signalling at a distance: transport of Wingless in the embryonic epidermis of Drosophila. Pfeiffer S, et al. **Semin Cell Dev Biol** 1999 Jun;10(3):303-9 (55 ref.)

Plant development and signalling. Introduction [comment] Scheres B. **Semin Cell Dev Biol** 1999 Apr;10(2):117-9. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):121-9. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):131-7. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):139-47. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):149-56. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):157-64.

MAP kinase-mediated signalling to nucleosomes and immediate-early gene induction [see comments] Thomson S, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):205-14 (77 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):165-7.

Introduction: chromatin--a target for intracellular signalling pathways [comment] Turner BM. **Semin Cell Dev Biol** 1999 Apr;10(2):165-7. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):169-77. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):179-88. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):189-95. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):197-203. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):205-14. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):215-25. Comment on: Semin Cell Dev Biol 1999 Apr;10(2):227-35.

Signalling in plant embryos during the establishment of the polar axis [see comments] Vroemen C, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):157-64 (55 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):117-9.

Alterations of G-protein and adenylate cyclase signaling in rat liver during the progression of sepsis. Wu LL, et al. **Shock** 1999 Jan;11(1):39-43

Rapid effects of 1,25(OH)2 vitamin D3 on signal transduction systems in colonic cells. Sitrin MD, et al. **Steroids** 1999 Jan-Feb;64(1-2):137-42 (21 ref.)

Function from structure? The crystal structure of human phosphatidylethanolamine-binding protein suggests a role in membrane signal transduction. Banfield MJ, et al. **Structure** 1998 Oct 15;6(10):1245-54

High energy exchange: proteins that make or break phosphoramidate bonds. Robinson VL, et al. **Structure Fold Des** 1999 Mar 15;7(3):R47-53 (24 ref.)

Lipidic signaling and peroxisomal function. Masters C. **Subcell Biochem** 1998;30:437-52 (35 ref.)

The regulation of gene expression in myocardial ischemia. Schaper W. **Thorac Cardiovasc Surg** 1998 Sep;46 Suppl 2:277-80; discussion 281 (21 ref.)

Evidence for two distinct G-protein-coupled ADP receptors mediating platelet activation. Jantzen HM, et al. **Thromb Haemost** 1999 Jan;81(1):111-7

Abnormal tyrosine phosphorylation linked to a defective interaction between ADP and its receptor on platelets. Lévy-Toledano S, et al. **Thromb Haemost** 1998 Sep; 80(3):463-8

A Glanzmann thrombasthenia-like phenotype caused by a defect in inside-out signaling through the integrin alpha(IIb)beta3. Tomiyama Y, et al. **Thromb Haemost** 1998 Nov;80(5):735-42

Clustering of integrin alphaIIb-beta3 differently regulates tyrosine phosphorylation of pp72syk, PLCgamma2 and pp125FAK in concanavalin A-stimulated platelets. Torti M, et al. **Thromb Haemost** 1999 Jan;81(1):124-30

Suppression of protein kinase C is associated with inhibition of PYK2 tyrosine phosphorylation and enhancement of PYK2 interaction with Src in thrombin-activated platelets. Ohmori T, et al. **Thromb Res** 1999 Mar 15;93(6):291-8

The extracellular signal-regulated kinase pathway contributes to mitogenic and antiapoptotic effects of peroxisome proliferators in vitro. Mounho BJ, et al. **Toxicol Appl Pharmacol** 1999 Sep 1;159(2):125-33

Mechanisms of ligand-induced aryl hydrocarbon receptor-mediated biochemical and toxic responses [see comments] Wilson CL, et al. **Toxicol Pathol** 1998 Sep-Oct; 26(5):657-71 (200 ref.). Comment in: Toxicol Pathol 1998 Sep-Oct;26(5):672-3.

Attenuation of IL-2 receptor signaling by CD4-ligation requires polymerized cytoskeletal actin but not P56LCK.

Goebel J, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):822-4

Preservation of livers from non-heart-beating donors: modulation of cAMP signal and organ viability by glucagon. Minor T, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):1068

Enhancement of endogenous cyclic AMP signal: a new approach to allow for cold preservation of rat livers from non-heart-beating donors? Minor T, et al. **Transplantation** 1998 Oct 27;66(8):990-4

p21-activated protein kinase: a crucial component of morphological signaling? Daniels RH, et al. **Trends Biochem Sci** 1999 Sep;24(9):350-5 (50 ref.)

Gq signaling in cardiac adaptation and maladaptation. Dorn GW 2nd, et al. **Trends Cardiovasc Med** 1999 Jan-Feb; 9(1-2):26-34 (84 ref.)

RGS proteins: more than just GAPs for heterotrimeric G proteins. De Vries L, et al. **Trends Cell Biol** 1999 Apr; 9(4):138-44 (67 ref.)

Integrin affinity modulation. Hughes PE, et al. **Trends Cell Biol** 1998 Sep;8(9):359-64 (64 ref.)

Integrins take partners: cross-talk between integrins and other membrane receptors. Porter JC, et al. **Trends Cell Biol** 1998 Oct;8(10):390-6 (57 ref.)

Regulation of Smad signalling by protein associations and signalling crosstalk. Zhang Y, et al. **Trends Cell Biol** 1999 Jul;9(7):274-9 (60 ref.)

Feasting, fasting and fermenting. Glucose sensing in yeast and other cells. Johnston M. **Trends Genet** 1999 Jan; 15(1):29-33 (82 ref.)

WNT targets. Repression and activation. Nusse R. **Trends Genet** 1999 Jan;15(1):1-3 (25 ref.)

Signaling specificity: the RTK/RAS/MAP kinase pathway in metazoans. Tan PB, et al. **Trends Genet** 1999 Apr; 15(4):145-9 (39 ref.)

Characterizing complex chemosensors: information-theoretic analysis of olfactory systems. Alkasab TK, et al. **Trends Neurosci** 1999 Mar;22(3):102-8

Signalling through the JAK-STAT pathway in the developing brain. Cattaneo E, et al. **Trends Neurosci** 1999 Aug;22(8):365-9 (82 ref.)

Is the Ras-MAPK signalling pathway necessary for long-term memory formation? Orban PC, et al. **Trends Neurosci** 1999 Jan;22(1):38-44 (90 ref.)

GABAB receptors make it to the top--as dimers. Möhler H, et al. **Trends Pharmacol Sci** 1999 Mar;20(3):87-9

Noise removal at the rod synapse of mammalian retina. van Rossum MC, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):809-21

Interaction between rod and cone signals in responses of lateral geniculate neurons in dichromatic marmosets (Callithrix jacchus). Weiss S, et al. **Vis Neurosci** 1998 Sep-Oct;15(5):931-43

[Nod factors, chemical signal exchange between bacteria and leguminous plants in nitrogen fixing symbiosis] Promé JC. **Ann Pharm Fr** 1999 May;57(3):240-5 (Eng. Abstr.) **(Fre)**

[Electrophysiology and calcium signalling in human bronchial smooth muscle] Marthan R, et al. **Therapie** 1999 Jan-Feb;54(1):79-83 (29 ref.) (Eng. Abstr.) **(Fre)**

[Signaling by melatonin receptors] Petit L, et al. **Therapie** 1998 Sep-Oct;53(5):421-8 (55 ref.) (Eng. Abstr.) **(Fre)**

[Cellular mechanisms of anesthesia--from unitary theory to nitric oxide mediated signal transduction (editorial; comment)] Schulte am Esch J. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Feb; 34(2):77. Comment on: Anasthesiol Intensivmed Notfallmed Schmer 1999 Feb;34(2):78-89. **(Ger)**

[The NO/cGMP signal transduction system: a central target for anesthetics? (see comments)] Tonner PH, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Feb; 34(2):78-89 (145 ref.) (Eng. Abstr.). Comment in: Anasthesiol Intensivmed Notfallmed Schmer 1999 Feb;34(2):77. **(Ger)**

[Age related changes in cellular signal transduction of glucocorticoid hormones in rat brain] Martin R, et al. **Z Gerontol Geriatr** 1999 Apr;32(2):76-82 (Eng. Abstr.) **(Ger)**

[The role of mitochondria in apoptosis in U937 and molt-4 cells: difference in order of mitochondrial membrane potential (delta psi m) reduction and interleukin-1 beta-converting enzyme (ICE) on signal transduction pathway in each cell type] Kawaguchi M, et al. **Gan To Kagaku Ryoho** 1999 Apr;26(5):679-85 (Eng. Abstr.) **(Jpn)**

[Signaling molecules involved in induction and early patterning of limb buds] Kawakami Y, et al. **Kaibogaku Zasshi** 1998 Dec;73(6):655-66 (97 ref.) (Eng. Abstr.) **(Jpn)**

[Molecular biology and molecular genetics in otorhinolaryngology-- taste receptors and a molecular theory of signal transduction] Abe K. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Nov;101(11):1358-61 **(Jpn)**

[Recent progress in the molecular biology of receptors and intra-cellular signal transduction] Kaziro Y. **Nippon Rinsho** 1998 Jul;56(7):1651-7 (6 ref.) (Eng. Abstr.) **(Jpn)**

[T cell receptor and its related molecules in signal transduction] Kobata T, et al. **Nippon Rinsho** 1999 Feb; 57(2):273-7 (25 ref.) (Eng. Abstr.) **(Jpn)**

[Recent progresses in the JAK-STAT signaling pathways] Nakajima K. **Nippon Rinsho** 1998 Jul;56(7):1763-72 (55 ref.) (Eng. Abstr.) **(Jpn)**

[The signal transduction of receptor tyrosine kinase] Takada T, et al. **Nippon Rinsho** 1998 Jul;56(7):1756-62 (Eng. Abstr.) **(Jpn)**

[Signal transduction systems of angiotensin II receptors] Takeuchi K. **Nippon Rinsho** 1999 May;57(5):1070-7 (30 ref.) (Eng. Abstr.) **(Jpn)**

[Signal transduction of serotonin release from enterochromaffin cells in mouse ileal crypts] Hirafuji M, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:133P-137P (Eng. Abstr.) **(Jpn)**

[Signal transduction through ATP receptors in brain and the development of new drugs] Inoue K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:36P-40P (15 ref.) (Eng. Abstr.) **(Jpn)**

[Thromboxane A2 receptor-mediated signal transduction in glial cells] Nakahata N, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:113P-117P (Eng. Abstr.) **(Jpn)**

[Facilitatory actions of the cognitive enhancer nefiracetam on neuronal Ca2+ channels and nicotinic ACh receptors: their intracellular signal transduction pathways] Yoshii M, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:41P-43P (5 ref.) (Eng. Abstr.) **(Jpn)**

[Cellular signal transduction via the neurofibromatosis type 2 tumor suppressor gene product; merlin] Araki N, et al. **Seikagaku** 1999 Feb;71(2):128-34 (18 ref.) **(Jpn)**

[Cyclic ADP-ribose as a second messenger--intramembrane signal transduction from receptors to ADP-ribosyl cyclase] Higashida H, et al. **Seikagaku** 1998 Nov;70(11):1326-34 (79 ref.) **(Jpn)**

[Integrin signal transduction via FAK in osteoblasts--early differentiation triggered by osteopontin] Nemoto A, et al. **Seikagaku** 1999 Feb;71(2):140-5 (17 ref.) **(Jpn)**

[Signal transduction through receptor serine/threonine kinases and its regulation] Tsuchida K. **Seikagaku** 1998 Dec;70(12):1430-5 (14 ref.) **(Jpn)**

[Evidence for a Ras/Ral signaling cascade] Urano T. **Seikagaku** 1998 Sep;70(9):1181-3 (15 ref.) **(Jpn)**

[Signalling roles for selectins] Yoshida M. **Seikagaku** 1998 Oct;70(10):1270-4 (16 ref.) **(Jpn)**

[Cellular recognition through glyco-chain signals involved in differentiation and pathogenesis] Irimura T. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2540-1 (0 ref.) **(Jpn)**

[Phosphatidylinositol kinase: functional roles for PI4-kinase and PIP kinase in signal transduction] Itoh T, et al. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):949-60 (80 ref.) **(Jpn)**

[Diciphering mechanisms for glyco-chain signals--introduction] Kawasaki T. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2426-7 (3 ref.) **(Jpn)**

[Structural biology for PH and other domains involved in signal transduction] Koshiba S, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):368-79 (76 ref.) **(Jpn)**

[His-Asp phosphotransfer signal transduction] Mizuno T. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):412-20 (16 ref.) **(Jpn)**

[Membrane lipid signaling system participating in intracellular signal transduction--General concept] Nozawa Y. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):947-8 (12 ref.) **(Jpn)**

[Platelet activation] Oda A, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1863-9 (12 ref.) **(Jpn)**

[A signal transducer involved in GalCer expression] Ogura K, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2516-21 (21 ref.) **(Jpn)**

[Bioactive glyco-chains and cis-type signalling--introduction] Saito M. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2484-7 (5 ref.) **(Jpn)**

[Multi-photon excitation fluorescence microscopy and its application to the studies of intracellular signal transduction] Sako Y. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1927-30 (11 ref.) **(Jpn)**

[Oligosaccharides as the elicitor signal for the activation of defense system in plants] Shibuya N, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2531-9 (58 ref.) **(Jpn)**

[Production Mechanisms for glyco-chain signals: recent advances in molecular studies on glyco-chain producing machineries--introduction] Suzuki A. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2335-7 (0 ref.) **(Jpn)**

[Production mechanisms for glyco-chain signals: changes of signaling and functions by sugar remodeling--introduction] Taniguchi N. **Tanpakushitsu Kakusan Koso** 1998 Dec;43(16 Suppl):2273-4 (0 ref.) **(Jpn)**

[Signal transmission in plant cells; plasma membrane receptors] Barańska J. **Postepy Biochem** 1998;44(3):201-8 (38 ref.) **(Pol)**

[The role of the endosome in insulin signal transmission (published erratum appears in Postepy Biochem 1999;45(1):4)] Bobeszko M, et al. **Postepy Biochem** 1998; 44(3):263-5 (11 ref.) **(Pol)**

[Signalling function of G proteins insensitive to PTX in the cell] Lachowicz A, et al. **Postepy Biochem** 1998;44(2):164-9 (65 ref.) **(Pol)**

[Signal transduction of nerve growth factor (NGF) and its TrkA and p75NTR receptors] Niewiadomska G, et al. **Postepy Biochem** 1999;45(1):21-31 (79 ref.) **(Pol)**

[Cross-talk between signal transduction pathways in the cell-- the role of G proteins in these processes] Barańska J. **Postepy Hig Med Dosw** 1999;53(2):133-46 (29 ref.) (Eng. Abstr.) **(Pol)**

[Signal transmission by Fc gamma receptors] Lisowski J. **Postepy Hig Med Dosw** 1999;53(2):195-203 (43 ref.) (Eng. Abstr.) **(Pol)**

[Does the universal "signal transduction pathway of differentiation" exist? Comparison of different cell differentiation experimental models with differentiation of HL-60 cells in response to 1,25-dihydroxyvitamin D3] Marcinkowska E. **Postepy Hig Med Dosw** 1999; 53(2):305-13 (32 ref.) (Eng. Abstr.) **(Pol)**

[Electric signals as universal mechanisms for fast information transfer between cells. Mechanisms of modulation in physiological and pathological conditions] Mozrzymas JW. **Postepy Hig Med Dosw** 1999;53(2):247-61 (14 ref.) (Eng. Abstr.) **(Pol)**

[Signal transduction mechanisms induced by epidermal growth factor receptor (EGFR) and their role in apoptosis regulation] Oldak M, et al. **Postepy Hig Med Dosw** 1999; 53(2):315-29 (78 ref.) (Eng. Abstr.) **(Pol)**

[Signal transduction in the cell by phosphoinositide-specific phospholipase C isozymes] Pawełczyk T. **Postepy Hig Med Dosw** 1999;53(2):173-82 (40 ref.) (Eng. Abstr.) **(Pol)**

[Disturbance of signalling pathways for apoptosis in thymic lymphomas from TCR transgenic mice] Strzadała L. **Postepy Hig Med Dosw** 1999;53(2):345-50 (15 ref.) (Eng. Abstr.) **(Pol)**

[Signal suppression of gene recombination with beta chain T-cell antigen receptor--mechanism for allelic exclusion] Swat W. **Postepy Hig Med Dosw** 1999;53(2):343-4 **(Pol)**

[Impaired signal transduction in T-lymphocytes of the aged] Witkowski JM. **Postepy Hig Med Dosw** 1999;53(2):365-82 (85 ref.) (Eng. Abstr.) **(Pol)**

[The role of nitric oxide in transferring a signal between cells] Turpaev KT. **Mol Biol (Mosk)** 1998 Jul-Aug;32(4):581-91 (105 ref.) **(Rus)**

[Endoplasmic reticulum and mitochondria as elements of mechanism of intracellular signaling in neurons] Kostiuk PG, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Oct; 84(10):979-84 (14 ref.) (Eng. Abstr.) **(Rus)**

[Proteins of the Stat family: role in cell signalling] Evdonin AL. **Tsitologiia** 1998;40(12):1053-62 (108 ref.) (Eng. Abstr.) **(Rus)**

[The transcription factor STAT3 is associated with elements of the cytoskeleton in A-431 cells] Evdonin AL, et al. **Tsitologiia** 1998;40(12):1070-3 (Eng. Abstr.) **(Rus)**

[The stat pathway in intracellular signalling] Nikol'skii NN. **Tsitologiia** 1998;40(12):1050-2 (Eng. Abstr.) **(Rus)**

[Transcription factors STAT1 and STAT3 are localized in different compartments of rat embryo fibroblasts transformed by E1A and Ha-Ras oncogenes] Poselova TV, et al. **Tsitologiia** 1998;40(12):1074-9 (Eng. Abstr.) **(Rus)**

[Intact microtubule network is necessary for the EGF-induced transport of transcription factor STAT1 in the nucleus of A-431 cells] Vasilenko KP, et al. **Tsitologiia** 1998;40(12):1063-9 (Eng. Abstr.) **(Rus)**

[New mechanism of insulin signal transduction: participation of the adenylate cyclase signal system in growth stimulating insulin effect] Plesneva SA, et al. **Zh Evol Biokhim Fiziol** 1998 Sep-Oct;34(5):529-38 **(Rus)**

[Steroid hormones, signal transduction, genetic expression, and gynecologic cancer] Beato M. **Med Clin (Barc)** 1999 May 29;112(19):745-54 **(Spa)**

[Changes in calcium signaling in mammalian nociceptive neurons in diabetes mellitus] Voitenko NV, et al. **Fiziol Zh** 1999;45(4):48-54 (Eng. Abstr.) **(Ukr)**

[The C(27)-steroid hormones ecdysterone and calcitriol activate the phosphoinositol cycle in its membrane phase] Kotsiuruba AV, et al. **Ukr Biokhim Zh** 1999 Jan-Feb; 71(1):27-32 (Eng. Abstr.) **(Ukr)**

RADIATION EFFECTS

Cellular signal adaptation with damage control at low doses versus the predominance of DNA damage at high doses. Feinendegen LE, et al. **C R Acad Sci III** 1999 Feb-Mar; 322(2-3):245-51 (58 ref.)

Radiation-induced signal transduction. Mechanisms and consequences. Herrlich P, et al. **C R Acad Sci III** 1999 Feb-Mar;322(2-3):121-5 (22 ref.)

Photomophogenesis: Phytochrome takes a partner! Whitelam GC, et al. **Curr Biol** 1999 Mar 25;9(6):R225-7 (16 ref.)

New developments in the multi-site phosphorylation and integration of stress signalling at p53. Meek DW. **Int J Radiat Biol** 1998 Dec;74(6):729-37 (84 ref.)

Ionizing radiation-induced MEK and Erk activation does not enhance survival of irradiated human squamous carcinoma cells. Bonner JA, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):921-5

Inactivation of protein-tyrosine phosphatases as mechanism of UV-induced signal transduction. Gross S, et al. **J Biol Chem** 1999 Sep 10;274(37):26378-86

Histone H1 dephosphorylation is mediated through a radiation-induced signal transduction pathway dependent on ATM. Guo CY, et al. **J Biol Chem** 1999 Jun 25; 274(26):18715-20

Impaired ionizing radiation-induced activation of a nuclear signal essential for phosphorylation of c-Jun by dually

phosphorylated c-Jun amino-terminal kinases in ataxia telangiectasia fibroblasts. Lee SA, et al. **J Biol Chem** 1998 Dec 4;273(49):32889-94

Molecular mechanisms of photoaging and its prevention by retinoic acid: ultraviolet irradiation induces MAP kinase signal transduction cascades that induce Ap-1-regulated matrix metalloproteinases that degrade human skin in vivo. Fisher GJ, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):61-8 (48 ref.)

The tyrosine kinase lck is required for CD95-independent caspase-8 activation and apoptosis in response to ionizing radiation. Belka C, et al. **Oncogene** 1999 Sep 2; 18(35):4983-92

A novel ionizing radiation-induced signaling pathway that activates the transcription factor NF-kappaB. Lee SJ, et al. **Oncogene** 1998 Oct 8;17(14):1821-6

Poly(ADP-ribosyl)ation is required for p53-dependent signal transduction induced by radiation. Wang X, et al. **Oncogene** 1998 Dec 3;17(22):2819-25

Radiation-induced signal transduction and stress response. Haimovitz-Friedman A. **Radiat Res** 1998 Nov;150(5 Suppl):S102-8 (75 ref.)

Radiation-induced progressive decrease in fluid secretion in rat submandibular glands is related to decreased acinar volume and not impaired calcium signaling. O'Connell AC, et al. **Radiat Res** 1999 Feb;151(2):150-8

Monitoring and signaling of radiation-induced damage in mammalian cells. Szumiel I. **Radiat Res** 1998 Nov;150(5 Suppl):S92-101 (95 ref.)

Signalling in light-controlled development [see comments] Deng XW, et al. **Semin Cell Dev Biol** 1999 Apr;10(2):121-9 (71 ref.). Comment in: Semin Cell Dev Biol 1999 Apr;10(2):117-9.

SIGNAL TRANSDUCTION, LIGHT see **PHOTOTRANSDUCTION**

SILAGE

Behavioral, nutritional, and toxicological responses of cattle to ensiled leafy spurge. Heemstra JM, et al. **J Anim Sci** 1999 Mar;77(3):600-10

Effect of reconstituting field-dried and early-harvested sorghum grain on the ensiling characteristics of the grain and on growth performance and carcass merit of feedlot heifers. Huck GL, et al. **J Anim Sci** 1999 May;77(5):1074-81

Influence of particle size on the effectiveness of the fiber in corn silage. Clark PW, et al. **J Dairy Sci** 1999 Mar; 82(3):581-8

Different techniques to study rumen fermentation characteristics of maturing grass and grass silage. Cone JW, et al. **J Dairy Sci** 1999 May;82(5):957-66

Relationships among absorbents on the reduction of grass silage effluent and silage quality. Fransen SC, et al. **J Dairy Sci** 1998 Oct;81(10):2633-44

Development of a novel system to estimate protein degradability in legume and grass silages. Hoffman PC, et al. **J Dairy Sci** 1999 Apr;82(4):771-9

True absorption of calcium and phosphorus from corn silage fed to nonlactating, pregnant dairy cows. Martz FA, et al. **J Dairy Sci** 1999 Mar;82(3):618-22

Effects of brown midrib 3 mutation in corn silage on dry matter intake and productivity of high yielding dairy cows. Oba M, et al. **J Dairy Sci** 1999 Jan;82(1):135-42

Influence of genotype and ensiling of corn grain on in situ degradation of starch in the rumen. Philippeau C, et al. **J Dairy Sci** 1998 Aug;81(8):2178-84

Starch and stage of maturity of grass silage: site of digestion and intestinal nutrient supply in dairy cows. van Vuuren AM, et al. **J Dairy Sci** 1999 Jan;82(1):143-52

Exposure of calves to nitrogen dioxide in silage gas [see comments] O'Kiely P, et al. **Vet Rec** 1999 Mar 27; 144(13):352-3. Comment in: Vet Rec 1999 Jun 5;144(23):652.

[The effect of size reduction of corn silage on feed intake, milk production and milk composition of cows] Preissinger W, et al. **Arch Tierernahr** 1998;51(4):327-39 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Silage clamp hazards [letter; comment] Spence A. **Vet Rec** 1999 Jun 5;144(23):652. Comment on: Vet Rec 1999 Mar 27;144(13):352-3.

ANALYSIS

Prediction of laboratory and in situ protein fractions in legume and grass silages using near-infrared reflectance spectroscopy. Hoffman PC, et al. **J Dairy Sci** 1999 Apr; 82(4):764-70

Biogenic amines in silage, apparent postruminal passage, and the relationship between biogenic amines and digestive function and intake by steers. Phuntsok T, et al. **J Dairy Sci** 1998 Aug;81(8):2193-203

MICROBIOLOGY

Characterization and identification of Pediococcus species isolated from forage crops and their application for silage preparation. Cai Y, et al. **Appl Environ Microbiol** 1999 Jul; 65(7):2901-6

The influence of bacterial inoculants on the microbial ecology of aerobic spoilage of barley silage. Inglis GD, et al. **Can J Microbiol** 1999 Jan;45(1):77-87

Effect of applying lactic acid bacteria isolated from forage crops on fermentation characteristics and aerobic deterioration of silage. Cai Y, et al. **J Dairy Sci** 1999 Mar; 82(3):520-6

A DNA probe for the detection and identification of Bacillus sporothermodurans using the 16S-23S rDNA spacer region and phylogenetic analysis of some field isolates of Bacillus which form highly heat resistant spores. de Silva S, et al. **Syst Appl Microbiol** 1998 Aug;21(3):398-407

SILANES

Update on permeation testing [letter] Strong MC. **Am Ind Hyg Assoc J** 1999 May-Jun;60(3):299

Catalytic properties of lipase entrapped in alkyl-substituted organic silicates. Kawakami K, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:323-6

A mixed resin bed for the quenching and purification of tetrabutylammonium fluoride mediated desilylating reactions. Parlow JJ, et al. **Bioorg Med Chem Lett** 1998 Sep 8;8(17):2391-4

Surface modification based on Si-O and Si-C sublayers and a series of N-substituted acrylamide top-layers for capillary electrophoresis. Gelfi C, et al. **Electrophoresis** 1998 Jul; 19(10):1677-82

Comparison of two different silane compounds used for improving adhesion between fibres and acrylic denture base material. Vallittu PK. **J Oral Rehabil** 1993 Sep;20(5):533-9

NMR relaxation studies of porous sol-gel glasses. Wonorahardjo S, et al. **Magn Reson Imaging** 1998 Jun-Jul; 16(5-6):511-3

CHEMISTRY

New use of cyanosilane coupling agent for direct binding of antibodies to silica supports. Physicochemical characterization of molecularly bioengineered layers. Falipou S, et al. **Bioconjug Chem** 1999 May-Jun; 10(3):346-53

Protein-resistant coatings for glass and metal oxide surfaces derived from oligo(ethylene glycol)-terminated alkytrichlorosilanes. Lee SW, et al. **Biomaterials** 1998 Sep; 19(18):1669-75

Surface modification of nano-apatite by grafting organic polymer. Liu Q, et al. **Biomaterials** 1998 Jun; 19(11-12):1067-72

Sol-gel modification of silicone to induce apatite-forming ability. Oyane A, et al. **Biomaterials** 1999 Jan;20(1):79-84

Alkylsilane-modified surfaces: inhibition of human macrophage adhesion and foreign body giant cell formation. Jenney CR, et al. **J Biomed Mater Res** 1999 Jul;46(1):11-21

Bond strength of acrylic resin to cobalt-chromium alloy treated with the Silicoater MD and Kevloc systems. Pesun S, et al. **J Can Dent Assoc** 1998 Dec;64(11):798-802

Capillary electrophoresis using diol-bonded fused-silica capillaries. Shao X, et al. **J Chromatogr A** 1999 Jan 15; 830(2):415-22

A comparison of 1D and 2D (unbiased) experimental methods for measuring CSA/DD cross-correlated relaxation. Batta G, et al. **J Magn Reson** 1999 Jan;136(1):37-46

Effect of water storage on the silanization in porcelain repair strength. Berry T, et al. **J Oral Rehabil** 1999 Jun; 26(6):459-63

Bond strengths of silicoated and acrylic resin bonding systems to metal. Vojvodic D, et al. **J Prosthet Dent** 1999 Jan; 81(1):1-6

PHARMACOLOGY

Cellular and cytoskeleton morphology and strength of adhesion of cells on self-assembled monolayers of organosilanes. Kapur R, et al. **Exp Cell Res** 1998 Oct 10; 244(1):275-85

RADIATION EFFECTS

General collection efficiency in liquid iso-octane and tetramethylsilane used as sensitive media in a thimble ionization chamber. Johansson BE, et al. **Phys Med Biol** 1999 Sep;44(9):2161-70

SILIBININ see **SILYMARIN**

SILICA see **SILICON DIOXIDE**

SILICATE CEMENT

CHEMISTRY

Finishing and polishing of the ceromer material Targis. Lab-side and chair-side methods. Behr M, et al. **J Oral Rehabil** 1999 Jan;26(1):1-6

SILICATES

Assessment of compomer proximal restorations in primary molars: a retrospective study in children. Mass E, et al. **ASDC J Dent Child** 1999 Mar-Apr;66(2):93-7, 84

Osteoblast biocompatibility of mineral trioxide aggregate. Mitchell PJ, et al. **Biomaterials** 1999 Jan;20(2):167-73

Radon exhalation rates and gamma doses from ceramic tiles. O'Brien RS, et al. **Health Phys** 1998 Dec;75(6):630-9

Transmission electron microscopic study of interface between bioactive bone cement and bone: comparison of apatite and wollastonite containing glass-ceramic filler with hydroxyapatite and beta-tricalcium phosphate fillers. Okada Y, et al. **J Biomed Mater Res** 1999 Jun 15; 45(4):277-84

Site-specific prebiotic oligomerization reactions of glycine on the surface of hectorite. Porter TL, et al. **J Mol Evol** 1998 Oct;47(4):373-7

ADVERSE EFFECTS

Lung function and respiratory health of long-term fiber-exposed stonewool factory workers. Hansen EF, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):466-72

Anti-PL 12 and pulmonary fibrosis in a patient ten years after silica/silicate dust exposure [letter] Osterode W, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):622

ANALYSIS

Fluctuating silicate:nitrate ratios and coastal plankton food webs. Turner RE, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13048-51

16O excesses in olivine inclusions in Yamato-86009 and Murchison chondrites and their relation to CAIs. Hiyagon H, et al. **Science** 1999 Feb 5;283(5403):828-31

CHEMISTRY

Laboratory evaluation of a compomer and a resin-modified glass ionomer cement for orthodontic bonding. Millet DT, et al. **Angle Orthod** 1999 Feb;69(1):58-63; discussion 64

Distribution pattern of rare earth elements in fern: implication for intake of fresh silicate particles by plants. Fu F, et al. **Biol Trace Elem Res** 1998 Summer;64(1-3):13-26

Pharmaceutical grade phyllosilicate dispersions: the influence of shear history on floc structure. Viseras C, et al. **Int J Pharm** 1999 May 10;182(1):7-20

Simultaneous sulfur dioxide and nitrogen dioxide removal by calcium hydroxide and calcium silicate solids. Nelli CH, et al. **J Air Waste Manag Assoc** 1998 Sep;48(9):819-28

Bioactivity of pseudowollastonite in human saliva. De Aza PN, et al. **J Dent** 1999 Feb;27(2):107-13

Fluoride release from orthodontic bonding agents: a comparison of three in vitro models. Monteith VL, et al. **J Dent** 1999 Jan;27(1):53-61

Large-magnitude high-spin nuclear parameters in a Ti3+ center from X-band EPR measurements at 10 K. Tennant WC, et al. **J Magn Reson** 1999 Mar;137(1):122-31

Changes on storage of polyacid-modified composite resins. Nicholson JW, et al. **J Oral Rehabil** 1998 Aug;25(8):616-20

Potentiometric sensor for methylene blue based on methylene blue-silicotungstate ion association and its pharmaceutical applications. Wen ML, et al. **J Pharm Biomed Anal** 1999 Jan;18(6):957-61

Microleakage of Class V resin-modified glass ionomer and compomer restorations. Toledano M, et al. **J Prosthet Dent** 1999 May;81(5):610-5

An infrared spectral match between GEMS and interstellar grains. Bradley JP, et al. **Science** 1999 Sep 10; 285(5434):1716-8

Origin of graphitic carbon and pentlandite in matrix olivines in the Allende meteorite [see comments] Brearley AJ. **Science** 1999 Aug 27;285(5432):1380-2. Comment in: Science 1999 Aug 27;285(5432):1364-5.

Stable five- and six-coordinated silicate anions in aqueous solution. Kinrade SD, et al. **Science** 1999 Sep 3; 285(5433):1542-5

PHARMACOLOGY

Dioctahedral smectite neutralization activity of Clostridium difficile and Bacteroides fragilis toxins in vitro. Martirosian G, et al. **Acta Microbiol Pol** 1998;47(2):177-83

THERAPEUTIC USE

Mineral trioxide aggregate: a new material for endodontics. Schwartz RS, et al. **J Am Dent Assoc** 1999 Jul; 130(7):967-75 (33 ref.)

[Personal experience with administration of Smektit (hydrated magnesium aluminum silicate) in the treatment of diarrhea of non-infectious origin and diarrhea after resection of the large intestine] Lukeš M. **Rozhl Chir** 1999 Apr;78(4):188-90 (Eng. Abstr.) **(Cze)**

TOXICITY

Residual monomer/additive release and variability in cytotoxicity of light-curing glass-ionomer cements and compomers [see comments] Geurtsen W, et al. **J Dent Res** 1998 Dec;77(12):2012-9. Comment in: J Dent Res 1999 Mar;78(3):724.

Some bronchoalveolar lavage parameters and leukocyte cytokine release in response to intratracheal instillation of short and long asbestos and wollastonite fibres in rats. Hurbánková M, et al. **Physiol Res** 1997;46(6):459-66

Wollastonite fibers in vitro generate reactive oxygen species able to lyse erythrocytes and activate the complement alternate pathway. Governa M, et al. **Toxicol Sci** 1998 Jul; 44(1):32-8

SILICIC ACID

ADMINISTRATION & DOSAGE

[The influence of orthosilicon acid on traumatic edema of the skin. Introduction] Klempous J, et al. **Polim Med** 1998; 28(3–4):71–4 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Quantitative comparison of osteoconduction of porous, dense A–W glass–ceramic and hydroxyapatite granules (effects of granule and pore sizes). Ikeda N, et al. **Biomaterials** 1999 Jun;20(12):1087–95

Absorption of ibuprofen coated by anhydrous silicic acid. Aoki S, et al. **Chem Pharm Bull (Tokyo)** 1998 Dec; 46(12):1914–7

Effect of bioactive filler content on mechanical properties and osteoconductivity of bioactive bone cement. Kobayashi M, et al. **J Biomed Mater Res** 1999 Sep 15;46(4):447–57

THERAPEUTIC USE

Patterns of food and acid reflux in patients with low–grade oesophagitis––the role of an anti–reflux agent. Washington N, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):53–8

SILICON

see related

ORGANOSILICON COMPOUNDS

A new forceps for the safe and easier insertion of subdural catheter: technical note. Birbilis T, et al. **Acta Neurochir (Wien)** 1998;140(7):721–2

Electroconducting polymers for the construction of DNA or peptide arrays on silicon chips. Livache T, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):629–34

Neuron–silicon junction with voltage–gated ionic currents. Schätzthauer R, et al. **Eur J Neurosci** 1998 Jun; 10(6):1956–62

Silicon synaptic conductances. Rasche C, et al. **J Comput Neurosci** 1999 Jul–Aug;7(1):33–9

Desorption–ionization mass spectrometry on porous silicon. Wei J, et al. **Nature** 1999 May 20;399(6733):243–6

Chip–based genotyping by mass spectrometry. Tang K, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10016–20

19F/29Si distance determination in fluoride–containing octadecasil by Hartmann–Hahn cross–polarization under fast magic–angle spinning. Bertani P, et al. **Solid State Nucl Magn Reson** 1999 May;13(4):219–29

Application of 29Si and 27Al magic angle spinning nuclear magnetic resonance to studies of the building materials of historical monuments. Cervantes J, et al. **Solid State Nucl Magn Reson** 1999 May;13(4):263–9

[Biocompatibility of glass and silicon] Uhlemann J, et al. **Biomed Tech (Berl)** 1998;43 Suppl:438–40 **(Ger)**

[Frequency of Nd:YAG capsulotomy after implantation of PMMA and silicon intraocular lenses] Pradella SP, et al. **Ophthalmologe** 1998 Jul;95(7):482–5 (Eng. Abstr.) **(Ger)**

[Digital flat image detector technique based on cesium iodide and amorphous silicon: experimental studies and initial clinical results (published erratum appears in Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Mar;170(3):326)] Strotzer M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):66–72 (Eng. Abstr.) **(Ger)**

[Morphological features to be considered as the growth of Mycobacterium leprae Thai–53 strain on a silicon coated slide in a cell–free liquid medium] Nakamura M, et al. **Nihon Hansenbyo Gakkai Zasshi** 1998 Jul;67(2):287–91 (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Copper–silicon interaction studies in young, rapidly growing turkeys fed semipurified starter diets. Kayongo–Male H, et al. **Biol Trace Elem Res** 1998 Sep;63(3):195–204

ADVERSE EFFECTS

Al and Si: their speciation, distribution, and toxicity. van Landeghem GF, et al. **Clin Biochem** 1998 Jul;31(5):385–97 (135 ref.)

Silicon and matrix macromolecules: new research opportunities for old diseases from analysis of potential mechanisms of breast implant toxicity. Brawer AE. **Med Hypotheses** 1998 Jul;51(1):27–35 (46 ref.)

Crystalline silica exposure, radiological silicosis, and lung cancer mortality in diatomaceous earth industry workers. Checkoway H, et al. **Thorax** 1999 Jan;54(1):56–9

[Löfgren syndrome after silicone breast prosthesis implantation] Barzó P, et al. **Orv Hetil** 1998 Sep 27; 139(39):2323–6 (Eng. Abstr.) **(Hun)**

ANALYSIS

Silicon–29 nuclear magnetic resonance spectroscopy detection limits. Knight CT, et al. **Anal Chem** 1999 Jan 1;71(1):265–7

Silicon assays in women with and without silicone gel breast implants––a review. Peters W, et al. **Ann Plast Surg** 1999 Sep;43(3):324–30 (33 ref.)

BLOOD

Silicon and aluminium interactions in haemodialysis patients. Parry R, et al. **Nephrol Dial Transplant** 1998 Jul; 13(7):1759–62

[Changes of the aluminum and silicon contents and cholinergic activity of the blood depending on the course of the gastroduodenal ulcer] Mitsura DI. **Klin Khir** 1999; (5):38–40 (Eng. Abstr.) **(Ukr)**

CHEMISTRY

Proteins and cells on PEG immobilized silicon surfaces. Zhang M, et al. **Biomaterials** 1998 May;19(10):953–60

Perforated silicon nerve chips with doped registration electrodes: in vitro performance and in vivo operation. Wallman L, et al. **IEEE Trans Biomed Eng** 1999 Sep; 46(9):1065–73

In situ growth and characterization of ultrahard thin films. Bengu E, et al. **Microsc Res Tech** 1998 Aug 15; 42(4):295–301

In situ transmission electron microscopy observations of the formation of self–assembled Ge islands on Si. Ross FM, et al. **Microsc Res Tech** 1998 Aug 15;42(4):281–94

Stable five– and six–coordinated silicate anions in aqueous solution. Kinrade SD, et al. **Science** 1999 Sep 3; 285(5433):1542–5

IMMUNOLOGY

The immunopathology of siliconosis. History, clinical presentation, and relation to silicosis and the chemistry of silicon and silicone. Shanklin DR, et al. **Immunol Res** 1998; 18(3):125–73 (552 ref.)

METABOLISM

Silicon bioavailability studies in young rapidly growing rats and turkeys fed semipurified diets: a comparative study. Kayongo–Male H, et al. **Biol Trace Elem Res** 1999 Feb; 67(2):173–86

PHARMACOKINETICS

Al and Si: their speciation, distribution, and toxicity. van Landeghem GF, et al. **Clin Biochem** 1998 Jul;31(5):385–97 (135 ref.)

PHARMACOLOGY

Effects of micromolar concentrations of Mn, Mo, and Si on alpha1–adrenoceptor–mediated contraction in porcine coronary artery. Yan M, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):75–87

Lack of protective effects of dietary silicon on aluminium–induced maternal and developmental toxicity in mice. Bellés M, et al. **Pharmacol Toxicol** 1999 Jul; 85(1):1–6

URINE

Determination of silicon in urine by inductive coupled plasma–optical emission spectroscopy. Widner B, et al. **Clin Chim Acta** 1998 Sep 14;277(1):51–63

SILICON COMPOUNDS

Enhanced proliferation and osteocalcin production by human osteoblast–like MG63 cells on silicon nitride ceramic discs. Kue R, et al. **Biomaterials** 1999 Jul;20(13):1195–201

Silicon–carbide coated coronary stents have low platelet and leukocyte adhesion during platelet activation. Monnink SH, et al. **J Investig Med** 1999 Jul;47(6):304–10

ADVERSE EFFECTS

Influence of fibre length, dissolution and biopersistence on the production of mesothelioma in the rat peritoneal cavity. Miller BG, et al. **Ann Occup Hyg** 1999 Apr;43(3):155–66

ANALYSIS

Coexisting conical bipolar and equatorial outflows from a high–mass protostar. Greenhill LJ, et al. **Nature** 1998 Dec 17;396(6712):650–3

CHEMISTRY

Fracture toughness of hydroxyapatite/mica composite, packed hydroxyapatite, alumina ceramics, silicon nitride and –carbide. Nordström EG, et al. **Biomed Mater Eng** 1998;8(1):37–43

Silicon nitride coating on titanium to enable titanium–ceramic bonding. Wang RR, et al. **J Biomed Mater Res** 1999 Aug; 46(2):262–70

Ceramic whisker reinforcement of dental resin composites. Xu HH, et al. **J Dent Res** 1999 Feb;78(2):706–12

PHARMACOLOGY

Mechanical and histological investigations on pressureless sintered SiC dental implants. Hashiguchi K, et al. **Okajimas Folia Anat Jpn** 1999 Mar;75(6):281–96

TOXICITY

Biocompatibility of silicon carbide in colony formation test in vitro. A promising new ceramic THR implant coating material. Santavirta S, et al. **Arch Orthop Trauma Surg** 1998; 118(1–2):89–91

SILICON DIOXIDE

Surveillance of respirable crystalline silica dust using OSHA compliance data (1979–1995). Linch KD, et al. **Am J Ind Med** 1998 Dec;34(6):547–58

Role of neutrophils and alpha1–antitrypsin in coal– and silica–induced connective tissue breakdown. Zay K, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):L269–79

Lung fibrosis induced by silica particles in NMRI mice is associated with an upregulation of the p40 subunit of interleukin–12 and Th–2 manifestations. Huaux F, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):561–72

Colloidal silica–coated tissue culture dishes for primary cell cultures: growth of rabbit renal proximal tubule cells. Taub M, et al. **Biotechniques** 1998 Dec;25(6):990–4, 996

Silicate entrapped columns––new columns designed for capillary electrochromatography. Chirica G, et al. **Electrophoresis** 1999 Jan;20(1):50–6

A new technique for stripping of polyimide coating from fused–silica capillaries. Lindberg P, et al. **Electrophoresis** 1998 Oct;19(14):2445–6

Capillary zone electrophoresis of proteins with fused–silica capillaries having polymers and surfactants adsorbed onto surfactant moieties previously covalently bound to the capillary column surface. Yang C, et al. **Electrophoresis** 1998 Oct;19(13):2278–84

Capillary electrochromatography with novel stationary phases. I. Preparation and characterization of octadecylsulfonated silica. Zhang M, et al. **Electrophoresis** 1998 Sep;19(12):2068–72

Capillary electrochromatography with novel stationary phases: II. Studies of the retention behavior of nucleosides and bases on capillaries packed with octadecyl–sulfonated–silica microparticles. Zhang M, et al. **Electrophoresis** 1999 Jan;20(1):31–6

Morphological and functional alterations of human erythrocytes induced by SiO2 particles: An electron microscopy and dielectric spectroscopy study. Diociaiuti M, et al. **Environ Res** 1999 Apr;80(3):197–207

Presence of Campylobacter and Salmonella in sand from bathing beaches. Bolton FJ, et al. **Epidemiol Infect** 1999 Feb;122(1):7–13

Dynamic aspects concerned with the mechanism of separating motile sperm from nonmotile sperm, leukocytes, and debris with the use of high–density Percoll gradients [see comments] Makler A, et al. **Fertil Steril** 1998 Nov; 70(5):961–6. Comment in: Fertil Steril 1999 Apr;71(4):778–9.

Evaluation of three substitutes for Percoll in sperm isolation by density gradient centrifugation. Claassens OE, et al. **Hum Reprod** 1998 Nov;13(11):3139–43

Another use of silica gel and aqueous eluent for HPLC analysis of clozapine and desmethylclozapine. Coudoré F, et al. **J Anal Toxicol** 1999 May–Jun;23(3):195–9

Antioxidant potential of human serum albumin: role in the recovery of high quality human spermatozoa for assisted reproductive technology. Armstrong JS, et al. **J Androl** 1998 Jul–Aug;19(4):412–9

In vitro calcium phosphate layer formation on sol–gel glasses of the CaO–SiO(2) system. Izquierdo–Barba I, et al. **J Biomed Mater Res** 1999 Nov;47(2):243–50

Influence of sol and surface properties on in vitro bioactivity of sol–gel–derived TiO2 and TiO2–SiO2 films deposited by dip–coating method. Jokinen M, et al. **J Biomed Mater Res** 1998 Nov;42(2):295–302

Silica coatings formed on noble dental casting alloy by the sol–gel dipping process. Yoshida K, et al. **J Biomed Mater Res** 1999 Aug;46(2):221–7

Separation of benzodiazepines using cholesterol–modified fused–silica capillaries in capillary electrochromatography. Catabay AP, et al. **J Capillary Electrophor** 1998 Jan–Apr; 5(1–2):89–95

Capillary electrophoresis using diol–bonded fused–silica capillaries. Shao X, et al. **J Chromatogr A** 1999 Jan 15; 830(2):415–22

Novel CDC25A phosphatase inhibitors from pyrolysis of 3–alpha–azido–B–homo–6–oxa–4–cholesten–7–one on silica gel. Peng H, et al. **J Med Chem** 1998 Nov 19;41(24):4677–80

Mechanism of separation on cholesterol–silica stationary phase for high–performance liquid chromatography as revealed by analysis of quantitative structure–retention relationships. Al–Haj MA, et al. **J Pharm Biomed Anal** 1998 Dec;18(4–5):721–8

The dynamic loading response of surfaces encountered in beach running. Barrett RS, et al. **J Sci Med Sport** 1998 Jan;1(1):1–11

Diffusion processes in confined materials. Aksnes DW, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):579–81

A NMR investigation of adsorption/desorption hysteresis in porous silica gels. Porion P, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):679–82

Spatially resolved transport properties in radially compressed bead packings studied by PFG NMR. Van Dusschoten D, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):703–6

Biochemical evolution III: polymerization on organophilic silica–rich surfaces, crystal–chemical modeling, formation of first cells, and geological clues. Smith JV, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3479–85 (57 ref.)

Respirable crystalline silica exposure associated with the installation and removal of RCF and conventional silica–containing refractories in industrial furnaces. Maxim

DL, et al. **Regul Toxicol Pharmacol** 1999 Feb;29(1):44–63 (68 ref.)
Study of the presence of Campylobacter jejuni and C. coli in sand samples from four Swiss chicken farms. Studer E, et al. **Res Microbiol** 1999 Apr;150(3):213–9
A post-stishovite SiO2 polymorph in the meteorite Shergotty: implications for impact events. Sharp TG, et al. **Science** 1999 May 28;284(5419):1511–3
Failure of psyllium mucilloid to hasten evaluation of sand from the equine large intestine. Hammock PD, et al. **Vet Surg** 1998 Nov–Dec;27(6):547–54
[Porous materials for reconstruction of bone tissue] Prettin S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:410–1 **(Ger)**
[The characteristics of the course of chronic dust-induced bronchitis in workers in granite quarries] Kurilo SM. **Lik Sprava** 1998 Dec;(8):50–3 (Eng. Abstr.) **(Ukr)**

ADMINISTRATION & DOSAGE

Sol–gel composite films with controlled release of biocides. Böttcher H, et al. **J Controlled Release** 1999 Jun 28; 60(1):57–65

ADVERSE EFFECTS

Cancer mortality in women with probable exposure to silica: a death certificate study in 24 states of the U.S. Fillmore CM, et al. **Am J Ind Med** 1999 Jul;36(1):122–8
Nested case–control study of esophageal cancer in relation to occupational exposure to silica and other dusts. Pan G, et al. **Am J Ind Med** 1999 Mar;35(3):272–80
Pulmonary dysfunction in silica-exposed workers: a relationship to radiographic signs of silicosis and emphysema. Wang X, et al. **Am J Ind Med** 1999 Aug; 36(2):299–306
Anti-PL 12 and pulmonary fibrosis in a patient ten years after silica/silicate dust exposure [letter] Osterode W, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):622
Cerebral astrocyte response to micromachined silicon implants. Turner JN, et al. **Exp Neurol** 1999 Mar; 156(1):33–49
Accelerated silicosis with mixed-dust pneumoconiosis in a hard-metal grinder. Cohen C, et al. **J Occup Environ Med** 1999 Jun;41(6):480–5
Silica induced scleroderma—clinical and experimental aspects. Haustein UF, et al. **J Rheumatol** 1998 Oct; 25(10):1917–26 (99 ref.)
Impact of exposure to insulation wool on lung function and cough in Swedish construction workers. Albin M, et al. **Occup Environ Med** 1998 Oct;55(10):661–7
Case–control study of lung cancer among sugar cane farmers in India. Amre DK, et al. **Occup Environ Med** 1999 Aug; 56(8):548–52
Association between exposure to crystalline silica and risk of sarcoidosis. Rafnsson V, et al. **Occup Environ Med** 1998 Oct;55(10):657–60
End stage renal disease among ceramic workers exposed to silica. Rapiti E, et al. **Occup Environ Med** 1999 Aug; 56(8):559–61
Controlling silica exposures. Breeding DC. **Occup Health Saf** 1998 Oct;67(10):178–81
Systemic sclerosis (scleroderma) in two iron ore mines. Martin JR, et al. **Occup Med (Lond)** 1999 Apr;49(3):161–9
Monocyte-dependent stimulation of human T cells by silicon dioxide. Smalley DL, et al. **Pathobiology** 1998;66(6):302–5
Silica dust and lung cancer in the German stone, quarrying, and ceramics industries: results of a case–control study. Ulm K, et al. **Thorax** 1999 Apr;54(4):347–51
[A preliminary study on p53 gene in lung cancer tissues of workers exposed to silica and welding fumes] Liu B, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 May; 31(3):153–6 (Eng. Abstr.) **(Chi)**
[Acute silicosis. Clinical, radiologic, functional, and cytologic characteristics of the broncho-alveolar fluids. Observations of 6 cases] Duchange L, et al. **Rev Mal Respir** 1998 Sep; 15(4):527–34 (Eng. Abstr.) **(Fre)**
[The mortality due to pulmonary silicosis in the Tuscany region in the last decade demonstrates that the health effects of work exposure to silica are still marked] Merler E, et al. **Epidemiol Prev** 1998 Oct–Dec;22(4):221–5 (Eng. Abstr.) **(Ita)**

ANALYSIS

Issues and controversy: the measurement of crystalline silica; review papers on analytical methods. Miles WJ. **Am Ind Hyg Assoc J** 1999 May–Jun;60(3):396–402 (48 ref.)
Personal exposure to dust, endotoxin and crystalline silica in California agriculture. Nieuwenhuijsen MJ, et al. **Ann Occup Hyg** 1999 Jan;43(1):35–42
Surface composition of silica particles embedded in an Australian bituminous coal. Gong B, et al. **Appl Occup Environ Hyg** 1999 Jul;14(7):479–87
Susceptibility effects in unsaturated porous silica. Allen S, et al. **Magn Reson Imaging** 1998 Jun–Jul;16(5–6):597–600
Analysis of breast implant capsular tissue for crystalline silica and other refractile phases. Pasteris JD, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1273–6
Silica urolithiasis without magnesium trisilicate intake. Ichiyanagi O, et al. **Urol Int** 1998 Oct;61(1):39–42

CHEMISTRY

Effect of monovalent ions in glass ionomer on their uptake and re-release. Hadley PC, et al. **Biomaterials** 1999 May; 20(9):891–7
Synthesis and immobilization of ceramide analogs on silica particles. Yin J, et al. **Bioorg Med Chem Lett** 1998 Jan 20;8(2):179–82
Activity losses among T4 lysozyme charge variants after adsorption to colloidal silica [letter] Bower CK, et al. **Biotechnol Bioeng** 1999 Aug 5;64(3):373–6
Relationship between surface properties and cellular responses to crystalline silica: studies with heat-treated cristobalite. Fubini B, et al. **Chem Res Toxicol** 1999 Aug; 12(8):737–45
In vitro evaluation of biodegradable varepsilon-caprolactone-co-D, L-lactide/silica xerogel composites containing toremifene citrate. Ahola M, et al. **Int J Pharm** 1999 Apr 30;181(2):181–91
Development of RGD peptides grafted onto silica surfaces: XPS characterization and human endothelial cell interactions. Porté-Durrieu MC, et al. **J Biomed Mater Res** 1999 Sep 5;46(3):368–75
Radiation immobilization of poly(methyloctylsiloxane) on silica for use in HPLC: a uniform layer model. Jardim IC, et al. **J Chromatogr A** 1999 Jul 23;849(2):299–307
Dental composite resins containing silica-fused ceramic single-crystalline whiskers with various filler levels. Xu HH. **J Dent Res** 1999 Jul;78(7):1304–11
Detoxifying chlorine rich gas streams using solid supported nickel catalysts. Shin EJ, et al. **J Hazard Mater** 1999 May 14;66(3):265–78
Studies on optical properties of two commercial visible-light-cured composite resins by diffuse reflectance measurements. Taira M, et al. **J Oral Rehabil** 1999 Apr; 26(4):329–37
Comparison of the properties of polymeric and C8 based materials for solid phase extraction. Martin P, et al. **J Pharm Biomed Anal** 1998 Sep 1;17(6–7):1093–100
Is silicified wet-granulated microcrystalline cellulose better than original wet-granulated microcrystalline cellulose? Habib YS, et al. **Pharm Dev Technol** 1999 Aug;4(3):431–7
Silicatein filaments and subunits from a marine sponge direct the polymerization of silica and silicones in vitro. Cha JN, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):361–5
Ordered mesoporous polymers of tunable pore size from colloidal silica templates. Johnson SA, et al. **Science** 1999 Feb 12;283(5404):963–5
[Chromatography of thrombin and antithrombin III on biospecific silochromes] Lohins'ka ZV, et al. **Ukr Biokhim Zh** 1998 May–Jun;70(3):63–8 (Eng. Abstr.) **(Ukr)**

METABOLISM

Silica increases cytosolic calcium and causes cell injury in renal cell lines. Cha SH, et al. **Ind Health** 1999 Jul; 37(3):300–6

PHARMACOLOGY

Silica-induced chemokine expression in alveolar type II cells is mediated by TNF-alpha. Barrett EG, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1110–9
Silica-induced chemokine expression in alveolar type II cells is mediated by TNF-alpha-induced oxidant stress. Barrett EG, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L979–88
Soluble tumor necrosis factor (TNF) receptors p55 and p75 and interleukin-10 downregulate TNF-alpha activity during the lung response to silica particles in NMRI mice. Huaux F, et al. **Am J Respir Cell Mol Biol** 1999 Jul; 21(1):137–45
The effect of various storage methods and media on shear-bond strengths of dental composite resin to bovine dentine. Titley KC, et al. **Arch Oral Biol** 1998 Apr; 43(4):305–11
Silica-induced generation of reactive oxygen species in Rat2 fibroblast: role in activation of mitogen-activated protein kinase. Cho YJ, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):708–12
Effect of macrophage suppression with silica on the proliferation of Schwann cells during Wallerian degeneration. Kubota A, et al. **Brain Res** 1998 Aug 17; 802(1–2):254–8
Short note: heterogeneous response of red blood cells to colloidal silica as a criterion for study of their membrane alterations: flow cytometric approach. Gerashchenko BI. **Med Hypotheses** 1998 Oct;51(4):355–7
Effect of colloidal silicon dioxide on flowing and tableting properties of an experimental, crosslinked polyalkylammonium polymer. Chang RK, et al. **Pharm Dev Technol** 1999 May;4(2):285–9
Eicosapentaenoic acid modulates arachidonic acid metabolism in rat alveolar macrophages activated by silica. Saku N, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul;61(1):51–4
[Experimental affecting of pulmonary clearance of Pasteurella multocida induced pneumonia in swine] Müller G, et al. **Berl Munch Tierarztl Wochenschr** 1997 Oct; 110(10):378–80 (Eng. Abstr.) **(Ger)**

THERAPEUTIC USE

Effectiveness of a medicament containing silicon dioxide, aloe, and allantoin on aphthous stomatitis. Garnick JJ, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):550–6
Monitoring heparin therapy using activated partial thromboplastin time—results of a multicenter trial establishing the therapeutic range for SILIMAT, a reagent with high sensitivity to heparin. Toulon P, et al. **Thromb Haemost** 1998 Jul;80(1):104–8

TOXICITY

Upregulation of the p75 but not the p55 TNF-alpha receptor mRNA after silica and bleomycin exposure and protection from lung injury in double receptor knockout mice. Ortiz LA, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):825–33
Silica-induced pulmonary inflammation in rats: activation of NF-kappa B and its suppression by dexamethasone. Sacks M, et al. **Biochem Biophys Res Commun** 1998 Dec 9; 253(1):181–4
Relationship between surface properties and cellular responses to crystalline silica: studies with heat-treated cristobalite. Fubini B, et al. **Chem Res Toxicol** 1999 Aug; 12(8):737–45
Silica increases cytosolic calcium and causes cell injury in renal cell lines. Cha SH, et al. **Ind Health** 1999 Jul; 37(3):300–6
Use of tetrandrine to differentiate between mechanisms involved in silica-versus bleomycin-induced fibrosis. Ma JY, et al. **J Toxicol Environ Health** 1999 Jun 25; 57(4):247–66
Genomic instability in silica- and cadmium chloride-transformed BALB/c-3T3 and tumor cell lines by random amplified polymorphic DNA analysis. Keshava C, et al. **Mutat Res** 1999 Mar 10;425(1):117–23
Antioxidant treatment attenuates cytokine and chemokine levels in murine macrophages following silica exposure. Barrett EG, et al. **Toxicol Appl Pharmacol** 1999 Aug 1; 158(3):211–20
Silica-induced apoptosis in vitro and in vivo. Lim Y, et al. **Toxicol Lett** 1999 Sep 5;108(2–3):335–9
Protein phosphorylation in alveolar macrophages after stimulation with heavy metal-coated silica particles. Radloff M, et al. **Toxicol Lett** 1998 Aug;96–97:69–75
Application of laser scanning confocal microscopy in the analysis of particle-induced pulmonary fibrosis. Antonini JM, et al. **Toxicol Sci** 1999 Sep;51(1):126–34

SILICONE ELASTOMERS

see related

BREAST IMPLANTS

Silicone intubation for obstruction of the nasolacrimal duct in adults [letter] Aritürk N, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):481–2
Delayed dislocation of foldable plate-haptic silicone lenses after Nd:YAG laser anterior capsulotomy. Tuft SJ, et al. **Am J Ophthalmol** 1998 Oct;126(4):586–8
Silicone sheet usage in preventing adhesion in the neck region [letter] Mengi AS, et al. **Ann Plast Surg** 1999 May;42(5):574
Silicon assays in women with and without silicone gel breast implants—a review. Peters W, et al. **Ann Plast Surg** 1999 Sep;43(3):324–30 (33 ref.)
Prevention of prolapsed silicone stents in lacrimal intubation using an intrasac fixation suture. Merbs SL, et al. **Arch Ophthalmol** 1999 Aug;117(8):1092–5
Malar augmentation: a 5-year retrospective review of the silastic midfacial malar implant. Metzinger SE, et al. **Arch Otolaryngol Head Neck Surg** 1999 Sep;125(9):980–7
Roller pump induced tubing wear of polyvinylchloride and silicone rubber tubing: phase contrast and scanning electron microscopic studies. Kim WG, et al. **Artif Organs** 1998 Oct;22(10):892–7
Evaluation of the in vitro biocompatibility of various elastomers. Chauvel-Lebret DJ, et al. **Biomaterials** 1999 Feb;20(3):291–9
Surface modification based on Si–O and Si–C sublayers and a series of N-substituted acrylamide top-layers for capillary electrophoresis. Gelfi C, et al. **Electrophoresis** 1998 Jul; 19(10):1677–82
The effect of buttermilk consumption on biofilm formation on silicone rubber voice prostheses in an artificial throat. Busscher HJ, et al. **Eur Arch Otorhinolaryngol** 1998; 255(8):410–3
Experimental and clinical evaluation of incision size and shape following forceps and injector implantation of a three-piece high-refractive-index silicone intraocular lens. Kohnen T, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):922–8
Anterior dislocation of foldable silicone lens. Khokhar S, et al. **Indian J Ophthalmol** 1998 Dec;46(4):252–3
Assessment of material-induced procoagulant activity by a modified Russell viper venom coagulation time test. Gemmell CH. **J Biomed Mater Res** 1998 Dec 15; 42(4):611–6
Placement of a secondary foldable intraocular lens over a capsule remnant. Bruening F. **J Cataract Refract Surg** 1998 Aug;24(8):1161–3
Decentration of 3-piece versus plate-haptic silicone intraocular lenses. Hwang IP, et al. **J Cataract Refract Surg** 1998 Nov;24(11):1505–8
Progressive brown discoloration of silicone intraocular lenses after vitrectomy in a patient on amiodarone. Katai N, et al. **J Cataract Refract Surg** 1999 Mar;25(3):451–2
Pseudoaccommodation: BioComFold versus a foldable silicone intraocular lens. Legeais JM, et al. **J Cataract Refract Surg** 1999 Feb;25(2):262–7

SILICONE ELASTOMERS

Evaluation of a 3-piece silicone intraocular lens with poly(methyl methacrylate) haptics. Linnola RJ, et al. **J Cataract Refract Surg** 1998 Nov;24(11):1509–14

Experimental neodymium:YAG laser damage to acrylic, poly(methyl methacrylate), and silicone intraocular lens materials. Newland TJ, et al. **J Cataract Refract Surg** 1999 Jan;25(1):72–6

Silicone and poly(methyl methacrylate) lens decentration associated with asymmetric capsule shrinkage in rabbits. Ohmi S, et al. **J Cataract Refract Surg** 1999 Aug; 25(8):1147–50

Cartridge cracks during foldable intraocular lens insertion [letter; comment] Rath R, et al. **J Cataract Refract Surg** 1999 Mar;25(3):306. Comment on: J Cataract Refract Surg 1998 Sep;24(9):1220–2.

Silicone intraocular lens encapsulation by shrinkage of the capsulorhexis opening. Reeves PD, et al. **J Cataract Refract Surg** 1998 Sep;24(9):1275–6

Cartridge cracks during foldable intraocular lens insertion [see comments] Singh AD, et al. **J Cataract Refract Surg** 1998 Sep;24(9):1220–2. Comment in: J Cataract Refract Surg 1999 Mar;25(3):306. Comment in: J Cataract Refract Surg 1999 Apr;25(4):463–5; discussion 465–6. Comment in: J Cataract Refract Surg 1999 Apr;25(4):465–6.

Position of poly(methyl methacrylate) and silicone intraocular lenses after phacoemulsification. Wang MC, et al. **J Cataract Refract Surg** 1998 Dec;24(12):1652–7

A prospective randomized comparison of Sutter and Swanson silastic spacers. McArthur PA, et al. **J Hand Surg [Br]** 1998 Oct;23(5):574–7

Late complications of nasal augmentation using silicone implants. Pak MW, et al. **J Laryngol Otol** 1998 Nov; 112(11):1074–7

Interference in initial adhesion of uropathogenic bacteria and yeasts to silicone rubber by a Lactobacillus acidophilus biosurfactant. Velraeds MM, et al. **J Med Microbiol** 1998 Dec;47(12):1081–5

Late complications of Silastic duraplasty: low-virulence infections. Case report. Ekseth K, et al. **J Neurosurg** 1999 Mar;90(3):559–62

Intrathoracic esophageal replacement in the dog with the use of an artificial esophagus composed of a collagen sponge with a double-layered silicone tube. Yamamoto Y, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):276–86

Pathological findings in lens capsule and silicone intraocular lens extracted from eye with chronic infectious endophthalmitis. Saika S, et al. **Jpn J Ophthalmol** 1998 Nov-Dec;42(6):456–60

Histologic findings of silastic medialization in the canine model. Simpson CB, et al. **Laryngoscope** 1999 Sep; 109(9):1424–7

Design and use of substrata to measure traction forces exerted by cultured cells. Oliver T, et al. **Methods Enzymol** 1998; 298:497–521

Cylindrical or T-shaped silicone rubber stents for microanastomosis--technical note. Okada Y, et al. **Neurol Med Chir (Tokyo)** 1999 Jan;39(1):55–7; discussion 57–8

Prevention of lacrimal stent prolapse using a silicone sleeve [letter] Alford MA, et al. **Ophthal Plast Reconstr Surg** 1999 May;15(3):227–8

A pre-swedged silicone tube to simplify pigtail canaliculoplasty. Goldberg RA. **Ophthalmic Surg Lasers** 1998 Sep;29(9):770–1

Schlemm's canal implant: a new method to lower intraocular pressure in patients with POAG? Spiegel D, et al. **Ophthalmic Surg Lasers** 1999 Jun;30(6):492–4

A prospective comparative study of the AMO ARRAY zonal-progressive multifocal silicone intraocular lens and a monofocal intraocular lens. Steinert RF, et al. **Ophthalmology** 1999 Jul;106(7):1243–55

Reliability of coated wire defibrillation leads. Tyers GF, et al. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 2):174–8

RTV silicone elastomers in hand prosthetics: properties, applications and techniques. Leow ME, et al. **Prosthet Orthot Int** 1999 Aug;23(2):169–73

Preliminary design and experimental studies of a novel soft implant for correcting sagittal plane instability in the lumbar spine [letter; comment] Moon MS. **Spine** 1999 Mar 1;24(5):499–500. Comment on: Spine 1997 Aug 15;22(16):1819–25; discussion 1826–7.

[Augmentation mammaplasty through the external oblique muscle route] Yang D, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 May;13(3):188–90 (Eng. Abstr.) **(Chi)**

[Materials for intraocular lenses. II. Silicone intraocular lenses (published erratum appears in J Fr Ophtalmol 1999 May;22(5):613)] Werner LP, et al. **J Fr Ophtalmol** 1999 May;22(4):492–501 (84 ref.) **(Fre)**

[Collagen bionation of silicon, as a material for a lens epithelium coated capsular sack model] Etzrodt D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:412–3 **(Ger)**

[Long-term outcome of partial alloplastic replacement of the scaphoid bone] Haussmann P. **Handchir Mikrochir Plast Chir** 1999 May;31(3):200–6 (Eng. Abstr.) **(Ger)**

[Congenital breast deformity is a serious handicap. An important indication for breast reconstruction with silicone implants] Wieslander JB. **Lakartidningen** 1999 Apr 7; 96(14):1703–5, 1708–10 (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Comparison of different biomaterials for glaucoma drainage devices. Ayyala RS, et al. **Arch Ophthalmol** 1999 Feb; 117(2):233–6

Quantitative comparison of posterior capsule opacification after polymethylmethacrylate, silicone, and soft acrylic intraocular lens implantation. Hayashi H, et al. **Arch Ophthalmol** 1998 Dec;116(12):1579–82

Long-term complications of silicone and hydrogel explants in retinal reattachment surgery. Roldán-Pallarés M, et al. **Arch Ophthalmol** 1999 Feb;117(2):197–201

Anterior capsule contraction with foldable silicone intraocular lenses. Dahlhauser KF, et al. **J Cataract Refract Surg** 1998 Sep;24(9):1216–9

Late pigmented-membrane formation on silicone intraocular lenses after phacoemulsification with or without trabeculectomy. Friedrich Y, et al. **J Cataract Refract Surg** 1999 Sep;25(9):1220–5

Posterior capsule opacification in eyes with a silicone or poly(methyl methacrylate) intraocular lens. Kim MJ, et al. **J Cataract Refract Surg** 1999 Feb;25(2):251–5

Complications and complication management with foldable intraocular intraocular lenses [editorial] Kohnen T. **J Cataract Refract Surg** 1998 Sep;24(9):1167–8

Pathology of silicone leakage from breast implants. van Diest PJ, et al. **J Clin Pathol** 1998 Jul;51(7):493–7 (35 ref.)

Assessing the harm of silicone gel-filled breast implants [letter] Shapiro MM. **Nurse Pract** 1999 Mar;24(3):140–1 (20 ref.)

An extruded encircling band straddling the cornea and corneal groove formation. Osman Saatci A, et al. **Ophthalmic Surg Lasers** 1998 Dec;29(12):991–2

High incidence of cataract formation after implantation of a silicone posterior chamber lens in phakic, highly myopic eyes. Brauweiler PH, et al. **Ophthalmology** 1999 Sep; 106(9):1651–5

Monocanalicular nasolacrimal duct intubation [letter; comment] Glatt HJ. **Ophthalmology** 1998 Oct; 105(10):1794–5. Comment on: Ophthalmology 1998 Feb;105(2):336–41.

The effect of polymethylmethacrylate, silicone, and polyacrylic intraocular lenses on posterior capsular opacification 3 years after cataract surgery. Hollick EJ, et al. **Ophthalmology** 1999 Jan;106(1):49–54; discussion 54–5

Experimental encircling scleral buckle with silicone and hydrogel: histopathologic and comparative study of 26 rabbit eyes. D'Hermies F, et al. **Retina** 1999;19(2):148–57

Silastic prostheses--a forgotten cause of lymphadenopathy in rheumatoid arthritis [letter] Hopkinson N, et al. **Rheumatology (Oxford)** 1999 May;38(5):480–1

[Hygienic evaluation and analytical methods for the silicon rubber rubber intended to come into contact with food. Part I. Determination of the migration of the soluble substances into the aqueous model fluids] Lewandowska-Malinowska I, et al. **Rocz Panstw Zakl Hig** 1998;49(4):481–9 (Eng. Abstr.) **(Pol)**

[Intubation granulomas of the lacrimal ducts in patients with silicone implants] Beloglazov VG, et al. **Vestn Oftalmol** 1998 Sep-Oct;114(5):29–32 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Physicomechanical and cytotoxic properties of room temperature vulcanizing silicone prosthetic elastomers. Polyzois GL, et al. **Acta Odontol Scand** 1998 Aug; 56(4):245–8

In vitro and in vivo fluoride release from orthodontic elastomeric ligature ties. Wiltshire WA. **Am J Orthod Dentofacial Orthop** 1999 Mar;115(3):288–92

Development of a new silicon-based transdermal system. I. Study of silicone elastomers and effect of liquid ingredients. Wagner O. **Drug Dev Ind Pharm** 1998 Mar;24(3):243–52

Silicone rubber/hydrogel composite ophthalmic inserts: preparation and preliminary in vitro/in vivo evaluation. Chetoni P, et al. **Eur J Pharm Biopharm** 1998 Jul; 46(1):125–32

Surface characterization and biological properties study of silicone rubber membrane grafted with phospholipid as biomaterial via plasma induced graft copolymerization. Hsiue GH, et al. **J Biomed Mater Res** 1998 Oct;42(1):134–47

Rheological properties of elastomeric impression materials before and during setting. McCabe JF, et al. **J Dent Res** 1998 Nov;77(11):1874–80

Effect of loading and syringing on void formation in automixed addition silicone elastomers. Chong YH, et al. **J Oral Rehabil** 1993 Nov;20(6):631–6

Development of a synthetic bolus using silicone elastomer for the study of masticatory efficiency. Compagnon D, et al. **J Prosthet Dent** 1999 Jun;81(6):704–9

Color stability and colorant effect on maxillofacial elastomers. Part I: colorant effect on physical properties. Haug SP, et al. **J Prosthet Dent** 1999 Apr;81(4):418–22

Color stability and colorant effect on maxillofacial elastomers. Part II: weathering effect on physical properties. Haug SP, et al. **J Prosthet Dent** 1999 Apr; 81(4):423–30

Color stability and colorant effect on maxillofacial elastomers. Part III: weathering effect on color. Haug SP, et al. **J Prosthet Dent** 1999 Apr;81(4):431–8

Wettability of silicone rubber maxillofacial prosthetic materials. Waters MG, et al. **J Prosthet Dent** 1999 Apr; 81(4):439–43

METABOLISM

The effect of silicone ocular surgical devices on serum IgG binding to silicones. Shaikh S, et al. **Am J Ophthalmol** 1998 Dec;126(6):798–804

The non-specific binding of immunoglobulins to silicone implant materials: the lack of a detectable silicone specific antibody. White KL Jr, et al. **Immunol Invest** 1998 Jul-Sep; 27(4-5):221–35

PHARMACOLOGY

Macrophage--polymer interactions. Rice JM, et al. **J Biomater Sci Polym Ed** 1998;9(8):833–47

THERAPEUTIC USE

Clinical and scintigraphic comparison of silicone and polyvinylpyrrolidone coated silicone perforated plugs. Malet T, et al. **Br J Ophthalmol** 1998 Dec;82(12):1416–9

Silicone replacement arthroplasty for Kienböck's disease. Kaarela OI, et al. **J Hand Surg [Br]** 1998 Dec;23(6):735–40

SILICONE GELS

see related

BREAST IMPLANTS

Ethylene oxide burns from improperly sterilized mammary implants. Cárdenas-Camarena L. **Ann Plast Surg** 1998 Oct; 41(4):361–6; discussion 366–9

Re: The life span of silicone gel breast implants and a comparison of mammography, ultrasonography, and magnetic resonance imaging in detecting implant rupture: a meta-analysis [letter] Dowden R. **Ann Plast Surg** 1999 Jul;43(1):99–100

The life span of silicone gel breast implants and a comparison of mammography, ultrasonography, and magnetic resonance imaging in detecting implant rupture: a meta-analysis [letter] Peters W, et al. **Ann Plast Surg** 1999 Jul;43(1):97–9

Capsular calcification associated with silicone breast implants: incidence, determinants, and characterization. Peters W, et al. **Ann Plast Surg** 1998 Oct;41(4):348–60

Prospective, single-blind, randomized, controlled study to assess the efficacy of the 585-nm flashlamp-pumped pulsed-dye laser and silicone gel sheeting in hypertrophic scar treatment. Wittenberg GP, et al. **Arch Dermatol** 1999 Sep;135(9):1049–55

United States clears silicone breast implants [news] Josefson D. **BMJ** 1999 Jul 3;319(7201):8

Silicone gel sheet dressings for prevention of post-minigraft cobblestoning in vitiligo. Agarwal US, et al. **Dermatol Surg** 1999 Feb;25(2):102–4

Imaging breasts with silicone implants. Azavedo E, et al. **Eur Radiol** 1999;9(2):349–55 (60 ref.)

Rupture of silicone gel filled testicular prosthesis: causes, diagnostic modalities and treatment of a rare event. Hage JJ, et al. **J Urol** 1999 Feb;161(2):467–71

Silicone gel-filled breast and testicular implant capsules: a histologic and immunophenotypic study. Abbondanzo SL, et al. **Mod Pathol** 1999 Jul;12(7):706–13

The deposition of talc in patients with silicone gel-filled breast implants. Chandler PJ Jr. **Plast Reconstr Surg** 1999 Sep;104(3):661–8

Failure of silicone gel breast implants [letter; comment] Cook RR, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1091–2. Comment on: Plast Reconstr Surg 1998 Apr;101(4):1162–4.

EQUAM Declaration on Breast Implants, July 4, 1998. European Committee on Quality Assurance and Medical Devices in Plastic Surgery [letter] Nicolai JP. **Plast Reconstr Surg** 1999 Mar;103(3):1094

Factors predictive of quality of life after silicone-implant explanation. Rohrich RJ, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1334–7

An analysis of silicone gel-filled breast implants: diagnosis and failure rates. Rohrich RJ, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2304–8; discussion 2309

Tinea corporis with secondary impetigo associated with silicone gel sheeting [letter] Wilson RW, et al. **Plast Reconstr Surg** 1999 Jan;103(1):340

[Indications and results of breast implant replacement with implants pre-filled with silicone gel] Mitz V, et al. **Ann Chir Plast Esthet** 1997 Feb;42(1):21–6 (Eng. Abstr.) **(Fre)**

[Silicone breast implants and breast cancer] Petit JY, et al. **Ann Chir Plast Esthet** 1997 Apr;42(2):107–9 (Eng. Abstr.) **(Fre)**

[Internal supporting mammary lamina. Results of the detection of breast lesions] Tristant H, et al. **Ann Chir Plast Esthet** 1997 Apr;42(2):183–91 (Eng. Abstr.) **(Fre)**

[Controversies regarding silicone implants in plastic surgery. Evaluation of arguments based on criteria of evidence-based medicine] Sohn W. **Fortschr Med** 1998 Sep 30;116(27):18–20, 22 (16 ref.) **(Ger)**

[Congenital breast deformity is a serious handicap. An important indication for breast reconstruction with silicone implants] Wieslander JB. **Lakartidningen** 1999 Apr 7; 96(14):1703–5, 1708–10 (Eng. Abstr.) **(Swe)**

ADVERSE EFFECTS

Unusual skin reaction to silicone content in breast implants. Marcusson JA, et al. **Acta Derm Venereol** 1999 Mar; 79(2):136–8

A case of human adjuvant disease after augmentation rhinoplasty. Shiba A, et al. **Aesthetic Plast Surg** 1999 May–Jun;23(3):175–8

Science, justice, and breast implants [editorial] Bayer R. **Am J Public Health** 1999 Apr;89(4):483

Ethics, epidemiology, and law: the case of silicone breast implants [comment] Macklin R. **Am J Public Health** 1999 Apr;89(4):487–9 (10 ref.). Comment on: Am J Public Health 1999 Apr;89(4):484–7. Comment on: Am J Public Health 1999 Apr;89(4):490–3.

Silicone breast implants: epidemiological evidence of sequelae [see comments] Stein ZA. **Am J Public Health** 1999 Apr; 89(4):484–7 (17 ref.). Comment in: Am J Public Health 1999 Apr;89(4):487–9.

Cartilaginous metaplasia in the capsule of a Dacron–backed silicone gel breast prosthesis. Kamel M, et al. **Ann Plast Surg** 1999 Feb;42(2):202–6 (25 ref.)

Elemental analysis and clinical implications of calcification deposits associated with silicone breast implants. Raso DS, et al. **Ann Plast Surg** 1999 Feb;42(2):117–23

Consensus declaration of EQUAM [letter] Nicolai JP. **Br J Plast Surg** 1999 Jan;52(1):78 (0 ref.)

Dynamics of wound healing after silicone device implantation. Shanklin DR, et al. **Exp Mol Pathol** 1999 Sep;67(1):26–39

Adjuvancy effect of different types of silicone gel [letter; comment] McDermott MR, et al. **J Biomed Mater Res** 1999 Jul;46(1):132–4. Comment on: J Biomed Mater Res 1997 Dec 15;37(4):534–8.

Squamous cell carcinoma of the breast following silicone injection of the breasts. Smith LF, et al. **J Okla State Med Assoc** 1999 Mar;92(3):126–30

Severe migratory granulomatous reactions to silicone gel in 3 patients. Teuber SS, et al. **J Rheumatol** 1999 Mar; 26(3):699–704

A comparison of autoantibody production in asymptomatic and symptomatic women with silicone breast implants. Zandman–Goddard G, et al. **J Rheumatol** 1999 Jan; 26(1):73–7

Experts come to court [editorial] [see comments] **Lancet** 1999 May 1;353(9163):1455. Comment in: Lancet 1999 Jun 12;353(9169):2076.

Assessing the harm of silicone gel–filled breast implants [letter] Shapiro MM. **Nurse Pract** 1999 Mar;24(3):140–1 (20 ref.)

Silicone breast implants: an oncologic perspective. Gerszten K, et al. **Oncology (Huntingt)** 1998 Oct;12(10):1427–33; discussion 1434, 1439–43 (66 ref.)

Absence of longitudinal changes in rheumatologic parameters after silicone breast implantation: a prospective 13–year study. Miller AS 3rd, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2299–303

Silicone gel breast implant adverse event reports to the Food and Drug Administration, 1984–1995. Brown SL, et al. **Public Health Rep** 1998 Nov–Dec;113(6):535–43

Breast implant safety [letter; comment] Davis DL, et al. **Science** 1999 Mar 12;283(5408):1644. Comment on: Science 1998 Dec 11;282(5396):1963, 1965.

Scientific panel clears breast implants [news] [see comments] Kaiser J. **Science** 1998 Dec 11;282(5396):1963, 1965. Comment in: Science 1999 Mar 12;283(5408):1644.

Panel discounts implant disease risk [news] Kaiser J. **Science** 1999 Jun 25;284(5423):2065–6

[Risks from silicone breast implants unproven (letter; comment)] Maes RM. **Ned Tijdschr Geneeskd** 1999 Mar 13;143(11):587; discussion 587–8. Comment on: Ned Tijdschr Geneeskd 1998 Dec 12;142(50):2719–20. **(Dut)**

[Risks from silicone breast implants unproven (letter; comment)] Vermeulen RC. **Ned Tijdschr Geneeskd** 1999 Mar 13;143(11):587. Comment on: Ned Tijdschr Geneeskd 1998 Dec 12;142(50):2719–20. **(Dut)**

ANALYSIS

Quantitative detection of silicone in skin by means of electron spectroscopy for chemical analysis (ESCA). Haycox CL, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):719–25

Laser–Raman microprobe identification of inclusions in capsules associated with silicone gel breast implants. Centeno JA, et al. **Mod Pathol** 1999 Jul;12(7):714–21

Pathologic findings in nerve and muscle biopsies from 47 women with silicone breast implants. Vogel H. **Neurology** 1999 Jul 22;53(2):293–7

CHEMISTRY

Release and skin distribution of silicone–related compound(s) from a silicone gel sheet in vitro. Shigeki S, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep–Oct; 12(5):284–8

METABOLISM

The non–specific binding of immunoglobulins to silicone implant materials: the lack of a detectable silicone specific antibody. White KL Jr, et al. **Immunol Invest** 1998 Jul–Sep; 27(4–5):221–35

PHARMACOKINETICS

Release and skin distribution of silicone–related compound(s) from a silicone gel sheet in vitro. Shigeki S, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep–Oct; 12(5):284–8

THERAPEUTIC USE

Silicone gel sheeting for stabilization of skin grafts. Görgü M, et al. **Dermatol Surg** 1998 Oct;24(10):1073–6

SILICONE OILS

Silicone oil tamponade in eyes with posterior staphyloma and retinal detachment caused by macular hole. Scholda C, et al. **Acta Ophthalmol Scand** 1998 Dec;76(6):704–6

The effect of silicone ocular surgical devices on serum IgG binding to silicones. Shaikh S, et al. **Am J Ophthalmol** 1998 Dec;126(6):798–804

Prophylactic argon laser retinopexy prior to removal of silicone oil: a pilot study [letter; comment] Ahluwalia HS, et al. **Eye** 1998;12 (Pt 3a):490. Comment on: Eye 1997;11 (Pt 3):328–30.

Total internal reflection of laser light in eyes filled with silicone oil. Bartov E, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):17–23

Silicone oil removal using a self–sealing corneal incision under topical anesthesia. Yildirim R, et al. **Ophthalmic Surg Lasers** 1999 Jan;30(1):24–6

Phacoemulsification and silicone oil removal through a single corneal incision [see comments] Larkin GB, et al. **Ophthalmology** 1998 Nov;105(11):2023–7. Comment in: Ophthalmology 1999 Jul;106(7):1234–5; discussion 1236. Comment in: Ophthalmology 1999 Jul;106(7):1235; discussion 1236.

MR imaging of intraventricular silicone: case report. Williams RL, et al. **Radiology** 1999 Jul;212(1):151–4

Surgical repair of cytomegalovirus–related retinal detachment without silicone oil in patients with AIDS [see comments] Canzano JC, et al. **Retina** 1999;19(4):274–80. Comment in: Retina 1999 ;19(4):271–3.

[The best timing of silicone oil removal] Jiang Y, et al. **Chung Hua Yen Ko Tsa Chih** 1997 Jan;33(1):39–41 (Eng. Abstr.) **(Chi)**

[Value of posterior capsulorrhexis during combined phacoemulsification and silicone oil removal] Korobelnik JF, et al. **J Fr Ophtalmol** 1998 Nov;21(9):649–53 (Eng. Abstr.) **(Fre)**

[O44—a solvent for silicone oil adhesions on intraocular lenses] Hoerauf H, et al. **Klin Monatsbl Augenheilkd** 1999 Feb;214(2):71–6 (Eng. Abstr.) **(Ger)**

ADMINISTRATION & DOSAGE

Pachometry before and after vitrectomy with silicone oil injection. Buch H, et al. **Acta Ophthalmol Scand** 1999 Aug; 77(4):410–3

Subconjunctival silicone oil drainage through the Molteno implant. Hyung SM, et al. **Korean J Ophthalmol** 1998 Jun; 12(1):73–5

Phacoemulsification and silicone oil removal through a single incision [letter; comment] Batman C, et al. **Ophthalmology** 1999 Jul;106(7):1234–5; discussion 1236. Comment on: Ophthalmology 1998 Nov;105(11):2023–7.

Silicone oil in the repair of pediatric complex retinal detachments: a prospective, observational, multicenter study. Scott IU, et al. **Ophthalmology** 1999 Jul; 106(7):1399–407; discussion 1407–8

Phacoemulsification and silicone oil removal through a single incision [letter; comment] Tanner V, et al. **Ophthalmology** 1999 Jul;106(7):1235; discussion 1236. Comment on: Ophthalmology 1998 Nov;105(11):2023–7.

[Ultrasonic diagnosis of retinal detachment after internal tamponade with silicone oil] Krásnik V, et al. **Cesk Slov Oftalmol** 1998;54(5):305–9 (Eng. Abstr.) **(Slo)**

ADVERSE EFFECTS

Elevated intraocular pressure and hypotony following silicone oil retinal tamponade for complex retinal detachment: incidence and risk factors. Henderer JD, et al. **Arch Ophthalmol** 1999 Feb;117(2):189–95

Pseudo–endothelial dystrophy associated with emulsified silicone oil. Azuara–Blanco A, et al. **Cornea** 1999 Jul; 18(4):493–4

Clinical consequences of the use of highly purified silicone oil. Comparative study of highly and less purified silicone oil. Pastor JC, et al. **Eur J Ophthalmol** 1998 Jul–Sep; 8(3):179–83

Glaucoma after pars plana vitrectomy and silicone oil injection for complicated retinal detachments. Honavar SG, et al. **Ophthalmology** 1999 Jan;106(1):169–76; discussion 177

[Retrolaminar infiltration of optic nerve with intraocular tamponade following silicone oil instillation] Wenkel H, et al. **Klin Monatsbl Augenheilkd** 1999 Feb;214(2):120–2 (Eng. Abstr.) **(Ger)**

CHEMISTRY

A new way of removing silicone oil from the surface of silicone intraocular lenses. Langefeld S, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Mar;237(3):201–6

Chemical stability of silicone oil in the human eye after prolonged clinical use. Lakits A, et al. **Ophthalmology** 1999 Jun;106(6):1091–100

PHARMACOLOGY

In vitro antimicrobial activity of silicone oil against endophthalmitis–causing agents. Ozdamar A, et al. **Retina** 1999;19(2):122–6

THERAPEUTIC USE

Use of silicone oil in the treatment of complicated retinal detachment: results from 1981 to 1994. Han L, et al. **Aust N Z J Ophthalmol** 1998 Nov;26(4):299–304

Primary use of silicone oil tamponade in the management of perforating globe injury secondary to inadvertent local anaesthesia injection for ophthalmic surgery. Rosenthal G, et al. **Int Ophthalmol** 1997–98;21(6):349–52

Silicone oil tamponade to seal macular holes without position restrictions. Goldbaum MH, et al. **Ophthalmology** 1998 Nov;105(11):2140–7; discussion 2147–8

Long–term follow–up of retinal detachment due to macular hole in myopic eyes treated by temporary silicone oil tamponade and laser photocoagulation. Wolfensberger TJ, et al. **Ophthalmology** 1999 Sep;106(9):1786–91

Early primary pars plana vitrectomy in severe eye injuries [letter; comment] Kwok AK, et al. **Retina** 1999;19(1):87–8 . Comment on: Retina 1997;17(4):275–85.

Vitrectomy and silicone oil tamponade for cidofovir–associated hypotony with ciliary body detachment. Lin AP, et al. **Retina** 1999;19(1):75–6

SILICONE RUBBER see **SILICONE ELASTOMERS**

SILICONES

Osseointegrated silicone implants. 18 patients with 57 MCP joints followed for 2 years [see comments] Möller K, et al. **Acta Orthop Scand** 1999 Apr;70(2):109–15. Comment in: Acta Orthop Scand 1999 Apr;70(2):107–8.

Correction of limb deformities with silicone prostheses. Netto NM. **Aesthetic Plast Surg** 1999 Mar–Apr;23(2):134–8

Temporary endovascular balloon occlusion of the internal carotid artery with a nondetachable silicone balloon catheter: analysis of technique and cost. Meyers PM, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):559–64

Silicone molar block used as a fulcrum in condylar surgery. Tung TC, et al. **Ann Plast Surg** 1998 Nov;41(5):485–7

Comparison of tissue reactions in the tracheal mucosa surrounding a bioabsorbable and silicone airway stents. Korpela A, et al. **Ann Thorac Surg** 1998 Nov;66(5):1772–6

Biocompatibility of a silicone–coated polypropylene hollow fiber oxygenator in an in vitro model. Watanabe H, et al. **Ann Thorac Surg** 1999 May;67(5):1315–9

Development of a silicone hollow fiber membrane oxygenator for ECMO application. Yamane S, et al. **ASAIO J** 1998 Sep–Oct;44(5):M384–7

Early peripheral nerve healing in collagen and silicone tube implants: myofibroblasts and the cellular response. Chamberlain LJ, et al. **Biomaterials** 1998 Aug; 19(15):1393–403

Apatite formation on PDMS–modified CaO–SiO2–TiO2 hybrids prepared by sol–gel process. Chen Q, et al. **Biomaterials** 1999 Jun;20(12):1127–32

Investigation of a rifampin, fusidic–acid and mupirocin releasing silicone catheter. Schierholz JM, et al. **Biomaterials** 1998 Nov;19(22):2065–74

Speedo silicone ear plug "snakes" are effective polyacrylamide gel casting seals. Beckman ML. **Biotechniques** 1998 Oct;25(4):592–4

A silicone–coated nylon dressing reduces healing time in burned paediatric patients in comparison with standard sulfadiazine treatment: a prospective randomized trial. Bugmann P, et al. **Burns** 1998 Nov;24(7):609–12

Stabilization of a percutaneously implanted port catheter system for hepatic artery chemotherapy infusion. Shindoh N, et al. **Cardiovasc Intervent Radiol** 1999 Jul–Aug; 22(4):344–7

A comparative study of polyurethane and silicone cuffed–catheters in long–term home total parenteral nutrition patients. Beau P, et al. **Clin Nutr** 1999 Jun; 18(3):175–7

Silicone–covered metal stents: an in vitro evaluation for biofilm formation and patency. Tsang TK, et al. **Dig Dis Sci** 1999 Sep;44(9):1780–5

Adjustable silicone gastric banding: can We continue the original technique of Kuzmak? Eerten PV, et al. **Dig Surg** 1999;16(2):107–10

An interval report on prospective investigation of adjustable silicone gastric banding devices for the treatment of severe obesity. Doherty C, et al. **Eur J Gastroenterol Hepatol** 1999 Feb;11(2):115–9

Functionally adapted surfaces on a silicone keratoprosthesis. Langefeld S, et al. **Int J Artif Organs** 1999;22(4):235–41

Molding of deep polydimethylsiloxane microstructures for microfluidics and biological applications. Folch A, et al. **J Biomech Eng** 1999 Feb;121(1):28–34

Temporary wound covering with a silicon sheet for the soft tissue defect following open fasciotomy. Technical note. Bail DH, et al. **J Cardiovasc Surg (Torino)** 1998 Oct; 39(5):587–91

Mechanism of ureteral stent flow: a comparative in vivo study. Brewer AV, et al. **J Endourol** 1999 May;13(4):269–71

Proximal interphalangeal joint silicone arthroplasty for

posttraumatic arthritis. Hage JJ, et al.
J Hand Surg [Am] 1999 Jan;24(1):73–7

Silicone breast implants: the saga continues [editorial] Martin L. **J Rheumatol** 1999 May;26(5):1020–1

Epidemiology versus outcome. The silicone breast implant controversy [editorial; comment] Vazey FB, et al.
J Rheumatol 1999 May;26(5):1018–9. Comment on: J Rheumatol 1999 May;26(5):1172–5.

"Silicone related symptoms" are common in patients with fibromyalgia: no evidence for a new disease [see comments] Wolfe F. **J Rheumatol** 1999 May;26(5):1172–5. Comment in: J Rheumatol 1999 May;26(5):1018–9. Comment in: J Rheumatol 1999 May;26(5):1080–1.

Antibacterial activity of antibiotic coated silicone grafts. Li H, et al. **J Urol** 1998 Nov;160(5):1910–3

Comparison of early deflation rate of detachable latex and silicone balloons and observations on persistent varicocele. Perälä JM, et al. **J Vasc Interv Radiol** 1998 Sep–Oct; 9(5):761–5

Adherence of Staphylococcus aureus isolated in peritoneal dialysis-related exit-site infections to HEp-2 cells and silicone peritoneal catheter materials. Kreft B, et al.
Nephrol Dial Transplant 1998 Dec;13(12):3160–4

A new surgical technique for the silicone gastric band in the presence of a large hiatus hernia. Anderson PG, et al.
Obes Surg 1999 Apr;9(2):202–4; discussion 204–5

Adjustable silicone gastric banding and band erosion: personal experience and hypotheses. Meir E, et al.
Obes Surg 1999 Apr;9(2):191–3

Clinical surveillance of a tined, bipolar, J-shaped, steroid-eluting, silicone-insulated atrial pacing lead. Glikson M, et al. **Pacing Clin Electrophysiol** 1999 Jul; 22(7):1079–81

Clinical surveillance of a tined, bipolar, steroid-eluting, silicone-insulated ventricular pacing lead. Glikson M, et al. **Pacing Clin Electrophysiol** 1999 May;22(5):765–8

The use of silicone occlusive sheeting (Sil-K) and silicone occlusive gel (Epiderm) in the prevention of hypertrophic scar formation. Niessen FB, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1962–72

The influence of time on human breast capsule histology: smooth and textured silicone-surfaced implants. Wyatt LE, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1922–31

Oral administration of polymer-grafted starch microparticles activates gut-associated lymphocytes and primes mice for a subsequent systemic antigen challenge. Heritage PL, et al. **Vaccine** 1998 Dec;16(20):2010–7

[Non-traumatic method of intubation of the lacrimal duct using a silicone tube: synergism between the ophthalmologist and the anesthetist] Kallay O, et al.
Bull Soc Belge Ophtalmol 1998;268:149–51 (Eng. Abstr.) **(Fre)**

[Alternative treatment of dry eyes by punctum plugs--results in 60 patients] Rivière A, et al.
Bull Soc Belge Ophtalmol 1998;268:95–9 (Eng. Abstr.) **(Fre)**

[Prosthetic replacement of the ureters] Kron B, et al.
Chirurgie 1998 Jun;123(3):292–5; discussion 296 (Eng. Abstr.) **(Fre)**

[Bicanaliculonasal intubation tubes covered with and without polyvinylpyrrolidone. Comparative study] George JL, et al. **J Fr Ophtalmol** 1998 Dec;21(10):727–33 (Eng. Abstr.) **(Fre)**

[Gastric pouch dilatation: complications after laparoscopic implantation of a silicone gastric band in pathologic obesity] Wiesner W, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Nov;169(5):479–83 (Eng. Abstr.) **(Ger)**

ADMINISTRATION & DOSAGE

Accommodation amplitude after lens refilling with injectable silicone by sealing the capsule with a plug in primates. Nishi O, et al. **Arch Ophthalmol** 1998 Oct;116(10):1358–61

Point of Technique. A training model for transurethral injection therapy for stress incontinence. Radley SC, et al. **BJU Int** 1999 Apr;83(6):711–3

Follow-up of functionally lost eyes after vitrectomy and silicone oil tamponade for tractional retinal detachment. van den Brink J, et al.
Graefes Arch Clin Exp Ophthalmol 1999 Sep;237(9):741–4

ADVERSE EFFECTS

Association of silicone breast implants with immunologic abnormalities: a prospective study. Karlson EW, et al.
Am J Med 1999 Jan;106(1):11–9

Massive injections of adulterated liquid silicone: local complications and development of autoimmune diseases [letter] Guerrissi J, et al. **Ann Plast Surg** 1998 Nov; 41(5):572–3

A formal risk assessment of silicone breast implants. Gerszten PC. **Biomaterials** 1999 Jun;20(11):1063–9

Do silicone breast implants affect breastfeeding? Koren G, et al. **Can Fam Physician** 1998 Dec;44:2641–2

Capsulorhexis phymosis following uncomplicated phacoemulsification surgery [letter; comment] Walsh LM, et al. **Eye** 1998;12 (Pt 6):1036–7. Comment on: Eye 1997;11 (Pt 5):635–8.

The immunopathology of siliconosis. History, clinical presentation, and relation to silicosis and the chemistry of silicon and silicone. Shanklin DR, et al. **Immunol Res** 1998; 18(3):125–73 (552 ref.)

Institute of Medicine finds no link between breast implants and disease [news] Nelson N. **J Natl Cancer Inst** 1999 Jul 21;91(14):1191

Additional surgery after breast device implantation [letter; comment] Shanklin DR, et al. **J Rheumatol** 1998 Dec; 25(12):2474–5. Comment on: J Rheumatol 1998 Feb;25(2):254–60.

Silicone filled breast implants and the risk of fibromyalgia and rheumatoid arthritis. Wolfe F, et al. **J Rheumatol** 1999 Sep;26(9):2025–8

Breast implants rise again [editorial] Healy BP.
J Womens Health 1998 Aug;7(6):639–40

No syndrome linked to breast implants, says IoM. Insitute of Medicine [news] Mitchell P. **Lancet** 1999 Jun 26; 353(9171):2215

Silicone gel breast implant adverse event reports to the Food and Drug Administration, 1984–1995. Brown SL, et al.
Public Health 1998 Nov–Dec;113(6):535–43

Silicone safe [news] Reed C. **Sci Am** 1999 Sep;281(3):18

Does long-term exposure to gel-filled silicone implants increase the risk of relapse after breast cancer? Petit JY, et al. **Tumori** 1998 Sep–Oct;84(5):525–8

[Long-term outcome of partial prosthesis management of proximal scaphoid pseudarthroses with a comparison of different follow-up protocols] Beutel FK, et al.
Handchir Mikrochir Plast Chir 1999 May;31(3):162–6; discussion 167–8 (Eng. Abstr.) **(Ger)**

ANALYSIS

Methods for detecting silicones in biological matrixes. Kennan JJ, et al. **Anal Chem** 1999 Aug 1;71(15):3054–60

Plastic migration from implanted central venous access devices. Dewan PA, et al. **Arch Dis Child** 1999 Jul; 81(1):71–2

Analysis of periprosthetic capsular tissue from women with silicone breast implants by magic-angle spinning NMR. Garrido L, et al. **Magn Reson Med** 1999 Sep;42(3):436–41

Analysis of breast implant capsular tissue for crystalline silica and other refractile phases. Pasteris JD, et al.
Plast Reconstr Surg 1999 Apr;103(4):1273–6

CHEMISTRY

Sol-gel modification of silicone to induce apatite-forming ability. Oyane A, et al. **Biomaterials** 1999 Jan;20(1):79–84

Silicone microspheres for pH-controlled gastrointestinal drug delivery. Carelli V, et al. **Int J Pharm** 1999 Mar 1; 179(1):73–83

In vivo resistance to bacterial biofilm formation on tympanostomy tubes as a function of tube material. Saidi IS, et al. **Otolaryngol Head Neck Surg** 1999 May; 120(5):621–7

In vivo formation of heavy oil. Sleep TJ, et al. **Retina** 1999; 19(3):251–5

Release and skin distribution of silicone-related compound(s) from a silicone gel sheet in vitro. Shigeki S, et al.
Skin Pharmacol Appl Skin Physiol 1999 Sep–Oct; 12(5):284–8

A 129Xe NMR study on an ionomeric polymer blend system. Yang C, et al. **Solid State Nucl Magn Reson** 1998 Sep; 12(2–3):153–64

PHARMACOKINETICS

Evaluation of peroral silicone dosage forms in humans by gamma-scintigraphy. Kedzierewicz F, et al.
J Controlled Release 1999 Mar 29;58(2):195–205

Release and skin distribution of silicone-related compound(s) from a silicone gel sheet in vitro. Shigeki S, et al.
Skin Pharmacol Appl Skin Physiol 1999 Sep–Oct; 12(5):284–8

PHARMACOLOGY

Short-term macrophage interleukin-1 response to injected silicone in a rat model. Das SK, et al.
Res Commun Mol Pathol Pharmacol 1998 Sep; 101(3):289–96

RADIATION EFFECTS

[The effect of composition and structure of radiological equivalent materials on radiological equivalent] Wang Y, et al. **Sheng Wu I Hsueh Kung Cheng Hsueh Tsa Chih** 1997 Mar;14(1):42–4, 91 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Lacrimal occlusion therapy for the treatment of superior limbic keratoconjunctivitis. Kabat AG. **Optom Vis Sci** 1998 Oct;75(10):714–8

Vitrectomy with silicone oil or long-acting gas in eyes with giant retinal tears: long-term follow-up of a randomized clinical trial. Batman C, et al. **Retina** 1999;19(3):188–92

[Endoscopic treatment of vesicorenal reflux in children. Five-year assessment of the use of Macroplastique] Dodat H, et al. **Prog Urol** 1998 Dec;8(6):1001–6 (Eng. Abstr.) **(Fre)**

[Usefulness of different silicone oils for intraocular tamponade] Latecka-Krajewska B, et al. **Klin Oczna** 1998; 100(5):295–300 (Eng. Abstr.) **(Pol)**

[The importance of silicone oil removal in prophylaxis of the late complications of internal tamponade]
Wesołek-Czernik A, et al. **Klin Oczna** 1998;100(5):301–4 (Eng. Abstr.) **(Pol)**

[The combined treatment of patients with digestive tract diseases by the action of the enterosorbent Enterosgel and of the intravascular laser irradiation of the blood] Shevchenko IuN, et al. **Lik Sprava** 1998 Aug;(6):149–52 (Eng. Abstr.) **(Rus)**

[Use of a composite organic biosilicone sorption preparation imosdinit in the treatment of anaerobic infections in surgery] Bieliaieva OO, et al. **Klin Khir** 1998;(12):23–7 (Eng. Abstr.) **(Ukr)**

TOXICITY

Influence of long term silicone implantation on type II collagen induced arthritis in mice. Schaefer CJ, et al.
Ann Rheum Dis 1999 Aug;58(8):503–9

Cytotoxicity testing of materials with limited in vivo exposure is affected by the duration of cell-material contact. Ciapetti G, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):485–90

Contrast medium-induced pulmonary edema is aggravated by silicone contamination in rats. Sendo T, et al.
Radiology 1999 Jul;212(1):97–102

SILICOSIS

[Pneumoconiosis and exposure to wood (letter)] Vincent M, et al. **Rev Mal Respir** 1998 Oct;15(5):671 **(Fre)**

BLOOD

[Changes in blood levels of nitric oxide, oxidation and lipoperoxidation in patients with silicosis] Zhou J, et al.
Chung Hua Yu Fang I Hsueh Tsa Chih 1998 Nov; 32(6):333–5 (Eng. Abstr.) **(Chi)**

COMPLICATIONS

[The research on p53 gene mutation in lung cancer tissue of silicotic patients by PCR-SSCR] Zhou P, et al.
Wei Sheng Yen Chiu 1997 Sep;26(5):293–5, 298 (Eng. Abstr.) **(Chi)**

DIAGNOSIS

A silicosis patient presenting with an enlarged supraclavicular lymph node. Wong TW, et al. **Respirology** 1998 Dec; 3(4):281–3

[The main pathogenetic mechanisms in occupational diseases of lungs of dust-related etiology. Part I. From an experiment to a concept] Velichnovskii BT.
Med Tr Prom Ekol 1998;(10):28–38 (23 ref.) **(Rus)**

DRUG THERAPY

[The influence of superoxide dismutase and catalase on the course of the pathological process in the lungs in experimental silicosis] Gusev VA, et al.
Med Tr Prom Ekol 1998;(10):17–21 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Cost-effectiveness of hospital discharge records for reaching selected endpoints in the surveillance of silicosis [see comments] [published erratum appears in Am J Ind Med 1999 Jan;35(1):99] Geidenberger CA, et al.
Am J Ind Med 1998 Nov;34(5):484–92. Comment in: Am J Ind Med 1999 Apr;35(4):434–5.

Connective tissue disease and silicosis. Rosenman KD, et al.
Am J Ind Med 1999 Apr;35(4):375–81

[Dynamic analysis of incidence of silicosis in uranium miners] Yang Y, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Nov;32(6):340–2 (Eng. Abstr.) **(Chi)**

ETIOLOGY

Anti-PL 12 and pulmonary fibrosis in a patient ten years after silica/silicate dust exposure [letter] Osterode W, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):622

Accelerated silicosis with mixed-dust pneumoconiosis in a hard-metal grinder. Cohen C, et al.
J Occup Environ Med 1999 Jun;41(6):480–5

[Silicosis and scouring powder] Vincent M.
Rev Mal Respir 1999 Jun;16(3):404–6 **(Fre)**

[The main pathogenetic mechanisms in occupational diseases of lungs of dust-related etiology. Part I. From an experiment to a concept] Velichnovskii BT.
Med Tr Prom Ekol 1998;(10):28–38 (23 ref.) **(Rus)**

HISTORY

A critique of Borron et al. [letter] Arnold MP.
Am J Ind Med 1998 Oct;34(4):407–8; discussion 409–10

IMMUNOLOGY

Expansion of interferon-gamma-producing lung lymphocytes in mouse silicosis. Davis GS, et al.
Am J Respir Cell Mol Biol 1999 Apr;20(4):813–24

METABOLISM

Fibroblast tropoelastin and alpha-smooth-muscle actin expression are repressed by particulate-activated macrophage-derived tumor necrosis factor-alpha in experimental silicosis. Mariani TJ, et al.
Am J Respir Cell Mol Biol 1999 Aug;21(2):185–92

Immunocytochemical characterization of lung macrophage

surface phenotypes and expression of cytokines in acute experimental silicosis in mice. Orfila C, et al. **Histochem J** 1998 Dec;30(12):857–67

MORTALITY

Crystalline silica exposure, radiological silicosis, and lung cancer mortality in diatomaceous earth industry workers. Checkoway H, et al. **Thorax** 1999 Jan;54(1):56–9

[The mortality due to pulmonary silicosis in the Tuscany region in the last decade demonstrates that the health effects of work exposure to silica are still marked] Merler E, et al. **Epidemiol Prev** 1998 Oct–Dec;22(4):221–5 (Eng. Abstr.) **(Ita)**

PATHOLOGY

Histopathological changes in enlarged thoracic lymph nodes during the development of silicosis in rats. Friedetzky A, et al. **Immunobiology** 1998 Jul;199(1):119–32

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 21–1999. A 69–year–old man with exposure to talc and a pulmonary mass [clinical conference] **N Engl J Med** 1999 Jul 15;341(3):182–90

PHYSIOPATHOLOGY

Expression and localization of TIMP–1, TIMP–2, MMP–13, MMP–2, and MMP–9 in early and advanced experimental lung silicosis. Pardo A, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:587–9

[Acute silicosis. Clinical, radiologic, functional, and cytologic characteristics of the broncho–alveolar fluids. Observations of 6 cases] Duchange L, et al. **Rev Mal Respir** 1998 Sep; 15(4):527–34 (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

What is the most cost–effective way to identify silica problem worksites? [letter; comment] Rosenman KD. **Am J Ind Med** 1999 Apr;35(4):434–5. Comment on: Am J Ind Med 1998 Nov;34(5):484–92.

Controlling silica dust from foundry casting–cleaning operations. National Institute for Occupational Safety and Health. **Appl Occup Environ Hyg** 1999 Mar;14(3):155

Between a rock and a healthy place. Fisher BE. **Environ Health Perspect** 1998 Nov;106(11):A544–6

[The International Program of Global Elimination of Silicosis (editorial)] Liu S. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Nov; 32(6):325–6 **(Chi)**

RADIOGRAPHY

Pulmonary dysfunction in silica–exposed workers: a relationship to radiographic signs of silicosis and emphysema. Wang X, et al. **Am J Ind Med** 1999 Aug; 36(2):299–306

THERAPY

[Experimental studies on the therapeutic effects of lung lavage with large volume of saline on silicosis] Zhang H, et al. **Wei Sheng Yen Chiu** 1997 Mar;26(2):77–9 (Eng. Abstr.) **(Chi)**

SILKMOTHS see **SILKWORMS**

SILKMOTHS, GIANT see **MOTHS**

SILKWORMS

CHEMISTRY

Biological activities of a novel lectin derived from silkworm faeces: characteristic changes of mouse peritoneal macrophages by the lectin. Hirayama E, et al. **Cell Struct Funct** 1998 Oct;23(5):303–13

Purification and partial amino acid sequences of the binding protein from Bombyx mori for CryIAa delta–endotoxin of Bacillus thuringiensis. Ihara H, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 May; 120(1):197–204

Identification of the core domain and the secondary structure of the transcriptional coactivator MBF1. Ozaki J, et al. **Genes Cells** 1999 Jul;4(7):415–24

Swelling and dissolution of silk fibroin (Bombyx mori) in N–methyl morpholine N–oxide. Freddi G, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):251–63

Silk I structure in Bombyx mori silk foams. He SJ, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):187–95

Finite element modeling of banded structures in Bombyx mori silk fibres. Johnson MA, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):139–44

Investigation of the nanofibrillar morphology in silk fibers by small angle X–ray scattering and atomic force microscopy. Miller LD, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):159–65

Microvoids in Bombyx mori silk. An electron microscope study. Robson RM. **Int J Biol Macromol** 1999 Mar–Apr; 24(2–3):145–50

Structure refinement and diffuse streak scattering of silk (Bombyx mori). Takahashi Y, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):127–38

Bombyx mori silk fibroin liquid crystallinity and crystallization at aqueous fibroin–organic solvent interfaces. Valluzzi R, et al. **Int J Biol Macromol** 1999 Mar–Apr;24(2–3):227–36

The functional residues and their representation by a hypothetical 3D model of silkworm eclosion hormone. Fujita N, et al. **Protein Eng** 1998 Sep;11(9):769–73

CYTOLOGY

Behavior of centrioles during meiosis in the male silkworm, Bombyx mori (Lepidoptera). Yamashiki N, et al. **Dev Growth Differ** 1998 Dec;40(6):619–30

Molecular characterization of a stably transformed Bombyx mori cell line: identification of alternative transcriptional initiation sites of the A3 cytoplasmic actin gene. Fatyol K, et al. **Mol Gen Genet** 1998 Oct;260(1):1–8

EMBRYOLOGY

Ecdysone 20–monooxygenase in eggs of the silkworm, Bombyx mori: enzymatic properties and developmental changes. Horike N, et al. **Arch Insect Biochem Physiol** 1999; 41(1):9–17

ENZYMOLOGY

Ecdysone 20–monooxygenase in eggs of the silkworm, Bombyx mori: enzymatic properties and developmental changes. Horike N, et al. **Arch Insect Biochem Physiol** 1999; 41(1):9–17

Cloning and sequence analysis of the aminopeptidase N isozyme (APN2) from Bombyx mori midgut. Hua G, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):213–22

Binding of phylogenetically distant Bacillus thuringiensis cry toxins to a Bombyx mori aminopeptidase N suggests importance of Cry toxin's conserved structure in receptor binding. Shinkawa A, et al. **Curr Microbiol** 1999 Jul; 39(1):14–20

Toxic impact of organophosphorus insecticides on acetylcholinesterase activity in the silkworm, Bombyx mori L. Surendra Nath B, et al. **Ecotoxicol Environ Saf** 1999 Feb;42(2):157–62

A novel inhibitor protein for Bombyx cysteine proteinase is homologous to propeptide regions of cysteine proteinases. Yamamoto Y, et al. **FEBS Lett** 1999 Apr 9; 448(2–3):257–60

Structure and expression of tandemly duplicated xanthine dehydrogenase genes of the silkworm (Bombyx mori). Kōmoto N, et al. **Insect Mol Biol** 1999 Feb;8(1):73–83

Cloning and sequence of a cDNA for a highly basic protease from the digestive juice of the silkworm, Bombyx mori. Kotani E, et al. **Insect Mol Biol** 1999 May;8(2):299–304

Prophenoloxidase–activating enzyme of the silkworm, Bombyx mori. Purification, characterization, and cDNA cloning. Satoh D, et al. **J Biol Chem** 1999 Mar 12; 274(11):7441–53

GENETICS

Inducible gene expression of moricin, a unique antibacterial peptide from the silkworm (Bombyx mori). Furukawa S, et al. **Biochem J** 1999 May 15;340 (Pt 1):265–71

cDNA cloning and expression of Bacillus thuringiensis Cry1Aa toxin binding 120 kDa aminopeptidase N from Bombyx mori. Yaoi K, et al. **Biochim Biophys Acta** 1999 Jan 18;1444(1):131–7

Molecular cloning of cDNA for BRab from the brain of Bombyx mori and biochemical properties of BRab expressed in Escherichia coli. Uno T, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1885–91

Transformed Lepidopteran insect cells: new sources of recombinant human tissue plasminogen activator. Farrell PJ, et al. **Biotechnol Bioeng** 1999 Aug 20;64(4):426–33

Cloning and sequence analysis of the aminopeptidase N isozyme (APN2) from Bombyx mori midgut. Hua G, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):213–22

Molecular cloning and characterization of a cDNA encoding a larval cuticle protein of Bombyx mori. Shofuda K, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jan; 122(1):105–9

cDNA cloning and gene expression of cecropin D, an antibacterial protein in the silkworm, Bombyx mori. Yang J, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Apr;122(4):409–14

A novel member of the bombyxin gene family: structure and expression of bombyxin G1 gene, an insulin–related peptide gene of the silkmoth Bombyx mori. Yoshida I, et al. **Dev Genes Evol** 1998 Sep;208(7):407–10

Expression pattern analysis of SGF–3/POU–M1 in relation to sericin–1 gene expression in the silk gland. Matsunami K, et al. **Dev Growth Differ** 1998 Dec;40(6):591–7

Comparison of sequences of a transcriptional coactivator MBF2 from three Lepidopteran species Bombyx mori, Bombyx mandarina and Samia cynthia. Liu QX, et al. **Gene** 1998 Oct 5;220(1–2):55–9

Cloning and characterization of the TATA–binding protein of the silkworm Bombyx mori. Ouyang C, et al. **Gene** 1998 Oct 23;221(2):207–13

A complete full–length non–LTR retrotransposon, BMC1, on the W chromosome of the silkworm, Bombyx mori. Abe H, et al. **Genes Genet Syst** 1998 Dec;73(6):353–8

Identification of novel random amplified polymorphic DNAs (RAPDs) on the W chromosome of the domesticated silkworm, Bombyx mori, and the wild silkworm, B. mandarina, and their retrotransposable element–related nucleotide sequences. Abe H, et al. **Genes Genet Syst** 1998 Aug;73(4):243–54

Genetic mapping of RAPD markers linked to the densonucleosis refractoriness gene, nsd–1, in the silkworm, Bombyx mori. Abe H, et al. **Genes Genet Syst** 1998 Aug; 73(4):237–42

Molecular structure of the copia–like retrotransposable element Yokozuna on the W chromosome of the silkworm, Bombyx mori. Ohbayashi F, et al. **Genes Genet Syst** 1998 Dec;73(6):345–52

A dense genetic map of the silkworm, Bombyx mori, covering all chromosomes based on 1018 molecular markers. Yasukochi Y. **Genetics** 1998 Dec;150(4):1513–25

Bm kettin, homologue of the Drosophila kettin gene, is located on the Z chromosome in Bombyx mori and is not dosage compensated. Suzuki MG, et al. **Heredity** 1999 Feb; 82 (Pt 2):170–9

Absence of dosage compensation at the transcription level of a sex–linked gene in a female heterogametic insect, Bombyx mori. Suzuki MG, et al. **Heredity** 1998 Sep;81 (Pt 3):275–83

Cloning of soluble alkaline phosphatase cDNA and molecular basis of the polymorphic nature in alkaline phosphatase isozymes of Bombyx mori midgut. Itoh M, et al. **Insect Biochem Mol Biol** 1999 Feb;29(2):121–9

Diapause–associated transcription of BmEts, a gene encoding an ETS transcription factor homolog in Bombyx mori. Suzuki MG, et al. **Insect Biochem Mol Biol** 1999 Apr; 29(4):339–47

Ribosomal protein L5 of Bombyx mori: cDNA sequence and tissue differences in the L5 mRNA content. Yang C, et al. **Insect Mol Biol** 1998 Nov;7(4):301–6

A pattern recognition protein for peptidoglycan. Cloning the cDNA and the gene of the silkworm, Bombyx mori. Ochiai M, et al. **J Biol Chem** 1999 Apr 23;274(17):11854–8

A novel tripartite structure comprising a mariner–like element and two additional retrotransposons found in the Bombyx mori genome. Nakajima Y, et al. **J Mol Evol** 1999 May;48(5):577–85

An alternative intronic promoter of the Bombyx A3 cytoplasmic actin gene exhibits a high level of transcriptional activity in mammalian cells. Fatyol K, et al. **Mol Gen Genet** 1999 Mar;261(2):337–45

Construction and characterization of bacterial artificial chromosome libraries from the silkworm, Bombyx mori. Wu C, et al. **Mol Gen Genet** 1999 Jun;261(4–5):698–706

A simple and accurate method for generating co–dominant markers: an application of conformation–sensitive gel electrophoresis to linkage analysis in the silkworm. Yasukochi Y. **Mol Gen Genet** 1999 Jun;261(4–5):796–802

Silk worm Bm1 SINE RNA increases following cellular insults. Kimura RH, et al. **Nucleic Acids Res** 1999 Aug 15;27(16):3380–7

Transcription analysis of the telomeric repeat–specific retrotransposons TRAS1 and SART1 of the silkworm Bombyx mori. Takahashi H, et al. **Nucleic Acids Res** 1999 May 1;27(9):2015–21

GROWTH & DEVELOPMENT

Effect of tropine derivatives, antimuscarinic agents, on the growth of Bombyx mori larvae. Toyomura N, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):2046–8

Expression pattern analysis of SGF–3/POU–M1 in relation to sericin–1 gene expression in the silk gland. Matsunami K, et al. **Dev Growth Differ** 1998 Dec;40(6):591–7

A hydrophobic peptide (VAP–peptide) of the silkworm, Bombyx mori: a unique role for adult activity proposed from gene expression and production at the terminal phase of metamorphosis. Shiomi K, et al. **Insect Biochem Mol Biol** 1998 Sep;28(9):671–6

IMMUNOLOGY

Immune proteins and their gene expression in the silkworm, Bombyx mori. Yamakawa M, et al. **Dev Comp Immunol** 1999 Jun–Jul;23(4–5):281–9 (41 ref.)

Minimum structure of peptidoglycan required for induction of antibacterial protein synthesis in the silkworm, Bombyx mori. Iketani M, et al. **Insect Biochem Mol Biol** 1999 Jan; 29(1):19–24

METABOLISM

Determination of the site of disulfide linkage between heavy and light chains of silk fibroin produced by Bombyx mori. Tanaka K, et al. **Biochim Biophys Acta** 1999 Jun 15; 1432(1):92–103

Minimum structure of diapause hormone required for biological activity. Imai K, et al. **Biosci Biotechnol Biochem** 1998 Oct;62(10):1875–9

Expression of elongation factor 1 beta' in Escherichia coli and its interaction with elongation factor 1 alpha from silk gland. Kamiie K, et al. **Biosci Biotechnol Biochem** 1999 Apr;63(4):666–71

Molecular cloning of a new type of cDNA for pheromone biosynthesis activating neuropeptide in the silkworm, Bombyx mori. Kawano T, et al. **Biosci Biotechnol Biochem** 1997 Oct;61(10):1745–7

Biosynthesis of major plasma proteins in the primary culture of fat body cells from the silkworm, Bombyx mori. Kishimoto A, et al. **Cell Tissue Res** 1999 Aug;297(2):329–35

SILKWORMS

Isolation and characterization of calmodulin in the pheromone gland of the silkworm, Bombyx mori. Iwanaga M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug;120(4):761-7

Lipid transfer particle catalyzes transfer of carotenoids between lipophorins of Bombyx mori. Tsuchida K, et al. **Insect Biochem Mol Biol** 1998 Dec;28(12):927-34

MICROBIOLOGY

Gut colonization by an ice nucleation active bacterium, Erwinia (Pantoea) ananas reduces the cold hardiness of mulberry pyralid larvae. Watanabe K, et al. **Cryobiology** 1999 Jun;38(4):281-9

Plasmid-mediated gene transfer between insect-resident bacteria, Enterobacter cloacae, and plant-epiphytic bacteria, Erwinia herbicola, in guts of silkworm larvae. Watanabe K, et al. **Curr Microbiol** 1998 Nov;37(5):352-5

PHYSIOLOGY

Accomplishment of time-interval activation of esterase A4 by simple removal of pin fraction. Kai H, et al. **Chronobiol Int** 1999 Jan;16(1):51-8

Behavior of centrioles during meiosis in the male silkworm, Bombyx mori (Lepidoptera). Yamashiki N, et al. **Dev Growth Differ** 1998 Dec;40(6):619-30

Primary structure and possible functions of a trypsin inhibitor of Bombyx mori. Kurioka A, et al. **Eur J Biochem** 1999 Jan;259(1-2):120-6

A hydrophobic peptide (VAP-peptide) of the silkworm, Bombyx mori: a unique role for adult activity proposed from gene expression and production at the terminal phase of metamorphosis. Shiomi K, et al. **Insect Biochem Mol Biol** 1998 Sep;28(9):671-6

Spatio-temporal activities in the antennal lobe analyzed by an optical recording method in the male silkworm moth Bombyx mori. Ai H, et al. **Neurosci Lett** 1998 Dec 24; 258(3):135-8

Synchronous firing patterns of a set of insect neurosecretory cells. Ichikawa T, et al. **Neurosci Lett** 1999 Apr 2; 264(1-3):85-8

[Molecular mechanism of diapause in Bombyx mori. 2. Diapause determination and expression of diapause hormone gene in pupal stage] Xu WH. **I Chuan Hsueh Pao** 1999;26(2):107-11 (Eng. Abstr.) **(Chi)**

VIROLOGY

Effect of rearing at non-permissive temperature on silkworm larvae infected with temperature-sensitive lef-8 mutant of bombyx mori nucleopolyhedrovirus. Shikata M, et al. **Acta Virol** 1998 Nov;42(5):285-92

Molecular characterization of baculovirus Bombyx mori nucleopolyhedrovirus polyhedron mutants. Katsuma S, et al. **Arch Virol** 1999;144(7):1275-85

Recombinant Bombyx mori nucleopolyhedrovirus harboring green fluorescent protein. Sehgal D, et al. **Biotechniques** 1998 Dec;25(6):997-1000, 1002, 1004 passim

Two concentric protein shell structure with spikes of silkworm Bombyx mori cytoplasmic polyhedrosis virus revealed by small-angle neutron scattering using the contrast variation method. Tomita M, et al. **J Biochem (Tokyo)** 1999 May;125(5):916-22

Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus. Gomi S, et al. **J Gen Virol** 1999 May;80 (Pt 5):1323-37

Characterization of the 25K FP gene of the baculovirus Bombyx mori nucleopolyhedrovirus: implications for post-mortem host degradation. Katsuma S, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):783-91

The potential role of a late gene expression factor, lef2, from Bombyx mori nuclear polyhedrosis virus in very late gene transcription and DNA replication. Sriram S, et al. **Virology** 1998 Nov 10;251(1):108-22

SILKWORMS, GIANT see **MOTHS**

SILOXANES

Polyvinyl siloxane impression materials: an update on clinical use. Mandikos MN. **Aust Dent J** 1998 Dec;43(6):428-34 (48 ref.)

Preventing bacterial adhesion onto surfaces: the low-surface-energy approach. Tsibouklis J, et al. **Biomaterials** 1999 Jul;20(13):1229-35

Polyvinylsiloxane dental bite registration material used to splint a composite graft of the nasal rim. Gregory G, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):139-41

ADMINISTRATION & DOSAGE

Comparative efficacy of and sequence choice for two oral contrast agents used during MR imaging. Grubnic S, et al. **AJR Am J Roentgenol** 1999 Jul;173(1):173-8

Accommodation amplitude after lens refilling with injectable silicone by sealing the capsule with a plug in primates. Nishi O, et al. **Arch Ophthalmol** 1998 Oct;116(10):1358-61

CHEMISTRY

Effect of frequency and amplitude of vibration on void formation in dies poured from polyvinyl siloxane impressions. Abdullah MA. **J Prosthet Dent** 1998 Oct; 80(4):490-4

METABOLISM

Microbial degradation of octamethylcyclotetrasiloxane. Grümping R, et al. **Appl Environ Microbiol** 1999 May; 65(5):2276-8

PHARMACOKINETICS

Biodegradation of polysiloxanes in lymph nodes of rats measured with 29Si NMR. Pfleiderer B, et al. **Biomaterials** 1999 Mar;20(6):561-71

Quantitative exposure of humans to an octamethylcyclotetrasiloxane (D4) vapor. Utell MJ, et al. **Toxicol Sci** 1998 Aug;44(2):206-13

PHARMACOLOGY

Induction of hepatic xenobiotic metabolizing enzymes in female Fischer-344 rats following repeated inhalation exposure to decamethylcyclopentasiloxane (D5). McKim JM Jr, et al. **Toxicol Sci** 1999 Jul;50(1):10-9

TOXICITY

Re: Felix,K., Lin,S., Bornkamm,G.W. and Janz,S. (1998) tetravinyl-tetramethylcyclo-tetrasiloxane (tetravinyl D4) is a mutagen in Rat2lambdalacI fibroblasts. Carcinogenesis, 19, 315-320 [letter] Kulig K. **Carcinogenesis** 1999 Aug; 20(8):1653-4

Cyclosiloxanes produce fatal liver and lung damage in mice. Lieberman MW, et al. **Environ Health Perspect** 1999 Feb; 107(2):161-5

Acute respiratory exposure of human volunteers to octamethylcyclotetrasiloxane (D4): absence of immunological effects. Looney RJ, et al. **Toxicol Sci** 1998 Aug;44(2):214-20

SILURID see **CATFISH**

SILVER

Early antibacterial effect of Pd-Ag dental alloy on aerobic and microaerophilic flora in oral cavity. Stipetić J, et al. **Coll Antropol** 1998 Dec;22 Suppl:31-8

Reduced rates of catheter-associated infection by use of a new silver-impregnated central venous catheter. Böswald M, et al. **Infection** 1999;27 Suppl 1:S56-60

Thermoplastic polyurethane--the material used for the Erlanger silver catheter. Hentschel T, et al. **Infection** 1999; 27 Suppl 1:S43-5

Determination of the silver ion release from polyurethanes enriched with silver. Joyce-Wöhrmann RM, et al. **Infection** 1999;27 Suppl 1:S46-8

Three-body wear of a hand-consolidated silver alternative to amalgam. Xu HH, et al. **J Dent Res** 1999 Sep; 78(9):1560-7

Definitive cure of recurrent prosthetic endocarditis using silver-coated St. Jude Medical heart valves: a preliminary case report. Carrel T, et al. **J Heart Valve Dis** 1998 Sep; 7(5):531-3

Efficacy of silver-coated medical devices. Schierholz JM, et al. **J Hosp Infect** 1998 Dec;40(4):257-62 (51 ref.)

ADMINISTRATION & DOSAGE

Inhibitory effect of antibacterial resin composite against Streptococcus mutans. Tanagawa M, et al. **Caries Res** 1999 Sep-Oct;33(5):366-71

ADVERSE EFFECTS

Ring-induced nail pitting? [letter] Grimm V, et al. **Acta Derm Venereol** 1999 Jan;79(1):82

CHEMISTRY

Sequencing of argentinated peptides by means of electrospray tandem mass spectrometry. Chu IK, et al. **Anal Chem** 1999 Jul 1;71(13):2364-72

Surface treated large bore catheters with silver based coatings versus untreated catheters for extracorporeal detoxification methods. Bambauer R, et al. **ASAIO J** 1998 Jul-Aug; 44(4):303-8

Silver and thallium(I) complexation with dibenzo-16-crown-4. Ouchi M, et al. **Bioorg Med Chem** 1999 Jun;7(6):1123-6

Surface interactions of a homologous series of alpha,omega-amino acids on colloidal silver and gold. Ooka AA, et al. **Biospectroscopy** 1999;5(1):9-17

Dynamic viscoelastic properties of antimicrobial tissue conditioners containing silver-zeolite. Ueshige M, et al. **J Dent** 1999 Sep;27(7):517-22

Indentation creep behavior of a direct-filling silver alternative to amalgam [letter; comment] Mueller HJ, et al. **J Dent Res** 1999 Mar;78(3):724. Comment on: J Dent Res 1998 Dec;77(12):1991-8.

Indentation creep behavior of a direct-filling silver alternative to amalgam [see comments] Xu HH, et al. **J Dent Res** 1998 Dec;77(12):1991-8. Comment in: J Dent Res 1999 Mar;78(3):724.

Effect of noble metal conditioners on bonding between prosthetic composite material and silver-palladium-copper-gold alloy. Matsumura H, et al. **J Prosthet Dent** 1999 Jun;81(6):710-4

Validation of K-edge 125I brachytherapy enhancement with silver compounds. Young LA, et al. **Phys Med Biol** 1999 Aug;44(8):1921-35

[Interaction of Ag+ ions with ribonucleotides of canonical bases] Sorokin VA, et al. **Biofizika** 1999 Mar-Apr; 44(2):208-15 (Eng. Abstr.) **(Rus)**

DIAGNOSTIC USE

Fibroblast silver loading for the diagnosis of Menkes disease. Verheijen FW, et al. **J Med Genet** 1998 Oct;35(10):849-51

[PCR in combination with silver as a method for the determination of apolipoprotein E alleles] Zhang A, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1998 Oct 10;15(5):310-2 (Eng. Abstr.) **(Chi)**

[Transmission electron microscopic observations on dentin structures stained with silver] Zhong W. **Kokubyo Gakkai Zasshi** 1999 Jun;66(2):189-222 (Eng. Abstr.) **(Jpn)**

METABOLISM

Perineuronal nets of proteoglycans in the adult mouse brain, with special reference to their reactions to Gömöri's ammoniacal silver and Ehrlich's methylene blue. Murakami T, et al. **Arch Histol Cytol** 1999 Mar;62(1):71-81

Plastocyanin binding to photosystem I as a function of the charge state of the metal ion: effect of metal site conformation. Danielsen E, et al. **Biochemistry** 1999 Aug 31;38(35):11531-40

Characterization of a heavy metal ion transporter in the lysosomal membrane. Havelaar AC, et al. **FEBS Lett** 1998 Oct 2;436(2):223-7

A new insight into the Ag+ and Cu+ binding sites in the metallothionein beta domain. Bofill R, et al. **J Inorg Biochem** 1999 Jan-Feb;73(1-2):57-64

Recovery of an oligonucleotide using silver ions immobilized onto paramagnetic particles. Ramirez-Vick JE, et al. **Prep Biochem Biotechnol** 1998 Aug;28(3):243-60

PHARMACOKINETICS

ATP-dependent silver transport across the basolateral membrane of rainbow trout gills. Bury NR, et al. **Toxicol Appl Pharmacol** 1999 Aug 15;159(1):1-8

PHARMACOLOGY

Efficacy of topical silver against fungal burn wound pathogens. Wright JB, et al. **Am J Infect Control** 1999 Aug; 27(4):344-50

Effects of halides on plasmid-mediated silver resistance in Escherichia coli. Gupta A, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5042-5

Antibacterial activity of resin composites with silver-containing materials. Yoshida K, et al. **Eur J Oral Sci** 1999 Aug;107(4):290-6

Effect of silver leaf on circulating lipids and cardiac and hepatic enzymes. Sharma DC, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):285-8

The Erlanger silver catheter: in vitro results for antimicrobial activity. Bechert T, et al. **Infection** 1999;27 Suppl 1:S24-9

Reducing catheter-associated infections with silver-impregnated catheters in long-term therapy of children. Carbon RT, et al. **Infection** 1999;27 Suppl 1:S69-73

A new technology of microdispersed silver in polyurethane induces antimicrobial activity in central venous catheters. Guggenbichler JP, et al. **Infection** 1999;27 Suppl 1:S16-23 (49 ref.)

Clinical study of the Erlanger silver catheter--data management and biometry. Martus P, et al. **Infection** 1999; 27 Suppl 1:S61-8

Catheter-associated infections in urology: possible use of silver-impregnated catheters and the Erlanger silver catheter. Rösch W, et al. **Infection** 1999;27 Suppl 1:S74-7 (36 ref.)

A swine model for the evaluation of efficacy of anti-microbial catheter coatings. Gilbert JA, et al. **J Biomater Sci Polym Ed** 1998;9(9):931-42

The dependence of Ag+ block of a potassium channel, murine kir2.1, on a cysteine residue in the selectivity filter. Dart C, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):15-24

Silver as a biocide: will resistance become a problem? Gupta A, et al. **Nat Biotechnol** 1998 Oct;16(10):888

Molecular basis for resistance to silver cations in Salmonella. Gupta A, et al. **Nat Med** 1999 Feb;5(2):183-8

POISONING see ARGYRIA

THERAPEUTIC USE

Effect of a silver device in preventing catheter-related infections in peritoneal dialysis patients: silver ring prophylaxis at the catheter exit study. Pommer W, et al. **Am J Kidney Dis** 1998 Nov;32(5):752-60

Efficacy of silver-coating central venous catheters in reducing bacterial colonization [see comments] Bach A, et al. **Crit Care Med** 1999 Mar;27(3):515-21. Comment in: Crit Care Med 1999 Mar;27(3):456-8.

Unfinished business: assessing the efficacy of extraluminal silver ions on the prevention of microbial colonization and catheter-associated infection [editorial; comment] Beekmann SE, et al. **Crit Care Med** 1999 Mar;27(3):456-8

Comment on: Crit Care Med 1999 Mar;27(3):515-21.

TOXICITY

Analysis of the acute cytotoxicity of the Erlanger silver catheter. Greil J, et al. **Infection** 1999;27 Suppl 1:S34-7

SILVER COMPOUNDS

Silver coating of medical devices for catheter-associated infections? [letter] Schierholz JM, et al. **Am J Med** 1999 Jul;107(1):101-2

Silver-plated vitamins: a method of detecting tocopherols and carotenoids in LC/ESI-MS coupling. Rentel C, et al. **Anal Chem** 1998 Oct 15;70(20):4394-400

ADMINISTRATION & DOSAGE

Otorrhea after insertion of silver oxide-impregnated silastic tympanostomy tubes. Gourin CG, et al. **Arch Otolaryngol Head Neck Surg** 1999 Apr;125(4):446-50

ANALYSIS

Abnormally high fluoride levels in commercial preparations of 40 per cent silver fluoride solution: contraindications for use in children. Gotjamanos T, et al. **Aust Dent J** 1998 Dec;43(6):422-7

CHEMISTRY

Electron microscope characterization of AgBr heterojunctions with silver carboxylates and their influence on the morphology of developed silver particles in thermally developed photomaterials. Bokhonov BB, et al. **Microsc Res Tech** 1998 Jul 15;42(2):152-72

Transmission electron microscopy studies of (111) twinned silver halide microcrystals. Goessens C, et al. **Microsc Res Tech** 1998 Jul 15;42(2):85-99

XPS and STM studies of pseudo-AgX monolayers organized on Ag(111) and Au/Ag(111) surfaces. Kawasaki M, et al. **Microsc Res Tech** 1998 Jul 15;42(2):100-7

Investigation of growth of AgX tabular crystals. Larichev TA, et al. **Microsc Res Tech** 1998 Jul 15;42(2):139-44

Research of new AgX crystal forms by transmission electron microscopy. Novikova LA, et al. **Microsc Res Tech** 1998 Jul 15;42(2):148-51

Introduction to microscopic research of silver halides and related dispersed systems. Oleshko V. **Microsc Res Tech** 1998 Jul 15;42(2):82-4

Combined characterization of composite tabular silver halide microcrystals by cryo-EFTEM/EELS and cryo-STEM/EDX techniques. Oleshko VP, et al. **Microsc Res Tech** 1998 Jul 15;42(2):108-22

Morphology and structure of photosensitive dye J-aggregates adsorbed on AgBr microcrystals grown in gelatin. Saijo H, et al. **Microsc Res Tech** 1998 Jul 15; 42(2):123-38

Mass crystallization of silver chloride microcrystals. Sechkarev BA. **Microsc Res Tech** 1998 Jul 15;42(2):145-7

In vivo resistance to bacterial biofilm formation on tympanostomy tubes as a function of tube material. Saidi IS, et al. **Otolaryngol Head Neck Surg** 1999 May; 120(5):621-7

IMMUNOLOGY

Biocompatibility testing of a new silver-impregnated catheter in vivo. Böswald M, et al. **Infection** 1999;27 Suppl 1:S38-42

PHARMACOLOGY

Radiopaque poly(2-hydroxyethyl methacrylate) particles containing silver iodide complexes tested on cell culture. Horák D, et al. **Biomaterials** 1998 Jul;19(14):1303-7

In vitro antimicrobial activity of a new antiseptic central venous catheter. Li C, et al. **J Biomater Appl** 1999 Jan; 13(3):206-23

Antibacterial properties of a silver chloride-coated nylon wound dressing. Adams AP, et al. **Vet Surg** 1999 Jul-Aug; 28(4):219-25

TOXICITY

Lack of genotoxicity of silver iodide in the SCE assay in vitro, in vivo, and in the Ames/microsome test. Eliopoulos P, et al. **Teratog Carcinog Mutagen** 1998;18(6):303-8

SILVER NITRATE

ADMINISTRATION & DOSAGE

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Curettage or silver nitrate for pyogenic granulomas on the hand. Dollery W. **J Accid Emerg Med** 1999 Mar;16(2):140-1

ADVERSE EFFECTS

The toxicology of silver nitrate. Humphreys SD, et al. **Adverse Drug React Toxicol Rev** 1998 Jun-Sep; 17(2-3):115-43 (91 ref.)

Can silver nitrate instillation for the treatment of chyluria be fatal? Mandhani A, et al. **Br J Urol** 1998 Dec;82(6):926-7

Re: 'Finger discoloration due to silver nitrate exposure', December 1998 (J Roy Soc Health; 118 (6); 371-374) [letter; comment] Hawkes AJ. **J R Soc Health** 1999 Mar; 119(1):59. Comment on: J R Soc Health 1998 Dec;118(6):371-4.

Lessons to be learned: a case study approach. Finger discoloration due to silver nitrate exposure: review of uses and toxicity of silver in clinical practice [see comments] Sankar NS, et al. **J R Soc Health** 1998 Dec;118(6):371-4 . Comment in: J R Soc Health 1999 Mar;119(1):59.

METABOLISM

Role of metallothionein on Ag accumulation in hepatic and renal cytosol after Ag injection to rats. Saito S, et al. **Pharmacol Toxicol** 1999 Jul;85(1):22-8

PHARMACOLOGY

Effects of halides on plasmid-mediated silver resistance in Escherichia coli. Gupta A, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5042-5

Clinical evaluation of a new A.S. mouth wash 881010 as an antismoking agent: a placebo-controlled double-blind trial. Zmeili S, et al. **Int J Clin Pharmacol Ther** 1999 Jan; 37(1):41-50

Silver nitrate: antimicrobial activity related to cytotoxicity in cultured human fibroblasts. Hidalgo E, et al. **Skin Pharmacol Appl Skin Physiol** 1998 May-Jun; 11(3):140-51

THERAPEUTIC USE

Wound management in an era of increasing bacterial antibiotic resistance: a role for topical silver treatment. Wright JB, et al. **Am J Infect Control** 1998 Dec;26(6):572-7

Silver nitrate for Bartholin gland cysts [letter] Ergeneli MH. **Eur J Obstet Gynecol Reprod Biol** 1999 Feb;82(2):231-2

[On the treatment of dacryocanaliculitis] Sultanov MIu. **Vestn Oftalmol** 1999 Jan-Feb;115(1):31-2 (Eng. Abstr.) **(Rus)**

TOXICITY

Study of cytotoxicity mechanisms of silver nitrate in human dermal fibroblasts. Hidalgo E, et al. **Toxicol Lett** 1998 Sep 15;98(3):169-79

SILVER NITRATE STAINING see **SILVER STAINING**

SILVER STAINING

Cytoskeletal alterations in the human tuberal hypothalamus related to argyrophilic grain disease. Schultz C, et al. **Acta Neuropathol (Berl)** 1998 Dec;96(6):596-602

Effects of sex steroids on silver stained proteins of nucleolar organizer regions (Ag-NOR) in the rabbit uterus. Yokoyama Y, et al. **Biotech Histochem** 1998 Jul; 73(4):202-10

Argyrophilic nucleolar organizer region proteins (AgNORs) as an index of clinical and radiological invasiveness in pituitary adenomas. Uma B, et al. **Br J Neurosurg** 1998 Dec;12(6):582-4

Characterisation of the nucleolar organising regions during the cell cycle in two varieties of Petunia hybrida as visualised by fluorescence in situ hybridisation and silver staining. Montijn MB, et al. **Chromosoma** 1998 May; 107(2):80-6

Polymorphism of the nucleolus organizer regions (NORs) in Physalaemus petersi (Amphibia, Anura, Leptodactylidae) detected by silver staining and fluorescence in situ hybridization. Lourenço LB, et al. **Chromosome Res** 1998 Dec;6(8):621-8

Rapid detection of gammaT cell receptor gene rearrangements in acute lymphoblastic leukemia by electrophoresis and silver staining: implications for detection of minimal residual disease. Valetto A, et al. **Electrophoresis** 1998 Jun;19(8-9):1385-7

At 40 years of the 'Golden Chain'. Which are the stem cells in ectocervical epithelium? Zwillenberg LO. **Gynecol Obstet Invest** 1998;46(4):247-51

AgNORs in cardiomyocytes from surgical patients with coronary heart disease. Mamaev NN, et al. **Mol Pathol** 1998 Aug;51(4):218-21

The innervation of human skin studied with confocal scanning laser microscopy: a comparison between PGP 9.5 immunofluorescence and silver impregnations. Rumio C, et al. **Neuroimage** 1995 Jun;2(2):102-11

[The diagnostic value of Ag-NOR technique in colorectal cancer] Trevisan M, et al. **Arq Gastroenterol** 1998 Apr-Jun; 35(2):89-94 (Eng. Abstr.) **(Por)**

METHODS

The silver reaction of nucleolar proteins in the main structural compartments of ring-shaped nucleoli in smear preparations. Smetana K, et al. **Acta Histochem** 1999 Apr; 101(2):167-83

Discrepancy between tau immunoreactivity and argyrophilia by the Bodian method in neocortical neurons of corticobasal degeneration. Uchihara T, et al. **Acta Neuropathol (Berl)** 1998 Dec;96(6):553-7

Differential silver-staining sodium dodecyl sulfate-polyacrylamide gel electrophoresis: a nonisotopic method for characterizing gel-separated histone-DNA complexes. Carter GJ, et al. **Anal Biochem** 1998 Oct 1; 263(1):79-84

Protein identification at the low femtomole level from silver-stained gels using a new fritless electrospray interface for liquid chromatography-microspray and nanospray mass spectrometry. Gatlin CL, et al. **Anal Biochem** 1998 Oct 1;263(1):93-101

Silver methenamine staining for scanning electron microscopy of bone sections containing biomaterials. Frayssinet P, et al. **Biotech Histochem** 1999 Jan;74(1):10-5

A comparison of the anti-histone and Apop-Tag technique for demonstrating apoptosis with option for silver enhancement. Al-hazzaa AA, et al. **Cell Biol Int** 1998; 22(4):271-6

Cytopathology and AgNOR counts in fine-needle aspiration cytology smears of thyroid lesions. Mehrotra A, et al. **Diagn Cytopathol** 1998 Oct;19(4):238-43

Mass spectrometric identification of proteins from silver-stained polyacrylamide gel: a method for the removal of silver ions to enhance sensitivity. Gharahdaghi F, et al. **Electrophoresis** 1999 Mar;20(3):601-5

On the mechanism of background silver staining during sodium dodecyl sulphate-polyacrylamide gel electrophoresis. Patras G, et al. **Electrophoresis** 1999 Jul; 20(10):2039-45

Detection of coccoid Helicobacter pylori: light microscopical immunogold silver enhancing stain. Saito N, et al. **Helicobacter** 1998 Sep;3(3):170-3

Visualization of vaginal flora in cervical smears using a modified microwave silver-staining method. Boon ME, et al. **Histochem J** 1998 Feb;30(2):75-80

Effect of inflammatory stimuli on the silver staining pattern of the rat carotid endothelium. Gabaldón M, et al. **Histochem J** 1999 Mar;31(3):153-60

Silver development in microscopy and bioanalysis: a new versatile formulation for modern needs. Newman GR, et al. **Histochem J** 1998 Sep;30(9):635-45

The modified Steiner stain: a new use for an old stain? Staining cytomegalovirus-infected cells in gastrointestinal biopsies. Saiz E, et al. **Histochem J** 1998 Aug;30(8):549-52

Silver staining method for demonstrating Lewy bodies in Parkinson's disease and argyrophilic oligodendrocytes in multiple system atrophy. Braak E, et al. **J Neurosci Methods** 1999 Feb 1;87(1):111-5

Silver development in microscopy and bioanalysis: past and present. Newman GR, et al. **J Pathol** 1998 Oct; 186(2):119-25 (136 ref.)

Use of immunogold with silver enhancement. Oliver C. **Methods Mol Biol** 1999;115:241-5 (12 ref.)

Silver staining of 2-D electrophoresis gels. Rabilloud T. **Methods Mol Biol** 1999;112:297-305 (12 ref.)

Value of AgNOR counts and morphometric analysis of nuclear parameters in premalignant and malignant lesions of the uterine cervix. Wierzchniewska A, et al. **Pol J Pathol** 1998;49(4):297-301

Comparison of three methods of microsatellite detection. Christensen M, et al. **Scand J Clin Lab Invest** 1999 May; 59(3):167-77

SILVER SULFADIAZINE

Efficacy of antiseptic-impregnated central venous catheters in preventing catheter-related bloodstream infection: a meta-analysis [see comments] Veenstra DL, et al. **JAMA** 1999 Jan 20;281(3):261-7. Comment in: ACP J Club 1999 Jul-Aug;131(1):15.

ADVERSE EFFECTS

Silver sulfadiazine induced Clostridium difficile toxic megacolon in a burn patient: case report. Jennings LJ, et al. **Burns** 1998 Nov;24(7):676-9

Antimicrobial-impregnated central venous catheters [letter; comment] Yasukawa T, et al. **N Engl J Med** 1999 Jun 3; 340(22):1762. Comment on: N Engl J Med 1999 Jan 7;340(1):1-8.

PHARMACOLOGY

Effects of sucrose and silver on Staphylococcus aureus biofilms. Akiyama H, et al. **J Antimicrob Chemother** 1998 Nov;42(5):629-34

THERAPEUTIC USE

Our experience with the use of cerium sulphadiazine in the treatment of extensive burns. Koller J, et al. **Acta Chir Plast** 1998;40(3):73-5

Wound management in an era of increasing bacterial antibiotic resistance: a role for topical silver treatment. Wright JB, et al. **Am J Infect Control** 1998 Dec;26(6):572-7

A meta-analysis dealing with the effectiveness of chlorhexidine and silver-sulfhadiazine impregnated central venous catheters [letter; comment] [see comments] Haxhe JJ, et al. **J Hosp Infect** 1998 Oct;40(2):166-8. Comment on: J Hosp Infect 1997 Oct;37(2):145-56. Comment in: J Hosp Infect 1999 Jun;42(2):163-5.

The quantity and duration of the antimicrobial efficacy of a chlorhexidine and silversulfadiazine impregnated catheter [letter; comment] Schierholz JM, et al. **J Hosp Infect** 1999 Jun;42(2):163-5. Comment on: J Hosp Infect 1998 Oct;40(2):166-8.

SILYBIN see **SILYMARIN**

SILYMARIN

ADVERSE EFFECTS

Aminotransferase levels and silymarin in de novo tacrine-treated patients with Alzheimer's disease. Allain H, et al. **Dement Geriatr Cogn Disord** 1999 May-Jun; 10(3):181-5

An adverse reaction to the herbal medication milk thistle (Silybum marianum). Adverse Drug Reactions Advisory Committee. **Med J Aust** 1999 Mar 1;170(5):218-9

BLOOD

Aminotransferase levels and silymarin in de novo tacrine-treated patients with Alzheimer's disease. Allain H, et al. **Dement Geriatr Cogn Disord** 1999 May-Jun; 10(3):181-5

PHARMACOKINETICS

Softgel capsule technology as an enhancer device for the absorption of natural principles in humans. A bioavailability cross-over randomised study on silybin. Savio D, et al. **Arzneimittelforschung** 1998 Nov;48(11):1104-6

PHARMACOLOGY

Milk thistle: Silybum marianum. Pepping J. **Am J Health Syst Pharm** 1999 Jun 15;56(12):1195-7

Modulation of mitogen-activated protein kinase activation and cell cycle regulators by the potent skin cancer preventive agent silymarin. Zi X, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):528-36

Effect of alpha-tocopherol and silibin dihemisuccinate on the proliferation of human skin fibroblasts. Onat D, et al. **Biotechnol Appl Biochem** 1999 Jun;29 (Pt 3):213-5

Selective inhibition of NF-kappaB activation by the flavonoid hepatoprotector silymarin in HepG2. Evidence for different activating pathways. Saliou C, et al. **FEBS Lett** 1998 Nov 27;440(1-2):8-12

Protective effects of the flavonoid mixture, silymarin, on fetal rat brain and liver. La Grange L, et al. **J Ethnopharmacol** 1999 Apr;65(1):53-61

Stimulatory effects of silibinin and silicristin from the milk thistle Silybum marianum on kidney cells. Sonnenbichler J, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1375-83

Silymarin as a potential hypocholesterolaemic drug. Skottová N, et al. **Physiol Res** 1998;47(1):1-7 (61 ref.)

Prevention by a silymarin/phospholipid compound of ethanol-induced social learning deficits in rats. Reid C, et al. **Planta Med** 1999 Jun;65(5):421-4

Silibinin decreases prostate-specific antigen with cell growth inhibition via G1 arrest, leading to differentiation of prostate carcinoma cells: implications for prostate cancer intervention. Zi X, et al. **Proc Natl Acad Sci U S A** 1999 Jun 22;96(13):7490-5

Influence of tumor necrosis factor-alpha and silibin on the cytotoxic action of alpha-amanitin in rat hepatocyte culture. El-Bahay C, et al. **Toxicol Appl Pharmacol** 1999 Aug 1;158(3):253-60

[Effect of silymarin on mouse liver damage, production and activity of tumor necrosis factor] Zhang JP, et al. **Yao Hsueh Hsuch Pao** 1996;31(8):577-80 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Re: Flora et al. Silymarin for the therapy of liver disease [letter; comment] Bode JC. **Am J Gastroenterol** 1999 Feb; 94(2):545-6. Comment on: Am J Gastroenterol 1998 Feb;93(2):139-43.

A flavonoid antioxidant, silymarin, affords exceptionally high protection against tumor promotion in the SENCAR mouse skin tumorigenesis model. Lahiri-Chatterjee M, et al. **Cancer Res** 1999 Feb 1;59(3):622-32

[Silymarin-containing phytopharmaceuticals--biopharmacy as an essential therapeutic quality criterion] Frömming KH, et al. **Z Arztl Fortbild Qualitatssich** 1999 Jun;93(4):VI-XI (20 ref.) **(Ger)**

[Biologically active additive from milk thistle in the solution of public health problems] Gil'miiarov EM, et al. **Vopr Pitan** 1998;(3):33-5 (Eng. Abstr.) **(Rus)**

SIMAZINE

ANALYSIS

Immunoassay techniques for detection of the herbicide simazine based on use of oppositely charged water-soluble polyelectrolytes. Yazynina EV, et al. **Anal Chem** 1999 Aug 15;71(16):3538-43

Integrated optical surface plasmon resonance immunoprobe for simazine detection. Harris RD, et al. **Biosens Bioelectron** 1999 Apr 30;14(4):377-86

Analysis of trace atrazine and simazine in environmental samples by liquid chromatography-fluorescence detection with pre-column derivatization reaction. Gong A, et al. **J Chromatogr A** 1998 Dec 4;827(1):57-63

METABOLISM

In vitro metabolism of chlorotriazines: characterization of simazine, atrazine, and propazine metabolism using liver microsomes from rats treated with various cytochrome P450 inducers. Hanioka N, et al. **Toxicol Appl Pharmacol** 1999 May 1;156(3):195-205

SIMBU GROUP VIRUSES

Epidemiology of endemic Oropouche virus transmission in upper Amazonian Peru. Baisley KJ, et al. **Am J Trop Med Hyg** 1998 Nov;59(5):710-6

GENETICS

Nucleotide sequencing of S-RNA segment and sequence analysis of the nucleocapsid protein gene of the newly isolated Akabane virus PT-17 strain. Chang CW, et al. **Biochem Mol Biol Int** 1998 Aug;45(5):979-87

IMMUNOLOGY

Aino virus antigen in brain lesions of a naturally aborted bovine fetus. Noda Y, et al. **Vet Pathol** 1998 Sep; 35(5):409-11

ISOLATION & PURIFICATION

Study of Akabane infection in Saudi Arabia by the use of sentinel ruminants. Abu Elzein EM, et al. **J Comp Pathol** 1998 Nov;119(4):473-8

Isolation of Aino virus from an aborted bovine fetus. Uchinuno Y, et al. **J Vet Med Sci** 1998 Oct;60(10):1139-40

SIMETHICONE

ADVERSE EFFECTS

Safety and efficacy of a new oral contrast agent for sonography: a phase II trial. Lev-Toaff AS, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):431-6

PHARMACOLOGY

Effect of simethicone on the accuracy of the rapid urease test. Ng FH, et al. **Eur J Gastroenterol Hepatol** 1998 Oct; 10(10):851-4

THERAPEUTIC USE

Loperamide-simethicone vs loperamide alone, simethicone alone, and placebo in the treatment of acute diarrhea with gas-related abdominal discomfort. A randomized controlled trial. Kaplan MA, et al. **Arch Fam Med** 1999 May-Jun;8(3):243-8

Prevention of sodium lauryl sulfate irritant contact dermatitis by Pro-Q aerosol foam skin protectant. Patterson SE, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):783-5

SIMIAN ACQUIRED IMMUNODEFICIENCY SYNDROME

Effect of complement consumption by cobra venom factor on the the course of primary infection with simian immunodeficiency virus in rhesus monkeys. Schmitz JE, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20; 15(2):195-202

Pathogenesis of simian immunodeficiency virus infection. Whetter LE, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1557-68 (137 ref.)

Simian immunodeficiency virus as a model of human HIV disease. Geretti AM. **Rev Med Virol** 1999 Jan-Mar; 9(1):57-67 (82 ref.)

RANTES, IFN-gamma, CCR1, and CCR5 mRNA expression in peripheral blood, lymph node, and bronchoalveolar lavage mononuclear cells during primary simian immunodeficiency virus infection of macaques. Chéret A, et al. **Virology** 1999 Mar 15;255(2):285-93

BLOOD

"Have you seen this?" Abnormal lymphocytes in simian retrovirus (type D)-infected cynomolgus monkeys. Usborne AL, et al. **Toxicol Pathol** 1999 Jul-Aug; 27(4):468-70

COMPLICATIONS

Association of simian virus 40 with a central nervous system lesion distinct from progressive multifocal leukoencephalopathy in macaques with AIDS. Simon MA, et al. **Am J Pathol** 1999 Feb;154(2):437-46

Differential tumor necrosis factor alpha production in simian immunodeficiency virus-infected rhesus macaques coinfected with Mycobacterium avium. Newman GW, et al. **Clin Infect Dis** 1999 Mar;28(3):514-9

Coinfection of macaques with simian immunodeficiency virus and simian T cell leukemia virus type I: effects on virus burdens and disease progression. Fultz PN, et al. **J Infect Dis** 1999 Mar;179(3):600-11

Motor skill impairment in SIV-infected rhesus macaques with rapidly and slowly progressing disease. Marcario JK, et al. **J Med Primatol** 1999 Jun;28(3):105-17

Immunohistochemical studies of productive rhesus cytomegalovirus infection in rhesus monkeys (Macaca mulatta) infected with simian immunodeficiency virus. Kuhn EM, et al. **Vet Pathol** 1999 Jan;36(1):51-6

DRUG THERAPY

Molecular cloning and expression of rhesus macaque and sooty mangabey interleukin 16: biologic activity and effect on simian immunodeficiency virus infection and/or replication [published erratum appears in AIDS Res Hum Retroviruses 1998 Nov 20;14(17):1604A] Lee ME, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1323-8

9-[2-(Phosphonomethoxy)propyl]adenine (PMPA) therapy prolongs survival of infant macaques inoculated with simian immunodeficiency virus with reduced susceptibility to PMPA. Van Rompay KK, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):802-12

Antiviral effects of 6-chloro-2',3'-dideoxyguanosine in rhesus monkeys acutely infected with simian immunodeficiency virus. Fujii Y, et al. **Antivir Chem Chemother** 1998 Jan;9(1):85-92

Administration of 9-[2-(R)-(phosphonomethoxy)propyl]adenine (PMPA) to gravid and infant rhesus macaques (Macaca mulatta): safety and efficacy studies. Tarantal AF, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 1;20(4):323-33

Activated memory CD4(+) T helper cells repopulate the intestine early following antiretroviral therapy of simian immunodeficiency virus-infected rhesus macaques but exhibit a decreased potential to produce interleukin-2. Mattapallil JJ, et al. **J Virol** 1999 Aug;73(8):6661-9

Early short-term 9-[2-(R)-(phosphonomethoxy)propyl]adenine treatment favorably alters the subsequent disease course in simian immunodeficiency virus-infected newborn Rhesus macaques. van Rompay KK, et al. **J Virol** 1999 Apr; 73(4):2947-55

New drug makes host cell machinery unavailable to HIV [news] Senior K. **Mol Med Today** 1999 Jun;5(6):234-5

Consequences of ddI-induced reduction of acute SIVmac251 virus load on cytokine profiles in cynomolgus macaques. Gigout L, et al. **Res Virol** 1998 Nov-Dec;149(6):341-54

ENZYMOLOGY

Increased expression of nitric oxide synthase and dendritic injury in simian immunodeficiency virus encephalitis. Li Q, et al. **J Hum Virol** 1999 May-Jun;2(3):139-45

ETIOLOGY

Pathogenesis of simian immunodeficiency virus pneumonia: an immunopathological response to virus. Mankowski JL, et al. **Am J Pathol** 1998 Oct;153(4):1123-30

Diverse host responses and outcomes following simian immunodeficiency virus SIVmac239 infection in sooty mangabeys and rhesus macaques. Kaur A, et al. **J Virol** 1998 Dec;72(12):9597-611

Isolation and characterization of a neuropathogenic simian immunodeficiency virus derived from a sooty mangabey. Novembre FJ, et al. **J Virol** 1998 Nov;72(11):8841-51

Rhesus macaques infected with macrophage-tropic simian immunodeficiency virus (SIVmacR71/17E) exhibit extensive focal segmental and global glomerulosclerosis. Stephens EB, et al. **J Virol** 1998 Nov;72(11):8820-32

GENETICS

Mutations in CCR5-coding sequences are not associated with SIV carrier status in African nonhuman primates. Müller-Trutwin MC, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):931-9

Species-specific changes in the CCR5 gene from African and Asian nonhuman primates. Saksena NK, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):479-83

Natural infection of a homozygous delta24 CCR5 red-capped mangabey with an R2b-tropic simian immunodeficiency virus. Chen Z, et al. **J Exp Med** 1998 Dec 7;188(11):2057-65

Telomere dynamics in monkeys: increased cell turnover in macaques infected with chimeric simian-human immunodeficiency viruses. Shibata R, et al. **J Med Primatol** 1999 Feb;28(1):1-10

IMMUNOLOGY

The CD8+ T lymphocyte response during primary SIVmac infection. Letvin NL, et al. **Adv Exp Med Biol** 1998; 452:177-9

The decline of CD8+CD28+ peripheral lymphocytes is correlated with the evolution of AIDS in macaques infected with SIVmac251 [letter] Lebel-Binay S, et al. **AIDS** 1999 Jan 14;13(1):136-7

Sequential analysis of apoptosis induction in peripheral blood mononuclear cells and lymph nodes in the early phase of pathogenic and nonpathogenic SIVmac infection. Iida T, et al. **AIDS Res Hum Retroviruses** 1999 May 20;15(8):721-9

Mucosal antibody expression following rapid SIV(Mne) dissemination in intrarectally infected Macaca nemestrina. Kuller L, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10; 14(15):1345-56

Phenotypic changes in peripheral blood monocytes of cynomolgus monkeys acutely infected with simian immunodeficiency virus. Otani I, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1181-6

Simian immunodeficiency virus, infection, alcohol, and host defense. Bagby GJ, et al. **Alcohol Clin Exp Res** 1998 Aug; 22(5 Suppl):193S-195S (19 ref.)

Ethanol suppression of the functional state of polymorphonuclear leukocytes obtained from uninfected and simian immunodeficiency virus infected rhesus

macaques. Stoltz DA, et al. **Alcohol Clin Exp Res** 1999 May;23(5):878–84

Effects of SIVmac infection on peripheral blood CD4+CD8+ T lymphocytes in cynomolgus macaques. Akari H, et al. **Clin Immunol** 1999 Jun;91(3):321–9

Rapid mucosal CD4(+) T-cell depletion and enteropathy in simian immunodeficiency virus-infected rhesus macaques. Kewenig S, et al. **Gastroenterology** 1999 May; 116(5):1115–23

Macaque lymphocytes transduced by a constitutively expressed interferon beta gene display an enhanced resistance to SIVmac251 infection. Matheux F, et al. **Hum Gene Ther** 1999 Feb 10;10(3):429–40

Rapid and slow progressors differ by a single MHC class I haplotype in a family of MHC-defined rhesus macaques infected with SIV. Evans DT, et al. **Immunol Lett** 1999 Mar;66(1–3):53–9

Why are the natural hosts of SIV resistant to AIDS? Norley S, et al. **Immunol Lett** 1999 Mar;66(1–3):47–52

Towards an AIDS vaccine: the role of primate models. Nathanson N. **Int J STD AIDS** 1998;9 Suppl 1:3–7

Induction of B cell hyperplasia in simian immunodeficiency virus-infected rhesus macaques with the simian homologue of Kaposi's sarcoma-associated herpesvirus. Wong SW, et al. **J Exp Med** 1999 Sep 20;190(6):827–40

Beta-chemokine production in macaques vaccinated with live attenuated virus correlates with protection against simian immunodeficiency virus (SIVsm) challenge. Ahmed RK, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1569–74

Secretion of beta-chemokines by bronchoalveolar lavage cells during primary infection of macaques inoculated with attenuated nef-deleted or pathogenic simian immunodeficiency virus strain mac251. Caufour P, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):767–76

Determinants of disease in the simian immunodeficiency virus-infected rhesus macaque: characterizing animals with low antibody responses and rapid progression. Dykhuizen M, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2461–7

Emergence of CTL coincides with clearance of virus during primary simian immunodeficiency virus infection in rhesus monkeys. Kuroda MJ, et al. **J Immunol** 1999 May 1; 162(9):5127–33

Selective induction of protective MHC class I-restricted CTL in the intestinal lamina propria of rhesus monkeys by transient SIV infection of the colonic mucosa. Murphey-Corb M, et al. **J Immunol** 1999 Jan 1;162(1):540–9

Mycobacterium bovis bacille Calmette-Guérin enhances pathogenicity of simian immunodeficiency virus infection and accelerates progression to AIDS in macaques: a role of persistent T cell activation in AIDS pathogenesis. Zhou D, et al. **J Immunol** 1999 Feb 15;162(4):2204–16

Studies of CD40L expression by lymphoid cells from experimentally and naturally SIV-infected nonhuman primate species. Brice GT, et al. **J Med Primatol** 1999 Apr; 28(2):49–56

Neutralizing antibody responses in Africa green monkeys naturally infected with simian immunodeficiency virus (SIVagm). Gicheru MM, et al. **J Med Primatol** 1999 Jun; 28(3):97–104

In vitro infection of primate PBMC with simian/human immunodeficiency virus, SHIV(SF33A): correlation to in vivo outcome. Harouse JM, et al. **J Med Primatol** 1998 Apr-Jun;27(2–3):81–6

SIVmac vaccine studies using whole inactivated virus antigen sequentially depleted of viral proteins. Norley S, et al. **J Med Primatol** 1998 Aug;27(4):184–92

Intracellular cytokine expression in the CD4+ and CD8+ T cells from intestinal mucosa of simian immunodeficiency virus infected macaques. Smit-McBride Z, et al. **J Med Primatol** 1998 Apr-Jun;27(2–3):129–40

Factors associated with slow disease progression in macaques immunized with an adenovirus-simian immunodeficiency virus (SIV) envelope priming-gp120 boosting regimen and challenged vaginally with SIVmac251. Buge SL, et al. **J Virol** 1999 Sep;73(9):7430–40

Postinoculation PMPA treatment, but not preinoculation immunomodulatory therapy, protects against development of acute disease induced by the unique simian immunodeficiency virus SIVsmmPBj. Hodge S, et al. **J Virol** 1999 Oct;73(10):8630–9

Diverse host responses and outcomes following simian immunodeficiency virus SIVmac239 infection in sooty mangabeys and rhesus macaques. Kaur A, et al. **J Virol** 1998 Dec;72(12):9597–611

Comparative analysis of cytotoxic T lymphocytes in lymph nodes and peripheral blood of simian immunodeficiency virus-infected rhesus monkeys. Kuroda MJ, et al. **J Virol** 1999 Feb;73(2):1573–9

Occult systemic infection and persistent simian immunodeficiency virus (SIV)-specific CD4(+)-T-cell proliferative responses in rhesus macaques that were transiently viremic after intravaginal inoculation of SIV. McChesney MB, et al. **J Virol** 1998 Dec;72(12):10029–35

Activated memory CD4(+) T helper cells repopulate the intestine early following antiretroviral therapy of simian immunodeficiency virus-infected rhesus macaques but exhibit a decreased potential to produce interleukin-2. Mattapallil JJ, et al. **J Virol** 1999 Aug;73(8):6661–9

Gastrointestinal epithelium is an early extrathymic site for increased prevalence of CD34(+) progenitor cells in contrast to the thymus during primary simian immunodeficiency virus infection. Mattapallil JJ, et al. **J Virol** 1999 May;73(5):4518–23

Role of immune responses against the envelope and the core antigens of simian immunodeficiency virus SIVmne in protection against homologous cloned and uncloned virus challenge in Macaques. Polacino PS, et al. **J Virol** 1999 Oct;73(10):8201–15

Asymptomatic simian immunodeficiency virus infection decreases blood CD4(+) T cells by accumulating recirculating lymphocytes in the lymphoid tissues. Schenkel AR, et al. **J Virol** 1999 Jan;73(1):601–7

Protective role of the virus-specific immune response for development of severe neurologic signs in simian immunodeficiency virus-infected macaques. Sopper S, et al. **J Virol** 1998 Dec;72(12):9940–7

Protection by live, attenuated simian immunodeficiency virus against heterologous challenge. Wyand MS, et al. **J Virol** 1999 Oct;73(10):8356–63

High major histocompatibility complex-unrestricted lysis of simian immunodeficiency virus envelope-expressing cells predisposes macaques to rapid AIDS progression. Yin C, et al. **J Virol** 1999 May;73(5):3692–701

Correspondence re: Immunophenotypic characterization of SIV-infected dendritic cells in the cervix, vagina, and draining lymph nodes of rhesus monkeys, by Hu J, Pope M, Brown C, O'Doherty U, and Miller CJ (Lab Invest 1998;78:435–451) [letter; comment] Nuovo M. **Lab Invest** 1998 Nov;78(11):1343–4. Comment on: Lab Invest 1998 Apr;78(4):435–51.

Control of SHIV-89.6P-infection of cynomolgus monkeys by HIV-1 Tat protein vaccine [see comments] Cafaro A, et al. **Nat Med** 1999 Jun;5(6):643–50. Comment in: Nat Med 1999 Jun;5(6):612–4.

Consequences of ddI-induced reduction of acute SIVmac251 virus load on cytokine profiles in cynomolgus macaques. Gigout L, et al. **Res Virol** 1998 Nov-Dec;149(6):341–54

Control of viremia in simian immunodeficiency virus infection by CD8+ lymphocytes. Schmitz JE, et al. **Science** 1999 Feb 5;283(5403):857–60

The importance of lymphocyte trafficking in regulating blood lymphocyte levels during HIV and SIV infections. Rosenberg YJ, et al. **Semin Immunol** 1999 Apr;11(2):139–54 (113 ref.)

Alterations in RANTES gene expression and T-cell prevalence in intestinal mucosa during pathogenic or nonpathogenic simian immunodeficiency virus infection. Ndolo T, et al. **Virology** 1999 Jun 20;259(1):110–8

METABOLISM

Chemokine receptors in HIV-1 and SIV infection. Choe H. **Arch Pharm Res** 1998 Dec;21(6):634–9 (38 ref.)

Identification of SV40 in brain, kidney and urine of healthy and SIV-infected rhesus monkeys [see comments] Newman JS, et al. **J Neurovirol** 1998 Aug;4(4):394–406. Comment in: J Neurovirol 1999 Jun;5(3):324.

Neurovirulent simian immunodeficiency virus induces calbindin-D-28K in astrocytes. Berman NE, et al. **Mol Chem Neuropathol** 1998 May;34(1):25–38

PATHOLOGY

SIV-associated nephropathy in rhesus macaques infected with lymphocyte-tropic SIVmac239. Gattone VH 2nd, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1163–80

Chemokine receptor expression and signaling in macaque and human fetal neurons and astrocytes: implications for the neuropathogenesis of AIDS. Klein RS, et al. **J Immunol** 1999 Aug 1;163(3):1636–46

The SIV-infected rhesus monkey model for HIV-associated dementia and implications for neurological diseases. Rausch DM, et al. **J Leukoc Biol** 1999 Apr;65(4):466–74 (74 ref.)

Telomere dynamics in monkeys: increased cell turnover in macaques infected with chimeric simian-human immunodeficiency viruses. Shibata R, et al. **J Med Primatol** 1999 Feb;28(1):1–10

Viral load and neuropathology in the SIV model. Boche D, et al. **J Neurovirol** 1999 Jun;5(3):232–40

Rhesus macaques infected with macrophage-tropic simian immunodeficiency virus (SIVmacR71/17E) exhibit extensive focal segmental and global glomerulosclerosis. Stephens EB, et al. **J Virol** 1998 Nov;72(11):8820–32

Progressive dendritic pathology in cynomolgus macaques infected with simian immunodeficiency virus. Montgomery MM, et al. **Neuropathol Appl Neurobiol** 1999 Feb;25(1):11–9

Changes in neuron size in cynomolgus macaques infected with various immunodeficiency viruses and poliovirus. Montgomery MM, et al. **Neuropathol Appl Neurobiol** 1998 Dec;24(6):468–75

Morphological correlates of neurological dysfunction in macaques infected with neurovirulent simian immunodeficiency virus. Raghavan R, et al. **Neuropathol Appl Neurobiol** 1999 Aug;25(4):285–94

PHYSIOPATHOLOGY

Involvement of microglia in cerebrospinal fluid glutamate increase in SIV-infected rhesus monkeys (Macaca mulatta). Koutsilieri E, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):471–7

Viremia and AIDS in rhesus macaques after intramuscular inoculation of plasmid DNA encoding full-length SIVmac239. Liska V, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):445–50

Simple and choice reaction time performance in SIV-infected rhesus macaques. Marcario JK, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):571–83

HIV/SIV enteropathy. Zeitz M, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:139–48 (48 ref.)

Coinfection of macaques with simian immunodeficiency virus and simian T cell leukemia virus type I: effects on virus burdens and disease progression. Fultz PN, et al. **J Infect Dis** 1999 Mar;179(3):600–11

Longitudinal analysis of behavioral, neurophysiological, viral and immunological effects of SIV infection in rhesus monkeys. Gold LH, et al. **J Med Primatol** 1998 Apr-Jun; 27(2–3):104–12

Natural history of SIVmac BK28 and H824 infection in Macaca nemestrina. Mulvania T, et al. **J Med Primatol** 1998 Apr-Jun;27(2–3):87–93

SIVrcm infection of macaques. Smith SM, et al. **J Med Primatol** 1998 Apr-Jun;27(2–3):94–8

Motor evoked potentials in a rhesus macaque model of neuro-AIDS. Raymond LA, et al. **J Neurovirol** 1999 Jun; 5(3):217–31

Early physiological abnormalities after simian immunodeficiency virus infection. Horn TF, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15072–7

Characterization of a neutralization-escape variant of SHIVKU-1, a virus that causes acquired immune deficiency syndrome in pig-tailed macaques. Narayan SV, et al. **Virology** 1999 Mar 30;256(1):54–63

Viral burden and disease progression in rhesus monkeys infected with chimeric simian-human immunodeficiency viruses. Reimann KA, et al. **Virology** 1999 Mar 30; 256(1):15–21

[Astrocytes and lentivirus infection in an experimental models of macaque infected with SIVmac251] Guillemin G, et al. **C R Seances Soc Biol Fil** 1998;192(1):179–86 (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Live attenuated simian immunodeficiency virus (SIV)mac in macaques can induce protection against mucosal infection with SIVsm. Nilsson C, et al. **AIDS** 1998 Dec 3; 12(17):2261–70

Neutralizing antibodies administered before, but not after, virulent SHIV prevent infection in macaques. Foresman L, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10; 14(12):1035–43

Passively administered neutralizing serum that protected macaques against infection with parenterally inoculated pathogenic simian-human immunodeficiency virus failed to protect against mucosally inoculated virus. Joag SV, et al. **AIDS Res Hum Retroviruses** 1999 Mar 1;15(4):391–4

CD8+ lymphocyte antiviral activity in monkeys immunized with SIV recombinant poxvirus vaccines: potential role in vaccine efficacy. Leno M, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):461–70

Mechanisms of protection induced by attenuated simian immunodeficiency virus. II. Lymphocyte depletion does not abrogate protection. Stebbings R, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1187–98

Candidate vaccines protect macaques against primate immunodeficiency viruses. Stott J, et al. **AIDS Res Hum Retroviruses** 1998 Oct;14 Suppl 3:S265–70 (54 ref.)

Effect of 3-hydroxyphthaloyl-beta-lactoglobulin on vaginal transmission of simian immunodeficiency virus in rhesus monkeys. Wyand MS, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):978–80

Protective immunity induced by live attenuated simian immunodeficiency virus. Johnson RP, et al. **Curr Opin Immunol** 1998 Aug;10(4):436–43 (62 ref.)

Induction of inhibitory antibodies to the CCR5 chemokine receptor and their complementary role in preventing SIV infection in macaques. Lehner T, et al. **Eur J Immunol** 1999 Aug;29(8):2427–35

Protection from pathogenic SIV challenge using multigenic DNA vaccines. Haigwood NL, et al. **Immunol Lett** 1999 Mar;66(1–3):183–8

HIV-1 vaccine-induced immune responses which correlate with protection from SHIV infection: compiled preclinical efficacy data from trials with ten different HIV-1 vaccine candidates. Heeney J, et al. **Immunol Lett** 1999 Mar; 66(1–3):189–95

Prechallenge high neutralizing antibodies and long-lasting immune reactivity to gp41 correlate with protection of rhesus monkeys against productive simian immunodeficiency virus infection or disease development. Petry H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):441–50

Beta-chemokine production in macaques vaccinated with live attenuated virus correlates with protection against simian immunodeficiency virus (SIVsm) challenge. Ahmed RK, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1569–74

The appearance of escape variants in vivo does not account for the failure of recombinant envelope vaccines to protect against simian immunodeficiency virus. Almond N, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2375–82

Postinoculation PMPA treatment, but not preinoculation immunomodulatory therapy, protects against development of acute disease induced by the unique simian immunodeficiency virus SIVsmmPBj. Hodge S, et al. **J Virol** 1999 Oct;73(10):8630–9

Limited protection from a pathogenic chimeric

simian-human immunodeficiency virus challenge following immunization with attenuated simian immunodeficiency virus. Lewis MG, et al. **J Virol** 1999 Feb;73(2):1262-70

Protection of macaques against intrarectal infection by a combination immunization regimen with recombinant simian immunodeficiency virus SIVmne gp160 vaccines. Polacino P, et al. **J Virol** 1999 Apr;73(4):3134-46

Limited breadth of the protective immunity elicited by simian immunodeficiency virus SIVmne gp160 vaccines in a combination immunization regimen. Polacino P, et al. **J Virol** 1999 Jan;73(1):618-30

Role of immune responses against the envelope and the core antigens of simian immunodeficiency virus SIVmne in protection against homologous cloned and uncloned virus challenge in Macaques. Polacino PS, et al. **J Virol** 1999 Oct;73(10):8201-15

Protection by live, attenuated simian immunodeficiency virus against heterologous challenge. Wyand MS, et al. **J Virol** 1999 Oct;73(10):8356-63

Live attenuated, multiply deleted simian immunodeficiency virus causes AIDS in infant and adult macaques [see comments] [published erratum appears in Nat Med 199 May;5(5):590] Baba TW, et al. **Nat Med** 1999 Feb; 5(2):194-203. Comment in: Nat Med 1999 Feb;5(2):154-5.

Neutralizing antibody directed against the HIV-1 envelope glycoprotein can completely block HIV-1/SIV chimeric virus infections of macaque monkeys [see comments] Shibata R, et al. **Nat Med** 1999 Feb;5(2):204-10. Comment in: Nat Med 1999 Feb;5(2):142-4.

Long-lasting protection by live attenuated simian immunodeficiency virus in cynomolgus monkeys: no detection of reactivation after stimulation with a recall antigen. Sernicola L, et al. **Virology** 1999 Apr 10; 256(2):291-302

PSYCHOLOGY

The relationship of personality dimensions in adult male rhesus macaques to progression of simian immunodeficiency virus disease. Capitanio JP, et al. **Brain Behav Immun** 1999 Jun;13(2):138-54

Longitudinal analysis of behavioral, neurophysiological, viral and immunological effects of SIV infection in rhesus monkeys. Gold LH, et al. **J Med Primatol** 1998 Apr-Jun; 27(2-3):104-12

THERAPY

Control of SHIV-89.6P-infection of cynomolgus monkeys by HIV-1 Tat protein vaccine [see comments] Cafaro A, et al. **Nat Med** 1999 Jun;5(6):643-50. Comment in: Nat Med 1999 Jun;5(6):612-4.

TRANSMISSION

The origins of AIDS. Dixon B. **Curr Biol** 1999 Mar 25; 9(6):R192

Replication capacity of simian immunodeficiency virus in cultured macaque macrophages and dendritic cells is not prerequisite for intravaginal transmission of the virus in macaques. Enose Y, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):847-55

T cell-tropic simian immunodeficiency virus (SIV) and simian-human immunodeficiency viruses are readily transmitted by vaginal inoculation of rhesus macaques, and Langerhans' cells of the female genital tract are infected with SIV. Miller CJ, et al. **J Infect Dis** 1999 May;179 Suppl 3:S413-7

Oral transmission of primate lentiviruses. Ruprecht RM, et al. **J Infect Dis** 1999 May;179 Suppl 3:S408-12

VIROLOGY

Recombinant simian immunodeficiency virus expressing green fluorescent protein identifies infected cells in rhesus monkeys. Alexander L, et al. **AIDS Res Hum Retroviruses** 1999 Jan 1;15(1):11-21

In vivo cell and tissue tropism of SIVsmmPBj14-bcl.3. O'Neil SP, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):203-15

Virus threshold determines disease in SIVsmmPBj14-infected macaques. O'Neil SP, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):183-94

Isolation of high-molecular-weight genomic DNA from intact biohazardous mammalian tissues. Liska V, et al. **Biotechniques** 1999 Jan;26(1):62-4, 66

Endogenous tumor necrosis factor-alpha contributes to lymphoproliferation induced by simian immunodeficiency virus variant, SIVsmmPBj14. Hodge S, et al. **Immunol Lett** 1998 Aug;63(1):49-51

Control mechanisms of virus replication in naturally SIVsmm infected mangabeys and experimentally infected macaques. Villinger F, et al. **Immunol Lett** 1999 Mar;66(1-3):37-46

Detection of SIV DNA in rhesus macaque polymorphonuclear neutrophils. Rought SE, et al. **In Vivo** 1999 Mar-Apr;13(2):189-93

Dramatic rise in plasma viremia after CD8(+) T cell depletion in simian immunodeficiency virus-infected macaques. Jin X, et al. **J Exp Med** 1999 Mar 15;189(6):991-8

A highly pathogenic simian/human immunodeficiency virus with genetic changes in cynomolgus monkey. Shinohara K, et al. **J Gen Virol** 1999 May;80 (Pt 5):1231-40

Sequence diversity of SIV(Mne) Nef in vivo and in vitro. Heidecker G, et al. **J Med Primatol** 1998 Apr-Jun; 27(2-3):73-80

Viral load and neuropathology in the SIV model. Boche D, et al. **J Neurovirol** 1999 Jun;5(3):232-40

Localization of Simian immunodeficiency virus-infected cells in the genital tract of male and female Rhesus macaques. Miller CJ. **J Reprod Immunol** 1998 Dec;41(1-2):331-9 (32 ref.)

Effect of the attenuating deletion and of sequence alterations evolving in vivo on simian immunodeficiency virus C8-Nef function. Carl S, et al. **J Virol** 1999 Apr;73(4):2790-7

Occult systemic infection and persistent simian immunodeficiency virus (SIV)-specific CD4(+)-T-cell proliferative responses in rhesus macaques that were transiently viremic after intravaginal inoculation of SIV. McChesney MB, et al. **J Virol** 1998 Dec;72(12):10029-35

Immunization with a live, attenuated simian immunodeficiency virus vaccine leads to restriction of viral diversity in Rhesus macaques not protected from pathogenic challenge. Sodora DL, et al. **J Virol** 1999 May; 73(5):4443-6

Simian immunodeficiency virus disease course is predicted by the extent of virus replication during primary infection. Staprans SI, et al. **J Virol** 1999 Jun;73(6):4829-39

Genomic analysis of the viral population in genital secretions early after infection of simian immunodeficiency viruses in macaque monkeys. Enose Y, et al. **Microbiol Immunol** 1998;42(10):715-22

Live attenuated, multiply deleted simian immunodeficiency virus causes AIDS in infant and adult macaques [see comments] [published erratum appears in Nat Med 199 May;5(5):590] Baba TW, et al. **Nat Med** 1999 Feb; 5(2):194-203. Comment in: Nat Med 1999 Feb;5(2):154-5.

Emerging cytopathic and antigenic simian immunodeficiency virus variants influence AIDS progression [see comments] Kimata JT, et al. **Nat Med** 1999 May;5(5):535-41. Comment in: Nat Med 1999 May;5(5):488-9.

Origin of HIV-1 in the chimpanzee Pan troglodytes troglodytes [see comments] Gao F, et al. **Nature** 1999 Feb 4;397(6718):436-41. Comment in: Nature 1999 Feb 4;397(6718):385-6.

AIDS virus traced to chimp subspecies [news] [see comments] Cohen J. **Science** 1999 Feb 5;283(5403):772-3. Comment in: Science 1999 Apr 2;284(5411):50.

Field primatology and biomedical research [letter; comment] Phillips-Conroy JE, et al. **Science** 1999 Apr 2;284(5411):50 . Comment on: Science 1999 Feb 5;283(5403):772-3.

Control of viremia in simian immunodeficiency virus infection by CD8+ lymphocytes. Schmitz JE, et al. **Science** 1999 Feb 5;283(5403):857-60

Rapid infection of oral mucosal-associated lymphoid tissue with simian immunodeficiency virus. Stahl-Hennig C, et al. **Science** 1999 Aug 20;285(5431):1261-5

Dissemination of SIV after rectal infection preferentially involves paracolic germinal centers. Couëdel-Courteille A, et al. **Virology** 1999 Aug 1;260(2):277-94

Macaques infected with cloned simian immunodeficiency virus show recurring nef gene alterations. Heidecker G, et al. **Virology** 1998 Sep 30;249(2):260-74

Selection of the R17Y substitution in SIVmac239 nef coincided with a dramatic increase in plasma viremia and rapid progression to death. Kirchhoff F, et al. **Virology** 1999 Feb 1;254(1):61-70

Importance of the intracytoplasmic domain of the simian immunodeficiency virus (SIV) envelope glycoprotein for pathogenesis. Luciw PA, et al. **Virology** 1998 Dec 5; 252(1):9-16

Molecular cloning and cell-specific growth characterization of polymorphic variants of type D serogroup 2 simian retroviruses. Marracci GH, et al. **Virology** 1999 Aug 15; 261(1):43-58

Characterization of a neutralization-escape variant of SHIVKU-1, a virus that causes acquired immune deficiency syndrome in pig-tailed macaques. Narayan SV, et al. **Virology** 1999 Mar 30;256(1):54-63

Pathogenicity and comparative evolution in vivo of the transitional quasispecies SIVsmmPBj8. Tao B, et al. **Virology** 1999 Jun 20;259(1):166-75

SIMIAN AIDS see **SIMIAN ACQUIRED IMMUNODEFICIENCY SYNDROME**

SIMIAN AIDS RETROVIRUS see **RETROVIRUSES TYPE D, SIMIAN**

SIMIAN AIDS VACCINES see **SAIDS VACCINES**

SIMIAN FOAMY VIRUSES see **SPUMAVIRUS**

SIMIAN HEMORRHAGIC FEVER VIRUS see **ARTERIVIRUS**

SIMIAN HERPESVIRUS see **HERPESVIRUS 1, CERCOPITHECINE**

SIMIAN IMMUNODEFICIENCY VIRUSES see **SIV**

SIMIAN LENTIVIRUSES see **SIV**

SIMIAN T-LYMPHOTROPIC VIRUS TYPE I see **STLV**

SIMIAN T-LYMPHOTROPIC VIRUS TYPE III see **SIV**

SIMIAN RETROVIRUSES see **RETROVIRUSES, SIMIAN**

SIMIAN RETROVIRUSES, TYPE D see **RETROVIRUSES TYPE D, SIMIAN**

SIMIAN SARCOMA VIRUS PROTEINS see **ANTIGENS, POLYOMAVIRUS TRANSFORMING**

SIMIAN SARCOMA VIRUSES see **SARCOMA VIRUSES, SIMIAN**

SIMIAN VIRUS 40 see **POLYOMAVIRUS MACACAE**

SIMMONDS' DISEASE see **HYPOPITUITARISM**

SIMPLE REPETITIVE SEQUENCE see **MINISATELLITE REPEATS**

SIMPLEXVIRUS

Clinical and virological comparison of 3 patients with erythema multiforme [letter] Kokuba H, et al. **Acta Derm Venereol** 1999 May;79(3):247-8

The role of polymorphonuclear leukocyte infiltration in herpes simplex virus infection of murine skin. Watanabe D, et al. **Arch Dermatol Res** 1999 Jan;291(1):28-36

Long term neurological outcome of herpes encephalitis. Lahat E, et al. **Arch Dis Child** 1999 Jan;80(1):69-71

Separation of submicron bioparticles by dielectrophoresis. Morgan H, et al. **Biophys J** 1999 Jul;77(1):516-25

Production and culture of HSVtk transduced suicidal lymphocytes induces variable changes in the lymphocyte subset composition. Marini FC 3rd, et al. **Bone Marrow Transplant** 1999 May;23(9):907-15

Suicide gene therapy for human uterine adenocarcinoma cells using herpes simplex virus thymidine kinase. Kunishige I, et al. **Gynecol Oncol** 1999 Jan;72(1):16-25

The ultrastructure of corneal epithelium after co-cultivation with herpes simplex virus. Lee DY, et al. **Korean J Ophthalmol** 1998 Dec;12(2):103-7

Antihyperalgesic effects of infection with a preproenkephalin-encoding herpes virus. Wilson SP, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3211-6

CHEMISTRY

Crystal structure of the conserved core of the herpes simplex virus transcriptional regulatory protein VP16. Liu Y, et al. **Genes Dev** 1999 Jul 1;13(13):1692-703

Crystal structure of the B subunit of Escherichia coli heat-labile enterotoxin carrying peptides with anti-herpes simplex virus type 1 activity. Matković-Calogović D, et al. **J Biol Chem** 1999 Mar 26;274(13):8764-9

Synthesis of cyclic Herpes simplex virus peptides containing 281-284 epitope of glycoprotein D-1 in endo- or exo-position. Mezö G, et al. **J Pept Sci** 1999 Jun; 5(6):272-82

DRUG EFFECTS

Evaluation of anti-herpesvirus activity of (1'S,2'R)-9-[[1',2'-bis(hydroxymethyl)cycloprop-1'-yl]methyl]- guanine (A-5021) in mice. Iwayama S, et al. **Antiviral Res** 1999 Jun;42(2):139-48

Anti-herpes simplex virus activity of alkaloids isolated from Stephania cepharantha. Nawawi A, et al. **Biol Pharm Bull** 1999 Mar;22(3):268-74

New antiherpetic nucleoside from a Basidiomycete. Saboulard D, et al. **C R Acad Sci III** 1998 Jul;321(7):585-91

Famciclovir prophylaxis of herpes simplex virus reactivation after laser skin resurfacing. Alster TS, et al. **Dermatol Surg** 1999 Mar;25(3):242-6

Characterization of the DNA polymerase and thymidine kinase genesof herpes simplex virus isolates from AIDS patients in whom acyclovirand foscarnet therapy sequentially failed. Schmit I, et al. **J Infect Dis** 1999 Aug; 180(2):487-90

[Inhibitory effect of ganciclovir on the HSV1-tk positive subcutaneous tumors transplanted with human ovarian cancer in nude mice] Xu C, et al. **Chung Hua Fu Chan Ko Tsa Chih** 1997 Dec;32(12):709-11 (Eng. Abstr.) **(Chi)**

ENZYMOLOGY

Another mechanism causing the bystander effect besides the gap junction's role during the glioma gene therapy with HSV-TK/GCV system. Du L, et al. **Adv Exp Med Biol** 1998;451:133-8

Ablation of tumor cells in vivo by direct injection of HSV-thymidine kinase retroviral vector and ganciclovir therapy. Howard BD, et al. **Ann N Y Acad Sci** 1999 Jun 30;880:352-65

Treatment of experimental osteosarcoma tumors in rat by herpes simplex thymidine kinase gene transfer and ganciclovir. Charissoux JL, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):77-80

Selective killing of osteosarcoma cells in culture after retroviral mediated gene transfer of a herpes simplex thymidine kinase suicide gene. Grossin L, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):71-6

cAMP stimulates the bystander effect in suicide gene therapy of human choriocarcinoma. Kunishige I, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3411-9

Dendritic cells augment granulocyte-macrophage colony-stimulating factor (GM-CSF)/herpes simplex virus thymidine kinase-mediated gene therapy of lung cancer. Miller PW, et al. **Cancer Gene Ther** 1998 Nov-Dec; 5(6):380-9

Use of a tissue-specific promoter for targeted expression of the herpes simplex virus thymidine kinase gene in cervical carcinoma cells. Robertson MW 3rd, et al. **Cancer Gene Ther** 1998 Sep-Oct;5(5):331-6

Selective killing of glioma cell lines using an astrocyte-specific expression of the herpes simplex virus-thymidine kinase gene. Vandier D, et al. **Cancer Res** 1998 Oct 15;58(20):4577-80

Therapy of colon cancer with oncolytic adenovirus is enhanced by the addition of herpes simplex virus-thymidine kinase. Wildner O, et al. **Cancer Res** 1999 Jan 15;59(2):410-3

Virus-free transfer of the herpes simplex virus thymidine kinase gene followed by ganciclovir treatment induces tumor cell death. Calvez V, et al. **Clin Cancer Res** 1996 Jan;2(1):47-51

Basic fibroblast growth factor enhancement of adenovirus-mediated delivery of the herpes simplex virus thymidine kinase gene results in augmented therapeutic benefit in a murine model of ovarian cancer. Rancourt C, et al. **Clin Cancer Res** 1998 Oct;4(10):2455-61

Actions of HSVtk and connexin43 gene delivery on gap junctional communication and drug sensitization in hepatocellular carcinoma. Ghoumari AM, et al. **Gene Ther** 1998 Aug;5(8):1114-21

Adenoviral vectors capable of replication improve the efficacy of HSVtk/GCV suicide gene therapy of cancer. Wildner O, et al. **Gene Ther** 1999 Jan;6(1):57-62

Increased bax expression is associated with cell death induced by ganciclovir in a herpes thymidine kinase gene-expressing glioma cell line. Craperi D, et al. **Hum Gene Ther** 1999 Mar 1;10(4):679-88

Regression of hepatocellular carcinoma in vitro and in vivo by radiosensitizing suicide gene therapy under the inducible and spatial control of radiation. Kawashita Y, et al. **Hum Gene Ther** 1999 Jun 10;10(9):1509-19

Ganciclovir chemoablation of herpes thymidine kinase suicide gene-modified tumors produces tumor necrosis and induces systemic immune responses. Mullen CA, et al. **Hum Gene Ther** 1998 Sep 20;9(14):2019-30

Enhancement of the herpes simplex virus thymidine kinase/ganciclovir bystander effect and its antitumor efficacy in vivo by pharmacologic manipulation of gap junctions. Touraine RL, et al. **Hum Gene Ther** 1998 Nov 1;9(16):2385-91

Herpes simplex virus thymidine kinase gene transfer for controlled graft-versus-host disease and graft-versus-leukemia: clinical follow-up and improved new vectors. Verzeletti S, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2243-51

Expression of herpes simplex virus thymidine kinase in Toxoplasma gondii attenuates tachyzoite virulence in mice. Radke JR, et al. **Infect Immun** 1999 Oct;67(10):5292-7

Cancer gene therapy with HSV-tk/GCV system depends on T-cell-mediated immune responses and causes apoptotic death of tumor cells in vivo. Kuriyama S, et al. **Int J Cancer** 1999 Oct 29;83(3):374-80

Gene therapy of chondrosarcoma using retrovirus vectors encoding the herpes simplex virus thymidine kinase gene. Seto M, et al. **Int J Oncol** 1999 Jun;14(6):1137-41

Herpes simplex virus thymidine kinase/ganciclovir-induced apoptosis involves ligand-independent death receptor aggregation and activation of caspases. Beltinger C, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8699-704

The enzymological basis for resistance of herpesvirus DNA polymerase mutants to acyclovir: relationship to the structure of alpha-like DNA polymerases. Huang L, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):447-52

Herpes simplex virus thymidine kinase as a marker/reporter gene for PET imaging of gene therapy. Blasberg RG, et al. **Q J Nucl Med** 1999 Jun;43(2):163-9 (29 ref.)

[Effects of retrovirus-mediated HSV-tk/GCV on human hepatocellular carcinoma] Zhao Y, et al. **Chung Hua Kan Tsang Ping Tsa Chih** 1999 Jun;7(2):113-5 (Eng. Abstr.) **(Chi)**

GENETICS

Non-AIDS-related Kaposi sarcoma tissues do not contain DNA sequences of HHV-6, HHV-7, Epstein-Barr virus, cytomegalovirus and HSV [letter] Drago F, et al. **Acta Derm Venereol** 1998 Nov;78(6):485

Use of the polymerase chain reaction in the diagnosis of herpes simplex encephalitis: a decision analysis model. Tebas P, et al. **Am J Med** 1998 Oct;105(4):287-95

Thymidine kinase (TK) gene therapy of solid tumors: valacyclovir facilitates outpatient treatment. Hasenburg A, et al. **Anticancer Res** 1999 May-Jun;19(3B):2163-5

Detection of herpes simplex virus-1 by nested PCR. An experimental model. Llorente JL, et al. **Auris Nasus Larynx** 1998 Dec;25(4):387-92

Tentative novel mechanism of the bystander effect in glioma gene therapy with HSV-TK/GCV system. Bai S, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):455-9

Eradication of pre-established lymphoma using herpes simplex virus amplicon vectors. Kutubuddin M, et al. **Blood** 1999 Jan 15;93(2):643-54

Novel synthesis and release of GABA in cerebellar granule cell cultures after infection with defective herpes simplex virus vectors expressing glutamic acid decarboxylase. New KC, et al. **Brain Res Mol Brain Res** 1998 Oct 30; 61(1-2):121-35

Differential chemosensitivity of breast cancer cells to ganciclovir treatment following adenovirus-mediated herpes simplex virus thymidine kinase gene transfer. Li PX, et al. **Cancer Gene Ther** 1999 Mar-Apr;6(2):179-90

In vivo interleukin-2 gene therapy of established tumors with herpes simplex amplicon vectors. D'Angelica M, et al. **Cancer Immunol Immunother** 1999 Jan;47(5):265-71

Functional measurements of [Ca2+] in the endoplasmic reticulum using a herpes virus to deliver targeted aequorin. Alonso MT, et al. **Cell Calcium** 1998 Aug;24(2):87-96

Use of carrier cells to deliver a replication-selective herpes simplex virus-1 mutant for the intraperitoneal therapy of epithelial ovarian cancer. Coukos G, et al. **Clin Cancer Res** 1999 Jun;5(6):1523-37

Relative efficiency of tumor cell killing in vitro by two enzyme-prodrug systems delivered by identical adenovirus vectors. Lockett LJ, et al. **Clin Cancer Res** 1997 Nov; 3(11):2075-80

Adenoviral-mediated delivery of the herpes simplex virus thymidine kinase gene selectively sensitizes human ovarian carcinoma cells to ganciclovir. Rosenfeld ME, et al. **Clin Cancer Res** 1995 Dec;1(12):1571-80

Assessment of ganciclovir toxicity to experimental intracranial gliomas following recombinant adenoviral-mediated transfer of the herpes simplex virus thymidine kinase gene by magnetic resonance imaging and proton magnetic resonance spectroscopy. Ross BD, et al. **Clin Cancer Res** 1995 Jun;1(6):651-7

Herpes simplex virus infections of the central nervous system in human immunodeficiency virus-infected patients: clinical management by polymerase chain reaction assay of cerebrospinal fluid. Cinque P, et al. **Clin Infect Dis** 1998 Aug;27(2):303-9

Use of herpes simplex virus type 1 for transgene expression within the nervous system. Lachmann RH, et al. **Clin Sci (Colch)** 1999 Jun;96(6):533-41 (57 ref.)

The herpes simplex virus VP16-induced complex: mechanisms of combinatorial transcriptional regulation. Herr W. **Cold Spring Harb Symp Quant Biol** 1998; 63:599-607 (61 ref.)

Mutant herpes simplex virus-mediated suppression of retinoblastoma. Kogishi J, et al. **Curr Eye Res** 1999 May; 18(5):321-6

Understanding the pathogenesis of HSV-associated erythema multiforme. Aurelian L, et al. **Dermatology** 1998; 197(3):219-22

Longitudinal study of a patient with herpes-simplex-virus-associated erythema multiforme: viral gene expression and T cell repertoire usage. Kokuba H, et al. **Dermatology** 1999;198(3):233-42

BCL-2 transduction, using a herpes simplex virus amplicon, protects hippocampal neurons from transient global ischemia. Antonawich FJ, et al. **Exp Neurol** 1999 Mar; 156(1):130-7

Engineering herpes simplex virus vectors for CNS applications. Wolfe D, et al. **Exp Neurol** 1999 Sep; 159(1):34-46 (99 ref.)

Pure populations of transduced primary human cells can be produced using GFP expressing herpes virus vectors and flow cytometry. Coffin RS, et al. **Gene Ther** 1998 May; 5(5):718-22

High efficiency gene transfer to the central nervous system of rodents and primates using herpes virus vectors lacking functional ICP27 and ICP34.5. Howard MK, et al. **Gene Ther** 1998 Aug;5(8):1137-47

Development of herpes simplex virus replication-defective multigene vectors for combination gene therapy applications. Krisky DM, et al. **Gene Ther** 1998 Nov; 5(11):1517-30

Potential and limitations of a gamma 34.5 mutant of herpes simplex 1 as a gene therapy vector in the CNS. McMenamin MM, et al. **Gene Ther** 1998 May;5(5):594-604

Hepatoma-specific antitumor activity of an albumin enhancer/promoter regulated herpes simplex virus in vivo. Miyatake SI, et al. **Gene Ther** 1999 Apr;6(4):564-72

Catch VP22: the hitch-hiker's ride to gene therapy? Murphy AL, et al. **Gene Ther** 1999 Jan;6(1):4-5

Lack of bystander killing in herpes simplex virus thymidine kinase-transduced colon cell lines due to deficient connexin43 gap junction formation. McMasters RA, et al. **Hum Gene Ther** 1998 Oct 10;9(15):2253-61

Molecular lysis of synovial lining cells by in vivo herpes simplex virus-thymidine kinase gene transfer. Sant SM, et al. **Hum Gene Ther** 1998 Dec 10;9(18):2735-43

Protection of neuronal cells from apoptosis by Hsp27 delivered with a herpes simplex virus-based vector. Wagstaff MJ, et al. **J Biol Chem** 1999 Feb 19;274(8):5061-9

Role of genotypic analysis of the thymidine kinase gene of herpes simplex virus for determination of neurovirulence and resistance to acyclovir. Lee NY, et al. **J Clin Microbiol** 1999 Oct;37(10):3171-4

Interferons regulate the phenotype of wild-type and mutant herpes simplex viruses in vivo. Leib DA, et al. **J Exp Med** 1999 Feb 15;189(4):663-72

Identification and sequence analysis of the Marek's disease virus serotype 2 homologous genes of the herpes simplex virus type 1 UL25, UL26 and UL26.5 genes. Kato K, et al. **J Vet Med Sci** 1999 Jul;61(7):787-93

A herpesvirus ribosome-associated, RNA-binding protein confers a growth advantage upon mutants deficient in a GADD34-related function. Mulvey M, et al. **J Virol** 1999 Apr;73(4):3375-85

Transcription of herpes simplex virus immediate-early and early genes is inhibited by roscovitine, an inhibitor specific for cellular cyclin-dependent kinases. Schang LM, et al. **J Virol** 1999 Mar;73(3):2161-72

Herpes simplex virus genome isomerization: origins of adjacent long segments in concatemeric viral DNA. Slobedman B, et al. **J Virol** 1999 Jan;73(1):810-3

Attempts to identify herpes simplex virus DNA in normal and diseased human peripheral nerve. Sze CI, et al. **Neurology** 1999 Apr 12;52(6):1293-5

Mutational analysis of a transcriptional activation region of the VP16 protein of herpes simplex virus [published erratum appears in Nucleic Acids Res 1998 Dec 1;26(23):537-8] Sullivan SM, et al. **Nucleic Acids Res** 1998 Oct 1;26(19):4487-96

Tumor reduction in vivo after adenoviral mediated gene transfer of the herpes simplex virus thymidine kinase gene and ganciclovir treatment in human head and neck squamous cell carcinoma. Goebel EA, et al. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):331-6

Immunization against genital herpes with a vaccine virus that has defects in productive and latent infection. Da Costa XJ, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8; 96(12):6994-8

Circular dichroism analysis of insect cell expressed herpes simplex virus type I single-stranded DNA-binding protein ICP8. Spatz M, et al. **Protein Expr Purif** 1999 Jun; 16(1):40-6

GROWTH & DEVELOPMENT

Performance of six cell lines in the suspension-infection test used for the detection of herpes simplex virus. Rich T, et al. **Diagn Microbiol Infect Dis** 1998 Oct;32(2):81-4

Herpes simplex virus replication-induced expression of chemokines and proinflammatory cytokines in the eye: implications in herpetic stromal keratitis. Thomas J, et al. **J Interferon Cytokine Res** 1998 Sep;18(9):681-90

IMMUNOLOGY

Baseline IgG antibody titers to Chlamydia pneumoniae, Helicobacter pylori, herpes simplex virus, and cytomegalovirus and the risk for cardiovascular disease in women. Ridker PM, et al. **Ann Intern Med** 1999 Oct 19; 131(8):573-7

Prospective study of herpes simplex virus, cytomegalovirus, and the risk of future myocardial infarction and stroke. Ridker PM, et al. **Circulation** 1998 Dec 22-29;98(25):2796-9

Herpes. Vaccines for HSV. Stanberry LR. **Dermatol Clin** 1998 Oct;16(4):811-6, xiv (27 ref.)

Herpes simplex virus as an in situ cancer vaccine for the induction of specific anti-tumor immunity. Toda M, et al. **Hum Gene Ther** 1999 Feb 10;10(3):385-93

Characterization of a type-common human recombinant monoclonal antibody to herpes simplex virus with high therapeutic potential. De Logu A, et al. **J Clin Microbiol** 1998 Nov;36(11):3198-204

Virus-induced immunoinflammatory lesions in the absence of viral antigen recognition. Gangappa S, et al. **J Immunol** 1998 Oct 15;161(8):4289-300

Dot immunobinding assay for detection of bovine herpesvirus 4 antibodies in rabbits. Essmail M, et al. **J Vet Diagn Invest** 1999 May;11(3):237-9

Reactivation of herpesvirus infections after vaccinations? [letter] Walter R, et al. **Lancet** 1999 Mar 6;353(9155):810

Activation of target-tissue immune-recognition molecules by double-stranded polynucleotides. Suzuki K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2285-90

Splenic marginal metallophilic macrophages and marginal zone macrophages are the major interferon-alpha/beta producers in mice upon intravenous challenge with herpes simplex virus. Eloranta ML, et al. **Scand J Immunol** 1999 Apr;49(4):391-4

Herpes simplex virus vaccines. Bernstein DI, et al. **Vaccine** 1999 Mar 26;17(13-14):1681-9 (90 ref.)

A novel immunization method to induce cytotoxic T-lymphocyte responses (CTL) against plasmid-encoded herpes simplex virus type-1 glycoprotein D. Cruz PE, et al. **Vaccine** 1999 Mar 5;17(9-10):1091-9

[Serology in herpes infection] Einsele H, et al. **Internist (Berl)** 1999 May;40(5):565-6 **(Ger)**

ISOLATION & PURIFICATION

Intravenous penciclovir for treatment of herpes simplex infections in immunocompromised patients: results of a multicenter, acyclovir-controlled trial. The Penciclovir Immunocompromised Study Group. Lazarus HM, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1192-7

Operative treatment of tentorial herniation in herpes encephalitis. Ebel H, et al. **Childs Nerv Syst** 1999 Mar; 15(2-3):84-6

Performance of six cell lines in the suspension-infection test used for the detection of herpes simplex virus. Rich T, et al. **Diagn Microbiol Infect Dis** 1998 Oct;32(2):81-4

Cytospin-enhanced direct immunofluorescence assay versus cell culture for detection of herpes simplex virus in clinical specimens. Sanders C, et al. **Diagn Microbiol Infect Dis** 1998 Oct;32(2):111-3

SIMPLEXVIRUS

Development of a high-throughput quantitative assay for detecting herpes simplex virus DNA in clinical samples. Ryncarz AJ, et al. **J Clin Microbiol** 1999 Jun;37(6):1941-7
Two-centre study comparing DNA preparation and PCR amplification protocols for herpes simplex virus detection in cerebrospinal fluids of patients with suspected herpes simplex encephalitis. Hirsch HH, et al. **J Med Virol** 1999 Jan;57(1):31-5
Diagnosis of herpes simplex encephalitis by magnetic resonance imaging and polymerase chain reaction assay of cerebrospinal fluid. Domingues RB, et al. **J Neurol Sci** 1998 May 7;157(2):148-53
Viremia in neonatal herpes simplex virus infections. Diamond C, et al. **Pediatr Infect Dis J** 1999 Jun;18(6):487-9
[The comparison of sensitivity of BGM cells, HeLa cells, HEL cells and A 549 cells to herpes simplex virus-1] Xiao Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):390-2 (Eng. Abstr.) **(Chi)**
[Herpes simplex encephalitis (editorial)] Zajkowska JM, et al. **Pol Merkuriusz Lek** 1999 Jun;6(36):297-301 (30 ref.) (Eng. Abstr.) **(Pol)**

METABOLISM

Experimental gene therapy against subcutaneously implanted glioma with a herpes simplex virus-defective vector expressing interferon-gamma. Kanno H, et al. **Cancer Gene Ther** 1999 Mar-Apr;6(2):147-54
Distinct responses of the herpes simplex virus and varicella zoster virus immediate early promoters to the cellular transcription factors Brn-3a and Brn-3b. Brownlees J, et al. **Int J Biochem Cell Biol** 1999 Mar-Apr;31(3-4):451-61
The axonal transmission of herpes simplex virus to epidermal cells: a novel use of the freeze substitution technique applied to explant cultures retained on cover slips. Holland DJ, et al. **J Microsc** 1998 Oct;192 (Pt 1):69-72
Interactions between a herpes simplex virus regulatory protein and cellular mRNA processing pathways. Sandri-Goldin RM. **Methods** 1998 Sep;16(1):95-104
Genetic manipulation of herpes simplex virus using bacterial artificial chromosomes. Horsburgh BC, et al. **Methods Enzymol** 1999;306:337-52

PATHOGENICITY

Prevalence of feline Chlamydia psittaci and feline herpesvirus 1 in cats with upper respiratory tract disease. Sykes JE, et al. **J Vet Intern Med** 1999 May-Jun;13(3):153-62
The herpes simplex virus gE-gI complex facilitates cell-to-cell spread and binds to components of cell junctions. Dingwell KS, et al. **J Virol** 1998 Nov; 72(11):8933-42
HLA-G and HLA-C at the feto-maternal interface: lessons learned from pathogenic viruses. Schust DJ, et al. **Semin Cancer Biol** 1999 Feb;9(1):37-46 (71 ref.)

PHYSIOLOGY

The role of herpes simplex virus glycoproteins in the virus replication cycle. Rajčáni J, et al. **Acta Virol** 1998 Apr; 42(2):103-18 (195 ref.)
Herpes simplex virus latency and nucleoside analogues. Efstathiou S, et al. **Antiviral Res** 1999 Apr;41(3):85-100 (60 ref.)
Regulation of herpes simplex virus immediate early gene expression. Jameson HL, et al. **Biochem Soc Trans** 1998 Aug;26(3):S258
Replication-competent, nonneuroinvasive genetically engineered herpes virus is highly effective in the treatment of therapy-resistant experimental human tumors. Advani SJ, et al. **Cancer Res** 1999 May 1;59(9):2055-8
Mapping the in vivo distribution of herpes simplex virions [published erratum appears in Hum Gene Ther 1998 Nov 20;9(17):2652] Schellingerhout D, et al. **Hum Gene Ther** 1998 Jul 20;9(11):1543-9
An analysis of herpes simplex virus gene expression during latency establishment and reactivation. Lachmann RH, et al. **J Gen Virol** 1999 May;80 (Pt 5):1271-82
Herpes simplex virus latency after direct ganglion virus inoculation. Hay KA, et al. **J Neurovirol** 1998 Oct; 4(5):531-8
Restricted replication of herpes simplex virus in satellite glial cell cultures clonally derived from adult mice. Wilkinson R, et al. **J Neurovirol** 1999 Aug;5(4):384-91
Intracellular traffic of herpes simplex virus glycoprotein gE: characterization of the sorting signals required for its trans-Golgi network localization. Alconada A, et al. **J Virol** 1999 Jan;73(1):377-87
ATP depletion blocks herpes simplex virus DNA packaging and capsid maturation. Dasgupta A, et al. **J Virol** 1999 Mar;73(3):2006-15
The herpes simplex virus gE-gI complex facilitates cell-to-cell spread and binds to components of cell junctions. Dingwell KS, et al. **J Virol** 1998 Nov; 72(11):8933-42
Anterograde transport of herpes simplex virus proteins in axons of peripheral human fetal neurons: an immunoelectron microscopy study. Holland DJ, et al. **J Virol** 1999 Oct;73(10):8503-11
The first immunoglobulin-like domain of HveC is sufficient to bind herpes simplex virus gD with full affinity, while the third domain is involved in oligomerization of HveC. Krummenacher C, et al. **J Virol** 1999 Oct;73(10):8127-37
Herpes simplex virus as a transneuronal tracer. Norgren RB Jr, et al. **Neurosci Biobehav Rev** 1998 Oct;22(6):695-708 (167 ref.)
Nuclear localization of the C1 factor (host cell factor) in sensory neurons correlates with reactivation of herpes simplex virus from latency. Kristie TM, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1229-33
Glycoprotein K of herpes simplex virus: a transmembrane protein encoded by the UL53 gene which regulates membrane fusion. Rajčáni J, et al. **Virus Genes** 1999; 18(1):81-90 (63 ref.)
Stable attachment for herpes simplex virus penetration into human cells requires glycoprotein D in the virion and cell receptors that are missing for entry-defective porcine cells. Pérez A, et al. **Virus Res** 1998 Nov;58(1-2):21-34

SIMS see **SPECTROMETRY, MASS, SECONDARY ION**

SIMS MICROSCOPY see **SPECTROMETRY, MASS, SECONDARY ION**

SIMULIIDAE

Sibling species distributions of the Simulium damnosum complex in the west African Onchocerciasis Control Programme area during the decade 1984-93, following intensive larviciding since 1974. Boakye DA, et al. **Med Vet Entomol** 1998 Oct;12(4):345-58
Distribution of the Simulium damnosum complex on Bioko island, Equatorial Guinea, and the potential for onchocerciasis elimination by vector eradication. McCall PJ, et al. **Med Vet Entomol** 1998 Jul;12(3):267-75
Blackflies bite a resident of suburban Johannesburg. Jupp PG, et al. **S Afr Med J** 1999 Apr;89(4):388-9
Blackfly control: what choices after onchocerciasis? Hougard JM, et al. **World Health Forum** 1998;19(3):281-4

ANATOMY & HISTOLOGY

A new species of the Simulium damnosum complex from Uganda, and comparative morphology of the tarsal claws in females of this complex. Krüger A, et al. **Med Vet Entomol** 1998 Jul;12(3):246-54

CLASSIFICATION

A new species of the Simulium damnosum complex from Uganda, and comparative morphology of the tarsal claws in females of this complex. Krüger A, et al. **Med Vet Entomol** 1998 Jul;12(3):246-54

DRUG EFFECTS

Long-term quantitative ecological assessment of insecticides treatments in four African rivers: a methodological approach. Crosa G, et al. **Chemosphere** 1998 Dec; 37(14-15):2847-58

GENETICS

Analyses of cDNA and recombinant protein for a potent vasoactive protein in saliva of a blood-feeding black fly, Simulium vittatum. Cupp MS, et al. **J Exp Biol** 1998 May; 201 (Pt 10):1553-61
New cytotype in the Simulium metallicum complex (Diptera: Simuliidae) from Cundinamarca, Colombia. Arteaga LT, et al. **J Med Entomol** 1999 Mar;36(2):133-40

GROWTH & DEVELOPMENT

Effects of Polydispyrenia simulii (Microspora; Duboscqiidae) on development of the gonads of Simulium pertinax (Diptera; Simuliidae). Castello Branco Junior A. **Mem Inst Oswaldo Cruz** 1999 May-Jun;94(3):421-4

PARASITOLOGY

Pool screen polymerase chain reaction for estimating the prevalence of Onchocerca volvulus infection in Simulium damnosum sensu lato: results of a field trial in an area subject to successful vector control. Yaméogo L, et al. **Am J Trop Med Hyg** 1999 Jan;60(1):124-8
Effects of an Onchocerca-derived cysteine protease inhibitor on microfilariae in their simuliid vector. Kläger SL, et al. **Parasitology** 1999 Mar;118 (Pt 3):305-10

SIMULIUM see **SIMULIIDAE**

SIMVASTATIN

ADMINISTRATION & DOSAGE

Effects of high doses of simvastatin and atorvastatin on high-density lipoprotein cholesterol and apolipoprotein A-I. Crouse JR 3rd, et al. **Am J Cardiol** 1999 May 15; 83(10):1476-7, A7
Effectiveness and safety of alternate-day simvastatin and fenofibrate on mixed hyperlipidemia. Kayikçioğlu M, et al. **Am J Cardiol** 1999 Apr 1;83(7):1135-7, A9
Preferred hydroxymethylglutaryl-coenzyme A reductase inhibitors: treatment-modification program and outcomes. Moisan J, et al. **Am J Health Syst Pharm** 1999 Jul 15; 56(14):1437-41
Plasma lipoprotein distribution and lipid transfer activities in patients with type IIb hyperlipidemia treated with simvastatin. Lagrost L, et al. **Atherosclerosis** 1999 Apr; 143(2):415-25
Vascular effects of estrogen and cholesterol-lowering therapies in hypercholesterolemic postmenopausal women. Koh KK, et al. **Circulation** 1999 Jan 26;99(3):354-60
Efficacy of three statins at lower maintenance doses. Carr-Lopez S, et al. **Clin Ther** 1999 Feb;21(2):331-9
Distinct and combined vascular effects of ACE blockade and HMG-CoA reductase inhibition in hypertensive subjects. Nazzaro P, et al. **Hypertension** 1999 Feb;33(2):719-25
Effects of statins in thrombosis and aortic lesion development in a dyslipemic rabbit model. Alfon J, et al. **Thromb Haemost** 1999 May;81(5):822-7
[Lipid intervention and coronary heart disease in men less than 56 years of age. The Coronary Intervention Study: CIS] Rensing UF, et al. **Z Kardiol** 1999 Apr;88(4):270-82 (Eng. Abstr.) **(Ger)**
[On hemoglobin, venesection, statins and mortality (letter)] Welander F. **Tidsskr Nor Laegeforen** 1999 Apr 30; 119(11):1648-9 **(Nor)**
[Effect of one-year treatment with low simvastatin doses on lipids and Lp(a) in patients with significant hypercholesterolemia] Adamska-Dyniewska H, et al. **Pol Arch Med Wewn** 1998 May;99(5):366-72 (Eng. Abstr.) **(Pol)**

ADVERSE EFFECTS

Concomitant use of cytochrome P450 3A4 inhibitors and simvastatin. Gruer PJ, et al. **Am J Cardiol** 1999 Oct 1; 84(7):811-5
Simvastatin seems unlikely to cause impotence [letter] Pedersen TR, et al. **BMJ** 1999 Jan 16;318(7177):192
Cheilitis due to treatment with simvastatin. Mehregan DR, et al. **Cutis** 1998 Oct;62(4):197-8
Simvastatin and thrombotic thrombocytopenic purpura [letter; comment] Koduri PR. **Lancet** 1998 Dec 19-26; 352(9145):2020. Comment on: Lancet 1998 Oct 17;352(9136):1284-5.
Thrombotic thrombocytopenic purpura and simvastatin [letter; comment] [see comments] McCarthy LJ, et al. **Lancet** 1998 Oct 17;352(9136):1284-5. Comment on: Lancet 1997 Nov 29;350(9091):1602. Comment in: Lancet 1998 Dec 19-26;352(9145):2020.
[Cataract and simvastatin: case report (letter)] Bousquet E, et al. **Therapie** 1998 Sep-Oct;53(5):505-7 **(Fre)**

ANALOGS & DERIVATIVES

Grapefruit juice-simvastatin interaction: effect on serum concentrations of simvastatin, simvastatin acid, and HMG-CoA reductase inhibitors. Lilja JJ, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):477-83

BLOOD

Grapefruit juice-simvastatin interaction: effect on serum concentrations of simvastatin, simvastatin acid, and HMG-CoA reductase inhibitors. Lilja JJ, et al. **Clin Pharmacol Ther** 1998 Nov;64(5):477-83

ECONOMICS

Economics and cost-effectiveness in evaluating the value of cardiovascular therapies. Comparative economic data regarding lipid-lowering drugs. Schwartz JS. **Am Heart J** 1999 May;137(5):S97-104
Use of diagnostic cluster methodology for therapeutic costing and drug surveillance of HMG-CoA reductase-inhibitor therapy. Bottorff MB, et al. **Clin Ther** 1999 Jan;21(1):218-35
Cost effectiveness of HMG-CoA reductase inhibitor (statin) treatment related to the risk of coronary heart disease and cost of drug treatment. Pickin DM, et al. **Heart** 1999 Sep; 82(3):325-32

METABOLISM

In vitro inhibition of simvastatin metabolism in rat and human liver by naringenin. Ubeaud G, et al. **Life Sci** 1999; 65(13):1403-12

PHARMACOLOGY

Simvastatin decreases aldehyde production derived from lipoprotein oxidation. Girona J, et al. **Am J Cardiol** 1999 Mar 15;83(6):846-51
In vitro effects of simvastatin on tubulointerstitial cells in a human model of cyclosporin nephrotoxicity. Johnson DW, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F467-75
Differential cholesteryl ester accumulation in two human vascular smooth muscle cell subpopulations exposed to aggregated LDL: effect of PDGF-stimulation and HMG-CoA reductase inhibition. Llorente-Cortés V, et al. **Atherosclerosis** 1999 Jun;144(2):335-42
Hypocholesterolemic effects of 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors in the guinea pig: atorvastatin versus simvastatin. Conde K, et al. **Biochem Pharmacol** 1999 Oct 1;58(7):1209-19
Lipid-lowering therapy corrects endothelial cell dysfunction in a short time but does not affect hypercoagulable state even after long-term use in hyperlipidemic patients. Kario K, et al. **Blood Coagul Fibrinolysis** 1999 Jul;10(5):269-76
Different effect of simvastatin and atorvastatin on key enzymes involved in VLDL synthesis and catabolism in high fat/cholesterol fed rabbits. Verd JC, et al. **Br J Pharmacol** 1999 Jul;127(6):1479-85
Inhibition by simvastatin, but not pravastatin, of

glucose-induced cytosolic Ca2+ signalling and insulin secretion due to blockade of L-type Ca2+ channels in rat islet beta-cells. Yada T, et al. **Br J Pharmacol** 1999 Mar;126(5):1205-13

Delay of metabolism rate of ciclosporin by simvastatin in 7 Chinese healthy men. Xu F, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):443-4

Calcium channel blocker-simvastatin interaction [letter; comment] Tobert JA, et al. **Clin Pharmacol Ther** 1999 May; 65(5):583-5. Comment on: Clin Pharmacol Ther 1998 Aug;64(2):177-82.

Role of tyrosine phosphorylation of phospholipase C gamma1 in the signaling pathway of HMG-CoA reductase inhibitor-induced cell death of L6 myoblasts. Mutoh T, et al. **FEBS Lett** 1999 Mar 5;446(1):91-4

HMG-CoA reductase inhibitor-induced L6 myoblast cell death: involvement of the phosphatidylinositol 3-kinase pathway. Nakagawa H, et al. **FEBS Lett** 1998 Nov 6; 438(3):289-92

3-Hydroxy-3-methylglutaryl CoA reductase inhibitors reduce serum triglyceride levels through modulation of apolipoprotein C-III and lipoprotein lipase. Schoonjans K, et al. **FEBS Lett** 1999 Jun 11;452(3):160-4

3-Hydroxy-3-methylglutaryl-coenzyme A reductase inhibitors (statins) induce hepatic expression of the phospholipid translocase mdr2 in rats. Hooiveld GJ, et al. **Gastroenterology** 1999 Sep;117(3):678-87

Simvastatin suppresses glomerular cell proliferation and macrophage infiltration in rats with mesangial proliferative nephritis. Yoshimura A, et al. **J Am Soc Nephrol** 1998 Nov; 9(11):2027-39

Simvastatin, a potent HMG-CoA reductase inhibitor, inhibits the proliferation of human and bovine endothelial cells in vitro. Sato I, et al. **J Atheroscler Thromb** 1998;4(3):102-6

3-Hydroxy-3-methylglutaryl-CoA reductase inhibitors attenuate vascular smooth muscle proliferation by preventing rho GTPase-induced down-regulation of p27(Kip1). Laufs U, et al. **J Biol Chem** 1999 Jul 30; 274(31):21926-31

The effect of converting from pravastatin to simvastatin on the pharmacodynamics of warfarin. Lin JC, et al. **J Clin Pharmacol** 1999 Jan;39(1):86-90

Effects of simvastatin on fasting and postprandial triglyceride-rich lipoproteins in patients with type I diabetes mellitus. Noutsou M, et al. **J Diabetes Complications** 1999 Mar-Apr;13(2):98-104

Effect of simvastatin, a 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor, on alpha-fetoprotein gene expression through interaction with the ras-mediated pathway. Mazume H, et al. **J Hepatol** 1999 May; 30(5):904-10

Effect of lifibrol on the metabolism of low density lipoproteins and cholesterol. Vega GL, et al. **J Intern Med** 1999 Jul;246(1):1-9

Differential regulation of apolipoprotein B secretion from HepG2 cells by two HMG-CoA reductase inhibitors, atorvastatin and simvastatin. Wilcox LJ, et al. **J Lipid Res** 1999 Jun;40(6):1078-89

Direct inhibitory effects of simvastatin on matrix accumulation in cultured murine mesangial cells. Nogaki F, et al. **Kidney Int Suppl** 1999 Jul;71:S198-201

Effect of simvastatin on proliferative nephritis and cell-cycle protein expression. Yoshimura A, et al. **Kidney Int Suppl** 1999 Jul;71:S84-7 (7 ref.)

Effect of 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor on sterol absorption in hypercholesterolemic subjects. Ntanios FY, et al. **Metabolism** 1999 Jan;48(1):68-73

[Simvastatin and ischemia-reperfusion damage: its effects on apoptotic myocyte death and on the endothelial expression of nitric-oxide synthetase in an experimental model of the isolated rat heart] Di Napoli P, et al. **Cardiologia** 1999 Jan; 44(1):69-74 (Eng. Abstr.) **(Ita)**

THERAPEUTIC USE

Comparison of the hypolipidemic effect of gemfibrozil versus simvastatin in patients with type III hyperlipoproteinemia [see comments] Civeira F, et al. **Am Heart J** 1999 Jul;138(1 Pt 1):156-62. Comment in: Am Heart J 1999 Jul;138(1 Pt 1):17-8.

Efficacy and safety of simvastatin 80 mg/day in hypercholesterolemic patients: why is someone still using the phase I diet for patients at risk for atherosclerosis? [letter; comment] Banks T. **Am J Cardiol** 1999 Mar 1; 83(5):818. Comment on: Am J Cardiol 1998 Aug 1;82(3):311-6.

Relative risk reduction in trial results [letter; comment] Kessler KM. **Am J Cardiol** 1999 Feb 1;83(3):475-6. Comment on: Am J Cardiol 1998 Aug 15;82(4):505-7.

Safety of low-density lipoprotein cholestrol reduction with atorvastatin versus simvastatin in a coronary heart disease population (the TARGET TANGIBLE trial). März W, et al. **Am J Cardiol** 1999 Jul 1;84(1):7-13

Efficacy and safety of simvastatin for high-risk hypercholesterolemia. Mölgaard J, et al. **Am J Cardiol** 1999 Apr 1;83(7):1043-8

Primary and secondary prevention of coronary artery disease: trials of lipid lowering with statins. Pearson TA. **Am J Cardiol** 1998 Nov 19;82(10A):28S-30S (16 ref.)

Coronary artery disease: the Scandinavian Simvastatin Survival Study experience. Pedersen TR. **Am J Cardiol** 1998 Nov 26;82(10B):53T-56T

Effect of simvastatin treatment on the electronegative low-density lipoprotein present in patients with heterozygous familial hypercholesterolemia. Sánchez-Quesada JL, et al. **Am J Cardiol** 1999 Sep 15; 84(6):655-9

Rationale, design, and baseline results of the Pravastatin-to-Simvastatin Conversion Lipid Optimization Program (PSCOP). Ito MK, et al. **Am J Health Syst Pharm** 1999 Jun 1;56(11):1107-13

Effects of simvastatin and pravastatin on hyperlipidemia and cyclosporin blood levels in renal transplant recipients. Capone D, et al. **Am J Nephrol** 1999;19(3):411-5

Human lens cholesterol concentrations in patients who used lovastatin or simvastatin. Mitchell J, et al. **Arch Ophthalmol** 1999 May;117(5):653-7

The type of mutation in the low density lipoprotein receptor gene influences the cholesterol-lowering response of the HMG-CoA reductase inhibitor simvastatin in patients with heterozygous familial hypercholesterolaemia. Heath KE, et al. **Atherosclerosis** 1999 Mar;143(1):41-54

Cholestanol and survival with simvastatin. More data are needed. [letter; comment] Wallis EJ, et al. **BMJ** 1998 Oct 31;317(7167):1252-3. Comment on: BMJ 1998 Apr 11;316(7138):1127-30.

A comparison of the use, effectiveness and safety of bezafibrate, gemfibrozil and simvastatin in normal clinical practice using the New Zealand Intensive Medicines Monitoring Programme (IMMP). Beggs PW, et al. **Br J Clin Pharmacol** 1999 Jan;47(1):99-104

Efficacy and safety of cerivastatin in primary hypercholesterolemia: a long term comparative titration study with simvastatin. Leiter LA, et al. **Can J Cardiol** 1999 May;15(5):545-55 (38 ref.)

Improvement in coronary flow reserve determined by positron emission tomography after 6 months of cholesterol-lowering therapy in patients with early stages of coronary atherosclerosis. Baller D, et al. **Circulation** 1999 Jun 8;99(22):2871-5

Simvastatin preserves the ischemic-reperfused myocardium in normocholesterolemic rat hearts. Lefer AM, et al. **Circulation** 1999 Jul 13;100(2):178-84

Endothelial dysfunction is not reversed by simvastatin treatment in type 2 diabetic patients with hypercholesterolemia [letter] Sheu WH, et al. **Diabetes Care** 1999 Jul;22(7):1224-5

Diet only and diet plus simvastatin in the treatment of heterozygous familial hypercholesterolemia in childhood. Stefanutti C, et al. **Drugs Exp Clin Res** 1999;25(1):23-8

MRC/BHF Heart Protection Study of cholesterol-lowering therapy and of antioxidant vitamin supplementation in a wide range of patients at increased risk of coronary heart disease death: early safety and efficacy experience. **Eur Heart J** 1999 May;20(10):725-41

Differences in the treatment of coronary heart disease between countries as revealed in the Scandinavian Simvastatin Survival Study (4S) [see comments] Faergeman O, et al. **Eur Heart J** 1998 Oct;19(10):1531-7. Comment in: Eur Heart J 1998 Oct;19(10):1419.

Preoperative lipid-control with simvastatin reduces the risk of postoperative thrombocytosis and thrombotic complications following CABG. Christenson JT. **Eur J Cardiothorac Surg** 1999 Apr;15(4):394-9; discussion 399-400

Effect of long term simvastatin administration as an adjunct to ursodeoxycholic acid: evidence for a synergistic effect on biliary bile acid composition but not on serum lipids in humans. Lanzarotto F, et al. **Gut** 1999 Apr;44(4):552-6

Statin therapy for prevention of coronary artery disease with average cholesterol levels [editorial] Gambhir DS. **Indian Heart J** 1999 Jan-Feb;51(1):19-20, 105 (6 ref.)

Additive effects of simvastatin and hormone replacement therapy in hypercholesterolemic postmenopausal women [letter; comment] Fak AS, et al. **J Am Coll Cardiol** 1999 Jul;34(1):311-2. Comment on: J Am Coll Cardiol 1998 Nov;32(5):1244-50.

The effect of hormone replacement therapy alone and in combination with simvastatin on plasma lipids of hypercholesterolemic postmenopausal women with coronary artery disease [see comments] Sbarouni E, et al. **J Am Coll Cardiol** 1998 Nov;32(5):1244-50. Comment in: J Am Coll Cardiol 1999 Jul;34(1):311-2.

Inhibition of thrombin generation by simvastatin and lack of additive effects of aspirin in patients with marked hypercholesterolemia [see comments] Szczeklik A, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1286-93. Comment in: J Am Coll Cardiol 1999 Apr;33(5):1305-7.

Case report: rhabdomyolysis induced by mibefradil in a patient treated with cyclosporine and simvastatin. Wombolt DG, et al. **J Clin Pharmacol** 1999 Mar;39(3):310-2

Effects of chronic treatment with simvastatin on endothelial dysfunction in spontaneously hypertensive rats. Alvarez de Sotomayor M, et al. **J Hypertens** 1999 Jun;17(6):769-76

Atorvastatin compared with simvastatin in patients with severe LDL hypercholesterolaemia treated by regular LDL apheresis. Geiss HC, et al. **J Intern Med** 1999 Jan; 245(1):47-55

Statin therapy in nephrotic syndrome [letter; comment] Chan NN. **J R Soc Med** 1999 Mar;92(3):158. Comment on: J R Soc Med 1999 Jan;92(1):23-4.

Simvastatin treatment in nephrotic syndrome associated with a bee sting [see comments] Révai T, et al. **J R Soc Med** 1999 Jan;92(1):23-4. Comment in: J R Soc Med 1999 Mar;92(3):158.

Coronary events with lipid-lowering therapy: the AFCAPS/TexCAPS trial. Air Force/Texas Coronary Atherosclerosis Prevention Study [letter; comment] Kandzari DE, et al. **JAMA** 1999 Feb 3;281(5):415; discussion 417-9. Comment on: JAMA 1998 May 27;279(20):1643-50.

Effect of simvastatin on the lipid profile of hemodialysis patients. Nishikawa O, et al. **Kidney Int Suppl** 1999 Jul; 71:S219-21

Simvastatin in nephrotic syndrome. Simvastatin in Nephrotic Syndrome Study Group. Olbricht CJ, et al. **Kidney Int Suppl** 1999 Jul;71:S113-6

Lipid-lowering drugs and homocysteine [letter] [see comments] de Lorgeril M, et al. **Lancet** 1999 Jan 16; 353(9148):209-10. Comment in: Lancet 1999 Jun 5;353(9168):1974-5.

Thrombotic vascular events after change of statin [letter; comment] Ikeda U, et al. **Lancet** 1999 Mar 6; 353(9155):844-5. Comment on: Lancet 1998 Dec 5;352(9143):1830-1.

Statins and C-reactive protein [letter; comment] Kluft C, et al. **Lancet** 1999 Apr 10;353(9160):1274. Comment on: Lancet 1999 Jan 9;353(9147):118-9.

Effect of statins on C-reactive protein in patients with coronary artery disease [letter] [see comments] Strandberg TE, et al. **Lancet** 1999 Jan 9;353(9147):118-9. Comment in: Lancet 1999 Apr 10;353(9160):1274. Comment in: Lancet 1999 Apr 10;353(9160):1274-5.

Increased thrombotic vascular events after change of statin [letter] [see comments] Thomas M, et al. **Lancet** 1998 Dec 5;352(9143):1830-1. Comment in: Lancet 1999 Mar 6;353(9155):844. Comment in: Lancet 1999 Mar 6;353(9155):844-5. Comment in: Lancet 1999 Mar 6;353(9155):845.

Thrombotic vascular events after change of statin [letter; comment] Weiss NS, et al. **Lancet** 1999 Mar 6;353(9155):844 . Comment on: Lancet 1998 Dec 5;352(9143):1830-1.

Thrombotic vascular events after change of statin [letter; comment] Wierzbicki AS, et al. **Lancet** 1999 Mar 6; 353(9155):845. Comment on: Lancet 1998 Dec 5;352(9143):1830-1.

Effect of simvastatin in addition to chenodeoxycholic acid in patients with cerebrotendinous xanthomatosis. Verrips A, et al. **Metabolism** 1999 Feb;48(2):233-8

The effects of changing statins on cholesterol levels [letter] Mann S, et al. **N Z Med J** 1999 Jul 9;112(1091):260

Concomitant use of simvastatin and cyclosporin A increases LDH in nephrotic syndrome [letter] Ogawa D, et al. **Nephron** 1998 Nov;80(3):351-2

Tolerability and effects of high doses acipimox as additional lipid-lowering therapy in familial hypercholesterolemia. Stuyt PM, et al. **Neth J Med** 1998 Nov;53(5):228-33

No difference in plasma fibrinogen levels between CAPD patients taking atorvastatin and simvastatin [letter] Singhal MK, et al. **Perit Dial Int** 1999 Jan-Feb;19(1):89-91

The outcome of very low dosages of simvastatin in patients with hypercholesterolemia. Rindone JP. **Pharmacotherapy** 1999 Apr;19(4):399-403

Aggressive lipid therapy in the statin era. Farmer JA. **Prog Cardiovasc Dis** 1998 Sep-Oct;41(2):71-94 (67 ref.)

The familial hypercholesterolemia regression study: a randomized comparison of therapeutic reduction of both low-density lipoprotein and lipoprotein(a) versus low-density lipoprotein alone. Kitano Y, et al. **Ther Apher** 1997 May;1(2):187-90

Dyslipidemia evaluated by brachial artery vasoactivity: a case study of eight patients. Rashid MN, et al. **W V Med J** 1999 Jul-Aug;95(4):175-9

[Is combined statin and fibrate therapy indicated in the management of mixed hyperlipidemia?] Luc G. **Presse Med** 1998 Apr 18;27(15):720-2 (Eng. Abstr.) **(Fre)**

[Therapeutic management of hypercholesterolemia] Mégnien JL, et al. **Presse Med** 1998 Dec 12;27(39):2056-61 (Eng. Abstr.) **(Fre)**

[Are there differences in various statins?] Otto C, et al. **Internist (Berl)** 1998 Sep;39(9):987-93 (42 ref.) **(Ger)**

[Rhabdomyolysis and cholestatic hepatitis treated with simvastatin and chlorzoxazone] Bielecki JW, et al. **Schweiz Med Wochenschr** 1999 Apr 3;129(13):514-8 (Eng. Abstr.) **(Ger)**

[Myocardial infarct: Simvastatin improves long-term prognosis in coronary disease patients] **Z Kardiol** 1998 Aug; 87(8 Suppl Simvastati):1-3 **(Ger)**

[Improved coronary vasodilator capacity by drug lipid lowering therapy in patients in the early stage of coronary atherosclerosis with reduced coronary reserves and moderate LDL hypercholesteremia] Baller D, et al. **Z Kardiol** 1998;87 Suppl 2:136-44 (Eng. Abstr.) **(Ger)**

[Dyslipidemia in diabetes mellitus: statins treatment raises survival of patients] Shestakova MV. **Ter Arkh** 1999; 71(1):67-9 **(Rus)**

[Variability of the hypolipidemic action of simvastatin and fluvastatin in patients with primary hyperlipoproteinemia] Tvorogova MG, et al. **Ter Arkh** 1998;70(12):8-13 (Eng. Abstr.) **(Rus)**

[Comparative effects of policosanol and two HMG-CoA reductase inhibitors on type II hypercholesterolemia] Prat H, et al. **Rev Med Chil** 1999 Mar;127(3):286-94 (Eng. Abstr.) **(Spa)**

[Statins (HMG-CoA reductase inhibitors), cholesterol and

stroke] Marta-Moreno J, et al. **Rev Neurol** 1998 Nov; 27(159):827-30 (28 ref.) (Eng. Abstr.) **(Spa)**

TOXICITY

Effects of HMG-CoA reductase inhibitors on excitation-contraction coupling of rat skeletal muscle. Pierno S, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):43-8

Myopathy induced by HMG-CoA reductase inhibitors in rabbits: a pathological, electrophysiological, and biochemical study. Nakahara K, et al. **Toxicol Appl Pharmacol** 1998 Sep;152(1):99-106

SIN-10 see **MOLSIDOMINE**

SINANOMYCIN see **NETROPSIN**

SINAPIS see **MUSTARD**

SINCALIDE

see related
APPETITE DEPRESSANTS
GASTROINTESTINAL AGENTS

ANALOGS & DERIVATIVES

An evaluation of the influence of devazepide and CCK-8S on the intact and resected rat liver. Ohlsson B, et al. **Eur Surg Res** 1998;30(6):378-84

Administration of cholecystokinin sulphated octapeptide (CCK-8S) induces changes on rat amino acid tissue levels and on a behavioral test for anxiety. Acosta GB. **Gen Pharmacol** 1998 Oct;31(4):637-41

The effect of intermittent injections of CCK-8S and the CCK-A receptor antagonist devazepide on cell proliferation in exocrine rat pancreas. Ohlsson B, et al. **Int J Pancreatol** 1998 Dec;24(3):211-8

Cholecystokinin peptides in cerebrospinal fluid: a study in healthy male subjects lumbar-punctured without preceding strict bed-rest. Gunnarsson T, et al. **J Neural Transm** 1999; 106(3-4):275-82

Changes with ageing in the modulation of murine lymphocyte chemotaxis by CCK-8S, GRP and NPY. Medina S, et al. **Mech Ageing Dev** 1998 May 15;102(2-3):249-61

Intraperitoneal, but not subcutaneous, administration of the sulphated cholecystokinin octapeptide (CCK-8S) inhibits operant and nonoperant food intake in rats: implications for the CCK-satiety hypothesis. Ebenezer IS. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):167-71

Interactive effects of cholecystokinin-8S and serotonin on spontaneously active neurons in ventromedial hypothalamic slices. Heidel E, et al. **Neuropeptides** 1998 Oct;32(5):423-9

Changes with age in the modulation of natural killer activity of murine leukocytes by gastrin-releasing peptide, neuropeptide Y and sulfated cholecystokinin octapeptide. Medina S, et al. **Neuropeptides** 1998 Dec;32(6):549-55

Reduction of cholecystokinin-8S-neurons in the paraventricular hypothalamic nucleus of neonatally overfed weanling rats. Plagemann A, et al. **Neurosci Lett** 1998 Dec 11;258(1):13-6

ANTAGONISTS & INHIBITORS

Adenovirus-mediated gene transfer of RasN17 inhibits specific CCK actions on pancreatic acinar cells. Nicke B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G499-506

BIOSYNTHESIS

Expression of cholecystokinin in the pancreas during development. Shimizu K, et al. **Pancreas** 1999 Jul; 19(1):98-104

METABOLISM

Adult carboxypeptidase E-deficient fat/fat mice have a near-total depletion of brain CCK 8 accompanied by a massive accumulation of glycine and arginine extended CCK: identification of CCK 8 Gly as the immediate precursor of CCK 8 in rodent brain. Wang W, et al. **Endocrine** 1998 Dec;9(3):329-32

Role of calcineurin in Ca2+-induced release of catecholamines and neuropeptides. Hens JJ, et al. **J Neurochem** 1998 Nov;71(5):1978-86

PHARMACOLOGY

Interaction of CCK and 8-OH-DPAT in the satiation of alcohol intake. Kulkosky PJ, et al. **Alcohol** 1998 Nov; 16(4):305-9

Supramaximal CCK and CCh concentrations abolish VIP potentiation by inhibiting adenylyl cyclase activity. Akiyama T, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1202-8

Regional effects of cholecystokinin octapeptide on colonic phasic and tonic motility in healthy humans. Coffin B, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G767-72

Central leptin modulates behavioral and neural responsivity to CCK. Emond M, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1545-9

Cholecystokinin induction of mob-1 chemokine expression in pancreatic acinar cells requires NF-kappaB activation. Han B, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):C74-82

Adenovirus-mediated gene transfer of RasN17 inhibits specific CCK actions on pancreatic acinar cells. Nicke B, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G499-506

Cholecystokinin-evoked Ca(2+) waves in isolated mouse pancreatic acinar cells are modulated by activation of cytosolic phospholipase A(2), phospholipase D, and protein kinase C. González A, et al. **Biochem Biophys Res Commun** 1999 Aug 11;261(3):726-33

Cholecystokinin-induced redistribution of paxillin in rat pancreatic acinar cells. Leser J, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):400-5

Are tyrosine phosphorylation of p125(FAK) and paxillin or the small GTP binding protein, rho, needed for CCK-stimulated pancreatic amylase secretion? Rosado JA, et al. **Biochim Biophys Acta** 1998 Sep 16;1404(3):412-26

Interactions between cholecystokinin and opioids in the isolated guinea-pig ileum. Romanelli L, et al. **Br J Pharmacol** 1999 Jun;127(4):909-18

Mesenteric afferent sensitivity to cholecystokinin and 5-hydroxytryptamine. Grundy D, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):466-8

Leptin in gastroprotection induced by cholecystokinin or by a meal. Role of vagal and sensory nerves and nitric oxide. Brzozowski T, et al. **Eur J Pharmacol** 1999 Jun 18; 374(2):263-76

Interaction of islet hormones with cholecystokinin octapeptide-evoked secretory responses in the isolated pancreas of normal and diabetic rats. Singh J, et al. **Exp Physiol** 1999 Mar;84(2):299-318

Comparison of the effects of simmondsin and cholecystokinin on metabolism, brown adipose tissue and the pancreas in food-restricted rats. Flo G, et al. **Horm Metab Res** 1998 Aug;30(8):504-8

Cholecystokinin affects gastric emptying and stomach motility in the rainbow trout Oncorhynchus mykiss. Olsson C, et al. **J Exp Biol** 1999 Jan;202 (Pt 2):161-70

Modulation of murine lymphocyte functions by sulfated cholecystokinin octapeptide. De la Fuente M, et al. **Neuropeptides** 1998 Jun;32(3):225-33

Anxiogenic effect of central CCK administration is attenuated by chronic fluoxetine or ipsapirone treatment. To CT, et al. **Neuropharmacology** 1999 Feb;38(2):279-82

CCK-8 inhibits ingestive behavior in rats with lateral hypothalamic 6-OHDA lesions. Qian M, et al. **Neuroreport** 1998 Aug 24;9(12):2763-7

CCK-8 can inhibit ingestive behavior by acting on the liver. Qian M, et al. **Neuroreport** 1999 Feb 5;10(2):359-62

Pancreatic secretory responses in L-arginine-induced pancreatitis: comparison of diabetic and nondiabetic rats. Hegyi P, et al. **Pancreas** 1999 Aug;19(2):167-74

Hormone replacement modifies cholecystokinin-induced changes in sucrose palatability in ovariectomized rats. Clarke SN, et al. **Peptides** 1998;19(6):977-85

Dopaminergic projection to the central amygdala mediates the facilitatory effect of CCK-8US and caerulein on memory in rats. Winnicka MM, et al. **Pharmacol Res** 1999 Jun;39(6):445-50

Untangling the effects of hunger, anxiety, and nausea on energy intake during intravenous cholecystokinin octapeptide (CCK-8) infusion. Greenough A, et al. **Physiol Behav** 1998 Nov 15;65(2):303-10

Interaction of cholecystokinin (CCK-33) and its C-terminal fragments: CCK-8 and CCK-4 with alpha- and beta-adrenoceptor agonists and antagonists in the cardiovascular system of rats. Part A. Wiśniewska RJ. **Pol J Pharmacol** 1998 May-Jun;50(3):203-12

Interaction of cholecystokinin (CCK-33) and its C-terminal fragments: CCK-8 and CCK-4 with alpha- and beta-adrenoceptor agonists and antagonists in the cardiovascular system of diabetic rats. Part B. Wiśniewska RJ. **Pol J Pharmacol** 1998 May-Jun;50(3):213-23

Cholecystokinin-8 protects central cholinergic neurons against fimbria-fornix lesion through the up-regulation of nerve growth factor synthesis. Tirassa P, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6473-7

Cholecystokinin stimulates ascorbic acid secretion through its specific receptor in the perfused stomach of rats. Muto N, et al. **Res Commun Mol Pathol Pharmacol** 1998 Aug; 101(2):127-36

Effects of sulfated cholecystokinin octapeptide and cholecystokinin tetrapeptide in rat behavior after blockade of nitric oxide synthase by L-NAME. Hoły Z, et al. **Rocz Akad Med Bialymst** 1998;43:250-70

[Interaction of octapeptide of cholecystokinin, vasoactive intestinal peptide and substance P on dynamics of biliary system and cardiovascular system] Zhang J, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jan;35(1):48-51 (Eng. Abstr.) **(Chi)**

[Effect of injection of cholecystokinin into the nucleus tractus solitarius on extrasystoles induced by hypothalamic stimulation in rabbits] Li X, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):49 **(Chi)**

[Effects of secretin and cholecystokinin-8 (CCK-8) on contractile activity of gastric muscle strips in dogs] Zheng T, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):376 **(Chi)**

[Inhibition of gastric motility by microinjection of CCK-8 into rat amygdala] Tang M, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):569-74 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Effects of cholecystokinin octapeptide on a pancreatic acinar carcinoma in the rat. Hajri A, et al. **Pharm Res** 1998 Nov; 15(11):1767-74

[Evidence of new diagnostic and prognostic human astrocytoma tumor markers. Potential therapeutic applications. II] Kiss R. **Bull Mem Acad R Med Belg** 1998; 153(3):209-20; discussion 220-1 (Eng. Abstr.) **(Fre)**

SINCALIDE RECEPTORS see **RECEPTORS, CHOLECYSTOKININ**

SINDBIS VIRUS

The role of host immunocompetence in neuroinvasion of Sindbis virus. Lustig S, et al. **Arch Virol** 1999; 144(6):1159-71

A neuron-specific gene transfer by a recombinant defective Sindbis virus. Gwag BJ, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):53-61

Resistance of interleukin-1beta-deficient mice to fatal Sindbis virus encephalitis. Liang XH, et al. **J Virol** 1999 Mar; 73(3):2563-7

DRUG EFFECTS

Viral inactivation of human bone tissue using supercritical fluid extraction. Fages J, et al. **ASAIO J** 1998 Jul-Aug; 44(4):289-93

Protection against fatal Sindbis virus encephalitis by beclin, a novel Bcl-2-interacting protein. Liang XH, et al. **J Virol** 1998 Nov;72(11):8586-96

SVMPA, a mutant of sindbis virus resistant to mycophenolic acid and ribavirin, shows an increased sensitivity to chick interferon. Rosenblum CI, et al. **Virology** 1999 Jun 20; 259(1):228-33

GENETICS

Recombination of nonreplicative RNA precursors of Sindbis virus in infected cells overexpressing murine-inducible nitric oxide synthase. Herrmann A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):524-31

Cell-specific targeting of a thymidine kinase/ganciclovir gene therapy system using a recombinant Sindbis virus vector. Iijima Y, et al. **Int J Cancer** 1999 Jan 5;80(1):110-8

Geographic distribution and evolution of Sindbis virus in Australia. Sammels LM, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):739-48

Selection of functional variants of the NS3-NS4A protease of hepatitis C virus by using chimeric sindbis viruses. Filocamo G, et al. **J Virol** 1999 Jan;73(1):561-75

Selection of RNA replicons capable of persistent noncytopathic replication in mammalian cells. Frolov I, et al. **J Virol** 1999 May;73(5):3854-65

Regulated expression of a Sindbis virus replicon by herpesvirus promoters. Ivanova L, et al. **J Virol** 1999 Mar; 73(3):1998-2005

In vivo addition of poly(A) tail and AU-rich sequences to the 3' terminus of the Sindbis virus RNA genome: a novel 3'-end repair pathway. Raju R, et al. **J Virol** 1999 Mar; 73(3):2410-9

Reducing cytotoxicity induced by Sindbis viral vectors. Sawai K, et al. **Mol Genet Metab** 1999 May;67(1):36-42

Noncytopathic Sindbis virus RNA vectors for heterologous gene expression [see comments] Agapov EV, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12989-94. Comment in: Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12750-2.

Recombinant Semliki Forest virus and Sindbis virus efficiently infect neurons in hippocampal slice cultures. Ehrengruber MU, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):7041-6

RNA virus vectors: where are we and where do we need to go? [comment] Palese P. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):12750-2 (39 ref.). Comment on: Proc Natl Acad Sci U S A 1998 Oct 27;95(22):12989-94.

Stable alphavirus packaging cell lines for Sindbis virus and Semliki Forest virus-derived vectors. Polo JM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4598-603

Detection and quantitation of human respiratory syncytial virus (RSV) using minigenome cDNA and a Sindbis virus replicon: a prototype assay for negative-strand RNA viruses. Olivo PD, et al. **Virology** 1998 Nov 10; 251(1):198-205

SVMPA, a mutant of sindbis virus resistant to mycophenolic acid and ribavirin, shows an increased sensitivity to chick interferon. Rosenblum CI, et al. **Virology** 1999 Jun 20; 259(1):228-33

IMMUNOLOGY

Seroprevalence of dengue, chikungunya and Sindbis virus infections in German aid workers. Eisenhut M, et al. **Infection** 1999 Mar-Apr;27(2):82-5

The inflammatory response to nonfatal Sindbis virus infection of the nervous system is more severe in SJL than in BALB/c mice and is associated with low levels of IL-4 mRNA and high levels of IL-10-producing CD4+ T cells. Rowell JF, et al. **J Immunol** 1999 Feb 1;162(3):1624-32

METABOLISM

The furin protease cleavage recognition sequence of Sindbis

virus PE2 can mediate virion attachment to cell surface heparan sulfate. Klimstra WB, et al. **J Virol** 1999 Aug; 73(8):6299–306

The cholesterol requirement for sindbis virus entry and exit and characterization of a spike protein region involved in cholesterol dependence. Lu YE, et al. **J Virol** 1999 May; 73(5):4272–8

Probing the potential glycoprotein binding site of sindbis virus capsid protein with dioxane and model building. Lee S, et al. **Proteins** 1998 Nov 1;33(2):311–7

Packaging of AeDNV-GFP transducing virus by expression of densovirus structural proteins from a sindbis virus expression system. Allen-Miura TM, et al. **Virology** 1999 Apr 25;257(1):54–61

PATHOGENICITY

Pogosta disease: clinical observations during an outbreak in the province of North Karelia, Finland. Turunen M, et al. **Br J Rheumatol** 1998 Nov;37(11):1177–80

Inhibition of virus-induced neuronal apoptosis by Bax. Lewis J, et al. **Nat Med** 1999 Jul;5(7):832–5

PHYSIOLOGY

Acute infection of Sindbis virus induces phosphorylation and intracellular translocation of small heat shock protein HSP27 and activation of p38 MAP kinase signaling pathway. Nakatsue T, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):59–64

Induction of manganese-superoxide dismutase in MRC-5 cells persistently infected with an alphavirus, sindbis. Yoshinaka Y, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):139–43

Decreased intracellular superoxide levels activate Sindbis virus-induced apoptosis. Lin KI, et al. **J Biol Chem** 1999 May 7;274(19):13650–5

Class I MHC molecule-mediated inhibition of Sindbis virus replication. Hahn YS, et al. **J Immunol** 1999 Jan 1; 162(1):69–77

Characterization of a Chinese hamster ovary cell line developed by retroviral insertional mutagenesis that is resistant to Sindbis virus infection. Jan JT, et al. **J Virol** 1999 Jun;73(6):4919–24

Alphavirus replicase protein NSP1 induces filopodia and rearrangement of actin filaments. Laakkonen P, et al. **J Virol** 1998 Dec;72(12):10265–9

Low-pH-dependent fusion of Sindbis virus with receptor-free cholesterol- and sphingolipid-containing liposomes. Smit JM, et al. **J Virol** 1999 Oct;73(10):8476–84

In vitro assembly of alphavirus cores by using nucleocapsid protein expressed in Escherichia coli. Tellinghuisen TL, et al. **J Virol** 1999 Jul;73(7):5309–19

[The mutiplication of Sindbis virus and host BHK-21 cell apoptosis] Zhang X, et al. **Wei Sheng Wu Hsueh Pao** 1997 Jun;37(3):165–70 (Eng. Abstr.) **(Chi)**

SINES see **SHORT INTERSPERSED NUCLEOTIDE ELEMENTS**

SINGLE-BLIND METHOD

How widely is blind assessment used in scientific research? Sheldrake R. **Altern Ther Health Med** 1999 May;5(3):88–91

SINGLE-MASKED STUDY see **SINGLE-BLIND METHOD**

SINGLE PARENT

Single parents need home visits by health visitors [letter; comment] Edwards JR. **BMJ** 1998 Nov 14;317(7169):1390 . Comment on: BMJ 1998 May 23;316(7144):1572–6.

Entry or exit? A transition-probability approach to explaining the high prevalence of single motherhood among black women. Rendall MS. **Demography** 1999 Aug; 36(3):369–76

Integration into work of unemployed new immigrant women from single parent families. Taler Y. **Int J Rehabil Res** 1998 Jun;21(2):195–209

Children's adjustment and prosocial behaviour in step-, single-parent, and non-stepfamily settings: findings from a community study. ALSPAC Study Team. Avon Longitudinal Study of Pregnancy and Childhood. Dunn J, et al. **J Child Psychol Psychiatry** 1998 Nov;39(8):1083–95

Inequalities in low birth weight: parental social class, area deprivation, and "lone mother" status. Pattenden S, et al. **J Epidemiol Community Health** 1999 Jun;53(6):355–8

Who cares? Grandparent/grandchild households. Solomon JC, et al. **J Women Aging** 1999;11(1):3–25

Alternate child care, history of hospitalization, and preschool child behavior. Youngblut JM, et al. **Nurs Res** 1999 Jan-Feb;48(1):29–34

Does employment improve the health of lone mothers? The ALSPAC Study Team. Avon Longitudinal Study of Pregnancy and Childhood. Baker D, et al. **Soc Sci Med** 1999 Jul;49(1):121–31

[Child of a single mother] Berthier M, et al. **Arch Pediatr** 1998 Jan;5(1):71–8 (33 ref.) (Eng. Abstr.) **(Fre)**

LEGISLATION & JURISPRUDENCE

[Comments on the new child custody law (editorial)] Schmidt MH. **Z Kinder Jugendpsychiatr Psychother** 1999 Feb; 27(1):3–4 **(Ger)**

PSYCHOLOGY

The influence of big brothers on the separation-individuation of adolescents from single-parent families. Saintonge S, et al. **Adolescence** 1998 Summer;33(130):343–53

"Making it": the components and process of resilience among urban, African-American, single mothers. Brodsky AE. **Am J Orthopsychiatry** 1999 Apr;69(2):148–60

The 'easy street' myth: self harm among aboriginal and non-aboriginal female sole parents in urban state housing. Radford AJ, et al. **Aust N Z J Public Health** 1999 Feb; 23(1):77–85

Family relationships, parenting practices, the availability of male family members, and the behavior of inner-city boys in single-mother and two-parent families. Florsheim P, et al. **Child Dev** 1998 Oct;69(5):1437–47

Hospital-treated psychiatric disorders in adults with a single-parent and two-parent family background: a 28-year follow-up of the 1966 Northern Finland Birth Cohort. Mäkikyrö T, et al. **Fam Process** 1998 Fall;37(3):335–44

STATISTICS & NUMERICAL DATA

Narrowing social inequalities in health? Analysis of trends in mortality among babies of lone mothers (abridged version 1). Whitehead M, et al. **BMJ** 1999 Apr 3; 318(7188):908–12

The gender gap in the economic well-being of nonresident fathers and custodial mothers. Bianchi SM, et al. **Demography** 1999 May;36(2):195–203

Beyond single mothers: cohabitation and marriage in the AFDC program. Moffitt RA, et al. **Demography** 1998 Aug; 35(3):259–78

Reexamining the link of early childbearing to marriage and to subsequent fertility. Morgan SP, et al. **Demography** 1999 Feb;36(1):59–75

The health and socio-economic circumstances of British lone mothers over the last two decades. Shouls S, et al. **Popul Trends** 1999 Spring;(95):41–6

SINGLE-PARENT FAMILY see **SINGLE PARENT**

SINGLE-PAYER PLAN see **SINGLE-PAYER SYSTEM**

SINGLE-PAYER SYSTEM

Activist Young says "gathering storm" will propel a single-payer movement [interview by Rebecca Voelker] Young Q. **JAMA** 1998 Nov 4;280(17):1467–8

Canada: a kinder, gentler health care system? MacKenzie KR. **Psychiatr Serv** 1999 Apr;50(4):489–91

Single-payer health care: what it means to the doctor and the patient [editorial] Charbel FT. **Surg Neurol** 1999 Sep; 52(3):323–4

ECONOMICS

Health care reform in Japan: the virtues of muddling through. Ikegami N, et al. **Health Aff (Millwood)** 1999 May-Jun; 18(3):56–75

Health care in Canada: incrementalism under fiscal duress. Naylor CD. **Health Aff (Millwood)** 1999 May-Jun; 18(3):9–26

ORGANIZATION & ADMINISTRATION

Dialogue or monologue? The limits to lessons that can be learned. Fierlbeck K. **J Health Polit Policy Law** 1999 Jun; 24(3):627–34

Smartcard--a vehicle of access to the health care services. Sušelj M, et al. **Medinfo** 1998;9 Pt 1:31–5

TRENDS

Operating in turbulent times: how Ontario's hospitals are meeting the current funding crisis. Chan YL, et al. **Health Care Manage Rev** 1998 Summer;23(3):7–18

SINGLE PERSON

see related
WIDOWHOOD

Social support among unmarried childless elderly persons. Wu Z, et al. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov; 53(6):S324–35

Meeting the needs of unpartnered elders: a peer training program involving elders with myocardial infarction. Robinson E, et al. **Prog Cardiovasc Nurs** 1998 Fall; 13(4):13–23

LEGISLATION & JURISPRUDENCE

Single women and the dynamics of Medicaid. Short PF, et al. **Health Serv Res** 1998 Dec;33(5 Pt 1):1309–36

PSYCHOLOGY

Condom use in sexual exchange relationships among young single adults in Ghana. Ankomah A. **AIDS Educ Prev** 1998 Aug;10(4):303–16

STATISTICS & NUMERICAL DATA

Single and married patients with eating disorders. Kiriike N, et al. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S306–8

[The resources of the social network of single person households during acute illness. Basic data for home care planning in an influenza epidemic] Wettstein A, et al. **Soz Praventivmed** 1999;44(3):107–16 (Eng. Abstr.) **(Ger)**

SINGLE-PHOTON ABSORPTIOMETRY see **ABSORPTIOMETRY, PHOTON**

SINGLE-PHOTON EMISSION-COMPUTED TOMOGRAPHY see **TOMOGRAPHY, EMISSION-COMPUTED, SINGLE-PHOTON**

SINGLE-STRANDED CONFORMATIONAL POLYMORPHISM see **POLYMORPHISM, SINGLE-STRANDED CONFORMATIONAL**

SINGLE-STRANDED DNA see **DNA, SINGLE-STRANDED**

SINGLE-STRANDED DNA BINDING PROTEINS see **DNA-BINDING PROTEINS**

SINGLE-TOOTH IMPLANTS see **DENTAL IMPLANTS, SINGLE-TOOTH**

SINOATRIAL BLOCK

CHEMICALLY INDUCED

Cardiac electrophysiological actions and interactions of ethanol, cocaine, and the metabolite ethylcocaine. Jain AK, et al. **J Electrocardiol** 1998 Oct;31(4):293–302

DIAGNOSIS

ECG of the month. Prematurity and destiny. Premature atrial impulses. Martinez-Lopez JI. **J La State Med Soc** 1998 Nov;150(11):509–11

PHYSIOPATHOLOGY

Escape capture bigeminy: a manifestation of sinoatrial conduction block. Monir G, et al. **J Electrocardiol** 1999 Jan;32(1):51–5

SURGERY

[Implantation of atrial pacemaker in patients with sinoatrial failure] Gundersen T. **Tidsskr Nor Laegeforen** 1998 Oct 10;118(24):3758–60 (Eng. Abstr.) **(Nor)**

THERAPY

Single chamber atrial pacing: an underused and cost-effective pacing modality in sinus node disease [see comments] Clarke KW, et al. **Heart** 1998 Oct;80(4):387–9. Comment in: Heart 1998 Oct;80(4):315–6.

SINOATRIAL NODAL REENTRY TACHYCARDIA see **TACHYCARDIA, SINOATRIAL NODAL REENTRY**

SINOATRIAL NODE

Transposition of the great arteries and isolated origin of the sinus node artery. Mariani MA, et al. **Ann Thorac Surg** 1998 Dec;66(6):2087–9

ANATOMY & HISTOLOGY

The architecture of the sinus node, the atrioventricular conduction axis, and the internodal atrial myocardium. Anderson RH, et al. **J Cardiovasc Electrophysiol** 1998 Nov; 9(11):1233–48 (51 ref.)

Tridimensional mapping: guided modification of the sinus node. Leonelli F, et al. **J Cardiovasc Electrophysiol** 1998 Nov;9(11):1214–7

[Sinus node vascularization in the black African] Yangni-Angate H, et al. **Morphologie** 1999 Mar; 83(260):39–40 (Eng. Abstr.) **(Fre)**

CYTOLOGY

Different cell types within the sinoatrial node [letter] Benvenuti LA, et al. **Circulation** 1999 Aug 31;100(9):1011–2

A tetrodotoxin-sensitive fast Na+ current density has no correlation with the cell size in sinoatrial node. Muramatsu H, et al. **Nippon Ika Daigaku Zasshi** 1998 Dec;65(6):484–6

DRUG EFFECTS

Heterogeneity of 4-aminopyridine-sensitive current in rabbit sinoatrial node cells. Honjo H, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1295–304

Regional differences in effects of E-4031 within the sinoatrial node. Kodama I, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H793–802

Sevoflurane has no effect on sinoatrial node function or on normal atrioventricular and accessory pathway conduction in Wolff-Parkinson-White syndrome during alfentanil/midazolam anesthesia. Sharpe MD, et al. **Anesthesiology** 1999 Jan;90(1):60–5

Use-dependent block of Ih in mouse dorsal root ganglion neurons by sinus node inhibitors. Raes A, et al. **Br J Pharmacol** 1998 Oct;125(4):741–50

The effect of sinus node depression on heart rate variability in humans using zatebradine, a selective bradycardic agent. Khaykin Y, et al. **Can J Physiol Pharmacol** 1998 Jul-Aug; 76(7-8):806-10

Effect of vasoactive intestinal peptide on pacemaker location and heart rate in the dog atrium. Pinter A, et al. **Can J Physiol Pharmacol** 1998 Apr;76(4):457-62

Non-muscarinic and non-nicotinic inhibition by the acetylcholine analogue carbachol of the delayed rectifier potassium current, iK, in rabbit isolated sino-atrial node cells. Lei M, et al. **Exp Physiol** 1999 Jul;84(4):631-8

Pharmacological tests of the mechanism of the periodic rhythm caused by veratramine in the sinoatrial node of the guinea pig. Thron CD, et al. **Gen Pharmacol** 1999 Jan; 32(1):81-9

A double-blind placebo-controlled evaluation of the human electrophysiologic effects of zatebradine, a sinus node inhibitor. Chiamvimonvat V, et al. **J Cardiovasc Pharmacol** 1998 Oct;32(4):516-20

Prolonged sinus node recovery time in humans after the intracoronary administration of a nitric oxide synthase inhibitor. Exner DV, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):1-6

Cardiac and hemodynamic effects of the sinus node inhibitor tedisamil dihydrochloride in patients with congestive heart failure due to dilated cardiomyopathy. Hermann HP, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):969-74

Cesium effects on i(f) and i(K) in rabbit sinoatrial node myocytes: implications for SA node automaticity. Liu YM, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):783-90

Local cholinergic suppression of pacemaker activity in the rabbit sinoatrial node. Vinogradova TM, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):413-24

Cardiac electrophysiological actions and interactions of ethanol, cocaine, and the metabolite ethylcocaine. Jain AK, et al. **J Electrocardiol** 1998 Oct;31(4):293-302

Dual effect of nitric oxide on the hyperpolarization-activated inward current (I(f)) in sino-atrial node cells of the rabbit. Yoo S, et al. **J Mol Cell Cardiol** 1998 Dec;30(12):2729-38

INNERVATION

Anatomical study of the neural ganglionated plexus in the canine right atrium: implications for selective denervation and electrophysiology of the sinoatrial node in dog. Pauza DH, et al. **Anat Rec** 1999 Jul 1;255(3):271-94

Right ventricular responses to vagus stimulation of fibers to discrete cardiac regions in dog hearts. Nakano H, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2-3):179-88

Parasympathetic inhibition of sympathetic effects on pacemaker location and rate in hearts of anesthetized dogs. Miyashita Y, et al. **J Cardiovasc Electrophysiol** 1999 Aug; 10(8):1066-76

Characterization of sinoatrial parasympathetic innervation in humans. Quan KJ, et al. **J Cardiovasc Electrophysiol** 1999 Aug;10(8):1060-5

METABOLISM

Different cell types within the sinoatrial node [letter] Benvenuti LA, et al. **Circulation** 1999 Aug 31;100(9):1011-2

Molecular characterization of the hyperpolarization-activated cation channel in rabbit heart sinoatrial node. Ishii TM, et al. **J Biol Chem** 1999 Apr 30;274(18):12835-9

Connexin45, a major connexin of the rabbit sinoatrial node, is co-expressed with connexin43 in a restricted zone at the nodal-crista terminalis border. Coppen SR, et al. **J Histochem Cytochem** 1999 Jul;47(7):907-18

PHYSIOLOGY

Swelling-induced decrease in spontaneous pacemaker activity of rabbit isolated sino-atrial node cells. Lei M, et al. **Acta Physiol Scand** 1998 Sep;164(1):1-12

Regional differences in effects of 4-aminopyridine within the sinoatrial node. Boyett MR, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 2):H1158-68

Downward gradient in action potential duration along conduction path in and around the sinoatrial node. Boyett MR, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H686-98

Effect of isoprenaline, carbachol, and Cs+ on Na+ activity and pacemaker potential in rabbit SA node cells. Choi HS, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H205-14

Parasympathetic modulation of sinoatrial node pacemaker activity in rabbit heart: a unifying model. Demir SS, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2221-44

Heterogeneity of 4-aminopyridine-sensitive current in rabbit sinoatrial node cells. Honjo H, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):H1295-304

Contribution of L-type Ca2+ current to electrical activity in sinoatrial nodal myocytes of rabbits. Verheijck EE, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H1064-77

The sinus node electrogram rediscovered [editorial; comment] Hoffman BF. **Cardiovasc Res** 1998 Aug; 39(2):278-9. Comment on: Cardiovasc Res 1998 Aug;39(2):360-72.

Low-frequency extracellular potentials recorded from the sinoatrial node [see comments] Yamamoto M, et al. **Cardiovasc Res** 1998 Aug;39(2):360-72. Comment in: Cardiovasc Res 1998 Aug;39(2):278-9.

Muscle metaboreflex contribution to sinus node regulation during static exercise: insights from spectral analysis of heart rate variability. Iellamo F, et al. **Circulation** 1999 Jul 6;100(1):27-32

Pacemaking in the heart: the interplay of ionic currents. Saint DA. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):841-6

Electrophysiological effects of amrinone on the automaticity and membrane current system of the rabbit sinoatrial node cells. Hata T, et al. **Heart Vessels** 1998;13(3):114-21

Arterial baroreflex control of the sinus node during dobutamine exercise stress testing. van de Borne P, et al. **Hypertension** 1999 Apr;33(4):987-91

Retrograde Purkinje potential activation during sinus rhythm following catheter ablation of idiopathic left ventricular tachycardia. Tada H, et al. **J Cardiovasc Electrophysiol** 1998 Nov;9(11):1218-24

Dual allosteric modulation of pacemaker (f) channels by cAMP and voltage in rabbit SA node. DiFrancesco D. **J Physiol (Lond)** 1999 Mar 1;515 (Pt 2):367-76

Contribution of baroreceptors and chemoreceptors to ventricular hypertrophy produced by sino-aortic denervation in rats. Van Vliet BN, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):885-95

Blockade of the delayed rectifier K+ currents, IKr, in rabbit sinoatrial node cells by external divalent cations. Song DK, et al. **Pflugers Arch** 1999 Jul;438(2):147-53

PHYSIOPATHOLOGY

Chronotropic competence of the sinus node in congenital complete heart block. Menon A, et al. **Am J Cardiol** 1998 Nov 1;82(9):1119-21, A9

Sinus node function after a systematically staged Fontan procedure. Cohen MI, et al. **Circulation** 1998 Nov 10;98(19 Suppl):II352-8; discussion II358-9

Defibrillation-guided radiofrequency ablation of atrial fibrillation secondary to an atrial focus. Lau CP, et al. **J Am Coll Cardiol** 1999 Apr;33(5):1217-26

Sinus node function and ventricular repolarization during exercise stress test in long QT syndrome patients with KvLQT1 and HERG potassium channel defects. Swan H, et al. **J Am Coll Cardiol** 1999 Sep;34(3):823-9

Preexcited tachycardia in a patient with Ebstein's anomaly: is the preexcitation manifest during sinus rhythm? Vora AM, et al. **J Cardiovasc Electrophysiol** 1998 Sep;9(9):1012-4

Cardiac-specific overexpression of RhoA results in sinus and atrioventricular nodal dysfunction and contractile failure [see comments] Sah VP, et al. **J Clin Invest** 1999 Jun; 103(12):1627-34. Comment in: J Clin Invest 1999 Jun;103(12):1619-20.

The Cox maze iii procedure: parallel normalization of sinus node dysfunction, improvement of atrial function, and recovery of the cardiac autonomic nervous system. Pasic M, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):287-95

Correlation waveform analysis to discriminate monomorphic ventricular tachycardia from sinus rhythm using stored electrograms from implantable defibrillators. Michaud GF, et al. **Pacing Clin Electrophysiol** 1999 Aug;22(8):1146-51

[Torsades de Pointes: a cause of syncope in sinus node dysfunction] Velázquez Rodríguez E, et al. **Arch Inst Cardiol Mex** 1998 Nov-Dec;68(6):498-505 (Eng. Abstr.) **(Spa)**

SURGERY

Atrial flutter ablation using a technique for detection of conduction block within the posterior isthmus. Willems S, et al. **Pacing Clin Electrophysiol** 1999 May;22(5):750-8

[Maze technique for the treatment of auricular fibrillation: initial experience] Fernández Lozano I, et al. **Rev Esp Cardiol** 1998 Nov;51(11):901-7 (Eng. Abstr.) **(Spa)**

ULTRASTRUCTURE

[An ultrastructural analysis of the postmortem changes in the sinoauricular area of the canine heart] Pavlovich ER. **Arkh Patol** 1998 Nov-Dec;60(6):47-51 (Eng. Abstr.) **(Rus)**

[Connective tissue components of conducting and working myocardium of the sinoatrial region of the heart in patients of various ages with idiopathic long QT syndrome (quantitative evaluation)] Pavlovich ER. **Morfologiia** 1998; 114(5):45-50 (Eng. Abstr.) **(Rus)**

[Ultrastructure of the contacts between conducting and also between working myocytes in the sino-auricular region of the heart of the intact rat] Pavlovich ER. **Morfologiia** 1999;116(4):26-31 (Eng. Abstr.) **(Rus)**

[Ultrastructural study of specialized conducting and working myocytes in the sinoatrial region of the human heart. I. Qualitative analysis] Pavlovich ER. **Tsitologiia** 1998; 40(11):934-42 (Eng. Abstr.) **(Rus)**

SINUS ARRHYTHMIA see **ARRHYTHMIA, SINUS**

SINUS OF VALSALVA

Repair of ruptured sinus of valsalva aneurysm: determinants of long-term survival. Au WK, et al. **Ann Thorac Surg** 1998 Nov;66(5):1604-10

Myocardial ischemia resulting from spontaneous dissection in a patient with massive bilateral sinus of valsalva aneurysms. Caputo RP, et al. **Catheter Cardiovasc Interv** 1999 Jun;47(2):194-8

Unruptured congenital aneurysm of the sinus of Valsalva presenting with pulmonary stenosis. Liau CS, et al. **Catheter Cardiovasc Interv** 1999 Feb;46(2):210-3

Cardiac tamponade and death from intrapericardial rupture [corrected] of sinus of Valsalva aneurysm [published erratum appears in Eur J Cardiothorac Surg 1999 Mar;15(3):379] Munk MD, et al. **Eur J Cardiothorac Surg** 1999 Jan;15(1):100-2

Isolated unruptured aneurysm of the right sinus of Valsalva causing right ventricular outflow obstruction. Marques KM, et al. **Heart** 1999 Apr;81(4):447-8

Interventricular septal expansion of a sinus of Valsalva aneurysm: a rare cause of complete heart block. Walters MI, et al. **Heart** 1998 Aug;80(2):202-3

Surgical repair in ruptured congenital sinus of Valsalva aneurysms: a 13-year experience. Kirali K, et al. **J Heart Valve Dis** 1999 Jul;8(4):424-9

Congenital aneurysm of sinus of valsalva ruptured into right ventricle diagnosed by magnetic resonance imaging. Karaaslan T, et al. **Pediatr Cardiol** 1999 May-Jun; 20(3):212-4

Rupture of the left aortic sinus into the pulmonary artery in a dalmatian dog [letter; comment] Solano M. **Vet Radiol Ultrasound** 1999 Jan-Feb;40(1):103. Comment on: Vet Radiol Ultrasound 1998 Nov-Dec;39(6):544-50.

[Rupture of a sinus of Valsalva aneurysm into the right ventricle. A case report in the cardiology clinic at the University Hospital Center of Dakar] Diop IB, et al. **Dakar Med** 1996;41(2):91-7 (Eng. Abstr.) **(Fre)**

[Unruptured aneurysm of the right sinus of Valsalva: a case report] Horinouchi T, et al. **J Cardiol** 1999 Feb;33(2):89-93 (Eng. Abstr.) **(Jpn)**

[A case report of surgical repair of ruptured aneurysm of sinus valsalva in aged (84 years old)] Hashimoto T, et al. **Kyobu Geka** 1999 Aug;52(9):780-2 (Eng. Abstr.) **(Jpn)**

ABNORMALITIES

Anomalous left coronary artery arising from right sinus of valsalva could be a minor congenital anomaly--a case report and review of the literature. Abouzied AM, et al. **Angiology** 1999 Feb;50(2):175-8 (21 ref.)

Simplified approach of cannulating anomalously arising right coronary artery from left sinus of Valsalva [letter] Sapra R, et al. **Cathet Cardiovasc Diagn** 1998 Nov;45(3):346-7

Variant of the left coronary artery with an unusual origin and course: anatomic and postmortem angiographic findings. Nerantzis CE, et al. **Clin Anat** 1998;11(6):367-71

Diagnosis and management of anomalous origin of the right coronary artery from the left coronary sinus. Bekedam MA, et al. **Int J Card Imaging** 1999 Jun;15(3):253-8; discussion 259

Cross-sectional and Doppler echocardiographic diagnosis of anomalous origin of the left coronary artery from the pulmonary artery and right coronary artery from posterior aortic sinus. Goswami KC, et al. **Int J Cardiol** 1998 Sep 1;66(1):81-3

Anomalous origin of the right coronary artery from the left sinus of valsalva: transthoracic echocardiographic diagnosis. Frommelt PC, et al. **J Am Soc Echocardiogr** 1999 Mar;12(3):221-4

A case for routine screening of coronary artery origins during echocardiography: fortuitous discovery of a life-threatening coronary anomaly. Stefanelli CB, et al. **J Am Soc Echocardiogr** 1999 Sep;12(9):769-72

Intramural anomalous left coronary artery from the right sinus of Valsalva supported with venoarterial extracorporeal membrane oxygenation. Reich JD, et al. **South Med J** 1999 Jul;92(7):714-6

[Angioplasty with stent of the common trunk of the left coronary artery with abnormal origin at the level of the right anterior sinus and with a retro-aortic trajectory] Belaouchi F, et al. **Arch Mal Coeur Vaiss** 1999 Jul; 92(7):919-24 (Eng. Abstr.) **(Fre)**

[Single coronary artery arising from the right coronary sinus. Report of two cases] Benslimane A, et al. **Arch Mal Coeur Vaiss** 1998 Dec;91(12):1503-7 (Eng. Abstr.) **(Fre)**

[Sudden death caused by abnormal origin of the left coronary artery from the sinus of Valsalva (letter)] Gasmi EH, et al. **Arch Pediatr** 1998 Aug;5(8):931-3 **(Fre)**

[Congenital aneurysm of the sinus of Valsalva ruptured to right ventricle with a ventricular septal defect and aortic regurgitation] Caballero J, et al. **Rev Esp Cardiol** 1999 Aug; 52(8):635-8 (Eng. Abstr.) **(Spa)**

[The single coronary artery arising from the sinus of Valsalva. A rare cause of myocardial ischemia] Gómez-Aldaraví Gutiérrez R, et al. **Rev Esp Cardiol** 1998 Oct;51(10):847-9 (8 ref.) (Eng. Abstr.) **(Spa)**

[Internal correction of the congenital aneurysm of the right coronary sinus in the adult] Olearchyk AS. **Klin Khir** 1999; (2):54-5 **(Ukr)**

ANATOMY & HISTOLOGY

Aortic root geometry: pattern of differences between leaflets and sinuses of Valsalva. Choo SJ, et al. **J Heart Valve Dis** 1999 Jul;8(4):407-15

[Venous vascularization of the heart in the African. Tributary veins of the coronary sinus] Yangni-Angate H, et al. **Morphologie** 1999 Mar;83(260):37-8 (Eng. Abstr.) **(Fre)**

INJURIES

Ventricular fibrillation triggered by a ruptured sinus of Valsalva aneurysm. Hoshino J, et al. **Heart** 1998 Aug; 80(2):203-4

INNERVATION

Effect of sinoaortic denervation on frequency-domain estimates of baroreflex sensitivity in conscious cats. Mancia G, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1987-93

Influence of sinoaortic barodenervation on the hypotensive effects of imidazoline-like drugs in stroke-prone spontaneously hypertensive rats. Medvedev OS, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:295-9

Importance of imidazoline receptors in the cardiovascular responses of clonidine in sinoaortic denervated rats. Ricci D, et al. **Ann N Y Acad Sci** 1999 Jun 21;881:290-4

Effect of sinoaortic deafferentation on renal wrap hypertension. VanNess JM, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):476-81

Sino-aortic denervation augments the increase in blood pressure seen during paradoxical sleep in the rat. Sei H, et al. **J Sleep Res** 1999 Mar;8(1):45-50

PATHOLOGY

Does dilatation of the sinotubular junction cause aortic regurgitation? Furukawa K, et al. **Ann Thorac Surg** 1999 Sep;68(3):949-53; discussion 953-4

Resonance imaging of a ruptured aneurysm of the sinus of Valsalva. Roche KJ, et al. **Cardiol Young** 1998 Jul; 8(3):393-5

Aortic sinotubular atherosclerotic debris associated with cerebral embolic events can be identified by transthoracic echocardiography. Barasch E, et al. **Cardiology** 1998; 90(4):253-7

Images in cardiovascular medicine. Ruptured sinus of valsalva with aorta-to-right atrial fistula. Cullen S, et al. **Circulation** 1998 Dec 1;98(22):2503-4

Unruptured aneurysm of the left sinus of Valsalva extending into the left ventricular outflow tract: presentation and imaging. Pepper C, et al. **Heart** 1998 Aug;80(2):190-3

PHYSIOLOGY

Electrical conduction between the right atrium and the left atrium via the musculature of the coronary sinus. Antz M, et al. **Circulation** 1998 Oct 27;98(17):1790-5

Influence of sino-aortic barodenervation on the cardiovascular effects of imidazoline-like drugs. Medvedev OS, et al. **J Auton Nerv Syst** 1998 Oct 15;72(2-3):205-9

PHYSIOPATHOLOGY

Are we implanting half-valves? The role of sinus wall compliance in aortic valve function [letter] Robicsek F, et al. **Ann Thorac Surg** 1999 Feb;67(2):597

RADIOGRAPHY

Separate origins of left anterior descending, left circumflex and intermediate arteries from the left coronary aortic sinus. Ilia R, et al. **Int J Cardiol** 1998 Oct 30;66(3):313-5

ULTRASONOGRAPHY

Aortic sinotubular atherosclerotic debris associated with cerebral embolic events can be identified by transthoracic echocardiography. Barasch E, et al. **Cardiology** 1998; 90(4):253-7

Infective endocarditis as a complication of a ruptured aneurysm of the sinus of Valsalva. Dominguez JC, et al. **Heart** 1999 Sep;82(3):278

Images in cardiology. Unruptured right sinus of Valsalva aneurysm. Kitaoka H, et al. **Heart** 1998 Aug;80(2):140

Asymptomatic murmurs [letter; comment] Cheng TO. **Postgrad Med J** 1998 Nov;74(877):701. Comment on: Postgrad Med J 1997 Sep;73(863):597-8.

Rupture of the left aortic sinus into the pulmonary artery in a Dalmation dog [see comments] Abbott JA, et al. **Vet Radiol Ultrasound** 1998 Nov-Dec;39(6):544-50. Comment in: Vet Radiol Ultrasound 1999 Jan-Feb;40(1):103.

[Color Doppler echocardiography in the diagnosis for ruptured aneurysm of sinus of Valsalva] Fan P, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(3):253-5 (Eng. Abstr.) **(Chi)**

SINUS TACHYCARDIA see **TACHYCARDIA, SINUS**

SINUS THROMBOSIS

[Cavernous sinus thrombosis. Late diagnosis and complications] Chacar-Rabay H, et al. **J Med Liban** 1998 Jul-Aug;46(4):218-21 (Eng. Abstr.) **(Fre)**

CHEMICALLY INDUCED

Superior sagittal sinus thrombosis in a patient with aplastic anemia treated with anabolic steroids [letter] Kaito K, et al. **Int J Hematol** 1998 Aug;68(2):227-9

COMPLICATIONS

Superior sagittal sinus thrombosis with homocystinuria and deficiency of antithrombin III and factor VII: case report. Kang HS, et al. **Acta Neurochir (Wien)** 1998;140(2):196-8

Severe cerebral venous sinus thrombosis and dural arteriovenous fistula in an infant with protein S deficiency. Witt O, et al. **Childs Nerv Syst** 1999 Mar;15(2-3):128-30

Headache, ptosis and opthalmoplegia: pathology in the cavernous sinus. Rich A, et al. **Hosp Med** 1998 Feb; 59(2):162-3

Superior sagittal sinus and inferior vena cava thrombosis with acute Budd-Chiari syndrome. Kakar A, et al. **Postgrad Med J** 1998 Sep;74(875):557-9

[Symptomatic psychosis in bland sinus thrombosis and antibiotic therapy] Härtig G, et al. **Psychiatr Prax** 1999 Jul;26(4):205-6 (Eng. Abstr.) **(Ger)**

[Superior sagittal sinus thrombosis in anti-phospholipid syndrome] Moskal W, et al. **Neurol Neurochir Pol** 1998 Nov-Dec;32(6):1555-61 (Eng. Abstr.) **(Pol)**

[Neonatal Streptococcus pyogenes meningitis and sagittal sinus thrombosis: case report] Krebs VL, et al. **Arq Neuropsiquiatr** 1998 Dec;56(4):829-32 (Eng. Abstr.) **(Por)**

DIAGNOSIS

Prethrombotic disorders in children with arterial ischemic stroke and sinovenous thrombosis. Bonduel M, et al. **Arch Neurol** 1999 Aug;56(8):967-71

Radiological case of the month. Sagittal sinus thrombosis in hypernatremic dehydration. Hilliard TN, et al. **Arch Pediatr Adolesc Med** 1998 Nov;152(11):1147; discussion 1148

Severe cerebral venous sinus thrombosis and dural arteriovenous fistula in an infant with protein S deficiency. Witt O, et al. **Childs Nerv Syst** 1999 Mar;15(2-3):128-30

Craniopharyngioma presenting as cavernous sinus thrombosis. Sekaran VI, et al. **J Indian Med Assoc** 1998 Sep;96(9):285, 287

Lateral dural sinus thrombosis in childhood. Holzmann D, et al. **Laryngoscope** 1999 Apr;109(4):645-51

MR demonstration of a giant cavernous carotid aneurysm with occlusion of the contralateral intracranial carotid artery: an unusual complication of cavernous sinus thrombosis. Kumar S, et al. **Neuroradiology** 1998 Sep; 40(9):587-9

Infratentorial subdural empyema, pituitary abscess, and septic cavernous sinus thrombophlebitis secondary to paranasal sinusitis: case report. Sahjpaul RL, et al. **Neurosurgery** 1999 Apr;44(4):864-6; discussion 866-8

What's causing this occipital headache? Cerebral dural venous sinus thrombosis. Vardhini BP, et al. **Postgrad Med** 1999 Jul;106(1):145-8

Neuroradiology case of the day. Superior sagittal sinus thrombosis and infarcts. Greiner FG, et al. **Radiographics** 1999 Jul-Aug;19(4):1098-101

[Benign intracranial hypertension and chronic hypervitaminosis A (letter; comment)] Bousser MG. **Rev Neurol (Paris)** 1998 Nov;154(11):784-5. Comment on: Rev Neurol (Paris) 1998 Apr;154(3):253-6. **(Fre)**

[Diagnostic value of combined conventional magnetic resonance imaging and magnetic resonance angiography in sinus venous thrombosis] Flotho E, et al. **Fortschr Neurol Psychiatr** 1999 Mar;67(3):95-103 (Eng. Abstr.) **(Ger)**

[Periorbital pressure and papilledema.Papilledema, episcleral glaucoma and tinnitus in multiple dura fistulas and sinus thrombosis] Schütt F, et al. **Ophthalmologe** 1998 Dec; 95(12):844-5 **(Ger)**

[Headaches in a 26 year old woman. Sinus venous thrombosis in the sinus sagittal superior, at the confluens sinuum and sinus transversus] von Matt D, et al. **Schweiz Rundsch Med Prax** 1999 May 27;88(22):1009-11 **(Ger)**

[Deep venous cerebral thrombosis. Report of one case] Bravo M, et al. **Rev Med Chil** 1998 Oct;126(10):1234-7 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Anticoagulation therapy in pediatric patients with sinovenous thrombosis: a cohort study. deVeber G, et al. **Arch Neurol** 1998 Dec;55(12):1533-7

Cerebral venous thrombosis: recurrence with fatal course [letter] van den Berg JS, et al. **J Neurol** 1999 Feb; 246(2):144-6 (11 ref.)

High-dose heparin plus warfarin administration in non-traumatic dural sinuses thrombosis. A clinical and neuroradiological study. Cipri S, et al. **J Neurosurg Sci** 1998 Mar;42(1):23-32

[Lateral sinus thrombosis] Luis JP, et al. **Acta Med Port** 1998 Nov;11(11):1007-11 (Eng. Abstr.) **(Por)**

EPIDEMIOLOGY

[Otogenic intracranial complications: current assessment of some aspects of the problem] Gadzhimirzaev GA. **Vestn Otorinolaringol** 1999;(3):22-5 (Eng. Abstr.) **(Rus)**

ETIOLOGY

Subdural empyema and blindness due to cavernous sinus thrombosis in acute frontal sinusitis. Yücel OT, et al. **Int J Pediatr Otorhinolaryngol** 1998 Nov 15;46(1-2):121-5

Dural sinus thrombosis and pseudotumor cerebri: unexpected complications of suboccipital craniotomy and translabyrinthine craniectomy. Keiper GL Jr, et al. **J Neurosurg** 1999 Aug;91(2):192-7

Inferior sagittal sinus thrombosis [letter; comment] Grünewald R, et al. **Neuroradiology** 1998 Jul;40(7):472. Comment on: Neuroradiology 1997 Jun;39(6):411-3.

Sagittal sinus thrombosis associated with thrombocytopenia: a report of two patients. Alper G, et al. **Pediatr Neurol** 1999 Aug;21(2):573-5

[The natural history of a dural arteriovenous fistula associated with sinus thrombosis: a case report] Wakamoto H, et al. **No Shinkei Geka** 1999 Jun;27(6):563-8 (Eng. Abstr.) **(Jpn)**

[Superior sagittal sinus thrombosis presenting with subarachnoid hemorrhage in a patient with aplastic anemia] Ohta H, et al. **No To Shinkei** 1998 Aug;50(8):739-43 (Eng. Abstr.) **(Jpn)**

[Otogenic intracranial complications: current assessment of some aspects of the problem] Gadzhimirzaev GA. **Vestn Otorinolaringol** 1999;(3):22-5 (Eng. Abstr.) **(Rus)**

[Thrombosis of the transverse sinus of the brain as a manifestation of antiphospholipid syndrome] Dujmović I, et al. **Srp Arh Celok Lek** 1999 Jan-Feb;127(1-2):65-9 **(Scc)**

GENETICS

Prothrombin gene variant (G20210A) in a patient with cerebral venous sinus thrombosis. van Krimpen J, et al. **Clin Neurol Neurosurg** 1999 Mar;101(1):53-5

Cerebral venous sinus thrombosis associated with 20210A mutation of the prothrombin gene [letter] Kellett MW, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):611-2

Plasminogen activator inhibitor-1 4G/4G-genotype is associated with cerebral sinus thrombosis in factor V Leiden carriers [letter] Junker R, et al. **Thromb Haemost** 1998 Oct;80(4):706-7

PATHOLOGY

Neuro-ophthalmic complication after maxillary surgery. De Zutter A, et al. **Bull Soc Belge Ophtalmol** 1999;271:39-42

Cerebral venous sinus thrombosis associated with 20210A mutation of the prothrombin gene [letter] Kellett MW, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):611-2

Spontaneous dural sinus thrombosis in children. Lancon JA, et al. **Pediatr Neurosurg** 1999 Jan;30(1):23-9

[Superior sagittal sinus thrombosis in anti-phospholipid syndrome] Moskal W, et al. **Neurol Neurochir Pol** 1998 Nov-Dec;32(6):1555-61 (Eng. Abstr.) **(Pol)**

PHYSIOPATHOLOGY

Superior sagittal sinus thrombosis and transient ischemic attacks: possible mechanism. Chang DI, et al. **J Korean Med Sci** 1998 Oct;13(5):566-8

RADIOGRAPHY

The pseudo-delta sign is unreliable in differentiating between aneurysmal SAH and sinus thrombosis in unenhanced brain CT. Daif A, et al. **Eur J Radiol** 1998 Aug;28(1):95-7

[Fluctuating consciousness with diagnostic CT] von Däniken D, et al. **Schweiz Med Wochenschr** 1998 Nov 14; 128(46):1826 **(Ger)**

SURGERY

Application of a rheolytic thrombectomy device in the treatment of dural sinus thrombosis: a new technique. Dowd CF, et al. **AJNR Am J Neuroradiol** 1999 Apr; 20(4):568-70

Rapid thrombectomy of superior sagittal sinus and transverse sinus thrombosis with a rheolytic catheter device. Opatowsky MJ, et al. **AJNR Am J Neuroradiol** 1999 Mar; 20(3):414-7

Reversibility of severe sagittal sinus thrombosis with open surgical thrombectomy combined with local infusion of tissue plasminogen activator: technical case report. Ekseth K, et al. **Neurosurgery** 1998 Oct;43(4):960-5

Endovascular recanalization with balloon angioplasty and stenting of an occluded occipital sinus for treatment of intracranial venous hypertension: technical case report. Malek AM, et al. **Neurosurgery** 1999 Apr;44(4):896-901

Spontaneous dural sinus thrombosis in children. Lancon JA, et al. **Pediatr Neurosurg** 1999 Jan;30(1):23-9

ULTRASONOGRAPHY

[Cavernous dural fistulas: Importance of trans-ocular Doppler ultrasound in evaluating venous patency and therapeutic choices] Slaba S, et al. **J Radiol** 1998 Feb; 79(2):153-6 (Eng. Abstr.) **(Fre)**

SINUSITIS

Rhinitis, sinusitis, and polyposis. Young MC. **Allergy Asthma Proc** 1998 Jul-Aug;19(4):211-8 (37 ref.)

A focus on acute sinusitis in adults: changes in disease management. Poole MD. **Am J Med** 1999 May 3; 106(5A):38S-47S; discussion 48S-52S (46 ref.)

Quality of life in patients with rhinosinusitis. Durr DG, et al. **J Otolaryngol** 1999 Apr;28(2):108-11 (33 ref.)

Nasosinus aspergillosis in Sudanese patients: clinical features, pathology, diagnosis, and treatment. Yagi HI, et al. **J Otolaryngol** 1999 Apr;28(2):90-4

[Chronic rhinosinusitis in children: evolution of concepts] Froehlich P, et al. **Arch Pediatr** 1998 Dec;5(12):1373-7 (Eng. Abstr.) **(Fre)**

[Acute nasal, sinus and pharyngeal infections in children] Gilain L. **Rev Prat** 1998 Feb 15;48(4):457-61 **(Fre)**

[Acute nasal-sinus infections in the adult] Parietti C, et al. **Rev Prat** 1998 Jan 15;48(2):199-204 **(Fre)**

[Sinusitis] Takayama M, et al.

SINUSITIS

Ryoikibetsu Shokogun Shirizu 1999;(25 Pt 3):289–94 (9 ref.) **(Jpn)**

BLOOD

[Middle mass molecules as an indicator of intoxication in the purulent inflammatory ENT diseases] Bobrov VM, et al. **Vestn Otorinolaringol** 1999;(1):33–4 (Eng. Abstr.) **(Rus)**

CHEMICALLY INDUCED

Ammonia exposure: a common cause for sinusitis. A case report and review of the literature. Brautbar N. **Toxicol Ind Health** 1998 Nov–Dec;14(6):891–5 (10 ref.)

COMPLICATIONS

Severe steroid-dependent asthma with IgG-2 deficiency and recurrent sinusitis: response to treatment with high-dose intravenous immunoglobulin. Loza Cortina C. **Allergol Immunopathol (Madr)** 1999 May–Jun;27(3):165–7

What is the optimal way of treating these patients today and in the future? Steinsvåg S. **Allergy** 1999;54 Suppl 50:48–50

Objective and subjective assessment of nasal obstruction in patients undergoing endoscopic sinus surgery. Keleş N, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):307–9

Allergic fungal sinusitis–induced visual loss. Marple BF, et al. **Am J Rhinol** 1999 May–Jun;13(3):191–5

Prevalence of sinonasal symptoms in patients with HIV infection. Porter JP, et al. **Am J Rhinol** 1999 May–Jun; 13(3):203–8

A patient with persistent wheezing, sinusitis, elevated IgE, and eosinophilia [clinical conference] Robinson J, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):144–9

Sinusitis and gastroesophageal reflux disease [letter] DiBaise JK, et al. **Ann Intern Med** 1998 Dec 15;129(12):1078

Abnormal expression of the cystic fibrosis transmembrane regulator in chronic sinusitis in cystic fibrosis and non–cystic fibrosis patients. Coltrera MD, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):576–81

Endoscopic sinus surgery improves pulmonary function in patients with asthma associated with chronic sinusitis. Ikeda K, et al. **Ann Otol Rhinol Laryngol** 1999 Apr;108(4):355–9

A proposal for a staging system for hyperplastic rhinosinusitis based on the presence or absence of intranasal polyposis. Eichel BS. **Ear Nose Throat J** 1999 Apr;78(4):262–5, 268

Cystic fibrosis and sinusitis. Isaacson G, et al. **Ear Nose Throat J** 1998 Nov;77(11):886–8 (7 ref.)

Sinusitis and acute asthma in adults. Peters E, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):372–4

The use of standardized orbital ultrasound in the diagnosis of sinus induced infections of the orbit in children: a preliminary report. Kaplan DM, et al. **Int J Pediatr Otorhinolaryngol** 1999 May 5;48(2):155–62

Pseudallescheria boydii infection in AIDS [letter] Horton CK, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Feb 1;20(2):209–11

Cellulitis of the eyelids associated with sinusitis and brain abscess. Shinagawa Y, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):74–7

Non-Hodgkin's lymphoma of the lacrimal sac and concomitant pansinusitis. el-Hakim H, et al. **J Laryngol Otol** 1998 Oct;112(10):969–70

Papilloedema secondary to acute purulent sinusitis. Kumar RK, et al. **J Paediatr Child Health** 1999 Aug;35(4):396–8 (11 ref.)

Intractable meningitis and intracranial abscess following sinusitis due to Candida species. Kaji M, et al. **Kurume Med J** 1998;45(3):279–81

Suppurative intracranial complications of sinusitis. Gallagher RM, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1635–42

Bungee jumper's eye. Chodock R, et al. **Med Health R I** 1999 Aug;82(8):293–4

Aspirin intolerance in patients with chronic sinusitis. Gosepath J, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun;61(3):146–50

Devastating complications of acute pediatric bacterial sinusitis. Broberg T, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):575–9

Long-term impact of functional endoscopic sinus surgery on asthma. Senior BA, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):66–8

Pseudotumor cerebri as a presenting symptom of acute sinusitis in a child. Keren T, et al. **Pediatr Neurol** 1998 Aug;19(2):153–4

Allergic rhinitis and rhinosinusitis. Is there a connection between allergy and infection? Ferguson BJ, et al. **Postgrad Med** 1999 Apr;105(4):55–8, 61, 64 (36 ref.)

MR imaging and CT of orbital infections and complications in acute rhinosinusitis. Eustis HS, et al. **Radiol Clin North Am** 1998 Nov;36(6):1165–83, xi (56 ref.)

[Chronic sinusitis in patients infected by HIV: therapeutic strategies] Castillo L, et al. **Ann Otolaryngol Chir Cervicofac** 1999 Jun;116(3):162–6 (Eng. Abstr.) **(Fre)**

[Intracranial and cranial complications of paranasal sinusitis. Report of 4 cases at the Lomé University Hospital Center] Kpemissi E, et al. **Dakar Med** 1995;40(2):133–7 (Eng. Abstr.) **(Fre)**

[A case of aspirin triad] Atamuradov MA, et al. **Vestn Otorinolaringol** 1999;(4):50 **(Rus)**

[Middle mass molecules as an indicator of intoxication in the purulent inflammatory ENT diseases] Bobrov VM, et al. **Vestn Otorinolaringol** 1999;(1):33–4 (Eng. Abstr.) **(Rus)**

[Orbital and intracranial complications of paranasal sinus inflammation] Voronkin VF, et al. **Vestn Otorinolaringol** 1999;(4):25–7 (Eng. Abstr.) **(Rus)**

[Subdural empyema as a complication of sinusitis. Association with Streptococcus milleri] Plaza Mayor G, et al. **Acta Otorrinolaringol Esp** 1998 Nov–Dec;49(8):658–62 (Eng. Abstr.) **(Spa)**

[Ear, nose, and throat manifestations in patients with primary immunodeficiencies] Galicia G, et al. **Rev Alerg Mex** 1999 Jul–Aug;46(4):108–19 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Gender differences in respiratory, nasal and skin symptoms: 6–7 versus 13–14–year–old children. Wieringa MH, et al. **Acta Paediatr** 1999 Feb;88(2):147–9

Fossa navicularis magna. Beltramello A, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1796–8

Treatment of sinusitis in the next millennium. Kaliner M. **Allergy Asthma Proc** 1998 Jul–Aug;19(4):181–4

Acute sinusitis: a cost-effective approach to diagnosis and treatment. Fagnan LJ. **Am Fam Physician** 1998 Nov 15; 58(8):1795–802, 805–6 (46 ref.)

Assessment of fever in the intensive care unit. Is the answer just beyond the tip of our nose? [editorial; comment] Hall J. **Am J Respir Crit Care Med** 1999 Mar;159(3):693–4. Comment on: Am J Respir Crit Care Med 1999 Mar;159(3):695–701.

Fluctuating olfactory sensitivity and distorted odor perception in allergic rhinitis. Apter AJ, et al. **Arch Otolaryngol Head Neck Surg** 1999 Sep;125(9):1005–10

The management of postnasal drip. Forer M, et al. **Aust Fam Physician** 1999 Mar;28(3):223–8 (22 ref.)

Rainbow scale in computer-aided sinus surgery. Christmas DA, et al. **Ear Nose Throat J** 1999 Sep;78(9):670–2

Comparison of CT and MRI features in sinusitis. Chong VF, et al. **Eur J Radiol** 1998 Nov;29(1):47–54

Evaluation and treatment of allergic fungal sinusitis. I. Demographics and diagnosis. Schubert MS, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):387–94

Parameters for the diagnosis and management of sinusitis. Spector SL, et al. **J Allergy Clin Immunol** 1998 Dec;102(6 Pt 2):S107–44

Colour of respiratory discharge and antibiotic use [letter] Mainous AG 3rd, et al. **Lancet** 1997 Oct 11;350(9084):1077

The diagnosis and incidence of allergic fungal sinusitis. Ponikau JU, et al. **Mayo Clin Proc** 1999 Sep;74(9):877–84

Rhinosinusitis. Current concepts in evaluation and management. Osguthorpe JD, et al. **Med Clin North Am** 1999 Jan;83(1):27–41, vii–viii (30 ref.)

Outcome of reflux therapy on pediatric chronic sinusitis. Bothwell MR, et al. **Otolaryngol Head Neck Surg** 1999 Sep; 121(3):255–62

Mold testing by RAST and skin test methods in patients with allergic fungal sinusitis. Mabry RL, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):252–4

The surgical management of chronic sinusitis in children. Lusk RP. **Pediatr Ann** 1998 Dec;27(12):820–7 (47 ref.)

Sinusitis overview [editorial] Wald ER. **Pediatr Ann** 1998 Dec;27(12):787–8

Allergic and infectious pediatric sinusitis [see comments] Zacharisen MC, et al. **Pediatr Ann** 1998 Nov;27(11):759–66 (19 ref.). Comment in: Pediatr Ann 1998 Nov;27(11):708.

Acute sinusitis. Bussey MF, et al. **Pediatr Rev** 1999 Apr; 20(4):142

A guide to the management of chronic sinusitis. Kennedy V, et al. **Practitioner** 1998 Oct;242(1591):712–7 (8 ref.)

Relative value of MR imaging as compared with CT in the diagnosis of inflammatory paranasal sinus disease. Hähnel S, et al. **Radiology** 1999 Jan;210(1):171–6

[Diagnosis and management of acute sinusitis] **Rev Prat** 1998 Oct 15;48(16):1834–5 **(Fre)**

[Interesting case no. 22. Acute pansinusitis with septicemic complications] Löhrer H. **Laryngorhinootologie** 1999 Mar; 78(3):160–2 **(Ger)**

[Mycoses of the paranasal sinus system] Münzel MA. **Laryngorhinootologie** 1999 Jan;78(1):47–9 (Eng. Abstr.) **(Ger)**

[Report of two rare cases of fungal sinusitis] Moriyama M, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1999 May; 102(5):656–9 (Eng. Abstr.) **(Jpn)**

[Diagnostic problems in coexistence of paranasal sinusitis with cerebral tumor] Kulczyński B, et al. **Otolaryngol Pol** 1998;52(3):317–20 (Eng. Abstr.) **(Pol)**

[The association of biological properties of staphylococci with the process of purulent sinusitis] Bukharin OV, et al. **Vestn Otorinolaringol** 1998;(5):35–7 (Eng. Abstr.) **(Rus)**

[The status of paranasal sinuses in children according to computer tomography] Lantsov AA, et al. **Vestn Otorinolaringol** 1998;(5):32–4 (Eng. Abstr.) **(Rus)**

[Current methods for assessing mucociliary transport disorders in the diagnosis of chronic rhinosinusitis] Zakharova GP, et al. **Vestn Otorinolaringol** 1998;(4):53–5 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Pharmacotherapy to prevent the complications of allergic rhinitis. Beckman DB, et al. **Allergy Asthma Proc** 1999 Jul–Aug;20(4):215–23 (81 ref.)

Appropriate use of antibiotics for URIs in children: Part I. Otitis media and acute sinusitis. The Pediatric URI Consensus Team [see comments] Dowell SF, et al. **Am Fam Physician** 1998 Oct 1;58(5):1113–8, 1123 (39 ref.) . Comment in: Am Fam Physician 1998 Oct 1;58(5):1066–8.

Antidepressants, rhinosinusitis are topics of new AHCPR evidence reports [news] Miller JL. **Am J Health Syst Pharm** 1999 May 1;56(9):853

Resolution of microsporidial sinusitis and keratoconjunctivitis by itraconazole treatment. Rossi P, et al. **Am J Ophthalmol** 1999 Feb;127(2):210–2

Azithromycin versus amoxicillin/clavulanate in the treatment of acute sinusitis. Klapan I, et al. **Am J Otolaryngol** 1999 Jan–Feb;20(1):7–11

Clarithromycin–induced mania [letter] Abouesh A, et al. **Am J Psychiatry** 1998 Nov;155(11):1626

Antimicrobial resistance in bacterial chronic sinusitis. Hsu J, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):243–8

Resistance to antimicrobials used for therapy of otitis media and sinusitis: effect of previous antimicrobial therapy and smoking. Brook I, et al. **Ann Otol Rhinol Laryngol** 1999 Jul;108(7 Pt 1):645–7

Successful treatment of an invasive aspergillosis of the skull base and paranasal sinuses with liposomal amphotericin B and itraconazole. Streppel M, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):205–7

Possible interaction between cyclosporine and chloramphenicol [letter] Bui L, et al. **Ann Pharmacother** 1999 Feb;33(2):252–3

Pharmaceutical use by U.S. astronauts on space shuttle missions. Putcha L, et al. **Aviat Space Environ Med** 1999 Jul;70(7):705–8

Antibiotics for acute sinusitis in general practice. Entry criteria were too dissimilar for studies to be combined for meta-analysis [letter] Browning GG. **BMJ** 1999 Jun 12; 318(7198):1623–4

Acute community acquired bacterial sinusitis: To treat or not to treat. Gwaltney JM Jr. **Can Respir J** 1999 Jan–Feb; 6 Suppl A:46A–50A (18 ref.)

Treatment of acute sinusitis in childhood with ceftibuten. Simon MW. **Clin Pediatr (Phila)** 1999 May;38(5):269–72

Efficacy and tolerability of cefprozil versus amoxicillin/clavulanate for the treatment of adults with severe sinusitis. Adelglass J, et al. **Clin Ther** 1998 Nov–Dec; 20(6):1115–29

Multicenter comparative trial of ciprofloxacin versus cefuroxime axetil in the treatment of acute rhinosinusitis in a primary care setting. Rhinosinusitis Investigation Group. Weis M, et al. **Clin Ther** 1998 Sep–Oct;20(5):921–32

Antileukotriene therapy for the relief of sinus symptoms in aspirin triad disease. Ulualp SO, et al. **Ear Nose Throat J** 1999 Aug;78(8):604–6, 608, 613, passim

Broad versus narrow spectrum antibiotics for sinusitis. Montgomery L, et al. **J Fam Pract** 1998 Dec;47(6):416

Efficacy and safety of oral levofloxacin compared with clarithromycin in the treatment of acute sinusitis in adults: a multicentre, double-blind, randomized study. The Canadian Sinusitis Study Group. Lasko B, et al. **J Int Med Res** 1998 Dec;26(6):281–91

How uncomfortable are the various positions recommended for the instillation of nose drops? Kubba H. **J Laryngol Otol** 1999 Apr;113(4):326–8

Effect of steroids on nasal inflammatory cells and cytokine profile. Kondo H, et al. **Laryngoscope** 1999 Jan;109(1):91–7

Inhibitory effect of erythromycin on interleukin–8 secretion from exudative cells in the nasal discharge of patients with chronic sinusitis. Suzuki H, et al. **Laryngoscope** 1999 Mar; 109(3):407–10

Comparison of the effectiveness of levofloxacin and amoxicillin–clavulanate for the treatment of acute sinusitis in adults [see comments] Adelglass J, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):320–7. Comment in: Otolaryngol Head Neck Surg 1999 Jul;121(1):167.

Effects of systemic steroid treatment in chronic polypoid rhinosinusitis evaluated with magnetic resonance imaging. Damm M, et al. **Otolaryngol Head Neck Surg** 1999 Apr; 120(4):517–23

A multicenter, investigator–blinded, randomized comparison of oral levofloxacin and oral clarithromycin in the treatment of acute bacterial sinusitis. Adelglass J, et al. **Pharmacotherapy** 1998 Nov–Dec;18(6):1255–63

When is it right to prescribe in URTI? Williamson I. **Practitioner** 1997 Dec;241(1581):724–6, 728, 730 (15 ref.)

[Corticotherapy in ENT. Subglottic laryngitis in children, acute sinusitis, naso–sinusal polyposis, sero–mucous otitis] De Corbiere S, et al. **Ann Med Interne (Paris)** 1998 Dec; 149(8):508–11 (16 ref.) (Eng. Abstr.) **(Fre)**

[The role of ciprofloxacin in the management of chronic sinusitis] Fombeur JP. **Presse Med** 1998 Apr 4;27(13):642–4 **(Fre)**

[New fluoroquinolones and treatment of acute sinusitis] Gehanno P, et al. **Presse Med** 1999 Sep 4;28(25):1365 **(Fre)**

[Pristinamycin in the outpatient treatment of acute sinusitis in adults] Pessey JJ. **Presse Med** 1999 Sep 4;28 Suppl 1:10–2 (Eng. Abstr.) **(Fre)**

[Controversies in the treatment of acute sinusitis] Barry B. **Rev Prat** 1998 Oct 15;48(16):1745–7 **(Fre)**

[Causative organisms of acute otitis media and acute sinusitis in children and their susceptibility of oral beta–lactam antibiotics] Takenaka M, et al. **Jpn J Antibiot** 1999 Feb;

52(2):162–71 (Eng. Abstr.) **(Jpn)**

[Co-amoxiclav antibiotic therapy of acute otitis media, exacerbation of otitis media chronica and sinusitis in children] Bogomil'skiĭ MR, et al. **Vestn Otorinolaringol** 1999;(4):22–4 (Eng. Abstr.) **(Rus)**

[Anti-recurrence treatment of polypous rhinosinusitis] Kondrat'ev VA, et al. **Vestn Otorinolaringol** 1999;(4):39 (3 ref.) (Eng. Abstr.) **(Rus)**

[The role of the topical corticosteroid therapy in the treatment of chronic polypous rhinosinusitis] Lopatin AS. **Vestn Otorinolaringol** 1999;(2):54–8 **(Rus)**

[use of a Staphylococcus bacterial vaccine in pediatric patients with chronic sinusitis] Martinez Pérez A, et al. **Rev Alerg Mex** 1999 Jan–Feb;46(1):3–7 (Eng. Abstr.) **(Spa)**

ECONOMICS

Healthcare expenditures for sinusitis in 1996: contributions of asthma, rhinitis, and other airway disorders. Ray NF, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):408–14

ENZYMOLOGY

Urokinase-type plasminogen activator and plasminogen activator inhibitor antigen in tissue extracts of paranasal sinus mucous membranes affected by chronic sinusitis and antrochoanal polyps. Sunagawa M, et al.
Eur Arch Otorhinolaryngol 1999;256(5):237–41

EPIDEMIOLOGY

Rhinosinusitis and asthma: epiphenomenon or causal association? de Benedictis FM, et al. **Chest** 1999 Feb; 115(2):550–6 (69 ref.)

Nosocomial sinusitis in patients in the medical intensive care unit: a prospective epidemiological study. George DL, et al. **Clin Infect Dis** 1998 Sep;27(3):463–70

The prevalence of allergic rhinitis and nasal symptoms in Nottingham. Jones NS, et al. **Clin Otolaryngol** 1998 Dec; 23(6):547–54

The prevalence of allergic rhinosinusitis: a review. Jones NS, et al. **J Laryngol Otol** 1998 Nov;112(11):1019–30 (173 ref.)

[Epidemiology of sinusitis seen in hospitalized patients. Apropos of 77 episodes of sinusitis among 72 patients between 1993 and 1996] Fasquelle D, et al.
Pathol Biol (Paris) 1998 Dec;46(10):751–9 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Perennial allergic rhinitis and chronic sinusitis: correlation with rhinologic risk factors. Berrettini S, et al. **Allergy** 1999 Mar;54(3):242–8

Complications of allergic rhinitis. Settipane RA.
Allergy Asthma Proc 1999 Jul–Aug;20(4):209–13 (39 ref.)

Chronic sinusitis: a sequela of inferior turbinectomy. Berenholz L, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):257–61

A potential role for nasal obstruction in development of acute sinusitis: an infection study in rabbits. Gnoy AR, et al.
Am J Rhinol 1998 Nov–Dec;12(6):399–404

Possible relationship of gastroesophagopharyngeal acid reflux with pathogenesis of chronic sinusitis. Ulualp SO, et al.
Am J Rhinol 1999 May–Jun;13(3):197–202

Management of chronic sinusitis in the adult cystic fibrosis patient. Halvorson DJ, et al. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):946–52

Recurrent sinusitis, arthralgias, and progressive dyspnea in a 26-year-old woman. Arcasoy SM, et al. **Chest** 1999 Jun; 115(6):1731–4

Ventilator-associated sinusitis: a review. Westergren V, et al. **Clin Infect Dis** 1998 Oct;27(4):851–64 (111 ref.)

Post-traumatic deformity of the uncinate process and the medial wall of the maxillary sinus. Yanagisawa E, et al.
Ear Nose Throat J 1998 Sep;77(9):730–1

Evaluation of the patient with sore throat, earache, and sinusitis: an evidence based approach. Stewart MH, et al.
Emerg Med Clin North Am 1999 Feb;17(1):153–87, ix (137 ref.)

Sinusitis in the common cold. Puhakka T, et al.
J Allergy Clin Immunol 1998 Sep;102(3):403–8

Acute sinusitis and the common cold. Jackson EA, et al.
J Fam Pract 1999 Jan;48(1):7–8

Rhinosinusitis and atopy in patients infected with HIV. García-Rodriguez JF, et al. **Laryngoscope** 1999 Jun; 109(6):939–44

Role of gastroesophageal reflux in pediatric upper airway disorders. Halstead LA. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):208–14

Cystic fibrosis: the twilight zone. Massie J, et al.
Pediatr Pulmonol 1999 Sep;28(3):222–4

Management of chronic sinusitis in children with cystic fibrosis. April MM. **Pediatr Pulmonol Suppl** 1999;18:76–7

[Sinusitis in children] Maurer J, et al. **HNO** 1999 Apr; 47(4):301–10 (31 ref.) **(Ger)**

IMMUNOLOGY

Comparison of sinusitis with and without allergic rhinitis: characteristics of paranasal sinus effusion and mucosa. Suzuki M, et al. **Am J Otolaryngol** 1999 May–Jun; 20(3):143–50

Monoclonal antibody-detectable carbohydrate epitopes of human nasal secretions are differentially expressed in tissue and diseases. Kishioka C, et al. **Am J Rhinol** 1999 Jan–Feb; 13(1):37–43

Urokinase-type plasminogen activator and plasminogen activator inhibitor antigen in tissue extracts of paranasal sinus mucous membranes affected by chronic sinusitis and antrochoanal polyps. Sunagawa M, et al.
Eur Arch Otorhinolaryngol 1999;256(5):237–41

IL-12 receptor beta2 and CD30 expression in paranasal sinus mucosa of patients with chronic sinusitis. Suzuki H, et al.
Eur Respir J 1999 May;13(5):1008–13

Evaluation and treatment of allergic fungal sinusitis. I. Demographics and diagnosis. Schubert MS, et al.
J Allergy Clin Immunol 1998 Sep;102(3):387–94

Further evidence for allergic pathophysiology in allergic fungal sinusitis. Manning SC, et al. **Laryngoscope** 1998 Oct; 108(10):1485–96

The diagnosis and incidence of allergic fungal sinusitis. Ponikau JU, et al. **Mayo Clin Proc** 1999 Sep;74(9):877–84

Localized sinus inflammation in a rabbit sinusitis model induced by Bacteroides fragilis is accompanied by rigorous immune responses. Jyonouchi H, et al.
Otolaryngol Head Neck Surg 1999 Jun;120(6):869–75

[Immunoglobulin subclass defects in patients with therapy refractor chronic rhinosinusitis] May A, et al. **HNO** 1999 Jan;47(1):19–24 (Eng. Abstr.) **(Ger)**

[An assessment of the immune status of the mucosal membranes in chronic rhinosinusitis] Khmel'nitskaia NM, et al. **Vestn Otorinolaringol** 1998;(4):47–50 (Eng. Abstr.) **(Rus)**

METABOLISM

Cytokines in nasal polyposis, acute and chronic sinusitis. Rudack C, et al. **Am J Rhinol** 1998 Nov–Dec;12(6):383–8

Monocyte chemotactic and activating factor/monocyte chemoattractant protein-1-mediated histamine release from human nasal mucosa. Fujikura T, et al.
Arch Otolaryngol Head Neck Surg 1998 Dec;124(12):1331–5

GM-CSF, IL-5 and RANTES immunoreactivity and mRNA expression in chronic hyperplastic sinusitis with nasal polyposis (NP). Hamilos DL, et al. **Clin Exp Allergy** 1998 Sep;28(9):1145–52

Sinus mucosal IL-8 gene expression in chronic rhinosinusitis. Rhyoo C, et al. **J Allergy Clin Immunol** 1999 Mar;103(3 Pt 1):395–400

MICROBIOLOGY

Ophthalmic manifestations of allergic fungal sinusitis. Carter KD, et al. **Am J Ophthalmol** 1999 Feb;127(2):189–95

Rhinocerebral mucormycosis caused by Apophysomyces elegans. Brown SR, et al. **Am J Rhinol** 1998 Jul–Aug; 12(4):289–92

Antimicrobial resistance in bacterial chronic sinusitis. Hsu J, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):243–8

Endoscopically guided cultures in chronic sinusitis. Nadel DM, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):233–41

Bacteriologic findings from the nose, ethmoid, and bloodstream during endoscopic surgery for chronic rhinosinusitis: implications for antibiotic therapy. Rontal M, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):91–6

Evaluation of the microbiology of chronic maxillary sinusitis. Biel MA, et al. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):942–5 (19 ref.)

Successful treatment of an invasive aspergillosis of the skull base and paranasal sinuses with liposomal amphotericin B and itraconazole. Streppel M, et al.
Ann Otol Rhinol Laryngol 1999 Feb;108(2):205–7

Comparative in vitro activities of amoxicillin-clavulanate against aerobic and anaerobic bacteria isolated from antral puncture specimens from patients with sinusitis. Goldstein EJ, et al. **Antimicrob Agents Chemother** 1999 Mar; 43(3):705–7

A mouse model of acute bacterial rhinosinusitis. Bomer K, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov; 124(11):1227–32

Lemierre syndrome and acute mastoiditis. Stokroos RJ, et al. **Arch Otolaryngol Head Neck Surg** 1999 May; 125(5):589–91

Invasive sinusitis and cerebritis due to Curvularia clavata in an immunocompetent adult. Ebright JR, et al.
Clin Infect Dis 1999 Mar;28(3):687–9

Invasive fungal sinusitis due to Scedosporium apiospermum in a patient with AIDS. Eckburg PB, et al.
Clin Infect Dis 1999 Jul;29(1):212–3

Fungal sinusitis. Washburn RG. **Curr Clin Top Infect Dis** 1998;18:60–74 (102 ref.)

Pathology of hyalohyphomycosis caused by Scedosporium apiospermum (Pseudallescheria boydii): an emerging mycosis [see comments] Tadros TS, et al. **Hum Pathol** 1998 Nov;29(11):1266–72. Comment in: Hum Pathol 1998 Nov;29(11):1179–80.

Metarrhizium anisopliae as a cause of sinusitis in immunocompetent hosts. Revankar SG, et al.
J Clin Microbiol 1999 Jan;37(1):195–8

Bacteriology of the maxillary and ethmoid sinuses in chronic sinusitis. Jiang RS, et al. **J Laryngol Otol** 1998 Sep; 112(9):845–8

Bacteriology of chronic purulent secretions in chronic rhinosinusitis. Klossek JM, et al. **J Laryngol Otol** 1998 Dec; 112(12):1162–6

Treatment of allergic fungal sinusitis: a comparison trial of postoperative immunotherapy with specific fungal antigens. Folker RJ, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1623–7

The diagnosis and incidence of allergic fungal sinusitis. Ponikau JU, et al. **Mayo Clin Proc** 1999 Sep;74(9):877–84

Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 22-1999. A 68-year-old woman with multiple myeloma, diabetes mellitus, and an inflamed eye [clinical conference] **N Engl J Med** 1999 Jul 22;341(4):265–73

Sinusitis in neurologically impaired children. Brook I, et al.
Otolaryngol Head Neck Surg 1998 Oct;119(4):357–60

Microbiology of sinusitis in patients undergoing bone marrow transplantation. Imamura R, et al.
Otolaryngol Head Neck Surg 1999 Feb;120(2):279–82

Sinusitis [see comments] Wald ER. **Pediatr Ann** 1998 Dec; 27(12):811–8 (30 ref.). Comment in: Pediatr Ann 1999 Mar;28(3):151.

Clinical perspectives on sinusitis and otitis media. Blumer J. **Pediatr Infect Dis J** 1998 Aug;17(8 Suppl):S68–72 (33 ref.)

Scedosporium apiospermum sinusitis after bone marrow transplantation: report of a case. Machado CM, et al.
Rev Inst Med Trop Sao Paulo 1998 Sep–Oct;40(5):321–3

Difficulties in interpretation of culture results in sinusitis. Verschraegen G, et al. **Rhinology** 1998 Jun;36(2):55–8 (17 ref.)

Neisseria meningitidis W135 pneumonia with sepicaemia in a nonogenarian. Cadwgan AM, et al. **Scott Med J** 1998 Oct;43(5):148

[Causative organisms of acute otitis media and acute sinusitis in children and their susceptibility of oral beta-lactam antibiotics] Takenaka M, et al. **Jpn J Antibiot** 1999 Feb; 52(2):162–71 (Eng. Abstr.) **(Jpn)**

[Subdural empyema as a complication of sinusitis. Association with Streptococcus milleri] Plaza Mayor G, et al.
Acta Otorrinolaringol Esp 1998 Nov–Dec;49(8):658–62 (Eng. Abstr.) **(Spa)**

PARASITOLOGY

[Sinusitis produced by fly larva] de Miguel I, et al.
Enferm Infecc Microbiol Clin 1998 Dec;16(10):485–6 **(Spa)**

PATHOLOGY

Allergic fungal sinusitis. A report of two cases with diagnosis by intraoperative aspiration cytology. Schnadig VJ, et al.
Acta Cytol 1999 Mar–Apr;43(2):268–72

Clarithromycin suppresses proliferation of rat nasal epithelium exposed to endotoxin. Tohnai A, et al.
Am J Rhinol 1998 Nov–Dec;12(6):451–7

Changes in nasal epithelium in patients with severe chronic sinusitis: a clinicopathologic and electron microscopic study. Al-Rawi MM, et al. **Laryngoscope** 1998 Dec; 108(12):1816–23

[Ultrastructural observation on the uncinate process of chronic sinusitis] Huang H, et al.
Lin Chuang Erh Pi Yen Hou Ko Tsa Chih 1997 May; 11(5):206–8 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Effect of biochemical components on rheologic properties of nasal mucus in chronic sinusitis. Majima Y, et al.
Am J Respir Crit Care Med 1999 Aug;160(2):421–6

Methacholine bronchial hyperresponsiveness in chronic sinusitis. Okayama M, et al. **Respiration** 1998;65(6):450–7

[Ion transport in nasal and paranasal sinus mucosa in mucoviscidosis and chronic sinusitis] Rückes-Nilges C, et al. **HNO** 1999 Mar;47(3):157–66 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

National guidelines needed to manage rhinitis and prevent complications. Rachelefsky GS.
Ann Allergy Asthma Immunol 1999 Mar;82(3):296–305 (126 ref.)

Sinusitis in the common cold. Puhakka T, et al.
J Allergy Clin Immunol 1998 Sep;102(3):403–8

PSYCHOLOGY

The development and validation of an instrument to assess acute sinus disease in children. Garbutt JM, et al.
Qual Life Res 1999 May;8(3):225–33

RADIOGRAPHY

Nasal airway volumetric measurement using segmented HRCT images and acoustic rhinometry. Prasun D, et al.
Am J Rhinol 1999 Mar–Apr;13(2):97–103

Severity staging in chronic sinusitis: are CT scan findings related to patient symptoms? Stewart MG, et al.
Am J Rhinol 1999 May–Jun;13(3):161–7

Intranasal anatomic variations in pediatric sinusitis. Willner A, et al. **Am J Rhinol** 1997 Sep–Oct;11(5):355–60

Anatomic variations of the paranasal sinuses: CT examination for endoscopic sinus surgery. Arslan H, et al.
Auris Nasus Larynx 1999 Jan;26(1):39–48

Semi-automatic segmentation of computed tomographic images in volumetric estimation of nasal airway. Dastidar P, et al. **Eur Arch Otorhinolaryngol** 1999;256(4):192–8

Radiology of the paranasal sinuses [letter; comment] Jones NS. **Hosp Med** 1998 Aug;59(8):663. Comment on: Br J Hosp Med 1997 Nov 5–18;58(9):431–6.

SINUSITIS

Test-retest reliability of computed tomography in the assessment of chronic rhinosinusitis. Bhattacharyya N. **Laryngoscope** 1999 Jul;109(7 Pt 1):1055–8

Allergic fungal sinusitis: distinguishing osseous invasion [letter; comment] Silverstein AM. **Radiology** 1999 Jan; 210(1):283–4. Comment on: Radiology 1998 May;207(2):417–22.

RADIONUCLIDE IMAGING

[Evaluation of nasolacrimal duct function in chronic paranasal sinus infections with 99mTc dacryoscintigraphy] Ergin NT, et al. **Laryngorhinootologie** 1999 Jul;78(7):382–6 (Eng. Abstr.) **(Ger)**

SURGERY

Effects of sinus surgery on asthma in aspirin triad patients. Nakamura H, et al. **Acta Otolaryngol** 1999;119(5):592–8

Endoscopic septal spur resection in combination with endoscopic sinus surgery. Vanclooster C, et al. **Acta Otorhinolaryngol Belg** 1998;52(4):335–9

The role of endoscopic sinus surgery in patients with acquired immune deficiency syndrome. Sabini P, et al. **Am J Otolaryngol** 1998 Nov–Dec;19(6):351–6

Functional endoscopic sinus surgery: do ratings of appropriateness predict patient outcomes? Jones ML, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):249–55

Objective and subjective assessment of nasal obstruction in patients undergoing endoscopic sinus surgery. Keles N, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):307–9

Bacteriologic findings from the nose, ethmoid, and bloodstream during endoscopic surgery for chronic rhinosinusitis: implications for antibiotic therapy. Rontal M, et al. **Am J Rhinol** 1999 Mar–Apr;13(2):91–6

Management of chronic sinusitis in the adult cystic fibrosis patient. Halvorson DJ, et al. **Ann Otol Rhinol Laryngol** 1998 Nov;107(11 Pt 1):946–52

Endoscopic sinus surgery improves pulmonary function in patients with asthma associated with chronic sinusitis. Ikeda K, et al. **Ann Otol Rhinol Laryngol** 1999 Apr;108(4):355–9

Endoscopic sinus surgery: are junior doctors being properly trained? [letter; comment] Delap T. **Ann R Coll Surg Engl** 1999 Mar;81(2):142. Comment on: Ann R Coll Surg Engl 1998 Sep;80(5):359–63.

Computed tomographic staging and the fate of the dependent sinuses in revision endoscopic sinus surgery. Bhattacharyya N. **Arch Otolaryngol Head Neck Surg** 1999 Sep; 125(9):994–9

Effect of functional endoscopic sinus surgery on bronchial asthma outcomes. Goldstein MF, et al. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):314–9

Anatomic variations of the paranasal sinuses: CT examination for endoscopic sinus surgery. Arslan H, et al. **Auris Nasus Larynx** 1999 Jan;26(1):39–48

The contemporary practice of functional endoscopic sinus surgery: a nationwide survey. Molony NC, et al. **Clin Otolaryngol** 1998 Aug;23(4):331–8

The outcome of endoscopic sinus surgery: correlation with computerized tomography score and systemic disease. Sharp HR, et al. **Clin Otolaryngol** 1999 Feb;24(1):39–42

Rainbow scale in computer-aided sinus surgery. Christmas DA, et al. **Ear Nose Throat J** 1999 Sep;78(9):670–2

The effect of endoscopic sinus surgery on mucociliary clearance in patients with chronic sinusitis. Elwany S, et al. **Eur Arch Otorhinolaryngol** 1998;255(10):511–4

Real-time 3-D model-based navigation system for endoscopic paranasal sinus surgery. Yamashita J, et al. **IEEE Trans Biomed Eng** 1999 Jan;46(1):107–16

A systematic approach to the interpretation of computed tomography scans prior to endoscopic sinus surgery. Mason JD, et al. **J Laryngol Otol** 1998 Oct;112(10):986–90

Endoscopic sinus surgery in the management of mucormycosis [see comments] Avet PP, et al. **J Neuroophthalmol** 1999 Mar;19(1):56–61. Comment in: J Neuroophthalmol 1999 Jun;19(2):120–1.

The role of functional endoscopic sinus surgery in asthmatic patients. Park AH, et al. **J Otolaryngol** 1998 Oct; 27(5):275–80

One-year outcome analysis of functional endoscopic sinus surgery for chronic sinusitis. Sobol SE, et al. **J Otolaryngol** 1998 Oct;27(5):252–7

Partial resection of the middle turbinate at functional endoscopic sinus surgery. Banfield GK, et al. **J R Army Med Corps** 1999 Feb;145(1):18–9

Extracranial drainage of cerebrospinal fluid: a study of beta-transferrins in nasal and lymphatic tissues. Solomon P, et al. **Laryngoscope** 1999 Aug;109(8):1313–5

Endoscopic sinus surgery with magnetic resonance imaging guidance: initial patient experience. Fried MP, et al. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):374–80

New armless image-guidance system for endoscopic sinus surgery. Fried MP, et al. **Otolaryngol Head Neck Surg** 1998 Nov;119(5):528–32

Learning curve in endoscopic sinus surgery. Marks SC. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):215–8

Surgical outcomes in rhinosinusitis: what we know. Osguthorpe JD. **Otolaryngol Head Neck Surg** 1999 Apr; 120(4):451–3

Long-term impact of functional endoscopic sinus surgery on asthma. Senior BA, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):66–8

Impact of endoscopic sinus surgery on global health perception: an outcomes study. Winstead W, et al. **Otolaryngol Head Neck Surg** 1998 Nov;119(5):486–91

[After care of endonasal pansinus operations] Hörmann K, et al. **HNO** 1998 Dec;46(12):1004–14; quiz 1014 (9 ref.) **(Ger)**

[Laser surgery of the middle nasal meatus in recurrent sinusitis] Scherer H, et al. **Laryngorhinootologie** 1999 Jan; 78(1):50–3 (Eng. Abstr.) **(Ger)**

[Selected aspects of endonasal paranasal sinus surgery] Reiss M. **Wien Med Wochenschr** 1998;148(20):469–73 (17 ref.) (Eng. Abstr.) **(Ger)**

[Pathological changes of frontal sinus in the materials of the Otolaryngological Clinic of Medical Academy in Łódź (1986–1996)] Kozłowski Z, et al. **Otolaryngol Pol** 1997;51 Suppl 25:294–8 (Eng. Abstr.) **(Pol)**

Chronic rhinosinusitis: relationship between the time of illness, extent of the disease process and results of surgical treatment] Krzeski A, et al. **Otolaryngol Pol** 1998; 52(4):405–9 (Eng. Abstr.) **(Pol)**

THERAPY

Severe steroid-dependent asthma with IgG-2 deficiency and recurrent sinusitis: response to treatment with high-dose intravenous immunoglobulin. Loza Cortina C. **Allergol Immunopathol (Madr)** 1999 May–Jun;27(3):165–7

Treatment of sinusitis in the next millennium. Kaliner M. **Allergy Asthma Proc** 1998 Jul–Aug;19(4):181–4

Acute sinusitis: a cost-effective approach to diagnosis and treatment. Fagnan LJ. **Am Fam Physician** 1998 Nov 15; 58(8):1795–802, 805–6 (46 ref.)

Comprehensive management of allergic fungal sinusitis. Marple BF, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):263–8

What role do systemic corticosteroids, immunotherapy, and antifungal drugs play in the therapy of allergic fungal rhinosinusitis? Ferguson BJ. **Arch Otolaryngol Head Neck Surg** 1998 Oct;124(10):1174–8 (19 ref.)

Allergic fungal rhinosinusitis: our experience. Kuhn FA, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct; 124(10):1179–80

Allergic fungal rhinosinusitis: experience with immunotherapy. Mabry RL, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct;124(10):1178

Evaluation and treatment of allergic fungal sinusitis. II. Treatment and follow-up. Schubert MS, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):395–402

Sinusitus Supplement missing osteopathic component [letter] [see comments] Dudley G. **J Am Osteopath Assoc** 1998 Oct;98(10):539–40. Comment in: J Am Osteopath Assoc 1999 Feb;99(2):88. Comment in: J Am Osteopath Assoc 1999 Feb;99(2):88–9.

Revisiting the role of osteopathic manipulation in primary care [letter; comment] Hopp RJ. **J Am Osteopath Assoc** 1999 Feb;99(2):88. Comment on: J Am Osteopath Assoc 1998 Oct;98(10):539–40.

Importance of IgG4 determination in in vitro immunotherapy follow-up of inhalant allergens. Oehling AK, et al. **J Investig Allergol Clin Immunol** 1998 Nov–Dec;8(6):333–9

Current concepts in the management of paediatric rhinosinusitis. Jones NS. **J Laryngol Otol** 1999 Jan; 113(1):1–9 (104 ref.)

Finally: standardized definitions and practice parameters for rhinosinusitis [see comments] Osguthorpe JD. **J S C Med Assoc** 1998 Dec;94(12):539–41. Comment in: J S C Med Assoc 1999 May;95(5):208–9.

Patient use of traditional and complementary therapies in treating rhinosinusitis before consulting an otolaryngologist. Krouse JH, et al. **Laryngoscope** 1999 Aug; 109(8):1223–7

Multiattribute utility scores for predicting family physicians' decisions regarding sinusitis. de Bock GH, et al. **Med Decis Making** 1999 Jan–Mar;19(1):58–65

Alternative to endoscopic sinus surgery in the management of pediatric chronic rhinosinusitis refractory to oral antimicrobial therapy. Buchman CA, et al. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):219–24

Clinical practice guidelines for the management of chronic sinusitis in children [see comments] Chan KH, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):328–34. Comment in: Otolaryngol Head Neck Surg 1999 Jul;121(1):167.

Immunotherapy for allergic fungal sinusitis: three years' experience. Mabry RL, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):648–51

How long to treat sinusitis? [letter; comment] Joseph PR. **Pediatr Ann** 1999 Mar;28(3):151. Comment on: Pediatr Ann 1998 Dec;27(12):811–8.

Nasal douching as a valuable adjunct in the management of chronic rhinosinusitis. Taccariello M, et al. **Rhinology** 1999 Mar;37(1):29–32

[Diagnosis and management of acute sinusitis] **Rev Prat** 1998 Oct 15;48(16):1834–5 **(Fre)**

[The treatment of paranasal sinusitis] Gorbunov VA, et al. **Voen Med Zh** 1998 Oct;319(10):34–6 **(Rus)**

VETERINARY

Sino-orbital aspergillosis in a dog. Willis AM, et al. **J Am Vet Med Assoc** 1999 Jun 1;214(11):1644–7, 1639

SINUSITIS, ETHMOID see **ETHMOID SINUSITIS**

SINUSITIS, FRONTAL see **FRONTAL SINUSITIS**

SINUSITIS, MAXILLARY see **MAXILLARY SINUSITIS**

SINUSITIS, SPHENOID see **SPHENOID SINUSITIS**

SIPHONAPTERA see **FLEAS**

SIPHOVIRIDAE

CHEMISTRY

Structure of the 13-fold symmetric portal protein of bacteriophage SPP1. Orlova EV, et al. **Nat Struct Biol** 1999 Sep;6(9):842–6

GENETICS

The complete genome sequence of the Streptomyces temperate phage straight phiC31: evolutionary relationships to other viruses. Smith MC, et al. **Nucleic Acids Res** 1999 May 15;27(10):2145–55

The site-specific recombination system of the Lactobacillus species bacteriophage A2 integrates in gram-positive and gram-negative bacteria. Alvarez MA, et al. **Virology** 1998 Oct 10;250(1):185–93

PHYSIOLOGY

Protective effects of bacteriophage on experimental Lactococcus garvieae infection in yellowtail. Nakai T, et al. **Dis Aquat Organ** 1999 Jun 23;37(1):33–41

SIPPLE SYNDROME see **MULTIPLE ENDOCRINE NEOPLASIA TYPE 2A**

SIPUNCULIDA see **NEMATODA**

SIRENIA

Legislation, regulation, and conservation of wild marine mammals. Driscoll CP. **J Am Vet Med Assoc** 1999 Apr 15;214(8):1187–91

AVMA hosts a whale of a welfare forum [news] Monti DJ, et al. **J Am Vet Med Assoc** 1999 Jan 1;214(1):10–4

SIRENOMELIA see **ECTROMELIA**

SIROGNATHOGRAPHY see **JAW RELATION RECORD**

SIROLIMUS

ADMINISTRATION & DOSAGE

Oral administration of rapamycin and cyclosporine differentially alter intestinal function in rabbits. Dias VC, et al. **Dig Dis Sci** 1998 Oct;43(10):2227–36

Synergistic effects of mycophenolate mofetil and sirolimus in prevention of acute heart, pancreas, and kidney allograft rejection and in reversal of ongoing heart allograft rejection in the rat. Vu MD, et al. **Transplantation** 1998 Dec 27; 66(12):1575–80

ADVERSE EFFECTS

Systemic toxicity following administration of sirolimus (formerly rapamycin) for psoriasis: association of capillary leak syndrome with apoptosis of lesional lymphocytes. Kaplan MJ, et al. **Arch Dermatol** 1999 May;135(5):553–7

Hypertriglyceridemia in renal transplant recipients treated with sirolimus. Brattström C, et al. **Transplant Proc** 1998 Dec;30(8):3950–1

ANALOGS & DERIVATIVES

Manipulation of the C(22)–C(27) region of rapamycin: stability issues and biological implications. Nelson FC, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):295–300

Absorption and intestinal metabolism of SDZ-RAD and rapamycin in rats. Crowe A, et al. **Drug Metab Dispos** 1999 May;27(5):627–32

Structural elucidation by electrospray mass spectrometry: an approach to the in vitro metabolism of the macrolide immunosuppressant SDZ RAD. Vidal C, et al. **J Am Soc Mass Spectrom** 1998 Dec;9(12):1267–74

Development of a high-performance liquid chromatographic-electrospray mass spectrometric assay for the specific and sensitive quantification of the novel immunosuppressive macrolide 40-O-(2-hydroxyethyl)rapamycin. Segarra I, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1–2):179–87

Suppression of acute rejection in allogeneic rat lung transplantation: a study of the efficacy and pharmacokinetics of rapamycin derivative (SDZ RAD) used alone and in combination with a microemulsion formulation of cyclosporine. Hausen B, et al. **J Heart Lung Transplant** 1999 Feb;18(2):150–9

Isolation from pig liver microsomes, identification by electrospray tandem mass spectrometry and in vitro immunosuppressive activity of a rapamycin tris-epoxide metabolite. Lhoëst G, et al. **J Mass Spectrom** 1999 Jan; 34(1):28–32

In vitro and in situ absorption of SDZ-RAD using a human intestinal cell line (Caco-2) and a single pass perfusion

model in rats: comparison with rapamycin. Crowe A, et al. **Pharm Res** 1998 Nov;15(11):1666–72

LC/ESI–MS allows simultaneous and specific quantification of SDZ RAD and cyclosporine, including groups of their metabolites in human blood. Kirchner GI, et al. **Ther Drug Monit** 1999 Feb;21(1):116–22

SDZ RAD inhibits cold ischemia–induced vascular remodeling. Schuurman HJ, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1024–5

Coadministration of neoral and the novel rapamycin analog, SDZ RAD, to rat lung allograft recipients: potentiation of immunosuppressive efficacy and improvement of tolerability of staggered versus simultaneous treatment. Hausen B, et al. **Transplantation** 1999 Apr 15;67(7):956–62

ANTAGONISTS & INHIBITORS

L-Asparaginase inhibits the rapamycin–targeted signaling pathway. Iiboshi Y, et al. **Biochem Biophys Res Commun** 1999 Jul 5;260(2):534–9

BLOOD

Simultaneous on–line extraction and analysis of sirolimus (rapamycin) and ciclosporin in blood by liquid chromatography–electrospray mass spectrometry. Kirchner GI, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jan 22;721(2):285–94

Quantitative analysis of sirolimus (Rapamycin) in blood by high–performance liquid chromatography–electrospray tandem mass spectrometry. Taylor PJ, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 6;718(2):251–7

Correlation between pretransplantation test dose cyclosporine pharmacokinetic profiles and posttransplantation sirolimus blood levels in renal transplant recipients. Kaplan B, et al. **Ther Drug Monit** 1999 Feb;21(1):44–9

CHEMISTRY

Refined structure of the FKBP12–rapamycin–FRB ternary complex at 2.2 A resolution. Liang J, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):736–44

Manipulation of the C(22)–C(27) region of rapamycin: stability issues and biological implications. Nelson FC, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):295–300

METABOLISM

Cleavage of the cyclohexyl–subunit of rapamycin results in loss of immunosuppressive activity. Sedrani R, et al. **Bioorg Med Chem Lett** 1999 Feb 8;9(3):459–62

Regulation of translational effectors by amino acid and mammalian target of rapamycin signaling pathways. Possible involvement of autophagy in cultured hepatoma cells. Shigemitsu K, et al. **J Biol Chem** 1999 Jan 8; 274(2):1058–65

The FKBP12–rapamycin–binding domain is required for FKBP12–rapamycin–associated protein kinase activity and G1 progression. Vilella–Bach M, et al. **J Biol Chem** 1999 Feb 12;274(7):4266–72

Molecular characterization of a plant FKBP12 that does not mediate action of FK506 and rapamycin. Xu Q, et al. **Plant J** 1998 Aug;15(4):511–9

PHARMACOKINETICS

Role of immunophilins in therapeutic drug monitoring of immunosuppressive drugs. Soldin SJ. **Clin Biochem** 1998 Jul;31(5):381–4 (27 ref.)

Rapamycin: distribution, pharmacokinetics and therapeutic range investigations: an update. Trepanier DJ, et al. **Clin Biochem** 1998 Jul;31(5):345–51 (49 ref.)

Absorption and intestinal metabolism of SDZ–RAD and rapamycin in rats. Crowe A, et al. **Drug Metab Dispos** 1999 May;27(5):627–32

Sirolimus (rapamycin, Rapamune) and combination therapy with cyclosporin A in the rat developing adjuvant arthritis model: correlation with blood levels and the effects of different oral formulations. Carlson RP, et al. **Inflamm Res** 1998 Aug;47(8):339–44

Isolation from pig liver microsomes, identification by electrospray tandem mass spectrometry and in vitro immunosuppressive activity of a rapamycin tris–epoxide metabolite. Lhoëst G, et al. **J Mass Spectrom** 1999 Jan; 34(1):28–32

In vitro and in situ absorption of SDZ–RAD using a human intestinal cell line (Caco–2) and a single pass perfusion model in rats: comparison with rapamycin. Crowe A, et al. **Pharm Res** 1998 Nov;15(11):1666–72

Pharmacokinetic and pharmacoimmunodynamic interactions between prednisolone and sirolimus in rabbits. Ferron GM, et al. **Pharm Res** 1998 Dec;15(12):1888–94

PHARMACOLOGY

Effects of rapamycin and FK 506 on rat Sertoli cells in vitro. Clemann N, et al. **Adv Exp Med Biol** 1998;444:67–70; discussion 70–1

Kinetics of in vitro immune responses of T and B cells during tolerance induction by sirolimus. Ghobrial R, et al. **Ann Transplant** 1996;1(4):22–9

Insulin–stimulated kinase from rat fat cells that phosphorylates initiation factor 4E–binding protein 1 on the rapamycin–insensitive site (serine–111). Heesom KJ, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):39–48

Regulation of cell growth and cyclin D1 expression by the constitutively active FRAP–p70s6K pathway in human pancreatic cancer cells. Grewe M, et al. **Cancer Res** 1999 Aug 1;59(15):3581–7

Rapamycin causes poorly reversible inhibition of mTOR and induces p53–independent apoptosis in human rhabdomyosarcoma cells. Hosoi H, et al. **Cancer Res** 1999 Feb 15;59(4):886–94

The zinc finger protein GLI induces cellular sensitivity to the mTOR inhibitor rapamycin. Louro ID, et al. **Cell Growth Differ** 1999 Jul;10(7):503–16

Inhibition of the Mr 70,000 S6 kinase pathway by rapamycin results in chromosome malsegregation in yeast and mammalian cells. Bonatti S, et al. **Chromosoma** 1998 Dec; 107(6–7):498–506

Inhibition of intimal thickening after balloon angioplasty in porcine coronary arteries by targeting regulators of the cell cycle. Gallo R, et al. **Circulation** 1999 Apr 27; 99(16):2164–70

Rapamune (RAPA, rapamycin, sirolimus): mechanism of action immunosuppressive effect results from blockade of signal transduction and inhibition of cell cycle progression. Sehgal SN. **Clin Biochem** 1998 Jul;31(5):335–40 (69 ref.)

Rapamycin–sensitive phosphorylation of PKC on a carboxy–terminal site by an atypical PKC complex. Ziegler WH, et al. **Curr Biol** 1999 May 20;9(10):522–9

Target of rapamycin (TOR): balancing the opposing forces of protein synthesis and degradation. Dennis PB, et al. **Curr Opin Genet Dev** 1999 Feb;9(1):49–54 (53 ref.)

Inhibition of S6 kinase by rapamycin blocks maturation of Rana dybowskii oocytes. Bandyopadhyay A, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):230–9

Rapamycin inhibits didemnin B–induced apoptosis in human HL–60 cells: evidence for the possible involvement of FK506–binding protein 25. Johnson KL, et al. **Immunol Cell Biol** 1999 Jun;77(3):242–8

Involvement of a rapamycin–sensitive pathway in CD40–mediated activation of murine B cells in vitro. Sakata A, et al. **Immunol Lett** 1999 Jun 1;68(2–3):301–9

Rapamycin–resistant phosphorylation of the initiation factor–4E–binding protein (4E–BP1) in v–SRC–transformed hamster fibroblasts. Tuháčková Z, et al. **Int J Cancer** 1999 Jun 11;81(6):963–9

Inhibition of anti–CD3 antibody–induced mouse T cell activation by pentoxifylline in combination with rapamycin or A77 1726 (leflunomide). Richard M, et al. **Int J Immunopharmacol** 1998 Apr–May;20(4–5):241–52

Stress–activated protein kinase–2/p38 and a rapamycin–sensitive pathway are required for C2C12 myogenesis. Cuenda A, et al. **J Biol Chem** 1999 Feb 12; 274(7):4341–6

Attenuation of mammalian target of rapamycin activity by increased cAMP in 3T3–L1 adipocytes. Scott PH, et al. **J Biol Chem** 1998 Dec 18;273(51):34496–501

Glucocorticoid–induced insulin resistance of protein synthesis is independent of the rapamycin–sensitive pathways in rat skeletal muscle. Dardevet D, et al. **J Endocrinol** 1999 Jul;162(1):77–85

Involvement of the rapamycin–sensitive pathway in the insulin regulation of muscle protein synthesis in streptozotocin–diabetic rats. Grzelkowska K, et al. **J Endocrinol** 1999 Jan;160(1):137–45

Inhibition of cell cycle progression by rapamycin induces T cell clonal anergy even in the presence of costimulation. Powell JD, et al. **J Immunol** 1999 Mar 1;162(5):2775–84

Activation of phosphatidylinositol 3–kinase, protein kinase B, and p70 S6 kinases in lipopolysaccharide–stimulated Raw 264.7 cells: differential effects of rapamycin, Ly294002, and wortmannin on nitric oxide production. Salh B, et al. **J Immunol** 1998 Dec 15;161(12):6947–54

Regulation of ribosome biogenesis by the rapamycin–sensitive TOR–signaling pathway in Saccharomyces cerevisiae. Powers T, et al. **Mol Biol Cell** 1999 Apr;10(4):987–1000

p70(s6k) integrates phosphatidylinositol 3–kinase and rapamycin–regulated signals for E2F regulation in T lymphocytes. Brennan P, et al. **Mol Cell Biol** 1999 Jul; 19(7):4729–38

Rapamycin antifungal action is mediated via conserved complexes with FKBP12 and TOR kinase homologs in Cryptococcus neoformans. Cruz MC, et al. **Mol Cell Biol** 1999 Jun;19(6):4101–12

Studies on the mechanism of resistance to rapamycin in human cancer cells. Hosoi H, et al. **Mol Pharmacol** 1998 Nov;54(5):815–24

Enhancement of human platelet aggregation and secretion induced by rapamycin. Babinska A, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3153–9

Discordant effects of rapamycin on proliferation and p70S6 kinase phosphorylation in normal and neoplastic rat chromaffin cells. Powers JF, et al. **Neurosci Lett** 1999 Jan 15;259(3):137–40

Protein phosphatase 2A interacts with the 70–kDa S6 kinase and is activated by inhibition of FKBP12–rapamycinassociated protein. Peterson RT, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4438–42

Interaction of RAFT1 with gephyrin required for rapamycin–sensitive signaling. Sabatini DM, et al. **Science** 1999 May 14;284(5417):1161–4

Regulated delivery of therapeutic proteins after in vivo somatic cell gene transfer. Ye X, et al. **Science** 1999 Jan 1;283(5398):88–91

Hepatotrophic effect of cyclosporine and FK 506 is not mimicked by rapamycin. Chávez R, et al. **Transplant Proc** 1999 Sep;31(6):2429

In vitro transcription and translation of the tumour suppressor protein P53: qualitative and quantitative effects of FK506 and rapamycin. Metcalfe SM, et al. **Transplant Proc** 1998 Dec;30(8):4108–9

Cyclosporine, but not FK 506 and rapamycin, enhances cell proliferation in mouse medullary thick ascending cultured cells. Wu MS, et al. **Transplant Proc** 1998 Nov;30(7):3565–6

Cyclosporine, but not FK506 and rapamycin, enhances Na(+)–K(+)–CL– cotransport activity in cultured medullary thick ascending limb cells. Wu MS, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1180–1

THERAPEUTIC USE

Sirolimus, a potent new immunosuppressive drug for organ transplantation. Stepkowski SM. **Ann Transplant** 1996; 1(3):19–25 (71 ref.)

Rapamycin reverses chronic graft vascular disease in a novel cardiac allograft model. Poston RS, et al. **Circulation** 1999 Jul 6;100(1):67–74

Emerging strategies for the clinical application of rapamycin. Kahan BD. **Clin Biochem** 1998 Jul;31(5):341–4 (22 ref.)

Rapamune (RAPA, rapamycin, sirolimus): mechanism of action immunosuppressive effect results from blockade of signal transduction and inhibition of cell cycle progression. Sehgal SN. **Clin Biochem** 1998 Jul;31(5):335–40 (69 ref.)

Intragraft cytokine expression in tolerant rat renal allografts with rapamycin and cyclosporin immunosuppression. Saggi BH, et al. **Clin Transplant** 1999 Feb;13(1 Pt 2):90–7

Neointimal formation after balloon–induced vascular injury in Yucatan minipigs is reduced by oral rapamycin. Burke SE, et al. **J Cardiovasc Pharmacol** 1999 Jun;33(6):829–35

Sirolimus (rapamycin) potentiates cyclosporine in prevention of acute lung rejection. Longoria J, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):714–8

Rapamycin on trial [editorial] Sacks SH. **Nephrol Dial Transplant** 1999 Sep;14(9):2087–9 (8 ref.)

The potential role of rapamycin in pediatric transplantation as observed from adult studies. Kahan BD. **Pediatr Transplant** 1999 Aug;3(3):175–80 (32 ref.)

New trails in transplantation: how to exploit the potential of sirolimus in clinical transplantation. Groth CG, et al. **Transplant Proc** 1998 Dec;30(8):4064–5

Sirolimus (rapamycin)–based therapy in human renal transplantation: similar efficacy and different toxicity compared with cyclosporine. Sirolimus European Renal Transplant Study Group [see comments] Groth CG, et al. **Transplantation** 1999 Apr 15;67(7):1036–42. Comment in: Transplantation 1999 Apr 15;67(7):937–8.

Use of anti–CD25 monoclonal antibody in combination with rapamycin to eliminate cyclosporine treatment during the induction phase of immunosuppression. Hong JC, et al. **Transplantation** 1999 Sep 15;68(5):701–4

Immunosuppressive effects and safety of a sirolimus/cyclosporine combination regimen for renal transplantation. Kahan BD, et al. **Transplantation** 1998 Oct 27;66(8):1040–6

Combined costimulation blockade plus rapamycin but not cyclosporine produces permanent engraftment. Li Y, et al. **Transplantation** 1998 Nov 27;66(10):1387–8

Sirolimus: a potent new immunosuppressant for liver transplantation. Watson CJ, et al. **Transplantation** 1999 Feb 27;67(4):505–9

TOXICITY

Evaluation of individual and combined neurotoxicity of the immunosuppressants cyclosporine and sirolimus by in vitro multinuclear NMR spectroscopy. Serkova N, et al. **J Pharmacol Exp Ther** 1999 May;289(2):800–6

Rapamycin (sirolimus) inhibits heart cell growth in vitro. Burton PB, et al. **Pediatr Cardiol** 1998 Nov–Dec; 19(6):468–70

SIS GENES see **ONCOGENES**

SISTER CHROMATID EXCHANGE

Symmetric replication of an unstable isodicentric Xq chromosome derived from isolocal maternal sister chromatid recombination. Lebo RV, et al. **Am J Med Genet** 1999 Aug 27;85(5):429–37

Monitoring of molecular and cytogenetic damage in lymphocytes from three persons with polycystic kidney disease. Cebulska–Wasilewska A, et al. **Arch Med Res** 1999 Jan–Feb;30(1):23–8

Statistical analysis of adaptive response in sister chromatid exchanges in human lymphocytes after treatment with very low and extremely low doses of N–methyl–N'–nitro–N–nitrosoguanidine using a study design to control variability. Anderson D, et al. **Br Homeopath J** 1999 Jan;88(1):7–16

Sister chromatid exchange in human lymphocytes exposed to isoflurane and nitrous oxide in vitro. Hoerauf KH, et al. **Br J Anaesth** 1999 Feb;82(2):268–70

Increased chromosome–type chromosome aberration frequencies as biomarkers of cancer risk in a blackfoot endemic area. Liou SH, et al. **Cancer Res** 1999 Apr 1; 59(7):1481–4

Sister chromatid separation and chromosome re-duplication are regulated by different mechanisms in response to spindle damage. Alexandru G, et al. **EMBO J** 1999 May 17;18(10):2707-21

Chromosomal response of insect and mammalian cells to streptonigrin: a comparative study. Bolzán AD, et al. **Environ Mol Mutagen** 1998;32(4):331-5

Genotoxicity of drinking water from Chao Lake. Liu Q, et al. **Environ Res** 1999 Feb;80(2 Pt 1):127-31

Genotoxicity of fumes from heated cooking oils produced in Taiwan. Wu PF, et al. **Environ Res** 1999 Feb;80(2 Pt 1):122-6

Induced chromosomal exchange directs the segregation of recombinant chromatids in mitosis of Drosophila. Beumer KJ, et al. **Genetics** 1998 Sep;150(1):173-88

In vivo sister chromatid differentiation and base line sister chromatid exchanges in Channa punctatus. Sahoo PK, et al. **Indian J Exp Biol** 1998 Oct;36(10):1041-3

Sister chromatid exchanges are mediated by homologous recombination in vertebrate cells. Sonoda E, et al. **Mol Cell Biol** 1999 Jul;19(7):5166-9

Low sensitivity of the sister chromatid exchange assay to detect the genotoxic effects of radioiodine therapy. Gutiérrez S, et al. **Mutagenesis** 1999 Mar;14(2):221-6

Effects of oleic acid, docosahexaenoic acid and eicosapentaenoic acid on background and genotoxin-induced frequencies of SCEs in Indian muntjac fibroblasts. Higgins S, et al. **Mutagenesis** 1999 May; 14(3):335-8

Cytogenetic biomonitoring of workers exposed to bitumen fumes. Burgaz S, et al. **Mutat Res** 1998 Nov 9; 419(1-3):123-30

Sister chromatid exchange data fit with a mixture of Poisson distributions. Byers RH Jr, et al. **Mutat Res** 1999 Jun 30; 427(2):157-62

Genotoxicity of Farbasol and its component: 4-ethyltoluene. Janik-Spiechowicz E, et al. **Mutat Res** 1998 Sep 11; 417(2-3):95-100

In vivo and in vitro antigenotoxic effect of nordihydroguaiaretic acid against SCEs induced by methyl methanesulfonate. Madrigal-Bujaidar E, et al. **Mutat Res** 1998 Nov 9;419(1-3):163-8

Glutathione S-transferase M1 genotype influences sister chromatid exchange induction but not adaptive response in human lymphocytes treated with 1,2-epoxy-3-butene. Sąsiadek M, et al. **Mutat Res** 1999 Feb 19;439(2):207-12

Increased levels of sister chromatid exchanges in military aircraft pilots. Silva MJ, et al. **Mutat Res** 1999 Apr 26; 441(1):129-34

Effects on sister chromatid exchange frequency of aldehyde dehydrogenase 2 genotype and smoking in vinyl chloride workers. Wong RH, et al. **Mutat Res** 1998 Dec 3; 420(1-3):99-107

Genetic damage in operating room personnel exposed to isoflurane and nitrous oxide. Hoerauf K, et al. **Occup Environ Med** 1999 Jul;56(7):433-7

Cancer predictive value of cytogenetic markers used in occupational health surveillance programs. Hagmar L, et al. **Recent Results Cancer Res** 1998;154:177-84 (7 ref.)

Lack of genotoxicity of silver iodide in the SCE assay in vitro, in vivo, and in the Ames/microsome test. Eliopoulos P, et al. **Teratog Carcinog Mutagen** 1998;18(6):303-8

Genotoxicity of the anticonvulsant drug phenytoin (PHT): a follow-up study of PHT-untreated epileptic patients. I. Sister chromatid exchange (SCE) analysis. Kaul A, et al. **Teratog Carcinog Mutagen** 1999;19(1):61-72

Cytogenetic investigations in employees from waste disposal sites. Fender H, et al. **Toxicol Lett** 1998 Aug;96-97:149-54

Frequency of sister chromatid exchange in chrysotile-exposed workers. Lee SH, et al. **Toxicol Lett** 1999 Sep 5;108(2-3):315-9

DRUG EFFECTS

Genotoxic potential of cyclosporin A in patients with renal transplantation. Palanduz S, et al. **Cell Biol Toxicol** 1999 Feb;15(1):13-7

Antineoplastic and cytogenetic effects of platinum(II) and palladium(II) complexes with pyridine-2-carboxyaldehyde-thiosemicarbazone. Kovala-Demertzi D, et al. **Chemotherapy** 1998 Nov-Dec; 44(6):421-6

Comparison of internal dose measures of solvents in breath, blood and urine and genotoxic changes in aircraft maintenance personnel. Lemasters GK, et al. **Drug Chem Toxicol** 1999 Feb;22(1):181-200

Predicting rodent carcinogenicity using potency measures of the in vitro sister chromatid exchange and chromosome aberration assays. Schildcrout JS, et al. **Environ Mol Mutagen** 1999;33(1):59-64

Effects of beta-carotene, retinal, riboflavin, alpha-tocopherol and vitamins C and K1 on sister-chromatid exchanges induced by 3-amino-1-methyl-5H-pyrido[4,3-b]indole (Trp-P-2) and cyclophosphamide in human lymphocyte cultures. Edenharder R, et al. **Food Chem Toxicol** 1998 Nov;36(11):897-906

Sister-chromatid exchanges induced by disulfiram in bone marrow and spermatogonial cells of mice treated in vivo. Madrigal-Bujaidar E, et al. **Food Chem Toxicol** 1999 Jul; 37(7):757-63

Induction of sister chromatid exchanges in cultured human lymphocytes with methylsulphonyl PCB congeners. Nagayama J, et al. **Fukuoka Igaku Zasshi** 1999 May; 90(5):238-45

Chromosomes in the assessment of the effects of low levels of genotoxic agents. Leonard Sagan BELLE Award. Biological Effects of Low Level Exposure. Wolff S. **Hum Exp Toxicol** 1998 Nov;17(11):625-32 (39 ref.)

Sister chromatid exchange induced by chromium compounds in human lymphocytes. Lai JS, et al. **Int Arch Occup Environ Health** 1998 Nov;71(8):550-3

Influence of buthionine sulfoximine and reduced glutathione on arecoline-induced chromosomal damage and sister chromatid exchange in mouse bone marrow cells in vivo. Deb S, et al. **Mutagenesis** 1998 May;13(3):243-8

Genotoxic evaluation of the antimicrobial drug, trimethoprim, in cultured human lymphocytes. Abou-Eisha A, et al. **Mutat Res** 1999 Apr 6;440(2):157-62

Analysis of correlated data in human biomonitoring studies. The case of high sister chromatid exchange frequency cells. Bonassi S, et al. **Mutat Res** 1999 Jan 2;438(1):13-21

Pluripotent stem cells of the mouse as a potential in vitro model for mammalian germ cells. Sister chromatid exchanges induced by MMC and ENU in undifferentiated cell lines compared to differentiated cell lines. Bremer S, et al. **Mutat Res** 1999 Jul 21;444(1):97-102

In vivo and in vitro promutagen activation by Vicia faba of thiocarbamate herbicides molinate and butylate to products inducing sister chromatid exchanges in human lymphocyte cultures. Calderón-Segura ME, et al. **Mutat Res** 1999 Jan 13;438(2):81-8

Influence of sodium butyrate on the induction of radiation-induced chromosomal aberrations and sister chromatid exchanges in Chinese hamster ovary (CHO) cells. Johannes C, et al. **Mutat Res** 1999 Aug 11; 429(1):141-6

Interaction of nickel with UV-light in the induction of cytogenetic effects in human peripheral lymphocytes. Katsifis SP, et al. **Mutat Res** 1998 Dec 3;422(2):331-7

Induction of sister chromatid exchanges by pyrimethamine in human lymphocyte cultures. Egeli U. **Teratog Carcinog Mutagen** 1998;18(4):163-9

The in vitro effect of beta-carotene and mitomycin C on SCE frequency in Down's syndrome lymphocyte cultures. Bal F, et al. **Tohoku J Exp Med** 1998 Apr;184(4):295-300

Induction of sister chromatid exchanges and chromosome aberrations in vivo in Etroplus suratensis (Bloch) following exposure to organophosphorus pesticides. Das P, et al. **Toxicol Lett** 1999 Jan 11;104(1-2):111-6

Induction of sister chromatid exchanges (SCE) in human tracheal epithelial cells by the fractions PM-10 and PM-2.5 of airborne particulates. Hornberg C, et al. **Toxicol Lett** 1998 Aug;96-97:215-20

Elevated frequency of sister chromatid exchanges in lymphocytes of victims of the Tokyo sarin disaster and in experiments exposing lymphocytes to by-products of sarin synthesis. Li Q, et al. **Toxicol Lett** 1998 Sep 1; 98(1-2):95-103

In vitro genotoxic effects of the insecticide deltamethrin in human peripheral blood leukocytes: DNA damage ('comet' assay) in relation to the induction of sister-chromatid exchanges and micronuclei. Villarini M, et al. **Toxicology** 1998 Sep 15;130(2-3):129-39

GENETICS

Sister chromatid exchange analysis in workers exposed to noise and vibration. Silva MJ, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 2):A40-5

Chromosomal changes. Preston RJ. **IARC Sci Publ** 1999; (146):395-408 (53 ref.)

Somatic mutations at the T-cell antigen receptor in antineoplastic drug-exposed populations: comparison with sister chromatid exchange frequency. Lanza A, et al. **Int Arch Occup Environ Health** 1999 Aug;72(5):315-22

Sister chromatid exchange frequencies in Escherichia coli analyzed by recombination at the dif resolvase site. Steiner WW, et al. **J Bacteriol** 1998 Dec;180(23):6269-75

Mutagenicity assay in Salmonella and in vivo sister chromatid exchange in bone marrow cells of mice for four pyrazolone derivatives. Giri AK, et al. **Mutat Res** 1998 Dec 3; 420(1-3):15-25

In vivo repair during G1 of DNA lesions eliciting sister chromatid exchanges induced by methylnitrosourea or ethylnitrosourea in BrdU substituted or unsubstituted DNA in murine salivary gland cells. González-Beltrán F, et al. **Mutat Res** 1999 Apr 6;425(2):239-47

PHYSIOLOGY

Monocytes affect cell-cycle progression but not baseline frequency of sister chromatid exchanges of pig lymphocytes. Soloneski S, et al. **Environ Mol Mutagen** 1999;33(1):86-90

RADIATION EFFECTS

X-irradiation of G1 CHO cells induces SCE which are both true and false in BrdU-substituted cells but only false in biotin-dUTP-substituted cells. Bruckmann E, et al. **Chromosome Res** 1999;7(4):277-88

Sister chromatid exchange in Chinese newborn infants treated with phototherapy for more than five days. Tsai FJ, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1998 Sep-Oct;39(5):327-9

Induction of sister chromatid exchanges in fibroblasts from normal donors and from patients with xeroderma pigmentosum after combined treatment with ultraviolet radiation and modulated low frequency electric currents. Fackel N, et al. **Eur J Dermatol** 1998 Oct-Nov;8(7):483-7

Influence of sodium butyrate on the induction of radiation-induced chromosomal aberrations and sister chromatid exchanges in Chinese hamster ovary (CHO) cells. Johannes C, et al. **Mutat Res** 1999 Aug 11; 429(1):141-6

Effect of high-density extremely low frequency magnetic field on sister chromatid exchanges in mouse m5S cells. Yaguchi H, et al. **Mutat Res** 1999 Apr 6;440(2):189-94

SITE-DIRECTED MUTAGENESIS see **MUTAGENESIS, SITE-DIRECTED**

SITE MAPPING, RESTRICTION see **RESTRICTION MAPPING**

SITE-SPECIFIC DNA-METHYLTRANSFERASE (ADENINE-SPECIFIC)

CHEMISTRY

Measurement of the absolute temporal coupling between DNA binding and base flipping. Allan BW, et al. **Biochemistry** 1999 Apr 27;38(17):5308-14

Functional roles of the conserved aromatic amino acid residues at position 108 (motif IV) and position 196 (motif VIII) in base flipping and catalysis by the N6-adenine DNA methyltransferase from Thermus aquaticus. Pues H, et al. **Biochemistry** 1999 Feb 2;38(5):1426-34

Structural studies of the BstVI restriction-modification proteins by fluorescence spectroscopy. Saavedra C, et al. **Eur J Biochem** 1999 Jul;263(1):65-70

Identification of the binding site for the extrahelical target base in N6-adenine DNA methyltransferases by photo-cross-linking with duplex oligodeoxyribonucleotides containing 5-iodouracil at the target position. Holz B, et al. **J Biol Chem** 1999 May 21; 274(21):15066-72

The DNA binding characteristics of the trimeric EcoKI methyltransferase and its partially assembled dimeric form determined by fluorescence polarisation and DNA footprinting. Powell LM, et al. **J Mol Biol** 1998 Nov 13; 283(5):947-61

Crystal structure of the DpnM DNA adenine methyltransferase from the DpnII restriction system of streptococcus pneumoniae bound to S-adenosylmethionine. Tran PH, et al. **Structure** 1998 Dec 15;6(12):1563-75

GENETICS

An MboI two-allele polymorphism may implicate the human renin gene in primary hypertension. Frossard PM, et al. **Hypertens Res** 1998 Sep;21(3):221-5

Characterization of a dam mutant of Serratia marcescens and nucleotide sequence of the dam region. Ostendorf T, et al. **J Bacteriol** 1999 Jul;181(13):3880-5

Mutational analysis of target base flipping by the EcoRV adenine-N6 DNA methyltransferase. Jeltsch A, et al. **J Mol Biol** 1999 Jan 22;285(3):1121-30

Hypermutation in pathogenic bacteria: frequent phase variation in meningococci is a phenotypic trait of a specialized mutator biotype. Bucci C, et al. **Mol Cell** 1999 Apr;3(4):435-45

Gene may promise new route to potent vaccines [news; comment] Enserink M. **Science** 1999 May 7;284(5416):883 . Comment on: Science 1999 May 7;284(5416):967-70.

METABOLISM

Interaction of the type I methyltransferase M.EcoR124I with modified DNA substrates: sequence discrimination and base flipping. Mernagh DR, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):719-25

Localization of a protein-DNA interface by random mutagenesis. O'Neill M, et al. **EMBO J** 1998 Dec 1; 17(23):7118-27

The major phase-variable outer membrane protein of Escherichia coli structurally resembles the immunoglobulin A1 protease class of exported protein and is regulated by a novel mechanism involving Dam and oxyR. Henderson IR, et al. **J Bacteriol** 1999 Apr;181(7):2132-41

DNA bending by EcoRI DNA methyltransferase accelerates base flipping but compromises specificity. Allan BW, et al. **J Biol Chem** 1999 Jul 2;274(27):19269-75

On the substrate specificity of DNA methyltransferases. adenine-N6 DNA methyltransferases also modify cytosine residues at position N4. Jeltsch A, et al. **J Biol Chem** 1999 Jul 9;274(28):19538-44

Interaction of SeqA and Dam methylase on the hemimethylated origin of Escherichia coli chromosomal DNA replication. Kang S, et al. **J Biol Chem** 1999 Apr 23;274(17):11463-8

The DNA binding characteristics of the trimeric EcoKI methyltransferase and its partially assembled dimeric form determined by fluorescence polarisation and DNA footprinting. Powell LM, et al. **J Mol Biol** 1998 Nov 13; 283(5):947-61

Position effect takes precedence over target sequence in

determination of adenine methylation patterns in the nuclear genome of a eukaryote, Tetrahymena thermophila. Karrer KM, et al. **Nucleic Acids Res** 1998 Oct 15; 26(20):4566–73

Effect of base analog substitutions in the specific GATC site on binding and methylation of oligonucleotide duplexes by the bacteriophage T4 Dam DNA–[N6–adenine] methyltransferase. Malygin EG, et al. **Nucleic Acids Res** 1999 Feb 15;27(4):1135–44

An essential role for DNA adenine methylation in bacterial virulence [see comments] Heithoff DM, et al. **Science** 1999 May 7;284(5416):967–70. Comment in: Science 1999 May 7;284(5416):883.

PHYSIOLOGY

DNA adenine methylase mutants of Salmonella typhimurium show defects in protein secretion, cell invasion, and M cell cytotoxicity. García–Del Portillo F, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11578–83

RADIATION EFFECTS

Identification of the binding site for the extrahelical target base in N6–adenine DNA methyltransferases by photo–cross–linking with duplex oligodeoxyribonucleotides containing 5–iodouracil at the target position. Holz B, et al. **J Biol Chem** 1999 May 21; 274(21):15066–72

SITE–SPECIFIC DNA METHYLTRANSFERASE (CYTOSINE–SPECIFIC)

ANTAGONISTS & INHIBITORS

5,6 Dihydro–5'–azacytidine (DHAC) restores androgen responsiveness in androgen–insensitive prostate cancer cells. Izbicka E, et al. **Anticancer Res** 1999 Mar–Apr; 19(2A):1285–91

5,6–Dihydro–5'–azacytidine (DHAC) affects estrogen sensitivity in estrogen–refractory human breast carcinoma cell lines. Izbicka E, et al. **Anticancer Res** 1999 Mar–Apr; 19(2A):1293–8

[Study on the combined therapy of DNA–methyltransferase inhibitor and interferon–alpha/beta for mouse spontaneously arose renal cell carcinoma, and immunological mechanism induced by the therapy] Onishi T, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Oct; 89(10):828–35 (Eng. Abstr.) **(Jpn)**

CHEMISTRY

Exploring the structural flexibility of 5m–cytosine–DNA methyltransferases. Matin MM, et al. **Biochem Soc Trans** 1998 Nov;26(4):S394

A new method for determining the stereochemistry of DNA cleavage reactions: application to the SfiI and HpaII restriction endonucleases and to the MuA transposase. Mizuuchi K, et al. **Biochemistry** 1999 Apr 6;38(14):4640–8

M.(phi)BssHII, a novel cytosine–C5–DNA–methyltransferase with target–recognizing domains at separated locations of the enzyme. Sethmann S, et al. **EMBO J** 1999 Jun 15; 18(12):3502–8

Structure of a binary complex of HhaI methyltransferase with S–adenosyl–L–methionine formed in the presence of a short non–specific DNA oligonucleotide. O'Gara M, et al. **J Mol Biol** 1999 Mar 26;287(2):201–9

Structures of HhaI methyltransferase complexed with substrates containing mismatches at the target base. O'Gara M, et al. **Nat Struct Biol** 1998 Oct;5(10):872–7

GENETICS

Cloning and characterization of the gene encoding a new DNA methyltransferase from Neisseria gonorrhoeae. Radlińska M, et al. **Biol Chem** 1998 Nov;379(11):1391–5

Feedback regulation of DNA methyltransferase gene expression by methylation. Slack A, et al. **Eur J Biochem** 1999 Aug;264(1):191–9

Cloning, expression and chromosome locations of the human DNMT3 gene family. Xie S, et al. **Gene** 1999 Aug 5; 236(1):87–95

Expression of T:G mismatch–specific thymidine–DNA glycosylase and DNA methyl transferase genes during development and tumorigenesis. Niederreither K, et al. **Oncogene** 1998 Sep 24;17(12):1577–85

Characterization of the Pac25I restriction–modification genes isolated from the endogenous pRA2 plasmid of Pseudomonas alcaligenes NCIB 9867. Yeo CC, et al. **Plasmid** 1998 Nov;40(3):203–13

METABOLISM

Role of the ras–MAPK signaling pathway in the DNA methyltransferase response to DNA hypomethylation. Deng C, et al. **Biol Chem** 1998 Aug–Sep;379(8–9):1113–20

M.(phi)BssHII, a novel cytosine–C5–DNA–methyltransferase with target–recognizing domains at separated locations of the enzyme. Sethmann S, et al. **EMBO J** 1999 Jun 15; 18(12):3502–8

Kinetic mechanism of cytosine DNA methyltransferase MspI. Bhattacharya SK, et al. **J Biol Chem** 1999 May 21; 274(21):14743–9

DNA methyltransferases as probes of chromatin structure in vivo. Kladde MP, et al. **Methods Enzymol** 1999; 304:431–47

SITE–SPECIFIC DNA–METHYLTRANSFERASE (ADENINE–SPECIFIC)

GENETICS

A new informative AIw 26 I polymorphism in exon 10 of the human low density lipoprotein receptor gene. Application to prenatal diagnosis. Mutations in brief no. 145. Online. Kottler M, et al. **Hum Mutat** 1998;11(6):483

SITE–SPECIFIC DNA METHYLTRANSFERASE (CYTOSINE–SPECIFIC)

GENETICS

A new informative AIw 26 I polymorphism in exon 10 of the human low density lipoprotein receptor gene. Application to prenatal diagnosis. Mutations in brief no. 145. Online. Kottler M, et al. **Hum Mutat** 1998;11(6):483

SITE–SPECIFIC METHYLTRANSFERASES (ADENINE–SPECIFIC) see **SITE–SPECIFIC DNA–METHYLTRANSFERASE (ADENINE–SPECIFIC)**

SITE–SPECIFIC METHYLTRANSFERASES (CYTOSINE–SPECIFIC) see **SITE–SPECIFIC DNA METHYLTRANSFERASE (CYTOSINE–SPECIFIC)**

SITE–SPECIFIC MUTAGENESIS see **MUTAGENESIS, SITE–DIRECTED**

SITOSTEROLS

ADMINISTRATION & DOSAGE

Cholesterol–lowering efficacy of a sitostanol–containing phytosterol mixture with a prudent diet in hyperlipidemic men. Jones PJ, et al. **Am J Clin Nutr** 1999 Jun;69(6):1144–50

Retinol, vitamin D, carotenes and alpha–tocopherol in serum of a moderately hypercholesterolemic population consuming sitostanol ester margarine. Gylling H, et al. **Atherosclerosis** 1999 Aug;145(2):279–85

Serum sterols during stanol ester feeding in a mildly hypercholesterolemic population. Gylling H, et al. **J Lipid Res** 1999 Apr;40(4):593–600

[Is the Finnish "healthy margarine" food or medicine? Addition of plant sterols can lower cholesterol levels] Wikström AC. **Lakartidningen** 1998 Nov 11;95(46):5146–8 (18 ref.) (Eng. Abstr.) **(Swe)**

ISOLATION & PURIFICATION

Isolation of 3–O–(4'–hydroxybenzyl)–beta–sitosterol and 4–[4'–(4"–hydroxybenzyloxy)benzyloxy]benzyl methyl ether from fresh tubers of Gastrodia elata. Yun–Choi HS, et al. **Arch Pharm Res** 1998 Jun;21(3):357–60

Bioactive constituents from Pteris multifida. Lu H, et al. **Planta Med** 1999 Aug;65(6):586–7

[Chemical components of Cynomorium sonaricum Rupr.] Xu X, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Nov; 21(11):676–7, 704 (Eng. Abstr.) **(Chi)**

METABOLISM

Characterisation of a new host–vector system for fast–growing mycobacteria. Golańska E, et al. **Acta Microbiol Pol** 1998;47(4):335–43

Stereochemistry of the reduction of 24–ethyldesmosterol to sitosterol in tissue cultures of Oryza sativa. Fujimoto Y, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):205–8

Overexpression of an Arabidopsis cDNA encoding a sterol–C24(1)–methyltransferase in tobacco modifies the ratio of 24–methyl cholesterol to sitosterol and is associated with growth reduction. Schaller H, et al. **Plant Physiol** 1998 Oct;118(2):461–9

PHARMACOLOGY

Dietary sitostanol reciprocally influences cholesterol absorption and biosynthesis in hamsters and rabbits. Ntanios FY, et al. **Atherosclerosis** 1999 Apr;143(2):341–51

The effects of B–sitosterol (BSS) and B–sitosterol glucoside (BSSG) mixture on selected immune parameters of marathon runners: inhibition of post marathon immune suppression and inflammation. Bouic PJ, et al. **Int J Sports Med** 1999 May;20(4):258–62

Cholesterol reduction by different plant stanol mixtures and with variable fat intake. Gylling H, et al. **Metabolism** 1999 May;48(5):575–80

Campestanol (24–methyl–5alpha–cholestan–3beta–ol) absorption and distribution in New Zealand White rabbits: effect of dietary sitostanol. Xu G, et al. **Metabolism** 1999 Mar;48(3):363–8

beta–Sitosterol activates the sphingomyelin cycle and induces apoptosis in LNCaP human prostate cancer cells. von Holtz RL, et al. **Nutr Cancer** 1998;32(1):8–12

Saw palmetto extracts potently and noncompetitively inhibit human alpha1–adrenoceptors in vitro. Goepel M, et al. **Prostate** 1999 Feb 15;38(3):208–15

THERAPEUTIC USE

Effects of 2 low–fat stanol ester–containing margarines on serum cholesterol concentrations as part of a low–fat diet in hypercholesterolemic subjects. Hallikainen MA, et al. **Am J Clin Nutr** 1999 Mar;69(3):403–10

beta–sitosterol for the treatment of benign prostatic hyperplasia: a systematic review. Wilt TJ, et al. **BJU Int** 1999 Jun;83(9):976–83 (32 ref.)

TOXICITY

Effects of wood–related sterols on the reproduction, egg survival, and offspring of brown trout (Salmo trutta lacustris L.). Lehtinen KJ, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):40–9

SITS

ANALOGS & DERIVATIVES

Similarities in the effects of DIDS, DBDS and suramin on cardiac ryanodine receptor function. Sitsapesan R. **J Membr Biol** 1999 Mar 15;168(2):159–68

PHARMACOLOGY

SITS blockade induces multiple subconductance states in a large conductance chloride channel. Vaca L. **J Membr Biol** 1999 May 1;169(1):65–73

SITUATIONAL ETHICS see **ETHICS**

SITUATIONAL THERAPY see **MILIEU THERAPY**

SITUS INVERSUS

[Viscero–atrial heterotaxia (letter)] Edmar A, et al. **Arch Pediatr** 1999 Feb;6(2):225–6 **(Fre)**

COMPLICATIONS

Successful heart transplantation in a patient with Ivemark syndrome combined with situs inversus, single atrium and ventricle after total cavo–pulmonary connection. Berdat PA, et al. **Eur J Cardiothorac Surg** 1998 Dec;14(6):631–4

Coronary stenting in patients with situs viscerum inversus. Patti G, et al. **G Ital Cardiol** 1999 Mar;29(3):304–7 (10 ref.)

PEG using a preexisting abdominal surgical incision in an obese patient with situs inversus. Minocha A, et al. **Gastrointest Endosc** 1999 Jul;50(1):128

Goldenhar syndrome with situs inversus totalis [letter] Görgü M, et al. **Int J Oral Maxillofac Surg** 1998 Oct;27(5):404

Traumatic aortic and diaphragmatic rupture in a patient with situs inversus [letter; comment] Ho AM. **J Trauma** 1999 Mar;46(3):530–1. Comment on: J Trauma 1998 Aug;45(2):397–9.

Renal cell carcinoma and situs inversus viscerum. Adler HL, et al. **J Urol** 1998 Dec;160(6 Pt 1):2141–2

Multiple organ malrotation syndrome with duodenal atresia: a case report. Chandran H, et al. **Pediatr Surg Int** 1999; 15(1):61–2

Orthotopic liver transplantation in patients with biliary atresia and situs inversus. Mattei P, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):104–10 (14 ref.)

Suspected appendicitis in situs inversus totalis: an indication for a laparoscopic approach. Contini S, et al. **Surg Laparosc Endosc** 1998 Oct;8(5):393–4

Urinary diversion following cystectomy in a patient with situs inversus totalis. Rodrigues GP, et al. **Urol Int** 1999; 62(1):55–6

[Hypoglossia, situs inversus and absence of the pituitary in a neonate: teratogenic effect of maternal hyperthermia?] Chabrolle JP, et al. **Arch Pediatr** 1998 Feb;5(2):163–6 (Eng. Abstr.) **(Fre)**

[Traditional cholecystectomy in a patient with situs viscerum inversus partialis] Torretta A, et al. **G Chir** 1999 Jun–Jul; 20(6–7):293–5 (12 ref.) (Eng. Abstr.) **(Ita)**

[Perforated duodenal and stomach ulcers in complete situs inversus viscerum] Bril' IuV. **Vestn Khir Im I I Grek** 1998; 157(3):87 **(Rus)**

[Congenital cyanotic heart disease and peripheral neurogenic tumor] Diez L, et al. **Rev Esp Med Nucl** 1999;18(1):43–6 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Sibs diagnosed prenatally with situs inversus totalis, renal and pancreatic dysplasia, and cysts: a new syndrome? Balci S, et al. **Am J Med Genet** 1999 Jan 15;82(2):166–9

Is this right? (...or is it left?). Danias PG, et al. **Circulation** 1999 Jul 13;100(2):209–10

The importance of detailed diagnostic assessment in a case of partial situs inversus. Cacciaguerra S, et al. **Pediatr Surg Int** 1998 Sep;13(7):531–2

GENETICS

Left–right axis malformations associated with mutations in ACVR2B, the gene for human activin receptor type IIB.

SITUS INVERSUS

Kosaki R, et al. **Am J Med Genet** 1999 Jan 1;82(1):70–6
Microdeletion of chromosome sub-band 2q37.3 in two patients with abnormal situs viscerum. Reddy KS, et al. **Am J Med Genet** 1999 Jun 11;84(5):460–8 (36 ref.)
Anomalous development of the hepatobiliary system in the Inv mouse. Mazziotti MV, et al. **Hepatology** 1999 Aug; 30(2):372–8

PATHOLOGY

Corrected transposition of the great vessels and situs inversus viscerum in a 65-year-old oligosymptomatic woman. Scardi S, et al. **Circulation** 1999 Aug 17;100(7):777
An infant with situs inversus totalis, branchial cleft cyst and ectopic kidney: a new combination? [letter] Köylüoğlu G, et al. **Clin Dysmorphol** 1999 Jul;8(3):233–4
New syndromic entity of situs inversus totalis. Mubashir MA, et al. **Clin Dysmorphol** 1999 Jan;8(1):23–7
A case of malrotation and situs ambiguus. Beaudoin S, et al. **Surg Radiol Anat** 1999;21(2):143–5

PHYSIOPATHOLOGY

Handedness and laterality of the viscera revisited [letter; comment] Gordon AG. **Neurology** 1998 Nov;51(5):1515. Comment on: Neurology 1997 Dec;49(6):1751.
Dichotic listening in patients with situs inversus: brain asymmetry and situs asymmetry. Tanaka S, et al. **Neuropsychologia** 1999 Jun;37(7):869–74

RADIOGRAPHY

Discordant organ laterality in monozygotic twins with primary ciliary dyskinesia. Noone PG, et al. **Am J Med Genet** 1999 Jan 15;82(2):155–60
Answer to case of the month #61. Situs inversus abdominis with duodenal diaphragm and intestinal malrotation. Cté F, et al. **Can Assoc Radiol J** 1999 Jun;50(3):202–4

SURGERY

[Radical D2,D3 lymph node excision of stomach carcinoma in situs inversus totalis and malrotation of the colon] Jatzko G, et al. **Zentralbl Chir** 1998;123(7):847–9 (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

Primary fetal hydrothorax with lymphangiectasia, pulmonary situs inversus and abnormal tracheo-bronchial tree [letter] Selby DM, et al. **Prenat Diagn** 1999 Mar;19(3):288–9
[Familial heterotaxy syndrome. Case report and review of the international literature] Cesko I, et al. **Orv Hetil** 1998 Nov 15;139(46):2775–8 (45 ref.) (Eng. Abstr.) **(Hun)**

SIV

HIV/SIV enteropathy. Zeitz M, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:139–48 (48 ref.)
Proliferation and apoptosis-related gene expression in experimental acquired immunodeficiency syndrome-related simian lymphoma. Castaños-Vélez E, et al. **Blood** 1999 Feb 15;93(4):1364–71
Kinetics of lymphocyte apoptosis in macaques infected with different simian immunodeficiency viruses or simian/human immunodeficiency hybrid viruses. Reinberger S, et al. **Clin Immunol** 1999 Jan;90(1):141–6
Development of an animal model for autotransfusion therapy: in vitro characterization and analysis of anti-CD3/CD28 expanded cells. Brice GT, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Nov 1;19(3):210–20
Natural infection of a homozygous delta24 CCR5 red-capped mangabey with an R2b-tropic simian immunodeficiency virus. Chen Z, et al. **J Exp Med** 1998 Dec 7;188(11):2057–65
Pathogenesis of simian immunodeficiency virus infection. Whetter LE, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1557–68 (137 ref.)
Increased expression of nitric oxide synthase and dendritic injury in simian immunodeficiency virus encephalitis. Li Q, et al. **J Hum Virol** 1999 May-Jun;2(3):139–45
Oral transmission of primate lentiviruses. Ruprecht RM, et al. **J Infect Dis** 1999 May;179 Suppl 3:S408–12
Motor skill impairment in SIV-infected rhesus macaques with rapidly and slowly progressing disease. Marcario JK, et al. **J Med Primatol** 1999 Jun;28(3):105–17
Viral load and neuropathology in the SIV model. Boche D, et al. **J Neurovirol** 1999 Jun;5(3):232–40
Motor evoked potentials in a rhesus macaque model of neuro-AIDS. Raymond LA, et al. **J Neurovirol** 1999 Jun; 5(3):217–31
Protection of macaques against intrarectal infection by a combination immunization regimen with recombinant simian immunodeficiency virus SIVmne gp160 vaccines. Polacino P, et al. **J Virol** 1999 Apr;73(4):3134–46
Simian immunodeficiency virus as a model of human HIV disease. Geretti AM. **Rev Med Virol** 1999 Jan-Mar; 9(1):57–67 (82 ref.)

CHEMISTRY

Monoclonal antibodies recognize at least five epitopes on the SIV Nef protein and identify an in vitro-induced mutation. Arnold C, et al. **AIDS Res Hum Retroviruses** 1999 Aug 10;15(12):1087–97
Structure and function of HIV-1 and SIV Tat proteins based on carboxy-terminal truncations, chimeric Tat constructs, and NMR modeling. Baier-Bitterlich G, et al. **Biomed Pharmacother** 1998;52(10):421–30
3D NMR experiments for measuring 15N relaxation data of large proteins: application to the 44 kDa ectodomain of SIV gp41. Caffrey M, et al. **J Magn Reson** 1998 Dec; 135(2):368–72

CLASSIFICATION

Natural history of SIVmac BK28 and H824 infection in Macaca nemestrina. Mulvania T, et al. **J Med Primatol** 1998 Apr-Jun;27(2-3):87–93
Characterization of a novel simian immunodeficiency virus (SIV) from L'Hoest monkeys (Cercopithecus l'hoesti): implications for the origins of SIVmnd and other primate lentiviruses. Hirsch VM, et al. **J Virol** 1999 Feb; 73(2):1036–45
Origin of HIV-1 in the chimpanzee Pan troglodytes troglodytes [see comments] Gao F, et al. **Nature** 1999 Feb 4;397(6718):436–41. Comment in: Nature 1999 Feb 4;397(6718):385–6.
AIDS virus traced to chimp subspecies [news] [see comments] Cohen J. **Science** 1999 Feb 5;283(5403):772–3. Comment in: Science 1999 Apr 2;284(5411):50.

DRUG EFFECTS

Molecular cloning and expression of rhesus macaque and sooty mangabey interleukin 16: biologic activity and effect on simian immunodeficiency virus infection and/or replication [published erratum appears in AIDS Res Hum Retroviruses 1998 Nov 20;14(17):1604A] Lee ME, et al. **AIDS Res Hum Retroviruses** 1998 Oct 10;14(15):1323–8
Effect of 3-hydroxyphthaloyl-beta-lactoglobulin on vaginal transmission of simian immunodeficiency virus in rhesus monkeys. Wyand MS, et al. **Antimicrob Agents Chemother** 1999 Apr;43(4):978–80
New drug makes host cell machinery unavailable to HIV [news] Senior K. **Mol Med Today** 1999 Jun;5(6):234–5

GENETICS

Recombinant simian immunodeficiency virus expressing green fluorescent protein identifies infected cells in rhesus monkeys. Alexander L, et al. **AIDS Res Hum Retroviruses** 1999 Jan 1;15(1):11–21
SIV-associated nephropathy in rhesus macaques infected with lymphocyte-tropic SIVmac239. Gattone VH 2nd, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1163–80
The origins of AIDS. Dixon B. **Curr Biol** 1999 Mar 25; 9(6):R192
Detection of SIV DNA in rhesus macaque polymorphonuclear neutrophils. Rought SE, et al. **In Vivo** 1999 Mar-Apr;13(2):189–93
Transactivation is a conserved function among primate lentivirus Vpr proteins but is not shared by Vpx. Philippon V, et al. **J Hum Virol** 1999 May-Jun;2(3):167–74
Sequence diversity of SIV(Mne) Nef in vivo and in vitro. Heidecker G, et al. **J Med Primatol** 1998 Apr-Jun; 27(2-3):73–80
Chimeric SHIV that causes CD4+ T cell loss and AIDS in rhesus macaques. Joag SV, et al. **J Med Primatol** 1998 Apr-Jun;27(2-3):59–64
Identification of SV40 in brain, kidney and urine of healthy and SIV-infected rhesus monkeys [see comments] Newman JS, et al. **J Neurovirol** 1998 Aug;4(4):394–406. Comment in: J Neurovirol 1999 Jun;5(3):324.
Simian immunodeficiency virus (SIV) from sun-tailed monkeys (Cercopithecus solatus): evidence for host-dependent evolution of SIV within the C. lhoesti superspecies. Beer BE, et al. **J Virol** 1999 Sep;73(9):7734–44
Effect of the attenuating deletion and of sequence alterations evolving in vivo on simian immunodeficiency virus C8-Nef function. Carl S, et al. **J Virol** 1999 Apr;73(4):2790–7
A novel simian immunodeficiency virus (SIVdrl) pol sequence from the drill monkey, Mandrillus leucophaeus. Clewley JP, et al. **J Virol** 1998 Dec;72(12):10305–9
The human immunodeficiency virus type 1 nef gene can to a large extent replace simian immunodeficiency virus nef in vivo. Kirchhoff F, et al. **J Virol** 1999 Oct;73(10):8371–83
Persistent infection of rhesus macaques by the rev-independent Nef(-) simian immunodeficiency virus SIVmac239: replication kinetics and genomic stability. von Gegerfelt AS, et al. **J Virol** 1999 Jul;73(7):6159–65
Lentivirus vectors using human and simian immunodeficiency virus elements. White SM, et al. **J Virol** 1999 Apr;73(4):2832–40
Protection by live, attenuated simian immunodeficiency virus against heterologous challenge. Wyand MS, et al. **J Virol** 1999 Oct;73(10):8356–63
Genomic analysis of the viral population in genital secretions early after infection of simian immunodeficiency viruses in macaque monkeys. Enose Y, et al. **Microbiol Immunol** 1998;42(10):715–22
Nucleocapsid protein zinc-finger mutants of simian immunodeficiency virus strain mne produce virions that are replication defective in vitro and in vivo. Gorelick RJ, et al. **Virology** 1999 Jan 20;253(2):259–70
Macaques infected with cloned simian immunodeficiency virus show recurring nef gene alterations. Heidecker G, et al. **Virology** 1998 Sep 30;249(2):260–74
Pathogenicity and comparative evolution in vivo of the transitional quasispecies SIVsmmPBj8. Tao B, et al. **Virology** 1999 Jun 20;259(1):166–75
Compatibility of Vpu-like activity in the four groups of primate immunodeficiency viruses. Iida S, et al. **Virus Genes** 1999;18(2):183–7
Complete inhibition of SIVmac replication by its capsid mutants. Shimano R, et al. **Virus Genes** 1998;17(1):43–8
Growth properties of HSIVnef: HIV-1 containing the nef gene from pathogenic molecular clone SIVmac239. Yoon K, et al. **Virus Res** 1998 Sep;57(1):27–34

IMMUNOLOGY

The CD8+ T lymphocyte response during primary SIVmac infection. Letvin NL, et al. **Adv Exp Med Biol** 1998; 452:177–9
The decline of CD8+CD28+ peripheral lymphocytes is correlated with the evolution of AIDS in macaques infected with SIVmac251 [letter] Lebel-Binay S, et al. **AIDS** 1999 Jan 14;13(1):136–7
Live attenuated simian immunodeficiency virus (SIV)mac in macaques can induce protection against mucosal infection with SIVsm. Nilsson C, et al. **AIDS** 1998 Dec 3; 12(17):2261–70
Chemical inactivation of retroviral infectivity by targeting nucleocapsid protein zinc fingers: a candidate SIV vaccine. Arthur LO, et al. **AIDS Res Hum Retroviruses** 1998 Oct; 14 Suppl 3:S311–9
Neutralizing antibodies administered before, but not after, virulent SHIV prevent infection in macaques. Foresman L, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10; 14(12):1035–43
Combined systemic and mucosal immunization with microsphere-encapsulated inactivated simian immunodeficiency virus elicits serum, vaginal, and tracheal antibody responses in female rhesus macaques. Israel ZR, et al. **AIDS Res Hum Retroviruses** 1999 Aug 10; 15(12):1121–36
A cocktail of Mycobacterium bovis BCG recombinants expressing the SIV Nef, Env, and Gag antigens induces antibody and cytotoxic responses in mice vaccinated by different mucosal routes. Lagranderie M, et al. **AIDS Res Hum Retroviruses** 1998 Dec 20;14(18):1625–33
CD8+ lymphocyte antiviral activity in monkeys immunized with SIV recombinant poxvirus vaccines: potential role in vaccine efficacy. Leno M, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):461–70
Production and characterization of SIV envelope-specific rhesus monoclonal antibodies from a macaque asymptomatically infected with a live SIV vaccine. Robinson JE, et al. **AIDS Res Hum Retroviruses** 1998 Sep 20;14(14):1253–62
Mechanisms of protection induced by attenuated simian immunodeficiency virus. II. Lymphocyte depletion does not abrogate protection. Stebbings R, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1187–98
Failure of SIVmac to be neutralized in macrophage cultures is unique to SIVmac and not observed with neutralization of SHIV or HIV-1. Zhuge W, et al. **AIDS Res Hum Retroviruses** 1998 Aug 10;14(12):1045–51
Simian immunodeficiency virus, infection, alcohol, and host defense. Bagby GJ, et al. **Alcohol Clin Exp Res** 1998 Aug; 22(5 Suppl):193S–195S (19 ref.)
Construction and characterization of recombinant VLPs and Semliki-Forest virus live vectors for comparative evaluation in the SHIV monkey model. Notka F, et al. **Biol Chem** 1999 Mar;380(3):341–52
An African green monkey lacking peripheral CD4 lymphocytes that retains helper T cell activity and coexists with SIVagm. Murayama Y, et al. **Clin Exp Immunol** 1999 Sep;117(3):504–12
Protective immunity induced by live attenuated simian immunodeficiency virus. Johnson RP, et al. **Curr Opin Immunol** 1998 Aug;10(4):436–43 (62 ref.)
Induction of inhibitory antibodies to the CCR5 chemokine receptor and their complementary role in preventing SIV infection in macaques. Lehner T, et al. **Eur J Immunol** 1999 Aug;29(8):2427–35
Protection from pathogenic SIV challenge using multigenic DNA vaccines. Haigwood NL, et al. **Immunol Lett** 1999 Mar;66(1-3):183–8
HIV-1 vaccine-induced immune responses which correlate with protection from SHIV infection: compiled preclinical efficacy data from trials with ten different HIV-1 vaccine candidates. Heeney J, et al. **Immunol Lett** 1999 Mar; 66(1-3):189–95
Comparison of restimulation methods to elicit SIV specific cytotoxic T-lymphocytes (CTL) in vitro: Staphylococcal enterotoxin B (SEB) provides a novel method for the quantification of SIV specific CTL precursors. Kakimoto WM, et al. **Immunol Lett** 1999 Mar;66(1-3):135–40
Why are the natural hosts of SIV resistant to AIDS? Norley S, et al. **Immunol Lett** 1999 Mar;66(1-3):47–52
Prechallenge high neutralizing antibodies and long-lasting immune reactivity to gp41 correlate with protection of rhesus monkeys against productive simian immunodeficiency virus infection or disease development. Petry H, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1998 Dec 15;19(5):441–50
Beta-chemokine production in macaques vaccinated with live attenuated virus correlates with protection against simian immunodeficiency virus (SIVsm) challenge. Ahmed RK, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1569–74

Secretion of beta-chemokines by bronchoalveolar lavage cells during primary infection of macaques inoculated with attenuated nef-deleted or pathogenic simian immunodeficiency virus strain mac251. Caufour P, et al. **J Gen Virol** 1999 Mar;80 (Pt 3):767-76

Determinants of disease in the simian immunodeficiency virus-infected rhesus macaque: characterizing animals with low antibody responses and rapid progression. Dykhuizen M, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2461-7

Cutting edge: SIV Nef protein utilizes both leucine- and tyrosine-based protein sorting pathways for down-regulation of CD4. Bresnahan PA, et al. **J Immunol** 1999 Sep 15;163(6):2977-81

Nasal immunization of nonhuman primates with simian immunodeficiency virus p55gag and cholera toxin adjuvant induces Th1/Th2 help for virus-specific immune responses in reproductive tissues. Imaoka K, et al. **J Immunol** 1998 Dec 1;161(11):5952-8

Mucosal Th1- versus Th2-type responses for antibody- or cell-mediated immunity to simian immunodeficiency virus in rhesus macaques. McGhee JR, et al. **J Infect Dis** 1999 May;179 Suppl 3:S480-4

Cytokine molecular adjuvants modulate immune responses induced by DNA vaccine constructs for HIV-1 and SIV. Kim JJ, et al. **J Interferon Cytokine Res** 1999 Jan; 19(1):77-84

Neutralizing antibody responses in Africa green monkeys naturally infected with simian immunodeficiency virus (SIVagm). Gicheru MM, et al. **J Med Primatol** 1999 Jun; 28(3):97-104

CD4/GP120mac251 interaction induces phospholipase A2 (PLA2) activation in cynomolgus monkey lymphocytes. Mavoungou E, et al. **J Med Primatol** 1998 Aug; 27(4):193-201

Peptide immunization restimulates the memory CD4 T cell response but fails to induce cytotoxic T lymphocytes in cynomolgus monkeys. Mavoungou E, et al. **J Med Primatol** 1998 Aug;27(4):202-9

Presence of circulating CTL induced by infection with wild-type or attenuated SIV and their correlation with protection from pathogenic SHIV challenge. Vogel TU, et al. **J Med Primatol** 1998 Apr-Jun;27(2-3):65-72

Factors associated with slow disease progression in macaques immunized with an adenovirus-simian immunodeficiency virus (SIV) envelope priming-gp120 boosting regimen and challenged vaginally with SIVmac251. Buge SL, et al. **J Virol** 1999 Sep;73(9):7430-40

Selection for neutralization resistance of the simian/human immunodeficiency virus SHIVSF33A variant in vivo by virtue of sequence changes in the extracellular envelope glycoprotein that modify N-linked glycosylation. Cheng-Mayer C, et al. **J Virol** 1999 Jul;73(7):5294-300

Use of major histocompatibility complex class I/peptide/beta2M tetramers to quantitate CD8(+) cytotoxic T lymphocytes specific for dominant and nondominant viral epitopes in simian-human immunodeficiency virus-infected rhesus monkeys. Egan MA, et al. **J Virol** 1999 Jul;73(7):5466-72

Determinants of neutralization resistance in the envelope glycoproteins of a simian-human immunodeficiency virus passaged in vivo. Etemad-Moghadam B, et al. **J Virol** 1999 Oct;73(10):8873-9

The simian immunodeficiency virus envelope glycoprotein contains two epitopes presented by the Mamu-A*01 class I molecule. Furchner M, et al. **J Virol** 1999 Oct; 73(10):8035-9

Effective induction of simian immunodeficiency virus-specific cytotoxic T lymphocytes in macaques by using a multiepitope gene and DNA prime-modified vaccinia virus Ankara boost vaccination regimen. Hanke T, et al. **J Virol** 1999 Sep;73(9):7524-32

Postinoculation PMPA treatment, but not preinoculation immunomodulatory therapy, protects against development of acute disease induced by the unique simian immunodeficiency virus SIVsmmPBj. Hodge S, et al. **J Virol** 1999 Oct;73(10):8630-9

Zeta chain of the T-cell receptor interacts with nef of simian immunodeficiency virus and human immunodeficiency virus type 2. Howe AY, et al. **J Virol** 1998 Dec; 72(12):9827-34

Detection of simian immunodeficiency virus Gag-specific CD8(+) T lymphocytes in semen of chronically infected rhesus monkeys by cell staining with a tetrameric major histocompatibility complex class I-peptide complex. Jordan HL, et al. **J Virol** 1999 May;73(5):4508-12

Diverse host responses and outcomes following simian immunodeficiency virus SIVmac239 infection in sooty mangabeys and rhesus macaques. Kaur A, et al. **J Virol** 1998 Dec;72(12):9597-611

Comparative analysis of cytotoxic T lymphocytes in lymph nodes and peripheral blood of simian immunodeficiency virus-infected rhesus monkeys. Kuroda MJ, et al. **J Virol** 1999 Feb;73(2):1573-9

Limited protection from a pathogenic chimeric simian-human immunodeficiency virus challenge following immunization with attenuated simian immunodeficiency virus. Lewis MG, et al. **J Virol** 1999 Feb;73(2):1262-70

Occult systemic infection and persistent simian immunodeficiency virus (SIV)-specific CD4(+)-T-cell proliferative responses in rhesus macaques that were transiently viremic after intravaginal inoculation of SIV. McChesney MB, et al. **J Virol** 1998 Dec;72(12):10029-35

Protection of Macaques against pathogenic simian/human immunodeficiency virus 89.6PD by passive transfer of neutralizing antibodies. Mascola JR, et al. **J Virol** 1999 May;73(5):4009-18

Activated memory CD4(+) T helper cells repopulate the intestine early following antiretroviral therapy of simian immunodeficiency virus-infected rhesus macaques but exhibit a decreased potential to produce interleukin-2. Mattapallil JJ, et al. **J Virol** 1999 Aug;73(8):6661-9

Role of immune responses against the envelope and the core antigens of simian immunodeficiency virus SIVmne in protection against homologous cloned and uncloned virus challenge in Macaques. Polacino PS, et al. **J Virol** 1999 Oct;73(10):8201-15

Immunization with a live, attenuated simian immunodeficiency virus vaccine leads to restriction of viral diversity in Rhesus macaques not protected from pathogenic challenge. Sodora DL, et al. **J Virol** 1999 May; 73(5):4443-6

Protective role of the virus-specific immune response for development of severe neurologic signs in simian immunodeficiency virus-infected macaques. Sopper S, et al. **J Virol** 1998 Dec;72(12):9940-7

Acute effects of pathogenic simian-human immunodeficiency virus challenge on vaccine-induced cellular and humoral immune responses to Gag in rhesus macaques. Steger KK, et al. **J Virol** 1999 Mar;73(3):1853-9

Protection by live, attenuated simian immunodeficiency virus against heterologous challenge. Wyand MS, et al. **J Virol** 1999 Oct;73(10):8356-63

High major histocompatibility complex-unrestricted lysis of simian immunodeficiency virus envelope-expressing cells predisposes macaques to rapid AIDS progression. Yin C, et al. **J Virol** 1999 May;73(5):3692-701

Gene-mutated HIV-1/SIV chimeric viruses as AIDS live attenuated vaccines for potential human use. Hayami M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S42-7

HIV-1 neutralizing antibodies: how full is the bottle? [news; comment] Moore JP, et al. **Nat Med** 1999 Feb;5(2):142-4 . Comment on: Nat Med 1999 Feb;5(2):204-10. Comment on: Nat Med 1999 Feb;5(2):211-6.

Consequences of ddI-induced reduction of acute SIVmac251 virus load on cytokine profiles in cynomolgus macaques. Gigout L, et al. **Res Virol** 1998 Nov-Dec;149(6):341-54

Control of viremia in simian immunodeficiency virus infection by CD8+ lymphocytes. Schmitz JE, et al. **Science** 1999 Feb 5;283(5403):857-60

Recombinant, attenuated Salmonella typhimurium stimulate lymphoproliferative responses to SIV capsid antigen in rhesus macaques. Steger KK, et al. **Vaccine** 1999 Feb 26; 17(7-8):923-32

Induction of cytotoxic and helper T cell responses by modified simian immunodeficiency virus hypervariable epitope constructs. Meyer D, et al. **Viral Immunol** 1999; 12(2):117-29

Immune responses but no protection against SHIV by gene-gun delivery of HIV-1 DNA followed by recombinant subunit protein boosts. Putkonen P, et al. **Virology** 1998 Oct 25;250(2):293-301

Long-lasting protection by live attenuated simian immunodeficiency virus in cynomolgus monkeys: no detection of reactivation after stimulation with a recall antigen. Sernicola L, et al. **Virology** 1999 Apr 10; 256(2):291-302

ISOLATION & PURIFICATION

SIV-associated nephropathy in rhesus macaques infected with lymphocyte-tropic SIVmac239. Gattone VH 2nd, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1163-80

Endogenous tumor necrosis factor-alpha contributes to lymphoproliferation induced by simian immunodeficiency virus variant, SIVsmmPBj14. Hodge S, et al. **Immunol Lett** 1998 Aug;63(1):49-51

Improved Mg2+-based reverse transcriptase assay for detection of primate retroviruses. Sears JF, et al. **J Clin Microbiol** 1999 Jun;37(6):1704-8

Dramatic rise in plasma viremia after CD8(+) T cell depletion in simian immunodeficiency virus-infected macaques. Jin X, et al. **J Exp Med** 1999 Mar 15;189(6):991-8

Induction of B cell hyperplasia in simian immunodeficiency virus-infected rhesus macaques with the simian homologue of Kaposi's sarcoma-associated herpesvirus. Wong SW, et al. **J Exp Med** 1999 Sep 20;190(6):827-40

Coinfection of macaques with simian immunodeficiency virus and simian T cell leukemia virus type I: effects on virus burdens and disease progression. Fultz PN, et al. **J Infect Dis** 1999 Mar;179(3):600-11

Intracellular cytokine expression in the CD4+ and CD8+ T cells from intestinal mucosa of simian immunodeficiency virus infected macaques. Smit-McBride Z, et al. **J Med Primatol** 1998 Apr-Jun;27(2-3):129-40

Localization of Simian immunodeficiency virus-infected cells in the genital tract of male and female Rhesus macaques. Miller CJ. **J Reprod Immunol** 1998 Dec;41(1-2):331-9 (32 ref.)

A novel simian immunodeficiency virus (SIVdrl) pol sequence from the drill monkey, Mandrillus leucophaeus. Clewley JP, et al. **J Virol** 1998 Dec;72(12):10305-9

Isolation and characterization of a neuropathogenic simian immunodeficiency virus derived from a sooty mangabey. Novembre FJ, et al. **J Virol** 1998 Nov;72(11):8841-51

Early short-term 9-[2-(R)-(phosphonomethoxy)propyl]adenine treatment favorably alters the subsequent disease course in simian immunodeficiency virus-infected newborn Rhesus macaques. van Rompay KK, et al. **J Virol** 1999 Apr; 73(4):2947-55

Early physiological abnormalities after simian immunodeficiency virus infection. Horn TF, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15072-7

Alterations in RANTES gene expression and T-cell prevalence in intestinal mucosa during pathogenic or nonpathogenic simian immunodeficiency virus infection. Ndolo T, et al. **Virology** 1999 Jun 20;259(1):110-8

Isolation and partial characterization of a lentivirus from talapoin monkeys (Myopithecus talapoin). Osterhaus AD, et al. **Virology** 1999 Jul 20;260(1):116-24

METABOLISM

Mutations in CCR5-coding sequences are not associated with SIV carrier status in African nonhuman primates. Müller-Trutwin MC, et al. **AIDS Res Hum Retroviruses** 1999 Jul 1;15(10):931-9

Two elements target SIV Nef to the AP-2 clathrin adaptor complex, but only one is required for the induction of CD4 endocytosis. Lock M, et al. **EMBO J** 1999 May 17; 18(10):2722-33

Lipophosphoglycan of Leishmania donovani inhibits lipid vesicle fusion induced by the N-terminal extremity of viral fusogenic simian immunodeficiency virus protein. Martin I, et al. **Eur J Biochem** 1998 Nov 15;258(1):150-6

Interactions of the cytoplasmic domains of human and simian retroviral transmembrane proteins with components of the clathrin adaptor complexes modulate intracellular and cell surface expression of envelope glycoproteins. Berlioz-Torrent C, et al. **J Virol** 1999 Feb;73(2):1350-61

Analysis of the effect of natural sequence variation in Tat and in cyclin T on the formation and RNA binding properties of Tat-cyclin T complexes. Bieniasz PD, et al. **J Virol** 1999 Jul;73(7):5777-86

Functional dissection of CCR5 coreceptor function through the use of CD4-independent simian immunodeficiency virus strains. Edinger AL, et al. **J Virol** 1999 May; 73(5):4062-73

Simian immunodeficiency virus and human immunodeficiency virus type 1 nef proteins show distinct patterns and mechanisms of Src kinase activation. Greenway AL, et al. **J Virol** 1999 Jul;73(7):6152-8

Coreceptor specificity of temporal variants of simian immunodeficiency virus Mne. Kimata JT, et al. **J Virol** 1999 Feb;73(2):1655-60

Primary human immunodeficiency virus type 2 (HIV-2) isolates infect CD4-negative cells via CCR5 and CXCR4: comparison with HIV-1 and simian immunodeficiency virus and relevance to cell tropism in vivo. Reeves JD, et al. **J Virol** 1999 Sep;73(9):7795-804

Interaction with the p6 domain of the gag precursor mediates incorporation into virions of Vpr and Vpx proteins from primate lentiviruses. Selig L, et al. **J Virol** 1999 Jan; 73(1):592-600

The effect of immunization on chemokines and CCR5 and CXCR4 coreceptor functions in SIV binding and chemotaxis. Wang Y, et al. **Vaccine** 1999 Apr 9; 17(15-16):1826-36

HIV and SIV gp120 binding does not predict coreceptor function. Baik SS, et al. **Virology** 1999 Jul 5;259(2):267-73

A novel kinase activity associated with Nef derived from neurovirulent simian immunodeficiency virus. Barber SA, et al. **Virology** 1998 Nov 10;251(1):165-75

Use of GPR1, GPR15, and STRL33 as coreceptors by diverse human immunodeficiency virus type 1 and simian immunodeficiency virus envelope proteins. Edinger AL, et al. **Virology** 1998 Sep 30;249(2):367-78

Early activation of mitogen-activated protein kinase kinase, extracellular signal-regulated kinase, p38 mitogen-activated protein kinase, and c-Jun N-terminal kinase in response to binding of simian immunodeficiency virus to Jurkat T cells expressing CCR5 receptor. Popik W, et al. **Virology** 1998 Dec 5;252(1):210-7

PATHOGENICITY

Viremia and AIDS in rhesus macaques after intramuscular inoculation of plasmid DNA encoding full-length SIVmac239. Liska V, et al. **AIDS Res Hum Retroviruses** 1999 Mar 20;15(5):445-50

Virus threshold determines disease in SIVsmmPBj14-infected macaques. O'Neil SP, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):183-94

In vivo cell and tissue tropism of SIVsmmPBj14-bcl.3. O'Neil SP, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20;15(2):203-15

Effect of complement consumption by cobra venom factor on the the course of primary infection with simian immunodeficiency virus in rhesus monkeys. Schmitz JE, et al. **AIDS Res Hum Retroviruses** 1999 Jan 20; 15(2):195-202

Activation of macrophages and B lymphocytes by an oligodeoxynucleotide derived from an acutely pathogenic simian immunodeficiency virus. Lapatschek MS, et al. **Antisense Nucleic Acid Drug Dev** 1998 Oct;8(5):357-70

Induction of inhibitory antibodies to the CCR5 chemokine receptor and their complementary role in preventing SIV infection in macaques. Lehner T, et al. **Eur J Immunol**

1999 Aug;29(8):2427–35
Rapid mucosal CD4(+) T-cell depletion and enteropathy in simian immunodeficiency virus–infected rhesus macaques. Kewenig S, et al. **Gastroenterology** 1999 May; 116(5):1115–23
A highly pathogenic simian/human immunodeficiency virus with genetic changes in cynomolgus monkey. Shinohara K, et al. **J Gen Virol** 1999 May;80 (Pt 5):1231–40
Mycobacterium bovis bacille Calmette-Guérin enhances pathogenicity of simian immunodeficiency virus infection and accelerates progression to AIDS in macaques: a role of persistent T cell activation in AIDS pathogenesis. Zhou D, et al. **J Immunol** 1999 Feb 15;162(4):2204–16
T cell–tropic simian immunodeficiency virus (SIV) and simian–human immunodeficiency viruses are readily transmitted by vaginal inoculation of rhesus macaques, and Langerhans' cells of the female genital tract are infected with SIV. Miller CJ, et al. **J Infect Dis** 1999 May;179 Suppl 3:S413–7
The SIV-infected rhesus monkey model for HIV-associated dementia and implications for neurological diseases. Rausch DM, et al. **J Leukoc Biol** 1999 Apr;65(4):466–74 (74 ref.)
In vitro infection of primate PBMC with simian/human immunodeficiency virus, SHIV(SF33A): correlation to in vivo outcome. Harouse JM, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):81–6
Auditory brainstem responses in a Rhesus Macaque model of neuro-AIDS. Raymond LA, et al. **J Neurovirol** 1998 Oct;4(5):512–20
Changes in human immunodeficiency virus type 1 envelope glycoproteins responsible for the pathogenicity of a multiply passaged simian–human immunodeficiency virus (SHIV-HXBc2). Cayabyab M, et al. **J Virol** 1999 Feb; 73(2):976–84
Diverse host responses and outcomes following simian immunodeficiency virus SIVmac239 infection in sooty mangabeys and rhesus macaques. Kaur A, et al. **J Virol** 1998 Dec;72(12):9597–611
Occult systemic infection and persistent simian immunodeficiency virus (SIV)-specific CD4(+)-T-cell proliferative responses in rhesus macaques that were transiently viremic after intravaginal inoculation of SIV. McChesney MB, et al. **J Virol** 1998 Dec;72(12):10029–35
Isolation and characterization of a neuropathogenic simian immunodeficiency virus derived from a sooty mangabey. Novembre FJ, et al. **J Virol** 1998 Nov;72(11):8841–51
Protective role of the virus-specific immune response for development of severe neurologic signs in simian immunodeficiency virus–infected macaques. Sopper S, et al. **J Virol** 1998 Dec;72(12):9940–7
Rhesus macaques infected with macrophage-tropic simian immunodeficiency virus (SIVmacR71/17E) exhibit extensive focal segmental and global glomerulosclerosis. Stephens EB, et al. **J Virol** 1998 Nov;72(11):8820–32
A pathogenic threshold of virus load defined in simian immunodeficiency virus- or simian–human immunodeficiency virus–infected macaques. Ten Haaft P, et al. **J Virol** 1998 Dec;72(12):10281–5
Neurovirulent simian immunodeficiency virus induces calbindin-D-28K in astrocytes. Berman NE, et al. **Mol Chem Neuropathol** 1998 May;34(1):25–38
Evolution of the fittest ends in tragedy [news; comment] Hirsch VM. **Nat Med** 1999 May;5(5):488–9. Comment on: Nat Med 1999 May;5(5):535–41.
Vpx is required for dissemination and pathogenesis of SIV(SM) PBj: evidence of macrophage-dependent viral amplification [see comments] Hirsch VM, et al. **Nat Med** 1998 Dec;4(12):1401–8. Comment in: Nat Med 1998 Dec;4(12):1368–9.
Emerging cytopathic and antigenic simian immunodeficiency virus variants influence AIDS progression [see comments] Kimata JT, et al. **Nat Med** 1999 May;5(5):535–41. Comment in: Nat Med 1999 May;5(5):488–9.
Morphological correlates of neurological dysfunction in macaques infected with neurovirulent simian immunodeficiency virus. Raghavan R, et al. **Neuropathol Appl Neurobiol** 1999 Aug;25(4):285–94
Distinct pathogenic sequela in rhesus macaques infected with CCR5 or CXCR4 utilizing SHIVs. Harouse JM, et al. **Science** 1999 Apr 30;284(5415):816–9
Macaques infected with cloned simian immunodeficiency virus show recurring nef gene alterations. Heidecker G, et al. **Virology** 1998 Sep 30;249(2):260–74
Induction of fas ligand expression by an acutely lethal simian immunodeficiency virus, SIVsmmPBj14. Hodge S, et al. **Virology** 1998 Dec 20;252(2):354–63
Selection of the R17Y substitution in SIVmac239 nef coincided with a dramatic increase in plasma viremia and rapid progression to death. Kirchhoff F, et al. **Virology** 1999 Feb 1;254(1):61–70
Derivation and biological characterization of a molecular clone of SHIV(KU-2) that causes AIDS, neurological disease, and renal disease in rhesus macaques. Liu ZQ, et al. **Virology** 1999 Aug 1;260(2):295–307
Importance of the intracytoplasmic domain of the simian immunodeficiency virus (SIV) envelope glycoprotein for pathogenesis. Luciw PA, et al. **Virology** 1998 Dec 5; 252(1):9–16
Viral burden and disease progression in rhesus monkeys infected with chimeric simian–human immunodeficiency viruses. Reimann KA, et al. **Virology** 1999 Mar 30; 256(1):15–21
Pathogenicity and comparative evolution in vivo of the transitional quasispecies SIVsmmPBj8. Tao B, et al. **Virology** 1999 Jun 20;259(1):166–75

PHYSIOLOGY

Simple and choice reaction time performance in SIV-infected rhesus macaques. Marcario JK, et al. **AIDS Res Hum Retroviruses** 1999 Apr 10;15(6):571–83
Phenotypic changes in peripheral blood monocytes of cynomolgus monkeys acutely infected with simian immunodeficiency virus. Otani I, et al. **AIDS Res Hum Retroviruses** 1998 Sep 1;14(13):1181–6
Pathogenesis of simian immunodeficiency virus pneumonia: an immunopathological response to virus. Mankowski JL, et al. **Am J Pathol** 1998 Oct;153(4):1123–30
Control mechanisms of virus replication in naturally SIVsmm infected mangabeys and experimentally infected macaques. Villinger F, et al. **Immunol Lett** 1999 Mar;66(1–3):37–46
Association of simian immunodeficiency virus Nef with the T-cell receptor (TCR) zeta chain leads to TCR down-modulation. Bell I, et al. **J Gen Virol** 1998 Nov;79 (Pt 11):2717–27
Replication capacity of simian immunodeficiency virus in cultured macaque macrophages and dendritic cells is not prerequisite for intravaginal transmission of the virus in macaques. Enose Y, et al. **J Gen Virol** 1999 Apr;80 (Pt 4):847–55
Emergence of CTL coincides with clearance of virus during primary simian immunodeficiency virus infection in rhesus monkeys. Kuroda MJ, et al. **J Immunol** 1999 May 1; 162(9):5127–33
Expression and in vitro evaluation of rhesus macaque wild type (wt) and modified CC chemokines. Bostik P, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):113–20
Longitudinal analysis of behavioral, neurophysiological, viral and immunological effects of SIV infection in rhesus monkeys. Gold LH, et al. **J Med Primatol** 1998 Apr–Jun; 27(2–3):104–12
Dendritic cells from skin and blood of macaques both promote SIV replication with T cells from different anatomical sites. Ignatius R, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):121–8
In vitro HIV-1 infection in Macaca nemestrina PBMCs is blocked at a step beyond reverse transcription. Kimball LE, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):99–103
SIVrcm infection of macaques. Smith SM, et al. **J Med Primatol** 1998 Apr–Jun;27(2–3):94–8
Down-modulation of the ZAP-70 protein tyrosine kinase in macaque T lymphocytes infected with SIVsmmPBj14. Thai TH, et al. **J Med Primatol** 1998 Apr–Jun; 27(2–3):141–7
Induction of AIDS in rhesus monkeys by a recombinant simian immunodeficiency virus expressing nef of human immunodeficiency virus type 1. Alexander L, et al. **J Virol** 1999 Jul;73(7):5814–25
Efficiency and fidelity of full-site integration reactions using recombinant simian immunodeficiency virus integrase. Goodarzi G, et al. **J Virol** 1999 Oct;73(10):8104–11
Effects of soluble CD4 on simian immunodeficiency virus infection of CD4-positive and CD4-negative cells. Schenten D, et al. **J Virol** 1999 Jul;73(7):5373–80
Simian immunodeficiency virus disease course is predicted by the extent of virus replication during primary infection. Staprans SI, et al. **J Virol** 1999 Jun;73(6):4829–39
Intracellular interaction of simian immunodeficiency virus Gag and Env proteins. Vincent MJ, et al. **J Virol** 1999 Oct;73(10):8138–44
Persistent infection of rhesus macaques by the rev-independent Nef(–) simian immunodeficiency virus SIVmac239: replication kinetics and genomic stability. von Gegerfelt AS, et al. **J Virol** 1999 Jul;73(7):6159–65
Rapid clearance of simian immunodeficiency virus particles from plasma of rhesus macaques. Zhang L, et al. **J Virol** 1999 Jan;73(1):855–60
Rapid infection of oral mucosal-associated lymphoid tissue with simian immunodeficiency virus. Stahl-Hennig C, et al. **Science** 1999 Aug 20;285(5431):1261–5
The gut-associated lymphoid tissue: a major site of HIV replication and CD4 cell loss. Kraehenbuhl JP. **Trends Microbiol** 1998 Nov;6(11):419–20; discussion 420–1
The acidic region and conserved putative protein kinase C phosphorylation site in Nef are important for SIV replication in rhesus macaques. Carl S, et al. **Virology** 1999 Apr 25;257(1):138–55
Dissemination of SIV after rectal infection preferentially involves paracolic germinal centers. Couëdel-Courteille A, et al. **Virology** 1999 Aug 1;260(2):277–94
Chemokine and orphan receptors in HIV-2 and SIV tropism and pathogenesis. Edinger AL, et al. **Virology** 1999 Aug 1;260(2):211–21 (129 ref.)
Induction of fas ligand expression by an acutely lethal simian immunodeficiency virus, SIVsmmPBj14. Hodge S, et al. **Virology** 1998 Dec 20;252(2):354–63
Replication and budding of simian immunodeficiency virus in polarized epithelial cells. Huang YT, et al. **Virology** 1999 Apr 25;257(1):24–34
Inhibition of HIV/SIV replication by dominant negative Gag mutants. Shimano R, et al. **Virus Genes** 1999;18(3):197–201
[Astrocytes and lentivirus infection in an experimental models of macaque infected with SIVmac251] Guillemin G, et al. **C R Seances Soc Biol Fil** 1998;192(1):179–86 (Eng. Abstr.) **(Fre)**

SIV VACCINE see **SAIDS VACCINES**

SIV-1 see **SIV**

SIV-2 see **SIV**

16TH CENT. HISTORY see **HISTORY OF MEDICINE, 16TH CENT.**

16TH CENT. HISTORY (MEDICINE) see **HISTORY OF MEDICINE, 16TH CENT.**

16TH CENT. MEDICINE see **HISTORY OF MEDICINE, 16TH CENT.**

SIXTH CRANIAL NERVE see **ABDUCENS NERVE**

SIXTH DISEASE see **EXANTHEMA SUBITUM**

SIZE PERCEPTION

Stimulus size scaling and foveal load as determinants of peripheral target detection. Chan HS, et al. **Ergonomics** 1998 Oct;41(10):1433–52
Children with autism show local precedence in a divided attention task and global precedence in a selective attention task. Plaisted K, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):733–42
Perceptual independence of size and weight by dynamic touch. Amazeen EL. **J Exp Psychol Hum Percept Perform** 1999 Feb;25(1):102–19
Speed, size, and edge-rate information for the detection of collision events. Andersen GJ, et al. **J Exp Psychol Hum Percept Perform** 1999 Feb;25(1):256–69
Size constancy and angular size matching in size perception of near objects. Koh LH, et al. **Optom Vis Sci** 1999 Apr; 76(4):241–6
Threshold effect in visual perception of geometrical figures. Di Maio V. **Percept Mot Skills** 1998 Aug;87(1):340–2 (9 ref.)
The pictorial context dependency of savant artists: a research note. Hermelin B, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):995–1001
Stimulus size and eccentricity in visually induced perception of horizontally translational self-motion. Nakamura S, et al. **Percept Mot Skills** 1998 Oct;87(2):659–63
Similarity of the perimeters in the Ebbinghaus illusion. Choplin JM, et al. **Percept Psychophys** 1999 Jan;61(1):3–12
Estimation of height for persons in pictures. Kato K, et al. **Percept Psychophys** 1998 Nov;60(8):1318–28
The use of time and trajectory forms as visual information about spatial scale in events. McConnell DS, et al. **Percept Psychophys** 1998 Oct;60(7):1175–87
Symmetry and elongation of objects influence perceived direction of translational motion. Morikawa K. **Percept Psychophys** 1999 Jan;61(1):134–43
Subjective staircase: a multiple wallpaper illusion. Nakamizo S, et al. **Percept Psychophys** 1999 Jan;61(1):13–22
The asynchronous discrete coding model: further tests with single-attribute stimuli. Trevena JA, et al. **Percept Psychophys** 1998 Nov;60(8):1344–56
The interaction of binocular disparity and motion parallax in determining perceived depth and perceived size. Bradshaw MF, et al. **Perception** 1998;27(11):1317–31
Close encounters--an artist shows that size affects shape. Pelli DG. **Science** 1999 Aug 6;285(5429):844–6

PHYSIOLOGY

Tolerances of responses to visual patterns in neurons of the posterior inferotemporal cortex in the macaque against changing stimulus size and orientation, and deleting patterns. Hikosaka K. **Behav Brain Res** 1999 Apr; 100(1–2):67–76
Selective horizontal dysmetropsia following prestriate lesion. Frassinetti F, et al. **Brain** 1999 Feb;122 (Pt 2):339–50
Early fraction calculation ability. Mix KS, et al. **Dev Psychol** 1999 Jan;35(1):164–74
The effect of mental workload on the visual field size and shape. Rantanen EM, et al. **Ergonomics** 1999 Jun; 42(6):816–34
The size–distance paradox is a cognitive phenomenon. Mon-Williams M, et al. **Exp Brain Res** 1999 Jun; 126(4):578–82
Limits of the dual-strategy hypothesis in an isometric plantar flexion contraction. Monohar VJ, et al. **Exp Brain Res** 1998 Oct;122(4):459–66
Aging and the scope of visual attention. Kosslyn SM, et al. **Gerontology** 1999;45(2):102–9
Sequential priming in hierarchically organized figures: effects of target level and target resolution. Kim N, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):715–29
Using eye height in different postures to scale the heights of objects. Wraga M. **J Exp Psychol Hum Percept Perform** 1999 Apr;25(2):518–30
On the interaction of numerical and size information in digit comparison: a behavioral and event-related potential study. Schwarz W, et al. **Neuropsychologia** 1998 Nov; 36(11):1167–79
Haptic estimates of discordant visual–haptic size vary developmentally. Misceo GF, et al. **Percept Psychophys** 1999 May;61(4):608–14
Size-disparity correlation in human binocular depth

perception. Prince SJ, et al.
Proc R Soc Lond B Biol Sci 1999 Jul 7;266(1426):1361–5
Neural gain changes subserving perceptual acuity. Jones LF, et al. **Somatosens Mot Res** 1998;15(3):190–9
Perceived distance, shape and size. Brenner E, et al.
Vision Res 1999 Mar;39(5):975–86
Context-dependent changes in visual sensitivity induced by Müller-Lyer stimuli. Dragoi V, et al. **Vision Res** 1999 May; 39(9):1657–70
[Sensory receptors on oral thickness sensation] Uchida M.
Kokubyo Gakkai Zasshi 1999 Mar;66(1):1–7 (Eng. Abstr.) **(Jpn)**

SIZOFIRAN

CHEMISTRY

Cytokine synthesis of human monocytes stimulated by triple or single helical conformer of an antitumour (1-->3)-beta-D-glucan preparation, sonifilan. Hirata N, et al. **Zentralbl Bakteriol** 1998 Nov;288(3):403–13

PHARMACOLOGY

Increase of hematopoietic responses by triple or single helical conformer of an antitumor (1-->3)-beta-D-glucan preparation, Sonifilan, in cyclophosphamide-induced leukopenic mice. Tsuzuki A, et al.
Biosci Biotechnol Biochem 1999 Jan;63(1):104–10
Immune reaction induced by X-rays and pions and its stimulation by schizophyllan (SPG). Inomata T, et al.
Br J Cancer Suppl 1996 Jul;27:S122–5
Cytokine synthesis of human monocytes stimulated by triple or single helical conformer of an antitumour (1-->3)-beta-D-glucan preparation, sonifilan. Hirata N, et al. **Zentralbl Bakteriol** 1998 Nov;288(3):403–13

SJOGREN-LARSSON SYNDROME

DIAGNOSIS

Sjögren–Larsson syndrome: early diagnosis, dietary management and biochemical studies in two cases. Taube B, et al. **Dermatology** 1999;198(4):340–5
Congenital synspondylism: diagnostic features. Lalonde F, et al. **J Pediatr Orthop** 1999 Sep-Oct;19(5):613–6
SLS or not SLS. Sjögren–Larsson syndrome [letter; comment] Jagell S. **Pediatr Neurol** 1998 Nov;19(5):399. Comment on: Pediatr Neurol 1998 Apr;18(4):338–41.

DIET THERAPY

Sjögren–Larsson syndrome: early diagnosis, dietary management and biochemical studies in two cases. Taube B, et al. **Dermatology** 1999;198(4):340–5

ENZYMOLOGY

Molecular basis of Sjögren–Larsson syndrome: frequency of the 1297–1298 del GA and 943C-->T mutation in 29 patients. Ijlst L, et al. **J Inherit Metab Dis** 1999 May; 22(3):319–21

GENETICS

Further evidence of genetic homogeneity in Sjögren–Larsson syndrome. Pigg M, et al. **Acta Derm Venereol** 1999 Jan; 79(1):41–3
Spectrum of mutations and sequence variants in the FALDH gene in patients with Sjögren–Larsson syndrome. Sillén A, et al. **Hum Mutat** 1998;12(6):377–84
A novel 4 bp deletion mutation in the FALDH gene segregating in a Turkish family with Sjögren–Larsson syndrome [letter] Willemsen MA, et al.
J Invest Dermatol 1999 May;112(5):827–8

PATHOLOGY

Sjögren–Larsson syndrome: sporadic case of the disease in a boy 8 years of age. Yamaguchi K. **Clin Neuropathol** 1998 Nov-Dec;17(6):297–304
Incomplete Sjögren–Larsson syndrome in two Japanese siblings. Kawakami T, et al. **Dermatology** 1999;198(1):93–6
A case of Sjögren–Larsson syndrome [letter] Saricaoglu H, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):76–8
Sjögren–Larsson syndrome: clinical and MRI/MRS findings in FALDH-deficient patients [see comments] van Domburg PH, et al. **Neurology** 1999 Apr 22;52(7):1345–52 . Comment in: Neurology 1999 Apr 22;52(7):1307–8.

PHYSIOPATHOLOGY

Sjögren–Larsson syndrome: explaining the skin–brain connection. [editorial; comment] Rizzo WB. **Neurology** 1999 Apr 22;52(7):1307–8. Comment on: Neurology 1999 Apr 22;52(7):1345–52.

THERAPY

Congenital synspondylism: diagnostic features. Lalonde F, et al. **J Pediatr Orthop** 1999 Sep-Oct;19(5):613–6

SJOGREN'S SYNDROME

see related
KERATOCONJUNCTIVITIS SICCA

Autologous PBPCT in a patient with lymphoma and Sjögren's syndrome: complete remission of lymphoma without control of the autoimmune disease. Rösler W, et al. **Bone Marrow Transplant** 1998 Jul;22(2):211–3
Sjögren's syndrome complicated by MPO-ANCA positive crescentic glomerulonephritis [letter] Kamachi M, et al. **Nephrol Dial Transplant** 1999 Apr;14(4):1033–4
Sjögren's syndrome comes of age [editorial] Anaya JM, et al. **Semin Arthritis Rheum** 1999 Jun;28(6):355–9 (29 ref.)
[Sjögren's syndrome] Yoshida S. **Nippon Rinsho** 1999 Feb; 57(2):360–3 (5 ref.) (Eng. Abstr.) **(Jpn)**
[A competence center for Sjogren's syndrome--an example to be followed] Førre O. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4195 **(Nor)**

BLOOD

Ro/SS-A-reactive B lymphocytes in salivary glands and peripheral blood of patients with Sjögren's syndrome. Halse A, et al. **Clin Exp Immunol** 1999 Jan;115(1):203–7
Ro/SS-A- and La/SS-B-reactive B lymphocytes in peripheral blood of patients with Sjögren's syndrome. Halse A, et al. **Clin Exp Immunol** 1999 Jan;115(1):208–13
Primary Sjögren's syndrome in children and adolescents: proposal for diagnostic criteria. Bartuňková J, et al.
Clin Exp Rheumatol 1999 May-Jun;17(3):381–6
Circulating soluble CD30 levels in primary Sjögren's syndrome, SLE and rheumatoid arthritis [letter] Ichikawa Y, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):759–60
Serum soluble Fas/APO-1 is increased in patients with primary Sjögren's syndrome. Fujihara T, et al.
Clin Rheumatol 1998;17(6):496–9
Relevance of complement fixing antinuclear antibodies. Fang YV, et al. **Int J Dermatol** 1999 Feb;38(2):96–100
Abnormal DNA damage-inducible protein in cells from Sjögren's syndrome patients. Lavasani S, et al.
J Autoimmun 1998 Aug;11(4):363–9
Kininogen-kallikrein-kinin system in plasma and saliva of patients with Sjögren's syndrome. Hernández CC, et al. **J Rheumatol** 1998 Dec;25(12):2381–4
Reduced 25-hydroxyvitamin D levels in primary Sjögren's syndrome. Correlations to disease manifestations. Bang B, et al. **Scand J Rheumatol** 1999;28(3):180–3

CLASSIFICATION

Essential fatty acid status in cell membranes and plasma of patients with primary Sjogren's syndrome. Correlations to clinical and immunologic variables using a new model for classification and assessment of disease manifestations. Oxholm P, et al.
Prostaglandins Leukot Essent Fatty Acids 1998 Oct; 59(4):239–45
The influence of age on disease manifestations and serological characteristics in primary Sjögren's syndrome. Haga HJ, et al. **Scand J Rheumatol** 1999;28(4):227–32
[Diagnostic criteria of Sjögren syndrome] Ceraulo S, et al.
Minerva Stomatol 1999 Mar;48(3):79–85 (27 ref.) (Eng. Abstr.) **(Ita)**

COMPLICATIONS

Ischemic choroidopathy in primary Sjögren's syndrome. Rapoport P, et al. **Acta Ophthalmol Scand** 1998 Oct; 76(5):627–8
Estrogen deficiency accelerates autoimmune exocrinopathy in murine Sjögren's syndrome through fas-mediated apoptosis. Ishimaru N, et al. **Am J Pathol** 1999 Jul; 155(1):173–81
Androgens and dry eye in Sjögren's syndrome. Sullivan DA, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:312–24 (111 ref.)
Complete heart block caused by primary Sjögren's syndrome and hypopituitarism [letter] Baumgart DC, et al.
Ann Rheum Dis 1998 Oct;57(10):635
Unable to see the wood for the trees. Elkayam O, et al.
Ann Rheum Dis 1998 Jul;57(7):390–2
Treatment of oral dryness related complaints (xerostomia) in Sjögren's syndrome. van der Reijden WA, et al.
Ann Rheum Dis 1999 Aug;58(8):465–74 (115 ref.)
Lymphoma development in Sjögren's syndrome: novel p53 mutations. Tapinos NI, et al. **Arthritis Rheum** 1999 Jul; 42(7):1466–72
Malignant lymphoma in primary Sjögren's syndrome: a multicenter, retrospective, clinical study by the European Concerted Action on Sjögren's Syndrome. Voulgarelis M, et al. **Arthritis Rheum** 1999 Aug;42(8):1765–72
Lymphocytic autoimmune hidradenitis, cutaneous leucocytoclastic vasculitis and primary Sjögren's syndrome. Sais G, et al. **Br J Dermatol** 1998 Dec; 139(6):1073–6
Much more than water [editorial; comment] Nelson JD.
Br J Ophthalmol 1999 Apr;83(4):384–5. Comment on: Br J Ophthalmol 1999 Apr;83(4):390–5.
Treatment of dry eye by autologous serum application in Sjögren's syndrome [see comments] Tsubota K, et al.
Br J Ophthalmol 1999 Apr;83(4):390–5. Comment in: Br J Ophthalmol 1999 Apr;83(4):384–5.
Clinical manifestations and immunological features of primary Sjögren's syndrome with liver involvement: analysis of thirty cases. Zhang Z, et al.
Chin Med J (Engl) 1998 Mar;111(3):220–3
Pulmonary manifestations of Sjögren's syndrome. Cain HC, et al. **Clin Chest Med** 1998 Dec;19(4):687–99, viii (80 ref.)
Apoptosis in labial salivary glands from Sjögren's syndrome (SS) patients: comparison with human T lymphotropic virus-I (HTLV-I)-seronegative and -seropositive SS patients. Nakamura H, et al. **Clin Exp Immunol** 1998 Oct; 114(1):106–12
Lack of Fas and Fas-L mutations in patients with lymphoproliferative disorders associated with Sjögren's syndrome and type II mixed cryoglobulinemia. Bertolo F, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):339–42
Outcome assessment in patients with primary Sjögren's syndrome [letter] Oxholm P, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):627–8 (7 ref.)
Systemic lupus erythematosus and tracheal stenosis. Zerai A, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):42
Neurological involvement in primary Sjögren's syndrome: clinical and instrumental evaluation in a cohort of Italian patients. Govoni M, et al. **Clin Rheumatol** 1999; 18(4):299–303
Prophylactic antibiotics in recurrent parotitis in a patient with Sjogren's syndrome. Stein M, et al. **Clin Rheumatol** 1999; 18(2):163–4
The association between ocular cicatricial pemphigoid and rheumatoid arthritis. Olsen KE, et al. **Cornea** 1998 Sep; 17(5):504–7
Guess what! Cutaneous sarcoidosis, Sjögren's syndrome and autoimmune thyroiditis associated with hepatitis C virus infection. Belgodere X, et al. **Eur J Dermatol** 1999 Apr-May;9(3):235–6
Catastrophic hypoadrenalism in a case of Sjögren's syndrome. Chakravarty K, et al. **Int J Clin Pract** 1998 Sep; 52(6):441–2
Pseudogout attack associated with chronic thyroiditis and Sjögren's syndrome. Hama Y, et al. **Intern Med** 1999 Jan; 38(1):59–62 (18 ref.)
Hypokalaemic paralysis revealing Sjögren syndrome in an elderly man. al-Jubouri MA, et al. **J Clin Pathol** 1999 Feb; 52(2):157–8
Extrahepatic manifestations of chronic hepatitis C infection and the interrelationship between primary Sjögren's syndrome and hepatitis C in Swedish patients. Verbaan H, et al. **J Intern Med** 1999 Feb;245(2):127–32
Sjögren's syndrome with acute renal failure. Kwon YJ, et al. **J Korean Med Sci** 1998 Dec;13(6):665–9 (14 ref.)
Bilateral and multicystic major salivary gland disease: a rare presentation of primary Sjögren's syndrome. Ahmad I, et al. **J Laryngol Otol** 1998 Dec;112(12):1196–8 (17 ref.)
HTLV-I-associated myelopathy associated with multi-organ inflammatory disease: a case report. Furuya T, et al.
J Neurol Sci 1998 Apr 15;157(1):109–12
The prevalence of hyperprolactinemia in patients with primary Sjögren's syndrome. Haga HJ, et al.
J Rheumatol 1999 Jun;26(6):1291–5
Serological screening for hepatitis B and C and human herpesvirus 6 in Norwegian patients with primary Sjögren's syndrome [letter] Iakimtchouk K, et al. **J Rheumatol** 1999 Sep;26(9):2065–6
Myocarditis and primary Sjögren's syndrome [letter] Levin MD, et al. **Lancet** 1999 Jul 10;354(9173):128–9
Anaplastic large cell lymphoma associated with Sjögren's syndrome. Inaba H, et al. **Leuk Lymphoma** 1998 Dec; 32(1-2):183–8
Lymphomas in patients with Sjögren's syndrome: review of the literature and physiopathologic hypothesis. Mariette X. **Leuk Lymphoma** 1999 Mar;33(1-2):93–9 (49 ref.)
Primary Sjögren's syndrome in the elderly: clinical and immunological characteristics. García-Carrasco M, et al. **Lupus** 1999;8(1):20–3
Autonomic failure and proximal skeletal myopathy in a patient with primary Sjögren syndrome. Sorajja P, et al. **Mayo Clin Proc** 1999 Jul;74(7):695–7
Dystonia; a central nervous system presentation of Sjögren's syndrome. van den Berg JS, et al. **Mov Disord** 1999 Mar; 14(2):374–5
Parkinsonism associated with Sjögren's syndrome: three cases and a review of the literature. Walker RH, et al.
Mov Disord 1999 Mar;14(2):262–8 (40 ref.)
Severe hypokalaemia and respiratory arrest due to renal tubular acidosis in a patient with Sjögren syndrome. Ohtani H, et al. **Nephrol Dial Transplant** 1999 Sep;14(9):2201–3
Crescentic glomerulonephritis associated with membranous nephropathy in a case with primary Sjögren's syndrome. Tatsumi H, et al. **Nephrol Dial Transplant** 1998 Oct; 13(10):2624–7
The diversity of peripheral nervous system disorders in Sjögren's syndrome [editorial; comment] van Dijk GW, et al. **Neth J Med** 1998 Nov;53(5):193–5 (16 ref.). Comment on: Neth J Med 1998 Nov;53(5):196–200.
Topical nonpreserved methylprednisolone therapy for keratoconjunctivitis sicca in Sjögren syndrome. Marsh P, et al. **Ophthalmology** 1999 Apr;106(4):811–6
Lung adenocarcinoma in lymphocytic interstitial pneumonitis associated with primary Sjögren's syndrome. Takabatake N, et al. **Respirology** 1999 Jun;4(2):181–4
Concomitant ankylosing spondylitis and Sjögren's syndrome in three patients [letter; comment] Trèves R, et al.
Rev Rhum Engl Ed 1998 Dec;65(12):801. Comment on: Rev Rhum Engl Ed 1998 Jun;65(6):434–6.
An uncommon association: Sjögren's syndrome and autoimmune myelofibrosis [letter] Marie I, et al.
Rheumatology (Oxford) 1999 Apr;38(4):370–1
A case of mixed monoclonal cryoglobulinemia leading to the diagnosis of lymphoma in a patient with primary Sjögren's syndrome [letter] García-Porrúa C, et al.

Scand J Rheumatol 1998;27(5):385–6

Caries and periodontal conditions in patients with primary Sjögren's syndrome. Ravald N, et al. **Swed Dent J** 1998; 22(3):97–103

[Renal involvement in primary Sjögren's syndrome: a clinicopathological study of 26 cases] Yang J, et al. **Chung Hua Nei Ko Tsa Chih** 1997;36(1):28–31 (Eng. Abstr.) **(Chi)**

[Gougerot-Sjögren syndrome. Neurologic complications] Amoura Z, et al. **Presse Med** 1999 Jun 19;28(22):1209–13 (64 ref.) (Eng. Abstr.) **(Fre)**

[Gougerot-Sjögren syndrome. Risk of lymphoma] Mariette X. **Presse Med** 1999 Jun 19;28(22):1214–8 (Eng. Abstr.) **(Fre)**

[Thyroid lymphoma and Gougerot-Sjögren syndrome (letter)] Coutant G, et al. **Rev Med Interne** 1999 Apr; 20(4):374–5 **(Fre)**

[Frequency of autoimmune diseases in 218 patients with autoimmune thyroid pathologies] Gaches F, et al. **Rev Med Interne** 1998 Mar;19(3):173–9 (Eng. Abstr.) **(Fre)**

[Gougerot-Sjögren syndrome and malignant lymphoproliferative syndromes] Grosbois B, et al. **Rev Med Interne** 1998 May;19(5):319–24 (52 ref.) (Eng. Abstr.) **(Fre)**

[Central nervous system symptoms of Gougerot-Sjögren syndrome] Guillevin L. **Rev Med Interne** 1998;19 Suppl 1:35S–38S (10 ref.) **(Fre)**

[Neurologic manifestations of primary Gougerot-Sjögren syndrome] Lafitte C. **Rev Neurol (Paris)** 1998 Oct; 154(10):658–73 (113 ref.) (Eng. Abstr.) **(Fre)**

[Cachexia due to Sjögren's syndrome] Genth E. **Dtsch Med Wochenschr** 1998 Dec 4;123(49):1499 **(Ger)**

[Primary Sjögren's syndrome and glomerulonephritis] Tholl U, et al. **Dtsch Med Wochenschr** 1998 Dec 18; 123(51–52):1541–6 (Eng. Abstr.) **(Ger)**

[Pancreatic duct antibodies and subclinical insufficiency of the exocrine pancreas in Sjögren's syndrome] D'Ambrosi A, et al. **Recenti Prog Med** 1998 Oct;89(10):504–9 (Eng. Abstr.) **(Ita)**

[Mucosa-associated lymphoid tissue lymphoma with Sjögren's syndrome] Saku N, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Apr;37(4):302–6 (Eng. Abstr.) **(Jpn)**

[Primary Sjögren's syndrome with pulmonary hypertension] Usui K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 May; 36(5):478–81 (Eng. Abstr.) **(Jpn)**

[Peripheral neuropathy and dysautonomia in a patient with primary Sjögren's syndrome] Chikazawa H, et al. **Nihon Rinsho Meneki Gakkai Kaishi** 1998 Feb;21(1):57–63 (Eng. Abstr.) **(Jpn)**

[Case of retroperitoneal fibrosis exhibiting a variety of auto-antibodies and complicated by Sjogren's syndrome] Sakamoto K, et al. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2319–21 **(Jpn)**

[Relationship between primary Sjögren's syndrome and autoimmune thyroid disease] Kohriyama K, et al. **Nippon Rinsho** 1999 Aug;57(8):1878–81 (18 ref.) (Eng. Abstr.) **(Jpn)**

[A case of Sjogren syndrome with mass forming pancreatitis] Arako M, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Sep;95(9):1042–6 **(Jpn)**

[A case of primary Sjögren's syndrome presenting with aseptic meningoencephalitis associated with sarcoidosis] Nishida H, et al. **No To Shinkei** 1999 Apr;51(4):349–52 (Eng. Abstr.) **(Jpn)**

[Multifocal nodular AL amyloidosis in primary Sjögren's syndrome] Kanoh T, et al. **Rinsho Ketsueki** 1998 Dec; 39(12):1157–62 (Eng. Abstr.) **(Jpn)**

[A case of primary Sjögren's syndrome accompanied by transverse myelitis] Kaneko Y, et al. **Ryumachi** 1998 Aug; 38(4):600–4 (13 ref.) (Eng. Abstr.) **(Jpn)**

[A case of Sjögren's syndrome associated with advanced hemolytic anemia caused by worsening autoimmune cholangiopathy] Yamanouchi J, et al. **Ryumachi** 1998 Aug; 38(4):595–9 (Eng. Abstr.) **(Jpn)**

[MALT lymphoma of the parotid gland associated with Sjögren syndrome. A case report and review of literature] Damborenea Tajada J, et al. **Acta Otorrinolaringol Esp** 1998 Oct;49(7):595–8 (23 ref.) (Eng. Abstr.) **(Spa)**

[A 64-year-old woman with primary Sjögren syndrome and multiple bilateral pulmonary opacities (clinical conference)] Olivé A, et al. **Med Clin (Barc)** 1998 Oct 17;111(12):471–7 **(Spa)**

[Sjögren syndrome and subacute demyelinating polyradiculopathy: an unusual association] Landete L, et al. **Rev Neurol** 1998 Dec;27(160):995–7 (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Multiple myeloma presenting as Sjogren's syndrome [letter] Fadilah SA, et al. **Am J Hematol** 1999 Jul;61(3):217–8

Diffuse infiltrative lymphocytosis syndrome in a patient with anti-52-kd Ro/SSA and human immunodeficiency virus type 1. Hansen A, et al. **Arthritis Rheum** 1999 Mar; 42(3):578–80

Lumping or splitting autoimmune rheumatic disorders? Lessons from Sjögren's syndrome [editorial] Moutsopoulos HM, et al. **Br J Rheumatol** 1998 Dec;37(12):1263–4

Primary Sjögren's syndrome in children and adolescents: proposal for diagnostic criteria. Bartuňková J, et al. **Clin Exp Rheumatol** 1999 May–Jun;17(3):381–6

Current issues in the diagnosis and treatment of Sjögren's syndrome. Fox RI, et al. **Curr Opin Rheumatol** 1999 Sep; 11(5):364–71 (88 ref.)

Evolving concepts of diagnosis, pathogenesis, and therapy of Sjögren's syndrome. Fox RI, et al. **Curr Opin Rheumatol** 1998 Sep;10(5):446–56 (139 ref.)

Primary Sjögren's syndrome (pSS): subjective symptoms and salivary findings. Pedersen AM, et al. **J Oral Pathol Med** 1999 Aug;28(7):303–11

Low prevalence of clinicopathologic and sialographic changes in salivary glands of men with Sjögren's syndrome. Saito T, et al. **J Oral Pathol Med** 1999 Aug;28(7):312–6

Sjögren's syndrome: a critical review of clinical management. Bell M, et al. **J Rheumatol** 1999 Sep;26(9):2051–61 (31 ref.)

Reliability and sensitivity of diagnostic tests for primary Sjögren's syndrome. Haga HJ, et al. **J Rheumatol** 1999 Mar; 26(3):604–8

Primary Sjögren's syndrome presenting as autonomic neuropathy. Case report [see comments] Barendregt PJ, et al. **Neth J Med** 1998 Nov;53(5):196–200. Comment in: Neth J Med 1998 Nov;53(5):193–5.

Hypertrophic cranial pachymeningitis and lymphocytic hypophysitis in Sjögren's syndrome. Li JY, et al. **Neurology** 1999 Jan 15;52(2):420–3

Primary sialoangiectasia--a diagnostic pitfall in Sjögren's syndrome: case report. Kalk WW, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):568–71

Validity of the saliva ferning test for the diagnosis of dry mouth in Sjögren's syndrome. el-Miedany YM, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):73–8

Sicca syndrome in patients with sarcoidosis. Drosos AA, et al. **Rheumatol Int** 1999;18(5–6):177–80

Coexisting Sjögren's syndrome and sarcoidosis in the lung. Lois M, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):31–40

[Evaluation of parotid sialography and labial salivary gland biopsy to the diagnosis of Sjögren syndrome] Du D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Dec;19(6):447–50 (Eng. Abstr.) **(Chi)**

[The value of salivary beta 2 microglobulin concentration for diagnosis of Sjögren's syndrome] Du D, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):72–4 (Eng. Abstr.) **(Chi)**

[Primary Gougerot-Sjögren syndrome in a young man (letter)] Graffin B, et al. **Presse Med** 1999 Feb 20;28(7):338 **(Fre)**

[Gougerot-Sjögren syndrome. Diagnostic criteria and therapeutic methods] Kaplan G. **Presse Med** 1999 Jun 19; 28(22):1202–8 (49 ref.) (Eng. Abstr.) **(Fre)**

[Oases in the desert...] Girard T, et al. **Rev Med Interne** 1999; 20 Suppl 2:246s–250s **(Fre)**

[Neurological involvement in primary Gougerot Sjögren syndrome: a case study] Ben Hamouda I, et al. **Tunis Med** 1998 Feb;76(2):1081–4 (Eng. Abstr.) **(Fre)**

[Sjögren syndrome and bilateral MALT lymphoma of the parotid gland] Klussmann JP, et al. **HNO** 1999 Jul; 47(7):637–41 (Eng. Abstr.) **(Ger)**

[Saliva production in patients with diffuse lung disease] Kurumagawa T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jun;37(6):443–8 (Eng. Abstr.) **(Jpn)**

[Diagnosis and treatment of Sjogren's syndrome] Sagawa A. **Nippon Naika Gakkai Zasshi** 1999 Mar 10;88(3):490–3 (8 ref.) **(Jpn)**

[A case of primary Sjögren's syndrome with CNS disease mimicking chronic progressive multiple sclerosis] Watanabe S, et al. **Rinsho Shinkeigaku** 1998 Jul; 38(7):658–62 (25 ref.) (Eng. Abstr.) **(Jpn)**

[Comparative sonographic, x-ray and morphological studies of the salivary glands in Sjögren's syndrome] Varshavskil AI, et al. **Ter Arkh** 1999;71(5):61–7 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Five-year efficacy of intravenous gammaglobulin to treat dysautonomia in Sjögren's syndrome [letter] Dupond JL, et al. **Am J Med** 1999 Jan;106(1):125

Corticosteroid irrigation of parotid gland for treatment of xerostomia in patients with Sjögren's syndrome. Izumi M, et al. **Ann Rheum Dis** 1998 Aug;57(8):464–9

Hydroxychloroquine treatment for primary Sjögren's syndrome: its effect on salivary and serum inflammatory markers. Tishler M, et al. **Ann Rheum Dis** 1999 Apr; 58(4):253–6

Successful treatment of Sjögren's syndrome with cyclophosphamide pulse therapy: report of one case. Chu SM, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1998 Jul–Aug;39(4):268–70

Rational drug therapy recommendations for the treatment of patients with Sjögren's syndrome. Oxholm P, et al. **Drugs** 1998 Sep;56(3):345–53 (35 ref.)

Botulinum toxin increases tearing in patients with Sjögren's syndrome: a preliminary report [letter; comment] Francis IC, et al. **J Rheumatol** 1998 Sep;25(9):1859. Comment on: J Rheumatol 1997 Sep;24(9):1842–3.

D-penicillamine treatment for chronic sensory ataxic neuropathy associated with Sjögren's syndrome. Asahina M, et al. **Neurology** 1998 Nov;51(5):1451–3

Improvement of myelopathy in Sjögren's syndrome with chlorambucil and prednisone therapy. Wright RA, et al. **Neurology** 1999 Jan 15;52(2):386–8

Sjögren's syndrome in mice carrying the Ipr(cg) gene and the therapeutic efficacy of an immunosuppressive agent FK506. Yang J, et al. **Pathol Int** 1999 Feb;49(2):133–40

Zidovudine in primary Sjögren's syndrome. Steinfeld SD, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):814–7

The use of oral pilocarpine in xerostomia and Sjögren's syndrome. Nusair S, et al. **Semin Arthritis Rheum** 1999 Jun; 28(6):360–7 (24 ref.)

ENZYMOLOGY

Expression of mitogen activated protein kinases in labial salivary glands of patients with Sjögren's syndrome. Nakamura H, et al. **Ann Rheum Dis** 1999 Jun;58(6):382–5

Increased serum concentrations of secretory leukoprotease inhibitor in patients with primary Sjögren's syndrome. Maruyama M, et al. **In Vivo** 1998 Sep–Oct;12(5):535–8

Alpha-amylase functions as a salivary gland-specific self T cell epitope in patients with Sjögren's syndrome. Matsumoto I, et al. **Int J Mol Med** 1999 May;3(5):485–90

Excessive synthesis of matrix metalloproteinases in exocrine tissues of NOD mouse models for Sjögren's syndrome. Yamachika S, et al. **J Rheumatol** 1998 Dec;25(12):2371–80

A novel and simple immunocapture assay for determination of gelatinase-B (MMP-9) activities in biological fluids: saliva from patients with Sjögren's syndrome contain increased latent and active gelatinase-B levels. Hanemaaijer R, et al. **Matrix Biol** 1998 Dec;17(8–9):657–65

Matrix metalloproteinase (MMP)-9 type IV collagenase/gelatinase implicated in the pathogenesis of Sjögren's syndrome. Konttinen YT, et al. **Matrix Biol** 1998 Oct;17(5):335–47

Clinical application of a homogeneous colorimetric assay for tear lysozyme. Klaeger AJ, et al. **Ocul Immunol Inflamm** 1999 Mar;7(1):7–15

Immunolocalization of aromatase in human minor salivary glands of the lower lip with primary Sjögren's syndrome. Onodera K, et al. **Pathol Int** 1998 Oct;48(10):786–90

EPIDEMIOLOGY

Celiac disease and markers of celiac disease latency in patients with primary Sjögren's syndrome. Iltanen S, et al. **Am J Gastroenterol** 1999 Apr;94(4):1042–6

Antineutrophil cytoplasmic antibodies in primary Sjögren's syndrome: prevalence and clinical significance. Font J, et al. **Br J Rheumatol** 1998 Dec;37(12):1287–91

Sjögren's syndrome: a community-based study of prevalence and impact. Thomas E, et al. **Br J Rheumatol** 1998 Oct; 37(10):1069–76

Sjögren's syndrome: a community-based study of prevalence and impact--comment on the article by Thomas et al [letter] Tomšič M, et al. **Rheumatology (Oxford)** 1999 Jul; 38(7):685–6

Prevalence of Sjögren's syndrome in Slovenia. Tomšič M, et al. **Rheumatology (Oxford)** 1999 Feb;38(2):164–70

Cryoglobulinemia in primary Sjögren's syndrome: prevalence and clinical characteristics in a series of 115 patients. Ramos-Casals M, et al. **Semin Arthritis Rheum** 1998 Dec; 28(3):200–5

[Primary Sjögren syndrome. Study of a population of patients at the Hospital Universitario de Caracas, Venezuela] Arias I, et al. **Invest Clin** 1998 Sep;39(3):199–212 (Eng. Abstr.) **(Spa)**

ETIOLOGY

HTLV-I associated Sjögren's syndrome is aetiologically distinct from anti-centromere antibodies positive Sjögren's syndrome. Hida A, et al. **Ann Rheum Dis** 1999 May; 58(5):320–2

Dry eye and dry mouth in the elderly: a population-based assessment. Schein OD, et al. **Arch Intern Med** 1999 Jun 28;159(12):1359–63

Murine cytomegalovirus induces a Sjögren's syndrome-like disease in C57Bl/6-lpr/lpr mice. Fleck M, et al. **Arthritis Rheum** 1998 Dec;41(12):2175–84

Sicca syndrome as an initial symptom of amyloidosis. Jardinet D, et al. **Clin Rheumatol** 1998;17(6):546–8

Evolving concepts of diagnosis, pathogenesis, and therapy of Sjögren's syndrome. Fox RI, et al. **Curr Opin Rheumatol** 1998 Sep;10(5):446–56 (139 ref.)

Sjögren's syndrome: pathogenesis. Tabbara K, et al. **Eur J Ophthalmol** 1999 Jan–Mar;9(1):1–7 (34 ref.)

Fas ligand-mediated exocrinopathy resembling Sjögren's syndrome in mice transgenic for IL-10. Saito I, et al. **J Immunol** 1999 Mar 1;162(5):2488–94

An alternative perspective to the immune response in autoimmune exocrinopathy: induction of functional quiescence rather than destructive autoaggression. Humphreys-Beher MG, et al. **Scand J Immunol** 1999 Jan; 49(1):7–10 (31 ref.)

GENETICS

Analysis of V(H)-D-J(H) gene transcripts in B cells infiltrating the salivary glands and lymph node tissues of patients with Sjögren's syndrome. Gellrich S, et al. **Arthritis Rheum** 1999 Feb;42(2):240–7

Rheumatoid factors in primary Sjögren's syndrome (pSS) use diverse VH region genes, the majority of which show no evidence of somatic hypermutation. Elagib KE, et al. **Clin Exp Immunol** 1999 Aug;117(2):388–94

Lack of Fas and Fas-L mutations in patients with lymphoproliferative disorders associated with Sjögren's syndrome and type II mixed cryoglobulinemia. Bertolo F,

et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):339-42
HLA associations in a family with autoimmune phenomena [letter] Hübscher O, et al. **Clin Exp Rheumatol** 1999 Mar-Apr;17(2):262
DRB1*15 and DRB1*03 extended haplotype interaction in primary Sjögren's syndrome genetic susceptibility. Jean S, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):725-8
Salivary gland changes in the NOD mouse model for Sjögren's syndrome: is there a non-immune genetic trigger? Humphreys-Beher MG, et al. **Eur J Morphol** 1998 Aug; 36 Suppl:247-51
Abnormal DNA damage-inducible protein in cells from Sjögren's syndrome patients. Lavasani S, et al. **J Autoimmun** 1998 Aug;11(4):363-9
Sjögren's syndrome: lymphoma predisposition coupled with a reduced frequency of t(14;18) translocations in blood lymphocytes. Henriksson G, et al. **Mol Carcinog** 1999 Mar; 24(3):226-31
Identification of a novel PTEN mutation (L139X) in a patient with Cowden disease and Sjögren's syndrome. Raizis AM, et al. **Mol Pathol** 1998 Dec;51(6):339-41
[Study on the relationship between primary Sjögren syndrome and HLA-DRbeta gene] Wang J, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Jun;36(6):398-401 (Eng. Abstr.) **(Chi)**

HISTORY

Antiquity of Epstein-Barr virus, Sjögren's syndrome, and Hodgkin's disease--historical concordance and discordance [letter] Altshuler EL. **J Natl Cancer Inst** 1999 Sep 1;91(17):1512-3

IMMUNOLOGY

Hydroxychloroquine treatment for primary Sjögren's syndrome: its effect on salivary and serum inflammatory markers. Tishler M, et al. **Ann Rheum Dis** 1999 Apr; 58(4):253-6
Anti-alpha-fodrin antibodies in Sjögren syndrome and lupus erythematosus. Watanabe T, et al. **Arch Dermatol** 1999 May;135(5):535-9
New concepts for the development of autoimmune exocrinopathy derived from studies with the NOD mouse model. Humphreys-Beher MG, et al. **Arch Oral Biol** 1999 May;44 Suppl 1:S21-5 (38 ref.)
Salivary and serum soluble interleukin-2 receptor in primary Sjögren's syndrome. Tishler M, et al. **Arch Oral Biol** 1999 Apr;44(4):305-8
Autoantibodies in primary Sjögren's syndrome are directed against proteasomal subunits of the alpha and beta type. Feist E, et al. **Arthritis Rheum** 1999 Apr;42(4):697-702
Analysis of V(H)-D-J(H) gene transcripts in B cells infiltrating the salivary glands and lymph node tissues of patients with Sjögren's syndrome. Gellrich S, et al. **Arthritis Rheum** 1999 Feb;42(2):240-7
Correlation of increased susceptibility to apoptosis of CD4+ T cells with lymphocyte activation and activity of disease in patients with primary Sjögren's syndrome. Zeher M, et al. **Arthritis Rheum** 1999 Aug;42(8):1673-81
Differential cytokine mRNA expression in human labial minor salivary glands in primary Sjögren's syndrome. Sun D, et al. **Autoimmunity** 1998;28(3):125-37
Detection of anti-type VII collagen antibody in Sjögren's syndrome/lupus erythematosus overlap syndrome with transient bullous systemic lupus erythematosus. Fujii K, et al. **Br J Dermatol** 1998 Aug;139(2):302-6
Antineutrophil cytoplasmic antibodies in primary Sjögren's syndrome: prevalence and clinical significance. Font J, et al. **Br J Rheumatol** 1998 Dec;37(12):1287-91
Lumping or splitting autoimmune rheumatic disorders? Lessons from Sjögren's syndrome [editorial] Moutsopoulos HM, et al. **Br J Rheumatol** 1998 Dec;37(12):1263-4
Abundance of NKT cells in the salivary glands but absence thereof in the liver and thymus of aly/aly mice with Sjögren syndrome. Narita J, et al. **Cell Immunol** 1999 Mar 15;192(2):149-58
Anti-Sa antibody in Chinese rheumatoid arthritis. Xu S, et al. **Chin Med J (Engl)** 1998 Mar;111(3):204-7
Rheumatoid factors in primary Sjögren's syndrome (pSS) use diverse VH region genes, the majority of which show no evidence of somatic hypermutation. Elagib KE, et al. **Clin Exp Immunol** 1999 Aug;117(2):388-94
Ro/SS-A- and La/SS-B-reactive B lymphocytes in peripheral blood of patients with Sjögren's syndrome. Halse A, et al. **Clin Exp Immunol** 1999 Jan;115(1):208-13
Ro/SS-A-reactive B lymphocytes in salivary glands and peripheral blood of patients with Sjögren's syndrome. Halse A, et al. **Clin Exp Immunol** 1999 Jan;115(1):203-7
The role of apoptosis in the initiation of the autoimmune response in Sjögren's syndrome. Humphreys-Beher MG, et al. **Clin Exp Immunol** 1999 Jun;116(3):383-7 (38 ref.)
Soluble CD30 in primary Sjögren's syndrome [letter] Gerli R, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):389-90
Anti-agalactosyl IgG antibodies and isotype profiles of rheumatoid factors in Sjögren's syndrome and rheumatoid arthritis. Ichikawa Y, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):709-15
Fluctuation of anti-Ro/SS-A antibody levels in patients with systemic lupus erythematosus and Sjögren's syndrome: a prospective study. Praprotnik S, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):63-8
Activation of nitric oxide signaling through muscarinic receptors in submandibular glands by primary Sjögren syndrome antibodies. Pérez Leirós C, et al. **Clin Immunol** 1999 Feb;90(2):190-5
Human primary Sjögren's syndrome autoantibodies as mediators of nitric oxide release coupled to lacrimal gland muscarinic acetylcholine receptors. Bacman SR, et al. **Curr Eye Res** 1998 Dec;17(12):1135-42
Systemic lupus erythematosus and Sjögren's syndrome. **Curr Opin Rheumatol** 1998 Sep;10(5):B171-93
Anti-120-kDa alpha-fodrin immune response with Th1-cytokine profile in the NOD mouse model of Sjögren's syndrome. Yanagi K, et al. **Eur J Immunol** 1998 Oct;28(10):3336-45
Sjögren autoantibodies modify neonatal cardiac function via M1 muscarinic acetylcholine receptor activation. Borda E, et al. **Int J Cardiol** 1999 Jul 1;70(1):23-32
Alpha-amylase functions as a salivary gland-specific self T cell epitope in patients with Sjögren's syndrome. Matsumoto I, et al. **Int J Mol Med** 1999 May;3(5):485-90
Sjogren's syndrome. Sumida T. **Intern Med** 1999 Feb; 38(2):165-8 (15 ref.)
Preferential localization of CD8+ alpha E beta 7+ T cells around acinar epithelial cells with apoptosis in patients with Sjögren's syndrome. Fujihara T, et al. **J Immunol** 1999 Aug 15;163(4):2226-35
Sjögren's autoimmunity: how perturbation of recognition in endomembrane traffic may provoke pathological recognition at the cell surface. Mircheff AK, et al. **J Mol Recognit** 1998 Winter;11(1-6):40-8
Anti-cytoplasmic autoantibodies reactive with epithelial cells of the salivary gland in sera from patients with Sjögren's syndrome: their disease- and organ-specificities. Sakamoto M, et al. **J Oral Pathol Med** 1999 Jan;28(1):20-5
Presence of antibodies against Helicobacter pylori and its heat-shock protein 60 in the serum of patients with Sjögren's syndrome. Aragona P, et al. **J Rheumatol** 1999 Jun;26(6):1306-11
Anti-p53 antibodies are rarely detected in serum of patients with rheumatoid arthritis and Sjögren's syndrome. Mariette X, et al. **J Rheumatol** 1999 Aug;26(8):1672-5
T cell receptor repertoire in B cell lymphoproliferative lesions in primary Sjögren's syndrome. Pivetta B, et al. **J Rheumatol** 1999 May;26(5):1101-9
Submandibular and lacrimal gland immunoglobulin in the C3H.MRL-Faslpr autoimmune mouse model of Sjögren's syndrome. Trune DR, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1729-32
Increased serum CA 19-9 antibodies in Sjögren's syndrome. Safadi R, et al. **Postgrad Med J** 1998 Sep;74(875):543-4
Primary Sjögren's syndrome in the North East of England: a long-term follow-up study. Davidson BK, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):245-53
An uncommon association: Sjögren's syndrome and autoimmune myelofibrosis [letter] Marie I, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):370-1
Increased frequency of cells secreting interleukin-6 and interleukin-10 in peripheral blood of patients with primary Sjögren's syndrome. Halse A, et al. **Scand J Immunol** 1999 May;49(5):533-8
An alternative perspective to the immune response in autoimmune exocrinopathy: induction of functional quiescence rather than destructive autoaggression. Humphreys-Beher MG, et al. **Scand J Immunol** 1999 Jan; 49(1):7-10 (31 ref.)
Adverse drug reactions in Sjögren's syndrome. Frequent allergic reactions and a specific trimethoprim-associated systemic reaction. Antonen JA, et al. **Scand J Rheumatol** 1999;28(3):157-9
T(H)1 cytokines are produced in labial salivary glands in Sjögren's syndrome, but also in healthy individuals. Konttinen YT, et al. **Scand J Rheumatol** 1999;28(2):106-12
[Peripheral blood dendritic cell dysfunction in patients with Sjögren's syndrome] Odagiri S. **Arerugi** 1999 Apr; 48(4):451-8 (Eng. Abstr.) **(Jpn)**
[Clonality of infiltrative T cells in tubular dysfunction caused by Sjogren's syndrome] Murata H, et al. **Nippon Naika Gakkai Zasshi** 1999 Aug 10;88(8):1486-91 (5 ref.) **(Jpn)**
[Physiopathology of autoimmune diseases--recent findings. 1) Unique mechanism associated with Sjogren's syndrome] Sumida T. **Nippon Naika Gakkai Zasshi** 1998 Sep 10; 87(9):1717-23 (14 ref.) **(Jpn)**
[Immunohistochemical study of inflammatory infiltrates in minor salivary glands in Sjögren's syndrome and other autoimmune diseases] Tomás S, et al. **Med Clin (Barc)** 1998 Nov 28;111(18):681-6 (Eng. Abstr.) **(Spa)**

METABOLISM

Tear fluid analysis in patients with primary Sjögren's syndrome using lectin probes. A comparative study of patients with primary Sjögren's syndrome, patients with other immune inflammatory connective tissue diseases and controls. Bjerrum KB. **Acta Ophthalmol Scand** 1999 Feb; 77(1):1-8
Salivary and serum hyaluronic acid concentrations in patients with Sjögren's syndrome. Tishler M, et al. **Ann Rheum Dis** 1998 Aug;57(8):506-8
Expression of B7 costimulatory molecules by salivary gland epithelial cells in patients with Sjögren's syndrome. Manoussakis MN, et al. **Arthritis Rheum** 1999 Feb; 42(2):229-39
Fas (APO-1/CD95)-assisted suicide in NOD exocrine glands [editorial; comment] Elkon KB. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):659-61 (23 ref.). Comment on: Clin Exp Rheumatol 1998 Nov-Dec;16(6):659-61.
Inappropriate apoptosis of salivary and lacrimal gland epithelium of immunodeficient NOD-scid mice. Kong L, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):675-81
Glandular and extraglandular expression of the Fas-Fas ligand and apoptosis in patients with Sjögren's syndrome. Matsumura R, et al. **Clin Exp Rheumatol** 1998 Sep-Oct; 16(5):561-8
Expression of metalloproteinase-2 (gelatinase A) in labial salivary glands of patients with Sjögren's syndrome with HTLV-I infection. Tominaga M, et al. **Clin Exp Rheumatol** 1999 Jul-Aug;17(4):463-6
Activation of nitric oxide signaling through muscarinic receptors in submandibular glands by primary Sjögren syndrome antibodies. Pérez Leirós C, et al. **Clin Immunol** 1999 Feb;90(2):190-5
Salivary proteins in rheumatoid arthritis and Sjögren's syndrome: one-dimensional and two-dimensional electrophoretic studies. Beeley JA, et al. **Electrophoresis** 1999 Jun;20(7):1652-60
Lectin binding studies of parotid salivary glycoproteins in Sjögren's syndrome. Carpenter GH, et al. **Electrophoresis** 1999 Jul;20(10):2124-32
Regulation of human leukocyte antigen expression in human conjunctival epithelium. Tsubota K, et al. **Invest Ophthalmol Vis Sci** 1999 Jan;40(1):28-34
D-mannose and N-acetylglucosamine moieties and their respective binding sites in salivary glands of Sjögren's syndrome. Steinfeld S, et al. **J Rheumatol** 1999 Apr; 26(4):833-41
Expression of CD40/CD40 ligand and Bcl-2 family proteins in labial salivary glands of patients with Sjögren's syndrome. Nakamura H, et al. **Lab Invest** 1999 Mar; 79(3):261-9
Elevated tear interleukin-6 levels in patients with Sjögren syndrome. Tishler M, et al. **Ophthalmology** 1998 Dec; 105(12):2327-9

MICROBIOLOGY

Pseudomonas aeruginosa orbital phlegmon in a patient treated for myelodysplastic syndrome with concomitant Sjögren's syndrome. Giagounidis AA, et al. **Eur J Med Res** 1999 Jan 26;4(1):27-30
Oral microbial flora in Sjögren's syndrome. Almståhl A, et al. **J Rheumatol** 1999 Jan;26(1):110-4
Presence of antibodies against Helicobacter pylori and its heat-shock protein 60 in the serum of patients with Sjögren's syndrome. Aragona P, et al. **J Rheumatol** 1999 Jun;26(6):1306-11

MORTALITY

Survivorship in a population based cohort of patients with Sjögren's syndrome, 1976-1992. Martens PB, et al. **J Rheumatol** 1999 Jun;26(6):1296-300
Predictors of lymphoma development in primary Sjögren's syndrome. Sutcliffe N, et al. **Semin Arthritis Rheum** 1998 Oct;28(2):80-7

PATHOLOGY

MR sialography in patients with Sjögren syndrome [see comments] Tonami H, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1199-203. Comment in: AJNR Am J Neuroradiol 1998 Aug;19(7):1183.
A diffuse T lymphocytic gastrointestinal mucosal infiltration associated with Sjögren's syndrome resulting in a watery diarrhea syndrome and responsive to immunosuppressive therapy. Sobhani I, et al. **Am J Gastroenterol** 1998 Dec; 93(12):2584-6
Lung involvement in primary Sjögren's syndrome is mainly related to the small airway disease. Papiris SA, et al. **Ann Rheum Dis** 1999 Jan;58(1):61-4
Clinical follow up study of 87 patients with sicca symptoms (dryness of eyes or mouth, or both). Pertovaara M, et al. **Ann Rheum Dis** 1999 Jul;58(7):423-7
Sicca symptoms, saliva and tear production, and disease variables in 636 patients with rheumatoid arthritis. Uhlig T, et al. **Ann Rheum Dis** 1999 Jul;58(7):415-22
Detection of anti-Ro/SSA and anti-La/SSB autoantibody-producing cells in salivary glands from patients with Sjögren's syndrome. Tengnér P, et al. **Arthritis Rheum** 1998 Dec;41(12):2238-48
Correlation of increased susceptibility to apoptosis of CD4+ T cells with lymphocyte activation and activity of disease in patients with primary Sjögren's syndrome. Zeher M, et al. **Arthritis Rheum** 1999 Aug;42(8):1673-81
Fas and Fas-mediated effects on a human salivary cell line in vitro: a model for immune-mediated exocrine damage in Sjögren's syndrome. Gannot G, et al. **Cell Death Differ** 1998 Sep;5(9):743-50
Primary Sjögren's syndrome and its lymphoid malignancy: a report of four cases. Dong Y, et al. **Chin Med J (Engl)** 1998 Mar;111(3):218-9
The role of apoptosis in the initiation of the autoimmune response in Sjögren's syndrome. Humphreys-Beher MG, et al. **Clin Exp Immunol** 1999 Jun;116(3):383-7 (38 ref.)
Modes of epithelial cell death and repair in Sjögren's syndrome (SS). Polihronis M, et al. **Clin Exp Immunol** 1998 Dec;114(3):485-90
Analysis of T cell receptor Vbeta repertoires of annular

erythema associated with Sjögren's syndrome. Yamamoto T, et al. **Eur J Dermatol** 1998 Jun;8(4):248–51

Salivary gland changes in the NOD mouse model for Sjögren's syndrome: is there a non-immune genetic trigger? Humphreys-Beher MG, et al. **Eur J Morphol** 1998 Aug; 36 Suppl:247–51

Preferential localization of CD8+ alpha E beta 7+ T cells around acinar epithelial cells with apoptosis in patients with Sjögren's syndrome. Fujihara T, et al. **J Immunol** 1999 Aug 15;163(4):2226–35

Sjögren's syndrome with acute renal failure. Kwon YJ, et al. **J Korean Med Sci** 1998 Dec;13(6):665–9 (14 ref.)

Low prevalence of clinicopathologic and sialographic changes in salivary glands of men with Sjögren's syndrome. Saito T, et al. **J Oral Pathol Med** 1999 Aug;28(7):312–6

Sjögren's syndrome presenting with a minor salivary gland mass. Kemker BJ, et al. **J Otolaryngol** 1998 Oct; 27(5):298–300

Cerebral white matter lesions in primary Sjögren's syndrome: a controlled study. Coates T, et al. **J Rheumatol** 1999 Jun; 26(6):1301–5

An autopsy case of primary nodal plasmacytoma associated with Sjögren's syndrome [letter] Watanabe K, et al. **Pathol Int** 1999 Jun;49(6):577–9

Microvascular abnormalities in Sjögren's syndrome: nailfold capillaroscopy. Tektonidou M, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):826–30

Lymphoepithelial duct lesions in Sjögren-type sialadenitis. Ihrler S, et al. **Virchows Arch** 1999 Apr;434(4):315–23

[Biopsy of labial salivary glands and lacrimal glands in the diagnosis of Sjögren's syndrome] Xu K, et al. **Chung Hua Yen Ko Tsa Chih** 1997 May;33(3):222–5 (Eng. Abstr.) **(Chi)**

[Pitié-Salpêtriére Hospital. Case 1--1998. Acute renal failure with large kidneys in a patient with Sjögren syndrome (clinical conference)] Mariette X, et al. **Ann Med Interne (Paris)** 1998 Sep;149(5):267–73 **(Fre)**

[Histopathogenesis of chronic sialectatic parotitis as precursor of myoepithelial sialadenitis lesion (Sjögren syndrome)] Ussmüller J, et al. **Laryngorhinootologie** 1998 Dec;77(12):723–7 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Five-year efficacy of intravenous gammaglobulin to treat dysautonomia in Sjögren's syndrome [letter] Dupond JL, et al. **Am J Med** 1999 Jan;106(1):125

Lacrimal gland innervation is not altered with the onset and progression of disease in a murine model of Sjögren's syndrome. Zoukhri D, et al. **Clin Immunol Immunopathol** 1998 Nov;89(2):126–33

Ca2+ signaling by cholinergic and alpha1-adrenergic agonists is up-regulated in lacrimal and submandibular glands in a murine model of Sjögren's syndrome. Zoukhri D, et al. **Clin Immunol Immunopathol** 1998 Nov; 89(2):134–40

Systemic lupus erythematosus and Sjögren's syndrome. **Curr Opin Rheumatol** 1998 Sep;10(5):B171–93

Increased nitric oxide in expired air in patients with Sjögren's syndrome. BHR study group. Bronchial hyperresponsiveness. Ludviksdóttir D, et al. **Eur Respir J** 1999 Apr;13(4):739–43

Autonomic neuropathy associated with sicca complex. Wright RA, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):70–6

Primary Sjögren's syndrome (pSS): subjective symptoms and salivary findings. Pedersen AM, et al. **J Oral Pathol Med** 1999 Aug;28(7):303–11

Autonomic cardiovascular neuropathy in Sjögren's syndrome. A controlled study. Andonopoulos AP, et al. **J Rheumatol** 1998 Dec;25(12):2385–8

Hypofunction of the stress axis in Sjögren's syndrome. Johnson EO, et al. **J Rheumatol** 1998 Aug;25(8):1508–14

Autonomic failure and proximal skeletal myopathy in a patient with primary Sjögren syndrome. Sorajja P, et al. **Mayo Clin Proc** 1999 Jul;74(7):695–7

Multisystem neuronal involvement and sicca complex: broadening the spectrum of complications. Katz JS, et al. **Muscle Nerve** 1999 Mar;22(3):404–7

D-penicillamine treatment for chronic sensory ataxic neuropathy associated with Sjögren's syndrome. Asahina M, et al. **Neurology** 1998 Nov;51(5):1451–3

Increased salivary interleukin-6 levels in patients with primary Sjögren's syndrome. Tishler M, et al. **Rheumatol Int** 1999;18(4):125–7

Haematopathology of 'Sjögren-mice': histopathological changes in spleens after semiallogeneic cell transfer. Ussing AP, et al. **Scand J Immunol** 1999 Jun;49(6):641–8

The influence of age on disease manifestations and serological characteristics in primary Sjögren's syndrome. Haga HJ, et al. **Scand J Rheumatol** 1999;28(4):227–32

[Central nervous system symptoms of Gougerot-Sjögren syndrome] Guillevin L. **Rev Med Interne** 1998;19 Suppl 1:35S–38S (10 ref.) **(Fre)**

[Influence on patients with Sjögren's syndrome after the Great Hanshin-Awaji Earthquake] Kohriyama K, et al. **Ryumachi** 1998 Aug;38(4):589–94 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

Sjögren syndrome: comparison of assessments with MR sialography and conventional sialography. Ohbayashi N, et al. **Radiology** 1998 Dec;209(3):683–8

RADIONUCLIDE IMAGING

Subclinical Sjögren's syndrome: a significant 67gallium accumulation in the orbits and parotid glands. Tanaka H, et al. **Acta Paediatr Jpn** 1998 Dec;40(6):621–3

Quantitative evaluation of salivary gland scintigraphy in Sjörgen's syndrome. Umehara I, et al. **J Nucl Med** 1999 Jan;40(1):64–9

RADIOTHERAPY

Air trapping in primary Sjögren syndrome: correlation of expiratory CT with pulmonary function tests. Franquet T, et al. **J Comput Assist Tomogr** 1999 Mar-Apr;23(2):169–73

THERAPY

Use of alternative medicine by Sjögren's syndrome patients [letter] Pal B. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):763

Bibliography. Current world literature. Systemic lupus erythematosus and Sjögren's syndrome. **Curr Opin Rheumatol** 1999 Sep;11(5):B147–68

Current issues in the diagnosis and treatment of Sjögren's syndrome. Fox RI, et al. **Curr Opin Rheumatol** 1999 Sep; 11(5):364–71 (88 ref.)

It's not the same old lupus or Sjögren's any more: one hundred new insights, approaches, and options since 1990. Wallace DJ, et al. **Curr Opin Rheumatol** 1999 Sep; 11(5):321–9 (40 ref.)

Effects on local blood flux of acupuncture stimulation used to treat xerostomia in patients suffering from Sjögren's syndrome. Blom M, et al. **J Oral Rehabil** 1993 Sep; 20(5):541–8

Sjögren's syndrome: a critical review of clinical management. Bell M, et al. **J Rheumatol** 1999 Sep;26(9):2051–61 (31 ref.)

VIROLOGY

Accumulation of human T lymphotropic virus type I-infected T cells in the salivary glands of patients with human T lymphotropic virus type I-associated Sjögren's syndrome. Ohyama Y, et al. **Arthritis Rheum** 1998 Nov; 41(11):1972–8

Failure to detect human papillomavirus in primary Sjögren's syndrome. Steinfeld S, et al. **Arthritis Rheum** 1999 May; 42(5):1064–5

Expression of metalloproteinase-2 (gelatinase A) in labial salivary glands of patients with Sjögren's syndrome with HTLV-I infection. Tominaga M, et al. **Clin Exp Rheumatol** 1999 Jul-Aug;17(4):463–6

Sjögren's syndrome and hepatitis C virus. Ramos-Casals M, et al. **Clin Rheumatol** 1999;18(2):93–100 (98 ref.)

Epstein-Barr virus study in malignant lymphoma in Sjögren's syndrome. Hirose Y, et al. **Int J Hematol** 1999 Apr; 69(3):174–9

Nucleotide sequence analysis of human T-cell lymphotropic virus type I pX and LTR regions from patients with sicca syndrome. Beby-Defaux A, et al. **J Med Virol** 1999 Oct; 59(2):245–55

Low copy numbers of human T-cell lymphotropic virus type I (HTLV-I) tax-like DNA detected in the salivary gland of seronegative patients with Sjögren's syndrome in an HTLV-I endemic area. Mizokami A, et al. **Scand J Rheumatol** 1998;27(6):435–40

SK&F-525-A see **PROADIFEN**

SK&F-38393

ANALOGS & DERIVATIVES

SK&F 83959 and non-cyclase-coupled dopamine D1-like receptors in jaw movements via dopamine D1-like/D2-like receptor synergism. Adachi K, et al. **Eur J Pharmacol** 1999 Feb 19;367(2–3):143–9

The alleged dopamine D1 receptor agonist SKF 83959 is a dopamine D1 receptor antagonist in primate cells and interacts with other receptors. Andringa G, et al. **Eur J Pharmacol** 1999 Jan 1;364(1):33–41

PHARMACOLOGY

Direct inhibition of the N-methyl-D-aspartate receptor channel by dopamine and (+)-SKF38393. Castro NG, et al. **Br J Pharmacol** 1999 Apr;126(8):1847–55

Effect of dopamine denervation and dopamine agonist administration on serine phosphorylation of striatal NMDA receptor subunits. Oh JD, et al. **Brain Res** 1999 Mar 13; 821(2):433–42

Synergistic interaction between serotonin-2 receptor and dopamine D1 receptor stimulation on striatal preprotachykinin mRNA expression in the 6-hydroxydopamine lesioned rat. Gresch PJ, et al. **Brain Res Mol Brain Res** 1999 Jun 18;70(1):125–34

Relationship between electroacupuncture analgesia and dopamine receptors in nucleus accumbens. Wang YQ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Nov;18(6):494–6

Dopamine D1 receptor modulation of glutamate receptor messenger RNA levels in the neocortex and neostriatum of unilaterally 6-hydroxydopamine-lesioned rats. Rodriguez-Puertas R, et al. **Neuroscience** 1999 Mar; 89(3):781–97

Regulation of human D1 dopamine receptor function and gene expression in SK-N-MC neuroblastoma cells. Sidhu A, et al. **Neuroscience** 1999;91(2):537–47

THERAPEUTIC USE

Bromocriptine/SKF38393 treatment ameliorates dyslipidemia in ob/ob mice. Zhang Y, et al. **Metabolism** 1999 Aug;48(8):1033–40

SKATEBOARDING see **SKATING**

SKATES (FISH)

Purification and primary structure of pituitary adenylate cyclase activating polypeptide (PACAP) from the brain of an elasmobranch, stingray, Dasyatis akajei. Matsuda K, et al. **Peptides** 1998;19(9):1489–95

Necrotizing fasciitis due to Vibrio alginolyticus following an injury inflicted by a stingray. Ho PL, et al. **Scand J Infect Dis** 1998;30(2):192–3 (13 ref.)

[Stingray venom] Yoshikawa S, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):664–7 (9 ref.) **(Jpn)**

ANATOMY & HISTOLOGY

Ultrastructural analysis of folliculogenesis in the ovary of the yellow spotted stingray, Urolophus jamaicensis. Hamlett WC, et al. **Anat Anz** 1999 Mar;181(2):159–72

BLOOD

Hypotonic-stimulated taurine efflux in skate erythrocytes: regulation by tyrosine phosphatase activity. Musch MW, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1677–86

Volume expansion stimulates p72(syk) and p56(lyn) in skate erythrocytes. Musch MW, et al. **J Biol Chem** 1999 Mar 19;274(12):7923–8

EMBRYOLOGY

Development of dermal denticles in skates (Chondrichthyes, Batoidea): patterning and cellular differentiation. Miyake T, et al. **J Morphol** 1999 Jul;241(1):61–81

GENETICS

A long form of the skate IgX gene exhibits a striking resemblance to the new shark IgW and IgNARC genes. Anderson MK, et al. **Immunogenetics** 1999 Jan;49(1):56–67

METABOLISM

Functional characteristics of skate connexin35, a member of the gamma subfamily of connexins expressed in the vertebrate retina. White TW, et al. **Eur J Neurosci** 1999 Jun;11(6):1883–90

Effects of insulin-like growth factor-I, corticosterone, and 3,3', 5-tri-iodo-L-thyronine on glycosaminoglycan synthesis in vertebral cartilage of the clearnose skate, Raja eglanteria. Gelsleichter J, et al. **J Exp Zool** 1999 Oct 1; 284(5):549–56

Regulation of interrenal gland steroidogenesis in the Atlantic stingray (Dasyatis sabina). Nunez S, et al. **J Exp Zool** 1999 Oct 1;284(5):517–25

The localization of pituitary adenylate cyclase-activating polypeptide (PACAP)-like immunoreactivity in the hypothalamo-pituitary region of an elasmobranch, stingray, Dasyatis akajei. Matsuda K, et al. **Peptides** 1998; 19(7):1263–7

PARASITOLOGY

Paroncomegas araya (Woodland, 1934) n. gen. et comb. (Cestoda: Trypanorhyncha: Eutetrarhynchidae) from the freshwater stingray Potamotrygon motoro in South America. Campbell RA, et al. **J Parasitol** 1999 Apr; 85(2):313–20

Two new species of Echinobothrium (Cestoidea: Diphyllidea) from myliobatiform elasmobranchs in the Gulf of California, México. Tyler GA, et al. **J Parasitol** 1999 Apr;85(2):327–35

Pararhinebothroides hobergi n. gen. n. sp. (Eucestoda: Tetraphyllidea) in Urobatis tumbesensis (Chondrichthyes: Myliobatiformes) from coastal Ecuador. Zamparo D, et al. **J Parasitol** 1999 Jun;85(3):534–9

Observations on the ultrastructure of the anterior adhesive areas and other anterior gland cells in the monogenean Merizocotyle australensis (Monocotylidae) from the nasal fossae of Himantura fai (Dasyatididae). Cribb BW, et al. **Microsc Res Tech** 1998 Aug 1;42(3):200–11

PHYSIOLOGY

Effects of urea and trimethylamine N-oxide on fluidity of liposomes and membranes of an elasmobranch. Barton KN, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R397–406

Increase in gonadotropin-releasing hormone (GnRH) levels in CSF after stimulation of the nervus terminalis in Atlantic stingray, Dasyatis sabina. Moeller JF, et al. **Brain Res** 1998 Sep 21;806(1):104–7

Reproductive endocrinology of female elasmobranchs: lessons from the little skate (Raja erinacea) and spiny dogfish (Squalus acanthias). Koob TJ, et al. **J Exp Zool** 1999 Oct 1;284(5):557–74 (67 ref.)

Alterations in serum steroid concentrations in the clearnose skate, Raja eglanteria: correlations with season and reproductive status. Rasmussen LE, et al. **J Exp Zool** 1999 Oct 1;284(5):575–85

Elasmobranch color change: A short review and novel data

on hormone regulation. Visconti MA, et al. **J Exp Zool** 1999 Oct 1;284(5):485–91 (54 ref.)
Structure of the thyroid gland, serum thyroid hormones, and the reproductive cycle of the Atlantic stingray, Dasyatis sabina. Volkoff H, et al. **J Exp Zool** 1999 Oct 1; 284(5):505–16
Osmoregulation of the Atlantic stingray (Dasyatis sabina) from the freshwater Lake Jesup of the St. Johns River, Florida. Piermarini PM, et al. **Physiol Zool** 1998 Sep–Oct; 71(5):553–60

SKATING

Health effects resulting from nitrogen dioxide exposure in an indoor ice arena. Rosenlund M, et al.
Arch Environ Health 1999 Jan–Feb;54(1):52–7
Blow dry your asthma [editorial; comment] Eliasson AH. **Chest** 1999 Mar;115(3):608–9. Comment on: Chest 1999 Mar;115(3):649–53.
Hazards for skaters and swimmers [news]
Environ Health Perspect 1999 Jul;107(7):A344
Body image and dieting behaviors among elite figure skaters. Ziegler PJ, et al. **Int J Eat Disord** 1998 Dec;24(4):421–7

INJURIES

Survey of injuries and protective gear worn by in-line skaters in public parks. Schuster M, et al.
Am J Phys Med Rehabil 1999 Jan–Feb;78(1):7–10
Predictors of injury among adult recreational in-line skaters: a multicity study. Seldes RM, et al.
Am J Public Health 1999 Feb;89(2):238–41
Skateboarding: more dangerous than roller skating or in-line skating. Osberg JS, et al. **Arch Pediatr Adolesc Med** 1998 Oct;152(10):985–91
An observational study of protective equipment use among in-line skaters. Warda L, et al. **Inj Prev** 1998 Sep; 4(3):198–202
Comparison of injury patterns in elite hockey players using ice versus in-line skates. Hutchinson MR, et al.
Med Sci Sports Exerc 1998 Sep;30(9):1371–3
Figure skating injuries. Bloch RM.
Phys Med Rehabil Clin N Am 1999 Feb;10(1):177–88, viii (54 ref.)
[To whom are roller-skaters harmful? A questionnaire among roller-skaters] Harager K, et al. **Ugeskr Laeger** 1999 Jan 11;161(2):151–3 (Eng. Abstr.) **(Dan)**
[Fracture of the pisiform bone in inline skating] Dufek P, et al. **Sportverletz Sportschaden** 1999 Jun;13(2):59–61 (Eng. Abstr.) **(Ger)**
[Injuries specific to ice skating--documentation of the injuries of competitive athletes during a pre-season training camp] Nikolić A, et al. **Sportverletz Sportschaden** 1998 Dec; 12(4):142–6 (Eng. Abstr.) **(Ger)**
[Trendy inline skating sports. Pattern of injuries and groups at risk] Hilgert RE, et al. **Unfallchirurg** 1998 Nov; 101(11):845–50 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

A comparison of two challenge tests for identifying exercise-induced bronchospasm in figure skaters [see comments] Mannix ET, et al. **Chest** 1999 Mar;115(3):649–53 . Comment in: Chest 1999 Mar;115(3):606–9.
External loading does not change energy cost and mechanics of rollerski skating. Millet G, et al. **Eur J Appl Physiol** 1998 Aug;78(3):276–82
The klapskate: an example of intermuscular coordination. van Ingen Schenau GJ. **Eur J Morphol** 1998 Dec;36(4–5):269
Muscle activity in the slalom turn of alpine skiing and in-line skating. Zeglinksi CM, et al. **Int J Sports Med** 1998 Oct; 19(7):447–54 (22 ref.)
Assessment of flexibility in young female skaters with the modified Marshall Test. Micheli LJ, et al.
J Pediatr Orthop 1999 Sep–Oct;19(5):665–8
Comparison between the physiological response to roller skiing and in-line skating in biathletes. Baum K, et al.
Med Sci Sports Exerc 1999 Apr;31(4):595–8
Stability of the blood lactate–heart rate relationship in competitive athletes. Foster C, et al.
Med Sci Sports Exerc 1999 Apr;31(4):578–82
[Joint stress in inline skating--a biomechanical study] Jerosch J, et al. **Sportverletz Sportschaden** 1998 Jun;12(2):47–53 (Eng. Abstr.) **(Ger)**

SKATOLE

ADVERSE EFFECTS

Effect of melengestrol acetate on development of 3-methylindole-induced pulmonary edema and emphysema in sheep. Popp JD, et al. **Can J Vet Res** 1998 Oct; 62(4):268–74

ANALOGS & DERIVATIVES

Chemical cleavage of bovine beta-lactoglobulin by BNPS-skatole for preparative purposes: comparative study of hydrolytic procedures and peptide characterization. Rahali V, et al. **J Protein Chem** 1999 Jan;18(1):1–12

ANTAGONISTS & INHIBITORS

Estrogen protects against 3-methylindole-induced olfactory loss. Dhong HJ, et al. **Brain Res** 1999 Apr 10;824(2):312–5

CHEMISTRY

Thioether adducts of a new imine reactive intermediate of the pneumotoxin 3-methylindole. Skordos KW, et al.
Chem Res Toxicol 1998 Nov;11(11):1326–31

METABOLISM

Relationship between metabolism of androstenone and skatole in intact male pigs. Babol J, et al. **J Anim Sci** 1999 Jan;77(1):84–92

PHARMACOKINETICS

Specific dehydrogenation of 3-methylindole and epoxidation of naphthalene by recombinant human CYP2F1 expressed in lymphoblastoid cells. Lanza DL, et al.
Drug Metab Dispos 1999 Jul;27(7):798–803

TOXICITY

Synergistic effects of concurrent challenge with bovine respiratory syncytial virus and 3-methylindole in calves. Bingham HR, et al. **Am J Vet Res** 1999 May;60(5):563–70
Manipulation of injury and repair of the alveolar epithelium using two pneumotoxicants: 3-methylindole and monocrotaline. Woods LW, et al. **Exp Lung Res** 1999 Mar; 25(2):165–81
Disruption of axonal transport from olfactory epithelium by 3-methylindole. Setzer AK, et al. **Physiol Behav** 1998 Dec 1;65(3):479–87
Odor detection in rats with 3-methylindole-induced reduction of sensory input. Setzer AK, et al.
Physiol Behav 1998 Dec 1;65(3):489–96

SKELETAL AGE MEASUREMENT see **AGE DETERMINATION BY SKELETON**

SKELETAL FIXATION see **FRACTURE FIXATION**

SKELETAL MUSCLE see **MUSCLE, SKELETAL**

SKELETAL MUSCLE RELAXANTS see **NEUROMUSCULAR AGENTS**

SKELETAL MUSCLE VENTRICLE

see related
CARDIOMYOPLASTY

Permanent cardiac assistance from skeletal muscle: a prospect for the new millennium. Salmons S. **Artif Organs** 1999 May; 23(5):380–7 (70 ref.)
Preconditioning of the latissimus dorsi muscle in cardiomyoplasty: vascular delay or chronic electrical stimulation. Ali AT, et al. **Eur J Cardiothorac Surg** 1998 Sep;14(3):304–10
[Cellular cardiomyoplasty: state of the art, evaluation, and future possibilities] Hagège A, et al.
Arch Mal Coeur Vaiss 1998 Nov;91(11):1429–35 (Eng. Abstr.) **(Fre)**

CLASSIFICATION

Skeletal muscle ventricles: full versus half aortic ligation. Greer K, et al. **J Card Surg** 1998 Jul;13(4):242–51

PHYSIOLOGY

Selective stimulation of latissimus dorsi muscle for cardiac assist. Thompson DR, et al. **Ann Biomed Eng** 1999 Jan–Feb; 27(1):48–55
Salbutamol and the conditioning of latissimus dorsi for cardiomyoplasty. Wright LD, et al. **J Surg Res** 1999 Feb; 81(2):209–15
Power output of pericardium-lined skeletal muscle ventricles, left ventricular apex to aorta configuration: up to eight months in circulation. Thomas GA, et al.
J Thorac Cardiovasc Surg 1998 Dec;116(6):1029–42

SKELETIN see **DESMIN**

SKELETON

see related
BONE AND BONES

Ancient child burial uncovered in Portugal [news] Holden C. **Science** 1999 Jan 8;283(5399):169

SKID ROW ALCOHOLICS see **HOMELESS PERSONS**

SKIING

Snowboarding injuries [published erratum appears in Am Fam Physician 1999 Feb 15;59(4):786] Young CC, et al. **Am Fam Physician** 1999 Jan 1;59(1):131–6, 141 (16 ref.)
Lightning injuries during snowy conditions. Cherington M, et al. **Br J Sports Med** 1998 Dec;32(4):333–5
Sun safety behaviours of alpine skiers and snowboarders in the western United States. Buller DB, et al.
Cancer Prev Control 1998 Jun;2(3):133–9
Blood testing in biathlon: observation of hematocrit values during competitive periods 1994–1997. Manfredini F, et al. **Int J Sports Med** 1999 Aug;20(6):403–6
Comparisons of the ski turn techniques of experienced and intermediate skiers. Müller E, et al. **J Sports Sci** 1998 Aug; 16(6):545–59
Supplement use and nutritional habits in Norwegian elite athletes. Ronsen O, et al. **Scand J Med Sci Sports** 1999 Feb;9(1):28–35
[Iliofascial block in prehospital care (letter)] Gros T, et al.
Ann Fr Anesth Reanim 1999 Feb;18(2):282–3 **(Fre)**

INJURIES

Snowboarding injuries in children and adolescents. Shorter NA, et al. **Am J Emerg Med** 1999 May;17(3):261–3
Spinal injuries in skiers and snowboarders [letter; comment] Harris JB. **Am J Sports Med** 1999 Jul–Aug;27(4):546. Comment on: Am J Sports Med 1999 Mar–Apr;27(2):177–80.
Skiing injuries. Hunter RE. **Am J Sports Med** 1999 May–Jun; 27(3):381–9 (66 ref.)
Acute skier's thumb repaired with a proximal phalanx suture anchor [letter; comment] McCall J. **Am J Sports Med** 1999 May–Jun;27(3):390–1. Comment on: Am J Sports Med 1998 Sep–Oct;26(5):644–50.
Injury risk in first-time snowboarders versus first-time skiers. O'Neill DF, et al. **Am J Sports Med** 1999 Jan–Feb; 27(1):94–7
Spinal injuries in skiers and snowboarders [see comments] Tarazi F, et al. **Am J Sports Med** 1999 Mar–Apr; 27(2):177–80. Comment in: Am J Sports Med 1999 Jul–Aug;27(4):546.
Acute skier's thumb repaired with a proximal phalanx suture anchor [see comments] Zeman C, et al.
Am J Sports Med 1998 Sep–Oct;26(5):644–50. Comment in: Am J Sports Med 1999 May–Jun;27(3):390–1.
Severity of upper limb injuries in snowboarding. Sasaki K, et al. **Arch Orthop Trauma Surg** 1999;119(5–6):292–5
Skiing helmets. Rees-Jones A. **Br J Sports Med** 1999 Feb; 33(1):3 (10 ref.)
Occurrence and trends in ski injuries in Norway. Ueland O, et al. **Br J Sports Med** 1998 Dec;32(4):299–303
Skiing and snowboarding injuries in the children and adolescents of Southern Alberta. Hagel BE, et al.
Clin J Sport Med 1999 Jan;9(1):9–17
Snowboarding injuries of the abdomen: comparison with skiing injuries. Machida T, et al. **Injury** 1999 Jan;30(1):47–9
Gender differences in knee injury epidemiology among competitive alpine ski racers. Stevenson H, et al.
Iowa Orthop J 1998;18:64–6
Analysis of ankle deflection during a forward fall in snowboarding. Estes M, et al. **J Biomech Eng** 1999 Apr; 121(2):243–8
Incidence of oral and maxillofacial skiing injuries due to different injury mechanisms. Gassner R, et al.
J Oral Maxillofac Surg 1999 Sep;57(9):1068–73
Snowboarding injuries of the chest: comparison with skiing injuries. Machida T, et al. **J Trauma** 1999 Jun;46(6):1062–5
Snowboard head injury: prospective study in Chino, Nagano, for two seasons from 1995 to 1997. Nakaguchi H, et al.
J Trauma 1999 Jun;46(6):1066–9
Snowboarder's wrist: its severity compared with Alpine skiing. Sasaki K, et al. **J Trauma** 1999 Jun;46(6):1059–61
Fracture and dislocation of snowboarder's elbow. Takagi M, et al. **J Trauma** 1999 Jul;47(1):77–81
Increased peroneal nerve injuries caused by ski edges [letter; comment] Wechselberger G, et al. **Lancet** 1999 Feb 27; 353(9154):753–4. Comment on: Lancet 1998 Nov 28;352(9142):1739–41.
MR imaging of knee anterior cruciate ligament and associated injuries in skiers. Ho CP, et al.
Magn Reson Imaging Clin N Am 1999 Feb;7(1):117–30 (29 ref.)
Role of MR imaging in the management of "skier's thumb" injuries. Plancher KD, et al.
Magn Reson Imaging Clin N Am 1999 Feb;7(1):73–84, viii
Rupture of the ulnar collateral ligament of the first metacarpophalangeal joint ("gamekeeper's thumb") [see comments] Wottrich S, et al. **Orthopedics** 1998 Dec; 21(12):1312, 1308–10. Comment in: Orthopedics 1999 May;22(5):476.
Snow skiing. Laskowski ER.
Phys Med Rehabil Clin N Am 1999 Feb;10(1):189–211 (35 ref.)
Injuries in cross-country skiing. Trail markers for diagnosis and treatment. Morris PJ, et al. **Postgrad Med** 1999 Jan; 105(1):89–91, 95–8, 101 (12 ref.)
Sport injury and illness: elite skiers describe their experiences. Bianco T, et al. **Res Q Exerc Sport** 1999 Jun;70(2):157–69
Evaluation of skiing injuries by Injury Severity Score. Bergstrøm KA, et al. **Scand J Med Sci Sports** 1999 Apr; 9(2):110–3
Characteristics of injured skiers in Norway. A case–control study. Ueland O. **Scand J Public Health** 1999 Jun; 27(2):112–5
Facial injuries in skiing. A retrospective study of 549 cases. Gassner R, et al. **Sports Med** 1999 Feb;27(2):127–34
Alpine ski bindings and injuries. Current findings. Natri A, et al. **Sports Med** 1999 Jul;28(1):35–48 (71 ref.)
[Post-traumatic palmar instability of the thumb metacarpophalangeal joint. The "other skier's thumb"] Pechlaner S. **Handchir Mikrochir Plast Chir** 1999 Jan; 31(1):3–9 (Eng. Abstr.) **(Ger)**
["Tennis leg": ultrasound differential diagnosis and follow-up] Gaulrapp H. **Sportverletz Sportschaden** 1999 Jun;13(2):53–8 (Eng. Abstr.) **(Ger)**
[Fracture of the tarsal navicular bone in childhood--therapy and functional follow-up] Knorr P, et al.

SKIING

Sportverletz Sportschaden 1998 Jun;12(2):74–8 (Eng. Abstr.) **(Ger)**

[Risk of injuries in snow boarding] Machold W, et al. **Sportverletz Sportschaden** 1999 Mar;13(1):1–7 (Eng. Abstr.) **(Ger)**

[Pattern and risk of injuries of profile athletes in snow boarding] Schrank C, et al. **Sportverletz Sportschaden** 1999 Mar;13(1):8–13 (Eng. Abstr.) **(Ger)**

[Dislocation of the Lisfranc joint in a military skier] Ivanovski A, et al. **Vojnosanit Pregl** 1998 Nov–Dec; 55(6):665–8 (Eng. Abstr.) **(Sce)**

PHYSIOLOGY

Echocardiographic examination of cardiac structure and function in elite cross trained male and female Alpine skiers. George KP, et al. **Br J Sports Med** 1999 Apr;33(2):93–8; discussion 99

External loading does not change energy cost and mechanics of rollerski skating. Millet G, et al. **Eur J Appl Physiol** 1998 Aug;78(3):276–82

Influence of exercise duration on serum insulin-like growth factor and its binding proteins in athletes. Nguyen UN, et al. **Eur J Appl Physiol** 1998 Nov;78(6):533–7

Bronchoscopy and bronchoalveolar lavage findings in cross-country skiers with and without "ski asthma". Sue-Chu M, et al. **Eur Respir J** 1999 Mar;13(3):626–32

Upper body power comparison between groups of cross-country skiers and runners. Gaskill SE, et al. **Int J Sports Med** 1999 Jul;20(5):290–4

Cycle rate variations in roller ski skating: effects on oxygen uptake and poling forces. Millet GY, et al. **Int J Sports Med** 1998 Nov;19(8):521–5

Stretch-shortening cycle in roller ski skating: effects of technique. Perrey S, et al. **Int J Sports Med** 1998 Nov; 19(8):513–20

Muscle activity in the slalom turn of alpine skiing and in-line skating. Zeglinksi CM, et al. **Int J Sports Med** 1998 Oct; 19(7):447–54 (22 ref.)

Does the application of ground force set the energetic cost of cross-country skiing? Bellizzi MJ, et al. **J Appl Physiol** 1998 Nov;85(5):1736–43

Comparison between the physiological response to roller skiing and in-line skating in biathletes. Baum K, et al. **Med Sci Sports Exerc** 1999 Apr;31(4):595–8

Muscle control in elite alpine skiing. Berg HE, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):1065–7

Responses to training in cross-country skiers. Gaskill SE, et al. **Med Sci Sports Exerc** 1999 Aug;31(8):1211–7

Maximal strength training improves work economy in trained female cross-country skiers. Hoff J, et al. **Med Sci Sports Exerc** 1999 Jun;31(6):870–7

Poling forces during roller skiing: effects of grade. Millet GY, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1637–44

Poling forces during roller skiing: effects of technique and speed. Millet GY, et al. **Med Sci Sports Exerc** 1998 Nov; 30(11):1645–53

Nutritional status of the Finnish elite ski jumpers. Rankinen T, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1592–7

An analysis of hip joint loading during walking, running, and skiing. van den Bogert AJ, et al. **Med Sci Sports Exerc** 1999 Jan;31(1):131–42

Salmeterol and physical performance at -15 degrees C in highly trained nonasthmatic cross-country skiers. Sue-Chu M, et al. **Scand J Med Sci Sports** 1999 Feb;9(1):48–52

[The effect of different tolerance-developing physical exercises on the blood biochemical indices in highly qualified female athletes] Milashius KM. **Fiziol Cheloveka** 1998 Jul–Aug;24(4):108–12 **(Rus)**

SKILLED NURSING FACILITIES

ECONOMICS

New skilled nursing facility payment scheme boosts Medicare risk. Grimaldi PL. **J Health Care Finance** 1999 Spring; 25(3):1–9

MANPOWER

Barriers to effective communication in skilled nursing facilities: differences in perception between nurses and physicians. Cadogan MP, et al. **J Am Geriatr Soc** 1999 Jan;47(1):71–5

ORGANIZATION & ADMINISTRATION

Hospitals' vertical integration into skilled nursing: a rational approach to controlling transaction costs. Lehrman S, et al. **Inquiry** 1998 Fall;35(3):303–14

Maintenance of mobility in residents of an Alzheimer special care facility. Saxton J, et al. **Int Psychogeriatr** 1998 Jun; 10(2):213–24

STANDARDS

Infection control programs in skilled nursing long-term care facilities: an assessment, 1995 [see comments] Goldrick BA. **Am J Infect Control** 1999 Feb;27(1):4–9. Comment in: Am J Infect Control 1999 Feb;27(1):1–3.

UTILIZATION

Validity and reliability of Resource Utilization Groups (RUG-III) in Finnish long-term care facilities. Björkgren MA, et al. **Scand J Public Health** 1999 Sep;27(3):228–34

SKIMMETIN see **UMBELLIFERONES**

SKIN

consider also terms at CUTANEOUS, CUTIS, and DERMAT-

see related
DERMATOLOGIC AGENTS
KERATINOCYTES

Skin biopsies, cutaneous disease, and primary care [letter] Federman DG, et al. **Ann Intern Med** 1999 Apr 6;130(7):617

Skin flap storage with intracellular and extracellular solutions containing trehalose. Wu SF, et al. **Ann Plast Surg** 1999 Sep;43(3):289–94

Skin adhesives and skin adhesion. 1. Transdermal drug delivery systems. Venkatraman S, et al. **Biomaterials** 1998 Jul;19(13):1119–36 (32 ref.)

Antimicrobial mixtures used by tissue banks for harvested skin: comparative in vitro activity. Holder IA, et al. **Burns** 1998 Nov;24(7):604–8

Pedunculated episcleral choristoma without ocular involvement [letter] Aggarwal JL, et al. **Eye** 1998;12 (Pt 4):745–6

Studies of a putative ice-binding motif in winter flounder skin-type anti-freeze polypeptide. Lin Q, et al. **FEBS Lett** 1999 Jun 25;453(3):331–4

Characterization of a new tissue-engineered human skin equivalent with hair. Michel M, et al. **In Vitro Cell Dev Biol Anim** 1999 Jun;35(6):318–26

The vital role of the skin in human natural history. Cohn BA. **Int J Dermatol** 1998 Nov;37(11):821–4 (20 ref.)

Effect of 3 growth control substances on foreign body sarcomagenesis: IFN, IUdR, MGBG. Mhic Iomhair M, et al. **Ir J Med Sci** 1999 Jan–Mar;168(1):42–4

The 1998 Lindberg Award. Comparison of glycerol preservation with cryopreservation methods on HIV-1 inactivation. van Baare J, et al. **J Burn Care Rehabil** 1998 Nov–Dec;19(6):494–500

Ectopic skeletal muscles derived from myoblasts implanted under the skin. Irintchev A, et al. **J Cell Sci** 1998 Nov; 111 (Pt 22):3287–97

Plasma somatostatin and cholecystokinin levels in preterm infants during kangaroo care with and without nasogastric tube-feeding. Törnhage CJ, et al. **J Pediatr Endocrinol Metab** 1998 Sep–Oct;11(5):645–51

Randomised study of skin-to-skin versus incubator care for rewarming low-risk hypothermic neonates [letter] Christensson K, et al. **Lancet** 1998 Oct 3;352(9134):1115

Body fat prediction from skinfold anthropometry referenced to a new gold standard: in vivo neutron activation analysis and tritium dilution. Beddoe AH, et al. **Physiol Meas** 1998 Aug;19(3):393–403

Subcutaneous temperature profile, skin appearance, and picking efficiency of immersion and spray scalded broiler carcasses. Dickens JA, et al. **Poult Sci** 1999 Apr;78(4):595–9

Reduced-fat bologna manufactured with poultry skin connective tissue gel. Osburn WN, et al. **Poult Sci** 1998 Oct;77(10):1574–84

In vivo friction properties of human skin. Zhang M, et al. **Prosthet Orthot Int** 1999 Aug;23(2):135–41

The Advanced Tissue Sciences story. Naughton G. **Sci Am** 1999 Apr;280(4):84–5

Skin: the first tissue-engineered products. Parenteau N. **Sci Am** 1999 Apr;280(4):83–4

Subcutaneous parathyroid autografts [letter; comment] Kinnaert P, et al. **Surgery** 1999 Apr;125(4):462–3. Comment on: Surgery 1998 Jul;124(1):1–5.

Assessing the potential of skin electroporation for the delivery of protein- and gene-based drugs. Banga AK, et al. **Trends Biotechnol** 1998 Oct;16(10):408–12 (35 ref.)

[Experimental study of skin expansion of the grafted free vascularized skin flap] Liu X, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):379–81 (Eng. Abstr.) **(Chi)**

ABNORMALITIES see SKIN ABNORMALITIES

ANATOMY & HISTOLOGY

Anatomic site and interanimal variability in morphologic characteristics of bottlenose dolphin (Tursiops truncatus) skin likely to affect dermal absorption studies. Colbert A, et al. **Am J Vet Res** 1998 Nov;59(11):1398–403

The influence of female sex hormones on skin thickness: evaluation using 20 MHz sonography. Eisenbeiss C, et al. **Br J Dermatol** 1998 Sep;139(3):462–7

Techniques for a structural analysis of dermatoscopic imagery. Fleming MG, et al. **Comput Med Imaging Graph** 1998 Sep–Oct;22(5):375–89

Cutis/subcutis thickness at insulin injection sites and localization of simulated insulin boluses in children with type 1 diabetes mellitus: need for individualization of injection technique? Birkebaek NH, et al. **Diabet Med** 1998 Nov;15(11):965–71

Spectrophotometric evaluation of postmortem lividity. Bohnert M, et al. **Forensic Sci Int** 1999 Jan 11;99(2):149–58

Measurement of the amounts of elastic fibers in the skin and temporal arteries of healthy aged individuals by automated image analysis. Gogly B, et al. **Gerontology** 1998; 44(6):318–23

Morphological and morphometrical study on the dorsal skin of Wistar and WBN/ILA-Ht rats in their developing stage. Evaluation of the proliferation and apoptotic processes. Iwamoto S, et al. **Histol Histopathol** 1998 Oct;13(4):981–8

Preservation of human skin structure and function in organ culture. Varani J. **Histol Histopathol** 1998 Jul;13(3):775–83 (53 ref.)

Skin morphology and its role in thermoregulation in mole-rats, Heterocephalus glaber and Cryptomys hottentotus. Daly TJ, et al. **J Anat** 1998 Nov;193 (Pt 4):495–502

Perioperative tissue thickness measurement by a new miniature ultrasound device. Schumacher J, et al. **J Clin Monit Comput** 1998 Dec;14(7–8):471–6

EEMCO guidance for the assessment of skin topography. The European Expert Group on Efficacy Measurement of Cosmetics and other Topical Products. Lévêque JL. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):103–14 (54 ref.)

In vivo and in vitro investigations of hydration effects of beauty care products by high-field MRI and NMR microscopy. Szayna M, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):122–8

Simulation of color of port wine stain skin and its dependence on skin variables. Verkruysse W, et al. **Lasers Surg Med** 1999;25(2):131–9

Chemical shift artifact-free microscopy: spectroscopic microimaging of the human skin. Weis J, et al. **Magn Reson Med** 1999 May;41(5):904–8

Multiphoton excitation microscopy, confocal microscopy, and spectroscopy of living cells and tissues; functional metabolic imaging of human skin in vivo. Masters BR, et al. **Methods Enzymol** 1999;307:513–36

Human psoriatic skin in organ culture: comparison with normal skin exposed to exogenous growth factors and effects of an antibody to the EGF receptor. Varani J, et al. **Pathobiology** 1998;66(6):253–9

Near-infrared optical properties of ex vivo human skin and subcutaneous tissues measured using the Monte Carlo inversion technique. Simpson CR, et al. **Phys Med Biol** 1998 Sep;43(9):2465–78

Ruby laser-assisted hair removal success in relation to anatomic factors and melanin content of hair follicles. Liew SH, et al. **Plast Reconstr Surg** 1999 May;103(6):1736–43

Direct and non-direct measurement techniques for analysis of skin surface topography. Fischer TW, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan–Apr; 12(1–2):1–11 (24 ref.)

[Method and significance of removal of dermal epithelial components in the study of composite skin] Cui Z, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):37–9 (Eng. Abstr.) **(Chi)**

[The reverse medial plantar island flap: anatomy and clinical applications] Zhu Z, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 May;13(3):167–8 (Eng. Abstr.) **(Chi)**

BLOOD SUPPLY

The role of low resistance blood flow pathways in the pathogenesis and healing of venous leg ulcers [see comments] Malanin K, et al. **Acta Derm Venereol** 1999 Mar; 79(2):156–60. Comment in: Acta Derm Venereol 1999 Mar;79(2):97.

Rhythmical variations of haemoglobin oxygenation in cutaneous capillaries. Stücker M, et al. **Acta Derm Venereol** 1998 Nov;78(6):408–11

Recent advances in non-invasive assessment of human skin blood flow. Agache PG, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;185:47–51 (29 ref.)

The hyperperfusion of the psoriatic plaque correlates histologically with dilatation of vessels. Auer T, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:30–2

The pseudo-elongation of capillaries in psoriatic plaques. Bacharach-Buhles M, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:133–7

Cutaneous microcirculation in psoriasis. A videocapillaroscopic morphofunctional study. Fuga GC, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:138

Short-term monitoring of the vascular resistance of the human skin microvasculature. Török T, et al. **Acta Physiol Hung** 1997–98;85(2):153–62

Isometric handgrip exercise-induced muscarinic vasodilation in the human skin microvasculature. Török T, et al. **Acta Physiol Hung** 1997–98;85(3):193–8

Time course of the inflammatory response to histamine and allergen skin prick test in guinea-pigs. Evilevitch V, et al. **Acta Physiol Scand** 1999 Apr;165(4):409–13

Regional differences in the effect of exercise intensity on thermoregulatory sweating and cutaneous vasodilation. Kondo N, et al. **Acta Physiol Scand** 1998 Sep;164(1):71–8

Vasopressin induces opposite changes in blood flow in the skin and the muscular circulation. Hayoz D, et al. **Adv Exp Med Biol** 1998;449:447–9

Overview of microcirculatory oxygen measurements and their contribution to our understanding of oxygen delivery to tissue. Johnson PC. **Adv Exp Med Biol** 1998;454:361–5 (19 ref.)

A 12-year-old girl with pulmonary hemorrhage, skin lesions, and hematuria. Paueksakon P, et al. **Am J Kidney Dis** 1999 Feb;33(2):404–9 (13 ref.)

Altered reflex control of cutaneous circulation by female sex steroids is independent of prostaglandins. Charkoudian N,

et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1634–40
Supine exercise restores arterial blood pressure and skin blood flow despite dehydration and hyperthermia.
González-Alonso J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H576–83
Cotransmission from sympathetic vasoconstrictor neurons to small cutaneous arteries in vivo. Morris JL.
Am J Physiol 1999 Jul;277(1 Pt 2):H58–64
Role and mechanism of endothelin-B receptors in mediating ET-1-induced vasoconstriction in pig skin. Pang CY, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1066–74
Neuropeptide regulation of human dermal microvascular endothelial cell ICAM-1 expression and function. Quinlan KL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1580–90
Nifedipine increases microvascular permeability via a direct local effect on postcapillary venules. Taherzadeh M, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1388–94
Plasma viscosity regulates capillary perfusion during extreme hemodilution in hamster skinfold model. Tsai AG, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2170–80
Tourniquet constriction exacerbates hyperalgesia-related pain induced by intradermal capsaicin injection. Byas-Smith MG, et al. **Anesthesiology** 1999 Sep; 91(3):617–25
Venoarteriolar response to experimental venous hypertension in legs with chronic venous insufficiency and in healthy legs, measured using a double-wavelength laser Doppler technique. Malanin K, et al. **Angiology** 1998 Sep; 49(9):729–33
On the thermal efficiency of cold-stressed fingers. Shitzer A. **Ann N Y Acad Sci** 1998 Sep 11;858:74–87
Comparison of supine and lateral positioning on various clinically used support surfaces. Sachse RE, et al.
Ann Plast Surg 1998 Nov;41(5):513–8
Topical and systemic calcium channel blockers in the prevention and treatment of microvascular spasm in a rat epigastric island skin flap model. Weinzweig N, et al.
Ann Plast Surg 1999 Mar;42(3):320–6
Hemoglobin oxygenation of venous-perfused forearm flaps. Wolff KD, et al. **Ann Plast Surg** 1998 Dec;41(6):646–52; discussion 652–3
The biomechanics of leg ulceration. Chant A.
Ann R Coll Surg Engl 1999 Mar;81(2):80–5
Presence of circulating antibodies to a disease-specific antigen on cultured human dermal microvascular endothelial cells in patients with Behçet's disease. Lee KH, et al. **Arch Dermatol Res** 1999 Jul-Aug;291(7–8):374–81
Capillary refill and core-peripheral temperature gap as indicators of haemodynamic status in paediatric intensive care patients. Tibby SM, et al. **Arch Dis Child** 1999 Feb; 80(2):163–6
Vascular abnormalities in acute reflex sympathetic dystrophy (CRPS I): complete inhibition of sympathetic nerve activity with recovery [see comments] Wasner G, et al.
Arch Neurol 1999 May;56(5):613–20. Comment in: Arch Neurol 1999 May;56(5):521–2.
Biphasic effects of static magnetic fields on cutaneous microcirculation in rabbits. Okano H, et al.
Bioelectromagnetics 1999;20(3):161–71
Pharmacological properties of T-3762, a novel fluoroquinolone antimicrobial agent in parenteral use. III. Chemical structures and dermovascular permeability-increasing activities. Furuhata K, et al.
Biol Pharm Bull 1998 Sep;21(9):919–23
Effects of nociceptin and nocistatin on antidromic vasodilatation in hairless skin of the rat hindlimb in vivo. Häbler H, et al. **Br J Pharmacol** 1999 Aug;127(7):1719–27
Quantitative study of capillary density in the skin of the foot in peripheral vascular disease. Lamah M, et al.
Br J Surg 1999 Mar;86(3):342–8
L-arginine metabolites regulate DNA synthesis and nitric oxide synthase activity in cultured human dermal microvascular endothelial cells--potential positive and negative regulators of angiogenesis derived from L-arginine. Joshi M, et al. **Cancer Invest** 1999;17(4):235–44
Microvascular effects of atrial natriuretic peptide (ANP) in man: studies during high and low salt diet. Houben AJ, et al. **Cardiovasc Res** 1998 Aug;39(2):442–50
A novel approach for studying angiogenesis: a human skin equivalent with a capillary-like network. Black AF, et al. **Cell Biol Toxicol** 1999 Apr;15(2):81–90 (78 ref.)
Changes of skin perfusion after photodynamic therapy for port wine stain. Jiang L, et al. **Chin Med J (Engl)** 1998 Feb;111(2):136–8
Cigarette smoking, cutaneous vasculature, and tissue oxygen. Leow YH, et al. **Clin Dermatol** 1998 Sep-Oct;16(5):579–84 (46 ref.)
Alcohol ingestion and the cutaneous vasculature. Wolf R, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):395–403 (135 ref.)
Intravenous immunoglobulin in childhood cutaneous polyarteritis nodosa [letter; comment] Gedalia A, et al.
Clin Exp Rheumatol 1998 Nov-Dec;16(6):767. Comment on: Clin Exp Rheumatol 1998 Mar-Apr;16(2):187–9.
Treatment of severe Raynaud's phenomenon and ischemic ulcerations with tissue plasimogen activator [letter] Lakshminarayanan S, et al. **Clin Exp Rheumatol** 1999 Mar-Apr;17(2):260
The venoarteriolar response of the skin in healthy legs measured at different depths. Malanin K, et al.
Clin Physiol 1998 Sep;18(5):441–6
Impaired skin vasomotor reflexes in patients with erythromelalgia. Littleford RC, et al. **Clin Sci (Colch)** 1999 May;96(5):507–12
A comparison of the cutaneous microvascular properties of the spontaneously hypertensive rat and the Wistar-Kyoto rat. Rendell MS, et al.
Comp Biochem Physiol A Mol Integr Physiol 1999 Apr; 122(4):399–406
Laser Doppler perfusion imaging for the documentation of flare-up in contact allergy to gold. Möller H, et al.
Contact Dermatitis 1999 Sep;41(3):131–5
Skin wound healing and ischaemia. Studies on possible interventions. Quirinia A. **Dan Med Bull** 1999 Apr; 46(2):85–105 (178 ref.)
Cutaneous vascular proliferation following ultrapulse CO2 laser resurfacing. Rostan EF, et al. **Dermatol Surg** 1998 Dec;24(12):1406–8
The acute effect of smoking on cutaneous microcirculation blood flow in habitual smokers and nonsmokers. Monfrecola G, et al. **Dermatology** 1998;197(2):115–8
Differences in foot and forearm skin microcirculation in diabetic patients with and without neuropathy. Arora S, et al. **Diabetes Care** 1998 Aug;21(8):1339–44
Peripheral vascular reactions to smoking--profound vasoconstriction by atherosclerosis. Fushimi H, et al.
Diabetes Res Clin Pract 1998 Oct;42(1):29–34
Influence of bright light exposure for several hours during the daytime on cutaneous vasodilatation and local sweating induced by an exercise heat load. Aizawa S, et al.
Eur J Appl Physiol 1998 Sep;78(4):303–7
Skin-prick blood samples are reliable for estimating Hb mass with the CO-dilution technique. Ashenden MJ, et al.
Eur J Appl Physiol 1999 May;79(6):535–7
Relationship between skin blood flow and sweating rate, and age related regional differences. Inoue Y, et al.
Eur J Appl Physiol 1998 Dec;79(1):17–23
Enhanced endothelium-dependent vasodilatation in human skin vasculature induced by physical conditioning. Kvernmo HD, et al. **Eur J Appl Physiol** 1998 Dec; 79(1):30–6
Severe cutaneous cholesterol emboli syndrome after coronary angiography. Hendrickx I, et al.
Eur J Cardiothorac Surg 1999 Feb;15(2):215–7
Microcirculation in venous ulcers and the surrounding skin: findings with capillary microscopy and a laser Doppler imager. Gschwandtner ME, et al. **Eur J Clin Invest** 1999 Aug;29(8):708–16
Skin perfusion in patients with erythromelalgia. Littleford RC, et al. **Eur J Clin Invest** 1999 Jul;29(7):588–93
Effects of venous pressure and posture on skin capillary perfusion. Ubbink DT, et al. **Eur J Clin Invest** 1999 Sep; 29(9):737–43
The local effects of systemic digoxin on the cutaneous microcirculation. Grossmann M, et al.
Eur J Clin Pharmacol 1999 Jun;55(4):263–8
Responsiveness of cutaneous vasculature to thermal stimulation during phototherapy in neonatal jaundice. Jahnukainen T, et al. **Eur J Pediatr** 1999 Sep;158(9):757–60
Lack of evidence for tachykinin NK1 receptor-mediated neutrophil accumulation in the rat cutaneous microvasculature by thermal injury. Pintér E, et al.
Eur J Pharmacol 1999 Mar 12;369(1):91–8
In vivo microscopic study of microcirculatory perfusion of the skin of the foot in peripheral vascular disease. Lamah M, et al. **Eur J Vasc Endovasc Surg** 1999 Jul;18(1):48–51
Peripheral blood flow rates and microvascular responses to orthostatic pressure changes in claudicants before and after revascularisation. Midttun M, et al.
Eur J Vasc Endovasc Surg 1999 Mar;17(3):225–9
Disruption of skin perfusion following longitudinal groin incision for infrainguinal bypass surgery. Raza Z, et al.
Eur J Vasc Endovasc Surg 1999 Jan;17(1):5–8
Simultaneous medullar and cutaneous revelation of a cutaneomeningospinal angiomatosis. Krolak-Salmon P, et al. **Eur Neurol** 1999;41(3):170–1
Microvascular skin blood flow following the ingestion of 75 g glucose in healthy individuals. Forst T, et al.
Exp Clin Endocrinol Diabetes 1998;106(6):454–9
Angiogenesis in pathological and surgical scars. Beer TW, et al. **Hum Pathol** 1998 Nov;29(11):1273–8
Structural skin capillary rarefaction in essential hypertension. Antonios TF, et al. **Hypertension** 1999 Apr;33(4):998–1001
Mechanics and composition of human subcutaneous resistance arteries in essential hypertension. Intengan HD, et al. **Hypertension** 1999 Jan;33(1 Pt 2):569–74
Estimation of blood perfusion using phase shift in temperature response to sinusoidal heating at the skin surface. Liu J, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1037–43
Subchronic effects of static magnetic fields on cutaneous microcirculation in rabbits. Xu S, et al. **In Vivo** 1998 Jul-Aug;12(4):383–9
Transcutaneous bilirubinometry in neonates [letter; comment] Faridi MM. **Indian Pediatr** 1998 Jun;35(6):568–9. Comment on: Indian Pediatr 1998 Mar;35(3):264–7.
Mediators of microvascular injury in dermal burn wounds. Ravage ZB, et al. **Inflammation** 1998 Dec;22(6):619–29
Reflex control of cutaneous vasoconstrictor system is reset by exogenous female reproductive hormones. Charkoudian N, et al. **J Appl Physiol** 1999 Jul;87(1):381–5
Effect of increasing central venous pressure during passive heating on skin blood flow. Crandall CG, et al.
J Appl Physiol 1999 Feb;86(2):605–10
Role of nitric oxide in the vascular effects of local warming of the skin in humans. Kellogg DL Jr, et al.
J Appl Physiol 1999 Apr;86(4):1185–90
Nitric oxide and cutaneous active vasodilation during heat stress in humans. Kellogg DL Jr, et al. **J Appl Physiol** 1998 Sep;85(3):824–9
Effects of nitric oxide synthase inhibition on cutaneous vasodilation during body heating in humans. Shastry S, et al. **J Appl Physiol** 1998 Sep;85(3):830–4
Aerobic training and cutaneous vasodilation in young and older men. Thomas CM, et al. **J Appl Physiol** 1999 May; 86(5):1676–86
Regional differences in sympathetic neurotransmission to cutaneous arteries in the guinea-pig isolated ear. Morris JL, et al. **J Auton Nerv Syst** 1998 Nov 10;73(2–3):115–24
Magnitude of skin vasomotor reflex represents the intensity of nociception under general anesthesia. Shimoda O, et al.
J Auton Nerv Syst 1998 Jul 15;71(2–3):183–9
Central retinal vein occlusion associated with cryofibrinogenemia in a young adult--study of skin dynamic capillaroscopy. Tsai RK, et al.
J Formos Med Assoc 1998 Nov;97(11):777–9
VCAM-1 expression on human dermal microvascular endothelial cells is directly and specifically up-regulated by substance P. Quinlan KL, et al. **J Immunol** 1999 Feb 1;162(3):1656–61
Molecular regulation of UVB-induced cutaneous angiogenesis. Bielenberg DR, et al. **J Invest Dermatol** 1998 Nov;111(5):864–72
Membrane-type matrix metalloproteinases in human dermal microvascular endothelial cells: expression and morphogenetic correlation. Chan VT, et al.
J Invest Dermatol 1998 Dec;111(6):1153–9
Control of cutaneous blood vessels in psoriatic plaques. Hern S, et al. **J Invest Dermatol** 1999 Jul;113(1):127–32
Human dermal microvascular endothelial cells express inducible nitric oxide synthase in vitro. Hoffmann G, et al. **J Invest Dermatol** 1999 Mar;112(3):387–90
Effects on local blood flux of acupuncture stimulation used to treat xerostomia in patients suffering from Sjögren's syndrome. Blom M, et al. **J Oral Rehabil** 1993 Sep; 20(5):541–8
Role of nitric oxide in the regulation of microvascular perfusion in human skin in vivo. Clough GF.
J Physiol (Lond) 1999 Apr 15;516 (Pt 2):549–57
Two neural mechanisms for respiration-induced cutaneous vasodilatation in humans? Wallin BG, et al.
J Physiol (Lond) 1998 Dec 1;513 (Pt 2):559–69
The microvascular composition of the healing wound compared at skin sites with nutritive versus arteriovenous perfusion. Rendell MS, et al. **J Surg Res** 1998 Dec; 80(2):373–9
Angiostatin diminishes activation of the mitogen-activated protein kinases ERK-1 and ERK-2 in human dermal microvascular endothelial cells. Redlitz A, et al.
J Vasc Res 1999 Jan-Feb;36(1):28–34
Prediction of imminent amputation in patients with non-reconstructible leg ischemia by means of microcirculatory investigations. Ubbink DT, et al.
J Vasc Surg 1999 Jul;30(1):114–21
Microcirculatory investigations to determine the effect of spinal cord stimulation for critical leg ischemia: the Dutch multicenter randomized controlled trial [see comments] Ubbink DT, et al. **J Vasc Surg** 1999 Aug;30(2):236–44. Comment in: J Vasc Surg 1999 Aug;30(2):370–1.
Scanning electron microscopic study of the vascular supply of the equine hoof. Nasu T, et al. **J Vet Med Sci** 1998 Jul;60(7):855–8
The influence of chronic sympathectomy on cutaneous blood flow in the rat tail. Yanagiya Y, et al. **J Vet Med Sci** 1999 Jul;61(7):795–801
Comparison between tail skin blood flow measurements by ultrasonic Doppler flowmetry and plethysmography during heating in anesthetized rats. Nakajima Y, et al.
Jpn J Physiol 1999 Feb;49(1):121–4
Simultaneous irradiation and imaging of blood vessels during pulsed laser delivery. Barton JK, et al.
Lasers Surg Med 1999;24(3):236–43
Simulation of color of port wine stain skin and its dependence on skin variables. Verkruysse W, et al.
Lasers Surg Med 1999;25(2):131–9
Troglitazone, a new antidiabetic agent possessing radical scavenging ability, improved decreased skin blood flow in diabetic rats. Fujiwara T, et al. **Life Sci** 1998; 63(22):2039–47
Heel-skin microvascular blood perfusion responses to sustained pressure loading and unloading. Mayrovitz HN, et al. **Microcirculation** 1998;5(2–3):227–33
Aprotinin in ischemia-reperfusion injury: flap survival and neutrophil response in a rat skin flap model. Stadelmann WK, et al. **Microsurgery** 1998;18(6):354–61; discussion 362–3
Microvascular permeability change induced by platelet-activating factor is impaired in diabetic mice. Fujii E, et al. **Microvasc Res** 1999 Jul;58(1):74–8
Dynamic changes in intracapillary hemoglobin oxygenation in human skin following various temperature changes. Kakihana Y, et al. **Microvasc Res** 1998 Sep;56(2):104–12
Oscillations in the human cutaneous blood perfusion signal modified by endothelium-dependent and endothelium-independent vasodilators. Kvernmo HD, et al. **Microvasc Res** 1999 May;57(3):298–309
Spectral analysis of the laser Doppler perfusion signal in human skin before and after exercise. Kvernmo HD, et

al. **Microvasc Res** 1998 Nov;56(3):173–82

Skin microvascular distensibility and structural microangiopathy in idiopathic dilated cardiomyopathy and after heart transplantation. Sørensen VB, et al. **Microvasc Res** 1999 Jan;57(1):44–51

Red and green laser Doppler compared with capillary microscopy to assess skin microcirculation in the feet of healthy subjects. Tulevski II, et al. **Microvasc Res** 1999 Sep;58(2):83–8

Acute effects of haemodialysis on cutaneous microcirculation in patients with peripheral arterial occlusive disease. Weiss T, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2317–21

Sensory threshold changes without initial pain or alterations in cutaneous blood flow, in the area of secondary hyperalgesia caused by topical application of capsaicin in humans. Andrews K, et al. **Neurosci Lett** 1999 Apr 30; 266(1):45–8

Spinal integration of antidromic mediated cutaneous vasodilation during dorsal spinal cord stimulation in the rat. Barron KW, et al. **Neurosci Lett** 1999 Feb 5; 260(3):173–6

Involvement of neurokinins in antidromic vasodilatation in hairy and hairless skin of the rat hindlimb. Häbler HJ, et al. **Neuroscience** 1999;89(4):1259–68

Skin conductance responses in paediatric Harlequin syndrome. Padda GS, et al. **Paediatr Anaesth** 1999; 9(2):159–62

Laser-Doppler-flowmetry in preterm newborns during apneic events. Sabatino G, et al. **Panminerva Med** 1998 Sep;40(3):174–8

Burn depth estimation: use of laser doppler flowmetry [letter; comment] Banwell PE, et al. **Plast Reconstr Surg** 1999 Jan; 103(1):334–5. Comment on: Plast Reconstr Surg 1998 May;101(6):1516–23.

Multimodality evaluation of pressure relief surfaces. Sachse RE, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2381–7

Locally administered vascular endothelial growth factor cDNA increases survival of ischemic experimental skin flaps. Taub PJ, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2033–9

Flap vascularity after free musculocutaneous tissue transfer [letter; comment] Williams G, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1781–2. Comment on: Plast Reconstr Surg 1998 Mar;101(3):719–26.

Skin blood flow responses during sleep by laser Doppler flowmetry. Shiihara Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):117–9

Functional assessment of cutaneous microvasculature after radiation. Doll C, et al. **Radiother Oncol** 1999 Apr; 51(1):67–70

Lymphatic microangiopathy of the skin in systemic sclerosis. Leu AJ, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):221–7

Effect of transcutaneous nerve stimulation on microcirculation in intact skin and blister wounds in healthy volunteers. Wikström SO, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):195–201

Increased vascularization in mice overexpressing angiopoietin-1. Suri C, et al. **Science** 1998 Oct 16; 282(5388):468–71

Cutaneous microdialysis in the rat: insertion trauma and effect of anaesthesia studied by laser Doppler perfusion imaging and histamine release. Groth L, et al. **Skin Pharmacol Appl Skin Physiol** 1998 May–Jun; 11(3):125–32

Tissue motion—a disturbance in the laser-Doppler blood flow signal? Oberg PA. **Technol Health Care** 1999; 7(2–3):185–92

Development of an anti-bleeding agent for recombinant hirudin induced skin bleeding in the pig. Dickneite G, et al. **Thromb Haemost** 1998 Jul;80(1):192–8

Vasculopathic changes of CADASIL can be focal in skin biopsies. Schultz A, et al. **Ultrastruct Pathol** 1999 Jul–Aug; 23(4):241–7

Quantification of the dermal vascular response to hyperbaric oxygen with laser-Doppler flowmetry. Ratzenhofer-Komenda B, et al. **Undersea Hyperb Med** 1998 Winter;25(4):223–7

Calciphylaxis: a syndrome of skin necrosis and acral gangrene in chronic renal failure. Hafner J, et al. **Vasa** 1998 Aug; 27(3):137–43

Dose-dependent increase of transcapillary diffusion of sodium fluorescein after histamine microinjections. Läuchli S, et al. **Vasa** 1999 May;28(2):79–83

Rhythmical changes of the cutaneous blood flow in the forehead region under the condition of hypnoid relaxation. Mück-Weymann M, et al. **Vasa** 1998 Nov;27(4):220–3

The use of lumbar sympathectomy for peripheral vascular disease (PVD) [letter] Claeys LG. **World J Surg** 1999 Sep; 23(9):981–3

Evaluation of clinically applicable exsanguination treatments to alleviate venous congestion in an animal skin flap model. Cottler PS, et al. **Wound Repair Regen** 1999 May–Jun; 7(3):187–95

Effect of electrical stimulation on foot skin perfusion in persons with or at risk for diabetic foot ulcers. Gilcreast DM, et al. **Wound Repair Regen** 1998 Sep–Oct;6(5):434–41

Behçet's disease sera containing antiendothelial cell antibodies promote adhesion of T lymphocytes to cultured human dermal microvascular endothelial cells. Lee KH, et al. **Yonsei Med J** 1999 Apr;40(2):152–8

[The effects of He-Ne laser on the revascularization of the distal part of the subdermal vascular network skin flap] Yang J, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):48–50 (Eng. Abstr.) **(Chi)**

[Experimental and clinical study on the blood supply of the subdermal vascular network island flap] Yang Y, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):51–3 (Eng. Abstr.) **(Chi)**

[The effect of endothelin and protein kinase C on the vasoactive mechanisms of beta A(4)25–35 at skin microvasculature] Chen H, et al. **Chung Hua I Hsueh Tsa Chih** 1997 May;77(5):367–70 (Eng. Abstr.) **(Chi)**

[Experimental study and clinical application of arterialized venous skin flap] Chen J, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Sep;11(5):286–90 (Eng. Abstr.) **(Chi)**

[Experimental study of the mechanism on blood supply to delayed separated skin flap by ultrasonic Doppler] Xu J, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jul;11(4):247–50 (Eng. Abstr.) **(Chi)**

[Dorsal metacarpal flap with an extensive retrograde pedicle. Anatomic study and 22 clinical cases] Bakhach J, et al. **Ann Chir Plast Esthet** 1999 Apr;44(2):185–93; discussion 194 (Eng. Abstr.) **(Fre)**

[Multinucleate cell angiohistiocytoma] Belgodere X, et al. **Ann Dermatol Venereol** 1999 May;126(5):431–2 (Eng. Abstr.) **(Fre)**

[Transcutaneous oxygen pressure (TcPO2): advantages and limitations] Got I. **Diabetes Metab** 1998 Sep;24(4):379–84 (30 ref.) (Eng. Abstr.) **(Fre)**

[Infection and vascular purpura] Lévesque H, et al. **J Mal Vasc** 1999 Jun;24(3):177–82 (30 ref.) (Eng. Abstr.) **(Fre)**

[Cutaneous vasculitis after hepatitis B vaccination with recombinant vaccine in a renal transplant patient] Bui-Quang D, et al. **Presse Med** 1998 Sep 12;27(26):1321–3 (Eng. Abstr.) **(Fre)**

[Skin microcirculation, adherence molecules and inflammatory dermatoses] Henry F, et al. **Rev Med Liege** 1998 Aug;53(8):479–82 (15 ref.) (Eng. Abstr.) **(Fre)**

[Embolia cutis medicamentosa (Nicolau syndrome) after intra-articular injection] Beissert S, et al. **Hautarzt** 1999 Mar;50(3):214–6 (Eng. Abstr.) **(Ger)**

[Microcirculation of kidney and skin during left ventricular assisted circulation—comparative studies of pulsatile and nonpulsatile assists] Sezai A, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1239–46 (Eng. Abstr.) **(Jpn)**

[Effects of nitric oxide synthase inhibitor on skin blood flow responses to acute isovolemic hemodilution during halothane and isoflurane anesthesia] Hirose Y, et al. **Masui** 1998 Aug;47(8):918–24 (Eng. Abstr.) **(Jpn)**

[Use of laser-doppler perfusion for evaluation of microcirculation in patients with diabetes type I] Jasik M, et al. **Pol Arch Med Wewn** 1998 Aug;100(2):119–24 (Eng. Abstr.) **(Pol)**

[Examination of skin microcirculation with laser-Doppler flowmetry in patients with essential hypertension] Zygocki K, et al. **Pol Merkuriusz Lek** 1999 Feb;6(32):73–5 (Eng. Abstr.) **(Pol)**

[Laser-Doppler flowmetry and the analysis of the collective processes in the microcirculation system] Kozlov VI, et al. **Fiziol Cheloveka** 1998 Nov-Dec;24(6):112–21 **(Rus)**

[Variant anatomy of arteries of face skin] Sokolov VV, et al. **Morfologiia** 1999;115(3):73–9 (Eng. Abstr.) **(Rus)**

[Assessment of tissue microcirculation in patients with aseptic necrosis of femur heads in systemic lupus erythematosus (SLE)] Mach ES, et al. **Ter Arkh** 1999;71(1):57–60 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Difference in ceramide composition between "dry" and "normal" skin in patients with atopic dermatitis [letter] Matsumoto M, et al. **Acta Derm Venereol** 1999 May; 79(3):246–7

Expression of the adhesion molecules ICAM-1, VCAM-1, LFA-1 and VLA-4 in the skin is modulated in progressing stages of chronic venous insufficiency. Peschen M, et al. **Acta Derm Venereol** 1999 Jan;79(1):27–32

Decreased staining of heparan sulfate in non-lesional skin of a subgroup of patients with systemic lupus erythematosus. Seyger MM, et al. **Acta Derm Venereol** 1998 Sep;78(5):326–30

Quantification of hyaluronan and chondroitin/dermatan sulfates in the tissue sections on glass slides. Koshiishi I, et al. **Anal Biochem** 1999 Feb 1;267(1):222–6

Analysis of human skin emanations by gas chromatography/mass spectrometry. 1. Thermal desorption of attractants for the yellow fever mosquito (Aedes aegypti) from handled glass beads. Bernier UR, et al. **Anal Chem** 1999 Jan 1;71(1):1–7

Near infrared reflectance spectroscopy in the study of atopy. Part 3. Interactions between the skin and fomblins. Corti P, et al. **Analyst** 1998 Nov;123(11):2313–7

Distribution map of collagen fiber orientation in a whole calf skin. Osaki S. **Anat Rec** 1999 Jan;254(1):147–52

Quantitative digital image analysis applied to demonstrate the stratified distribution of involucrin in organ cultured human skin. Kivinen PK, et al. **Arch Dermatol Res** 1999 Apr;291(4):217–23

Serotonin in human allergic contact dermatitis. An immunohistochemical and high-performance liquid chromatographic study. Lundeberg L, et al. **Arch Dermatol Res** 1999 May;291(5):269–74

Immunohistochemical study of epidermal nerve fibres in involved and uninvolved psoriatic skin using confocal laser scanning microscopy. Pergolizzi S, et al. **Arch Dermatol Res** 1998 Sep;290(9):483–9

Determination of endogenous porphyrins and the maximal HpD tumor/normal skin ratio in SKH-1 hairless mice by light induced fluorescence spectroscopy. Bossu E, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Mar; 27(2):109–17

A new model system for lipid interactions in stratum corneum vesicles: effects of lipid composition, calcium, and pH. Hatfield RM, et al. **Biochemistry** 1999 Jan 12;38(2):784–91

The role of ceramide composition in the lipid organisation of the skin barrier. Bouwstra JA, et al. **Biochim Biophys Acta** 1999 Jul 15;1419(2):127–36

Physical characterization of the stratum corneum of an in vitro human skin equivalent produced by tissue engineering and its comparison with normal human skin by ATR-FTIR spectroscopy and thermal analysis (DSC). Pouliot R, et al. **Biochim Biophys Acta** 1999 Aug 18;1439(3):341–52

Purification and characterisation of a minor low-sulphated dermatan sulphate-proteoglycan from ray skin. Chatziioannidis CC, et al. **Biochimie** 1999 Mar;81(3):187–96

A modified fluorescence polarization immunoassay method incorporating fat emulsion (FE-FPIA) to determine cyclosporin A concentrations in rat skin. Kurosaki Y, et al. **Biol Pharm Bull** 1999 May;22(5):539–42

In vitro and in vivo Raman spectroscopy of human skin. Caspers PJ, et al. **Biospectroscopy** 1998;4(5 Suppl):S31–9

Extracting high-quality DNA from shed reptile skins: a simplified method. Fetzner JW Jr. **Biotechniques** 1999 Jun; 26(6):1052–4

Effect of skin removal on estimated levels of organochlorine pesticide contamination in passerine birds. Frick JA, et al. **Bull Environ Contam Toxicol** 1998 Nov;61(5):658–63

Matrix metalloproteinase-1 in cholesteatoma, middle ear granulations and deep meatal skin: a comparative analysis. Banerjee AR, et al. **Clin Otolaryngol** 1998 Dec;23(6):515–9

Interstitial lactate levels in human skin at rest and during an oral glucose load: a microdialysis study. Petersen LJ. **Clin Physiol** 1999 May;19(3):246–50

Purification and characterization of two cysteine proteinase inhibitors from the skin of Atlantic salmon (Salmo salar L.). Synnes M. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Nov; 121(3):257–64

Expression of stem cell factor in the lesional skin of systemic sclerosis. Yamamoto T, et al. **Dermatology** 1998; 197(2):109–14

Cytokeratins of the equine hoof wall, chestnut and skin: bio- and immunohisto-chemistry. Wattle O. **Equine Vet J Suppl** 1998 Sep;(26):66–80

Expression and activity of cyclic and linear analogues of esculentin-1, an anti-microbial peptide from amphibian skin. Ponti D, et al. **Eur J Biochem** 1999 Aug;263(3):921–7

Mometasone furoate decreases adhesion molecule expression in psoriasis. Berti E, et al. **Eur J Dermatol** 1998 Sep; 8(6):421–6

Expression of the bcl-2 homologue bax in normal human skin, psoriasis vulgaris and non-melanoma skin cancers. Tomková H, et al. **Eur J Dermatol** 1998 Jun;8(4):256–60

Human epidermal Langerhans cells express the mannose-fucose binding receptor. Condaminet B, et al. **Eur J Immunol** 1998 Nov;28(11):3541–51

Bv8, a small protein from frog skin and its homologue from snake venom induce hyperalgesia in rats. Mollay C, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):189–96

Opioid peptides from frog skin. Amiche M, et al. **EXS** 1998; 85:57–71 (48 ref.)

Hemidesmosomal molecular changes in dermatitis herpetiformis; decreased expression of BP230 and plectin/HD1 in uninvolved skin. Leivo T, et al. **Histochem J** 1999 Feb;31(2):109–16

Growth potential of Rana tigerina skin lipids in cell cultures. Sai KP, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul–Aug; 34(7):561–7

Estimation of wound age and VCAM-1 in human skin. Dressler J, et al. **Int J Legal Med** 1999;112(3):159–62

Immunohistochemical evaluation of androgen receptors in genital and extragenital lichen sclerosus: evidence for loss of androgen receptors in lesional epidermis. Clifton MM, et al. **J Am Acad Dermatol** 1999 Jul;41(1):43–6

RNA isolation from human skin tissues for colorimetric differential display. Hipfel R, et al. **J Biochem Biophys Methods** 1998 Nov 18;37(3):131–5

cDNA cloning and characterization of sciellin, a LIM domain protein of the keratinocyte cornified envelope. Champliaud MF, et al. **J Biol Chem** 1998 Nov 20;273(47):31547–54

Two forms of collagen XVII in keratinocytes. A full-length transmembrane protein and a soluble ectodomain. Schäcke H, et al. **J Biol Chem** 1998 Oct 2;273(40):25937–43

Effects of cryopreservation and deconstruction on the dermal glycosaminoglycan content of human skin. Poggi MM, et al. **J Burn Care Rehabil** 1999 May–Jun;20(3):201–6

Optimization of the immunohistochemical demonstration of keratins in paraffin wax-embedded mouse skin. Pérez-Martinez C, et al. **J Comp Pathol** 1998 Aug;

119(2):177–81
Phospholipids affect stratum corneum lipid bilayer fluidity and drug partitioning into the bilayers. Kirjavainen M, et al. **J Controlled Release** 1999 Mar 29;58(2):207–14
Methods for quantitative determination of drug localized in the skin. Touitou E, et al. **J Controlled Release** 1998 Dec 4;56(1–3):7–21 (51 ref.)
Specific skin manifestations in CD56 positive acute myeloid leukemia. Kuwabara H, et al. **J Cutan Pathol** 1999 Jan; 26(1):1–5
Intraepidermal expression of basement membrane components in the lesional skin of a patient with dystrophic epidermolysis bullosa. Muramatsu T, et al. **J Dermatol** 1999 Feb;26(2):106–10
Hereditary skin diseases of anchoring fibrils. Bruckner-Tuderman L. **J Dermatol Sci** 1999 Jun; 20(2):122–33 (47 ref.)
Communication: expression of the novel inhibitor of apoptosis survivin in normal and neoplastic skin. Chiodino C, et al. **J Invest Dermatol** 1999 Sep;113(3):415–8
Protein C inhibitor is expressed in keratinocytes of human skin. Krebs M, et al. **J Invest Dermatol** 1999 Jul;113(1):32–7
Peripheral lymph node addressins are expressed on skin endothelial cells. Lechleitner S, et al. **J Invest Dermatol** 1999 Sep;113(3):410–4
The cutaneous microfibrillar apparatus contains latent transforming growth factor-beta binding protein-1 (LTBP-1) and is a repository for latent TGF-beta1. Raghunath M, et al. **J Invest Dermatol** 1998 Oct; 111(4):559–64
Confocal laser scanning analysis of the association of fibulin-2 with fibrillin-1 and fibronectin define different stages of skin regeneration. Raghunath M, et al. **J Invest Dermatol** 1999 Jan;112(1):97–101
Evidence for superantigen involvement in skin homing of T cells in atopic dermatitis. Strickland I, et al. **J Invest Dermatol** 1999 Feb;112(2):249–53
Expression of interleukin-12 is increased in psoriatic skin. Yawalkar N, et al. **J Invest Dermatol** 1998 Dec; 111(6):1053–7
The solution structure of uperin 3.6, an antibiotic peptide from the granular dorsal glands of the Australian toadlet, Uperoleia mjobergii. Chia BC, et al. **J Pept Res** 1999 Aug; 54(2):137–45
Gaegurin 4, a peptide antibiotic of frog skin, forms voltage-dependent channels in planar lipid bilayers. Kim HJ, et al. **J Pept Res** 1999 Jan;53(1):1–7
The timing of skin acidification in very low birth weight infants. Fox C, et al. **J Perinatol** 1998 Jul-Aug;18(4):272–5
Stability of collagen during denaturation. Penkova R, et al. **J Protein Chem** 1999 May;18(4):397–401
Brain-derived neurotrophic factor, neurotrophin-3, and neurotrophin-4 act as "epitheliotrophins" in murine skin. Botchkarev VA, et al. **Lab Invest** 1999 May;79(5):557–72
Fetal DNA in skin of polymorphic eruptions of pregnancy. Aractingi S, et al. **Lancet** 1998 Dec 12;352(9144):1898–901
Levels of selenium in the skin of patients with chronic lymphedema. Werner GT. **Lymphology** 1999 Sep; 32(3):126–8
Noninvasive in vivo evaluation of skin antioxidant activity and oxidation status. Kohen R, et al. **Methods Enzymol** 1999;300:428–37
Noninvasive measurement of alpha-tocopherol gradients in human stratum corneum by high-performance liquid chromatography analysis of sequential tape strippings. Thiele JJ, et al. **Methods Enzymol** 1999;300:413–9
Detection of free radicals in reperfused dog skin flaps using electron paramagnetic resonance spectroscopy: a pilot study. Miller CW, et al. **Microsurgery** 1999;19(4):171–5
Molecular analysis of the efficiency of sloughed skin sampling in whale population genetics. Valsecchi E, et al. **Mol Ecol** 1998 Oct;7(10):1419–22
Analysis of carnitine esters by radio-high performance liquid chromatography in cultured skin fibroblasts from patients with mitochondrial fatty acid oxidation disorders. Schmidt-Sommerfeld E, et al. **Pediatr Res** 1998 Aug; 44(2):210–4
Ranatuerin 1T: an antimicrobial peptide isolated from the skin of the frog, Rana temporaria. Goraya J, et al. **Peptides** 1999;20(2):159–63
Proopiomelanocortin (POMC) mRNA and POMC-derived peptides immunolocalization in the skin of Protopterus annectens, an African lungfish. Masini MA, et al. **Peptides** 1999;20(1):87–91
Computerized morphometric quantitation of elastin and collagen in SMAS and facial skin and the possible role of fat cells in SMAS viscoelastic properties. Har-Shai Y, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2466–70
The citropin peptides from the skin glands of the Australian Blue Mountains tree frog Litoria citropa. Part 2: sequence determination using electrospray mass spectrometry. Wabnitz PA, et al. **Rapid Commun Mass Spectrom** 1999; 13(17):1724–32
Penetration of titanium dioxide microparticles in a sunscreen formulation into the horny layer and the follicular orifice. Lademann J, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct;12(5):247–56
Indirect cardiotoxic activity of the caecilian Siphonops paulensis (Gymnophiona, Amphibia) skin secretion. Schwartz EN, et al. **Toxicon** 1999 Jan;37(1):47–54
[Site specific difference of PCB concentration in the skin derived sebum and collection of excreted sebum with commercial sebum-remover sheet] Watanabe M, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):154–6 (Eng. Abstr.) **(Jpn)**
[Immunohistologic determination of extracellular matrix components in granuloma annulare] Halagovec A, et al. **Cas Lek Cesk** 1999 Feb 22;138(4):116–8 (Eng. Abstr.) **(Slo)**

CYTOLOGY

Cultured allogeneic skin cells are effective in the treatment of chronic diabetic leg and foot ulcers. Harvima IT, et al. **Acta Derm Venereol** 1999 May;79(3):217–20
Morphometric analysis of collagen: a comparative study in cow and pig skins. Kobayashi A, et al. **Anat Histol Embryol** 1999 Aug;28(4):235–8
Shape of large bound polysomes in cultured fibroblasts and thyroid epithelial cells. Christensen AK, et al. **Anat Rec** 1999 Jun 1;255(2):116–29
There is binding of collagen IV to beta 1 integrin during early skin basement membrane assembly. Fleischmajer R, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:212–27
Differential growth response to exogenous calcium in normal and carcinogen-exposed primary human keratinocyte cell cultures. Steele VE, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4067–70
Hypochlorous acid activates the tumor suppressor protein p53 in cultured human skin fibroblasts. Vile GF, et al. **Arch Biochem Biophys** 1998 Nov 1;359(1):51–6
Topical amikacin formulation induces fibroblast growth factor and cytokine release from human dermal fibroblasts. Baroni A, et al. **Arch Dermatol Res** 1999 May;291(5):296–9
Characterization of human skin-derived CD1a-positive lymph cells. Brand CU, et al. **Arch Dermatol Res** 1999 Feb-Mar;291(2–3):65–72
Histopathological assessment of localized proliferation in cases of Bowen's disease using immunostaining and a laser cytometer. Murakami M, et al. **Arch Dermatol Res** 1998 Aug;290(8):435–40
Alginate oligosaccharides modulate cell morphology, cell proliferation and collagen expression in human skin fibroblasts in vitro. Tajima S, et al. **Arch Dermatol Res** 1999 Jul-Aug;291(7–8):432–6
Inhibition of type I collagen production by dermal fibroblasts upon contact with activated T cells: different sensitivity to inhibition between systemic sclerosis and control fibroblasts. Chizzolini C, et al. **Arthritis Rheum** 1998 Nov; 41(11):2039–47
Transcriptional activation of the alpha1(I) procollagen gene and up-regulation of alpha1(I) and alpha1(III) procollagen messenger RNA in dermal fibroblasts from tight skin 2 mice. Christner PJ, et al. **Arthritis Rheum** 1998 Dec; 41(12):2132–42
4Pi-confocal imaging in fixed biological specimens. Schrader M, et al. **Biophys J** 1998 Oct;75(4):1659–68
Definition of dendritic cell subpopulations present in the spleen, Peyer's patches, lymph nodes, and skin of the mouse. Anjuère F, et al. **Blood** 1999 Jan 15;93(2):590–8
Hodgkin/Reed-Sternberg cells induce fibroblasts to secrete eotaxin, a potent chemoattractant for T cells and eosinophils. Jundt F, et al. **Blood** 1999 Sep 15;94(6):2065–71
Large surface of cultured human epithelium obtained on a dermal matrix based on live fibroblast-containing fibrin gels. Meana A, et al. **Burns** 1998 Nov;24(7):621–30
Biologic material in needles and cartridges after insulin injection with a pen in diabetic patients. Le Floch JP, et al. **Diabetes Care** 1998 Sep;21(9):1502–4
On the limited value of fine-needle aspiration for the diagnosis of benign melanocytic proliferations of the skin. García Rojo B, et al. **Diagn Cytopathol** 1998 Dec; 19(6):441–5
Immunohistochemistry of normal human skin. Kanitakis J. **Eur J Dermatol** 1998 Dec;8(8):539–47 (59 ref.)
Apoptosis and the skin. Teraki Y, et al. **Eur J Dermatol** 1999 Jul-Aug;9(5):413–25; quiz 426 (48 ref.)
Comparative investigations to evaluate the use of organotypic cultures of transformed and native dermal and epidermal cells for permeation studies. Specht C, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):273–8
Alpha 2 beta 1 integrin mediates dermal fibroblast attachment to type VII collagen via a 158-amino-acid segment of the NC1 domain. Chen M, et al. **Exp Cell Res** 1999 Jun 15; 249(2):231–9
Epithelial stem cells in the skin: definition, markers, localization and functions. Cotsarelis G, et al. **Exp Dermatol** 1999 Feb;8(1):80–8
Interferon-gamma upregulates the stromelysin-1 gene expression by human skin fibroblasts in culture. Lee KS, et al. **Exp Mol Med** 1998 Jun 30;30(2):59–64
Effect of in vitro aging on the modulation of protein and fibronectin biosynthesis by the elastin-laminin receptor in human skin fibroblasts. Fodil-Bourahla I, et al. **Gerontology** 1999 Jan-Feb;45(1):23–30
Segmentation of digitized dermatoscopic images by two-dimensional color clustering. Schmid P. **IEEE Trans Med Imaging** 1999 Feb;18(2):164–71
A new model of epidermal culture for the surgical treatment of vitiligo. Andreassi L, et al. **Int J Dermatol** 1998 Aug; 37(8):595–8
Feasibility study of a natural crosslinking reagent for biological tissue fixation. Sung HW, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):560–7
Comparative effects of TGFbeta on proliferation of 7- and 14-day-old chick embryo fibroblasts and lack of involvement of the ODC/PA system in the TGFbeta signaling pathway. Evangelisti R, et al. **J Cell Physiol** 1999 Mar;178(3):304–10
Hyaluronic acid stimulates human fibroblast proliferation within a collagen matrix. Greco RM, et al. **J Cell Physiol** 1998 Dec;177(3):465–73
Negative modulation of alpha1(I) procollagen gene expression in human skin fibroblasts: transcriptional inhibition by interferon-gamma. Yuan W, et al. **J Cell Physiol** 1999 Apr;179(1):97–108
Protein kinase C-alpha levels are inversely associated with growth rate in cultured human dermal fibroblasts. Choi SW, et al. **J Dermatol Sci** 1998 Sep;18(1):54–63
Sensitivity of cross-reacting antihuman antibodies in formalin-fixed porcine skin: including antibodies to proliferation antigens and cytokeratins with specificity in the skin. Smith KJ, et al. **J Dermatol Sci** 1998 Sep; 18(1):19–29
Differential effect of etretinate on proliferation and extracellular matrix metabolism of human dermal fibroblasts from elderly and young individuals in a novel three-dimensional culture. Zaw KK, et al. **J Dermatol Sci** 1998 Dec;18(3):155–62
Fibroblast-like cells from tendons differ from skin fibroblasts in their ability to form three-dimensional structures in vitro. Evans CE, et al. **J Hand Surg [Br]** 1998 Oct;23(5):633–41
Intracellular IL-1 receptor antagonist is elevated in human dermal fibroblasts that overexpress intracellular precursor IL-1 alpha. Higgins GC, et al. **J Immunol** 1999 Oct 1; 163(7):3969–75
Expression of type XVI collagen in human skin fibroblasts: enhanced expression in fibrotic skin diseases. Akagi A, et al. **J Invest Dermatol** 1999 Aug;113(2):246–50
Exposure to a dry environment enhances epidermal permeability barrier function. Denda M, et al. **J Invest Dermatol** 1998 Nov;111(5):858–63
Low humidity stimulates epidermal DNA synthesis and amplifies the hyperproliferative response to barrier disruption: implication for seasonal exacerbations of inflammatory dermatoses. Denda M, et al. **J Invest Dermatol** 1998 Nov;111(5):873–8
PTHrP regulates epidermal differentiation in adult mice. Foley J, et al. **J Invest Dermatol** 1998 Dec;111(6):1122–8
Phenotypic characterization of human skin mast cells by combined staining with toluidine blue and CD antibodies. Ghannadan M, et al. **J Invest Dermatol** 1998 Oct; 111(4):689–95
Long-term culture of murine epidermal keratinocytes. Hager B, et al. **J Invest Dermatol** 1999 Jun;112(6):971–6
Establishment of rat dermal papilla cell lines that sustain the potency to induce hair follicles from afollicular skin. Inamatsu M, et al. **J Invest Dermatol** 1998 Nov; 111(5):767–75
A serotonin-like immunoreactivity is present in human cutaneous melanocytes. Johansson O, et al. **J Invest Dermatol** 1998 Dec;111(6):1010–4
Increased expression of heat-shock protein 47 is associated with overproduction of type I procollagen in systemic sclerosis skin fibroblasts. Kuroda K, et al. **J Invest Dermatol** 1998 Dec;111(6):1023–8
Dermal dendritic cells associated with T lymphocytes in normal human skin display an activated phenotype. McLellan AD, et al. **J Invest Dermatol** 1998 Nov; 111(5):841–9
Von Willebrand factor receptor GPIb alpha is expressed by human factor XIIIa-positive dermal dendrocytes and is upregulated by mast cell degranulation. Monteiro MR, et al. **J Invest Dermatol** 1999 Aug;113(2):272–6
Epidermal organization and differentiation of HaCaT keratinocytes in organotypic coculture with human dermal fibroblasts. Schoop VM, et al. **J Invest Dermatol** 1999 Mar; 112(3):343–53
Localization of rat FGF-5 protein in skin macrophage-like cells and FGF-5S protein in hair follicle: possible involvement of two Fgf-5 gene products in hair growth cycle regulation. Suzuki S, et al. **J Invest Dermatol** 1998 Dec;111(6):963–72
Differential expression pattern of the three Fringe genes is associated with epidermal differentiation. Thélu J, et al. **J Invest Dermatol** 1998 Nov;111(5):903–6
Langerhans cells express matrix metalloproteinase-9 in the human epidermis [letter] Uchi H, et al. **J Invest Dermatol** 1998 Dec;111(6):1232–3
Recessive x-linked ichthyosis: role of cholesterol-sulfate accumulation in the barrier abnormality. Zettersten E, et al. **J Invest Dermatol** 1998 Nov;111(5):784–90
Enzyme-free method for cultured skin grafting. Takeda T, et al. **J Invest Surg** 1999 Mar-Apr;12(2):125–7
Migration of langerhans cells and dermal dendritic cells in skin organ cultures: augmentation by TNF-alpha and IL-1beta. Stoitzner P, et al. **J Leukoc Biol** 1999 Sep; 66(3):462–70
Dendritic cells from skin and blood of macaques both promote SIV replication with T cells from different anatomical sites. Ignatius R, et al. **J Med Primatol** 1998 Apr-Jun;27(2–3):121–8
In vitro patch-clamp studies in skin fibroblasts. Goodwin PA, et al. **J Pharmacol Toxicol Methods** 1998 Jun; 39(4):229–33
Intradermal injection of autologous dermal fibroblasts improves wound healing in irradiated skin. Ferguson PC,

et al. **J Surg Res** 1999 Aug;85(2):331–8

Novel putative fragile sites observed in feline fibroblasts treated with aphidicolin and fluorodeoxyuridine. Kubo K, et al. **J Vet Med Sci** 1998 Jul;60(7):809–13

Translocation of profilaggrin N-terminal domain into keratinocyte nuclei with fragmented DNA in normal human skin and loricrin keratoderma. Ishida-Yamamoto A, et al. **Lab Invest** 1998 Oct;78(10):1245–53

Modeling of wound healing processes in human skin using tissue culture. Kratz G. **Microsc Res Tech** 1998 Sep 1; 42(5):345–50

BAC-mediated gene-dosage analysis reveals a role for Zipro1 (Ru49/Zfp38) in progenitor cell proliferation in cerebellum and skin [see comments] Yang XW, et al. **Nat Genet** 1999 Aug;22(4):327–35. Comment in: Nat Genet 1999 Aug;22(4):319–20.

Transplanted fetal fibroblasts: survival and distribution over time in normal adult dermis compared with autogenic, allogenic, and xenogenic adult fibroblasts. Hebda PA, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):245–51

Formation of the dermal chromatophore unit (DCU) in the tree frog Hyla arborea. Yasutomi M, et al. **Pigment Cell Res** 1998 Aug;11(4):198–205

The cornified envelope: a model of cell death in the skin. Melino G, et al. **Results Probl Cell Differ** 1998;24:175–212 (118 ref.)

Histodifferentiation of hair follicles in grafting of cell aggregates obtained by rotation culture of embryonic rat skin. Takeda A, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):359–64

Stimulation of protein kinase A activity and induced terminal differentiation of human skin fibroblasts in culture by low-frequency electromagnetic fields. Löschinger M, et al. **Toxicol Lett** 1998 Aug;96–97:369–76

Burns and skin transplantation. Rouabhia M. **Transplant Proc** 1999 Feb-Mar;31(1–2):889

Effect of hyperbaric oxygen on human skin cells in culture and in human dermal and skin equivalents. Dimitrijevich SD, et al. **Wound Repair Regen** 1999 Jan-Feb;7(1):53–64

Effects of chronic wound fluid on the bioactivity of platelet-derived growth factor in serum-free medium and its direct effect on fibroblast growth. He C, et al. **Wound Repair Regen** 1999 Mar-Apr;7(2):97–105

Impaired proliferation and increased L-lactate production of dermal fibroblasts in the GK-rat, a spontaneous model of non-insulin dependent diabetes mellitus. Hehenberger K, et al. **Wound Repair Regen** 1999 Jan-Feb;7(1):65–71

[The experimental study of the effect of insulin and danshen on culture of fibroblast in vitro] Liu M, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Jan;12(1):52–4 (Eng. Abstr.) **(Chi)**

[Experimental study on biological characteristics of tenocyte and fibroblast in rabbit] Zhang Q, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):46–8 (Eng. Abstr.) **(Chi)**

[Skin cell culture: utilization in plastic surgery and laboratory studies] Boranić M, et al. **Lijec Vjesn** 1999 Apr-May; 121(4–5):137–43 (Eng. Abstr.) **(Scr)**

DRUG EFFECTS

Correlation between the greasiness and the plasticizing effect of moisturizers. Jemec GB, et al. **Acta Derm Venereol** 1999 Mar;79(2):115–7

Thermophysical effects of ointments in cold: an experimental study with a skin model. Lehmuskallio E, et al. **Acta Derm Venereol** 1999 Jan;79(1):33–6

Effect of intradermal injection of methionine-enkephalin on human skin. Nissen JB, et al. **Acta Derm Venereol** 1999 Jan;79(1):23–6

Eicosanoid and cytokine levels in acute skin irritation in response to tape stripping and capsaicin. Reilly DM, et al. **Acta Derm Venereol** 1999 May;79(3):187–90

Estrogenic xenobiotics increase expression of SS-A/Ro autoantigens in cultured human epidermal cells. Sakabe K, et al. **Acta Derm Venereol** 1998 Nov;78(6):420–3

Treatment of psoriasis vulgaris with topical calcipotriol: is the clinical improvement of lesional skin related to a down-regulation of some cell adhesion molecules? Cagnoni ML, et al. **Acta Derm Venereol Suppl (Stockh)** 1994; 186:55–7

Psoriasis and cyclosporin: immunohistochemical aspects of the basement membrane. Mondello MR, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:96–8

The effect of post milking teat dip and suckling on teat skin condition, bacterial colonisation, and udder health. Rasmussen MD, et al. **Acta Vet Scand** 1998;39(4):443–52

Maculopapular exanthema from diacetyl-midecamycin (MOM). Borja JM, et al. **Allergy** 1998 Oct;53(10):1004–5

Factors defining sensitive skin and its treatment. Muizzuddin N, et al. **Am J Contact Dermat** 1998 Sep;9(3):170–5

Vasoconstrictor effect of endothelin-1 in human skin: role of ETA and ETB receptors. Lipa JE, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H359–67

Blockage of skin invasion by schistosome cercariae by serine protease inhibitors. Lim KC, et al. **Am J Trop Med Hyg** 1999 Mar;60(3):487–92

In vivo ac impedance spectroscopy of human skin. Theory and problems in monitoring of passive percutaneous drug delivery. Lackermeier AH, et al. **Ann N Y Acad Sci** 1999 Apr 20;873:197–213

Electrical bioimpedance related to structural differences and reactions in skin and oral mucosa. Nicander I, et al. **Ann N Y Acad Sci** 1999 Apr 20;873:221–6

A novel protein (p10) induced by 12-O-tetradecanoyl-phorbol-13-acetate (TPA) and other hyperplasiogenic tumor-promoting and non-promoting agents in murine epidermis. Schlatterer K, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):397–402

Mechanistically different acting tumor promoters induce consistent qualitative and quantitative changes in protein expression patterns of murine epidermis. Schlatterer K, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):385–95

Use of topical products for maintaining remission in rosacea [editorial; comment] Wilkin JK. **Arch Dermatol** 1999 Jan; 135(1):79–80 (6 ref.). Comment on: Arch Dermatol 1994 Mar;130(3):359–62. Comment on: Arch Dermatol 1998 Jun;134(6):679–83.

Linoleic acid and alpha-linolenic acid lightens ultraviolet-induced hyperpigmentation of the skin. Ando H, et al. **Arch Dermatol Res** 1998 Jul;290(7):375–81

Inhibition of skin 11beta-hydroxysteroid dehydrogenase activity in vivo potentiates the anti-inflammatory actions of glucocorticoids. Hennebold JD, et al. **Arch Dermatol Res** 1998 Aug;290(8):413–9

Influence of topical tretinoin on skin lipid production in vivo. Motta S, et al. **Arch Dermatol Res** 1998 Aug;290(8):450–2

Effect of topical capsaicin on the cutaneous reactions and itching to histamine in atopic eczema compared to healthy skin. Weisshaar E, et al. **Arch Dermatol Res** 1998 Jun; 290(6):306–11

SLS-irritated human skin shows no correlation between degree of proliferation and TEWL increase. Welzel J, et al. **Arch Dermatol Res** 1998 Nov;290(11):615–20

Lack of correlation of skin thickness with bone density in patients receiving chronic glucocorticoid. Werth VP, et al. **Arch Dermatol Res** 1998 Jul;290(7):388–93

Action of physalaemin on the ionic transport across the frog skin. Lobasso S, et al. **Arch Physiol Biochem** 1998 Aug; 105(4):329–36

Effect of topically applied evening primrose oil on epidermal barrier function in atopic dermatitis as a function of vehicle. Gehring W, et al. **Arzneimittelforschung** 1999 Jul; 49(7):635–42

Role of leukocyte influx in tissue prostaglandin H synthase-2 overexpression induced by phorbol ester and arachidonic acid in skin. Sánchez T, et al. **Biochem Pharmacol** 1999 Sep 1;58(5):877–9

The mechanism of inhibition of beta-oxidation by aspirin metabolites in skin fibroblasts from Reye's syndrome patients and controls. Glasgow JF, et al. **Biochim Biophys Acta** 1999 May 31;1454(1):115–25

In vivo stimulation of 12(S)-lipoxygenase in the rat skin by bradykinin and platelet activating factor: formation of 12(S)-HETE and hepoxilins, and actions on vascular permeability. Wang MM, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):354–62

Coenzyme Q10, a cutaneous antioxidant and energizer. Hoppe U, et al. **Biofactors** 1999;9(2–4):371–8 (33 ref.)

Modulation of UVA-induced lipid peroxidation and suppression of UVB-induced ornithine decarboxylase response by all-trans-retinoic acid in human skin fibroblasts in vitro. Francz PI, et al. **Biol Chem** 1998 Oct; 379(10):1263–9

Poly(anhydride-co-imides): in vivo biocompatibility in a rat model. Ibim SM, et al. **Biomaterials** 1998 May; 19(10):941–51

In vitro effects of different formulations of bovine collagen on cultured human skin. Trasciatti S, et al. **Biomaterials** 1998 May;19(10):897–903

Effect of alpha-tocopherol and silibin dihemisuccinate on the proliferation of human skin fibroblasts. Onat D, et al. **Biotechnol Appl Biochem** 1999 Jun;29 (Pt 3):213–5

Effects of recombinant human bone morphogenetic protein-2 on differentiation of cells isolated from human bone, muscle, and skin. Kawasaki K, et al. **Bone** 1998 Sep; 23(3):223–31

Comparative effect of ALA derivatives on protoporphyrin IX production in human and rat skin organ cultures. Casas A, et al. **Br J Cancer** 1999 Jul;80(10):1525–32

Chemical modification of normal tissue damage induced by photodynamic therapy. Sigdestad CP, et al. **Br J Cancer Suppl** 1996 Jul;27:S89–92

Pharmacology of adapalene. Michel S, et al. **Br J Dermatol** 1998 Oct;139 Suppl 52:3–7

Effect of granulocyte macrophage-colony stimulating factor on Langerhans cells in normal and healthy atopic subjects. Smith CH, et al. **Br J Dermatol** 1998 Aug;139(2):239–46

Neurogenic cutaneous vasodilatation and plasma extravasation in diabetic rats: effect of insulin and nerve growth factor. Bennett GS, et al. **Br J Pharmacol** 1998 Aug;124(7):1573–9

Regulation of RANTES and IL-8 production in normal human dermal fibroblasts by active vitamin D3 (tacalcitol). Fukuoka M, et al. **Br J Pharmacol** 1998 Aug;124(7):1433–8

Topical tamoxifen--a potential therapeutic regime in treating excessive dermal scarring? Hu D, et al. **Br J Plast Surg** 1998 Sep;51(6):462–9

Evaluation of proteinase inhibitors and free radical inhibitors/scavengers in reducing post-thaw viability loss of cryopreserved skin. Kearney JN. **Burns** 1998 Sep; 24(6):507–12

Topical D-myo-inositol-1,2,6-trisphosphate and hexylbetaine treatment reduces albumin extravasation in experimental rat skin burn injury. Tarnow P, et al. **Burns** 1998 Aug;24(5):460–3

Skin application of isoflurane attenuates the responses to a mechanical and an electrical stimulation. Fassoulaki A, et al. **Can J Anaesth** 1998 Dec;45(12):1151–5

Cutaneous antimicrobial preparation prior to intravenous catheterization in healthy dogs: clinical, microbiological, and histopathological evaluation. Coolman BR, et al. **Can Vet J** 1998 Dec;39(12):757–63

Aromatic DNA adducts in human white blood cells and skin after dermal application of coal tar. Godschalk RW, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Sep;7(9):767–73

Effects of resveratrol on 12-O-tetradecanoylphorbol-13-acetate-induced oxidative events and gene expression in mouse skin. Jang M, et al. **Cancer Lett** 1998 Dec 11;134(1):81–9

Activation of JNK and p38 but not ERK MAP kinases in human skin cells by 5-aminolevulinate-photodynamic therapy. Klotz LO, et al. **Cancer Res** 1998 Oct 1; 58(19):4297–300

Effect of polydeoxyribonucleotides on human fibroblasts in primary culture. Sini P, et al. **Cell Biochem Funct** 1999 Jun;17(2):107–14

Induction of peripheral tolerance in neonatally thymectomized mice by immunization through chemical carcinogen-altered skin. Chen YP, et al. **Cell Immunol** 1998 Nov 1;189(2):99–106

Organophosphate skin decontamination using immobilized enzymes. Gordon RK, et al. **Chem Biol Interact** 1999 May 14;119–120:463–70

Alcohol and the skin. Wolf R. **Clin Dermatol** 1999 Jul-Aug; 17(4):351–2

Epicutaneous administration of hapten through patch application augments TH2 responses which can downregulate the elicitation of murine contact hypersensitivity. Wang LF, et al. **Clin Exp Allergy** 1999 Feb;29(2):271–9

Comparison of weal and flare responses to platelet activating factor (PAF) and histamine, and the ultrastructural effects of PAF in the skin of atopic and normal subjects. Jenks PJ, et al. **Clin Exp Dermatol** 1999 Mar;24(2):112–7

Anaphylactic shock after application of chlorhexidine to unbroken skin. Autegarden JE, et al. **Contact Dermatitis** 1999 Apr;40(4):215

Contact dermatitis from para-phenylenediamine used as a skin paint: a further case. Gallo R, et al. **Contact Dermatitis** 1999 Jan;40(1):57

Allergic contact dermatitis from military camouflage. Goon AT, et al. **Contact Dermatitis** 1999 May;40(5):290–1

An in vitro study of the use of chelating agents in cleaning nickel-contaminated human skin: an alternative approach to preventing nickel allergic contact dermatitis. Healy J, et al. **Contact Dermatitis** 1998 Oct;39(4):171–81

Dermal contact dermatitis caused by allergy to palladium. Katoh N, et al. **Contact Dermatitis** 1999 Apr;40(4):226–7

Skin susceptibility of atopic individuals. Löffler H, et al. **Contact Dermatitis** 1999 May;40(5):239–42

Trimethoprim-induced fixed drug eruption: positive topical provocation on previously involved and uninvolved skin. Ozkaya-Bayazit E, et al. **Contact Dermatitis** 1998 Aug; 39(2):87–8

Immediate skin and mucosal symptoms from pot plants and vegetables in gardeners and greenhouse workers. Paulsen E, et al. **Contact Dermatitis** 1998 Oct;39(4):166–70

The effects of prolonged use of surfactants on the skin of normal and photo-exposed hairless mice. Tavakkol A, et al. **Contact Dermatitis** 1998 Nov;39(5):231–9

Cutaneous sensitization to some polyisocyanate prepolymers in guinea pigs. Zissu D, et al. **Contact Dermatitis** 1998 Nov; 39(5):248–51

Increased in vivo collagen synthesis and in vitro cell proliferative effect of glycolic acid. Kim SJ, et al. **Dermatol Surg** 1998 Oct;24(10):1054–8

Biological activities of topical retinaldehyde. Didierjean L, et al. **Dermatology** 1999;199 Suppl 1:19–24

Tolerance profile of retinol, retinaldehyde and retinoic acid under maximized and long-term clinical conditions. Fluhr JW, et al. **Dermatology** 1999;199 Suppl 1:57–60

Comparison of the effects of cetirizine and ebastine on the skin response to histamine iontophoresis monitored with laser Doppler flowmetry. Leroy T, et al. **Dermatology** 1998; 197(2):146–51

Tolerance of topical retinaldehyde in humans. Sachsenberg-Studer EM. **Dermatology** 1999;199 Suppl 1:61–3

Lichenoid cutaneous drug reaction at injection sites of granulocyte colony-stimulating factor (Filgrastim). Viallard AM, et al. **Dermatology** 1999;198(3):301–3

Toxicity of middle distillates from dermal exposure. Koschier FJ. **Drug Chem Toxicol** 1999 Feb;22(1):155–64 (17 ref.)

Effect of menthol on permeability of an optically active and racemic propranolol across guinea pig skin. Zahir A, et al. **Drug Dev Ind Pharm** 1998 Sep;24(9):875–8

The local effects of systemic digoxin on the cutaneous microcirculation. Grossmann M, et al. **Eur J Clin Pharmacol** 1999 Jun;55(4):263–8

Skin susceptibility to dithranol: contact allergy or irritation? Loffler H, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):32–4 (23 ref.)

Analysis of chromameter results obtained from corticosteroid-induced skin blanching assay: comparison of visual and chromameter data. Schwarb FP, et al.

Eur J Pharm Biopharm 1999 May;47(3):261-7
Influence of pharmaceutical gel vehicles containing oleic acid/sodium oleate combinations on hairless mouse skin, a histological evaluation. Sintov A, et al. **Eur J Pharm Biopharm** 1999 May;47(3):299-303
Changes in morphology of human skin fibroblasts induced by local anaesthetics: role of actomyosin contraction. Pierzchalska M, et al. **Eur J Pharmacol** 1998 Oct 9; 358(3):235-44
Enzymatic dissociation of keratinocytes from human skin biopsies for in vitro cell propagation. Hybbinette S, et al. **Exp Dermatol** 1999 Feb;8(1):30-8
Administration of acetylcholine and vasoactive intestinal polypeptide to atopic eczema patients. Rukwied R, et al. **Exp Dermatol** 1999 Feb;8(1):39-45
Phototoxicity of quinalphos under sunlight in vitro and in vivo. Srivastava LP, et al. **Food Chem Toxicol** 1999 Feb-Mar;37(2-3):177-81
Protective effects of antioxidants against UVA-induced DNA damage in human skin fibroblasts in culture. Emonet-Piccardi N, et al. **Free Radic Res** 1998 Oct; 29(4):307-13
Characterization of beta-D-xyloside-initiated glycosaminoglycan synthesized by human skin fibroblasts in the presence of tunicamycin. Takagaki K, et al. **Glycoconj J** 1998 May;15(5):483-9
T-2 toxin-induced acute skin lesions in Wistar-derived hypotrichotic WBN/ILA-Ht rats. Albarenque SM, et al. **Histol Histopathol** 1999 Apr;14(2):337-42
Inhibition by dexamethasone of Langerhans cell migration: influence of epidermal cytokine signals. Cumberbatch M, et al. **Immunopharmacology** 1999 Apr;41(3):235-43
Acute cytotoxicity testing with cultured human lung and dermal cells. Barile FA, et al. **In Vitro Cell Dev Biol Anim** 1998 Sep;34(8):631-5
Identification of functional domains of Bordetella dermonecrotizing toxin. Kashimoto T, et al. **Infect Immun** 1999 Aug;67(8):3727-32
Characterization of the hemorrhagic reaction caused by Vibrio vulnificus metalloprotease, a member of the thermolysin family. Miyoshi S, et al. **Infect Immun** 1998 Oct;66(10):4851-5
Human skin mast cells produce TNF-alpha by substance P. Okayama Y, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:48-51
Increased resistance of GPx-1 transgenic mice to tumor promoter-induced loss of glutathione peroxidase activity in skin. Bilodeau JF, et al. **Int J Cancer** 1999 Mar 15; 80(6):863-7
V. A new route, jet injection of lidocaine for skin wheal for painless intravenous catheterization. Zsigmond EK, et al. **Int J Clin Pharmacol Ther** 1999 Feb;37(2):90-9
Pemphigus and pemphigoid-like effects of nifedipine on in vitro cultured normal human skin explants. Brenner S, et al. **Int J Dermatol** 1999 Jan;38(1):36-40
Effects of gemfibrozil on in vitro cultured normal human skin explants. Wolf R, et al. **Int J Dermatol** 1999 Jan; 38(1):65-9
The in vitro effect of hydroxychloroquine on skin morphology in psoriasis. Wolf R, et al. **Int J Dermatol** 1999 Feb;38(2):154-7
Adhesion molecule expression on skin endothelia in atopic dermatitis: effects of TNF-alpha and IL-4. de Vries IJ, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):461-8
Mucocutaneous reactions to chemotherapy. Susser WS, et al. **J Am Acad Dermatol** 1999 Mar;40(3):367-98; quiz 399-400 (390 ref.)
Comparative grepafloxacin phototoxicity in mouse skin. Owen K. **J Antimicrob Chemother** 1998 Aug;42(2):261-4
Reflex control of cutaneous vasoconstrictor system is reset by exogenous female reproductive hormones. Charkoudian N, et al. **J Appl Physiol** 1999 Jul;87(1):381-5
Ventilatory instability during sleep onset in individuals with high peripheral chemosensitivity. Dunai J, et al. **J Appl Physiol** 1999 Aug;87(2):661-72
Carcinogenicity of dermally administered 1,2-dihydro-2,2,4-trimethylquinoline monomer in F344 rats and B6C3F1 mice. Irwin RD, et al. **J Appl Toxicol** 1999 Mar-Apr;19(2):125-32
Skin ulceration from tibial cement extrusion: case report and literature review. Ward WG, et al. **J Arthroplasty** 1998 Oct;13(7):826-9 (9 ref.)
Enhancement of thermal hyperalgesia by alpha-adrenoceptors in capsaicin-treated skin. Drummond PD. **J Auton Nerv Syst** 1998 Apr 30;69(2-3):96-102
Validation and subsequent development of the DEREK skin sensitization rulebase by analysis of the BgVV list of contact allergens. Barratt MD, et al. **J Chem Inf Comput Sci** 1999 Mar-Apr;39(2):294-8
Penetration enhancing effect of tetrahydrogeraniol on the percutaneous absorption of 5-fluorouracil from gels in excised rat skin. Hanif RM, et al. **J Controlled Release** 1998 Nov 13;55(2-3):297-302
Phospholipids affect stratum corneum lipid bilayer fluidity and drug partitioning into the bilayers. Kirjavainen M, et al. **J Controlled Release** 1999 Mar 29;58(2):207-14
Repeat direct immunofluorescence (DIF) test, using, 1 M NaCl treated skin, in the subepidermal autoimmune bullous diseases that contain IgG at the dermal epidermal junction. Barnadas MA, et al. **J Cutan Pathol** 1999 Jan;26(1):37-41
Temporal changes in disaccharide composition of dermatan sulfate in the skin after epicutaneous application of hapten [published erratum appears in J Dermatol Sci 1999 Feb;19(2):148-9] Kuwaba K, et al. **J Dermatol Sci** 1999 Jan;19(1):23-30
Differential effect of etretinate on proliferation and extracellular matrix metabolism of human dermal fibroblasts from elderly and young individuals in a novel three-dimensional culture. Zaw KK, et al. **J Dermatol Sci** 1998 Dec;18(3):155-62
In vivo and in vitro investigations of hydration effects of beauty care products by high-field MRI and NMR microscopy. Szayna M, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):122-8
Antimicrobial efficacy of biocides tested on skin using an ex-vivo test. Maillard JY, et al. **J Hosp Infect** 1998 Dec; 40(4):313-23
VCAM-1 expression on human dermal microvascular endothelial cells is directly and specifically up-regulated by substance P. Quinlan KL, et al. **J Immunol** 1999 Feb 1;162(3):1656-61
Expression and regulation of interferon-gamma-induced tryptophan catabolism in cultured skin fibroblasts. Holmes EW. **J Interferon Cytokine Res** 1998 Jul;18(7):509-20
Inhibition of solar simulator-induced p53 mutations and protection against skin cancer development in mice by sunscreens. Ananthaswamy HN, et al. **J Invest Dermatol** 1999 May;112(5):763-8
The inflammatory and cytotoxic effects of a nitric oxide releasing cream on normal skin. Ormerod AD, et al. **J Invest Dermatol** 1999 Sep;113(3):392-7
The iron regulatory protein can determine the effectiveness of 5-aminolevulinic acid in inducing protoporphyrin IX in human primary skin fibroblasts. Pourzand C, et al. **J Invest Dermatol** 1999 Apr;112(4):419-25
Rolipram inhibits staphylococcal enterotoxin B-mediated induction of the human skin-homing receptor on T lymphocytes. Santamaria LF, et al. **J Invest Dermatol** 1999 Jul;113(1):82-6
Molecular mechanisms of intrinsic skin aging and retinoid-induced repair and reversal. Varani J, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):57-60
Long-term observation of subcutaneous tissue reaction to synthetic auditory ossicle (Bioceram) in rats. Zhu CS, et al. **J Med Invest** 1999 Feb;46(1-2):97-103
Prevalence of periocular depigmentation after repeated botulinum toxin A injections in African American patients. Roehm PC, et al. **J Neuroophthalmol** 1999 Mar;19(1):7-9
An environmental hazard assessment of low-level dermal exposure to hexavalent chromium in solution among chromium-sensitized volunteers. Fowler JF Jr, et al. **J Occup Environ Med** 1999 Mar;41(3):150-60
Effect of fatty acids on the permeation of melatonin across rat and pig skin in-vitro and on the transepidermal water loss in rats in-vivo. Kandimalla K, et al. **J Pharm Pharmacol** 1999 Jul;51(7):783-90
Potent mast cell degranulation and vascular permeability triggered by urocortin through activation of corticotropin-releasing hormone receptors. Singh LK, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1349-56
Efficacy of micronized titanium dioxide-containing compounds in protection against UVB-induced immunosuppression in humans in vivo. van der Molen RG, et al. **J Photochem Photobiol B** 1998 Jul 10;44(2):143-50
Sulfatide protects rat skin flaps against ischemia-reperfusion injury. Ueda K, et al. **J Surg Res** 1998 Dec;80(2):200-4
Comparison of benzo[a]pyrene DNA adduct formation in the skin of two strains of mice selected for resistance (DBA/2) or susceptibility (C3H/HeN) to contact dermatitis. Gorisse MC, et al. **J Toxicol Environ Health** 1999 Jun 25;57(4):283-92
Effects of kerosene cleaning on the formation of DNA adducts in the skin and lung tissues of mice dermally exposed to used gasoline engine oil. Lee JH, et al. **J Toxicol Environ Health** 1999 Apr 9;56(7):463-70
Skin toxicity of propranolol in guinea pigs. Kobayashi I, et al. **J Toxicol Sci** 1999 May;24(2):103-12
Induction of unscheduled DNA synthesis in hairless mouse epidermis by skin carcinogens. Mori M, et al. **J Toxicol Sci** 1999 Aug;24(3):217-26
Skin sensitization and photosensitization studies of hydrophobically modified hydroxypropyl methylcellulose in guinea pigs. Obara S, et al. **J Toxicol Sci** 1998 Jul;23 Suppl 3:553-60
Repetitive mechanical responses of the amphibian skin to adrenergic stimulation . Tasaki I. **Jpn J Physiol** 1998 Aug; 48(4):297-300
Influences of somatotropin on biomechanical properties of porcine skin. Caperna TJ, et al. **Lab Anim Sci** 1999 Apr; 49(2):212-5
Efficacy of hydroquinone in the treatment of cutaneous hyperpigmentation in hairless descendants of Mexican hairless dogs (Xoloitzcuintli). Kimura T, et al. **Lab Anim Sci** 1998 Oct;48(5):469-75
Climacteric skin ageing of the face--a prospective longitudinal comparative trial on the effect of oral hormone replacement therapy. Piérard-Franchimont C, et al. **Maturitas** 1999 Jun 21;32(2):87-93
Multiple skin cancers associated with hydroxyurea therapy. Best PJ, et al. **Mayo Clin Proc** 1998 Oct;73(10):961-3
Photoprotective effects of some quinoxaline 1,4-dioxides in hairless mice. Gali-Muhtasib HU, et al. **Med Oncol** 1998 Dec;15(4):262-9
Ultraweak photon emission of human skin in vivo: influence of topically applied antioxidants on human skin. Sauermann G, et al. **Methods Enzymol** 1999;300:419-28
Prevention of DNA photodamage by vitamin E compounds and sunscreens: roles of ultraviolet absorbance and cellular uptake. McVean M, et al. **Mol Carcinog** 1999 Mar; 24(3):169-76
Benzo[a]pyrene site of contact mutagenicity in skin of Muta Mouse. Dean SW, et al. **Mutagenesis** 1998 Sep;13(5):515-8
Study of a rat skin in vivo micronucleus test: data generated by mitomycin C and methyl methanesulfonate. Nishikawa T, et al. **Mutat Res** 1999 Jul 21;444(1):159-66
Comparative mutagenicity of 7H-dibenzo[c,g]carbazole and two derivatives in MutaMouse liver and skin. Renault D, et al. **Mutat Res** 1998 Sep 11;417(2-3):129-40
Nitroprusside inhibits thermal hyperalgesia induced by noradrenaline in capsaicin-treated skin. Drummond PD. **Pain** 1999 Mar;80(1-2):405-12
Human psoriatic skin in organ culture: comparison with normal skin exposed to exogenous growth factors and effects of an antibody to the EGF receptor. Varani J, et al. **Pathobiology** 1998;66(6):253-9
Lysosomes are sites of fluoroquinolone photosensitization in human skin fibroblasts: a microspectrofluorometric approach. Ouedraogo G, et al. **Photochem Photobiol** 1999 Aug;70(2):123-9
Tanning in human skin types II and III offers modest photoprotection against erythema. Sheehan JM, et al. **Photochem Photobiol** 1998 Oct;68(4):588-92
Capsaicin desensitization and stimulus-induced recovery on facial compared to lingual skin. Green BG. **Physiol Behav** 1998 Dec 1;65(3):517-23
Antiinflammatory activity of some extracts from plants used in the traditional medicine of north-African countries (II). Rimbau V, et al. **Phytother Res** 1999 Mar;13(2):128-32
Effect of parsley (Petroselinum crispum) on the skin of STZ induced diabetic rats. Tunali T, et al. **Phytother Res** 1999 Mar;13(2):138-41
Pre-incision infiltration with lidocaine reduces pain and opioid consumption after reduction mammoplasty. Rosaeg OP, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6):575-9
Effect of inhaled beclomethasone dipropionate and budesonide on adrenal function, skin changes and cataract formation. Dluhy RG. **Respir Med** 1998 Jul;92 Suppl B:15-23 (41 ref.)
Neurogenic modifications induced by substance P in an organ culture of human skin. Branchet-Gumila MC, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul-Aug; 12(4):211-20
The effect of liposomes on skin barrier structure. Coderch L, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct; 12(5):235-46
Modulation of human stratum corneum properties by salicylic acid and all-trans-retinoic acid. Piérard-Franchimont C, et al. **Skin Pharmacol Appl Skin Physiol** 1998; 11(4-5):266-72
Arachidonic acid metabolism in primary irritant dermatitis produced by patch testing of human skin with surfactants. Müller-Decker K, et al. **Toxicol Appl Pharmacol** 1998 Nov; 153(1):59-67
Industry experience with alternative methods. LeClaire J, et al. **Toxicol Lett** 1998 Dec 28;102-103:575-9
Effects of all-trans-retinoic acid on the dorsal skin of hairless dogs. Kimura T, et al. **Toxicol Pathol** 1998 Sep-Oct; 26(5):595-601
Early changes in murine epidermal cell phenotype by contact sensitizers. Coutant KD, et al. **Toxicol Sci** 1999 Mar; 48(1):74-81
Inhibitory effect of oleanolic acid on 12-O-tetradecanoylphorbol-13-acetate-induced gene expression in mouse skin. Oguro T, et al. **Toxicol Sci** 1998 Sep;45(1):88-93
Comparison of in vitro and in vivo human skin responses to consumer products and ingredients with a range of irritancy potential. Perkins MA, et al. **Toxicol Sci** 1999 Apr; 48(2):218-29
Short-term biomarkers of tumor promotion in mouse skin treated with petroleum middle distillates. Walborg EF Jr, et al. **Toxicol Sci** 1998 Oct;45(2):137-45
How credible is the science behind cosmetic skin creams? Sinclair R. **West J Med** 1999 Jul;171(1):35-6
In vivo characterization of keratinocyte growth factor-2 as a potential wound healing agent. Soler PM, et al. **Wound Repair Regen** 1999 May-Jun;7(3):172-8
Which conditions promote a remanent (persistent) bactericidal activity of chlorine covers? Gottardi W, et al. **Zentralbl Hyg Umweltmed** 1998 Dec;201(4-5):325-35
[Cutaneous side effects of ketoprofen gels: results of a study based on 337 cases] Baudot S, et al. **Therapie** 1998 Mar-Apr;53(2):137-44 (Eng. Abstr.) **(Fre)**
[Explant test with skin and peritoneum of the neonatal rat as a predictive test of tolerance of local anti-infective agents in wounds and body cavities] Kramer A, et al. **Chirurg** 1998 Aug;69(8):840-5 (Eng. Abstr.) **(Ger)**
[Skin necrosis in the front foot area during anticoagulation with phenprocoumon] Schmidt M, et al. **Dtsch Med Wochenschr** 1999 Jun 11;124(23):727-30 (Eng. Abstr.) **(Ger)**
[Galenic alternatives to unstable tocopherol acetate. "Smeared" or cheated?--Vitamin E in facial ointments] Siebert-Wellnhofer A. **Fortschr Med** 1999 May 30; 117(15):40 **(Ger)**
[Cooling action of topicals--present results and testing

methods in vivo and in vitro] Thoma K, et al. **Pharmazie** 1998 Dec;53(12):813–9 (24 ref.) (Eng. Abstr.) **(Ger)**

[The evaluation of the irritating and sensitizing effects of benzalkonium chloride (published erratum appears in Med Pr 1998;49(5):456)] Krysiak B, et al. **Med Pr** 1998; 49(4):371–9 (Eng. Abstr.) **(Pol)**

[Effect of sodium succinate on histomorphologic changes in the rat autodermal transplant] Galenko-Iaroshevskii PA, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):555–60 **(Rus)**

[Skin-protective properties of sodium succinate during reduced blood circulation] Galenko-Iaroshevskii PA, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):420–4 **(Rus)**

[Dynamics of changes in the rat skin lipids during stress: effects of exogenous melatonin] Gribanov GA, et al. **Biull Eksp Biol Med** 1999 May;127(5):519–22 **(Rus)**

[Skin lipids after melatonin administration in rats] Gribanov GA, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):463–5 **(Rus)**

[Study of skin resorptive effects of solution 7-50C-3] Baul' SV, et al. **Med Tr Prom Ekol** 1999;(1):43–6 **(Rus)**

[The tissue reaction to acrylic plastics modified by supercritical extraction with carbon dioxide] Volozhin AI, et al. **Stomatologiia (Mosk)** 1998;77(4):4–8 (Eng. Abstr.) **(Rus)**

[The characteristics of peripheral nervous system regeneration in skin wounds by the use of an antioxidant-bound charcoal sorbent] Slobodianyk HI. **Klin Khir** 1998;(9–10):58–60 (Eng. Abstr.) **(Ukr)**

EMBRYOLOGY

Lineage and pluripotentiality of epithelial precursor cells in developing chicken skin. Chuong CM, et al. **Biochem Cell Biol** 1998;76(6):1069–77

Expression of the small heat shock protein HSP 27 in developing human skin. Jantschitsch C, et al. **Br J Dermatol** 1998 Aug;139(2):247–53

Expression of the alpha1-alpha6 collagen IV chains in the dermoepidermal junction during human foetal skin development: temporal and spatial expression of the alpha4 collagen IV chain in an early stage of development. Tanaka N, et al. **Br J Dermatol** 1998 Sep;139(3):371–4

Burn healing in organ cultures of embryonic chicken skin: a model system. Gallin WJ, et al. **Burns** 1998 Nov; 24(7):613–20

Detection of cryptdin in mouse skin. Shirafuji Y, et al. **Clin Diagn Lab Immunol** 1999 May;6(3):336–40

Multiple mechanisms contribute to the avoidance of avian epidermis by sensory axons. Cahoon SM, et al. **Dev Biol** 1999 Apr 15;208(2):502–12

Essential role for Sonic hedgehog during hair follicle morphogenesis. Chiang C, et al. **Dev Biol** 1999 Jan 1; 205(1):1–9

Desmosomal localization of beta-catenin in the skin of plakoglobin null-mutant mice. Bierkamp C, et al. **Development** 1999 Jan;126(2):371–81

beta-catenin signaling can initiate feather bud development. Noramly S, et al. **Development** 1999 Aug;126(16):3509–21

Lymphatic vessel hypoplasia in fetuses with Turner syndrome. von Kaisenberg CS, et al. **Hum Reprod** 1999 Mar;14(3):823–6

Expression of differentiation markers during fetal skin development in humans: immunohistochemical studies on the precursor proteins forming the cornified cell envelope. Lee SC, et al. **J Invest Dermatol** 1999 Jun;112(6):882–6

Development of dermal denticles in skates (Chondrichthyes, Batoidea): patterning and cellular differentiation. Miyake T, et al. **J Morphol** 1999 Jul;241(1):61–81

ENZYMOLOGY

Cell type-specific involvement of furin in membrane type 1 matrix metalloproteinase-mediated progelatinase A activation. Sato T, et al. **Ann N Y Acad Sci** 1999 Jun 30; 878:713–5

Increase in telomerase activity during progression of melanocytic cells from melanocytic naevi to malignant melanomas. Glaessl A, et al. **Arch Dermatol Res** 1999 Feb-Mar;291(2–3):81–7

Inhibition of skin 11beta-hydroxysteroid dehydrogenase activity in vivo potentiates the anti-inflammatory actions of glucocorticoids. Hennebold JD, et al. **Arch Dermatol Res** 1998 Aug;290(8):413–9

Expression of nitric oxide synthase III (eNOS) mRNA by human skin cells: melanocytes but not keratinocytes express eNOS mRNA. Jackson M, et al. **Arch Dermatol Res** 1998 Jun;290(6):350–2

A novel in situ method for the detection of deficient transglutaminase activity in the skin. Raghunath M, et al. **Arch Dermatol Res** 1998 Nov;290(11):621–7

Immunohistochemical localization of the neutral cysteine protease bleomycin hydrolase in human skin. Takeda A, et al. **Arch Dermatol Res** 1999 Apr;291(4):238–40

Age and cystathionine beta-synthase activity in cultured fibroblasts from patients with arterial and venous vascular disease. Nordström M, et al. **Atherosclerosis** 1998 Aug; 139(2):231–6

Expression and localization of human alcohol and aldehyde dehydrogenase enzymes in skin. Cheung C, et al. **Biochem Biophys Res Commun** 1999 Jul 22;261(1):100–7

Altered levels of primary antioxidant enzymes in progeria skin fibroblasts. Yan T, et al. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):163–7

Altered glutathione transferase levels in rat skin inflamed due to contact hypersensitivity: induction of the alpha-class subunit 1. Kimura J, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):605–10

Leukotriene A synthase activity of purified mouse skin arachidonate 8-lipoxygenase expressed in Escherichia coli. Qiao N, et al. **Biochim Biophys Acta** 1999 Apr 19; 1438(1):131–9

Protein kinase C and amyloid precursor protein processing in skin fibroblasts from sporadic and familial Alzheimer's disease cases. Vestling M, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):341–50

Inhibition of carcinogen induced activity of gamma-glutamyl transpeptidase by certain dietary constituents in mouse skin. Shukla Y, et al. **Biomed Environ Sci** 1999 Mar;12(1):66–71

Increased expression of beta-hexosaminidase alpha chain in cultured skin fibroblasts from patients with carbohydrate-deficient glycoprotein syndrome type I. Ichisaka S, et al. **Brain Dev** 1998 Aug;20(5):302–6

Stromelysin-3 (ST-3): immunohistochemical characterization of the matrix metalloproteinase (MMP)-11 in benign and malignant skin tumours and other skin disorders. Thewes M, et al. **Clin Exp Dermatol** 1999 Mar; 24(2):122–6

Two distinct forms of human mast cell chymase--differences in affinity for heparin and in distribution in skin, heart, and other tissues. McEuen AR, et al. **Eur J Biochem** 1998 Sep 1;256(2):461–70

Immunocytochemical demonstration of reduced Cu,Zn-superoxide dismutase levels following topical application of dithranol and sodium lauryl sulphate: an indication of the role of oxidative stress in acute irritant contact dermatitis. Willis CM, et al. **Eur J Dermatol** 1998 Jan-Feb;8(1):8–12

Induction of collagenase-3 (MMP-13) expression in human skin fibroblasts by three-dimensional collagen is mediated by p38 mitogen-activated protein kinase. Ravanti L, et al. **J Biol Chem** 1999 Jan 22;274(4):2446–55

Formation of distinct signalling complexes involving phosphatidylinositol 3-kinase activity with stimulation of epidermal growth factor or insulin-like growth factor-I in human skin fibroblasts. Takahashi Y, et al. **J Cell Physiol** 1999 Jan;178(1):69–75

Expression and localization of thymidine phosphorylase/platelet-derived endothelial cell growth factor in skin and cutaneous tumors. Asgari MM, et al. **J Cutan Pathol** 1999 Jul;26(6):287–94

Alteration of skin protein kinase C alpha protein and mRNA levels during induced mouse hair growth. Li LF, et al. **J Dermatol** 1999 Apr;26(4):203–9

The potential role of skin protein kinase C isoforms alpha and delta in mouse hair growth induced by diphencyprone-allergic contact dermatitis. Li LF, et al. **J Dermatol** 1999 Feb;26(2):98–105

Protein kinase C-alpha levels are inversely associated with growth rate in cultured human dermal fibroblasts. Choi SW, et al. **J Dermatol Sci** 1998 Sep;18(1):54–63

An immunohistochemical study of beta1,4-galactosyltransferase in human skin tissue. Mizukawa Y, et al. **J Dermatol Sci** 1999 Jul;20(3):183–90

Molecular cloning and tissue expression of the murine analog to human stratum corneum chymotryptic enzyme. Bäckman A, et al. **J Invest Dermatol** 1999 Aug;113(2):152–5

Induction of inducible nitric oxide synthase and its corresponding tetrahydrobiopterin-cofactor-synthesizing enzyme GTP-cyclohydrolase I during cutaneous wound repair. Frank S, et al. **J Invest Dermatol** 1998 Dec; 111(6):1058–64

Localization of sphingomyelinase in lesional skin of atopic dermatitis patients. Kusuda S, et al. **J Invest Dermatol** 1998 Nov;111(5):733–8

Neutral endopeptidase expression and distribution in human skin and wounds. Olerud JE, et al. **J Invest Dermatol** 1999 Jun;112(6):873–81

Mechanistic and quantitative prediction of aminopeptidase activity in stripped human skin based on the HaCaT cell sheet model. Boderke P, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):180–4

Immunohistochemical analysis of cyclooxygenase expression in human skin. Buckman SY, et al. **Methods Mol Biol** 1999; 120:35–43

Aging differentially modulates the expression of collagen and collagenase in dermal fibroblasts. Khorramizadeh MR, et al. **Mol Cell Biochem** 1999 Apr;194(1–2):99–108

Oxidative damage elicited by imbalance of free radical scavenging enzymes is associated with large-scale mtDNA deletions in aging human skin. Lu CY, et al. **Mutat Res** 1999 Jan 25;423(1–2):11–21

Stabilization of the pyruvate dehydrogenase E1alpha subunit by dichloroacetate. Morten KJ, et al. **Neurology** 1998 Nov; 51(5):1331–5

Doxorubicin-induced inhibition of prolidase activity in human skin fibroblasts and its implication to impaired collagen biosynthesis. Muszyńska A, et al. **Pol J Pharmacol** 1998 Mar-Apr;50(2):151–7

Carbohydrate-deficient glycoprotein syndrome type V: deficiency of dolichyl-P-Glc:Man9GlcNAc2-PP-dolichyl glucosyltransferase. Körner C, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13200–5

Heme oxygenase induction mediates the photoimmunoprotective activity of UVA radiation in the mouse. Reeve VE, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9317–21

Dehydrogenation of 3-phenoxybenzyl alcohol in isolated perfused rabbit skin, skin homogenate and purified dehydrogenases. Bast GE, et al. **Skin Pharmacol Appl Skin Physiol** 1998;11(4–5):250–7

Characterisation and assay of five enzymatic activities in the stratum corneum using tape-strippings. Redoules D, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul-Aug; 12(4):182–92

Stimulation of protein kinase A activity and induced terminal differentiation of human skin fibroblasts in culture by low-frequency electromagnetic fields. Löschinger M, et al. **Toxicol Lett** 1998 Aug;96–97:369–76

Dynamics of the matrix metalloproteinases MMP-1 and MMP-8 in acute open human dermal wounds. Nwomeh BC, et al. **Wound Repair Regen** 1998 Mar-Apr;6(2):127–34

Expression of inducible nitric oxide synthase in human burn wounds. Paulsen SM, et al. **Wound Repair Regen** 1998 Mar-Apr;6(2):142–8

[Effects of bFGF on succinate dehydrogenase level and oxygen consumption of skin flap in rats] Sun T, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Sep;11(5):264–6 (Eng. Abstr.) **(Chi)**

[Characterization of phospholipase A2 of human skin involved in the control of barrier functions] Maury E. **Ann Dermatol Venereol** 1998 Nov;125 Suppl 2:S14–6 **(Fre)**

[Inhibitory effects of natural medicines on the enzymes related to the skin] Sawabe Y, et al. **Yakugaku Zasshi** 1998 Sep;118(9):423–9 (Eng. Abstr.) **(Jpn)**

[Systematic and taxonomic rank of voles based on histochemical characteristics of skin glands in Micsotus oeconomus and Miscotus limnophilus] Sokolov VE, et al. **Dokl Akad Nauk** 1999 Feb;364(4):572–4 **(Rus)**

[Ecologo-physiological interpretation of enzymatic differences in systematically close forms of gray voles using the cutaneous glands of the Arvalis group as an example] Sokolov VE, et al. **Dokl Akad Nauk** 1999 Mar;365(2):286–8 **(Rus)**

GROWTH & DEVELOPMENT

Computer controlled bioreactor for large-scale production of cultured skin grafts. Prenosil JE, et al. **Ann N Y Acad Sci** 1999 Jun 18;875:386–97

Transformation of skin from larval to adult types in normally metamorphosing and metamorphosis-arrested salamander, Hynobius retardatus. Ohmura H, et al. **Differentiation** 1998 Sep;63(5):238–46

Tissue engineering for skin: an update. Eaglstein WH, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1007–10 (15 ref.)

Increased activation of Ras in psoriatic lesions. Lin P, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan-Apr; 12(1–2):90–7

The complexity of gene families involved in epithelial differentiation. Keratin genes and the epidermal differentiation complex. Mischke D. **Subcell Biochem** 1998; 31:71–104 (159 ref.)

IMMUNOLOGY

Differential epidermal expression of the invariant chain in allergic and irritant contact dermatitis. Emilson A, et al. **Acta Derm Venereol** 1998 Nov;78(6):402–7

Expression of T cell receptor V beta chain in lesional skin of atopic dermatitis. Ha SJ, et al. **Acta Derm Venereol** 1998 Nov;78(6):424–7

Fc gamma-receptors in skin and serum from patients with psoriasis, before and after therapy. Bjerke JR, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:141–2

The clinical expression of allergy in the skin. Ring J, et al. **Allergy** 1999 Mar;54(3):192–7 (36 ref.)

Photoallergic skin reaction to ribavirin. Stryjek-Kaminska D, et al. **Am J Gastroenterol** 1999 Jun;94(6):1686–8

The role of skin dendritic cells in the initiation of human immunodeficiency virus infection. Blauvelt A. **Am J Med** 1997 May 19;102(5B):16–20 (31 ref.)

On assessment of skin reactivity using electrical impedance. Nyrén M, et al. **Ann N Y Acad Sci** 1999 Apr 20;873:214–20

Pathways of antigen traffic from skin allotransplant to recipient lymph nodes--an evolutionarily developed route for initiation of rejection of foreign antigens. Olszewski WL, et al. **Ann Transplant** 1998;3(4):15–20 (38 ref.)

Response of murine and normal human skin to injection of allogeneic blood-derived psoriatic immunocytes: detection of T cells expressing receptors typically present on natural killer cells, including CD94, CD158, and CD161. Nickoloff BJ, et al. **Arch Dermatol** 1999 May;135(5):546–52

Does uninjured skin release proinflammatory cytokines following trauma and hemorrhage? Catania RA, et al. **Arch Surg** 1999 Apr;134(4):368–73; discussion 373–4

Altered glutathione transferase levels in rat skin inflamed due to contact hypersensitivity: induction of the alpha-class subunit 1. Kimura J, et al. **Biochem J** 1998 Nov 1;335 (Pt 3):605–10

Demonstration of frequent occurrence of clonal T cells in the peripheral blood but not in the skin of patients with small plaque parapsoriasis. Muche JM, et al. **Blood** 1999 Aug 15;94(4):1409–17

Fas ligand is expressed in normal skin and in some cutaneous malignancies. Lee SH, et al. **Br J Dermatol** 1998 Aug;

139(2):186–91
Skin hyperreactivity of Behçet's patients (pathergy reaction) is also positive in interferon alpha–treated chronic mycloid leukaemia patients, indicating similarly altered neutrophil functions in both disorders. Budak–Alpdogan T, et al. **Br J Rheumatol** 1998 Nov;37(11):1148–51
Neutrophil chemokine production in the skin following scald injury. Faunce DE, et al. **Burns** 1999 Aug;25(5):403–10
Immune functions of the human skin. Models of in vitro studies using Langerhans cells. Schmitt D. **Cell Biol Toxicol** 1999 Feb;15(1):41–5 (23 ref.)
Melanoma–reactive human cytotoxic T lymphocytes derived from skin biopsies of delayed–type hypersensitivity reactions induced by injection of an autologous melanoma cell line. Waanders GA, et al. **Clin Cancer Res** 1997 May; 3(5):685–96
Immune response to Leishmania infection in human skin. Ghersetich I, et al. **Clin Dermatol** 1999 May–Jun; 17(3):333–8 (39 ref.)
Mast cell tryptase in dermal neurogenic inflammation. Schmelz M, et al. **Clin Exp Allergy** 1999 May;29(5):695–702
Jessner's lymphocytic infiltrate and probable discoid lupus erythematosus occurring separately in two sisters. O'Toole EA, et al. **Clin Exp Dermatol** 1999 Mar;24(2):90–3
Sarcoidosis in a patient with linear IgA disease. Porter WM, et al. **Clin Exp Dermatol** 1999 Mar;24(2):67–70
Existence of activated and memory CD4+ T cells in peripheral blood and their skin infiltration in CD8 deficiency. Katamura K, et al. **Clin Exp Immunol** 1999 Jan; 115(1):124–30
Cutaneous sensitization to some polyisocyanate prepolymers in guinea pigs. Zissu D, et al. **Contact Dermatitis** 1998 Nov; 39(5):248–51
Spontaneous expression of interleukin–2 in vivo in specific tissues of young mice. Yang–Snyder JA, et al. **Dev Immunol** 1998;5(4):223–45
Antibody to bullous pemphigoid antigen 1 binds to the antigen at perilesional but not uninvolved skin, in localized bullous pemphigoid. Seishima M, et al. **Eur J Dermatol** 1999 Jan–Feb;9(1):39–42
Antigen–pulsed epidermal Langerhans cells protect susceptible mice from infection with the intracellular parasite Leishmania major. Flohé SB, et al. **Eur J Immunol** 1998 Nov;28(11):3800–11
The keratinocyte–derived cytokine IL–7 increases adhesion of the epidermal T cell subset to the skin basement membrane protein laminin–5. Wagner LA, et al. **Eur J Immunol** 1999 Aug;29(8):2530–8
Cutaneous neuroimmunomodulation: the proopiomelanocortin system. A New York Academy of Sciences Conference, September 11–13, 1998, Münster, Germany. Böhm M, et al. **Exp Clin Endocrinol Diabetes** 1999;107(3):225–8
CD8+ cytolytic T lymphocytes and the skin. De Panfilis G. **Exp Dermatol** 1998 Aug;7(4):121–31 (98 ref.)
The influence exerted by cutaneous ligands in subjects reacting to nickel sulfate alone and in those reacting to more transition metals. Santucci B, et al. **Exp Dermatol** 1998 Aug;7(4):162–7
Cutaneous T–lymphocyte infiltrate associated with B–cell chronic lymphocytic leukaemia [letter] Bateman AC, et al. **Histopathology** 1999 Feb;34(2):183–4
Psoriasis as a T cell–mediated autoimmune disease. Barker JN. **Hosp Med** 1998 Jul;59(7):530–3 (25 ref.)
T–cell repertoire analysis in chronic plaque psoriasis suggests an antigen–specific immune response. Bour H, et al. **Hum Immunol** 1999 Aug;60(8):665–76
Clonal characteristics of T cell infiltrates in skin and synovium of patients with psoriatic arthritis. Tassiulas I, et al. **Hum Immunol** 1999 Jun;60(6):479–91
Skin delivery of a hybrid liposome/ISCOM vaccine implicates a role for adjuvants in rapid modulation of inflammatory cells involved in innate immunity before the enhancement of adaptive immune responses. Chin J, et al. **Immunol Cell Biol** 1998 Jun;76(3):245–55 (53 ref.)
Local immune responses in afferent and efferent lymph. Haig DM, et al. **Immunology** 1999 Feb;96(2):155–63 (70 ref.)
Interactions of dendritic cells with fibronectin and endothelial cells. Jancic C, et al. **Immunology** 1998 Oct; 95(2):283–90
Characterization of E–selectin–binding epitopes expressed by skin–homing T cells. Priest R, et al. **Immunology** 1998 Aug; 94(4):523–8
Cytokine gene expression in skin of susceptible guinea–pig infected with Treponema pallidum. Wicher V, et al. **Immunology** 1998 Oct;95(2):242–7
Anti–inflammatory activity in human skin: it prevents edema formation in vitro. Dorsch W, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):236–9
Human skin mast cells produce TNF–alpha by substance P. Okayama Y, et al. **Int Arch Allergy Immunol** 1998 Sep;117 Suppl 1:48–51
Rapid synthesis of IFN–gamma by T cells in skin may play a pivotal role in the human skin immune system. Hassan–Zahraee M, et al. **Int Immunol** 1998 Nov; 10(11):1599–612
Autoantibodies to autologous skin in guttate and plaque forms of psoriasis and cross–reaction of skin antigens with streptococcal antigens. Pérez–Lorenzo R, et al. **Int J Dermatol** 1998 Jul;37(7):524–31
Inhibitory effect of heparin on skin reactivity to autologous serum in chronic idiopathic urticaria. Fagiolo U, et al. **J Allergy Clin Immunol** 1999 Jun;103(6):1143–7
Upregulation of TNF–alpha and IL–3 expression in lesional and uninvolved skin in different types of urticaria. Hermes B, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):307–14
Chemical mediators in atopic dermatitis: involvement of leukotriene B4 released by a type I allergic reaction in the pathogenesis of atopic dermatitis. Koro O, et al. **J Allergy Clin Immunol** 1999 Apr;103(4):663–70
Validation and subsequent development of the DEREK skin sensitization rulebase by analysis of the BgVV list of contact allergens. Barratt MD, et al. **J Chem Inf Comput Sci** 1999 Mar–Apr;39(2):294–8
Identification and characterization of autoreactive T cell responses to bullous pemphigoid antigen 2 in patients and healthy controls. Büdinger L, et al. **J Clin Invest** 1998 Dec 15;102(12):2082–9
Mast cell activation and migration to lymph nodes during induction of an immune response in mice. Wang HW, et al. **J Clin Invest** 1998 Oct 15;102(8):1617–26
Langerhans cells from oral epithelium are more effective in stimulating allogeneic t–cells in vitro than Langerhans cells from skin epithelium. Hasséus B, et al. **J Dent Res** 1999 Mar;78(3):751–8
Sensitivity of cross–reacting antihuman antibodies in formalin–fixed porcine skin: including antibodies to proliferation antigens and cytokeratins with specificity in the skin. Smith KJ, et al. **J Dermatol Sci** 1998 Sep; 18(1):19–29
Chemokines and the homing of dendritic cells to the T cell areas of lymphoid organs [comment] Cyster JG. **J Exp Med** 1999 Feb 1;189(3):447–50. Comment on: J Exp Med 1999 Feb 1;189(3):451–60.
Interaction of dendritic cells with skin endothelium: A new perspective on immunosurveillance [see comments] Robert C, et al. **J Exp Med** 1999 Feb 15;189(4):627–36. Comment in: J Exp Med 1999 Feb 15;189(4):611–4.
Uptake of Leishmania major amastigotes results in activation and interleukin 12 release from murine skin–derived dendritic cells: implications for the initiation of anti–Leishmania immunity. von Stebut E, et al. **J Exp Med** 1998 Oct 19;188(8):1547–52
Skin homing (cutaneous lymphocyte–associated antigen–positive) CD8+ T cells respond to superantigen and contribute to eosinophilia and IgE production in atopic dermatitis. Akdis M, et al. **J Immunol** 1999 Jul 1; 163(1):466–75
Impaired cutaneous immune responses in Thy–1–deficient mice. Beissert S, et al. **J Immunol** 1998 Nov 15; 161(10):5296–302
Defective function of Langerhans cells in tumor–bearing animals is the result of defective maturation from hemopoietic progenitors. Ishida T, et al. **J Immunol** 1998 Nov 1;161(9):4842–51
Distinct in vivo and in vitro cytokine profiles of draining lymph node cells in acute and chronic phases of contact hypersensitivity: importance of a type 2 cytokine–rich cutaneous milieu for the development of an early–type response in the chronic phase. Kitagaki H, et al. **J Immunol** 1999 Aug 1;163(3):1265–73
Dermal endothelial cells and keratinocytes produce IL–7 in vivo after human Schistosoma mansoni percutaneous infection. Roye O, et al. **J Immunol** 1998 Oct 15; 161(8):4161–8
Cutting edge: secondary lymphoid–tissue chemokine (SLC) and CC chemokine receptor 7 (CCR7) participate in the emigration pathway of mature dendritic cells from the skin to regional lymph nodes. Saeki H, et al. **J Immunol** 1999 Mar 1;162(5):2472–5
A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E–selectin ligands and L–selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914–9
Monocyte induction of IL–10 and down–regulation of IL–12 by iC3b deposited in ultraviolet–exposed human skin. Yoshida Y, et al. **J Immunol** 1998 Dec 1;161(11):5873–9
The immune response to Haemophilus ducreyi resembles a delayed–type hypersensitivity reaction throughout experimental infection of human subjects. Palmer KL, et al. **J Infect Dis** 1998 Dec;178(6):1688–97
Antibody–independent activation of the classical complement pathway by cytomegalovirus–infected fibroblasts. Spiller OB, et al. **J Infect Dis** 1998 Dec;178(6):1597–603
Suppressed alloantigen presentation, increased TNF–alpha, IL–1, IL–1Ra, IL–10, and modulation of TNF–R in UV–irradiated human skin. Barr RM, et al. **J Invest Dermatol** 1999 May;112(5):692–8
Characterization of E–cadherin–containing junctions involving skin–derived dendritic cells. Jakob T, et al. **J Invest Dermatol** 1999 Jan;112(1):102–8
A serotonin–like immunoreactivity is present in human cutaneous melanocytes. Johansson O, et al. **J Invest Dermatol** 1998 Dec;111(6):1010–4
Selective cloning of allergens from the skin colonizing yeast Malassezia furfur by phage surface display technology. Lindborg M, et al. **J Invest Dermatol** 1999 Aug; 113(2):156–61
A substance p agonist acts as an adjuvant to promote hapten–specific skin immunity. Niizeki H, et al. **J Invest Dermatol** 1999 Apr;112(4):437–42
Expression of T–lineage early developmental markers by cells establishing atopic dermatitis skin infiltrates. Mastrandrea F, et al. **J Investig Allergol Clin Immunol** 1998 Nov–Dec; 8(6):359–64
Modulation of cellular annexin I in human leukocytes infiltrating DTH skin reactions. Perretti M, et al. **J Leukoc Biol** 1999 May;65(5):583–9
Urocanic acid and cutaneous antigen presentation. Lappin MB, et al. **J Photochem Photobiol B** 1998 Jul 10;44(2):112–6 (34 ref.)
Efficacy of micronized titanium dioxide–containing compounds in protection against UVB–induced immunosuppression in humans in vivo. van der Molen RG, et al. **J Photochem Photobiol B** 1998 Jul 10;44(2):143–50
No man is an island; no island is an island: does the immune network extend beyond the limits of skin? Rewald E, et al. **Med Hypotheses** 1999 Apr;52(4):325–7 (20 ref.)
Serum and skin surface antibodies and their associations with sheep biting lice, Bovicola ovis, on experimentally infested sheep. James PJ, et al. **Med Vet Entomol** 1998 Jul; 12(3):276–83
Effects of UV on the migration and function of epidermal antigen presenting cells. Dandie GW, et al. **Mutat Res** 1998 Nov 9;422(1):147–54
UVA–induced immunosuppression. Halliday GM, et al. **Mutat Res** 1998 Nov 9;422(1):139–45
The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells. Campbell JJ, et al. **Nature** 1999 Aug 19;400(6746):776–80
IgG heavy–chain deposition disease affecting kidney, skin, and skeletal muscle. Rott T, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1825–8
Targeting the skin for genetic immunization. Falo LD Jr. **Proc Assoc Am Physicians** 1999 May–Jun;111(3):211–9 (55 ref.)
Enhancing versus suppressive effects of stress hormones on skin immune function. Dhabhar FS, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1059–64
Localization of interleukin–13 gene–expressing cells in tuberculin reactions and lesional skin from patients with atopic dermatitis. van der Ploeg I, et al. **Scand J Immunol** 1999 Apr;49(4):447–53
Control of neonatal tolerance to tissue antigens by peripheral T cell trafficking. Alferink J, et al. **Science** 1998 Nov 13; 282(5392):1338–41
When to request immunofluorescence: practical hints. Morrison LH. **Semin Cutan Med Surg** 1999 Mar;18(1):36–42 (22 ref.)
Cellular alloreactivity of human cord blood cells detected by T–cell frequency analysis and a human skin explant model. Wang XN, et al. **Transplantation** 1998 Oct 15; 66(7):903–9
Functional and phenotypic analysis of T cells cloned from the skin of patients with Behcet's disease. Hamzaoui K, et al. **Tunis Med** 1998 Jun–Jul;76(6–7):184–9
Comparative study of histamine release from skin mast cells dispersed from atopic, ascaris–sensitive and healthy dogs. Brazis P, et al. **Vet Immunol Immunopathol** 1998 Nov 6; 66(1):43–51
Prominence of gammadelta T cells in the elicitation phase of dinitrochlorobenzene–induced contact hypersensitivity in lambs. Jörundsson E, et al. **Vet Pathol** 1999 Jan; 36(1):42–50
[Skin microcirculation, adherence molecules and inflammatory dermatoses] Henry F, et al. **Rev Med Liege** 1998 Aug;53(8):479–82 (15 ref.) (Eng. Abstr.) **(Fre)**
[A case of cold urticaria with histamine release by a possible skin intrinsic mechanism] Kaneko S, et al. **Arerugi** 1999 May;48(5):554–7 **(Jpn)**
[Analysis of contact dermatitis by cytokines. III.--Sensitization and crossreaction of phenolic compounds] Yamazaki S, et al. **Yakugaku Zasshi** 1998 Aug; 118(8):324–31 (Eng. Abstr.) **(Jpn)**
[The health status assessment in miners and metal workers based on immunological and bacteriological criteria] Trunova OA. **Med Tr Prom Ekol** 1999;(2):22–6 (Eng. Abstr.) **(Rus)**

INJURIES

Acute lung injury following thermal insult to the skin: a light and transmission electron microscopial study. Arbak S, et al. **Acta Histochem** 1999 Jul;101(3):255–62
alpha–Tocopherol and reduced glutathione deficiency and decreased deformability of erythrocytes after thermal skin injury. Bekyarova G, et al. **Acta Physiol Pharmacol Bulg** 1998;23(2):55–9
Gomco circumcision [letter; comment] Greenberg MJ. **Am Fam Physician** 1999 May 15;59(10):2724, 2729; discussion 2730, 2732. Comment on: Am Fam Physician 1998 Sep 15;58(4):891–8.
Postoperative/posttraumatic spindle cell nodule of the skin: the dermal analogue of nodular fasciitis. Wick MR, et al. **Am J Dermatopathol** 1999 Jun;21(3):220–4
Factitious disease of periocular and facial skin [letter] Feldman MD. **Am J Ophthalmol** 1999 Sep;128(3):392–3; discussion 393–4
Factitious disease of periocular and facial skin [letter] Stark A, et al. **Am J Ophthalmol** 1999 Sep;128(3):392; discussion 393–4
Factitious disease of periocular and facial skin. Ugurlu S, et al. **Am J Ophthalmol** 1999 Feb;127(2):196–201

Multicenter study of contaminated percutaneous injuries in anesthesia personnel. Greene ES, et al. **Anesthesiology** 1998 Dec;89(6):1362–72

Role of matrix metalloproteinases and their inhibition in cutaneous wound healing and allergic contact hypersensitivity. Pilcher BK, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:12–24 (34 ref.)

Iatrogenic cutaneous injuries in the neonate. Metzker A, et al. **Arch Dermatol** 1999 Jun;135(6):697–703 (26 ref.)

Association of the Köbner phenomenon with disease activity and therapeutic responsiveness in vitiligo vulgaris. Njoo MD, et al. **Arch Dermatol** 1999 Apr;135(4):407–13

Effect of 12-O-tetradecanoyl-phorbol ester and incisional wounding on neuropsin mRNA and its protein expression in murine skin. Kitayoshi H, et al. **Arch Dermatol Res** 1999 Jun;291(6):333–8

Diversity of desmosomal proteins in regenerating epidermis: immunohistochemical study using a human skin organ culture model. Moll I, et al. **Arch Dermatol Res** 1999 Jul-Aug;291(7–8):437–46

Skin and eye injury due to latex of Excoecaria agallocha. Kumarasinghe SP, et al. **Australas J Dermatol** 1998 Nov; 39(4):275–6

Evaluation of scratches as an essential element in the development of avian cellulitis in broiler chickens. Norton RA, et al. **Avian Dis** 1999 Apr-Jun;43(2):320–5

Treatment of traumatic tattoos with the Nd YAG laser: a series of nine cases. Haywood RM, et al.
Br J Plast Surg 1999 Mar;52(2):97–8

Scar formation after skin injury to the human foetus in utero or the premature neonate. Morrison WA, et al.
Br J Plast Surg 1999 Jan;52(1):6–11

The origin and mode of fibroblast migration and proliferation in granulation tissue. Spyrou GE, et al.
Br J Plast Surg 1998 Sep;51(6):455–61

Congenital skin loss following Nd:YAG placental photocoagulation [letter] De Lia JE, et al. **Burns** 1999 Jun; 25(4):366–7

Results of a survey on the use of different treatment options for partial and full thickness burns. Hermans MH.
Burns 1998 Sep;24(6):539–51

Cost effectiveness of skin substitutes. A commentary on the debate at the 10th ISBI Congress, Jerusalem 1998. International Society for Burn Injuries. Shakespeare PG. **Burns** 1999 Mar;25(2):179–81

Skin substitutes in burns. Sheridan RL, et al. **Burns** 1999 Mar; 25(2):97–103 (81 ref.)

Platelet releasate treatment improves skin healing in diabetic rats through endogenous growth factor secretion. Moulin V, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep; 44(6):961–71

Signs of physical abuse or evidence of moxibustion, cupping or coining? [letter; comment] Wong HC, et al. **CMAJ** 1999 Mar 23;160(6):785–6. Comment on: CMAJ 1998 Aug 25;159(4):388–91.

Image processing techniques for quantitative analysis of skin structures. Sanders JE, et al.
Comput Methods Programs Biomed 1999 Jun;59(3):167–80

A rational approach to the outpatient management of lacerations in pediatric patients. Kanegaye JT.
Curr Probl Pediatr 1998 Aug;28(7):205–34 (198 ref.)

Aquatic adversaries: human injuries induced by octopi. Burnett JW. **Cutis** 1998 Sep;62(3):124

Sports-related cutaneous reactions: Part III. Sports identification marks [news] Fisher AA. **Cutis** 1999 May; 63(5):256–8

Dermatitis in a musician. Part II: Injuries to skin, soft tissue, and bone from musical instruments [news] Fisher AA.
Cutis 1998 Nov;62(5):214–5

The prevention and treatment of cutaneous injury secondary to chemical warfare agents. Application of these finding to other dermatologic conditions and wound healing. Smith KJ. **Dermatol Clin** 1999 Jan;17(1):41–60, viii (52 ref.)

Successful removal of traumatic tattoos in Asian skin with a Q-switched alexandrite laser. Chang SE, et al.
Dermatol Surg 1998 Dec;24(12):1308–11

Effects of granulocyte-macrophage colony-stimulating factor on incisional wound healing in an experimental diabetic rat model. Cantürk NZ, et al. **Endocr Res** 1999 Feb;25(1):105–16

Immunohistochemical study of the early histopathologic changes occurring in trauma-injured skin of psoriatic patients. Capuano M, et al. **Eur J Dermatol** 1999 Mar; 9(2):102–6

Oscillating saw injuries during removal of plaster. Ansari MZ, et al. **Eur J Emerg Med** 1998 Mar;5(1):37–9

Mast cells and their mediators in cutaneous wound healing--active participants or innocent bystanders? Artuc M, et al. **Exp Dermatol** 1999 Feb;8(1):1–16 (195 ref.)

Microinjection of an antibody against HSP 72 in keratinocytes to study acute UV injury. Bayerl C, et al.
Exp Dermatol 1999 Aug;8(4):247–53

Chemotactic mediator requirements in lung injury following skin burns in rats. Piccolo MT, et al. **Exp Mol Pathol** 1999 Aug;66(3):220–6

Immunohistochemical detection of fibronectin in postmortem incised wounds of porcine skin. Grellner W, et al.
Forensic Sci Int 1998 Nov 9;97(2–3):109–16

Tentative injuries to exposed skin in a homicide case. Herbst J, et al. **Forensic Sci Int** 1999 Jun 28;102(2–3):193–6

Influence of Aloe vera on collagen turnover in healing of dermal wounds in rats. Chithra P, et al.
Indian J Exp Biol 1998 Sep;36(9):896–901

Mediators of microvascular injury in dermal burn wounds. Ravage ZB, et al. **Inflammation** 1998 Dec;22(6):619–29

Skin injury in the operating room. Lee TW, et al. **Injury** 1998 Jun;29(5):345–7

The histopathology of pathergy: a chronologic study of skin hyperreactivity in Behçet's disease. Ergun T, et al.
Int J Dermatol 1998 Dec;37(12):929–33

Treatment of "cutaneous self-injurious behavior" (CSIB) [letter; comment] Koblenzer CS. **Int J Dermatol** 1998 Aug; 37(8):633–4. Comment on: Int J Dermatol 1997 Jun;36(6):477.

Estimation of wound age and VCAM-1 in human skin. Dressler J, et al. **Int J Legal Med** 1999;112(3):159–62

Immunohistochemical and morphometrical study on the temporal expression of interleukin-1alpha (IL-1alpha) in human skin wounds for forensic wound age determination. Kondo T, et al. **Int J Legal Med** 1999;112(4):249–52

Time-dependent expression of interleukin-10 (IL-10) mRNA during the early phase of skin wound healing as a possible indicator of wound vitality. Ohshima T, et al.
Int J Legal Med 1998;111(5):251–5

Depth of vaporization and the effect of pulse stacking with a high-energy, pulsed carbon dioxide laser. Fitzpatrick RE, et al. **J Am Acad Dermatol** 1999 Apr;40(4):615–22

Lipoatrophia semicircularis--a traumatic panniculitis: report of seven cases and review of the literature. Nagore E, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):879–81 (18 ref.)

Transillumination blisters in a neonate. Sajben FP, et al.
J Am Acad Dermatol 1999 Aug;41(2 Pt 1):264–5

Cloning of novel injury-regulated genes. Implications for an important role of the muscle-specific protein skNAC in muscle repair. Munz B, et al. **J Biol Chem** 1999 May 7; 274(19):13305–10

Modeling thermal skin burns on a personal computer. Diller KR. **J Burn Care Rehabil** 1998 Sep-Oct;19(5):420–9

Immunohistochemical analysis of burn depth. Ho-Asjoe M, et al. **J Burn Care Rehabil** 1999 May-Jun;20(3):207–11

Characteristics of 34 adults with psychogenic excoriation. Arnold LM, et al. **J Clin Psychiatry** 1998 Oct;59(10):509–14

The nosology of compulsive skin picking [letter] Stein DJ, et al. **J Clin Psychiatry** 1999 Sep;60(9):618–9

Self-injurious skin picking: clinical characteristics and comorbidity. Wilhelm S, et al. **J Clin Psychiatry** 1999 Jul; 60(7):454–9

The use of Apligraf in acute wounds. Kirsner RS.
J Dermatol 1998 Dec;25(12):805–11 (39 ref.)

Particle-mediated gene transfer of PDGF isoforms promotes wound repair. Eming SA, et al. **J Invest Dermatol** 1999 Mar;112(3):297–302

Induction of bone morphogenetic protein-6 in skin wounds. Delayed reepitheliazation and scar formation in BMP-6 overexpressing transgenic mice. Kaiser S, et al.
J Invest Dermatol 1998 Dec;111(6):1145–52

Cultured epithelial autograft "take" confirmed by the presence of cytokeratin 9 [letter] Stoner ML, et al.
J Invest Dermatol 1999 Mar;112(3):391–2

Protection of the skin during cast removal. Gökşin C, et al.
J Orthop Trauma 1998 Aug;12(6):435

Keratinocyte growth factor-2 accelerates wound healing in incisional wounds. Jimenez PA, et al. **J Surg Res** 1999 Feb; 81(2):238–42

The microvascular composition of the healing wound compared at skin sites with nutritive versus arteriovenous perfusion. Rendell MS, et al. **J Surg Res** 1998 Dec; 80(2):373–9

Sulfatide protects rat skin flaps against ischemia-reperfusion injury. Ueda K, et al. **J Surg Res** 1998 Dec;80(2):200–4

Effects of electrically charged particles in enhancement of rat wound healing. Wu L, et al. **J Surg Res** 1999 Jul; 85(1):43–50

MAVIS: a non-invasive instrument to measure area and volume of wounds. Measurement of Area and Volume Instrument System. Plassmann P, et al. **Med Eng Phys** 1998 Jul;20(5):332–8

An investigation of "crayfish poisoning" in Western Australia [letter] Brooke CJ, et al. **Med J Aust** 1999 Mar 15; 170(6):288

Modeling of wound healing processes in human skin using tissue culture. Kratz G. **Microsc Res Tech** 1998 Sep 1; 42(5):345–50

Cutaneous wound healing. Singer AJ, et al.
N Engl J Med 1999 Sep 2;341(10):738–46 (86 ref.)

Vogt-Koyanagi-Harada syndrome after cutaneous injury. Rathinam SR, et al. **Ophthalmology** 1999 Mar;106(3):635–8

Vogt-Koyanagi-Harada syndrome after cutaneous injury [letter] Tabbara KF. **Ophthalmology** 1999 Oct; 106(10):1854–5

Traumatic myiasis of sheep in Europe: a review. Hall MJ.
Parassitologia 1997 Dec;39(4):409–13 (50 ref.)

Chronic photodamage in skin of mast cell-deficient mice. Gonzalez S, et al. **Photochem Photobiol** 1999 Aug; 70(2):248–53

Alterations of hairless mouse skin exposed to chronic UV irradiation and its prevention by hydrocortisone. Mitani H, et al. **Photochem Photobiol** 1999 Jan;69(1):41–6

Charged beads enhance cutaneous wound healing in rhesus non-human primates. Burgess E, et al.
Plast Reconstr Surg 1998 Dec;102(7):2395–403

What's wrong with Dermabond? [letter] Manstein CH.
Plast Reconstr Surg 1999 Oct;104(5):1587–8

Koebner phenomenon in psoriasis. A common response to skin trauma. Mohla G, et al. **Postgrad Med** 1999 Sep; 106(3):39–40

Near-fatal skin picking from delusional body dysmorphic disorder responsive to fluvoxamine. O'Sullivan RL, et al.
Psychosomatics 1999 Jan-Feb;40(1):79–81

Influence of tacalcitol on cell cycle kinetics of human keratinocytes following standardized injury. Mommers JM, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul-Aug; 12(4):174–81

The response of distant uninvolved psoriatic skin to standardised injury is not different from that in normal skin. van Rossum MM, et al.
Skin Pharmacol Appl Skin Physiol 1999 Sep-Oct; 12(5):271–5

Temporal activity of plasminogen activators and matrix metalloproteinases during cutaneous wound repair. Arumugam S, et al. **Surgery** 1999 Jun;125(6):587–93

Ear and flank biting in pigs [letter; comment] Penny RH, et al. **Vet Rec** 1999 Feb 6;144(6):159. Comment on: Vet Rec 1999 Jan 23;144(4):92–6.

Collagen fiber orientation as quantified by small angle light scattering in wounds treated with transforming growth factor-beta2 and its neutalizing antibody. Bowes LE, et al. **Wound Repair Regen** 1999 May-Jun;7(3):179–86

Dynamics of the matrix metalloproteinases MMP-1 and MMP-8 in acute open human dermal wounds. Nwomeh BC, et al. **Wound Repair Regen** 1998 Mar-Apr;6(2):127–34

[Thin split thickness skin grafting double taken from avulsed skin in treatment for skin avulsion in children] Yu Z, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):242–3 (Eng. Abstr.) **(Chi)**

[The function of nitric oxide in the necrosis of avulsed skin flap in domestic pig] Guo J, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Mar;11(2):65–8 (Eng. Abstr.) **(Chi)**

[TGF-beta 1 gene expression in the healing process of skin wound in rat] Wang X, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Sep;11(5):257–60 (Eng. Abstr.) **(Chi)**

[One stage repair of old Achilles tendon rupture accompanied by skin defect] Zhong Y, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1998 May;12(3):162–3 (Eng. Abstr.) **(Chi)**

[The study of epidermal growth factor in acceleration of skin wound healing] Zhou J, et al.
Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih 1997 Sep;11(5):267–8 (Eng. Abstr.) **(Chi)**

[Occupation-specific mode of self injury within the scope of a fictitious assault] Faller-Marquardt M, et al.
Arch Kriminol 1999 May-Jun;203(5–6):129–37 (Eng. Abstr.) **(Ger)**

[Factitious skin lesions as an expression of a family crisis] Vieker S, et al. **Klin Padiatr** 1999 Jan-Feb;211(1):44–6 (Eng. Abstr.) **(Ger)**

[Tissue damage and regeneration after laser surgery using different scanning systems] Weibrich G, et al.
Mund Kiefer Gesichtschir 1999 Jul;3(4):200–4 (Eng. Abstr.) **(Ger)**

[Burns following magnetic resonance tomography study] Heinz W, et al. **Z Gastroenterol** 1999 Jan;37(1):31–2 (Eng. Abstr.) **(Ger)**

[Temporary expression pattern in wound secretions and peripheral wound biopsies] Coerper S, et al.
Zentralbl Chir 1999;124 Suppl 1:78–80 (Eng. Abstr.) **(Ger)**

[Piercing] Jensen P. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4634 **(Nor)**

[Remarks on injuries which were the source of tetanus and were based on observations from the Clinic of Infectious Diseases in Cracow] Garlicki A, et al. **Przegl Lek** 1998; 55(9):448–9 (Eng. Abstr.) **(Pol)**

[The healing characteristics of skin wounds in different types of alcohol and surrogate intoxication] Martynova NA, et al. **Patol Fiziol Eksp Ter** 1998 Oct-Dec;(4):29–33 (Eng. Abstr.) **(Rus)**

[An improved method for restoring the initial appearance of injuries on the skin] Guzheedov VN, et al.
Sud Med Ekspert 1999 Mar-Apr;42(2):33–4 (Eng. Abstr.) **(Rus)**

[The histological study of puncture-stab wounds of the skin for establishing the characteristics of the design of the knife blade] Kapustin AV. **Sud Med Ekspert** 1998 Nov-Dec; 41(6):15–6 (Eng. Abstr.) **(Rus)**

[The characteristics of peripheral nervous system regeneration in skin wounds by the use of an antioxidant-bound charcoal sorbent] Slobodianyk HI.
Klin Khir 1998;(9–10):58–60 (Eng. Abstr.) **(Ukr)**

INNERVATION

Palmar cutaneous nerve recording and clarification of median premotor potential generators. Bergeron JW, et al.
Am J Phys Med Rehabil 1998 Sep-Oct;77(5):399–406

Responses of sympathetic outflow to skin during caloric stimulation in humans. Cui J, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R738–44

Skin vasomotor reflex as a measure of depth of anesthesia [letter; comment] Ezri T, et al. **Anesthesiology** 1998 Nov; 89(5):1281–2. Comment on: Anesthesiology 1998 Feb;88(2):297–304.

A case for reduced skin sensation in high latitude prehistoric Polynesians. Visser EP, et al. **Ann Hum Biol** 1999 Mar-Apr;

26(2):131–40

The contribution of cutaneous inputs to locomotion in the intact and the spinal cat. Bouyer LJ, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:508–12

Light and electron microscopic immunohistochemical observations of p75 nerve growth factor receptor–immunoreactive dermal nerves in prurigo nodularis. Liang Y, et al. **Arch Dermatol Res** 1999 Jan; 291(1):14–21

Effects of locus coeruleus stimulation on the responses of SI neurons of the rat to controlled natural and electrical stimulation of the skin. Snow PJ, et al. **Arch Ital Biol** 1999 Feb;137(1):1–28

Prolonged sympathetic reflex latency on skin nerves in sporadic cerebellar degeneration. Shindo K, et al. **Arch Neurol** 1999 Apr;56(4):462–6

Lateral femoral cutaneous nerve block for split skin grafting. Khan ML, et al. **Bangladesh Med Res Counc Bull** 1998 Aug;24(2):32–4

Nerve-induced histamine release is of little importance in psoriatic skin. Krogstad AL, et al. **Br J Dermatol** 1998 Sep;139(3):403–9

Quantitative description of the voltage dependence of axonal excitability in human cutaneous afferents. Burke D, et al. **Brain** 1998 Oct;121 (Pt 10):1975–83

Interhemispheric asymmetries in the perception of unimanual and bimanual cutaneous stimuli. A study using transcranial magnetic stimulation. Oliveri M, et al. **Brain** 1999 Sep;122 (Pt 9):1721–9

Left frontal transcranial magnetic stimulation reduces contralesional extinction in patients with unilateral right brain damage. Oliveri M, et al. **Brain** 1999 Sep;122 (Pt 9):1731–9

Normative data of sympathetic skin response and RR interval variation in Turkish children. Akyüz G, et al. **Brain Dev** 1999 Mar;21(2):99–102

Non-nociceptive capsaicin-sensitive nerve terminal stimulation allows for an original vasodilatory reflex in the human skin. Fromy B, et al. **Brain Res** 1998 Nov 16; 811(1–2):166–8

Reflexes elicited from cutaneous and mucosal trigeminal afferents in normal human subjects. Maisonobe T, et al. **Brain Res** 1998 Nov 9;810(1–2):220–8

Remarkable capacity for perception of the direction of skin pull in man. Olausson H, et al. **Brain Res** 1998 Oct 12; 808(1):120–3

Myelinated afferent fiber types that become spontaneously active and mechanosensitive following nerve transection in the rat. Tal M, et al. **Brain Res** 1999 Apr 10;824(2):218–23

Changes in fibre populations of the rat hairy skin following selective chemodenervation by capsaicin. Dux M, et al. **Cell Tissue Res** 1999 Jun;296(3):471–7

Muscle and skin sympathetic nerve traffic during the "white-coat" effect. Grassi G, et al. **Circulation** 1999 Jul 20;100(3):222–5

Circadian latency variability of sympathetic skin responses. Brasil-Neto JP, et al. **Clin Auton Res** 1998 Aug;8(4):237–9

Sympathetic skin response in myelopathies. Nair KP, et al. **Clin Auton Res** 1998 Aug;8(4):207–11

Amplitude loss of electrically and magnetically evoked sympathetic skin responses in early stages of type 1 (insulin-dependent) diabetes mellitus without signs of dysautonomia. Sagliocco L, et al. **Clin Auton Res** 1999 Feb; 9(1):5–10

Hyperhidrosis and sympathetic skin response in chronic alcoholic patients. Tugnoli V, et al. **Clin Auton Res** 1999 Feb;9(1):17–22

Response of "naive" cutaneous and muscle afferents to potential targets in vitro. Adams DH, et al. **Dev Biol** 1998 Nov 1;203(1):210–20

Multiple mechanisms contribute to the avoidance of avian epidermis by sensory axons. Cahoon SM, et al. **Dev Biol** 1999 Apr 15;208(2):502–12

A rapid and dynamic regulation of GDNF-family ligands and receptors correlate with the developmental dependency of cutaneous sensory innervation. Fundin BT, et al. **Development** 1999 Jun;126(12):2597–610

Finger and penile tactile sensitivity in sexually functional and dysfunctional diabetic men. Morrissette DL, et al. **Diabetologia** 1999 Mar;42(3):336–42

Dermatomal and mixed nerve somatosensory evoked potentials in the diagnosis of neurogenic thoracic outlet syndrome. Cakmur R, et al. **Electroencephalogr Clin Neurophysiol** 1998 Sep; 108(5):423–34

Sympathetic skin responses recorded from non-palmar and non-plantar skin sites: their role in the evaluation of thermal sweating. Matsunaga K, et al. **Electroencephalogr Clin Neurophysiol** 1998 Sep; 108(5):482–9

BDNF overexpression induces differential increases among subsets of sympathetic innervation in murine back skin. Botchkarev VA, et al. **Eur J Neurosci** 1998 Oct; 10(10):3276–83

Neutralization of endogenous NGF prevents the sensitization of nociceptors supplying inflamed skin. Koltzenburg M, et al. **Eur J Neurosci** 1999 May;11(5):1698–704

The pH response of rat cutaneous nociceptors correlates with extracellular [Na+] and is increased under amiloride. Steen KH, et al. **Eur J Neurosci** 1999 Aug;11(8):2783–92

Evidence suggesting that a transcortical reflex pathway contributes to cutaneous reflexes in the tibialis anterior muscle during walking in man. Christensen LO, et al. **Exp Brain Res** 1999 Jan;124(1):59–68

Recordings of polymodal single c-fiber nociceptive afferents following mechanical and argon-laser heat stimulation of human skin. Olausson B. **Exp Brain Res** 1998 Sep; 122(1):44–54

The influence of stimulus temperature rise rate, adapting temperature, and stimulus duration on suprathreshold responses evoked by noxious heat in the glabrous skin of the limb. Comparison of neuronal discharge in the rat spinal dorsal horn with human sensations. Pertovaara A. **Exp Brain Res** 1999 Jun;126(4):482–94

Regional difference in epidermal thinning after skin denervation. Chiang HY, et al. **Exp Neurol** 1998 Nov; 154(1):137–45

Denervation of the skin following section of the inferior alveolar nerve leads to increased NGF accumulation without change in NGF mRNA expression. Harper SJ, et al. **Exp Neurol** 1999 Feb;155(2):327–30

Effects of skin surface cooling and heating on autonomic nervous activity and baroreflex sensitivity in humans. Kinugasa H, et al. **Exp Physiol** 1999 Mar;84(2):369–77

Spike generation from dorsal roots and cutaneous afferents by hypoxia or hypercapnia in the rat in vivo. Pethö G, et al. **Exp Physiol** 1999 Jan;84(1):1–15

Cutaneous innervation of the medial ankle: an anatomic study of the saphenous, sural, and tibial nerves and their clinical significance. Aszmann OC, et al. **Foot Ankle Int** 1998 Nov; 19(11):753–6

Pituitary adenylate cyclase activating polypeptide (PACAP) is localized in human dermal neurons and causes histamine release from skin mast cells. Odum L, et al. **Inflamm Res** 1998 Dec;47(12):488–92

Double-labeled immunofluorescence study of cutaneous nerves in psoriasis. Jiang WY, et al. **Int J Dermatol** 1998 Aug;37(8):572–4

Abdominal wall pain caused by cutaneous nerve entrapment in an adolescent girl taking oral contraceptive pills. Peleg R. **J Adolesc Health** 1999 Jan;24(1):45–7 (13 ref.)

Comparison of the sympathetic skin response and continuous wave Doppler sonography of the radial artery. Eicke BM, et al. **J Auton Nerv Syst** 1999 Feb 15;75(2–3):202–6

Uterine contractility and blood flow are reflexively regulated by cutaneous afferent stimulation in anesthetized rats. Hotta H, et al. **J Auton Nerv Syst** 1999 Jan 15;75(1):23–31

Attenuation of regional differentiation of sympathetic nerve activity during sleep in humans. Kodama Y, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2–3):126–33

Regional differences in sympathetic neurotransmission to cutaneous arteries in the guinea-pig isolated ear. Morris JL, et al. **J Auton Nerv Syst** 1998 Nov 10;73(2–3):115–24

Magnitude of skin vasomotor reflex represents the intensity of nociception under general anesthesia. Shimoda O, et al. **J Auton Nerv Syst** 1998 Jul 15;71(2–3):183–9

Dilatation of subcutaneous perforating blood vessels associated with capsaicin-induced cutaneous axon reflex: demonstration with subtraction thermography. Takahashi Y, et al. **J Auton Nerv Syst** 1999 Feb 15;75(2–3):87–92

Norepinephrine spillover in forearm and subcutaneous adipose tissue before and after eating. Patel JN, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2815–9

Recent studies of cutaneous nociception in atopic and non-atopic subjects. Heyer GR, et al. **J Dermatol** 1999 Feb; 26(2):77–86 (43 ref.)

Identification and preservation of Palmar cutaneous nerves during open carpal tunnel release. Tomaino MM, et al. **J Hand Surg [Br]** 1998 Oct;23(5):607–8

Depletion of cutaneous peptidergic innervation in HIV-associated xerosis. Rowe A, et al. **J Invest Dermatol** 1999 Mar;112(3):284–9

NOS inhibitor antagonism of PGE2-induced mechanical sensitization of cutaneous C-fiber nociceptors in the rat. Chen X, et al. **J Neurophysiol** 1999 Mar;81(3):963–6

Reduction in potassium currents in identified cutaneous afferent dorsal root ganglion neurons after axotomy. Everill B, et al. **J Neurophysiol** 1999 Aug;82(2):700–8

Response of anterior parietal cortex to different modes of same-site skin stimulation. Tommerdahl M, et al. **J Neurophysiol** 1998 Dec;80(6):3272–83

Response of anterior parietal cortex to cutaneous flutter versus vibration. Tommerdahl M, et al. **J Neurophysiol** 1999 Jul;82(1):16–33

Myelinated mechanically insensitive afferents from monkey hairy skin: heat-response properties. Treede RD, et al. **J Neurophysiol** 1998 Sep;80(3):1082–93

Unmyelinated afferents constitute a second system coding tactile stimuli of the human hairy skin. Vallbo AB, et al. **J Neurophysiol** 1999 Jun;81(6):2753–63

SA1 and RA receptive fields, response variability, and population responses mapped with a probe array. Vega-Bermudez F, et al. **J Neurophysiol** 1999 Jun; 81(6):2701–10

Surround suppression in the responses of primate SA1 and RA mechanoreceptive afferents mapped with a probe array. Vega-Bermudez F, et al. **J Neurophysiol** 1999 Jun; 81(6):2711–9

Effects of nonuniform fiber sensitivity, innervation geometry, and noise on information relayed by a population of slowly adapting type I primary afferents from the fingerpad. Goodwin AW, et al. **J Neurosci** 1999 Sep 15;19(18):8057–70

Overexpression of brain-derived neurotrophic factor enhances sensory innervation and selectively increases neuron number. LeMaster AM, et al. **J Neurosci** 1999 Jul 15;19(14):5919–31

Overexpression of nerve growth factor in skin selectively affects the survival and functional properties of nociceptors. Stucky CL, et al. **J Neurosci** 1999 Oct 1; 19(19):8509–16

Anatomical variations of the lateral femoral cutaneous nerve and the consequences for surgery. de Ridder VA, et al. **J Orthop Trauma** 1999 Mar-Apr;13(3):207–11

Idiopathic small-fiber sensory neuropathy in childhood: A diagnosis based on objective findings on punch skin biopsy specimens. Wakamoto H, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):257–60

Modality-specific hyper-responsivity of regenerated cat cutaneous nociceptors. Andrew D, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):897–906

Excitability changes in sacral afferents innervating the urethra, perineum and hindlimb skin of the cat during micturition. Buss RR, et al. **J Physiol (Lond)** 1999 Jan 15; 514 (Pt 2):593–607

Perceptual distortions of the human body image produced by local anaesthesia, pain and cutaneous stimulation. Gandevia SC, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):609–16

Topographical organization of projections to cat motor cortex from nucleus interpositus anterior and forelimb skin. Jörntell H, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):551–66

Respiratory and cardiac modulation of single sympathetic vasoconstrictor and sudomotor neurones to human skin. Macefield VG, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):303–14

Activity-dependent slowing of conduction differentiates functional subtypes of C fibres innervating human skin [see comments] Serra J, et al. **J Physiol (Lond)** 1999 Mar 15; 515 (Pt 3):799–811. Comment in: J Physiol (Lond) 1999 Mar 15;515 (Pt 3):629.

"Skin-CNS-bladder" reflex pathway for micturition after spinal cord injury and its underlying mechanisms. Xiao CG, et al. **J Urol** 1999 Sep;162(3 Pt 1):936–42

The influence of chronic sympathectomy on cutaneous blood flow in the rat tail. Yanagiya Y, et al. **J Vet Med Sci** 1999 Jul;61(7):795–801

Recent advances in neuropharmacology of cutaneous nociceptors. Nakamura A, et al. **Jpn J Pharmacol** 1999 Apr; 79(4):427–31 (29 ref.)

Repetitive mechanical responses of the amphibian skin to adrenergic stimulation . Tasaki I. **Jpn J Physiol** 1998 Aug; 48(4):297–300

Temperature dependence of excitability indices of human cutaneous afferents. Burke D, et al. **Muscle Nerve** 1999 Jan;22(1):51–60

The cutaneous silent period is mediated by spinal inhibitory reflex. Logigian EL, et al. **Muscle Nerve** 1999 Apr; 22(4):467–72

Ischemic resistance of cutaneous afferents and motor axons in patients with amyotrophic lateral sclerosis. Mogyoros I, et al. **Muscle Nerve** 1998 Dec;21(12):1692–700

Different contribution of joint and cutaneous inputs to early scalp somatosensory evoked potentials. Restuccia D, et al. **Muscle Nerve** 1999 Jul;22(7):910–9

Quantitative sudomotor axon reflex test (QSART): a new approach for testing distal sites. Riedel A, et al. **Muscle Nerve** 1999 Sep;22(9):1257–64

Sympathetic skin responses in hereditary sensory and autonomic neuropathy and familial amyloid neuropathy are different. Shivji ZM, et al. **Muscle Nerve** 1999 Sep; 22(9):1283–6

Sympathetic skin response in hemodialysis patients: correlation with nerve conduction studies and adequacy of dialysis. Robles NR, et al. **Nephron** 1999;82(1):12–6

The innervation of human skin studied with confocal scanning laser microscopy: a comparison between PGP 9.5 immunofluorescence and silver impregnations. Rumio C, et al. **Neuroimage** 1995 Jun;2(2):102–11

Quantitative analysis of epidermal innervation in Fabry disease. Scott LJ, et al. **Neurology** 1999 Apr 12; 52(6):1249–54

Rapid actions of insulin on sensory nerve function. Delaney CA, et al. **Neuroreport** 1998 Aug 24;9(12):2775–9

Gastrin/CCK-ergic innervation of cutaneous mucous gland by the supramedullary cells of the puffer fish Takifugu niphobles. Funakoshi K, et al. **Neurosci Lett** 1998 Dec 24; 258(3):171–4

Tactile stimulation of the hand causes bilateral cortical activation: a functional magnetic resonance study in humans. Hansson T, et al. **Neurosci Lett** 1999 Aug 13; 271(1):29–32

The development of tolerance to intrathecal morphine in rat models of visceral and cutaneous pain. Ness TJ, et al. **Neurosci Lett** 1998 May 22;248(1):33–6

Cutaneous afferents producing a reflex pupil dilation in anesthetized rats. Shimura M, et al. **Neurosci Lett** 1999 Jan 4;259(1):17–20

The relationship between axonal spike shape and functional modality in cutaneous C-fibres in the pig and rat. Gee MD, et al. **Neuroscience** 1999 May;90(2):509–18

Involvement of neurokinins in antidromic vasodilatation in hairy and hairless skin of the rat hindlimb. Häbler HJ, et al. **Neuroscience** 1999;89(4):1259–68

Calcitonin gene-related peptide and prostaglandin E2 but not substance P release induced by antidromic nerve

stimulation from rat skin in vitro. Kress M, et al. **Neuroscience** 1999 Mar;89(1):303–10

Tonic adrenergic and serotonergic inhibition of a withdrawal reflex in rabbits subjected to different levels of surgical preparation. Ogilvie J, et al. **Neuroscience** 1999; 89(4):1247–58

Free radicals contribute to the reduction in peripheral vascular responses and the maintenance of thermal hyperalgesia in rats with chronic constriction injury. Khalil Z, et al. **Pain** 1999 Jan;79(1):31–7

C- and A delta-fiber components of heat-evoked cerebral potentials in healthy human subjects. Magerl W, et al. **Pain** 1999 Aug;82(2):127–37

Differential inhibitory effect on human nociceptive skin senses induced by local stimulation of thin cutaneous fibers. Nilsson HJ, et al. **Pain** 1999 Mar;80(1–2):103–12

Cutaneous nerve hypertrophy. Mason GH, et al. **Pathology** 1998 Nov;30(4):422–4

Distribution and putative function of autonomic nerve fibres in the bill skin of the platypus (Ornithorhynchus anatinus). Manger PR, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29;353(1372):1159–70

A physiological approach to the evaluation of lumbosacral spinal stenosis. Kraft GH. **Phys Med Rehabil Clin N Am** 1998 May;9(2):381–9, viii (19 ref.)

Neurogenic modifications induced by substance P in an organ culture of human skin. Branchet-Gumila MC, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul–Aug; 12(4):211–20

Sensitivity of neurons in somatosensory cortex (S1) to cutaneous stimulation of the hindlimb immediately following a sciatic nerve crush. Barbay S, et al. **Somatosens Mot Res** 1999;16(2):103–14

"Warmth-insensitive fields": evidence of sparse and irregular innervation of human skin by the warmth sense. Green BG, et al. **Somatosens Mot Res** 1998;15(4):269–75

Cutaneous texture discrimination following transection of the dorsal spinal column in monkeys. Vierck CJ Jr, et al. **Somatosens Mot Res** 1998;15(4):309–15

Anatomic basis of chronic groin pain with special reference to sports hernia. Akita K, et al. **Surg Radiol Anat** 1999; 21(1):1–5

Is herpes zoster unilateral? Usatine RP, et al. **West J Med** 1999 May;170(5):263

Efferent functions of C-fiber nociceptors. Sann H, et al. **Z Rheumatol** 1998;57 Suppl 2:8–13 (27 ref.)

[Advance in the study of restoration of sensation in skin flaps] Kuang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):94–6 (25 ref.) **(Chi)**

[Skin sensitivity before and after reduction mammaplasty. Report of 44 cases] Mitrofanoff M, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):314–23 (Eng. Abstr.) **(Fre)**

[The cutaneous neurosensory axis and the neuro-immuno-cutaneous system] Fraiture AL, et al. **Rev Med Liege** 1998 Nov;53(11):676–9 (Eng. Abstr.) **(Fre)**

[Morphologic and histochemical changes of skin nervous apparatus in wound healing following local action of noradrenaline and acetylcholine] Grabovoi AN. **Morfologiia** 1999;115(3):68–72 (Eng. Abstr.) **(Rus)**

[Study of the activity of receptors with nonmyelinated fibers during heat exposure of the hairy cat skin] Malysheva GI, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Feb; 85(2):275–82 (Eng. Abstr.) **(Rus)**

[Stimulus-dependent effects of the sodium channel blockers in the C-fiber sensory units] Revenko SV, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan;85(1):119–27 (Eng. Abstr.) **(Rus)**

[The topographic diagnosis of the sympathetic nervous system lesions in Cuban epidemic neuropathy. The value of the sympathetic skin response] Gutiérrez JV, et al. **Rev Cubana Med Trop** 1998;50 Suppl:245–8 (Eng. Abstr.) **(Spa)**

[The characteristics of peripheral nervous system regeneration in skin wounds by the use of an antioxidant-bound charcoal sorbent] Slobodianyk HI. **Klin Khir** 1998;(9–10):58–60 (Eng. Abstr.) **(Ukr)**

METABOLISM

Effects of amide local anaesthetics on eicosanoid formation in burned skin. Jönsson A, et al. **Acta Anaesthesiol Scand** 1999 Jul;43(6):618–22

The UV-responsive melanocyte system: a peripheral network for photoperiodic time measurements. a function of indoleamine expression. Iyengar B. **Acta Anat (Basel)** 1998; 163(4):173–8

Distribution to the skin of penciclovir after oral famciclovir administration in healthy volunteers: comparison of the suction blister technique and cutaneous microdialysis. Borg N, et al. **Acta Derm Venereol** 1999 Jul;79(4):274–7

Blister fluid cytokines in cutaneous inflammatory bullous disorders. Rhodes LE, et al. **Acta Derm Venereol** 1999 Jul; 79(4):288–90

Epidermal urocanic acid concentration and photoisomerization reactivity in patients with cutaneous malignant melanoma or basal cell carcinoma. Snellman E, et al. **Acta Derm Venereol** 1999 May;79(3):200–3

Interleukin-1-beta, interleukin-6, and interferon-gamma in suction blister fluids of involved and uninolved skin and in sera of psoriatic patients. Bonifati C, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:23–4

Regulation of the chemotactic cytokines IL-8 and MCAF and their induction in different cell types related to the skin. Deleuran MS. **Acta Derm Venereol Suppl (Stockh)** 1994;189:1–34

Lectin binding patterns in amphibian skin epithelium. Zaccone G, et al. **Acta Histochem** 1999 Jul;101(3):317–26

Comparing tissue PO2 measurements by recessed microelectrode and phosphorescence quenching. Buerk DG, et al. **Adv Exp Med Biol** 1998;454:367–74

Measurement of interstitial cetirizine concentrations in human skin: correlation of drug levels with inhibition of histamine-induced skin responses. Petersen LJ, et al. **Allergy** 1999 Jun;54(6):607–11

C5a receptor and interleukin-6 are expressed in tissue macrophages and stimulated keratinocytes but not in pulmonary and intestinal epithelial cells. Fayyazi A, et al. **Am J Pathol** 1999 Feb;154(2):495–501

Effects of slow and rapid cooling on catecholamine concentration in arterial plasma and the skin. Kozyreva TV, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1668–72

Neutrophil emigration in the lungs, peritoneum, and skin does not require gelatinase B. Betsuyaku T, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1303–9

Necator americanus (human hookworm) aspartyl proteinases and digestion of skin macromolecules during skin penetration. Brown A, et al. **Am J Trop Med Hyg** 1999 May;60(5):840–7

Determination of skin concentrations of enrofloxacin in dogs with pyoderma. DeManuelle TC, et al. **Am J Vet Res** 1998 Dec;59(12):1599–604

A comparison of 15N proline and 13C leucine for monitoring protein biosynthesis in the skin. Doumit J, et al. **Amino Acids** 1999;16(2):107–11

HPLC-accelerator MS measurement of atrazine metabolites in human urine after dermal exposure. Buchholz BA, et al. **Anal Chem** 1999 Aug 15;71(16):3519–25

Versican in human fetal skin development. Sorrell JM, et al. **Anat Embryol (Berl)** 1999 Jan;199(1):45–56

Age-related changes in the concentration of pyridinoline cross-links in human skin. Wan KC, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):666–8

Induction of human tissue inhibitor of metalloproteinase-1 gene expression by all-trans retinoic acid in combination with basic fibroblast growth factor involves both p42/44 and p38 MAP kinases. Bigg HF, et al. **Ann N Y Acad Sci** 1999 Jun 30;878:506–9

Laser ultrasonic transport of drugs in living tissues. Zharov VP, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:66–73

Dermal uptake of solvents from the vapour phase: an experimental study in humans. Brooke I, et al. **Ann Occup Hyg** 1998 Nov;42(8):531–40

Thrombospondin 1 and its specific cysteine-serine-valine-threonine-cysteine-clycine receptor in fetal wounds. Roth JJ, et al. **Ann Plast Surg** 1999 May;42(5):553–63

Formation of 4-hydroxy-2-nonenal-modified proteins and 3-nitro-L-tyrosine in rat island skin flaps during and after ischemia. Um SC, et al. **Ann Plast Surg** 1999 Mar; 42(3):293–8

The absorption properties of "physical" sunscreens [letter] Kollias N. **Arch Dermatol** 1999 Feb;135(2):209–10

Substance P- and antigen-induced release of leukotriene B4, prostaglandin D2 and histamine from guinea pig skin by different mechanisms in vitro. Furutani K, et al. **Arch Dermatol Res** 1999 Jul–Aug;291(7–8):466–73

Effect of 12-O-tetradecanoyl-phorbol ester and incisional wounding on neuropsin mRNA and its protein expression in murine skin. Kitayoshi H, et al. **Arch Dermatol Res** 1999 Jun;291(6):333–8

Increased expression of platelet-derived growth factor receptor alpha and beta and vascular endothelial growth factor in the skin of patients with chronic venous insufficiency. Peschen M, et al. **Arch Dermatol Res** 1998 Jun;290(6):291–7

Reduced folate carrier (RFC-1) gene expression in normal and psoriatic skin. Sprecher E, et al. **Arch Dermatol Res** 1998 Dec;290(12):656–60

Effects of solvent on DNA adduct formation in skin and lung of CD1 mice exposed cutaneously to benzo(a)pyrene. Booth ED, et al. **Arch Toxicol** 1999 Aug;73(6):316–22

Correlation of 32P-postlabelling-detection of DNA adducts in mouse skin in vivo with the polycyclic aromatic compound content and mutagenicity in Salmonella typhimurium of a range of oil products. Booth ED, et al. **Arch Toxicol** 1998 Jul–Aug;72(8):505–13

Inhibition of type I collagen production by dermal fibroblasts upon contact with activated T cells: different sensitivity to inhibition between systemic sclerosis and control fibroblasts. Chizzolini C, et al. **Arthritis Rheum** 1998 Nov; 41(11):2039–47

Formation and loss of nitrated proteins in peroxynitrite-treated rat skin in vivo. Greenacre SA, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):781–6

A novel apolipoprotein A-1 variant, Arg173Pro, associated with cardiac and cutaneous amyloidosis. Hamidi Asl K, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):584–8

Cholesterol 7-hydroperoxides in rat skin as a marker for lipid peroxidation. Yamazaki S, et al. **Biochem Pharmacol** 1999 Nov 1;58(9):1415–23

In vivo stimulation of 12(S)-lipoxygenase in the rat skin by bradykinin and platelet activating factor: formation of 12(S)-HETE and hepoxilins, and actions on vascular permeability. Wang MM, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):354–62

Epidermal ornithine decarboxylase and polyamines in mice exposed to 50 Hz magnetic fields and UV radiation. Kumlin T, et al. **Bioelectromagnetics** 1998;19(6):388–91

Influence of enzyme distribution and diffusion on permeation profile of prodrug through viable skin: theoretical aspects for several steady-state fluxes in two transport directions. Hatanaka T, et al. **Biol Pharm Bull** 1999 Jun;22(6):623–6

Cyclic monoterpene extract from cardamom oil as a skin permeation enhancer for indomethacin: in vitro and in vivo studies. Huang YB, et al. **Biol Pharm Bull** 1999 Jun; 22(6):642–6

Simultaneous transport and metabolism of nicotinic acid derivatives in hairless mouse skin. Rittirod T, et al. **Biol Pharm Bull** 1999 Mar;22(3):305–9

Theoretical analysis of the effect of cutaneous metabolism on skin permeation of parabens based on a two-layer skin diffusion/metabolism model. Seko N, et al. **Biol Pharm Bull** 1999 Mar;22(3):281–7

Enhancement of propylene glycol distribution in the skin by high purity cis-unsaturated fatty acids with different alkyl chain lengths having different double bond position. Taguchi K, et al. **Biol Pharm Bull** 1999 Apr;22(4):407–11

Chitosan hydrogel as a base for transdermal delivery of berberine and its evaluation in rat skin. Tsai CJ, et al. **Biol Pharm Bull** 1999 Apr;22(4):397–401

Analysis of structure-permeability correlation of nitrophenol analogues in newborn rat abdominal skin using semiempirical molecular orbital calculation. Ohkura K, et al. **Bioorg Med Chem** 1999 Feb;7(2):309–14

Frequency-dependent capacitance of the apical membrane of frog skin: dielectric relaxation processes. Awayda MS, et al. **Biophys J** 1999 Jan;76(1 Pt 1):219–32

Optimum porphyrin accumulation in epithelial skin tumours and psoriatic lesions after topical application of delta-aminolaevulinic acid. Fritsch C, et al. **Br J Cancer** 1999 Mar;79(9–10):1603–8 (36 ref.)

Expression of the small heat shock protein HSP 27 in developing human skin. Jantschitsch C, et al. **Br J Dermatol** 1998 Aug;139(2):247–53

Expression of the alpha1-alpha6 collagen IV chains in the dermoepidermal junction during human foetal skin development: temporal and spatial expression of the alpha4 collagen IV chain in an early stage of development. Tanaka N, et al. **Br J Dermatol** 1998 Sep;139(3):371–4

Differential regulation of bradykinin receptor density, intracellular Ca2+, and prostanoid release in skin and foreskin fibroblasts. Effects of cell density and interleukin-1alpha. Ochsenbein RM, et al. **Br J Pharmacol** 1999 May;127(2):583–9

Correlation of quantitative tests of nerve and target organ dysfunction with skin immunohistology in leprosy. Facer P, et al. **Brain** 1998 Dec;121 (Pt 12):2239–47

Expression of midkine in normal and burn sites of rat skin. Iwashita N, et al. **Burns** 1999 Mar;25(2):119–24

Reduced antimicrobial peptide expression in human burn wounds. Milner SM, et al. **Burns** 1999 Aug;25(5):411–3

Pharmacokinetics of the green tea derivative, EGCG, by the topical route of administration in mouse and human skin. Dvorakova K, et al. **Cancer Chemother Pharmacol** 1999; 43(4):331–5

Interleukin-12 cDNA skin transfection potentiates human papillomavirus E6 DNA vaccine-induced antitumor immune response. Tan J, et al. **Cancer Gene Ther** 1999 Jul–Aug;6(4):331–9

De Novo hair follicle morphogenesis and hair tumors in mice expressing a truncated beta-catenin in skin. Gat U, et al. **Cell** 1998 Nov 25;95(5):605–14

Cell position-dependent reciprocal feedback regulation of type I collagen gene expression in cultured human skin fibroblasts. Hata R, et al. **Cell Biol Int** 1998;22(3):185–91

Effects of continuous ambulatory peritoneal dialysis and kidney transplantation on advanced glycation endproducts in the skin and peritoneum. Shaw S, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov;44(7):1061–8

Synthesis and effect of two new penetration enhancers on the transdermal delivery of 5-fluorouracil through excised rat skin. Hanif RM, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1428–31

Effects of removal of stratum corneum, delipidization and addition of enhancers, ethanol and l-menthol, on skin permeation of benzoic acid and its 4-n-alkyl substituents in excised guinea pig dorsal skin. Kitagawa S, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):44–7

Smoking and the skin, radically speaking. Wolf R, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):633–9 (72 ref.)

Ceramidase activity in bacterial skin flora as a possible cause of ceramide deficiency in atopic dermatitis. Ohnishi Y, et al. **Clin Diagn Lab Immunol** 1999 Jan;6(1):101–4

Detection of cryptdin in mouse skin. Shirafuji Y, et al. **Clin Diagn Lab Immunol** 1999 May;6(3):336–40

Matrix metalloproteinase-2 and matrix metalloproteinase-9 in cholesteatoma and deep meatal skin. Banerjee AR, et al. **Clin Otolaryngol** 1998 Aug;23(4):345–7

Interstitial lactate levels in human skin at rest and during an oral glucose load: a microdialysis study. Petersen LJ. **Clin Physiol** 1999 May;19(3):246–50

Histamine receptors in the skin melanophores of Indian

bullfrog Rana tigerina. Ali SA, et al.
Comp Biochem Physiol A Mol Integr Physiol 1998 Nov; 121(3):229–34

Pore-forming properties and antibacterial activity of proteins extracted from epidermal mucus of fish. Ebran N, et al.
Comp Biochem Physiol A Mol Integr Physiol 1999 Feb; 122(2):181–9

Trypsin inhibits voltage-activated chloride conductance of toad skin. Nagel W, et al.
Comp Biochem Physiol A Mol Integr Physiol 1999 Jan; 122(1):109–15

Dietary fat manipulation and signal transduction in ovine skin. McCarroll J, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 Jul; 120(3):571–7

Starvation depresses acylglycerol biosynthesis in bovine subcutaneous but not intramuscular adipose tissue homogenates. Smith SB, et al.
Comp Biochem Physiol B Biochem Mol Biol 1998 May; 120(1):165–74

Proper statistical analysis of transepidermal water loss (TEWL) measurements in bioengineering studies. Kuss O, et al. **Contact Dermatitis** 1998 Aug;39(2):64–7

Neuropeptides in atopic dermatitis. Giannetti A.
Curr Probl Dermatol 1999;28:51–5 (8 ref.)

Topical natural retinoids. The 'proligand-non-ligand' concept. Saurat JH, et al. **Dermatology** 1999;199 Suppl 1:1–2

Metabolism of topical retinaldehyde. Sorg O, et al.
Dermatology 1999;199 Suppl 1:13–7

Ectopic expression of the nude gene induces hyperproliferation and defects in differentiation: implications for the self-renewal of cutaneous epithelia. Prowse DM, et al. **Dev Biol** 1999 Aug 1;212(1):54–67

Skin collagen glycation, glycoxidation, and crosslinking are lower in subjects with long-term intensive versus conventional therapy of type 1 diabetes: relevance of glycated collagen products versus HbA1c as markers of diabetic complications. DCCT Skin Collagen Ancillary Study Group. Diabetes Control and Complications Trial. Monnier VM, et al. **Diabetes** 1999 Apr;48(4):870–80

Aminoguanidine inhibits albuminuria, but not the formation of advanced glycation end-products in skin collagen of diabetic rats. Degenhardt TP, et al.
Diabetes Res Clin Pract 1999 Feb;43(2):81–9

Cutaneous uptake of 14C-HD vapor by the hairless guinea pig. Logan TP, et al. **Drug Chem Toxicol** 1999 May; 22(2):375–87

Pharmacokinetic profile of a new matrix-type transdermal delivery system: diclofenac diethyl ammonium patch. Devi K, et al. **Drug Dev Ind Pharm** 1999 May;25(5):695–700

Topical oleo-hydrogel preparation of ketoprofen with enhanced skin permeability. Rhee GJ, et al.
Drug Dev Ind Pharm 1999 Jun;25(6):717–26

Keratinized epithelial folds [letter; comment] Di Bartolomeo JR. **Ear Nose Throat J** 1999 Apr;78(4):308. Comment on: Ear Nose Throat J 1999 Feb;78(2):76–8.

Estimation of topiramate in subdural cerebrospinal fluid, subcutaneous extracellular fluid, and plasma: a single case microdialysis study. Lindberger M, et al. **Epilepsia** 1999 Jun;40(6):800–2

The effect of tissue expansion on the expression of collagen type I and type III mRNA in distinct areas of skin in the dog as an animal model. Plenz G, et al.
Eur Arch Otorhinolaryngol 1998;255(9):473–7

Percutaneous penetration enhancement and its quantification. Bach M, et al. **Eur J Pharm Biopharm** 1998 Jul;46(1):1–13 (172 ref.)

Comparative investigations to evaluate the use of organotypic cultures of transformed and native dermal and epidermal cells for permeation studies. Specht C, et al.
Eur J Pharm Biopharm 1998 Nov;46(3):273–8

Influence of propylene glycol and isopropyl myristate on the in vitro percutaneous penetration of diclofenac sodium from carbopol gels. Arellano A, et al. **Eur J Pharm Sci** 1999 Jan;7(2):129–35

Investigation of the mechanism of flux across human skin in vitro by quantitative structure-permeability relationships. Cronin MTD, et al. **Eur J Pharm Sci** 1999 Mar;7(4):325–30

Lectin histochemistry of dorsal skin of Wistar-derived hypotrichotic WBN/Ila-Ht rats. Iwamoto S, et al.
Exp Anim 1998 Jul;47(3):183–7

Developmentally regulated expression of persyn, a member of the synuclein family, in skin. Ninkina NN, et al.
Exp Cell Res 1999 Feb 1;246(2):308–11

A composite CMV-IE enhancer/beta-actin promoter is ubiquitously expressed in mouse cutaneous epithelium. Sawicki JA, et al. **Exp Cell Res** 1998 Oct 10;244(1):367–9

Molecular biology of the human cytosolic sulfotransferase gene superfamily implicated in the bioactivation of minoxidil and cholesterol in skin. Dooley TP.
Exp Dermatol 1999 Aug;8(4):328–9 (11 ref.)

Human normal dermal fibroblasts express somatostatin receptors. Gaudillère A, et al. **Exp Dermatol** 1999 Aug; 8(4):267–73

A novel in-situ-zymography technique localizes gelatinolytic activity in human skin to mast cells. Krejci-Papa NC, et al. **Exp Dermatol** 1998 Dec;7(6):321–6

Proteinase-activated receptor-2 in human skin: tissue distribution and activation of keratinocytes by mast cell tryptase. Steinhoff M, et al. **Exp Dermatol** 1999 Aug; 8(4):282–94

Retinoid regulation of heparin-binding EGF-like growth factor gene expression in human keratinocytes and skin. Stoll SW, et al. **Exp Dermatol** 1998 Dec;7(6):391–7

Decreased biosynthesis of glycosaminoglycans in the skin of rats with chronic diabetes mellitus. Cechowska-Pasko M, et al. **Exp Toxicol Pathol** 1999 May;51(3):239–43

Accumulation of protein-bound epidermal glucosylceramides in beta-glucocerebrosidase deficient type 2 Gaucher mice. Doering T, et al. **FEBS Lett** 1999 Mar 26;447(2–3):167–70

A matrix metalloproteinase inhibitor which prevents fibroblast-mediated collagen lattice contraction. Scott KA, et al. **FEBS Lett** 1998 Dec 11;441(1):137–40

Levels of high energy phosphate in the dorsal skin of the foot in normal and diabetic adults: the role of 31P magnetic resonance spectroscopy and direct quantification with high pressure liquid chromatography. Smith DG, et al.
Foot Ankle Int 1999 Apr;20(4):258–62

Immunohistochemical detection of fibronectin in postmortem incised wounds of porcine skin. Grellner W, et al.
Forensic Sci Int 1998 Nov 9;97(2–3):109–16

Increases in cholesterol 7-hydroperoxides in lipids of human skin by sunlight exposure. Yamazaki S, et al.
Free Radic Biol Med 1999 May;26(9–10):1126–33

Responses of frog skin, Rana pipiens, calcium ion transport to parathyroid hormone, calcitonin, and vitamin D3. Stiffler DF, et al. **Gen Comp Endocrinol** 1998 Nov; 112(2):191–9

The two functional keratin 6 genes of mouse are differentially regulated and evolved independently from their human orthologs. Takahashi K, et al. **Genomics** 1998 Oct 15; 53(2):170–83

Effect of in vitro aging on the modulation of protein and fibronectin biosynthesis by the elastin-laminin receptor in human skin fibroblasts. Fodil-Bourahla I, et al.
Gerontology 1999 Jan-Feb;45(1):23–30

Thrombospondin 1 is expressed by mesenchymal cells in mouse post-natal skin and hair follicle development. Pablos JL, et al. **Histochem J** 1998 Jul;30(7):461–5

N-terminal deletion in a desmosomal cadherin causes the autosomal dominant skin disease striate palmoplantar keratoderma. Rickman L, et al. **Hum Mol Genet** 1999 Jun; 8(6):971–6

Differential expression of tissue inhibitors of metalloproteinases (TIMP-1, -2, -3, and -4) in normal and aberrant wound healing. Vaalamo M, et al. **Hum Pathol** 1999 Jul;30(7):795–802

New thermal wave aspects on burn evaluation of skin subjected to instantaneous heating. Liu J, et al.
IEEE Trans Biomed Eng 1999 Apr;46(4):420–8

Influence of Aloe vera on collagen turnover in healing of dermal wounds in rats. Chithra P, et al.
Indian J Exp Biol 1998 Sep;36(9):896–901

Prostaglandin-H-synthase isozyme expression in normal and neoplastic human skin. Müller-Decker K, et al.
Int J Cancer 1999 Aug 27;82(5):648–56

Quantitative estimation and recommendations for supplementation of protein lost through scaling in exfoliative dermatitis. Kanthraj GR, et al.
Int J Dermatol 1999 Feb;38(2):91–5

Pyloric atresia with junctional epidermolysis bullosa (PA-JEB) syndrome: absence of detectable beta4 integrin and reduced expression of epidermal linear IgA dermatosis antigen. Kim JN, et al. **Int J Dermatol** 1999 Jun; 38(6):467–70

Collagen synthesis in rat skin and ileum fibroblasts is affected differently by diabetes-related factors. Verhofstad MH, et al. **Int J Exp Pathol** 1998 Oct;79(5):321–8

In vivo induction of pyrimidine dimers in human skin by UVA radiation: initiation of cell damage and/or intercellular communication? Applegate LA, et al.
Int J Mol Med 1999 May;3(5):467–72

Effect of ethanol/propylene glycol on the in vitro percutaneous absorption of aspirin, biophysical changes and macroscopic barrier properties of the skin. Levang AK, et al. **Int J Pharm** 1999 Apr 30;181(2):255–63

Species difference in simultaneous transport and metabolism of ethyl nicotinate in skin. Rittirod T, et al.
Int J Pharm 1999 Feb 15;178(2):161–9

Transdermal iontophoretic delivery of methylphenidate HCl in vitro. Singh P, et al. **Int J Pharm** 1999 Feb 1;178(1):121–8

Deoxycholate-hydrogels: novel drug carrier systems for topical use. Valenta C, et al. **Int J Pharm** 1999 Aug 5; 185(1):103–11

Elaboration of matrix metalloproteinase inhibitors by human skin in organ culture and by skin cells in monolayer culture: relationship to invasion. Chi Y, et al.
Invasion Metastasis 1998;18(1):27–34

Respiratory activity and growth of human skin derma fibroblasts. Papa F, et al. **Ital J Biochem** 1998 Sep; 47(3):171–8

Adhesion molecule expression on skin endothelia in atopic dermatitis: effects of TNF-alpha and IL-4. de Vries IJ, et al. **J Allergy Clin Immunol** 1998 Sep;102(3):461–8

Pharmacokinetics of fluconazole in skin and nails. Faergemann J. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 2):S14–20

Comparison of alpha5(IV) collagen chain expression in skin with disease severity in women with X-linked Alport syndrome. Nakanishi K, et al. **J Am Soc Nephrol** 1998 Aug; 9(8):1433–40

Wet decontamination-induced stratum corneum hydration--effects on the skin barrier function to diethylmalonate. Loke WK, et al. **J Appl Toxicol** 1999 Jul-Aug;19(4):285–90

Bethlem myopathy and engineered collagen VI triple helical deletions prevent intracellular multimer assembly and protein secretion. Lamandé SR, et al. **J Biol Chem** 1999 Jul 30;274(31):21817–22

cDNA cloning, expression, and assembly characteristics of mouse keratin 16. Porter RM, et al. **J Biol Chem** 1998 Nov 27;273(48):32265–72

A liposomal model that mimics the cutaneous production of vitamin D3. Studies of the mechanism of the membrane-enhanced thermal isomerization of previtamin D3 to vitamin D3. Tian XQ, et al. **J Biol Chem** 1999 Feb 12;274(7):4174–9

Bacterial lipopolysaccharide activates nuclear factor-kappaB through interleukin-1 signaling mediators in cultured human dermal endothelial cells and mononuclear phagocytes. Zhang FX, et al. **J Biol Chem** 1999 Mar 19; 274(12):7611–4

Human skin fibroblasts express m2, m4, and m5 subtypes of muscarinic acetylcholine receptors. Buchli R, et al.
J Cell Biochem 1999 Aug 1;74(2):264–77

Subcutaneous lidocaine misidentified as cerebrospinal fluid [letter] Greilich NB, et al. **J Clin Anesth** 1999 Mar;11(2):140

Lactate and glycerol release from subcutaneous adipose tissue in black and white lean men. van der Merwe MT, et al.
J Clin Endocrinol Metab 1999 Aug;84(8):2888–95

Calcium and ATP regulation of ion transport in larval frog skin. Cox TC. **J Comp Physiol [B]** 1999 Jul;169(4–5):344–50

Transdermal iontophoretic delivery of enoxacin from various liposome-encapsulated formulations. Fang JY, et al.
J Controlled Release 1999 Jun 28;60(1):1–10

Spatially constrained localized transport regions due to skin electroporation. Gowrishankar TR, et al.
J Controlled Release 1999 Jun 28;60(1):101–10

Spatially constrained skin electroporation with sodium thiosulfate and urea creates transdermal microconduits. Ilic L, et al. **J Controlled Release** 1999 Aug 27;61(1–2):185–202

Cyclodextrins as permeation enhancers: some theoretical evaluations and in vitro testing. Másson M, et al.
J Controlled Release 1999 May 1;59(1):107–18

Liposomes as a topical delivery system: the role of size on transport studied by the EPR imaging method. Sentjurc M, et al. **J Controlled Release** 1999 May 1;59(1):87–97

Comparison of the effects of short, high-voltage and long, medium-voltage pulses on skin electrical and transport properties. Vanbever R, et al. **J Controlled Release** 1999 Jun 28;60(1):35–47

Reconstructed human skin as model for liposome-skin interaction. Zellmer S, et al. **J Controlled Release** 1998 Nov 13;55(2–3):271–9

Epidermal calprotectin in drug-induced toxic epidermal necrolysis. Paquet P, et al. **J Cutan Pathol** 1999 Jul; 26(6):301–5

Levels of soluble interleukin-2 receptor in the sera and skin tissue fluids of patients with vitiligo. Caixia T, et al.
J Dermatol Sci 1999 Sep;21(1):59–62

Increased cutaneous immunoreactive stem cell factor expression and serum stem cell factor level in systemic scleroderma. Kihira C, et al. **J Dermatol Sci** 1998 May; 20(1):72–8

Increased numbers of CD68 antigen positive dendritic epidermal cells and upregulation of CLA (cutaneous lymphocyte-associated antigen) expression on these cells in various skin diseases. Nakamura K, et al.
J Dermatol Sci 1998 Dec;18(3):170–80

Differential expression of cell survival and cell cycle regulatory proteins in cutaneous squamoproliferative lesions [published erratum appears in J Dermatol Sci 1999 Apr;19(3):219–20] Wrone-Smith T, et al.
J Dermatol Sci 1999 Jan;19(1):53–67

Characterization of [3H]substance P binding sites in human skin. Bianchi B, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):6–10

Detection of antigens by immunofluorescence on ultrathin cryosections of skin. Ishiko A, et al.
J Histochem Cytochem 1998 Dec;46(12):1455–60

In vivo dose-related receptor binding of the vitamin D analogue [3H]-1,25-dihydroxy-22-oxavitamin D3 (OCT) in rat parathyroid, kidney distal and proximal tubules, duodenum, and skin, studied by quantitative receptor autoradiography. Koike N, et al. **J Histochem Cytochem** 1998 Dec;46(12):1351–8

Water channel protein AQP3 is present in epithelia exposed to the environment of possible water loss. Matsuzaki T, et al. **J Histochem Cytochem** 1999 Oct;47(10):1275–86

Ultrastructural distribution of 36-kD microfibril-associated glycoprotein (MAGP-36) in human and bovine tissues. Toyoshima T, et al. **J Histochem Cytochem** 1999 Aug; 47(8):1049–56

Mitochondrial DNA deletions in human skin reflect photo- rather than chronologic aging [letter; comment] Berneburg M, et al. **J Invest Dermatol** 1998 Oct;111(4):709–10. Comment on: J Invest Dermatol 1998 Feb;110(2):149–52.

Spatial and temporal expression of parathyroid hormone-related protein during wound healing. Blomme EA, et al. **J Invest Dermatol** 1999 May;112(5):788–95

An experimental model for interpreting percutaneous penetration of oligonucleotides that incorporates the role of keratinocytes. Brand RM, et al. **J Invest Dermatol** 1998 Dec;111(6):1166–71

In situ repair of cyclobutane pyrimidine dimers and 6-4 photoproducts in human skin exposed to solar simulating radiation. Bykov VJ, et al. **J Invest Dermatol** 1999 Mar; 112(3):326–31

Stimulation of type I collagen transcription in human skin fibroblasts by TGF-beta: involvement of Smad 3. Chen SJ, et al. **J Invest Dermatol** 1999 Jan;112(1):49–57

Low humidity stimulates epidermal DNA synthesis and amplifies the hyperproliferative response to barrier disruption: implication for seasonal exacerbations of inflammatory dermatoses. Denda M, et al. **J Invest Dermatol** 1998 Nov;111(5):873–8

Expression and regulation of mRNA for putative fatty acid transport related proteins and fatty acyl CoA synthase in murine epidermis and cultured human keratinocytes. Harris IR, et al. **J Invest Dermatol** 1998 Nov;111(5):722–6

Counterregulation of interleukin-18 mRNA and protein expression during cutaneous wound repair in mice. Kämpfer H, et al. **J Invest Dermatol** 1999 Sep;113(3):369–74

Percutaneous penetration of local anesthetic bases: pharmacodynamic measurements. Leopold CS, et al. **J Invest Dermatol** 1999 Sep;113(3):304–7

Aberrant cutaneous expression of the angiogenic factor midkine is associated with neurofibromatosis type-1. Mashour GA, et al. **J Invest Dermatol** 1999 Sep; 113(3):398–402

Compound heterozygosity for silent and dominant glycine substitution mutations in COL7A1 leads to a marked transient intracytoplasmic retention of procollagen VII and a moderately severe dystrophic epidermolysis bullosa phenotype [letter] Shimizu H, et al. **J Invest Dermatol** 1999 Sep;113(3):419–21

Keratin 15 expression in stratified epithelia: downregulation in activated keratinocytes. Waseem A, et al. **J Invest Dermatol** 1999 Mar;112(3):362–9

Skin electroporation causes molecular transport across the stratum corneum through localized transport regions. Chen T, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(2):159–65

Visualization and quantitation of iontophoretic pathways using confocal microscopy. Turner NG, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):136–42

Theory of skin electroporation: implications of straight-through aqueous pathway segments that connect adjacent corneocytes. Weaver JC, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):143–7

Activity of alpha-secretase as the common final effector of protein kinase C-dependent and -independent modulation of amyloid precursor protein metabolism. Racchi M, et al. **J Neurochem** 1999 Jun;72(6):2464–70

Overexpression of nerve growth factor in skin selectively affects the survival and functional properties of nociceptors. Stucky CL, et al. **J Neurosci** 1999 Oct 1; 19(19):8509–16

Enhancement by terpenes of 5-fluorouracil permeation through the stratum corneum: model solvent approach. Moghimi HR, et al. **J Pharm Pharmacol** 1998 Sep; 50(9):955–64

Synthesis, stereoselective enzymatic hydrolysis, and skin permeation of diastereomeric propranolol ester prodrugs. Udata C, et al. **J Pharm Sci** 1999 May;88(5):544–50

p53 induction in normal human skin in vitro following exposure to solar simulated UV and UV-B irradiation. Davenport V, et al. **J Photochem Photobiol B** 1999 Apr; 49(2-3):177–86

Near-infrared spectroscopic assessment of tissue hydration following surgery. Sowa MG, et al. **J Surg Res** 1999 Sep; 86(1):62–9

Identification of COL4A5 defects in Alport's syndrome by immunohistochemistry of skin [see comments] van der Loop FT, et al. **Kidney Int** 1999 Apr;55(4):1217–24. Comment in: Kidney Int 1999 Apr;55(4):1575–6.

Streptozotocin-induced diabetes mellitus in cynomolgus monkeys: changes in carbohydrate metabolism, skin glycation, and pancreatic islets. Litwak KN, et al. **Lab Anim Sci** 1998 Apr;48(2):172–8

Expression of leukaemia inhibitory factor in skin of patients with amyotrophic lateral sclerosis [letter] Hu J, et al. **Lancet** 1999 Jun 19;353(9170):2126–7

Synthesis and bioactivity of fatty acid–conjugated GnRH derivatives. Yahalom D, et al. **Life Sci** 1999;64(17):1543–52

Investigations on magnesium and chromium antagonism in the skin of experimental animals. Bulikowski W, et al. **Magnes Res** 1999 Jun;12(2):115–21

Expression of mRNA for type IV collagen alpha1, alpha5 and alpha6 chains by cultured dermal fibroblasts from patients with X-linked Alport syndrome. Sasaki S, et al. **Matrix Biol** 1998 Aug;17(4):279–91

Effect of in vitro aging on the biosynthesis of glycosaminoglycans by human skin fibroblasts. Modulation by the elastin-laminin receptor. Fodil-Bourahla I, et al. **Mech Ageing Dev** 1999 Jan 15;106(3):241–60

Pharmacokinetics of 10B-p-boronophenylalanine in tumours, skin and blood of melanoma patients: a study of boron neutron capture therapy for malignant melanoma. Fukuda H, et al. **Melanoma Res** 1999 Feb;9(1):75–83

Development and in vivo assesment of a transdermal system for physostigmine. Benech H, et al. **Methods Find Exp Clin Pharmacol** 1998 Jul-Aug; 20(6):489–98

Intraepidermal bile pigment in skin biopsy specimens for graft-versus-host disease versus erythema multiforme. Dilday BR, et al. **Mod Pathol** 1998 Oct;11(10):1005–9

Breathing through skin in a newborn mammal [letter] Mortola JP, et al. **Nature** 1999 Feb 25;397(6721):660

Energy metabolism inhibition impairs amyloid precursor protein secretion from Alzheimer's fibroblasts. Gasparini L, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):197–200

The beta-oxidation of arachidonic acid and the synthesis of docosahexaenoic acid are selectively and consistently altered in skin fibroblasts from three Zellweger patients versus X-adrenoleukodystrophy, Alzheimer and control subjects. Petroni A, et al. **Neurosci Lett** 1998 Jul 10; 250(3):145–8

Production of cartilage oligomeric matrix protein (COMP) by cultured human dermal and synovial fibroblasts. Dodge GR, et al. **Osteoarthritis Cartilage** 1998 Nov;6(6):435–40

The level of the collagen cross-link pyridinoline reflects the improvement of cutaneous lesions in one case of skin alveolar echinococcosis. Ricard-Blum S, et al. **Parasitol Res** 1998 Sep;84(9):715–9

Changes in keratin and filaggrin expression in the skin of chronic proliferative dermatitis (cpdm) mutant mice. HogenEsch H, et al. **Pathobiology** 1999;67(1):45–50

Expression of substance P receptors in normal and psoriatic skin. Staniek V, et al. **Pathobiology** 1999;67(1):51–4

Interactions of elastin fibers with fibroblasts a time-lapse cinemicrographic study. Groult V, et al. **Pathol Biol (Paris)** 1998 Sep;46(7):507–16

Evidence for a Na+/Ca2+ exchange mechanism in frog skin epithelium. Madsen KH, et al. **Pflugers Arch** 1999 Jan; 437(2):175–81

alpha1-adrenoceptors antagonize activated chloride conductance of amphibian skin epithelium. Nagel W, et al. **Pflugers Arch** 1998 Nov;436(6):863–70

EP3 receptors inhibit antidiuretic-hormone-dependent sodium transport across frog skin epithelium. Rytved KA, et al. **Pflugers Arch** 1999 Jan;437(2):213–8

Development and in vitro evaluation of nimodipine transdermal formulations using factorial design. Giannakou SA, et al. **Pharm Dev Technol** 1998 Nov;3(4):517–25

Effect of ultrasound application on skin metabolism of prednisolone 21-acetate. Hikima T, et al. **Pharm Res** 1998 Nov;15(11):1680–3

In vivo bioavailability and metabolism of topical diclofenac lotion in human volunteers. Hui X, et al. **Pharm Res** 1998 Oct;15(10):1589–95

Epidermal iontophoresis: II. Application of the ionic mobility-pore model to the transport of local anesthetics. Lai PM, et al. **Pharm Res** 1998 Oct;15(10):1579–88

Electrorepulsion versus electroosmosis: effect of pH on the iontophoretic flux of 5-fluorouracil. Merino V, et al. **Pharm Res** 1999 May;16(5):758–61

Epidermal iontophoresis: I. Development of the ionic mobility-pore model. Roberts MS, et al. **Pharm Res** 1998 Oct;15(10):1569–78

Ruby laser irradiation (694 nm) of human skin biopsies: assessment by electron spin resonance spectroscopy of free radical production and oxidative stress during laser depilation. Haywood RM, et al. **Photochem Photobiol** 1999 Sep;70(3):348–52

Uptake of topically applied 5-aminolevulinic acid and production of protoporphyrin IX in normal mouse skin: dependence on skin temperature. Juzenas P, et al. **Photochem Photobiol** 1999 Apr;69(4):478–81

Stratum corneum lipid abnormalities in UVB-irradiated skin. Meguro S, et al. **Photochem Photobiol** 1999 Mar; 69(3):317–21

Kinetics of photobleaching of protoporphyrin IX in the skin of nude mice exposed to different fluence rates of red light. Sørensen R, et al. **Photochem Photobiol** 1998 Dec; 68(6):835–40

Decreased p53 expression in chronically sun-exposed human skin after topical photoprotection. Berne B, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5-6):148–53

The feasibility of a sensitive low-dose method for the in vivo evaluation of Fe in skin using K-shell x-ray fluorescence (XRF). Farquharson MJ, et al. **Phys Med Biol** 1999 Apr; 44(4):955–65

Cutaneous hemoglobin oxygenation of different free flap donor sites. Wolff KD, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1537–43

Biologic aspects of expression of stably integrated transgenes in cells of the skin in vitro and in vivo. Krueger GG, et al. **Proc Assoc Am Physicians** 1999 May-Jun;111(3):198–205 (48 ref.)

A direct in vivo approach for skin gene therapy. Vogel JC. **Proc Assoc Am Physicians** 1999 May-Jun;111(3):190–7 (27 ref.)

Ultraviolet A radiation induces immediate release of iron in human primary skin fibroblasts: the role of ferritin. Pourzand C, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6751–6

Mouse deformed epidermal autoregulatory factor 1 recruits a LIM domain factor, LMO-4, and CLIM coregulators. Sugihara TM, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15418–23

Induction of intracellular calcium oscillations in human skin fibroblast populations by sinusoidal extremely low-frequency magnetic fields (20 Hz, 8 mT) is dependent on the differentiation state of the single cell. Löschinger M, et al. **Radiat Res** 1999 Feb;151(2):195–200

Evidence that iron-overload promotes 7,12-dimethylbenz(a)anthracene- induced skin tumorigenesis in mice. Rezazadeh H, et al. **Redox Rep** 1997 Oct-Dec;3(5-6):303–9

Identification of pituitary adenylate cyclase activating polypeptide (PACAP) and PACAP type 1 receptor in human skin: expression of PACAP-38 is increased in patients with psoriasis. Steinhoff M, et al. **Regul Pept** 1999 Mar 17;80(1-2):49–55

Prediction of the dermal penetration of polycyclic aromatic hydrocarbons (PAHs): a hierarchical QSAR approach. Gute BD, et al. **SAR QSAR Environ Res** 1999;10(1):1–15

Skin mini-erosion technique for monitoring metabolites in interstitial fluid: its feasibility demonstrated by OGTT results in diabetic and non-diabetic subjects. Svedman C, et al. **Scand J Clin Lab Invest** 1999 Apr;59(2):115–23

Dehydrogenation of 3-phenoxybenzyl alcohol in isolated perfused rabbit skin, skin homogenate and purified dehydrogenases. Bast GE, et al. **Skin Pharmacol Appl Skin Physiol** 1998;11(4-5):250–7

N-Methyl-L-serine stimulates hyaluronan production in human skin fibroblasts. Sakai S, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct; 12(5):276–83

Hypericin levels in human serum and interstitial skin blister fluid after oral single-dose and steady-state administration of Hypericum perforatum extract (St. John's wort). Schempp CM, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct;12(5):299–304

Ethanol-modulated cytokine production and expression in skin cells exposed to methotrexate. Shear NH, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan-Apr; 12(1-2):64–78

Release and skin distribution of silicone-related compound(s) from a silicone gel sheet in vitro. Shigeki S, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct; 12(5):284–8

The complexity of gene families involved in epithelial differentiation. Keratin genes and the epidermal differentiation complex. Mischke D. **Subcell Biochem** 1998; 31:71–104 (159 ref.)

Predicting vehicle effects on the dermal absorption of halogenated methanes using physiologically based modeling. Jepson GW, et al. **Toxicol Sci** 1999 Apr; 48(2):180–8

In vivo percutaneous absorption of boric acid, borax, and disodium octaborate tetrahydrate in humans compared to in vitro absorption in human skin from infinite and finite doses. Wester RC, et al. **Toxicol Sci** 1998 Sep;45(1):42–51

DNA-based non-invasive vaccination onto the skin. Shi Z, et al. **Vaccine** 1999 Apr 23;17(17):2136–41

Enhancement of wound healing by curcumin in animals. Sidhu GS, et al. **Wound Repair Regen** 1998 Mar-Apr; 6(2):167–77

[Relationship between body surface zinc loss and dietary zinc intake in children] Chen C, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Mar; 32(2):79–81 (Eng. Abstr.) **(Chi)**

[Plasma and skin tissue endothelin in patients with psoriasis vulgaris] Su Y, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(6):530–2 (Eng. Abstr.) **(Chi)**

[The percutaneous absorption of toxic industrial chemicals: the Dermal Exposure Network of the European Union (news)] Larese F, et al. **Med Lav** 1998 Nov-Dec; 89(6):538–44 **(Ita)**

[Absorption and dispersion of ultraviolet radiation in human skin] Jankowski J, et al. **Med Pr** 1998;49(3):281–9 (Eng. Abstr.) **(Pol)**

[Skin glycosaminoglycans during emotional stress] Abramov IuV, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):134–6 **(Rus)**

[Lipid parameters of the skin, cerebellum, and medulla oblongata during immersion stress in rats] Gribanov GA, et al. **Vopr Med Khim** 1999 Mar-Apr;45(2):131–5 (Eng. Abstr.) **(Rus)**

[Lipids and their antioxidant activity in tissues of ruminant animals] Morozova RP, et al. **Ukr Biokhim Zh** 1998 Jan-Feb;70(1):74–81 (Eng. Abstr.) **(Ukr)**

MICROBIOLOGY

Bactericidal activity of preservative-free bupivacaine on microorganisms in the human skin flora. Sakuragi T, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1096–9

Clinical efficacy of a chlorous acid preoperative skin antiseptic. Aly R, et al. **Am J Infect Control** 1998 Aug; 26(4):406–12

Povidone iodine gel alcohol: a 30-second, onetime application preoperative skin preparation. Jeng DK, et al. **Am J Infect Control** 1998 Oct;26(5):488–94

Changes in bacterial flora associated with skin damage on hands of health care personnel. Larson EL, et al. **Am J Infect Control** 1998 Oct;26(5):513–21

A randomized trial of povidone-iodine compared with iodine tincture for venipuncture site disinfection: effects on rates of blood culture contamination. Little JR, et al. **Am J Med** 1999 Aug;107(2):119–25

Bacterial contamination of the hands of hospital staff during routine patient care. Pittet D, et al. **Arch Intern Med** 1999 Apr 26;159(8):821–6

Cell surface characteristics of microbiological isolates from human percutaneous titanium implants in the head and neck. Holgers KM, et al. **Biomaterials** 1999 Jul;

20(14):1319–26
Ceramidase activity in bacterial skin flora as a possible cause of ceramide deficiency in atopic dermatitis. Ohnishi Y, et al. **Clin Diagn Lab Immunol** 1999 Jan;6(1):101–4
Antibacterial activity of retinaldehyde against Propionibacterium acnes. Pechère M, et al. **Dermatology** 1999;199 Suppl 1:29–31
Distribution of Acinetobacter species on skin of healthy humans. Berlau J, et al. **Eur J Clin Microbiol Infect Dis** 1999 Mar;18(3):179–83
A comparison of skin storage methods for oculoplastic surgery. Baldeschi L, et al. **Eye** 1998;12 (Pt 4):714–6
Identification of M.leprae in conjunctiva of leprosy patients using the superior tarsal conjunctiva scrape technique. Campos WR, et al. **Indian J Lepr** 1998 Oct–Dec; 70(4):397–403
An epidemic outbreak of Malassezia folliculitis in three adult patients in an intensive care unit: a previously unrecognized nosocomial infection. Archer-Dubon C, et al. **Int J Dermatol** 1999 Jun;38(6):453–6
Microbiology of perianal cellulitis in children: comparison of skin swabs and needle aspiration. Brook I. **Int J Dermatol** 1998 Dec;37(12):922–4
Lobomycosis in three Venezuelan patients. Brun AM. **Int J Dermatol** 1999 Apr;38(4):302–5
Comparative study of staphylococci from the skin of atopic dermatitis patients and from healthy subjects. Higaki S, et al. **Int J Dermatol** 1999 Apr;38(4):265–9
"Large numbers" of Mycobacterium leprae are discharged from the intact skin of lepromatous patients; a preliminary report [letter] Job CK, et al. **Int J Lepr Other Mycobact Dis** 1999 Jun;67(2):164–7
Immunostaining of various micro-organisms by a polyclonal anti-Mycobacterium bovis antibody [letter; comment] Arrese JE, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):810. Comment on: J Am Acad Dermatol 1998 Jan;38(1):56–60.
Skin carriage of acinetobacters in Hong Kong. Chu YW, et al. **J Clin Microbiol** 1999 Sep;37(9):2962–7
Subcutaneous hyalohyphomycosis caused by Colletotrichum gloeosporioides. Guarro J, et al. **J Clin Microbiol** 1998 Oct; 36(10):3060–5
Detection and typing of Borrelia burgdorferi sensu lato in Ixodes ricinus ticks attached to human skin by PCR. Liebisch G, et al. **J Clin Microbiol** 1998 Nov;36(11):3355–8
Genetic diversity of Borrelia burgdorferi in lyme disease patients as determined by culture versus direct PCR with clinical specimens. Liveris D, et al. **J Clin Microbiol** 1999 Mar;37(3):565–9
A clinical and bacteriological examination of Mycobacterium leprae in the epidermis and cutaneous appendages of patients with multibacillary leprosy. Hosokawa A. **J Dermatol** 1999 Aug;26(8):479–88
Broiler skin sampling for optimum recovery of Salmonella spp. Kotula KL, et al. **J Food Prot** 1999 Mar;62(3):284–6
Survival and growth of Campylobacter jejuni after artificial inoculation onto chicken skin as a function of temperature and packaging conditions. Lee A, et al. **J Food Prot** 1998 Dec;61(12):1609–14
Antimicrobial efficacy of biocides tested on skin using an ex-vivo test. Maillard JY, et al. **J Hosp Infect** 1998 Dec; 40(4):313–23
Differential expression of Borrelia burgdorferi genes during erythema migrans and Lyme arthritis. Fikrig E, et al. **J Infect Dis** 1998 Oct;178(4):1198–201
Application of molecular typing methods to dermatophyte species that cause skin and nail infections. Howell SA, et al. **J Med Microbiol** 1999 Jan;48(1):33–40
Ultrastructure of Calymmatobacterium granulomatis: comparison of culture with tissue biopsy specimens. Kharsany AB, et al. **J Med Microbiol** 1998 Dec; 47(12):1069–73
The degradation of L-histidine and trans- and cis-urocanic acid by bacteria from skin and the role of bacterial cis-urocanic acid isomerase. Hug DH, et al. **J Photochem Photobiol B** 1999 May;50(1):66–73
Prevalence and antimicrobial susceptibility of staphylococci isolated from the skin surface of clinically normal cats. Lilenbaum W, et al. **Lett Appl Microbiol** 1998 Oct; 27(4):224–8
Colonization of living skin equivalents by Malassezia furfur. Bhattacharyya T, et al. **Med Mycol** 1998 Feb;36(1):15–9
The role of Malassezia species in the ecology of human skin and as pathogens. Guého E, et al. **Med Mycol** 1998;36 Suppl 1:220–9 (83 ref.)
Isolation of fungal rDNA from bottlenose dolphin skin infected with Loboa loboi. Haubold EM, et al. **Med Mycol** 1998 Oct;36(5):263–7
Dermatophytes and host defence in cutaneous mycoses. Ogawa H, et al. **Med Mycol** 1998;36 Suppl 1:166–73 (60 ref.)
The antibacterial activity of plaunotol against Staphylococcus aureus isolated from the skin of patients with atopic dermatitis. Matsumoto Y, et al. **Microbios** 1998; 96(385):149–55
Experimental penetration of Trichophyton mentagrophytes into human stratum corneum. Ninomiya J, et al. **Mycopathologia** 1998;141(3):153–7
Distribution of Acinetobacter baumannii in a neurointensive care unit. Kõljalg S, et al. **Scand J Infect Dis** 1999; 31(2):145–50
A quantitative study of genital skin flora and urinary colonization in spinal cord injured patients. Hamamci N, et al. **Spinal Cord** 1998 Sep;36(9):617–20
Which conditions promote a remanent (persistent) bactericidal activity of chlorine covers? Gottardi W, et al. **Zentralbl Hyg Umweltmed** 1998 Dec;201(4–5):325–35
[Antibiotic prophylaxis à la carte in self-contaminated gynecologic and obstetric surgery: importance of cefotaxime] Cisse CT, et al. **Dakar Med** 1997;42(2):127–31 (Eng. Abstr.) **(Fre)**
[Hue and cry over pens?] Uhoda I, et al. **Rev Med Liege** 1999 Jan;54(1):37–8 (18 ref.) (Eng. Abstr.) **(Fre)**
[The effect of nasal and skin colonization on the development of exit site and peritoneal catheter tunnel infections in patients on peritoneal dialysis] Lichodziejewska-Niemierko M, et al. **Pol Arch Med Wewn** 1998 Nov;100(5):431–6 (Eng. Abstr.) **(Pol)**
[The health status assessment in miners and metal workers based on immunological and bacteriological criteria] Trunova OA. **Med Tr Prom Ekol** 1999;(2):22–6 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Necator americanus (human hookworm) aspartyl proteinases and digestion of skin macromolecules during skin penetration. Brown A, et al. **Am J Trop Med Hyg** 1999 May;60(5):840–7
Immune response to Leishmania infection in human skin. Ghersetich I, et al. **Clin Dermatol** 1999 May-Jun; 17(3):333–8 (39 ref.)
Attachment and detachment of the anterior adhesive pads of the monogenean (platyhelminth) parasite Entobdella soleae from the skin of the common sole (Solea solea). Kearn GC, et al. **Int J Parasitol** 1998 Oct;28(10):1583–93
Detection and typing of Borrelia burgdorferi sensu lato in Ixodes ricinus ticks attached to human skin by PCR. Liebisch G, et al. **J Clin Microbiol** 1998 Nov;36(11):3355–8
Immunohistochemistry to identify Leishmania parasites in fixed tissues. Kenner JR, et al. **J Cutan Pathol** 1999 Mar; 26(3):130–6
Comparative studies of the detection rates of Leishmania parasites from formalin, ethanol-fixed, frozen human skin specimens by polymerase chain reaction and Southern blotting. Uezato H, et al. **J Dermatol** 1998 Oct; 25(10):623–31
Laboratory and field evaluation of the repellents deet, CIC-4, and AI3-37220 against Anopheles farauti (Diptera: Culicidae) in Australia. Frances SP, et al. **J Med Entomol** 1998 Sep;35(5):690–3
Detection of Leishmania infection in paraffin-embedded skin biopsies of dogs using polymerase chain reaction. Roura X, et al. **J Vet Diagn Invest** 1999 Jul;11(4):385–7
Invasion of the vertebrate skin by cercariae of Trichobilharzia ocellata: penetration processes and stimulating host signals. Haas W, et al. **Parasitol Res** 1998 Oct;84(10):787–95
A study on the establishment of Oesophagostomum dentatum in pigs following percutaneous exposure to third-stage larvae. Nosal P, et al. **Parasitol Res** 1998 Oct;84(10):773–6
The opercular bond in the egg-shell of the monogenean Entobdella soleae, a platyhelminth skin parasite of the common sole (Solea solea). Kearn GC, et al. **Parasitology** 1999 Apr;118 (Pt 4):433–8
Induction of immunity to Schistosoma mansoni: interaction of schistosomula with accessory leucocytes in murine skin and draining lymph nodes. Riengrojpitak S, et al. **Parasitology** 1998 Oct;117 (Pt 4):301–9
Insulin-like growth factor I is a growth-promoting factor for Leishmania promastigotes and amastigotes. Goto H, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13211–6
Cutaneous neosporosis in a dog in Israel. Perl S, et al. **Vet Parasitol** 1998 Nov 16;79(3):257–61

PATHOLOGY

Skin scrape cytology in the diagnosis of nodular basal cell carcinoma for treatment by photodynamic therapy. Berner A, et al. **Acta Derm Venereol** 1999 Mar;79(2):147–9
A study of the solar effect on actinic keratoses by quantification of elastic fibres using an image analysis system. Cho CG, et al. **Acta Derm Venereol** 1999 Jul; 79(4):278–80
Side effects from the pulsed dye laser: the importance of skin pigmentation and skin redness. Haedersdal M, et al. **Acta Derm Venereol** 1998 Nov;78(6):445–50
The number of diagnostic features in patients with atopic dermatitis correlates with dryness severity [letter] Lodén M, et al. **Acta Derm Venereol** 1998 Sep;78(5):387–8
Sporotrichoid tuberculoid leprosy [letter] Ramesh V, et al. **Acta Derm Venereol** 1998 Sep;78(5):381
Comparison of actual psoriasis surface area and the psoriasis area and severity index by the human eye and machine vision methods in following the treatment of psoriasis. Savolainen L, et al. **Acta Derm Venereol** 1998 Nov; 78(6):466–7
Photofibrosis: a further histopathological change induced by PUVA therapy via the mast cell in guttate psoriasis. Preliminary report. Borroni G, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:159–61
PUVA-treated psoriatic skin as a model for cutaneous wrinkling assessed by skin replicas. Brazzelli V, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:162–3
Structural alterations of basal keratinocytes and capillary loop in psoriasis during treatment with topical calcipotriol. Palleschi GM, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:49–51
Cerebral autosomal dominant arteriopathy with subcortical infarcts and leucoencephalopathy (CADASIL). Neuropathological and in vitro studies of abnormal elastogenesis. Caronti B, et al. **Acta Neurol Scand** 1998 Oct; 98(4):259–67
Angulate lysosomes in skin biopsies of patients with degenerative neurological disorders: high frequency in neuronal ceroid lipofuscinosis. Dumontel C, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):91–6
Compare your diagnosis. Xanthogranuloma, seborrheic keratosis associated with mycosis fungoides, Kikuchi's disease. Ackerman AB, et al. **Am J Dermatopathol** 1999 Feb;21(1):79–81, 94–5
Atrophic and plaquelike dermatofibrosarcoma protuberans. Davis DA, et al. **Am J Dermatopathol** 1998 Oct; 20(5):498–501 (28 ref.)
Immunohistochemical investigation of the different developmental stages of trichofolliculoma with special reference to the Merkel cell. Hartschuh W, et al. **Am J Dermatopathol** 1999 Feb;21(1):8–15
Dermatopathologic findings in 20 cases of systemic amyloidosis. Lee DD, et al. **Am J Dermatopathol** 1998 Oct; 20(5):438–42
Verruciform xanthoma associated with squamous cell carcinoma. Mannes KD, et al. **Am J Dermatopathol** 1999 Feb;21(1):66–9
Self-assessment course in dermatopathology: Latin American Society of Dermatopathology, February 25–26, 1998, Orlando, Florida. Sangueza OP. **Am J Dermatopathol** 1999 Feb;21(1):96–103
Eosinophilic globules in spitz nevi: no evidence for apoptosis. Wesselmann U, et al. **Am J Dermatopathol** 1998 Dec; 20(6):551–4
Clear cell acanthoma presenting as polypoid papule combined with melanocytic nevus. Yang SG, et al. **Am J Dermatopathol** 1999 Feb;21(1):63–5
Lack of compliance and late-onset warfarin-induced skin necrosis [letter] Koduri PR, et al. **Am J Hematol** 1999 Jul; 61(3):218–9
Multicentric warfarin-induced skin necrosis complicating heparin-induced thrombocytopenia. Warkentin TE, et al. **Am J Hematol** 1999 Sep;62(1):44–8 (36 ref.)
Acquired blaschkolinear dermatoses. Grosshans EM. **Am J Med Genet** 1999 Aug 6;85(4):334–7 (20 ref.)
Hypomelanosis of Ito: no entity, but a cutaneous sign of mosaicism. Küster W, et al. **Am J Med Genet** 1999 Aug 6;85(4):346–50 (50 ref.)
Cytogenetic and molecular evidence for cutaneous mosaicism: the ectodermal origin of Blaschko lines. Moss C. **Am J Med Genet** 1999 Aug 6;85(4):330–3 (22 ref.)
Functional X-chromosomal mosaicism of the skin: Rudolf Happle and the lines of Alfred Blaschko. Traupe H. **Am J Med Genet** 1999 Aug 6;85(4):324–9
Emergency! Warfarin-induced necrosis. Martin FL. **Am J Nurs** 1999 Aug;99(8):53
The histopathology of cutaneous lesions of Kikuchi's disease (necrotizing lymphadenitis): a report of five cases. Spies J, et al. **Am J Surg Pathol** 1999 Sep;23(9):1040–7
Cutaneous polyarteritis nodosa: a case report and literature review. Khoo BP, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):868–72 (33 ref.)
Skin biopsies, cutaneous disease, and primary care [letter] Federman DG, et al. **Ann Intern Med** 1999 Apr 6;130(7):617
Clinical evaluation of systemic sclerosis: a comprehensive panel of diagnostic tests to assess skin, microvascular and visceral involvement. The Genoese Group for the Study of Systemic Sclerosis. **Ann Ital Med Int** 1999 Apr-Jun; 14(2):79–85
Cutaneous and subcutaneous necrosis following dexrazoxane-CHOP therapy [letter] Lossos IS, et al. **Ann Pharmacother** 1999 Feb;33(2):253–4
Cutaneous lymphatic drainage in patients with grossly involved nodal basins [see comments] Kamath D, et al. **Ann Surg Oncol** 1999 Jun;6(4):345–9. Comment in: Ann Surg Oncol 1999 Jun;6(4):326–7.
Cutaneous lymphatic drainage patterns in patients with grossly involved nodal basins [editorial; comment] Karakousis CP. **Ann Surg Oncol** 1999 Jun;6(4):326–7. Comment on: Ann Surg Oncol 1999 Jun;6(4):345–9.
Lack of tumor promoting activity of capsaicin, a principal pungent ingredient of red pepper, in mouse skin carcinogenesis. Park KK, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4201–5
Comparative clinical trial of 2 carbon dioxide resurfacing lasers with varying pulse durations. 100 microseconds vs 1 millisecond. Duke D, et al. **Arch Dermatol** 1998 Oct; 134(10):1240–6
Altered lamellar body secretion and stratum corneum membrane structure in Netherton syndrome: differentiation from other infantile erythrodermas and pathogenic implications. Fartasch M, et al. **Arch Dermatol** 1999 Jul; 135(7):823–32
Tense blisters after bone marrow transplantation. Kikuchi A, et al. **Arch Dermatol** 1999 Jan;135(1):81–6
Ultrastructure of collagen thermally denatured by microsecond domain pulsed carbon dioxide laser. Kirsch KM, et al. **Arch Dermatol** 1998 Oct;134(10):1255–9
Multiple subcutaneous nodules on the torso and leg. Leukemia cutis. Trizna Z, et al. **Arch Dermatol** 1998 Nov;

134(11):1479, 1482

Optimizing fluence and debridement effects on cutaneous resurfacing carbon dioxide laser surgery. Weisberg NK, et al. **Arch Dermatol** 1998 Oct;134(10):1223–8

Immunohistochemical assessment of keratin 16 on paraffin-embedded sections of normal and hyperproliferative skin: monoclonal antibodies Ks8.12 and LL025 in a comparative study. Castelijns FA, et al. **Arch Dermatol Res** 1999 Jan;291(1):59–63

Local injection of recombinant human stem cell factor promotes human skin mast cell survival and neurofibroma cell proliferation in the transplanted neurofibroma in nude mice. Demitsu T, et al. **Arch Dermatol Res** 1999 Jun; 291(6):318–24

Skin mast cell promotion of matrix remodeling in burn wound healing in mice: relevance of chymase. Nishikori Y, et al. **Arch Dermatol Res** 1998 Oct;290(10):553–60

The dermoepidermal junction in psoriatic skin as revealed by scanning electron microscopy. Vaccaro M, et al. **Arch Dermatol Res** 1999 Jul–Aug;291(7–8):396–9

The role of polymorphonuclear leukocyte infiltration in herpes simplex virus infection of murine skin. Watanabe D, et al. **Arch Dermatol Res** 1999 Jan;291(1):28–36

Clinical images: Skin necrosis in giant cell arteritis. Distler O, et al. **Arthritis Rheum** 1999 Jun;42(6):1296

Age and cystathionine beta-synthase activity in cultured fibroblasts from patients with arterial and venous vascular disease. Nordström M, et al. **Atherosclerosis** 1998 Aug; 139(2):231–6

Nappy rash. Part 2. Hogan P. **Aust Fam Physician** 1999 Jul; 28(7):699–701

Case report: idiopathic toxic epidermal necrolysis in a one-week old calf. Yeruham I, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jun;112(5):172–3

Reconstituted 3-dimensional human skin as a novel in vitro model for studies of carcinogenesis. Zhao JF, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):49–53

Histologic evaluation of a natural permanent percutaneous structure and clinical percutaneous devices. Knabe C, et al. **Biomaterials** 1999 Mar;20(6):503–10

Ecthyma gangrenosum-like eruption associated with Morganella morganii infection. Del Pozo J, et al. **Br J Dermatol** 1998 Sep;139(3):520–1

The molecular basis of glucocorticoid-induced skin atrophy: topical glucocorticoid apparently decreases both collagen synthesis and the corresponding collagen mRNA level in human skin in vivo. Oikarinen A, et al. **Br J Dermatol** 1998 Dec;139(6):1106–10

Correlation of quantitative tests of nerve and target organ dysfunction with skin immunohistology in leprosy. Facer P, et al. **Brain** 1998 Dec;121 (Pt 12):2239–47

Sturge--Weber syndrome: report of an unusual cutaneous distribution. Inan C, et al. **Brain Dev** 1999 Jan;21(1):68–70

Cellular senescence of angiofibroma stroma cells from patients with tuberous sclerosis. Toyoshima M, et al. **Brain Dev** 1999 Apr;21(3):184–91

Functional analysis of T lymphocytes infiltrating the dermis and epidermis of post-burn hypertrophic scar tissues. Bernabei P, et al. **Burns** 1999 Feb;25(1):43–8

A study of the post-burned restored skin. Carvalho D do A, et al. **Burns** 1999 Aug;25(5):385–94

Squamous cell hyperplastic foci: precursors of cutaneous papillomas induced in SENCAR mice by a two-stage carcinogenesis regimen. Binder RL, et al. **Cancer Res** 1998 Oct 1;58(19):4314–23

Use of skin cell cultures for in vitro assessment of corrosion and cutaneous irritancy. Roguet R. **Cell Biol Toxicol** 1999 Feb;15(1):63–75 (81 ref.)

Relationships between nerves and myofibroblasts during cutaneous wound healing in the developing rat. Liu M, et al. **Cell Tissue Res** 1999 Sep;297(3):423–33

Frozen cultured sheets of human epidermal keratinocytes enhance healing of full-thickness wounds in mice. Tamariz E, et al. **Cell Tissue Res** 1999 Jun;296(3):575–85

Microscopic Nikolsky's sign. Hameed A, et al. **Clin Exp Dermatol** 1999 Jul;24(4):312–4

Existence of activated and memory CD4+ T cells in peripheral blood and their skin infiltration in CD8 deficiency. Katamura K, et al. **Clin Exp Immunol** 1999 Jan; 115(1):124–30

The utility of the lupus band test on sun-protected non-lesional skin for the diagnosis of systemic lupus erythematosus. Cardinali C, et al. **Clin Exp Rheumatol** 1999 Jul–Aug;17(4):427–32

A traveler returning from Central Africa with fever and a skin lesion. Iborra C, et al. **Clin Infect Dis** 1999 Mar; 28(3):679–80

Apoptosis in meatal skin, cholesteatoma and squamous cell carcinoma of the ear. Ergün S, et al. **Clin Otolaryngol** 1999 Aug;24(4):280–5

The influence of inflammation-mediated osteopenia (IMO) on the structure of rabbit bone and skin collagen fibrils. Kounadi E, et al. **Connect Tissue Res** 1998;37(1–2):69–76

Glove powder affects skin roughness, one parameter of skin irritation. Brehler R, et al. **Contact Dermatitis** 1998 Nov; 39(5):227–30

Diagnostic clues to dermatitis artefacta. Joe EK, et al. **Cutis** 1999 Apr;63(4):209–14 (17 ref.)

Keratosis pilaris. Lateef A, et al. **Cutis** 1999 Apr;63(4):205–7 (32 ref.)

Leukocytoclastic vasculitis as a cutaneous manifestation of systemic infection caused by Brucella melitensis. Nagore E, et al. **Cutis** 1999 Jan;63(1):25–7

Apoptosis with positive direct immunofluorescence findings in a patient with necrolytic migratory erythema. Perniciaro C, et al. **Cutis** 1998 Sep;62(3):129–32

Asymptomatic facial papules and acrochordons of the thighs. Birt-Hogg-Dube syndrome. Zabawski E, et al. **Dermatol Online J** 1997 Dec;3(2):6

Sleep lines. Fulton JE Jr, et al. **Dermatol Surg** 1999 Jan; 25(1):59–62

Multiple familial keratoacanthoma of Witten and Zak - A report of three siblings. Agarwal M, et al. **Dermatology** 1999;198(4):396–9

Nevus anemicus. Ahkami RN, et al. **Dermatology** 1999; 198(4):327–9 (28 ref.)

Implications of psoriasis as a new disease. Altschuler EL. **Dermatology** 1999;199(1):1–2

Linear cutaneous lupus erythematosus in an adult. Bouzit N, et al. **Dermatology** 1999;199(1):60–2 (8 ref.)

'Downut Sign' in scleromyxoedema [letter] Dhar S, et al. **Dermatology** 1999;198(2):180

Congenital bilateral dermal melanocytosis with a dermatomal pattern [letter] Grézard P, et al. **Dermatology** 1999; 198(1):105–6

Genodermatosis with reticulate, patchy and mottled pigmentation of the neck--a clue to rare dermatologic disorders. Itin PH, et al. **Dermatology** 1998;197(3):281–90 (133 ref.)

Reticulate, patchy and mottled pigmentation of the neck. Acquired forms. Lautenschlager S, et al. **Dermatology** 1998; 197(3):291–6 (63 ref.)

Granuloma faciale with extrafacial lesions. Roustan G, et al. **Dermatology** 1999;198(1):79–82 (13 ref.)

Progressive cribriform and zosteriform hyperpigmentation: the late-onset feature of linear and whorled nevoid hypermelanosis associated with congenital neurological, skeletal and cutaneous anomalies [letter] Schepis C, et al. **Dermatology** 1999;199(1):72–3

Cutaneous mastocytosis in adults. evaluation of 14 patients with respect to systemic disease manifestations. Tebbe B, et al. **Dermatology** 1998;197(2):101–8

Twenty-eight cases of juvenile-onset Adamantiades-Behçet disease in Germany. Treudler R, et al. **Dermatology** 1999; 199(1):15–9 (21 ref.)

Increased nerve growth factor mRNA in lateral calf skin biopsies from diabetic patients. Diemel LT, et al. **Diabet Med** 1999 Feb;16(2):113–8

Tetraploid cells and diabetic nephropathy [letter] Zerbini G, et al. **Diabetologia** 1999 Jan;42(1):118

Effects of salmon lice Lepeophtheirus salmonis on sea trout Salmo trutta at different times after seawater transfer. Dawson LH, et al. **Dis Aquat Organ** 1998 Jul 30; 33(3):179–86

Pure cutaneous relapsing langerhans cell histiocytosis in an adult. Baldo A, et al. **Eur J Dermatol** 1998 Oct-Nov; 8(7):501–2

Guess what! Eruption of lymphocyte recovery. Ginarte M, et al. **Eur J Dermatol** 1999 Jun;9(4):323–4

Guess What! Atrophoderma of Pasini and Pierini. Grunwald MH, et al. **Eur J Dermatol** 1998 Mar;8(2):135–6

Macrophage marker 27E10 on human keratinocytes helps to differentiate discoid lupus erythematosus and Jessner's lymphocytic infiltration of the skin. Kunz M, et al. **Eur J Dermatol** 1999 Mar;9(2):107–10

Dendritic mast cells in prurigo nodularis skin. Liang Y, et al. **Eur J Dermatol** 1999 Jun;9(4):297–9

Gowers' local panatrophy. Sakamoto T, et al. **Eur J Dermatol** 1998 Mar;8(2):116–7

Behçet's disease-like symptoms induced by the Herpes simplex virus in ICR mice. Sohn S, et al. **Eur J Dermatol** 1998 Jan–Feb;8(1):21–3

Anaplastic large cell lymphoma (CD30, p80+) presenting as acute pancreatitis with subcutaneous nodules [letter] Castellanos G, et al. **Eur J Haematol** 1999 Sep;63(3):205–6

Are there specific haemostatic abnormalities in children surviving septic shock with purpura and having skin necrosis or limb ischaemia that need skin grafts or limb amputations? Cremer R, et al. **Eur J Pediatr** 1999 Feb; 158(2):127–32

Similarities of cutaneous and breast pathology in Cowden's Syndrome. Schrager CA, et al. **Exp Dermatol** 1998 Dec; 7(6):380–90

Side effects of lithium treatment on collagenous tissues. Tzaphlidou M. **Folia Med (Plovdiv)** 1999;41(1):15–9

A preliminary investigation into postmortem changes in skinfold impedance during the early postmortem period in rats. Querido D. **Forensic Sci Int** 1998 Sep 28; 96(2–3):107–14

Effects of Mahonia aquifolium ointment on the expression of adhesion, proliferation, and activation markers in the skin of patients with psoriasis. Augustin M, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:19–21

Modulation of UV-light-induced skin inflammation by D-alpha-tocopherol and L-ascorbic acid: a clinical study using solar simulated radiation. Fuchs J, et al. **Free Radic Biol Med** 1998 Dec;25(9):1006–12

Skin changes in POEMS syndrome. Longo G, et al. **Haematologica** 1999 Jan;84(1):86

Recurrent warfarin-induced skin necrosis in kindreds with protein S deficiency. Sallah S, et al. **Haemostasis** 1998 Jan–Feb;28(1):25–30

Histochemical study of skin and gills of Senegal sole, Solea senegalensis larvae and adults. Sarasquete C, et al. **Histol Histopathol** 1998 Jul;13(3):727–35

What students owe teachers. Ackerman AB. **Hum Pathol** 1999 May;30(5):568–76

Lymphatic vessel hypoplasia in fetuses with Turner syndrome. von Kaisenberg CS, et al. **Hum Reprod** 1999 Mar;14(3):823–6

In vivo high-frequency ultrasonic characterization of human dermis. Guittet C, et al. **IEEE Trans Biomed Eng** 1999 Jun; 46(6):740–6

Skin delivery of a hybrid liposome/ISCOM vaccine implicates a role for adjuvants in rapid modulation of inflammatory cells involved in innate immunity before the enhancement of adaptive immune responses. Chin J, et al. **Immunol Cell Biol** 1998 Jun;76(3):245–55 (53 ref.)

Relapsing cutaneous polyarteritis nodosa associated with streptococcal infections. Albornoz MA, et al. **Int J Dermatol** 1998 Sep;37(9):664–6

The histopathology of pathergy: a chronologic study of skin hyperreactivity in Behçet's disease. Ergun T, et al. **Int J Dermatol** 1998 Dec;37(12):929–33

Pyoderma gangrenosum: unusual complication following mammoplasty reduction [letter] Grau Salvat C, et al. **Int J Dermatol** 1998 Oct;37(10):794–6

Ecthyma gangrenosum. Güçlüer H, et al. **Int J Dermatol** 1999 Apr;38(4):299–302

Epidermolysis bullosa acquisita in a 6-year-old Japanese boy. Hayashi K, et al. **Int J Dermatol** 1998 Aug;37(8):612–4

Nodular morphea in a linear pattern. Hsu S, et al. **Int J Dermatol** 1999 Jul;38(7):529–30

Xeroderma pigmentosum in black South Africans. Jacyk WK. **Int J Dermatol** 1999 Jul;38(7):511–4 (17 ref.)

Xeroderma pigmentosum in Libya. Khatri ML, et al. **Int J Dermatol** 1999 Jul;38(7):520–4

Computerized system to enhance the clinical diagnosis of pigmented cutaneous malignancies. Landau M, et al. **Int J Dermatol** 1999 Jun;38(6):443–6

Leishmaniasis recidiva cutis in New World cutaneous leishmaniasis. Oliveira-Neto MP, et al. **Int J Dermatol** 1998 Nov;37(11):846–9

Skin problems of musicians. Onder M, et al. **Int J Dermatol** 1999 Mar;38(3):192–5 (10 ref.)

When a burn is not a burn. Stewart TP. **Int J Dermatol** 1998 Oct;37(10):730–2

Peeling skin syndrome. Taştan HB, et al. **Int J Dermatol** 1999 Mar;38(3):208–10

Sensitivity and specificity of methods of classification of leprosy without use of skin-smear examination. Croft RP, et al. **Int J Lepr Other Mycobact Dis** 1998 Dec;66(4):445–50

Wound management of the airway mucosa: comparison with skin in a rabbit model. Goldstein NA, et al. **Int J Pediatr Otorhinolaryngol** 1998 Oct 15;45(3):223–35

Striking regression of subcutaneous fibrosis induced by high doses of gamma rays using a combination of pentoxifylline and alpha-tocopherol: an experimental study. Lefaix JL, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 1;43(4):839–47

T cell-mediated and non-specific inflammatory mechanisms contribute to the skin pathology of HPV 16 E6E7 transgenic mice. Hilditch-Maguire PA, et al. **Intervirology** 1999;42(1):43–50

Birch pollen-related foods trigger atopic dermatitis in patients with specific cutaneous T-cell responses to birch pollen antigens. Reekers R, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):466–72

Clinical and dermatoscopic criteria for the preoperative evaluation of cutaneous melanoma thickness. Argenziano G, et al. **J Am Acad Dermatol** 1999 Jan;40(1):61–8

A study of the cutaneous manifestations of Behçet's disease in patients from the United States. Balabanova M, et al. **J Am Acad Dermatol** 1999 Oct;41(4):540–5

Cigarette smoking-associated elastotic changes in the skin. Boyd AS, et al. **J Am Acad Dermatol** 1999 Jul;41(1):23–6

American Academy of Dermatology 1999 Awards for Young Investigators in Dermatology. Alphavbeta6 integrin mediates latent TGF-beta activation: implications for cutaneous fibrosis. Dalton SL. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):457–8

Lupus tumidus. Dekle CL, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):250–3

Allergic contact dermatitis: correlation of in vivo confocal imaging to routine histology. González S, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):708–13

Quantitative detection of silicone in skin by means of electron spectroscopy for chemical analysis (ESCA). Haycox CL, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):719–25

Specific cutaneous infiltrates in patients with myelogenous leukemia: a clinicopathologic study of 26 patients with assessment of diagnostic criteria. Kaddu S, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):966–78

Multiple follicular hamartomas with sweat gland and sebaceous differentiation, vermiculate atrophoderma, milia, hypotrichosis, and late development of multiple basal cell carcinomas. Pujol RM, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):853–7

Cutaneous necrosis associated with recombinant interferon injection [letter; comment] Weinberg JM. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):807–8. Comment on: J Am Acad Dermatol 1997 Oct;37(4):553–8.

Symmetric cutaneous necrosis of the hind feet and multicentric follicular lymphoma in a cat. Ashley PF, et al. **J Am Vet Med Assoc** 1999 Jan 15;214(2):211–4, 204

Thickness of fibrous capsule after implantation of hydroxyapatite in subcutaneous tissue in rats. Li DJ, et

al. **J Biomed Mater Res** 1999 Jun 15;45(4):322-6
Microgrooved subcutaneous implants in the goat. Walboomers XF, et al. **J Biomed Mater Res** 1998 Dec 15; 42(4):634-41
Mast cell density and subtypes in the skin of dogs with atopic dermatitis. Welle MM, et al. **J Comp Pathol** 1999 Feb; 120(2):187-97
Cutaneous infiltrate of chronic lymphocytic leukemia surrounding a primary squamous cell carcinoma of the skin. Report of an additional case and reflection on its pathogenesis [letter; comment] Dargent JL, et al. **J Cutan Pathol** 1998 Oct;25(9):479-80. Comment on: J Cutan Pathol 1998 Mar;25(3):160-4.
Sclerosing dermatofibrosarcoma protuberans. Diaz-Cascajo C, et al. **J Cutan Pathol** 1998 Sep;25(8):440-4
Hermansky-Pudlak syndrome: report of a case with histological, immunohistochemical and ultrastructural findings. Husain S, et al. **J Cutan Pathol** 1998 Aug; 25(7):380-5
A distinctive cutaneous reaction pattern indicative of infection by reactive arthropathy-associated microbial pathogens: the superantigen ID reaction. Magro CM, et al. **J Cutan Pathol** 1998 Nov;25(10):538-44
Hobnail hemangioma ("targetoid hemosiderotic hemangioma"): clinicopathologic and immunohistochemical analysis of 62 cases. Mentzel T, et al. **J Cutan Pathol** 1999 Jul;26(6):279-86
Infiltrative basal cell carcinoma occurring in sites of biopsy-proven nodular basal cell carcinoma. Swetter SM, et al. **J Cutan Pathol** 1998 Sep;25(8):420-5
Numbers and differentiation status of melanocytes in idiopathic guttate hypomelanosis. Wallace ML, et al. **J Cutan Pathol** 1998 Aug;25(7):375-9
Leukemia cutis in acute lymphocytic leukemia masquerading as viral exanthem. Chao SC, et al. **J Dermatol** 1999 Apr; 26(4):216-9
A case of cutaneous extramedullary hematopoiesis in myelofibrosis with a preponderance of eosinophilic precursor cells. Kwon KS, et al. **J Dermatol** 1999 Jun; 26(6):379-84
Cutaneous mucinous nodules associated with proliferating synovitis of rheumatoid arthritis. Nihei Y. **J Dermatol** 1999 Apr;26(4):229-35
Epidermal cell kinetics of pig skin in vivo following UVB irradiation: apoptosis induced by UVB is enhanced in hyperproliferative skin condition. Kawagishi N, et al. **J Dermatol Sci** 1998 Sep;18(1):43-53
Interaction of salicylic acid with verrucae assessed by FT-Raman spectroscopy. Lawson EE, et al. **J Drug Target** 1998;5(5):343-51
Sporadic reticulate acropigmentation of Kitamura on pale skin [letter] Albes B, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):71-2
Cutaneous symptoms of Gardner's syndrome [letter] Ascari-Raccagni A, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):80-1
Annual recurrent annular acroerythema without lactate dehydrogenase M-subunit deficiency [letter] Betti R, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):270-2
Scar sarcoidosis following herpes zoster [letter] Cecchi R, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):280-2
Distant cutaneous manifestation of Crohn's disease presenting as a granulomatous erysipelas-like lesion [letter] Dippel E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):65-6
Mid-dermal elastolysis associated with Hashimoto's thyroiditis. Gambichler T, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):245-9 (48 ref.)
Incidence peaks in melanoma and biopsy confirmed benign skin lesions--an effect of media campaigns? [letter] Nilsson E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):63-4
Xanthoma disseminatum with multi-system involvement and fatal outcome [letter] Powell JJ, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):276-8
Notalgia paresthetica: clinical, physiopathological and therapeutic aspects. A study of 12 cases. Raison-Peyron N, et al. **J Eur Acad Dermatol Venereol** 1999 May; 12(3):215-21
A case of Sjögren-Larsson syndrome [letter] Saricaoglu H, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):76-8
Malignant pyoderma [letter] Spenatto N, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):275-6
Uncommon presentation of cutaneous leishmaniasis as eczema-like eruption [letter] Uzun S, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):266-8
Chronic inflammatory disease alters adhesion molecule requirements for acute neutrophil emigration in mouse skin. Mizgerd JP, et al. **J Immunol** 1999 May 1;162(9):5444-8
Contribution of dermal macrophage trafficking in the sensitization phase of contact hypersensitivity. Sato K, et al. **J Immunol** 1998 Dec 15;161(12):6835-44
A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E-selectin ligands and L-selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914-9
Cutaneous necrosis as a terminal paraneoplastic thromboembolic event in a patient with non-Hodgkin's lymphoma. Luboshitz J, et al. **J Intern Med** 1999 Mar; 245(3):301-5
Endogenous skin fluorescence includes bands that may serve as quantitative markers of aging and photoaging. Kollias N, et al. **J Invest Dermatol** 1998 Nov;111(5):776-80
Infrared spectra of basal cell carcinomas are distinct from non-tumor-bearing skin components. McIntosh LM, et al. **J Invest Dermatol** 1999 Jun;112(6):951-6
A case of leukemia cutis. Yu HJ, et al. **J Korean Med Sci** 1998 Dec;13(6):689-92
Tensile properties of relaxed excised skin exhibiting striae distensae. Piérard GE, et al. **J Med Eng Technol** 1999 Mar-Apr;23(2):69-72
Overgrowth of oral mucosa and facial skin, a novel feature of aspartylglucosaminuria. Arvio P, et al. **J Med Genet** 1999 May;36(5):398-404
Long-term observation of subcutaneous tissue reaction to synthetic auditory ossicle (Bioceram) in rats. Zhu CS, et al. **J Med Invest** 1999 Feb;46(1-2):97-103
Skin necrosis induced by extravasation of glycerol-containing peripheral parenteral nutrition formulation. Sacks GS, et al. **J Miss State Med Assoc** 1999 Sep;40(9):307-11
Culture of autopsy-derived fibroblasts as a tool to study systemic alterations in human neurodegenerative disorders such as Alzheimer's disease--methodological investigations. Meske V, et al. **J Neural Transm** 1999; 106(5-6):537-48
Neuropathological alterations in diabetic truncal neuropathy: evaluation by skin biopsy. Lauria G, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):762-6
Behçet's disease with unusual cutaneous lesions. Cantini F, et al. **J Rheumatol** 1998 Dec;25(12):2469-72
"Centripetal flagellate erythema": a cutaneous manifestation associated with dermatomyositis. Nousari HC, et al. **J Rheumatol** 1999 Mar;26(3):692-5 (15 ref.)
Systemic plasmacytosis and polyclonal gammopathy in a dog. Gookin JL, et al. **J Vet Intern Med** 1998 Nov-Dec; 12(6):471-4
Translocation of profilaggrin N-terminal domain into keratinocyte nuclei with fragmented DNA in normal human skin and loricrin keratoderma. Ishida-Yamamoto A, et al. **Lab Invest** 1998 Oct;78(10):1245-53
Skin storage of cystine and premature skin ageing in cystinosis [letter] Guillet G, et al. **Lancet** 1998 Oct 31; 352(9138):1444-5
Clinical and histologic evaluation of six erbium:YAG lasers for cutaneous resurfacing. Alster TS. **Lasers Surg Med** 1999;24(2):87-92
Free electron laser infrared wavelength specificity for cutaneous contraction. Ellis DL, et al. **Lasers Surg Med** 1999;25(1):1-7
Investigations on acoustic on-line monitoring of IR laser ablation of burned skin. Nahen K, et al. **Lasers Surg Med** 1999;25(1):69-78
Laser skin resurfacing using a frequency doubled Nd:YAG laser after topical application of an exogenous chromophore. Sumian CC, et al. **Lasers Surg Med** 1999; 25(1):43-50
Comment: leprosy, HIV infection and lepra reactions [letter; comment] Patki AH. **Lepr Rev** 1998 Dec;69(4):401. Comment on: Lepr Rev 1998 Jun;69(2):173-7.
Skin patches heralding relapse in a treated case of neuritic leprosy [letter] Singh G, et al. **Lepr Rev** 1998 Dec; 69(4):400-1
Histological studies in primary neuritic leprosy: changes in the apparently normal skin. Suneetha S, et al. **Lepr Rev** 1998 Dec;69(4):351-7
Myelodysplastic syndrome and associated skin lesions: a review of the literature. Avivi I, et al. **Leuk Res** 1999 Apr; 23(4):323-30 (97 ref.)
Diaphragmatic and subcutaneous seeding of hepatocellular carcinoma following fine-needle aspiration biopsy. Navarro F, et al. **Liver** 1998 Aug;18(4):251-4
Biology and pathology of the skin basement membrane zone. Bruckner-Tuderman L. **Matrix Biol** 1999 Feb;18(1):3-4
Pityriasis versicolor with a unique clinical appearance. Okuda C, et al. **Med Mycol** 1998 Oct;36(5):331-4
Intraepidermal bile pigment in skin biopsy specimens for graft-versus-host disease versus erythema multiforme. Dilday BR, et al. **Mod Pathol** 1998 Oct;11(10):1005-9
Multiple stages and genetic alterations in immortalization, malignant transformation, and tumor progression of human skin keratinocytes. Fusenig NE, et al. **Mol Carcinog** 1998 Nov;23(3):144-58 (78 ref.)
Aleukemic leukemia cutis in an adolescent boy [letter] Husak R, et al. **N Engl J Med** 1999 Mar 18;340(11):893-4
Warfarin-induced skin necrosis in a patient with a mutation of the prothrombin gene [letter] Yang Y, et al. **N Engl J Med** 1999 Mar 4;340(9):735
Bumps and pumps, SERCA 1999 [news; comment] Peacocke M, et al. **Nat Genet** 1999 Mar;21(3):252-3. Comment on: Nat Genet 1999 Mar;21(3):271-7.
IgG heavy-chain deposition disease affecting kidney, skin, and skeletal muscle. Rott T, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1825-8
Degenerative processes of elastic fibers in sun-protected and sun-exposed skin: immunoelectron microscopic observation of elastin, fibrillin-1, amyloid P component, lysozyme and alpha1-antitrypsin. Suwabe H, et al. **Pathol Int** 1999 May;49(5):391-402
Wegener granulomatosis in a child: cutaneous findings as the presenting signs. Brazzelli V, et al. **Pediatr Dermatol** 1999 Jul-Aug;16(4):277-80
Cutaneous manifestations of Henoch-Schönlein purpura in young children. Nussinovitch M, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):426-8
Wegener's granulomatosis: case report and literature review. Stein SL, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):352-6 (11 ref.)
Pebbling of the skin: a marker of Hunter's syndrome. Thappa DM, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):370-3
The diagnostic yield of the nerve-muscle skin biopsy in paediatric neurology practice. The Montreal Children's Hospital Neuromuscular Group. Miller S, et al. **Pediatr Rehabil** 1998 Apr-Jun;2(2):95-100
The effect of chard (Beta vulgaris L. var. cicla) on the skin of streptozotocin induced diabetic rats. Tunali T, et al. **Pharmazie** 1998 Sep;53(9):638-40
Skin necrosis due to photodynamic action of benzoporphyrin depends on circulating rather than tissue drug levels: implications for control of photodynamic therapy. Lin GC, et al. **Photochem Photobiol** 1998 Oct;68(4):575-83
Differences between scar and dermal cultured fibroblasts derived from a patient with recurrent abdominal incision wound herniation. Boemi L, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1397-405
Primary localized cutaneous amyloidosis--lichen amyloidosus. A case report. Gałązka K, et al. **Pol J Pathol** 1999;50(2):119-22
Puzzles in practice. A rash imposition from a lifestyle omission. Vitamin C deficiency. Garg K, et al. **Postgrad Med** 1998 Nov;104(5):183-4
'Two feet-one hand' syndrome. A recurring infection with a peculiar connection. Singri P, et al. **Postgrad Med** 1999 Aug;106(2):83-4
Trisomy 17 mosaicism in amniotic fluid cells not found at birth in blood but present in skin fibroblasts. Lesca G, et al. **Prenat Diagn** 1999 Mar;19(3):263-5
Human eosinophils regulate human lung- and skin-derived fibroblast properties in vitro: a role for transforming growth factor beta (TGF-beta). Levi-Schaffer F, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9660-5
The neutral cysteine protease bleomycin hydrolase is essential for epidermal integrity and bleomycin resistance. Schwartz DR, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13; 96(8):4680-5
Is the coexistence of mutations in the genes of factor V and MTHFR a predisposing factor for massive skin necrosis due to loxoscelism? Mandel Y, et al. **Public Health Rev** 1998;26(3):265-70
Ocular and dermatologic findings in two siblings with mal de Meleda. Durmuş M, et al. **Retina** 1999;19(3):247-50
A case of primary hypertrophic osteoarthropathy without skin involvement (Currarino's disease). Gaston-Garrette F, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):591-3
Retrospective histopathological classification of 1,108 skin biopsies from patients clinically suspected of having leprosy from Bahia, northeast Brazil. Barbosa Júnior A de A, et al. **Rev Soc Bras Med Trop** 1998 Nov-Dec;31(6):533-7
Common epidermal lesions of the bowhead whale, Balaena mysticetus. Henk WG, et al. **Scanning Microsc** 1996; 10(3):905-15; discussion 915-6
Cutaneous T cell lymphoma in children. Garzon MC. **Semin Cutan Med Surg** 1999 Sep;18(3):226-32 (47 ref.)
Morphea and localized scleroderma in children. Vierra E, et al. **Semin Cutan Med Surg** 1999 Sep;18(3):210-25 (105 ref.)
MRI appearance of clear cell hidradenoma. Maldjian C, et al. **Skeletal Radiol** 1999 Feb;28(2):104-6
The response of distant uninvolved psoriatic skin to standardised injury is not different from that in normal skin. van Rossum MM, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep-Oct; 12(5):271-5
An integrated model for the differentiation of chemical-induced allergic and irritant skin reactions. Homey B, et al. **Toxicol Appl Pharmacol** 1998 Nov; 153(1):83-94
Generalized dermal dysplasia and perifollicular mucinosis in a dog. Uetsuka K, et al. **Vet Pathol** 1999 Jan;36(1):80-2
Nonviable Staphylococcus aureus and its peptidoglycan stimulate macrophage recruitment, angiogenesis, fibroplasia, and collagen accumulation in wounded rats. Kilcullen JK, et al. **Wound Repair Regen** 1998 Mar-Apr; 6(2):149-56
[Abdominal skin affection caused by ectopic gut mucosa] Ainsworth AP, et al. **Ugeskr Laeger** 1999 May 31; 161(22):3300-1 (Eng. Abstr.) **(Dan)**
[Lymphadenosis benigna cutis. A rare variation of Borrelia infection] Danielsen AG, et al. **Ugeskr Laeger** 1999 Apr 19;161(16):2375-6 (Eng. Abstr.) **(Dan)**
[Dermatological aging changes] Skovgaard GR. **Ugeskr Laeger** 1999 Aug 23;161(34):4743-6 **(Dan)**
[Chillblains in a pair of riders] Asselman CA. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2710-1 **(Dut)**
[Clinical thinking and decision-making in practice. A patient with arthritis, skin lesions and a perforated nasal septum] Braam B, et al. **Ned Tijdschr Geneeskd** 1999 Aug 7; 143(32):1653-8 (Eng. Abstr.) **(Dut)**
[Disseminated skin abnormalities due to gout] Bruin-Weller MS, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19; 143(25):1339-40 **(Dut)**
[Skin necrosis after ultrasound lipolysis (letter; comment)] Bussien R, et al. **Ann Chir Plast Esthet** 1997 Jun;42(3):281-2 . Comment on: Ann Chir Plast Esthet 1997 Feb;42(1):31-6. **(Fre)**

[Severe cutaneous necrosis after ultrasound lipolysis. Medicolegal aspects and review (see comments)] Grolleau JL, et al. **Ann Chir Plast Esthet** 1997 Feb;42(1):31–6 (Eng. Abstr.). Comment in: Ann Chir Plast Esthet 1997 Jun;42(3):281–2. **(Fre)**

[Koebner phenomenon and multiple morphea] Desruelles F, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):604 **(Fre)**

[Neonatal monoblastic leukemia revealed by transitory specific skin lesions] Rybojad M, et al. **Ann Dermatol Venereol** 1999 Feb;126(2):157–9 (Eng. Abstr.) **(Fre)**

[Diagnostic case. Anaplastic cutaneous lymphoma] Toutous-Trellu L, et al. **Ann Dermatol Venereol** 1999 Jan; 126(1):63–5 **(Fre)**

[Linear and whorled nevoid hypermelanosis: report of two cases] Claudel P, et al. **Arch Pediatr** 1998 Oct; 5(10):1098–102 (22 ref.) (Eng. Abstr.) **(Fre)**

[In vitro radiosensitivity of skin fibroblasts can identify a group of patients with complications in various health tissues after radiotherapy] Alsbeih G, et al. **Cancer Radiother** 1999 Jul–Aug;3(4):318–24 (Eng. Abstr.) **(Fre)**

[Parital cutaneous necrosis of the abdominal wall after cesarean section] Martin X, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Oct;27(6):629–31 (Eng. Abstr.) **(Fre)**

[Significance of histopathologic analysis of skin lesions in scleromyxedema. Light microscopy, electron microscopy, immunohistochemistry and immunofluorescence microscopy] Krajnc I, et al. **Acta Med Austriaca** 1998; 25(3):109–12 (Eng. Abstr.) **(Ger)**

[Skin atrophy caused by inhaled steroids?] Konietzko N. **Dtsch Med Wochenschr** 1999 Jul 16;124(28–29):882–3 **(Ger)**

[Xanthoma disseminatum with marked mucocutaneous involvement] Tietge UJ, et al. **Dtsch Med Wochenschr** 1998 Nov 6;123(45):1337–42 (19 ref.) (Eng. Abstr.) **(Ger)**

[The skin biopsy] Weyers W, et al. **Hautarzt** 1999 Feb; 50(2):145–58 (22 ref.) **(Ger)**

[CT densitometry for the grading of subcutaneous fibrosis after the photon-neutron therapy of malignant salivary gland tumors] Eich HT, et al. **Strahlenther Onkol** 1999 Mar; 175(3):128–32 (Eng. Abstr.) **(Ger)**

[Histopathological and immunohistochemical characteristics of cutaneous and oral mucosa lesions in disseminated histoplasmosis associated with acquired immunodeficiency syndrome (AIDS)] D'Avila SC, et al. **Rev Soc Bras Med Trop** 1998 Nov–Dec;31(6):539–47 (Eng. Abstr.) **(Por)**

[Clinical and morphological evaluation of laser therapy effectiveness for keloid skin scars in children] Kozhevnikov VA, et al. **Khirurgiia (Mosk)** 1999;(1):58–60 **(Rus)**

[The histological study of puncture-stab wounds of the skin for establishing the characteristics of the design of the knife blade] Kapustin AV. **Sud Med Ekspert** 1998 Nov–Dec; 41(6):15–6 (Eng. Abstr.) **(Rus)**

[Skin biopsy in the diagnosis of systemic pathology caused by cholesterol microemboli (letter)] Suárez Fernández R, et al. **An Med Interna** 1999 Jun;16(6):321 **(Spa)**

[Fever, skin lesions and adenopathies] Mena FJ, et al. **Enferm Infecc Microbiol Clin** 1999 Mar;17(3):143–4 **(Spa)**

[Local dermonecrotic loxoscelism in children bitten by the spider Loxosceles reclusa (the "violin" spider)] Escalante-Galindo P, et al. **Gac Med Mex** 1999 Jul–Aug; 135(4):423–6 (Eng. Abstr.) **(Spa)**

[Nicolau syndrome caused by intramuscular administration of diclofenac] Forsbach Sánchez G, et al. **Rev Invest Clin** 1999 Jan–Feb;51(1):71 **(Spa)**

PHYSIOLOGY see SKIN PHYSIOLOGY

PHYSIOPATHOLOGY

Suction blister formation in skin after acute and repeated mast cell degranulation. Kaminska R, et al. **Acta Derm Venereol** 1999 May;79(3):191–4

The role of shock organs in influencing the clinical expression of allergy [editorial] Bonini S, et al. **Allergy** 1999 Jan; 54(1):3–6

Insulin but not growth hormone stimulates protein anabolism in skin wound and muscle. Zhang XJ, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E712–20

Mathematical simulation of heat transfer process in skin cover at burn injury. Enalejev RS, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:30–5

Characterization of neurons in the area of the medullary lateral reticular nucleus responsive to noxious visceral and cutaneous stimuli. Ness TJ, et al. **Brain Res** 1998 Aug 17; 802(1–2):163–74

Hyperhidrosis and sympathetic skin response in chronic alcoholic patients. Tugnoli V, et al. **Clin Auton Res** 1999 Feb;9(1):17–22

Sympathetic skin response asymmetry in early stage idiopathic Parkinson's disease. Fusina S, et al. **Clin Neurophysiol** 1999 Feb;110(2):358–66

Inhibition of the human primary motor area by painful heat stimulation of the skin. Valeriani M, et al. **Clin Neurophysiol** 1999 Aug;110(8):1475–80

Biophysical characterization of skin damage and recovery after exposure to different surfactants. Bárány E, et al. **Contact Dermatitis** 1999 Feb;40(2):98–103

Leopard syndrome associated with hyperelastic skin: analysis of collagen metabolism in cultured skin fibroblasts. Ohkura T, et al. **Dermatology** 1999;198(4):385–7

Gravitational syndrome and tensile properties of skin in the elderly [see comments] Piérard-Franchimont C, et al. **Dermatology** 1998;197(4):317–20. Comment in: Dermatology 1998 ;197(4):309.

Endogenous interleukin-6 contributes to hypersensitivity to cutaneous stimuli and changes in neuropeptides associated with chronic nerve constriction in mice. Murphy PG, et al. **Eur J Neurosci** 1999 Jul;11(7):2243–53

Cutaneous barrier repair and pathophysiology following barrier disruption in IL-1 and TNF type I receptor deficient mice. Man MQ, et al. **Exp Dermatol** 1999 Aug; 8(4):261–6

Dermatological indicators of coronary risk: a case-control study. Mirić D, et al. **Int J Cardiol** 1998 Dec 31;67(3):251–5

Persistent Fos protein expression after orofacial deep or cutaneous tissue inflammation in rats: implications for persistent orofacial pain. Zhou Q, et al. **J Comp Neurol** 1999 Sep 20;412(2):276–91

The skin and its response to movement. Ryan TJ. **Lymphology** 1998 Sep;31(3):128–9 (4 ref.)

Climacteric skin ageing of the face--a prospective longitudinal comparative trial on the effect of oral hormone replacement therapy. Piérard-Franchimont C, et al. **Maturitas** 1999 Jun 21;32(2):87–93

The effects of postmenopausal hormone replacement therapy on sympathetic skin response. Sahiner T, et al. **Maturitas** 1998 Sep 20;30(1):85–8

Topographical features of cutaneous tactile hypoesthetic and hyperesthetic abnormalities in chronic pain. Moriwaki K, et al. **Pain** 1999 May;81(1–2):1–6 (43 ref.)

Lack of involvement of capsaicin-sensitive primary afferents in nerve-ligation injury induced tactile allodynia in rats. Ossipov MH, et al. **Pain** 1999 Feb;79(2–3):127–33

Lumbar sympathectomy failed to reverse mechanical allodynia- and hyperalgesia-like behavior in rats with L5 spinal nerve injury. Ringkamp M, et al. **Pain** 1999 Feb; 79(2–3):143–53

Effects of PUVA and UVB treatments on restoration of epidermal barrier function and vascular response after suction blister injury in human skin in vivo. Koivukangas V, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug;14(3–4):119–24

Koebner phenomenon in psoriasis. A common response to skin trauma. Mohla G, et al. **Postgrad Med** 1999 Sep; 106(3):39–40

Fibroblast models of neurological disorders: fluorescence measurement studies. Connolly GP. **Trends Pharmacol Sci** 1998 May;19(5):171–7 (36 ref.)

Ultrasonic and viscoelastic properties of skin under transverse mechanical stress in vitro. Pan L, et al. **Ultrasound Med Biol** 1998 Sep;24(7):995–1007

[Effect of thermal mud baths on normal, dry and seborrheic skin] Carabelli A, et al. **Clin Ter** 1998 Jul–Aug;149(4):271–5 (Eng. Abstr.) **(Ita)**

[Use of skin electrogastrography for the gastrointestinal system evaluation] Vornovitskiĭ EG, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):597–600 **(Rus)**

RADIATION EFFECTS

Chronic radiation bone toxicity is associated with decreased perfusion without elevation of circulating or soft tissue TGF beta or TNF alpha. Okunieff P, et al. **Adv Exp Med Biol** 1998;454:325–33

Determination of erythema-effective solar radiation in Japan and Germany with a spore monolayer film optimized for the detection of UVB and UVA--results of a field campaign. Furusawa Y, et al. **Appl Microbiol Biotechnol** 1998 Nov;50(5):597–603

Effects on human epidermis of chronic suberythemal exposure to pure infrared radiation [letter] Edwards C, et al. **Arch Dermatol** 1999 May;135(5):608–9

Linoleic acid and alpha-linolenic acid lightens ultraviolet-induced hyperpigmentation of the skin. Ando H, et al. **Arch Dermatol Res** 1998 Jul;290(7):375–81

Differential response of basal keratinocytes in a human skin equivalent to ultraviolet irradiation. Hendrix SW, et al. **Arch Dermatol Res** 1998 Aug;290(8):420–4

UV irradiation induces downregulation of bcl-2 expression in vitro and in vivo. Isoherranen K, et al. **Arch Dermatol Res** 1999 Apr;291(4):212–6

Sunscreens: are Australians getting the good oil? [letter; comment] Bossingham D. **Aust N Z J Med** 1999 Feb; 29(1):104. Comment on: Aust N Z J Med 1998 Oct;28(5):639–46.

A survey of radiation doses to adults from diagnostic radiology in Victoria. Cardillo I, et al. **Australas Phys Eng Sci Med** 1999 Jun;22(2):64–72

Marked expression of glutathione S-transferase A4-4 detoxifying 4-hydroxy-2(E)-nonenal in the skin of rats irradiated by ultraviolet B-band light (UVB). Hiratsuka A, et al. **Biochem Biophys Res Commun** 1999 Jul 14; 260(3):740–6

Urocanic acid isomers are good hydroxyl radical scavengers: a comparative study with structural analogues and with uric acid. Kammeyer A, et al. **Biochim Biophys Acta** 1999 Jun 28;1428(1):117–20

Quantitative alterations of hyaluronan and dermatan sulfate in the hairless mouse dorsal skin exposed to chronic UV irradiation. Koshiishi I, et al. **Biochim Biophys Acta** 1999 Aug 5;1428(2–3):327–33

Generation of active oxygen species from advanced glycation end-products (AGEs) during ultraviolet light A (UVA) irradiation and a possible mechanism for cell damaging. Masaki H, et al. **Biochim Biophys Acta** 1999 Jun 28; 1428(1):45–56

Modulation of UVA-induced lipid peroxidation and suppression of UVB-induced ornithine decarboxylase response by all-trans-retinoic acid in human skin fibroblasts in vitro. Francz PI, et al. **Biol Chem** 1998 Oct; 379(10):1263–9

Syrian hamster dermal cell immortalization is not enhanced by power line frequency electromagnetic field exposure. Gamble SC, et al. **Br J Cancer** 1999 Oct;81(3):377–80

Ultraviolet B induced suppression of induction of contact sensitivity in human skin is not associated with tumour necrosis factor-alpha-308 or interleukin-10 genetic polymorphisms. Allen MH, et al. **Br J Dermatol** 1998 Aug; 139(2):225–9

Increased temperature: a potentially important side-effect of ultraviolet radiation treatment leading to induction of interstitial collagenase/matrix metalloproteinase-1 [letter] Brenneisen P, et al. **Br J Dermatol** 1998 Sep;139(3):537–9

Quantitative evaluation of chronological ageing and photoageing in vivo: studies on skin echogenicity and thickness. Gniadecka M, et al. **Br J Dermatol** 1998 Nov; 139(5):815–21

Comparative immunotoxicology of ultraviolet B exposure I. Effects of in vitro and in situ ultraviolet B exposure on the functional activity and morphology of Langerhans cells in the skin of different species. Goettsch W, et al. **Br J Dermatol** 1998 Aug;139(2):230–8

Entrance skin dose estimates derived from dose-area product measurements in interventional radiological procedures. McParland BJ. **Br J Radiol** 1998 Dec;71(852):1288–95

Functional absence of extraocular photoreception in hamster circadian rhythm entrainment. Meijer JH, et al. **Brain Res** 1999 Jun 12;831(1–2):337–9

Loss of heterozygosity in actinic keratosis, squamous cell carcinoma and sun-exposed normal-appearing skin in Japanese: difference between Japanese and Caucasians. Kushida Y, et al. **Cancer Lett** 1999 Jun 1;140(1–2):169–75

Time course for early adaptive responses to ultraviolet B light in the epidermis of SKH-1 mice. Lu YP, et al. **Cancer Res** 1999 Sep 15;59(18):4591–602

Effects of chronic low-dose ultraviolet B radiation on DNA damage and repair in mouse skin. Mitchell DL, et al. **Cancer Res** 1999 Jun 15;59(12):2875–84

Ultraviolet radiation induces p16CDKN2A expression in human skin. Pavey S, et al. **Cancer Res** 1999 Sep 1; 59(17):4185–9

The multilayered organization of engineered human skin does not influence the formation of sunlight-induced cyclobutane pyrimidine dimers in cellular DNA. Therrien JP, et al. **Cancer Res** 1999 Jan 15;59(2):285–9

Direct and indirect modulation of ornithine decarboxylase and cyclooxygenase by UVB radiation in human skin cells. Soriani M, et al. **Carcinogenesis** 1999 Apr;20(4):727–32

Radiation risks to the patients and interventionalists: risk reduction [editorial; comment] Behrman RB, et al. **Catheter Cardiovasc Interv** 1999 Aug;47(4):455–6. Comment on: Catheter Cardiovasc Interv 1999 Aug;47(4):449–54.

UVA exposure of human skin reconstructed in vitro induces apoptosis of dermal fibroblasts: subsequent connective tissue repair and implications in photoaging. Bernerd F, et al. **Cell Death Differ** 1998 Sep;5(9):792–802

UV-B-Induced photooxidation of vitamin E in mouse skin. Kramer-Stickland K, et al. **Chem Res Toxicol** 1999 Feb; 12(2):187–91

Response of dermal fibroblast cultures from patients with unusually severe responses to radiotherapy and from ataxia telangiectasia heterozygotes to fractionated radiation. DahlBerg WK, et al. **Clin Cancer Res** 1995 Aug;1(8):785–90

The effects of prolonged use of surfactants on the skin of normal and photo-exposed hairless mice. Tavakkol A, et al. **Contact Dermatitis** 1998 Nov;39(5):231–9

An in vitro strategy to evaluate the phototoxicity of solar UV at the molecular and cellular level: application to photoprotection assessment. Marrot L, et al. **Eur J Dermatol** 1998 Sep;8(6):403–12

Microinjection of an antibody against HSP 72 in keratinocytes to study acute UV injury. Bayerl C, et al. **Exp Dermatol** 1999 Aug;8(4):247–53

Effects of UV irradiation with one minimal erythema dose on human afferent skin lymph in vivo. Yawalkar N, et al. **Exp Dermatol** 1998 Dec;7(6):362–8

Modulation of the UVA activation of haem oxygenase, collagenase and cyclooxygenase gene expression by epigallocatechin in human skin cells. Soriani M, et al. **FEBS Lett** 1998 Nov 20;439(3):253–7

Increases in cholesterol 7-hydroperoxides in lipids of human skin by sunlight exposure. Yamazaki S, et al. **Free Radic Biol Med** 1999 May;26(9–10):1126–33

Population UV-dose and skin area--do sunbeds rival the sun? Wester U, et al. **Health Phys** 1999 Oct;77(4):436–40

Solar urticaria: the annoying photodermatosis. Roelandts R, et al. **Int J Dermatol** 1999 Jun;38(6):411–8 (123 ref.)

In vivo induction of pyrimidine dimers in human skin by UVA radiation: initiation of cell damage and/or intercellular communication? Applegate LA, et al. **Int J Mol Med** 1999 May;3(5):467–72

Quantitative assessment of protein content in irradiated human skin. Lahtinen T, et al.

Int J Radiat Oncol Biol Phys 1999 Feb 1;43(3):635–8

Long-term effectiveness and side effects of carbon dioxide laser resurfacing for photoaged facial skin. Manuskiatti W, et al. **J Am Acad Dermatol** 1999 Mar;40(3):401–11

Epidermal cell kinetics of pig skin in vivo following UVB irradiation: apoptosis induced by UVB is enhanced in hyperproliferative skin condition. Kawagishi N, et al. **J Dermatol Sci** 1998 Sep;18(1):43–53

Photohapten TCSA painting plus UVA irradiation of murine skin augments the expression of MHC class II molecules and CD86 on Langerhans cells. Nishijima T, et al. **J Dermatol Sci** 1999 Apr;19(3):202–7

Minimal erythema dose on the buttock and volar forearm in previously UV unexposed Caucasians [letter] Gambichler T, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):193–5

312-nanometer ultraviolet B light (narrow-band UVB) induces apoptosis of T cells within psoriatic lesions. Ozawa M, et al. **J Exp Med** 1999 Feb 15;189(4):711–8

Monocyte induction of IL-10 and down-regulation of IL-12 by iC3b deposited in ultraviolet-exposed human skin. Yoshida Y, et al. **J Immunol** 1998 Dec 1;161(11):5873–9

Suppressed alloantigen presentation, increased TNF-alpha, IL-1, IL-1Ra, IL-10, and modulation of TNF-R in UV-irradiated human skin. Barr RM, et al. **J Invest Dermatol** 1999 May;112(5):692–8

In situ repair of cyclobutane pyrimidine dimers and 6–4 photoproducts in human skin exposed to solar simulating radiation. Bykov VJ, et al. **J Invest Dermatol** 1999 Mar; 112(3):326–31

The UV waveband dependencies in mice differ for the suppression of contact hypersensitivity, delayed-type hypersensitivity and cis-urocanic acid formation. El-Ghorr AA, et al. **J Invest Dermatol** 1999 May;112(5):757–62

Novel function of metallothionein in photoprotection: metallothionein-null mouse exhibits reduced tolerance against ultraviolet B injury in the skin. Hanada K, et al. **J Invest Dermatol** 1998 Oct;111(4):582–5

CD11b+ cells and ultraviolet-B-resistant CD1a+ cells in skin of patients with polymorphous light eruption. Kölgen W, et al. **J Invest Dermatol** 1999 Jul;113(1):4–10

Correlation between antioxidants and phototypes in melanocytes cultures. A possible link of physiologic and pathologic relevance [letter] Picardo M, et al. **J Invest Dermatol** 1999 Sep;113(3):424–5

Adaptive antioxidant response of manganese-superoxide dismutase following repetitive UVA irradiation. Poswig A, et al. **J Invest Dermatol** 1999 Jan;112(1):13–8

Cellular fibronectin is induced in ultraviolet-exposed human skin and induces IL-10 production by monocytes/macrophages. Yoshida Y, et al. **J Invest Dermatol** 1999 Jul;113(1):49–55

Inhibition of UV-induced p53 mutations by sunscreens: implications for skin cancer prevention. Ananthaswamy HN, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):52–6 (71 ref.)

Molecular mechanisms of intrinsic skin aging and retinoid-induced repair and reversal. Varani J, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):57–60

p53 induction in normal human skin in vitro following exposure to solar simulated UV and UV-B irradiation. Davenport V, et al. **J Photochem Photobiol B** 1999 Apr; 49(2–3):177–86

A selective Pt–CdS photodiode to monitor erythemal flux. Richards DL, et al. **J Photochem Photobiol B** 1998 Nov; 47(1):22–30

Intradermal injection of autologous dermal fibroblasts improves wound healing in irradiated skin. Ferguson PC, et al. **J Surg Res** 1999 Aug;85(2):331–8

A new concept of skin-associated lymphoid tissue (SALT): UVB light impaired cutaneous immunity reveals a prominent role for cutaneous nerves. Streilein JW, et al. **Keio J Med** 1999 Mar;48(1):22–7 (33 ref.)

Penetration of the laser light into the skin in vitro. Kolárová H, et al. **Lasers Surg Med** 1999;24(3):231–5

Effect of low intensity monochromatic light therapy (890 nm) on a radiation-impaired, wound-healing model in murine skin. Lowe AS, et al. **Lasers Surg Med** 1998; 23(5):291–8

Use of an agent to reduce scattering in skin. Vargas G, et al. **Lasers Surg Med** 1999;24(2):133–41

Photoprotective effects of some quinoxaline 1,4-dioxides in hairless mice. Gali-Muhtasib HU, et al. **Med Oncol** 1998 Dec;15(4):262–9

Ultraweak photon emission of human skin in vivo: influence of topically applied antioxidants on human skin. Sauermann G, et al. **Methods Enzymol** 1999;300:419–28

The effect of vitamin E acetate on ultraviolet-induced mouse skin carcinogenesis. Berton TR, et al. **Mol Carcinog** 1998 Nov;23(3):175–84

Ultraviolet B-induced squamous epithelial and melanocytic cell changes in a xenograft model of cancer development in human skin. Sauter ER, et al. **Mol Carcinog** 1998 Nov; 23(3):168–74

UV-induced mutations and skin cancer: how important is the link? Bridges BA. **Mutat Res** 1998 Nov 9;422(1):23–30 (38 ref.)

Effects of UV on the migration and function of epidermal antigen presenting cells. Dandie GW, et al. **Mutat Res** 1998 Nov 9;422(1):147–54

Photoprotection: sunscreens and the immunomodulatory effects of UV irradiation. Finlay-Jones JJ, et al. **Mutat Res** 1998 Nov 9;422(1):155–9

UVA-induced immunosuppression. Halliday GM, et al. **Mutat Res** 1998 Nov 9;422(1):139–45

The effects of two UVB radiation-absorbing sunscreens on UV radiation-induced carcinogenesis, suppression of the contact hypersensitivity response and histological changes in the hairless mouse. Kerr C. **Mutat Res** 1998 Nov 9; 422(1):161–4

Body site specific incidence of basal and squamous cell carcinoma in an exposed population, Townsville, Australia. Raasch B, et al. **Mutat Res** 1998 Nov 9;422(1):101–6

Protection by black tea and green tea against UVB and UVA + B induced skin cancer in hairless mice. Record IR, et al. **Mutat Res** 1998 Nov 9;422(1):191–9

Human pigmentation genes and their response to solar UV radiation. Sturm RA. **Mutat Res** 1998 Nov 9;422(1):69–76 (42 ref.)

Anti-sunshine vitamin A [news; comment] Gilchrest B. **Nat Med** 1999 Apr;5(4):376–7. Comment on: Nat Med 1999 Apr;5(4):418–22.

Ultraviolet irradiation of human skin causes functional vitamin A deficiency, preventable by all-trans retinoic acid pre-treatment [see comments] [published erratum appears in Nat Med 1999 Jul;5(7):849] Wang Z, et al. **Nat Med** 1999 Apr;5(4):418–22. Comment in: Nat Med 1999 Apr;5(4):376–7.

Activation of telomerase and its association with G1-phase of the cell cycle during UVB-induced skin tumorigenesis in SKH-1 hairless mouse. Balasubramanian S, et al. **Oncogene** 1999 Feb 11;18(6):1297–302

Plant tannins as inhibitors of hydroperoxide production and tumor promotion induced by ultraviolet B radiation in mouse skin in vivo. Gali-Muhtasib HU, et al. **Oncol Rep** 1999 Jul–Aug;6(4):847–53

Ultraviolet light: a hazard to children. American Academy of Pediatrics. Committee on Environmental Health. **Pediatrics** 1999 Aug;104(2 Pt 1):328–33

In situ molecular dosimetry and tumor risk: UV-induced DNA damage and tumor latency time. de Gruijl FR, et al. **Photochem Photobiol** 1998 Oct;68(4):555–60

Chronic photodamage in skin of mast cell-deficient mice. Gonzalez S, et al. **Photochem Photobiol** 1999 Aug; 70(2):248–53

Ruby laser irradiation (694 nm) of human skin biopsies: assessment by electron spin resonance spectroscopy of free radical production and oxidative stress during laser depilation. Haywood RM, et al. **Photochem Photobiol** 1999 Sep;70(3):348–52

Suppression of delayed and contact hypersensitivity responses in mice have different UV dose responses. Kim TH, et al. **Photochem Photobiol** 1998 Nov;68(5):738–44

Stratum corneum lipid abnormalities in UVB-irradiated skin. Meguro S, et al. **Photochem Photobiol** 1999 Mar; 69(3):317–21

Alterations of hairless mouse skin exposed to chronic UV irradiation and its prevention by hydrocortisone. Mitani H, et al. **Photochem Photobiol** 1999 Jan;69(1):41–6

Quantitative characterization and study of the relationship between constitutive-facultative skin color and phototype in Caucasians. Rubegni P, et al. **Photochem Photobiol** 1999 Sep;70(3):303–7

Tanning in human skin types II and III offers modest photoprotection against erythema. Sheehan JM, et al. **Photochem Photobiol** 1998 Oct;68(4):588–92

The dynamics of laser-induced changes in human skin autofluorescence--experimental measurements and theoretical modeling. Zeng H, et al. **Photochem Photobiol** 1998 Aug;68(2):227–36

An extract of Polypodium leucotomos appears to minimize certain photoaging changes in a hairless albino mouse animal model. A pilot study. Alcaraz MV, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3–4):120–6

Decreased p53 expression in chronically sun-exposed human skin after topical photoprotection. Berne B, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5–6):148–53

Calculation of erythema dose-response curves using a spreadsheet. Davidson AW. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3–4):104–8

Measurement of cutaneous erythema by means of photodensitometry: application to cutaneous photosensitivity. Demange L, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug; 14(3–4):100–8

Changes of minimal erythema dose after water and salt water baths. Gambichler T, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug; 14(3–4):109–11

UV transmission and UV protection factor (UPF) measured on split skin following exposure to UVB radiation--correlation with the minimal erythema dose (MED). Hoffmann K, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3–4):133–9

A comparison of erythema efficacy of ultraviolet B irradiation from Philips TL12 and TL01 lamps. Leenutaphong V, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun-Aug; 14(3–4):112–5

Protection against photodynamic therapy (PDT)-induced photosensitivity by fabric materials. Menter JM, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5–6):154–9

Solar ultraviolet radiation exposure of infants and small children. Moise AF, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3–4):109–14

Reliability of self-assessment in determining skin phototype for Korean brown skin. Park SB, et al. **Photodermatol Photoimmunol Photomed** 1998 Oct-Dec; 14(5–6):160–3

Measurement of off-axis and peripheral skin dose using radiochromic film. Butson MJ, et al. **Phys Med Biol** 1998 Sep;43(9):2647–50

Modulation of ultraviolet light-induced epidermal damage: beneficial effects of tocopherol [letter; comment] Molenaar A. **Plast Reconstr Surg** 1998 Oct;102(5):1785–6. Comment on: Plast Reconstr Surg 1997 Sep;100(4):973–80.

Ultraviolet A radiation induces immediate release of iron in human primary skin fibroblasts: the role of ferritin. Pourzand C, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6751–6

Effect of low-power red light laser irradiation on the viability of human skin fibroblast. Bednarska K, et al. **Radiat Environ Biophys** 1998 Oct;37(3):215–7

Functional assessment of cutaneous microvasculature after radiation. Doll C, et al. **Radiother Oncol** 1999 Apr; 51(1):67–70

Modulation of accelerated repopulation in mouse skin during daily irradiation. Trott KR, et al. **Radiother Oncol** 1999 Mar;50(3):261–6

Diagnosis: atypical fibroxanthoma or not? Evaluating spindle cell malignancies on sun damaged skin: a practical approach. Heintz PW, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):78–83

Photoallergenicity of a fluoroquinolone antibacterial agent with a fluorine substituent at the 8-position in guinea pigs exposed to long-wavelength UV light. Marutani K, et al. **Skin Pharmacol Appl Skin Physiol** 1998;11(4–5):232–40

Radiation-induced comet-formation in human skin fibroblasts from radiotherapy patients with different normal tissue reactions. Oppitz U, et al. **Strahlenther Onkol** 1999 Jul;175(7):341–6

Individual skin care during radiation therapy. Zimmermann JS, et al. **Strahlenther Onkol** 1998 Nov;174 Suppl 3:74–7 (19 ref.)

[The effect of far infrared rays on the survival of randomized skin flap in the rat: an experimental study] Jiang P, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):69–71 (Eng. Abstr.) **(Chi)**

[Determination of the minimal erythema dosage and natural photoprotection of the skin in the population] Ettler K. **Acta Medica (Hradec Kralove) Suppl** 1998;41(1):81–104 (Eng. Abstr.) **(Cze)**

[Safety considerations to avoid current-induced skin burns in MRI processes] Knopp MV, et al. **Radiologe** 1998 Sep; 38(9):759–63 (Eng. Abstr.) **(Ger)**

[UV exposure in Switzerland: time- and topography-associated factors important for the skin] Frei T, et al. **Schweiz Rundsch Med Prax** 1999 Jun 3; 88(23):1023–9 (Eng. Abstr.) **(Ger)**

[Evaluation of ultraviolet radiation reflectance for human skin] Cader A, et al. **Med Pr** 1995;46(1):33–8 (Eng. Abstr.) **(Pol)**

[Effect of ionizing radiation on transforming growth factor-beta expression] Zubova SG, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):529–33 **(Rus)**

RADIOGRAPHY

The feasibility of a sensitive low-dose method for the in vivo evaluation of Fe in skin using K-shell x-ray fluorescence (XRF). Farquharson MJ, et al. **Phys Med Biol** 1999 Apr; 44(4):955–65

SECRETION

Altered lamellar body secretion and stratum corneum membrane structure in Netherton syndrome: differentiation from other infantile erythrodermas and pathogenic implications. Fartasch M, et al. **Arch Dermatol** 1999 Jul; 135(7):823–32

Measurement of histamine release in intact human skin by microdialysis technique. Clinical and experimental findings. Petersen LJ. **Dan Med Bull** 1998 Sep;45(4):383–401 (303 ref.)

Occurrence of hemolytic activity in the skin secretion of the caecilian siphonops paulensis. Schwartz EN, et al. **Nat Toxins** 1998;6(5):179–82

[A skin test for stress] Savin GA, et al. **Klin Lab Diagn** 1998 Nov;(11):7–8 **(Rus)**

SURGERY

1 MAC-incision sevoflurane prevents explicit awareness during surgical skin incision and tracheal intubation. Mollestad KE, et al. **Acta Anaesthesiol Scand** 1998 Nov; 42(10):1184–7

End-tidal sevoflurane concentration for tracheal extubation and skin incision in children. Inomata S, et al. **Anesth Analg** 1998 Dec;87(6):1263–7

The pharmacodynamic interaction between propofol and fentanyl with respect to the suppression of somatic or hemodynamic responses to skin incision, peritoneum

incision, and abdominal wall retraction. Kazama T, et al. **Anesthesiology** 1998 Oct;89(4):894–906

Percutaneous tracheostomy: a comprehensive evaluation. Moe KS, et al. **Ann Otol Rhinol Laryngol** 1999 Apr; 108(4):384–91 (37 ref.)

Eccentric skin resection and purse-string closure for skin reduction with mastectomy for gynecomastia [see comments] Smoot EC 3rd. **Ann Plast Surg** 1998 Oct; 41(4):378–83. Comment in: Ann Plast Surg 1999 Mar;42(3):343. Comment in: Ann Plast Surg 1999 May;42(5):571–2.

Antibiotic prophylaxis [letter; comment] Griego RD, et al. **Arch Dermatol** 1999 Jun;135(6):716–7. Comment on: Arch Dermatol 1998 Jul;134(7):872–3.

Optimizing fluence and debridement effects on cutaneous resurfacing carbon dioxide laser surgery. Weisberg NK, et al. **Arch Dermatol** 1998 Oct;134(10):1223–8

Eyelid healing after carbon dioxide laser skin resurfacing: histological analysis. Mannor GE, et al. **Arch Ophthalmol** 1999 Jul;117(7):913–6

How large should a skin trephine be for an end stoma? Nguyen MH, et al. **Aust N Z J Surg** 1999 Sep;69(9):675–6

'Stab and Split': a 'bloodless' and 'scarless' skin incision technique for minor surgery. Yamataka A, et al. **Aust N Z J Surg** 1999 Mar;69(3):229–30

Migration of sterilisation clips: case report and review. AmuO, et al. **Br J Fam Plann** 1999 Apr;25(1):27–8 (14 ref.)

A new technique of reduction mammaplasty: dermis suspension and elimination of medial scars. Frey M. **Br J Plast Surg** 1999 Jan;52(1):45–51

Closure of the skin defect overlying infected non-union by skin traction [letter; comment] Germann G. **Br J Plast Surg** 1998 Oct;51(7):572–3. Comment on: Br J Plast Surg 1998 Jun;51(4):307–10.

Cultured autologous keratinocytes on a cell-free dermis in the treatment of full-thickness wounds. Gustafson CJ, et al. **Burns** 1999 Jun;25(4):331–5

A study of the concentration of orally administered sparfloxacin found in exudates from suture wounds beneath occlusive dressings. Yotsuyanagi T, et al. **Burns** 1998 Dec; 24(8):751–3

Characterization of matrix-induced osteogenesis in rat calvarial bone defects: I. Differences in the cellular response to demineralized bone matrix implanted in calvarial defects and in subcutaneous sites. Wang J, et al. **Calcif Tissue Int** 1999 Aug;65(2):156–65

Is skin puncture beneficial prior to arterial catheter insertion? Bhardwaj D, et al. **Can J Anaesth** 1999 Feb;46(2):129–32

The influence of preoperative factors on skin surgery wounds [letter] Downs AM, et al. **Clin Exp Dermatol** 1999 Mar; 24(2):138–9

Quantitative comparison of inflammatory infiltrate and linear contraction in human skin treated with 90-microsecond pulsed and 900-microsecond dwell time carbon dioxide lasers. Bucalo BD, et al. **Dermatol Surg** 1998 Dec; 24(12):1314–6

Acute excisional wounds treated with a tissue-engineered skin (Apligraf). Eaglstein WH, et al. **Dermatol Surg** 1999 Mar;25(3):195–201

Extent of undermining and neurovascular trabeculae [letter; comment] Field LM. **Dermatol Surg** 1999 Jan;25(1):77–8. Comment on: Dermatol Surg 1998 Aug;24(8):821–6.

Cultured versus uncultured pearls [letter; comment] Goldman MP. **Dermatol Surg** 1998 Nov;24(11):1255. Comment on: Dermatol Surg 1997 Dec;23(12):1219–21. Comment on: Dermatol Surg 1998 Jul;24(7):792–4.

Comparison of the Q-switched alexandrite, Nd:YAG, and ruby lasers in treating blue–black tattoos. Leuenberger ML, et al. **Dermatol Surg** 1999 Jan;25(1):10–4

Application of argon plasma coagulation in skin surgery. Brand CU, et al. **Dermatology** 1998;197(2):152–7

Principles of cutaneous cryosurgery: an update. Zouboulis CC. **Dermatology** 1999;198(2):111–7

Laparoscopically assisted full thickness skin graft for reconstruction in congenital agenesis of vagina and uterine cervix. Lee CL, et al. **Hum Reprod** 1999 Apr;14(4):928–30

Parallel twin blade technique for scar revision. Kumar N, et al. **Injury** 1999 Apr;30(3):224–5

Surgical pearl: A unique surgical marker. Adams BB, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):464–5

Guidelines of care for laser surgery. American Academy of Dermatology. Guidelines/Outcomes Committee. Dover JS, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):484–95

Shingles developing within recent surgical scars. Nikkels AF, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):309–11

Spectrum of cartilage grafting in cutaneous reconstructive surgery. Otley CC, et al. **J Am Acad Dermatol** 1998 Dec; 39(6):982–92 (23 ref.)

Cutaneous laser resurfacing. Ratner D, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):365–89; quiz 390–2 (314 ref.)

Surgical pearl: the modified buried dermal suture. Whalen JD, et al. **J Am Acad Dermatol** 1999 Jan;40(1):103–4

Surgical pearl: the Red Rubber Robinson bolster in cutaneous surgery. Williams WL, et al. **J Am Acad Dermatol** 1999 Jul;41(1):78–9

Optimal patterns for suturing wounds. Chaudhry HR, et al. **J Biomech** 1998 Jul;31(7):653–62

Dorsal chevron flap for exposure of the proximal interphalangeal joint. Erdmann MW, et al. **J Hand Surg [Br]** 1998 Oct;23(5):673–5

The V-Y Palmar flap. Rider MA, et al. **J Hand Surg [Br]** 1998 Oct;23(5):669–72

Submuscular versus subcutaneous pectoral implantation of cardioverter-defibrillators: effect on high voltage pathway impedance and defibrillation efficacy. Iskos D, et al. **J Interv Card Electrophysiol** 1998 Mar;2(1):47–52

Periosteal and galeal adhesiveness after a forehead lift in a rodent model. Lindsey WH. **J Oral Maxillofac Surg** 1999 Feb;57(2):160–4

Scar quality from partial or complete wound closure using the Cincinnati incision for clubfoot surgery. Mountney J, et al. **J Pediatr Orthop B** 1998 Jul;7(3):223–5

Near-infrared spectroscopic assessment of tissue hydration following surgery. Sowa MG, et al. **J Surg Res** 1999 Sep; 86(1):62–9

Management of malar folds in blepharoplasty. Farrior RT, et al. **Laryngoscope** 1998 Nov;108(11 Pt 1):1659–63

In vivo analysis of bacterial biofilm formation on facial plastic bioimplants. Malaisrie SC, et al. **Laryngoscope** 1998 Nov; 108(11 Pt 1):1733–8

Imaging of the irradiation of skin with a clinical CO2 laser system: implications for laser skin resurfacing. Choi B, et al. **Lasers Surg Med** 1998;23(4):185–93

Free electron laser infrared wavelength specificity for cutaneous contraction. Ellis DL, et al. **Lasers Surg Med** 1999;25(1):1–7

CO2 laser physics and tissue interactions in skin. Fulton JE, et al. **Lasers Surg Med** 1999;24(2):113–21

Collagen thermal damage and collagen synthesis after cutaneous laser resurfacing. Kuo T, et al. **Lasers Surg Med** 1998;23(2):66–71

Effects of endogenous absorption in human albumin solder for acute laser wound closure. Massicotte JM, et al. **Lasers Surg Med** 1998;23(1):18–24

Investigations on acoustic on-line monitoring of IR laser ablation of burned skin. Nahen K, et al. **Lasers Surg Med** 1999;25(1):69–78

Comparison of pulsed CO2 laser ablation at 10.6 microm and 9.5 microm. Payne BP, et al. **Lasers Surg Med** 1998; 23(1):1–6

Modeling laser treatment of port wine stains with a computer-reconstructed biopsy. Pfefer TJ, et al. **Lasers Surg Med** 1999;24(2):151–66

Effects of overlap and pass number in CO2 laser skin resurfacing: a study of residual thermal damage, cell death, and wound healing. Ross EV, et al. **Lasers Surg Med** 1999; 24(2):103–12

Laser skin resurfacing using a frequency doubled Nd:YAG laser after topical application of an exogenous chromophore. Sumian CC, et al. **Lasers Surg Med** 1999; 25(1):43–50

Trends toward subcutaneous prepectoral implantable cardioverter defibrillator (ICD) implantation [letter] Antretter H, et al. **Pacing Clin Electrophysiol** 1999 Aug; 22(8):1274–6

The subcuticular "spider" stitch: a simple solution to suture breakage and patient discomfort in long incisions. Bickel KD, et al. **Pediatr Dermatol** 1998 Nov–Dec;15(6):480–1

The ultimate dressing: No mess, no fuss, no phone calls. Wagner AM, et al. **Pediatr Dermatol** 1999 Jan–Feb; 16(1):62–4

Treatment of progressive familial intrahepatic cholestasis: liver transplantation or partial external biliary diversion. Ismail H, et al. **Pediatr Transplant** 1999 Aug;3(3):219–24

Contact cooling of the skin. Altshuler GB, et al. **Phys Med Biol** 1999 Apr;44(4):1003–23

Cutaneous resurfacing with CO2 and erbium: YAG lasers: preoperative, intraoperative, and postoperative considerations. Alster TS. **Plast Reconstr Surg** 1999 Feb; 103(2):619–32; discussion 633–4

Description of cutaneous excision and suture using a mathematical model. Chretien-Marquet B, et al. **Plast Reconstr Surg** 1999 Jan;103(1):145–50

"Sure-closure" skin stretching system [letter; comment] Hirshowitz B, et al. **Plast Reconstr Surg** 1999 Jan; 103(1):332–3. Comment on: Plast Reconstr Surg 1998 Apr;101(5):1419–20.

Thermal injuries as a result of CO2 laser resurfacing [letter; comment] Shakespeare PG. **Plast Reconstr Surg** 1999 Jun; 103(7):2085–6. Comment on: Plast Reconstr Surg 1998 Sep;102(4):1247–52.

Space-obliterating skin suture [letter; comment] Sommerlad BC, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1101. Comment on: Plast Reconstr Surg 1997 Nov;100(6):1506–8.

Space-obliterating skin suture [letter; comment] Sommerland BC, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2277–8. Comment on: Plast Reconstr Surg 1997 Nov;100(6):1506–8.

CO2 and erbium:YAG laser resurfacing: current status and personal perspective. Stuzin JM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):588–91

Erbium laser resurfacing: current concepts. Weinstein C. **Plast Reconstr Surg** 1999 Feb;103(2):602–16; discussion 617–8

Preoperative and postoperative skin care with laser resurfacing. Hrabovsky SL. **Semin Ophthalmol** 1998 Sep; 13(3):115–22 (32 ref.)

Erbium: YAG laser--an improved periorbital resurfacing device. Kopelman J. **Semin Ophthalmol** 1998 Sep; 13(3):136–41 (16 ref.)

[What's new in upper limb skin expansion?] Casanova D, et al. **Ann Chir Plast Esthet** 1998 Dec;43(6):618–20 (Eng. Abstr.) **(Fre)**

[CO2 laser skin resurfacing. Critical analysis of recent literature] Dubois R, et al. **Ann Chir Plast Esthet** 1998 Dec; 43(6):659–63 (22 ref.) (Eng. Abstr.) **(Fre)**

[A new method of covering skin loss of the internal canthus: paralateronasal flap] Ducours JL. **Ann Chir Plast Esthet** 1998 Dec;43(6):664–7 (Eng. Abstr.) **(Fre)**

[Under the epidermis, the dermis, or how to interpret skin cultures?] Echinard C. **Ann Chir Plast Esthet** 1998 Apr; 43(2):197–205 (35 ref.) (Eng. Abstr.) **(Fre)**

[What's new in cosmetic surgery of the hand? Technical notes] Saffar P. **Ann Chir Plast Esthet** 1998 Dec;43(6):630–4 (Eng. Abstr.) **(Fre)**

[Controlled cosmetic dermal ablation in the facial region with the erbium:YAG laser] Riedel F, et al. **HNO** 1999 Feb; 47(2):101–6 (Eng. Abstr.) **(Ger)**

[Body contouring by removal of skin and fatty tissue] Erni D, et al. **Ther Umsch** 1999 Apr;56(4):206–11 (3 ref.) (Eng. Abstr.) **(Ger)**

[Prospective study of the MEDIZIP surgical zipper in relation to efficacy of skin closure, course of wound healing, and results of the healing process in surgical wounds] Hasse FM, et al. **Zentralbl Chir** 1999;124(3):210–3 (Eng. Abstr.) **(Ger)**

[The elimination of the retractility of the skin portion of the nasal septum] Ezrokhin VM, et al. **Stomatologiia (Mosk)** 1999;78(3):39–41 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION see SKIN TRANSPLANTATION

ULTRASONOGRAPHY

Efficacy of topical 0.05% retinaldehyde in skin aging by ultrasound and rheological techniques. Diridollou S, et al. **Dermatology** 1999;199 Suppl 1:37–41

In vivo high-frequency ultrasonic characterization of human dermis. Guittet C, et al. **IEEE Trans Biomed Eng** 1999 Jun; 46(6):740–6

The predictive value of skin thickness in the diagnosis of osteopenia. Limpaphayom K, et al. **J Med Assoc Thai** 1999 Apr;82(4):347–51

Skin thickness in different menopausal status. Panyakhamlerd K, et al. **J Med Assoc Thai** 1999 Apr;82(4):352–6

Red and green laser Doppler compared with capillary microscopy to assess skin microcirculation in the feet of healthy subjects. Tulevski II, et al. **Microvasc Res** 1999 Sep;58(2):83–8

High-frequency estimation of the ultrasonic attenuation coefficient slope obtained in human skin: simulation and in vivo results. Guittet C, et al. **Ultrasound Med Biol** 1999 Mar;25(3):421–9

Ultrasonic and viscoelastic properties of skin under transverse mechanical stress in vitro. Pan L, et al. **Ultrasound Med Biol** 1998 Sep;24(7):995–1007

Screening efficacy of the subcutaneous tissue width/femur length ratio for fetal macrosomia in the non-diabetic pregnancy. Rotmensch S, et al. **Ultrasound Obstet Gynecol** 1999 May;13(5):340–4

ULTRASTRUCTURE

Psoriatic scales: an ultrastructural study. Barbareschi M, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:35–6

Postoperative/posttraumatic spindle cell nodule of the skin: the dermal analogue of nodular fasciitis. Wick MR, et al. **Am J Dermatopathol** 1999 Jun;21(3):220–4

Morphometric analysis of collagen: a comparative study in cow and pig skins. Kobayashi A, et al. **Anat Histol Embryol** 1999 Aug;28(4):235–8

Time-dependent ultrastructural changes to porcine stratum corneum following an electric pulse. Gallo SA, et al. **Biophys J** 1999 May;76(5):2824–32

Localized peeling skin syndrome: case report with ultrastructural study. Brusasco A, et al. **Br J Dermatol** 1998 Sep;139(3):492–5

Dormant melanocytes in the dermis: do dermal melanocytes of acquired dermal melanocytosis exist from birth? [letter] Mizushima J, et al. **Br J Dermatol** 1998 Aug;139(2):349–50

Image processing techniques for quantitative analysis of skin structures. Sanders JE, et al. **Comput Methods Programs Biomed** 1999 Jun;59(3):167–80

Twisted collagen fibrils in acrocyanosis. Kobayasi T, et al. **Eur J Dermatol** 1999 Jun;9(4):285–8

New insights into the immunoultrastructural organization of cutaneous basement membrane zone molecules. Shimizu H. **Exp Dermatol** 1998 Dec;7(6):303–13 (55 ref.)

Electron microscopy comparison of CO2 laser flash scanning and pulse technology one year after skin resurfacing. Trelles MA, et al. **Int J Dermatol** 1999 Jan;38(1):58–64

Nanoscale design of snake skin for reptation locomotions via friction anisotropy. Hazel J, et al. **J Biomech** 1999 May; 32(5):477–84

In vivo confocal scanning laser microscopy of human skin II: advances in instrumentation and comparison with histology. Rajadhyaksha M, et al. **J Invest Dermatol** 1999 Sep;113(3):293–303

Primary cilium expression in cells from normal and pathological caprine skin [letter] Roperto F, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):169–71

Immunoelectron microscopic evidence for release of eosinophil granule matrix protein onto microfilariae of Onchocerca volvulus in the skin after exposure to amocarzine. Gutiérrez-Peña EJ, et al. **Parasitol Res** 1998 Aug;84(8):607–15

Wrinkly skin syndrome: ultrastructural alterations of the elastic fibers. Boente MC, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):113-7

Granuloma annulare: an elastic tissue disease? Case report and literature review. Hanna WM, et al. **Ultrastruct Pathol** 1999 Jan-Feb;23(1):33-8 (13 ref.)

[Rapidly expanded skin tube studied by histological and stereological observations] Zhou G, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):76-9 (Eng. Abstr.) **(Chi)**

[Changes in the organization of the extracellular matrix at the skin level during diabetes] Mezi S, et al. **G Chir** 1999 Jun-Jul;20(6-7):277-84 (Eng. Abstr.) **(Ita)**

[Novel data on porcupine quill structure (Hystricomorpha, Rodentia)] Sokolov VE, et al. **Dokl Akad Nauk** 1998 Nov; 363(3):429-32 **(Rus)**

VIROLOGY

Systematic cutaneous examination in hepatitis C virus infected patients. Cribier B, et al. **Acta Derm Venereol** 1998 Sep;78(5):355-7

Cadaveric skin allograft-associated cytomegalovirus transmission in a mouse model of thermal injury. Kobayashi H, et al. **Clin Immunol** 1999 Aug;92(2):181-7

Behçet's disease-like symptoms induced by the Herpes simplex virus in ICR mice. Sohn S, et al. **Eur J Dermatol** 1998 Jan-Feb;8(1):21-3

A broad range of human papillomavirus types detected with a general PCR method suitable for analysis of cutaneous tumours and normal skin. Forslund O, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2437-43

A novel immunohistochemical assay for the detection of Ebola virus in skin: implications for diagnosis, spread, and surveillance of Ebola hemorrhagic fever. Commission de Lutte contre les Epidémies à Kikwit. Zaki SR, et al. **J Infect Dis** 1999 Feb;179 Suppl 1:S36-47

The axonal transmission of herpes simplex virus to epidermal cells: a novel use of the freeze substitution technique applied to explant cultures retained on cover slips. Holland DJ, et al. **J Microsc** 1998 Oct;192 (Pt 1):69-72

Measles virus was present in the inner cell of the acrosyringium in the skin rash. Yanagihara M, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):456-8

A single amino acid substitution in the cyclin D binding domain of the infected cell protein no. 0 abrogates the neuroinvasiveness of herpes simplex virus without affecting its ability to replicate. Van Sant C, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8184-9

SKIN ABNORMALITIES

Incomplete Sjögren-Larsson syndrome in two Japanese siblings. Kawakami T, et al. **Dermatology** 1999;198(1):93-6

The oculocerebrocutaneous (Delleman-Oorthuys) syndrome. Naafs GG, et al. **Neuroradiology** 1999 Jan;41(1):55-9

DIAGNOSIS

The diagnosis and treatment of common birthmarks. Brown TJ, et al. **Clin Plast Surg** 1998 Oct;25(4):509-25 (65 ref.)

Incontinentia pigmenti (Bloch-Sulzberger-syndrome): case report and differential diagnosisto related dermato-ocular syndromes. Käsmann-Kellner B, et al. **Ophthalmologica** 1999;213(1):63-9

[Atypical constellation of findings in Schimmelpenning-Feuerstein-Mims syndrome--case report and overview] Framme C, et al. **Klin Monatsbl Augenheilkd** 1998 Aug;213(2):97-103 (44 ref.) (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Limb and skin abnormalities in mice lacking IKKalpha [see comments] Takeda K, et al. **Science** 1999 Apr 9; 284(5412):313-6. Comment in: Science 1999 Apr 9;284(5412):271-3.

GENETICS

Fraser syndrome associated with anterior urethral atresia [letter] Andiran F, et al. **Am J Med Genet** 1999 Feb 12; 82(4):359-61

Neurological involvement in a child with the wrinkly skin syndrome [see comments] Azuri J, et al. **Am J Med Genet** 1999 Jan 1;82(1):31-3 (8 ref.). Comment in: Am J Med Genet 1999 Jul 16;85(2):194.

Elattoproteus syndrome: delineation of an inverse form of Proteus syndrome. Happle R. **Am J Med Genet** 1999 May 7;84(1):25-8 (25 ref.)

Wrinkly skin syndrome and the syndrome of cutis laxa with growth and developmental delay represent the same disorder [letter; comment] Zlotogora J. **Am J Med Genet** 1999 Jul 16;85(2):194. Comment on: Am J Med Genet 1999 Jan 1;82(1):31-3.

Anterior chamber eye anomalies, redundant skin and syndactyly--a new syndrome associated with breakpoints at 2q37.2 and 7q36.3. Temple IK, et al. **Clin Dysmorphol** 1999 Jul;8(3):157-63

A very high density microsatellite map (1 STR/41 kb) of 1.7 Mb on Xp22 spanning the microphthalmia with linear skin defects (MLS) syndrome critical region. Cox TC, et al. **Eur J Hum Genet** 1998 Jul-Aug;6(4):406-12

Fine mapping of Noonan/cardio-facio cutaneous syndrome in a large family. Legius E, et al. **Eur J Hum Genet** 1998 Jan;6(1):32-7

Molecular basis for the rhino Yurlovo (hr(rhY)) phenotype: severe skin abnormalities and female reproductive defects associated with an insertion in the hairless gene. Panteleyev AA, et al. **Exp Dermatol** 1998 Oct;7(5):281-8

IKK1-deficient mice exhibit abnormal development of skin and skeleton. Li Q, et al. **Genes Dev** 1999 May 15; 13(10):1322-8

Another observation of microphthalmia in an XX male: microphthalmia with linear skin defects syndrome without linear skin lesions. Kono T, et al. **J Hum Genet** 1999; 44(1):63-8 (34 ref.)

PATHOLOGY

Costello syndrome: report and review. van Eeghen AM, et al. **Am J Med Genet** 1999 Jan 15;82(2):187-93 (38 ref.)

Hemifacial microsomia in a newborn with hypoplastic skin lesions, an eyelid skin tag, and microphthalmia: an unusual presentation of Delleman syndrome. Ming JE, et al. **Clin Dysmorphol** 1998 Oct;7(4):279-83

Guess what! Skin tag (acrochordon) on the labium majus. Doe PT, et al. **Eur J Dermatol** 1998 Dec;8(8):587; discussion 588

Graft-like plantar lesion secondary to possible dorsal-to-ventral cutaneous transposition. Dragan L, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):769-71

Collodion baby concomitant with congenital hypothyroidism: a patient report and review of the literature. Kurtoğlu S, et al. **J Pediatr Endocrinol Metab** 1998 Jul-Aug;11(4):569-73 (24 ref.)

SKIN ABSORPTION

see related

ADMINISTRATION, CUTANEOUS

The transdermal drug delivery system and transcutaneous absorption. Morimoto Y, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;185:15-7 (7 ref.)

Coma in a premature infant associated with the transdermal absorption of propylene glycol. Peleg O, et al. **Acta Paediatr** 1998 Nov;87(11):1195-6

Systemic uptake and clearance of chloroform by hairless rats following dermal exposure: II. Absorption of the neat solvent. Islam MS, et al. **Am Ind Hyg Assoc J** 1999 Jul-Aug;60(4):438-43

New PBPK model applied to old occupational exposure to benzene. Sherwood RJ, et al. **Am Ind Hyg Assoc J** 1999 Mar-Apr;60(2):259-65

Structure and validation of a pharmacokinetic model for benzene. Sinclair GC, et al. **Am Ind Hyg Assoc J** 1999 Mar-Apr;60(2):249-58

Anaphylactic reaction to dermal exposure to cephalexin [letter] Nordt SP, et al. **Am J Emerg Med** 1999 Sep; 17(5):492-3

Percutaneous absorption of progesterone in postmenopausal women treated with transdermal estrogen. Burry KA, et al. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 1):1504-11

Anatomic site and interanimal variability in morphologic characteristics of bottlenose dolphin (Tursiops truncatus) skin likely to affect dermal absorption studies. Colbert A, et al. **Am J Vet Res** 1998 Nov;59(11):1398-403

Cocaine absorption after application of a viscous cocaine-containing TAC solution. Vinci RJ, et al. **Ann Emerg Med** 1999 Oct;34(4 Pt 1):498-502

In vitro study of the percutaneous absorption of four aromatic amines using hairless rat skin. Levillain F, et al. **Arzneimittelforschung** 1998 Sep;48(9):948-51

Evaluation of the topical delivery of a prednisolone derivative based upon percutaneous penetration kinetic analysis. Hashiguchi T, et al. **Biol Pharm Bull** 1998 Aug; 21(8):882-5

Factors determining drug residence in skin during transdermal absorption: studies on beta-blocking agents. Yagi S, et al. **Biol Pharm Bull** 1998 Nov;21(11):1195-201

In vivo percutaneous absorption of boron as boric acid, borax, and disodium octaborate tetrahydrate in humans: a summary. Wester RC, et al. **Biol Trace Elem Res** 1998 Winter;66(1-3):101-9

In vitro percutaneous absorption of boron as boric acid, borax, and disodium octaborate tetrahydrate in human skin: a summary. Wester RC, et al. **Biol Trace Elem Res** 1998 Winter;66(1-3):111-20

Effect of chiral enhancers on the permeability of optically active and racemic metoprolol across hairless mouse skin. Kommuru TR, et al. **Chirality** 1999;11(7):536-40

Percutaneous absorption of salicylic acid in man after topical administration of three different formulations. Schwarb FP, et al. **Dermatology** 1999;198(1):44-51

Effect of physicochemical variables of regular insulin formulations on their absorption from the subcutaneous tissue. Polaschegg E. **Diabetes Res Clin Pract** 1998 Apr; 40(1):39-44

Cutaneous uptake of 14C-HD vapor by the hairless guinea pig. Logan TP, et al. **Drug Chem Toxicol** 1999 May; 22(2):375-87

Topical oleo-hydrogel preparation of ketoprofen with enhanced skin permeability. Rhee GJ, et al. **Drug Dev Ind Pharm** 1999 Jun;25(6):717-26

Dermal transfer of chlorpyrifos residues from residential surfaces: comparison of hand press, hand drag, wipe, and polyurethane foam roller measurements after broadcast and aerosol pesticide applications. Lu C, et al. **Environ Health Perspect** 1999 Jun;107(6):463-7

Skin absorption of Dexamphetamine base--a case report. Hartvig P. **Eur J Clin Pharmacol** 1998 Nov-Dec; 54(9-10):805-7

Epicutaneous and transcutaneous immunization using DNA or proteins. Kaiserlian D, et al. **Eur J Dermatol** 1999 Apr-May;9(3):169-76 (35 ref.)

Comparative investigations to evaluate the use of organotypic cultures of transformed and native dermal and epidermal cells for permeation studies. Specht C, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):273-8

Transdermal absorption of L-dopa from hydrogel in rats. Sudo J, et al. **Eur J Pharm Sci** 1998 Dec;7(1):67-71

Chromatographic indexes on immobilized artificial membranes for the prediction of transdermal transport of drugs. Barbato F, et al. **Farmaco** 1998 Oct-Nov; 53(10-11):655-61

Test guidelines for in vitro assessment of dermal absorption and percutaneous penetration of cosmetic ingredients. European Cosmetic, Toiletry and Perfumery Association. Diembeck W, et al. **Food Chem Toxicol** 1999 Feb-Mar; 37(2-3):191-205

Assignment of skin notation for MAK values and its legal consequences in Germany. Drexler H. **Int Arch Occup Environ Health** 1998 Oct;71(7):503-5

Estimation of the percutaneous absorption of styrene in an industrial situation. Limasset JC, et al. **Int Arch Occup Environ Health** 1999 Jan;72(1):46-51

N,N-dimethylformamide--influence of working conditions and skin penetration on the internal exposure of workers in synthetic textile production. Wrbitzky R, et al. **Int Arch Occup Environ Health** 1998 Jul;71(5):309-16

Evaluation of transdermal iontophoresis of enoxacin from polymer formulations: in vitro skin permeation and in vivo microdialysis using Wistar rat as an animal model. Fang JY, et al. **Int J Pharm** 1999 Apr 15;180(2):137-49

Mechanisms of a phosphorothioate oligonucleotide delivery by skin electroporation. Regnier V, et al. **Int J Pharm** 1999 Jul 20;184(2):147-56

Desert toads discriminate salt taste with chemosensory function of the ventral skin. Nagai T, et al. **J Comp Neurol** 1999 May 24;408(1):125-36

Percutaneous absorption of sunscreens from liquid crystalline phases. Brinon L, et al. **J Controlled Release** 1999 Jun 28; 60(1):67-76

Effect of diffusion potential, osmosis and ion-exchange on transdermal drug delivery: theory and experiments. Hirvonen J, et al. **J Controlled Release** 1998 Dec 4; 56(1-3):33-9

Investigation of the percutaneous penetration of prostaglandin E1 and its ethyl ester. Sheu MT, et al. **J Controlled Release** 1998 Nov 13;55(2-3):153-60

In vivo human skin permeability enhancement by oleic acid: a laser Doppler velocimetry study. Tanojo H, et al. **J Controlled Release** 1999 Mar 8;58(1):97-104

Application of vesicles to rat skin in vivo: a confocal laser scanning microscopy study. van Kuijk-Meuwissen ME, et al. **J Controlled Release** 1998 Dec 4;56(1-3):189-96

Assessment of in vitro percutaneous absorption of glycolic acid through human skin sections using a flow-through diffusion cell system. Jiang M, et al. **J Dermatol Sci** 1998 Dec;18(3):181-8

Transdermal absorption of topical anti-acne agents in man; review of clinical pharmacokinetic data. van Hoogdalem EJ. **J Eur Acad Dermatol Venereol** 1998 Sep;11 Suppl 1:S13-9; discussion S28-9 (27 ref.)

Comparison of different membranes with cultures of keratinocytes from man for percutaneous absorption of nitroglycerine. Minghetti P, et al. **J Pharm Pharmacol** 1999 Jun;51(6):673-8

Pore induction in human epidermal membrane during low to moderate voltage iontophoresis: A study using AC iontophoresis. Li SK, et al. **J Pharm Sci** 1999 Apr; 88(4):419-27

Stratum corneum, corneodesmosomes and ex vivo percutaneous penetration. Haftek M, et al. **Microsc Res Tech** 1998 Nov 1;43(3):242-9

Proposal for the assessment of quantitative dermal exposure limits in occupational environments: Part 1. Development of a concept to derive a quantitative dermal occupational exposure limit. Bos PM, et al. **Occup Environ Med** 1998 Dec;55(12):795-804 (48 ref.)

Proposal for the assessment to quantitative dermal exposure limits in occupational environments: Part 2. Feasibility study for application in an exposure scenario for MDA by two different dermal exposure sampling methods. Brouwer DH, et al. **Occup Environ Med** 1998 Dec; 55(12):805-11

Effect of concentration and degree of saturation of topical fluocinonide formulations on in vitro membrane transport and in vivo availability on human skin. Schwarb FP, et al. **Pharm Res** 1999 Jun;16(6):909-15

Penetration of zinc ions from zinc ointment through the skin of suckers (pig) in vitro. Kotlyar S, et al. **Pharmazie** 1998 Nov;53(11):803-4

Estimation of dermal absorption using the exponential saturation model. Thongsinthusak T, et al. **Regul Toxicol Pharmacol** 1999 Feb;29(1):37-43 (17 ref.)

The Sixth International Perspectives in Percutaneous Penetration Conference 1998. Schwindt DA.

SKIN ABSORPTION

Skin Pharmacol Appl Skin Physiol 1998;11(4–5):289–92

Absorption and mass balance of piperonyl butoxide following an 8-h dermal exposure in human volunteers. Selim S, et al. **Toxicol Lett** 1999 Jun 30;107(1–3):207–17

Predicting vehicle effects on the dermal absorption of halogenated methanes using physiologically based modeling. Jepson GW, et al. **Toxicol Sci** 1999 Apr; 48(2):180–8

Estimation of the dermal absorption of m-xylene vapor in humans using breath sampling and physiologically based pharmacokinetic analysis. Loizou GD, et al. **Toxicol Sci** 1999 Apr;48(2):170–9

In vivo skin decontamination of methylene bisphenyl isocyanate (MDI): soap and water ineffective compared to polypropylene glycol, polyglycol-based cleanser, and corn oil. Wester RC, et al. **Toxicol Sci** 1999 Mar;48(1):1–4

[The relationship of the permeability coefficients of testosterone with solubility parameters of vehicles] Hu F, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Apr;19(2):127–30 (Eng. Abstr.) **(Chi)**

[Study of skin resorptive effects of solution 7-50C-3] Baul' SV, et al. **Med Tr Prom Ekol** 1999;(1):43–6 **(Rus)**

DRUG EFFECTS

In vitro test of nicotine's permeability through human skin. Risk evaluation and safety aspects. Zorin S, et al. **Ann Occup Hyg** 1999 Aug;43(6):405–13

Percutaneous absorption-enhancing activity of urea derivatives. Han SK, et al. **Arch Pharm Res** 1991 Mar; 14(1):12–8

N-(4-bromobenzoyl)-S,S-dimethyliminosulfurane, a potent dermal penetration enhancer. Strekowski L, et al. **Bioorg Med Chem Lett** 1999 Apr 5;9(7):1033–4

Synthesis and effect of two new penetration enhancers on the transdermal delivery of 5-fluorouracil through excised rat skin. Hanif RM, et al. **Chem Pharm Bull (Tokyo)** 1998 Sep;46(9):1428–31

Effects of removal of stratum corneum, delipidization and addition of enhancers, ethanol and l-menthol, on skin permeation of benzoic acid and its 4-n-alkyl substituents in excised guinea pig dorsal skin. Kitagawa S, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan;47(1):44–7

Correlation between percutaneous penetration of methyl nicotinate and sensitive skin, using laser Doppler imaging. Issachar N, et al. **Contact Dermatitis** 1998 Oct;39(4):182–6

Influence of drug lipophilicity on terpenes as transdermal penetration enhancers. Godwin DA, et al. **Drug Dev Ind Pharm** 1999 Aug;25(8):905–15

Thiomenthol derivatives as novel percutaneous absorption enhancers. Takanashi Y, et al. **Drug Dev Ind Pharm** 1999 Jan;25(1):89–94

Surfactant effects on the in vitro percutaneous absorption of diclofenac sodium. Arellano A, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr–Jun; 23(2):307–12

In vitro percutaneous penetration through hairless rat skin: influence of temperature, vehicle and penetration enhancers. Clarys P, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):279–83

Codiffusion of propylene glycol and dimethyl isosorbide in hairless mouse skin. Squillante E, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):265–71

Liposome-skin interactions and their effects on the skin permeation of drugs. Kirjavainen M, et al. **Eur J Pharm Sci** 1999 Mar;7(4):279–86

Effect of linolenic acid/ethanol or limonene/ethanol and iontophoresis on the in vitro percutaneous absorption of LHRH and ultrastructure of human epidermis. Bhatia KS, et al. **Int J Pharm** 1999 Apr 15;180(2):235–50

The effects of Azone and capsaicin on the permeation of naproxen through human skin. Degim IT, et al. **Int J Pharm** 1999 Mar 1;179(1):21–5

Passive enhancement strategies in topical and transdermal drug delivery. Hadgraft J. **Int J Pharm** 1999 Jul 5; 184(1):1–6 (25 ref.)

Effect of ethanol/propylene glycol on the in vitro percutaneous absorption of aspirin, biophysical changes and macroscopic barrier properties of the skin. Levang AK, et al. **Int J Pharm** 1999 Apr 30;181(2):255–63

Penetration enhancing effect of tetrahydrogeraniol on the percutaneous absorption of 5-fluorouracil from gels in excised rat skin. Hanif RM, et al. **J Controlled Release** 1998 Nov 13;55(2–3):297–302

Chemical enhancement of percutaneous absorption in relation to stratum corneum structural alterations. Marjukka Suhonen T, et al. **J Controlled Release** 1999 May 20; 59(2):149–61 (106 ref.)

Cyclodextrins as permeation enhancers: some theoretical evaluations and in vitro testing. Másson M, et al. **J Controlled Release** 1999 May 1;59(1):107–18

Mechanisms of percutaneous absorption of tamoxifen by terpenes: eugenol, D-limonene and menthone. Zhao K, et al. **J Controlled Release** 1998 Nov 13;55(2–3):253–60

Enhanced skin permeation of sex hormones with novel topical spray vehicles. Morgan TM, et al. **J Pharm Sci** 1998 Oct;87(10):1213–8

Transdermal permeation modulation by cyclodextrins: a mechanistic study. Williams AC, et al. **Pharm Dev Technol** 1998 Aug;3(3):283–96

The effect of liposomes on skin barrier structure. Coderch L, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep–Oct; 12(5):235–46

[Augmentation of transdermal drug penetration] Préat MV. **Bull Mem Acad R Med Belg** 1998;153(5–6):295–300; discussion 301–2 (9 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Uptake of chloroform by skin on brief exposures to the neat liquid. Islam MS, et al. **Am Ind Hyg Assoc J** 1999 Jan–Feb; 60(1):5–15

Development of a carcinogenic potency index for dermal exposure to viscous oil products. Brandt HC, et al. **Arch Toxicol** 1999 Apr–May;73(3):180–8

Studies on the dermal and systemic bioavailability of polycyclic aromatic compounds in high viscosity oil products. Potter D, et al. **Arch Toxicol** 1999 Apr–May; 73(3):129–40

In vitro topical delivery of non-steroidal anti-inflammatory drugs through human skin. Vincent CM, et al. **Arzneimittelforschung** 1999 Jun;49(6):509–13

Uptake of vitamin E succinate by the skin, conversion to free vitamin E, and transport to internal organs. Trevithick JR, et al. **Biochem Mol Biol Int** 1999 Mar;47(3):509–18

Relationship between the skin permeation movement of propranolol and skin inflammatory reactions. Kobayashi I, et al. **Biol Pharm Bull** 1998 Sep;21(9):938–44

Skin disposition of drugs after topical application in hairless rats. Yanagimoto G, et al. **Chem Pharm Bull (Tokyo)** 1999 Jun;47(6):749–54

In vitro percutaneous penetration through hairless rat skin: influence of temperature, vehicle and penetration enhancers. Clarys P, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):279–83

Investigation of the mechanism of flux across human skin in vitro by quantitative structure-permeability relationships. Cronin MTD, et al. **Eur J Pharm Sci** 1999 Mar;7(4):325–30

Percutaneous absorption of trinitrobenzene: animal models for human skin. Kraeling ME, et al. **J Appl Toxicol** 1998 Nov–Dec;18(6):387–92

Wet decontamination-induced stratum corneum hydration--effects on the skin barrier function to diethylmalonate. Loke WK, et al. **J Appl Toxicol** 1999 Jul–Aug;19(4):285–90

Experimental verification of the mechanistic model for transdermal transport including iontophoresis. Hirvonen J, et al. **J Controlled Release** 1998 Dec 4;56(1–3):169–74

The percutaneous penetration of prostaglandin E1 and its alkyl esters. Ho HO, et al. **J Controlled Release** 1999 Apr 19;58(3):349–55

Transdermal iontophoretic delivery of bovine insulin and monomeric human insulin analogue. Kanikkannan N, et al. **J Controlled Release** 1999 May 1;59(1):99–105

Effect of the different factors on the iontophoretic delivery of calcium ions from bentonite. Szántó Z, et al. **J Controlled Release** 1998 Dec 4;56(1–3):239–47

Transdermal permeation of neutral molecules by skin electroporation. Vanbever R, et al. **J Controlled Release** 1998 Aug 14;54(3):243–50

Elevated plasma osmotic concentration stimulates water absorption response in a toad. Hoffman J, et al. **J Exp Zool** 1999 Jul 1;284(2):168–73

Penetration of chloroform, trichloroethylene, and tetrachloroethylene through human skin. Nakai JS, et al. **J Toxicol Environ Health** 1999 Oct 15;58(3):157–70

Penetration of titanium dioxide microparticles in a sunscreen formulation into the horny layer and the follicular orifice. Lademann J, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Sep–Oct;12(5):247–56

RADIATION EFFECTS

Charged microbeads are not transported across the human stratum corneum in vitro by short high-voltage pulses. Chen T, et al. **Bioelectrochem Bioenerg** 1999 Feb; 48(1):181–92

SKIN AGING

Hypopigmented macules of photodamaged skin and their treatment with topical tretinoin. Pagnoni A, et al. **Acta Derm Venereol** 1999 Jul;79(4):305–10

Mechanical measurements of skin. Vogel HG. **Acta Derm Venereol Suppl (Stockh)** 1994;185:39–43 (81 ref.)

Botulinum toxin type A injection for the treatment of frown lines. Song KH. **Ann Pharmacother** 1998 Dec;32(12):1365–7 (17 ref.)

Transparent hydrocolloid dressing for CO2 ultrapulse laser resurfacing [letter] Paloma V, et al. **Ann Plast Surg** 1998 Sep;41(3):334–5

Rapid healing after skin laser resurfacing: a minimal mechanical trauma technique [letter] Trelles MA, et al. **Ann Plast Surg** 1998 Sep;41(3):332–4

Cosmetic dermatology. No apologies, a few regrets. Glogau RG. **Arch Dermatol** 1998 Oct;134(10):1204–6

Reproducibility of reported measurements of sun exposure in a case-control study. English DR, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):857–63

Smoker's wrinkles: epidemiological and pathogenic considerations. Frances C. **Clin Dermatol** 1998 Sep–Oct; 16(5):565–70 (49 ref.)

Wrinkles [editorial] Spoor HJ. **Cutis** 1999 Feb;63(2):61

Injectable hyaluronic acid gel for soft tissue augmentation. A clinical and histological study. Duranti F, et al. **Dermatol Surg** 1998 Dec;24(12):1317–25

Skin resurfacing of facial rhytides and scars with the 90-microsecond short pulse CO2 laser. Comparison to the 900-microsecond dwell time CO2 lasers and clinical experience. Moy RL, et al. **Dermatol Surg** 1998 Dec; 24(12):1390–6

The effect of wiping on skin resurfacing in a pig model using a high energy pulsed CO2 laser system. Ross EV, et al. **Dermatol Surg** 1999 Feb;25(2):81–8

Understanding botulinum toxin. Surgical anatomy of the frown, forehead, and periocular region. Wieder JM, et al. **Dermatol Surg** 1998 Nov;24(11):1172–4 (8 ref.)

Public knowledge, awareness, and perceptions of the association between skin aging and smoking. Demierre MF, et al. **J Am Acad Dermatol** 1999 Jul;41(1):27–30

Aging in epidermal melanocytes: cell cycle genes and melanins. Haddad MM, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):36–40 (58 ref.)

Molecular mechanisms of cutaneous aging: connective tissue alterations in the dermis. Uitto J, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):41–4 (35 ref.)

Molecular mechanisms of intrinsic skin aging and retinoid-induced repair and reversal. Varani J, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):57–60

Aging versus photoaging: postulated mechanisms and effectors. Yaar M, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):47–51 (96 ref.)

Advances in cutaneous aesthetic surgery. Stratigos AJ, et al. **JAMA** 1998 Oct 28;280(16):1397–8

Skin storage of cystine and premature skin ageing in cystinosis [letter] Guillet G, et al. **Lancet** 1998 Oct 31; 352(9138):1444–5

Pulsed dye laser therapy for sun damaged skin. Zelickson BD, et al. **Lasers Surg Med** 1999;25(3):229–36

Options in the management of the aging face. An otolaryngology-facial plastic and reconstructive surgeon's perspective. Fortune DS, et al. **Med Clin North Am** 1999 Jan;83(1):283–301, xii

Office-based skin care and superficial peels: the scientific rationale. Clark CP 3rd. **Plast Reconstr Surg** 1999 Sep; 104(3):854–64; discussion 865–6

Botox for the treatment of dynamic and hyperkinetic facial lines and furrows: adjunctive use in facial aesthetic surgery. Fagien S. **Plast Reconstr Surg** 1999 Feb;103(2):701–13

CO2 and erbium:YAG laser resurfacing: current status and personal perspective. Stuzin JM, et al. **Plast Reconstr Surg** 1999 Feb;103(2):588–91

Oxidant/antioxidant imbalance in skin aging: environmental and adaptive factors. Mariéthoz E, et al. **Rev Environ Health** 1998 Jul–Sep;13(3):147–68 (133 ref.)

Carbon dioxide laser skin resurfacing. Biesman BS. **Semin Ophthalmol** 1998 Sep;13(3):123–35 (53 ref.)

Preoperative and postoperative skin care with laser resurfacing. Hrabovsky SL. **Semin Ophthalmol** 1998 Sep; 13(3):115–22 (32 ref.)

Lasers for removing unwanted hair and rejuvenating skin. Wheeland RG. **West J Med** 1998 Oct;169(4):228–9

[CO2 laser skin resurfacing. Critical analysis of recent literature] Dubois R, et al. **Ann Chir Plast Esthet** 1998 Dec; 43(6):659–63 (22 ref.) (Eng. Abstr.) **(Fre)**

[Botulinum toxin and facial wrinkles: a new injection procedure] Le Louarn C. **Ann Chir Plast Esthet** 1998 Oct; 43(5):526–33 (Eng. Abstr.) **(Fre)**

["Crow's feet wrinkles" as a sign of preserved consciousness] Sigrist T. **Arch Kriminol** 1999 Mar–Apr;203(3–4):103–7 (Eng. Abstr.) **(Ger)**

[Skin aging--a problem of nutritional care?] Boschmann M, et al. **Forsch Komplementarmed** 1999 Feb;6(1):54–5 **(Ger)**

[Treatment of peri-ocular skin lesions with the erbium:YAG laser] Riedel F, et al. **Ophthalmologe** 1998 Nov;95(11):771–5 (Eng. Abstr.) **(Ger)**

[Persistent erythema after total CO2 skin resurfacing] Fuchs D, et al. **Schweiz Med Wochenschr** 1999 May 29; 129(21):813–7 (Eng. Abstr.) **(Ger)**

[Soft tissue augmentation for treatment of wrinkles and scars of the face] Streit M, et al. **Ther Umsch** 1999 Apr; 56(4):212–8 (11 ref.) (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Coenzyme Q10, a cutaneous antioxidant and energizer. Hoppe U, et al. **Biofactors** 1999;9(2–4):371–8 (33 ref.)

A clinicopathological study of the effects of topical retinyl propionate cream in skin photoageing. Green C, et al. **Clin Exp Dermatol** 1998 Jul;23(4):162–7

Dowling Oration delivered at the Royal College of Physicians, London, Friday 5 June 1998. Retinoids: renaissance and reformation. Griffiths CE. **Clin Exp Dermatol** 1999 Jul;24(4):329–35 (23 ref.)

Cosmetic use of botulinum A exotoxin for the aging neck. Brandt FS, et al. **Dermatol Surg** 1998 Nov;24(11):1232–4 (9 ref.)

Clinical indications and injection technique for the cosmetic use of botulinum A exotoxin. Carruthers A, et al. **Dermatol Surg** 1998 Nov;24(11):1189–94 (11 ref.)

The adjunctive usage of botulinum toxin. Carruthers J, et al. **Dermatol Surg** 1998 Nov;24(11):1244–7 (11 ref.)

Oculoplastic experience with the cosmetic use of botulinum A exotoxin. Edelstein C, et al. **Dermatol Surg** 1998 Nov; 24(11):1208–12 (12 ref.)

Botulinum toxin. The Newport Beach experience. Fulton JE.

Dermatol Surg 1998 Nov;24(11):1219–24 (8 ref.)
Botulinum A toxin for glabellar wrinkles. Dose and response. Hankins CL, et al. **Dermatol Surg** 1998 Nov;24(11):1181–3
Increased in vivo collagen synthesis and in vitro cell proliferative effect of glycolic acid. Kim SJ, et al. **Dermatol Surg** 1998 Oct;24(10):1054–8
Botulinum toxin type A for facial rejuvenation. United States and United Kingdom perspectives. Lowe NJ. **Dermatol Surg** 1998 Nov;24(11):1216–8 (15 ref.)
The effect of glycolic acid on photoaged albino hairless mouse skin. Moon SE, et al. **Dermatol Surg** 1999 Mar; 25(3):179–82
Repair of UVA–induced elastic fiber and collagen damage by 0.05% retinaldehyde cream in an ex vivo human skin model. Boisnic S, et al. **Dermatology** 1999;199 Suppl 1:43–8
Clinical use of topical retinaldehyde on photoaged skin. Creidi P, et al. **Dermatology** 1999;199 Suppl 1:49–52
Efficacy of topical 0.05% retinaldehyde in skin aging by ultrasound and rheological techniques. Diridollou S, et al. **Dermatology** 1999;199 Suppl 1:37–41
Tolerance profile of retinol, retinaldehyde and retinoic acid under maximized and long–term clinical conditions. Fluhr JW, et al. **Dermatology** 1999;199 Suppl 1:57–60
Drug treatment of photoaged skin. Griffiths CE. **Drugs Aging** 1999 Apr;14(4):289–301 (100 ref.)
Profilometric evaluation of photodamage after topical retinaldehyde and retinoic acid treatment. Creidi P, et al. **J Am Acad Dermatol** 1998 Dec;39(6):960–5
Imedeen in the treatment of photoaged skin: an efficacy and safety trial over 12 months. Kieffer ME, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):129–36
The effects of radicals compared with UVB as initiating species for the induction of chronic cutaneous photodamage. Ibbotson SH, et al. **J Invest Dermatol** 1999 Jun;112(6):933–8
Molecular mechanisms of photoaging and its prevention by retinoic acid: ultraviolet irradiation induces MAP kinase signal transduction cascades that induce Ap–1–regulated matrix metalloproteinases that degrade human skin in vivo. Fisher GJ, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):61–8 (48 ref.)
Molecular mechanisms of photoaging in human skin in vivo and their prevention by all–trans retinoic acid. Fisher GJ, et al. **Photochem Photobiol** 1999 Feb;69(2):154–7
An extract of Polypodium leucotomos appears to minimize certain photoaging changes in a hairless albino mouse animal model. A pilot study. Alcaraz MV, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun–Aug; 15(3–4):120–6
Topical agents used in association with cosmetic surgery. Draelos ZD. **Semin Cutan Med Surg** 1999 Jun;18(2):112–8 (33 ref.)
Cosmetic indications for botulinum A toxin. Foster JA, et al. **Semin Ophthalmol** 1998 Sep;13(3):142–8 (22 ref.)
Acute anxiety and depression induced by loss of sensation and muscle control after botulinum toxin A injection [letter] Brenner R, et al. **South Med J** 1999 Jul;92(7):738
The role of clostridium botulinum: a neurotoxin in clinical dermatology. Matarasso SL. **West J Med** 1998 Oct; 169(4):226
[Sunscreening creams] Leroy D. **Ann Dermatol Venereol** 1999 Apr;126(4):357–63 (60 ref.) **(Fre)**
[Decreased stimulation of glycosaminoglycan synthesis in cultured human skin fibroblasts within the scope of in vitro aging caused by interleukin 1] Biecker E, et al. **Z Gerontol Geriatr** 1999 Apr;32(2):124–30 (Eng. Abstr.) **(Ger)**

GENETICS

Solar ultraviolet radiation and skin damage: an epidemiological study among a Chinese population. Zhao P, et al. **Arch Environ Health** 1998 Nov–Dec;53(6):405–9
Singlet oxygen mediates the UVA–induced generation of the photoaging–associated mitochondrial common deletion. Berneburg M, et al. **J Biol Chem** 1999 May 28; 274(22):15345–9
Mitochondrial DNA deletions in human skin reflect photo– rather than chronologic aging [letter; comment] Berneburg M, et al. **J Invest Dermatol** 1998 Oct;111(4):709–10. Comment on: J Invest Dermatol 1998 Feb;110(2):149–52.
Oxidative damage elicited by imbalance of free radical scavenging enzymes is associated with large–scale mtDNA deletions in aging human skin. Lu CY, et al. **Mutat Res** 1999 Jan 25;423(1–2):11–21

PATHOLOGY

PUVA–treated psoriatic skin as a model for cutaneous wrinkling assessed by skin replicas. Brazzelli V, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:162–3
Image analysis of dermal collagen changes during skin aging. Moragas A, et al. **Anal Quant Cytol Histol** 1998 Dec; 20(6):493–9
Solar ultraviolet radiation and skin damage: an epidemiological study among a Chinese population. Zhao P, et al. **Arch Environ Health** 1998 Nov–Dec;53(6):405–9
Quantitative evaluation of chronological ageing and photoageing in vivo: studies on skin echogenicity and thickness. Gniadecka M, et al. **Br J Dermatol** 1998 Nov; 139(5):815–21
Morphological alterations of epidermal melanocytes in photoageing: an ultrastructural and cytomorphometric study. Toyoda M, et al. **Br J Dermatol** 1998 Sep; 139(3):444–52
In vivo high–frequency ultrasonic characterization of human dermis. Guittet C, et al. **IEEE Trans Biomed Eng** 1999 Jun; 46(6):740–6
EEMCO guidance for the assessment of skin topography. The European Expert Group on Efficacy Measurement of Cosmetics and other Topical Products. Lévêque JL. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):103–14 (54 ref.)
Tobacco smoking contributes little to facial wrinkling. O'Hare PM, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):133–9
Water and protein structure in photoaged and chronically aged skin. Gniadecka M, et al. **J Invest Dermatol** 1998 Dec; 111(6):1129–33
Endogenous skin fluorescence includes bands that may serve as quantitative markers of aging and photoaging. Kollias N, et al. **J Invest Dermatol** 1998 Nov;111(5):776–80
Fibrillin–rich microfibrils are reduced in photoaged skin. Distribution at the dermal–epidermal junction. Watson RE, et al. **J Invest Dermatol** 1999 May;112(5):782–7
The role of cellular senescence in skin aging. Campisi J. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):1–5 (51 ref.)
Apoptosis: a role in skin aging? Haake AR, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):28–35 (80 ref.)
Laser treatment of solar elastosis with epithelial preservation. Muccini JA Jr, et al. **Lasers Surg Med** 1998;23(3):121–7
Degenerative processes of elastic fibers in sun–protected and sun–exposed skin: immunoelectron microscopic observation of elastin, fibrillin–1, amyloid P component, lysozyme and alpha1–antitrypsin. Suwabe H, et al. **Pathol Int** 1999 May;49(5):391–402

PHYSIOLOGY

Aging and the epidermal permeability barrier: implications for contact dermatitis. Ghadially R. **Am J Contact Dermat** 1998 Sep;9(3):162–9 (77 ref.)
Skin antioxidants: their role in aging and in oxidative stress––new approaches for their evaluation. Kohen R. **Biomed Pharmacother** 1999 May;53(4):181–92 (76 ref.)
Cutaneous vascular proliferation following ultrapulse CO2 laser resurfacing. Rostan EF, et al. **Dermatol Surg** 1998 Dec;24(12):1406–8
Water and protein structure in photoaged and chronically aged skin. Gniadecka M, et al. **J Invest Dermatol** 1998 Dec; 111(6):1129–33
Molecular mechanisms of photoaging and its prevention by retinoic acid: ultraviolet irradiation induces MAP kinase signal transduction cascades that induce Ap–1–regulated matrix metalloproteinases that degrade human skin in vivo. Fisher GJ, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):61–8 (48 ref.)
[Modulation of oxidative stresses in human aging skin] Blatt T, et al. **Z Gerontol Geriatr** 1999 Apr;32(2):83–8 (Eng. Abstr.) **(Ger)**

RADIATION EFFECTS

Long–term effectiveness and side effects of carbon dioxide laser resurfacing for photoaged facial skin. Manuskiatti W, et al. **J Am Acad Dermatol** 1999 Mar;40(3):401–11
The UV–induced SOS response: importance to aging skin. Gilchrest BA. **J Dermatol** 1998 Dec;25(12):775–7 (7 ref.)
Correlation of skin phototype with facial wrinkle formation. Nagashima H, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb;15(1):2–6
[Photo–aging] Paredes BE, et al. **Ther Umsch** 1999 Apr; 56(4):188–93 (23 ref.) (Eng. Abstr.) **(Ger)**

SKIN APPENDAGE DISEASES

Microcystic adnexal carcinoma: collaborative series review and update. Friedman PM, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):225–31 (35 ref.)

COMPLICATIONS

[Diseases associated with adnexal tumors. I––Follicular tumors] Cribier B. **Ann Dermatol Venereol** 1999 Mar; 126(3):270–9 (104 ref.) **(Fre)**

SKIN, ARTIFICIAL

Questions about study of cultured skin equivalent for venous ulcers [letter; comment] Epstein E. **Arch Dermatol** 1998 Nov;134(11):1483–4. Comment on: Arch Dermatol 1998 Mar;134(3):293–300.
Behavior of tissue–engineered skin: a comparison of a living skin equivalent, autograft, and occlusive dressing in human donor sites [see comments] Muhart M, et al. **Arch Dermatol** 1999 Aug;135(8):913–8. Comment in: Arch Dermatol 1999 Aug;135(8):977–8.
Tissue–engineered skin: an alternative to split–thickness skin grafts? [editorial; comment] Phillips TJ. **Arch Dermatol** 1999 Aug;135(8):977–8. Comment on: Arch Dermatol 1999 Aug;135(8):913–8.
Differential response of basal keratinocytes in a human skin equivalent to ultraviolet irradiation. Hendrix SW, et al. **Arch Dermatol Res** 1998 Aug;290(8):420–4
The use of processed allograft dermal matrix for intraoral resurfacing: an alternative to split–thickness skin grafts. Rhee PH, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov;124(11):1201–4
Study on gelatin–containing artificial skin: I. Preparation and characteristics of novel gelatin–alginate sponge. Choi YS, et al. **Biomaterials** 1999 Mar;20(5):409–17
Development of fungal mycelia as skin substitutes: effects on wound healing and fibroblast. Su CH, et al. **Biomaterials** 1999 Jan;20(1):61–8
High–strength, ultra–thin and fiber–reinforced pHEMA artificial skin. Young CD, et al. **Biomaterials** 1998 Oct; 19(19):1745–52
The use of a new bilayer artificial dermis for vestibular extension. Bessho K, et al. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):457–9
Comparison of cultured and uncultured keratinocytes seeded into a collagen–GAG matrix for skin replacements. Butler CE, et al. **Br J Plast Surg** 1999 Mar;52(2):127–32
Surgical management of hands in children with recessive dystrophic epidermolysis bullosa: use of allogeneic composite cultured skin grafts. Eisenberg M, et al. **Br J Plast Surg** 1998 Dec;51(8):608–13
Management of partial thickness facial burns (comparison of topical antibiotics and bio–engineered skin substitutes). Demling RH, et al. **Burns** 1999 May;25(3):256–61
Use of a collagen/elastin–membrane for the tissue engineering of dermis. Hafemann B, et al. **Burns** 1999 Aug; 25(5):373–84
Skin substitutes in burns. Sheridan RL, et al. **Burns** 1999 Mar; 25(2):97–103 (81 ref.)
Practical sources for autologous fibroblasts to prepare a bioengineered dermal equivalent [letter] van Zuijlen PP, et al. **Burns** 1998 Nov;24(7):687
Organotypic skin cultures: a human model for basic studies. Jakić–Razumović J, et al. **Croat Med J** 1998 Dec; 39(4):401–3
Tissue engineering and the development of Apligraf, a human skin equivalent. Eaglstein WH, et al. **Cutis** 1998 Jul;62(1 Suppl):1–8 (57 ref.)
Acute excisional wounds treated with a tissue–engineered skin (Apligraf). Eaglstein WH, et al. **Dermatol Surg** 1999 Mar;25(3):195–201
Podophyllotoxin–induced acantholysis and cytolysis in a skin equivalent model. Hermanns–Lê T, et al. **Eur J Morphol** 1998 Jul;36(3):183–7
In vitro reconstruction of a human capillary–like network in a tissue–engineered skin equivalent. Black AF, et al. **FASEB J** 1998 Oct;12(13):1331–40
Tissue engineered skin: Apligraf, a bi–layered living skin equivalent. Trent JF, et al. **Int J Clin Pract** 1998 Sep; 52(6):408–13 (57 ref.)
Harmful effects of UVA on the structure and barrier function of engineered human cutaneous tissues. Robert M, et al. **Int J Radiat Biol** 1999 Mar;75(3):317–26
Allogeneic cultured dermal substitute composed of spongy collagen containing fibroblasts: evaluation in animal test. Tanaka M, et al. **J Biomater Sci Polym Ed** 1999; 10(4):433–53
Topical sulfamylon reduces engraftment of cultured skin substitutes on athymic mice. Boyce ST, et al. **J Burn Care Rehabil** 1999 Jan–Feb;20(1 Pt 1):33–6
Effects of all–trans retinoic acid on UVB–irradiated human skin substitute. Chouinard N, et al. **J Cell Physiol** 1999 Oct;181(1):14–23
Dermagraft in the treatment of diabetic foot ulcers. Bowering CK. **J Cutan Med Surg** 1998 Dec;3 Suppl 1:S1–29–32 (33 ref.)
Tissue engineering. Sefton MV, et al. **J Cutan Med Surg** 1998 Dec;3 Suppl 1:S1–18–23 (41 ref.)
Apligraf living skin equivalent for healing venous and chronic wounds. Sibbald RG. **J Cutan Med Surg** 1998 Dec; 3 Suppl 1:S1–24–8 (27 ref.)
Dermagraft treatment of diabetic ulcers. Eaglstein WH. **J Dermatol** 1998 Dec;25(12):803–4 (2 ref.)
Dohi Memorial Lecture. From occlusive to living membranes. Eaglstein WH. **J Dermatol** 1998 Dec; 25(12):766–74 (35 ref.)
Apligraf treatment of venous ulcers and other chronic wounds. Falanga V. **J Dermatol** 1998 Dec;25(12):812–7 (18 ref.)
The use of Apligraf in acute wounds. Kirsner RS. **J Dermatol** 1998 Dec;25(12):805–11 (39 ref.)
Artificial human skin: cytokine, prostaglandin, Hsp70 and histological responses to heat exposure. Bowers W, et al. **J Dermatol Sci** 1999 Jul;20(3):172–82
A novel treatment for venous leg ulcers. Alvarez OM, et al. **J Foot Ankle Surg** 1998 Jul–Aug;37(4):319–24
Living skin substitutes: survival and function of fibroblasts seeded in a dermal substitute in experimental wounds. Lamme EN, et al. **J Invest Dermatol** 1998 Dec; 111(6):989–95
Stratum corneum lipid composition and structure in cultured skin substitutes is restored to normal after grafting onto athymic mice. Vicanová J, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):114–20
Tissue–engineered human skin substitutes developed from collagen–populated hydrated gels: clinical and fundamental applications. Auger FA, et al. **Med Biol Eng Comput** 1998 Nov;36(6):801–12 (175 ref.)
Skin substitutes from cultured cells and collagen–GAG polymers. Boyce ST. **Med Biol Eng Comput** 1998 Nov; 36(6):791–800 (101 ref.)
Applications of reconstructed skin models in

SKIN, ARTIFICIAL

pharmaco-toxicological trials. Damour O, et al. **Med Biol Eng Comput** 1998 Nov;36(6):825-32 (71 ref.)

Pigmented human skin equivalent--as a model of the mechanisms of control of cell-cell and cell-matrix interactions. Nakazawa K, et al. **Med Biol Eng Comput** 1998 Nov;36(6):813-20 (88 ref.)

Reconstructed human epidermis composed of keratinocytes, melanocytes and Langerhans cells. Regnier M, et al. **Med Biol Eng Comput** 1998 Nov;36(6):821-4

Cutaneous wound healing. Singer AJ, et al. **N Engl J Med** 1999 Sep 2;341(10):738-46 (86 ref.)

Clinical evaluation of an allogeneic cultured dermal substitute composed of fibroblasts within a spongy collagen matrix. Yamada N, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):147-54

The Advanced Tissue Sciences story. Naughton G. **Sci Am** 1999 Apr;280(4):84-5

Skin: the first tissue-engineered products. Parenteau N. **Sci Am** 1999 Apr;280(4):83-4

Dermal regeneration in full-thickness wounds in Yucatan miniature pigs using a biodegradable copolymer. Van Dorp AG, et al. **Wound Repair Regen** 1998 Nov-Dec;6(6):556-68

[Artificial biological skin for preventing adhesion of repaired tendon in white rats] He A, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):287-90 (Eng. Abstr.) **(Chi)**

[The role of skin substitutes in the treatment of diabetic ulcer] Martini J. **Ann Dermatol Venereol** 1998 Nov;125 Suppl 2:S32-3 **(Fre)**

[Rapid healing of venous ulcers and lack of clinical rejection with an allogeneic cultured human skin equivalent] Ramelet AA, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):380-4 **(Fre)**

ADVERSE EFFECTS

Safety evaluation of human living skin equivalents. Nemecek GM, et al. **Toxicol Pathol** 1999 Jan-Feb;27(1):101-3 (22 ref.)

ECONOMICS

Cost effectiveness of skin substitutes. A commentary on the debate at the 10th ISBI Congress, Jerusalem 1998. International Society for Burn Injuries. Shakespeare PG. **Burns** 1999 Mar;25(2):179-81

MICROBIOLOGY

Light and electron microscopic findings in a model of human cutaneous candidosis based on reconstructed human epidermis following the topical application of different econazole formulations. Schaller M, et al. **J Drug Target** 1999;6(5):361-72

SKIN CARE

Factors defining sensitive skin and its treatment. Muizzuddin N, et al. **Am J Contact Dermat** 1998 Sep;9(3):170-5

Dermatosis neglecta: dirt crusts simulating verrucous nevi [letter] Ruiz-Maldonado R, et al. **Arch Dermatol** 1999 Jun; 135(6):728-9

Adapalene 0.1% gel has low skin irritation potential even when applied immediately after washing. Dunlap FE, et al. **Br J Dermatol** 1998 Oct;139 Suppl 52:23-5

Topical steroid treatment of phimosis in boys. Chu CC, et al. **J Urol** 1999 Sep;162(3 Pt 1):861-3

METHODS

Split-thickness skin graft donor site care: a quantitative synthesis of the research. Rakel BA, et al. **Appl Nurs Res** 1998 Nov;11(4):174-82 (29 ref.)

Clinical correlation of a skin antisepsis model. McDonnell G, et al. **J Microbiol Methods** 1999 Feb;35(1):31-5

Neonatal skin: the ideal nursing interface. Lott JW, et al. **J Pediatr Nurs** 1998 Oct;13(5):302-6 (11 ref.)

Care of the patient with perineal skin injury. Merrill MD, et al. **Oncol Nurs Forum** 1998 Sep;25(8):1311

Treatment of leg edema and wounds in a patient with severe musculoskeletal injuries [see comments] Weiss JM. **Phys Ther** 1998 Oct;78(10):1104-13. Comment in: Phys Ther 1998 Dec;78(12):1338-9.

Topical agents used in association with cosmetic surgery. Draelos ZD. **Semin Cutan Med Surg** 1999 Jun;18(2):112-8 (33 ref.)

Diabetic foot ulcers: A framework for prevention and care. Boulton AJ, et al. **Wound Repair Regen** 1999 Jan-Feb; 7(1):7-16 (78 ref.)

[Fruit acid facial scrubs. Dermatological and esthetic correction with alpha-hydroxy acids (AHA)] Fratila A, et al. **Hautarzt** 1999 Jun;50(6):448-60 (41 ref.) **(Ger)**

NURSING

Neonatal skin care: the scientific basis for practice. Lund C, et al. **J Obstet Gynecol Neonatal Nurs** 1999 May-Jun; 28(3):241-54 (100 ref.)

Care of the patient with perineal skin injury. Merrill MD, et al. **Oncol Nurs Forum** 1998 Sep;25(8):1311

SKIN DISEASES

see related

DERMATOLOGIC AGENTS

The multifaceted face of Acta Dermato-Venereologica [editorial; comment] Vahlquist A. **Acta Derm Venereol** 1999 Mar;79(2):97. Comment on: Acta Derm Venereol 1999 Mar;79(2):122-6. Comment on: Acta Derm Venereol 1999 Mar;79(2):127-31. Comment on: Acta Derm Venereol 1999 Mar;79(2):139-42. Comment on: Acta Derm Venereol 1999 Mar;79(2):156-60.

Mechanical measurements of skin. Vogel HG. **Acta Derm Venereol Suppl (Stockh)** 1994;185:39-43 (81 ref.)

Vulvar disorders in adolescents. Fivozinsky KB, et al. **Adolesc Med** 1999 Jun;10(2):305-19, vii (65 ref.)

19th Colloquium of the International Society of Dermatopathology (ISD). Madrid, Spain, November 5-7, 1998. Abstracts. **Am J Dermatopathol** 1998 Dec; 20(6):586-621

"Ackermania": Fifth Dermatopathology Colloquium in Giessen, March 13-15, 1998. Weyers W, et al. **Am J Dermatopathol** 1999 Apr;21(2):200-3

8th International Congress of Pediatric Dermatology, Paris, 17-20 May 1998. Abstracts. **Ann Dermatol Venereol** 1998 May;125 Suppl 1:S13-226

Managed care and the treatment of skin disease, 1995. Continued growth and emerging dominance [see comments] Stern RS. **Arch Dermatol** 1998 Sep; 134(9):1089-91. Comment in: Arch Dermatol 1998 Sep;134(9):1151-2.

XXVI Annual meeting of the Arbeitsgemeinschaft Dermatologische Forschung. Bonn, Germany, 18-20 February 1999. Abstracts. **Arch Dermatol Res** 1999 Feb-Mar;291(2-3):107-86

A skin clinic at Long Bay Jail [letter] Freeman S. **Australas J Dermatol** 1999 Aug;40(3):167-8

Cardiofaciocutaneous (CFC) syndrome. Schepis C, et al. **Australas J Dermatol** 1999 May;40(2):111-3

British Association of Dermatologist annual meeting. Brighton, United Kingdom, 7-11 July 1998. Abstracts. **Br J Dermatol** 1998 Jul;139 Suppl 51:15-97

Proceedings of the 80th annual meeting of the Swiss Society for Dermatology and Venereology. Lausanne, September 17-19, 1998. **Dermatology** 1999;198(4):409-41

Idiopathic calcinosis cutis of the penis [letter] Cecchi R, et al. **Dermatology** 1999;198(2):174-5

A lifetime of healthy skin: implications for women. Bergfeld WF. **Int J Fertil Womens Med** 1999 Mar-Apr;44(2):83-95 (49 ref.)

73rd Annual meeting of the Canadian Dermatology Association. Toronto, Ontario, Canada. June 30-July 4, 1998. Abstracts. **J Cutan Med Surg** 1998 Jul;3 Mtg.guide:11-23

Large datasets: common uses and caveats. Safavi K. **J Cutan Med Surg** 1998 Oct;3(2):90-5

7th Congress of the European Academy of Dermatology and Venereology. Nice, France, October 7-11, 1998. Abstracts. **J Eur Acad Dermatol Venereol** 1998 Sep;11 Suppl 2:S1-356

Abstracts for the "Congrès Annuel de Recherche Dermatologique 98." Palais des Congrès, Paris, France, December 1-2, 1998. **J Invest Dermatol** 1999 Jan; 112(1):120-36

WebWatch--women's health. Hair, skin, and nails. Wootton JC. **J Womens Health** 1999 Jan-Feb;8(1):125-7

A piece of my mind. Call of the loon. Shwayder TA. **JAMA** 1998 Oct 14;280(14):1221-2

The effect of a teledermatology program on rural referral patterns to dermatologists and the management of skin disease. Perednia DA, et al. **Medinfo** 1998;9 Pt 1:290-3

Dermatoses of pregnancy. Cohen LM. **West J Med** 1998 Oct; 169(4):223-4

[Dermatology meeting. Paris, France, 2-5 December 1998. Abstracts] **Ann Dermatol Venereol** 1998 Dec;125 Suppl 3:S1-256 **(Fre)**

[22nd International Congress of the Association of French-speaking Dermatologists. Beyrouth, Lebanon, 1-4 July 1999. Abstracts] **Ann Dermatol Venereol** 1999 Jul;126 Suppl 1:1S13-109 **(Fre)**

[50 non resolved questions in dermatology] **Ann Dermatol Venereol** 1997;124(11):763-832 **(Fre)**

[Dermatology meeting, Paris, France, 3-6 December 1997. Abstracts] **Ann Dermatol Venereol** 1997;124 Suppl 1:S1-285 **(Fre)**

[Jessner-Kanof disease] Abensour M. **Ann Dermatol Venereol** 1998 Oct;125(10):739-42 **(Fre)**

[Symmetrical benign lipomatosis of the tongue and Launois-Bensaude lipomatosis] Ghislain PD, et al. **Ann Dermatol Venereol** 1999 Feb;126(2):147-9 (Eng. Abstr.) **(Fre)**

[Cutaneous periarteritis nodosa: diagnostic and therapeutic aspects of 9 cases] Maillard H, et al. **Ann Dermatol Venereol** 1999 Feb;126(2):125-9 (Eng. Abstr.) **(Fre)**

[Quality of life evaluation tools in dermatology] Wolkenstein P, et al. **Ann Dermatol Venereol** 1999 Feb;126(2):176-80 **(Fre)**

[Cutaneous amyloidosis] Dekio S. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):511-4 (17 ref.) **(Jpn)**

[Cutaneous pseudolymphoma] Kura Y, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(22 Pt 3):338-40 (5 ref.) **(Jpn)**

BLOOD

Development of dapsone toxicity in patients with inflammatory dermatoses: activity of acetylation and hydroxylation of dapsone as risk factors. Bluhm RE, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):598-605

Physiopathogenic investigations in a case of familial stiff-skin syndrome. Richard MA, et al. **Dermatology** 1998; 197(2):127-31

CHEMICALLY INDUCED

Delayed-type hypersensitivity to subcutaneous enoxaparin. Mendez J, et al. **Allergy** 1998 Oct;53(10):999-1003

Skin reactions to carbamazepine. Pasmans SG, et al. **Allergy** 1999 Jun;54(6):649-50

Lack of compliance and late-onset warfarin-induced skin necrosis [letter] Koduri PR, et al. **Am J Hematol** 1999 Jul; 61(3):218-9

Multicentric warfarin-induced skin necrosis complicating heparin-induced thrombocytopenia. Warkentin TE, et al. **Am J Hematol** 1999 Sep;62(1):44-8 (36 ref.)

Use of NK(1) knockout mice to analyze substance P-induced edema formation. Cao T, et al. **Am J Physiol** 1999 Aug; 277(2 Pt 2):R476-81

Risk factors for acetaminophen and nimesulide intolerance in patients with NSAID-induced skin disorders. Asero R. **Ann Allergy Asthma Immunol** 1999 Jun;82(6):554-8

Low-molecular-weight heparin-induced skin necrosis. Füreder W, et al. **Ann Hematol** 1998 Sep;77(3):127-30 (28 ref.)

All-trans retinoic acid compromises desmosome expression in human epidermis. Humphries JD, et al. **Br J Dermatol** 1998 Oct;139(4):577-84

A burn-like lesion caused by a testosterone transdermal system. Bennett NJ. **Burns** 1998 Aug;24(5):478-80

The prevention and treatment of cutaneous injury secondary to chemical warfare agents. Application of these finding to other dermatologic conditions and wound healing. Smith KJ. **Dermatol Clin** 1999 Jan;17(1):41-60, viii (52 ref.)

Ecstasy pimples - a new facial dermatosis. Wollina U, et al. **Dermatology** 1998;197(2):171-3

'Factors associated with serious skin reactions in children aged 12 years and under taking lamotrigine' [letter] Besag F, et al. **Dev Med Child Neurol** 1999 Jan;41(1):68-9

Skin bruising, adrenal function and markers of bone metabolism in asthmatics using inhaled beclomethasone and fluticasone. Malo JL, et al. **Eur Respir J** 1999 May; 13(5):993-8

The development of Lewisite vapour induced lesions in the domestic, white pig. Rice P, et al. **Int J Exp Pathol** 1999 Feb;80(1):59-67

Blister formation and skin damage induced by BaP1, a haemorrhagic metalloproteinase from the venom of the snake Bothrops asper. Rucavado A, et al. **Int J Exp Pathol** 1998 Aug;79(4):245-54

A case of cutaneous endometriosis developed in postmenopausal woman receiving hormonal replacement. Choi SW, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):327-9

Striae formation in two HIV-positive persons receiving protease inhibitors. Darvay A, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):467-9 (13 ref.)

Mucocutaneous reactions to chemotherapy. Susser WS, et al. **J Am Acad Dermatol** 1999 Mar;40(3):367-98; quiz 399-400 (390 ref.)

Carcinogenicity of dermally administered 1,2-dihydro-2,2,4-trimethylquinoline monomer in F344 rats and B6C3F1 mice. Irwin RD, et al. **J Appl Toxicol** 1999 Mar-Apr;19(2):125-32

Evaluation of neutralized chemical agent identification sets (CAIS) for skin injury with an overview of the vesicant potential of agent degradation products. Olajos EJ, et al. **J Appl Toxicol** 1998 Nov-Dec;18(6):409-20

Increased soft tissue in the posterior cervical and upper back area of patients on HIV-1 protease inhibitors. Smith K, et al. **J Cutan Med Surg** 1999 Apr;3(4):211-7

Histopathology of cutaneous reaction to granulocyte colony-stimulating factor: another pseudomalignancy. Fariña MC, et al. **J Cutan Pathol** 1998 Nov;25(10):559-62

Verruca vulgaris developing during cyclosporin therapy for psoriasis vulgaris. Irimajiri J, et al. **J Dermatol** 1998 Oct; 25(10):688-90

Pseudolymphoma syndrome due to carbamazepine. Saeki H, et al. **J Dermatol** 1999 May;26(5):329-31

Skin toxicity after administration of low-dose cytarabine. Kantar M, et al. **Med Pediatr Oncol** 1999 Oct;33(4):420-1

Relations between exposure to arsenic, skin lesions, and glucosuria. Rahman M, et al. **Occup Environ Med** 1999 Apr;56(4):277-81

Rat offspring treateu prenatally with capsaicin do not show some of the irreversible effects induced by neonatal treatment with neurotoxin. Perfumi M, et al. **Pharmacol Toxicol** 1999 Feb;84(2):66-71

Skin eruption with gabapentin in a patient with repeated AED-induced Stevens-Johnson's syndrome. DeToledo JC, et al. **Ther Drug Monit** 1999 Feb;21(1):137-8

Ontogenetic development of Loxosceles intermedia spider venom. Gonçalves de Andrade RM, et al. **Toxicon** 1999 Apr;37(4):627-32

Oligosaccharide residues of Loxosceles intermedia (brown spider) venom proteins: dependence on glycosylation for dermonecrotic activity. Veiga SS, et al. **Toxicon** 1999 Apr;

37(4):587–607
[Cutaneous complications of inhaled corticoids] Guillot B, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):927–30 (30 ref.) **(Fre)**
[Flutamide-induced late cutaneous pseudoporphyria] Mantoux F, et al. **Ann Dermatol Venereol** 1999 Feb; 126(2):150–2 (Eng. Abstr.) **(Fre)**
[Exasperating hematomas] Carli P, et al. **Rev Med Interne** 1999;20 Suppl 2:267s–268s **(Fre)**
[Images of the month. What is your diagnosis? An acutely painful and recurrent macule] Henry F. **Rev Med Liege** 1999 Jul;54(7):632–3 **(Fre)**
[Calcified subcutaneous nodules in patients with chronic renal failure as a result of injections with nadroparin (Fraxiparine)] Wanic-Kossowska M, et al. **Pol Arch Med Wewn** 1998 May;99(5):414–6 (Eng. Abstr.) **(Pol)**

CLASSIFICATION

Segmental forms of autosomal dominant skin disorders: the puzzle of mosaicism. Itin PH, et al. **Am J Med Genet** 1999 Aug 6;85(4):351–4 (30 ref.)
The spectrum of mucocutaneous manifestations during the evolutionary phases of HIV disease: an emerging Indian scenario. Singh A, et al. **J Dermatol** 1999 May; 26(5):294–304

COMPLICATIONS

Cutaneous granulomas in a patient with common variable immunodeficiency [letter] Alvarez-Cuesta C, et al. **Acta Derm Venereol** 1999 Jul;79(4):334
Occult spinal dysraphism in neonates: assessment of high-risk cutaneous stigmata on sonography. Kriss VM, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1687–92
Cutaneous pseudolymphoma in association with molluscum contagiosum. de Diego J, et al. **Am J Dermatopathol** 1998 Oct;20(5):518–21
Squamous cell carcinoma arising in a cutaneous epidermal cyst: case report and literature review. López-Ríos F, et al. **Am J Dermatopathol** 1999 Apr;21(2):174–7 (25 ref.)
Clear cell acanthoma presenting as polypoid papule combined with melanocytic nevus. Yang SG, et al. **Am J Dermatopathol** 1999 Feb;21(1):63–5
The changing spectrum of the cutaneous manifestations of HIV disease [editorial; comment] [see comments] Costner M, et al. **Arch Dermatol** 1998 Oct;134(10):1290–2. Comment on: Arch Dermatol 1998 Oct;134(10):1208–12. Comment in: Arch Dermatol 1999 Apr;135(4):471.
Prevalence of cutaneous disorders in a population of HIV-infected patients. Southwestern France, 1996. Groupe d'Epidémiologie Clinique du SIDA en Aquitaine [see comments] Spira R, et al. **Arch Dermatol** 1998 Oct; 134(10):1208–12. Comment in: Arch Dermatol 1998 Oct;134(10):1290–2.
Psychiatric morbidity and skin disease: what dermatologists think they see. Humphreys F, et al. **Br J Dermatol** 1998 Oct;139(4):679–81
Pre- and postnatal growth retardation, scaling skin, moderate mental retardation and quadrispasticity, hypospadias grade 2 and hydro-uretero nephrosis, postaxial polydactyly. A distinct MCA/MR syndrome? Fryns JP, et al. **Clin Dysmorphol** 1998 Oct;7(4):275–7
Osteoma cutis in pseudohypoparathyroidism. Goeteyn V, et al. **Dermatology** 1999;198(2):209–11
Guess what! Cutaneous sarcoidosis, Sjögren's syndrome and autoimmune thyroiditis associated with hepatitis C virus infection. Belgodere X, et al. **Eur J Dermatol** 1999 Apr-May;9(3):235–6
Pachyonychia congenita with steatocystoma multiplex. A report of two cases and a discussion of the classification. Giustini S, et al. **Eur J Dermatol** 1998 Apr-May;8(3):158–60
Association of Crohn's ileitis with pulmonary and cutaneous sarcoidosis in a Japanese patient. Takashima M, et al. **Gastrointest Endosc** 1998 Dec;48(6):637–9
Skin lesions in children with tuberous sclerosis complex: their prevalence, natural course, and diagnostic significance. Jóźwiak S, et al. **Int J Dermatol** 1998 Dec;37(12):911–7
Poorly differentiated squamous cell carcinoma arising within an epidermoid cyst [letter] Malone JC, et al. **Int J Dermatol** 1999 Jul;38(7):556–8
Calcinosis cutis and intestinal pseudoobstruction in a patient with adult onset Still's disease associated with recurrent relapses of disordered coagulopathy. Shinohara T, et al. **Intern Med** 1999 Jun;38(6):516–20
Nongenital dermatologic disease in HIV-infected women. Barton JC, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):938–48
Juvenile chronic myelogenous leukemia, neurofibromatosis 1, and xanthoma. Jang KA, et al. **J Dermatol** 1999 Jan; 26(1):33–5
Neurology and the skin. Hurko O, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):417–30 (115 ref.)
Optic disc edema in neonatal onset multisystem inflammatory disease (NOMID). Lee AG, et al. **J Neuroophthalmol** 1999 Sep;19(3):180–1
Fibroblastic rheumatism: clinical and histologic evolution of cutaneous manifestations. Fam AG, et al. **J Rheumatol** 1998 Nov;25(11):2261–6
Mucocutaneous disease in Arabs with systemic lupus erythematosus: clinical expression and relevance to autoantibodies. Al-Attia HM, et al. **Lupus** 1998;7(8):535–9
Disseminated cutaneous plasmacellular granuloma associated with membranous glomerulonephritis. Querfeld U, et al. **Nephrol Dial Transplant** 1999 May;14(5):1268–71
Dermatoses in 156 obese adults. García-Hidalgo L, et al. **Obes Res** 1999 May;7(3):299–302
Gianotti-Crosti syndrome related to rotavirus infection [letter] Di Lernia V. **Pediatr Dermatol** 1998 Nov-Dec; 15(6):485–6
Mucocutaneous manifestations in children with HIV infection and AIDS. El Hachem M, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):429–34
Neutrophilic dermatosis-associated sterile chronic multifocal osteomyelitis in pediatric patients: case report and review. Nurre LD, et al. **Pediatr Dermatol** 1999 May-Jun; 16(3):214–6 (9 ref.)
Dermatologic findings in anorexia and bulimia nervosa of childhood and adolescence. Schulze UM, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):90–4
Cutaneous necrotizing vasculitis, erythema nodosum and ankylosing spondylitis [letter] Gillott TJ, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):377–8
Update on juvenile xanthogranuloma: unusual cutaneous and systemic variants. Chang MW. **Semin Cutan Med Surg** 1999 Sep;18(3):195–205 (104 ref.)
Dermatoses of pregnancy. Shornick JK. **Semin Cutan Med Surg** 1998 Sep;17(3):172–81 (55 ref.)
Association of lymphocytic colitis with linear IgA dermatosis. Stüber E, et al. **Z Gastroenterol** 1999 Jun; 37(6):519–23
[Diseases associated with adnexal tumors. I--Follicular tumors] Cribier B. **Ann Dermatol Venereol** 1999 Mar; 126(3):270–9 (104 ref.) **(Fre)**
[Granulomatous skin lesions in Griscelli disease] Eyer D, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):727–8 **(Fre)**
[Comment on the work of E. Kösler: "Transitory acantholytic dermatosis (Grover's disease) with Sarcoptes scabiei infection". Hautarzt (1997) 48:915–7 (letter; comment)] Jordaan HF, et al. **Hautarzt** 1999 Apr;50(4):305–6. Comment on: Hautarzt 1997 Dec;48(2):915–7. **(Ger)**
[Miliary tuberculosis associated with subcutaneous tuberculous abscess] Kondo H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Oct;36(10):908–12 (Eng. Abstr.) **(Jpn)**

CONGENITAL

Encephalocraniocutaneous lipomatosis: complete neuroradiologic evaluation and follow-up of two cases. Parazzini C, et al. **AJNR Am J Neuroradiol** 1999 Jan; 20(1):173–6
Congenital skin loss following Nd:YAG placental photocoagulation [letter] De Lia JE, et al. **Burns** 1999 Jun; 25(4):366–7
The diagnosis and treatment of common birthmarks. Brown TJ, et al. **Clin Plast Surg** 1998 Oct;25(4):509–25 (65 ref.)
What syndrome is this? Restrictive dermopathy. Graham J, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):151–3
[Cutis marmorata telangiectatica congenita: a reminder of the review (letter; comment)] Roche Herrero MC. **An Esp Pediatr** 1999 Jan;50(1):102. Comment on: An Esp Pediatr 1985 Jun;22(8):575–80. Comment on: An Esp Pediatr 1998 May;48(5):531–3. **(Spa)**

DIAGNOSIS

Gender differences in respiratory, nasal and skin symptoms: 6-7 versus 13-14-year-old children. Wieringa MH, et al. **Acta Paediatr** 1999 Feb;88(2):147–9
Compare your diagnosis. Xanthogranuloma, seborrheic keratosis associated with mycosis fungoides, Kikuchi's disease. Ackerman AB, et al. **Am J Dermatopathol** 1999 Feb;21(1):79–81, 94–5
Experts and gold standards in dermatopathology: qualitative and quantitative analysis of the self-assessment slide seminar at the 17th colloquium of the International Society of Dermatopathology. Kempf W, et al. **Am J Dermatopathol** 1998 Oct;20(5):478–82
Rosai-Dorfman disease with primary cutaneous manifestations--a case report. Huang HY, et al. **Ann Acad Med Singapore** 1998 Jul;27(4):589–93 (16 ref.)
Skin biopsies, cutaneous disease, and primary care [letter] Federman DG, et al. **Ann Intern Med** 1999 Apr 6;130(7):617
Cutaneous manifestations of biological warfare and related threat agents. McGovern TW, et al. **Arch Dermatol** 1999 Mar;135(3):311–22 (116 ref.)
Dermatosis neglecta: dirt crusts simulating verrucous nevi [letter] Ruiz-Maldonado R, et al. **Arch Dermatol** 1999 Jun; 135(6):728–9
The Cochrane Skin Group. Preparing, maintaining, and disseminating systematic reviews of clinical interventions in dermatology. Williams H, et al. **Arch Dermatol** 1998 Dec; 134(12):1620–6 (43 ref.)
Comparison of dermatologic diagnoses by primary care practitioners and dermatologists. A review of the literature. Federman DG, et al. **Arch Fam Med** 1999 Mar-Apr; 8(2):170–2 (14 ref.)
Dermatology opinions via intranet could reduce waiting times [letter] D'Souza M, et al. **BMJ** 1999 Mar 13; 318(7185):737
Dermacase. Eccrine hydrocystoma. Adams SP. **Can Fam Physician** 1999 Feb;45:297, 306
Skin complications in the intensive care unit. Peerless JR, et al. **Clin Chest Med** 1999 Jun;20(2):453–67, x (95 ref.)
Cutaneous manifestations of cancer. Sabir S, et al. **Curr Opin Oncol** 1999 Mar;11(2):139–44 (72 ref.)
Why a Dermatologic Consultation?[Editorial] Perry HO. **Cutis** 1999 Jun;63(6):316
Body odor in dermatologic diagnosis. Senol M, et al. **Cutis** 1999 Feb;63(2):107–11
Wegener's granulomatosis involving the skin. Walsh JS, et al. **Cutis** 1999 Sep;64(3):183–6
Update on the cutaneous manifestations of HIV infection. Clinical and pathologic features. Aftergut K, et al. **Dermatol Clin** 1999 Jul;17(3):445–71, vii (188 ref.)
Calcinosis cutis: diagnosis by aspiration cytology--a case report. Deshpande A, et al. **Diagn Cytopathol** 1999 Sep; 21(3):200–2
Guess what? Lichen amyloidosus. Thewes M, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):63–4
Yellow lesions with a central depression. Location of the eruption provides clue to diagnosis. Levine N. **Geriatrics** 1999 Mar;54(3):27
Striking, asymptomatic skin lesions in a 42-year-old man. Vaisman D, et al. **Hosp Pract (Off Ed)** 1998 Dec 15; 33(12):101–2, 107
The "gauntlet" of pellagra. Isaac S. **Int J Dermatol** 1998 Aug; 37(8):599
Mucocutaneous manifestations of HIV infection: a retrospective analysis of 145 cases in a Chinese population in Malaysia. Jing W, et al. **Int J Dermatol** 1999 Jun; 38(6):457–63
Clinical dermatologic education and the diagnostic acumen of medical students and primary care residents. Whitaker-Worth DL, et al. **Int J Dermatol** 1998 Nov; 37(11):855–9
Cutaneous manifestations in intensive care patients [editorial; comment] Peter RU. **Intensive Care Med** 1998 Oct; 24(10):997–8. Comment on: Intensive Care Med 1998 Oct;24(10):1106–9.
Treatment of common skin complaints--changing referral patterns [editorial] Lyons F. **Ir Med J** 1997 Nov;90(7):260
Monoclonal gammopathies and associated skin disorders. Daoud MS, et al. **J Am Acad Dermatol** 1999 Apr; 40(4):507–35; quiz 536–8 (214 ref.)
Time-efficiency of nondermatologists compared with dermatologists in the care of skin disease. Feldman SR, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):194–9
Skin manifestations of a patient with mitochondrial encephalomyopathy with lactic acidosis and strokelike episodes (MELAS syndrome). Kubota Y, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):469–73 (8 ref.)
Clinical pearl: accentuated transverse hallucal skin crease--a cutaneous skin marker for hallux rigidus (osteoarthritis of the big toe joint). Lemont H, et al. **J Am Acad Dermatol** 1999 Apr;40(4):631–2
Unilateral hyperkeratosis lenticularis perstans (Flegel's disease). Miranda-Romero A, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):655–7
Hemorrhoids: what the dermatologist should know. Orkin BA, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):449–56 (14 ref.)
Syphilis in an HIV infected patient misdiagnosed as leprosy. Fonseca E, et al. **J Cutan Pathol** 1999 Jan;26(1):51–4
Annular vasculitis in association with sarcoidosis. Cecchi R, et al. **J Dermatol** 1999 May;26(5):334–6
Milia en plaque [letter] Calabrese P, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):195–6
Skin disease disability: measuring its magnitude. Finlay AY. **Keio J Med** 1998 Sep;47(3):131–4 (35 ref.)
A 4-year-old with a rash. Falcini F, et al. **Lancet** 1999 Jul 3;354(9172):40
Blau's syndrome and sarcoidosis [letter] James G. **Lancet** 1999 Sep 18;354(9183):1035
Diabetes but not psoriasis. Uwaifo GI, et al. **Lancet** 1999 Aug 7;354(9177):480
Pediatric dermatology. Hanson SG, et al. **Med Clin North Am** 1998 Nov;82(6):1381–403, vii
Telemedicine beyond the technology. Zanol KE, et al. **Mo Med** 1999 Mar;96(3):88–91
Familial multiple basaloid follicular hamartomas: A report of two affected sisters. Girardi M, et al. **Pediatr Dermatol** 1999 Jul-Aug;16(4):281–4
What syndrome is this? Restrictive dermopathy. Graham J, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):151–3
Dermatologic findings in anorexia and bulimia nervosa of childhood and adolescence. Schulze UM, et al. **Pediatr Dermatol** 1999 Mar-Apr;16(2):90–4
Subcutaneous granuloma annulare: MR imaging features in six children and literature review. Chung S, et al. **Radiology** 1999 Mar;210(3):845–9 (15 ref.)
Diagnostic immunohistology: cutaneous lymphomas and pseudolymphomas. Cerroni L, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):64–70 (37 ref.)
Update on juvenile xanthogranuloma: unusual cutaneous and systemic variants. Chang MW. **Semin Cutan Med Surg** 1999 Sep;18(3):195–205 (104 ref.)
Diagnosis: atypical fibroxanthoma or not? Evaluating spindle cell malignancies on sun damaged skin: a practical approach. Heintz PW, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):78–83
Juvenile xanthogranuloma versus Langerhans cell histiocytosis (histiocytosis X). Lazova R, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):71–7
When to request immunofluorescence: practical hints.

Morrison LH. **Semin Cutan Med Surg** 1999 Mar;18(1):36–42 (22 ref.)

Accuracy of epiluminescence microscopy among practical dermatologists: a study from the Emilia–Romagna region of Italy. Stanganelli I, et al. **Tumori** 1998 Nov–Dec; 84(6):701–5

[Chillblains in a pair of riders] Asselman CA. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2710–1 **(Dut)**

[Cutis verticis gyrata] Diederen PV, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1337–8 **(Dut)**

[The syndrome of Comel–Netherton (trichorrhexis invaginata, ichthyosis linearis circumflexa and atopic eczema)] Sommer A. **Ned Tijdschr Geneeskd** 1998 Dec 5; 142(49):2709–10 **(Dut)**

[Phakomatosis pigmentovascularis (type IIIa)] Stadhouders–Keet SA, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1337 **(Dut)**

[Idiopathic scrotal calcinosis] van der Snoek EM, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1581–2 **(Dut)**

[The CINCA syndrome: a disease of french description, to international terminology (editorial)] Aubin F, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):307–8 **(Fre)**

[Anemic hamartoma] Heid E. **Ann Dermatol Venereol** 1999 Jun–Jul;126(6–7):529–30 **(Fre)**

[A dermatologic check-up at 40 (editorial)] Le Maitre M. **Ann Dermatol Venereol** 1999 Feb;126(2):111–3 **(Fre)**

[What is a hamartoma? (letter; comment)] Revuz J. **Ann Dermatol Venereol** 1998 May;125(5):343. Comment on: Ann Dermatol Venereol 1998 Mar;125(3):165–6. **(Fre)**

[Skin manifestations of protein glycosylation deficiency, the CDG (carbohydrate deficient glycoprotein) type 1 syndrome] Vabres P, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):715–6 (Eng. Abstr.) **(Fre)**

[Chronic, infantile, neurologic, cutaneous and articular syndrome (CINCA) in an infant] Milewska–Bobula B, et al. **Arch Pediatr** 1998 Oct;5(10):1094–7 (Eng. Abstr.) **(Fre)**

[Dermatologic problems] Calza AM. **Rev Med Suisse Romande** 1999 Feb;119(2):117–20 **(Fre)**

[Skin manifestations of sarcoidosis: diagnostic problems] Benchikhi H, et al. **Tunis Med** 1998 Feb;76(2):1071–5 (Eng. Abstr.) **(Fre)**

[Ultrasound of the lymph nodes and the subcutis in dermatology. Part 1] Blum A, et al. **Hautarzt** 1998 Dec; 49(12):942–9 (34 ref.) **(Ger)**

[Chronic dermatosis and hypercalcemia] Truniger B. **Schweiz Med Wochenschr** 1998 Oct 3;128(40):1519 **(Ger)**

[The diabetic foot—examination of the skin] Lautenschlager S. **Schweiz Rundsch Med Prax** 1999 Jul 8;88(27–28):1181–5 (24 ref.) (Eng. Abstr.) **(Ger)**

[A case of idiopathic multiple calcinosis cutis] Iannello S, et al. **Minerva Med** 1998 Oct;89(10):379–84 (28 ref.) (Eng. Abstr.) **(Ita)**

[Evaluation of dermatological symptoms of Yusho patients in the annual examination in 1997–1998] Nakayama J, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):143–6 (Eng. Abstr.) **(Jpn)**

[The use of noninvasive study objects in the clinic] Andrashko IuV, et al. **Lik Sprava** 1999 Jan–Feb;(1):90–2 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Cutaneous sarcoidosis: complete remission after oral isotretinoin therapy. Georgiou S, et al. **Acta Derm Venereol** 1998 Nov;78(6):457–9

Photodynamic therapy for nevus sebaceus with topical delta–aminolevulinic acid. Dierickx CC, et al. **Arch Dermatol** 1999 Jun;135(6):637–40

Traditional Chinese medicine for the treatment of dermatologic disorders. Koo J, et al. **Arch Dermatol** 1998 Nov;134(11):1388–93 (63 ref.)

Off–label dermatologic therapies. Usage, risks, and mechanisms. Li VW, et al. **Arch Dermatol** 1998 Nov; 134(11):1449–54

Topical traditional Chinese medicine. A report from Singapore. Ng SK. **Arch Dermatol** 1998 Nov; 134(11):1395–6

Tacrolimus: the drug for the turn of the millennium? Ruzicka T, et al. **Arch Dermatol** 1999 May;135(5):574–80 (76 ref.)

Lack of correlation of skin thickness with bone density in patients receiving chronic glucocorticoid. Werth VP, et al. **Arch Dermatol Res** 1998 Jul;290(7):388–93

Analysis of Chinese herbal creams prescribed for dermatological conditions. Keane FM, et al. **BMJ** 1999 Feb 27;318(7183):563–4

Frequency of application of topical corticosteroids: an overview. Lagos BR, et al. **Br J Dermatol** 1998 Nov; 139(5):763–6 (21 ref.)

Development of dapsone toxicity in patients with inflammatory dermatoses: activity of acetylation and hydroxylation of dapsone as risk factors. Bluhm RE, et al. **Clin Pharmacol Ther** 1999 Jun;65(6):598–605

Discovery of ascomycin analogs with potent topical but weak systemic activity for treatment of inflammatory skin diseases. Mollison KW, et al. **Curr Pharm Des** 1998 Oct; 4(5):367–79 (100 ref.)

The safety and efficacy of salicylic acid chemical peels in darker racial–ethnic groups. Grimes PE. **Dermatol Surg** 1999 Jan;25(1):18–22

Retinoids and vitamin D analogues: action on nuclear transcription. Griffiths CE. **Hosp Med** 1998 Jan;59(1):12–6

Long–term administration of cyclosporin A to HCV–antibody–positive patients with dermatologic diseases. Miura H, et al. **Int J Dermatol** 1999 Apr; 38(4):310–4

Intermittent use of topical dimethyl sulfoxide in macular and papular amyloidosis. Ozkaya–Bayazit E, et al. **Int J Dermatol** 1998 Dec;37(12):949–54

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Curettage or silver nitrate for pyogenic granulomas on the hand. Dollery W. **J Accid Emerg Med** 1999 Mar;16(2):140–1

Uses of vitamins A, C, and E and related compounds in dermatology: a review. Keller KL, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):611–25 (200 ref.)

Disfiguring cutaneous manifestation of sarcoidosis treated with thalidomide: a case report. Lee JB, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):835–8

Mycophenolate mofetil in autoimmune and inflammatory skin disorders. Nousari HC, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):265–8

Treatment of multiple miliary osteoma cutis with tretinoin gel [letter] Smith CG, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):500

Colchicine in dermatology. Sullivan TP, et al. **J Am Acad Dermatol** 1998 Dec;39(6):993–9 (105 ref.)

Comparison of four antibiotics in a murine model of necrotizing cutaneous infections caused by toxigenic Streptococcus pyogenes and Staphylococcus aureus. Barg N. **J Antimicrob Chemother** 1998 Aug;42(2):257–60

PUVA therapy: current concerns in Japan. Danno K. **J Dermatol Sci** 1999 Feb;19(2):89–105 (138 ref.)

Targeting lurking pathogens in acute traumatic and chronic wounds. Eron LJ. **J Emerg Med** 1999 Jan–Feb;17(1):189–95 (35 ref.)

Effects of Y–24180, a receptor antagonist to platelet–activating factor, on allergic cutaneous eosinophilia in mice. Yamaguchi S, et al. **Life Sci** 1999; 64(11):PL139–44

Successful treatment of acquired perforating dermatosis with rifampicin in an Asian patient with sclerosing cholangitis. Skiba G, et al. **Liver** 1999 Apr;19(2):160–3

Dermatology therapy update. Thiers BH. **Med Clin North Am** 1998 Nov;82(6):1405–14, vii (61 ref.)

Effects of oral supplementation with evening primrose oil for six weeks on plasma essential fatty acids and uremic skin symptoms in hemodialysis patients. Yoshimoto–Furuie K, et al. **Nephron** 1999 Feb;81(2):151–9

HIV, UV and immunosuppression. Akaraphanth R, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):28–31 (26 ref.)

Treatment of photodamaged skin with topical tretinoin: an update. Leyden JJ. **Plast Reconstr Surg** 1998 Oct; 102(5):1667–71; discussion 1672–5

Long–term thalidomide use in refractory cutaneous lesions of systemic lupus erythematosus. Sato EI, et al. **Rev Assoc Med Bras** 1998 Oct–Dec;44(4):289–93

Ascomycins in dermatology. Paul C, et al. **Semin Cutan Med Surg** 1998 Dec;17(4):256–9 (21 ref.)

Thalidomide and its impact in dermatology. Stirling DI. **Semin Cutan Med Surg** 1998 Dec;17(4):231–42 (87 ref.)

[Question of the Month. How do you prescribe the quantity of topical corticoids to be used?] Crickx B. **Ann Dermatol Venereol** 1999 Jun–Jul;126(6–7):547–52 **(Fre)**

[Effectiveness of thalidomide treatment during cutaneous sarcoidosis (letter)] Grasland A, et al. **Rev Med Interne** 1998 Mar;19(3):208–9 **(Fre)**

[Galenic alternatives to unstable tocopherol acetate. "Smeared" or cheated?—Vitamin E in facial ointments] Siebert–Wellnhofer A. **Fortschr Med** 1999 May 30; 117(15):40 **(Ger)**

[Photo oxidative reactions of psoralens and their role in therapy of dermatoses] Potapenko Ala, et al. **Vestn Ross Akad Med Nauk** 1999;(2):32–8 (35 ref.) (Eng. Abstr.) **(Rus)**

[The Locoid treatment of dermatoses in middle–aged and elderly persons] Tarasenko GN, et al. **Voen Med Zh** 1999 Jul;320(7):44–5 **(Rus)**

[New trends in immunodermatology and treatment of skin diseases] Nordlind K, et al. **Lakartidningen** 1999 Feb 24; 96(8):876–81 (28 ref.) (Eng. Abstr.) **(Swe)**

ECONOMICS

Monetary and nonmonetary costs to patients attending an ambulatory dermatology clinic. Vignjevic PM, et al. **J Cutan Med Surg** 1999 Apr;3(4):188–92

[Quality assurance for rational diagnosis and therapy in dermatology] Korting HC, et al. **Hautarzt** 1998 Oct; 49(10):755–61 (19 ref.) (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Protein kinase C isoforms in the epidermal tissues of normal and postburn human skin. Wang YC, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):673–9

Stromelysin–3 (ST–3): immunohistochemical characterization of the matrix metalloproteinase (MMP)–11 in benign and malignant skin tumours and other skin disorders. Thewes M, et al. **Clin Exp Dermatol** 1999 Mar; 24(2):122–6

Epidermal enzymes: their role in homeostasis and their relationships with dermatoses. Redoules D, et al. **Skin Pharmacol Appl Skin Physiol** 1998;11(4–5):183–92 (69 ref.)

EPIDEMIOLOGY

Cowden disease: a cutaneous marker for increased risk of breast cancer. Schweitzer S, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):349–51

Prevalence of skin disease in rural Tanzania and factors influencing the choice of health care, modern or traditional. Satimia FT, et al. **Arch Dermatol** 1998 Nov;134(11):1363–6

Maryborough skin health survey: prevalence and sources of advice for skin conditions. Kilkenny M, et al. **Australas J Dermatol** 1998 Nov;39(4):233–7

Occupational skin diseases: reliability and utility of the data in the various registers; the course from notification to compensation and the costs. A case study from Denmark. Halkier–Sørensen L. **Contact Dermatitis** 1998 Aug; 39(2):71–8

Only 33% of visits for skin disease in the US in 1995 were to dermatologists: is decreasing the number of dermatologists the appropriate response? [see comments] Thompson TT, et al. **Dermatol Online J** 1998 Oct;4(1):3 . Comment in: Dermatol Online J 1998 Oct;4(1):12.

Psychiatric disorders in patients attending a dermatology outpatient clinic. Aktan S, et al. **Dermatology** 1998; 197(3):230–4

Dermatology in southwestern Ethiopia: rationale for a community approach. Figueroa JI, et al. **Int J Dermatol** 1998 Oct;37(10):752–8

Skin diseases in Bamako (Mali). Mahé A, et al. **Int J Dermatol** 1998 Sep;37(9):673–6

The changing status of inpatient dermatology at American academic dermatology programs. Kirsner RS, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):755–7

Prevalence of skin disease in a cohort of shelter–based homeless men. Stratigos AJ, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):197–202

Prognostic models: evidence–based approach to predicting disease outcome. Kantor J, et al. **J Cutan Med Surg** 1999 Jan;3(3):157–61

A profile of skin disorders in children in Saurashtra. Anand IS, et al. **J Indian Med Assoc** 1998 Aug;96(8):245–6

Common health problems in HIV–infected travelers to the (sub)tropics. Simons FM, et al. **J Travel Med** 1999 Jun; 6(2):71–5

Practising dermatology in the South Pacific. White AD, et al. **Med J Aust** 1998 Dec 7–21;169(11–12):659–62

A prospective survey of pediatric dermatology clinic patients in Kuwait: an analysis of 10,000 cases. Nanda A, et al. **Pediatr Dermatol** 1999 Jan–Feb;16(1):6–11

The Swiss Network of Dermatology Policlinics HIV prevalence study: rationale, characteristics and results (1990–1996). Paget WJ, et al. **Soz Praventivmed** 1999; 44(1):1–7

Dermatological manifestations in renal transplant recipients. Vijayakumar R, et al. **Transplant Proc** 1998 Nov;30(7):3136

The burden of mucocutaneous conditions and the association with HIV–1 infection in a rural community in Uganda. Mayanja B, et al. **Trop Med Int Health** 1999 May; 4(5):349–54

[The profile of skin diseases in Lebanon (letter)] Makhoul E. **Ann Dermatol Venereol** 1999 Feb;126(2):160 **(Fre)**

[Dermatology in Lebanon (editorial)] Tomb R. **Ann Dermatol Venereol** 1999 Feb;126(2):115–8 **(Fre)**

[Respiratory and skin diseases among school children in the industrial and rural regions] Obtułowicz K, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):351–3 (Eng. Abstr.) **(Pol)**

ETHNOLOGY

Diagnosis in racially pigmented skin. Child F. **Practitioner** 1998 Apr;242(1585):292–6 (6 ref.)

ETIOLOGY

Skin calcinosis following allogenic bone marrow transplantation in an acute lymphoblastic leukaemia patient [letter] Guberman D, et al. **Acta Derm Venereol** 1999 Jul; 79(4):324–5

Inflammatory linear verrucous epidermal naevus arising on a burn scar [letter] Lee IW, et al. **Acta Derm Venereol** 1999 Mar;79(2):164–5

Unusual skin reaction to silicone content in breast implants. Marcusson JA, et al. **Acta Derm Venereol** 1999 Mar; 79(2):136–8

Food–induced cutaneous adverse reactions. Wüthrich B. **Allergy** 1998;53(46 Suppl):131–5 (52 ref.)

Cutaneous T–cell lymphoma presenting as benign dermatoses. Elmer KB, et al. **Am Fam Physician** 1999 May 15;59(10):2809–13 (09 ref.)

Rare syndromes in Hodgkin's disease. Cavalli F. **Ann Oncol** 1998;9 Suppl 5:S109–13 (26 ref.)

Cutaneous manifestations of biological warfare and related threat agents. McGovern TW, et al. **Arch Dermatol** 1999 Mar;135(3):311–22 (116 ref.)

Hepatitis C virus infection in cutaneous polyarteritis nodosa: a retrospective study of 16 cases [letter] Soufir N, et al. **Arch Dermatol** 1999 Aug;135(8):1001–2

Nitric oxide and its implications in skin homeostasis and disease – a review. Bruch–Gerharz D, et al. **Arch Dermatol Res** 1998 Dec;290(12):643–51 (79 ref.)

Annular skin lesions with a scaly surface. Hogan P. **Aust Fam Physician** 1999 Feb;28(2):169–70

Acute cutaneous graft-versus-host disease with ichthyosiform features [letter] Chao SC, et al. **Br J Dermatol** 1998 Sep;139(3):553-5

Dystrophic calcinosis cutis in the skin below the mandible of a violinist [letter] Oga A, et al. **Br J Dermatol** 1998 Nov;139(5):940-1

Granulomatous skin lesions in a patient with ataxia telangiectasia [letter] Sentürk N, et al. **Br J Dermatol** 1998 Sep;139(3):543-4

An unusual reaction to cold: a sporadic case of familial polymorphous cold eruption? Urano Y, et al. **Br J Dermatol** 1998 Sep;139(3):504-7

Calcinosis cutis following extravasation of calcium gluconate in neonates. Mu SC, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan-Feb;40(1):34-5

Alcohol intake, immune response, and the skin. Cohen AD, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):411-2

Smoker's wrinkles: epidemiological and pathogenic considerations. Frances C. **Clin Dermatol** 1998 Sep-Oct; 16(5):565-70 (49 ref.)

Alcoholism, malnutrition, vitamin deficiencies, and the skin. Fuchs J. **Clin Dermatol** 1999 Jul-Aug;17(4):457-61 (43 ref.)

Alcohol intake, lipid metabolism, and the skin. Grosshans EM, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):413-6

Alcohol intake, cytokines, neuropeptides, and the skin. Hautmann G, et al. **Clin Dermatol** 1999 Jul-Aug; 17(4):391-4

Alcohol intake and other skin disorders. Higgins E, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):437-41 (55 ref.)

Dermatological manifestations of alcoholic cirrhosis. Ruocco V, et al. **Clin Dermatol** 1999 Jul-Aug;17(4):463-8 (70 ref.)

Alcohol, social behavior disorders, and their cutaneous manifestations. Sanchez MR. **Clin Dermatol** 1999 Jul-Aug; 17(4):479-89 (109 ref.)

Cigarette smoking, hormonal changes, and the skin. Shulman A, et al. **Clin Dermatol** 1998 Sep-Oct;16(5):595-8 (35 ref.)

Smoking and the skin, radically speaking. Wolf R, et al. **Clin Dermatol** 1998 Sep-Oct;16(5):633-9 (72 ref.)

Lichen planus associated with milia. Lucke T, et al. **Clin Exp Dermatol** 1999 Jul;24(4):266-9

Subcutaneous calcification as a late effect of orthovoltage chest wall irradiation. Cowie F, et al. **Clin Oncol (R Coll Radiol)** 1999;11(3):196-7

Nonorthopaedic problems in the aquatic athlete. Nichols AW. **Clin Sports Med** 1999 Apr;18(2):395-411, viii (40 ref.)

Human immunodeficiency virus disease in the era of HAART: a reevaluation of the mucocutaneous manifestations. Johnson RA. **Curr Clin Top Infect Dis** 1999; 19:252-86 (210 ref.)

Aquatic adversaries: stonefish. Burnett JW. **Cutis** 1998 Dec; 62(6):269-70 (7 ref.)

What's eating you? Centipedes (Chilopoda). Elston DM. **Cutis** 1999 Aug;64(2):83 (5 ref.)

Sports-related cutaneous reactions: Part II. Allergic contact dermatitis to sports equipment [news] Fisher AA. **Cutis** 1999 Apr;63(4):202-4 (10 ref.)

Sports-related cutaneous reactions: Part I. Dermatoses due to physical agents [news] Fisher AA. **Cutis** 1999 Mar; 63(3):134-6 (33 ref.)

The pants paresthesia syndrome [news] Fisher AA. **Cutis** 1999 Jul;64(1):17-8

Miliary tuberculosis presenting with rigors and developing unusual cutaneous manifestations. Lowry KJ, et al. **Cutis** 1999 Jul;64(1):23-8

Update on the cutaneous manifestations of HIV infection. Clinical and pathologic features. Aftergut K, et al. **Dermatol Clin** 1999 Jul;17(3):445-71, vii (188 ref.)

Environmental skin diseases and the impact of common dermatoses on medical readiness. Meffert JJ. **Dermatol Clin** 1999 Jan;17(1):1-17, vii (143 ref.)

Is aberrant mammary tissue a marker for chronic alcoholism or kidney-urinary tract malformations? Camacho FM, et al. **Dermatology** 1998;197(2):132-6

Dystrophic calcinosis cutis in subacute lupus. Marzano AV, et al. **Dermatology** 1999;198(1):90-2

Extradigestive manifestations of Helicobacter pylori infection: fact and fiction. Realdi G, et al. **Dig Dis Sci** 1999 Feb;44(2):229-36 (70 ref.)

Severe cutaneous cholesterol emboli syndrome after coronary angiography. Hendrickx I, et al. **Eur J Cardiothorac Surg** 1999 Feb;15(2):215-7

Fetomaternal haemorrhage and prenatal intracranial bleeding: two more causes of blueberry muffin baby. Smets K, et al. **Eur J Pediatr** 1998 Nov;157(11):932-4

Dermatologic manifestations of gastrointestinal disorders. Ward SK, et al. **Gastroenterol Clin North Am** 1998 Sep; 27(3):615-36, vi (77 ref.)

Loxosceles spider venom induces the production of alpha and beta chemokines: implications for the pathogenesis of dermonecrotic arachnidism. Gomez HF, et al. **Inflammation** 1999 Jun;23(3):207-15

Providing dermatological photographs using the multimedia extension of the international computer database for radiation accident case histories. Kindler H, et al. **Int J Med Inf** 1998 Jul;51(1):39-50

Skin dimpling as a consequence of amniocentesis. Cambiaghi S, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):888-90

Anetoderma of prematurity in association with electrocardiographic electrodes. Colditz PB, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):479-81 (9 ref.)

Lichen amyloidosus: A consequence of scratching? [letter] Drago F, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):501

Proliferative verrucous leukoplakia with cutaneous involvement. Haley JC, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):481-3

Unusual manifestations of B-cell disorders. Case 2: chronic lymphocytic leukemia presenting with cutaneous lesions. Schmid-Wendtner MH, et al. **J Clin Oncol** 1999 Mar; 17(3):1084-5

An unusual cutaneous manifestation of myelodysplastic syndrome: "pseudo-Koebner phenomenon". DasGupta R, et al. **J Clin Pathol** 1998 Nov;51(11):860-1

Macular amyloidosis: etiological factors. Eswaramoorthy V, et al. **J Dermatol** 1999 May;26(5):305-10

The UV-induced SOS response: importance to aging skin. Gilchrest BA. **J Dermatol** 1998 Dec;25(12):775-7 (7 ref.)

Two cases of gigantic dystrophic calcinosis cutis caused by subcutaneous and/or intramuscular injections. Kanda A, et al. **J Dermatol** 1999 Jun;26(6):371-4

A case of edematous striae distensae in lupus nephritis. Lee JH, et al. **J Dermatol** 1999 Feb;26(2):122-4

Encapsulated necrosis associated with Behçet's syndrome. Takeda U, et al. **J Dermatol** 1999 Aug;26(8):522-6

Skin diseases related to abnormality in desmosomes and hemidesmosomes--editorial review [editorial] Hashimoto T. **J Dermatol Sci** 1999 Jun;20(2):81-4 (12 ref.)

Dry condition affects desquamation of stratum corneum in vivo. Sato J, et al. **J Dermatol Sci** 1998 Dec;18(3):163-9

Systemic sarcoidosis presenting with multiple tattoo granulomas and an extra-tattoo cutaneous granuloma. Papageorgiou PP, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):51-3

Cutaneous necrosis as a terminal paraneoplastic thromboembolic event in a patient with non-Hodgkin's lymphoma. Luboshitz J, et al. **J Intern Med** 1999 Mar; 245(3):301-5

Subclinical skin stiffening in adults suffering from type 1 diabetes mellitus. A comparison with Raynaud's syndrome. Piérard-Franchimont C, et al. **J Med Eng Technol** 1998 Sep-Oct;22(5):206-10

Severe necrotising cutaneous lesions complicating treatment with interferon beta-1a. Radziwill AJ, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):115

Metastatic Crohn's disease in a 9-year-old boy. Lehrnbecher T, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar;28(3):321-3

Case report by Lehrnbecher [letter] Puntis J. **J Pediatr Gastroenterol Nutr** 1999 Aug;29(2):233

Cutaneous manifestations of diabetes mellitus. Wahid Z, et al. **JPMA J Pak Med Assoc** 1998 Oct;48(10):304-5

Skin lesions in returned travelers. Kain KC. **Med Clin North Am** 1999 Jul;83(4):1077-102 (25 ref.)

Cutaneous manifestations of systemic diseases. Robson KJ, et al. **Med Clin North Am** 1998 Nov;82(6):1359-79, vi-vii

Cutaneous vasculitis in children and adults. Associated diseases and etiologic factors in 303 patients. Blanco R, et al. **Medicine (Baltimore)** 1998 Nov;77(6):403-18 (101 ref.)

Effects of oral supplementation with evening primrose oil for six weeks on plasma essential fatty acids and uremic skin symptoms in hemodialysis patients. Yoshimoto-Furuie K, et al. **Nephron** 1999 Feb;81(2):151-9

Primary disseminated varicella presenting as an acute abdomen. Kim SH, et al. **Pediatr Dermatol** 1999 May-Jun; 16(3):208-10

Cutaneous manifestations of childhood systemic lupus erythematosus. Wananukul S, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):342-6

Hair and skin disorders as signs of mitochondrial disease. Bodemer C, et al. **Pediatrics** 1999 Feb;103(2):428-33

Human eosinophils regulate human lung- and skin-derived fibroblast properties in vitro: a role for transforming growth factor beta (TGF-beta). Levi-Schaffer F, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9660-5

Histopathological and cellular studies of a case of cutaneous radiation syndrome after accidental chronic exposure to a cesium source. Vozenin-Brotons MC, et al. **Radiat Res** 1999 Sep;152(3):332-7

Long-term thalidomide use in refractory cutaneous lesions of systemic lupus erythematosus. Sato EI, et al. **Rev Assoc Med Bras** 1998 Oct-Dec;44(4):289-93

Catastrophic antiphospholipid syndrome associated with anti-beta-2-glycoprotein I IgA [letter] Abinader A, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):84-5

Tuberculous Addison's disease complicated by a recurrent subcutaneous cold abscess during treatment for tuberculosis [letter] Yamagishi S, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1998 Sep;15(2):192-3

Allergy, skin and environment. Merk HF, et al. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2-4):85-100 (66 ref.)

[Chillblains in a pair of riders] Asselman CA. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2710-1 **(Dut)**

[Paresthetic notalgia and multiple endocrine neoplasia type 2a (Sipple's syndrome): 3 cases] Rivollier C, et al. **Ann Dermatol Venereol** 1999 Jun-Jul;126(6-7):522-4 (Eng. Abstr.) **(Fre)**

[Pre-peritoneal bisaccular umbilical and subcutaneous abscess after laparoscopic appendectomy] Habib E, et al. **J Chir (Paris)** 1997 Nov;134(5-6):254-7 (Eng. Abstr.) **(Fre)**

[Cutaneous lymphangiectasias acquired after surgical and radiotherapy treatment of breast cancer. Two cases] Bouzit N, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 Jul; 28(4):384-7 (Eng. Abstr.) **(Fre)**

[Erythema nodosum and cutaneous vasculitis revealing Hodgkin's disease. Apropos of 2 case reports] Blanco P, et al. **Rev Med Interne** 1999 Feb;20(2):160-3 (Eng. Abstr.) **(Fre)**

[Intermittent fever with cutaneous manifestations...] Duhamel E, et al. **Rev Med Interne** 1999;20 Suppl 2:281s-282s **(Fre)**

[Necrobiotic xanthogranulomatosis: a cutaneous manifestation of a monoclonal IgM gammopathy] Sève P, et al. **Rev Med Interne** 1998 May;19(5):338-40 (Eng. Abstr.) **(Fre)**

[Skin during pregnancy] Piérard-Franchimont C, et al. **Rev Med Liege** 1999 May;54(5):393-400 (Eng. Abstr.) **(Fre)**

[Acquired reactive perforating collagenosis in diabetes mellitus] Wigger-Alberti W, et al. **Dtsch Med Wochenschr** 1999 Mar 12;124(10):282-4 (Eng. Abstr.) **(Ger)**

[Calciphylaxis of the skin as a sequela of terminal kidney failure. Report and discussion of 3 cases] Hiss U, et al. **Hautarzt** 1999 May;50(5):350-4 (Eng. Abstr.) **(Ger)**

[What significance does "reproductive health" have for the dermatologist? (editorial)] Krause W, et al. **Hautarzt** 1999 Mar;50(3):163-4 (Eng. Abstr.) **(Ger)**

[The diabetic foot--the view of the dermatologist] Itin PH. **Schweiz Rundsch Med Prax** 1999 Jul 8;88(27-28):1186-90 (19 ref.) (Eng. Abstr.) **(Ger)**

[Cutaneous manifestations of strongyloidosis] Károlyi Z, et al. **Orv Hetil** 1999 Jan 24;140(4):191-4 (Eng. Abstr.) **(Hun)**

[Allergy to cow's milk] Czerwionka-Szaflarska M. **Pol Merkuriusz Lek** 1998 Dec;5(30):384-6 (Eng. Abstr.) **(Pol)**

GENETICS

Segmental forms of autosomal dominant skin disorders: the puzzle of mosaicism. Itin PH, et al. **Am J Med Genet** 1999 Aug 6;85(4):351-4 (30 ref.)

Concept of twin spotting. Koopman RJ. **Am J Med Genet** 1999 Aug 6;85(4):355-8 (24 ref.)

Atrichia with papular lesions maps to 8p in the region containing the human hairless gene. Sprecher E, et al. **Am J Med Genet** 1998 Dec 28;80(5):546-50

A novel apolipoprotein A-1 variant, Arg173Pro, associated with cardiac and cutaneous amyloidosis. Hamidi Asl K, et al. **Biochem Biophys Res Commun** 1999 Apr 13; 257(2):584-8

Keratin 17 mutations cause either steatocystoma multiplex or pachyonychia congenita type 2. Covello SP, et al. **Br J Dermatol** 1998 Sep;139(3):475-80

Sarcoidosis in monozygotic twins [letter] Swale VJ, et al. **Br J Dermatol** 1998 Aug;139(2):350-2

Elastic nevus with normal expression of elastin and elastin-related proteins mRNAs. Ohnishi Y, et al. **Dermatology** 1999;198(3):307-9

Identification of sporadic mutations in the helix initiation motif of keratin 6 in two pachyonychia congenita patients: further evidence for a mutational hot spot. Lin MT, et al. **Exp Dermatol** 1999 Apr;8(2):115-9

A mutation detection strategy for the human keratin 6A gene and novel missense mutations in two cases of pachyonychia congenita type 1. Smith FJ, et al. **Exp Dermatol** 1999 Apr; 8(2):109-14

A mutation in human keratin K6b produces a phenocopy of the K17 disorder pachyonychia congenita type 2. Smith FJ, et al. **Hum Mol Genet** 1998 Jul;7(7):1143-8

Prenatal diagnosis as a test for genodermatoses: its past, present and future. Shimizu H, et al. **J Dermatol Sci** 1999 Jan;19(1):1-8 (57 ref.)

Restoration of open reading frame resulting from skipping of an exon with an internal deletion in the COL7A1 gene. Cserhalmi-Friedman PB, et al. **Lab Invest** 1998 Dec; 78(12):1483-92

Altered expression of interleukin-1 receptor antagonist in different stages of mouse skin carcinogenesis. La E, et al. **Mol Carcinog** 1999 Apr;24(4):276-86

[Cutis verticis gyrata] Diederen PV, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1337-8 **(Dut)**

[The syndrome of Comel-Netherton (trichorrhexis invaginata, ichthyosis linearis circumflexa and atopic eczema)] Sommer A. **Ned Tijdschr Geneeskd** 1998 Dec 5; 142(49):2709-10 **(Dut)**

HISTORY

Skin diseases first described in Japan. Imamura S. **Clin Dermatol** 1999 Mar-Apr;17(2):117-26

Skin diseases first described in German-speaking countries. Scholz A. **Clin Dermatol** 1999 Mar-Apr;17(2):107-15

Pious pathology: J. L. Alibert's iconography of disease. Jacyna LS. **Clio Med** 1998;50:185-219

Occlusive therapy in historical perspective. Witkowski JA, et al. **Int J Dermatol** 1998 Jul;37(7):555-8

[Dermatology photographs in the 19th century] Tilles G, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):647 **(Fre)**

IMMUNOLOGY

The clinical expression of allergy in the skin. Ring J, et al. **Allergy** 1999 Mar;54(3):192-7 (36 ref.)

Polymerase chain reaction analysis of immunoglobulin gene rearrangement in cutaneous lymphoid hyperplasias. French Study Group for Cutaneous Lymphomas. Bouloc A, et

al. **Arch Dermatol** 1999 Feb;135(2):168–72

CD44 variant isoform expression in a variety of skin-associated autoimmune diseases. Seiter S, et al. **Clin Immunol Immunopathol** 1998 Oct;89(1):79–93

Analysis of clonality of atypical cutaneous lymphoid infiltrates associated with drug therapy by PCR/DGGE. Brady SP, et al. **Hum Pathol** 1999 Feb;30(2):130–6

T cell-mediated and non-specific inflammatory mechanisms contribute to the skin pathology of HPV 16 E6E7 transgenic mice. Hilditch-Maguire PA, et al. **Intervirology** 1999;42(1):43–50

Role of human papillomaviruses in cutaneous and oral manifestations of immunosuppression. Leigh IM, et al. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S49–57 (90 ref.)

Extensive cutaneous necrosis associated with anticardiolipin antibodies. Paira S, et al. **J Rheumatol** 1999 May; 26(5):1197–200

Clinical significance of immunoglobulin A antiphospholipid antibodies: possible association with skin manifestations and small vessel vasculitis. Tajima C, et al. **J Rheumatol** 1998 Sep;25(9):1730–6

Mucocutaneous disease in Arabs with systemic lupus erythematosus: clinical expression and relevance to autoantibodies. Al-Attia HM, et al. **Lupus** 1998;7(8):535–9

Cutaneous delayed-type hypersensitivity reactions in smokers with chronic bronchitis and recurrent exacerbations: comparison with asymptomatic smokers and never-smokers. Qvarfordt I, et al. **Respir Med** 1999 Jul; 93(7):491–7

[The CINCA syndrome: a disease of french description, to international terminology (editorial)] Aubin F, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):307–8 **(Fre)**

[Antitumor immune reactions in lymphoma] Bagot M. **Ann Dermatol Venereol** 1998 Sep;125(9):628–9 **(Fre)**

[Humoral immune deficits and the skin (editorial)] Lassoued K. **Ann Dermatol Venereol** 1999 Mar;126(3):215–22 **(Fre)**

[From neuropeptides and cytokines to psychotherapy. Skin diseases between psychoneuroimmunology research and psychosomatic treatment] Niemeier V, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:14–8 (45 ref.) (Eng. Abstr.) **(Ger)**

[The role of bacterial superantigens in pathophysiology of the skin] Boehncke WH, et al. **Hautarzt** 1999 Feb;50(2):91–7 (67 ref.) (Eng. Abstr.) **(Ger)**

[Roles of eosinophils in allergic skin diseases] Satoh T. **Arerugi** 1999 May;48(5):496–9 (7 ref.) **(Jpn)**

[Neutrophilic dermatosis] Fria Ancona G, et al. **Rev Alerg Mex** 1998 Nov-Dec;45(6):159–65 (19 ref.) (Eng. Abstr.) **(Spa)**

METABOLISM

Expression of trichohyalin in dermatological disorders: a comparative study with involucrin and filaggrin by immunohistochemical staining [see comments] Lee SC, et al. **Acta Derm Venereol** 1999 Mar;79(2):122–6. Comment in: Acta Derm Venereol 1999 Mar;79(2):97.

Expression of cell-cycle proteins p53, p21 (WAF-1), PCNA and Ki-67 in benign, premalignant and malignant skin lesions with implicated HPV involvement. Lu S, et al. **Acta Derm Venereol** 1999 Jul;79(4):268–73

The cutaneous pathology associated with seropositivity for antibodies to SSA (Ro): a clinicopathologic study of 23 adult patients without subacute cutaneous lupus erythematosus. Magro CM, et al. **Am J Dermatopathol** 1999 Apr;21(2):129–37

The association of Becker nevus with hypersensitivity to androgens [letter] Nirdé P, et al. **Arch Dermatol** 1999 Feb; 135(2):212–4

Immunohistochemical staining of proliferating cell nuclear antigen (PCNA) in malignant and nonmalignant skin diseases. Kawahira K. **Arch Dermatol Res** 1999 Jul-Aug; 291(7-8):413–8

Expression of trichohyalin in skin disorders. Manabe M, et al. **Exp Dermatol** 1999 Aug;8(4):312 (5 ref.)

Reticulate postinflammatory hyperpigmentation with band-like mucin deposition. Noto G, et al. **Int J Dermatol** 1998 Nov;37(11):829–32

Increased numbers of CD68 antigen positive dendritic epidermal cells and upregulation of CLA (cutaneous lymphocyte-associated antigen) expression on these cells in various skin diseases. Nakamura K, et al. **J Dermatol Sci** 1998 Dec;18(3):170–80

Enhanced expression of human metalloelastase (MMP-12) in cutaneous granulomas and macrophage migration. Vaalamo M, et al. **J Invest Dermatol** 1999 Apr; 112(4):499–505

Immunohistochemical staining for Ber-EP4, p53, proliferating cell nuclear antigen, Ki-67, bcl-2, CD34, and factor XIIIa in nevus sebaceus. Barrett TL, et al. **Mod Pathol** 1999 May;12(5):450–5

[Structural-functional changes in membranes and external perimembrane layers of erythrocytes in hyperepidermopoiesis] Semko GA. **Ukr Biokhim Zh** 1998 May-Jun;70(3):113–8 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Cutaneous blastomycosis. Report of a case with diagnosis by fine needle aspiration cytology. Desai AP, et al. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1317–9

Acute neonatal scalp abscess and E coli bacteremia in the ED. Beier KH, et al. **Am J Emerg Med** 1999 May; 17(3):241–3

Immunohistological analysis of in situ expression of mycobacterial antigens in skin lesions of leprosy patients across the histopathological spectrum. Association of Mycobacterial lipoarabinomannan (LAM) and Mycobacterium leprae phenolic glycolipid-I (PGL-I) with leprosy reactions. Verhagen C, et al. **Am J Pathol** 1999 Jun;154(6):1793–804

Identification of mycobacterial DNA in cutaneous lesions of sarcoidosis. Li N, et al. **J Cutan Pathol** 1999 Jul; 26(6):271–8

Adherence characteristics of Staphylococcus aureus and coagulase-negative staphylococci isolated from various skin lesions. Akiyama H, et al. **J Dermatol Sci** 1998 Nov; 18(2):132–6

Primary subcutaneous nocardial infection in a SLE patient. Balbir-Gurman A, et al. **Lupus** 1999;8(2):164–7

55-year-old man with a lung lesion and hemidysesthesia. Rabatin JT, et al. **Mayo Clin Proc** 1999 May;74(5):515–8

Cutaneous vasculitis is not always benign [letter] Dearaujomartins-Romeo D, et al. **Rev Rhum Engl Ed** 1999 Apr;66(4):240

[Mites behind an "island rash" during black currant picking on an island in the gulf of Gävle] Westman A. **Lakartidningen** 1999 Aug 11;96(32-33):3437–9 **(Swe)**

PARASITOLOGY

Monosymptomatic Loa loa infection. de Viragh PA, et al. **Dermatology** 1998;197(3):303–5

Ophyra aenescens (L.) (Diptera: Muscidae) a new biological vector of Dermatobia hominis (L. Jr) (Diptera: Cuterebridae) in Minas Gerais, Brazil. Rodriguez Z, et al. **Mem Inst Oswaldo Cruz** 1999 Jan-Feb;94(1):53–4

PATHOLOGY

Cutaneous blastomycosis. Report of a case with diagnosis by fine needle aspiration cytology. Desai AP, et al. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1317–9

Fine needle aspiration cytology of fibrous hamartoma of infancy. Jadusingh IH. **Acta Cytol** 1997 Jul-Aug;41(4 Suppl):1391–3

Post-herpes zoster scar sarcoidosis [letter] Corazza M, et al. **Acta Derm Venereol** 1999 Jan;79(1):95

Fournier's gangrene: a case report [letter] Folgaresi M, et al. **Acta Derm Venereol** 1999 May;79(3):252–3

The so-called striated muscle hamartoma is a hamartoma of cutaneous adnexa and mesenchyme, but not of striated muscle [letter] Grilli R, et al. **Acta Derm Venereol** 1998 Sep;78(5):390

Secondary anetoderma in people with Down's syndrome [letter] Schepis C, et al. **Acta Derm Venereol** 1999 May; 79(3):245

Epidermal inclusion cyst with melanoma-like melanophagic proliferation [letter] Vaideeswar P, et al. **Acta Derm Venereol** 1999 Jan;79(1):88

Cutaneous Waldenstrom macroglobulinemia in transformation. Appenzeller P, et al. **Am J Dermatopathol** 1999 Apr;21(2):151–5

Estimation of the volume-weighted mean nuclear volume discriminates keratoacanthoma from squamous cell carcinoma. Binder M, et al. **Am J Dermatopathol** 1998 Oct; 20(5):453–8

Pseudolipomatosis cutis [letter; comment] Brehmer-Andersson E, et al. **Am J Dermatopathol** 1999 Aug;21(4):398–9. Comment on: Am J Dermatopathol 1998 Oct;20(5):443–7.

Involvement of the tongue by lymphomatoid papulosis. Kato N, et al. **Am J Dermatopathol** 1998 Oct;20(5):522–6

Late onset focal dermal elastosis: a distinct clinicopathologic entity? Limas C. **Am J Dermatopathol** 1999 Aug;21(4):381–3

Epidermal changes in cutaneous lesions of sarcoidosis. Okamoto H. **Am J Dermatopathol** 1999 Jun;21(3):229–33

Hypergranulotic dyscornification: a distinctive histologic pattern of maturation of epidermal epithelium present in solitary keratoses. Reichel M. **Am J Dermatopathol** 1999 Feb;21(1):21–4

Self-assessment course in dermatopathology: Latin American Society of Dermatopathology, February 25-26, 1998, Orlando, Florida. Sangueza OP. **Am J Dermatopathol** 1999 Feb;21(1):96–103

Sweat gland proliferations in scleromyxedema. Stücker M, et al. **Am J Dermatopathol** 1999 Jun;21(3):259–64

Pseudolipomatosis cutis: superficial dermal vacuoles resembling fatty infiltration of the skin [see comments] Trotter MJ, et al. **Am J Dermatopathol** 1998 Oct; 20(5):443–7. Comment in: Am J Dermatopathol 1999 Aug;21(4):398–9.

Anticoagulant-induced skin necrosis in a patient with hereditary deficiency of protein S. Gailani D, et al. **Am J Hematol** 1999 Mar;60(3):231–6

Acquired blaschkolinear dermatoses. Grosshans EM. **Am J Med Genet** 1999 Aug 6;85(4):334–7 (20 ref.)

Statistical evaluation of diagnostic and prognostic features of CD30+ cutaneous lymphoproliferative disorders: a clinicopathologic study of 65 cases. Vergier B, et al. **Am J Surg Pathol** 1998 Oct;22(10):1192–202 (47 ref.)

Adult polycystic liver disease with cutaneous involvement: a brief report. O'connell JT, et al. **Ann Diagn Pathol** 1998 Apr;2(2):121–4

The spectrum of neurocristic cutaneous hamartoma: clinicopathologic and immunohistochemical study of three cases. Smith KJ, et al. **Ann Diagn Pathol** 1998 Aug; 2(4):213–23

Dermatopathology in Europe: dreams and realities. Kerl H. **Arch Dermatol** 1999 Jan;135(1):21–4 (12 ref.)

An ulcerated umbilical nodule. Muñoz H, et al. **Arch Dermatol** 1999 Sep;135(9):1114–5, 1117–8

Chronic plaques in a patient with ataxia telangiectasia. Cutaneous granulomatous lesions in a patient with AT. Murakawa GJ, et al. **Arch Dermatol** 1998 Sep;134(9):1145, 1148

Subscapular subcutaneous tumor. Said S, et al. **Arch Dermatol** 1999 Mar;135(3):341, 344–5

Annular skin lesions with a scaly surface. Hogan P. **Aust Fam Physician** 1999 Feb;28(2):169–70

Acquired perforating dermatosis in diabetes mellitus: an unusual case. Wong KC, et al. **Australas J Dermatol** 1999 May;40(2):108–10

Multiple cutaneous reticulohistiocytosis [letter] McKenna DB, et al. **Br J Dermatol** 1998 Sep;139(3):544–6 (9 ref.)

Milia en plaque in a bilateral submandibular distribution. García Sánchez MS, et al. **Clin Exp Dermatol** 1998 Sep; 23(5):227–9

Immunohistochemistry in diagnostic dermatopathology. Hudson AR, et al. **Dermatol Clin** 1999 Jul;17(3):667–89, x (303 ref.)

Update on immunoelectron microscopy in diagnostic dermatopathology and cutaneous biology. Schaumburg-Lever G. **Dermatol Clin** 1999 Jul; 17(3):691–704, x (29 ref.)

Advanced laboratory techniques at the Armed Forces Institute of Pathology applicable to diagnosis and research in dermatology. Skelton HG, et al. **Dermatol Clin** 1999 Jan; 17(1):125–34, ix (53 ref.)

Self-healing juvenile cutaneous mucinosis. Aydingöz IE, et al. **Dermatology** 1999;199(1):57–9 (8 ref.)

Genital variant of folliculosebaceous cystic hamartoma. Bolognia JL, et al. **Dermatology** 1998;197(3):258–60 (17 ref.)

Familial anetoderma [letter] Gerritsen MJ, et al. **Dermatology** 1999;198(3):321–2

Congenital bilateral dermal melanocytosis with a dermatomal pattern [letter] Grézard P, et al. **Dermatology** 1999; 198(1):105–6

Abscess-forming neutrophilic dermatosis: report of three cases associated with hemopathies. Horiguchi Y, et al. **Dermatology** 1998;197(2):174–7

Nodular fasciitis (pseudotumor of the skin). Krasovec M, et al. **Dermatology** 1999;198(4):431–3

Phacomatosis pigmentokeratotica: speckled-lentiginous nevus in association with nevus sebaceus. Langenbach N, et al. **Dermatology** 1998;197(4):377–80

Peeling skin syndrome with hair changes. Mevorah B, et al. **Dermatology** 1998;197(4):373–6

Physiopathogenic investigations in a case of familial stiff-skin syndrome. Richard MA, et al. **Dermatology** 1998; 197(2):127–31

Fine-needle aspiration cytologic diagnosis of lymphocutaneous sporotrichosis: a case report. Zaharopoulos P. **Diagn Cytopathol** 1999 Feb;20(2):74–7

Guess what! Eruption of lymphocyte recovery. Ginarte M, et al. **Eur J Dermatol** 1999 Jun;9(4):323–4

Multiple rheumatoid papules characteristic of the early stage of rheumatoid vasculitis. Ikeda E, et al. **Eur J Dermatol** 1999 Jun;9(4):313–6

Atypical pigmentary purpura: a clinical, histopathologic, and genotypic study. Crowson AN, et al. **Hum Pathol** 1999 Sep;30(9):1004–12

A randomized, controlled and blinded study of papulopustular lesions in Turkish Behçet's patients. Alpsoy E, et al. **Int J Dermatol** 1998 Nov;37(11):839–42

Atypical cutaneous lymphoproliferative disorder in patients with HIV infection. Friedler S, et al. **Int J Dermatol** 1999 Feb;38(2):111–8 (24 ref.)

Unusual presentation of cutaneous vasculitis. Hafeez ZH. **Int J Dermatol** 1998 Sep;37(9):687–90

Digital mucoid cyst: the ganglion type. Hernández-Lugo AM, et al. **Int J Dermatol** 1999 Jul;38(7):533–5

Nevus sebaceous syndrome. Jang IG, et al. **Int J Dermatol** 1999 Jul;38(7):531–3

Primary squamous syringometaplasia with no underlying malignancy. Jerasutus S, et al. **Int J Dermatol** 1999 May; 38(5):375–6

Subcutaneous sarcoidosis following hypophysectomy for pituitary microadenoma inducing Cushing's disease [letter] Marzano AV, et al. **Int J Dermatol** 1998 Oct;37(10):798

Cutaneous manifestations of the Hemiscorpius lepturus sting: a clinical study. Radmanesh M. **Int J Dermatol** 1998 Jul; 37(7):500–7

Skin pathology findings in a cohort of 1500 adult and elderly subjects. Siragusa M, et al. **Int J Dermatol** 1999 May; 38(5):361–6

Peeling skin syndrome. Taştan HB, et al. **Int J Dermatol** 1999 Mar;38(3):208–10

Cutaneous Rosai-Dorfman disease presenting as pustular and acneiform lesions. Ang P, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):335–7

Ichthyosiform sarcoidosis. Cather JC, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):862–5

Hamartomatous congenital melanocytic nevi showing secondary anetoderma-like changes. Cockayne SE, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):843–5

The effectiveness of a new method for assessing induration.

Flores J, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1021–2

Eccrine angiomatous hamartoma: report of a case and literature review. Nakatsui TC, et al. **J Am Acad Dermatol** 1999 Jul;41(1):109–11 (31 ref.)

Blaschko lines of the face: a step closer to completing the map. Restano L, et al. **J Am Acad Dermatol** 1998 Dec; 39(6):1028–30 (8 ref.)

Multiple cutaneous metaplastic synovial cysts. Singh SR, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):330–2

Cutaneous deposition diseases. Part II. Touart DM, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):527–44; quiz 545–6 (169 ref.)

Differences in sialyl-Tn antigen expression between keratoacanthomas and cutaneous squamous cell carcinomas. Jensen P, et al. **J Cutan Pathol** 1999 Apr; 26(4):183–9

A distinctive cutaneous reaction pattern indicative of infection by reactive arthropathy-associated microbial pathogens: the superantigen ID reaction. Magro CM, et al. **J Cutan Pathol** 1998 Nov;25(10):538–44

Three-dimensional reconstruction in dermatopathology--a personal computer-based system. Matsumura T, et al. **J Cutan Pathol** 1999 Apr;26(4):197–200

Cutaneous Langerhans cell histiocytosis of the genitalia in the elderly: a report of three cases. Meehan SA, et al. **J Cutan Pathol** 1998 Aug;25(7):370–4

Numbers and differentiation status of melanocytes in idiopathic guttate hypomelanosis. Wallace ML, et al. **J Cutan Pathol** 1998 Aug;25(7):375–9

Porokeratotic eccrine ostial and dermal duct nevus as nevus unius lateris in an Indian girl. Bhattacharya SN, et al. **J Dermatol** 1998 Oct;25(10):682–4

Poikiloderma-like cutaneous amyloidosis in an ethnic Chinese girl. Ho MH, et al. **J Dermatol** 1998 Nov; 25(11):730–4

Necrobiosis lipoidica-like skin lesions in systemic sarcoidosis. Igawa K, et al. **J Dermatol** 1998 Oct;25(10):653–6

Two cases of gigantic dystrophic calcinosis cutis caused by subcutaneous and/or intramuscular injections. Kanda A, et al. **J Dermatol** 1999 Jun;26(6):371–4

A case of nodular cystic fat necrosis: the end stage lesion showing calcification and lipomembranous changes. Oh CW, et al. **J Dermatol** 1998 Sep;25(9):616–21 (13 ref.)

Dry condition affects desquamation of stratum corneum in vivo. Sato J, et al. **J Dermatol Sci** 1998 Dec;18(3):163–9

Acquired skin disease of hemidesmosomes. Zillikens D. **J Dermatol Sci** 1999 Jun;20(2):134–54 (188 ref.)

Cutaneous symptoms of Gardner's syndrome [letter] Ascari-Raccagni A, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):80–1

Unusual isotopic responses on healed herpes zoster lesions--report on two cases [letter] Khanna N, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):194–5

Benign nodular calcification and calciphylaxis in a haemodialysed patient. Strumia R, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):69–71

Umbilical endometriosis. von Stemm AM, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):30–2

Severe necrotising cutaneous lesions complicating treatment with interferon beta-1a. Radziwill AJ, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):115

An international dermatological image atlas on the WWW: practical use for undergraduate and continuing medical education, patient education and epidemiological research. Eysenbach G, et al. **Medinfo** 1998;9 Pt 2:788–92

Paracortical hyperplasia of superficial lymph nodes in a new mutant strain of hairless rats (ISh): a lesion similar to human dermatopathic lymphadenopathy. Shamoto M, et al. **Pathol Int** 1999 Apr;49(4):305–9

Cutaneous ciliated cyst of the right lower leg. Yokozaki H, et al. **Pathol Int** 1999 Apr;49(4):354–7 (24 ref.)

Progressive osseous heteroplasia: a case report [letter] Jang KA, et al. **Pediatr Dermatol** 1999 Jan–Feb;16(1):74–5

Cutis verticis gyrata in a child with Turner syndrome [letter] Parolin Marinoni L, et al. **Pediatr Dermatol** 1999 May–Jun; 16(3):242–3

Bronchogenic cyst presenting as a nodular lesion. Ramón R, et al. **Pediatr Dermatol** 1999 Jul–Aug;16(4):285–7

Primary localized cutaneous amyloidosis--lichen amyloidosus. A case report. Gałązka K, et al. **Pol J Pathol** 1999;50(2):119–22

Cutaneous sarcoidosis. Wilson NJ, et al. **Postgrad Med J** 1998 Nov;74(877):649–52 (22 ref.)

Recognising and treating. Premalignant skin conditions. Khorshid SM, et al. **Practitioner** 1998 Apr;242(1585):270–2, 275, 277 (6 ref.)

Histopathological and cellular studies of a case of cutaneous radiation syndrome after accidental chronic exposure to a cesium source. Vozenin-Brotons MC, et al. **Radiat Res** 1999 Sep;152(3):332–7

Defining organ involvement in sarcoidosis: the ACCESS proposed instrument. ACCESS Research Group. A Case Control Etiologic Study of Sarcoidosis. Judson MA, et al. **Sarcoidosis Vasc Diffuse Lung Dis** 1999 Mar;16(1):75–86 (115 ref.)

Skin necrosis in the presence of paclitaxel and fluorometholone. Aboolian A, et al. **Support Care Cancer** 1999 May;7(3):158–9

[Abdominal skin affection caused by ectopic gut mucosa] Ainsworth AP, et al. **Ugeskr Laeger** 1999 May 31; 161(22):3300–1 (Eng. Abstr.) **(Dan)**

[Cutaneous manifestations of graft versus host reaction] Aractingi S, et al. **Ann Dermatol Venereol** 1998 Sep; 125(9):620–7 (51 ref.) **(Fre)**

[Childhood plaque milia of the inner canthus] Bouassida S, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):906–8 (Eng. Abstr.) **(Fre)**

[Cutaneous endometriosis] Esteve E, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):373 **(Fre)**

[Local anesthesia in dermatology] Grognard C. **Ann Dermatol Venereol** 1999 Apr;126(4):369–72 (10 ref.) **(Fre)**

[What will the future bring in cutaneous histopathology? (editorial)] Grosshans E. **Ann Dermatol Venereol** 1999 May; 126(5):396–8 **(Fre)**

[Granulomatous mycosis fungoides histologically simulating cutaneous sarcoidosis] Maillard H, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):912–5 (Eng. Abstr.) **(Fre)**

[Palisading granuloma] Vignon-Pennamen MD, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):615–9 (15 ref.) **(Fre)**

[Dermatologic diseases of the nipple and areola] Fraiture AL, et al. **Rev Med Liege** 1999 May;54(5):500–2 (Eng. Abstr.) **(Fre)**

[Some concerns and semantic confusions about feminine skin] Piérard GE, et al. **Rev Med Liege** 1999 Apr;54(4):313–7 (Eng. Abstr.) **(Fre)**

[Problems, responsibility and goals in dermatopathology] Kerl H, et al. **Hautarzt** 1998 Jul;49(7):533–5 **(Ger)**

[Palpable migratory acriform erythema and lymphocytic infiltration of the skin--different presentations of the same entity?] Steinmann A, et al. **Hautarzt** 1999 Apr;50(4):270–4 (Eng. Abstr.) **(Ger)**

[The skin biopsy] Weyers W, et al. **Hautarzt** 1999 Feb; 50(2):145–58 (22 ref.) **(Ger)**

[Multifunctional territories in human pathology] Miranda RN. **Rev Assoc Med Bras** 1998 Oct–Dec;44(4):331–4 (7 ref.) **(Por)**

[Penile cutaneous horn. Report of a case and review of the literature] Garcia Paños JM, et al. **Arch Esp Urol** 1999 Mar; 52(2):173–4 (6 ref.) (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

The benefits of smoking in skin diseases. Wolf R, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):641–7 (107 ref.)

Numerous and large Bier's spot associated with pregnancy. Schoenlaub P, et al. **Eur J Dermatol** 1999 Apr–May; 9(3):230–1

Pregnancy dermatoses. Vaughan Jones SA, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):233–41

The head domain of plakophilin-1 binds to desmoplakin and enhances its recruitment to desmosomes. Implications for cutaneous disease. Kowalczyk AP, et al. **J Biol Chem** 1999 Jun 25;274(26):18145–8

Angiogenesis: potential target for dermatologic intervention. Sauder DN. **J Cutan Med Surg** 1998 Jun;2 Suppl 4:S4–30–2 (22 ref.)

Collagen vascular diseases. Callen JP. **Med Clin North Am** 1998 Nov;82(6):1217–37, v (38 ref.)

Sjögren-Larsson syndrome: explaining the skin-brain connection. [editorial; comment] Rizzo WB. **Neurology** 1999 Apr 22;52(7):1307–8. Comment on: Neurology 1999 Apr 22;52(7):1345–52.

[Perimenstrual dermatoses: a comment fact of chronobiology] Piérard-Franchimont C, et al. **Rev Med Liege** 1999 Apr; 54(4):318–21 (Eng. Abstr.) **(Fre)**

[Interleukin-10 in dermatology] Asadullah K, et al. **Hautarzt** 1999 Jan;50(1):12–9 (88 ref.) (Eng. Abstr.) **(Ger)**

[Melatonin in dermatology. Experimental and clinical aspects] Fischer T, et al. **Hautarzt** 1999 Jan;50(1):5–11 (48 ref.) (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Inhibitory effects of tachykinin receptor antagonists on thermally induced inflammatory reactions in a rat model. Löfgren O, et al. **Burns** 1999 Mar;25(2):125–9

Inhibition of murine IgE and immediate cutaneous hypersensitivity responses to ovalbumin by the immunomodulatory agent leflunomide. Jarman ER, et al. **Clin Exp Immunol** 1999 Feb;115(2):221–8

Epidemiology and prevention of group A streptococcal infections: acute respiratory tract infections, skin infections, and their sequelae at the close of the twentieth century. Carapetis JR, et al. **Clin Infect Dis** 1999 Feb;28(2):205–10

Potentials and limitations of the natural antioxidants RRR-alpha-tocopherol, L-ascorbic acid and beta-carotene in cutaneous photoprotection. Fuchs J. **Free Radic Biol Med** 1998 Nov 1;25(7):848–73 (380 ref.)

Uses of vitamins A, C, and E and related compounds in dermatology: a review. Keller KL, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):611–25 (200 ref.)

Cutaneous delayed-type hypersensitivity response is inhibited in transgenic mice with keratinocyte-specific CD44 expression defect [letter] Kaya G, et al. **J Invest Dermatol** 1999 Jul;113(1):137–8

Protection of the skin during cast removal. Gökşin C, et al. **J Orthop Trauma** 1998 Aug;12(6):435

PSYCHOLOGY

Mind-body medicine. Practical applications in dermatology. Bilkis MR, et al. **Arch Dermatol** 1998 Nov;134(11):1437–41 (13 ref.)

The neuro-immuno-cutaneous-endocrine network: relationship of mind and skin. O'Sullivan RL, et al. **Arch Dermatol** 1998 Nov;134(11):1431–5 (59 ref.)

Alternative medicine. Is it all in your mind? Tausk FA. **Arch Dermatol** 1998 Nov;134(11):1422–5

Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. Gupta MA, et al. **Br J Dermatol** 1998 Nov;139(5):846–50

Cognitive-behavioral techniques. Galassi F. **Clin Dermatol** 1998 Nov–Dec;16(6):715–23 (37 ref.)

Biofeedback in dermatology. Sarti MG. **Clin Dermatol** 1998 Nov–Dec;16(6):711–4 (15 ref.)

Attitudes and prior experience with respect to alternative medicine among dermatological patients: the Freiburg questionnaire on attitudes to naturopathy (FAN). Augustin M, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:26–9

The 8th annual meeting of the Association for Psychocutaneous Medicine of North America. Gould WM. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):196–7

Obsessive-compulsive disorders in dermatology. Monti M, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):103–8 (15 ref.)

Does psychological intervention help chronic skin conditions? Capoore HS, et al. **Postgrad Med J** 1998 Nov; 74(877):662–4

Quality of life assessments in dermatology. Finlay AY. **Semin Cutan Med Surg** 1998 Dec;17(4):291–6 (54 ref.)

Cosmetics, skin care, and appearance in teenagers. Marcoux D. **Semin Cutan Med Surg** 1999 Sep;18(3):244–9 (31 ref.)

[From neuropeptides and cytokines to psychotherapy. Skin diseases between psychoneuroimmunology research and psychosomatic treatment] Niemeier V, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:14–8 (45 ref.) (Eng. Abstr.) **(Ger)**

[Value of psychotherapy in expert assessment of skin diseases. Recommendations and indications for additional psychotherapy evaluation in expert assessment from the viewpoint of dermatology] Mahler V, et al. **Hautarzt** 1998 Aug;49(8):626–33 (Eng. Abstr.) **(Ger)**

[Prevalence of psychological symptoms in dermatologic patients of an acute clinic] Windemuth D, et al. **Hautarzt** 1999 May;50(5):338–43 (Eng. Abstr.) **(Ger)**

RADIOTHERAPY

The use of narrowband UV-B (tube lamp) in the management of skin disease [editorial; comment] Ferguson J. **Arch Dermatol** 1999 May;135(5):589–90. Comment on: Arch Dermatol 1999 May;135(5):519–24.

Narrow-band UVB phototherapy: nine months' study in a New Zealand practice [letter] Wishart JM. **Clin Exp Dermatol** 1998 May;23(3):140–1

HIV, UV and immunosuppression. Akaraphanth R, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):28–31 (26 ref.)

Radiation treatment of benign mesenchymal disease. Suit H, et al. **Semin Radiat Oncol** 1999 Apr;9(2):171–8 (47 ref.)

[Narrow band UVB 311 nm versus broad band UVB. New developments in phototherapy] Degitz K, et al. **Hautarzt** 1998 Oct;49(10):795–806; quiz 806 (15 ref.) **(Ger)**

REHABILITATION

Bioclimatology and balneology in dermatology: a Dead Sea perspective. Abels DJ, et al. **Clin Dermatol** 1998 Nov–Dec; 16(6):695–8 (15 ref.)

SURGERY

Treatment of acquired cutaneous lymphangiectasis of the thigh and vulva with a carbon dioxide laser [letter] Loche F, et al. **Acta Derm Venereol** 1999 Jul;79(4):335

Malignant tumors associated with nevus sebaceous: therapeutic consequences. Beer GM, et al. **Aesthetic Plast Surg** 1999 May–Jun;23(3):224–7

Mohs micrographic excision of lentigo maligna using Mel-5 for margin control. Gross EA, et al. **Arch Dermatol** 1999 Jan;135(1):15–7

Does aspirin affect the outcome of minor cutaneous surgery? Bartlett GR. **Br J Plast Surg** 1999 Apr;52(3):214–6

Progressive skin extension: clinical and histological evaluation of a modified procedure using Kirschner wires. Molea G, et al. **Br J Plast Surg** 1999 Apr;52(3):205–8

Cryosurgery for common skin lesions. Treatment in family physicians' offices. Wetmore SJ. **Can Fam Physician** 1999 Apr;45:964–74 (31 ref.)

Laser therapy and dermatologic surgery. Cunningham BB. **Curr Opin Pediatr** 1998 Aug;10(4):405–10 (40 ref.)

Steatocystoma multiplex: a quick removal technique. Adams BB, et al. **Cutis** 1999 Aug;64(2):127–30

Lasers in the military for cutaneous disease and wound healing. Ross EV, et al. **Dermatol Clin** 1999 Jan; 17(1):135–50, ix (67 ref.)

Nodular amyloidosis treated with a pulsed dye laser. Alster TS, et al. **Dermatol Surg** 1999 Feb;25(2):133–5

Erbium:YAG laser resurfacing in Asians. Polnikorn N, et al. **Dermatol Surg** 1998 Dec;24(12):1303–7

Cryosurgery in dermatology. Zouboulis CC. **Eur J Dermatol** 1998 Oct–Nov;8(7):466–74 (49 ref.)

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Curettage or silver nitrate for pyogenic granulomas on the hand. Dollery W.

J Accid Emerg Med 1999 Mar;16(2):140–1
Teaching dermatosurgery [letter] Camacho FM.
J Eur Acad Dermatol Venereol 1999 Jan;12(1):72–4
Surgical management after doxorubicin and epirubicin extravasation [see comments] Heitmann C, et al.
J Hand Surg [Br] 1998 Oct;23(5):666–8. Comment in: J Hand Surg [Br] 1999 Jun;24(3):390.
Sunscreen, in-office dispensing, surgery debated at annual dermatology meeting [news] Lamberg L. **JAMA** 1999 Apr 21;281(15):1363–4
CO2 laser physics and tissue interactions in skin. Fulton JE, et al. **Lasers Surg Med** 1999;24(2):113–21
Pediatric dermatologic surgery for the primary care pediatrician. Babich D, et al. **Pediatr Clin North Am** 1998 Dec;45(6):1437–53 (47 ref.)
Vascular lesion laser: practical techniques or some "light" suggestions. Eichenfield LF. **Pediatr Dermatol** 1999 Jul–Aug;16(4):332–4
The krypton yellow–green laser for the treatment of facial vascular and pigmented lesions. Patel BC.
Semin Ophthalmol 1998 Sep;13(3):158–70 (7 ref.)
Genital skin loss: unified reconstructive approach to a heterogeneous entity. Wessells H. **World J Urol** 1999 Apr; 17(2):107–14 (21 ref.)
[Use of deformities in the treatment of facial skin defects in children: "deforming resections". Report of 35 cases] Berdah S, et al. **Ann Chir Plast Esthet** 1997 Jun; 42(3):228–37 (Eng. Abstr.) **(Fre)**
[Local anesthesia in dermatology] Grognard C.
Ann Dermatol Venereol 1999 Apr;126(4):369–72 (10 ref.) **(Fre)**
[Face lifts as soon as the 3rd decade of life?] Brenner P. **Dtsch Med Wochenschr** 1998 Dec 11;123(50):1530–1 **(Ger)**
[Subcutaneous infusion anesthesia with prilocaine diluted with Ringer's lactate] Breuninger H, et al. **Hautarzt** 1998 Sep;49(9):709–13 (Eng. Abstr.) **(Ger)**
[Improved method of dermatoplasty] Kazimirko NZ, et al. **Khirurgiia (Mosk)** 1999;(2):33–6 (Eng. Abstr.) **(Rus)**

THERAPY

Snake oil for the 21st century. Bigby M. **Arch Dermatol** 1998 Dec;134(12):1512–4
Mind–body medicine. Practical applications in dermatology. Bilkis MR, et al. **Arch Dermatol** 1998 Nov;134(11):1437–41 (13 ref.)
Phytotherapeutic approaches to common dermatologic conditions. Brown DJ, et al. **Arch Dermatol** 1998 Nov; 134(11):1401–4 (39 ref.)
Different modalities of spa therapy for skin diseases at the Dead Sea area. Halevy S, et al. **Arch Dermatol** 1998 Nov; 134(11):1416–20 (51 ref.)
Who should care for hospitalized patients with severe skin disease? [letter; comment] [see comments] Kerdel FA, et al. **Arch Dermatol** 1998 Sep;134(9):1159, 1161–2. Comment on: Arch Dermatol 1998 Mar;134(3):358–60. Comment in: Arch Dermatol 1999 Aug;135(8):991.
Treatment of port-wine stains with a noncoherent pulsed light source: a retrospective study. Raulin C, et al.
Arch Dermatol 1999 Jun;135(6):679–83
A double-blind, controlled clinical trial of homeopathy and an analysis of lunar phases and postoperative outcome [see comments] Smolle J, et al. **Arch Dermatol** 1998 Nov; 134(11):1368–70. Comment in: Arch Dermatol 1999 May;135(5):602.
Declining interest in medical dermatology [letter; comment] [see comments] Swerlick RA. **Arch Dermatol** 1998 Sep; 134(9):1160–2. Comment on: Arch Dermatol 1998 Mar;134(3):358–60. Comment in: Arch Dermatol 1999 Aug;135(8):991.
Alternative medicine. Is it all in your mind? Tausk FA.
Arch Dermatol 1998 Nov;134(11):1422–5
The Cochrane Skin Group. Preparing, maintaining, and disseminating systematic reviews of clinical interventions in dermatology. Williams H, et al. **Arch Dermatol** 1998 Dec; 134(12):1620–6 (43 ref.)
Randomized trials and scientific methods [letter; comment] Wrone DA, et al. **Arch Dermatol** 1999 May;135(5):602. Comment on: Arch Dermatol 1998 Nov;134(11):1368–70.
Mouth care and skin care in palliative medicine [letter; comment] Regnard C, et al. **BMJ** 1998 Oct 10; 317(7164):1013–4. Comment on: BMJ 1998 Apr 18;316(7139):1246. Comment on: BMJ 1998 Apr 18;316(7139):1246–7. Comment on: BMJ 1998 Apr 18;316(7139):1247.
Skin complications in the intensive care unit. Peerless JR, et al. **Clin Chest Med** 1999 Jun;20(2):453–67, x (95 ref.)
Traditional Iberian folk medicine in dermatology. Amezcua M. **Clin Dermatol** 1999 Jan–Feb;17(1):33–40
Placebo therapy in dermatology. Barfod TS.
Clin Dermatol 1999 Jan–Feb;17(1):69–76
Hypnosis in dermatology. Bellini MA. **Clin Dermatol** 1998 Nov–Dec;16(6):725–6 (7 ref.)
Nutritional dermatology. Dattner AM. **Clin Dermatol** 1999 Jan–Feb;17(1):57–64
Cognitive-behavioral techniques. Galassi F. **Clin Dermatol** 1998 Nov–Dec;16(6):715–23 (37 ref.)
Traditional Korean medicine in dermatology. Hann SK.
Clin Dermatol 1999 Jan–Feb;17(1):29–31
Acupuncture in dermatology. Iliev E. **Clin Dermatol** 1998 Nov–Dec;16(6):659–88 (74 ref.)
Traditional Chinese medicine in dermatology. Koo J, et al.
Clin Dermatol 1999 Jan–Feb;17(1):21–7
Traditional Arabic medicine in dermatology. Oumeish OY.
Clin Dermatol 1999 Jan–Feb;17(1):13–20
Biofeedback, cognitive–behavioral methods, hypnosis: "alternative psychotherapy"? Panconesi E, et al.
Clin Dermatol 1998 Nov–Dec;16(6):709–10 (3 ref.)
Traditional Indian medicine in dermatology. Routh HB, et al. **Clin Dermatol** 1999 Jan–Feb;17(1):41–7
Biofeedback in dermatology. Sarti MG. **Clin Dermatol** 1998 Nov–Dec;16(6):711–4 (15 ref.)
Aromatherapy in dermatology. Stevensen CJ.
Clin Dermatol 1998 Nov–Dec;16(6):689–94 (25 ref.)
Homeopathy in dermatology. Stibbe JR. **Clin Dermatol** 1999 Jan–Feb;17(1):65–8
Reflex therapy in dermatology. Stüttgen G.
Clin Dermatol 1999 Jan–Feb;17(1):77–91
High mountain climatotherapy. Tsankov NK.
Clin Dermatol 1998 Nov–Dec;16(6):699–707 (38 ref.)
The benefits of smoking in skin diseases. Wolf R, et al.
Clin Dermatol 1998 Sep–Oct;16(5):641–7 (107 ref.)
Attitudes and prior experience with respect to alternative medicine among dermatological patients: the Freiburg questionnaire on attitudes to naturopathy (FAN). Augustin M, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:26–9
Photo(chemo)therapy: advances for systemic or cutaneous disease. Creamer D, et al. **Hosp Med** 1998 Jan;59(1):23–7
Practical uses of the interferons in dermatology. Hurd DS, et al. **Int J Dermatol** 1998 Dec;37(12):881–96 (176 ref.)
Evidence-based dermatologic out-patient treatment. Jemec GB, et al. **Int J Dermatol** 1998 Nov;37(11):850–4
Occlusive therapy in historical perspective. Witkowski JA, et al. **Int J Dermatol** 1998 Jul;37(7):555–8
Cutaneous manifestations in intensive care patients [editorial; comment] Peter RU. **Intensive Care Med** 1998 Oct; 24(10):997–8. Comment on: Intensive Care Med 1998 Oct;24(10):1106–9.
Gene therapy and dermatology: more than just skin deep. Somani AK, et al. **J Cutan Med Surg** 1999 Jul;3(5):249–59 (119 ref.)
Treatment of reticular erythematous mucinosis with a large dose of ultraviolet B radiation and steroid impregnated tape. Yamazaki S, et al. **J Dermatol** 1999 Feb;26(2):115–8
Secondarily infected wounds and dermatoses: a diagnosis and treatment guide. Bikowski J. **J Emerg Med** 1999 Jan–Feb; 17(1):197–206 (46 ref.)
Induction of keratinocyte proliferation and lymphocytic infiltration by in vivo introduction of the IL-6 gene into keratinocytes and possibility of keratinocyte gene therapy for inflammatory skin diseases using IL-6 mutant genes. Sawamura D, et al. **J Immunol** 1998 Nov 15;161(10):5633–9
Provision of secondary care for dermatology within general practice. Guidelines from the Royal College of Physicians Dermatology Advisory Committee.
J R Coll Physicians Lond 1999 May–Jun;33(3):246–8
Key developments in dermatology. Groves RW.
Practitioner 1998 Apr;242(1585):288–90 (8 ref.)
Alternative medicine and dermatology. Buchness MR.
Semin Cutan Med Surg 1998 Dec;17(4):284–90 (49 ref.)
Perspectives of photodynamic therapy for skin diseases. Colussi VC, et al. **Skin Pharmacol Appl Skin Physiol** 1998 Nov–Dec;11(6):336–46 (78 ref.)
[Regulative therapy: treatment with nonspecific stimulants in dermatology in traditional and modern perspectives] Asefi M, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:9–13 (29 ref.) (Eng. Abstr.) **(Ger)**
[Unguentum lymphaticum in lymphatic diseases--current knowledge and prospects] Augustin M, et al.
Forsch Komplementarmed 1999 Apr;6 Suppl 2:34–6 **(Ger)**
[Alternative medicine therapy in dermatology: dimensions, chances and approaches to an integrative understanding] Augustin M. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:1–4 (Eng. Abstr.) **(Ger)**
[Current status of laser therapy in dermatology] Hellwig S, et al. **Hautarzt** 1998 Sep;49(9):690–704 (154 ref.) (Eng. Abstr.) **(Ger)**
[Physicians help children with skin diseases in Africa] Kohl PK. **Hautarzt** 1998 Nov;49(11):867–9 **(Ger)**
[Therapeutic use of lasers in dermatology] Hohenleutner U, et al. **Ther Umsch** 1999 Apr;56(4):170–5 (28 ref.) (Eng. Abstr.) **(Ger)**
[Laser therapy in dermatology] St Lautenschlager.
Ther Umsch 1998 Aug;55(8):522–8 (22 ref.) (Eng. Abstr.) **(Ger)**

ULTRASONOGRAPHY

[Ultrasound of the lymph nodes and the subcutis in dermatology. Part 1] Blum A, et al. **Hautarzt** 1998 Dec; 49(12):942–9 (34 ref.) **(Ger)**

URINE

Influence of metabolic genotype GSTM1 on levels of urinary mutagens in patients treated topically with coal tar. Gabbani G, et al. **Mutat Res** 1999 Mar 15;440(1):27–33

VETERINARY

Skin disease affecting the conservation of the western swamp tortoise (Pseudemydura umbrina) [see comments] Ladyman JM, et al. **Aust Vet J** 1998 Nov;76(11):743–5 (16 ref.). Comment in: Aust Vet J 1998 Nov;76(11):738.
Clinical and diagnostic findings from a large barrier-maintained SCID mouse colony (1993–1996). Knudsen D, et al. **Folia Microbiol (Praha)** 1998;43(5):495–6
What is your diagnosis? Nonradiopaque linear foreign body as probable cause of a skin sinus. Duffey MH, et al.
J Am Vet Med Assoc 1998 Dec 1;213(11):1557–8
Diet and skin disease in dogs and cats. Watson TD.
J Nutr 1998 Dec;128(12 Suppl):2783S–2789S (26 ref.)
Adult Dirofilaria repens in a subcutaneous granuloma on the chest of a dog. Bredal WP, et al. **J Small Anim Pract** 1998 Dec;39(12):595–7
Cutaneous chytridiomycosis in poison dart frogs (Dendrobates spp.) and White's tree frogs (Litoria caerulea). Pessier AP, et al. **J Vet Diagn Invest** 1999 Mar; 11(2):194–9
Delayed osteon formation in long-bone diaphysis of an 11-year-old giant cow with dermal dysplasia. Mori R, et al. **J Vet Med Sci** 1999 Feb;61(2):101–6
Walleye retroviruses associated with skin tumors and hyperplasias encode cyclin D homologs. LaPierre LA, et al. **J Virol** 1998 Nov;72(11):8765–71
Epidermal diseases in bottlenose dolphins: impacts of natural and anthropogenic factors. Wilson B, et al.
Proc R Soc Lond B Biol Sci 1999 May 22;266(1423):1077–83
Pediatric dermatology. Ackerman L.
Vet Clin North Am Small Anim Pract 1999 Jul;29(4):909–20 (8 ref.)
Inflammatory pseudotumor in a cat with cutaneous mycobacteriosis. Miller MA, et al. **Vet Pathol** 1999 Mar; 36(2):161–3
Generalized dermal dysplasia and perifollicular mucinosis in a dog. Uetsuka K, et al. **Vet Pathol** 1999 Jan;36(1):80–2
Feline skin granuloma associated with Mycobacterium avium. Stevenson K, et al. **Vet Rec** 1998 Jul 25; 143(4):109–10
Mast cell density and subtypes in the skin of Shar Pei dogs with cutaneous mucinosis. Welle M, et al.
Zentralbl Veterinarmed A 1999 Jul;46(5):309–16

VIROLOGY

Genital Bowen disease associated with an unusual human papillomavirus type 57b [letter] Ohnishi T, et al.
Arch Dermatol 1999 Jul;135(7):858–9
The glycoprotein of the carcinoembryonic antigen (CEA) gene family expressed on epithelial keratinocytes in viral warts. Egawa K, et al. **Arch Dermatol Res** 1998 Aug; 290(8):453–7
The association of skin diseases with human herpesvirus 8 infection in HIV carriers. Na Ayuthaya PI, et al.
Arch Virol 1998;143(10):1881–92
Human pathogenic virus-associated pseudolymphomas and lymphomas with primary cutaneous manifestation in humans and animals. Wagner M, et al. **Clin Infect Dis** 1998 Nov;27(5):1299–308 (112 ref.)
Detection and typing of human papillomaviruses in mucosal and cutaneous biopsies from immunosuppressed and immunocompetent patients and patients with epidermodysplasia verruciformis: a unified diagnostic approach. Surentheran T, et al. **J Clin Pathol** 1998 Aug; 51(8):606–10
Epstein Barr virus-associated lymphoproliferative-disorders primarily involving the skin. Chai C, et al.
J Cutan Pathol 1999 May;26(5):242–7
Depletion of cutaneous peptidergic innervation in HIV-associated xerosis. Rowe A, et al.
J Invest Dermatol 1999 Mar;112(3):284–9
Dermatologic manifestations in HIV-infected patients: a primary care perspective. Samet JH, et al.
Mayo Clin Proc 1999 Jul;74(7):658–60
Manifestations of AIDS in the head and neck. Reisacher WR, et al. **South Med J** 1999 Jul;92(7):684–97 (66 ref.)

SKIN DISEASES, BACTERIAL

Primary cutaneous nocardiosis. Lee MS, et al.
Australas J Dermatol 1999 May;40(2):103–5
Cutaneous manifestations of infection by nontuberculous mycobacteria. Escalonilla P, et al. **Clin Exp Dermatol** 1998 Sep;23(5):214–21
Unusual cutaneous infectious and parasitic diseases. Lemons-Estes FM, et al. **Dermatol Clin** 1999 Jan; 17(1):151–85, ix (64 ref.)
Primary cutaneous nocardiosis in a husband and wife. Angelika J, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):338–40
Vibrio infections and rickettsioses: summary notes. Katz AM.
J Cutan Med Surg 1999 Jul;3(5):247–8, 259
Primary cutaneous actinomycosis. Kanjee A, et al.
JPMA J Pak Med Assoc 1998 Nov;48(11):347–9
Pacemaker pocket infection [letter] Martinez JG.
Pacing Clin Electrophysiol 1999 Apr;22(4 Pt 1):691–2
[Bacterial cutaneous infections: impetigo, furuncle, erysipelas. Etiology, diagnosis, evolution, treatment] Foulc P, et al. **Rev Prat** 1998 Mar 15;48(6):661–6 (3 ref.) **(Fre)**
[Whitlow and phlegmon of the tendon sheaths. Diagnosis, evolution, treatment] Loy S, et al. **Rev Prat** 1998 Oct 1; 48(15):1723–8 (00 ref.) **(Fre)**
[Skin and soft-tissue infections caused by Pseudomonas aeruginosa] Cainzos Fernández M. **Rev Clin Esp** 1998 Sep; 198 Suppl 2:21–4 (21 ref.) **(Spa)**

COMPLICATIONS

A case of Lyme disease with parotitis. Kawagishi N, et al.

Dermatology 1998;197(4):386-7

DIAGNOSIS

Red nodule on the forearm of an HIV-positive man. Isolated cutaneous Mycobacterium avium-intracellulare infection. Taylor CR, et al. **Arch Dermatol** 1998 Oct;134(10):1279-80, 1282-3

The spectrum of skin, mucosa and other extra-articular manifestations. Angulo J, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):649-64 (76 ref.)

Primary cutaneous Nocardia asteroides [letter] Karakayali G, et al. **Br J Dermatol** 1998 Nov;139(5):919-20

Polymerase chain reaction-reverse cross-blot hybridization assay in the diagnosis of sporotrichoid Mycobacterium marinum infection. Posteraro B, et al. **Br J Dermatol** 1998 Nov;139(5):872-6

Dermacase. Perianal streptococcal dermatitis. Adams SP. **Can Fam Physician** 1999 Sep;45:2059, 2066

Dermacase. Pitted keratolysis. Enta T. **Can Fam Physician** 1998 Nov;44:2387, 2396

Subcutaneous nodules caused by Pseudomonas aeruginosa without sepsis. Aleman CT, et al. **Cutis** 1999 Mar; 63(3):161-3

Neonatal Pseudomonas putida infection presenting as staphylococcal scalded skin syndrome. Ladhani S, et al. **Eur J Clin Microbiol Infect Dis** 1998 Sep;17(9):642-4

Primary cutaneous nocardiosis. Folgaresi M, et al. **Eur J Dermatol** 1998 Sep;8(6):430-1

Superficial cutaneous abscess and multiple brain abscesses from Nocardia asteroides in an immunocompetent patient. Ng CS, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):793-4

Painful red nodules of the legs: a manifestation of chronic infection with gram-negative organisms. Nieves DS, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):319-21

Mycobacterium marinum with associated bursitis. Saadatmand B, et al. **J Cutan Med Surg** 1999 Apr; 3(4):218-20

Melioidosis--an emerging disease in New Zealand? [letter] Castle JL, et al. **N Z Med J** 1999 May 14;112(1087):168

Atypical mycobacterium infection with dermatological manifestation in a renal transplant recipient. de Jong JJ, et al. **Transpl Int** 1999;12(1):71-3

[Group A beta-hemolytic Streptococcus: an unusual etiology of perianal dermatitis in an adult?] Bafounta ML, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):902-4 (Eng. Abstr.) **(Fre)**

[Cutaneous signs of Rickettsia and related microorganisms] Duval X, et al. **Rev Med Interne** 1998 Aug;19(8):548-57 (57 ref.) (Eng. Abstr.) **(Fre)**

[Meningococcal sepsis in 3 young men] Diet F, et al. **Dtsch Med Wochenschr** 1999 Apr 9;124(14):424-8 (10 ref.) (Eng. Abstr.) **(Ger)**

[Mycobacterium marinum skin infections, apropos of a case (letter)] Segarra Soria MA, et al. **An Med Interna** 1998 Aug;15(8):454-6 **(Spa)**

[49 Year-old woman with cutaneous lesion, hypoxemia and pulmonary mass] Rubio T, et al. **Enferm Infecc Microbiol Clin** 1999 May;17(5):247-8 **(Spa)**

[Subdermal cellulitis due to E. coli with a fatal evolution (letter)] Martinez-Villalba J, et al. **Rev Clin Esp** 1998 Nov; 198(11):779-81 (8 ref.) **(Spa)**

DRUG THERAPY

Resistance to antibiotics used in dermatological practice. Espersen F. **Br J Dermatol** 1998 Dec;139 Suppl 53:4-8 (27 ref.)

The clinician's choice of antibiotics in the treatment of bacterial skin infection. Veien NK. **Br J Dermatol** 1998 Dec;139 Suppl 53:30-6 (38 ref.)

Successful triple-antibiotic therapy for cutaneous infection due to Mycobacterium chelonae. Fridolijn Jongevos S, et al. **Clin Infect Dis** 1999 Jan;28(1):145-6

Comparison of the in vitro activity of and pathogen responses to sparfloxacin with those of other agents in the treatment of respiratory tract, urinary tract, and skin and skin-structure infections. Dowzicky M, et al. **Clin Ther** 1999 May;21(5):790-805; discussion 789

The use of amikacin in the treatment of primary cutaneous mycobacteriosis due to Mycobacterium fortuitum [letter] Ena P, et al. **J Eur Acad Dermatol Venereol** 1999 Jan; 12(1):66-7

Efficacy and safety of tea tree oil as a topical antimicrobial agent. Carson CF, et al. **J Hosp Infect** 1998 Nov; 40(3):175-8 (30 ref.)

Efficacy and safety of ampicillin/sulbactam and cefuroxime in the treatment of serious skin and skin structure infections in pediatric patients. UNASYN Pediatric Study Group. Azimi PH, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):609-13

The use of a modified Dakin's solution (sodium hypochlorite) in the treatment of Vibrio vulnificus infection. Milner SM, et al. **Wilderness Environ Med** 1999 Spring;10(1):10-2

[Use and adverse reactions of local antibiotics and disinfectants on the skin] Smeenk G, et al. **Ned Tijdschr Geneeskd** 1999 May 29;143(22):1140-3 (29 ref.) (Eng. Abstr.) **(Dut)**

[Multiresistant bacteria in dermatology (editorial)] Lucet JC. **Ann Dermatol Venereol** 1998 Oct;125(10):669-71 **(Fre)**

[Comment on the contribution by P. H. Höger: "Topical antibiotics and antiseptics" (letter)] Sunderkötter C, et al. **Hautarzt** 1999 May;50(5):370-1 **(Ger)**

EPIDEMIOLOGY

Bacterial skin infections at a tertiary dermatological centre. Tan HH, et al. **Singapore Med J** 1998 Aug;39(8):353-6

ETIOLOGY

Bacteria and the skin: clinical practice and therapy update. Thestrup-Pedersen K. **Br J Dermatol** 1998 Dec;139 Suppl 53:1-3 (15 ref.)

Clinical, microbial, and biochemical aspects of the exfoliative toxins causing staphylococcal scalded-skin syndrome. Ladhani S, et al. **Clin Microbiol Rev** 1999 Apr;12(2):224-42 (290 ref.)

Cutaneous manifestations due to Pseudomonas infection. Silvestre JF, et al. **Int J Dermatol** 1999 Jun;38(6):419-31 (76 ref.)

Cutaneous anthrax associated with the Kombucha "mushroom" in Iran [letter] Sadjadi J. **JAMA** 1998 Nov 11;280(18):1567-8

[Tuberous lesion and nodular lymphangitis in an immunocompetent patient] Bretón Martínez JR, et al. **Rev Clin Esp** 1999 Jun;199(6):381-3 **(Spa)**

IMMUNOLOGY

Deep cutaneous infection with Mycobacterium avium-intracellulare complex in an immunosuppressed patient with dermatomyositis [letter] Bedlow AJ, et al. **Br J Dermatol** 1998 Nov;139(5):920-2

The role of superantigens in human diseases: therapeutic implications for the treatment of skin diseases. Leung DY, et al. **Br J Dermatol** 1998 Dec;139 Suppl 53:17-29 (91 ref.)

[Superantigens and their importance for inflammatory skin diseases] Olsen JV, et al. **Ugeskr Laeger** 1999 Aug 23; 161(34):4747-50 (40 ref.) (Eng. Abstr.) **(Dan)**

MICROBIOLOGY

Subcutaneous nodules with pseudomonas septicaemia in an immunocompetent patient. Asumang A, et al. **Anaesth Intensive Care** 1999 Apr;27(2):213-5

Perianal dermatitis in a child. Perianal streptococcal dermatitis (PSD). Bugatti L, et al. **Arch Dermatol** 1998 Sep; 134(9):1147, 1150

Skin bacteriology and the role of Staphylococcus aureus in infection. Noble WC. **Br J Dermatol** 1998 Dec;139 Suppl 53:9-12 (23 ref.)

Bacterial pathogens isolated from patients with skin and soft tissue infections: frequency of occurrence and antimicrobial susceptibility patterns from the SENTRY Antimicrobial Surveillance Program (United States and Canada, 1997). SENTRY Study Group (North America). Doern GV, et al. **Diagn Microbiol Infect Dis** 1999 May;34(1):65-72

Frequency of occurrence and antimicrobial susceptibility of bacterial pathogens associated with skin and soft tissue infections during 1997 from an International Surveillance Programme. SENTRY Participants Group. Jones ME, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jun;18(6):403-8

Streptococci isolated from various skin lesions: the interaction with Staphylococcus aureus strains. Akiyama H, et al. **J Dermatol Sci** 1999 Jan;19(1):17-22

Disseminated skin infection due to Mycobacterium fortuitum in an immunocompetent patient. Silvestre Salvador JF, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):158-61

Images in clinical medicine. Pulmonary and disseminated nocardiosis. Smilack JD. **N Engl J Med** 1999 Sep 16; 341(12):885

Identification of infectious Pseudomonas aeruginosa strains in an occupational saturation diving environment. Ahlén C, et al. **Occup Environ Med** 1998 Jul;55(7):480-4

Erysipelothrix rhusiopathiae: an uncommon but ever present zoonosis. Robson JM, et al. **Pathology** 1998 Nov; 30(4):391-4

An adolescent with nephrotic syndrome and multiple leg nodules. Brady RC, et al. **Pediatr Infect Dis J** 1998 Nov; 17(11):1057-8, 1061-3

Sporotrichoid cutaneous infection caused by Mycobacterium marinum. Hernández-Martín A, et al. **Pediatr Infect Dis J** 1999 Jul;18(7):656-8

PATHOLOGY

Primary cutaneous actinomycosis [letter] Verma KK, et al. **Acta Derm Venereol** 1999 Jul;79(4):327

Pseudogaucher cells in cutaneous Mycobacterium avium intracellulare infection: report of a case. Kahn H, et al. **Am J Dermatopathol** 1999 Feb;21(1):51-4

Ecthyma gangrenosum. Güçlüer H, et al. **Int J Dermatol** 1999 Apr;38(4):299-302

Cutaneous diphtheria in a child. Pandit N, et al. **Int J Dermatol** 1999 Apr;38(4):298-9

Fish tank granuloma: response to treatment with clarithromycin [letter] Gimenez Garcia R, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):81-2

Hyperkeratosis-associated coryneform infection in severe combined immunodeficient mice. Scanziani E, et al. **Lab Anim** 1998 Jul;32(3):330-6

PHYSIOPATHOLOGY

Nonvenereal treponematoses in tropical countries. Engelkens HJ, et al. **Clin Dermatol** 1999 Mar-Apr;17(2):143-52; discussion 105-6

Atypical mycobacterial cutaneous infection. Kullavanijaya P. **Clin Dermatol** 1999 Mar-Apr;17(2):153-8; discussion 105-6

[Painful nodular lesions] Niang M, et al. **Rev Med Interne** 1998 Sep;19(9):670-1 **(Fre)**

SURGERY

Surgical management of cutaneous anthrax. Aslan G, et al. **Ann Plast Surg** 1998 Nov;41(5):468-70

THERAPY

Effect of hyperbaric oxygen therapy in experimental subcutaneous and pulmonary infections due to Pseudomonas aeruginosa. Luongo C, et al. **Undersea Hyperb Med** 1999 Spring;26(1):21-5

[Combined treatment of panaritium] Lisitsin AS, et al. **Khirurgiia (Mosk)** 1998;(7):34-6 (Eng. Abstr.) **(Rus)**

TRANSMISSION

Pseudomonas aeruginosa folliculitis: a sporadic case from use of a contaminated sponge [letter] Kitamura M, et al. **Br J Dermatol** 1998 Aug;139(2):359-60

Cutaneous nocardiosis caused by Nocardia brasiliensis after an insect bite. Paredes BE, et al. **Dermatology** 1999; 198(2):159-61

Insects in the transmission of Mycobacterium ulcerans infection [letter] Portaels F, et al. **Lancet** 1999 Mar 20; 353(9157):986

[Cutaneous diphtheria in returning vacationers--mirror of inappropriate vaccination practice?] Itin PH, et al. **Schweiz Rundsch Med Prax** 1998 Sep 9;87(37):1188-90 (Eng. Abstr.) **(Ger)**

VETERINARY

Analysis of the 16S rRNA gene sequence of the coryneform bacterium associated with hyperkeratotic dermatitis of athymic nude mice and development of a PCR-based detection assay. Duga S, et al. **Mol Cell Probes** 1998 Aug; 12(4):191-9

Outbreaks of Dermatophilus congolensis infection in camels (Camelus dromedarius) from the Butana region in eastern Sudan. Gitao CG, et al. **Rev Sci Tech** 1998 Dec;17(3):743-8

An outbreak of a mixed infection of Dermatophilus congolensis and Microsporum gypseum in camels (Camelus dromedarius) in Saudi Arabia. Gitao CG, et al. **Rev Sci Tech** 1998 Dec;17(3):749-55

Comparison of a detergent scrub and a swab technique for the quantification of aerobic bacteria on canine skin. Bond R, et al. **Vet Rec** 1998 Aug 8;143(6):171-2

Detection of spirochetes by polymerase chain reaction and its relation to the course of digital dermatitis after local antibiotic treatment in dairy cattle. Mumba T, et al. **Zentralbl Veterinarmed [B]** 1999 Mar;46(2):117-26

SKIN DISEASES, BULLOUS see **SKIN DISEASES, VESICULOBULLOUS**

SKIN DISEASES, FUNGAL see **DERMATOMYCOSES**

SKIN DISEASES, GENETIC

Mosaicism in human skin. Proceedings of a symposium in honor of Rudolf Happle. Marburg, Germany, May 1998. **Am J Med Genet** 1999 Aug 6;85(4):323-423

Functional X-chromosomal mosaicism of the skin: Rudolf Happle and the lines of Alfred Blaschko. Traupe H. **Am J Med Genet** 1999 Aug 6;85(4):324-9

Loss of heterozygosity in human skin. Happle R. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):143-64 (265 ref.)

COMPLICATIONS

Gingival lesions in a patient with dermochondrocorneal dystrophy (François syndrome). A case report. Sardella A, et al. **J Clin Periodontol** 1998 Dec;25(12):1047-9 (9 ref.)

DIAGNOSIS

Familial cutaneous collagenoma. Phillips JC, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):255-7

GENETICS

A missense mutation in the zinc-finger domain of the human hairless gene underlies congenital atrichia in a family of Irish travellers. Ahmad W, et al. **Am J Hum Genet** 1998 Oct;63(4):984-91

Cutaneous mosaicism of lethal mutations. Hamm H. **Am J Med Genet** 1999 Aug 6;85(4):342-5 (20 ref.)

Cytogenetic and molecular evidence for cutaneous mosaicism: the ectodermal origin of Blaschko lines. Moss C. **Am J Med Genet** 1999 Aug 6;85(4):330-3 (22 ref.)

The role of twin studies in the genetics of skin diseases. Bataille V. **Clin Exp Dermatol** 1999 Jul;24(4):286-90 (37 ref.)

The macrocephaly-cutis marmorata telangiectatica congenita syndrome. Long-term follow-up data in 4 children and adolescents. Vogels A, et al. **Genet Couns** 1998;9(4):245-53

Hereditary skin diseases of hemidesmosomes. Jonkman MF. **J Dermatol Sci** 1999 Jun;20(2):103-21 (191 ref.)

Hereditary diseases of desmosomes. McGrath JA.

SKIN DISEASES, GENETIC

J Dermatol Sci 1999 Jun;20(2):85–91 (37 ref.)

PATHOLOGY

Cytogenetic and molecular evidence for cutaneous mosaicism: the ectodermal origin of Blaschko lines. Moss C. **Am J Med Genet** 1999 Aug 6;85(4):330–3 (22 ref.)

THERAPY

[Cutaneous gene therapy--perspectives of gene transfer in keratinocytes] Braun-Falco M, et al. **Hautarzt** 1998 Jul; 49(7):536–44 (55 ref.) (Eng. Abstr.) **(Ger)**

SKIN DISEASES, INFECTIOUS

Disseminated cutaneous rhinosporidiosis. Thappa DM, et al. **J Dermatol** 1998 Aug;25(8):527–32 (26 ref.)

Diagnosing imported rashes and skin lesions. McCarron B. **Practitioner** 1998 May;242(1586):366–8, 371, 374 passim (3 ref.)

COMPLICATIONS

Cutaneous botryomycosis in a patient with lupus nephritis. Follows GA, et al. **Nephrol Dial Transplant** 1998 Dec; 13(12):3200–1

DIAGNOSIS

Nappy rash. Part 2. Hogan P. **Aust Fam Physician** 1999 Jul; 28(7):699–701

Disseminated cutaneous protothecosis in an immunocompromised host: a case report and literature review. Wirth FA, et al. **Cutis** 1999 Mar;63(3):185–8 (48 ref.)

[Microbiological diagnosis in dermatology. Dermatological days of Paris, 3–6 December 1997] Gangneux JP, et al. **Ann Biol Clin (Paris)** 1998 May-Jun;56(3):362–5 (1 ref.) **(Fre)**

[Disseminated cutaneous involvement by cytomegalovirus and high levels of antigenemia in a patient with HIV infection (letter)] Miguélez M, et al. **Enferm Infecc Microbiol Clin** 1999 May;17(5):255–6 **(Spa)**

[Fever, adenopathies and a papulopustular lesion of the finger] Bachiller Luque P, et al. **Rev Clin Esp** 1999 Apr; 199(4):253–4 **(Spa)**

DRUG THERAPY

Sparfloxacin versus ciprofloxacin for the treatment of community-acquired, complicated skin and skin-structure infections. Lipsky BA, et al. **Clin Ther** 1999 Apr; 21(4):675–90

Levofloxacin. Its use in infections of the respiratory tract, skin, soft tissues and urinary tract. Langtry HD, et al. **Drugs** 1998 Sep;56(3):487–515 (126 ref.)

Outpatient parenteral anti-infective therapy for skin and soft-tissue infections. Deery HG 2nd. **Infect Dis Clin North Am** 1998 Dec;12(4):935–49, vii (50 ref.)

The management of skin and skin structure infections in children, adolescents and adults: a review of empiric antimicrobial therapy. Wilson SE. **Int J Clin Pract** 1998 Sep;52(6):414–7 (15 ref.)

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198–201

[Comment on the work of P.H. Höger: "Topical antibiosis and antisepsis." Hautarzt (1998) 49:331–347 (comment)] Warnecke J, et al. **Hautarzt** 1998 Dec;49(12):938–9. Comment on: Hautarzt 1998 Apr;49(4):331–47. **(Ger)**

[Experience in the application of iodine-diceryn in the treatment of purulent wounds] Bondarev RV. **Klin Khir** 1999;(1):7–8 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

Deep fungal and higher bacterial skin infections in Thailand: clinical manifestations and treatment regimens. Mahaisavariya P, et al. **Int J Dermatol** 1999 Apr; 38(4):279–84

ETIOLOGY

Multicenter study of contaminated percutaneous injuries in anesthesia personnel. Greene ES, et al. **Anesthesiology** 1998 Dec;89(6):1362–72

Interaction between group A streptococci and the plasmin(ogen) system promotes virulence in a mouse skin infection model. Li Z, et al. **J Infect Dis** 1999 Apr; 179(4):907–14

[Infectious cutaneous pathology after organ transplantation] Euvrard S. **Ann Dermatol Venereol** 1998 Dec; 125(12):939–45 (37 ref.) **(Fre)**

IMMUNOLOGY

[Immunological parallels in the use of ultraviolet irradiation of autoblood in patients with suppurative diseases of soft tissue] Ostrovskii VK, et al. **Klin Lab Diagn** 1999 Mar; (3):33–4 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Activity of gatifloxacin compared to those of five other quinolones versus aerobic and anaerobic isolates from skin and soft tissue samples of human and animal bite wound infections. Goldstein EJ, et al. **Antimicrob Agents Chemother** 1999 Jun;43(6):1475–9

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198–201

PATHOLOGY

Nappy rash. Part 2. Hogan P. **Aust Fam Physician** 1999 Jul; 28(7):699–701

Abscess-forming neutrophilic dermatosis: report of three cases associated with hemopathies. Horiguchi Y, et al. **Dermatology** 1998;197(2):174–7

Cutaneous infections by papillomavirus, herpes zoster and Candida albicans as the only manifestation of idiopathic CD4+ T lymphocytopenia. Manchado Lopez P, et al. **Int J Dermatol** 1999 Feb;38(2):119–21

SURGERY

Perineal reconstruction for severe sequela of ecthyma gangrenosum: report of a case. Freud E, et al. **Dis Colon Rectum** 1999 Jul;42(7):961–3

Reconstruction of large defects in the scalp with fasciocutaneous flaps. Guerrissi JO. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):217–24

SKIN DISEASES, METABOLIC

ETIOLOGY

[Disseminated skin abnormalities due to gout] Bruin-Weller MS, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19; 143(25):1339–40 **(Dut)**

PATHOLOGY

Vitamin A deficiency phrynoderma: due to malabsorption and inadequate diet. Bleasel NR, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):322–4

SKIN DISEASES, PAPULOSQUAMOUS

CHEMICALLY INDUCED

Papular rash and bilateral pleural effusion associated with clozapine [letter] Stanislav SW, et al. **Ann Pharmacother** 1999 Sep;33(9):1008–9

Methotrexate-induced papular eruption in patients with rheumatic diseases: a distinctive adverse cutaneous reaction produced by methotrexate in patients with collagen vascular diseases. Goerttler E, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):702–7

[Drug-induced papular-purpuric gloves and socks syndrome] van Rooijen MM, et al. **Hautarzt** 1999 Apr;50(4):280–3 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Acute abdominal pain as a leading symptom for Degos' disease (malignant atrophic papulosis). Lankisch MR, et al. **Am J Gastroenterol** 1999 Apr;94(4):1098–9

Ofuji's papuloerythroderma. An association with early gastric cancer. Nazzari G, et al. **Eur J Dermatol** 1999 Jun; 9(4):317–8

Pruritic papular eruption in HIV seropositive patients: a cutaneous marker for immunosuppression. Boonchai W, et al. **Int J Dermatol** 1999 May;38(5):348–50

Importance of paraneoplastic papulosquamous disorders in patients with solid tumors. Silvestris N, et al. **J Chemother** 1999 Jun;11(3):237–8

[An autopsy case of Degos' disease with ascending thoracic myelopathy] Sugai F, et al. **Rinsho Shinkeigaku** 1998 Dec; 38(12):1049–53 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Panniculitis mimicking lupus erythematosus profundus: a new histopathologic finding in malignant atrophic papulosis (Degos disease). Grilli R, et al. **Am J Dermatopathol** 1999 Aug;21(4):365–8

DRUG THERAPY

Effective treatment of persistent papular acantholytic dermatosis with cyclosporine. Avci O, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):162–4

[Ofuji papuloerythroderma: PUVA bath treatment] Michel S, et al. **Hautarzt** 1999 May;50(5):360–2 (Eng. Abstr.) **(Ger)**

ETIOLOGY

Purpura as a cutaneous association of sickle cell disease. Jones Wu S, et al. **Am J Dermatopathol** 1999 Aug;21(4):384–6

Papuloerythroderma associated with hepatocellular carcinoma [letter] Nishijima S. **Br J Dermatol** 1998 Dec; 139(6):1115–6

Papulonecrotic tuberculide: a forgotten cutaneous manifestation of tuberculosis. Tay E, et al. **Hosp Med** 1999 Jun;60(6):450–2

Acquired reactive perforating collagenosis with IgA nephropathy. Iwamoto I, et al. **J Dermatol** 1998 Sep; 25(9):597–600 (13 ref.)

[Genital ulcer with maculopapular exanthema without urticaria] Kleeman D, et al. **Schweiz Rundsch Med Prax** 1999 Feb 11;88(7):289–91 **(Ger)**

GENETICS

Identification of a genetic defect in the hairless gene in atrichia with papular lesions: evidence for phenotypic heterogeneity among inherited atrichias. Sprecher E, et al. **Am J Hum Genet** 1999 May;64(5):1323–9

PATHOLOGY

White, fibrous, papular lesions associated with systemic lupus erythematosus: is this an ongoing scar following vascular involvement? [letter; comment] Yamamoto T, et al. **Acta Derm Venereol** 1999 May;79(3):240. Comment on: Acta Derm Venereol 1998 Jul;78(4):308–9.

Hyperkeratosis lenticularis perstans (Flegel's disease): histologic, immunohistochemical, and ultrastructural features in a case [letter] Jang KA, et al. **Am J Dermatopathol** 1999 Aug;21(4):395–8

Benign cutaneous Degos' disease. Farrell AM, et al. **Br J Dermatol** 1998 Oct;139(4):708–12

Acquired reactive perforating collagenosis with IgA nephropathy. Iwamoto I, et al. **J Dermatol** 1998 Sep; 25(9):597–600 (13 ref.)

Disseminated papular acantholytic dyskeratosis. Ciupinska M, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):55–8

VIROLOGY

Heterogeneity of human papillomavirus DNA in a patient with Bowenoid papulosis that progressed to squamous cell carcinoma. Park KC, et al. **Br J Dermatol** 1998 Dec; 139(6):1087–91

SKIN DISEASES, PARASITIC

see related

ECTOPARASITIC INFESTATIONS

Unusual cutaneous infectious and parasitic diseases. Lemons-Estes FM, et al. **Dermatol Clin** 1999 Jan; 17(1):151–85, ix (64 ref.)

[Onchocerciasis] Takeuchi T. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):455–7 (7 ref.) **(Jpn)**

COMPLICATIONS

Onchocercal dermatitis: clinical impact. Hagan M. **Ann Trop Med Parasitol** 1998 Apr;92 Suppl 1:S85–96

Primary cutaneous acanthamoeba infection in a patient with AIDS. Migueles S, et al. **Clin Infect Dis** 1998 Dec; 27(6):1547–8

DIAGNOSIS

Guess what? Tungiasis. Veraldi S, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):57–9

Demodecidosis manifested on the external genitalia [letter] Hwang SM, et al. **Int J Dermatol** 1998 Aug;37(8):634–6

Human gnathostomiasis (nodular migratory eosonophilic panniculitis). Ruiz-Maldonado R, et al. **Int J Dermatol** 1999 Jan;38(1):56–7

Presence of Dirofilaria repens and an insect immunocyte (plasmatocyte) in a human subcutaneous nodule, induced by a mosquito bite. Pampiglione S, et al. **Parassitologia** 1998 Sep;40(3):343–6

Ectopic cutaneous schistosomiasis: report of two cases and a review of the literature. Andrade Filho J de S, et al. **Rev Inst Med Trop Sao Paulo** 1998 Jul-Aug;40(4):253–7 (15 ref.)

[Imported skin diseases (see comments)] Cairo I, et al. **Ned Tijdschr Geneeskd** 1998 Dec 12;142(50):2746–50 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Mar 27;143(13):696. **(Dut)**

[Imported skin diseases (letter)] Klokke AH. **Ned Tijdschr Geneeskd** 1999 Jun 12;143(24):1281 **(Dut)**

[Case for diagnosis. Ectopic cutaneous schistosomiasis] Clyti E, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):737–8 **(Fre)**

[Medicine in images. Incidental diagnosis of a mass subcutaneously located in the axillary region] Navarro Martin LM, et al. **Rev Clin Esp** 1998 Oct;198(10):703–4 **(Spa)**

DRUG THERAPY

A multi-centre study of the effect of Mectizan treatment on onchocercal skin disease: clinical findings. Ogbuagu KF, et al. **Ann Trop Med Parasitol** 1998 Apr;92 Suppl 1:S139–45

The effects of ivermectin on onchocercal skin disease and severe itching: results of a multicentre trial. Brieger WR, et al. **Trop Med Int Health** 1998 Dec;3(12):951–61

EPIDEMIOLOGY

The burden of Onchocerca volvulus in Sudan. Mukhtar MM, et al. **Ann Trop Med Parasitol** 1998 Apr;92 Suppl 1:S129–31

The burden of onchocerciasis in Uganda. Ndyomugyenyi R. **Ann Trop Med Parasitol** 1998 Apr;92 Suppl 1:S133–7

HISTORY

What a lousy outlook. Weber KT. **Cardiovasc Res** 1998 Oct;

40(1):1-3

METABOLISM

The level of the collagen cross-link pyridinoline reflects the improvement of cutaneous lesions in one case of skin alveolar echinococcosis. Ricard-Blum S, et al. **Parasitol Res** 1998 Sep;84(9):715-9

PARASITOLOGY

Acute balanoposthitis caused by infestation with Cordylobia anthropophaga [letter] Petersen CS, et al. **Acta Derm Venereol** 1999 Mar;79(2):170

Human gnathostomiasis caused by Gnathostoma doloresi, with particular reference to the parasitological investigation of the causative agent. Akahane H, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):721-6

[Mites behind an "island rash" during black currant picking on an island in the gulf of Gävle] Westman A. **Lakartidningen** 1999 Aug 11;96(32-33):3437-9 **(Swe)**

PATHOLOGY

Guess What! Myiasis caused by Wohlfahrtia vigil. Grunwald MH, et al. **Eur J Dermatol** 1998 Jun;8(4):287-8

Myiasis: a successful treatment with topical ivermectin. Victoria J, et al. **Int J Dermatol** 1999 Feb;38(2):142-4

Exfoliative skin manifestations in acute lymphatic filariasis. Dunyo SK, et al. **Trans R Soc Trop Med Hyg** 1998 Sep-Oct; 92(5):539-40

PSYCHOLOGY

Stigma associated with onchocercal skin disease among those affected near the Ofiki and Oyan Rivers in western Nigeria. Brieger WR, et al. **Soc Sci Med** 1998 Oct;47(7):841-52

TRANSMISSION

Population dynamics of and larval trematode interactions with Lymnaea tomentosa and the potential for biological control of schistosome dermatitis in Bremner Bay, Lake Wanaka, New Zealand. Davis NE. **J Helminthol** 1998 Dec; 72(4):319-24

VETERINARY

Oral pharmacological treatments for parasitic diseases of rainbow trout oncorhynchus mykiss. III. Ichthyobodo necator. Tojo JL, et al. **Dis Aquat Organ** 1998 Jul 30; 33(3):195-9

Massive Dracunculus insignis infection in a dog. Beyer TA, et al. **J Am Vet Med Assoc** 1999 Feb 1;214(3):366-8, 351

Traumatic myiasis of sheep in Europe: a review. Hall MJ. **Parassitologia** 1997 Dec;39(4):409-13 (50 ref.)

Cutaneous neosporosis in a dog in Israel. Perl S, et al. **Vet Parasitol** 1998 Nov 16;79(3):257-61

Dermatitis with invasive ciliated protozoa in dolphins that died during the 1987-1988 Atlantic Bottlenose Dolphin morbilliviral epizootic. Schulman FY, et al. **Vet Pathol** 1999 Mar;36(2):171-4

SKIN DISEASES, STAPHYLOCOCCAL see **STAPHYLOCOCCAL SKIN INFECTIONS**

SKIN DISEASES, VASCULAR

PURPLE (oops! Atrophie blanche) revisited [letter] Milstone LM, et al. **Arch Dermatol** 1998 Dec;134(12):1634

Atrophie blanche. Maessen-Visch MB, et al. **Int J Dermatol** 1999 Mar;38(3):161-72 (136 ref.)

Cutaneous small-vessel vasculitis. Lotti T, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):667-87; quiz 688-90 (218 ref.)

BLOOD

Homocysteinemia and livedoid vasculitis. Gibson GE, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):279-81

CHEMICALLY INDUCED

Peripheral vasculopathy and nephropathy in association with phentermine. Jefferson HJ, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1761-3

Necrotizing vasculitis secondary to propylthiouracil presenting as purpura fulminans [letter] Park KE, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):790-2

[Nicolau syndrome caused by intramuscular administration of diclofenac] Forsbach Sánchez G, et al. **Rev Invest Clin** 1999 Jan-Feb;51(1):71 **(Spa)**

COMPLICATIONS

Erythema elevatum diutinum in a patient with human herpesvirus 6 infection [letter] Drago F, et al. **Acta Derm Venereol** 1999 Jan;79(1):91-2

Acute abdominal pain as a leading symptom for Degos' disease (malignant atrophic papulosis). Lankisch MR, et al. **Am J Gastroenterol** 1999 Apr;94(4):1098-9

Bullous pemphigoid associated with cutaneous leukocytoclastic vasculitis. Beer TW, et al. **Int J Dermatol** 1998 Dec;37(12):940-2

A Japanese case of dengue fever with lymphocytic vasculitis: diagnosis by polymerase chain reaction. Ishikawa H, et al. **J Dermatol** 1999 Jan;26(1):29-32

A blistering rash and swollen knees. Hogarth MB, et al. **Lancet** 1999 Mar 20;353(9157):978

Cutaneous vasculitis and solid tumors [letter] Garcia-Porrua C, et al. **Rev Rhum Engl Ed** 1999 Mar;66(3):185-6

[An autopsy case of Degos' disease with ascending thoracic myelopathy] Sugai F, et al. **Rinsho Shinkeigaku** 1998 Dec; 38(12):1049-53 (Eng. Abstr.) **(Jpn)**

CONGENITAL

[Primary cerebral hemiatrophy associated with other malformations. A case report] Martí Aromir G, et al. **An Esp Pediatr** 1998 Sep;49(3):305-7 (12 ref.) **(Spa)**

DIAGNOSIS

Relapsing livedo reticularis in the setting of chronic pancreatitis. Gould JW, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1035-6

Diffuse dermal angiomatosis: a variant of reactive angioendotheliomatosis associated with atherosclerosis. Kimyai-Asadi A, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):257-9

Bockenheimer's syndrome. van Geest AJ, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):165-8

Scurvy can mimick cutaneous vasculitis. Three case reports [letter] Gonzalez-Gay MA, et al. **Rev Rhum Engl Ed** 1999 Jun;66(6):360-1

Necrotizing vasculitis secondary to propylthiouracil presenting as purpura fulminans [letter] Park KE, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):790-2

[Atrial myxoma: cutaneous manifestations] Le Cam MT, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):32-4 (Eng. Abstr.) **(Fre)**

[Cutaneous vasculitis disclosing cat-scratch disease] Schmoor P, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):894-6 (Eng. Abstr.) **(Fre)**

[Mucocutaneous manifestations of dengue] Mahé A, et al. **Presse Med** 1998 Nov 28;27(37):1909-13 (35 ref.) (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Livedoid vasculitis with anticardiolipin antibodies: improvement with danazol [letter] Wakelin SH, et al. **Br J Dermatol** 1998 Nov;139(5):935-7

Livedo reticularis and livedoid vasculitis responding to PUVA therapy. Choi HJ, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):204-7

ETIOLOGY

Steroid-responsive pleuropericarditis and livedo reticularis in an unusual case of adult-onset primary hyperoxaluria. Singh S, et al. **Am J Kidney Dis** 1999 Apr;33(4):e5 (36 ref.)

Oxalate kinetics and reversal of the complications after orthotopic liver transplantation in a patient with primary hyperoxalosis type 1 awaiting renal transplantation. Bastani B, et al. **Am J Nephrol** 1999;19(1):64-9

How should cutis marmorata be treated? [letter] Conkin J. **Aviat Space Environ Med** 1999 Sep;70(9):939-40

Low grade fever, back pain and livedo reticularis in a 60-year-old man [clinical conference] Voulgarelis M, et al. **Clin Exp Rheumatol** 1999 Jan-Feb;17(1):95-8

Diffuse dermal angiomatosis: a variant of reactive angioendotheliomatosis associated with atherosclerosis. Kimyai-Asadi A, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):257-9

Intravascular and diffuse dermal reactive angioendotheliomatosis secondary to iatrogenic arteriovenous fistulas. Requena L, et al. **J Cutan Pathol** 1999 Mar;26(3):159-64

IMMUNOLOGY

[Ischemic stroke in young patients and/or livedo: is it important to look for anti-beta 2-glycoprotein I antibodies?] Granel F, et al. **Rev Med Interne** 1998 Oct; 19(10):709-12 (Eng. Abstr.) **(Fre)**

METABOLISM

Immune complexes from vasculitis patients bind to endothelial Fc receptors independent of the allelic polymorphism of FcgammaRIIa. Gröger M, et al. **J Invest Dermatol** 1999 Jul;113(1):56-60

MICROBIOLOGY

Cutaneous vasculitis and collapse. Lyon CC, et al. **Postgrad Med J** 1998 Nov;74(877):695-6

[Cutaneous leukocytoclastic vasculitis in a patient with pulmonary tuberculosis (letter)] Ilias I, et al. **Presse Med** 1998 May 16;27(18):859-60 **(Fre)**

PATHOLOGY

Cutaneous leukocytoclastic vasculitis with positive anti-neutrophil cytoplasmic antibodies [letter] Daoud MS, et al. **Acta Derm Venereol** 1999 Jul;79(4):328-9

Angiodermatitis associated with congenital arteriovenous malformation on the elbow [letter] Lee JH, et al. **Acta Derm Venereol** 1999 May;79(3):238-9

Abscess-forming neutrophilic dermatosis: report of three cases associated with hemopathies. Horiguchi Y, et al. **Dermatology** 1998;197(2):174-7

Angiomatosis of skin with local intravascular immunoglobulin deposits, associated with monoclonal gammopathy. A potential cutaneous marker for B-chronic lymphocytic leukemia. A report of unusual case with immunohistochemical and immunofluorescence correlation and review of the literature. Salama SS, et al. **J Cutan Pathol** 1999 Apr;26(4):206-12 (32 ref.)

Adult dermatomyositis with livedo reticularis and multiple skin ulcers. Yosipovitch G, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):48-50

What syndrome is this? Macrocephaly with cutis marmorata, hemangioma, and syndactyly syndrome. Moffitt DL, et al. **Pediatr Dermatol** 1999 May-Jun;16(3):235-7

[Disseminated ischemic necrosis and livedo racemosa in a chronic dialysis patient with calciphylaxis] Henschel A, et al. **Hautarzt** 1999 Jun;50(6):439-44 (Eng. Abstr.) **(Ger)**

RADIOTHERAPY

Treatment of arborising telangiectasia with pulsed tunable dye laser (SPTL-1b). Georgantopoulou AA, et al. **Br J Plast Surg** 1998 Dec;51(8):614-9

SURGERY

Percutaneous and combined percutaneous and intralesional Nd:YAG-laser therapy for vascular malformations. Wimmershoff MB, et al. **Acta Derm Venereol** 1999 Jan; 79(1):71-3

Delayed appearance of livedo reticularis in 3 cases with a cholesterol embolism [letter] Kusaba A, et al. **Arch Dermatol** 1999 Jun;135(6):725-6

Treatment of vascular lesions using the VersaPulse variable pulse width frequency doubled neodymium:YAG laser. Dummer R, et al. **Dermatology** 1998;197(2):158-61

THERAPY

How should cutis marmorata be treated? [letter] Conkin J. **Aviat Space Environ Med** 1999 Sep;70(9):939-40

Effect of compression therapy on a pseudo-Kaposi sarcoma. Pires A, et al. **Dermatology** 1999;198(4):439-41

SKIN DISEASES, VESICULAR see **SKIN DISEASES, VESICULOBULLOUS**

SKIN DISEASES, VESICULOBULLOUS

Intercellular IgA dermatosis. Ongenae KC, et al. **Eur J Dermatol** 1999 Mar;9(2):85-94 (66 ref.)

CHEMICALLY INDUCED

Acute generalized exanthematous pustulosis upon ingestion of a progesterone preparation [letter] Kuno Y, et al. **Acta Derm Venereol** 1998 Sep;78(5):383

Naproxen-induced lichen planus bullosus [letter] Ozkan S, et al. **Acta Derm Venereol** 1999 Jul;79(4):329-30

Isoniazid-induced bullous skin reaction. Scheid P, et al. **Allergy** 1999 Mar;54(3):294-6

Toxic eruption in a woman with chronic arthritis. Abate KL, et al. **Arch Dermatol** 1999 Jan;135(1):81-6

Acute generalized exanthematous pustulosis: a cutaneous adverse effect due to prophylactic antiviral therapy with protease inhibitor. Aquilina C, et al. **Arch Intern Med** 1998 Oct 26;158(19):2160-1

Bullous fixed drug eruption due to paracetamol with an unusual immunofluorescence pattern [letter] Hern S, et al. **Br J Dermatol** 1998 Dec;139(6):1129-31

Acute generalized exanthematous pustulosis induced by diltiazem: value of patch testing [letter] Jan V, et al. **Dermatology** 1998;197(3):274-5

Drug-induced linear IgA bullous dermatosis associated with ceftriaxone- and metronidazole-specific T cells. Yawalkar N, et al. **Dermatology** 1999;199(1):25-30

Captopril-triggered linear IgA bullous dermatosis. Friedman IS, et al. **Int J Dermatol** 1998 Aug;37(8):608-12 (20 ref.)

Pustular eruption in a malaria patient treated with chloroquine [letter] Wilairatana P, et al. **Int J Dermatol** 1998 Sep;37(9):713-4

Drug-induced linear IgA bullous dermatosis probably induced by furosemide. Cerottini JP, et al. **J Am Acad Dermatol** 1999 Jul;41(1):103-5

Pustular drug eruption due to bacampicilin hydrochloride in a patient with psoriasis. Isogai Z, et al. **J Dermatol** 1998 Sep;25(9):612-5

Acute generalized exanthematous pustulosis induced by salazosulfapyridine in a patient with ulcerative colitis. Kawaguchi M, et al. **J Dermatol** 1999 Jun;26(6):359-62

Ritodrine-induced pustular eruption in a pregnant woman with psoriasis [letter] D'Incan M, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):91-3

Generalized pustular drug eruptions [letter; comment] Koumantaki-Mathioudaki E, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):196-7. Comment on: J Eur Acad Dermatol Venereol 1998 Jan;10(1):36-41.

Depot sulfonamid associated linear IgA bullous dermatosis with erythema multiforme-like clinical features. Tonev S, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):165-8

Clinical, demographic, and immunohistologic features of vancomycin-induced linear IgA bullous disease of the skin. Report of 2 cases and review of the literature. Nousari

HC, et al. **Medicine (Baltimore)** 1999 Jan;78(1):1-8 (34 ref.)
[Generalized acute exanthematous pustulosis caused by carbamazepine] Lachgar T. **Allerg Immunol (Paris)** 1999 May;31(5):151-2 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

Ulcerative colitis and immunobullous disease cured by colectomy [letter] Egan CA, et al. **Arch Dermatol** 1999 Feb;135(2):214-5
Clinical conference on management dilemmas: bullous hand pustules in a patient treated for lung cancer [clinical conference] Schnader J, et al. **Chest** 1999 Aug; 116(2):549-56
Sarcoidosis in a patient with linear IgA disease. Porter WM, et al. **Clin Exp Dermatol** 1999 Mar;24(2):67-70
Subcorneal pustular dermatosis (Sneddon-Wilkinson disease) in a patient with multiple sclerosis [letter] Köhler LD, et al. **Dermatology** 1999;199(1):69-70
Linear IgA bullous dermatosis associated with ulcerative colitis. Chi HI, et al. **J Dermatol** 1999 Mar;26(3):150-3
Cholestatic jaundice with skin desquamation in a 12-year-old girl [clinical conference] Stutts JT, et al. **J Pediatr** 1999 May;134(5):649-53
Concomitant lupus nephritis and bullous eruption in systemic lupus erythematosus. Ng YY, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1739-43
[Bullous amyloidosis in multiple myeloma] Heide R, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1580 **(Dut)**

DIAGNOSIS

Bullous dermatoses in end-stage renal failure: porphyria or pseudoporphyria? Glynne P, et al. **Am J Kidney Dis** 1999 Jul;34(1):155-60
Bullous prurigo pigmentosa and diabetes. Kubota Y, et al. **Eur J Dermatol** 1998 Sep;8(6):439-41
Linear IgA bullous dermatosis with circulating IgG autoantibodies to the 230 kD epidermal antigen. Honoki K, et al. **J Dermatol** 1998 Aug;25(8):503-9
Linear IgA disease histopathologically and clinically masquerading as lichen planus. Cohen DM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Aug;88(2):196-201
[Erosive and pustular scalp diseases (editorial)] Bonerandi JJ. **Ann Dermatol Venereol** 1999 Apr;126(4):311-2 **(Fre)**
[Eosinophilic pustulosis in an infant accompanied by immune deficit] Rybojad M, et al. **Ann Dermatol Venereol** 1999 Jan; 126(1):29-31 (Eng. Abstr.) **(Fre)**
[Tubero-pustular demodicosis] Grossmann B, et al. **Hautarzt** 1999 Jul;50(7):491-4 (Eng. Abstr.) **(Ger)**
[Bullous phototoxic contact dermatitis caused by Ruta graveolens L. (garden rue), Rutaceae. Case report and review of literature] Schempp CM, et al. **Hautarzt** 1999 Jun;50(6):432-4 (14 ref.) (Eng. Abstr.) **(Ger)**
[Linear IgA dermatosis in an adult with clinical signs of Stevens-Johnson syndrome] Schneck B, et al. **Hautarzt** 1999 Apr;50(4):288-91 (Eng. Abstr.) **(Ger)**

DRUG THERAPY

Vesiculobullous Darier's disease responsive to oral prednisolone steroids [letter] Speight EL. **Br J Dermatol** 1998 Nov;139(5):934-5
Treatment of autoimmune blistering diseases. Glied M, et al. **Dermatol Clin** 1999 Apr;17(2):431-40, x (56 ref.)
Subcorneal pustular dermatosis treated with PUVA therapy. A case report and review of the literature. Bauwens M, et al. **Dermatology** 1999;198(2):203-5 (18 ref.)
Chronic bullous disease of childhood: successful treatment with dicloxacillin. Siegfried EC, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):797-800
Treatment of linear IgA bullous dermatosis of childhood with colchicine. Ang P, et al. **Pediatr Dermatol** 1999 Jan-Feb; 16(1):50-2
Infantile acropustulosis revisited: history of scabies and response to topical corticosteroids. Mancini AJ, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):337-41
Successful treatment of eosinophilic pustulosis with oral cimetidine [letter] Rogers M. **Pediatr Dermatol** 1999 Jul-Aug;16(4):335-6
[Ofuji's papulo-erythroderma: treatment with cyclosporin A] Jullien D, et al. **Ann Dermatol Venereol** 1998 Sep; 125(9):589-92 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Waldenström macroglobulinemia-induced bullous dermatosis. West NY, et al. **Arch Dermatol** 1998 Sep; 134(9):1127-31 (19 ref.)
Linear IgA bullous dermatosis in a patient with acute lymphocytic leukemia: possible involvement of granulocyte colony-stimulating factor. Kano Y, et al. **Eur J Dermatol** 1999 Mar;9(2):122-5
Bullae formation secondary to carbon monoxide poisoning [letter] Johnson R, et al. **J Am Podiatr Med Assoc** 1999 Mar;89(3):152-4
Insect bite as possible cause of eosinophilic pustular dermatosis [letter] Horiuchi Y. **J Dermatol** 1999 Mar; 26(3):196-7
Eosinophilic pustular folliculitis (Ofuji's disease) in myelodysplastic syndrome. Jang KA, et al. **J Dermatol** 1998 Nov;25(11):742-6
Subepidermal autoimmune bullous skin diseases associated with B-cell lymphoproliferative disorders. Aractingi S, et al. **Medicine (Baltimore)** 1999 Jul;78(4):228-35
Infantile acropustulosis revisited: history of scabies and response to topical corticosteroids. Mancini AJ, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):337-41
Childhood immunobullous disease following a second organ transplant. Morelli JG, et al. **Pediatr Dermatol** 1999 May-Jun;16(3):205-7
Hemorrhagic bullous lesions in Henoch-Schönlein purpura. Saulsbury FT. **Pediatr Dermatol** 1998 Sep-Oct;15(5):357-9
[Pellagra (deficiency of vitamin B3 or of the amino acid tryptophan): a disease still extant in the Netherlands] Pasmans SG, et al. **Ned Tijdschr Geneeskd** 1998 Aug 15; 142(33):1880-2 (Eng. Abstr.) **(Dut)**
[Erosive and pustular scalp diseases (editorial)] Bonerandi JJ. **Ann Dermatol Venereol** 1999 Apr;126(4):311-2 **(Fre)**
[Acute exanthematous pustulosis and bacterial infection (letter)] Raymond F, et al. **Arch Pediatr** 1999 Apr; 6(4):480-1 **(Fre)**
[Scabies--provoked bullous lichen planus in a child] Schlotmann K, et al. **Hautarzt** 1998 Dec;49(12):929-31 (Eng. Abstr.) **(Ger)**

GENETICS

A novel mutation in the 1A domain of keratin 2e in ichthyosis bullosa of Siemens. Arin MJ, et al. **J Invest Dermatol** 1999 Mar;112(3):380-2

IMMUNOLOGY

The localization of target antigens and autoantibodies in linear IgA disease is variable: correlation of immunogold electron microscopy and immunoblotting. Zhou S, et al. **Br J Dermatol** 1998 Oct;139(4):591-7
IgE bullous disease - what's in a name? [letter] Wakelin SH, et al. **Clin Exp Dermatol** 1998 Sep;23(5):231-2
Intercellular IgA vesiculopustular dermatosis [letter] Cordoliani F. **Eur J Dermatol** 1998 Mar;8(2):137
Linear IgA disease and ulcerative colitis. De Simone C, et al. **Eur J Dermatol** 1998 Jan-Feb;8(1):48-50
Immunologic bullous diseases: blisters without a precipitating event. Lipp KE, et al. **Geriatrics** 1998 Dec;53(12):43-4, 49-53 (14 ref.)
Linear IgA bullous dermatosis in a patient with chronic renal failure: response to intravenous immunoglobulin therapy. Khan IU, et al. **J Am Acad Dermatol** 1999 Mar;40(3):485-8
Bazex syndrome mimicking a primary autoimmune bullous disorder. Mutasim DF, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):822-5
Linear IgA bullous dermatosis with circulating IgG autoantibodies to the 230 kD epidermal antigen. Honoki K, et al. **J Dermatol** 1998 Aug;25(8):503-9
Bullous pemphigoid sera that contain antibodies to BPAg2 also contain antibodies to LABD97 that recognize epitopes distal to the NC16A domain. Egan CA, et al. **J Invest Dermatol** 1999 Feb;112(2):148-52
Type XVII collagen (BP180) and LAD-1 are present as separate trimeric complexes. Pas HH, et al. **J Invest Dermatol** 1999 Jan;112(1):58-61
The 97 kDa linear IgA bullous dermatosis antigen is not expressed in a patient with generalized atrophic benign epidermolysis bullosa with a novel homozygous G258X mutation in COL17A1. Shimizu H, et al. **J Invest Dermatol** 1998 Nov;111(5):887-92
The blistering diseases. Scott JE, et al. **Med Clin North Am** 1998 Nov;82(6):1239-83 (56 ref.)
[Autoimmune bullous skin diseases] Joly P. **Rev Med Interne** 1999 Jan;20(1):26-38 (67 ref.) (Eng. Abstr.) **(Fre)**

METABOLISM

Lack of expression of interleukin 8 and RANTES in autoimmune bullous skin diseases. Bornscheuer E, et al. **Dermatology** 1999;198(2):118-21

PATHOLOGY

Bullous and hemorrhagic lesions. Gomez-Calcerrada MR, et al. **Arch Dermatol** 1999 Jan;135(1):81-6
Bullous eruption in a 36-year old man with polycystic kidney disease. Viernes JL, et al. **Arch Dermatol** 1999 Jan; 135(1):81-6
IgA multiple myeloma presenting as an acquired bullous disorder. Wong DA, et al. **Australas J Dermatol** 1999 Feb; 40(1):31-4
Acute generalized exanthematous pustulosis- An apoptotic process as suggested by immunohistochemical analysis? [letter] Ohtsuka T, et al. **Dermatology** 1998;197(2):188-9
Amicrobial pustulosis of the folds. A cutaneous manifestation associated with connective tissue disease. Stefanidou MP, et al. **Dermatology** 1998;197(4):394-6
Molecular basis of blistering skin diseases. McGrath JA, et al. **Hosp Med** 1998 Jan;59(1):28-32
Pustular drug eruption due to bacampicilin hydrochloride in a patient with psoriasis. Isogai Z, et al. **J Dermatol** 1998 Sep;25(9):612-5
A case of pustular ulcerative dermatosis of the scalp associated with ulcerative skin lesions on the scrotum. Sadayama T, et al. **J Dermatol** 1998 Oct;25(10):657-61
Subcorneal pustular dermatosis involving the face. Lotery HE, et al. **J Eur Acad Dermatol Venereol** 1999 May; 12(3):230-3
Eosinophilic pustular folliculitis in infancy: report of two new cases. Larralde M, et al. **Pediatr Dermatol** 1999 Mar-Apr; 16(2):118-20
[Recurrence of erosive pustular scalp dermatosis after a skin graft] Drouin CA, et al. **Ann Dermatol Venereol** 1999 Apr; 126(4):335-8 (Eng. Abstr.) **(Fre)**

SURGERY

[Recurrence of erosive pustular scalp dermatosis after a skin graft] Drouin CA, et al. **Ann Dermatol Venereol** 1999 Apr; 126(4):335-8 (Eng. Abstr.) **(Fre)**

THERAPY

Linear IgA bullous dermatosis in a patient with chronic renal failure: response to intravenous immunoglobulin therapy. Khan IU, et al. **J Am Acad Dermatol** 1999 Mar;40(3):485-8

VETERINARY

Bullous systemic lupus erythematosus (type I) in a dog. Olivry T, et al. **Vet Rec** 1999 Aug 7;145(6):165-9

SKIN DISEASES, VIRAL

DIAGNOSIS

[Mucocutaneous manifestations of dengue] Mahé A, et al. **Presse Med** 1998 Nov 28;27(37):1909-13 (35 ref.) (Eng. Abstr.) **(Fre)**
[The joint manifestations of exanthematous viroses] de Oliveira SA, et al. **Rev Soc Bras Med Trop** 1999 Mar-Apr; 32(2):125-30 (Eng. Abstr.) **(Por)**

DRUG THERAPY

Influence of the treatment protocol upon the in vivo efficacy of cidofovir (HPMPC) and of acyclovir (ACV) formulations in topical treatment of cutaneous HSV-1 infection in hairless mice. Afouna MI, et al. **J Pharm Sci** 1999 May;88(5):530-4
New antiviral agents for dermatologic disease. Carlton S, et al. **Semin Cutan Med Surg** 1998 Dec;17(4):243-55 (77 ref.)
HIV related skin diseases clear with combination therapy. Conant MA. **West J Med** 1998 Oct;169(4):225-6

ETIOLOGY

Systematic cutaneous examination in hepatitis C virus infected patients. Cribier B, et al. **Acta Derm Venereol** 1998 Sep;78(5):355-7

GENETICS

DNA fingerprinting of Fusarium solani isolates related to a cutaneous infection in a sea turtle. Castellá G, et al. **Med Mycol** 1999 Aug;37(4):223-6

PATHOLOGY

Herpes zoster in a 7-month-old infant: a case report and review. Elmer KB, et al. **Cutis** 1999 Apr;63(4):217-8 (8 ref.)
Clinical, histopathologic, and molecular aspects of cutaneous human papillomavirus infections. Fazel N, et al. **Dermatol Clin** 1999 Jul;17(3):521-36, viii (138 ref.)
Herpes zoster in seven disparate dermatomes (zoster multiplex): report of a case and review of the literature. Vu AQ, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):868-9 (13 ref.)
Leukemia cutis in acute lymphocytic leukemia masquerading as viral exanthem. Chao SC, et al. **J Dermatol** 1999 Apr; 26(4):216-9

VETERINARY

Cutaneous poxvirus-like infection in a captive Hermann's tortoise (Testudo hermanni). Orós J, et al. **Vet Rec** 1998 Oct 31;143(18):508-9

VIROLOGY

Virus-associated haemophagocytic syndrome caused by rubella in an adult. Takenaka H, et al. **Br J Dermatol** 1998 Nov;139(5):877-80

SKIN DRUG ADMINISTRATION see **ADMINISTRATION, CUTANEOUS**

SKIN ELECTRIC CONDUCTANCE see **GALVANIC SKIN RESPONSE**

SKIN FISTULA see **CUTANEOUS FISTULA**

SKIN NEOPLASMS

Ampullary somatostatinoma in a patient with Merkel cell carcinoma. Fincher RK, et al. **Am J Gastroenterol** 1999 Jul;94(7):1955-7
Sezary syndrome: a case report and a review of the molecular pathomechanism and management. Ng PP, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):864-7
Multiple trichoepithelioma with basal cell carcinoma [letter] Yamamoto N, et al. **Ann Plast Surg** 1999 Aug;43(2):221-2
The measurement of constitutive and facultative skin

pigmentation and estimation of sun exposure in Caucasians with basal cell carcinoma and cutaneous malignant melanoma. Lock-Andersen J, et al. **Br J Dermatol** 1998 Oct;139(4):610-7

Malignant melanoma: a clinical review. Brown TJ, et al. **Cutis** 1999 May;63(5):275-8, 281-4 (66 ref.)

Report of a nipple nevus and an overview of accessory mammary tissue. Lewis EJ, et al. **Cutis** 1998 Nov; 62(5):243-6

Evaluation and management of nonmelanoma skin cancer. The military perspective. Welch ML, et al. **Dermatol Clin** 1999 Jan;17(1):19-28, vii (36 ref.)

Perianal Bowen's disease and anal intraepithelial neoplasia: review of the literature. Cleary RK, et al. **Dis Colon Rectum** 1999 Jul;42(7):945-51 (48 ref.)

Basal cell carcinoma of the perianal region: 20-year experience. Paterson CA, et al. **Dis Colon Rectum** 1999 Sep;42(9):1200-2

Blue rubber bleb naevus: case report and literature review. Fernandes C, et al. **Eur J Gastroenterol Hepatol** 1999 Apr; 11(4):455-7

Malignant mesenchymoma arising in an incisional scar of the abdominal wall. Sato N, et al. **Eur J Surg Oncol** 1998 Oct; 24(5):449-50 (10 ref.)

Pathologic parameters in the diagnosis and prognosis of primary cutaneous melanoma. Byers HR, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):717-35 (65 ref.)

Public health interventions for melanoma. Prevention, early detection, and education. Koh HK, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):903-28 (126 ref.)

Prognosis in malignant melanoma. Stadelmann WK, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):767-96, vi (92 ref.)

Primary cutaneous marginal zone B-cell lymphoma: a report of 9 cases. de la Fouchardière A, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):181-8

Microcystic adnexal carcinoma: collaborative series review and update. Friedman PM, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):225-31 (35 ref.)

Collagenous fibroma (desmoplastic fibroblastoma). Weisberg NK, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):292-4

Acral lentiginous melanoma. Harmelin ES, et al. **J Foot Ankle Surg** 1998 Nov-Dec;37(6):540-5

Gastrointestinal: blue rubber bleb naevus syndrome. Hammond P, et al. **J Gastroenterol Hepatol** 1999 Mar; 14(3):295

Characterization of a canine long-term T cell line (DLC 01) established from a dog with Sézary syndrome and producing retroviral particles. Ghernati I, et al. **Leukemia** 1999 Aug;13(8):1281-90

Transgenic mouse model for skin malignant melanoma. Kato M, et al. **Oncogene** 1998 Oct 8;17(14):1885-8

Primary epithelioid sarcoma of the scalp. Suwantemee C. **Plast Reconstr Surg** 1999 Sep;104(3):785-8

Basal cell carcinoma. Burns T. **Practitioner** 1998 Oct; 242(1591):718 (0 ref.)

GPs step into the breach [editorial] Poyner T. **Practitioner** 1998 Apr;242(1585):241

Predicting children's sunscreen use: application of the theories of reasoned action and planned behavior. Martin SC, et al. **Prev Med** 1999 Jul;29(1):37-44

Clark's nevus. Metcalf JS, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):43-6

Primary cutaneous lymphomas other than mycosis fungoides. Gilliam AC, et al. **Semin Oncol** 1999 Jun;26(3):290-306 (107 ref.)

Mycosis fungoides and the Sézary syndrome. Kim YH, et al. **Semin Oncol** 1999 Jun;26(3):276-89 (86 ref.)

Cutaneous T-cell lymphomas. Samuelson E. **Semin Oncol Nurs** 1998 Nov;14(4):293-301 (55 ref.)

Merkel cell carcinoma: an aggressive neoplasm. Datta CK, et al. **W V Med J** 1999 May-Jun;95(3):127-9 (10 ref.)

[Sclerosing tufted angioma. Apropos of 4 cases involving lower limbs] Catteau B, et al. **Ann Dermatol Venereol** 1998 Oct;125(10):682-7 (Eng. Abstr.) **(Fre)**

[Adult T-cell lymphoma associated with HTLV-1: a familial form] Cordoliani F, et al. **Ann Dermatol Venereol** 1998 Oct; 125(10):708-10 (Eng. Abstr.) **(Fre)**

[Merkel cell carcinoma: diagnostic and treatment] Voog E, et al. **Bull Cancer** 1999 Jul-Aug;86(7-8):625-30 (51 ref.) (Eng. Abstr.) **(Fre)**

[Melanocytic nevi] Crickx B. **Rev Prat** 1999 Apr 15; 49(8):829-32 (8 ref.) (Eng. Abstr.) **(Fre)**

[Epidermoid carcinoma] Descamps V. **Rev Prat** 1999 Apr 15;49(8):818-23 (14 ref.) (Eng. Abstr.) **(Fre)**

[Melanoma] Dréno B. **Rev Prat** 1999 Apr 15;49(8):833-7 (9 ref.) (Eng. Abstr.) **(Fre)**

[Basal cell carcinoma] Lacour JP. **Rev Prat** 1999 Apr 15; 49(8):824-8 (10 ref.) (Eng. Abstr.) **(Fre)**

[Kaposi's disease] Lebbé C. **Rev Prat** 1999 Apr 15;49(8):843-7 (42 ref.) (Eng. Abstr.) **(Fre)**

[Kasabach-Merrit syndrome] Suzuki S, et al. **Ryoikibetsu Shokogun Shirizu** 1998;(21 Pt 2):513-6 (14 ref.) **(Jpn)**

[Angiokeratoma circumscriptum] Nikolić B, et al. **Vojnosanit Pregl** 1998 Sep-Oct;55(5):565-7 (Eng. Abstr.) **(Scc)**

[Dermatofibrosarcoma protuberans: case report] Kozarev J, et al. **Med Pregl** 1999 Jan-Feb;52(1-2):71-3 (Eng. Abstr.) **(Scr)**

[Clinico-epidemiologic characteristics of superficial multiple basal cell carcinoma at the Dermatovenereology Clinic in Novi Sad 1986-1996] Stojanović S, et al. **Med Pregl** 1999 Jan-Feb;52(1-2):62-5 (Eng. Abstr.) **(Scr)**

BLOOD

MIA, a novel serum marker for progression of malignant melanoma. Bosserhoff AK, et al. **Anticancer Res** 1999 Jul-Aug;19(4A):2691-3

Cathepsins B, H, and L and their inhibitors stefin A and cystatin C in sera of melanoma patients. Kos J, et al. **Clin Cancer Res** 1997 Oct;3(10):1815-22

Presence of activated lymphocytes in the peripheral blood of patients with halo nevi. Baranda L, et al. **J Am Acad Dermatol** 1999 Oct;41(4):567-72

Skin metastases of gynecologic adenocarcinomas affect serum levels of hCGbeta but not those of SCC antigen. Lehtovirta P, et al. **Tumour Biol** 1999 Sep-Oct;20(5):251-5

BLOOD SUPPLY

Vascular channel formation by human melanoma cells in vivo and in vitro: vasculogenic mimicry [see comments] Maniotis AJ, et al. **Am J Pathol** 1999 Sep;155(3):739-52. Comment in: Am J Pathol 1999 Sep;155(3):675-9.

Host microvasculature influence on tumor vascular morphology and endothelial gene expression. Roberts WG, et al. **Am J Pathol** 1998 Oct;153(4):1239-48

Angiogenesis correlates with metastasis in melanoma. Neitzel LT, et al. **Ann Surg Oncol** 1999 Jan-Feb;6(1):70-4

Interstitial collagenase and the ED-B oncofetal domain of fibronectin are markers of angiogenesis in human skin tumors [published erratum appears in Cancer Detect Prev 1999;23(2):182] Karelina TV, et al. **Cancer Detect Prev** 1998;22(5):438-44

Angiogenesis is an early event in the development of chemically induced skin tumors. Bolontrade MF, et al. **Carcinogenesis** 1998 Dec;19(12):2107-13

Blood flow compared in benign melanocytic naevi, malignant melanomas and basal cell carcinomas. Stücker M, et al. **Clin Exp Dermatol** 1999 Mar;24(2):107-11

Fractal quantification of the microvasculature heterogeneity in cutaneous melanoma. Heymans O, et al. **Dermatology** 1999;198(2):212-7

Basal cell carcinoma--an in-vivo model of human tumour microcirculation? Bedlow AJ, et al. **Exp Dermatol** 1999 Jun;8(3):222-6

Tumor microvessels in melanoma express the beta-2 chain of laminin. Implications for melanoma metastasis. Lugassy C, et al. **J Cutan Pathol** 1999 May;26(5):222-6

Color Doppler sonography of focal lesions of the skin and subcutaneous tissue. Giovagnorio F, et al. **J Ultrasound Med** 1999 Feb;18(2):89-93

Analysis of centrosome abnormalities and angiogenesis in epidermal-targeted p53172H mutant and p53-knockout mice after chemical carcinogenesis: evidence for a gain of function. Wang XJ, et al. **Mol Carcinog** 1998 Nov; 23(3):185-92

Tumor suppression in human skin carcinoma cells by chromosome 15 transfer or thrombospondin-1 overexpression through halted tumor vascularization. Bleuel K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2; 96(5):2065-70

[Inhibition of tumor neo-angiogenesis and induction of apoptosis as properties of docetaxel (taxotere)] Schimming R, et al. **Mund Kiefer Gesichtschir** 1999 Jul;3(4):210-2 (Eng. Abstr.) **(Ger)**

CHEMICALLY INDUCED

Arsenic enhancement of skin neoplasia by chronic stimulation of growth factors. Germolec DR, et al. **Am J Pathol** 1998 Dec;153(6):1775-85

Lack of tumor promoting activity of capsaicin, a principal pungent ingredient of red pepper, in mouse skin carcinogenesis. Park KK, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4201-5

Eruptive angiomas after treatment with cyclosporine in a patient with psoriasis [letter] De Felipe I, et al. **Arch Dermatol** 1998 Nov;134(11):1487-8

Lifetime health risk assessment from exposure of recreational users to polycyclic aromatic hydrocarbons. Hussain M, et al. **Arch Environ Contam Toxicol** 1998 Oct;35(3):527-31

Inhibitory effect of cycloartenol ferulate, a component of rice bran, on tumor promotion in two-stage carcinogenesis in mouse skin. Yasukawa K, et al. **Biol Pharm Bull** 1998 Oct;21(10):1072-6

Merkel cell carcinoma, Bowen's disease and chronic occupational arsenic poisoning. Tsuruta D, et al. **Br J Dermatol** 1998 Aug;139(2):291-4

Chronic endemic hydroarsenicism. Woollons A, et al. **Br J Dermatol** 1998 Dec;139(6):1092-6

Augmentation of 12-O-tetradecanoyl 13-phorbol acetate-mediated tumor promoting response by the porphyrin photosensitization of 7,12-dimethyl benz[a]anthracene-initiated murine skin: role of in situ generated reactive oxygen species. Giri U, et al. **Cancer Lett** 1999 Jan 8;135(1):53-60

Low antibody responsiveness is found to be associated with resistance to chemical skin tumorigenesis in several lines of Biozzi mice. Ibañez OM, et al. **Cancer Lett** 1999 Mar 1;136(2):153-8

Tumor-initiating activity of the (+)-(S,S)- and (-)-(R,R)-enantiomers of trans-11,12-dihydroxy-11,12-dihydrodibenzo[a,l]pyrene in mouse skin. Luch A, et al. **Cancer Lett** 1999 Mar 1; 136(2):119-28

12-O-tetradecanoylphorbol-13-acetate induces clonal expansion of potentially malignant keratinocytes in a tissue model of early neoplastic progression. Karen J, et al. **Cancer Res** 1999 Jan 15;59(2):474-81

New studies on trans-anethole oxide and trans-asarone oxide. Kim SG, et al. **Carcinogenesis** 1999 Jul;20(7):1303-7

Induction of thioredoxin, thioredoxin reductase and glutaredoxin activity in mouse skin by TPA, a calcium ionophore and other tumor promoters. Kumar S, et al. **Carcinogenesis** 1999 Sep;20(9):1761-7

A multihit, multistage model of chemical carcinogenesis. Owens DM, et al. **Carcinogenesis** 1999 Sep;20(9):1837-44

Tumor promoting effect of N-nitroso-N-(2-hexanonyl)-3'-nitrotyramine (a nitrosated Maillard reaction product) in benzo(a)pyrene-initiated mouse skin carcinogenesis. Tseng TH, et al. **Chem Biol Interact** 1998 Aug 14;115(1):23-38

Multiple squamous cell carcinomas following photochemotherapy for atopic eczema [letter] Kirby B, et al. **Clin Exp Dermatol** 1999 Jul;24(4):337

Arsenic-related Bowen's disease, palmar keratosis, and skin cancer [clinical conference] Cöl M, et al. **Environ Health Perspect** 1999 Aug;107(8):687-9

Multiple squamous cell carcinomas of the skin during long-term treatment with hydroxyurea. De Simone C, et al. **Eur J Dermatol** 1998 Mar;8(2):114-5

Short- and intermediate-term carcinogenicity testing--a review. Part 1: the prototypes mouse skin tumour assay and rat liver focus assay. Enzmann H, et al. **Food Chem Toxicol** 1998 Nov;36(11):979-95 (184 ref.)

Carcinogenicity and co-carcinogenicity studies on propoxur in mouse skin. Shukla Y, et al. **Food Chem Toxicol** 1998 Dec;36(12):1125-30

Cancer induction studies using different administrations of benzenediazonium sulfate in mice. Toth B, et al. **In Vivo** 1999 Mar-Apr;13(2):125-8

Skin tumorigenesis by initiators and promoters of different chemical structures in lines of mice selectively bred for resistance (Car-r) or susceptibility (Car-s) to two-stage skin carcinogenesis. Saran A, et al. **Int J Cancer** 1999 Oct 29;83(3):335-40

Eruptive melanocytic nevi and cherry angiomas secondary to exposure to sulfur mustard gas [letter] Firooz A, et al. **J Am Acad Dermatol** 1999 Apr;40(4):646-7

Occupationally related tumors in tar refinery workers. Letzel S, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):712-20

Merkel cell carcinoma and chronic arsenicism. Lien HC, et al. **J Am Acad Dermatol** 1999 Oct;41(4):641-3

Kaposi's sarcoma in renal transplant recipients: pathogenetic relation between the reduced density of Langerhans cells and cyclosporin-A therapy. Bedani PL, et al. **J Nephrol** 1999 May-Jun;12(3):193-6

Eruptive cherry angiomas and irritant symptoms after one acute exposure to the glycol ether solvent 2-butoxyethanol. Raymond LW, et al. **J Occup Environ Med** 1998 Dec; 40(12):1059-64

Multiple malignant melanomas in a patient with RA treated with methotrexate [letter; comment] Potter T, et al. **J Rheumatol** 1998 Nov;25(11):2282-3. Comment on: J Rheumatol 1997 Jul;24(7):1444-5.

Multiple skin cancers associated with hydroxyurea therapy. Best PJ, et al. **Mayo Clin Proc** 1998 Oct;73(10):961-3

Conversion of C57Bl/6 mice from a tumor promotion-resistant to a -sensitive phenotype by enhanced ornithine decarboxylase expression. Guo Y, et al. **Mol Carcinog** 1999 Sep;26(1):32-6

Enhancement of susceptibility to diverse skin tumor promoters by activation of the insulin-like growth factor-1 receptor in the epidermis of transgenic mice. Wilker E, et al. **Mol Carcinog** 1999 Jun;25(2):122-31

Skin tumorigenesis and Ki-ras and Ha-ras mutations in tumors from adult mice exposed in utero to 3'-azido-2',3'-dideoxythymidine. Zhang Z, et al. **Mol Carcinog** 1998 Sep;23(1):45-51

Tumor suppression by p27Kip1 and p21Cip1 during chemically induced skin carcinogenesis. Philipp J, et al. **Oncogene** 1999 Aug 19;18(33):4689-98

Genetics of skin tumor promotion. Angel JM, et al. **Prog Exp Tumor Res** 1999;35:143-57 (45 ref.)

Effect of evening primrose and fish oils on two stage skin carcinogenesis in mice. Ramesh G, et al. **Prostaglandins Leukot Essent Fatty Acids** 1998 Sep; 59(3):155-61

Evidence that iron-overload promotes 7,12-dimethylbenz(a)anthracene- induced skin tumorigenesis in mice. Rezazadeh H, et al. **Redox Rep** 1997 Oct-Dec;3(5-6):303-9

Influence of diet restriction and tumor promoter dose on cell proliferation, oxidative DNA damage and rate of papilloma appearance in the mouse skin after initiation with DMBA and promotion with TPA. Fischer WH, et al. **Toxicol Lett** 1998 Sep 1;98(1-2):59-69

Photocarcinogenicity of drugs. Stern RS. **Toxicol Lett** 1998 Dec 28;102-103:389-92

The transgenic Tg.AC mouse model for identification of chemical carcinogens. Tennant RW, et al. **Toxicol Lett** 1998 Dec 28;102-103:465-71

Dermal carcinogenicity in transgenic mice: relative

responsiveness of male and female hemizygous and homozygous Tg.AC mice to 12-O-tetradecanoylphorbol 13-acetate (TPA) and benzene. Blanchard KT, et al. **Toxicol Pathol** 1998 Jul-Aug;26(4):541-7

Tripropylene glycol diacrylate but not ethyl acrylate induces skin tumors in a twenty-week short-term tumorigenesis study in Tg.AC (v-Ha-ras) mice. Nylander-French LA, et al. **Toxicol Pathol** 1998 Jul-Aug;26(4):476-83

The role of dermal irritation in the skin tumor promoting activity of petroleum middle distillates. Nessel CS, et al. **Toxicol Sci** 1999 May;49(1):48-55

A comprehensive evaluation of the mechanism of skin tumorigenesis by straight-run and cracked petroleum middle distillates. Nessel CS, et al. **Toxicol Sci** 1998 Jul; 44(1):22-31

Development of a transgenic mouse model for carcinogenesis bioassays: evaluation of chemically induced skin tumors in Tg.AC mice. Spalding JW, et al. **Toxicol Sci** 1999 Jun; 49(2):241-54

Five cases of Kaposi's sarcoma in kidney graft recipients: possible influence of the immunosuppressive therapy. Eberhard OK, et al. **Transplantation** 1999 Jan 15; 67(1):180-4

[Painless, red-violet skin lesions during immunosuppression] Pfister M, et al. **Ther Umsch** 1998 Sep;55(9):583-5 (Eng. Abstr.) **(Ger)**

CHEMISTRY

Immunohistochemical analysis of cytokeratin expression in various trichogenic tumors. Ohnishi T, et al. **Am J Dermatopathol** 1999 Aug;21(4):337-43

Differential expression of the cancer-associated antigens T (Thomsen-Friedenreich) and Tn in primary and recurring squamous cell carcinomas of the skin. Kanitakis J, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):619-20

Up-regulation of growth hormone receptor immunoreactivity in human melanoma. Lincoln DT, et al. **Anticancer Res** 1999 May-Jun;19(3A):1919-31

Expression of melanoma-associated antigens in short-term melanoma cultures detected by RT-PCR and subsequent ELISA. Hofbauer GF, et al. **Arch Dermatol Res** 1998 Aug; 290(8):458-61

Histopathological assessment of localized proliferation in cases of Bowen's disease using immunostaining and a laser cytometer. Murakami M, et al. **Arch Dermatol Res** 1998 Aug;290(8):435-40

Determination of endogenous porphyrins and the maximal HpD tumor/normal skin ratio in SKH-1 hairless mice by light induced fluorescence spectroscopy. Bossu E, et al. **Artif Cells Blood Substit Immobil Biotechnol** 1999 Mar; 27(2):109-17

Differential expression of epidermal growth factor receptor in melanocytic tumours demonstrated by immunohistochemistry and mRNA in situ hybridization. Sparrow LE, et al. **Australas J Dermatol** 1999 Feb; 40(1):19-24

Molecular prognostic markers in intermediate-thickness cutaneous malignant melanoma. Hieken TJ, et al. **Cancer** 1999 Jan 15;85(2):375-82

ESR study of plasmatic membrane of the transplantable melanoma cells in relation to their biological properties. Kozłowska K, et al. **Exp Toxicol Pathol** 1999 Jan; 51(1):89-92

Method of melanin bleaching in MIB1-Ki67 immunostaining of pigmented lesions: A quantitative evaluation in malignant melanomas. Li LX, et al. **Histochem J** 1999 Apr; 31(4):237-40

Mitotic cyclins and cyclin-dependent kinases in melanocytic lesions. Tran TA, et al. **Hum Pathol** 1998 Oct; 29(10):1085-90

RNA isolation from human skin tissues for colorimetric differential display. Hipfel R, et al. **J Biochem Biophys Methods** 1998 Nov 18;37(3):131-5

Communication: expression of the novel inhibitor of apoptosis survivin in normal and neoplastic skin. Chiodino C, et al. **J Invest Dermatol** 1999 Sep;113(3):415-8

Skin type, melanoma, and melanocortin 1 receptor variants [letter; comment] Healy E, et al. **J Invest Dermatol** 1999 Apr;112(4):512-3. Comment on: J Invest Dermatol 1998 Jul;111(1):119-22. Comment on: J Invest Dermatol 1998 Aug;111(2):218-21.

Factor analysis of cancer Fourier transform infrared evanescent wave fiberoptical (FTIR-FEW) spectra. Sukuta S, et al. **Lasers Surg Med** 1999;24(5):382-8

Melan A/MART-1 immunoreactivity in formalin-fixed paraffin-embedded primary and metastatic melanoma: frequency and distribution. Hofbauer GF, et al. **Melanoma Res** 1998 Aug;8(4):337-43

Bcl2 and Bax expression in naevi and melanomas and their relation to ploidy status and proliferation. Korabiowska M, et al. **Pol J Pathol** 1999;50(1):17-21

CLASSIFICATION

A critique of classifications of lymphoma in historical perspective (and a proposal for how a classification that actually works can be formulated). Ackerman AB, et al. **Am J Dermatopathol** 1999 Jun;21(3):288-93

Classification of cutaneous lymphoma: a critical appraisal of recent proposals. Norton AJ. **Am J Dermatopathol** 1999 Jun;21(3):279-87 (54 ref.)

The revised European-American Classification of Lymphoid Neoplasms (REAL): a preferred approach for the classification of cutaneous lymphomas. Sander CA, et al. **Am J Dermatopathol** 1999 Jun;21(3):274-8

EORTC classification for primary cutaneous lymphomas: the best guide to good clinical management. European Organization for Research and Treatment of Cancer (EORTC) classification? Russell-Jones R. **Br J Dermatol** 1998 Dec;139(6):945-9 (25 ref.)

Classification of cutaneous malignant melanoma: a reassessment of histopathologic criteria for the distinction of different types. Weyers W, et al. **Cancer** 1999 Jul 15; 86(2):288-99

Cutaneous lymphoma. Understanding the new classification schemes. Duncan LM. **Dermatol Clin** 1999 Jul;17(3):569-92 (125 ref.)

Classification and staging of melanoma. Gershenwald JE, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):737-65 (114 ref.)

Why classify basal cell carcinomas? [letter] Slater DN. **Histopathology** 1998 Oct;33(4):393

Immunohistochemical comparison of cutaneous lymphadenoma, trichoblastoma, and basal cell carcinoma: support for classification of lymphadenoma as a variant of trichoblastoma. McNiff JM, et al. **J Cutan Pathol** 1999 Mar;26(3):119-24

Incipient intraepidermal cutaneous squamous cell carcinoma: a proposal for reclassifying and grading solar (actinic) keratoses. Yantsos VA, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):3-14

[Primary cutaneous B-cell lymphoma: present views] Fakan F. **Cesk Patol** 1998 Jul;34(3):83-8 (Eng. Abstr.) **(Cze)**

[Importance of the new classification of primary cutaneous lymphomas elaborated by the EORTC (European Organization for Research and Treatment of Cancer) group] Wechsler J. **Ann Pathol** 1998 Oct;18(4):315-23 (45 ref.) **(Fre)**

[Dermatofibroma. A clinico-pathologic classification scheme] Zelger BG, et al. **Pathologe** 1998 Nov;19(6):412-9 (30 ref.) (Eng. Abstr.) **(Ger)**

[Cutaneous and subcutaneous soft tissue tumors] Meister P. **Verh Dtsch Ges Pathol** 1998;82:112-20 (36 ref.) (Eng. Abstr.) **(Ger)**

[Cutaneous neural neoplasms--an update] Mentzel T. **Verh Dtsch Ges Pathol** 1998;82:309-16 (56 ref.) (Eng. Abstr.) **(Ger)**

COMPLICATIONS

On the association between vitiligo and malignant melanoma [letter] Lindelöf B, et al. **Acta Derm Venereol** 1998 Nov; 78(6):483-4

Verruciform xanthoma associated with squamous cell carcinoma. Mannes KD, et al. **Am J Dermatopathol** 1999 Feb;21(1):66-9

Melanosis in association with metastatic malignant melanoma: report of a case and a unifying concept of pathogenesis. Murray C, et al. **Am J Dermatopathol** 1999 Feb;21(1):28-30

Clear cell acanthoma presenting as polypoid papule combined with melanocytic nevus. Yang SG, et al. **Am J Dermatopathol** 1999 Feb;21(1):63-5

Chronic eosinophilic pneumonia associated with cutaneous T-cell lymphoma. Hirshberg B, et al. **Am J Hematol** 1999 Feb;60(2):143-7

Poliosis associated with a giant congenital nevus [letter] Yosipovitch G, et al. **Arch Dermatol** 1999 Jul;135(7):859-61

Immunohistochemical detection of parathyroid hormone-related protein in a cutaneous squamous cell carcinoma causing humoral hypercalcemia of malignancy. Crespo M, et al. **Arch Pathol Lab Med** 1999 Aug; 123(8):725-30

Pathological case of the month. Osteoma cutis/pseudohypoparathyroidism. Kappy M, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):427-8

Carney complex: in a patient with multiple blue naevi and lentigines, suspect cardiac myxoma. Bleasel NR, et al. **Australas J Dermatol** 1999 Aug;40(3):158-60

Classical Kaposi's sarcoma and chronic lymphocytic leukaemia in the same skin biopsy. Report of two cases [letter] Cottoni F, et al. **Br J Dermatol** 1998 Oct; 139(4):753-4

Verruciform xanthoma arising in an arteriovenous haemangioma [letter] Kishimoto S, et al. **Br J Dermatol** 1998 Sep;139(3):546-8

Primary cutaneous large B-cell lymphoma of the legs and malignant melanoma: coincidence or association? [letter] Koeppel MC, et al. **Br J Dermatol** 1998 Oct;139(4):751-2

Increased risk of lymphoid and nonlymphoid malignancies in patients with lymphomatoid papulosis. Wang HH, et al. **Cancer** 1999 Oct 1;86(7):1240-5

Reversal of hypercalcemia with the vitamin D analogue EB1089 in a human model of squamous cancer. El Abdaimi K, et al. **Cancer Res** 1999 Jul 15;59(14):3325-8

Resolution of bullous pemphigoid and improvement of vitiligo after successful treatment of squamous cell carcinoma of the skin. Deguchi M, et al. **Clin Exp Dermatol** 1999 Jan;24(1):14-5

Acne in a Becker's naevus: an androgen-mediated link? [letter] Downs AM, et al. **Clin Exp Dermatol** 1998 Jul; 23(4):191-2

The linear naevus sebaceus syndrome. van de Warrenburg BP, et al. **Clin Neurol Neurosurg** 1998 Jun;100(2):126-32 (57 ref.)

Dermatofibrosarcoma protuberans in an infant with a history of choroid plexus papilloma. Libow LF, et al. **Cutis** 1999 Feb;63(2):95-7

Basal cell carcinoma within vulvar Paget's disease. Ishizawa T, et al. **Dermatology** 1998;197(4):388-90

Bone involvement in a case of Kaposi sarcoma. Ritz-Quillac L, et al. **Dermatology** 1999;198(1):73-4

Generalized melanosis in metastatic malignant melanoma: the possible role of DOPAquinone metabolites. Tsukamoto K, et al. **Dermatology** 1998;197(4):338-42

Sweet's syndrome associated with cutaneous T cell lymphoma. Aubin F, et al. **Eur J Dermatol** 1998 Apr-May; 8(3):178-9

Eruptive dermatofibromas and immunosuppression. Gualandri L, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):45-7

Primary cutaneous B-cell lymphoma: an association of chronic hepatitis C infection. McKiernan S, et al. **Eur J Gastroenterol Hepatol** 1999 Jun;11(6):669-72

Metastases from a regressed malignant melanoma as a cause of haemoperitoneum. Wong LS, et al. **Eur J Surg Oncol** 1999 Apr;25(2):227

Clear cell carcinoma arising in extragonadal endometriosis in a Caeserean section scar during pregnancy [letter] Gücer F, et al. **Gynecol Oncol** 1999 May;73(2):337 (4 ref.)

Cancer risk in patients with earlier diagnosis of cutaneous melanoma in situ. Wassberg C, et al. **Int J Cancer** 1999 Oct 29;83(3):314-7

Follicular cysts and hyperkeratoses in early mycosis fungoides. van de Kerkhof PC. **Int J Dermatol** 1998 Sep; 37(9):696-8

Lupus vulgaris complicated by metastatic squamous cell carcinoma. Yerushalmi J, et al. **Int J Dermatol** 1998 Dec; 37(12):934-5

Gamma/delta T cell lymphoma presenting in the subcutaneous tissue and small intestine in a patient with capillary leak syndrome. Takimoto Y, et al. **Int J Hematol** 1998 Aug;68(2):183-91

Basal cell carcinoma in a black woman with syringomas. Bhat L, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1033-4

Stewart-Treves syndrome in a patient with elephantiasis. Hallel-Halevy D, et al. **J Am Acad Dermatol** 1999 Aug; 41(2 Pt 2):349-50

Cutaneous angiosarcoma with thrombocytopenia. Satoh T, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):872-6

Syringolymphoid hyperplasia and follicular mucinosis in a patient with cutaneous T-cell lymphoma. Tannous Z, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):303-8 (8 ref.)

Biliary tract obstruction secondary to mycosis fungoides: a case report. Madsen JA, et al. **J Clin Gastroenterol** 1999 Jan;28(1):56-60

Composite tumor consisting of dermatofibrosarcoma protuberans and myxofibrosarcoma. Zámecnik M, et al. **J Cutan Pathol** 1998 Sep;25(8):445-9

Localized hypopigmented mycosis fungoides in a 12-year-old caucasian boy. Grunwald MH, et al. **J Dermatol** 1999 Jan;26(1):70-1

Paraneoplastic syndromes of leukocytosis, thrombocytosis, and hypercalcemia associated with squamous cell carcinoma. Kato N, et al. **J Dermatol** 1999 Jun;26(6):352-8

A case of multiple subungual glomus tumors associated with neurofibromatosis type 1. Okada O, et al. **J Dermatol** 1999 Aug;26(8):535-7 (7 ref.)

Melanoma development in relation to non-functional p16/INK4A protein and dysplastic naevus syndrome in Swedish melanoma kindreds. Hashemi J, et al. **Melanoma Res** 1999 Feb;9(1):21-30

Naevus-associated melanomas: cause or chance? Massi D, et al. **Melanoma Res** 1999 Feb;9(1):85-91

The dialysed patient with both Castleman disease and Kaposi sarcoma. Nampoory MR, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2373-6

Ophthalmic abnormalities in patients with cutaneous T-cell lymphoma. Cook BE Jr, et al. **Ophthalmology** 1999 Jul; 106(7):1339-44

Periorbital cellular blue nevus leading to orbitopalpebral and intracranial melanoma. Gündüz K, et al. **Ophthalmology** 1998 Nov;105(11):2046-50

Cutaneomeningospinal angiomatosis (Cobb syndrome) with tethered cord. Brant AJ, et al. **Pediatr Neurosurg** 1999 Feb; 30(2):93-5

Melanocytic nevi in children treated with growth hormone. Wyatt D. **Pediatrics** 1999 Oct;104(4 Pt 2):1045-50

Xeroderma pigmentosum variant associated with multiple cancers. Kuwamoto K, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun-Aug; 15(3-4):127-32

Ophthalmic abnormalities in patients with cutaneous T-cell lymphoma. Cook BE Jr, et al. **Trans Am Ophthalmol Soc** 1998;96:309-24; discussion 324-7

[Diseases associated with adnexal tumors. I--Follicular tumors] Cribier B. **Ann Dermatol Venereol** 1999 Mar; 126(3):270-9 (104 ref.) **(Fre)**

[Giant cell fibroblastoma associated with Darier-Ferrand dermatofibrosarcoma in an adult] Kourda M, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):255-6 (Eng. Abstr.) **(Fre)**

[Multiple trichodiscomas associated with colonic polyposis] Le Guyadec T, et al. **Ann Dermatol Venereol** 1998 Oct; 125(10):717-9 (Eng. Abstr.) **(Fre)**

[Cutaneous lymphoma manifesting as pigmented, purpuric capillaries] Lipsker D, et al. **Ann Dermatol Venereol** 1999 Apr;126(4):321–6 (Eng. Abstr.) **(Fre)**

[Muir–Torre syndrome] Tiszlavicz L, et al. **Orv Hetil** 1999 Jan 31;140(5):251–4 (Eng. Abstr.) **(Hun)**

[The blue rubber bleb nevus syndrome or Bean's syndrome. A rare cause of digestive hemorrhage] Silva A, et al. **Acta Med Port** 1998 Dec;11(12):1131–4 (10 ref.) (Eng. Abstr.) **(Por)**

[Intestinal hemorrhage for 21 years in a case of blue nevus syndrome] Ramírez Mateos C, et al. **Rev Gastroenterol Mex** 1998 Jan–Mar;63(1):37–40 (Eng. Abstr.) **(Spa)**

CONGENITAL

Poliosis associated with a giant congenital nevus [letter] Yosipovitch G, et al. **Arch Dermatol** 1999 Jul;135(7):859–61

Conjunctival melanoma associated with extensive congenital conjunctival nevus and split nevus of eyelid. Nawa Y, et al. **Arch Ophthalmol** 1999 Feb;117(2):269–71

Leptomeningeal melanoma in childhood. Makin GW, et al. **Cancer** 1999 Sep 1;86(5):878–86

The diagnosis and treatment of common birthmarks. Brown TJ, et al. **Clin Plast Surg** 1998 Oct;25(4):509–25 (65 ref.)

Caudal appendage in a full-term infant. Svatek M, et al. **Curr Opin Pediatr** 1998 Dec;10(6):635–9

Segmental arrangement of multiple, partly congenital and partly acquired melanocytic nevi. Bañuls J, et al. **Eur J Dermatol** 1998 Mar;8(2):80–2

Cutaneous angiosarcoma arising on the radiation site of a congenital facial hemangioma [letter] Cabo H, et al. **Int J Dermatol** 1998 Aug;37(8):638–9

Hamartomatous congenital melanocytic nevi showing secondary anetoderma-like changes. Cockayne SE, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):843–5

Risk of melanoma in medium-sized congenital melanocytic nevi [letter; comment] Otley CC. **J Am Acad Dermatol** 1999 Jul;41(1):131–2. Comment on: J Am Acad Dermatol 1998 Sep;39(3):428–33.

Giant congenital multiple patch-like glomus tumors. Yoon TY, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):826–8

Congenital capillary hemangioma and its therapeutic approach in infants: a case report. Hassan E, et al. **J Dermatol** 1998 Oct;25(10):673–6

A case of congenital infantile fibrosarcoma of the right hand. Kimura C, et al. **J Dermatol** 1998 Nov;25(11):735–41

Brief report. Malignant melanoma in infancy--too risky to be misdiagnosed. Ziv T, et al. **Med Pediatr Oncol** 1998 Dec;31(6):553–4

A case of congenital multiple myofibromatosis developing in an infant. Schrodt BJ, et al. **Pediatrics** 1999 Jul;104(1 Pt 1):113–5

An ex vivo study of congenital pigmented nevi in epidermal reconstructs. Bessou-Touya S, et al. **Pigment Cell Res** 1999 Jun;12(3):164–74

Salvage reconstruction of an extensive facial deformity due to congenital giant hairy nevus. Siebert JW, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2414–9

[Congenital pigmented nevus: prognosis and therapeutic possibilities] Michel JL, et al. **Arch Pediatr** 1999 Feb; 6(2):211–7 (Eng. Abstr.) **(Fre)**

[Laser treatment of nevus cell nevi in the newborn infant] Hohenleutner U, et al. **Hautarzt** 1999 Mar;50(3):221 **(Ger)**

DIAGNOSIS

Diagnosis of cutaneous T-cell lymphoma detecting T-cell receptor gamma chain gene monoclonality by denaturing gradient gel electrophoresis. Lapière K, et al. **Acta Clin Belg** 1999 Apr;54(2):65–71

Fine needle aspiration cytology of cutaneous and subcutaneous metastatic deposits from epithelial malignancies. An analysis of 146 cases. Gupta RK, et al. **Acta Cytol** 1999 Mar–Apr;43(2):126–30

Balloon melanoma cells mimicking foamy histiocytes [letter] Terayama K, et al. **Acta Cytol** 1999 Mar–Apr;43(2):325–6

Clinical and dermatoscopic diagnosis of malignant melanoma. Assessed by expert and non-expert groups. Lorentzen H, et al. **Acta Derm Venereol** 1999 Jul;79(4):301–4

Cellular neurothekeoma [letter] Strumia R, et al. **Acta Derm Venereol** 1999 Mar;79(2):162–3

Experts and gold standards in dermatopathology: qualitative and quantitative analysis of the self-assessment slide seminar at the 17th colloquium of the International Society of Dermatopathology. Kempf W, et al. **Am J Dermatopathol** 1998 Oct;20(5):478–82

Detection of melanoma micrometastasis in sentinel nodes by reverse transcription-polymerase chain reaction correlates with tumor thickness and is predictive of micrometastatic disease in the lymph node basin. Blaheta HJ, et al. **Am J Surg Pathol** 1999 Jul;23(7):822–8

Mycosis fungoides masquerading as an ischemic foot. Goldstein LJ, et al. **Ann Vasc Surg** 1999 May;13(3):305–7

MIA, a novel serum marker for progression of malignant melanoma. Bosserhoff AK, et al. **Anticancer Res** 1999 Jul–Aug;19(4A):2691–3

Diagnostic accuracy and predictive value of the tumor-associated antigen S100 in malignant melanomas: validation by whole body FDG-PET and conventional diagnostics. Mruck S, et al. **Anticancer Res** 1999 Jul–Aug; 19(4A):2685–90

Multiple primary melanoma is not a distinct biological entity [editorial; comment] Grob JJ. **Arch Dermatol** 1999 Mar; 135(3):325–7. Comment on: Arch Dermatol 1999 Mar;135(3):261–5.

Feature selection for optimized skin tumor recognition using genetic algorithms. Handels H, et al. **Artif Intell Med** 1999 Jul;16(3):283–97

Predicting survival in malignant skin melanoma using Bayesian networks automatically induced by genetic algorithms. An empirical comparison between different approaches. Sierra B, et al. **Artif Intell Med** 1998 Sep–Oct; 14(1–2):215–30

Diagnosing skin cancer in general practice [comment] Del Mar C. **Aust Fam Physician** 1999 May;28(5):473. Comment on: Aust Fam Physician 1999 May;28(5):466–71.

Suspicious skin lesions and their management [see comments] Raasch BA. **Aust Fam Physician** 1999 May;28(5):466–71. Comment in: Aust Fam Physician 1999 May;28(5):473.

Three cases of verrucous carcinoma. Dogan G, et al. **Australas J Dermatol** 1998 Nov;39(4):251–4

Basal cell carcinoma of the scrotum. Esquivias Gómez JI, et al. **Australas J Dermatol** 1999 Aug;40(3):141–3 (28 ref.)

You're the flight surgeon. Irregular appearance and variegated color of a lesion. Dionne MV. **Aviat Space Environ Med** 1999 Jul;70(7):717–8

Expression of CD95 ligand in melanocytic lesions as a diagnostic marker. Maeda A, et al. **Br J Dermatol** 1998 Aug;139(2):198–206

Non-Hodgkins lymphoma masquerading as a chronic venous leg ulcer [letter] Boyce DE. **Br J Plast Surg** 1998 Sep; 51(6):487

Dermacase. Pigmented multifocal basal cell carcinomas. Enta T, et al. **Can Fam Physician** 1999 Jul;45:1677, 1685

Utility of punch biopsy for lesions that are hard to aspirate by conventional fine-needle aspiration. Shin HJ, et al. **Cancer** 1999 Jun 25;87(3):149–54

Delineation of maxillofacial cutaneous lesions by means of high-resolution magnetic resonance imaging. Mäurer J, et al. **Cancer Detect Prev** 1998;22(6):540–3

Bibliography. Current world literature. Melanoma and other skin neoplasms. **Curr Opin Oncol** 1999 Mar;11(2):B95–102

Cutaneous manifestations of cancer. Sabir S, et al. **Curr Opin Oncol** 1999 Mar;11(2):139–44 (72 ref.)

The role of screening in the management of skin cancer. Wolfe JT. **Curr Opin Oncol** 1999 Mar;11(2):123–8 (64 ref.)

Moles and melanoma. Chamlin SL, et al. **Curr Opin Pediatr** 1998 Aug;10(4):398–404 (80 ref.)

Detection and treatment of nonmelanoma skin cancer prevent disfigurement and death[News]. **Cutis** 1999 Jun;63(6):344

Multinucleate-cell angiohistiocytoma occurring in a patient with mycosis fungoides. Bader RS, et al. **Cutis** 1999 Mar; 63(3):145–8

Melanoma precursors in children. Lefkowitz A, et al. **Cutis** 1999 Jun;63(6):321–4 (41 ref.)

Unresponsive eczematous dermatitis: a case of pancreatic cancer masquerading as cutaneous T cell lymphoma. Levin J, et al. **Cutis** 1999 Aug;64(2):113–4

Pilomatricoma: an alarming presentation. Parlette EC, et al. **Cutis** 1998 Nov;62(5):227–30

Neurofibroma [letter] Sapadin AN. **Cutis** 1998 Oct;62(4):196

Update of diagnostic and prognostic markers in cutaneous malignant melanoma. Reed JA, et al. **Dermatol Clin** 1999 Jul;17(3):631–43 (108 ref.)

Metastatic basal cell carcinoma presenting as unilateral lymphedema. Christian MM, et al. **Dermatol Surg** 1998 Oct; 24(10):1151–3 (10 ref.)

Detection of melanomas by digital imaging of spectrally resolved ultraviolet light-induced autofluorescence of human skin. Chwirot BW, et al. **Eur J Cancer** 1998 Oct; 34(11):1730–4

Reliability and inter-observer agreement of dermoscopic diagnosis of melanoma and melanocytic naevi. Dermoscopy Panel. Carli P, et al. **Eur J Cancer Prev** 1998 Oct; 7(5):397–402

The seven features for melanoma: a new dermoscopic algorithm for the diagnosis of malignant melanoma. Dal Pozzo V, et al. **Eur J Dermatol** 1999 Jun;9(4):303–8

Immunohistochemical evaluation of the probability of skin metastasis in gastric cancer. Inadomi T, et al. **Eur J Dermatol** 1999 Apr–May;9(3):214–7

Detection of HHV-8 DNA in a German patient with classical Kaposi's sarcoma may allow an estimation of the incubation period. Kowalzick L, et al. **Eur J Dermatol** 1998 Sep; 8(6):432–4

Guess What! Cutaneous Merkel cell carcinoma of the left lower leg. Stone N, et al. **Eur J Dermatol** 1998 Jun; 8(4):285–6

Tufted angioma. Wilmer A, et al. **Eur J Dermatol** 1999 Jan–Feb;9(1):51–3

Epidermal naevus syndrome and hypophosphataemic rickets: description of a patient with central nervous system anomalies and review of the literature. Olivares JL, et al. **Eur J Pediatr** 1999 Feb;158(2):103–7 (19 ref.)

At the focal point. Blue rubber bleb nevus syndrome. Arguedas MR, et al. **Gastrointest Endosc** 1999 Oct;50(4):544

Clinical and endoscopic features of melanoma metastases in the upper GI tract. Taal BG, et al. **Gastrointest Endosc** 1999 Aug;50(2):261–3

Edematous, violaceous papules. Levine N. **Geriatrics** 1998 Oct;53(10):20

Clinical recognition of melanoma and its precursors. Langley RG, et al. **Hematol Oncol Clin North Am** 1998 Aug; 12(4):699–715, v (62 ref.)

Blue rubber bleb nevus syndrome: a cause of gastrointestinal hemorrhage. Jain A, et al. **Indian J Gastroenterol** 1998 Oct–Dec;17(4):153–4

Differentiation between Spitz nevi and malignant melanomas by interphase fluorescence in situ hybridization. Wettengel GV, et al. **Int J Oncol** 1999 Jun;14(6):1177–83

HPV 18-induced pigmented bowenoid papulosis of the neck. Baron JM, et al. **J Am Acad Dermatol** 1999 Apr;40(4):633–4

Immunophenotyping and T-cell receptor gamma gene rearrangement analysis as an adjunct to the histopathologic diagnosis of mycosis fungoides. Bergman R, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):554–9

Reevaluation of the ABCD rule for epiluminescence microscopy. Binder M, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):171–6

Primary adenoid cystic carcinoma of skin with lung metastasis. Chang SE, et al. **J Am Acad Dermatol** 1999 Apr;40(4):640–2

Epidermotropic cutaneous B-cell lymphoma mimicking mycosis fungoides. Chui CT, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):271–4

Zosteriform distribution of acantholytic dyskeratotic epidermal nevus? [letter] Elston DM. **J Am Acad Dermatol** 1999 Apr;40(4):647

Follow-up and evaluation of skin cancer screening in British Columbia. Engelberg D, et al. **J Am Acad Dermatol** 1999 Jul;41(1):37–42

Participant satisfaction and value in American Academy of Dermatology and American Cancer Society skin cancer screening programs in Massachusetts. Geller AC, et al. **J Am Acad Dermatol** 1999 Apr;40(4):563–6

The misdiagnosis of malignant melanoma. Grant-Kels JM, et al. **J Am Acad Dermatol** 1999 Apr;40(4):539–48 (73 ref.)

Cutaneous metastasis presenting as facial lymphedema. Jang KA, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):637–8

Skin cancer screening in primary care: prevalence and barriers. Kirsner RS, et al. **J Am Acad Dermatol** 1999 Oct; 41(4):564–6

Clinically subtle primary cutaneous melanoma. Koch SE, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):252–4

Phakomatosis pigmentovascularis type IIa. Mandt N, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):318–21

Onychomatricoma: clinical and histopathologic findings in 12 cases. Perrin C, et al. **J Am Acad Dermatol** 1998 Oct; 39(4 Pt 1):560–4

Pigmented purpura-like eruption as cutaneous sign of mycosis fungoides with autoimmune purpura. Puddu P, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):298–9

Cutaneous melanoma: patient surveillance and tumor progression [see comments] Richert SM, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):571–7. Comment in: J Am Acad Dermatol 1999 Mar;40(3):498–9.

Basal cell carcinoma: a comparison of shave biopsy versus punch biopsy techniques in subtype diagnosis. Russell EB, et al. **J Am Acad Dermatol** 1999 Jul;41(1):69–71

Human herpes-virus 8 seropositive patient with skin and graft Kaposi's sarcoma after lung transplantation. Sachsenberg-Studer EM, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):308–11

Prognosis of thick cutaneous melanoma. Kim SH, et al. **J Am Coll Surg** 1999 Mar;188(3):241–7

Early diagnosis of nevoid basal cell carcinoma syndrome. Lo Muzio L, et al. **J Am Dent Assoc** 1999 May; 130(5):669–74

Early detection [letter; comment] Murtaugh J. **J Am Dent Assoc** 1999 May;130(5):624, 627. Comment on: J Am Dent Assoc 1999 Mar;130(3):375–80.

Prospective study of fluorodeoxyglucose-positron emission tomography imaging of lymph node basins in melanoma patients undergoing sentinel node biopsy. Wagner JD, et al. **J Clin Oncol** 1999 May;17(5):1508–15

Skin cancer screening [letter; comment] Weary PE. **J Cutan Med Surg** 1998 Jul;3(1):49. Comment on: J Cutan Med Surg 1998 Jan;2(3):128–9.

A case of infantile digital fibromatosis with spontaneous regression. Kawaguchi M, et al. **J Dermatol** 1998 Aug; 25(8):523–6 (9 ref.)

Aggregated dilated pores. Konohana A, et al. **J Dermatol** 1999 May;26(5):332–3

Lymphangioma circumscriptum masquerading as irritant contact dermatitis [letter] Mendiratta V, et al. **J Dermatol** 1999 Jul;26(7):474–5

Keratoacanthoma centrifugum marginatum arising from a scar after skin injury. Watanabe D, et al. **J Dermatol** 1999 Aug;26(8):541–3

Screening for malignant melanoma using instant photography. Edmondson PC, et al. **J Med Screen** 1999; 6(1):42–6

Simultaneous occurrence of segmental odontomaxillary dysplasia and Becker's nevus. Jones AC, et al. **J Oral Maxillofac Surg** 1999 Oct;57(10):1251–4 (17 ref.)

Merkel cell carcinoma of the cheek: a case report. Quereshy FA, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):999–1004 (30 ref.)

Juvenile hyaline fibromatosis: a case report. Nunziata Rega A, et al. **J Pediatr Orthop B** 1998 Jul;7(3):235–8

Urothelial carcinoma in a suprapubic cystostomy tract 27 years after tube removal. Berge B, et al. **J Urol** 1999 Sep; 162(3 Pt 1):797–8

Is physician detection associated with thinner melanomas? Epstein DS, et al. **JAMA** 1999 Feb 17;281(7):640–3

Skin cancer detection and prevention: a community program promoting sun safe behaviors. Rusonis ES, et al. **Md Med J** 1999 Jul-Aug;48(4):169-72

Skin cancer of the head and neck. Hochman M, et al. **Med Clin North Am** 1999 Jan;83(1):261-82, xii (75 ref.)

Malignant melanoma. Lang PG Jr. **Med Clin North Am** 1998 Nov;82(6):1325-58 (83 ref.)

Benign neoplasms of the skin. Pariser RJ. **Med Clin North Am** 1998 Nov;82(6):1285-307, v-vi (22 ref.)

Nonmelanoma skin cancer. Skidmore RA Jr, et al. **Med Clin North Am** 1998 Nov;82(6):1309-23, vi (55 ref.)

Melanoma in the elderly--a neglected public health challenge [letter; comment] Heenan PJ, et al. **Med J Aust** 1999 Apr 19;170(8):394-5. Comment on: Med J Aust 1998 Oct 19;169(8):403-4. Comment on: Med J Aust 1998 Oct 19;169(8):410-4.

Melanoma in the elderly--a neglected public health challenge [editorial; comment] [see comments] Kelly JW. **Med J Aust** 1998 Oct 19;169(8):403-4. Comment on: Med J Aust 1998 Oct 19;169(8):410-4. Comment in: Med J Aust 1999 Apr 19;170(8):394-5.

Brief report. Malignant melanoma in infancy--too risky to be misdiagnosed. Ziv T, et al. **Med Pediatr Oncol** 1998 Dec;31(6):553-4

Epiluminescence microscopy as a useful approach in the early diagnosis of cutaneous malignant melanoma. Ascierto PA, et al. **Melanoma Res** 1998 Dec;8(6):529-37

Clinical and histopathological characteristics in relation to aetiological risk factors in cutaneous melanoma: a population-based study. Måsbäck A, et al. **Melanoma Res** 1999 Apr;9(2):189-97

Sensitivity in the clinical diagnosis of malignant melanoma. Wolf IH, et al. **Melanoma Res** 1998 Oct;8(5):425-9

Morphologic diversity in malignant melanoma: the potential use of microdissection and the polymerase chain reaction for diagnosis. Quezado MM, et al. **Mod Pathol** 1998 Oct; 11(10):1010-5

Prognostic classification of malignant melanomas by combining clinical, histological, and immunohistochemical parameters. Otto FJ, et al. **Oncology** 1999 Apr;56(3):208-14

Early detection of cutaneous lymphoma. Abd-el-Baki J, et al. **Oncology (Huntingt)** 1998 Oct;12(10):1521-30; discussion 1532-4 (62 ref.)

Spectrofluorimetric detection of DMBA-induced mouse skin carcinoma. Karthikeyan K, et al. **Pathol Oncol Res** 1999; 5(1):46-8

A progression to dermatofibrosarcoma protuberans with a fibrosarcomatous component: a special reference to the chromosomal aberrations. Hamada M, et al. **Pathol Res Pract** 1999;195(7):451-60

Test and Teach. Number Ninety: Part 1. Plexiform fibrohistiocytic tumor. Ng WK, et al. **Pathology** 1998 Aug; 30(3):257-8, 314-5

The changing mole. Additional warning signs of malignant melanoma. Brodell RT, et al. **Postgrad Med** 1998 Oct; 104(4):145-8

The dangers of atypical mole (dysplastic nevus) syndrome. Teaching at-risk patients to protect themselves from melanoma. Marghoob AA. **Postgrad Med** 1999 Jun; 105(7):147-8, 151-2, 154 passim

When to suspect superficial basal cell carcinoma. Naik NS, et al. **Postgrad Med** 1998 Nov;104(5):157-8

Subungual malignant melanoma of the hand: unusual clinical presentation. Case report. Linares MD, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Sep; 32(3):347-50

Diagnostic immunohistology: cutaneous lymphomas and pseudolymphomas. Cerroni L, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):64-70 (37 ref.)

Basal cell carcinoma or not? Histological variants and mimics of the most common cutaneous malignancy. Fitzpatrick JE, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):15-24

Diagnosis: atypical fibroxanthoma or not? Evaluating spindle cell malignancies on sun damaged skin: a practical approach. Heintz PW, et al. **Semin Cutan Med Surg** 1999 Mar;18(1):78-83

Spitz nevus or melanoma? Rapini RP. **Semin Cutan Med Surg** 1999 Mar;18(1):56-63

The pathological distinction between "deep penetrating" dermatofibroma and dermatofibrosarcoma protuberans. Wick MR, et al. **Semin Cutan Med Surg** 1999 Mar; 18(1):91-8

Granular cell tumor of the subcutis: CT and MRI findings. A report of three cases. Kudawara I, et al. **Skeletal Radiol** 1999 Feb;28(2):96-9

Photodynamic diagnosis and therapy in dermatology. Fritsch C, et al. **Skin Pharmacol Appl Skin Physiol** 1998 Nov-Dec; 11(6):358-73 (74 ref.)

Kaposi sarcoma in renal transplant recipients. Kim S, et al. **Transplant Proc** 1998 Nov;30(7):3165

Public awareness of the threat of melanoma and performance of skin self-examination. Robinson JK. **West J Med** 1998 Oct;169(4):225

Giant cavernous hemangioma of the scalp. Tüzün Y, et al. **Zentralbl Neurochir** 1998;59(4):274-7

[Investigation of malignant melanoma in an "open house" setting] Poulsen AG, et al. **Ugeskr Laeger** 1999 Mar 22; 161(12):1758-61 (Eng. Abstr.) **(Dan)**

[Cutaneous angiosarcoma] Couwenberg SM, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1584 **(Dut)**

[Squamous cell carcinoma of the nail bed] de Pree IM, et al. **Ned Tijdschr Geneeskd** 1999 Mar 20;143(12):630-3 (Eng. Abstr.) **(Dut)**

[Pilomatrixoma often not identified as such (letter; comment)] Koedam MI. **Ned Tijdschr Geneeskd** 1999 Jan 30; 143(5):274-5. Comment on: Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2684-8. **(Dut)**

[Verrucous carcinoma] Krekels GA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2708-9 **(Dut)**

[Squamous cell carcinoma of finger] Stadhouders-Keet SA, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1335-6 **(Dut)**

[Pilomatrixoma often not identified as such (comment)] Temming JF, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5; 142(49):2684-8 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 Jan 30;143(5):274-5. **(Dut)**

[Clustered and disseminated cutaneous piloleiomyomas] Thissen MR, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5; 142(49):2707-8 **(Dut)**

[The treatment of basal cell carcinoma patients by dermatologists in Netherland] Thissen MR, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1563-7 (Eng. Abstr.) **(Dut)**

[The Ring test: a good tranquilizer, but a poor predictive test (letter)] de Soras X, et al. **Ann Chir Plast Esthet** 1996 Dec;41(6):688-9 **(Fre)**

[Pachydermodactyly: seven new cases] Bardazzi F, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):247-50 (42 ref.) (Eng. Abstr.) **(Fre)**

[Evaluation of the diagnosis of pigmented tumors of the skin and factors leading to a decision to excise. Dermatologists of the Postgraduate Association of Haute-Normandie] Collas H, et al. **Ann Dermatol Venereol** 1999 Jun-Jul; 126(6-7):494-500 (Eng. Abstr.) **(Fre)**

[Cutaneous-splanchnic neurofibromatosis (see comments)] Darie H, et al. **Ann Dermatol Venereol** 1998 Aug; 125(8):509-11 (Eng. Abstr.). Comment in: Ann Dermatol Venereol 1998 Aug;125(8):486-8. **(Fre)**

[Bowenoid papulosis] Dehen L. **Ann Dermatol Venereol** 1999 Mar;126(3):267-9 **(Fre)**

[Importance of bFGF ("basic fibroblast growth factor") for diagnosis and treatment of hemangiomas] Dosquet C, et al. **Ann Dermatol Venereol** 1998 May;125(5):313-6 (Eng. Abstr.) **(Fre)**

[Multiple and unilateral angiofibromas of the face: forme fruste of Bourneville tuberous sclerosis] García Muret MP, et al. **Ann Dermatol Venereol** 1998 May;125(5):325-7 (Eng. Abstr.) **(Fre)**

[Is delayed diagnosis still the main prognostic factor in melanoma? (editorial; comment)] Grob JJ. **Ann Dermatol Venereol** 1998 Apr;125(4):237-8. Comment on: Ann Dermatol Venereol 1998 Apr;125(4):241-6. **(Fre)**

[Fortunately, dermatologists' diagnostic performance in black tumors is better than the one estimated (editorial)] Grob JJ. **Ann Dermatol Venereol** 1999 Jun-Jul;126(6-7):490-2 **(Fre)**

[Contribution of immunohistochemistry to diagnosis of cutaneous tumors] Kanitakis J, et al. **Ann Dermatol Venereol** 1998 May;125(5):354-69 (143 ref.) **(Fre)**

[Giant cell fibroblastoma associated with Darier-Ferrand dermatofibrosarcoma in an adult] Kourda M, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):255-6 (Eng. Abstr.) **(Fre)**

[A case for diagnosis. Abrikossoff tumor] Kourda M, et al. **Ann Dermatol Venereol** 1999 May;126(5):441-2 **(Fre)**

[Melanoma in the Strasbourg University Hospital. A 30-year study (see comments)] Lipsker D, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):241-6 (Eng. Abstr.). Comment in: Ann Dermatol Venereol 1998 Apr;125(4):237-8. **(Fre)**

[Case for diagnosis. Blue nevus] Lombardi T, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):277-8 **(Fre)**

[Case for diagnosis. Carcinoma in situ of the Bowen's disease type] Roman P, et al. **Ann Dermatol Venereol** 1999 Jun-Jul; 126(6-7):527-8 **(Fre)**

[CD30 positive pilotropic lymphoma] Trémeau-Martinage C, et al. **Ann Dermatol Venereol** 1999 May;126(5):434-8 (Eng. Abstr.) **(Fre)**

[Angiomatous and cerulodermic macules: early cutaneous signs of neurofibromatosis type I] Vabres P, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):593-4 (Eng. Abstr.) **(Fre)**

[Case for diagnosis. Masson tumor] Vieira-Mota AJ, et al. **Ann Dermatol Venereol** 1999 May;126(5):443-4 **(Fre)**

[Neurofibromatosis: pat and prospects (editorial; comment)] Wolkenstein P, et al. **Ann Dermatol Venereol** 1998 Aug; 125(8):486-8. Comment on: Ann Dermatol Venereol 1998 Aug;125(8):509-11. **(Fre)**

[A tumor can hide another one] Chatelain D, et al. **Ann Pathol** 1998 Dec;18(6):503-4 **(Fre)**

[Cytokeratins 7 and 20: aid to diagnosis of skin tumors (comment)] Kanitakis J. **Ann Pathol** 1998 Dec;18(6):516. Comment on: Ann Pathol 1998 Apr;18(2):103-9. **(Fre)**

[Chylothorax as a complication of Kaposi sarcoma (letter)] Vandenbos F, et al. **Presse Med** 1998 Jul 4-11;27(24):1218 **(Fre)**

[Image of the month. What is your diagnosis? A slow-growing black facial lesion] Uhoda I, et al. **Rev Med Liege** 1999 Jul;54(7):629-31 **(Fre)**

[Basalioma] Jansen T, et al. **Fortschr Med** 1998 Oct 10; 116(28):43-6 **(Ger)**

[Basalioma terebrans of trunk skin. A neglected tumor] Berking C, et al. **Hautarzt** 1998 Sep;49(9):719-21 (Eng. Abstr.) **(Ger)**

[Pilomatrix carcinoma in an unusual location. Case report and review of the literature] Haferkamp B, et al. **Hautarzt** 1999 May;50(5):355-9 (31 ref.) (Eng. Abstr.) **(Ger)**

[Corymbiform nevus cell nevus] Löffler H, et al. **Hautarzt** 1998 Sep;49(9):730-2 (Eng. Abstr.) **(Ger)**

[Histological and clinical prognostic factors in squamous cell carcinoma of the skin. A contribution to the multicenter carcinoma study of the association of surgical and oncological dermatology] Petter G, et al. **Hautarzt** 1999 Jun;50(6):412-7 (Eng. Abstr.) **(Ger)**

[Immunohistochemical markers for cytoplasmic antigens in acquired melanosis, malignant melanomas, and nevi of the conjunctiva] Hitzer S, et al. **Klin Monatsbl Augenheilkd** 1998 Oct;213(4):230-7 (Eng. Abstr.) **(Ger)**

[Spitz nevus and Reed nevus: simulating melanoma in adults] Paredes B, et al. **Pathologe** 1998 Nov;19(6):403-11 (39 ref.) (Eng. Abstr.) **(Ger)**

[Mn-TPPS4 in the diagnosis of malignant skin tumors. In vivo studies with high resolution magnetic resonance tomography in melanotic melanoma] Mäurer J, et al. **Radiologe** 1999 May;39(5):422-7 (Eng. Abstr.) **(Ger)**

[Magnetic resonance tomography in neurocutaneous melanosis] Marx C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Nov;169(5):547-50 **(Ger)**

[The atypical nevus: a risk situation?] Böni R, et al. **Schweiz Med Wochenschr** 1999 Jun 5;129(22):825-32 (74 ref.) (Eng. Abstr.) **(Ger)**

[Chronic cough in AIDS] Bassetti S. **Schweiz Rundsch Med Prax** 1998 Sep 23;87(39):1265-7 **(Ger)**

[Secondary prevention of malignant melanoma] Eichmann A. **Ther Umsch** 1999 Jun;56(6):290-1 (Eng. Abstr.) **(Ger)**

[Clinical differential diagnosis of pigmented skin changes and contribution of epiluminescence microscopy] Guillod J. **Ther Umsch** 1999 Jun;56(6):312-7 (Eng. Abstr.) **(Ger)**

[Clinical aspects and pathology of melanoma] Panizzon RG, et al. **Ther Umsch** 1999 Jun;56(6):302-8 (Eng. Abstr.) **(Ger)**

[Calcified epithelioma of Malherbe: correlation of clinical characteristics, histologic findings and ultrasonography imaging of 4 cases] Rossi E, et al. **Radiol Med (Torino)** 1998 Oct;96(4):410-1 **(Ita)**

[Multiple myeloma forming subcutaneous on the skull] Mizushima H, et al. **No To Shinkei** 1998 Dec;50(12):1128-9 (Eng. Abstr.) **(Jpn)**

[The Sézary syndrome] Ferreira F, et al. **Acta Med Port** 1998 Dec;11(12):1135-9 (11 ref.) (Eng. Abstr.) **(Por)**

[Use of two-dimensional fluorescence diagnosis in oncological practice] Vel'sher LZ, et al. **Khirurgiia (Mosk)** 1998;(11):43-5 **(Rus)**

[The prognostic significance of cytogenetic, morphological and clinical indices in patients with malignant skin melanoma] Naleskina LA, et al. **Tsitol Genet** 1998 Apr-May;32(3):19-25 (Eng. Abstr.) **(Rus)**

[Pigmented lesion on the big toe] Paricio Rubio JF, et al. **Rev Clin Esp** 1998 Dec;198(12):837-8 **(Spa)**

[Familial cerebral cavernomatosis associated with cutaneous angiomas] García-Moreno JM, et al. **Rev Neurol** 1998 Sep; 27(157):484-90 (Eng. Abstr.) **(Spa)**

[Clinical diagnosis of malignant melanoma is difficult. Dermatologists should be consulted more often] Lindelöf B, et al. **Lakartidningen** 1998 Oct 7;95(41):4495-6, 4499 **(Swe)**

DIET THERAPY

Dietary supplementation with secoisolariciresinol diglycoside (SDG) reduces experimental metastasis of melanoma cells in mice. Li D, et al. **Cancer Lett** 1999 Jul 19;142(1):91-6

DRUG THERAPY

Photodynamic therapy by topical aminolevulinic acid, dimethylsulphoxide and curettage in nodular basal cell carcinoma: a one-year follow-up study. Soler AM, et al. **Acta Derm Venereol** 1999 May;79(3):204-6

A case of verrucous epidermal naevus successfully treated with acitretin [letter] Taşkapan O, et al. **Acta Derm Venereol** 1998 Nov;78(6):475-6

Photodynamic therapy utilising topical delta-aminolevulinic acid in non-melanoma skin malignancies of the eyelid and the periocular skin. Wang I, et al. **Acta Ophthalmol Scand** 1999 Apr;77(2):182-8

Preoperative treatment of advanced skin carcinoma with cisplatin and bleomycin. Denic S. **Am J Clin Oncol** 1999 Feb;22(1):32-4

Heterogeneity of chemosensitivity of metastatic cutaneous melanoma. Cree IA, et al. **Anticancer Drugs** 1999 Jun; 10(5):437-44

Conventional dose melphalan is inactive in metastatic melanoma: results of an Eastern Cooperative Oncology Group Study (E1687). Hochster H, et al. **Anticancer Drugs** 1999 Feb;10(2):245-8

Photodynamic treatment of basal cell carcinoma and squamous cell carcinoma with hypericin. Alecu M, et al. **Anticancer Res** 1998 Nov-Dec;18(6B):4651-4

Sézary syndrome, cutaneous T-cell lymphoma, and

extracorporeal photopheresis [letter; comment] Edelson RL. **Arch Dermatol** 1999 May;135(5):600–1. Comment on: Arch Dermatol 1998 Aug;134(8):1001–5.

Intralesional cisplatin for the treatment of cutaneous B-cell lymphoma. Kempf W, et al. **Arch Dermatol** 1998 Nov; 134(11):1343–5

Therapeutic efficacy of interferon alfa-2a and 13-cis-retinoic acid in recurrent angiosarcoma of the head. Spieth K, et al. **Arch Dermatol** 1999 Sep;135(9):1035–7

Hyperthermic isolated limb perfusion with tumor necrosis factor alpha, interferon gamma, and melphalan for locally advanced nonmelanoma skin tumors of the extremities: a multicenter study. Olieman AF, et al. **Arch Surg** 1999 Mar; 134(3):303–7

Interleukin-12 therapy of cutaneous T-cell lymphoma induces lesion regression and cytotoxic T-cell responses. Rook AH, et al. **Blood** 1999 Aug 1;94(3):902–8

A phase II study of bryostatin 1 in metastatic malignant melanoma. Propper DJ, et al. **Br J Cancer** 1998 Nov; 78(10):1337–41

Phase II trial of topically applied miltefosine solution in patients with skin-metastasized breast cancer. Terwogt JM, et al. **Br J Cancer** 1999 Mar;79(7–8):1158–61

Disseminated pagetoid reticulosis: response to bath PUVA [letter] Behrens S, et al. **Br J Dermatol** 1998 Aug; 139(2):343–4

Non-human immunodeficiency virus Kaposi's sarcoma can be effectively treated with low-dose interferon-alpha despite the persistence of herpesvirus-8. Deichmann M, et al. **Br J Dermatol** 1998 Dec;139(6):1052–4

Recurrent malignant proliferating trichilemmal tumour: local management with ethanol injection. Takenaka H, et al. **Br J Dermatol** 1998 Oct;139(4):726–9

Acute tumor lysis syndrome associated with concurrent biochemotherapy of metastatic melanoma: a case report and review of the literature. Castro MP, et al. **Cancer** 1999 Mar 1;85(5):1055–9 (40 ref.)

Randomized trial of treatment with cisplatin and interleukin-2 either alone or in combination with interferon-alpha-2a in patients with metastatic melanoma: a Federation Nationale des Centres de Lutte Contre le Cancer Multicenter, parallel study. Dorval T, et al. **Cancer** 1999 Mar 1;85(5):1060–6

Chemotherapy for patients with locally advanced or metastatic Merkel cell carcinoma. Voog E, et al. **Cancer** 1999 Jun 15;85(12):2589–95

A phase II/III clinical study of tin ethyl etiopurpurin (Purlytin)-induced photodynamic therapy for the treatment of recurrent cutaneous metastatic breast cancer. Mang TS, et al. **Cancer J Sci Am** 1998 Nov–Dec;4(6):378–84

Anti-tumor-promoting effects of phenylpropanoids on Epstein-Barr virus activation and two-stage mouse skin carcinogenesis. Ito C, et al. **Cancer Lett** 1999 Jul 19; 142(1):49–54

Anti-tumor promoting activity of polyphenols from Cowania mexicana and Coleogyne ramosissima. Ito H, et al. **Cancer Lett** 1999 Aug 23;143(1):5–13

Antitumor effects of interferon-omega: in vivo therapy of human tumor xenografts in nude mice. Horton HM, et al. **Cancer Res** 1999 Aug 15;59(16):4064–8

Photodynamic therapy-mediated immune response against subcutaneous mouse tumors. Korbelik M, et al. **Cancer Res** 1999 Apr 15;59(8):1941–6

Histone deacetylase inhibitors as potential anti-skin cancer agents. Saunders N, et al. **Cancer Res** 1999 Jan 15; 59(2):399–404

Acute dysarthria induced by low dose methotrexate therapy in a patient with erythrodermic cutaneous T-cell lymphoma: an unusual manifestation of neurotoxicity. Aplin CG, et al. **Clin Exp Dermatol** 1999 Jan;24(1):23–4

Treatment of confluent and reticulated papillomatosis with azithromycin [letter] Gruber F, et al. **Clin Exp Dermatol** 1998 Jul;23(4):191

Abatement of cutaneous Kaposi's sarcoma associated with cidofovir treatment [letter; comment] Simonart T, et al. **Clin Infect Dis** 1998 Dec;27(6):1562. Comment on: Clin Infect Dis 1998 May;26(5):1233.

Pregnancy and exogenous hormones in patients with cutaneous malignant melanoma. MacKie RM. **Curr Opin Oncol** 1999 Mar;11(2):129–31 (15 ref.)

Current therapy of cutaneous melanoma. Mays SR, et al. **Cutis** 1999 May;63(5):293–8 (52 ref.)

Photodynamic therapy of superficial basal cell carcinomas using topical 5-aminolevulinic acid in a nanocolloid lotion. Hürlimann AF, et al. **Dermatology** 1998;197(3):248–54

Dacarbazine-vindesine versus dacarbazine-vindesine-cisplatin in disseminated malignant melanoma. A randomised phase III trial. Jungnelius U, et al. **Eur J Cancer** 1998 Aug;34(9):1368–74

Treatment of metastatic malignant melanoma with dacarbazine plus fotemustine. Seeber A, et al. **Eur J Cancer** 1998 Dec;34(13):2129–31

Electrochemotherapy with cisplatin: potentiation of local cisplatin antitumour effectiveness by application of electric pulses in cancer patients. Serša G, et al. **Eur J Cancer** 1998 Jul;34(8):1213–8

Subcutaneous interleukin-2 and interferon-alpha therapy associated with cisplatin monochemotherapy in the treatment of metastatic melanoma. Andrès P, et al. **Eur J Dermatol** 1998 Jun;8(4):235–9

Bleomycin-induced digital gangrene [letter] Surville-Barland J, et al. **Eur J Dermatol** 1998 Apr–May;8(3):221

Plasma and buffy coat concentration of 8-methoxypsoralen in patients treated with extracorporeal photopheresis. Balogh A, et al. **Exp Toxicol Pathol** 1998 Sep; 50(4–6):397–401

Adjuvant interferon treatment for melanoma. Agarwala SS, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):823–33 (24 ref.)

Systemic treatment of metastatic melanoma with chemotherapy. Green RJ, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):863–75, viii (51 ref.)

Epinephrine enhances penetration and anti-cancer activity of local cisplatin on rat sub-cutaneous and peritoneal tumors. Duvillard C, et al. **Int J Cancer** 1999 May 31; 81(5):779–84

L-asparaginase induced complete remission in Epstein-Barr virus positive, multidrug resistant, cutaneous T-cell lymphoma. Obama K, et al. **Int J Hematol** 1999 Jun; 69(4):260–2

Total skin electron beam therapy with or without adjuvant topical nitrogen mustard or nitrogen mustard alone as initial treatment of T2 and T3 mycosis fungoides. Chinn DM, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):951–8

Relation between limb toxicity and treatment outcomes after isolated limb perfusion for recurrent melanoma. Vrouenraets BC, et al. **J Am Coll Surg** 1999 May; 188(5):522–30

Primary cutaneous marginal center lymphoma – complete remission induced by interferon alpha2a. Wollina U, et al. **J Cancer Res Clin Oncol** 1999;125(5):305–8

Clinical remission of xeroderma pigmentosum-associated squamous cell carcinoma with isotretinoin and chemotherapy: case report. Saadé M, et al. **J Chemother** 1999 Aug;11(4):313–7

AIDS-related cutaneous Kaposi's sarcoma: failure of treatment with human chorionic gonadotropin [letter] Sipsas NV, et al. **J Chemother** 1999 Feb;11(1):78–9

Posttransplant Kaposi's sarcoma treated with paclitaxel [letter] Wu CJ, et al. **J Clin Oncol** 1998 Oct;16(10):3478–9

A case of pre-Sézary syndrome preceded by hand lesions. Lee NH, et al. **J Dermatol** 1999 Jul;26(7):465–8

Changes in immunological parameters after combination adjuvant therapy with intravenous DTIC, ACNU, and VCR, and local injection of IFN-beta (DAV + IFN-beta therapy) into malignant melanoma. Umeda T, et al. **J Dermatol** 1998 Sep;25(9):569–72

A case of metastatic extramammary Paget's disease that responded to combination chemotherapy. Yamazaki N, et al. **J Dermatol** 1999 May;26(5):311–6

Dacarbazine, nimustine hydrochloride, cisplatin and tamoxifen combination chemotherapy for advanced malignant melanoma. Yamazaki N, et al. **J Dermatol** 1999 Aug;26(8):489–93

The effect of pretreatment with docetaxel (taxotere; RP 56976) on irradiated subcutaneous MA 16/C murine tumors. Distelmans W, et al. **J Exp Clin Cancer Res** 1999 Jun;18(2):167–72

Vitamin D3 derivatives (deltanoids) in the treatment of tumor cell invasion [editorial; comment] Keski-Oja J. **J Lab Clin Med** 1999 Feb;133(2):95–7 (11 ref.). Comment on: J Lab Clin Med 1999 Feb;133(2):120–8.

1alpha,25-dihydroxyvitamin D3 inhibits in vitro invasiveness through the extracellular matrix and in vivo pulmonary metastasis of B16 mouse melanoma [see comments] Yudoh K, et al. **J Lab Clin Med** 1999 Feb;133(2):120–8. Comment in: J Lab Clin Med 1999 Feb;133(2):95–7.

PET evaluation of therapeutic limb perfusion in Merkel's cell carcinoma. Lampreave JL, et al. **J Nucl Med** 1998 Dec;39(12):2087–90

Kinetic fluorescence studies of 5-aminolaevulinic acid-induced protoporphyrin IX accumulation in basal cell carcinomas. af Klinteberg C, et al. **J Photochem Photobiol B** 1999 Apr;49(2–3):120–8

Adjuvant therapy of cutaneous melanoma [letter; comment] Ascierto PA, et al. **Lancet** 1999 Jan 23;353(9149):328. Comment on: Lancet 1998 Jun 27;351(9120):1905–10.

In vitro and in vivo photosensitizing capabilities of 5-ALA versus photofrin in vascular endothelial cells. Chang CJ, et al. **Lasers Surg Med** 1999;24(3):178–86

Photodynamic therapy of primary nonmelanomatous skin tumours of the head and neck. Kübler AC, et al. **Lasers Surg Med** 1999;25(1):60–8

Systemic polychemotherapy in the treatment of primary cutaneous lymphomas: a clinical follow-up study of 81 patients treated with COP or CHOP. Fierro MT, et al. **Leuk Lymphoma** 1998 Nov;31(5–6):583–8

Phase II study of neoadjuvant concurrent biochemotherapy in melanoma patients with local-regional metastases. Buzaid AC, et al. **Melanoma Res** 1998 Dec;8(6):549–56

Long-term outcome of treatment with dacarbazine, cisplatin, interferon-alpha and intravenous high dose interleukin-2 in poor risk melanoma patients. Proebstle TM, et al. **Melanoma Res** 1998 Dec;8(6):557–63

Clinical experience of fotemustine, cisplatin and high dose tamoxifen in patients with metastatic malignant melanoma. Semb KA, et al. **Melanoma Res** 1998 Dec;8(6):565–72

Effect of topical tretinoin under occlusion on atypical naevi. Stam-Posthuma JJ, et al. **Melanoma Res** 1998 Dec; 8(6):539–48

Kaposi's sarcoma after renal transplantation: treatment with liposomal doxorubicin [letter; comment] Boehringer M, et al. **Nephrol Dial Transplant** 1999 May;14(5):1342–3. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768–73.

Nonsurgical therapy holds promise for basal cell carcinoma [news] **Oncology (Huntingt)** 1999 Jul;13(7):1044

The use of amitriptyline in mycosis fungoides [letter] Coe P. **Palliat Med** 1999 May;13(3):264

Interferon for tufted angioma [letter; comment] Wollina U. **Pediatr Dermatol** 1999 Jul–Aug;16(4):338. Comment on: Pediatr Dermatol 1998 Nov–Dec;15(6):482.

Protoporphyrin IX fluorescence photobleaching during ALA-mediated photodynamic therapy of UVB-induced tumors in hairless mouse skin. Robinson DJ, et al. **Photochem Photobiol** 1999 Jan;69(1):61–70

Photoprotection by topical DNA repair enzymes: molecular correlates of clinical studies. Yarosh DB, et al. **Photochem Photobiol** 1999 Feb;69(2):136–40

[Second recurrence of a local spinocellular cutaneous epithelioma: treatment with intra-arterial sequential chemo-infusion (letter)] Marcy PY, et al. **Presse Med** 1998 Nov 7;27(34):1734 **(Fre)**

[Photodynamic therapy of cutaneous T-cell lymphoma at special sites] Eich D, et al. **Hautarzt** 1999 Feb;50(2):109–14 (Eng. Abstr.) **(Ger)**

[Topical photodynamic therapy in dermatology] Grob M, et al. **Ther Umsch** 1998 Aug;55(8):529–32 (11 ref.) (Eng. Abstr.) **(Ger)**

[Steroid therapy of hemangioma in children] Schiavon G, et al. **Minerva Pediatr** 1998 Apr;50(4):105–9 (Eng. Abstr.) **(Ita)**

[Chemotherapy of malignant melanoma (editorial)] Jędrzejczak WW. **Pol Arch Med Wewn** 1998 Oct; 100(4):294–9 **(Pol)**

ECONOMICS

An estimate of the annual direct cost of treating cutaneous melanoma [letter] Kanzler MH. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):281–3

Cost analysis studies of Mohs micrographic surgery [letter; comment] Weber WN. **J Am Acad Dermatol** 1999 Jul; 41(1):130–1. Comment on: J Am Acad Dermatol 1998 Nov;39(5 Pt 1):698–703.

ENZYMOLOGY

Expression of stromelysin 3 in keratoarcanthoma and squamous cell carcinoma. Asch PH, et al. **Am J Dermatopathol** 1999 Apr;21(2):146–50

Proteases in cutaneous melanoma. Ferrier CM, et al. **Ann Med** 1998 Oct;30(5):431–42 (86 ref.)

Increase in telomerase activity during progression of melanocytic cells from melanocytic naevi to malignant melanomas. Glaessl A, et al. **Arch Dermatol Res** 1999 Feb–Mar;291(2–3):81–7

Telomerase activity in melanoma and non-melanoma skin cancer. Parris CN, et al. **Br J Cancer** 1999 Jan;79(1):47–53

Inducible nitric oxide synthase (iNOS) expression may predict distant metastasis in human melanoma [published erratum appears in Br J Cancer 1999 Jun;80(8):1302] Tschugguel W, et al. **Br J Cancer** 1999 Mar; 79(9–10):1609–12

Expression of matrix metalloproteinase-1, -2 and -3 in squamous cell carcinoma and actinic keratosis. Tsukifuji R, et al. **Br J Cancer** 1999 Jun;80(7):1087–91

Telomerase activity and telomere length in lymphocytes from patients with cutaneous T-cell lymphoma. Wu K, et al. **Cancer** 1999 Sep 15;86(6):1056–63

Expression of cathepsins in dermal fibrous tumors: an immunohistochemical study. Thewes M, et al. **Eur J Dermatol** 1998 Mar;8(2):86–9

Protein-kinase-Cmu expression correlates with enhanced keratinocyte proliferation in normal and neoplastic mouse epidermis and in cell culture. Rennecke J, et al. **Int J Cancer** 1999 Jan 5;80(1):98–103

Identification of melanoma metastases by tyrosinase-reverse transcription-polymerase chain reaction of fine needle aspirates. Voit C, et al. **J Am Acad Dermatol** 1998 Dec; 39(6):1030–2

Expression and localization of thymidine phosphorylase/platelet-derived endothelial cell growth factor in skin and cutaneous tumors. Asgari MM, et al. **J Cutan Pathol** 1999 Jul;26(6):287–94

Tumor characteristics involved in the metastatic behaviour as an improvement in primary cutaneous melanoma prognostics. Goldmann T, et al. **J Exp Clin Cancer Res** 1998 Dec;17(4):483–9

Alterations in cholesterol sulfate and its biosynthetic enzyme during multistage carcinogenesis in mouse skin. Kiguchi K, et al. **J Invest Dermatol** 1998 Dec;111(6):973–81

Prognostic value of MMP-2 immunoreactive protein (72 kD type IV collagenase) in primary skin melanoma. Väisänen A, et al. **J Pathol** 1998 Sep;186(1):51–8

Conversion of C57Bl/6 mice from a tumor promotion-resistant to a -sensitive phenotype by enhanced ornithine decarboxylase expression. Guo Y, et al. **Mol Carcinog** 1999 Sep;26(1):32–6

Localization of prostaglandin H synthase isoenzymes in murine epidermal tumors: suppression of skin tumor promotion by inhibition of prostaglandin H synthase-2. Müller-Decker K, et al. **Mol Carcinog** 1998 Sep;23(1):36–44

Activation of telomerase and its association with G1-phase of the cell cycle during UVB-induced skin tumorigenesis in SKH-1 hairless mouse. Balasubramanian S, et al.

Oncogene 1999 Feb 11;18(6):1297–302
The expression of proteolytic enzymes at the dermal invading front of primary cutaneous melanoma predicts metastasis. Goldmann T, et al. **Pathol Res Pract** 1999;195(3):171–5

EPIDEMIOLOGY

Evaluation of an intervention to reduce sun exposure in children: design and baseline results. Milne E, et al. **Am J Epidemiol** 1999 Jul 15;150(2):164–73
Risk factors for basal cell carcinoma of the skin in men: results from the health professionals follow-up study. van Dam RM, et al. **Am J Epidemiol** 1999 Sep 1;150(5):459–68
Twenty-year trends in the reported incidence of mycosis fungoides and associated mortality. Weinstock MA, et al. **Am J Public Health** 1999 Aug;89(8):1240–4
Skin cancers in organ transplant recipients. Euvrard S, et al. **Ann Transplant** 1997;2(4):28–32 (53 ref.)
Possible implication of environmental hormones in the recent risk increase of cancers of the skin and the liver, but not of the female breast worldwide. Kodama M, et al. **Anticancer Res** 1999 Jan–Feb;19(1B):789–98
Analysis of the melanoma epidemic, both apparent and real: data from the ;973 through 1994 surveillance, epidemiology, and end results program registry. Dennis LK. **Arch Dermatol** 1999 Mar;135(3):275–80
Basal cell skin carcinoma and other nonmelanoma skin cancers in Finland from 1956 through 1995 [see comments] Hannuksela-Svahn A, et al. **Arch Dermatol** 1999 Jul; 135(7):781–6. Comment in: Arch Dermatol 1999 Jul;135(7):843–4.
Body-site distribution of melanocytic nevi in young Australian children. Harrison SL, et al. **Arch Dermatol** 1999 Jan;135(1):47–52
Bowen disease and risk of subsequent malignant neoplasms: a population-based cohort study of 1147 patients. Jaeger AB, et al. **Arch Dermatol** 1999 Jul;135(7):790–3
The mysteries of geographic variability in nonmelanoma skin cancer incidence [editorial; comment] Stern RS. **Arch Dermatol** 1999 Jul;135(7):843–4. Comment on: Arch Dermatol 1999 Jul;135(7):781–6.
Skin cancer in general practice in South Australia. A five year study. Lathlean S. **Aust Fam Physician** 1999 Jan;28 Suppl 1:S28–31
Two decades of the public health approach to skin cancer control in Australia: why, how and where are we now? Marks R. **Australas J Dermatol** 1999 Feb;40(1):1–5 (28 ref.)
Trends for invasive squamous cell neoplasia of the skin in Norway. Iversen T, et al. **Br J Cancer** 1999 Oct; 81(3):528–31
The National Cancer Data Base report on cutaneous and noncutaneous melanoma: a summary of 84,836 cases from the past decade. The American College of Surgeons Commission on Cancer and the American Cancer Society. Chang AE, et al. **Cancer** 1998 Oct 15;83(8):1664–78
Aggressive cutaneous malignancies following cardiothoracic transplantation: the Australian experience. Veness MJ, et al. **Cancer** 1999 Apr 15;85(8):1758–64 (21 ref.)
Skin tumor risk among atomic-bomb survivors in Japan. Ron E, et al. **Cancer Causes Control** 1998 Aug;9(4):393–401
Rapid increase in diagnosis of cutaneous melanoma in situ in Sweden, 1968–1992. Thörn M, et al. **Cancer Detect Prev** 1998;22(5):430–7
Kaposi's sarcoma in Africa. Matondo P. **Clin Dermatol** 1999 Mar–Apr;17(2):197–207; discussion 105–6
Cutaneous cancers in the Mosan region and Ardennes of Belgium. Piérard-Franchimont C, et al. **Dermatology** 1999; 198(2):187–91
Cutaneous basal cell carcinoma in Kenya. Munyao TM, et al. **East Afr Med J** 1999 Feb;76(2):97–100
Incidence, risk factors and prevention of melanoma. MacKie RM. **Eur J Cancer** 1998 Jul;34 Suppl 3:S3–6 (14 ref.)
Pigmentary traits, nevi and skin phototypes in a youth population of Central Italy. Ballone E, et al. **Eur J Epidemiol** 1999 Feb;15(2):189–95
Malignant melanoma of the skin and non-Hodgkin's lymphoma in USA: a comparative epidemiological study. Dimitrov B. **Folia Med (Plovdiv)** 1999;41(1):121–5
Issues in the epidemiology of melanoma. Weinstock MA. **Hematol Oncol Clin North Am** 1998 Aug;12(4):681–98 (115 ref.)
Incidence rates of skin cancer in Townsville, Australia. Buettner PG, et al. **Int J Cancer** 1998 Nov 23;78(5):587–93
Body site distribution of cutaneous malignant melanoma in relationship to patterns of sun exposure. Elwood JM, et al. **Int J Cancer** 1998 Oct 29;78(3):276–80
Increase in incidence rates of basal cell and squamous cell skin cancer in New Hampshire, USA. New Hampshire Skin Cancer Study Group. Karagas MR, et al. **Int J Cancer** 1999 May 17;81(4):555–9
Prognostic factors for cutaneous malignant melanoma in Vaud, Switzerland. Levi F, et al. **Int J Cancer** 1998 Oct 29;78(3):315–9
Second primary cancers in patients with squamous cell carcinoma of the skin: a population-based study in Sweden. Wassberg C, et al. **Int J Cancer** 1999 Feb 9;80(4):511–5
Sunlamp use and the risk of cutaneous malignant melanoma: a population-based case-control study in Connecticut, USA. Chen YT, et al. **Int J Epidemiol** 1998 Oct; 27(5):758–65
Hormonal and reproductive influences and risk of melanoma in women. Smith MA, et al. **Int J Epidemiol** 1998 Oct; 27(5):751–7
Overview of the epidemiology of malignancy in immune deficiency. Mueller N. **J Acquir Immune Defic Syndr** 1999 Aug 1;21 Suppl 1:S5–10 (23 ref.)
Update on the incidence and mortality from melanoma in the United States. Hall HI, et al. **J Am Acad Dermatol** 1999 Jan;40(1):35–42
Skin cancer in Australian heart transplant recipients. Ong CS, et al. **J Am Acad Dermatol** 1999 Jan;40(1):27–34
Assessing incidence rates and secular trends in nonmelanocytic skin cancer: which method is best? [see comments] Gallagher RP, et al. **J Cutan Med Surg** 1998 Jul;3(1):35–9. Comment in: J Cutan Med Surg 1999 Jan;3(3):173.
Re: Gallagher RP, Lee T. Assessing incidence rates and secular trends in nonmelanocytic skin cancer: which method is best? J Cutan Med Surg 1998; 3:35–39 [letter; comment] Gregory B. **J Cutan Med Surg** 1999 Jan;3(3):173 . Comment on: J Cutan Med Surg 1998 Jul;3(1):35–9.
Kaposi's sarcoma in women: A clinicopathologic study. Smith KJ, et al. **J Cutan Med Surg** 1999 Jan;3(3):132–9
Clinical and histopathological characteristics of basal cell carcinoma in Korean patients. Cho S, et al. **J Dermatol** 1999 Aug;26(8):494–501
Skin cancer screening in Okinawa, Japan. Nagano T, et al. **J Dermatol Sci** 1999 Apr;19(3):161–5
Re: Sunscreen use, wearing clothes, and number of nevi in 6– to 7-year-old European children [letter; comment] Gasparro FP, et al. **J Natl Cancer Inst** 1999 Jun 16; 91(12):1078–80. Comment on: J Natl Cancer Inst 1998 Dec 16;90(24):1873–80.
Multiple primary melanomas: analysis of 49 cases. Savoia P, et al. **Melanoma Res** 1998 Aug;8(4):361–6 (24 ref.)
Cutaneous malignant melanoma in Norway: experiences from the Norwegian Melanoma Project. Selvaag E, et al. **Melanoma Res** 1999 Feb;9(1):92–5
Phenotypic markers, sunlight-related factors and sunscreen use in patients with cutaneous melanoma: an Austrian case-control study. Wolf P, et al. **Melanoma Res** 1998 Aug; 8(4):370–8
Influence of dietary factors on actinically-induced skin cancer. Black HS. **Mutat Res** 1998 Nov 9;422(1):185–90 (31 ref.)
Melanoma is not caused by sunlight. Christophers AJ. **Mutat Res** 1998 Nov 9;422(1):113–7
Body site specific incidence of basal and squamous cell carcinoma in an exposed population, Townsville, Australia. Raasch B, et al. **Mutat Res** 1998 Nov 9;422(1):101–6
The pathogenesis of melanoma induced by ultraviolet radiation [letter] Mack T. **N Engl J Med** 1999 Sep 2; 341(10):766; discussion 766–7
Thick malignant melanoma is a long-term problem. Asquith PR, et al. **N Z Med J** 1999 Aug 27;112(1094):313–6
Malignant melanoma in Puerto Rico: an update. González-Fernández M, et al. **P R Health Sci J** 1999 Jun; 18(2):95–8
An analysis of 114 patients with dermal melanocytosis on the trunk and extremities. Hisano A, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):231–6
Etiologic clues to lip cancer from epidemiologic studies on farmers. Khuder SA. **Scand J Work Environ Health** 1999 Apr;25(2):125–30
Cutaneous neoplasm and its relationship with factors due to renal transplant. Bayés B, et al. **Transplant Proc** 1999 Sep; 31(6):2317–8
Are renal transplant recipients on CsA-based immunosuppressive regimens more likely to develop skin cancer than those on azathioprine and prednisolone? Jensen P, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1120
Incidence of malignant melanoma in Auckland, New Zealand: highest rates in the world. Jones WO, et al. **World J Surg** 1999 Jul;23(7):732–5
[Melanoma in pregnancy (see comments)] de Wit AC, et al. **Ned Tijdschr Geneeskd** 1998 Sep 19;142(38):2087–90 (29 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Sep 19;142(38):2073–5. **(Dut)**
[Prevention of cutaneous melanoma] van der Rhee HJ, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1356–9 (24 ref.) (Eng. Abstr.) **(Dut)**
[Primary cutaneous leiomyosarcoma: 32 cases] Auroy S, et al. **Ann Dermatol Venereol** 1999 Mar;126(3):235–42 (Eng. Abstr.) **(Fre)**
[Melanoma in the Strasbourg University Hospital. A 30-year study (see comments)] Lipsker D, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):241–6 (Eng. Abstr.). Comment in: Ann Dermatol Venereol 1998 Apr;125(4):237–8. **(Fre)**
[Lifetime probability of developing a melanoma in the Ile-de-France in 1994] Souques M. **Ann Dermatol Venereol** 1999 Apr;126(4):327–30 (Eng. Abstr.) **(Fre)**
[Cutaneous melanomas, a spectrum of emerging cancers in women of Wallonia. Outlook by the Mosan Study Group of Pigmented Neoplasms] Piérard-Franchimont C, et al. **Rev Med Liege** 1999 May;54(5):495–9 (Eng. Abstr.) **(Fre)**
[Malignant melanoma: now discovered more frequently, and earlier] von den Driesch P. **Fortschr Med** 1999 Mar 30; 117(9):8–9 **(Ger)**
[Observations on the "pretherapeutic phase" of malignant melanoma of the skin 1988–1990 and 1993–1995] Jage G, et al. **Hautarzt** 1998 Nov;49(11):844–9 (Eng. Abstr.) **(Ger)**
[UV exposure in Switzerland: time- and topography-associated factors important for the skin] Frei T, et al. **Schweiz Rundsch Med Prax** 1999 Jun 3; 88(23):1023–9 (Eng. Abstr.) **(Ger)**
[From epidemiology of melanoma to prevention--facts and references] Schüler G, et al. **Ther Umsch** 1999 Jun; 56(6):292–7 (Eng. Abstr.) **(Ger)**
[Prognosis of the skin UV-incidence increase in Poland] Kaczmarek J, et al. **Med Pr** 1998;49(4):313–23 (Eng. Abstr.) **(Pol)**
[Skin cancer] Amado J, et al. **Acta Med Port** 1998 Jun; 11(6):529–32 (Eng. Abstr.) **(Por)**
[Melanoma of human skin: its epidemiology, etiology and pathogenesis] Korovin SI. **Lik Sprava** 1998 Jun;(4):46–50 (38 ref.) **(Rus)**

ETHNOLOGY

Choroidal melanoma with oculodermal melanocytosis in Hispanic patients. Infante de German-Ribon R, et al. **Am J Ophthalmol** 1999 Aug;128(2):251–3
Melanoma in Kauai, Hawaii, 1981–1990: the significance of in situ melanoma and the incidence trend. Chuang TY, et al. **Int J Dermatol** 1999 Feb;38(2):101–7
Immunological responses to ultraviolet light B radiation in Black individuals. Matsuoka LY, et al. **Life Sci** 1999; 64(17):1563–9
Plantar melanoma: results of treatment in three population groups. Hudson DA, et al. **Surgery** 1998 Nov;124(5):877–82

ETIOLOGY

Eye and hair colour, skin type and constitutive skin pigmentation as risk factors for basal cell carcinoma and cutaneous malignant melanoma. A Danish case-control study. Lock-Andersen J, et al. **Acta Derm Venereol** 1999 Jan;79(1):74–80
Squamous cell carcinoma arising in a cutaneous epidermal cyst: case report and literature review. López-Ríos F, et al. **Am J Dermatopathol** 1999 Apr;21(2):174–7 (25 ref.)
Treatment with UV-B for psoriasis and nonmelanoma skin cancer: a systematic review of the literature. Pasker-de Jong PC, et al. **Arch Dermatol** 1999 Jul;135(7):834–40
Risk of squamous cell carcinoma and methoxsalen (psoralen) and UV-A radiation (PUVA). A meta-analysis. Stern RS, et al. **Arch Dermatol** 1998 Dec;134(12):1582–5
Is the port site really at risk? Biology, mechanisms and prevention: a critical view. Allardyce RA. **Aust N Z J Surg** 1999 Jul;69(7):479–85 (83 ref.)
Are we really dying for a tan? Ness AR, et al. **BMJ** 1999 Jul 10;319(7202):114–6
Anaplastic squamous cell carcinoma (SCC) in a patient with chronic cutaneous graft-versus-host disease (GVHD). Gmeinhart B, et al. **Bone Marrow Transplant** 1999 Jun; 23(11):1197–9
Burn scar sarcoma. Ozyazgan I, et al. **Burns** 1999 Aug; 25(5):455–8
A case-control study of melanomas of the soles and palms (Australia and Scotland). Green A, et al. **Cancer Causes Control** 1999 Feb;10(1):21–5
Factors that influence the DNA repair capacity of normal and skin cancer-affected individuals. D'Errico M, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):553–9
Reproducibility of reported measurements of sun exposure in a case-control study. English DR, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):857–63
Merkel cell carcinoma and melanoma: etiological similarities and differences [published erratum appears in Cancer Epidemiol Biomarkers Prev 1999 May;8(5):485] Miller RW, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Feb; 8(2):153–8
Blocking transforming growth factor beta signaling in transgenic epidermis accelerates chemical carcinogenesis: a mechanism associated with increased angiogenesis. Go C, et al. **Cancer Res** 1999 Jun 15;59(12):2861–8
c-Met autocrine activation induces development of malignant melanoma and acquisition of the metastatic phenotype. Otsuka T, et al. **Cancer Res** 1998 Nov 15;58(22):5157–67
Lack of effect of a 60 Hz magnetic field on biomarkers of tumor promotion in the skin of SENCAR mice. DiGiovanni J, et al. **Carcinogenesis** 1999 Apr;20(4):685–9
Interferon-inducible protein 10 as a possible factor in the pathogenesis of cutaneous T-cell lymphomas. Sarris AH, et al. **Clin Cancer Res** 1997 Feb;3(2):169–77
Alcohol intake-associated skin and mucosal cancer. Merimsky O, et al. **Clin Dermatol** 1999 Jul–Aug; 17(4):447–55 (48 ref.)
Cigarette smoking and skin cancer. Merimsky O, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):585–8 (32 ref.)
Chronic lymphoedema and angiosarcoma. Azurdia RM, et al. **Clin Exp Dermatol** 1999 Jul;24(4):270–2
Skin cancer and non-Hodgkins lymphoproliferative diseases: is sunlight to blame? Cliff S, et al. **Clin Exp Dermatol** 1999 Jan;24(1):40–1
Squamous cell carcinoma associated with lupus vulgaris. Gooptu C, et al. **Clin Exp Dermatol** 1998 May;23(3):99–102
Kaposi's sarcoma in a patient with erythroblastopenia and thymoma: reactivation after topical corticosteroids. Pérez E, et al. **Dermatology** 1998;197(3):264–7
Using ecological data to estimate a regression model for individual data: the association between arsenic in drinking water and incidence of skin cancer. Guo HR, et al. **Environ Res** 1998 Nov;79(2):82–93

Sun-related behaviour and melanoma awareness among Swedish university students. Jerkegren E, et al. **Eur J Cancer Prev** 1999 Feb;8(1):27–34

Angiosarcoma. A rare secondary malignancy after breast cancer treatment. Autio P, et al. **Eur J Dermatol** 1999 Mar; 9(2):118–21 (26 ref.)

Lymphangiosarcoma of the pubic region: a rare complication arising in congenital non-hereditary lymphedema. Cerri A, et al. **Eur J Dermatol** 1998 Oct–Nov;8(7):511–4 (26 ref.)

Multiple basal cell carcinoma developing two years after 60Co irradiation. Iwamoto I, et al. **Eur J Dermatol** 1998 Apr–May;8(3):180–2

Photoprotection and photo-immunosuppression in man. Meunier L. **Eur J Dermatol** 1998 Apr–May;8(3):207–8

Relevance of photo-immunosuppression for viral infections (i.e. human papilloma virus). Vermeer BJ, et al. **Eur J Dermatol** 1998 Apr–May;8(3):205–6 (12 ref.)

Cases of cutaneous and nasal CD56 (NCAM)-positive lymphoma in Japan have differences in immunohistology, genotype, and etiology. Takeshita M, et al. **Hum Pathol** 1999 Sep;30(9):1024–34

Iron as a potential co-factor in the pathogenesis of Kaposi's sarcoma? Simonart T, et al. **Int J Cancer** 1998 Dec 9; 78(6):720–6

UV radiation and skin cancers [editorial] Oikarinen A. **Int J Circumpolar Health** 1999 Jan;58(1):2–3

The prognosis of patients with basal and squamous cell carcinoma of the skin. Czarnecki D. **Int J Dermatol** 1998 Sep;37(9):656–8

Poorly differentiated squamous cell carcinoma arising within an epidermoid cyst [letter] Malone JC, et al. **Int J Dermatol** 1999 Jul;38(7):556–8

Melanoma and sun exposure: where are we now? Whiteman DC, et al. **Int J Dermatol** 1999 Jul;38(7):481–9 (99 ref.)

Association of cutaneous malignant melanoma with intermittent exposure to ultraviolet radiation: results of a case-control study in Ontario, Canada. Walter SD, et al. **Int J Epidemiol** 1999 Jun;28(3):418–27

Low-dose ultraviolet exposure early in development can lead to widespread melanoma in the opossum model. Robinson ES, et al. **Int J Exp Pathol** 1998 Aug;79(4):235–44

Awareness of skin cancer by kidney transplant patients. Cowen EW, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):697–701

Cutaneous melanoma risk and phenotypic changes in large congenital nevi: a follow-up study of 46 patients. Egan CL, et al. **J Am Acad Dermatol** 1998 Dec;39(6):923–32

Guidelines of care: hemangiomas of infancy [letter; comment] Haimowitz JE. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):662. Comment on: J Am Acad Dermatol 1997 Oct;37(4):631–7.

Cancer incidence among Finnish psoriasis patients treated with 8-methoxypsoralen bath PUVA. Hannuksela-Svahn A, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):694–6

Skin cancer in kidney and heart transplant recipients and different long-term immunosuppressive therapy regimens. Jensen P, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):177–86

Acute development of invasive squamous cell carcinoma in a split-thickness skin graft donor site. Taylor CD, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):382–5

Experimental induction of rhabdomyosarcoma in mice with fractionated doses of beta-irradiation. Gupta A, et al. **J Cancer Res Clin Oncol** 1999;125(5):257–67

Microcystic adnexal carcinoma arising in the setting of previous radiation therapy. Antley CA, et al. **J Cutan Pathol** 1999 Jan;26(1):48–50 (11 ref.)

Pagetoid Merkel cell carcinoma: speculations on its origin and the mechanism of epidermal spread [letter] Traest K, et al. **J Cutan Pathol** 1999 Aug;26(7):362–5

Squamous cell carcinoma in a renal transplant recipient with linear porokeratosis. Anzai S, et al. **J Dermatol** 1999 Apr; 26(4):244–7

Basosquamous carcinoma after ultraviolet therapy with artificial sunlight. Miyamoto H, et al. **J Dermatol** 1999 Aug; 26(8):527–31

Small malignant melanoma in patients with mycosis fungoides. Amichai B, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):155–7

Risk factors of non-melanoma skin cancer in United States veterans patients: a pilot study and review of literature. Chuang TY, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):126–32 (42 ref.)

Spectrum of p53 gene mutations suggests a possible role for ultraviolet radiation in the pathogenesis of advanced cutaneous lymphomas. McGregor JM, et al. **J Invest Dermatol** 1999 Mar;112(3):317–21

Prevalence of antibodies against virus-like particles of Epidermodysplasia verruciformis-associated HPV8 in patients at risk of skin cancer. Stark S, et al. **J Invest Dermatol** 1998 Oct;111(4):696–701

Cell interactions control the fate of malignant keratinocytes in an organotypic model of early neoplasia. Vaccariello M, et al. **J Invest Dermatol** 1999 Sep;113(3):384–91

Re: Nonmelanomatous skin cancer following cervical, vaginal, and vulvar neoplasms: etiologic association [letter; comment] Frisch M, et al. **J Natl Cancer Inst** 1999 Mar 17;91(6):565–6. Comment on: J Natl Cancer Inst 1998 Oct 21;90(20):1570–1.

Can skin cancers be minimized or prevented in organ transplant patients? [news] McCann J. **J Natl Cancer Inst** 1999 Jun 2;91(11):911–3

Aggressive NK cell lymphoma preceded by a ten year history of neutropenia associated with large granular lymphocyte lymphocytosis. De Lord C, et al. **Leuk Lymphoma** 1998 Oct;31(3–4):417–21

Faking it: should cancer control agencies promote "fake" tanning lotions? Chapman S. **Med J Aust** 1999 Jun 21; 170(12):603–4

Cutaneous malignant melanoma and sun exposure in Spain. Espinosa Arranz J, et al. **Melanoma Res** 1999 Apr; 9(2):199–205

Clinical and histopathological characteristics in relation to aetiological risk factors in cutaneous melanoma: a population-based study. Måsbäck A, et al. **Melanoma Res** 1999 Apr;9(2):189–97

Naevus-associated melanomas: cause or chance? Massi D, et al. **Melanoma Res** 1999 Feb;9(1):85–91

Parallel risk assessment of melanoma and basal cell carcinoma: skin characteristics and sun exposure. Rosso S, et al. **Melanoma Res** 1998 Dec;8(6):573–83

The effect of vitamin E acetate on ultraviolet-induced mouse skin carcinogenesis. Berton TR, et al. **Mol Carcinog** 1998 Nov;23(3):175–84

Ultraviolet B-induced squamous epithelial and melanocytic cell changes in a xenograft model of cancer development in human skin. Sauter ER, et al. **Mol Carcinog** 1998 Nov; 23(3):168–74

UVB-specific regulation of gene expression in human melanocytic cells: cell cycle effects and implication in the generation of melanoma. Ablett E, et al. **Mutat Res** 1998 Nov 9;422(1):31–41

UV-induced mutations and skin cancer: how important is the link? Bridges BA. **Mutat Res** 1998 Nov 9;422(1):23–30 (38 ref.)

The pathogenesis of melanoma induced by ultraviolet radiation. Gilchrest BA, et al. **N Engl J Med** 1999 Apr 29;340(17):1341–8 (94 ref.)

The pathogenesis of melanoma induced by ultraviolet radiation [letter] Whiteman D, et al. **N Engl J Med** 1999 Sep 2;341(10):766–7

Kaposi's sarcoma after renal transplantation: treatment with liposomal doxorubicin [letter; comment] Boehringer M, et al. **Nephrol Dial Transplant** 1999 May;14(5):1342–3. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768–73.

Kaposi's sarcoma after renal transplantation--withdrawal of immunosuppression or local irradiation? [letter; comment] Rubinger D, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1343. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768–73.

Protection by tea against UV-A + B-induced skin cancers in hairless mice. Record IR, et al. **Nutr Cancer** 1998; 32(2):71–5

MDM2 overexpression generates a skin phenotype in both wild type and p53 null mice. Alkhalaf M, et al. **Oncogene** 1999 Feb 18;18(7):1419–34

In situ molecular dosimetry and tumor risk: UV-induced DNA damage and tumor latency time. de Gruijl FR, et al. **Photochem Photobiol** 1998 Oct;68(4):555–60

Epidemiological support for an hypothesis for melanoma induction indicating a role for UVA radiation. Moan J, et al. **Photochem Photobiol** 1999 Aug;70(2):243–7

Photocarcinogenesis--models and mechanisms. Mukhtar H, et al. **Photodermatol Photoimmunol Photomed** 1999 Jun–Aug;15(3–4):91–5

Squamous cell carcinoma arising from a hydrochloric acid burn [letter] Kargi E, et al. **Plast Reconstr Surg** 1999 Jun; 103(7):2086

Marjolin's ulcer occurring in hidradenitis suppurativa [letter] Lin MT, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1541–3

Exposure to atomic radiation and the subsequent development of cutaneous malignancy [letter; comment] Richards AM. **Plast Reconstr Surg** 1998 Oct;102(5):1784–5. Comment on: Plast Reconstr Surg 1998 Feb;101(2):431–3.

Etiologic clues to lip cancer from epidemiologic studies on farmers. Khuder SA. **Scand J Work Environ Health** 1999 Apr;25(2):125–30

Fas ligand: a sensor for DNA damage critical in skin cancer etiology. Hill LL, et al. **Science** 1999 Aug 6; 285(5429):898–900

The relationship of pregnancy, hormones, and melanoma. Grin CM, et al. **Semin Cutan Med Surg** 1998 Sep; 17(3):167–71 (44 ref.)

Photochemical genotoxicity and photochemical carcinogenesis--two sides of a coin? Müller L, et al. **Toxicol Lett** 1998 Dec 28;102–103:383–7 (18 ref.)

Highly sensitive DNA typing for detecting tumors transmitted by transplantation. Schmitt C, et al. **Transpl Int** 1998;11(5):382–6

[Information, misinformation and photo-education (editorial)] Dubertret L. **Ann Dermatol Venereol** 1999 Apr; 126(4):303–5 **(Fre)**

[Physiopathology of nevi and nevocytes] Grob JJ, et al. **Ann Dermatol Venereol** 1998 Nov;125(11):860–7 (79 ref.) **(Fre)**

[Cancer in patients infected with the human immunodeficiency virus. The unusual aspects] Peyrade F, et al. **Presse Med** 1999 Apr 17;28(15):809–14 (39 ref.) (Eng. Abstr.) **(Fre)**

[Skin cancers and environmental factors] Autier P. **Rev Med Brux** 1998 Sep;19(4):A346–50 (20 ref.) (Eng. Abstr.) **(Fre)**

[Photoprotection, cancer protection and solar protection factor] Heenen M. **Rev Med Brux** 1999 Jun;20(3):143–6 (42 ref.) (Eng. Abstr.) **(Fre)**

[UV-induced immunosuppression and skin cancers] Meunier L, et al. **Rev Med Interne** 1998 Apr;19(4):247–54 (72 ref.) (Eng. Abstr.) **(Fre)**

[Skin carcinogenesis] Soufir N, et al. **Rev Prat** 1999 Apr 15; 49(8):813–7 (23 ref.) (Eng. Abstr.) **(Fre)**

[Pathogenesis of malignant melanoma. Molecular biology aspect] Waldmann V, et al. **Hautarzt** 1999 Jun; 50(6):398–405 (62 ref.) (Eng. Abstr.) **(Ger)**

[Squamous cell carcinoma developing from epidermodysplasia verruciformis] Gross C, et al. **Pathologe** 1999 Mar;20(2):120–4 (Eng. Abstr.) **(Ger)**

[Risk factors for the development of malignant melanomas] Itin PH. **Ther Umsch** 1999 Jun;56(6):298–301 (18 ref.) (Eng. Abstr.) **(Ger)**

[Photo-aging] Paredes BE, et al. **Ther Umsch** 1999 Apr; 56(4):188–93 (23 ref.) (Eng. Abstr.) **(Ger)**

[Sun and skin] Gelmetti C. **Minerva Pediatr** 1998 Jun; 50(6):283–7 (37 ref.) **(Ita)**

[Prognosis of the skin UV-incidence increase in Poland] Kaczmarek J, et al. **Med Pr** 1998;49(4):313–23 (Eng. Abstr.) **(Pol)**

[Melanoma of human skin: its epidemiology, etiology and pathogenesis] Korovin SI. **Lik Sprava** 1998 Jun;(4):46–50 (38 ref.) **(Rus)**

GENETICS

p53 gene mutations in squamous cell carcinoma occurring in scars: comparison with p53 protein immunoreactivity. Sakatani S, et al. **Am J Dermatopathol** 1998 Oct;20(5):463–7

Colorectal cancer and the Muir-Torre syndrome in a Gypsy family: a review. Lynch HT, et al. **Am J Gastroenterol** 1999 Mar;94(3):575–80

A gene for inherited cutaneous venous anomalies ("glomangiomas") localizes to chromosome 1p21-22. Boon LM, et al. **Am J Hum Genet** 1999 Jul;65(1):125–33

A major quantitative-trait locus for mole density is linked to the familial melanoma gene CDKN2A: a maximum-likelihood combined linkage and association analysis in twins and their sibs. Zhu G, et al. **Am J Hum Genet** 1999 Aug;65(2):483–92

Concept of twin spotting. Koopman RJ. **Am J Med Genet** 1999 Aug 6;85(4):355–8 (24 ref.)

Paradominant inheritance, a hypothesis explaining occasional familial occurrence of sporadic syndromes. Steijlen PM, et al. **Am J Med Genet** 1999 Aug 6;85(4):359–60 (14 ref.)

Development of keratoacanthomas and squamous cell carcinomas in transgenic rabbits with targeted expression of EJras oncogene in epidermis. Peng X, et al. **Am J Pathol** 1999 Jul;155(1):315–24

Frequent nuclear/cytoplasmic localization of beta-catenin without exon 3 mutations in malignant melanoma. Rimm DL, et al. **Am J Pathol** 1999 Feb;154(2):325–9

Alterations of Fas (Apo-1/CD95) gene in cutaneous malignant melanoma. Shin MS, et al. **Am J Pathol** 1999 Jun;154(6):1785–91

Impact of p16 expression on surgical management of malignant melanoma and pancreatic carcinoma. Bullock GJ, et al. **Am J Surg** 1999 Jan;177(1):15–8 (39 ref.)

Genetic analysis of a trichoepithelioma and associated basal cell carcinoma [letter] Böni R, et al. **Arch Dermatol** 1998 Sep;134(9):1170–1

Genetic and environmental influences in the development of multiple primary melanoma [see comments] Burden AD, et al. **Arch Dermatol** 1999 Mar;135(3):261–5. Comment in: Arch Dermatol 1999 Mar;135(3):325–7.

Physicians should inquire about vascular lesions in family members of children with hemangiomas and vascular malformations [letter; comment] Lanigan SW, et al. **Arch Dermatol** 1999 Feb;135(2):209. Comment on: Arch Dermatol 1998 Jun;134(6):718–22.

A novel human papillomavirus DNA sequence related to epidermodysplasia verruciformis-associated types isolated from recurrent scar carcinoma [letter] Lee SH, et al. **Arch Dermatol** 1999 Jun;135(6):727–8

Assessment of microsatellite instability and loss of heterozygosity in sporadic keratoacanthomas. Langenbach N, et al. **Arch Dermatol Res** 1999 Jan;291(1):1–5

Analysis of the tumor suppressor gene p16(INK4A) in microdissected melanoma metastases by sequencing, and microsatellite and methylation screening. von Eggeling F, et al. **Arch Dermatol Res** 1999 Jul–Aug;291(7–8):474–7

Feature selection for optimized skin tumor recognition using genetic algorithms. Handels H, et al. **Artif Intell Med** 1999 Jul;16(3):283–97

Familial Kaposi's sarcoma and Paget's disease of bone. Hale LR, et al. **Australas J Dermatol** 1998 Nov;39(4):241–3

VH gene analysis of primary cutaneous B-cell lymphomas: evidence for ongoing somatic hypermutation and isotype switching. Aarts WM, et al. **Blood** 1998 Nov 15; 92(10):3857–64

Mutational spectrum of p53 gene in arsenic-related skin cancers from the blackfoot disease endemic area of Taiwan. Hsu CH, et al. **Br J Cancer** 1999 Jun;80(7):1080–6

Hereditary factors in basal cell carcinoma of the skin: a population-based cohort study in twins. Milán T, et al. **Br J Cancer** 1998 Dec;78(11):1516–20

p53 mutations in human cutaneous melanoma correlate with sun exposure but are not always involved in melanomagenesis. Zerp SF, et al. **Br J Cancer** 1999 Feb; 79(5–6):921–6

Basal cell carcinoma development is associated with induction of the expression of the transcription factor Gli-1. Green J, et al. **Br J Dermatol** 1998 Nov;139(5):911-5

Evidence for a second genetic locus in Carney complex. Irvine AD, et al. **Br J Dermatol** 1998 Oct;139(4):572-6

Lack of mutation in the INK4a locus in basal cell carcinomas [letter] Kubo Y, et al. **Br J Dermatol** 1998 Aug;139(2):340-1

Multiple pilomatrixomata and myotonic dystrophy: a familial association. Geh JL, et al. **Br J Plast Surg** 1999 Mar; 52(2):143-5 (17 ref.)

Altered expression of bcl-2 family member proteins in nonmelanoma skin cancer. Delehedde M, et al. **Cancer** 1999 Apr 1;85(7):1514-22

Involvement of chromosome losses in the progression and metastasis formation of a human malignant melanoma. Balázs M, et al. **Cancer Genet Cytogenet** 1999 Mar; 109(2):114-8

Translocation (17;22)(q22;q13) in a case of subcutaneous dermatofibrosarcoma protuberans in an adult [letter] Dobin SM, et al. **Cancer Genet Cytogenet** 1999 Feb;109(1):86-7

Dermatofibrosarcoma protuberans harboring t(9;22)(q32;q12.2). Sonobe H, et al. **Cancer Genet Cytogenet** 1999 Apr;110(1):14-8

Frequent alterations of evolutionarily conserved regions of chromosome 1 in human malignant melanoma. Zhang J, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):119-23

A case of dermatofibrosarcoma protuberans with a ring chromosome 5 and a rearranged chromosome 22 containing amplified COL1A1 and PDGFB sequences. Gisselsson D, et al. **Cancer Lett** 1998 Nov 27;133(2):129-34

Loss of heterozygosity in actinic keratosis, squamous cell carcinoma and sun-exposed normal-appearing skin in Japanese: difference between Japanese and Caucasians. Kushida Y, et al. **Cancer Lett** 1999 Jun 1;140(1-2):169-75

Inversion of genetic predisposition to carcinogenesis in liver of two lines of mice selected for resistance (Car-R) or susceptibility (Car-S) to skin carcinogenesis. Périn F, et al. **Cancer Lett** 1998 Oct 23;132(1-2):81-90

Mouse model for the DNA repair/basal transcription disorder trichothiodystrophy reveals cancer predisposition. de Boer J, et al. **Cancer Res** 1999 Jul 15;59(14):3489-94

p53 mutations in skin and internal tumors of xeroderma pigmentosum patients belonging to the complementation group C. Giglia G, et al. **Cancer Res** 1998 Oct 1; 58(19):4402-9

Functional evidence of novel tumor suppressor genes for cutaneous malignant melanoma. Parris CN, et al. **Cancer Res** 1999 Feb 1;59(3):516-20

The dermatofibrosarcoma protuberans-associated collagen type Ialpha1/platelet-derived growth factor (PDGF) B-chain fusion gene generates a transforming protein that is processed to functional PDGF-BB. Shimizu A, et al. **Cancer Res** 1999 Aug 1;59(15):3719-23

Homologous recombination between p53 and its pseudogene in a radiation-induced mouse tumor. Tanooka H, et al. **Cancer Res** 1998 Dec 15;58(24):5649-51

Perivascular cells harboring multiple endocrine neoplasia type 1 alterations are neoplastic cells in angiofibromas. Vortmeyer AO, et al. **Cancer Res** 1999 Jan 15;59(2):274-8

Genetic deletion of p21WAF1 enhances papilloma formation but not malignant conversion in experimental mouse skin carcinogenesis. Weinberg WC, et al. **Cancer Res** 1999 May 1;59(9):2050-4

The sebaceous nevus: a nevus with deletions of the PTCH gene. Xin H, et al. **Cancer Res** 1999 Apr 15;59(8):1834-6

Skin precancer. Brash DE, et al. **Cancer Surv** 1998;32:69-113 (232 ref.)

Induction of melanoma in TPras transgenic mice. Broome Powell M, et al. **Carcinogenesis** 1999 Sep;20(9):1747-53

Association of NAD(P)H:quinone oxidoreductase (NQO1) null with numbers of basal cell carcinomas: use of a multivariate model to rank the relative importance of this polymorphism and those at other relevant loci. Clairmont A, et al. **Carcinogenesis** 1999 Jul;20(7):1235-40

Effect of the viable-yellow (A(vy)) agouti allele on skin tumorigenesis and humoral hypercalcemia in v-Ha-ras transgenic TGxAC mice. Hansen LA, et al. **Carcinogenesis** 1998 Oct;19(10):1837-45

Dose-dependent mutation profile in the c-Ha-ras proto-oncogene of skin tumors in mice initiated with benzo[a]pyrene. Wei SJ, et al. **Carcinogenesis** 1999 Sep; 20(9):1689-96

De Novo hair follicle morphogenesis and hair tumors in mice expressing a truncated beta-catenin in skin. Gat U, et al. **Cell** 1998 Nov 25;95(5):605-14

AIDS-related Kaposi's sarcoma is a clonal neoplasm. Rabkin CS, et al. **Clin Cancer Res** 1995 Mar;1(3):257-60

The melanocyte stimulating hormone receptor polymorphism: association of the V92M and A294H alleles with basal cell carcinoma. Jones FI, et al. **Clin Chim Acta** 1999 Apr;282(1-2):125-34

The genetics of melanoma: the UK experience. Newton Bishop JA, et al. **Clin Exp Dermatol** 1998 Jul;23(4):158-61 (23 ref.)

Genetic predisposition to skin cancer. Halpern AC, et al. **Curr Opin Oncol** 1999 Mar;11(2):132-8 (49 ref.)

9p21 deletions in primary melanoma. Naylor MF, et al. **Dermatol Online J** 1997 Dec;3(2):1 **(Eng, Spa, Por)**

p53 immunohistochemical expression in early posttransplant-associated malignant and premalignant cutaneous lesions. Ferrándiz C, et al. **Dermatol Surg** 1999 Feb;25(2):97-101

Expression of c-fos and c-Ha-ras proto-oncogenes is induced in human chronic wounds. Ouahes N, et al. **Dermatol Surg** 1998 Dec;24(12):1354-7; discussion 1358

Expression of the anhidrotic ectodermal dysplasia gene is reduced in skin cancer coinciding with reduced E-cadherin. Montonen O, et al. **Exp Dermatol** 1998 Aug; 7(4):168-74

Cavernous haemangioma of retina and skin [letter] Backhouse O, et al. **Eye** 1998;12 (Pt 6):1027-8

Various regions within the alpha-helical domain of the COL1A1 gene are fused to the second exon of the PDGFB gene in dermatofibrosarcomas and giant-cell fibroblastomas. O'Brien KP, et al. **Genes Chromosomes Cancer** 1998 Oct;23(2):187-93

Diagnostic relevance of chromosomal in-situ hybridization in Merkel cell carcinoma: targeted interphase cytogenetic tumour analyses. Amo-Takyi BK, et al. **Histopathology** 1999 Feb;34(2):163-9

Tissue-specific, cell cycle-regulated chimeric transcription factors for the targeting of gene expression to tumor cells. Jérôme V, et al. **Hum Gene Ther** 1998 Dec 10;9(18):2653-9

A new hereditary cylindromatosis family associated with CYLD1 on chromosome 16. Thomson SA, et al. **Hum Genet** 1999 Jul-Aug;105(1-2):171-3

Detection of loss of heterozygosity on chromosome 9q22.3 in microdissected sporadic basal cell carcinoma. Shen T, et al. **Hum Pathol** 1999 Mar;30(3):284-7

Relation between two independent DNA-repair pathways in different groups of naevi. Korabiowska M, et al. **In Vivo** 1999 May-Jun;13(3):243-5

Growth arrest DNA damage gene expression in naevi. Korabiowska M, et al. **In Vivo** 1999 May-Jun;13(3):247-50

Molecular analysis of glioma and skin-tumour alterations in a xeroderma-pigmentosum child. Giglia G, et al. **Int J Cancer** 1999 May 5;81(3):345-50

Identification of two distinct deletion targets at 11q23 in cutaneous malignant melanoma. Herbst RA, et al. **Int J Cancer** 1999 Jan 18;80(2):205-9

Deletion monitoring in skin tumors by interphase-FISH using band-specific DNA probes. Dobler M, et al. **Int J Oncol** 1999 Mar;14(3):571-6

Cytogenetic and CGH studies of four neuroendocrine tumors and tumor-derived cell lines of a patient with multiple endocrine neoplasia type 1. Sigl E, et al. **Int J Oncol** 1999 Jul;15(1):41-51

Differentiation between Spitz nevi and malignant melanomas by interphase fluorescence in situ hybridization. Wettengel GV, et al. **Int J Oncol** 1999 Jun;14(6):1177-83

Immunophenotyping and T-cell receptor gamma gene rearrangement analysis as an adjunct to the histopathologic diagnosis of mycosis fungoides. Bergman R, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):554-9

p54 where are you? Bernhard JD. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):762-4

Loss of heterozygosity in human skin. Happle R. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):143-64 (265 ref.)

T-cell receptor gene analysis in the diagnosis of Sézary syndrome. Russell-Jones R, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):254-9 (53 ref.)

American Academy of Dermatology 1999 Awards for Young Investigators in Dermatology. Targets of genetic injury in cutaneous melanoma. Tsao H. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):459-61

American Academy of Dermatology 1999 Awards for Young Investigators in Dermatology. The prevalence of CDKN2A in patients with atypical nevi and malignant melanoma. Ung-Juurlink C. **J Am Acad Dermatol** 1999 Sep; 41(3 Pt 1):461-2

Transcriptional regulation of cyclooxygenase-2 in mouse skin carcinoma cells. Regulatory role of CCAAT/enhancer-binding proteins in the differential expression of cyclooxygenase-2 in normal and neoplastic tissues. Kim Y, et al. **J Biol Chem** 1998 Oct 16; 273(42):27686-94

The "sins" of the fathers: self-healing squamous epithelioma in Scotland. Bale SJ. **J Cutan Med Surg** 1999 Apr; 3(4):207-10

Polymerase chain reaction-denaturing gradient gel electrophoresis (PCR/DGGE)-based detection of clonal T-cell receptor gamma gene rearrangements in paraffin-embedded cutaneous biopsies in cutaneous T-cell lymphoproliferative diseases. Andersen WK, et al. **J Cutan Pathol** 1999 Apr;26(4):176-82

High frequency of DNA aneuploidy detected by DNA flow cytometry in Bowen's disease. Kawara S, et al. **J Dermatol Sci** 1999 Sep;21(1):23-6

Lack of somatic mutation in the PTEN gene in squamous cell carcinomas of human skin. Kubo Y, et al. **J Dermatol Sci** 1999 Apr;19(3):199-201

FGF expression allows nevus cells to survive in three-dimensional collagen gel under conditions that induce apoptosis in normal human melanocytes. Alanko T, et al. **J Invest Dermatol** 1999 Jul;113(1):111-6

Inhibition of solar simulator-induced p53 mutations and protection against skin cancer development in mice by sunscreens. Ananthaswamy HN, et al. **J Invest Dermatol** 1999 May;112(5):763-8

Genetic mapping and physical cloning of UVB susceptibility region in mice. Handel-Fernandez ME, et al. **J Invest Dermatol** 1999 Aug;113(2):224-9

N-ras mutations are common in melanomas from sun-exposed skin of humans but rare in mucosal membranes or unexposed skin. Jiveskog S, et al. **J Invest Dermatol** 1998 Nov;111(5):757-61

Basal cell carcinoma-like epidermal changes overlying dermatofibromas often reveal loss of heterozygosity in the PTCH gene [letter] Leong PM, et al. **J Invest Dermatol** 1999 Aug;113(2):279-80

Clustering of activating mutations in c-KIT's juxtamembrane coding region in canine mast cell neoplasms. Ma Y, et al. **J Invest Dermatol** 1999 Feb;112(2):165-70

Spectrum of p53 gene mutations suggests a possible role for ultraviolet radiation in the pathogenesis of advanced cutaneous lymphomas. McGregor JM, et al. **J Invest Dermatol** 1999 Mar;112(3):317-21

Comparison of genetic profiles between primary melanomas and their metastases reveals genetic alterations and clonal evolution during progression. Morita R, et al. **J Invest Dermatol** 1998 Dec;111(6):919-24

Effect of aging on DNA repair and skin carcinogenesis: a minireview of population-based studies. Wei Q. **J Investig Dermatol Symp Proc** 1998 Aug;3(1):19-22 (63 ref.)

Mutational analysis of the N-ras, p53, p16INK4a, CDK4, and MC1R genes in human congenital melanocytic naevi. Papp T, et al. **J Med Genet** 1999 Aug;36(8):610-4

Familial cylindromatosis mimicking tuberous sclerosis complex and confirmation of the cylindromatosis locus, CYLD1, in a large family. Verhoef S, et al. **J Med Genet** 1998 Oct;35(10):841-5

CDKN2A variants in a population-based sample of Queensland families with melanoma. Aitken J, et al. **J Natl Cancer Inst** 1999 Mar 3;91(5):446-52

Clear cell sarcoma of tendons and aponeuroses (malignant melanoma of soft parts) and cutaneous melanoma: exploring the histogenetic relationship between these two clinicopathological entities. Graadt van Roggen JF, et al. **J Pathol** 1998 Sep;186(1):3-7 (43 ref.)

Differential regulation of MMP-9 and TIMP-2 expression in malignant melanoma developed in metallothionein/RET transgenic mice. Asai M, et al. **Jpn J Cancer Res** 1999 Jan; 90(1):86-92

Expression of the apoptosis inhibitor, survivin, in nonmelanoma skin cancer and gene targeting in a keratinocyte cell line. Grossman D, et al. **Lab Invest** 1999 Sep;79(9):1121-6

The PTEN tumour suppressor gene and malignant melanoma. Böni R, et al. **Melanoma Res** 1998 Aug; 8(4):300-2

Loss of heterozygosity at chromosome 9p21 (INK4-p14ARF locus): homozygous deletions and mutations in the p16 and p14ARF genes in sporadic primary melanomas. Kumar R, et al. **Melanoma Res** 1999 Apr;9(2):138-47

Multiple stages and genetic alterations in immortalization, malignant transformation, and tumor progression of human skin keratinocytes. Fusenig NE, et al. **Mol Carcinog** 1998 Nov;23(3):144-58 (78 ref.)

Altered expression of interleukin-1 receptor antagonist in different stages of mouse skin carcinogenesis. La E, et al. **Mol Carcinog** 1999 Apr;24(4):276-86

Frequent Ha-ras mutations in murine skin and liver tumors induced by 7H-dibenzo[c,g]carbazole. Mitchell KR, et al. **Mol Carcinog** 1999 Jun;25(2):107-12

ras activity and cyclin D1 expression: an essential mechanism of mouse skin tumor development. Rodriguez-Puebla ML, et al. **Mol Carcinog** 1999 Jan;24(1):1-6 (61 ref.)

Analysis of centrosome abnormalities and angiogenesis in epidermal-targeted p53172H mutant and p53-knockout mice after chemical carcinogenesis: evidence for a gain of function. Wang XJ, et al. **Mol Carcinog** 1998 Nov; 23(3):185-92

Reversible activation of c-Myc in skin: induction of a complex neoplastic phenotype by a single oncogenic lesion. Pelengaris S, et al. **Mol Cell** 1999 May;3(5):565-77

Xeroderma pigmentosum and the role of UV-induced DNA damage in skin cancer. van Steeg H, et al. **Mol Med Today** 1999 Feb;5(2):86-94 (53 ref.)

Chromosomal sensitivity to X-ray irradiation during the G2 phase in lymphocytes of patients with hereditary cutaneous malignant melanoma as compared to healthy controls. Andersson HC, et al. **Mutat Res** 1999 Mar 10;425(1):9-20

Low DNA repair is a risk factor in skin carcinogenesis: a study of basal cell carcinoma in psoriasis patients. Dybdahl M, et al. **Mutat Res** 1999 Jan 26;433(1):15-22

Differences in the mutational specificities of sunlight and UVB radiation suggest a role for transversion-inducing DNA damage in solar photocarcinogenesis. Kunz BA, et al. **Mutat Res** 1998 Nov 9;422(1):77-83

A common human skin tumour is caused by activating mutations in beta-catenin. Chan EF, et al. **Nat Genet** 1999 Apr;21(4):410-3

Mitochondrial G8363A mutation presenting as cerebellar ataxia and lipomas in an Italian family. Casali C, et al. **Neurology** 1999 Mar 23;52(5):1103-4

Genetic instability in the 9q22.3 region is a late event in the development of squamous cell carcinoma. Ahmadian A, et al. **Oncogene** 1998 Oct 8;17(14):1837-43

p16INK4a inactivation is not frequent in uncultured sporadic primary cutaneous melanoma. Fujimoto A, et al. **Oncogene** 1999 Apr 15;18(15):2527-32

Infrequent p53 mutations in arsenic-related skin lesions. Castrén K, et al. **Oncol Res** 1998;10(9):475-82

Bcl-2 and p53 immunoprofile in Kaposi's sarcoma. Pillay P, et al. **Pathol Oncol Res** 1999;5(1):17-20

Adnexal-centered giant congenital melanocyte nevus with extensive ganglioneuromatous component and trisomy 7. Drut R, et al. **Pediatr Dev Pathol** 1999 Sep-Oct;2(5):473-7

Cytochrome P450 CYP2D6 genotypes: association with hair colour, Breslow thickness and melanocyte stimulating hormone receptor alleles in patients with malignant melanoma. Strange RC, et al. **Pharmacogenetics** 1999 Jun; 9(3):269-76

Cytogenetic follow-up in a case with a primary cutaneous melanoma and five metastatic lesions. Grammatico P, et al. **Pigment Cell Res** 1998 Oct;11(5):314-9

Tumor suppression in human skin carcinoma cells by chromosome 15 transfer or thrombospondin-1 overexpression through halted tumor vascularization. Bleuel K, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2; 96(5):2065-70

High levels of patched gene mutations in basal-cell carcinomas from patients with xeroderma pigmentosum. Bodak N, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27; 96(9):5117-22

Transgenic mice demonstrate AP-1 (activator protein-1) transactivation is required for tumor promotion. Young MR, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9827-32

Genetics of skin tumor promotion. Angel JM, et al. **Prog Exp Tumor Res** 1999;35:143-57 (45 ref.)

Cancer predisposition in mutant mice defective in the XPC DNA repair gene. Friedberg EC, et al. **Prog Exp Tumor Res** 1999;35:37-52 (45 ref.)

Molecular staging for melanoma and breast cancer. Shivers SC, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):515-26 (41 ref.)

HLA-DQB1*0303 and *0301 alleles influence susceptibility to and prognosis in cutaneous malignant melanoma in the British Caucasian population. Bateman AC, et al. **Tissue Antigens** 1998 Jul;52(1):67-73

Dermatofibrosarcoma protuberans with fibrosarcomatous areas. Molecular abnormalities of the p53 pathway in fibrosarcomatous transformation of dermatofibrosarcoma protuberans. Hisaoka M, et al. **Virchows Arch** 1998 Oct; 433(4):323-9

[Brooke-Spiegler sundrome] Garat H, et al. **Ann Dermatol Venereol** 1999 Jun-Jul;126(6-7):513-7 (Eng. Abstr.) **(Fre)**

[Developmental genes: definitions and contribution to skin biology] Molès JP. **Ann Dermatol Venereol** 1999 Feb; 126(2):184-5 **(Fre)**

[Extensive Mongolian spot related to Hurler disease] Rybojad M, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):35-7 (Eng. Abstr.) **(Fre)**

[Microdissection. Use in molecular oncologic dermatology] Böni R, et al. **Hautarzt** 1999 Feb;50(2):98-102 (20 ref.) (Eng. Abstr.) **(Ger)**

[MIA ("melanoma inhibitory activity"). Biological functions and clinical relevance in malignant melanoma] Bosserhoff AK, et al. **Hautarzt** 1998 Oct;49(10):762-9 (17 ref.) (Eng. Abstr.) **(Ger)**

[Detection of monoclonal T-cells with TCR gamma PCR in mycosis fungoides] Lukowsky A, et al. **Hautarzt** 1998 Aug;49(8):641-5 (Eng. Abstr.) **(Ger)**

[Congenital poikiloderma with verruciform hyperkeratoses (Dowling type)] Pickenäcker A, et al. **Hautarzt** 1998 Jul; 49(7):586-90 (Eng. Abstr.) **(Ger)**

[Pathogenesis of malignant melanoma. Molecular biology aspect] Waldmann V, et al. **Hautarzt** 1999 Jun; 50(6):398-405 (62 ref.) (Eng. Abstr.) **(Ger)**

[Cytogenetic aspects of malignant melanoma] Böni R, et al. **Ther Umsch** 1999 Jun;56(6):309-11 (14 ref.) (Eng. Abstr.) **(Ger)**

[Prognosis and invasion marker expression of cutaneous melanoma. Metastasis-associated genes (nm23, CD44v3, MMP2)] Döme B, et al. **Orv Hetil** 1999 Jan 31;140(5):235-40 (Eng. Abstr.) **(Hun)**

[Genetic basis of malignant melanoma] Drewa G, et al. **Postepy Hig Med Dosw** 1998;52(4):367-80 (78 ref.) (Eng. Abstr.) **(Pol)**

HISTORY

Sister (Mary?) Joseph's node [letter; comment] Viera AJ, et al. **Am Fam Physician** 1999 Jun;59(11):2984. Comment on: Am Fam Physician 1998 Oct 15;58(6):1313-20.

Arranging the death of Freud. Kelleher MJ. **Crisis** 1998; 19(3):99-100

Geographic pathology of skin cancer. Jackson R. **J Cutan Med Surg** 1999 Jan;3(3):120-2

IMMUNOLOGY

Antitumor immunity at work in a melanoma patient. Coulie PG, et al. **Adv Cancer Res** 1999;76:213-42 (69 ref.)

Identification of epitopes for CTCL-specific cytotoxic T lymphocytes. Linnemann T, et al. **Adv Exp Med Biol** 1998; 451:231-5

Enhancement of complement-dependent cytotoxicity by polyvalent melanoma cell vaccine (CancerVax): correlation with survival [see comments] Hsueh EC, et al. **Ann Surg Oncol** 1998 Oct-Nov;5(7):595-602. Comment in: Ann Surg Oncol 1998 Oct-Nov;5(7):565-6.

A melanoma vaccine that works? Evidence for a phase III national trial [editorial; comment] Reintgen DS, et al. **Ann Surg Oncol** 1998 Oct-Nov;5(7):565-6. Comment on: Ann Surg Oncol 1998 Oct-Nov;5(7):595-602.

Tumor-preventive effects of the soluble p53 antigen on chemically-induced skin cancer in mice. Ben-Hur H, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4237-41

High MHC class I expression correlates with slow growth in UV-induced skin carcinomas in hairless mice. Svane IM, et al. **APMIS** 1998 Nov;106(11):1101-7

Interleukin-10-treated human dendritic cells induce a melanoma-antigen-specific anergy in CD8(+) T cells resulting in a failure to lyse tumor cells. Steinbrink K, et al. **Blood** 1999 Mar 1;93(5):1634-42

Immunohistochemical demonstration of carcinoembryonic antigen and related antigens in various cutaneous keratinous neoplasms and verruca vulgaris. Egawa K, et al. **Br J Dermatol** 1998 Aug;139(2):178-85

HLA genotype and increased risk of skin cancer [letter; comment] Howell WM, et al. **Br J Dermatol** 1998 Dec; 139(6):1111. Comment on: Br J Dermatol 1998 Apr;138(4):627-30.

Fas ligand is expressed in normal skin and in some cutaneous malignancies. Lee SH, et al. **Br J Dermatol** 1998 Aug; 139(2):186-91

The treatment of Merkel cell carcinoma and its association with immunosuppression [letter] Plunkett TA, et al. **Br J Dermatol** 1998 Aug;139(2):345-6

Progressive outer retinal necrosis in a patient with cutaneous non-Hodgkin's T cell lymphoma (Sézary syndrome) [letter] Njoo FL, et al. **Br J Ophthalmol** 1998 Oct;82(10):1218-9

Low antibody responsiveness is found to be associated with resistance to chemical skin tumorigenesis in several lines of Biozzi mice. Ibañez OM, et al. **Cancer Lett** 1999 Mar 1;136(2):153-8

Photodynamic therapy-mediated immune response against subcutaneous mouse tumors. Korbelik M, et al. **Cancer Res** 1999 Apr 15;59(8):1941-6

Isolation of human tumor-specific antibodies by selection of an antibody phage library on melanoma cells. Kupsch JM, et al. **Clin Cancer Res** 1999 Apr;5(4):925-31

Human high molecular weight-melanoma associated antigen mimicry by mouse anti-idiotypic monoclonal antibody MK2-23: modulation of the immunogenicity in patients with malignant melanoma. Mittelman A, et al. **Clin Cancer Res** 1995 Jul;1(7):705-13

Melanoma-reactive human cytotoxic T lymphocytes derived from skin biopsies of delayed-type hypersensitivity reactions induced by injection of an autologous melanoma cell line. Waanders GA, et al. **Clin Cancer Res** 1997 May; 3(5):685-96

Dysregulated synthesis of intracellular type 1 and type 2 cytokines by T cells of patients with cutaneous T-cell lymphoma. Lee BN, et al. **Clin Diagn Lab Immunol** 1999 Jan;6(1):79-84

Role of cytokines in the maintenance of the memory immune response induced by a rat histiocytoma in syngeneic hosts. Nandakumar KS, et al. **Cytokines Cell Mol Ther** 1998 Sep; 4(3):169-75

A natural cytotoxic T cell response in a spontaneously regressing human melanoma targets a neoantigen resulting from a somatic point mutation. Zorn E, et al. **Eur J Immunol** 1999 Feb;29(2):592-601

A MAGE-6-encoded peptide is recognized by expanded lymphocytes infiltrating a spontaneously regressing human primary melanoma lesion. Zorn E, et al. **Eur J Immunol** 1999 Feb;29(2):602-7

Cytokines and cutaneous T-cell lymphomas. Asadullah K, et al. **Exp Dermatol** 1998 Dec;7(6):314-20 (64 ref.)

Immunotherapy and experimental approaches for metastatic melanoma. Atkins MB. **Hematol Oncol Clin North Am** 1998 Aug;12(4):877-902, viii (149 ref.)

The role of immunosuppression and immune-activation in classic Kaposi's sarcoma. Touloumi G, et al. **Int J Cancer** 1999 Sep 9;82(6):817-21

Bednar tumor (pigmented dermatofibrosarcoma protuberans) occurring in a site of prior immunization: immunochemical findings and therapy. Elgart GW, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):315-7

Augmentation of IgM antibody to gp43 tumor-associated antigen peptide by melanoma cell vaccine. Takahashi T, et al. **J Clin Immunol** 1998 Jul;18(4):299-305

Differential expression of the cancer associated antigens T (Thomsen-Friedenreich) and Tn to the skin in primary and metastatic carcinomas. Kanitakis J, et al. **J Clin Pathol** 1998 Aug;51(8):588-92

Cutaneous infiltrate of chronic lymphocytic leukemia surrounding a primary squamous cell carcinoma of the skin. Report of an additional case and reflection on its pathogenesis [letter; comment] Dargent JL, et al. **J Cutan Pathol** 1998 Oct;25(9):479-80. Comment on: J Cutan Pathol 1998 Mar;25(3):160-4.

Changes in immunological parameters after combination adjuvant therapy with intravenous DTIC, ACNU, and VCR, and local injection of IFN-beta (DAV + IFN-beta therapy) into malignant melanoma. Umeda T, et al. **J Dermatol** 1998 Sep;25(9):569-72

The proliferative properties of tumor cells differentially correlate with the host immune responses in anogenital Bowen's disease. Duan H, et al. **J Dermatol Sci** 1998 May; 20(1):53-62

Immune-mediated destruction of melanocytes in halo nevi is associated with the local expansion of a limited number of T cell clones. Musette P, et al. **J Immunol** 1999 Feb 1;162(3):1789-94

Do primary cutaneous non-T non-B CD4+CD56+ lymphomas belong to the myelo-monocytic lineage? [letter] Bagot M, et al. **J Invest Dermatol** 1998 Dec;111(6):1242-4

Differential regulation of epidermal cell tumor-antigen presentation by IL-1alpha and IL-1beta. Beissert S, et al. **J Invest Dermatol** 1998 Oct;111(4):609-15

UV immunosuppression and skin cancer [letter; comment] Noonan F, et al. **J Invest Dermatol** 1998 Oct;111(4):706-8 . Comment on: J Invest Dermatol 1997 Dec;109(6):716-21.

Immunizing patients with metastatic melanoma using recombinant adenoviruses encoding MART-1 or gp100 melanoma antigens. Rosenberg SA, et al. **J Natl Cancer Inst** 1998 Dec 16;90(24):1894-900

Interferon-gamma-induced ICAM-1 and CD40 expression, complete lack of HLA-DR and CD80 (B7.1), and inconsistent HLA-ABC expression in basal cell carcinoma: a possible role for interleukin-10? Kooy AJ, et al. **J Pathol** 1999 Feb;187(3):351-7

Eosinophilic leukaemoid reaction and interleukin-5 in metastatic melanoma [letter] Oakley SP, et al. **Med J Aust** 1998 Nov 2;169(9):501

Immunohistochemical analysis of mycosis fungoides on paraffin-embedded tissue sections. Izban KF, et al. **Mod Pathol** 1998 Oct;11(10):978-82

UVA-induced immunosuppression. Halliday GM, et al. **Mutat Res** 1998 Nov 9;422(1):139-45

Mice deficient in tumor necrosis factor-alpha are resistant to skin carcinogenesis. Moore RJ, et al. **Nat Med** 1999 Jul; 5(7):828-31

Tumor metastasis biopsy as a surrogate marker of response to melanoma immunotherapy. Zehntner S, et al. **Pathology** 1999 May;31(2):116-22

Interaction between B.7 and CD28 costimulatory molecules is essential for the activation of effector function mediating spontaneous tumour regression. Rao KL, et al. **Scand J Immunol** 1999 Jun;49(6):633-40

CD30-positive cutaneous anaplastic large cell lymphoma with ichthyosis acquisita. Zamolo G, et al. **Tumori** 1999 Jan-Feb;85(1):71-4

[Cytotoxic T-cell immune response against melanoma antigens] Ayyoub M. **Ann Dermatol Venereol** 1998 Nov;125 Suppl 2:S34-6 **(Fre)**

METABOLISM

Expression of cell-cycle proteins p53, p21 (WAF-1), PCNA and Ki-67 in benign, premalignant and malignant skin lesions with implicated HPV involvement. Lu S, et al. **Acta Derm Venereol** 1999 Jul;79(4):268-73

Epidermal urocanic acid concentration and photoisomerization reactivity in patients with cutaneous malignant melanoma or basal cell carcinoma. Snellman E, et al. **Acta Derm Venereol** 1999 May;79(3):200-3

Expression of the proliferation and apoptosis-associated CAS protein in benign and malignant cutaneous melanocytic lesions. Böni R, et al. **Am J Dermatopathol** 1999 Apr; 21(2):125-8

Differential expression of p53 and Ki-67 proteins in classic and iatrogenic Kaposi's sarcoma. Hodak E, et al. **Am J Dermatopathol** 1999 Apr;21(2):138-45

Expression of p-27 (kip1) in nevi and melanomas. Morgan MB, et al. **Am J Dermatopathol** 1999 Apr;21(2):121-4

Cyclin D1 overexpression in Spitz nevi: an immunohistochemical study. Nagasaka T, et al. **Am J Dermatopathol** 1999 Apr;21(2):115-20

Neurofollicular hamartoma with strong diffuse S-100 positivity: a case report. Xie DL, et al. **Am J Dermatopathol** 1999 Jun;21(3):253-5

Isolation of mouse stromal cells associated with a human tumor using differential diphtheria toxin sensitivity. Arbiser JL, et al. **Am J Pathol** 1999 Sep;155(3):723-9

Microphthalmia transcription factor. A sensitive and specific melanocyte marker for MelanomaDiagnosis. King R, et al. **Am J Pathol** 1999 Sep;155(3):731-8

Anoxia-induced up-regulation of interleukin-8 in human malignant melanoma. A potential mechanism for high tumor aggressiveness. Kunz M, et al. **Am J Pathol** 1999 Sep;155(3):753-63

Analysis of 1,25-dihydroxyvitamin D(3) receptors (VDR) in basal cell carcinomas. Reichrath J, et al. **Am J Pathol** 1999 Aug;155(2):583-9

Overexpression of thrombospondin-1 decreases angiogenesis and inhibits the growth of human cutaneous squamous cell carcinomas. Streit M, et al. **Am J Pathol** 1999 Aug; 155(2):441-52

Expression of cytotoxic proteins by neoplastic T cells in mycosis fungoides increases with progression from plaque stage to tumor stage disease. Vermeer MH, et al. **Am J Pathol** 1999 Apr;154(4):1203-10

Quantitative analysis of ribonucleoside triphosphates in human lymphoid cells by micellar electrokinetic capillary chromatography. Bolzonella C, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):636-41

Immunohistochemical staining of proliferating cell nuclear antigen (PCNA) in malignant and nonmalignant skin diseases. Kawahira K. **Arch Dermatol Res** 1999 Jul-Aug; 291(7-8):413-8

Basal cell carcinoma possibly originates from the outer root sheath and/or the bulge region of the vellus hair follicle. Krüger K, et al. **Arch Dermatol Res** 1999 May;291(5):253-9

Desmoglein in multiple self-healing squamous epithelioma of Ferguson-Smith--comparison of staining patterns with actinic keratoacanthoma and squamous cell carcinoma of the skin. Krunic AL, et al. **Arch Dermatol Res** 1998 Jun;

290(6):319–24
Reduced expression of CDKN2a/P16INK4a in mycosis fungoides. Peris K, et al. **Arch Dermatol Res** 1999 Apr; 291(4):207–11
Modulation of mitogen-activated protein kinase activation and cell cycle regulators by the potent skin cancer preventive agent silymarin. Zi X, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):528–36
Constitutive and interleukin-7/interleukin-15 stimulated DNA binding of Myc, Jun, and novel Myc-like proteins in cutaneous T-cell lymphoma cells. Qin JZ, et al. **Blood** 1999 Jan 1;93(1):260–7
Optimum porphyrin accumulation in epithelial skin tumours and psoriatic lesions after topical application of delta-aminolaevulinic acid. Fritsch C, et al. **Br J Cancer** 1999 Mar;79(9–10):1603–8 (36 ref.)
Expression of fibrogenic cytokines in desmoplastic malignant melanoma. Kubo M, et al. **Br J Dermatol** 1998 Aug; 139(2):192–7
BAX protein is not expressed by basal cell carcinomas. Rossen K, et al. **Br J Dermatol** 1998 Sep;139(3):472–4
Measurement of c-myc oncogene expression provides an accurate prognostic marker for acral lentiginous melanoma. Grover R, et al. **Br J Plast Surg** 1999 Mar;52(2):122–6
Enhanced Sp1 DNA-binding activity in murine keratinocyte cell lines and epidermal tumors. Kumar AP, et al. **Cancer Lett** 1999 Apr 1;137(2):159–65
Distinct roles of osteopontin in host defense activity and tumor survival during squamous cell carcinoma progression in vivo. Crawford HC, et al. **Cancer Res** 1998 Nov 15; 58(22):5206–15
Retinoic acid is able to induce interferon regulatory factor 1 in squamous carcinoma cells via a STAT-1 independent signalling pathway. Percario ZA, et al. **Cell Growth Differ** 1999 Apr;10(4):263–70
Cyclin D1 overexpression in mouse epidermis increases cyclin-dependent kinase activity and cell proliferation in vivo but does not affect skin tumor development. Rodriguez-Puebla ML, et al. **Cell Growth Differ** 1999 Jul; 10(7):467–72
A protein reacted with anti-vitronectin antibody accumulates in tumors derived from B16F10 melanoma cells. Lee JY, et al. **Cell Struct Funct** 1998 Aug;23(4):193–9
Expression of transforming growth factor beta and transforming growth factor beta receptors on AIDS-associated Kaposi's sarcoma. Ciernik IF, et al. **Clin Cancer Res** 1995 Oct;1(10):1119–24
Melanoma cell-derived factor stimulation of fibroblast glycosaminoglycan synthesis--the role of platelet-derived growth factor. Godden JL, et al. **Eur J Cancer** 1999 Mar; 35(3):473–80
Metabolism of N-[4-hydroxyphenyl]retinamide (4-HPR) to N-[4-methoxyphenyl]retinamide (4-MPR) may serve as a biomarker for its efficacy against human breast cancer and melanoma cells. Mehta RR, et al. **Eur J Cancer** 1998 May; 34(6):902–7
p53 expression in skin carcinogenesis and its relationship to cell proliferation and tumour growth. Stenbäck F, et al. **Eur J Cancer** 1998 Aug;34(9):1415–24
Heat shock protein HSP 27 is expressed in all types of basal cell carcinoma in low and high risk UV exposure groups. Bayerl C, et al. **Eur J Dermatol** 1999 Jun;9(4):281–4
Expression of the hair stem cell-specific keratin 15 in pilar tumors of the skin. Kanitakis J, et al. **Eur J Dermatol** 1999 Jul-Aug;9(5):363–5
Increased sensitivity to peroxidizing agents is correlated with an imbalance of antioxidants in normal melanocytes from melanoma patients. Grammatico P, et al. **Exp Dermatol** 1998 Aug;7(4):205–12
In vivo human melanoma cytokine production: inverse correlation of GM-CSF production with tumor depth. Hensley C, et al. **Exp Dermatol** 1998 Dec;7(6):335–41
Identification of beta-endorphin, alpha-MSH and ACTH peptides in cultured human melanocytes, melanoma and squamous cell carcinoma cells by RP-HPLC [letter] Slominski A. **Exp Dermatol** 1998 Aug;7(4):213–6
Morphological and biochemical analysis of the secretory pathway in melanoma cells with distinct metastatic potential. Ayala I, et al. **FEBS Lett** 1999 May 28; 451(3):315–20
Melan-A/Mart-1 expression in various melanocytic lesions and in non-melanocytic soft tissue tumours. Orosz Z. **Histopathology** 1999 Jun;34(6):517–25
Cytoplasmic accumulation of peanut agglutinin-binding glycoconjugates in the cells of primary melanoma correlates with clinical outcome. Cochran AJ, et al. **Hum Pathol** 1999 May;30(5):556–61
Malignant melanoma with prominent pigment synthesis: "animal type" melanoma--a clinical and histological study of six cases with a consideration of other melanocytic neoplasms with prominent pigment synthesis. Crowson AN, et al. **Hum Pathol** 1999 May;30(5):543–50
Osteonectin expression correlates with clinical outcome in thin cutaneous malignant melanomas. Massi D, et al. **Hum Pathol** 1999 Mar;30(3):339–44
Cutaneous CD30+ lymphoproliferative disorders: expression of bcl-2 and proteins of the tumor necrosis factor receptor superfamily. Paulli M, et al. **Hum Pathol** 1998 Nov; 29(11):1223–30
Enhanced expression of Ki-67, topoisomerase IIalpha, PCNA, p53 and p21WAF1/Cip1 reflecting proliferation and repair activity in UV-irradiated melanocytic nevi. Rudolph P, et al. **Hum Pathol** 1998 Dec;29(12):1480–7
Progression-related expression of beta3 integrin in melanomas and nevi. Van Belle PA, et al. **Hum Pathol** 1999 May;30(5):562–7
Immunohistochemical evidence of cytokine networks during progression of human melanocytic lesions. Moretti S, et al. **Int J Cancer** 1999 Apr 20;84(2):160–8
Prostaglandin-H-synthase isozyme expression in normal and neoplastic human skin. Müller-Decker K, et al. **Int J Cancer** 1999 Aug 27;82(5):648–56
Lipid profile in actinic keratosis and basal cell carcinoma. Vural P, et al. **Int J Dermatol** 1999 Jun;38(6):439–42
Analysis of the DNA content in Bowen's disease. Korabiowska M, et al. **Int J Mol Med** 1998 Mar;1(3):613–6
Upregulation of E2F transcription factors in chemically induced mouse skin tumors. Balasubramanian S, et al. **Int J Oncol** 1999 Aug;15(2):387–90 (25 ref.)
Decreased expression of galectin-3 in basal cell carcinoma of the skin. Castronovo V, et al. **Int J Oncol** 1999 Jul; 15(1):67–70
Expression of TGF-beta related Smad proteins in human epithelial skin tumors. Lange D, et al. **Int J Oncol** 1999 Jun;14(6):1049–56
Expression of basic fibroblast growth factor and its receptor in angiosarcoma. Yamamoto T, et al. **J Am Acad Dermatol** 1999 Jul;41(1):127–9
Tissue inhibitor of matrix metalloproteinase-2 regulates matrix metalloproteinase-2 activation by modulation of membrane-type 1 matrix metalloproteinase activity in high and low invasive melanoma cell lines. Kurschat P, et al. **J Biol Chem** 1999 Jul 23;274(30):21056–62
Determination of 5-S-cysteinyldopa in plasma and urine using a fully automated solid-phase extraction--high-performance liquid chromatographic method for an improvement of specificity and sensitivity of this prognostic marker of malignant melanoma. Hartleb J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):31–42
The epidermotropic mycosis fungoides associated alpha1beta1 integrin (VLA-1, CD49a/CD29) is primarily a collagen IV receptor on malignant T cells. Bank I, et al. **J Cutan Pathol** 1999 Feb;26(2):65–71
Expression of bcl-2, p53 and Ki-67 in arsenical skin cancers. Chang CH, et al. **J Cutan Pathol** 1998 Oct;25(9):457–62
Congenital CD34-positive granular cell dendrocytosis. Chang SE, et al. **J Cutan Pathol** 1999 May;26(5):253–8
DNA content and cell proliferation in giant congenital melanocytic naevi (GCMN). An analysis by image cytometry. Fromont Hankard G, et al. **J Cutan Pathol** 1998 Sep;25(8):401–6
Factor XIIIa-positive dermal dendritic cells and HLA-DR expression in radial versus vertical growth-phase melanomas [see comments] Fullen DR, et al. **J Cutan Pathol** 1998 Nov;25(10):553–8. Comment in: J Cutan Pathol 1999 May;26(5):263–4.
Cathepsin D expression in skin metastasis of breast cancer. Inoue H, et al. **J Cutan Pathol** 1998 Aug;25(7):365–9
Cytokeratin 15 expression in trichoepitheliomas and a subset of basal cell carcinomas suggests they originate from hair follicle stem cells. Jih DM, et al. **J Cutan Pathol** 1999 Mar; 26(3):113–8
Specific skin manifestations in CD56 positive acute myeloid leukemia. Kuwabara H, et al. **J Cutan Pathol** 1999 Jan; 26(1):1–5
Quantitation of intraepidermal T-cell subsets in formalin-fixed, paraffin-embedded tissue helps in the diagnosis of mycosis fungoides. Nuckols JD, et al. **J Cutan Pathol** 1999 Apr;26(4):169–75
Differential expression of c-Met in Kaposi's sarcoma according to progression stage and HIV infection status. Puig L, et al. **J Cutan Pathol** 1999 May;26(5):227–31
Apoptosis, Fas and Fas-ligand expression in melanocytic tumors. Sprecher E, et al. **J Cutan Pathol** 1999 Feb; 26(2):72–7
ICAM-3 and E-selectin endothelial cell expression differentiate two phases of angiogenesis in infantile hemangiomas. Verkarre V, et al. **J Cutan Pathol** 1999 Jan; 26(1):17–24
Expression of complement regulator proteins in primary and metastatic malignant melanoma. Weichenthal M, et al. **J Cutan Pathol** 1999 May;26(5):217–21
An immunohistochemical study of the apocrine type of cutaneous mixed tumors with special reference to their follicular and sebaceous differentiation. Yamamoto O, et al. **J Cutan Pathol** 1999 May;26(5):232–41
The correlation of the metastatic ability with keratin expression in cultured murine melanoma cell lines, B16-F1 and-F10. Kawaguchi M, et al. **J Dermatol** 1999 May; 26(5):271–5
Differential expression of cell survival and cell cycle regulatory proteins in cutaneous squamoproliferative lesions [published erratum appears in J Dermatol Sci 1999 Apr;19(3):219–20] Wrone-Smith T, et al. **J Dermatol Sci** 1999 Jan;19(1):53–67
Soluble ICAM-1 seems to be related to prognosis in malignant melanoma [letter] Wollina U, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):264–6
Differential expression of transforming growth factor beta 1 and interleukin 10 in progressing and regressing areas of primary melanoma. Conrad CT, et al. **J Exp Clin Cancer Res** 1999 Jun;18(2):225–32
Alterations in cholesterol sulfate and its biosynthetic enzyme during multistage carcinogenesis in mouse skin. Kiguchi K, et al. **J Invest Dermatol** 1998 Dec;111(6):973–81
Active and higher intracellular uptake of 5-aminolevulinic acid in tumors may be inhibited by glycine. Langer S, et al. **J Invest Dermatol** 1999 May;112(5):723–8
In situ expression patterns of melanoma-inhibiting activity (MIA) in melanomas and breast cancers. Bosserhoff AK, et al. **J Pathol** 1999 Mar;187(4):446–54
Markers of melanocytic tumour progression [editorial] Ruiter DJ, et al. **J Pathol** 1998 Dec;186(4):340–2
E-cadherin/catenin complex in benign and malignant melanocytic lesions. Silye R, et al. **J Pathol** 1998 Dec; 186(4):350–5
Integrins alpha4beta7 and alphaEbeta7 are expressed on epidermotropic T cells in cutaneous T cell lymphoma and spongiotic dermatitis. Schechner JS, et al. **Lab Invest** 1999 May;79(5):601–7
Pharmacokinetics of 10B-p-boronophenylalanine in tumours, skin and blood of melanoma patients: a study of boron neutron capture therapy for malignant melanoma. Fukuda H, et al. **Melanoma Res** 1999 Feb;9(1):75–83
Melanoma development in relation to non-functional p16/INK4A protein and dysplastic naevus syndrome in Swedish melanoma kindreds. Hashemi J, et al. **Melanoma Res** 1999 Feb;9(1):21–30
Normal repair of ultraviolet radiation-induced DNA damage in familial melanoma without CDKN2A or CDK4 gene mutation. Shannon JA, et al. **Melanoma Res** 1999 Apr; 9(2):133–7
Expression of cell cycle regulators in human cutaneous malignant melanoma. Tang L, et al. **Melanoma Res** 1999 Apr;9(2):148–54
Constitutive expression of 8-lipoxygenase in papillomas and clastogenic effects of lipoxygenase-derived arachidonic acid metabolites in keratinocytes. Bürger F, et al. **Mol Carcinog** 1999 Feb;24(2):108–17
Systemic interferon-alpha (IFN-alpha) treatment leads to Stat3 inactivation in melanoma precursor lesions. Kirkwood JM, et al. **Mol Med** 1999 Jan;5(1):11–20
Two-compartment model for determination of glycolytic rates of solid tumors by in vivo 13C NMR spectroscopy. Artemov D, et al. **NMR Biomed** 1998 Nov;11(8):395–404
Deregulated expression of cell-cycle proteins during premalignant progression in SENCAR mouse skin. Rodriguez-Puebla ML, et al. **Oncogene** 1998 Oct 29; 17(17):2251–8
p53 protein immunoreactivity in fibrohistiocytic tumors of the skin. Lee CS, et al. **Pathology** 1998 Aug;30(3):272–5
nm23 protein expression and p53 immunoreactivity in cutaneous fibrohistiocytic tumors. Lee CS, et al. **Pathology** 1999 May;31(2):123–6
Pharmacokinetics of 8-methoxypsoralen during extracorporeal photopheresis. Shephard SE, et al. **Photodermatol Photoimmunol Photomed** 1999 Apr; 15(2):64–74
The role of nm23 in melanoma progression and its prognostic significance. Betke H, et al. **Pol J Pathol** 1998;49(2):93–6

MICROBIOLOGY

Squamous cell carcinoma secondary to Buruli ulcer. Evans MR, et al. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb; 93(1):63–4
[Infection and angiomatous cutaneous lesions] Janier M. **J Mal Vasc** 1999 May;24(2):135–8 (14 ref.) (Eng. Abstr.) **(Fre)**

MORTALITY

Survival after malignant tumors of the orbit and periorbit treated by exenteration. Mouriaux F, et al. **Acta Ophthalmol Scand** 1999 Jun;77(3):326–30
Validation of cause-of-death certification for outpatient cancers: the contrasting cases of melanoma and mycosis fungoides. Weinstock MA, et al. **Am J Epidemiol** 1998 Dec 15;148(12):1184–6
Validation of a melanoma prognostic model. Margolis DJ, et al. **Arch Dermatol** 1998 Dec;134(12):1597–601
Investigation of female survival benefit in metastatic melanoma. Richardson B, et al. **Br J Cancer** 1999 Aug; 80(12):2025–33
Mortality from malignant melanoma in Chile, 1986–95 [letter] Zemelman V, et al. **Br J Dermatol** 1998 Dec;139(6):1111–2
Incremental increases in Breslow thickness of thick melanoma have a linear effect on mortality [letter] Sylaidis P, et al. **Br J Plast Surg** 1998 Sep;51(6):484–5
The changing survival of patients with mycosis fungoides: a population-based assessment of trends in the United States [letter] Jones GW, et al. **Cancer** 1999 Jul 1; 86(1):191–3
Childhood melanoma survival. Saenz NC, et al. **Cancer** 1999 Feb 1;85(3):750–4
Improving survival of melanoma patients in Europe since 1978. EUROCARE Working Group. Smith JA, et al. **Eur J Cancer** 1998 Dec;34(14 Spec No):2197–203
Changing trends in melanoma incidence and mortality. Gaudette LA, et al. **Health Rep** 1998 Autumn;10(2):29–41 (Eng); 33–46 (Fre) **(Eng, Fre)**
Recent declines in worldwide mortality from cutaneous melanoma in youth and middle age. La Vecchia C, et al. **Int J Cancer** 1999 Mar 31;81(1):62–6
Trends in mortality from cutaneous malignant melanoma in Belgium. Bleyen L, et al. **Int J Epidemiol** 1999 Feb;

28(1):40–5
Prognostic factor analysis in mycosis fungoides/Sézary syndrome. Diamandidou E, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):914–24
Prognosis in cutaneous T-cell lymphoma by skin stage: long-term survival in 489 patients. Zackheim HS, et al. **J Am Acad Dermatol** 1999 Mar;40(3):418–25
Downregulation of transcription factor AP-2 predicts poor survival in stage I cutaneous malignant melanoma. Karjalainen JM, et al. **J Clin Oncol** 1998 Nov; 16(11):3584–91
Cancer mortality after nonmelanoma skin cancer [letter; comment] Spratt JS Jr. **JAMA** 1999 Jan 27;281(4):325. Comment on: JAMA 1998 Sep 9;280(10):910–2.
A long-term analysis of 620 patients with malignant melanoma at a major referral center. Averbook BJ, et al. **Surgery** 1998 Oct;124(4):746–55; discussion 755–6

NURSING

Metastasis to skin. Manning MP. **Semin Oncol Nurs** 1998 Aug;14(3):240–3 (13 ref.)

PATHOLOGY

Balloon melanoma cells mimicking foamy histiocytes [letter] Terayama K, et al. **Acta Cytol** 1999 Mar–Apr;43(2):325–6
Buschke–Loewenstein tumour is not a low-grade carcinoma but a giant verruca [letter] Anadolu R, et al. **Acta Derm Venereol** 1999 May;79(3):253–4
Skin scrape cytology in the diagnosis of nodular basal cell carcinoma for treatment by photodynamic therapy. Berner A, et al. **Acta Derm Venereol** 1999 Mar;79(2):147–9
Spiegler–Fendt type lymphocytoma cutis: a case report of two patients successfully treated with interferon alpha-2b [letter] Hervonen K, et al. **Acta Derm Venereol** 1999 May; 79(3):241–2
Syringocystadenoma papilliferum without an antecedent naevus sebaceous [letter] Koga T, et al. **Acta Derm Venereol** 1999 May;79(3):237
Adnexal polyp of neonatal skin observed beyond the neonatal period [letter] Koizumi H, et al. **Acta Derm Venereol** 1998 Sep;78(5):391–2
Naevi spili, Café-au-lait spots and melanocytic naevi aggregated alongside Blaschko's lines, with a review of segmental melanocytic lesions. Langenbach N, et al. **Acta Derm Venereol** 1998 Sep;78(5):378–80 (22 ref.)
Naevi as a risk factor for basal cell carcinoma in Caucasians: a Danish case-control study. Lock-Andersen J, et al. **Acta Derm Venereol** 1999 Jul;79(4):314–9
Trichilemmal carcinoma in situ [letter] Sasaki Y, et al. **Acta Derm Venereol** 1998 Nov;78(6):474–5
Angiosarcoma of the lower leg in chronic lymphoedema [letter] Simonetti V, et al. **Acta Derm Venereol** 1999 May; 79(3):251–2
Discordance between DNA analysis and the clinical picture in a case of xeroderma pigmentosum [letter] Tessari G, et al. **Acta Derm Venereol** 1999 Jan;79(1):94–5 (4 ref.)
Detection of human papilloma virus type 56 in extragenital Bowen's disease. Uezato H, et al. **Acta Derm Venereol** 1999 Jul;79(4):311–3 (18 ref.)
In vivo detection of basal cell carcinoma using imaging spectroscopy. Wennberg AM, et al. **Acta Derm Venereol** 1999 Jan;79(1):54–61
Central nervous system metastases of cutaneous malignant melanoma--a population-based study. Cohn-Cedermark G, et al. **Acta Oncol** 1998;37(5):463–70
Metastatic patterns, clinical outcome, and malignant phenotype in malignant cutaneous melanoma. Cohn-Cedermark G, et al. **Acta Oncol** 1999;38(5):549–57
Tumor progression, early diagnosis and prognosis of melanoma. Elder D. **Acta Oncol** 1999;38(5):535–47 (124 ref.)
Keratoacanthoma: a clinically distinct variant of well differentiated squamous cell carcinoma. Beham A, et al. **Adv Anat Pathol** 1998 Sep;5(5):269–80 (91 ref.)
Melan-A, a new melanocytic differentiation marker. Busam KJ, et al. **Adv Anat Pathol** 1999 Jan;6(1):12–8 (27 ref.)
In vivo tumor suppressor effect of retrovirus-mediated gene transfer of the adenovirus E1a gene. Sanchez-Prieto R, et al. **Adv Exp Med Biol** 1998;451:79–86
Cutaneous malignant melanoma: Tabuk experience. al-Shlash S, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):85–8
Cicatricial fibromatosis mimics metastatic medulloblastoma. Okamoto K, et al. **AJNR Am J Neuroradiol** 1999 Mar; 20(3):472–3
Neurocutaneous melanosis presenting with intracranial amelanotic melanoma. Vanzieleghem BD, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):457–60
Bone marrow relapse in primary mucinous carcinoma of skin. Ajithkumar TV, et al. **Am J Clin Oncol** 1999 Jun; 22(3):303–4
Homologous carcinomas of the breast and skin [letter; comment] Cameselle-Teijeiro J, et al. **Am J Clin Pathol** 1999 May;111(5):709. Comment on: Am J Clin Pathol 1998 Jan;109(1):75–84.
Recommendations for the reporting of tissues removed as part of the surgical treatment of cutaneous melanoma. The Association of Directors of Anatomic and Surgical Pathology. Cochran AJ, et al. **Am J Clin Pathol** 1998 Dec; 110(6):719–22
Approach to lymphoproliferative infiltrates of the skin. The difficult lesions. Kempf W, et al. **Am J Clin Pathol** 1999 Jan;111(1 Suppl 1):S84–93
Identification of vertical growth phase in malignant melanoma. A study of interobserver agreement. McDermott NC, et al. **Am J Clin Pathol** 1998 Dec; 110(6):753–7
A combination of abnormal immunoarchitecture and reproducible clonal bands identifies the biologic nature of cutaneous B-cell infiltrates. Saxena A, et al. **Am J Clin Pathol** 1999 Oct;112(4):495–512
Molecular pathology of malignant melanoma. Slominski A, et al. **Am J Clin Pathol** 1998 Dec;110(6):788–94 (136 ref.)
Prognostic factors for cutaneous melanoma [editorial] Wick MR. **Am J Clin Pathol** 1998 Dec;110(6):713–8
Cutaneous Waldenstrom macroglobulinemia in transformation. Appenzeller P, et al. **Am J Dermatopathol** 1999 Apr;21(2):151–5
Silver-stained nucleolar organizer regions (AgNORs) as a prognostic value in malignant melanoma. Barzilai A, et al. **Am J Dermatopathol** 1998 Oct;20(5):473–7
The use of immunostaining for bcl-2 and CD34 and the lectin peanut agglutinin in differentiating between basal cell carcinomas and trichoepitheliomas. Basarab T, et al. **Am J Dermatopathol** 1998 Oct;20(5):448–52
Amelanotic blue nevus: a variant of blue nevus. Bhawan J, et al. **Am J Dermatopathol** 1999 Jun;21(3):225–8
Estimation of the volume-weighted mean nuclear volume discriminates keratoacanthoma from squamous cell carcinoma. Binder M, et al. **Am J Dermatopathol** 1998 Oct; 20(5):453–8
Reactive angioendotheliomatosis in an infant. Brazzelli V, et al. **Am J Dermatopathol** 1999 Feb;21(1):42–5
Subungual malignant melanoma with cartilaginous differentiation. Cachia AR, et al. **Am J Dermatopathol** 1999 Apr;21(2):165–9 (15 ref.)
Melanocytic matricoma: a report of two cases of a new entity. Carlson JA, et al. **Am J Dermatopathol** 1999 Aug; 21(4):344–9
Desmoplastic malignant melanoma on the buttock of an 18-year-old girl: differentiation from desmoplastic nevus. Chan GS, et al. **Am J Dermatopathol** 1999 Apr;21(2):170–3
Solitary fibrous tumor of the skin. Cowper SE, et al. **Am J Dermatopathol** 1999 Jun;21(3):213–9
The melanocyte differentiation pathway in spitz nevi. Cramer SF. **Am J Dermatopathol** 1998 Dec;20(6):555–70 (218 ref.)
Atrophic and plaquelike dermatofibrosarcoma protuberans. Davis DA, et al. **Am J Dermatopathol** 1998 Oct; 20(5):498–501 (28 ref.)
Acrochordons are not a component of the Birt-Hogg-Dubé syndrome: does this syndrome exist? Case reports and review of the literature. De la Torre C, et al. **Am J Dermatopathol** 1999 Aug;21(4):369–74 (65 ref.)
Early- and late-stage Kaposi's sarcoma lesions exhibit similar proliferation fraction [see comments] De Thier F, et al. **Am J Dermatopathol** 1999 Feb;21(1):25–7. Comment in: Am J Dermatopathol 1999 Aug;21(4):400–1.
Histopathologic diagnosis of superficial soft tissue tumors, related lesions, and simulators: an algorithmic approach based on colors. Diaz-Cascajo C. **Am J Dermatopathol** 1999 Apr;21(2):193–9 (4 ref.)
Expression of two morphologic parameters concerning tumor-stroma interaction in benign and malignant melanocytic skin lesions. Fink-Puches R, et al. **Am J Dermatopathol** 1998 Oct;20(5):468–72
Primary cutaneous synovial sarcoma: a case report. Flieder DB, et al. **Am J Dermatopathol** 1998 Oct;20(5):509–12
Poral neoplasm with combined sebaceous and apocrine differentiation. Gianotti R, et al. **Am J Dermatopathol** 1998 Oct;20(5):491–4
Epithelioid cell histiocytoma: a simulant of vascular and melanocytic neoplasms. Glusac EJ, et al. **Am J Dermatopathol** 1999 Feb;21(1):1–7 (23 ref.)
Immunohistochemical investigation of the different developmental stages of trichofolliculoma with special reference to the Merkel cell. Hartschuh W, et al. **Am J Dermatopathol** 1999 Feb;21(1):8–15
Subungual myxoid pleomorphic fibroma. Hassanein A, et al. **Am J Dermatopathol** 1998 Oct;20(5):502–5
Sebaceous differentiation in microcystic adnexal carcinoma [letter; comment] Heenan PJ. **Am J Dermatopathol** 1998 Oct;20(5):537–8. Comment on: Am J Dermatopathol 1997 Aug;19(4):358–62.
Solitary form of infantile myofibromatosis: a histologic, immunohistochemical, and electronmicroscopic study of a regressing tumor over a 20-month period. Iijima S, et al. **Am J Dermatopathol** 1999 Aug;21(4):375–80
Pigmented squamous cell carcinoma of the skin: report of two cases and review of the literature [published erratum appears in Am J Dermatopathol 1999 Jun;21(3):310] Jurado I, et al. **Am J Dermatopathol** 1998 Dec;20(6):578–81 (11 ref.)
Primary cutaneous adenoid cystic carcinoma with lymph node metastasis [see comments] Kato N, et al. **Am J Dermatopathol** 1998 Dec;20(6):571–7 (43 ref.). Comment in: Am J Dermatopathol 1999 Aug;21(4):400.
Basal cell carcinoma with thickened basement membrane [letter; comment] Khan ZM. **Am J Dermatopathol** 1999 Feb;21(1):111–2. Comment on: Am J Dermatopathol 1997 Dec;19(6):568–74.
Angiomatosis with angiokeratoma-like features in children: a light microscopic and immunophenotypic examination of four cases. Kraus MD, et al. **Am J Dermatopathol** 1999 Aug;21(4):350–5
Adenocarcinoma with signet ring cells of the axilla showing apocrine features: a case report. Kuno Y, et al. **Am J Dermatopathol** 1999 Feb;21(1):37–41
Light microscopy: clues to systemic disease in reexcision specimens of basal cell carcinoma. LeBoit PE, et al. **Am J Dermatopathol** 1999 Aug;21(4):361–4
Verocay body-prominent cutaneous leiomyoma [letter; comment] Lespi PJ, et al. **Am J Dermatopathol** 1999 Feb; 21(1):110–1. Comment on: Am J Dermatopathol 1997 Jun;19(3):242–9.
Granulomatous mycosis fungoides: report of a case with some histopathologic features of granulomatous slack skin. Metzler G, et al. **Am J Dermatopathol** 1999 Apr; 21(2):156–60
Unusually differentiating immature nerve sheath myxoma in association with dermal melanocytosis. Misago N, et al. **Am J Dermatopathol** 1999 Feb;21(1):55–62
Balloon cell change in cellular blue nevus. Perez MT, et al. **Am J Dermatopathol** 1999 Apr;21(2):181–4
Polypoid dermal hemangiopericytoma: a case report. Pollock AM, et al. **Am J Dermatopathol** 1998 Oct;20(5):506–8
An immunohistochemical study of basal cell carcinoma and trichoepithelioma. Poniecka AW, et al. **Am J Dermatopathol** 1999 Aug;21(4):332–6
Epithelioid hemangioendothelioma presenting in the skin: a clinicopathologic study of eight cases. Quante M, et al. **Am J Dermatopathol** 1998 Dec;20(6):541–6 (33 ref.)
Desmoplastic trichilemmoma arising within a nevus sebaceus. Rosón E, et al. **Am J Dermatopathol** 1998 Oct;20(5):495–7
Neuroendocrine carcinoma of the skin with lymphoepithelioma-like features. Rosso R, et al. **Am J Dermatopathol** 1998 Oct;20(5):483–6
Basal cell carcinoma with massive ossification. Shoji T, et al. **Am J Dermatopathol** 1999 Feb;21(1):34–6
CD34 and factor XIIIa-positive microvascular dendritic cells and the family of fibrohistiocytic mesenchymal tumors [letter; comment] Silverman JS, et al. **Am J Dermatopathol** 1998 Oct;20(5):533–6 (39 ref.). Comment on: Am J Dermatopathol 1996 Jun;18(3):283–8. Comment on: Am J Dermatopathol 1998 Jun;20(3):317–22.
Not all granular cell tumors show schwann cell differentiation: a granular cell leiomyosarcoma of the thumb, a case report [letter] Sironi M, et al. **Am J Dermatopathol** 1999 Jun;21(3):307–9
Eosinophilic globules in spindle cell and epithelioid cell nevi: composition and possible origin. Skelton HG, et al. **Am J Dermatopathol** 1998 Dec;20(6):547–50
CD2-, CD4+, CD56+ agranular natural killer cell lymphoma of the skin. Uchiyama N, et al. **Am J Dermatopathol** 1998 Oct;20(5):513–7
Primary cutaneous adenoid cystic carcinoma [letter; comment] Urso C. **Am J Dermatopathol** 1999 Aug;21(4):400 . Comment on: Am J Dermatopathol 1998 Dec;20(6):571–7.
Neurofollicular hamartoma with strong diffuse S-100 positivity: a case report. Xie DL, et al. **Am J Dermatopathol** 1999 Jun;21(3):253–5
Giant cell atypical fibroxanthoma: does it really exist? [letter; comment] Zelger BG, et al. **Am J Dermatopathol** 1999 Feb; 21(1):108–10. Comment on: Am J Dermatopathol 1997 Apr;19(2):174–9.
Fulminant hepatic failure secondary to malignant melanoma. case report and review of the literature. Te HS, et al. **Am J Gastroenterol** 1999 Jan;94(1):262–6 (40 ref.)
Concept of twin spotting. Koopman RJ. **Am J Med Genet** 1999 Aug 6;85(4):355–8 (24 ref.)
Pilomatrix carcinoma of the eyelid. Cahill MT, et al. **Am J Ophthalmol** 1999 Apr;127(4):463–4
Cutaneous melanoma-associated paraneoplastic retinopathy: histopathologic observations. Gittinger JW Jr, et al. **Am J Ophthalmol** 1999 May;127(5):612–4
Epithelioid cell Spitz nevus of the eyelid. Hiscott P, et al. **Am J Ophthalmol** 1998 Nov;126(5):735–7
Trichoadenoma of the eyelid. Shields JA, et al. **Am J Ophthalmol** 1998 Dec;126(6):846–8
Divergent cellular differentiation pathways during the invasive stage of cutaneous malignant melanoma progression. Reed JA, et al. **Am J Pathol** 1999 Aug; 155(2):549–55
Sentinel lymph node biopsy for melanoma. Gogel BM, et al. **Am J Surg** 1998 Dec;176(6):544–7
Cutaneous lymphoid hyperplasia and cutaneous marginal zone lymphoma: comparison of morphologic and immunophenotypic features. Baldassano MF, et al. **Am J Surg Pathol** 1999 Jan;23(1):88–96
Malignant melanoma showing ganglioneuroblastic differentiation: report of a unique case. Banerjee SS, et al. **Am J Surg Pathol** 1999 May;23(5):582–8
Metastatic melanoma to the skin simulating blue nevus. Busam KJ. **Am J Surg Pathol** 1999 Mar;23(3):276–82
Superficial angiomyxoma: clinicopathologic analysis of a series of distinctive but poorly recognized cutaneous tumors with tendency for recurrence. Calonje E, et al. **Am J Surg Pathol** 1999 Aug;23(8):910–7
True histiocytic lymphoma: a morphologic, immunohistochemical, and molecular genetic study of 13 cases. Copie-Bergman C, et al. **Am J Surg Pathol** 1998 Nov;22(11):1386–92
Hobnail hemangioma: a pseudomalignant vascular lesion with a reappraisal of targetoid hemosiderotic hemangioma. Guillou L, et al. **Am J Surg Pathol** 1999 Jan;23(1):97–105
Desmoplastic (sclerotic) nevus: an underrecognized entity that resembles dermatofibroma and desmoplastic

melanoma. Harris GR, et al. **Am J Surg Pathol** 1999 Jul; 23(7):786–94

Pathologic examination of the sentinel lymph node in malignant melanoma. Messina JL, et al. **Am J Surg Pathol** 1999 Jun;23(6):686–90

CD4+ CD56+ cutaneous neoplasms: a distinct hematological entity? Groupe Français d'Etude des Lymphomes Cutanés (GFELC). Petrella T, et al. **Am J Surg Pathol** 1999 Feb;23(2):137–46

Cutaneous sclerosing perineurioma with cryptic NF2 gene deletion. Sciot R, et al. **Am J Surg Pathol** 1999 Jul; 23(7):849–53

Melanocytic nevi of palms and soles: a histological study according to the plane of section. Signoretti S, et al. **Am J Surg Pathol** 1999 Mar;23(3):283–7

Cutaneous involvement by neutrophil-rich, CD30-positive anaplastic large cell lymphoma mimicking deep pustules [letter; comment] Simonart T, et al. **Am J Surg Pathol** 1999 Feb;23(2):244–6. Comment on: Am J Surg Pathol 1995 Apr;19(4):407–16.

Pancreaticoduodenectomy for melanoma metastatic to the duodenum: a case report and review of the literature. Meyers MO, et al. **Am Surg** 1998 Dec;64(12):1174–6 (15 ref.)

Ki-67 immunostaining and stereologic estimation of nuclear volume in melanocytic skin tumors. Ozer E, et al. **Anal Quant Cytol Histol** 1999 Feb;21(1):42–6

Infiltrative subcutaneous malignant fibrous histiocytoma: a comparative study with deep malignant fibrous histiocytoma and an observation of biologic behavior. Fanburg-Smith JC, et al. **Ann Diagn Pathol** 1999 Feb; 3(1):1–10

Fractal analysis in human pathology. Luzi P, et al. **Ann N Y Acad Sci** 1999 Jun 30;879:255–7

Prognostic factors in Sézary syndrome: a multivariate analysis of clinical, haematological and immunological features. Bernengo MG, et al. **Ann Oncol** 1998 Aug; 9(8):857–63

Recurrent dermatofibrosarcoma protuberans with total fibrosarcomatous change [letter] Ağaoğlu G, et al. **Ann Plast Surg** 1999 Feb;42(2):226–8

Malignant transformation of a giant proliferating trichilemmal tumor of the scalp: patient report and literature review. Markal N, et al. **Ann Plast Surg** 1998 Sep;41(3):314–6 (18 ref.)

Acral dermatofibrosarcoma protuberans with metastases. Skoll PJ, et al. **Ann Plast Surg** 1999 Feb;42(2):217–20

Detection of tyrosinase mRNA by reverse transcription-polymerase chain reaction in melanoma sentinel nodes [see comments] Bieligk SC, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):232–40. Comment in: Ann Surg Oncol 1999 Apr-May;6(3):225–6.

Are locoregional cutaneous metastases in melanoma predictable? Borgstein PJ, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):315–21

Does the extent of operation influence the prognosis in patients with melanoma metastatic to inguinal nodes? [see comments] Mann GB, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):263–71. Comment in: Ann Surg Oncol 1999 Apr-May;6(3):230–1.

Parotid region lymphatic mapping and sentinel lymphadenectomy for cutaneous melanoma [see comments] Ollila DW, et al. **Ann Surg Oncol** 1999 Mar;6(2):150–4. Comment in: Ann Surg Oncol 1999 Mar;6(2):125–6.

Molecular staging of melanoma [editorial; comment] Shivers SC, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):225–6. Comment on: Ann Surg Oncol 1999 Apr-May;6(3):232–40.

Lymph node tumor volumes in patients undergoing sentinel lymph node biopsy for cutaneous melanoma. Wagner JD, et al. **Ann Surg Oncol** 1999 Jun;6(4):398–404

Mental nerve invasion by basal cell carcinoma of the chin: a case report. Di Gregorio C, et al. **Anticancer Res** 1998 Nov-Dec;18(6B):4723–6

Differential expression of adhesion molecules (CD44, ICAM-1 and LFA-3) in cancer cells grown in monolayer or as multicellular spheroids. Rainaldi G, et al. **Anticancer Res** 1999 May-Jun;19(3A):1769–78

In vitro sensitivity of Kaposi's sarcoma cells to various chemotherapeutic agents including acyclic nucleoside phosphonates. Simonart T, et al. **Antivir Chem Chemother** 1999 May;10(3):129–34

Sentinel lymph node biopsy using lymphoscintigraphy [see comments] Hader D, et al. **AORN J** 1998 Oct;68(4):572–6, 579–82, 585–8; quiz 589–94 (22 ref.). Comment in: AORN J 1999 Jan;69(1):21.

Asymptomatic scalp nodule present for 20 years. Albertini JG, et al. **Arch Dermatol** 1999 Jun;135(6):709, 712

Epiluminescence microscopy for the diagnosis of doubtful melanocytic skin lesions. Comparison of the ABCD rule of dermatoscopy and a new 7-point checklist based on pattern analysis. Argenziano G, et al. **Arch Dermatol** 1998 Dec;134(12):1563–70

Slowly expanding abdominal plaque. Dermatofibrosarcoma protuberans (DFSP). Clayton AS, et al. **Arch Dermatol** 1998 Nov;134(11):1478, 1481–2

Enlarging facial nodule on an elderly patient. Lymphoepithelioma-like carcinoma of the skin (LELCS). Dudley CM, et al. **Arch Dermatol** 1998 Dec;134(12):1628–9, 1631–2

Dome-shaped partly umbilicated tumor on the ear. Spitz nevus (SN). Filo V, et al. **Arch Dermatol** 1998 Dec; 134(12):1629, 1632

An erythematous noduloplaque on the trunk. Grech C, et al. **Arch Dermatol** 1999 Mar;135(3):341–2, 345

Multiple nodules on the back. Green C. **Arch Dermatol** 1999 Mar;135(3):342, 345–6

A new polymerase chain reaction-based method for the detection of T-cell clonality in patients with possible cutaneous T-cell lymphoma [see comments] Guitart J, et al. **Arch Dermatol** 1999 Feb;135(2):158–62. Comment in: Arch Dermatol 1999 Feb;135(2):200–2.

Initial evaluation of melanoma: don't stop getting that chest X-ray...Yet [letter] Kanzler MH. **Arch Dermatol** 1999 Sep; 135(9):1121–2

Thickness and delay in diagnosis of melanoma: how far can we go? [editorial; comment] MacKie RM. **Arch Dermatol** 1999 Mar;135(3):339–40. Comment on: Arch Dermatol 1999 Mar;135(3):269–74.

The dermatologist's position concerning nevi: a vision ranging from "the ugly duckling" to "little red riding hood" [letter] Mascaro JM Jr, et al. **Arch Dermatol** 1998 Nov; 134(11):1484–5

A slowly growing tender plaque of the palm. Park JY, et al. **Arch Dermatol** 1999 Jun;135(6):707, 710

Congenital painful pedal mass. Ricci RM, et al. **Arch Dermatol** 1999 Jun;135(6):708–9, 711

Melanoma and tumor thickness: challenges of early diagnosis [see comments] Richard MA, et al. **Arch Dermatol** 1999 Mar;135(3):269–74. Comment in: Arch Dermatol 1999 Mar;135(3):339–40.

The golden anniversary of the Spitz nevus [editorial; comment] Shimek CM, et al. **Arch Dermatol** 1999 Mar; 135(3):333–5. Comment on: Arch Dermatol 1999 Mar;135(3):282–5.

Spitz tumors in children: a grading system for risk stratification [see comments] Spatz A, et al. **Arch Dermatol** 1999 Mar;135(3):282–5. Comment in: Arch Dermatol 1999 Mar;135(3):333–5.

Hypopigmented papules of the cheeks, neck, and shoulders. Vin-Christian K, et al. **Arch Dermatol** 1999 Apr; 135(4):463–4, 466–7

Multiple papular and nodular lesions on the extremities and trunk. Yaghoobi R, et al. **Arch Dermatol** 1999 Mar; 135(3):343, 346

Local injection of recombinant human stem cell factor promotes human skin mast cell survival and neurofibroma cell proliferation in the transplanted neurofibroma in nude mice. Demitsu T, et al. **Arch Dermatol Res** 1999 Jun; 291(6):318–24

The small-cell variant of mycosis fungoides. A clinicopathological and quantitative electron microscopic study on 14 patients. van Haselen CW, et al. **Arch Dermatol Res** 1998 Nov;290(11):583–90

Merkel cell carcinoma of the lower lip: a case report and histopathologic study. Park GC, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug;125(8):907–11

Congenital malignant rhabdoid tumor presenting as a cutaneous nodule: report of 2 cases with review of the literature. Hsueh C, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1099–102 (16 ref.)

Linear epidermal nevus and nevus sebaceus syndromes: a clinicopathologic study of 3 patients. Prayson RA, et al. **Arch Pathol Lab Med** 1999 Apr;123(4):301–5

Pathological case of the month. Osteoma cutis/pseudohypoparathyroidism. Kappy M, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):427–8

Comparison of blue dye and probe-assisted intraoperative lymphatic mapping in melanoma to identify sentinel nodes in 100 lymphatic basins. Bostick P, et al. **Arch Surg** 1999 Jan;134(1):43–9

Outcome of patients with melanoma and histologically negative sentinel lymph nodes. Gadd MA, et al. **Arch Surg** 1999 Apr;134(4):381–7

Anatomic site of primary melanoma is associated with depth of invasion. Hemo Y, et al. **Arch Surg** 1999 Feb; 134(2):148–50

Clinicopathological report: mucinous carcinoma of the eyelid. Lee GA, et al. **Aust N Z J Ophthalmol** 1999 Feb; 27(1):71–3

Dermatofibrosarcoma protuberans: an early non-protuberant phase of the tumour. Lauritz BV, et al. **Australas J Dermatol** 1999 Feb;40(1):35–6

Specific skin lesions occurring in a patient with Hodgkin's lymphoma. Pagliaro JA, et al. **Australas J Dermatol** 1999 Feb;40(1):41–3

Reconstituted 3-dimensional human skin as a novel in vitro model for studies of carcinogenesis. Zhao JF, et al. **Biochem Biophys Res Commun** 1999 Jan 8;254(1):49–53

Prognostic significance of a polymerase chain reaction-detectable dominant T-lymphocyte clone in cutaneous lesions of patients with mycosis fungoides. Delfau-Larue MH, et al. **Blood** 1998 Nov 1;92(9):3376–80

Prognostic factors in primary cutaneous lymphomas other than mycosis fungoides and the Sézary syndrome. The French Study Group on Cutaneous Lymphomas. Grange F, et al. **Blood** 1999 Jun 1;93(11):3637–42

Antineoplastic urinary protein inhibits Kaposi's sarcoma and angiogenesis in vitro and in vivo. Masood R, et al. **Blood** 1999 Feb 1;93(3):1038–44

p21(WAF1/CIP1) expression in stage I cutaneous malignant melanoma: its relationship with p53, cell proliferation and survival. Karjalainen JM, et al. **Br J Cancer** 1999 Feb; 79(5-6):895–902

Anti-tumour activity in vitro and in vivo of selective differentiating agents containing hydroxamate. Qiu L, et al. **Br J Cancer** 1999 Jun;80(8):1252–8

Investigation of female survival benefit in metastatic melanoma. Richardson B, et al. **Br J Cancer** 1999 Aug; 80(12):2025–33

Inducible nitric oxide synthase (iNOS) expression may predict distant metastasis in human melanoma [published erratum appears in Br J Cancer 1999 Jun;80(8):1302] Tschugguel W, et al. **Br J Cancer** 1999 Mar; 79(9-10):1609–12

Extrafacial lentigo maligna melanoma: analysis of 71 cases and comparison with lentigo maligna melanoma of the head and neck. Cox NH, et al. **Br J Dermatol** 1998 Sep; 139(3):439–43

Cutaneous presentation of nasal/nasal type T/NK cell lymphoma: clinicopathological findings of four cases. Miyamoto T, et al. **Br J Dermatol** 1998 Sep;139(3):481–7

Hypopigmented mycosis fungoides in a light-skinned woman [letter] Moulonguet I, et al. **Br J Dermatol** 1998 Aug; 139(2):341–3

Peripheral nervous system involvement in a patient with large T-cell lymphoma arising from a pre-existing mycosis fungoides. Peris K, et al. **Br J Dermatol** 1998 Aug; 139(2):299–301

Cutaneous necrosis by cold agglutinins associated with glomeruloid reactive angioendotheliomatosis. Porras-Luque JI, et al. **Br J Dermatol** 1998 Dec; 139(6):1068–72

Solitary plaque-like telangiectatic glomangioma. Requena L, et al. **Br J Dermatol** 1998 Nov;139(5):902–5

The Koebner phenomenon in Kaposi's sarcoma in a renal transplant recipient [letter] Seçkin D, et al. **Br J Dermatol** 1998 Aug;139(2):346–8

Acute infiltration by non-Hodgkin's B-cell lymphoma of lesions of disseminated herpes zoster. Turner RJ, et al. **Br J Dermatol** 1998 Aug;139(2):295–8

Glomangiosarcoma of the hip: report of a highly aggressive tumour with widespread distant metastases. Watanabe K, et al. **Br J Dermatol** 1998 Dec;139(6):1097–101

Systemic mastocytosis and other mast cell neoplasms. Bain BJ. **Br J Haematol** 1999 Jul;106(1):9–17 (61 ref.)

The pathogenesis of local recurrence of melanoma at the primary excision site. Heenan PJ, et al. **Br J Plast Surg** 1999 Apr;52(3):209–13

Incremental increases in Breslow thickness of thick melanoma have a linear effect on mortality [letter] Sylaidis P, et al. **Br J Plast Surg** 1998 Sep;51(6):484–5

Intraoperative lymphatic mapping and sentinel lymph node biopsy for Merkel cell carcinoma. Hill AD, et al. **Br J Surg** 1999 Apr;86(4):518–21

Follow-up of patients with a thin melanoma. Johnson RC, et al. **Br J Surg** 1999 May;86(5):619–21

Profile of Kangari cancer: a prospecive study. Aziz SA, et al. **Burns** 1998 Dec;24(8):763–6

The ABCD system of melanoma detection: a spectrophotometric analysis of the Asymmetry, Border, Color, and Dimension. Bono A, et al. **Cancer** 1999 Jan 1; 85(1):72–7

Lymphoepithelioma-like carcinoma of the skin with apparent origin in the epidermis--a pattern or an entity? A case report. Lind AC, et al. **Cancer** 1999 Feb 15;85(4):884–90

Extramedullary involvement in patients with acute promyelocytic leukemia: a report of seven cases. Liso V, et al. **Cancer** 1998 Oct 15;83(8):1522–8

Thin cutaneous malignant melanomas (< or =1.5 mm): identification of risk factors indicative of progression. Massi D, et al. **Cancer** 1999 Mar 1;85(5):1067–76

Sentinel lymph node micrometastasis from melanoma. Proven methodology and evolving significance [editorial] Reintgen D, et al. **Cancer** 1999 Aug 15;86(4):551–2

Secondary lymph node involvement from primary cutaneous large B-cell lymphoma of the leg: sentinel lymph nodectomy as a new strategy for staging circumscribed cutaneous lymphomas. Starz H, et al. **Cancer** 1999 Jan 1; 85(1):199–207

Detection of microscopic melanoma metastases in sentinel lymph nodes. Yu LL, et al. **Cancer** 1999 Aug 15; 86(4):617–27

Delineation of maxillofacial cutaneous lesions by means of high-resolution magnetic resonance imaging. Mäurer J, et al. **Cancer Detect Prev** 1998;22(6):540–3

Presentation with multiple cutaneous basal cell carcinomas: association of glutathione S-transferase and cytochrome P450 genotypes with clinical phenotype. Ramachandran S, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jan; 8(1):61–7

Involvement of chromosome losses in the progression and metastasis formation of a human malignant melanoma. Balázs M, et al. **Cancer Genet Cytogenet** 1999 Mar; 109(2):114–8

Cutaneous lesions of metastatic visceral malignancy mimicking pyogenic granuloma. Hager CM, et al. **Cancer Invest** 1999;17(6):385–90 (22 ref.)

Dietary supplementation with secoisolariciresinol diglycoside (SDG) reduces experimental metastasis of melanoma cells in mice. Li D, et al. **Cancer Lett** 1999 Jul 19;142(1):91–6

Squamous cell hyperplastic foci: precursors of cutaneous papillomas induced in SENCAR mice by a two-stage carcinogenesis regimen. Binder RL, et al. **Cancer Res** 1998 Oct 1;58(19):4314–23

Variants of squamous cell carcinoma of the anal canal and perianal skin and their relation to human papillomaviruses.

Frisch M, et al. **Cancer Res** 1999 Feb 1;59(3):753–7

c-Met autocrine activation induces development of malignant melanoma and acquisition of the metastatic phenotype. Otsuka T, et al. **Cancer Res** 1998 Nov 15;58(22):5157–67

Essential role of tumor necrosis factor alpha (TNF-alpha) in tumor promotion as revealed by TNF-alpha-deficient mice. Suganuma M, et al. **Cancer Res** 1999 Sep 15; 59(18):4516–8

Squamous cell carcinomas and increased apoptosis in skin with inhibited Rel/nuclear factor-kappaB signaling. van Hogerlinden M, et al. **Cancer Res** 1999 Jul 15; 59(14):3299–303

AIDS-related Kaposi's sarcoma is a clonal neoplasm. Rabkin CS, et al. **Clin Cancer Res** 1995 Mar;1(3):257–60

Cutaneous T-cell lymphoma presenting with 'segmental pityriasis lichenoides chronica' [letter] Child FJ, et al. **Clin Exp Dermatol** 1998 Sep;23(5):232

Multiple basal cell carcinomas in a patient with acute myeloid leukaemia and chronic lymphocytic leukaemia. Ramsay HM, et al. **Clin Exp Dermatol** 1999 Jul;24(4):281–2

Extensive and progressive cutaneous plasmacytoma in plateau phase myeloma [letter; comment] Jedlicka M, et al. **Clin Lab Haematol** 1998 Oct;20(5):321–2. Comment on: Clin Lab Haematol 1998 Feb;20(1):53–5.

Metastatic dermatofibrosarcoma protuberans mimicking meningioma. Auer IA, et al. **Clin Neuropathol** 1998 Jul–Aug;17(4):190–3

Identification of bilateral breast sentinel lymph nodes draining primary melanoma of the back by preoperative lymphoscintigraphy and intraoperative mapping. Bianchi C, et al. **Clin Nucl Med** 1999 Jul;24(7):501–3

Imaging of abdominal manifestations of melanoma. Kamel IR, et al. **Crit Rev Diagn Imaging** 1998 Dec;39(6):447–86 (24 ref.)

Multiple cutaneous granular cell tumors of the scrotum. Altman CE, et al. **Cutis** 1999 Feb;63(2):77–80

Metastatic basal cell carcinoma to the lung. Berti JJ, et al. **Cutis** 1999 Mar;63(3):165–6 (12 ref.)

Spitz nevus: a case report. Hauptman G, et al. **Cutis** 1999 Sep;64(3):177–8

Recurrent malignant melanoma presenting with zosteriform metastases. North S, et al. **Cutis** 1998 Sep;62(3):143–6

Granular cell tumor of the toe. Peters JS, et al. **Cutis** 1998 Sep;62(3):147–8

Amelanotic lentigo maligna melanoma: report of a case and review of the literature. Rocamora V, et al. **Cutis** 1999 Jul;64(1):53–6 (33 ref.)

Multiple familial trichoepitheliomas. Sidhu SK, et al. **Cutis** 1999 Apr;63(4):239–40

Fatal cutaneous squamous cell carcinoma with extension through the maxillary sinus and orbit into the brain. Simon CD, et al. **Cutis** 1999 Jun;63(6):341–3

Malignant pilomatrixoma: a case report with fine needle aspiration (FNA) cytology. Deolekar MV, et al. **Cytopathology** 1999 Aug;10(4):270–5

Fine needle aspiration (FNA) biopsy of primary cutaneous meningioma: report of two cases. Kalfa M, et al. **Cytopathology** 1999 Feb;10(1):54–60

Fine needle aspiration (FNA) cytology of pilomatrixoma: report of 14 cases and review of the literature. Viero RM, et al. **Cytopathology** 1999 Aug;10(4):263–9 (20 ref.)

Cutaneous T-cell lymphoma. Refinement in the application of controversial histologic criteria. Glusac EJ, et al. **Dermatol Clin** 1999 Jul;17(3):601–14, ix (71 ref.)

Histopathologic and immunohistochemical diagnosis of benign and malignant fibrous and fibrohistiocytic tumors of the skin. Kamino H, et al. **Dermatol Clin** 1999 Jul; 17(3):487–505, vii (53 ref.)

Use of the polymerase chain reaction in the evaluation of cutaneous T-cell infiltrates. Kohler S, et al. **Dermatol Clin** 1999 Jul;17(3):657–66, x (33 ref.)

Selected cutaneous vascular neoplasms. A review. Prieto VG, et al. **Dermatol Clin** 1999 Jul;17(3):507–20, viii (100 ref.)

Morphologic spectrum of cutaneous B-cell lymphomas. Sander CA, et al. **Dermatol Clin** 1999 Jul;17(3):593–9, ix (46 ref.)

Recognition and management of high-risk cutaneous tumors. Schoelch SB, et al. **Dermatol Clin** 1999 Jan;17(1):93–111, viii–ix (104 ref.)

Recent developments in the pathology of melanocytic neoplasia. Shea CR, et al. **Dermatol Clin** 1999 Jul; 17(3):615–30, ix (81 ref.)

Sentinel lymphadenectomy in the management of primary cutaneous malignant melanoma. An update. White WL, et al. **Dermatol Clin** 1999 Jul;17(3):645–55, ix–x (33 ref.)

Asymptomatic facial papules and acrochordons of the thighs. Birt-Hogg-Dube syndrome. Zabawski E, et al. **Dermatol Online J** 1997 Dec;3(2):6

A middle aged female with a refractory comedone of the upper lip. Zabawski EJ Jr, et al. **Dermatol Online J** 1998 Oct;4(1):4

Merkel cell carcinoma: spontaneous resolution and management of metastatic disease. Brown TJ, et al. **Dermatol Surg** 1999 Jan;25(1):23–5

Angiosarcoma of the head and neck managed by a combination of multiple biopsies to determine tumor margin and radiation therapy. Report of three cases and review of the literature. Bullen R, et al. **Dermatol Surg** 1998 Oct; 24(10):1105–10 (35 ref.)

Basal cell carcinoma arising in an electrical burn scar secondary to transthoracic cardioversion [letter] Camacho FM, et al. **Dermatol Surg** 1999 Feb;25(2):151

Spindle cell lipoma of the scalp: a case report and review. Haas AF, et al. **Dermatol Surg** 1999 Jan;25(1):68–71 (30 ref.)

Linear basal cell carcinoma: report of seventeen cases and review of the presentation and treatment. Lim KK, et al. **Dermatol Surg** 1999 Jan;25(1):63–7 (13 ref.)

Tumor remnants within giant cells following irradiation of cutaneous squamous cell carcinoma. Moore T, et al. **Dermatol Surg** 1998 Oct;24(10):1094–6

Cutaneous vascular proliferation following ultrapulse CO2 laser resurfacing. Rostan EF, et al. **Dermatol Surg** 1998 Dec;24(12):1406–8

Calcifying basal cell carcinomas. Walsh JS, et al. **Dermatol Surg** 1999 Jan;25(1):49–51

Dermatofibroma with granular cells: a report of two cases. Aloi F, et al. **Dermatology** 1999;199(1):54–6

Pilomatricoma in elderly individuals. Behnke N, et al. **Dermatology** 1998;197(4):391–3 (23 ref.)

Malignant fibrous histiocytoma and atypical fibroxanthoma in renal transplant recipients. Hafner J, et al. **Dermatology** 1999;198(1):29–32

Type 2 segmental manifestation of multiple glomus tumors: A review and reclassification of 5 case reports. Happle R, et al. **Dermatology** 1999;198(3):270–2 (11 ref.)

Systemic sclerosis revealing T-cell lymphoma. Hasegawa M, et al. **Dermatology** 1999;198(1):75–8

Mycosis fungoides with mucinosis follicularis in childhood. Hess Schmid M, et al. **Dermatology** 1999;198(3):284–7

Systemic hyalinosis of delayed onset. Horiuchi Y, et al. **Dermatology** 1999;198(1):83–5

Kaposi's sarcoma: a new approach of lesional follow-up using epiluminescent light microscopy. Krischer J, et al. **Dermatology** 1999;198(4):420–2

Phacomatosis pigmentokeratotica: speckled-lentiginous nevus in association with nevus sebaceus. Langenbach N, et al. **Dermatology** 1998;197(4):377–80

Juvenile hyaline fibromatosis: clinical heterogeneity in three patients. Mancini GM, et al. **Dermatology** 1999;198(1):18–25

Pleomorphic sclerotic fibroma. Martin-López R, et al. **Dermatology** 1999;198(1):69–72

Is angiolymphoid hyperplasia with eosinophilia a benign vascular tumor? A case improved with oral isotretinoin [letter] Oh CW, et al. **Dermatology** 1998;197(2):189–91

Mycosis fungoides in patients under 20 years of age: report of 7 cases, review of the literature and study of the clinical course. Quaglino P, et al. **Dermatology** 1999;199(1):8–14 (41 ref.)

Papillary formations in metastatic melanoma. Baloch ZW, et al. **Diagn Cytopathol** 1999 Mar;20(3):148–51

Cytology of lymphoepithelioma-like carcinoma of the skin [letter] Chen KT. **Diagn Cytopathol** 1999 Sep;21(3):230–2

FNA of malignant melanoma: a brown stain without brown stains? [letter] De Las Casas LE, et al. **Diagn Cytopathol** 1998 Aug;19(2):151–2

On the limited value of fine-needle aspiration for the diagnosis of benign melanocytic proliferations of the skin. García Rojo B, et al. **Diagn Cytopathol** 1998 Dec; 19(6):441–5

Cytology of metastatic cutaneous basal cell carcinoma. Henke AC, et al. **Diagn Cytopathol** 1998 Aug;19(2):113–5

Intramammary lymph node involvement by mycosis fungoides diagnosed by fine-needle aspiration biopsy. Laforga JB, et al. **Diagn Cytopathol** 1998 Aug;19(2):124–6

Defects of basement membrane and hemidesmosome structure correlate with malignant phenotype and stromal interactions in HaCaT-Ras xenografts. Tomakidi P, et al. **Differentiation** 1999 Jun;64(5):263–75

Pilomatrix carcinoma with multiple metastases: report of a case and review of the literature. Bremnes RM, et al. **Eur J Cancer** 1999 Mar;35(3):433–7 (44 ref.)

Segmental arrangement of multiple, partly congenital and partly acquired melanocytic nevi. Bañuls J, et al. **Eur J Dermatol** 1998 Mar;8(2):80–2

Simulators of malignant melanoma of the skin. Cerroni L, et al. **Eur J Dermatol** 1998 Sep;8(6):388–96 (67 ref.)

Guess What! Lymphangiosarcoma of Stewart-Treves. Devolder S, et al. **Eur J Dermatol** 1998 Oct-Nov;8(7):527–8

Guess What! Idiopathic hyperkeratosis and papillomatosis areolae mammae. Elsner E, et al. **Eur J Dermatol** 1998 Mar;8(2):131–2

Guess what! Targetoid hemosiderotic hemangioma. Ly S, et al. **Eur J Dermatol** 1998 Dec;8(8):583; discussion 584–5

Multiple piloleiomyomas associated with solitary angioleiomyoma. Rikihisa W, et al. **Eur J Dermatol** 1999 Jun;9(4):309–10

Guess What! Kaposi's sarcoma. Satta R, et al. **Eur J Dermatol** 1998 Apr–May;8(3):219–20

Transition between solar keratosis and basal cell carcinoma. Shai A, et al. **Eur J Dermatol** 1999 Jan–Feb;9(1):35–8

Granulomatous mycosis fungoides. Telle H, et al. **Eur J Dermatol** 1998 Oct–Nov;8(7):506–10 (29 ref.)

Expression of the bcl-2 homologue bax in normal human skin, psoriasis vulgaris and non-melanoma skin cancers. Tomková H, et al. **Eur J Dermatol** 1998 Jun;8(4):256–60

Infundibulocystic basal cell carcinoma. Toyoda M, et al. **Eur J Dermatol** 1998 Jan-Feb;8(1):51–3

Guess what! Superficial basal cell carcinoma of the scrotum. Vandeweyer E, et al. **Eur J Dermatol** 1999 Apr–May; 9(3):237–8

Adhesion molecule expression in basal cell carcinoma. Verhaegh M, et al. **Eur J Dermatol** 1998 Jun;8(4):252–5

Sentinel lymph node detection and imaging. Keshtgar MRS, et al. **Eur J Nucl Med** 1999 Jan;26(1):57–67 (28 ref.)

Early detection of melanoma metastases with radioiodinated methylene blue. Link EM, et al. **Eur J Nucl Med** 1998 Sep;25(9):1322–9

The sentinel node procedure in cutaneous melanoma: an overview of 6 years' experience. Statius Muller MG, et al. **Eur J Nucl Med** 1999 Apr;26(4 Suppl):S20–5 (52 ref.)

Long-term survival after extended surgical resection of melanoma metastasis and immunotherapy. Meyer T, et al. **Eur J Surg Oncol** 1999 Feb;25(1):105–6

Technique of lymphatic mapping and sentinel node biopsy for melanoma. Nieweg OE, et al. **Eur J Surg Oncol** 1998 Dec;24(6):520–4

Metastases from a regressed malignant melanoma as a cause of haemoperitoneum. Wong LS, et al. **Eur J Surg Oncol** 1999 Apr;25(2):227

FDG PET-negative liver metastases of a malignant melanoma and FDG PET-positive hurthle cell tumor of the thyroid. Wiesner W, et al. **Eur Radiol** 1999;9(5):975–8

Intraocular metastases of cutaneous malignant melanoma: a case report and review of the literature. Ramaesh K, et al. **Eye** 1999 Apr;13 (Pt 2):247–50 (24 ref.)

Morphological and biochemical analysis of the secretory pathway in melanoma cells with distinct metastatic potential. Ayala I, et al. **FEBS Lett** 1999 May 28; 451(3):315–20

At the focal point...metastatic malignant melanoma. Hokama A, et al. **Gastrointest Endosc** 1999 Aug;50(2):241

Metastatic dermatofibrosarcoma protuberans of the vulva. Soergel TM, et al. **Gynecol Oncol** 1998 Nov;71(2):320–4

Classification and staging of melanoma. Gershenwald JE, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):737–65 (114 ref.)

Systemic treatment of metastatic melanoma with chemotherapy. Green RJ, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):863–75, viii (51 ref.)

Lymphatic mapping and selective lymphadenectomy as an alternative to elective lymph node dissection in patients with malignant melanoma. Reintgen DS, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):807–21, vii (41 ref.)

Synchronous occurrence of cutaneous lymphadenoma and syringoid eccrine carcinoma in a single patient [letter] Dahill SW, et al. **Histopathology** 1998 Jul;33(1):89–90

Angiofibroblastoma of the skin: a histological, immunohistochemical and ultrastructural report of two cases of an undescribed fibrous tumour. Diaz-Cascajo C, et al. **Histopathology** 1999 Aug;35(2):109–13

Pigmented atypical fibroxanthoma. Diaz-Cascajo C, et al. **Histopathology** 1998 Dec;33(6):537–41

Desmoplastic cutaneous ganglioneuroma [letter] Franchi A, et al. **Histopathology** 1999 Jan;34(1):82–4

Accuracy of frozen section measurements for the determination of Breslow tumour thickness in primary malignant melanoma. Kiehl P, et al. **Histopathology** 1999 Mar;34(3):257–61

Histological demarcation of lateral borders: an unsupportable criterion for distinguishing malignant melanoma from Spitz naevus and compound naevus [see comments] Okun MR. **Histopathology** 1998 Aug;33(2):158–62. Comment in: Histopathology 1998 Dec;33(6):576–7.

Atypical fibroxanthoma with granular cells [letter; comment] Orosz Z. **Histopathology** 1998 Jul;33(1):88–9. Comment on: Histopathology 1997 May;30(5):495–7. Comment on: Histopathology 1997 Nov;31(5):481–2.

Analysis of histopathological factors associated with prolonged survival of 10 years or more for patients with thick melanomas (> 5 mm). Spatz A, et al. **Histopathology** 1998 Nov;33(5):406–13

Vascular myxolipoma (angiomyxolipoma) of subcutaneous tissue [letter] Zámecnik M. **Histopathology** 1999 Feb; 34(2):180–1

Myxoid dermatofibroma. Zelger BG, et al. **Histopathology** 1999 Apr;34(4):357–64

Cutaneous melanoma: diagnosis and at risk patients. Hall PN, et al. **Hosp Med** 1998 Nov;59(11):866–71 (21 ref.)

What students owe teachers. Ackerman AB. **Hum Pathol** 1999 May;30(5):568–76

Atypical Spitz nevi/tumors: lack of consensus for diagnosis, discrimination from melanoma, and prediction of outcome. Barnhill RL, et al. **Hum Pathol** 1999 May;30(5):513–20

Malignant melanoma with prominent pigment synthesis: "animal type" melanoma--a clinical and histological study of six cases with a consideration of other melanocytic neoplasms with prominent pigment synthesis. Crowson AN, et al. **Hum Pathol** 1999 May;30(5):543–50

Lentigo maligna and malignant melanoma in situ, lentigo maligna type. Flotte TJ, et al. **Hum Pathol** 1999 May; 30(5):533–6

A trichilemmal carcinoma arising from a proliferating trichilemmal cyst: a response [letter; comment] Monteagudo C. **Hum Pathol** 1999 Feb;30(2):247–8. Comment on: Hum Pathol 1998 Feb;29(2):193–5.

Recognition and evaluation of cytological dysplasia in acquired melanocytic nevi. Murphy GF, et al. **Hum Pathol** 1999 May;30(5):506–12 (31 ref.)

Dermal squamo-melanocytic tumor: a unique biphenotypic neoplasm of uncertain biological potential. Pool SE, et al. **Hum Pathol** 1999 May;30(5):525–9

Dimensionalities: borderline and intermediate melanocytic

neoplasia. Reed RJ. **Hum Pathol** 1999 May;30(5):521–4 (16 ref.)

Squamous carcinoma in situ of the skin containing premelanosomes, with melanocytic colonization of the tumor. Umlas J, et al. **Hum Pathol** 1999 May;30(5):530–2

Spitz nevus versus spitzoid malignant melanoma: an evaluation of the current distinguishing histopathologic criteria. Walsh N, et al. **Hum Pathol** 1998 Oct; 29(10):1105–12

Desmoplastic malignant melanoma: diagnosis of early clinical lesions. Wharton JM, et al. **Hum Pathol** 1999 May; 30(5):537–42

The morphological features of locally recurrent melanoma and cutaneous metastases of melanoma. Yu LL, et al. **Hum Pathol** 1999 May;30(5):551–5

Neoplastic transformation of chronic ulcers in leprosy patients--a retrospective study of 23 consecutive cases. Kumaravel S. **Indian J Lepr** 1998 Apr–Jun;70(2):179–87

Cutaneous malignant melanoma in Swedish children and teenagers 1973–1992: a clinico-pathological study of 130 cases. Sander B, et al. **Int J Cancer** 1999 Mar 1;80(5):646–51

An infant with multiple hemangiomas showing favorable prognosis. Altunay IK, et al. **Int J Dermatol** 1999 Mar; 38(3):211–3

Cutaneous plasmacytic pseudolymphoma with erythroderma. Ban M, et al. **Int J Dermatol** 1998 Oct;37(10):778–80

The prognosis of patients with basal and squamous cell carcinoma of the skin. Czarnecki D. **Int J Dermatol** 1998 Sep;37(9):656–8

Dermatofibrosarcoma protuberans in two distant locations [letter] Fay A, et al. **Int J Dermatol** 1998 Nov;37(11):878–80

Squamous cell carcinoma and keratoacanthoma of the lower lip associated with "Goza" and "Shisha" smoking. El-Hakim IE, et al. **Int J Dermatol** 1999 Feb;38(2):108–10

Epidemiology and prognosis of plantar melanoma in 62 Japanese patients over a 28-year period. Kato T, et al. **Int J Dermatol** 1999 Jul;38(7):515–9

Pachydermodactyly [letter; comment] Kopera D, et al. **Int J Dermatol** 1999 Mar;38(3):237. Comment on: Int J Dermatol 1997 Oct;36(10):768–72.

Pachydermoperiostosis with cutaneous squamous cell carcinomas. Lee SC, et al. **Int J Dermatol** 1998 Sep; 37(9):693–6

Frequency of pre-existing actinic keratosis in cutaneous squamous cell carcinoma. Mittelbronn MA, et al. **Int J Dermatol** 1998 Sep;37(9):677–81

Nevus depigmentosus and inflammatory linear epidermal nevus--an unusual combination with a note on histology. Ogunbiyi AO, et al. **Int J Dermatol** 1998 Aug;37(8):600–2

Extra-abdominal desmoid tumor: an unusual subcutaneous lesion presenting as shoulder pain. Simpson JL, et al. **Int J Dermatol** 1998 Oct;37(10):780–4

Unilateral linear trichoepitheliomas [letter] Singh A, et al. **Int J Dermatol** 1999 Mar;38(3):236–7

Malignant pilomatricoma: a case report. Waxtein L, et al. **Int J Dermatol** 1998 Jul;37(7):538–40 (14 ref.)

Disseminated cutaneous myxomas in an adult. Weinberg JM, et al. **Int J Dermatol** 1998 Dec;37(12):946–8

The role of the detection of hematogenous micrometastasis in prostate adenocarcinoma and malignant melanoma by RT-PCR. Sardi I, et al. **Int J Mol Med** 1999 Apr;3(4):417–9

Progressive growth of infantile cutaneous hemangiomas is directly correlated with hyperplasia and angiogenesis of adjacent epidermis and inversely correlated with expression of the endogenous angiogenesis inhibitor, IFN-beta. Bielenberg DR, et al. **Int J Oncol** 1999 Mar;14(3):401–8

Sentinel node localisation: A new prospective in the treatment of nodal melanoma metastases. Gennari R, et al. **Int J Oncol** 1999 Jul;15(1):25–32 (36 ref.)

Skin cancer of the head and neck with incidental microscopic perineural invasion. McCord MW, et al. **Int J Radiat Oncol Biol Phys** 1999 Feb 1;43(3):591–5

Merkel cell tumor: two cases. Simstein NL, et al. **Int Surg** 1998 Jan–Mar;83(1):60–2 (14 ref.)

A clinicopathological correlation of 134 stage I and 79 non-invasive cutaneous melanomas presenting over a decade (1984–1993) at the Mater Misericordiae Hospital, Dublin. O'Donnell B, et al. **Ir J Med Sci** 1998 Jul–Sep; 167(3):132–5

Clinical and dermatoscopic criteria for the preoperative evaluation of cutaneous melanoma thickness. Argenziano G, et al. **J Am Acad Dermatol** 1999 Jan;40(1):61–8

Signet-ring cell formation in cutaneous neoplasms. Bastian BC, et al. **J Am Acad Dermatol** 1999 Oct;41(4):606–13

Cutaneous melanoma histologically associated with a nevus and melanoma de novo have a different profile of risk: results from a case-control study. Carli P, et al. **J Am Acad Dermatol** 1999 Apr;40(4):549–57

Targetoid hemosiderotic hemangioma- a dynamic vascular tumor: report of 3 cases with episodic and cyclic changes and comparison with solitary angiokeratomas. Carlson JA, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):215–24 (51 ref.)

Unusual presentation of mycosis fungoides as pigmented purpura with malignant thymoma. Cather JC, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):858–63 (54 ref.)

Melanoma-in-transit presenting as panniculitis. Cotton J, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):876–8

Cutaneous melanoma risk and phenotypic changes in large congenital nevi: a follow-up study of 46 patients. Egan CL, et al. **J Am Acad Dermatol** 1998 Dec;39(6):923–32

The river clinic. Elpern D. **J Am Acad Dermatol** 1999 May; 40(5 Pt 1):758–9

Nevus with fat: clinical characteristics of 100 nevi containing mature adipose cells. Eng W, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):704–11

Lymphatic mapping and sentinel node biopsy in the management of high-risk melanoma. Glass FL, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):603–10 (64 ref.)

Cutaneous squamous cell carcinomas consistently show histologic evidence of in situ changes: a clinicopathologic correlation. Guenthner ST, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):443–8

Nasal and nasal-type natural killer/T-cell lymphoma. Hirakawa S, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):268–72

Mixed Merkel cell carcinoma and squamous cell carcinoma of the skin. Iacocca MV, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):882–7

Nasal and nasal-type T/NK-cell lymphoma with cutaneous involvement. Kato N, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):850–6

Morphologic changes of pigmented skin lesions: a useful extension of the ABCD rule for dermatoscopy. Kittler H, et al. **J Am Acad Dermatol** 1999 Apr;40(4):558–62

Nevus depigmentosus: clinical features and histopathologic characteristics in 67 patients. Lee HS, et al. **J Am Acad Dermatol** 1999 Jan;40(1):21–6

Eruptive widespread Spitz nevi: can pregnancy be a stimulating factor? Onsun N, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):866–7

Multiple follicular hamartomas with sweat gland and sebaceous differentiation, vermiculate atrophoderma, milia, hypotrichosis, and late development of multiple basal cell carcinomas. Pujol RM, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):853–7

The diagnostic yield in submitting nevi for histologic examination. Reeck MC, et al. **J Am Acad Dermatol** 1999 Apr;40(4):567–71

An S100 negative granular cell tumor with malignant potential: report of a case. Schoedel KE, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):894–8

Risk of cutaneous malignant melanoma in patients with nonfamilial atypical nevi from a pigmented lesions clinic. Snels DG, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):686–93

Primary cutaneous Ki-1(CD30) positive anaplastic large cell lymphoma in childhood. Tomaszewski MM, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):857–61 (21 ref.)

Sweet's syndrome associated with chronic myelogenous leukemia: demonstration of leukemic cells within a skin lesion. Urano Y, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):275–9

Merkel cell carcinoma occurring in renal transplant patients. Urbatsch A, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 2):289–91

Identification of melanoma metastases by tyrosinase-reverse transcription-polymerase chain reaction of fine needle aspirates. Voit C, et al. **J Am Acad Dermatol** 1998 Dec; 39(6):1030–2

POEMS syndrome: cicatricial alopecia as an unusual cutaneous manifestation associated with an underlying plasmacytoma. Weichenthal M, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):808–12

Prognosis in cutaneous T-cell lymphoma by skin stage: long-term survival in 489 patients. Zackheim HS, et al. **J Am Acad Dermatol** 1999 Mar;40(3):418–25

The importance of lymphatic anatomy in melanoma--a resurgence of clinical significance in an era of sentinel lymph node technology [editorial; comment] Balch CM, et al. **J Am Coll Surg** 1999 Aug;189(2):204–6. Comment on: J Am Coll Surg 1999 Aug;189(2):195–204.

Lymphatic mapping and sentinel lymphadenectomy after wide local excision of primary melanoma. Kelemen PR, et al. **J Am Coll Surg** 1999 Sep;189(3):247–52

Location of sentinel lymph nodes in patients with cutaneous melanoma: new insights into lymphatic anatomy [see comments] Thompson JF, et al. **J Am Coll Surg** 1999 Aug; 189(2):195–204. Comment in: J Am Coll Surg 1999 Aug;189(2):204–6.

Basal cell carcinoma: what dentists need to know [see comments] Rishiraj B, et al. **J Am Dent Assoc** 1999 Mar; 130(3):375–80 (28 ref.). Comment in: J Am Dent Assoc 1999 May;130(5):624, 627.

Cutaneous mastocytomas in the neotenic caudate amphibians Ambystoma mexicanum (axolotl) and Ambystoma tigrinum (tiger salamander). Harshbarger JC, et al. **J Cancer Res Clin Oncol** 1999;125(3–4):187–92

Primary cutaneous marginal center lymphoma - complete remission induced by interferon alpha2a. Wollina U, et al. **J Cancer Res Clin Oncol** 1999;125(5):305–8

Multi-institutional melanoma lymphatic mapping experience: the prognostic value of sentinel lymph node status in 612 stage I or II melanoma patients. Gershenwald JE, et al. **J Clin Oncol** 1999 Mar;17(3):976–83

Polymerase chain reaction-based detection of circulating melanoma cells as an effective marker of tumor progression. Melanoma Cooperative Group. Palmieri G, et al. **J Clin Oncol** 1999 Jan;17(1):304–11

Polymerase chain reaction and immunohistochemistry frequently detect occult melanoma cells in regional lymph nodes of melanoma patients. Hatta N, et al. **J Clin Pathol** 1998 Aug;51(8):597–601

Histochemical investigation into the molecular mechanisms of malignant transformation in a benign glomus tumour. Hegyi L, et al. **J Clin Pathol** 1998 Nov;51(11):872–4

Morphological effects of Pasteurella multocida type-D dermonecrotoxin on rat osteosarcoma cells in a nude mouse model. Dyer NW, et al. **J Comp Pathol** 1998 Aug; 119(2):149–58

Rapidly growing squamous cell carcinoma. Billingsley EM, et al. **J Cutan Med Surg** 1999 Apr;3(4):193–7

Diagnosing basal cell carcinoma by dermatoscopy. Carroll DM, et al. **J Cutan Med Surg** 1998 Oct;3(2):62–7

Plaque-type multinucleate cell angiohistiocytoma. Issa AA, et al. **J Cutan Med Surg** 1998 Oct;3(2):112–4

Kaposi's sarcoma in women: A clinicopathologic study. Smith KJ, et al. **J Cutan Med Surg** 1999 Jan;3(3):132–9

Melanotic pigmentation in excision scars of melanocytic and non-melanocytic skin tumors. Botella-Estrada R, et al. **J Cutan Pathol** 1999 Mar;26(3):137–44

'Tubular' epithelioid cell nevus: a new variant of Spitz's nevus. Burg G, et al. **J Cutan Pathol** 1998 Oct;25(9):475–8

Immunohistochemical characterization of pleomorphic giant cells in basal cell carcinoma. Cutlan RT, et al. **J Cutan Pathol** 1999 Aug;26(7):353–6

Sclerosing dermatofibrosarcoma protuberans. Diaz-Cascajo C, et al. **J Cutan Pathol** 1998 Sep;25(8):440–4

Inflammatory metastatic melanoma. Flórez A, et al. **J Cutan Pathol** 1999 Feb;26(2):105–8

Mycosis fungoides and cutaneous Hodgkin's disease in the same patient: a case report. Geldenhuys L, et al. **J Cutan Pathol** 1999 Jul;26(6):311–4

Mainly unmutated V(H) genes rearranged in B cells forming germinal centers in a cutaneous pleomorphic T-cell lymphoma. Golembowski S, et al. **J Cutan Pathol** 1999 Jan;26(1):6–12

Pagetoid Merkel cell carcinoma: epidermal origin of the tumor. Hashimoto K, et al. **J Cutan Pathol** 1998 Nov; 25(10):572–9

Diagnostic value of CD34 immunostaining in desmoplastic trichilemmoma. Illueca C, et al. **J Cutan Pathol** 1998 Sep; 25(8):435–9

Differences in sialyl-Tn antigen expression between keratoacanthomas and cutaneous squamous cell carcinomas. Jensen P, et al. **J Cutan Pathol** 1999 Apr; 26(4):183–9

Desmoplastic fibroblastoma. Junkins-Hopkins JM, et al. **J Cutan Pathol** 1998 Sep;25(8):450–4

Comparative analysis of histological and immunohistological features in mycosis fungoides and Sézary syndrome. Kamarashev J, et al. **J Cutan Pathol** 1998 Sep;25(8):407–12

Neural spectrum: palisaded encapsulated neuroma and verocay body poor dermal schwannoma. Kossard S, et al. **J Cutan Pathol** 1999 Jan;26(1):31–6

Genital Paget's disease with clear cells in the epidermis of the axilla. Makino T, et al. **J Cutan Pathol** 1998 Nov; 25(10):568–71

Hobnail hemangioma ("targetoid hemosiderotic hemangioma"): clinicopathologic and immunohistochemical analysis of 62 cases. Mentzel T, et al. **J Cutan Pathol** 1999 Jul;26(6):279–86

A reappraisal on the modes of cell death in pilomatricoma. Nakamura T. **J Cutan Pathol** 1999 Mar;26(3):125–9

Myxoid dermatofibrosarcoma protuberans: morphological, ultrastructural and immunohistochemical features. Orlandi A, et al. **J Cutan Pathol** 1998 Aug;25(7):386–93

Cutaneous epithelioid schwannoma: an unusual benign neurogenic tumor [letter; comment] Orosz Z. **J Cutan Pathol** 1999 Apr;26(4):213–4. Comment on: J Cutan Pathol 1998 Jan;25(1):50–5.

Factor XIIIa-positive dendrocytes in malignant melanoma [letter; comment] Piérard-Franchimont C, et al. **J Cutan Pathol** 1999 May;26(5):263–4. Comment on: J Cutan Pathol 1998 Nov;25(10):553–8.

The trichofolliculoma undergoes changes corresponding to the regressing normal hair follicle in its cycle [see comments] Schulz T, et al. **J Cutan Pathol** 1998 Aug; 25(7):341–53. Comment in: J Cutan Pathol 1999 Feb;26(2):109.

Birt-Hogg-Dubé syndrome and Hornstein-Knickenberg syndrome are the same. Different sectioning technique as the cause of different histology. Schulz T, et al. **J Cutan Pathol** 1999 Jan;26(1):55–61

Ultrastructural localization of alpha-3 integrin subunit in malignant melanoma and adjacent epidermis. Schumacher D, et al. **J Cutan Pathol** 1999 Aug;26(7):321–6

'Tubular' structures within melanocytic proliferations: a distinctive morphologic finding not restricted to Spitz nevi [letter] Soyer HP, et al. **J Cutan Pathol** 1999 Jul;26(6):315–7

The extracellular matrix in skin tumor development-a morphological study. Stenbäck F, et al. **J Cutan Pathol** 1999 Aug;26(7):327–38

Infiltrative basal cell carcinoma occurring in sites of biopsy-proven nodular basal cell carcinoma. Swetter SM, et al. **J Cutan Pathol** 1998 Sep;25(8):420–5

Neuroendocrine differentiation of a metastatic basal cell carcinoma in a patient with basal cell nevus syndrome. Tawfik O, et al. **J Cutan Pathol** 1999 Jul;26(6):306–10

Dysplastic changes in different types of melanocytic nevi. A unifying concept. Toussaint S, et al. **J Cutan Pathol** 1999 Feb;26(2):84–90

Pagetoid Merkel cell carcinoma: speculations on its origin and the mechanism of epidermal spread [letter] Traest K, et al. **J Cutan Pathol** 1999 Aug;26(7):362–5

Clinical features and histologic pattern analysis of pigmented

basal cell carcinomas in an Italian population [letter] Betti R, et al. **J Dermatol** 1998 Oct;25(10):691–4
Porokeratotic eccrine ostial and dermal duct nevus as nevus unius lateris in an Indian girl. Bhattacharya SN, et al. **J Dermatol** 1998 Oct;25(10):682–4
Cellular neurothekeoma with possible neuroendocrine differentiation. Chang SE, et al. **J Dermatol** 1999 Jun; 26(6):363–7
Phacomatosis pigmentovascularis type IIb associated with Sturge–Weber syndrome and pyogenic granuloma. Hagiwara K, et al. **J Dermatol** 1998 Nov;25(11):721–9 (26 ref.)
Cerebriform intradermal nevus: a case of scalp expansion on the galea. Hashimoto I, et al. **J Dermatol** 1999 Apr; 26(4):258–63
An immunohistochemical study of E–cadherin expression in human squamous cell carcinoma of the skin: relationship between decreased expression of E–cadherin in the primary lesion and regional lymph node metastasis. Koseki S, et al. **J Dermatol** 1999 Jul;26(7):416–22
Adenocarcinoma with signet ring cells of the axilla: two case reports and review of the literature. Kuno Y, et al. **J Dermatol** 1999 Jun;26(6):390–5 (16 ref.)
A poroid neoplasia arising close to a seborrheic keratosis and a trichoepithelioma. Nagore E, et al. **J Dermatol** 1999 Apr;26(4):253–7
Subcutaneous tissue involvement of CD30–positive large cell lymphoma. Park SB, et al. **J Dermatol** 1998 Aug; 25(8):553–5
Osteo–nevus of Nanta: a case report and review of the Japanese literature. Sasaki S, et al. **J Dermatol** 1999 Mar; 26(3):183–8 (32 ref.)
Squamous cell carcinoma of the skin associated with sarcoid reactions in the regional lymph nodes. Setoyama M, et al. **J Dermatol** 1998 Sep;25(9):601–5
Paget's disease arising near a male areola without an underlying carcinoma. Takeuchi T, et al. **J Dermatol** 1999 Apr;26(4):248–52 (28 ref.)
A case of superficial leiomyosarcoma, and a review of Japanese cases. Wakasugi S, et al. **J Dermatol** 1998 Sep; 25(9):606–11 (16 ref.)
Fibromyxoma of the skin. Watanabe T, et al. **J Dermatol** 1998 Nov;25(11):754–5 (12 ref.)
A case of metastatic extramammary Paget's disease that responded to combination chemotherapy. Yamazaki N, et al. **J Dermatol** 1999 May;26(5):311–6
The proliferative properties of tumor cells differentially correlate with the host immune responses in anogenital Bowen's disease. Duan H, et al. **J Dermatol Sci** 1998 May; 20(1):53–62
Amelanotic lentigo maligna and amelanotic lentigo maligna melanoma: a report of three cases mimicking intraepidermal squamous carcinoma. Allan SJ, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):78–81
Multinucleate cell angiohistiocytoma: a report of two cases. Aloi F, et al. **J Eur Acad Dermatol Venereol** 1998 Jul; 11(1):51–4
Targetoid hemosiderotic hemangioma [letter] Avci O, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):186–7
Cutaneous angiomyolipoma: report of two cases with emphasis on HMB–45 utility. Büyükbabani N, et al. **J Eur Acad Dermatol Venereol** 1998 Sep;11(2):151–4
Multiple linear syringocystadenoma papilliferum [letter] de Bliek JP, et al. **J Eur Acad Dermatol Venereol** 1999 Jan; 12(1):74–6
The utility of histologic examination in benign skin lesions [letter] Ferreira P, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):79–80
Chordoma [letter] Günes AT, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):85–6
Neurofibromatosis and cutaneous melanoma coincidence or association? [letter] Karakayali G, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):190–2
Multiple perifollicular fibromas. McKenna DB, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):234–7
Aneurysmal fibrous histiocytoma: an unusual variant of cutaneous fibrous histiocytoma. McKenna DB, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):238–40
Erysipelas melanomatosum [letter] Ozkan S, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):272–4
Squamous cell carcinoma of the skin—histopathological features and their significance for the clinical outcome. Petter G, et al. **J Eur Acad Dermatol Venereol** 1998 Jul; 11(1):37–44
Primary cutaneous B–cell lymphoma: treatment with low dose intralesional recombinant interferon–alpha 2A [letter] Rubegni P, et al. **J Eur Acad Dermatol Venereol** 1999 Jan; 12(1):70–1
Amelanotic lentigo maligna [letter] Sanz de Galdeano C, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):83–5
Hereditary multiple fibrofolliculomas, trichodiscomas and acrochordons: syndrome of Birt–Hogg–Dubè. Scalvenzi M, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):45–7
Differential expression of transforming growth factor beta 1 and interleukin 10 in progressing and regressing areas of primary melanoma. Conrad CT, et al. **J Exp Clin Cancer Res** 1999 Jun;18(2):225–32
Sentinel node biopsy and selective lymph node dissection in cutaneous melanoma patients. Lenisa L, et al. **J Exp Clin Cancer Res** 1999 Mar;18(1):69–74
Mucocutaneous paraneoplastic syndromes (MCPS). A clinical–pathologic review. Silvestris N, et al. **J Exp Clin Cancer Res** 1998 Dec;17(4):453–64 (58 ref.)
Lymphatic mapping for melanomas of the upper extremity. Joseph E, et al. **J Hand Surg [Am]** 1999 Jul;24(4):675–81
Malignant melanoma extending along the ulnar, median, and musculocutaneous nerves: a case report. Ogose A, et al. **J Hand Surg [Am]** 1998 Sep;23(5):875–8
Immune–mediated destruction of melanocytes in halo nevi is associated with the local expansion of a limited number of T cell clones. Musette P, et al. **J Immunol** 1999 Feb 1;162(3):1789–94
Sezary syndrome—a case report. Narayan S, et al. **J Indian Med Assoc** 1998 Sep;96(9):283–4
Differential regulation of epidermal cell tumor–antigen presentation by IL–1alpha and IL–1beta. Beissert S, et al. **J Invest Dermatol** 1998 Oct;111(4):609–15
Infrared spectra of basal cell carcinomas are distinct from non–tumor–bearing skin components. McIntosh LM, et al. **J Invest Dermatol** 1999 Jun;112(6):951–6
Tetanus originating from a benign scalp tumour. Johkura K, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul;67(1):120
99mTc–human serum albumin: an effective radiotracer for identifying sentinel lymph nodes in melanoma [see comments] Bedrosian I, et al. **J Nucl Med** 1999 Jul; 40(7):1143–8. Comment in: J Nucl Med 1999 Jul;40(7):1149–50.
Blue dye and 99mTc–labeled human serum albumin: sentinel node detection by magic bullets? [editorial; comment] Wallace AM, et al. **J Nucl Med** 1999 Jul;40(7):1149–50. Comment on: J Nucl Med 1999 Jul;40(7):1143–8.
Pilomatrix carcinoma of the face. Caubet–Biayna J, et al. **J Oral Maxillofac Surg** 1999 May;57(5):609–11
Subcutaneous panniculitic T–cell lymphoma developing in a child with idiopathic myelofibrosis. Hung IJ, et al. **J Pediatr Hematol Oncol** 1999 Jan–Feb;21(1):38–41
Microcystic adnexal carcinoma: a report of three cases. Kumar K, et al. **J R Coll Surg Edinb** 1998 Dec;43(6):412–4
Basal cell carcinoma of the scalp with spinal metastasis. Lam DG, et al. **J R Soc Med** 1998 Oct;91(10):539–40
Prognostic evaluation of cutaneous malignant melanoma: a clinicopathologic and immunohistochemical study. Niezabitowski A, et al. **J Surg Oncol** 1999 Mar;70(3):150–60
Histologic staging in malignant melanoma: cross–sectional area revisited. Temple CF, et al. **J Surg Oncol** 1998 Oct; 69(2):83–7
On rugged shape of skin tumor (basal cell carcinoma). Tohya S, et al. **J Theor Biol** 1998 Sep 7;194(1):65–78
Cutaneous lymphatic malformation of the penis and scrotum. Sadikoğlu B, et al. **J Urol** 1999 Oct;162(4):1445–6
Molecular staging of malignant melanoma: correlation with clinical outcome. Shivers SC, et al. **JAMA** 1998 Oct 28; 280(16):1410–5
Perianal basal cell carcinoma—report of two cases. Rahman SB, et al. **JPMA J Pak Med Assoc** 1998 May;48(5):150–1
Acantholytic squamous cell carcinoma of skin—a case report. Rahman SB, et al. **JPMA J Pak Med Assoc** 1998 Sep; 48(9):283–5 (16 ref.)
A case of a malignant melanoma with late metastases 16 years after the initial surgery. Nozaki M, et al. **Jpn J Clin Oncol** 1999 Feb;29(2):109–11
Malignant neoplastic disease of the parotid lymph nodes. Schroeder WA Jr, et al. **Laryngoscope** 1998 Oct; 108(10):1514–9
Primary cutaneous T–cell lymphoma involving the cheek: an infant case with a unique clinicopathologic feature. Imaizumi M, et al. **Leuk Lymphoma** 1998 Sep;31(1–2):225–9
Histologic diagnosis and precocious treatment in a case of isolated promyelocytic sarcoma [letter] Bobbio–Pallavicini E, et al. **Leukemia** 1998 Dec;12(12):2035–6
Inhibition of constitutively activated Stat3 correlates with altered Bcl–2/Bax expression and induction of apoptosis in mycosis fungoides tumor cells. Nielsen M, et al. **Leukemia** 1999 May;13(5):735–8
Factors involved in presentation of older people with thick melanoma [see comments] Hanrahan PF, et al. **Med J Aust** 1998 Oct 19;169(8):410–4. Comment in: Med J Aust 1998 Oct 19;169(8):403–4. Comment in: Med J Aust 1999 Apr 19;170(8):394–5.
Image analysis and pattern recognition for computer supported skin tumor diagnosis. Handels H, et al. **Medinfo** 1998;9 Pt 2:1056–62
Two types of pattern modification detected on the follow–up of benign melanocytic skin lesions by digitized epiluminescence microscopy. Braun RP, et al. **Melanoma Res** 1998 Oct;8(5):431–7
Modifications of the antioxidant enzymes in relation to chromosome imbalances in human melanoma cell lines. Bravard A, et al. **Melanoma Res** 1998 Aug;8(4):329–35
Positive association between cytoskeletal changes, melanoma cell attachment and invasion in vitro. Dewhurst LO, et al. **Melanoma Res** 1998 Aug;8(4):303–11
Effect of prostaglandin A1 on proliferation and telomerase activity of human melanoma cells in vitro. Franzese O, et al. **Melanoma Res** 1998 Aug;8(4):323–8
Sensitivity of human melanoma cells to oestrogens, tamoxifen and quercetin: is there any relationship with type I and II oestrogen binding site expression? Lama G, et al. **Melanoma Res** 1998 Aug;8(4):313–22
Effect of natural interferon–beta on the growth of melanoma cell lines. Nagatani T, et al. **Melanoma Res** 1998 Aug; 8(4):295–9
Human acquired naevi are clonal. Robinson WA, et al. **Melanoma Res** 1998 Dec;8(6):499–503
Computer–supported diagnosis of melanoma in profilometry. Handels H, et al. **Methods Inf Med** 1999 Mar;38(1):43–9
Increased apoptosis coincides with onset of involution in infantile hemangioma. Razon MJ, et al. **Microcirculation** 1998;5(2–3):189–95
Clear–cell smooth muscle tumor of the skin. Massi D, et al. **Mod Pathol** 1998 Oct;11(10):1021–5
Multiple stages and genetic alterations in immortalization, malignant transformation, and tumor progression of human skin keratinocytes. Fusenig NE, et al. **Mol Carcinog** 1998 Nov;23(3):144–58 (78 ref.)
Alterations in focal adhesion kinase activity and associated proteins during malignant conversion of mouse keratinocytes. Newell SW, et al. **Mol Carcinog** 1999 May; 25(1):73–83
ras activity and cyclin D1 expression: an essential mechanism of mouse skin tumor development. Rodriguez–Puebla ML, et al. **Mol Carcinog** 1999 Jan;24(1):1–6 (61 ref.)
Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 7–1999. A 50–year–old woman with severe diarrhea during radiation treatment for resected metastatic melanoma [clinical conference] **N Engl J Med** 1999 Mar 11;340(10):789–96
Thick malignant melanoma is a long–term problem. Asquith PR, et al. **N Z Med J** 1999 Aug 27;112(1094):313–6
Effect of dietary conjugated linoleic acid on phorbol ester–induced PGE2 production and hyperplasia in mouse epidermis. Kavanaugh CJ, et al. **Nutr Cancer** 1999; 33(2):132–8
Staging of malignant cutaneous wounds: a pilot study. Haisfield–Wolfe ME, et al. **Oncol Nurs Forum** 1999 Jul; 26(6):1055–64
Pilomatrixoma of the eyelids and eyebrows in children and adolescents. Yap EY, et al. **Ophthal Plast Reconstr Surg** 1999 May;15(3):185–9
Cutaneous malignant melanoma metastatic to the eyelid. Hartstein ME, et al. **Ophthalmic Surg Lasers** 1998 Dec; 29(12):993–5
Management of the neck in nonmelanocytic cutaneous carcinomas. Brown RO, et al. **Otolaryngol Clin North Am** 1998 Oct;31(5):841–56 (32 ref.)
Auricular carcinoma with temporal bone invasion: outcome analysis. Gal TJ, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):62–5
Role of interleukin–8 in tumor growth and metastasis of human melanoma. Bar–Eli M. **Pathobiology** 1999;67(1):12–8 (66 ref.)
Spiradenocylindromas of the skin: tumors with morphological features of spiradenoma and cylindroma in the same lesion: report of 12 cases. Michal M, et al. **Pathol Int** 1999 May;49(5):419–25
Small cell type malignant melanoma which developed in a 16–year–old female with a congenital dermal nevus and metastasized 12 years after excision. Miura K, et al. **Pathol Int** 1999 Mar;49(3):247–52
Apoptosis in abortive hair follicular components in the organoid nevus [letter] Nakamura T. **Pathol Int** 1999 May; 49(5):477–8
Sarcomatous dermatofibrosarcoma protuberans metastasized to the lung: preservation of CD34 expression in tumor cells. Ohtani N, et al. **Pathol Int** 1998 Dec;48(12):989–93
Cutaneous granulocytic sarcoma mimicking immunoblastic large cell lymphoma. Sadahira Y, et al. **Pathol Int** 1999 Apr;49(4):347–53
A case of natural killer/T cell lymphoma of the subcutis resembling subcutaneous panniculitis–like T cell lymphoma. Yamashita Y, et al. **Pathol Int** 1999 Mar; 49(3):241–6
Collision tumor of cutaneous malignant melanoma and basal cell carcinoma. Hirakawa E, et al. **Pathol Res Pract** 1998; 194(9):649–53
Blue rubber bleb nevus (Bean syndrome): evolution of four cases and clinical response to pharmacologic agents. Boente MD, et al. **Pediatr Dermatol** 1999 May–Jun;16(3):222–7
Lymphatic mapping in the management of melanoma in children. Brady MS, et al. **Pediatr Dermatol** 1998 Nov–Dec; 15(6):421–5
A flesh–colored papule on the neck of a child [clinical conference] Chen SH, et al. **Pediatr Dermatol** 1999 Jan–Feb;16(1):65–7
Linear acantholytic dyskeratotic epidermal nevus of the sole [letter] Micali G, et al. **Pediatr Dermatol** 1999 Mar–Apr; 16(2):166–8
An asymptomatic abdominal nodule in a 5–year–old boy [clinical conference] Patrizi A, et al. **Pediatr Dermatol** 1999 Mar–Apr;16(2):154–6
Multiple granular cell tumors and growth hormone deficiency in a child. Seiter S, et al. **Pediatr Dermatol** 1999 Jul–Aug;16(4):308–10
The spectrum of epidermal nevi: a case of verrucous epidermal nevus contiguous with nevus sebaceus. Waltz KM, et al. **Pediatr Dermatol** 1999 May–Jun;16(3):211–3
Histopathological features of acral melanocytic nevi in children: study of 21 cases. Evans MJ, et al. **Pediatr Dev Pathol** 1998 Sep–Oct;1(5):388–92
Melanoma in childhood: review and perspectives. Spatz A, et al. **Pediatr Dev Pathol** 1998 Nov–Dec;1(6):463–74 (122 ref.)
Is this mole all right? Jackson A. **Practitioner** 1998 Apr; 242(1585):254–6, 260–2, 264 passim (7 ref.)
p21(WAF1/Cip1) functions as a suppressor of malignant skin tumor formation and a determinant of keratinocyte

stem-cell potential. Topley GI, et al.
Proc Natl Acad Sci U S A 1999 Aug 3;96(16):9089-94
Morphological and biological characterization of two mesenchymal murine tumors and the modulation of their growth parameters by n-3 and n-6 polyunsaturated fatty acids. López CB, et al.
Prostaglandins Leukot Essent Fatty Acids 1998 Nov; 59(5):341-7
Increase in the fraction of necrotic, not apoptotic, cells in SiHa xenograft tumours shortly after irradiation. Olive PL, et al. **Radiother Oncol** 1999 Jan;50(1):113-9
A man with a prosthetic ear and multiple pulmonary nodules. Bradshaw D. **Respiration** 1999;66(2):170-2
Interaction between B.7 and CD28 costimulatory molecules is essential for the activation of effector function mediating spontaneous tumour regression. Rao KL, et al.
Scand J Immunol 1999 Jun;49(6):633-40
An unusual case of deep penetrating dermatofibroma of the lower leg. Case report. Rainer C, et al.
Scand J Plast Reconstr Surg Hand Surg 1998 Dec; 32(4):429-32
Childhood melanoma. Barnhill RL. **Semin Diagn Pathol** 1998 Aug;15(3):189-94 (8 ref.)
Epithelioid blue nevus and psammomatous melanotic schwannoma: the unusual pigmented skin tumors of the Carney complex. Carney JA, et al. **Semin Diagn Pathol** 1998 Aug;15(3):216-24 (15 ref.)
Malicious masquerade: myxoid melanoma. Hitchcock MG, et al. **Semin Diagn Pathol** 1998 Aug;15(3):195-202 (56 ref.)
Ancient melanocytic nevus. Kerl H, et al.
Semin Diagn Pathol 1998 Aug;15(3):210-5 (15 ref.)
"Triggered trap": nevoid malignant melanoma. McNutt NS. **Semin Diagn Pathol** 1998 Aug;15(3):203-9
Pagetoid melanocytosis: tease or tocsin? Stern JB, et al.
Semin Diagn Pathol 1998 Aug;15(3):225-9 (16 ref.)
Tumors of the skin composed of large cells with abundant eosinophilic cytoplasm. Suster S. **Semin Diagn Pathol** 1999 May;16(2):162-77 (78 ref.)
Dying dogma: the pathological diagnosis of epidermotropic metastatic malignant melanoma. White WL, et al.
Semin Diagn Pathol 1998 Aug;15(3):176-88 (72 ref.)
Basal cell carcinoma with lung metastasis diagnosed by fine-needle aspiration biopsy. Patel MS, et al.
South Med J 1999 Mar;92(3):321-4
Lymphatic mapping and sentinel lymph node biopsy in the staging of melanoma. Edwards MJ, et al. **Surg Oncol** 1998 Jul-Aug;7(1-2):51-7 (26 ref.)
Lymphoscintigraphy in malignant melanoma and breast cancer. Berman CG, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):401-12, vii (22 ref.)
Cost analysis of sentinel lymph node biopsy as an alternative to elective lymph node dissection in patients with malignant melanoma. Brobeil A, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):435-45, viii
Pathologic examination of the sentinel lymph node in melanoma. Goscin C, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):427-34, viii
Radioguided surgery for melanoma. Haddad FF, et al.
Surg Oncol Clin N Am 1999 Jul;8(3):413-26, vii (29 ref.)
Lymphatic mapping and sentinel lymph node biopsy for nonmelanoma skin cancers. Pu LL, et al.
Surg Oncol Clin N Am 1999 Jul;8(3):527-39, x (25 ref.)
National protocols for lymphatic mapping. Reintgen DS, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):511-4, ix
A sweat-gland tumor metastasizing to the axilla: report of a case. Yamazaki K, et al. **Surg Today** 1998;28(10):1081-3
A long-term analysis of 620 patients with malignant melanoma at a major referral center. Averbook BJ, et al. **Surgery** 1998 Oct;124(4):746-55; discussion 755-6
Prothrombin and its derivatives stimulate motility of melanoma cells. Zhou H, et al. **Thromb Haemost** 1998 Sep; 80(3):407-12
Morphological characterization of spindle cell tumors induced in transgenic Tg.AC mouse skin. Asano S, et al. **Toxicol Pathol** 1998 Jul-Aug;26(4):512-9
TGF alpha is dispensable for skin tumorigenesis in Tg.AC mice. Humble MC, et al. **Toxicol Pathol** 1998 Jul-Aug; 26(4):562-9
Merkel cell differentiation in trichoblastoma. Collina G, et al. **Virchows Arch** 1998 Oct;433(4):291-6
Sun-exposure- and aging-dependent p53 protein accumulation results in growth advantage for tumour cells in carcinogenesis of nonmelanocytic skin cancer. Liang SB, et al. **Virchows Arch** 1999 Mar;434(3):193-9
Myoepitheliomas of the skin and soft tissues. Report of 12 cases. Michal M, et al. **Virchows Arch** 1999 May; 434(5):393-400
Skin lesions with white rings. Usatine RP. **West J Med** 1999 Jul;171(1):8-9
[Clinicopathological study on 15 cases of pilomatrix carcinoma] Li X, et al.
Chung Hua Ping Li Hsueh Tsa Chih 1997 Apr;26(2):100-2 (Eng. Abstr.) **(Chi)**
[Sentinel node diagnostics in malignant melanoma] Eigtved AI, et al. **Ugeskr Laeger** 1999 Apr 19;161(16):2373-5 (Eng. Abstr.) **(Dan)**
[Sentinel node biopsy in cutaneous malignant melanoma of the lower extremities] Kjaer BK, et al. **Ugeskr Laeger** 1999 Apr 19;161(16):2358-61 (Eng. Abstr.) **(Dan)**
[Porokeratosis linearis] Diederen PV, et al.
Ned Tijdschr Geneeskd 1999 Jun 19;143(25):1338-9 **(Dut)**
[Detection of metastatic melanoma in sentinel lymph nodes by means of polymerase chain reaction (letter)] Nieweg OE, et al. **Ned Tijdschr Geneeskd** 1998 Jun 6;142(23):1349 **(Dut)**
[Plantar verrucous carcinoma. A case report and literature review] Casanova D, et al. **Ann Chir Plast Esthet** 1997 Feb;42(1):56-60 (Eng. Abstr.) **(Fre)**
[Epithelial skin tumors. Anatomo-pathological reminders] Verola O. **Ann Chir Plast Esthet** 1998 Aug;43(4):301-10 (2 ref.) (Eng. Abstr.) **(Fre)**
[Pilotropic T-cell lymphoma without mucinosis: 5 new cases] Azar J, et al. **Ann Dermatol Venereol** 1999 Mar;126(3):243-6 (Eng. Abstr.) **(Fre)**
[Multiple cutaneous cylindromas associated with parotid and submandibular gland cylindromas] Baican A, et al.
Ann Dermatol Venereol 1998 Dec;125(12):909-11 (Eng. Abstr.) **(Fre)**
[Multinucleate cell angiohistiocytoma] Belgodere X, et al. **Ann Dermatol Venereol** 1999 May;126(5):431-2 (Eng. Abstr.) **(Fre)**
[Case for diagnosis. Multiple trichoepitheliomas] Caneppele S, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):923-5 **(Fre)**
[Sinusoidal hemangioma] Enjolras O, et al.
Ann Dermatol Venereol 1998 Sep;125(9):575-80 (Eng. Abstr.) **(Fre)**
[What will the future bring in cutaneous histopathology? (editorial)] Grosshans E. **Ann Dermatol Venereol** 1999 May; 126(5):396-8 **(Fre)**
[Protein S 100 is not a chemical reactant (letter)] Grosshans E, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):57 **(Fre)**
[Diagnostic case. Trichilemmal cyst] Haege-Buchet V, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):59-61 **(Fre)**
[Diagnostic case. Osteonevus of Nanta] Kourda M, et al. **Ann Dermatol Venereol** 1999 Mar;126(3):259-60 **(Fre)**
[Granulomatous mycosis fungoides histologically simulating cutaneous sarcoidosis] Maillard H, et al.
Ann Dermatol Venereol 1998 Dec;125(12):912-5 (Eng. Abstr.) **(Fre)**
[Diagnostic case. Angiotrophic lymphoma with T-cell immunophenotype (letter)] Marquart-Elbaz C, et al.
Ann Dermatol Venereol 1998 May;125(5):345-6 **(Fre)**
[Diagnostic case. Anaplastic cutaneous lymphoma] Toutous-Trellu L, et al. **Ann Dermatol Venereol** 1999 Jan; 126(1):63-5 **(Fre)**
[Microcystic sclerosing adnexal carcinoma: 2 case reports. Diagnostic and therapeutic difficulties] Salvan D, et al.
Ann Otolaryngol Chir Cervicofac 1998 Feb;115(1):19-22 (Eng. Abstr.) **(Fre)**
[Granular cell tumors of the skin of nonneural origin: report of 8 cases] Lacroix-Triki M, et al. **Ann Pathol** 1999 Apr; 19(2):94-8 (Eng. Abstr.) **(Fre)**
[Linear and whorled nevoid hypermelanosis: report of two cases] Claudel P, et al. **Arch Pediatr** 1998 Oct; 5(10):1098-102 (22 ref.) (Eng. Abstr.) **(Fre)**
[Vesicular metastasis of malignant melanoma revealed by recurrent hepatic colic crises] Paolini O, et al.
Gastroenterol Clin Biol 1999 Mar;23(3):412-4 **(Fre)**
[Malignant melanoma: pre- and peroperative isotopic marking of the "sentinel" lymph node] Rodier JF, et al. **J Chir (Paris)** 1998 Dec;135(6):287 **(Fre)**
[Small intestine metastasis of a melanoma (letter)] Grasland A, et al. **Presse Med** 1998 May 16;27(18):858 **(Fre)**
[Long-term survival of a patient with melanoma with late recurrence of pulmonary metastasis treated by repeat surgery] Ferri RM, et al. **Rev Mal Respir** 1999 Apr; 16(2):204-5 (Eng. Abstr.) **(Fre)**
[Benign tumors of the skin and its appendages] Grosshans E. **Rev Prat** 1999 Apr 15;49(8):848-51 (8 ref.) (Eng. Abstr.) **(Fre)**
[Malignant melanoma. Epidemiology, screening, diagnosis, evolution, prognostic clinical and histopathologic criteria] Roudier-Pujol C, et al. **Rev Prat** 1998 Oct 1;48(15):1729-35 (3 ref.) **(Fre)**
[Hodgkin's disease associated with a Kaposi's sarcoma and tuberculosis of hematopoietic organs] Laatiri MA, et al. **Tunis Med** 1998 Dec;76(12):481-3 **(Fre)**
[Syringocystadenoma papilliferum and trichoblastoma within a sebaceous nevus] Karnbach C, et al. **Hautarzt** 1998 Aug; 49(8):654-6 (Eng. Abstr.) **(Ger)**
[Problems, responsibility and goals in dermatopathology] Kerl H, et al. **Hautarzt** 1998 Jul;49(7):533-5 **(Ger)**
[Kaposiform HHV-8 negative acroangiodermatitis in chronic venous insufficiency] Krengel S, et al. **Hautarzt** 1999 Mar; 50(3):208-13 (Eng. Abstr.) **(Ger)**
[Trichoadenoma of Nikolowski--review of four decades and seven new cases] Reibold R, et al. **Hautarzt** 1998 Dec; 49(12):925-8 (20 ref.) (Eng. Abstr.) **(Ger)**
[Proliferating trichilemmal cyst with focal segments of metastatic squamous epithelial carcinoma] Riemann H, et al. **Hautarzt** 1999 Jan;50(1):42-6 (Eng. Abstr.) **(Ger)**
[The skin biopsy] Weyers W, et al. **Hautarzt** 1999 Feb; 50(2):145-58 (22 ref.) **(Ger)**
[Bilateral basal cell adenoma of the parotid gland and miltiple cylindromas of the skin--is there a syndromal coincidence?] Issing PR. **Laryngorhinootologie** 1999 Mar;78(3):155-9 (Eng. Abstr.) **(Ger)**
[Gigantic proliferating trichilemmal cyst of the scalp with central carcinoma and lymph node metastasis] Kruse-Lösler B, et al. **Mund Kiefer Gesichtschir** 1998 Jul; 2(4):216-9 (Eng. Abstr.) **(Ger)**
[Histopathological and clinical aspects of benign cutaneous fibrous histiocytoma: increased rate of recurrent histiocytomas with a proliferative tendency] Ledergerber JD, et al. **Pathologe** 1999 Mar;20(2):110-4 (Eng. Abstr.) **(Ger)**
[Cutaneous neural neoplasms--an update] Mentzel T.
Pathologe 1999 Mar;20(2):98-109 (65 ref.) (Eng. Abstr.) **(Ger)**
[Refractory inguinogenital dermatosis] Helbling F, et al.
Schweiz Med Wochenschr 1999 Jul 27;129(29-30):1081 **(Ger)**
[Cutaneous and subcutaneous soft tissue tumors] Meister P.
Verh Dtsch Ges Pathol 1998;82:112-20 (36 ref.) (Eng. Abstr.) **(Ger)**
[Cutaneous neural neoplasms--an update] Mentzel T.
Verh Dtsch Ges Pathol 1998;82:309-16 (56 ref.) (Eng. Abstr.) **(Ger)**
[Fibrohistiocytic skin lesions] Zelger B.
Verh Dtsch Ges Pathol 1998;82:290-300 (Eng. Abstr.) **(Ger)**
[Cellular "neurothekeoma": an epithelioid variant of dermatofibroma?] Zelger BG, et al.
Verh Dtsch Ges Pathol 1998;82:239-45 (Eng. Abstr.) **(Ger)**
[The development of malignant tumors in nevus sebaceus--therapeutic consequences] Beer GM, et al.
Wien Klin Wochenschr 1999 Mar 26;111(6):236-9 (Eng. Abstr.) **(Ger)**
[Pulmonary metastasis from an eccrine carcinoma: thoracic perfusion with the aorto-caval stop-flow technique. Description of a clinical case] Mambrini A, et al.
Minerva Chir 1998 May;53(5):441-5 (Eng. Abstr.) **(Ita)**
[Histological concepts on clinico-pathological features of Kaposi sarcoma (editorial)] Massarelli G, et al.
Pathologica 1999 Feb;91(1):1-5 **(Ita)**
[Role of high-definition and high frequency ultrasonography in determining tumor thickness in cutaneous malignant melanoma] Solivetti FM, et al. **Radiol Med (Torino)** 1998 Dec;96(6):558-61 (Eng. Abstr.) **(Ita)**
[A case of genital Paget's disease with severe dermal invasion and early dissemination] Iwamura H, et al.
Hinyokika Kiyo 1999 Apr;45(4):281-4 (Eng. Abstr.) **(Jpn)**
[Relapsing pneumothorax secondary to thin-walled cavitary pulmonary metastasis from angiosarcoma of the scalp] Kobayashi T, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec;36(12):1058-61 (Eng. Abstr.) **(Jpn)**
[Calcifying epithelioma observed in the anterior auricular region] Onoda K, et al.
Nippon Jibiinkoka Gakkai Kaiho 1999 Jan;102(1):19-26 (Eng. Abstr.) **(Jpn)**
[Neural endoscopy in hydrocephalus treatment in a case of tuberous sclerosis] Pyrich M, et al.
Neurol Neurochir Pol 1999 Jan-Feb;33(1):227-34 (Eng. Abstr.) **(Pol)**
[A skin lymphoepithelial tumor (skin lymphadenoma)] Baptista AP, et al. **Acta Med Port** 1998 Jun;11(6):555-8 (21 ref.) (Eng. Abstr.) **(Por)**
[Desmoplastic malignant melanoma] Filippova NA, et al.
Arkh Patol 1999 Mar-Apr;61(2):31-4 (Eng. Abstr.) **(Rus)**
[Stewart-Treves syndrome--lymphangiosarcoma in sever lymphostasis of arm after mastectomy] Denisov LE, et al.
Khirurgiia (Mosk) 1999;(5):59-60 (Eng. Abstr.) **(Rus)**
[Microstructure of subcutaneous lesions in juvenile hyaline fibromatosis] Adamicová K, et al. **Cesk Patol** 1998 Jul; 34(3):99-104 (Eng. Abstr.) **(Slo)**
[Identification of sentinel lymph node with patent blue V in patients with cutaneous melanoma] Gallegos-Hernández JF, et al. **Gac Med Mex** 1998 Jul-Aug;134(4):419-22 (Eng. Abstr.) **(Spa)**
[Merkel cell carcinoma. Report of 4 cases] Peréz JA, et al.
Rev Med Chil 1998 May;126(5):553-8 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

B-cell epidermotropism in lymphomas [letter; comment] Kerl H. **Am J Dermatopathol** 1999 Feb;21(1):110. Comment on: Am J Dermatopathol 1998 Aug;20(4):434.
Integrin alpha(v)beta3 promotes M21 melanoma growth in human skin by regulating tumor cell survival. Petitclerc E, et al. **Cancer Res** 1999 Jun 1;59(11):2724-30
Electrical impedance of nodular basal cell carcinoma: a pilot study. Emtestam L, et al. **Dermatology** 1998;197(4):313-6
A possible role of multidrug resistance-associated protein (MRP) in basic fibroblast growth factor secretion by AIDS-associated Kaposi's sarcoma cells: a survival molecule? Gupta S, et al. **J Clin Immunol** 1998 Jul; 18(4):256-63
Leiomyosarcomatosis involving the duodenum and the subcutaneous tissue. Yalçin S, et al.
J Exp Clin Cancer Res 1998 Dec;17(4):405-7
Evidence for an ontogenetic basis for circadian coordination of cancer cell proliferation. Hrushesky WJ, et al.
J Natl Cancer Inst 1998 Oct 7;90(19):1480-4
Linkage between melanocytic tumor development and early burst of Ret protein expression for tolerance induction in metallothionein-I/ret transgenic mouse lines. Kato M, et al. **Oncogene** 1999 Jan 21;18(3):837-42
The physiology of pigmented nevi. Kincannon J, et al.
Pediatrics 1999 Oct;104(4 Pt 2):1042-5
[Physiopathology of nevi and nevocytes] Grob JJ, et al.
Ann Dermatol Venereol 1998 Nov;125(11):860-7 (79 ref.)

(Fre)
[Angiomas and major tissue dysplasias. Pathogenic origins and management] Hamel-Teillac D. **Arch Pediatr** 1999;6 Suppl 2:299s-302s (22 ref.) (Fre)

PREVENTION & CONTROL

"Block the sun, not the fun": evaluation of a skin cancer prevention program for child care centers. Crane LA, et al. **Am J Prev Med** 1999 Jul;17(1):31-7

Skin cancer screening by Australian family physicians: variation with physician beliefs and geographic locality. Sladden MJ, et al. **Am J Prev Med** 1999 Aug;17(2):142-6

Ultraviolet radiation exposure in children: a review of measurement strategies. Creech LL, et al. **Ann Behav Med** 1998 Fall;19(4):399-407 (83 ref.)

Tumor-preventive effects of the soluble p53 antigen on chemically-induced skin cancer in mice. Ben-Hur H, et al. **Anticancer Res** 1998 Nov-Dec;18(6A):4237-41

Inhibitory potential of Chlorella vulgaris (E-25) on mouse skin papillomagenesis and xenobiotic detoxication system. Singh A, et al. **Anticancer Res** 1999 May-Jun; 19(3A):1887-91

Melanoma prevention: evaluation of a health education campaign for primary schools. Bastuji-Garin S, et al. **Arch Dermatol** 1999 Aug;135(8):936-40

Reports by patients and dermatologists of skin cancer preventive services provided in dermatology offices. Polster AM, et al. **Arch Dermatol** 1998 Sep;134(9):1095-8

Is the port site really at risk? Biology, mechanisms and prevention: a critical view. Allardyce RA. **Aust N Z J Surg** 1999 Jul;69(7):479-85 (83 ref.)

Two decades of the public health approach to skin cancer control in Australia: why, how and where are we now? Marks R. **Australas J Dermatol** 1999 Feb;40(1):1-5 (28 ref.)

Inhibitory effect of cycloartenol ferulate, a component of rice bran, on tumor promotion in two-stage carcinogenesis in mouse skin. Yasukawa K, et al. **Biol Pharm Bull** 1998 Oct;21(10):1072-6

Chemopreventive effects of black tea polyphenols in mouse skin model of carcinogenesis. Javed S, et al. **Biomed Environ Sci** 1998 Dec;11(4):307-13

Antitumor activity of diallyl sulfide in two-stage mouse skin model of carcinogenesis. Singh A, et al. **Biomed Environ Sci** 1998 Sep;11(3):258-63

Moles and melanomas--who's at risk, who knows, and who cares? A strategy to inform those at high risk. Jackson A, et al. **Br J Gen Pract** 1999 Mar;49(440):199-203

Phase I chemoprevention study of piroxicam and alpha-difluoromethylornithine. Carbone PP, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):907-12

Inhibition of TPA-induced tumor promotion in CD-1 mouse epidermis by a polyphenolic fraction from grape seeds. Bomser JA, et al. **Cancer Lett** 1999 Jan 29;135(2):151-7

Potent suppressive effect of a Japanese edible seaweed, Enteromorpha prolifera (Sujiao-nori) on initiation and promotion phases of chemically induced mouse skin tumorigenesis. Hiqashi-Okaj K, et al. **Cancer Lett** 1999 Jun 1;140(1-2):21-5

A diacetylenic spiroketal enol ether epoxide, AL-1, from Artemisia lactiflora inhibits 12-O-tetradecanoylphorbol-13-acetate-induced tumor promotion possibly by suppression of oxidative stress. Nakamura Y, et al. **Cancer Lett** 1999 Jun 1;140(1-2):37-45

Antitumour promoting activity of indole-3-carbinol in mouse skin carcinogenesis. Srivastava B, et al. **Cancer Lett** 1998 Dec 11;134(1):91-5

Evaluation of the "Sunny Days, Healthy Ways" sun safety CD-ROM program for children in grades 4 and 5. Buller DB, et al. **Cancer Prev Control** 1999 Jun;3(3):188-95

Sun safety knowledge and behaviour: new data on which to build [editorial] From L. **Cancer Prev Control** 1998 Jun; 2(3):103-4

Difluoromethylornithine chemoprevention of epidermal carcinogenesis in K14-HPV16 transgenic mice. Arbeit JM, et al. **Cancer Res** 1999 Aug 1;59(15):3610-20

A flavonoid antioxidant, silymarin, affords exceptionally high protection against tumor promotion in the SENCAR mouse skin tumorigenesis model. Lahiri-Chatterjee M, et al. **Cancer Res** 1999 Feb 1;59(3):622-32

Chemopreventive effect of 4'-demethyl epipodophyllotoxin on DMBA/TPA-induced mouse skin carcinogenesis. Dhawan D, et al. **Carcinogenesis** 1999 Jun;20(6):997-1003

Dietary glycine inhibits the growth of B16 melanoma tumors in mice. Rose ML, et al. **Carcinogenesis** 1999 May; 20(5):793-8

Anti-tumor-promoting activity of a polyphenolic fraction isolated from grape seeds in the mouse skin two-stage initiation-promotion protocol and identification of procyanidin B5-3'-gallate as the most effective antioxidant constituent. Zhao J, et al. **Carcinogenesis** 1999 Sep; 20(9):1737-45

Do sunscreens prevent skin cancer? **Drug Ther Bull** 1998 Jul;36(7):49-51 (18 ref.)

Sunscreens and the risk of cutaneous malignant melanoma [editorial] La Vecchia C. **Eur J Cancer Prev** 1999 Aug; 8(4):267-9

Photoprotection and prevention of melanoma. Marks R. **Eur J Dermatol** 1999 Jul-Aug;9(5):406-12

Modulatory potential of clocimum oil on mouse skin papillomagenesis and the xenobiotic detoxication system. Singh A, et al. **Food Chem Toxicol** 1999 Jun;37(6):663-70

Skin cancer prevention for children: a critical review. Buller DB, et al. **Health Educ Behav** 1999 Jun;26(3):317-43 (52 ref.)

Factors associated with skin cancer prevention practices in a multiethnic population. Glanz K, et al. **Health Educ Behav** 1999 Jun;26(3):344-59

Skin cancer prevention: the problem, responses, and lessons learned. Graffunder CM, et al. **Health Educ Behav** 1999 Jun;26(3):308-16

Promoting sun protection in children: rationale and challenges. Hill D, et al. **Health Educ Behav** 1999 Jun; 26(3):409-17

Sun avoidance practices among non-Hispanic white Californians. Hoegh HJ, et al. **Health Educ Behav** 1999 Jun;26(3):360-8

Evaluation of a three-year school-based intervention to increase adolescent sun protection. Lowe JB, et al. **Health Educ Behav** 1999 Jun;26(3):396-408

The Falmouth Safe Skin Project: evaluation of a community program to promote sun protection in youth. Miller DR, et al. **Health Educ Behav** 1999 Jun;26(3):369-84

Communicating about youth's sun exposure risk to soccer coaches and parents: a pilot study in Georgia. Parrott R, et al. **Health Educ Behav** 1999 Jun;26(3):385-95

Sunscreens: sense and sensibility. Roelandts R. **Int J Dermatol** 1998 Oct;37(10):729-30

Effect of 3 growth control substances on foreign body sarcomagenesis: IFN, IUdR, MGBG. Mhic Iomhair M, et al. **Ir J Med Sci** 1999 Jan-Mar;168(1):42-4

The power of prevention [editorial] Howell JB. **J Am Acad Dermatol** 1999 Apr;40(4):623-5

The health impact of solar radiation and prevention strategies: Report of the Environment Council, American Academy of Dermatology. Lim HW, et al. **J Am Acad Dermatol** 1999 Jul;41(1):81-99

Readability of skin cancer prevention brochures targeting parents of young children. Slaten D, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):997-9

Sun and the skin: evaluation of a sun awareness program for elementary school students. Gooderham MJ, et al. **J Cutan Med Surg** 1999 Jul;3(5):230-5

Incidence peaks in melanoma and biopsy confirmed benign skin lesions--an effect of media campaigns? [letter] Nilsson E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):63-4

Inhibition of solar simulator-induced p53 mutations and protection against skin cancer development in mice by sunscreens. Ananthaswamy HN, et al. **J Invest Dermatol** 1999 May;112(5):763-8

Inhibition of UV-induced p53 mutations by sunscreens: implications for skin cancer prevention. Ananthaswamy HN, et al. **J Investig Dermatol Symp Proc** 1998 Aug; 3(1):52-6 (71 ref.)

Sunscreen use, wearing clothes, and number of nevi in 6- to 7-year-old European children. European Organization for Research and Treatment of Cancer Melanoma Cooperative Group [see comments] Autier P, et al. **J Natl Cancer Inst** 1998 Dec 16;90(24):1873-80. Comment in: J Natl Cancer Inst 1998 Dec 16;90(24):1873-80. Comment in: J Natl Cancer Inst 1999 Jun 16;91(12):1078-80. Comment in: J Natl Cancer Inst 1999 Jul 7;91(13):1164-6.

Can skin cancers be minimized or prevented in organ transplant patients? [news] McCann J. **J Natl Cancer Inst** 1999 Jun 2;91(11):911-3

Immunizing patients with metastatic melanoma using recombinant adenoviruses encoding MART-1 or gp100 melanoma antigens. Rosenberg SA, et al. **J Natl Cancer Inst** 1998 Dec 16;90(24):1894-900

Sun safety: avoiding noonday sun, wearing protective clothing, and the use of sunscreen [editorial; comment] [see comments] Turner M. **J Natl Cancer Inst** 1998 Dec 16; 90(24):1854-5. Comment on: J Natl Cancer Inst 1998 Dec 16;90(24):1873-80. Comment in: J Natl Cancer Inst 1999 Jul 7;91(13):1164-6.

Glucocorticoid mediation of dietary energy restriction inhibition of mouse skin carcinogenesis. Birt DF, et al. **J Nutr** 1999 Feb;129(2S Suppl):571S-574S (15 ref.)

Clinical implications of the new biology in the development of melanoma vaccines. Hemmila MR, et al. **J Surg Oncol** 1999 Apr;70(4):263-74 (98 ref.)

JAMA patient page: skin cancer. **JAMA** 1999 Feb 17; 281(7):676

Sunscreen, in-office dispensing, surgery debated at annual dermatology meeting [news] Lamberg L. **JAMA** 1999 Apr 21;281(15):1363-4

Daily sunscreen application and betacarotene supplementation in prevention of basal-cell and squamous-cell carcinomas of the skin: a randomised controlled trial [see comments] Green A, et al. **Lancet** 1999 Aug 28;354(9180):723-9. Comment in: Lancet 1999 Aug 28;354(9180):699-700.

Efficacy of sunscreens in protection against skin cancer [comment] Hill D. **Lancet** 1999 Aug 28;354(9180):699-700 ; Comment on: Lancet 1999 Aug 28;354(9180):723-9.

Proteinases reduce metastatic dissemination and increase survival time in C57Bl6 mice with the Lewis lung carcinoma. Wald M, et al. **Life Sci** 1998;63(17):PL237-43

Skin cancer detection and prevention: a community program promoting sun safe behaviors. Rusonis ES, et al. **Md Med J** 1999 Jul-Aug;48(4):169-72

Faking it: should cancer control agencies promote "fake" tanning lotions? Chapman S. **Med J Aust** 1999 Jun 21; 170(12):603-4

A national approach to skin cancer prevention: the National SunSmart Schools Program [editorial] Dobbinson S, et al. **Med J Aust** 1998 Nov 16;169(10):513-4

Photoprotective effects of some quinoxaline 1,4-dioxides in hairless mice. Gali-Muhtasib HU, et al. **Med Oncol** 1998 Dec;15(4):262-9

The effect of vitamin E acetate on ultraviolet-induced mouse skin carcinogenesis. Berton TR, et al. **Mol Carcinog** 1998 Nov;23(3):175-84

Chemopreventive activity of celecoxib, a specific cyclooxygenase-2 inhibitor, and indomethacin against ultraviolet light-induced skin carcinogenesis. Fischer SM, et al. **Mol Carcinog** 1999 Aug;25(4):231-40

Prevention of DNA photodamage by vitamin E compounds and sunscreens: roles of ultraviolet absorbance and cellular uptake. McVean M, et al. **Mol Carcinog** 1999 Mar; 24(3):169-76

Protection by black tea and green tea against UVB and UVA + B induced skin cancer in hairless mice. Record IR, et al. **Mutat Res** 1998 Nov 9;422(1):191-9

Inhibitory effects of isopropyl-2-(1,3-dithietane-2-ylidene)-2-[N-(4-methylthiazol-2-yl)carbamoyl]acetate (YH439) on benzo[a]pyrene-induced skin carcinogenesis and micronucleated reticulocyte formation in mice. Surh YJ, et al. **Mutat Res** 1999 Jan 25;423(1-2):149-53

Who comes to a skin cancer screening--and why? McMichael AJ, et al. **N C Med J** 1998 Sep-Oct;59(5):294-7

Inhibition of skin carcinomas but not papillomas by sphingosine, N-methylsphingosine, and N-acetylsphingosine. Birt DF, et al. **Nutr Cancer** 1998; 31(2):119-26

Radical interception by carotenoids and effects on UV carcinogenesis. Black HS. **Nutr Cancer** 1998;31(3):212-7

Polyphenols inhibit promotional phase of tumorigenesis: relevance of superoxide radicals. Kaul A, et al. **Nutr Cancer** 1998;32(2):81-5

Effect of dietary conjugated linoleic acid on phorbol ester-induced PGE2 production and hyperplasia in mouse epidermis. Kavanaugh CJ, et al. **Nutr Cancer** 1999; 33(2):132-8

Effects of oral administration of tea, decaffeinated tea, and caffeine on the formation and growth of tumors in high-risk SKH-1 mice previously treated with ultraviolet B light. Lou YR, et al. **Nutr Cancer** 1999;33(2):146-53

Protection by tea against UV-A + B-induced skin cancers in hairless mice. Record IR, et al. **Nutr Cancer** 1998; 32(2):71-5

p53 protects against skin cancer induction by UV-B radiation. Jiang W, et al. **Oncogene** 1999 Jul 22; 18(29):4247-53

Plant tannins as inhibitors of hydroperoxide production and tumor promotion induced by ultraviolet B radiation in mouse skin in vivo. Gali-Muhtasib HU, et al. **Oncol Rep** 1999 Jul-Aug;6(4):847-53

Sunscreens do protect against melanoma, says skin cancer specialist. **Oncology (Huntingt)** 1998 Sep;12(9):1328

Chemopreventive action by an extract from Brassica compestris (var Sarason) on 7,12-dimethylbenz(a)anthracene induced skin papillomagenesis in mice. Qiblawi S, et al. **Phytother Res** 1999 May;13(3):261-3

The dangers of atypical mole (dysplastic nevus) syndrome. Teaching at-risk patients to protect themselves from melanoma. Marghoob AA. **Postgrad Med** 1999 Jun; 105(7):147-8, 151-2, 154 passim

Direct measurement of sun protection in primary schools. Milne E, et al. **Prev Med** 1999 Jul;29(1):45-52

Fear, threat, and perceptions of efficacy from frightening skin cancer messages. Stephenson MT, et al. **Public Health Rev** 1998;26(2):147-74

Inhibitory effect of Hesperidin on tumour initiation and promotion in mouse skin. Berkarda B, et al. **Res Exp Med (Berl)** 1998 Aug;198(2):93-9

Potent suppressive activity of chlorophyll a and b from green tea (Camellia sinensis) against tumor promotion in mouse skin. Higashi-Okai K, et al. **Sangyo Ika Daigaku Zasshi** 1998 Sep 1;20(3):181-8

Melanoma vaccines as a therapeutic option. McGee JM, et al. **South Med J** 1999 Jul;92(7):698-704 (54 ref.)

[Prevention of cutaneous melanoma] van der Rhee HJ, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1356-9 (24 ref.) (Eng. Abstr.) (Dut)

[Could primary prevention or selective screening of melanoma be better targetted in general medicine? A prospective study to validate a self-assessed score] **Ann Dermatol Venereol** 1998 Dec;125(12):958-62 (Fre)

[Information, misinformation and photo-education (editorial)] Dubertret L. **Ann Dermatol Venereol** 1999 Apr; 126(4):303-5 (Fre)

[Sunscreening creams] Leroy D. **Ann Dermatol Venereol** 1999 Apr;126(4):357-63 (60 ref.) (Fre)

[Question of the month. Should sunscreening agents be evaluated like drugs?] Revuz J. **Ann Dermatol Venereol** 1998 May;125(5):370-3 (Fre)

[Photoprotection, cancer protection and solar protection factor] Heenen M. **Rev Med Brux** 1999 Jun;20(3):143-6 (42 ref.) (Eng. Abstr.) (Fre)

[Photoprotection and cutaneous carcinogenesis under the Yin and Yang symbols] Piérard-Franchimont C, et al. **Rev Med Liege** 1999 Jul;54(7):576-9 (Eng. Abstr.) (Fre)

[Prevention of skin cancers] Grob JJ, et al. **Rev Prat** 1999

Apr 15;49(8):838–42 (17 ref.) (Eng. Abstr.) **(Fre)**

[Prevention of malignant melanoma] Blum A, et al. **Hautarzt** 1998 Nov;49(11):826–34 (54 ref.) (Eng. Abstr.) **(Ger)**

[Enjoying the sun well protected] Andrey M. **Ther Umsch** 1999 Jun;56(6):287–9 (Eng. Abstr.) **(Ger)**

[Malignant melanoma (editorial)] Burg G. **Ther Umsch** 1999 Jun;56(6):285 **(Ger)**

[Prevention of ultraviolet ray damage: external and internal sunscreens] Grundmann JU, et al. **Ther Umsch** 1999 Apr; 56(4):225–32 (48 ref.) (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

The role of religious and spiritual beliefs in coping with malignant melanoma: an Israeli sample. Baider L, et al. **Psychooncology** 1999 Jan–Feb;8(1):27–35

The role of religious and spiritual beliefs in coping with malignant melanoma. Holland JC, et al. **Psychooncology** 1999 Jan–Feb;8(1):14–26

Interactive patterns of social support and individual coping strategies in melanoma patients and their correlations with adjustment to illness. Söllner W, et al. **Psychosomatics** 1999 May–Jun;40(3):239–50

Fear, threat, and perceptions of efficacy from frightening skin cancer messages. Stephenson MT, et al. **Public Health Rev** 1998;26(2):147–74

[Melanoma patients: psychosocial stress, coping with illness and social support. A systematic review] Söllner W, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):338–48 (62 ref.) (Eng. Abstr.) **(Ger)**

[Need for psychosocial management of facial and skin tumor patients] Strittmatter G, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):349–57 (Eng. Abstr.) **(Ger)**

[Psychosocial aspects of malignant melanoma] Denz MD. **Ther Umsch** 1999 Jun;56(6):342–7 (Eng. Abstr.) **(Ger)**

RADIOGRAPHY

CT of pilomatrixoma in the cheek. Som PM, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1219–20

The irreplaceable image: Plasmacytoma with cutaneous and pleural involvement. Vianelli N, et al. **Haematologica** 1999 Jun;84(6):559

RADIONUCLIDE IMAGING

Lymphoscintigraphy with sentinel lymph node biopsy in cutaneous Merkel cell carcinoma. Sian KU, et al. **Ann Plast Surg** 1999 Jun;42(6):679–82

Sentinel lymph node biopsy using lymphoscintigraphy [see comments] Hader D, et al. **AORN J** 1998 Oct;68(4):572–6, 579–82, 585–8; quiz 589–94 (22 ref.). Comment in: AORN J 1999 Jan;69(1):21.

Primary staging and follow-up of high risk melanoma patients with whole-body 18F-fluorodeoxyglucose positron emission tomography: results of a prospective study of 100 patients [letter; comment] Mijnhout GS, et al. **Cancer** 1999 Mar 1;85(5):1199–201. Comment on: Cancer 1998 May 1;82(9):1664–71.

Scintigraphic evaluation of malignant melanoma lesions with Tc-99m tetrofosmin. Alonso O, et al. **Clin Nucl Med** 1998 Oct;23(10):683–5

Sentinel node detection and definition may depend on the imaging agent and timing. Boxen I, et al. **Clin Nucl Med** 1999 Jun;24(6):390–4

Direct lymphatic drainage from a melanoma on the back to paravertebral lymph nodes in the thorax. Uren RF, et al. **Clin Nucl Med** 1999 Jun;24(6):388–9

Ga-67 citrate scintigraphy in Merkel cell carcinoma. Wakisaka M, et al. **Clin Nucl Med** 1998 Nov;23(11):787–9

Malignant melanoma imaging with Tl-201. Watanabe N, et al. **Clin Nucl Med** 1998 Nov;23(11):764–6

Cutaneous malignant melanoma: scintigraphic detection of recurrent disease with Tc 99m MIBI [letter] Perrot JL, et al. **Eur J Dermatol** 1998 Mar;8(2):138

Sentinel node localization in cutaneous melanoma: lymphoscintigraphy with colloids and antibody fragments versus blue dye mapping. Bartolomei M, et al. **Eur J Nucl Med** 1998 Nov;25(11):1489–94

Evaluation in mice of some iodinated melanoma imaging agents using cryosectioning and multi-wire proportional counting. Labarre P, et al. **Eur J Nucl Med** 1999 May; 26(5):494–8

Technique of lymphatic mapping and sentinel node biopsy for melanoma. Nieweg OE, et al. **Eur J Surg Oncol** 1998 Dec;24(6):520–4

PET evaluation of therapeutic limb perfusion in Merkel's cell carcinoma. Lampreave JL, et al. **J Nucl Med** 1998 Dec;39(12):2087–90

Failure to detect drainage to the popliteal and epitrochlear lymph nodes on cutaneous lymphoscintigraphy in melanoma patients [letter] Uren RF, et al. **J Nucl Med** 1998 Dec;39(12):2195

L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al. **J Nucl Med** 1999 Feb;40(2):262–7

Detection of recurrent malignant melanoma with 99mTc-MIBI scintigraphy. Alonso O, et al. **Melanoma Res** 1998 Aug;8(4):355–60

Radioimmunoguided surgery in squamous cell carcinoma [letter] Argenzio V, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):749–51

Use of sentinel node lymphoscintigraphy in malignant melanoma. Yudd AP, et al. **Radiographics** 1999 Mar–Apr; 19(2):343–53; discussion 354–6 (21 ref.)

Sentinel node biopsy in patients with cutaneous melanoma. Cafiero F, et al. **Semin Surg Oncol** 1998 Dec;15(4):284–6

[Sentinel lymph node detection by preoperative lymphoscintigraphy and intraoperative gamma probe guidance in malignant melanoma] Vogt H, et al. **Nuklearmedizin** 1999;38(4):95–100 (Eng. Abstr.) **(Ger)**

[Radionuclide study of cutaneous melanomas with 99m Tc-HMPAO: visualization of metastases and recurrence] Collazo de la Maza AA, et al. **Rev Esp Med Nucl** 1999; 18(1):16–20 (Eng. Abstr.) **(Spa)**

[Contribution of nuclear medicine to lymphatic mapping and sentinel node identification in oncology] Valdés Olmos RA, et al. **Rev Esp Med Nucl** 1999;18(2):111–21 (48 ref.) (Eng. Abstr.) **(Spa)**

RADIOTHERAPY

Role of radiation therapy in the management of cutaneous malignant melanoma. Fenig E, et al. **Am J Clin Oncol** 1999 Apr;22(2):184–6

Treatment of benign and atypical nevi with the normal-mode ruby laser and the Q-switched ruby laser: clinical improvement but failure to completely eliminate nevomelanocytes. Duke D, et al. **Arch Dermatol** 1999 Mar; 135(3):290–6

Treatment of multifocal Bowen's disease with a specially designed radioactive skin patch [letter] Chung HS, et al. **Br J Dermatol** 1998 Nov;139(5):938–9

Total skin electron radiation for patients with erythrodermic cutaneous T-cell lymphoma (mycosis fungoides and the Sézary syndrome). Jones GW, et al. **Cancer** 1999 May 1; 85(9):1985–95

Treatment of cutaneous hemangiomas with low-dose soft x-ray. Chang B, et al. **Chin Med J (Engl)** 1997 Nov; 110(11):893–4

Angiosarcoma of the head and neck managed by a combination of multiple biopsies to determine tumor margin and radiation therapy. Report of three cases and review of the literature. Bullen R, et al. **Dermatol Surg** 1998 Oct; 24(10):1105–10 (35 ref.)

Longterm remission of tumor-stage mycosis fungoides following total-skin electron-beam radiotherapy. Stallmeister T, et al. **Eur J Dermatol** 1998 Jun;8(4):240–2

The evolution of the role of radiation therapy in the management of mucocutaneous malignant melanoma. Cooper JS. **Hematol Oncol Clin North Am** 1998 Aug; 12(4):849–62, vii (58 ref.)

Cutaneous angiosarcoma arising on the radiation site of a congenital facial hemangioma [letter] Cabo H, et al. **Int J Dermatol** 1998 Aug;37(8):638–9

Total skin electron beam therapy with or without adjuvant topical nitrogen mustard or nitrogen mustard alone as initial treatment of T2 and T3 mycosis fungoides. Chinn DM, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):951–8

Radiotherapy for unilesional mycosis fungoides. Micaily B, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):361–4

Palliative radiotherapy for recurrent and metastatic malignant melanoma: prognostic factors for tumor response and long-term outcome: a 20-year experience. Seegenschmiedt MH, et al. **Int J Radiat Oncol Biol Phys** 1999 Jun 1; 44(3):607–18

Gadolinium neutron capture therapy (GdNCT) of melanoma cells and solid tumors with the magnetic resonance imaging contrast agent Gadobutrol. Hofmann B, et al. **Invest Radiol** 1999 Feb;34(2):126–33

Results and side effects of dermatologic radiotherapy: a retrospective study of irradiated cutaneous epithelial neoplasms. Caccialanza M, et al. **J Am Acad Dermatol** 1999 Oct;41(4):589–94

Ultraviolet A1 (340–400 nm) phototherapy for cutaneous T-cell lymphoma. Plettenberg H, et al. **J Am Acad Dermatol** 1999 Jul;41(1):47–50

The effect of pretreatment with docetaxel (taxotere; RP 56976) on irradiated subcutaneous MA 16/C murine tumors. Distelmans W, et al. **J Exp Clin Cancer Res** 1999 Jun;18(2):167–72

Radiotherapy of acral lentiginous melanoma of the foot. Harwood AR. **J La State Med Soc** 1999 Jul;151(7):373–6

Pressuring Mrs Thomas to accept treatment: a case history. Hurwitz B. **J Med Ethics** 1998 Oct;24(5):320–1

Efficacy of the ruby laser in the treatment of Ota's nevus previously treated using other therapeutic modalities. Ono I, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2352–7

Palliative radiotherapy of malignant melanoma with reactor fission neutron therapy (RENT): a prospective study. Bremer M, et al. **Radiat Oncol Investig** 1999;7(2):118–24

Breast cancer risk after radiotherapy in infancy: a pooled analysis of two Swedish cohorts of 17,202 infants. Lundell M, et al. **Radiat Res** 1999 May;151(5):626–32

Impact of overall treatment time on local control of slow growing human GL squamous cell carcinoma in nude mice treated by fractionated irradiation. Baumann M, et al. **Radiother Oncol** 1999 Jan;50(1):107–11

Radiotherapy in the management of mycosis fungoides: indications, results, prognosis. Twenty years experience. Kirova YM, et al. **Radiother Oncol** 1999 May;51(2):147–51

Individualized phantom based on CT slices and auxological data (ICTA) for dose estimations following radiotherapy for skin haemangioma in childhood. Ligot L, et al. **Radiother Oncol** 1998 Dec;49(3):279–85

Radiation and/or hyperthermia sensitivity of human melanoma cells grown for several days in media with reduced pH. Zölzer F, et al. **Strahlenther Onkol** 1999 Jul; 175(7):325–32

[Radiotherapy and skin tumors] Calitchi E, et al. **Cancer Radiother** 1998 Sep–Oct;2(5):556–65 (64 ref.) (Eng. Abstr.) **(Fre)**

[Safety considerations to avoid current-induced skin burns in MRI procedures] Knopp MV, et al. **Radiologe** 1998 Sep; 38(9):759–63 (Eng. Abstr.) **(Ger)**

[Comment on the contribution by A. Köhler-Brock et al. Indications and outcome of HDR afterloading therapy in diseases of the skin and mucous membrane with standardized superficial applicators (Leipzig Applicator) (letter)] **Strahlenther Onkol** 1999 Jul;175(7):347 **(Ger)**

[Radiotherapy is effective in the adjuvant treatment of dermatofibroma protuberans] Fietkau R. **Strahlenther Onkol** 1998 Oct;174(10):541–2 **(Ger)**

[The indications for and results of HDR afterloading therapy in diseases of the skin and mucosa with standardized surface applicators (the Leipzig applicator)] Köhler-Brock A, et al. **Strahlenther Onkol** 1999 Apr;175(4):170–4 (Eng. Abstr.) **(Ger)**

[Acute radiation reaction and its healing time after skin cancer radiotherapy in elderly patients] Mazurkiewicz M, et al. **Pol Merkuriusz Lek** 1998 Apr;4(22):199–201 (Eng. Abstr.) **(Pol)**

SECONDARY

Florid melanocytic colonization in a metastasis of breast carcinoma. A case report. Gadkari R, et al. **Acta Cytol** 1997 Jul–Aug;41(4 Suppl):1353–5

Fine needle aspiration cytology of cutaneous and subcutaneous metastatic deposits from epithelial malignancies. An analysis of 146 cases. Gupta RK, et al. **Acta Cytol** 1999 Mar–Apr;43(2):126–30

Zosteriform cutaneous metastases arising from adenocarcinoma of the colon: diagnostic smear cytology from cutaneous lesions [letter] Maeda S, et al. **Acta Derm Venereol** 1999 Jan;79(1):90–1

A case of soft tissue mesenchymal chondrosarcoma metastatic to skin, clinically mimicking keratoacanthoma. Aramburu-González JA, et al. **Am J Dermatopathol** 1999 Aug;21(4):392–4

Scrotal skin ulcer in a patient with a previous tonsillectomy because of natural killer cell lymphoma. Au WY, et al. **Am J Dermatopathol** 1998 Dec;20(6):582–5

Spread, mechanism, and routes of a cutaneous metastasis, or simply put—how did it get from the rectum to the skin of the thigh? [letter; comment] Resnik KS. **Am J Dermatopathol** 1999 Apr;21(2):208–9. Comment on: Am J Dermatopathol 1997 Oct;19(5):528–32. Comment on: Am J Dermatopathol 1998 Jun;20(3):314–5.

A rare entity: cutaneous metastasis from gastric adenocarcinoma [letter; comment] Ozakyol AH, et al. **Am J Gastroenterol** 1999 Apr;94(4):1118–9. Comment on: Am J Gastroenterol 1998 Sep;93(9):1601.

Metastatic melanoma to the skin simulating blue nevus. Busam KJ. **Am J Surg Pathol** 1999 Mar;23(3):276–82

Delayed metastases in skin cancer of the head and neck: the case of the "known primary". Talmi YP, et al. **Ann Plast Surg** 1999 Mar;42(3):289–92

Cardiac angiosarcoma: an unusual presentation with cutaneous metastases. Pomper GJ, et al. **Arch Pathol Lab Med** 1998 Mar;122(3):273–6

Testicular and cutaneous relapse after hematopoietic transplantation in a patient affected with APL [letter; comment] Milone G, et al. **Bone Marrow Transplant** 1999 Apr;23(7):751. Comment on: Bone Marrow Transplant 1997 Oct;20(8):689–90.

Phase II trial of topically applied miltefosine solution in patients with skin-metastasized breast cancer. Terwogt JM, et al. **Br J Cancer** 1999 Mar;79(7–8):1158–61

Cutaneous metastases from carcinoma of the nasopharynx [letter] Jacyk WK, et al. **Br J Dermatol** 1998 Aug; 139(2):344–5

Cutaneous lesions of metastatic visceral malignancy mimicking pyogenic granuloma. Hager CM, et al. **Cancer Invest** 1999;17(6):385–90 (22 ref.)

A phase II/III clinical study of tin ethyl etiopurpurin (Purlytin)-induced photodynamic therapy for the treatment of recurrent cutaneous metastatic breast cancer. Mang TS, et al. **Cancer J Sci Am** 1998 Nov–Dec;4(6):378–84

Zosteriform cutaneous metastases from squamous cell carcinoma of the stump of an amputated arm. Cuq-Viguier L, et al. **Clin Exp Dermatol** 1998 May;23(3):116–8

Cutaneous metastasis from hepatocellular carcinoma resembling pyogenic granuloma. Kubota Y, et al. **Clin Exp Dermatol** 1999 Mar;24(2):78–80

Prostatic adenocarcinoma with cutaneous metastases overlying oestrogen-induced gynaecomastia. Marcoval J, et al. **Clin Exp Dermatol** 1998 May;23(3):119–20

Sister Joseph's nodule in non-Hodgkin's lymphoma. Thomas MC, et al. **Clin Oncol (R Coll Radiol)** 1998;10(5):322–3

Colon carcinoma cutis: a case report. Proffer LH, et al. **Cutis** 1999 May;63(5):301–2

Metastatic inflammatory breast carcinoma [letter] Wagner MS, et al. **Diagn Cytopathol** 1999 Jul;21(1):72–3

Immunohistochemical evaluation of the probability of skin metastasis in gastric cancer. Inadomi T, et al. **Eur J Dermatol** 1999 Apr–May;9(3):214–7

Multiple cutaneous metastases as the first sign of lung cancer in a patient with well-differentiated papillary transitional cell carcinoma of the urinary bladder. Pec J, et al. **Eur J Dermatol** 1998 Dec;8(8):573–4

Distant cutaneous metastasis from carcinoma of the uterus. A case report. Mandrekas DP, et al. **Eur J Gynaecol Oncol** 1999;20(3):212–3

Serosal metastasis presenting as a cutaneous mass [letter] Robinson P, et al. **Eur Radiol** 1999;9(6):1238

Port-site metastasis following laparoscopic lymphadenectomy for adenosquamous carcinoma of the cervix. Lane G, et al. **Gynecol Oncol** 1999 Jul;74(1):130–3

Skin metastases from head and neck squamous cell carcinoma: incidence and impact. Pitman KT, et al. **Head Neck** 1999 Sep;21(6):560–5

Cutaneous metastatic adenocarcinoma of gallbladder origin: report of a case and review of the literature. Bardaji M, et al. **Hepatogastroenterology** 1998 Jul–Aug;45(22):930–1 (5 ref.)

Rapid growth of cutaneous metastases after surgical resection of thrombospondin-secreting small blue round cell tumor of childhood. Crawford SE, et al. **Hum Pathol** 1998 Oct; 29(10):1039–44

The morphological features of locally recurrent melanoma and cutaneous metastases of melanoma. Yu LL, et al. **Hum Pathol** 1999 May;30(5):551–5

Carcinoma erysipeloides as a presenting feature of breast carcinoma. Nambi R, et al. **Int J Dermatol** 1999 May; 38(5):367–8

Cutaneous metastasis presenting as facial lymphedema. Jang KA, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):637–8

Vesicular carcinoma erysipelatodes. Meadows KP, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):805–7

Cutaneous metastases from a chondroblastoma initially presenting as unilateral palmar hyperhidrosis. Seline PC, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):325–7

Differential expression of the cancer associated antigens T (Thomsen-Friedenreich) and Tn to the skin in primary and metastatic carcinomas. Kanitakis J, et al. **J Clin Pathol** 1998 Aug;51(8):588–92

Cathepsin D expression in skin metastasis of breast cancer. Inoue H, et al. **J Cutan Pathol** 1998 Aug;25(7):365–9

Comparison of genetic profiles between primary melanomas and their metastases reveals genetic alterations and clonal evolution during progression. Morita R, et al. **J Invest Dermatol** 1998 Dec;111(6):919–24

Predominant expression of Fas (CD95) ligand in metastatic melanoma revealed by longitudinal analysis. Terheyden P, et al. **J Invest Dermatol** 1999 Jun;112(6):899–902

Nonmelanomatous skin cancer following cervical, vaginal, and vulvar neoplasms: etiologic association [letter] [see comments] Levi F, et al. **J Natl Cancer Inst** 1998 Oct 21; 90(20):1570–1. Comment in: J Natl Cancer Inst 1999 Mar 17;91(6):565–6.

Metastatic squamous cell carcinoma of the nasal tip: a case report. Hammert WC, et al. **J Oral Maxillofac Surg** 1999 Feb;57(2):186–9

Cutaneous metastasis from a parotid adenoid cystic carcinoma arising in a pleomorphic adenoma. Makdessian AS, et al. **J Otolaryngol** 1999 Jun;28(3):166–70

Distant skin and soft tissue metastases from sarcomas. Rao UN, et al. **J Surg Oncol** 1998 Oct;69(2):94–8

Port site metastasis after laparoscopic nephrectomy: unsuspected transitional cell carcinoma within a tuberculous atrophic kidney. Otani M, et al. **J Urol** 1999 Aug;162(2):486–7

Diaphragmatic and subcutaneous seeding of hepatocellular carcinoma following fine-needle aspiration biopsy. Navarro F, et al. **Liver** 1998 Aug;18(4):251–4

Effective combined immunochemotherapy with dinitrochlorobenzene and fotemustine in skin and brain metastases of melanoma [letter] Göring HD, et al. **Melanoma Res** 1998 Aug;8(4):379

Metastasis to skin. Manning MP. **Semin Oncol Nurs** 1998 Aug;14(3):240–3 (13 ref.)

Papillary and follicular thyroid carcinoma metastatic to the skin: a case report and review of the literature. Koller EA, et al. **Thyroid** 1998 Nov;8(11):1045–50 (33 ref.)

Skin metastases of urothelial carcinoma of the bladder: a case report. Nouira Y, et al. **Tunis Med** 1999 Apr;77(4):233–5

Solitary cutaneous metastasis of superficial bladder cancer. Saito S. **Urol Int** 1998;61(2):126–7

[The indispensable anamnesis: in-vitro fertilization in a woman under treatment for melanoma (comment)] Merkus JM, et al. **Ned Tijdschr Geneeskd** 1998 Sep 19; 142(38):2073–5 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Sep 19;142(38):2087–90. **(Dut)**

[Sister Mary Joseph's nodule] Carsuzaa F. **Ann Dermatol Venereol** 1998 Oct;125(10):748 **(Fre)**

[A not very Catholic nodule?] Colnot F, et al. **Rev Med Interne** 1999 May;20(5):439–40 **(Fre)**

[Is interleukin 2 useful in oncology?] Négrier S. **Rev Prat** 1998 Feb 1;48(3):237–9 (12 ref.) **(Fre)**

[Inflammatory type cutaneous metastasis of bladder neoplasm: erysipeloid carcinoma] Aloi F, et al. **Minerva Urol Nefrol** 1998 Sep;50(3):205–8 (Eng. Abstr.) **(Ita)**

[Skin metastasis as first manifestation of prostatic adenocarcinoma] Gallego Sánchez JA, et al. **Actas Urol Esp** 1998 Oct;22(9):770–2 (Eng. Abstr.) **(Spa)**

[Skin lesions of the penis. Prostatic adenocarcinoma metastasis. Report of a case] Ortiz Cabria R, et al. **Actas Urol Esp** 1999 Feb;23(2):153–5 (Eng. Abstr.) **(Spa)**

[Pulmonary epidermoid carcinoma in a 22-year-old patient with multiple cutaneous metastasis] Franco-Vicario R, et al. **An Med Interna** 1998 Nov;15(11):591–3 (Eng. Abstr.) **(Spa)**

SECRETION

Hypercalcemia due to parathyroid hormone-related protein secretion by melanoma. Yeung SC, et al. **Horm Res** 1998; 49(6):288–91

SURGERY

Surgical treatment of pigmented melanocytic nevi depending upon their size and location. Kruk-Jeromin J, et al. **Acta Chir Plast** 1999;41(1):20–4

The case against micrographically controlled skin surgery. Shuster S. **Acta Derm Venereol** 1999 Jan;79(1):2–3

Randomized surgical trials involving elective node dissection for melanoma. Balch CM. **Adv Surg** 1999;32:255–70

Malignant tumors associated with nevus sebaceous: therapeutic consequences. Beer GM, et al. **Aesthetic Plast Surg** 1999 May–Jun;23(3):224–7

Cutaneous malignant melanoma: Tabuk experience. al-Shlash S, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):85–8

Lentigo maligna melanoma and excisional biopsy techniques [letter; comment] Meffert JJ, et al. **Am Fam Physician** 1999 Mar 1;59(5):1108, 1113, 1116. Comment on: Am Fam Physician 1998 Sep 15;58(4):873–84, 887–8.

Recommendations for the reporting of tissues removed as part of the surgical treatment of cutaneous melanoma. The Association of Directors of Anatomic and Surgical Pathology. Cochran AJ, et al. **Am J Clin Pathol** 1998 Dec; 110(6):719–22

Dissemination of melanoma cells within electrocautery plume. Fletcher JN, et al. **Am J Surg** 1999 Jul;178(1):57–9

Single-injection gamma probe-guided sentinel lymph node detection in 40 melanomatous lymphadenectomies. Cohen M, et al. **Ann Plast Surg** 1998 Oct;41(4):397–401

Malignant blue nevus: three new cases and a review of the literature. Duteille F, et al. **Ann Plast Surg** 1998 Dec; 41(6):674–8

Frozen section analysis in the management of skin cancers. Ghauri RR, et al. **Ann Plast Surg** 1999 Aug;43(2):156–60

A giant peduncular pilomatricoma [letter] Itoh Y, et al. **Ann Plast Surg** 1998 Sep;41(3):337–8

Epidermal nevus syndrome: a review and case report. Losee JE, et al. **Ann Plast Surg** 1999 Aug;43(2):211–4 (9 ref.)

Two giant basal cell carcinomas presenting simultaneously in the same patient, one resulting in lower extremity limb loss. Mainella M, et al. **Ann Plast Surg** 1998 Oct;41(4):444–7

Promising therapy for congenital giant pigmented nevi using acellular autograft nevi-dermal matrix. Mizuno H, et al. **Ann Plast Surg** 1999 Sep;43(3):273–82

Head and neck soft-tissue reconstruction using the vertical trapezius musculocutaneous flap [letter] Papadopoulos O, et al. **Ann Plast Surg** 1999 Apr;42(4):457–8

Parotid selective lymphadenectomy in malignant melanoma. Wells KE, et al. **Ann Plast Surg** 1999 Jul;43(1):1–6

A rare case of atypical eccrine acrospiroma of the scalp and a literature review. Wilhelmi BJ, et al. **Ann Plast Surg** 1999 May;42(5):568–9 (13 ref.)

Surgical management of Merkel cell carcinoma. Allen PJ, et al. **Ann Surg** 1999 Jan;229(1):97–105

Cancer protection in xeroderma pigmentosum variant (XP-V). Somos S, et al. **Anticancer Res** 1999 May–Jun; 19(3B):2195–9

Multiple miliary osteomas of the face ablated with the erbium: YAG laser. Hughes PS. **Arch Dermatol** 1999 Apr; 135(4):378–80

Treatment of superficial basal cell carcinoma and squamous cell carcinoma in situ with a high-energy pulsed carbon dioxide laser. Humphreys TR, et al. **Arch Dermatol** 1998 Oct;134(10):1247–52

Considerations in the surgical treatment of malignant melanoma [see comments] Fisher SR. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):116–7. Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):110–5.

Experience and clinical judgment required in the treatment of malignant melanoma [comment] Hamaker RC. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):115–6. Comment on: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):110–5.

Value of neck dissection in the treatment of patients with intermediate-thickness cutaneous malignant melanoma of the head and neck [see comments] Myers JN. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):110–5. Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):115–6. Comment in: Arch Otolaryngol Head Neck Surg 1999 Jan;125(1):116–7.

Suspicious skin lesions and their management [see comments] Raasch BA. **Aust Fam Physician** 1999 May;28(5):466–71. Comment in: Aust Fam Physician 1999 May;28(5):473.

Basal cell carcinoma of the scrotum. Esquivias Gómez JI, et al. **Australas J Dermatol** 1999 Aug;40(3):141–3 (28 ref.)

Surgical treatment of lentigo maligna and lentigo maligna melanoma. Hill DC, et al. **Australas J Dermatol** 1999 Feb; 40(1):25–30 (16 ref.)

General practitioner excision of malignant melanoma [letter; comment] English JS. **Br J Dermatol** 1998 Oct;139(4):759. Comment on: Br J Dermatol 1998 Mar;138(3):412–7.

Successful treatment of a giant congenital melanocytic naevus with high-energy pulsed CO2 laser [letter; comment] Arons MS. **Br J Plast Surg** 1998 Oct;51(7):570–1. Comment on: Br J Plast Surg 1998 Jan;51(1):22–4.

Audit of histologically incompletely excised basal cell carcinomas: recommendations for management by re-excision. Griffiths RW. **Br J Plast Surg** 1999 Jan; 52(1):24–8

Perforator based V-Y advancement flaps in the leg. Venkataramakrishnan V, et al. **Br J Plast Surg** 1998 Sep; 51(6):431–5

Outcome after surgical resection for high-grade anal intraepithelial neoplasia (Bowen's disease). Brown SR, et al. **Br J Surg** 1999 Aug;86(8):1063–6

Intraoperative lymphatic mapping and sentinel lymph node biopsy for Merkel cell carcinoma. Hill AD, et al. **Br J Surg** 1999 Apr;86(4):518–21

Mohs' micrographic surgery for basal cell carcinoma. Lawrence CM. **Clin Exp Dermatol** 1999 Mar;24(2):130–3 (57 ref.)

Calgary home to country's first comprehensive vascular birthmark clinic. Sibbald B. **CMAJ** 1999 Mar 23;160(6):898

Current therapy of cutaneous melanoma. Mays SR, et al. **Cutis** 1999 May;63(5):293–8 (52 ref.)

Management of multiple miliary osteoma cutis. Baginski DJ, et al. **Dermatol Surg** 1999 Mar;25(3):233–5

Merkel cell carcinoma: spontaneous resolution and management of metastatic disease. Brown TJ, et al. **Dermatol Surg** 1999 Jan;25(1):23–5

Persistent keratoacanthoma: challenges in management. Canas GC, et al. **Dermatol Surg** 1998 Dec;24(12):1364–9

High-risk nonmelanoma skin cancers. Demetrius RW, et al. **Dermatol Surg** 1998 Dec;24(12):1272–92; quiz 1293–4 (79 ref.)

Nevus spilus successfully treated with an intense pulsed light source. Gold MH, et al. **Dermatol Surg** 1999 Mar; 25(3):254–5

Spindle cell lipoma of the scalp: a case report and review. Haas AF, et al. **Dermatol Surg** 1999 Jan;25(1):68–71 (30 ref.)

Tie-over bolster dressings may not be necessary to secure small full thickness skin grafts. Langtry JA, et al. **Dermatol Surg** 1998 Dec;24(12):1350–3

Linear basal cell carcinoma: report of seventeen cases and review of the presentation and treatment. Lim KK, et al. **Dermatol Surg** 1999 Jan;25(1):63–7 (13 ref.)

Razor blade surgery: use of the Castroviejo blade breaker and holder. Lum D, et al. **Dermatol Surg** 1999 Feb; 25(2):143–4

The clinical superiority of continuous exposure versus short-pulsed carbon dioxide laser exposures for the treatment of pearly penile papules. McKinlay JR, et al. **Dermatol Surg** 1999 Feb;25(2):124–6

Topical diflorasone ointment for treatment of recalcitrant, excessive granulation tissue. Mandrea E. **Dermatol Surg** 1998 Dec;24(12):1409–10

Does wound healing contribute to the eradication of basal cell carcinoma following curettage and electrodessication? Nouri K, et al. **Dermatol Surg** 1999 Mar;25(3):183–7; discussion 187–8

Surgical facial wounds: simple interrupted percutaneous suture versus running intradermal suture. Orozco-Covarrubias ML, et al. **Dermatol Surg** 1999 Feb; 25(2):109–12

Use of tissue meshing technique to facilitate side to side closure of large defects. Wong TW, et al. **Dermatol Surg** 1998 Dec;24(12):1338–41

Micrographic surgery ('slow Mohs') in cutaneous sarcomas. Hafner J, et al. **Dermatology** 1999;198(1):37–43

Multifocal angiosarcoma of the scalp: a case report and review of the literature. Kacker A, et al. **Ear Nose Throat J** 1999 Apr;78(4):302–5 (14 ref.)

Surgical excision of pilomatrixoma of the head and neck: a retrospective review of 26 cases. Thomas RW, et al. **Ear Nose Throat J** 1999 Aug;78(8):541, 544–6, 548

Comments on Management of cutaneous melanoma M0: state of the art and trends, Rossi et al., Eur J Cancer 1997, 33, 2302–2312 [letter; comment] Bartoli C, et al. **Eur J Cancer** 1998 Aug;34(9):1467–8 (5 ref.). Comment on: Eur J Cancer 1997 Dec;33(14):2302–12.

M-plasty in the treatment of carcinomas located on the interglabellar region. Camacho FM, et al. **Eur J Dermatol** 1998 Dec;8(8):548–50

Fillet of finger flap for hand resurfacing after tumour excision. Schonauer F, et al. **Eur J Surg Oncol** 1999 Aug; 25(4):424–6

Sentinel-node guided lymph-node dissection for merkel cell carcinoma. Wasserberg N, et al. **Eur J Surg Oncol** 1999 Aug;25(4):444–6

The surgical treatment of primary melanoma. McCarthy WH, et al. **Hematol Oncol Clin North Am** 1998 Aug; 12(4):797–805, vi (20 ref.)

Lymphatic mapping and selective lymphadenectomy as an alternative to elective lymph node dissection in patients with malignant melanoma. Reintgen DS, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):807–21, vii (41 ref.)

Skin surgery in patients 90 years of age and over. Taniguchi Y, et al. **Int J Dermatol** 1998 Jul;37(7):547–50

Mohs micrographic surgery: a cost analysis [see comments] Cook J, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt

1):698-703. Comment in: J Am Acad Dermatol 1999 Jul;41(1):130-1.
Lymphatic mapping and sentinel node biopsy in the management of high-risk melanoma. Glass FL, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):603-10 (64 ref.)
Surgical pearl: punch excision and grafting for removal of mole. Gupta S, et al. **J Am Acad Dermatol** 1999 Oct; 41(4):635-7
Incidence of residual basal cell carcinoma in patients who appear tumor free after biopsy. Holmkvist KA, et al. **J Am Acad Dermatol** 1999 Oct;41(4):600-5
The birhombic transposition flap for soft tissue reconstruction. Johnson TM, et al. **J Am Acad Dermatol** 1999 Aug;41(2 Pt 1):232-6
Cost analysis studies of Mohs micrographic surgery [letter; comment] Weber WN. **J Am Acad Dermatol** 1999 Jul; 41(1):130-1. Comment on: J Am Acad Dermatol 1998 Nov;39(5 Pt 1):698-703.
Current status of intraoperative lymphatic mapping and sentinel lymphadenectomy for melanoma: is it standard of care? Morton DL, et al. **J Am Coll Surg** 1999 Aug; 189(2):214-23 (93 ref.)
The role of elective lymph node dissection in malignant melanoma: who should undergo this nodal staging procedure? Reintgen D. **J Am Coll Surg** 1999 Aug; 189(2):224-32 (22 ref.)
Treatment of multiple glomangioma with tuneable dye laser. Sharma JK, et al. **J Cutan Med Surg** 1999 Jan;3(3):167-8
Mohs' surgery as an approach to treatment of multiple skin cancer in rhinophyma. Tamir G, et al. **J Cutan Med Surg** 1999 Jan;3(3):169-71
Cerebriform intradermal nevus: a case of scalp expansion on the galea. Hashimoto I, et al. **J Dermatol** 1999 Apr; 26(4):258-63
A case of congenital infantile fibrosarcoma of the right hand. Kimura C, et al. **J Dermatol** 1998 Nov;25(11):735-41
Sentinel node biopsy and selective lymph node dissection in cutaneous melanoma patients. Lenisa L, et al. **J Exp Clin Cancer Res** 1999 Mar;18(1):69-74
Lymphangiosarcoma in chronic lymphoedema. Stewart-Treves syndrome. Aygit AC, et al. **J Hand Surg [Br]** 1999 Feb;24(1):135-7
Melanoma during pregnancy: a case report and review of the literature. Teplitzky S, et al. **J La State Med Soc** 1998 Nov;150(11):539-43 (19 ref.)
Delayed repair of skin cancer defects. Escobar V, et al. **J Oral Maxillofac Surg** 1999 Mar;57(3):271-9; discussion 279-80
Musculocutaneous flap of the transverse nasalis muscle in repair of nasal-tip skin carcinoma. Jourdain A, et al. **J Otolaryngol** 1999 Feb;28(1):37-42
Dermatofibrosarcoma protuberans and the Bednar tumor: treatment in the pediatric population. Marcus JR, et al. **J Pediatr Surg** 1998 Dec;33(12):1811-4
Treatment of basal cell carcinoma [letter; comment] Fitzgerald DA, et al. **J R Soc Med** 1999 Jan;92(1):53. Comment on: J R Soc Med 1998 Nov;91(11):585-8.
Useful techniques for the resection of foot melanomas. Cowles RA, et al. **J Surg Oncol** 1999 Apr;70(4):255-9; discussion 259-60
A case of a malignant melanoma with late metastases 16 years after the initial surgery. Nozaki M, et al. **Jpn J Clin Oncol** 1999 Feb;29(2):109-11
Nasal alar reconstruction: a critical analysis using melolabial island and paramedian forehead flaps. Arden RL, et al. **Laryngoscope** 1999 Mar;109(3):376-82
In vivo trial comparing patients' tolerance of Q-switched Alexandrite (QS Alex) and Q-switched neodymium:yttrium-aluminum-garnet (QS Nd:YAG) lasers in the treatment of nevus of Ota. Chan HH, et al. **Lasers Surg Med** 1999;24(1):24-8
Treatment of cutaneous hemangiomas in preterm neonatal twins with the flashlamp-pumped pulsed dye laser [letter] Lask GP. **Lasers Surg Med** 1999;24(1):1-2
Lipoblastoma and lipoblastomatosis in children. Bertana S, et al. **Minerva Pediatr** 1999 May;51(5):159-66 **(Eng, Ita)**
Optical coherence tomography for neurosurgical imaging of human intracortical melanoma. Boppart SA, et al. **Neurosurgery** 1998 Oct;43(4):834-41
Gamma knife radiosurgery for metastatic melanoma: an analysis of survival, outcome, and complications. Lavine SD, et al. **Neurosurgery** 1999 Jan;44(1):59-64; discussion 64-6
Clinical factors influencing periocular surgical defects after Mohs micrographic surgery. Carter KD, et al. **Ophthal Plast Reconstr Surg** 1999 Mar;15(2):83-91
Mohs '98: single-procedure Mohs surgery with immediate reconstruction. Bernstein PE. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):184-9
Q-switched neodymium:yttrium-aluminum-garnet laser treatment of lentigo maligna. Orten SS, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):296-302
Recurrent cutaneous melanoma of the head and neck. Zitsch RP 3rd, et al. **Otolaryngol Head Neck Surg** 1999 Mar; 120(3):391-3
Cryosurgery for hemangiomas [letter; comment] Cremer H. **Pediatr Dermatol** 1998 Sep-Oct;15(5):410-1. Comment on: Pediatr Dermatol 1997 May-Jun;14(3):173-9.
Management of nevus spilus [letter; comment] Johr RH, et al. **Pediatr Dermatol** 1998 Sep-Oct;15(5):407-10. Comment on: Pediatr Dermatol 1996 May-Jun;13(3):233-8.
Radioimmunoguided surgery in squamous cell carcinoma [letter] Argenzio V, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):749-51
Salvage reconstruction of an extensive facial deformity due to congenital giant hairy nevus. Siebert JW, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2414-9
X-chromosome-shaped paired flaps for small and closely located facial defects [letter] Yenidunya MO, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1534-5
Use of autologous fibrin glue in dermatologic surgery: application of skin graft and second intention healing. de Moraes AM, et al. **Rev Paul Med** 1998 Jul-Aug; 116(4):1747-52
Reconstruction of large defects in the scalp with fasciocutaneous flaps. Guerrissi JO. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):217-24
Melanoma resection margin recommendations, unconventionally based on available facts. Piepkorn M. **Semin Diagn Pathol** 1998 Aug;15(3):230-4 (50 ref.)
Historical perspectives and future applications. Haddad FF, et al. **Surg Oncol Clin N Am** 1999 Jul;8(3):391-400, vii (47 ref.)
Surgical management of aberrant sentinel lymph node drainage in cutaneous melanoma. Lieber KA, et al. **Surgery** 1998 Oct;124(4):757-61; discussion 761-2
En bloc skin excision for upper extremity cutaneous malignancies in renal allograft patients. Parungao A, et al. **Transplant Proc** 1999 Aug;31(5):2127-30
[Sentinel lymphadenectomy in malignant cutaneous melanoma--short-term results and prognostic significance] Fait V, et al. **Rozhl Chir** 1998 Oct;77(10):466-73 (Eng. Abstr.) **(Cze)**
[Sentinel node--malignant melanoma and primary breast cancer. The significance of sentinel node in the treatment of malignant melanoma and primary breast cancer] Axelsson CK, et al. **Ugeskr Laeger** 1999 Apr 19; 161(16):2343-7 (40 ref.) (Eng. Abstr.) **(Dan)**
[Isotope technique for identification of the sentinel node in malignant melanoma] Eigtved AI, et al. **Ugeskr Laeger** 1999 Apr 19;161(16):2341-3 **(Dan)**
[Complex facial nevus in children treated by combination of prosthetic and deferred natural expansions] Bennaceur S, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):324-8 (Eng. Abstr.) **(Fre)**
[Malignant melanoma] Champeau F, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):411-20 (Eng. Abstr.) **(Fre)**
[Cutaneous and subcutaneous sarcomas] Champeau F, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):421-38 (33 ref.) (Eng. Abstr.) **(Fre)**
[Occipital forehead pedicle for one-stage repair of defects of the upper third of the face] Chavoin JP, et al. **Ann Chir Plast Esthet** 1996 Dec;41(6):644-50 (Eng. Abstr.) **(Fre)**
[Role of surgery in the treatment of hemangiomas. A retrospective study apropos of 29 surgically treated children] Degardin N, et al. **Ann Chir Plast Esthet** 1998 Dec;43(6):649-58 (Eng. Abstr.) **(Fre)**
[Vascular "tumors" and the rules of their surgical management] Enjolras O, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):455-89 (Eng. Abstr.) **(Fre)**
[Non-melanomatous malignant skin tumors of the hand] Glicenstein J. **Ann Chir Plast Esthet** 1998 Aug;43(4):401-9 (Eng. Abstr.) **(Fre)**
[Malignant melanoma in children. Apropos of 6 cases] Hulard O, et al. **Ann Chir Plast Esthet** 1998 Oct;43(5):554-7 (Eng. Abstr.) **(Fre)**
[Cutaneous manifestations of type 1 neurofibromatosis and their treatment] Lantiéri L, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):445-54 (Eng. Abstr.) **(Fre)**
[Scleroderma-like basal cell carcinoma. Apropos of a study of 83 cases] Loddé JP, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):373-82 (Eng. Abstr.) **(Fre)**
[Advanced epitheliomas of the face: when to stop?] Martin D, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):383-99 (Eng. Abstr.) **(Fre)**
[Facial epitheliomas: general considerations, surgical techniques and indications] Martin D, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):311-64 (142 ref.) (Eng. Abstr.) **(Fre)**
[National survey on therapeutic strategy in facial epitheliomas] Martin D, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):365-72 (Eng. Abstr.) **(Fre)**
[Malignant melanoma in a 7-year-old child. A report of a dramatic case] Miard F, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):338-42; discussion 343 (Eng. Abstr.) **(Fre)**
[Evaluation of a two-stage surgical strategy for the treatment of skin carcinomas. Retrospective study of 367 cases] Revol M, et al. **Ann Chir Plast Esthet** 1999 Jun;44(3):246-50; discussion 251-2 (Eng. Abstr.) **(Fre)**
[Merkel cell carcinoma] Verola O, et al. **Ann Chir Plast Esthet** 1998 Aug;43(4):439-44 (Eng. Abstr.) **(Fre)**
[Evaluation of the diagnosis of pigmented tumors of the skin and factors leading to a decision to excise. Dermatologists of the Postgraduate Association of Haute-Normandie] Collas H, et al. **Ann Dermatol Venereol** 1999 Jun-Jul; 126(6-7):494-500 (Eng. Abstr.) **(Fre)**
[Early excision of hemangiomas of the face: an new technic using ultrasonics] Diner PA, et al. **Ann Dermatol Venereol** 1998 Sep;125(9):605-7 **(Fre)**
[Are guidelines for excision of melanoma pertinent?] Grosshans E. **Ann Dermatol Venereol** 1998 Sep; 125(9):637-40 **(Fre)**
[Microcystic sclerosing adnexal carcinoma: 2 case reports. Diagnostic and therapeutic difficulties] Salvan D, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Feb;115(1):19-22 (Eng. Abstr.) **(Fre)**
-Neonatal Kasabach-Merritt syndrome healed by complete surgical excision of the angioma- Velin P, et al. **Arch Pediatr** 1998 Mar;5(3):295-7 (Eng. Abstr.) **(Fre)**
[Immediate or delayed dissection of regional nodes in patients with melanoma of the trunk: a randomized trial] Noël G, et al. **Cancer Radiother** 1999 Jul-Aug;3(4):343 **(Fre)**
[How I treat...pigmented nevi] Piérard-Franchimont C, et al. **Rev Med Liege** 1998 Sep;53(9):509-14 (Eng. Abstr.) **(Fre)**
[Therapy evaluation in dermatology by comparative color measurements] Meffert B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:82-3 **(Ger)**
[Sentinel lymphadenectomy in malignant melanoma] Büchels HK, et al. **Chirurg** 1998 Jul;69(7):701-7 (30 ref.) (Eng. Abstr.) **(Ger)**
[Surgical therapy of basalioma of the facial skin] Grün AM, et al. **Chirurg** 1999 Mar;70(3):265-9 (Eng. Abstr.) **(Ger)**
[Use of pedicled greater omentum-plasty as thoraco-abdominal defect repair following extensive tumor resection] Maiwald G, et al. **Chirurg** 1999 May;70(5):566-70 (Eng. Abstr.) **(Ger)**
[A prospective comparison of octylcyanoacrylate tissue adhesive and conventional wound closure] Alamouti D, et al. **Hautarzt** 1999 Jan;50(1):58-9 **(Ger)**
[Subcutaneous infusion anesthesia with prilocaine diluted with Ringer's lactate] Breuninger H, et al. **Hautarzt** 1998 Sep;49(9):709-13 (Eng. Abstr.) **(Ger)**
["Windmill-plasty" for coverage of large defects of the scalp] Lange-Ionescu S, et al. **Hautarzt** 1998 Jul;49(7):556-9 (Eng. Abstr.) **(Ger)**
[Comment by the VOD on therapy of acquired nevus cell nevi (letter)] Sebastian G, et al. **Hautarzt** 1998 Jul;49(7):598 **(Ger)**
["Quality assurance in surgical and oncological dermatology" (letter; comment)] Weber K. **Hautarzt** 1998 Jul;49(7):598. Comment on: Hautarzt 1997 Oct;48(10):705-6. **(Ger)**
[Does sentinel node biopsy (SNB) solve the problem of elective lymph node excision in malignant melanoma?] Göhl J, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1319-23 (Eng. Abstr.) **(Ger)**
[Malignant melanoma of the skin: is there a curative surgical approach in locoregional metastasis?] Schmidt O, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1432-4 (Eng. Abstr.) **(Ger)**
[Case report of epithelioid hemangioendothelioma of the frontal region metastatic to the parotid gland] Schneider B, et al. **Laryngorhinootologie** 1998 Dec;77(12):728-31 (27 ref.) (Eng. Abstr.) **(Ger)**
[Sentinel lymph node detection by preoperative lymphoscintigraphy and intraoperative gamma probe guidance in malignant melanoma] Vogt H, et al. **Nuklearmedizin** 1999;38(4):95-100 (Eng. Abstr.) **(Ger)**
[Surgical treatment of malignant melanoma] Bösch U, et al. **Ther Umsch** 1999 Jun;56(6):318-23 (28 ref.) (Eng. Abstr.) **(Ger)**
[The development of malignant tumors in nevus sebaceus--therapeutic consequences] Beer GM, et al. **Wien Klin Wochenschr** 1999 Mar 26;111(6):236-9 (Eng. Abstr.) **(Ger)**
[Occult tumor cells of malignant melanoma and consequences for surgical treatment] Kühnel G, et al. **Zentralbl Chir** 1998; 123(7):834-9 (Eng. Abstr.) **(Ger)**
[Merkel-cell carcinoma. A report of 3 clinical cases] Del Rio P, et al. **Minerva Chir** 1999 Mar;54(3):179-83 (14 ref.) (Eng. Abstr.) **(Ita)**
[Atypical course of Barre-Masson disease] Deviatov VA. **Khirurgiia (Mosk)** 1999;(4):62 **(Rus)**

THERAPY

Enhancement of complement-dependent cytotoxicity by polyvalent melanoma cell vaccine (CancerVax): correlation with survival [see comments] Hsueh EC, et al. **Ann Surg Oncol** 1998 Oct-Nov;5(7):595-602. Comment in: Ann Surg Oncol 1998 Oct-Nov;5(7):565-6.
Adoptive immunotherapy with tumor-infiltrating lymphocytes and subcutaneous recombinant interleukin-2 plus interferon alfa-2a for melanoma patients with nonresectable distant disease: a phase I/II pilot trial. Melanoma Istituto Scientifico Tumori Group. Queirolo P, et al. **Ann Surg Oncol** 1999 Apr-May;6(3):272-8
A melanoma vaccine that works? Evidence for a phase III national trial [editorial; comment] Reintgen DS, et al. **Ann Surg Oncol** 1998 Oct-Nov;5(7):565-6. Comment on: Ann Surg Oncol 1998 Oct-Nov;5(7):595-602.
Clinical characteristics and long-term outcome of patients with generalized patch and/or plaque (T2) mycosis fungoides. Kim YH, et al. **Arch Dermatol** 1999 Jan; 135(1):26-32
Multimodality management of Merkel cell carcinoma. Ott MJ, et al. **Arch Surg** 1999 Apr;134(4):388-92; discussion 392-3
Merkel cell carcinoma [comment] Mann GB, et al. **Aust N Z J Surg** 1999 Feb;69(2):87. Comment on: Aust N Z J Surg 1998 May;68(5):354-8.
Prospective randomized multicenter clinical trial on the use of interferon -2a plus acitretin versus interferon -2a plus

THE PAPER AND INK USED IN THE ORIGINAL
PUBLICATION MAY AFFECT THE QUALITY OF
THE MICROFORM EDITION.

PUVA in patients with cutaneous T-cell lymphoma stages I and II. Stadler R, et al. **Blood** 1998 Nov 15;92(10):3578–81

Adjuvant interferon in the treatment of melanoma [editorial; comment] Middleton MR. **Br J Cancer** 1999 Aug; 80(11):1679–80. Comment on: Br J Cancer 1999 Aug;80(11):1767–9.

Toxicity and feasibility of adjuvant high-dose interferon alpha-2b in patients with melanoma in clinical oncologic practice [see comments] Ravaud A, et al. **Br J Cancer** 1999 Aug;80(11):1767–9. Comment in: Br J Cancer 1999 Aug;80(11):1679–80.

Active specific immunotherapy with polyvalent melanoma cell vaccine for patients with in-transit melanoma metastases. Hsueh EC, et al. **Cancer** 1999 May 15; 85(10):2160–9

Topical and intratumoral photodynamic therapy with 5-aminolevulinic acid in a subcutaneous murine mammary adenocarcinoma. Casas A, et al. **Cancer Lett** 1999 Jul 1; 141(1-2):29–38

Induction of antitumor immunity using intercellular adhesion molecule 1 (ICAM-1) transfection in mouse glioma cells. Kikuchi T, et al. **Cancer Lett** 1999 Aug 3;142(2):201–6

Pretreatment with intralesional hyaluronidase prior to excision of dermatofibrosarcoma protuberans. Smith K, et al. **Cancer Lett** 1998 Sep 11;131(1):117–26

Sensitization of tumor necrosis factor alpha-resistant human melanoma by tumor-specific in vivo transfer of the gene encoding endothelial monocyte-activating polypeptide II using recombinant vaccinia virus. Gnant MF, et al. **Cancer Res** 1999 Sep 15;59(18):4668–74

Immune responses in patients with T-cell lymphoma treated with an anti-idiotype antibody mimicking a highly restricted T-cell antigen. Foon KA, et al. **Clin Cancer Res** 1995 Nov;1(11):1285–94

Human high molecular weight-melanoma associated antigen mimicry by mouse anti-idiotypic monoclonal antibody MK2-23: modulation of the immunogenicity in patients with malignant melanoma. Mittelman A, et al. **Clin Cancer Res** 1995 Jul;1(7):705–13

Bowen's disease--a retrospective review of clinical management [letter] Bell HK, et al. **Clin Exp Dermatol** 1999 Jul;24(4):338–9

Bibliography. Current world literature. Melanoma and other skin neoplasms. **Curr Opin Oncol** 1999 Mar;11(2):B95–102

Moles and melanoma. Chamlin SL, et al. **Curr Opin Pediatr** 1998 Aug;10(4):398–404 (80 ref.)

Patients urged to seek treatment for actinic keratoses, recommends the American Academy of Dermatology, the American Cancer Society, and the Skin Cancer Foundation[News]. **Cutis** 1999 Jun;63(6):348

Recognition and management of high-risk cutaneous tumors. Schoelch SB, et al. **Dermatol Clin** 1999 Jan;17(1):93–111, viii–ix (104 ref.)

Adjuvant therapy with hyaluronidase prior to excision of dermatofibrosarcoma protuberans. Menon P, et al. **Dermatol Surg** 1999 Mar;25(3):205–9

Strategy of the EORTC-MCG trial programme for adjuvant treatment of moderate-risk and high-risk melanoma. Eggermont AM. **Eur J Cancer** 1998 Jul;34 Suppl 3:S22–6 (47 ref.)

Cost-effectiveness assessment of interferon alfa-2b as adjuvant therapy of high-risk resected cutaneous melanoma. Hillner BE. **Eur J Cancer** 1998 Jul;34 Suppl 3:S18–21

Immunotherapy and experimental approaches for metastatic melanoma. Atkins MB. **Hematol Oncol Clin North Am** 1998 Aug;12(4):877–902, viii (149 ref.)

Vaccines and other adjuvant therapies for melanoma. Wolchok JD, et al. **Hematol Oncol Clin North Am** 1998 Aug;12(4):835–48, vii (67 ref.)

Therapeutic trends in cutaneous melanoma. Hall PN, et al. **Hosp Med** 1999 Jan;60(1):39–43 (22 ref.)

Immunotherapy of metastatic malignant melanoma by a vaccine consisting of autologous interleukin 2-transfected cancer cells: outcome of a phase I study. Schreiber S, et al. **Hum Gene Ther** 1999 Apr 10;10(6):983–93

Exploring new instrumentation parameters for electrochemotherapy. Attacking tumors with bursts of biphasic pulses instead of single pulses. Daskalov I, et al. **IEEE Eng Med Biol Mag** 1999 Jan-Feb;18(1):62–6

Immune and gene therapy for melanoma, and the immunobiology of melanoma. Smith KJ, et al. **Int J Dermatol** 1999 Jul;38(7):490–508 (123 ref.)

Destructive procedures are the standard of care for treatment of actinic keratoses. Feldman SR, et al. **J Am Acad Dermatol** 1999 Jan;40(1):43–7

Role of extracorporeal photochemotherapy alone and in combination with interferon alfa in the treatment of cutaneous T-cell lymphoma [letter] Fimiani M, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):502–3

Clinical outcomes of localized melanoma of the foot: a case-control study. Talley LI, et al. **J Clin Epidemiol** 1998 Oct;51(10):853–7

Augmentation of IgM antibody to gp43 tumor-associated antigen peptide by melanoma cell vaccine. Takahashi T, et al. **J Clin Immunol** 1998 Jul;18(4):299–305

Psychotic depression occurring after stopping interferon-alpha [letter] Prior TI, et al. **J Clin Psychopharmacol** 1999 Aug;19(4):385–6

L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al. **J Nucl Med** 1999 Feb;40(2):262–7

Rheumatoid arthritis complicating adjuvant interferon-alpha therapy for malignant melanoma [letter] Johnson DM, et al. **J Rheumatol** 1999 Apr;26(4):1009–10

Severe loss of vision during adjuvant interferon alfa-2b treatment for malignant melanoma [letter] Lohmann CP, et al. **Lancet** 1999 Apr 17;353(9161):1326

A 15-year follow-up of AJCC stage III malignant melanoma patients treated postsurgically with Newcastle disease virus (NDV) oncolysate and determination of alterations in the CD8 T cell repertoire. Batliwalla FM, et al. **Mol Med** 1998 Dec;4(12):783–94

Systemic interferon-alpha (IFN-alpha) treatment leads to Stat3 inactivation in melanoma precursor lesions. Kirkwood JM, et al. **Mol Med** 1999 Jan;5(1):11–20

Lipid A mutant Salmonella with suppressed virulence and TNFalpha induction retain tumor-targeting in vivo [see comments] Low KB, et al. **Nat Biotechnol** 1999 Jan; 17(1):37–41. Comment in: Nat Biotechnol 1999 Jan;17(1):19.

Kaposi's sarcoma after renal transplantation--withdrawal of immunosuppression or local irradiation? [letter; comment] Rubinger D, et al. **Nephrol Dial Transplant** 1999 May; 14(5):1343. Comment on: Nephrol Dial Transplant 1998 Nov;13(11):2768–73.

Tumor metastasis biopsy as a surrogate marker of response to melanoma immunotherapy. Zehntner S, et al. **Pathology** 1999 May;31(2):116–22

Treatment of tufted angioma with interferon alfa: role of bFGF [letter] [see comments] Robenzadeh A, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):482. Comment in: Pediatr Dermatol 1999 Jul-Aug;16(4):338.

Merkel cell carcinoma of the skin. Nathu RM, et al. **Radiat Oncol Investig** 1998;6(5):233–9

Plantar melanoma: results of treatment in three population groups. Hudson DA, et al. **Surgery** 1998 Nov;124(5):877–82

[Palliative care of cancer patients with refractory ulcerating malignant skin tumors and skin metastases (letter)] Ansink AC. **Ned Tijdschr Geneeskd** 1999 Apr 24;143(17):919 **(Dut)**

[The treatment of basal cell carcinoma patients by dermatologists in Netherland] Thissen MR, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1563–7 (Eng. Abstr.) **(Dut)**

[Palliative care for cancer patients with refractory ulcerating malignant skin tumors and skin metastases] van Leeuwen BL, et al. **Ned Tijdschr Geneeskd** 1999 Mar 13; 143(11):561–4 (11 ref.) (Eng. Abstr.) **(Dut)**

[Tolerance and feasibility of adjuvant treatment of stage II malignant melanoma with high-dose interferon-alpha] Bédane C, et al. **Ann Dermatol Venereol** 1999 Feb; 126(2):142–6 (Eng. Abstr.) **(Fre)**

[High-dose interferon-alpha and adjuvant treatment of melanoma with poor prognosis: requiem for a drug marketing license? (editorial)] Saiag P. **Ann Dermatol Venereol** 1999 Mar;126(3):211–3 **(Fre)**

[Angiomas and major tissue dysplasias. Pathogenic origins and management] Hamel-Teillac D. **Arch Pediatr** 1999;6 Suppl 2:299s–302s (22 ref.) **(Fre)**

[Cutaneous lymphoma of the Sézary and Bouvrain type. Progress in physiopathologic and therapeutic outlook] Bagot M. **Bull Acad Natl Med** 1998;182(5):927–37; discussion 937–8 (Eng. Abstr.) **(Fre)**

[Managing cutaneous melanoma] Thomas L, et al. **Cancer Radiother** 1998 Dec;2(6):732–46 (256 ref.) (Eng. Abstr.) **(Fre)**

[Is interleukin 2 useful in oncology?] Négrier S. **Rev Prat** 1998 Feb 1;48(3):237–9 (12 ref.) **(Fre)**

[Basal cell carcinoma (basalioma; basal cell epithelioma). Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] **Hautarzt** 1998 Oct;48 Suppl 1:S15–9 **(Ger)**

[Dermatofibrosarcoma protuberans. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Breuninger H. **Hautarzt** 1998 Oct;48 Suppl 1:S46–8 **(Ger)**

[Squamous epithelial carcinoma of the skin including the lower lip and eyelids (spinalioma, spinous cell carcinoma). Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e.V.] Breuninger H, et al. **Hautarzt** 1998 Oct;48 Suppl 1:S20–6 **(Ger)**

[Cutaneous lymphomas. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Dummer R. **Hautarzt** 1998 Oct;48 Suppl 1:S49–55 **(Ger)**

[Decreased rate of progression and induction of tumor-specific immune response by adjuvant immunotherapy in stage IV melanoma] Enk AH, et al. **Hautarzt** 1999 Feb;50(2):103–8 (Eng. Abstr.) **(Ger)**

[Cutaneous neuroendocrine carcinoma (Merkel cell carcinoma). Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Hauschild A, et al. **Hautarzt** 1998 Oct;48 Suppl 1:S27–9 **(Ger)**

[Current status of laser therapy in dermatology] Hellwig S, et al. **Hautarzt** 1998 Sep;49(9):690–704 (154 ref.) (Eng. Abstr.) **(Ger)**

[Malignant melanoma. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Kaufmann R, et al. **Hautarzt** 1998 Oct;48 Suppl 1:S30–8 **(Ger)**

[Kaposi sarcoma. Quality Assurance Committee of the German Society of Dermatology and the Professional Organization of German Dermatologists e. V.] Schöfer H. **Hautarzt** 1998 Oct;48 Suppl 1:S39–45 **(Ger)**

[Sclerosing in multiple familial glomangiomas] Vente C, et al. **Hautarzt** 1998 Aug;49(8):657–61 (Eng. Abstr.) **(Ger)**

[Locoregional recurrence of melanomas of the extremities after hyperthermic extremity perfusion: is reperfusion of value?] Meyer T, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1452–4 (Eng. Abstr.) **(Ger)**

[Skin (cancer), hair and sweat] Dummer R. **Schweiz Med Wochenschr** 1999 Jan 12;129(1-2):46–8 **(Ger)**

[Therapy of CNS metastases] Baumert B, et al. **Ther Umsch** 1999 Jun;56(6):338–41 (Eng. Abstr.) **(Ger)**

[Systemic therapy of metastatic melanoma] Dummer R, et al. **Ther Umsch** 1999 Jun;56(6):330–3 (8 ref.) (Eng. Abstr.) **(Ger)**

[Therapy of cutaneous melanoma] Dummer R, et al. **Ther Umsch** 1998 Aug;55(8):509–14 (13 ref.) (Eng. Abstr.) **(Ger)**

[Therapy of non-melanocytic skin tumors] Hafner J. **Ther Umsch** 1998 Aug;55(8):515–21 (8 ref.) (Eng. Abstr.) **(Ger)**

[Adjuvant therapy of malignant melanoma] Hauschild A, et al. **Ther Umsch** 1999 Jun;56(6):324–9 (26 ref.) (Eng. Abstr.) **(Ger)**

[Therapeutic use of lasers in dermatology] Hohenleutner U, et al. **Ther Umsch** 1999 Apr;56(4):170–5 (28 ref.) (Eng. Abstr.) **(Ger)**

[Vaccination therapy of malignant melanoma] Nestle FO, et al. **Ther Umsch** 1999 Jun;56(6):334–7 (Eng. Abstr.) **(Ger)**

[Laser therapy in dermatology] St Lautenschlager. **Ther Umsch** 1998 Aug;55(8):522–8 (22 ref.) (Eng. Abstr.) **(Ger)**

[Skin cancer melanoma] Ishihara K. **Gan To Kagaku Ryoho** 1999 Jun;26 Suppl 1:173–84 (23 ref.) (Eng. Abstr.) **(Jpn)**

[Squamous cell carcinoma of the face: therapeutic approach] Martins C, et al. **Acta Med Port** 1998 Nov;11(11):953–9 (Eng. Abstr.) **(Por)**

[The treatment of malignant melanoblastoma of the skin] Korovin SI. **Lik Sprava** 1998 Jul-Aug;(5):41–6 (43 ref.) **(Rus)**

[Blue nevus syndrome: endoscopic treatment by sclerosis and banding ligation] Sala Felis T, et al. **Gastroenterol Hepatol** 1999 Mar;22(3):136–8 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Prognostic value of high-frequency sonography and color Doppler sonography for the preoperative assessment of melanomas. Lassau N, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):457–61

Differential diagnosis of cutaneous and subcutaneous tumours assessed by 7.5 MHz ultrasonography [letter] Ulrich J, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):187–9

Color Doppler sonography of focal lesions of the skin and subcutaneous tissue. Giovagnorio F, et al. **J Ultrasound Med** 1999 Feb;18(2):89–93

[High resolution ultrasound imaging: value in treatment of basocellular carcinoma by cryosurgery] Vaillant L, et al. **Ann Dermatol Venereol** 1998 Aug;125(8):500–4 (Eng. Abstr.) **(Fre)**

[Value of high-frequency (20 MHz)in the diagnosis of cutaneous tumors (see comments)] Clément A, et al. **J Radiol** 1998 Apr;79(4):313–7 (Eng. Abstr.). Comment in: J Radiol 1998 Apr;79(4):305. **(Fre)**

[Value of high-frequency ultrasonography (20MHz) in the diagnosis of cutaneous tumors (editorial; comment)] Peetrons P. **J Radiol** 1998 Apr;79(4):305. Comment on: J Radiol 1998 Apr;79(4):313–7. **(Fre)**

[Sonography of lymph nodes and subcutis in dermatology. 2] Blum A, et al. **Hautarzt** 1999 Jan;50(1):62–72; quiz 73 **(Ger)**

[Ranking of 20 MHz sonography of malignant melanoma and pigmented lesions in routine diagnosis] Hoffmann K, et al. **Ultraschall Med** 1999 Jun;20(3):104–9 (Eng. Abstr.) **(Ger)**

[Role of high-definition and high frequency ultrasonography in determining tumor thickness in cutaneous malignant melanoma] Solivetti FM, et al. **Radiol Med (Torino)** 1998 Dec;96(6):558–61 (Eng. Abstr.) **(Ita)**

ULTRASTRUCTURE

An ultrastructural and immunohistochemical study of pigmented dermatofibrosarcoma protuberans (Bednar tumor). Kagoura M, et al. **Eur J Dermatol** 1999 Jul-Aug; 9(5):366–9

Ultrastructural and immunohistochemical studies of the periendothelial matrix in human melanoma: evidence for an amorphous matrix containing laminin. Lugassy C, et al. **J Cutan Pathol** 1999 Feb;26(2):78–83

Primary cilium expression in cells from normal and pathological caprine skin [letter] Roperto F, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):169–71

Sezary cells with hairy projections. Nair CN, et al. **Leuk Res** 1999 Feb;23(2):195–7

SKIN NEOPLASMS

VETERINARY

A novel Epstein-Barr virus-like virus, HV(MNE), in a Macaca nemestrina with mycosis fungoides. Rivadeneira ED, et al. **Blood** 1999 Sep 15;94(6):2090-101

Cytogenetic investigation of canine lipomas. Reimann N, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):172-4

Expression of growth arrest and DNA damage genes and DNA mismatch repair genes in snake melanomas. Korabiowska M, et al. **In Vivo** 1998 Sep-Oct;12(5):539-42

Cutaneous horn and squamous cell carcinoma in situ (Bowen's disease) in a cat. Rees CA, et al. **J Am Anim Hosp Assoc** 1998 Nov-Dec;34(6):485-6

Unusual metastatic behavior and clinicopathologic findings in eight cats with cutaneous or visceral hemangiosarcoma. Krajc AC, et al. **J Am Vet Med Assoc** 1999 Mar 1; 214(5):670-2

PCNA and Ki67 proliferation markers as criteria for prediction of clinical behaviour of melanocytic tumours in cats and dogs. Roels S, et al. **J Comp Pathol** 1999 Jul; 121(1):13-24

What is your diagnosis? Lipoma. Hill PB. **J Small Anim Pract** 1999 Jul;40(7):306, 332

Cutaneous papillomatosis in a dog with malignant lymphoma following long-term chemotherapy. Lucroy MD, et al. **J Vet Diagn Invest** 1998 Oct;10(4):369-71

The molecular basis of canine melanoma: pathogenesis and trends in diagnosis and therapy. Modiano JF, et al. **J Vet Intern Med** 1999 May-Jun;13(3):163-74 (138 ref.)

Malignant basal cell tumor in a Djungarian hamster. Nakao K, et al. **J Vet Med Sci** 1999 Feb;61(2):191-3

Tumorigenicity of green turtle fibropapilloma-derived fibroblast lines in immunodeficient mice. Herbst LH, et al. **Lab Anim Sci** 1998 Apr;48(2):162-7

Apoptosis and mitosis in tumours of the skin and subcutaneous tissues of the dog. Martin De Las Mulas J, et al. **Res Vet Sci** 1999 Apr;66(2):139-46

Haemangiopericytoma in a calf. Mitarai Y, et al. **Res Vet Sci** 1998 Nov-Dec;65(3):265-7

Equine sarcoids. Goodrich L, et al. **Vet Clin North Am Equine Pract** 1998 Dec;14(3):607-23, vii (86 ref.)

Dermatologic tumors (excluding sarcoids). Johnson PJ. **Vet Clin North Am Equine Pract** 1998 Dec;14(3):625-58, viii (218 ref.)

Intralesional and topical chemotherapy and immunotherapy. Théon AP. **Vet Clin North Am Equine Pract** 1998 Dec; 14(3):659-71, viii (35 ref.)

Immunohistochemical diagnosis of a Merkel cell tumor in a dog. Konno A, et al. **Vet Pathol** 1998 Nov;35(6):538-40

Prognostic value of histopathological grading in canine extramedullary plasmacytomas. Platz SJ, et al. **Vet Pathol** 1999 Jan;36(1):23-7

Congenital fibropapillomatosis in a piglet. Vitovec J, et al. **Vet Pathol** 1999 Jan;36(1):83-5

Multiple cutaneous mast cell tumour in a calf. Pérez V, et al. **Vet Rec** 1999 Jul 17;145(3):81-2

Cutaneous papillomavirus infection in a harbour porpoise (Phocoena phocoena) from the North Sea. Van Bressem MF, et al. **Vet Rec** 1999 May 22;144(21):592-3

Novel canine tumour suppressor gene p53 mutations in cases of skin and mammary neoplasms. Mayr B, et al. **Vet Res Commun** 1999 Aug;23(5):285-91

Low-intensity laser light-induced closure of a chronic wound in a dog. Lucroy MD, et al. **Vet Surg** 1999 Jul-Aug; 28(4):292-5

Evidence for in vivo mitosis by granule-containing mast cells from canine mastocytomas. Curry A, et al. **Virchows Arch** 1998 Nov;433(5):465-70

Bovine papillomaviral gene expression in equine sarcoid tumours. Nasir L, et al. **Virus Res** 1999 Jun;61(2):171-5

Successful treatment of an equine preputial fibrosarcoma using 5-fluorouracil/evaluation of the treatment using quantitative PCNA and Ki67 (MIB 1) immunostaining. (case report). Roels S, et al. **Zentralbl Veterinarmed A** 1998 Dec;45(10):591-8

VIROLOGY

Non-AIDS-related Kaposi sarcoma tissues do not contain DNA sequences of HHV-6, HHV-7, Epstein-Barr virus, cytomegalovirus and HSV [letter] Drago F, et al. **Acta Derm Venereol** 1998 Nov;78(6):485

The absence of HHV-8 DNA sequences in skin tumours other than Kaposi's sarcoma from AIDS patients and transplant recipients [letter; comment] Gil Mateo MP, et al. **Br J Dermatol** 1998 Nov;139(5):918-9. Comment on: Br J Dermatol 1997 May;136(5):803-4.

Heterogeneity of human papillomavirus DNA in a patient with Bowenoid papulosis that progressed to squamous cell carcinoma. Park KC, et al. **Br J Dermatol** 1998 Dec; 139(6):1087-91

Progressive HHV-8-positive classic Kaposi's sarcoma: rapid response to interferon alpha-2a but persistence of HHV-8 DNA sequences in lesional skin. Pfrommer C, et al. **Br J Dermatol** 1998 Sep;139(3):516-9

Chronic hepatitis c virus infection and primary cutaneous B-cell lymphoma [letter] Prati D, et al. **Br J Haematol** 1999 Jun;105(3):841

Mucosal oncogenic human papillomaviruses and extragenital Bowen disease. Clavel CE, et al. **Cancer** 1999 Jul 15; 86(2):282-7

Variants of squamous cell carcinoma of the anal canal and perianal skin and their relation to human papillomaviruses. Frisch M, et al. **Cancer Res** 1999 Feb 1;59(3):753-7

Human pathogenic virus-associated pseudolymphomas and lymphomas with primary cutaneous manifestation in humans and animals. Wagner M, et al. **Clin Infect Dis** 1998 Nov;27(5):1299-308 (112 ref.)

Detection and sequence diversity of Kaposi's sarcoma-associated herpesvirus (KSHV)/human herpesvirus 8 (HHV-8) DNA. Murakami M, et al. **Eur J Dermatol** 1999 Jan-Feb;9(1):13-6

L-asparaginase induced complete remission in Epstein-Barr virus positive, multidrug resistant, cutaneous T-cell lymphoma. Obama K, et al. **Int J Hematol** 1999 Jun; 69(4):260-2

Classic Kaposi's sarcoma after multiple-partner heterosexual behavior in Central Africa. Simonart T, et al. **J Am Acad Dermatol** 1999 Oct;41(4):648-9

Human papillomavirus and the development of non-melanoma skin cancer. Harwood CA, et al. **J Clin Pathol** 1999 Apr;52(4):249-53 (51 ref.)

Detection of human papilloma virus type 58 in a case of a perianal Bowen's disease coexistent with adult T-cell leukemia. Uezato H, et al. **J Dermatol** 1999 Mar; 26(3):168-73

A broad range of human papillomavirus types detected with a general PCR method suitable for analysis of cutaneous tumours and normal skin. Forslund O, et al. **J Gen Virol** 1999 Sep;80 (Pt 9):2437-43

Nonmelanomatous skin cancer following cervical, vaginal, and vulvar neoplasms: etiologic association [letter] [see comments] Levi F, et al. **J Natl Cancer Inst** 1998 Oct 21; 90(20):1570-1. Comment in: J Natl Cancer Inst 1999 Mar 17;91(6):565-6.

The human papillomavirus type 16 E6 gene alone is sufficient to induce carcinomas in transgenic animals. Song S, et al. **J Virol** 1999 Jul;73(7):5887-93

Human herpesvirus-8 (HHV-8) gene expression in Kaposi's sarcoma (KS) primary lesions: an in situ hybridization study. Stürzl M, et al. **Leukemia** 1999 Apr;13 Suppl 1:S110-2

Hypopigmented mycosis fungoides associated with human T cell lymphotropic virus type I tax in a pediatric patient. Zucker-Franklin D, et al. **Pediatrics** 1999 May;103(5 Pt 1):1039-45

Specific expression of Epstein-Barr virus in cutaneous squamous cell carcinomas from heart transplant recipients. Ternesten-Bratel A, et al. **Transplantation** 1998 Dec 15; 66(11):1524-9

Electron microscopic and immunohistochemical localization of Marek's disease (MD) herpesvirus particles in MD skin lymphomas. Cho KO, et al. **Vet Pathol** 1999 Jul; 36(4):314-20

[Detecting HPV DNA in tissue of epidermal neoplasms] Liu Y, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Feb; 19(1):64-6 (Eng. Abstr.) **(Chi)**

[Squamous cell carcinoma of finger] Stadhouders-Keet SA, et al. **Ned Tijdschr Geneeskd** 1999 Jun 19;143(25):1335-6 **(Dut)**

SKIN PHYSIOLOGY

Bioengineering and the skin. Proceedings of the 9th International Symposium. Sendai, Japan, October 19-20, 1992. **Acta Derm Venereol Suppl (Stockh)** 1994;185:5-51

Racial differences in skin function. Berardesca E. **Acta Derm Venereol Suppl (Stockh)** 1994;185:44-6 (10 ref.)

Measurement of skin pH. Dikstein S, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;185:18-20 (20 ref.)

Skin hydration: recent advances. Ozawa T, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;185:26-8 (6 ref.)

Bioengineering and the skin: from standard error to standard operating procedure. Serup J. **Acta Derm Venereol Suppl (Stockh)** 1994;185:5-8 (15 ref.)

Quantitative measurements of water concentration of the stratum corneum In vivo by high-frequency current. Tagami H. **Acta Derm Venereol Suppl (Stockh)** 1994; 185:29-33 (23 ref.)

Image analysis of skin surface contour. Takahashi M. **Acta Derm Venereol Suppl (Stockh)** 1994;185:9-14

Transcutaneous Po2 and Pco2 measurement in dermatology. Takiwaki H. **Acta Derm Venereol Suppl (Stockh)** 1994; 185:21-5

Measurement and analysis of skin electrical impedance. Yamamoto Y. **Acta Derm Venereol Suppl (Stockh)** 1994; 185:34-8 (15 ref.)

Factors defining sensitive skin and its treatment. Muizzuddin N, et al. **Am J Contact Dermat** 1998 Sep;9(3):170-5

Injection of pre-psoriatic skin with CD4+ T cells induces psoriasis. Nickoloff BJ, et al. **Am J Pathol** 1999 Jul; 155(1):145-58

Detection of gastric slow wave propagation from the cutaneous electrogastrogram. Chen JD, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G424-30

Reproductive parameters and paracallosal skin color changes in captive female guinea baboons, Papio papio. Gauthier CA. **Am J Primatol** 1999;47(1):67-74

Mathematical simulation of heat transfer process in skin cover at burn injury. Enalejev RS, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:30-5

In vivo ac impedance spectroscopy of human skin. Theory and problems in monitoring of passive percutaneous drug delivery. Lackermeier AH, et al. **Ann N Y Acad Sci** 1999 Apr 20;873:197-213

The effect of turbulent fluctuation of air on thermal sensation. Sugai K, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:98-104

Transfer of contaminants from surface to hands: experimental assessment of linearity of the exposure process, adherence to the skin, and area exposed during fixed pressure and repeated contact with surfaces contaminated with a powder. Brouwer DH, et al. **Appl Occup Environ Hyg** 1999 Apr;14(4):231-9

The neuro-immuno-cutaneous-endocrine network: relationship of mind and skin. O'Sullivan RL, et al. **Arch Dermatol** 1998 Nov;134(11):1431-5 (59 ref.)

Nitric oxide and its implications in skin homeostasis and disease - a review. Bruch-Gerharz D, et al. **Arch Dermatol Res** 1998 Dec;290(12):643-51 (79 ref.)

Prevention of topical and ocular oxidative stress by positively charged submicron emulsion. Benita S. **Biomed Pharmacother** 1999 May;53(4):193-206 (68 ref.)

Skin antioxidants: their role in aging and in oxidative stress--new approaches for their evaluation. Kohen R. **Biomed Pharmacother** 1999 May;53(4):181-92 (76 ref.)

Electrorheological modeling of the permeabilization of the stratum corneum: theory and experiment. Pawlowski P, et al. **Biophys J** 1998 Dec;75(6):2721-31

Effect of season and dietary energy concentration on composition and strength of skin in naked neck fowl. Yalçin S, et al. **Br Poult Sci** 1998 Dec;39(5):627-32

Effects of skin-to-skin holding on general movements of preterm infants. Constantinou JC, et al. **Clin Pediatr (Phila)** 1999 Aug;38(8):467-71

Intra-and inter-individual variations in transepidermal water loss on the face: facial locations for bioengineering studies. Schnetz E, et al. **Contact Dermatitis** 1999 May;40(5):243-7

Long-term effects of one general pass laser resurfacing. A look at dermal tightening and skin quality. Ruiz-Esparza J, et al. **Dermatol Surg** 1999 Mar;25(3):169-73; discusion 174

Effect of gel re-organization and tensional forces on alpha2beta1 integrin levels in dermal fibroblasts. Jenkins G, et al. **Eur J Biochem** 1999 Jul;263(1):93-103

Movement-related skin strain associated with goal-oriented lip actions. Connor NP, et al. **Exp Brain Res** 1998 Dec; 123(3):235-41

Cutaneous neuroimmunomodulation: the proopiomelanocortin system. A New York Academy of Sciences Conference, September 11-13, 1998, Münster, Germany. Böhm M, et al. **Exp Clin Endocrinol Diabetes** 1999;107(3):225-8

Interactions between epidermal growth factor and the Tabby mutation in skin. Isaacs K, et al. **Exp Dermatol** 1998 Oct; 7(5):273-80

Pro-opiomelanocortin gene expression and translation in ovine skin. Porter JA, et al. **Exp Dermatol** 1999 Aug; 8(4):361-2

What's the use of generating melanin? Wood JM, et al. **Exp Dermatol** 1999 Apr;8(2):153-64

Preservation of human skin structure and function in organ culture. Varani J. **Histol Histopathol** 1998 Jul;13(3):775-83 (53 ref.)

A model for human skin impedance during surface functional neuromuscular stimulation. Dorgan SJ, et al. **IEEE Trans Rehabil Eng** 1999 Sep;7(3):341-8

The vital role of the skin in human natural history. Cohn BA. **Int J Dermatol** 1998 Nov;37(11):821-4 (20 ref.)

In vivo study of skin mechanical properties in patients with systemic sclerosis. Dobrev HP. **J Am Acad Dermatol** 1999 Mar;40(3):436-42

Pregnancy dermatoses. Vaughan Jones SA, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):233-41

Caffeine demethylation monitoring using a transdermal sweat patch. Delahunty T, et al. **J Anal Toxicol** 1998 Nov-Dec; 22(7):596-600

Spatial extension of sudomotor axon reflex sweating in human skin. Riedl B, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2-3):83-8

Two-dimensional stress-relaxation behavior of human skin as influenced by non-enzymatic glycation and the inhibitory agent aminoguanidine. Reihsner R, et al. **J Biomech** 1998 Nov;31(11):985-93

A finite element based method to determine the properties of planar soft tissue. Flynn DM, et al. **J Biomech Eng** 1998 Apr;120(2):202-10

An elastic-viscoplastic model for excised facial tissues. Rubin MB, et al. **J Biomech Eng** 1998 Oct;120(5):686-9

Safe touch temperatures for hot plates. Subramanian B, et al. **J Biomech Eng** 1998 Dec;120(6):727-36

Directional variance in skin movement. Richard R, et al. **J Burn Care Rehabil** 1999 May-Jun;20(3):259-64

Orofacial proprioception: analyses of cutaneous mechanoreceptor population properties using artificial neural networks. Connor NP, et al. **J Commun Disord** 1998 Nov-Dec;31(6):535-42; 553

Skin science and the future of dermatology [editorial] Hoath SB, et al. **J Cutan Med Surg** 1998 Jul;3(1):2-8

Localizing transepithelial conductive pathways using a vibrating voltage probe. Somieski P, et al. **J Exp Biol** 1998 Sep;201 (Pt 17):2489-95

Problems related to circadian rhythms in human skin and their validation [letter; comment] Reinberg A, et al. **J Invest Dermatol** 1998 Oct;111(4):708-9. Comment on: J Invest Dermatol 1998 Jan;110(1):20-3.

Topical gene delivery to murine skin. Yu WH, et al. **J Invest Dermatol** 1999 Mar;112(3):370–5

Skin appendageal macropores as a possible pathway for electrical current. Chizmadzhev YA, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):148–52

Tensile properties of relaxed excised skin exhibiting striae distensae. Piérard GE, et al. **J Med Eng Technol** 1999 Mar–Apr;23(2):69–72

Raised object on a planar surface stroked across the fingerpad: responses of cutaneous mechanoreceptors to shape and orientation. LaMotte RH, et al. **J Neurophysiol** 1998 Nov;80(5):2446–66

Neonatal skin: the ideal nursing interface. Lott JW, et al. **J Pediatr Nurs** 1998 Oct;13(5):302–6 (11 ref.)

The timing of skin acidification in very low birth weight infants. Fox C, et al. **J Perinatol** 1998 Jul–Aug;18(4):272–5

Skin electroporation: rapid measurements of the transdermal voltage and flux of four fluorescent molecules show a transition to large fluxes near 50 V. Chen T, et al. **J Pharm Sci** 1998 Nov;87(11):1368–74

In vitro patch–clamp studies in skin fibroblasts. Goodwin PA, et al. **J Pharmacol Toxicol Methods** 1998 Jun; 39(4):229–33

Relationship between cutaneous pressure threshold and two–point discrimination. Aszmann OC, et al. **J Reconstr Microsurg** 1998 Aug;14(6):417–21

The skin and its response to movement. Ryan TJ. **Lymphology** 1998 Sep;31(3):128–9 (4 ref.)

Biology and pathology of the skin basement membrane zone. Bruckner–Tuderman L. **Matrix Biol** 1999 Feb;18(1):3–4

Laminin 5 can promote assembly of the lamina densa in the skin equivalent model. Tsunenaga M, et al. **Matrix Biol** 1998 Dec;17(8–9):603–13

Relationship between dermato–physiological changes and hormonal status in pre–, peri–, and postmenopausal women. Ohta H, et al. **Maturitas** 1998 Sep 20;30(1):55–62

The effects of postmenopausal hormone replacement therapy on sympathetic skin response. Sahiner T, et al. **Maturitas** 1998 Sep 20;30(1):85–8

No man is an island; no island is an island: does the immune network extend beyond the limits of skin? Rewald E, et al. **Med Hypotheses** 1999 Apr;52(4):325–7 (20 ref.)

Instrumental measurement of skin colour and skin type as risk factors for melanoma: a statistical classification procedure. Barbini P, et al. **Melanoma Res** 1998 Oct; 8(5):439–47

Skin cooling attenuates rat dorsal horn neuronal responses to intracutaneous histamine. Carstens E, et al. **Neuroreport** 1998 Dec 21;9(18):4145–9

Actions of tachykinins on the ion transport across the frog skin. Lippe C, et al. **Peptides** 1998;19(8):1435–8

Penetration of electromagnetic fields of an open–ended coaxial probe between 1 MHz and 1 GHz in dielectric skin measurements. Alanen E, et al. **Phys Med Biol** 1999 Jul;44(7):N169–76

Effect of temperature on the optical properties of ex vivo human dermis and subdermis. Laufer J, et al. **Phys Med Biol** 1998 Sep;43(9):2479–89

Near–infrared optical properties of ex vivo human skin and subcutaneous tissues measured using the Monte Carlo inversion technique. Simpson CR, et al. **Phys Med Biol** 1998 Sep;43(9):2465–78

Capsaicin desensitization and stimulus–induced recovery on facial compared to lingual skin. Green BG. **Physiol Behav** 1998 Dec 1;65(3):517–23

Real time impedance plots with arbitrary frequency components. Searle A, et al. **Physiol Meas** 1999 Feb; 20(1):103–14

Computerized morphometric quantitation of elastin and collagen in SMAS and facial skin and the possible role of fat cells in SMAS viscoelastic properties. Har–Shai Y, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2466–70

Multimodality evaluation of pressure relief surfaces. Sachse RE, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2381–7

A pontine–hypothalamic temperature difference correlated with cutaneous and respiratory heat loss. Parmeggiani PL, et al. **Respir Physiol** 1998 Oct;114(1):49–56

The effects of tissue expansion on skin lymph flow and lymphatics: an experimental study in rabbits. Erçöçen AR, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):353–8

Effects of prolonged occlusion on stratum corneum barrier function and water holding capacity. Fluhr JW, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul–Aug; 12(4):193–8

The Sixth International Perspectives in Percutaneous Penetration Conference 1998. Schwindt DA. **Skin Pharmacol Appl Skin Physiol** 1998;11(4–5):289–92

Determination of the horny layer profile by tape stripping in combination with optical spectroscopy in the visible range as a prerequisite to quantify percutaneous absorption. Weigmann H, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan–Apr;12(1–2):34–45

Tissue motion––a disturbance in the laser–Doppler blood flow signal? Oberg PA. **Technol Health Care** 1999; 7(2–3):185–92

Transient decrease in skin resistance response and level at the deh–chi stage caused by manual acupuncture. Liao TJ, et al. **Tohoku J Exp Med** 1998 Sep;186(1):19–25

Dermal regeneration in full–thickness wounds in Yucatan miniature pigs using a biodegradable copolymer. Van Dorp AG, et al. **Wound Repair Regen** 1998 Nov–Dec;6(6):556–68

Studies on the biological activity of the dermal regeneration template. Yannas IV. **Wound Repair Regen** 1998 Nov–Dec; 6(6):518–23 (42 ref.)

[A new technique for study of cutaneous biology, microdialysis] Mary S, et al. **Ann Dermatol Venereol** 1999 Jan;126(1):66–70 **(Fre)**

[Characterization of phospholipase A2 of human skin involved in the control of barrier functions] Maury E. **Ann Dermatol Venereol** 1998 Nov;125 Suppl 2:S14–6 **(Fre)**

[The cutaneous neurosensory axis and the neuro–immuno–cutaneous system] Fraiture AL, et al. **Rev Med Liege** 1998 Nov;53(11):676–9 (Eng. Abstr.) **(Fre)**

[Skin during pregnancy] Piérard–Franchimont C, et al. **Rev Med Liege** 1999 May;54(5):393–400 (Eng. Abstr.) **(Fre)**

[New findings in the regulation of the barrier function of the skin. Interview with Prof. Dr. Erhardt Proksch, Kiel University skin clinic] Proksch E. **Hautarzt** 1999 Jun; 50(6):461–2 **(Ger)**

[Effect of thermal mud baths on normal, dry and seborrheic skin] Carabelli A, et al. **Clin Ter** 1998 Jul–Aug;149(4):271–5 (Eng. Abstr.) **(Ita)**

[Age dependence of skin autofluorescence] Deev AI, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):351–3 **(Rus)**

[Periodicity of tactile and noxious perception of rat skin mechanoreceptors] Enin LD, et al. **Dokl Akad Nauk** 1998 Dec;363(5):694–5 **(Rus)**

[Functional characteristics of foot skin mechanoreceptors and afferent nerve fibers of the sciatic nerve after central axotomy of sensory neurons] Kolosova LI, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):755–60 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Effect of long–term use of moisturizer on skin hydration, barrier function and susceptibility to irritants. Held E, et al. **Acta Derm Venereol** 1999 Jan;79(1):49–51

Correlation between the greasiness and the plasticizing effect of moisturizers. Jemec GB, et al. **Acta Derm Venereol** 1999 Mar;79(2):115–7

Cutaneous responses to substance P and calcitonin gene–related peptide in chronic urticaria: the effect of cetirizine and dimethindene. Borici–Mazi R, et al. **Allergy** 1999 Jan;54(1):46–56

Histamine response and local cooling in the human skin: involvement of H1– and H2–receptors. Grossmann M, et al. **Br J Clin Pharmacol** 1999 Aug;48(2):216–22

Correlation between percutaneous penetration of methyl nicotinate and sensitive skin, using laser Doppler imaging. Issachar N, et al. **Contact Dermatitis** 1998 Oct;39(4):182–6

Plasticising effect of water and glycerin on human skin in vivo. Pedersen LK, et al. **J Dermatol Sci** 1999 Jan; 19(1):48–52

Influences of somatotropin on biomechanical properties of porcine skin. Caperna TJ, et al. **Lab Anim Sci** 1999 Apr; 49(2):212–5

Direct and non–direct measurement techniques for analysis of skin surface topography. Fischer TW, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jan–Apr; 12(1–2):1–11 (24 ref.)

[Content of fibroblasts, macrophages, granulocytes and lymphocytes in the connective tissue regenerate of the skin in wound healing as affected by noradrenaline, acetylcholine, propranolol and atropine] Grabovoĭ AN. **Morfologiia** 1999;116(4):41–5 (Eng. Abstr.) **(Rus)**

GENETICS

Comparison of skin reflectances between Bolivian lowlanders and highlanders of European ancestry. Greksa LP. **Hum Biol** 1998 Oct;70(5):889–900

Secretory polymorphism and serous cutaneous gland heterogeneity in Bufo granulosus (Amphibia, Anura). Delfino G, et al. **Toxicon** 1999 Sep;37(9):1281–96

RADIATION EFFECTS

UVA exposure of human skin reconstructed in vitro induces apoptosis of dermal fibroblasts: subsequent connective tissue repair and implications in photoaging. Bernerd F, et al. **Cell Death Differ** 1998 Sep;5(9):792–802

Harmful effects of UVA on the structure and barrier function of engineered human cutaneous tissues. Robert M, et al. **Int J Radiat Biol** 1999 Mar;75(3):317–26

SKIN PIGMENTATION

Effect of skin pigmentation on pulse oximetry accuracy in the emergency department. Adler JN, et al. **Acad Emerg Med** 1998 Oct;5(10):965–70

Hemispheric difference in human skin color [comment] Chaplin G, et al. **Am J Phys Anthropol** 1998 Oct; 107(2):221–3; discussion 223–4. Comment on: Am J Phys Anthropol 1997 Dec;104(4):449–57.

Variations in melanin formation by cultured melanocytes from different skin types. Smit NP, et al. **Arch Dermatol Res** 1998 Jun;290(6):342–9

Hypopigmented mycosis fungoides in a light–skinned woman [letter] Moulonguet I, et al. **Br J Dermatol** 1998 Aug; 139(2):341–3

Repigmentation of vitiligo lesion after beetle dermatitis [letter] Parsad D, et al. **Dermatology** 1998;197(4):398

Immediate pigment darkening: description, kinetic and biological function. Routaboul C, et al. **Eur J Dermatol** 1999 Mar;9(2):95–9

Pigmentary traits, nevi and skin phototypes in a youth population of Central Italy. Ballone E, et al. **Eur J Epidemiol** 1999 Feb;15(2):189–95

What's the use of generating melanin? Wood JM, et al. **Exp Dermatol** 1999 Apr;8(2):153–64

Repigmentation of vitiligo patches by transplantation of hair follicles [letter] Malakar S, et al. **Int J Dermatol** 1999 Mar; 38(3):237–8

Melanotic pigmentation in excision scars of melanocytic and non–melanocytic skin tumors. Botella–Estrada R, et al. **J Cutan Pathol** 1999 Mar;26(3):137–44

Independent–component analysis of skin color image. Tsumura N, et al. **J Opt Soc Am A Opt Image Sci Vis** 1999 Sep;16(9):2169–76

Topical trans–4–aminomethylcyclohexanecarboxylic acid prevents ultraviolet radiation–induced pigmentation. Maeda K, et al. **J Photochem Photobiol B** 1998 Dec; 47(2–3):136–41

Cherry–red discolouration in carbon monoxide poisoning [letter] Simini B. **Lancet** 1998 Oct 3;352(9134):1154

The Lancer Ethnicity Scale [letter] Wolbarsht ML, et al. **Lasers Surg Med** 1999;25(2):105–6

Instrumental measurement of skin colour and skin type as risk factors for melanoma: a statistical classification procedure. Barbini P, et al. **Melanoma Res** 1998 Oct; 8(5):439–47

Multiple factors in the evolution of animal coloration. Cloudsley–Thompson JL. **Naturwissenschaften** 1999 Mar; 86(3):123–32 (78 ref.)

The erythrophore in the larval and adult dorsal skin of the brown frog, Rana ornativentris: its differentiation, migration, and pigmentary organelle formation. Ichikawa Y, et al. **Pigment Cell Res** 1998 Dec;11(6):345–54

Involvement of pteridines in the body coloration of the isopod Armadillidium vulgare. Negishi S, et al. **Pigment Cell Res** 1998 Dec;11(6):368–74

Diagnosis in racially pigmented skin. Child F. **Practitioner** 1998 Apr;242(1585):292–6 (6 ref.)

[Histological change of keratinocyte in full–thickness skin autograft and its effect on hyperpigmentation of the graft] Li H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):72–5 (Eng. Abstr.) **(Chi)**

[Pigmented eccrine poroma] Pechère M, et al. **Ann Dermatol Venereol** 1998 Apr;125(4):281 **(Fre)**

[Therapy evaluation in dermatology by comparative color measurements] Meffert B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:82–3 **(Ger)**

DRUG EFFECTS

A standardized protocol for assessing regulators of pigmentation. Virador VM, et al. **Anal Biochem** 1999 Jun 1;270(2):207–19

Nitric oxide–induced oxidation of 5,6–dihydroxyindole and 5,6–dihydroxyindole–2–carboxylic acid under aerobic conditions: non–enzymatic route to melanin pigments of potential relevance to skin (photo)protection. Novellino L, et al. **Biochim Biophys Acta** 1998 Sep 16;1425(1):27–35

Depigmentation with tert–butyl hydroquinone using black guinea pigs. Patrick E, et al. **Food Chem Toxicol** 1999 Feb–Mar;37(2–3):169–75

Prevalence of periocular depigmentation after repeated botulinum toxin A injections in African American patients. Roehm PC, et al. **J Neuroophthalmol** 1999 Mar;19(1):7–9

Isomerization of urocanic acid after ultraviolet radiation is influenced by skin pigmentation. de Fine Olivarius F, et al. **J Photochem Photobiol B** 1999 Jan;48(1):42–7

Topical agents used in association with cosmetic surgery. Draelos ZD. **Semin Cutan Med Surg** 1999 Jun;18(2):112–8 (33 ref.)

Cosmetic problems in skin of color. Taylor SC. **Skin Pharmacol Appl Skin Physiol** 1999 May–Jun; 12(3):139–43

GENETICS

Genetic analysis of steel and the PG–M/versican–encoding gene AxPG as candidates for the white (d) pigmentation mutant in the salamander Ambystoma mexicanum. Parichy DM, et al. **Dev Genes Evol** 1999 Jun;209(6):349–56

Sibling correlations of skin pigmentation during growth. Rebato E, et al. **Hum Biol** 1999 Apr;71(2):277–93

The "spotted" locus maps to bovine chromosome 6 in a Hereford–Cross population. Grosz MD, et al. **J Hered** 1999 Jan–Feb;90(1):233–6

Dorsal skin color patterns among southern right whales (Eubalaena australis): genetic basis and evolutionary significance. Schaeff CM, et al. **J Hered** 1999 Jul–Aug; 90(4):464–71

High prolificacy in Belle–Ile sheep (Brittany, France): major effects of a putative single gene and the Awh colour gene on ovulation rate and litter size. Malher X, et al. **Reprod Nutr Dev** 1998 Jul–Aug;38(4):473–84

PHYSIOLOGY

Side effects from the pulsed dye laser: the importance of skin pigmentation and skin redness. Haedersdal M, et al. **Acta Derm Venereol** 1998 Nov;78(6):445–50

SKIN PIGMENTATION

Reproductive parameters and paracallosal skin color changes in captive female guinea baboons, Papio papio. Gauthier CA. **Am J Primatol** 1999;47(1):67–74

The measurement of constitutive and facultative skin pigmentation and estimation of sun exposure in Caucasians with basal cell carcinoma and cutaneous malignant melanoma. Lock-Andersen J, et al. **Br J Dermatol** 1998 Oct;139(4):610–7

Spontaneous repigmentation of vitiligo patches distant from the autologous skin graft sites: a remote reverse Koebner's phenomenon? [letter] Malakar S, et al. **Dermatology** 1998; 197(3):274

Seasonal specificity of hormonal, behavioral, and coloration responses to within- and between-sex encounters in male lizards (Sceloporus undulatus). Smith LC, et al. **Horm Behav** 1999 Aug;36(1):39–52

Elasmobranch color change: A short review and novel data on hormone regulation. Visconti MA, et al. **J Exp Zool** 1999 Oct 1;284(5):485–91 (54 ref.)

Quantitative characterization and study of the relationship between constitutive-facultative skin color and phototype in Caucasians. Rubegni P, et al. **Photochem Photobiol** 1999 Sep;70(3):303–7

Light-induced pigment aggregation in xanthophores of the medaka, Oryzias latipes. Oshima N, et al. **Pigment Cell Res** 1998 Dec;11(6):362–7

Does alpha-MSH have a role in regulating skin pigmentation in humans? Thody AJ, et al. **Pigment Cell Res** 1998 Oct; 11(5):265–74 (85 ref.)

Evaluation of the analgesic efficacy of EMLA cream in volunteers with differing skin pigmentation undergoing venipuncture. Riendeau LA, et al. **Reg Anesth Pain Med** 1999 Mar–Apr;24(2):165–9

Postural skin colour changes during the corticosteroid blanching assay. Henry F, et al. **Skin Pharmacol Appl Skin Physiol** 1999 Jul–Aug; 12(4):199–210

RADIATION EFFECTS

Urocanic acid isomers and photosensitivity in healthy children. de Fine Olivarius F, et al. **Br J Dermatol** 1998 Oct;139(4):605–9

A long-term time course of colorimetric evaluation of ultraviolet light-induced skin reactions. Park SB, et al. **Clin Exp Dermatol** 1999 Jul;24(4):315–20

Characteristics of UVA-induced delayed tanning: seasonal variation. Sakamaki T, et al. **J Dermatol** 1998 Oct; 25(10):641–7

Isomerization of urocanic acid after ultraviolet radiation is influenced by skin pigmentation. de Fine Olivarius F, et al. **J Photochem Photobiol B** 1999 Jan;48(1):42–7

Pigmented human skin equivalent--as a model of the mechanisms of control of cell-cell and cell-matrix interactions. Nakazawa K, et al. **Med Biol Eng Comput** 1998 Nov;36(6):813–20 (88 ref.)

Human pigmentation genes and their response to solar UV radiation. Sturm RA. **Mutat Res** 1998 Nov 9;422(1):69–76 (42 ref.)

SKIN RASH see **EXANTHEMA**

SKIN SUBSTITUTES see **SKIN, ARTIFICIAL**

SKIN SYPHILIS see **SYPHILIS, CUTANEOUS**

SKIN TEMPERATURE

Comparison of oral and tympanic temperatures in a Veterans Administration outpatient clinic. Abolnik IZ, et al. **Am J Med Sci** 1999 May;317(5):301–3

Comparison of peripheral and core temperatures in anesthetized horses [comment] Tomasic M, et al. **Am J Vet Res** 1999 May;60(5):648–51. Comment on: Am J Vet Res 1999 May;60(5):556–62.

The effect of turbulent fluctuation of air on thermal sensation. Sugai K, et al. **Ann N Y Acad Sci** 1998 Sep 11;858:98–104

Neonatal infrared axillary thermometry. Seguin J, et al. **Clin Pediatr (Phila)** 1999 Jan;38(1):35–40

Perceived mood and skin body temperature rhythm in depression. Barbini B, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(3):157–60

Autonomic responses to suggestions for cold and warmth in hypnosis. Kistler A, et al. **Forsch Komplementarmed** 1999 Feb;6(1):10–4

A minireview of studies conducted in japan using finger-skin temperature during cold-stress tests for the diagnosis of hand-arm vibration syndrome. Harada N, et al. **Int Arch Occup Environ Health** 1999 Aug;72(5):330–4 (54 ref.)

Energy loss due to radiation in postmortem cooling. Part A: quantitative estimation of radiation using the Stefan-Boltzmann law. Mall G, et al. **Int J Legal Med** 1998; 111(6):299–304

Infection by M. leprae is governed by the temperature at the entry point: a preliminary note [letter] Ebenezer GJ, et al. **Int J Lepr Other Mycobact Dis** 1999 Jun;67(2):162–4

Warming of feet elevates nasal mucosal surface temperature and reduces the early response to nasal challenge with allergen. Assanasen P, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):285–93

Skin temperature of the shoulder: circadian rhythms in normal and pathologic shoulders. Miyakoshi N, et al. **J Shoulder Elbow Surg** 1998 Nov–Dec;7(6):625–8

Temperature dependence of excitability indices of human cutaneous afferents. Burke D, et al. **Muscle Nerve** 1999 Jan;22(1):51–60

Sleep stage and skin temperature regulation during night-sleep in winter. Kubo H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):121–3

The relative increase in skin temperature after stellate ganglion block is predictive of a complete sympathectomy of the hand [letter; comment] Ackerman WE 3rd, et al. **Reg Anesth Pain Med** 1999 May–Jun;24(3):275–6. Comment on: Reg Anesth Pain Med 1998 May–Jun;23(3):266–70.

[Clinical and experiment study of cooling therapy on burned wound] Li C, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Aug;77(8):586–8 (Eng. Abstr.) **(Chi)**

[Effects of exposure to hypoxia on the skin temperature and glycogen content of frostbitten feet in rabbits] Tian J, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 May;13(2):118–20 (Eng. Abstr.) **(Chi)**

[The effect of combined laser and electropuncture on the bioelectrical potentials and skin temperature of patients with gastroesophageal reflux] Myrzabaieva NA, et al. **Lik Sprava** 1998 Jun;(4):144–6 (Eng. Abstr.) **(Ukr)**

DRUG EFFECTS

Thermophysical effects of ointments in cold: an experimental study with a skin model. Lehmuskallio E, et al. **Acta Derm Venereol** 1999 Jan;79(1):33–6

Relative contribution of skin and core temperatures to vasoconstriction and shivering thresholds during isoflurane anesthesia. Lenhardt R, et al. **Anesthesiology** 1999 Aug; 91(2):422–9

[Can ointments replace warning up?] Clarys P, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):XXIV–XXVI **(Ger)**

PHYSIOLOGY

Changes of pulse rate and skin temperature evoked by electroacupuncture stimulation with different frequency on both Zusanli acupoints in humans. Hsieh CL, et al. **Am J Chin Med** 1999;27(1):11–8

Dynamic thermography: analysis of hand temperature during exercise. Zontak A, et al. **Ann Biomed Eng** 1998 Nov–Dec; 26(6):988–93

On the thermal efficiency of cold-stressed fingers. Shitzer A. **Ann N Y Acad Sci** 1998 Sep 11;858:74–87

The influence of cold and compression on lymph flow at the ankle. Meeusen R, et al. **Clin J Sport Med** 1998 Oct; 8(4):266–71

Physiological significance of hydrophilic and hydrophobic textile materials during intermittent exercise in humans under the influence of warm ambient temperature with and without wind. Kwon A, et al. **Eur J Appl Physiol** 1998 Nov;78(6):487–93

Effects of repeated exercise/rest sessions at -10 degrees C on skin and rectal temperatures in men wearing chemical protective clothing. Rissanen S, et al. **Eur J Appl Physiol** 1998 Nov;78(6):560–4

Prediction of shivering heat production from core and mean skin temperatures. Tikuisis P, et al. **Eur J Appl Physiol** 1999 Feb;79(3):221–9

In vitro percutaneous penetration through hairless rat skin: influence of temperature, vehicle and penetration enhancers. Clarys P, et al. **Eur J Pharm Biopharm** 1998 Nov;46(3):279–83

Energy loss due to radiation in postmortem cooling. Part B: Energy balance with respect to radiation. Mall G, et al. **Int J Legal Med** 1999;112(4):233–40

Relative contribution of core and cutaneous temperatures to thermal comfort and autonomic responses in humans. Frank SM, et al. **J Appl Physiol** 1999 May;86(5):1588–93

Role of nitric oxide in the vascular effects of local warming of the skin in humans. Kellogg DL Jr, et al. **J Appl Physiol** 1999 Apr;86(4):1185–90

Blood-gas measurements adjusted for temperature at three sites during incremental exercise in the horse. Taylor LE, et al. **J Appl Physiol** 1998 Sep;85(3):1030–6

An evaluation of the wind chill factor: its development and applicability. Bluestein M. **J Biomech Eng** 1998 Apr; 120(2):255–8

Normative values of vibratory perception in 530 children, juveniles and adults aged 3–79 years. Hilz MJ, et al. **J Neurol Sci** 1998 Aug 14;159(2):219–25

A comparison of rectal and subcutaneous body temperature measurement in the common marmoset. Cilia J, et al. **J Pharmacol Toxicol Methods** 1998 Jul;40(1):21–6

"Warmth-insensitive fields": evidence of sparse and irregular innervation of human skin by the warmth sense. Green BG, et al. **Somatosens Mot Res** 1998;15(4):269–75

An objective method to estimate the severity of Raynaud phenomenon: digital blood pressure response to cooling. Maricq HR, et al. **Vasc Med** 1998;3(2):109–13

[Temperature stress for patients in routine magnetic resonance examinations] Tomczak R, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):639–44 (Eng. Abstr.) **(Ger)**

[Study of skin temperature, microclimate and comfort of clothing of old females at rest--ambient temperature x humidity: 30 degrees C. R.H.80%, 30 degrees C. R.H.45%, 20 degrees C. R.H.45%] Nakazato Y, et al. **Nippon Eiseigaku Zasshi** 1998 Jul;53(2):477–88 (Eng. Abstr.) **(Jpn)**

[Influence of rate of skin temperature decrease due to skin cooling on tension threshold of motor units] Yona M, et al. **Nippon Seirigaku Zasshi** 1998;60(7-8):341–7 **(Jpn)**

RADIATION EFFECTS

Accuracy of subsurface temperature distributions computed from pulsed photothermal radiometry. Smithies DJ, et al. **Phys Med Biol** 1998 Sep;43(9):2453–63

SKIN TESTS

Positive skin tests in late reactions to radiographic contrast media. Brockow K, et al. **Allerg Immunol (Paris)** 1999 Feb; 31(2):49–51

Skin tests or in vitro tests? [editorial; comment] Muñoz-López F. **Allergol Immunopathol (Madr)** 1998 Sep-Oct;26(5):203–8. Comment on: Allergol Immunopathol (Madr) 1998 Sep-Oct;26(5):228–33. **(Eng, Spa)**

Predictive capacity of histamine release for the diagnosis of drug allergy. Demoly P, et al. **Allergy** 1999 May; 54(5):500–6

Allergen-induced accumulation of eosinophils and lymphocytes in skin chambers is associated with increased levels of interleukin-4 and sVCAM-1. Fernvik E, et al. **Allergy** 1999 May;54(5):455–63

Determination of the allergenic activity of birch pollen and apple prick test solutions by measurement of beta-hexosaminidase release from RBL-2H3 cells. Comparison with classical methods in allergen standardization. Hoffmann A, et al. **Allergy** 1999 May; 54(5):446–54

Cow's milk allergy: diagnostic accuracy of skin prick and patch tests and specific IgE. Majamaa H, et al. **Allergy** 1999 Apr;54(4):346–51

Skin-test responses to mycobacteria in atopy and asthma [letter] Rook GA, et al. **Allergy** 1999 Mar;54(3):285–6

Penicillin skin testing: a way to optimize antibiotic utilization. Harris AD, et al. **Am J Med** 1999 Aug;107(2):166–8

The relationship of skin test positivity, high serum total IgE levels, and peripheral blood eosinophilia to symptomatic and asymptomatic airway hyperresponsiveness. Jansen DF, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):924–31

Changes in skin and nasal sensitivity to allergens and the course of rhinitis; a long-term follow-up study [see comments] Simola M, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):152–6. Comment in: Ann Allergy Asthma Immunol 1999 Feb;82(2):131–2.

Skin-test reactivity and isotype-specific immune responses to recombinant Asp f 3, a major allergen of Aspergillus fumigatus. Hemmann S, et al. **Clin Exp Allergy** 1998 Jul; 28(7):860–7

Comparison of skin prick test and specific IgE determination for the diagnosis of latex allergy [letter; comment] Niggemann B. **Clin Exp Allergy** 1999 Jan;29(1):133–4. Comment on: Clin Exp Allergy 1998 Aug;28(8):971–6.

Use of a whole blood assay to evaluate in vitro T cell responses to new leprosy skin test antigens in leprosy patients and healthy subjects. Weir RE, et al. **Clin Exp Immunol** 1999 May;116(2):263–9

Ragweed allergy: correlation between skin reactivity and in vitro complement activation. Dervaderics M, et al. **Immunol Lett** 1998 Dec;64(2-3):119–23

The effect of immunodeficiency on cutaneous delayed-type hypersensitivity testing in HIV-infected women without anergy: implications for tuberculin testing. HER Study Group. HIV Epidemiology Research. Klein RS, et al. **Int J Tuberc Lung Dis** 1999 Aug;3(8):681–8

Natural evolution of skin test sensitivity in patients allergic to beta-lactam antibiotics. Blanca M, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):918–24

Skin reactivity to inhalant allergens, total serum IgE levels, and bronchial responsiveness to methacholine are increased in parents of nonatopic asthmatic children. Kim YK, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):311–6

A comparison of skin prick tests, intradermal skin tests, and RASTs in the diagnosis of cat allergy. Wood RA, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):773–9

Current therapy for chronic rhinitis [letter; comment] Davidson A, et al. **J S C Med Assoc** 1999 May;95(5):208–9 . Comment on: J S C Med Assoc 1998 Dec;94(12):535–8. Comment on: J S C Med Assoc 1998 Dec;94(12):539–41.

Positive skin reaction test in haemodialysis patients allergic to nafamostat mesilate [letter] Okada H, et al. **Nephrol Dial Transplant** 1998 Aug;13(8):2166–7

Human immunodeficiency virus status and delayed-type hypersensitivity skin testing in Ugandan children. Mandalakas AM, et al. **Pediatrics** 1999 Feb;103(2):E21

Allergy to beta-lactam antibiotics in children. Ponvert C, et al. **Pediatrics** 1999 Oct;104(4):e45

[Skin tests for general anesthetics] Le Sellin J. **Allerg Immunol (Paris)** 1998 Sep;30(7):231–3 (2 ref.) (Eng. Abstr.) **(Fre)**

[Simple skin tests in the initial evaluation of the tolerance of a topical medication or cosmetic] Assier-Bonnet H, et al. **Ann Dermatol Venereol** 1998 Dec;125(12):916–8 **(Fre)**

[Re-evaluation of multi-allergen skin prick test for infants with atopic dermatitis--clinical relevance and evaluation by mothers] Kusunoki T, et al. **Arerugi** 1998 Aug; 47(8):726–33 (Eng. Abstr.) **(Jpn)**

[Specific skin reactions induced by individual pollen preparations in hypersensitivity persons] Paranos S, et al. **Srp Arh Celok Lek** 1998 Sep-Oct;126(9-10):362-7 (Eng. Abstr.) **(Scc)**

[Total allergen-specific IgE antibodies in the serum and skin reactivity induced by a mixture of pollens in allergic individuals] Paranos S, et al. **Vojnosanit Pregl** 1998 Nov-Dec;55(6):605-9 (Eng. Abstr.) **(Scc)**

[Inhibitory effect of astemizol in skin tests with histamine] Rodríguez Medina R, et al. **Rev Alerg Mex** 1999 Mar-Apr; 46(2):58-60 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Systemic reactions to allergy skin tests. Valyasevi MA, et al. **Ann Allergy Asthma Immunol** 1999 Aug;83(2):132-6

[Prick test caused anaphylactic reaction. Consider the risk in the examination for allergy!] Wille S, et al. **Lakartidningen** 1998 Oct 7;95(41):4490-1 **(Swe)**

METHODS

Diagnostic tests in children with atopic dermatitis and food allergy. de Waard-van der Spek FB, et al. **Allergy** 1998 Nov;53(11):1087-91

Clinical usefulness of patch and challenge tests in the diagnosis of cell-mediated allergy to betalactams. Patriarca G, et al. **Ann Allergy Asthma Immunol** 1999 Sep; 83(3):257-66

The dermal acute toxic class method: test procedures and biometric evaluations. Diener W, et al. **Arch Toxicol** 1998 Dec;72(12):751-62

Comparison of the Quintest to the lancet in allergic skin testing. Carrozzi FM, et al. **Asian Pac J Allergy Immunol** 1998 Dec;16(4):149-54

The value of a single skin prick testing for specific IgE Dermatophagoides pteronyssinus to distinguish atopy from non-atopic asthmatic children in the tropics. Santoso H. **Asian Pac J Allergy Immunol** 1998 Jun-Sep;16(2-3):69-74

Irritancy of industrial hand cleansers tested by repeated open application on human skin. English JS, et al. **Contact Dermatitis** 1999 Feb;40(2):84-8

Leishmaniases survey in the Awash Valley: leishmanin skin test profile in the Upper Awash and surrounding areas. Ali A. **Ethiop Med J** 1997 Oct;35(4):225-33

Leishmaniasis in the middle course of the Ethiopian Rift Valley: I. Clinical and leishmanin skin test surveys. Berhe N, et al. **Ethiop Med J** 1998 Apr;36(2):113-22

A quantitative comparison of induction and challenge concentrations inducing a 50% positive response in three skin sensitization tests; the guinea pig maximization test, adjuvant and patch test and Buehler test. Nakamura Y, et al. **J Toxicol Sci** 1999 May;24(2):123-31

Interpreting skin prick tests in the evaluation of food allergy in children. Eigenmann PA, et al. **Pediatr Allergy Immunol** 1998 Nov;9(4):186-91

Phototesting in oriental patients with lupus erythematosus. Leenutaphong V, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):7-12

[Diagnostic use of enzymatic RAST skin tests and determination of eosinophils in nasal mucosa in allergic rhinitis] Gómez Castillo CA, et al. **Rev Alerg Mex** 1998 Nov-Dec;45(6):150-8 (Eng. Abstr.) **(Spa)**

STANDARDS

Minimal requirements for adequate labeling of allergy extracts and skin tests report forms. ACAAI Board of Regents. **Ann Allergy Asthma Immunol** 1999 Sep;83(3):201

Sensitizing potential of acetaldehyde and formaldehyde using a modified cumulative contact enhancement test (CCET). Bergh M, et al. **Contact Dermatitis** 1999 Mar;40(3):139-45

A hand immersion test under laboratory-controlled usage conditions: the need for sensitive and controlled assessment methods. Paye M, et al. **Contact Dermatitis** 1999 Mar; 40(3):133-8

Critique of the multicenter latex skin testing efficacy study [letter] Shusterman D, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):961-2

VETERINARY

The efficacy of the skin delayed-type hypersensitivity using a Brucellin prepared from a mucoid strain of Brucella abortus to detect brucellosis. Bercovich Z, et al. **Vet J** 1999 Jan;157(1):61-7

SKIN TRANSPLANTATION

see related

SURGICAL FLAPS

Speech articulation after subtotal glossectomy and reconstruction with a myocutaneous flap. Knuuttila H, et al. **Acta Otolaryngol** 1999;119(5):621-6

Lip augmentation with AlloDerm acellular allogenic dermal graft and fat autograft: A comparison with autologous fat injection alone. Castor SA, et al. **Aesthetic Plast Surg** 1999 May-Jun;23(3):218-23

Endoscopic coverage of fetal myelomeningocele in utero. Bruner JP, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):153-8

Use of flap skin as graft donor site in the reconstruction of flap donor site defects [letter] Akan IM, et al. **Ann Plast Surg** 1999 Mar;42(3):343-4

Surgical management of cutaneous anthrax. Aslan G, et al. **Ann Plast Surg** 1998 Nov;41(5):468-70

Skin flaps for pilonidal disease [letter] Bascom J. **Ann Plast Surg** 1998 Sep;41(3):338

Reconstruction of lateral skull base oncological defects: the role of free tissue transfer. Disa JJ, et al. **Ann Plast Surg** 1998 Dec;41(6):633-9

Deepithelialization prior to onlay grafting using the UltraPulse carbon dioxide laser. Hallock GG. **Ann Plast Surg** 1999 Aug;43(2):137-41

Repair of high-energy-induced tissue defects of the dorsal foot by free muscle transfer and skin graft. Işik S, et al. **Ann Plast Surg** 1999 Jul;43(1):21-9

Prenatal pressure necrosis of the scalp. Matthews MS. **Ann Plast Surg** 1999 Jul;43(1):74-6

Allogeneic cultured keratinocytes vs. cadaveric skin to cover wide-mesh autogenous split-thickness skin grafts. Monstrey S, et al. **Ann Plast Surg** 1999 Sep;43(3):268-72

An auricular paper model. Yotsuyanagi T, et al. **Ann Plast Surg** 1998 Sep;41(3):327-9

Biological skin covers in treatment of two cases of the Lyell's syndrome. Klein L, et al. **Ann Transplant** 1997;2(1):45-8

Pathways of antigen traffic from skin allotransplant to recipient lymph nodes--an evolutionarily developed route for initiation of rejection of foreign antigens. Olszewski WL, et al. **Ann Transplant** 1998;3(4):15-20 (38 ref.)

Split-thickness skin graft donor site care: a quantitative synthesis of the research. Rakel BA, et al. **Appl Nurs Res** 1998 Nov;11(4):174-82 (29 ref.)

Reinnervation of flaps and grafts of the face. Lutz ME, et al. **Arch Dermatol** 1998 Oct;134(10):1271-4

Behavior of tissue-engineered skin: a comparison of a living skin equivalent, autograft, and occlusive dressing in human donor sites [see comments] Muhart M, et al. **Arch Dermatol** 1999 Aug;135(8):913-8. Comment in: Arch Dermatol 1999 Aug;135(8):977-8.

A systematic review of autologous transplantation methods in vitiligo. Njoo MD, et al. **Arch Dermatol** 1998 Dec; 134(12):1543-9 (59 ref.)

Tissue-engineered skin: an alternative to split-thickness skin grafts? [editorial; comment] Phillips TJ. **Arch Dermatol** 1999 Aug;135(8):977-8. Comment on: Arch Dermatol 1999 Aug;135(8):913-8.

The use of processed allograft dermal matrix for intraoral resurfacing: an alternative to split-thickness skin grafts. Rhee PH, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov;124(11):1201-4

The use of the latissimus dorsi musculocutaneous flap for immediate correction of the deformity resulting from breast conservation surgery. Kat CC, et al. **Br J Plast Surg** 1999 Mar;52(2):99-103

A simple method of decreasing the morbidity of split-thickness skin graft donor sites [letter] Majumder S, et al. **Br J Plast Surg** 1999 Mar;52(2):159

Pharmacological enhancement of cutaneous flap survival with topical dimethyl sulphoxide and hydrogen peroxide. Raposio E, et al. **Br J Plast Surg** 1998 Oct;51(7):551-4

Dexamethasone treatment prior to reperfusion improves the survival of skin flaps subjected to secondary venous ischaemia. Willemart G, et al. **Br J Plast Surg** 1998 Dec; 51(8):624-8

Topical application of a melanotropin analogue to vulgar vitiligo dermo-epidermal minigrafts. Schwartzmann-Solon AM, et al. **Braz J Med Biol Res** 1998 Dec;31(12):1557-64

The mesh skin graft is very useful in the resurfacing of large burns [letter] Aiyer PM, et al. **Burns** 1999 Aug;25(5):467

Dural reconstruction of a class IV calvarial burn with decellularized human dermis. Barret JP, et al. **Burns** 1999 Aug;25(5):459-62

Pre-confluent keratinocyte grafting: the future for cultured skin replacements? [editorial] Harris PA, et al. **Burns** 1998 Nov;24(7):591-3 (15 ref.)

Evaluation of proteinase inhibitors and free radical inhibitors/scavengers in reducing post-thaw viability loss of cryopreserved skin. Kearney JN. **Burns** 1998 Sep; 24(6):507-12

Antibiotic prophylaxis--Hobson's choice in burns management. Pillai TA, et al. **Burns** 1998 Dec;24(8):760-2

Conical skin graft in the reconstruction of medial canthal defects. Harvey J, et al. **Can J Ophthalmol** 1998 Oct; 33(6):320-3

Behavior of radial forearm skin flaps transplanted into the oral cavity. Badran D, et al. **Clin Anat** 1998;11(6):379-89

The logic of follicular unit transplantation. Bernstein RM, et al. **Dermatol Clin** 1999 Apr;17(2):277-95, viii; discussion 296 (28 ref.)

Creating a hairline. Pomerantz MA. **Dermatol Clin** 1999 Apr; 17(2):271-5, vii; discussion 276 (9 ref.)

Methodology of follicular unit hair transplantation. Stough D, et al. **Dermatol Clin** 1999 Apr;17(2):297-306, viii (7 ref.)

Silicone gel sheet dressings for prevention of post-minigraft cobblestoning in vitiligo. Agarwal US, et al. **Dermatol Surg** 1999 Feb;25(2):102-4

Tie-over bolster dressings may not be necessary to secure small full thickness skin grafts. Langtry JA, et al. **Dermatol Surg** 1998 Dec;24(12):1350-3

NOD mice have a generalized defect in their response to transplantation tolerance induction. Markees TG, et al. **Diabetes** 1999 May;48(5):967-74

Are there specific haemostatic abnormalities in children surviving septic shock with purpura and having skin necrosis or limb ischaemia that need skin grafts or limb amputations? Cremer R, et al. **Eur J Pediatr** 1999 Feb; 158(2):127-32

A comparison of skin storage methods for oculoplastic surgery. Baldeschi L, et al. **Eye** 1998;12 (Pt 4):714-6

TCR diversity in gammadeltaTCR+ hybridomas derived from mice given portal vein donor-specific pre-immunization and skin allografts. Sun Y, et al. **Immunol Lett** 1998 Dec;64(2-3):85-95

Paradoxical early immune activation during acceptance of liver allografts compared with rejection of skin grafts in a rat model of transplantation. Rokahr KL, et al. **Immunology** 1998 Oct;95(2):257-63

A new model of epidermal culture for the surgical treatment of vitiligo. Andreassi L, et al. **Int J Dermatol** 1998 Aug; 37(8):595-8

Cultivation and transplantation of epidermal keratinocytes. Terskikh VV, et al. **Int Rev Cytol** 1999;188:41-72 (154 ref.)

Epidermal grafts for treatment of stable and progressive vitiligo. Kim HY, et al. **J Am Acad Dermatol** 1999 Mar; 40(3):412-7

The mechanism of "suction" [letter; comment] Lewis EJ, et al. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):664. Comment on: J Am Acad Dermatol 1997 Oct;37(4):638-9.

Apligraf treatment of venous ulcers and other chronic wounds. Falanga V. **J Dermatol** 1998 Dec;25(12):812-7 (18 ref.)

The use of Apligraf in acute wounds. Kirsner RS. **J Dermatol** 1998 Dec;25(12):805-11 (39 ref.)

A fibre-free alginate dressing in the treatment of split thickness skin graft donor sites. Steenfos HH, et al. **J Eur Acad Dermatol Venereol** 1998 Nov;11(3):252-6

Cadaveric allograft as adjunct therapy for nonhealing ulcers. Snyder RJ, et al. **J Foot Ankle Surg** 1999 Mar-Apr; 38(2):93-101

Surgical management after doxorubicin and epirubicin extravasation [see comments] Heitmann C, et al. **J Hand Surg [Br]** 1998 Oct;23(5):666-8. Comment in: J Hand Surg [Br] 1999 Jun;24(3):390.

Live confocal microscopy of oligonucleotide uptake by keratinocytes in human skin grafts on nude mice. White PJ, et al. **J Invest Dermatol** 1999 Jun;112(6):887-92

Initial general management and surgery of six extensively burned children treated with cultured epidermal autografts. Chalumeau M, et al. **J Pediatr Surg** 1999 Apr;34(4):602-5

Prolongation of rat skin and cardiac allograft survival by low molecular weight heparin. Shapira OM, et al. **J Surg Res** 1999 Jul;85(1):83-7

Scoring of skin rejection in a swine composite tissue allograft model. Zdichavsky M, et al. **J Surg Res** 1999 Jul;85(1):1-8

Combined treatment of digital degloving injuries: a case report. Karacalar A, et al. **Microsurgery** 1998;18(3):172-5

Loxoscelism [letter; comment] Ship AG. **N Engl J Med** 1998 Dec 24;339(26):1945-6. Comment on: N Engl J Med 1998 Aug 6;339(6):379.

Use of an acellular dermal allograft for dural replacement: an experimental study. Chaplin JM, et al. **Neurosurgery** 1999 Aug;45(2):320-7

Thiersch skin grafting and postoperative care of otologic patients. Sajjadi H. **Otolaryngol Clin North Am** 1999 Jun; 32(3):597-608

Long-term results of dermal grafting for the repair of nasal septal perforations. Lee D, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):483-6

Horizontal and vertical pigment spread into surrounding piebald epidermis and hair follicles after suction blister epidermal grafting. Horikawa T, et al. **Pigment Cell Res** 1999 Jun;12(3):175-80

Evaluation of skin flap survival in rats [letter; comment] Akyürek M, et al. **Plast Reconstr Surg** 1999 Jan; 103(1):337-8. Comment on: Plast Reconstr Surg 1997 Jun;99(7):2030-3.

A simple preparation of autologous fibrin glue for skin-graft fixation. Buckley RC, et al. **Plast Reconstr Surg** 1999 Jan; 103(1):202-6

Dermal autografts for fascial repair after TRAM flap harvest. Hein KD, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2287-92

Syringe splinting for skin grafts in penile reconstruction [letter] Latifoğlu O, et al. **Plast Reconstr Surg** 1999 Feb; 103(2):747-8

Total face reconstruction: skin graft versus free flap [letter; comment] Latifoğlu O, et al. **Plast Reconstr Surg** 1999 Mar; 103(3):1076-8. Comment on: Plast Reconstr Surg 1997 May;99(6):1566-75.

Full-thickness grafting of acute eyelid burns should not be considered taboo. Lille ST, et al. **Plast Reconstr Surg** 1999 Sep;104(3):637-45

Skin graft survival after external beam irradiation. Tadjalli HE, et al. **Plast Reconstr Surg** 1999 Jun;103(7):1902-8

Locally administered vascular endothelial growth factor cDNA increases survival of ischemic experimental skin flaps. Taub PJ, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2033-9

The 60-kDa heat shock protein modulates allograft rejection. Birk OS, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27; 96(9):5159-63

Use of autologous fibrin glue in dermatologic surgery: application of skin graft and second intention healing. de Moraes AM, et al. **Rev Paul Med** 1998 Jul-Aug; 116(4):1747-52

Comparison of the effect of a collagen dressing and a

polyurethane dressing on the healing of split thickness skin graft (STSG) donor sites. Horch RE, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec; 32(4):407–13

The Advanced Tissue Sciences story. Naughton G. **Sci Am** 1999 Apr;280(4):84–5

Malononitrilamides synergistically prevent acute and treat ongoing skin allograft rejection with cyclosporine. Schorlemmer HU, et al. **Transpl Int** 1998;11 Suppl 1:S340–4

En bloc skin excision for upper extremity cutaneous malignancies in renal allograft patients. Parungao A, et al. **Transplant Proc** 1999 Aug;31(5):2127–30

Burns and skin transplantation. Rouabhia M. **Transplant Proc** 1999 Feb–Mar;31(1–2):889

Temporal sequence of transcription of perforin, Fas ligand, and tumor necrosis factor–alpha genes in rejecting skin allografts. Borson ND, et al. **Transplantation** 1999 Mar 15; 67(5):672–80

Use of 2–[18F]fluoro–2–deoxyglucose as a potential agent in the prediction of graft rejection by positron emission tomography. Heelan BT, et al. **Transplantation** 1998 Oct 27;66(8):1101–3

Management of burns: skin cover. Antia NH, et al. **Trop Doct** 1999 Apr;29(2):66–9 (0 ref.)

Skin grafting in difficult situations. James J. **Trop Doct** 1999 Jan;29(1):41–2 (2 ref.)

Initial experience with processed human cadaveric allograft skin for reconstruction of the corpus cavernosum in repair of distal extrusion of a penile prosthesis. Landman J, et al. **Urology** 1999 Jun;53(6):1222–4

[Thin split thickness skin grafting double taken from avulsed skin in treatment for skin avulsion in children] Yu Z, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):242–3 (Eng. Abstr.) **(Chi)**

[Recurrence of erosive pustular scalp dermatosis after a skin graft] Drouin CA, et al. **Ann Dermatol Venereol** 1999 Apr; 126(4):335–8 (Eng. Abstr.) **(Fre)**

[Bulky superinfected tinea capitis of the scalp. Treatment by surgical resection and reconstruction by cutaneous expansion] Kron C, et al. **Arch Pediatr** 1998 Sep;5(9):992–5 (Eng. Abstr.) **(Fre)**

[Skin graft urethroplasty] Gaschignard N, et al. **Prog Urol** 1999 Feb;9(1):112–7 (Eng. Abstr.) **(Fre)**

[Use of skin expansion in resurfacing defective amputation stumps of the lower limbs. 6 case reports] Hulard O, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Sep; 85(5):512–6 (Eng. Abstr.) **(Fre)**

[Early and late treatment of iatrogenic injection damage] von Heimburg D, et al. **Chirurg** 1998 Dec;69(12):1378–82 (Eng. Abstr.) **(Ger)**

[A case of coronary artery bypass grafting for effort angina in a patient with post skin grafting for an extramammary Paget's disease] Kobayashi K, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep;46(9):878–81 (Eng. Abstr.) **(Jpn)**

[The skin allograft reduces the incidence of mammary cancer in Co60–irradiated female mice] Clode WH, et al. **Acta Med Port** 1998 Jun;11(6):521–7 (Eng. Abstr.) **(Por)**

[Effect of sodium succinate on histomorphologic changes in the rat autodermal transplant] Galenko–Iaroshevskii PA, et al. **Biull Eksp Biol Med** 1998 Nov;126(11):555–60 **(Rus)**

[Role of B.A. Petrov in foundation and development of free flap skin transplantation problem] Smirnov SV, et al. **Khirurgiia (Mosk)** 1998;(9):11–3 (Eng. Abstr.) **(Rus)**

[Skin cell culture: utilization in plastic surgery and laboratory studies] Boranić M, et al. **Lijec Vjesn** 1999 Apr–May; 121(4–5):137–43 (Eng. Abstr.) **(Scr)**

[Substitution urethroplasties with free graft buccal mucosa] Martínez–Piñeiro JA, et al. **Arch Esp Urol** 1998 Sep; 51(7):645–59 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Prophylactic plating of the donor site of osteocutaneous radial forearm flaps. Nuñez VA, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):210–2

Cadaveric skin allograft–associated cytomegalovirus transmission in a mouse model of thermal injury. Kobayashi H, et al. **Clin Immunol** 1999 Aug;92(2):181–7

Synchronous appearance of keratoacanthomas in burn scar and skin graft donor site shortly after injury. Tamir G, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):870–1

Incidence of the concrete scalp deformity associated with deep scalp donor sites and management with the Unna cap. Carter YM, et al. **J Burn Care Rehabil** 1999 Mar–Apr; 20(2):141–4

Complications after microsurgical tissue transfer in the head and neck region. Hoffmann J, et al. **J Craniomaxillofac Surg** 1998 Aug;26(4):255–9

[Histological change of keratinocyte in full–thickness skin autograft and its effect on hyperpigmentation of the graft] Li H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):72–5 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Acceptance of skin allografts in pigs by portal venous injection of donor bone marrow cells. Morita H, et al. **Ann Surg** 1999 Jul;230(1):114–9

Microchimerism following allogeneic vascularized bone marrow transplantation--its possible role in induction of posttransplantation tolerance. Durlik M, et al. **Ann Transplant** 1998;3(1):24–6

Anergic T cells act as suppressor cells in vitro and in vivo. Chai JG, et al. **Eur J Immunol** 1999 Feb;29(2):686–92

CD4 T cells can reject major histocompatibility complex class I–incompatible skin grafts. Wise M, et al. **Eur J Immunol** 1999 Jan;29(1):156–67

Persistent tolerance induced after portal venous injection of allogeneic cells plus cyclophosphamide treatment. Jin T, et al. **Immunobiology** 1999 Jun;200(2):215–26

Importance of intrathymic mixed chimerism for the maintenance of skin allograft tolerance across fully allogeneic antigens in mice. Eto M, et al. **Immunology** 1999 Mar;96(3):440–6

Critical roles for IL–4, IL–5, and eosinophils in chronic skin allograft rejection. Le Moine A, et al. **J Clin Invest** 1999 Jun;103(12):1659–67

Contributions of direct and indirect T cell alloreactivity during allograft rejection in mice. Benichou G, et al. **J Immunol** 1999 Jan 1;162(1):352–8

Human CD4+ T cells mediate rejection of porcine xenografts. Friedman T, et al. **J Immunol** 1999 May 1; 162(9):5256–62

IL–5 mediates eosinophilic rejection of MHC class II–disparate skin allografts in mice. Le Moine A, et al. **J Immunol** 1999 Oct 1;163(7):3778–84

Linked suppression of skin graft rejection can operate through indirect recognition. Wise MP, et al. **J Immunol** 1998 Dec 1;161(11):5813–6

MCP–1 and MIP–1alpha are most efficient in recruiting T cells into the skin in vivo. Kunstfeld R, et al. **J Invest Dermatol** 1998 Dec;111(6):1040–4

Experimental induction of alopecia areata–like hair loss in C3H/HeJ mice using full–thickness skin grafts. McElwee KJ, et al. **J Invest Dermatol** 1998 Nov;111(5):797–803

Skin allograft survival following intrathymic injection of donor bone marrow. Cober SR, et al. **J Surg Res** 1999 Aug;85(2):204–8

Site–specific immunosuppression using a new formulation of topical cyclosporine A with polyethylene glycol–8 glyceryl caprylate/caprate. Tran HS, et al. **J Surg Res** 1999 May 15;83(2):136–40

The role of CD8+ cells and CD11a in the rejection–reaction of the allogeneic microskin grafting. Lin SD, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Aug; 14(8):464–72

Unique inflammatory features noted in intraorally transferred skin flaps: correlation with Candida albicans infection. Katou F, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Jun;87(6):676–84

An alternative conditioning regimen for induction of specific skin graft tolerance across full major histocompatibility complex barriers. de Vries–van der Zwan A, et al. **Transpl Immunol** 1998 Sep;6(3):147–51

Assessment of peripheral tolerance in anti–CD4 treated C57BL/6 mouse heart transplants recipients. Han WR, et al. **Transpl Immunol** 1999 Mar;7(1):37–44

Tolerance induction following allogeneic vascularized bone marrow transplantation--the possible role of microchimerism. Durlik M, et al. **Transpl Int** 1998;11 Suppl 1:S299–302

FTY720, a novel immunosuppressant, induces sequestration of circulating lymphocytes by acceleration of lymphocyte homing. Chiba K, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1230–3

Dissociation between chimerism and skin graft tolerance after neonatal injection of allogenic spleen cells. Donckier V, et al. **Transplant Proc** 1998 Dec;30(8):4018–9

Systemic administration of CTLA4–Ig or anti–CD40 ligand antibody inhibits second–set rejection of mouse liver allografts. Fu F, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1244

Role of graft cytokine expression in the tolerogenicity of neonatal skin allografts. Gozzo J, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):813

Extension of graft survival with pulsed administration of donor dendritic cells. Gozzo J, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1196

Transplanted hepatocytes infected with a complement receptor type 1 (CR1)–containing recombinant adenovirus are resistant to hyperacute rejection. Hammel JM, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):939

Acquired tolerance is induced by MHC–incompatible test skin graft in adult thymectomized rats with chronic drainage of thoracic duct. Hattori Y, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):748

FTY720, a novel immunosuppressant, shows a synergistic effect in combination with FK 506 in rat allograft models. Hoshino Y, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1224–6

Long–term follow–up of ABO–incompatible renal transplant recipients. Karakayali H, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):256–7

Oral delivery of liposomal tacrolimus: increased efficacy and reduced toxicity. McAlister VC, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1110

A composite graft of islet plus donor lymph node cells induced donor specific tolerance in a "low responder" rat combination with class I MHC disparity. Maeda A, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):749–50

Prolonged skin allograft survival in mice treated with Flt3–ligand–induced dendritic cells and anti–CD154 monoclonal antibody. Markees TG, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):884–5

Prolongation of concordant xenograft survival by treatment with FTY720. Miyata Y, et al. **Transplant Proc** 1998 Dec; 30(8):4163–5

Decreased gamma–IFN and IL–2 gene expression in regional lymph nodes of skin allografts is associated with increased allograft survival in the WKY F344 rat model. Nicolaidou E, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):818–9

Distinct tolerance pathways in sensitized rat recipients after blockade of activation signal 1 and signal 2. Onodera K, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):876–7

Cylexin: a P–selectin inhibitor prolongs heart allograft survival in hypersensitized rat recipients. Park IY, et al. **Transplant Proc** 1998 Nov;30(7):2927–8

Allogeneic and xenogeneic vascular injury and protection. Pober JS, et al. **Transplant Proc** 1998 Dec;30(8):4168–9

Mechanisms underlying the development of T–cell tolerance following interruption of signalling at the CD28/B7 and CD40/gp39 interface. Rastellini C, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):845

The combined use of sublethal irradiation and costimulatory blockade to generate mixed bone marrow chimeras. Salam A, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):1197–8

Malononitrilamides prevent the generation of oxygen radicals in mononuclear phagocytes and graft rejection in a rat model. Schorlemmer HU, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):851–3

Coadministration of malononitrilamides and tacrolimus induces tolerance in a rat skin allograft model. Schorlemmer HU, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1184–8

Combination therapy of malononitrilamides and tacrolimus (FK 506) induced long–term xenograft survival. Schorlemmer HU, et al. **Transplant Proc** 1998 Dec; 30(8):4170–3

Long–term allograft survival and tolerance induction by the synergistic activity of malononitrilamides and tacrolimus. Schorlemmer HU, et al. **Transplant Proc** 1998 Dec; 30(8):4099–103

Deletion of donor–reactive cells followed by stem cell transplantation in recipients treated with total lymphoid–irradiation as a means for induction of transplantation tolerance to organ allografts and xenografts. Slavin S, et al. **Transplant Proc** 1998 Dec;30(8):4021–2

Course and mechanism of tolerance induction after mouse liver transplantation. Sugioka A, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):459

Rejection of discordant skin xenografts by CD4– CD8– TCR alpha beta+ cells in CD4– and CD8–deficient mice. Umesue M, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):890–1

Differences in cellular mechanisms between heart and skin graft rejection by in vitro and in vivo analyses. Yamamoto T, et al. **Transplant Proc** 1998 Nov;30(7):3854

FTY720, a novel immunosuppressant, prolongs rat skin allograft survival by decreasing T–cell infiltration into grafts. Yanagawa Y, et al. **Transplant Proc** 1999 Feb–Mar; 31(1–2):1227–9

Lack of pluripotent stem cell engraftment in cyclophosphamide–induced tolerance. Yoshikawa M, et al. **Transplant Proc** 1999 Feb–Mar;31(1–2):898–9

Second–set rejection of skin allografts mediated by a T–cell subset in a chimeric mouse model. Yoshimura R, et al. **Transplant Proc** 1998 Nov;30(7):3858–9

CD8+ T lymphocytes account for acute accelerated allograft rejection in the rag mouse model. Yoshimura R, et al. **Transplant Proc** 1998 Nov;30(7):2952

The allogeneic response to cultured human skin equivalent in the hu–PBL–SCID mouse model of skin rejection. Briscoe DM, et al. **Transplantation** 1999 Jun 27; 67(12):1590–9

Cytotoxic pathways in the skin allograft rejection by CD4+ T cells. Ito A, et al. **Transplantation** 1999 Jul 15; 68(1):97–100

CD8+ T cells produce RANTES during acute rejection of murine allogeneic skin grafts. Koga S, et al. **Transplantation** 1999 Mar 27;67(6):854–64

Chronic rejection of major histocompatibility complex class II–disparate skin grafts after anti–CD3 therapy: a model of antibody–independent transplant vasculopathy. Le Moine A, et al. **Transplantation** 1998 Dec 15;66(11):1537–44

Angiogenesis in the huPBL–SCID model of human transplant rejection. Moulton KS, et al. **Transplantation** 1999 Jun 27;67(12):1626–31

Migration of dendritic cells to the draining lymph node after allogeneic or congeneic rat skin transplantation. Richters CD, et al. **Transplantation** 1999 Mar 27;67(6):828–32

Interferon–gamma is necessary for initiating the acute rejection of major histocompatibility complex class II–disparate skin allografts. Ring GH, et al. **Transplantation** 1999 May 27;67(10):1362–5

Down–modulation of host reactivity by anti–CD44 in skin transplantation. Seiter S, et al. **Transplantation** 1998 Sep 27;66(6):778–91

Different role of human HLA–DR and –DQ molecules in xenogeneic transplantation using transgenic mice. Sireci G, et al. **Transplantation** 1999 Jul 27;68(2):317–9

Evidence for epitope spreading and active suppression in skin graft tolerance after donor–specific transfusion. Yang L, et al. **Transplantation** 1999 Jun 15;67(11):1404–10

Reduced lymphoid response to skin allotransplants in cows with hepatic lipidosis. Wentink GH, et al. **Vet Q** 1999 Apr; 21(2):68–9

INSTRUMENTATION

Modified technique of suction blistering for epidermal grafting in vitiligo. Gupta S, et al. **Int J Dermatol** 1999 Apr;38(4):306–9

Surgical pearl: fine gauze is a useful carrier for epidermal graft in the treatment of vitiligo by means of the suction blister method. Tang WY, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):247–9

Skin meshing [letter] Vartak AM. **Trop Doct** 1999 Apr; 29(2):118

[A device for skin graft perforation and the production of narrow strips of skin] Izmailov GA, et al. **Voen Med Zh** 1999 Jun;320(6):64–5 **(Rus)**

METHODS

Experience with banked skin in the Prague Burn Center. Brož L, et al. **Acta Chir Plast** 1999;41(2):54–8

A further application of buried chip skin grafting. Sawada Y, et al. **Acta Chir Plast** 1998;40(3):68–72

Pinch grafting of leg ulcers in primary care. Oien RF, et al. **Acta Derm Venereol** 1998 Nov;78(6):438–9

Oral cavity onlay grafting using foam impregnated with honey:—a case report. Fasika OM, et al. **Afr J Med Med Sci** 1996 Sep;25(3):297

Simple sutureless skin graft fixation. Tzarnas CD. **Am Surg** 1999 Jan;65(1):86–7

Excision and skin grafting of leg ulcers. Puonti H, et al. **Ann Chir Gynaecol** 1998;87(3):219–23

Augmentation of facial soft-tissue defects with Alloderm dermal graft. Achauer BM, et al. **Ann Plast Surg** 1998 Nov; 41(5):503–7

A new method to facilitate skin graft harvest with minimal assistance [letter] Aslam A. **Ann Plast Surg** 1999 Jul; 43(1):101–2

Promising therapy for congenital giant pigmented nevi using acellular autograft nevi–dermal matrix. Mizuno H, et al. **Ann Plast Surg** 1999 Sep;43(3):273–82

Full–thickness skin graft from the ulnar aspect of the wrist to cover defects on the hand and digits. Park S, et al. **Ann Plast Surg** 1999 Feb;42(2):129–31

Effect of topical local anesthetic application to skin harvest sites for pain management in burn patients undergoing skin–grafting procedures. Jellish WS, et al. **Ann Surg** 1999 Jan;229(1):115–20

Lateral femoral cutaneous nerve block for split skin grafting. Khan ML, et al. **Bangladesh Med Res Counc Bull** 1998 Aug;24(2):32–4

Treatment of venous leg ulcers with cryopreserved cultured allogeneic keratinocytes: a prospective open controlled study. Lindgren C, et al. **Br J Dermatol** 1998 Aug; 139(2):271–5

Repigmentation of leucodermic defects in piebaldism by dermabrasion and thin split–thickness skin grafting in combination with minigrafting. Njoo MD, et al. **Br J Dermatol** 1998 Nov;139(5):829–33

Skin graft fixation [letter; comment] Banwell PE. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):480–1. Comment on: Br J Oral Maxillofac Surg 1998 Apr;36(2):141–2.

Total loss of upper and lower lips: challenges in reconstruction. Nath S, et al. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):460–1

Management of the radial composite donor site: an orthopaedic opinion. Sidebottom AJ, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):213–6

Closure of radial forearm free flap donor site with local full–thickness skin graft. van der Lei B, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):119–22

Fasciocutaneous flaps based on fascial feeding vessels for defects in the periolecranon area. Davalbhakta AV, et al. **Br J Plast Surg** 1999 Jan;52(1):60–3

Surgical management of hands in children with recessive dystrophic epidermolysis bullosa: use of allogeneic composite cultured skin grafts. Eisenberg M, et al. **Br J Plast Surg** 1998 Dec;51(8):608–13

The use of otherwise redundant skin to provide nasal lining in the reconstruction of full–thickness alar defects by nasolabial flap repair. Hosaka Y, et al. **Br J Plast Surg** 1999 Jan;52(1):29–32

Management of partial thickness facial burns (comparison of topical antibiotics and bio–engineered skin substitutes). Demling RH, et al. **Burns** 1999 May;25(3):256–61

Sideways meshing of split–thickness skin grafts—a useful technique. McCulley SJ. **Burns** 1999 Aug;25(5):453–4

The efficacy of 5% Sulfamylon solution for the treatment of contaminated explanted human meshed skin grafts. Maggi SP, et al. **Burns** 1999 May;25(3):237–41

Practical sources for autologous fibroblasts to prepare a bioengineered dermal equivalent [letter] van Zuijlen PP, et al. **Burns** 1998 Nov;24(7):687

Follicle trauma and the role of the dissecting microscope in hair transplantation. A multicenter study. Cooley JE, et al. **Dermatol Clin** 1999 Apr;17(2):307–12, viii; discussion 312–3

Additional graft donor sites for the nasal ala [letter; comment] Field LM. **Dermatol Surg** 1999 Mar;25(3):256–7. Comment on: Dermatol Surg 1997 May;23(5):335–49; quiz 350–1.

Silicone gel sheeting for stabilization of skin grafts. Görgü M, et al. **Dermatol Surg** 1998 Oct;24(10):1073–6

The nasal floor transposition flap for repairing distal nose/columella defects. MacFarlane DF, et al. **Dermatol Surg** 1998 Oct;24(10):1085–6

Treatment of stable and recalcitrant vitiligo by autologous miniature punch grafting: a prospective study of 1,000 patients. Malakar S, et al. **Dermatology** 1999;198(2):133–9

New forms of skin grafting: from the laboratory to the clinic. Freedlander E. **Hosp Med** 1998 Jun;59(6):484–7 (18 ref.)

Autologous epidermal grafting with PUVA–irradiated donor skin for the treatment of vitiligo. Lee AY, et al. **Int J Dermatol** 1998 Jul;37(7):551–4

Full–thickness skin graft in the secondary repair of bilateral cleft lip. A case report. Nadjmi N, et al. **Int J Oral Maxillofac Surg** 1999 Jun;28(3):176–8

Surgical pearl: delayed intranasal knot tying for composite grafts of the ala. Albertini JG, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 1):787–8

Surgical pearl: the first dorsal web of the hand as a graft donor site for the defects on the hand and digits. Cheng ST, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):250–1

An open study of tissue adhesive in full–thickness skin grafting. Craven NM, et al. **J Am Acad Dermatol** 1999 Apr; 40(4):607–11

Surgical pearl: Use of a sponge bolster instead of a tie–over bolster as a less invasive method of securing full–thickness skin grafts. Egan CA, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1000–1

Surgical pearl: punch excision and grafting for removal of mole. Gupta S, et al. **J Am Acad Dermatol** 1999 Oct; 41(4):635–7

Surgical pearl: fine gauze is a useful carrier for epidermal graft in the treatment of vitiligo by means of the suction blister method. Tang WY, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):247–9

Acellular allodermis in burns surgery: 1–year results of a pilot trial. Sheridan R, et al. **J Burn Care Rehabil** 1998 Nov–Dec; 19(6):528–30

Pneumoperitoneum–assisted harvesting of split–thickness skin grafts from the abdomen. Soran A, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):404–5

The Unna "cap" as a scalp donor site dressing. Summer GJ, et al. **J Burn Care Rehabil** 1999 Mar–Apr;20(2):183–8, discussion 182

Dermagraft in the treatment of diabetic foot ulcers. Bowering CK. **J Cutan Med Surg** 1998 Dec;3 Suppl 1:S1–29–32 (33 ref.)

Apligraf living skin equivalent for healing venous and chronic wounds. Sibbald RG. **J Cutan Med Surg** 1998 Dec; 3 Suppl 1:S1–24–8 (27 ref.)

Dermagraft treatment of diabetic ulcers. Eaglstein WH. **J Dermatol** 1998 Dec;25(12):803–4 (2 ref.)

Combined use of axillary block and lateral femoral cutaneous nerve block in upper–extremity injuries requiring large skin grafts. Karacalar A, et al. **J Hand Surg [Am]** 1998 Nov; 23(6):1100–5

Enzyme–free method for cultured skin grafting. Takeda T, et al. **J Invest Surg** 1999 Mar–Apr;12(2):125–7

Comparison of two techniques of dermal graft harvest for temporomandibular joint reconstruction. Beck BW, et al. **J Oral Maxillofac Surg** 1999 Aug;57(8):930–4; discussion 934–5

The inferiorly and superiorly based nasolabial flap for the reconstruction of moderate–sized oronasal defects. Lazaridis N, et al. **J Oral Maxillofac Surg** 1998 Nov; 56(11):1255–9; discussion 1260

Trephination in the treatment of scalp avulsion: successful application of a historical method. Terzioğlu A, et al. **J Oral Maxillofac Surg** 1999 Feb;57(2):204–6

A new flap for reliable nasal reconstruction. Ducic Y, et al. **J Otolaryngol** 1998 Dec;27(6):327–31

Root coverage with a connective tissue with partial thickness double pedicle graft and an acellular dermal matrix graft: a clinical and histological evaluation of a case report. Harris RJ. **J Periodontol** 1998 Nov;69(11):1305–11

Reconstruction after larynx–preserving extensive tracheal resection with axillofemoral bypass grafting and free skin flap implantation. Matsubara T, et al. **J Surg Oncol** 1999 May;71(1):63–5

Multicenter trial to evaluate the safety and potential efficacy of pooled human fibrin sealant for the treatment of burn wounds. Greenhalgh DG, et al. **J Trauma** 1999 Mar; 46(3):433–40

Dorsal onlay graft urethroplasty for repair of bulbar urethral stricture. Iselin CE, et al. **J Urol** 1999 Mar;161(3):815–8

Techniques of tissue handling and transfer. Jordan GH. **J Urol** 1999 Sep;162(3 Pt 2):1213–7

Use of hyaluronic acid and cultured autologous keratinocytes and fibroblasts in extensive burns [letter] Harris PA, et al. **Lancet** 1999 Jan 2;353(9146):35–6

Cultured sheet grafts in epidermodysplasia verruciformis [letter; comment] Schoeller T, et al. **Lancet** 1998 Nov 14; 352(9140):1626–7. Comment on: Lancet 1998 Aug 29;352(9129):709.

Temporary closure of full–thickness abdominal–wall defects with mesh grafts. Wechselberger G, et al. **Langenbecks Arch Surg** 1999 Feb;384(1):88–9

Radial forearm fasciocutaneous free flap as a solution in case of Noma. Del Bene M, et al. **Microsurgery** 1999;19(1):3–6

Head and neck reconstruction using lateral thigh free flap: flap design. Ha B, et al. **Microsurgery** 1999;19(3):157–65

Free vascularized osteocutaneous fibular graft to the tibia. Lee KS, et al. **Microsurgery** 1999;19(3):141–7

Fist position for skin grafting on the dorsal hand: I. Analysis of length of the dorsal hand surgery in hand positions. Burm JS, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1350–5

Cleft lip scar camouflage using dermal micrografts. Chen YR, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1250–3

Simple tie–over: the herniotomy approach [letter] Choudhary S, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1573–4

Tie–over dressing using a buckle [letter] Eroğlu L, et al. **Plast Reconstr Surg** 1999 Jun;103(7):2092–3

The use of skin grafts in postburn contracture release: a 10–year review. Iwuagwu FC, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1198–204

Delayed primary skin grafting: revisited [letter] Yavuzer R, et al. **Plast Reconstr Surg** 1999 Mar;103(3):1097

Reconstruction of eyelid defects: a prefabricated multilayer sandwich graft. Lauritzen C, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):99–104

The reversed–flow medio–distal fasciocutaneous island thigh flap: anatomic basis and clinical applications. Ballmer FT, et al. **Surg Radiol Anat** 1998;20(5):311–6

A case report: split thickness skin grafting on a transplanted liver. Ogawa N, et al. **Transplant Proc** 1998 Nov; 30(7):3211–3

[Method and significance of removal of dermal epithelial components in the study of composite skin] Cui Z, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):37–9 (Eng. Abstr.) **(Chi)**

[Long–term result of free forearm skin flap for repair of soft tissue defects of the oral and maxillofacial regions] Cheng H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):65–7 (Eng. Abstr.) **(Chi)**

[Manufacture and application of a new composite aliograft] Wang X, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):100–2 (Eng. Abstr.) **(Chi)**

[Radial forearm free cutaneous flap. Evaluation of the level of damage to the donor site] Belli E, et al. **Minerva Stomatol** 1999 Mar;48(3):63–9 (Eng. Abstr.) **(Ita)**

[Improved method of dermatoplasty] Kazimirko NZ, et al. **Khirurgiia (Mosk)** 1999;(2):33–6 (Eng. Abstr.) **(Rus)**

[One–stage autologous venous prosthetic reconstruction of artery and dermatoplasty in fire–arm injuries] Saginov TA. **Khirurgiia (Mosk)** 1999;(3):63 **(Rus)**

[Frostbite as a problem for dermatoplastic surgery] Vikhriev BS, et al. **Vestn Khir Im I I Grek** 1998;157(5):97–9 (Eng. Abstr.) **(Rus)**

[General anesthesia using a laryngeal mask and anesthesia by epidural catheter in a case of Charcto–Marie–Tooth type I disease] Cánovas L, et al. **Rev Esp Anestesiol Reanim** 1998 Dec;45(10):441–2 **(Spa)**

PATHOLOGY

Prolonged perivascular use of verapamil or lidocaine decreases skin flap necrosis. Komorowska–Timek E, et al. **Ann Plast Surg** 1999 Sep;43(3):283–8

Studies of surface microarchitecture using a hand–held video microscope in cases of cultured epithelial autografts. Soejima K, et al. **Ann Plast Surg** 1998 Sep;41(3):270–4

Dermal psoriasis involving an oral split–skin graft. Case report. Dimitrakopoulos I, et al. **Aust Dent J** 1998 Oct; 43(5):321–3

Long–lasting complete inhibition of human solid tumors in SCID mice by targeting endothelial cells of tumor vasculature with antihuman endoglin immunotoxin. Seon BK, et al. **Clin Cancer Res** 1997 Jul;3(7):1031–44

Acute development of invasive squamous cell carcinoma in a split–thickness skin graft donor site. Taylor CD, et al. **J Burn Care Rehabil** 1998 Sep–Oct;19(5):382–5

MCP–1 and MIP–1alpha are most efficient in recruiting T cells into the skin in vivo. Kunstfeld R, et al. **J Invest Dermatol** 1998 Dec;111(6):1040–4

Evaluation of clinically applicable exsanguination treatments to alleviate venous congestion in an animal skin flap model. Cottler PS, et al. **Wound Repair Regen** 1999 May–Jun; 7(3):187–95

[Preoperative angiographic landmarks of the gluteal muscle regions using Patent Blue V] Qanadli SD, et al. **J Radiol** 1999 Mar;80(3):319–21 (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Characterization of the chick chorioallantoic membrane model as a short–term in vivo system for human skin. Kunzi–Rapp K, et al. **Arch Dermatol Res** 1999 May; 291(5):290–5

An animal model to study microcirculatory changes associated with vascular delay. Barker JH, et al. **Br J Plast Surg** 1999 Mar;52(2):133–42

Spontaneous repigmentation of vitiligo patches distant from the autologous skin graft sites: a remote reverse Koebner's phenomenon? [letter] Malakar S, et al. **Dermatology** 1998; 197(3):274

Essential role for Sonic hedgehog during hair follicle morphogenesis. Chiang C, et al. **Dev Biol** 1999 Jan 1; 205(1):1–9

E–selectin and L–selectin blockade in pure skin flaps exposed to ischaemia and reperfusion injury. Birk–Sørensen L, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Dec;

SKIN TRANSPLANTATION

32(4):365–71

TRENDS

Tissue engineering for skin: an update. Eaglstein WH, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1007–10 (15 ref.)

VETERINARY

Free skin grafting for treatment of distal limb skin defects in cats. Shahar R, et al. **J Small Anim Pract** 1999 Aug; 40(8):378–82

SKIN TUBERCULOSIS see **TUBERCULOSIS, CUTANEOUS**

SKIN ULCER

Vascular endothelial growth factor is more important than basic fibroblastic growth factor during ischemic wound healing. Corral CJ, et al. **Arch Surg** 1999 Feb;134(2):200–5

CHEMICALLY INDUCED

Pyogenic granuloma–like lesions in a patient using topical tretinoin. MacKenzie–Wood AR, et al. **Australas J Dermatol** 1998 Nov;39(4):248–50

Non–traumatic rhabdomyolysis with gluteal ulcer. Yotsuyanagi T, et al. **Clin Exp Dermatol** 1998 May; 23(3):113–5

Extensive oral mucosal ulcerations caused by misuse of a commercial mouthwash. Moghadam BK, et al. **Cutis** 1999 Aug;64(2):131–4

Vegetating iododerma with fatal outcome. Miranda–Romero A, et al. **Dermatology** 1999;198(3):295–7

Relationship of dose intensity to the induction of palmar–plantar erythrodysesthia by pegylated liposomal doxorubicin in dogs. Amantea M, et al. **Hum Exp Toxicol** 1999 Jan;18(1):17–26

Scrotal ulcer occurring in patients with acute promyelocytic leukemia during treatment with all–trans retinoic acid. Mori A, et al. **Oncol Rep** 1999 Jan–Feb;6(1):55–8

[Early and late treatment of iatrogenic injection damage] von Heimburg D, et al. **Chirurg** 1998 Dec;69(12):1378–82 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Scrotal skin ulcer in a patient with a previous tonsillectomy because of natural killer cell lymphoma. Au WY, et al. **Am J Dermatopathol** 1998 Dec;20(6):582–5

Severe cutaneous ulcerations in a black woman with systemic lupus erythematosus [letter] Caproni M, et al. **Clin Exp Rheumatol** 1998 Jul–Aug;16(4):508

Flank ulcer in a patient with primary antiphospholipid syndrome. Lee CW, et al. **J Korean Med Sci** 1999 Feb; 14(1):110–2

DIAGNOSIS

Clinical images: Skin necrosis in giant cell arteritis. Distler O, et al. **Arthritis Rheum** 1999 Jun;42(6):1296

Genital ulcers. Evaluation and treatment. Rosen T, et al. **Dermatol Clin** 1998 Oct;16(4):673–85, x (88 ref.)

Disseminated aspergillus fumigatus infection: case report. Orem J, et al. **East Afr Med J** 1998 Jul;75(7):436–8

Lymphocutaneous syndrome. A review of non–sporothrix causes. Smego RA Jr, et al. **Medicine (Baltimore)** 1999 Jan; 78(1):38–63 (261 ref.)

DRUG THERAPY

Preclinical promise of becaplermin (rhPDGF–BB) in wound healing. LeGrand EK. **Am J Surg** 1998 Aug;176(2A Suppl):48S–54S (48 ref.)

Oral anticoagulation therapy of chronic skin ulcers in a patient with primary antiphospholipid syndrome [letter] Aguirre MA, et al. **Clin Exp Rheumatol** 1998 Sep–Oct; 16(5):628–9

Treatment of severe Raynaud's phenomenon and ischemic ulcerations with tissue plasimogen activator [letter] Lakshminarayanan S, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):260

Treatment of acyclovir–resistant herpetic ulceration with topical foscarnet and antiviral sensitivity analysis. Pechère M, et al. **Dermatology** 1998;197(3):278–80

Granulocyte macrophage–colony stimulating factor for treatment of chemotherapy extravasation. Shamseddine AI, et al. **Eur J Gynaecol Oncol** 1998;19(5):479–81

Metastatic Crohn's disease: remission induced by mesalamine and prednisone. Gilson MR, et al. **J Am Acad Dermatol** 1999 Sep;41(3 Pt 1):476–9 (15 ref.)

Treatment of painful skin ulcers with topical opioids. Twillman RK, et al. **J Pain Symptom Manage** 1999 Apr; 17(4):288–92

[The beneficial cytotoxicity of antiseptics. The controversial paradox of cutaneous ulcer treatment] Hermanns JF, et al. **Rev Med Liege** 1999 Jul;54(7):600–5 (Eng. Abstr.) **(Fre)**

[Acquired reactive perforating dermatosis. Successful treatment with allopurinol in 2 cases] Krüger K, et al. **Hautarzt** 1999 Feb;50(2):115–20 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Telomerase activity in radiation–induced chronic human skin ulcers. Zhao P, et al. **J Environ Pathol Toxicol Oncol** 1999; 18(1):17–9

EPIDEMIOLOGY

Epidemiological study of chronic dermal ulcers in China. Fu X, et al. **Wound Repair Regen** 1998 Jan–Feb;6(1):21–7

[Buruli ulcers in Burkina Faso: apropos of 6 cases] Ouoba K, et al. **Tunis Med** 1998 Mar;76(3):46–50 **(Fre)**

[Complications after BCG vaccination in the urban section of Łódź in the years 1994–5] Pankowska A, et al. **Pneumonol Alergol Pol** 1997;65(11–12):761–6 (Eng. Abstr.) **(Pol)**

ETIOLOGY

Oxalate kinetics and reversal of the complications after orthotopic liver transplantation in a patient with primary hyperoxalosis type 1 awaiting renal transplantation. Bastani B, et al. **Am J Nephrol** 1999;19(1):64–9

Generalized exanthem with palmoplantar involvement and genital ulcerations. Acute primary HIV infection. Porras–Luque JI, et al. **Arch Dermatol** 1998 Oct; 134(10):1279, 1282

Skin breakdown in children and high–frequency oscillatory ventilation. Schmidt JE, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1565–9

Acute and recurrent skin ulceration after spider bite [see comments] Pincus SJ, et al. **Med J Aust** 1999 Jul 19; 171(2):99–102. Comment in: Med J Aust 1999 Jul 19;171(2):98.

Metastatic Crohn's disease presenting as chronic perivulvar and perirectal ulcerations in an adolescent patient. Schrodt BJ, et al. **Pediatrics** 1999 Feb;103(2):500–2

Unilateral facial ulceration and Horner's syndrome. Loftus AM, et al. **Postgrad Med J** 1999 Feb;75(880):107–9

[Pedicled thoraco–abdominal skin flap applied in early repair of deep ulcer of upper extremity resulting from snake–bite injury] Liu D. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):83–5 (Eng. Abstr.) **(Chi)**

IMMUNOLOGY

Immune cells are required for cutaneous ulceration in a swine model of chancroid. San Mateo LR, et al. **Infect Immun** 1999 Sep;67(9):4963–7

MICROBIOLOGY

An ulcerating nodule on the arm. Lymphocutaneous sporotrichosis. Saxena M, et al. **Arch Dermatol** 1998 Oct; 134(10):1281, 1284

Mycobacterium ulcerans—a mini–review [editorial] Johnson PD, et al. **J Med Microbiol** 1999 Jun;48(6):511–3 (21 ref.)

Cutaneous tuberculosis: a rare presentation in an immigrant. Gulisano G, et al. **J Travel Med** 1998 Sep;5(3):131–4

Insects in the transmission of Mycobacterium ulcerans infection [letter] Portaels F, et al. **Lancet** 1999 Mar 20; 353(9157):986

Lymphocutaneous syndrome. A review of non–sporothrix causes. Smego RA Jr, et al. **Medicine (Baltimore)** 1999 Jan; 78(1):38–63 (261 ref.)

[Radiographic aspects osteoarticular complications in Buruli ulcers] N'Zi KP, et al. **Bull Soc Pathol Exot** 1998; 91(3):229–31 (Eng. Abstr.) **(Fre)**

[Isolation of Leclercia adecarboxylata in ulcer exudate (letter)] Martínez MM, et al. **Enferm Infecc Microbiol Clin** 1998 Aug–Sep;16(7):345 **(Spa)**

NURSING

Technology scorecard. Wound care science at the crossroads. Beaumont E, et al. **Am J Nurs** 1998 Dec;98(12):16–8, 20–1

PARASITOLOGY

Guess What! Non–inflammatory cutaneous myiasis caused by the larva of Cordylobia anthropophaga. Veraldi S, et al. **Eur J Dermatol** 1998 Mar;8(2):133–4

PATHOLOGY

Wound measurement made truly simple by point counting [letter; comment] Bahmer FA. **Arch Dermatol** 1999 Aug; 135(8):991–2. Comment on: Arch Dermatol 1998 Dec;134(12):1571–4.

An ulcerated nodule associated with lymphadenopathy. Boyce S, et al. **Arch Dermatol** 1999 Aug;135(8):985, 988

Palmar ulceration. Guccione JL. **Arch Dermatol** 1999 Jul; 135(7):845–6, 848–9

Computers or simple wound measurements: when Greek meets Greek, then comes the tug–of–war! [letter; comment] Kanthraj GR. **Arch Dermatol** 1999 Aug;135(8):992–4. Comment on: Arch Dermatol 1998 Dec;134(12):1571–4.

An ulcerated umbilical nodule. Muñoz H, et al. **Arch Dermatol** 1999 Sep;135(9):1114–5, 1117–8

Wound measurement by computer–aided design (CAD): a practical approach for software utility [letter; comment] Kanthraj GR, et al. **Int J Dermatol** 1998 Sep;37(9):714–5 . Comment on: Int J Dermatol 1996 Feb;35(2):82–91.

Cutaneous diphtheria in a child. Pandit N, et al. **Int J Dermatol** 1999 Apr;38(4):298–9

A case of pustular ulcerative dermatosis of the scalp associated with ulcerative skin lesions on the scrotum. Sadayama T, et al. **J Dermatol** 1998 Oct;25(10):657–61

Herpetic whitlow in an AIDS patient. García–Plata MD, et al. **J Eur Acad Dermatol Venereol** 1999 May;12(3):241–2

Ulcerative sarcoidosis [letter] Güngör E, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):78–9

Subcutaneous fat necrosis of the newborn. Repiso–Jiménez JB, et al. **J Eur Acad Dermatol Venereol** 1999 May; 12(3):254–7

Familial primary cryofibrinogenemia. van Geest AJ, et al. **J Eur Acad Dermatol Venereol** 1999 Jan;12(1):47–50

Adult dermatomyositis with livedo reticularis and multiple skin ulcers. Yosipovitch G, et al. **J Eur Acad Dermatol Venereol** 1998 Jul;11(1):48–50

PHYSIOPATHOLOGY

Transforming growth factor–beta1 fails to stimulate wound healing and impairs its signal transduction in an aged ischemic ulcer model: importance of oxygen and age. Wu L, et al. **Am J Pathol** 1999 Jan;154(1):301–9

PREVENTION & CONTROL

WHO joins battle against a new emerging disease, Buruli ulcer. **Indian Pediatr** 1998 Jun;35(6):581

RADIOTHERAPY

Increased dermal angiogenesis after low–intensity laser therapy for a chronic radiation ulcer determined by a video measuring system. Schindl A, et al. **J Am Acad Dermatol** 1999 Mar;40(3):481–4

Induction of complete wound healing in recalcitrant ulcers by low–intensity laser irradiation depends on ulcer cause and size. Schindl M, et al. **Photodermatol Photoimmunol Photomed** 1999 Feb; 15(1):18–21

SURGERY

A further application of buried chip skin grafting. Sawada Y, et al. **Acta Chir Plast** 1998;40(3):68–72

Alternative coverage of a tendon–exposing defect of the dorsum of the hand with a triple rhomboid flap [letter] von Heimburg D, et al. **Ann Plast Surg** 1999 Apr; 42(4):459–60

[Pedicled thoraco–abdominal skin flap applied in early repair of deep ulcer of upper extremity resulting from snake–bite injury] Liu D. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):83–5 (Eng. Abstr.) **(Chi)**

THERAPY

Behavior of tissue–engineered skin: a comparison of a living skin equivalent, autograft, and occlusive dressing in human donor sites [see comments] Muhart M, et al. **Arch Dermatol** 1999 Aug;135(8):913–8. Comment in: Arch Dermatol 1999 Aug;135(8):977–8.

Long–term extracorporeal photoimmunotherapy for treatment of chronic cutaneous graft–versus–host disease: observations in four patients. Dippel E, et al. **Dermatology** 1999;198(4):370–4

The debridement of chronic wounds: a systematic review. Bradley M, et al. **Health Technol Assess (Rockv)** 1999;3(17 Pt 1):iii–iv, 1–78 (62 ref.)

Chronic factitial ulcer of chin cured by endodontic (root–canal) surgery for underlying periapical abscess. Shelley WB, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 2):802–4

Rhythmic external compression of the limbs: a method for healing cutaneous ulcers in systemic sclerosis. Filho JP, et al. **J Rheumatol** 1998 Aug;25(8):1540–3

[Palliative care of cancer patients with refractory ulcerating malignant skin tumors and skin metastases (letter)] Ansink AC. **Ned Tijdschr Geneeskd** 1999 Apr 24;143(17):919 **(Dut)**

[Palliative care for cancer patients with refractory ulcerating malignant skin tumors and skin metastases] van Leeuwen BL, et al. **Ned Tijdschr Geneeskd** 1999 Mar 13; 143(11):561–4 (11 ref.) (Eng. Abstr.) **(Dut)**

VETERINARY

Isolation of Mucor circinelloides from a case of ulcerative mycosis of platypus (Ornithorhynchus anatinus), and a comparison of the response of Mucor circinelloides and Mucor amphibiorum to different culture temperatures. Stewart NJ, et al. **Med Mycol** 1999 Jun;37(3):201–6

Cutaneous Pythiosis insidiosi in calves from the Pantanal region of Brazil. Santurio JM, et al. **Mycopathologia** 1998; 141(3):123–5

Clinical cowpox cases in Norway. Tryland M, et al. **Scand J Infect Dis** 1998;30(3):301–3

Lesions of so–called flank biting and necrotic ear syndrome in pigs [see comments] Mirt D. **Vet Rec** 1999 Jan 23; 144(4):92–6. Comment in: Vet Rec 1999 Feb 6;144(6):159.

VIROLOGY

Genital ulceration as a presenting manifestation of infectious mononucleosis. Sisson BA, et al. **J Pediatr Adolesc Gynecol** 1998 Nov;11(4):185–7

Clinical cowpox cases in Norway. Tryland M, et al. **Scand J Infect Dis** 1998;30(3):301–3

SKIN WRINKLING see **SKIN AGING**

SKINFOLD THICKNESS

Leptin correlates with the skinfold thickness in prepubertal and pubertal girls [letter] Kulik-Rechberger B, et al. **Acta Paediatr** 1999 Jan;88(1):103-4

Patterns of body fat deposition in youth and their relation to left ventricular markers of adverse cardiovascular prognosis. Mensah GA, et al. **Am J Cardiol** 1999 Sep 1; 84(5):583-8

Relation of circumferences and skinfold thicknesses to lipid and insulin concentrations in children and adolescents: the Bogalusa Heart Study. Freedman DS, et al. **Am J Clin Nutr** 1999 Feb;69(2):308-17

Comparison of growth patterns of subcutaneous fat tissue in Mexican and Polish with US and Peruvian populations. Wolanski N. **Ann Hum Biol** 1998 Sep-Oct;25(5):467-77

Assessment of the nutritional status in Croatian pregnant women by measuring skinfolds. Zekan J, et al. **Coll Antropol** 1998 Dec;22(2):637-49

Skinfold thickness measurements are better predictors of body fat percentage than body mass index in male Spanish children and adolescents. Sarria A, et al. **Eur J Clin Nutr** 1998 Aug;52(8):573-6

Screening for obesity in affluent females: body mass index and its comparison with skin fold thickness. Asthana S, et al. **Indian J Public Health** 1998 Apr-Jun;42(2):37-41

Body fatness: longitudinal relationship of body mass index and the sum of skinfolds with other risk factors for coronary heart disease. Twisk JW, et al. **Int J Obes Relat Metab Disord** 1998 Sep;22(9):915-22

Agreement of skinfold measurement and bioelectrical impedance analysis (BIA) methods with dual energy X-ray absorptiometry (DEXA) in estimating total body fat in Anglo-Celtic Australians. Wattanapenpaiboon N, et al. **Int J Obes Relat Metab Disord** 1998 Sep;22(9):854-60

Predictive accuracy of skinfold equations for estimating body density of African-American women. Irwin ML, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1654-8

Subcutaneous treatment with recombinant human erythropoietin--the influence of injection frequency and skin-fold thickness. Brahm M. **Scand J Urol Nephrol** 1999 Jun;33(3):192-6

[Body build related body composition and nutrition in adulthood--a comparison of skinfold thickness measurement and bioelectric impedance analysis] Trippo U, et al. **Anthropol Anz** 1998 Dec;56(4):335-49 (Eng. Abstr.) **(Ger)**

[Stemmer's sign--possibilities and limits of clinical diagnosis of lymphedema] Stemmer R. **Wien Med Wochenschr** 1999; 149(2-4):85-6 (Eng. Abstr.) **(Ger)**

[Anthropometric skin-fold and impedance measurement assessment of the maternal nutritional status at the end of pregnancy. Comments deduced from a study of 54 cases] Licitra L, et al. **Minerva Ginecol** 1998 Sep;50(9):379-82 (Eng. Abstr.) **(Ita)**

[Anthropometric and nutritional study of full-term newborns. Evaluation of the submandibular adipose skinfold] Fleta Zaragozano J, et al. **An Esp Pediatr** 1999 Apr;50(4):384-8 (Eng. Abstr.) **(Spa)**

[Fat distribution in children and adolescents of both sexes] Moreno Aznar LA, et al. **An Esp Pediatr** 1998 Aug; 49(2):135-9 (Eng. Abstr.) **(Spa)**

[Anthropometric and nutritional study in young adults. Evaluation of submandibular skinfold thickness] Fleta Zaragozano J, et al. **Nutr Hosp** 1999 Jan-Feb;14(1):1-6 (Eng. Abstr.) **(Spa)**

SKULL

consider also terms at CRANI-

see related
CEPHALOMETRY
CRANIOMETRY
CRANIOTOMY
INTRACRANIAL PRESSURE
TREPHINING

Cranio-facial and humeral melorrheostosis. Tueche SG, et al. **Acta Chir Belg** 1999 Feb;99(1):47-50

Sex differences in genetic determinants of craniofacial variations--a study based on twin kinships. Sharma K. **Acta Genet Med Gemellol (Roma)** 1998;47(1):31-41

Acute epidural haematoma in a patient with Paget's disease of the skull. Strojnik T. **Acta Neurochir (Wien)** 1998; 140(8):835-6

Cephalhematoma and caput succedaneum: do they always occur in labor? Petrikovsky BM, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):906-8

Pilonidal cyst on the vault. Case report. Borges G, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2A):273-6

A comparative evaluation of halo pin designs in an immature skull model. Copley LA, et al. **Clin Orthop** 1998 Dec; (357):212-8

Influence of skull anisotropy for the forward and inverse problem in EEG: simulation studies using FEM on realistic head models. Marin G, et al. **Hum Brain Mapp** 1998; 6(4):250-69

Osteomyelitis of calvarium after trivial scalp laceration. Pickering SA, et al. **J Accid Emerg Med** 1998 Nov;15(6):430

The potential of transskull ultrasound therapy and surgery using the maximum available skull surface area. Sun J, et al. **J Acoust Soc Am** 1999 Apr;105(4):2519-27

The human cranial remains from Gran Dolina Lower Pleistocene site (Sierra de Atapuerca, Spain). Arsuaga JL, et al. **J Hum Evol** 1999 Sep-Oct;37(3-4):431-57

Ectopic dural osteolytic meningiomas. Qasho R, et al. **Neurosurg Rev** 1998;21(4):295-8

Aggressive enterogenous cyst with extensive craniospinal spread: case report. Perry A, et al. **Neurosurgery** 1999 Feb; 44(2):401-4; discussion 404-5

Ophthalmic manifestations of fibrous dysplasia [letter; comment] Lee AG, et al. **Ophthalmology** 1999 May; 106(5):858-9. Comment on: Ophthalmology 1998 Dec;105(12):2207-15.

Transcranial cortical magnetic stimulation of lower-lip mimetic muscles: effect of coil position on motor evoked potentials. Rödel R, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May-Jun; 61(3):119-25 (26 ref.)

Supine position, SIDS, and skull shape [letter] Persing JA, et al. **Pediatrics** 1998 Dec;102(6):1493

Multiple cranial osteolytic lesions due to Mycobacterium kansasii in a patient with AIDS. Capdevila O, et al. **Scand J Infect Dis** 1998;30(3):305-6

Solitary eosinophilic granuloma of the calvaria. Puzzilli F, et al. **Tumori** 1998 Nov-Dec;84(6):712-6

[Facial reconstruction on the skull] Reverte Coma JM. **An R Acad Nac Med (Madr)** 1998;115(3):781-826 **(Spa)**

[Infants should sleep in supine position. The risk of skull deformities can be prevented (comment)] Jonsell R. **Lakartidningen** 1999 Mar 24;96(12):1404-5. Comment on: Lakartidningen 1999 Mar 24;96(12):1447-53. **(Swe)**

[Assymetric skull? Early correct diagnosis is a must! Positional skull deformities can be avoided (see comments)] Lauritzen C, et al. **Lakartidningen** 1999 Mar 24; 96(12):1447-53 (10 ref.) (Eng. Abstr.). Comment in: Lakartidningen 1999 Mar 24;96(12):1404-5. **(Swe)**

ABNORMALITIES

Epidermal nevi and localized cranial defects. Ho N, et al. **Am J Med Genet** 1999 Mar 19;83(3):187-90

Oculomotor, postural, and perceptual asymmetries associated with a common cause. Craniofacial asymmetries and asymmetries in vestibular organ anatomy. Rousie D, et al. **Ann N Y Acad Sci** 1999 May 28;871:439-46

Spontaneous cerebrospinal fluid otorrhea from a tegmen defect: transmastoid repair with minicraniotomy. Kuhweide R, et al. **Ann Otol Rhinol Laryngol** 1999 Jul; 108(7 Pt 1):653-8

Transnasal endoscopic repair of congenital defects of the skull base in children. Van Den Abbeele T, et al. **Arch Otolaryngol Head Neck Surg** 1999 May;125(5):580-4

Synostotic plagiocephaly causing pseudoparalysis of the superior oblique and ocular torticollis: report of a case with unique sensory findings. Tomaç S, et al. **Binocul Vis Strabismus Q** 1998 Winter;13(4):267-72

Spontaneous cerebrospinal fluid (CSF) rhinorrhoea in spongiform dysplasia of the cranium: an unusual presentation of neurofibromatosis. Bhatjiwale M, et al. **Br J Neurosurg** 1998 Dec;12(6):592-3

Operative treatment of the anterior synostotic plagiocephaly: analysis of 45 cases. Esparza J, et al. **Childs Nerv Syst** 1998 Sep;14(9):448-54

Hemispherectomy complications in the light of craniocerebral disproportion: review of the literature and rationale for a filling-reduction cranioplasty. Sorano V, et al. **Childs Nerv Syst** 1998 Sep;14(9):440-7 (63 ref.)

Hypocalvaria associated with intrauterine growth retardation, facial dysmorphism, congenital heart disease and camptomelia. al-Gazali LI, et al. **Clin Dysmorphol** 1999 Apr;8(2):129-34

An apparently new acrocraniofacial syndrome with cranial nerve and visceral anomalies. Hameed R, et al. **Clin Dysmorphol** 1999 Jul;8(3):199-202

Congenital depression of the skull. Report of two cases. Hatzidaki EG, et al. **Clin Exp Obstet Gynecol** 1999; 26(1):10-1

Developmental implications of head growth following intracranial hemorrhage. Bendersky M, et al. **Clin Pediatr (Phila)** 1998 Aug;37(8):469-76

Case of acrania associated with congenital medulloblastoma. Asai M, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct; 81(1):115-7

Craniopharyngeal parasitic twin. Anandakesavan TM. **Indian Pediatr** 1998 Oct;35(10):1027

Tissue-engineered bone biomimetic to regenerate calvarial critical-sized defects in athymic rats. Winn SR, et al. **J Biomed Mater Res** 1999 Jun 15;45(4):414-21

Clinical vignette: osteopathia striata with cranial sclerosis. Lazar CM, et al. **J Bone Miner Res** 1999 Jan;14(1):152-3

Cloverleaf skull anomaly and de novo trisomy 4p [letter] de Brasi D, et al. **J Med Genet** 1999 May;36(5):422-4

A possible sequela of transoral approach to the upper cervical spine. Velopharyngeal incompetence. Cantarella G, et al. **J Neurosurg Sci** 1998 Mar;42(1):51-5

Peduncular hallucinosis following a transoral odontoidectomy for cranio-vertebral junction malformation. A case report. Qasho R, et al. **J Neurosurg Sci** 1998 Mar;42(1):47-9

Abnormal skull shape in intrauterine growth retardation: report of two cases. Partrick ME, et al. **J Ultrasound Med** 1999 Feb;18(2):161-3

Neonatal hemochromatosis, renal tubular dysgenesis, and hypocalvaria in a neonate. Johal JS, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):433-7

Multiple-birth infants at higher risk for development of deformational plagiocephaly. Littlefield TR, et al. **Pediatrics** 1999 Mar;103(3):565-9

Anesthetic and surgical experience in a case of total vertical craniopagus. Khan ZH, et al. **Surg Neurol** 1999 Jul; 52(1):62-6; discussion 66-7

[No asymmetry of head rotation and shape found in three quarters of 2-3 year olds exhibiting postural preference in infancy] Boere-Boonekamp MM, et al. **Ned Tijdschr Geneeskd** 1999 Mar 13;143(11):569-71 (Eng. Abstr.) **(Dut)**

[Mental prognosis of trigonocephaly and therapeutic implications] Bottero L, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):296-304 (Eng. Abstr.) **(Fre)**

[The posterior cranium and its dysmorphisms] Czorny A, et al. **Ann Chir Plast Esthet** 1997 Oct;42(5):515-36 (Eng. Abstr.) **(Fre)**

[The delivery of qualified care to patients with maxillary and craniofacial pathology] Bel'chenko VA, et al. **Stomatologiia (Mosk)** 1998;77(5):32-3 (Eng. Abstr.) **(Rus)**

ANATOMY & HISTOLOGY

Roentgencephalometric analysis of the skulls of the Luxemburgs, the second Bohemian Royal Dynasty. Vlček E, et al. **Acta Chir Plast** 1998;40(4):115-27

Craniofacial anatomy and otitis media [letter] Kemaloğlu YK. **Am J Otol** 1999 Jul;20(4):556-8 (26 ref.)

Cranial anatomy and otitis media: a cadaver study. Todd NW. **Am J Otol** 1998 Sep;19(5):558-64

The form of the supraorbital margin as a criterion in identification of sex from the skull: investigations based on modern human skulls. Graw M, et al. **Am J Phys Anthropol** 1999 Jan;108(1):91-6

Use of ordinal categorical variables in skeletal assessment of sex from the cranium. Konigsberg LW, et al. **Am J Phys Anthropol** 1998 Sep;107(1):97-112

Degrees of sexual dimorphism in Cebus and other New World monkeys. Masterson TJ, et al. **Am J Phys Anthropol** 1998 Nov;107(3):243-56

Cranial capacity and performance on delay-response task correlated with principal sulcus length in monkeys. Redmond JC Jr. **Am J Phys Anthropol** 1999 May; 109(1):33-40

Skull of Early Eocene Cantius abditus (Primates:Adapiformes) and its phylogenetic implications, with a reevaluation of "Hesperolemur" actius. Rose KD, et al. **Am J Phys Anthropol** 1999 Aug;109(4):523-39

Capturing data from three-dimensional surfaces using fuzzy landmarks. Valeri CJ, et al. **Am J Phys Anthropol** 1998 Sep;107(1):113-24

Cranial and mandibular morphometry in Leontopithecus Lesson, 1840 (Callitrichidae, primates). Burity CH, et al. **Am J Primatol** 1999;48(3):185-96

The influence of the muscles of facial expression on the development of the midface and the nose in cleft lip and palate patients. A reflection of functional anatomy, facial esthetics and physiology of the nose. Breitsprecher L, et al. **Anat Anz** 1999 Jan;181(1):19-25

Influence of craniofacial morphology on primate paranasal pneumatization. Koppe T, et al. **Anat Anz** 1999 Jan; 181(1):77-80

The significance of the anatomy of the skull base for mechanical modelling: a comparative study. Mall G, et al. **Anat Anz** 1999 Jan;181(1):89-93

Functional morphology of the pterygoid hamulus. Putz R, et al. **Anat Anz** 1999 Jan;181(1):85-8

Shape of the orbital opening: individual characterization and analysis of variability in modern humans, Gorilla gorilla, and Pan troglodytes. Schmittbuhl M, et al. **Anat Anz** 1999 May;181(3):299-307

Regulative and adaptive factors in craniofacial growth. Schumacher GH. **Anat Anz** 1999 Jan;181(1):9-13

Anatomy of the cranial nerve foramina in the Risso's dolphin (Grampus griseus). Yamagiwa D, et al. **Anat Anz** 1999 May; 181(3):293-7

A morphometric study on the skull of the German shepherd dog (Alsatian). Onar V. **Anat Histol Embryol** 1999 Aug; 28(4):253-6

The comparative anatomical study of the parietal region of the skull of the Korean native goat (Capra hircus). Yi SJ, et al. **Anat Histol Embryol** 1998 Oct;27(5):323-5

New evidence from Le Moustier 1: computer-assisted reconstruction and morphometry of the skull. Ponce de León MS, et al. **Anat Rec** 1999 Apr 1;254(4):474-89

The craniofacial morphology of bruxers versus nonbruxers. Young DV, et al. **Angle Orthod** 1999 Feb;69(1):14-8

A new predictive modality of cranial bone thickness. Elahi MM, et al. **Ann Plast Surg** 1999 Jun;42(6):651-7

Effects of maternal ethanol intake on second alcoholic generation murine skull and mandibular size. Hernandez-Guerrero JC, et al. **Arch Med Res** 1998 Winter; 29(4):297-302

A retrospective comparison of craniofacial form in Northern Irish children with unilateral cleft lip and palate. Leonard AG, et al. **Cleft Palate Craniofac J** 1998 Sep;35(5):402-7

Variation in fontanelle size with gestational age. Adeyemo AA, et al. **Early Hum Dev** 1999 Apr;54(3):207-14

Estimation of stature from somatometry of skull. Chiba M, et al. **Forensic Sci Int** 1998 Nov 9;97(2-3):87-92

Sexual dimorphism in the crania and mandibles of South

African whites. Steyn M, et al. **Forensic Sci Int** 1998 Nov 30;98(1-2):9-16

Imaging of current density and current pathways in rabbit brain during transcranial electrostimulation. Joy ML, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1139-49

Place of the Hokkaido Ainu (northern Japan) among circumpolar and other peoples of the world. A comparison of the frequency variations of discrete cranial traits. Hanihara T, et al. **Int J Circumpolar Health** 1998 Oct; 57(4):257-75

Allocation of crania to groups via the "new morphometry". Ross AH, et al. **J Forensic Sci** 1999 May;44(3):584-7

Artificial cranial deformation and fossil Australians revisited. Antón SC, et al. **J Hum Evol** 1999 Feb;36(2):195-209

The ontogeny of cranial base angulation in humans and chimpanzees and its implications for reconstructing pharyngeal dimensions. Lieberman DE, et al. **J Hum Evol** 1999 May;36(5):487-517

A large male hominin cranium from Sterkfontein, South Africa, and the status of Australopithecus africanus. Lockwood CA, et al. **J Hum Evol** 1999 Jun;36(6):637-85

Modern human origins as seen from the peripheries [news] Neves WA, et al. **J Hum Evol** 1999 Jul;37(1):129-33

A new reconstruction of the Le Moustier 1 skull and investigation of internal structures using 3-D-muCT data. Thompson JL, et al. **J Hum Evol** 1998 Dec;35(6):647-65

Skull allometry in the marine toad, Bufo marinus. Birch JM. **J Morphol** 1999 Aug;241(2):115-26

Lateral line morphology and cranial osteology of the rubynose brotula, Catactyx rubrirostris. Gibbs MA. **J Morphol** 1999 Sep;241(3):265-74

Variations of the extreme-lateral craniocervical approach: anatomical study and clinical analysis of 69 patients. Salas E, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):206-19

The influence of craniofacial form on bite force and EMG activity of masticatory muscles. VIII-1. Bite force of complete denture wearers. Moriya Y, et al. **J Oral Sci** 1999 Mar;41(1):19-27

Craniofacial pattern of young adults with various types of malocclusion. Chang HP, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Mar; 14(3):168-76

Effects of local skull inhomogeneities on EEG source estimation. Ollikainen JO, et al. **Med Eng Phys** 1999 Apr; 21(3):143-54

Facial reconstruction: a case report and review of development of techniques. Stoney MB, et al. **Med Sci Law** 1999 Jan;39(1):49-60

Intracranial cavity volume can be accurately estimated from the weights of intracranial contents: confirmation by the dental plaster casting method. Yamada S, et al. **Neuropathol Appl Neurobiol** 1999 Aug;25(4):341-4

Suprameatal extension of the retrosigmoid approach: microsurgical anatomy. Seoane E, et al. **Neurosurgery** 1999 Mar;44(3):553-60

New information about the skull and dentary of the Miocene platypus Obdurodon dicksoni, and a discussion of ornithorhynchid relationships. Musser AM, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29; 353(1372):1063-79

Measurement of electrical current density distribution in a simple head phantom with magnetic resonance imaging. Gamba HR, et al. **Phys Med Biol** 1999 Jan;44(1):281-91

Hypoglossal canal size and hominid speech. DeGusta D, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1800-4

Hominid brain volume [letter; comment] Hollway RL. **Science** 1999 Jan 1;283(5398):34-5. Comment on: Science 1998 Jun 12;280(5370):1714. Comment on: Science 1998 Jun 12;280(5370):1730-1.

Morphologic and imaging studies of duplicate optic canals in dry adult human skulls. Choudhry R, et al. **Surg Radiol Anat** 1999;21(3):201-5

Facial reconstructions on the Vörs-Papkert B Cemetery series. Kustár A. **Z Morphol Anthropol** 1998;82(1):13-45

[3D-computed tomography for spatial arrangement of the cranial bones of the human fetus] Neumann K, et al. **Anat Anz** 1999 Jul;181(4):377-83 (Eng. Abstr.) **(Ger)**

[Skull and mandible. On Joseph Beuys' "ancient sled." Medical art history observation] Schulz H. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S7-11 (Eng. Abstr.) **(Ger)**

[Is head size modified by environmental factors?] Jaeger U, et al. **Z Morphol Anthropol** 1998;82(1):59-66 (Eng. Abstr.) **(Ger)**

[The coronal approach in maxillofacial surgery. Notes on the surgical anatomy] Salgarelli A, et al. **Minerva Chir** 1998 Jun;53(6):567-73 (19 ref.) (Eng. Abstr.) **(Ita)**

[The jugular fossa--observations in a Norwegian medieval population] Ongre A. **Tidsskr Nor Laegeforen** 1999 Mar 20;119(8):1119-25 (Eng. Abstr.) **(Nor)**

[Variability of magnitude of the human jugular foramen in relation to conditions of the venous outflow after ligation of the internal jugular vein] Wysocki J, et al. **Otolaryngol Pol** 1999;53(2):173-7 (Eng. Abstr.) **(Pol)**

[Recommendations are not changed--let infants sleep in supine position. Surgical specialists' contribution to population studies would be of value] Sedin G. **Lakartidningen** 1999 May 12;96(19):2357-8 (16 ref.) **(Swe)**

BLOOD SUPPLY

Craniocervical junction venous anatomy on enhanced MR images: the suboccipital cavernous sinus. Caruso RD, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1127-31

The elusive diploic veins: anthropological and anatomical perspective. Hershkovitz I, et al. **Am J Phys Anthropol** 1999 Mar;108(3):345-58

Late gestational vascular disruptions inducing craniofacial anomalies: a fetal lamb model. Escobar LF, et al. **J Craniofac Genet Dev Biol** 1998 Jul-Sep;18(3):159-63

Sinus pericranii. Report of a case and review of the literature. Buxton N, et al. **Pediatr Neurosurg** 1999 Feb;30(2):96-9 (42 ref.)

CHEMISTRY

Glycoconjugate expression and cartilage development of the cranial skeleton. Zschäbitz A. **Acta Anat (Basel)** 1998; 161(1-4):254-74 (162 ref.)

Differential expression of fibroblast growth factor receptor-1, -2, and -3 and syndecan-1, -2, and -4 in neonatal rat mandibular condyle and calvaria during osteogenic differentiation in vitro. Molténi A, et al. **Bone** 1999 Apr; 24(4):337-47

Lung exposure from inhalation of radon progeny: calculated from in vivo measurements of 210Pb in the skull. Laurer GR, et al. **Health Phys** 1999 Apr;76(4):380-7

CYTOLOGY

Morphological and immunocytochemical characterization of primary osteogenic cell cultures derived from fetal rat cranial tissue. Irie K, et al. **Anat Rec** 1998 Dec; 252(4):554-67

Effects of Laddec on the formation of calcified bone matrix in rat calvariae cells culture. Hofman S, et al. **Biomaterials** 1999 Jul;20(13):1155-66

Hormonal regulation of the osteoblastic phenotype expression in neonatal murine calvarial cells. Chen TL, et al. **Calcif Tissue Int** 1999 Apr;64(4):304-9

The effect of hyaluronan on mouse intramembranous osteogenesis in vitro. Pilloni A, et al. **Cell Tissue Res** 1998 Nov;294(2):323-33

Apoptosis in murine calvarial bone and suture development. Rice DP, et al. **Eur J Oral Sci** 1999 Aug;107(4):265-75

Smad2 overexpression enhances Smad4 gene expression and suppresses CBFA1 gene expression in osteoblastic osteosarcoma ROS17/2.8 cells and primary rat calvaria cells. Li J, et al. **J Biol Chem** 1998 Nov 20;273(47):31009-15

DRUG EFFECTS

Epoetin therapy resulting in a thickened calvarium. Castillo M, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1708

Further characterization of ATP-initiated calcification by matrix vesicles isolated from rachitic rat cartilage. Membrane perturbation by detergents and deposition of calcium pyrophosphate by rachitic matrix vesicles. Hsu HH, et al. **Biochim Biophys Acta** 1999 Jan 12; 1416(1-2):320-32

Osteoprogenitor cells in cell populations derived from mouse and rat calvaria differ in their response to corticosterone, cortisol, and cortisone. Bellows CG, et al. **Bone** 1998 Aug; 23(2):119-25

Aluminum accelerates osteoblastic differentiation but is cytotoxic in long-term rat calvaria cell cultures. Bellows CG, et al. **Calcif Tissue Int** 1999 Jul;65(1):59-65

Molecular chaperones stimulate bone resorption. Nair SP, et al. **Calcif Tissue Int** 1999 Mar;64(3):214-8

Cholera toxin and forskolin stimulate formation of osteoclast-like cells in mouse marrow cultures and cultured mouse calvarial bones. Ransjö M, et al. **Eur J Oral Sci** 1999 Feb;107(1):45-54

Local effects of transforming growth factor-beta1 on rat calvaria: changes depending on the dose and the injection site. Fujimoto R, et al. **J Bone Miner Metab** 1999;17(1):11-7

Continuous administration of basic fibroblast growth factor (FGF-2) accelerates bone induction on rat calvaria--an application of a new drug delivery system. Kimoto T, et al. **J Dent Res** 1998 Dec;77(12):1965-9

EMBRYOLOGY

Prenatal traces of aberrant neurofacial growth. Kjaer I. **Acta Odontol Scand** 1998 Dec;56(6):326-30 (15 ref.)

Development of the cetacean nasal skull. Klima M. **Adv Anat Embryol Cell Biol** 1999;149:1-143

Signal transduction pathways involved in fluid flow-induced PGE2 production by cultured osteocytes. Ajubi NE, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):E171-8

4D-computerized visualisation of human craniofacial skeletal growth and of the development of the dentition. Radlanski RJ, et al. **Anat Anz** 1999 Jan;181(1):3-8

Expression patterns of complex glycoconjugates and endogenous lectins during fetal development of the viscerocranium. Zschäbitz A, et al. **Anat Anz** 1999 Jan; 181(1):117-21

In situ detection of gelatinolytic activity in developing craniofacial tissues. Abiko Y, et al. **Anat Embryol (Berl)** 1999 Sep;200(3):283-7

From head to toe: conservation of molecular signals regulating limb and craniofacial morphogenesis. Schneider RA, et al. **Cell Tissue Res** 1999 Apr;296(1):103-9 (36 ref.)

Ectopic Msx2 overexpression inhibits and Msx2 antisense stimulates calvarial osteoblast differentiation. Dodig M, et al. **Dev Biol** 1999 May 15;209(2):298-307

Msx2 gene dosage influences the number of proliferative osteogenic cells in growth centers of the developing murine skull: a possible mechanism for MSX2-mediated craniosynostosis in humans. Liu YH, et al. **Dev Biol** 1999 Jan 15;205(2):260-74

Neural crest can form cartilages normally derived from mesoderm during development of the avian head skeleton. Schneider RA. **Dev Biol** 1999 Apr 15;208(2):441-55

prx-1 functions cooperatively with another paired-related homeobox gene, prx-2, to maintain cell fates within the craniofacial mesenchyme. Lu MF, et al. **Development** 1999 Feb;126(3):495-504

Late gestational vascular disruptions inducing craniofacial anomalies: a fetal lamb model. Escobar LF, et al. **J Craniofac Genet Dev Biol** 1998 Jul-Sep;18(3):159-63

Tracing craniosynostosis to its developmental stage through bone center displacement. Mathijssen IM, et al. **J Craniofac Genet Dev Biol** 1999 Apr-Jun;19(2):57-63

Development of the suprarostral plate of pipoid frogs. De Sá RO, et al. **J Morphol** 1999 May;240(2):143-53

p63 is essential for regenerative proliferation in limb, craniofacial and epithelial development. Yang A, et al. **Nature** 1999 Apr 22;398(6729):714-8

Pleiotropic features of syndromic craniosynostoses correlate with differential expression of fibroblast growth factor receptors 1 and 2 during human craniofacial development. Chan CT, et al. **Pediatr Res** 1999 Jan;45(1):46-53

[The chondrocranium of an 18 mm human embryo. A 3-dimensional computer-assisted reconstruction (see comments)] Bettega G, et al. **Rev Stomatol Chir Maxillofac** 1999 Apr;100(1):6-12 (Eng. Abstr.). Comment in: Rev Stomatol Chir Maxillofac 1999 Apr;100(1):43-4. **(Fre)**

[On the article by G. Bettega and colleagues: "The chondrocranium of an 18 mm human embryo. A 3-dimensional computer-assisted reconstruction" (comment)] Devauchelle B, et al. **Rev Stomatol Chir Maxillofac** 1999 Apr;100(1):43-4. Comment on: Rev Stomatol Chir Maxillofac 1999 Apr;100(1):6-12. **(Fre)**

[3D-computed tomography for spatial arrangement of the cranial bones of the human fetus] Neumann K, et al. **Anat Anz** 1999 Jul;181(4):377-83 (Eng. Abstr.) **(Ger)**

ENZYMOLOGY

Differential regulation of MMP-13 (collagenase-3) and MMP-3 (stromelysin-1) in mouse calvariae. Peeters-Joris C, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1-3):14-28

Collagenase and tissue plasminogen activator production in developing rat calvariae: normal progression despite fetal exposure to microgravity. Davis BA, et al. **Calcif Tissue Int** 1998 Nov;63(5):416-22

GROWTH & DEVELOPMENT

Comparison of distal and neutral craniofacial pattern in untreated subjects in terms of skeletal harmony and growth. Gesch D. **Anat Anz** 1999 Jan;181(1):15-8

Interpretation of the vertical and longitudinal growth of the human skull. Hahn von Dorsche S, et al. **Anat Anz** 1999 Jan;181(1):99-103

4D-computerized visualisation of human craniofacial skeletal growth and of the development of the dentition. Radlanski RJ, et al. **Anat Anz** 1999 Jan;181(1):3-8

Comparative effects of neonatal and prepubertal castration on craniofacial growth in rats. Verdonck A, et al. **Arch Oral Biol** 1998 Nov;43(11):861-71

Influence of intrauterine blood supply on cranial growth and sexual dimorphism at birth. Oyhenart EE, et al. **Growth Dev Aging** 1998 Winter;62(4):187-98

Tissue-engineered bone biomimetic to regenerate calvarial critical-sized defects in athymic rats. Winn SR, et al. **J Biomed Mater Res** 1999 Jun 15;45(4):414-21

Local effects of transforming growth factor-beta1 on rat calvaria: changes depending on the dose and the injection site. Fujimoto R, et al. **J Bone Miner Metab** 1999;17(1):11-7

Effects of bone morphogenetic protein-2 on human neonatal calvaria cell differentiation. Hay E, et al. **J Cell Biochem** 1999 Jan 1;72(1):81-93

The effect of growth hormone therapy on craniofacial growth and dental maturity in children with Down syndrome. Carlstedt K, et al. **J Craniofac Genet Dev Biol** 1999 Jan-Mar;19(1):20-3

Influence of tissue expanders on the growing craniofacial skeleton. Schmelzeisen R, et al. **J Craniomaxillofac Surg** 1999 Jun;27(3):153-9

Positioning of the receiver-stimulator for the CI-24M cochlear implant in infants. Mitchell TE, et al. **J Laryngol Otol** 1999 Mar;113(3):212-6

Correlations of cranial morphology, ecology, and evolution in Australian suctorial tadpoles of the genera Litoria and Nyctimystes (Amphibia: Anura: Hylidae: Pelodryadinae). Haas A, et al. **J Morphol** 1998 Nov;238(2):109-41

Basic science and clinical experimental primate studies in craniofaciodental biology: a personal historical review. Sarnat BG. **J Oral Maxillofac Surg** 1999 Jun;57(6):714-24 (30 ref.)

Epidermal growth factor receptor function is necessary for normal craniofacial development and palate closure. Miettinen PJ, et al. **Nat Genet** 1999 May;22(1):69-73

Cranial growth unrestricted during treatment of deformational plagiocephaly. Kelly KM, et al.

Pediatr Neurosurg 1999 Apr;30(4):193–9

Growth hormone and craniofacial changes: preliminary data from studies in Turner's syndrome. Simmons KE.
Pediatrics 1999 Oct;104(4 Pt 2):1021–4

The effect of unilateral partial facial paralysis and muscle ablation on craniofacial growth and development: an experimental study in the rabbit. Sinsel NK, et al.
Plast Reconstr Surg 1998 Nov;102(6):1894–912

[Growth of the neurocranium] Hodačová Z, et al.
Acta Medica (Hradec Kralove) Suppl 1998;41(1):19–22 (Eng. Abstr.) **(Cze)**

[No asymmetry of head rotation and shape found in three quarters of 2–3 year olds exhibiting postural preference in infancy] Boere-Boonekamp MM, et al.
Ned Tijdschr Geneeskd 1999 Mar 13;143(11):569–71 (Eng. Abstr.) **(Dut)**

[Growth curves from birth to 6 years of age: growth in weight, height and cranial circumference according to sex] Remontet L, et al. **Arch Pediatr** 1999 May;6(5):520–9 (Eng. Abstr.) **(Fre)**

INJURIES

Traumatic carotid cavernous sinus fistula: serial angiographic studies from the day of trauma [see comments] Komiyama M, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1641–4 . Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1591–3.

Air bag-related deaths and serious injuries in children: injury patterns and imaging findings [see comments] Marshall KW, et al. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1599–607. Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1591.

Eye-popping fistulas: what's in a name? [editorial; comment] Tomsick TA. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1591–3. Comment on: AJNR Am J Neuroradiol 1998 Oct;19(9):1641–4.

Collagen-PVP accelerates new bone formation of experimentally induced bone defects in rat skull and promotes the expression of osteopontin and SPARC during bone repair of rat femora fractures. Chimal-Monroy J, et al. **Ann N Y Acad Sci** 1998 Oct 23;857:232–6

Dural reconstruction of a class IV calvarial burn with decellularized human dermis. Barret JP, et al. **Burns** 1999 Aug;25(5):459–62

Deep electrical burns of the calvarium: early or delayed reconstruction? Norkus T, et al. **Burns** 1998 Sep; 24(6):569–72

Fatalities from black powder percussion handguns. Karger B, et al. **Forensic Sci Int** 1998 Dec 21;98(3):143–9

Comparison of bone regeneration in a rabbit skull defect by recombinant human BMP-2 incorporated in biodegradable hydrogel and in solution. Hong L, et al.
J Biomater Sci Polym Ed 1998;9(9):1001–14

Characteristics of gunshot wounds in the skull. Quatrehomme G, et al. **J Forensic Sci** 1999 May;44(3):568–76

Sharp-force trauma analysis and the forensic anthropologist: techniques advocated by William R. Maples, Ph.D. Walsh-Haney HA. **J Forensic Sci** 1999 Jul;44(4):720–3

Penetrating orbitocranial knife injury. Lichter H, et al.
J Pediatr Ophthalmol Strabismus 1999 Jan-Feb;36(1):44–6

Growing skull fracture of the orbital roof. Case report. Koç RK, et al. **Pediatr Neurosurg** 1999 Jan;30(1):35–8

[Histologic foundations for evaluation of the crushed wound of the cerebrum in the clinical course of cranio-cerebral trauma as an intracranial extensive process] Taiushev KG, et al. **Morfologiia** 1999;116(4):7–11 (Eng. Abstr.) **(Rus)**

[The delivery of qualified care to patients with maxillary and craniofacial pathology] Bel'chenko VA, et al.
Stomatologiia (Mosk) 1998;77(5):32–3 (Eng. Abstr.) **(Rus)**

INNERVATION

Chronic treatment with repetitive transcranial magnetic stimulation inhibits seizure induction by electroconvulsive shock in rats. Fleischmann A, et al. **Biol Psychiatry** 1999 Mar 15;45(6):759–63

Involvement of trigeminal subnucleus caudalis (medullary dorsal horn) in craniofacial nociceptive reflex activity. Tsai CM, et al. **Pain** 1999 May;81(1–2):115–28

METABOLISM

Involvement of V-ATPases in the digestion of soft connective tissue collagen. Creemers LB, et al.
Biochem Biophys Res Commun 1998 Oct 20;251(2):429–36

Parathyroid hormone induces interleukin-6 heterogeneous nuclear and messenger RNA expression in murine calvarial organ cultures. Huang YF, et al. **Bone** 1998 Oct; 23(4):327–32

Sutural mineralization of rat calvaria characterized by atomic-force microscopy and transmission electron microscopy. Wiesmann HP, et al. **Cell Tissue Res** 1998 Oct; 294(1):93–7

Calcitonin receptor binding properties in bone and kidney of the chicken during the oviposition cycle. Yasuoka T, et al. **J Bone Miner Res** 1998 Sep;13(9):1412–9

Development of the osteoblast phenotype in primary human osteoblasts in culture: comparison with rat calvarial cells in osteoblast differentiation. Siggelkow H, et al.
J Cell Biochem 1999 Oct 1;75(1):22–35

MICROBIOLOGY

Tuberculosis of the skull in a patient on maintenance haemodialysis. Nergizoglu G, et al.
Nephrol Dial Transplant 1999 Aug;14(8):2019–21

PATHOLOGY

Is craniofacial morphology in Apert and Crouzon syndromes the same? Kreiborg S, et al. **Acta Odontol Scand** 1998 Dec; 56(6):339–41 (19 ref.)

Normal and increased functional asymmetries in the craniofacial area. Pirttiniemi P. **Acta Odontol Scand** 1998 Dec;56(6):342–5 (44 ref.)

CT and MR imaging of focal calvarial lesions. Arana E, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1683–8

Craniofacial adaptations induced by chincup therapy in Class III patients. Deguchi T, et al.
Am J Orthod Dentofacial Orthop 1999 Feb;115(2):175–82

Quiz case 2. Intradiploic epidermoid cyst. Posey LA, et al.
Arch Otolaryngol Head Neck Surg 1999 Aug;125(8):913, 915

Three-dimensional analysis of cleft palate topology in newborn infants with reference to the cranial skeleton. Bacher M, et al. **Cleft Palate Craniofac J** 1998 Sep; 35(5):379–95

Three-dimensional analysis of craniofacial form in a familial rabbit model of nonsyndromic coronal suture synostosis using Euclidean distance matrix analysis. Burrows AM, et al. **Cleft Palate Craniofac J** 1999 May;36(3):196–206

Importance of early recognition and treatment of deformational plagiocephaly with orthotic cranioplasty. Kelly KM, et al. **Cleft Palate Craniofac J** 1999 Mar; 36(2):127–30

Ellis-van Creveld syndrome: craniofacial morphology and multidisciplinary treatment. Susami T, et al.
Cleft Palate Craniofac J 1999 Jul;36(4):345–52 (29 ref.)

Dural cavernous haemangioma with bony infiltration. Rushton AW, et al. **Clin Radiol** 1999 Jun;54(6):406–8

Comparison of MR imaging and CT in discriminating tumor infiltration of bone and bone marrow in the skull base. Tomura N, et al. **Comput Med Imaging Graph** 1998 Jan-Feb;22(1):41–51

Facial nerve stimulation by a cochlear implant in a hemodialysis patient with bone of low mineral density. Iwasaki S, et al. **Eur Arch Otorhinolaryngol** 1998; 255(7):352–4

Cranial and extracranial fasciitis of childhood: a clinicopathologic and immunohistochemical study. Sarangarajan R, et al. **Hum Pathol** 1999 Jan;30(1):87–92

Histopathological and immunohistochemical studies of membranes of deacetylated chitin derivatives implanted over rat calvaria. Hidaka Y, et al. **J Biomed Mater Res** 1999 Sep 5;46(3):418–23

Validation of logistic regression models in small samples: application to calvarial lesions diagnosis. Bautista D, et al. **J Clin Epidemiol** 1999 Mar;52(3):237–41

Lytic skull lesions and symptomatic hypercalcaemia in bone marrow sarcoidosis [letter] Slart RM, et al.
J Intern Med 1999 Jul;246(1):117–20

Idiopathic diffuse erosion of the skull base presenting as cerebrospinal fluid rhinorrhoea. Conboy PJ, et al.
J Laryngol Otol 1998 Jul;112(7):679–81

Morphological study of deformed crania from the Yean-ri site, Korea. Mine K. **Kaibogaku Zasshi** 1999 Apr; 74(2):215–23

Congenital varicella syndrome: cranial MRI in a long-term survivor. Deasy NP, et al. **Neuroradiology** 1999 Mar; 41(3):205–7

Melanotic neuroectodermal tumour of infancy at the anterior fontanelle. Nishio S, et al. **Neuroradiology** 1999 Mar; 41(3):202–4

Cranial fasciitis of childhood. Sajben FP, et al.
Pediatr Dermatol 1999 May-Jun;16(3):232–4

Lytic skull metastasis from a follicular thyroid carcinoma in a child. Kim SH, et al. **Pediatr Neurosurg** 1998 Feb; 28(2):84–8

Neurenteric cyst at the craniovertebral junction: report of two cases. Fuse T, et al. **Surg Neurol** 1998 Nov;50(5):431–6 (21 ref.)

Skull osteolysis after mild head trauma: case report. Hećimović I, et al. **Surg Neurol** 1999 Jan;51(1):43–6

Fibrin glue for cranial defects [letter; comment] Oppenheim JS, et al. **Surg Neurol** 1999 Mar;51(3):350–1. Comment on: Surg Neurol 1998 Oct;50(4):344–6.

Spontaneous disappearance of a middle cranial fossa arachnoid cyst after suppurative meningitis [see comments] Yoshioka H, et al. **Surg Neurol** 1998 Nov;50(5):487–91 (26 ref.). Comment in: Surg Neurol 1999 Jun;51(6):687–8.

[Aplasia of the skull without scalp anomalies. A case report] Arnaud E, et al. **Ann Chir Plast Esthet** 1998 Jun; 43(3):275–81 (Eng. Abstr.) **(Fre)**

[Treatment of fibrous dysplasia of the cranio-facial bones. Report of 25 cases] Pinsolle V, et al.
Ann Chir Plast Esthet 1998 Jun;43(3):234–9 (Eng. Abstr.) **(Fre)**

[Keratocysts of the jaws with an expansion to the skull base] Soost F, et al. **Zentralbl Neurochir** 1999;60(1):11–4 (Eng. Abstr.) **(Ger)**

[Cranial fasciitis of a neonatal case with massive intra- and extracranial extension] Noguchi O, et al.
No Shinkei Geka 1999 Feb;27(2):163–9 (Eng. Abstr.) **(Jpn)**

[Fibrous craniofacial dysplasia] Sánchez E, et al.
An Otorrinolaringol Ibero Am 1999;26(3):303–11 (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

The significance of the anatomy of the skull base for mechanical modelling: a comparative study. Mall G, et al.
Anat Anz 1999 Jan;181(1):89–93

Tissue engineering of bone in the craniofacial complex. Hollinger JO, et al. **Ann N Y Acad Sci** 1999 Jun 18; 875:379–85 (74 ref.)

Alterations of matrix- and cell-associated proteoglycans inhibit osteogenesis and growth response to fibroblast growth factor-2 in cultured rat mandibular condyle and calvaria. Molténi A, et al. **Cell Tissue Res** 1999 Mar; 295(3):523–36

Experimental analysis of distortion of magnetoencephalography signals by the skull. Okada YC, et al. **Clin Neurophysiol** 1999 Feb;110(2):230–8

Experimental stationary potential recorded with using spine and skull model. Uraisami T, et al.
Electromyogr Clin Neurophysiol 1999 Jan-Feb;39(1):55–60

RGTA11, a new healing agent, triggers developmental events during healing of craniotomy defects in adult rats. Lafont J, et al. **Growth Factors** 1998;16(1):23–38

Imaging of current density and current pathways in rabbit brain during transcranial electrostimulation. Joy ML, et al. **IEEE Trans Biomed Eng** 1999 Sep;46(9):1139–49

A biomechanical model of the craniomandibular complex and cervical spine based on the inverted pendulum. Gillies GT, et al. **J Med Eng Technol** 1998 Nov-Dec;22(6):263–9

Resonant characteristics of the human head in relation to temporomandibular joint sounds. Prinz JF.
J Oral Rehabil 1998 Dec;25(12):954–60

Conjunctive effects of fibroblast growth factor and glycosaminoglycan on bone metabolism in neonatal bartter syndrome. Williams WJ, et al. **Pediatr Res** 1999 May;45(5 Pt 1):726–32

[The periodic mobility of the cranial bones in man] Moskalenko IuE, et al. **Fiziol Cheloveka** 1999 Jan-Feb; 25(1):62–70 **(Rus)**

PHYSIOPATHOLOGY

Evaluation of orbital stress dissipation in pediatric and adult skulls using electronic speckle pattern interferometry. Mouzakes J, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jul;125(7):765–73

Hypoxia- and hypercapnia-induced DC potential shifts in rat at the scalp and the skull are opposite in polarity to those at the cerebral cortex. Lehmenkühler A, et al.
Neurosci Lett 1999 Jul 30;270(2):67–70

RADIATION EFFECTS

Growth hormone secretion, puberty and adult height after cranial irradiation with 18 Gy for leukaemia. Melin AE, et al. **Eur J Pediatr** 1998 Sep;157(9):703–7

The effects of radiation on craniofacial skeletal growth: a quantitative study. Denys D, et al.
Int J Pediatr Otorhinolaryngol 1998 Sep 15;45(1):7–13

RADIOGRAPHY

Optimising contrast-enhanced cranial CT for detection of brain metastases. Sighvatsson V, et al. **Acta Radiol** 1998 Nov;39(6):718–22

CT and MR imaging of focal calvarial lesions. Arana E, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1683–8

Detecting acute extraaxial blood with bone algorithm CT images. Lerner C. **AJR Am J Roentgenol** 1998 Dec; 171(6):1707

Studies of the cranial base in 23 patients with cri-du-chat syndrome suggest a cranial developmental field involved in the condition. Kjaer I, et al. **Am J Med Genet** 1999 Jan 1;82(1):6–14

Cranial CT revisited: do we really need contrast enhancement? Demaerel P, et al. **Eur Radiol** 1998; 8(8):1447–51

Is image selection a useful strategy to decrease the transmission time in teleradiology? A study using 100 emergency cranial CTs. Ludwig K, et al. **Eur Radiol** 1998; 8(9):1719–21

Improving cephalogram analysis through feature subimage extraction. Chen YT, et al. **IEEE Eng Med Biol Mag** 1999 Jan-Feb;18(1):25–31

CT examination of the head of the Baikal seal (Phoca sibirica). Endo H, et al. **J Anat** 1999 Jan;194 (Pt 1):119–26

The importance of computed tomography slice thickness in radiographic patient positioning for radiosurgery. Murphy MJ. **Med Phys** 1999 Feb;26(2):171–5

Disseminated tuberculosis with gradual evolution and unusual localization. Mihăiţan F, et al.
Monaldi Arch Chest Dis 1999 Apr;54(2):133–5

Commentary: head injury in children. Who needs a skull X-ray? Carty H, et al. **Pediatr Radiol** 1998 Nov; 28(11):815–6

Computed tomography of Paget disease of the skull versus fibrous dysplasia. Tehranzadeh J, et al. **Skeletal Radiol** 1998 Dec;27(12):664–72

Spontaneous disappearance of a middle cranial fossa arachnoid cyst after suppurative meningitis [see comments] Yoshioka H, et al. **Surg Neurol** 1998 Nov;50(5):487–91 (26

ref.). Comment in: Surg Neurol 1999 Jun;51(6):687–8.

Three-dimensional imaging and osteometry of adult human skulls using helical computed tomography. Nagashima M, et al. **Surg Radiol Anat** 1998;20(4):291–7

[Enlarged middle fossa approach to the cerebello-pontine angle. Technique and indications] Wigand ME. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(3):159–62 (Eng. Abstr.) **(Fre)**

[A large head. Spinal hyperplasia in thalassemia] Fain O, et al. **Rev Med Interne** 1999 Feb;20(2):179–80 **(Fre)**

[A comparison of standard radiographs and "scout-view" radiographs. The value for cephalometric analysis] Gigon S, et al. **Rev Stomatol Chir Maxillofac** 1998 Nov;99(4):181–3 (Eng. Abstr.) **(Fre)**

[Application and possibilities of digital radiography demonstrated on a skull radiograph] Ebermaier C, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jan;112(1):24–9 (Eng. Abstr.) **(Ger)**

[Calibration of volume data from spiral CT images for defining the contour of individually fitted skull implants] Koenen D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:468–9 **(Ger)**

[Method for calibrating spiral CT data in contour finding processes in individual fitting of skull implants] Koenen D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:518–9 **(Ger)**

[The reduction of the radiation dosage by means of storage phosphor-film radiography compared to a conventional film-screen system with a grid cassette on a skull phantom] Heyne JP, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jul;171(1):54–9 (Eng. Abstr.) **(Ger)**

[Fibrous dysplasia of the skull presenting interesting neuroradiological findings] Keyaki A, et al. **No Shinkei Geka** 1999 Mar;27(3):275–9 (Eng. Abstr.) **(Jpn)**

[Fibrous craniofacial dysplasia] Sánchez E, et al. **An Otorrinolaringol Ibero Am** 1999;26(3):303–11 (Eng. Abstr.) **(Spa)**

RADIONUCLIDE IMAGING

Artifact of cold lesions on skull SPECT of a patient with Paget's disease secondary to pixel overflow. Shih WJ, et al. **Clin Nucl Med** 1999 May;24(5):372–3

Clinical significance of a solitary hot spot in the skull. Hashmi R, et al. **Nucl Med Commun** 1999 Aug;20(8):703–10

[Effect of the skull on brain perfusion SPECT imaging] Matsuoka S, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Dec; 58(14):816–23 (Eng. Abstr.) **(Jpn)**

SURGERY

The ultrastructure and resorptive pattern of cancellous onlay bone grafts in the craniofacial skeleton. Buchman SR, et al. **Ann Plast Surg** 1999 Jul;43(1):49–56

Skull reconstruction with a two-part interlocking custom-made titanium plate. Koppel DA, et al. **Br J Oral Maxillofac Surg** 1999 Feb;37(1):70–2

Fibrous dysplasia of the craniomaxillofacial region: current clinical perspectives. Posnick JC. **Br J Oral Maxillofac Surg** 1998 Aug;36(4):264–73

Characterization of matrix-induced osteogenesis in rat calvarial bone defects: I. Differences in the cellular response to demineralized bone matrix implanted in calvarial defects and in subcutaneous sites. Wang J, et al. **Calcif Tissue Int** 1999 Aug;65(2):156–65

Operative treatment of the anterior synostotic plagiocephaly: analysis of 45 cases. Esparza J, et al. **Childs Nerv Syst** 1998 Sep;14(9):448–54

Hemispherectomy complications in the light of craniocerebral disproportion: review of the literature and rationale for a filling-reduction cranioplasty. Sorano V, et al. **Childs Nerv Syst** 1998 Sep;14(9):440–7 (63 ref.)

An infantile intraosseous hematoma of the skull. Report of a case and review of the literature. Yücesoy K, et al. **Childs Nerv Syst** 1999 Jan;15(1):69–72 (13 ref.)

The technological imperative in craniofacial surgery [editorial] Ward C. **Cleft Palate Craniofac J** 1999 Jan; 36(1):1–2

Anterior craniofacial resection for malignant ethmoid tumors--a series of 91 patients. Cantù G, et al. **Head Neck** 1999 May;21(3):185–91

Custom-made cast titanium implants produced with CAD/CAM for the reconstruction of cranium defects [letter] Heuser L, et al. **Int J Oral Maxillofac Surg** 1999 Aug;28(4):314–5

Validation of computer-assisted manufacture of titanium plates for cranioplasty. Joffe JM, et al. **Int J Oral Maxillofac Surg** 1999 Aug;28(4):309–13

Multimodal strategy for reduction of homologous transfusions in cranio-maxillofacial surgery. Rohling RG, et al. **Int J Oral Maxillofac Surg** 1999 Apr;28(2):137–42

BoneSource hydroxyapatite cement: a novel biomaterial for craniofacial skeletal tissue engineering and reconstruction. Friedman CD, et al. **J Biomed Mater Res** 1998 Winter; 43(4):428–32 (13 ref.)

Stereolithographic biomodelling in cranio-maxillofacial surgery: a prospective trial. D'Urso PS, et al. **J Craniomaxillofac Surg** 1999 Feb;27(1):30–7

Reconstruction for large defects of the scalp and cranium. Ioannides C, et al. **J Craniomaxillofac Surg** 1999 Jun; 27(3):145–52

Cranioplasty with split lateral skull plate segments for reconstruction of skull defects. Kiyokawa K, et al. **J Craniomaxillofac Surg** 1998 Dec;26(6):379–85

Biodegradable semirigid plate and miniscrew fixation compared with rigid titanium fixation in experimental calvarial osteotomy. Peltoniemi HH, et al. **J Neurosurg** 1999 May;90(5):910–7

Variations of the extreme-lateral craniocervical approach: anatomical study and clinical analysis of 69 patients. Salas E, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):206–19

Osseointegrated implants in irradiated bone: a case-controlled study using adjunctive hyperbaric oxygen therapy. Granström G, et al. **J Oral Maxillofac Surg** 1999 May;57(5):493–9

Photoablation of bone by excimer laser radiation. Walter ML, et al. **Lasers Surg Med** 1999;25(2):153–8

Pre-surgical CT/FEA for craniofacial distraction: I. Methodology, development, and validation of the cranial finite element model. Remmler D, et al. **Med Eng Phys** 1998 Nov;20(8):607–19

The suture applicator for replacing a bone flap--technical note. Kondo S, et al. **Neurol Med Chir (Tokyo)** 1999 May; 39(5):387–9; discussion 389–90

Reduction cranioplasty for macrocephaly. Two case reports. Takahashi Y, et al. **Neurol Med Chir (Tokyo)** 1999 Jun; 39(6):459–62

Computer-aided manufacturing of implants for the repair of large cranial defects: an improvement of the stereolithography technique. Fallahi B, et al. **Neurol Res** 1999 Apr;21(3):281–6

Suprameatal extension of the retrosigmoid approach: microsurgical anatomy. Seoane E, et al. **Neurosurgery** 1999 Mar;44(3):553–60

Fate of rigid fixation in pediatric craniofacial surgery. Berryhill WE, et al. **Otolaryngol Head Neck Surg** 1999 Sep; 121(3):269–73

A method of cranioplasty using coralline hydroxyapatite. Choi SH, et al. **Pediatr Neurosurg** 1998 Dec;29(6):324–7

Pancraniosynostosis after surgery for single sutural craniosynostosis. Greene CS Jr. **Pediatr Neurosurg** 1998 Sep;29(3):127–32

Cranial vault expansion using transcutaneously activated magnetic implants. Rinehart G, et al. **Pediatr Neurosurg** 1998 Jun;28(6):293–9

The use of hydroxyapatite cement in secondary craniofacial reconstruction. Burstein FD, et al. **Plast Reconstr Surg** 1999 Oct;104(5):1270–5

Osseointegration of preformed polymethylmethacrylate craniofacial prostheses coated with bone marrow-impregnated poly (DL-lactic-co-glycolic acid) foam. Dean D, et al. **Plast Reconstr Surg** 1999 Sep; 104(3):705–12

Analysis and treatment of severe trigonocephaly. Havlik RJ, et al. **Plast Reconstr Surg** 1999 Feb;103(2):381–90

Anchoring galeal flaps for scalp reduction procedures. Raposio E, et al. **Plast Reconstr Surg** 1998 Dec; 102(7):2454–8

Properties of coralline hydroxyapatite and expanded polytetrafluoroethylene membrane in the immature craniofacial skeleton. Reedy BK, et al. **Plast Reconstr Surg** 1998 Jan;103(1):20–6

Presurgical finite element analysis from routine computed tomography studies for craniofacial distraction: II. An engineering prediction model for gradual correction of asymmetric skull deformities. Remmler D, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1395–404

Cranioplasty with neovascularized autogenous calvarial bone. Tsukagoshi T, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):2114–8

Some basic factors essential to autogeneic nonvascularized onlay bone grafting to the craniofacial skeleton. Gordh M, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Jun; 33(2):129–46 (134 ref.)

A comparison of various angles of halo pin insertion in an immature skull model. Copley LA, et al. **Spine** 1999 Sep 1;24(17):1777–80

Neurenteric cyst at the craniovertebral junction: report of two cases. Fuse T, et al. **Surg Neurol** 1998 Nov;50(5):431–6 (21 ref.)

The supracondylar approach to the jugular tubercle and hypoglossal canal. Gilsbach JM, et al. **Surg Neurol** 1998 Dec;50(6):563–70

Anesthetic and surgical experience in a case of total vertical craniopagus. Khan ZH, et al. **Surg Neurol** 1999 Jul; 52(1):62–6; discussion 66–7

Fibrin glue for cranial defects [letter; comment] Oppenheim JS, et al. **Surg Neurol** 1999 Mar;51(3):350–1. Comment on: Surg Neurol 1998 Oct;50(4):344–6.

[Improving the repair of the skull defects in 60 children] Yang S, et al. **Chung Hua Cheng Hsing Shao Shang Wai Ko Tsa Chih** 1997 Jan;13(1):60–2 (Eng. Abstr.) **(Chi)**

[Experimental study on porous hydroxyapatite ceramics in repair of skull bone defect of rabbit] Cheng H, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):129–31 (Eng. Abstr.) **(Chi)**

[Experimental study of coral implantation in repair of skull bone defect in rabbit: histomorphometry of bone] Miao L, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):132–5 (Eng. Abstr.) **(Chi)**

[Application of MEDPOR surgical implant in the craniofacial reconstruction] Qian Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):71–3 (Eng. Abstr.) **(Chi)**

[Aplasia of the skull without scalp anomalies. A case report] Arnaud E, et al. **Ann Chir Plast Esthet** 1998 Jun; 43(3):275–81 (Eng. Abstr.) **(Fre)**

[Mental prognosis of trigonocephaly and therapeutic implications] Bottero L, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):296–304 (Eng. Abstr.) **(Fre)**

[The posterior cranium and its dysmorphisms] Czorny A, et al. **Ann Chir Plast Esthet** 1997 Oct;42(5):515–36 (Eng. Abstr.) **(Fre)**

[Treatment of fibrous dysplasia of the cranio-facial bones. Report of 25 cases] Pinsolle V, et al. **Ann Chir Plast Esthet** 1998 Jun;43(3):234–9 (Eng. Abstr.) **(Fre)**

[Enlarged middle fossa approach to the cerebello-pontine angle. Technique and indications] Wigand ME. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(3):159–62 (Eng. Abstr.) **(Fre)**

[Cranioplasty with polymethylmethacrylate. The clinico-statistical considerations] Luparello D, et al. **Minerva Chir** 1998 Jun;53(6):575–9 (Eng. Abstr.) **(Ita)**

[On the clinical significance of the trephined cavity status in patients with radical surgery of the middle ear] Tolstov IuP, et al. **Vestn Otorinolaringol** 1999;(1):44–6 (Eng. Abstr.) **(Rus)**

[The use of the contralateral pterional approach in the surgery of cerebral aneurysms] Krylov VV, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct-Dec; (4):9–16; discussion 16–7 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Reconstruction of the temporomandibular joint using calvarial bone after a failed Teflon-Proplast implant. Lee JJ, et al. **J Oral Maxillofac Surg** 1999 Apr;57(4):457–61 (14 ref.)

Optimizing calvarial bone graft harvesting with the SIM/Plant software system. Gerencer R, et al. **J Otolaryngol** 1999 Jun;28(3):173–7

Frontal sinus obliteration using a laterally based pedicled pericranial flap. Ducic Y, et al. **Laryngoscope** 1999 Apr; 109(4):541–5

Calvarial bone graft harvest in children. Frodel JL. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):78–81

ULTRASONOGRAPHY

A new predictive modality of cranial bone thickness. Elahi MM, et al. **Ann Plast Surg** 1999 Jun;42(6):651–7

Cranial sonography in very-low-birth-weight infants: do all infants need to be screened? Paul DA, et al. **Clin Pediatr (Phila)** 1999 Sep;38(9):503–9

Cranial sonographic findings in Joubert's syndrome. al-Talabani JA, et al. **J Clin Ultrasound** 1999 Jan;27(1):41–4 (8 ref.)

ULTRASTRUCTURE

Sutural mineralization of rat calvaria characterized by atomic-force microscopy and transmission electron microscopy. Wiesmann HP, et al. **Cell Tissue Res** 1998 Oct; 294(1):93–7

SKULL BASE

Meningotheliomatous meningioma accompanied by aspergillosis at the skull base. Sameshima T, et al. **Brain Tumor Pathol** 1998;15(2):107–10

Neuromuscular oropharyngeal dysphagia secondary to bone metastases. Shames D, et al. **Conn Med** 1998 Aug; 62(8):451–3

Evaluation of ozonated oxygen in an experimental animal model of osteomyelitis as a further treatment option for skull-base osteomyelitis. Steinhart H, et al. **Eur Arch Otorhinolaryngol** 1999;256(3):153–7

Involvement of the skull base and vault in chronic idiopathic hyperphosphatasia. Mazzanti L, et al. **Pediatr Radiol** 1999 Jan;29(1):16–8

Multiple skull base meningioma: case report. Spallone A, et al. **Surg Neurol** 1999 Mar;51(3):274–80

[Pigmented villonodular synovitis of the temporomandibular joint with invasion of middle cranial fossa] Stojadinovic S, et al. **Mund Kiefer Gesichtschir** 1998 Sep;2(5):279–81 (Eng. Abstr.) **(Ger)**

ABNORMALITIES

Fossa navicularis magna. Beltramello A, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1796–8

Anomalies of craniofacial skeleton and teeth in cleidocranial dysplasia. Kreiborg S, et al. **J Craniofac Genet Dev Biol** 1999 Apr-Jun;19(2):75–9

ANATOMY & HISTOLOGY

Detailed magnetic resonance imaging anatomy of the cisternal segment of the abducent nerve: Dorello's canal and neurovascular relationships and landmarks. Yousry I, et al. **J Neurosurg** 1999 Aug;91(2):276–83

The enigmatic foramen lacerum. Tauber M, et al. **Neurosurgery** 1999 Feb;44(2):386–91; discussion 391–3

INJURIES

Cranial base perforation caused by a ventriculosubgaleal shunt. Van Schaeybroeck P, et al. **Acta Neurochir (Wien)** 1998;140(11):1205–6

A surgical method for treating anterior skull base injuries. Kiyokawa K, et al. **J Craniomaxillofac Surg** 1999 Feb; 27(1):11–9

[Chronic post-traumatic extradural and epicranial pneumatocele. A rare complication of skull base fracture] Sadeghi-Hariri B, et al. **Neurochirurgie** 1999 May; 45(2):145–9 (Eng. Abstr.) **(Fre)**

[Possibilities for computer tomography of the equine head based on two cases with a fracture of the base of the skull] Gardelle O, et al. **Schweiz Arch Tierheilkd** 1999; 141(6):267–72 (Eng. Abstr.) **(Ger)**

[Skull base fractures in childhood. The role of CT in the accuracy of diagnosis] Süli TP, et al. **Orv Hetil** 1999 Mar 28;140(13):703–9 (25 ref.) (Eng. Abstr.) **(Hun)**

[A case of a traumatic anterior cerebral artery aneurysm following the penetration of the skull base by an iron rod] Nakai H, et al. **No Shinkei Geka** 1999 Jun;27(6):583–9 (Eng. Abstr.) **(Jpn)**

[The surgical procedure in blind gunshot wounds of the skull base] Gofman VR, et al. **Vestn Khir Im I I Grek** 1998; 157(5):74–8 (Eng. Abstr.) **(Rus)**

INNERVATION

Vagal nerve monitoring in surgery of the skull base: a comparison of efficacy of three techniques. Jackson LE, et al. **Am J Otol** 1999 Sep;20(5):649–56

PATHOLOGY

Fossa navicularis magna. Beltramello A, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1796–8

RADIOGRAPHY

Anomalies of craniofacial skeleton and teeth in cleidocranial dysplasia. Kreiborg S, et al. **J Craniofac Genet Dev Biol** 1999 Apr–Jun;19(2):75–9

Giant-cell tumor of the skull base. Lee HJ, et al. **Neuroradiology** 1999 Apr;41(4):305–7

SURGERY

An experimental approach to image guided skull base surgery employing a microscope-based neuronavigation system. Brinker T, et al. **Acta Neurochir (Wien)** 1998;140(9):883–9

The extended transbasal approach: a quantitative anatomical and histological study. Honeybul S, et al. **Acta Neurochir (Wien)** 1999;141(3):251–9

Vagal nerve monitoring in surgery of the skull base: a comparison of efficacy of three techniques. Jackson LE, et al. **Am J Otol** 1999 Sep;20(5):649–56

Reverse U-shaped split temporalis musculofascial flap in cranial base reconstruction. Maegawa J, et al. **Ann Plast Surg** 1999 Jun;42(6):644–50

Application of skull base techniques to pediatric neurosurgery. Teo C, et al. **Childs Nerv Syst** 1999 Mar; 15(2–3):103–9 (18 ref.)

Three-dimensional computed tomographic reconstruction: planning tool for surgery of skull base pathologies. Elolf E, et al. **Comput Aided Surg** 1998;3(2):89–94

The role of skull base surgery for the treatment of adenoid cystic carcinoma of the sinonasal tract. Pitman KT, et al. **Head Neck** 1999 Aug;21(5):402–7

Preoperative planning and intraoperative navigation in skull base surgery. Hassfeld S, et al. **J Craniomaxillofac Surg** 1998 Aug;26(4):220–5

Intraoperative electrooculographic monitoring of oculomotor nerve function during skull base surgery. Technical note. Fukaya C, et al. **J Neurosurg** 1999 Jul; 91(1):157–9

Risk of injury to cranial nerves after gamma knife radiosurgery for skull base meningiomas: experience in 88 patients. Morita A, et al. **J Neurosurg** 1999 Jan;90(1):42–9

Use of the radial forearm microvascular free-flap graft for cranial base reconstruction. Schwartz MS, et al. **J Neurosurg** 1999 Apr;90(4):651–5

Microvascular reconstruction of the skull base: indications and procedures. Schliephake H, et al. **J Oral Maxillofac Surg** 1999 Mar;57(3):233–9

Virtual endoscopy (VE) of the basal cisterns: its value in planning the neurosurgical approach. Boor S, et al. **Minim Invasive Neurosurg** 1998 Dec;41(4):177–82

Model-based surgical planning and simulation of cranial base surgery. Abe M, et al. **Neurol Med Chir (Tokyo)** 1998 Nov; 38(11):746–50; discussion 750–1

Angiographically occult dural arteriovenous malformation in the anterior cranial fossa--case report. Hattori T, et al. **Neurol Med Chir (Tokyo)** 1999 Apr;39(4):291–3

Technical developments in intra-operative monitoring for the preservation of cranial motor nerves and hearing in skull base surgery. Schlake HP, et al. **Neurol Res** 1999 Jan; 21(1):11–24 (90 ref.)

Skull base techniques for aneurysm occlusion. Moore AJ, et al. **Neurosurg Clin N Am** 1998 Oct;9(4):713–24 (54 ref.)

Analytical evaluation of complex anterior approaches to the cranial base: an anatomic study [published erratum appears in Neurosurgery 1999 Feb;44(2):421] Ammirati M, et al. **Neurosurgery** 1998 Dec;43(6):1398–407; discussion 1407–8

Surgical anatomy of the infratemporal fossa: the styloid diaphragm revisited. Bejjani GK, et al. **Neurosurgery** 1998 Oct;43(4):842–52; discussion 852–3

The predictive value of intraoperative somatosensory evoked potential monitoring: review of 244 procedures. Bejjani GK, et al. **Neurosurgery** 1998 Sep;43(3):491–8; discussion 498–500

Protective coating of cranial nerves with fibrin glue (Tissucol) during cranial base surgery: technical note. de Vries J, et al. **Neurosurgery** 1998 Nov;43(5):1242–6

Proposed grading system to predict the extent of resection and outcomes for cranial base meningiomas. Levine ZT, et al. **Neurosurgery** 1999 Aug;45(2):221–30

Auditory-nerve integrity after middle-fossa acoustic-tumor removal. Friedman RA, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):588–92

Critical pathways in anterior cranial base surgery. Moore CE, et al. **Otolaryngol Head Neck Surg** 1999 Jul; 121(1):113–8

Successful reconstruction of refractory posttraumatic skull base defects with free radial forearm flap. Lorenzini M, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2097–9

Transnasal endoscopic excision of midline nasal dermoid from the anterior cranial base. Weiss DD, et al. **Plast Reconstr Surg** 1998 Nov;102(6):2119–23

Petroclival meningioma. An attempt to define the role of skull base approaches in their surgical management. Spallone A, et al. **Surg Neurol** 1999 Apr;51(4):412–9; discussion 419–20

[Computer-assisted surgical navigation with a dynamic mobile framework for the nasal fossae, sinuses and base of the skull] Caversaccio M, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Nov;115(5):253–8 (Eng. Abstr.) **(Fre)**

[The retro-auricular, transmastoid, infralabyrinth approach. A simple route for excision of tumors of the jugular foramen] Fournier HD, et al. **Neurochirurgie** 1998 Apr; 44(2):111–6 (18 ref.) (Eng. Abstr.) **(Fre)**

[The use of pedicle periosteal flap in plastic surgery of anterior skull base] Maliszewski M, et al. **Neurol Neurochir Pol** 1998 May–Jun;32(3):563–71 (Eng. Abstr.) **(Pol)**

[The surgical procedure in blind gunshot wounds of the skull base] Gofman VR, et al. **Vestn Khir Im I I Grek** 1998; 157(5):74–8 (Eng. Abstr.) **(Rus)**

[Plastic repair of a defect in the base of the skull with soft tissues from the orbit after the removal of an extensive esthesioneuroepithelioma] Belov AI, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr–Jun; (2):25–7 (24 ref.) (Eng. Abstr.) **(Rus)**

[Surgery of the base of the skull] Konovalov AN, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct–Dec;(4):3–9 (Eng. Abstr.) **(Rus)**

SKULL BASE NEOPLASMS

COMPLICATIONS

Intracranial mesenchymal chondrosarcoma associated with a left transverse sigmoid dural A-V fistule. Nozaki K, et al. **Acta Neurochir (Wien)** 1999;141(3):327–8

[A skull base tumor complicated by rhinorrhea] Hermanowski M, et al. **Otolaryngol Pol** 1997;51 Suppl 25:86–9 (Eng. Abstr.) **(Pol)**

[Recurrential paralysis as the first manifestation of chordoma of the petrous apex] Giménez Vaíllo F, et al. **Acta Otorrinolaringol Esp** 1999 Apr;50(3):239–42 (Eng. Abstr.) **(Spa)**

CONGENITAL

Role of radical surgery for intracranial melanotic neuroectodermal tumor of infancy: case report. Dashti SR, et al. **Neurosurgery** 1999 Jul;45(1):175–8

DIAGNOSIS

Vertigo produced by petrous extension of a radiation-induced fibrosarcoma of the anterior skull base. Bhattacharyya N, et al. **Ann Otol Rhinol Laryngol** 1998 Oct;107(10 Pt 1):898–900

Schwannoma of the jugular foramen. Valvassori G, et al. **Ear Nose Throat J** 1998 Sep;77(9):732

Destruction of the glenoid joint fossa by a tenosynovial giant-cell tumour of the skull base: a case report. Stojadinovic S, et al. **Int J Oral Maxillofac Surg** 1999 Apr; 28(2):132–4 (11 ref.)

Neuro-ophthalmologic manifestations of Maffucci's syndrome and Ollier's disease. Balcer LJ, et al. **J Neuroophthalmol** 1999 Mar;19(1):62–6

Intracranial myxoid chondrosarcoma with early intradural growth. Sala F, et al. **J Neurosurg Sci** 1998 Sep; 42(3):159–63

Primary osteogenic sarcoma involving sella-sphenoid sinus--case report. Kachhara R, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):534–8

Paraganglioma in the frontal skull base--case report. Yamauchi T, et al. **Neurol Med Chir (Tokyo)** 1999 Apr; 39(4):308–12 (16 ref.)

Maffucci's syndrome associated with a cranial base chondrosarcoma: case report and literature review [letter; comment] Tibbs RE Jr, et al. **Neurosurgery** 1998 Aug; 43(2):397. Comment on: Neurosurgery 1997 Jul;41(1):269–72.

A follow-up of rhabdomyosarcoma of the infratemporal fossa region in adults based on the magnetic resonance imaging findings: case reports. Goto TK, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):616–25 (20 ref.)

Chondrosarcoma of the temporomandibular joint. Batra PS, et al. **Otolaryngol Head Neck Surg** 1999 Jun;120(6):951–4

Recovery of hearing after removal of a large jugular foramen schwannoma: report of two cases. Yamakami I, et al. **Surg Neurol** 1999 Jan;51(1):60–5

[Space occupying lesion in the basis of the skull] Schulz-Ertner D, et al. **Radiologe** 1999 Feb;39(2):161–3 **(Ger)**

[A combination of a meningioma of the base of the skull and an arteriovenous micromalformation of the brain stem] Konovalov AN, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr–Jun; (2):21–4 (23 ref.) (Eng. Abstr.) **(Rus)**

[Recurrential paralysis as the first manifestation of chordoma of the petrous apex] Giménez Vaíllo F, et al. **Acta Otorrinolaringol Esp** 1999 Apr;50(3):239–42 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Recurrent chondrosarcoma of the cranial base: a durable response to ifosfamide-doxorubicin chemotherapy. La Rocca RV, et al. **J Neurooncol** 1999 Feb;41(3):281–3

GENETICS

First cytogenetic study of a recurrent familial chordoma of the clivus. Dalprà L, et al. **Int J Cancer** 1999 Mar 31; 81(1):24–30

IMMUNOLOGY

Ki-67 immunolabelling index is a prognostic indicator in childhood posterior fossa ependymomas. Bennetto L, et al. **Neuropathol Appl Neurobiol** 1998 Dec;24(6):434–40

PATHOLOGY

Stereotactic biopsy of brain stem and posterior fossa lesions in children. Valdés-Gorcía J, et al. **Acta Neurochir (Wien)** 1998;140(9):899–903

Sudden unexpected death from primary posterior fossa tumors. Gleckman AM, et al. **Am J Forensic Med Pathol** 1998 Dec;19(4):303–8 (13 ref.)

Temporal bone and lateral skull base malignancy: experience and results with 81 patients. Manolidis S, et al. **Am J Otol** 1998 Nov;19(6 Suppl):S1–15 (787 ref.)

Comparison of MR imaging with CT in depiction of tumour extension into the pterygopalatine fossa. Tomura N, et al. **Clin Radiol** 1999 Jun;54(6):361–6

Comparison of MR imaging and CT in discriminating tumor infiltration of bone and bone marrow in the skull base. Tomura N, et al. **Comput Med Imaging Graph** 1998 Jan–Feb;22(1):41–51

Interactive MR-guided biopsies of maxillary and skull-base lesions in an open-MR system: first clinical results. Kacl GM, et al. **Eur Radiol** 1999;9(3):487–92

Drop metastases in a patient with a chondroid chordoma of the clivus. Uggowitzer MM, et al. **Neuroradiology** 1999 Jul;41(7):504–7

Hyperostosis associated with meningioma of the cranial base: secondary changes or tumor invasion. Pieper DR, et al. **Neurosurgery** 1999 Apr;44(4):742–6; discussion 746–7

Dumbbell tumor of the anterior skull base. Meningioma? No, adenoid cystic carcinoma! Brunori A, et al. **Surg Neurol** 1998 Nov;50(5):470–4

[Bone neogenesis in a rare space-occupying lesion of the inner ear canal] Relic A, et al. **HNO** 1999 Jun;47(6):563–8 (39 ref.) (Eng. Abstr.) **(Ger)**

[Variants in the growth of meningiomas of the base of the skull spreading into the orbit and paranasal sinuses] Cherekaev VA, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Jul–Sep; (3):25–31 (Eng. Abstr.) **(Rus)**

RADIONUCLIDE IMAGING

Dual isotope SPECT in malignant Jacod's syndrome. Fukumoto M, et al. **Clin Nucl Med** 1998 Jul;23(7):437–40

RADIOTHERAPY

Analysis of the relationship between tumor dose inhomogeneity and local control in patients with skull base chordoma. Terahara A, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):351–8

Proton radiation therapy for chordomas and chondrosarcomas of the skull base. Hug EB, et al. **J Neurosurg** 1999 Sep;91(3):432–9

Radiotherapy in the treatment of benign meningioma of the skull base. Nutting C, et al. **J Neurosurg** 1999 May; 90(5):823–7

Proton beam therapy (PT) in the management of CNS tumors in childhood. Habrand JL, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:91–4

Proton therapy for tumors of the skull base. Munzenrider JE, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:57–63 (46 ref.)

SKULL BASE NEOPLASMS

SECONDARY

Detection of perineural spread: fat is a friend [editorial; comment] Curtin HD. **AJNR Am J Neuroradiol** 1998 Sep; 19(8):1385–6. Comment on: AJNR Am J Neuroradiol 1998 Sep;19(8):1417–22.

Osseous anatomy of the pterygopalatine fossa. Daniels DL, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1423–32

Imaging of perineural tumor spread from palatal carcinoma [see comments] Ginsberg LE, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1417–22. Comment in: AJNR Am J Neuroradiol 1998 Sep;19(8):1385–6.

SURGERY

An increase in extracellular glutamate is a sensitive method of detecting ischaemic neuronal damage during cranial base and cerebrovascular surgery. An in vivo microdialysis study. Mendelowitsch A, et al. **Acta Neurochir (Wien)** 1998; 140(4):349–55; discussion 356

Two-stage skull base surgery for tumours extending to the sub- and epidural spaces. Nakase H, et al. **Acta Neurochir (Wien)** 1998;140(9):891–8

Reconstruction of lateral skull base oncological defects: the role of free tissue transfer. Disa JJ, et al. **Ann Plast Surg** 1998 Dec;41(6):633–9

Craniofacial resection of anterior skull base tumours: comment [letter; comment] Kaye AH, et al. **Aust N Z J Surg** 1999 Mar;69(3):235–6. Comment on: Aust N Z J Surg 1998 May;68(5):350–3.

Epidermoid and dermoid cysts of the posterior fossa. Cobbs CS, et al. **Clin Neurosurg** 1997;44:511–28 (44 ref.)

Cranial base chordomas. Menezes AH, et al. **Clin Neurosurg** 1997;44:491–509 (40 ref.)

Benign tumors of the cavernous sinus. Rosseau G. **Clin Neurosurg** 1999;45:260–2 (20 ref.)

The case for aggressive resection. Sekhar LN, et al. **Clin Neurosurg** 1999;45:263–78 (18 ref.)

Surgical management of intraosseous skull base tumors with aid of Operating Arm System. Schul C, et al. **Comput Aided Surg** 1998;3(6):312–9

Preoperative planning and intraoperative navigation in skull base surgery. Hassfeld S, et al. **J Craniomaxillofac Surg** 1998 Aug;26(4):220–5

Microsurgical treatment of midfacial tumours involving the skull base. Joos U, et al. **J Craniomaxillofac Surg** 1998 Aug; 26(4):226–34 (16 ref.)

Intracranial myxoid chondrosarcoma with early intradural growth. Sala F, et al. **J Neurosurg Sci** 1998 Sep; 42(3):159–63

Microvascular reconstruction of the skull base: indications and procedures. Schliephake H, et al. **J Oral Maxillofac Surg** 1999 Mar;57(3):233–9

Craniofacial resection for malignant neoplasms of the skull base: an overview. Boyle JO, et al. **J Surg Oncol** 1998 Dec; 69(4):275–84 (78 ref.)

Early outcome and complications of the extended subcranial approach to the anterior skull base. Fliss DM, et al. **Laryngoscope** 1999 Jan;109(1):153–60

Facial nerve outcome in lateral skull base surgery for benign lesions. von Doersten PG, et al. **Laryngoscope** 1998 Oct; 108(10):1480–4

Fractionated stereotactic radiotherapy: rationale and methods. Solberg TD, et al. **Med Dosim** 1998 Fall; 23(3):209–19 (69 ref.)

Model-based surgical planning and simulation of cranial base surgery. Abe M, et al. **Neurol Med Chir (Tokyo)** 1998 Nov; 38(11):746–50; discussion 750–1

Paraganglioma in the frontal skull base--case report. Yamauchi T, et al. **Neurol Med Chir (Tokyo)** 1999 Apr; 39(4):308–12 (16 ref.)

Iatrogenic arachnoid cyst with distinct clinical picture as a result of bone defect in the floor of the middle cranial fossa: case report. Kutlay M, et al. **Neurosurgery** 1998 Nov; 43(5):1215–8

Aggressive fibromatosis involving the cranial base in children. Perez-Cruet MJ, et al. **Neurosurgery** 1998 Nov; 43(5):1096–102

Preservation of the olfactory tract in bifrontal craniotomy for various lesions of the anterior cranial fossa. Sepehrnia A, et al. **Neurosurgery** 1999 Jan;44(1):113–7

Treatment of posterior skull base tumors. Lin C, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):316–9

Le Fort I approach to pituitary adenoma [letter] Sugata T, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Nov;86(5):506–7

Treatment of malignant neoplasms of the lateral cranial base with the combined frontotemporal-anterolateral approach: five-year follow-up. Bigelow DC, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):17–24

Subcranial approach to tumors of the anterior cranial base: analysis of current and traditional surgical techniques. Moore CE, et al. **Otolaryngol Head Neck Surg** 1999 Mar; 120(3):387–90

Critical pathways in anterior cranial base surgery. Moore CE, et al. **Otolaryngol Head Neck Surg** 1999 Jul; 121(1):113–8

A new transfacial approach for lesions of the clivus and parapharyngeal space: the partial segmented Le Fort I osteotomy. Diaz-Gonzalez FJ, et al. **Plast Reconstr Surg** 1999 Mar;103(3):955–9

The Le Fort I-palatal split approach for skull base tumors: efficacy, complications, and outcome. Williams WG, et al. **Plast Reconstr Surg** 1998 Dec;102(7):2310–9

Persistent trigeminal neuralgia after removal of contralateral posterior cranial fossa tumor. Report of two cases. Grigoryan YA, et al. **Surg Neurol** 1999 Jul;52(1):56–60; discussion 60–1

Gamma knife surgery for skull base meningiomas. The effectiveness of low-dose treatment. Iwai Y, et al. **Surg Neurol** 1999 Jul;52(1):40–4; discussion 44–5

Stereotactic radiosurgery for jugular foramen schwannomas. Muthukumar N, et al. **Surg Neurol** 1999 Aug;52(2):172–9

End-to-end anastomosis of the posterior inferior cerebellar artery before excision of a meningioma involving the lower clivus and the foramen magnum. Case report. Touho H. **Surg Neurol** 1999 Aug;52(2):185–8

Recovery of hearing after removal of a large jugular foramen schwannoma: report of two cases. Yamakami I, et al. **Surg Neurol** 1999 Jan;51(1):60–5

[Clinical experience of coronal flap approach in surgery of anterior skull base tumor] Wang Y, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Oct; 11(10):454–6 (Eng. Abstr.) **(Chi)**

[Unusual intra-extracranial extension of meningioma of the lateral skull base] Knipping S, et al. **HNO** 1999 Jan; 47(1):51–4 (Eng. Abstr.) **(Ger)**

[Long-term outcome after reconstruction of the cranial base with ionomer cement] Baier G, et al. **Laryngorhinootologie** 1998 Aug;77(8):467–73 (Eng. Abstr.) **(Ger)**

[Interdisciplinary surgical treatment of anterior skull base tumors] Anton JV, et al. **Wien Klin Wochenschr** 1999 Jul 30;111(14):560–7 (Eng. Abstr.) **(Ger)**

[Clinical experience of image-guided neurosurgery with a frameless navigation system (StealthStation)] Morioka T, et al. **No Shinkei Geka** 1999 Jan;27(1):33–40 (Eng. Abstr.) **(Jpn)**

[Surgery of malignant tumors affecting the skull base] Saito K, et al. **No Shinkei Geka** 1999 Jun;27(6):505–14 (21 ref.) **(Jpn)**

[Reconstruction methods in skull base surgery] Kukwa A, et al. **Neurol Neurochir Pol** 1998 Jul-Sep;32(4):853–62 (Eng. Abstr.) **(Pol)**

[Use of x-ray endovascular occlusion in combined treatment of juvenile angiofibroma of the skull base in children] Iablonskii SV, et al. **Vestn Otorinolaringol** 1998;(6):37–40 (Eng. Abstr.) **(Rus)**

[Plastic repair of a defect in the base of the skull with soft tissues from the orbit after the removal of an extensive esthesioneuroepithelioma] Belov AI, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr-Jun; (2):25–7 (24 ref.) (Eng. Abstr.) **(Rus)**

[A transmaxillary transnasal approach to tumors of the base of the skull] Grigorian IuA, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Jul-Sep; (3):39–42; discussion 42–3 (Eng. Abstr.) **(Rus)**

THERAPY

Temporal bone and lateral skull base malignancy: experience and results with 81 patients. Manolidis S, et al. **Am J Otol** 1998 Nov;19(6 Suppl):S1–15 (787 ref.)

Primary osteogenic sarcoma involving sella-sphenoid sinus--case report. Kachhara R, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):534–8

SKULL FRACTURES

Twenty years of statistics and observation of facial bone fracture. Muraoka M, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:261–5

Antibiotic prophylaxis after basilar skull fractures: a meta-analysis. Villalobos T, et al. **Clin Infect Dis** 1998 Aug; 27(2):364–9

[Longitudinal fractures of the clivus] Masopust V, et al. **Rozhl Chir** 1998 Sep;77(9):385–8 (Eng. Abstr.) **(Cze)**

CLASSIFICATION

Facial fracture classification according to skeletal support mechanisms. Donat TL, et al. **Arch Otolaryngol Head Neck Surg** 1998 Dec; 124(12):1306–14

COMPLICATIONS

Does the face protect the brain? A case-control study of traumatic brain injury and facial fractures. Keenan HT, et al. **Arch Surg** 1999 Jan;134(1):14–7

Exsanguination from impact head trauma; the explanation for the "empty heart" sign. Contostavlos DL. **Forensic Sci Int** 1998 Aug 12;95(3):201–12

Postpartum brain death as a late fatal sequel of a previous skull base fracture [letter] Behrens S, et al. **Intensive Care Med** 1998 Aug;24(8):890–1

A rare case of hypoglossal nerve palsy complicating a head injury. Shweikh AM, et al. **J Accid Emerg Med** 1998 Nov; 15(6):427–9

Prospective study on post-traumatic and postoperative sensory disturbances of the inferior alveolar nerve and infraorbital nerve in mandibular and midfacial fractures. Schultze-Mosgau S, et al. **J Craniomaxillofac Surg** 1999 Apr;27(2):86–93

Cochlear implantation following temporal bone fracture. Camilleri AE, et al. **J Laryngol Otol** 1999 May;113(5):454–7

Temporal bone fracture following blunt trauma caused by a flying fish. Goldenberg D, et al. **J Laryngol Otol** 1998 Oct;112(10):959–61

Post-traumatic meningioma: case report and historical perspective. Kotzen RM, et al. **J Neurol Neurosurg Psychiatry** 1999 Jun;66(6):796, 798

Otological complications following basal skull fractures. Lancaster JL, et al. **J R Coll Surg Edinb** 1999 Apr; 44(2):87–90

Cranio-cerebral erosion: delayed diagnosis and treatment. Ergün R, et al. **Neurosurg Rev** 1998;21(4):249–53

Acute intracranial complications of temporal bone trauma. Alvi A, et al. **Otolaryngol Head Neck Surg** 1998 Dec; 119(6):609–13

An unusual variant of a growing skull fracture in an adolescent. Colak A, et al. **Pediatr Neurosurg** 1998 Jul; 29(1):36–9 (14 ref.)

Blindness after reduction of facial fractures. Girotto JA, et al. **Plast Reconstr Surg** 1998 Nov;102(6):1821–34 (70 ref.)

Blindness as a complication of Le Fort osteotomies: role of atypical fracture patterns and distortion of the optic canal. Girotto JA, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1409–21; discussion 1422–3

Traumatic leptomeningeal cyst in an adult: a case report and review of the literature. Britz GW, et al. **Surg Neurol** 1998 Nov;50(5):465–9 (19 ref.)

[Chronic post-traumatic extradural and epicranial pneumatocele. A rare complication of skull base fracture] Sadeghi-Hariri B, et al. **Neurochirurgie** 1999 May; 45(2):145–9 (Eng. Abstr.) **(Fre)**

[A case of a traumatic anterior cerebral artery aneurysm following the penetration of the skull base by an iron rod] Nakai H, et al. **No Shinkei Geka** 1999 Jun;27(6):583–9 (Eng. Abstr.) **(Jpn)**

[The forensic medical assessment of the micromorphology of brain stem hemorrhages in craniocerebral trauma] Pushakov SM. **Sud Med Ekspert** 1999 Jan-Feb;42(1):14–8 (Eng. Abstr.) **(Rus)**

[Bacterial meningitis caused by a meningoencephalocele 20 years after a head injury (letter)] Colomer E, et al. **Enferm Infecc Microbiol Clin** 1998 Jun-Jul;16(6):295–6 **(Spa)**

DIAGNOSIS

Adult growing skull fracture mimicking a skull tumor. Weinberg JS, et al. **Acta Neurochir (Wien)** 1999; 141(5):545–6 (20 ref.)

Management of frontal sinus fractures: a review of 33 cases. Gonty AA, et al. **J Oral Maxillofac Surg** 1999 Apr; 57(4):372–9; discussion 380–1

[Temporal bone fracture: review of 40 cases (44 traumatic injuries)] Plaza Mayor DG, et al. **An Otorrinolaringol Ibero Am** 1998;25(6):531–46 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

Head trauma in children younger than 2 years: are there predictors for complications? [published erratum appears in Arch Pediatr Adolesc Med 1999 May;153(5):453] Gruskin KD, et al. **Arch Pediatr Adolesc Med** 1999 Jan; 153(1):15–20

Fractures of the facial skeleton in children: a survey of patients under the age of 11 years. Oji C. **J Craniomaxillofac Surg** 1998 Oct;26(5):322–5

Significance of vomiting after head injury. Nee PA, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):470–3

Maxillofacial trauma in the elderly. Gerbino G, et al. **J Oral Maxillofac Surg** 1999 Jul;57(7):777–82; discussion 782–3

ETIOLOGY

Mountainbiking--a dangerous sport: comparison with bicycling on oral and maxillofacial trauma. Gassner R, et al. **Int J Oral Maxillofac Surg** 1999 Jun;28(3):188–91

Maxillofacial fractures in weightlifters: a report of two cases. Türegün MC, et al. **J Oral Maxillofac Surg** 1999 May; 57(5):626–8

Hazards of plastic hair balls and hair beads [letter] [see comments] Avotri K. **Pediatrics** 1998 Dec;102(6):1493. Comment in: Pediatrics 1999 Jul;104(1 Pt 1):132.

Plastic hair balls--A real hazard! [letter; comment] Jarrar R, et al. **Pediatrics** 1999 Jul;104(1 Pt 1):132. Comment on: Pediatrics 1999 Jul;102(6):1493.

[Vacuum extraction an skull fracture in a newborn (letter)] Edmar A, et al. **Arch Pediatr** 1998 Jan;5(1):90 **(Fre)**

[Examining patients with facial skull fractures from an etiological and legal perspective] Meyer U, et al. **Mund Kiefer Gesichtschir** 1999 May;3(3):152–7 (Eng. Abstr.) **(Ger)**

HISTORY

The journal 150 years ago. May 1849. Colon GA. **J La State Med Soc** 1999 May;151(5):253–4

MICROBIOLOGY

Osteomyelitis and pathological fracture of the axis. Case illustration. Anton K, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):162

PATHOLOGY

[Examining patients with facial skull fractures from an etiological and legal perspective] Meyer U, et al. **Mund Kiefer Gesichtschir** 1999 May;3(3):152-7 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Growing skull fractures: a clinical study of 411 patients [letter; comment] Ersahin Y, et al. **Acta Neurochir (Wien)** 1998;140(5):519. Comment on: Acta Neurochir (Wien) 1997;139(10):928-32.

Does it leak in or does it leak out. Concerning the article by Malek et al., Pediatr Neurosurg 1997;26:160-165 [letter] Akagami R, et al. **Pediatr Neurosurg** 1999 Feb;30(2):109-10

RADIOGRAPHY

Temporal bone fractures. Yeakley JW. **Curr Probl Diagn Radiol** 1999 May-Jun;28(3):65-98

Results of spiral CT in patients with fractures of the craniocervical junction suspected on conventional radiographs [letter] Schmieder K, et al. **Eur Radiol** 1999; 9(5):1008

Single view radiographic screening of midfacial trauma. Sidebottom AJ, et al. **Int J Oral Maxillofac Surg** 1998 Oct; 27(5):356-7

Three-dimensional computed tomography landmark measurement in craniofacial surgical planning: experimental validation in vitro. Cavalcanti MG, et al. **J Oral Maxillofac Surg** 1999 Jun;57(6):690-4

Diplopia after head injury. Swischuk LE. **Pediatr Emerg Care** 1999 Jun;15(3):233-4

[Skull base fractures in childhood. The role of CT in the accuracy of diagnosis] Sült TP, et al. **Orv Hetil** 1999 Mar 28;140(13):703-9 (25 ref.) (Eng. Abstr.) **(Hun)**

[Complex maxillofacial trauma: diagnostic contribution of multiplanar and tridimensional spiral CT imaging] Preda L, et al. **Radiol Med (Torino)** 1998 Sep;96(3):178-84 (Eng. Abstr.) **(Ita)**

[Evaluation of facial injury changes on spatial 3D CT scans] Złomaniec J, et al. **Ann Univ Mariae Curie Sklodowska [Med]** 1997;52:103-10 (Eng. Abstr.) **(Pol)**

SURGERY

The natural history of late diagnosed or untreated growing skull fractures: report on two cases. Ziyal IM, et al. **Acta Neurochir (Wien)** 1998;140(7):651-4

Early versus delayed repair of facial fractures in the multiply injured patient. Weider L, et al. **Am Surg** 1999 Aug; 65(8):790-3

The intubating laryngeal mask for maxillo-facial trauma. Agrò F, et al. **Eur J Anaesthesiol** 1999 Apr;16(4):263-4

Stimulation of fracture healing by local application of humoral factors integrated in biodegradable implants. Illi OE, et al. **Eur J Pediatr Surg** 1998 Aug;8(4):251-5

Frontal sinus fractures: computed tomography evaluation of sinus obliteration with lyophilized cartilage. Kalavrezos ND, et al. **J Craniomaxillofac Surg** 1999 Feb;27(1):20-4

A surgical method for treating anterior skull base injuries. Kiyokawa K, et al. **J Craniomaxillofac Surg** 1999 Feb; 27(1):11-9

Frontal sinus fractures: principles of treatment and long-term results after sinus obliteration with the use of lyophilized cartilage. Sailer HF, et al. **J Craniomaxillofac Surg** 1998 Aug;26(4):235-42

Frontal bone reconstruction using patellar bone: a case report. Schortinghuis J, et al. **J Oral Maxillofac Surg** 1999 Sep;57(9):1132-3

Complications of internal fixation of maxillofacial fractures with microplates. Schortinghuis J, et al. **J Oral Maxillofac Surg** 1999 Feb;57(2):130-4; discussion 135

Growing skull fractures. Yen CP, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Mar; 15(3):175-81

Failure of hydroxyapatite cement to set in repair of a cranial defect: case report. Maniker A, et al. **Neurosurgery** 1998 Oct;43(4):953-4; discussion 955

The blood supply of the reverse temporalis muscle flap: anatomic study and clinical implications. Chen CT, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1181-8

Treatment of an isolated outer table frontal sinus fracture using endoscopic reduction and fixation. Lappert PW, et al. **Plast Reconstr Surg** 1998 Oct;102(5):1642-5

Subunit principles in midface fractures: the importance of sagittal buttresses, soft-tissue reductions, and sequencing treatment of segmental fractures. Manson PN, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1287-306; quiz 1307 (57 ref.)

Blindness after reduction of facial fractures [letter] Neuhaus RW, et al. **Plast Reconstr Surg** 1999 Sep;104(3):875-6

Pediatric facial fractures: who should treat what, and how? [letter; comment] Steinberg B. **Plast Reconstr Surg** 1999 Jan;103(1):326-7. Comment on: Plast Reconstr Surg 1998 Jul;102(1):28-31.

Facial reanimation after temporal bone fracture. Goksu N, et al. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(5):313-6

A reliable absorbable intranasal bolster for proper maintenance of fractured nasal bone position. Ducic Y, et al. **Rhinology** 1999 Jun;37(2):88-9

Infection rate with replacement of bone fragment in compound depressed skull fractures. Wylen EL, et al. **Surg Neurol** 1999 Apr;51(4):452-7

[Nasal fractures--indications for open reposition] Simmen D. **Laryngorhinootologie** 1998 Jul;77(7):388-93 (Eng. Abstr.) **(Ger)**

[Results of transcranial and subcranial management of fractures of the naso-ethmoid-orbital system in complex midfacial fractures] Kessler P, et al. **Mund Kiefer Gesichtschir** 1998 Jul;2(4):202-8 (Eng. Abstr.) **(Ger)**

[Subdural abscess as a complication of halo fixator] Müller EJ, et al. **Unfallchirurg** 1998 Aug;101(8):655-7 (Eng. Abstr.) **(Ger)**

[Management of craniofacial fractures with titanium mini-plate osteosynthesis and primary bone transplantation] Nemes I, et al. **Orv Hetil** 1999 Apr 25;140(17):923-8 (Eng. Abstr.) **(Hun)**

[Maxillofacial fractures in children] Becelli R, et al. **Minerva Pediatr** 1998 Apr;50(4):121-6 (Eng. Abstr.) **(Ita)**

[The importance of the correct restoration of the transverse dimension in midfacial fractures] Becelli R, et al. **Minerva Stomatol** 1998 Sep;47(9):443-6 (Eng. Abstr.) **(Ita)**

[On the therapeutic methods of facial bone injuries] Nikolaev MP. **Vestn Otorinolaringol** 1999;(1):28-30 (Eng. Abstr.) **(Rus)**

THERAPY

Revival of non-surgical management of neonatal depressed skull fractures. Pollak L, et al. **J Paediatr Child Health** 1999 Feb;35(1):96-7

Management of uncomplicated skull fractures in children: is hospital admission necessary? Vogelbaum MA, et al. **Pediatr Neurosurg** 1998 Aug;29(2):96-101

Pediatric facial fractures: who should treat what, and how? [letter; comment] Emery RW, et al. **Plast Reconstr Surg** 1999 Jan;103(1):325-6; discussion 326-7 . Comment on: Plast Reconstr Surg 1998 Jul;102(1):28-31.

Nasal manipulation with intravenous sedation. Is it an acceptable and effective treatment? Newton CR, et al. **Rhinology** 1998 Sep;36(3):114-6

VETERINARY

Secondary hypoadrenocorticism associated with craniocerebral trauma in a dog. Platt SR, et al. **J Am Anim Hosp Assoc** 1999 Mar-Apr;35(2):117-22

Imaging basilar skull fractures in the horse: a review. Ramirez O 3rd, et al. **Vet Radiol Ultrasound** 1998 Sep-Oct; 39(5):391-5 (17 ref.)

[Application and possibilities of digital radiography demonstrated on a skull radiograph] Ebermaier C, et al. **Berl Munch Tierarztl Wochenschr** 1999 Jan;112(1):24-9 (Eng. Abstr.) **(Ger)**

[Possibilities for computer tomography of the equine head based on two cases with a fracture of the base of the skull] Gardelle O, et al. **Schweiz Arch Tierheilkd** 1999; 141(6):267-72 (Eng. Abstr.) **(Ger)**

SKULL NEOPLASMS

Giant cell tumors of the jugular foramen. Rosenbloom JS, et al. **Am J Otolaryngol** 1999 May-Jun;20(3):176-9 (20 ref.)

Meningeal chondrosarcomas, a review of 31 patients. Forbes RB, et al. **Br J Neurosurg** 1998 Oct;12(5):461-4 (30 ref.)

Cavernous hemangioma of the skull in a neonate. Yoshida D, et al. **Childs Nerv Syst** 1999 Jul;15(6-7):351-3

Solitary plasmacytoma of the calvarium: a review of clinical and prognostic features. Cervoni L, et al. **Neurosurg Rev** 1998;21(2-3):102-5

Temporal bone chondroblastoma. Watanabe N, et al. **Otolaryngol Head Neck Surg** 1999 Sep;121(3):327-30

Long-term survival of a patient with a giant-cell tumor of the sphenoid body: a case report. Pau A, et al. **Tumori** 1999 Mar-Apr;85(2):137-9 (28 ref.)

[Solitary plasmacytoma of the skull vault in Ivory Coast (letter)] N'Dri Oka D, et al. **Rev Neurol (Paris)** 1998 Nov; 154(11):783 **(Fre)**

CHEMISTRY

A chondromyxoid fibroma-like tumor of the cranial convexity: immunohistochemical and ultrastructural study. Suzuki S, et al. **Clin Neuropathol** 1999 Jan-Feb;18(1):37-41

COMPLICATIONS

Pituitary macroadenoma and cranial osteoma in a manifesting heterozygote with the Opitz G/BBB syndrome [letter] Brooks JK, et al. **Am J Med Genet** 1998 Nov 16;80(3):291-3

Temporal bone hemangioma as a cause of facial paralysis. Palacios E, et al. **Ear Nose Throat J** 1999 Feb;78(2):84

Paget's disease of the skull with osteosarcoma and neurological symptoms associated. Mancebo-Aragoneses L, et al. **Eur Radiol** 1998;8(7):1145-7

Solitary plasmacytoma of the skull base presenting with unilateral sensorineural hearing loss. Vijaya-Sekaran S, et al. **J Laryngol Otol** 1999 Feb;113(2):164-6 (13 ref.)

CONGENITAL

Congenital chondromyxoid fibroma of the ethmoid: case report. Mendoza M, et al. **Pediatr Radiol** 1998 May; 28(5):339-41 (5 ref.)

DIAGNOSIS

Adult growing skull fracture mimicking a skull tumor. Weinberg JS, et al. **Acta Neurochir (Wien)** 1999; 141(5):545-6 (20 ref.)

CT and MR imaging of focal calvarial lesions. Arana E, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1683-8

Hemangiopericytoma and temporal bone. Magliulo G, et al. **An Otorrinolaringol Ibero Am** 1999;26(1):67-74

Pictorial review: radiology of the sphenoid bone. Chong VF, et al. **Clin Radiol** 1998 Dec;53(12):882-93 (26 ref.)

Temporal bone hemangioma as a cause of facial paralysis. Palacios E, et al. **Ear Nose Throat J** 1999 Feb;78(2):84

Chondromyxoid fibroma of skull base: a tumour prone to local recurrence. Shek TW, et al. **J Laryngol Otol** 1999 Apr;113(4):380-5 (18 ref.)

Diffuse calvarial meningioma. Case report and review of the literature. Anegawa S, et al. **J Neurosurg** 1999 May; 90(5):970-3 (21 ref.)

Solitary plasmacytoma of the skull: a case report. Tanaka M, et al. **Jpn J Clin Oncol** 1998 Oct;28(10):626-30 (35 ref.)

Interesting radiologic findings in suprasellar mass lesions. Report of three cases. Altinörs N, et al. **Kobe J Med Sci** 1998 Apr;44(2):81-90

Brief report. Melanotic neuroectodermal tumor of infancy located in the skull. Klingenberg C, et al. **Med Pediatr Oncol** 1998 Dec;31(6):555-7

Melanotic neuroectodermal tumour of infancy at the anterior fontanelle. Nishio S, et al. **Neuroradiology** 1999 Mar; 41(3):202-4

Intraosseous schwannoma of the vault of the skull. Celli P, et al. **Neurosurg Rev** 1998;21(2-3):158-60

Primary spheno-orbital angiosarcoma: case report and review of the literature. Lopes M, et al. **Neurosurgery** 1999 Feb;44(2):405-7; discussion 407-8 (39 ref.)

Primary Ewing's sarcoma of the sphenoid bone: a rare presentation. Varan A, et al. **Pediatr Radiol** 1998 May; 28(5):311

Index of suspicion. Case #3. Diagnosis: dermoid cyst. Cheng TL. **Pediatr Rev** 1999 Jul;20(7):246; discussion 248-9

Giant cell tumor of the skull. Lee JA, et al. **Radiographics** 1998 Sep-Oct;18(5):1295-302 (11 ref.)

[Diabetes insipidus revealing primary malignant non-Hodgkin's lymphoma of bone] Liozon E, et al. **Rev Med Interne** 1998 Nov;19(11):830-4 (24 ref.) (Eng. Abstr.) **(Fre)**

[Metastatic skull tumor] Niijima K. **No To Shinkei** 1999 Aug; 51(8):738-9 **(Jpn)**

[Hemangioma of the frontal bone] Niijima K. **No To Shinkei** 1999 Jul;51(7):646-7 **(Jpn)**

[Large intracranial tumors invading skull base] Nowak S, et al. **Neurol Neurochir Pol** 1998 May-Jun;32(3):581-93 (Eng. Abstr.) **(Pol)**

[Non-Hodgkin's disease of the skull in a patient with AIDS] Jiménez Moragas JM, et al. **An Med Interna** 1999 Apr; 16(4):186-8 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Pagetic sarcoma of the calvarium: report of two cases. Fransen P, et al. **Acta Neurol Belg** 1998 Dec;98(4):352-5

Temporal bone tumours in patients irradiated for nasopharyngeal neoplasm. Goh YH, et al. **J Laryngol Otol** 1999 Mar;113(3):222-8

[Vulvar and gingival ulcers and skull tumors] Morand JJ, et al. **Rev Med Interne** 1998 Dec;19(12):931-4 **(Fre)**

GENETICS

Cytogenetic investigation of chordomas of the skull. Buonamici L, et al. **Cancer Genet Cytogenet** 1999 Jul 1; 112(1):49-52

The molecular pathology of tumours of the ear and temporal bone. Irving RM. **J Laryngol Otol** 1998 Nov;112(11):1011-8 (74 ref.)

PATHOLOGY

Skull fibrous plaque in a patient with tuberous sclerosis. Arbelaez A, et al. **AJR Am J Roentgenol** 1999 May; 172(5):1456-7

Merkel cell carcinoma of the external auditory canal invading the intracranial compartment. Litofsky NS, et al. **Am J Otolaryngol** 1998 Sep-Oct;19(5):330-4 (18 ref.)

Giant cell tumor and temporal bone. Magliulo G, et al. **An Otorrinolaringol Ibero Am** 1998;25(5):481-90

Angiocentric lymphoma involving the temporal bone in a child. Cakmak O, et al. **Eur Arch Otorhinolaryngol** 1999; 256(5):262-5

Intracranial extension of an eccrine porocarcinoma. Case report and review of the literature. Ritter AM, et al. **J Neurosurg** 1999 Jan;90(1):138-40 (13 ref.)

Temporal dermoid with intracranial extension: report of a case. Niederhagen B, et al. **J Oral Maxillofac Surg** 1998 Nov;56(11):1352-4 (20 ref.)

Primary temporal fossa dermoid cysts. Characterization and surgical management. Meyer DR, et al. **Ophthalmology** 1999 Feb;106(2):342-9

Meningiomas presenting in the temporal bone: the pathways of spread from an intracranial site of origin. Chang CY, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):658-64

(31 ref.)
Juxtaorbital en plaque meningiomas. Report of four cases and review of literature. Charbel FT, et al. **Radiol Clin North Am** 1999 Jan;37(1):89–100, x (59 ref.)
Sellar–sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461–3; discussion 463–4
[Selected problems of neurofibromatosis with presentation of a case of multiple intracranial and intramedullary tumors] Stachura Z, et al. **Neurol Neurochir Pol** 1998 Nov–Dec; 32(6):1563–9 (Eng. Abstr.) **(Pol)**
[A giant-cell tumor-like formation in the parietal bone] Shchepeshkin IA, et al. **Vopr Onkol** 1998;44(6):734–7 **(Rus)**

RADIOGRAPHY

Merkel cell carcinoma of the external auditory canal invading the intracranial compartment. Litofsky NS, et al. **Am J Otolaryngol** 1998 Sep–Oct;19(5):330–4 (18 ref.)
Imaging quiz case 2. Osteoma of the mastoid antrum and cholesteatoma. Ramirez–Camacho R, et al. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):349, 351–2
Dural osteochondroma: case report, review of the literature and proposal of a new classification. Haddad GF, et al. **Br J Neurosurg** 1998 Aug;12(4):380–4 (35 ref.)
Angiocentric lymphoma involving the temporal bone in a child. Cakmak O, et al. **Eur Arch Otorhinolaryngol** 1999; 256(5):262–5
Focal calvarial bone lesions. Comparison of logistic regression and neural network models. Arana E, et al. **Invest Radiol** 1998 Oct;33(10):738–45
Giant-cell tumor of the skull base. Lee HJ, et al. **Neuroradiology** 1999 Apr;41(4):305–7
Hemorrhagic chondroid chordoma mimicking pituitary apoplexy. Lee HJ, et al. **Neuroradiology** 1998 Nov; 40(11):720–3
Sellar–sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461–3; discussion 463–4
[Angioma of the dome of the skull] Chagnon S, et al. **J Radiol** 1998 Dec;79(12):1532–3 **(Fre)**

RADIONUCLIDE IMAGING

Unusual Tc-99m MDP bone scan imaging in a case of skull angioma. Tondeur M, et al. **Clin Nucl Med** 1999 May; 24(5):362
Clinical significance of a solitary hot spot in the skull. Hashmi R, et al. **Nucl Med Commun** 1999 Aug;20(8):703–10

RADIOTHERAPY

Squamous cell carcinoma of temporal bone: reported on 33 patients. Zhang B, et al. **Head Neck** 1999 Aug;21(5):461–6
The role of high-LET radiotherapy compared to conformal photon radiotherapy in adenoid cystic carcinoma. Debus J, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:63–5 (12 ref.)
[The surgical treatment of malignant tumors of the maxillo-ethmoid complex] Osuch-Wójcikiewicz E, et al. **Otolaryngol Pol** 1999;53(1):69–72 (Eng. Abstr.) **(Pol)**

SECONDARY

Dual-isotope SPECT diagnosis of a skull-base metastasis causing isolated unilateral hypoglossal nerve palsy. Fukumoto M, et al. **Ann Nucl Med** 1998 Aug;12(4):213–6
Extracranial metastatic meningioma. Figueroa BE, et al. **Br J Radiol** 1999 May;72(857):513–6 (48 ref.)
Extracranial neuroblastomas and neurological complications. Taşdemiroglu E, et al. **Childs Nerv Syst** 1998 Dec; 14(12):713–8
Carcinoma of the gallbladder presenting as scalp tumour. Pandey M, et al. **Eur J Surg Oncol** 1998 Dec;24(6):605–7
Renal carcinoma with acute mastoiditis [letter] Friedmann I. **J R Soc Med** 1999 Mar;92(3):155
Clinical significance of a solitary hot spot in the skull. Hashmi R, et al. **Nucl Med Commun** 1999 Aug;20(8):703–10
Malignant granular cell tumor: report of a case and review of the literature. Sonobe H, et al. **Pathol Res Pract** 1998; 194(7):507–13; discussion 515–6 (50 ref.)
Lytic skull metastasis from a follicular thyroid carcinoma in a child. Kim SH, et al. **Pediatr Neurosurg** 1998 Feb; 28(2):84–8
Orbitocephalic metastases from neuroblastoma: report on three cases. Edema OT, et al. **West Afr J Med** 1998 Oct–Dec;17(4):286–9
[Cranial metastases from a follicular carcinoma of the thyroid. A clinical case report and review of the literature] Conzo G, et al. **Minerva Chir** 1998 Sep;53(9):751–6 (25 ref.) (Eng. Abstr.) **(Ita)**
[Metastatic calvarial tumor: report of 3 cases] Nitta T, et al. **No Shinkei Geka** 1999 Apr;27(4):347–52 (Eng. Abstr.) **(Jpn)**
[Metastatic skull tumors from cancers associated with subcutaneous mass lesions] Abe T, et al. **No To Shinkei** 1999 Apr;51(4):353–9 (Eng. Abstr.) **(Jpn)**
[Metastatic skull tumor] Niijima K. **No To Shinkei** 1999 Aug; 51(8):738–9 **(Jpn)**
[Laryngeal carcinoma distant metastasis to the occipital bone: a case report] Pilch J, et al. **Otolaryngol Pol** 1999; 53(2):217–9 (Eng. Abstr.) **(Pol)**

SURGERY

Subdural osteoma. Aoki H, et al. **Acta Neurochir (Wien)** 1998; 140(7):727–8
Benign osteoblastoma of the orbital part of the frontal bone: case report. Batay F, et al. **Acta Neurochir (Wien)** 1998; 140(7):729–30
Hearing restoration in posterior fossa tumors. Shin YJ, et al. **Am J Otol** 1998 Sep;19(5):649–53
Solitary neurofibroma of the inferior nasal turbinate. Moreno PM, et al. **Auris Nasus Larynx** 1998 Sep;25(3):329–31
Aneurysmal bone cysts of the skull: report of three cases. Kumar R, et al. **Br J Neurosurg** 1999 Feb;13(1):82–4
Navigation in maxillofacial and craniofacial surgery. Hassfeld S, et al. **Comput Aided Surg** 1998;3(4):183–7
Combined infratemporal fossa and transfacial approach to excising massive tumors. Shahinian HK, et al. **Ear Nose Throat J** 1999 May;78(5):350, 353–6
Complications of anterior craniofacial resection. Dias FL, et al. **Head Neck** 1999 Jan;21(1):12–20
Squamous cell carcinoma of temporal bone: reported on 33 patients. Zhang B, et al. **Head Neck** 1999 Aug;21(5):461–6
Endoscopically guided midfacial degloving in infants for removal of congenital and acquired midfacial masses. Uretzky ID, et al. **Int J Pediatr Otorhinolaryngol** 1998 Dec 15;46(3):145–58
Microsurgical treatment of midfacial tumours involving the skull base. Joos U, et al. **J Craniomaxillofac Surg** 1998 Aug; 26(4):226–34 (16 ref.)
The Le Fort I osteotomy as a surgical approach for removal of tumours of the midface. Sailer HF, et al. **J Craniomaxillofac Surg** 1999 Feb;27(1):1–6
Preoperative superselective embolization of skull-base meningiomas: indications and limitations. Oka H, et al. **J Neurooncol** 1998 Oct;40(1):67–71
Sporadic unifocal infantile myofibromatosis involving the skull. Case report. Detwiler PW, et al. **J Neurosurg** 1999 Jun;90(6):1129–32
Long-term results of surgery for temporal bone paragangliomas [published erratum appears in Laryngoscope 1999 Aug;109(8):1355] Briner HR, et al. **Laryngoscope** 1999 Apr;109(4):577–83
Malignant glomus tumors. Manolidis S, et al. **Laryngoscope** 1999 Jan;109(1):30–4
The predictive value of intraoperative somatosensory evoked potential monitoring: review of 244 procedures. Bejjani GK, et al. **Neurosurgery** 1998 Sep;43(3):491–8; discussion 498–500
Partial labyrinthectomy petrous apicectomy approach to neoplastic and vascular lesions of the petroclival area. Sekhar LN, et al. **Neurosurgery** 1999 Mar;44(3):537–50; discussion 550–2
Primary temporal fossa dermoid cysts. Characterization and surgical management. Meyer DR, et al. **Ophthalmology** 1999 Feb;106(2):342–9
Intraosseus zygomatic hemangioma. Konior RJ, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):122–5
[Endosseous implants after tumor resection of the face] Nestle B, et al. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S130–2 (Eng. Abstr.) **(Ger)**
[Complex reconstruction of the area of the maxilla and mid-face after radical tumor surgery] Schierle H, et al. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S87–9 (Eng. Abstr.) **(Ger)**
[Pedicled parietal bone grafts in the facial reconstruction surgery] Kowalik S, et al. **Otolaryngol Pol** 1998;52(6):671–5 (Eng. Abstr.) **(Pol)**
[The surgical treatment of malignant tumors of the maxillo-ethmoid complex] Osuch-Wójcikiewicz E, et al. **Otolaryngol Pol** 1999;53(1):69–72 (Eng. Abstr.) **(Pol)**

THERAPY

Preoperative superselective embolization of skull-base meningiomas: indications and limitations. Oka H, et al. **J Neurooncol** 1998 Oct;40(1):67–71
Direct ethanol injection for skull metastasis from hepatocellular carcinoma. The techniques and consequences of a therapeutic trial. Isaka T, et al. **Neurol Res** 1998 Dec;20(8):737–41

SKUNKS

Biliary cystadenoma in a striped skunk (Mephitis mephitis). Pang VF, et al. **J Vet Diagn Invest** 1998 Oct;10(4):357–60

METABOLISM

Changes in uterine expression of leukemia inhibitory factor during pregnancy in the Western spotted skunk. Hirzel DJ, et al. **Biol Reprod** 1999 Feb;60(2):484–92

PARASITOLOGY

Seroprevalence of antibodies against Toxoplasma gondii in free-ranging mammals in Iowa. Hill RE Jr, et al. **J Wildl Dis** 1998 Oct;34(4):811–5

PHYSIOLOGY

Spatiotemporal expression of cyclooxygenase 1 and cyclooxygenase 2 during delayed implantation and the periimplantation period in the Western spotted skunk. Das SK, et al. **Biol Reprod** 1999 Apr;60(4):893–9

SL RNA see **RNA, SPLICED LEADER**

SLAUGHTERHOUSES see **ABATTOIRS**

SLEEP

see related
POLYSOMNOGRAPHY

Road accidents caused by drivers falling asleep. Sagberg F. **Accid Anal Prev** 1999 Nov;31(6):639–49
Sleeping position, breastfeeding, bedsharing and passive smoking in 3-month-old Swedish infants. Lindgren C, et al. **Acta Paediatr** 1998 Oct;87(10):1028–32
Seasonal differences in risk factors for sudden infant death syndrome. The New Zealand Cot Death Study Group. Mitchell EA, et al. **Acta Paediatr** 1999 Mar;88(3):253–8
Heart rate variability and autonomic function during sleep in fragile X syndrome [letter] Ferri R, et al. **Am J Med Genet** 1999 Apr 2;83(4):296–7
Sex-specific usage patterns of sleeping sites in grey mouse lemurs (Microcebus murinus) in northwestern Madagascar. Radespiel U, et al. **Am J Primatol** 1998;46(1):77–84
Sleeping sites, sleeping places, and presleep behavior of gibbons (Hylobates lar). Reichard U. **Am J Primatol** 1998; 46(1):35–62
Patient perception of sleep quality and etiology of sleep disruption in the intensive care unit. Freedman NS, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1155–62
Association between the Epworth sleepiness scale and the multiple sleep latency test in a clinical population. Benbadis SR, et al. **Ann Intern Med** 1999 Feb 16;130(4 Pt 1):289–92
Subjective compared with objective sleepiness [letter] Schmidt-Nowara W. **Ann Intern Med** 1999 Oct 19; 131(8):632
Side sleeping position and bed sharing in the sudden infant death syndrome. Scragg RK, et al. **Ann Med** 1998 Aug; 30(4):345–9 (41 ref.)
Effects of truss mattress upon sleep and bed climate. Okamoto K, et al. **Appl Human Sci** 1998 Nov;17(6):233–7
The siesta in the elderly: risk factor for mortality? Bursztyn M, et al. **Arch Intern Med** 1999 Jul 26;159(14):1582–6
Cosleeping in context: sleep practices and problems in young children in Japan and the United States. Latz S, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):339–46
Prone infant sleeping despite the "Back to Sleep" campaign. Ottolini MC, et al. **Arch Pediatr Adolesc Med** 1999 May; 153(5):512–7
Sleep habits in Native Brazilian Bororo children. Reimão R, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):14–7
Flight crew fatigue VI: a synthesis. Gander PH, et al. **Aviat Space Environ Med** 1998 Sep;69(9 Suppl):B49–60
Flight crew fatigue II: short-haul fixed-wing air transport operations. Gander PH, et al. **Aviat Space Environ Med** 1998 Sep;69(9 Suppl):B8–15
Flight crew fatigue IV: overnight cargo operations. Gander PH, et al. **Aviat Space Environ Med** 1998 Sep;69(9 Suppl):B26–36
Flight crew fatigue V: long-haul air transport operations. Gander PH, et al. **Aviat Space Environ Med** 1998 Sep;69(9 Suppl):B37–48
Hours, sleep, teamwork, and stress. Sleep and teamwork matter as much as hours in reducing doctors' stress [editorial] [see comments] Firth-Cozens J, et al. **BMJ** 1998 Nov 14;317(7169):1335–6. Comment in: BMJ 1999 Feb 20;318(7182):534–5.
Sudden infant death syndrome (SIDS). Canadian Foundation for the Study of Infant Deaths. Canadian Institute of Child Health. Canadian Paediatric Society. **Can Fam Physician** 1999 Mar;45:702, 709–10 **(Eng, Fre)**
Spring fever [letter] O'Flanagan D. **Can J Psychiatry** 1998 Oct;43(8):856
24-hour leg and forearm haemodynamics in transected spinal cord subjects. Casiglia E, et al. **Cardiovasc Res** 1999 Jan; 41(1):312–6
Hypoxemia and hypercapnia during exercise and sleep in patients with cystic fibrosis. Bradley S, et al. **Chest** 1999 Sep;116(3):647–54
Sleep lines. Fulton JE Jr, et al. **Dermatol Surg** 1999 Jan; 25(1):59–62
Intact colonic motor response to sudden awakening from sleep in patients with chronic idiopathic (slow-transit) constipation. Bassotti G, et al. **Dis Colon Rectum** 1998 Dec; 41(12):1550–5; discussion 1555–6
Effects of discontinuing coffee intake on iron deficient Guatemalan toddlers' cognitive development and sleep. Engle PL, et al. **Early Hum Dev** 1999 Jan;53(3):251–69
Body position, sleep states, and cardiorespiratory activity in developing low birth weight infants. Sahni R, et al. **Early Hum Dev** 1999 Apr;54(3):197–206
Peripheral plasma levels of human growth hormone releasing hormone (GHRH) during the sleep test in short children. Inoue S, et al. **Endocr J** 1998 Apr;45 Suppl:S71–5
An acromegalic patient with pulsatile secretion of growth hormone (GH) coincident with the slow-wave sleep. Matsuno M, et al. **Endocr J** 1998 Oct;45(5):687–92
The nasopharyngeal bacterial flora in infancy: effects of age, gender, season, viral upper respiratory tract infection and sleeping position. Harrison LM, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):19–28
Sleeping position in infants over 6 months of age: implications for theories of sudden infant death syndrome. Harrison LM, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;

25(1-2):29-35
Respiratory control during upper airway infection mechanism for prolonged reflex apnoea and sudden infant death with special reference to infant sleep position. Lindgren C. **FEMS Immunol Med Microbiol** 1999 Aug 1; 25(1-2):97-102 (45 ref.)
Sleep patterns of sheltered battered women. Humphreys JC, et al. **Image J Nurs Sch** 1999;31(2):139-43
Differences in reported sleep need among adolescents. Mercer PW, et al. **J Adolesc Health** 1998 Nov;23(5):259-63
Sleep and quality of life assessment in patients undergoing coronary artery bypass grafting. Edéll-Gustafsson UM, et al. **J Adv Nurs** 1999 May;29(5):1213-20
The relationship between sleep and temperament revisited: evidence for 12-month-olds: a research note. Scher A, et al. **J Child Psychol Psychiatry** 1998 Jul;39(5):785-8
Circadian interleukin-6 secretion and quantity and depth of sleep. Vgontzas AN, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2603-7
A new method for measuring nocturnal tooth contacts. Yamashita S, et al. **J Oral Rehabil** 1993 Sep;20(5):525-32
Is breast feeding in bed always a safe practice? Byard RW. **J Paediatr Child Health** 1998 Oct;34(5):418-9
Head turning and face-down positioning in prone-sleeping premature infants. Constantin E, et al. **J Pediatr** 1999 May; 134(5):558-62
14th Congress of the European Sleep Research Society. Madrid, Spain, 9-12 September 1998. Abstracts. **J Sleep Res** 1998 Sep;7 Suppl 2:1-332
Gender representation in sleep research [letter] Driver H, et al. **J Sleep Res** 1999 Jun;8(2):157-9
Patient education. Getting enough sleep. **J Womens Health** 1998 Dec;7(10):1203-4
Toward optimal health: the experts respond to sleep deprivation [interview by Jodi Godfrey Meisler] Lee KA, et al. **J Womens Health** 1998 Dec;7(10):1205-10
From the Centers for Disease Control and Prevention. Assessment of infant sleeping position--selected states, 1996. **JAMA** 1998 Dec 9;280(22):1899-900
Brew it or chew it? Military seeks ways to caffeinate [news] Lamberg L. **JAMA** 1999 Mar 10;281(10):885-6
Putting babies "back to sleep" [letter; comment] Moy JG. **JAMA** 1999 Mar 17;281(11):983-4. Comment on: **JAMA** 1998 Jul 22-29;280(4):329-35. Comment on: **JAMA** 1998 Jul 22-29;280(4):336-40. Comment on: **JAMA** 1998 Jul 22-29;280(4):341-6. Comment on: **JAMA** 1998 Jul 22-29;280(4):373-4.
Reducing sleepiness on the roads and on the wards [letter; comment] Smith AP. **JAMA** 1999 Jan 13;281(2):134; discussion 134-5. Comment on: **JAMA** 1998 Jun 17;279(23):1908-13.
Disruption of diurnal rhythm in the elderly [letter; comment] Kario K, et al. **Lancet** 1999 Jul 24;354(9175):339. Comment on: Lancet 1999 May 1;353(9163):1461-2.
Assessment of infant sleeping position--selected states, 1996. **MMWR Morb Mortal Wkly Rep** 1998 Oct 23;47(41):873-7
Nocturnal hypoventilation. Lévy P, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):296-304 (72 ref.)
Supine sleeping position and occipital deformities in infants [letter] Glasson D. **N Z Med J** 1999 Feb 12;112(1081):41-2
Myopia and ambient lighting at night [letter] Quinn GE, et al. **Nature** 1999 May 13;399(6732):113-4
Non-linear behaviour of human EEG: fractal exponent versus correlation dimension in awake and sleep stages. Pereda E, et al. **Neurosci Lett** 1998 Jul 3;250(2):91-4
Effects of sleep position on infant motor development. Davis BE, et al. **Pediatrics** 1998 Nov;102(5):1135-40
Ethnicity, Sleep Hygiene Knowledge, and Sleep Hygiene Practices. Hicks RA, et al. **Percept Mot Skills** 1999 Jun; 88(3 Pt 2):1095-6
Ethnicity, sleep duration, and sleep satisfaction. Hicks RA, et al. **Percept Mot Skills** 1999 Feb;88(1):234-5
Sleep and chronotype for children in Japan. Park YM, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1315-29
Stress and sleep patterns of college students. Verlander LA, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):893-8
The official issue of the Japanese Society of Sleep Research. Proceedings of the 23rd annual meeting of the JSSR. Akita, Japan, 4-5 June 1998. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):101-333
Nurses' workload associated with 16-h night shifts. II: Effects of a nap taken during the shifts. Takahashi M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):223-5
Sleeping and dreaming on the couch viewed from the perspective of compromise formation theory. Rothstein A. **Psychoanal Q** 1999 Jan;68(1):99-109
Nursing care and the development of sleeping and waking behaviors in preterm infants. Brandon DH, et al. **Res Nurs Health** 1999 Jun;22(3):217-29
Predictors of nocturnal oxygen desaturation in patients with COPD. Little SA, et al. **Respir Med** 1999 Mar;93(3):202-7
Sleep quality, carbon dioxide responsiveness and hypoxaemic patterns in nocturnal hypoxaemia due to chronic obstructive pulmonary disease (COPD) without daytime hypoxaemia. Sandek K, et al. **Respir Med** 1999 Feb; 93(2):79-87
Detection of nocturnal wheezing in bronchial asthma using intermittent sleep tracheal sounds recording. Kiyokawa H, et al. **Respirology** 1999 Mar;4(1):37-45
Is there an optimal sleep-wake pattern in shift work? Akerstedt T. **Scand J Work Environ Health** 1998;24 Suppl 3:18-27 (98 ref.)
Narcolepsy genes wake up the sleep field. Takahashi JS. **Science** 1999 Sep 24;285(5436):2076-7
Bibliography of recent literature in sleep research. **Sleep** 1998 Dec 15;21(8):897-927
Bibliography of recent literature in sleep research. **Sleep** 1999 Feb 1;22(1):125-8, 130-1
13th Annual meeting of the Associated Professional Sleep Societies. Orlando, Florida, USA. June 19-24, 1999. Abstracts. **Sleep** 1999 Apr 15;22 Suppl 1:S1-342
Native language shifts across sleep-wake states in bilingual sleeptalkers. Pareja JA, et al. **Sleep** 1999 Mar 15;22(2):243-7
The study of human sleep: a historical perspective. Dement WC. **Thorax** 1998 Oct;53 Suppl 3:S2-7
[The resident, the robot, and sleep] Chabot JM. **Rev Prat** 1998 Nov 15;48(18):2037-8 **(Fre)**
[Aviation medicine--problems in practice: sleep and professional competence under stress] Fuchs HS. **Pneumologie** 1999 Jun;53(6):322 **(Ger)**
[Sleep and the treatment of bronchial obstruction] Grote L, et al. **Pneumologie** 1999 May;53(5):255-61 (48 ref.) (Eng. Abstr.) **(Ger)**
[Evaluation of sleep fragmentation by EEG spectrography in patients with obstructive sleep apnea syndrome] Nakano H, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May; 37(5):368-73 (Eng. Abstr.) **(Jpn)**
[The importance of sleep in pneumology (editorial)] Rodenstein DO. **Arch Bronconeumol** 1998 Oct;34(9):415-6 **(Spa)**
[Autosomal dominant nocturnal frontal lobe epilepsy (letter)] Ortega JJ, et al. **Rev Neurol** 1999 Jan 16-31;28(2):215 **(Spa)**
[Infants should sleep in supine position. The risk of skull deformities can be prevented (comment)] Jonsell R. **Lakartidningen** 1999 Mar 24;96(12):1404-5. Comment on: Lakartidningen 1999 Mar 24;96(12):1447-53. **(Swe)**
[Assymetric skull? Early correct diagnosis is a must! Positional skull deformities can be avoided (see comments)] Lauritzen C, et al. **Lakartidningen** 1999 Mar 24; 96(12):1447-53 (10 ref.) (Eng. Abstr.). Comment in: Lakartidningen 1999 Mar 24;96(12):1404-5. **(Swe)**

DRUG EFFECTS

Alcohol, slow wave sleep, and the somatotropic axis. Lands WE. **Alcohol** 1999 Jun-Jul;18(2-3):109-22 (101 ref.)
Ethanol impairs saccadic and smooth pursuit eye movements without producing self-reports of sedation. Holdstock L, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):664-72
Ontogeny of rapid tolerance to the hypnotic effects of ethanol. Silveri MM, et al. **Alcohol Clin Exp Res** 1999 Jul; 23(7):1180-4
Intracerebroventricular injection of TNF-alpha promotes sleep and is recovered in cervical lymph. Dickstein JB, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1018-22
Interleukin-4 inhibits spontaneous sleep in rabbits. Kushikata T, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1185-91
Brain-derived neurotrophic factor enhances spontaneous sleep in rats and rabbits. Kushikata T, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1334-8
Effects of granulocyte colony-stimulating factor on night sleep in humans. Schuld A, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):R1149-55
Effects of antipsychotic treatment on polysomnographic measures in schizophrenia: a replication and extension. Maixner S, et al. **Am J Psychiatry** 1998 Nov;155(11):1600-2
An endogenous sleep-inducing compound is a novel competitive inhibitor of fatty acid amide hydrolase. Patricelli MP, et al. **Bioorg Med Chem Lett** 1998 Mar 17; 8(6):613-8
Reduction of alcohol induced sleep time in albino mice by potentized Nux vomica prepared with 90% ethanol. Sukul A, et al. **Br Homeopath J** 1999 Apr;88(2):58-61
Endogenous nitric oxide in the rat pons promotes sleep. Hars B. **Brain Res** 1999 Jan 16;816(1):209-19
Anandamide modulates sleep and memory in rats. Murillo-Rodríguez E, et al. **Brain Res** 1998 Nov 23; 812(1-2):270-4
Insulin-like growth factor-1 (IGF-1)-induced inhibition of growth hormone secretion is associated with sleep suppression. Obál F Jr, et al. **Brain Res** 1999 Feb 13; 818(2):267-74
Antihistamine decongestant medication improves which one of the following symptoms in children with common colds? Sleep status. **Can Fam Physician** 1998 Oct;44:2089, 2096-7 **(Eng, Fre)**
Oleamide: an endogenous sleep-inducing lipid and prototypical member of a new class of biological signaling molecules. Boger DL, et al. **Curr Pharm Des** 1998 Aug; 4(4):303-14 (81 ref.)
Effects of accumbens m-chlorophenylbiguanide microinjections on sleep and waking in intact and 6-hydroxydopamine-treated rats. Monti JM, et al. **Eur J Pharmacol** 1999 Jan 8;364(2-3):89-98
Conventional and spectral power analysis of all-night sleep EEG after subchronic treatment with paroxetine in healthy male volunteers. Schlösser R, et al. **Eur Neuropsychopharmacol** 1998 Dec;8(4):273-8
The effects of benzodiazepine (triazolam), cyclopyrrolone (zopiclone) and imidazopyridine (zolpidem) hypnotics on the frequency of hippocampal theta activity and sleep structure in rats. Yoshimoto M, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1-2):29-35
Sleepiness and the reinforcing and subjective effects of methylphenidate. Roehrs T, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):145-50
gamma-Hydroxybutyric acid, imidazoleacetic acid, cerebral metabolism and induced sleep. Rick JT, et al. **Isr J Med Sci** 1973;9 Suppl:55-62 (12 ref.)
Drugs which can induce earlier roosting in the self-selected circadian rhythm of the canary. Wahlström G. **Isr J Med Sci** 1973;9 Suppl:72-8
Effect of sustained nocturnal transbuccal melatonin administration on sleep and temperature in elderly insomniacs. Dawson D, et al. **J Biol Rhythms** 1998 Dec; 13(6):532-8
Sleep latency is shortened during 4 weeks of treatment with zaleplon, a novel nonbenzodiazepine hypnotic. Zaleplon Clinical Study Group. Elie R, et al. **J Clin Psychiatry** 1999 Aug;60(8):536-44
Neuropharmacological activity of Solanum nigrum fruit. Perez RM, et al. **J Ethnopharmacol** 1998 Aug;62(1):43-8
Intrapreoptic microinjection of GHRH or its antagonist alters sleep in rats. Zhang J, et al. **J Neurosci** 1999 Mar 15; 19(6):2187-94
Immunization has no effect on arousal from sleep in the newborn infant. Loy CS, et al. **J Paediatr Child Health** 1998 Aug;34(4):349-54
Neuropsychopharmacological profile of the methanolic fraction of Bryophyllum pinnatum leaf extract. Pal S, et al. **J Pharm Pharmacol** 1999 Mar;51(3):313-8
Daytime melatonin and temazepam in young adult humans: equivalent effects on sleep latency and body temperatures. Gilbert SS, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):905-14
Melatonin effects on sleep, mood, and cognition in elderly with mild cognitive impairment. Jean-Louis G, et al. **J Pineal Res** 1998 Oct;25(3):177-83
The cortisol response to awakening in relation to different challenge tests and a 12-hour cortisol rhythm. Schmidt-Reinwald A, et al. **Life Sci** 1999;64(18):1653-60
Cholecystokinin-B (CCK-B) receptor antagonists improve "aged" sleep: a new class of sleep modulators? Crespi F. **Methods Find Exp Clin Pharmacol** 1999 Jan-Feb;21(1):31-8
Effects of muramyl peptides on macrophages, monokines, and sleep. Pabst MJ, et al. **Neuroimmunomodulation** 1999 Jul-Aug;6(4):261-83 (177 ref.)
Falling asleep at the wheel: motor vehicle mishaps in persons taking pramipexole and ropinirole. Frucht S, et al. **Neurology** 1999 Jun 10;52(9):1908-10
Effects of prior fluoxetine treatment on EEG sleep in women with recurrent depression. Buysse DJ, et al. **Neuropsychopharmacology** 1999 Aug;21(2):258-67
Serotonin-2 receptors and human sleep: effect of a selective antagonist on EEG power spectra. Landolt HP, et al. **Neuropsychopharmacology** 1999 Sep;21(3):455-66
Ethanol as a hypnotic in insomniacs: self administration and effects on sleep and mood. Roehrs T, et al. **Neuropsychopharmacology** 1999 Mar;20(3):279-86
Characterization of the hypnotic properties of oleamide. Basile AS, et al. **Neuroreport** 1999 Apr 6;10(5):947-51
Enhancement of slow-wave sleep by tumor necrosis factor-alpha is mediated by cyclooxygenase-2 in rats. Terao A, et al. **Neuroreport** 1998 Dec 1;9(17):3791-6
Non-peptidic corticotropin-releasing hormone receptor type 1 antagonist reverses restraint stress-induced shortening of sodium pentobarbital-induced sleeping time of rats: evidence that an increase in arousal induced by stress is mediated through CRH receptor type 1. Arai K, et al. **Neurosci Lett** 1998 Oct 16;255(2):103-6
Daytime melatonin infusions induce sleep in pigeons without altering subsequent amounts of nocturnal sleep. Mintz EM, et al. **Neurosci Lett** 1998 Dec 18;258(2):61-4
Nerve growth factor enhances sleep in rabbits. Takahashi S, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):149-52
Nitric oxide and sleep in the rat: a puzzling relationship. Burlet S, et al. **Neuroscience** 1999;92(2):627-39
Infusion of neurosteroids into the rat nucleus basalis affects paradoxical sleep in accordance with their memory modulating properties. Darnaudéry M, et al. **Neuroscience** 1999;92(2):583-8
Blockade of 5-hydroxytryptamine (serotonin)-2 receptors alters interleukin-1-induced changes in rat sleep. Imeri L, et al. **Neuroscience** 1999;92(2):745-9
Chronic, low-level exposure to the cholinesterase inhibitor DFP. II. Time course of behavioral state changes in rats. Deurveilher S, et al. **Pharmacol Biochem Behav** 1999 Sep; 64(1):105-14
Adrenergic and cholinergic inputs in preoptic area of rats interact for sleep-wake thermoregulation. Mallick BN, et al. **Pharmacol Biochem Behav** 1998 Oct;61(2):193-9
Effects of parenterally administered triazolam on sleep in rats with lesions of the preoptic area. Mendelson WB. **Pharmacol Biochem Behav** 1998 Sep;61(1):81-6
Methionine enhances alcohol-induced narcosis in mice. Miquel M, et al. **Pharmacol Biochem Behav** 1999 Sep; 64(1):89-93
Effect of melatonin on sleep and brain temperature in the Djungarian hamster and the rat. Huber R, et al. **Physiol Behav** 1998 Aug;65(1):77-82
Albumin enhances sleep in the young rat. Obál F Jr, et al. **Physiol Behav** 1998 Jun 1;64(3):261-6
Influence of fluoroquinolones on the central action of ethanol. Strzelec JS, et al. **Pol J Pharmacol** 1999 Jan-Feb; 51(1):71-8
Effect of melatonin on sleep. Ayala-Guerrero F, et al.

Proc West Pharmacol Soc 1998;41:25-7
Effect of 1,5-benzodiazepine derivatives on sleep. Ayala Guerrero F, et al. **Proc West Pharmacol Soc** 1998;41:29-32
Effects of trazodone hydrochloride and imipramine on polysomnography in healthy subjects. Yamadera H, et al. **Psychiatry Clin Neurosci** 1998 Aug;52(4):439-43
Endotoxin-induced changes in sleep and sleepiness during the day. Hermann DM, et al. **Psychoneuroendocrinology** 1998 Jul;23(5):427-37
A determinant factor in the efficacy of GHRH administration in promoting sleep: high peak concentration versus recurrent increasing slopes. Marshall L, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):363-70
Dexamethasone blocks sleep induced improvement of declarative memory. Plihal W, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):313-31
Characterization of the sigma ligand panamesine, a potential antipsychotic, by immune response in patients with schizophrenia and by sleep-EEG changes in normal controls. Frieboes RM, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):107-10
The GABA(A) receptor antagonist picrotoxin attenuates most sleep changes induced by progesterone. Lancel M, et al. **Psychopharmacology (Berl)** 1999 Jan;141(2):213-9
Changes in sleep after acute and repeated administration of nicotine in the rat. Salin-Pascual RJ, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):133-8
Room oxygen enrichment improves sleep and subsequent day-time performance at high altitude. Luks AM, et al. **Respir Physiol** 1998 Sep;113(3):247-58
Effect of NMDA lesion of the medial preoptic neurons on sleep and other functions. Johu J, et al. **Sleep** 1998 Sep 15;21(6):587-98
[Effects of theophylline on lung function and sleep in patients with severe chronic obstructive pulmonary disease] Li Y, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Oct;20(5):294-8 (Eng. Abstr.) **(Chi)**
[Effects of injection of GABA into lateral cerebroventricle on sleep-wakefulness of cats] Sun B, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):56 **(Chi)**
[A study of the mechanism of L-NNA on sleep inhibition] Zhang Q, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):585-8 (Eng. Abstr.) **(Chi)**
[Antihypertensive medication and sleep] Grote L. **Dtsch Med Wochenschr** 1998 Nov 13;123(46):1389-94 (50 ref.) **(Ger)**

GENETICS

Genetic variation in EEG activity during sleep in inbred mice. Franken P, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1127-37
Differences in gene expression during sleep and wakefulness. Cirelli C, et al. **Ann Med** 1999 Apr;31(2):117-24 (66 ref.)
Differences in gene expression between sleep and waking as revealed by mRNA differential display. Cirelli C, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):293-305
Human insulin gene insertion in mice. Effects on the sleep-wake cycle? Valatx JL, et al. **J Sleep Res** 1999 Jun; 8 Suppl 1:65-8
Does our DNA determine when we sleep? [news; comment] Singer CM, et al. **Nat Med** 1999 Sep;5(9):983. Comment on: Nat Med 1999 Sep;5(9):1062-5.
Familial transmission of seasonal changes in sleep and eating function in the general population. Sasaki T, et al. **Psychiatry Res** 1998 Nov 16;81(2):211-7

PHYSIOLOGY

Sleep as a behavioral model of neuro-immune interactions. Opp MR, et al. **Acta Neurobiol Exp (Warsz)** 1999; 59(1):45-53 (71 ref.)
Differential effects of non-REM and REM sleep on sensory gating in rats. van Luijtelaar EL, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(4):263-70
Depth of sleep and sleep habits among enuretic and incontinent children. Nevéus T, et al. **Acta Paediatr** 1999 Jul;88(7):748-52
Methods of assessing respiratory impedance during flow limited and non-flow limited inspirations. Tuck SA, et al. **Adv Exp Med Biol** 1998;450:119-26
The neural basis of consciousness across the sleep-waking cycle. Jones BE. **Adv Neurol** 1998;77:75-94 (89 ref.)
Slow wave sleep (SWS) distribution across night sleep episode in the elderly. Lombardo P, et al. **Aging (Milano)** 1998 Dec;10(6):445-8
Hourly profiles of sleep and wakefulness in severely versus mild-moderately demented nursing home patients. Pat-Horenczyk R, et al. **Aging (Milano)** 1998 Aug; 10(4):308-15
Sleep-related gastro-oesophageal reflux: provocation with a late evening meal and treatment with acid suppression. Orr WC, et al. **Aliment Pharmacol Ther** 1998 Oct; 12(10):1033-8
Subjective and objective sleep quality in irritable bowel syndrome. Elsenbruch S, et al. **Am J Gastroenterol** 1999 Sep;94(9):2447-52
Influence of spontaneous sleep positions on nighttime recumbent reflux in patients with gastroesophageal reflux disease. Khoury RM, et al. **Am J Gastroenterol** 1999 Aug; 94(8):2069-73
Sleep after arousal from hibernation is not homeostatically regulated. Larkin JE, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R522-9
Somnogenic relationships between tumor necrosis factor and interleukin-1. Takahashi S, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):R1132-40
Sleep, sleeping sites, and sleep-related activities: awakening to their significance. Anderson JR. **Am J Primatol** 1998; 46(1):63-75 (64 ref.)
Differentiating obstructive and central sleep respiratory events through pulse transit time. Argod J, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1778-83
Breathing during sleep in patients with nocturnal desaturation. Becker HF, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):112-8
State-related changes in upper airway caliber and surrounding soft-tissue structures in normal subjects. Trudo FJ, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1259-70
The bispectral index: a measure of depth of sleep? Sleigh JW, et al. **Anesth Analg** 1999 Mar;88(3):659-61
Nocturnal oxygenation during patient-controlled analgesia [see comments] Stone JG, et al. **Anesth Analg** 1999 Jul; 89(1):104-10. Comment in: Anesth Analg 1999 Jul;89(1):3-6.
Circadian regulation of human sleep and age-related changes in its timing, consolidation and EEG characteristics. Dijk DJ, et al. **Ann Med** 1999 Apr;31(2):130-40 (93 ref.)
Effects of sex steroids on sleep. Empson JA, et al. **Ann Med** 1999 Apr;31(2):141-5 (93 ref.)
Adenosine in sleep and wakefulness. Porkka-Heiskanen T. **Ann Med** 1999 Apr;31(2):125-9 (40 ref.)
Sleep. A physiologic role for IL-1 beta and TNF-alpha. Krueger JM, et al. **Ann N Y Acad Sci** 1998 Sep 29; 856:148-59 (74 ref.)
Sleep and its disorders. Vgontzas AN, et al. **Annu Rev Med** 1999;50:387-400 (28 ref.)
Sleep promotion in adults. Floyd JA. **Annu Rev Nurs Res** 1999;17:27-56 (100 ref.)
Sleep and narcolepsy [published erratum appears in arch Neurol 1999 May;56(5):632] Culebras A. **Arch Neurol** 1999 Jan;56(1):117-8
Sleep habits in native Brazilian Terena children in the state of Mato Grosso do Sul, Brazil. Reimão R, et al. **Arq Neuropsiquiatr** 1998 Dec;56(4):703-7
Naps and modafinil as countermeasures for the effects of sleep deprivation on cognitive performance. Batéjat DM, et al. **Aviat Space Environ Med** 1999 May;70(5):493-8
Prostaglandin D2 and sleep regulation. Urade Y, et al. **Biochim Biophys Acta** 1999 Jan 4;1436(3):606-15 (111 ref.)
Human sleep in 60 Hz magnetic fields. Graham C, et al. **Bioelectromagnetics** 1999;20(5):277-83
Polysomnographic sleep is not clinically impaired in Vietnam combat veterans with chronic posttraumatic stress disorder. Hurwitz TD, et al. **Biol Psychiatry** 1998 Nov 15; 44(10):1066-73
Psychometric evaluation of daytime sleepiness and nocturnal sleep onset scales in a representative community sample. Johnson EO, et al. **Biol Psychiatry** 1999 Mar 15; 45(6):764-70
Elevated awaking thresholds during sleep: characteristics of chronic war-related posttraumatic stress disorder patients. Lavie P, et al. **Biol Psychiatry** 1998 Nov 15;44(10):1060-5
Nocturnal and daytime panic attacks--comparison of sleep architecture, heart rate variability, and response to sodium lactate challenge. Sloan EP, et al. **Biol Psychiatry** 1999 May 15;45(10):1313-20
Polygraphic sleep criteria as predictors of successful aging: an exploratory longitudinal study. Spiegel R, et al. **Biol Psychiatry** 1999 Feb 15;45(4):435-42
Larks and owls and health, wealth, and wisdom. Gale C, et al. **BMJ** 1998 Dec 19-26;317(7174):1675-7
Cerebral oxygenation and hemodynamics during hyperventilation and sleep in patients with Rett syndrome. Murakami Y, et al. **Brain Dev** 1998 Dec;20(8):574-8
Landau-Kleffner syndrome (LKS): long-term follow-up and links with electrical status epilepticus during sleep (ESES). Rossi PG, et al. **Brain Dev** 1999 Mar;21(2):90-8
Effects of neonatal focal cerebral hypoxia-ischemia on sleep-waking pattern, ECoG power spectra and locomotor activity in the adult rat. Antier D, et al. **Brain Res** 1998 Oct 5;807(1-2):29-37
Hypoprolactinemic rats under conditions of constant darkness or constant light. Effects on the sleep-wake cycle, cerebral temperature and sulfatoxymelatonin levels. Lobo LL, et al. **Brain Res** 1999 Jul 24;835(2):282-9
Fos expression in the sleep-active cell group of the ventrolateral preoptic area in the diurnal murid rodent, Arvicanthis niloticus. Novak CM, et al. **Brain Res** 1999 Feb 13;818(2):375-82
Sleep and wakefulness modulation of the neuronal firing in the auditory cortex of the guinea pig. Peña JL, et al. **Brain Res** 1999 Jan 23;816(2):463-70
Sleep homeostasis in the female rat during the estrous cycle. Schwierin B, et al. **Brain Res** 1998 Nov 16;811(1-2):96-104
Sleep-waking discharge patterns of ventrolateral preoptic/anterior hypothalamic neurons in rats. Szymusiak R, et al. **Brain Res** 1998 Aug 24;803(1-2):178-88
Manipulations during forced wakefulness have differential impact on sleep architecture, EEG power spectrum, and Fos induction. García-García F, et al. **Brain Res Bull** 1998 Nov 1;47(4):317-24
Visual lateralization and monocular sleep in the domestic chick. Mascetti GG, et al. **Brain Res Cogn Brain Res** 1999 Mar;7(4):451-63
Brain spatial microstates of human spontaneous alpha activity in relaxed wakefulness, drowsiness period, and REM sleep. Cantero JL, et al. **Brain Topogr** 1999 Summer;11(4):257-63
Sleep and stress in man: an approach through exercise and exposure to extreme environments. Buguet A, et al. **Can J Physiol Pharmacol** 1998 May;76(5):553-61 (81 ref.)
Respiratory, cardiovascular, and metabolic adjustments to hypoxemia during sleep in piglets. Côté A, et al. **Can J Physiol Pharmacol** 1998 Jul-Aug;76(7-8):747-55
Dynamic changes in the immunoreactivity of neuropeptide systems of the suprachiasmatic nuclei in golden hamsters during the sleep-wake cycle. Schilling J, et al. **Cell Tissue Res** 1998 Nov;294(2):233-41
Relationship of arousals from sleep to sympathetic nervous system activity and BP in obstructive sleep apnea. Loredo JS, et al. **Chest** 1999 Sep;116(3):655-9
Cough reflex in the night [letter] Wang HD, et al. **Chest** 1998 Nov;114(5):1496-7
Salmeterol vs theophylline: sleep and efficacy outcomes in patients with nocturnal asthma. Wiegand L, et al. **Chest** 1999 Jun;115(6):1525-32
Sleep schedules and daytime functioning in adolescents. Wolfson AR, et al. **Child Dev** 1998 Aug;69(4):875-87
Is sleeping sickness a circadian disorder? The serotonergic hypothesis. Buguet A. **Chronobiol Int** 1999 Jul;16(4):477-89
Are age differences in sleep due to phase differences in the output of the circadian timing system? Carrier J, et al. **Chronobiol Int** 1999 Jan;16(1):79-91
Retaining home-base sleep hours to prevent jet lag in connection with a westward flight across nine time zones. Lowden A, et al. **Chronobiol Int** 1998 Jul;15(4):365-76
Comparative study to determine the optimal melatonin dosage form for the alleviation of jet lag. Suhner A, et al. **Chronobiol Int** 1998 Nov;15(6):655-66
Development of sleep spindles in young children and adolescents. Shinomiya S, et al. **Clin Electroencephalogr** 1999 Apr;30(2):39-43
The effects of a 20 min nap in the mid-afternoon on mood, performance and EEG activity. Hayashi M, et al. **Clin Neurophysiol** 1999 Feb;110(2):272-9
Hippocampal sleep spindles revisited: physiologic or epileptic activity? Malow BA, et al. **Clin Neurophysiol** 1999 Apr; 110(4):687-93
The influence of sex, age and sleep/wake state on characteristics of periodic leg movements in restless legs syndrome patients. Nicolas A, et al. **Clin Neurophysiol** 1999 Jul;110(7):1168-74
Relationship of sleep interictal epileptiform discharges to sigma activity (12-16 Hz) in benign epilepsy of childhood with rolandic spikes. Nobili L, et al. **Clin Neurophysiol** 1999 Jan;110(1):39-46
Repeated nocturnal sleep latencies in narcoleptic, sleepy and alert subjects. Nykamp K, et al. **Clin Neurophysiol** 1999 Sep;110(9):1531-4
Respiratory-like periodicities in slow eye movements during sleep onset. Rittweger J, et al. **Clin Physiol** 1998 Sep; 18(5):471-8
Fractal dimension and approximate entropy of heart period and heart rate: awake versus sleep differences and methodological issues. Yeragani VK, et al. **Clin Sci (Colch)** 1998 Sep;95(3):295-301
The perception of sleep as a function of the level of daytime sleepiness among patients with obstructive sleep apnea. Bishop C, et al. **Compr Psychiatry** 1998 Sep-Oct; 39(5):312-7
Dampening of the cortisol response to handling at 3 months in human infants and its relation to sleep, circadian cortisol activity, and behavioral distress. Larson MC, et al. **Dev Psychobiol** 1998 Dec;33(4):327-37
Increased sympathetic activity during sleep and nocturnal hypertension in Type 2 diabetic patients with diabetic nephropathy. Nielsen FS, et al. **Diabet Med** 1999 Jul; 16(7):555-62
Increased infant axillary temperatures in non-REM sleep during mother-infant bed-sharing. Richard CA. **Early Hum Dev** 1999 Jun;55(2):103-11
Interictal spiking increases with sleep depth in temporal lobe epilepsy. Malow BA, et al. **Epilepsia** 1998 Dec; 39(12):1309-16
Autosomal dominant nocturnal frontal lobe epilepsy: an electroclinical study of a Norwegian family with ten affected members. Nakken KO, et al. **Epilepsia** 1999 Jan; 40(1):88-92
Sleep-wakefulness alterations in amygdala-kindled rats. Raol YH, et al. **Epilepsia** 1998 Nov;39(11):1133-7
Bathing before sleep in the young and in the elderly. Kanda K, et al. **Eur J Appl Physiol** 1999 Jul;80(2):71-5
Brief naps during post-lunch rest: effects on alertness, performance, and autonomic balance. Takahashi M, et al. **Eur J Appl Physiol** 1998 Jul;78(2):93-8
Relationship between overnight energy expenditure and BMR measured in a room-sized calorimeter. Seale JL, et al. **Eur J Clin Nutr** 1999 Feb;53(2):107-11
Natural evolution of sleepiness. A 5-year follow-up study in a middle-aged population. Martikainen K, et al. **Eur J Neurol** 1998 Jul;5(4):355-63
Effects of noradrenaline on frequency tuning of auditory cortex neurons during wakefulness and slow-wave sleep. Manunta Y, et al. **Eur J Neurosci** 1999 Jun;11(6):2134-50
Measuring tidal volume and functional residual capacity

change in sleeping infants using a volume displacement plethysmograph. Wilson SJ, et al. **Eur Respir J** 1998 Nov; 12(5):1186–90

Hypothalamus–pituitary–adrenal activity during human sleep: a coordinating role for the limbic hippocampal system. Born J, et al. **Exp Clin Endocrinol Diabetes** 1998; 106(3):153–63 (81 ref.)

A circle map model of human circadian rhythms. Sakai H, et al. **Front Med Biol Eng** 1999;9(1):75–92

The impact of sleep on gonadotropin secretion. Rossmanith WG. **Gynecol Endocrinol** 1998 Dec;12(6):381–9 (67 ref.)

Modeling neuronal dynamics–transition during sleep. Nakao M, et al. **IEEE Eng Med Biol Mag** 1999 May–Jun; 18(3):99–107

Effect of working hours on cardiovascular–autonomic nervous functions in engineers in an electronics manufacturing company. Sasaki T, et al. **Ind Health** 1999 Jan;37(1):55–61

Shift work–related problems in 16-h night shift nurses (2): Effects on subjective symptoms, physical activity, heart rate, and sleep. Takahashi M, et al. **Ind Health** 1999 Apr; 37(2):228–36

Sleep inertia and autonomic effects on post–nap P300 event–related potential. Takahashi M, et al. **Ind Health** 1998 Oct;36(4):347–53

Effect of hyoscine butylbromide and atropine on heart rate during nocturnal sleep. Gitanjali B, et al. **Indian J Exp Biol** 1998 Dec;36(12):1216–20

The effects of a 20-min nap at noon on sleepiness, performance and EEG activity. Hayashi M, et al. **Int J Psychophysiol** 1999 May;32(2):173–80

Gender differences in sleep patterns for early adolescents. Lee KA, et al. **J Adolesc Health** 1999 Jan;24(1):16–20

Drug–induced arterial pressure elevation is associated with arousal from NREM sleep in normal volunteers. Kesler B, et al. **J Appl Physiol** 1999 Sep;87(3):897–901

CO(2) microdialysis in retrotrapezoid nucleus of the rat increases breathing in wakefulness but not in sleep. Li A, et al. **J Appl Physiol** 1999 Sep;87(3):910–9

Developmental changes in response to subatmospheric pressure loading of the upper airway. Marcus CL, et al. **J Appl Physiol** 1999 Aug;87(2):626–33

Susceptibility to periodic breathing with assisted ventilation during sleep in normal subjects. Meza S, et al. **J Appl Physiol** 1998 Nov;85(5):1929–40

Effects of inspiratory and expiratory positive pressure difference on airflow dynamics during sleep. Séries F, et al. **J Appl Physiol** 1998 Nov;85(5):1855–62

Is breathing in infants chaotic? Dimension estimates for respiratory patterns during quiet sleep. Small M, et al. **J Appl Physiol** 1999 Jan;86(1):359–76

Monitoring respiratory function and sleep in the obese Vietnamese pot–bellied pig. Tuck SA, et al. **J Appl Physiol** 1999 Jul;87(1):444–51

Multichannel EEG analysis of respiratory evoked–potential components during wakefulness and NREM sleep. Webster KE, et al. **J Appl Physiol** 1998 Nov;85(5):1727–35

Activity of respiratory pump and upper airway muscles during sleep onset. Worsnop C, et al. **J Appl Physiol** 1998 Sep;85(3):908–20

Evaluation of self–similar features in time series of serum growth hormone and prolactin levels by fractal analysis: effect of delayed sleep and complexity of diurnal variation. Noguchi T, et al. **J Biomed Sci** 1998;5(3):221–5

Understanding sleep ontogeny to assess brain dysfunction in neonates and infants. Scher MS. **J Child Neurol** 1998 Oct; 13(10):467–74 (45 ref.)

Neuroendocrine processes underlying ultradian sleep regulation in man. Gronfier C, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2686–90

Effects of sleep and sleep deprivation on catecholamine and interleukin–2 levels in humans: clinical implications. Irwin M, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1979–85

Periodicity of a noninvasive measure of cardiac vagal tone during non–rapid eye movement sleep in non–sleep deprived and sleep–deprived normal subjects. Delamont RS, et al. **J Clin Neurophysiol** 1999 Mar;16(2):146–53

Actigraphy and leg movements during sleep: a validation study. Sforza E, et al. **J Clin Neurophysiol** 1999 Mar; 16(2):154–60

Paroxetine in the treatment of primary insomnia: preliminary clinical and electroencephalogram sleep data. Nowell PD, et al. **J Clin Psychiatry** 1999 Feb;60(2):89–95

Nocturnal masseter EMG activity of healthy subjects in a natural environment. Gallo LM, et al. **J Dent Res** 1999 Aug;78(8):1436–44

Importance of sleep in the management of pediatric pain. Lewin DS, et al. **J Dev Behav Pediatr** 1999 Aug; 20(4):244–52 (75 ref.)

Sleep patterns in newborns and temperament at eight months: a preliminary study. Novosad C, et al. **J Dev Behav Pediatr** 1999 Apr;20(2):99–105

The determinants of long–term blood pressure stability: control of trough blood pressure during sleep [editorial] Dickinson CJ. **J Hypertens** 1998 Jul;16(7):907–12 (54 ref.)

Sleep–associated changes in interleukin–1beta mRNA in the brain. Taishi P, et al. **J Interferon Cytokine Res** 1998 Sep; 18(9):793–8

Sleep endocrine effects of megestrol acetate in healthy men. Wiedemann K, et al. **J Neuroendocrinol** 1998 Sep; 10(9):719–27

Physiological properties of raphe magnus neurons during sleep and waking. Leung CG, et al. **J Neurophysiol** 1999 Feb;81(2):584–95

Spatiotemporal analysis of local field potentials and unit discharges in cat cerebral cortex during natural wake and sleep states. Destexhe A, et al. **J Neurosci** 1999 Jun 1; 19(11):4595–608

Reactivation of hippocampal cell assemblies: effects of behavioral state, experience, and EEG dynamics. Kudrimoti HS, et al. **J Neurosci** 1999 May 15; 19(10):4090–101

Intrapreoptic microinjection of GHRH or its antagonist alters sleep in rats. Zhang J, et al. **J Neurosci** 1999 Mar 15; 19(6):2187–94

Sleep patterns in pregnancy: a longitudinal study of polysomnography recordings during pregnancy. Schorr SJ, et al. **J Perinatol** 1998 Nov–Dec;18(6 Pt 1):427–30

Ageing and the circadian and homeostatic regulation of human sleep during forced desynchrony of rest, melatonin and temperature rhythms. Dijk DJ, et al. **J Physiol (Lond)** 1999 Apr 15;516 (Pt 2):611–27

Repetitive hypoxia rapidly depresses arousal from active sleep in newborn lambs. Johnston RV, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):651–9

Non–chemical inhibition of respiratory motor output during mechanical ventilation in sleeping humans. Wilson CR, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):605–18

Altered circadian melatonin secretion patterns in relation to sleep in patients with chronic sleep–wake rhythm disorders. Rodenbeck A, et al. **J Pineal Res** 1998 Dec;25(4):201–10

Time of day effects in, and the relationship between, sleep quality and movement. Blagrove M, et al. **J Sleep Res** 1998 Dec;7(4):233–9

Eastward long distance flights, sleep and wake patterns in air crews in connection with a two–day layover. Lowden A, et al. **J Sleep Res** 1999 Mar;8(1):15–24

Promoting alertness with a short nap during a night shift. Sallinen M, et al. **J Sleep Res** 1998 Dec;7(4):240–7

Information processing and coping style during the wake/sleep transition. Voss U, et al. **J Sleep Res** 1998 Dec; 7(4):225–32

Two–electrode telemetric instrument for infant heart rate and apnea monitoring. Dobrev D, et al. **Med Eng Phys** 1998 Dec;20(10):729–34

Assessment of bed temperature monitoring for detecting body movement during sleep: comparison with simultaneous video image recording and actigraphy. Tamura T, et al. **Med Eng Phys** 1999 Jan;21(1):1–8

Sleep benefit in Parkinson's disease [letter; comment] Montagna P, et al. **Mov Disord** 1998 Jul;13(4):751–2. Comment on: Mov Disord 1997 Jul;12(4):506–8.

How the immune system puts the brain to sleep [news; comment] Straub RH, et al. **Nat Med** 1999 Aug;5(8):877–9 . Comment on: Nat Med 1999 Aug;5(8):913–8.

Timing the end of nocturnal sleep [letter] Born J, et al. **Nature** 1999 Jan 7;397(6714):29–30

Warm feet promote the rapid onset of sleep. Kräuchi K, et al. **Nature** 1999 Sep 2;401(6748):36–7

Ambulatory nocturnal oximetry and sleep questionnaire–based findings in 38 patients with end–stage renal disease. Pfister M, et al. **Nephrol Dial Transplant** 1999 Jun;14(6):1496–502

Simultaneous measurement of brain and core temperature in the rat during fever, hyperthermia, hypothermia and sleep. Sundgren–Andersson AK, et al. **Neuroimmunomodulation** 1998 Sep–Oct;5(5):241–7

Diagnostic significance of all night physiological sleep EEG records in patients with drug resistant focal epilepsy. Czarkwiani L. **Neurol Neurochir Pol** 1998;32 Suppl 2:227–36 **(Eng, Pol)**

Waking up to the importance of sleep in neurologic disorders [editorial; comment] Malow BA. **Neurology** 1999 Jun 10; 52(9):1732–3. Comment on: Neurology 1999 Jun 10;52(9):1777–83.

Respiratory disturbances during sleep in syringomyelia and syringobulbia [see comments] Nogués M, et al. **Neurology** 1999 Jun 10;52(9):1777–83. Comment in: Neurology 1999 Jun 10;52(9):1732–3.

EEG and cardiac activation during periodic leg movements in sleep: support for a hierarchy of arousal responses. Sforza E, et al. **Neurology** 1999 Mar 10;52(4):786–91

Coordinated interactions between hippocampal ripples and cortical spindles during slow–wave sleep. Siapas AG, et al. **Neuron** 1998 Nov;21(5):1123–8

Hierarchy of micro–arousals and the microstructure of sleep. Halász P. **Neurophysiol Clin** 1998 Dec;28(6):461–75 (73 ref.)

Spectral structure and brain mapping of human alpha activities in different arousal states. Cantero JL, et al. **Neuropsychobiology** 1999;39(2):110–6

The statistical distribution of wrist movements during sleep. Gimeno V, et al. **Neuropsychobiology** 1998;38(2):108–12

Association between delta waves during sleep and negative symptoms in schizophrenia. Pharmaco–eeg studies by using structurally different hypnotics. Kato M, et al. **Neuropsychobiology** 1999;39(3):165–72

No effects of pulsed high–frequency electromagnetic fields on heart rate variability during human sleep. Mann K, et al. **Neuropsychobiology** 1998 Nov;38(4):251–6

Efficiency of continuous positive airway pressure versus theophylline therapy in sleep apnea: comparative sleep laboratory studies on objective and subjective sleep and awakening quality. Saletu B, et al. **Neuropsychobiology** 1999;39(3):151–9

Sleep and serotonin: an unfinished story. Jouvet M. **Neuropsychopharmacology** 1999 Aug;21(2 Suppl):24S–27S (21 ref.)

The activity of thalamus and cerebral cortex neurons in rabbits during "slow wave–spindle" EEG complexes. Burikov AA, et al. **Neurosci Behav Physiol** 1999 Mar–Apr; 29(2):143–9

Adaptations and pathologies linked to dynamic stabilization of neural circuitry. Kavanau JL. **Neurosci Biobehav Rev** 1999 May;23(5):635–48 (133 ref.)

Adjustment of the human circadian system to changes of the sleep schedule under dim light at home. Jelínková–Vondrasová D, et al. **Neurosci Lett** 1999 Apr 16;265(2):111–4

An interleukin–1 receptor fragment blocks ambient temperature–induced increases in brain temperature but not sleep in rabbits. Kushikata T, et al. **Neurosci Lett** 1998 Mar 20;244(3):125–8

Daytime melatonin infusions induce sleep in pigeons without altering subsequent amounts of nocturnal sleep. Mintz EM, et al. **Neurosci Lett** 1998 Dec 18;258(2):61–4

Attenuated amplitude of circadian and sleep–dependent modulation of electroencephalographic sleep spindle characteristics in elderly human subjects. Wei HG, et al. **Neurosci Lett** 1999 Jan 22;260(1):29–32

Role of GABA–A receptor in the preoptic area in the regulation of sleep–wakefulness and rapid eye movement sleep. Ali M, et al. **Neurosci Res** 1999 Mar;33(3):245–50

Cortically–induced coherence of a thalamic–generated oscillation. Destexhe A, et al. **Neuroscience** 1999; 92(2):427–43

Hypothalamic serotonergic activity correlates better with brain temperature than with sleep–wake cycle and muscle tone in rats. Imeri L, et al. **Neuroscience** 1999;89(4):1241–6

Neurotoxic N–methyl–D–aspartate lesion of the ventral midbrain and mesopontine junction alters sleep–wake organization. Lai YY, et al. **Neuroscience** 1999 May; 90(2):469–83

Retinal input to the sleep–active ventrolateral preoptic nucleus in the rat. Lu J, et al. **Neuroscience** 1999; 93(1):209–14

Influence of stress duration on the sleep rebound induced by immobilization in the rat: a possible role for corticosterone. Marinesco S, et al. **Neuroscience** 1999; 92(3):921–33

Structure of the auditory evoked magnetic fields during sleep. Naka D, et al. **Neuroscience** 1999;93(2):573–83

Sleep in the platypus. Siegel JM, et al. **Neuroscience** 1999; 91(1):391–400

Climacteric symptoms and sleep quality. Polo–Kantola P, et al. **Obstet Gynecol** 1999 Aug;94(2):219–24

Suppression of nocturnal growth hormone secretion in epilepsy with continuous spike–waves during slow–wave sleep. Iyoda K, et al. **Pediatr Int** 1999 Apr;41(2):192–4

Higher SaO2 in chronic neonatal lung disease: does it improve sleep? Fitzgerald D, et al. **Pediatr Pulmonol** 1998 Oct;26(4):235–40

Sleep, respiratory rate, and growth hormone in chronic neonatal lung disease. Fitzgerald D, et al. **Pediatr Pulmonol** 1998 Oct;26(4):241–9

Visual activation in infants and young children studied by functional magnetic resonance imaging. Born P, et al. **Pediatr Res** 1998 Oct;44(4):578–83

Heart rate modifications related to spontaneous body movements in sleeping premature and full–term newborns. Curzi–Dascalova L, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):515–8

Decreased autonomic responses to obstructive sleep events in future victims of sudden infant death syndrome. Franco P, et al. **Pediatr Res** 1999 Jul;46(1):33–9

Does sleep promote recovery after bone marrow transplantation?--A hypothesis. Yarrington A, et al. **Pediatr Transplant** 1998 Feb;2(1):51–5 (42 ref.)

More awakenings and heart rate variability during supine sleep in preterm infants. Goto K, et al. **Pediatrics** 1999 Mar; 103(3):603–9

Hypnagogic imagery and EEG activity. Hayashi M, et al. **Percept Mot Skills** 1999 Apr;88(2):676–8

Mood states and sleepiness in college students: influences of age, sex, habitual sleep, and substance use. Jean–Louis G, et al. **Percept Mot Skills** 1998 Oct;87(2):507–12

Changes in sleep patterns of young women from late pregnancy to postpartum: relationships to their infants' movements. Nishihara K, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1043–56

Sleep in relation to age, sex, and chronotype in Japanese workers. Park YM, et al. **Percept Mot Skills** 1998 Aug; 87(1):199–215

Motor development and sleep problems among 9–month–olds. Scher A, et al. **Percept Mot Skills** 1998 Dec; 87(3 Pt 2):1218

Presleep autonomic arousal as a distinguishing factor in type of sleep pattern. Sexton–Radek K. **Percept Mot Skills** 1998 Oct;87(2):433–4

Stress triggers of long, short, and variable sleep patterns. Sexton–Radek K. **Percept Mot Skills** 1998 Aug;87(1):225–6

Clinical aspects associated with adjustment in unusual sleepers. Sexton–Radek K. **Percept Mot Skills** 1998 Aug; 87(1):261–2

Subdiaphragmatic vagotomy does not block sleep deprivation–induced sleep in rats. Hansen MK, et al. **Physiol Behav** 1998 Jun 1;64(3):361–5

SLEEP

Biological and behavioral correlates of quiet sleep respiration rates in infants. Montgomery-Downs H, et al. **Physiol Behav** 1998 Jul;64(5):637-43

Exercise-induced increase in core temperature does not disrupt a behavioral measure of sleep. O'Connor PJ, et al. **Physiol Behav** 1998 Jun 1;64(3):213-7

Temperature selection and use of torpor by the marsupial Sminthopsis macroura. Song X, et al. **Physiol Behav** 1998 Jul;64(5):675-82

Detection of body movements during sleep by monitoring of bed temperature. Lu L, et al. **Physiol Meas** 1999 May; 20(2):137-48

Endogenous and exogenous factors on sleep-wake cycle regulation. Garcia-Garcia F, et al. **Prog Neurobiol** 1999 Jul;58(4):297-314 (294 ref.)

The neurophysiology of sleep and waking: intracerebral connections, functioning and ascending influences of the medulla oblongata. Gottesmann C. **Prog Neurobiol** 1999 Sep;59(1):1-54 (267 ref.)

Dexamethasone blocks sleep induced improvement of declarative memory. Plihal W, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):313-31

Effects of early and late nocturnal sleep on priming and spatial memory. Plihal W, et al. **Psychophysiology** 1999 Sep; 36(5):571-82

Sleep state and vagal regulation of heart period patterns in the human newborn: an extension of the polyvagal theory. Porges SW, et al. **Psychophysiology** 1999 Jan;36(1):14-21

How many nights are enough? The short-term stability of sleep parameters in elderly insomniacs and normal sleepers. Wohlgemuth WK, et al. **Psychophysiology** 1999 Mar; 36(2):233-44

Suppression of arousal by progesterone in fetal sheep. Crossley KJ, et al. **Reprod Fertil Dev** 1997;9(8):767-73

Normal human sleep. Keenan SA. **Respir Care Clin N Am** 1999 Sep;5(3):319-31, vii (27 ref.)

Variability of vigilance and ventilation: studies on the control of respiration during sleep. Schäfer T. **Respir Physiol** 1998 Oct;114(1):37-48

Novel neurotransmitters for sleep and energy homeostasis. Sutcliffe JG, et al. **Results Probl Cell Differ** 1999;26:239-55 (30 ref.)

Changes in sleep and wakefulness following 5-HT1A ligands given systemically and locally in different brain regions. Bjorvatn B, et al. **Rev Neurosci** 1998;9(4):265-73 (97 ref.)

Birds may refine their songs while sleeping [news; comment] Barinaga M. **Science** 1998 Dec 18;282(5397):2163,2165. Comment on: Science 1998 Dec 18;282(5397):2250-4.

Behavioral state modulation of auditory activity in a vocal motor system [see comments] Dave AS, et al. **Science** 1998 Dec 18;282(5397):2250-4. Comment in: Science 1998 Dec 18;282(5397):2163, 2165.

Bibliography of recent literature in sleep research. **Sleep** 1999 Mar 15;22(2):249-51, 253-9, 261-7

Estimating sleep patterns with activity monitoring in children and adolescents: how many nights are necessary for reliable measures? [published erratum appears in Sleep 1999 Mar 15;22(2):143] Acebo C, et al. **Sleep** 1999 Feb 1;22(1):95-103

Home polysomnography norms for children. Stores G, et al. **Technol Health Care** 1998 Nov;6(4):231-6

Effects of lifestyle, personality, symptoms of anxiety and depression, and genetic predisposition on subjective sleep disturbance and sleep pattern. Heath AC, et al. **Twin Res** 1998 Dec;1(4):176-88

[Regulation of dopamine neurons in ventral tegmental area on sleep-wakefulness] Wang Z, et al. **Sheng Li Hsueh Pao** 1997 Apr;49(2):135-40 (Eng. Abstr.) **(Chi)**

[Prone position favors motor development of infants (see comments)] Visscher F, et al. **Ned Tijdschr Geneeskd** 1998 Oct 3;142(40):2201-5 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Dec 26;142(52):2879-80. **(Dut)**

[Determinants of insomnia in relatively healthy elderly. A literature review] Beullens J. **Tijdschr Gerontol Geriatr** 1999 Feb;30(1):31-8 (29 ref.) (Eng. Abstr.) **(Dut)**

[Starling resister and stability of sleep ventilation] Krieger J, et al. **Neurophysiol Clin** 1998 Dec;28(6):493-506 (11 ref.) (Eng. Abstr.) **(Fre)**

[Measurement of respiratory effort (esophageal pressure) and estimation of resistance of the upper airway in polysomnography: indications, limitations and results] Loiodice C, et al. **Neurophysiol Clin** 1998 Dec;28(6):507-20 (29 ref.) (Eng. Abstr.) **(Fre)**

[Sleep maturation in the first two years of life: quantitative aspects, structural and circadian] Louis J. **Neurophysiol Clin** 1998 Dec;28(6):477-91 (Eng. Abstr.) **(Fre)**

[Sleep and vigilance in students] Printemps C, et al. **Sante Publique** 1999 Mar;11(1):17-28 (Eng. Abstr.) **(Fre)**

[Acupuncture and insomnia] Montakab H. **Forsch Komplementarmed** 1999 Feb;6 Suppl 1:29-31 (Eng. Abstr.) **(Ger)**

[Sleep physiology and sleep disorders] Penzel T. **Med Monatsschr Pharm** 1999 Feb;22(2):30-8 (7 ref.) **(Ger)**

[Sleep and old age] Sanner BM, et al. **Med Monatsschr Pharm** 1999 Feb;22(2):39-44 (20 ref.) **(Ger)**

[Influence of bruxism during sleep on stomatognathic system] Amemori Y. **Kokubyo Gakkai Zasshi** 1999 Mar;66(1):76-87 (Eng. Abstr.) **(Jpn)**

[Scientific study of sleep--molecular mechanism for the regulation of sleep and wakefulness] Hayaishi O. **Masui** 1998 Dec;47 Suppl:S11-7 **(Jpn)**

[Sleep and exercise dysfunction in respiratory insufficiency] Akashiba T. **Nippon Naika Gakkai Zasshi** 1999 Jan 10; 88(1):24-31 (6 ref.) **(Jpn)**

[Sleep-promoting substances] Fujitani Y, et al. **Nippon Ronen Igakkai Zasshi** 1998 Nov;35(11):811-6 (53 ref.) **(Jpn)**

[Molecular and neuroanatomical mechanisms of sleep-wakefulness regulation by prostaglandins D2 and E2] Onoe H. **Nippon Yakurigaku Zasshi** 1998 Dec;112(6):343-9 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Methods of sleep induction for EEG recordings: comparison between three hypnotics and natural sleep] Takasaka Y, et al. **No To Hattatsu** 1999 Mar;31(2):153-8 (Eng. Abstr.) **(Jpn)**

[Physiologic rhythm of sleep and waking] Tafil-Klawe M, et al. **Postepy Hig Med Dosw** 1999;53(3):497-503 (30 ref.) (Eng. Abstr.) **(Pol)**

[Interhemispheric relationships at various stages of the sleep-wake cycle in man] Kuraev GA, et al. **Fiziol Cheloveka** 1998 Sep-Oct;24(5):72-9 **(Rus)**

[Differential diagnosis of obstructive and central sleep apnea in polysomnographic investigation] Eroshina VA, et al. **Ter Arkh** 1999;71(4):18-21 (Eng. Abstr.) **(Rus)**

[Cardiac rhythm in sleeping healthy adolescents as recorded by holter ECG monitoring] Makarov LM, et al. **Ter Arkh** 1999;71(1):19-22 (Eng. Abstr.) **(Rus)**

[Examples of recapitulation of the phylogenetic stages of development of the wakefulness-sleep cycle in mammalian ontogenesis] Aristakesian EA, et al. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):492-501 **(Rus)**

[Effect of 6-hour sleep deprivation in the guinea pig Cavia porcellus] Eliava MI. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):525-9 **(Rus)**

[Disturbances in the wakefulness-sleep cycle and its dissolution] Oganesian GA. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):502-9 **(Rus)**

[Familial fatal insomnia: a human prion disease which opens the door to a greater understanding of the thalamus] Barriga F, et al. **Rev Med Univ Navarra** 1997 Oct-Dec; 41(4):224-8 (24 ref.) (Eng. Abstr.) **(Spa)**

[Subjective sleep quality and spectral analysis of electroencephalography during nocturnal sleep] Vergara JM, et al. **Rev Neurol** 1999 Apr 16-30;28(8):765-7 (Eng. Abstr.) **(Spa)**

SLEEP APNEA SYNDROMES

Sleep-disordered breathing in children. Guilleminault C, et al. **Ann Med** 1998 Aug;30(4):350-6 (50 ref.)

Obstructive sleep apnoea. Worsnop C, et al. **Aust N Z J Med** 1998 Aug;28(4):421-7 (40 ref.)

The upper airway resistance syndrome. Exar EN, et al. **Chest** 1999 Apr;115(4):1127-39 (79 ref.)

Obstructive sleep apnea syndrome: an experience in Chinese adults in Hong Kong. Ip Mary SM, et al. **Chin Med J (Engl)** 1998 Mar;111(3):257-60

The sleep apnoea syndromes. van Houwelingen KG, et al. **Eur Heart J** 1999 Jun;20(12):858-66 (77 ref.)

Sleep apnoea and driving risk. European Respiratory Society Task Force on "Public Health and Medicolegal Implications of Sleep Apnoea" [editorial] McNicholas WT. **Eur Respir J** 1999 Jun;13(6):1225-7

Nocturnal hypoventilation. Lévy P, et al. **Monaldi Arch Chest Dis** 1998 Jun;53(3):296-304 (72 ref.)

Comparing the severity of obstructive sleep apnea in patients referred by urban and rural physicians. McCall WV, et al. **N C Med J** 1998 Nov-Dec;59(6):358-61

Driving with sleep apnea [editorial; comment] Suratt PM, et al. **N Engl J Med** 1999 Mar 18;340(11):881-3. Comment on: N Engl J Med 1999 Mar 18;340(11):847-51.

The association between sleep apnea and the risk of traffic accidents. Cooperative Group Burgos-Santander [see comments] Terán-Santos J, et al. **N Engl J Med** 1999 Mar 18;340(11):847-51. Comment in: N Engl J Med 1999 Mar 18;340(11):881-31.

Overview of sleep disorders: where does obstructive sleep apnea syndrome fit in? Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):187-93 (9 ref.)

Disordered breathing during sleep in newborns, infants, and children. Symptoms, diagnosis, and treatment. Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):211-22 (23 ref.)

Obstructive sleep apnea in women. Halvorson DJ, et al. **Otolaryngol Head Neck Surg** 1998 Nov;119(5):497-501

[Conference abstracts of the section for nocturnal disturbances of respiratory and circulatory regulation. 34th session of the Society for Research on Pulmonary and Respiratory Function. Bochum, 2-5 December 1998] **Pneumologie** 1998 Nov;52(11):643-50 **(Ger)**

[Sleep apnea and non-invasive positive-pressure respiration] Oi M. **Nippon Naika Gakkai Zasshi** 1998 Oct 10; 87(10):2100-6 (22 ref.) **(Jpn)**

[Snoring and vascular diseases] Zamarrón C. **An Med Interna** 1998 Dec;15(12):669-71 (49 ref.) (Eng. Abstr.) **(Spa)**

BLOOD

Increased levels of circulating ICAM-1, VCAM-1, and L-selectin in obstructive sleep apnea syndrome. Ohga E, et al. **J Appl Physiol** 1999 Jul;87(1):10-4

Effects of obstructive sleep apnea on endothelin-1 and blood pressure. Phillips BG, et al. **J Hypertens** 1999 Jan; 17(1):61-6

Afternoon serum-melatonin in sleep disordered breathing. Ulfberg J, et al. **J Intern Med** 1998 Aug;244(2):163-8

CHEMICALLY INDUCED

Epidural opioids and respiratory arrests [letter; comment] Rennotte MT, et al. **Anesth Analg** 1999 Apr;88(4):962. Comment on: Anesth Analg 1997 Aug;85(2):452-60.

Daytime hypertension, sleep apnea and metabolic alkalosis in a haemodialysis patient--the result of sodium bicarbonate abuse. Okada H, et al. **Nephrol Dial Transplant** 1999 Feb; 14(2):452-4

Mechanisms proposed whereby beta-blockers might worsen obstructive sleep apnoea (OSA) [letter] Longstaff M. **Respir Med** 1999 Apr;93(4):290

[Obstructive sleep apnea syndrome caused by occupational exposure to solvents] Muttray A, et al. **Dtsch Med Wochenschr** 1999 Mar 12;124(10):279-81 (Eng. Abstr.) **(Ger)**

CLASSIFICATION

A sleep medicine curriculum for otolaryngology-head and neck surgery. Davidson TM, et al. **Ear Nose Throat J** 1999 Sep;78(9):684-6, 688, 690 passim

Six-month follow-up of children with obstructive sleep apnoea. Harvey JM, et al. **J Paediatr Child Health** 1999 Apr;35(2):136-9

COMPLICATIONS

Chlormethiazole, apnoea and Alzheimer's disease [letter] Grace J. **Acta Psychiatr Scand** 1999 Sep;100(3):248

Apnea syndrome in a patient with Alzheimer dementia under chlormethiazole treatment: a clinical experience report. Kaldune A, et al. **Acta Psychiatr Scand** 1999 Jan; 99(1):79-81

Peripheral neuropathy in sleep apnea. A tissue marker of the severity of nocturnal desaturation. Mayer P, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):213-9

Acute delirium as a manifestation of obstructive sleep apnea syndrome. Muñoz X, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1306-7

Manifestation of pulmonary hypertension during REM sleep in obstructive sleep apnea syndrome. Niijima M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1766-72

Modeling hypersomnolence in sleep-disordered breathing. A novel approach using survival analysis. Punjabi NM, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1703-9

Do patients with obstructive sleep apnea wake up with headaches? Loh NK, et al. **Arch Intern Med** 1999 Aug 9-23;159(15):1765-8

Clinical opinion: preoperative sleep studies. Sculerati N. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):357

Sleep-disordered breathing and periodic limb movements in sleep in older patients with schizophrenia. Ancoli-Israel S, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1426-32

Interaction of sleep apnoea syndrome with various diseases. Tomori Z, et al. **Bratisl Lek Listy** 1999 Feb;100(2):80-4 (27 ref.)

Prevalence of patent foramen ovale and its contribution to hypoxemia in patients with obstructive sleep apnea [letter; comment] Gossage JR. **Chest** 1998 Dec;114(6):1790. Comment on: Chest 1998 Jan;113(1):91-6.

Sleep-related breathing disorders as a major cause of essential hypertension: fact or fiction? Silverberg DS, et al. **Curr Opin Nephrol Hypertens** 1998 Jul;7(4):353-7 (39 ref.)

Mirror-focused handpiece for laser-assisted uvulopalatoplasty for the treatment of snoring and sleep apnea. Wong BJ, et al. **Ear Nose Throat J** 1999 Apr; 78(4):298-300

Cardiovascular effects of mibefradil in hypertensive patients with obstructive sleep apnea. Heitmann J, et al. **Eur J Clin Pharmacol** 1998 Nov-Dec;54(9-10):691-6

The effect of four different antihypertensive medications on cardiovascular regulation in hypertensive sleep apneic patients--assessment by spectral analysis of heart rate and blood pressure variability. Salo TM, et al. **Eur J Clin Pharmacol** 1999 May;55(3):191-8

An independent association between obstructive sleep apnoea and coronary artery disease. Peker Y, et al. **Eur Respir J** 1999 Jul;14(1):179-84

Sleep apnoea in ischaemic heart disease: differences between acute and chronic coronary syndromes. Moruzzi P, et al. **Heart** 1999 Sep;82(3):343-7

Sleep apnoea syndrome and the extent of atherosclerotic lesions in middle-aged men with myocardial infarction. Aboyans V, et al. **Int Angiol** 1999 Mar;18(1):70-3

Excessive sinus pauses and their elimination in a patient with sleep apnea syndrome. Efremidis M, et al. **Int J Cardiol** 1998 Dec 31;67(3):265-6

Associations of symptoms of sleep apnea with cardiovascular disease, cognitive impairment, and mortality among older Japanese-American men. Foley DJ, et al. **J Am Geriatr Soc** 1999 May;47(5):524-8

Clonidine and sleep apnea syndrome interaction: antagonism with yohimbine. Roberge RJ, et al. **J Emerg Med** 1998 Sep-Oct;16(5):727-30

Respiratory aspects of neurological disease. Polkey MI, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):5-15 (170 ref.)

Respiratory effort with airway closure during mixed apneas [letter; comment] Finer NN, et al. **J Pediatr** 1999 Jun; 134(6):796–8. Comment on: J Pediatr 1998 Oct;133(4):509–12.

Heart rate variability and apnea during sleep in Down's syndrome. Ferri R, et al. **J Sleep Res** 1998 Dec;7(4):282–7

Cognitive function and treatment of obstructive sleep apnea syndrome. Lojander J, et al. **J Sleep Res** 1999 Mar;8(1):71–6

Sleep disorders and attention-deficit/hyperactivity disorder [letter; comment] Yuen KM, et al. **JAMA** 1999 Mar 3; 281(9):797. Comment on: JAMA 1998 Sep 23–30;280(12):1086–92.

Dementia and snoring. Steiner MC, et al. **Lancet** 1999 Jan 16;353(9148):204

Habitual snoring, OSA and craniofacial modification. Orthodontic clinical and diagnostic aspects in a case control study. Caprioglio A, et al. **Minerva Stomatol** 1999 Apr; 48(4):125–37 (43 ref.) **(Eng, Ita)**

What is the evidence that obstructive sleep apnoea is an important illness? Marrone O, et al. **Monaldi Arch Chest Dis** 1998 Dec;53(6):630–9 (155 ref.)

Sleep disordered breathing and cardiomyopathy. Mohsenin V. **Monaldi Arch Chest Dis** 1998 Oct;53(5):589–92 (37 ref.)

Constrictive pericarditis [letter; comment] Brown LK. **Mt Sinai J Med** 1999 May;66(3):207. Comment on: Mt Sinai J Med 1998 Oct–Nov;65(5–6):414–21.

On sleep and death: cardiovascular risk of the obstructive sleep apnea syndrome [editorial; comment] de Leeuw PW. **Neth J Med** 1999 May;54(5):188–90. Comment on: Neth J Med 1999 May;54(5):202–6.

Eyelid, conjunctival, and corneal findings in sleep apnea syndrome. Mojon DS, et al. **Ophthalmology** 1999 Jun; 106(6):1182–5

High prevalence of glaucoma in patients with sleep apnea syndrome. Mojon DS, et al. **Ophthalmology** 1999 May; 106(5):1009–12

Complications of snoring, upper airway resistance syndrome, and obstructive sleep apnea syndrome in adults. Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):223–34 (39 ref.)

Pharyngeal airway obstruction in obstructive sleep apnea: pathophysiology and clinical implications. Schwartz AR, et al. **Otolaryngol Clin North Am** 1998 Dec;31(6):911–8

Obstructive sleep apnea in children with achondroplasia: surgical and anesthetic considerations. Sisk EA, et al. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):248–54

The behavioral morbidity of obstructive sleep apnea. Day R, et al. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):341–54 (80 ref.)

Cardiovascular morbidity in obstructive sleep apnea. Weiss JW, et al. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):367–76 (68 ref.)

Too sleepy for surgery [editorial; comment] Cherniack NS. **Respiration** 1999;66(4):310. Comment on: Respiration 1999 ;66(4):312–6.

Interface of epilepsy and sleep disorders. Beran RG, et al. **Seizure** 1999 Apr;8(2):97–102

Sleep apnea in acute cerebrovascular diseases: final report on 128 patients. Bassetti C, et al. **Sleep** 1999 Mar 15; 22(2):217–23

Nasal resistance in snorers with or without sleep apnea: effect of posture and nasal ventilation with continuous positive airway pressure. Desfonds P, et al. **Sleep** 1998 Sep 15; 21(6):625–32

Obstructive sleep apnea and acute myocardial infarction: clinical implications of the association. Marin JM, et al. **Sleep** 1998 Dec 15;21(8):809–15

Cognitive function following acute sleep restriction in children ages 10–14. Randazzo AC, et al. **Sleep** 1998 Dec 15;21(8):861–8

Obstructive sleep apneas in relation to severity of cervical spinal cord injury. Klefbeck B, et al. **Spinal Cord** 1998 Sep; 36(9):621–8

Heart block in patients with sleep apnoea. Becker HF, et al. **Thorax** 1998 Oct;53 Suppl 3:S29–32 (20 ref.)

Sleep apnoea in women. Edwards N, et al. **Thorax** 1998 Oct; 53 Suppl 3:S12–5 (45 ref.)

Impact of treatment of sleep apnoea on left ventricular function in congestive heart failure. Naughton MT. **Thorax** 1998 Oct;53 Suppl 3:S37–40 (40 ref.)

Sleep apnoea and snoring: potential links with vascular disease. Sullivan CE, et al. **Thorax** 1998 Oct;53 Suppl 3:S8–11 (35 ref.)

Prognosis and sleep disordered breathing in heart failure. Wilcox I, et al. **Thorax** 1998 Oct;53 Suppl 3:S33–6 (24 ref.)

"Syndrome Z": the interaction of sleep apnoea, vascular risk factors and heart disease. Wilcox I, et al. **Thorax** 1998 Oct; 53 Suppl 3:S25–8 (40 ref.)

[Advances in the study on sleep apnea syndrome and multiple organ injuries] Ci S, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Feb; 20(1):39–41 (18 ref.) **(Chi)**

[Short-duration nocturnal hypoxemia and persistent pulmonary hypertension] Weitzenblum E, et al. **Rev Mal Respir** 1998 Dec;15(6):743–51 (Eng. Abstr.) **(Fre)**

[Sleep apnea and erectile dysfunction] Konermann M, et al. **Dtsch Med Wochenschr** 1999 May 21;124(20):631–5 (37 ref.) **(Ger)**

[Hypertension induced by sleep apnea--diagnosis and therapy] Sanner B, et al. **Fortschr Med** 1999 Apr 20; 117(11):35–7 **(Ger)**

[Pulmonary artery hypertension and obstructive sleep apnea. Pathophysiology and clinical relevance] Steiner S, et al. **Internist (Berl)** 1999 Jul;40(7):739–46 (61 ref.) **(Ger)**

[Obesity and diseases. 2. Obesity and obstructive sleep apnea syndrome] Chin K, et al. **Nippon Naika Gakkai Zasshi** 1998 Sep 10;87(9):1793–6 (18 ref.) **(Jpn)**

[Sleep apnea syndrome in acromegalic patients] Konop H, et al. **Neurol Neurochir Pol** 1998 Mar–Apr;32(2):351–8 (Eng. Abstr.) **(Pol)**

[Obstructive sleep apnea syndrome and narcolepsy. A report of 2 cases (letter)] Zamarrón C, et al. **Arch Bronconeumol** 1998 Oct;34(9):466 **(Spa)**

[Cardiovascular manifestations of obstructive sleep apnea. Effects of the treatment] Soto F. **Rev Med Chil** 1998 Sep; 126(9):1112–6 (38 ref.) (Eng. Abstr.) **(Spa)**

CONGENITAL

Idiopathic congenital central hypoventilation syndrome: diagnosis and management. American Thoracic Society. **Am J Respir Crit Care Med** 1999 Jul;160(1):368–73 (56 ref.)

Association of misoprostol, Moebius syndrome and congenital central alveolar hypoventilation. Case report. Nunes ML, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):88–91

Congenital central hypoventilation syndrome: an update. Gozal D. **Pediatr Pulmonol** 1998 Oct;26(4):273–82 (102 ref.)

Resolution of obstructive sleep apnea syndrome after adenoidectomy in congenital central hypoventilation syndrome. Kurz H, et al. **Pediatr Pulmonol** 1999 May; 27(5):341–6

Respiratory sensations during heavy exercise in subjects without respiratory chemosensitivity. Spengler CM, et al. **Respir Physiol** 1998 Oct;114(1):65–74

[Congenital central alveolar hypoventilation syndrome, so-called "Ondine syndrome": an orphan disease, a disease of hope (editorial)] Beaufils F, et al. **Arch Pediatr** 1999 Apr;6(4):383–5 **(Fre)**

[Sleep-phase-related home therapy in congenital central hypoventilation syndrome (CCHS)] Schäfer C, et al. **Med Klin** 1999 Apr;94(1 Spec No):15–7 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Nocturnal frontal lobe epilepsy misdiagnosed as sleep apnea syndrome. Oldani A, et al. **Acta Neurol Scand** 1998 Jul; 98(1):67–71

Acoustic analysis of snoring and the site of airway obstruction in sleep related respiratory disorders. Miyazaki S, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;537:47–51

Differentiating obstructive and central sleep respiratory events through pulse transit time. Argod J, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1778–83

Screening for hypothyroidism in sleep apnea. Skjodt NM, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):732–5

Tongue shape in obstructive sleep apnea patients. Pae EK, et al. **Angle Orthod** 1999 Apr;69(2):147–50

Diagnostic and treatment implications of nasal obstruction in snoring and obstructive sleep apnea. Scharf MB, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):279–87; quiz 287–90 (114 ref.)

Cost-utility of three approaches to the diagnosis of sleep apnea: polysomnography, home testing, and empirical therapy [see comments] Chervin RD, et al. **Ann Intern Med** 1999 Mar 16;130(6):496–505. Comment in: Ann Intern Med 1999 Mar 16;130(6):533–4.

Do you ever take a sleep history? [editorial; comment] Millman RP. **Ann Intern Med** 1999 Oct 5;131(7):535–6. Comment on: Ann Intern Med 1999 Oct 5;131(7):485–91.

Using the Berlin Questionnaire to identify patients at risk for the sleep apnea syndrome [see comments] Netzer NC, et al. **Ann Intern Med** 1999 Oct 5;131(7):485–91. Comment in: Ann Intern Med 1999 Oct 5;131(7):535–6.

Economic implications of the diagnosis of obstructive sleep apnea [editorial; comment] Pack AI, et al. **Ann Intern Med** 1999 Mar 16;130(6):533–4. Comment on: Ann Intern Med 1999 Mar 16;130(6):496–505.

The role of the primary care physician in recognizing obstructive sleep apnea. Kramer NR, et al. **Arch Intern Med** 1999 May 10;159(9):965–8

The diagnosis of OSAS and UARS in children: trying to relieve the frustration. Coleman JA Jr. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):356–7

Evaluation of obstructive sleep apnea by polysomnography prior to pediatric adenotonsillectomy. Messner AH. **Arch Otolaryngol Head Neck Surg** 1999 Mar;125(3):353–6

Neural network prediction of obstructive sleep apnea from clinical criteria. Kirby SD, et al. **Chest** 1999 Aug; 116(2):409–15

Full polysomnography in the home: has it come of age? [editorial; comment] Millman RP. **Chest** 1999 Jan; 115(1):6–7. Comment on: Chest 1999 Jan;115(1):114–22.

Screening of obstructive sleep apnea syndrome by heart rate variability analysis. Roche F, et al. **Circulation** 1999 Sep 28;100(13):1411–5

Clinical significance of arterial blood gas analysis for detection and/or treatment of central sleep apnea in patients with heart failure [letter] Teramoto S, et al. **Circulation** 1999 May 25;99(20):2709–12

Daytime sleepiness: when is it normal? When to refer? Benbadis SR. **Cleve Clin J Med** 1998 Nov-Dec; 65(10):543–9 (36 ref.)

A three-centre prospective pilot study to elucidate the effect of uvulopalatopharyngoplasty on patients with mild obstructive sleep apnoea due to velopharyngeal obstruction. Myatt HM, et al. **Clin Otolaryngol** 1999 Apr; 24(2):95–103

Reproducibility of abnormal heart rate variability indices: the case of hypertensive sleep apnoea syndrome. Salo TM, et al. **Clin Physiol** 1999 May;19(3):258–68

Nonlinear multivariable modeling and analysis of sleep apnea time series. Aguirre LA, et al. **Comput Biol Med** 1999 May; 29(3):207–28

Classification of nasal inspiratory flow shapes by attributed finite automata. Aittokallio T, et al. **Comput Biomed Res** 1999 Feb;32(1):34–55

Sleep disordered breathing: our roles and responsibilities [editorial] Davidson TM. **Ear Nose Throat J** 1999 Sep; 78(9):682

Who needs a sleep test? The value of the history in the diagnosis of obstructive sleep apnea. Goode RL. **Ear Nose Throat J** 1999 Sep;78(9):710, 714–5

The use of sleep tests for suspected sleep disordered breathing. Mickelson SA. **Ear Nose Throat J** 1999 Sep; 78(9):716–22 (13 ref.)

An overview of sleep disordered breathing for the otolaryngologist. Sher AE. **Ear Nose Throat J** 1999 Sep; 78(9):694–5, 698–700, 703–6 passim (35 ref.)

Evaluation of sleep apnea syndrome with low-field magnetic resonance fluoroscopy. Yoshida K, et al. **Eur Radiol** 1999; 9(6):1197–202

Half-night polysomnography: how is it compared to full-night polysomnography? [letter; comment] Chung KF. **Eur Respir J** 1998 Sep;12(3):748–9. Comment on: Eur Respir J 1997 Aug;10(8):1725–9.

Simplified diagnostic procedure for obstructive sleep apnoea syndrome: lower subsequent compliance with CPAP. Krieger J, et al. **Eur Respir J** 1998 Oct;12(4):776–9

Simultaneous laboratory-based comparison of ResMed Autoset with polysomnography in the diagnosis of sleep apnoea/hypopnoea syndrome. Mayer P, et al. **Eur Respir J** 1998 Oct;12(4):770–5

Value of beat-to-beat blood pressure changes, detected by pulse transit time, in the management of the obstructive sleep apnoea/hypopnoea syndrome. Pitson DJ, et al. **Eur Respir J** 1998 Sep;12(3):685–92

Detection of apnoeas, hypopnoeas and arousals by the AutoSet in the sleep apnoea/hypopnoea syndrome. Rees K, et al. **Eur Respir J** 1998 Oct;12(4):764–9

Systematic review of the literature regarding the diagnosis of sleep apnea. **Evid Rep Technol Assess (Summ)** 1999 Feb; (1):i–viii, 1–154 (225 ref.)

Effects of transient and persistent cerebrospinal fluid drainage on sleep disordered breathing in patients with idiopathic adult hydrocephalus syndrome. Kristensen B, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):497–501

Clinical versus polysomnographic profiles in children with obstructive sleep apnoea. Masters IB, et al. **J Paediatr Child Health** 1999 Feb;35(1):49–54

Airway closure during mixed apneas in preterm infants: is respiratory effort necessary? [see comments] Idiong N, et al. **J Pediatr** 1998 Oct;133(4):509–12. Comment in: J Pediatr 1999 Jun;134(6):796–8.

Heart rate variability and apnea during sleep in Down's syndrome. Ferri R, et al. **J Sleep Res** 1998 Dec;7(4):282–7

Mokken scaling of the Epworth Sleepiness Scale items in patients with the sleep apnoea/hypopnoea syndrome [letter] Kingshott R, et al. **J Sleep Res** 1998 Dec;7(4):293–4

Prediction of sleep-disordered breathing by unattended overnight oximetry. Olson LG, et al. **J Sleep Res** 1999 Mar;8(1):51–5

Impairment of daytime cerebrovascular reactivity in patients with obstructive sleep apnoea syndrome. Placidi F, et al. **J Sleep Res** 1998 Dec;7(4):288–92

Sleep-disordered breathing in a predominantly African-American pediatric population. Stepanski E, et al. **J Sleep Res** 1999 Mar;8(1):65–70

Two-electrode telemetric instrument for infant heart rate and apnea monitoring. Dobrev D, et al. **Med Eng Phys** 1998 Dec;20(10):729–34

Autocontinuous positive airway pressure in the diagnosis and treatment of obstructive sleep apnoea. Braghiroli A, et al. **Monaldi Arch Chest Dis** 1998 Dec;53(6):621–4 (20 ref.)

Upper airway imaging in sleep apnoea syndrome: clinical applications. Smurra MV, et al. **Monaldi Arch Chest Dis** 1998 Oct;53(5):520–3 (26 ref.)

Preoperative pulmonary evaluation [letter] Marx JJ, et al. **N Engl J Med** 1999 Aug 19;341(8):613; discussion 614

Sleepless in New Jersey. Cuozzo K, et al. **N J Med** 1999 Jan;96(1):24–8

Sleep related breathing disorder: is it sleep apnea syndrome? [editorial; comment] de Weerd AW. **Neth J Med** 1999 May; 54(5):184–7. Comment on: Neth J Med 1999 May;54(5):202–6.

Sleep complaints and sleep disordered breathing in hemodialysis patients. Venmans BJ, et al. **Neth J Med** 1999 May;54(5):207–12

The Epworth Sleepiness Scale may not reflect objective measures of sleepiness or sleep apnea. Chervin RD, et al. **Neurology** 1999 Jan 1;52(1):125–31

Sleep studies. Current techniques and future trends. Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):195–210 (25 ref.)

Identifying the patient with sleep apnea: upper airway assessment and physical examination. Goldberg AN, et al.

Otolaryngol Clin North Am 1998 Dec;31(6):919–30

Evaluation of home audiotapes as an abbreviated test for obstructive sleep apnea syndrome (OSAS) in children. Lamm C, et al. **Pediatr Pulmonol** 1999 Apr;27(4):267–72

Clinical features of obstructive sleep apnea hypoventilation syndrome in otherwise healthy children. Rosen CL. **Pediatr Pulmonol** 1999 Jun;27(6):403–9

Diagnostic techniques in obstructive sleep apnea. George CF. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):355–66 (78 ref.)

Clinical presentations of obstructive sleep apnea syndrome. Skomro RP, et al. **Prog Cardiovasc Dis** 1999 Mar–Apr; 41(5):331–40 (76 ref.)

Epworth Sleepiness Scale and sleep studies in patients with obstructive sleep apnea syndrome. Furuta H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):301–2

Development of the polysomnographic database on CD–ROM. Ichimaru Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):175–7

Intensity of snoring in patients with sleep–related breathing disorders. Itasaka Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):299–300

Clinical characteristics of upper airway resistance syndrome. Watanabe T, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):331–3

Sleep–disordered breathing in infants and children. Perkin RM, et al. **Respir Care Clin N Am** 1999 Sep;5(3):395–426, viii (122 ref.)

Does the number of hypopnoeas influence therapy in patients with obstructive sleep apnoea? Carrera M, et al. **Respir Med** 1998 Aug;92(8):1028–31

Clinical value and cost of a respiratory sleep–related breathing disorders screening service for snorers referred to a District General Hospital ENT department. Lloyd–Owen SJ, et al. **Respir Med** 1999 Jul;93(7):454–60

Assessment of sleep complaints and sleep–disordered breathing in a consecutive series of obese patients [see comments] van Kralingen KW, et al. **Respiration** 1999; 66(4):312–6. Comment in: Respiration 1999 ;66(4):310.

The obstructive sleep apnoea syndrome—experience of a referral centre. Abisheganaden J, et al. **Singapore Med J** 1998 Aug;39(8):341–6

Exhaled nitric oxide in patients with sleep apnea. Agustí AG, et al. **Sleep** 1999 Mar 15;22(2):231–5

Characteristics of apneas and hypopneas during sleep and relation to excessive daytime sleepiness. Chervin RD, et al. **Sleep** 1998 Dec 15;21(8):799–806

Treatment of obstructive sleep apnea syndrome by rapid maxillary expansion. Cistulli PA, et al. **Sleep** 1998 Dec 15; 21(8):831–5

Sleep architecture in a canine model of obstructive sleep apnea. Horner RL, et al. **Sleep** 1998 Dec 15;21(8):847–58

Cognitive function following acute sleep restriction in children ages 10–14. Randazzo AC, et al. **Sleep** 1998 Dec 15;21(8):861–8

Health care utilization in the 10 years prior to diagnosis in obstructive sleep apnea syndrome patients. Ronald J, et al. **Sleep** 1999 Mar 15;22(2):225–9

Arousal threshold to respiratory stimuli in OSA patients: evidence for a sleep–dependent temporal rhythm. Sforza E, et al. **Sleep** 1999 Feb 1;22(1):69–75

Fuzzy assessment of sleep–disordered breathing during continuous positive airway pressure therapy. Shin JJ, et al. **Sleep** 1998 Dec 15;21(8):817–28

Validity of neural network in sleep apnea. el–Solh AA, et al. **Sleep** 1999 Feb 1;22(1):105–11

Pulse transit time: an appraisal of potential clinical applications. Smith RP, et al. **Thorax** 1999 May;54(5):452–7 (27 ref.)

New strategies of screening and treatment for sleep apnea syndrome. Hida W. **Tohoku J Exp Med** 1998 Dec; 186(4):225–41 (120 ref.)

[Subjective symptoms and sleep apnea among persons referred to a sleep center. A questionnaire survey] Faber CE, et al. **Ugeskr Laeger** 1998 Nov 30;160(49):7122–5 (Eng. Abstr.) **(Dan)**

[Obstructive sleep apnea syndrome in children] Joosten KF, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2665–9 (25 ref.) (Eng. Abstr.) **(Dut)**

[Hypersomnia. Sleep apnea syndrome and somnolence] Viau F. **Presse Med** 1998 Nov 7;27(34):1754–7 (Eng. Abstr.) **(Fre)**

[Diagnosis of nocturnal respiratory disorders. Review of portable monitoring devices. Analysis and evaluation of different polysomnography signals] Liistro G, et al. **Rev Mal Respir** 1998 Dec;15(6):733–41 (Eng. Abstr.) **(Fre)**

[Development of a miniaturized system for ambulatory home use in initial diagnosis of sleep apnea disorders] Plattner D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:552–3 **(Ger)**

[Electrophysiological brain–stem diagnosis in patients with a pronounced obstructive sleep apnea syndrome] Schlegel J, et al. **Dtsch Med Wochenschr** 1999 May 21;124(20):613–7 (Eng. Abstr.) **(Ger)**

[Diagnosis and therapy of sleep–related breathing disorders. 1: Terminology] Maurer JT, et al. **HNO** 1998 Dec; 46(12):958–68 (57 ref.) (Eng. Abstr.) **(Ger)**

[Validating a 7–channel ambulatory polygraphy unit. 1: Operating instructions for the physician and patient] Verse T, et al. **HNO** 1999 Apr;47(4):249–55 (Eng. Abstr.) **(Ger)**

[Validating a 7–channel ambulatory polygraph unit. 2: Simultaneous polysomnography] Verse T, et al. **HNO** 1999 Apr;47(4):256–61 (Eng. Abstr.) **(Ger)**

[Critical evaluation of a publication on a diagnostic test] Bucher HC, et al. **Schweiz Rundsch Med Prax** 1998 Aug 26;87(35):1096–102 **(Ger)**

[Screening of sleep apnea/hypopnea syndrome by home pulse oximetry] Sano K, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov;36(11):948–52 (Eng. Abstr.) **(Jpn)**

[Sleep apnea syndrome] Miyamoto M, et al. **Nippon Naika Gakkai Zasshi** 1999 May 10;88(5):832–7 (8 ref.) **(Jpn)**

[Estimation of the value of a self–designed questionnaire in diagnosing patients with suspected obstructive sleep apnea] Zgierska A, et al. **Pneumonol Alergol Pol** 1997; 65(11–12):802–10 (Eng. Abstr.) **(Pol)**

[The therapeutic considerations in the "overlap syndrome"] Mihăltan F, et al. **Pneumoftiziologia** 1998 Jan–Mar; 47(1):41–4 (12 ref.) (Eng. Abstr.) **(Rum)**

[Differential diagnosis of obstructive and central sleep apnea in polysomnographic investigation] Eroshina VA, et al. **Ter Arkh** 1999;71(4):18–21 (Eng. Abstr.) **(Rus)**

[Sleep apnea syndrome in a 3–year–old child] Soldatskiĭ IuL, et al. **Vestn Otorinolaringol** 1999;(1):57 **(Rus)**

[The detection of electrocardiographic disorders in the sleep obstructive apnea syndrome in sanatorium practice] Eroshina VA, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May–Jun; (3):21–5 **(Rus)**

DIET THERAPY

The effect of a very low–calorie diet–induced weight loss on the severity of obstructive sleep apnoea and autonomic nervous function in obese patients with obstructive sleep apnoea syndrome. Kansanen M, et al. **Clin Physiol** 1998 Jul;18(4):377–85

DRUG THERAPY

Does short–term treatment with modafinil affect blood pressure in patients with obstructive sleep apnea? Heitmann J, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):328–35

Hormone replacement therapy may alleviate sleep apnea in menopausal women: a pilot study [see comments] Keefe DL, et al. **Menopause** 1999 Fall;6(3):196–200. Comment in: Menopause 1999 Fall;6(3):186–7.

Sleep apnea in menopause [editorial; comment] Regestein QR. **Menopause** 1999 Fall;6(3):186–7. Comment on: Menopause 1999 Fall;6(3):196–200.

Treatment of obstructive sleep apnea syndrome with a Kampo–formula, San'o–shashin–to: a case report. Hisanaga A, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):303–5

Clinical efficacy and indication of acetazolamide treatment on sleep apnea syndrome. Inoue Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):321–2

Effect of serotonin uptake inhibition on breathing during sleep and daytime symptoms in obstructive sleep apnea. Kraiczi H, et al. **Sleep** 1999 Feb 1;22(1):61–7

[Drug therapy of sleep apnea syndromes: results of short–term treatment with theophylline] Di Martino E, et al. **Laryngorhinootologie** 1999 Mar;78(3):120–4 (Eng. Abstr.) **(Ger)**

[Effects of thyroid hormone replacement therapy on nocturnal apnea in elderly patients with hypothyroidism] Teramoto S, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Jul; 36(7):590–4 (Eng. Abstr.) **(Jpn)**

[Treatment of nocturnal periodic hypoxemia with safrazine hydrochloride in a patient with Duchenne muscular dystrophy under nasal intermittent positive pressure ventilation] Ogata K, et al. **Rinsho Shinkeigaku** 1998 Aug; 38(8):776–8 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Association of hypothyroidism and obstructive sleep apnea. Kapur VK, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1379–83

Prognostic value of nocturnal Cheyne–Stokes respiration in chronic heart failure. Lanfranchi PA, et al. **Circulation** 1999 Mar 23;99(11):1435–40

Sleep–disordered breathing in patients with myelomeningocele: the missed diagnosis. Kirk VG, et al. **Dev Med Child Neurol** 1999 Jan;41(1):40–3

Associations of symptoms of sleep apnea with cardiovascular disease, cognitive impairment, and mortality among older Japanese–American men. Foley DJ, et al. **J Am Geriatr Soc** 1999 May;47(5):524–8

Occult sleep apnea in a recruited sample of older adults with insomnia. Lichstein KL, et al. **J Consult Clin Psychol** 1999 Jun;67(3):405–10

Sleep apnoea: clinical importance and facilities for investigation and treatment in the UK. Addendum to the 1993 Royal College of Physicians Sleep Apnoea report [see comments] Gibson GJ, et al. **J R Coll Physicians Lond** 1998 Nov–Dec;32(6):540–4 (46 ref.). Comment in: J R Coll Physicians Lond 1999 Mar–Apr;33(2):191–2.

Do we need to wake up to the sleep apnea problem? [editorial; comment] Cherniack NS. **Respiration** 1999; 66(4):311. Comment on: Respiration 1999 ;66(4):317–22.

Prevalence of sleep disordered breathing and sleep apnea in 50– to 70–year–old individuals. A survey [see comments] Zamarrón C, et al. **Respiration** 1999;66(4):317–22. Comment in: Respiration 1999 ;66(4):311.

The prevalence of clinically significant sleep apnoea syndrome in The Netherlands. Neven AK, et al. **Thorax** 1998 Aug;53(8):638–42

Epidemiological insights into the public health burden of sleep disordered breathing: sex differences in survival among sleep clinic patients. Young T, et al. **Thorax** 1998 Oct;53 Suppl 3:S16–9

Snoring and sleep apnea. A study of evolution and consequences in a male population. Minireview based on a doctoral thesis. Lindberg E. **Ups J Med Sci** 1998; 103(3):155–202 (198 ref.)

[An epidemiologic study of sleep–disordered breathing in the male population of Lorraine: preliminary results] Teculescu D, et al. **Sante Publique** 1998 Jun;10(2):177–90 (Eng. Abstr.) **(Fre)**

[Cardiovascular morbidity in patients with obstructive sleep apnea in relation to the severity of respiratory disorder] Schäfer H, et al. **Dtsch Med Wochenschr** 1998 Sep 25; 123(39):1127–33 (Eng. Abstr.) **(Ger)**

[Sleep apnea syndromes in multiple system atrophy] Maurer JT, et al. **HNO** 1999 Feb;47(2):117–21 (Eng. Abstr.) **(Ger)**

[Does sleep apnea increase the risk of myocardial infarct during sleep?] Koehler U, et al. **Z Kardiol** 1999 Jun; 88(6):410–7 (Eng. Abstr.) **(Ger)**

[The sleep apnea syndrome as a health problem. An estimation of its prevalence and morbimortality] Racionero Casero MA, et al. **An Med Interna** 1999 Feb;16(2):97–102 (53 ref.) (Eng. Abstr.) **(Spa)**

ETHNOLOGY

Prevalence of snoring and sleep breathing–related disorders in Chinese, Malay and Indian adults in Singapore. Ng TP, et al. **Eur Respir J** 1998 Jul;12(1):198–203

Comparison of the severity of sleep–disordered breathing in Asian and Caucasian patients seen at a sleep disorders center. Ong KC, et al. **Respir Med** 1998 Jun;92(6):843–8

Comparative clinical and physiological features of Maori, Pacific Islanders and Europeans with sleep related breathing disorders. Baldwin DR, et al. **Respirology** 1998 Dec;3(4):253–60

ETIOLOGY

Influence of nasal obstruction on obstructive sleep apnea. Miyazaki S, et al. **Acta Otolaryngol Suppl (Stockh)** 1998; 537:43–6

Sleep–disordered breathing in alcoholics. Aldrich MS, et al. **Alcohol Clin Exp Res** 1999 Jan;23(1):134–40

Evolution of sleep apnea syndrome in sleepy snorers: a population–based prospective study. Lindberg E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2024–7

Progressive retropalatal narrowing preceding obstructive apnea. Morrell MJ, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1974–81

Risk factors for sleep–disordered breathing in children. Associations with obesity, race, and respiratory problems. Redline S, et al. **Am J Respir Crit Care Med** 1999 May; 159(5 Pt 1):1527–32

Ventilatory pattern and associated episodic hypoxaemia in the late postoperative period in the general surgical ward. Rosenberg J, et al. **Anaesthesia** 1999 Apr;54(4):323–8

Incidence and sequelae of nocturnal respiratory obstruction following posterior pharyngeal flap operation. Wells MD, et al. **Ann Plast Surg** 1999 Sep;43(3):252–7

Obstructive sleep apnoea in children [letter; comment] Rees JH, et al. **Arch Dis Child** 1998 Nov;79(5):465. Comment on: Arch Dis Child 1998 Jan;78(1):20–5.

Sleep apnoea in hypothyroidism [letter] Park KE, et al. **Aust N Z J Med** 1998 Oct;28(5):665–6

Influence of pulmonary capillary wedge pressure on central apnea in heart failure. Solin P, et al. **Circulation** 1999 Mar 30;99(12):1574–9

A three–centre prospective pilot study to elucidate the effect of uvulopalatopharyngoplasty on patients with mild obstructive sleep apnoea due to velopharyngeal obstruction. Myatt HM, et al. **Clin Otolaryngol** 1999 Apr; 24(2):95–103

Changes in airway and hyoid position in response to mandibular protrusion in subjects with obstructive sleep apnoea (OSA). Battagel JM, et al. **Eur J Orthod** 1999 Aug; 21(4):363–76 (46 ref.)

Effect of obesity and erect/supine posture on lateral cephalometry: relationship to sleep–disordered breathing. Brander PE, et al. **Eur Respir J** 1999 Feb;13(2):398–402

Obstructive sleep apnoea in acromegaly: the role of craniofacial changes. Hochban W, et al. **Eur Respir J** 1999 Jul;14(1):196–202

Central sleep apnoea in Arnold–Chiari malformation: evidence of pathophysiological heterogeneity. Rabec C, et al. **Eur Respir J** 1998 Dec;12(6):1482–5

Central sleep apnoea in congestive heart failure despite vagal denervation after bilateral lung transplantation. Solin P, et al. **Eur Respir J** 1998 Aug;12(2):495–8

Autonomic dysfunction in patients with nocturnal hypoventilation in extrapulmonary restrictive disease. Watson JP, et al. **Eur Respir J** 1999 May;13(5):1097–102

An unusual cause of obstructive sleep apnoea. Chu CM, et al. **Hosp Med** 1999 Mar;60(3):214–5

Changes of arterial oxygen saturation (SpO2) following push–back operation. Iida S, et al. **Int J Oral Maxillofac Surg** 1998 Dec;27(6):425–7

Obesity and obstructive sleep apnea syndrome. Chin K, et al. **Intern Med** 1999 Feb;38(2):200–2 (20 ref.)

An unusual cause of obstructive sleep apnoea presenting during pregnancy. Taibah K, et al. **J Laryngol Otol** 1998 Dec;112(12):1189–91

Sleep, respiration and ALS [editorial; comment] Aboussouan LS, et al. **J Neurol Sci** 1999 Mar 15;164(1):1–2. Comment on: J Neurol Sci 1999 Mar 15;164(1):37–43. Comment on: J Neurol Sci 1999 Mar 15;164(1):82–8.

Sleep–disordered breathing at an early stage of amyotrophic lateral sclerosis [see comments] Kimura K, et al. **J Neurol Sci** 1999 Mar 15;164(1):37–43. Comment in: J Neurol Sci 1999 Mar 15;164(1):1–2.

Complete glottic closure during central apnea in lambs. Lemaire D, et al. **J Otolaryngol** 1999 Feb;28(1):13–9

Aetiological factors and development in subjects with obstructive sleep apnoea. Harvey JM, et al. **J Paediatr Child Health** 1999 Apr;35(2):140–4

Clinical versus polysomnographic profiles in children with obstructive sleep apnoea. Masters IB, et al. **J Paediatr Child Health** 1999 Feb;35(1):49–54

Airway closure during mixed apneas in preterm infants: is respiratory effort necessary? [see comments] Idiong N, et al. **J Pediatr** 1998 Oct;133(4):509–12. Comment in: J Pediatr 1999 Jun;134(6):796–8.

The difference between delayed extubation and tracheostomy in post–operative sleep apnea after glossectomy or laryngectomy. Saito T, et al. **Jpn J Clin Oncol** 1999 Mar; 29(3):127–31

Edentulism and worsening of obstructive sleep apnoea [letter] Bucca C, et al. **Lancet** 1999 Jan 9;353(9147):121–2

Hormone replacement therapy may alleviate sleep apnea in menopausal women: a pilot study [see comments] Keefe DL, et al. **Menopause** 1999 Fall;6(3):196–200. Comment in: Menopause 1999 Fall;6(3):186–7.

Sleep apnea in menopause [editorial; comment] Regestein QR. **Menopause** 1999 Fall;6(3):186–7. Comment on: Menopause 1999 Fall;6(3):196–200.

Implications of pathophysiology for management of the obstructive sleep apnoea syndrome. McNicholas WT. **Monaldi Arch Chest Dis** 1998 Oct;53(5):524–9 (64 ref.)

Apnea and periodic breathing during sleep [editorial; comment] Cherniack NS. **N Engl J Med** 1999 Sep 23; 341(13):985–7. Comment on: N Engl J Med 1999 Sep 23;341(13):949–54.

A mechanism of central sleep apnea in patients with heart failure [see comments] Javaheri S. **N Engl J Med** 1999 Sep 23;341(13):949–54. Comment in: N Engl J Med 1999 Sep 23;341(13):985–7.

Prevalence and severity of sleep disordered breathing in a group of morbidly obese patients [see comments] van Boxem TJ, et al. **Neth J Med** 1999 May;54(5):202–6. Comment in: Neth J Med 1999 May;54(5):184–7. Comment in: Neth J Med 1999 May;54(5):188–90.

Sleep complaints and sleep disordered breathing in hemodialysis patients. Venmans BJ, et al. **Neth J Med** 1999 May;54(5):207–12

Edema in the upper airway in patients with obstructive sleep apnea syndrome. Anastassov GE, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Dec;86(6):644–7

The nasal airway and obstructed breathing during sleep. Mirza N, et al. **Otolaryngol Clin North Am** 1999 Apr; 32(2):243–62 (61 ref.)

Clinical significance of sleep–related breathing disorders in patients with implantable cardioverter defibrillators. Fries R, et al. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 2):223–7

Cervical headgear therapy as a factor in obstructive sleep apnea syndrome. Pirilä–Parkkinen K, et al. **Pediatr Dent** 1999 Jan–Feb;21(1):39–45

Airway disorders in hemifacial microsomia. Cohen SR, et al. **Plast Reconstr Surg** 1999 Jan;103(1):27–33

Multiple cardiovascular risk factors in obstructive sleep apnea syndrome patients and an attempt at lifestyle modification using telemedicine–based education. Oki Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):311–3

Sleep–related disorders and chronic obstructive pulmonary disease. Brown LK. **Respir Care Clin N Am** 1998 Sep; 4(3):493–512 (97 ref.)

Appearance of central apnoea in a patient treated by auto–CPAP for obstructive sleep apnoea. Boudewyns A, et al. **Respir Med** 1998 Jun;92(6):891–3

Nasopharyngeal symptoms in patients with obstructive sleep apnea syndrome. Effect of nasal CPAP treatment. Brander PE, et al. **Respiration** 1999;66(2):128–35

Sleep apnoea caused by rheumatoid arthritis [letter] Hamilton J, et al. **Rheumatology (Oxford)** 1999 Jul;38(7):679–80

Effect of high versus low ambient humidity on the severity of obstructive sleep apnoea. Jokic R, et al. **Thorax** 1999 Aug;54(8):711–3

Sex differences and sleep apnoea [editorial; comment] Schwab J. **Thorax** 1999 Apr;54(4):284–5. Comment on: Thorax 1999 Apr;54(4):323–8.

Relief of sleep apnea after intravascular stenting for superior vena cava syndrome. Fernandez B Jr, et al. **Vasc Med** 1999; 4(1):33–6

[Sleep–related cardiac insufficiency and respiratory disorders. Prevalence, physiopathology, and treatment] Escourrou P, et al. **Rev Mal Respir** 1999 Apr;16(2):161–71 (Eng. Abstr.) **(Fre)**

[Central apnea with consciousness impairment due to Listeria rhombencephalitis sequelae] Milhaud D, et al. **Rev Neurol (Paris)** 1999 Feb;155(2):152–4 (Eng. Abstr.) **(Fre)**

[A 51–year–old patient with arterial hypertension, respiratory insufficiency and polycythemia--an unusual cause of nocturnal sleep–associated breathing disorder] Krabbe C, et al. **Dtsch Med Wochenschr** 1999 Jun 11;124(23):721–6 (Eng. Abstr.) **(Ger)**

[Influence of nasal obstruction on sleep–associated breathing disorders] Dreher A, et al. **Laryngorhinootologie** 1999 Jun; 78(6):313–7 (82 ref.) (Eng. Abstr.) **(Ger)**

[Apnea–hypopnea. Single or two entities? (letter; comment)] Schäfer H. **Pneumologie** 1998 Nov;52(11):655. Comment on: Pneumologie 1998 Jun;52(6):311–8. **(Ger)**

[Long central apnea as the chief symptom of aseptic meningoencephalitis in a 6–week–old infant] Kurz H, et al. **Wien Klin Wochenschr** 1999 Apr 9;111(7):294–7 (Eng. Abstr.) **(Ger)**

[New indication for adenoidectomy–tonsillectomy in children: elimination of obstruction in obstructive sleep apnea syndrome] Mozata Nuñez JR, et al. **Acta Otorrinolaringol Esp** 1999 Jan–Feb;50(1):47–50 (Eng. Abstr.) **(Spa)**

[Respiratory sleep disorders in COPD] Masa Jiménez JF. **Arch Bronconeumol** 1999 May;35 Suppl 3:28–33 (64 ref.) **(Spa)**

GENETICS

Obstructive sleep apnoea syndrome in hereditary gelsolin–related amyloidosis. Kiuru S, et al. **J Sleep Res** 1999 Jun;8(2):143–9

HISTORY

[Pickwick or Pliny?] Sauret Valet J. **Arch Bronconeumol** 1999 Feb;35(2):91–3 **(Spa)**

IMMUNOLOGY

Autoantibodies against oxidised low–density lipoprotein in patients with obstructive sleep apnoea. Saarelainen S, et al. **Clin Chem Lab Med** 1999 May;37(5):517–20

METABOLISM

Regulation of ventilation before and after sleep in patients with obstructive sleep apnoea. Fuse K, et al. **Respirology** 1999 Jun;4(2):125–30

MORTALITY

Is sleep disordered breathing associated with increased mortality? [editorial; comment] Fleetham JA. **Thorax** 1998 Aug;53(8):627–8. Comment on: Thorax 1998 Aug;53(8):631–7.

Increased mortality among sleepy snorers: a prospective population based study [see comments] Lindberg E, et al. **Thorax** 1998 Aug;53(8):631–7. Comment in: Thorax 1998 Aug;53(8):627–8.

PATHOLOGY

Fluoroscopic MR of the pharynx in patients with obstructive sleep apnea. Jäger L, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1205–14

Cephalometric abnormalities in non–obese and obese patients with obstructive sleep apnoea. Sakakibara H, et al. **Eur Respir J** 1999 Feb;13(2):403–10

Craniofacial modifications in children with habitual snoring and obstructive sleep apnoea: a case–control study. Zucconi M, et al. **Eur Respir J** 1999 Feb;13(2):411–7

Edema in the upper airway in patients with obstructive sleep apnea syndrome. Anastassov GE, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Dec;86(6):644–7

A heated humidifier reduces upper airway dryness during continuous positive airway pressure therapy. Wiest GH, et al. **Respir Med** 1999 Jan;93(1):21–6

PHYSIOPATHOLOGY

Ondine's curse and its inverse syndrome. Respiratory failure in autonomic vs. voluntary control. Yasuma F, et al. **Adv Exp Med Biol** 1998;450:179–84

Contributions of hypoxia and respiratory disturbance index to sympathetic activation and blood pressure in obstructive sleep apnea syndrome. Peled N, et al. **Am J Hypertens** 1998 Nov;11(11 Pt 1):1284–9

Health status in obstructive sleep apnea: relationship with sleep fragmentation and daytime sleepiness, and effects of continuous positive airway pressure treatment. Bennett LS, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1884–90

Baroreflex control of heart rate in a canine model of obstructive sleep apnea. Brooks D, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1293–7

Patients with obstructive sleep apnea exhibit genioglossus dysfunction that is normalized after treatment with continuous positive airway pressure. Carrera M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1960–6

Instability of ventilatory control in patients with obstructive sleep apnea. Hudgel DW, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1142–9

Collapsibility of passive pharynx in patients with acromegaly. Isono S, et al. **Am J Respir Crit Care Med** 1999 Jul; 160(1):64–8

Evolution of sleep apnea syndrome in sleepy snorers: a population–based prospective study. Lindberg E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2024–7

Manifestation of pulmonary hypertension during REM sleep in obstructive sleep apnea syndrome. Niijima M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1766–72

Daytime pulmonary hemodynamics in patients with obstructive sleep apnea without lung disease. Sajkov D, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1518–26

Dysfunctional mechanical coupling of upper airway tissues in sleep apnea syndrome. Series F, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1551–5

Pharyngeal critical pressure in patients with obstructive sleep apnea syndrome. Clinical implications. Sforza E, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):149–57

Variation in the arousal pattern after obstructive events in obstructive sleep apnea. Stradling JR, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):130–6

Postoperative obstructive apnea. Dhonneur G, et al. **Anesth Analg** 1999 Sep;89(3):762–7

Ventilatory response to CO2 in children with obstructive sleep apnea from adenotonsillar hypertrophy. Strauss SG, et al. **Anesth Analg** 1999 Aug;89(2):328–32

Mandibular posture during sleep in patients with obstructive sleep apnoea. Miyamoto K, et al. **Arch Oral Biol** 1999 Aug; 44(8):657–64

Early detection of upper airway obstructions by analysis of acoustical respiratory input impedance. Reisch S, et al. **Biol Cybern** 1999 Jul;81(1):25–37

Inspiratory flow–volume curve in snoring patients with and without obstructive sleep apnea. Amado VM, et al. **Braz J Med Biol Res** 1999 Apr;32(4):407–11

Cardiogenic oscillations on the airflow signal during continuous positive airway pressure as a marker of central apnea. Ayappa I, et al. **Chest** 1999 Sep;116(3):660–6

Role of peripheral serotonin in the regulation of central sleep apneas in rats. Carley DW, et al. **Chest** 1999 May; 115(5):1397–401

Relationship of arousals from sleep to sympathetic nervous system activity and BP in obstructive sleep apnea. Loredo JS, et al. **Chest** 1999 Sep;116(3):655–9

Comparison of respiratory polysomnographic parameters in matched cohorts of upper airway resistance and obstructive sleep apnea syndrome patients. Loube DI, et al. **Chest** 1999 Jun;115(6):1519–24

Impaired swallowing reflex in patients with obstructive sleep apnea syndrome. Teramoto S, et al. **Chest** 1999 Jul; 116(1):17–21

Selective potentiation of peripheral chemoreflex sensitivity in obstructive sleep apnea. Narkiewicz K, et al. **Circulation** 1999 Mar 9;99(9):1183–9

Prevalence of ventricular late potentials in patients with obstructive sleep apnea syndrome. Sanner BM, et al. **Clin Cardiol** 1999 Mar;22(3):219–24

Subjective and objective indices of sleepiness (ESS and MWT) are not equally useful in patients with sleep apnea. Sangal RB, et al. **Clin Electroencephalogr** 1999 Apr; 30(2):73–5

Vigilance transitions in reaction time test: a method of describing the state of alertness more objectively. Conradt R, et al. **Clin Neurophysiol** 1999 Sep;110(9):1499–509

Does short–term treatment with modafinil affect blood pressure in patients with obstructive sleep apnea? Heitmann J, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):328–35

The effect of a very low–calorie diet–induced weight loss on the severity of obstructive sleep apnoea and autonomic nervous function in obese patients with obstructive sleep apnoea syndrome. Kansanen M, et al. **Clin Physiol** 1998 Jul;18(4):377–85

Reduced cardiac sympathetic autonomic tone after long–term nasal continuous positive airway pressure in obstructive sleep apnoea syndrome. Roche F, et al. **Clin Physiol** 1999 Mar;19(2):127–34

Reproducibility of abnormal heart rate variability indices: the case of hypertensive sleep apnoea syndrome. Salo TM, et al. **Clin Physiol** 1999 May;19(3):258–68

Resolution of obstructive sleep apnoea with growth in the Robin sequence. Kiely JL, et al. **Eur Respir J** 1998 Aug; 12(2):499–501

Does arousal frequency predict daytime function? [see comments] Kingshott RN, et al. **Eur Respir J** 1998 Dec; 12(6):1264–70. Comment in: Eur Respir J 1998 Dec;12(6):1239–41.

Expiratory flow limitation in awake sleep–disordered breathing subjects. Liistro G, et al. **Eur Respir J** 1999 Jul; 14(1):185–90

Arousal in the sleep apnoea syndrome: a mixed blessing? [editorial; comment] McNicholas WT. **Eur Respir J** 1998 Dec;12(6):1239–41. Comment on: Eur Respir J 1998 Dec;12(6):1257–63. Comment on: Eur Respir J 1998 Dec;12(6):1264–70.

Depression of peripheral chemosensitivity by a dopaminergic mechanism in patients with obstructive sleep apnoea syndrome. Osanai S, et al. **Eur Respir J** 1999 Feb; 13(2):418–23

Value of beat–to–beat blood pressure changes, detected by pulse transit time, in the management of the obstructive sleep apnoea/hypopnoea syndrome. Pitson DJ, et al. **Eur Respir J** 1998 Sep;12(3):685–92

Pulmonary haemodynamics in obstructive sleep apnoea: time course and associated factors. Schäfer H, et al. **Eur Respir J** 1998 Sep;12(3):679–84

Periodic breathing during sleep in patients affected by fibromyalgia syndrome. Sergi M, et al. **Eur Respir J** 1999

Jul;14(1):203–8

Upper airway mucosa temperature in obstructive sleep apnoea/hypopnoea syndrome, nonapnoeic snorers and nonsnorers. Séries F, et al. **Eur Respir J** 1998 Jul; 12(1):193–7

Nocturnal evolution of respiratory effort in obstructive sleep apnoea syndrome: influence on arousal threshold [see comments] Sforza E, et al. **Eur Respir J** 1998 Dec; 12(6):1257–63. Comment in: Eur Respir J 1998 Dec;12(6):1239–41.

Respiratory control during upper airway infection mechanism for prolonged reflex apnoea and sudden infant death with special reference to infant sleep position. Lindgren C. **FEMS Immunol Med Microbiol** 1999 Aug 1; 25(1–2):97–102 (45 ref.)

Toward prediction of physiological state signals in sleep apnea. Bock J, et al. **IEEE Trans Biomed Eng** 1998 Nov; 45(11):1332–41

First results on daytime submandibular electrostimulation of suprahyoidal muscles to prevent night–time hypopharyngeal collapse in obstructive sleep apnea syndrome. Wiltfang J, et al. **Int J Oral Maxillofac Surg** 1999 Feb;28(1):21–5

Acute effects of nasal continuous positive airway pressure on 24–hour blood pressure and catecholamines in patients with obstructive sleep apnea. Minemura H, et al. **Intern Med** 1998 Dec;37(12):1009–13

Within–night variation in respiratory effort preceding apnea termination and EEG delta power in sleep apnea. Berry RB, et al. **J Appl Physiol** 1998 Oct;85(4):1434–41

Perinatal nicotine exposure impairs ability of newborn rats to autoresuscitate from apnea during hypoxia. Fewell JE, et al. **J Appl Physiol** 1998 Dec;85(6):2066–74

Patients with obstructive sleep apnea have an abnormal peripheral vascular response to hypoxia. Remsburg S, et al. **J Appl Physiol** 1999 Sep;87(3):1148–53

Modeling of airflow in the pharynx with application to sleep apnea. Shome B, et al. **J Biomech Eng** 1998 Jun; 120(3):416–22

Haemodynamic responses to obstructive sleep apnoeas in premenopausal women. Edwards N, et al. **J Hypertens** 1999 May;17(5):603–10

A polysomnographic study on masticatory and tongue muscle activity during obstructive and central sleep apnea. Yoshida K. **J Oral Rehabil** 1998 Aug;25(8):603–9

Nocturnal oxygen desaturation in coronary artery disease. Cilli A, et al. **Jpn Heart J** 1999 Jan;40(1):23–9

Sleep–disordered breathing in chronic stable heart failure. Lipkin DP. **Lancet** 1999 Aug 14;354(9178):531–2

Efficacy of endoscopic static pressure/area assessment of the passive pharynx in predicting uvulopalatopharyngoplasty outcomes. Isono S, et al. **Laryngoscope** 1999 May; 109(5):769–74

Non–CPAP treatment of obstructive sleep apnoea. De Backer W. **Monaldi Arch Chest Dis** 1998 Dec;53(6):625–9 (43 ref.)

Implications of pathophysiology for management of the obstructive sleep apnoea syndrome. McNicholas WT. **Monaldi Arch Chest Dis** 1998 Oct;53(5):524–9 (64 ref.)

Introduction to the mechanism of obstructive sleep apnoea and snoring. Simonds AK. **Monaldi Arch Chest Dis** 1998 Dec;53(6):617–20 (7 ref.)

The Epworth Sleepiness Scale may not reflect objective measures of sleepiness or sleep apnea. Chervin RD, et al. **Neurology** 1999 Jan 1;52(1):125–31

Cerebral hemodynamic changes in sleep apnea syndrome and effect of continuous positive airway pressure treatment. Diomedi M, et al. **Neurology** 1998 Oct;51(4):1051–6

Comparison of methods of airway evaluation in obstructive sleep apnea syndrome. Woodson BT, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):460–3

Resolution of obstructive sleep apnea syndrome after adenoidectomy in congenital central hypoventilation syndrome. Kurz H, et al. **Pediatr Pulmonol** 1999 May; 27(5):341–6

Decreased autonomic responses to obstructive sleep events in future victims of sudden infant death syndrome. Franco P, et al. **Pediatr Res** 1999 Jul;46(1):33–9

Pathogenesis of obstructive sleep apnea. Badr MS. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):323–30 (37 ref.)

Cardiovascular morbidity in obstructive sleep apnea. Weiss JW, et al. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):367–76 (68 ref.)

Polysomnographic and urodynamic changes in a case of obstructive sleep apnea syndrome with enuresis. Arai H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):319–20

Frequent breathing–related electroencephalogram arousals in four patients with mild obstructive sleep apneas. Mikami A, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):307–9

The spectrum of sleep–disordered breathing. Anstead M, et al. **Respir Care Clin N Am** 1999 Sep;5(3):363–77, viii (58 ref.)

Pituitary reactivity, androgens and catecholamines in obstructive sleep apnoea. Effects of continuous positive airway pressure treatment (CPAP). Bratel T, et al. **Respir Med** 1999 Jan;93(1):1–7

The role of the expiratory phase in obstructive sleep apnoea. Resta O, et al. **Respir Med** 1999 Mar;93(3):190–5

Ventilatory dynamics of transient arousal in patients with obstructive sleep apnea. Khoo MC, et al. **Respir Physiol** 1998 Jun;112(3):291–303

Relationship between CO2 drive and characteristics of apneas in obstructive and central sleep apnea. Verbraecken J, et al. **Respir Physiol** 1998 Nov;114(2):185–94

The eye catcher. Ondine's curse. Kuhn M, et al. **Respiration** 1999;66(3):265

Regulation of ventilation before and after sleep in patients with obstructive sleep apnoea. Fuse K, et al. **Respirology** 1999 Jun;4(2):125–30

Volume–pressure properties of the upper airway in normal subjects and patients with obstructive sleep apnoea. Wu D, et al. **Respirology** 1999 Mar;4(1):69–75

Blood flow of the middle cerebral artery with sleep–disordered breathing: correlation with obstructive hypopneas [letter; comment] Leslie WD, et al. **Stroke** 1999 Jan;30(1):188–90. Comment on: Stroke 1998 Jan;29(1):87–93.

Evaluation of forced oscillation technique for early detection of airway obstruction in sleep apnea: a model study. Reisch S, et al. **Technol Health Care** 1998 Nov;6(4):245–57

Oral airway resistance during wakefulness in patients with obstructive sleep apnoea. Amis TC, et al. **Thorax** 1999 May; 54(5):423–6

Sleep apnoea and autonomic function. Zwillich CW. **Thorax** 1998 Oct;53 Suppl 3:S20–4 (34 ref.)

Relief of sleep apnea after intravascular stenting for superior vena cava syndrome. Fernandez B Jr, et al. **Vasc Med** 1999; 4(1):33–6

[Dilator muscles of the pharynx and their implication in the sleep apnea syndrome of obstructive type. Review of the literature] Blumen M, et al. **Ann Otolaryngol Chir Cervicofac** 1998 May;115(2):73–84 (91 ref.) (Eng. Abstr.) **(Fre)**

[Pharyngeal muscles and sleep obstructive apnea syndrome] Fleury B. **Rev Mal Respir** 1999 Feb;16(1):51–6 (44 ref.) (Eng. Abstr.) **(Fre)**

[Physiopathology of sleep obstructive respiratory disorders. Experimental methods and practical applications] Séries F. **Rev Mal Respir** 1999 Feb;16(1):39–49 (Eng. Abstr.) **(Fre)**

[Autonomic nervous system and obstructive sleep apneas] Smith R, et al. **Rev Mal Respir** 1999 Jun;16(3):287–304 (108 ref.) (Eng. Abstr.) **(Fre)**

[Follow–up of acoustic respiratory impedance in simulated obstruction of the upper airways] Reisch S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:306–7 **(Ger)**

[Influence of nasal obstruction on sleep–associated breathing disorders] Dreher A, et al. **Laryngorhinootologie** 1999 Jun; 78(6):313–7 (82 ref.) (Eng. Abstr.) **(Ger)**

[Evaluation of sleep fragmentation by EEG spectrography in patients with obstructive sleep apnea syndrome] Nakano H, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May; 37(5):368–73 (Eng. Abstr.) **(Jpn)**

[The influence of sleep breathing disorder on growth hormone secretion in children with tonsil hypertrophy] Chiba S, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul; 101(7):873–8 (Eng. Abstr.) **(Jpn)**

[The relationship between subjective sleepiness and polysomnographic findings in sleep apnea syndrome] Yagi T, et al. **Rinsho Byori** 1998 Nov;46(11):1168–72 (Eng. Abstr.) **(Jpn)**

[Chronobiology in medical practice] Markiewicz A. **Postepy Hig Med Dosw** 1999;53(3):473–82 (32 ref.) (Eng. Abstr.) **(Pol)**

PREVENTION & CONTROL

A prospective randomized study of a dental appliance compared with uvulopalatopharyngoplasty in the treatment of obstructive sleep apnoea. Wilhelmsson B, et al. **Acta Otolaryngol** 1999;119(4):503–9

Fatigue in mothers of infants discharged to the home on apnea monitors. Williams PD, et al. **Appl Nurs Res** 1999 May;12(2):69–77

First results on daytime submandibular electrostimulation of suprahyoidal muscles to prevent night–time hypopharyngeal collapse in obstructive sleep apnea syndrome. Wiltfang J, et al. **Int J Oral Maxillofac Surg** 1999 Feb;28(1):21–5

Preventing sleep apnea [news] **J Am Dent Assoc** 1999 Mar; 130(3):328, 332

The VIIIth ESPID Conference (European Society for the Study and Prevention of Infant Death), the International Conference on Prevention of Infantile Apnea and Sudden Infant Death on the Verge of the Millenium. Jerusalem, Israel, May 30–June 3, 1999. Abstracts. **Pediatr Res** 1999 May;45(5 Pt 2):1A–52A

Nasopharyngeal symptoms in patients with obstructive sleep apnea syndrome. Effect of nasal CPAP treatment. Brander PE, et al. **Respiration** 1999;66(2):128–35

Oral appliances for the management of snoring and obstructive sleep apnoea. Bennett LS, et al. **Thorax** 1998 Aug;53 Suppl 2:S58–64 (47 ref.)

PSYCHOLOGY

Daytime functioning in obstructive sleep apnea patients: exercise tolerance, subjective fatigue, and sleepiness. Aguillard RN, et al. **Appl Psychophysiol Biofeedback** 1998 Dec;23(4):207–17

Temporal stability of the Wisconsin Card Sorting Test in an untreated patient sample. Ingram F, et al. **Br J Clin Psychol** 1999 Jun;38 (Pt 2):209–11

The perception of sleep as a function of the level of daytime sleepiness among patients with obstructive sleep apnea. Bishop C, et al. **Compr Psychiatry** 1998 Sep–Oct; 39(5):312–7

Sleep and daytime behavior in children with obstructive sleep apnea and behavioral sleep disorders. Owens J, et al. **Pediatrics** 1998 Nov;102(5):1178–84

The behavioral morbidity of obstructive sleep apnea. Day R, et al. **Prog Cardiovasc Dis** 1999 Mar–Apr;41(5):341–54 (80 ref.)

RADIOGRAPHY

The prevalence of carotid atheromas seen on panoramic radiographs of patients with obstructive sleep apnea and their relation to risk factors for atherosclerosis. Friedlander AH, et al. **J Oral Maxillofac Surg** 1999 May;57(5):516–21; discussion 521–2

Upper airway assessment: radiographic and other imaging techniques. Schwab RJ, et al. **Otolaryngol Clin North Am** 1998 Dec;31(6):931–68 (111 ref.)

Obstructive sleep apnea syndrome: hooked appearance of the soft palate in awake patients—cephalometric and CT findings. Pépin JL, et al. **Radiology** 1999 Jan;210(1):163–70

RADIONUCLIDE IMAGING

Blood flow of the middle cerebral artery with sleep–disordered breathing: correlation with obstructive hypopneas [letter; comment] Leslie WD, et al. **Stroke** 1999 Jan;30(1):188–90. Comment on: Stroke 1998 Jan;29(1):87–93.

REHABILITATION

The anterior mandibular positioning device for the treatment of obstructive sleep apnoea syndrome: experience with the Serenox. Pellanda A, et al. **Clin Otolaryngol** 1999 Apr; 24(2):134–41

[Influence of the Esmarch splint on chewing and tongue muscle activity during sleep] Yoshida K. **Nervenarzt** 1998 Aug;69(8):666–70 (Eng. Abstr.) **(Ger)**

[Intra–oral therapy of borderline sleep–related respiratory disorders with a modified protrusion–fixation of the mandible] Athen B, et al. **Pneumologie** 1999 Feb;53(2):88–91 (Eng. Abstr.) **(Ger)**

SURGERY

Children with nocturnal upper airway obstruction: postoperative orthodontic and respiratory improvement. Agren K, et al. **Acta Otolaryngol (Stockh)** 1998 Jul; 118(4):581–7

Evaluation of uvulopalatopharyngoplasty in treatment of obstructive sleep apnea syndrome. Elasfour A, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;537:52–6

Histopathologic changes of the soft palate after laser–assisted uvulopalatoplasty. Berger G, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jul;125(7):786–90

Effect of treating obstructive sleep apnea by tonsillectomy and/or adenoidectomy on obesity in children. Soultan Z, et al. **Arch Pediatr Adolesc Med** 1999 Jan;153(1):33–7

Objective evaluations of the results of treatment for snoring and sleep apnea [letter; comment] Kehoe TJ, et al. **Chest** 1999 Jan;115(1):305–7. Comment on: Chest 1998 May;113(5):1163–74.

The effect of adenotonsillectomy in children with OSA. Shintani T, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jun 1;44(1):51–8

New treatment helps patients breathe easier [news] **J Am Dent Assoc** 1998 Nov;129(11):1528, 1532

The epiglottis and obstructive sleep apnoea syndrome. Catalfumo FJ, et al. **J Laryngol Otol** 1998 Oct; 112(10):940–3

Laser assisted uvulopalatoplasty: six and eighteen month results. Wareing MJ, et al. **J Laryngol Otol** 1998 Jul; 112(7):639–41

The mandibular trapezoid osteotomy for the treatment of obstructive sleep apnea: report of a case [see comments] Dattilo DJ. **J Oral Maxillofac Surg** 1998 Dec;56(12):1442–6 . Comment in: J Oral Maxillofac Surg 1999 Aug;57(8):1027.

Staged surgical treatment of obstructive sleep apnea syndrome: a review of 35 patients. Lee NR, et al. **J Oral Maxillofac Surg** 1999 Apr;57(4):382–5

Six–month follow–up of children with obstructive sleep apnoea. Harvey JM, et al. **J Paediatr Child Health** 1999 Apr;35(2):136–9

The effect of adenotonsillectomy on serum insulin–like growth factor–I and growth in children with obstructive sleep apnea syndrome. Bar A, et al. **J Pediatr** 1999 Jul; 135(1):76–80

Alternatives to tracheostomy in infants and children with obstructive sleep apnea. Cohen SR, et al. **J Pediatr Surg** 1999 Jan;34(1):182–6; discussion 187

Sleep disordered breathing: an overview. Rosner DL. **J S C Med Assoc** 1998 Dec;94(12):542–5

Tongue base reduction with hyoepiglottoplasty: a treatment for severe obstructive sleep apnea. Chabolle F, et al. **Laryngoscope** 1999 Aug;109(8):1273–80

Efficacy of endoscopic static pressure/area assessment of the passive pharynx in predicting uvulopalatopharyngoplasty outcomes. Isono S, et al. **Laryngoscope** 1999 May; 109(5):769–74

Persisting dysphagia after uvulopalatoplasty performed with steel scalpel. Levring–Jägbagen E, et al. **Laryngoscope** 1999

Jan;109(1):86-90
Short-term objective and long-term subjective results of laser-assisted uvulopalatoplasty for obstructive sleep apnea. Mickelson SA, et al. **Laryngoscope** 1999 Mar;109(3):362-7
Body mass index less than 28 kg/m2 is a predictor of subjective improvement after laser-assisted uvulopalatoplasty for snoring. Rollheim J, et al. **Laryngoscope** 1999 Mar;109(3):411-4
Cosmetic enhancement associated with surgery for obstructive sleep apnea. Terris DJ. **Laryngoscope** 1999 Jul; 109(7 Pt 1):1045-50
Early polysomnographic findings and long-term subjective results in sleep apnea patients treated with laser-assisted uvulopalatoplasty. Walker RP, et al. **Laryngoscope** 1999 Sep;109(9):1438-41
Laser-assisted uvulopalatoplasty for the treatment of mild, moderate, and severe obstructive sleep apnea. Walker RP, et al. **Laryngoscope** 1999 Jan;109(1):79-85
Snoring, obstructive sleep apnea, and surgery. Barthel SW, et al. **Med Clin North Am** 1999 Jan;83(1):85-96 (104 ref.)
Oropharyngeal surgery in the management of upper airway obstruction during sleep. Coleman J, et al. **Otolaryngol Clin North Am** 1999 Apr;32(2):263-76 (33 ref.)
Suspension sutures for the treatment of obstructive sleep apnea and snoring. Coleman J, et al. **Otolaryngol Clin North Am** 1999 Apr;32(2):277-85 (8 ref.)
Oral and maxillofacial surgery for the management of obstructive sleep apnea syndrome. Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):235-41 (11 ref.)
Preoperative, intraoperative, and postoperative management of patients with obstructive sleep apnea syndrome. Johnson JT, et al. **Otolaryngol Clin North Am** 1998 Dec; 31(6):1025-30
Upper airway bypass surgery for obstructive sleep apnea syndrome. Mickelson SA. **Otolaryngol Clin North Am** 1998 Dec;31(6):1013-23 (19 ref.)
Long-term results of surgical management of sleep disordered breathing: are our patients really benefiting? Troell RJ, et al. **Otolaryngol Clin North Am** 1998 Dec; 31(6):1031-5 (13 ref.)
Surgical management of the hypopharyngeal airway in sleep disordered breathing. Troell RJ, et al. **Otolaryngol Clin North Am** 1998 Dec;31(6):979-1012 (55 ref.)
Effect of uvulopalatopharyngoplasty and genial and hyoid advancement on swallowing in patients with obstructive sleep apnea syndrome. Altman JS, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):454-7
Skeletal expansion combined with soft-tissue reduction in the treatment of obstructive sleep apnea in children: physiologic results. Cohen SR, et al. **Otolaryngol Head Neck Surg** 1998 Nov;119(5):476-85
Is postoperative intensive care monitoring necessary after uvulopalatopharyngoplasty? Mickelson SA, et al. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):352-6
Radiofrequency tongue base reduction in sleep-disordered breathing: A pilot study. Powell NB, et al. **Otolaryngol Head Neck Surg** 1999 May;120(5):656-64
Efficacy of laser-assisted uvulopalatoplasty in obstructive sleep apnea. Pribitkin EA, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):643-7
Obstructive sleep apnea in children with achondroplasia: surgical and anesthetic considerations. Sisk EA, et al. **Otolaryngol Head Neck Surg** 1999 Feb;120(2):248-54
Sleep apnea surgery versus tracheostomy in children: an exploratory study of the comparative effects on quality of life. Cohen SR, et al. **Plast Reconstr Surg** 1998 Nov; 102(6):1855-64
Surgical management of obstructive sleep apnea. Sher AE. **Prog Cardiovasc Dis** 1999 Mar-Apr;41(5):387-96 (47 ref.)
[Laser assisted uvulopalptoplasty treatment for obstructive sleep apnea syndrome] Bao J, et al. **Lin Chuang Erh Pi Yen Hou Ko Tsa Chih** 1997 Sep; 11(9):396-8 (Eng. Abstr.) **(Chi)**
[Surgical treatment of obstructive sleep apnea syndrome. An evidence-based agreement (see comments)] Backer V, et al. **Ugeskr Laeger** 1998 Nov 9;160(46):6629-31 (Eng. Abstr.). Comment in: Ugeskr Laeger 1999 Mar 29;161(13):1942-3. **(Dan)**
[Surgical treatment of obstructive sleep apnea syndrome (letter; comment)] Petri NE. **Ugeskr Laeger** 1999 Mar 29; 161(13):1942-3. Comment on: Ugeskr Laeger 1998 Nov 9;160(46):6629-31. **(Dan)**
[Tongue base reduction with hyoid-epiglottoplasty. A surgical alternative in severe sleep apnea syndromes] Chabolle F, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Dec;115(6):322-31 (Eng. Abstr.) **(Fre)**
[Surgical therapy of sleep-related respiratory disorders] Hörmann K, et al. **HNO** 1999 Apr;47(4):226-35 (37 ref.) (Eng. Abstr.) **(Ger)**
[Sleep-related respiratory disorders. Great need for research in diagnosis and therapy (editorial)] Pirsig W. **HNO** 1999 Apr;47(4):221-2 **(Ger)**
[Objective value of adenotonsillectomy in the child. A prospective study of incidence of tonsillitis, snoring, pulse oximetry and polysomnography and general development before and after adenotonsillectomy] Nuyens MR, et al. **Schweiz Rundsch Med Prax** 1999 May 12;88(20):893-9 (Eng. Abstr.) **(Ger)**
[New indication for adenoidectomy-tonsillectomy in children: elimination of obstruction in obstructive sleep apnea syndrome] Mozata Nuñez JR, et al. **Acta Otorrinolaringol Esp** 1999 Jan-Feb;50(1):47-50 (Eng. Abstr.) **(Spa)**
[Effectiveness of uvulopalatopharyngoplasty in snoring disorders and obstructive sleep apnea] Mozota Núñez JR, et al. **Acta Otorrinolaringol Esp** 1998 Nov-Dec; 49(8):629-32 (Eng. Abstr.) **(Spa)**

THERAPY

Nasopharyngeal symptoms and nasal continuous positive airway pressure therapy in obstructive sleep apnoea syndrome. Lojander J, et al. **Acta Otolaryngol** 1999; 119(4):497-502
Allergic contact dermatitis caused by dialkyl thioureas in a patient with sleep apnea. Scalf LA, et al. **Am J Contact Dermat** 1999 Sep;10(3):169-71
Evidence of the effectiveness of continuous positive airway pressure in the treatment of sleep apnea/hypopnea syndrome [published erratum appears in Am J Respir Crit Care Med 1999 May;159(5 Pt 1):1688] Ballester E, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):495-501
Patients with obstructive sleep apnea exhibit genioglossus dysfunction that is normalized after treatment with continuous positive airway pressure. Carrera M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1960-6
Randomized placebo-controlled crossover trial of continuous positive airway pressure for mild sleep Apnea/Hypopnea syndrome. Engleman HM, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):461-7
Can intensive support improve continuous positive airway pressure use in patients with the sleep apnea/hypopnea syndrome? Hoy CJ, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1096-100
Long-term use of CPAP therapy for sleep apnea/hypopnea syndrome. McArdle N, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1108-14
Diagnostic and treatment implications of nasal obstruction in snoring and obstructive sleep apnea. Scharf MB, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):279-87; quiz 287-90 (114 ref.)
Quality of life in patients with obstructive sleep apnea: effect of nasal continuous positive airway pressure--a prospective study. D'Ambrosio C, et al. **Chest** 1999 Jan;115(1):123-9
Positional treatment vs continuous positive airway pressure in patients with positional obstructive sleep apnea syndrome. Jokic R, et al. **Chest** 1999 Mar;115(3):771-81
Continuous positive airway pressure requirement during the first month of treatment in patients with severe obstructive sleep apnea. Jokic R, et al. **Chest** 1998 Oct;114(4):1061-9
Indications for positive airway pressure treatment of adult obstructive sleep apnea patients: a consensus statement. Loube DI, et al. **Chest** 1999 Mar;115(3):863-6
Obstructive sleep apnea in infants and its management with nasal continuous positive airway pressure. McNamara F, et al. **Chest** 1999 Jul;116(1):10-6
Treatment success with a mandibular advancement device is related to supine-dependent sleep apnea. Marklund M, et al. **Chest** 1998 Dec;114(6):1630-5
Effects of humidification on nasal symptoms and compliance in sleep apnea patients using continuous positive airway pressure. Massie CA, et al. **Chest** 1999 Aug;116(2):403-8
Daytime CPAP titration: a viable alternative for patients with severe obstructive sleep apnea. Rosenthal L, et al. **Chest** 1998 Oct;114(4):1056-60
Changes in intra-abdominal visceral fat and serum leptin levels in patients with obstructive sleep apnea syndrome following nasal continuous positive airway pressure therapy. Chin K, et al. **Circulation** 1999 Aug 17; 100(7):706-12
Clinical significance of arterial blood gas analysis for detection and/or treatment of central sleep apnea in patients with heart failure [letter] Teramoto S, et al. **Circulation** 1999 May 25;99(20):2709-12
Effects of continuous positive airway pressure on obstructive sleep apnea and left ventricular afterload in patients with heart failure. Tkacova R, et al. **Circulation** 1998 Nov 24; 98(21):2269-75
Sleep disordered breathing: our roles and responsibilities [editorial] Davidson TM. **Ear Nose Throat J** 1999 Sep; 78(9):682
An overview of sleep disordered breathing for the otolaryngologist. Sher AE. **Ear Nose Throat J** 1999 Sep; 78(9):694-5, 698-700, 703-6 passim (35 ref.)
Polysomnography and maintenance of wakefulness test as predictors of CPAP effectiveness in obstructive sleep apnea. Tiihonen M, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec; 107(6):383-6
Mandibular morphology and the efficacy of a mandibular advancement device in patients with sleep apnoea. Marklund M, et al. **Eur J Oral Sci** 1998 Oct;106(5):914-21
CPAP titration by an auto-CPAP device based on snoring detection: a clinical trial and economic considerations [see comments] Berkani M, et al. **Eur Respir J** 1998 Oct; 12(4):759-63. Comment in: Eur Respir J 1998 Oct;12(4):753-5.
Prognostic value of lung function and pulmonary haemodynamics in OSA patients treated with CPAP. Chaouat A, et al. **Eur Respir J** 1999 May;13(5):1091-6
Subjective efficacy of nasal CPAP therapy in obstructive sleep apnoea syndrome: a prospective controlled study. Kiely JL, et al. **Eur Respir J** 1999 May;13(5):1086-90
Simplified diagnostic procedure for obstructive sleep apnoea syndrome: lower subsequent compliance with CPAP. Krieger J, et al. **Eur Respir J** 1998 Oct;12(4):776-9
Auto-CPAP: an effective and low-cost procedure in the management of OSAS? [editorial; comment] Lévy P, et al. **Eur Respir J** 1998 Oct;12(4):753-5 (19 ref.). Comment on: Eur Respir J 1998 Oct;12(4):759-63.
A French survey of 3,225 patients treated with CPAP for obstructive sleep apnoea: benefits, tolerance, compliance and quality of life. Meslier N, et al. **Eur Respir J** 1998 Jul;12(1):185-92
Hunter's syndrome and associated sleep apnoea cured by CPAP and surgery. Orliaguet O, et al. **Eur Respir J** 1999 May;13(5):1195-7
Long-term efficacy of dietary weight loss in sleep apnoea/hypopnoea syndrome. Sampol G, et al. **Eur Respir J** 1998 Nov;12(5):1156-9
Effects of nasal CPAP therapy on respiratory and spontaneous arousals in infants with OSA. McNamara F, et al. **J Appl Physiol** 1999 Sep;87(3):889-96
Elastic retracted oral appliance to treat sleep apnea in mentally impaired patients and patients with neuromuscular disabilities. Yoshida K. **J Prosthet Dent** 1999 Feb; 81(2):196-201
Sleep apnoea: clinical importance and facilities for investigation and treatment in the UK. Addendum to the 1993 Royal College of Physicians Sleep Apnoea report [see comments] Gibson GJ, et al. **J R Coll Physicians Lond** 1998 Nov-Dec;32(6):540-4 (46 ref.). Comment in: J R Coll Physicians Lond 1999 Mar-Apr;33(2):191-2.
Sleep apnoea [letter; comment] Wight J. **J R Coll Physicians Lond** 1999 Mar-Apr;33(2):191-2. Comment on: J R Coll Physicians Lond 1998 Nov-Dec;32(6):540-4.
Sleep fragmentation and daytime vigilance in patients with OSA treated by surgical maxillomandibular advancement compared to CPAP therapy. Conradt R, et al. **J Sleep Res** 1998 Sep;7(3):217-23
The nocturnal secretion of cardiac natriuretic peptides during obstructive sleep apnoea and its response to therapy with nasal continuous positive airway pressure. Kita H, et al. **J Sleep Res** 1998 Sep;7(3):199-207
Sham continuous positive airway pressure for placebo-controlled studies in sleep apnoea [letter] Farré R, et al. **Lancet** 1999 Apr 3;353(9159):1154
Comparison of therapeutic and subtherapeutic nasal continuous positive airway pressure for obstructive sleep apnoea: a randomised prospective parallel trial [see comments] Jenkinson C, et al. **Lancet** 1999 Jun 19; 353(9170):2100-5. Comment in: Lancet 1999 Jun 19;353(9170):2086-7.
Continuous positive airway pressure for treatment of sleep apnoea [comment] Polo O. **Lancet** 1999 Jun 19; 353(9170):2086-7. Comment on: Lancet 1999 Jun 19;353(9170):2100-5.
Sleep apnoea [letter] Wright J, et al. **Lancet** 1999 Aug 14; 354(9178):600
Successful treatment of obstructive sleep apnea with use of nasal continuous positive airway pressure in three patients with mucosal hemangiomas of the oral cavity. Kimura K, et al. **Mayo Clin Proc** 1999 Feb;74(2):155-8
Autocontinuous positive airway pressure in the diagnosis and treatment of obstructive sleep apnoea. Braghiroli A, et al. **Monaldi Arch Chest Dis** 1998 Dec;53(6):621-4 (20 ref.)
Non-CPAP treatment of obstructive sleep apnoea. De Backer W. **Monaldi Arch Chest Dis** 1998 Dec;53(6):625-9 (43 ref.)
New frontiers in the management of obstructive sleep apnoea syndrome. Krieger J. **Monaldi Arch Chest Dis** 1998 Oct; 53(5):515-9 (29 ref.)
How to improve compliance to nasal continuous positive airway pressure in sleep apnoea syndrome. Rodenstein D. **Monaldi Arch Chest Dis** 1998 Oct;53(5):586-8 (15 ref.)
Cerebral hemodynamic changes in sleep apnea syndrome and effect of continuous positive airway pressure treatment. Diomedi M, et al. **Neurology** 1998 Oct;51(4):1051-6
Efficiency of continuous positive airway pressure versus theophylline therapy in sleep apnea: comparative sleep laboratory studies on objective and subjective sleep and awakening quality. Saletu B, et al. **Neuropsychobiology** 1999;39(3):151-9
Nonsurgical and surgical management of infants and children with obstructive sleep apnea syndrome. Postic WP, et al. **Otolaryngol Clin North Am** 1998 Dec;31(6):969-77
Advances in management of sleep apnea syndromes in infants and children. Marcus CL. **Pediatr Pulmonol Suppl** 1999; 18:188-9 (8 ref.)
Early decannulation with bilateral mandibular distraction for tracheostomy-dependent patients. Williams JK, et al. **Plast Reconstr Surg** 1999 Jan;103(1):48-57; discussion 58-9
Medical management of obstructive sleep apnea. Henderson JH 2nd, et al. **Prog Cardiovasc Dis** 1999 Mar-Apr; 41(5):377-86 (109 ref.)
Clinical efficacy of prosthetic mandibular advancement on obstructive sleep apnea syndrome. Ishida M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):323-5
Evaluation of the auto continuous positive airway pressure efficacy by upper airway pressure measurement. Miyazaki S, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):327-9
Improvement of factor VII clotting activity following long-term NCPAP treatment in obstructive sleep apnoea syndrome. Chin K, et al. **QJM** 1998 Sep;91(9):627-33
Treatment of obstructive sleep apnea. Hudgel DW, et al.

SLEEP APNEA SYNDROMES

Respir Care Clin N Am 1999 Sep;5(3):379–94, viii (75 ref.)
Sleep-disordered breathing in infants and children. Perkin RM, et al. **Respir Care Clin N Am** 1999 Sep;5(3):395–426, viii (122 ref.)
Appearance of central apnoea in a patient treated by auto-CPAP for obstructive sleep apnoea. Boudewyns A, et al. **Respir Med** 1998 Jun;92(6):891–3
Does the number of hypopnoeas influence therapy in patients with obstructive sleep apnoea? Carrera M, et al. **Respir Med** 1998 Aug;92(8):1028–31
Prescription of nCPAP and nBIPAP in obstructive sleep apnoea syndrome: Italian experience in 105 subjects. A prospective two centre study. Resta O, et al. **Respir Med** 1998 Jun;92(6):820–7
Eight-year follow-up study of a patient with central alveolar hypoventilation treated with diaphragm pacing. Yasuma F, et al. **Respiration** 1998;65(4):313–6
Effects of nasal continuous positive airway pressure on pulmonary haemodynamics and tissue oxygenation in patients with obstructive sleep apnoea. Akashiba T, et al. **Respirology** 1999 Mar;4(1):83–7
Treatment of sleep apnoea with continuous positive airway pressure in children with craniofacial malformations. Järund M, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):67–71
Treatment of obstructive sleep apnea syndrome by rapid maxillary expansion. Cistulli PA, et al. **Sleep** 1998 Dec 15; 21(8):831–5
Nasal resistance in snorers with or without sleep apnea: effect of posture and nasal ventilation with continuous positive airway pressure. Desfonds P, et al. **Sleep** 1998 Sep 15; 21(6):625–32
Dental side effects of an oral device to treat snoring and obstructive sleep apnea. Pantin CC, et al. **Sleep** 1999 Mar 15;22(2):237–40
Health care utilization in the 10 years prior to diagnosis in obstructive sleep apnea syndrome patients. Ronald J, et al. **Sleep** 1999 Mar 15;22(2):225–9
Fuzzy assessment of sleep-disordered breathing during continuous positive airway pressure therapy. Shin JJ, et al. **Sleep** 1998 Dec 15;21(8):817–28
Two months follow up of auto-CPAP treatment in patients with obstructive sleep apnoea. Boudewyns A, et al. **Thorax** 1999 Feb;54(2):147–9
CPAP therapy: outcomes and patient use. Douglas NJ, et al. **Thorax** 1998 Oct;53 Suppl 3:S47–8 (20 ref.)
Evaluation of an auto-CPAP device for treatment of obstructive sleep apnoea. Ficker JH, et al. **Thorax** 1998 Aug;53(8):643–8
Influence of nasal obstruction on auto-CPAP behaviour during sleep in sleep apnoea/hypopnoea syndrome. Lafond C, et al. **Thorax** 1998 Sep;53(9):780–3
Impact of treatment of sleep apnoea on left ventricular function in congestive heart failure. Naughton MT. **Thorax** 1998 Oct;53 Suppl 3:S37–40 (40 ref.)
Intelligent CPAP systems: clinical experience. Teschler H, et al. **Thorax** 1998 Oct;53 Suppl 3:S49–54 (34 ref.)
New strategies of screening and treatment for sleep apnea syndrome. Hida W. **Tohoku J Exp Med** 1998 Dec; 186(4):225–41 (120 ref.)
[Obstructive sleep apnea syndrome in children] Joosten KF, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2665–9 (25 ref.) (Eng. Abstr.) **(Dut)**
[Characteristics of patients with domiciliary equipment for chronic respiratory diseases in Martinique] Chenu E, et al. **Rev Pneumol Clin** 1998 Oct;54(5):245–50 (Eng. Abstr.) **(Fre)**
[Sleep-related respiration disorders: their relevance in intensive care medicine] Sanner BM, et al. **Dtsch Med Wochenschr** 1999 Mar 12;124(10):296–8 (34 ref.) **(Ger)**
[Sleep-phase-related home therapy in congenital central hypoventilation syndrome (CCHS)] Schäfer C, et al. **Med Klin** 1999 Apr;94(1 Spec No):15–7 (Eng. Abstr.) **(Ger)**
[From tracheostomy to non-invasive mask ventilation: a study in children with congenital central hypoventilation syndrome] Schäfer T, et al. **Med Klin** 1999 Apr;94(1 Spec No):66–9 (Eng. Abstr.) **(Ger)**
[Clinical significance of sleep apnea disorders after implantation of a cardioverter-defibrillator in patients with cardiac disease and sustained ventricular tachyarrhythmia] Fries R, et al. **Z Kardiol** 1998 Oct;87(10):826–31 (Eng. Abstr.) **(Ger)**
[Long-term effects of nasal continuous positive airway pressure on pulmonary function and blood gas data in patients with obstructive sleep apnea syndrome] Kosaka N, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Dec; 36(12):1011–6 (Eng. Abstr.) **(Jpn)**
[Sleep apnea syndrome] Miyamoto M, et al. **Nippon Naika Gakkai Zasshi** 1999 May 10;88(5):832–7 (8 ref.) **(Jpn)**
[Effective nasal CPAP therapy for heavy snoring and paradoxical respiration during sleep in a case of multiple system atrophy] Miyamoto M, et al. **Rinsho Shinkeigaku** 1998 Dec;38(12):1059–63 (14 ref.) (Eng. Abstr.) **(Jpn)**
[Sleep apnea-hypoapnea syndrome: treatment strategy with CPAP (letter)] Galán Dávila A, et al. **Arch Bronconeumol** 1998 Dec;34(11):568 **(Spa)**
[Efficacy of demand of positive airway pressure therapy for treating obstructive sleep apnea syndrome] Garcia Arroyo I, et al. **Arch Bronconeumol** 1999 May;35(5):208–13 (Eng. Abstr.) **(Spa)**
[Spontaneous pneumothorax associated with the use of nighttime BiPAP with a nasal mask (letter)] Herrejón Silvestre A, et al. **Arch Bronconeumol** 1998 Nov;34(10):512 **(Spa)**
[Treatment of sleep apnea-hypoapnea syndrome (letter; comment)] León Jiménez A. **Arch Bronconeumol** 1999 Feb; 35(2):100. Comment on: Arch Bronconeumol 1998 Apr;34(4):171–3. **(Spa)**
[Acute correction of nocturnal hypoxemia and sleep pattern using continuous nasal positive pressure in patients with obstructive sleep apnea syndrome] Diaz M, et al. **Gac Med Mex** 1998 Nov-Dec;134(6):669–75 (Eng. Abstr.) **(Spa)**

VETERINARY

Monitoring respiratory function and sleep in the obese Vietnamese pot-bellied pig. Tuck SA, et al. **J Appl Physiol** 1999 Jul;87(1):444–51

SLEEP DEPRIVATION

The effect of earplugs on sleep measures during exposure to simulated intensive care unit noise. Wallace CJ, et al. **Am J Crit Care** 1999 Jul;8(4):210–9
Patients in the intensive care unit suffer from severe lack of sleep associated with loss of normal melatonin secretion pattern. Shilo L, et al. **Am J Med Sci** 1999 May; 317(5):278–81
Cerebral glucose metabolic response to combined total sleep deprivation and antidepressant treatment in geriatric depression. Smith GS, et al. **Am J Psychiatry** 1999 May; 156(5):683–9
Prediction of antidepressant effects of sleep deprivation by metabolic rates in the ventral anterior cingulate and medial prefrontal cortex [published erratum appears in Am J Psychiatry 1999 Oct;156(10):1666] Wu J, et al. **Am J Psychiatry** 1999 Aug;156(8):1149–58
Involvement of stress in the sleep rebound mechanism induced by sleep deprivation in the rat: use of alpha-helical CRH (9–41). González MM, et al. **Behav Pharmacol** 1998 Dec;9(8):655–62
Sleep deprivation in depression: what do we know, where do we go? Wirz-Justice A, et al. **Biol Psychiatry** 1999 Aug 15;46(4):445–53 (76 ref.)
Clinical utility of sleep-deprived versus computer-assisted ambulatory 16-channel EEG in epilepsy patients: a multi-center study. Liporace J, et al. **Epilepsy Res** 1998 Nov;32(3):357–62
Exertional fatigue, sleep loss, and negative energy balance increase susceptibility to hypothermia. Young AJ, et al. **J Appl Physiol** 1998 Oct;85(4):1210–7
Ongoing lithium treatment prevents relapse after total sleep deprivation. Benedetti F, et al. **J Clin Psychopharmacol** 1999 Jun;19(3):240–5
Accelerating antidepressant response in geriatric depression: a post hoc comparison of combined sleep deprivation and paroxetine versus monotherapy with paroxetine, nortriptyline, or placebo. Green TD, et al. **J Geriatr Psychiatry Neurol** 1999 Summer;12(2):67–71
Worsening of delusional depression after sleep deprivation: case reports. Benedetti F, et al. **J Psychiatr Res** 1999 Jan-Feb;33(1):69–72
A dose-response study of total sleep time and the ability to maintain wakefulness. Härmä M, et al. **J Sleep Res** 1998 Sep;7(3):167–74
Simple reaction time, duration of driving and sleep deprivation in young versus old automobile drivers. Philip P, et al. **J Sleep Res** 1999 Mar;8(1):9–14
Reducing sleepiness on the roads and on the wards [letter; comment] Sloan VS. **JAMA** 1999 Jan 13;281(2):134–5. Comment on: JAMA 1998 Jun 17;279(23):1908–13.
Exercise-induced changes in plasma atrial natriuretic peptide and brain natriuretic peptide concentrations in healthy subjects with chronic sleep deprivation. Tanabe K, et al. **Jpn Circ J** 1999 Jun;63(6):447–52
Prospective, randomised trial of sleep deprived versus rested surgeons [letter; comment] Altschuler EL. **Lancet** 1999 Feb 6;353(9151):501. Comment on: Lancet 1998 Oct 10;352(9135):1191.
Effect of sleep deprivation on surgeons' dexterity on laparoscopy simulator [letter] [see comments] Taffinder NJ, et al. **Lancet** 1998 Oct 10;352(9135):1191. Comment in: Lancet 1999 Feb 6;353(9151):501.
Vehicle accidents related to sleep: a review. Horne J, et al. **Occup Environ Med** 1999 May;56(5):289–94 (60 ref.)
Analyses of mothers' sleep logs in postpartum periods. Horiuchi S, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):137–9
The effect of 2-h sleep reduction by a delayed bedtime on daytime sleepiness in children. Ishihara K. **Psychiatry Clin Neurosci** 1999 Apr;53(2):113–5
Rate of switch from depression into mania after therapeutic sleep deprivation in bipolar depression. Colombo C, et al. **Psychiatry Res** 1999 Jun 30;86(3):267–70
Why is sleep deprivation an orphan drug? [letter] Wirz-Justice A. **Psychiatry Res** 1998 Nov 16;81(2):281–2
Neurobiological similarities in antidepressant sleep deprivation and psychostimulant use: a psychostimulant theory of antidepressant sleep deprivation. Ebert D, et al. **Psychopharmacology (Berl)** 1998 Nov;140(1):1–10 (98 ref.)
Combined effects of shift work and life-style on the prevalence of insomnia, sleep deprivation and daytime sleepiness. Härmä M, et al. **Scand J Work Environ Health** 1998 Aug;24(4):300–7
The effects of REM sleep deprivation on the level of sleepiness/alertness. Nykamp K, et al. **Sleep** 1998 Sep 15; 21(6):609–14
REM sleep deprivation in monocularly occluded kittens reduces the size of cells in LGN monocular segment. Shaffery JP, et al. **Sleep** 1998 Dec 15;21(8):837–45
Intern call schedules and their relationship to sleep, operating room participation, stress, and satisfaction. Sawyer RG, et al. **Surgery** 1999 Aug;126(2):337–42
[Effect of awakening and sleep deprivation in triggering idiopathic generalized epilepsy] Crespel A, et al. **Rev Neurol (Paris)** 1999 Feb;155(2):131–4 (39 ref.) (Eng. Abstr.) **(Fre)**
[Aviation medicine--problems in practice: sleep and professional competence under stress] Fuchs HS. **Pneumologie** 1999 Jun;53(6):322 **(Ger)**
[Sleep deprivation in inpatient treatment of depression. A report of experiences] Erazo N, et al. **Psychiatr Prax** 1998 Nov;25(6):269–73 (Eng. Abstr.) **(Ger)**
[Work shifts, sleep and biological rhythms] Gaspar S, et al. **Rev Assoc Med Bras** 1998 Jul-Sep;44(3):239–45 (13 ref.) **(Por)**

PHYSIOLOGY

Effects of insufficient sleep on blood pressure in hypertensive patients: a 24-h study. Lusardi P, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):63–8
Nuclear factor-kappaB-like activity increases in murine cerebral cortex after sleep deprivation. Chen Z, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1812–8
Dissimilarity of slow-wave activity enhancement by torpor and sleep deprivation in a hibernator. Strijkstra AM, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1110–7
Sleep deprivation increases rat hypothalamic growth hormone-releasing hormone mRNA. Zhang J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1755–61
Influence of a functional polymorphism within the promoter of the serotonin transporter gene on the effects of total sleep deprivation in bipolar depression. Benedetti F, et al. **Am J Psychiatry** 1999 Sep;156(9):1450–2
Transcriptional activity in the brain during sleep deprivation. Toppila J, et al. **Ann Med** 1999 Apr;31(2):146–51 (44 ref.)
Naps and modafinil as countermeasures for the effects of sleep deprivation on cognitive performance. Batéjat DM, et al. **Aviat Space Environ Med** 1999 May;70(5):493–8
Female exposure to high G: performance of simulated flight after 24 hours of sleep deprivation. Chelette TL, et al. **Aviat Space Environ Med** 1998 Sep;69(9):862–8
Manipulations during forced wakefulness have differential impact on sleep architecture, EEG power spectrum, and Fos induction. García-García F, et al. **Brain Res Bull** 1998 Nov 1;47(4):317–24
A persistent circhoral ultradian rhythm is identified in human core temperature. Lindsley G, et al. **Chronobiol Int** 1999 Jan;16(1):69–78
The effect of one night's sleep deprivation on temperature, mood, and physical performance in subjects with different amounts of habitual physical activity. Meney I, et al. **Chronobiol Int** 1998 Jul;15(4):349–63
Regional differences in the dynamics of the cortical EEG in the rat after sleep deprivation. Schwierin B, et al. **Clin Neurophysiol** 1999 May;110(5):869–75
Oleamide: an endogenous sleep-inducing lipid and prototypical member of a new class of biological signaling molecules. Boger DL, et al. **Curr Pharm Des** 1998 Aug; 4(4):303–14 (81 ref.)
Gender influences on performance, mood and recovery sleep in fatigued aviators. Caldwell JA Jr, et al. **Ergonomics** 1998 Dec;41(12):1757–70
Auditory attention and multiattribute decision-making during a 33 h sleep-deprivation period: mean performance and between-subject dispersions. Linde L, et al. **Ergonomics** 1999 May;42(5):696–713
Effect of sleep loss on core temperature when movement is controlled. Minors D, et al. **Ergonomics** 1999 Apr; 42(4):647–56
Impairment of driving performance caused by sleep deprivation or alcohol: a comparative study. Fairclough SH, et al. **Hum Factors** 1999 Mar;41(1):118–28
Effects of sleep and sleep deprivation on catecholamine and interleukin-2 levels in humans: clinical implications. Irwin M, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1979–85
Periodicity of a noninvasive measure of cardiac vagal tone during non-rapid eye movement sleep in non-sleep deprived and sleep-deprived normal subjects. Delamont RS, et al. **J Clin Neurophysiol** 1999 Mar;16(2):146–53
Sleep-associated changes in interleukin-1beta mRNA in the brain. Taishi P, et al. **J Interferon Cytokine Res** 1998 Sep; 18(9):793–8
The sensitivity of pharmacodynamic tests for the central nervous system effects of drugs on the effects of sleep deprivation. van Steveninck AL, et al. **J Psychopharmacol** 1999;13(1):10–7
Increased ACTH and corticosterone secretion induced by different methods of paradoxical sleep deprivation. Suchecki D, et al. **J Sleep Res** 1998 Dec;7(4):276–81
Biochemical effects induced by REM sleep deprivation in naive and in D-amphetamine treated rats. Lara-Lemus A,

et al. **Neurobiology (Bp)** 1998;6(1):13–22

Sustained antidepressant effect of sleep deprivation combined with pindolol in bipolar depression. A placebo-controlled trial. Smeraldi E, et al. **Neuropsychopharmacology** 1999 Apr;20(4):380–5

Sleep deprivation induces brain region-specific decreases in glutathione levels. D'Almeida V, et al. **Neuroreport** 1998 Aug 24;9(12):2853–6

Prolonged effects of 24-h total sleep deprivation on sleep and sleep EEG in the rat. Schwierin B, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):61–4

Heterogeneous effects of rapid eye movement sleep deprivation on binding to alpha- and beta-adrenergic receptor subtypes in rat brain. Hipólide DC, et al. **Neuroscience** 1998 Oct;86(3):977–87

Subdiaphragmatic vagotomy does not block sleep deprivation-induced sleep in rats. Hansen MK, et al. **Physiol Behav** 1998 Jun 1;64(3):361–5

Effects of sleep deprivation: the phosphorus metabolism in the human brain measured by 31P-magnetic resonance spectroscopy. Murashita J, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):199–201

Poor recovery sleep after sleep deprivation in delayed sleep phase syndrome. Uchiyama M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):195–7

Sleep EEG studies during early and late partial sleep deprivation in premenstrual dysphoric disorder and normal control subjects. Parry BL, et al. **Psychiatry Res** 1999 Feb 22;85(2):127–43

Amplitude reduction in visual event-related potentials as a function of sleep deprivation. Corsi-Cabrera M, et al. **Sleep** 1999 Mar 15;22(2):181–9

Circadian and homeostatic influences on sleep in the squirrel monkey: sleep after sleep deprivation. Klerman EB, et al. **Sleep** 1999 Feb 1;22(1):45–59

Effects of method, duration, and sleep stage on rebounds from sleep deprivation in the rat. Rechtschaffen A, et al. **Sleep** 1999 Feb 1;22(1):11–31 (105 ref.)

[Effects of 6-hour deprivation of protosleep (primary sleep) in the brown frog, Rana temporaria] Aristakesian EA, et al. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):510–5 **(Rus)**

[Effect of 6-hour sleep deprivation in the guinea pig Cavia porcellus] Eliava MI. **Zh Evol Biokhim Fiziol** 1998 Jul-Aug;34(4):525–9 **(Rus)**

SLEEP-DISORDERED BREATHING see **SLEEP APNEA SYNDROMES**

SLEEP DISORDERS

Sleep disorders in older people. Gentili A, et al. **Aging (Milano)** 1999 Jun;11(3):137–41 (44 ref.)

Sleep problems in the elderly. Neubauer DN. **Am Fam Physician** 1999 May 1;59(9):2551–8, 2559–60 (15 ref.)

Problem sleepiness: an often unrecognized condition [editorial; comment] Zepf B. **Am Fam Physician** 1999 Feb 15;59(4):762, 770, 773. Comment on: Am Fam Physician 1999 Feb 15;59(4):937–44.

Sleep terrors [letter; comment] Friedman EH. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):895. Comment on: Arch Pediatr Adolesc Med 1999 Mar;153(3):309–12.

The role of maternal cognitions in infant sleep problems as assessed by a new instrument, the maternal cognitions about infant sleep questionnaire. Morrell JM. **J Child Psychol Psychiatry** 1999 Feb;40(2):247–58

14th Congress of the European Sleep Research Society. Madrid, Spain, 9–12 September 1998. Abstracts. **J Sleep Res** 1998 Sep;7 Suppl 2:1–332

Sleep disorders and the dental patient: an overview. Lavigne GJ, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Sep;88(3):257–72 (100 ref.)

17th Annual Conference on Sleep Disorders in Infancy and Childhood. Rancho Mirage, California, USA. January 21–23, 1999. Abstracts. **Pediatr Pulmonol** 1998 Dec; 26(6):442–9

The official issue of the Japanese Society of Sleep Research. Proceedings of the 23rd annual meeting of the JSSR. Akita, Japan, 4–5 June 1998. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):101–333

What prevents Japan from establishing a clinical service of sleep medicine: experience gained at a local hospital. Oka Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):263–5

13th Annual meeting of the Associated Professional Sleep Societies. Orlando, Florida, USA. June 19–24, 1999. Abstracts. **Sleep** 1999 Apr 15;22 Suppl 1:S1–342

BLOOD

Altered circadian melatonin secretion patterns in relation to sleep in patients with chronic sleep-wake rhythm disorders. Rodenbeck A, et al. **J Pineal Res** 1998 Dec;25(4):201–10

CHEMICALLY INDUCED

Drug-induced nightmares. Thompson DF, et al. **Ann Pharmacother** 1999 Jan;33(1):93–8 (72 ref.)

Predictors and timing of adverse experiences during trandsdermal nicotine therapy. Gourlay SG, et al. **Drug Saf** 1999 Jun;20(6):545–55

Parent reports of sleep disturbances in stimulant-medicated children with attention-deficit hyperactivity disorder. Day HD, et al. **J Clin Psychol** 1998 Aug;54(5):701–16

Acute maternal alcohol consumption disrupts behavioral state organization in the near-term fetus. Mulder EJ, et al. **Pediatr Res** 1998 Nov;44(5):774–9

A case of neuroleptic-induced unilateral akathisia with periodic limb movements in the opposite side during sleep. Yamashita H, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):291–3

Comparison of the effects of pravastatin and lovastatin on sleep disturbance in hypercholesterolemic subjects. Ehrenberg BL, et al. **Sleep** 1999 Feb 1;22(1):117–21

CLASSIFICATION

Applying classifications of sleep disorders to children with neurologic conditions. Scher MS. **J Child Neurol** 1998 Nov; 13(11):525–36 (71 ref.)

Overview of sleep disorders: where does obstructive sleep apnea syndrome fit in? Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):187–93 (9 ref.)

COMPLICATIONS

Review of strategies for treating sleep problems in persons with severe or profound mental retardation or multiple handicaps. Lancioni GE, et al. **Am J Ment Retard** 1999 Mar;104(2):170–86 (82 ref.)

Sleep-disordered breathing and periodic limb movements in sleep in older patients with schizophrenia. Ancoli-Israel S, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1426–32

Melatonin in epilepsy: first results of replacement therapy and first clinical results. Fauteck J, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1–2):105–10

Melatonin in circadian sleep disorders in the blind. Skene DJ, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1–2):90–5 (37 ref.)

Prevalence of sleep/wake disorders in persons with blindness. Leger D, et al. **Clin Sci (Colch)** 1999 Aug;97(2):193–9

Driving for safety on our roads [letter] Lertzman M, et al. **CMAJ** 1999 Sep 21;161(6):687–8

Children's sleep disorders: modern approaches, developmental effects, and children at special risk. Stores G. **Dev Med Child Neurol** 1999 Aug;41(8):568–73 (69 ref.)

Bupropion, periodic limb movement disorder, and ADHD [letter] Malek-Ahmadi P. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):637–8

Applying classifications of sleep disorders to children with neurologic conditions. Scher MS. **J Child Neurol** 1998 Nov; 13(11):525–36 (71 ref.)

Behavioural treatment for sleep problems in children with severe learning disabilities and challenging daytime behaviour: effect on daytime behaviour. Wiggs L, et al. **J Child Psychol Psychiatry** 1999 May;40(4):627–35

An investigation into sleep characteristics of children with autism and Asperger's Disorder. Patzold LM, et al. **J Paediatr Child Health** 1998 Dec;34(6):528–33

Motor activity and perception of sleep in depressed patients. Lemke MR, et al. **J Psychiatr Res** 1999 May-Jun; 33(3):215–24

Frequency of delayed sleep phase syndrome among hospitalized adolescent psychiatric patients. Dagan Y, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):15–20

Sleep paralysis in the elderly. Wing YK, et al. **J Sleep Res** 1999 Jun;8(2):151–5

Sleep-related violence, injury, and REM sleep behavior disorder in PD [letter; comment] Bernath O, et al. **Neurology** 1999 Jun 10;52(9):1924. Comment on: Neurology 1998 Aug;51(2):526–9.

Sleep and daytime behavior in children with obstructive sleep apnea and behavioral sleep disorders. Owens J, et al. **Pediatrics** 1998 Nov;102(5):1178–84

Periodic fatigue symptoms due to desynchronization in a patient with non-24-h sleep-wake syndrome. Shibui K, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):477–81

Sleep in patients with respiratory disease. Lewis DA. **Respir Care Clin N Am** 1999 Sep;5(3):447–60, ix (69 ref.)

[Paroxysmal disorders and episodic non-epileptic symptoms related to sleep] Rufo-Campos M. **Rev Neurol** 1999 Jan 1–15;28(1):84–9 (32 ref.) (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Nocturnal frontal lobe epilepsy misdiagnosed as sleep apnea syndrome. Oldani A, et al. **Acta Neurol Scand** 1998 Jul; 98(1):67–71

Polysomnographic and subjective sleep predictors of alcoholic relapse. Brower KJ, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1864–71

Recognizing problem sleepiness in your patients. National Center on Sleep Disorders Research Working Group. **Am Fam Physician** 1999 Feb 15;59(4):937–44 (61 ref.)

EEG sleep measures in later-life bereavement depression. A randomized, double-blind, placebo-controlled evaluation of nortriptyline. Taylor MP, et al. **Am J Geriatr Psychiatry** 1999 Winter;7(1):41–7

Sleep studies of adults with severe or profound mental retardation and epilepsy. Espie CA, et al. **Am J Ment Retard** 1998 Jul;103(1):47–59

Jet lag: clinical features, validation of a new syndrome-specific scale, and lack of response to melatonin in a randomized, double-blind trial. Spitzer RL, et al. **Am J Psychiatry** 1999 Sep;156(9):1392–6

Association between the Epworth sleepiness scale and the multiple sleep latency test in a clinical population. Benbadis SR, et al. **Ann Intern Med** 1999 Feb 16;130(4 Pt 1):289–92

Subjective compared with objective sleepiness [letter] Schmidt-Nowara W. **Ann Intern Med** 1999 Oct 19; 131(8):632

Jactatio capitis nocturna with persistence in adulthood. Case report. Alves RS, et al. **Arq Neuropsiquiatr** 1998 Sep; 56(3B):655–7

Nocturnal and daytime panic attacks--comparison of sleep architecture, heart rate variability, and response to sodium lactate challenge. Sloan EP, et al. **Biol Psychiatry** 1999 May 15;45(10):1313–20

Conundrums in sleep medicine [editorial] Collop NA. **Chest** 1999 Mar;115(3):607–8

Circadian rhythm sleep disorders: toward a more precise definition and diagnosis. Dagan Y, et al. **Chronobiol Int** 1999 Mar;16(2):213–22

Daytime sleepiness: when is it normal? When to refer? Benbadis SR. **Cleve Clin J Med** 1998 Nov-Dec; 65(10):543–9 (36 ref.)

Sleep quality and pain threshold in patients with fibromyalgia. Ağargün MY, et al. **Compr Psychiatry** 1999 May-Jun;40(3):226–8

Children's sleep disorders: modern approaches, developmental effects, and children at special risk. Stores G. **Dev Med Child Neurol** 1999 Aug;41(8):568–73 (69 ref.)

'If you don't take a temperature...' [editorial] Foresman BH. **J Am Osteopath Assoc** 1999 Apr;99(4):202

Pain, fatigue, and sleep in eosinophilia-myalgia syndrome: relationship to neuropsychological performance. Pollina DA, et al. **J Neuropsychiatry Clin Neurosci** 1998 Summer; 10(3):338–42

Psychometric evaluation of the Pittsburgh Sleep Quality Index. Carpenter JS, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):5–13

The validity of the Dutch Sleep Disorders Questionnaire (SDQ). Sweere Y, et al. **J Psychosom Res** 1998 Dec; 45(6):549–55

Correlations among Epworth Sleepiness Scale scores, multiple sleep latency tests and psychological symptoms. Olson LG, et al. **J Sleep Res** 1998 Dec;7(4):248–53

Hallucinations, sleep fragmentation, and altered dream phenomena in Parkinson's disease. Pappert EJ, et al. **Mov Disord** 1999 Jan;14(1):117–21

Paroxysmal dystonia in Behçet's disease. Pellecchia MT, et al. **Mov Disord** 1999 Jan;14(1):177–9

Attention-deficit-hyperactivity disorder [letter; comment] Chervin RD. **N Engl J Med** 1999 Jun 3;340(22):1766; discussion 1767. Comment on: N Engl J Med 1999 Jan 7;340(1):40–6.

Medical-legal aspects of sleep medicine. Mahowald MW, et al. **Neurol Clin** 1999 May;17(2):215–34 (204 ref.)

Time perspective and sleep problems. Vranesh JG, et al. **Percept Mot Skills** 1999 Feb;88(1):23–4

Sleep disorders presenting as psychiatric disorders. Reite M. **Psychiatr Clin North Am** 1998 Sep;21(3):591–607 (85 ref.)

Validity of sleep log compared with actigraphic sleep-wake state II. Usui A, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):183–4

Prospective data on sleep complaints and associated risk factors in an older cohort. Roberts RE, et al. **Psychosom Med** 1999 Mar-Apr;61(2):188–96

Assessment of sleep complaints and sleep-disordered breathing in a consecutive series of obese patients [see comments] van Kralingen KW, et al. **Respiration** 1999; 66(4):312–6. Comment in: Respiration 1999 ;66(4):310.

Clinical courses of pure sleep epilepsies. Park SA, et al. **Seizure** 1998 Oct;7(5):369–77

Limits of self-report in assessing sleep terrors in a population survey. Hublin C, et al. **Sleep** 1999 Feb 1;22(1):89–93

Failure of physician documentation of sleep complaints in hospitalized patients. Meissner HH, et al. **West J Med** 1998 Sep;169(3):146–9

[Diagnosis and differential diagnosis of sleep disorders in children] Frölich J, et al. **Fortschr Neurol Psychiatr** 1998 Dec;66(12):553–69 (185 ref.) (Eng. Abstr.) **(Ger)**

[Sleep disorders--the problem with chrono-medicine] Prusiński A. **Postepy Hig Med Dosw** 1999;53(3):505–15 (34 ref.) (Eng. Abstr.) **(Pol)**

[Behavior disorder of the REM sleep in 2 documented cases with polysomnography] Lawson B, et al. **Rev Med Chil** 1999 Jan;127(1):71–4 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Improvement of sleep and behavior by methylphenidate in Alzheimer's disease [letter] Kittur S, et al. **Am J Psychiatry** 1999 Jul;156(7):1116–7

Jet lag: clinical features, validation of a new syndrome-specific scale, and lack of response to melatonin in a randomized, double-blind trial. Spitzer RL, et al. **Am J Psychiatry** 1999 Sep;156(9):1392–6

Sleep terrors in a 5-year-old girl [see comments] Owens JA, et al. **Arch Pediatr Adolesc Med** 1999 Mar;153(3):309–12. Comment in: Arch Pediatr Adolesc Med 1999 Aug;153(8):895.

Effect of melatonin in selected populations of sleep-disturbed patients. Brusco LI, et al. **Biol Signals Recept** 1999 Jan-Apr; 8(1–2):126–31

Melatonin in epilepsy: first results of replacement therapy and first clinical results. Fauteck J, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1–2):105–10

Melatonin in circadian sleep disorders in the blind. Skene

DJ, et al. **Biol Signals Recept** 1999 Jan-Apr;8(1-2):90-5 (37 ref.)

Therapy of behavioral disorders in Parkinson's disease. Valldeoriola F, et al. **Biomed Pharmacother** 1999 Apr; 53(3):149-53 (56 ref.)

What happens when doctors stop prescribing temazepam? Use of alternative therapies. Gilhooly TC, et al. **Br J Gen Pract** 1998 Sep;48(434):1601-2

Serum melatonin kinetics and long-term melatonin treatment for sleep disorders in Rett syndrome. Miyamoto A, et al. **Brain Dev** 1999 Jan;21(1):59-62

Melatonin treatment of sleep-wake cycle disorders in children and adolescents. Jan JE, et al. **Dev Med Child Neurol** 1999 Jul;41(7):491-500 (191 ref.)

Use of melatonin to treat sleep disorders in tuberous sclerosis. O'Callaghan FJ, et al. **Dev Med Child Neurol** 1999 Feb; 41(2):123-6

Beneficial effect of risperidone on sleep disturbance and psychosis following traumatic brain injury. Schreiber S, et al. **Int Clin Psychopharmacol** 1998 Nov;13(6):273-5

Melatonin: aeromedical, toxicopharmacological, and analytical aspects. Sanders DC, et al. **J Anal Toxicol** 1999 May-Jun;23(3):159-67 (100 ref.)

What is melatonin? Is it a useful treatment for sleep problems in autism? Lord C. **J Autism Dev Disord** 1998 Aug; 28(4):345-6

Beneficial treatment of age-related sleep disturbances with prolonged intranasal vasopressin. Perras B, et al. **J Clin Psychopharmacol** 1999 Feb;19(1):28-36

Effect of gamma-hydroxybutyrate on pain, fatigue, and the alpha sleep anomaly in patients with fibromyalgia. Preliminary report. Scharf MB, et al. **J Rheumatol** 1998 Oct;25(10):1986-90

Melatonin as a therapy in REM sleep behavior disorder patients: an open-labeled pilot study on the possible influence of melatonin on REM-sleep regulation. Kunz D, et al. **Mov Disord** 1999 May;14(3):507-11

Melatonin: from biochemistry to therapeutic applications. Zawilska JB, et al. **Pol J Pharmacol** 1999 Jan-Feb; 51(1):3-23 (222 ref.)

Double-blind test on the efficacy of methylcobalamin on sleep-wake rhythm disorders. Takahashi K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):211-3

Melatonin and clinical application. Wetterberg L. **Reprod Nutr Dev** 1999 May-Jun;39(3):367-82 (70 ref.)

[Use of hypnotics in children: description and analysis] Pélissolo A, et al. **Arch Pediatr** 1999 Jun;6(6):625-30 (Eng. Abstr.) **(Fre)**

[Effect of melatonin sleep disturbance in a case with periodic ACTH-ADH discharge syndrome] Chiba Y, et al. **No To Hattatsu** 1999 Jul;31(4):376-8 **(Jpn)**

EPIDEMIOLOGY

Are sleep disturbances risk factors for anxiety, depressive and addictive disorders? Gillin JC. **Acta Psychiatr Scand Suppl** 1998;393:39-43 (9 ref.)

Are sleep complaints an independent risk factor for myocardial infarction? Schwartz SW, et al. **Ann Epidemiol** 1998 Aug;8(6):384-92

Sleeptalking in twins: epidemiology and psychiatric comorbidity. Hublin C, et al. **Behav Genet** 1998 Jul; 28(4):289-98

Cough and sleep in inner-city children. Fuller P, et al. **Eur Respir J** 1998 Aug;12(2):426-31

Do maritime crew members have sleep disturbances? Howarth HD, et al. **Int J Occup Environ Health** 1999 Apr-Jun;5(2):95-100

Sleep complaints among the elderly: results from a survey in a psychogeriatric outpatient clinic in Brazil. Almeida OP, et al. **Int Psychogeriatr** 1999 Mar;11(1):47-56

The 1998 Clinical Research Award. Sleep disturbance after burn injury: a frequent yet understudied complication. Lawrence JW, et al. **J Burn Care Rehabil** 1998 Nov-Dec; 19(6):480-6

Night terrors, sleepwalking, and confusional arousals in the general population: their frequency and relationship to other sleep and mental disorders. Ohayon MM, et al. **J Clin Psychiatry** 1999 Apr;60(4):268-76; quiz 277

Prevalence of daytime sleepiness in a population of drivers. Benbadis SR, et al. **Neurology** 1999 Jan 1;52(1):209-10

Prevalence and pathologic associations of sleep paralysis in the general population. Ohayon MM, et al. **Neurology** 1999 Apr 12;52(6):1194-200

Lifestyles and sleep disorders among the Japanese adult population. Kim K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):269-70

Comparative studies on sleep disturbance in the elderly based on questionnaire assessments in 1983 and 1996. Yamaguchi N, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):261-2

Demography of sleep disturbances associated with circadian rhythm disorders in Japan. Yazaki M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):267-8

Chronic bronchitis in Icelandic males: prevalence, sleep disturbances and quality of life. Magnússon S, et al. **Scand J Prim Health Care** 1999 Jun;17(2):100-4

Failure of physician documentation of sleep complaints in hospitalized patients. Meissner HH, et al. **West J Med** 1998 Sep;169(3):146-9

[The pediatrician and the child with sleep disorders] Pin Arboledas G, et al. **An Esp Pediatr** 1999 Mar;50(3):247-52 (Eng. Abstr.) **(Spa)**

[Sleep disorders and the consumption of hypnotics on the island of Mallorca] Cañellas Dols F, et al. **Rev Clin Esp** 1998 Nov;198(11):719-25 (Eng. Abstr.) **(Spa)**

ETIOLOGY

The development and disorders of sleep. Dahl RE. **Adv Pediatr** 1998;45:73-90 (35 ref.)

Impaired sleep in alcohol misusers and dependent alcoholics and the impact upon outcome. Foster JH, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):1044-51

Complications of allergic rhinitis. Settipane RA. **Allergy Asthma Proc** 1999 Jul-Aug;20(4):209-13 (39 ref.)

Recognizing problem sleepiness in your patients. National Center on Sleep Disorders Research Working Group. **Am Fam Physician** 1999 Feb 15;59(4):937-44 (61 ref.)

Disturbance of sleep in blindness. Tabandeh H, et al. **Am J Ophthalmol** 1998 Nov;126(5):707-12

Sleep and its disorders. Vgontzas AN, et al. **Annu Rev Med** 1999;50:387-400 (28 ref.)

Cough, wheeze and sleep [letter; comment] Davies MJ, et al. **Arch Dis Child** 1998 Nov;79(5):465. Comment on: Arch Dis Child 1998 Jan;78(1):20-5.

Change in rapid eye movement (REM) sleep in response to exposure to all-night noise and transient noise. Kawada T, et al. **Arch Environ Health** 1999 Sep-Oct;54(5):336-40

Sleep fragmentation in children with atopic dermatitis. Reuveni H, et al. **Arch Pediatr Adolesc Med** 1999 Mar; 153(3):249-53

Serum melatonin kinetics and long-term melatonin treatment for sleep disorders in Rett syndrome. Miyamoto A, et al. **Brain Dev** 1999 Jan;21(1):59-62

Sleep alterations in cancer patients. Engstrom CA, et al. **Cancer Nurs** 1999 Apr;22(2):143-8

Using sleep dysfunction to explore the nature of resilience in adult survivors of childhood abuse or trauma. Chambers E, et al. **Child Abuse Negl** 1998 Aug;22(8):753-8

Self-reported sleep and mood disturbance in chronic pain patients. Morin CM, et al. **Clin J Pain** 1998 Dec;14(4):311-4

Sleep quality and pain threshold in patients with fibromyalgia. Agargün MY, et al. **Compr Psychiatry** 1999 May-Jun;40(3):226-8

Nocturnal panic and trauma. Freed S, et al. **Depress Anxiety** 1999;9(3):141-5

Melatonin treatment of non-epileptic myoclonus in children. Jan JE, et al. **Dev Med Child Neurol** 1999 Apr;41(4):255-9 (48 ref.)

Sleep problems in autism: prevalence, cause, and intervention. Richdale AL. **Dev Med Child Neurol** 1999 Jan;41(1):60-6

Sleep disorders in visually impaired children. Stores G, et al. **Dev Med Child Neurol** 1999 May;41(5):348-52 (49 ref.)

Sleep disorders in the elderly. Asplund R. **Drugs Aging** 1999 Feb;14(2):91-103 (121 ref.)

Age-related sleep disturbance and body temperature [letter; comment] Volicer L, et al. **J Am Geriatr Soc** 1998 Nov; 46(11):1480. Comment on: J Am Geriatr Soc 1998 Apr;46(4):458-62.

Sleep patterns in autistic children. Hering E, et al. **J Autism Dev Disord** 1999 Apr;29(2):143-7

The 1998 Clinical Research Award. Sleep disturbance after burn injury: a frequent yet understudied complication. Lawrence JW, et al. **J Burn Care Rehabil** 1998 Nov-Dec; 19(6):480-6

Importance of sleep in the management of pediatric pain. Lewin DS, et al. **J Dev Behav Pediatr** 1999 Aug; 20(4):244-52 (75 ref.)

Characteristics of sleep disturbance in community-dwelling Alzheimer's disease patients. McCurry SM, et al. **J Geriatr Psychiatry Neurol** 1999 Summer;12(2):53-9

Sleep disturbances in children with attention-deficit/hyperactivity disorder: a comparative study with healthy siblings. Ring A, et al. **J Learn Disabil** 1998 Nov-Dec;31(6):572-8

Daytime somnolence in myotonic dystrophy. Phillips MF, et al. **J Neurol** 1999 Apr;246(4):275-82

Excessive daytime sleepiness in myotonic dystrophy. Giubilei F, et al. **J Neurol Sci** 1999 Mar 15;164(1):60-3

A 50-Hz electromagnetic field impairs sleep. Akerstedt T, et al. **J Sleep Res** 1999 Mar;8(1):77-81

Patients in pain need round-the-clock care [news] Lamberg L. **JAMA** 1999 Feb 24;281(8):689-90

Chronic pain linked with poor sleep; exploration of causes and treatment [news] Lamberg L. **JAMA** 1999 Feb 24; 281(8):691-2

Is sleep disturbed by vigorous late-night exercise? Youngstedt SD, et al. **Med Sci Sports Exerc** 1999 Jun; 31(6):864-9

A community-based study of sleep disorders in patients with Parkinson's disease. Tandberg E, et al. **Mov Disord** 1998 Nov;13(6):895-9

Sleep disturbance in spinocerebellar ataxias: is the SCA3 mutation a cause of restless legs syndrome? Schöls L, et al. **Neurology** 1998 Dec;51(6):1603-7

Television-viewing habits and sleep disturbance in school children. Owens J, et al. **Pediatrics** 1999 Sep;104(3):e27

On pineal calcification and its relation to subjective sleep perception: a hypothesis-driven pilot study. Kunz D, et al. **Psychiatry Res** 1998 Jun 30;82(3):187-91

A review of the effects of moderate alcohol intake on psychiatric and sleep disorders. Castaneda R, et al. **Recent Dev Alcohol** 1998;14:197-226 (189 ref.)

Sleep-related disorders and chronic obstructive pulmonary disease. Brown LK. **Respir Care Clin N Am** 1998 Sep; 4(3):493-512 (97 ref.)

Daytime sleepiness in 40-64 year-old women in relation to somatic health and medical treatment. Asplund R, et al. **Scand J Prim Health Care** 1998 Jun;16(2):112-6

Pain and sleep disturbances. Clinical, experimental and methodological aspects with special reference to the fibromyalgia syndrome and rheumatoid arthritis. Drewes AM. **Scand J Rheumatol** 1999;28(2):126

Symptomatic nocturnal frontal lobe epilepsy. Oldani A, et al. **Seizure** 1998 Aug;7(4):341-3

Pituitary abscess revealed by sleep attacks. Donnet A, et al. **Surg Neurol** 1999 May;51(5):564-5

Effects of lifestyle, personality, symptoms of anxiety and depression, and genetic predisposition on subjective sleep disturbance and sleep pattern. Heath AC, et al. **Twin Res** 1998 Dec;1(4):176-88

[The jet lag syndrome] Pirritano M, et al. **Recenti Prog Med** 1999 Jan;90(1):1-3 **(Ita)**

[Screaming during sleep in patients with Parkinson disease] Nakamuro T, et al. **Rinsho Shinkeigaku** 1998 May; 38(5):457-60 (Eng. Abstr.) **(Jpn)**

GENETICS

Sleeptalking in twins: epidemiology and psychiatric comorbidity. Hublin C, et al. **Behav Genet** 1998 Jul; 28(4):289-98

Allelic variants of human melatonin 1a receptor: function and prevalence in subjects with circadian rhythm sleep disorders. Ebisawa T, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):832-7

Fatal familial insomnia: clinical features and molecular genetics. Cortelli P, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:23-9

Genetic factors in human sleep disorders with special reference to Norrie disease, Prader-Willi syndrome and Moebius syndrome. Parkes JD. **J Sleep Res** 1999 Jun;8 Suppl 1:14-22

Familial advanced sleep-phase syndrome: A short-period circadian rhythm variant in humans [see comments] Jones CR, et al. **Nat Med** 1999 Sep;5(9):1062-5. Comment in: Nat Med 1999 Sep;5(9):983.

HISTORY

Was Anna O.'s black snake hallucination a sleep paralysis nightmare? Dreams, memories, and trauma. Powell RA, et al. **Psychiatry** 1998 Fall;61(3):239-48

METABOLISM

Microglia activation in a model of sleep disorder: an immunohistochemical study in the rat brain during Trypanosoma brucei infection. Chianella S, et al. **Brain Res** 1999 Jun 19;832(1-2):54-62

PATHOLOGY

Chronic periodic lateralized epileptiform discharges during sleep in a patient with caudate nucleus atrophy: insights into the anatomical circuitry of PLEDs. Gross DW, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec; 107(6):434-8

Prevalence and pathologic associations of sleep paralysis in the general population. Ohayon MM, et al. **Neurology** 1999 Apr 12;52(6):1194-200

[Behavior disorders during REM sleep. Two clinical cases] Manquillo A, et al. **Rev Neurol** 1999 Jun 16-30; 28(12):1170-4 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

EEG and ocular correlates of circadian melatonin phase and human performance decrements during sleep loss. Cajochen C, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R640-9

Melatonin secretion rhythm disorders in patients with senile dementia of Alzheimer's type with disturbed sleep-waking. Mishima K, et al. **Biol Psychiatry** 1999 Feb 15;45(4):417-21

Nocturnal frontal lobe epilepsy. A clinical and polygraphic overview of 100 consecutive cases. Provini F, et al. **Brain** 1999 Jun;122 (Pt 6):1017-31

Circadian rhythm sleep disorders: toward a more precise definition and diagnosis. Dagan Y, et al. **Chronobiol Int** 1999 Mar;16(2):213-22

Alpha activity in the human REM sleep EEG: topography and effect of REM sleep deprivation. Roth C, et al. **Clin Neurophysiol** 1999 Apr;110(4):632-5

Melatonin rhythms in delayed sleep phase syndrome. Shibui K, et al. **J Biol Rhythms** 1999 Feb;14(1):72-6

Periodic limb movement disorder and restless legs syndrome in children with attention-deficit hyperactivity disorder. Picchietti DL, et al. **J Child Neurol** 1998 Dec;13(12):588-94

Understanding sleep ontogeny to assess brain dysfunction in neonates and infants. Scher MS. **J Child Neurol** 1998 Oct; 13(10):467-74 (45 ref.)

Relationship between mandibular position and the coordination of masseter muscle activity during sleep in humans. Minagi S, et al. **J Oral Rehabil** 1998 Dec; 25(12):902-7

Centro-temporal spikes in non-epileptic children: a long-term follow up. Verrotti A, et al. **J Paediatr Child Health** 1999 Feb;35(1):60-2

Sleep characteristics in children with Down syndrome. Levanon A, et al. **J Pediatr** 1999 Jun;134(6):755-60

The Munich vulnerability study on affective disorders: overview of the cross-sectional observations at index investigation. Lauer CJ, et al. **J Psychiatr Res** 1998 Nov-Dec;32(6):393-401

Sleep abnormalities demonstrated by home polysomnography in teenagers with chronic fatigue syndrome. Stores G, et al. **J Psychosom Res** 1998 Jul;45(1 Spec No):85-91

REM sleep behavior disorder and dementia: cognitive differences when compared with AD. Ferman TJ, et al. **Neurology** 1999 Mar 23;52(5):951-7

Poor recovery sleep after sleep deprivation in delayed sleep phase syndrome. Uchiyama M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):195-7

EEG alpha power and alpha power asymmetry in sleep and wakefulness. Benca RM, et al. **Psychophysiology** 1999 Jul; 36(4):430-6

Sleep in patients with respiratory disease. Lewis DA. **Respir Care Clin N Am** 1999 Sep;5(3):447-60, ix (69 ref.)

Sleep in the elderly. Martin J, et al. **Respir Care Clin N Am** 1999 Sep;5(3):461-72, ix (52 ref.)

[EEG anomalies, sleep modification and developmental dysphasia] Chéliout-Héraut F, et al. **Neurophysiol Clin** 1999 Jun;29(3):277-89 (Eng. Abstr.) **(Fre)**

[Wake disorders. I. Primary wake disorders] Billiard M, et al. **Rev Neurol (Paris)** 1998 Feb;154(2):111-29 (189 ref.) (Eng. Abstr.) **(Fre)**

[Treatment of depression and sleep disorders. Significance of serotonin and L-tryptophan in pathophysiology and therapy] Riemann D, et al. **Fortschr Med** 1998 Nov 20; 116(32):40-2 (25 ref.) (Eng. Abstr.) **(Ger)**

[Sleep physiology and sleep disorders] Penzel T. **Med Monatsschr Pharm** 1999 Feb;22(2):30-8 (7 ref.) **(Ger)**

[Sleep and old age] Sanner BM, et al. **Med Monatsschr Pharm** 1999 Feb;22(2):39-44 (20 ref.) **(Ger)**

[Sleep-associated abnormal behaviors: Dissociation between EEG pattern during sleep and behaviors] Yamada T. **Rinsho Shinkeigaku** 1998 Dec;38(12):1013 **(Jpn)**

[The importance of sleep in pneumology (editorial)] Rodenstein DO. **Arch Bronconeumol** 1998 Oct;34(9):415-6 **(Spa)**

[Polyneuropathy in patients with periodic leg movements during sleep] Martinez-Mena JM, et al. **Rev Neurol** 1998 Nov;27(159):745-9 (Eng. Abstr.) **(Spa)**

PREVENTION & CONTROL

Jet lag. A problem for 'long haul' travellers. Gherardin T. **Aust Fam Physician** 1999 Aug;28(8):833

A randomized trial of a combined physical activity and environmental intervention in nursing home residents: do sleep and agitation improve? Alessi CA, et al. **J Am Geriatr Soc** 1999 Jul;47(7):784-91

Accidents related to sleepiness: review of medical causes and prevention with special reference to Switzerland [published erratum appears in Schweiz Med Wochenschr 1999 Jan 23;129(3):98] Laube I, et al. **Schweiz Med Wochenschr** 1998 Oct 3;128(40):1487-99 (65 ref.)

PSYCHOLOGY

Cosleeping in context: sleep practices and problems in young children in Japan and the United States. Latz S, et al. **Arch Pediatr Adolesc Med** 1999 Apr;153(4):339-46

Sleep complaints in older women who are family caregivers. Wilcox S, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):P189-98

Motor activity and perception of sleep in depressed patients. Lemke MR, et al. **J Psychiatr Res** 1999 May-Jun; 33(3):215-24

The structure and correlates of kanashibari. Arikawa H, et al. **J Psychol** 1999 Jul;133(4):369-75

Correlations among Epworth Sleepiness Scale scores, multiple sleep latency tests and psychological symptoms. Olson LG, et al. **J Sleep Res** 1998 Dec;7(4):248-53

Sleep loss and performance: no "safe" duration of a monotonous task. Gillberg M, et al. **Physiol Behav** 1998 Jul;64(5):599-604

An 18-month old who sleeps badly. Crawley H, et al. **Practitioner** 1999 Mar;243(1596):155, 159-60, 162 (3 ref.)

Nightmares and psychotic decompensation: a case study. Levin R, et al. **Psychiatry** 1998 Fall;61(3):217-22

A scale for assessing sleep hygiene: preliminary data. Blake DD, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1175-8

Effects of alternating 8- and 12-hour shifts on sleep, sleepiness, physical effort and performance. Axelsson J, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:62-8

Subjective alertness and sleep quality in connection with permanent 12-hour day and night shifts. Gillberg M. **Scand J Work Environ Health** 1998;24 Suppl 3:76-80

[Continued driving habits of patients diagnosed with excessive daytime sleepiness (see comments)] de Weerd AW, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26; 142(39):2146-50 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 14;142(46):2539. **(Dut)**

THERAPY

Review of strategies for treating sleep problems in persons with severe or profound mental retardation or multiple handicaps. Lancioni GE, et al. **Am J Ment Retard** 1999 Mar;104(2):170-86 (82 ref.)

Clinical services for sleep disorders. Stores G, et al. **Arch Dis Child** 1998 Dec;79(6):495-7

Daytime sleepiness: when is it normal? When to refer? Benbadis SR. **Cleve Clin J Med** 1998 Nov-Dec; 65(10):543-9 (36 ref.)

Location, location. Sleepless in Pa. [news] Novarro L. **Hosp Health Netw** 1999 Mar;73(3):16

A randomized, controlled trial of bright light therapy for agitated behaviors in dementia patients residing in long-term care. Lyketsos CG, et al. **Int J Geriatr Psychiatry** 1999 Jul;14(7):520-5

Treatment of young children's bedtime refusal and nighttime wakings: a comparison of "standard" and graduated ignoring procedures. Reid MJ, et al. **J Abnorm Child Psychol** 1999 Feb;27(1):5-16

The effectiveness of acupressure in improving the quality of sleep of institutionalized residents. Chen ML, et al. **J Gerontol A Biol Sci Med Sci** 1999 Aug;54(8):M389-94

Toward optimal health: the experts respond to sleep deprivation [interview by Jodi Godfrey Meisler] Lee KA, et al. **J Womens Health** 1998 Dec;7(10):1205-10

Treatment of estrogen deficiency symptoms in women surviving breast cancer. Part 4: Urogenital atrophy, vasomotor instability, sleep disorders, and related symptoms. **Oncology (Huntingt)** 1999 Apr;13(4):551-4, 557-60, 563 passim (36 ref.)

Prospective audit of a respiratory sleep disorders service at District General Hospital level. Deegan PC, et al. **Postgrad Med J** 1999 Jul;75(885):414-8

Light mask 500 lux treatment for delayed sleep phase syndrome. Ando K, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Jan; 23(1):15-24

Bright light treatment for sleep-wake disturbances in aged individuals with dementia. Koyama E, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):227-9

Circadian rhythm sleep disorders in adolescents: clinical trials of combined treatments based on chronobiology. Okawa M, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):483-90

Effects of phototherapy in patients with delayed sleep phase syndrome. Watanabe T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):231-3

Systematic treatment for nocturnal urinary frequency following a sleep-micturition chart. Yamao Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):277-8

[Sleep disorders--the problem with chrono-medicine] Prusiński A. **Postepy Hig Med Dosw** 1999;53(3):505-15 (34 ref.) (Eng. Abstr.) **(Pol)**

SLEEP, FAST-WAVE see **SLEEP, REM**

SLEEP, REM

Change in rapid eye movement (REM) sleep in response to exposure to all-night noise and transient noise. Kawada T, et al. **Arch Environ Health** 1999 Sep-Oct;54(5):336-40

Jactatio capitis nocturna with persistence in adulthood. Case report. Alves RS, et al. **Arq Neuropsiquiatr** 1998 Sep; 56(3B):655-7

A comparative study of quiet sleep, active sleep, and waking on the first 2 days of life. Carroll DA, et al. **Dev Psychobiol** 1999 Jul;35(1):43-8

Genetic studies in narcolepsy, a disorder affecting REM sleep. Faraco J, et al. **J Hered** 1999 Jan-Feb;90(1):129-32 (34 ref.)

[Pathologic hypersomnia (variant of narcolepsy without sleep onset REM phases and cataplexy)] Keller T. **Schweiz Rundsch Med Prax** 1998 Oct 7;87(41):1373-4 **(Ger)**

[Painful erections related to sleeping] Menéndez López V, et al. **Actas Urol Esp** 1999 Jun;23(6):539-41 (7 ref.) (Eng. Abstr.) **(Spa)**

[Behavior disorder of the REM sleep in 2 documented cases with polysomnography] Lawson B, et al. **Rev Med Chil** 1999 Jan;127(1):71-4 (Eng. Abstr.) **(Spa)**

[Behavior disorders during REM sleep. Two clinical cases] Manquillo A, et al. **Rev Neurol** 1999 Jun 16-30; 28(12):1170-4 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Chlormethiazole, apnoea and Alzheimer's disease [letter] Grace J. **Acta Psychiatr Scand** 1999 Sep;100(3):248

Brain-derived neurotrophic factor enhances spontaneous sleep in rats and rabbits. Kushikata T, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1334-8

The promnesic neurosteroid pregnenolone sulfate increases paradoxical sleep in rats. Darnaudéry M, et al. **Brain Res** 1999 Feb 13;818(2):492-8

Nefazodone treatment and dream reports in chronic PTSD [letter] Mellman TA, et al. **Depress Anxiety** 1999;9(3):146-8

Region-dependent difference in the sleep-promoting potency of an adenosine A2A receptor agonist. Satoh S, et al. **Eur J Neurosci** 1999 May;11(5):1587-97

Comparative effects of hyoscine butylbromide and atropine sulphate on sleep architecture in healthy human volunteers. Rauniar GP, et al. **Indian J Physiol Pharmacol** 1998 Jul; 42(3):395-400

Human immunodeficiency virus glycoproteins 160 and 41 alter sleep and brain temperature of rats. Gemma C, et al. **J Neuroimmunol** 1999 Jun 1;97(1-2):94-101

Vasoactive intestinal polypeptide excites medial pontine reticular formation neurons in the brainstem rapid eye movement sleep-induction zone. Kohlmeier KA, et al. **J Neurosci** 1999 May 15;19(10):4073-81

Galanin has REM-sleep deprivation-like effects on the sleep EEG in healthy young men. Murck H, et al. **J Psychiatr Res** 1999 May-Jun;33(3):225-32

Different nocturnal body temperatures and sleep with forced-air warming in men and in women taking hormonal contraceptives. Baker FC, et al. **J Sleep Res** 1998 Sep; 7(3):175-81

Evening administration of melatonin and bright light: interactions on the EEG during sleep and wakefulness. Cajochen C, et al. **J Sleep Res** 1998 Sep;7(3):145-57

Effect of two antidepressant drugs on REM sleep and EMG activity during sleep. Jobert M, et al. **Neuropsychobiology** 1999;39(2):101-9

Rapid eye movement sleep induction by vasoactive intestinal peptide infused into the oral pontine tegmentum of the rat may involve muscarinic receptors. Bourgin P, et al. **Neuroscience** 1999 Mar;89(1):291-302

Infusion of neurosteroids into the rat nucleus basalis affects paradoxical sleep in accordance with their memory modulating properties. Darnaudéry M, et al. **Neuroscience** 1999;92(2):583-8

Pontine carbachol elicits multiple rapid eye movement sleep-like neural events in urethane-anaesthetized rats. Horner RL, et al. **Neuroscience** 1999;93(1):215-26

Antidepressant-like effect of Hypericum perforatum (St John's wort) on the sleep polysomnogram. Sharpley AL, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):286-7

Adenosine, blood pressure and NREM delta [letter; comment] Feinberg I, et al. **Sleep** 1999 Feb 1;22(1):7, 9. Comment on: Sleep 1997 Dec;20(12):1093-8.

Thalidomide increases both REM and stage 3-4 sleep in human adults: a preliminary study. Kanbayashi T, et al. **Sleep** 1999 Feb 1;22(1):113-5

Effect of serotonin uptake inhibition on breathing during sleep and daytime symptoms in obstructive sleep apnea. Kraiczi H, et al. **Sleep** 1999 Feb 1;22(1):61-7

Role of GABAA receptors in the regulation of sleep: initial sleep responses to peripherally administered modulators and agonists. Lancel M. **Sleep** 1999 Feb 1;22(1):33-42 (128 ref.)

REM sleep and nefazodone [letter; comment] Ware JC, et al. **Sleep** 1998 Dec 15;21(8):795-6. Comment on: Sleep 1998;21(1):70-7.

[Effect of parlodel on sleep-wakefulness cycle parameters in rats with experimental MPTP-induced depressive syndrome] Iordanskaia TE, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):380-3 **(Rus)**

GENETICS

Differences in brain gene expression between sleep and waking as revealed by mRNA differential display and cDNA microarray technology. Cirelli C, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:44-52 (66 ref.)

Prostaglandin D2 and sleep--a molecular genetic approach. Hayaishi O. **J Sleep Res** 1999 Jun;8 Suppl 1:60-4 (24 ref.)

Humoral regulation of physiological sleep: cytokines and GHRH. Krueger JM, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:53-9 (49 ref.)

EEG sleep patterns in twins. Linkowski P. **J Sleep Res** 1999 Jun;8 Suppl 1:11-3 (30 ref.)

Molecular approaches towards the isolation of sleep-related genes. Schibler U, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:1-10 (45 ref.)

Quantitative trait loci approach to the genetics of sleep in recombinant inbred mice. Tafti M, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:37-43

Genetic determinants of sleep regulation in inbred mice. Franken P, et al. **Sleep** 1999 Mar 15;22(2):155-69

IMMUNOLOGY

Humoral regulation of physiological sleep: cytokines and GHRH. Krueger JM, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:53-9 (49 ref.)

PHYSIOLOGY

Differential effects of non-REM and REM sleep on sensory gating in rats. van Luijtelaar EL, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(4):263-70

Heart rate surges during REM sleep are associated with theta rhythm and PGO activity in cats. Rowe K, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R843-9

Manifestation of pulmonary hypertension during REM sleep in obstructive sleep apnea syndrome. Niijima M, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1766-72

Nocturnal oxygenation and prognosis in Duchenne muscular dystrophy. Phillips MF, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):198-202

Cerebral blood flow regulation in REM sleep: a model for flow-metabolism coupling. Lenzi P, et al. **Arch Ital Biol** 1999 May;137(2-3):165-79 (101 ref.)

Selective brain cooling is impaired in REM sleep. Parmeggiani PL, et al. **Arch Ital Biol** 1999 May; 137(2-3):161-4 (18 ref.)

Control of REM sleep: an aspect of the regulation of physiological homeostasis. Zamboni G, et al. **Arch Ital Biol** 1999 Aug;137(4):249-62 (43 ref.)

First-cycle REM density in never-depressed subjects with borderline personality disorder. Battaglia M, et al. **Biol Psychiatry** 1999 Apr 15;45(8):1056-8

Pretreatment REM sleep and subjective sleep quality

distinguish depressed psychotherapy remitters and nonremitters. Buysse DJ, et al. **Biol Psychiatry** 1999 Jan 15;45(2):205–13

A quantified analysis of sleep electroencephalography in anorectic adolescents. Nobili L, et al. **Biol Psychiatry** 1999 Mar 15;45(6):771–5

Rapid eye movement sleep changes during the adaptation night in combat veterans with posttraumatic stress disorder. Ross RJ, et al. **Biol Psychiatry** 1999 Apr 1;45(7):938–41

Shortened REM latency as a psychobiological marker for psychotic depression? An age–, gender–, and polarity–controlled study. Stefos G, et al. **Biol Psychiatry** 1998 Dec 15;44(12):1314–20

Hyperoxia increases paradoxical sleep rhythm in the pontine cat. Arnulf I, et al. **Brain Res** 1998 Oct 5;807(1–2):160–6

In vivo microdialysis measures of extracellular serotonin in the rat hippocampus during sleep–wakefulness. Park SP, et al. **Brain Res** 1999 Jul 3;833(2):291–6

The fasciculus retroflexus controls the integrity of REM sleep by supporting the generation of hippocampal theta rhythm and rapid eye movements in rats. Valjakka A, et al. **Brain Res Bull** 1998 Sep 15;47(2):171–84

Sleep/wake states of preterm infants: stability, developmental change, diurnal variation, and relation with caregiving activity. Ingersoll EW, et al. **Child Dev** 1999 Jan–Feb; 70(1):1–10

A case of sinus arrest and vagal overactivity during REM sleep. Coccagna G, et al. **Clin Auton Res** 1999 Jun; 9(3):135–8

P300 to high intensity stimuli during REM sleep. Cote KA, et al. **Clin Neurophysiol** 1999 Aug;110(8):1345–50

'Oddball' event–related potentials and information processing during REM and non–REM sleep. Pratt H, et al. **Clin Neurophysiol** 1999 Jan;110(1):53–61

Alpha activity in the human REM sleep EEG: topography and effect of REM sleep deprivation. Roth C, et al. **Clin Neurophysiol** 1999 Apr;110(4):632–5

EEG sleep in African–American patients with major depression: a historical case control study. Giles DE, et al. **Depress Anxiety** 1998;8(2):58–64

Spontaneous awakenings from sleep in the first year of life. Ficca G, et al. **Early Hum Dev** 1999 Jul;55(3):219–28

REM sleep components predict the response to initial treatment of infantile spasms. Kohyama J, et al. **Epilepsia** 1999 Jul;40(7):992–6

Region–dependent difference in the sleep–promoting potency of an adenosine A2A receptor agonist. Satoh S, et al. **Eur J Neurosci** 1999 May;11(5):1587–97

Involvement of adenosine A2A receptor in sleep promotion. Satoh S, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):155–62

Polysomnography and depressive symptoms in primary alcoholics with and without a lifetime diagnosis of secondary depression and in patients with primary major depression. Clark CP, et al. **J Affect Disord** 1999 Jan–Mar; 52(1–3):177–85

Respiratory changes associated with rapid eye movements in normo– and hypercapnia during sleep. Schäfer T, et al. **J Appl Physiol** 1998 Dec;85(6):2213–9

Why does arterial blood pressure rise actively during REM sleep? Sei H, et al. **J Med Invest** 1999 Feb;46(1–2):11–7 (45 ref.)

Electrophysiological brain stem investigations in idiopathic narcolepsy. Marx JJ, et al. **J Neurol** 1998 Aug; 245(8):537–41

Effects of transient and persistent cerebrospinal fluid drainage on sleep disordered breathing in patients with idiopathic adult hydrocephalus syndrome. Kristensen B, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):497–501

Key role of 5–HT1B receptors in the regulation of paradoxical sleep as evidenced in 5–HT1B knock–out mice. Boutrel B, et al. **J Neurosci** 1999 Apr 15;19(8):3204–12

High corticosterone levels in prenatally stressed rats predict persistent paradoxical sleep alterations. Dugovic C, et al. **J Neurosci** 1999 Oct 1;19(19):8656–64

The value of REM sleep parameters in differentiating Alzheimer's disease from old–age depression and normal aging. Dykierek P, et al. **J Psychiatr Res** 1998 Jan–Feb; 32(1):1–9

Centralis superior raphe, reticularis pontis nuclei, and sleep–wakefulness cycle in cats. Arpa J, et al. **J Sleep Res** 1998 Dec;7(4):263–75

The effects of sleep inertia on decision–making performance. Bruck D, et al. **J Sleep Res** 1999 Jun;8(2):95–103

Cardiac autonomic nervous system activity during presleep wakefulness and stage 2 NREM sleep. Burgess HJ, et al. **J Sleep Res** 1999 Jun;8(2):113–22

Sleep fragmentation and daytime vigilance in patients with OSA treated by surgical maxillomandibular advancement compared to CPAP therapy. Conradt R, et al. **J Sleep Res** 1998 Sep;7(3):217–23

Psychophysiological insomnia, sleep mentation, and memory consolidation [letter; comment] Feinberg I. **J Sleep Res** 1999 Jun;8(2):161–2. Comment on: J Sleep Res 1997 Sep;6(3):179–88.

Respiratory–related evoked potentials during the transition from alpha to theta EEG activity in stage 1 NREM sleep. Gora J, et al. **J Sleep Res** 1999 Jun;8(2):123–34

Heart period and heart period variability during sleep on the MIR space station. Gundel A, et al. **J Sleep Res** 1999 Mar;8(1):37–43

A dose–response study of total sleep time and the ability to maintain wakefulness. Härmä M, et al. **J Sleep Res** 1998 Sep;7(3):167–74

Prion protein: a role in sleep regulation? Huber R, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:30–6

Time course of sleep inertia dissipation in human performance and alertness. Jewett ME, et al. **J Sleep Res** 1999 Mar; 8(1):1–8

Cardiac autonomic function during sleep in psychogenic and organic erectile dysfunction. Lavie P, et al. **J Sleep Res** 1999 Jun;8(2):135–42

The relationship between 6–sulphatoxymelatonin and polysomnographic sleep in good sleeping controls and wake maintenance insomniacs, aged 55–80 years. Lushington K, et al. **J Sleep Res** 1999 Mar;8(1):57–64

Correlations among Epworth Sleepiness Scale scores, multiple sleep latency tests and psychological symptoms. Olson LG, et al. **J Sleep Res** 1998 Dec;7(4):248–53

Sino–aortic denervation augments the increase in blood pressure seen during paradoxical sleep in the rat. Sei H, et al. **J Sleep Res** 1999 Mar;8(1):45–50

Increased ACTH and corticosterone secretion induced by different methods of paradoxical sleep deprivation. Suchecki D, et al. **J Sleep Res** 1998 Dec;7(4):276–81

Changes in sleepiness and body temperature precede nocturnal sleep onset: evidence from a polysomnographic study in young men. van den Heuvel CJ, et al. **J Sleep Res** 1998 Sep;7(3):159–66

Modelling and exploring human sleep with event history analysis. Yassouridis A, et al. **J Sleep Res** 1999 Mar; 8(1):25–36

Melatonin as a therapy in REM sleep behavior disorder patients: an open–labeled pilot study on the possible influence of melatonin on REM–sleep regulation. Kunz D, et al. **Mov Disord** 1999 May;14(3):507–11

Biochemical effects induced by REM sleep deprivation in naive and in D–amphetamine treated rats. Lara–Lemus A, et al. **Neurobiology (Bp)** 1998;6(1):13–22

Sleep–related violence, injury, and REM sleep behavior disorder in PD [letter; comment] Bernath O, et al. **Neurology** 1999 Jun 10;52(9):1924. Comment on: Neurology 1998 Aug;51(2):526–9.

REM sleep behavior disorder and dementia: cognitive differences when compared with AD. Ferman TJ, et al. **Neurology** 1999 Mar 23;52(5):951–7

Physiologic events initiating REM sleep in patients with the postpolio syndrome. Siegel H, et al. **Neurology** 1999 Feb; 52(3):516–22

Opioids activate G proteins in REM sleep–related brain stem nuclei of rat. Capece ML, et al. **Neuroreport** 1998 Sep 14; 9(13):3025–8

High–frequency repetitive transcranial magnetic stimulation delays rapid eye movement sleep. Cohrs S, et al. **Neuroreport** 1998 Oct 26;9(15):3439–43

The effects of varying stimulus intensity on P300 during REM sleep. Cote KA, et al. **Neuroreport** 1999 Aug 2; 10(11):2313–8

Alpha–2 adrenoceptor mediated paradoxical (REM) sleep inhibition in the cat. Crochet S, et al. **Neuroreport** 1999 Jul 13;10(10):2199–204

Role of GABA–A receptor in the preoptic area in the regulation of sleep–wakefulness and rapid eye movement sleep. Ali M, et al. **Neurosci Res** 1999 Mar;33(3):245–50

Changes in reflex responses of the masseter and digastric muscles during sleep in freely behaving rabbits. Inoue M, et al. **Neurosci Res** 1999 May;34(1):37–44

Heterogeneous effects of rapid eye movement sleep deprivation on binding to alpha– and beta–adrenergic receptor subtypes in rat brain. Hipólide DC, et al. **Neuroscience** 1998 Oct;86(3):977–87

A key role for the caudoventral pontine tegmentum in the simultaneous generation of eye saccades in bursts and associated ponto–geniculo–occipital waves during paradoxical sleep in the cat. Vanni–Mercier G, et al. **Neuroscience** 1998 Sep;86(2):571–85

Sleep of children with enuresis: a polysomnographic study. Nevéus T, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1193–7

Monotremes and the evolution of rapid eye movement sleep. Siegel JM, et al. **Philos Trans R Soc Lond B Biol Sci** 1998 Jul 29;353(1372):1147–57 (35 ref.)

Analysis of rapid eye movement periodicity in narcoleptics based on maximum entropy method. Honma H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):203–5

Colony–stimulating factors in rapid eye movement sleep and non–rapid eye movement sleep regulation. Kimura M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):105–7

A novel method of time series analysis, and an application to the study of human sleep electroencephalogram. Koga E, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):491–7

Role of REM sleep and dream affect in overnight mood regulation: a study of normal volunteers. Cartwright R, et al. **Psychiatry Res** 1998 Oct 19;81(1):1–8

Role of REM sleep and dream variables in the prediction of remission from depression. Cartwright R, et al. **Psychiatry Res** 1998 Sep 21;80(3):249–55

Sleep EEG studies during early and late partial sleep deprivation in premenstrual dysphoric disorder and normal control subjects. Parry BL, et al. **Psychiatry Res** 1999 Feb 22;85(2):127–43

Nocturnal polysomnography in obsessive–compulsive disorder. Robinson D, et al. **Psychiatry Res** 1998 Sep 21; 80(3):257–63

Heart rate variability in insomniacs and matched normal sleepers. Bonnet MH, et al. **Psychosom Med** 1998 Sep–Oct; 60(5):610–5

EEG spectral analysis of the sleep–onset period in narcoleptics and normal sleepers. Alloway CE, et al. **Sleep** 1999 Mar 15;22(2):191–203

Adolescent sleep patterns, circadian timing, and sleepiness at a transition to early school days. Carskadon MA, et al. **Sleep** 1998 Dec 15;21(8):871–81

Amplitude reduction in visual event–related potentials as a function of sleep deprivation. Corsi–Cabrera M, et al. **Sleep** 1999 Mar 15;22(2):181–9

Genetic determinants of sleep regulation in inbred mice. Franken P, et al. **Sleep** 1999 Mar 15;22(2):155–69

Sleep architecture in a canine model of obstructive sleep apnea. Horner RL, et al. **Sleep** 1998 Dec 15;21(8):847–58

Dose–response relationship between sleep duration and human psychomotor vigilance and subjective alertness. Jewett ME, et al. **Sleep** 1999 Mar 15;22(2):171–9

Recovery of sleep after fetal preoptic transplantation in medial preoptic area–lesioned rats. John J, et al. **Sleep** 1998 Sep 15;21(6):601–6

Circadian and homeostatic influences on sleep in the squirrel monkey: sleep after sleep deprivation. Klerman EB, et al. **Sleep** 1999 Feb 1;22(1):45–59

Age–related changes in sleep in the rat. Mendelson WB, et al. **Sleep** 1999 Mar 15;22(2):145–50

The effects of REM sleep deprivation on the level of sleepiness/alertness. Nykamp K, et al. **Sleep** 1998 Sep 15; 21(6):609–14

Sudden arousals from slow–wave sleep and panic disorder [letter; comment] Plazzi G, et al. **Sleep** 1998 Sep 15; 21(6):548, 551. Comment on: Sleep 1996 Nov;19(9):744–6.

Effects of method, duration, and sleep stage on rebounds from sleep deprivation in the rat. Rechtschaffen A, et al. **Sleep** 1999 Feb 1;22(1):11–31 (105 ref.)

Arousal threshold to respiratory stimuli in OSA patients: evidence for a sleep–dependent temporal rhythm. Sforza E, et al. **Sleep** 1999 Feb 1;22(1):69–75

REM sleep deprivation in monocularly occluded kittens reduces the size of cells in LGN monocular segment. Shaffery JP, et al. **Sleep** 1998 Dec 15;21(8):837–45

Interrelations between sleep and the somatotropic axis. Van Cauter E, et al. **Sleep** 1998 Sep 15;21(6):553–66 (129 ref.)

Sleep, anxiety, and depression in abstinent and drinking alcoholics. Mackenzie A, et al. **Subst Use Misuse** 1999 Feb; 34(3):347–61

[Effect of awakening and sleep deprivation in triggering idiopathic generalized epilepsy] Crespel A, et al. **Rev Neurol (Paris)** 1999 Feb;155(2):131–4 (39 ref.) (Eng. Abstr.) **(Fre)**

[The role of the posterior hypothalamus in the regulation of paradoxical sleep] Suntsova NV, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov;84(11):1165–73 (Eng. Abstr.) **(Rus)**

[Benign neonatal sleep myoclonus] Caraballo R, et al. **Rev Neurol** 1998 Apr;26(152):540–4 (Eng. Abstr.) **(Spa)**

SLEEP, SLOW–WAVE see **SLEEP**

SLEEP STAGES

Road accidents caused by drivers falling asleep. Sagberg F. **Accid Anal Prev** 1999 Nov;31(6):639–49

Preventing drowsiness accidents by an alertness maintenance device. Verwey WB, et al. **Accid Anal Prev** 1999 May; 31(3):199–211

Recognizing problem sleepiness in your patients. National Center on Sleep Disorders Research Working Group. **Am Fam Physician** 1999 Feb 15;59(4):937–44 (61 ref.)

Problem sleepiness: an often unrecognized condition [editorial; comment] Zepf B. **Am Fam Physician** 1999 Feb 15;59(4):762, 770, 773. Comment on: Am Fam Physician 1999 Feb 15;59(4):937–44.

Indoor endotoxin and glucan in association with airway inflammation and systemic symptoms. Wan GH, et al. **Arch Environ Health** 1999 May–Jun;54(3):172–9

Headache and drowsiness. Cameron JA. **Aust Fam Physician** 1998 Aug;27(8):725–6

Involvement of stress in the sleep rebound mechanism induced by sleep deprivation in the rat: use of alpha–helical CRH (9–41). González MM, et al. **Behav Pharmacol** 1998 Dec;9(8):655–62

Effect of ipratropium bromide treatment on oxygen saturation and sleep quality in COPD. Martin RJ, et al. **Chest** 1999 May;115(5):1338–45

Development of children's knowledge about unconsciousness. Flavell JH, et al. **Child Dev** 1999 Mar–Apr;70(2):396–412

Somnolence syndrome in adults following cranial irradiation for primary brain tumours. Faithfull S, et al. **Clin Oncol (R Coll Radiol)** 1998;10(4):250–4

Lethargy from an unsuspected culprit. Goldberg KY, et al. **Curr Opin Pediatr** 1999 Feb;11(1):28–30

A comparative study of quiet sleep, active sleep, and waking on the first 2 days of life. Carroll DA, et al. **Dev Psychobiol** 1999 Jul;35(1):43–8

Nocturnal evolution of respiratory effort in obstructive sleep apnoea syndrome: influence on arousal threshold [see comments] Sforza E, et al. **Eur Respir J** 1998 Dec; 12(6):1257–63. Comment in: Eur Respir J 1998 Dec;12(6):1239–41.

Prevalence of daytime sleepiness in a population of drivers. Benbadis SR, et al. **Neurology** 1999 Jan 1;52(1):209–10

Classification of the sleeping pattern of normal adults. Fukuda K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):141–3
Epworth Sleepiness Scale and sleep studies in patients with obstructive sleep apnea syndrome. Furuta H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):301–2
Analyses of mothers' sleep logs in postpartum periods. Horiuchi S, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):137–9
Effects of morning bright light on sleep in healthy elderly women. Kobayashi R, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):237–8
Sleep stage and skin temperature regulation during night–sleep in winter. Kubo H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):121–3
Effects of volitional lifestyle on rest–activity cycle in the aged. Shirota A, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):271–2
Effects of a daytime nap in the aged. Tamaki M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):273–5
Validity of sleep log compared with actigraphic sleep–wake state II. Usui A, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):183–4
The lower entrainable limit of rat circadian rhythm to sinusoidal light intensity cycles: a preliminary study. Usui S, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):215–7
Systematic treatment for nocturnal urinary frequency following a sleep–micturition chart. Yamao Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):277–8
Reduced incidence of the somnolence syndrome after prophylactic cranial irradiation in children with acute lymphoblastic leukemia. Uzal D, et al. **Radiother Oncol** 1998 Jul;48(1):29–32

DRUG EFFECTS

The sleep of abstinent pure primary alcoholic patients: natural course and relationship to relapse. Drummond SP, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1796–802
Central nervous system effects of H1–receptor antagonists in the elderly. Simons FE, et al. **Ann Allergy Asthma Immunol** 1999 Feb;82(2):157–60
Mechanisms of non–drowsiness after oral administration of TMK688, a novel antiallergic drug. Shizawa T, et al. **Arzneimittelforschung** 1998 Oct;48(10):979–84
Loratadine in the high performance aerospace environment. Hansen GR. **Aviat Space Environ Med** 1999 Sep; 70(9):919–24
Role of blood–brain barrier P–glycoprotein in limiting brain accumulation and sedative side–effects of asimadoline, a peripherally acting analgaesic drug. Jonker JW, et al. **Br J Pharmacol** 1999 May;127(1):43–50
Effect of short–term transdermal estrogen replacement therapy on sleep: a randomized, double–blind crossover trial in postmenopausal women. Polo–Kantola P, et al. **Fertil Steril** 1999 May;71(5):873–80
Structural and compositional determinants of cortistatin activity. Criado JR, et al. **J Neurosci Res** 1999 Jun 15; 56(6):611–9
Galanin has REM–sleep deprivation–like effects on the sleep EEG in healthy young men. Murck H, et al. **J Psychiatr Res** 1999 May–Jun;33(3):225–32
Serotonin–2 receptors and human sleep: effect of a selective antagonist on EEG power spectra. Landolt HP, et al. **Neuropsychopharmacology** 1999 Sep;21(3):455–66
Interleukin–1beta and calcitonin, but not corticotropin–releasing factor, alter sleep cycles when injected into the rat hypothalamic lateral paraventricular area. Slisli Y, et al. **Neurosci Lett** 1999 Apr 9;265(1):29–32
Effect of 1,5–benzodiazepine derivatives on sleep. Ayala Guerrero F, et al. **Proc West Pharmacol Soc** 1998;41:29–32
The hypnotic effects of melatonin treatment on diurnal sleep in humans. Matsumoto M. **Psychiatry Clin Neurosci** 1999 Apr;53(2):243–5
Double–blind test on the efficacy of methylcobalamin on sleep–wake rhythm disorders. Takahashi K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):211–3
Effects of trazodone on polysomnography, blood concentration and core body temperature in healthy volunteers. Yamadera H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):189–91
Mitigation of the somnolence of insulin–induced hypoglycemia by a vasopressin V1 receptor antagonist in the rhesus monkey. Chen MD, et al. **Psychoneuroendocrinology** 1998 Jul;23(5):497–503
Sleep and endocrine changes after intranasal administration of growth hormone–releasing hormone in young and aged humans. Perras B, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):743–57
Differential EEG effects of the anxiolytic drugs, deramciclane (EGIS–3886), ritanserin and chlordiazepoxide in rats. Détári L, et al. **Psychopharmacology (Berl)** 1999 Mar;142(3):318–26
Mg2+ reduces ACTH secretion and enhances spindle power without changing delta power during sleep in men — possible therapeutic implications. Murck H, et al. **Psychopharmacology (Berl)** 1998 Jun;137(3):247–52
[The effects of clomipramine on diurnal sleepiness and respiratory parameters in a a case of Prader–Willi syndrome] Esnault–Lavandier S, et al. **Neurophysiol Clin** 1998 Dec;28(6):521–5 (Eng. Abstr.) **(Fre)**

GENETICS

HLA DR2 and DQ1 frequency among narcoleptic patients in Hong Kong Chinese. Wing YK, et al. **Psychiatry Clin Neurosci** 1998 Oct;52(5):523–7

PHYSIOLOGY

Painless intussusception and altered mental status. Birkhahn R, et al. **Am J Emerg Med** 1999 Jul;17(4):345–7
Aldosterone release during the sleep–wake cycle in humans. Charloux A, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):E43–9
Hypoglycemia and torpor in Siberian hamsters. Dark J, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R776–81
Vigilance states and body temperature during the circadian cycle in fed and fasted pigeons (Columba livia). Rashotte ME, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1690–702
Dissimilarity of slow–wave activity enhancement by torpor and sleep deprivation in a hibernator. Strijkstra AM, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1110–7
Thermoregulatory and soporific effects of very low dose melatonin injection. van den Heuvel CJ, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E249–54
Evolution of sleep apnea syndrome in sleepy snorers: a population–based prospective study. Lindberg E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2024–7
Effect of sleep state on the laryngeal chemoreflex in neonatal piglets. Cleland–Zamudio SS, et al. **Ann Otol Rhinol Laryngol** 1999 Mar;108(3):309–13
Daytime functioning in obstructive sleep apnea patients: exercise tolerance, subjective fatigue, and sleepiness. Aguillard RN, et al. **Appl Psychophysiol Biofeedback** 1998 Dec;23(4):207–17
Mandibular posture during sleep in healthy adults. Miyamoto K, et al. **Arch Oral Biol** 1998 Apr;43(4):269–75
Role of nitric oxide in sleep regulation: effects of L–NAME, an inhibitor of nitric oxide synthase, on sleep in rats. Monti JM, et al. **Behav Brain Res** 1999 Apr;100(1–2):197–205
Neuronal plasticity induced by fear conditioning is expressed during paradoxical sleep: evidence from simultaneous recordings in the lateral amygdala and the medial geniculate in rats. Hennevin E, et al. **Behav Neurosci** 1998 Aug;112(4):839–62
Reaction of sleep–wakefulness cycle to stress is related to differences in hypothalamo–pituitary–adrenal axis reactivity in rat. Bouyer JJ, et al. **Brain Res** 1998 Aug 31; 804(1):114–24
Brain spatial microstates of human spontaneous alpha activity in relaxed wakefulness, drowsiness period, and REM sleep. Cantero JL, et al. **Brain Topogr** 1999 Summer;11(4):257–63
A persistent circhoral ultradian rhythm is identified in human core temperature. Lindsley G, et al. **Chronobiol Int** 1999 Jan;16(1):69–78
Automatic detection of cyclic alternating pattern (CAP) sequences in sleep: preliminary results. Rosa AC, et al. **Clin Neurophysiol** 1999 Apr;110(4):585–92
Common slow modulation of respiration, arterial blood pressure and cortical activity during sleep onset while napping. Rittweger J. **Clin Physiol** 1999 May;19(3):221–9
Can panic be induced in deep sleep? Examining the necessity of cognitive processing for panic. Koenigsberg HW, et al. **Depress Anxiety** 1998;8(3):126–30
Delta (0.5–1.5 Hz) and sigma (11.5–15.5 Hz) EEG power dynamics throughout quiet sleep in malnourished infants. Fagioli I, et al. **Dev Psychobiol** 1999 May;34(4):315–23
Temporal organization of sleep–wake states in preterm infants. Holditch–Davis D, et al. **Dev Psychobiol** 1998 Nov; 33(3):257–69
Sleep state changes associated with cerebral blood volume changes in healthy term newborn infants. Münger DM, et al. **Early Hum Dev** 1998 Aug 28;52(1):27–42
The effect of sleep state on electroretinographic (ERG) activity during early human development. Peña M, et al. **Early Hum Dev** 1999 May;55(1):51–62
Cyclic alternating pattern (CAP) in normal sleep: polysomnographic parameters in different age groups. Parrino L, et al. **Electroencephalogr Clin Neurophysiol** 1998 Dec;107(6):439–50
Validation of an EEG–derived spectral frequency index (SFx) for continuous monitoring of sleep depth in humans. Dimpfel W, et al. **Eur J Med Res** 1998 Oct 14;3(10):453–60
Effects of high–altitude periodic breathing on sleep and arterial oxyhaemoglobin saturation. Salvaggio A, et al. **Eur Respir J** 1998 Aug;12(2):408–13
Pupillographic sleepiness testing in hypersomniacs and normals. Wilhelm H, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct;236(10):725–9
Sleep and alertness during alternating monophasic and polyphasic rest–activity cycles. Porcu S, et al. **Int J Neurosci** 1998 Jul;95(1–2):43–50
Within–night variation in respiratory effort preceding apnea termination and EEG delta power in sleep apnea. Berry RB, et al. **J Appl Physiol** 1998 Oct;85(4):1434–41
Chemo– and baroresponses differ in African–Americans and Caucasians in sleep. Crisostomo I, et al. **J Appl Physiol** 1998 Oct;85(4):1413–20
Ventilatory instability during sleep onset in individuals with high peripheral chemosensitivity. Dunai J, et al. **J Appl Physiol** 1999 Aug;87(2):661–72
Patterned cardiovascular responses to sleep and nonrespiratory arousals in a porcine model. Launois SH, et al. **J Appl Physiol** 1998 Oct;85(4):1285–91
Augmenting expiratory neuronal activity in sleep and wakefulness and in relation to duration of expiration. Orem J. **J Appl Physiol** 1998 Oct;85(4):1260–6
Attenuation of regional differentiation of sympathetic nerve activity during sleep in humans. Kodama Y, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2–3):126–33
Psychogenetically selected (Roman high– and low–avoidance) rats differ in 24–hour sleep organization. Steimer T, et al. **J Biol Rhythms** 1999 Jun;14(3):221–6
Automated sleep staging systems in rats. Robert C, et al. **J Neurosci Methods** 1999 May 1;88(2):111–22 (75 ref.)
Sleep characteristics in children with Down syndrome. Levanon A, et al. **J Pediatr** 1999 Jun;134(6):755–60
Multimodal time–variant signal analysis of neonatal EEG burst patterns. Witte H, et al. **Medinfo** 1998;9 Pt 2:1250–4
The Epworth Sleepiness Scale may not reflect objective measures of sleepiness or sleep apnea. Chervin RD, et al. **Neurology** 1999 Jan 1;52(1):125–31
Cardiovascular changes associated with spontaneous and evoked K–complexes. Monstad P, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):211–3
Interhemispheric differences in awake and sleep human EEG: a comparison between non–linear and spectral measures. Pereda E, et al. **Neurosci Lett** 1999 Mar 19;263(1):37–40
Patients' and cohabitants' reports on snoring and daytime sleepiness, 1–8 years after surgical treatment of snoring. Hagert B, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 Jan–Feb;61(1):19–24
Microstructure of longitudinal 24 hour electroencephalograms in healthy preterm infants. Pan XL, et al. **Pediatr Int** 1999 Feb;41(1):18–27
Effect of sleep stages on measurements of passive respiratory mechanics in infants with bronchiolitis. Pratl B, et al. **Pediatr Pulmonol** 1999 Apr;27(4):273–7
Walking through a maze alters the architecture of sleep. Meier–Koll A, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1141–59
Sleep patterns of the volcano mouse (Neotomodon alstoni alstoni). Ayala–Guerrero F, et al. **Physiol Behav** 1998 Jun 15;64(4):577–80
Slow–wave sleep and waking cognitive performance among older adults with and without insomnia complaints. Crenshaw MC, et al. **Physiol Behav** 1999 May;66(3):485–92
Smooth pursuit and saccadic eye movements as possible indicators of nighttime sleepiness. Porcu S, et al. **Physiol Behav** 1998 Dec 1;65(3):437–43
A comparison of period amplitude analysis and FFT power spectral analysis of all–night human sleep EEG. Uchida S, et al. **Physiol Behav** 1999 Aug 1;67(1):121–31
Gender difference of slow wave sleep in middle aged and elderly subjects. Fukuda N, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):151–3
Effects of prone and supine position on sleep characteristics in preterm infants. Goto K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):315–7
Linear automatic detection of eye movements during the transition between wake and sleep. Hiroshige Y. **Psychiatry Clin Neurosci** 1999 Apr;53(2):179–81
A case report on EEG nocturnal sleep in visually impaired persons aged in their 30s and 50s. Hono T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):145–7
A study on polysomnographic observations and subjective experiences under sensory deprivation. Iwata K, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):129–31
Colony–stimulating factors in rapid eye movement sleep and non–rapid eye movement sleep regulation. Kimura M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):105–7
Non–linear analysis of the sleep EEG. Kobayashi T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):159–61
Acetylcholine and glutamate release during sleep–wakefulness in the pedunculopontine tegmental nucleus and norepinephrine changes regulated by nitric oxide. Kodama T, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):109–11
Correlation between the circadian sleep propensity rhythm and hormonal rhythms under ultra–short sleep–wake cycle. Kudo Y, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):253–5
Amplitude reduction of plasma melatonin rhythm in association with an internal desynchronization in a subject with non–24–hour sleep–wake syndrome. Masubuchi S, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):249–51
Changes of amplitude and topographical characteristics of event–related potentials during the hypnagogic period. Michida N, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):163–5
Frequent breathing–related electroencephalogram arousals in four patients with mild obstructive sleep apneas. Mikami A, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):307–9
Disappearance of rhythmic involuntary movements during sleep in a case of olivopontocerebellar atrophy. Miyamoto M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):287–90
Functional changes of the brainstem triggering vertex sharp wave with spindle. Sakai T, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):167–9
Laterality of delta waves during all–night sleep. Sekimoto M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):149–50
Sleep patterns during 20–m nitrox saturation dives. Seo Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):125–7
Diurnal fluctuation of sleep propensity across the menstrual cycle. Shibui K, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):207–9
Skin blood flow responses during sleep by laser Doppler

flowmetry. Shiihara Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):117–9

Changes in sleep–wake cycle during the period from late pregnancy to puerperium identified through the wrist actigraph and sleep logs. Shinkoda H, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):133–5

Topographic mapping of EEG spectral power and coherence in delta activity during the transition from wakefulness to sleep. Tanaka H, et al. **Psychiatry Clin Neurosci** 1999 Apr; 53(2):155–7

Poor recovery sleep after sleep deprivation in delayed sleep phase syndrome. Uchiyama M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):195–7

Night-day–night sleep–wakefulness monitoring by ambulatory integrated circuit memories. Yamamoto M, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):171–3

Effects of prolactin on sleep in cyclic rats. Zhang SQ, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):101–3

Latent structure of EEG sleep variables in depressed and control subjects: descriptions and clinical correlates [published erratum appears in Psychiatry Res 1998 Sep 21;80(3):299] Buysse DJ, et al. **Psychiatry Res** 1998 Jun 15;79(2):105–22

EEG alpha power and alpha power asymmetry in sleep and wakefulness. Benca RM, et al. **Psychophysiology** 1999 Jul; 36(4):430–6

Cardiac activity during sleep onset. Burgess HJ, et al. **Psychophysiology** 1999 May;36(3):298–306

[Propriospinal myoclonus induced by relaxation and drowsiness] Tison F, et al. **Rev Neurol (Paris)** 1998 Jun; 154(5):423–5 (Eng. Abstr.) **(Fre)**

[The relationship between subjective sleepiness and polysomnographic findings in sleep apnea syndrome] Yagi T, et al. **Rinsho Byori** 1998 Nov;46(11):1168–72 (Eng. Abstr.) **(Jpn)**

[Effects of 6-hour deprivation of protosleep (primary sleep) in the brown frog, Rana temporaria] Aristakesian EA, et al. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug;34(4):510–5 **(Rus)**

[Analysis of the changes observed in the sleep EEG recording of patients with juvenile myoclonic epilepsy] Palomino A, et al. **Rev Neurol** 1998 Nov;27(159):801–4 (Eng. Abstr.) **(Spa)**

[Sleep–arousal dissociation in a case of hypersomnia] Rodríguez-Gómez J. **Rev Neurol** 1998 Nov;27(159):841–3 (Eng. Abstr.) **(Spa)**

SLEEP TERROR DISORDER see **SLEEP DISORDERS**

SLEEPWALKING see **SOMNAMBULISM**

SLIM DISEASE see **HIV WASTING SYNDROME**

SLIME BACTERIA see **MYXOCOCCALES**

SLIME MOLDS, PLASMODIAL see **MYXOMYCETES**

SLIME MOLDS, TRUE see **MYXOMYCETES**

SLIPPED DISK see **INTERVERTEBRAL DISK DISPLACEMENT**

SLOTHS

PARASITOLOGY

Characterization of Endotrypanum (Kinetoplastida: Trypanosomatidae), a unique parasite infecting the neotropical tree sloths (Edentata). Franco AM, et al. **Mem Inst Oswaldo Cruz** 1999 Mar–Apr;94(2):261–8 (62 ref.)

SLOTTED ATTACHMENT, DENTAL see **DENTURE PRECISION ATTACHMENT**

SLOW ALPHA 2-MACROGLOBULINS see **ALPHA-MACROGLOBULINS**

SLOW REACTING SUBSTANCE OF ANAPHYLAXIS see **SRS-A**

SLOW-REACTING SUBSTANCES see **AUTACOIDS**

SLOW VIRUS DISEASES

see related
PRION DISEASES

DRUG THERAPY

Doxycycline control of prion protein transgene expression modulates prion disease in mice. Tremblay P, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12580–5

SLUDGE see **SEWAGE**

SLUDGE, BILIARY see **BILE**

SLUMS see **POVERTY AREAS**

SLY SYNDROME see **MUCOPOLYSACCHARIDOSIS VII**

SMALL-AREA ANALYSIS

Place effects for areas defined by administrative boundaries. Boyle MH, et al. **Am J Epidemiol** 1999 Mar 15; 149(6):577–85

A new twist in ecological studies [comment] Feinleib M. **Am J Public Health** 1998 Oct;88(10):1445–6. Comment on: Am J Public Health 1998 Oct;88(10):1484–9.

NZDep91: A New Zealand index of deprivation. Salmond C, et al. **Aust N Z J Public Health** 1998 Dec;22(7):835–7

Reconstruction of human immunodeficiency virus (HIV) sub-epidemics in Italian regions. Barcherini S, et al. **Int J Epidemiol** 1999 Feb;28(1):122–9

New measures for reporting the magnitude of small-area variation in rates. Coory M, et al. **Stat Med** 1998 Nov 30; 17(22):2625–34

SMALL NUCLEAR RIBONUCLEOPROTEINS see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U1 see **RIBONUCLEOPROTEINS, SMALL, U1**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U2 see **RIBONUCLEOPROTEINS, SMALL, U2**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U3 see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U4 see **RIBONUCLEOPROTEINS, SMALL, U4–U6**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U4–U6 see **RIBONUCLEOPROTEINS, SMALL, U4–U6**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U5 see **RIBONUCLEOPROTEINS, SMALL, U5**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U6 see **RIBONUCLEOPROTEINS, SMALL, U4–U6**

SMALL NUCLEAR RIBONUCLEOPROTEINS, U7 see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

SMALL NUCLEAR RNA see **RNA, SMALL NUCLEAR**

SMALL ROUND-STRUCTURED VIRUSES see **NORWALK VIRUS**

SMALLPOX

Smallpox: gone but not forgotten. Ellner PD. **Infection** 1998 Sep–Oct;26(5):263–9 (49 ref.)

[Smallpox] Kurashige T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):141–4 (10 ref.) **(Jpn)**

DRUG THERAPY

Drugs and vaccines against biological weapons. **Med Lett Drugs Ther** 1999 Feb 12;41(1046):15–6

EPIDEMIOLOGY

The siren song of eradication. Henderson DA. **J R Coll Physicians Lond** 1998 Nov–Dec;32(6):580–4 (21 ref.)

Is smallpox history? [editorial] **Lancet** 1999 May 8; 353(9164):1539

HISTORY

The myth of the medical breakthrough: smallpox, vaccination, and Jenner reconsidered. Gross CP, et al. **Int J Infect Dis** 1998 Jul–Sep;3(1):54–60

Modern epidemiology: forward to the 18th century! [letter] Bégaud B. **Lancet** 1999 Jul 31;354(9176):432

Medical iconography in the 17th century [letter] Esposito R. **Lancet** 1998 Dec 19–26;352(9145):2026

Smallpox: a history of its rise and fall. Radetsky M. **Pediatr Infect Dis J** 1999 Feb;18(2):85–93

Jenner and the control of smallpox. Baxby D. **Trans Med Soc Lond** 1996–97;113:18–22

[Medicine and the patient: a historical approach] Rieder P. **Rev Med Suisse Romande** 1998 Dec;118(12):1001–7 **(Fre)**

[Historical review of smallpox, the eradication of smallpox and the attenuated smallpox MVA vaccine] Mayr A. **Berl Munch Tierarztl Wochenschr** 1999 Sep;112(9):322–8 (Eng. Abstr.) **(Ger)**

[World-wide eradication of smallpox] Rodríguez H. **Rev Med Chil** 1998 Jul;126(7 Suppl):19–25 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Paramunity-inducing effects of vaccinia strain MVA. Vilsmeier B. **Berl Munch Tierarztl Wochenschr** 1999 Sep; 112(9):329–33

PREVENTION & CONTROL

Commentary: smallpox eradication in west and central Africa revisited. Foege WH. **Bull World Health Organ** 1998; 76(3):233–5

The threat of bioterrorism returns the fear of smallpox. Atlas RM. **Curr Opin Microbiol** 1998 Dec;1(6):719–21 (10 ref.)

Smallpox as a biological weapon: medical and public health management. Working Group on Civilian Biodefense. Henderson DA, et al. **JAMA** 1999 Jun 9;281(22):2127–37 (51 ref.)

Vaccines for smallpox [letter] Baxby D. **Lancet** 1999 Jul 31; 354(9176):422–3

Vaccines for smallpox [letter] Blanchard T, et al. **Lancet** 1999 Jul 31;354(9176):422

Poxvirus dilemmas [letter; comment] Hooper C. **N Engl J Med** 1998 Dec 31;339(27):2027–8. Comment on: N Engl J Med 1998 Aug 20;339(8):556–9.

Smallpox stocks: new focus for research? [news] Dove A. **Nat Med** 1999 May;5(5):474

Has smallpox finally been eradicated? [editorial] Michaeli D. **Public Health Rev** 1998;26(3):305–7

Smallpox eradication. Destruction of variola virus stocks. **Wkly Epidemiol Rec** 1999 Jun 18;74(24):188–9! **(Eng, Fre)**

VIROLOGY

A variant of variola virus, characterized by changes in polypeptide and endonuclease profiles. Dumbell KR, et al. **Epidemiol Infect** 1999 Apr;122(2):287–90

SMALLPOX VACCINE

Paramunity-inducing effects of vaccinia strain MVA. Vilsmeier B. **Berl Munch Tierarztl Wochenschr** 1999 Sep; 112(9):329–33

Smallpox stocks: new focus for research? [news] Dove A. **Nat Med** 1999 May;5(5):474

Smallpox vaccine [letter] Katz J. **Science** 1999 Sep 24; 285(5436):2067

ADMINISTRATION & DOSAGE

Vaccines for smallpox [letter] Baxby D. **Lancet** 1999 Jul 31; 354(9176):422–3

Vaccines for smallpox [letter] Blanchard T, et al. **Lancet** 1999 Jul 31;354(9176):422

CONTRAINDICATIONS

Poxvirus dilemmas [letter; comment] Hooper C. **N Engl J Med** 1998 Dec 31;339(27):2027–8. Comment on: N Engl J Med 1998 Aug 20;339(8):556–9.

HISTORY

Domiciliary vaccination: a practice overlooked. Mortimer P. **Commun Dis Public Health** 1999 Jan;2(1):69–70

The myth of the medical breakthrough: smallpox, vaccination, and Jenner reconsidered. Gross CP, et al. **Int J Infect Dis** 1998 Jul–Sep;3(1):54–60

Modern epidemiology: forward to the 18th century! [letter] Bégaud B. **Lancet** 1999 Jul 31;354(9176):432

Edward Jenner's Inquiry; a bicentenary analysis. Baxby D. **Vaccine** 1999 Jan 28;17(4):301–7

"Choose a lesser of two evils" Vinzenz Kern (1760–1829) and the introduction of vaccination in the Slovenian territories of the Habsburg monarchy—on the 200th anniversary of Jenner's discovery of the small-pox vaccination. Zupanič-Slavec Z, et al. **Wien Klin Wochenschr** 1998 Jul 31;110(13–14):501–6

[Medicine and the patient: a historical approach] Rieder P. **Rev Med Suisse Romande** 1998 Dec;118(12):1001–7 **(Fre)**

[Historical review of smallpox, the eradication of smallpox and the attenuated smallpox MVA vaccine] Mayr A. **Berl Munch Tierarztl Wochenschr** 1999 Sep;112(9):322–8 (Eng. Abstr.) **(Ger)**

[Two hundred years ago: the first smallpox vaccinations in Vienna] Katscher F. **Wien Klin Wochenschr** 1999 Apr 23; 111(8):299–306 (Eng. Abstr.) **(Ger)**

[World-wide eradication of smallpox] Rodríguez H. **Rev Med Chil** 1998 Jul;126(7 Suppl):19–25 (Eng. Abstr.) **(Spa)**

SMALLPOX VIRUS see **VARIOLA VIRUS**

SMEGMA

"Smegma stones" [letter; comment] Sonnex C, et al. **Sex Transm Infect** 1998 Jun;74(3):231. Comment on: Genitourin Med 1997 Dec;73(6):567.

SMELL

see related
ANOSMIA
ODORS

Taste and smell complaints in HIV-infected patients. Heald AE, et al. **AIDS** 1998 Sep 10;12(13):1667–74

Phonological and perceptual components of short-term memory for odors. White TL, et al. **Am J Psychol** 1998 Fall;111(3):411–34

Nasal airway resistance and olfactory acuity following transsphenoidal pituitary surgery. Ikeda K, et al. **Am J Rhinol** 1999 Jan–Feb;13(1):45–8

A study of the relationship between the T&T olfactometer and the University of Pennsylvania Smell Identification Test in a Japanese population. Kondo H, et al. **Am J Rhinol** 1998 Sep–Oct;12(5):353–8

Proceedings of the International Symposium on Olfaction

and Taste XII. San Diego, California, USA. July 7-12, 1997. **Ann N Y Acad Sci** 1998 Nov 30;855:1-872

5-HT4 receptors: gene, transduction and effects on olfactory memory. Bockaert J, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:1-15 (61 ref.)

Rapid clinical evaluation of anosmia in children: the Alcohol Sniff Test. Davidson TM, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:787-92

The design principles of axilla deodorant fragrances. McGee T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:841-6

Technologies and tools for mimicking olfaction: status of the Rome "Tor Vergata" electronic nose. D'Amico A, et al. **Biosens Bioelectron** 1998 Sep 15;13(6):711-21

The ability of odours to serve as state-dependent cues for real-world memories: can Viking smells aid the recall of Viking experiences? Aggleton JP, et al. **Br J Psychol** 1999 Feb;90 (Pt 1):1-7

Olfactory learning abilities in staggerer mutant mice. Deiss V, et al. **C R Acad Sci III** 1999 Jun;322(6):467-71

Olfaction in migraine [letter; comment] Hirsch AR. **Cephalalgia** 1998 Jul-Aug;18(6):360. Comment on: Cephalalgia 1997 Nov;17(7):729-32.

Sensory perception is related to the rate of change of volatile concentration in-nose during eating of model gels. Baek I, et al. **Chem Senses** 1999 Apr;24(2):155-60

Perception of everyday odors--correlation between intensity, familiarity and strength of hedonic judgement. Distel H, et al. **Chem Senses** 1999 Apr;24(2):191-9

The effect of odour priming on long latency visual evoked potentials of matching and mismatching objects. Grigor J, et al. **Chem Senses** 1999 Apr;24(2):137-44

Olfactory discrimination ability of human subjects for ten pairs of enantiomers. Laska M, et al. **Chem Senses** 1999 Apr;24(2):161-70

Olfactory discrimination ability for homologous series of aliphatic alcohols and aldehydes. Laska M, et al. **Chem Senses** 1999 Jun;24(3):263-70

AChemS: the beginning. Association for Chemoreception Sciences. Mozell MM. **Chem Senses** 1998 Dec;23(6):721-33

Visual event related potentials modulated by contextually relevant and irrelevant olfactory primes. Sarfarazi M, et al. **Chem Senses** 1999 Apr;24(2):145-54

Clinical tests of olfaction. Dawes PJ. **Clin Otolaryngol** 1998 Dec;23(6):484-90 (53 ref.)

Thermal, olfactory, and tactile stimuli increase oral grasping of an artificial nipple by the newborn rat. Koffman DJ, et al. **Dev Psychobiol** 1998 Dec;33(4):317-26

1998 equivalence of sensory responses to single and mixed volatile organic compounds at equimolar concentrations. Prah JD. **Environ Health Perspect** 1998 Nov;106(11):739-44

Unidirectional olfactory hallucination associated with ipsilateral unruptured intracranial aneurysm. Mizobuchi M, et al. **Epilepsia** 1999 Apr;40(4):516-9

Effects of olfactory stimuli on urge reduction in smokers. Sayette MA, et al. **Exp Clin Psychopharmacol** 1999 May; 7(2):151-9

Comparative study of visual, auditory, and olfactory function in Usher syndrome. Seeliger M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):301-7

Using olfactometry to measure intensity and threshold dilution ratio for evaluating swine odor. Chen Y, et al. **J Air Waste Manag Assoc** 1999 Jul;49(7):847-53

Effects of olfactory stimulation on the vigilance performance of individuals with brain injury. Sullivan TE, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):227-36

Augmentation of taste conditioning by a preconditioned odor. Batsell WR Jr, et al. **J Exp Psychol Anim Behav Process** 1999 Jul;25(3):374-88

The use of cadaver dogs in locating scattered, scavenged human remains: preliminary field test results. Komar D. **J Forensic Sci** 1999 Mar;44(2):405-8

Prediction of olfactory response based on age, gender and smoking habits. Davies CW, et al. **J Med Eng Technol** 1999 Mar-Apr;23(2):73-6

Olfactory responses and field attraction of mosquitoes to volatiles from Limburger cheese and human foot odor. Kline DL. **J Vector Ecol** 1998 Dec;23(2):186-94

Olfactory responses of female Culex quinquefasciatus Say (Diptera: Culicidae) in a dual-choice olfactometer. Mboera LE, et al. **J Vector Ecol** 1998 Dec;23(2):107-13

Maintenance of weight loss using taste and smell sensations. Poothullil JM. **J Womens Health** 1999 Jan-Feb;8(1):109-13

Generalization between binary odor mixtures and their components in the rat. Linster C, et al. **Physiol Behav** 1999 Jun;66(4):701-7

A demonstration of classical conditioning of the human eyeblink to an olfactory stimulus. Moore AB, et al. **Physiol Behav** 1999 Jun;66(4):689-93

Olfaction and symptoms in the multiple chemical sensitivities syndrome. Ross PM, et al. **Prev Med** 1999 May; 28(5):467-80 (140 ref.)

Olfactory identification deficiency and WCST performance in men with schizophrenia. Saoud M, et al. **Psychiatry Res** 1998 Nov 16;81(2):251-7

Suprathreshold intensity and annoyance reactions in experimental challenge to toluene and n-butyl acetate among subjects with long-term solvent exposure. Orbaek P, et al. **Scand J Work Environ Health** 1998 Oct;24(5):432-8

Neuropsychological, neurological and symptom correlates of impaired olfactory identification in schizophrenia. Stedman TJ, et al. **Schizophr Res** 1998 Jun 22;32(1):23-30

The flavor of life: perinatal development of odor and taste preferences. Hudson R, et al. **Schweiz Med Wochenschr** 1999 Feb 6;129(5):176-81

Quantitative structure-activity relationships for nasal pungency thresholds of volatile organic compounds. Hau KM, et al. **Toxicol Sci** 1999 Jan;47(1):93-8

[Screening of olfaction with smell diskettes (published erratum appears in Laryngorhinootologie 1999 Jun;78(6):A24)] Simmen D, et al. **Laryngorhinootologie** 1999 Mar;78(3):125-30 (Eng. Abstr.) **(Ger)**

[Inducibility of olfactory sensitivity by odor exposure of persons with specific anosmia] Möller R, et al. **Z Exp Psychol** 1999;46(1):53-9 (Eng. Abstr.) **(Ger)**

[Fragrances and medical science (see comments)] Magyar LA. **Orv Hetil** 1999 Mar 7;140(10):547-8. Comment in: Orv Hetil 1999 Jul 18;140(29):1657. **(Hun)**

[Comments on the article "Smells in medicine" (letter; comment)] Major L. **Orv Hetil** 1999 Jul 18;140(29):1657. Comment on: Orv Hetil 1999 Mar 7;140(10):547-8. **(Hun)**

[Dogs recognize distinctive chromosomal forms of Arvalis and Obscurus common voles (microtus arvalis Pallas, 1779) and individuals of the same type from diverse populations by smell] Sokolov VE, et al. **Dokl Akad Nauk** 1999 Jan; 364(3):427-30 **(Rus)**

DRUG EFFECTS

An unexpected benefit of anaesthesia [letter] [see comments] Cooper GM. **Anaesthesia** 1998 Aug;53(8):830. Comment in: Anaesthesia 1999 Jan;54(1):101.

Topical ephedrine administration and nasal chemosensory function in healthy human subjects. Temmel AF, et al. **Arch Otolaryngol Head Neck Surg** 1999 Sep;125(9):1012-4

Effects of MK-801 on vicarious trial-and-error and reversal of olfactory discrimination learning in weanling rats. Griesbach GS, et al. **Behav Brain Res** 1998 Dec; 97(1-2):29-38

Olfaction and peripheral olfactory connections in methimazole-treated rats. Xu W, et al. **Behav Brain Res** 1999 Jul;102(1-2):41-50

Postacquisition scopolamine treatments reveal the time course for the formation of lamb odor recognition memory in parturient ewes. Ferreira G, et al. **Behav Neurosci** 1999 Feb;113(1):136-42

Effects of molecular structures on the olfactory responses of phospholipid membranes to four alcohols. Zhou Q, et al. **Chem Phys Lipids** 1998 Sep;95(1):1-9

Short communication: long- but not medium-term retention of olfactory memories in honeybees is impaired by actinomycin D and anisomycin. Wüstenberg D, et al. **Eur J Neurosci** 1998 Aug;10(8):2742-5

Interactions between perinatal and neonatal associative learning defined by contiguous olfactory and tactile stimulation. Dominguez HD, et al. **Neurobiol Learn Mem** 1999 May;71(3):272-88

Inhibition of nitric oxide synthase impairs early olfactory associative learning in newborn rats. Samama B, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):219-31

Long-term effects on the olfactory system of exposure to hydrogen sulphide. Hirsch AR, et al. **Occup Environ Med** 1999 Apr;56(4):284-7

Selective and reversible reduction of odor sensitivity in the rat by concanavalin A. Apfelbach R, et al. **Physiol Behav** 1998 Dec 1;65(3):513-6

Physostigmine enhances performance on an odor mixture discrimination test. Doty RL, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):801-4

[Occupational olfactory changes: diagnostic trends] Chiappino G, et al. **Med Lav** 1998 Jul-Aug;89(4):283-91 (Eng. Abstr.) **(Ita)**

GENETICS

The foraging gene affects adult but not larval olfactory-related behavior in Drosophila melanogaster. Shaver SA, et al. **Behav Brain Res** 1998 Sep;95(1):23-9

Patterning an epidermal field: Drosophila lozenge, a member of the AML-1/Runt family of transcription factors, specifies olfactory sense organ type in a dose-dependent manner. Gupta BP, et al. **Dev Biol** 1998 Nov 15; 203(2):400-11

Olfactory cues associated with the major histocompatibility complex. Eggert F, et al. **Genetica** 1998-99;104(3):191-7 (35 ref.)

Soluble MHC antigens and olfactory recognition of genetic individuality: the mechanism. Pearse-Pratt R, et al. **Genetica** 1998-99;104(3):223-30 (13 ref.)

LUSH odorant-binding protein mediates chemosensory responses to alcohols in Drosophila melanogaster. Kim MS, et al. **Genetics** 1998 Oct;150(2):711-21

Using neural networks and genetic algorithms to enhance performance in an electronic nose. Kermani BG, et al. **IEEE Trans Biomed Eng** 1999 Apr;46(4):429-39

Effects of a conditional Drosophila PKA mutant on olfactory learning and memory. Li W, et al. **Learn Mem** 1996 Jan-Feb;2(6):320-33

Untrained mice discriminate MHC-determined odors. Penn D, et al. **Physiol Behav** 1998 Jun 1;64(3):235-43

IMMUNOLOGY

Olfactory cues associated with the major histocompatibility complex. Eggert F, et al. **Genetica** 1998-99;104(3):191-7 (35 ref.)

Soluble MHC antigens and olfactory recognition of genetic individuality: the mechanism. Pearse-Pratt R, et al. **Genetica** 1998-99;104(3):223-30 (13 ref.)

Origin, functions and chemistry of H-2 regulated odorants. Yamazaki K, et al. **Genetica** 1998-99;104(3):235-40 (59 ref.)

Effects of a long-term inhalation of fragrances on the stress-induced immunosuppression in mice. Fujiwara R, et al. **Neuroimmunomodulation** 1998 Nov-Dec;5(6):318-22

Odortypes: their origin and composition. Yamazaki K, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1522-5

PHYSIOLOGY

Provocations with perfume in the eyes induce airway symptoms in patients with sensory hyperreactivity. Millqvist E, et al. **Allergy** 1999 May;54(5):495-9

The effect of auricular acupuncture on olfactory acuity. Tanaka O, et al. **Am J Chin Med** 1999;27(1):19-24

Effects of cGMP and sodium nitroprusside on odor responses in turtle olfactory sensory neurons. Inamura K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1201-6

Odor structure-activity relationships of carboxylic acids correspond between squirrel monkeys and humans. Laska M, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1639-45

Clinical value of olfactory function tests after endoscopic sinus surgery: a short-term result. Shin SH, et al. **Am J Rhinol** 1999 Jan-Feb;13(1):63-6

Olfactory mucosa of the South American armadillo Chaetophractus villosus: an ultrastructural study. Ferrari CC, et al. **Anat Rec** 1998 Nov;252(3):325-39

Differences and similarities in the perception of everyday odors. A Japanese-German cross-cultural study. Ayabe-Kanamura S, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:694-700

Very early changes in olfactory functioning due to Alzheimer's disease and the role of apolipoprotein E in olfaction. Bacon AW, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:723-31

Sensory properties of selected terpenes. Thresholds for odor, nasal pungency, nasal localization, and eye irritation. Cometto-Muñiz JE, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:648-51

Human brain function during odor encoding and recognition. A PET activation study. Dade LA, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:572-4

Olfactory dysfunction in multiple sclerosis. Relation to plaque load in inferior frontal and temporal lobes. Doty RL, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:781-6

Using olfaction to study memory. Eichenbaum H. **Ann N Y Acad Sci** 1998 Nov 30;855:657-69 (24 ref.)

Olfactory evoked responses and identification tests in neurological disease. Hawkes CH, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:608-15

Are odors the best cues to memory? A cross-modal comparison of associative memory stimuli. Herz RS. **Ann N Y Acad Sci** 1998 Nov 30;855:670-4

Age-related changes in the prevalence of smell/taste problems among the United States adult population. Results of the 1994 disability supplement to the National Health Interview Survey (NHIS). Hoffman HJ, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:716-22

Olfactory function in acute rhinitis. Hummel T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:616-24

Developmental effects on odor learning and memory in children. Jehl C, et al. **Ann N Y Acad Sci** 1998 Nov 30; 855:632-4

Temporal processing of odor mixtures reveals that identification of components takes precedence over temporal information in olfactory memory. Jinks A, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:834-6

Metrics of odorant dissimilarity. Labeled magnitude scale vs magnitude estimation. Kurtz DB, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:638-40

Semantic mediation of age-related deficits in episodic recognition of common odors. Larsson M, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:675-80

Human olfactory bulb: aging of glomeruli and mitral cells and a search for the accessory olfactory bulb. Meisami E, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:708-15

Apolipoprotein E status is associated with odor identification deficits in nondemented older persons. Murphy C, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:744-50

Age effects on central nervous system activity reflected in the olfactory event-related potential. Evidence for decline in middle age. Murphy C, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:598-607

Odor memory in normal aging and Alzheimer's disease. Nordin S, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:686-93 (33 ref.)

An integrated model of intensity and quality of odor mixtures. Olsson MJ. **Ann N Y Acad Sci** 1998 Nov 30;855:837-40

Steady state visual evoked potential (SSVEP) changes in response to olfactory stimulation. Patterson J, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:625-7

Spatiotemporal masking in pure olfaction. Radil T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:641-4

The neurophysiology of taste and olfaction in primates, and umami flavor. Rolls ET, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:426-37 (30 ref.)

Ipsilateral dominance of human olfactory activated centers estimated from event-related magnetic fields measured by 122-channel whole-head neuromagnetometer using odorant stimuli synchronized with respirations. Tonoike

M, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:579–90

Phonological and perceptual components of short-term memory for odors. White TL, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:635–7

Food neophobia, odor evaluation and exploratory sniffing behavior. Raudenbush B, et al. **Appetite** 1998 Oct; 31(2):171–83

Fluctuating olfactory sensitivity and distorted odor perception in allergic rhinitis. Apter AJ, et al. **Arch Otolaryngol Head Neck Surg** 1999 Sep;125(9):1005–10

Relationship between uninasal anatomy and uninasal olfactory ability. Hornung DE, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):53–8

Pheromonal influences [letter; comment] Wysocki CJ, et al. **Arch Sex Behav** 1998 Dec;27(6):627–34. Comment on: Arch Sex Behav 1998 Feb;27(1):1–13.

Light exposure of the embryo and development of behavioural lateralisation in chicks, I: olfactory responses. Rogers LJ, et al. **Behav Brain Res** 1998 Dec; 97(1–2):195–200

Neonatal monoaminergic depletion in mice (Mus musculus) improves performance of a novel odor discrimination task. Berger-Sweeney J, et al. **Behav Neurosci** 1998 Dec; 112(6):1318–26

The hippocampus and transverse patterning guided by olfactory cues. Dusek JA, et al. **Behav Neurosci** 1998 Aug; 112(4):762–71

Functional interaction between entorhinal cortex and basolateral amygdala during trace conditioning of odor aversion in the rat. Ferry B, et al. **Behav Neurosci** 1999 Feb;113(1):118–25

The parabrachial nucleus is essential for acquisition of a conditioned odor aversion in rats. Grigson PS, et al. **Behav Neurosci** 1998 Oct;112(5):1104–13

Classical conditioning to hypoxia using odors as conditioned stimuli in rats. Nsegbe E, et al. **Behav Neurosci** 1998 Dec; 112(6):1393–401

Lesions centered on the medial amygdala impair scent-marking and sex-odor recognition but spare discrimination of individual odors in female golden hamsters. Petrulis A, et al. **Behav Neurosci** 1999 Apr; 113(2):345–57

Serotonin plays a permissive role in conditioned olfactory learning induced by norepinephrine in the neonate rat. Price TL, et al. **Behav Neurosci** 1998 Dec;112(6):1430–7

Olfactory function in the human fetus: evidence from selective neonatal responsiveness to the odor of amniotic fluid. Schaal B, et al. **Behav Neurosci** 1998 Dec; 112(6):1438–49

A computer-controlled olfactometer for fMRI and electrophysiological studies of olfaction. Lorig TS, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):370–5

An olfactory recognition model based on spatio-temporal encoding of odor quality in the olfactory bulb. Hoshino O, et al. **Biol Cybern** 1998 Aug;79(2):109–20

Olfactory identification and psychosis. Striebel KM, et al. **Biol Psychiatry** 1999 Jun 1;45(11):1419–25

Scent of a Ewe: transmission of a social cue by conspecifics affects sexual performance in male sheep. Maina D, et al. **Biol Reprod** 1999 Jun;60(6):1373–7

Blind smell: brain activation induced by an undetected air-borne chemical. Sobel N, et al. **Brain** 1999 Feb;122 (Pt 2):209–17

Effects of electrical stimulation of the tentacular digits of a slug upon the frequency of electrical oscillations in the procerebral lobe. Ito I, et al. **Brain Res** 1999 Jan 2; 815(1):121–5

Molecular development of sensory maps: representing sights and smells in the brain. O'Leary DD, et al. **Cell** 1999 Jan 22;96(2):255–69 (87 ref.)

Bilateral detection thresholds in dextrals and sinistrals reflect the more sensitive side of the nose, which is not lateralized [published erratum appears in Chem Senses 1998 Dec;23(6):761] Betchen SA, et al. **Chem Senses** 1998 Aug; 23(4):453–7

Is there an inner nose? Elmes DG. **Chem Senses** 1998 Aug; 23(4):443–5 (21 ref.)

A new method to improve olfactory responses to GC effluents. Gouinguené S, et al. **Chem Senses** 1998 Dec; 23(6):647–52

Handedness is a determining factor in lateralized olfactory discrimination. Hummel T, et al. **Chem Senses** 1998 Oct; 23(5):541–4

Olfactory discrimination ability and odor structure-activity relationships in honeybees. Laska M, et al. **Chem Senses** 1999 Aug;24(4):429–38

Olfactory event-related potentials in young and elderly adults: evaluation of tracking task versus eyes open/closed recording. Nordin S, et al. **Chem Senses** 1999 Aug; 24(4):459–64

Alteration of perceived fragrance of essential oils in relation to type of work: a simple screening test for efficacy of aroma. Sugawara Y, et al. **Chem Senses** 1999 Aug; 24(4):415–21

Changes in odor quality discrimination following recovery from olfactory nerve transection. Yee KK, et al. **Chem Senses** 1998 Oct;23(5):513–9

Development of the vertebrate main olfactory system. Lin DM, et al. **Curr Opin Neurobiol** 1999 Feb;9(1):74–8 (41 ref.)

Odor preferences in neonatal and weanling rats. Amiri L, et al. **Dev Psychobiol** 1998 Sep;33(2):157–62

Bottle-fed neonates prefer an odor experienced in utero to an odor experienced postnatally in the feeding context. Marlier L, et al. **Dev Psychobiol** 1998 Sep;33(2):133–45

Behavioral development and olfactory learning in the honeybee (Apis mellifera). Ray S, et al. **Dev Psychobiol** 1999 Jan;34(1):21–7

Olfactory alliesthesia in human neonates: prandial state and stimulus familiarity modulate facial and autonomic responses to milk odors. Soussignan R, et al. **Dev Psychobiol** 1999 Jul;35(1):3–14

Relation of olfactory event-related potentials to changes in stimulus concentration. Tateyama T, et al. **Electroencephalogr Clin Neurophysiol** 1998 Sep; 108(5):449–55

Clinical validation of a new olfactory test. Kremer B, et al. **Eur Arch Otorhinolaryngol** 1998;255(7):355–8

Olfaction and human kin recognition. Porter RH. **Genetica** 1998–99;104(3):259–63 (37 ref.)

Normal aging and odor intensity effects on the olfactory event-related potential. Covington JW, et al. **Int J Psychophysiol** 1999 Jun;32(3):205–14

Human electroencephalographic (EEG) response to olfactory stimulation: two experiments using the aroma of food. Martin GN. **Int J Psychophysiol** 1998 Nov; 30(3):287–302

Is odor processing related to oral breathing? Pause BM, et al. **Int J Psychophysiol** 1999 Jun;32(3):251–60

Odorant response of individual sensilla on the Drosophila antenna. Clyne P, et al. **Invert Neurosci** 1997 Sep–Dec; 3(2–3):127–35

Elements of the olfactory signaling pathways in insect antennae. Krieger J, et al. **Invert Neurosci** 1997 Sep–Dec; 3(2–3):137–44 (50 ref.)

A technique for assessing the effects of olfaction on feed preference in lactating Holstein cows. Corley RN 3rd, et al. **J Anim Sci** 1999 Jan;77(1):194–7

Neuropsychological performance and cognitive olfactory event-related brain potentials in young and elderly adults. Geisler MW, et al. **J Clin Exp Neuropsychol** 1999 Feb; 21(1):108–26

Traumatic brain injury assessed with olfactory event-related brain potentials. Geisler MW, et al. **J Clin Neurophysiol** 1999 Jan;16(1):77–86

Functional anatomy of perceptual and semantic processing for odors. Royet JP, et al. **J Cogn Neurosci** 1999 Jan; 11(1):94–109

Transient and persistent tetrodotoxin-sensitive sodium currents in squid olfactory receptor neurons. Chen N, et al. **J Comp Physiol [A]** 1999 Jan;184(1):63–72

Inhibitory receptor binding events among the components of complex mixtures contribute to mixture suppression in responses of olfactory receptor neurons of spiny lobsters. Cromarty SI, et al. **J Comp Physiol [A]** 1998 Dec; 183(6):699–707

Olfactory receptors in aquatic and terrestrial vertebrates. Freitag J, et al. **J Comp Physiol [A]** 1998 Nov;183(5):635–50

Similarity in the qualities of individual odors among kin and species in Turkish (Mesocricetus brandti) and golden (Mesocricetus auratus) hamsters. Heth G, et al. **J Comp Psychol** 1999 Sep;113(3):321–6

Perception of scent over-marks by golden hamsters (Mesocricetus auratus): novel mechanisms for determining which individual's mark is on top. Johnston RE, et al. **J Comp Psychol** 1998 Sep;112(3):230–43

New kid on the block: a role for the Na/Ca exchanger in odor transduction [comment] Dionne VE. **J Gen Physiol** 1998 Nov;112(5):527–8 (5 ref.). Comment on: J Gen Physiol 1998 Nov;112(5):529–35.

Responses of Xenopus laevis water nose to water-soluble and volatile odorants. Iida A, et al. **J Gen Physiol** 1999 Jul;114(1):85–92

Na+-dependent Ca2+ extrusion governs response recovery in frog olfactory receptor cells [see comments] Reisert J, et al. **J Gen Physiol** 1998 Nov;112(5):529–35. Comment in: J Gen Physiol 1998 Nov;112(5):527.

Impaired sensory functioning in elders: the relation with its potential determinants and nutritional intake [see comments] de Jong N, et al. **J Gerontol A Biol Sci Med Sci** 1999 Aug;54(8):B324–31. Comment in: J Gerontol A Biol Sci Med Sci 1999 Aug;54(8):B332–3.

Chemosensory impairment and appetite commentary on "Impaired sensory functioning in elders: the relation with its potential determinants and nutritional intake" [comment] Schiffman SS. **J Gerontol A Biol Sci Med Sci** 1999 Aug; 54(8):B332–5. Comment on: J Gerontol A Biol Sci Med Sci 1999 Aug;54(8):B324–31.

Dendritic pattern development of the honeybee antennal lobe neurons: a laser scanning confocal microscopic study. Devaud JM, et al. **J Neurobiol** 1999 Jun 15;39(4):461–74

Expression of major urinary protein genes in the nasal glands associated with general olfaction. Utsumi M, et al. **J Neurobiol** 1999 May;39(2):227–36

Salmonid olfactory system-specific protein (N24) exhibits glutathione S-transferase class pi-like structure. Kudo H, et al. **J Neurochem** 1999 Apr;72(4):1344–52

Mechanisms of afterhyperpolarization in lobster olfactory receptor neurons. Corotto FS, et al. **J Neurophysiol** 1998 Sep;80(3):1268–76

Both external and internal calcium reduce the sensitivity of the olfactory cyclic-nucleotide-gated channel to CAMP. Kleene SJ. **J Neurophysiol** 1999 Jun;81(6):2675–82

Na+-gated nonselective cation channel from lobster olfactory projection neurons. Zhainazarov AB, et al. **J Neurophysiol** 1998 Dec;80(6):3387–91

Smell and taste perception in Drosophila melanogaster larva: toxin expression studies in chemosensory neurons. Heimbeck G, et al. **J Neurosci** 1999 Aug 1;19(15):6599–609

Neural encoding in orbitofrontal cortex and basolateral amygdala during olfactory discrimination learning. Schoenbaum G, et al. **J Neurosci** 1999 Mar 1;19(5):1876–84

Odorant-induced and sniff-induced activation in the cerebellum of the human. Sobel N, et al. **J Neurosci** 1998 Nov 1;18(21):8990–9001

Olfactory adaptation depends on the Trp Ca2+ channel in Drosophila. Störtkuhl KF, et al. **J Neurosci** 1999 Jun 15; 19(12):4839–46

A lobster phospholipase C-beta that associates with G-proteins in response to odorants. Xu F, et al. **J Neurosci** 1999 Jun 15;19(12):4881–8

Effects of middle turbinate medialization on olfaction. Friedman M, et al. **Laryngoscope** 1999 Sep;109(9):1442–5

Environmental signals modulate olfactory acuity, discrimination, and memory in Caenorhabditis elegans. Colbert HA, et al. **Learn Mem** 1997 Jul–Aug;4(2):179–91

Association of visual objects and olfactory cues in Drosophila. Guo A, et al. **Learn Mem** 1997 Jul–Aug; 4(2):192–204

Integration of olfactory information in a spatial representation enabling accurate arm choice in the radial arm maze. Lavenex P, et al. **Learn Mem** 1996 Jan–Feb;2(6):299–319

CCK-A and CCK-B receptors enhance olfactory recognition via distinct neuronal pathways. Lemaire M, et al. **Learn Mem** 1994 Sep–Oct;1(3):153–64

Effects of a conditional Drosophila PKA mutant on olfactory learning and memory. Li W, et al. **Learn Mem** 1996 Jan–Feb;2(6):320–33

Consolidation of memory for odor-reward association: beta-adrenergic receptor involvement in the late phase. Sara SJ, et al. **Learn Mem** 1999 Mar–Apr;6(2):88–96

Rats with low levels of brain docosahexaenoic acid show impaired performance in olfactory-based and spatial learning tasks. Greiner RS, et al. **Lipids** 1999;34 Suppl:S239–43

Clinical assessment of olfactory dysfunction in Parkinson's disease [letter; comment] Mansoor MR, et al. **Mov Disord** 1999 Mar;14(2):385–6. Comment on: Mov Disord 1998 May;13(3):394–9.

Seeing smells: imaging olfactory learning in bees [news; comment] Borst A. **Nat Neurosci** 1999 Jan;2(1):7–8. Comment on: Nat Neurosci 1999 Jan;2(1):74–8.

The smell of adrenaline [news; comment] Firestein S, et al. **Nat Neurosci** 1999 Feb;2(2):106–8. Comment on: Nat Neurosci 1999 Feb;2(2):133–8.

Circadian rhythms in olfactory responses of Drosophila melanogaster. Krishnan B, et al. **Nature** 1999 Jul 22; 400(6742):375–8

Who reads temporal information contained across synchronized and oscillatory spike trains? MacLeod K, et al. **Nature** 1998 Oct 15;395(6703):693–8

Olfaction. Good reception in fruitfly antennae [news] Pilpel Y, et al. **Nature** 1999 Mar 25;398(6725):285, 287

Neurobiology. A place for space and smells [news; comment] Rawlins JN. **Nature** 1999 Feb 18;397(6720):561, 563. Comment on: Nature 1999 Feb 18;397(6720):613–6.

Computation of molecular information in mammalian olfactory systems. Mori K, et al. **Network** 1998 Nov; 9(4):R79–102 (89 ref.)

The smell of representations. Dudai Y. **Neuron** 1999 Aug; 23(4):633–5 (18 ref.)

Optical imaging of odorant representations in the mammalian olfactory bulb. Rubin BD, et al. **Neuron** 1999 Jul; 23(3):499–511

Olfaction and hemispheric asymmetry: unilateral stimulation and bilateral electrodermal recordings. Brand G, et al. **Neuropsychobiology** 1999;39(3):160–4

Odor identification in normal aging and early Alzheimer's disease: effects of retrieval support. Larsson M, et al. **Neuropsychology** 1999 Jan;13(1):47–53

Olfactory dysfunction in schizophrenia: a qualitative and quantitative review. Moberg PJ, et al. **Neuropsychopharmacology** 1999 Sep;21(3):325–40 (90 ref.)

Olfactory oscillations augment odor discrimination not odor identification by Limax CNS. Teyke T, et al. **Neuroreport** 1999 Apr 6;10(5):1061–8

Effects of fenvalerate on the development of olfactory perception in a beetle. Wegerhoff R, et al. **Neuroreport** 1998 Oct 5;9(14):3241–5

Olfactory stimulation enhances light-induced phase shifts in free-running activity rhythms and Fos expression in the suprachiasmatic nucleus. Amir S, et al. **Neuroscience** 1999; 92(4):1165–70

Changes in neurotransmitter release in the main olfactory bulb following an olfactory conditioning procedure in mice. Brennan PA, et al. **Neuroscience** 1998 Dec;87(3):583–90

Activity-dependent regulation of interleukin-1 beta immunoreactivity in the developing rat olfactory bulb. Lim JH, et al. **Neuroscience** 1999;93(1):371–4

Considering olfactory stimulation for adults with age-related dementia. Vance D. **Percept Mot Skills** 1999 Apr; 88(2):398–400

Alterations of chemosensory function in end-stage liver disease. Bloomfeld RS, et al. **Physiol Behav** 1999 Apr; 66(2):203–7

The mother rat's vomeronasal organ is involved in detection of dodecyl propionate, the pup's preputial gland pheromone. Brouette-Lahlou I, et al. **Physiol Behav** 1999 May;66(3):427-36

Workshop on taste and smell in the elderly: an overview. Finkelstein JA, et al. **Physiol Behav** 1999 Apr;66(2):173-6

Assessing olfactory performance in an Old World primate, Macaca nemestrina. Hübener F, et al. **Physiol Behav** 1998 Jun 15;64(4):521-7

Behavioral responses to aliphatic aldehydes can be predicted from known electrophysiological responses of mitral cells in the olfactory bulb. Linster C, et al. **Physiol Behav** 1999 May;66(3):497-502

The influence of odor type on the discrimination and identification of odorants in multicomponent odor mixtures. Livermore A, et al. **Physiol Behav** 1998 Nov 15; 65(2):311-20

Loss of olfactory function in dementing disease. Murphy C. **Physiol Behav** 1999 Apr;66(2):177-82 (59 ref.)

Firing properties of olfactory bulb neurons during sniffing in rats. Ogawa Y. **Physiol Behav** 1998 Jul;64(5):755-64

Effects of vomeronasal organ removal on individual odor discrimination, sex-odor preference, and scent marking by female hamsters. Petrulis A, et al. **Physiol Behav** 1999 Mar; 66(1):73-83

Role of aversively motivated behavior in the olfactory bulbectomy syndrome. Primeaux SD, et al. **Physiol Behav** 1999 Aug 1;67(1):41-7

Do chemosensory changes influence food intake in the elderly? Rolls BJ. **Physiol Behav** 1999 Apr;66(2):193-7 (35 ref.)

Olfactory thresholds for nicotine and menthol in smokers (abstinent and nonabstinent) and nonsmokers. Rosenblatt MR, et al. **Physiol Behav** 1998 Dec 1;65(3):575-9

Odor detection in rats with 3-methylindole-induced reduction of sensory input. Setzer AK, et al. **Physiol Behav** 1998 Dec 1;65(3):489-96

The influence of olfaction on potentiation and inhibition of ultrasonic vocalization of rat pups. Shair HN, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):769-72

The influence of aging on oral health and consequences for taste and smell. Ship JA. **Physiol Behav** 1999 Apr; 66(2):209-15 (72 ref.)

Analysis of interaction in binary odorant mixtures. Smith BH. **Physiol Behav** 1998 Dec 1;65(3):397-407

The orosensory recognition of long-chain fatty acids in rats. Tsuruta M, et al. **Physiol Behav** 1999 Apr;66(2):285-8

Respiratory airflow pattern at the rat's snout and an hypothesis regarding its role in olfaction. Wilson DA, et al. **Physiol Behav** 1999 Mar;66(1):41-4

Olfactory P3 in young and older adults. Morgan CD, et al. **Psychophysiology** 1999 May;36(3):281-7

Effects of early odor exposure in domestic chicks. Porter RH, et al. **Reprod Nutr Dev** 1998 Jul-Aug;38(4):441-8

Effects of litter size on behavioral development in mice. Tanaka T. **Reprod Toxicol** 1998 Nov-Dec;12(6):613-7

Measurement of olfactory threshold using an evoked potential technique. Wada M. **Rhinology** 1999 Mar; 37(1):25-8

Mapping smells in the brain [news] Barinaga M. **Science** 1999 Jul 23;285(5427):508

Chemosensation: molecular mechanisms in worms and mammals. Prasad BC, et al. **Trends Genet** 1999 Apr; 15(4):150-3 (46 ref.)

Characterizing complex chemosensors: information-theoretic analysis of olfactory systems. Alkasab TK, et al. **Trends Neurosci** 1999 Mar;22(3):102-8

Something in the air: new vistas on olfaction. Brennan PA, et al. **Trends Neurosci** 1998 Jan;21(1):1-2

Molecular aspects of pheromonal communication via the vomeronasal organ of mammals. Tirindelli R, et al. **Trends Neurosci** 1998 Nov;21(11):482-6 (58 ref.)

[Chemosensory evoked potentials. Applications and significance in routine clinical practice (editorial)] Welge-Lüssen A. **HNO** 1999 May;47(5):453-5 **(Ger)**

[Metabotropic glutamate receptor: its ligands and function in the olfactory system] Hayashi Y. **Nippon Yakurigaku Zasshi** 1999 Feb;113(2):73-83 (38 ref.) (Eng. Abstr.) **(Jpn)**

[Species-specific odor in closely related species: period of development in ontogenesis of house (Mus musculus musculus) and mound-building (Mus spicilegus) mice] Kotenkova EV, et al. **Izv Akad Nauk Ser Biol** 1998 Nov-Dec;(6):754-7 (Eng. Abstr.) **(Rus)**

[The attraction of Campbell (Phodopus campbelli) and Djungarian (Phodopus sungorus) hamster pups to the odor of the secretion from specific complexes in the corners of the mouth of the mother] Sokolov VE, et al. **Izv Akad Nauk Ser Biol** 1999 Mar-Apr;(2):242-5 (Eng. Abstr.) **(Rus)**

SMILING

Dr. Angry and Mr. Smile: when categorization flexibly modifies the perception of faces in rapid visual presentations. Schyns PG, et al. **Cognition** 1999 Jan 1; 69(3):243-65

Ictal smile. Molinuevo JL, et al. **Epilepsia** 1998 Dec; 39(12):1357-60

The neurology and evolution of humor, laughter, and smiling: the false alarm theory. Ramachandran VS. **Med Hypotheses** 1998 Oct;51(4):351-4

Orthodontics and orthognathic surgery in the combined treatment of an excessively "gummy smile". Fowler P. **N Z Dent J** 1999 Jun;95(420):53-4

The anatomy of the nasolabial fold: the keystone of the smiling mechanism. Rubin LR. **Plast Reconstr Surg** 1999 Feb;103(2):687-91; discussion 692-4

Sex differences over age groups in self-posed smiling in photographs. Otta E. **Psychol Rep** 1998 Dec;83(3 Pt 1):907-13

PHYSIOLOGY

What's in a smile? Messinger DS, et al. **Dev Psychol** 1999 May;35(3):701-8

The significance of a human smile: observations on Bell's palsy. Slavkin HC. **J Am Dent Assoc** 1999 Feb; 130(2):269-72

The classification of smile patterns [published erratum appears in J Can Dent Assoc 1999 Jun;65(6):324] Philips E. **J Can Dent Assoc** 1999 May;65(5):252-4

SMITH-LEMLI-OPITZ SYNDROME

Smith-Lemli-Opitz syndrome: a treatable inherited error of metabolism causing mental retardation. Nowaczyk MJ, et al. **CMAJ** 1999 Jul 27;161(2):165-70 (40 ref.)

Photosensitivity in the Smith-Lemli-Opitz syndrome: the US experience of a new congenital photosensitivity syndrome. Anstey AV, et al. **J Am Acad Dermatol** 1999 Jul;41(1):121-3

BLOOD

Importance of measuring plasma cholesterol precursors [letter] [see comments] Bodamer OA, et al. **Am J Med Genet** 1999 Jan 15;82(2):199. Comment in: Br J Dermatol 1998 Oct;139(4):757-8.

Levels of unconjugated estriol and other maternal serum markers in pregnancies with Smith-Lemli-Opitz (RSH) syndrome fetuses [letter] Bradley LA, et al. **Am J Med Genet** 1999 Feb 12;82(4):355-8 (23 ref.)

DIAGNOSIS

Beneficial effects of dietary supplementation in a disorder with defective synthesis of cholesterol. A case report of a girl with Smith-Lemli-Opitz syndrome, polyneuropathy and precocious puberty. Starck L, et al. **Acta Paediatr** 1999 Jul;88(7):729-33

Prenatal diagnosis of the RSH/Smith-Lemli-Opitz syndrome. Kratz LE, et al. **Am J Med Genet** 1999 Feb 19;82(5):376-81

Smith-Lemli-Opitz syndrome: phenotypic extreme with minimal clinical findings. Nowaczyk MJ, et al. **Am J Med Genet** 1998 Aug 6;78(5):419-23

Prenatal diagnosis of Smith-Lemli-Opitz syndrome in a pregnancy with low maternal serum oestriol and a sex-reversed fetus. Bick DP, et al. **Prenat Diagn** 1999 Jan; 19(1):68-71 (16 ref.)

Smith-Lemli-Opitz syndrome presenting with persisting nuchal oedema and non-immune hydrops. Maymon R, et al. **Prenat Diagn** 1999 Feb;19(2):105-7

Fetal Smith-Lemli-Opitz syndrome can be detected accurately and reliably by measuring amniotic fluid dehydrocholesterols. Tint GS, et al. **Prenat Diagn** 1998 Jul; 18(7):651-8

[Smith-Lemli-Opitz syndrome] Haghiri N, et al. **Arch Pediatr** 1999 May;6(5):536-9 (Eng. Abstr.) **(Fre)**

DRUG THERAPY

Antenatal therapy of Smith-Lemli-Opitz syndrome. Irons MB, et al. **Fetal Diagn Ther** 1999 May-Jun;14(3):133-7

EMBRYOLOGY

Equine type estrogens produced by a pregnant woman carrying a Smith-Lemli-Opitz syndrome fetus. Shackleton CH, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1157-9

ENZYMOLOGY

Smith-Lemli-Opitz syndrome is caused by mutations in the 7-dehydrocholesterol reductase gene [see comments] Waterham HR, et al. **Am J Hum Genet** 1998 Aug; 63(2):329-38. Comment in: Am J Hum Genet 1998 Aug;63(2):322-6.

GENETICS

RSH/Smith-Lemli-Opitz syndrome: mutations and metabolic morphogenesis [editorial; comment] Kelley RI. **Am J Hum Genet** 1998 Aug;63(2):322-6 (41 ref.). Comment on: Am J Hum Genet 1998 Aug;63(2):329-38.

Smith-Lemli-Opitz syndrome is caused by mutations in the 7-dehydrocholesterol reductase gene [see comments] Waterham HR, et al. **Am J Hum Genet** 1998 Aug; 63(2):329-38. Comment in: Am J Hum Genet 1998 Aug;63(2):322-6.

Eye findings in 8 children and a spontaneously aborted fetus with RSH/Smith-Lemli-Opitz syndrome. Atchaneeyasakul LO, et al. **Am J Med Genet** 1998 Dec 28;80(5):501-5

Biochemical variants of Smith-Lemli-Opitz syndrome. Neklason DW, et al. **Am J Med Genet** 1999 Aug 27; 85(5):517-23

Molecular genetics of the Smith-Lemli-Opitz syndrome and postsqualene sterol metabolism. Fitzky BU, et al. **Curr Opin Lipidol** 1999 Apr;10(2):123-31 (69 ref.)

RSH (so-called Smith-Lemli-Opitz) syndrome. Opitz JM. **Curr Opin Pediatr** 1999 Aug;11(4):353-62 (60 ref.)

Endocrine and metabolism [editorial] Root AW. **Curr Opin Pediatr** 1999 Aug;11(4):329-32 (12 ref.)

MID2, a homologue of the Opitz syndrome gene MID1: similarities in subcellular localization and differences in expression during development. Buchner G, et al. **Hum Mol Genet** 1999 Aug;8(8):1397-407

Functional characterization of the Opitz syndrome gene product (midin): evidence for homodimerization and association with microtubules throughout the cell cycle. Cainarca S, et al. **Hum Mol Genet** 1999 Aug;8(8):1387-96

Cholesterol biosynthesis from lanosterol. Molecular cloning, tissue distribution, expression, chromosomal localization, and regulation of rat 7-dehydrocholesterol reductase, a Smith-Lemli-Opitz syndrome-related protein. Bae SH, et al. **J Biol Chem** 1999 May 21;274(21):14624-31

[A new congenital photosensitivity syndrome. Smith-Lemili-Opitz syndrome] **Hautarzt** 1999 Feb; 50(2):159 **(Ger)**

METABOLISM

Variant RSH/Smith-Lemli-Opitz syndrome with atypical sterol metabolism. Anderson AJ, et al. **Am J Med Genet** 1998 Aug 6;78(5):413-8

Biochemical variants of Smith-Lemli-Opitz syndrome. Neklason DW, et al. **Am J Med Genet** 1999 Aug 27; 85(5):517-23

Further delineation of the classical Smith-Lemli-Opitz syndrome phenotype at different patient ages: clinical and biochemical studies. Krajewska-Walasek M, et al. **Clin Dysmorphol** 1999 Jan;8(1):29-40 (39 ref.)

Accurate detection of Smith-Lemli-Opitz syndrome carriers by measurement of the rate of reduction of the ergosterol C-7 double bond in cultured skin fibroblasts. Honda M, et al. **J Inherit Metab Dis** 1998 Oct;21(7):761-8

Bile acid synthesis in the Smith-Lemli-Opitz syndrome: effects of dehydrocholesterols on cholesterol 7alpha-hydroxylase and 27-hydroxylase activities in rat liver. Honda A, et al. **J Lipid Res** 1999 Aug;40(8):1520-8

PATHOLOGY

Atypical case of Smith-Lemli-Opitz syndrome: implications for diagnosis. Angle B, et al. **Am J Med Genet** 1998 Dec 4;80(4):322-6

Further delineation of the classical Smith-Lemli-Opitz syndrome phenotype at different patient ages: clinical and biochemical studies. Krajewska-Walasek M, et al. **Clin Dysmorphol** 1999 Jan;8(1):29-40 (39 ref.)

PHYSIOPATHOLOGY

Adrenal insufficiency in Smith-Lemli-Opitz syndrome. Andersson HC, et al. **Am J Med Genet** 1999 Feb 19; 82(5):382-4

Oxidized derivatives of 7-dehydrocholesterol induce growth retardation in cultured rat embryos: a model for antenatal growth retardation in the Smith-Lemli-Opitz syndrome. Gaoua W, et al. **J Lipid Res** 1999 Mar;40(3):456-63

SURGERY

[Congenital malformations of the genitourinary tract in children with Smith-Lemli-Opitz syndrome] Wolski JK, et al. **Wiad Lek** 1998;51 Suppl 3:129-33 (Eng. Abstr.) **(Pol)**

URINE

Midgestational maternal urine steroid markers of fetal Smith-Lemli-Opitz (SLO) syndrome (7-dehydrocholesterol 7-reductase deficiency). Shackleton CH, et al. **Steroids** 1999 Jul;64(7):446-52

Neonatal urinary steroids in Smith-Lemli-Opitz syndrome associated with 7-dehydrocholesterol reductase deficiency. Shackleton CH, et al. **Steroids** 1999 Jul;64(7):481-90

SMOG

ADVERSE EFFECTS

Lung epithelial damage at low concentrations of ambient ozone [letter] Broeckaert F, et al. **Lancet** 1999 Mar 13; 353(9156):900-1

SMOKE

Effects and interactions of opioids on plasma exudation induced by cigarette smoke in guinea pig bronchi. Lei YH, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L391-7

Effects of depletion of neutrophils or macrophages on development of cigarette smoke-induced emphysema. Ofulue AF, et al. **Am J Physiol** 1999 Jul;277(1 Pt 1):L97-105

Studies on the interaction between 1,2,3,4-tetrahydro-beta-carboline and cigarette smoke: a potential mechanism of neuroprotection for Parkinson's disease. Soto-Otero R, et al. **Brain Res** 1998 Aug 17; 802(1-2):155-62

Protection against cigarette smoke-induced damage to intact transformed rabbit corneal cells by N-acetyl-L-cysteine.

Pelle E, et al. **Cell Biol Toxicol** 1998 Aug;14(4):253–9
Drug interactions with tobacco smoking. An update. Zevin S, et al. **Clin Pharmacokinet** 1999 Jun;36(6):425–38 (128 ref.)
Cadmium and iron accumulation in rat lens after cigarette smoke exposure and the effect of vitamin E (alpha–tocopherol) treatment. Avunduk AM, et al. **Curr Eye Res** 1999 Jun;18(6):403–7
EPA's PM2.5 program criticized [news] **Environ Health Perspect** 1998 Aug;106(8):A373–4
Infection with respiratory syncytial virus and water–soluble components of cigarette smoke alter production of tumour necrosis factor alpha and nitric oxide by human blood monocytes. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Jul 15;24(4):387–94
Surgical smoke evacuation systems. **Health Devices** 1999 Sep; 28(9):333–62
ESU–pencil–based smoke evacuation wands. **Health Devices** 1999 Sep;28(9):363–5
Behavior of Listeria spp. in smoked fish products affected by liquid smoke, NaCl concentration, and temperature. Thurette J, et al. **J Food Prot** 1998 Nov;61(11):1475–9
The facilitating effect of cigarette smoke on the colonization of instilled bacteria into the tracheal lumen in rats and the improving influence of supplementary vitamin E on this process. Ozlü T, et al. **Respirology** 1999 Sep;4(3):245–8
[Wound entry findings of animal anesthesia guns without smoke outlets] Nadjem H, et al. **Arch Kriminol** 1999 Mar–Apr;203(3–4):91–102 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

Smoke extract stimulates lung epithelial cells to release neutrophil and monocyte chemotactic activity. Masubuchi T, et al. **Am J Pathol** 1998 Dec;153(6):1903–12
Tobacco smoke induces both apoptosis and necrosis in mammalian cells: differential effects of HSP70. Vayssier M, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L771–9
Superoxide mediates cigarette smoke–induced infiltration of neutrophils into the airways through nuclear factor–kappaB activation and IL–8 mRNA expression in guinea pigs in vivo. Nishikawa M, et al. **Am J Respir Cell Mol Biol** 1999 Feb;20(2):189–98
Detection of p53 protein accumulation in sputum and lung adenocarcinoma associated with indoor exposure to unvented coal smoke in China. Mumford JL, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):951–8
Control of smoke from laser/electric surgical procedures. National Institute for Occupational Safety and Health. **Appl Occup Environ Hyg** 1999 Feb;14(2):71
Inhalation of mainstream and sidestream cigarette smoke retards embryo transport and slows muscle contraction in oviducts of hamsters (Mesocricetus auratus). DiCarlantonio G, et al. **Biol Reprod** 1999 Sep;61(3):651–6
Influence of aromatic hydrocarbon receptor–mediated events on the genotoxicity of cigarette smoke condensate. Dertinger SD, et al. **Carcinogenesis** 1998 Nov; 19(11):2037–42
Chemoprevention of tobacco smoke–induced lung tumors in A/J strain mice with dietary myo–inositol and dexamethasone. Witschi H, et al. **Carcinogenesis** 1999 Jul; 20(7):1375–8
The effects of phenethyl isothiocyanate, N–acetylcysteine and green tea on tobacco smoke–induced lung tumors in strain A/J mice. Witschi H, et al. **Carcinogenesis** 1998 Oct; 19(10):1789–94
Cigarette smoke induces direct DNA damage in the human B–lymphoid cell line Raji. Yang Q, et al. **Carcinogenesis** 1999 Sep;20(9):1769–75
Pulmonary toxicity in hamsters of smoke particles from Kuwaiti oil fires. Brain JD, et al. **Environ Health Perspect** 1998 Mar;106(3):141–6
PM2.5 and mortality in long–term prospective cohort studies: cause–effect or statistical associations? Gamble JF. **Environ Health Perspect** 1998 Sep;106(9):535–49 (57 ref.)
Combined effect of cigarette smoke and mineral fibers on the gene expression of cytokine mRNA. Morimoto Y, et al. **Environ Health Perspect** 1999 Jun;107(6):495–500
Eosinophilic airway inflammation induced by repeated exposure to cigarette smoke. Matsumoto K, et al. **Eur Respir J** 1998 Aug;12(2):387–94
Exposure to cigarette smoke, a major risk factor for sudden infant death syndrome: effects of cigarette smoke on inflammatory responses to viral infection and bacterial toxins. Raza MW, et al. **FEMS Immunol Med Microbiol** 1999 Aug 1;25(1–2):145–54
Oxidative damage in tissues of rats exposed to cigarette smoke. Park EM, et al. **Free Radic Biol Med** 1998 Jul 1; 25(1):79–86
Study of tobacco smoke influence on content of estrogens and DNA flow cytometry data in uterine tissue of rats of different age. Berstein LM, et al. **Horm Metab Res** 1999 Jan;31(1):27–30
Use of wood stoves and risk of cancers of the upper aero–digestive tract: a case–control study. Pintos J, et al. **Int J Epidemiol** 1998 Dec;27(6):936–40
Lung cancer promotion by beta–carotene and tobacco smoke: relationship to suppression of retinoic acid receptor–beta and increased activator protein–1? [editorial; comment] Lotan R. **J Natl Cancer Inst** 1999 Jan 6;91(1):7–9. Comment on: J Natl Cancer Inst 1999 Jan 6;91(1):60–6.
Retinoid signaling and activator protein–1 expression in ferrets given beta–carotene supplements and exposed to tobacco smoke [see comments] Wang XD, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):60–6. Comment in: J Natl Cancer Inst 1999 Jan 6;91(1):7–9.
Alterations of neutrophil L–selection and CD18 expression by tobacco smoke: implications for periodontal diseases. Ryder MI, et al. **J Periodontal Res** 1998 Aug;33(6):359–68
Cigarette smoke impairs endothelium–dependent relaxation in rabbit superficial femoral veins. Freischlag JA, et al. **J Surg Res** 1999 Jan;81(1):77–80
Ascorbic acid prevents cigarette smoke injury to endothelium–dependent arterial relaxation. Mays BW, et al. **J Surg Res** 1999 Jun 1;84(1):35–9
Inhibition by beta–carotene of upper respiratory tumorigenesis in hamsters receiving diethylnitrosamine followed by cigarette smoke exposure. Furukawa F, et al. **Jpn J Cancer Res** 1999 Feb;90(2):154–61
Effects of cigarette smoke on nitric oxide synthase expression in the rat lung. Wright JL, et al. **Lab Invest** 1999 Aug; 79(8):975–83
Smoke–induced airway hyperresponsiveness to inhaled wood smoke in guinea pigs: tachykininergic and cholinergic mechanisms. Hsu TH, et al. **Life Sci** 1998;63(17):1513–24
Modified natural porcine surfactant modulates tobacco smoke–induced stress response in human monocytes. Pinot F, et al. **Life Sci** 1999;64(2):125–34
Dose dependence and time course of smoke inhalation injury in a rabbit model. Bidani A, et al. **Lung** 1999;177(2):111–22
beta–carotene as enhancer of cell transforming activity of powerful carcinogens and cigarette–smoke condensate on BALB/c 3T3 cells in vitro. Perocco P, et al. **Mutat Res** 1999 Mar 15;440(1):83–90
Functional alterations of alveolar macrophages subjected to smoke exposure and antioxidant lazaroids. Wang S, et al. **Toxicol Ind Health** 1999 Aug;15(5):464–9
Early alterations of lung injury following acute smoke exposure and 21–aminosteroid treatment. Wang S, et al. **Toxicol Pathol** 1999 May–Jun;27(3):334–41
Tetrahymena pyriformis in the ciliate mobility test. Validation and description of a testing procedure for the registration of harmful substances in the air as well as the effects of cigarette smoke on the human respiratory ciliated epithelium. Gräf W, et al. **Zentralbl Hyg Umweltmed** 1999 Feb;201(6):451–72
[Characterization of the content of polycyclic aromatic hydrocarbons in the cold– and hot–smoked fish] Kim IN, et al. **Gig Sanit** 1999 Jul–Aug;(4):23–7 (Eng. Abstr.) **(Rus)**
[Carcinogenic effects of the curing smoke] Kim IN, et al. **Gig Sanit** 1998 Sep–Oct;(5):22–5 (Eng. Abstr.) **(Rus)**
[Effects of iron–containing welding smoke on pathological changes in the body (review of the literature)] Lubianova IP. **Med Tr Prom Ekol** 1998;(9):27–37 (123 ref.) **(Rus)**
[Effects of tobacco smoke condensate on the culture and biochemical properties of Mycobacterium tuberculosis] Shprykov AS, et al. **Probl Tuberk** 1998;(4):55–7 **(Rus)**
[The domestic inhalation of the smoke from firewood and of other biological materials. A risk for the development of respiratory diseases] Pérez–Padilla JR, et al. **Gac Med Mex** 1999 Jan–Feb;135(1):19–29 (Eng. Abstr.) **(Spa)**
[Impact of air pollution on the mortality and emergencies of chronic obstructive pulmonary disease and asthma in Barcelona (see comments)] Tobias Garcés A, et al. **Gac Sanit** 1998 Sep–Oct;12(5):223–30 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar–Apr;13(2):167–8. **(Spa)**

ANALYSIS

Smoke constituent exposure and stage of change in black and white women cigarette smokers. Ahijevych K, et al. **Addict Behav** 1999 Jan–Feb;24(1):115–20
Determination of glycols in air: development of sampling and analytical methodology and application to theatrical smokes. Pendergrass SM. **Am Ind Hyg Assoc J** 1999 Jul–Aug;60(4):452–7
Particulates from PTFE degradation in terrestrial and microgravity. Srivastava R, et al. **Aviat Space Environ Med** 1999 May;70(5):505–10
Spin trapping of nitric oxide in aqueous solutions of cigarette smoke. Shinagawa K, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):99–103
Volatile nitrosamines and tobacco–specific nitrosamines in the smoke of Thai cigarettes: a risk factor for lung cancer and a suspected risk factor for liver cancer in Thailand. Mitacek EJ, et al. **Carcinogenesis** 1999 Jan;20(1):133–7
Release of polychlorinated dibenzo–p–dioxins and dibenzofurans by setting off fireworks. Fleischer O, et al. **Chemosphere** 1999 Sep;39(6):925–32
Bacterial endotoxin is an active component of cigarette smoke. Hasday JD, et al. **Chest** 1999 Mar;115(3):829–35
Distribution of major and minor alkaloids in tobacco, mainstream and sidestream smoke of popular Indian smoking products. Pakhale SS, et al. **Food Chem Toxicol** 1998 Dec;36(12):1131–8
Gas chromatographic and mass spectrometric analysis of 36 lignin–related methoxyphenols from uncontrolled combustion of wood. Kjällstrand J, et al. **J Chromatogr A** 1998 Oct 23;824(2):205–10

SMOKE INHALATION INJURY

Smoke inhalation injury. Lee–Chiong TL Jr. **Postgrad Med** 1999 Feb;105(2):55–62 (21 ref.)

COMPLICATIONS

Erythema nodosum after smoke inhalation–induced bronchiolitis obliterans organizing pneumonia. Srivastava S, et al. **Crit Care Med** 1999 Jun;27(6):1214–6
[Prostacyclin inhalation in pulmonary failure following smoke inhalation] Nielsen HR, et al. **Ugeskr Laeger** 1998 Nov 30;160(49):7141 (Eng. Abstr.) **(Dan)**

DRUG THERAPY

Neonatal capsaicin treatment alters immediate ventilatory responses to inhaled wood smoke in rats. Kou YR, et al. **Respir Physiol** 1999 Aug 3;116(2–3):115–23
Early alterations of lung injury following acute smoke exposure and 21–aminosteroid treatment. Wang S, et al. **Toxicol Pathol** 1999 May–Jun;27(3):334–41

ENZYMOLOGY

Assessment of erythrocyte cholinesterase activity in victims of smoke inhalation. Houeto P, et al. **J Toxicol Clin Toxicol** 1999;37(3):321–6

ETIOLOGY

Acute lung injury, acute respiratory distress syndrome and inhalation injury: an overview. Kimmel EC, et al. **Drug Chem Toxicol** 1999 Feb;22(1):91–128 (140 ref.)

METABOLISM

Bronchoscopic lavage with perfluorocarbon decreases postprocedure hypoxemia in an ovine model of smoke inhalation. Cindrick LL, et al. **J Trauma** 1999 Jan; 46(1):129–35

MORTALITY

[Smoke alarms and domestic fire death rates in children (letter)] Lévêque B. **Arch Pediatr** 1999 Jun;6(6):688 **(Fre)**

PATHOLOGY

Dose dependence and time course of smoke inhalation injury in a rabbit model. Bidani A, et al. **Lung** 1999;177(2):111–22

PHYSIOPATHOLOGY

Role of L–selectin in physiological manifestations after burn and smoke inhalation injury in sheep. Sakurai H, et al. **J Appl Physiol** 1999 Apr;86(4):1151–9
Neonatal capsaicin treatment alters immediate ventilatory responses to inhaled wood smoke in rats. Kou YR, et al. **Respir Physiol** 1999 Aug 3;116(2–3):115–23
[An experiment study of reversed pulmonary hypertension with inhaled nitric oxide on smoke inhalation injury] Qi S, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jan;35(1):56–8 (Eng. Abstr.) **(Chi)**

PREVENTION & CONTROL

Preventable burns associated with the misuse of gasoline. Barillo DJ, et al. **Burns** 1998 Aug;24(5):439–43
Functional alterations of alveolar macrophages subjected to smoke exposure and antioxidant lazaroids. Wang S, et al. **Toxicol Ind Health** 1999 Aug;15(5):464–9

THERAPY

Extracorporeal membrane oxygenation in the treatment of inhalation injuries. O'Toole G, et al. **Burns** 1998 Sep; 24(6):562–5
High frequency percussive ventilation in pediatric patients with inhalation injury. Cortiella J, et al. **J Burn Care Rehabil** 1999 May–Jun;20(3):232–5

SMOKELESS TOBACCO see **TOBACCO, SMOKELESS**

SMOKELESS TOBACCO CESSATION see **TOBACCO USE CESSATION**

SMOKING

see related
TOBACCO SMOKE POLLUTION
TOBACCO USE DISORDER

AgNOR count in exfoliative cytology of normal buccal mucosa. Effect of smoking. Sampaio H de C, et al. **Acta Cytol** 1999 Mar–Apr;43(2):117–20
Moderate smoking during pregnancy is associated with a reduced risk of preeclampsia. Lindqvist PG, et al. **Acta Obstet Gynecol Scand** 1999 Sep;78(8):693–7
Secular trends in breastfeeding and parental smoking. Haug K, et al. **Acta Paediatr** 1998 Oct;87(10):1023–7
The amount of brainstem gliosis in sudden infant death syndrome (SIDS) victims correlates with maternal cigarette smoking during pregnancy. Storm H, et al. **Acta Paediatr** 1999 Jan;88(1):13–8
Stress–coping and other psychosocial risk factors: a model for smoking in grade 6 students. Koval JJ, et al. **Addict Behav** 1999 Mar–Apr;24(2):207–18
Heroin smoking by "chasing the dragon": its evolution in Spain [letter] de la Fuente L, et al. **Addiction** 1998 Mar; 93(3):444–6

The relationship between depressive symptoms and cigarette smoking in US adolescents. Escobedo LG, et al. **Addiction** 1998 Mar;93(3):433–40

What aspects of human performance are truly enhanced by nicotine? [editorial] Heishman SJ. **Addiction** 1998 Mar; 93(3):317–20 (36 ref.)

Smoking status and outcome after primary coronary angioplasty for acute myocardial infarction. Hasdai D, et al. **Am Heart J** 1999 Apr;137(4 Pt 1):612–20

Influences of sex and smoking habits on anticoagulant activity in low-molecular-weight heparin treatment of unstable coronary artery disease. Toss H, et al. **Am Heart J** 1999 Jan;137(1):72–8

Reliability and validity of the aggregate method of determining number of cigarettes smoked per day. Gariti PW, et al. **Am J Addict** 1998 Fall;7(4):283–7

Cigarette smoking during early cocaine abstinence. Radzius A, et al. **Am J Addict** 1998 Fall;7(4):305–8

Acute effects of nicotine content in cigarettes on coronary flow velocity and coronary flow reserve in men. Tanaka T, et al. **Am J Cardiol** 1998 Nov 15;82(10):1275–8, A9

Relationship of cessation of cocaine use to cigarette smoking in cocaine-dependent outpatients. Wiseman EJ, et al. **Am J Drug Alcohol Abuse** 1998 Nov;24(4):617–25

Ambulatory 24-h blood pressure monitoring in healthy, middle-aged smokeless tobacco users, smokers, and nontobacco users. Bolinder G, et al. **Am J Hypertens** 1998 Oct;11(10):1153–63

Cigarette smoking delays ulcer healing: role of constitutive nitric oxide synthase in rat stomach. Ma L, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G238–48

Time course of neutrophil and macrophage elastinolytic activities in cigarette smoke-induced emphysema. Ofulue AF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):L1134–44

Occasional smoking in a study of premenopausal women [letter; comment] Elkin EP, et al. **Am J Public Health** 1999 Mar;89(3):420–1. Comment on: Am J Public Health 1998 Jan;88(1):86–9.

Misclassification rates for current smokers misclassified as nonsmokers. Wells AJ, et al. **Am J Public Health** 1998 Oct; 88(10):1503–9 (22 ref.)

Protein kinase C activation is required for cigarette smoke-enhanced C5a-mediated release of interleukin-8 in human bronchial epithelial cells. Wyatt TA, et al. **Am J Respir Cell Mol Biol** 1999 Aug;21(2):283–8

Influence of shift work and host factors on endotoxin-related acute peak flow changes. Zock JP, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):137–42

The influence of smoking on postoperative nausea and vomiting [letter; comment] Hough M, et al. **Anaesthesia** 1998 Sep;53(9):932–3. Comment on: Anaesthesia 1998 Apr;53(4):413–4.

A longitudinal study of work load and variations in psychological well-being, cortisol, smoking, and alcohol consumption. Steptoe A, et al. **Ann Behav Med** 1998 Spring; 20(2):84–91

An epidemiological study on the association between the total leukocyte and neutrophil counts, and risk factors of ischemic heart disease by smoking status in Japanese factory workers. Ogawa Y, et al. **Appl Human Sci** 1998 Nov;17(6):239–47

Effects of smoking and Japanese cedar pollinosis on lymphocyte subpopulations. Tanigawa T, et al. **Arch Environ Health** 1999 Mar–Apr;54(2):119–23

Tools to improve documentation of smoking status. Continuous quality improvement and electronic medical records. Spencer E, et al. **Arch Fam Med** 1999 Jan–Feb; 8(1):18–22

Cigarette smoking and mortality risk: twenty-five-year follow-up of the Seven Countries Study. Jacobs DR Jr, et al. **Arch Intern Med** 1999 Apr 12;159(7):733–40

The tobacco industry and underage youth smoking: tobacco industry documents from the Minnesota litigation. Perry CL. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):935–41

Substance abuse prevention and the media [letter; comment] Strasburger VC. **Arch Pediatr Adolesc Med** 1999 Mar; 153(3):313. Comment on: Arch Pediatr Adolesc Med 1998 Oct;152(10):952–60.

Increased serotonin receptor density and platelet GPIIb/IIIa activation among smokers. Markovitz JH, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):762–6

Risk assessment of active smoking: smoking-attributable mortality and years of potential life lost in Taiwan, 1980 and 1992. Li CY, et al. **Asia Pac J Public Health** 1996–97; 9:13–7

Dentists' attitudes and practice regarding smoking. Clover K, et al. **Aust Dent J** 1999 Mar;44(1):46–50

Effects of tobacco smoking and gender on interhemispheric cognitive function: performance and confidence measures. Algan O, et al. **Behav Pharmacol** 1997 Oct;8(5):416–28

Mentioning smoking as a cause of death on death certificates Relatives don't like this being done [letter; comment] Johnson P. **BMJ** 1998 Nov 21;317(7170):1456. Comment on: BMJ 1998 May 23;316(7144):1606.

Mentioning smoking as a cause of death on death certificates. Relatives can be asked in death registries about smoking habit of dead person [letter; comment] Lam TH, et al. **BMJ** 1998 Nov 21;317(7170):1456. Comment on: BMJ 1998 May 23;316(7144):1606.

Influence of maternal nutrition on outcome of pregnancy: prospective cohort study. Mathews F, et al. **BMJ** 1999 Aug 7;319(7206):339–43

Twins and maternal smoking: ordeals for the fetal origins hypothesis? A cohort study [see comments] Williams S, et al. **BMJ** 1999 Apr 3;318(7188):897–900. Comment in: BMJ 1999 Apr 3;318(7188):885–6.

White paper on tobacco takes a laudable stance [letter] Yach D, et al. **BMJ** 1999 Feb 27;31[illegible]7183):604

Breaking the grip of the tobacco industry [letter] Esdaile DS. **Can Fam Physician** 1999 Jul;45:1654

Sociodemographic characteristics, smoking, medical and family history, and breast cancer. Ghadirian P, et al. **Cancer Detect Prev** 1998;22(6):485–94

Strategies for recruitment to a population-based lung cancer prevention trial: the CARET experience with heavy smokers. Beta-Carotene and Retinol Efficacy Trial. Goodman GE, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May;7(5):405–12

Cigarette smoking, N-acetyltransferases 1 and 2, and breast cancer risk. Millikan RC, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May;7(5):371–8

NAT2, GSTM-1, cigarette smoking, and risk of colon cancer. Slattery ML, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1079–84

Inhibition of oxidative DNA damage, 8-OHdG, and carbonyl contents in smokers treated with antioxidants (vitamin E, vitamin C, beta-carotene and red ginseng). Lee BM, et al. **Cancer Lett** 1998 Oct 23;132(1–2):219–27

Association of cyclin D1 expression in lung cancer and the smoking habits of patients. Volm M, et al. **Cancer Lett** 1999 Jul 1;141(1–2):147–50

Associations of smoking with hospital-based care and quality of life in patients with obstructive airway disease. Sippel JM, et al. **Chest** 1999 Mar;115(3):691–6

Do Australian family physicians screen smokers for lung cancer? Sladden MJ, et al. **Chest** 1999 Mar;115(3):725–8

Urinary cotinine and exposure to parental smoking in a population of children with asthma. Oddoze C, et al. **Clin Chem** 1999 Apr;45(4):505–9

The benefits of smoking in skin diseases. Wolf R, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):641–7 (107 ref.)

Drug interactions with tobacco smoking. An update. Zevin S, et al. **Clin Pharmacokinet** 1999 Jun;36(6):425–38 (128 ref.)

Forced expiratory volume in 1 second (FEV1) and forced vital capacity (FVC) variability in asymptomatic never-smoking men. Humerfelt S, et al. **Clin Physiol** 1998 Jul;18(4):387–96

"Revenge fantasy" has no place in medicine [letter; comment] Conacher N. **CMAJ** 1999 Jan 12;160(1):23. Comment on: CMAJ 1998 Sep 8;159(5):441.

Potentiating effect of passive cigarette smoking on gastrointestinal damage induced by indomethacin in rats. Guo X, et al. **Dig Dis Sci** 1999 May;44(5):896–902

Cigarette smoking, alcohol use, and colorectal adenoma in Japanese men and women. Nagata C, et al. **Dis Colon Rectum** 1999 Mar;42(3):337–42

Health-related service utilization and HIV risk behaviors among HIV infected injection drug users and crack smokers. Booth RE, et al. **Drug Alcohol Depend** 1999 Jun 1;55(1–2):69–78

Synergy between asbestos and smoking on lung cancer risks. Erren TC, et al. **Epidemiology** 1999 Jul;10(4):405–11

Knowledge about smoking, reasons for smoking, and reasons for wishing to quit in inner-city African Americans. Ahluwalia JS, et al. **Ethn Dis** 1998 Autumn;8(3):385–93

Effect of vitamin E supplementation on post-exercise plasma lipid peroxidation and blood antioxidant status in smokers: with special reference to haemoconcentration effect. Sürmen-Gür E, et al. **Eur J Appl Physiol** 1999 May; 79(6):472–8

Plasma homocysteine concentration related to diet, endothelial function and mononuclear cell gene expression among male hyperlipidaemic smokers. Brude IR, et al. **Eur J Clin Invest** 1999 Feb;29(2):100–8

Bibliometric analysis of Spanish scientific publications on tobacco use during the period 1970–1996. García-López JA. **Eur J Epidemiol** 1999 Jan;15(1):23–8

The effect of cigarette smoke on adherence of respiratory pathogens to buccal epithelial cells. El Ahmer OR, et al. **FEMS Immunol Med Microbiol** 1999 Jan;23(1):27–36

Flow cytometric evaluation of lymphocyte subpopulations in BALF of healthy smokers and nonsmokers. Hoser G, et al. **Folia Histochem Cytobiol** 1999;37(1):25–30

Influence of sex, smoking and age on human hprt mutation frequencies and spectra. Curry J, et al. **Genetics** 1999 Jul; 152(3):1065–77

Smoking withdrawal and relapse in head and neck cancer patients. Gritz ER, et al. **Head Neck** 1999 Aug;21(5):420–7

Health knowledge and smoking among South African women. Jones AM, et al. **Health Econ** 1999 Mar;8(2):165–9

Effect of smoking and histological gastritis severity on the rate of H. pylori eradication with omeprazole, amoxicillin, and clarithromycin. Kamada T, et al. **Helicobacter** 1999 Sep;4(3):204–10

Hair analysis--a biological marker for passive smoking in pregnancy and childhood. Klein J, et al. **Hum Exp Toxicol** 1999 Apr;18(4):279–82

Cotinine in meconium indicates risk for early respiratory tract infections. Nuesslein TG, et al. **Hum Exp Toxicol** 1999 Apr; 18(4):283–90

Bronchoalveolar lavage in smokers: quantification of alveolar macrophages and neutrophils as markers of bronchial obstruction. Jimenez Ruiz CA, et al. **In Vivo** 1998 Jul–Aug; 12(4):427–30

No butts about it: put the fire out by lighting up [comment] Hanauer SB. **Inflamm Bowel Dis** 1998 Nov;4(4):326; discussion 327. Comment on: Inflamm Bowel Dis 1998 Nov;4(4):324–5; discussion 327.

Risk of stomach cancer in relation to consumption of cigarettes, alcohol, tea and coffee in Warsaw, Poland. Chow WH, et al. **Int J Cancer** 1999 Jun 11;81(6):871–6

Tobacco, occupation and non-transitional-cell carcinoma of the bladder: an international case-control study. Fortuny J, et al. **Int J Cancer** 1999 Jan 5;80(1):44–6

Influence of smoking habits on Down's syndrome risk evaluation at mid-trimester through biochemical screening. Perona M, et al. **Int J Clin Lab Res** 1998;28(3):179–82

Solid waste and pancreatic cancer: an ecologic study in Florida, USA. Schwartz GG, et al. **Int J Epidemiol** 1998 Oct;27(5):781–7

Are low income countries targets of the tobacco industry? Plenary lecture given during the Conference on Global Lung Health and 1997 Annual Meeting of the International Union Against Tuberculosis and Lung Disease, Palais des Congrès, Paris, France, 1–4 October 1997 [see comments] Dağli E. **Int J Tuberc Lung Dis** 1999 Feb;3(2):113–8. Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):85–6.

Incidence rate of adult-onset asthma in relation to age, sex, atopy and smoking: a Swedish population-based study of 15813 adults. Torén K, et al. **Int J Tuberc Lung Dis** 1999 Mar;3(3):192–7

Relationship between smoking, dietary intakes and plasma levels of vitamin E and beta-carotene in matched maternal-cord pairs. Kiely M, et al. **Int J Vitam Nutr Res** 1999 Jul;69(4):262–7

Manipulating smoking motivation: impact on an electrophysiological index of approach motivation. Zinser MC, et al. **J Abnorm Psychol** 1999 May;108(2):240–54

Hormone replacement therapy in postmenopausal women protects against smoking-induced changes in vascular structure and function [see comments] Teede HJ, et al. **J Am Coll Cardiol** 1999 Jul;34(1):131–7. Comment in: J Am Coll Cardiol 1999 Jul;34(1):138–9.

Cigarette smoking and asthma symptom severity among adult asthmatics. Althuis MD, et al. **J Asthma** 1999 May; 36(3):257–64

A cross-sectional study of smoking and bone mineral density in premenopausal parous women: effect of body mass index, breastfeeding, and sports participation. Jones G, et al. **J Bone Miner Res** 1999 Sep;14(9):1628–33

The prognostic importance of smoking status at the time of acute myocardial infarction in 6676 patients. TRACE Study Group. Jørgensen, et al. **J Cardiovasc Risk** 1999 Feb; 6(1):23–7

Oral microbiota in smokers and non-smokers in natural and experimentally-induced gingivitis. Lie MA, et al. **J Clin Periodontol** 1998 Aug;25(8):677–86

Weight gain and relation to maternal smoking [letter; comment] Little RE. **J Epidemiol Community Health** 1999 Apr;53(4):256. Comment on: J Epidemiol Community Health 1997 Jun;51(3):261–5.

How ordinary people in Great Britain perceive the health risks of smoking. Sutton S. **J Epidemiol Community Health** 1998 May;52(5):338–9

The relationship between religious activities and cigarette smoking in older adults. Koenig HG, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):M426–34

Past and current smoking in relation to body fat distribution in older men and women. Visser M, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jun;54(6):M293–8

Increased severity of multifocal renal arterial fibromuscular dysplasia in smokers. Bofinger A, et al. **J Hum Hypertens** 1999 Aug;13(8):517–20

Under-reporting of dietary intake by smoking and non-smoking subjects counselled for hypercholesterolaemia. Tonstad S, et al. **J Intern Med** 1999 Apr;245(4):337–44

Histologic types, staging, resectability, and smoking among Thai patients with lung cancer. Riantawan P, et al. **J Med Assoc Thai** 1999 Feb;82(2):121–5

Reanalysis of the Mayo Lung Project data: the impact of confounding and effect modification. Marcus PM, et al. **J Med Screen** 1999;6(1):47–9

British commence war on tobacco [news] **J Natl Cancer Inst** 1999 Jan 20;91(2):116

Cigarette smoking. Bergen AW, et al. **J Natl Cancer Inst** 1999 Aug 18;91(16):1365–75 (184 ref.)

Smokeless cars: the trend of the future? [news] Gottlieb N. **J Natl Cancer Inst** 1999 Sep 15;91(18):1538–9

Effects of smoking on pulmonary uptake of technetium-99m methoxyisobutylisonitrile during myocardial perfusion imaging. Kao CH, et al. **J Nucl Cardiol** 1999 Jan–Feb;6(1 Pt 1):29–32

Subjective and physiological effects of intravenous nicotine and cocaine in cigarette smoking cocaine abusers. Jones HE, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):188–97

Smoking habits of primary health care physicians in Bahrain. Hamadeh RR. **J R Soc Health** 1999 Mar;119(1):36–9

Tobacco, alcohol and drug use in eight- to sixteen-year-old twins: the Virginia Twin Study of Adolescent Behavioral Development. Maes HH, et al. **J Stud Alcohol** 1999 May; 60(3):293–305

Tobacco and alcohol use in children's animated films: Pecos Bill kicks the habit [letter] Drachtman RA. **JAMA** 1999 Oct 6;282(13):1228; discusson 1228–9

Tobacco and alcohol use in G-rated children's animated films. Goldstein AO, et al. **JAMA** 1999 Mar 24-31; 281(12):1131-6

Tobacco and alcohol use in children's animated films: Pecos Bill kicks the habit [letter] Kosseim LM. **JAMA** 1999 Oct 6;282(13):1228; discussion 1228-9

Smoking in Pakistan: more than cancer and heart disease. Merchant AT, et al. **JPMA J Pak Med Assoc** 1998 Mar; 48(3):77-9

Covariance of breast cancer incidence with smoking-, oestrogen- and diet-related cancers in pre- and postmenopausal women in Sweden. Manjer J, et al. **Med Hypotheses** 1999 Jun;52(6):561-8 (21 ref.)

Should smoking be an indication for lipid-lowering therapy? [letter] Forge B. **Med J Aust** 1999 Jul 19;171(2):112

Should smoking be an indication for lipid-lowering therapy? [letter] Peeters A, et al. **Med J Aust** 1999 Mar 1;170(5):240

Effects of cigarette smoking and its cessation on body weight and plasma leptin levels. Nicklas BJ, et al. **Metabolism** 1999 Jun;48(6):804-8

Radon testing in households with a residential smoker--United States, 1993-1994. **MMWR Morb Mortal Wkly Rep** 1999 Aug 13;48(31):683-6

Synergistic induction of hydroxyl radical-induced DNA single-strand breaks by chromium(VI) compound and cigarette smoke solution. Liu X, et al. **Mutat Res** 1999 Mar 15;440(1):109-17

Abundant lipophilic DNA adducts in human tissues. Yang K, et al. **Mutat Res** 1998 Dec 3;422(2):285-95

Smoking and the flavor of breast milk [letter] Mennella JA, et al. **N Engl J Med** 1998 Nov 19;339(21):1559-60

Japan's tobacco tragedy [letter] Inoue K. **Nat Med** 1999 Oct; 5(10):1091

Increase of formation of methylamine and formaldehyde in vivo after administration of nicotine and the potential cytotoxicity. Yu PH. **Neurochem Res** 1998 Sep; 23(9):1205-10

Smoking and Parkinson's disease: a dose-response relationship. Gorell JM, et al. **Neurology** 1999 Jan 1; 52(1):115-9

Fetal amino acid and enzyme levels with maternal smoking [letter] Kuo YH, et al. **Obstet Gynecol** 1999 Sep;94(3):480-1

Does the US Navy attract young women who smoke? Weaver KB, et al. **Occup Environ Med** 1998 Nov; 55(11):792-4

Cigarette smoking, alcohol and caffeine consumption, and bone mineral density in postmenopausal women. The Nottingham EPIC Study Group. Grainge MJ, et al. **Osteoporos Int** 1998;8(4):355-63

Perceptions of the effect of an impending restaurant smoking ban on dining-out experience. Wakefield M, et al. **Prev Med** 1999 Jul;29(1):53-6

The effect of tea consumption on oxidative stress in smokers and nonsmokers. Klaunig JE, et al. **Proc Soc Exp Biol Med** 1999 Apr;220(4):249-54

A population-based twin study in women of smoking initiation and nicotine dependence. Kendler KS, et al. **Psychol Med** 1999 Mar;29(2):299-308

Nicotine availability from Eclipse tobacco-heating cigarette. Stapleton JA, et al. **Psychopharmacology (Berl)** 1998 Oct; 139(3):288-90

Intake of fruits and vegetables in smokers. Birkett NJ. **Public Health Nutr** 1999 Jun;2(2):217-22

Relationship between cigarette smoking and nutrient intakes and blood status indices of older people living in the UK: further analysis of data from the National Diet and Nutrition Survey of people aged 65 years and over, 1994/95. Walmsley CM, et al. **Public Health Nutr** 1999 Jun;2(2):199-208

The elimination half-life of urinary cotinine in children of tobacco-smoking mothers. Leong JW, et al. **Pulm Pharmacol Ther** 1998;11(4):287-90

Quantitative evaluation of pulmonary ventilation dynamics using MR imaging: comparison of smokers and non-smokers. Seo H, et al. **Radiat Med** 1999 Mar-Apr; 17(2):131-5

Estimated occurrence of tobacco, alcohol, and other drug use among 12- to 18-year-old students in Panama: results of Panama's 1996 National Youth Survey on Alcohol and Drug Use. González GB, et al. **Rev Panam Salud Publica** 1999 Jan;5(1):9-16 (30 ref.)

Ecuadorian adolescents and cigarette smoking: a cross-sectional survey. Padgett DI, et al. **Rev Panam Salud Publica** 1998 Aug;4(2):87-93

Health related behavioural change in context: young people in transition. Pavis S, et al. **Soc Sci Med** 1998 Nov; 47(10):1407-18

Doing a shotgun: a drug use practice and its relationship to sexual behaviors and infection risk. Perlman DC, et al. **Soc Sci Med** 1999 May;48(10):1441-8

Cotinine (a metabolite of nicotine) suppresses the growth of hematopoietic progenitor cells at the concentration range equivalent to its serum levels in smokers [letter] Takahashi M, et al. **Stem Cells** 1999;17(2):125-6

Comparative study of the effects of vitamin C and bleomycin on smokers' and non-smokers' lymphocytes in clastogenicity assays. Cecchi AO, et al. **Teratog Carcinog Mutagen** 1999;19(1):43-51

Teaching medical students about tobacco [see comments] Richmond R. **Thorax** 1999 Jan;54(1):70-8 (110 ref.). Comment in: Thorax 1999 Jan;54(1):2. Comment in: Thorax 1999 Jul;54(7):657-8.

Roll-your-own smoke yields: theoretical and practical aspects. Darrall KG, et al. **Tob Control** 1998 Summer; 7(2):168-75

Cognitive dissident [news] Davis RM. **Tob Control** 1998 Summer;7(2):121-2

Eliminating the nicotine in cigarettes [letter] Joossens L, et al. **Tob Control** 1999 Summer;8(2):223-4

Filter ventilation and nicotine content of tobacco in cigarettes from Canada, the United Kingdom, and the United States [see comments] Kozlowski LT, et al. **Tob Control** 1998 Winter;7(4):369-75. Comment in: Tob Control 1998 Winter;7(4):336-7.

Blowing smoke: how cigarette manufacturers argued that nicotine is not addictive. Sharfstein J. **Tob Control** 1999 Summer;8(2):210-3

[Tobacco smoking among surgical patients. Smoking habits and information to smokers in Danish departments of anesthesiology] Møller AM, et al. **Ugeskr Laeger** 1999 Jun 14;161(24):3670-2 (Eng. Abstr.) **(Dan)**

[Physical activity in relation to sociodemographic variables and health status of adult men and women in Amsterdam, Doetinchen and Maastricht] Schuit AJ, et al. **Ned Tijdschr Geneeskd** 1999 Jul 24;143(30):1559-64 (Eng. Abstr.) **(Dut)**

[Tobacco, hypertension and kidney (editorial)] Muller S, et al. **Nephrologie** 1998;19(5):235-7 (27 ref.) **(Fre)**

[Positive response to smoking challenge test in a case of acute eosinophilic pneumonia] Ito S, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 May;37(5):424-8 (Eng. Abstr.) **(Jpn)**

[A study of air pollution in the smoking hall] Arashidani K, et al. **Nippon Eiseigaku Zasshi** 1999 Jan;53(4):626-31 (Eng. Abstr.) **(Jpn)**

[Non-smoking as risk factor for Alzheimer's disease?] Pfeffer A, et al. **Neurol Neurochir Pol** 1998 May-Jun;32(3):515-21 (Eng. Abstr.) **(Pol)**

[Does exposure to cigarette smoke influence girls maturation?] Kolasa E, et al. **Przegl Epidemiol** 1998; 52(3):339-50 (Eng. Abstr.) **(Pol)**

[The effect of smoking on environmental exposure to carbon of inhabitants in highly and little industrially developed areas] Czogała J. **Rocz Panstw Zakl Hig** 1998;49(2):231-40 (Eng. Abstr.) **(Pol)**

[Content of volatile in steam phenols in the main stream of cigarette smoke from selected brands of cigarettes] Czogała J, et al. **Rocz Panstw Zakl Hig** 1998;49(3):365-75 (Eng. Abstr.) **(Pol)**

[The paradox of tobacco. Smokers have a better post-infarct prognosis (editorial)] Ferreira R. **Rev Port Cardiol** 1998 Oct;17(10):855-6 **(Por)**

[Acoustic analysis of the normal voice in nonsmoking adults] Fernández Liesa R, et al. **Acta Otorrinolaringol Esp** 1999 Mar;50(2):134-41 (Eng. Abstr.) **(Spa)**

[Dishonest publicity] Barrueco Ferrero M. **Arch Bronconeumol** 1999 Apr;35(4):187-8 **(Spa)**

[Do patients lie about smoking during follow-up in the respiratory medicine clinic?] Lores Obradors L, et al. **Arch Bronconeumol** 1999 May;35(5):219-22 (Eng. Abstr.) **(Spa)**

[Hemoptysis in a male ex-smoker. Hemoptysis in relation to the aspiration of a foreign body (a metal bracelet)] Núñez Orantos MJ, et al. **Rev Clin Esp** 1999 May;199(5):327-8 **(Spa)**

[Research on smoking in Spain (editorial)] Alvarez Requejo A. **Rev Esp Salud Publica** 1999 May-Jun;73(3):329-32 **(Spa)**

[Methodology used in the original articles on smoking in 4 Spanish medical journals (1985-1996)] García López JA. **Rev Esp Salud Publica** 1999 May-Jun;73(3):333-41 (Eng. Abstr.) **(Spa)**

["Respectability by association". Doubtful role of the tobacco committee] Boëthius G, et al. **Lakartidningen** 1999 Jun 30; 96(26-27):3149-50 **(Swe)**

ADVERSE EFFECTS

Smoking as a risk factor in sensory neural hearing loss among workers exposed to occupational noise. Starck J, et al. **Acta Otolaryngol** 1999;119(3):302-5

Smoking and alcohol use during pregnancy affects preterm infants' docosahexaenoic acid (DHA) status. Smuts CM, et al. **Acta Paediatr** 1999 Jul;88(7):757-62

Effects of maternal cigarette smoking during pregnancy on long-term physical and cognitive parameters of child development. Lassen K, et al. **Addict Behav** 1998 Sep-Oct; 23(5):635-53

Consensus on synergism between cigarette smoke and other environmental carcinogens in the causation of lung cancer. Reif AE, et al. **Adv Cancer Res** 1999;76:161-86 (147 ref.)

The protective role of 11 beta-hydroxysteroid dehydrogenase/carbonyl reductase against tobacco-smoke related lung cancer. Maser E. **Adv Exp Med Biol** 1999; 463:379-87

Correlation of smoking and coffee drinking with sperm progressive motility in infertile males. Adelusi B, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):47-50

Multiple previous alcohol detoxifications are associated with decreased medial temporal and paralimbic function in the postwithdrawal period. George MS, et al. **Alcohol Clin Exp Res** 1999 Jun;23(6):1077-84

Prevalence of occupational asthma among automobile and furniture painters in the center of Eskisehir (Turkey): the effects of atopy and smoking habits on occupational asthma. Ucgun I, et al. **Allergy** 1998 Nov;53(11):1096-100

Impact of smoking on coronary atherosclerosis and remodeling as determined by intravascular ultrasonic imaging. Kornowski R. **Am J Cardiol** 1999 Feb 1; 83(3):443-5, A9

Re: "Cigarette smoking and the colorectal adenoma-carcinoma sequence: a hypothesis to explain the paradox" [letter; comment] Boutron-Ruault MC. **Am J Epidemiol** 1999 Apr 15;149(8):787-8. Comment on: Am J Epidemiol 1998 May 15;147(10):903-10.

Maternal smoking and Down syndrome: the confounding effect of maternal age. Chen CL, et al. **Am J Epidemiol** 1999 Mar 1;149(5):442-6

Increased effects of smoking and obesity on asthma among female Canadians: the National Population Health Survey, 1994-1995. Chen Y, et al. **Am J Epidemiol** 1999 Aug 1; 150(3):255-62

Oral clefts, transforming growth factor alpha gene variants, and maternal smoking: a population-based case-control study in Denmark, 1991-1994. Christensen K, et al. **Am J Epidemiol** 1999 Feb 1;149(3):248-55

Relation of cigarette smoking to non-Hodgkin's lymphoma among middle-aged men. Freedman DS, et al. **Am J Epidemiol** 1998 Nov 1;148(9):833-41

Vitamin C and other compounds in vitamin C rich food in relation to risk of tuberculosis in male smokers. Hemilä H, et al. **Am J Epidemiol** 1999 Sep 15;150(6):632-41

Nutrient intake and use of beverages and the risk of kidney stones among male smokers. Hirvonen T, et al. **Am J Epidemiol** 1999 Jul 15;150(2):187-94

Maternal smoking and childhood asthma. Infante-Rivard C, et al. **Am J Epidemiol** 1999 Sep 1;150(5):528-31

Adult and prenatal exposures to tobacco smoke as risk indicators of fertility among 430 Danish couples. Jensen TK, et al. **Am J Epidemiol** 1998 Nov 15;148(10):992-7

Re: "Tobacco as a cause of lung cancer: some reflections" [letter; comment] La Vecchia C, et al. **Am J Epidemiol** 1998 Dec 1;148(11):1133-4. Comment on: Am J Epidemiol 1997 Nov 1;146(9):687-94.

Active and passive cigarette smoking and the occurrence of breast cancer. Lash TL, et al. **Am J Epidemiol** 1999 Jan 1;149(1):5-12

Alcohol consumption, cigarette smoking, and risk of benign prostatic hyperplasia [see comments] Platz EA, et al. **Am J Epidemiol** 1999 Jan 15;149(2):106-15. Comment in: Am J Epidemiol 1999 Aug 1;150(3):321-3.

Re: "Alcohol consumption, cigarette smoking, and risk of benign prostatic hyperplasia" [letter; comment] Roberts RO, et al. **Am J Epidemiol** 1999 Aug 1;150(3):321-2. Comment on: Am J Epidemiol 1999 Jan 15;149(2):106-15.

Disentangling the separate effects of prenatal and postnatal smoking on the risk of SIDS [comment] Spiers PS. **Am J Epidemiol** 1999 Apr 1;149(7):603-6; discussion 607 (33 ref.). Comment on: Am J Epidemiol 1999 Apr 1;149(7):593-602.

Re: "Cigarette smoking and the colorectal adenoma-carcinoma sequence: a hypothesis to explain the paradox" [letter; comment] Stürmer T, et al. **Am J Epidemiol** 1999 Sep 1;150(5):541-3. Comment on: Am J Epidemiol 1998 May 15;147(10):903-10. Comment on: Am J Epidemiol 1998 May 15;147(10):911-3.

Re: "Relation of cigarette smoking to non-Hodgkin's lymphoma among middle-aged men" [letter] Waddell BL, et al. **Am J Epidemiol** 1999 Sep 15;150(6):661-2

Smoking and the occurrence of Alzheimer's disease: cross-sectional and longitudinal data in a population-based study. Wang HX, et al. **Am J Epidemiol** 1999 Apr 1; 149(7):640-4

Effects of smoking on 24-h ambulatory blood pressure and autonomic function in normoalbuminuric insulin-dependent diabetes mellitus patients. Poulsen PL, et al. **Am J Hypertens** 1998 Sep;11(9):1093-9

Sinonasal cancer, occupation, and tobacco smoking in European women and men. 't Mannetje A, et al. **Am J Ind Med** 1999 Jul;36(1):101-7

Cigarette smoking and renal function impairment. Remuzzi G. **Am J Kidney Dis** 1999 Apr;33(4):807-13

Smoking, smoking cessation, and risk of hip fracture in women. Cornuz J, et al. **Am J Med** 1999 Mar;106(3):311-4

Effects of randomized assignment to a smoking cessation intervention and changes in smoking habits on respiratory symptoms in smokers with early chronic obstructive pulmonary disease: the Lung Health Study. Kanner RE, et al. **Am J Med** 1999 Apr;106(4):410-6

Health going up in smoke. How can you prevent it. Adatsi G. **Am J Nurs** 1999 Mar;99(3):63-6, 68-9

Cardiovascular disease: pathogenesis, epidemiology, and risk among users of oral contraceptives who smoke. Castelli WP. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S349-56 (46 ref.)

Stem villous arteries from the placentas of heavy smokers: functional and mechanical properties. Clausen HV, et al. **Am J Obstet Gynecol** 1999 Feb;180(2 Pt 1):476-82

Hemostatic effects of smoking and oral contraceptive use. Fruzzetti F. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S369-74

Preterm birth and maternal smoking: risks related to gestational age and onset of delivery. Kyrklund-Blomberg NB, et al. **Am J Obstet Gynecol** 1998 Oct;179(4):1051-5

Smoking and use of oral contraceptives: impact on thrombotic diseases. Lidegaard O. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S357-63

Effects of smoking on prostacyclin formation and platelet aggregation in users of oral contraceptives. Roy S. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S364–8 (10 ref.)

Oral contraceptives and smoking, current considerations: recommendations of a consensus panel. Schiff I, et al. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S383–4

Use of oral contraceptives by women who smoke. Schiff I. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 2):S341–2

Racial patterns in the effects of tobacco use on fetal growth. Sprauve ME, et al. **Am J Obstet Gynecol** 1999 Jul; 181(1):S22–7

Effects of smoking during pregnancy. Five meta-analyses. Castles A, et al. **Am J Prev Med** 1999 Apr;16(3):208–15

Is cigarette smoking associated with impaired physical and mental functional status? An office-based survey of primary care patients. Woolf SH, et al. **Am J Prev Med** 1999 Aug; 17(2):134–7

Maternal smoking during pregnancy and risk of criminal behavior among adult male offspring in the Northern Finland 1966 Birth Cohort [see comments] Räsänen P, et al. **Am J Psychiatry** 1999 Jun;156(6):857–62. Comment in: Am J Psychiatry 1999 Jun;156(6):813–4.

Ex-smokers and risk of hip fracture. Forsén L, et al. **Am J Public Health** 1998 Oct;88(10):1481–3

The impact of smoking, alcohol consumption, and physical activity on use of hospital services. Haapanen-Niemi N, et al. **Am J Public Health** 1999 May;89(5):691–8

The effects on fetal development of high alpha-fetoprotein and maternal smoking. Heinonen S, et al. **Am J Public Health** 1999 Apr;89(4):561–3

Maternal smoking and deformities of the foot: results of the EUROCAT Study. European Registries of Congenital Anomalies [letter] Reefhuis J, et al. **Am J Public Health** 1998 Oct;88(10):1554–5

Maternal cigarette smoking and invasive meningococcal disease: a cohort study among young children in metropolitan Atlanta, 1989–1996. Yusuf HR, et al. **Am J Public Health** 1999 May;89(5):712–7

Smoking-associated mitochondrial DNA mutations and lipid peroxidation in human lung tissues. Fahn HJ, et al. **Am J Respir Cell Mol Biol** 1998 Dec;19(6):901–9

Cigarette smoke potentiates house dust mite allergen-induced increase in the permeability of human bronchial epithelial cells in vitro. Rusznak C, et al. **Am J Respir Cell Mol Biol** 1999 Jun;20(6):1238–50

Effect of cigarette smoke extract on nitric oxide synthase in pulmonary artery endothelial cells. Su Y, et al. **Am J Respir Cell Mol Biol** 1998 Nov;19(5):819–25

Cigarette smoking causes sequestration of polymorphonuclear leukocytes released from the bone marrow in lung microvessels. Terashima T, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):171–7

Cigarette smoking and ozone-associated emergency department use for asthma by adults in New York City. Cassino C, et al. **Am J Respir Crit Care Med** 1999 Jun; 159(6):1773–9

Impaired airway function and wheezing in infancy: the influence of maternal smoking and a genetic predisposition to asthma. Dezateux C, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):403–10

Smoking and airway hyperresponsiveness especially in the presence of blood eosinophilia increase the risk to develop respiratory symptoms: a 25-year follow-up study in the general adult population. Jansen DF, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):259–64

Cigarette smoking, asbestos exposure, lung cancer, and sample size [letter; comment] Petrini MF. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1688. Comment on: Am J Respir Crit Care Med 1998 Mar;157(3 Pt 1):748–55.

CD8+ve cells in the lungs of smokers with chronic obstructive pulmonary disease. Saetta M, et al. **Am J Respir Crit Care Med** 1999 Aug;160(2):711–7

Docosahexaenoic acid and smoking-related chronic obstructive pulmonary disease. The Atherosclerosis Risk in Communities Study Investigators. Shahar E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1780–5

Current trends in thromboangiitis obliterans (Buerger's disease) in women. Sasaki S, et al. **Am J Surg** 1999 Apr; 177(4):316–20

Missing documentation [letter; comment] Noel TA 2nd. **Anesthesiology** 1999 Feb;90(2):633. Comment on: Anesthesiology 1998 May;88(5):1141–2.

Airway obstruction and perioperative complications in smokers undergoing abdominal surgery [see comments] Warner DO, et al. **Anesthesiology** 1999 Feb;90(2):372–9. Comment in: Anesthesiology 1999 Feb;90(2):356–7.

Accuracy of smokers' risk perceptions. Weinstein ND. **Ann Behav Med** 1998 Spring;20(2):135–40

Positive association between resting pulse and cancer incidence in current and former smokers. Cerhan JR, et al. **Ann Epidemiol** 1999 Jan;9(1):34–44 (31 ref.)

Paternal and maternal smoking habits before conception and during the first trimester: relation to spontaneous abortion. Chatenoud L, et al. **Ann Epidemiol** 1998 Nov;8(8):520–6

Resistance to antimicrobials used for therapy of otitis media and sinusitis: effect of previous antimicrobial therapy and smoking. Brook I, et al. **Ann Otol Rhinol Laryngol** 1999 Jul;108(7 Pt 1):645–7

Smoking increases facial skin flap complications. Kinsella JB, et al. **Ann Otol Rhinol Laryngol** 1999 Feb;108(2):139–42

Smoking history, alcohol consumption, and systemic lupus erythematosus: a case-control study. Hardy CJ, et al. **Ann Rheum Dis** 1998 Aug;57(8):451–5

Osteoarthrosis of the knee in men and women in association with overweight, smoking, and hormone therapy. Sandmark H, et al. **Ann Rheum Dis** 1999 Mar;58(3):151–5

Angiogenesis and cigarette smoking in squamous cell lung carcinomas: an immunohistochemical study of 28 cases. Volm M, et al. **Anticancer Res** 1999 Jan-Feb;19(1A):333–6

Heavy caffeine consumption in pregnancy, smoking, and sudden infant death syndrome [letter; comment] Leviton A. **Arch Dis Child** 1998 Sep;79(3):291. Comment on: Arch Dis Child 1998 Jan;78(1):9–13.

Effects of smoking in pregnancy on neonatal lung function. Milner AD, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Jan;80(1):F8–14

Child behavior problems increased by maternal smoking during pregnancy. Orlebeke JF, et al. **Arch Environ Health** 1999 Jan-Feb;54(1):15–9

Maternal smoking during pregnancy and adult male criminal outcomes [see comments] Brennan PA, et al. **Arch Gen Psychiatry** 1999 Mar;56(3):215–9. Comment in: Arch Gen Psychiatry 1999 Mar;56(3):223–4.

Prenatal smoking and antisocial behavior [comment] Fergusson DM. **Arch Gen Psychiatry** 1999 Mar;56(3):223–4 . Comment on: Arch Gen Psychiatry 1999 Mar;56(3):215–9.

Smoking and abdominal obesity: risk factors for venous thromboembolism among middle-aged men: "the study of men born in 1913". Hansson PO, et al. **Arch Intern Med** 1999 Sep 13;159(16):1886–90

Age at natural menopause and risk of cardiovascular disease. Hu FB, et al. **Arch Intern Med** 1999 May 24;159(10):1061–6

Cigarette smoking: risk factor for venous thromboembolic disease? [letter; comment] Jay SJ. **Arch Intern Med** 1999 May 24;159(10):1144. Comment on: Arch Intern Med 1998 Nov 23;158(21):2315–23.

A retrospective cohort study of cigarette smoking and risk of rheumatoid arthritis in female health professionals. Karlson EW, et al. **Arthritis Rheum** 1999 May;42(5):910–7

Effects of cigarette smoking on lung function of Saudi students. Milaat WA, et al. **Asia Pac J Public Health** 1998; 10(1):39–42

Flow volume curves as screening tests for early effects of smoking in asymptomatic children and young adults. Milaat WA, et al. **Asia Pac J Public Health** 1995;8(3):190–4

Immunohistochemical detection of polycyclic aromatic hydrocarbon-DNA damage in human blood vessels of smokers and non-smokers. Zhang YJ, et al. **Atherosclerosis** 1998 Oct;140(2):325–31

Smoking and atherosclerosis in youth. Zieske AW, et al. **Atherosclerosis** 1999 Jun;144(2):403–8

Mutagenicity of urine from individuals exposed to LPG combustion products. Yin XJ, et al. **Biomed Environ Sci** 1998 Sep;11(3):251–7

Smoking and stroke: a causative role. Heavy smokers with hypertension benefit most from stopping [editorial] Aldoori MI, et al. **BMJ** 1998 Oct 10;317(7164):962–3

Florida jury finds tobacco companies guilty of fraud [news] Charatan F. **BMJ** 1999 Jul 17;319(7203):143

Smoking and risk of myocardial infarction. Statistical and biological interactions should not be confused [letter; comment] Perneger TV. **BMJ** 1998 Oct 10;317(7164):1017; discussion 1018. Comment on: BMJ 1998 Apr 4;316(7137):1043–7.

Alcohol intake and cancer of the upper digestive tract. Such studies should be done in non-smokers [letter; comment] Reed V. **BMJ** 1999 May 8;318(7193):1290; discussion 2191 . Comment on: BMJ 1998 Sep 26;317(7162):844–7.

Smoking and risk of myocardial infarction. Studying relative risk is not enough [letter; comment] Tang JL, et al. **BMJ** 1998 Oct 10;317(7164):1018. Comment on: BMJ 1998 Apr 4;316(7137):1043–7.

Smoking and risk of myocardial infarction. Smoking is a feminist issue [letter; comment] Woll PJ. **BMJ** 1998 Oct 10;317(7164):1018. Comment on: BMJ 1998 Apr 4;316(7137):1043–7.

Genetic polymorphisms of N-acetyltransferase 1 and 2 and risk of cigarette smoking-related bladder cancer. Hsieh FI, et al. **Br J Cancer** 1999 Oct;81(3):537–41

Re: Yu et al. Smoking and the development of Warthin's tumour of the parotid gland [letter] Kale AD, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):245

Smoking may be associated with complications in diverticular disease. Papagrigoriadis S, et al. **Br J Surg** 1999 Jul; 86(7):923–6

Smoking and alcohol abuse are major risk factors for anastomotic leakage in colorectal surgery. Sørensen LT, et al. **Br J Surg** 1999 Jul;86(7):927–31

Smoking is a predictive factor for outcome after colectomy and ileorectal anastomosis in patients with Crohn's colitis. Yamamoto T, et al. **Br J Surg** 1999 Aug;86(8):1069–70

Human placental microsomal activation and DNA adduction by air pollutants. Prahalad AK, et al. **Bull Environ Contam Toxicol** 1999 Jan;62(1):93–100

Domiciliary oxygen and smoking: an explosive combination. Muehlberger T, et al. **Burns** 1998 Nov;24(7):658–60

Risk factor for ectopic pregnancy. **Can Fam Physician** 1999 Feb;45:300, 309–10 **(Eng, Fre)**

Clinical and pathophysiological effects of active and passive smoking on the cardiovascular system. Taylor BV, et al. **Can J Cardiol** 1998 Sep;14(9):1129–39 (128 ref.)

Is primary prevention of asthma possible? Becker AB. **Can Respir J** 1998 Jul-Aug;5 Suppl A:45A–9A (32 ref.)

Mutational activation of K-ras in nonneoplastic exocrine pancreatic lesions in relation to cigarette smoking status. Berger DH, et al. **Cancer** 1999 Jan 15;85(2):326–32

Second primary cancers in patients with lung carcinoma. Levi F, et al. **Cancer** 1999 Jul 1;86(1):186–90

Cigarette smoking, alcohol consumption and risk of nasopharyngeal carcinoma in Taiwan. Cheng YJ, et al. **Cancer Causes Control** 1999 Jun;10(3):201–7

Cigarette smoking and breast cancer risk among young women (United States). Gammon MD, et al. **Cancer Causes Control** 1998 Dec;9(6):583–90

Tobacco and alcohol use and oral cancer in Puerto Rico. Hayes RB, et al. **Cancer Causes Control** 1999 Feb; 10(1):27–33

Association between alcohol and lung cancer in the alpha-tocopherol, beta-carotene cancer prevention study in Finland. Woodson K, et al. **Cancer Causes Control** 1999 Jun;10(3):219–26

CYP2D6 genotype and the incidence of anal and vulvar cancer. Chen C, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Apr;8(4 Pt 1):317–21

Chromosome 8, occupational exposures, smoking, and acute nonlymphocytic leukemias: a population-based study. Davico L, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1123–5

Cigarette smoking and other risk factors in relation to p53 expression in breast cancer among young women. Gammon MD, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar; 8(3):255–63

Comparison of mutations in the p53 and K-ras genes in lung carcinomas from smoking and nonsmoking women. Gealy R, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Apr;8(4 Pt 1):297–302

Smoking and risk of total and fatal prostate cancer in United States health professionals. Giovannucci E, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Apr;8(4 Pt 1):277–82

Barbiturates, smoking, and bladder cancer risk. Habel LA, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov; 7(11):1049–50

Oxidative stress induced by environmental tobacco smoke in the workplace is mitigated by antioxidant supplementation. Howard DJ, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov;7(11):981–8

The effect of alpha-tocopherol and beta-carotene supplementation on colorectal adenomas in middle-aged male smokers. Malila N, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):489–93

Glutathione S-transferase M1 and susceptibility to nasopharyngeal carcinoma. Nazar-Stewart V, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jun;8(6):547–51

Frequency of trisomy 20 in nonmalignant bronchial epithelium from lung cancer patients and cancer-free former uranium miners and smokers. Neft RE, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov;7(11):1051–4

Glutathione S-transferase mu1 and N-acetyltransferase 2 genetic polymorphisms and exposure to tobacco smoke in nonsmoking and smoking lung cancer patients and population controls. Nyberg F, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Oct;7(10):875–83

Glass fiber contamination of cigarette filters: an additional health risk to the smoker? [see comments] Pauly JL, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov; 7(11):967–79. Comment in: Cancer Epidemiol Biomarkers Prev 1998 Nov;7(11):965–6.

Colorectal adenomatous and hyperplastic polyps: smoking and N-acetyltransferase 2 polymorphisms. Potter JD, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Jan;8(1):69–75

The past, present, and future of the prevention of lung cancer. Wynder EL. **Cancer Epidemiol Biomarkers Prev** 1998 Sep; 7(9):735–48

Tobacco use in relation to renal cell carcinoma. Yuan JM, et al. **Cancer Epidemiol Biomarkers Prev** 1998 May; 7(5):429–33

Risk factors for chemotherapy-induced oral mucositis: dental appliances, oral hygiene, previous oral lesions, and history of smoking. Dodd MJ, et al. **Cancer Invest** 1999; 17(4):278–84

Lung cancer risk of the GSTM1 null genotype is enhanced in the presence of the GSTP1 mutated genotype in male Japanese smokers. Kihara M, et al. **Cancer Lett** 1999 Mar 22;137(1):53–60

k-ras mutation and occupational asbestos exposure in lung adenocarcinoma: asbestos-related cancer without asbestosis. Nelson HH, et al. **Cancer Res** 1999 Sep 15; 59(18):4570–3

Smoking disturbs mitochondrial respiratory chain function and enhances lipid peroxidation on human circulating lymphocytes. Miró O, et al. **Carcinogenesis** 1999 Jul; 20(7):1331–6

Associations between both genetic and environmental biomarkers and lung cancer: evidence of a greater risk of lung cancer in women smokers. Tang DL, et al. **Carcinogenesis** 1998 Nov;19(11):1949–53

The relationship between habitual clove cigarette smoking and a specific pattern of dental decay in male bus drivers in Jakarta, Indonesia. Soetiarto F. **Caries Res** 1999 May-Jun;33(3):248–50

Protective effects of selenium, vitamin C and vitamin E against oxidative stress of cigarette smoke in rats. Dilsiz N, et al. **Cell Biochem Funct** 1999 Mar;17(1):1–7

Diet, smoking, and blood lipids in patients with combined familial hyperlipidaemia. Králiková E, et al. **Cent Eur J Public Health** 1999 Feb;7(1):19–23

The risk of intracerebral haemorrhage with smoking. The Melbourne Risk Factor Study Group. Thrift AG, et al. **Cerebrovasc Dis** 1999 Jan–Feb;9(1):34–9

Reactions of beta-carotene with cigarette smoke oxidants. Identification of carotenoid oxidation products and evaluation of the prooxidant/antioxidant effect. Baker DL, et al. **Chem Res Toxicol** 1999 Jun;12(6):535–43

Proportion of community-acquired pneumonia cases attributable to tobacco smoking. Almirall J, et al. **Chest** 1999 Aug;116(2):375–9

The effect of cigarette smoking on exhaled nitric oxide in mild steroid-naive asthmatics. Verleden GM, et al. **Chest** 1999 Jul;116(1):59–64

Health consequences of smoking among Canadian smokers: An update. Ellison LF, et al. **Chronic Dis Can** 1999; 20(1):36–9

Alcohol consumption and stroke incidence in male smokers. Leppälä JM, et al. **Circulation** 1999 Sep 14;100(11):1209–14

Endothelial dysfunction, impaired endogenous fibrinolysis, and cigarette smoking: a mechanism for arterial thrombosis and myocardial infarction. Newby DE, et al. **Circulation** 1999 Mar 23;99(11):1411–5

Cigarette smoking, wound healing, and face-lift. Campanile G, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):575–8 (48 ref.)

Smoker's wrinkles: epidemiological and pathogenic considerations. Frances C. **Clin Dermatol** 1998 Sep–Oct; 16(5):565–70 (49 ref.)

Cigarette smoking, cutaneous vasculature, and tissue oxygen. Leow YH, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):579–84 (46 ref.)

Cigarette smoking and oral lesions other than cancer. Meraw SJ, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):625–31 (52 ref.)

Cigarette smoking and skin cancer. Merimsky O, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):585–8 (32 ref.)

Cigarette smoking, cutaneous immunity, and inflammatory response. Mills CM. **Clin Dermatol** 1998 Sep–Oct; 16(5):589–94 (38 ref.)

Cigarette smoking and psoriasis. Naldi L. **Clin Dermatol** 1998 Sep–Oct;16(5):571–4 (24 ref.)

Cigarette smoking, hormonal changes, and the skin. Shulman A, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):595–8 (35 ref.)

Health effects of cigarette smoking. Skurnik Y, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):545–56 (106 ref.)

Smoking and the skin, radically speaking. Wolf R, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):633–9 (72 ref.)

Clinical pharmacology of nicotine. Zevin S, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):557–64 (59 ref.)

The subjective effects of smoking on nasal symptoms. Collins MM, et al. **Clin Otolaryngol** 1999 Aug;24(4):324–7

Imaging the 'dirty lung'--has high resolution computed tomography cleared the smoke? Gückel C, et al. **Clin Radiol** 1998 Oct;53(10):717–22 (43 ref.)

Patient survival after renal transplantation: II. The impact of smoking. Cosio FG, et al. **Clin Transplant** 1999 Aug; 13(4):336–41

Our worst public health evil [letter] McCormick W. **CMAJ** 1998 Oct 20;159(8):921, 923

The usefulness of biochemical bone markers in predicting the response of hormone replacement therapy in perimenopausal cigarette smoking healthy women. Cubrilo-Turek M, et al. **Coll Antropol** 1999 Jun; 23(1):195–201

Cigarette smoking and periodontitis: methodology to assess the strength of evidence in support of a causal association. Gelskey SC. **Community Dent Oral Epidemiol** 1999 Feb; 27(1):16–24

Contact sensitivity to cigarettes and matches. Dawn G, et al. **Contact Dermatitis** 1999 May;40(5):236–8

Effect of oral contraceptives containing 20 and 35 micrograms ethinyl estradiol on urinary prostacyclin and thromboxane metabolite levels in smokers and nonsmokers. Stanczyk FZ, et al. **Contraception** 1999 Jan;59(1):17–23

Variant angina is not associated with angiotensin I converting enzyme gene polymorphism but rather with smoking. Kim HS, et al. **Coron Artery Dis** 1999 Jun;10(4):227–33

Report of an association between discoid lupus erythematosus and smoking. Gallego H, et al. **Cutis** 1999 Apr;63(4):231–4

Smoking: an ugly habit [editorial] Keough GC. **Cutis** 1999 Mar;63(3):133

Cigarette smoking as a triggering factor of hidradenitis suppurativa. König A, et al. **Dermatology** 1999;198(3):261–4

The scope for cardiovascular disease risk factor intervention among people with diabetes mellitus in England: a population-based analysis from the Health Surveys for England 1991–94. Colhoun HM, et al. **Diabet Med** 1999 Jan;16(1):35–40

Tobacco smoke exposure in children and adolescents with diabetes mellitus. Hargrave DR, et al. **Diabet Med** 1999 Jan;16(1):31–4

Alcohol and smoking as risk factors in chronic pancreatitis and pancreatic cancer. Talamini G, et al. **Dig Dis Sci** 1999 Jul;44(7):1303–11

Is there an increased risk of stroke associated with oral contraceptives? Zeitoun K, et al. **Drug Saf** 1999 Jun; 20(6):467–73 (43 ref.)

Management of the hypertensive patient who smokes. Pardell H, et al. **Drugs** 1998 Aug;56(2):177–87 (106 ref.)

Smoking in pregnancy and children's mental and motor development at age 1 and 5 years. Trasti N, et al. **Early Hum Dev** 1999 Jun;55(2):137–47

Effects of tobacco smoking on the African continent: analysis of lung cancer incidence rates from population based cancer registries [letter] Wabinga HR. **East Afr Med J** 1998 Dec;75(12):730–1

Identification of a chemical marker of environmental exposure to formaldehyde. Carraro E, et al. **Environ Res** 1999 Feb;80(2 Pt 1):132–7

Diluted mainstream cigarette smoke condensates activate estrogen receptor and aryl hydrocarbon receptor-mediated gene transcription. Meek MD, et al. **Environ Res** 1999 Jan; 80(1):9–17

Influenza A among community-dwelling elderly persons in Leicestershire during winter 1993–4; cigarette smoking as a risk factor and the efficacy of influenza vaccination. Nicholson KG, et al. **Epidemiol Infect** 1999 Aug; 123(1):103–8

Parental smoking and infection with Helicobacter pylori among preschool children in southern Germany. Brenner H, et al. **Epidemiology** 1998 Sep;9(5):545–9

Selection bias and the use of controls with malformations in case-control studies of birth defects. Lieff S, et al. **Epidemiology** 1999 May;10(3):238–41

Risk of recurrent spontaneous abortion, cigarette smoking, and genetic polymorphisms in NAT2 and GSTM1. Mendola P, et al. **Epidemiology** 1998 Nov;9(6):666–8

Maternal risk factors and major associated defects in infants with Down syndrome. Torfs CP, et al. **Epidemiology** 1999 May;10(3):264–70

Attenuated physical exercise capacity in smokers compared with non-smokers after coronary angioplasty despite similar luminal diameters. Jørgensen B, et al. **Eur Heart J** 1998 May;19(5):737–41

Relationship between smoking and cardiovascular risk factors in the development of peripheral arterial disease and coronary artery disease: Edinburgh Artery Study. Price JF, et al. **Eur Heart J** 1999 Mar;20(5):344–53

N-nitroso compounds and man: sources of exposure, endogenous formation and occurrence in body fluids [letter; comment] [see comments] Hecht SS, et al. **Eur J Cancer Prev** 1998 Apr;7(2):165–6. Comment on: Eur J Cancer Prev 1997 Jun;6(3):226–68. Comment in: Eur J Cancer Prev 1998 Jun;7(3):244–6.

Beta-carotene concentration in buccal mucosal cells with and without dysplastic oral leukoplakia after long-term beta-carotene supplementation in male smokers. Liede KE, et al. **Eur J Clin Nutr** 1998 Dec;52(12):872–6

The influence of maternal passive and light active smoking on intrauterine growth and body composition of the newborn. Luciano A, et al. **Eur J Clin Nutr** 1998 Oct; 52(10):760–3

Effects of smoking and smoking cessation on dietary habits of a Swiss urban population. Morabia A, et al. **Eur J Clin Nutr** 1999 Mar;53(3):239–43

Cigarette smoking and risk of benign proliferative epithelial disorders of the breast. Rohan TE. **Eur J Epidemiol** 1999 Jul;15(6):529–35

Cord blood alpha-fetoprotein concentrations in term newborns of smoking mothers. Beratis NG, et al. **Eur J Pediatr** 1999 Jul;158(7):583–8

Role of adrenergic nervous system in cigarette smoke-induced bronchoconstriction in guinea pigs. Matsumoto K, et al. **Eur J Pharmacol** 1998 Sep 25; 358(1):49–54

Expiratory CT in cigarette smokers: correlation between areas of decreased lung attenuation, pulmonary function tests and smoking history. Verschakelen JA, et al. **Eur Radiol** 1998;8(8):1391–9

Two-year results after lung volume reduction surgery in alpha1-antitrypsin deficiency versus smoker's emphysema. Cassina PC, et al. **Eur Respir J** 1998 Nov;12(5):1028–32

Respiratory bronchiolitis in smokers with spontaneous pneumothorax. Cottin V, et al. **Eur Respir J** 1998 Sep; 12(3):702–4

Allergen exposure, atopy and smoking as determinants of allergy to rats in a cohort of laboratory employees. Cullinan P, et al. **Eur Respir J** 1999 May;13(5):1139–43

Decline in FEV1 related to smoking status in individuals with severe alpha1-antitrypsin deficiency (PiZZ). Piitulainen E, et al. **Eur Respir J** 1999 Feb;13(2):247–51

Putative susceptibility markers of coronary artery disease: association between VDR genotype, smoking, and aromatic DNA adduct levels in human right atrial tissue. Van Schooten FJ, et al. **FASEB J** 1998 Oct;12(13):1409–17

Smoking cigarettes is associated with increased sperm disomy in teenage men. Rubes J, et al. **Fertil Steril** 1998 Oct; 70(4):715–23

An international literature survey of "IARC Group 1 carcinogens [letter; comment] Fitzgerald DJ. **Food Chem Toxicol** 1999 Feb–Mar;37(2–3):265–6. Comment on: Food Chem Toxicol 1997 Oct–Nov;35(10–11):1107–30.

Influence of cigarette smoking on the electrocardiographic diagnosis of left ventricular hypertrophy in arterial hypertension. Schillaci G, et al. **G Ital Cardiol** 1999 Jan; 29(1):34–8

Colour vision disturbances in chronic smokers. Erb C, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 May; 237(5):377–80

Influence of cigarette-smoking on the result of the triple test. Hafner E, et al. **Gynecol Obstet Invest** 1999;47(3):188–90

Smoking, hemoglobin concentration and pregnancy-induced hypertension. Rasmussen S, et al. **Gynecol Obstet Invest** 1998;46(4):225–31

Implications of a two-stage clonal expansion model to indoor radon risk assessment. Castrén O. **Health Phys** 1999 Apr; 76(4):393–7

Oral contraceptive use and hemodynamic, lipid, and fibrinogen responses to smoking and stress in women. Davis MC. **Health Psychol** 1999 Mar;18(2):122–30

Effect of adequate alcohol intake, with or without cigarette smoking, on the risk of Helicobacter pylori infection. Tursi A, et al. **Hepatogastroenterology** 1998 Sep–Oct; 45(23):1892–5

A smoker with paroxysmal dyspnea. Digiulio DD, et al. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):17–8

Acute dyspnea and tachycardia in a cigarette smoker. Hancock EW. **Hosp Pract (Off Ed)** 1999 Mar 15;34(3):33–4

Passive smoking, sudden infant death syndrome (SIDS) and childhood infections. Dybing E, et al. **Hum Exp Toxicol** 1999 Apr;18(4):202–5 (30 ref.)

Mainstream and sidestream cigarette smoke condensates suppress macrophage responsiveness to interferon gamma. Edwards K, et al. **Hum Exp Toxicol** 1999 Apr;18(4):233–40

Passive smoking and respiratory symptoms in primary school children in Hong Kong. Child Health and Activity Research Group (CHARG). Lam TH, et al. **Hum Exp Toxicol** 1999 Apr;18(4):218–23

Smoking and female infertility: a systematic review and meta-analysis [see comments] Augood C, et al. **Hum Reprod** 1998 Jun;13(6):1532–9. Comment in: Hum Reprod 1998 Dec;13(12):3576.

Evidence that male smoking affects the likelihood of a pregnancy following IVF treatment: application of the modified cumulative embryo score. Joesbury KA, et al. **Hum Reprod** 1998 Jun;13(6):1506–13

Cigarette smoking and infertility [letter; comment] Kornya L, et al. **Hum Reprod** 1998 Dec;13(12):3576. Comment on: Hum Reprod 1998 Jun;13(6):1532–9.

Effect of smoking on ovarian reserve and ovarian stimulation in in-vitro fertilization and embryo transfer. El-Nemr A, et al. **Hum Reprod** 1998 Aug;13(8):2192–8

Too little discussion of tobacco-related diseases and deaths [letter] Sarna L. **Image J Nurs Sch** 1998;30(4):310

Effects of genetic polymorphism of metabolic enzymes, nutrition, and lifestyle factors on DNA adduct formation in lymphocytes. Wang Y, et al. **Ind Health** 1998 Oct; 36(4):337–46

Risk assessment of tobacco, alcohol and diet in cancers of base tongue and oral tongue—a case control study. Rao DN, et al. **Indian J Cancer** 1998 Jun;35(2):65–72

Effect of cigarette smoking on muscle strength of flexibility of athletes. Kumar PR, et al. **Indian J Exp Biol** 1998 Nov; 36(11):1144–6

Tobacco use by children: "a pediatric disease" [news] **Indian Pediatr** 1998 Dec;35(12):1261–2

Inflammatory bowel disease: is there any relation between smoking status and disease presentation? European Collaborative IBD Study Group. Russel MG, et al. **Inflamm Bowel Dis** 1998 Aug;4(3):182–6

Cigarette smoking should not be prescribed for the treatment of ulcerative colitis [see comments] Tremaine WJ. **Inflamm Bowel Dis** 1998 Nov;4(4):324–5; discussion 327. Comment in: Inflamm Bowel Dis 1998 Nov;4(4):326; discussion 327.

Job strain and arterial blood pressure, serum cholesterol, and smoking as risk factors for coronary heart disease in Japan. Kawakami N, et al. **Int Arch Occup Environ Health** 1998 Sep;71(6):429–32

Ethylene oxide-protein adduct formation in humans: influence of glutathione-S-transferase polymorphisms. Müller M, et al. **Int Arch Occup Environ Health** 1998 Oct; 71(7):499–502

Independent and joint effects of tobacco smoking and alcohol drinking on the risk of esophageal cancer in men and women. Castellsagué X, et al. **Int J Cancer** 1999 Aug 27; 82(5):657–64

Comparison of the effect of smoking and alcohol drinking between oral and pharyngeal cancer. Franceschi S, et al. **Int J Cancer** 1999 Sep 24;83(1):1–4

HPV 16 and cigarette smoking as risk factors for high-grade cervical intra-epithelial neoplasia. Ho GY, et al. **Int J Cancer** 1998 Oct 29;78(3):281–5

Influence of habitual smoking on gastric cancer by histologic subtype. Inoue M, et al. **Int J Cancer** 1999 Mar 31; 81(1):39–43

Glutathione S-transferase GSTM1, GSTM3, GSTP1 and GSTT1 genotypes and the risk of smoking-related oral and pharyngeal cancers. Jourenkova-Mironova N, et al. **Int J Cancer** 1999 Mar 31;81(1):44–8

Tobacco, alcohol and the risk of gastric cancer by sub-site and histologic type. Ye W, et al. **Int J Cancer** 1999 Oct 8;83(2):223–9

Smoking and oral contraceptives as risk factors for cervical carcinoma in situ. Ylitalo N, et al. **Int J Cancer** 1999 May 5;81(3):357–65

Mortality and morbidity from smoking-induced cardiovascular diseases: the necessity of the cardiologist's involvement and commitment. Milei J, et al. **Int J Cardiol** 1998 Dec 1;67(2):95–109 (104 ref.)

Smoking tobacco, microcirculatory changes and the role of nicotine. Haustein KO. **Int J Clin Pharmacol Ther** 1999 Feb;37(2):76–85 (69 ref.)

Squamous cell carcinoma and keratoacanthoma of the lower lip associated with "Goza" and "Shisha" smoking. El-Hakim

IE, et al. **Int J Dermatol** 1999 Feb;38(2):108-10

Risk of inflammatory bowel disease attributable to smoking, oral contraception and breastfeeding in Italy: a nationwide case-control study. Cooperative Investigators of the Italian Group for the Study of the Colon and the Rectum (GISC). Corrao G, et al. **Int J Epidemiol** 1998 Jun;27(3):397-404

The association of parental tobacco use and SLI. Tomblin JB, et al. **Int J Lang Commun Disord** 1998 Oct-Dec; 33(4):357-68

The impact of treatment time and smoking on local control and complications in T1 glottic cancer [see comments] van der Voet JC, et al. **Int J Radiat Oncol Biol Phys** 1998 Sep 1;42(2):247-55. Comment in: Int J Radiat Oncol Biol Phys 1999 Jul 1;44(4):967-8.

Risk from tobacco and potentials for health gain [see comments] Doll R. **Int J Tuberc Lung Dis** 1999 Feb; 3(2):90-9 (87 ref.). Comment in: Int J Tuberc Lung Dis 1999 Feb;3(2):85-6.

Bladder cancer in women. van der Poel HG, et al. **Int Urogynecol J Pelvic Floor Dysfunct** 1999;10(3):207-12 (65 ref.)

Prevention of lens damage associated with cigarette smoke exposure in rats by alpha-tocopherol (vitamin E) treatment. Avunduk AM, et al. **Invest Ophthalmol Vis Sci** 1999 Feb; 40(2):537-41

Effect of receptive oral sex and smoking on the incidence of hairy leukoplakia in HIV-positive gay men. Shiboski CH, et al. **J Acquir Immune Defic Syndr** 1999 Jul 1; 21(3):236-42

Cigarette smoking-associated elastotic changes in the skin. Boyd AS, et al. **J Am Acad Dermatol** 1999 Jul;41(1):23-6

Public knowledge, awareness, and perceptions of the association between skin aging and smoking. Demierre MF, et al. **J Am Acad Dermatol** 1999 Jul;41(1):27-30

The effect of ascorbic acid supplementation on the blood lead levels of smokers. Dawson EB, et al. **J Am Coll Nutr** 1999 Apr;18(2):166-70

Alveolar bone loss and tooth loss in male cigar and pipe smokers. Krall EA, et al. **J Am Dent Assoc** 1999 Jan; 130(1):57-64

Smoking in women. Mueller L, et al. **J Am Osteopath Assoc** 1998 Dec;98(12 Suppl):S7-10 (29 ref.)

Effects of smoking on renal hemodynamics in healthy volunteers and in patients with glomerular disease. Ritz E, et al. **J Am Soc Nephrol** 1998 Oct;9(10):1798-804

Parental smoking behavior and the urinary cotinine levels of asthmatic children. Bahçeciler NN, et al. **J Asthma** 1999; 36(2):171-5

Maternal smoking during pregnancy, growth, and bone mass in prepubertal children. Jones G, et al. **J Bone Miner Res** 1999 Jan;14(1):146-51

Smoking increases bone loss and decreases intestinal calcium absorption. Krall EA, et al. **J Bone Miner Res** 1999 Feb; 14(2):215-20

Smoking, antioxidant vitamins, and the risk of hip fracture. Melhus H, et al. **J Bone Miner Res** 1999 Jan;14(1):129-35

Cigarette smoking shortens the duration of daily leisure time physical activity in patients with intermittent claudication. Gardner AW, et al. **J Cardiopulm Rehabil** 1998 Jan-Feb; 19(1):43-51

Effect of smoking on the prevalence of insulin resistance-associated cardiovascular risk factors among Finnish men in military service. Tähtinen TM, et al. **J Cardiovasc Risk** 1998 Oct-Dec;5(5-6):319-23

Which lifestyle parameters discriminate high- from low-risk participants for coronary heart disease risk factors. Longitudinal analysis covering adolescence and young adulthood. Twisk JW, et al. **J Cardiovasc Risk** 1997 Oct-Dec;4(5-6):393-400

The frequency of a common mutation of the methionine synthase gene in the Australian population and its relation to smoking and coronary artery disease. Wang XL, et al. **J Cardiovasc Risk** 1998 Oct-Dec;5(5-6):289-95

Further evidence of an association between maternal smoking during pregnancy and attention deficit hyperactivity disorder: findings from a high-risk sample of siblings. Milberger S, et al. **J Clin Child Psychol** 1998 Oct; 27(3):352-8

Using binary logistic regression models for ordinal data with non-proportional odds. Bender R, et al. **J Clin Epidemiol** 1998 Oct;51(10):809-16

Statistical methods in epidemiology: a comparison of statistical methods to analyze dose-response and trend analysis in epidemiologic studies. Boucher KM, et al. **J Clin Epidemiol** 1998 Dec;51(12):1223-33

Effects of multiple attempts to quit smoking and relapses to smoking on pulmonary function. Lung Health Study Research Group. Murray RP, et al. **J Clin Epidemiol** 1998 Dec;51(12):1317-26

Association between cigarette and alcohol consumption and Raynaud's phenomenon. Palesch YY, et al. **J Clin Epidemiol** 1999 Apr;52(4):321-8

Effects of cigarette smoking on gastric ulcer formation and healing: possible mechanisms of action. Ma L, et al. **J Clin Gastroenterol** 1998;27 Suppl 1:S80-6 (81 ref.)

Economic issues in lung cancer: a review. Goodwin PJ, et al. **J Clin Oncol** 1998 Dec;16(12):3900-12 (66 ref.)

Tobacco smoking and supragingival dental calculus. Bergström J. **J Clin Periodontol** 1999 Aug;26(8):541-7

Smoking and cervicular fluid levels of IL-6 and TNF-alpha in periodontal disease. Boström L, et al. **J Clin Periodontol** 1999 Jun;26(6):352-7

Clinical expression of TNF-alpha in smoking-associated periodontal disease. Boström L, et al. **J Clin Periodontol** 1998 Oct;25(10):767-73

Evaluation of 2 methods to assess gingival bleeding in smokers and non-smokers in natural and experimental gingivitis. Lie MA, et al. **J Clin Periodontol** 1998 Sep; 25(9):695-700

Smoking and gastric ulcers: the possible role of nicotine. Ogle CW. **J Clin Pharmacol** 1999 May;39(5):448-53 (34 ref.)

The saga of tobacco products liability litigation: a look back and a proposal for the future. Nusbaum NJ. **J Community Health** 1998 Oct;23(5):325-35 (43 ref.)

Changes in body mass index and its relationships to other cardiovascular risk factors among Japanese population: results from the 1980 and 1990 national cardiovascular surveys in Japan. Liu L, et al. **J Epidemiol** 1999 Jun; 9(3):163-74

Combined oral contraceptives, smoking, and cardiovascular risk. Farley TM, et al. **J Epidemiol Community Health** 1998 Dec;52(12):775-85

Smoking and intrauterine growth retardation in Republic of Benin. Fourn L, et al. **J Epidemiol Community Health** 1999 Jul;53(7):432-3

Incidence of cataract operations in Finnish male smokers unaffected by alpha tocopherol or beta carotene supplements. Teikari JM, et al. **J Epidemiol Community Health** 1998 Jul;52(7):468-72

Tobacco smoking contributes little to facial wrinkling. O'Hare PM, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):133-9

Smoking as a risk factor for nephropathy in non-insulin-dependent diabetics. Mehler PS, et al. **J Gen Intern Med** 1998 Dec;13(12):842-5

Influence of smoking on baroreceptor function: 24 h measurements. Gerhardt U, et al. **J Hypertens** 1999 Jul; 17(7):941-6

Is there a relationship between smoking and asthma in adults? Ben-Noun L. **J Int Med Res** 1999 Jan-Feb;27(1):15-21

Pharmacotherapy of chronic obstructive pulmonary disease. Borron W, et al. **J La State Med Soc** 1998 Dec; 150(12):596-600 (26 ref.)

Eosinophilic granuloma. Ie S, et al. **J La State Med Soc** 1998 Dec;150(12):642-3

It's about health, it's about time: information everyone should know. Cabelka JF 2nd. **J Med Assoc Ga** 1998 Nov; 87(4):328-9 (17 ref.)

Immune responses to Chlamydia pneumoniae in twins in relation to gender and smoking. von Hertzen L, et al. **J Med Microbiol** 1998 May;47(5):441-6

Cigar and pipe smoking and lung cancer risk: a multicenter study from Europe [see comments] Boffetta P, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):697-701. Comment in: J Natl Cancer Inst 1999 Apr 21;91(8):660-1.

Genetics of smoking-related cancer and mutagen sensitivity [editorial; comment] Caporaso N. **J Natl Cancer Inst** 1999 Jul 7;91(13):1097-8. Comment on: J Natl Cancer Inst 1999 Jul 7;91(13):1125-30.

Tobacco smoking as a risk factor in anal carcinoma: an antiestrogenic mechanism? Frisch M, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):708-15

Re: Early age at smoking initiation and tobacco carcinogen DNA damage in the lung [letter] Glaser JH. **J Natl Cancer Inst** 1999 Aug 18;91(16):1423

von Hippel-Lindau gene mutations in human and rodent renal tumors--association with clear cell phenotype [editorial; comment] Gnarra JR. **J Natl Cancer Inst** 1998 Nov 18;90(22):1685-7. Comment on: J Natl Cancer Inst 1998 Nov 18;90(22):1720-3.

Tobacco smoke carcinogens and lung cancer. Hecht SS. **J Natl Cancer Inst** 1999 Jul 21;91(14):1194-210 (249 ref.)

Safe cigarette alternatives? Industry critics say 'not yet' [news] Holzman D. **J Natl Cancer Inst** 1999 Mar 17; 91(6):502-4

The end of the "tobacco and cancer" century [editorial; comment] Koh HK. **J Natl Cancer Inst** 1999 Apr 21; 91(8):660-1. Comment on: J Natl Cancer Inst 1999 Apr 21;91(8):675-90. Comment on: J Natl Cancer Inst 1999 Apr 21;91(8):697-701.

Time since stopping smoking and the risk of oral and pharyngeal cancers [letter] La Vecchia C, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):726-8

Cigar smoking and cancers of the upper digestive tract [letter] La Vecchia C, et al. **J Natl Cancer Inst** 1998 Nov 4; 90(21):1670

Metabolites of a tobacco-specific carcinogen in urine from newborns. Lackmann GM, et al. **J Natl Cancer Inst** 1999 Mar 3;91(5):459-65

Re: Autofluorescence bronchoscopy in the detection of squamous metaplasia and dysplasia in current and former smokers [letter; comment] Lam S, et al. **J Natl Cancer Inst** 1999 Mar 17;91(6):561-2; discussion 562-3. Comment on: J Natl Cancer Inst 1998 Jul 1;90(13):991-5.

Sex-related differences in bronchial epithelial changes associated with tobacco smoking. Lam S, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):691-6

Molecular dosimeters of smoking damage in the lung [editorial; comment] Spitz MR, et al. **J Natl Cancer Inst** 1999 Apr 7;91(7):578-9. Comment on: J Natl Cancer Inst 1999 Apr 7;91(7):614-9.

Pancreatic cancer risk and nutrition-related methyl-group availability indicators in male smokers. Stolzenberg-Solomon RZ, et al. **J Natl Cancer Inst** 1999 Mar 17;91(6):535-41

Cancer of the oral cavity and pharynx in nonsmokers who drink alcohol and in nondrinkers who smoke tobacco. Talamini R, et al. **J Natl Cancer Inst** 1998 Dec 16; 90(24):1901-3

Re: Autofluorescence bronchoscopy in the detection of squamous metaplasia and dysplasia in current and former smokers [letter; comment] Venmans BJ, et al. **J Natl Cancer Inst** 1999 Mar 17;91(6):562-3. Comment on: J Natl Cancer Inst 1998 Jul 1;90(13):991-5.

Early age at smoking initiation and tobacco carcinogen DNA damage in the lung [see comments] Wiencke JK, et al. **J Natl Cancer Inst** 1999 Apr 7;91(7):614-9. Comment in: J Natl Cancer Inst 1999 Apr 7;91(7):578-9.

Re: Cigarette smoking and the histopathology of lung cancer [letter; comment] Wynder EL, et al. **J Natl Cancer Inst** 1998 Oct 7;90(19):1486-8. Comment on: J Natl Cancer Inst 1997 Nov 5;89(21):1563-5. Comment on: J Natl Cancer Inst 1997 Nov 5;89(21):1580-6.

Smoking, blood pressure and serum albumin are major determinants of carotid atherosclerosis in dialysis patients. CREED Investigators. Cardiovascular Risk Extended Evaluation in Dialysis patients. Malatino LS, et al. **J Nephrol** 1999 Jul-Aug;12(4):256-60

Addressing nicotine addiction in women. Role of the midwife. Ward S. **J Nurse Midwifery** 1999 Jan-Feb; 44(1):3-18 (103 ref.)

The association between maternal smoking and fetal hydranencephaly. To WW, et al. **J Obstet Gynaecol Res** 1999 Feb;25(1):39-42

Lung cancer and occupational risk factors in Greece. Chatzis C, et al. **J Occup Environ Med** 1999 Jan;41(1):29-35

Expression of p53 protein correlates with decreased survival in patients with areca quid chewing and smoking-associated oral squamous cell carcinomas in Taiwan. Chiang CP, et al. **J Oral Pathol Med** 1999 Feb; 28(2):72-6

Role of chewing and smoking habits in the etiology of oral submucous fibrosis (OSF): a case-control study. Shah N, et al. **J Oral Pathol Med** 1998 Nov;27(10):475-9

Smoke and TMJ? [letter] Altschuler E. **J Otolaryngol** 1999 Jun;28(3):180

Control of breathing in infants born to smoking mothers. Ueda Y, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):226-32

Type 1 diabetes mellitus and oral health: assessment of periodontal disease. Moore PA, et al. **J Periodontol** 1999 Apr;70(4):409-17

Smoking and patterns of bone loss in early-onset periodontitis. Mullally BH, et al. **J Periodontol** 1999 Apr; 70(4):394-401

Longitudinal effect of non-surgical treatment and systemic metronidazole for 1 week in smokers and non-smokers with refractory periodontitis: a 5-year study. Söder B, et al. **J Periodontol** 1999 Jul;70(7):761-71

Effects of smoking on implant success in grafted maxillary sinuses. Kan JY, et al. **J Prosthet Dent** 1999 Sep; 82(3):307-11

It's never too late to quit [news] **J Psychosoc Nurs Ment Health Serv** 1998 Sep;36(9):7

Cigarette smoking and erectile dysfunction. Jeremy JY, et al. **J R Soc Health** 1998 Jun;118(3):151-5 (61 ref.)

Smoking and urological disease. Mikhailidis DP, et al. **J R Soc Health** 1998 Aug;118(4):210-2 (34 ref.)

Estimated gains in birth weight associated with reductions in smoking during pregnancy. Secker-Walker RH, et al. **J Reprod Med** 1998 Nov;43(11):967-74

Smoking interferes with efficacy of antimalarial therapy in cutaneous lupus. Rahman P, et al. **J Rheumatol** 1998 Sep; 25(9):1716-9

Current tobacco smoking, formal education, and the risk of rheumatoid arthritis [see comments] Uhlig T, et al. **J Rheumatol** 1999 Jan;26(1):47-54. Comment in: J Rheumatol 1999 Jan;26(1):1-3.

Does smoking cause rheumatoid arthritis? [editorial; comment] Wilson K, et al. **J Rheumatol** 1999 Jan;26(1):1-3. Comment on: J Rheumatol 1999 Jan;26(1):47-54.

Effect of cigarette smoke on endothelial regeneration in vivo and nitric oxide levels. Sarkar R, et al. **J Surg Res** 1999 Mar;82(1):43-7

Bone healing of tibial lengthening is delayed by cigarette smoking: study of bone mineral density and torsional strength on rabbits. Ueng SW, et al. **J Trauma** 1999 Jan; 46(1):110-5

Body mass index, smoking, and mortality among older American women. Fontaine KR, et al. **J Womens Health** 1998 Dec;7(10):1257-61

Perceived risks of heart disease and cancer among cigarette smokers. Ayanian JZ, et al. **JAMA** 1999 Mar 17; 281(11):1019-21

Association between smoking and tumor progression in Japanese women with adenocarcinoma of the lung. Sekine I, et al. **Jpn J Cancer Res** 1999 Feb;90(2):129-35

Smoking as a risk factor for end-stage renal failure in men with primary renal disease. Orth SR, et al. **Kidney Int** 1998 Sep;54(3):926-31

Long-chain polyunsaturated fatty acids, infant formula, and breastfeeding [letter; comment] Agostoni C, et al. **Lancet** 1998 Nov 21;352(9141):1703-4. Comment on: Lancet 1998 Aug 29;352(9129):688-91.

Smoking and acute appendicitis [letter] Butland BK, et al.

Lancet 1999 May 15;353(9165):1712
Smoking and acute appendicitis [letter] Catalan VS. **Lancet** 1999 May 15;353(9165):1711–2
Early Lung Cancer Action Project: overall design and findings from baseline screening [see comments] Henschke CI, et al. **Lancet** 1999 Jul 10;354(9173):99–105. Comment in: Lancet 1999 Jul 10;354(9173):86–7.
Smoking cheroots reduces birthweight [letter] [published erratum appears in Lancet 1999 Jan 30;353(9150):414] McGready R, et al. **Lancet** 1998 Nov 7;352(9139):1521–2
Smoking, ageing, and oestrogen [letter] Malnick SD, et al. **Lancet** 1999 Sep 11;354(9182):955
Smoking in adults and passive smoking in children are associated with acute appendicitis [letter; comment] Montgomery SM, et al. **Lancet** 1999 Jan 30;353(9150):379 . Comment on: Lancet 1998 Dec 5;352(9143):1797–8.
Quitting smoking and lungs. Muers MF. **Lancet** 1999 Jul 17; 354(9174):177–8
Lifetime risk of developing coronary heart disease [letter; comment] Ross G, et al. **Lancet** 1999 Mar 13;353(9156):924 . Comment on: Lancet 1999 Jan 9;353(9147):89–92.
Lifetime risk of developing coronary heart disease [letter; comment] Ulrich S, et al. **Lancet** 1999 Mar 13;353(9156):925 . Comment on: Lancet 1999 Jan 9;353(9147):89–92.
Hospital based survey of lung cancer in Turkey, a developing country, where smoking is highly prevalent. Gürsel G, et al. **Lung Cancer** 1998 Aug;21(2):127–32
Effect of cigarette smoking on major histological types of lung cancer in men [see comments] Khuder SA, et al. **Lung Cancer** 1998 Oct;22(1):15–21. Comment in: Lung Cancer 1999 Apr;24(1):45.
Lung cancer and smoking: a case–control study in Buenos Aires, Argentina. Matos E, et al. **Lung Cancer** 1998 Sep; 21(3):155–63
Re: 'Effect of cigarette smoking on major histological types of lung cancer' SA Khuder, HH Dayal, AB Mutgi et al., Lung Cancer 1998;22:15–21 [letter; comment] Yesner R. **Lung Cancer** 1999 Apr;24(1):45. Comment on: Lung Cancer 1998 Oct;22(1):15–21.
Costs of smoking: a focus on maternal, childhood, and other short–run costs. Adams EK, et al. **Med Care Res Rev** 1999 Mar;56(1):3–29
"Smoking is a major cause of blindness" [editorial] Mitchell P, et al. **Med J Aust** 1999 Aug 16;171(4):173–4
Cancer: proving the causal link, tobacco radiation and environmental pollution. Day M. **Med Leg J** 1998;66 (Pt 4):141–50
Smoking history is related to free–living daily physical activity in claudicants. Gardner AW, et al. **Med Sci Sports Exerc** 1999 Jul;31(7):980–6
Partial necrosis of an amputated penis following replantation in a heavy smoker: a case report. Kayikcioglu A, et al. **Microsurgery** 1998;18(3):189–91
Risk factors for foot blisters during road marching: tobacco use, ethnicity, foot type, previous illness, and other factors. Knapik JJ, et al. **Mil Med** 1999 Feb;164(2):92–7
"Sometimes it's more than a cigar" [editorial] Thomas JR. **Mo Med** 1999 Sep;96(9):433
Cigarette smoking does not increase hydrogen peroxide levels in expired breath condensate of patients with stable COPD. Nowak D, et al. **Monaldi Arch Chest Dis** 1998 Jun; 53(3):268–73
Correlation of the combination of alcoholism and smoking with the occurrence of cancer in the oral cavity. A screening study in an endangered population. Szabó G, et al. **Mund Kiefer Gesichtschir** 1999 May;3(3):119–22
Sister chromatid exchange data fit with a mixture of Poisson distributions. Byers RH Jr, et al. **Mutat Res** 1999 Jun 30; 427(2):157–62
Enhancement of pre–existing DNA adducts in rodents exposed to cigarette smoke. Gupta RC, et al. **Mutat Res** 1999 Mar 8;424(1–2):195–205
Sperm chromatin damage associated with male smoking. Potts RJ, et al. **Mutat Res** 1999 Jan 25;423(1–2):103–11
Lack of adverse effect of smoking habit on DNA strand breakage and base damage, as revealed by the alkaline comet assay. Wojewódzka M, et al. **Mutat Res** 1999 Mar 15;440(1):19–25
Effects on sister chromatid exchange frequency of aldehyde dehydrogenase 2 genotype and smoking in vinyl chloride workers. Wong RH, et al. **Mutat Res** 1998 Dec 3; 420(1–3):99–107
The influence of gestational age and smoking habits on the risk of subsequent preterm deliveries. Cnattingius S, et al. **N Engl J Med** 1999 Sep 23;341(13):943–8
Effect of cigar smoking on the risk of cardiovascular disease, chronic obstructive pulmonary disease, and cancer in men [see comments] Iribarren C, et al. **N Engl J Med** 1999 Jun 10;340(23):1773–80. Comment in: N Engl J Med 1999 Jun 10;340(23):1829–31.
Cocaine, smoking, and spontaneous abortion [editorial; comment] Mills JL. **N Engl J Med** 1999 Feb 4;340(5):380–1 . Comment on: N Engl J Med 1999 Feb 4;340(5):333–9.
Cocaine and tobacco use and the risk of spontaneous abortion [see comments] Ness RB, et al. **N Engl J Med** 1999 Feb 4;340(5):333–9. Comment in: N Engl J Med 1999 Feb 4;340(5):380–1.
Cigars and public health [editorial; comment] Satcher D. **N Engl J Med** 1999 Jun 10;340(23):1829–31. Comment on: N Engl J Med 1999 Jun 10;340(23):1773–80.
Smoking hygiene: a study of attitudes to passive smoking. al–Delaimy W, et al. **N Z Med J** 1999 Feb 12; 112(1081):33–6
Pill method failures in women seeking abortion: fourteen years experience. Sparrow MJ. **N Z Med J** 1998 Oct 9; 111(1075):386–8
When smoke gets in your genes [news; comment] Sozzi G, et al. **Nat Med** 1998 Oct;4(10):1119–20. Comment on: Nat Med 1998 Oct;4(10):1144–51.
Cardiovascular risk factors, smoking and kidney function. Baggio B, et al. **Nephrol Dial Transplant** 1998;13 Suppl 7:2–5 (47 ref.)
Association of cigarette smoking with amyotrophic lateral sclerosis. Kamel F, et al. **Neuroepidemiology** 1999; 18(4):194–202
Parkinson's disease, MAOB, and smoking [letter] Mellick GD, et al. **Neurology** 1999 Aug 11;53(3):658
The influence of smoking on the risk of Alzheimer's disease. Merchant C, et al. **Neurology** 1999 Apr 22;52(7):1408–12
Where there's smoke... [news] **Nurse Pract** 1999 Feb;24(2):103
Nicotinic acid supplementation: effects on niacin status, cytogenetic damage, and poly(ADP–ribosylation) in lymphocytes of smokers. Hageman GJ, et al. **Nutr Cancer** 1998;32(2):113–20
Cigarette use during adolescence: effects on nutritional status. Hampl JS, et al. **Nutr Rev** 1999 Jul;57(7):215–21 (63 ref.)
Incidence of placental abruption in relation to cigarette smoking and hypertensive disorders during pregnancy: a meta–analysis of observational studies. Ananth CV, et al. **Obstet Gynecol** 1999 Apr;93(4):622–8
Cigarette smoking and effects on menstrual function. Windham GC, et al. **Obstet Gynecol** 1999 Jan;93(1):59–65
Nucleated red blood cells in infants of smoking mothers. Yeruchimovich M, et al. **Obstet Gynecol** 1999 Mar; 93(3):403–6
Smoking and musculoskeletal disorders in the metal industry: a prospective study. Leino–Arjas P. **Occup Environ Med** 1998 Dec;55(12):828–33
Lack of combined effects of exposure and smoking on respiratory health in aluminium potroom workers. Radon K, et al. **Occup Environ Med** 1999 Jul;56(7):468–72
Smoking as a predictor of long–term work disability in physically active and inactive people. Eriksen W, et al. **Occup Med (Lond)** 1998 Jul;48(5):315–20
Smoking, heavy physical work and low back pain: a four–year prospective study. Eriksen W, et al. **Occup Med (Lond)** 1999 Apr;49(3):155–60
Women who smoke menthol cigarettes have greater nicotine exposure [news] **Oncology (Huntingt)** 1999 Jul;13(7):915
Acute effects of cigarette smoking on tissue circulation in human optic nerve head and choroid–retina. Tamaki Y, et al. **Ophthalmology** 1999 Mar;106(3):564–9
Smoking patterns and cancer of the oral cavity and pharynx: a case–control study in Uruguay. De Stefani E, et al. **Oral Oncol** 1998 Sep;34(5):340–6
Risk factors for oral epithelial dysplasia––the role of smoking and alcohol. Jaber MA, et al. **Oral Oncol** 1999 Mar; 35(2):151–6
Polymorphisms of the CYP1A1 and GSTM1 gene involved in oral squamous cell carcinoma in association with a cigarette dose. Tanimoto K, et al. **Oral Oncol** 1999 Mar; 35(2):191–6
Maternal cigarette smoking and pregnancy outcome. Tuthill DP, et al. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):245–53
Preventive pediatric cardiology. Tobacco, cholesterol, obesity, and physical activity. Gidding SS. **Pediatr Clin North Am** 1999 Apr;46(2):253–62 (34 ref.)
Risk factors in wheezing infants. Karaman O, et al. **Pediatr Int** 1999 Apr;41(2):147–50
Persistent c–fos induction by nicotine in developing rat brain regions: interaction with hypoxia. Trauth JA, et al. **Pediatr Res** 1999 Jan;45(1):38–45
Maternal cigarette smoking during pregnancy is an independent predictor for symptoms of middle ear disease at five years' postdelivery. Stathis SL, et al. **Pediatrics** 1999 Aug;104(2):e16
Smoking during pregnancy and hospitalization of the child. Wisborg K, et al. **Pediatrics** 1999 Oct;104(4):e46
Gestational and smoking effects on peptidase activity in the placenta. Kenagy J, et al. **Peptides** 1998;19(10):1659–66
Role of glutathione S–transferase GSTM1, GSTM3, GSTP1 and GSTT1 genotypes in modulating susceptibility to smoking–related lung cancer. Jourenkova–Mironova N, et al. **Pharmacogenetics** 1998 Dec;8(6):495–502
Human glutathione S–transferase P1 polymorphism and susceptibility to smoking related epithelial cancer; oral, lung, gastric, colorectal and urothelial cancer. Katoh T, et al. **Pharmacogenetics** 1999 Apr;9(2):165–9
Polymorphism in cytochrome P450 CYP2D6, CYP1A1, CYP2E1 and glutathione S–transferase, GSTM1, GSTM3, GSTT1 and susceptibility to tobacco–related cancers: studies in upper aerodigestive tract cancers. Matthias C, et al. **Pharmacogenetics** 1998 Apr;8(2):91–100
Latent inhibition in smokers vs. nonsmokers: interaction with number or intensity of preexposures? Della Casa V, et al. **Pharmacol Biochem Behav** 1999 Feb;62(2):353–9
Effect of filter vent blocking on carbon monoxide exposure from selected lower tar cigarette brands. Sweeney CT, et al. **Pharmacol Biochem Behav** 1999 May;63(1):167–73
Maternal cocaine use and cigarette smoking in pregnancy in relation to amino acid transport and fetal growth. Pastrakuljic A, et al. **Placenta** 1999 Sep;20(7):499–512 (136 ref.)
Cigarette smoking and pregnancy II: vascular effects. Salafia C, et al. **Placenta** 1999 May;20(4):273–9 (89 ref.)
Cigarette smoking and pregnancy I: ovarian, uterine and placental effects. Shiverick KT, et al. **Placenta** 1999 May; 20(4):265–72 (103 ref.)
Trends in smoking–related diseases. Why smoking cessation is still the best medicine. Hays JT, et al. **Postgrad Med** 1998 Dec;104(6):56–62, 65–6, 71 (22 ref.)
Smoking, eating disorders, and weight control [letter] Morgan JF, et al. **Postgrad Med J** 1999 Feb;75(880):127
The effect of smoking in pregnancy on maternal serum inhibin A levels. Ferriman EL, et al. **Prenat Diagn** 1999 Apr;19(4):372–4
Smoking as a risk factor for injury death: a meta–analysis of cohort studies. Leistikow BN, et al. **Prev Med** 1998 Nov–Dec;27(6):871–8
Might stopping smoking reduce injury death risks? A meta–analysis of randomized, controlled trials. Leistikow BN, et al. **Prev Med** 1999 Mar;28(3):255–9
Maternal cigarette smoking increases F2–isoprostanes and reduces prostacyclin and nitric oxide in umbilical vessels. Obwegeser R, et al. **Prostaglandins Other Lipid Mediat** 1999 Jun;57(4):269–79
Smoking, plasma vitamins C, E, retinol, and carotene, and fatal prostate cancer: seventeen–year follow–up of the prospective basel study. Eichholzer M, et al. **Prostate** 1999 Feb 15;38(3):189–98
Interaction between maternal cigarette smoking and Apgar scores in predicting offending behavior. Gibson CL, et al. **Psychol Rep** 1998 Oct;83(2):579–86
Adult smoking in the home environment and children's IQ. Johnson DL, et al. **Psychol Rep** 1999 Feb;84(1):149–54
Effects of cigarette smoking and 12–h abstention on working memory during a serial–probe recognition task. Pineda JA, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):311–21
Reduction of natural killer cytotoxic activity in major depression: interaction between depression and cigarette smoking [see comments] Jung W, et al. **Psychosom Med** 1999 May–Jun;61(3):263–70. Comment in: Psychosom Med 1999 May–Jun;61(3):271–2.
Psychoneuroimmunology and immunotoxicology: implications for carcinogenesis [editorial; comment] Kiecolt–Glaser JK, et al. **Psychosom Med** 1999 May–Jun; 61(3):271–2. Comment on: Psychosom Med 1999 May–Jun;61(3):263–70.
Radon–induced lung cancer in smokers and non–smokers: risk implications using a two–mutation carcinogenesis model. Leenhouts HP. **Radiat Environ Biophys** 1999 May; 38(1):57–71
Effects of ongoing smoking on the development of radiation–induced pneumonitis in breast cancer and oesophagus cancer patients. Johansson S, et al. **Radiother Oncol** 1998 Oct;49(1):41–7
Even moderate cigarette smoking influences the pattern of circulating monocytes and the concentration of sICAM–1. Bergmann S, et al. **Respir Physiol** 1998 Dec;114(3):269–75
Acute lung injury after inhalation of water–proofing spray while smoking a cigarette. Jinn Y, et al. **Respiration** 1998; 65(6):486–8
Influence of the smoking habit in the surgery of inflammatory bowel disease. Medina C, et al. **Rev Esp Enferm Dig** 1998 Nov;90(11):771–8 **(Eng, Spa)**
Health sector speaks in favour of tobacco bill. Naudé M. **S Afr Med J** 1998 Oct;88(10):1294
Widespread musculoskeletal chronic pain associated with smoking. An epidemiological study in a general rural population. Andersson H, et al. **Scand J Rehabil Med** 1998 Sep;30(3):185–91
Maternal smoking in pregnancy and sex differences in perinatal death between boys and girls. Xu B, et al. **Soc Biol** 1998 Fall–Winter;45(3–4):273–7
Low back pain and lifestyle. Part I: Smoking. Information from a population–based sample of 29,424 twins. Leboeuf–Yde C, et al. **Spine** 1998 Oct 15;23(20):2207–13; discussion 2214
Smoking and low back pain. A systematic literature review of 41 journal articles reporting 47 epidemiologic studies. Leboeuf–Yde C. **Spine** 1999 Jul 15;24(14):1463–70 (53 ref.)
The association between cigarette smoking and back pain in adults. Scott SC, et al. **Spine** 1999 Jun 1;24(11):1090–8
Smoking–induced elevations in blood carboxyhaemoglobin levels. Effect on maximal oxygen uptake. McDonough P, et al. **Sports Med** 1999 May;27(5):275–83 (77 ref.)
The association of cigarette smoking with a high risk of recurrence after ileocolonic resection for ileocecal Crohn's disease. Yamamoto T, et al. **Surg Today** 1999;29(6):579–80
Cigarette smoking, herniation, and recurrence [letter; comment] Read RC. **Surgery** 1998 Nov;124(5):942. Comment on: Surgery 1998 Apr;123(4):450–5.
Smoking during pregnancy and Poland sequence: results of a population–based registry and a case–control registry. Martinez–Frías ML, et al. **Teratology** 1999 Jan;59(1):35–8
Candidate genes for nonsyndromic cleft lip and palate and maternal cigarette smoking and alcohol consumption: evaluation of genotype–environment interactions from a population–based case–control study of orofacial clefts. Romitti PA, et al. **Teratology** 1999 Jan;59(1):39–50
Lower plasma levels of haloperidol in smoking than in nonsmoking schizophrenic patients. Shimoda K, et al. **Ther Drug Monit** 1999 Jun;21(3):293–6
Acute inhalation of cigarette smoke increases lower respiratory tract nitric oxide concentrations. Chambers DC, et al. **Thorax** 1998 Aug;53(8):677–9

A synergistic effect of serotonin transporter gene polymorphism and smoking in association with CHD. Arinami T, et al. **Thromb Haemost** 1999 Jun;81(6):853–6

Cigarette smoking doubles the risk of myocardial infarction in carriers of a protective polymorphism in the blood coagulation factor VII gene [letter] Iacoviello L, et al. **Thromb Haemost** 1999 Apr;81(4):658

Platelet spontaneous aggregation in platelet-rich plasma is increased in habitual smokers. Fusegawa Y, et al. **Thromb Res** 1999 Mar 15;93(6):271–8

Passive smoking as well as active smoking increases the risk of acute stroke [see comments] Bonita R, et al. **Tob Control** 1999 Summer;8(2):156–60. Comment in: Tob Control 1999 Summer;8(2):125–6.

FDA and EPA setbacks, fetal nicotine, ASH Thailand and UK, tennis shame, Australian documents, Corporate Activity Project, and 2100 quotes. Cannon J. **Tob Control** 1998 Autumn;7(3):320–2

Impact of new technologies in tobacco control: call for papers [editorial] Chapman S, et al. **Tob Control** 1998 Autumn;7(3):222

Tobacco use and the United States military: a longstanding problem [editorial; comment] Conway TL. **Tob Control** 1998 Autumn;7(3):219–21. Comment on: Tob Control 1998 Autumn;7(3):232–5. Comment on: Tob Control 1998 Autumn;7(3):236–40.

The Marlboro man needs Viagra [news] Davis RM. **Tob Control** 1998 Autumn;7(3):227

Taking aim at the bull's-eye: the nicotine in tobacco products [editorial] Douglas CE. **Tob Control** 1998 Autumn; 7(3):215–8 (92 ref.)

Gutka: a major new tobacco hazard in India [news] Gupta PC. **Tob Control** 1999 Summer;8(2):134

Smoking prevalence and risk factors for smoking in a population of United States Air Force basic trainees [see comments] Haddock CK, et al. **Tob Control** 1998 Autumn; 7(3):232–5. Comment in: Tob Control 1998 Autumn;7(3):219–21.

Reducing the addictiveness of cigarettes. Council on Scientific Affairs, American Medical Association. Henningfield JE, et al. **Tob Control** 1998 Autumn; 7(3):281–93 (144 ref.)

Please put out that cigarette, grandpa [editorial; comment] Jamrozik K, et al. **Tob Control** 1999 Summer;8(2):125–6. Comment on: Tob Control 1999 Summer;8(2):156–60.

Mortality attributable to cigarette smoking in Taiwan: a 12-year follow-up study. Liaw KM, et al. **Tob Control** 1998 Summer;7(2):141–8

Corky, the satellite, and Fishbone Fred [news] Simpson D. **Tob Control** 1999 Summer;8(2):132–3

Mixed progress against lung cancer. Thun MJ. **Tob Control** 1998 Autumn;7(3):223–6

Effects of air pollution and smoking on chronic obstructive pulmonary disease and bronchial asthma. Sasaki H, et al. **Tohoku J Exp Med** 1998 Nov;186(3):151–67 (73 ref.)

Magnesium modulates contractile responses of rat aorta to thiocyanate: A possible relationship to smoking-induced atherosclerosis. Li W, et al. **Toxicol Appl Pharmacol** 1999 May 15;157(1):77–84

DNA damage by tobacco smoke and some antiblastic drugs evaluated using the Comet assay. Poli P, et al. **Toxicol Lett** 1999 Sep 5;108(2–3):267–76

Etiology of individual differences in birth weight of twins as a function of maternal smoking during pregnancy. van Baal CG, et al. **Twin Res** 1998 Sep;1(3):123–30

Alternative nicotine delivery systems (ANDS)--public health-aspects [see comments] Kunze U, et al. **Wien Klin Wochenschr** 1998 Dec 11;110(23):811–6. Comment in: Wien Klin Wochenschr 1998 Dec 11;110(23):809–10.

[The effect of tobacco smoking on maternal weight gain and the neonatal results] Porozhanova V, et al. **Akush Ginekol (Sofiia)** 1998;37(3):10–1 (Eng. Abstr.) **(Bul)**

[Risk factors of lung cancer--follow-up studies in Nagoya Japan] Fu YY, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Dec; 18(6):328–30 (Eng. Abstr.) **(Chi)**

[Observation of chromosome aberration and micronucleus formation in peripheral blood lymphocytes among cigarette smokers] Jin YL, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Feb; 18(1):40–2 (Eng. Abstr.) **(Chi)**

[Studies on the relationship between smoking and formation of DNA adducts in lung tissues] Lü J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 May; 32(3):145–6 (Eng. Abstr.) **(Chi)**

[Damage effects of asbestos and cigarette smoke solution on human embryo lung cell DNA] Wang Q, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Jan;32(1):31–3 (Eng. Abstr.) **(Chi)**

[Effects of cigarette smoking on antioxidant vitamin and activities of antioxidases] Zhou J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Mar; 31(2):67–70 (Eng. Abstr.) **(Chi)**

[Effects of smoking on oxygen free radicals and fibrinolytic system] Wang Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(2):149–52 (Eng. Abstr.) **(Chi)**

[Survey of smoking and human health in Guangdong province] Wu J, et al. **Wei Sheng Yen Chiu** 1997 May; 26(3):192–5 (Eng. Abstr.) **(Chi)**

[Determination of tobacco mosaic viruses and tar carcinogens using electromagnetic resonance in smokers] Bradna J. **Epidemiol Mikrobiol Imunol** 1999 Apr;48(2):71–5 (Eng. Abstr.) **(Cze)**

[The effect of tobacco smoking on risks in connection in anesthesia and surgery. Development of complications and the preventive effect of smoking cessation] Møller AM, et al. **Ugeskr Laeger** 1999 Jul 26;161(30):4273–6 (27 ref.) (Eng. Abstr.) **(Dan)**

[Denmark's scourge (editorial)] Sørensen TI. **Ugeskr Laeger** 1998 Nov 16;160(47):6791–2 **(Dan)**

[Roaming through methodology. XV. Smoking grandfathers and other selection biases] van Gijn J, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1515–7 (7 ref.) (Eng. Abstr.) **(Dut)**

[Horton's disease, polymyalgia rheumatica, and cardiovascular risk factors. A case-control, prospective multicenter study] Duhaut P, et al. **Ann Med Interne (Paris)** 1998 Nov;149(7):433–40 (Eng. Abstr.) **(Fre)**

[Tobacco: an atherogenic, thrombogenic or spasmogenic factor?] Adnot S. **Arch Mal Coeur Vaiss** 1998 Oct;91 Spec No 5:53–8 (45 ref.) (Eng. Abstr.) **(Fre)**

[Heart and brain: are the risk factors the same? Are the results of primary and secondary trials comparable?] Castaigne A, et al. **Arch Mal Coeur Vaiss** 1998 Oct;91 Spec No 5:59–63 (Eng. Abstr.) **(Fre)**

[Postpartum myocardial infarction induced by Parlodel] Pop C, et al. **Arch Mal Coeur Vaiss** 1998 Sep;91(9):1171–4 (Eng. Abstr.) **(Fre)**

[Control of smoking to reduce the incidence of bronchial cancer: application of Evin's law in France] Hirsch A. **Cancer Radiother** 1998 Sep–Oct;2(5):600–2 (Eng. Abstr.) **(Fre)**

[An unexpected consequence of using "joints"? (letter)] Lagrue G, et al. **Presse Med** 1999 Jun 12;28(21):1112–3 **(Fre)**

[Smoking and periodontal health] Obeid P, et al. **Rev Belge Med Dent** 1998;53(4):237–56 (123 ref.) (Eng. Abstr.) **(Fre)**

[Toxico-nutritional risks, peripheral neuropathy and food safety in Cuba. The SECUBA program, motivations and main results] Barnouin J, et al. **Rev Epidemiol Sante Publique** 1999 Mar;47(1):87–90 **(Fre)**

[Survey of the effects of smoking in an occupational cohort study. Value and limits of a new method] Moulin JJ, et al. **Rev Epidemiol Sante Publique** 1998 Sep;46(4):289–97 (31 ref.) (Eng. Abstr.) **(Fre)**

[Respective influence of occupational and personal factors on respiratory function in dairy farmers] Choma D, et al. **Rev Mal Respir** 1998 Dec;15(6):765–72 (Eng. Abstr.) **(Fre)**

[Pathogenesis of adult pulmonary Langerhans-cell histiocytosis] Tazi A, et al. **Rev Mal Respir** 1999 Apr; 16(2):151–9 (Eng. Abstr.) **(Fre)**

[Tobacco use disorder] Trédaniel J, et al. **Rev Prat** 1998 Feb 15;48(4):433–5 **(Fre)**

[Smoking or nicotine as the reason for coronary circulation disorders and possibilities for treatment of nicotine dependence] Haustein KO. **Dtsch Med Wochenschr** 1999 Mar 26;124(12):363–9 (53 ref.) **(Ger)**

[Tobacco smoking and hearing in the elderly. Can presbycusis be prevented by smoking cessation? (editorial)] Matschke RG. **HNO** 1999 Jul;47(7):599–600 **(Ger)**

[Tobacco: ashes, smoke and carbon] Ullmer E, et al. **Schweiz Med Wochenschr** 1999 Jan 30;129(4):103–12 (30 ref.) (Eng. Abstr.) **(Ger)**

[Effect of smoking and antioxidant vitamin concentrations of pregnant patients on birth weight of newborn infants] Steuerer A, et al. **Z Geburtshilfe Neonatol** 1999 May-Jun; 203(3):110–4 (Eng. Abstr.) **(Ger)**

[The effect of smoking on the spread and frequency of periodontal disease] Gera I. **Fogorv Sz** 1999 Apr; 92(4):99–110 (Eng. Abstr.) **(Hun)**

[Onset of acute eosinophilic pneumonia after resumption of smoking] Hadase M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jul;37(7):560–4 (Eng. Abstr.) **(Jpn)**

[Eosinophilia and cough induced by resumption of cigarette smoking in a beginning smoker recovering from acute respiratory failure] Nakajima M, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jul;37(7):543–8 (Eng. Abstr.) **(Jpn)**

[A case of neuro-Behcet's disease with transient cerebral ischemia evoked by smoking] Tanaka T, et al. **Rinsho Shinkeigaku** 1999 May;39(5):546–50 (Eng. Abstr.) **(Jpn)**

[The causes of increased risk for lung cancer in the pulp and paper industry workers. The effect of smoking and exposure to chemicals] Szadkowska-Stańczyk I, et al. **Med Pr** 1999;50(1):3–14 (Eng. Abstr.) **(Pol)**

[Selected problems concerning harmful effects of smoking on the upper segment of the alimentary tract] Semianów-Wejchert J. **Pol Merkuriusz Lek** 1998 Aug; 5(26):89–91 (29 ref.) (Eng. Abstr.) **(Pol)**

[Nicotine and cardiovascular complications of chronic hypertensive disease] Goldman J, et al. **Przegl Lek** 1998; 55(2):74–6 (23 ref.) (Eng. Abstr.) **(Pol)**

[Morphology of the lymphoid tissue of the bronchus in healthy persons of various ages, and the effect of smoking] Lun'kova LK, et al. **Arkh Patol** 1998 Sep–Oct;60(5):29–32 (Eng. Abstr.) **(Rus)**

[Smoking, endothelium and hypertension] Gogin EE. **Klin Med (Mosk)** 1998;76(11):10–3 **(Rus)**

[Smoking as a risk factor for chronic bronchitis (review of literature)] Guseinov KhIu. **Probl Tuberk** 1999;(4):42–4 (52 ref.) **(Rus)**

[Role of tobacco smoking on cardiovascular morbidity and mortality in today's Russia] Ioffina OB, et al. **Ter Arkh** 1999;71(1):69–73 (32 ref.) **(Rus)**

[Effect of smoking on the feto-placental unit] Habek D. **Lijec Vjesn** 1998 Jul-Aug;120(7–8):215–9 (46 ref.) (Eng. Abstr.) **(Scr)**

[The influence of tobacco consumption on the prevalence of symptoms related to asthma] Nadal Blanco MJ, et al. **Aten Primaria** 1999 May 31;23(9):537–42 (Eng. Abstr.) **(Spa)**

[Pregnancy and smoking: significance of the problem and health-service based prevention] Castellanos E, et al. **Med Clin (Barc)** 1998 Nov 21;111(17):670–4 (76 ref.) **(Spa)**

[Tobacco and cancer: from epidemiological association to molecular evidence] To i Figueras J. **Med Clin (Barc)** 1999 May 1;112(15):589–94 **(Spa)**

[Tobacco and chronic inflammatory bowel disease (editorial; comment)] Garcia Paredes J. **Rev Esp Enferm Dig** 1998 Dec;90(12):829–32. Comment on: Rev Esp Enferm Dig 1998 Dec;90(12):833–40. Comment on: Rev Esp Enferm Dig 1998 Dec;90(12):870–6. **(Spa)**

[Effect of maternal smoking on offspring growth] Salazar G, et al. **Rev Med Chil** 1998 Sep;126(9):1059–64 (Eng. Abstr.) **(Spa)**

BLOOD

Antepartum fetal and maternal carboxyhemoglobin and cotinine levels among cigarette smokers. Hayde M, et al. **Acta Paediatr** 1999 Mar;88(3):327–31

Cotinine levels in women who smoke during pregnancy [letter] Cope GF. **Am J Obstet Gynecol** 1999 May; 180(5):1310

The effects on fetal development of high alpha-fetoprotein and maternal smoking. Heinonen S, et al. **Am J Public Health** 1999 Apr;89(4):561–3

Association of benzo[a]pyrene-diol-epoxide-deoxyribonucleic acid (BPDE-DNA) adduct level with aging in male smokers and nonsmokers. Shinozaki R, et al. **Arch Environ Health** 1999 Mar–Apr;54(2):79–85

The influence of acute smoking on leucocytes, platelets and the endothelium. Blann AD, et al. **Atherosclerosis** 1998 Nov;141(1):133–9

Low-dose aspirin does not lower in vivo platelet activation in healthy smokers. Pernerstorfer T, et al. **Br J Haematol** 1998 Sep;102(5):1229–31

Prevalence of high plasma triglyceride combined with low HDL-C levels and its association with smoking, hypertension, obesity, diabetes, sedentariness and LDL-C levels in the Canadian population. Canadian Heart Health Surveys Research Group. Connelly PW, et al. **Can J Cardiol** 1999 Apr;15(4):428–33

Mineral concentrations in the blood of male smokers and non-smoking males and females measured with fluoro-X-ray analyzer. Sakamoto N, et al. **Cent Eur J Public Health** 1998 Nov;6(4):284–7

Alterations of small-molecular-weight antioxidants in the blood of smokers. Liu CS, et al. **Chem Biol Interact** 1998 Nov 6;116(1–2):143–54

Simple colorimetric procedures to determine smoking status [letter; comment] Cope GF. **Clin Chem** 1999 Apr;45(4):585 . Comment on: Clin Chem 1998 Feb;44(2):275–80.

Measurement of protein carbonyls in plasma of smokers and in oxidized LDL by an ELISA. Marangon K, et al. **Clin Chem** 1999 Apr;45(4):577–8

Smoking, obesity, and hypertension alter the dose-response curve and test sensitivity of carbohydrate-deficient transferrin as a marker of alcohol intake. Whitfield JB, et al. **Clin Chem** 1998 Dec;44(12):2480–9

Effect of cigarette smoking on plasma metalloproteinase-9 concentration. Nakamura T, et al. **Clin Chim Acta** 1998 Aug 28;276(2):173–7

Does chronic smoking influence fibrinolytic potential in type 1 diabetes mellitus? Simpson AJ, et al. **Diabet Med** 1998 Aug;15(8):683–7

Age-associated alteration of blood thiol-group-related antioxidants in smokers. Liu CS, et al. **Environ Res** 1999 Jan;80(1):18–24

Leptin levels in smokers and long-term users of nicotine gum. Eliasson B, et al. **Eur J Clin Invest** 1999 Feb;29(2):145–52

The effect of smoking on post-heparin lipoprotein and hepatic lipase, cholesteryl ester transfer protein and lecithin:cholesterol acyl transferase activities in human plasma. Freeman DJ, et al. **Eur J Clin Invest** 1998 Jul; 28(7):584–91

Plasma free radical activity and antioxidant vitamin levels in dyspeptic patients: correlation with smoking and Helicobacter pylori infection. Phull PS, et al. **Eur J Gastroenterol Hepatol** 1998 Jul;10(7):573–8

Ethylene oxide-protein adduct formation in humans: influence of glutathione-S-transferase polymorphisms. Müller M, et al. **Int Arch Occup Environ Health** 1998 Oct; 71(7):499–502

The influence of smoking on vitamin C status during the third trimester of pregnancy and on vitamin C levels in

maternal milk. Ortega RM, et al. **J Am Coll Nutr** 1998 Aug;17(4):379–84

Predictors of sex hormone levels among the elderly: a study in Greece. Hsieh CC, et al. **J Clin Epidemiol** 1998 Oct; 51(10):837–41

Age, sex, and smoking are predictors of circulating insulin-like growth factor 1 and insulin-like growth factor-binding protein 3. Kaklamani VG, et al. **J Clin Oncol** 1999 Mar;17(3):813–7

Pancreatic cancer risk and nutrition-related methyl-group availability indicators in male smokers. Stolzenberg-Solomon RZ, et al. **J Natl Cancer Inst** 1999 Mar 17;91(6):535–41

Effects of smoking on plasma and erythrocyte antioxidant defense systems. Durak I, et al. **J Toxicol Environ Health** 1999 Mar 26;56(6):373–8

Racial and ethnic differences in serum cotinine levels [letter; comment] Abrams J. **JAMA** 1998 Dec 23–30;280(24):2075; discussion 2076. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Racial and ethnic differences in serum cotinine levels [letter; comment] Krous HF, et al. **JAMA** 1998 Dec 23–30; 280(24):2075–6. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Racial and ethnic differences in serum cotinine levels [letter; comment] Wiseman EJ. **JAMA** 1998 Dec 23–30; 280(24):2075; discussion 2076. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Serum surfactant protein A levels in healthy individuals are increased in smokers. Nomori H, et al. **Lung** 1998; 176(6):355–61

Erythrocytes from healthy smokers bind more bilirubin than the erythrocytes from healthy non-smokers. Moin S, et al. **Mol Cell Biochem** 1998 Jun;183(1–2):211–4

8-Hydroxydeoxyguanosine in DNA from leukocytes of healthy adults: relationship with cigarette smoking, environmental tobacco smoke, alcohol and coffee consumption. van Zeeland AA, et al. **Mutat Res** 1999 Feb 19;439(2):249–57

Maternal tobacco exposure and cotinine levels in fetal fluids in the first half of pregnancy. Jauniaux E, et al. **Obstet Gynecol** 1999 Jan;93(1):25–9

Detection of benzo[a]pyrene-DNA adducts from leukocytes from heavy smokers. Arnould JP, et al. **Pathol Biol (Paris)** 1998 Dec;46(10):787–90

Pulse oximetry in smokers [letter; comment] Gómez J, et al. **Respir Med** 1998 Jul;92(7):989–90. Comment on: Respir Med 1996 Nov;90(10):593–9.

Platelet adhesion in patients prone to arterial and venous thrombosis: the impact of gender, smoking and heredity. Lilienberg G, et al. **Scand J Clin Lab Invest** 1998 Jul; 58(4):279–86

Smoking-induced elevations in blood carboxyhaemoglobin levels. Effect on maximal oxygen uptake. McDonough P, et al. **Sports Med** 1999 May;27(5):275–83 (77 ref.)

Prospective study on the effect of smoking and nicotine substitution on leucocyte blood counts and relation between blood leucocytes and lung function. Jensen EJ, et al. **Thorax** 1998 Sep;53(9):784–9

Carboxyhaemoglobin levels in some Lagos dwellers—a pilot study. Uko GP, et al. **West Afr J Med** 1998 Jul–Sep; 17(3):202–5

[Effects of smoking on oxygen free radicals and fibrinolytic system] Wang Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(2):149–52 (Eng. Abstr.) **(Chi)**

[Tissue polypeptide antigen and carcinoembryonic antigen in bladder neoplasms] Krajewska B, et al. **Med Pr** 1995; 46(1):7–16 (Eng. Abstr.) **(Pol)**

[The Mediterranean diet improves the profile of male smokers compared with the diet recommended by the American Cholesterol Program (NCEP-I)] Sánchez E, et al. **Med Clin (Barc)** 1999 Feb 20;112(6):206–10 (Eng. Abstr.) **(Spa)**

CEREBROSPINAL FLUID

Low CSF concentration of a dopamine metabolite in tobacco smokers. Geracioti TD Jr, et al. **Am J Psychiatry** 1999 Jan;156(1):130–2

DRUG THERAPY

Bupropion and smoking cessation [letter] Evins AE, et al. **Am J Psychiatry** 1999 May;156(5):798–9

Do heavy smokers benefit from higher dose nicotine patch therapy? Killen JD, et al. **Exp Clin Psychopharmacol** 1999 Aug;7(3):226–33

Gender differences in response to nicotine replacement therapy: objective and subjective indexes of tobacco withdrawal. Wetter DW, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):135–44

Suppression of nicotine intake during ad libitum cigarette smoking by high-dose transdermal nicotine. Benowitz NL, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):958–62

Adding behavioral therapy to medication for smoking cessation [letter; comment] Domino EF. **JAMA** 1999 Jun 2;281(21):1984; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Adding behavioral therapy to medication for smoking cessation [letter; comment] Goldman J, et al. **JAMA** 1999 Jun 2;281(21):1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Recent advances in the pharmacotherapy of smoking [see comments] Hughes JR, et al. **JAMA** 1999 Jan 6;281(1):72–6 (56 ref.). Comment in: JAMA 1999 Jun 2;281(21):1983; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1983–4; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1984; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1984–5.

Effects of cotinine on cigarette self-administration. Hatsukami D, et al. **Psychopharmacology (Berl)** 1998 Jul; 138(2):184–9

Effects of naltrexone with nicotine replacement on smoking cue reactivity: preliminary results. Hutchison KE, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):139–43

Perception of bronchodilation in subjects with asthma and smokers with airflow limitation. Massasso DH, et al. **Respirology** 1999 Jun;4(2):117–24

ECONOMICS

Costs of maternal conditions attributable to smoking during pregnancy. Adams EK, et al. **Am J Prev Med** 1998 Oct; 15(3):212–9

State and federal revenues from tobacco consumed by minors. DiFranza JR, et al. **Am J Public Health** 1999 Jul; 89(7):1106–8

Paying for nicotine replacement therapy is cheaper than smoking </= 20 cigarettes a day [letter; comment] Bunney R. **BMJ** 1999 Feb 27;318(7183):604–5. Comment on: BMJ 1998 Nov 7;317(7168):1266–7.

I don't want to be invited to invest in the tobacco trade [letter] Johnstone C. **BMJ** 1999 Jun 5;318(7197):1555

Smoking out the economics of tobacco use [letter] Harris WR. **CMAJ** 1999 Aug 24;161(4):367–8

The continuum-of-addiction: cigarette smoking in relation to price among Americans aged 15–29. Harris JE, et al. **Health Econ** 1999 Feb;8(1):81–6

Participation, heterogeneity and dynamics in tobacco consumption: evidence from cohort data. Jiménez-Martín S, et al. **Health Econ** 1998 Aug;7(5):401–14

Sale of tobacco products in pharmacies: results and implications of an empirical study. Bentley JP, et al. **J Am Pharm Assoc (Wash)** 1998 Nov–Dec;38(6):703–9

How adolescents get their cigarettes: implications for policies on access and price. Emery S, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):184–6

Critics feel states may misspend their tobacco windfall [news] Fintor L. **J Natl Cancer Inst** 1999 Aug 18;91(16):1356–8

From the Centers for Disease Control and Prevention. State-specific prevalence among adults of current cigarette smoking and smokeless tobacco use and per capita tax-paid sales of cigarettes—United States, 1997. **JAMA** 1999 Jan 6;281(1):29–30

India's welcome to foreign tobacco giants prompts criticism [news] Sharma DC. **Lancet** 1998 Oct 10;352(9135):1204

Costs of smoking: a focus on maternal, childhood, and other short-run costs. Adams EK, et al. **Med Care Res Rev** 1999 Mar;56(1):3–29

State-specific prevalence among adults of current cigarette smoking and smokeless tobacco use and per capita tax-paid sales of cigarettes—United States, 1997. **MMWR Morb Mortal Wkly Rep** 1998 Nov 6;47(43):922–6

World Bank evaluates the economics of tobacco [news] Birmingham K. **Nat Med** 1999 Jun;5(6):596

The economic consequences of smoking in Ontario. Xie X, et al. **Pharmacol Res** 1999 Mar;39(3):185–91

State estimates of total medical expenditures attributable to cigarette smoking, 1993. Miller LS, et al. **Public Health Rep** 1998 Sep–Oct;113(5):447–58

Smoking-attributable medical care costs in the USA. Miller VP, et al. **Soc Sci Med** 1999 Feb;48(3):375–91

Curbing the epidemic: governments and the economics of tobacco control. The World Bank. **Tob Control** 1999 Summer;8(2):196–201

Impact of the Tobacco Price Support Program on tobacco control in the United States. Zhang P, et al. **Tob Control** 1998 Summer;7(2):176–82

Increasing tobacco taxes: it's a health issue [news] Elkins K. **W V Med J** 1999 Mar–Apr;95(2):90

[The medical costs of smoking (letter) (published erratum appears in Ned Tijdschr Geneeskd 1998 Oct 3;142(40):2232)] de Blij BA. **Ned Tijdschr Geneeskd** 1998 Aug 8;142(32):1834–5 **(Dut)**

[Income and smoking behavior in Germany—a secondary analysis of data from the 1995 microcensus] Helmert U. **Gesundheitswesen** 1999 Jan;61(1):31–7 (Eng. Abstr.) **(Ger)**

EPIDEMIOLOGY

Prevalence of smokers and nicotine-addicted patients in a suburban emergency department. Richman PB, et al. **Acad Emerg Med** 1999 Aug;6(8):807–10

Smoking habits among Danish pregnant women from 1989 to 1996 in relation to sociodemographic and lifestyle factors. Wisborg K, et al. **Acta Obstet Gynecol Scand** 1998 Sep;77(8):836–40

Reliability of children's self-reported cigarette smoking. Henriksen L, et al. **Addict Behav** 1999 Mar–Apr;24(2):271–7

Longitudinal patterns of tobacco smoking from childhood to middle age. Janson H. **Addict Behav** 1999 Mar–Apr; 24(2):239–49

Correlates of occasional cigarette and marijuana use: are teens harm reducing? Resnicow K, et al. **Addict Behav** 1999 Mar–Apr;24(2):251–66

Smoking patterns of low-income ethnoculturally diverse pregnant women: are we casting the net wide enough? Ruggiero L, et al. **Addict Behav** 1998 Jul–Aug;23(4):549–54

Smoking and diabetes: readiness for change and provider advice. Ruggiero L, et al. **Addict Behav** 1999 Jul–Aug; 24(4):573–8

The course of early smoking: a population-based cohort study over three years. Patton GC, et al. **Addiction** 1998 Aug;93(8):1251–60

Patterns of alcohol, cigarette and illicit drug use in English adolescents. Sutherland I, et al. **Addiction** 1998 Aug; 93(8):1199–208

Adolescent tobacco, alcohol, and drug use: current findings. Windle M, et al. **Adolesc Med** 1999 Feb;10(1):153–63, vii (37 ref.)

Parallels to early onset alcohol use in the relationship of early onset smoking with drug use and DSM-IV drug and depressive disorders: findings from the National Longitudinal Epidemiologic Survey. Hanna EZ, et al. **Alcohol Clin Exp Res** 1999 Mar;23(3):513–22

Smoking and deaf adults: associations with age at onset of deafness. Barnett S, et al. **Am Ann Deaf** 1999 Mar; 144(1):44–50

Completeness of ascertainment of prenatal smoking using birth certificates and confidential questionnaires: variations by maternal attributes and infant birth weight. PRAMS Working Group. Pregnancy Risk Assessment Monitoring System. Dietz PM, et al. **Am J Epidemiol** 1998 Dec 1; 148(11):1048–54

Maternal cigarette smoking during pregnancy and risk of oral clefts in newborns. Lieff S, et al. **Am J Epidemiol** 1999 Oct 1;150(7):683–94

Gambling, drinking, smoking and other health risk activities among casino employees. Shaffer HJ, et al. **Am J Ind Med** 1999 Sep;36(3):365–78

Smoking as a confounder in case-control studies of occupational bladder cancer in women. 't Mannetje A, et al. **Am J Ind Med** 1999 Jul;36(1):75–82

Interventions for other risk factors: tobacco use, physical inactivity, menopause, and homocysteine. Beto JA, et al. **Am J Kidney Dis** 1998 Nov;32(5 Suppl 3):S172–83 (47 ref.)

Cigar smoking in California: 1990–1996. Gilpin EA, et al. **Am J Prev Med** 1999 Apr;16(3):195–201

Relationships between physician advice and tobacco and alcohol use during pregnancy. Jones-Webb R, et al. **Am J Prev Med** 1999 Apr;16(3):244–7

Health care access and seven-year change in cigarette smoking. The CARDIA Study. Kiefe CI, et al. **Am J Prev Med** 1998 Aug;15(2):146–54

Is cigarette smoking associated with impaired physical and mental functional status? An office-based survey of primary care patients. Woolf SH, et al. **Am J Prev Med** 1999 Aug; 17(2):134–7

Smoking in first-episode patients with schizophrenia [letter] McEvoy JP, et al. **Am J Psychiatry** 1999 Jul;156(7):1120–1

Changes at the high end of risk in cigarette smoking among US high school seniors, 1976–1995. An LC, et al. **Am J Public Health** 1999 May;89(5):699–705

The impact of smoke-free workplaces on declining cigarette consumption in Australia and the United States. Chapman S, et al. **Am J Public Health** 1999 Jul;89(7):1018–23

Prenatal effects of maternal smoking on daughters' smoking: nicotine or testosterone exposure? Kandel DB, et al. **Am J Public Health** 1999 Sep;89(9):1377–83

Reports of smoking in a national survey: data from screening and detailed interviews, and from self- and interviewer-administered questions. Brittingham A, et al. **Ann Epidemiol** 1998 Aug;8(6):393–401

Mentholated cigarette smoking and lung-cancer risk. Carpenter CL, et al. **Ann Epidemiol** 1999 Feb;9(2):114–20

Environmental tobacco smoke exposure in children: household and community determinants. Jordaan ER, et al. **Arch Environ Health** 1999 Sep–Oct;54(5):319–27

Beach week: a high school graduation rite of passage for sun, sand, suds, and sex. Schwartz RH, et al. **Arch Pediatr Adolesc Med** 1999 Feb;153(2):180–3

Tobacco use among Australian secondary students in 1996. Hill D, et al. **Aust N Z J Public Health** 1999 Jun;23(3):252–9

Association between smoking and mental disorders: results from an Australian National Prevalence Survey. Jorm AF. **Aust N Z J Public Health** 1999 Jun;23(3):245–8

Smoking habits of women who lose a child from SIDS [letter] Robinson P. **Aust N Z J Public Health** 1999 Feb; 23(1):106–7

Prevalence of smoking among pregnant women is lower in Italy than England [letter; comment] Chatenoud L, et al. **BMJ** 1999 Apr 10;318(7189):1012. Comment on: BMJ 1998 Sep 12;317(7160):728.

Trends in smoking during pregnancy in England, 1992–7: quota sampling surveys [see comments] Owen L, et al. **BMJ** 1998 Sep 12;317(7160):728. Comment in: BMJ 1999 Apr 10;318(7189):1012.

Swedes break record for giving up smoking [news] **Bull World Health Organ** 1999;77(2):202

Tobacco smoking among Portuguese high-school students. Azevedo A, et al. **Bull World Health Organ** 1999; 77(6):509–14

Smoking: attitudes of Costa Rican physicians and opportunities for intervention. Grossman DW, et al. **Bull World Health Organ** 1999;77(4):315–22

Smoking in Latin America: a major public health problem.

da Costa e Silva VL, et al. **Cad Saude Publica** 1998;14 Suppl 3:99–108
Youth smoking in Ontario 1981–1997: a cause for concern. Hobbs FM, et al. **Can J Public Health** 1999 Mar–Apr; 90(2):80–2
N-acetyltransferase 1 genetic polymorphism, cigarette smoking, well-done meat intake, and breast cancer risk. Zheng W, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Mar;8(3):233–9
Epidemiology of smoking habit in adolescents. Suggestions for prevention. Baška T, et al. **Cent Eur J Public Health** 1999 Feb;7(1):31–4
Health consequences of smoking among Canadian smokers: An update. Ellison LF, et al. **Chronic Dis Can** 1999; 20(1):36–9
Smoking: an occupational hazard [news] Buske L. **CMAJ** 1999 Mar 9;160(5):630
Panic disorder and cigarette smoking behavior. Amering M, et al. **Compr Psychiatry** 1999 Jan–Feb;40(1):35–8
Cigarette smoking in Connecticut: home and workplace exposure. King G, et al. **Conn Med** 1998 Sep;62(9):531–9
Risk of uterine leiomyomata among premenopausal women in relation to body size and cigarette smoking. Marshall LM, et al. **Epidemiology** 1998 Sep;9(5):511–7
A sensitivity analysis of secular trends in risk factors and mortality based on cohort studies. Prescott E, et al. **Epidemiology** 1999 Mar;10(2):176–80
Trends in smoking habits and lung cancer in Sweden. Nordlund LA. **Eur J Cancer Prev** 1998 Apr;7(2):109–16
Global perspective of tobacco habits and lung cancer: a lesson for third world countries. Pandey M, et al. **Eur J Cancer Prev** 1999 Aug;8(4):271–9 (58 ref.)
Smoking prevalence decreases in males but not in females: the case of Catalonia (Spain) [letter] Fernandez E, et al. **Eur J Epidemiol** 1998 Sep;14(6):629–30
Life-style factors associated with changes in serum lipids in a follow-up study of cardiovascular risk factors. Martinez-González MA, et al. **Eur J Epidemiol** 1998 Sep; 14(6):525–33
Prevalence of smoking among currently married Kuwaiti males and females. Radovanovic Z, et al. **Eur J Epidemiol** 1999 Apr;15(4):349–54
Cigarette smoking and risk of cancers of the colon and rectum: a case-control study from Italy. Tavani A, et al. **Eur J Epidemiol** 1998 Oct;14(7):675–81
Fresh fruit intake and asthma symptoms in young British adults: confounding or effect modification by smoking? Butland BK, et al. **Eur Respir J** 1999 Apr;13(4):744–50
The influence of personal tobacco smoking on the clinical practice of Italian chest physicians. Nardini S, et al. **Eur Respir J** 1998 Dec;12(6):1450–3
Smoking is not a protective factor for patients with acute myocardial infarction: the viewpoint of the GISSI-2 Study. Maggioni AP, et al. **G Ital Cardiol** 1998 Sep;28(9):970–8
Dermatitis herpetiformis and cigarette smoking [letter; comment] Smith JB, et al. **Gut** 1998 Nov;43(5):732. Comment on: Gut 1996 Jul;39(1):60–2. Comment on: Gut 1997 Feb;40(2):289.
Controlling for the endogeneity of peer substance use on adolescent alcohol and tobacco use. Norton EC, et al. **Health Econ** 1998 Aug;7(5):439–53
A longitudinal study predicting patterns of cigarette smoking in late childhood. Jackson C, et al. **Health Educ Behav** 1998 Aug;25(4):436–47
Which workers smoke? Gaudette LA, et al. **Health Rep** 1998 Winter;10(3):35–45 (ENG); 35–47 (FRE) **(Eng, Fre)**
Chronic liver diseases for the risk of hepatocellular carcinoma: a case-control study in Japan. Etiologic association of alcohol consumption, cigarette smoking and the development of chronic liver diseases. Mukaiya M, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2328–32
Coronary heart disease in China [letter] Cheng TO. **Hosp Med** 1999 Jun;60(6):456
Passive smoking among adolescents in Estonia. Pärna K. **Hum Exp Toxicol** 1999 Apr;18(4):229–32
Tobacco use in rural Indian children [letter; comment] Singhi S. **Indian Pediatr** 1998 Apr;35(4):381–2. Comment on: Indian Pediatr 1997 Oct;34(10):923–7.
Cigarette smoking and male lung cancer risk with special regard to type of tobacco. Armadans-Gil L, et al. **Int J Epidemiol** 1999 Aug;28(4):614–9
Smoking, diet, and health behaviors among lead-exposed blue-collar workers. Shahar DR, et al. **Int J Occup Environ Health** 1999 Apr–Jun;5(2):101–6
Ethnic and gender differences in smoking prevalence among a longitudinal sample of inner-city adolescents. Epstein JA, et al. **J Adolesc Health** 1998 Sep;23(3):160–6
Delayed first pregnancy among African-American adolescent smokers. Fiscella K, et al. **J Adolesc Health** 1998 Oct;23(4):232–7
Maternal smoking during pregnancy and psychopathology in offspring followed to adulthood. Weissman MM, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul;38(7):892–9
Smoking initiation and smoking patterns among US college students. Everett SA, et al. **J Am Coll Health** 1999 Sep; 48(2):55–60
Examining the use of tobacco on college campuses. Moskal PD, et al. **J Am Coll Health** 1999 May;47(6):260–5
Exploring associations in developmental trends of adolescent substance use and risky sexual behavior in a high-risk population. Duncan SC, et al. **J Behav Med** 1999 Feb; 22(1):21–34
After-school supervision and adolescent cigarette smoking: contributions of the setting and intensity of after-school self-care. Mott JA, et al. **J Behav Med** 1999 Feb;22(1):35–58
Trends in adolescent cigarette use: the diffusion of daily smoking. Redmond WH. **J Behav Med** 1999 Aug; 22(4):379–95 (24 ref.)
The origins of the correlations between tobacco, alcohol, and cannabis use during adolescence. Lynskey MT, et al. **J Child Psychol Psychiatry** 1998 Oct;39(7):995–1005
On misclassification of smoking [letter; comment] Keil U, et al. **J Clin Epidemiol** 1999 Jan;52(1):91–3. Comment on: J Clin Epidemiol 1998 Mar;51(3):211–8.
Tobacco and alcohol use in top-grossing American films. Everett SA, et al. **J Community Health** 1998 Aug; 23(4):317–24
The prospective relationships between smoking and weight in a young, biracial cohort: the Coronary Artery Risk Development in Young Adults Study. Klesges RC, et al. **J Consult Clin Psychol** 1998 Dec;66(6):987–93
Deprivation and inequalities in women's health: smoking, an oral cancer, and child dental health. Pine CM. **J Dent Educ** 1999 Mar;63(3):276–80
Mortality risks of oesophageal cancer associated with hot tea, alcohol, tobacco and diet in Japan. Kinjo Y, et al. **J Epidemiol** 1998 Oct;8(4):235–43
Time trends in the mortality rates for tobacco- and alcohol-related cancers within the oral cavity and pharynx in Japan, 1950–94. Kurumatani N, et al. **J Epidemiol** 1999 Feb;9(1):46–52
Behavioral factors predicting serum cotinine concentrations of male smokers in a Japanese community. Nakayama T, et al. **J Epidemiol** 1999 Jun;9(3):143–5
An optimal cutoff point of expired-air carbon monoxide levels for detecting current smoking: in the case of a Japanese male population whose smoking prevalence was sixty percent. Nakayama T, et al. **J Epidemiol** 1998 Aug; 8(3):140–5
Estimating adolescent cigarette consumption in Japan. Osaki Y, et al. **J Epidemiol** 1999 Apr;9(2):56–60
Relationship of cigarette smoking, alcohol use, recreational exercise and obesity with serum lipid atherogenicity: a study of self-defense officials in Japan. Umeda T, et al. **J Epidemiol** 1998 Oct;8(4):227–34
Smoking, drinking, and other life style factors and cognitive function in men in the Caerphilly cohort. Elwood PC, et al. **J Epidemiol Community Health** 1999 Jan;53(1):9–14
Smoking habits among pregnant Danish women: reliability of information recorded after delivery. Kesmodel U, et al. **J Epidemiol Community Health** 1999 Apr;53(4):239–42
Smoking habits, its forms and impact on pulmonary health in planes of Uttar Pradesh. Swaroop V, et al. **J Indian Med Assoc** 1998 Mar;96(3):80–1
Are some children and adolescents in Louisiana addicted to tobacco? The Bogalusa Heart Study. Hunter SM, et al. **J La State Med Soc** 1999 Apr;151(4):177–81
Cigar and pipe smoking and lung cancer risk: a multicenter study from Europe [see comments] Boffetta P, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):697–701. Comment in: J Natl Cancer Inst 1999 Apr 21;91(8):660–1.
New EU report: more women are smoking [news] Steimle S. **J Natl Cancer Inst** 1999 Feb 3;91(3):212–3
Annual report to the nation on the status of cancer, 1973–1996, with a special section on lung cancer and tobacco smoking [see comments] Wingo PA, et al. **J Natl Cancer Inst** 1999 Apr 21;91(8):675–90. Comment in: J Natl Cancer Inst 1999 Apr 21;91(8):660–1.
Identification of occupational cancer risks in British Columbia. Part I: Methodology, descriptive results, and analysis of cancer risks, by cigarette smoking categories of 15,463 incident cancer cases. Band PR, et al. **J Occup Environ Med** 1999 Apr;41(4):224–32
Choosing a national survey to investigate smoking behaviour: making comparisons between the General Household Survey, the British Household Panel Survey and the Health Survey for England. Twigg L. **J Public Health Med** 1999 Mar;21(1):14–21
Smoking, diabetes and hyperlipidaemia. Mikhailidis DP, et al. **J R Soc Health** 1998 Apr;118(2):91–3 (35 ref.)
Age at smoking onset and its association with alcohol consumption and DSM-IV alcohol abuse and dependence: results from the National Longitudinal Alcohol Epidemiologic Survey. Grant BF. **J Subst Abuse** 1998; 10(1):59–73
From the Centers for Disease Control and Prevention. Decline in cigarette consumption following implementation of a comprehensive tobacco prevention and education program--Oregon, 1996–1998. **JAMA** 1999 Apr 28; 281(16):1483–4
From the Centers for Disease Control and Prevention. Cigarette smoking among high school students--11 states, 1991–1997. **JAMA** 1999 Sep 8;282(10):935–6
From the Centers for Disease Control and Prevention. Response to increases in cigarette prices by race/ethnicity, income, and age groups--United States, 1976–1993. **JAMA** 1998 Dec 16;280(23):1979–80
From the Centers for Disease Control and Prevention. State-specific prevalence among adults of current cigarette smoking and smokeless tobacco use and per capita tax-paid sales of cigarettes--United States, 1997. **JAMA** 1999 Jan 6;281(1):29–30
Increased levels of cigarette use among college students: a cause for national concern [published erratum appears in JAMA ,999 Jan 13;281(2):136] Wechsler H, et al. **JAMA** 1998 Nov 18;280(19):1673–8
Smoking in China: findings of the 1996 National Prevalence Survey [see comments] Yang G, et al. **JAMA** 1999 Oct 6;282(13):1247–53. Comment in: JAMA 1999 Oct 6;282(13):1284.
Prevalence and pattern of smoking in Pakistan. Alam SE. **JPMA J Pak Med Assoc** 1998 Mar;48(3):64–6
Smoking among males in a low socioeconomic area of Karachi. Merchant AT, et al. **JPMA J Pak Med Assoc** 1998 Mar;48(3):62–3
Smoking, sake, and suicide: Japan plans a healthier future [news] Watts J. **Lancet** 1999 Sep 4;354(9181):843
Lack of correlation between nonspecific nasal and bronchial reactivity in allergic rhinitis subjects. Plavec D, et al. **Lung** 1999;177(3):169–77
An analysis of smoking patterns among older adults. Ruchlin HS. **Med Care** 1999 Jun;37(6):615–9
Smoking among doctors [letter; comment] Craddock MC. **Med J Aust** 1998 Sep 21;169(6):341. Comment on: Med J Aust 1998 Jun 15;168(12):587–8. Comment on: Med J Aust 1998 Jun 15;168(12):614–6. Comment on: Med J Aust 1998 Jun 15;168(12):616–8.
State-specific prevalence among adults of current cigarette smoking and smokeless tobacco use and per capita tax-paid sales of cigarettes--United States, 1997. **MMWR Morb Mortal Wkly Rep** 1998 Nov 6;47(43):922–6
Cigarette smoking among high school students--11 states, 1991–1997. **MMWR Morb Mortal Wkly Rep** 1999 Aug 13; 48(31):686–92
Cigarette smoking during the last 3 months of pregnancy among women who gave birth to live infants--Maine, 1988–1997 [published erratum appears in MMWR Morb Mortal Wkly Rep 1999 Jun 4;48(21):449] **MMWR Morb Mortal Wkly Rep** 1999 May 28;48(20):421–5
Tobacco use among middle and high school students--Florida, 1998 and 1999. **MMWR Morb Mortal Wkly Rep** 1999 Apr 2;48(12):248–53
Decline in cigarette consumption following implementation of a comprehensive tobacco prevention and education program--Oregon, 1996–1998. **MMWR Morb Mortal Wkly Rep** 1999 Feb 26;48(7):140–3
Trends in cigarette smoking in fourth-form students in New Zealand, 1992–1997. Laugesen M, et al. **N Z Med J** 1999 Aug 27;112(1094):308–11
Tobacco--the growing epidemic [news] Peto R, et al. **Nat Med** 1999 Jan;5(1):15–7
Smoking during pregnancy, 1990–96. Mathews TJ. **Natl Vital Stat Rep** 1998 Nov 19;47(10):1–12
Epidemiologist's funds axed after report on Californian smoking [news] Lehrmann S. **Nature** 1998 Oct 15; 395(6703):629
Cigarette smoking and inhaled drug use among Virginia high school students [letter] Bechtle J, et al. **Nurse Pract** 1998 Aug;23(8):8, 13
Teenage tobacco use [letter] Peugeot A, et al. **Nurse Pract** 1999 Sep;24(9):66, 69
Selected cigarette smoking initiation and quitting behaviors among high school students--United States, 1997. **Oncology (Huntingt)** 1998 Oct;12(10):1420, 1423
Smoking and blood pressure patterns in normotensive pregnant women. Matkin CC, et al. **Paediatr Perinat Epidemiol** 1999 Jan;13(1):22–34
Cigarette smoking and bruxism. Madrid G, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):898
Does parental smoking cessation discourage adolescent smoking? Farkas AJ, et al. **Prev Med** 1999 Mar;28(3):213–8
Age at starting smoking and number of cigarettes smoked in Catalonia, Spain. Fernandez E, et al. **Prev Med** 1999 Apr;28(4):361–6
Cigarette smoking, alcohol consumption, and screening mammography among women ages 50 and older. Fredman L, et al. **Prev Med** 1999 Apr;28(4):407–17
The application of Poisson random-effects regression models to the analyses of adolescents' current level of smoking. Siddiqui O, et al. **Prev Med** 1999 Aug;29(2):92–101
Psychosocial, school, and parent factors associated with recent smoking among early-adolescent boys and girls. Simons-Morton B, et al. **Prev Med** 1999 Feb;28(2):138–48
Smoking trends in the United States between 1969 and 1995 based on patients hospitalized with non-smoking-related diseases. Zang EA, et al. **Prev Med** 1998 Nov–Dec; 27(6):854–61
Prevalence and related risk factors of licit and illicit substances use by adolescent students in southern Taiwan. Yang MS, et al. **Public Health** 1998 Sep;112(5):347–52
Evaluation of four maternal smoking questions [see comments] Kharrazi M, et al. **Public Health Rep** 1999 Jan–Feb;114(1):60–70. Comment in: Public Health Rep 1999 Jan–Feb;114(1):71–3.
Using the birth certificate to monitor smoking during pregnancy [comment] Ventura SJ. **Public Health Rep** 1999 Jan–Feb;114(1):71–3. Comment on: Public Health Rep 1999 Jan–Feb;114(1):60–70.
Tobacco consumption among Swaziland high-school students and their parents and teachers [letter] Pritchard D, et al. **S Afr Med J** 1999 May;89(5):558–9
Tobacco use and exposure to environmental tobacco smoke in relation to certain work characteristics. Knutsson A, et al. **Scand J Soc Med** 1998 Sep;26(3):183–9
Tobacco consumption and national rates of personal violence (suicide and homicide) [letter] Lester D.

Scand J Soc Med 1998 Dec;26(4):299

Trends in smoking prevalence in Danish adults, 1964–1994. The influence of gender, age, and education. Osler M, et al. **Scand J Soc Med** 1998 Dec;26(4):293–8

Smoking and deprivation: are there neighbourhood effects? Duncan C, et al. **Soc Sci Med** 1999 Feb;48(4):497–505

Age patterns of smoking initiation among Kuwait university male students. Sugathan TN, et al. **Soc Sci Med** 1998 Dec; 47(11):1855–8

Tobacco usage among rural Bajaus in Sabah, Malaysia. Gan CY. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):643–8

Measurement of expired carbon monoxide among medical students to assess smoking behaviour. Groman E, et al. **Soz Praventivmed** 1998;43(6):322–4

Updating UK estimates of age, sex and period specific cumulative constant tar cigarette consumption per adult. Forey BA, et al. **Thorax** 1998 Oct;53(10):875–8

Smoking among religious professionals in Turkey [letter] Acik Y, et al. **Tob Control** 1998 Autumn;7(3):326–7

Patterns of smoking in Bulgaria. Balabanova D, et al. **Tob Control** 1998 Winter;7(4):383–5

Smoking prevalence and risk factors for smoking in a population of United States Air Force basic trainees [see comments] Haddock CK, et al. **Tob Control** 1998 Autumn; 7(3):232–5. Comment in: Tob Control 1998 Autumn;7(3):219–21.

Smoking: rates and attitudes among health services staff in central Sydney, Australia [letter] Hughes AM, et al. **Tob Control** 1998 Winter;7(4):441

Development of smoking by birth cohort in the adult population in eastern Finland 1972–97. Laaksonen M, et al. **Tob Control** 1999 Summer;8(2):161–8

Does over-the-counter nicotine replacement therapy improve smokers' life expectancy? Lawrence WF, et al. **Tob Control** 1998 Winter;7(4):364–8

Smoking status by proxy and self report: rate of agreement in different ethnic groups. Navarro AM. **Tob Control** 1999 Summer;8(2):182–5

Smoking prevalence of female nurses in the national hospitals of Japan. Ohida T, et al. **Tob Control** 1999 Summer; 8(2):192–5

One-year predictors of smoking initiation and of continued smoking among elementary schoolchildren in multiethnic, low-income, inner-city neighbourhoods. O'Loughlin J, et al. **Tob Control** 1998 Autumn;7(3):268–75

Psychosocial, behavioural, and health determinants of successful smoking cessation: a longitudinal study of Danish adults. Osler M, et al. **Tob Control** 1998 Autumn;7(3):262–7

Gender and ethnic differences in young adolescents' sources of cigarettes. Robinson LA, et al. **Tob Control** 1998 Winter; 7(4):353–9

Instability in smoking patterns among school leavers in Victoria, Australia. Schofield PE, et al. **Tob Control** 1998 Summer;7(2):149–55

Determinants of smoking behaviour among adolescents in Semarang, Indonesia. Smet B, et al. **Tob Control** 1999 Summer;8(2):186–91

The United States Navy attracts young women who smoke [letter] Woodruff SI, et al. **Tob Control** 1999 Summer; 8(2):222–3

Smoking in Italy, 1995. Pagano R, et al. **Tumori** 1998 Jul–Aug;84(4):456–9

Maternal smoking and twinning. Källén K. **Twin Res** 1998 Dec;1(4):206–11

Smoking behaviors of women whose children attend an urban pediatric primary care clinic. Groner J, et al. **Women Health** 1998;28(2):19–32

The relationship between asthma and smoking during pregnancy. Kurinczuk JJ, et al. **Women Health** 1999; 29(3):31–47

Helicobacter pylori and smoking: two additive risk factors for organic dyspepsia. Halter F, et al. **Yale J Biol Med** 1998 Mar–Apr;71(2):91–9 (35 ref.)

[Smoking behaviour and its influencing factors among cigarette smokers in Beijing] Jiao SF, et al. **Chung Hua Liu Hsing Ping Hsueh Tsa Chih** 1997 Oct; 18(5):293–5 (Eng. Abstr.) **(Chi)**

[Roaming through methodology. XV. Smoking grandfathers and other selection biases] van Gijn J, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1515–7 (7 ref.) (Eng. Abstr.) **(Dut)**

[Survey of smoking in the rural area of Thiadiaye, Senegal] Kane A, et al. **Dakar Med** 1998;43(1):101–3 (Eng. Abstr.) **(Fre)**

[Comparison of two types of behavior and attitude surveys on alcohol, tobacco and illegal drug use] Guilbert P, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):129–38 (Eng. Abstr.) **(Fre)**

[Evaluation and comparison of tobacco control legislation in member states of the European Union] Sasco AJ, et al. **Rev Epidemiol Sante Publique** 1998 Dec;46(6):523–31 (Eng. Abstr.) **(Fre)**

[Smoking in professional soccer players in France] Bouillard J, et al. **Rev Mal Respir** 1998 Dec;15(6):753–7 (Eng. Abstr.) **(Fre)**

[Particularities of smoking in adolescents] Granboulan V. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S19–20 **(Fre)**

[Smoking among medical students in Casablanca] Yassine N, et al. **Rev Mal Respir** 1999 Feb;16(1):59–64 (Eng. Abstr.) **(Fre)**

[Smoking among women] Bartsch P. **Rev Med Liege** 1999 Apr;54(4):229–35 (Eng. Abstr.) **(Fre)**

[Tobacco use disorder] Trédaniel J, et al. **Rev Prat** 1998 Feb 15;48(4):433–5 **(Fre)**

[New treatment concepts in smoking cessation] Steffen T, et al. **Schweiz Rundsch Med Prax** 1999 May 12;88(20):900–6 (Eng. Abstr.) **(Ger)**

[Study on smoking of graduate students at the School of Medicine and Surgery of the Chieti University: analysis of associations with socio-environmental variables] Ballone E, et al. **Ann Ig** 1999 May–Jun;11(3):209–18 **(Ita)**

[Smoking habits and opinions of a sample of high school students] Marin V, et al. **Ann Ig** 1999 May–Jun;11(3):219–26 **(Ita)**

[Cigarette smoking habit among 8th graders in different Italian regions. Collaborative Group S.I.D.R.I.A. (Italian Studies on Respiratory Disorders in Childhood and the Environment)] **Epidemiol Prev** 1998 Jul–Sep;22(3):155–64 (Eng. Abstr.) **(Ita)**

[A survey regarding the problem of cigarette smoke pollution in a hospital environment] Castello D, et al. **Minerva Pediatr** 1999 Apr;51(4):93–9 (Eng. Abstr.) **(Ita)**

[Smoking behavior of nurses in Mie Prefecture, Japan] Ohida T, et al. **Nippon Eiseigaku Zasshi** 1999 Jan;53(4):611–7 (Eng. Abstr.) **(Jpn)**

[Smoking prevalence and degree of tobacco dependence of physicians] Kano M, et al. **Nippon Koshu Eisei Zasshi** 1999 Aug;46(8):658–63 **(Jpn)**

[Psychosocial conditions of cigarette smoking among youth] Supranowicz P. **Rocz Panstw Zakl Hig** 1998;49(4):507–13 (Eng. Abstr.) **(Pol)**

[Smoking associated with alcoholism: introduction to the major human dependencies] Chaieb JA, et al. **Rev Saude Publica** 1998 Jun;32(3):246–54 (Eng. Abstr.) **(Por)**

[Cigarette smoking among bank employees] Griep RH, et al. **Rev Saude Publica** 1998 Dec;32(6):533–40 (Eng. Abstr.) **(Por)**

[Youth and the temptation to smoke] Munteanu I. **Pneumoftiziologia** 1998 Apr–Jun;47(2):129–30 **(Rum)**

[Features of drug addiction among adolescent schoolchildren in the Russian Federation] Skvortsova ES, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):10–3 (Eng. Abstr.) **(Rus)**

[Smoking in secondary school students in Zagreb] Starčević V. **Lijec Vjesn** 1998 Mar–Apr;120(3–4):58–61 (Eng. Abstr.) **(Scr)**

[The prevalence of smoking, alcohol consumption and drug abuse in school children and adolescents] Durmišević S, et al. **Med Arh** 1999;53(2):105–7 (Eng. Abstr.) **(Scr)**

[Tobacco consumption among school children and its relation to the environment] Gascón Jiménez FJ, et al. **An Esp Pediatr** 1999 May;50(5):451–4 (Eng. Abstr.) **(Spa)**

[School-age smoking in the province of Seville: results from the first phase of an anti-smoking campaign] Alvarez Gutiérrez FJ, et al. **Arch Bronconeumol** 1999 Jul–Aug; 35(7):317–23 (Eng. Abstr.) **(Spa)**

[Smoking in health care workers. Identification of related factors] Carrión Valero F, et al. **Arch Bronconeumol** 1998 Sep;34(8):379–83 (Eng. Abstr.) **(Spa)**

[Smoking in young military men: attitudes and characteristics] de Granda Orive JI, et al. **Arch Bronconeumol** 1998 Dec;34(11):526–30 (Eng. Abstr.) **(Spa)**

[Health professionals and tobacco: a question of incompatibilities (letter)] González García MC, et al. **Aten Primaria** 1999 Mar 31;23(5):318–9 **(Spa)**

[Tobacco consumption in school-children from the autonomous community of Extremadura] Prieto Albino L, et al. **Aten Primaria** 1999 Apr 15;23(6):326–31 (Eng. Abstr.) **(Spa)**

[Health-related behaviors in secondary-school students: sexual relations and tobacco, alcohol and cannabis consumption] Diez E, et al. **Gac Sanit** 1998 Nov–Dec; 12(6):272–80 (Eng. Abstr.) **(Spa)**

[The sociodemographic determinants of the tobacco habit and its cessation in the population of Cornellà de Llobregat (see comments)] Espinàs JA, et al. **Gac Sanit** 1999 Mar–Apr;13(2):126–34 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar–Apr;13(2):79–81. **(Spa)**

[The consumption of tobacco, alcohol and other drugs by adolescent Spanish students] Mendoza Berjano R, et al. **Gac Sanit** 1998 Nov–Dec;12(6):263–71 (Eng. Abstr.) **(Spa)**

[The consumption of tobacco, alcohol and noninstitutionalized-use drugs by middle-school students of Terrassa] Moncada Ribera A, et al. **Gac Sanit** 1998 Nov–Dec;12(6):241–7 (Eng. Abstr.) **(Spa)**

[Tobacco consumption among the student population. Related factors] Pérula de Torres LA, et al. **Gac Sanit** 1998 Nov–Dec;12(6):249–53 (Eng. Abstr.) **(Spa)**

[The truthfulness of the answers of children, adolescents and young people to surveys on tobacco consumption conducted in schools] Barrueco M, et al. **Med Clin (Barc)** 1999 Feb 27;112(7):251–4 (Eng. Abstr.) **(Spa)**

[Tobacco and cancer: from epidemiological association to molecular evidence] To i Figueras J. **Med Clin (Barc)** 1999 May 1;112(15):589–94 **(Spa)**

[Prevalence of smoking by women physicians and nurses in the community of Madrid] Fernández Ruiz ML, et al. **Rev Esp Salud Publica** 1999 May–Jun;73(3):355–64 (Eng. Abstr.) **(Spa)**

[Women and tobacco in the European Union] Joossens L, et al. **Rev Esp Salud Publica** 1999 Jan–Feb;73(1):3–11 (Eng. Abstr.) **(Spa)**

[Educational intervention in schools for the prevention of smoking: evaluation of the process. Project: OCTOPUS] López González L, et al. **Rev Esp Salud Publica** 1998 Jul–Aug;72(4):303–18 (27 ref.) (Eng. Abstr.) **(Spa)**

[Smoking among high school students in a rural community of Chiloé] Daszenies C, et al. **Rev Med Chil** 1999 Jan; 127(1):38–43 (Eng. Abstr.) **(Spa)**

[Predictors of tobacco addiction in young adults] Vara E, et al. **Rev Med Univ Navarra** 1997 Jul–Sep;41(3):167–72 (Eng. Abstr.) **(Spa)**

ETHNOLOGY

Smoke constituent exposure and stage of change in black and white women cigarette smokers. Ahijevych K, et al. **Addict Behav** 1999 Jan–Feb;24(1):115–20

Racial patterns in the effects of tobacco use on fetal growth. Sprauve ME, et al. **Am J Obstet Gynecol** 1999 Jul; 181(1):S22–7

Cigarette smoking, alcohol use, and physical activity in relation to serum leptin levels in a multiethnic population: The Miami Community Health Study. Donahue RP, et al. **Ann Epidemiol** 1999 Feb;9(2):108–13

Cigarette smoking among native and foreign-born African Americans. King G, et al. **Ann Epidemiol** 1999 May; 9(4):236–44

Gender and ethnic differences in some risk behaviors in high school students in the United States. Israili ZH. **Ethn Dis** 1998 Autumn;8(3):413–4

History of tobacco and the Inuit. Grey R. **Int J Circumpolar Health** 1998;57 Suppl 1:13–4

Smoking patterns of Asian-American youth in California and their relationship with acculturation. Chen X, et al. **J Adolesc Health** 1999 May;24(5):321–8

Coronary heart disease risk factors in male adolescents, with particular reference to smoking and blood lipids. Raftopoulos C, et al. **J Adolesc Health** 1999 Jul;25(1):68–74

Acculturation and cigarette smoking among African Americans: replication and implications for prevention and cessation programs. Klonoff EA, et al. **J Behav Med** 1999 Apr;22(2):195–204

Epidemiology of tobacco use among Lumbee Indians in North Carolina. Spangler JG, et al. **J Cancer Educ** 1999 Spring;14(1):34–40

A tobacco and alcohol use profile of San Francisco's Chinese community. Thridandam M, et al. **J Drug Educ** 1998; 28(4):377–93

The association between smoking and unhealthy behaviors among a national sample of Mexican-American adolescents. Pesa JA. **J Sch Health** 1998 Nov;68(9):376–80

Racial and ethnic differences in serum cotinine levels [letter; comment] Abrams J. **JAMA** 1998 Dec 23–30;280(24):2075; discussion 2076. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Racial and ethnic differences in serum cotinine levels [letter; comment] Krous HF, et al. **JAMA** 1998 Dec 23–30; 280(24):2075–6. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Racial and ethnic differences in serum cotinine levels [letter; comment] Wiseman EJ. **JAMA** 1998 Dec 23–30; 280(24):2075; discussion 2076. Comment on: JAMA 1998 Jul 8;280(2):135–9.

Smoking and lipid cardiovascular risk factors in Vietnamese refugees in Australia. Bermingham M, et al. **Prev Med** 1999 Apr;28(4):378–85

Hazards of smoking initiation among Asian American and non-Asian adolescents in California: a survival model analysis. Chen X, et al. **Prev Med** 1999 Jun;28(6):589–99

Regional variation in smoking among African Americans. King G, et al. **Prev Med** 1999 Aug;29(2):126–32

Changes in the smoking behavior of elderly Mexican Americans in the Southwest from 1982–1984 to 1993–1994. Markides KS, et al. **Prev Med** 1999 Mar;28(3):251–4

Perception of foreign cigarettes and their advertising in China: a study of college students from 12 universities. Zhu SH, et al. **Tob Control** 1998 Summer;7(2):134–40

GENETICS

Microsatellite DNA instability in COPD. Siafakas NM, et al. **Chest** 1999 Jul;116(1):47–51

GSTM1, GSTP1, CYP1A1 and CYP2D6 polymorphisms in lung cancer patients from an environmentally polluted region of Poland: correlation with lung DNA adduct levels. Butkiewicz D, et al. **Eur J Cancer Prev** 1999 Aug; 8(4):315–23

Aging- and smoking-associated alteration in the relative content of mitochondrial DNA in human lung. Lee HC, et al. **FEBS Lett** 1998 Dec 18;441(2):292–6

Genotyping of human cytochrome P450 2A6 (CYP2A6), a nicotine C-oxidase. Oscarson M, et al. **FEBS Lett** 1998 Nov 6;438(3):201–5

Cystic fibrosis Delta F508 heterozygotes, smoking, and reproduction: studies of 9141 individuals from a general population sample. Dahl M, et al. **Genomics** 1998 May 15; 50(1):89–96

Evidence suggesting the role of specific genetic factors in cigarette smoking [see comments] Lerman C, et al. **Health Psychol** 1999 Jan;18(1):14–20. Comment in: Health

Psychol 1999 Jan;18(1):3–6. Comment in: Health Psychol 1999 Jan;18(1):7–13.
Introduction to the featured section: genetic research on smoking [comment] Pomerleau OF, et al. **Health Psychol** 1999 Jan;18(1):3–6. Comment on: Health Psychol 1999 Jan;18(1):7–13. Comment on: Health Psychol 1999 Jan;18(1):14–20.
A genetic association for cigarette smoking behavior [comment] [see comments] Sabol SZ, et al. **Health Psychol** 1999 Jan;18(1):7–13. Comment on: Health Psychol 1999 Jan;18(1):14–20. Comment in: Health Psychol 1999 Jan;18(1):3–6.
Smoking behavior may be genetic [news] **J Am Dent Assoc** 1999 Mar;130(3):328
CYP2A6 polymorphism, nicotine, and environmental nitrosamines [letter; comment] Idle JR. **Lancet** 1999 Jun 12;353(9169):2073. Comment on: Lancet 1999 Mar 13;353(9156):898–9.
Genetic variation of CYP2A6, smoking, and risk of cancer [letter; comment] London SJ, et al. **Lancet** 1999 Mar 13; 353(9156):898–9. Comment on: Lancet 1999 Jun 12;353(9169):2073.
Detection of benzo[a]pyrene diol epoxide–DNA adducts in embryos from smoking couples: evidence for transmission by spermatozoa. Zenzes MT, et al. **Mol Hum Reprod** 1999 Feb;5(2):125–31
Sperm chromatin damage associated with male smoking. Potts RJ, et al. **Mutat Res** 1999 Jan 25;423(1–2):103–11
The effect of apolipoprotein E epsilon4 in the relationships of smoking and drinking to cognitive function. Carmelli D, et al. **Neuroepidemiology** 1999;18(3):125–33
Lack of association between the dopamine D2 receptor gene allele DRD2*A1 and cigarette smoking in a United Kingdom population. Singleton AB, et al. **Pharmacogenetics** 1998 Apr;8(2):125–8
[p53 tumor suppressor gene mutation and prognosis in 105 cases of bladder cancer--the relationship between mutation of the p53 gene with clinicopathological features and smoking] Harano H, et al. **Nippon Hinyokika Gakkai Zasshi** 1999 Apr;90(4):487–95 (Eng. Abstr.) **(Jpn)**

HISTORY

Smoking and carcinoma of the lung. Preliminary report. 1950 [classical article] Doll R, et al. **Bull World Health Organ** 1999;77(1):84–93
Measuring the health hazards of tobacco: commentary. Lopez AD. **Bull World Health Organ** 1999;77(1):82–3
Historical aspects of tobacco use and smoking. Routh HB, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):539–44
Sketches from The Lancet. Smoking. Kandela P. **Lancet** 1999 Jan 16;353(9148):249
Tobacco control in New Zealand from 1945 to 1961. Thomson G, et al. **N Z Med J** 1999 Mar 26;112(1084):101–3

IMMUNOLOGY

Cigarette smoking in HIV infection induces a suppressive inflammatory environment in the lung. Wewers MD, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1543–9
Does smoking stimulate rheumatoid factor production in non-rheumatic individuals? Jónsson T, et al. **APMIS** 1998 Oct;106(10):970–4
Increase in memory (CD4+CD29+ and CD4+CD45RO+) T and naive (CD4+CD45RA+) T-cell subpopulations in smokers. Tanigawa T, et al. **Arch Environ Health** 1998 Nov–Dec;53(6):378–83
Effects of tobacco smoking on salivary immunoglobulin levels in immunodeficiency. Norhagen Engström G, et al. **Eur J Oral Sci** 1998 Dec;106(6):986–91
The influence of cigarette smoking on cytokine levels in patients with inflammatory bowel disease. Sher ME, et al. **Inflamm Bowel Dis** 1999 May;5(2):73–8
Effect of active and passive smoking during pregnancy on natural killer-cell activity in infants. Castellazzi AM, et al. **J Allergy Clin Immunol** 1999 Jan;103(1 Pt 1):172–3
Tobacco smoking and gingival neutrophil activity in young adults. Persson L, et al. **J Clin Periodontol** 1999 Jan; 26(1):9–13
Immune responses to Chlamydia pneumoniae in twins in relation to gender and smoking. von Hertzen L, et al. **J Med Microbiol** 1998 May;47(5):441–6
Alterations of neutrophil L-selection and CD18 expression by tobacco smoke: implications for periodontal diseases. Ryder MI, et al. **J Periodontal Res** 1998 Aug;33(6):359–68
Cutaneous delayed-type hypersensitivity reactions in smokers with chronic bronchitis and recurrent exacerbations: comparison with asymptomatic smokers and never-smokers. Qvarfordt I, et al. **Respir Med** 1999 Jul; 93(7):491–7
The effect of smoking on influenza, influenza vaccination efficacy and on the antibody response to influenza vaccination. Cruijff M, et al. **Vaccine** 1999 Feb 5; 17(5):426–32

LEGISLATION & JURISPRUDENCE

Comment: the past and future of national comprehensive tobacco control legislation [see comments] Akhter MN, et al. **Am J Public Health** 1998 Nov;88(11):1606–7. Comment in: Am J Public Health 1999 Aug;89(8):1273. Comment in: Am J Public Health 1999 Aug;89(8):1273–4.
Larimer County Tobacco and Youth Project. Watson A, et al. **Am J Public Health** 1999 Apr;89(4):597–8
English judge rules that smokers' claims are "too late" [news] Dyer C. **BMJ** 1999 Feb 20;318(7182):481
UK class tobacco action nears collapse [news] Dyer C. **BMJ** 1999 Mar 6;318(7184):623
$50m record damages awarded against tobacco company [news] Hoang U. **BMJ** 1999 Feb 20;318(7182):481
Australia set for class action against tobacco industry [news] Kenyon G. **BMJ** 1999 Apr 3;318(7188):892
Hungary passes non-smokers' rights bill [news] Kovac C. **BMJ** 1999 May 29;318(7196):1438
South African health minister wins first round of tobacco battle [news] Sidley P. **BMJ** 1998 Sep 12;317(7160):698
UK treads softly on smoking [news] Warden J. **BMJ** 1999 Jan 2;318(7175):9
Knowledge of Ontario's Tobacco Control Act in the community of Scarborough. Ennis SL, et al. **Can J Public Health** 1999 Mar–Apr;90(2):83–4
Where there's smoke [letter] Bryant B. **CMAJ** 1999 May 4; 160(9):1287
Settling for less? Tobacco industry. Dahl RC. **Environ Health Perspect** 1999 Apr;107(4):A202–4
Maintaining a smoke-free policy: an observational and interview study at a university hospital in Sweden. Tillgren P, et al. **Eur J Cancer Prev** 1998 Oct;7(5):403–8
Controlling tobacco use within prisons [letter] Awofeso N. **Int J Tuberc Lung Dis** 1999 Jun;3(6):547–8 (9 ref.)
The saga of tobacco products liability litigation: a look back and a proposal for the future. Nusbaum NJ. **J Community Health** 1998 Oct;23(5):325–35 (43 ref.)
Measures to control tobacco use: immunity, advertising restrictions, and FDA control as proposed in the failed tobacco settlement. Pinto CF. **J Contemp Health Law Policy** 1998 Fall;15(1):307–56
The implementation and enforcement of tobacco control laws: policy implications for activists and the industry. Jacobson PD, et al. **J Health Polit Policy Law** 1999 Jun; 24(3):567–98
Social movements as catalysts for policy change: the case of smoking and guns. Nathanson CA. **J Health Polit Policy Law** 1999 Jun;24(3):421–88 (146 ref.)
How adolescents get their cigarettes: implications for policies on access and price. Emery S, et al. **J Natl Cancer Inst** 1999 Jan 20;91(2):184–6
From the Centers for Disease Control and Prevention. Preemptive state tobacco-control laws--United States, 1982–1998. **JAMA** 1999 Jan 27;281(4):316–7
The public and the comprehensive tobacco bill. Blendon RJ, et al. **JAMA** 1998 Oct 14;280(14):1279–84
Bartenders' respiratory health after establishment of smoke-free bars and taverns [see comments] Eisner MD, et al. **JAMA** 1998 Dec 9;280(22):1909–14. Comment in: JAMA 1998 Dec 9;280(22):1947–9. Comment in: JAMA 1999 Mar 24–31;281(12):1083.
Tourism and hotel revenues before and after passage of smoke-free restaurant ordinances. Glantz SA, et al. **JAMA** 1999 May 26;281(20):1911–8
India's welcome to foreign tobacco giants prompts criticism [news] Sharma DC. **Lancet** 1998 Oct 10;352(9135):1204
The tobacco settlement: briefing for physicians. Nolan PA. **Med Health R I** 1999 Feb;82(2):66–7
Preemptive state tobacco-control laws--United States, 1982–1998. **MMWR Morb Mortal Wkly Rep** 1999 Jan 8; 47(51–52):1112–4
Illegal sales of cigarettes to minors--Ciudad Juárez, Mexico; El Paso, Texas; and Las Cruces, New Mexico, 1999. **MMWR Morb Mortal Wkly Rep** 1999 May 21;48(19):394–8
State laws on tobacco control--United States, 1998. Fishman JA, et al. **Mor Mortal Wkly Rep CDC Surveill Summ** 1999 Jun 25;48(3):21–40
Tobacco control--drawing breath [editorial] **Nat Med** 1999 Aug;5(8):851
Cancer prevention: the U.S. Department of Health and Human Services calls for warning labels on cigars; says teen use high [news] **Oncologist** 1999;4(2):186–7
An instrument for assessing the quality of tobacco-control policies: the ACT-L scale. Klonoff EA, et al. **Prev Med** 1998 Nov–Dec;27(6):808–14
A year of living dangerously: the tobacco control community meets the global settlement. Bloch M, et al. **Public Health** 1998 Nov–Dec;113(6):488–97
Beyond the haze of the tobacco bill debate [editorial] Benatar D. **S Afr Med J** 1999 Jul;89(7):752–4
Tobacco Products Control Amendment Bill, 1998 [letter] Lalloo UG. **S Afr Med J** 1999 Apr;89(4):356–7
Arizona's tobacco control initiative illustrates the need for continuing oversight by tobacco control advocates. Aguinaga Bialous S, et al. **Tob Control** 1999 Summer; 8(2):141–51 (110 ref.)
State laws on youth access to tobacco in the United States: measuring their extensiveness with a new rating system [see comments] Alciati MH, et al. **Tob Control** 1998 Winter; 7(4):345–52. Comment in: Tob Control 1998 Winter;7(4):333–5.
The future of tobacco product regulation and labelling in Europe: implications for the forthcoming European Union directive. Bates C, et al. **Tob Control** 1999 Summer; 8(2):225–35
Tobacco Free Initiative, ASH Australia, Brown and Williamson, smoke free children in Ireland, Henley order, smoke signals, and smoking among Hong Kong's children. Cannon J. **Tob Control** 1999 Summer;8(2):214–6
Impediments to the enforcement of youth access laws. DiFranza JR, et al. **Tob Control** 1999 Summer;8(2):152–5
The tobacco scandal: where is the outrage? Koop CE. **Tob Control** 1998 Winter;7(4):393–6
The "success" of Philip Morris' campaign on environmental tobacco smoke in The Netherlands [letter] Nellen MA, et al. **Tob Control** 1999 Summer;8(2):221–2
Improving the measurement and use of tobacco control "inputs" [editorial; comment] Wakefield MA, et al. **Tob Control** 1998 Winter;7(4):333–5. Comment on: Tob Control 1998 Winter;7(4):345–52.
[The requisite internationalization of the campaign against smoking] Dubois G. **Bull Acad Natl Med** 1998; 182(5):939–50; discussion 951–3 (61 ref.) (Eng. Abstr.) **(Fre)**
[Evaluation and comparison of tobacco control legislation in member states of the European Union] Sasco AJ, et al. **Rev Epidemiol Sante Publique** 1998 Dec;46(6):523–31 (Eng. Abstr.) **(Fre)**
[A proposed antitobacco law] Didilescu C. **Pneumoftiziologia** 1998 Jul–Sep;47(3):217–8 **(Rum)**
[Legislative measures against tobacco and their impact on decreasing tobacco consumption] Ibraim E, et al. **Pneumoftiziologia** 1998 Jan–Mar;47(1):61–4 **(Rum)**

METABOLISM

Neutrophil elastase activity, levels of prostaglandin E2, and matrix metalloproteinase-8 in refractory periodontitis sites in smokers and non-smokers. Söder B. **Acta Odontol Scand** 1999 Apr;57(2):77–82
Relation of salivary cotinine to blood pressure in middle-aged cigarette smokers. Istvan JA, et al. **Am Heart J** 1999 May; 137(5):928–31
Smoking and oxidative stress [letter; comment] Chalmers A. **Am J Clin Nutr** 1999 Mar;69(3):572. Comment on: Am J Clin Nutr 1998 Feb;67(2):184–5. Comment on: Am J Clin Nutr 1998 Feb;67(2):231–9.
Antioxidant vitamin supplementation and lipid peroxidation in smokers [letter; comment] Mayne ST, et al. **Am J Clin Nutr** 1999 Jun;69(6):1292. Comment on: Am J Clin Nutr 1998 Aug;68(2):319–27.
Nicotine patch use in pregnant smokers: nicotine and cotinine levels and fetal effects. Ogburn PL Jr, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):736–43
Modulation of elastase binding to elastin by human alveolar macrophage-derived lipids. Fujita J, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):802–7
Epithelial permeability, inflammation, and oxidant stress in the air spaces of smokers. Morrison D, et al. **Am J Respir Crit Care Med** 1999 Feb;159(2):473–9
Effect of smoking one cigarette on antioxidant metabolites in the saliva of healthy smokers. Zappacosta B, et al. **Arch Oral Biol** 1999 Jun;44(6):485–8
Total reactive antioxidant potential in human saliva of smokers and non-smokers. Kondakova I, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):911–20
Joint influence of alcohol, tobacco, and coffee on biological markers of heavy drinking in alcoholics. Aubin HJ, et al. **Biol Psychiatry** 1998 Oct 1;44(7):638–43
Does smoking really increase the requirements for rocuronium? [letter; comment] Pühringer FK, et al. **Can J Anaesth** 1999 May;46(5 Pt 1):513. Comment on: Can J Anaesth 1998 Jul;45(7):651–4.
Five caffeine metabolite ratios to measure tobacco-induced CYP1A2 activity and their relationships with urinary mutagenicity and urine flow. Sinués B, et al. **Cancer Epidemiol Biomarkers Prev** 1999 Feb;8(2):159–66
Hprt mutant frequency and aromatic DNA adduct level in non-smoking and smoking lung cancer patients and population controls. Hou SM, et al. **Carcinogenesis** 1999 Mar;20(3):437–44
Effects of cigarette smoking on Fas/Fas ligand expression of human lymphocytes. Suzuki N, et al. **Cell Immunol** 1999 Feb 25;192(1):48–53
Advanced glycation endproducts and cigarette smoking. Nicholl ID, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Nov; 44(7):1025–33 (55 ref.)
Effect of vitamin E on exhaled ethane in cigarette smokers. Habib MP, et al. **Chest** 1999 Mar;115(3):684–90
Annexin I degradation in bronchoalveolar lavage fluids from healthy smokers: a possible mechanism of inflammation. Vishwanatha JK, et al. **Clin Cancer Res** 1998 Oct; 4(10):2559–64
Serotonin stimulation of calcium mobilisation in human platelets: choice of units of measurement, effects of age and tobacco use, and correlation with serotonin2A receptor density. Fowler CJ, et al. **Clin Chim Acta** 1999 Sep; 287(1–2):1–18
Altered skeletal muscle glucose transport and blood lipid levels in habitual cigarette smokers. Rincón J, et al. **Clin Physiol** 1999 Mar;19(2):135–42
Neutrophil chemokines in bronchoalveolar lavage fluid and leukocyte-conditioned medium from nonsmokers and smokers. Morrison D, et al. **Eur Respir J** 1998 Nov; 12(5):1067–72
Plasmacytoid monocytes appear in the bronchoalveolar lavage: differences between smokers and nonsmokers. John M, et al. **Exp Lung Res** 1999 Mar;25(2):143–50
Influence of cigarette smoking on Vitamin C, glutathione and lipid peroxidation status. Banerjee KK, et al. **Indian J Public Health** 1998 Jan–Mar;42(1):20–3
Smoking increases bone loss and decreases intestinal calcium

absorption. Krall EA, et al. **J Bone Miner Res** 1999 Feb; 14(2):215–20

Antioxidant status of oral mucosal tissue and plasma levels in smokers and non-smokers. Cowan CG, et al. **J Oral Pathol Med** 1999 Sep;28(8):360–3

p53 overexpression in oral mucosa in relation to smoking. van Oijen MG, et al. **J Pathol** 1999 Mar;187(4):469–74

Increased nicotinic receptors in brains from smokers: membrane binding and autoradiography studies. Perry DC, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1545–52

Polycythemia vera megakaryocytes but not megakaryocytes from normal controls and patients with smokers polyglobuly spontaneously express IL-6 and IL-6R and secrete IL-6. Wickenhauser C, et al. **Leukemia** 1999 Mar; 13(3):327–34

The effects of cigarette smoking on the metabolism of essential fatty acids. Pawlosky R, et al. **Lipids** 1999;34 Suppl:S287

Glucocorticoid receptor expression in human bronchial epithelial cells: effects of smoking and COPD. Verheggen MM, et al. **Mediators Inflamm** 1998;7(4):275–81

Increased levels of advanced glycation endproducts in the lenses and blood vessels of cigarette smokers. Nicholl ID, et al. **Mol Med** 1998 Sep;4(9):594–601

Decreased bombesin peptide response to cigarette smoking in schizophrenia. Olincy A, et al. **Neuropsychopharmacology** 1999 Jan;20(1):52–9

Schizophrenia, monoamine oxidase activity, and cigarette smoking. Simpson GM, et al. **Neuropsychopharmacology** 1999 Apr;20(4):392–4

Dopamine and nicotinic receptor binding and the levels of dopamine and homovanillic acid in human brain related to tobacco use. Court JA, et al. **Neuroscience** 1998 Nov; 87(1):63–78

A further study of FTC yield and nicotine absorption in smokers. Byrd GD, et al. **Psychopharmacology (Berl)** 1998 Oct;139(4):291–9

Possible role of plasma GSH in modulating smoking related radiation pneumonitis [letter] Bhattathiri VN. **Radiother Oncol** 1999 Jun;51(3):291–2

Increased content of thiobarbituric acid-reactive substances and hydrogen peroxide in the expired breath condensate of patients with stable chronic obstructive pulmonary disease: no significant effect of cigarette smoking. Nowak D, et al. **Respir Med** 1999 Jun;93(6):389–96

Cigarette smoking decreases interleukin-8 secretion by human alveolar macrophages. Ohta T, et al. **Respir Med** 1998 Jul;92(7):922–7

Nasal nitric oxide and its relationship to nasal symptoms, smoking and nasal nitrate. Olin AC, et al. **Rhinology** 1998 Sep;36(3):117–21

[Aromatase activity and its gene expression in tumor tissue of smokers and non-smokers with breast cancer] Berstein LM, et al. **Vopr Onkol** 1998;44(6):680–2 (Eng. Abstr.) **(Rus)**

MORTALITY

Smoking, physical activity, and active life expectancy. Ferrucci L, et al. **Am J Epidemiol** 1999 Apr 1;149(7):645–53

Use of multiple surveys to estimate mortality among never, current, and former smokers: changes over a 20-year interval. Rosenbaum WL, et al. **Am J Public Health** 1998 Nov;88(11):1664–8

Trends and patterns of drug-caused mortality in Australia and Western Australia. Unwin E, et al. **Aust N Z J Public Health** 1999 Aug;23(4):352–6

Emerging tobacco hazards in China. Is assumption of no association between smoking and other causes of death valid? [letter; comment] Lam TH, et al. **BMJ** 1999 Jun 5;318(7197):1554–5. Comment on: BMJ 1998 Nov 21;317(7170):1411–22.

Emerging tobacco hazards in China: 1. Retrospective proportional mortality study of one million deaths [see comments] Liu BQ, et al. **BMJ** 1998 Nov 21; 317(7170):1411–22. Comment in: BMJ 1998 Nov 21;317(7170):1399–400. Comment in: BMJ 1999 Jun 5;318(7197):1554–5. Comment in: BMJ 1999 Jun 5;318(7197):1555.

Counting the dead in China. Measuring tobacco's impact in the developing world [editorial; comment] Lopez AD. **BMJ** 1998 Nov 21;317(7170):1399–400. Comment on: BMJ 1998 Nov 21;317(7170):1411–22. Comment on: BMJ 1998 Nov 21;317(7170):1423–4.

Emerging tobacco hazards in China: 2. Early mortality results from a prospective study [see comments] Niu SR, et al. **BMJ** 1998 Nov 21;317(7170):1423–4. Comment in: BMJ 1998 Nov 21;317(7170):1399–400. Comment in: BMJ 1999 Jun 5;318(7197):1555.

Cigarette smoking in Kentucky: smoking-attributable mortality and years of potential life lost. Stapleton MP, et al. **J Ky Med Assoc** 1998 Nov;96(11):451–5

Smoking kills 31% of Maori [letter] Lambe J. **N Z Med J** 1998 Aug 28;111(1072):327

Why do we need a large study on tobacco-attributed mortality in South Africa? [letter] Sitas F, et al. **S Afr Med J** 1998 Aug;88(8):925–6

The death toll from tobacco: a crime against humanity? [letter] Francey N. **Tob Control** 1999 Summer;8(2):221

[Why is life expectancy a problem for the Danes? The influence of smoking during the last 50 years] Juel K. **Ugeskr Laeger** 1998 Nov 16;160(47):6800–5 (Eng. Abstr.) **(Dan)**

[Smoking and life expectancy among Danish men and women] Prescott EI, et al. **Ugeskr Laeger** 1999 Mar 1; 161(9):1261–3 (Eng. Abstr.) **(Dan)**

PATHOLOGY

Immunopathology of the small-airway submucosa in smokers with and without chronic obstructive pulmonary disease. Lams BE, et al. **Am J Respir Crit Care Med** 1998 Nov; 158(5 Pt 1):1518–23

Smoking is associated with dose-related increase of intima-media thickness and endothelial dysfunction. Poredos P, et al. **Angiology** 1999 Mar;50(3):201–8

The influence of acute smoking on leucocytes, platelets and the endothelium. Blann AD, et al. **Atherosclerosis** 1998 Nov;141(1):133–9

A randomized controlled trial on the effect of inhaled corticosteroids on airways inflammation in adult cigarette smokers. Cox G, et al. **Chest** 1999 May;115(5):1271–7

Smoking and vascular density of healthy marginal gingiva. Persson L, et al. **Eur J Oral Sci** 1998 Oct;106(5):953–7

Cigarette smoke inhalation and lung damage in smoking volunteers. Clark KD, et al. **Eur Respir J** 1998 Aug; 12(2):395–9

Two-colour flow-cytometric analysis of pulmonary alveolar macrophages from smokers. Umino T, et al. **Eur Respir J** 1999 Apr;13(4):894–9

Plasmacytoid monocytes appear in the bronchoalveolar lavage: differences between smokers and nonsmokers. John M, et al. **Exp Lung Res** 1999 Mar;25(2):143–50

Clinical and microbiological characteristics of smokers with early onset periodontitis. Kamma JJ, et al. **J Periodontal Res** 1999 Jan;34(1):25–33

Increased number of proliferating cells in oral epithelium from smokers and ex-smokers. van Oijen MG, et al. **Oral Oncol** 1998 Jul;34(4):297–303

PHYSIOPATHOLOGY

Effects of menstrual phase on reactivity to nicotine. Marks JL, et al. **Addict Behav** 1999 Jan-Feb;24(1):127–34

Effect of smoking cessation on exercise performance in female smokers participating in exercise training. Albrecht AE, et al. **Am J Cardiol** 1998 Oct 15;82(8):950–5

Tobacco smoke induces both apoptosis and necrosis in mammalian cells: differential effects of HSP70. Vayssier M, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L771–9

Endogenous cortisol and lung damage in a predominantly smoking population. Clark KD, et al. **Am J Respir Crit Care Med** 1999 Mar;159(3):755–9

Severity of airflow limitation is associated with severity of airway inflammation in smokers. Di Stefano A, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1277–85

Smokers and haemodynamic responses to desflurane. Fitz-Henry J, et al. **Anaesthesia** 1999 Aug;54(8):800–3

Acute smoking increases ST depression in humans during general anesthesia. Woehlck HJ, et al. **Anesth Analg** 1999 Oct;89(4):856–60

The effect of cigarette smoking status on six-minute walk distance in patients with intermittent claudication. Cahan MA, et al. **Angiology** 1999 Jul;50(7):537–46

Acute reduction in ankle/brachial index following smoking in chronic smokers with peripheral arterial occlusive disease. Yataco AR, et al. **Angiology** 1999 May;50(5):355–60

Cholesterol, but not cigarette smoke, decreases rabbit carotid artery relaxation. Johnson D, et al. **Ann Vasc Surg** 1999 Sep;13(5):480–3

Concurrent increase of oxidative DNA damage and lipid peroxidation together with mitochondrial DNA mutation in human lung tissues during aging--smoking enhances oxidative stress on the aged tissues. Lee HC, et al. **Arch Biochem Biophys** 1999 Feb 15;362(2):309–16

Flow volume curves as screening tests for early effects of smoking in asymptomatic children and young adults. Milaat WA, et al. **Asia Pac J Public Health** 1995;8(3):190–4

Haemodynamic changes after tracheal intubation in cigarette smokers compared with non-smokers. Laxton CH, et al. **Br J Anaesth** 1999 Mar;82(3):442–3

Smoking increases the requirement for rocuronium [see comments] Rautoma P, et al. **Can J Anaesth** 1998 Jul; 45(7):651–4. Comment in: Can J Anaesth 1999 May;46(5 Pt 1):513.

Influence of smoking status on angiotensin-converting enzyme inhibition-related improvement in coronary endothelial function. TREND Investigators. Trial on Reversing Endothelial Dysfunction. Schlaifer JD, et al. **Cardiovasc Drugs Ther** 1999 May;13(3):201–9

L-Arginine normalizes coronary vasomotion in long-term smokers. Campisi R, et al. **Circulation** 1999 Feb 2; 99(4):491–7

Chronological change of respiratory function in smokers with elevated serum carcinoembryonic antigen levels. Kashiwabara K, et al. **Clin Chim Acta** 1998 Aug 28; 276(2):179–86

Event-related brain potentials as indicators of smoking cue-reactivity. Warren CA, et al. **Clin Neurophysiol** 1999 Sep;110(9):1570–84

Angiotensin-converting enzyme inhibition improves venous endothelial dysfunction in chronic smokers. Chalon S, et al. **Clin Pharmacol Ther** 1999 Mar;65(3):295–303

Sympathetic activity and aging: relationship to smoking habits, physical fitness, blood volume, and intracellular signalling. Jensen EW. **Dan Med Bull** 1999 Apr; 46(2):106–17 (135 ref.)

The acute effect of smoking on cutaneous microcirculation blood flow in habitual smokers and nonsmokers. Monfrecola G, et al. **Dermatology** 1998;197(2):115–8

Peripheral vascular reactions to smoking--profound vasoconstriction by atherosclerosis. Fushimi H, et al. **Diabetes Res Clin Pract** 1998 Oct;42(1):29–34

Expiratory and inspiratory chest computed tomography and pulmonary function tests in cigarette smokers. Kubo K, et al. **Eur Respir J** 1999 Feb;13(2):252–6

Detection of benzo(a)pyrene diol epoxide-DNA adducts in sperm of men exposed to cigarette smoke. Zenzes MT, et al. **Fertil Steril** 1999 Aug;72(2):330–5

Effects of cigarette smoking on short-term variability of blood pressure in smoking and non smoking healthy volunteers. Ragueneau I, et al. **Fundam Clin Pharmacol** 1999;13(4):501–7

Effect of chronic and acute cigarette smoking on the pharyngo-upper oesophageal sphincter contractile reflex and reflexive pharyngeal swallow [see comments] Dua K, et al. **Gut** 1998 Oct;43(4):537–41. Comment in: Gut 1998 Oct;43(4):453.

Effect of smoking on ovarian reserve and ovarian stimulation in in-vitro fertilization and embryo transfer. El-Nemr A, et al. **Hum Reprod** 1998 Aug;13(8):2192–8

Effects of smoking cessation on blood pressure and heart rate variability in habitual smokers. Minami J, et al. **Hypertension** 1999 Jan;33(1 Pt 2):586–90

Higher heart rate variability of smokers after acute myocardial infarction. Nishiue T, et al. **Int J Cardiol** 1999 Feb 28;68(2):165–9

Tobacco smoking, alcohol, and special diet in drug trials: exclusion criteria or target of specific investigations? Fuhr U. **Int J Clin Pharmacol Ther** 1998 Nov;36(11):604–6 (20 ref.)

Effects of tobacco smoking on the human pupil. Lie TC, et al. **Int J Clin Pharmacol Ther** 1999 Apr;37(4):184–8

Oxidative stress in smokers supplemented with vitamin C. Aghdassi E, et al. **Int J Vitam Nutr Res** 1999 Jan; 69(1):45–51

Postmenopausal hormone therapy--good for smokers? [editorial; comment] Grady D. **J Am Coll Cardiol** 1999 Jul;34(1):138–9. Comment on: J Am Coll Cardiol 1999 Jul;34(1):131–7.

Effect of vitamin E on endothelial vasodilator function in patients with hypercholesterolemia, chronic smoking or both. Heitzer T, et al. **J Am Coll Cardiol** 1999 Feb; 33(2):499–505

The effect of smoking on oocyte quality and hormonal parameters of patients undergoing in vitro fertilization-embryo transfer. Weigert M, et al. **J Assist Reprod Genet** 1999 Jul;16(6):287–93

Paradoxically enhanced bradykinin-induced venodilation in young, healthy, short-term smokers. Vajo Z, et al. **J Cardiovasc Pharmacol** 1999 Aug;34(2):316–9

Non-surgical periodontal treatment with and without adjunctive metronidazole in smokers and non-smokers. Palmer RM, et al. **J Clin Periodontol** 1999 Mar;26(3):158–63

Periodontal probing depth and subgingival temperature in smokers and non-smokers. Trikilis N, et al. **J Clin Periodontol** 1999 Jan;26(1):38–43

Prediction of olfactory response based on age, gender and smoking habits. Davies CW, et al. **J Med Eng Technol** 1999 Mar-Apr;23(2):73–6

Smoking and anxiety in combat veterans with chronic posttraumatic stress disorder: a review. Beckham JC. **J Psychoactive Drugs** 1999 Apr-Jun;31(2):103–10 (69 ref.)

Immediate and sustained effects of smoking on autonomic arousal in human subjects. McLachlan CS, et al. **Jpn J Physiol** 1998 Aug;48(4):253–9

Adaptive angiogenesis in placentas of heavy smokers [letter] Pfarrer C, et al. **Lancet** 1999 Jul 24;354(9175):303

Smoking, nicotine and psychiatric disorders: evidence for therapeutic role, controversies and implications for future research. Dursun SM, et al. **Med Hypotheses** 1999 Feb; 52(2):101–9 (78 ref.)

Interleukin-6 as a central mediator of cardiovascular risk associated with chronic inflammation, smoking, diabetes, and visceral obesity: down-regulation with essential fatty acids, ethanol and pentoxifylline. McCarty MF. **Med Hypotheses** 1999 May;52(5):465–77 (229 ref.)

Decreased blood flow but unaltered insulin sensitivity of glucose uptake in skeletal muscle of chronic smokers. Rönnemaa EM, et al. **Metabolism** 1999 Feb;48(2):239–44

A comparison of maximum oxygen consumption, aerobic performance, and endurance in young and active male smokers and nonsmokers. Song EY, et al. **Mil Med** 1998 Nov;163(11):770–4

The cholinergic basis of the smoking-induced EEG activation profile. Knott VJ, et al. **Neuropsychobiology** 1998;38(2):97–107

The effects of nicotine on spatial and non-spatial expectancies in a covert orienting task. Murphy FC, et al. **Neuropsychologia** 1998 Nov;36(11):1103–14

Scotopic sensitivity: relation to age, dietary patterns, and smoking status. Hammond BR Jr, et al. **Optom Vis Sci** 1998 Dec;75(12):867–72

Olfactory thresholds for nicotine and menthol in smokers (abstinent and nonabstinent) and nonsmokers. Rosenblatt MR, et al. **Physiol Behav** 1998 Dec 1;65(3):575–9

Neurobiology of tobacco smoking and other addictive disorders. Gamberino WC, et al.

Psychiatr Clin North Am 1999 Jun;22(2):301–12 (49 ref.)
Naltrexone blockade of nicotine effects in cigarette smokers. Brauer LH, et al. **Psychopharmacology (Berl)** 1999 Apr; 143(4):339–46
Electroencephalographic effects of intravenous nicotine--a dose-response study. Lindgren M, et al. **Psychopharmacology (Berl)** 1999 Aug;145(3):342–50
Relationship between smoking and colonic involvement in inflammatory bowel disease [see comments] Bustamante M, et al. **Rev Esp Enferm Dig** 1998 Dec;90(12):833–40. Comment in: Rev Esp Enferm Dig 1998 Dec;90(12):829–32. **(Eng, Spa)**
Tetrahymena pyriformis in the ciliate mobility test. Validation and description of a testing procedure for the registration of harmful substances in the air as well as the effects of cigarette smoke on the human respiratory ciliated epithelium. Gräf W, et al. **Zentralbl Hyg Umweltmed** 1999 Feb;201(6):451–72
[Effect of smoking on the long-term course of ulcerative colitis] Mokbel M, et al. **Gastroenterol Clin Biol** 1998 Nov; 22(11):858–62 (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Which women stop smoking? A population-based study of 403 pregnant smokers. Håkansson A, et al. **Acta Obstet Gynecol Scand** 1999 Mar;78(3):217–24
Associations between the stages of change and the pros and cons of smoking in a longitudinal study of swiss smokers. Etter JF, et al. **Addict Behav** 1999 May–Jun;24(3):419–24
Effect of counselor and client education in nicotine addiction on smoking in substance abusers. Perine JL, et al. **Addict Behav** 1999 May–Jun;24(3):443–7
The role of social networks and media receptivity in predicting age of smoking initiation: a proportional hazards model of risk and protective factors. Unger JB, et al. **Addict Behav** 1999 May–Jun;24(3):371–81
Tobacco, youth, and sports. Epps RP, et al. **Adolesc Med** 1998 Oct;9(3):483–90, vi (20 ref.)
Parent-daughter discussions to discourage tobacco use: feasibility and content. Ary DV, et al. **Adolescence** 1999 Summer;34(134):275–82
Smoking policies and practices in a state-supported residential system for people with mental retardation. Minihan PM. **Am J Ment Retard** 1999 Mar;104(2):131–42
Kentucky legislators' views on tobacco policy. Hahn EJ, et al. **Am J Prev Med** 1999 Feb;16(2):81–8
Relationships between physician advice and tobacco and alcohol use during pregnancy. Jones-Webb R, et al. **Am J Prev Med** 1999 Apr;16(3):244–7
A collaborative partnership to enhance school-based tobacco control policies in West Virginia. Center for Disease Control and Prevention. Tompkins NO, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):29–34
Comment: the past and future of national comprehensive tobacco control legislation [see comments] Akhter MN, et al. **Am J Public Health** 1998 Nov;88(11):1606–7. Comment in: Am J Public Health 1999 Aug;89(8):1273. Comment in: Am J Public Health 1999 Aug;89(8):1273–4.
Restaurant smoking restrictions and environmental tobacco smoke exposure [see comments] Brauer M, et al. **Am J Public Health** 1998 Dec;88(12):1834–6. Comment in: Am J Public Health 1998 Dec;88(12):1759–60.
Tobacco control legislation [letter; comment] Daynard R, et al. **Am J Public Health** 1999 Aug;89(8):1273–4. Comment on: Am J Public Health 1998 Nov;88(11):1606–7.
Retail trade incentives: how tobacco industry practices compare with those of other industries. Feighery EC, et al. **Am J Public Health** 1999 Oct;89(10):1564–6
The effect of plain packaging on response to health warnings [letter] Goldberg ME, et al. **Am J Public Health** 1999 Sep; 89(9):1434–5
Targeting early antecedents to prevent tobacco smoking: findings from an epidemiologically based randomized field trial. Kellam SG, et al. **Am J Public Health** 1998 Oct; 88(10):1490–5
Prevention of relapse in women who quit smoking during pregnancy. McBride CM, et al. **Am J Public Health** 1999 May;89(5):706–11
The effectiveness of a tobacco prevention program with adolescents living in a tobacco-producing region. Noland MP, et al. **Am J Public Health** 1998 Dec;88(12):1862–5
Countering pro-tobacco influences at the racetrack. Olson CK. **Am J Public Health** 1999 Sep;89(9):1431–2
Which adults do underaged youth ask for cigarettes? Ribisl KM, et al. **Am J Public Health** 1999 Oct;89(10):1561–4
Should we compromise on tobacco industry immunity to achieve national comprehensive tobacco legislation? [letter; comment] Siegel M. **Am J Public Health** 1999 Aug; 89(8):1273. Comment on: Am J Public Health 1998 Nov;88(11):1606–7.
The effects of a health promotion-health protection intervention on behavior change: the WellWorks Study. Sorensen G, et al. **Am J Public Health** 1998 Nov; 88(11):1685–90
Larimer County Tobacco and Youth Project. Watson A, et al. **Am J Public Health** 1999 Apr;89(4):597–8
Presenting the facts about smoking to adolescents: effects of an autonomy-supportive style. Williams GC, et al. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):959–64
Smoking prevention and cessation in adolescents. Rutishauser C, et al. **Aust Fam Physician** 1998 Dec;27(12):1110–3 (19 ref.)
Preaching by the unconverted [editorial] Sanson-Fisher R, et al. **Aust N Z J Med** 1998 Aug;28(4):417–8
Does clozapine affect smoking rates? [letter] Chatterton R, et al. **Aust N Z J Psychiatry** 1998 Dec;32(6):890–1
Retailer education and cigarette sales to teenagers [letter] Cook D. **Aust N Z J Public Health** 1998 Dec;22(7):842
A strategy for involving general practitioners in smoking control. Mullins R, et al. **Aust N Z J Public Health** 1999 Jun;23(3):249–51
Are smoke-free policies implemented and adhered to at sporting venues? Pikora T, et al. **Aust N Z J Public Health** 1999 Aug;23(4):407–9
Where should alcohol and tobacco interventions be provided? [editorial] Richmond R, et al. **Aust N Z J Public Health** 1998 Dec;22(7):745–6
Obtaining resources for evidence-based public health initiatives at the local level: insights from the Central Sydney Tobacco Control Plan. Rissel C, et al. **Aust N Z J Public Health** 1999 Feb;23(1):56–60
Community perceptions about the tobacco industry and tobacco control funding. Wakefield M, et al. **Aust N Z J Public Health** 1999 Jun;23(3):240–4
Where should alcohol and tobacco interventions be provided? Another view [letter] Ward J, et al. **Aust N Z J Public Health** 1999 Jun;23(3):331–2
Providers' smoking cessation attitudes and practices for older patients. Kviz FJ, et al. **Behav Med** 1999 Summer; 25(2):53–61
UK will ban tobacco advertisements by December [news] Beecham L. **BMJ** 1999 Jun 26;318(7200):1716
WHO agrees measures to stop global spread of tobacco use [news] Brown P. **BMJ** 1999 May 29;318(7196):1437
Scare tactics cut smoking rates in Australia to all time low [news] Chapman S. **BMJ** 1999 Jun 5;318(7197):1508
Results are unlikely to be as good in routine practice [comment] Jones K J. **BMJ** 1999 Aug 21;319(7208):494. Comment on: BMJ 1999 Aug 21;319(7208):490–3; discussion 494.
Plans for international convention to control tobacco move ahead [news] **Bull World Health Organ** 1999;77(3):294
Smoking: attitudes of Costa Rican physicians and opportunities for intervention. Grossman DW, et al. **Bull World Health Organ** 1999;77(4):315–22
Tobacco reduction: a continued health promotion challenge [editorial] Mangham C. **Can J Public Health** 1999 Mar–Apr;90(2):77–9 **(Eng, Fre)**
Key tobacco tax references and resources. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2773–4
Designing an effective statewide tobacco control program--California. Bal DG. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2717–21
Designing an effective counteradvertising campaign--Oregon. Bjornson W, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2752–4
History of successful ballot initiatives--Massachusetts. Cady B. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2685–9
Evaluation: methods and strategy for evaluation--Massachusetts. Celebucki C, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2760–5
Designing an effective statewide tobacco control program--Massachusetts. Connolly G, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2722–7
Evaluation: methods and strategy for evaluation--Arizona. Loeb J. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2766–9
Getting key players to work together and defending against diversion--Arizona. Madonna MG. **Cancer** 1998 Dec 15; 83(12 Suppl Robert):2708–12
Getting key players to work together and defending against diversion--California. Martin CB, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2697–701
Designing an effective statewide tobacco control program--Arizona. Meister JS. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2728–32
Designing an effective counteradvertising campaign--Massachusetts. Miller A. **Cancer** 1998 Dec 15; 83(12 Suppl Robert):2742–5
Designing an effective statewide tobacco control program--Oregon. Moore JM. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2733–5
Evaluation: methods and strategy for evaluation--Oregon. Moore JM, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2770–2
History of successful ballot initiatives--California. Najera AP. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2680–4
Tobacco tax initiatives to prevent tobacco use: a study of eight statewide campaigns. Nicholl J. **Cancer** 1998 Dec 15; 83(12 Suppl Robert):2666–79
Getting key players to work together and defending against diversion--Oregon. North R. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2713–6
Getting key players to work together and defending against diversion--Massachusetts. Pierce-Lavin C, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2702–7
Creating statewide tobacco control programs after passage of a tobacco tax: executive summary. Pierce-Lavin C, et al. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2659–65
Designing an effective counteradvertising campaign--Arizona. Riester T, et al. **Cancer** 1998 Dec 15; 83(12 Suppl Robert):2746–51
History of successful ballot initiatives--Arizona. Rivers J. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2690–2
Evaluation: methods and strategy for evaluation--California. Russell CM. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2755–9
Designing an effective counteradvertising campaign--California. Stevens C. **Cancer** 1998 Dec 15; 83(12 Suppl Robert):2736–41
History of successful ballot initiatives--Oregon. Weller J. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2693–6
School-based smoking control: a research agenda [see comments] Manske SR, et al. **Cancer Prev Control** 1997 Aug;1(3):196–212 (110 ref.). Comment in: Cancer Prev Control 1997 Aug;1(3):190–1.
Tobacco industry's excuses for mass murder: a comment and more excuses [letter; comment] Jayasinghe S. **Ceylon Med J** 1998 Sep;43(3):165–6. Comment on: Ceylon Med J 1998 Jun;43(2):61–7.
First worldwide public health treaty on the way [news] **CMAJ** 1999 May 18;160(10):1426
Medical thunder is required to stir the Chrétien government [editorial] Bass F. **CMAJ** 1999 Jan 12;160(1):61–2
Bupropion (Zyban, sustained-release tablets): reported adverse reactions [news] Hébert S. **CMAJ** 1999 Apr 6; 160(7):1050–1, 1054–5 **(Eng, Fre)**
Prevention of lung cancer by long-term use of alternative nicotine delivery systems? Kunze U, et al. **Eur J Cancer** 1999 Feb;35(2):195–6 (19 ref.)
The International Antismoking Youth Festival [editorial] Panagopoulos AS. **Eur J Cancer Prev** 1998 Apr;7(2):85–7
The continuum-of-addiction: cigarette smoking in relation to price among Americans aged 15–29. Harris JE, et al. **Health Econ** 1999 Feb;8(1):81–6
Coronary Artery Smoking Intervention Study (CASIS): 5-year follow-up. Rosal MC, et al. **Health Psychol** 1998 Sep;17(5):476–8
New strategies for smoking cessation. MacKenzie TD. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):25–6, 29
New approaches to smoking prevention in the north. Alekseeva NV, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:489–92
History of tobacco and the Inuit. Grey R. **Int J Circumpolar Health** 1998;57 Suppl 1:13–4
Education on health risks of smoking in Magadan, Russia. Holder T. **Int J Circumpolar Health** 1998;57 Suppl 1:493–4
Controlling tobacco use within prisons [letter] Awofeso N. **Int J Tuberc Lung Dis** 1999 Jun;3(6):547–8 (9 ref.)
The tobacco pandemic [editorial; comment] Crofton J. **Int J Tuberc Lung Dis** 1999 Feb;3(2):85–6. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):90–9. Comment on: Int J Tuberc Lung Dis 1999 Feb;3(2):113–8.
ICN on tobacco use: nurses can utilize their unique knowledge and experience to promote smoking cessation and prevent the spread of a public health crisis. **Int Nurs Rev** 1999 May–Jun;46(3):80–1
A first step incorporating smoking education into a Brazilian medical school curriculum: results of a survey to assess the cigarette smoking knowledge, attitudes, behaviour, and clinical practices of medical students. Daudt AW, et al. **J Addict Dis** 1999;18(1):19–29
Smoking among students: new pathways to prevention [editorial; comment] Keeling RP. **J Am Coll Health** 1999 Sep;48(2):51–4. Comment on: J Am Coll Health 1999 Sep;48(2):61–6. Comment on: J Am Coll Health 1999 Sep;48(2):67–71. Comment on: J Am Coll Health 1999 Sep;48(2):87–90. Comment on: J Am Coll Health 1999 Sep;48(2):93–5.
Smoking initiation and escalation in early adolescent girls: one-year follow-up of a school-based prevention intervention for minority youth. Botvin GJ, et al. **J Am Med Womens Assoc** 1999 Summer;54(3):139–43, 152
The impact of tobacco use on podiatric medicine [letter] Levy LA. **J Am Podiatr Med Assoc** 1998 Oct;88(10):517–8
Solution-focused approaches to tobacco reduction with disadvantaged prenatal clients. Browne AJ, et al. **J Community Health Nurs** 1999;16(3):165–77
Project DARE: no effects at 10-year follow-up. Lynam DR, et al. **J Consult Clin Psychol** 1999 Aug;67(4):590–3
Measures to control tobacco use: immunity, advertising restrictions, and FDA control as proposed in the failed tobacco settlement. Pinto CF. **J Contemp Health Law Policy** 1998 Fall;15(1):307–56
Smoking status as a vital sign. Ahluwalia JS, et al. **J Gen Intern Med** 1999 Jul;14(7):402–8
Rethinking anti-smoking media campaigns: two generations of research and issues for the next. Logan RA, et al. **J Health Care Finance** 1999 Summer;25(4):77–90 (59 ref.)
The implementation and enforcement of tobacco control laws: policy implications for activists and the industry. Jacobson PD, et al. **J Health Polit Policy Law** 1999 Jun; 24(3):567–98
Social movements as catalysts for policy change: the case of smoking and guns. Nathanson CA. **J Health Polit Policy Law** 1999 Jun;24(3):421–88 (146 ref.)
Report on the doctor SmokeStopper project. **J Ky Med Assoc** 1999 Jul;97(7):311–6
Critics feel states may misspend their tobacco windfall [news] Fintor L. **J Natl Cancer Inst** 1999 Aug 18;91(16):1356–8
New EU report: more women are smoking [news] Steimle S. **J Natl Cancer Inst** 1999 Feb 3;91(3):212–3
The eradication of tobacco: a moral imperative [editorial] Blake BD. **J Natl Med Assoc** 1998 Sep;90(9):525–6
An open letter to the Director General of the Cancer Research Campaign [letter] Goodman NW. **J R Coll Physicians Lond** 1999 Jan–Feb;33(1):93

Smoking during pregnancy [letter] Parker L. **J R Coll Physicians Lond** 1999 May–Jun;33(3):286

Estimated gains in birth weight associated with reductions in smoking during pregnancy. Secker-Walker RH, et al. **J Reprod Med** 1998 Nov;43(11):967–74

Recruiting adolescents into qualitative tobacco research studies: experiences and lessons learned. McCormick LK, et al. **J Sch Health** 1999 Mar;69(3):95–9

Smoking intervention with adolescent substance abusers. Initial recommendations. Myers MG. **J Subst Abuse Treat** 1999 Jun;16(4):289–98 (59 ref.)

From the Centers for Disease Control and Prevention. Decline in cigarette consumption following implementation of a comprehensive tobacco prevention and education program--Oregon, 1996–1998. **JAMA** 1999 Apr 28; 281(16):1483–4

Adding behavioral therapy to medication for smoking cessation [letter; comment] Antonuccio DO, et al. **JAMA** 1999 Jun 2;281(21):1983–4; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

A future without tobacco: a call for papers [editorial; comment] Cole HM. **JAMA** 1999 Oct 6;282(13):1284. Comment on: JAMA 1999 Oct 6;282(13):1247–53.

Adding behavioral therapy to medication for smoking cessation [letter; comment] Deagle EA 3rd, et al. **JAMA** 1999 Jun 2;281(21):1983; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

From the Surgeon General. The framework convention on tobacco control. A report from the 52nd World Health Assembly. Satcher D. **JAMA** 1999 Aug 4;282(5):424

Why physicians and lay people smoke and how can it be reduced? Memon SB, et al. **JPMA J Pak Med Assoc** 1999 Jan;49(1):2–4

The tobacco settlement: briefing for physicians. Nolan PA. **Med Health R I** 1999 Feb;82(2):66–7

A theoretical model for the study of active and passive smoking in military women: an at-risk population. Martinelli AM. **Mil Med** 1999 Jul;164(7):475–80 (56 ref.)

Decline in cigarette consumption following implementation of a comprehensive tobacco prevention and education program--Oregon, 1996–1998. **MMWR Morb Mortal Wkly Rep** 1999 Feb 26;48(7):140–3

What is New Jersey doing with the tobacco settlement money? Downs L. **N J Med** 1999 Aug;96(8):37–8

Smoking kills 31% of Maori [letter] Lambe J. **N Z Med J** 1998 Aug 28;111(1072):327

Teenage tobacco use [letter] Peugeot A, et al. **Nurse Pract** 1999 Sep;24(9):66, 69

Consensus statement on prevention and early diagnosis of lung cancer. Varese, Italy, December, 1998. **Oncology (Huntingt)** 1999 Mar;13(3):298 (0 ref.)

Duke researchers to study the most effective ways to prod smokers to kick the habit [news] **Oncology (Huntingt)** 1998 Nov;12(11):1584

Preventive pediatric cardiology. Tobacco, cholesterol, obesity, and physical activity. Gidding SS. **Pediatr Clin North Am** 1999 Apr;46(2):253–62 (34 ref.)

Weight concerns, weight control behaviors, and smoking initiation. Tomeo CA, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):918–24

The perceptions and practices of pediatricians: tobacco intervention. Zapka JG, et al. **Pediatrics** 1999 May; 103(5):e65

Page for patients. A message from Preventive Medicine and your physician. **Prev Med** 1999 Mar;28(3):219–20

Differential beliefs, perceived social influences, and self-efficacy expectations among smokers in various motivational phases. De Vries H, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):681–9

Characteristics of patients adhering to a hospital's no-smoking policy. Emmons KM, et al. **Prev Med** 1998 Nov–Dec;27(6):846–53

Smoking cravings are reduced by self-massage. Hernandez-Reif M, et al. **Prev Med** 1999 Jan;28(1):28–32

Can brief intervention through community dental care have an effect on adolescent smoking? Kentala J, et al. **Prev Med** 1999 Aug;29(2):107–11

An instrument for assessing the quality of tobacco-control policies: the ACT-L scale. Klonoff EA, et al. **Prev Med** 1998 Nov–Dec;27(6):808–14

Might stopping smoking reduce injury death risks? A meta-analysis of randomized, controlled trials. Leistikow BN, et al. **Prev Med** 1999 Mar;28(3):255–9

Evaluation of a minimal self-help smoking cessation intervention following cervical cancer screening. McBride CM, et al. **Prev Med** 1999 Aug;29(2):133–8

Counseling youth in tobacco-use prevention: determinants of clinician compliance. Russos S, et al. **Prev Med** 1999 Jul;29(1):13–21

Smokers hospitalized in an urban, public hospital: addiction, stages of change, and self-efficacy. Vernon JD, et al. **Prev Med** 1999 May;28(5):488–95

Very delayed smoking relapse warrants research attention. Brandon TH, et al. **Psychol Rep** 1998 Aug;83(1):72–4 (10 ref.)

Adolescent smoking prevention--primary health care in cooperation with local schools. A controlled intervention study. Svoen N, et al. **Scand J Prim Health Care** 1999 Mar; 17(1):54–8

Lessons from the Oslo Study Diet and Anti-smoking Trial: a qualitative study of long-term behaviour change. Cable TA, et al. **Scand J Public Health** 1999 Sep;27(3):206–12

The relationship between tobacco access and use among adolescents: a four community study [see comments] Altman DG, et al. **Soc Sci Med** 1999 Mar;48(6):759–75. Comment in: Soc Sci Med 1999 Mar;48(6):757–8.

Policy and politics of smoking control in Japan. Sato H. **Soc Sci Med** 1999 Sep;49(5):581–600

Can we stop children and adolescents from smoking? [comment] Yach D, et al. **Soc Sci Med** 1999 Mar; 48(6):757–8 (15 ref.). Comment on: Soc Sci Med 1999 Mar;48(6):759–75.

Med Bytes. **Tex Med** 1999 May;95(5):24

Curbing the epidemic: governments and the economics of tobacco control. The World Bank. **Tob Control** 1999 Summer;8(2):196–201

EU/UK: ad ban busting plan [news] **Tob Control** 1998 Winter;7(4):341–2

BAT attacks [news] **Tob Control** 1998 Summer;7(2):119–20

Bloody filter [news] **Tob Control** 1998 Summer;7(2):120–1

Institute for global tobacco control [news] **Tob Control** 1998 Autumn;7(3):231

Poland's world-leading health warnings [news] **Tob Control** 1998 Autumn;7(3):229–30

Wind of change at WHO [news] **Tob Control** 1998 Autumn; 7(3):230

BAT's Tobago control campaign [news] **Tob Control** 1998 Autumn;7(3):228

Bangladesh: not a cigarette paper [news] **Tob Control** 1998 Autumn;7(3):228–9

Arizona's tobacco control initiative illustrates the need for continuing oversight by tobacco control advocates. Aguinaga Bialous S, et al. **Tob Control** 1999 Summer; 8(2):141–51 (110 ref.)

State laws on youth access to tobacco in the United States: measuring their extensiveness with a new rating system [see comments] Alciati MH, et al. **Tob Control** 1998 Winter; 7(4):345–52. Comment in: Tob Control 1998 Winter;7(4):333–5.

Tobacco control advocates must demand high-quality media campaigns: the California experience. Balbach ED, et al. **Tob Control** 1998 Winter;7(4):397–408

The future of tobacco product regulation and labelling in Europe: implications for the forthcoming European Union directive. Bates C, et al. **Tob Control** 1999 Summer; 8(2):225–35

Tobacco Free Initiative, ASH Australia, Brown and Williamson, smoke free children in Ireland, Henley order, smoke signals, and smoking among Hong Kong's children. Cannon J. **Tob Control** 1999 Summer;8(2):214–6

Y-1 papers, white paper, Chinese mortality, BC ingredient disclosure, SRNT, PANNA, foundation watch, plus youth shoplifting. Cannon J. **Tob Control** 1998 Winter;7(4):434–7

Minnesota settlement, documents in mind-boggling numbers, smoke-free Birmingham, fire-safe cigarettes, Surgeon General's report, nicotine yields, cigars, Tasmania, and a Marlboro Gear spoof. Cannon J. **Tob Control** 1998 Summer; 7(2):189–92

Tobacco use and the United States military: a longstanding problem [editorial; comment] Conway TL. **Tob Control** 1998 Autumn;7(3):219–21. Comment on: Tob Control 1998 Autumn;7(3):232–5. Comment on: Tob Control 1998 Autumn;7(3):236–40.

The Marlboro man needs Viagra [news] Davis RM. **Tob Control** 1998 Autumn;7(3):227

Forming community coalitions: "smoking stinks". Des Vaux Oakes J. **Tob Control** 1998 Winter;7 Suppl:S27–8; discussion S32–5

Impediments to the enforcement of youth access laws. DiFranza JR, et al. **Tob Control** 1999 Summer;8(2):152–5

Seeing, wanting, owning: the relationship between receptivity to tobacco marketing and smoking susceptibility in young people. Feighery E, et al. **Tob Control** 1998 Summer;7(2):123–8

European smoke-free class competition [letter] Hanewinkel R, et al. **Tob Control** 1998 Autumn;7(3):326

Smoking, branding, and the meaning of life [editorial] Hastings G, et al. **Tob Control** 1998 Summer;7(2):107–8

A new image for Birmingham. Hooper P. **Tob Control** 1998 Summer;7(2):112–5

A new health education strategy to reduce smoking among young people [letter] Jamrozik KD, et al. **Tob Control** 1998 Summer;7(2):194

USA: children's theatre makes smoking a farce [news] Jeddeloh RJ. **Tob Control** 1998 Summer;7(2):116–7

Managed care and approaches to tobacco control. Koplan JP. **Tob Control** 1998 Winter;7 Suppl:S1–2

Quit and Win campaigns as a long-term anti-smoking intervention in North Karelia and other parts of Finland. Korhonen T, et al. **Tob Control** 1999 Summer;8(2):175–81

Measuring support for tobacco control policy in selected areas of six countries. Laforge RG, et al. **Tob Control** 1998 Autumn;7(3):241–6

The "success" of Philip Morris' campaign on environmental tobacco smoke in The Netherlands [letter] Nellen MA, et al. **Tob Control** 1999 Summer;8(2):221–2

Challenges and opportunities for tobacco control: the Robert Wood Johnson Foundation agenda. Orleans CT. **Tob Control** 1998 Winter;7 Suppl:S8–11

"Zero tolerance" for student smokers [letter] Pericak MT. **Tob Control** 1998 Winter;7(4):441–2

An evaluation of a theatre production to encourage non-smoking among elementary age children: 2 Smart 2 Smoke. Perry CL, et al. **Tob Control** 1999 Summer; 8(2):169–74

Worldwide survey of education on tobacco in medical schools. Richmond RL, et al. **Tob Control** 1998 Autumn; 7(3):247–52

Using multiple interventions to make an impact in the community [comment] Sandell SD. **Tob Control** 1998 Winter;7 Suppl:S31; discussion S32–5. Comment on: Tob Control 1996 Winter;5(4):259–61.

Anti-tobacco media campaign for young people. Seghers T, et al. **Tob Control** 1998 Winter;7 Suppl:S29–30; discussion S32–5

Thank you for not smoking additives. Shatenstein S. **Tob Control** 1998 Summer;7(2):187–8

Training pharmacists and pharmacy assistants in the stage-of-change model of smoking cessation: a randomised controlled trial in Scotland. Sinclair HK, et al. **Tob Control** 1998 Autumn;7(3):253–61

The tobacco industry and education and science organisations in New Zealand [letter] Thomson G. **Tob Control** 1998 Summer;7(2):194–5

Mixed progress against lung cancer. Thun MJ. **Tob Control** 1998 Autumn;7(3):223–6

Improving the measurement and use of tobacco control "inputs" [editorial; comment] Wakefield MA, et al. **Tob Control** 1998 Winter;7(4):333–5. Comment on: Tob Control 1998 Winter;7(4):345–52.

How to make the US State Department's tobacco directive work for you: Senegal's case [news] White A. **Tob Control** 1998 Winter;7(4):341

Cigarette testing methods, product design, and labelling: time to clean up the "negative baggage" [editorial; comment] Wigand JS. **Tob Control** 1998 Winter;7(4):336–7. Comment on: Tob Control 1998 Winter;7(4):369–75.

Impact of the Tobacco Price Support Program on tobacco control in the United States. Zhang P, et al. **Tob Control** 1998 Summer;7(2):176–82

Increasing tobacco taxes: it's a health issue [news] Elkins K. **W V Med J** 1999 Mar–Apr;95(2):90

Cigarette smoking prevention--physicians should teach by example [letter; comment] Cheng TO. **West J Med** 1999 Mar;170(3):178. Comment on: West J Med 1998 Jul;169(1):23–9.

An alternative tobacco control system [editorial; comment] Fagerström KO. **Wien Klin Wochenschr** 1998 Dec 11; 110(23):809–10. Comment on: Wien Klin Wochenschr 1998 Dec 11;110(23):811–6.

[Control of smoking to reduce the incidence of bronchial cancer: application of Evin's law in France] Hirsch A. **Cancer Radiother** 1998 Sep–Oct;2(5):600–2 (Eng. Abstr.) **(Fre)**

[Accessibility of nicotine substitution products and prevention of cancers] Le Houezec J. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S194–5 **(Fre)**

[Tobacco, students, education and health] Chabot JM. **Rev Prat** 1999 Jan 1;49(1):70–1 **(Fre)**

[Smoking: health care and politics in flux] Haustein KO. **Z Arztl Fortbild Qualitatssich** 1999 Jul;93(5):355–61 (Eng. Abstr.) **(Ger)**

[Talking about tobacco (editorial)] Lojacono G, et al. **Epidemiol Prev** 1999 Apr–Jun;23(2):65–6 **(Ita)**

[Tobacco use prevention in Norway--a terrible example? (letter) (see comments)] Aagenaes O. **Tidsskr Nor Laegeforen** 1999 Mar 10;119(7):999. Comment in: Tidsskr Nor Laegeforen 1999 Apr 20;119(10):1508. **(Nor)**

[The leading role of Norway in tobacco use prevention must be regained (see comments)] Glantz SA. **Tidsskr Nor Laegeforen** 1999 Mar 10;119(7):987–8. Comment in: Tidsskr Nor Laegeforen 1999 Apr 30;119(11):1646. **(Nor)**

[Legislative measures against tobacco and their impact on decreasing tobacco consumption] Ibraim E, et al. **Pneumoftiziologia** 1998 Jan–Mar;47(1):61–4 **(Rum)**

[School-age smoking in the province of Seville: results from the first phase of an anti-smoking campaign] Alvarez Gutiérrez FJ, et al. **Arch Bronconeumol** 1999 Jul–Aug; 35(7):317–23 (Eng. Abstr.) **(Spa)**

[Smoking prevention in Spanish schools] Barrueco M, et al. **Arch Bronconeumol** 1998 Nov;34(10):496–9 **(Spa)**

[Tobacco control in children, adolescents and young people: knowledge, prevention and action (letter; comment)] de Granda Orive JI, et al. **Arch Bronconeumol** 1998 Dec; 34(11):564. Comment on: Arch Bronconeumol 1998 Apr;34(4):199–203. **(Spa)**

[Reduction in tobacco consumption. A strategy toward quitting smoking?] Jiménez Ruiz CA, et al. **Arch Bronconeumol** 1999 May;35(5):229–32 **(Spa)**

[Description of the guidelines available in Spain for tackling tobacco dependency in primary care. SEMFYC (Spanish Society of Family and Community Medicine)] Clemente ML, et al. **Aten Primaria** 1999 Jun 30;24(2):101–8 **(Spa)**

[Smoking and primary care professionals: something is moving (editorial)] Nebot M, et al. **Aten Primaria** 1998 Sep 30;22(5):267–8 **(Spa)**

[May's smoke (editorial)] Torres Lana A, et al. **Aten Primaria** 1999 Jun 30;24(2):57–8 **(Spa)**

[Pregnancy and smoking: significance of the problem and health-service based prevention] Castellanos E, et al. **Med Clin (Barc)** 1998 Nov 21;111(17):670–4 (76 ref.) **(Spa)**

[Influence of coronary risk factors in secondary prevention: tobacco] López Garcia-Aranda V, et al.

Rev Esp Cardiol 1998;51 Suppl 6:10–7 (59 ref.) (Eng. Abstr.) **(Spa)**

[Extracurricular activities of adolescents useful for smoking prevention programs. OCTOPUS team] López González ML, et al. **Rev Esp Salud Publica** 1999 May–Jun; 73(3):343–53 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Smoking attitudes, beliefs, and readiness to change among acute and long term care inpatients with psychiatric diagnoses. Carosella AM, et al. **Addict Behav** 1999 May–Jun;24(3):331–44

Weight control smoking among sedentary women. Pinto BM, et al. **Addict Behav** 1999 Jan–Feb;24(1):75–86

Causal relationships of processes of change and decisional balance: stage-specific models for smoking. Pollak KI, et al. **Addict Behav** 1998 Jul–Aug;23(4):437–48

Smoking and diabetes: readiness for change and provider advice. Ruggiero L, et al. **Addict Behav** 1999 Jul–Aug; 24(4):573–8

Habit control expectancy for drinking, smoking, and eating. Schneider HG, et al. **Addict Behav** 1998 Sep–Oct; 23(5):601–7

Testing 40 predictions from the transtheoretical model. Velicer WF, et al. **Addict Behav** 1999 Jul–Aug;24(4):455–69

Is mental health in childhood a major predictor of smoking in adolescence? [see comments] McGee R, et al. **Addiction** 1998 Dec;93(12):1869–74. Comment in: Addiction 1998 Dec;93(12):1878.

Is mental health in childhood a major predictor of smoking in childhood [letter; comment] Pomerleau CS. **Addiction** 1998 Dec;93(12):1878. Comment on: Addiction 1998 Dec;93(12):1869–74.

The effect of a video character's smoking status on young females' perceptions of social characteristics. Jones B, et al. **Adolescence** 1998 Fall;33(131):657–67

Early adolescents' perceptions of cigarette smoking: a cross-sectional survey in a junior high school. Sun D, et al. **Adolescence** 1998 Winter;33(132):805–10

Depression, anxiety, and smoking initiation: a prospective study over 3 years. Patton GC, et al. **Am J Public Health** 1998 Oct;88(10):1518–22

Accuracy of smokers' risk perceptions. Weinstein ND. **Ann Behav Med** 1998 Spring;20(2):135–40

Cigarette smoking and psychiatric disorder in a community sample. Black DW, et al. **Ann Clin Psychiatry** 1999 Sep; 11(3):129–36

The effects of ethanol on the relative preference for cigarettes. Zacny JP, et al. **Behav Pharmacol** 1997 Feb; 8(1):75–81

Maternal socialization of adolescent smoking: the intergenerational transmission of parenting and smoking [see comments] Chassin L, et al. **Dev Psychol** 1998 Nov; 34(6):1189–201. Comment in: Dev Psychol 1998 Nov;34(6):1263–8. Comment in: Dev Psychol 1998 Nov;34(6):1269–73.

Alcohol abusers who want to quit smoking: implications for clinical treatment. Ellingstad TP, et al. **Drug Alcohol Depend** 1999 May 3;54(3):259–65

Beliefs about smoking cessation among out-of-school youth. Stanton WR, et al. **Drug Alcohol Depend** 1999 May 3; 54(3):251–8

The effects of dopaminergic D2 stimulation and blockade on smoking behavior. Caskey NH, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):72–8

Associations between drug abuse treatment and cigarette use: evidence of substance replacement. Conner BT, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):64–71

Effects of monetary contingencies on smoking relapse: influences of trait depression, personality, and habitual nicotine intake. Gilbert DG, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):174–81

Smoking cues decrease prepulse inhibition of the startle response and increase subjective craving in humans. Hutchison KE, et al. **Exp Clin Psychopharmacol** 1999 Aug; 7(3):250–6

Classical conditions of environmental cues to cigarette smoking. Lazev AB, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):56–63

Effect of stage of change on cue reactivity in continuing smokers. McDermut W, et al. **Exp Clin Psychopharmacol** 1998 Aug;6(3):316–24

Smoking urges affect language processing. Zwaan RA, et al. **Exp Clin Psychopharmacol** 1998 Aug;6(3):325–30

Selections from current literature: smoking and depression. Shiesha S. **Fam Pract** 1999 Apr;16(2):202–5 (3 ref.)

Logistic analysis of adaptive gender variants of smoking youths behavior. Sarov GM. **Folia Med (Plovdiv)** 1998; 40(3B Suppl 3):76–80

The relationship between smoking and body weight in a population of young military personnel. Klesges RC, et al. **Health Psychol** 1998 Sep;17(5):454–8

Attitudes toward smoking. Ross N, et al. **Health Rep** 1998 Winter;10(3):23–33 (ENG); 23–34 (FRE) **(Eng, Fre)**

Smoking and body image concerns in adolescent girls. Wiseman CV, et al. **Int J Eat Disord** 1998 Dec;24(4):429–33

The effects of wine and tobacco consumption on cognitive performance in the elderly: a longitudinal study of relative risk. Leibovici D, et al. **Int J Epidemiol** 1999 Feb; 28(1):77–81

Anti-tobacco socialization in homes of African-American and white parents, and smoking and nonsmoking parents. Clark PI, et al. **J Adolesc Health** 1999 May;24(5):329–39

Other substance use among high school students who use tobacco. Everett SA, et al. **J Adolesc Health** 1998 Nov; 23(5):289–96

Ethnic differences in correlates of adolescent cigarette smoking. Griesler PC, et al. **J Adolesc Health** 1998 Sep; 23(3):167–80

Smoking initiation in youth: the roles of gender, race, socioeconomics, and developmental status. Harrell JS, et al. **J Adolesc Health** 1998 Nov;23(5):271–9

Prospective social-psychological factors of adolescent smoking progression. Wang MQ, et al. **J Adolesc Health** 1999 Jan;24(1):2–9

Personality, smoking and suicide: a prospective study. Angst J, et al. **J Affect Disord** 1998 Oct;51(1):55–62

An E-mail assessment of undergraduates' attitudes toward smoking [see comments] DeBernardo RL, et al. **J Am Coll Health** 1999 Sep;48(2):61–6. Comment in: J Am Coll Health 1999 Sep;48(2):51–4.

Smoking among students: new pathways to prevention [editorial; comment] Keeling RP. **J Am Coll Health** 1999 Sep;48(2):51–4. Comment on: J Am Coll Health 1999 Sep;48(2):61–6. Comment on: J Am Coll Health 1999 Sep;48(2):67–71. Comment on: J Am Coll Health 1999 Sep;48(2):87–90. Comment on: J Am Coll Health 1999 Sep;48(2):93–5.

Progressions of alcohol, cigarette, and marijuana use in adolescence. Duncan SC, et al. **J Behav Med** 1998 Aug; 21(4):375–88

A six-year follow-up study of determinants of heavy cigarette smoking among high-school seniors. Griffin KW, et al. **J Behav Med** 1999 Jun;22(3):271–84

Smokeless tobacco and cigarettes: differential attitudes and behavioral intentions of young adolescents toward a hypothetical new peer. Kury SP, et al. **J Clin Child Psychol** 1998 Dec;27(4):415–22

Relationships between stages of change in cigarette smokers and healthy lifestyle behaviors in a population of young military personnel during forced smoking abstinence. Clements-Thompson M, et al. **J Consult Clin Psychol** 1998 Dec;66(6):1005–11

A comparison of correlates of cigarette smoking behavior between Jiangxi province, China and Japanese high school students. Osaki Y, et al. **J Epidemiol** 1999 Aug;9(4):254–60

The effects of parental divorce on adult tobacco and alcohol consumption. Wolfinger NH. **J Health Soc Behav** 1998 Sep; 39(3):254–69

Effects of smoking status and schizotypy on latent inhibition. Della Casa V, et al. **J Psychopharmacol** 1999;13(1):45–57

Maternal factors, obstetric history and smoking stage of change. Haslam C. **J Public Health Med** 1999 Jun; 21(2):185–91

Does cigarette print advertising adhere to the Tobacco Institute's voluntary advertising and promotion code? An assessment. Barbeau EM, et al. **J Public Health Policy** 1998; 19(4):473–88

The effect of attitude on the development of adolescent cigarette use. Andrews JA, et al. **J Subst Abuse** 1998; 10(1):1–7

Prospective association of smoking and alcohol use with cognitive function in an elderly cohort. Edelstein SL, et al. **J Womens Health** 1998 Dec;7(10):1271–81

Perceived risks of heart disease and cancer among cigarette smokers. Ayanian JZ, et al. **JAMA** 1999 Mar 17; 281(11):1019–21

Why physicians and lay people smoke and how can it be reduced? Memon SB, et al. **JPMA J Pak Med Assoc** 1999 Jan;49(1):2–4

Smoking, nicotine and psychiatric disorders: evidence for therapeutic role, controversies and implications for future research. Dursun SM, et al. **Med Hypotheses** 1999 Feb; 52(2):101–9 (78 ref.)

Smoking and mental health: results from a community survey. Jorm AF, et al. **Med J Aust** 1999 Jan 18;170(2):74–7

A theoretical model for the study of active and passive smoking in military women: an at-risk population. Martinelli AM. **Mil Med** 1999 Jul;164(7):475–80 (56 ref.)

The influence of age, sex and smoking habits on the background level of fish-detected translocations. Pressl S, et al. **Mutat Res** 1999 Jun 25;442(2):89–95

Prenatal substance exposure: effects on attention and impulsivity of 6-year-olds. Leech SL, et al. **Neurotoxicol Teratol** 1999 Mar–Apr;21(2):109–18

An exploratory study of effects of smoking on mental rotation and mental paper-folding task. Iwaki T, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1171–82

Effects of cigarette smoking through a partially occluded filter. Pickworth WB, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):817–21

Blockade of smoking satisfaction using the peripheral nicotinic antagonist trimethaphan. Rose JE, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):165–72

Smoking and pursuit of thinness in schoolgirls in London and Ottawa [published erratum appears in Postgrad Med 1998 Nov;74(877):704] Crisp AH, et al. **Postgrad Med J** 1998 Aug;74(874):473–9

Exploring perceptions of smoking cessation among high school smokers: input and feedback from focus groups. Balch GI. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A55–63

Differential beliefs, perceived social influences, and self-efficacy expectations among smokers in various motivational phases. De Vries H, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):681–9

Do movie stars encourage adolescents to start smoking? Evidence from California. Distefan JM, et al. **Prev Med** 1999 Jan;28(1):1–11

Characteristics of patients adhering to a hospital's no-smoking policy. Emmons KM, et al. **Prev Med** 1998 Nov–Dec;27(6):846–53

Does parental smoking cessation discourage adolescent smoking? Farkas AJ, et al. **Prev Med** 1999 Mar;28(3):213–8

Psychosocial predictors of different stages of cigarette smoking among high school students. Flay BR, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A9–18

Tobacco use and other risk behaviors among adolescents in an STD clinic. MacKenzie TD, et al. **Prev Med** 1998 Nov–Dec;27(6):792–7

Transtheoretical measures for adolescent and adult smokers: similarities and differences. Pallonen UE. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A29–38

Relationship between cigarette dose and perceived risk of lung cancer. Sastre MT, et al. **Prev Med** 1999 Jun; 28(6):566–71

The application of Poisson random-effects regression models to the analyses of adolescents' current level of smoking. Siddiqui O, et al. **Prev Med** 1999 Aug;29(2):92–101

Smokers hospitalized in an urban, public hospital: addiction, stages of change, and self-efficacy. Vernon JD, et al. **Prev Med** 1999 May;28(5):488–95

The Fagerström Test for Nicotine Dependence in a Spanish sample. Becoña E, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1455–8

Self-reported smoking and measurement of expired air carbon monoxide in a clinical treatment. Becoña E, et al. **Psychol Rep** 1998 Aug;83(1):316–8

Effects of cigarette smoking on lexical decision-making. Hale CR, et al. **Psychol Rep** 1999 Feb;84(1):117–20

Regular and occasional smoking by college students: personality attributions of smokers and nonsmokers. Hines D, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1299–306

Metamotivational dominance and use of tobacco and alcohol among adolescents. Turner S, et al. **Psychol Rep** 1998 Aug; 83(1):307–15

Naltrexone blockade of nicotine effects in cigarette smokers. Brauer LH, et al. **Psychopharmacology (Berl)** 1999 Apr; 143(4):339–46

Manipulation of cigarette craving through rapid smoking: efficacy and effects on smoking behavior. Houtsmuller EJ, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):149–57

Little evidence that "denicotinized" menthol cigarettes have pharmacological effects: an EEG/heart-rate/sujective-response study. Pritchard WS, et al. **Psychopharmacology (Berl)** 1999 Apr;143(3):273–9

Deprivation state but not nicotine content of the cigarette affects responding by smokers on a progressive ratio task. Rusted JM, et al. **Psychopharmacology (Berl)** 1998 Dec; 140(4):411–7

Smoking behaviour and compensation: a review of the literature. Scherer G. **Psychopharmacology (Berl)** 1999 Jul; 145(1):1–20 (185 ref.)

Effects of response requirement and the availability of an alternative reinforcer on cigarette smoking by schizophrenics. Tidey JW, et al. **Psychopharmacology (Berl)** 1999 Jul;145(1):52–60

Naltrexone administration affects ad libitum smoking behavior. Wewers ME, et al. **Psychopharmacology (Berl)** 1998 Nov;140(2):185–90

Tracking of avoidance of alcohol use and smoking behavior in a fifth grade cohort over three years. Felton G, et al. **Public Health Nurs** 1999 Feb;16(1):32–40

An explanatory model of variables influencing health promotion behaviors in smoking and nonsmoking college students. Martinelli AM. **Public Health Nurs** 1999 Aug; 16(4):263–9

The impact of spontaneous pneumothorax, and its treatment, on the smoking behaviour of young adult smokers. Smit HJ, et al. **Respir Med** 1998 Sep;92(9):1132–6

Perception of bronchodilation in subjects with asthma and smokers with airflow limitation. Massasso DH, et al. **Respirology** 1999 Jun;4(2):117–24

Differential prevalence of cigarette smoking in patients with schizophrenic vs mood disorders. Diwan A, et al. **Schizophr Res** 1998 Sep 7;33(1–2):113–8

The relationship between tobacco access and use among adolescents: a four community study [see comments] Altman DG, et al. **Soc Sci Med** 1999 Mar;48(6):759–75. Comment in: Soc Sci Med 1999 Mar;48(6):757–8.

Cigarette use by adolescents: attitude-behavior relationships. O'Callaghan FV, et al. **Subst Use Misuse** 1999 Feb; 34(3):455–68

Reasons for quitting and smoking temptation among adolescent smokers: gender differences. Sussman S, et al. **Subst Use Misuse** 1998 Dec;33(14):2703–20

So nicotine is addictive ... so what? [editorial] Thomison JB. **Tenn Med** 1999 Apr;92(4):115–6

Medical students' knowledge of smoking [letter; comment] Bowen EF, et al. **Thorax** 1999 Jul;54(7):657–8. Comment on: Thorax 1999 Jan;54(1):2. Comment on: Thorax 1999 Jan;54(1):70–8.

Adolescents' responses to cigarette advertisements: links between exposure, liking, and the appeal of smoking. Arnett JJ, et al. **Tob Control** 1998 Summer;7(2):129–33

Recognition of cigarette brand names and logos by primary schoolchildren in Ankara, Turkey. Emri S, et al.

SMOKING

Tob Control 1998 Winter;7(4):386–92

Smoking prevalence of female nurses in the national hospitals of Japan. Ohida T, et al. **Tob Control** 1999 Summer; 8(2):192–5

Strategic marketing of cigarettes to young people in Sri Lanka: "go ahead--I want to see you smoke it now". Seimon T, et al. **Tob Control** 1998 Winter;7(4):429–33

Smoking in movies remained high in 1997 [letter] Teti TS, et al. **Tob Control** 1998 Winter;7(4):441

Psychosocial factors related to adolescent smoking: a critical review of the literature. Tyas SL, et al. **Tob Control** 1998 Winter;7(4):409–20 (226 ref.)

Resiliency factors protecting against teenage alcohol use and smoking: influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. Heath AC, et al. **Twin Res** 1999 Jun; 2(2):145–55

[Comparison of two types of behavior and attitude surveys on alcohol, tobacco and illegal drug use] Guilbert P, et al. **Rev Epidemiol Sante Publique** 1999 Apr;47(2):129–38 (Eng. Abstr.) **(Fre)**

[Particularities of smoking in adolescents] Granboulan V. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S19–20 **(Fre)**

[Smoking behavior and cognition for smoking cessation after diagnosis of head and neck cancer or stomach cancer] Hasuo S, et al. **Nippon Koshu Eisei Zasshi** 1998 Aug; 45(8):732–9 (Eng. Abstr.) **(Jpn)**

[Smoking in young military men: attitudes and characteristics] de Granda Orive JI, et al. **Arch Bronconeumol** 1998 Dec;34(11):526–30 (Eng. Abstr.) **(Spa)**

[The relationship between personality, attitudes and alcohol and tobacco consumption and exercise in students] Comín Bertrán E, et al. **Gac Sanit** 1998 Nov–Dec;12(6):255–62 (Eng. Abstr.) **(Spa)**

THERAPY

Nicodermal patch adherence and its correlates. Alterman AI, et al. **Drug Alcohol Depend** 1999 Jan 7;53(2):159–65

Effects of olfactory stimuli on urge reduction in smokers. Sayette MA, et al. **Exp Clin Psychopharmacol** 1999 May; 7(2):151–9

TRENDS

Associations between the stages of change and the pros and cons of smoking in a longitudinal study of swiss smokers. Etter JF, et al. **Addict Behav** 1999 May–Jun;24(3):419–24

The role of social networks and media receptivity in predicting age of smoking initiation: a proportional hazards model of risk and protective factors. Unger JB, et al. **Addict Behav** 1999 May–Jun;24(3):371–81

Changes at the high end of risk in cigarette smoking among US high school seniors, 1976–1995. An LC, et al. **Am J Public Health** 1999 May;89(5):699–705

Brave new world in tobacco product design [editorial; comment] Slade J. **Cancer Epidemiol Biomarkers Prev** 1998 Nov;7(11):965–6. Comment on: Cancer Epidemiol Biomarkers Prev 1998 Nov;7(11):967–79.

Trends in adolescent cigarette use: the diffusion of daily smoking. Redmond WH. **J Behav Med** 1999 Aug; 22(4):379–95 (24 ref.)

Effects of changes in smoking status on risk estimates for myocardial infarction among women recruited for the Royal College of General Practitioners' Oral Contraception Study in the UK. Owen–Smith V, et al. **J Epidemiol Community Health** 1998 Jul;52(7):420–4

Patterns of smoking in the Baltic Republics. Pudule I, et al. **J Epidemiol Community Health** 1999 May;53(5):277–82

Do changes in cardiovascular risk factors explain the increasing socioeconomic difference in mortality from ischaemic heart disease in Finland? Vartiainen E, et al. **J Epidemiol Community Health** 1998 Jul;52(7):416–9

Trends in cigarette smoking in fourth-form students in New Zealand, 1992–1997. Laugesen M, et al. **N Z Med J** 1999 Aug 27;112(1094):308–11

Changes in the smoking behavior of elderly Mexican Americans in the Southwest from 1982–1984 to 1993–1994. Markides KS, et al. **Prev Med** 1999 Mar;28(3):251–4

Effects of sales promotion on smoking among U.S. ninth graders. Redmond WH. **Prev Med** 1999 Mar;28(3):243–50

Smoking trends in the United States between 1969 and 1995 based on patients hospitalized with non-smoking-related diseases. Zang EA, et al. **Prev Med** 1998 Nov–Dec; 27(6):854–61

Tobacco consumption among Swaziland high-school students and their parents and teachers [letter] Pritchard D, et al. **S Afr Med J** 1999 May;89(5):558–9

Trends in smoking prevalence in Danish adults, 1964–1994. The influence of gender, age, and education. Osler M, et al. **Scand J Soc Med** 1998 Dec;26(4):293–8

Instability in smoking patterns among school leavers in Victoria, Australia. Schofield PE, et al. **Tob Control** 1998 Summer;7(2):149–55

[Non-smoking environment is a human right (letter; comment)] Urdal L. **Tidsskr Nor Laegeforen** 1999 Apr 30; 119(11):1646. Comment on: Tidsskr Nor Laegeforen 1999 Mar 10;119(7):987–8. **(Nor)**

[Trends in smoking among school children: Barcelona, 1987–1996] Villalbi JR, et al. **Aten Primaria** 1999 Apr 15; 23(6):359–62 (Eng. Abstr.) **(Spa)**

URINE

An evaluation of NicCheck I: a dipstick method for analyzing nicotine and its metabolites. Leischow SJ, et al. **Addict Behav** 1999 Jan–Feb;24(1):145–8

Minor tobacco alkaloids as biomarkers for tobacco use: comparison of users of cigarettes, smokeless tobacco, cigars, and pipes. Jacob P 3rd, et al. **Am J Public Health** 1999 May;89(5):731–6

Stereochemistry of metabolites of a tobacco-specific lung carcinogen in smokers' urine. Carmella SG, et al. **Cancer Res** 1999 Aug 1;59(15):3602–5

Determination of the urinary benzene metabolites S-phenylmercapturic acid and trans,trans-muconic acid by liquid chromatography-tandem mass spectrometry. Melikian AA, et al. **Carcinogenesis** 1999 Apr;20(4):719–26

Extraction and high-performance liquid chromatographic separation of selected pyrene and benzo[a]pyrene sulfates and glucuronides: preliminary application to the analysis of smokers' urine. Johnson C, et al. **J Chromatogr B Biomed Sci Appl** 1999 May 28; 728(2):209–16

Variations in urinary 1-hydroxypyrene glucuronide in relation to smoking and the modification effects of GSTM1 and GSTT1. Hong YC, et al. **Toxicol Lett** 1999 Sep 5; 108(2–3):217–23

SMOKING CESSATION

Which women stop smoking? A population-based study of 403 pregnant smokers. Håkansson A, et al. **Acta Obstet Gynecol Scand** 1999 Mar;78(3):217–24

Levels of cotinine associated with long-term ad-libitum nicotine polacrilex use in a clinical trial. Murray RP, et al. **Addict Behav** 1998 Jul–Aug;23(4):529–35

Smoking cessation in recovering alcoholics [letter; comment] Bolster RJ. **Am Fam Physician** 1998 Oct 15;58(6):1304. Comment on: Am Fam Physician 1998 Apr 15;57(8):1869–76, 1879–82.

Effect of smoking cessation on exercise performance in female smokers participating in exercise training. Albrecht AE, et al. **Am J Cardiol** 1998 Oct 15;82(8):950–5

Early and late weight gain following smoking cessation in the Lung Health Study [see comments] O'Hara P, et al. **Am J Epidemiol** 1998 Nov 1;148(9):821–30. Comment in: Am J Epidemiol 1998 Nov 1;148(9):831–2.

Invited commentary on "early and late weight gain following smoking cessation in the Lung Health Study" [comment] Thun MJ, et al. **Am J Epidemiol** 1998 Nov 1;148(9):831–2 (21 ref.). Comment on: Am J Epidemiol 1998 Nov 1;148(9):821–30.

ASHP therapeutic position statement on smoking cessation. American Society of Health-System Pharmacists. **Am J Health Syst Pharm** 1999 Mar 1;56(5):460–4

Smoking-cessation programs need to target college students [news] Christie-Smith D. **Am J Health Syst Pharm** 1999 Mar 1;56(5):416

Ways to help patients quit smoking [editorial] Gauen S. **Am J Health Syst Pharm** 1999 Mar 1;56(5):425

Smoking, smoking cessation, and risk of hip fracture in women. Cornuz J, et al. **Am J Med** 1999 Mar;106(3):311–4

Effects of randomized assignment to a smoking cessation intervention and changes in smoking habits on respiratory symptoms in smokers with early chronic obstructive pulmonary disease: the Lung Health Study. Kanner RE, et al. **Am J Med** 1999 Apr;106(4):410–6

A pilot study of the use of smokeless tobacco [letter] Pfister AK. **Am J Med** 1999 Aug;107(2):184; discussion 185

Plasma leptin concentrations and lipid profiles during nicotine abstinence. Oeser A, et al. **Am J Med Sci** 1999 Sep;318(3):152–7

Nicotine patch use in pregnant smokers: nicotine and cotinine levels and fetal effects. Ogburn PL Jr, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):736–43

A collaborative partnership to enhance school-based tobacco control policies in West Virginia. Center for Disease Control and Prevention. Tompkins NO, et al. **Am J Prev Med** 1999 Apr;16(3 Suppl):29–34

Smoking cessation and anxiety [letter; comment] Wiseman EJ. **Am J Psychiatry** 1999 Feb;156(2):336. Comment on: Am J Psychiatry 1997 Nov;154(11):1589–92.

Smoking cessation and body mass index of occupationally active men: the Israeli CORDIS Study. Froom P, et al. **Am J Public Health** 1999 May;89(5):718–22

Reaching those most in need: participation in a Planned Parenthood smoking cessation program. Eakin EG, et al. **Ann Behav Med** 1998 Summer;20(3):216–20

The impact of smoking on future pancreatic cancer: a computer simulation. Mulder I, et al. **Ann Oncol** 1999;10 Suppl 4:74–8

Buspirone use for smoking cessation. Farid P, et al. **Ann Pharmacother** 1998 Dec;32(12):1362–4 (12 ref.)

Nicotine replacement therapy. Thompson GH, et al. **Ann Pharmacother** 1998 Oct;32(10):1067–75 (43 ref.)

Treatment of intermittent claudication with physical training, smoking cessation, pentoxifylline, or nafronyl: a meta-analysis. Girolami B, et al. **Arch Intern Med** 1999 Feb 22;159(4):337–45 (116 ref.)

Acupuncture and nicotine withdrawal [letter; comment] Paola F. **Arch Intern Med** 1999 Jun 14;159(11):1256–7. Comment on: Arch Intern Med 1998 Nov 9;158(20):2251–5.

Smoking habits and cessation programme in an Australian teaching hospital. Jones TE, et al. **Aust N Z J Med** 1998 Aug;28(4):446–52

Preaching by the unconverted [editorial] Sanson-Fisher R, et al. **Aust N Z J Med** 1998 Aug;28(4):417–8

The dissemination of a smoking cessation program to 23 antenatal clinics: the predictors of initial program adoption by managers. Cooke M, et al. **Aust N Z J Public Health** 1999 Feb;23(1):99–103

Rapid reduction in coronary risk for those who quit cigarette smoking. McElduff P, et al. **Aust N Z J Public Health** 1998 Dec;22(7):787–91

Improving smoking cessation advice in Australian general practice: what do GPs suggest is needed? Young JM, et al. **Aust N Z J Public Health** 1998 Dec;22(7):777–80

Providers' smoking cessation attitudes and practices for older patients. Kviz FJ, et al. **Behav Med** 1999 Summer; 25(2):53–61

Spain launches campaign to stop health professionals smoking [news] Bosch X. **BMJ** 1999 Apr 17;318(7190):1027

Being strategic about smoking [editorial] Chambers J. **BMJ** 1999 Jan 2;318(7175):1–2

Tobacco memos reveal efforts to disrupt smoking cessation [news] Chapman S. **BMJ** 1999 Apr 17;318(7190):1026

Scare tactics cut smoking rates in Australia to all time low [news] Chapman S. **BMJ** 1999 Jun 5;318(7197):1508

Managing smoking cessation [editorial; comment] Coleman T, et al. **BMJ** 1999 Jan 16;318(7177):138–9. Comment on: BMJ 1999 Jan 16;318(7177):182–5.

Doctors are ethically obliged to advise patients to quit smoking [letter; comment] Liu JL, et al. **BMJ** 1998 Dec 5;317(7172):1588. Comment on: BMJ 1998 Jun 20;316(7148):1878–81.

Smoking cessation: evidence based recommendations for the healthcare system [see comments] Raw M, et al. **BMJ** 1999 Jan 16;318(7177):182–5 (22 ref.). Comment in: BMJ 1999 Jan 16;318(7177):138–9.

NHS to target smokers [news] Warden J. **BMJ** 1999 Apr 24;318(7191):1096

A smoking cessation programme conducted through dental practices in the UK. Smith SE, et al. **Br Dent J** 1998 Sep 26;185(6):299–303

Swedes break record for giving up smoking [news] **Bull World Health Organ** 1999;77(2):202

Antismoking campaigns fail in industrialized countries [news] **Bull World Health Organ** 1999;77(5):449

Smoking cessation and clozapine side effects [letter] Oyewumi LK. **Can J Psychiatry** 1998 Sep;43(7):748

Designing an effective statewide tobacco control program--Arizona. Meister JS. **Cancer** 1998 Dec 15;83(12 Suppl Robert):2728–32

Observations on the effect of abolishing analgesic abuse and reducing smoking on cancers of the kidney and bladder in New South Wales, Australia, 1972–1995. McCredie M, et al. **Cancer Causes Control** 1999 Aug;10(4):303–11

Prevention: tobacco control and cancer nursing. Sarna L. **Cancer Nurs** 1999 Feb;22(1):21–8 (80 ref.)

Quantitation of urinary metabolites of a tobacco-specific lung carcinogen after smoking cessation. Hecht SS, et al. **Cancer Res** 1999 Feb 1;59(3):590–6

Pulmonary Langerhans' cell histiocytosis: radiologic resolution following smoking cessation. Mogulkoc N, et al. **Chest** 1999 May;115(5):1452–5

Documentation for the sake of documentation? [letter] Grant D. **Circulation** 1999 Sep 28;100(13):1461

A new gas chromatography-mass spectrometry method for simultaneous determination of total and free trans-3'-hydroxycotinine and cotinine in the urine of subjects receiving transdermal nicotine. Ji AJ, et al. **Clin Chem** 1999 Jan;45(1):85–91

Smoking: an ugly habit [editorial] Keough GC. **Cutis** 1999 Mar;63(3):133

Effect of smoking cessation and tobacco type on the risk of cancers of the upper aero-digestive tract in Brazil. Schlecht NF, et al. **Epidemiology** 1999 Jul;10(4):412–8

Transdermal nicotine inhibits interleukin 2 synthesis by mononuclear cells derived from healthy volunteers. van Dijk AP, et al. **Eur J Clin Invest** 1998 Aug;28(8):664–71

Effects of smoking and smoking cessation on dietary habits of a Swiss urban population. Morabia A, et al. **Eur J Clin Nutr** 1999 Mar;53(3):239–43

Smoking withdrawal and relapse in head and neck cancer patients. Gritz ER, et al. **Head Neck** 1999 Aug;21(5):420–7

Impact of the Working Well Trial on the worksite smoking and nutrition environment. Biener L, et al. **Health Educ Behav** 1999 Aug;26(4):478–94

Long-term effectiveness of two Dutch work site smoking cessation programs. Willemsen MC, et al. **Health Educ Behav** 1998 Aug;25(4):418–35

Eating orientation, postcessation weight gain, and continued abstinence among female smokers receiving an unsolicited smoking cessation intervention. Hudmon KS, et al. **Health Psychol** 1999 Jan;18(1):29–36

Coronary Artery Smoking Intervention Study (CASIS): 5-year follow-up. Rosal MC, et al. **Health Psychol** 1998 Sep;17(5):476–8

Stamps in cardiology. Antismoking campaigns. Davies MK, et al. **Heart** 1998 Jun;79(6):533

Effects of smoking cessation on blood pressure and heart rate variability in habitual smokers. Minami J, et al. **Hypertension** 1999 Jan;33(1 Pt 2):586–90

Evaluation of a smoking cessation program implemented in the workplace. Muto T, et al. **Ind Health** 1998 Oct; 36(4):369–71

Excessive weight concerns in ex-smoking women [letter] Chen Y, et al. **Int J Epidemiol** 1998 Oct;27(5):927–8

Body mass decrease after initial gain following smoking cessation. Mizoue T, et al. **Int J Epidemiol** 1998 Dec; 27(6):984–8

Physicians can make a difference with smokers: evidence-based clinical approaches. Presentation given during the Symposium on Smoking Cessation at the 29th World Conference of the IUATLD/UICTMR and Global Congress on Lung Health, Bangkok, Thailand, 23–26 November 1998. International Union Against Tuberculosis and Lung Disease. Richmond RL.
Int J Tuberc Lung Dis 1999 Feb;3(2):100–12 (120 ref.)

ICN on tobacco use: nurses can utilize their unique knowledge and experience to promote smoking cessation and prevent the spread of a public health crisis.
Int Nurs Rev 1999 May–Jun;46(3):80–1

ICN and WMA stop tobacco use [news] **Int Nurs Rev** 1999 May–Jun;46(3):68

Naltrexone effects on short-term and long-term smoking cessation. Covey LS, et al. **J Addict Dis** 1999;18(1):31–40

Smoking cessation intervention: the practices of maternity care providers. Helwig AL, et al.
J Am Board Fam Pract 1998 Sep–Oct;11(5):336–40

Smoking in women. Mueller L, et al.
J Am Osteopath Assoc 1998 Dec;98(12 Suppl):S7–10 (29 ref.)

The Transatlantic Conference on Tobacco (TACT): a model for international tobacco policy activism. David SP.
J Cancer Educ 1998 Winter;13(4):253–4

Longitudinal analysis of the effect of smoking cessation on cardiovascular risk factors in a community sample: the Busselton Study. Bartholomew HC, et al.
J Cardiovasc Risk 1998 Aug;5(4):263–71

Effects of cessation of smoking after myocardial infarction. Wilhelmsen L. **J Cardiovasc Risk** 1998 Jun;5(3):173–6 (24 ref.)

Non-pharmacological modification of cardiac risk factors: part 3. Smoking cessation and alcohol consumption. Eagles CJ, et al. **J Clin Pharm Ther** 1998 Feb;23(1):1–9 (90 ref.)

Fluoxetine versus placebo to decrease the smoking of depressed alcoholic patients [letter] Cornelius JR, et al. **J Clin Psychopharmacol** 1999 Apr;19(2):183–4

Effects of nicotine nasal spray on atherogenic and thrombogenic factors during smoking cessation.
Lúdvíksdóttir D, et al. **J Intern Med** 1999 Jul;246(1):61–6

Time since stopping smoking and the risk of oral and pharyngeal cancers [letter] La Vecchia C, et al.
J Natl Cancer Inst 1999 Apr 21;91(8):726–8

Effectiveness of physicians-in-training counseling for smoking cessation in African Americans. Allen B Jr, et al. **J Natl Med Assoc** 1998 Oct;90(10):597–604

The eradication of tobacco: a moral imperative [editorial] Blake BD. **J Natl Med Assoc** 1998 Sep;90(9):525–6

Tobacco-related instruction in undergraduate nursing education in Illinois. Kraatz ES, et al. **J Nurs Educ** 1998 Dec;37(9):415–7

Addressing nicotine addiction in women. Role of the midwife. Ward S. **J Nurse Midwifery** 1999 Jan–Feb; 44(1):3–18 (103 ref.)

Developing guidelines for smoking cessation interventions for pregnant adolescents. Albrecht S, et al.
J Pediatr Nurs 1999 Jun;14(3):150–6

It's never too late to quit [news]
J Psychosoc Nurs Ment Health Serv 1998 Sep;36(9):7

Studies of factors in relapse to alcohol, drug and nicotine use: a critical review of methodologies and findings. McKay JR. **J Stud Alcohol** 1999 Jul;60(4):566–76 (70 ref.)

Smoking cessation following treatment in a smoke-free Navy Alcohol Rehabilitation program. Patten CA, et al.
J Subst Abuse Treat 1999 Jan;16(1):61–9

JAMA Patient Page. Tobacco. **JAMA** 1999 Sep 1;282(9):914

Exercise, smoking cessation, and short-term changes in serum lipids in women: a preliminary investigation. Niaura R, et al. **Med Sci Sports Exerc** 1998 Sep;30(9):1414–8

Effects of cigarette smoking and its cessation on body weight and plasma leptin levels. Nicklas BJ, et al. **Metabolism** 1999 Jun;48(6):804–8

Help your patients light up... their lives. Michigan Health Council. **Mich Med** 1998 Sep;98(9):16

Dental programme for smoke-free promotion: attitudes and activities of dentists, hygienists, and therapists at training and 1 year later. Skegg JA. **N Z Dent J** 1999 Jun; 95(420):55–7

Tobacco control in New Zealand from 1945 to 1961. Thomson G, et al. **N Z Med J** 1999 Mar 26;112(1084):101–3

Optimizing smoking cessation strategies. Andrews J.
Nurse Pract 1998 Aug;23(8):47–8, 51–2, 57–8 passim (25 ref.)

Using the transtheoretical model in guiding smoking cessation [letter] Coward R. **Nurse Pract** 1999 Feb;24(2):146–50 (6 ref.)

Selected cigarette smoking initiation and quitting behaviors among high school students—United States, 1997.
Oncology (Huntingt) 1998 Oct;12(10):1420, 1423

Abstinence rates achieved with buproprion corrected [letter] McClure JB. **Oncology (Huntingt)** 1998 Sep;12(9):1303

Salivary immunoglobulin A levels of persons who have stopped smoking. Griesel AG, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 Feb;87(2):170–3

Olfactory thresholds for nicotine and menthol in smokers (abstinent and nonabstinent) and nonsmokers. Rosenblatt MR, et al. **Physiol Behav** 1998 Dec 1;65(3):575–9

Trends in smoking-related diseases. Why smoking cessation is still the best medicine. Hays JT, et al. **Postgrad Med** 1998 Dec;104(6):56–62, 65–6, 71 (22 ref.)

Exploring perceptions of smoking cessation among high school smokers: input and feedback from focus groups. Balch GI. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A55–63

Quit Today! A targeted communications campaign to increase use of the cancer information service by African American smokers. Boyd NR, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 2):S50–60

Characteristics associated with exposure to and participation in a televised smoking cessation intervention program for women with high school or less education. Freels SA, et al. **Prev Med** 1999 Jun;28(6):579–88

Tobacco-use cessation in the '90s—not "adults only" anymore. Houston T, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A1–2

Rationale for tobacco cessation interventions for youth. Lamkin L, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A3–8

Population-based recruitment for quit-smoking programs: an analytic review of communication variables. McDonald PW. **Prev Med** 1999 Jun;28(6):545–57 (86 ref.)

Obligatory cessation of smoking by psychiatric inpatients. Smith CM, et al. **Psychiatr Serv** 1999 Jan;50(1):91–4

The effect of sucrose on acute tobacco withdrawal in women. Helmers KF, et al. **Psychopharmacology (Berl)** 1998 Oct; 139(3):217–21

Drug may suppress the craving for nicotine [news] Wickelgren I. **Science** 1998 Dec 4;282(5395):1797,1799

Smoking cessation treatment for substance misusers in early recovery: a review of the literature and recommendations for practice. Kalman D. **Subst Use Misuse** 1998 Aug; 33(10):2021–47 (120 ref.)

Effects of thirty-four adolescent tobacco use cessation and prevention trials on regular users of tobacco products. Sussman S, et al. **Subst Use Misuse** 1999 Sep; 34(11):1469–503 (61 ref.)

Med Bytes. **Tex Med** 1999 May;95(5):24

Medical students' knowledge of smoking [editorial; comment] [see comments] Allen MB. **Thorax** 1999 Jan;54(1):2. Comment on: Thorax 1999 Jan;54(1):70–8. Comment in: Thorax 1999 Jul;54(7):657–8.

Smoking cessation guidelines for health professionals. A guide to effective smoking cessation interventions for the health care system. Health Education Authority. Raw M, et al. **Thorax** 1998 Dec;53 Suppl 5 Pt 1:S1–19

An overview of tobacco measures. Davis RM.
Tob Control 1998 Winter;7 Suppl:S36–40; discussion S47–9 (14 ref.)

European smoke-free class competition [letter] Hanewinkel R, et al. **Tob Control** 1998 Autumn;7(3):326

Consultations for cervical smears in general practice: a missed opportunity for smoking cessation advice? [letter] Hobbs M, et al. **Tob Control** 1998 Summer;7(2):193–4

Results from the first annual survey on addressing tobacco in managed care. McPhillips-Tangum C. **Tob Control** 1998 Winter;7 Suppl:S11–3

Psychosocial, behavioural, and health determinants of successful smoking cessation: a longitudinal study of Danish adults. Osler M, et al. **Tob Control** 1998 Autumn;7(3):262–7

Impact of a gallery of posters on quitting smoking. Sansores RH, et al. **Tob Control** 1998 Winter;7(4):338–9

Training pharmacists and pharmacy assistants in the stage-of-change model of smoking cessation: a randomised controlled trial in Scotland. Sinclair HK, et al.
Tob Control 1998 Autumn;7(3):253–61

Smoking out the incentives for tobacco control in managed care settings. Warner KE. **Tob Control** 1998 Winter;7 Suppl:S50–4

Influence of physician and patient gender on provision of smoking cessation advice in general practice. Young JM, et al. **Tob Control** 1998 Winter;7(4):360–3

Impact of the Tobacco Price Support Program on tobacco control in the United States. Zhang P, et al.
Tob Control 1998 Summer;7(2):176–82

An alternative tobacco control system [editorial; comment] Fagerström KO. **Wien Klin Wochenschr** 1998 Dec 11; 110(23):809–10. Comment on: Wien Klin Wochenschr 1998 Dec 11;110(23):811–6.

Alternative nicotine delivery systems (ANDS)—public health-aspects [see comments] Kunze U, et al.
Wien Klin Wochenschr 1998 Dec 11;110(23):811–6. Comment in: Wien Klin Wochenschr 1998 Dec 11;110(23):809–10.

Smoking behaviors of women whose children attend an urban pediatric primary care clinic. Groner J, et al.
Women Health 1998;28(2):19–32

[Enhance the study of smoking control and prevent the harmful effects of smoking on health (editorial)] Xu G.
Chung Hua Yu Fang I Hsueh Tsa Chih 1997 Mar;31(2):65–6 **(Chi)**

[Smoking intervention among hospital staff at the H:S Bispebjerg Hospital. Toward a non-smoking hospital—short-term results] Backer V, et al.
Ugeskr Laeger 1999 Jun 14;161(24):3663–5 (Eng. Abstr.) **(Dan)**

[Smoking cessation in patients with stable or unstable ischemic heart disease] Hansen HH, et al.
Ugeskr Laeger 1999 Jun 14;161(24):3659–62 (Eng. Abstr.) **(Dan)**

[Smoking cessation in patients with severe irreversible chronic obstructive pulmonary disease, "smoker's lung"] Johansen DL, et al. **Ugeskr Laeger** 1999 Jun 14; 161(24):3655–8 (Eng. Abstr.) **(Dan)**

[Tobacco smoking among surgical patients. Smoking habits and information to smokers in Danish departments of anesthesiology] Møller AM, et al. **Ugeskr Laeger** 1999 Jun 14;161(24):3670–2 (Eng. Abstr.) **(Dan)**

[Smoking cessation and pregnancy] Møller AM, et al.
Ugeskr Laeger 1999 Sep 6;161(36):4985–6 (10 ref.) (Eng. Abstr.) **(Dan)**

[The effect of tobacco smoking on risks in connection in anesthesia and surgery. Development of complications and the preventive effect of smoking cessation] Møller AM, et al. **Ugeskr Laeger** 1999 Jul 26;161(30):4273–6 (27 ref.) (Eng. Abstr.) **(Dan)**

[The effect of transdermal nicotine patches in smoking cessation. A randomized trial in pharmacy customers in Denmark] Sønderskov J, et al. **Ugeskr Laeger** 1999 Feb 1;161(5):593–7 (Eng. Abstr.) **(Dan)**

[Coughing and wheezing children: improvement after parents stop smoking (see comments)] Brand PL, et al.
Ned Tijdschr Geneeskd 1998 Apr 11;142(15):825–7 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1574. **(Dut)**

[Predictive factors of smoking cessation after myocardial infarction. Review of the literature (see comments)] Aboyans V, et al. **Ann Cardiol Angeiol (Paris)** 1998 Mar; 47(3):177–82 (37 ref.) (Eng. Abstr.). Comment in: Ann Cardiol Angeiol (Paris) 1998 Mar;47(3):183–4. **(Fre)**

[Benefit of smoking cessation in therapeutics (editorial; comment)] Thomas D. **Ann Cardiol Angeiol (Paris)** 1998 Mar;47(3):183–4. Comment on: Ann Cardiol Angeiol (Paris) 1998 Mar;47(3):177–82. **(Fre)**

[Antidepressive therapy for smoking cessation] Hébert M.
Presse Med 1999 May 1–8;28(17):915 **(Fre)**

[Smoking withdrawal in practice and clinic]
Pötschke-Langer M, et al. **Fortschr Med** 1999 May 30; 117(15):32–5 **(Ger)**

[Tobacco smoking and hearing in the elderly. Can presbycusis be prevented by smoking cessation? (editorial)] Matschke RG. **HNO** 1999 Jul;47(7):599–600 **(Ger)**

[Diagnosis of nicotine dependence. Vienna Standard Smoking Questionnaire] Schoberberger R, et al. **Internist (Berl)** 1998 Dec;39(12):1305–6 **(Ger)**

[Smoking, cardiovascular diseases and possibilities for treating nicotine dependence] Haustein KO.
Wien Med Wochenschr 1999;149(1):19–24 (71 ref.) (Eng. Abstr.) **(Ger)**

[Smoking: health care and politics in flux] Haustein KO.
Z Arztl Fortbild Qualitatssich 1999 Jul;93(5):355–61 (Eng. Abstr.) **(Ger)**

[Course on smoking cessation organized by the Italian League against Cancer in Florence: determinants of cessation at the end of the course and after 1 year] Gorini G, et al.
Epidemiol Prev 1998 Jul–Sep;22(3):165–70 (Eng. Abstr.) **(Ita)**

[Rapid remission of pulmonary eosinophilic granuloma in a young male patient after cessation of smoking] Morimoto T, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Feb; 37(2):140–5 (Eng. Abstr.) **(Jpn)**

[Smoking behavior and cognition for smoking cessation after diagnosis of head and neck cancer or stomach cancer] Hasuo S, et al. **Nippon Koshu Eisei Zasshi** 1998 Aug; 45(8):732–9 (Eng. Abstr.) **(Jpn)**

[Effect of smoking cessation on body mass index, blood pressure and serum lipids in middle-aged male workers] Kushima K, et al. **Nippon Koshu Eisei Zasshi** 1998 Oct; 45(10):1000–10 (Eng. Abstr.) **(Jpn)**

[Respiratory tract diseases and instructions on smoking cessation] Kawakami M. **Nippon Naika Gakkai Zasshi** 1999 Feb 10;88(2):362–7 (11 ref.) **(Jpn)**

[Tobacco use prevention in Norway—a terrible example? (letter) (see comments)] Aagenaes O.
Tidsskr Nor Laegeforen 1999 Mar 10;119(7):999. Comment in: Tidsskr Nor Laegeforen 1999 Apr 20;119(10):1508. **(Nor)**

[Easily won arm-chair solutions of the tobacco problem (letter; comment)] Jacobsen CD.
Tidsskr Nor Laegeforen 1999 Apr 20;119(10):1508. Comment on: Tidsskr Nor Laegeforen 1999 Mar 10;119(7):999. **(Nor)**

[Nicotine preparations and other preparations for smoking cessation] Tonstad S. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1289–93 (45 ref.) (Eng. Abstr.) **(Nor)**

[Non-smoking environment is a human right (letter; comment)] Urdal L. **Tidsskr Nor Laegeforen** 1999 Apr 30; 119(11):1646. Comment on: Tidsskr Nor Laegeforen 1999 Mar 10;119(7):987–8. **(Nor)**

[Reduction in tobacco consumption. A strategy toward quitting smoking?] Jiménez Ruiz CA, et al.
Arch Bronconeumol 1999 May;35(5):229–32 **(Spa)**

[The sociodemographic determinants of the tobacco habit and its cessation in the population of Cornellà de Llobregat (see comments)] Espinàs JA, et al. **Gac Sanit** 1999 Mar–Apr;13(2):126–34 (Eng. Abstr.). Comment in: Gac Sanit 1999 Mar–Apr;13(2):79–81. **(Spa)**

[Influence of coronary risk factors in secondary prevention: tobacco] López García-Aranda V, et al.
Rev Esp Cardiol 1998;51 Suppl 6:10–7 (59 ref.) (Eng. Abstr.) **(Spa)**

[Educational intervention in schools for the prevention of

smoking: evaluation of the process. Project: OCTOPUS] López González L, et al. **Rev Esp Salud Publica** 1998 Jul–Aug;72(4):303–18 (27 ref.) (Eng. Abstr.) **(Spa)**

[The SBU on smoking cessation. A simple question and five minutes' advice is an effective method] **Lakartidningen** 1998 Nov 25;95(48):5522–3 **(Swe)**

[The smoking personnel is only a part of the necessary measures (letter)] Boëthius G. **Lakartidningen** 1999 Jul 28; 96(30–31):3319 **(Swe)**

[Nicotine replacement always better than further smoking or using snuff] Bolinder G, et al. **Lakartidningen** 1999 May 26;96(21):2614–8 (20 ref.) **(Swe)**

[When a simple advice and five minutes are not enough! Can smokers patient care professions help patients to quit smoking?] Uddenfeldt M. **Lakartidningen** 1999 Jun 30; 96(26–27):3150–2 **(Swe)**

ECONOMICS

Shane Warne takes money to give up smoking [news] Chapman S. **BMJ** 1999 Jan 2;318(7175):9

Nicotine replacement therapy for a healthier nation. Nicotine replacement is cost effective and should be prescribable on the NHS [editorial] [see comments] Smeeth L, et al. **BMJ** 1998 Nov 7;317(7168):1266–7. Comment in: BMJ 1999 Feb 27;318(7183):604–5.

Should smoking cessation cost a packet? A pilot randomized controlled trial of the cost-effectiveness of distributing nicotine therapy free of charge. Dey P, et al. **Br J Gen Pract** 1999 Feb;49(439):127–8

Kicking the habit. Near-sighted on nicotine? Huff C. **Hosp Health Netw** 1998 Oct 5;72(19):48

Prescription of transdermal nicotine patches for smoking cessation in general practice: evaluation of cost-effectiveness. Stapleton JA, et al. **Lancet** 1999 Jul 17; 354(9174):210–5

The cost to society of smoking cessation. Cohen D, et al. **Thorax** 1998 Aug;53 Suppl 2:S38–42 (47 ref.)

Guidance for commissioners on the cost effectiveness of smoking cessation interventions. Health Educational Authority. Parrott S, et al. **Thorax** 1998 Dec;53 Suppl 5 Pt 2:S1–38

Smoking cessation services offered by health insurance plans for Wisconsin state employees. Aakko E, et al. **WMJ** 1999 Jan–Feb;98(1):14–8

[Practical guides for stopping the tobacco habit: a cost-effectiveness analysis?] Pérez Trullén A, et al. **Arch Bronconeumol** 1999 May;35 Suppl 3:89–94 (24 ref.) **(Spa)**

[What is the value of one year of life saved with nicotine preparations? How did the SBU calculate? (letter)] Larsson M. **Lakartidningen** 1999 Jan 20;96(3):157 **(Swe)**

ETHNOLOGY

Neighbors for a smoke free north side: evaluation of a community organization approach to promoting smoking cessation among African Americans. Fisher EB, et al. **Am J Public Health** 1998 Nov;88(11):1658–63

Acculturation and cigarette smoking among African Americans: replication and implications for prevention and cessation programs. Klonoff EA, et al. **J Behav Med** 1999 Apr;22(2):195–204

METHODS

Predictors of smoking cessation during pregnancy. Woodby LL, et al. **Addiction** 1999 Feb;94(2):283–92

A pilot study of the use of smokeless tobacco [letter] Fant RV, et al. **Am J Med** 1999 Aug;107(2):184–5

Health going up in smoke. How can you prevent it. Adatsi G. **Am J Nurs** 1999 Mar;99(3):63–6, 68–9

Bupropion and smoking cessation [letter] Evins AE, et al. **Am J Psychiatry** 1999 May;156(5):798–9

Neighbors for a smoke free north side: evaluation of a community organization approach to promoting smoking cessation among African Americans. Fisher EB, et al. **Am J Public Health** 1998 Nov;88(11):1658–63

Prevention of relapse in women who quit smoking during pregnancy. McBride CM, et al. **Am J Public Health** 1999 May;89(5):706–11

The reach and effectiveness of a national mass media-led smoking cessation campaign in The Netherlands. Mudde AN, et al. **Am J Public Health** 1999 Mar;89(3):346–50

Smokeless tobacco cessation intervention for college athletes: results after 1 year. Walsh MM, et al. **Am J Public Health** 1999 Feb;89(2):228–34

Efficacy and safety of an over-the-counter transdermal nicotine patch as an aid for smoking cessation. Davidson M, et al. **Arch Fam Med** 1998 Nov–Dec;7(6):569–74

Antidepressants and smoking cessation [letter; comment] Gambassi G, et al. **Arch Intern Med** 1999 Jun 14; 159(11):1257–8. Comment on: Arch Intern Med 1998 Oct 12;158(18):2035–9.

Randomized comparative trial of nicotine polacrilex, a transdermal patch, nasal spray, and an inhaler. Hajek P, et al. **Arch Intern Med** 1999 Sep 27;159(17):2033–8

The efficacy of exercise as an aid for smoking cessation in women: a randomized controlled trial [see comments] Marcus BH, et al. **Arch Intern Med** 1999 Jun 14; 159(11):1229–34. Comment in: Arch Intern Med 1999 Jun 14;159(11):1169–71.

A randomized trial of nortriptyline for smoking cessation [see comments] Prochazka AV, et al. **Arch Intern Med** 1998 Oct 12;158(18):2035–9. Comment in: Arch Intern Med 1999 Jun 14;159(11):1257–8.

Treatment options for the weight-conscious smoker [editorial; comment] Rigotti NA. **Arch Intern Med** 1999 Jun 14;159(11):1169–71. Comment on: Arch Intern Med 1999 Jun 14;159(11):1229–34.

Randomized trial of acupuncture for nicotine withdrawal symptoms [see comments] White AR, et al. **Arch Intern Med** 1998 Nov 9;158(20):2251–5. Comment in: Arch Intern Med 1999 Jun 14;159(11):1256–7.

Smoking prevention and cessation in adolescents. Rutishauser C, et al. **Aust Fam Physician** 1998 Dec;27(12):1110–3 (19 ref.)

Nicotine nasal spray with nicotine patch for smoking cessation: randomised trial with six year follow up [see comments] [published erratum appears in BMJ 1999 Mar 20;318(7186):764] Blondal T, et al. **BMJ** 1999 Jan 30; 318(7179):285–8. Comment in: BMJ 1999 Jan 30;318(7179):289. Comment in: ACP J Club 1999 Jul–Aug;131(1):12–3.

Open randomised trial of intermittent very low energy diet together with nicotine gum for stopping smoking in women who gained weight in previous attempts to quit [comment] [see comments] Danielsson T, et al. **BMJ** 1999 Aug 21; 319(7208):490–3; discussion 494. Comment on: BMJ 1999 Aug 21;319(7208):487–9; discussion 490. Comment in: BMJ 1999 Aug 21;319(7208):494.

Commentary: Progress on nicotine replacement therapy for smokers [comment] Stapleton J. **BMJ** 1999 Jan 30; 318(7179):289. Comment on: BMJ 1999 Jan 30;318(7179):285–8.

Randomized trial of nurse-assisted strategies for smoking cessation in primary care. Lancaster T, et al. **Br J Gen Pract** 1999 Mar;49(440):191–4

A single-blind, placebo-controlled trial of a simple acupuncture treatment in the cessation of smoking [see comments] Waite NR, et al. **Br J Gen Pract** 1998 Aug; 48(433):1487–90. Comment in: Br J Gen Pract 1998 Nov;48(436):1789.

A prospective intervention study of stopping smoking in pregnancy in a routine antenatal care setting. Wisborg K, et al. **Br J Obstet Gynaecol** 1998 Nov;105(11):1171–6

Efficacy of bupropion for smoking cessation in smokers with a former history of major depression or alcoholism. Hayford KE, et al. **Br J Psychiatry** 1999 Feb;174:173–8

What's new in smoking cessation: Zyban. Raymond E, et al. **Can Fam Physician** 1999 Mar;45:633–4

Smoking cessation, physicians, and medical office staff. Clinical tobacco intervention in Prince Edward Island. Rowan MS, et al. **Can Fam Physician** 1998 Nov;44:2433–40

Cardiovascular safety of transdermal nicotine patches in patients with coronary artery disease who try to quit smoking. Tzivoni D, et al. **Cardiovasc Drugs Ther** 1998 Jul;12(3):239–44

Weight gain and insulin resistance during nicotine replacement therapy. Assali AR, et al. **Clin Cardiol** 1999 May;22(5):357–60

The nicotine transdermal system. Gore AV, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):599–615 (105 ref.)

Adverse skin reactions to the nicotine transdermal system. Wolf R, et al. **Clin Dermatol** 1998 Sep–Oct;16(5):617–23 (78 ref.)

Is telephone counselling a useful addition to physician advice and nicotine replacement therapy in helping patients to stop smoking? A randomized controlled trial. Reid RD, et al. **CMAJ** 1999 Jun 1;160(11):1577–81

Predictors and timing of adverse experiences during transdermal nicotine therapy. Gourlay SG, et al. **Drug Saf** 1999 Jun;20(6):545–55

Help stopping smoking [news] **Environ Health Perspect** 1999 Apr;107(4):A186–7

Knowledge about smoking, reasons for smoking, and reasons for wishing to quit in inner-city African Americans. Ahluwalia JS, et al. **Ethn Dis** 1998 Autumn;8(3):385–93

Interventions for smoking cessation: the outcomes are determined by the questions asked [editorial; comment] Murray RP, et al. **Eur Respir J** 1999 Feb;13(2):231–2. Comment on: Eur Respir J 1999 Feb;13(2):238–46.

Higher dosage nicotine patches increase one-year smoking cessation rates: results from the European CEASE trial. Collaborative European Anti-Smoking Evaluation. European Respiratory Society [see comments] Tønnesen P, et al. **Eur Respir J** 1999 Feb;13(2):238–46. Comment in: Eur Respir J 1999 Feb;13(2):231–2.

Do heavy smokers benefit from higher dose nicotine patch therapy? Killen JD, et al. **Exp Clin Psychopharmacol** 1999 Aug;7(3):226–33

Nicotine-mecamylamine treatment for smoking cessation: the role of pre-cessation therapy. Rose JE, et al. **Exp Clin Psychopharmacol** 1998 Aug;6(3):331–43

Interactive versus noninteractive interventions and dose-response relationships for stage-matched smoking cessation programs in a managed care setting. Velicer WF, et al. **Health Psychol** 1999 Jan;18(1):21–8

Evaluation of a nurse-delivered smoking cessation intervention for hospitalized patients with cardiac disease. Johnson JL, et al. **Heart Lung** 1999 Jan–Feb;28(1):55–64

Nursing strategies for smoking cessation. Lindell KO, et al. **Heart Lung** 1999 Jul–Aug;28(4):295–302

New strategies for smoking cessation. MacKenzie TD. **Hosp Pract (Off Ed)** 1999 Jul 15;34(7):25–6, 29

New approaches to smoking prevention in the north. Alekseeva NV, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:489–92

Clinical evaluation of a new A.S. mouth wash 881010 as an antismoking agent: a placebo-controlled double-blind trial. Zmeili S, et al. **Int J Clin Pharmacol Ther** 1999 Jan; 37(1):41–50

Evaluating the effectiveness of a smoking cessation intervention designed for nurses. Rowe K, et al. **Int J Nurs Stud** 1999 Aug;36(4):301–11

Comparing participants and nonparticipants in a smoking cessation trial: selection factors associated with general practitioner recruitment activity. Senore C, et al. **J Clin Epidemiol** 1999 Jan;52(1):83–9

Development of depression during placebo-controlled trials of bupropion for smoking cessation: case reports. Patten CA, et al. **J Clin Psychiatry** 1999 Jul;60(7):436–41

Solution-focused approaches to tobacco reduction with disadvantaged prenatal clients. Browne AJ, et al. **J Community Health Nurs** 1999;16(3):165–77

In-hospital smoking cessation programs: who responds, who doesn't? Smith PM, et al. **J Consult Clin Psychol** 1999 Feb; 67(1):19–27

Bupropion or patch for smoking cessation? Kane KY, et al. **J Fam Pract** 1999 Jun;48(6):419

Enhancing smoking cessation rates in primary care. Wadland WC, et al. **J Fam Pract** 1999 Sep;48(9):711–8

The effect of transdermal nicotine on digital perfusion in reformed habitual smokers. Fulcher SM, et al. **J Hand Surg [Am]** 1998 Sep;23(5):792–9

A simple, effective method that midwives can use to help pregnant women stop smoking. Klerman LV, et al. **J Nurse Midwifery** 1999 Mar–Apr;44(2):118–23

Suppression of nicotine intake during ad libitum cigarette smoking by high-dose transdermal nicotine. Benowitz NL, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):958–62

Zyban: a new aid to smoking cessation treatment—will it work for psychiatric patients? Farnam CR. **J Psychosoc Nurs Ment Health Serv** 1999 Feb;37(2):36–42; quiz 43–4

A smoking cessation counsellor: should every hospital have one? Prathiba BV, et al. **J R Soc Health** 1998 Dec; 118(6):356–9

Adding a choice-based program for tobacco smoking to an abstinence-based addiction treatment program. Bernstein SM, et al. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):167–73

Treatment of nicotine dependence in the chronic mentally ill. Rosen-Chase C, et al. **J Subst Abuse Treat** 1999 Jun; 16(4):315–20

Adding behavioral therapy to medication for smoking cessation [letter; comment] Antonuccio DO, et al. **JAMA** 1999 Jun 2;281(21):1983–4; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Adding behavioral therapy to medication for smoking cessation [letter; comment] Deagle EA 3rd, et al. **JAMA** 1999 Jun 2;281(21):1983; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Adding behavioral therapy to medication for smoking cessation [letter; comment] Domino EF. **JAMA** 1999 Jun 2;281(21):1984; discussion 1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Adding behavioral therapy to medication for smoking cessation [letter; comment] Goldman J, et al. **JAMA** 1999 Jun 2;281(21):1984–5. Comment on: JAMA 1999 Jan 6;281(1):72–6.

Recent advances in the pharmacotherapy of smoking [see comments] Hughes JR, et al. **JAMA** 1999 Jan 6;281(1):72–6 (56 ref.). Comment in: JAMA 1999 Jun 2;281(21):1983; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1983–4; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1984; discussion 1984–5. Comment in: JAMA 1999 Jun 2;281(21):1984–5.

UK "white paper on tobacco" welcomed [news] Bradbury J. **Lancet** 1998 Dec 19–26;352(9145):1991

A harmful aid to stopping smoking [letter] Groman E, et al. **Lancet** 1999 Feb 6;353(9151):466–7

Prescription of transdermal nicotine patches for smoking cessation in general practice: evaluation of cost-effectiveness. Stapleton JA, et al. **Lancet** 1999 Jul 17; 354(9174):210–5

Smoking cessation [letter] Hughes JR. **N Engl J Med** 1999 Aug 19;341(8):610–1

A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation [see comments] Jorenby DE, et al. **N Engl J Med** 1999 Mar 4;340(9):685–91 . Comment in: ACP J Club 1999 Jul–Aug;131(1):13.

Lack of efficacy of transdermal nicotine in smoking cessation [letter] Joseph AM, et al. **N Engl J Med** 1999 Oct 7; 341(15):1157–8

Smoking cessation: using group intervention methods to treat low-income women. Pohl JM, et al. **Nurse Pract** 1998 Dec; 23(12):13, 17–8, 20 passim; quiz 38–9

Drug therapy to aid in smoking cessation. Tips on maximizing patients' chances for success. Dale LC, et al. **Postgrad Med** 1998 Dec;104(6):75–8, 83–4 (11 ref.)

Counseling patients to quit smoking. What to say, when to say it, and how to use your time to advantage. Eberman KM, et al. **Postgrad Med** 1998 Dec;104(6):89–94

The smoking cessation efficacy of varying doses of nicotine patch delivery systems 4 to 5 years post-quit day. Daughton DM, et al. **Prev Med** 1999 Feb;28(2):113–8

Targeting smokers with low readiness to change with tailored and nontailored self-help materials. Dijkstra A, et al.

Prev Med 1999 Feb;28(2):203–11

A population-based survey of physician smoking cessation counseling practices. Goldstein MG, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):720–9

Smoking cravings are reduced by self-massage. Hernandez-Reif M, et al. **Prev Med** 1999 Jan;28(1):28–32

A motivational intervention for adolescent smokers. Lawendowski LA. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A39–46

Evaluation of a minimal self-help smoking cessation intervention following cervical cancer screening. McBride CM, et al. **Prev Med** 1999 Aug;29(2):133–8

Evaluation of a motivational smoking cessation intervention for women in public health clinics. Manfredi C, et al. **Prev Med** 1999 Jan;28(1):51–60

A self-help intervention for African American smokers: tailoring cancer information service counseling for a special population. Orleans CT, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 2):S61–70

Tobacco cessation and youth: the feasibility of brief office interventions for adolescents. Schubiner H, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A47–54

Evaluation of side effects after nicotine nasal spray in patients with chronic rhinitis. Bende M, et al. **Rhinology** 1998 Sep; 36(3):98–100

Helping people to stop smoking: the new smoking cessation guidelines [editorial] Britton J, et al. **Thorax** 1999 Jan; 54(1):1–2

Building effective strategies to decrease tobacco use in a health maintenance organisation: Group Health Cooperative of Puget Sound. Curry SJ. **Tob Control** 1998 Winter;7 Suppl:S21–3; discussion S24–5

Overview of the Agency for Health Care Policy and Research guideline. Fiore MC. **Tob Control** 1998 Winter; 7 Suppl:S14–6; discussion S24–5

Smoking as a vital sign: a work in progress. Jessen J. **Tob Control** 1998 Winter;7 Suppl:S45–6; discussion S47–9

"One sure way to break the cycle". Nudelman P. **Tob Control** 1998 Winter;7 Suppl:S4–7

Changing practice patterns as a result of implementing the Agency for Health Care Policy and Research guideline in 20 primary care clinics. Roski J. **Tob Control** 1998 Winter;7 Suppl:S19–20; discussion S24–5

Dissemination of the Agency for Health Care Policy and Research guideline. Williams C. **Tob Control** 1998 Winter; 7 Suppl:S17–8; discussion S24–5

[Group therapy and smoking cessation] Møller AM, et al. **Ugeskr Laeger** 1999 Sep 6;161(36):4987–8 (8 ref.) (Eng. Abstr.) **(Dan)**

[Hypnosis for smoking cessation] Tønnesen P, et al. **Ugeskr Laeger** 1999 Jul 26;161(30):4270–2 (10 ref.) **(Dan)**

[Accessibility of nicotine substitution products and prevention of cancers] Le Houezec J. **Rev Mal Respir** 1999 Jan;16 Suppl 3:S194–5 **(Fre)**

[New treatment concepts in smoking cessation] Steffen T, et al. **Schweiz Rundsch Med Prax** 1999 May 12;88(20):900–6 (Eng. Abstr.) **(Ger)**

[Randomized controlled trial for smoking cessation among city office employees] Shimizu J, et al. **Nippon Koshu Eisei Zasshi** 1999 Jan;46(1):3–13 (Eng. Abstr.) **(Jpn)**

[Personalized minimal treatment of smoking addiction. Results of a multicenter study. Study Group of the Treatment of Tobacco Addiction. Spanish Society of Pneumology and Thoracic Surgery] Jiménez Ruiz CA, et al. **Arch Bronconeumol** 1998 Oct;34(9):433–6 (Eng. Abstr.) **(Spa)**

[Practical guides for stopping the tobacco habit: what are they, why and how to use them?] Pérez Trullén A, et al. **Arch Bronconeumol** 1999 May;35 Suppl 3:84–8 **(Spa)**

[Clinical trial of 2 tobacco use cessation interventions in primary care] Aleixandre i Martí E, et al. **Aten Primaria** 1998 Oct 31;22(7):424–8 (Eng. Abstr.) **(Spa)**

[Screening for diseases is futile as a preventive method in connection with tobacco (letter)] Lundin N. **Lakartidningen** 1999 May 5;96(18):2195–6 **(Swe)**

PSYCHOLOGY

Treatment of major depression associated with smoking cessation. Vázquez FL, et al. **Acta Psychiatr Scand** 1998 Dec;98(6):507–8

Exercise effects on withdrawal and mood among women attempting smoking cessation. Bock BC, et al. **Addict Behav** 1999 May-Jun;24(3):399–410

The role of weight concern and self-efficacy in smoking cessation and weight gain among smokers in a clinic-based cessation program. Borrelli B, et al. **Addict Behav** 1998 Sep–Oct;23(5):609–22

Age and the role of symptomatology in readiness to quit smoking. Clark MA, et al. **Addict Behav** 1999 Jan–Feb; 24(1):1–16

Associations between the stages of change and the pros and cons of smoking in a longitudinal study of swiss smokers. Etter JF, et al. **Addict Behav** 1999 May-Jun;24(3):419–24

Predictors of participation in a smoking cessation intervention group among low-income women. Pohl JM, et al. **Addict Behav** 1998 Sep–Oct;23(5):699–704

Causal relationships of processes of change and decisional balance: stage-specific models for smoking. Pollak KI, et al. **Addict Behav** 1998 Jul–Aug;23(4):437–48

Smoking and diabetes: readiness for change and provider advice. Ruggiero L, et al. **Addict Behav** 1999 Jul–Aug; 24(4):573–8

Testing 40 predictions from the transtheoretical model. Velicer WF, et al. **Addict Behav** 1999 Jul–Aug;24(4):455–69

Tranquilizing effects of smoking cessation [letter; comment] Cohen SB. **Am J Psychiatry** 1999 Apr;156(4):666–7. Comment on: Am J Psychiatry 1997 Nov;154(11):1589–92.

Duke study searches for most effective ways to get smokers to kick their habit [news] **Compr Ther** 1999 Jan;25(1):56–7

Alcohol abusers who want to quit smoking: implications for clinical treatment. Ellingstad TP, et al. **Drug Alcohol Depend** 1999 May 3;54(3):259–65

Beliefs about smoking cessation among out-of-school youth. Stanton WR, et al. **Drug Alcohol Depend** 1999 May 3; 54(3):251–8

Effects of monetary contingencies on smoking relapse: influences of trait depression, personality, and habitual nicotine intake. Gilbert DG, et al. **Exp Clin Psychopharmacol** 1999 May;7(2):174–81

Effect of stage of change on cue reactivity in continuing smokers. McDermut W, et al. **Exp Clin Psychopharmacol** 1998 Aug;6(3):316–24

Context modulates effects of nicotine abstinence on human cooperative responding. Spiga R, et al. **Exp Clin Psychopharmacol** 1998 Nov;6(4):390–8

Tailoring information to enhance quitting in smokers with low motivation to quit: three basic efficacy questions. Dijkstra A, et al. **Health Psychol** 1998 Nov;17(6):513–9

Do processes of change predict smoking stage movements? A prospective analysis of the transtheoretical model. Herzog TA, et al. **Health Psychol** 1999 Jul;18(4):369–75

The theory of planned behavior and smoking cessation. Norman P, et al. **Health Psychol** 1999 Jan;18(1):89–94

The patient exit interview as an assessment of physician-delivered smoking intervention: a validation study. Pbert L, et al. **Health Psychol** 1999 Mar;18(2):183–8

Opening the window of opportunity: encouraging patients to stop smoking [editorial] Richmond R. **Heart** 1999 May; 81(5):456–8

French adolescent smoking and perception of quitting [letter] Chabrol H, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):640–1

The development and structural confirmation of the Rhode Island Stress and Coping Inventory. Fava JL, et al. **J Behav Med** 1998 Dec;21(6):601–11

Recruitment to a school-based adult smoking-cessation program: do gender and race/ethnicity make a difference? Berman BA, et al. **J Cancer Educ** 1998 Winter;13(4):220–5

Weight suppression and weight rebound in ex-smokers treated with fluoxetine. Borrelli B, et al. **J Consult Clin Psychol** 1999 Feb;67(1):124–31

Relationships between stages of change in cigarette smokers and healthy lifestyle behaviors in a population of young military personnel during forced smoking abstinence. Clements-Thompson M, et al. **J Consult Clin Psychol** 1998 Dec;66(6):1005–11

Antidepressant pharmacotherapy helps some cigarette smokers more than others. Hitsman B, et al. **J Consult Clin Psychol** 1999 Aug;67(4):547–54

Efficacy of relapse prevention: a meta-analytic review. Irvin JE, et al. **J Consult Clin Psychol** 1999 Aug;67(4):563–70

Gender differences in smoking cessation. Wetter DW, et al. **J Consult Clin Psychol** 1999 Aug;67(4):555–62

The impact of education and heart attack on smoking cessation among middle-aged adults. Wray LA, et al. **J Health Soc Behav** 1998 Dec;39(4):271–94

Maternal factors, obstetric history and smoking stage of change. Haslam C. **J Public Health Med** 1999 Jun; 21(2):185–91

An assessment of nicotine dependence among pregnant adolescents. Albrecht SA, et al. **J Subst Abuse Treat** 1999 Jun;16(4):337–44

Smoking intervention with adolescent substance abusers. Initial recommendations. Myers MG. **J Subst Abuse Treat** 1999 Jun;16(4):289–98 (59 ref.)

Why physicians and lay people smoke and how can it be reduced? Memon SB, et al. **JPMA J Pak Med Assoc** 1999 Jan;49(1):2–4

Nicotine withdrawal and psychiatric symptoms in cigarette smokers with schizophrenia. Dalack GW, et al. **Neuropsychopharmacology** 1999 Aug;21(2):195–202

Psycho-social determinants and motivational phases in smoking behavior of cardiac inpatients. Bolman C, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 1):738–47

Does parental smoking cessation discourage adolescent smoking? Farkas AJ, et al. **Prev Med** 1999 Mar;28(3):213–8

Stage distributions for five health behaviors in the United States and Australia. Laforge RG, et al. **Prev Med** 1999 Jan;28(1):61–74

Transtheoretical measures for adolescent and adult smokers: similarities and differences. Pallonen UE. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A29–38

Smokers hospitalized in an urban, public hospital: addiction, stages of change, and self-efficacy. Vernon JD, et al. **Prev Med** 1999 May;28(5):488–95

Self-reported smoking and measurement of expired air carbon monoxide in a clinical treatment. Becoña E, et al. **Psychol Rep** 1998 Aug;83(1):316–8

Very delayed smoking relapse warrants research attention. Brandon TH, et al. **Psychol Rep** 1998 Aug;83(1):72–4 (10 ref.)

Manipulation of cigarette craving through rapid smoking: efficacy and effects on smoking behavior. Houtsmuller EJ, et al. **Psychopharmacology (Berl)** 1999 Feb;142(2):149–57

Smoking withdrawal, nicotine dependence and prepulse inhibition of the acoustic startle reflex. Kumari V, et al. **Psychopharmacology (Berl)** 1999 Jan;141(1):11–5

Coping in real time: using Ecological Momentary Assessment techniques to assess coping with the urge to smoke. O'Connell KA, et al. **Res Nurs Health** 1998 Dec; 21(6):487–97

Reasons for quitting and smoking temptation among adolescent smokers: gender differences. Sussman S, et al. **Subst Use Misuse** 1998 Dec;33(14):2703–20

[Stages of motivation to change in smokers of the general population] Rumpf HJ, et al. **Gesundheitswesen** 1998 Oct; 60(10):592–7 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

History of alcohol or drug problems, current use of alcohol or marijuana, and success in quitting smoking. Humfleet G, et al. **Addict Behav** 1999 Jan–Feb;24(1):149–54

Predictors of smoking cessation in U.S. adolescents. Zhu SH, et al. **Am J Prev Med** 1999 Apr;16(3):202–7

Inflammatory bowel disease: is there any relation between smoking status and disease presentation? European Collaborative IBD Study Group. Russel MG, et al. **Inflamm Bowel Dis** 1998 Aug;4(3):182–6

New approaches to smoking prevention in the north. Alekseeva NV, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:489–92

Effects of multiple attempts to quit smoking and relapses to smoking on pulmonary function. Lung Health Study Research Group. Murray RP, et al. **J Clin Epidemiol** 1998 Dec;51(12):1317–26

Report on the doctor SmokeStopper project. **J Ky Med Assoc** 1999 Jul;97(7):311–6

Quitting smoking and lungs. Muers MF. **Lancet** 1999 Jul 17; 354(9174):177–8

Might stopping smoking reduce injury death risks? A meta-analysis of randomized, controlled trials. Leistikow BN, et al. **Prev Med** 1999 Mar;28(3):255–9

Gender and determinants of smoking cessation: a longitudinal study. Osler M, et al. **Prev Med** 1999 Jul;29(1):57–62

Self-initiated quitting among adolescent smokers. Sussman S, et al. **Prev Med** 1998 Sep–Oct;27(5 Pt 3):A19–28

One-year results of a smoking-cessation programme. Soulier-Parmeggiani L, et al. **Schweiz Med Wochenschr** 1999 Mar 13;129(10):395–8

Waking the health plan giant: Group Health Cooperative stops counting sheep and starts counting key tobacco indicators. McAfee T. **Tob Control** 1998 Winter;7 Suppl:S41–4; discussion S47–9

[Smoking habits in German clinics with pulmonary specialization] Butt U, et al. **Pneumologie** 1999 Jan; 53(1):18–9 **(Ger)**

[Smoking cessation in pharmacies—evaluation of the smoking cessation campaign "Tobacco adieu!" among pharmacists in Basel] Gschwend P, et al. **Soz Praventivmed** 1999; 44(1):14–21 (Eng. Abstr.) **(Ger)**

SMOKING, PASSIVE see **TOBACCO SMOKE POLLUTION**

SMOOTH MUSCLE TUMOR

DIAGNOSIS

Bilateral smooth-muscle tumors of the adrenals in a child with AIDS. Rosenfeld DL, et al. **Pediatr Radiol** 1999 May; 29(5):376–8

GENETICS

KIT mutation portends poor prognosis in gastrointestinal stromal/smooth muscle tumors. Ernst SI, et al. **Lab Invest** 1998 Dec;78(12):1633–6

Mutations of c-kit JM domain are found in a minority of human gastrointestinal stromal tumors. Moskaluk CA, et al. **Oncogene** 1999 Mar 11;18(10):1897–902

METABOLISM

h-Caldesmon in leiomyosarcoma and tumors with smooth muscle cell-like differentiation: its specific expression in the smooth muscle cell tumor. Watanabe K, et al. **Hum Pathol** 1999 Apr;30(4):392–6

PATHOLOGY

Prognosis of gastrointestinal smooth-muscle (stromal) tumors: dependence on anatomic site. Emory TS, et al. **Am J Surg Pathol** 1999 Jan;23(1):82–7

Gastrointestinal stromal tumors/smooth muscle tumors (GISTs) primary in the omentum and mesentery: clinicopathologic and immunohistochemical study of 26 cases. Miettinen M, et al. **Am J Surg Pathol** 1999 Sep; 23(9):1109–18

Prognosis and surveillance of gastrointestinal stromal/smooth muscle tumors. Emory TS, et al. **Ann Chir Gynaecol** 1998; 87(4):306–10 (29 ref.)

Influence of progesterone and oestrogen on growth and morphology of a transplantable rat uterine smooth muscle tumour (SMT-Y). Yamate J, et al. **J Comp Pathol** 1998

Nov;119(4):443-57
Clear-cell smooth muscle tumor of the skin. Massi D, et al. **Mod Pathol** 1998 Oct;11(10):1021-5
[Smooth muscle mesentery associated with Epstein-Barr virus (EBV). Report of a case in a child with a liver transplant under FK506 regimen] Ferlicot S, et al. **Ann Pathol** 1999 Mar;19(1):46-9 (Eng. Abstr.) **(Fre)**

SURGERY

Laparoscopic resection of submucosal gastric tumors. Aogi K, et al. **Surg Today** 1999;29(2):102-6

ULTRASONOGRAPHY

Benefits of endorectal ultrasound for management of smooth-muscle tumor of the rectum: report of three cases. Hsieh JS, et al. **Dis Colon Rectum** 1999 Aug;42(8):1085-8

SNAIL VENOMS see **MOLLUSK VENOMS**

SNAILS

[Chemistry of conotoxins from cone snails] Sato K. **Seikagaku** 1999 Mar;71(3):183-92 (56 ref.) **(Jpn)**
[The distribution and possible competition between Melanoides tuberculata and Tarebia granifera (Prosobranchia: Thiaridae) in Lake Hanabanilla, Cuba] Gutierrez Amador A, et al. **Rev Cubana Med Trop** 1995; 47(2):93-9 (Eng. Abstr.) **(Spa)**

CHEMISTRY

Isolation and identification of chondroitin sulfates from the mud snail. Lee KB, et al. **Arch Pharm Res** 1998 Oct; 21(5):555-8
alpha-conotoxin AuIB selectively blocks alpha3 beta4 nicotinic acetylcholine receptors and nicotine-evoked norepinephrine release. Luo S, et al. **J Neurosci** 1998 Nov 1;18(21):8571-9

CLASSIFICATION

[Shell identification of snail carriers of Fasciola hepatica in Cuba] Cong MY, et al. **Rev Cubana Med Trop** 1991; 43(3):202-3 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Endogenous morphine levels increase in molluscan neural and immune tissues after physical trauma. Sonetti D, et al. **Brain Res** 1999 Jul 24;835(2):137-47
Induction of metallothionein in dogwhelk Nucella lapillus during and after exposure to cadmium. Leung KM, et al. **Ecotoxicol Environ Saf** 1999 Jun;43(2):156-64

EMBRYOLOGY

Specification of first quartet micromeres in Ilyanassa involves inherited factors and position with respect to the inducing D macromere. Sweet HC. **Development** 1998 Oct; 125(20):4033-44

ENZYMOLOGY

Properties of alpha-mannosidase partially purified from the apple snail, Pomacea canaliculata. Hirata K, et al. **Biosci Biotechnol Biochem** 1998 Nov;62(11):2242-5

GENETICS

Speciation of cone snails and interspecific hyperdivergence of their venom peptides. Potential evolutionary significance of introns. Olivera BM, et al. **Ann N Y Acad Sci** 1999 May 18;870:223-37 (37 ref.)
Simple protocol for extracting nuclear DNA from single embryos of a marine snail. Simpson RJ, et al. **Biotechniques** 1999 Jun;26(6):1050-2
Characterization of a cDNA encoding a precursor polypeptide of a D-amino acid-containing peptide, achatin-I and localized expression of the achatin-I and fulicin genes. Satake H, et al. **Eur J Biochem** 1999 Apr; 261(1):130-6
Karyotypes on three species of Chinese mesogastropod snails, Semisulcospira libertina, S. dolichostoma and Viviparus rivularis. Park GM, et al. **Korean J Parasitol** 1999 Mar; 37(1):5-11
Rapid evolution of fertilization selectivity and lysin cDNA sequences in teguline gastropods. Hellberg ME, et al. **Mol Biol Evol** 1999 Jun;16(6):839-48

GROWTH & DEVELOPMENT

Soil factors influencing the distribution of Oncomelania quadrasi, the intermediate host of Schistosoma japonicum, on Bohol Island, Philippines. Nihei N, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):699-710
[The cultivation of Fossaria cubensis (Pfeiffer) (Pulmonata: Lymnaeidae), the intermediate host of Fasciola hepatica (Linnaeus) in Cuba] Sánchez R, et al. **Rev Cubana Med Trop** 1995;47(1):71-3 (Eng. Abstr.) **(Spa)**

IMMUNOLOGY

Allergy to house dust mite and snails: a model of cross-reaction between food and inhalant allergens with a clinical impact. Pajno GB, et al. **Pediatr Pulmonol Suppl** 1999;18:163-4
The role of amoebocytes in endotoxin-mediated coagulation in the innate immunity of Achatina fulica snails. Biswas C, et al. **Scand J Immunol** 1999 Feb;49(2):131-8

METABOLISM

Antioxidant defenses and metabolic depression. The hypothesis of preparation for oxidative stress in land snails. Hermes-Lima M, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Jul; 120(3):437-48 (102 ref.)
Remodeling of phospholipid fatty acids in mitochondrial membranes of estivating snails. Stuart JA, et al. **Lipids** 1998 Aug;33(8):787-93

PARASITOLOGY

Cloning of the SmSPO-1 gene preferentially expressed in sporocyst during the life cycle of the parasitic helminth Schistosoma mansoni1. Ram D, et al. **Biochim Biophys Acta** 1999 Mar 30;1453(3):412-6
Eosinophilic meningitis/angiostrongyliasis from eating aquaculture-raised snails: a case report. Marsh CM. **Hawaii Med J** 1998 Oct;57(10):652-4 (10 ref.)
Sequence heterogeneity in a repetitive DNA element of Fasciola. Krämer F, et al. **Int J Parasitol** 1998 Dec; 28(12):1923-9
Unusual transmission of the liver fluke, Fasciola hepatica, by Lymnaea glabra or Planorbis leucostoma in France. Abrous M, et al. **J Parasitol** 1998 Dec;84(6):1257-9
Trematode accumulation by the estuarine gastropod Ilyanassa obsoleta. Curtis LA, et al. **J Parasitol** 1999 Jun;85(3):419-25
Life history and identification of Philophthalmus lucipetus from Israel [published erratum appears in J Parasitol 1999 Aug;85(4):608] Radev V, et al. **J Parasitol** 1999 Apr; 85(2):291-4
Production and chronobiology of emergence of the cercariae of Euparyphium albuferensis (Trematoda: Echinostomatidae). Toledo R, et al. **J Parasitol** 1999 Apr; 85(2):263-7
Plagiorchis elegans (Digenea: Plagiorchiidae) infections in Stagnicola elodes (Pulmonata: Lymnaeidae): host susceptibility, growth, reproduction, mortality, and cercarial production. Zakikhani M, et al. **J Parasitol** 1999 Jun;85(3):454-63
Cercarial emergence of Ichthyocotylurus erraticus (Rudolphi, 1809), I. variegatus (Creplin, 1825) and Apatemon gracilis (Rudolphi, 1819) (Digenea: Strigeidae): contrasting responses to light:dark cycling. Bell AS, et al. **Parasitol Res** 1999 May;85(5):387-92
Miracidial infectivity of Hypoderaeum conoideum (Trematoda: Echinostomatidae): differential susceptibility of two lymnaeid species. Toledo R, et al. **Parasitol Res** 1999 Mar;85(3):212-5
Schistosoma haematobium: comparative studies on the characteristics of infection in three populations of Planorbarius metidjensis from the Agadir province in South Morocco. Yacoubi B, et al. **Parasitol Res** 1999 Mar; 85(3):239-42
[Lymnic snails from the microregion of Belo Horizonte, Minas Gerais, Brazil with an emphasis on parasite disease vectors] de Souza CP, et al. **Rev Soc Bras Med Trop** 1998 Sep-Oct;31(5):449-56 (Eng. Abstr.) **(Por)**
[Shell identification of snail carriers of Fasciola hepatica in Cuba] Cong MY, et al. **Rev Cubana Med Trop** 1991; 43(3):202-3 (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

Compositional correlates of metabolic depression in the mitochondrial membranes of estivating snails. Stuart JA, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1977-82
Osmoregulation and FMRFamide-related peptides in the salt marsh snail Melampus bidentatus (Say) (Mollusca: Pulmonata). Khan HR, et al. **Biol Bull** 1999 Apr; 196(2):153-62
Fast optical measurement of membrane potential changes at multiple sites on an individual nerve cell. Zecević D, et al. **Histochem J** 1998 Mar;30(3):197-216
Gonadotropin-releasing hormone neuronal system of the freshwater snails Helisoma trivolvis and Lymnaea stagnalis: possible involvement in reproduction. Young KG, et al. **J Comp Neurol** 1999 Feb 22;404(4):427-37
Higher-order associative processing in Hermissenda suggests multiple sites of neuronal modulation. Rogers RF, et al. **Learn Mem** 1996 Jan-Feb;2(6):279-98
Remodeling of phospholipid fatty acids in mitochondrial membranes of estivating snails. Stuart JA, et al. **Lipids** 1998 Aug;33(8):787-93
Staining of central neurons of the pteropod mollusk Clione limacina with fluorescein-labeled alpha-bungarotoxin. Popova LB, et al. **Neurosci Behav Physiol** 1999 May-Jun; 29(3):317-20
The kinetics of neurite structure after isolation from the mollusk brain. Sotnikov OS, et al. **Neurosci Behav Physiol** 1999 May-Jun;29(3):243-9
Comparative electrophysiological aspects of aluminum actions on central neurons and neuronal synapses of invertebrate and vertebrate animals. Zsiros V, et al. **Neurotoxicology** 1998 Aug-Oct;19(4-5):553-6
The strategy used by some piscivorous cone snails to capture their prey: the effects of their venoms on vertebrates and on isolated neuromuscular preparations. Le Gall F, et al. **Toxicon** 1999 Jul;37(7):985-98
[The electrical characteristics of the command and motor neurons during the acquisition of a conditioned defensive reflex and the development of long-term sensitization in snails] Gainutdinov KhL, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Nov-Dec; 48(6):1004-13 (Eng. Abstr.) **(Rus)**

VIROLOGY

Geographical features of estuaries for neritid gastropods including Clithon retropictus to preserve thermostable direct hemolysin-producing Vibrio parahaemolyticus. Kumazawa NH, et al. **J Vet Med Sci** 1999 Jun;61(6):721-4

SNAKE BITES

see related
ANTIVENINS
SNAKE VENOMS

Envenomations. Walter FG, et al. **Crit Care Clin** 1999 Apr; 15(2):353-86, ix (173 ref.)
Bites by copperhead snakes in mid-Missouri. Anderson PC. **Mo Med** 1998 Nov;95(11):629-32
Envenomations by rattlesnakes thought to be dead [letter] Suchard JR, et al. **N Engl J Med** 1999 Jun 17;340(24):1930
Snake, spider, and scorpion envenomation in North America. Bond GR. **Pediatr Rev** 1999 May;20(5):147-50; quiz 151 (0 ref.)
[Validity of a test for diagnosis and monitoring of hemorrhagic syndrome after viper envenomation in sub-saharan Africa] Chippaux JP, et al. **Med Trop (Mars)** 1998;58(4):369-71 (Eng. Abstr.) **(Fre)**
[Snake venoms] Imaizumi H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):668-71 (14 ref.) **(Jpn)**
[Annoyances of summer--current data on stings and bites] Foucard T, et al. **Lakartidningen** 1999 Jun 23;96(25):3044-6 **(Swe)**

BLOOD

Snakebite? [letter] Williams V, et al. **Thromb Haemost** 1999 Mar;81(3):478
The role of thromboelastography in the management of children with snake-bite in southern Africa. Hadley GP, et al. **Trans R Soc Trop Med Hyg** 1999 Mar-Apr; 93(2):177-9

CLASSIFICATION

Prognostic significance of clinical grading of patients envenomed by Bothrops lanceolatus in Martinique. Members of the Research Group on Snake Bite in Martinique. Thomas L, et al. **Trans R Soc Trop Med Hyg** 1998 Sep-Oct;92(5):542-5

COMPLICATIONS

Rhabdomyolysis in European viper bite. Denis D, et al. **Acta Paediatr** 1998 Sep;87(9):1013-5
Severe multi-system failure following delayed presentation with tiger snake envenomation. Jelinek GA, et al. **Anaesth Intensive Care** 1998 Oct;26(5):584-5
Recurrent and persistent coagulopathy following pit viper envenomation. Boyer LV, et al. **Arch Intern Med** 1999 Apr 12;159(7):706-10
Severe envenomation by a "pet" vine snake. Muguti GI, et al. **Cent Afr J Med** 1998 Sep;44(9):232-4
Long-term complications of snake bites to the upper extremity. Cowin DJ, et al. **J South Orthop Assoc** 1998 Fall;7(3):205-11
Snake bite experience at Pakistan Institute of Medical Sciences. Zafar J, et al. **JPMA J Pak Med Assoc** 1998 Oct;48(10):308-10
Myasthenic syndrome of snake envenomation: a clinical and neurophysiological study. Sanmuganathan PS. **Postgrad Med J** 1998 Oct;74(876):596-9
Severe coagulopathy after a bite of a green bush viper (Atheris squamiger): case report and biochemical analysis of the venom. Mebs D, et al. **Toxicon** 1998 Oct; 36(10):1333-40
The effects of green pit viper (Trimeresurus albolabris and Trimeresurus macrops) venom on the fibrinolytic system in human. Rojnuckarin P, et al. **Toxicon** 1999 May; 37(5):743-55
Renal involvement in Russell's viper bite patients without disseminated intravascular coagulation. Win-Aung, et al. **Trans R Soc Trop Med Hyg** 1998 May-Jun;92(3):322-4
[Pedicled thoraco-abdominal skin flap applied in early repair of deep ulcer of upper extremity resulting from snake-bite injury] Liu D. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Mar;11(2):83-5 (Eng. Abstr.) **(Chi)**
[Transient arterial hypertension following an adder bite in a six six-year-old boy] Krue S, et al. **Ugeskr Laeger** 1999 Jan 4;161(1):49-50 (Eng. Abstr.) **(Dan)**
[Diagnosis and monitoring of hemorrhage due to viper envenomation in the African savanna] Chippaux JP, et al. **Bull Soc Pathol Exot** 1999 May;92(2):109-13 (Eng. Abstr.) **(Fre)**
[An accelerated idioventricular rhythm and incomplete right bundle-branch block secondary to the bite of Vipera latasti (letter) (published erratum appears in Med Clin (Barc) 1999

Apr 17;112(13):494)] Meseguer Ruiz VA, et al. **Med Clin (Barc)** 1999 Feb 27;112(7):278–9 (9 ref.) **(Spa)**

DIAGNOSIS

Copperhead envenomations: clinical profiles of three different subspecies. Keyler DE, et al. **Vet Hum Toxicol** 1999 Jun;41(3):149–52

[Acute management of patients bitten by poisonous snakes (see comments)] Carels RA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2773–7 (20 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Mar 6;143(10):541. **(Dut)**

[Acute treatment of patients bitten by poisonous snakes (letter; comment)] Hofstra SS. **Ned Tijdschr Geneeskd** 1999 Mar 6;143(10):541. Comment on: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2773–7. **(Dut)**

DRUG THERAPY

Sequential randomised and double blind trial of promethazine prophylaxis against early anaphylactic reactions to antivenom for bothrops snake bites. Fan HW, et al. **BMJ** 1999 May 29;318(7196):1451–2

Low dose subcutaneous adrenaline to prevent acute adverse reactions to antivenom serum in people bitten by snakes: randomised, placebo controlled trial. Premawardhena AP, et al. **BMJ** 1999 Apr 17;318(7190):1041–3

South American rattlesnake bite (Crotalus durissus SP) without envenoming: insights on diagnosis and treatment. de Rezende NA, et al. **Toxicon** 1998 Dec;36(12):2029–32

Snakes and snake bite in Nepal [editorial] Bhetwal BB, et al. **Trop Doct** 1998 Oct;28(4):193–5

ECONOMICS

Treating the snakebitten child in North America: a study of pit viper bites. Lopoo JB, et al. **J Pediatr Surg** 1998 Nov;33(11):1593–5

EPIDEMIOLOGY

Crotalid antivenin availability during shortage [letter] Nordt SP, et al. **Am J Emerg Med** 1999 Mar;17(2):220

Snake-bites: appraisal of the global situation. Chippaux JP. **Bull World Health Organ** 1998;76(5):515–24 (114 ref.)

Snake bite in the Thar Desert. Suleman MM, et al. **JPMA J Pak Med Assoc** 1998 Oct;48(10):306–8

Snake bites in the hills of north India. Bhardwaj A, et al. **Natl Med J India** 1998 Nov–Dec;11(6):264–5

Poisonous animal bites in the Israel Defense Forces. Haviv J, et al. **Public Health Rev** 1998;26(3):237–45

Bites by the colubrid snake Philodryas olfersii: a clinical and epidemiological study of 43 cases. Ribeiro LA, et al. **Toxicon** 1999 Jun;37(6):943–8

Snake bites in rural area of Maharashtra State, India. Bakshi SA. **Trop Doct** 1999 Apr;29(2):104–5

A clinico–epidemiological study of snake bite in Nepal. Hansdak SG, et al. **Trop Doct** 1998 Oct;28(4):223–6

ETIOLOGY

[Snakes from the urban area of Cuiabá, Mato Grosso: ecological aspects and associated snakebites] de Carvalho MA, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):753–63 (Eng. Abstr.) **(Por)**

METABOLISM

ELISA for the detection of venoms from four medically important snakes of India. Selvanayagam ZE, et al. **Toxicon** 1999 May;37(5):757–70

MORTALITY

[Deaths caused by venomous snakes in the State of São Paulo: evaluation of 43 cases from 1988 to 1993] Ribeiro LA, et al. **Rev Assoc Med Bras** 1998 Oct–Dec;44(4):312–8 (Eng. Abstr.) **(Por)**

PATHOLOGY

A snake bite by the Burrowing Asp, Atractaspis engaddensis. Kurnik D, et al. **Toxicon** 1999 Jan;37(1):223–7

Bites by the colubrid snake Philodryas olfersii: a clinical and epidemiological study of 43 cases. Ribeiro LA, et al. **Toxicon** 1999 Jun;37(6):943–8

THERAPY

A new monospecific ovine Fab fragment antivenom for treatment of envenoming by the Sri Lankan Russell's viper (Daboia Russelii Russelii): a preliminary dose–finding and pharmacokinetic study. Ariaratnam CA, et al. **Am J Trop Med Hyg** 1999 Aug;61(2):259–65

Successful treatment of neurotoxic king cobra envenomation in Myrtle Beach, South Carolina. Gold BS, et al. **Ann Emerg Med** 1998 Dec;32(6):736–8

Pressure immobilization for neurotoxic snake bites [letter] Winkel KD, et al. **Ann Emerg Med** 1999 Aug;34(2):294–5

Severe envenomation by a "pet" vine snake. Muguti GI, et al. **Cent Afr J Med** 1998 Sep;44(9):232–4

Antivenom therapy in the Americas. Heard K, et al. **Drugs** 1999 Jul;58(1):5–15 (62 ref.)

Treating the snakebitten child in North America: a study of pit viper bites. Lopoo JB, et al. **J Pediatr Surg** 1998 Nov;33(11):1593–5

Snake bite experience at Pakistan Institute of Medical Sciences. Zafar J, et al. **JPMA J Pak Med Assoc** 1998 Oct;48(10):308–10

Concern over the choice of antivenom for "false king brown snake" bites and a plea for a name change [letter] Sutherland SK. **Med J Aust** 1999 Feb 15;170(4):187

Therapeutic experience of venomous snakebites by the Japanese viper (Agkistrodon halys Blomhoffii) with low dose of antivenin: report of 43 consecutive cases. Kimoto T, et al. **Nippon Geka Hokan** 1997 May 1;66(2):71–7

Field treatment of snakebites in the Israel Defense Forces. Haviv J, et al. **Public Health Rev** 1998;26(3):247–56 (17 ref.)

Venomous snakes of Israel: ecology and snakebite. Kochva E. **Public Health Rev** 1998;26(3):209–32 (25 ref.)

Vipera palaestinae antivenin. Moroz C. **Public Health Rev** 1998;26(3):233–6 (8 ref.)

Adjuvant effects and antiserum action potentiation by a (herbal) compound 2–hydroxy–4–methoxy benzoic acid isolated from the root extract of the Indian medicinal plant 'sarsaparilla' (Hemidesmus indicus R. Br.). Alam MI, et al. **Toxicon** 1998 Oct;36(10):1423–31

The development and use of immunotherapy in Africa. Chippaux JP. **Toxicon** 1998 Nov;36(11):1503–6

Neutralization of local tissue damage induced by Bothrops asper (terciopelo) snake venom. Gutiérrez JM, et al. **Toxicon** 1998 Nov;36(11):1529–38

Pharmacokinetics of 125I–labelled IgG, F(ab')2 and Fab fractions of scorpion and snake antivenins: merits and potential for therapeutic use. Ismail M, et al. **Toxicon** 1998 Nov;36(11):1523–8

A randomized blinded clinical trial of two antivenoms, prepared by caprylic acid or ammonium sulphate fractionation of IgG, in Bothrops and Porthidium snake bites in Colombia: correlation between safety and biochemical characteristics of antivenoms. Otero R, et al. **Toxicon** 1999 Jun;37(6):895–908

Snake envenomation and protective natural endogenous proteins: a mini review of the recent developments (1991–1997). Thwin MM, et al. **Toxicon** 1998 Nov; 36(11):1471–82 (64 ref.)

Envenoming and antivenom use in Australia. White J. **Toxicon** 1998 Nov;36(11):1483–92

Clinical safety of a polyvalent F(ab')2 equine antivenom in 223 African snake envenomations: a field trial in Cameroon. VAO (Venin Afrique de l'Ouest) Investigators. Chippaux JP, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec; 92(6):657–62

Snake bites in rural area of Maharashtra State, India. Bakshi SA. **Trop Doct** 1999 Apr;29(2):104–5

Mojave rattlesnake (Crotalus scutulatus scutulatus) identification. Bush SP, et al. **Wilderness Environ Med** 1999 Spring;10(1):6–9

Snakebite scenario [letter] Norris RL. **Wilderness Environ Med** 1999 Spring;10(1):55–6

[Acute management of patients bitten by poisonous snakes (see comments)] Carels RA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2773–7 (20 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Mar 6;143(10):541. **(Dut)**

[Acute treatment of patients bitten by poisonous snakes (letter; comment)] Hofstra SS. **Ned Tijdschr Geneeskd** 1999 Mar 6;143(10):541. Comment on: Ned Tijdschr Geneeskd 1998 Dec 19;142(51):2773–7. **(Dut)**

[German–Austrian recommendations for post–exposure prophylaxis after HIV infection (letter)] Seuffer RH. **Dtsch Med Wochenschr** 1999 Mar 26;124(12):373 **(Ger)**

[Clinical picture and treatment of venomous snake bites in Yugoslavia] Popović N. **Med Pregl** 1998;51 Suppl 1:51–5 (Eng. Abstr.) **(Scr)**

VETERINARY

Suspected Vipera palaestinae envenomation in three cats. Michal MT, et al. **Vet Hum Toxicol** 1999 Jun;41(3):145–8

Retrospective study of the epidemiological, clinical, haematological and biochemical findings in 109 dogs poisoned by Vipera xanthina palestinae. Aroch I, et al. **Vet Rec** 1999 May 8;144(19):532–5

SNAKE ENVENOMATION see **SNAKE BITES**

SNAKE VENOMS

see related
ANTIVENINS

Use of snake venom fractions in the coagulation laboratory. Marsh NA. **Blood Coagul Fibrinolysis** 1998 Jul;9(5):395–404 (119 ref.)

Taking the bite out of snake venoms [news] Senior K. **Lancet** 1999 Jun 5;353(9168):1946

A life–threatening anaphylactoid reaction to polyvalent antivenom despite pretreatment [letter; comment] Barratt SM. **Med J Aust** 1999 Jan 18;170(2):92; discussion 92–3. Comment on: Med J Aust 1998 Sep 7;169(5):257–8.

A life–threatening anaphylactoid reaction to polyvalent antivenom despite pretreatment [letter; comment] Sutherland SK. **Med J Aust** 1999 Jan 18;170(2):92; discussion 92–3. Comment on: Med J Aust 1998 Sep 7;169(5):257–8.

[Toxic risks in new pets. Seven cases of poisoning by exotic animals collected in 1997 at the Marseilles Antipoison Center (letter)] de Haro L, et al. **Presse Med** 1998 Sep 12;27(26):1327–8 **(Fre)**

ADVERSE EFFECTS

The effects of specific antibody fragments on the 'irreversible' neurotoxicity induced by Brown snake (Pseudonaja) venom. Jones RG, et al. **Br J Pharmacol** 1999 Feb; 126(3):581–4

[Acute management of patients bitten by poisonous snakes (see comments)] Carels RA, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2773–7 (20 ref.) (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Mar 6;143(10):541. **(Dut)**

ANALYSIS

Development of reversed passive latex agglutination for detection of Thai cobra (Naja kaouthia) venom. Khow O, et al. **J Nat Toxins** 1999 Jun;8(2):213–20

A study on the venom yield of venomous snake species from Argentina. de Roodt AR, et al. **Toxicon** 1998 Dec; 36(12):1949–57

Tests for detection of snake venoms, toxins and venom antibodies: review on recent trends (1987–1997). Selvanayagam ZE, et al. **Toxicon** 1999 Apr;37(4):565–86 (127 ref.)

ANTAGONISTS & INHIBITORS

Neutralization, by a monospecific Bothrops lanceolatus antivenom, of toxic activities induced by homologous and heterologous Bothirops snake venoms. Bogarin G, et al. **Toxicon** 1999 Mar;37(3):551–7

Citrate inhibition of snake venom proteases. Odell GV, et al. **Toxicon** 1998 Dec;36(12):1801–6

BLOOD

The role of thromboelastography in the management of children with snake–bite in southern Africa. Hadley GP, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr; 93(2):177–9

CHEMISTRY

Snake venom hemorrhagins. Hati R, et al. **Crit Rev Toxicol** 1999 Jan;29(1):1–19 (142 ref.)

Snake venom alpha–neurotoxins and other 'three–finger' proteins. Tsetlin V. **Eur J Biochem** 1999 Sep;264(2):281–6 (60 ref.)

Bv8, a small protein from frog skin and its homologue from snake venom induce hyperalgesia in rats. Mollay C, et al. **Eur J Pharmacol** 1999 Jun 18;374(2):189–96

NMR spatial structure of alpha–conotoxin ImI reveals a common scaffold in snail and snake toxins recognizing neuronal nicotinic acetylcholine receptors. Maslennikov IV, et al. **FEBS Lett** 1999 Feb 12;444(2–3):275–80

Genus specific neutralization of Bungarus snake venoms by Thai Red Cross banded krait antivenom. Chanhome L, et al. **J Nat Toxins** 1999 Feb;8(1):135–40

Functional determinants by which snake and cone snail toxins block the alpha 7 neuronal nicotinic acetylcholine receptors. Servent D, et al. **J Physiol Paris** 1998 Apr; 92(2):107–11

Purification and amino acid sequence of MP–III 4R D49 phospholipase A2 from Bothrops pirajai snake venom, a toxin with moderate PLA2 and anticoagulant activities and high myotoxic activity. Toyama MH, et al. **J Protein Chem** 1999 Apr;18(3):371–8

Pseudechetoxin: a peptide blocker of cyclic nucleotide–gated ion channels. Brown RL, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):754–9

Bothroalternin, a thrombin inhibitor from the venom of Bothrops alternatus. Castro HC, et al. **Toxicon** 1998 Dec; 36(12):1903–12

Structure of a Lys49–phospholipase A2 homologue isolated from the venom of Bothrops nummifer (jumping viper). de Azevedo WF Jr, et al. **Toxicon** 1999 Feb;37(2):371–84

Spatial structures of the bradykinin potentiating peptide F from Agkistrodon piscivorus piscivoris venom. Ferreira LA, et al. **Toxicon** 1999 Apr;37(4):661–76

Cloning of a cDNA encoding a nerve growth factor precursor from the Agkistrodon halys Pallas. Guo LY, et al. **Toxicon** 1999 Mar;37(3):465–70

The role of venom citrate [letter] Odell GV, et al. **Toxicon** 1999 Mar;37(3):407–9

Citrate inhibition of snake venom proteases. Odell GV, et al. **Toxicon** 1998 Dec;36(12):1801–6

Lysine 49 phospholipase A2 proteins. Ownby CL, et al. **Toxicon** 1999 Mar;37(3):411–45 (120 ref.)

Expression and characterization of a novel plasminogen activator from Agkistrodon halys venom. Park D, et al. **Toxicon** 1998 Dec;36(12):1807–19

The detection of hemorrhagic proteins in snake venoms using monoclonal antibodies against Virginia opossum (Didelphis virginiana) serum. Sánchez EE, et al. **Toxicon** 1998 Oct; 36(10):1451–9

Diet and snake venom evolution: can local selection alone explain intraspecific venom variation? [letter; comment] Sasa M. **Toxicon** 1999 Feb;37(2):249–52; discussion 253–60 . Comment on: Toxicon 1996 Jan;34(1):67–79.

CLASSIFICATION

Synopsis of recent developments in venomous snake

systematics, No. 3. Wüster W, et al. **Toxicon** 1999 Aug; 37(8):1123–9 (34 ref.)

ENZYMOLOGY

A novel phospholipase A2, BJ–PLA2, from the venom of the snake Bothrops jararaca: purification, primary structure analysis, and its characterization as a platelet–aggregation–inhibiting factor. Serrano SM, et al. **Arch Biochem Biophys** 1999 Jul 1;367(1):26–32

Purification and partial characterization of a new proteolytic enzyme from the venom of Bothrops moojeni (CAISSACA). Oliveira F, et al. **Biochem Mol Biol Int** 1999 Jun;47(6):1069–77

Molecular cloning and functional characterization of a snake venom metalloprotease. Jeon OH, et al. **Eur J Biochem** 1999 Jul;263(2):526–33

Probing the role of C–1 ester group in Naja naja phospholipase A2–phospholipid interactions using butanetriol–containing phosphatidylcholine analogues. Puri V, et al. **Eur J Biochem** 1999 Feb;259(3):586–91

Accelerated evolution and molecular surface of venom phospholipase A2 enzymes. Kini RM, et al. **J Mol Evol** 1999 Feb;48(2):125–32

Inhibition of a snake venom hemorrhagic metalloproteinase by human and rat alpha–macroglobulins. Anai K, et al. **Toxicon** 1998 Aug;36(8):1127–39

Purification and characterization of two fibrinogen–clotting enzymes from five–pace snake (Agkistrodon acutus) venom. Huang QQ, et al. **Toxicon** 1999 Jul;37(7):999–1013

Natural protease inhibitors to hemorrhagins in snake venoms and their potential use in medicine. Pérez JC, et al. **Toxicon** 1999 May;37(5):703–28 (116 ref.)

GENETICS

Nucleotide sequence of crotamine isoform precursors from a single South American rattlesnake (Crotalus durissus terrificus). Rádis–Baptista G, et al. **Toxicon** 1999 Jul; 37(7):973–84

Diet and snake venom evolution: can local selection alone explain intraspecific venom variation? [letter; comment] Sasa M. **Toxicon** 1999 Feb;37(2):249–52; discussion 253–60 . Comment on: Toxicon 1996 Jan;34(1):67–79.

IMMUNOLOGY

Development of snake antivenom antibodies in chickens and their purification from yolk. Almeida CM, et al. **Vet Rec** 1998 Nov 21;143(21):579–84

METABOLISM

Introduction of a C–terminal aromatic sequence from snake venom phospholipases A2 into the porcine pancreatic isozyme dramatically changes the interfacial kinetics. Janssen MJ, et al. **Eur J Biochem** 1999 Aug;263(3):782–8

PHARMACOLOGY

Inhibition of adamalysin II and MMPs by phosphonate analogues of snake venom peptides. D'Alessio S, et al. **Bioorg Med Chem** 1999 Feb;7(2):389–94

Acetylcholinesterase from snake venom as a model for its nerve and muscle counterpart. Cousin X, et al. **J Nat Toxins** 1999 Jun;8(2):285–94 (81 ref.)

Snake venoms and the hemostatic system. Markland FS. **Toxicon** 1998 Dec;36(12):1749–800 (254 ref.)

[Use of snake venom proteins in medicine] Stocker K. **Schweiz Med Wochenschr** 1999 Feb 13;129(6):205–16 (51 ref.) (Eng. Abstr.) **(Ger)**

POISONING

Long–term regeneration of fast and slow murine skeletal muscles after induced injury by ACL myotoxin isolated from Agkistrodon contortrix laticinctus (broad–banded copperhead) venom. Salvini TF, et al. **Anat Rec** 1999 Apr 1;254(4):521–33

Bites by the colubrid snake Philodryas olfersii: a clinical and epidemiological study of 43 cases. Ribeiro LA, et al. **Toxicon** 1999 Jun;37(6):943–8

Renal involvement in Russell's viper bite patients without disseminated intravascular coagulation. Win–Aung, et al. **Trans R Soc Trop Med Hyg** 1998 May–Jun;92(3):322–4

[Snake venoms] Imaizumi H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):668–71 (14 ref.) **(Jpn)**

RADIATION EFFECTS

The dielectric properties of neutron irradiated snake venom and its pathological impact. Hanafy MS, et al. **Phys Med Biol** 1999 Sep;44(9):2343–64

Toxicity and immunogenicity of Crotalus durissus terrificus venom treated with different doses of gamma rays. Clissa PB, et al. **Toxicon** 1999 Aug;37(8):1131–41

THERAPEUTIC USE

Venom anyone? Researchers tweak "bad" compounds into good medicines [news] Volkers N. **J Natl Cancer Inst** 1999 Apr 21;91(8):667–8

Snakes and snake bite in Nepal [editorial] Bhetwal BB, et al. **Trop Doct** 1998 Oct;28(4):193–5

TOXICITY

Nephrotoxicity in snake envenomation. Sitprija V, et al. **J Nat Toxins** 1999 Jun;8(2):271–7 (48 ref.)

The dielectric properties of neutron irradiated snake venom and its pathological impact. Hanafy MS, et al. **Phys Med Biol** 1999 Sep;44(9):2343–64

Inhibition of the myotoxic activity of Bothrops asper myotoxin II in mice by immunization with its synthetic 13–mer peptide 115–129. Calderón L, et al. **Toxicon** 1999 Apr;37(4):683–7

Pharmacological modulation of edema induced by Lys–49 and Asp–49 myotoxic phospholipases A2 isolated from the venom of the snake Bothrops asper (terciopelo). Chaves F, et al. **Toxicon** 1998 Dec;36(12):1861–9

Toxicity and immunogenicity of Crotalus durissus terrificus venom treated with different doses of gamma rays. Clissa PB, et al. **Toxicon** 1999 Aug;37(8):1131–41

Effects of Bothrops pirajai venom on the mouse extensor digitorum longus (EDL) muscle preparation. Costa PD, et al. **Toxicon** 1999 Aug;37(8):1143–53

Neutralization of edema, hemorrhage and myonecrosis induced by North American crotalid venoms in simulated first–aid treatments. Evans J, et al. **Toxicon** 1999 Apr; 37(4):633–50

Characterization of local tissue damage evoked by Bothrops jararaca venom in the rat connective tissue microcirculation: an intravital microscopic study. Farsky SH, et al. **Toxicon** 1999 Jul;37(7):1079–83

Primary structure and biological activity of snake venom lectin (APL) from Agkistrodon p. piscivorus (Eastern cottonmouth). Komori Y, et al. **Toxicon** 1999 Jul; 37(7):1053–64

Comparative study of the venoms of three subspecies of Lachesis muta (bushmaster) from Brazil, Colombia and Costa Rica. Otero R, et al. **Toxicon** 1998 Dec;36(12):2021–7

Characterization of a myotoxin from the Duvernoy's gland secretion of the xenodontine colubrid Philodryas olfersii (green snake): effects on striated muscle and the neuromuscular junction. Prado–Franceschi J, et al. **Toxicon** 1998 Oct;36(10):1407–21

Characterization of the local tissue damage induced by LHF–II, a metalloproteinase with weak hemorrhagic activity isolated from Lachesis muta muta snake venom. Rucavado A, et al. **Toxicon** 1999 Sep;37(9):1297–312

Copperhead envenomations: clinical profiles of three different subspecies. Keyler DE, et al. **Vet Hum Toxicol** 1999 Jun;41(3):149–52

SNAKES

see related
SNAKE BITES
SNAKE VENOMS

Comparison of three classes of snake neurotoxins by homology modeling and computer simulation graphics. Juan HF, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):500–10

Expression of growth arrest and DNA damage genes and DNA mismatch repair genes in snake melanomas. Korabiowska M, et al. **In Vivo** 1998 Sep–Oct;12(5):539–42

Neoplasia in snakes at the National Zoological Park, Washington, DC (1978–1997). Catão–Dias JL, et al. **J Comp Pathol** 1999 Jan;120(1):89–95

Cardiovascular responses to a pet snake. Alonso Y. **J Nerv Ment Dis** 1999 May;187(5):311–3

Colonic adenocarcinoma in a corn snake (Elaphe guttata guttata). Latimer KS, et al. **J Zoo Wildl Med** 1998 Sep; 29(3):344–6

Serpents, staffs, and the emblems of medicine. Williams NW. **JAMA** 1999 Feb 3;281(5):475

Venomous snakes of Israel: ecology and snakebite. Kochva E. **Public Health Rev** 1998;26(3):209–32 (25 ref.)

Snakes and snake bite in Nepal [editorial] Bhetwal BB, et al. **Trop Doct** 1998 Oct;28(4):193–5

Snakes as an overlooked natural vector control resource [letter] Norris RL. **Wilderness Environ Med** 1999 Summer; 10(2):132

[Toxic risks in new pets. Seven cases of poisoning by exotic animals collected in 1997 at the Marseilles Antipoison Center (letter)] de Haro L, et al. **Presse Med** 1998 Sep 12;27(26):1327–8 **(Fre)**

[Asklepios redivivus—or the art of snake interpretation] Fichtelius KE. **Lakartidningen** 1998 Sep 23;95(39):4226–7 **(Swe)**

ANATOMY & HISTOLOGY

Structure, function, and evolution of the oviducts of squamate reptiles, with special reference to viviparity and placentation. Blackburn DG. **J Exp Zool** 1998 Nov–Dec 1;282(4–5):560–617 (314 ref.)

Fine structure of the parathyroid and ultimobranchial glands of the snake, Elaphe quadrivirgata. Yoshidaterasawa K, et al. **Okajimas Folia Anat Jpn** 1998 Aug;75(2–3):141–53

GENETICS

Extracting high–quality DNA from shed reptile skins: a simplified method. Fetzner JW Jr. **Biotechniques** 1999 Jun; 26(6):1052–4

Microgeographic population genetic structure in the northern water snake, Nerodia sipedon sipedon detected using microsatellite DNA loci. Prosser MR, et al. **Mol Ecol** 1999 Feb;8(2):329–33

METABOLISM

Quantitation of pyrethrum residues in brown tree snakes. Johnston JJ, et al. **J Chromatogr Sci** 1999 Jan;37(1):5–10

Effects of alpha–erabutoxin, alpha–bungarotoxin, alpha–cobratoxin and fasciculin on the nicotine–evoked release of dopamine in the rat striatum in vivo. Dajas–Bailador F, et al. **Neurochem Int** 1998 Oct; 33(4):307–12

MICROBIOLOGY

Case report. A disseminated infection due to Chrysosporium queenslandicum in a garter snake (Thamnophis) [letter] Vissiennon T, et al. **Mycoses** 1999 Apr;42(1–2):107–10

PARASITOLOGY

Phylogenetic relationships among Hepatozoon species from snakes, frogs and mosquitoes of Ontario, Canada, determined by ITS–1 nucleotide sequences and life–cycle, morphological and developmental characteristics. Smith TG, et al. **Int J Parasitol** 1999 Feb;29(2):293–304

Multiple Cryptosporidium serpentis oocyst isolates from captive snakes are not transmissible to amphibians. Graczyk TK, et al. **J Parasitol** 1998 Dec;84(6):1298–300

Phylogenetic analysis of Cryptosporidium isolates from captive reptiles using 18S rDNA sequence data and random amplified polymorphic DNA analysis. Morgan UM, et al. **J Parasitol** 1999 Jun;85(3):525–30

PHYSIOLOGY

Partial purification of acetylcholine receptor binding components from the Duvernoy's secretions of blanding's tree snake (Boiga blandingi) and the mangrove snake (Boiga dendrophila). Broaders M, et al. **J Nat Toxins** 1999 Jun; 8(2):155–66

A study on the venom yield of venomous snake species from Argentina. de Roodt AR, et al. **Toxicon** 1998 Dec; 36(12):1949–57

[Snakes from the urban area of Cuiabá, Mato Grosso: ecological aspects and associated snakebites] de Carvalho MA, et al. **Cad Saude Publica** 1998 Oct–Dec;14(4):753–63 (Eng. Abstr.) **(Por)**

SNEDDON–CHAMPION SYNDROME see **SNEDDON SYNDROME**

SNEDDON SYNDROME

COMPLICATIONS

Gradually progressive dementia without discrete cerebrovascular events in a patient with Sneddon's syndrome. Wright RA, et al. **Mayo Clin Proc** 1999 Jan; 74(1):57–61

DIAGNOSIS

Activated protein C resistance and Sneddon's syndrome [letter] Gualtieri RJ, et al. **Am J Med** 1999 Sep;107(3):293

Sneddon's syndrome and antithrombin III. Bolayir E, et al. **J Dermatol** 1999 Aug;26(8):532–4

Gradually progressive dementia without discrete cerebrovascular events in a patient with Sneddon's syndrome. Wright RA, et al. **Mayo Clin Proc** 1999 Jan; 74(1):57–61

[Sneddon syndrome—case report] Motyl A, et al. **Przegl Lek** 1998;55(5):294–7 (Eng. Abstr.) **(Pol)**

EPIDEMIOLOGY

Sneddon syndrome with or without antiphospholipid antibodies. A comparative study in 46 patients. Francès C, et al. **Medicine (Baltimore)** 1999 Jul;78(4):209–19

ETIOLOGY

Livedo reticularis and cerebrovascular accidents (Sneddon's syndrome) as a clinical expression of antiphospholipid syndrome. Gantcheva M, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):157–60

GENETICS

Activated protein C resistance and Sneddon's syndrome [letter] Gualtieri RJ, et al. **Am J Med** 1999 Sep;107(3):293

Sneddon's syndrome: neuro–ophthalmologic manifestations in a possible autosomal recessive pattern. Rehany U, et al. **Neurology** 1998 Oct;51(4):1185–7

IMMUNOLOGY

Sneddon syndrome with or without antiphospholipid antibodies. A comparative study in 46 patients. Francès C, et al. **Medicine (Baltimore)** 1999 Jul;78(4):209–19

Antibodies to prothrombin in patients with Sneddon's syndrome. Kalashnikova LA, et al. **Neurology** 1999 Jul 13; 53(1):223–5

[Antiphospholipid antibodies in a female patient with the Sneddon syndrome] Rakočević–Stojanović V, et al. **Vojnosanit Pregl** 1998 Jul–Aug;55(4):435–8 (Eng. Abstr.) **(Sec)**

RADIONUCLIDE IMAGING

Cerebral blood flow-SPECT in a patient with Sneddon's syndrome. Sumi Y, et al. **Ann Nucl Med** 1999 Apr; 13(2):109-12

SNEDDON-WILKINSON DISEASE see **SKIN DISEASES, VESICULOBULLOUS**

SNEEZING

Ominous sneezing [letter] Schattner A. **Am J Med** 1999 May; 106(5):598

The perils of a sneeze. Wein FB, et al. **J Neuroophthalmol** 1999 Jun;19(2):128-30

A sneezer's headache. Kurita H, et al. **Neurology** 1999 Aug 11;53(3):654-5

DRUG EFFECTS

Paroxysmal sneezing during local anesthesia for ocular surgery with thiopentone hypnosis [letter] Wessels IF, et al. **Can J Anaesth** 1999 Jun;46(6):617

The effectiveness of antihistamines in reducing the severity of runny nose and sneezing: a meta-analysis. D'Agostino RB Sr, et al. **Clin Pharmacol Ther** 1998 Dec;64(6):579-96

The photic sneeze reflex and ocular anesthesia. Wessels IF, et al. **Ophthalmic Surg Lasers** 1999 Mar;30(3):208-11

PHYSIOLOGY

Upper airway motor outputs during sneezing and coughing in decerebrate cats. Satoh I, et al. **Neurosci Res** 1998 Oct; 32(2):131-5

SNORING

The snoring spectrum: acoustic assessment of snoring sound intensity in 1,139 individuals undergoing polysomnography. Wilson K, et al. **Chest** 1999 Mar;115(3):762-70

When snoring requires serious attention. Stone P. **Practitioner** 1998 Jun;242(1587):458-62, 464 (14 ref.)

[Snoring and vascular diseases] Zamarrón C. **An Med Interna** 1998 Dec;15(12):669-71 (49 ref.) (Eng. Abstr.) **(Spa)**

COMPLICATIONS

Does snoring contribute to presbycusis? Hoffstein V, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1351-4

Evolution of sleep apnea syndrome in sleepy snorers: a population-based prospective study. Lindberg E, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2024-7

Snoring and risk of cognitive decline: a 4-year follow-up study in 1389 older individuals [letter] Quesnot A, et al. **J Am Geriatr Soc** 1999 Sep;47(9):1159-60

Complications of snoring, upper airway resistance syndrome, and obstructive sleep apnea syndrome in adults. Coleman J. **Otolaryngol Clin North Am** 1999 Apr;32(2):223-34 (39 ref.)

Nasal resistance in snorers with or without sleep apnea: effect of posture and nasal ventilation with continuous positive airway pressure. Desfonds P, et al. **Sleep** 1998 Sep 15; 21(6):625-32

Sleep apnoea and snoring: potential links with vascular disease. Sullivan CE, et al. **Thorax** 1998 Oct;53 Suppl 3:S8-11 (35 ref.)

DIAGNOSIS

Acoustic analysis of snoring and the site of airway obstruction in sleep related respiratory disorders. Miyazaki S, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;537:47-51

A new acoustic method of differentiating palatal from non-palatal snoring. Osborne JE, et al. **Clin Otolaryngol** 1999 Apr;24(2):130-3

Snoring assessment: do home studies and hospital studies give different results? Osman EZ, et al. **Clin Otolaryngol** 1998 Dec;23(6):524-7

A new method for evaluating and reporting the severity of snoring. Lim PV, et al. **J Laryngol Otol** 1999 Apr; 113(4):336-40

Patients' and partners' perceptions of uvulopalatopharyngoplasty for snoring. Tytherleigh MG, et al. **J Otolaryngol** 1999 Apr;28(2):73-5

Palatal snoring identified by acoustic crest factor analysis. Hill PD, et al. **Physiol Meas** 1999 May;20(2):167-74

A simple audio data logger for objective assessment of snoring in the home. Lee BW, et al. **Physiol Meas** 1999 May;20(2):119-27

Intensity of snoring in patients with sleep-related breathing disorders. Itasaka Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):299-300

EPIDEMIOLOGY

A 10-year follow-up of snoring in men. Lindberg E, et al. **Chest** 1998 Oct;114(4):1048-55

Snoring and myocardial infarction: a 4-year follow-up study. Zamarrón C, et al **Respir Med** 1999 Feb;93(2):108-12

Snoring and sleep apnea. A study of evolution and consequences in a male population. Minireview based on a doctoral thesis. Lindberg E. **Ups J Med Sci** 1998; 103(3):155-202 (198 ref.)

ETHNOLOGY

Prevalence of snoring and sleep breathing-related disorders in Chinese, Malay and Indian adults in Singapore. Ng TP, et al. **Eur Respir J** 1998 Jul;12(1):198-203

ETIOLOGY

Mirror-focused handpiece for laser-assisted uvulopalatoplasty for the treatment of snoring and sleep apnea. Wong BJ, et al. **Ear Nose Throat J** 1999 Apr; 78(4):298-300

Habitual snoring, OSA and craniofacial modification. Orthodontic clinical and diagnostic aspects in a case control study. Caprioglio A, et al. **Minerva Stomatol** 1999 Apr; 48(4):125-37 (43 ref.) **(Eng, Ita)**

Clinical value and cost of a respiratory sleep-related breathing disorders screening service for snorers referred to a District General Hospital ENT department. Lloyd-Owen SJ, et al. **Respir Med** 1999 Jul;93(7):454-60

MORTALITY

Increased mortality among sleepy snorers: a prospective population based study [see comments] Lindberg E, et al. **Thorax** 1998 Aug;53(8):631-7. Comment in: Thorax 1998 Aug;53(8):627-8.

PATHOLOGY

Craniofacial modifications in children with habitual snoring and obstructive sleep apnoea: a case-control study. Zucconi M, et al. **Eur Respir J** 1999 Feb;13(2):411-7

PHYSIOPATHOLOGY

Diagnostic and treatment implications of nasal obstruction in snoring and obstructive sleep apnea. Scharf MB, et al. **Ann Allergy Asthma Immunol** 1998 Oct;81(4):279-87; quiz 287-90 (114 ref.)

Inspiratory flow-volume curve in snoring patients with and without obstructive sleep apnea. Amado VM, et al. **Braz J Med Biol Res** 1999 Apr;32(4):407-11

Influence of gas density on simulated snoring. Liistro G, et al. **Eur Respir J** 1999 Mar;13(3):679-81

Upper airway mucosa temperature in obstructive sleep apnoea/hypopnoea syndrome, nonapnoeic snorers and nonsnorers. Séries F, et al. **Eur Respir J** 1998 Jul; 12(1):193-7

Neuromechanical interaction in human snoring and upper airway obstruction. Huang L, et al. **J Appl Physiol** 1999 Jun;86(6):1759-63

Heavy snoring with upper airway resistance syndrome may induce intrinsic positive end-expiratory pressure. Lofaso F, et al. **J Appl Physiol** 1998 Sep;85(3):860-6

Invited editorial on "Neuromechanical interaction in human snoring and upper airway obstruction" [editorial] Roberts D. **J Appl Physiol** 1999 Jun;86(6):1757-8

Effect of negative expiratory pressure on respiratory system flow resistance in awake snorers and nonsnorers. Tantucci C, et al. **J Appl Physiol** 1999 Sep;87(3):969-76

Respiratory research's reach [news] Mitka M. **JAMA** 1999 Jun 16;281(23):2172

Introduction to the mechanism of obstructive sleep apnoea and snoring. Simonds AK. **Monaldi Arch Chest Dis** 1998 Dec;53(6):617-20 (7 ref.)

Patients' and cohabitants' reports on snoring and daytime sleepiness, 1-8 years after surgical treatment of snoring. Hagert B, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 Jan-Feb;61(1):19-24

Improved nasal breathing in snorers increases nocturnal growth hormone secretion and serum concentrations of insulin-like growth factor 1 subsequently. Löth S, et al. **Rhinology** 1998 Dec;36(4):179-83

Pre-operative identification of the level of obstruction in non-apnoeic snoring. Raman R, et al. **Trop Doct** 1999 Jul; 29(3):160-1

PREVENTION & CONTROL

Pilot study of a semi-flexible intra-oral appliance for the control of snoring. Cameron DA, et al. **Br Dent J** 1998 Sep 26;185(6):304-7

Oral appliances for the management of snoring and obstructive sleep apnoea. Bennett LS, et al. **Thorax** 1998 Aug;53 Suppl 2:S58-64 (47 ref.)

PSYCHOLOGY

Evaluation of the quality of life of male snorers using the Nottingham Health Profile. Löth S, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):723-7

Psychometric performance before and after laser palatoplasty for non-apnoeic snoring. Richardson HC, et al. **Clin Otolaryngol** 1999 Aug;24(4):339-42

Are snoring medical students at risk of failing their exams? Ficker JH, et al. **Sleep** 1999 Mar 15;22(2):205-9

REHABILITATION

Better quality of life when nasal breathing of snoring men is improved at night. Löth S, et al. **Arch Otolaryngol Head Neck Surg** 1999 Jan;125(1):64-7

SURGERY

Cautery-assisted palatal stiffening operation and nasalance of speech. Hoolsema EM. **Ann Otol Rhinol Laryngol** 1999 Jul;108(7 Pt 1):705-7

Objective evaluations of the results of treatment for snoring and sleep apnea [letter; comment] Kehoe TJ, et al. **Chest** 1999 Jan;115(1):305-7. Comment on: Chest 1998 May;113(5):1163-74.

Objective benefit of laser palatoplasty for non-apnoeic snoring. Drinnan MJ, et al. **Clin Otolaryngol** 1999 Aug; 24(4):335-8

Laser Assisted Uvulopalatoplasty: an objective evaluation of the technique and results. Kotecha B, et al. **Clin Otolaryngol** 1998 Aug;23(4):354-9

Mirror-focused handpiece for laser-assisted uvulopalatoplasty for the treatment of snoring and sleep apnea. Wong BJ, et al. **Ear Nose Throat J** 1999 Apr; 78(4):298-300

Hypersomnia following uvulopalatopharyngoplasty for snoring. Smith RP, et al. **Eur Respir J** 1999 Jul;14(1):239-41

Laser assisted uvulopalatoplasty: six and eighteen month results. Wareing MJ, et al. **J Laryngol Otol** 1998 Jul; 112(7):639-41

Patients' and partners' perceptions of uvulopalatopharyngoplasty for snoring. Tytherleigh MG, et al. **J Otolaryngol** 1999 Apr;28(2):73-5

A new technique for laser-assisted uvulopalatoplasty: decision-tree analysis and results. Remacle M, et al. **Laryngoscope** 1999 May;109(5):763-8

Body mass index less than 28 kg/m2 is a predictor of subjective improvement after laser-assisted uvulopalatoplasty for snoring. Rollheim J, et al. **Laryngoscope** 1999 Mar;109(3):411-4

Snoring, obstructive sleep apnea, and surgery. Barthel SW, et al. **Med Clin North Am** 1999 Jan;83(1):85-96 (104 ref.)

Oropharyngeal surgery in the management of upper airway obstruction during sleep. Coleman J, et al. **Otolaryngol Clin North Am** 1999 Apr;32(2):263-76 (33 ref.)

Suspension sutures for the treatment of obstructive sleep apnea and snoring. Coleman J, et al. **Otolaryngol Clin North Am** 1999 Apr;32(2):277-85 (8 ref.)

[Long-term results of surgical pharyngectomy (uvulo-palato-pharyngoplasty) versus office CO2 laser (L.A.U.P.) for the treatment of uncomplicated snoring] Chabolle F, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Oct;115(4):196-201 (Eng. Abstr.) **(Fre)**

[Objective value of adenotonsillectomy in the child. A prospective study of incidence of tonsillitis, snoring, pulse oximetry and polysomnography and general development before and after adenotonsillectomy] Nuyens MR, et al. **Schweiz Rundsch Med Prax** 1999 May 12;88(20):893-9 (Eng. Abstr.) **(Ger)**

[On aspects of surgical treatment of pathological snoring] Pal'chun VT, et al. **Vestn Otorinolaringol** 1998;(5):40-2 (Eng. Abstr.) **(Rus)**

[Effectiveness of uvulopalatopharyngoplasty in snoring disorders and obstructive sleep apnea] Mozota Núñez JR, et al. **Acta Otorrinolaringol Esp** 1998 Nov-Dec; 49(8):629-32 (Eng. Abstr.) **(Spa)**

THERAPY

Effect of the external nasal dilator Breathe Right on snoring. Todorova A, et al. **Eur J Med Res** 1998 Aug 18;3(8):367-79

CPAP titration by an auto-CPAP device based on snoring detection: a clinical trial and economic considerations [see comments] Berkani M, et al. **Eur Respir J** 1998 Oct; 12(4):759-63. Comment in: Eur Respir J 1998 Oct;12(4):753-5.

Effects of Breathe Right on snoring: a polysomnographic study. Liistro G, et al. **Respir Med** 1998 Aug;92(8):1076-8

Dental side effects of an oral device to treat snoring and obstructive sleep apnea. Pantin CC, et al. **Sleep** 1999 Mar 15;22(2):237-40

A clinical study of the nasal dilator Nozovent in Japanese subjects. Shinkawa A, et al. **Tokai J Exp Clin Med** 1998 Mar;23(1):13-7

[Effective nasal CPAP therapy for heavy snoring and paradoxical respiration during sleep in a case of multiple system atrophy] Miyamoto M, et al. **Rinsho Shinkeigaku** 1998 Dec;38(12):1059-63 (14 ref.) (Eng. Abstr.) **(Jpn)**

SNOW

The 1996 New York blizzard: impact on noninjury emergency visits. Blindauer KM, et al. **Am J Emerg Med** 1999 Jan;17(1):23-7

Childhood sledding injuries. Shorter NA, et al. **Am J Emerg Med** 1999 Jan;17(1):32-4

Effects of temperature and snowfall on mortality in Pennsylvania. Gorjanc ML, et al. **Am J Epidemiol** 1999 Jun 15;149(12):1152-60

Lightning injuries during snowy conditions. Cherington M, et al. **Br J Sports Med** 1998 Dec;32(4):333-5

Cluster of unintentional carbon monoxide poisonings presenting to the emergency departments in Kingston, Ontario during 'ice storm 98'. Hartling L, et al. **Can J Public Health** 1998 Nov-Dec;89(6):388-90

Time trends in the concentrations of lead in wet precipitation from rural and urban sites in Austria. Kalina M, et al. **Chemosphere** 1999 May;38(11):2509-15

Snow-related recreational injuries in children: assessment of morbidity and management strategies. Hackam DJ, et al. **J Pediatr Surg** 1999 Jan;34(1):65-8; discussion 69

The blizzard of 1996: a pediatric emergency department [see

comments] Attia MW. **Prehosp Emerg Care** 1998 Oct-Dec; 2(4):285-8. Comment in: Prehosp Emerg Care 1998 Oct-Dec;2(4):334-5.
Hyphomycetes in the snow from gymnosperm trees. Czeczuga B, et al. **Rocz Akad Med Bialymst** 1998;43:85-94
Sledding injuries in the southeastern United States. Major CP, et al. **South Med J** 1999 Feb;92(2):193-6
[Injuries in sledding] Gröber J, et al.
Sportverletz Sportschaden 1998 Sep;12(3):114-7 (Eng. Abstr.) **(Ger)**

SNOWMOBILES see **OFF-ROAD MOTOR VEHICLES**

SNRNP see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

U1 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U1**

U2 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U2**

U3 SNRNP see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

U4 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U4-U6**

U4-U6 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U4-U6**

U5 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U5**

U6 SNRNP see **RIBONUCLEOPROTEINS, SMALL, U4-U6**

U7 SNRNP see **RIBONUCLEOPROTEINS, SMALL NUCLEAR**

SNUFF see **TOBACCO, SMOKELESS**

SOAPS

Handwashing with soap or alcoholic solutions? A randomized clinical trial of its effectiveness. Zaragoza M, et al. **Am J Infect Control** 1999 Jun;27(3):258-61
Blowing soap bubbles: teaching pursed-lip breathing [letter] Custodio LM. **Chest** 1998 Oct;114(4):1224
The effect of soap distribution on diarrhoea: Nyamithuthu Refugee Camp. Peterson EA, et al. **Int J Epidemiol** 1998 Jun;27(3):520-4

ADMINISTRATION & DOSAGE

Comparison of castile soap, benzalkonium chloride, and bacitracin as irrigation solutions for complex contaminated orthopaedic wounds. Conroy BP, et al.
J Orthop Trauma 1999 Jun-Jul;13(5):332-7

ADVERSE EFFECTS

Effects of various grit-containing cleansers on skin barrier function. Wigger-Alberti W, et al. **Contact Dermatitis** 1999 Sep;41(3):136-40

PHARMACOLOGY

A close look at alcohol gel as an antimicrobial sanitizing agent. Paulson DS, et al. **Am J Infect Control** 1999 Aug; 27(4):332-8

SOCCER

Intravenous vitamin complexes used in sporting activities and transmission of HCV in Brazil [letter] Paraná R, et al. **Am J Gastroenterol** 1999 Mar;94(3):857-8
Optimal preparation for the World Cup in soccer. Bangsbo J. **Clin Sports Med** 1998 Oct;17(4):697-709, vi
Contact dermatitis due to urea-formaldehyde resin in shin-pads. Sommer S, et al. **Contact Dermatitis** 1999 Mar; 40(3):159-60
Communicating about youth's sun exposure risk to soccer coaches and parents: a pilot study in Georgia. Parrott R, et al. **Health Educ Behav** 1999 Jun;26(3):385-95
The use of physical fitness scores and anthropometric data to predict selection in an elite under 18 Australian rules football team. Keogh J. **J Sci Med Sport** 1999 Jun; 2(2):125-33
Dispositional and situational goal orientations as discriminators among recreational and competitive league athletes. Ryska TA, et al. **J Soc Psychol** 1999 Jun; 139(3):335-42
[Smoking in professional soccer players in France] Bouillard J, et al. **Rev Mal Respir** 1998 Dec;15(6):753-7 (Eng. Abstr.) **(Fre)**

EDUCATION

Relative frequency of knowledge of performance and motor skill learning. Weeks DL, et al. **Res Q Exerc Sport** 1998 Sep;69(3):224-30

INJURIES

Partial rupture of the quadriceps tendon (jumper's knee) in a ten-year-old boy. A case report. Matsumoto K, et al. **Am J Sports Med** 1999 Jul-Aug;27(4):521-5
Knee joint laxity and neuromuscular characteristics of male and female soccer and basketball players. Rozzi SL, et al. **Am J Sports Med** 1999 May-Jun;27(3):312-9
Heading in soccer--time for a rethink? [editorial] Kernick DP. **Br J Gen Pract** 1999 Mar;49(440):171
Injuries caused by falling soccer goalposts in Denmark. Bløndl L, et al. **Br J Sports Med** 1999 Apr;33(2):110-2
An examination of the frequency and severity of injuries and incidents at three levels of professional football. Hawkins RD, et al. **Br J Sports Med** 1998 Dec;32(4):326-32
The relationship of skill level to anterior cruciate ligament injury. Harmon KG, et al. **Clin J Sport Med** 1998 Oct; 8(4):260-5
Leg injuries and shin guards. Boden BP. **Clin Sports Med** 1998 Oct;17(4):769-77, vii
Mechanisms of injury of the anterior cruciate ligament in soccer players. Delfico AJ, et al. **Clin Sports Med** 1998 Oct;17(4):779-85, vii
How can injuries be prevented in the World Cup soccer athlete? Engström BK, et al. **Clin Sports Med** 1998 Oct; 17(4):755-68, vii (61 ref.)
Groin pain in the soccer athlete: fact, fiction, and treatment. Gilmore J. **Clin Sports Med** 1998 Oct;17(4):787-93, vii
Are brain injuries a significant problem in soccer? Green GA, et al. **Clin Sports Med** 1998 Oct;17(4):795-809, viii
Youth soccer: an epidemiologic perspective. Metzl JD, et al. **Clin Sports Med** 1998 Oct;17(4):663-73, v (25 ref.)
Are there long-term sequelae from soccer? Roos H. **Clin Sports Med** 1998 Oct;17(4):819-31, viii (88 ref.)
Muscle injuries associated with soccer. Saartok T. **Clin Sports Med** 1998 Oct;17(4):811-7, viii (29 ref.)
Divot sign: a new observation in anterior impingement of the ankle. Raikin SM, et al. **Foot Ankle Int** 1999 Aug; 20(8):532-3
Outline of sport injuries in the V World Youth Championship for FIFA Cup in Saudi Arabia. Juma AH.
Indian J Med Sci 1998 Oct;52(10):433-7
Abdominal aortic rupture in a child after blunt trauma on a soccer field. Harkin DW, et al. **Injury** 1999 May; 30(4):303-4
Is heading a soccer ball injurious to brain function? Baroff GS. **J Head Trauma Rehabil** 1998 Apr;13(2):45-52 (20 ref.)
Strategy of exercise prescription using an unloading technique for functional rehabilitation of an athlete with an inversion ankle sprain. Kern-Steiner R, et al.
J Orthop Sports Phys Ther 1999 May;29(5):282-7
Transverse stress fracture of the patella in a child. García Mata S, et al. **J Pediatr Orthop B** 1999 Jul;8(3):208-11
Incidence of orofacial injuries in high school sports. Kvittem B, et al. **J Public Health Dent** 1998 Fall;58(4):288-93
Mouthguard use in Australian football. Banky J, et al.
J Sci Med Sport 1999 Mar;2(1):20-9
Neuropsychological impairment in amateur soccer players [see comments] Matser EJ, et al. **JAMA** 1999 Sep 8; 282(10):971-3. Comment in: JAMA 1999 Sep 8;282(10):989-91.
Tibia and fibula fractures in soccer players. Boden BP, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(4):262-6
Rainfall, evaporation and the risk of non-contact anterior cruciate ligament injury in the Australian Football League. Orchard J, et al. **Med J Aust** 1999 Apr 5;170(7):304-6
Stress fracture of the proximal fibula in a young soccer player: a case report and a review of the literature. DiFiori JP. **Med Sci Sports Exerc** 1999 Jul;31(7):925-8 (30 ref.)
Orofacial injuries in youth soccer. McFadyen JA, et al.
Pediatr Dent 1999 May-Jun;21(3):192-6
Sports-specific concerns in the young athlete: soccer. Metzl JD. **Pediatr Emerg Care** 1999 Apr;15(2):130-4 (19 ref.)
Fracture of the anterior nasal spine. Escada P, et al.
Rhinology 1999 Mar;37(1):40-2 (15 ref.)
The incidence and differential diagnosis of acute groin injuries in male soccer players. Ekstrand J, et al.
Scand J Med Sci Sports 1999 Apr;9(2):98-103
[Insurance expert assessment of traumatic Achilles tendon rupture. A case report] König DP, et al.
Versicherungsmedizin 1999 Jun 1;51(2):80-2 (Eng. Abstr.) **(Ger)**

PHYSIOLOGY

Comparison of different techniques to measure body composition in moderately active adolescents. De Lorenzo A, et al. **Br J Sports Med** 1998 Sep;32(3):215-9
Soccer players under regular training show oxidative stress but an improved plasma antioxidant status. Brites FD, et al. **Clin Sci (Colch)** 1999 Apr;96(4):381-5
The biomechanics of kicking in soccer. Barfield WR.
Clin Sports Med 1998 Oct;17(4):711-28, vi (52 ref.)
Fluid and electrolyte replacement in soccer. Kirkendall DT.
Clin Sports Med 1998 Oct;17(4):729-38, vi (23 ref.)
Influence of exercise duration on serum insulin-like growth factor and its binding proteins in athletes. Nguyen UN, et al. **Eur J Appl Physiol** 1998 Nov;78(6):533-7
Dietary and performance assessment of elite soccer players during a period of intense training. Rico-Sanz J, et al.
Int J Sport Nutr 1998 Sep;8(3):230-40
Carbohydrate intake and multiple sprint sports: with special reference to football (soccer). Balsom PD, et al.
Int J Sports Med 1999 Jan;20(1):48-52
Development of muscle strength in relation to training level and testosterone in young male soccer players. Hansen L, et al. **J Appl Physiol** 1999 Sep;87(3):1141-7
The effect of a high-carbohydrate diet on the skill performance of midfield soccer players after intermittent treadmill exercise. Abt G, et al. **J Sci Med Sport** 1998 Dec; 1(4):203-12
The relationship between aerobic fitness and both power output and subsequent recovery during maximal intermittent exercise. McMahon S, et al.
J Sci Med Sport 1998 Dec;1(4):219-27
Effect of summer intermission on skeletal muscle of adolescent soccer players. Amigó N, et al.
J Sports Med Phys Fitness 1998 Dec;38(4):298-304
Physical training of football players based on their positional rules in the team. Effects on performance-related factors. Di Salvo V, et al. **J Sports Med Phys Fitness** 1998 Dec; 38(4):294-7
The impact of soccer training on the immune system. Rebelo AN, et al. **J Sports Med Phys Fitness** 1998 Sep;38(3):258-61
Medical, morphological and functional aspects of Greek football referees. Rontoyannis GP, et al.
J Sports Med Phys Fitness 1998 Sep;38(3):208-14
Morphological variation analysis of the repeatability of soccer offensive schemes. Ferrario VF, et al.
J Sports Sci 1999 Feb;17(2):89-95
Kinematics of kicking as a function of different sources of constraint on accuracy. Teixeira LA.
Percept Mot Skills 1999 Jun;88(3 Pt 1):785-9
EMG activity of the iliopsoas muscle and leg kinetics during the soccer place kick. Dörge HC, et al.
Scand J Med Sci Sports 1999 Aug;9(4):195-200
Effects of age on the reciprocal peak torque ratios during knee muscle contractions in elite soccer players. Gür H, et al. **Scand J Med Sci Sports** 1999 Apr;9(2):81-7
Isokinetic knee extensor strength and functional performance in healthy female soccer players. Ostenberg A, et al.
Scand J Med Sci Sports 1998 Oct;8(5 Pt 1):257-64

SOCIAL ACCOUNTABILITY see **SOCIAL RESPONSIBILITY**

SOCIAL ADJUSTMENT

A 16-year follow-up study of schizophrenia and related disorders in Sofia, Bulgaria. Ganev K, et al.
Acta Psychiatr Scand 1998 Sep;98(3):200-7
Situational determinants of alcohol abuse among Caucasian and African-American college students. Humara MJ, et al. **Addict Behav** 1999 Jan-Feb;24(1):135-8
Stress-coping and other psychosocial risk factors: a model for smoking in grade 6 students. Koval JJ, et al.
Addict Behav 1999 Mar-Apr;24(2):207-18
Psychosocial impact of cosmetic rhinoplasty. Haraldsson P.
Aesthetic Plast Surg 1999 May-Jun;23(3):170-4
Anticipation of and adjustment to retirement. Lehr U, et al.
Aging (Milano) 1998 Oct;10(5):358-67
Women who are HIV infected: the role of religious activity in psychosocial adjustment. Biggar H, et al. **AIDS Care** 1999 Apr;11(2):195-9
Stress and coping in hearing mothers of children with hearing loss: factors affecting mother and child adjustment. Calderon R, et al. **Am Ann Deaf** 1999 Mar;144(1):7-18
Patterns of adaptive behavior in very young children with autism. Stone WL, et al. **Am J Ment Retard** 1999 Mar; 104(2):187-99
Changing teaching practices to promote achievement and bonding to school. Abbott RD, et al.
Am J Orthopsychiatry 1998 Oct;68(4):542-52
Adult transracial and inracial adoptees: effects of race, gender, adoptive family structure, and placement history on adjustment outcomes. Brooks D, et al.
Am J Orthopsychiatry 1999 Jan;69(1):87-99
Symptoms and cognition as predictors of community functioning: a prospective analysis. Norman RM, et al.
Am J Psychiatry 1999 Mar;156(3):400-5
Premorbid social functioning with schizophrenia and bipolar disorder [letter; comment] Reznik I, et al.
Am J Psychiatry 1999 Jun;156(6):986. Comment on: Am J Psychiatry 1997 Nov;154(11):1544-50.
Building momentum: an ethnographic study of inner-city redevelopment. Fullilove MT, et al.
Am J Public Health 1999 Jun;89(6):840-4
Neuropsychological, physical, and psychosocial functioning of individuals with end-stage renal disease. Bremer BA, et al. **Ann Behav Med** 1998 Fall;19(4):348-52
Peer relationships and social competence during early and middle childhood. Ladd GW. **Annu Rev Psychol** 1999; 50:333-59 (131 ref.)
Physicians' attention to parents' concerns about the psychosocial functioning of their children. Wildman BG, et al. **Arch Fam Med** 1999 Sep-Oct;8(5):440-4
Measures of executive functioning as predictors of functional ability and social integration in a rehabilitation sample. Hanks RA, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):1030-7
Chinese migrants' mental health and adjustment to life in New Zealand. Abbott MW, et al.
Aust N Z J Psychiatry 1999 Feb;33(1):13-21
Emotional and behavioural problems and competencies among immigrant and non-immigrant adolescents. Davies LC, et al. **Aust N Z J Psychiatry** 1998 Oct;32(5):658-65
Gender differences in living skills and global assessment of functioning among outpatients with schizophrenia. Hintikka J, et al. **Aust N Z J Psychiatry** 1999 Apr; 33(2):226-31

Assessing the psychosocial consequences of epilepsy: a community-based study. O'Donoghue MF, et al. **Br J Gen Pract** 1999 Mar;49(440):211–4

Competence in discourse as a measure of social integration and quality of life in persons with traumatic brain injury. Galski T, et al. **Brain Inj** 1998 Sep;12(9):769–82

Caregiver burden at 1 year following severe traumatic brain injury. Marsh NV, et al. **Brain Inj** 1998 Dec;12(12):1045–59

Psychosocial outcome risk indicator: predicting psychosocial outcome following traumatic brain injury. Watts R, et al. **Brain Inj** 1999 Feb;13(2):113–24

Effect of small burn injury on physical, social and psychological health at 3–4 months after discharge. Shakespeare V. **Burns** 1998 Dec;24(8):739–44

Empowering the staff in long-stay wards [letter] Bonin JP, et al. **Can J Psychiatry** 1998 Dec;43(10):1054–5

Commentary on social research about young people with congenital conditions [editorial; comment] Alderson P. **Cardiol Young** 1998 Jul;8(3):287–9. Comment on: Cardiol Young 1998 Jul;8(3):303–9.

Growing up with congenital heart disease: the dilemmas of adolescents and young adults [see comment] Tong EM, et al. **Cardiol Young** 1998 Jul;8(3):303–9. Comment on: Cardiol Young 1998 Jul;8(3):287–9.

Social information-processing patterns as predictors of social adaptation and behavior problems among maltreated children in foster care. Price JM, et al. **Child Abuse Negl** 1998 Sep;22(9):845–58

Marital conflict, divorce, and children's adjustment. Kelly JB. **Child Adolesc Psychiatr Clin N Am** 1998 Apr; 7(2):259–71, v–vi (52 ref.)

Joint custody and shared parenting. Research and interventions. Pruett MK, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Apr;7(2):273–94, vi (76 ref.)

Psychological adjustment of children awaiting limb reconstruction treatment. Bond JM, et al. **Child Care Health Dev** 1999 Jul;25(4):313–21

Early child care and self-control, compliance, and problem behavior at twenty-four and thirty-six months. The NICHD Early Child Care Research Network. **Child Dev** 1998 Aug;69(4):1145–70

A prospective longitudinal study of attachment disorganization/disorientation. Carlson EA. **Child Dev** 1998 Aug;69(4):1107–28

A three year follow-up of attachment and indiscriminate friendliness in children adopted from Romanian orphanages. Chisholm K. **Child Dev** 1998 Aug; 69(4):1092–106

Rejection sensitivity and children's interpersonal difficulties. Downey G, et al. **Child Dev** 1998 Aug;69(4):1074–91

Does welfare affect family processes and adolescent adjustment? Kalil A, et al. **Child Dev** 1998 Dec; 69(6):1597–613

Cognitive moderators of children's adjustment to stressful divorce events: the role of negative cognitive errors and positive illusions. Mazur E, et al. **Child Dev** 1999 Jan–Feb; 70(1):231–45

The impact of after-school peer contact on early adolescent externalizing problems is moderated by parental monitoring, perceived neighborhood safety, and prior adjustment. Pettit GS, et al. **Child Dev** 1999 May–Jun; 70(3):768–78

Experiences in after-school programs and children's adjustment in first-grade classrooms. Pierce KM, et al. **Child Dev** 1999 May–Jun;70(3):756–67

A prospective study of the effects of marital status and family relations on young children's adjustment among African American and European American families. Shaw DS, et al. **Child Dev** 1999 May–Jun;70(3):742–55

Family relationships and children's emotional adjustment as correlates of maternal and paternal differential treatment: a replication with toddler and preschool siblings. Volling BL, et al. **Child Dev** 1998 Dec;69(6):1640–56

Development of adjustment problems in girls: what syndromes emerge? Wängby M, et al. **Child Dev** 1999 May–Jun;70(3):678–99

Sleep schedules and daytime functioning in adolescents. Wolfson AR, et al. **Child Dev** 1998 Aug;69(4):875–87

The relationship of child adjustment to husbands' and wives' marital distress, perceived family conflict, and mothers' occupational status. Handal PJ, et al. **Child Psychiatry Hum Dev** 1998 Winter;29(2):113–26

Comparison of Korean-American adoptees and biological children of their adoptive parents: a pilot study. Kim WJ, et al. **Child Psychiatry Hum Dev** 1999 Spring;29(3):221–8

Psychosocial adjustment in twin pairs with and without hemifacial microsomia. Maris CL, et al. **Cleft Palate Craniofac J** 1999 Jan;36(1):43–50

Examining the psychosocial impact of implantable cardioverter defibrillators: a literature review. Sears SF Jr, et al. **Clin Cardiol** 1999 Jul;22(7):481–9

The psychologic assessment and psychosocial recovery of the patient with an amputation. Fitzpatrick MC. **Clin Orthop** 1999 Apr;(361):98–107 (17 ref.)

Social anxiety and drinking in college students: a social cognitive theory analysis. Burke RS, et al. **Clin Psychol Rev** 1999 Aug;19(5):513–30 (140 ref.)

Predictors of management problems in supported housing: a pilot study. Grunebaum M, et al. **Community Ment Health J** 1999 Apr;35(2):127–33

Psychosocial functioning of youth receiving mental health services in the schools versus community mental health centers. Weist MD, et al. **Community Ment Health J** 1999 Feb;35(1):69–81

Statewide replication of predictive validation for the Multnomah Community Ability Scale. Zani B, et al. **Community Ment Health J** 1999 Jun;35(3):223–9

Social adjustment and self-esteem in remitted patients with unipolar and bipolar affective disorder: a case-control study. Shapira B, et al. **Compr Psychiatry** 1999 Jan–Feb; 40(1):24–30

Social adjustment and the course of affective illness: a one-year controlled longitudinal study involving bipolar and unipolar outpatients. Bauwens F, et al. **Depress Anxiety** 1998;8(2):50–7

Relationships between parenting and adolescent adjustment over time: genetic and environmental contributions. Neiderhiser JM, et al. **Dev Psychol** 1999 May;35(3):680–92

The implications of different developmental patterns of disruptive behavior problems for school adjustment. Conduct Problems Prevention Research Group. Stormshak EA, et al. **Dev Psychopathol** 1998 Summer;10(3):451–67

Substance abuse and associated psychosocial problems among Argentina adolescents: sex heterogeneity and familial transmission. Moss HB, et al. **Drug Alcohol Depend** 1998 Nov 1;52(3):221–30

Family interactions as targets for intervention to improve social adjustment after epilepsy surgery. Langfitt JT, et al. **Epilepsia** 1999 Jun;40(6):735–44

Psychosocial characterization of patients with atopic dermatitis in conventional versus alternative-medical therapy. Zschocke I, et al. **Forsch Komplementarmed** 1999 Apr;6 Suppl 2:22–5

Use of sociometric techniques to assess the social status of mainstreamed children with learning difficulties. Frederickson NL, et al. **Genet Soc Gen Psychol Monogr** 1998 Nov;124(4):381–433

Approaches to psychosocial rehabilitation. Campo DD, et al. **Harv Rev Psychiatry** 1997 Mar–Apr;4(6):328–33

Early health-related behaviours and their impact on later life chances: evidence from the US. Burgess SM, et al. **Health Econ** 1998 Aug;7(5):381–99

The psychosocial impact of multiple sclerosis: exploring the patient's perspective. Mohr DC, et al. **Health Psychol** 1999 Jul;18(4):376–82

Concerns about breast cancer and relations to psychosocial well-being in a multiethnic sample of early-stage patients. Spencer SM, et al. **Health Psychol** 1999 Mar;18(2):159–68

Effect of perceived social support on adjustment of patients suffering from nasopharyngeal carcinoma. Ma JL. **Health Soc Work** 1998 Aug;23(3):167–74

Social support, social adjustment, and recovery status in bulimia nervosa. Rorty M, et al. **Int J Eat Disord** 1999 Jul;26(1):1–12

Psychodrama groups for girls coping with trauma. Carbonell DM, et al. **Int J Group Psychother** 1999 Jul;49(3):285–306

A model for diagnostics in neurological rehabilitation: an answer to 'the biopsychosocial disease consequence model in rehabilitation' of Talo et al [comment] Faby S. **Int J Rehabil Res** 1998 Jun;21(2):113–26. Comment on: Int J Rehabil Res 1996 Jun;19(2):93–109.

Social consequences of long term impairments and disabilities: conceptual approach and assessment of handicap. Fougeyrollas P, et al. **Int J Rehabil Res** 1998 Jun;21(2):127–41

Diogenes syndrome and hoarding in the elderly: case reports. Rosenthal M, et al. **Isr J Psychiatry Relat Sci** 1999; 36(1):29–34

Multiplex developmental disorder. Zalsman G, et al. **Isr J Psychiatry Relat Sci** 1998;35(4):300–6

Social-cognitive and behavioral correlates of aggression and victimization in boys' play groups. Schwartz D, et al. **J Abnorm Child Psychol** 1998 Dec;26(6):431–40

Childhood peer relationship problems and psychosocial adjustment in late adolescence. Woodward LJ, et al. **J Abnorm Child Psychol** 1999 Feb;27(1):87–104

Social skills, social outcomes, and cognitive features of childhood social phobia. Spence SH, et al. **J Abnorm Psychol** 1999 May;108(2):211–21

Adolescent children of Vietnam combat veteran fathers: a population at risk. Dansby VS, et al. **J Adolesc** 1999 Jun; 22(3):329–40

IQ scores among homeless older adolescents: characteristics of intellectual performance and associations with psychosocial functioning. Rohde P, et al. **J Adolesc** 1999 Jun;22(3):319–28

Family and personal characteristics of aggressive Nigerian boys: differences from and similarities with Western findings. Ani CC, et al. **J Adolesc Health** 1998 Nov; 23(5):311–7

Structural equation socialization model of substance use among Mexican-American and white non-Hispanic school dropouts. Swaim RC, et al. **J Adolesc Health** 1998 Sep; 23(3):128–38

Residual symptoms and social functioning over six-months in recovered outpatients with chronic depression. Agosti V. **J Affect Disord** 1999 Jan–Mar;52(1–3):251–5

Bipolar disorder in the latter half of life: symptom presentation, global functioning and age of onset. Meeks S. **J Affect Disord** 1999 Jan–Mar;52(1–3):161–7

Mental health and social adjustment in young refugee children 3 1/2 years after their arrival in Sweden. Almqvist K, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun; 38(6):723–30

A contextually relevant assessment of the impact of child maltreatment on the social competencies of low-income urban children. Fantuzzo JW, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1201–8

ADHD boys in young adulthood: psychosocial adjustment. Hansen C, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):165–71

Adverse life events and resilience. Tiet QQ, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1191–200

A comparison of social skills in adults with autistic disorder, pervasive developmental disorder not otherwise specified, and mental retardation. Njardvik U, et al. **J Autism Dev Disord** 1999 Aug;29(4):287–95

Neuropsychologic and adaptive functioning in adolescents and young adults shunted for congenital hydrocephalus. Hommet C, et al. **J Child Neurol** 1999 Mar;14(3):144–50 (48 ref.)

Childhood conduct problems, hyperactivity-impulsivity, and inattention as predictors of adult criminal activity. Babinski LM, et al. **J Child Psychol Psychiatry** 1999 Mar; 40(3):347–55

Familial subtypes of attention deficit hyperactivity disorder: a 4-year follow-up study of children from antisocial-ADHD families. Faraone SV, et al. **J Child Psychol Psychiatry** 1998 Oct;39(7):1045–53

Maternal age and educational and psychosocial outcomes in early adulthood. Fergusson DM, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):479–89

Shyness, friendship quality, and adjustment during middle childhood. Fordham K, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):757–68

Trick or treat?: uneven understanding of mind and emotion and executive dysfunction in "hard-to-manage" preschoolers. Hughes C, et al. **J Child Psychol Psychiatry** 1998 Oct;39(7):981–94

Emotional and behavioural problems in primary school children from nuclear and extended families in Korea. Hwang HJ, et al. **J Child Psychol Psychiatry** 1998 Oct; 39(7):973–9

Effects on later adjustment of living in a stepfamily during childhood and adolescence. Nicholson JM, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):405–16

Parental divorce and adjustment in adulthood: findings from a community sample. The ALSPAC Study Team. Avon Longitudinal Study of Pregnancy and Childhood. O'Connor TG, et al. **J Child Psychol Psychiatry** 1999 Jul; 40(5):777–89

Differences between school classes in preschoolers' psychosocial adjustment: evidence for the importance of children's interpersonal relations. van den Oord EJ, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):417–30

Changing self-esteem in children and adolescents: a meta-analytic review. Haney P, et al. **J Clin Child Psychol** 1998 Dec;27(4):423–33

Negative life events and the adjustment of school-age children: testing protective models. Jackson Y, et al. **J Clin Child Psychol** 1998 Dec;27(4):370–80

Psychometric evaluation of the social phobia and anxiety inventory for children: concurrent validity and normative data. Morris TL, et al. **J Clin Child Psychol** 1998 Dec; 27(4):452–8

Play, creativity, and adaptive functioning: implications for play interventions. Russ SW. **J Clin Child Psychol** 1998 Dec;27(4):469–80 (98 ref.)

The treatment of chronic depression, part 3: psychosocial functioning before and after treatment with sertraline or imipramine. Miller IW, et al. **J Clin Psychiatry** 1998 Nov; 59(11):608–19

Self-care and deviance in elementary school-age children. Pettine A, et al. **J Clin Psychol** 1998 Aug;54(5):629–43

Interpersonal ambivalence, perceived relationship adjustment, and conjugal loss. Bonanno GA, et al. **J Consult Clin Psychol** 1998 Dec;66(6):1012–22

Chronic and discrete stress as predictors of children's adjustment. Holmes CS, et al. **J Consult Clin Psychol** 1999 Jun;67(3):411–9

Comparison of adjustment of school-age children with and without chronic conditions: results from community-based samples. Stein RE, et al. **J Dev Behav Pediatr** 1998 Aug; 19(4):267–72

Predictors of early school age outcomes in very low birth weight children. Taylor HG, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):235–43

Global integrative meaning as a mediating factor in the relationship between social roles and psychological distress. Burton RP. **J Health Soc Behav** 1998 Sep;39(3):201–15

The effects of parental divorce on adult tobacco and alcohol consumption. Wolfinger NH. **J Health Soc Behav** 1998 Sep; 39(3):254–69

The interaction between marital standards and communication patterns: how does it contribute to marital adjustment? Gordon KC, et al. **J Marital Fam Ther** 1999 Apr;25(2):211–23

Cognitive behavioral approaches to the patients suffering from depression due to maladjustment in the work place: two case reports. Tomotake M, et al. **J Med Invest** 1999 Feb;46(1–2):109–14

The Objective Behavioral Index: a measure for assessing treatment response of patients with severe personality

SOCIAL ADJUSTMENT

disorders. Marziali E, et al. **J Nerv Ment Dis** 1999 May; 187(5):290–5

Thought disorder and psychosocial functioning in schizophrenia: the concurrent and predictive relationships. Racenstein JM, et al. **J Nerv Ment Dis** 1999 May; 187(5):281–9

The relative influences of symptoms, insight, and neurocognition on social adjustment in schizophrenia and schizoaffective disorder. Smith TE, et al. **J Nerv Ment Dis** 1999 Feb;187(2):102–8

Dimensions of social adjustment in schizophrenia: a factor analysis. Smith TE, et al. **J Nerv Ment Dis** 1999 Jan; 187(1):55–7

Long-term follow-up of psychological distress, social functioning, and coping style in treated and untreated patients with solvent-induced chronic toxic encephalopathy. Abjörnsson G, et al. **J Occup Environ Med** 1998 Sep;40(9):801–7

The limitations of antipsychotic medication on schizophrenia relapse and adjustment and the contributions of psychosocial treatment. Hogarty GE, et al. **J Psychiatr Res** 1998 May–Aug;32(3–4):243–50

The reliability and validity of the SAS-SMI. Wieduwilt KM, et al. **J Psychiatr Res** 1999 Mar–Apr;33(2):105–12

Family correlates of adolescent self-monitoring and social competence. Schoenrock CJ, et al. **J Psychol** 1999 Jul; 133(4):377–93

Psychiatric and social outcome following liver transplantation for alcoholic liver disease: a controlled study. Gledhill J, et al. **J Psychosom Res** 1999 Apr; 46(4):359–68

Socioeconomic status, social environment, depression and postdischarge adjustment of the cardiac patient. Sykes DH, et al. **J Psychosom Res** 1999 Jan;46(1):83–98

Psychosocial side effects of sildenafil therapy for erectile dysfunction. Wise TN. **J Sex Marital Ther** 1999 Apr–Jun; 25(2):145–50

The Revised Social Anxiety Scale: exploratory and confirmatory factor analysis. Shevlin ME, et al. **J Soc Psychol** 1999 Apr;139(2):250–2

Hopelessness in a community population: factorial structure and psychosocial correlates. Tanaka E, et al. **J Soc Psychol** 1998 Oct;138(5):581–90

Social resources and alcohol-related losses as predictors of help seeking among male problem drinkers. Hajema KJ, et al. **J Stud Alcohol** 1999 Jan;60(1):120–9

Functional, social and psychosexual adjustment after vaginal reconstruction [editorial; comment] Sheldon CA. **J Urol** 1999 Jul;162(1):188–9. Comment on: J Urol 1999 Jul;162(1):182–7.

Functional, social and psychosexual adjustment after vaginal reconstruction [see comments] Vates TS, et al. **J Urol** 1999 Jul;162(1):182–7. Comment in: J Urol 1999 Jul;162(1):188–9.

Sex comparisons in life satisfaction and psychosocial adjustment scores with an older adult sample: examining the effect of sex role differences in older cohorts. Hollis LA. **J Women Aging** 1998;10(3):59–77

Continuity and change in the social competence of children with autism, Down syndrome, and developmental delays [see comments] Sigman M, et al. **Monogr Soc Res Child Dev** 1999;64(1):1–114. Comment in: Monogr Soc Res Child Dev 1999 ;64(1):115–30; discussion 131–9.

Social readjustment and ischemic stroke: lack of an association in a multiethnic population. Abel GA, et al. **Neuroepidemiology** 1999;18(1):22–31

Social competence in Italian early childhood education. New RS. **New Dir Child Dev** 1998 Fall;(81):87–104

Breast feeding and later psychosocial adjustment. Fergusson DM, et al. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):144–57

Psychological and social adjustment after pediatric liver transplantation as a function of age at surgery and of time elapsed since transplantation [see comments] Schwering KL, et al. **Pediatr Transplant** 1997 Nov;1(2):138–45. Comment in: Pediatr Transplant 1997 Nov;1(2):99–100.

Long-term psychosocial adjustment following pediatric liver transplantation. Törnqvist J, et al. **Pediatr Transplant** 1999 May;3(2):115–25

Parenting and adjustment in schizophrenia. Caton CL, et al. **Psychiatr Serv** 1999 Feb;50(2):239–43

Psychosocial characteristics of pregnant and nonpregnant HIV-seropositive women. Swartz HA, et al. **Psychiatr Serv** 1998 Dec;49(12):1612–4

Relationship between maternal church attendance and adolescent mental health and social functioning. Varon SR, et al. **Psychiatr Serv** 1999 Jun;50(6):799–805

In sickness and in health: dilemmas of the person with severe mental illness. Barham P, et al. **Psychiatry** 1998 Summer; 61(2):163–70

The constitution of community: how individuals diagnosed with schizophrenia and their friends achieved community. Beal G. **Psychiatry** 1999 Summer;62(2):173–86

The thickness of being: intentional worlds, strategies of identity, and experience among schizophrenics. Corin E. **Psychiatry** 1998 Summer;61(2):133–46

Private and public in the lives of chronic schizophrenic patients. Leferink K. **Psychiatry** 1998 Summer;61(2):147–62 (60 ref.)

The relationship between social impairment and recovery from stroke. Shimoda K, et al. **Psychiatry** 1998 Summer; 61(2):101–11

Relationship between social rhythms and mood in patients with rapid cycling bipolar disorder. Ashman SB, et al. **Psychiatry Res** 1999 Apr 19;86(1):1–8

Gender-specific mechanisms associated with outcome of depression: perception of emotions, coping and interpersonal functioning. Bouhuys AL, et al. **Psychiatry Res** 1999 Mar 22;85(3):247–61

Personality and psychosocial dysfunction in schizophrenia: the association of extraversion and neuroticism to deficits in work performance. Lysaker PH, et al. **Psychiatry Res** 1998 Jul 27;80(1):61–8

Reflections on the denial of the Armenian Genocide. Boyajian LZ, et al. **Psychoanal Rev** 1998 Aug;85(4):505–16

Recollections of aged Armenian survivors of the Ottoman Turkish genocide: resilience through endurance, coping, and life accomplishments. Kalayjian A, et al. **Psychoanal Rev** 1998 Aug;85(4):489–504

Resilience in unaccompanied minors from the north of Somalia. Rousseau C, et al. **Psychoanal Rev** 1998 Aug; 85(4):615–37

Use it or lose it: engaged lifestyle as a buffer of cognitive decline in aging? Hultsch DF, et al. **Psychol Aging** 1999 Jun;14(2):245–63

Satisfaction with social networks: an examination of socioemotional selectivity theory across cohorts. Lansford JE, et al. **Psychol Aging** 1998 Dec;13(4):544–52

Mild mental retardation: psychosocial functioning in adulthood. Maughan B, et al. **Psychol Med** 1999 Mar; 29(2):351–66

Mothers' adjustment to the birth of a second child: a longitudinal study on use of verbal and nonverbal behaviors toward two children. Kojima Y. **Psychol Rep** 1999 Feb; 84(1):141–4

Incarcerated women: I. A comparison of college and noncollege inmates. Trice AD, et al. **Psychol Rep** 1998 Dec; 83(3 Pt 2):1415–8

Longitudinal assessment of play and adaptive behavior in young children with developmental disabilities. Sigafoos J, et al. **Res Dev Disabil** 1999 Mar–Apr;20(2):147–61

Impaired health status, and mental health, lower vitality and social functioning in women general practitioners in Sweden. A cross-sectional survey. Sundquist J, et al. **Scand J Prim Health Care** 1999 Jun;17(2):81–6

Emotional reactivity and debilitating beliefs during hospitalization predict future adjustment to first myocardial infarction in men. Melamed S, et al. **Scand J Rehabil Med** 1999 Mar;31(1):23–30

Anhedonia, positive and negative affect, and social functioning in schizophrenia. Blanchard JJ, et al. **Schizophr Bull** 1998;24(3):413–24

Relationship between cognitive and social dysfunction in schizophrenia. Addington J, et al. **Schizophr Res** 1998 Nov 9;34(1–2):59–66

Perceptions of psychosocial adjustment to aphasia: applications of the Code--Müller Protocols. Code C, et al. **Semin Speech Lang** 1999;20(1):51–62; quiz 63 (30 ref.)

Managing psychosocial adjustment to aphasia. Müller D. **Semin Speech Lang** 1999;20(1):85–91; quiz 92

The Dubai Community Psychiatric Survey. IV. Life events, chronic difficulties and psychiatric morbidity. Bebbington P, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Oct; 33(10):501–9

Thirteen-year social outcome among Nigerian outpatients with schizophrenia. Gureje O, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Mar;34(3):147–51

A comparison of social functioning among black and white women with breast cancer. Bourjolly JN, et al. **Soc Work Health Care** 1999;28(3):1–20

Improving the long-term adjustment of spinal cord injured persons. Craig A, et al. **Spinal Cord** 1999 May;37(5):345–50

Family situation and psychosocial issues including problems that impact on partnership or resettlement in the home and into society [clinical conference] Kreuter M, et al. **Spinal Cord** 1999 May;37(5):325–31

Visiting public drinking places: an explorative study into the functions of pub-going for late adolescents. Engels RC, et al. **Subst Use Misuse** 1999 Jul;34(9):1261–80

A comparison between MMPI and CPI adult profiles of children of alcoholics and nonalcoholics. Hunt ME. **Subst Use Misuse** 1999 May;34(6):921–33

Psychological abuse: implications for adjustment and commitment to leave violent partners. Arias I, et al. **Violence Vict** 1999 Spring;14(1):55–67

[Abuse of psychoactive drugs and social adjustment of psychotic patients] Lépine A, et al. **Can J Psychiatry** 1998 Dec;43(10):1036–9 (Eng. Abstr.) **(Fre)**

[Functional and social-professional impact of rheumatoid arthritis in Tunisia] Cheour E, et al. **Tunis Med** 1998 Dec; 76(12):471–4 **(Fre)**

[Psychiatric disorders: incidence, psychosocial effects and correlation with physical illnesses] Wittchen HU, et al. **Gesundheitswesen** 1998 Dec;60 Suppl 2:S95–100 **(Ger)**

[Rehabilitation of families of children and adolescents with cancer--long-term psychosocial outcome] van Buiren M, et al. **Klin Padiatr** 1998 Jul–Aug;210(4):304–9 (Eng. Abstr.) **(Ger)**

[Dimensions of schizophrenic symptomatology. Comparative testing of several theoretical models in a first-episode population sample] Löffler W, et al. **Nervenarzt** 1999 May; 70(5):416–29 (Eng. Abstr.) **(Ger)**

[Results of long-term follow-up of transsexual patients] Rauchfleisch U, et al. **Nervenarzt** 1998 Sep;69(9):799–805 (Eng. Abstr.) **(Ger)**

[Significance of work for mentally ill people in social relationships. Sociological commentary on vocational rehabilitation] von Kardorff E. **Psychiatr Prax** 1999 Apr; 26 Suppl 1:S25–9 **(Ger)**

[Pre-eclampsia and its psychosocial sequelae] Cignacco E, et al. **Schweiz Rundsch Med Prax** 1998 Aug 12; 87(33):1019–23 (Eng. Abstr.) **(Ger)**

[Sociality of young generation] Nishikawa K. **Nihon Arukoru Yakubutsu Igakkai Zasshi** 1998 Oct; 33(5):613–7 **(Jpn)**

[Factors relevant to long-term social prognosis of patients with spina bifida] Nakamura M, et al. **No To Hattatsu** 1999 Jan;31(1):21–6 (Eng. Abstr.) **(Jpn)**

[Problematic puberty?] Pape H, et al. **Tidsskr Nor Laegeforen** 1999 Jan 20;119(2):216–20 (Eng. Abstr.) **(Nor)**

[Social aspects of the adaptation and human ecology] Volozhin AI. **Med Tr Prom Ekol** 1999;(7):1–6 (Eng. Abstr.) **(Rus)**

[Development of a system for medico-social rehabilitation of industrial workers] Preobrzhenskaia VS, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Sep–Oct;(5):3–6 **(Rus)**

[Validation of the Spanish version of the social adaptation scale in depressive patients] Bobes J, et al. **Actas Esp Psiquiatr** 1999 Mar–Apr;27(2):71–80 (Eng. Abstr.) **(Spa)**

SOCIAL ALIENATION

Cortical brain dysfunction in early schizophrenia: secondary pathogenetic hierarchy of neuroplasticity, psychopathology and social impairment. Hemmingsen R, et al. **Acta Psychiatr Scand Suppl** 1999;395:80–8

Intergenerational transfer of psychosocial risk in women with childhood histories of aggression, withdrawal, or aggression and withdrawal [see comments] Serbin LA, et al. **Dev Psychol** 1998 Nov;34(6):1246–62. Comment in: Dev Psychol 1998 Nov;34(6):1263–8. Comment in: Dev Psychol 1998 Nov;34(6):1269–73.

Investigating the role of alienation in a multicomponent model of juvenile delinquency. Sankey M, et al. **J Adolesc** 1999 Feb;22(1):95–107

Self-reported abuse history and adolescent problem behaviors. I. Antisocial and suicidal behaviors. Bensley LS, et al. **J Adolesc Health** 1999 Mar;24(3):163–72

Predicting response to exposure treatment in PTSD: the role of mental defeat and alienation. Ehlers A, et al. **J Trauma Stress** 1998 Jul;11(3):457–71

Alienation and irrational beliefs in a nonclinical university population. Mahoney JM. **Psychol Rep** 1999 Feb; 84(1):137–40

[The effects of marital communication and social activity on alienation in married women and men] Ito Y, et al. **Shinrigaku Kenkyu** 1999 Apr;70(1):17–23 (Eng. Abstr.) **(Jpn)**

SOCIAL BEHAVIOR

Prevalences and correlates of ethnic harassment in the U.S. Women Physicians' Health Study. Corbie-Smith G, et al. **Acad Med** 1999 Jun;74(6):695–701

Development of social behaviour in four litters of dogs (Canis familiaris). Lund JD, et al. **Acta Vet Scand** 1998; 39(2):183–93

Prosocial coping and substance use during pregnancy. Blechman EA, et al. **Addict Behav** 1999 Jan–Feb; 24(1):99–109

Social skills, expectancies, and drinking in adolescents. Gaffney LR, et al. **Addict Behav** 1998 Sep–Oct;23(5):587–99

College students' self-reported reasons for playing drinking games. Johnson TJ, et al. **Addict Behav** 1999 Mar–Apr; 24(2):279–86

The relationship of positive and negative alcohol expectancies to patterns of consumption of alcohol in social drinkers. Lee NK, et al. **Addict Behav** 1999 May–Jun; 24(3):359–69

Follow-up contact bias in evaluation of substance abuse treatment programs. Rohrer JE, et al. **Adm Policy Ment Health** 1999 Jan;26(3):207–12

Same-sex and opposite-sex best friend interactions among high school juniors and seniors. Lundy B, et al. **Adolescence** 1998 Summer;33(130):279–89

The villain as reference idol: selection frequencies and salient attributes among New Zealand teenagers. Melnick MJ, et al. **Adolescence** 1998 Fall;33(131):543–54

How ageing and social factors affect memory. Stevens FC, et al. **Age Ageing** 1999 Jul;28(4):379–84

Motivational effects of alcohol on memory consolidation and heart rate in social drinkers. Bruce KR, et al. **Alcohol Clin Exp Res** 1999 Apr;23(4):693–701

Association between drinking-related antisocial behavior and a polymorphism in the serotonin transporter gene in a Japanese population. Ishiguro H, et al. **Alcohol Clin Exp Res** 1999 Jul;23(7):1281–4

Behavioral and psychiatric manifestations in dementia patients in a community: caregiver burden and outcome. Nagaratnam N, et al. **Alzheimer Dis Assoc Disord** 1998 Dec; 12(4):330–4

Response to Mudford, Hogg, and Roberts on continuous recording of behavior state [comment] Guess D, et al.

Am J Ment Retard 1998 Jul;103(1):75–9. Comment on: Am J Ment Retard 1997 Jul;102(1):54–66.

Correlations among the Reiss Screen, the Adaptive Behavior Scale Part II, and the Aberrant Behavior Checklist. Walsh KK, et al. **Am J Ment Retard** 1999 May;104(3):236–48

Gender differences in the use of linguistic devices by youths with mental retardation: a preliminary analysis. Wilkinson KM. **Am J Ment Retard** 1999 May;104(3):227–35

Childhood stress and symptoms of drug dependence in adolescence and early adulthood: social phobia as a mediator. DeWit DJ, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):61–72

Life history of Eulemur fulvus rufus from 1988–1998 in southeastern Madagascar. Overdorff DJ, et al. **Am J Phys Anthropol** 1999 Mar;108(3):295–310

Dominance in assamese macaques (Macaca assamensis). Bernstein IS, et al. **Am J Primatol** 1999;48(4):283–9

Social housing and pregnancy outcome in captive pigtailed macaques. Ha JC, et al. **Am J Primatol** 1999;47(2):153–63

Mahale chimpanzees: grouping patterns and cycling females. Matsumoto-Oda A. **Am J Primatol** 1999;47(3):197–207

Group encounters and territoriality in wild Alaotran gentle lemurs (Hapalemur griseus alaotrensis). Nievergelt CM, et al. **Am J Primatol** 1998;46(3):251–8

Context and sex differences exist in the acoustic structure of phee calls by newly-paired common marmosets (Callithrix jacchus). Norcross JL, et al. **Am J Primatol** 1999 Oct;49(2):165–81

Effects of separation and novelty on distress vocalizations and cortisol in the common marmoset (Callithrix jacchus). Norcross JL, et al. **Am J Primatol** 1999;47(3):209–22

Sex-specific usage patterns of sleeping sites in grey mouse lemurs (Microcebus murinus) in northwestern Madagascar. Radespiel U, et al. **Am J Primatol** 1998;46(1):77–84

Food transfers in wild and reintroduced golden lion tamarins, Leontopithecus rosalia. Ruiz-Miranda CR, et al. **Am J Primatol** 1999;48(4):305–20

Study of stalkers. Mullen PE, et al. **Am J Psychiatry** 1999 Aug;156(8):1244–9

Child outcomes when child care center classes meet recommended standards for quality. NICHD Early Child Care Research Network. **Am J Public Health** 1999 Jul; 89(7):1072–7

Taking time seriously. A theory of socioemotional selectivity. Carstensen LL, et al. **Am Psychol** 1999 Mar;54(3):165–81 (109 ref.)

The medial extended amygdala in male reproductive behavior. A node in the mammalian social behavior network. Newman SW. **Ann N Y Acad Sci** 1999 Jun 29; 877:242–57 (103 ref.)

Interpersonal processes: the interplay of cognitive, motivational, and behavioral activities in social interaction. Snyder M, et al. **Annu Rev Psychol** 1999;50:273–303 (138 ref.)

Emotional and behavioral adjustment after traumatic brain injury. Hanks RA, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):991–7

A new measure of conversational experience: the speaking extent and comfort scale (SPEACS). Lyons AC, et al. **Assessment** 1999 Jun;6(2):189–202

Stranded whales [editorial] Bryden MM. **Aust Vet J** 1999 Jan;77(1):30–1

Differential modulation of lateral septal vasopressin receptor blockade in spatial learning, social recognition, and anxiety-related behaviors in rats. Everts HG, et al. **Behav Brain Res** 1999 Feb 15;99(1):7–16

Isolation during the play period in infancy decreases adult social interactions in rats. Hol T, et al. **Behav Brain Res** 1999 Apr;100(1–2):91–7

The effects of amperozide on cocaine-induced social withdrawal in rats. Rademacher DJ, et al. **Behav Brain Res** 1999 Feb 15;99(1):75–80

Promoting generalized social interactions using puppets and script training in an integrated preschool. A single-case study using multiple baseline design. Gronna SS, et al. **Behav Modif** 1999 Jul;23(3):419–40

Identifying critical social interaction behaviors among high school students with and without disabilities. Hughes C. **Behav Modif** 1999 Jan;23(1):41–60

A cueing procedure to control impulsivity in children with attention deficit hyperactivity disorder. Posavac HD, et al. **Behav Modif** 1999 Feb;23(2):234–53

Bimodal modulation by nicotine of anxiety in the social interaction test: role of the dorsal hippocampus. File SE, et al. **Behav Neurosci** 1998 Dec;112(6):1423–9

Long-term effects of early diazepam exposure on social differentiation in adult male rats subjected to the diving-for-food situation. Schroeder H, et al. **Behav Neurosci** 1998 Oct;112(5):1209–17

Social influences on morphine conditioned place preference. Coventry TL, et al. **Behav Pharmacol** 1997 Nov; 8(6–7):575–84

Interpretive biases for ambiguous stimuli in social anxiety. Constans JI, et al. **Behav Res Ther** 1999 Jul;37(7):643–51

How do I appear to others? Social anxiety and processing of the observable self. Mansell W, et al. **Behav Res Ther** 1999 May;37(5):419–34

Serotonin and neuropeptides in affiliative behaviors. Insel TR, et al. **Biol Psychiatry** 1998 Aug 1;44(3):207–19 (45 ref.)

Subcortical correlates of differential classical conditioning of aversive emotional reactions in social phobia. Schneider F, et al. **Biol Psychiatry** 1999 Apr 1;45(7):863–71

Bullying: the need for an interagency response. Bullying is a social as well as an individual problem [editorial; comment] Chesson R. **BMJ** 1999 Aug 7;319(7206):330–1. Comment on: BMJ 1999 Aug 7;319(7206):344–8. Comment on: BMJ 1999 Aug 7;319(7206):348–51.

Bullying behaviour and psychosocial health among school students in New South Wales, Australia: cross sectional survey [see comments] Forero R, et al. **BMJ** 1999 Aug 7;319(7206):344–8. Comment in: BMJ 1999 Aug 7;319(7206):330–1.

Bullying, depression, and suicidal ideation in finnish adolescents: school survey [see comments] Kaltiala-Heino R, et al. **BMJ** 1999 Aug 7;319(7206):348–51. Comment in: BMJ 1999 Aug 7;319(7206):330–1.

Workplace bullying in NHS community trust: staff questionnaire survey. Quine L. **BMJ** 1999 Jan 23; 318(7178):228–32

The Wilfred Fish Lecture 1998. Standards in public life. Lord Nolan. **Br Dent J** 1998 Dec 12–26;185(11–12):554–7

Parental perceptions of pre-adolescent children who have experienced a febrile convulsion: effects of social class and gender. Hutt MJ, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):59–72

Peer victimisation at school and the health of secondary school students. Rigby K. **Br J Educ Psychol** 1999 Mar; 69 (Pt 1):95–104

Can social cognitive models contribute to the effectiveness of HIV-preventive behavioural interventions? A brief review of the literature and a reply to Joffe (1996; 1997) and Fife-Schaw (1997) [comment] Abraham C, et al. **Br J Med Psychol** 1998 Sep;71 (Pt 3):297–310 (73 ref.). Comment on: Br J Med Psychol 1996 Sep;69 (Pt 3):169–90. Comment on: Br J Med Psychol 1997 Mar;70 (Pt 1):65–73. Comment on: Br J Med Psychol 1997 Mar;70 (Pt 1):75–83.

Evolutionary kinship therapy: basic principles and treatment implications. Bailey KG, et al. **Br J Med Psychol** 1998 Dec; 71 (Pt 4):509–23

The brain and communication are basic for clinical human sciences. Gardner R Jr. **Br J Med Psychol** 1998 Dec;71 (Pt 4):493–508

Prevalence differences in depression among males and females: are there evolutionary explanations? McGuire MT, et al. **Br J Med Psychol** 1998 Dec;71 (Pt 4):479–91

The adaptive function of mood change. Price J. **Br J Med Psychol** 1998 Dec;71 (Pt 4):465–77

Impact of community mental health services on users' social networks. PRiSM Psychosis Study. 7. Becker T, et al. **Br J Psychiatry** 1998 Nov;173:404–8

Stalking: false claims of victimisation. Pathé M, et al. **Br J Psychiatry** 1999 Feb;174:170–2

Social roles and gender difference in the prevalence of common mental disorders. Weich S, et al. **Br J Psychiatry** 1998 Dec;173:489–93

Interaction effects in the theory of planned behaviour: studying cannabis use. Conner M, et al. **Br J Soc Psychol** 1999 Jun;38 (Pt 2):195–222

The human amygdala plays an important role in gaze monitoring. A PET study. Kawashima R, et al. **Brain** 1999 Apr;122 (Pt 4):779–83

Galanin antagonizes vasopressin-stimulated flank marking in male golden hamsters. Ferris CF, et al. **Brain Res** 1999 Jun 19;832(1–2):1–6

Behavioral sensitization to cocaine after a brief social stress is accompanied by changes in fos expression in the murine brainstem. Nikulina EM, et al. **Brain Res** 1998 Nov 9; 810(1–2):200–10

Morphine treatment during juvenile isolation increases social activity and opioid peptides release in the adult rat. Van den Berg CL, et al. **Brain Res** 1999 May 29;830(1):16–23

Male-female interactions and socio-sexual isolation of Mus spicilegus toward two other species of east-European mice, M. macedonicus and M. m. musculus. Ivantcheva A, et al. **C R Acad Sci III** 1999 Jul;322(7):597–605

The Sociobehavioural Cancer Research Network: background and progress report. Lockyer L, et al. **Cancer Prev Control** 1999 Apr;3(2):125–30

Play in two societies: pervasiveness of process, specificity of structure. Bornstein MH, et al. **Child Dev** 1999 Mar-Apr; 70(2):317–31

Regulation, emotionality, and preschoolers' socially competent peer interactions. Fabes RA, et al. **Child Dev** 1999 Mar-Apr;70(2):432–42

Social behavior correlates of cortisol activity in child care: gender differences and time-of-day effects. Tout K, et al. **Child Dev** 1998 Oct;69(5):1247–62

Introduction to the transformation of social experience in Chinese society: anthropological, psychiatric and social medicine perspectives. Kleinman A, et al. **Cult Med Psychiatry** 1999 Mar;23(1):1–6

The transformation of everyday social experience: what a mental and social health perspective reveals about Chinese communities under global and local change. Kleinman A, et al. **Cult Med Psychiatry** 1999 Mar;23(1):7–24 (43 ref.)

Suicide and social change in China. Phillips MR, et al. **Cult Med Psychiatry** 1999 Mar;23(1):25–50

Computer-assisted rating scales for social phobia: reliability and validity may not be what they appear [letter; comment] Heimberg RG, et al. **Depress Anxiety** 1999;9(1):44–6. Comment on: Depress Anxiety 1998;7(3):97–104.

Subtypes of social phobia in adolescents. Hofmann SG, et al. **Depress Anxiety** 1999;9(1):15–8

Behavioral development and olfactory learning in the honeybee (Apis mellifera). Ray S, et al. **Dev Psychobiol** 1999 Jan;34(1):21–7

Play is indispensable for an adequate development of coping with social challenges in the rat. van den Berg CL, et al. **Dev Psychobiol** 1999 Mar;34(2):129–38

Children's interpersonal behaviors and the teacher-child relationship. Birch SH, et al. **Dev Psychol** 1998 Sep; 34(5):934–46

Infant arousal in an en-face exchange with a new partner: effects of prematurity and perinatal biological risk. Eckerman CO, et al. **Dev Psychol** 1999 Jan;35(1):282–93

Social-cognitive influences on change in aggression over time [published erratum appears in Dev Psychol 1998 Nov;34(6):1155] Egan SK, et al. **Dev Psychol** 1998 Sep; 34(5):996–1006

Children's interactions in triads: behavioral profiles and effects of gender and patterns of friendships among members. Lansford JE, et al. **Dev Psychol** 1999 Jan; 35(1):80–93

Emerging sensitivity to the timing and structure of protoconversation in early infancy. Rochat P, et al. **Dev Psychol** 1999 Jul;35(4):950–7

Entry behavior and emotion regulation abilities of developmentally delayed boys. Wilson BJ. **Dev Psychol** 1999 Jan;35(1):214–22

Distorted perceptions in dyadic interactions of aggressive and nonaggressive boys: effects of prior expectations, context, and boys' age. Lochman JE, et al. **Dev Psychopathol** 1998 Summer;10(3):495–512

Genetics, eugenics and the medicalization of social behavior: lessons from the past. Allen GE. **Endeavour** 1999;23(1):10–9

The persistence of teacher-reported behavioral problems among children aged 8 to 12. Kumpulainen K, et al. **Eur Child Adolesc Psychiatry** 1998 Dec;7(4):225–34

The script model in relation to autism. Trillingsgaard A. **Eur Child Adolesc Psychiatry** 1999 Mar;8(1):45–9

Preferences, quantities and concerns: socio-cultural perspectives on the gendered consumption of foods. O'Doherty Jensen K, et al. **Eur J Clin Nutr** 1999 May; 53(5):351–9 (66 ref.)

Amygdalar neuropeptide Y Y1 receptors mediate the anxiolytic-like actions of neuropeptide Y in the social interaction test. Sajdyk TJ, et al. **Eur J Pharmacol** 1999 Mar 5;368(2–3):143–7

Social structure and seasonal variation in the behaviour of Eulemur mongoz. Curtis DJ, et al. **Folia Primatol (Basel)** 1999 Mar-Apr;70(2):79–96

Are orang-utan females as solitary as chimpanzee females? Wich SA, et al. **Folia Primatol (Basel)** 1999 Jan-Feb; 70(1):23–8

Seasonal patterns of sex steroids determined from feces in different social categories of Greylag geese (Anser anser). Hirschenhauser K, et al. **Gen Comp Endocrinol** 1999 Apr; 114(1):67–79

Daily life in very old age: everyday activities as expression of successful living. Horgas AL, et al. **Gerontologist** 1998 Oct;38(5):556–68

Influence of HIV status and age on cognitive representations of others. Carstensen LL, et al. **Health Psychol** 1998 Nov; 17(6):494–503

Ageing and social rank effects on the reproductive system of free-ranging yellow baboons (Papio cynocephalus) at Mikumi National Park, Tanzania. Wasser SK, et al. **Hum Reprod Update** 1998 Jul-Aug;4(4):430–8 (40 ref.)

Quantification of behaviour in social colonies of rhesus monkey. Palit G, et al. **Indian J Physiol Pharmacol** 1997 Jul;41(3):219–26

Premorbid psychosocial behavior in demented patients. Motomura N, et al. **Int J Neurosci** 1998 Sep;95(3–4):167–72

A two-year longitudinal study of neuropsychological and cognitive performance in relation to behavioral problems and competencies in elementary school children. Nigg JT, et al. **J Abnorm Child Psychol** 1999 Feb;27(1):51–63

Social-cognitive and behavioral correlates of aggression and victimization in boys' play groups. Schwartz D, et al. **J Abnorm Child Psychol** 1998 Dec;26(6):431–40

Early behavior problems as a predictor of later peer group victimization: moderators and mediators in the pathways of social risk. Schwartz D, et al. **J Abnorm Child Psychol** 1999 Jun;27(3):191–201

Drug abuse treatment as HIV prevention: changes in social drug use patterns might also reduce risk. Iguchi MY. **J Addict Dis** 1998;17(4):9–18

Whither "culture" in adolescent health research? [comment] Fergerson G. **J Adolesc Health** 1998 Sep;23(3):150–2. Comment on: J Adolesc Health 1998 Sep;23(3):139–49.

Skills training for pregnancy and AIDS prevention in Anglo and Latino youth [see comments] Hovell M, et al. **J Adolesc Health** 1998 Sep;23(3):139–49. Comment in: J Adolesc Health 1998 Sep;23(3):150–2.

Residual symptoms and social functioning over six-months in recovered outpatients with chronic depression. Agosti V. **J Affect Disord** 1999 Jan-Mar;52(1–3):251–5

Six months of desipramine for dysthymia: can dysthymic patients achieve normal social functioning? Friedman RA, et al. **J Affect Disord** 1999 Aug;54(3):283–6

Social anxiety, hypomania and the bipolar spectrum: data, theory and clinical issues. Himmelhoch JM. **J Affect Disord** 1998 Sep;50(2–3):203–13

Avoidant personality in social phobia and panic-agoraphobic disorder: a comparison. Perugi G, et al. **J Affect Disord** 1999 Aug;54(3):277–82

Psychopathology of childhood social phobia. Beidel DC, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun; 38(6):643–50

Evolutionary psychology [letter; comment] Rafferty FT. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):641–2 . Comment on: J Am Acad Child Adolesc Psychiatry 1997 Dec;36(12):1672–9; discussion 1679–81. Comment on: J Am Acad Child Adolesc Psychiatry 1998 Oct;37(10):1011–21.

Domains of social communication handicap in autism spectrum disorder. Robertson JM, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jun;38(6):738–45

Social anxiety and its effects on performance and perception. Strahan E, et al. **J Anxiety Disord** 1998 Jul–Aug; 12(4):293–305

The Vineland Adaptive Behavior Scales: supplementary norms for individuals with autism. Carter AS, et al. **J Autism Dev Disord** 1998 Aug;28(4):287–302

Children with autism fail to orient to naturally occurring social stimuli. Dawson G, et al. **J Autism Dev Disord** 1998 Dec;28(6):479–85

Brief report: the development of the Children's Social Behavior Questionnaire: preliminary data. Luteijn E, et al. **J Autism Dev Disord** 1998 Dec;28(6):559–65

Social functioning among girls with fragile X or Turner syndrome and their sisters. Mazzocco MM, et al. **J Autism Dev Disord** 1998 Dec;28(6):509–17

Social and nonsocial factors in the Childhood Autism Rating Scale. Stella J, et al. **J Autism Dev Disord** 1999 Aug; 29(4):307–17

Sibling interactions, self-regulation, and cynical hostility in adult male twins. Smith TW, et al. **J Behav Med** 1998 Aug; 21(4):337–49

Social cues attenuate photoresponsiveness of the male reproductive system in Siberian hamsters (Phodopus sungorus). Hegstrom CD, et al. **J Biol Rhythms** 1999 Feb; 14(1):54–61

The effect of partial-thickness facial burns on social functioning. Balakrishnan C, et al. **J Burn Care Rehabil** 1999 May–Jun;20(3):224–5

Do measures of externalising behaviour in normal populations predict later outcome?: Implications for targeted interventions to prevent conduct disorder. Bennett KJ, et al. **J Child Psychol Psychiatry** 1998 Nov;39(8):1059–70 (64 ref.)

Children's adjustment and prosocial behaviour in step-, single-parent, and non-stepfamily settings: findings from a community study. ALSPAC Study Team. Avon Longitudinal Study of Pregnancy and Childhood. Dunn J, et al. **J Child Psychol Psychiatry** 1998 Nov;39(8):1083–95

Intrusive and withdrawn behaviours of mothers interacting with their infants and boyfriends. Hart S, et al. **J Child Psychol Psychiatry** 1999 Feb;40(2):239–45

The EAS temperament questionnaire--factor structure, age trends, reliability, and stability in a Norwegian sample. Mathiesen KS, et al. **J Child Psychol Psychiatry** 1999 Mar; 40(3):431–9

The frequency and distribution of spontaneous attention shifts between social and nonsocial stimuli in autistic, typically developing, and nonautistic developmentally delayed infants. Swettenham J, et al. **J Child Psychol Psychiatry** 1998 Jul;39(5):747–53

Further validation of social impairment as a predictor of substance use disorders: findings from a sample of siblings of boys with and without ADHD. Greene RW, et al. **J Clin Child Psychol** 1999 Sep;28(3):349–54

Links between mothers' and children's social competence and associations with maternal adjustment. Prinstein MJ, et al. **J Clin Child Psychol** 1999 Jun;28(2):197–210

A study of Benjamin's eight-facet Structural Analysis of Social Behavior (SASB) model. Lorr M, et al. **J Clin Psychol** 1999 Feb;55(2):207–15

Heart rate responses to social interactions in free-moving rhesus macaques (Macaca mulatta): a pilot study. Aureli F, et al. **J Comp Psychol** 1999 Mar;113(1):59–65

Daily scheduling of the golden spiny mouse under photoperiodic and social cues. Zisapel N, et al. **J Exp Zool** 1999 Jun 15;284(1):100–6

Adult ontogeny of rat working memory of social interactions. Taylor G, et al. **J Gerontol A Biol Sci Med Sci** 1999 Mar; 54(3):M145–51

Behavior sequences of long-term care residents and their social partners. Rose MS, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):S75–83

Testosterone and men's depression: the role of social behavior. Booth A, et al. **J Health Soc Behav** 1999 Jun; 40(2):130–40

Sexual risk behavior among youth: modeling the influence of prosocial activities and socioeconomic factors. Ramirez-Valles J, et al. **J Health Soc Behav** 1998 Sep; 39(3):237–53

Voluntary association membership and psychological distress. Rietschlin J. **J Health Soc Behav** 1998 Dec; 39(4):348–55

S/M (sadomasochistic) interactions in semi-public settings. Moser C. **J Homosex** 1998;36(2):19–29

A simple ethological monitoring system to assess social stress in group-housed laboratory rhesus macaques. Augustsson H, et al. **J Med Primatol** 1999 Apr;28(2):84–90

Social cognition and social skills in schizophrenia: the role of self-monitoring. Penn DL, et al. **J Nerv Ment Dis** 1999 Mar;187(3):188–90

Contributions of social cues and photoperiod to seasonal plasticity in the adult avian song control system. Tramontin AD, et al. **J Neurosci** 1999 Jan 1;19(1):476–83

Social implications of childhood Crohn's disease. Moody G, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S43–5

The chameleon effect: the perception-behavior link and social interaction. Chartrand TL, et al. **J Pers Soc Psychol** 1999 Jun;76(6):893–910

Perceptual biases, affect, and behavior in the relationships of dependents and self-critics. Mongrain M, et al. **J Pers Soc Psychol** 1998 Jul;75(1):230–41

Revisiting the past and back to the future: memory systems and the linguistic representation of social events. Semin GR, et al. **J Pers Soc Psychol** 1999 Jun;76(6):877–92

Bright, bad, babyfaced boys: appearance stereotypes do not always yield self-fulfilling prophecy effects. Zebrowitz LA, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1300–20

Gender differences in depression: an ethological study of nonverbal behavior during interviews. Troisi A, et al. **J Psychiatr Res** 1999 May–Jun;33(3):243–50

Depression and social functioning in general hospital in-patients. Arolt V, et al. **J Psychosom Res** 1998 Aug; 45(2):117–26

Differential effects of harassment on cardiovascular and salivary cortisol stress reactivity and recovery in women and men. Earle TL, et al. **J Psychosom Res** 1999 Feb; 46(2):125–41

From individuals to aggregations: the interplay between behavior and physics. Flierl G, et al. **J Theor Biol** 1999 Feb 21;196(4):397–454

Harassment of lesbians as medical students and physicians. Brogan DJ, et al. **JAMA** 1999 Oct 6;282(13):1290, 1292

Positive effects of prenatal and early childhood interventions [editorial; comment] Earls F. **JAMA** 1998 Oct 14; 280(14):1271–3. Comment on: JAMA 1998 Oct 14;280(14):1238–44.

Deficits in memory tasks of mice with CREB mutations depend on gene dosage. Gass P, et al. **Learn Mem** 1998 Sep–Oct;5(4–5):274–88

Reduced K+ channel inactivation, spike broadening, and after-hyperpolarization in Kvbeta1.1-deficient mice with impaired learning. Giese KP, et al. **Learn Mem** 1998 Sep–Oct;5(4–5):257–73

Social interpersonal dimensions of the psychoses. Lindsay JS. **Med Hypotheses** 1999 Apr;52(4):335–47 (28 ref.)

"Best friends": the construction of a teenage friendship. Day M, et al. **Ment Retard** 1999 Jun;37(3):221–31

Social cognition, joint attention, and communicative competence from 9 to 15 months of age [see comments] Carpenter M, et al. **Monogr Soc Res Child Dev** 1998; 63(4):i–vi, 1–143. Comment in: Monogr Soc Res Child Dev 1998 ;63(4):144–66. Comment in: Monogr Soc Res Child Dev 1998 ;63(4):167–74.

Social cognition in infancy [comment] Moore C. **Monogr Soc Res Child Dev** 1998;63(4):167–74. Comment on: Monogr Soc Res Child Dev 1998 ;63(4):i–vi, 1–143.

Social rank, stress, fitness, and life expectancy in wild rabbits. von Holst D, et al. **Naturwissenschaften** 1999 Aug; 86(8):388–93

Social behavior of juvenile rats after in utero exposure to morphine: dose-time-effect relationship. Niesink RJ, et al. **Neuropharmacology** 1999 Aug;38(8):1207–23

Aggressive and social behavior after alprazolam withdrawal: experimental therapy with Ro 19–8022. Krsiak M, et al. **Neurosci Biobehav Rev** 1998;23(2):155–61

The developmental psychobiology of behavioural plasticity in mice: the role of social experiences in the family unit. Laviola G, et al. **Neurosci Biobehav Rev** 1998;23(2):197–213 (123 ref.)

Importance of gender for the display of social impairment in pairbond disrupted gerbils. Starkey NJ, et al. **Neurosci Biobehav Rev** 1998;23(2):273–7

Olfactory bulb norepinephrine depletion abolishes vasopressin and oxytocin preservation of social recognition responses in rats. Dluzen DE, et al. **Neurosci Lett** 1998 Oct 2;254(3):161–4

Diazepam binding inhibitor (DBI) gene expression in the brains of socially isolated and group-housed mice. Dong E, et al. **Neurosci Res** 1999 Mar;33(3):171–7

From "headbangers" to "hippies": delineating adolescents' active attempts to form an alternative peer culture. Kinney DA. **New Dir Child Adolesc Dev** 1999 Summer;(84):21–35

Neighborhood rhythms and the social activities of adolescent mothers. Burton LM, et al. **New Dir Child Dev** 1998 Winter; (82):7–22

Socioemotional development across cultures: context, complexity, and pathways. Sharma D, et al. **New Dir Child Dev** 1998 Fall;(81):3–20 (133 ref.)

Relationship between the chronic pain grade and measures of physical, social and psychological well-being. Penny KI, et al. **Pain** 1999 Feb;79(2–3):275–9

Social, emotional, and behavioral functioning of children with cancer. Noll RB, et al. **Pediatrics** 1999 Jan;103(1):71–8

The effects of infusion of arginine vasopressin, oxytocin, or their antagonists into the olfactory bulb upon social recognition responses in male rats. Dluzen DE, et al. **Peptides** 1998;19(6):999–1005

Men and women holding hands: whose hand is uppermost? Chapell M, et al. **Percept Mot Skills** 1998 Aug;87(1):127–30

The effects of the naltrexone implant on rodent social interactions and cocaine-induced conditioned place preference. Mitchem LD, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):97–102

Socio-sexual behavior in male rats after lesions of the dorsolateral tegmentum. Giordano M, et al. **Physiol Behav** 1998 Aug;65(1):89–94

High-frequency ultrasonic vocalizations index conditioned pharmacological reward in rats. Knutson B, et al. **Physiol Behav** 1999 Jun;66(4):639–43

Effects of social status after mixing on immune, metabolic, and endocrine responses in pigs. Tuchscherer M, et al. **Physiol Behav** 1998 Jun 1;64(3):353–60

Social stress in neighboring and encountering blind mole-rats (Spalax ehrenbergi). Zuri I, et al. **Physiol Behav** 1998 Jul; 64(5):611–20

Prevention by a silymarin/phospholipid compound of ethanol-induced social learning deficits in rats. Reid C, et al. **Planta Med** 1999 Jun;65(5):421–4

An abusive patient who upsets staff. Bowskill J, et al. **Practitioner** 1999 Feb;243(1595):69, 72–3, 76–8

Scaling in animal group-size distributions. Bonabeau E, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4472–7

Spray aiming in the bombardier beetle: photographic evidence. Eisner T, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9705–9

Genetic control of social organization in an ant. Ross KG, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14232–7

Infanticide and expulsion of females in a cooperative mammal. Clutton-Brock TH, et al. **Proc R Soc Lond B Biol Sci** 1998 Dec 7;265(1412):2291–5

Role of vasopressin and oxytocin in the control of social behavior in Syrian hamsters (Mesocricetus auratus). Albers HE, et al. **Prog Brain Res** 1998;119:395–408 (71 ref.)

Vasopressin, gonadal steroids and social recognition. Dantzer R. **Prog Brain Res** 1998;119:409–14 (23 ref.)

Neurohypophyseal peptides and social recognition in rats. Popik P, et al. **Prog Brain Res** 1998;119:415–36 (167 ref.)

Behavioral profile of 3,4-methylenedioxy-methamphetamine (MDMA) in agonistic encounters between male mice. Navarro JF, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb; 23(2):327–34

Diurnal and seasonal variations in vervet monkeys' activity. Baldellou M, et al. **Psychol Rep** 1998 Oct;83(2):675–85

The comprehension and validation of social information. Wyer RS Jr, et al. **Psychol Rev** 1999 Jan;106(1):89–118

Neuroendocrine perspectives on social attachment and love. Carter CS. **Psychoneuroendocrinology** 1998 Nov; 23(8):779–818 (205 ref.)

Effects of early stress on adult affiliative behavior. Henry JP, et al. **Psychoneuroendocrinology** 1998 Nov;23(8):863–75 (54 ref.)

Influence of socioeconomic status on behavioral, emotional and cognitive effects of rubella vaccination: a prospective, double blind study. Morag M, et al. **Psychoneuroendocrinology** 1998 May;23(4):337–51

Housing familiar male wildtype rats together reduces the long-term adverse behavioural and physiological effects of social defeat. Ruis MA, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):285–300

Social relationships and the management of stress. Sachser N, et al. **Psychoneuroendocrinology** 1998 Nov;23(8):891–904

Social behaviour in rats lesioned with ibotenic acid in the hippocampus: quantitative and qualitative analysis. Becker A, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):333–8

The convergent validity of the Matson Evaluation of Social Skills for individuals with Severe Retardation (MESSIER). Matson JL, et al. **Res Dev Disabil** 1998 Nov–Dec; 19(6):493–500

Neurocognitive and social functioning in schizophrenia. Addington J, et al. **Schizophr Bull** 1999;25(1):173–82

Social functioning and neurocognitive deficits in outpatients with schizophrenia: a 2-year follow-up. Dickerson F, et al. **Schizophr Res** 1999 May 4;37(1):13–20

Religion and science [letter] Fjerdinstad EJ. **Science** 1999 Jun 11;284(5421):1773

Chimp cultural diversity [letter; comment] Jablonski NG, et al. **Science** 1999 Aug 6;285(5429):836–7. Comment on: Science 1999 Jun 25;284(5423):2070–3.

Sexual network patterns as determinants of STD rates: paradigm shift in the behavioral epidemiology of STDs made visible [editorial; comment] Aral SO. **Sex Transm Dis** 1999 May;26(5):262–4. Comment on: Sex Transm Dis 1999 May;26(5):250–61.

A model for combined assessment of motor performance and behaviour in 3-year-old children. Hemgren E, et al. **Ups J Med Sci** 1999;104(1):49–85

[Advances in the study of HIV/AIDS associated social behavior] Li H, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Mar; 32(2):120–1 (16 ref.) **(Chi)**

[Bullying as health hazard among school children] Due EP, et al. **Ugeskr Laeger** 1999 Apr 12;161(15):2201–6 (Eng. Abstr.) **(Dan)**

[Social intelligence deficits in autistic children and adolescents--subjective theories of psychosocial health care professionals] Krech M, et al. **Prax Kinderpsychol Kinderpsychiatr** 1998 Oct;47(8):574–88 (Eng. Abstr.) **(Ger)**

[Observations of play and verbal behavior of boys with fragile X syndrome in early childhood] Sarimski K. **Z Kinder Jugendpsychiatr Psychother** 1999 Aug; 27(3):175–81 (Eng. Abstr.) **(Ger)**

[Science, customs and social life in the Middle Ages] Latronico N. **Minerva Pediatr** 1999 Mar;51(3):73–85 **(Ita)**

[The effects of marital communication and social activity on alienation in married women and men] Ito Y, et al. **Shinrigaku Kenkyu** 1999 Apr;70(1):17–23 (Eng. Abstr.) **(Jpn)**

[The legal settlement 1945–50 (letter; comment)] Janssen CW. **Tidsskr Nor Laegeforen** 1999 Aug 20;119(19):2893. Comment on: Tidsskr Nor Laegeforen 1999 Jun 30;119(17):2495–500. Comment on: Tidsskr Nor Laegeforen 1999 Jun 30;119(17):2501–7. **(Nor)**

[Play and creativeness as training method in performance anxiety (letter)] Johansson T. **Tidsskr Nor Laegeforen** 1999 Jun 20;119(16):2392–3 **(Nor)**

[The pharmacological modulation of group behavior and biorhythms in the dynamics of a chronic experiment] Grechko AT, et al. **Eksp Klin Farmakol** 1998 Sep–Oct; 61(5):13–4 (Eng. Abstr.) **(Rus)**

[Systemic variations of social relationships in the two groups of Java macacas] Butovskaia ML, et al. **Izv Akad Nauk Ser Biol** 1999 Jan–Feb;(1):47–58 (Eng. Abstr.) **(Rus)**

SOCIAL BEHAVIOR DISORDERS

see related
ANTISOCIAL PERSONALITY DISORDER

Predictors of mortality in nursing home residents. Cohen-Mansfield J, et al. **J Clin Epidemiol** 1999 Apr; 52(4):273–80

Integrating Models of Challenging Behaviour: conference brief and musings on a multidisciplinary workshop [news] Hillery J. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):325–7

CHEMICALLY INDUCED

Reliability of the Matson Evaluation of Drug Side Effects Scale (MEDS). Matson JL, et al. **Res Dev Disabil** 1998 Nov–Dec;19(6):501–6

COMPLICATIONS

Aggression and sexual offense in Asperger's syndrome. Kohn Y, et al. **Isr J Psychiatry Relat Sci** 1998;35(4):293–9

DIAGNOSIS

Why functional assessment is enough: a response to Reiss and Havercamp [comment] [see comments] Freeman KA, et al. **Am J Ment Retard** 1998 Jul;103(1):80–91. Comment on: Am J Ment Retard 1997 May;101(6):553–66. Comment in: Am J Ment Retard 1999 May;104(3):289–93.

Predicting adolescent peer problems and antisocial activities: the relative roles of aggression and dysregulation. Pope AW, et al. **Dev Psychol** 1999 Mar;35(2):335–46

The behavioral pathology in Alzheimer's Disease Scale (BEHAVE-AD): factor structure among community-dwelling Alzheimer's disease patients. Harwood DG, et al. **Int J Geriatr Psychiatry** 1998 Nov; 13(11):793–800

Impaired but undiagnosed. Angold A, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):129–37

Deficient social problem-solving in boys with ODD/CD, with ADHD, and with both disorders. Matthys W, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Mar;38(3):311–21

Anger as a predictor of aggression among incarcerated adolescents. Cornell DG, et al. **J Consult Clin Psychol** 1999 Feb;67(1):108–15

Diverse diagnostic and behavioural patterns amongst people with a dual diagnosis. Dudley JR, et al. **J Intellect Disabil Res** 1999 Apr;43 (Pt 2):70–9

Diogenes' syndrome in patients with intellectual disability: 'a rose by any other name'? Williams H, et al. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):316–20

A comparison of maladaptive behaviors of athletes and nonathletes. Weiss SM. **J Psychol** 1999 May;133(3):315–22

Validating the Alcohol Use Disorder Identification Test with college first-offenders. O'Hare T, et al. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):113–9

Background for and development of a brief Adult Behavioral Classification Project Inventory. Marullo S, et al. **Psychol Rep** 1998 Oct;83(2):531–44

An analysis of maladaptive behaviors in persons with autism, PDD-NOS, and mental retardation. Dawson JE, et al. **Res Dev Disabil** 1998 Sep–Oct;19(5):439–48

The convergent validity of the Matson Evaluation of Social Skills for individuals with Severe Retardation (MESSIER). Matson JL, et al. **Res Dev Disabil** 1998 Nov–Dec; 19(6):493–500

Problem social behavior in the workplace: an analysis of social behavior problems in a supported employment setting. Reitman D, et al. **Res Dev Disabil** 1999 May–Jun; 20(3):215–28

[Predictors of behavioural disorders and consultation-liaison psychiatry in patients with HIV disorders] Ochoa E, et al. **Actas Esp Psiquiatr** 1999 Mar–Apr;27(2):97–102 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Airline passenger dies after being sedated by doctor [news] [see comments] Kovac C. **BMJ** 1999 Jan 2;318(7175):12. Comment in: BMJ 1999 May 29;318(7196):1491.

From symptoms to social functioning: differential effects of antidepressant therapy. Kasper S. **Int Clin Psychopharmacol** 1999 May;14 Suppl 1:S27–31 (28 ref.)

Selective serotonin re-uptake inhibitors for the treatment of perseverative and maladaptive behaviours of people with intellectual disability. Branford D, et al. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):301–6

[Psychopharmacotherapy of behavioral disorders in patients with dementia] Stoppe G, et al. **Z Gerontol Geriatr** 1999 Jun;32(3):153–8 (42 ref.) (Eng. Abstr.) **(Ger)**

EPIDEMIOLOGY

An overview of behaviour difficulties found in long-term elderly care settings. Jackson GA, et al. **Int J Geriatr Psychiatry** 1999 Jun;14(6):426–30

Impaired but undiagnosed. Angold A, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):129–37

Childhood conduct problems, hyperactivity-impulsivity, and inattention as predictors of adult criminal activity. Babinski LM, et al. **J Child Psychol Psychiatry** 1999 Mar; 40(3):347–55

Diagnostic status and symptomatic behavior of hard-to-manage preschool children in middle childhood and early adolescence. Pierce EW, et al. **J Clin Child Psychol** 1999 Mar;28(1):44–57

Psychological services utilization: relationship to severity of behaviour problems in intellectual disability services. Jacobson JW. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):307–15

Juvenile violence. Scott CL. **Psychiatr Clin North Am** 1999 Mar;22(1):71–83 (76 ref.)

ETIOLOGY

Pharmacotherapy of behavioral disturbances associated with dementia [editorial] Modai I. **Isr J Psychiatry Relat Sci** 1999;36(1):1–4

Diverse diagnostic and behavioural patterns amongst people with a dual diagnosis. Dudley JR, et al. **J Intellect Disabil Res** 1999 Apr;43 (Pt 2):70–9

Persistent Klüver-Bucy syndrome after bilateral thalamic infarction. Müller A, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Apr; 12(2):136–9

Physically abused adolescents: behavior problems, functional impairment, and comparison of informants' reports. Kaplan SJ, et al. **Pediatrics** 1999 Jul;104(1 Pt 1):43–9

[Predictors of behavioural disorders and consultation-liaison psychiatry in patients with HIV disorders] Ochoa E, et al. **Actas Esp Psiquiatr** 1999 Mar–Apr;27(2):97–102 (Eng. Abstr.) **(Spa)**

NURSING

[Mediative behavior therapy in complex behavioral problems. Illustrative cases from a psychogeriatric nursing home] Geelen R, et al. **Tijdschr Gerontol Geriatr** 1999 Apr; 30(2):73–9 (Eng. Abstr.) **(Dut)**

PREVENTION & CONTROL

Using qualitative methods to develop contextually relevant measures and preventive interventions: an illustration. Dumka LE, et al. **Am J Community Psychol** 1998 Aug; 26(4):605–37

Toward a psychology of harm reduction. MacCoun RJ. **Am Psychol** 1998 Nov;53(11):1199–208

Pharmacotherapy of behavioral disturbances associated with dementia [editorial] Modai I. **Isr J Psychiatry Relat Sci** 1999;36(1):1–4

Countering bullying at an australian secondary school with students as helpers. Peterson L, et al. **J Adolesc** 1999 Aug; 22(4):481–92

Stalking. An old behavior, a new crime. Meloy JR. **Psychiatr Clin North Am** 1999 Mar;22(1):85–99 (49 ref.)

–A new role for the pediatrician: the prevention of social violence– Sann L, et al. **Arch Pediatr** 1998 Mar;5(3):307–17 (Eng. Abstr.) **(Fre)**

PSYCHOLOGY

Cognitive predictors of resistiveness in dementia patients. Stewart JT, et al. **Am J Geriatr Psychiatry** 1999 Summer; 7(3):259–63

Unemployment and foster home placements: estimating the net effect of provocation and inhibition. Catalano RA, et al. **Am J Public Health** 1999 Jun;89(6):851–5

The observer perspective: biased imagery in social phobia, agoraphobia, and blood/injury phobia. Wells A, et al. **Behav Res Ther** 1999 Jul;37(7):653–8

Relation of family problems to patterns of delinquent involvement among urban youth. Gorman-Smith D, et al. **J Abnorm Child Psychol** 1998 Oct;26(5):319–33

ADHD boys in young adulthood: psychosocial adjustment. Hansen C, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):165–71

A comparison of maladaptive behaviors of athletes and nonathletes. Weiss SM. **J Psychol** 1999 May;133(3):315–22

Problem social behavior in the workplace: an analysis of social behavior problems in a supported employment setting. Reitman D, et al. **Res Dev Disabil** 1999 May–Jun; 20(3):215–28

[Problematic puberty?] Pape H, et al. **Tidsskr Nor Laegeforen** 1999 Jan 20;119(2):216–20 (Eng. Abstr.) **(Nor)**

REHABILITATION

An expansion of the peer-tutoring paradigm: cross-age peer tutoring of social skills among socially rejected boys. Gumpel TP, et al. **J Appl Behav Anal** 1999 Spring; 32(1):115–8

THERAPY

Reductions in criminality subsequent to group, individual, and family therapy in adolescent residential and day treatment settings. Byrnes EI, et al. **Int J Group Psychother** 1999 Jul;49(3):307–22

Challenging communication: people with learning disabilities who challenge services. Sutton K, et al. **Int J Lang Commun Disord** 1998;33 Suppl:415–20

Behavioral approaches for reducing agitation in residents of long-term-care facilities: critical review and suggestions for future research. Landreville P, et al. **Int Psychogeriatr** 1998 Dec;10(4):397–419 (56 ref.)

Behavioural treatment for sleep problems in children with severe learning disabilities and challenging daytime behaviour: effect on daytime behaviour. Wiggs L, et al. **J Child Psychol Psychiatry** 1999 May;40(4):627–35

Experimental functional analyses for challenging behavior: a study of validity and reliability. Martin NT, et al. **Res Dev Disabil** 1999 Mar–Apr;20(2):125–46

[No therapy possible? A group therapy model for psychologically disturbed and socially disadvantaged children] Kirsch C, et al. **Prax Kinderpsychol Kinderpsychiatr** 1998 Nov;47(9):683–93 (Eng. Abstr.) **(Ger)**

[The course of behavior disorders and their psychosocial treatment in patients with dementia] Haupt M. **Z Gerontol Geriatr** 1999 Jun;32(3):159–66 (36 ref.) (Eng. Abstr.) **(Ger)**

SOCIAL BREAKDOWN SYNDROME see **SOCIAL ALIENATION**

SOCIAL CHANGE

On the one aspect of generalized anxiety. Davtian V. **Acta Psychiatr Scand Suppl** 1998;393:30–1

Relic or resource? The Code for Nurses. Fowler MD. **Am J Nurs** 1999 Mar;99(3):56–8

Reflections on Y2K. Massey RU. **Conn Med** 1999 Jan; 63(1):57–8

Variation in suicide rates: the "tipping point". Goldney R. **Crisis** 1998;19(3):136–8

Becoming modern after all these years: social change and mental health in Latin America. Almeida-Filho N. **Cult Med Psychiatry** 1998 Sep;22(3):285–316 (73 ref.)

Water pollution and human health in China. Wu C, et al. **Environ Health Perspect** 1999 Apr;107(4):251–6 (32 ref.)

Family practice in the new South Africa. Williams RL, et al. **Fam Med** 1998 Sep;30(8):574–8

Modernization, stress, and blood pressure: new directions in research. Dressler WW. **Hum Biol** 1999 Aug;71(4):583–605 (65 ref.)

The social responsibility of scientists: the scientific impact statement. Walter C, et al. **IEEE Eng Med Biol Mag** 1998 Nov–Dec;17(6):94–5

Developing appropriate dental education systems: the impact of changes in oral health status and oral health care systems. Samarawickrama DY, et al. **Int Dent J** 1998 Aug; 48(4):412–6

Health and equity in the world in the era of "globalization". Navarro V. **Int J Health Serv** 1999;29(2):215–26

The local impact of globalization: worker health and safety in Mexico's sugar industry. Lemus-Ruiz BE. **Int J Occup Environ Health** 1999 Jan–Mar;5(1):56–60

Proceed with caution: understanding and changing norms [editorial; comment] Keeling RP. **J Am Coll Health** 1999 May;47(6):243–6. Comment on: J Am Coll Health 1999 May;47(6):247–52. Comment on: J Am Coll Health 1999 May;47(6):253–8.

Addressing health needs of female adolescents in modernizing countries. Diaz A. **J Am Med Womens Assoc** 1999 Summer; 54(3):158–60

Social movements as catalysts for policy change: the case of smoking and guns. Nathanson CA. **J Health Polit Policy Law** 1999 Jun;24(3):421–88 (146 ref.)

Motivation, mobilization, and monitoring: the role of groups in health policy [editorial] Peterson MA. **J Health Polit Policy Law** 1999 Jun;24(3):415–20 (17 ref.)

Predictors of participation in campaigns against mental illness stigma. Corrigan PW, et al. **J Nerv Ment Dis** 1999 Jun; 187(6):378–80

Hospice and palliative care as a new social movement: a case illustration from South Australia. Elsey B. **J Palliat Care** 1998 Winter;14(4):38–46 (21 ref.)

Personality disorders in sociocultural perspective. Paris J. **J Personal Disord** 1998 Winter;12(4):289–301 (74 ref.)

Social, behavioral, and demographic factors in emerging infections. Garrett L. **J Urban Health** 1998 Sep; 75(3):492–500

Social change and its impact on nursing [editorial] Anderson CA. **Nurs Outlook** 1999 Mar–Apr;47(2):53–4

Industrialized health care and midcareer crises. Attarian DE. **Pharos** 1999 Summer;62(3):48

Looking for the Forrest [editorial] Rothstein JM. **Phys Ther** 1999 May;79(5):454–5

SOCIAL CHANGE

Socioeconomic changes associated with medical indices in the Democratic Republic of Croatia. Catipović-Veselica K. **Psychol Rep** 1998 Aug;83(1):129-30

"Not to be ministered unto, but to minister". Chew CH. **Singapore Med J** 1999 Jan;40(1):3-8

Dealing with extreme environmental degradation: stress and marginalization of Sahel dwellers. Van Haaften EH, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jul;34(7):376-82

Social movements and health insurance: a critical evaluation of voluntary, non-profit insurance schemes with case studies from Ghana and Cameroon. Atim C. **Soc Sci Med** 1999 Apr;48(7):881-96

R. D. Laing and the British anti-psychiatry movement: a socio-historical analysis. Crossley N. **Soc Sci Med** 1998 Oct;47(7):877-89

Developing health insurance in transitional Asia. Ensor T. **Soc Sci Med** 1999 Apr;48(7):871-9 (25 ref.)

A survey of the Hong Kong health sector: past, present and future. Gauld RD. **Soc Sci Med** 1998 Oct;47(7):927-39

The effects of political and economic transitions on health and safety in Estonia: an Estonian-Swedish comparative study. Kaasik T, et al. **Soc Sci Med** 1998 Nov; 47(10):1589-99

A tale of two (low prevalence) cities: social movement organisations and the local policy response to HIV/AIDS. Petchey R, et al. **Soc Sci Med** 1998 Nov;47(9):1197-208

Societal changes could also be to blame [comment] Kernochan LE, et al. **West J Med** 1999 Aug;171(2):88. Comment on: West J Med 1999 Aug;171(2):83-7.

[Ethical aspects of social changes in medicine after 1989 (editorial)] Krtička F. **Rozhl Chir** 1998 Oct;77(10):427-31 **(Cze)**

[In children, social determinants of health are changing (letter)] Berthier M, et al. **Arch Pediatr** 1999 May;6(5):594 **(Fre)**

[Social change necessitates a reform of the medical profession. A contribution to the public health policy discussion regarding the future of health care in Germany] Kleeberg UR. **Med Klin** 1999 Jun 15;94(6):355-8 **(Ger)**

[Social change in the hospital during the 19th century. The example of the Munich General Hospital] Spree R. **Medizinhist J** 1998;33(3-4):245-91 **(Ger)**

[Acceptance of community psychiatry reform in the population. Results of a representative study in new German federal lands] Angermeyer MC, et al. **Psychiatr Prax** 1999 Jan;26(1):16-21 (Eng. Abstr.) **(Ger)**

[Occupational status of Saxony social psychiatry service clients as a result of the reunification of Germany] Kallert TW, et al. **Psychiatr Prax** 1999 May;26(3):133-8 (Eng. Abstr.) **(Ger)**

HISTORY

The Living City: engineering social and urban change in New York City, 1865 to 1920. Fairchild A, et al. **Bull Hist Med** 1999 Spring;73(1):124-9

SOCIAL CLASS

Inequalities in health--future threats to equity. Gunning-Schepers LJ, et al. **Acta Oncol** 1999;38(1):57-61

Where do we stand? Research and policy issues concerning inequalities in health and in healthcare. Whitehead MM. **Acta Oncol** 1999;38(1):41-50 (55 ref.)

Social determinants of birthweight, ponderal index and gestational age in Sweden in the 1920s and the 1980s. Vågerö D, et al. **Acta Paediatr** 1999 Apr;88(4):445-53

Social differences of very preterm birth in Europe: interaction with obstetric history. Europop Group. Ancel PY, et al. **Am J Epidemiol** 1999 May 15;149(10):908-15

Fibrinogen and factor VII levels are related to adiposity but not to fetal growth or social class in children aged 10-11 years. Cook DG, et al. **Am J Epidemiol** 1999 Oct 1; 150(7):727-36

Seeking causal explanations in social epidemiology [see comments] Kaufman JS, et al. **Am J Epidemiol** 1999 Jul 15;150(2):113-20. Comment in: Am J Epidemiol 1999 Jul 15;150(2):121-6; discussion 127-8.

Tuberculin skin testing among economically disadvantaged youth in a federally funded job training program [published erratum appears in Am J Epidemiol 1999 Jun 1;149(11):1075] Lifson AR, et al. **Am J Epidemiol** 1999 Apr 1;149(7):671-9

Invited commentary: social mechanisms, race, and social epidemiology [see comments] Muntaner C. **Am J Epidemiol** 1999 Jul 15;150(2):121-6; discussion 127-8 . Comment in: Am J Epidemiol 1999 Jul 15;150(2):113-20.

Social psychophysiology, social circumstances, and health. Carroll D, et al. **Ann Behav Med** 1998 Fall;20(4):333-7 (80 ref.)

Secular trends in stature in Poland: national and social class-specific. Bielicki T, et al. **Ann Hum Biol** 1999 May-Jun;26(3):251-8

Changes in growth patterns in Zagreb school children related to socio-economic background over the period 1973-1991. Prebeg Z. **Ann Hum Biol** 1998 Sep-Oct;25(5):425-39

Musculoskeletal disorders in the community [letter; comment] Capell HA, et al. **Ann Rheum Dis** 1999 May; 58(5):323. Comment on: Ann Rheum Dis 1998 Nov;57(11):649-55.

Estimating the burden of musculoskeletal disorders in the community: the comparative prevalence of symptoms at different anatomical sites, and the relation to social deprivation [see comments] Urwin M, et al. **Ann Rheum Dis** 1998 Nov;57(11):649-55. Comment in: Ann Rheum Dis 1999 May;58(5):323.

Social disadvantage, family composition, and diabetes mellitus: prevalence and outcome. Baumer JH, et al. **Arch Dis Child** 1998 Nov;79(5):427-30

Influence of socioeconomic conditions on growth in infancy: the 1921 Aberdeen birth cohort. Baxter-Jones AD, et al. **Arch Dis Child** 1999 Jul;81(1):5-9

Survival after acute lymphocytic leukaemia: effects of socioeconomic status and geographic region. Schillinger JA, et al. **Arch Dis Child** 1999 Apr;80(4):311-7

Socioeconomic status and determinants of hemostatic function in healthy women. Wamala SP, et al. **Arterioscler Thromb Vasc Biol** 1999 Mar;19(3):485-92

The New Zealand Socioeconomic Index: developing and validating an occupationally-derived indicator of socio-economic status. Davis P, et al. **Aust N Z J Public Health** 1999 Feb;23(1):27-33

Incidence of low birth weight in three selected communities of Bangladesh. Nahar N, et al. **Bangladesh Med Res Counc Bull** 1998 Aug;24(2):49-54

Social class in childhood and general health in adulthood: questionnaire study of contribution of psychological attributes. Bosma H, et al. **BMJ** 1999 Jan 2;318(7175):18-22

Use of health services by children and young people according to ethnicity and social class: secondary analysis of a national survey [see comments] Cooper H, et al. **BMJ** 1998 Oct 17;317(7165):1047-51. Comment in: BMJ 1999 Mar 27;318(7187):876; discussion 877. Comment in: BMJ 1999 Mar 27;318(7187):876-7. Comment in: BMJ 1999 Mar 27;318(7187):877.

Postcodes as useful markers of social class: population based study in 26 000 British households [see comments] Danesh J, et al. **BMJ** 1999 Mar 27;318(7187):843-4. Comment in: BMJ 1999 Mar 27;318(7187):844-5.

Xenotransmission of the socioeconomic gradient in health? A population based study [see comments] Moloo J, et al. **BMJ** 1998 Dec 19-26;317(7174):1686. Comment in: BMJ 1998 Dec 19-26;317(7174):1671-3.

Narrowing social inequalities in health? Analysis of trends in mortality among babies of lone mothers (abridged version 1). Whitehead M, et al. **BMJ** 1999 Apr 3; 318(7188):908-12

The effects of socioeconomic status and dental attendance on dental caries' experience, and treatment patterns in 5-year-old children. Tickle M, et al. **Br Dent J** 1999 Feb 13;186(3):135-7

Inequalities in oral health: a review of the evidence and recommendations for action. Watt R, et al. **Br Dent J** 1999 Jul 10;187(1):6-12 (69 ref.)

Effect of material deprivation on Epstein-Barr virus infection in Hodgkin's disease in the West Midlands. Flavell K, et al. **Br J Cancer** 1999 May;80(3-4):604-8

Parental perceptions of pre-adolescent children who have experienced a febrile convulsion: effects of social class and gender. Hutt MJ, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):59-72

Healthy dietary habits in relation to social determinants and lifestyle factors. Johansson L, et al. **Br J Nutr** 1999 Mar; 81(3):211-20

Health inequalities and social group differences: what should we measure? Murray CJ, et al. **Bull World Health Organ** 1999;77(7):537-43

Patients with suicidal burns and accidental burns: a comparative study of socio-demographic profile in India. Wagle SA, et al. **Burns** 1999 Mar;25(2):158-61

Risk factors for mortality in young children living under various socio-economic conditions in Lahore, Pakistan: with particular reference to inbreeding. Yaqoob M, et al. **Clin Genet** 1998 Nov;54(5):426-34

Gender difference in health status and health care facilities in some social groups and subgroups of southern West Bengal, India. Chakrabarty M. **Coll Antropol** 1998 Jun; 22(1):259-76

The renewal of aristocratic principles. Didić E. **Coll Antropol** 1999 Jun;23(1):265-72

Inequalities in health--"it's the poor wot gets the blame" [editorial] Beal JF. **Community Dent Health** 1998 Dec; 15(4):229-30

Does it matter who answers the race question? Racial classification and income inequality in Brazil. Telles EE, et al. **Demography** 1998 Nov;35(4):465-74

Social status and the quality of care for adult people with type I (insulin-dependent) diabetes mellitus--a population-based study. Mühlhauser I, et al. **Diabetologia** 1998 Oct;41(10):1139-50

Racial/ethnic disparities in health: the interplay between discrimination and socioeconomic status. Ren XS, et al. **Ethn Dis** 1999 Spring-Summer;9(2):151-65

The effect of user charges and socio-demographic environment on paediatric trauma hospitalisation in Helsinki in 1989-1994. Ahlamaa-Tuompo J. **Eur J Epidemiol** 1999 Feb;15(2):133-9

Cognitive function in the Caerphilly study: associations with age social class, education and mood. Gallacher JE, et al. **Eur J Epidemiol** 1999 Feb;15(2):161-9

Survival effects in cognitive function, cognitive style, and sociodemographic variables in the Seattle Longitudinal Study. Bosworth HB, et al. **Exp Aging Res** 1999 Apr-Jun; 25(2):121-39

Income inequality and health: pathways and mechanisms. Kawachi I, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):215-27 (42 ref.)

Breast feeding among urban women of low-socioeconomic status [letter; comment] De NC. **Indian Pediatr** 1998 Aug; 35(8):801-2. Comment on: Indian Pediatr 1998 Mar;35(3):269-73.

The role of hunting in a socioeconomic classification for Greenland. Thomsen K, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:626-9

The role of familial values in understanding the impact of social class on weight concern. Ogden J, et al. **Int J Eat Disord** 1999 Apr;25(3):273-9

Inequalities in mortality according to educational level in two large Southern European cities. Borrell C, et al. **Int J Epidemiol** 1999 Feb;28(1):58-63

Permanent work incapacity, mortality and survival without work incapacity among occupations and social classes: a cohort study of ageing men in Geneva. Gubéran E, et al. **Int J Epidemiol** 1998 Dec;27(6):1026-32

Socioeconomic inequalities and disability pension in middle-aged men. Månsson NO, et al. **Int J Epidemiol** 1998 Dec;27(6):1019-25

The effect of water fluoridation and social inequalities on dental caries in 5-year-old children. Riley JC, et al. **Int J Epidemiol** 1999 Apr;28(2):300-5

Socioeconomic inequalities in health in the working population: the contribution of working conditions. Schrijvers CT, et al. **Int J Epidemiol** 1998 Dec;27(6):1011-8

Education, socioeconomic status and risk of cancer of the colon and rectum. Tavani A, et al. **Int J Epidemiol** 1999 Jun;28(3):380-5

Income inequality, social cohesion, and class relations: a critique of Wilkinson's neo-Durkheimian research program. Muntaner C, et al. **Int J Health Serv** 1999; 29(1):59-81 (127 ref.)

A historical review (1965-1997) of studies on class, health, and quality of life: a personal account. Navarro V. **Int J Health Serv** 1998;28(3):389-406

Social class differences in health and functional disability among older men and women. Rahkonen O, et al. **Int J Health Serv** 1998;28(3):511-24

Black-white differences in social and economic consequences of obesity. Averett S, et al. **Int J Obes Relat Metab Disord** 1999 Feb;23(2):166-73

Protease inhibitor use among a community sample of people with HIV disease. Bing EG, et al. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):474-80

Asthma hospitalization rates and socioeconomic status in New York State (1987-1993). Lin S, et al. **J Asthma** 1999 May;36(3):239-51

Child immunisation in Ghana: the effects of family, location and social disparity. Matthews Z, et al. **J Biosoc Sci** 1997 Jul;29(3):327-43

Effects of the status of women on the first-birth interval in Indian urban society. Nath DC, et al. **J Biosoc Sci** 1999 Jan;31(1):55-69

Parental investment theory and birth sex ratios in Nepal. Strickland SS, et al. **J Biosoc Sci** 1997 Jul;29(3):283-95

The impact of social status and migration on female age at marriage in an historical population in north-west Germany. Voland E, et al. **J Biosoc Sci** 1997 Jul; 29(3):355-60

The life span of Methodist ministers: an example of the use of obituaries in epidemiology. Allison T, et al. **J Epidemiol Community Health** 1999 Apr;53(4):253-4

Study of environmental, social, and paternal factors in preterm delivery using sibs and half sibs. A population-based study in Denmark. Basso O, et al. **J Epidemiol Community Health** 1999 Jan;53(1):20-3

Measuring social class differences in cancer patient survival: is it necessary to control for social class differences in general population mortality? A Finnish population-based study. Dickman PW, et al. **J Epidemiol Community Health** 1998 Nov;52(11):727-34

Social mobility and health related behaviours in young people. Karvonen S, et al. **J Epidemiol Community Health** 1999 Apr;53(4):211-7

Working conditions and social inequalities in health [editorial] Moncada S. **J Epidemiol Community Health** 1999 Jul; 53(7):390-1

Inequalities in low birth weight: parental social class, area deprivation, and "lone mother" status. Pattenden S, et al. **J Epidemiol Community Health** 1999 Jun;53(6):355-8

Workplace as an origin of health inequalities. Vahtera J, et al. **J Epidemiol Community Health** 1999 Jul;53(7):399-407

An investigation of social and class differences in very-low birth weight outcomes: a continuing public health concern. Longo DR, et al. **J Health Care Finance** 1999 Spring; 25(3):75-89

Relationships between socioeconomic status and race-specific cervical cancer incidence in the United States, 1973-1992. Liu T, et al. **J Health Care Poor Underserved** 1998 Nov;9(4):420-32

Strengthening domestic violence theories: intersections of race, class, sexual orientation, and gender. Bograd M. **J Marital Fam Ther** 1999 Jun;25(3):275-89 (92 ref.)

Perinatal outcome and the social contract--interrelationships between health and humanity. Gorski PA. **J Perinatol** 1998 Jul-Aug;18(4):297-301

The influence of general health and socio-cultural variables on the periodontal condition of pregnant women. Machuca

G, et al. **J Periodontol** 1999 Jul;70(7):779–85

Strategies to cope with negative social identity: predictions by social identity theory and relative deprivation theory. Mummendey A, et al. **J Pers Soc Psychol** 1999 Feb; 76(2):229–45

How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. Vorauer JD, et al. **J Pers Soc Psychol** 1998 Oct;75(4):917–37

Prosthodontic profiles relating to economic status, social network, and social support in an elderly population living independently in Canada. Maupomé G, et al. **J Prosthet Dent** 1998 Nov;80(5):598–604

Equality of health: dream or reality? Acheson D. **J R Coll Physicians Lond** 1999 Jan-Feb;33(1):70–7

Socioeconomic status and health in women with systemic lupus erythematosus. Lotstein DS, et al. **J Rheumatol** 1998 Sep;25(9):1720–9

Socioeconomic status and stage at presentation of colorectal cancer [letter; comment] Gun RT. **Lancet** 1999 Jan 30; 353(9150):409–10. Comment on: Lancet 1998 Oct 31;352(9138):1439.

Socioeconomic status and neurotic disorder [letter; comment] Hrdy DB. **Lancet** 1998 Oct 3;352(9134):1152. Comment on: Lancet 1998 Aug 22;352(9128):605–9.

Socioeconomic status and stage at presentation of colorectal cancer [letter] [see comments] Ionescu MV, et al. **Lancet** 1998 Oct 31;352(9138):1439. Comment in: Lancet 1999 Jan 16;353(9148):240. Comment in: Lancet 1999 Jan 30;353(9150):409–10.

Remedy presented for health inequalities in England [news] Ramsay S. **Lancet** 1998 Nov 28;352(9142):1759

Social class and coronary artery disease in India [letter] Singh RB, et al. **Lancet** 1999 Jan 9;353(9147):154

Culture, socioeconomic status, and physical and mental health in Brazil. Dressler WW, et al. **Med Anthropol Q** 1998 Dec;12(4):424–46

Socioeconomic status and HRT use [editorial] Avis NE, et al. **Menopause** 1998 Fall;5(3):137–9

Trends in general practice in the Waikato, 1979–80/1991–92, II: Social variations in service use and clinical activity. Davis P, et al. **N Z Med J** 1998 Nov 13;111(1077):419–21

Female gene flow stratifies Hindu castes [letter] Bamshad MJ, et al. **Nature** 1998 Oct 15;395(6703):651–2

The relationship between waist-to-hip ratio and occupational status and life-style factors among middle-aged male and female Japanese workers. Ishizaki M, et al. **Occup Med (Lond)** 1999 Apr;49(3):177–82

QOL and outcomes research in prostate cancer patients with low socioeconomic status. Kim SP, et al. **Oncology (Huntingt)** 1999 Jun;13(6):823–32; discussion 835–8

Social class and census-based deprivation scores: which is the best predictor of stillbirth rates? Joyce R, et al. **Paediatr Perinat Epidemiol** 1999 Jul;13(3):269–77

Educational differences in excessive alcohol consumption: the role of psychosocial and material stressors. Droomers M, et al. **Prev Med** 1999 Jul;29(1):1–10

Consistent effects of high socioeconomic status and low birth order, and the modifying effect of maternal smoking on the risk of allergic disease during childhood. Lewis SA, et al. **Respir Med** 1998 Oct;92(10):1237–44

Socio-economic consequences of rheumatoid arthritis in the first years of the disease. Albers JM, et al. **Rheumatology (Oxford)** 1999 May;38(5):423–30

The link between socioeconomic status and breast cancer--a possible explanation. Lawson JS. **Scand J Public Health** 1999 Sep;27(3):203–5

Teaching social inequalities in health: barriers and opportunities. Muntaner C. **Scand J Public Health** 1999 Sep;27(3):161–5 (58 ref.)

Social differences in health in an affluent Danish county. Osler M, et al. **Scand J Soc Med** 1998 Dec;26(4):289–92

The influence of social class, strain and social support on symptoms of anxiety and depression in mothers of toddlers. Mathiesen KS, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb;34(2):61–72

Social position, social roles and women's health in England: changing relationships 1984–1993. Bartley M, et al. **Soc Sci Med** 1999 Jan;48(1):99–115

Implications of social class and race for urban public health policy making: a case study of HIV/AIDS and TB policy in Washington, DC. Dievler A, et al. **Soc Sci Med** 1999 Apr;48(8):1095–102

Mortality variations in England and Wales between types of place: an analysis of the ONS longitudinal study. Office of National Statistics. Ecob R, et al. **Soc Sci Med** 1998 Dec;47(12):2055–66

The roles of social class of origin, achieved social class and intergenerational social mobility in explaining social-class inequalities in alcoholism among young men. Hemmingsson T, et al. **Soc Sci Med** 1999 Oct;49(8):1051–9

Explanations of social class differences in alcoholism among young men. Hemmingsson T, et al. **Soc Sci Med** 1998 Nov; 47(10):1399–405

Class differences in the food rules mothers impose on their children: a cross-national study. Hupkens CL, et al. **Soc Sci Med** 1998 Nov;47(9):1331–9

Determinants of socioeconomic differences in change in physical and mental functioning. Martikainen P, et al. **Soc Sci Med** 1999 Aug;49(4):499–507

Social support at age 33: the influence of gender, employment status and social class. Matthews S, et al. **Soc Sci Med** 1999 Jul;49(1):133–42

Social inequalities in health: are there gender differences? Matthews S, et al. **Soc Sci Med** 1999 Jan;48(1):49–60

Social class, assets, organizational control and the prevalence of common groups of psychiatric disorders. Muntaner C, et al. **Soc Sci Med** 1998 Dec;47(12):2043–53

Effect of social class on tumour size at diagnosis and surgical treatment in Danish women with breast cancer. Norredam M, et al. **Soc Sci Med** 1998 Dec;47(11):1659–63

The influence of adult ill health on occupational class mobility and mobility out of and into employment in the The Netherlands. van de Mheen H, et al. **Soc Sci Med** 1999 Aug;49(4):509–18

Social class and health: the puzzling counter-example of British South Asians. Williams R, et al. **Soc Sci Med** 1998 Nov;47(9):1277–88

Sociodemographic characteristics and individual health behaviors. Shi L. **South Med J** 1998 Oct;91(10):933–41

Socioeconomic inequalities in stroke mortality among middle-aged men: an international overview. European Union Working Group on Socioeconomic Inequalities in Health. Kunst AE, et al. **Stroke** 1998 Nov;29(11):2285–91 (49 ref.)

Socioeconomic differences in stroke among Dutch elderly women: the Rotterdam Study. van Rossum CT, et al. **Stroke** 1999 Feb;30(2):357–62

A pilot study of the social construction of the meanings attached to alcohol use: perceptions from India. Nimmagadda J. **Subst Use Misuse** 1999 Jan;34(2):251–67

The cultural level of cadaveric potential organ donor relatives determines the rate of consent for donation. Caballero F, et al. **Transplant Proc** 1999 Sep;31(6):2601

[Social class differences in bladder cancer in Catalonia (see comments] Fortuny J, et al. **Gac Sanit** 1999 May-Jun; 13(3):208–17 (Eng. Abstr.). Comment in: Gac Sanit 1999 May-Jun;13(3):173–6. **(Cat, Spa)**

["Sense of coherence", social class and health in a Danish population study] Due EP, et al. **Ugeskr Laeger** 1998 Dec 14;160(51):7424–9 (Eng. Abstr.) **(Dan)**

[Screening and management of visual disorders in adolescents: impact on social inequality] De Spiegelaere M, et al. **Sante Publique** 1999 Mar;11(1):41–7 (Eng. Abstr.) **(Fre)**

[Accident-related hospital admission of children and adolescents in relation to their social status--findings with data from North Rhine-Westphalia federal health insurance] Geyer S, et al. **Gesundheitswesen** 1998 Aug-Sep; 60(8–9):493–9 (Eng. Abstr.) **(Ger)**

[The German Cardiovascular Disease Prevention Study: social gradient in use of drugs with a potentially addictive nature. An analysis of selected indications groups] Breckenkamp J, et al. **Med Klin** 1999 Jun 15;94(6):306–13 (Eng. Abstr.) **(Ger)**

[Cardiovascular risk and social classes: a comparison between adult female populations in rural and urban areas] Celentano E, et al. **G Ital Cardiol** 1999 Jun;29(6):692–7 (Eng. Abstr.) **(Ita)**

[Social inequalities in the mortality due to cardiovascular diseases in Italy] Costa G, et al. **G Ital Cardiol** 1999 Jun; 29(6):684–91 (Eng. Abstr.) **(Ita)**

[Physical aggression and social class] Gianini RJ, et al. **Rev Saude Publica** 1999 Apr;33(2):180–6 (Eng. Abstr.) **(Por)**

[Health inequalities in the outlying towns of the urban sprawl of Granada] Ruiz Mariscal I, et al. **Aten Primaria** 1998 Sep 30;22(5):269–78 (Eng. Abstr.) **(Spa)**

SOCIAL CLUBS, THERAPEUTIC see **SELF-HELP GROUPS**

SOCIAL CONDITIONS

The Indian transplantation law: promises and effects. Kishore RR. **Ann Transplant** 1998;3(2):26–31

Societal challenges in Latin-America. Santiago-Delpin EA. **Ann Transplant** 1998;3(2):32–3

Entering "the left atrium" [editorial] Todkill AM, et al. **CMAJ** 1999 Jan 12;160(1):67–8

Rehabilitation in complex political emergencies: is rebuilding civil society the answer? Harvey P. **Disasters** 1998 Sep; 22(3):200–17

"Politically correct" research [letter; comment] Hamlin D. **Environ Health Perspect** 1998 Dec;106(12):A584. Comment on: Environ Health Perspect 1997 Nov;105(11):1228–32.

Precarity and pregnancy in Paris. Lejeune VN, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Mar;83(1):27–30

Can we measure the social importance of health care? Buck D, et al. **Int J Technol Assess Health Care** 1999 Winter; 15(1):89–107 (35 ref.)

Social and ethical aspects of in vitro fertilization. Heitman E. **Int J Technol Assess Health Care** 1999 Winter; 15(1):22–35 (81 ref.)

Coalition building and public opinion. New reproductive technologies and Canadian civil society. Roberts JH. **Int J Technol Assess Health Care** 1999 Winter;15(1):15–21

Science and policy implications of defining environmental justice. Phillips CV, et al. **J Expo Anal Environ Epidemiol** 1999 Jan-Feb;9(1):9–17

Reciprocity in basic social exchange and health: can we reconcile person-based with population-based psychosomatic research? [editorial] Siegrist J. **J Psychosom Res** 1998 Aug;45(2):99–105

Wives' convergence with their husbands' alcohol use: social conditions as mediators. Demers A, et al. **J Stud Alcohol** 1999 May;60(3):368–77

Pace of life and suicide. Lester D. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1094

Individual and social determinants of shiftwork tolerance. Nachreiner F. **Scand J Work Environ Health** 1998;24 Suppl 3:35–42 (50 ref.)

The Russian concept of schizophrenia: a review of the literature. Lavretsky H. **Schizophr Bull** 1998;24(4):537–57 (166 ref.)

Women's status and the health of women and men: a view from the States. Kawachi I, et al. **Soc Sci Med** 1999 Jan; 48(1):21–32

[Instability also has perinatal consequences: pediatricians can and must act (editorial)] Lejeune C. **Arch Pediatr** 1998 Mar; 5(3):251–4 **(Fre)**

[Awareness of problems in the affluent society] Stamer G. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug;106(8):366–70 (Eng. Abstr.) **(Ger)**

[Health promotion--as a change of social systems] Hösli R. **Soz Praventivmed** 1998;43(5):229–38 (Eng. Abstr.) **(Ger)**

[Basic health care and the social conditions in the neighborhoods of Cagliari] Contu P, et al. **Ann Ig** 1999 Mar-Apr;11(2):153–60 (Eng. Abstr.) **(Ita)**

[Social conditions of suicidal poisonings] Goszcz H. **Przegl Lek** 1999;56(6):422–7 (Eng. Abstr.) **(Pol)**

HISTORY

The Living City: engineering social and urban change in New York City, 1865 to 1920. Fairchild A, et al. **Bull Hist Med** 1999 Spring;73(1):124–9

[Social welfare in the XIXth century] Bouchet H. **Rev Prat** 1998 Nov 15;48(18):1981–3 **(Fre)**

STATISTICS & NUMERICAL DATA

Socioeconomic status, neighborhood social conditions, and neural tube defects. Wasserman CR, et al. **Am J Public Health** 1998 Nov;88(11):1674–80

TRENDS

Women's occupational health in globalization and development. Loewenson RH. **Am J Ind Med** 1999 Jul; 36(1):34–42

Gender differences in illhealth in Finland: patterns, magnitude and change. Lahelma E, et al. **Soc Sci Med** 1999 Jan;48(1):7–19

SOCIAL CONFORMITY

see related

SOCIAL CONTROL, INFORMAL

Mohawks and combat boots: the schizoid dilemma of punks. McAllister MJ. **Bull Menninger Clin** 1999 Winter; 63(1):89–102 (25 ref.)

The development of display rule knowledge: linkages with family expressiveness and social competence. Jones DC, et al. **Child Dev** 1998 Aug;69(4):1209–22

An adolescent vampire cult in rural America: clinical issues and case study. Miller TW, et al. **Child Psychiatry Hum Dev** 1999 Spring;29(3):209–19

Social contagion, adolescent sexual behavior, and pregnancy: a nonlinear dynamic EMOSA model [see comments] Rodgers JL, et al. **Dev Psychol** 1998 Sep;34(5):1096–113. Comment in: Dev Psychol 1998 Sep;34(5):1114–6; discussion 1117–8.

Comment on "Social contagion, adolescent sexual behavior, and pregnancy: a nonlinear dynamic EMOSA model" [comment] Stoolmiller M. **Dev Psychol** 1998 Sep; 34(5):1114–6; discussion 1117–8. Comment on: Dev Psychol 1998 Sep;34(5):1096–13.

Civic denial and the memory of war. Schafft G. **J Am Acad Psychoanal** 1998 Summer;26(2):255–72

Adolescent reputation enhancement: differentiating delinquent, nondelinquent, and at-risk youths. Carroll A, et al. **J Child Psychol Psychiatry** 1999 May;40(4):593–606

Gender-related factors influencing perceptions of homosexuality. Wong FY, et al. **J Homosex** 1999; 37(3):19–31

The self-esteem motive in social influence: agreement with valued majorities and disagreement with derogated minorities. Pool GJ, et al. **J Pers Soc Psychol** 1998 Oct; 75(4):967–75

Alcohol risk reduction for fraternity and sorority members. Harrington NG, et al. **J Stud Alcohol** 1999 Jul;60(4):521–7

Theoretical and treatment issues of personality disorders in individualistic and collectivistic societies. Kim HA. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S242–5 (12 ref.)

Correspondence of emotional self-rating with facial expression. Weiss U, et al. **Psychiatry Res** 1999 May 31; 86(2):175–84

Age differences in response to conformity pressure for emotional and nonemotional material. Pasupathi M. **Psychol Aging** 1999 Mar;14(1):170–4

Heavy metal, religiosity, and suicide acceptability. Stack S. **Suicide Life Threat Behav** 1998 Winter;28(4):388–94

SOCIAL CONTROL, FORMAL

Evaluation of red light camera enforcement in Oxnard, California. Retting RA, et al. **Accid Anal Prev** 1999 May; 31(3):169–74

Validity of self-report of drug use among STD patients, ER patients, and arrestees. Hser YI, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):81–91

Sequences of powder cocaine and crack use among arrestees in Los Angeles County. Shaw VN, et al. **Am J Drug Alcohol Abuse** 1999 Feb;25(1):47–66

Survey explores consumer views on government regulation of supplements [news] Miller JL. **Am J Health Syst Pharm** 1999 May 15;56(10):942

Informed consent. Consent might have been obtained under duress [letter; comment] Josse SE. **BMJ** 1998 Oct 3; 317(7163):948. Comment on: BMJ 1998 Mar 28;316(7136):949–51. Comment on: BMJ 1998 Mar 28;316(7136):1000–5. Comment on: BMJ 1998 Mar 28;316(7136):1008.

Certifying fitness for corporal punishment. Thorns A, et al. **BMJ** 1998 Oct 3;317(7163):939–41

Limits to the value of mental health review tribunals for offender patients. Suggestions for reform. Taylor PJ, et al. **Br J Psychiatry** 1999 Feb;174:164–9

The corruption process of a law enforcement officer: a paradigm of occupational stress and deviancy [see comments] McCafferty FL, et al. **J Am Acad Psychiatry Law** 1998;26(3):433–58 (85 ref.). Comment in: J Am Acad Psychiatry Law 1999;27(1):178–9.

Setting an uncorrected visual acuity standard for police officer applicants. Good GW, et al. **J Appl Psychol** 1998 Oct;83(5):817–24

The control of new prosthetic implants [editorial] Grigoris P, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):941–3

Time for the General Medical Council to protect UK patients [news] Dean M. **Lancet** 1999 Feb 6;353(9151):475

The evolution of the role of the police with special reference to social support and the mental health statutes. Andoh B. **Med Sci Law** 1998 Oct;38(4):347–53

Liberty and the control of tuberculosis [editorial] Campion EW. **N Engl J Med** 1999 Feb 4;340(5):385–6

The use of legal action in New York City to ensure treatment of tuberculosis [see comments] Gasner MR, et al. **N Engl J Med** 1999 Feb 4;340(5):359–66. Comment in: N Engl J Med 1999 Jul 8;341(2):130; discussion 130–1. Comment in: N Engl J Med 1999 Jul 8;341(2):130–1.

A brief review of moonshine use [letter] Montgomery R, et al. **Psychiatr Serv** 1999 Aug;50(8):1088 (5 ref.)

Suicide and the shame of exposure. Lester D. **Psychol Rep** 1998 Aug;83(1):106

The heroin/cocaine epidemic in Switzerland 1979–1997: a mathematical analysis of law enforcement data. Knolle H. **Subst Use Misuse** 1999 Jun;34(8):1117–36

METHODS

Effect of closed circuit television on urban violence. Sivarajasingam V, et al. **J Accid Emerg Med** 1999 Jul; 16(4):255–7

The 'dop' system, alcohol abuse and social control amongst farm workers in South Africa: a public health challenge. London L. **Soc Sci Med** 1999 May;48(10):1407–14

SOCIAL CONTROL, INFORMAL

Understanding women's risk of HIV infection in Thailand through critical hermeneutics. Ruangjiratain S, et al. **ANS Adv Nurs Sci** 1998 Dec;21(2):42–51 (28 ref.)

The categorization and control of people with disabilities [comment] Pfeiffer D. **Disabil Rehabil** 1999 Mar; 21(3):106–7; discussion 108–9. Comment on: Disabil Rehabil 1999 Mar;21(3):97–105.

Social control in personal relationships: impact on health behaviors and psychological distress. Lewis MA, et al. **Health Psychol** 1999 Jan;18(1):63–71

A contextual model of adolescent alcohol use across the rural–urban continuum. Rountree PW, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):495–519

SOCIAL CONTROL POLICIES

LEGISLATION & JURISPRUDENCE

The pattern of sexual politics: feminism, homosexuality and pedophilia. Mirkin H. **J Homosex** 1999;37(2):1–24

TRENDS

The pattern of sexual politics: feminism, homosexuality and pedophilia. Mirkin H. **J Homosex** 1999;37(2):1–24

SOCIAL DESIRABILITY

Socially desirable response tendency as a correlate of accuracy of self-reported HIV serostatus for HIV seropositive injection drug users. Latkin CA, et al. **Addiction** 1998 Aug;93(8):1191–7

Social desirability, anonymity, and Internet-based questionnaires. Joinson A. **Behav Res Methods Instrum Comput** 1999 Aug;31(3):433–8

Children's subjective identification with the group and in-group favoritism. Bennett M, et al. **Dev Psychol** 1998 Sep;34(5):902–9

Predicting boys' social acceptance and aggression: the role of mother–child interactions and boys' beliefs about peers. MacKinnon-Lewis C, et al. **Dev Psychol** 1999 May; 35(3):632–9

The association of energy intake bias with psychological scores of women. Taren DL, et al. **Eur J Clin Nutr** 1999 Jul;53(7):570–8

Social desirability and self-reported anxiety in children: an analysis of the RCMAS Lie scale. Dadds MR, et al. **J Abnorm Child Psychol** 1998 Aug;26(4):311–7

Social skills, social outcomes, and cognitive features of childhood social phobia. Spence SH, et al. **J Abnorm Psychol** 1999 May;108(2):211–21

Predicting dysphoria in adolescence from actual and perceived peer acceptance in childhood. Kistner J, et al. **J Clin Child Psychol** 1999 Mar;28(1):94–104

Detecting socially desirable responding with the Personality Assessment Inventory: the Positive Impression Management scale and the Defensiveness Index. Peebles J, et al. **J Clin Psychol** 1998 Aug;54(5):621–8

Children's willingness to share activities with a physically handicapped peer: am I more willing than my classmates? Morgan SB, et al. **J Pediatr Psychol** 1998 Dec;23(6):367–75

The effects of women's age and physical appearance on evaluations of attractiveness and social desirability. Perlini AH, et al. **J Soc Psychol** 1999 Jun;139(3):343–54

Use of peer ratings to assess sociability among inpatients with severe psychiatric disorders. Penn DL, et al. **Psychiatr Serv** 1998 Nov;49(11):1440–4

Trait diagnosticity versus behavioral consistency as determinants of impression change in adulthood. Hess TM, et al. **Psychol Aging** 1999 Mar;14(1):77–89

Authoritarian and socially restrictive attitudes toward mental patients in mental health volunteers and nonvolunteers. Rousseau A, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):803–6

SOCIAL DISCRIMINATION see **PREJUDICE**

SOCIAL DISORGANIZATION see **ANOMIE**

SOCIAL DISTANCE

Public conceptions of mental illness: labels, causes, dangerousness, and social distance. Link BG, et al. **Am J Public Health** 1999 Sep;89(9):1328–33

Anti-Semitic prejudice in adolescence: an Italian study on shared beliefs. Villano P. **Psychol Rep** 1999 Jun;84(3 Pt 2):1372–8

SOCIAL DOMINANCE

Female dominance and female social relationships among yellow baboons (Papio hamadryas cynocephalus). Bentley-Condit VK, et al. **Am J Primatol** 1999;47(4):321–34

Dominance in assamese macaques (Macaca assamensis). Bernstein IS, et al. **Am J Primatol** 1999;48(4):283–9

Female mating strategy in an enclosed group of Japanese macaques. Soltis J, et al. **Am J Primatol** 1999;47(4):263–78

Perceptions of spouse dominance predict blood pressure reactivity during marital interactions. Brown PC, et al. **Ann Behav Med** 1998 Fall;20(4):286–93

Testosterone and dominance in men. Mazur A, et al. **Behav Brain Sci** 1998 Jun;21(3):353–63; discussion 363–97 (372 ref.)

An investigation into the perception of dominance from schematic faces: a study using the World-Wide Web. Senior C, et al. **Behav Res Methods Instrum Comput** 1999 May; 31(2):341–6

Relaxed dominance relations among female moor macaques (Macaca maurus) in their natural habitat, south Sulawesi, Indonesia. Matsumura S. **Folia Primatol (Basel)** 1998; 69(6):346–56

Formal dominance: the emperor's new clothes? Maestripieri D. **J Comp Psychol** 1999 Mar;113(1):96–8

A single social defeat transiently suppresses the anti-viral immune response in mice. de Groot J, et al. **J Neuroimmunol** 1999 Mar 1;95(1–2):143–51

Social stress, dominance and blood cellular immunity. Stefanski V, et al. **J Neuroimmunol** 1999 Feb 1; 94(1–2):144–52

Wars and increased solar-geomagnetic activity: aggression or change in intraspecies dominance? Persinger MA. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1351–5

Influence of social status on ovarian function in farmed red deer (Cervus elaphus). Goodwin N, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):691–6

Physiological suppression of sexual function of subordinate males: a subtle form of intrasexual competition among male sifakas (Propithecus verreauxi)? Kraus C, et al. **Physiol Behav** 1999 Jul;66(5):855–61

Sociodemographic variations in the sense of control by domain: findings from the MacArthur studies of midlife. Lachman ME, et al. **Psychol Aging** 1998 Dec;13(4):553–62

Dominance, gender, and cardiovascular reactivity during social interaction. Newton TL, et al. **Psychophysiology** 1999 Mar;36(2):245–52

Behavioural changes following limb amputation in dogs [letter; comment] Shepherd K. **Vet Rec** 1999 Feb 13; 144(7):185–6. Comment on: Vet Rec 1999 Jan 30;144(5):115–8.

[The reactivity of laboratory mice in pharmacological tests as dependent on their zoosocial status] Vekovishcheva OIu, et al. **Eksp Klin Farmakol** 1999 Jan–Feb;62(1):6–10 (Eng. Abstr.) **(Rus)**

SOCIAL ENVIRONMENT

see related
LIFE STYLE

Pedestrian environment and behavior in Karachi, Pakistan. Khan FM, et al. **Accid Anal Prev** 1999 Jul;31(4):335–9

High-risk alcohol and drug use situations among seriously mentally ill inpatients: a preliminary investigation. Bradizza CM, et al. **Addict Behav** 1998 Jul–Aug;23(4):555–60

A prototype analysis of psychological situations through the lens of alcohol expectancies and gender. Corcoran KJ, et al. **Addict Behav** 1998 Sep–Oct;23(5):685–91

Natural resolution of alcohol problems without treatment: environmental contexts surrounding the initiation and maintenance of stable abstinence or moderation drinking. King MP, et al. **Addict Behav** 1998 Jul–Aug;23(4):537–41

The social environments of adolescents: associations between socioenvironmental factors and health behaviors during adolescence. Neumark-Sztainer D. **Adolesc Med** 1999 Feb; 10(1):41–55, v (54 ref.)

Social network dynamics and HIV transmission. Rothenberg RB, et al. **AIDS** 1998 Aug 20;12(12):1529–36

Do actions speak louder than words? Perceived peer influences on needle sharing and cleaning in a sample of injection drug users. Hawkins WE, et al. **AIDS Educ Prev** 1999 Apr;11(2):122–31

Differences in alcohol expectancy between aggressive and nonaggressive social drinkers. Bjork JM, et al. **Alcohol Clin Exp Res** 1998 Dec;22(9):1943–50

Extension of a typology of alcohol dependence based on relative genetic and environmental loading. Johnson EO, et al. **Alcohol Clin Exp Res** 1998 Oct;22(7):1421–9

Gene–environment interactions in alcohol research: round table discussion of conceptual and methodological issues using animal models. Witt E, et al. **Alcohol Clin Exp Res** 1998 Nov;22(8):1719–23

Genetic and environmental influences on eating patterns of twins aged >/=50 y. van den Bree MB, et al. **Am J Clin Nutr** 1999 Oct;70(4):456–65

Adolescent substance use: preliminary examinations of school and neighborhood context. Allison KW, et al. **Am J Community Psychol** 1999 Apr;27(2):111–41

Neighborhood social environment and risk of death: multilevel evidence from the Alameda County Study. Yen IH, et al. **Am J Epidemiol** 1999 May 15;149(10):898–907

Predicting caregiver stress: an ecological perspective. McDonald TP, et al. **Am J Orthopsychiatry** 1999 Jan; 69(1):100–9

Endocrine function and emergency contraception: physiology and society. Anderson M. **Am J Physiol** 1998 Jun;274(6 Pt 2):S46–52 (29 ref.)

Environmental and policy interventions to promote physical activity. Sallis JF, et al. **Am J Prev Med** 1998 Nov; 15(4):379–97 (73 ref.)

Genetic and environmental contributions to alcohol abuse and dependence in a population-based sample of male twins. Prescott CA, et al. **Am J Psychiatry** 1999 Jan; 156(1):34–40

Neighborhood environment and self-reported health status: a multilevel analysis. Malmström M, et al. **Am J Public Health** 1999 Aug;89(8):1181–6

Which adults do underaged youth ask for cigarettes? Ribisl KM, et al. **Am J Public Health** 1999 Oct;89(10):1561–4

Working environment conditions in rural areas according to psychosocial indices. Thelin AG. **Ann Agric Environ Med** 1998;5(2):139–45

Social psychophysiology, social circumstances, and health. Carroll D, et al. **Ann Behav Med** 1998 Fall;20(4):333–7 (80 ref.)

The effects of the social environment on stress-related cardiovascular activation: current findings, prospects, and implications. Kamarck TW, et al. **Ann Behav Med** 1998 Fall;20(4):247–56 (83 ref.)

A case for the usefulness of laboratory social stressors. Linden W, et al. **Ann Behav Med** 1998 Fall;20(4):310–6 (57 ref.)

The Greater Rock of Ages Baptist Church. Peters AL. **Ann Intern Med** 1999 Jul 6;131(1):66–7

Psychosocial correlates of dietary intake: advancing dietary intervention. Baranowski T, et al. **Annu Rev Nutr** 1999; 19:17–40 (99 ref.)

The social environment and health: a discussion of the epidemiologic literature. Yen IH, et al. **Annu Rev Public Health** 1999;20:287–308 (127 ref.)

Whither menstrual synchrony? McClintock MK. **Annu Rev Sex Res** 1998;9:77–95 (43 ref.)

Comparison of blood lead levels in three groups of Sardinian children. Sanna E, et al. **Anthropol Anz** 1999 Jun; 57(2):111–21

Sociodemographic and condition-related characteristics associated with conduct problems in school-aged children with chronic health conditions. Silver EJ, et al. **Arch Pediatr Adolesc Med** 1999 Aug;153(8):815–20

Unipedal balance in healthy adults: effect of visual environments yielding decreased lateral velocity feedback. Deyer TW, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):1072–7

"White coat effect" induced by therapist's presence during speech therapy for stroke rehabilitation: a single case study. Sakamoto H, et al. **Arch Phys Med Rehabil** 1999 Apr;

80(4):470–2
Determinants of infant feeding practices in a low socio-economic area: identifying environmental barriers to breastfeeding. McIntyre E, et al. **Aust N Z J Public Health** 1999 Apr;23(2):207–9
Escape-related behaviours in an unstable elevated and exposed environment. I. A new behavioural model of extreme anxiety. King SM. **Behav Brain Res** 1999 Jan; 98(1):113–26
Escape-related behaviours in an unstable, elevated and exposed environment. II. Long-term sensitization after repetitive electrical stimulation of the rodent midbrain defence system. King SM. **Behav Brain Res** 1999 Jan; 98(1):127–42
Correcting estimates of shared environmental variance for range restriction in adoption studies using a truncated multivariate normal model. Stoolmiller M. **Behav Genet** 1998 Nov;28(6):429–41
Genetic and environmental influences on EEG coherence. van Beijsterveldt CE, et al. **Behav Genet** 1998 Nov; 28(6):443–53
Longitudinal genetic analysis of problem behaviors in biologically related and unrelated adoptees. van der Valk JC, et al. **Behav Genet** 1998 Sep;28(5):365–80
Using rapidly alternating multiple schedules to assess and treat aberrant behavior in natural settings. Zanolli K, et al. **Behav Modif** 1999 Jul;23(3):358–78
Intact neurons of the lateral habenular nucleus are necessary for the nonhormonal, pup-mediated display of maternal behavior in sensitized virgin female rats. Felton TM, et al. **Behav Neurosci** 1998 Dec;112(6):1458–65
Kin interaction enhances morphine analgesia in male mice. D'Amato FR. **Behav Pharmacol** 1998 Jul;9(4):369–73
Ethanol drinking in socially housed squirrel monkeys. Mandillo S, et al. **Behav Pharmacol** 1998 Jul;9(4):363–7
The ability of odours to serve as state-dependent cues for real-world memories: can Viking smells aid the recall of Viking experiences? Aggleton JP, et al. **Br J Psychol** 1999 Feb;90 (Pt 1):1–7
A transitional living environment for persons with brain injuries: staff and client perceptions. Minnes P, et al. **Brain Inj** 1998 Nov;12(11):987–92
Social stress inhibits the nitric oxide effect on the corticotropin-releasing hormone- but not vasopressin-induced pituitary-adrenocortical responsiveness. Bugajski J, et al. **Brain Res** 1999 Jan 30; 817(1–2):220–5
Are neuronal markers and neocortical graft-host interface influenced by housing conditions in rats with cortical infarct cavity? Zeng J, et al. **Brain Res Bull** 1999 Jan 15; 48(2):165–71
Family-of-origin characteristics in bipolar disorder: a controlled study. Cooke RG, et al. **Can J Psychiatry** 1999 May;44(4):379–81
Enabling children: participation as a new perspective on child-health promotion. de Winter M, et al. **Child Care Health Dev** 1999 Jan;25(1):15–23; discussion 23–5
Environmental input and cognitive growth: a study using time-period comparisons. Huttenlocher J, et al. **Child Dev** 1998 Aug;69(4):1012–29
The impact of after-school peer contact on early adolescent externalizing problems is moderated by parental monitoring, perceived neighborhood safety, and prior adjustment. Pettit GS, et al. **Child Dev** 1999 May-Jun; 70(3):768–78
Experiences in after-school programs and children's adjustment in first-grade classrooms. Pierce KM, et al. **Child Dev** 1999 May-Jun;70(3):756–67
Is there a "trochaic bias" in early word learning? Evidence from infant production in English and French. Vihman MM, et al. **Child Dev** 1998 Aug;69(4):935–49
Environmental influences on neural plasticity, the limbic system, emotional development and attachment: a review. Joseph R. **Child Psychiatry Hum Dev** 1999 Spring; 29(3):189–208 (97 ref.)
Recovery after acute brain injury: function in hospital; dysfunction at home [editorial] Scrutton D. **Dev Med Child Neurol** 1999 Feb;41(2):75
Genetic and environmental origins of verbal and performance components of cognitive delay in 2-year-olds. Eley TC, et al. **Dev Psychol** 1999 Jul;35(4):1122–31
Genetic analyses of focal aspects of infant temperament. Goldsmith HH, et al. **Dev Psychol** 1999 Jul;35(4):972–85
Genetic and environmental influences on the relationships between family connectedness, school connectedness, and adolescent depressed mood: sex differences. Jacobson KC, et al. **Dev Psychol** 1999 Jul;35(4):926–39
Genotype-environment correlations in late childhood and early adolescence: antisocial behavioral problems and coercive parenting. O'Connor TG, et al. **Dev Psychol** 1998 Sep;34(5):970–81
Returning to the scene: reminders and context reinstatement enhance children's recall. Priestley G, et al. **Dev Psychol** 1999 Jul;35(4):1006–19
Early child-care selection: variation by geographic location, maternal characteristics, and family structure. Singer JD, et al. **Dev Psychol** 1998 Sep;34(5):1129–44
Psychological and social characteristics and precipitants of vomiting in children with cyclic vomiting syndrome. Forbes D, et al. **Dig Dis Sci** 1999 Aug;44(8 Suppl):19S–22S (30 ref.)
Genetic and environmental influences on drug use and abuse/dependence in male and female twins. van den Bree MB, et al. **Drug Alcohol Depend** 1998 Nov 1;52(3):231–41
Comparative epidemiology of initial drug opportunities and transitions to first use: marijuana, cocaine, hallucinogens and heroin. Van Etten ML, et al. **Drug Alcohol Depend** 1999 Apr 1;54(2):117–25
Working in a moving environment. Wertheim AH. **Ergonomics** 1998 Dec;41(12):1845–58 (70 ref.)
Social environment and substance misuse: a study of ethnic variations among inner London adolescents. Karlsen S, et al. **Ethn Health** 1998 Nov;3(4):265–73
Difficulties in changing the diet in relation to dietary fat intake among patients with coronary heart disease. Koikkalainen M, et al. **Eur J Clin Nutr** 1999 Feb; 53(2):120–5
The effects of arginine vasotocin on the calling behavior of male cricket frogs in changing social contexts. Chu J, et al. **Horm Behav** 1998 Dec;34(3):248–61
Feeding laboratory studies in patients with eating disorders: a review. Mitchell JE, et al. **Int J Eat Disord** 1998 Sep; 24(2):115–24 (21 ref.)
Social determinants of psychiatric morbidity and well-being in immigrant elders and whites in east London. Silveira ER, et al. **Int J Geriatr Psychiatry** 1998 Nov;13(11):801–12
An invitation to join in difficulty: realizing the deeper promise of group psychotherapy. Hawkins DM. **Int J Group Psychother** 1998 Oct;48(4):423–38 (17 ref.)
Income inequality, social cohesion, and health: clarifying the theory--a reply to Muntaner and Lynch. Wilkinson RG. **Int J Health Serv** 1999;29(3):525–43
Estrus cycle and gastric lesions in individual- and group-stressed female rats. Popovic M, et al. **Int J Psychophysiol** 1999 Jul;33(1):21–6
Revision and restandardization of the Conners Teacher Rating Scale (CTRS-R): factor structure, reliability, and criterion validity. Conners CK, et al. **J Abnorm Child Psychol** 1998 Aug;26(4):279–91
A playroom observation procedure to assess children with mental retardation and ADHD. Handen BL, et al. **J Abnorm Child Psychol** 1998 Aug;26(4):269–77
Genetic and environmental influences on subtypes of conduct disorder behavior in boys. Simonoff E, et al. **J Abnorm Child Psychol** 1998 Dec;26(6):495–509
The effects of family structure and SES on family processes in early adolescence. Baer J. **J Adolesc** 1999 Jun; 22(3):341–54
Love is all you need? Focusing on adolescents' life concerns from an ecological point of view. Kloep M. **J Adolesc** 1999 Feb;22(1):49–63
Development of the cerebral cortex: X. Cortical development and experience: II. Hockfield S, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Oct; 37(10):1103–5
Brief report: treatment of echolalia in a girl with Rubinstein-Taybi syndrome: functional assessment of minimizing chances to provoke echolalia. Chung BI. **J Autism Dev Disord** 1998 Dec;28(6):573–8
Habit-reversal treatment for children's stuttering: assessment in three settings. de Kinkelder M, et al. **J Behav Ther Exp Psychiatry** 1998 Sep;29(3):261–5
The effects of primary division, student-mediated conflict resolution programs on playground aggression. Cunningham CE, et al. **J Child Psychol Psychiatry** 1998 Jul;39(5):653–62
A genetic study of the family environment in the transition to early adolescence. Deater-Deckard K, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):769–75
Differences between school classes in preschoolers' psychosocial adjustment: evidence for the importance of children's interpersonal relations. van den Oord EJ, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):417–30
Family contexts, parental behaviour, and personality profiles of children and adolescents with Prader-Willi, fragile-X, or Williams syndrome. van Lieshout CF, et al. **J Child Psychol Psychiatry** 1998 Jul;39(5):699–710
Witnessed community violence and antisocial behavior in high-risk, urban boys. Miller LS, et al. **J Clin Child Psychol** 1999 Mar;28(1):2–11
A historical review of topographical disorientation and its neuroanatomical correlates. Barrash J. **J Clin Exp Neuropsychol** 1998 Dec;20(6):807–27
The assessment of menstrual synchrony: comment on Weller and Weller (1997) [comment] Arden MA, et al. **J Comp Psychol** 1998 Sep;112(3):323–4; discussion 325–6. Comment on: J Comp Psychol 1997 Jun;111(2):143–51.
Heritability of hand preference in chimpanzees (Pan troglodytes): evidence from a partial interspecies cross-fostering study. Hopkins WD. **J Comp Psychol** 1999 Sep;113(3):307–13
The effects of changing contexts on return of fear following exposure therapy for spider fear. Mineka S, et al. **J Consult Clin Psychol** 1999 Aug;67(4):599–604
Predictors of early school age outcomes in very low birth weight children. Taylor HG, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):235–43
Urine release in freely moving catheterised lobsters (Homarus americanus) with reference to feeding and social activities. Breithaupt T, et al. **J Exp Biol** 1999 Apr;202 (Pt 7):837–44
Varieties of developmental reading disorder: genetic and environmental influences. Castles A, et al. **J Exp Child Psychol** 1999 Feb;72(2):73–94
Blocking in the spatial domain with arrays of discrete landmarks. Biegler R, et al. **J Exp Psychol Anim Behav Process** 1999 Jul;25(3):334–51
Perceiving affordances for another person's actions. Stoffregen TA, et al. **J Exp Psychol Hum Percept Perform** 1999 Feb;25(1):120–36
A comprehensive typology for the biopsychosociocultural evaluation of child-killing behavior. Silva JA, et al. **J Forensic Sci** 1998 Nov;43(6):1112–8
The interrelationships between abuse, substance use, and psychosocial stress during pregnancy. Curry MA. **J Obstet Gynecol Neonatal Nurs** 1998 Nov-Dec; 27(6):692–9
Method for retrospective collection of work-related psychosocial risk factors for musculoskeletal disorders: reliability and aggregation. Thorbjörnsson CB, et al. **J Occup Health Psychol** 1999 Jul;4(3):193–206
Empathy, expectations, and situational preferences: personality influences on the decision to participate in volunteer helping behaviors. Davis MH, et al. **J Pers** 1999 Jun;67(3):469–503
Genetic and environmental influences on individual differences in masculinity, femininity, and gender diagnosticity: analyzing data from a classic twin study. Lippa R, et al. **J Pers** 1999 Feb;67(1):127–55
Mental representations of the self, significant others, and nonsignificant others: structure and processing of private and public aspects. Andersen SM, et al. **J Pers Soc Psychol** 1998 Oct;75(4):845–61
In search of self-definition: motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? Gaertner L, et al. **J Pers Soc Psychol** 1999 Jan;76(1):5–18
Protective factors in adolescent health behavior. Jessor R, et al. **J Pers Soc Psychol** 1998 Sep;75(3):788–800
The role of dispositional and situational factors in cognitive interference. Pierce GR, et al. **J Pers Soc Psychol** 1998 Oct;75(4):1016–31
Violence in a violent society. Terris M. **J Public Health Policy** 1998;19(3):289–302
Factors affecting the self-concepts of South African students. Marjoribanks K, et al. **J Soc Psychol** 1998 Oct; 138(5):572–80
Hopelessness in a community population: factorial structure and psychosocial correlates. Tanaka E, et al. **J Soc Psychol** 1998 Oct;138(5):581–90
Workplace drinking climate, stress, and problem indicators: assessing the influence of teamwork (group cohesion). Bennett JB, et al. **J Stud Alcohol** 1998 Sep;59(5):608–18
Social and coping reasons for drinking: predicting alcohol misuse in adolescents. Bradizza CM, et al. **J Stud Alcohol** 1999 Jul;60(4):491–9
Transition into adolescent problem drinking: the role of psychosocial risk and protective factors. Costa FM, et al. **J Stud Alcohol** 1999 Jul;60(4):480–90
Adolescents, bush parties and drinking-driving. Stoduto G, et al. **J Stud Alcohol** 1998 Sep;59(5):544–8
Characterization of socio-psychological stress-induced antinociception in the formalin test in mice. Takahashi M, et al. **Jpn J Pharmacol** 1999 Jan;79(1):83–7
Independent reference frames in human spatial memory: body-centered and environment-centered coding in near and far space. Woodin ME, et al. **Mem Cognit** 1998 Nov; 26(6):1109–16
Social context modulates singing-related neural activity in the songbird forebrain. Hessler NA, et al. **Nat Neurosci** 1999 Mar;2(3):209–11
For whom the bird sings: context-dependent gene expression [see comments] Jarvis ED, et al. **Neuron** 1998 Oct; 21(4):775–88. Comment in: Neuron 1998 Oct;21(4):645–7.
Modulation by social context sheds new light on mechanisms of vocal production [comment] Schmidt MF. **Neuron** 1998 Oct;21(4):645–7. Comment on: Neuron 1998 Oct;21(4):775–88.
Social influences on endocrine activity in guinea pigs, with comparisons to findings in nonhuman primates. Hennessy MB. **Neurosci Biobehav Rev** 1999 May;23(5):687–98 (102 ref.)
Regional and temporal separation of serotonergic activity mediating social stress. Summers CH, et al. **Neuroscience** 1998 Nov;87(2):489–96
High versus low reactivity to a novel environment: behavioural, pharmacological and neurochemical assessments. Thiel CM, et al. **Neuroscience** 1999; 93(1):243–51
Socioemotional development across cultures: context, complexity, and pathways. Sharma D, et al. **New Dir Child Dev** 1998 Fall;(81):3–20 (133 ref.)
Child care in India: a comparative developmental view of infant social environments. Sharma D, et al. **New Dir Child Dev** 1998 Fall;(81):45–67
Contributors to violent behavior among elementary and middle school children. Singer MI, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):878–84
Control of reproductive and energetic status by environmental cues in a desert rodent, Shaw's jird. Ei-Bakry HA, et al. **Physiol Behav** 1999 Jun;66(4):657–66
Chronic stress in dogs subjected to social and spatial restriction. I. Behavioral responses. Beerda B, et al. **Physiol Behav** 1999 Apr;66(2):233–42
Chronic stress in dogs subjected to social and spatial restriction. II. Hormonal and immunological responses.

Beerda B, et al. **Physiol Behav** 1999 Apr;66(2):243-54
Interactive effects of psychosocial stressors and gender on mouse mammary tumor growth. Kerr LR, et al. **Physiol Behav** 1999 Apr;66(2):277-84
Social contact synchronizes free-running activity rhythms of diurnal palm squirrels. Rajaratnam SM, et al. **Physiol Behav** 1999 Mar;66(1):21-6
Relationship between hyponeophagia and adrenal cortex function in farmed foxes. Rekilä T, et al. **Physiol Behav** 1999 Jan 1-15;65(4-5):779-83
Effects of acute and chronic social stress on blood cellular immunity in rats. Stefanski V, et al. **Physiol Behav** 1998 Jul;64(5):733-41
Psychosocial predictors of different stages of cigarette smoking among high school students. Flay BR, et al. **Prev Med** 1998 Sep-Oct;27(5 Pt 3):A9-18
The role of cultural and social factors in the cause of addictive disorders. Westermeyer J. **Psychiatr Clin North Am** 1999 Jun;22(2):253-73 (66 ref.)
The constitution of community: how individuals diagnosed with schizophrenia and their friends achieved community. Beal G. **Psychiatry** 1999 Summer;62(2):173-86
Describing traumatic responses and distress of community residents directly and indirectly exposed to an aircraft crash. Chung MC, et al. **Psychiatry** 1999 Summer; 62(2):125-37
Private and public in the lives of chronic schizophrenic patients. Leferink K. **Psychiatry** 1998 Summer;61(2):147-62 (60 ref.)
Eating disorders in Japan: finding the right context. Nishizono-Maher A. **Psychiatry Clin Neurosci** 1998 Dec; 52 Suppl:S320-3
The splintered holding environment and the vulnerable ego. A case study. Paret IH, et al. **Psychoanal Study Child** 1998; 53:300-24
Implications of the restricted range of family environments for estimates of heritability and nonshared environment in behavior-genetic adoption studies. Stoolmiller M. **Psychol Bull** 1999 Jul;125(4):392-409 (110 ref.)
Social fears and social phobia in a community sample of adolescents and young adults: prevalence, risk factors and co-morbidity. Wittchen HU, et al. **Psychol Med** 1999 Mar; 29(2):309-23
Public displays of affection among Asian and Latino heterosexual couples. Regan PC, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1201-2
Cortisol levels of young children in full-day childcare centers: relations with age and temperament. Dettling AC, et al. **Psychoneuroendocrinology** 1999 Jul;24(5):519-36
Behavioral and hormonal effects of partner familiarity in periadolescent rat pairs upon novelty exposure. Terranova ML, et al. **Psychoneuroendocrinology** 1999 Aug; 24(6):639-56
Social environment and longevity in schizophrenia [see comments] Christensen AJ, et al. **Psychosom Med** 1999 Mar-Apr;61(2):141-5. Comment in: Psychosom Med 1999 Mar-Apr;61(2):146-7.
Sociosomatics and illness in chronic fatigue syndrome [see comments] Ware NC. **Psychosom Med** 1998 Jul-Aug; 60(4):394-401. Comment in: Psychosom Med 1999 Mar-Apr;61(2):256.
The Environmental Rating Scale (ERS): a measure of the quality of the residential environment for adults with autism. Van Bourgondien ME, et al. **Res Dev Disabil** 1998 Sep-Oct;19(5):381-94
Gender and its contribution to the prediction of cognitive abilities at 5 years. Andersson HW, et al. **Scand J Psychol** 1998 Dec;39(4):267-74
Diamond necklaces: perspectives on power and the language of "community". Drevdahl D. **Sch Inq Nurs Pract** 1998 Winter;12(4):303-17; discussion 319-23
Shared social environment and psychiatric disorder: a multilevel analysis of individual and ecological effects. Driessen G, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33(12):606-12
Male-female differences in the setting and construction of violence among people with severe mental illness. Hiday VA, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec; 33 Suppl 1:S68-74
Effects of negative life experiences on phobia onset. Magee WJ. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jul; 34(7):343-51
Parental rearing and problem behaviours in male delinquent adolescents versus controls in northern Russia. Ruchkin VV, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Oct; 33(10):477-82
Crime: social disorganization and relative deprivation. Kawachi I, et al. **Soc Sci Med** 1999 Mar;48(6):719-31
Childhood conditions that predict survival to advanced ages among African-Americans. Preston SH, et al. **Soc Sci Med** 1998 Nov;47(9):1231-46
The social ecology of drug use: a factor analysis of an urban environment. Bell DC, et al. **Subst Use Misuse** 1998 Sep; 33(11):2201-17
Treated and untreated recovery from alcohol misuse: environmental influences and perceived reasons for change. Blomqvist J. **Subst Use Misuse** 1999 Aug;34(10):1371-406
Visiting public drinking places: an explorative study into the functions of pub-going for late adolescents. Engels RC, et al. **Subst Use Misuse** 1999 Jul;34(9):1261-80
Using social indicators to predict addiction. Mammo A, et al. **Subst Use Misuse** 1998 Oct;33(12):2499-513
A contextual model of adolescent alcohol use across the rural-urban continuum. Rountree PW, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):495-519
Psychosocial factors related to adolescent smoking: a critical review of the literature. Tyas SL, et al. **Tob Control** 1998 Winter;7(4):409-20 (226 ref.)
Society and public health: crisis and rebirth. Mann JM. **West J Med** 1998 Aug;169(2):118-21 (4 ref.)
[Early familial and environmental processes in schizophrenia. Importance of premorbid personality evaluation] Chabot B, et al. **Encephale** 1998 Jul-Aug;24(4):309-14 (Eng. Abstr.) **(Fre)**
[Evaluating genetics and environment in development of obesity] Lechleitner M, et al. **Acta Med Austriaca** 1998; 25(4-5):129-30 (6 ref.) (Eng. Abstr.) **(Ger)**
[Are there environmental factors influencing the choice of death by drowning as a means of suicide in the Geneva canton?] La Harpe R, et al. **Arch Kriminol** 1998 Nov-Dec; 202(5-6):152-6 (Eng. Abstr.) **(Ger)**
[Mind Zone--prevention in the techno-scene] Nitschke S. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S56-8 (Eng. Abstr.) **(Ger)**
[Social ecology of the drug problem] Tretter F. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S47-55 (Eng. Abstr.) **(Ger)**
[Socio-acousis. Non-occupationally-induced hearing loss due to noise, 1] Plath P. **HNO** 1998 Oct;46(10):887-92 (46 ref.) **(Ger)**
[Psychological and social etiology of drug dependence] Türk D, et al. **Internist (Berl)** 1999 Jun;40(6):583-9 (52 ref.) **(Ger)**
[Subjective quality of life of schizophrenic patients. Effect of treatment setting, psychopathology and extrapyramidal motor drug effects] Kemmler G, et al. **Psychiatr Prax** 1999 Jan;26(1):9-15 (Eng. Abstr.) **(Ger)**
[Are restraints used too frequently? Indications, incidence and conditions for restraint in a general psychiatric department. A prospective study] Klimitz H, et al. **Psychiatr Prax** 1998 Sep;25(5):235-9 (Eng. Abstr.) **(Ger)**
[The local community as a life environment for the elderly--on the future role of the community in supporting the elderly] Ziller H. **Z Gerontol Geriatr** 1998 Dec; 31(6):392-7 (Eng. Abstr.) **(Ger)**
[Matured society in 21st century on the basis of the bio-defense] Nomoto K. **Nippon Ronen Igakkai Zasshi** 1999 Jan;36(1):22-8 **(Jpn)**
[Association between social environment and aging of the brain: evaluation with the event-related potential P300] Suyama N, et al. **Nippon Ronen Igakkai Zasshi** 1998 Oct; 35(10):765-70 (Eng. Abstr.) **(Jpn)**
[Relationships between the psychological development in children and adolescents and social factors: problems in T. Kasahara's paper] Takaoka K. **Seishin Shinkeigaku Zasshi** 1998;100(8):523-31 **(Jpn)**
[Social determination of abortion] Bannikova RV, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):13-6 (Eng. Abstr.) **(Rus)**
[Professional military training of women a social-hygienic study] Korshever NG. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):16-20 (Eng. Abstr.) **(Rus)**
[Social-hygienic characterization of the family and its role in the formation of a child's health] Vygolova OV. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):3-7 (Eng. Abstr.) **(Rus)**
[Effect of the maternal environment on blood pressure and startle reflex in rats with inherited hypertension] Amstislavskii SIa, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):783-90 (Eng. Abstr.) **(Rus)**

SOCIAL FACILITATION

Substance-use situations and abstinence predictions in substance abusers with and without personality disorders. Van Horn DH, et al. **Am J Drug Alcohol Abuse** 1998 Aug; 24(3):395-404
Differential contributions of family and peer factors to the etiology of narcotic addiction. Nurco DN, et al. **Drug Alcohol Depend** 1998 Aug 1;51(3):229-37
Social "facilitation" as challenge and threat. Blascovich J, et al. **J Pers Soc Psychol** 1999 Jul;77(1):68-77
The modeling of alcohol consumption: a meta-analytic review. Quigley BM, et al. **J Stud Alcohol** 1999 Jan; 60(1):90-8
Monitoring item and source information: evidence for a negative generation effect in source memory. Jurica PJ, et al. **Mem Cognit** 1999 Jul;27(4):648-56
Behavioral and hormonal effects of partner familiarity in periadolescent rat pairs upon novelty exposure. Terranova ML, et al. **Psychoneuroendocrinology** 1999 Aug; 24(6):639-56
The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments [see comments] Bourgois P. **Subst Use Misuse** 1998 Sep;33(11):2323-51. Comment in: Subst Use Misuse 1998 Sep;33(11):2353-5. Comment in: Subst Use Misuse 1998 Sep;33(11):2357-9. Comment in: Subst Use Misuse 1998 Sep;33(11):2361-3. Comment in: Subst Use Misuse 1998 Sep;33(11):2365-8.
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois [comment] Courtwright DT. **Subst Use Misuse** 1998 Sep;33(11):2353-5. Comment on: Subst Use Misuse 1998 Sep;33(11):2323-4.
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois [comment] Fielding NG. **Subst Use Misuse** 1998 Sep;33(11):2361-3. Comment on: Subst Use Misuse 1998 Sep;33(11):2361-3.
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois [comment] Johnson TP. **Subst Use Misuse** 1998 Sep;33(11):2365-8. Comment on: Subst Use Misuse 1998 Sep;33(11):2323-51.
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois. Latkin CA. **Subst Use Misuse** 1998 Sep; 33(11):2369-74
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois. Leshner AI. **Subst Use Misuse** 1998 Sep;33(11):2369-74
Comments on "The moral economies of homeless heroin addicts: confronting ethnography, HIV risk, and everyday violence in San Francisco shooting encampments," by Phillippe Bourgois [comment] Lilja J, et al. **Subst Use Misuse** 1998 Sep;33(11):2357-9. Comment on: Subst Use Misuse 1998 Sep;33(11):2323-51.
[Mind Zone--prevention in the techno-scene] Nitschke S. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S56-8 (Eng. Abstr.) **(Ger)**
[Social ecology of the drug problem] Tretter F. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S47-55 (Eng. Abstr.) **(Ger)**

SOCIAL IDENTIFICATION

An investigation of a brief measure of school membership. Hagborg WJ. **Adolescence** 1998 Summer;33(130):461-8
Student characteristics and choice of high school remembrance role. Holland A, et al. **Adolescence** 1999 Summer;34(134):315-38
The Alcoholics Anonymous Affiliation Scale: development, reliability, and norms for diverse treated and untreated populations. Humphreys K, et al. **Alcohol Clin Exp Res** 1998 Aug;22(5):974-8
Social capital and self-rated health: a contextual analysis. Kawachi I, et al. **Am J Public Health** 1999 Aug; 89(8):1187-93
A nurse by any other name? [editorial] Fulmer T. **Appl Nurs Res** 1999 Aug;12(3):113
Enhancing collective and personal self-esteem through differentiation: further exploration of Hinkle & Brown's taxonomy. Meeres SL, et al. **Br J Soc Psychol** 1999 Mar; 38 (Pt 1):21-34
Agency and communion: the relationship between therapy and culture. Sato T. **Cult Divers Ment Health** 1998; 4(4):278-90
The educational attainment of young women: role model effects of female high school faculty. Nixon LA, et al. **Demography** 1999 May;36(2):185-94
Children's subjective identification with the group and in-group favoritism. Bennett M, et al. **Dev Psychol** 1998 Sep;34(5):902-9
Aliveness in the work of the group: a subjective guide to creative character change. Shields W. **Int J Group Psychother** 1999 Jul;49(3):387-98
The interplay between identifications and identity in the analysis of a violent young man: issues of technique. Perelberg RJ. **Int J Psychoanal** 1999 Feb;80 (Pt 1):31-45
Of Jewel Heritage: racial socialization and racial identity attitudes amongst adolescents of mixed African-Caribbean/White parentage. Fatimilehin IA. **J Adolesc** 1999 Jun;22(3):303-18
'Coming out' as a life transition: homosexual identity formation and its implications for health care practice. Taylor B. **J Adv Nurs** 1999 Aug;30(2):520-5 (52 ref.)
Understanding fraternity drinking: five recurring themes in the literature, 1980-1998. Borsari BE, et al. **J Am Coll Health** 1999 Jul;48(1):30-7 (77 ref.)
Intergroup bias: status, differentiation, and a common in-group identity. Dovidio JF, et al. **J Pers Soc Psychol** 1998 Jul;75(1):109-20
In search of self-definition: motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? Gaertner L, et al. **J Pers Soc Psychol** 1999 Jan;76(1):5-18
Strategies to cope with negative social identity: predictions by social identity theory and relative deprivation theory. Mummendey A, et al. **J Pers Soc Psychol** 1999 Feb; 76(2):229-45
Perceiving individuals and groups: expectancies, dispositional inferences, and causal attributions. Susskind J, et al. **J Pers Soc Psychol** 1999 Feb;76(2):181-91
How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. Vorauer JD, et al. **J Pers Soc Psychol** 1998 Oct;75(4):917-37
Effect of collective self-esteem on ingroup evaluations. De

Cremer D, et al. **J Soc Psychol** 1999 Aug;139(4):530–2

Drug use among African Americans: ethnic identity as a protective factor. Brook JS, et al. **Psychol Rep** 1998 Dec; 83(3 Pt 2):1427–46

Family capital and Hong Kong adolescents' academic achievement. Marjoribanks K, et al. **Psychol Rep** 1998 Aug; 83(1):99–105

Content and predictors of the ethnic identity of Russian-speaking immigrant adolescents in Finland. Jasinskaja-Lahti I, et al. **Scand J Psychol** 1998 Dec; 39(4):209–19

Drug identity change processes, race, and gender. I. Explanations of drug misuse and a new identity-based model. Anderson TL. **Subst Use Misuse** 1998 Sep; 33(11):2263–79

Primary socialization theory: culture, ethnicity, and cultural identification. The links between culture and substance use. IV. Oetting ER, et al. **Subst Use Misuse** 1998 Aug; 33(10):2075–107 (60 ref.)

[Is patient's profession without significance? (letter)] Zetterström J. **Lakartidningen** 1998 Nov 25;95(48):5446 **(Swe)**

SOCIAL INSURANCE see **SOCIAL SECURITY**

SOCIAL INTERACTION see **INTERPERSONAL RELATIONS**

SOCIAL ISOLATION

Neonatal temperament, maternal interaction, and the need for "alonetime". Buchholz ES, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):9–18

Social disengagement and incident cognitive decline in community-dwelling elderly persons [see comments] Bassuk SS, et al. **Ann Intern Med** 1999 Aug 3;131(3):165–73 . Comment in: Ann Intern Med 1999 Aug 3;131(3):220–1.

Can social engagement prevent cognitive decline in old age? [editorial; comment] Haan MN. **Ann Intern Med** 1999 Aug 3;131(3):220–1. Comment on: Ann Intern Med 1999 Aug 3;131(3):165–73.

Isolation during the play period in infancy decreases adult social interactions in rats. Hol T, et al. **Behav Brain Res** 1999 Apr;100(1–2):91–7

Isolation rearing affects sequential organization of motor behavior in post-pubertal but not pre-pubertal Lister and Sprague-Dawley rats. Paulus MP, et al. **Behav Brain Res** 1998 Aug;94(2):271–80

Is there a critical developmental 'window' for isolation rearing-induced changes in prepulse inhibition of the acoustic startle response? Varty GB, et al. **Behav Brain Res** 1999 Apr;100(1–2):177–83

Developmental isolation and subsequent adult behavior of Drosophila paulistorum. V. Survey of six sibling species. Kim YK, et al. **Behav Genet** 1999 Jan;29(1):65–73

Behavioral mechanisms for active maternal potentiation of isolation calling in rat pups. Hofer MA, et al. **Behav Neurosci** 1999 Feb;113(1):51–61

Isolation-stress-induced facilitation of passive avoidance memory in the day-old chick. Johnston AN, et al. **Behav Neurosci** 1998 Aug;112(4):929–36

Repeated isolation stress in the neonatal rat: relation to brain dopamine systems in the 10-day-old rat. Kehoe P, et al. **Behav Neurosci** 1998 Dec;112(6):1466–74

Isolation reduces contextual but not auditory-cue fear conditioning: a role for endogenous opioids. Rudy JW, et al. **Behav Neurosci** 1999 Apr;113(2):316–23

Social isolation blocks the expression of memory after training that a food is inedible in Aplysia fasciata. Schwarz M, et al. **Behav Neurosci** 1998 Aug;112(4):942–51

Effects of isolation rearing on startle reactivity, habituation, and prepulse inhibition in male Lewis, Sprague-Dawley, and Fischer F344 rats. Varty GB, et al. **Behav Neurosci** 1998 Dec;112(6):1450–7

Effect of novel antipsychotic drugs on phencyclidine-induced stereotyped behaviour and social isolation in the rat social interaction test. Sams-Dodd F. **Behav Pharmacol** 1997 Jun;8(2–3):196–215

Morphine treatment during juvenile isolation increases social activity and opioid peptides release in the adult rat. Van den Berg CL, et al. **Brain Res** 1999 May 29;830(1):16–23

Reduced synaptophysin immunoreactivity in the dentate gyrus of prepulse inhibition-impaired isolation-reared rats. Varty GB, et al. **Brain Res** 1999 Apr 10;824(2):197–203

Male-female interactions and socio-sexual isolation of Mus spicilegus toward two other species of east-European mice, M. macedonicus and M. m. musculus. Ivantcheva A, et al. **C R Acad Sci III** 1999 Jul;322(7):597–605

The ontogeny of maternal potentiation of the infant rats' isolation call. Hofer MA, et al. **Dev Psychobiol** 1998 Nov; 33(3):189–201

The effects of 8-OH-DPAT and (+/-)-pindolol on isolation-induced ultrasonic vocalizations in 3-, 10-, and 14-day-old rats. Joyce MP, et al. **Dev Psychobiol** 1999 Mar; 34(2):109–17

Prenatal stress suppresses rat pup ultrasonic vocalization and myoclonic twitching in response to separation. Morgan KN, et al. **Dev Psychobiol** 1999 Apr;34(3):205–15

Prenatal stress alters brain biogenic amine levels in primates. Schneider ML, et al. **Dev Psychopathol** 1998 Summer; 10(3):427–40

Social separation in infant Cebus apella: patterns of behavioral and cortisol response. Byrne G, et al. **Int J Dev Neurosci** 1999 Jun;17(3):265–74

The association of body mass index with social and economic disadvantage in women and men. Sarlio-Lähteenkorva S, et al. **Int J Epidemiol** 1999 Jun;28(3):445–9

To engage or not to engage? Affecting the interactions of learning disabled adults. Bunning K. **Int J Lang Commun Disord** 1998;33 Suppl:386–91

Evaluation of an approach for adults with profound learning difficulties. Dobson S, et al. **Int J Lang Commun Disord** 1998;33 Suppl:392–6

An expansion of the peer-tutoring paradigm: cross-age peer tutoring of social skills among socially rejected boys. Gumpel TP, et al. **J Appl Behav Anal** 1999 Spring; 32(1):115–8

Diogenes' syndrome in patients with intellectual disability: 'a rose by any other name'? Williams H, et al. **J Intellect Disabil Res** 1998 Aug;42 (Pt 4):316–20

Effect of social experience on dopamine-stimulated adenylyl cyclase activity and G protein composition in chick forebrain. Reiser M, et al. **J Neurochem** 1999 Sep; 73(3):1293–9

Senile squalor syndrome: two unusual cases. Clark J. **J R Soc Med** 1999 Mar;92(3):138–40

A piece of my mind. Call of the loon. Shwayder TA. **JAMA** 1998 Oct 14;280(14):1221–2

Experience-expectant plasticity in the mushroom bodies of the honeybee. Fahrbach SE, et al. **Learn Mem** 1998 May-Jun;5(1–2):115–23

Involvement of diazepam binding inhibitor and its fragment octadecaneuropeptide in social isolation stress-induced decrease in pentobarbital sleep in mice. Dong E, et al. **Life Sci** 1999;64(19):1779–84

Effects of alprazolam on the free-choice ethanol consumption induced by isolation stress in aged rats. Núñez MJ, et al. **Life Sci** 1999;64(20):PL213–7

Diazepam binding inhibitor (DBI) gene expression in the brains of socially isolated and group-housed mice. Dong E, et al. **Neurosci Res** 1999 Mar;33(3):171–7

Neuronal Fos activation in olfactory bulb and forebrain of male rats having erections in the presence of inaccessible estrous females. Kelliher KR, et al. **Neuroscience** 1999; 92(3):1025–33

Behavioral thermoregulatory responses of single- and group-housed mice. Gordon CJ, et al. **Physiol Behav** 1998 Nov 15;65(2):255–62

Isolation rearing enhances acquisition in a conditioned inhibition paradigm. Harmer CJ, et al. **Physiol Behav** 1998 Dec 1;65(3):525–33

Social isolation and cardiovascular disease: an atherosclerotic pathway? Knox SS, et al. **Psychoneuroendocrinology** 1998 Nov;23(8):877–90 (93 ref.)

Effect of social isolation on the metabolism of morphine and its passage through the blood-brain barrier and on consumption of sucrose solutions. Coudereau JP, et al. **Psychopharmacology (Berl)** 1999 Jun;144(3):198–204

Mild social stress abolishes the effects of isolation on anxiety and chlordiazepoxide reactivity. Haller J, et al. **Psychopharmacology (Berl)** 1999 Jun;144(4):311–5

Ca2+ dependency of serotonin and dopamine release from CNS slices of chronically isolated rats. Jaffe EH. **Psychopharmacology (Berl)** 1998 Oct;139(3):255–60

[Chronic lead poisoning in children today. A pathology of poverty and social exclusion] Sinnaeve O, et al. **Arch Pediatr** 1999 Jul;6(7):762–7 (37 ref.) (Eng. Abstr.) **(Fre)**

[A survey of the psychosocial situation of homeless men in Frankfurt am Main] Leder T, et al. **Nervenarzt** 1999 Jul; 70(7):650–6 (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

Clinical interpretation of "'My Secret Life': the emergence of one gay man's authentic identity" [comment] Crepeau EB. **Am J Occup Ther** 1998 Jul-Aug;52(7):570–2 (20 ref.) . Comment on: Am J Occup Ther 1998 Jul-Aug;52(7):563–9.

"My secret life": the emergence of one gay man's authentic identity [see comments] Walsh AL, et al. **Am J Occup Ther** 1998 Jul-Aug;52(7):563–9 (41 ref.). Comment in: Am J Occup Ther 1998 Jul-Aug;52(7):570–2.

Internet paradox. A social technology that reduces social involvement and psychological well-being? Kraut R, et al. **Am Psychol** 1998 Sep;53(9):1017–31

D1 dopamine receptors and the reversal of isolation-induced behaviors in mice. Gariépy JL, et al. **Behav Brain Res** 1998 Sep;95(1):103–11

Play is indispensable for an adequate development of coping with social challenges in the rat. van den Berg CL, et al. **Dev Psychobiol** 1999 Mar;34(2):129–38

Corticosterone release in response to repeated, short episodes of neonatal isolation: evidence of sensitization. McCormick CM, et al. **Int J Dev Neurosci** 1998 Jun-Jul;16(3–4):175–85

Social anhedonia as a predictor of the development of schizophrenia-spectrum disorders. Kwapil TR. **J Abnorm Psychol** 1998 Nov;107(4):558–65

Effects of diazepam, citalopram, methadone and naloxone on PCP-induced stereotyped behaviour and social isolation in the rat social interaction test. Sams-Dodd F. **Neurosci Biobehav Rev** 1998;23(2):287–93

Latency to traverse a T-maze at 2 days of age and later adrenocortical responses to an acute stressor in domestic chicks. Marin RH, et al. **Physiol Behav** 1999 Jul; 66(5):809–13

Effects of isolation-rearing on locomotion, anxiety and responses to ethanol in Fawn Hooded and Wistar rats. Hall FS, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):203–9

Effects of isolation-rearing on voluntary consumption of ethanol, sucrose and saccharin solutions in Fawn Hooded and Wistar rats. Hall FS, et al. **Psychopharmacology (Berl)** 1998 Oct;139(3):210–6

SOCIAL JUSTICE

see related
CIVIL RIGHTS
HUMAN RIGHTS

Painful justice: an ethical perspective on the allocation of trauma services in Australia. Sloane A. **Aust N Z J Surg** 1998 Nov;68(11):760–3

The second phase of priority setting. Fairness as a problem of love and the heart: a clinician's perspective on priority setting [see comments] Sabin JE. **BMJ** 1998 Oct 10; 317(7164):1002–4. Comment in: BMJ 1999 Apr 3;318(7188):941.

Population, ethics, and equity. Berlinguer G. **Cad Saude Publica** 1999;15 Suppl 1:111–22

Sanitary justice in scarcity. Kottow M. **Cad Saude Publica** 1999;15 Suppl 1:43–50

The stress of being a poor child in America. Garbarino J. **Child Adolesc Psychiatr Clin N Am** 1998 Jan;7(1):105–19, ix (23 ref.)

The new biotech world order. Cahill LS. **Hastings Cent Rep** 1999 Mar-Apr;29(2):45–8 (9 ref.)

Incorporating societal concerns for fairness in numerical valuations of health programmes. Nord E, et al. **Health Econ** 1999 Feb;8(1):25–39

Ethics, justice and women's health. Cook RJ, et al. **Int J Gynaecol Obstet** 1999 Jan;64(1):81–5 (23 ref.)

A fundamental shift in the approach to international health by WHO, UNICEF, and the World Bank: instances of the practice of "intellectual fascism" and totalitarianism in some Asian countries. Banerji D. **Int J Health Serv** 1999; 29(2):227–59 (146 ref.)

Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. Krieger N. **Int J Health Serv** 1999; 29(2):295–352 (338 ref.)

Health and equity in the world in the era of "globalization". Navarro V. **Int J Health Serv** 1999;29(2):215–26

Sterilization. Tribunal experiments in popular justice? Carney T, et al. **Int J Law Psychiatry** 1999 Mar-Apr;22(2):177–97

Bahia-Carolina Program in Environmental and Occupational Health: A North-South partnership for workplace and environmental justice. Santana VS, et al. **Int J Occup Environ Health** 1999 Jul-Sep;5(3):218–22

Some functions of being fair and just—or not, in clinical psychoanalysis. Rayner E. **Int J Psychoanal** 1999 Jun;80 (Pt 3):477–92

The reality of torture [editorial] Good JA. **Ir Med J** 1999 Jan-Feb;92(1):229

The Perceptions of Fair Interpersonal Treatment Scale: development and validation of a measure of interpersonal treatment in the workplace. Donovan MA, et al. **J Appl Psychol** 1998 Oct;83(5):683–92

Address at ceremony launching the International Year of Older Persons (1999). Annan K. **J Gerontol B Psychol Sci Soc Sci** 1999 Jan;54(1):P5–6

The new NIH and FDA medical research policies: targeting gender, promoting justice. Baird KL. **J Health Polit Policy Law** 1999 Jun;24(3):531–65 (35 ref.)

Managed care: rationing without justice, but not unjustly [see comments] Buchanan A. **J Health Polit Policy Law** 1998 Aug;23(4):617–34 (16 ref.). Comment in: J Health Polit Policy Law 1998 Aug;23(4):687–95.

Efforts to incorporate social justice perspectives into a family training program. McGoldrick M, et al. **J Marital Fam Ther** 1999 Apr;25(2):191–209

Does justice require genetic enhancements? [see comments] Holtug N. **J Med Ethics** 1999 Apr;25(2):137–43. Comment in: J Med Ethics 1999 Apr;25(2):172–5.

Selecting subjects for participation in clinical research: one sphere of justice. Weijer C. **J Med Ethics** 1999 Feb; 25(1):31–6 (34 ref.)

Egalitarian and maximin theories of justice: directed donation of organs for transplant. Veatch RM. **J Med Philos** 1998 Aug;23(5):456–76

Connected and separate selves: development of an inventory and initial validation. Pearson JL, et al. **J Pers Assess** 1998 Aug;71(1):29–48

Community oriented primary care: an ethical analysis. Sprague S. **J S C Med Assoc** 1999 Mar;95(3):99–102

Traumatic events and generational differences in assumptions about a just world. Calhoun LG, et al. **J Soc Psychol** 1998 Dec;138(6):789–91

Call for research and education to tackle 'environmental injustice' [news] Reichhardt T. **Nature** 1999 Mar 11; 398(6723):99

In defense and pursuit of equity and efficiency [comment] Adeyi O, et al. **Soc Sci Med** 1998 Dec;47(12):1899–900. Comment on: Soc Sci Med 1998 Dec;47(12):1891–6; discussion 1897–8.

In defence and pursuit of equity [see comments] Gilson L. **Soc Sci Med** 1998 Dec;47(12):1891–6; discussion 1897–8. Comment in: Soc Sci Med 1998 Dec;47(12):1899–900.

SOCIAL JUSTICE

Comment in: Soc Sci Med 1998 Dec;47(12):1901-3.
Critical reflections on the politics of need: implications for public health. Robertson A. **Soc Sci Med** 1998 Nov; 47(10):1419-30
Pursuing equity without getting beat [see comments] Tollman SM, et al. **Soc Sci Med** 1998 Dec;47(12):1901-3. Comment in: Soc Sci Med 1998 Dec;47(12):1891-6; discussion 1897-8.
[Courage--the mother of all virtues] Fugelli P. **Tidsskr Nor Laegeforen** 1999 Mar 20;119(8):1143-5 (Eng. Abstr.) **(Nor)**
[Justice--the most demanding of virtues] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Mar 20;119(8):1149-53 (29 ref.) (Eng. Abstr.) **(Nor)**

HISTORY

A vision of social justice as the foundation of public health: commemorating 150 years of the spirit of 1848. Krieger N, et al. **Am J Public Health** 1998 Nov;88(11):1603-6
[Equality and brotherhood--values worth preserving in the health services] Westin S. **Tidsskr Nor Laegeforen** 1999 Apr 20;119(10):1474-9 (Eng. Abstr.) **(Nor)**

LEGISLATION & JURISPRUDENCE

Different paths to justice: the ADA, employment, and administrative enforcement by the EEOC and FEPAs. Moss K, et al. **Behav Sci Law** 1999;17(1):29-46
Still moving toward environmental justice. Clay R. **Environ Health Perspect** 1999 Jun;107(6):A308-10

SOCIAL MEDICINE

Family practice in Nepal: an international perspective [news] Carlough MC. **Fam Med** 1998 Sep;30(8):599-600
Report from the Department of Epidemiology, Social Medicine, and Health System Research, Medizinische Hochschule Hannover, Germany. **Int J Technol Assess Health Care** 1999 Winter;15(1):274-6
Irish Thoracic Society, Irish Gerontological Society, 16th All Ireland Social Medicine Meetings. 1996, 1997. Abstracts. **Ir J Med Sci** 1998 Jul-Sep;167 Suppl 9:1-32
[Community medicine after the disintegration of the Soviet Union] Larsen O. **Tidsskr Nor Laegeforen** 1999 Apr 20; 119(10):1415 **(Nor)**
[Social and hygienic characteristics of health of young athletes] Kasymova GP, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):21-4 (Eng. Abstr.) **(Rus)**
[Social-hygienic study of the epidemiology of primary and secondary female infertility] Konovalov OE. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):10-1 (Eng. Abstr.) **(Rus)**
[Systematic model of the sanologic status of children and adolescents] Simonov SN. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):27-30 (Eng. Abstr.) **(Rus)**
[Prevention--illusion or hope for the future?] Allander E. **Lakartidningen** 1999 Feb 10;96(6):620-2 (29 ref.) **(Swe)**
[Expressive sound language. Reflections on music and psychosocial medicine] Theorell T. **Lakartidningen** 1999 Feb 10;96(6):654-5 **(Swe)**

HISTORY

Abraham Jacobi and German medical radicalism in antebellum New York. Viner R. **Bull Hist Med** 1998 Fall; 72(3):434-63
[Odön Pálos, prominent figure in social gerontology] Vértes L. **Orv Hetil** 1999 Jan 24;140(4):197-200 **(Hun)**
[An enemy of the people--Ibsen as a teacher of public health] Frich JC. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4718-21 (Eng. Abstr.) **(Nor)**
[Gunnar Inghe--advocate of the poor. The first specialist in social medicine in Sweden an inspiring teacher (see comments)] Halldin J. **Lakartidningen** 1999 Jun 9; 96(23):2895-7. Comment in: Lakartidningen 1999 Jun 30;96(26-27):3156. **(Swe)**
[About violence and the simple-mindedness of "biologism". Or: David Attenborough is more amusing] Olofsson K, et al. **Lakartidningen** 1998 Nov 11;95(46):5133-6 **(Swe)**

LEGISLATION & JURISPRUDENCE

[Expert assessment of rehabilitation for social medicine legal experts--a discussion contribution to quality assurance. From the Quality Management Study Group of the German Society of Social Medicine and Prevention] Berg A, et al. **Rehabilitation (Stuttg)** 1999 May;38(2):107-26 **(Ger)**

METHODS

Partnership in health: beyond the rhetoric [editorial] Popay J, et al. **J Epidemiol Community Health** 1998 Jul;52(7):410-1
Tellings and retellings [comment] Combs G, et al. **J Marital Fam Ther** 1998 Oct;24(4):405-8. Comment on: J Marital Fam Ther 1998 Oct;24(4):397-403.
A question of perspective [comment] Tomm K. **J Marital Fam Ther** 1998 Oct;24(4):409-13. Comment on: J Marital Fam Ther 1998 Oct;24(4):397-403.

STATISTICS & NUMERICAL DATA

Measuring aspects of women's life and work for the study of variations in health. Dunnell K, et al. **Am J Ind Med** 1999 Jul;36(1):25-33 (15 ref.)
Women's occupational health in globalization and development. Loewenson RH. **Am J Ind Med** 1999 Jul; 36(1):34-42

TRENDS

The dream that never was: the rise and fall of socialized medicine in the United States of America [see comments] Katz SR. **Conn Med** 1998 Oct;62(10):619-20. Comment in: Conn Med 1998 Dec;62(12):741-2. Comment in: Conn Med 1999 Mar;63(3):179.
In response to "The dream that never was: the rise and fall of socialized medicine in the United States of America" [letter; comment] [see comments] Slater GS. **Conn Med** 1998 Dec;62(12):741-2. Comment on: Conn Med 1998 Oct;62(10):619-20. Comment in: Conn Med 1999 Mar;63(3):179.
Where is the family in narrative family therapy? [see comments] Minuchin S. **J Marital Fam Ther** 1998 Oct; 24(4):397-403. Comment in: J Marital Fam Ther 1998 Oct;24(4):405-8. Comment in: J Marital Fam Ther 1998 Oct;24(4):409-13. Comment in: J Marital Fam Ther 1998 Oct;24(4):415-7.
In search of the lost family: a footnote to Minuchin's essay [see comments] Sluzki CE. **J Marital Fam Ther** 1998 Oct; 24(4):415-7. Comment in: J Marital Fam Ther 1998 Oct;24(4):397-403.
Mutual health organizations in Africa and social health insurance systems: will European history repeat itself? [editorial] Criel B, et al. **Trop Med Int Health** 1999 Mar; 4(3):155-9 **(Eng, Fre)**
[Acceptance speech for the Salomon-Neumann medal award from the German Society for Social Medicine and Prevention] Fülgraff G. **Gesundheitswesen** 1999 Feb; 61(2):65-9 **(Ger)**
[Social medicine as a paradigm for innovative developments in public health] Gostomzyk JG. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S36-40 (Eng. Abstr.) **(Ger)**
[Physiology and social medicine (editorial)] Gostomzyk JG. **Gesundheitswesen** 1998 Aug-Sep;60(8-9):523-4 **(Ger)**
[The process of establishing social psychiatry services in the state of Saxony--a critical analysis based on existing urban-rural differences] Kallert TW, et al. **Gesundheitswesen** 1998 Nov;60(11):649-55 (Eng. Abstr.) **(Ger)**
[Problem orientation in social medicine--participation in social medicine] Rásky E, et al. **Gesundheitswesen** 1999 May;61(5):252-4 (7 ref.) (Eng. Abstr.) **(Ger)**
[Changes in medicine] Schipperges H. **Gesundheitswesen** 1998 Aug-Sep;60(8-9):525-8 **(Ger)**
[Collective health: a "new public health" or field open to new paradigms?] Paim JS, et al. **Rev Saude Publica** 1998 Aug;32(4):299-316 (Eng. Abstr.) **(Por)**

SOCIAL MOBILITY

Social mobility and health related behaviours in young people. Karvonen S, et al. **J Epidemiol Community Health** 1999 Apr;53(4):211-7
The perils of outperformance: sensitivity about being the target of a threatening upward comparison. Exline JJ, et al. **Psychol Bull** 1999 May;125(3):307-37 (312 ref.)
Social mobility and 21 year mortality in a cohort of Scottish men. Hart CL, et al. **Soc Sci Med** 1998 Oct;47(8):1121-30
The roles of social class of origin, achieved social class and intergenerational social mobility in explaining social-class inequalities in alcoholism among young men. Hemmingsson T, et al. **Soc Sci Med** 1999 Oct;49(8):1051-9

SOCIAL PERCEPTION

see related
STEREOTYPING
Nursing practitioners' perception of inpatients' anxiety, self-esteem, purpose-in-life and health locus of control. Nagata H, et al. **Acta Med Okayama** 1998 Oct;52(5):271-8
Development and preliminary application of a new scale for assessing dysfunctional working models of self and others (DWM-S) in severely disturbed patients. Perris C, et al. **Acta Psychiatr Scand** 1998 Sep;98(3):219-23
Social deficits associated with schizophrenia defined in terms of interpersonal Machiavellianism. Sullivan RJ, et al. **Acta Psychiatr Scand** 1999 Feb;99(2):148-54
The effect of a video character's smoking status on young females' perceptions of social characteristics. Jones B, et al. **Adolescence** 1998 Fall;33(131):657-67
The Program Environment Scale: assessing client perceptions of community-based programs for the severely mentally ill. Burt MR, et al. **Am J Community Psychol** 1998 Dec; 26(6):853-79
The invisible profession [letter; comment] Feringa CE. **Am J Crit Care** 1998 Nov;7(6):454. Comment on: Am J Crit Care 1998 Jul;7(4):250-2.
Recognition of facial emotional expressions from moving and static displays by individuals with mental retardation. Harwood NK, et al. **Am J Ment Retard** 1999 May; 104(3):270-8
Influences on parent perceptions of inclusive practices for their children with mental retardation. Palmer DS, et al. **Am J Ment Retard** 1998 Nov;103(3):272-87
College students' perceptual stigmatization of the children of lesbian mothers. King BR, et al. **Am J Orthopsychiatry** 1999 Apr;69(2):220-7
Impact of environment on adolescent mental health and behavior: structural equation modeling. Stiffman AR, et al. **Am J Orthopsychiatry** 1999 Jan;69(1):73-86
Methodological sources of cultural insensitivity in mental health research. Rogler LH. **Am Psychol** 1999 Jun; 54(6):424-33
A nurse by any other name? [editorial] Fulmer T. **Appl Nurs Res** 1999 Aug;12(3):113
Dyadic coorientation: reexamination of a method for studying interpersonal communication. Purnine DM, et al. **Arch Sex Behav** 1999 Feb;28(1):45-62
Internal and temporal reliability estimates for informant ratings of personality using the NEO PI-R and IAS. NEO Personality Inventory. Interpersonal Adjective Scales. Kurtz JE, et al. **Assessment** 1999 Jun;6(2):103-13
Management of somatisers in primary care: are family doctors motivated? Garcia-Campayo J, et al. **Aust N Z J Psychiatry** 1998 Aug;32(4):528-33
How do I appear to others? Social anxiety and processing of the observable self. Mansell W, et al. **Behav Res Ther** 1999 May;37(5):419-34
Gender differences in electrophysiological responses to facial stimuli. Orozco S, et al. **Biol Psychiatry** 1998 Aug 15; 44(4):281-9
The role of hemispheric activation in person perception: evidence for an attentional focus model. Bourgeois MJ, et al. **Brain Cogn** 1998 Nov;38(2):202-19
Effects of others' drinking as perceived by community members. Allen B, et al. **Can J Public Health** 1998 Sep-Oct; 89(5):337-41
School-age and adolescent children's perceptions of family functioning in neglectful and non-neglectful families. Gable S. **Child Abuse Negl** 1998 Sep;22(9):859-67
Social information-processing patterns as predictors of social adaptation and behavior problems among maltreated children in foster care. Price JM, et al. **Child Abuse Negl** 1998 Sep;22(9):845-58
Children "tune out" in response to the ambiguous communication style of powerless adults. Bugental DB, et al. **Child Dev** 1999 Jan-Feb;70(1):214-30
Age trends in the use of social and temporal comparison for self-evaluation: examination of a novel developmental hypothesis. Butler R. **Child Dev** 1998 Aug;69(4):1054-73
The use of trait labels in making psychological inferences. Heyman GD, et al. **Child Dev** 1999 May-Jun;70(3):604-19
Developmental and individual differences in children's on-line representations of dynamic social events. Milch-Reich S, et al. **Child Dev** 1999 Mar-Apr; 70(2):413-31
Effects of perceived patient demand on prescribing anti-infective drugs. Miller E, et al. **CMAJ** 1999 Jul 27; 161(2):139-42
The perceived intentionality of groups. Bloom P, et al. **Cognition** 1999 May 3;71(1):B1-9
Acquired 'theory of mind' impairments following stroke. Happé F, et al. **Cognition** 1999 Apr 1;70(3):211-40
Mentalising, schizotypy, and schizophrenia. Langdon R, et al. **Cognition** 1999 May 3;71(1):43-71
Shape constancy and theory of mind: is there a link? Mitchell P, et al. **Cognition** 1999 Mar 1;70(2):167-90
The changing moral economy of ancestor worship in a Chinese emigrant district. Eng KK. **Cult Med Psychiatry** 1999 Mar;23(1):99-132 (61 ref.)
The transformation of everyday social experience: what a mental and social health perspective reveals about Chinese communities under global and local change. Kleinman A, et al. **Cult Med Psychiatry** 1999 Mar;23(1):7-24 (43 ref.)
Introduction to the transformation of social experience in Chinese society: anthropological, psychiatric and social medicine perspectives. Kleinman A, et al. **Cult Med Psychiatry** 1999 Mar;23(1):1-6
Rural youth and youth culture in north China. Yan Y. **Cult Med Psychiatry** 1999 Mar;23(1):75-97
Children's decoding of emotion in expressive body movement: the development of cue attunement. Boone RT, et al. **Dev Psychol** 1998 Sep;34(5):1007-16
Korean children's concepts of adult and peer authority and moral reasoning. Kim JM. **Dev Psychol** 1998 Sep; 34(5):947-55
Maltreated and nonmaltreated preschoolers' conceptions of hypothetical and actual moral transgressions. Smetana JG, et al. **Dev Psychol** 1999 Jan;35(1):269-81
Theory of mind and emotion-recognition functioning in autistic spectrum disorders and in psychiatric control and normal children. Buitelaar JK, et al. **Dev Psychopathol** 1999 Winter;11(1):39-58
Social competence and emotional/behaviour problems in 6-16 year-old Swedish school children. Larsson B, et al. **Eur Child Adolesc Psychiatry** 1999 Mar;8(1):24-33
The script model in relation to autism. Trillingsgaard A. **Eur Child Adolesc Psychiatry** 1999 Mar;8(1):45-9
Sibling accounts of attention deficit hyperactivity disorder (ADHD). Kendall J. **Fam Process** 1999 Spring;38(1):117-36
Social construction and materiality: the limits of indeterminacy in therapeutic settings [see comments] Lannamann JW. **Fam Process** 1998 Winter;37(4):393-413. Comment in: Fam Process 1998 Winter;37(4):415-9.
The association between spouses' self-reports of attachment styles and representations of family dynamics. Mikulincer M, et al. **Fam Process** 1999 Spring;38(1):69-83
Genetic screening of targeted subpopulations: the role of

communal discourse in evaluating sociocultural implications. Foster MW, et al. **Genet Test** 1997-98; 1(4):269-74

Number of pregnancies, outcome expectancies, and social norms among HIV-infected young women. Murphy DA, et al. **Health Psychol** 1998 Sep;17(5):470-5

Genetic susceptibility testing: ethical and social quandaries. Freedman TG. **Health Soc Work** 1998 Aug;23(3):214-22

Body image, social comparison, and eating disturbance: a covariance structure modeling investigation. Thompson JK, et al. **Int J Eat Disord** 1999 Jul;26(1):43-51

Patient perception of coercion on admission to acute psychiatric services. The New Zealand experience. McKenna BG, et al. **Int J Law Psychiatry** 1999 Mar-Apr; 22(2):143-53

Attributions and affective reactions of family members and course of schizophrenia. López SR, et al. **J Abnorm Psychol** 1999 May;108(2):307-14

Social cognition and the manic defense: attributions, selective attention, and self-schema in bipolar affective disorder. Lyon HM, et al. **J Abnorm Psychol** 1999 May;108(2):273-82

The effects of partner insistence of condom usage on perceptions of the partner, the relationship, and the experience. Hocking JE, et al. **J Adolesc** 1999 Jun; 22(3):355-67

Perception of discrimination and ethnocultural variables in a diverse group of adolescents. Romero AJ, et al. **J Adolesc** 1998 Dec;21(6):641-56

Images within the allied health professions. Thomas L. **J Allied Health** 1999 Summer;28(2):91-6

Effect of sibling perception of differential parental treatment in sibling dyads with one disabled child. Wolf L, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Dec; 37(12):1317-25

The construction, reconstruction, and deconstruction of memory in the light of social cognition. Tuch RH. **J Am Psychoanal Assoc** 1999;47(1):153-86

Relationship between youth and parent perceptions of family environment and social anxiety. Caster JB, et al. **J Anxiety Disord** 1999 May-Jun;13(3):237-51

Social anxiety and its effects on performance and perception. Strahan E, et al. **J Anxiety Disord** 1998 Jul-Aug; 12(4):293-305

Retention interval and eyewitness memory for events and personal identifying attributes. Ebbesen EB, et al. **J Appl Psychol** 1998 Oct;83(5):745-62

The value of voice in participative decision making. Hunton JE, et al. **J Appl Psychol** 1998 Oct;83(5):788-97

Brief report: theory of mind in high-functioning children with autism. Bauminger N, et al. **J Autism Dev Disord** 1999 Feb;29(1):81-6

Children with autism fail to orient to naturally occurring social stimuli. Dawson G, et al. **J Autism Dev Disord** 1998 Dec;28(6):479-85

Intelligence patterns among children with high-functioning autism, phenylketonuria, and childhood head injury. Dennis M, et al. **J Autism Dev Disord** 1999 Feb;29(1):5-17

Interactions between group homes and neighbors: neighbor preferences. Cook JR. **J Behav Health Serv Res** 1998 Nov; 25(4):425-36

Trends in adolescent cigarette use: the diffusion of daily smoking. Redmond WH. **J Behav Med** 1999 Aug; 22(4):379-95 (24 ref.)

Adolescent reputation enhancement: differentiating delinquent, nondelinquent, and at-risk youths. Carroll A, et al. **J Child Psychol Psychiatry** 1999 May;40(4):593-606

Language, social cognitive processing, and behavioral characteristics of psychiatrically disturbed children with previously identified and unsuspected language impairments. Cohen NJ, et al. **J Child Psychol Psychiatry** 1998 Sep;39(6):853-64 (117 ref.)

The self-systems of aggressive children: a cluster-analytic investigation. Edens JF, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):441-53

Imitation and identification in autism. Hobson RP, et al. **J Child Psychol Psychiatry** 1999 May;40(4):649-59

Predicting dysphoria in adolescence from actual and perceived peer acceptance in childhood. Kistner J, et al. **J Clin Child Psychol** 1999 Mar;28(1):94-104

Social competence and conduct problems in young children: issues in assessment. Webster-Stratton C, et al. **J Clin Child Psychol** 1999 Mar;28(1):25-43

Societal perceptions of community pharmaceutical services in Malta. Cordina M, et al. **J Clin Pharm Ther** 1998 Apr; 23(2):115-26

Lay theories of etiology and "cure" for four types of paraphilia: fetishism; pedophilia; sexual sadism; and voyeurism. Furnham A, et al. **J Clin Psychol** 1998 Aug; 54(5):689-700

An experiential-descriptive method for the diagnosis of personality disorders. Hunter EE. **J Clin Psychol** 1998 Aug; 54(5):673-8

Cognitive and behavioral correlates of depression in learning-disabled and nonlearning-disabled adult students. Mattek PW, et al. **J Clin Psychol** 1998 Oct;54(6):831-7

Assessing community attitude towards home-based care for people with AIDS (PWAs) in Kenya. Olenja JM. **J Community Health** 1999 Jun;24(3):187-99

Exceptionality. Crocker AC. **J Dev Behav Pediatr** 1998 Aug; 19(4):300-5

Pygmalion in the cradle: observer bias against cocaine-exposed infants. Woods NS, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):283-5

Reputations, self-concepts and coping strategies of volatile solvent users. Houghton S, et al. **J Drug Educ** 1998; 28(3):199-210

Children's false memories: a test of the dissociability of cognitive and social processes [see comments] Ackerman B. **J Exp Child Psychol** 1998 Nov;71(2):178-83. Comment in: J Exp Child Psychol 1998 Nov;71(2):81-129.

Developmental patterns in the understanding of social and physical transitivity. Markovits H, et al. **J Exp Child Psychol** 1999 Jun;73(2):95-114

Social perspective taking and use of discounting in children's perceptions of others' helping behavior. Mendelsohn M, et al. **J Genet Psychol** 1999 Mar;160(1):69-83

Social movements as catalysts for policy change: the case of smoking and guns. Nathanson CA. **J Health Polit Policy Law** 1999 Jun;24(3):421-88 (146 ref.)

Extent of relational stigmatization of lesbians and their children by heterosexual college students. King BR, et al. **J Homosex** 1999;37(2):65-81 (62 ref.)

Gay and lesbian tourists at a Southern U.S.A. beach event. Philipp SF. **J Homosex** 1999;37(3):69-86

Identity in political context: lesbian/gay representation in the public sphere. Smith RR, et al. **J Homosex** 1999;37(2):25-45 (86 ref.)

Gender-related factors influencing perceptions of homosexuality. Wong FY, et al. **J Homosex** 1999; 37(3):19-31

Theory of mind and the delusional disorders. Charlton BG, et al. **J Nerv Ment Dis** 1999 Jun;187(6):380-3

Cognitive and behavioral sequelae of closed head injury in older adults according to their significant others. Goldstein FC, et al. **J Neuropsychiatry Clin Neurosci** 1999 Winter; 11(1):38-44

Workplace effects of the stigmatization of depression. Glozier N. **J Occup Environ Med** 1998 Sep;40(9):793-800

Children's willingness to share activities with a physically handicapped peer: am I more willing than my classmates? Morgan SB, et al. **J Pediatr Psychol** 1998 Dec;23(6):367-75

Deception and deception detection: the role of cross-modal inconsistency. Heinrich CU, et al. **J Pers** 1998 Oct; 66(5):687-712

Cognitive and affective representations of people and MCMI-II personality psychopathology. Porcerelli JH, et al. **J Pers Assess** 1998 Jun;70(3):535-40

Taxometric analysis of impression management and self-deception on the MMPI-2 in child-custody litigants. Strong DR, et al. **J Pers Assess** 1999 Aug;73(1):1-18

Mental representations of the self, significant others, and nonsignificant others: structure and processing of private and public aspects. Andersen SM, et al. **J Pers Soc Psychol** 1998 Oct;75(4):845-61

Social "facilitation" as challenge and threat. Blascovich J, et al. **J Pers Soc Psychol** 1999 Jul;77(1):68-77

The chameleon effect: the perception-behavior link and social interaction. Chartrand TL, et al. **J Pers Soc Psychol** 1999 Jun;76(6):893-910

The interaction model of anxiety and the threat of Quebec's separation from Canada. Flett GL, et al. **J Pers Soc Psychol** 1999 Jan;76(1):143-50

Attributions of depressed persons: how consistent are they with the covariation principle? Försterling F, et al. **J Pers Soc Psychol** 1998 Oct;75(4):1047-61

Reducing intergroup bias: elements of intergroup cooperation. Gaertner SL, et al. **J Pers Soc Psychol** 1999 Mar;76(3):388-402

Individual differences in social comparison: development of a scale of social comparison orientation. Gibbons FX, et al. **J Pers Soc Psychol** 1999 Jan;76(1):129-42

Unraveling social categorization in the "who said what?" paradigm. Klauer KC, et al. **J Pers Soc Psychol** 1998 Nov; 75(5):1155-78

Adult attachment style and the perception of others: the role of projective mechanisms. Mikulincer M, et al. **J Pers Soc Psychol** 1999 Jun;76(6):1022-34

Perceptual biases, affect, and behavior in the relationships of dependents and self-critics. Mongrain M, et al. **J Pers Soc Psychol** 1998 Jul;75(1):230-41

Priming relational schemas: effects of contextually activated and chronically accessible interpersonal expectations on responses to a stressful event. Pierce T, et al. **J Pers Soc Psychol** 1998 Dec;75(6):1441-8

The actor as context for social judgments: effects of prior impressions and stereotypes. Stewart TL, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1132-54

Assertiveness predicts threat and challenge reactions to potential stress among women. Tomaka J, et al. **J Pers Soc Psychol** 1999 Jun;76(6):1008-21

Social comparison preferences among cancer patients as related to neuroticism and social comparison orientation. Van der Zee K, et al. **J Pers Soc Psychol** 1998 Sep; 75(3):801-10

How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. Vorauer JD, et al. **J Pers Soc Psychol** 1998 Oct;75(4):917-37

The distinction between beliefs legitimizing aggression and deviant processing of social cues: testing measurement validity and the hypothesis that biased processing mediates the effects of beliefs on aggression.Conduct Problems Prevention Research Group. Zelli A, et al. **J Pers Soc Psychol** 1999 Jul;77(1):150-66

Nursing attire: indicators of professionalism? Lehna C, et al. **J Prof Nurs** 1999 May-Jun;15(3):192-9

Perceived understanding and self-disclosure in the stepparent-stepchild relationship. Martin MM, et al. **J Psychol** 1999 May;133(3):281-90

Traumatic events and generational differences in assumptions about a just world. Calhoun LG, et al. **J Soc Psychol** 1998 Dec;138(6):789-91

Effect of collective self-esteem on ingroup evaluations. De Cremer D, et al. **J Soc Psychol** 1999 Aug;139(4):530-2

The influence of perceived responsibility and personality characteristics on the emotional and behavioral reactions to people with AIDS. Steins G, et al. **J Soc Psychol** 1999 Aug;139(4):487-95

Social physique anxiety in postmenopausal women. Ransdell LB, et al. **J Women Aging** 1998;10(3):19-39

Police perceptions of the mental health services and the mentally ill [see comments] Dew K, et al. **N Z Med J** 1999 Feb 12;112(1081):36-8. Comment in: N Z Med J 1999 Apr 9;113(1085):127.

Right hemisphere emotional perception: evidence across multiple channels. Borod JC, et al. **Neuropsychology** 1998 Jul;12(3):446-58

Negative aging stereotypes and the agentic-communal dichotomy. Hale NM, et al. **Percept Mot Skills** 1998 Dec; 87(3 Pt 1):915-8

Perceiving and attributing hemispheric width in faces of normal adults. Kowner R. **Percept Mot Skills** 1998 Oct; 87(2):567-72

Social perception and social skill in schizophrenia. Ihnen GH, et al. **Psychiatry Res** 1998 Sep 21;80(3):275-86

Investigation of facial recognition memory and happy and sad facial expression perception: an fMRI study. Phillips ML, et al. **Psychiatry Res** 1998 Sep 28;83(3):127-38

Trait diagnosticity versus behavioral consistency as determinants of impression change in adulthood. Hess TM, et al. **Psychol Aging** 1999 Mar;14(1):77-89

Perceived functional health of disabled elderly persons in a follow-up program for primary care. Evans RL. **Psychol Rep** 1999 Apr;84(2):553-7

On the puzzle of language, pragmatics, and schizophrenia. Fine J. **Psychol Rep** 1999 Feb;84(1):84-6

Alienation and irrational beliefs in a nonclinical university population. Mahoney JM. **Psychol Rep** 1999 Feb; 84(1):137-40

Change in role perception, role conflict, and psychological health of working mothers. Oster KA, et al. **Psychol Rep** 1999 Feb;84(1):221-30

Perceived competence, social anxiety about physique, and enjoyment in testing situations among groups of mixed sex and girls only. Yin Z, et al. **Psychol Rep** 1999 Apr; 84(2):381-5

Quality of life in psychiatry as an ethical duty: from the clinical to the societal perspective. Kilian R, et al. **Psychopathology** 1999 May-Jun;32(3):127-34 (28 ref.)

Social cue perception in Japanese schizophrenic patients. Ito M, et al. **Schizophr Res** 1998 Nov 9;34(1-2):113-9

Public awareness and attitudes towards epilepsy in the United Arab Emirates. Bener A, et al. **Seizure** 1998 Jun;7(3):219-22

Perceptions of psychosocial adjustment to aphasia: applications of the Code--Müller Protocols. Code C, et al. **Semin Speech Lang** 1999;20(1):51-62; quiz 63 (30 ref.)

Can prostitutes marry? Thai attitudes toward female sex workers. Peracca S, et al. **Soc Sci Med** 1998 Jul; 47(2):255-67

Treated and untreated recovery from alcohol misuse: environmental influences and perceived reasons for change. Blomqvist J. **Subst Use Misuse** 1999 Aug;34(10):1371-406

Addiction careers and careers in addiction. Klingemann HK. **Subst Use Misuse** 1999 Sep;34(11):1505-26

The association between the perception of threat in a dating situation and sexual victimization. Breitenbecher KH. **Violence Vict** 1999 Summer;14(2):135-46

[Women and part-time work in the medical profession (letter)] Bosboom WM, et al. **Ned Tijdschr Geneeskd** 1999 Aug 14;143(33):1717 **(Dut)**

[Every day life experiences of healthy and mobility impaired elderly patients] Oswald F. **Z Gerontol Geriatr** 1998 Aug; 31(4):250-6 (Eng. Abstr.) **(Ger)**

[Sociopolitical issues in medical research] Gonzalo LM. **Rev Med Univ Navarra** 1998 Apr-Jun;42(2):119-20 **(Spa)**

SOCIAL POLICY see **PUBLIC POLICY**

SOCIAL PROBLEMS

see related
ALCOHOLISM
STUDENT DROPOUTS
SUBSTANCE-RELATED DISORDERS

Adolescent attraction to cults. Hunter E. **Adolescence** 1998 Fall;33(131):709-14

Sanctions and the struggle for health in South Africa. Coovadia HM. **Am J Public Health** 1999 Oct;89(10):1505-8

Pathologies of power: rethinking health and human rights. Farmer P. **Am J Public Health** 1999 Oct;89(10):1486-96

Focus on adolescent pregnancy and childbearing: a bit of history and implications for the 21st century. Finkel ML. **Bull N Y Acad Med** 1995 Winter;72(2):500-11

Smoking in Latin America: a major public health problem. da Costa e Silva VL, et al. **Cad Saude Publica** 1998;14 Suppl 3:99-108

Of pride and program planning--a lesson in reality [editorial; comment] Sbarbaro JA. **Chest** 1998 Nov;114(5):1229–30. Comment on: Chest 1998 Nov;114(5):1239–43.
A private practice in the inner city [interview by Joseph Engleberg] Kramer J. **Hosp Pract (Off Ed)** 1999 Apr 15; 34(4):109–10, 113–20, 123–4
The Manzanar Project: towards a solution to poverty, hunger, environmental pollution, and global warming through sea water aquaculture and silviculture in deserts [editorial] Sato GH, et al. **In Vitro Cell Dev Biol Anim** 1998 Jul–Aug;34(7):509–11
A study of health and health related social problems in the geriatric population in a rural area of Tamil Nadu. Elango S. **Indian J Public Health** 1998 Jan–Mar;42(1):7–8
The politics of "natural" disaster: who made Mitch so bad? Cockburn A, et al. **Int J Health Serv** 1999;29(2):459–62
Evaluation of a nursery based language intervention in a socially disadvantaged area. Cooper M, et al. **Int J Lang Commun Disord** 1998;33 Suppl:526–31
Encouraging speech and language development in exceptional circumstances. Coulter L. **Int J Lang Commun Disord** 1998;33 Suppl:506–8
The study of social inequalities in health in Spain: where are we? [editorial] Borrell C, et al. **J Epidemiol Community Health** 1999 Jul;53(7):388–9
Not only scientists, but also responsible citizens. Watt GC. **J R Coll Physicians Lond** 1998 Sep–Oct;32(5):460–5
Gambling behavior in youths: why we should be concerned. Kaminer V, et al. **Psychiatr Serv** 1999 Feb;50(2):167–8
Which patients talk about stressful life events and social problems to the general practitioner? Del Piccolo L, et al. **Psychol Med** 1998 Nov;28(6):1289–99
Effects of alcohol and frustration on experimental graffiti. Norlander T, et al. **Scand J Psychol** 1998 Dec;39(4):201–7
Understanding and responding to the health and mental health needs of Asian refugees. Dhooper SS, et al. **Soc Work Health Care** 1998;27(4):65–82
[The unspoken about social matters (letter; comment)] Vollset P. **Tidsskr Nor Laegeforen** 1999 Aug 10;119(18):2695. Comment on: Tidsskr Nor Laegeforen 1999 Jun 10;119(15):2177–81. **(Nor)**
[Child prostitution from the point of view of society and health] Gomes R, et al. **Rev Saude Publica** 1999 Apr; 33(2):171–9 (Eng. Abstr.) **(Por)**
[Biophysics and history] Vladimirskiĭ BM, et al. **Biofizika** 1998 Sep–Oct;43(5):757–60 (Eng. Abstr.) **(Rus)**
[An analysis of the social hygiene research devoted to the venereal disease problem in Ukraine] Voronenko IuV, et al. **Lik Sprava** 1998 Oct–Nov;(7):182–5 **(Rus)**
[Anisakiasis as a growing ecological and social problem] Gorokhov VV, et al. **Med Parazitol (Mosk)** 1998 Oct–Dec; (4):50–4 (15 ref.) **(Rus)**
[Socio-demographic aspects of the problems of refugees in the North] Bannikova RV, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):30–4 (Eng. Abstr.) **(Rus)**
[The prevention of HIV infection in abusers of psychoactive substances as a social behavioral problem] Dolzhanskaia NA. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb; (1):98–100 (Eng. Abstr.) **(Rus)**
[The prostitution situation in a number of cities of Russia, Ukraine and Byelarus] Lakhumalani V. **Zh Mikrobiol Epidemiol Immunobiol** 1999 Jan–Feb; (1):102–4 (Eng. Abstr.) **(Rus)**
[An evaluation of the feasibility and validity of a scale of social assessment of the elderly] García González JV, et al. **Aten Primaria** 1999 Apr 30;23(7):434–40 (Eng. Abstr.) **(Spa)**

ECONOMICS

Unmet treatment needs of drug users in Alaska: correlates and societal costs. Johnson ME, et al. **Int J Circumpolar Health** 1998;57 Suppl 1:467–73
[An analysis of the effect of social factors on morbidity dynamics in a period of economic instability] Bure VM, et al. **Gig Sanit** 1999 Mar–Apr;(2):62–3 **(Rus)**

PREVENTION & CONTROL

Homelessness and mental illness: a story of failure [editorial] Drake RE, et al. **Psychiatr Serv** 1999 May;50(5):589
[Continued driving habits of patients diagnosed with excessive daytime sleepiness (see comments)] de Weerd AW, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26; 142(39):2146–50 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 14;142(46):2539. **(Dut)**

PSYCHOLOGY

Love is all you need? Focusing on adolescents' life concerns from an ecological point of view. Kloep M. **J Adolesc** 1999 Feb;22(1):49–63
Identification and assessment of problematic interpersonal situations for urban adolescents. Farrell AD, et al. **J Clin Child Psychol** 1998 Oct;27(3):293–305
Which patients talk about stressful life events and social problems to the general practitioner? Del Piccolo L, et al. **Psychol Med** 1998 Nov;28(6):1289–99
[Social ecology of the drug problem] Tretter F. **Gesundheitswesen** 1998 Aug;60 Suppl 1:S47–55 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Alcohol and aggression: general population views about causation and responsibility. Paglia A, et al. **J Subst Abuse** 1998;10(2):199–216
Problems associated with hazardous and harmful alcohol consumption in Mexico. Campillo C, et al. **Recent Dev Alcohol** 1998;14:397–413
[The current status of drug abuse and dependence in Japan] Wada K. **Nihon Arukoru Yakubutsu Igakkai Zasshi** 1998 Oct;33(5):587–96 (1 ref.) **(Jpn)**

SOCIAL PSYCHIATRY see **COMMUNITY PSYCHIATRY**

SOCIAL PSYCHOLOGY see **PSYCHOLOGY, SOCIAL**

SOCIAL REINFORCEMENT see **REINFORCEMENT, SOCIAL**

SOCIAL RESPONSIBILITY

Adapting health care institutions and medical schools to societies' needs. Boelen C. **Acad Med** 1999 Aug;74(8 Suppl):S11–20
Improving the social responsiveness of medical schools: lessons from the Canadian experience. Cappon P, et al. **Acad Med** 1999 Aug;74(8 Suppl):S81–90
Improving the social responsiveness of medical schools: summary of the conference. Gastel B. **Acad Med** 1999 Aug; 74(8 Suppl):S3–7
Measuring social responsiveness: a view from the United Kingdom. George CF. **Acad Med** 1999 Aug;74(8 Suppl):S53–8
Measuring social responsiveness of medical schools: a case study from New Mexico. Kaufman A. **Acad Med** 1999 Aug; 74(8 Suppl):S69–74
Measuring the social responsiveness of medical schools: setting the standards. Peabody JW. **Acad Med** 1999 Aug; 74(8 Suppl):S59–68
Academic health centers and society: an ethical reflection. Pellegrino ED. **Acad Med** 1999 Aug;74(8 Suppl):S21–6
Measuring social responsiveness of medical schools: a case study from Thailand. Sirisup N. **Acad Med** 1999 Aug;74(8 Suppl):S75–80
Missions of a medical school: an Asian perspective. Suleiman AB. **Acad Med** 1999 Aug;74(8 Suppl):S45–52
Missions of a medical school: an African perspective. van Niekerk JP. **Acad Med** 1999 Aug;74(8 Suppl):S38–44
Jane Austen's novels as a guide to social and individual responsibility for high school students. Fritzer P. **Adolescence** 1998 Fall;33(131):597–600
Reducing sexual transmission of HIV from those who know they are infected: the need for personal and collective responsibility [editorial] Marks G, et al. **AIDS** 1999 Feb 25;13(3):297–306 (119 ref.)
Morality, ethics, and radiologists' responsibilities. Armstrong JD 2nd. **AJR Am J Roentgenol** 1999 Aug;173(2):279–84
Fulfilling a social contract: alliance of health professional students. Chung K, et al. **Am Fam Physician** 1999 Apr 1; 59(7):2029–30
Responsibility for medication errors [editorial] Hasegawa GR. **Am J Health Syst Pharm** 1999 Feb 1;56(3):215
Medication errors: integrating individual and system accountability [letter] Hopefl A. **Am J Health Syst Pharm** 1999 Jun 15;56(12):1262–3; discussion 1264
Medication errors: integrating individual and system accountability [letter] Schneider PJ. **Am J Health Syst Pharm** 1999 Jun 15;56(12):1262; discussion 1264
Medication errors: integrating individual and system accountability [letter] Smetzer JL, et al. **Am J Health Syst Pharm** 1999 Jun 15;56(12):1263; discussion 1264
Medication errors: integrating individual and system accountability [letter] Trissel LA. **Am J Health Syst Pharm** 1999 Jun 15;56(12):1263–4
Foreword: law, medicine and socially responsible research. Holmes-Farley SR, et al. **Am J Law Med** 1998; 24(2–3):153–62
When physicians are not physicians [letter; comment] Merrill JM. **Am J Med Sci** 1999 May;317(5):353. Comment on: Am J Med Sci 1999 Jan;317(1):1–4. Comment on: Am J Med Sci 1999 Jan;317(1):5–8.
Thinking critically about delegation. Davidson SB, et al. **Am J Nurs** 1999 Jun;99(6):61–2
Who's to blame for tragic error? Grant SM. **Am J Nurs** 1999 Sep;99(9):9
On human perfection [editorial] Mason DJ. **Am J Nurs** 1999 Mar;99(3):7
Ethical accountability and novel perinatal treatments [letter; comment] Harris L. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):250–1. Comment on: Am J Obstet Gynecol 1998 Jul;179(1):264–5.
The challenge to psychiatry as society's agent for mental illness treatment and research [editorial; comment] Carpenter WT Jr. **Am J Psychiatry** 1999 Sep; 156(9):1307–10. Comment on: Am J Psychiatry 1998 Sep;156(9):1385–91.
Societal issues in organ transplantation [editorial] Daar AS. **Ann Transplant** 1998;3(2):5–6
Ethics and managed care: reconstructing a system and refashioning a society [editorial; comment] [see comments] Loewy EH, et al. **Arch Intern Med** 1998 Dec 7–21; 158(22):2419–22. Comment on: Arch Intern Med 1998 Dec 7–21;158(22):2421–28. Comment in: Arch Intern Med 1999 Jun 28;159(12):1375–6.
Important concepts of health care expressed by C. Everett Koop and Tom Brokaw [editorial] Teuscher GW. **ASDC J Dent Child** 1999 Mar–Apr;66(2):88, 81
Indigenous health: a special moral imperative. Morgan DL, et al. **Aust N Z J Public Health** 1998 Oct;22(6):731–2
Responsibility and perfectionism in OCD: an experimental study. Bouchard C, et al. **Behav Res Ther** 1999 Mar; 37(3):239–48
Multiple pathways to inflated responsibility beliefs in obsessional problems: possible origins and implications for therapy and research. Salkovskis P, et al. **Behav Res Ther** 1999 Nov;37(11):1055–72 (40 ref.)
Inflated perceptions of responsibility and obsessive-compulsive symptoms. Wilson KA, et al. **Behav Res Ther** 1999 Apr;37(4):325–35
Introduction to mental illness and criminal responsibility. Felthous AR. **Behav Sci Law** 1999;17(2):143–6
Voluntary intoxication and criminal responsibility. Marlowe DB, et al. **Behav Sci Law** 1999;17(2):195–217
Craziness and criminal responsibility. Morse SJ. **Behav Sci Law** 1999;17(2):147–64
Who should take responsibility for antisocial personality disorder? Fallon suggests emphasising custody, but psychiatrists' future role remains unclear [editorial; comment] Eastman N. **BMJ** 1999 Jan 23;318(7178):206–7 . Comment on: BMJ 1999 Jan 23;318(7178):211.
Professional self respect: rights and responsibilities in the new NHS [see comments] Richards P. **BMJ** 1998 Oct 24; 317(7166):1146–8 (20 ref.). Comment in: BMJ 1999 Mar 13;318(7185):734. Comment in: BMJ 1999 Mar 13;318(7185):734–5.
Child sexual abuse: victim age, victim gender, and observer gender as factors contributing to attributions of responsibility. Back S, et al. **Child Abuse Negl** 1998 Dec; 22(12):1239–52 (49 ref.)
Are MDs more intent on maintaining their élite status than in promoting public good? Gray C. **CMAJ** 1999 Apr 20; 160(8):1204–5
The changing moral economy of ancestor worship in a Chinese emigrant district. Eng KK. **Cult Med Psychiatry** 1999 Mar;23(1):99–132 (61 ref.)
Psychiatric criteria of legal responsibility after the consumption of alcohol: the German situation. Kröber HL. **Eur Addict Res** 1998 Sep;4(3):107–12 (19 ref.)
Intoxication and criminal responsibility in Dutch criminal Law. van Kalmthout A. **Eur Addict Res** 1998 Sep; 4(3):102–6
Accountability without health care data banks [letter; comment] Bursztajn HJ, et al. **Health Aff (Millwood)** 1998 Nov–Dec;17(6):252–3. Comment on: Health Aff (Millwood) 1998 Sep–Oct;17(5):50–64.
The ethics of accountability in managed care reform [see comments] Daniels N, et al. **Health Aff (Millwood)** 1998 Sep–Oct;17(5):50–64. Comment in: Health Aff (Millwood) 1998 Nov–Dec;17(6):252–3.
Personal responsibility for health? A review of the arguments and the evidence at century's end. Minkler M. **Health Educ Behav** 1999 Feb;26(1):121–40 (118 ref.)
The eyes have it. Bilchik GS. **Hosp Health Netw** 1999 Apr; 73(4):62–6
Calling 'em like he sees 'em [interview by Chris Serb] Markbreit J. **Hosp Health Netw** 1999 Sep;73(9):32
The social responsibility of scientists: the scientific impact statement. Walter C, et al. **IEEE Eng Med Biol Mag** 1998 Nov–Dec;17(6):94–5
Global corporate policies and international "double standards" in occupational and environmental health [editorial] Castleman B. **Int J Occup Environ Health** 1999 Jan–Mar;5(1):61–4
Accountability for health outcomes and the proper unit of analysis: what do the experts think? Nerenz DR. **Int J Qual Health Care** 1998 Dec;10(6):539–46
Animal and plant cell technology: a critical evaluation of the technology/society interface. Spier RE. **J Biotechnol** 1998 Oct 27;65(2–3):111–25 (35 ref.)
Public trust and accountability for clinical performance: lessons from the national press reportage of the Bristol hearing [see comments] Davies HT, et al. **J Eval Clin Pract** 1999 Aug;5(3):335–42 (28 ref.). Comment in: J Eval Clin Pract 1999 Aug;5(3):343–6.
Do managerial efficiency and social responsibility drive long-term financial performance of not-for-profit hospitals before acquisition? Phillips JF. **J Health Care Finance** 1999 Summer;25(4):67–76
The Health Insurance Portability and Accountability Act of 1996: understanding the anti-kickback laws. Tomes JP. **J Health Care Finance** 1998 Winter;25(2):55–62 (9 ref.)
The ideology of 'accountability'. Charlton BG. **J R Coll Physicians Lond** 1999 Jan–Feb;33(1):33–5
Time for sharing responsibility in caring. Edwards RH. **J R Coll Physicians Lond** 1999 Mar–Apr;33(2):145–7
Not only scientists, but also responsible citizens. Watt GC. **J R Coll Physicians Lond** 1998 Sep–Oct;32(5):460–5
The social responsibilities of the physician. Sidel VW. **J R Soc Health** 1998 Dec;118(6):363–6
The influence of perceived responsibility and personality characteristics on the emotional and behavioral reactions to people with AIDS. Steins G, et al. **J Soc Psychol** 1999

Aug;139(4):487–95

Clinical loyalties and the social purposes of medicine [see comments] Bloche MG. **JAMA** 1999 Jan 20;281(3):268–74 . Comment in: JAMA 1999 Jul 14;282(2):132; discussion 132–3. Comment in: JAMA 1999 Jul 14;282(2):132–3.

Health consequences of religious and philosophical exemptions from immunization laws: individual and societal risk of measles. Salmon DA, et al. **JAMA** 1999 Jul 7; 282(1):47–53

The effects of juror anonymity on jury verdicts. Hazelwood DL, et al. **Law Hum Behav** 1998 Dec;22(6):695–713

Reporting patients to driver-licensing authorities [letter] Black AB. **Med J Aust** 1999 Apr 19;170(8):395, 398

Aboriginal health: why is reconciliation necessary? Jackson LR, et al. **Med J Aust** 1999 May 3;170(9):437–40

Mental responsibility. Mackay of the Clashfern Lord. **Med Sci Law** 1998 Oct;38(4):281–2

Innovation and public accountability in clinical research. Melhado EM. **Milbank Q** 1999;77(1):111–72, v

A duty to publish [editorial; comment] [see comments] **Nat Med** 1998 Oct;4(10):1089. Comment on: Nat Med 1998 Oct;4(10):1095. Comment in: Nat Med 1999 Jan;5(1):2–3.

Informed consent, patient choice, and physician responsibility [editorial] Cruikshank DP. **Obstet Gynecol** 1999 Jul; 94(1):142–3

American Pediatric Society/Society for Pediatric Research code of responsible conduct of research. Bernstein D. **Pediatr Res** 1999 May;45(5 Pt 1):613–4

An informal look at use of bakery department tongs and tissues. Trinkaus J. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):801–2

A servant's heart. Fitzgerald FT. **Pharos** 1999 Summer; 62(3):39–41

The obligation of mental health services to the least well off. Goldman HH. **Psychiatr Serv** 1999 May;50(5):659–63

Sharing responsibility for the public's health. Stoto MA. **Public Health Rep** 1999 May–Jun;114(3):231–5 (8 ref.)

Is there a limit to freedom? [editorial] Ausman JI. **Surg Neurol** 1999 Aug;52(2):213–4

[The duty of medical confidentiality in regard to the courts. The decision of the Social Court of Frankfurt a. M. of 24 September 1998] Rieger HJ. **Dtsch Med Wochenschr** 1999 Sep 10;124(36):1052–3 **(Ger)**

[Increasing personal responsibility as a public health goal] Seger W. **Gesundheitswesen** 1999 Apr;61(4):214–7 (Eng. Abstr.) **(Ger)**

[Compulsion versus freedom (editorial)] Jäger P. **Schweiz Monatsschr Zahnmed** 1999;109(7):721, 723 **(Ger, Fre)**

[Social and ethical responsibility of scientists (editorial)] Candeias JA. **Rev Saude Publica** 1999 Apr;33(2):111–2 **(Por)**

[Current problems of a blood service in the troop unit of a medical service: the responsibilities of the posted personnel] Zhiburt EB, et al. **Voen Med Zh** 1999 May; 320(5):20–2 **(Rus)**

[The centenary of the Message to Garcia] Ayala-Ruiz AR. **Gac Med Mex** 1999 Jul–Aug;135(4):432–4 **(Spa)**

[Of privatizations and "analyzables"] Rodriguez Espinosa J. **Med Clin (Barc)** 1999 Jul 10;113(5):180–1 **(Spa)**

SOCIAL SCIENCES

"Lifepoint": a case study in using social science community identification data to guide the implementation of a needle exchange program. Somlai AM, et al. **AIDS Educ Prev** 1999 Jun;11(3):187–202

Electronic bibliographic tools for incorporating social science research into health care must be improved [letter] Cookson R, et al. **BMJ** 1999 Jul 24;319(7204):257–8

Perspectives of new reproductive and diagnostic techniques among biologists and physicians, social scientists and ethicists. van Balen F, et al. **J Psychosom Obstet Gynaecol** 1999 Jun;20(2):104–11

How can statistical mechanics contribute to social science? Durlauf SN. **Proc Natl Acad Sci U S A** 1999 Sep 14; 96(19):10582–4 (11 ref.)

Social capital and health: implications for public health and epidemiology. Lomas J. **Soc Sci Med** 1998 Nov; 47(9):1181–8 (40 ref.)

Social work in health care: do practitioners' writings suggest an applied social science? Rehr H, et al. **Soc Work Health Care** 1998;28(2):63–81 (33 ref.)

Expanded Programme on Immunization (EPI). The Social Science and Immunization Research Project. **Wkly Epidemiol Rec** 1998 Sep 11;73(37):285–8 **(Eng, Fre)**

[Policy and collective health: a reflection on scientific production (1976–1992)] Burlandy L, et al. **Cad Saude Publica** 1998 Jul–Sep;14(3):543–54 (Eng. Abstr.) **(Por)**

[Social sciences and AIDS (editorial)] Bronfman M. **Salud Publica Mex** 1999 Mar–Apr;41(2):83–4 **(Spa)**

EDUCATION

Prevention of sexually transmitted diseases: the need for social and behavioral science expertise in public health departments [editorial; comment] Van Devanter N. **Am J Public Health** 1999 Jun;89(6):815–8 (38 ref.). Comment on: Am J Public Health 1999 Jun;89(6):899–902.

HISTORY

Experimentation and social interventions: a forgotten but important history [see comments] Oakley A. **BMJ** 1998 Oct 31;317(7167):1239–42. Comment in: BMJ 1999 Apr 3;318(7188):944–5.

The emergence of the social and behavioral sciences in dentistry: Lois Cohen as principal architect. Dworkin SF. **J Dent Res** 1999 Jun;78(6):1192–6

Assessing historical research in the behavioral and social sciences: A symposium. Introduction. Burnham JC. **J Hist Behav Sci** 1999 Summer;35(3):225–6

A world from brave to new: Talcott Parsons and the war effort at Harvard University. Gerhardt U. **J Hist Behav Sci** 1999 Summer;35(3):257–89

LEGISLATION & JURISPRUDENCE

Using social science to inform the law of intestacy: the case of unmarried committed partners. Johnson MK, et al. **Law Hum Behav** 1998 Oct;22(5):479–99

METHODS

Explicit guidelines for qualitative research: a step in the right direction, a defence of the 'soft' option, or a form of sociological imperialism? Chapple A, et al. **Fam Pract** 1998 Dec;15(6):556–61 (34 ref.)

STANDARDS

Explicit guidelines for qualitative research: a step in the right direction, a defence of the 'soft' option, or a form of sociological imperialism? Chapple A, et al. **Fam Pract** 1998 Dec;15(6):556–61 (34 ref.)

SOCIAL SECURITY

Precarity and pregnancy in Paris. Lejeune VN, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Mar;83(1):27–30

Association of work attitudes and mental health with level or type of income support received by unemployed people with disabilities. Pernice R. **Int J Rehabil Res** 1998 Mar; 21(1):93–6

Psychiatric emergencies: the check effect revisited. Catalano R, et al. **J Health Soc Behav** 1999 Mar;40(1):79–86

Similarity of social security numbers among twins: data from the Virginia Twin Registry. Page WF, et al. **Twin Res** 1998 Sep;1(3):150–3

[Access to social coverage of uninsured patients attending a hospital clinic: a historical cohort study at the Baudelaire outpatient clinic in Paris] Carrat F, et al. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):361–70 (Eng. Abstr.) **(Fre)**

[Poster surprise: if Dr. Martin were very sick...] Nicco GA. **Rev Med Interne** 1999;20 Suppl 2:273s–274s **(Fre)**

[Medical judgment and legal security. Physicians as gatekeepers in the distribution of public goods] Terum LI, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2192–6 (Eng. Abstr.) **(Nor)**

ECONOMICS

Changing patterns of conditions among children receiving Supplemental Security Income disability benefits. Perrin JM, et al. **Arch Pediatr Adolesc Med** 1999 Jan;153(1):80–4

Three streams, one river: a coordinated approach to financing retirement. Etheredge L. **Health Aff (Millwood)** 1999 Jan–Feb;18(1):80–91

Social capital: is it good for your health? Issues for a public health agenda [editorial] Baum F. **J Epidemiol Community Health** 1999 Apr;53(4):195–6

The sham of saving social security first [editorial] Reich RB. **J Public Health Policy** 1998;19(4):389–93

Effect on benefits of earnings at ages 65 or older, 1995. Kestenbaum B, et al. **Soc Secur Bull** 1999;62(1):4–9

Increase in sick leave rates caused by back pain among pregnant Swedish women after amelioration of social benefits. A paradox. Sydsjö A, et al. **Spine** 1998 Sep 15; 23(18):1986–90

[Generic drugs and right of substitution. Relating to Article 29 of the 1999 •social Security Financing Act] Meunier J, et al. **Ann Pharm Fr** 1999 Jul;57(4):340–8; discussion 348–9 (Eng. Abstr.) **(Fre)**

[Socioeconomic framework (editorial)] Igl G, et al. **Z Gerontol Geriatr** 1998 Dec;31(6):375–6 **(Ger)**

[Political distribution problems of social security] Wagner G. **Z Gerontol Geriatr** 1998 Dec;31(6):377–81 (Eng. Abstr.) **(Ger)**

[The financing of topical antihemorrhoidal agents by drawing on Social Security (letter)] Palop Larrea V, et al. **Aten Primaria** 1999 May 15;23(8):504–5 **(Spa)**

HISTORY

Historical redistribution under the Social Security Disability Insurance Program. Leimer DR. **Soc Secur Bull** 1998; 61(3):3–19

[Two aspects of pediatrics in Spain. Half a century of existence of the Spanish Pediatric Association (1949–1999) and medical care to children in the Social Security system (letter)] Diego Núñez MA, et al. **An Esp Pediatr** 1998 Oct; 49(4):439–40 **(Spa)**

LEGISLATION & JURISPRUDENCE

Supplemental Security Income (SSI), Disability Insurance (DI), and substance abusers [see comments] Gresenz CR, et al. **Community Ment Health J** 1998 Aug;34(4):337–50. Comment in: Community Ment Health J 1998 Aug;34(4):329–30.

Parallel process: moral failure, addiction and society [see comments] Sowers WE. **Community Ment Health J** 1998 Aug;34(4):331–6. Comment in: Community Ment Health J 1998 Aug;34(4):329–30.

The Mexican Social Security counterreform: pensions for profit. Laurell AC. **Int J Health Serv** 1999;29(2):371–91 (48 ref.)

Substance use and assignment of representative payees. Rosen MI, et al. **Psychiatr Serv** 1999 Jan;50(1):95–8

What should we expect from drug abusers? [editorial] Satel SL. **Psychiatr Serv** 1999 Jul;50(7):861

[The social security reform: wide-ranging effects on companies as well as occupational health services (see comments] Plomp HN, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1369–73 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1374–8. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1379–82. **(Dut)**

[Generic drugs and right of substitution. Relating to Article 29 of the 1999 •social Security Financing Act] Meunier J, et al. **Ann Pharm Fr** 1999 Jul;57(4):340–8; discussion 348–9 (Eng. Abstr.) **(Fre)**

[Practitioner's freedom to prescribe in relation to the requirements of the AMM, the medical references and the socioeconomic constraints] Herry F. **Bull Acad Natl Med** 1998;182(7):1395–405; discussion 1405–6 (Eng. Abstr.) **(Fre)**

[The National Health Conference and the financial laws of Social Security] Chabot JM. **Rev Prat** 1999 Feb 1; 49(3):291–2 **(Fre)**

[Social jurisdiction] Schweinlin HJ. **Dtsch Med Wochenschr** 1999 Jan 22;124(3):62–3 **(Ger)**

[Fibromyalgia--a current challenge. Considerations for insurance and social security dimensions] Wörz R. **Fortschr Med** 1999 Feb 20;117(5):37 **(Ger)**

[Compensation of victims of forced sterilization in national socialism. A still not finished chapter] Ody R. **Nervenarzt** 1998 Sep;69(9):815–7 (Eng. Abstr.) **(Ger)**

[Social medicine expert assessment of post-traumatic stress disorder] Weber MM, et al. **Nervenarzt** 1998 Sep; 69(9):811–4 (Eng. Abstr.) **(Ger)**

[Evaluation of disability pensions by a medical polyclinic: 1990–1995] Siegenthaler M, et al. **Schweiz Rundsch Med Prax** 1998 Oct 21;87(43):1428–33 (Eng. Abstr.) **(Ger)**

ORGANIZATION & ADMINISTRATION

Improving access to disability benefits among homeless persons with mental illness: an agency-specific approach to services integration. Rosenheck R, et al. **Am J Public Health** 1999 Apr;89(4):524–8

Entitlements, generational equity, and public-opinion manipulation in Kansas City. Ekerdt DJ. **Gerontologist** 1998 Oct;38(5):525–36

The role of government in "a society for all ages". Hudson RB. **Health Soc Work** 1999 May;24(2):155–60

The German Pflegeversicherung (long-term care insurance). Wahner-Roedler DL, et al. **Mayo Clin Proc** 1999 Feb; 74(2):196–200

The social security scheme in Thailand: what lessons can be drawn? Tangcharoensathien V, et al. **Soc Sci Med** 1999 Apr;48(7):913–23

Retirement income security in the United Kingdom. Liu L. **Soc Secur Bull** 1999;62(1):23–46 (87 ref.)

Individual Social Security accounts: issues of administrative feasibility and cost, 1998. Olsen KA, et al. **Soc Secur Bull** 1999;62(1):75–90 (103 ref.)

Noncitizens and the Supplemental Security Income program. Parrott TM, et al. **Soc Secur Bull** 1998;61(4):3–31 (0 ref.)

Pension integration and Social Security reform. Slusher C. **Soc Secur Bull** 1998;61(3):20–7 (10 ref.)

The Galveston Plan and Social Security: a comparative analysis of two systems. Wilson TM. **Soc Secur Bull** 1999; 62(1):47–64

[Work capacity evaluation within Social Security] Cohen EM, et al. **Ned Tijdschr Geneeskd** 1998 Oct 17; 142(42):2315–8 (Eng. Abstr.) **(Dut)**

[Market effect on social security and occupational health services (comment] [see comments] Plomp HN, et al. **Ned Tijdschr Geneeskd** 1999 Jun 26;143(26):1374–8 (10 ref.) (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1369–73. Comment in: Ned Tijdschr Geneeskd 1999 Jun 26;143(26):1379–82. **(Dut)**

STATISTICS & NUMERICAL DATA

Social Security Bulletin. Annual statistical supplement, 1998. **Annu Stat Suppl Soc Secur Bull** 1998 Nov;:1–392

Mortality in blind subjects. A population-based study on social security files from Baden-Württemberg. Krumpaszky HG, et al. **Ophthalmologica** 1999;213(1):48–53

Return of disabled-worker beneficiaries to the DI program: some insights from the new beneficiary followup. Dykacz JM. **Soc Secur Bull** 1998;61(2):3–11

SOCIAL SECURITY

TRENDS

The growth in noncitizen SSI caseloads 1979–1996: aging versus new immigrant effects. Van Hook J, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Jan;54(1):S16–23

[Role of guidelines in the context of future management of the social state] Sendler H. **Gesundheitswesen** 1998 Dec; 60(12):768–71 (Eng. Abstr.) **(Ger)**

[Nursing care in social change. Effects of nursing care insurance on the status of the disabled] Klie T. **Z Gerontol Geriatr** 1998 Dec;31(6):387–91 (Eng. Abstr.) **(Ger)**

[The future of public health] Schulz-Nieswandt F. **Z Gerontol Geriatr** 1998 Dec;31(6):382–6 (Eng. Abstr.) **(Ger)**

[Between merit and need: an analysis of the underlying principles in social health insurance in Germany] Giovanella L. **Cad Saude Publica** 1999 Jan–Mar; 15(1):133–46 (Eng. Abstr.) **(Por)**

UTILIZATION

Termination of social security benefits among Los Angeles recipients disabled by substance abuse. Watkins KE, et al. **Psychiatr Serv** 1999 Jul;50(7):914–8

SOCIAL SECURITY ADMINISTRATION (U.S.) see **UNITED STATES SOCIAL SECURITY ADMINISTRATION**

SOCIAL SERVICE see **SOCIAL WORK**

SOCIAL SERVICE, PSYCHIATRIC see **SOCIAL WORK, PSYCHIATRIC**

SOCIAL SUPPORT

see related
SELF-HELP GROUPS

In the frontline of palliative medicine and psychosocial oncology [editorial; comment] Bolund C. **Acta Oncol** 1999; 38(4):403–4. Comment on: Acta Oncol 1999 ;38(4):491–4.

Outcomes and costs of a community support worker service for the severely mentally ill. Clarkson P, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):196–206

A housing support programme for the mentally ill: need profile and satisfaction among users. Middelboe T, et al. **Acta Psychiatr Scand** 1998 Oct;98(4):321–7

The role of social networks and media receptivity in predicting age of smoking initiation: a proportional hazards model of risk and protective factors. Unger JB, et al. **Addict Behav** 1999 May–Jun;24(3):371–81

The social networks and resources of African American eighth graders: evidence from the National Education Longitudinal Study of 1988. Smith-Maddox R. **Adolescence** 1999 Spring;34(133):169–83

The relationship between adolescents' social support from parents and from peers. van Beest M, et al. **Adolescence** 1999 Spring;34(133):193–201

Care of the older Hong Kong Chinese population. Woo J, et al. **Age Ageing** 1998 Jul;27(4):423–6

Increased medical attention needed for frail elderly initially admitted to the emergency department for lack of community support. Elmståhl S, et al. **Aging (Milano)** 1999 Feb;11(1):56–60

Social support and unsupportive social interactions: their association with depression among people living with HIV. Ingram KM, et al. **AIDS Care** 1999 Jun;11(3):313–29

Effects of a psychosocial intervention on survival among patients with stage I breast and prostate cancer: a matched case-control study [see comments] Shrock D, et al. **Altern Ther Health Med** 1999 May;5(3):49–55. Comment in: Altern Ther Health Med 1999 May;5(3):39–40.

Providing the support services needed by students who are deaf or hard of hearing. Luetke-Stahlman B. **Am Ann Deaf** 1998 Dec;143(5):388–91

Hostility, social support, and coronary heart disease in the National Heart, Lung, and Blood Institute Family Heart Study. Knox SS, et al. **Am J Cardiol** 1998 Nov 15; 82(10):1192–6

The Program Environment Scale: assessing client perceptions of community-based programs for the severely mentally ill. Burt MR, et al. **Am J Community Psychol** 1998 Dec; 26(6):853–79

The relationship between health and human services and the personal goal-directed activities of persons living with AIDS. DuMont KA, et al. **Am J Community Psychol** 1999 Feb;27(1):55–73

Antisocial tendency among drug-addicted adults: potential long-term effects of parental absence, support, and conflict during childhood. Knight DK, et al. **Am J Drug Alcohol Abuse** 1998 Aug;24(3):361–75

Drug network characteristics as a predictor of cessation of drug use among adult injection drug users: a prospective study. Latkin CA, et al. **Am J Drug Alcohol Abuse** 1999 Aug;25(3):463–73

Volunteer assistance in the treatment of chronic alcoholism. Leigh G, et al. **Am J Drug Alcohol Abuse** 1999 Aug; 25(3):543–59

Distinguishing low levels of social support and social strain: implications for dual diagnosis. Lunsky Y, et al. **Am J Ment Retard** 1999 Mar;104(2):200–4

Threatened pregnancy: environment and reproduction at risk. Teen pregnancy-problems and approaches: panel presentations. Foster HW Jr, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):S32–6

A comparison of intermittent and continuous support during labor: a meta-analysis. Scott KD, et al. **Am J Obstet Gynecol** 1999 May;180(5):1054–9

Maternal social support patterns and child maltreatment: comparison of maltreating and nonmaltreating mothers. Bishop SJ, et al. **Am J Orthopsychiatry** 1999 Apr; 69(2):172–81

Heritability and social support [letter; comment] Cohen CI. **Am J Psychiatry** 1999 May;156(5):802; discussion 803. Comment on: Am J Psychiatry 1997 Oct;154(10):1398–404.

Heritability and social support [letter; comment] Schwartz RS, et al. **Am J Psychiatry** 1999 May;156(5):802–3. Comment on: Am J Psychiatry 1997 Oct;154(10):1398–404.

Religion and mortality among the community-dwelling elderly. Oman D, et al. **Am J Public Health** 1998 Oct; 88(10):1469–75

The Resource Mothers Program for Maternal Phenylketonuria. St James PS, et al. **Am J Public Health** 1999 May;89(5):762–4

The social construction of cardiovascular reactivity. Christenfeld N, et al. **Ann Behav Med** 1998 Fall; 20(4):317–25 (53 ref.)

Problems and prospects for the social support-reactivity hypothesis. Lepore SJ. **Ann Behav Med** 1998 Fall; 20(4):257–69 (93 ref.)

Social relationships and the progression of human immunodeficiency virus infection: a review of evidence and possible underlying mechanisms. Miller GE, et al. **Ann Behav Med** 1998 Summer;20(3):181–9 (54 ref.)

Social support and conscientiousness in hemodialysis adherence. Moran PJ, et al. **Ann Behav Med** 1998 Fall; 19(4):333–8

Changing nursing practice through research utilization: consistent support for breastfeeding mothers. Janken JK, et al. **Appl Nurs Res** 1999 Feb;12(1):22–9

Mutuality and preparedness of family caregivers for elderly women after bypass surgery. Kneeshaw MF, et al. **Appl Nurs Res** 1999 Aug;12(3):128–35

Randomised trial of parental support for families with very preterm children. Avon Premature Infant Project. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F4–11

Presenting the facts about smoking to adolescents: effects of an autonomy-supportive style. Williams GC, et al. **Arch Pediatr Adolesc Med** 1999 Sep;153(9):959–64

The experience of social support in patients suffering from treatment-refractory depression--a pilot study. Skärsäter I, et al. **Arch Psychiatr Nurs** 1999 Apr;13(2):89–96

Assessment of a short scale to measure social support among older people. Goodger B, et al. **Aust N Z J Public Health** 1999 Jun;23(3):260–5

An evaluation of the impact of social support manipulations on cardiovascular reactivity to laboratory stressors. Anthony JL, et al. **Behav Med** 1999 Summer;25(2):78–87

Netherlands sets up euthanasia advisory body [news] Sheldon T. **BMJ** 1999 Feb 6;318(7180):348

Psychosocial adaptation of patients and families following bone marrow transplantation: a prospective, longitudinal study. Keogh F, et al. **Bone Marrow Transplant** 1998 Nov; 22(9):905–11

Psychosocial support or active management of labour or both to improve the outcome of labour. Arulkumaran S, et al. **Br J Obstet Gynaecol** 1999 Jul;106(7):617–9 (17 ref.)

Effects of psychosocial support during labour and childbirth on breastfeeding, medical interventions, and mothers' wellbeing in a Mexican public hospital: a randomised clinical trial. Langer A, et al. **Br J Obstet Gynaecol** 1998 Oct;105(10):1056–63

Befriending as an intervention for chronic depression among women in an inner city. 2: Role of fresh-start experiences and baseline psychosocial factors in remission from depression. Harris T, et al. **Br J Psychiatry** 1999 Mar; 174:225–32

Befriending as an intervention for chronic depression among women in an inner city. 1: Randomised controlled trial. Harris T, et al. **Br J Psychiatry** 1999 Mar;174:219–24

Fatigue in rheumatoid arthritis: the role of self-efficacy and problematic social support. Riemsma RP, et al. **Br J Rheumatol** 1998 Oct;37(10):1042–6

HIV stress in primary school teachers in Zambia. Baggaley R, et al. **Bull World Health Organ** 1999;77(3):284–7

Helping someone with cancer [news] **CA Cancer J Clin** 1999 Jan–Feb;49(1):4–5

Attempted suicide among Inuit youth: psychosocial correlates and implications for prevention. Kirmayer LJ, et al. **Can J Psychiatry** 1998 Oct;43(8):816–22

Psychosocial concerns and quality of life in breast cancer survivors. Leedham B, et al. **Cancer Invest** 1999;17(5):342–8 (79 ref.)

Psychosocial factors in children and adolescents with migraine and tension-type headache: a controlled study and review of the literature. Karwautz A, et al. **Cephalalgia** 1999 Jan;19(1):32–43

Influence of negative childhood experiences on psychological functioning, social support, and parenting for mothers recovering from addiction. Harmer AL, et al. **Child Abuse Negl** 1999 May;23(5):421–33

The treatment histories and service involvement of physically and sexually abusive families: description, correspondence, and clinical correlates. Kolko DJ, et al. **Child Abuse Negl** 1999 May;23(5):459–76

Predicting child maltreatment in the first 4 years of life from characteristics assessed in the neonatal period. Kotch JB, et al. **Child Abuse Negl** 1999 Apr;23(4):305–19

Family-centered practice for children with communication disorders. Rini DL, et al. **Child Adolesc Psychiatr Clin N Am** 1999 Jan;8(1):153–74 (72 ref.)

Parental health attitudes, illnesses and supports and the referral of children to medical specialists. Gulhati A, et al. **Child Care Health Dev** 1998 Jul;24(4):295–313

Supporting pupils in mainstream school with an illness or disability: young people's views. Lightfoot J, et al. **Child Care Health Dev** 1999 Jul;25(4):267–83

Evaluating services for children with disabilities and their families [editorial] Logan S. **Child Care Health Dev** 1999 Mar;25(2):81–3

Models of service support for parents of disabled children. What do we know? What do we need to know? Sloper P. **Child Care Health Dev** 1999 Mar;25(2):85–99 (61 ref.)

Living with craniofacial microsomia: support for the patient and family. Chibbaro PD. **Cleft Palate Craniofac J** 1999 Jan;36(1):40–2

Components of social support and quality of life in severely mentally ill, low income individuals and a general population group. Caron J, et al. **Community Ment Health J** 1998 Oct;34(5):459–75

Self-help groups for families of persons with mental illness: perceived benefits of helpfulness. Citron M, et al. **Community Ment Health J** 1999 Feb;35(1):15–30

Effectiveness of supported education for individuals with psychiatric disabilities: results from an experimental study. Collins ME, et al. **Community Ment Health J** 1998 Dec; 34(6):595–613

Respite from stress and other service needs of homeless families. Kissman K. **Community Ment Health J** 1999 Jun; 35(3):241–9

What is a clubhouse? Report on the ICCD 1996 survey of USA clubhouses. Macias C, et al. **Community Ment Health J** 1999 Apr;35(2):181–90

Work and social support: a comparison of consumers who have achieved stability in ACT and clubhouse programs. Stein LI, et al. **Community Ment Health J** 1999 Apr; 35(2):193–204

No, it's not just listening. Greenbury S. **Crisis** 1999;20(2):56–8

Time? Money? Both? The allocation of resources to older parents. Couch KA, et al. **Demography** 1999 May; 36(2):219–32

Level of voice among female and male high school students: relational context, support, and gender orientation. Harter S, et al. **Dev Psychol** 1998 Sep;34(5):892–901

Cognitive appraisals, coping strategies, and support resources as correlates of parenting and infant development. Levy-Shiff R, et al. **Dev Psychol** 1998 Nov;34(6):1417–27

Supporting autonomy to motivate patients with diabetes for glucose control. Williams GC, et al. **Diabetes Care** 1998 Oct;21(10):1644–51

Perception and utilization of social support in diabetic control. Fukunishi I, et al. **Diabetes Res Clin Pract** 1998 Sep;41(3):207–11

Ageing with spinal cord injury: the impact of spousal support. Holicky R, et al. **Disabil Rehabil** 1999 May–Jun; 21(5–6):250–7

Community reinforcement training for family and significant others of drug abusers: a unilateral intervention to increase treatment entry of drug users. Kirby KC, et al. **Drug Alcohol Depend** 1999 Aug 2;56(1):85–96

Self-efficacy and social support as mediators in the relation between disease severity and quality of life in patients with epilepsy. Amir M, et al. **Epilepsia** 1999 Feb;40(2):216–24

Effects of education and support on self-care and resource utilization in patients with heart failure [see comments] Jaarsma T, et al. **Eur Heart J** 1999 May;20(9):673–82. Comment in: Eur Heart J 1999 May;20(9):632–3.

Social relations and extent and severity of coronary artery disease. The Stockholm Female Coronary Risk Study [see comments] Orth-Gomér K, et al. **Eur Heart J** 1998 Nov; 19(11):1648–56. Comment in: Eur Heart J 1998 Nov;19(11):1603–5.

Social support and coronary heart disease in women: the challenge to learn more [editorial; comment] Wenger NK. **Eur Heart J** 1998 Nov;19(11):1603–5. Comment on: Eur Heart J 1998 Nov;19(11):1648–56.

Perceived social control as a mediator of the relationships among social support, psychological well-being, and perceived health. Bisconti TL, et al. **Gerontologist** 1999 Feb;39(1):94–103

Social relationships of Latino grandparent caregivers: a role theory perspective. Burnette D. **Gerontologist** 1999 Feb; 39(1):49–58

An evaluation of the use of the natural helping network model to enhance the well-being of nursing home residents. Cohen CI, et al. **Gerontologist** 1999 Aug;39(4):426–33

Patterns and predictors of formal and informal care among elderly persons living in board and care homes. Hopp FP. **Gerontologist** 1999 Apr;39(2):167–76

The effects of family conflict resolution and decision making on the provision of help for an elder with Alzheimer's disease. Lieberman MA, et al. **Gerontologist** 1999 Apr; 39(2):159–66

Social support and coping behaviors of low-income families experiencing food insufficiency in North Carolina.

Ahluwalia IB, et al. **Health Educ Behav** 1998 Oct; 25(5):599–612

Social support and readiness to make dietary changes. Sorensen G, et al. **Health Educ Behav** 1998 Oct; 25(5):586–98

Association of negative and positive social ties with fibrinogen levels in young women. Davis MC, et al. **Health Psychol** 1999 Mar;18(2):131–9

Social control in personal relationships: impact on health behaviors and psychological distress. Lewis MA, et al. **Health Psychol** 1999 Jan;18(1):63–71

Effects of social support and personal coping resources on depressive symptoms: different for various chronic diseases? Penninx BW, et al. **Health Psychol** 1998 Nov; 17(6):551–8

Teaching coping skills enhances quality of life more than peer support: results of a randomized trial with multiple sclerosis patients. Schwartz CE. **Health Psychol** 1999 May; 18(3):211–20

Social comparison and adjustment to breast cancer: an experimental examination of upward affiliation and downward evaluation. Stanton AL, et al. **Health Psychol** 1999 Mar;18(2):151–8

Effects of video-relayed social support on hemodynamic reactivity and salivary cortisol during laboratory-based behavioral challenge. Thorsteinsson EB, et al. **Health Psychol** 1998 Sep;17(5):436–44

Effect of perceived social support on adjustment of patients suffering from nasopharyngeal carcinoma. Ma JL. **Health Soc Work** 1998 Aug;23(3):167–74

Social comparisons and temporal comparisons after coronary artery surgery. King KB, et al. **Heart Lung** 1999 Sep–Oct; 28(5):316–25

How to assess a patient's support system and personal abilities prior to liver transplantation. Bryant SB, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1395–7

Teen line. Cyber pals [news] Downey C. **Hosp Health Netw** 1999 Sep;73(9):30

Why are infertile patients not using psychosocial counselling? Boivin J, et al. **Hum Reprod** 1999 May;14(5):1384–91

Comfort in labor and midwifery art. Schuiling KD, et al. **Image J Nurs Sch** 1999;31(1):77–81 (40 ref.)

Quality of life and social issues in older depressed patients. Warner JP. **Int Clin Psychopharmacol** 1998 Sep;13 Suppl 5:S19–24 (36 ref.)

Formal and informal network factors as sources of morale in a senior center population. Litwin H. **Int J Aging Hum Dev** 1999;48(3):241–56

The relationship between perceptions of social support and adherence to dietary recommendations among African-American elders with hypertension. Schoenberg NE. **Int J Aging Hum Dev** 1998;47(4):279–97

Disability and depressive symptoms in the elderly: the effects of instrumental support and its subjective appraisal. Wallsten SM, et al. **Int J Aging Hum Dev** 1999;48(2):145–59

Social support, social adjustment, and recovery status in bulimia nervosa. Rorty M, et al. **Int J Eat Disord** 1999 Jul;26(1):1–12

Stress, coping, and crisis support in eating disorders. Troop NA, et al. **Int J Eat Disord** 1998 Sep;24(2):157–66

Formal and informal support: the great divide. Lyons KS, et al. **Int J Geriatr Psychiatry** 1999 Mar;14(3):183–92; discussion 192–6

Report of workshop on social and economic integration. Frist T, et al. **Int J Lepr Other Mycobact Dis** 1998 Dec; 66(4):580–1

Recruitment and retention of nursing students in Kuwait. al-Kandari FH, et al. **Int J Nurs Stud** 1998 Oct; 35(5):245–51

Assessing occupational stress in psychiatric nurses using the full job strain model: the value of social support to nurses. Munro L, et al. **Int J Nurs Stud** 1998 Dec;35(6):339–45

Developing the role of the generic healthcare support worker: phase 1 of an action research study. Rolfe G, et al. **Int J Nurs Stud** 1999 Aug;36(4):323–34

The relationship between health status, social support and satisfaction with medical care among patients with systemic lupus erythematosus. Da Costa D, et al. **Int J Qual Health Care** 1999 Jun;11(3):201–7

Cohesion and parents' social relations in families with a child with disability or chronic illness. Taanila A, et al. **Int J Rehabil Res** 1999 Jun;22(2):101–9

Social support and service use among homeless persons with serious mental illness. Lam JA, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):13–28

Quality of life in patients with human immunodeficiency virus infection: impact of social support, coping style and hopelessness. Swindells S, et al. **Int J STD AIDS** 1999 Jun; 10(6):383–91

Cross-cultural partnerships in nursing: Romania and Denmark. Part I. Thomsen KS. **Int Nurs Rev** 1999 Mar–Apr;46(2):52–4

Social support predicts 5-year outcome in first-episode schizophrenia. Erickson DH, et al. **J Abnorm Psychol** 1998 Nov;107(4):681–5

Peer counselling in Saudi Arabia. Abu-Rasain MH, et al. **J Adolesc** 1999 Aug;22(4):493–502

Sex, drugs and alcohol: two peer-led approaches in Tamaki Makaurau/Auckland, Aotearoa/New zealand. Elliott KJ, et al. **J Adolesc** 1999 Aug;22(4):503–13

The effectiveness of peer support systems in challenging school bullying: the perspectives and experiences of teachers and pupils. Naylor P, et al. **J Adolesc** 1999 Aug; 22(4):467–79

Social support and personal models of diabetesin relation to self-care and well-being inadolescents with type I diabetes mellitus. Skinner TC, et al. **J Adolesc** 1998 Dec; 21(6):703–15

Social support, relationship quality, and well-being among pregnant adolescents. Stevenson W, et al. **J Adolesc** 1999 Feb;22(1):109–21

Peer support and young people's health. Turner G. **J Adolesc** 1999 Aug;22(4):567–72

Received social support for sexually transmitted disease-related care-seeking among adolescents. Fortenberry JD, et al. **J Adolesc Health** 1999 Sep; 25(3):174–8

Specialist nurse counsellor interventions at the time of diagnosis of breast cancer: comparing 'advocacy' with a conventional approach. Ambler N, et al. **J Adv Nurs** 1999 Feb;29(2):445–53

Social support and locus of control as correlates of UK nurses' health-related behaviours. Callaghan P. **J Adv Nurs** 1998 Nov;28(5):1127–33

Health visiting as therapy: a phenomenological perspective. Cody A. **J Adv Nurs** 1999 Jan;29(1):119–27 (68 ref.)

Relationships between family dynamics of Finnish child-rearing families, factors causing strain and received support. Hakulinen T, et al. **J Adv Nurs** 1999 Feb; 29(2):407–15

Social support: factors to consider when designing studies that measure social support. Hutchison C. **J Adv Nurs** 1999 Jun;29(6):1520–6 (46 ref.)

Social support and antenatal clinic attendance among Thai pregnant women in Hatyai, a city in southern Thailand. Jirojwong S, et al. **J Adv Nurs** 1999 Feb;29(2):395–406

Myocardial infarction, spouses' reactions and their need of support. Kettunen S, et al. **J Adv Nurs** 1999 Aug; 30(2):479–88

Predictors of loneliness in elderly Korean immigrant women living in the United States of America. Kim O. **J Adv Nurs** 1999 May;29(5):1082–8

Men as caregivers: reciprocal relationships or obligation? Neufeld A, et al. **J Adv Nurs** 1998 Nov;28(5):959–68

Women's perceptions of group support and adaptation to breast cancer. Samarel N, et al. **J Adv Nurs** 1998 Dec; 28(6):1259–68

Attendance at breast-feeding support meetings: relationship to demographic characteristics and duration of lactation in women planning postpartum employment. Chezem J, et al. **J Am Diet Assoc** 1999 Jan;99(1):83–5

Nonevaluative social support reduces cardiovascular reactivity in young women during acutely stressful performance situations. Fontana AM, et al. **J Behav Med** 1999 Feb;22(1):75–91

Social network in relation to plasma fibrinogen. Helminen A, et al. **J Biosoc Sci** 1997 Apr;29(2):129–39

Physician support and rewards: developing a support system. Burdick D. **J Cancer Educ** 1999 Spring;14(1):52–3

Quality in psychosocial oncology: Third Psychosocial Cancer Conference 1–4 April 1998, Heidelberg, Germany. Schwarz R. **J Cancer Res Clin Oncol** 1999;125(2):114–6

The self-systems of aggressive children: a cluster-analytic investigation. Edens JF, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):441–53

Adolescent depression: social network and family climate--a case-control study. Olsson GI, et al. **J Child Psychol Psychiatry** 1999 Feb;40(2):227–37

Family protective factors among urban African American youth. McCabe KM, et al. **J Clin Child Psychol** 1999 Jun; 28(2):137–50

Availability of family support as a moderator of exposure to community violence. Overstreet S, et al. **J Clin Child Psychol** 1999 Jun;28(2):151–9

Identification and impact of risk and protective factors for drug use among urban African American adolescents. Sullivan TN, et al. **J Clin Child Psychol** 1999 Jun; 28(2):122–36

Stress, social relations, and old age mortality in Taiwan. Liang J, et al. **J Clin Epidemiol** 1999 Oct;52(10):983–95

Getting the right kind of support: functional differences in the types of social support on depression for Chinese adolescents. Cheng C. **J Clin Psychol** 1998 Oct;54(6):845–9

Codependency: predictors and psychometric issues. Lindley NR, et al. **J Clin Psychol** 1999 Jan;55(1):59–64

Understanding the use of a community-based drive-home service after alcohol consumption among young adults. Lavoie M, et al. **J Community Health** 1999 Jun;24(3):171–86

Professional and paraprofessional group treatments for depression: a comparison of cognitive-behavioral and mutual support interventions. Bright JI, et al. **J Consult Clin Psychol** 1999 Aug;67(4):491–501

Benefits of recruiting participants with friends and increasing social support for weight loss and maintenance. Wing RR, et al. **J Consult Clin Psychol** 1999 Feb;67(1):132–8

Psychosocial moderators of substance use among middle school-aged adolescents. MacNeil G, et al. **J Drug Educ** 1999;29(1):25–39

Psychosocial risk factors and mortality: a prospective study with special focus on social support, social participation, and locus of control in Norway. Dalgard OS, et al. **J Epidemiol Community Health** 1998 Aug;52(8):476–81

Retirement intentions and spousal support: a multi-actor approach. Henkens K. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):S63–73

Social networks and disability transitions across eight intervals of yearly data in the New Haven EPESE. Mendes de Leon CF, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):S162–72

Behavior sequences of long-term care residents and their social partners. Rose MS, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):S75–83

Living alone and neighborhood characteristics as predictors of social support in late life. Thompson EE, et al. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov;53(6):S354–64

Losing and gaining in old age: changes in personal network size and social support in a four-year longitudinal study. van Tilburg T. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov; 53(6):S313–23

Social support among unmarried childless elderly persons. Wu Z, et al. **J Gerontol B Psychol Sci Soc Sci** 1998 Nov; 53(6):S324–35

Social network characteristics associated with risky behaviors among runaway and homeless youth. Ennett ST, et al. **J Health Soc Behav** 1999 Mar;40(1):63–78

Integration within a transgender social network and its effect upon members' social and political activity. Lombardi EL. **J Homosex** 1999;37(1):109–26

Gay, lesbian, and bisexual youth and young adults: social support in their own words. Nesmith AA, et al. **J Homosex** 1999;37(1):95–108

Service support to people in Wales with severe intellectual disability and the most severe challenging behaviours: processes, outcomes and costs. Felce D, et al. **J Intellect Disabil Res** 1998 Oct;42 (Pt 5):390–408

Opportunity and the promotion of activity among adults with severe intellectual disability living in community residences: the impact of training staff in active support. Jones E, et al. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):164–78

Randomized trial testing the effect of peer education at increasing fruit and vegetable intake. Buller DB, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1491–500

Development of scales to measure psychosocial care needs of children with seizures and their parents. 1. Austin J, et al. **J Neurosci Nurs** 1998 Jun;30(3):155–60

Psychosocial care needs of children with new-onset seizures. 2. McNelis A, et al. **J Neurosci Nurs** 1998 Jun;30(3):161–5

Psychosocial care needs of parents of children with new-onset seizures. 3. Shore C, et al. **J Neurosci Nurs** 1998 Jun;30(3):169–74

Hardiness, help-seeking behavior, and social support of baccalaureate nursing students. Hegge M, et al. **J Nurs Educ** 1999 Apr;38(4):179–82

Partnership in Learning for Utmost Success (PLUS): evaluation of a retention program for at-risk nursing students. Lockie NM, et al. **J Nurs Educ** 1999 Apr; 38(4):188–92

A baby has died: the impact of perinatal loss on family social networks. de Montigny F, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Mar–Apr;28(2):151–6

Physical abuse, social support, self-care, and pregnancy outcomes of older adolescents. Renker PR. **J Obstet Gynecol Neonatal Nurs** 1999 Jul–Aug;28(4):377–88

Job strain and evolution of mental health among nurses. Bourbonnais R, et al. **J Occup Health Psychol** 1999 Apr; 4(2):95–107

Let's talk: patterns and correlates of social support among temporary employees. Chen PY, et al. **J Occup Health Psychol** 1999 Jan;4(1):55–62

Social support as a moderator of the relationship between work stressors and psychological dysfunctioning: a longitudinal study with objective measures. Frese M. **J Occup Health Psychol** 1999 Jul;4(3):179–92

Occupational stress: measuring job pressure and organizational support in the workplace [see comments] Vagg PR, et al. **J Occup Health Psychol** 1998 Oct; 3(4):294–305. Comment in: J Occup Health Psychol 1999 Jul;4(3):288–92.

Psychosocial needs of patients and families. Vachon ML. **J Palliat Care** 1998 Autumn;14(3):49–56 (43 ref.)

Gender-role differences in susceptibility to the influence of support availability on depression. Cheng C. **J Pers** 1999 Jun;67(3):439–67

A comparison of the influence of conflictual and supportive social interactions on psychological distress. Finch JF, et al. **J Pers** 1999 Aug;67(4):581–621

The trouble with friendly faces: skilled performance with a supportive audience. Butler JL, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1213–30

Life events and social support as moderators of individual differences in cardiovascular and cortisol reactivity. Roy MP, et al. **J Pers Soc Psychol** 1998 Nov;75(5):1273–81

Prosthodontic profiles relating to economic status, social network, and social support in an elderly population living independently in Canada. Maupomé G, et al. **J Prosthet Dent** 1998 Nov;80(5):598–604

Parental loss in childhood and social support in adulthood among psychiatric patients. Group for Longitudinal Affective Disorders Study (GLADS). Furukawa T, et al. **J Psychiatr Res** 1999 Mar–Apr;33(2):165–9

Focus on the homeless family [news] **J Psychosoc Nurs Ment Health Serv** 1999 Apr;37(4):15

Reducing recidivism: medication versus psychosocial rehabilitation. Delaney C. **J Psychosoc Nurs Ment Health Serv** 1998 Nov;36(11):28–34

SOCIAL SUPPORT

Effectiveness of a counseling intervention to assist family caregivers of chronically ill relatives [see comments] Larsen LS. **J Psychosoc Nurs Ment Health Serv** 1998 Aug; 36(8):26–32. Comment in: J Psychosoc Nurs Ment Health Serv 1999 Feb;37(2):6.

Stress coping and social support in glucose tolerance abnormality. Fukunishi I, et al. **J Psychosom Res** 1998 Oct; 45(4):361–9

Objective and subjective conceptualizations of social support [editorial] McNally ST, et al. **J Psychosom Res** 1999 Apr; 46(4):309–14

Correlates of participation in a breast cancer support group. Stevens MJ, et al. **J Psychosom Res** 1998 Sep;45(3):263–75

Psychosocial influences on upper respiratory infectious illness in children. Turner Cobb JM, et al. **J Psychosom Res** 1998 Oct;45(4):319–30

Factors affecting support after criminal victimization: needed and received support from the partner, the social network, and distant support providers. Denkers A. **J Soc Psychol** 1999 Apr;139(2):191–201

Social support dimensions and components of performance in tennis. Rees T, et al. **J Sports Sci** 1999 May;17(5):421–9

Sexual abuse, parental bonding, social support, and program retention for women in substance abuse treatment. Cosden M, et al. **J Subst Abuse Treat** 1999 Mar;16(2):149–55

Matching clients' needs with drug treatment services. Hser YI, et al. **J Subst Abuse Treat** 1999 Jun;16(4):299–305

Technology transfer of Network Therapy to community-based addictions counselors. Keller DS, et al. **J Subst Abuse Treat** 1999 Mar;16(2):183–9

Modeling physical health and functional health status: the role of combat exposure, posttraumatic stress disorder, and personal resource attributes. Taft CT, et al. **J Trauma Stress** 1999 Jan;12(1):3–23

The relationship of reciprocity to self health care in older women. Craft BJ, et al. **J Women Aging** 1998;10(2):35–47

Subjective realities of rural older women's lives: a case study [see comments] Shenk D. **J Women Aging** 1998;10(4):7–24 . Comment in: J Women Aging 1998 ;10(4):81–90.

Gender differences in barriers to lifestyle change for cardiovascular disease prevention. Mosca L, et al. **J Womens Health** 1998 Aug;7(6):711–5

A meta-analysis of the relationship between social support and well-being. Wang HH. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Nov; 14(11):717–26

Lesley Fallowfield: blending psychology with science [news] Bonn D. **Lancet** 1999 Mar 13;353(9156):906

Perspectives of women whose sons become adolescent fathers. Dallas CM, et al. **MCN Am J Matern Child Nurs** 1999 Sep–Oct;24(5):247–51

Could the community social alarm system serve also as a primary health care service? Premik M, et al. **Med Arh** 1998;52(3):153–5

Ethnicity, forced migration and psychosocial work in Croatia. Soroya B, et al. **Med Confl Surviv** 1998 Oct–Dec; 14(4):303–13

Matching alcohol treatment to patient social support and the effects of participation in Alcoholics Anonymous. Longabaugh R. **Med Health R I** 1999 Apr;82(4):122

Doctors who self-administer drugs of dependence [editorial; comment] Breen KJ, et al. **Med J Aust** 1998 Oct 19; 169(8):404–5. Comment on: Med J Aust 1998 Oct 19;169(8):419–21.

Effective psychosocial intervention for children with cancer and their families [editorial; comment] Kazak AE. **Med Pediatr Oncol** 1999 Apr;32(4):292–3. Comment on: Med Pediatr Oncol 1999 Apr;32(4):289–91.

Meeting impossible psychosocial demands in pediatric oncology: creative solutions to universal challenges [see comments] Whitsett SF, et al. **Med Pediatr Oncol** 1999 Apr; 32(4):289–91 (0 ref.). Comment in: Med Pediatr Oncol 1999 Apr;32(4):292–3.

The evolution of the role of the police with special reference to social support and the mental health statutes. Andoh B. **Med Sci Law** 1998 Oct;38(4):347–53

Psychiatric rehabilitation technology: operationalizing the "black box" of the psychiatric rehabilitation process. Anthony WA. **New Dir Ment Health Serv** 1998 Fall; (79):79–87 (41 ref.)

The faith community as a support for people with mental illness. Shifrin J. **New Dir Ment Health Serv** 1998 Winter; (80):69–80

Companion animals: social support for orthopedic clients. Carmack BJ. **Nurs Clin North Am** 1998 Dec;33(4):701–11 (59 ref.)

The care of women with AIDS: special needs and considerations. Sowell RL, et al. **Nurs Clin North Am** 1999 Mar;34(1):179–99 (147 ref.)

Computerized information and support for patients with breast cancer or HIV infection. Rolnick SJ, et al. **Nurs Outlook** 1999 Mar–Apr;47(2):78–83

The perimenopausal transition of Filipino American midlife women: biopsychosociocultural dimensions. Berg JA. **Nurs Res** 1999 Mar–Apr;48(2):71–7

The effect of a social support boosting intervention on stress, coping, and social support in caregivers of children with HIV/AIDS [letter; comment] Eldredge D. **Nurs Res** 1998 Nov–Dec;47(6):307–8. Comment on: Nurs Res 1998 Mar–Apr;47(2):79–86.

The effects of sense of belonging, social support, conflict, and loneliness on depression. Hagerty BM, et al. **Nurs Res** 1999 Jul–Aug;48(4):215–9

Effects of participation in bariatric support group after Roux-en-Y gastric bypass. Hildebrandt SE. **Obes Surg** 1998 Oct;8(5):535–42

Job strain, social support at work, and incidence of myocardial infarction. Hammar N, et al. **Occup Environ Med** 1998 Aug;55(8):548–53

A closer look at psychosocial care. Powel LL. **Oncol Nurs Forum** 1998 Nov–Dec;25(10):1677 (9 ref.)

Alone together. Cancer patients and survivors find treatment--and support--online. It can make all the difference. Landro L. **Oncologist** 1999;4(1):59–63

Conducting pediatric psychosocial assessments: guiding treatment or creating blind spots. Simms S. **Pediatr Hematol Oncol** 1999 Mar–Apr;16(2):93–4

Meeting the needs of unpartnered elders: a peer training program involving elders with myocardial infarction. Robinson E, et al. **Prog Cardiovasc Nurs** 1998 Fall; 13(4):13–23

Two-year outcomes of psychosocial rehabilitation of black patients with chronic mental illness. Baker FM, et al. **Psychiatr Serv** 1999 Apr;50(4):535–9

Psychosocial rehabilitation services in community support systems: a review of outcomes and policy recommendations. Barton R. **Psychiatr Serv** 1999 Apr; 50(4):525–34

The educational needs of families of mentally ill adults: the South Carolina experience. Gasque-Carter KO, et al. **Psychiatr Serv** 1999 Apr;50(4):520–4

Direct and buffering effects of social support on depressive symptoms of the elderly with home help. Hashimoto K, et al. **Psychiatry Clin Neurosci** 1999 Feb;53(1):95–100

On the role of immunological factors as mediators between psychosocial factors and cancer progression. Garssen B, et al. **Psychiatry Res** 1999 Jan 18;85(1):51–61 (64 ref.)

Psychosocial predictors of psychological, neurochemical and immunological symptoms of acute stress among breast cancer patients. Gerits P, et al. **Psychiatry Res** 1999 Jan 18;85(1):95–103

Season's greetings: adults' social contacts at the holiday season. Fingerman KL, et al. **Psychol Aging** 1999 Jun; 14(2):192–205

Satisfaction with social networks: an examination of socioemotional selectivity theory across cohorts. Lansford JE, et al. **Psychol Aging** 1998 Dec;13(4):544–52

Emotional support and well-being of midlife women: role-specific mastery as a mediational mechanism. Martire LM, et al. **Psychol Aging** 1998 Sep;13(3):396–404

Unasked-for support and unsolicited advice: age and the quality of social experience. Smith J, et al. **Psychol Aging** 1999 Mar;14(1):108–21

Absence of social networks, social support and health services utilization. Kouzis AC, et al. **Psychol Med** 1998 Nov;28(6):1301–10

Types of social support as predictors of psychiatric morbidity in a cohort of British Civil Servants (Whitehall II Study). Stansfeld SA, et al. **Psychol Med** 1998 Jul;28(4):881–92

Are social supports in late midlife a cause or a result of successful physical ageing? Vaillant GE, et al. **Psychol Med** 1998 Sep;28(5):1159–68

Differentiation of self, need fulfillment, and psychological well-being in married men. Bohlander RW. **Psychol Rep** 1999 Jun;84(3 Pt 2):1274–80

Depersonalization in kindergarten teachers in relation to rejection of help by fellow teachers and emotional support from family. Cheuk WH, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):939–42

Relationship between the Maternal Social Support Index and the Parenting Stress Index in mothers of very-low-birthweight children now age 7. Farel AM, et al. **Psychol Rep** 1998 Aug;83(1):173–4

Depressive symptomatology and specificity of social support. Hawkins WE, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1180–6

Factors influencing placement recommendations for hospitalized individuals with chronic mental illness. Muzekari LH, et al. **Psychol Rep** 1999 Feb;84(1):302–4

Description and validation of a measure of received support specific to HIV. Renwick R, et al. **Psychol Rep** 1999 Apr; 84(2):663–73

Type A behavior, social support, stress, and physical and psychological well-being among Japanese women. Sumi K. **Psychol Rep** 1998 Oct;83(2):711–7

Delivering a very brief psychoeducational program to cancer patients and family members in a large group format. Cunningham AJ, et al. **Psychooncology** 1999 Mar–Apr; 8(2):177–82

A careful investigation of an important phenomenon [letter] Cunningham AJ, et al. **Psychooncology** 1999 Jul–Aug; 8(4):364–6

A hypothesis about Spiegel et al.'s 1989 paper on Psychosocial intervention and breast cancer survival [see comments] Fox BH. **Psychooncology** 1998 Sep–Oct; 7(5):361–70. Comment in: Psychooncology 1999 May–Jun;8(3):276.

An evaluation of a psychosocial intervention for survivors of childhood cancer: paradoxical effects of response shift over time. Schwartz CE, et al. **Psychooncology** 1999 Jul–Aug;8(4):344–54

An exploratory study of social support: a cross-cultural comparison of Chinese-, Japanese-, and Anglo-American breast cancer patients. Wellisch D, et al. **Psychooncology** 1999 May–Jun;8(3):207–19

Social support and hostility as predictors of depressive symptoms in cardiac patients one month after hospitalization: a prospective study. Brummett BH, et al. **Psychosom Med** 1998 Nov–Dec;60(6):707–13

Gender, social support, and cardiovascular responses to stress. Glynn LM, et al. **Psychosom Med** 1999 Mar–Apr; 61(2):234–42

Psychosocial factors and heart rate variability in healthy women. Horsten M, et al. **Psychosom Med** 1999 Jan–Feb; 61(1):49–57

Progression to AIDS: the effects of stress, depressive symptoms, and social support. Leserman J, et al. **Psychosom Med** 1999 May–Jun;61(3):397–406

Psychosocial factors influencing the short-term outcome of antithyroid drug therapy in Graves' disease. Yoshiuchi K, et al. **Psychosom Med** 1998 Sep–Oct;60(5):592–6

Interactive patterns of social support and individual coping strategies in melanoma patients and their correlations with adjustment to illness. Söllner W, et al. **Psychosomatics** 1999 May–Jun;40(3):239–50

Parenting competence, social support, and self-esteem in teen mothers case managed by public health nurses. Herrmann MM, et al. **Public Health Nurs** 1998 Dec;15(6):432–9

Help-seeking patterns among parents with a newborn child. Jansson A, et al. **Public Health Nurs** 1998 Oct;15(5):319–28

Community health workers: examining the Helper Therapy principle. Roman LA, et al. **Public Health Nurs** 1999 Apr; 16(2):87–95

Social support provided by public health nurses and the coping of first-time mothers with child care. Tarkka MT, et al. **Public Health Nurs** 1999 Apr;16(2):114–9

Social networks, stress and health-related quality of life. Achat H, et al. **Qual Life Res** 1998 Dec;7(8):735–50

Social networks and addition treatment. **Rep Group Adv Psychiatry** 1998;(142):101–12

Mediation effect of social support between ethnic attachment and loneliness in older Korean immigrants. Kim O. **Res Nurs Health** 1999 Apr;22(2):169–75

Psychosocial assessment of pain in patients having rheumatic diseases. Keefe FJ, et al. **Rheum Dis Clin North Am** 1999 Feb;25(1):81–103 (111 ref.)

Socioeconomic differences in health indices, social networks and mortality among Swedish men. A study of men born in 1933. Rosengren A, et al. **Scand J Soc Med** 1998 Dec; 26(4):272–80

Effects of coping strategies, social support and work–nonwork conflict on shift worker's health. Pisarski A, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:141–5

Role of psychosocial treatments in management of schizophrenia: a meta-analytic review of controlled outcome studies. Mojtabai R, et al. **Schizophr Bull** 1998; 24(4):569–87

Burden and well-being of caregivers for the severely mentally ill: the role of coping style and social support. Webb C, et al. **Schizophr Res** 1998 Nov 30;34(3):169–80

Psychosocial aspects of group communication treatment. Preliminary findings. Elman RJ, et al. **Semin Speech Lang** 1999;20(1):65–71; quiz 71–2

Managing psychosocial adjustment to aphasia. Müller D. **Semin Speech Lang** 1999;20(1):85–91; quiz 92

Familial support as perceived by adult victims of childhood sexual abuse. Stroud DD. **Sex Abuse** 1999 Apr;11(2):159–75

Social activities in late life. Lim CY. **Singapore Med J** 1998 Oct;39(10):439–41

The TAPS project 32: social networks of two group homes ... 5 years on.Team for the Assessment of Psychiatric Services. Dayson D, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Sep;33(9):438–44

Risk reconsidered: targets of violence in the social networks of people with serious psychiatric disorders. Estroff SE, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Dec;33 Suppl 1:S95–101

Social Support Questionnaire among psychiatric patients with various diagnoses and normal controls. Furukawa TA, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Apr; 34(4):216–22

Social and clinical factors influencing the choice of coping strategies in relatives of patients with schizophrenia: results of the BIOMED I study. Magliano L, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Sep;33(9):413–9

The influence of social class, strain and social support on symptoms of anxiety and depression in mothers of toddlers. Mathiesen KS, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Feb;34(2):61–72

Improving support for mental health staff: a qualitative study. Reid Y, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jun; 34(6):309–15

Postnatal depression and social supports in Vietnamese, Arabic and Anglo-Celtic mothers. Stuchbery M, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Oct;33(10):483–90

Life stress, social support and psychological distress in late adolescence: a longitudinal study. Ystgaard M, et al. **Soc Psychiatry Psychiatr Epidemiol** 1999 Jan;34(1):12–9

Family responses to HIV/AIDS in Mexico. Castro R, et al. **Soc Sci Med** 1998 Nov;47(10):1473–84

Social relations: network, support and relational strain. Due P, et al. **Soc Sci Med** 1999 Mar;48(5):661–73

Gender, social relations and mental health: prospective findings from an occupational cohort (Whitehall II study). Fuhrer R, et al. **Soc Sci Med** 1999 Jan;48(1):77–87

Social support at age 33: the influence of gender, employment

status and social class. Matthews S, et al. **Soc Sci Med** 1999 Jul;49(1):133–42

Perception of the social support role of the extended family network by some Nigerians with schizophrenia and affective disorders. Ohaeri JU. **Soc Sci Med** 1998 Nov; 47(10):1463–72

Age differences in the effects of network composition on psychological distress. Peek MK, et al. **Soc Sci Med** 1999 Sep;49(5):621–36

Helping others helps oneself: response shift effects in peer support. Schwartz CE, et al. **Soc Sci Med** 1999 Jun; 48(11):1563–75

Stress, social support, and distress in a statewide population of persons with AIDS in New Jersey. Crystal S, et al. **Soc Work Health Care** 1998;28(1):41–60

The Norwegian Polio Study 1994 part II: early experiences of polio and later psychosocial well-being. Schanke AK, et al. **Spinal Cord** 1999 Jul;37(7):515–21

The "concerned other" call: using family links and networks to overcome resistance to addiction treatment. Garrett J, et al. **Subst Use Misuse** 1999 Feb;34(3):363–82

Social network ties, self-efficacy, and condom use among women who use crack cocaine: a pilot study. Montoya ID. **Subst Use Misuse** 1998 Aug;33(10):2049–73 (70 ref.)

Opiate withdrawal outcome: the predictive ability of admission measures from the family assessment device (F.A.D.) Murphy PN, et al. **Subst Use Misuse** 1999 Jan; 34(2):307–16

Crack cocaine use in rural migrant populations: living arrangements and social support. Weatherby NL, et al. **Subst Use Misuse** 1999 Mar–Apr;34(4–5):685–706

A longitudinal investigation of depression, hopelessness, social support, and major and minor life events and their relation to suicidal ideation in adolescents. Mazza JJ, et al. **Suicide Life Threat Behav** 1998 Winter;28(4):358–74

Suicidal ideation among adolescent school children, involvement in bully–victim problems, and perceived social support. Rigby K, et al. **Suicide Life Threat Behav** 1999 Summer;29(2):119–30

Social interaction and support related to mood and locus of control in cervical and endometrial cancer patients and their spouses. Lalos A, et al. **Support Care Cancer** 1999 Mar;7(2):75–8

Social support as a function of school counseling. Kondo T. **Tokai J Exp Clin Med** 1998 Jun;23(3):137–45

How to support Japanese liver transplant candidates and recipients throughout the transplant process: role of family coordinators. Aranami Y, et al. **Transplant Proc** 1998 Nov; 30(7):3635–7

The importance of psychosocial paediatrics in the developing world. Goodfriend M. **Trop Doct** 1999 Apr;29(2):90–3

Community involvement in the monitoring and evaluation of their children's progress. Morley D. **Trop Doct** 1999 Apr;29(2):70–2

Actual and ideal professional support for African American family members. Waters CM. **West J Nurs Res** 1998 Dec; 20(6):745–64

Community attitudes and mammography use: does it really matter what other people think? Andersen MR, et al. **Women Health** 1999;29(3):83–95

For richer, for poorer, in sickness and in health: older widowed women's health, relationships and financial security. Byles JE, et al. **Women Health** 1999;29(1):15–30

Socio-environmental factors and postnatal depressive symptomatology: a longitudinal study. Séguin L, et al. **Women Health** 1999;29(1):57–72

[The relationships between the elderly loneliness and its factors of personal attributes, perceived health status and social support] Chang SH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Jun; 15(6):337–47 (Eng. Abstr.) **(Chi)**

[Self-care behaviors, self-efficacy, and social support effect on the glycemic control of patients newly diagnosed with non-insulin-dependent diabetes mellitus] Wang JS, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Dec; 14(12):807–15 (Eng. Abstr.) **(Chi)**

[The parental maturity of elderly dependent parents. Contributions to a contextual definition] Mahieu S, et al. **Tijdschr Gerontol Geriatr** 1999 Apr;30(2):64–72 (18 ref.) (Eng. Abstr.) **(Dut)**

[Psychosocial factors at work and cardiovascular diseases: contribution of the Effort-Reward Imbalance model] Niedhammer I, et al. **Rev Epidemiol Sante Publique** 1998 Nov;46(5):398–410 (92 ref.) (Eng. Abstr.) **(Fre)**

[Quality of life of patients with metastatic breast or intestinal cancer, treated with anthroposophic medicine or with mainstream medicine, the latter with or without psycho-oncologic or supplementary anthroposophic therapy] Cerny T, et al. **Forsch Komplementarmed** 1999 Feb;6 Suppl 1:35–7 (Eng. Abstr.) **(Ger)**

[Social networks and social support in a sample of mentally ill sex offenders] Gutiérrez-Lobos K, et al. **Psychiatr Prax** 1999 Mar;26(2):85–8 (Eng. Abstr.) **(Ger)**

[Mutual stress and support in couples with one cancer patient] Keller M, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct;48(9–10):358–68 (Eng. Abstr.) **(Ger)**

[Melanoma patients: psychosocial stress, coping with illness and social support. A systematic review] Söllner W, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):338–48 (62 ref.) (Eng. Abstr.) **(Ger)**

[Need for psychosocial management of facial and skin tumor patients] Strittmatter G, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct; 48(9–10):349–57 (Eng. Abstr.) **(Ger)**

[Pedalo--a community project for mothers of infants in St. Gallen-Rotmonten] **Soz Praventivmed** 1998;43(5):213–6 (Eng. Abstr.) **(Ger)**

[The resources of the social network of single person households during acute illness. Basic data for home care planning in an influenza epidemic] Wettstein A, et al. **Soz Praventivmed** 1999;44(3):107–16 (Eng. Abstr.) **(Ger)**

[Rehabilitation in schizophrenia--guidelines for including psychosocial measures] Katschnig H. **Wien Med Wochenschr** 1998;148(11–12):273–80 (41 ref.) (Eng. Abstr.) **(Ger)**

[Basic functions and specialty standards of support management] Wissert M. **Z Gerontol Geriatr** 1998 Oct; 31(5):331–7 (19 ref.) (Eng. Abstr.) **(Ger)**

[The local community as a life environment for the elderly--on the future role of the community in supporting the elderly] Ziller H. **Z Gerontol Geriatr** 1998 Dec; 31(6):392–7 (Eng. Abstr.) **(Ger)**

[Psychosocial genetic counseling in patients with a high risk of breast cancer: experiences after 1300 meetings in the Amsterdam "Family Cancer Clinic"] Hahn D. **Zentralbl Gynakol** 1999;121 Suppl 1:24–6 **(Ger)**

[Psychosocial impacts of surgical techniques] Hawighorst-Knapstein S, et al. **Zentralbl Gynakol** 1999;121 Suppl 1:27–30 (12 ref.) **(Ger)**

[The role of home visiting nurse in the terminal care of cancer--from cooperation with other social resources] Takasuna H. **Gan To Kagaku Ryoho** 1998 Dec;25 Suppl 4:631–9 (Eng. Abstr.) **(Jpn)**

[Support for and problems associated with the highly health care-dependent, single-living elderly] Watanabe M, et al. **Gan To Kagaku Ryoho** 1998 Dec;25 Suppl 4:661–4 (Eng. Abstr.) **(Jpn)**

[Postpartum depression and social support] Takeda F, et al. **Nippon Koshu Eisei Zasshi** 1998 Jun;45(6):564–71 (Eng. Abstr.) **(Jpn)**

[Rehabilitation with proper physical activities--what happens with patients' quality of life?] Blaasvaer S, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1281–6 (Eng. Abstr.) **(Nor)**

[General practitioners and patients' social status (see comments)] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2177–81 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 aug 10;119(18):2695. **(Nor)**

[Do municipalities offer help to children of parents with serious mental illness?] Ytterhus B, et al. **Tidsskr Nor Laegeforen** 1999 Aug 10;119(18):2667–9 (Eng. Abstr.) **(Nor)**

[Psychological aspects of high risk pregnancy in hospitalized women — toward the change of the existing model of care] Kmita G, et al. **Ginekol Pol** 1998 Dec;69(12):1025–31 (Eng. Abstr.) **(Pol)**

[Specialist community social services as a form of community social support] Dąbrowski S. **Psychiatr Pol** 1998 Jul–Aug; 32(4):443–51 (Eng. Abstr.) **(Pol)**

[Community self-help houses as a form of community social support] Dąbrowski S, et al. **Psychiatr Pol** 1998 Jul–Aug; 32(4):453–61 (Eng. Abstr.) **(Pol)**

[The concept of psychophysiological support for the professional activities of servicemen] Donchenko VG. **Voen Med Zh** 1999 May;320(5):60–3 **(Rus)**

[Functional social support perceived by patients in a program of home care in rural and urban settings] Alamo Martell MC, et al. **Aten Primaria** 1999 Jun 15;24(1):26–31 (Eng. Abstr.) **(Spa)**

[The social and work-related impact of multiple sclerosis] Martínez Yélamos S, et al. **Neurologia** 1999 Mar; 14(3):107–10 (Eng. Abstr.) **(Spa)**

[Quality of life and social support in patients with non-complicated acute myocardial infarct] Jiménez Muro M, et al. **Rev Esp Cardiol** 1999 Jul;52(7):467–74 (Eng. Abstr.) **(Spa)**

[A study of experience and consequences of diabetes. Increased psychosocial support in the care of diabetes is needed] Gåfvels C. **Lakartidningen** 1999 May 5; 96(18):2211–4 (Eng. Abstr.) **(Swe)**

[Support and counseling ease grief. An intervention project for recently bereaved elderly widows and widowers in Gothenburg] Grimby A. **Lakartidningen** 1999 Apr 14; 96(15):1838–42 (Eng. Abstr.) **(Swe)**

[Increase support to patients with Rett syndrome! (letter)] Hånell U. **Lakartidningen** 1999 Jul 28;96(30–31):3316 **(Swe)**

[Support for ambulatory psychiatry and social work in Bosnia-Herzegovina. About 70 different projects are assisted by Sweden] Jacobsson L, et al. **Lakartidningen** 1998 Dec 9;95(50):5785–6 **(Swe)**

[When the expected child dies. Both emotional and practical support is important for the women affected] Rådestad I. **Lakartidningen** 1999 Mar 17;96(11):1311–5 (Eng. Abstr.) **(Swe)**

[Psychosocial factors are limiting the possibility of dying at home] Thorén-Todoulos E. **Lakartidningen** 1999 Feb 3; 96(5):472–5 (Eng. Abstr.) **(Swe)**

SOCIAL VALUES

In search of the informal curriculum: when and where professional values are taught. Stern DT. **Acad Med** 1998 Oct;73(10 Suppl):S28–30

Age and gender differences in value orientation among American adolescents. Badger K, et al. **Adolescence** 1998 Fall;33(131):591–6

Terminal core values associated with adolescent problem behaviors. Goff BG, et al. **Adolescence** 1999 Spring; 34(133):47–60

Tikkun editor claims war is not inevitable [letter] Lerner M. **Altern Ther Health Med** 1999 May;5(3):22, 24, 26

Social capital and community development: practitioner emptor. Labonte R. **Aust N Z J Public Health** 1999 Aug; 23(4):430–3 (12 ref.)

Social capital and its relevance to health and family policy. Leeder S, et al. **Aust N Z J Public Health** 1999 Aug; 23(4):424–9 (12 ref.)

Assessing the arguments for and against euthanasia and assisted suicide: Part Two. Thomasma DC. **Camb Q Healthc Ethics** 1998 Fall;7(4):388–401 (37 ref.)

The stress of being a poor child in America. Garbarino J. **Child Adolesc Psychiatr Clin N Am** 1998 Jan;7(1):105–19, ix (23 ref.)

Parent influences on adolescent peer orientation and substance use: the interface of parenting practices and values. Bogenschneider K, et al. **Child Dev** 1998 Dec; 69(6):1672–88

Parallel process: moral failure, addiction and society [see comments] Sowers WE. **Community Ment Health J** 1998 Aug;34(4):331–6. Comment in: Community Ment Health J 1998 Aug;34(4):329–30.

Opening minds. Values clarification via electronic meetings. O'Brien BS, et al. **Comput Nurs** 1998 Sep–Oct;16(5):266–71; quiz 273–4

Reasons for living and the paradox of suicide in old age. de Leo D. **Crisis** 1998;19(4):147–8, 151

The death of humanitarianism?: an anatomy of the attack. Macrae J. **Disasters** 1998 Dec;22(4):309–17 (13 ref.)

Scientific paradigms in epidemiology and professional values [see comments] Coughlin SS. **Epidemiology** 1998 Sep; 9(5):578–80. Comment in: Epidemiology 1999 Mar;10(2):204–5.

Preserving public health values [letter; comment] Susser M, et al. **Epidemiology** 1999 Mar;10(2):204–5. Comment on: Epidemiology 1998 Sep;9(5):578–80.

Value patterns and content among families of Soviet immigrants: SYMLOG analysis. Slonim-Nevo V, et al. **Fam Process** 1998 Fall;37(3):345–62

The authority of the clinical ethicist. Casarett DJ, et al. **Hastings Cent Rep** 1998 Nov–Dec;28(6):6–11 (19 ref.)

Toward a broader view of values in cost-effectiveness analysis of health. Menzel P, et al. **Hastings Cent Rep** 1999 May–Jun;29(3):7–15

Fulcrum for the future: the creation of a values-driven culture. Taft S, et al. **Health Care Manage Rev** 1999 Winter; 24(1):17–32

Social aspects in assisted reproduction. Fasouliotis SJ, et al. **Hum Reprod Update** 1999 Jan–Feb;5(1):26–39 (90 ref.)

Value orientation of the Copper Inuit. Edgecombe NA. **Int J Circumpolar Health** 1998;57 Suppl 1:55–61

The role of familial values in understanding the impact of social class on weight concern. Ogden J, et al. **Int J Eat Disord** 1999 Apr;25(3):273–9

Is caring a virtue? Allmark P. **J Adv Nurs** 1998 Sep; 28(3):466–72 (34 ref.)

An investigation of dental student values. Casada JP, et al. **J Am Coll Dent** 1998 Fall;65(3):36–41

Conflicting values in oral health care. Ozar DT, et al. **J Am Coll Dent** 1998 Fall;65(3):15–8

Proceed with caution: understanding and changing norms [editorial; comment] Keeling RP. **J Am Coll Health** 1999 May;47(6):243–6. Comment on: J Am Coll Health 1999 May;47(6):247–52. Comment on: J Am Coll Health 1999 May;47(6):253–8.

Misperceptions of the norms for the frequency of alcohol and other drug use on college campuses [see comments] Perkins HW, et al. **J Am Coll Health** 1999 May;47(6):253–8 . Comment in: J Am Coll Health 1999 May;47(6):243–6.

Culture, coping, and context: primary and secondary control among Thai and American youth. McCarty CA, et al. **J Child Psychol Psychiatry** 1999 Jul;40(5):809–18

Cultural diversity and informed consent [see comments] Agard E, et al. **J Clin Ethics** 1998 Summer;9(2):173–6. Comment in: J Clin Ethics 1998 Summer;9(2):177–8. Comment in: J Clin Ethics 1998 Summer;9(2):191–3.

Cultural differences among health professionals: a case illustration. Perkins HS, et al. **J Clin Ethics** 1998 Summer; 9(2):108–17

Imperialism, research ethics and global health [letter; comment] Werner DL. **J Med Ethics** 1999 Feb;25(1):62. Comment on: J Med Ethics 1998 Aug;24(4):221–2.

Sex differences in perceived controllability of mate value: an evolutionary perspective. Ben Hamida S, et al. **J Pers Soc Psychol** 1998 Oct;75(4):953–66

What makes a life good? King LA, et al. **J Pers Soc Psychol** 1998 Jul;75(1):156–65

Moral values of only and sibling children in mainland China. Shen J, et al. **J Psychol** 1999 Jan;133(1):115–24

Gene therapy: ethical and social issues [see comments] Sade RM, et al. **J S C Med Assoc** 1998 Sep;94(9):406–10. Comment in: J S C Med Assoc 1998 Sep;94(9):416–8.

Is the societal perspective in cost-effectiveness analysis useful for decision makers? Russell LB, et al. **Jt Comm J Qual Improv** 1999 Sep;25(9):447–54 (16 ref.)

Disability in cross-cultural perspective: rethinking disability.

SOCIAL VALUES

Groce NE. **Lancet** 1999 Aug 28;354(9180):756–7
The myth of disability in developing nations. Ingstad B. **Lancet** 1999 Aug 28;354(9180):757–8
A clash of cultures: reflections of a physician with a disability. Wainapel SF. **Lancet** 1999 Aug 28;354(9180):763–4
Does neuroscience threaten human values? [editorial] **Nat Neurosci** 1998 Nov;1(7):535–6
Nephrology and society. Traeger J. **Nephrol Dial Transplant** 1999 Jan;14(1):4–7
Anti-fat prejudice: beliefs, values, and American culture. Crandall CS, et al. **Obes Res** 1998 Nov;6(6):458–60
Families, culture, and mental illness: constructing new realities. Lefley HP. **Psychiatry** 1998 Winter;61(4):335–55 (90 ref.)
Theoretical and treatment issues of personality disorders in individualistic and collectivistic societies. Kim HA. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S242–5 (12 ref.)
Protestant Work Ethic as a moderator of mental and physical well-being. Gorgievski-Duijvesteijn M, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):1043–50
Medical students' personal values and their career choices a quarter-century later. Hojat M, et al. **Psychol Rep** 1998 Aug;83(1):243–8
Can a community inject public health values into transportation questions? Brugge D, et al. **Public Health Rep** 1999 Jan–Feb;114(1):40–7
Value added to health by pharmacists. Indritz ME, et al. **Soc Sci Med** 1999 Mar;48(5):647–60
Personal values of male and female doctors: gender aspects. Neittaanmäki L, et al. **Soc Sci Med** 1999 Feb;48(4):559–68
Absolute versus relative values: effects on medical decisions and personality of patients and physicians. Neumann JK, et al. **South Med J** 1999 Sep;92(9):871–6
The approval of suicide: a social-psychological model. Agnew R. **Suicide Life Threat Behav** 1998 Summer; 28(2):205–25
Role models of the female persuasion [editorial] Thomison JB. **Tenn Med** 1999 Sep;92(9):323–4
Assisted suicide, suffering and the meaning of a life. Little M. **Theor Med Bioeth** 1999 Jun;20(3):287–98
Resiliency factors protecting against teenage alcohol use and smoking: influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. Heath AC, et al. **Twin Res** 1999 Jun; 2(2):145–55
Sexual coercion history, calloused sexual beliefs and judgments of sexual coercion in a date rape analogue. Bernat JA, et al. **Violence Vict** 1999 Summer;14(2):147–60
[The political power of elders: an illusion or a reality? A gap in science] Braam GP. **Tijdschr Gerontol Geriatr** 1998 Aug;29(4):166–7 **(Dut)**
[Dying and death in our society (editorial)] von Engelhardt D. **Versicherungsmedizin** 1998 Oct 1;50(5):167–8 **(Ger)**

SOCIAL WELFARE

What's a mother to do? Welfare, work, and family [editorial; comment] Chavkin W. **Am J Public Health** 1999 Apr; 89(4):477–9 (13 ref.). Comment on: Am J Public Health 1999 Apr;89(4):502–5.
The hospital emergency department as a social welfare institution. Gordon JA. **Ann Emerg Med** 1999 Mar; 33(3):321–5 (45 ref.)
Welfare dynamics, support services, mothers' earnings, and child cognitive development: implications for contemporary welfare reform. Yoshikawa H. **Child Dev** 1999 May–Jun;70(3):779–801
The street life of drugs [letter; comment] Fern BJ. **CMAJ** 1999 Jan 12;160(1):26; discussion 26–7. Comment on: CMAJ 1998 Jul 28;159(2):139–42.
Braintrust. Kaplove KA. **Conn Med** 1999 Jan;63(1):51–2
Awareness of and attitude of elderly subjects regarding health care and welfare in rapidly ageing population in Japan. Takei Y, et al. **Fam Pract** 1998 Dec;15(6):569–70
Deinstitutionalization and community care: social welfare policy as mental health policy. Goldman HH. **Harv Rev Psychiatry** 1998 Nov–Dec;6(4):219–22
Improving lives through information. Davis K. **Health Aff (Millwood)** 1999 Mar–Apr;18(2):219–25
Screening of substance abuse in public welfare and child protective service clients: a comparative study of rapid assessment instruments vs. the SASSI. Rapp LA, et al. **J Addict Dis** 1999;18(2):83–8
Address at ceremony launching the International Year of Older Persons (1999). Annan K. **J Gerontol B Psychol Sci Soc Sci** 1999 Jan;54(1):P5–6
Refugees, returnees and rehabilitation. Mehic-Basara N, et al. **Med Arh** 1999;53(1):39–41
Five laws for integrating medical and social services: lessons from the United States and the United Kingdom. Leutz WN. **Milbank Q** 1999;77(1):77–110, iv–v
[Consideration of mental symptoms and physical disabilities in deciding upon placement in a residential home versus a nursing home] Dijkstra GJ, et al. **Tijdschr Gerontol Geriatr** 1999 Jun;30(3):114–20 (Eng. Abstr.) **(Dut)**
[Training of personnel for work in home medical care and social welfare] Kikuno Y, et al. **Gan To Kagaku Ryoho** 1998 Dec;25 Suppl 4:651–5 (Eng. Abstr.) **(Jpn)**

ECONOMICS

Weekly patterns of drug treatment attendance. Svikis DS, et al. **Am J Public Health** 1999 May;89(5):752–5
Neoliberalism revised? A critical account of World Bank conceptions of good governance and market friendly intervention. Kiely R. **Int J Health Serv** 1998;28(4):683–702 (65 ref.)
Ravaging the poor: the International Monetary Fund indicted by its own data. Kolko G. **Int J Health Serv** 1999;29(1):51–7
The political economy of the welfare state in developed capitalist countries. Navarro V. **Int J Health Serv** 1999; 29(1):1–50 (36 ref.)
Neoliberalism, "globalization," unemployment, inequalities, and the welfare state. Navarro V. **Int J Health Serv** 1998; 28(4):607–82 (91 ref.)
Social capital: is it good for your health? Issues for a public health agenda [editorial] Baum F. **J Epidemiol Community Health** 1999 Apr;53(4):195–6
Demograghic and socio-economic determinants of community and hospital services costs for people with HIV/AIDS in London. Kupek E, et al. **Soc Sci Med** 1999 May;48(10):1433–40

HISTORY

[Social welfare in the XIXth century] Bouchet H. **Rev Prat** 1998 Nov 15;48(18):1981–3 **(Fre)**

LEGISLATION & JURISPRUDENCE

Welfare reform as a human rights issue [editorial; comment] Albisa C. **Am J Public Health** 1999 Oct;89(10):1476–8. Comment on: Am J Public Health 1999 Oct;89(10):1514–27.
The impact of welfare reform on parents' ability to care for their children's health [see comments] Heymann SJ, et al. **Am J Public Health** 1999 Apr;89(4):502–5. Comment in: Am J Public Health 1999 Apr;89(4):477–9.
Assessing the effects of welfare reform policies on reproductive and infant health [see comments] Wise P, et al. **Am J Public Health** 1999 Oct;89(10):1514–21 (79 ref.) . Comment in: Am J Public Health 1999 Oct;89(10):1476–8. Comment in: Am J Public Health 1999 Oct;89(10):1479–82.
Single women and the dynamics of Medicaid. Short PF, et al. **Health Serv Res** 1998 Dec;33(5 Pt 1):1309–36
The United States and the universality of human rights. Chomsky N. **Int J Health Serv** 1999;29(3):623–6
Monitoring the health consequences of welfare reform. Pappas G. **Int J Health Serv** 1998;28(4):703–13 (31 ref.)
The tuberculosis crisis: the deadly consequence of immigration policies and welfare reform. Johns KA, et al. **J Contemp Health Law Policy** 1998 Fall;15(1):101–30 (0 ref.)
Slipping through the safety net: implications for women's health [editorial] Pearlman DN. **J Health Care Poor Underserved** 1998 Aug;9(3):217–21
Welfare reform and women's health: review of the literature and implications for state policy. O'Campo P, et al. **J Public Health Policy** 1998;19(4):420–46 (59 ref.)
Implications of managed care for methadone treatment. Findings from five case studies in New York State. Zarkin GA, et al. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):25–35
Indian welfare minister orders compulsory HIV testing for children in care [news] Sharma DC. **Lancet** 1999 Jan 30; 353(9150):390
From mental health law to mental health and welfare law. Asai K. **Psychiatry Clin Neurosci** 1998 Dec;52 Suppl:S247–9
[Social jurisdiction] Schweinlin HJ. **Dtsch Med Wochenschr** 1999 Jan 22;124(3):62–3 **(Ger)**
[The "Duisgurg model" of intensified control of nursing homes and homes for the aged by the Duisberg public health services in cooperation with the Duisburg social welfare offices] Martin U, et al. **Gesundheitswesen** 1999 Jul; 61(7):337–9 (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

The family and welfare in sub-Saharan Africa. 15–16 May, 1997, Cambridge, Massachusetts. Oni J, et al. **Afr J Reprod Health** 1997 Sep;1(2):108–9
Substance abuse and the course of welfare dependency. Schmidt L, et al. **Am J Public Health** 1998 Nov; 88(11):1616–22
Help seeking behaviour and health and social services utilisation by people suffering from urinary incontinence. Roe B, et al. **Int J Nurs Stud** 1999 Jun;36(3):245–53
Service utilization among homeless and runaway youth in Los Angeles, California: rates and reasons [corrected and republished article originally printed in J Adolesc Health 1999 Mar;24(3):190–200] De Rosa CJ, et al. **J Adolesc Health** 1999 Jun;24(6):449–58

TRENDS

The political economy of the welfare state in developed capitalist countries. Navarro V. **Int J Health Serv** 1999; 29(1):1–50 (36 ref.)
Women, the welfare state, and their transnational dimension: the case of Mexico's community health worker programs. Ramirez-Valles J. **Int J Health Serv** 1999;29(3):597–621 (117 ref.)
The obligation of mental health services to the least well off. Goldman HH. **Psychiatr Serv** 1999 May;50(5):659–63

SOCIAL WORK

see related
COMMUNITY HEALTH SERVICES
RELIEF WORK

The role of unrecognized ambivalence: the mirroring of family conflicts within the professional and legal network. Etchegoyen A, et al. **Br J Med Psychol** 1998 Sep;71 (Pt 3):323–38
Decisions and attitudes concerning child sexual abuse: does the gender of the perpetrator make a difference to child protection professionals? Hetherton J, et al. **Child Abuse Negl** 1998 Dec;22(12):1265–83
Using participatory research to help promote the physical and mental health of female social workers in child welfare. Gold N. **Child Welfare** 1998 Nov–Dec;77(6):701–24
The role of birth/previously adopted children in families choosing to adopt children with special needs. Mullin ES, et al. **Child Welfare** 1999 Sep–Oct;78(5):579–91
Urine drug testing for social service agencies. A Canadian experience. Fraser AD. **Clin Lab Med** 1998 Dec; 18(4):705–11
The impact of clients' mental illness on social workers' job satisfaction and burnout. Acker GM. **Health Soc Work** 1999 May;24(2):112–9
What families know about funeral-related costs: implications for social work practice. Bern-Klug M, et al. **Health Soc Work** 1999 May;24(2):128–37
Perceptions of dementia, caregiving, and help seeking among Asian and Pacific Islander Americans. Braun KL, et al. **Health Soc Work** 1998 Nov;23(4):262–74 (67 ref.)
Community advisory boards: their role in AIDS clinical trials. Terry Beirn Community Programs for Clinical Research on AIDS. Cox LE, et al. **Health Soc Work** 1998 Nov;23(4):290–7
Preserving end-of-life autonomy: the Patient Self-Determination Act and the Uniform Health Care Decisions Act. Galambos CM. **Health Soc Work** 1998 Nov; 23(4):275–81 (21 ref.)
Linking injection drug users to medical services: role of street outreach referrals. Greenberg JB, et al. **Health Soc Work** 1998 Nov;23(4):298–309
Including "mental" in health & social work [editorial] Keigher SM. **Health Soc Work** 1999 May;24(2):85–90
Social workers and the tradition of charity in the changing health care system. Kelly JM. **Health Soc Work** 1998 Aug; 23(3):236–40
Community partnerships in neighborhood-based health care: a response to diminishing resources. Mosley AM. **Health Soc Work** 1998 Aug;23(3):231–5
Genetics cultural lag: what can social workers do to help? Oktay JS. **Health Soc Work** 1998 Nov;23(4):310–5 (23 ref.)
HIV prevention case management: current practice and future directions. Purcell DW, et al. **Health Soc Work** 1998 Nov;23(4):282–9
Pathways to mental health services among inhabitants of a Mexican village. Salgado de Snyder VN, et al. **Health Soc Work** 1998 Nov;23(4):249–61
Empowerment evaluation as a social work strategy. Secret M, et al. **Health Soc Work** 1999 May;24(2):120–7
Qualitative Research in Health and Social Care: conference organized by The Institute of Health and Community Studies, Bournemouth University, held at the Swallow Highcliffe Hotel, Bournemouth, England, 30 April–1 May 1998. Smith JP. **J Adv Nurs** 1998 Oct;28(4):925–9
Evaluation of an innovative program to address the health and social service needs of drug-using women with or at risk for HIV infection. Thompson AS, et al. **J Community Health** 1998 Dec;23(6):419–40
An experiential attitude change: social work students and homosexuality. Ben-Ari AT. **J Homosex** 1998;36(2):59–71
Importance of typologies for science and service in mental retardation. Fidler DJ, et al. **Ment Retard** 1998 Dec; 36(6):489–95
Has Person-Centered Planning become the alchemy of developmental disabilities? A response to O'Brien, O'Brien, and Mount. Holburn S, et al. **Ment Retard** 1998 Dec; 36(6):485–8
Capacity building for integrated family-centered practice. Briar-Lawson K. **Soc Work** 1998 Nov;43(6):539–50
Questions [editorial] Witkin SL. **Soc Work** 1999 May; 44(3):197–200
Social work in health care: do practitioners' writings suggest an applied social science? Rehr H, et al. **Soc Work Health Care** 1998;28(2):63–81 (33 ref.)
Latinas and sexually transmitted diseases: implications of recent research for prevention. Suarez ZE, et al. **Soc Work Health Care** 1998;28(1):1–19 (61 ref.)
The role of social work in HIV/AIDS clinical trials. Williams JK, et al. **Soc Work Health Care** 1999;29(1):35–56 (19 ref.)
Pediatricians' and social workers' knowledge and opinions of Florida's religious immunity laws. Hartog MA, et al. **South Med J** 1999 Apr;92(4):362–8
The social worker. A member of the primary care team? Falloon D. **West Indian Med J** 1998 Dec;47 Suppl 4:28–30
[Personal biography in the aging process and attitude to personal biography in social work with the elderly] Schweppe C. **Z Gerontol Geriatr** 1998 Oct;31(5):325–30 (35 ref.) (Eng. Abstr.) **(Ger)**
[Profile of social work in inpatient elder care] Steiner B. **Z Gerontol Geriatr** 1998 Oct;31(5):343–7 (Eng. Abstr.) **(Ger)**

[Study of the validity of ADL assessment by Minsei-iin of bed ridden elderly cared for at home] Tajima K, et al. **Nippon Koshu Eisei Zasshi** 1998 Jul;45(7):612-8 (Eng. Abstr.) **(Jpn)**

ECONOMICS

Cost-effectiveness analysis of a home-based social work intervention for children and adolescents who have deliberately poisoned themselves. Results of a randomised controlled trial. Byford S, et al. **Br J Psychiatry** 1999 Jan; 174:56-62

Using benefit-cost analysis to assess child abuse prevention and intervention programs. Plotnick RD, et al. **Child Welfare** 1999 May-Jun;78(3):381-407 (33 ref.)

Stewardship: the distinguishing characteristic of not-for-profit health care [editorial] Maynard GF 3rd, et al. **Health Soc Work** 1998 Nov;23(4):243-8

Managed care's impact on the financial well-being of social workers in private practice. Keefe RH, et al. **Soc Work Health Care** 1998;28(2):11-29

[Repositioning social work with the elderly? Effect of competitive elements and new guidance models on the profile of a profession] Schmidt R, et al. **Z Gerontol Geriatr** 1998 Oct;31(5):304-12 (54 ref.) (Eng. Abstr.) **(Ger)**

EDUCATION

Politically correct or culturally competent? [editorial] Poole DL. **Health Soc Work** 1998 Aug;23(3):163-6

Interprofessional education for undergraduate students. Russell KM, et al. **Public Health Nurs** 1999 Aug; 16(4):254-62

The role of the supervisor in training social workers treating HIV infected persons in a hospital. Itzhaky H, et al. **Soc Work Health Care** 1999;29(1):57-74 (32 ref.)

[Secondary traumatization while under care of child protective services] Schmitt A. **Prax Kinderpsychol Kinderpsychiatr** 1999 Jul-Aug; 48(6):411-24 (41 ref.) (Eng. Abstr.) **(Ger)**

[Factors of social workers' training in a medical school for work in psychiatric and substance abuse rehabilitation clinics] Sidorov PI, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(5):41-3 (Eng. Abstr.) **(Rus)**

HISTORY

Case study of institution-building by nurse Bertha Wright and colleagues. Nichols DJ, et al. **Image J Nurs Sch** 1998; 30(4):385-9

Frances Elisabeth Crowell and the politics of nursing in Czechoslovakia after the first world war. Vickers ED. **Nurs Hist Rev** 1999;7:67-96

A century of forensic social work: bridging the past to the present. Roberts AR, et al. **Soc Work** 1999 Jul;44(4):359-69

[The contribution of civilian health and social workers in the districts of Vardø and Gamvik during World War II] Svane S. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4683-6 (Eng. Abstr.) **(Nor)**

[The contribution of civilian health and social workers in the districts of Sør-Varange and Vadsø during World War II] Svane S. **Tidsskr Nor Laegeforen** 1998 Dec 10; 118(30):4687-90 (Eng. Abstr.) **(Nor)**

LEGISLATION & JURISPRUDENCE

Treating elder neglect: collaboration between a geriatrics assessment team and adult protective services. Dyer CB, et al. **South Med J** 1999 Feb;92(2):242-4

MANPOWER

Predicting work stress compensation claims and return to work in welfare workers. Dollard MF, et al. **J Occup Health Psychol** 1999 Jul;4(3):279-87

Addiction careers and careers in addiction. Klingemann HK. **Subst Use Misuse** 1999 Sep;34(11):1505-26

METHODS

Social work perspectives: issues in caregiver research: the family. Ballard EL. **Alzheimer Dis Assoc Disord** 1999 Apr-Jun;13 Suppl 1:S88-92

Reducing violence using community-based advocacy for women with abusive partners. Sullivan CM, et al. **J Consult Clin Psychol** 1999 Feb;67(1):43-53

Characteristics of persons with mental illness in a representative payee program. Conrad KJ, et al. **Psychiatr Serv** 1998 Sep;49(9):1223-5

Indigenous people and the social work profession: defining culturally competent services. Weaver HN. **Soc Work** 1999 May;44(3):217-25

ORGANIZATION & ADMINISTRATION

Supplemental social services improve outcomes in public addiction treatment. McLellan AT, et al. **Addiction** 1998 Oct;93(10):1489-99

Barriers to social services for HIV-infected urban migrators. Montoya ID, et al. **AIDS Educ Prev** 1998 Aug;10(4):366-79

Innovative community services for rape victims: an application of multiple case study methodology. Campbell R, et al. **Am J Community Psychol** 1998 Aug;26(4):537-71

A qualitative evaluation of school-based family resource and youth service centers. Kalafat J, et al. **Am J Community Psychol** 1998 Aug;26(4):573-604

A professionally led adoption triad group: an evolving approach to search and reunion. Valley S, et al. **Child Welfare** 1999 May-Jun;78(3):363-79

Social work at the emergency department--comments [letter; comment] Tarim MK, et al. **Eur J Emerg Med** 1998 Sep; 5(3):365-6. Comment on: Eur J Emerg Med 1997 Dec;4(4):233-8.

A randomized clinical trial to reduce asthma morbidity among inner-city children: results of the National Cooperative Inner-City Asthma Study. Evans R 3rd, et al. **J Pediatr** 1999 Sep;135(3):332-8

Towards quality of care in child health programmes: a challenge for the partnership in health and social sciences. Kanani S. **Soc Sci Med** 1998 Nov;47(9):1223-30 (16 ref.)

Confidentiality of social work records in the computer age. Gelman SR, et al. **Soc Work** 1999 May;44(3):243-52

The new confidentiality for the 21st century in a managed care environment. Rock B, et al. **Soc Work** 1999 May; 44(3):253-62

Organizing social work services with adult cancer patients: integrating empirical research. Cwikel JG, et al. **Soc Work Health Care** 1999;28(3):55-76 (94 ref.)

Health and well-being under one umbrella. Maranda MA, et al. **World Health Forum** 1998;19(3):239-45

[Interdisciplinary resources in the ambulatory care of drug dependent persons] Stachel R, et al. **Rev Med Suisse Romande** 1998 Sep;118(9):757-60 **(Fre)**

STANDARDS

The complexity of everyday ethics in home health care: an analysis of social workers' decisions regarding frail elders' autonomy. Healy TC. **Soc Work Health Care** 1998; 27(4):19-37

[Assessment method for supporting programs for social activities of the elderly by city, town and village governments in Japan] Kawakami N, et al. **Nippon Koshu Eisei Zasshi** 1998 Sep;45(9):893-904 (Eng. Abstr.) **(Jpn)**

STATISTICS & NUMERICAL DATA

Profiles of published social work practitioners: who wrote and why. Rehr H, et al. **Soc Work Health Care** 1998; 28(2):83-94

Access to health and human services for drug users: an urban/rural community systems perspective. Rivers JE, et al. **Subst Use Misuse** 1999 Mar-Apr;34(4-5):707-25

TRENDS

Labor. Unrest spreads [news] **Hosp Health Netw** 1998 Sep 20;72(18):14

Occupational social work for the 21st century. Iversen RR. **Soc Work** 1998 Nov;43(6):551-66 (112 ref.)

The managed care experience: the social worker's perspective. Riffe HA. **Soc Work Health Care** 1998; 28(2):1-9

[Social work in public health service as reflected by selected studies--a description of current status] Reinicke P. **Gesundheitswesen** 1999 Apr;61(4):197-202 (19 ref.) (Eng. Abstr.) **(Ger)**

[Ambulatory nursing-care related social work] Jansen B. **Z Gerontol Geriatr** 1998 Oct;31(5):319-24 (15 ref.) (Eng. Abstr.) **(Ger)**

[Social work with the elderly--evaluation, crisis and perspectives (editorial)] Klie T, et al. **Z Gerontol Geriatr** 1998 Oct;31(5):301-3 **(Ger)**

[Social work in geriatric clinics--between autonomy and functional organization] Thierau D. **Z Gerontol Geriatr** 1998 Oct;31(5):338-42 (Eng. Abstr.) **(Ger)**

[Basic functions and specialty standards of support management] Wissert M. **Z Gerontol Geriatr** 1998 Oct; 31(5):331-7 (19 ref.) (Eng. Abstr.) **(Ger)**

[Social work with the elderly--current orientation and strategies] Zeman P. **Z Gerontol Geriatr** 1998 Oct; 31(5):313-8 (34 ref.) (Eng. Abstr.) **(Ger)**

SOCIAL WORK DEPARTMENT, HOSPITAL

The role of the supervisor in training social workers treating HIV infected persons in a hospital. Itzhaky H, et al. **Soc Work Health Care** 1999;29(1):57-74 (32 ref.)

ORGANIZATION & ADMINISTRATION

Mass casualties: an organizational model of a hospital information center in Tel Aviv. Drory M, et al. **Soc Work Health Care** 1998;27(4):83-96

Reducing the number of days for which insurers deny payment to the hospital: one primary objective for a newly configured department of case management. Hammer DL, et al. **Soc Work Health Care** 1998;28(2):31-49

SOCIAL WORK, PSYCHIATRIC

Outcomes and costs of a community support worker service for the severely mentally ill. Clarkson P, et al. **Acta Psychiatr Scand** 1999 Mar;99(3):196-206

Impediments to the discharge planning effort for psychiatric inpatients. Gantt AB, et al. **Soc Work Health Care** 1999; 29(1):1-14

[New documentation routines in psychiatry in Västerbotten: unified structure for better quality of care] Andersen T, et al. **Lakartidningen** 1999 Apr 28;96(17):2102-6 (Eng. Abstr.) **(Swe)**

MANPOWER

Changing supply and earning patterns of the mental health workforce. Scheffler RM, et al. **Adm Policy Ment Health** 1998 Nov;26(2):85-99

ORGANIZATION & ADMINISTRATION

[Knowledge sovereignty++ is not beneficial for coordination of psychiatric and social services (letter)] Grunewald K. **Lakartidningen** 1999 Apr 7;96(14):1685-6 **(Swe)**

STANDARDS

An agency-based representative payee program and improved community tenure of persons with mental illness. Luchins DJ, et al. **Psychiatr Serv** 1998 Sep;49(9):1218-22

STATISTICS & NUMERICAL DATA

Social support and service use among homeless persons with serious mental illness. Lam JA, et al. **Int J Soc Psychiatry** 1999 Spring;45(1):13-28

Organizational and individual factors influencing job satisfaction and burnout of mental health workers. Martin U, et al. **Soc Work Health Care** 1998;28(2):51-62

TRENDS

The rise of social work in public mental health through aftercare of people with serious mental illness. Vourlekis BS, et al. **Soc Work** 1998 Nov;43(6):567-75

[The process of establishing social psychiatry services in the state of Saxony--a critical analysis based on existing urban-rural differences] Kallert TW, et al. **Gesundheitswesen** 1998 Nov;60(11):649-55 (Eng. Abstr.) **(Ger)**

SOCIAL WORKERS see **SOCIAL WORK**

SOCIALIZATION

On the culture of student abuse in medical school. Kassebaum DG, et al. **Acad Med** 1998 Nov;73(11):1149-58

Gender differences in living skills and global assessment of functioning among outpatients with schizophrenia. Hintikka J, et al. **Aust N Z J Psychiatry** 1999 Apr; 33(2):226-31

A prospective longitudinal study of attachment disorganization/disorientation. Carlson EA. **Child Dev** 1998 Aug;69(4):1107-28

Parental reactions to children's negative emotions: longitudinal relations to quality of children's social functioning. Eisenberg N, et al. **Child Dev** 1999 Mar-Apr; 70(2):513-34

Predicting mothers' beliefs about preschool-aged children's social behavior: evidence for maternal attitudes moderating child effects. Hastings PD, et al. **Child Dev** 1999 May-Jun; 70(3):722-41

The development of display rule knowledge: linkages with family expressiveness and social competence. Jones DC, et al. **Child Dev** 1998 Aug;69(4):1209-22

Assessing young children's views of their academic, social, and emotional lives: an evaluation of the self-perception scales of the Berkeley Puppet Interview. Measelle JR, et al. **Child Dev** 1998 Dec;69(6):1556-76

Representation of self and socioemotional competence in kindergartners: differential and combined effects of attachment to mother and to father. Verschueren K, et al. **Child Dev** 1999 Jan-Feb;70(1):183-201

Psychosocial functioning of youth receiving mental health services in the schools versus community mental health centers. Weist MD, et al. **Community Ment Health J** 1999 Feb;35(1):69-81

Statewide replication of predictive validation for the Multnomah Community Ability Scale. Zani B, et al. **Community Ment Health J** 1999 Jun;35(3):223-9

Maternal socialization of adolescent smoking: the intergenerational transmission of parenting and smoking [see comments] Chassin L, et al. **Dev Psychol** 1998 Nov; 34(6):1189-201. Comment in: Dev Psychol 1998 Nov;34(6):1263-8. Comment in: Dev Psychol 1998 Nov;34(6):1269-73.

Social-cognitive influences on change in aggression over time [published erratum appears in Dev Psychol 1998 Nov;34(6):1155] Egan SK, et al. **Dev Psychol** 1998 Sep; 34(5):996-1006

Maltreated and nonmaltreated preschoolers' conceptions of hypothetical and actual moral transgressions. Smetana JG, et al. **Dev Psychol** 1999 Jan;35(1):269-81

Social interaction skills and theory of mind in young children. Watson AC, et al. **Dev Psychol** 1999 Mar;35(2):386-91

The emergence of gender difference in depressed mood during adolescence: the role of intensified gender socialization. Wichstrøm L. **Dev Psychol** 1999 Jan; 35(1):232-45

Social competence and emotional/behaviour problems in 6-16 year-old Swedish school children. Larsson B, et al.

SOCIALIZATION

Eur Child Adolesc Psychiatry 1999 Mar;8(1):24–33
The socialization of newly hired medical staff into a large health system. Bender C, et al.
Health Care Manage Rev 1999 Winter;24(1):95–108
How students experience professional socialisation. Howkins EJ, et al. **Int J Nurs Stud** 1999 Feb;36(1):41–9
Effects of religiosity and racial socialization on subjective stigmatization in African-American adolescents. Brega AG, et al. **J Adolesc** 1999 Apr;22(2):223–42
Socialization and personal change: a personal construct psychology approach. Buckenham MA. **J Adv Nurs** 1998 Oct;28(4):874–81
The professional socialization of diploma of higher education in nursing students (Project 2000): a longitudinal qualitative study. Gray M, et al. **J Adv Nurs** 1999 Mar;29(3):639–47
The impact of 'Project 2000' educational reforms on the occupational socialization of nurses: an exploratory study. Philpin SM. **J Adv Nurs** 1999 Jun;29(6):1326–31
Differences between school classes in preschoolers' psychosocial adjustment: evidence for the importance of children's interpersonal relations. van den Oord EJ, et al. **J Child Psychol Psychiatry** 1999 Mar;40(3):417–30
Developmental psychopathology and the reciprocal patterning of behavior and environment: distinctive situational and behavioral signatures of internalizing, externalizing, and mixed-syndrome children. Wright JC, et al. **J Consult Clin Psychol** 1999 Feb;67(1):95–107
Early detection of social interaction problems: development of a social interaction instrument in young children. Ghuman JK, et al. **J Dev Behav Pediatr** 1998 Dec; 19(6):411–9
Testing the equivalence of the socialization factor structure for criminals and noncriminals. Collins JM, et al. **J Pers Assess** 1999 Feb;72(1):68–73
Boredom proneness and psychosocial development. Watt JD, et al. **J Psychol** 1999 May;133(3):303–14
Using a therapy dog to alleviate the agitation and desocialization of people with Alzheimer's disease. Churchill M, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Apr;37(4):16–22
Seeking the functional. Kliewer C. **Ment Retard** 1999 Apr; 37(2):151–4
Short-changed in the name of socialization? Acquisition of functional skills by students with severe disabilities. Sandler AG. **Ment Retard** 1999 Apr;37(2):148–50
Seasonal and weekly rhythms: windows into variability in family socialization experiences in early adolescence. Crouter AC, et al. **New Dir Child Dev** 1998 Winter; (82):69–82 (16 ref.)
Breast feeding and later psychosocial adjustment. Fergusson DM, et al. **Paediatr Perinat Epidemiol** 1999 Apr; 13(2):144–57
Social perception and social skill in schizophrenia. Ihnen GH, et al. **Psychiatry Res** 1998 Sep 21;80(3):275–86
Sun-safety behavior among elementary school children: the role of knowledge, social norms, and parental involvement. Donavan DT, et al. **Psychol Rep** 1999 Jun;84(3 Pt 1):831–6
Psychosocial development and moral development: an exploratory comparison of adolescents in Japan and America. Mizuno S. **Psychol Rep** 1999 Feb;84(1):51–62
Communication as social engagement: implications for interactions between deaf and hearing persons. Foster S. **Scand Audiol Suppl** 1998;49:116–24 (20 ref.)
Factors explaining the physical activity of young adults: the importance of early socialization. Yang X, et al. **Scand J Med Sci Sports** 1999 Apr;9(2):120–7
How do early stages of information processing influence social skills in patients with schizophrenia? Ikebuchi E, et al. **Schizophr Res** 1999 Feb 15;35(3):255–62
Environmental supports to enhance social-communication. Quill KA. **Semin Speech Lang** 1998;19(4):407–22; quiz 422–3; 424 (77 ref.)
Peer networks and sensation seeking: some implications for primary socialization theory. Donohew L, et al. **Subst Use Misuse** 1999 Jun;34(7):1013–23
Primary socialization theory: comments on racism, sexism, generational neglect, abuse, and abandonment. Garcia SA. **Subst Use Misuse** 1999 Jun;34(7):1005–11
Media and primary socialization theory. Kelly K, et al. **Subst Use Misuse** 1999 Jun;34(7):1033–45
Primary socialization theory and a bio/psycho/social/spiritual practice model for substance use. Leukefeld CG, et al. **Subst Use Misuse** 1999 Jun; 34(7):983–91
A complementary perspective to primary socialization theory. Nurco DN, et al. **Subst Use Misuse** 1999 Jun; 34(7):993–1003
Primary socialization theory. Developmental stages, spirituality, government institutions, sensation seeking, and theoretical implications. V. Oetting ER. **Subst Use Misuse** 1999 Jun;34(7):947–82
Primary socialization theory: culture, ethnicity, and cultural identification. The links between culture and substance use. IV. Oetting ER, et al. **Subst Use Misuse** 1998 Aug; 33(10):2075–107 (60 ref.)
Primary socialization theory: it all begins with the family. Whitbeck LB. **Subst Use Misuse** 1999 Jun;34(7):1025–32
Effects of dominance and familiarity on behaviour and plasma stress hormones in growing pigs during social confrontation. Otten W, et al. **Zentralbl Veterinarmed A** 1999 Jul;46(5):277–92
[Social characteristics and health status of children entering foster care centers] Oliván Gonzalvo G. **An Esp Pediatr** 1999 Feb;50(2):151–5 (Eng. Abstr.) **(Spa)**

SOCIALIZED DENTISTRY see **STATE DENTISTRY**

SOCIALIZED MEDICINE see **STATE MEDICINE**

SOCIETIES

see related
LIBRARY ASSOCIATIONS
AVA went 'too far' [letter] Bryce A. **Aust Vet J** 1999 May; 77(5):341
AVA needs to decide the best location to service members--and influence government policy [news] Niethe G. **Aust Vet J** 1999 Feb;77(2):81
The Oral History Program: II. Personal views of health sciences librarianship and the Medical Library Association. McKenzie D, et al. **Bull Med Libr Assoc** 1998 Jul; 86(3):366–76
The Royal College of Radiologists' Clinical Oncology Information Network. British Association of Urological Surgeons. Guidelines on the management of prostate cancer. **Clin Oncol (R Coll Radiol)** 1999;11(2):S53–88
Clarification about nursing in Russia [letter; comment] Perfiljeva G, et al. **Image J Nurs Sch** 1998;30(2):107–8. Comment on: Image J Nurs Sch 1997;29(2):159–62.
HCFA releases proposed rule for diabetes education [news] **J Am Diet Assoc** 1999 Jun;99(6):670
ADA joins national coding and provider classification projects [news] **J Am Diet Assoc** 1999 Jan;99(1):18
ADA's campaign for coverage of MNT: success is in sight! American Dietetic Association. Medical nutrition therapy [news] **J Am Diet Assoc** 1998 Dec;98(12):1404
ADA helps Shape Healthy People 2010; update on healthy weight partnership guidelines; regulatory comments [news; comment] **J Am Diet Assoc** 1999 Apr;99(4):420. Comment on: J Am Diet Assoc 1999 Apr;99(4):415, 418–9.
ADA testifies as National Academy of Sciences examines adding nutrition services for Medicare beneficiaries [news] **J Am Diet Assoc** 1999 Sep;99(9):1056
A consumer's perspective: finding our way--together. Coulston A, et al. **J Am Diet Assoc** 1998 Nov;98(11):1274–5
Look before you leap--but do leap! Dodd JL. **J Am Diet Assoc** 1999 Apr;99(4):422–5
ADA positions: science-based consumer messages. Association Positions Committee. Duffy VB, et al. **J Am Diet Assoc** 1999 Feb;99(2):231–3
Setting the nation's health agenda [news] [see comments] Hahn NI. **J Am Diet Assoc** 1999 Apr;99(4):415, 418–9. Comment in: J Am Diet Assoc 1999 Apr;99(4):420.
Judicious antimicrobial-use principles, related proposals approved by board [news] **J Am Vet Med Assoc** 1999 Jan 15;214(2):167–8
Controversy over relevancy of LGVMA continues [letter; comment] Dubielzig RR, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):616. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Practice standards--by law, by regulation, by codes of ethics, by association's guidelines, or not at all? Hannah HW. **J Am Vet Med Assoc** 1999 Mar 1;214(5):638–9
Accord reached over specialty designations [news] [see comments] Kahler SC. **J Am Vet Med Assoc** 1999 May 15;214(10):1447, 1457. Comment in: J Am Vet Med Assoc 1999 Jul 15;215(2):186.
Controversy over relevancy of LGVMA continues [letter; comment] Koltveit AJ. **J Am Vet Med Assoc** 1999 Mar 1;214(5):614. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Controversy over relevancy of LGVMA continues [letter; comment] Nagell RL. **J Am Vet Med Assoc** 1999 Mar 1; 214(5):614–5. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Going 12 rounds with Dr. James Nave [interview by Dean J. Monti] Nave J. **J Am Vet Med Assoc** 1999 Apr 15; 214(8):1138–40
HSUS sues FDA to end preventive extralabel use [news] Nolen S. **J Am Vet Med Assoc** 1999 Jun 1;214(11):1607
Relevancy of LGVMA questioned [letter] [see comments] Parker JS. **J Am Vet Med Assoc** 1999 Jan 1;214(1):25–6. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):614. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):614–5. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):615. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):615–6. Comment in: J Am Vet Med Assoc 1999 Mar 1;214(5):616.
Vaccine-Associated Feline Sarcoma Task Force: a new model for problem solving in veterinary medicine. Starr RM. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1428–9
Controversy over relevancy of LGVMA continues [letter; comment] Tansey G. **J Am Vet Med Assoc** 1999 Mar 1; 214(5):615. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Controversy over relevancy of LGVMA continues [letter; comment] Walker HL. **J Am Vet Med Assoc** 1999 Mar 1;214(5):615–6. Comment on: J Am Vet Med Assoc 1999 Jan 1;214(1):25–6.
Report of the BIPP Medical Group/Scottish Region study day on 'the changing face of communications', held at Glasgow Royal Infirmary on Sunday 5th April 1998. Hurt B. **J Audiov Media Med** 1998 Sep;21(3):106–8

ECONOMICS
Retention fees and the MRCVS diploma [letter] Mares RG. **Vet Rec** 1999 Aug 7;145(6):176

HISTORY
Minorities in medical school and National Medical Fellowships, Inc.: 50 years and counting. Johnson L Jr. **Acad Med** 1998 Oct;73(10):1044–51

LEGISLATION & JURISPRUDENCE
The duty of a veterinary medical association to discharge members. Hannah HW. **J Am Vet Med Assoc** 1999 Jun 1;214(11):1630–1

ORGANIZATION & ADMINISTRATION
APHA's involvement in international health [letter] Pearson CE. **Am J Public Health** 1999 Jul;89(7):1125–6
European Societies for Quality in Healthcare. deBurca S, et al. **Int J Qual Health Care** 1999 Jun;11(3):263–5
An alternative to managed care: a 'guild' model for the independent practice of psychotherapy. Bittner S, et al. **J Marital Fam Ther** 1999 Jan;25(1):99–111; discussion 113–5
Society of veterinary assistants? [letter] Chesney C. **Vet Rec** 1999 Aug 7;145(6):176

STATISTICS & NUMERICAL DATA
Report on the 1997 Membership Database of the American Dietetic Association. Bryk JA, et al. **J Am Diet Assoc** 1999 Jan;99(1):102–7

TRENDS
Times-and vets-have changed [letter] Macwhirter P. **Aust Vet J** 1999 May;77(5):340
Past, present, and future perspectives of dietetics practice. Erickson-Weerts S. **J Am Diet Assoc** 1999 Mar;99(3):291–3
[Annual speech in the framework of recent developments. Veterinarians must anticipate a changing society] Umans S. **Tijdschr Diergeneeskd** 1998 Nov 15;123(22):674–9 **(Dut)**

SOCIETIES, DENTAL

The new MFDS/MFD examination. Callis PD. **Br Dent J** 1998 Sep 26;185(6):308–10
AAOMS/BAOMS scientific meeting: 1999. American Association of Oral and Maxillofacial Surgeons. British Association of Oral and Maxillofacial Surgeons [letter] Wake MJ. **Br J Oral Maxillofac Surg** 1999 Feb;37(1):76
Assessment of clinical case presentations for the Membership in Orthodontics, Royal College of Surgeons of England 1995, 1996. Lee RT, et al. **Br J Orthod** 1999 Mar;26(1):15–9
Report of the newly formed International Consortium for Oral Clefts Genetics. Wyszynski DF, et al. **Cleft Palate Craniofac J** 1999 Mar;36(2):174–8
The case for a strong anti-tobacco lobby by the CDA--if not now, when, and if not us, who? MacSween E. **J Can Dent Assoc** 1999 Jan;65(1):40–1
The IADR: mentor for dental research. Marshall SJ. **J Dent Res** 1999 Aug;78(8):1384–5
Directory. Prosthodontic associations. **J Prosthet Dent** 1999 Jul;82(1):121–3
DSSNY joins in lawsuit aimed at increasing Medicaid fees [news] **N Y State Dent J** 1999 Feb;65(2):10
DSSNY reacts to the changing face of dentistry. Dental Society of the State of New York [editorial] Epel LM. **N Y State Dent J** 1998 Oct;64(8):12–3
[Address of the congress president. German Society of Oromaxillofacial Surgery] Esser E. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S6 **(Ger)**
[Address of the president of the Society. Society of Oromaxillofacial Surgery] Reuther JF. **Mund Kiefer Gesichtschir** 1999 May;3 Suppl 1:S3–5 **(Ger)**
[Further specialist titles from the SSO. Société Suisse d'Odonto-Stomatologie (editorial)] Hirzel HC. **Schweiz Monatsschr Zahnmed** 1999;109(4):357, 359 **(Ger, Fre)**
[The SSO on the Internet. Société Suisse d'Odonto-Stomatologie (news)] Jäger P. **Schweiz Monatsschr Zahnmed** 1998;108(11):1117–8, 1153 **(Ger, Fre)**

ECONOMICS
The British Orthodontic Society Foundation [editorial] Harradine N. **Br J Orthod** 1999 Jun;26(2):147–8

HISTORY
Off the record [letter] Hordman FG. **Br Dent J** 1997 Nov 8;183(9):316

LEGISLATION & JURISPRUDENCE
What level of scrutiny is required in an antitrust case? 2. Sfikas P. **J Am Dent Assoc** 1999 Apr;130(4):581–3
California Dental Association vs. Federal Trade Commission. Sfikas PM. **J Am Dent Assoc** 1999 Jul;130(7):1127–8
Acting in the best interest of the corporation. Plunkett LR. **N Y State Dent J** 1999 May;65(5):6–8

ORGANIZATION & ADMINISTRATION

Changes, changes, changes [editorial] Harcourt JK. **Aust Dent J** 1998 Oct;43(5):367

The mediation process--the Ottawa Dental Society experience. Cousens G. **J Can Dent Assoc** 1999 Mar; 65(3):150–1

DSSNY adopts new ethics enforcement structure. Plunkett LR. **N Y State Dent J** 1999 Jan;65(1):6–7

SOCIETIES, HOSPITAL

HISTORY

The Georgia Hospital Association 1929–1999 ... a history. Sudia-Skehan S, et al. **J Med Assoc Ga** 1999 Apr; 88(2):54–61

SOCIETIES, MEDICAL

Emergency department categorization: solid first steps [editorial; comment] Boyd D. **Acad Emerg Med** 1999 Jun; 6(6):578–9. Comment on: Acad Emerg Med 1999 Jun;6(6):638–55.

Emergency center categorization standards [see comments] Goldfrank L, et al. **Acad Emerg Med** 1999 Jun;6(6):638–55 . Comment in: Acad Emerg Med 1999 Jun;6(6):577. Comment in: Acad Emerg Med 1999 Jun;6(6)::578–9.

Emergency department categorization: why SAEM? Why now? Society for Academic Emergency Medicine [editorial; comment] Syverud SA. **Acad Emerg Med** 1999 Jun;6(6):577. Comment on: Acad Emerg Med 1999 Jun;6(6):638–55.

Journal club devoted to educational issues [letter] Centeno AM, et al. **Acad Med** 1999 May;74(5):464

Medical and scientific organizations and scientific evidence in U.S. trials: lessons from European legal theory. Deftos LJ. **Acad Med** 1999 Mar;74(3):231–5 (44 ref.)

Academy of Radiology Research. Baum S. **Acad Radiol** 1998 Sep;5 Suppl 2:S419–20

The Belgian Group of Endoscopic Surgery (B.G.E.S.), one of the crown jewels of the Royal Belgian Society for Surgery [editorial] Van Hee R. **Acta Chir Belg** 1998 Aug; 98(4):141

Getting connected: the Internet as a new resource for the European Association of Neurosurgical Societies. Mellergård P, et al. **Acta Neurochir (Wien)** 1998; 140(4):297–301

Transactions of the Swedish Society of Ophthalmology 1997. Annual Meeting, Sundsvall, August 27–30, 1997. Bergström A. **Acta Ophthalmol Scand** 1999 Feb;77(1):117–22

The ties of ILAR and WHO. Rasker JJ, et al. **Acta Orthop Scand Suppl** 1998 Jun;281:63–4

The Academy of Radiology Research [editorial] Rogers LF. **AJR Am J Roentgenol** 1999 Mar;172(3):583

Too many congresses? [editorial] Muñoz-López F. **Allergol Immunopathol (Madr)** 1999 May–Jun;27(3):129–30

Ethics of end-of-life decisions in cases of dementia: views of the Royal Dutch Medical Association with some critical comments [see comments] Berghmans RL. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13(2):91–5. Comment in: Alzheimer Dis Assoc Disord 1999 Apr–Jun;13(2):63–5.

Updated guidelines for the diagnosis and treatment of gastroesophageal reflux disease. The Practice Parameters Committee of the American College of Gastroenterology. DeVault KR, et al. **Am J Gastroenterol** 1999 Jun; 94(6):1434–42

Presentation of the Southern Society for Clinical Investigation Founders Medal to Dr. Juha Kokko. Tisher CC. **Am J Med Sci** 1999 Sep;318(3):130–1

Cooper Institute/The American College of Sports Medicine. 1997 Physical Activity Interventions Conference. Blair SN, et al. **Am J Prev Med** 1998 Nov;15(4):255–6

Presidential address: New challenges for proven values. Sacks SA. **Am J Psychiatry** 1998 Nov; 155(11):1479–82:discussion 1483

Outcomes research in critical care: results of the American Thoracic Society Critical Care Assembly Workshop on Outcomes Research. The Members of the Outcomes Research Workshop. Rubenfeld GD, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):358–67

Seven surgical exemplars and the College--lest we forget. Leffall LD Jr. **Am J Surg** 1998 Oct;176(4):361–5

The World Health Organization/International Society of Urological Pathology consensus classification of urothelial (transitional cell) neoplasms of the urinary bladder. Bladder Consensus Conference Committee. Epstein JI, et al. **Am J Surg Pathol** 1998 Dec;22(12):1435–48 (44 ref.)

A nomad of the winds. Skandalakis JE. **Am Surg** 1999 Feb; 65(2):173–5

A modern anatomist at the helm of FASEB [editorial] Hendrix MJ. **Anat Rec** 1999 Aug 15;257(4):117–8

The American Society of Anesthesiologists Closed Claims Project: what have we learned, how has it affected practice, and how will it affect practice in the future? Cheney FW. **Anesthesiology** 1999 Aug;91(2):552–6

Nutrition and policy. 2: The role of professional societies [news] Levin A. **Ann Intern Med** 1999 May 18; 130(10):869–70

The ASPRS and reconstructive plastic surgery. American Society of Plastic and Reconstructive Surgeons [editorial] Furlow LT Jr. **Ann Plast Surg** 1998 Sep;41(3):330; discussion 330–1

Adult hernia surgery in Wales revisited: impact of the guidelines of The Royal College of Surgeons of England. Ciampolini J, et al. **Ann R Coll Surg Engl** 1998 Sep; 80(5):335–8

The Society of Surgical Oncology and the Commission on Cancer: progress through synergism. Winchester DP. **Ann Surg Oncol** 1998 Sep;5(6):483–8

The Society of Thoracic Surgeons National Congenital Heart Surgery Database Report: analysis of the first harvest (1994–1997). Mavroudis C, et al. **Ann Thorac Surg** 1999 Aug;68(2):601–24

The American Academy of Dermatology should not endorse product sales from physicians' offices [letter; comment] Lombardo PC. **Arch Dermatol** 1999 Aug;135(8):995. Comment on: Arch Dermatol 1999 Mar;135(3):255–6.

The Cochrane Skin Group. Preparing, maintaining, and disseminating systematic reviews of clinical interventions in dermatology. Williams H, et al. **Arch Dermatol** 1998 Dec; 134(12):1620–6 (43 ref.)

The Acheson report: challenges for the College. Spencer NJ. **Arch Dis Child** 1999 Jun;80(6):576–8

Recent trans-European initiatives in general practice. Barker LR. **Arch Fam Med** 1999 Sep–Oct;8(5):379–81

American Congress of Rehabilitation Medicine 75th anniversary. **Arch Phys Med Rehabil** 1998 Dec;79(12 Suppl 2):1–36

Academy presidential address. No organization is an island unto itself. Smith BS. **Arch Phys Med Rehabil** 1999 Mar; 80(3):241–2

Surgical Infection Society--trials and tribulations: the importance of clinical trials. Dellinger EP. **Arch Surg** 1998 Nov;133(11):1192–7

Attempt to initiate dialogue with the American Society for Artificial Internal Organs and sister societies in Japan and Europe [editorial] Ivanovich P. **Artif Organs** 1999 Apr; 23(4):298–9

European Lipoprotein Club: report of the 21st Annual Conference, Tutzing, September 28–October 1, 1998. Benlian P, et al. **Atherosclerosis** 1999 Jun;144(2):449–58

Directory issue of the Aerospace Medical Association. **Aviat Space Environ Med** 1998 Oct;69(10 Suppl):C15–140

Iraqi doctors regret bombing by United States and Britain [letter] Alshafi K. **BMJ** 1999 Jan 16;318(7177):196

BMA wants presumed consent for organ donors [news] Beecham L. **BMJ** 1999 Jul 17;319(7203):141

World Medical Association opposes Icelandic gene database [news] Duncan N. **BMJ** 1999 Apr 24;318(7191):1096

BMA's gold medal award to the president of the South African Medical association. Is this a travesty? [letter] Lewin S, et al. **BMJ** 1999 Feb 6;318(7180):396

The Intensive Care Society and the British Journal of Anaesthesia [editorial] Young JD, et al. **Br J Anaesth** 1998 Oct;81(4):494

British Society of Audiology Short Papers Meeting on Experimental Studies of Hearing and Deafness: British Journal of Audiology, 32.2, 1998 [letter; comment] Lenarz T. **Br J Audiol** 1998 Aug;32(4):255. Comment on: Br J Audiol 1998;32(2):69–128.

40th annual meeting of the American Society of Hematology. Taylor N. **Bull Cancer** 1999 Feb;86(2):228–30

Selection of useful links for an Australian Medical Association Web site. Yue W, et al. **Bull Med Libr Assoc** 1999 Jul;87(3):343–6

Shared mental health care. Canadian Psychiatric Association and College of Family Physicians of Canada Joint Working Group. Kates N, et al. **Can Fam Physician** 1999 Sep; 45:2143–4, 2147, 2159–60 **(Eng, Fre)**

The security blanket. Malik P. **Can J Cardiol** 1999 May; 15(5):533–4

Advocacy--answering old mail. Canadian Association of General Surgeons. Keith RG. **Can J Surg** 1999 Jun; 42(3):177–80

The American Cancer Society challenge goals. How far can cancer rates decline in the U.S. by the year 2015? Byers T, et al. **Cancer** 1999 Aug 15;86(4):715–27

Preliminary report of the Asian-Oceanian Clinical Oncology Association randomized trial comparing cisplatin and epirubicin followed by radiotherapy versus radiotherapy alone in the treatment of patients with locoregionally advanced nasopharyngeal carcinoma. Asian-Oceanian Clinical Oncology Association Nasopharynx Cancer Study Group [see comments] Chua DT, et al. **Cancer** 1998 Dec 1;83(11):2270–83. Comment in: Cancer 1998 Dec 1;83(11):2255–8.

The role of medical organizations in supporting doctor-patient communication. Handfield-Jones R, et al. **Cancer Prev Control** 1999 Feb;3(1):46–50

The International Society for Cardiovascular Surgery. List of members, 1998. **Cardiovasc Surg** 1998 Sep;6 Suppl 1:97–141

25th Annual Vascular Surgery Seminar and Meeting of the Society for Military Vascular Surgery. Rich NM. **Cardiovasc Surg** 1998 Dec;6(6):537–44

High-density assessment of the IHS classification criteria for migraine without aura: a prospective study. Honkoop PC, et al. **Cephalalgia** 1999 May;19(4):201–6

Migraine awareness, treatment, and education in Brazil. Raffaelli E. **Cephalalgia** 1998 Aug;18 Suppl 22:67; discussion 67–8

Migraine awareness, treatment, and education in Poland. Szczudlik A. **Cephalalgia** 1998 Aug;18 Suppl 22:65; discussion 65–6

XV Congress of the Italian Society of Neurosonology, L'Aquila, October 1–4, 1998. **Cerebrovasc Dis** 1999 Jan–Feb;9(1):58–72

Inaugural editorial: a new era for Circulation Research [editorial] Marbán E. **Circ Res** 1999 Jul 9;85(1):1–3

Meeting highlights. Highlights of the 20th congress of the European society of cardiology [news] Ferguson JJ. **Circulation** 1999 Mar 9;99(9):1127–31

The Canadian Society for Clinical Investigation: the membership speaks [editorial] Gray J. **Clin Invest Med** 1998 Dec;21(6):277–8

AAPM president's message. Total pain care--new concept? American Academy of Pain Medicine. Haddox JD. **Clin J Pain** 1998 Dec;14(4):280–1

Canadian Medical Association charter for physicians. **CMAJ** 1999 Aug 24;161(4):430–3 **(Eng, Fre)**

A witch hunt against alternative practitioners? [letter] Ferrie RK. **CMAJ** 1999 Apr 20;160(8):1130; discussion 1130–1

A witch hunt against alternative practitioners? [letter] Leyton E. **CMAJ** 1999 Apr 20;160(8):1129–30; discussion 1130–1

Chinese Medical Association anxious to establish ties with CMA. Sibbald B. **CMAJ** 1998 Nov 3;159(9):1163–4

You've come a long way, baby! Implications of the American Academy of Pediatrics' policy on circumcision. Sanders MR, et al. **Conn Med** 1999 Aug;63(8):451–4

Need for solidarity [letter] Volpintesta EJ. **Conn Med** 1998 Dec;62(12):742–3

American Diabetes Association Annual Meeting, 1998. Nephropathy and retinopathy [news] Bloomgarden ZT. **Diabetes Care** 1999 Apr;22(4):640–4 (5 ref.)

The International Rehabilitation Medicine Association (IRMA): news and views [news] Jones D. **Disabil Rehabil** 1998 Nov;20(11):431–3

35th annual meeting of the SENFC (Spanish Society of Clinical Neurophysiology). December 11–13, 1997, Barcelona, Spain. **Electroencephalogr Clin Neurophysiol** 1998 Oct;107(4):109P–121P

Prevention of coronary heart disease in clinical practice. European recommendations revised and reinforced [editorial; comment] Pyörälä K, et al. **Eur Heart J** 1998 Oct;19(10):1413–5 (14 ref.). Comment on: Eur Heart J 1998 Oct;19(10):1434–503.

WONCA and the pharmaceutical industry. World Organisation of National Colleges, Academies and Academic Associations of General Practice/Family Medicine [letter] Paterson C. **Fam Pract** 1999 Aug;16(4):446

American Gastroenterological Association medical position statement: guidelines for the evaluation and management of chronic diarrhea. **Gastroenterology** 1999 Jun; 116(6):1461–3

AGA technical review on the evaluation and management of chronic diarrhea. Fine KD, et al. **Gastroenterology** 1999 Jun;116(6):1464–86 (217 ref.)

American gastroenterological association medical position statement on treatment of patients with dysphagia caused by benign disorders of the distal esophagus. Spechler SJ. **Gastroenterology** 1999 Jul;117(1):229–33

WHO/WFH recommendations, June 1997. Hemophilia care in developing countries. **Haemophilia** 1998;4 Suppl 2:64–6

Public health and international health-care development for persons with haemophilia: operation improvement and operation access. Evatt BL. **Haemophilia** 1998;4 Suppl 2:54–8

Laboratory performance of haemophilia centres in developing countries: 3 years' experience of the World Federation of Hemophilia External Quality Assessment Scheme. Jennings I, et al. **Haemophilia** 1998 Sep; 4(5):739–46

World Federation of Hemophilia developing world programmes. Lee CA. **Haemophilia** 1998;4 Suppl 2:59–63

A Napoleonic future for cardiology? [editorial] Sleight P. **Heart** 1999 May;81(5):455

Abstracts for the 21st Annual Meeting of the Japanese Society of Hypertension in Hiroshima, September 24–26, 1998. **Hypertens Res** 1998 Dec;21(4):297–321

Relevant aspects in the Infectious Diseases Society of America (IDSA) guidelines for the use of antimicrobial agents in neutropenic patients with unexplained fever. Zinner SH. **Int J Hematol** 1998 Oct;68 Suppl 1:S31–4

ICN and WMA stop tobacco use [news] **Int Nurs Rev** 1999 May–Jun;46(3):68

Accident and emergency medicine or emergency medicine? [letter] [see comments] Rocke LG. **J Accid Emerg Med** 1999 Jan;16(1):74. Comment in: J Accid Emerg Med 1999 May;16(3):238.

Code of Research Ethics: position paper of the Society for Adolescent Medicine. **J Adolesc Health** 1999 Apr; 24(4):277–82; discussion 283

Participant satisfaction and value in American Academy of Dermatology and American Cancer Society skin cancer screening programs in Massachusetts. Geller AC, et al. **J Am Acad Dermatol** 1999 Apr;40(4):563–6

Big dreams--clear vision [editorial] Keith LG. **J Am Assoc Gynecol Laparosc** 1998 Nov;5(4):321–2

President's page: what is advocacy doing for us? What can we do? [news] Garson A Jr. **J Am Coll Cardiol** 1999 Aug; 34(2):607–9

ACC--50 years of excellence. American College of Cardiology [editorial] Parmley WW. **J Am Coll Cardiol** 1999 Jan;33(1):283–4

Position of the American Dietetic Association: nutrition

standards for child-care programs. **J Am Diet Assoc** 1999 Aug;99(8):981-8
Looking to the future--the role of the ADA environmental scan. Bezold C, et al. **J Am Diet Assoc** 1999 Aug; 99(8):989-93
AMIA Spring Congress examines health informatics training for Y2K and beyond. American Medical Informatics Association [news] **J Am Med Inform Assoc** 1999 Jul-Aug; 6(4):336-9
Is the AMCA ready for the new millennium? Clark GG. **J Am Mosq Control Assoc** 1998 Dec;14(4):357-62
Research programs of the AOA and their role in osteopathic medical education. McGill SL, et al. **J Am Osteopath Assoc** 1998 Nov;98(11):627-31
AOA continuing medical education. Rodgers DJ. **J Am Osteopath Assoc** 1998 Nov;98(11):615-24
Council on Cardiac Sonography [news] Skelly AC. **J Am Soc Echocardiogr** 1998 Oct;11(10):15A-16A, 19A
Karen McNiece. Senior at UAMS seeks survival skills for life. Gallman JM. **J Ark Med Soc** 1999 Sep;96(4):126
In regards to the "ISB recommendations for standardization in the reporting of kinematic data" [letter] Sheehan FT, et al. **J Biomech** 1999 Oct;32(10):1135-6
Validation of training and competency of apheresis specialists: organizational guidelines for therapeutic apheresis facilities. **J Clin Apheresis** 1998;13(4):174-89
The Society for Computer Applications in Radiology. Real-time radiology. Williamson B Jr. **J Digit Imaging** 1999 Feb;12(1):48
Members of the European Association for the Study of the Liver, 1999. **J Hepatol** 1999;30 Suppl 1:311-31
1999 World Health Organization-International Society of Hypertension Guidelines for the Management of Hypertension. Guidelines Subcommittee. **J Hypertens** 1999 Feb;17(2):151-83
To whom much is given--much is expected. Stephens DR. **J Ky Med Assoc** 1999 Sep;97(9):407-8
Making a difference. An interview with incoming president Dr Leo L. Lowentritt, Jr [interview by Charlotte J. Cavell] Cavell CJ. **J La State Med Soc** 1998 Oct;150(10):467-8
Society for Leukocyte Biology membership list. **J Leukoc Biol Suppl** 1999;:45-106
Society for Leukocyte Biology membership directory. **J Leukoc Biol Suppl** 1998;:45-100
An interview with W. Briggs Hopson, Jr., M.D. 1999-2000 MSMA president [interview by Karen A. Evers] Hopson WB Jr. **J Miss State Med Assoc** 1999 Jul;40(7):240-7
The Association for Patient-Oriented Research (APOR): ameliorating the crisis in clinical investigation. Luft FC. **J Mol Med** 1999 Jun;77(6):456-8
The criteria of the International Headache Society for Tolosa-Hunt syndrome need to be revised. Förderreuther S, et al. **J Neurol** 1999 May;246(5):371-7
Proceedings of the 1998 summer meeting of the British Neuropsychiatry Association, Robinson College, Cambridge, 29-30 June 1998. Hodges JR. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):126-7
Scientific Program of the 1999 Annual Meeting of the American Association of Neurological Surgeons. Ernest N. Morial Convention Center, New Orleans, Louisiana. April 24-29, 1999. **J Neurosurg** 1999 Feb;90(2):381-403, 404A-442A
The Academy of Radiology Research: the imaging community's advocate for change [news] Williams J. **J Nucl Med** 1999 Jun;40(6):9N-10N, 22N
Orthopaedic trauma education: visions for the future through the OTA. Orthopaedic Trauma Association. Born CT, et al. **J Orthop Trauma** 1999 Aug;13(6):433-6
Publication rates for the scientific sessions of the OTA. Orthopaedic Trauma Association. Nguyen V, et al. **J Orthop Trauma** 1998 Sep-Oct;12(7):457-9; discussion 456
California Association of Neonatologists: who, when, and why? [editorial] Segall ML. **J Perinatol** 1998 Nov-Dec;18(6 Pt 1):425-6
A veterinary President [interview by Robin Fox] [see comments] Soulsby L. **J R Soc Med** 1998 Sep;91(9):496-7 . Comment in: J R Soc Med 1998 Nov;91(11):611.
Physician attitudes on clinical trials [news; comment] Greenberger P. **J Womens Health** 1999 Apr;8(3):289-92. Comment on: Aten Primaria 1998 Dec;22(10):668.
Association for patient-oriented research [news] Friedrich MJ. **JAMA** 1999 Jun 2;281(21):1977
Growing Hispanic association serves increasing population [news] Marwick C. **JAMA** 1999 May 12;281(18):1687-8
NEJM editor Jerome P. Kassirer, MD, loses post over "administrative issues" [news] Mitka M. **JAMA** 1999 Aug 18;282(7):622-3
Global perspective from International AIDS Society president Mark Wainberg [interview by Dennis Blakesley] Wainberg MA. **JAMA** 1998 Dec 2;280(21):1811, 1813-4
Thoracic and cardiovascular surgery in Japan during 1997. Annual report by the Japanese Association for Thoracic Surgery. Committee of Science. Yasui H, et al. **Jpn J Thorac Cardiovasc Surg** 1999 May;47(5):237-51
Report of the annual statistical survey of the Japanese Society for Dialysis Therapy in 1996. Shinzato T, et al. **Kidney Int** 1999 Feb;55(2):700-12
Toward global advancement of medicine: the International Society of Nephrology experience. Weening JJ, et al. **Kidney Int** 1998 Sep;54(3):1017-21
Self-regulation by medical profession [letter; comment] Bogle I. **Lancet** 1998 Nov 14;352(9140):1626. Comment on: Lancet 1998 Oct 10;352(9135):1166.
Time for the General Medical Council to protect UK patients [news] Dean M. **Lancet** 1999 Feb 6;353(9151):475
Yesterday's doctors. Horton R. **Lancet** 1998 Nov 14; 352(9140):1566-7
Sour grapes? [letter] Lebow R. **Lancet** 1998 Nov 28; 352(9142):1788
British Medical Association enters GM-crop affray [news] [see comments] Mitchell P, et al. **Lancet** 1999 May 22; 353(9166):1769. Comment in: Lancet 1999 Jul 3;354(9172):71.
Founding of a German society of Visceral Surgery [editorial] Beger HG, et al. **Langenbecks Arch Surg** 1999 Apr; 384(2):131-2
RACOG and CME. Royal Australian College of Obstetricians and Gynaecologists [letter; comment] Hyslop RS. **Med J Aust** 1999 May 17;170(10):507. Comment on: Med J Aust 1999 Feb 1;170(3):121-4.
A global Intranet for an international scientific society. Kleinoeder T, et al. **Medinfo** 1998;9 Pt 1:197-201
Women physicians bring their leadership to new levels. Shearer MR, et al. **Mich Med** 1998 Sep;98(9):12-3
The educational activities of the European Academy of Anaesthesiology. Zorab JS. **Minerva Anestesiol** 1998 Oct; 64(10):477-82
Missouri State Medical Association membership directory. **Mo Med** 1999 Aug;96(8):283-426
The Internet for the medical and scientific community. Simmler MC, et al. **Mol Hum Reprod** 1998 Jul;4(7):725-30
Spain's cardiologists rally to Moncada [news] Bosch X. **Nature** 1998 Oct 22;395(6704):734
How is the annual congress of your society managed? (Reflection on the ethics and finances of medical congresses). Cambi V, et al. **Nephrol Dial Transplant** 1998 Sep;13(9):2207-9
AFM/MDA 1st International Myotonic Dystrophy Consortium Conference 30 June-1 July 1997, Paris, France. **Neuromuscul Disord** 1998 Aug;8(6):432-7 (0 ref.)
Pennsylvania Medical Society membership directory 1998-1999. **Pa Med** 1998 Aug;101(8):47-223
Society challenges Medicare policy on admitting privileges [news] **Pa Med** 1999 Mar;102(3):4
Society granted right to challenge Highmark merger [news] **Pa Med** 1999 Mar;102(3):4
Society persuades DPW to alter indemnification clause [news] **Pa Med** 1999 Mar;102(3):6
Physician advocacy addressed by division of representation [news] **Pa Med** 1998 Sep;101(9):2
Litigation center is voice of medicine in nation's courts [news] **Pa Med** 1999 Feb;102(2):4
The Pediatric Infectious Diseases Society Annual Awards, 1998. **Pediatr Infect Dis J** 1998 Sep;17(9):767-71
The European Society for Paediatric Infectious Diseases annual awards, 1998. **Pediatr Infect Dis J** 1998 Sep; 17(9):772-3
Publication rate for articles presented at the Society for Pediatric Radiology [editorial; comment] Slovis TL, et al. **Pediatr Radiol** 1999 Feb;29(2):79. Comment on: Pediatr Radiol 1999 Feb;29(2):81-6.
Society for Pediatric Research Presidential Address 1998: the SPR and 1-800-NO-CLOTS: a common vision. Andrew M. **Pediatr Res** 1998 Dec;44(6):964-73
American Pediatric Society/Society for Pediatric Research code of responsible conduct of research. Bernstein D. **Pediatr Res** 1999 May;45(5 Pt 1):613-4
American Pediatric Society Presidential Address 1998: what is the future for academic pediatrics? Feigin RD. **Pediatr Res** 1998 Dec;44(6):958-63
Physician's duty to warn third parties about the risk of genetic diseases [letter; comment] Olick RS. **Pediatrics** 1999 Apr;103(4 Pt 1):855. Comment on: Pediatrics 1998 Jul;102(1 Pt 1):140-2.
2nd National Annual Conference of the Peritoneal Dialysis Society of India. August 19-20, 1998-Hyderabad. **Perit Dial Int** 1998 Nov-Dec;18(6):671-5
Oncologic and plastic surgeons: colleagues, collaborators, teammates. Bland KI. **Plast Reconstr Surg** 1998 Oct; 102(5):1733-47
The American Psychosomatic Society has accepted the following abstracts for presentation at the APS 57th Annual Scientific Meeting to be held March 17-20, 1999 in Vancouver, B.C., Canada. **Psychosom Med** 1999 Jan-Feb; 61(1):84-130
Statement by the Royal Institute of Public Health and Hygiene and Society of Public Health for the inquiry on bovine spongiform encephalopathy (BSE). **Public Health** 1998 Nov;112(6):363-4
infoRAD at RSNA '98. Radiological Society of North America [editorial] Jaffe CC. **Radiographics** 1998 Sep-Oct; 18(5):1059
Medical education and the RSNA. Fraser DB. **Radiology** 1999 Jun;211(3):597-600
The RSNA-AUR-ARRS introduction to research program for 2nd year radiology residents: effect on career choice and early academic performance. Radiological Society of North America. Association of University Radiologists. American Roentgen Ray Society. Hillman BJ, et al. **Radiology** 1998 Nov;209(2):323-6
The Society for the Advancement of Women's Imaging. Radiology: a partner in clinical care [see comments] Hricak H, et al. **Radiology** 1998 Nov;209(2):297-302. Comment in: Radiology 1998 Nov;209(2):303-4.
The American Institute of Ultrasound in Medicine and the Society of Radiologists in Ultrasound--future directions in diagnostic US. Kremkau FW, et al. **Radiology** 1998 Nov; 209(2):305-11; discussion 312-3 (48 ref.)
The American Society of Neuroradiology. Neuroradiology research: the opportunities and the challenges [see comments] Latchaw RE. **Radiology** 1998 Oct;209(1):3-7. Comment in: Radiology 1998 Oct;209(1):15-6.
The American Society of Head and Neck Radiology. Head and neck imaging: the next 10 years [see comments] Mukherji SK. **Radiology** 1998 Oct;209(1):8-14. Comment in: Radiology 1998 Oct;209(1):15-6.
The Society of Cardiovascular and Interventional Radiology. Future directions in vascular and interventional radiology research. Vogelzang RL. **Radiology** 1998 Oct;209(1):17-8; discussion 19-21
Current popularity of pneumatic retinopexy. Benson WE, et al. **Retina** 1999;19(3):238-41
French Society of Orthopedic Surgery and Traumatology. Membership list. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May;85 Suppl 1:7-78 **(Eng, Fre)**
Primary Immunodeficiency Association of SA [letter] Swart R. **S Afr Med J** 1999 Apr;89(4):365
Complaints against scientology doctors [news] van der Linde I. **S Afr Med J** 1999 May;89(5):507
Scruples or squabbles? [editorial] Bloom FE. **Science** 1999 Aug 20;285(5431):1207
Kassirer forced out at New England Journal [news] Marshall E. **Science** 1999 Jul 30;285(5428):648-9
1997 North American Spine Society presidential address. Fardon DF. **Spine** 1998 Oct 15;23(20):2232-4
The publication rates of presentations at major Spine Specialty Society meetings (NASS, SRS, ISSLS). Wang JC, et al. **Spine** 1999 Mar 1;24(5):425-7
Alliance: Multinational Association of Supportive Care in Cancer and International Society for Oral Oncology [news] Fox PC, et al. **Support Care Cancer** 1998 Nov;6(6):490-1
SUS mentorship in Y2K--passion, leadership, perspective. Cioffi WG. **Surgery** 1999 Aug;126(2):101-11
Y2K activities at the Tennessee Medical Association. Grant JH, et al. **Tenn Med** 1999 May;92(5):165-7
Putting patients first. Howe JP 3rd. **Tex Med** 1998 Dec; 94(12):11-2
MedBytes. Levine S. **Tex Med** 1998 Oct;94(10):18
Library annual report July 1, 1997-June 30, 1998. **Trans Stud Coll Physicians Phila** 1998 Dec;20:13-9
Katherine A. Shaw Division of Public Services and Programs annual report July 1997-June 1998. **Trans Stud Coll Physicians Phila** 1998 Dec;20:6-12
Report of the president of the College of Physicians of Philadelphia, 1998. Fishman AP. **Trans Stud Coll Physicians Phila** 1998 Dec;20:1-5
The XVII World Congress of the Transplantation Society: new visions and new solutions. Häyry P. **Transplant Proc** 1999 Feb-Mar;31(1-2):5-6
Society of veterinary assistants? [letter] Adams S. **Vet Rec** 1999 Jul 31;145(5):148
[Highlights of research and patient treatment 1998. From the scientific societies] **Ugeskr Laeger** 1999 Mar 15; 161(11):1603-15 **(Dan)**
[The 25th anniversary of the Danish Society of Medical Technology] Stødkilde-Jørgensen H. **Ugeskr Laeger** 1999 Jan 25;161(4):444 **(Dan)**
[Position of the Working Group for Osteosynthesis Questions in the modern small domestic animal practice] Meutstege FJ. **Tijdschr Diergeneeskd** 1998 Oct 15;123(20):598-9 **(Dut)**
[Seventh congress of the National Federation of Endocrinology, Diabetes and Metabolism Regional Associations (editorial)] Mouroux D. **Ann Endocrinol (Paris)** 1998 Nov;59(4):292-3 **(Fre)**
[Importance of the new classification of primary cutaneous lymphomas elaborated by the EORTC (European Organization for Research and Treatment of Cancer) group] Wechsler J. **Ann Pathol** 1998 Oct;18(4):315-23 (45 ref.) **(Fre)**
[Sixth congress of the European Genetic Therapy Group] Piechaczyk M. **Bull Cancer** 1998 Dec;85(12):1061-5 **(Fre)**
[Spring American Congress 1999. 1. AACR 90th annual congress (Philadelphia, 10-14 April, 1999). American Association of Cancer Research] Zelek L, et al. **Bull Cancer** 1999 Jul-Aug;86(7-8):692-6 **(Fre)**
[Membership list] **Bull Mem Acad R Med Belg** 1999;154:43-60 **(Fre)**
[40th meeting of the American Society for Therapeutic Radiology and Oncology, Phoenix (Arizona), 25-29 October 1998] Allavena C, et al. **Cancer Radiother** 1999 Jan-Feb;3(1):65-83 **(Fre)**
[Perinatal care: advantages and disadvantages of network functioning. Analysis and point-of-view of the Council of the Order of Physicians] Dubois O. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec;27 Suppl 2:249-58 (22 ref.) **(Fre)**
[Radiology assessment: the European dimension (editorial)] Durand-Zaleski I, et al. **J Radiol** 1998 Jul;79(7):643-4 **(Fre)**
[News of the SIGU (Société d'Imagerie Génito-Urinaire) (editorial)] Lemaitre L. **J Radiol** 1998 Jun;79(6):585 **(Fre)**
[Scientific committee of the French radiology workshops:

"how to use" (editorial)] Rémy-Jardin M. **J Radiol** 1998 Mar;79(3):211 **(Fre)**

[Association of Anatomists membership list] **Morphologie** 1998 Dec;82(259):III-XIII **(Fre)**

[Some pediatric associations] **Presse Med** 1998 Jun 27; 27(23):1143-4 **(Fre)**

[Pneumology Society of the French Langue membership list 1998] **Rev Mal Respir** 1998;15(3 Suppl):1-18 **(Fre)**

[The Order of Physicians] Marin J. **Rev Med Brux** 1998 Dec; 19(6):A515-6 **(Fre)**

[62nd Congress of the American College of Rheumatology, San Diego, 8-12 November 1998] Cherin P. **Rev Med Interne** 1999 Apr;20(4):311-7 (34 ref.) **(Fre)**

[Report from the president on the activity of the Medical Society of Geneva in 1998] Bloch A. **Rev Med Suisse Romande** 1999 Aug;119(8):671-3 **(Fre)**

[List of medical specialty societies in Tunisia] **Tunis Med** 1999 Jun-Jul;77(6-7):389-92 **(Fre)**

[The Prize of the President of the Republic of Tunisia for Inter-Maghreb Medical Societies] Zitouna MM, et al. **Tunis Med** 1998 Oct;76(10):314-6 (Eng. Abstr.) **(Fre)**

[German Society of Visceral Surgery (editorial)] Siewert JR. **Chirurg** 1998 Oct;69(10):1011-2 **(Ger)**

[Truth in medicine. 6th Fall Meeting of the corporate members of the German Society for Internal Medicine] **Dtsch Med Wochenschr** 1999 Feb 12;124(6):A19-24 **(Ger)**

[The AWMF model for the evaluation of published research papers in medicine. Arbeitsgemeinschaft der wissenschaftlichen medizinischen Fachgesellschaften (Working Group of the Scientific Medical Specialty Societies)] Frömter E, et al. **Dtsch Med Wochenschr** 1999 Jul 30;124(30):910-5 **(Ger)**

[72nd Meeting of the Bavarian Society of Obstetrics and Gynecology. Bad Reichenhall, 21-23 May 1998] Bauerfeind I. **Gynakol Geburtshilfliche Rundsch** 1998; 38(3):166-8 **(Ger)**

[3rd Conference of the European Society of Infectious Diseases in Obstetrics and Gynecology (ESIDOG). Vienna, 2-4 May 1997] Hohlagschwandtner M, et al. **Gynakol Geburtshilfliche Rundsch** 1998;38(3):169-70 **(Ger)**

[Annual Meeting and Continuing Education Congress of OGGG and Scientific Meeting of the Austrian Society of Prenatal and Perinatal Medicine] Schröck A. **Gynakol Geburtshilfliche Rundsch** 1998;38(3):172-3 **(Ger)**

[Meeting of the Working Groups "Analytic Morphology" and Cutaneous Radiation Biology and Experimental Dermatooncology" of the ADF 19 February 1998, Düsseldorf] Gläßl A, et al. **Hautarzt** 1998 Nov; 49(11):865-6 **(Ger)**

[Position of the German Society of Surgery in the community of scientific specialty societies] Hartel W, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:732-7 (Eng. Abstr.) **(Ger)**

[Analysis of the acceptance of ther internet presentation of the 115th Congress of the German Society of Surgery] Mieth M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:888-91 (Eng. Abstr.) **(Ger)**

[Evaluation of the 104th Congress of the German Society of Internal Medicine 1998] von Bierbrauer A, et al. **Med Klin** 1999 Jan 15;94(1):60-2 **(Ger)**

[The German Ophthalmology Society in the internet. Resources and interest] Spallek G, et al. **Ophthalmologe** 1999 Jun;96(6):398-404 (Eng. Abstr.) **(Ger)**

[1998 Annual Meeting of the Society of Orthopedics and Athletic Traumatology (GOTS)] Hess T. **Orthopade** 1998 Sep;27(9):655-8 **(Ger)**

[47th Annual Session of the South German Orthopedic Society, Baden-Baden, 29 April-2 May 1999] Kreitz GK, et al. **Orthopade** 1999 Aug;28(8):746-8 **(Ger)**

[47th Annual Meeting of the North-German Orthopedic Society. Leipzig, 20 June 1998] von Salis-Soglio G, et al. **Orthopade** 1998 Dec;27(12):859-64 **(Ger)**

[6th Baltic-German Symposium of Pathology in Palanga/Lithuania] Bässler R. **Pathologe** 1999 Jan; 20(1):82-3 **(Ger)**

[Science and practice at the 83rd Annual Congress of the German Society of Pathology: Pathology of the Gastrointestinal Tract. Progress reports from important areas in pathology. The 1999 best research results. Diagnostic courses. On to Jena!] Stolte M. **Pathologe** 1999 Jan;20(1):1-5 **(Ger)**

[Report on the 1st German Lung Day] Bergmann KC. **Pneumologie** 1999 Feb;53(2):103-4 **(Ger)**

[Therapy recommendation--"Viagra and NO donors"] Dorsch A, et al. **Urologe A** 1999 Mar;38(2):186 **(Ger)**

[Largest American urology congress so far. AUA, San Diego, 30 May-4 June 1998] Reckwitz T. **Urologe A** 1998 Sep;37(5):534-6 **(Ger)**

[List of members] **Verh Dtsch Ges Pathol** 1998;82:493-530 **(Ger)**

[Report on the OMERACT IV CONFERENCE 16-20 April 1998 in Cancun/Mexico] Uitz E, et al. **Z Rheumatol** 1998 Aug;57(4):268-70 **(Ger)**

[Report on the 75th Congress of the Society of Bavarian Surgeons e.V. 23-25 July 1998 in Erlangen] Hohenberger W, et al. **Zentralbl Chir** 1999;124(7):664-75 **(Ger)**

[Report by the German Society of Senology] Winzer KJ, et al. **Zentralbl Chir** 1998;123 Suppl 5:168 **(Ger)**

[The Annali di Igiene has obtained accreditation from the Società Italiana di Igiene, Medicina Preventiva e Sanità Pubblica (news)] **Ann Ig** 1999 Jan-Feb;11(1):1 **(Ita)**

[September, let's go: it is the time to migrate (editorial)] Guazzi MD. **Cardiologia** 1998 Sep;43(9):877-8 **(Ita)**

[The Italian Society of Cardiology has a new President (editorial)] Schwartz PJ. **Cardiologia** 1999 Mar;44(3):223-5 **(Ita)**

[A document from the Ethics Commission of the Associazione Nazionale Medici Cardiologi Ospedalieri] Babbio M, et al. **G Ital Cardiol** 1998 Jul;28(7):838-43 **(Ita)**

[The Japan industrial standard and the history of the Committee for Standardization of Anesthetic Equipment of the Japanese Society for Anesthesiologist] Sato T. **Masui** 1999 Jun;48(6):670-1 **(Jpn)**

[Japanese Society of Public Health membership list] **Nippon Koshu Eisei Zasshi** 1998 Oct;:1-430 **(Jpn)**

[The fight for guidelines] Bjørndal A. **Tidsskr Nor Laegeforen** 1999 May 10;119(12):1729 **(Nor)**

[Better profile requires professional cooperation] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Aug 10; 119(18):2637 **(Nor)**

[50th Anniversary of the Pomoranian Academy 1948-1998. 10 years of the Pomoranian Medical Academy in Szczecin 1988-1998] **Ann Acad Med Stetin** 1998;Suppl 44:1-530 **(Pol)**

[The Sociedade Portuguesa de Cardiologia and medical research (editorial)] Correia JF. **Rev Port Cardiol** 1999 Jul-Aug;18(7-8):775-6 **(Por)**

[Relationship between the Croatian Medical Association and the Croatian Medical Assembly (letter)] Orlic D. **Lijec Vjesn** 1999 Apr-May;121(4-5):165-6 **(Scr)**

[A reflection on semFYC congresses. Sociedad Española de Medicina Familiar y Comunitaria (letter; comment)] Duque A. **Aten Primaria** 1998 Nov 30;22(9):607. Comment on: Aten Primaria 1998 Mar 31;21(5):344. **(Spa)**

[Why does not semFYC make a pronouncement about health care in childhood? (letter)] Segui Diaz M. **Aten Primaria** 1999 Mar 31;23(5):316-7 **(Spa)**

[Regarding quality control of the Spanish Society of Infectious Diseases and Clinical Microbiology (letter)] Lantero M, et al. **Enferm Infecc Microbiol Clin** 1999 Apr; 17(4):193 **(Spa)**

[Welcoming Address to the new Academicians] Cárdenas-Loaeza M. **Gac Med Mex** 1998 Sep-Oct; 134(5):637-8 **(Spa)**

[Interrelation between the journal Medicina (Buenos Aires) and the Argentine Societies of Clinical Investigation and Immunology] Pasqualini CD, et al. **Medicina (B Aires)** 1998;58(5 Pt 2):563-9 **(Spa)**

[Malignant hyperthermia: difficulty in diagnosing susceptibility in Spain (letter)] Montes A, et al. **Rev Esp Anestesiol Reanim** 1999 Mar;46(3):130-2 **(Spa)**

[International cooperation in world cardiology: the role of the World Heart Federation (editorial)] Bayés de Luna A. **Rev Esp Cardiol** 1999 May;52(5):289-93 **(Spa)**

[Informed consent in cardiology. The Committee on Informed Consent of the Commission on Professional Matters of the Sociedad Española de Cardiología] de los Reyes López M, et al. **Rev Esp Cardiol** 1998 Oct; 51(10):782-96 (39 ref.) (Eng. Abstr.) **(Spa)**

[By-laws of the Mexican Association of Gastroenterology] **Rev Gastroenterol Mex** 1998 Oct-Dec;63(4):234-49 **(Spa)**

[Closing address of the President of the Mexican Association of Gastroenterology (editorial)] Sanjurjo García JL. **Rev Gastroenterol Mex** 1998 Jan-Mar;63(1):54-5 **(Spa)**

[Opening address of the President of the Mexican Association of Gastroenterology (editorial)] Santoyo Valenzuela R. **Rev Gastroenterol Mex** 1998 Jan-Mar;63(1):52-3 **(Spa)**

ECONOMICS

1999 MSMS Foundation annual report. Doctors, you made a difference! Paxton RE. **Mich Med** 1999 Mar;98(3):19-23

Increased funding for stroke research. Traystman RJ, et al. **Stroke** 1999 May;30(5):1147

[Financial report fiscal 1997] Aumont MC. **Arch Mal Coeur Vaiss** 1998 Jun;91(6):797-9 **(Fre)**

HISTORY

The Scandinavian Sarcoma Group. Background, organization and the Central Register--the first 20 years. Alvegård TA, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:3-7

Ideas and principles of action. Nilsonne U, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:1-2

Evolution of nephrology. The caldron of its organizations. Schreiner GE. **Am J Nephrol** 1999;19(2):295-303

The American Rhinologic Society and the Golden Head Mirror Award. Barelli PA. **Am J Rhinol** 1998 Sep-Oct; 12(5):373-5

Tribute to 50 years and a look forward. McCollum CH. **Am J Surg** 1998 Dec;176(6):489-93

'Mighty things from small beginnings grow' John Dryden (1631-1700) Annus mirabilis. [editorial] Boulton TB. **Anaesthesia** 1999 Sep;54(9):823-5

The history of the Southeastern Society of Plastic and Reconstructive Surgeons. Pizzo AJ. **Ann Plast Surg** 1999 Jan;42(1):1-6

From Faculty to Royal College. The Golden jubilee of the Faculty of Anaesthetists of the Royal College of Surgeons of England. Adams AK. **Ann R Coll Surg Engl** 1998 Nov; 80(6 Suppl):273-5

The lives of the fellows. Williams DI. **Ann R Coll Surg Engl** 1998 Nov;80(6 Suppl):271-2

Fifteen years with the Southern California Vascular Surgical Society. Barker WF. **Ann Vasc Surg** 1999 Mar;13(2):174-7

Neurology was there--1960. Morgan G. **Arch Neurol** 1999 Apr;56(4):488-90

An historical perspective on atherosclerosis research in Germany [editorial] Siegel G. **Atherosclerosis** 1999 May; 144(1):1-6 (45 ref.)

Urodynamics and the International Continence Society come of age. Abrams P. **Br J Urol** 1993 Nov;72(5 Pt 1):527-33

Adding women to the ranks, 1860-1890: a new view with a homeopathic lens. Kirschmann AT. **Bull Hist Med** 1999 Fall;73(3):429-46

Reflections on the history of the Canadian Association for Child Neurology. Dunn HG, et al. **Can J Neurol Sci** 1998 Nov;25(4):328-35

The Janes Surgical Society. O'Brien SE, et al. **Can J Surg** 1999 Aug;42(4):310-2

Australian presidential address of the International Society for Cardiovascular Surgery. The society and the chapter, a short history. King RB. **Cardiovasc Surg** 1998 Oct; 6(5):441-5

A century of Dutch neurology. Koehler PJ, et al. **Clin Neurol Neurosurg** 1998 Dec;100(4):241-53

The BNLI: past and present. British National Lymphoma Investigation. Hudson BV. **Clin Oncol (R Coll Radiol)** 1998; 10(4):212-8

The British Association of Surgical Oncology, 1973-1998. Burn I. **Eur J Surg Oncol** 1998 Dec;24(6):462-3

The splitting of the New York Psychoanalytic Society and the construction of psychoanalytic authority. Eisold K. **Int J Psychoanal** 1998 Oct;79 (Pt 5):871-85

'A pretty piece of treachery': the strange case of Dr Stekel and Sigmund Freud. Kuhn P. **Int J Psychoanal** 1998 Dec; 79 (Pt 6):1151-71

Psychoanalytic research and the IPA: history, present status and future potential. Wallerstein RS, et al. **Int J Psychoanal** 1999 Feb;80 (Pt 1):91-109

Australia and its orthopaedic association. Fogarty M. **Int Orthop** 1999;23(1):4-11

The Society for Adolescent Medicine: the first thirty years. Introduction. Brown RC, et al. **J Adolesc Health** 1998 Dec; 23(6 Suppl):133-4

History of advocacy and social policy within the Society for Adolescent Medicine. McCabe ED. **J Adolesc Health** 1998 Dec;23(6 Suppl):157-61

Society for Adolescent Medicine: a capsule history. Moore E, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):168-74

JAGS, Volume One, 1953. Clarfield AM. **J Am Geriatr Soc** 1999 Jan;47(1):115-8

Supporting our friends, the American Public Health Association, Vision Care Section [editorial] Silverman MW. **J Am Optom Assoc** 1998 Dec;69(12):755-7

History of osteopathic medical education accreditation. Ward WD, et al. **J Am Osteopath Assoc** 1998 Nov;98(11):583-4

40 years of the British Medical Association film competition. Last M, et al. **J Audiov Media Med** 1998 Jun;21(2):56-9

History of the Atlantic Dermatological Conference: the first 75 years. Norton LA. **J Cutan Med Surg** 1999 Jan; 3(3):123-6

Change, relationships, and accountability: marks of a vibrant society. DeMeester TR. **J Gastrointest Surg** 1998 Jan-Feb; 2(1):2-10

The first 30 years of the British Society for Surgery of the Hand. Barton NJ. **J Hand Surg [Br]** 1998 Dec;23(6):711-23

In the beginning ... the founding of the Medical Association of Georgia. Daves P. **J Med Assoc Ga** 1999 Apr;88(2):42-4

Medicine in Macon--a history. Johnson MI Jr. **J Med Assoc Ga** 1999 Apr;88(2):25-31

History of the Section on Surgery, the American Academy of Pediatrics: the second 25 years (1973-1998). Campbell JR. **J Pediatr Surg** 1999 May;34(5 Suppl 1):19-31

A perspective on the early days of pediatric surgery. Koop CE. **J Pediatr Surg** 1999 May;34(5 Suppl 1):38-45

History of the Section on Surgery, the American Academy of Pediatrics: the first 25 years (1948-1973). Randolph JG. **J Pediatr Surg** 1999 May;34(5 Suppl 1):3-18

Why do we need Royal Colleges? Adams AK. **J R Coll Physicians Lond** 1999 Jan-Feb;33(1):65-9

The College and the NHS. McDonald WI, et al. **J R Coll Physicians Lond** 1998 Sep-Oct;32(5):452-9

The William P. Didusch Museum of the American Urological Association. Engel RM. **J Urol** 1998 Dec;160(6 Pt 2):2450-1

Origins of APHA's Medical Care Section. American Public Health Association. Roemer MI. **Med Care** 1999 Aug; 37(8):831-2

History of the American Association of Physicists in Medicine, 1958-1998. **Med Phys** 1998 Jul;25(7 Pt 2):1235-383

Nicholas Senn and the origins of the Association of Military Surgeons of the United States. Smith DC. **Mil Med** 1999 Apr;164(4):243-6

Heartbeat international: a program designed to use pacemakers as peacemakers. McIntosh HD. **Pacing Clin Electrophysiol** 1999 Aug;22(8):1253-8

Early history of pathology studies by the Intergroup Rhabdomyosarcoma Study Group. Newton WA Jr, et al. **Pediatr Dev Pathol** 1999 May-Jun;2(3):275-85

Community Access to Child Health (CATCH) in the

historical context of Community Pediatrics [see comments] Hutchins VL, et al. **Pediatrics** 1999 Jun;103(6 Pt 3):1373–83 . Comment in: Pediatrics 1999 Jun;103(6 Pt 3):1420–1. Comment in: Pediatrics 1999 Jun;103(6 Pt 3):1422–3.

40 years of the Polish Society of Pathologists--oral presentation at the 14th Congress of the Polish Society of Pathologists, Bydgoszcz, 10–12 September 1998. Kobuszewska-Faryna M. **Pol J Pathol** 1999;50(2):67–75. **(Eng, Pol)**

A review of the Society of Public Health between January 1989 and September 1997. Gardner PA. **Public Health** 1998 Nov;112(6):365–70; discussion 371

European radiology: the nowhere building. An initial success of the Italian Society of Medical Radiology [editorial] Cardinale AE. **Radiol Med (Torino)** 1999 Apr;97(4):217–28 **(Eng, Ita)**

The development for the Japanese Society for Palliative Medicine. Ishitani K. **Support Care Cancer** 1999 Mar; 7(2):62–3

SAGES 1989–1999. A video romance. Scientific Session of the Society of American Gastrointestinal Endoscopic Surgeons. Hunter JG. **Surg Endosc** 1999 Sep;13(9):833–7

History of the Japanese Society for Apheresis. Ide K, et al. **Ther Apher** 1999 May;3(2):150–4

Charges of unethical conduct made by the Camden County Medical Society against Samuel D. Gross, M.D. and Joseph Pancoast, M.D. Sherk HH, et al. **Trans Stud Coll Physicians Phila** 1998 Dec;20:98–113

Medawar Prize Lecture, 15 July 1998. The contribution of human subjects to experimental transplantation: the HLA story. Rapaport FT. **Transplant Proc** 1999 Feb–Mar; 31(1–2):60–6

[The welcoming address on the occasion of the 50th anniversary of the Scientific Society of Obstetrics and Gynecology] Karag'ozov I. **Akush Ginekol (Sofiia)** 1998; 37(1):1–3 **(Bul)**

['There is a need for women doctors to join forces': Dutch Association of Women Physicians, 1933–1998 (see comments)] Griffioen FM. **Ned Tijdschr Geneeskd** 1999 May 29;143(22):1161–6 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 May 29;143(22):1134–6. **(Dut)**

[One hundred years of orthopedics in the Netherlands. I. Introduction] van Horn JR, et al. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):997–9 (Eng. Abstr.) **(Dut)**

[History of the Belgian Society of Orthopedic Surgery and Traumatology] De Marneffe R. **Acta Orthop Belg** 1998;64 Suppl 2:4–15 **(Fre)**

[Group for the Advancement of Microsurgery. A little history] Gilbert A. **Ann Chir Plast Esthet** 1999 Apr; 44(2):115–6 **(Fre)**

[The birth of the Medical Society of Hospitals of Paris] Haas C. **Ann Med Interne (Paris)** 1999 Jan;150(1):10–6 **(Fre)**

[Ephémérides by André Dodin, secretary general of the Société de pathologie exotique from 1975 to 1995. Facsimiles of the originals. (classical article)] Dodin A. **Bull Soc Pathol Exot** 1998;91(5 Pt 1–2):370–93 **(Fre)**

[Brief history of the Medical Society of Geneva, the last twenty-five years] Pattay J. **Rev Med Suisse Romande** 1998 Oct;118(10):895–7 **(Fre)**

[Messages of professors Robert Debré and Gilbert Dreyfus addressed in 1952 to their colleagues in Tunisia in the occasion of the Fiftieth anniversary of the Society of Medical Sciences of Tunisia] Ammar S. **Tunis Med** 1998 Oct;76(10):302–5 (Eng. Abstr.) **(Fre)**

[On the Tunisian Medical Society of History of Medicine and Pharmacy. Notes and recollections] Mabrouk R. **Tunis Med** 1998 Oct;76(10):306–10 (Eng. Abstr.) **(Fre)**

[Doctor Bechir Dinguizli. First Tunisian corresponding member of the French Academy of Medicine 1869–1934] el Matri M. **Tunis Med** 1998 Oct;76(10):293–4 (Eng. Abstr.) **(Fre)**

[History of the development of intensive care medicine. 8. Foundation and development of the German Interdisciplinary Society for Intensive and Emergency Medicine] Lawin P, et al. **Anaesthesist** 1999 Aug; 48(8):560–6 **(Ger)**

[30 years German Society of Plastic Surgeons. History and development (editorial)] Schneider W. **Handchir Mikrochir Plast Chir** 1998 Sep;30(5):289–90 **(Ger)**

[Special presentation on the 90th anniversary of organizing the German Society of Neurologists in Dresden on 14 December 1907] Firnhaber W. **Nervenarzt** 1998 Aug; 69(8):722–7 **(Ger)**

[80 years of the Hungarian National Association for the Blind and Visually Impaired] Erhartné MK, et al. **Orv Hetil** 1999 Apr 4;140(14):776–9 **(Hun)**

[Double anniversary: commemorating the Budapest Medical Society and the Hungarian National Medical Federation] Kapronczay K. **Orv Hetil** 1999 Mar 21;140(12):659–61 **(Hun)**

[The 80th anniversary of the National Institute of Hygiene in Warsaw (editorial)] Jeljaszewicz J. **Przegl Epidemiol** 1998;52(3):219–26 **(Pol)**

[Aims and tasks of the Chambers of Physicians before the year 1939] Więckowska E. **Przegl Lek** 1998;55(5):301–2 (Eng. Abstr.) **(Pol)**

[Medical associations in the period of Polish enlightenment] Piotrowski W. **Wiad Lek** 1999;52(1–2):89–94 (Eng. Abstr.) **(Pol)**

[The founding of the Sociedade Portuguesa de Cardiologia] da Silva FR. **Rev Port Cardiol** 1999 Feb;18(2):205–8 **(Por)**

[The 125th anniversary of the Society of Surgeons of Moscow and Moscow Province] Lutsevich EV, et al. **Khirurgiia (Mosk)** 1999;(6):69–72 **(Rus)**

[Work of the Leningrad section of the All-Russian Scientific Society of Anatomists, Histologists and Embryologists in 1991–1998] Sudzilovskiĭ FV, et al. **Morfologiia** 1999; 115(3):99–101 **(Rus)**

[Surgery Research Center, Russian Academy of Medical Sciences: advanced post of Russian reconstructive surgery (on occasion of 35th anniversary)] Konstantinov BA, et al. **Vestn Ross Akad Med Nauk** 1998;(6):8–13 **(Rus)**

[The 140th anniversary of the Society of Naval Physicians in Kronshtadt] Babchuk VG, et al. **Voen Med Zh** 1999 Mar;320(3):77–80 **(Rus)**

[The 30th anniversary of the Moscow Branch of the All-Russian Society of Epidemiologists, Microbiologists and Parasitologists (news)] Tsapkova NN. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Jul–Aug;(4):123 **(Rus)**

[125 years' of the Serbian Medical Society] Sulović V, et al. **Srp Arh Celok Lek** 1998 Sep–Oct;126(9–10):402–7 (Eng. Abstr.) **(Scc)**

[Anniversaries of the Serbian Medical Society. 1947. 75 years since the founding of the Society] Vuković Z. **Srp Arh Celok Lek** 1998 Sep–Oct;126(9–10):408–11 (Eng. Abstr.) **(Scc)**

[Anniversaries of the Serbian Medical Society. 60 years since its founding. The dream is fulfilled--the home of the Serbian Medical Society is opened] Vuković Z. **Srp Arh Celok Lek** 1998 May–Jun;126(5–6):217–21 (Eng. Abstr.) **(Scc)**

[Anniversaries of the Serbian Medical Society, 1962: 90 years since the founding of the Society and its realization and recognition] Vuković Z. **Srp Arh Celok Lek** 1999 Jan–Feb; 127(1–2):74–8 (Eng. Abstr.) **(Scc)**

[Anniversaries of the Serbian Medical Society, 1952: 80 years since the founding of the Society--first results and confrontations] Vuković Z. **Srp Arh Celok Lek** 1998 Nov–Dec;126(11–12):526–9 (Eng. Abstr.) **(Scc)**

[History of gynecology and perinatology in Croatia. Clinics and hospitals in Zagreb. Primary health care. Specialty societies of the Croatian Medical Association] Dražančić A. **Lijec Vjesn** 1999 Apr–May;121(4–5):154–61 (Eng. Abstr.) **(Scr)**

[Two aspects of pediatrics in Spain. Half a century of existence of the Spanish Pediatric Association (1949–1999) and medical care to children in the Social Security system (letter)] Diego Núñez MA, et al. **An Esp Pediatr** 1998 Oct; 49(4):439–40 **(Spa)**

[History of the origin and the first 9 years of life of Archivos de Bronconeumologia] Guallar Segarra J. **Arch Bronconeumol** 1999 Jun;35(6):287–93 **(Spa)**

[Development of the semFYC. A 15-year journey] Ferran Mercadé M. **Aten Primaria** 1999 May;23 Suppl 1:33–6 **(Spa)**

[A hiatus in the life of the Medical Association of Puerto Rico] Torres-Gómez JM. **P R Health Sci J** 1999 Mar; 18(1):65–70 **(Spa)**

[Contribution of the Medical Association of Puerto Rico to the creation and development of the School of Medicine of the University of Puerto Rico (published erratum appears in P R Health Sci J 1998 Dec;17(4):381)] Torres-Gómez JM. **P R Health Sci J** 1998 Jun;17(2):145–7 **(Spa)**

LEGISLATION & JURISPRUDENCE

Repositioning self regulation. The influence of the GMC may be leaking away [editorial] Smith R. **BMJ** 1998 Oct 10; 317(7164):964

House actions impact '99 priorities [news] Boyer MM. **Pa Med** 1998 Oct;101(10):4

Impacting the future. Kroser LS. **Pa Med** 1998 Oct;101(10):10

[Scope of special malpractice insurance contract. A new service of the professional society] Weissauer W. **Chirurg** 1998 Sep;69(9):S275–82 **(Ger)**

ORGANIZATION & ADMINISTRATION

International viewpoints [editorial] Bryan-Brown CW, et al. **Am J Crit Care** 1999 Sep;8(5):282–4

International Federation of Human Genetics Societies [letter] Aymé S. **Am J Med Genet** 1999 Aug 27;85(5):515–6

Twenty-five years of resident representation from the Emergency Medicine Residents' Association. Harkin KE, et al. **Ann Emerg Med** 1999 Oct;34(4 Pt 1):558–61

The European Surgical Association, surgery in Europe, and a taste of the European tomato: founding president address. Bismuth H. **Ann Surg** 1998 Dec;228(6):725–7

Surgical societies: membership, costs, abstracts, moratorium [editorial] Organ CH Jr. **Arch Surg** 1999 Sep;134(9):917–20

Y2K, strategic alliances, and you. Kaufman RL. **Arthritis Rheum** 1999 Mar;42(3):406–8

A college for its teachers [editorial] Pisetsky DS, et al. **Arthritis Rheum** 1999 Apr;42(4):595–8

Annual general meeting of the BMA. Bma or UKMA? [letter] Gullick D. **BMJ** 1999 Jul 3;319(7201):59

"British Association of Sports Medicine" [letter] Macleod DA. **Br J Sports Med** 1999 Feb;33(1):68

Canada's International Immunization Initiative. Dafoe GH. **Can J Public Health** 1998 Nov–Dec;89(6):364 **(Eng, Fre)**

What's missing in our meetings? [letter] Volpintesta EJ. **Conn Med** 1999 Jun;63(6):357–8

The OMED Colorectal Cancer Screening Committee: a report of its aims and activities. Organisation Mondiale d'Endoscopie Digestive. Rozen P. **Gastrointest Endosc** 1999 Sep;50(3):449–53; discussion 453–4

Address by the president of the Alaska Federation of Natives. Kitka JE. **Int J Circumpolar Health** 1998;57 Suppl 1:3–5

Human pharmacology -- clinical pharmacology. Common goals and tasks from the point of view of the DGPT Section Clinical Pharmacology (German society of experimental and clinical Pharmacology and Toxicology). Kuhlmann J. **Int J Clin Pharmacol Ther** 1998 Nov; 36(11):576–80

Clinical pharmacology in the target population, Annual Meeting of AGAH, 1998. Human pharmacology, clinical pharmacology: common aims and position of the Society for Applied Human Pharmacology (AGAH eV). Seifert W. **Int J Clin Pharmacol Ther** 1998 Nov;36(11):573–5

SAM's role in the dissemination of information. Society for Adolescent Medicine. Barnes HV, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):148–51

Regionalization of SAM and evolution of the international movement in adolescent health. Society for Adolescent Medicine. Cromer BA, et al. **J Adolesc Health** 1998 Dec; 23(6 Suppl):152–6 (0 ref.)

Role of SAM in the promotion of research in adolescent health. Society for Adolescent Medicine. Cromer BA, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):143–7

The Society for Adolescent Medicine's role in promoting education. MacKenzie RG, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):135–42 (3 ref.)

The composition of SAM: development of diversity. Society for Adolescent Medicine. Phillips SA, et al. **J Adolesc Health** 1998 Dec;23(6 Suppl):162–5

International cooperation in world cardiology: the role of the World Heart Federation [editorial] Bayés de Luna A. **J Am Coll Cardiol** 1999 Apr;33(5):1427–30 (20 ref.)

President's page: the ACC and subspecialty societies: the beauty of the quilt [news] Garson A Jr. **J Am Coll Cardiol** 1999 Jun;33(7):2085–6

Vision therapy. Information for health care and other allied professionals. A Joint Organizational Policy Statement of the American Academy of Optometry and the American Optometric Association. **J Am Optom Assoc** 1999 Jul; 70(7):428–30

Strategic plan. Connors VJ, et al. **J Am Optom Assoc** 1999 Jul;70(7):417–26 (0 ref.)

The 1998 presidential address the ABA at 30: a SWOT analysis. Deitch EA. **J Burn Care Rehabil** 1998 Nov–Dec; 19(6):462–9

Korean Dermatological Association. Ro BI. **J Dermatol** 1998 Dec;25(12):827–30

Kentucky physicians and politics. VonderHaar WP, et al. **J Ky Med Assoc** 1998 Sep;96(9):356–61

The first report of the National Screening Committee [editorial] Gray JA. **J Med Screen** 1998;5(4):169

The Mississippi State Medical Association 2000--history does repeat itself. Hopson WB Jr. **J Miss State Med Assoc** 1999 Jul;40(7):230–3

Healing the century of violence: towards sustainable peace [editorial] Wareham SJ, et al. **Med J Aust** 1999 Apr 19; 170(8):352–3

The Asia Pacific Association for Medical Informatics (APAMI) and World Organisation of Family Doctors (WONCA) Consortium on General and Family Practice Informatics--a statement of intent. Liaw ST, et al. **Medinfo** 1998;9 Pt 1:189–92

The many faces of membership. Farrell K. **Mich Med** 1998 Nov;97(11):24–31

The Journal and its owner--resolving the crisis [editorial] Angell M. **N Engl J Med** 1999 Sep 2;341(10):752

The need for the IPTA (International Pediatric Transplant Association) [editorial] Fine RN. **Pediatr Transplant** 1998 Nov;2(4):249

Community access to child health and state policy [comment] Burton OM. **Pediatrics** 1999 Jun;103(6 Pt 3):1422–3. Comment on: Pediatrics 1999 Jun;103(6 Pt 3):1373–83.

Developing a vision for SAMA. A discussion document by the Transformation and Constitutional Revisionary Task Team. Mahlati P. **S Afr Med J** 1999 May;89(5):519–20

The Joint Committee for Thoracic Surgery education. Wechsler AS. **Semin Thorac Cardiovasc Surg** 1998 Jul; 10(3):186–7

Professional conduct: is self-regulation the answer? [news] **Vet Rec** 1998 Oct 24;143(17):459–60

[EAMA (European Academy for Medicine of Ageing): a network for European geriatricians] Verhaar HJ, et al. **Tijdschr Gerontol Geriatr** 1999 Aug;30(4):152 **(Dut)**

[Restructuring of the Royal Belgian Society for Surgery (editorial)] Proot L, et al. **Acta Chir Belg** 1999 Feb;99(1):1–8 **(Fre, Dut)**

[Creation by the French Society for Anesthesia and Intensive Care for a committee on "scientific solidarity" (editorial; comment)] Boulard G. **Ann Fr Anesth Reanim** 1999 Jun; 18(6):623. Comment on: Ann Fr Anesth Reanim 1999 Jun;18(6):619–20. Comment on: Ann Fr Anesth Reanim 1999 Jun;18(6):621–2. **(Fre)**

[The Swiss cardiology foundation: for whom? For what?] Rutishauser W. **Rev Med Suisse Romande** 1999 May; 119(5):359–60 **(Fre)**

[Continuing medical education of the surgeon. Experience

of the Tunisian Association of Surgery] Jebira A. **Tunis Med** 1999 Jun-Jul;77(6-7):324-6 **(Fre)**

[Speech given by Andrea Fischer, Minister of Health on the 102. German Physicians' Day in Cottbus 1999] Fischer A. **Internist (Berl)** 1999 Aug;40(8):232-3 **(Ger)**

STANDARDS

Building ideas for tomorrow. Oumeish OY. **Int J Dermatol** 1999 Mar;38(3):179-80

American Society of Clinical Oncology 1998 update of recommended breast cancer surveillance guidelines. Smith TJ, et al. **J Clin Oncol** 1999 Mar;17(3):1080-2

Survey of hospitals and healthcare provider organizations--requirements for physician continuing medical education credits in Louisiana. LSMS Committee on Medical Education. **J La State Med Soc** 1999 Apr; 151(4):151-3

Professional medical associations: ethical and practical guidelines. Pellegrino ED, et al. **JAMA** 1999 Sep 8; 282(10):984-6

Graduate education in thoracic surgery and the American College of Surgeons. Wilcox BR. **Semin Thorac Cardiovasc Surg** 1998 Jul;10(3):169-72

STATISTICS & NUMERICAL DATA

Surgical societies: membership, costs, abstracts, moratorium [editorial] Organ CH Jr. **Arch Surg** 1999 Sep;134(9):917-20

Radiation oncology training in the United States: report from the Radiation Oncology Resident Training Working Group organized by the Society of Chairman of Academic Radiation Oncology Programs (SCAROP). **Int J Radiat Oncol Biol Phys** 1999 Aug 1;45(1):153-61

[The results of a survey of cardiology service heads and of the regular members of the Sociedade Portuguesa de Cardiologia on research in cardiology] Reis RP, et al. **Rev Port Cardiol** 1999 Jul-Aug;18(7-8):779-81 **(Por)**

TRENDS

A new APA for a new century. Muñoz RA. **Am J Psychiatry** 1999 Oct;156(10):1487-8

The Society of Thoracic Surgeons National Database: current status and future directions. Grover FL. **Ann Thorac Surg** 1999 Aug;68(2):367-73; discussion 374-6

The future of societies for artificial organs [editorial] Davison AM. **Artif Organs** 1999 Apr;23(4):300-1; discussion 302

Then and now: ANZBA. Past, present, future: some personal recollections and observations on the Association and the development of burn care in Australia. Keogh JE. **Burns** 1999 May;25(3):247-9

Growth of the Canadian Association of Gastroenterology: controlled, effective and impressive. Fedorak RN. **Can J Gastroenterol** 1999 Apr;13(3):191-3

The UEMS specialist section in paediatric surgery. Carachi R. **Eur J Pediatr Surg** 1999 Jun;9(3):132-7

The International Society of Dermatology in the next millennium: from the banks of the Mississippi to the banks of the Nile. Millikan LE. **Int J Dermatol** 1999 Feb; 38(2):86-7

Psychoanalytic research and the IPA: history, present status and future potential. Wallerstein RS, et al. **Int J Psychoanal** 1999 Feb;80 (Pt 1):91-109

Intellectual disabilities and the next millennium: the role of the International Association for the Scientific Study of Intellectual Disabilities (IASSID) [editorial]] Parmenter TR. **J Intellect Disabil Res** 1999 Jun;43 (Pt 3):145-8

The American Neuropsychiatric Association: ten years of progress and a future of great promise. Coffey CE. **J Neuropsychiatry Clin Neurosci** 1999 Winter;11(1):8-18

Medicine's vocational rehabilitation [editorial; comment] Bryan SC. **J S C Med Assoc** 1998 Oct;94(10):446-7. Comment on: J S C Med Assoc 1998 Oct;94(10):436-9.

Future of European cardiology: continentally isolated or globally integrated? [see comments] Horton R. **Lancet** 1999 Sep 4;354(9181):791-2. Comment in: Lancet 1999 Sep 4;354(9181):787.

The Medical Care Section 1994-2005: reflections of our past and future. Fein O. **Med Care** 1999 Aug;37(8):837-41

The Medical Care Section: contending with the forces of progress and retrogression, 1965-1994. Milio N. **Med Care** 1999 Aug;37(8):833-6

American Society of Pediatric Neurosurgeons--change at the millennium. Scott RM. **Pediatr Neurosurg** 1998 Nov; 29(5):225-7

International Society of Hepato-Biliary and Pancreatic Radiology. The past, present, and future of hepatobiliary and pancreatic radiology. Bender CE, et al. **Radiology** 1998 Nov;209(2):317-9

The Society of Gastrointestinal Radiologists: its future and relevance. vanSonnenberg E, et al. **Radiology** 1998 Nov; 209(2):314-6

The future of geriatric medicine. Dall J. **Scott Med J** 1997 Oct;42(5):132

The lumbar spine in the 2000s. Postacchini F. **Spine** 1999 May 15;24(10):991-5

[Education, formation, verification of knowledge] Litt R, et al. **Acta Orthop Belg** 1998;64 Suppl 2:33-7 **(Fre)**

[Retrospect and prospects] Witte J. **Chirurg** 1999 Feb; 70(2):suppl 29-31 **(Ger)**

[JSCP Technical Committee on Laboratory Informatics; its 10th anniversary and future perspective] Kawai T. **Rinsho Byori** 1998 Nov;46(11):1083-6 (Eng. Abstr.) **(Jpn)**

[The semFYC (Spanish Society of Family and Community Medicine) is becoming international: 1999, the beginning of the future (editorial)] Mendive JM. **Aten Primaria** 1999 Jan;23(1):3 **(Spa)**

[The Sociedad Española de Cardiología on the Internet: current resources and future prospects. The Internet Committee of the Sociedad Española de Cardiología] Arribas F, et al. **Rev Esp Cardiol** 1998 Oct;51(10):777-81 (Eng. Abstr.) **(Spa)**

[Are we preparing for the change?] Austin K. **Rev Med Panama** 1997 Jan;22(1):5-9 **(Spa)**

SOCIETIES, NURSING

American Nurses Association. **Am J Nurs** 1999 Jan;99(1 Pt 2):44

Respiratory Nursing Society position statement on long-term oxygen therapy. **Heart Lung** 1999 Mar-Apr;28(2):143-4

Respiratory Nursing Society position statement on long-term oxygen therapy. Introduction. Gift A. **Heart Lung** 1999 Mar-Apr;28(2):142

Nursing research. American Association of Colleges of Nursing. **J Prof Nurs** 1999 Jul-Aug;15(4):253-7

HISTORY

Getting organized: the first seven. **Int Nurs Rev** 1999 Jan-Feb;46(1):23-4

ORGANIZATION & ADMINISTRATION

International viewpoints [editorial] Bryan-Brown CW, et al. **Am J Crit Care** 1999 Sep;8(5):282-4

With a little help from our friends. Fuller W. **Am J Nurs** 1999 Sep;99(9):80

Nursing Informatics in Brazil. A Brazilian experience. Marin HF. **Comput Nurs** 1998 Nov-Dec;16(6):327-32

From the president of the Bahrain Nursing Association [news] al-Muhandis B. **Int Nurs Rev** 1998 Sep-Oct; 45(5):135, 160

Cross-cultural partnerships in nursing: Romania and Denmark. Part I. Thomsen KS. **Int Nurs Rev** 1999 Mar-Apr;46(2):52-4

Partners ... in time [editorial] Sullivan EJ. **J Prof Nurs** 1999 Mar-Apr;15(2):67-8

STANDARDS

ONS guidelines on office-based clinical trials [news] **Oncology (Huntingt)** 1999 Feb;13(2):162, 165

TRENDS

Into the next millennium with the American College of Nurse-Midwives [editorial] Burgin K. **J Nurse Midwifery** 1999 Mar-Apr;44(2):87-8

SOCIETIES, PHARMACEUTICAL

International pharmacists adopt statement on pharmaceutical care [news] **Am J Health Syst Pharm** 1998 Dec 15; 55(24):2598

ASHP Board of Directors, councils, committees, and staff. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1708-13

Officers of ASHP affiliated state societies. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1714-7

ASHP strategic-planning report for 1998-99. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1717-21

Report of the ASHP Task Force on Science: American Society of Health-System Pharmacists. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2519-24 (0 ref.)

Leading health-system pharmacy into the next century. Manasse HR Jr. **Am J Health Syst Pharm** 1998 Aug 15; 55(16):1703-7

Celebrating ASHP's golden anniversary in best practices [editorial] Myers CE. **Am J Health Syst Pharm** 1998 Sep 15;55(18):1879

Depression in older adults [editorial; comment] Patrias JM. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2481. Comment on: Am J Health Syst Pharm 1998 Dec 1;55(23):2514-8.

American Pharmaceutical Association review of literature on prescription to over-the-counter drug switches. Schulke DG. **Clin Ther** 1998;20 Suppl C:C124-33 (14 ref.)

ECONOMICS

Diversification continues to be key to success. Zilz DA. **Am J Health Syst Pharm** 1998 Aug 15;55(16):1699-702

HISTORY

[The Slovak Pharmaceutical Society between the 5th and 6th congresses] Springer V, et al. **Ceska Slov Farm** 1999 Jan;48(1):4-8 **(Cze)**

[On the Tunisian Medical Society of History of Medicine and Pharmacy. Notes and recollections] Mabrouk R. **Tunis Med** 1998 Oct;76(10):306-10 (Eng. Abstr.) **(Fre)**

ORGANIZATION & ADMINISTRATION

Pharmacy organizations form credentialing council to integrate efforts [news] Landis NT. **Am J Health Syst Pharm** 1998 Dec 1;55(23):2444, 2449-50, 2452

SOCIETIES, SCIENTIFIC

Medical and scientific organizations and scientific evidence in U.S. trials: lessons from European legal theory. Deftos LJ. **Acad Med** 1999 Mar;74(3):231-5 (44 ref.)

Forty years of the Warner-Lambert/Parke-Davis Award: a remarkable record. Cotran RS. **Am J Pathol** 1998 Oct; 153(4):1014

Conservation efforts of the American Society of Primatologists [editorial] Kyes RC, et al. **Am J Primatol** 1999;47(1):3-13

Words and wordlessness: a clinical approach to the difference. Miller-Pence S. **Am J Psychoanal** 1999 Mar; 59(1):97-8

Gold Medal Award for Life Achievement in the Application of Psychology. **Am Psychol** 1999 Aug;54(8):581-3

Award For Distinguished Teaching in Psychology. **Am Psychol** 1999 Aug;54(8):584-5

Gold Medal Award for Life Achievement in the Science of Psychology. **Am Psychol** 1999 Aug;54(8):573-4

Gold Medal Award for Enduring Contributions to Psychology in the Public Interest. **Am Psychol** 1999 Aug; 54(8):575-7

Gold Medal Award for Life Achievement in the Practice of Psychology. **Am Psychol** 1999 Aug;54(8):578-80

Abstracts of the Belgian Association of Biochemistry and Molecular Biology, 168th reunion, Louvain-la-Neuve, February 21, 1998. **Arch Physiol Biochem** 1998 Apr; 106(2):129-60

Missteps and masquerade in American medical academe: clinical anatomists call for action [editorial] [see comments] Cahill DR, et al. **Clin Anat** 1999;12(3):220-2. Comment in: Clin Anat 1999 ;12(3):223-4.

Research-based clinical anatomists: response to "AACA: purpose, vitality and pride". American Association of Clinical Anatomists [letter; comment] Jones DG. **Clin Anat** 1999;12(3):223-4. Comment on: Clin Anat 1999 ;12(3):220-2.

The IASP Adelaide declaration on suicide prevention [editorial] Goldney RD. **Crisis** 1998;19(2):50-1

Preventing the misuse of microorganisms: the role of the American Society for Microbiology in protecting against biological weapons. Berns KI, et al. **Crit Rev Microbiol** 1998;24(3):273-80

Improving the quality of healthcare for children: implementing the results of the AHSR research agenda conference. Halfon N, et al. **Health Serv Res** 1998 Oct;33(4 Pt 2):955-76

Exciting opportunities ahead. Horwitz L. **Int J Group Psychother** 1999 Jan;49(1):87-90

Definition and classification of erectile dysfunction: report of the Nomenclature Committee of the International Society of Impotence Research. Lizza EF, et al. **Int J Impot Res** 1999 Jun;11(3):141-3

AOAC International: eliminating borders for better science. Beljaars PR. **J AOAC Int** 1999 Mar-Apr;82(2):425-7

Clinical microbiology and ASM: quo vadis? American Society for Microbiology. Balows A. **J Clin Microbiol** 1999 May;37(5):1239-41

Proceedings of the Pathological Society of Great Britain and Ireland. Queen Elizabeth II Conference Centre, London, 7-9 January 1998. **J Med Microbiol** 1998 May;47(5):463-70

The submission from The Royal Society for the Promotion of Health on Government consultation document "Our Healthier Nation". **J R Soc Health** 1998 Aug;118(4):241-2

The submission from The Royal Society for the Promotion of Health on the communication from the Commission on the Development of Public Health Policy in the EC. **J R Soc Health** 1998 Oct;118(5):309-10

Report from the Society for Gynecologic Investigation, Atlanta, Georgia, March 11-14, 1998. Kutteh WH. **J Reprod Immunol** 1998 Nov;40(2):175-82

Complementary medicine and the Cochrane Collaboration. Ezzo J, et al. **JAMA** 1998 Nov 11;280(18):1628-30

Activist Young says "gathering storm" will propel a single-payer movement [interview by Rebecca Voelker] Young Q. **JAMA** 1998 Nov 4;280(17):1467-8

Report from HIMSS. Information tools as enablers. Douglas JV. **MD Comput** 1999 Mar-Apr;16(2):13-4

The role of ISHAM: how developing and developed countries can benefit from it. International Society for Human and Animal Mycology. Müller J, et al. **Med Mycol** 1998;36 Suppl 1:266-70

The Internet for the medical and scientific community. Simmler MC, et al. **Mol Hum Reprod** 1998 Jul;4(7):725-30

CRC forced to compromise over tobacco funding ban [news] Firn D. **Nat Med** 1999 Feb;5(2):129

Europe bids for molecular biology 'club' [news] Abbott A. **Nature** 1998 Dec 24-31;396(6713):713

Where a little aid could go a long way [letter] Campbell P. **Nature** 1999 Aug 12;400(6745):610

Assessment of abstracts submitted for the 1998 BNMS annual meeting: concordance or lottery? Kemp PM, et al. **Nucl Med Commun** 1999 Feb;20(2):195-8

Presidential address: meeting the challenge of change. Kornfeld S. **Proc Assoc Am Physicians** 1998 Sep-Oct; 110(5):439-42

Scruples or squabbles? [editorial] Bloom FE. **Science** 1999 Aug 20;285(5431):1207

Expert testimony. Project offers judges neutral science advice [news; comment] Kaiser J. **Science** 1999 Jun 4; 284(5420):1600. Comment on: Science 1999 Jun

4;284(5420):1664–6. Comment on: Science 1999 Jun 4;284(5420):1667–70.
Library–society alliance puts bio journals online [news] Malakoff D. **Science** 1999 Jun 25;284(5423):2063, 2065
Animal rights brochure [letter; comment] Navar LG. **Science** 1999 Jan 29;283(5402):639. Comment on: Science 1998 Nov 20;282(5393):1417.
[The 25th anniversary of the Danish Society of Medical Technology] Stødkilde-Jørgensen H. **Ugeskr Laeger** 1999 Jan 25;161(4):444 **(Dan)**
[A registry for European biologists: why create it? (editorial)] Sachs C. **Ann Biol Clin (Paris)** 1998 May–Jun;56(3):252–3 **(Fre)**
[Foundation and brief chronology of the Société franco-japonaise de Biologie] Fujiwara K. **C R Seances Soc Biol Fil** 1998;192(5):787–8 **(Fre)**
[In commemoration of the 150th anniversary of the foundation of the Société de Biologie] Mizuno T. **C R Seances Soc Biol Fil** 1998;192(5):785–6 **(Fre)**

HISTORY

The growth and development of the Annals of Human Biology: a 25-year retrospective. Tanner JM. **Ann Hum Biol** 1999 Jan–Feb;26(1):3–18
AChemS: the beginning. Association for Chemoreception Sciences. Mozell MM. **Chem Senses** 1998 Dec;23(6):721–33
From private club to professional network: an economic history of the Health Economists' Study Group, 1972–1997. Croxson B. **Health Econ** 1998 Aug;7 Suppl 1:S9–45
The IPA and the American Psychoanalytic Association: a perspective on the regional association agreement. Wallerstein RS. **Int J Psychoanal** 1998 Jun;79 (Pt 3):553–64
Reuniting the psychoanalytic movement. Slipp S. **J Am Acad Psychoanal** 1998 Winter;26(4):619–27
Stanley Paris Award Lecture. Reflections on the history and future of orthopaedic physical therapy. Wadsworth C. **J Orthop Sports Phys Ther** 1998 Sep;28(3):174–80
History of the International Neuropsychological Symposium: a reflection of the evolution of a discipline. Boller F. **Neuropsychologia** 1999 Jan;37(1):17–26
Bruno Ceccarelli: information about his scientific life and about the association established by his colleagues and friends. Meldolesi J, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28; 354(1381):239–41
[One hundred and fifty years of the Société de Biology] Nordmann R. **C R Seances Soc Biol Fil** 1998;192(5):793–802 **(Fre)**
[100th anniversary of the birth of Professor Dr. Dr.h.c. Hugo Grau (15 April 1899–27 June 1984). Co-founder of the World Association of Veterinary Anatomists and the European Association of Veterinary Anatomists] Vollmerhaus B. **Anat Histol Embryol** 1999 Mar;28(1):1–3 (Eng. Abstr.) **(Ger)**
[50 years of the Society of Historians of Medicine of Russia] Lisitsyn IuP, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):45–6 **(Rus)**
[The 50th anniversary of the St. Petersburg Scientific Society of Historians of Medicine] Selivanov VI. **Probl Sotsialnoi Gig Istor Med** 1998 Nov–Dec;(6):47 **(Rus)**

LEGISLATION & JURISPRUDENCE

Southern Society for Clinical Investigation: constitution, bylaws, and amendments. **Am J Med Sci** 1998 Nov; 316(5):335–8

ORGANIZATION & ADMINISTRATION

The genesis of ISOTT. International Society on Oxygen Transport to Tissue. Bruley DF. **Adv Exp Med Biol** 1998; 454:1–6
International Federation of Human Genetics Societies [letter] Aymé S. **Am J Med Genet** 1999 Aug 27;85(5):515–6
EMBS and the evolution of the biomedical engineering knowledge base (Part I). Onaral B. **IEEE Eng Med Biol Mag** 1999 Sep–Oct;18(5):6–7
College health needs to participate in the national STD debate. Rothenberger JH, et al. **J Am Coll Health** 1998 Nov;47(3):140–2
Shrinking membership in the American Society of Animal Science: does the discipline of poultry science give us some clues? Cheeke PR. **J Anim Sci** 1999 Aug;77(8):2031–8
An interview with Jan van Bemmel [interview by Judith Douglas] van Bemmel J. **MD Comput** 1999 Jan–Feb; 16(1):21–2
Italy labors in its reform of the CNR [news] Birmingham K, et al. **Nat Med** 1999 Feb;5(2):132
[The Socieété franco-japonaise de Biologie since the war (creation of decentralized meetings)] Kishida T. **C R Seances Soc Biol Fil** 1998;192(5):789–92 **(Fre)**

TRENDS

Time to escape the comfort zone [letter] Michael D. **Am J Occup Ther** 1998 Jul–Aug;52(7):602
Presidential address. What does the Millennium have in store for the American Society of Parasitologists? Oaks JA. **J Parasitol** 1998 Dec;84(6):1069–73

SOCIOECONOMIC FACTORS

Possible causes of socioeconomic and ethnic differences in seat belt use among high school students. Shin D, et al. **Accid Anal Prev** 1999 Sep;31(5):485–96
Occupational injuries in Shunde City--a county undergoing rapid economic change in southern China. Yu TS, et al. **Accid Anal Prev** 1999 Jul;31(4):313–7
Evolution of socioeconomic impact assessments of HIV/AIDS. Forsythe S, et al. **AIDS** 1998;12 Suppl 2:S47–55
Applying social, behavioral and evaluation research to developing country HIV prevention programs. MacNeil JM, et al. **AIDS** 1998;12 Suppl 2:S99–108
Lifetime exposure to environmental tobacco smoke among urban women: differences by socioeconomic class. Curtin F, et al. **Am J Epidemiol** 1998 Dec 1;148(11):1040–7
Relations between individual and neighborhood-based measures of socioeconomic position and bone lead concentrations among community-exposed men: the Normative Aging Study. Elreedy S, et al. **Am J Epidemiol** 1999 Jul 15;150(2):129–41
Socioeconomic status and aortic atherosclerosis in Dutch elderly people: the Rotterdam Study. van Rossum CT, et al. **Am J Epidemiol** 1999 Jul 15;150(2):142–8
The duration and timing of exposure: effects of socioeconomic environment on adult health. Power C, et al. **Am J Public Health** 1999 Jul;89(7):1059–65
Group B streptococcal colonization in a developing country: its association with sexually transmitted disease and socioeconomic factors. Collins TS, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):633–6
Access to health care, socioeconomic status, and health [letter; comment] Baltzan MA. **Ann Intern Med** 1999 Mar 2;130(5):452–3. Comment on: Ann Intern Med 1998 Sep 1;129(5):406–11. Comment on: Ann Intern Med 1998 Oct 1;129(7):567–72.
Health actions and social class among older Australians. Kendig H, et al. **Aust N Z J Public Health** 1998 Dec; 22(7):808–13
Study demonstrates link between cancer survival and wealth [news] Anderson P. **BMJ** 1999 May 1;318(7192):1163
Commentary: socioeconomic position should be measured accurately [see comments] Ben-Shlomo Y, et al. **BMJ** 1999 Mar 27;318(7187):844–5. Comment in: BMJ 1999 Mar 27;318(7187):843–4.
Socioeconomic differences in general practice consultation rates in patients aged 65 and over: prospective cohort study. McNiece R, et al. **BMJ** 1999 Jul 3;319(7201):26–8
Occupational asthma: a longitudinal study on the clinical and socioeconomic outcome after diagnosis. Moscato G, et al. **Chest** 1999 Jan;115(1):249–56
Women's preferences for vaginal antimicrobial contraceptives. II. Preferred characteristics according to women's age and socioeconomic status. Hardy E, et al. **Contraception** 1998 Oct;58(4):239–44
Behaviour of Finnish 3-year-old children. I: Effects of sociodemographic factors, mother's health, and pregnancy outcome. Uljas H, et al. **Dev Med Child Neurol** 1999 Jun; 41(6):412–9
Increased health burden associated with comorbid depression in older diabetic Mexican Americans. Results from the Hispanic Established Population for the Epidemiologic Study of the Elderly survey. Black SA. **Diabetes Care** 1999 Jan;22(1):56–64
Risk for metabolic control problems in minority youth with diabetes. Delamater AM, et al. **Diabetes Care** 1999 May; 22(5):700–5
Impact of maternal nativity on the prevalence of diabetes during pregnancy among U.S. ethnic groups. Kieffer EC, et al. **Diabetes Care** 1999 May;22(5):729–35
Social environment and year of birth influence type 1 diabetes risk for African-American and Latino children. Lipton RB, et al. **Diabetes Care** 1999 Jan;22(1):78–85
Relationship between dietary habits, age, lifestyle, and socio-economic status among adult Norwegian women. The Norwegian Women and Cancer Study. Hjartåker A, et al. **Eur J Clin Nutr** 1998 Aug;52(8):565–72
Food habits in Swedish adolescents in relation to socioeconomic conditions. Höglund D, et al. **Eur J Clin Nutr** 1998 Nov;52(11):784–9
Intake of very-long-chain n-3 fatty acids related to social status and lifestyle. Johansson LR, et al. **Eur J Clin Nutr** 1998 Oct;52(10):716–21
The contribution of personal resources to physical and mental health: looking into age and gender effects. Shmotkin D, et al. **Genet Soc Gen Psychol Monogr** 1999 Feb;125(1):5–25
Exercise self-efficacy and its correlates among socioeconomically disadvantaged older adults. Clark DO, et al. **Health Educ Behav** 1999 Aug;26(4):535–46
Modeling relationships among socioeconomic status, hostility, cardiovascular reactivity, and left ventricular mass in African American and White children. Gump BB, et al. **Health Psychol** 1999 Mar;18(2):140–50
Sociodemographic factors in Health Psychology research: 12 years in review. Park TL, et al. **Health Psychol** 1998 Jul;17(4):381–3 (10 ref.)
Pressures on safety net access: the level of managed care penetration and uninsurance rate in a community. Cunningham PJ. **Health Serv Res** 1999 Apr;34(1 Pt 2):255–70
Socio-economic impact of chronic venous insufficiency. An underestimated public health problem. Van den Oever R, et al. **Int Angiol** 1998 Sep;17(3):161–7
Nutritional status and socio-economic conditions as prognostic factors in the outcome of therapy in childhood acute lymphoblastic leukemia. Gómez-Almaguer D, et al. **Int J Cancer Suppl** 1998;11:52–5 (17 ref.)
Low socioeconomic status is a strong independent predictor of relapse in childhood acute lymphoblastic leukemia. Viana MB, et al. **Int J Cancer Suppl** 1998;11:56–61
Relationship between socioeconomic status and ischaemic heart disease in cohort and case-control studies: 1960–1993. González MA, et al. **Int J Epidemiol** 1998 Jun;27(3):350–8 (90 ref.)
Socioeconomic differences in risk of myocardial infarction 1971–1994 in Sweden: time trends, relative risks and population attributable risks. Hallqvist J, et al. **Int J Epidemiol** 1998 Jun;27(3):410–5
Unemployment, sociodemographic background and consumption of alcohol before and during the economic recession of the 1990s in Finland. Luoto R, et al. **Int J Epidemiol** 1998 Aug;27(4):623–9
Does childhood socioeconomic status influence adult health through behavioural factors? van de Mheen H, et al. **Int J Epidemiol** 1998 Jun;27(3):431–7
Examining the "liberal media" claim: journalists' views on politics, economic and social policy (including health care), and media coverage. Croteau D. **Int J Health Serv** 1999; 29(3):627–55
Race and socioeconomic factors influencing early placement on the kidney transplant waiting list. Kasiske BL, et al. **J Am Soc Nephrol** 1998 Nov;9(11):2142–7
Relative importance of urbanicity, ethnicity and socioeconomic factors regarding area mortality differences. Reijneveld SA, et al. **J Epidemiol Community Health** 1999 Jul;53(7):444–5
Genetic testing for breast cancer susceptibility: Polish women's attitudes. Braczkowski R, et al. **J Exp Clin Cancer Res** 1998 Sep;17(3):299–302
Gender and the socioeconomic gradient in mortality. McDonough P, et al. **J Health Soc Behav** 1999 Mar; 40(1):17–31
Short stature and prognosis of coronary heart disease in women. Wamala SP, et al. **J Intern Med** 1999 Jun; 245(6):557–63
Nutritional and socioeconomic factors in relation to prostate cancer mortality: a cross-national study [see comments] Hebert JR, et al. **J Natl Cancer Inst** 1998 Nov 4; 90(21):1637–47. Comment in: J Natl Cancer Inst 1999 Apr 21;91(8):725–6.
Re: Nutritional and socioeconomic factors in relation to prostate cancer mortality: a cross-national study [letter; comment] Mills PK. **J Natl Cancer Inst** 1999 Apr 21; 91(8):725–6. Comment on: J Natl Cancer Inst 1998 Nov 4;90(21):1637–47.
From lynching to gay bashing: the elusive connection between economic conditions and hate crime. Green DP, et al. **J Pers Soc Psychol** 1998 Jul;75(1):82–92
The impact of obstetric risk factors and socioeconomic characteristics on utilization of antenatal care. Berglund A, et al. **J Public Health Med** 1998 Dec;20(4):455–62
Socioeconomic considerations in the health of urban areas. Kaplan GA. **J Urban Health** 1998 Jun;75(2):228–35
Socioeconomic factors and determinants of mortality [letter; comment] Manning GC. **JAMA** 1998 Nov 25;280(20):1745 . Comment on: JAMA 1998 Jun 3;279(21):1703–8.
Socioeconomic factors and determinants of mortality [letter; comment] Smith GD, et al. **JAMA** 1998 Nov 25; 280(20):1744–5. Comment on: JAMA 1998 Jun 3;279(21):1703–8.
Malaria control in Nicaragua: social and political influences on disease transmission and control activities. Garfield R. **Lancet** 1999 Jul 31;354(9176):414–8
Socioeconomic status and bowel cancer [letter; comment] McGurk M. **Lancet** 1999 Jan 16;353(9148):240. Comment on: Lancet 1998 Oct 31;352(9138):1439.
Neurotic disorder in India [letter; comment] Sood R. **Lancet** 1998 Nov 28;352(9142):1786. Comment on: Lancet 1998 Aug 22;352(9128):605–9.
Older men's health. Sociocultural and ecological perspectives. Eckert JK, et al. **Med Clin North Am** 1999 Sep;83(5):1151–72, v (122 ref.)
Improving indigenous health: social and environmental factors deserve as much attention as health services [letter; comment] Coory M. **Med J Aust** 1999 Feb 15;170(4):190–1 . Comment on: Med J Aust 1998 Nov 16;169(10):528–9, 532–3.
Risk of low birth weight infants among black and white parents. Hessol NA, et al. **Obstet Gynecol** 1998 Nov; 92(5):814–22
Sociodemographic determinants of low birthweight in Greece: a population study. Lekea-Karanika V, et al. **Paediatr Perinat Epidemiol** 1999 Jan;13(1):65–77
Socioeconomic changes associated with medical indices in the Democratic Republic of Croatia. Catipović-Veselica K. **Psychol Rep** 1998 Aug;83(1):129–30
Subjective well-being, suicide, and homicide. Lester D. **Psychol Rep** 1998 Aug;83(1):234
Family capital and Hong Kong adolescents' academic achievement. Marjoribanks K, et al. **Psychol Rep** 1998 Aug; 83(1):99–105
Influence of socioeconomic status on behavioral, emotional and cognitive effects of rubella vaccination: a prospective,

double blind study. Morag M, et al. **Psychoneuroendocrinology** 1998 May;23(4):337–51

Does race or socioeconomic status predict adverse outcome after out of hospital cardiac arrest: a multi-center study. Sayegh AJ, et al. **Resuscitation** 1999 Apr–May;40(3):141–6

Socio–economic inequalities in mortality. Methodological problems illustrated with three examples from Europe. Kunst AE, et al. **Rev Epidemiol Sante Publique** 1998 Dec; 46(6):467–79

Trend of psychological distress in a Swedish population from 1989 to 1995. Rahmqvist M, et al. **Scand J Soc Med** 1998 Sep;26(3):214–22

Unequal health [news] Nemecek S. **Sci Am** 1999 Jan; 280(1):40–1

Suicide in Greece 1980–1995: patterns and social factors. Zacharakis CA, et al. **Soc Psychiatry Psychiatr Epidemiol** 1998 Oct;33(10):471–6

Should extended disability be an exclusion criterion for tertiary rehabilitation? Socioeconomic outcomes of early versus late functional restoration in compensation spinal disorders. Jordan KD, et al. **Spine** 1998 Oct 1; 23(19):2110–6; discussion 2117

Cultural attitudes of Asian–Americans toward death adversely impact organ donation. Cheung AH, et al. **Transplant Proc** 1998 Nov;30(7):3609–10

Socio–demographic determinants of antenatal care. Chandrashekar S, et al. **Trop Doct** 1998 Oct;28(4):206–9

Socioeconomic aspects. Rutkow IM. **World J Surg** 1999 Aug; 23(8):781–5 (15 ref.)

[Acting on clinical trials. Experience of organizations for the fight against AIDS] Barbot J. **Rev Epidemiol Sante Publique** 1998 Sep;46(4):305–15 (37 ref.) (Eng. Abstr.) **(Fre)**

[Re–emergence of tuberculosis and socioeconomic uncertainty] Poinsignon Y, et al. **Rev Med Interne** 1998 Sep;19(9):649–57 (39 ref.) (Eng. Abstr.) **(Fre)**

[Economic crisis and suicide in Geneva: 1991–1995] La Harpe R, et al. **Arch Kriminol** 1998 Sep–Oct;202(3–4):69–74 (Eng. Abstr.) **(Ger)**

[Awareness of problems in the affluent society] Stamer G. **DTW Dtsch Tierarztl Wochenschr** 1999 Aug;106(8):366–70 (Eng. Abstr.) **(Ger)**

[Decrease in the "healthy migrant effect": trends in the morbidity of foreign and German participants in the 1984–1992 Socioeconomic Panel] Lechner I, et al. **Gesundheitswesen** 1998 Dec;60(12):715–20 (Eng. Abstr.) **(Ger)**

[Increased debts and mental health] Prahm H. **Gesundheitswesen** 1999 Jan;61(1):27–30 (Eng. Abstr.) **(Ger)**

[Psychosocial risk factors in vulvovaginal mycosis. A multivariate long–term study] Meyer H, et al. **Mycoses** 1998;41 Suppl 2:49–53 (Eng. Abstr.) **(Ger)**

[General practitioners and patients' social status (see comments)] Gulbrandsen P. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2177–81 (Eng. Abstr.). Comment in: Tidsskr Nor Laegeforen 1999 aug 10;119(18):2695. **(Nor)**

[Social inequalities in cancer survival] Kravdal O. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1577–83 (Eng. Abstr.) **(Nor)**

[Social inequality and health from a historical point of view] Larsen O. **Tidsskr Nor Laegeforen** 1999 Jun 10; 119(15):2235–7 **(Nor)**

[Well–educated and healthy] Wist E. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1576 **(Nor)**

[Swedes living in costal regions are healthier and live longer. The Roseto effect in Finland? (letter)] Hyyppä MT. **Lakartidningen** 1999 May 19;96(20):2453 **(Swe)**

SOCIOECONOMIC STATUS see **SOCIAL CLASS**

SOCIOENVIRONMENTAL THERAPY

Soteria and other alternatives to acute psychiatric hospitalization: a personal and professional review. Mosher LR. **J Nerv Ment Dis** 1999 Mar;187(3):142–9 (48 ref.)

Soteria and the medical marketplace [editorial] Sharfstein SS. **J Nerv Ment Dis** 1999 Mar;187(3):129–30

[Rehabilitation in schizophrenia––guidelines for including psychosocial measures] Katschnig H. **Wien Med Wochenschr** 1998;148(11–12):273–80 (41 ref.) (Eng. Abstr.) **(Ger)**

METHODS

Retrospective analyses of additional services for methadone maintenance patients. Abbott PJ, et al. **J Subst Abuse Treat** 1999 Jul–Sep;17(1–2):129–37

Coping and social skills training for alcohol and cocaine dependence. Monti PM, et al. **Psychiatr Clin North Am** 1999 Jun;22(2):447–70, xi (57 ref.)

[Psychiatric vocational therapy––concepts, practice and scientifically–based results] Reker T. **Psychiatr Prax** 1999 Apr;26 Suppl 1:S12–5 (Eng. Abstr.) **(Ger)**

SOCIOLOGY

see related
GROUP PROCESSES

Critical nursing scholarship: exploring critical social theory with African American studies. Boutain DM. **ANS Adv Nurs Sci** 1999 Jun;21(4):37–47 (46 ref.)

The origin of ethics and social order in a society without state power. Yamamoto K. **Coll Antropol** 1999 Jun; 23(1):221–9

The loss of the population approach puts epidemiology at risk. Kogevinas M. **J Epidemiol Community Health** 1998 Oct;52(10):615–6

Sociological models and health care [letter] Chard J. **Lancet** 1999 Aug 14;354(9178):602

HISTORY

Changes and generations of the Finnish society in the 20th century. Urponen K. **Int J Circumpolar Health** 1998 Jul; 57(2–3):84–93

Assessing research in the history of sociology and anthropology. Kuklick H. **J Hist Behav Sci** 1999 Summer; 35(3):227–37

Paul Lazarsfeld and Polish sociology: a historical record of contact, perception, and impact. Sulek A. **J Hist Behav Sci** 1998 Fall;34(4):367–80

STANDARDS

Thinking sociologically about complementary medicine. Tovey P, et al. **Complement Ther Med** 1999 Jun;7(2):113–5

SOCIOLOGY, MEDICAL

The importance of theories in health care. Alderson P. **BMJ** 1998 Oct 10;317(7164):1007–10 (13 ref.)

Considerations for sociotechnical design: experiences with an electronic patient record in a clinical context. Berg M, et al. **Int J Med Inf** 1998 Oct–Dec;52(1–3):243–51

Integrating sociological and biological models [editorial] Fremont AM, et al. **J Health Soc Behav** 1999 Jun; 40(2):126–9 (17 ref.)

From reviving the living to raising the dead; the making of cardiac resuscitation. Bains J. **Soc Sci Med** 1998 Nov; 47(9):1341–9

Higher earnings, bursting trains and exhausted bodies: the creation of travelling psychosis in post–reform China. Lee S. **Soc Sci Med** 1998 Nov;47(9):1247–61 (81 ref.)

Assignments of meaning in epidemiology. Little M. **Soc Sci Med** 1998 Nov;47(9):1135–45 (31 ref.)

[Perinatal care: advantages and disadvantages of network functioning. Analysis and point–of–view of sociologists] Akrich M. **J Gynecol Obstet Biol Reprod (Paris)** 1998 Dec; 27 Suppl 2:197–204 (7 ref.) **(Fre)**

[Alternative medicine: viewpoints of a sociologist and an oncologist] Lejeune S, et al. **Rev Med Suisse Romande** 1998 Sep;118(9):813–6 (Eng. Abstr.) **(Fre)**

[Trends in population health status according to data of sociological research] Khoziainov IuA, et al. **Probl Sotsialnoi Gig Istor Med** 1998 May–Jun;(3):22–3 (Eng. Abstr.) **(Rus)**

HISTORY

Medical sociology: a personal fifty year perspective. Straus R. **J Health Soc Behav** 1999 Jun;40(2):103–10

An introduction to: honoring the life and work of Sol Levine [editorial] Brown P. **Soc Sci Med** 1999 Mar;48(6):709–10

SOCIOMETRIC TECHNIQUES

Sociometric classification methods in school peer groups: a comparative investigation. Frederickson NL, et al. **J Child Psychol Psychiatry** 1998 Sep;39(6):921–33

A controlled study of peer relationships of children surviving brain tumors: teacher, peer, and self ratings. Vannatta K, et al. **J Pediatr Psychol** 1998 Oct;23(5):279–87

SOCIOPATHIC PERSONALITY see **ANTISOCIAL PERSONALITY DISORDER**

SODIUM

see related
HYPERNATREMIA
HYPONATREMIA
NATRIURESIS
SODIUM RADIOISOTOPES

Ouabain– and central sodium–induced hypertension depend on the ventral anteroventral third ventricle region. Veerasingham SJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H63–70

Crucial suppressive role of renal kallikrein–kinin system in development of salt–sensitive hypertension. Katori M, et al. **Biol Res** 1998;31(3):143–9 (22 ref.)

Effect of monovalent ions in glass ionomer on their uptake and re–release. Hadley PC, et al. **Biomaterials** 1999 May; 20(9):891–7

Photon–stimulated desorption as a substantial source of sodium in the lunar atmosphere. Yakshinskiy BV, et al. **Nature** 1999 Aug 12;400(6745):642–4

Impact of Cl– and Na+ ions on simulated structure and dynamics of betaARK1 PH domain. Pfeiffer S, et al. **Proteins** 1999 May 1;35(2):206–17

ADMINISTRATION & DOSAGE

Isotonic and hypertonic sodium loading in supine humans. Andersen LJ, et al. **Acta Physiol Scand** 1999 May; 166(1):23–30

Sodium management in dialysis by conductivity. Bosetto A, et al. **Adv Ren Replace Ther** 1999•Jul;6(3):243–54 (10 ref.)

Adaptation of NHE–3 in the rat thick ascending limb: effects of high sodium intake and metabolic alkalosis. Laghmani K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F18–26

Estimates of mineral intakes using food composition tables vs measures by inductively–coupled plasma mass spectrometry: Part 2: sodium, potassium, magnesium, copper, zinc. Shimbo S, et al. **Eur J Clin Nutr** 1999 Mar; 53(3):233–8

Reduction in blood pressure with a sodium–reduced, potassium– and magnesium–enriched mineral salt in subjects with mild essential hypertension. Kawasaki T, et al. **Hypertens Res** 1998 Dec;21(4):235–43

Treatment of hypernatremia in an acidotic neonatal calf. Angelos SM, et al. **J Am Vet Med Assoc** 1999 May 1; 214(9):1364–7, 1335

The Sixth John M. Kinney–Baxter Healthcare Award for Parenteral Nutrition. Water and sodium restriction during preoperative TPN in severely malnourished patients: the history [see comments] Sitges–Serra A. **Nutrition** 1999 Jun; 15(6):431–6. Comment in: Nutrition 1999 Jun;15(6):437–8.

Sodium intake and reproduction in BALB/C mice. McBurnie MI, et al. **Physiol Behav** 1999 Jul;66(5):873–9

ADVERSE EFFECTS

Disorders of sodium balance [letter; comment] Kelly J. **Lancet** 1998 Oct 3;352(9134):1146–7. Comment on: Lancet 1998 Jul 18;352(9123):220–8.

ANALYSIS

In vivo study of the electrochemical composition of luminal fluid in the guinea pig endolymphatic sac. Couloigner V, et al. **Acta Otolaryngol (Stockh)** 1999 Mar;119(2):200–2

Fluorometric analysis of intracellular sodium concentrations in isolated retinal horizontal cells. Andersen KA, et al. **Biol Bull** 1998 Oct;195(2):204–5

Increased Na+ and decreased Mg2+ intracellular concentrations in vascular smooth muscle cells from spontaneously hypertensive rats. Kisters K, et al. **Clin Sci (Colch)** 1998 Nov;95(5):583–7

Effect of single dose resin–cathartic therapy on serum potassium concentration in patients with end–stage renal disease. Gruy–Kapral C, et al. **J Am Soc Nephrol** 1998 Oct; 9(10):1924–30

Determination of sodium and ammonium ions in disproportionate concentration ratios by ion chromatography. Pohl C, et al. **J Chromatogr A** 1999 Jul 30;850(1–2):239–45

Alteration of the sodium to potassium ratio in milk and the effect on milk secretion in goats. Stelwagen K, et al. **J Dairy Sci** 1999 Jan;82(1):52–9

Detection of residual quadrupolar interaction in the human breast in vivo using sodium–23 multiple quantum spectroscopy. Duvvuri U, et al. **J Magn Reson Imaging** 1999 Mar;9(3):391–4

Cation MR spectroscopy (7Li, 23Na, 39K and 87Rb). Clarke K, et al. **MAGMA** 1998 Sep;6(2–3):105–6

Sodium multiple quantum spectroscopy of articular cartilage: effects of mechanical compression. Duvvuri U, et al. **Magn Reson Med** 1998 Sep;40(3):370–5

Quantitative tissue sodium concentration mapping of the growth of focal cerebral tumors with sodium magnetic resonance imaging. Thulborn KR, et al. **Magn Reson Med** 1999 Feb;41(2):351–9

A simple and fast method to estimate peritoneal membrane transport characteristics using dialysate sodium concentration. Wang T, et al. **Perit Dial Int** 1999;19 Suppl 2:S212–6

BLOOD

T594M mutation in the ENaC beta subunit and low–renin hypertension in blacks. Warnock DG. **Am J Kidney Dis** 1999 Sep;34(3):579–87

Hyponatremia: evaluating the correction factor for hyperglycemia. Hillier TA, et al. **Am J Med** 1999 Apr; 106(4):399–403

Maternal 1–deamino–8–D–arginine–vasopressin–induced sequential decreases in plasma sodium concentration: ovine fetal renal responses. Roberts TJ, et al. **Am J Obstet Gynecol** 1999 Jan;180(1 Pt 1):82–90

Circadian changes in blood ionized calcium, sodium, potassium, and chloride concentrations and pH in cattle. Bajcsy CA, et al. **Am J Vet Res** 1999 Aug;60(8):945–8

Neutral carrier–type ion sensors based on sol–gel–derived membranes incorporating a bis(crown ether) derivative by covalent bonding. Kimura K, et al. **Anal Chem** 1998 Oct 15;70(20):4309–13

Clinical use of profiled hemodialysis. Coli L, et al. **Artif Organs** 1998 Sep;22(9):724–30

High concentrations of lithium heparin decrease measured serum sodium in some analyzers [letter] Vuillaume I, et al. **Clin Chem** 1999 Oct;45(10):1880–1

Continuous analysis in extracorporeally circulating blood––a rat model applying flow–through ion–selective electrodes for the measurement of Ca2+, K+, Na+ and pH. Heidrich JP, et al. **Clin Chem Lab Med** 1998 Nov;36(11):847–54

Measurement of serum sodium and potassium with direct ion–selective electrode systems [letter; comment] Dewitte K, et al. **Clin Chim Acta** 1999 Apr;282(1–2):227–8. Comment on: Clin Chim Acta 1998 Jul 28;275(2):151–62.

Therapeutic relowering of the serum sodium in a patient after excessive correction of hyponatremia. Soupart A, et al.

Clin Nephrol 1999 Jun;51(6):383–6
Renal effects of selective cyclooxygenase–2 inhibition in normotensive salt–depleted subjects. Rossat J, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):76–84
Unmeasured anions identified by the Fencl–Stewart method predict mortality better than base excess, anion gap, and lactate in patients in the pediatric intensive care unit [see comments] Balasubramanyan N, et al. **Crit Care Med** 1999 Aug;27(8):1577–81. Comment in: Crit Care Med 1999 Aug;27(8):1672–3.
Inverse distribution of serum sodium and potassium in uncontrolled inpatients with diabetes mellitus. Saito T, et al. **Endocr J** 1999 Feb;46(1):75–80
Hyponatremia: how to approach this confusing abnormality [editorial; comment] Oiso Y. **Intern Med** 1998 Nov; 37(11):907–8 (7 ref.). Comment on: Intern Med 1998 Nov;37(11):950–4.
Amiloride–insensitive Na+–H+ exchange: a candidate mediator of erythrocyte Na+–Li+ countertransport. Zerbini G, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2203–11
Cation transport in Bartter's syndrome [letter; comment] Hardman T, et al. **J Hypertens** 1998 Apr;16(4):549–51. Comment on: J Hypertens 1997 Dec;15(12 Pt 1):1407–13.
Regulation of Na+–K+–2Cl– cotransport by protein phosphorylation in ferret erythrocytes. Flatman PW, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):699–708
Evaluation of low sodium:potassium ratios in dogs. Roth L, et al. **J Vet Diagn Invest** 1999 Jan;11(1):60–4
Effect of intravenous infusion of a 7.2% hypertonic saline solution on serum electrolytes and osmotic pressure in healthy beagles. Ajito T, et al. **J Vet Med Sci** 1999 Jun; 61(6):637–41
Effect of a 7.2% hypertonic saline solution infusion on arterial blood pressure, serum sodium concentration and osmotic pressure in normovolemic heifers. Suzuki K, et al. **J Vet Med Sci** 1998 Jul;60(7):799–803
Influence of high donor serum sodium levels on early postoperative graft function in human liver transplantation: effect of correction of donor hypernatremia. Totsuka E, et al. **Liver Transpl Surg** 1999 Sep;5(5):421–8
Electrolytes and cognitive function in the elderly: relationship between serum sodium and chloride concentrations and psychometric test scores. Rondanelli M, et al. **Panminerva Med** 1998 Sep;40(3):191–5
On the role of Na,K–ATPase: a challenge for the membrane–pump and association–induction hypotheses. Bogner P, et al. **Physiol Chem Phys Med NMR** 1998; 30(1):81–7
Correlation of regional cerebral blood flow and change of plasma sodium concentration during genesis and satiation of thirst. Denton D, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2532–7

CHEMISTRY

Dynamic properties of Na+ ions in models of ion channels: a molecular dynamics study. Smith GR, et al. **Biophys J** 1998 Dec;75(6):2767–82
Monte Carlo simulation of DNA fragment hydration in the presence of alkaline cations using novel atom–atom potential functions. Teplukhin AV, et al. **J Biomol Struct Dyn** 1998 Oct;16(2):289–300
The presence of an Na+/spermine antiporter in the rat renal brush–border membrane. Kobayashi M, et al. **J Pharm Pharmacol** 1999 Mar;51(3):279–84
Effect of Na+ and K+ ions on the initial crystallization process of lysozyme in the presence of D2O and H2O. Liu XQ, et al. **J Protein Chem** 1998 Jul;17(5):479–84
The binding site of sodium in the gramicidin A channel. Roux B, et al. **Novartis Found Symp** 1999;225:113–24; discussion 124–7 (35 ref.)
Cation–pi (Na+–Trp) interactions in the crystal structure of tetragonal lysozyme. Wouters J. **Protein Sci** 1998 Nov; 7(11):2472–5
The influence of adsorbed molecules on Na–sites in NaY zeolite investigated by triple–quantum 23Na MAS NMR spectroscopy. Hu KN, et al. **Solid State Nucl Magn Reson** 1998 Oct;12(4):211–20
Partition and diffusion of sodium and chloride ions in soft charged foam: the effect of external salt concentration and mechanical deformation. Lanir Y, et al. **Tissue Eng** 1998 Winter;4(4):365–78

DEFICIENCY

Drinking and blood pressure during sodium depletion or ANG II infusion in chronic cholestatic rats. Fitts DA, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R23–31
Differential regulation of NHE isoforms by sodium depletion in proximal and distal segments of rat colon. Ikuma M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G539–49
Sodium depletion and aldosterone decrease dopamine transporter activity in nucleus accumbens but not striatum. Roitman MF, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1339–45
Influence of salt intake, ANG II synthesis and SFO lesion on thirst and blood pressure during sodium depletion. Subfornical organ. Starbuck EM, et al. **Appetite** 1998 Dec; 31(3):309–31
Effects of acetaminophen and ibuprofen on renal function in anesthetized normal and sodium–depleted dogs. Colletti AE, et al. **J Appl Physiol** 1999 Feb;86(2):592–7
Effects of sodium depletion on the role of AT1– and alpha–adrenergic receptors in the regulation of forearm vascular tone in humans. Baan J Jr, et al. **J Hypertens** 1999 Feb;17(2):229–35
Unilateral ureteral obstruction impairs renal antioxidant enzyme activation during sodium depletion. Kinter M, et al. **Kidney Int** 1999 Apr;55(4):1327–34
The ontogeny of salt hunger in the rat. Leshem M. **Neurosci Biobehav Rev** 1999 May;23(5):649–59 (86 ref.)
Potential mechanisms for functional changes in taste receptor cells following sodium deficiency in mammals. Lundy RF Jr. **Neurosci Biobehav Rev** 1998;23(1):103–9 (85 ref.)
Congenital sodium diarrhoea in an Indian girl. Koh ET, et al. **Singapore Med J** 1998 Oct;39(10):468–70

METABOLISM

Modulation of Na+ x H+ exchange by hydrostatic pressure in isolated bovine articular chondrocytes. Browning JA, et al. **Acta Physiol Scand** 1999 May;166(1):39–45
Decrease in sodium–calcium exchange and calcium currents in diabetic rat ventricular myocytes. Chattou S, et al. **Acta Physiol Scand** 1999 Jun;166(2):137–44
Effects of UTP on Na+, Cl– and K+ transport in primary cultures from human sweat gland coils. Hongpaisan J, et al. **Acta Physiol Scand** 1999 Mar;165(3):241–50
Sodium management in dialysis by conductivity. Bosetto A, et al. **Adv Ren Replace Ther** 1999 Jul;6(3):243–54 (10 ref.)
Na+ and Mg2+ contents in smooth muscle cells in spontaneously hypertensive rats. Kisters K, et al. **Am J Hypertens** 1999 Jun;12(6):648–52
Mechanisms of basolateral Na+ transport in rabbit esophageal epithelial cells. Abdulnour–Nakhoul S, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G507–17
Regulation of the epithelial Na(+) channel by intracellular Na(+). Awayda MS. **Am J Physiol** 1999 Aug;277(2 Pt 1):C216–24
Effect of isoprenaline, carbachol, and Cs+ on Na+ activity and pacemaker potential in rabbit SA node cells. Choi HS, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):H205–14
UTP inhibits Na+ absorption in wild–type and DeltaF508 CFTR–expressing human bronchial epithelia. Devor DC, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C827–37
Nitric oxide–mediated regulation of transepithelial sodium and chloride transport in murine nasal epithelium. Elmer HL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):L466–73
Stoichiometry and Na+ binding cooperativity of rat and flounder renal type II Na+–Pi cotransporters. Forster IC, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F644–9
Nitric oxide inhibits sodium/hydrogen exchange activity in the thick ascending limb. Garvin JL, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F377–82
Electrogenic Na+ transport in rat late distal colon by natural and synthetic glucocorticosteroids. Grotjohann I, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G491–8
Angiotensin–(1–7) can interact with the rat proximal tubule AT(4) receptor system. Handa RK. **Am J Physiol** 1999 Jul;277(1 Pt 2):F75–83
Modeling cell volume regulation in nonexcitable cells: the roles of the Na+ pump and of cotransport systems. Hernández JA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1067–80
Adrenergic stimulation of Na+ transport across alveolar epithelial cells involves activation of apical Cl– channels. Jiang X, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1610–20
Mitochondrial Ca2+ uptake, efflux, and sarcolemmal damage in Ca2+–overloaded cultured rat cardiomyocytes. Korge P, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2085–93
Induction of epithelial Na+ channel in rat ileum after proctocolectomy. Koyama K, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G975–84
Altered expression of Na transporters NHE–3, NaPi–II, Na–K–ATPase, BSC–1, and TSC in CRF rat kidneys. Kwon TH, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):F257–70
Na+–K+–Cl– cotransport in human fibroblasts is inhibited by cytomegalovirus infection. Maglova LM, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1330–41
Regulation of sodium transport in M–1 cells. Nakhoul NL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F998–F1007
Changes in intracellular Na+ and pH in rat heart during ischemia: role of Na+/H+ exchanger. Park CO, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1581–90
Oxygen modulates Na+ absorption in middle ear epithelium. Portier F, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C312–7
Inhibition of Na+/H+ exchange stimulates CCK secretion in STC–1 cells. Prpic V, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G689–95
Developmental expression of sodium entry pathways in rat nephron. Schmitt R, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):F367–81
Ca–sensitive Na transport in sheep omasum. Schultheiss G, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):G1331–44
Pressure–dependent renin release: effects of sodium intake and changes of total body sodium. Seeliger E, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R548–55
Influence of prior Na+ pump activity on pump and Na+/Ca2+ exchange currents in mouse ventricular myocytes. Su Z, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1808–17
Sodium–dependent amino acid transport is preserved in lyophilized reconstituted apical membranes from intestinal epithelium. Stevens BR, et al. **Anal Biochem** 1998 Dec 1; 265(1):117–22
Slow voltage–dependent inactivation of a sustained sodium current in stellate cells of rat entorhinal cortex layer II. Magistretti J, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:84–7
Properties of sodium currents and action potential firing in isolated cerebellar Purkinje neurons. Raman IM, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:93–6
Explosive increase in Na+ entry to acidified cells at elevated temperature. Evidence for the energy depletion model of heat stroke? Willis JS, et al. **Ann N Y Acad Sci** 1998 Sep 29;856:304–6
Sodium transport kinetics, cell membrane lipid composition, neural conduction and metabolic control in type 1 diabetic patients. Changes after a low–dose n–3 fatty acid dietary intervention. Stiefel P, et al. **Ann Nutr Metab** 1999; 43(2):113–20
Sodium–coupled transporters for Krebs cycle intermediates. Pajor AM. **Annu Rev Physiol** 1999;61:663–82 (77 ref.)
Regional differences in the Na+ reabsorption of sweat glands. Inoue Y, et al. **Appl Human Sci** 1998 Sep; 17(5):219–21
Treatment for chronic fatigue syndrome [letter; comment] Baschetti R. **Arch Intern Med** 1998 Nov 9;158(20):2266–7. Comment on: Arch Intern Med 1998 Apr 27;158(8):908–14.
Human red cells from pre (hepato splenic–late fetal) and postnatal (bone marrow–adult's) stages of haemopoiesis: Na+/Li+ exchange kinetic. Taborda D, et al. **Arch Physiol Biochem** 1998 Apr;106(2):81–7
23Na NMR demonstrates prolonged increase of intracellular sodium following transient regional ischemia in the in situ pig heart. Balschi JA. **Basic Res Cardiol** 1999 Feb; 94(1):60–9
Novel sodium binding properties of some cyclopentapeptide endothelin A selective receptor antagonists: electrospray and fast–atom–bombardment mass spectrometric studies. Ngoka LC, et al. **Biochem Biophys Res Commun** 1999 Jan 27;254(3):713–9
Role of HCO3– ions in cytosolic pH regulation in rat mast cells: evidence for a new Na+–independent, HCO3––dependent alkalinizing mechanism. Vilariño N, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):320–4
Thyroid hormone regulation of the Na+/glucose cotransporter SGLT1 in Caco–2 cells. Matosin–Matekalo M, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):633–40
Potassium and sodium binding to the outer mouth of the K+ channel. Guidoni L, et al. **Biochemistry** 1999 Jul 6; 38(27):8599–604
Membrane insertion scanning of the human ileal sodium/bile acid co–transporter. Hallén S, et al. **Biochemistry** 1999 Aug 31;38(35):11379–88
Contribution to Tl+, K+, and Na+ binding of Asn776, Ser775, Thr774, Thr772, and Tyr771 in cytoplasmic part of fifth transmembrane segment in alpha–subunit of renal Na,K–ATPase. Pedersen PA, et al. **Biochemistry** 1998 Dec 22;37(51):17818–27
A conserved aspartate residue, Asp187, is important for Na+–dependent proline binding and transport by the Na+/proline transporter of Escherichia coli. Quick M, et al. **Biochemistry** 1998 Sep 29;37(39):13800–6
Perinatal PTX–sensitive G–protein expression and regulation of conductive 22Na+ transport in lung apical membrane vesicles. Gambling L, et al. **Biochim Biophys Acta** 1999 Jul 8;1450(3):468–79
Temperature dependence of monovalent cation fluxes in isolated rat hearts: a magnetic resonance study. Gruwel MLH, et al. **Biochim Biophys Acta** 1998 Dec 9; 1415(1):41–55
Effect of mutation of glycosylation sites on the Na+ dependence of steady–state and transient currents generated by the neuronal GABA transporter. Liu Y, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):246–54
The kidney in chronic liver disease: circulatory abnormalities, renal sodium handling and role of natriuretic peptides. Valdivieso A. **Biol Res** 1998;31(3):291–304 (101 ref.)
Significance of Na/Ca exchange for Ca2+ buffering and electrical activity in mouse pancreatic beta–cells. Gall D, et al. **Biophys J** 1999 Apr;76(4):2018–28
Effects of pH on kinetic parameters of the Na–HCO3 cotransporter in renal proximal tubule. Gross E, et al. **Biophys J** 1999 Jun;76(6):3066–75
Sodium ion uptake into isolated plasma membrane vesicles: indirect effects of other ions. Lane JR, et al. **Biophys J** 1999 Mar;76(3):1452–6
Dynamic properties of Na+ ions in models of ion channels: a molecular dynamics study. Smith GR, et al. **Biophys J** 1998 Dec;75(6):2767–82
Involvement of Na+/Ca2+ exchanger in inside–out signaling through the platelet integrin IIbbeta3. Shiraga M, et al. **Blood** 1998 Nov 15;92(10):3710–20
The role of sodium in the in vivo absorption of glycine by the intestine of the amphibian discoglossus pictus. Saidane D, et al. **Boll Soc Ital Biol Sper** 1997 Jul–Aug; 73(7–8):115–22
Weaning–induced development of delta–opioid receptors in rat brain: differential effects of guanine nucleotides and sodium upon ligand–receptor recognition. Kelly MD, et al. **Br J Pharmacol** 1998 Nov;125(5):979–86
Central action of nitric oxide in the saltwater–acclimated duck: modulation of extrarenal sodium excretion and vasotocin release. Hübschle T, et al. **Brain Res** 1999 Apr 17;825(1–2):22–35
The influence of septal lesions on sodium and water retention

induced by Walker 256 tumor. Guimarães F, et al. **Braz J Med Biol Res** 1999 Mar;32(3):309–17

Effect of metabolic acidosis on renal tubular sodium handling in rats as determined by lithium clearance. Menegon LF, et al. **Braz J Med Biol Res** 1998 Oct;31(10):1269–73 (26 ref.)

Apoptosis of hair follicle cells in the second-degree burn wound unders hypernatremic conditions. Harada T, et al. **Burns** 1998 Aug;24(5):464–9

Loss of protection by hypoxic preconditioning in aging Fischer 344 rat hearts related to myocardial glycogen content and Na+ imbalance. Tani M, et al. **Cardiovasc Res** 1999 Mar;41(3):594–602

Repolarization abnormalities in cardiomyocytes of dogs with chronic heart failure: role of sustained inward current. Undrovinas AI, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):494–505

Sodium, PMA and calcium play an important role on intracellular pH modulation in rat mast cells. Alfonso A, et al. **Cell Physiol Biochem** 1998;8(6):314–27

Low oxygen tension induces positive inotropy and decreases a(i)Na in isolated guinea-pig cardiac ventricular papillary muscles. Jao MJ, et al. **Chin J Physiol** 1998 Jun 30; 41(2):101–6

Effects of norepinephrine and isopentenyladenosine on Na+/Ca2+ exchange currents in isolated guinea pig ventricular myocytes. Dun W, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):141–4

Effects of captopril and enalaprilat on intracellular Ca2+, Na+ contents and pH in hypoxic and reoxygenated cardiomyocytes. Wang J, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Mar;18(2):140–2

Intracellular sodium accumulation during ischemia as the substrate for reperfusion injury. Imahashi K, et al. **Circ Res** 1999 Jun 25;84(12):1401–6

Sodium regulation during ischemia versus reperfusion and its role in injury [editorial] Murphy E, et al. **Circ Res** 1999 Jun 25;84(12):1469–70

Propagation of cardiomyocyte hypercontracture by passage of Na(+) through gap junctions. Ruiz-Meana M, et al. **Circ Res** 1999 Aug 6;85(3):280–7

Decreased sodium and increased transient outward potassium currents in iron-loaded cardiac myocytes. Implications for the arrhythmogenesis of human siderotic heart disease. Kuryshev YA, et al. **Circulation** 1999 Aug 10;100(6):675–83

Novel, ultraslow inactivating sodium current in human ventricular cardiomyocytes. Maltsev VA, et al. **Circulation** 1998 Dec 8;98(23):2545–52

Effect of cross-fostering on neonatal sodium balance and adult blood pressure in the spontaneously hypertensive rat. Gouldsborough I, et al. **Clin Exp Pharmacol Physiol** 1998 Dec;25(12):1024–31

Preventive nutritional factors in epidemiology: interaction between sodium and calcium. Mizushima S, et al. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):573–5 (27 ref.)

Characterization of gastric Na+/I- symporter of the rat. Kotani T, et al. **Clin Immunol Immunopathol** 1998 Dec; 89(3):271–8

Renal haemodynamics, sodium and water reabsorption during continuous intravenous infusion of recombinant interleukin-2. Geertsen PF, et al. **Clin Sci (Colch)** 1998 Jul; 95(1):73–81

Effects of ursodeoxycholic acid on systemic, renal and forearm haemodynamics and sodium homoeostasis in cirrhotic patients with refractory ascites. Wong F, et al. **Clin Sci (Colch)** 1999 May;96(5):467–74

Na-dependent changes in intracellular Ca in spontaneously hypertensive rat hearts. Anderson SE, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jul; 123(3):299–309

Crude oil exposure affects air-breathing frequency, blood phosphate levels and ion regulation in an air-breathing teleost fish, Hoplosternum littorale. Brauner CJ, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Jun;123(2):127–34

Volume regulation and 'cross-talk' in sodium-absorbing epithelial cells. Schultz SG, et al. **Contrib Nephrol** 1998; 123:205–19 (82 ref.)

Cell volume-regulated cation channels. Wehner F. **Contrib Nephrol** 1998;123:8–20 (79 ref.)

Comparison of rabbit and human corneas stored in Optisol-GS: changes in stromal sodium. Jablonski-Stiemke MM, et al. **Curr Eye Res** 1998 Nov;17(11):1044–8

Chloride and sodium transport across bovine ciliary body/epithelium (CBE). To CH, et al. **Curr Eye Res** 1998 Sep;17(9):896–902

Cell localization and ontogeny of sodium transport pathways in the distal nephron: perspectives in function and failure. Bachmann S. **Curr Opin Nephrol Hypertens** 1999 Jan; 8(1):31–8 (90 ref.)

A pharmacological review of competitive inhibitors and substrates of high-affinity, sodium-dependent glutamate transport in the central nervous system. Bridges RJ, et al. **Curr Pharm Des** 1999 May;5(5):363–79 (127 ref.)

T-1095, an inhibitor of renal Na+-glucose cotransporters, may provide a novel approach to treating diabetes. Oku A, et al. **Diabetes** 1999 Sep;48(9):1794–800

Contribution of Na/Ca exchange to Ca2+ outflow and entry in the rat pancreatic beta-cell: studies with antisense oligonucleotides. Van Eylen F, et al. **Diabetes** 1998 Dec; 47(12):1873–80

Molecular physiology of colonic epithelial sodium absorption. Clauss W. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):453–5 (57 ref.)

The Schizosaccharomyces pombe Pzh1 protein phosphatase regulates Na+ ion influx in a Trk1-independent fashion. Balcells L, et al. **Eur J Biochem** 1999 Feb;260(1):31–7

Control of Na+ transport in salivary duct epithelial cells by cytosolic Cl- and Na+. Cook DI, et al. **Eur J Morphol** 1998 Aug;36 Suppl:67–73 (20 ref.)

Early sodium elevations induced by combined oxygen and glucose deprivation in pyramidal cortical neurons. Pisani A, et al. **Eur J Neurosci** 1998 Nov;10(11):3572–4

The pH response of rat cutaneous nociceptors correlates with extracellular [Na+] and is increased under amiloride. Steen KH, et al. **Eur J Neurosci** 1999 Aug;11(8):2783–92

Effect of Na+ on Na+,K+-ATPase alpha-subunit expression and Na+-pump activity in aortic smooth muscle cells. Liu X, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):113–9

Ischemia/reperfusion-induced arrhythmias in anaesthetized rats: a role of Na+ and Ca2+ influx. Lu HR, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):233–9

The effect of cis-Diamminedichloroplatinum II on Na+ and K+ transport in the rabbit cortical collecting duct. Susumu O, et al. **Eur J Pharmacol** 1999 Jul 28;378(1):63–8

Role of sodium ion influx in depolarization-induced neuronal cell death by high KCl or veratridine. Takahashi S, et al. **Eur J Pharmacol** 1999 May 21;372(3):297–304

Glucagon amplifies tetrodotoxin-resistant Na+ oscillations in glucose-stimulated pancreatic beta-cells. Grapengiesser E. **Exp Clin Endocrinol Diabetes** 1998;106(4):303–9

Sodium balance and hypertension: rare genetic disorders expose pathogenic mechanisms. Burnier M. **Exp Nephrol** 1998 Nov-Dec;6(6):496–501 (29 ref.)

Cryptosporidium parvum infection in suckling rats: impairment of mucosal permeability and Na(+)-glucose cotransport. Capet C, et al. **Exp Parasitol** 1999 Feb; 91(2):119–25

Regulatory role of cAMP in transport of Na+, Cl- and short-chain fatty acids across sheep ruminal epithelium. Gäbel G, et al. **Exp Physiol** 1999 Mar;84(2):333–45

The role of Na+-H+ exchange in fluid and solute transport in the rat efferent ducts. Hansen LA, et al. **Exp Physiol** 1999 May;84(3):521–7

Sequence analysis and functional studies of a chromosomal region of alkaliphilic Bacillus firmus OF4 encoding an ABC-type transporter with similarity of sequence and Na+ exclusion capacity to the Bacillus subtilis NatAB transporter. Wei Y, et al. **Extremophiles** 1999 May; 3(2):113–20

Binding of the third Na+ ion to the cytoplasmic side of the Na,K-ATPase is electrogenic. Domaszewicz W, et al. **FEBS Lett** 1999 Sep 17;458(2):241–6

Reversal of mitochondrial Na/Ca exchange during metabolic inhibition in rat cardiomyocytes. Griffiths EJ. **FEBS Lett** 1999 Jun 25;453(3):400–4

Enterococcus hirae vacuolar ATPase is expressed in response to pH as well as sodium. Ikegami M, et al. **FEBS Lett** 1999 Jul 2;454(1–2):67–70

Li+ protects nerve cells against destabilization of Ca2+ homeostasis and delayed death caused by removal of external Na+. Khodorov B, et al. **FEBS Lett** 1999 Apr 1;448(1):173–6

Differential effects of alkaloids on sodium currents of isolated single skeletal muscle fibers. Körper S, et al. **FEBS Lett** 1998 Oct 2;436(2):251–5

Sequence of subunit a of the Na(+)-translocating F1F0-ATPase of Acetobacterium woodii: proposal for residues involved in Na+ binding. Rahlfs S, et al. **FEBS Lett** 1999 Jun 18;453(1–2):35–40

Change to alanine of one out of four selectivity filter glycines in KtrB causes a two orders of magnitude decrease in the affinities for both K+ and Na+ of the Na+ dependent K+ uptake system KtrAB from Vibrio alginolyticus. Tholema N, et al. **FEBS Lett** 1999 May 7;450(3):217–20

The Na+ and K+ transport deficiency of an E. coli mutant lacking the NhaA and NhaB proteins is apparent and caused by impaired osmoregulation. Verkhovskaya ML, et al. **FEBS Lett** 1998 Nov 20;439(3):271–4

Identification of a calcineurin-independent pathway required for sodium ion stress response in Saccharomyces cerevisiae. Ganster RW, et al. **Genetics** 1998 Sep;150(1):31–42

Sodium-bicarbonate cotransport in retinal astrocytes and Müller cells of the rat. Newman EA. **Glia** 1999 Jun; 26(4):302–8

Fluorescence imaging of Na+ influx via P2X receptors in cochlear hair cells. Housley GD, et al. **Hear Res** 1998 May; 119(1–2):1–13

K+ and Na+ absorption by outer sulcus epithelial cells. Marcus DC, et al. **Hear Res** 1999 Aug;134(1–2):48–56

Modulation of frequency selectivity by Na+- and K+-conductances in neurons of auditory thalamus. Tennigkeit F, et al. **Hear Res** 1999 Jan;127(1–2):77–85

cAMP mediates transepithelial K+ and Na+ transport in a strial marginal cell line. Tu TY, et al. **Hear Res** 1999 Jan;127(1–2):149–57

Interstitial accumulation of Na+ and K+ during flush-out and cold storage of rat livers: implications for graft survival. Tian Yh, et al. **Hepatology** 1998 Nov; 28(5):1327–31

Nitric oxide-induced inhibition of transport by thick ascending limbs from Dahl salt-sensitive rats. Garcia NH, et al. **Hypertension** 1999 Sep;34(3):508–13

Alpha1- and alpha2-adrenoceptor control of sodium transport reverses in developing hypertension. Gesek FA. **Hypertension** 1999 Jan;33(1 Pt 2):524–9

Parameters of lymphocyte Na+-Ca2+ regulation and blood pressure: the gender effect. Horiguchi M, et al. **Hypertension** 1998 Nov;32(5):869–74

Chronic sodium balance and blood pressure response to captopril in conscious mice. Mattson DL, et al. **Hypertension** 1998 Nov;32(5):923–8

Intracellular sodium modulates the expression of angiotensin II subtype 2 receptor in PC12W cells. Tamura M, et al. **Hypertension** 1999 Feb;33(2):626–32

Activation of the Na(+)-H+ exchanger modulates angiotensin II-stimulated Na(+)-dependent Mg2+ transport in vascular smooth muscle cells in genetic hypertension. Touyz RM, et al. **Hypertension** 1999 Sep; 34(3):442–9

Granulocyte-macrophage colony-stimulating factor and interleukin-3 cause basophil histamine release by a common pathway: downregulation by sodium. Tedeschi A, et al. **Immunology** 1999 Feb;96(2):164–70

Erythrocyte sodium and Na+, K(+)-ATPase activity in untreated hypertensives and their first degree relatives. Sudhakar K, et al. **Indian J Biochem Biophys** 1998 Dec; 35(6):382–4

Interdialytic weight gain: role of salt and water intake [editorial; comment] Tzamaloukas AH, et al. **Int J Artif Organs** 1999 Feb;22(2):64–8. Comment on: Int J Artif Organs 1988 May;11(3):161–8.

Na(+)/Ca(2+) exchange inhibitors modulate thapsigargin-induced Ca(2+) and Na(+) influx in human lymphocytes. Nofer JR, et al. **Int J Clin Lab Res** 1999; 29(2):89–92

Effectiveness in learning complex problem solving and salivary ion indices of psychological stress and activation. Richter P, et al. **Int J Psychophysiol** 1998 Nov;30(3):329–37

Genistein inhibits the regulation of active sodium-potassium transport by dopaminergic agonists in nonpigmented ciliary epithelium. Nakai Y, et al. **Invest Ophthalmol Vis Sci** 1999 Jun;40(7):1460–6

Thrombin inhibits active sodium-potassium transport in porcine lens. Okafor MC, et al. **Invest Ophthalmol Vis Sci** 1999 Aug;40(9):2033–8

Na-K-Cl cotransport in normal and glaucomatous human trabecular meshwork cells. Putney LK, et al. **Invest Ophthalmol Vis Sci** 1999 Feb;40(2):425–34

Enhanced activity of sodium-lithium countertransport in patients with cardiac syndrome X: a potential link between cardiac and metabolic syndrome X. Gaspardone A, et al. **J Am Coll Cardiol** 1998 Dec;32(7):2031–4

Enhanced activity of sodium-lithium countertransport in patients with cardiac syndrome X: a potential link between cardiac and metabolic syndrome X [letter] Hardman TC, et al. **J Am Coll Cardiol** 1999 Sep;34(3):955–7

Corticosteroid-dependent sodium transport in a novel immortalized mouse collecting duct principal cell line. Bens M, et al. **J Am Soc Nephrol** 1999 May;10(5):923–34

Contrasting effects of vasodilators on blood pressure and sodium balance in the hypertension of autonomic failure. Jordan J, et al. **J Am Soc Nephrol** 1999 Jan;10(1):35–42

Upregulation of atrial natriuretic peptide gene expression in remnant kidney of rats with reduced renal mass. Totsune K, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1613–9

Distribution of the sodium/phosphate transporter during postnatal ontogeny of the rat kidney. Traebert M, et al. **J Am Soc Nephrol** 1999 Jul;10(7):1407–15

Sodium-free fluid ingestion decreases plasma sodium during exercise in the heat. Vrijens DM, et al. **J Appl Physiol** 1999 Jun;86(6):1847–51

Quantitation of intracellular [Na+] in vivo by using TmDOTP5- as an NMR shift reagent and extracellular marker. Winter PM, et al. **J Appl Physiol** 1998 Nov; 85(5):1806–12

The polar flagellar motor of Vibrio cholerae is driven by an Na+ motive force. Kojima S, et al. **J Bacteriol** 1999 Mar;181(6):1927–30

Cloning and expression of the gene for the Na+-coupled serine transporter from Escherichia coli and characteristics of the transporter. Ogawa W, et al. **J Bacteriol** 1998 Dec; 180(24):6749–52

Functional interaction between PomA and PomB, the Na(+)-driven flagellar motor components of Vibrio alginolyticus. Yorimitsu T, et al. **J Bacteriol** 1999 Aug; 181(16):5103–6

Characterization, cDNA cloning, and functional expression of mouse ileal sodium-dependent bile acid transporter. Saeki T, et al. **J Biochem (Tokyo)** 1999 Apr;125(4):846–51

Evidence for contribution by increased cytoplasmic Na+ to the insulinotropic action of PACAP38 in HIT-T15 cells. Filipsson K, et al. **J Biol Chem** 1998 Dec 4;273(49):32602–7

Mice lacking the basolateral Na-K-2Cl cotransporter have impaired epithelial chloride secretion and are profoundly deaf. Flagella M, et al. **J Biol Chem** 1999 Sep 17; 274(38):26946–55

ATP1AL1, a member of the non-gastric H,K-ATPase family, functions as a sodium pump. Grishin AV, et al. **J Biol Chem** 1998 Oct 23;273(43):27772–8

Electrogenic antiport activities of the Gram-positive Tet proteins include a Na+(K+)/K+ mode that mediates net K+ uptake. Guffanti AA, et al. **J Biol Chem** 1998 Oct 9;273(41):26447–54

Identification and characterization of the sodium-binding site

of activated protein C. He X, et al. **J Biol Chem** 1999 Feb 19;274(8):4970–6

Primary structure and functional characteristics of a mammalian sodium-coupled high affinity dicarboxylate transporter. Kekuda R, et al. **J Biol Chem** 1999 Feb 5; 274(6):3422–9

Cysteine scanning mutagenesis of the segment between putative transmembrane helices IV and V of the high affinity Na+/Glucose cotransporter SGLT1. Evidence that this region participates in the Na+ and voltage dependence of the transporter. Lo B, et al. **J Biol Chem** 1998 Nov 6;273(45):29341–51

Inversion of the intracellular Na+/K+ ratio blocks apoptosis in vascular smooth muscle at a site upstream of caspase-3. Orlov SN, et al. **J Biol Chem** 1999 Jun 4; 274(23):16545–52

Genetic selection of mutations in the high affinity K+ transporter HKT1 that define functions of a loop site for reduced Na+ permeability and increased Na+ tolerance. Rubio F, et al. **J Biol Chem** 1999 Mar 12;274(11):6839–47

Isoprenylcysteine-O-carboxyl methyltransferase regulates aldosterone-sensitive Na(+) reabsorption. Stockand JD, et al. **J Biol Chem** 1999 Sep 17;274(38):26912–6

S-adenosyl-L-homocysteine hydrolase regulates aldosterone-induced Na+ transport. Stockand JD, et al. **J Biol Chem** 1999 Feb 5;274(6):3842–50

Shear stress-mediated extracellular signal-regulated kinase activation is regulated by sodium in endothelial cells. Potential role for a voltage-dependent sodium channel. Traub O, et al. **J Biol Chem** 1999 Jul 16;274(29):20144–50

Muscarinic activation causes biphasic inotropic response and decreases cellular Na+ activity in canine cardiac Purkinje fibers. Yang JM, et al. **J Biomed Sci** 1999 May-Jun; 6(3):176–82

Effects of rilmenidine on stress-induced peak blood pressure and renal function. Fauvel JP, et al. **J Cardiovasc Pharmacol** 1999 Jul;34(1):41–5

Development of monoclonal antibodies against the human sodium iodide symporter: immunohistochemical characterization of this protein in thyroid cells. Castro MR, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2957–62

Effects of Npt2 gene ablation and low-phosphate diet on renal Na(+)/phosphate cotransport and cotransporter gene expression. Hoag HM, et al. **J Clin Invest** 1999 Sep; 104(6):679–86

H(+)/solute-induced intracellular acidification leads to selective activation of apical Na(+)/H(+) exchange in human intestinal epithelial cells. Thwaites DT, et al. **J Clin Invest** 1999 Sep;104(5):629–35

Accessory factors and the regulation of epithelial sodium channel activity. Warnock DG. **J Clin Invest** 1999 Mar; 103(5):593

Intracellular pH regulation of CA1 neurons in Na(+)/H(+) isoform 1 mutant mice. Yao H, et al. **J Clin Invest** 1999 Sep;104(5):637–45

Sodium dynamics underlying burst firing and putative mechanisms for the regulation of the firing pattern in midbrain dopamine neurons: a computational approach. Canavier CC. **J Comput Neurosci** 1999 Jan;6(1):49–69

Contributions of K+:Cl- cotransport and Na+/K+-ATPase to basolateral ion transport in malpighian tubules of Drosophila melanogaster. Linton SM, et al. **J Exp Biol** 1999 Jun;202 (Pt 11):1561–70

Isolation and chromosomal mapping of a novel human gene showing homology to Na+/PO4 cotransporter. Shibui A, et al. **J Hum Genet** 1999;44(3):190–2

Role of insulin resistance in the genesis of sodium sensitivity in essential hypertension. Kuroda S, et al. **J Hum Hypertens** 1999 Apr;13(4):257–62

Sodium transport and exchange in spontaneously hypertensive rats [letter] Kisters K, et al. **J Hypertens** 1999 May;17(5):715

Glomerular ultrafiltration of IGF-I may contribute to increased renal sodium retention in diabetic nephropathy. Wang SN, et al. **J Lab Clin Med** 1999 Aug;134(2):154–60

Substrate specificity of the ileal and the hepatic Na(+)/bile acid cotransporters of the rabbit. I. Transport studies with membrane vesicles and cell lines expressing the cloned transporters. Kramer W, et al. **J Lipid Res** 1999 Sep; 40(9):1604–17

Effect of two tyrosine mutations on the activity and regulation of the renal type II Na/Pi-cotransporter expressed in oocytes. Hernando N, et al. **J Membr Biol** 1999 Apr 1;168(3):275–82

Sodium recirculation and isotonic transport in toad small intestine. Nedergaard S, et al. **J Membr Biol** 1999 Apr 1; 168(3):241–51

Voltage-dependent conductance changes in a nonvoltage-activated sodium current from a mast cell line. Parekh AB. **J Membr Biol** 1998 Sep 15;165(2):145–51

Ion selectivity of the cytoplasmic binding sites of the Na,K-ATPase: I. Sodium binding is associated with a conformational rearrangement. Schneeberger A, et al. **J Membr Biol** 1999 Apr 1;168(3):221–8

Na+-coupled alanine transport in LLC-PK1 cells: the relationship between the Km for Na+ at low [Alanine] and potential dependence for the system. Wilson JJ, et al. **J Membr Biol** 1998 Oct 1;165(3):275–82

Na+-driven flagellar motor resistant to phenamil, an amiloride analog, caused by mutations in putative channel components. Kojima S, et al. **J Mol Biol** 1999 Jan 29; 285(4):1537–47

Cytoplasmic sodium, calcium and free energy change of the Na+/Ca2+-exchanger in rat ventricular myocytes. Baartscheer A, et al. **J Mol Cell Cardiol** 1998 Nov; 30(11):2437–47

Na(+)influx via Na(+)/H(+)exchange activates protein kinase C isozymes delta and epsilon in cultured neonatal rat cardiac myocytes. Hayasaki-Kajiwara Y, et al. **J Mol Cell Cardiol** 1999 Aug;31(8):1559–72

Acute effects of thyroid hormone analogs on sodium currents in neonatal rat myocytes. Huang CJ, et al. **J Mol Cell Cardiol** 1999 Apr;31(4):881–93

Multi-dose crystalloid cardioplegia preserves intracellular sodium homeostasis in myocardium. Schepkin VD, et al. **J Mol Cell Cardiol** 1999 Sep;31(9):1643–51

Anoxia depresses sodium-calcium exchange currents in guinea-pig ventricular myocytes. Shigematsu S, et al. **J Mol Cell Cardiol** 1999 Apr;31(4):895–906

Glutamine uptake at the blood-brain barrier is mediated by N-system transport. Ennis SR, et al. **J Neurochem** 1998 Dec;71(6):2565–73

Modeling of the interaction of Na+ and K+ with the binding of dopamine and [3H]WIN 35,428 to the human dopamine transporter. Li LB, et al. **J Neurochem** 1999 Mar; 72(3):1095–109

5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53–60

Activation of protein kinase C increases neuronal excitability by regulating persistent Na+ current in mouse neocortical slices. Astman N, et al. **J Neurophysiol** 1998 Sep; 80(3):1547–51

In vivo NGF deprivation reduces SNS expression and TTX-R sodium currents in IB4-negative DRG neurons. Fjell J, et al. **J Neurophysiol** 1999 Feb;81(2):803–10

Intracellular sodium and calcium homeostasis during hypoxia in dopamine neurons of rat substantia nigra pars compacta. Guatteo E, et al. **J Neurophysiol** 1998 Nov;80(5):2237–43

Kinetic and stochastic properties of a persistent sodium current in mature guinea pig cerebellar Purkinje cells. Kay AR, et al. **J Neurophysiol** 1998 Sep;80(3):1167–79

Regulation of intracellular chloride by cotransporters in developing lateral superior olive neurons. Kakazu Y, et al. **J Neurosci** 1999 Apr 15;19(8):2843–51

Significance of fractional excretion of sodium and endothelin levels in the early diagnosis of renal failure in septic neonatal piglets. Lievano G, et al. **J Pediatr Surg** 1998 Oct; 33(10):1480–2

Effects of specific inhibition of cyclooxygenase-2 on sodium balance, hemodynamics, and vasoactive eicosanoids. Catella-Lawson F, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):735–41

Cellular mechanisms of renal adaptation of sodium dependent sulfate cotransport to altered dietary sulfate in rats. Sagawa K, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1056–62

Hyperforin, a major antidepressant constituent of St. John's Wort, inhibits serotonin uptake by elevating free intracellular Na+I. Singer A, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1363–8

Inhibition of transient and persistent Na+ current fractions by the new anticonvulsant topiramate. Taverna S, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):960–8

Chronic lithium treatment inhibits amiloride-sensitive sodium transport in the rat distal nephron. Thomsen K, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):443–7

Depolarization increases the apparent affinity of the Na+-K+ pump to cytoplasmic Na+ in isolated guinea-pig ventricular myocytes. Barmashenko G, et al. **J Physiol (Lond)** 1999 Jun 15;517 (Pt 3):691–8

Early metabolic inhibition-induced intracellular sodium and calcium increase in rat cerebellar granule cells. Chen WH, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):133–46

Non-genomic action of the mineralocorticoid aldosterone on cytosolic sodium in cultured kidney cells. Gekle M, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):255–63

Stimulation of Na+-alanine cotransport activates a voltage-dependent conductance in single proximal tubule cells isolated from frog kidney. Robson L, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):193–200

Contribution of Na+-H+ exchange to sodium reabsorption in the loop of henle: a microperfusion study in rats. Shirley DG, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):243–9

Elevation of intracellular Na+ induced by hyperpolarization at the dendrites of pyramidal neurones of mouse hippocampus. Tsubokawa H, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):135–42

Effects of nicotine administration on elemental concentrations in mouse granulosa cells, maturing oocytes and oviduct epithelium studied by X-ray microanalysis. Jin Z, et al. **J Submicrosc Cytol Pathol** 1998 Oct; 30(4):517–20

A signaling pathway for stimulation of Na+ uptake induced by angiotensin II in primary cultured rabbit renal proximal tubule cells. Han HJ, et al. **J Vet Med Sci** 1999 Feb; 61(2):135–41

A sodium-dependent neutral-amino-acid transporter mediates infections of feline and baboon endogenous retroviruses and simian type D retroviruses. Tailor CS, et al. **J Virol** 1999 May;73(5):4470–4

Molecular pathophysiology of inborn renal Na+ transport defects. Greger R. **Kidney Blood Press Res** 1998; 21(2-4):222–5 (30 ref.)

Leukotriene D4 inhibits Na+ uptake through cAMP and PLC pathways in primary cultured renal proximal tubular cells. Han HJ, et al. **Kidney Blood Press Res** 1999; 22(3):106–13

Molecular genetics and clinical phenotype in heritable disorders of tubular Na+ transport. Hildebrandt F. **Kidney Blood Press Res** 1998;21(2-4):217–21 (50 ref.)

Sodium reabsorption and distribution of Na+/K+-ATPase during postischemic injury to the renal allograft. Kwon O, et al. **Kidney Int** 1999 Mar;55(3):963–75

Endothelial cells regulate proximal tubule epithelial cell sodium transport. Linas SL, et al. **Kidney Int** 1999 Apr; 55(4):1251–8

Chronic K depletion inhibits renal brush border membrane Na/sulfate cotransport. Markovich D, et al. **Kidney Int** 1999 Jan;55(1):244–51

Circadian variations of renal sodium handling in patients with orthostatic hypotension. Pechère-Bertschi A, et al. **Kidney Int** 1998 Oct;54(4):1276–82

Osmotic regulation of the Na+/myo-inositol cotransporter and postinduction normalization. Yorek MA, et al. **Kidney Int** 1999 Jan;55(1):215–24

Characteristics of sodium uptake across the basolateral membrane of oxyntic cells. Fritzenwanger M, et al. **Kidney Int Suppl** 1998 Sep;67:S143–5

Sodium, angiotensin II, blood pressure, and cardiac hypertrophy. Morgan TO, et al. **Kidney Int Suppl** 1998 Sep;67:S213–5

Myocardial Na+ content after infarction during scar development. Horn M, et al. **MAGMA** 1998 Sep; 6(2-3):179–80

Changes of intracellular sodium T2 relaxation times during ischemia and reperfusion in isolated rat hearts. Van Emous JG, et al. **Magn Reson Med** 1998 Nov;40(5):679–83

The mechanism of coupling of the organic anion exchange to Na(+)-dicarboxylate symport in basolateral membrane vesicles. Rebane EN, et al. **Membr Cell Biol** 1998;12(1):51–6

Design and synthesis of conformationally constrained inhibitors of high-affinity, sodium-dependent glutamate transporters. Chamberlin AR, et al. **Methods Enzymol** 1998; 296:175–89

The Nha1 antiporter of Saccharomyces cerevisiae mediates sodium and potassium efflux. Bañuelos MA, et al. **Microbiology** 1998 Oct;144 (Pt 10):2749–58

Pathogenesis of renal sodium retention in congestive heart failure. Andreoli TE. **Miner Electrolyte Metab** 1999 Jan-Apr;25(1-2):11–20 (46 ref.)

A single cell model of myocardial reperfusion injury: changes in intracellular Na+ and Ca2+ concentrations in guinea pig ventricular myocytes. Nakamura T, et al. **Mol Cell Biochem** 1999 Apr;194(1-2):147–57

Effect of calbindin D 28K on sodium transport by the luminal membrane of the rabbit nephron. Brunette MG, et al. **Mol Cell Endocrinol** 1999 Jun 25;152(1-2):161–8

The sodium ion translocating glutaconyl-CoA decarboxylase from Acidaminococcus fermentans: cloning and function of the genes forming a second operon. Braune A, et al. **Mol Microbiol** 1999 Jan;31(2):473–87

Characterization of a bioengineered chimeric Na+-nucleoside transporter. Wang J, et al. **Mol Pharmacol** 1999 Feb;55(2):234–40

A family of mammalian Na+-dependent L-ascorbic acid transporters. Tsukaguchi H, et al. **Nature** 1999 May 6; 399(6731):70–5

Possible role of disturbed Na+ homeostasis in mouse vas deferens contractile hyperreactivity after immunological sensitization. Souilem O, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Oct; 358(4):474–82

Sodium transport with different dialysis ultrafiltration schedules using a bio-feedback module (BFB). Di Giulio S, et al. **Nephrol Dial Transplant** 1998;13 Suppl 6:39–42

Nicotinamide inhibits sodium-dependent phosphate cotransport activity in rat small intestine. Katai K, et al. **Nephrol Dial Transplant** 1999 May;14(5):1195–201

Response to hypertonicity in mesothelial cells: role of Na+/myo-inositol co-transporter. Matsuoka Y, et al. **Nephrol Dial Transplant** 1999 May;14(5):1217–23

Glomerulonephritis and sodium retention: enhancement of Na+/K+-ATPase activity in the collecting duct is shared by rats with puromycin induced nephrotic syndrome and mice with spontaneous lupus-like glomerulonephritis. Zolty E, et al. **Nephrol Dial Transplant** 1999 Sep; 14(9):2192–5

Voltage-activated sodium currents in a cell line expressing a Cu,Zn superoxide dismutase typical of familial ALS. Zona C, et al. **Neuroreport** 1998 Oct 26;9(15):3515–8

Voltage- and use-dependent inhibition by amphetamine of field potentials and Na+ current in rat nucleus accumbens neurons. Huang RC, et al. **Neurosci Lett** 1998 Aug 7; 252(1):65–8

Functional evidence for involvement of bumetanide-sensitive Na+K+2Cl- cotransport in the hepatoportal Na+ receptor of the Sprague-Dawley rat. Morita H, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):65–8

K(+)-induced reversal of astrocyte glutamate uptake is limited by compensatory changes in intracellular Na+. Longuemare MC, et al. **Neuroscience** 1999;93(1):285–92

Hypo-osmolarity stimulates and high sodium concentration inhibits thyrotropin-releasing hormone secretion from rat hypothalamus. Nikodémová M, et al. **Neuroscience** 1999; 88(4):1299–306

Effects of depolarization evoked Na+ influx on intracellular

Na+ concentration at neurosecretory nerve endings. Turner D, et al. **Neuroscience** 1998 Sep;86(2):547–56

Effects of endothelin-3 on water and sodium excretion during extracellular volume expansion. Majowicz MP, et al. **Peptides** 1998;19(8):1373–6

The Na+2Cl–K+ cotransporter in the rectal gland of Squalus acanthias is activated by cell shrinkage. Greger R, et al. **Pflugers Arch** 1999 Jul;438(2):165–76

IGF-I and vanadate stimulate Na/Pi-cotransport in OK cells by increasing type II Na/Pi-cotransporter protein stability. Jehle AW, et al. **Pflugers Arch** 1998 Dec;437(1):149–54

Evidence for a Na+/Ca2+ exchange mechanism in frog skin epithelium. Madsen KH, et al. **Pflugers Arch** 1999 Jan; 437(2):175–81

Novel properties of the depolarization-induced endogenous sodium conductance in the Xenopus laevis oocyte. Rettinger J. **Pflugers Arch** 1999 May;437(6):917–24

EP3 receptors inhibit antidiuretic-hormone-dependent sodium transport across frog skin epithelium. Rytved KA, et al. **Pflugers Arch** 1999 Jan;437(2):213–8

Roles of Na(+)-Ca2+ exchange and of mitochondria in the regulation of presynaptic Ca2+ and spontaneous glutamate release. Scotti AL, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28; 354(1381):357–64

Correlation between [Na+], [glycosaminoglycan] and Na+/K+ pump density in the extracellular matrix of bovine articular cartilage. Mobasheri A. **Physiol Res** 1998; 47(1):47–52

Flexner's Na+ clearances and the histological structure and age of the placenta in various species. Faber JJ. **Placenta** 1999 Mar-Apr;20(2–3):141–7

Electrogenic sodium transport mediated by an amiloride-sensitive conductance in a porcine trophectoderm cell line. Notarianni E, et al. **Placenta** 1999 Mar-Apr;20(2–3):149–54

The Arabidopsis HAL2-like gene family includes a novel sodium-sensitive phosphatase. Gil-Mascarell R, et al. **Plant J** 1999 Feb;17(4):373–83

Effects of changes in membrane sodium flux on virulence gene expression in Vibrio cholerae. Häse CC, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3183–7

Na(+)-H(+) exchange in salivary secretory cells is controlled by an intracellular Na(+) receptor. Ishibashi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9949–53

Salt restriction induces pseudohypoaldosteronism type 1 in mice expressing low levels of the beta-subunit of the amiloride-sensitive epithelial sodium channel. Pradervand S, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1732–7

Stretch-activated single K+ channels account for whole-cell currents elicited by swelling. Vanoye CG, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):6511–6

Two serine residues of the glutamate transporter GLT-1 are crucial for coupling the fluxes of sodium and the neurotransmitter. Zhang Y, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1710–5

Na(+)-dependent metabolic coupling upon 5-HT1B receptor activation by sumatriptan and related agonists. Pauwels PJ. **Receptors Channels** 1998;5(6):367–73

Variability of channel subconductance states of the cardiac sodium channel induced by protease. Saint DA, et al. **Receptors Channels** 1999;6(4):283–94

Effect of chronic metabolic acidosis on renal growth and renal sodium handling in uninephrectomized rats. Menegon LF, et al. **Ren Fail** 1999 Jan;21(1):13–22

Pathogenesis of sodium and water retention in cardiac failure. Schrier RW, et al. **Ren Fail** 1998 Nov;20(6):773–81 (41 ref.)

Salt tolerance conferred by overexpression of a vacuolar Na+/H+ antiport in Arabidopsis [see comments] Apse MP, et al. **Science** 1999 Aug 20;285(5431):1256–8. Comment in: Science 1999 Aug 20;285(5431):1222–3.

Taking transgenic plants with a pinch of salt [comment] Frommer WB, et al. **Science** 1999 Aug 20;285(5431):1222–3. Comment on: Science 1999 Aug 20;285(5431):1256–8.

Single-channel recording of a store-operated Ca2+ channel in Jurkat T lymphocytes. Kerschbaum HH, et al. **Science** 1999 Feb 5;283(5403):836–9

Hypertension. Warnock DG. **Semin Nephrol** 1999 Jul; 19(4):374–80 (55 ref.)

Sodium influx plays a major role in the membrane depolarization induced by oxygen and glucose deprivation in rat striatal spiny neurons. Calabresi P, et al. **Stroke** 1999 Jan;30(1):171–9

Cadmium binding and sodium-dependent solute transport in renal brush-border membrane vesicles. Ahn DW, et al. **Toxicol Appl Pharmacol** 1999 Feb 1;154(3):212–8

Na+ :H+ exchange inhibition induces intracellular acidosis and differentially impairs cell growth and viability of human and rat hepatocarcinoma cells. García-Cañero R, et al. **Toxicol Lett** 1999 Jun 1;106(2–3):215–28

[Blood pressure responses to cold pressor stress and its relation to sodium metabolism in salt-sensitive children] Mu J, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Aug; 77(8):583–5 (Eng. Abstr.) **(Chi)**

[Investigations on renal excretion of sodium in dairy cattle] Michelini F, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jan;106(1):18–21 (Eng. Abstr.) **(Ger)**

[Na(+)-Ca2+ exchange] Matsuoka S, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1555–60 (49 ref.) **(Jpn)**

[The mechanisms of Na+, K(+)-ATPase in renal tubular epithelium] Beltowski J. **Postepy Biochem** 1998; 44(4):282–91 (159 ref.) **(Pol)**

[Similarity of the effects of first-generation antiarrhythmia agents and decreased extracellular concentration of sodium ions on action potentials of atrial myocytes] Grigaliunene I, et al. **Biofizika** 1999 Mar-Apr;44(2):330–6 (Eng. Abstr.) **(Rus)**

[Paracellular ion transfer in kidney and tissues and its pharmacological regulation] Lebedev AA. **Vestn Ross Akad Med Nauk** 1999;(3):25–8 (12 ref.) (Eng. Abstr.) **(Rus)**

[Effect of acetazolamide on sodium and potassium absorption from the rumen of the reindeer Rangifer tarandus] Chalyshev AV. **Zh Evol Biokhim Fiziol** 1998 Nov-Dec; 34(6):732–6 **(Rus)**

[Variations in the contents of calcium, phosphate, magnesium and sodium in bones of castrated male rats] De Bortoli MA, et al. **Arch Latinoam Nutr** 1998 Jun;48(2):134–40 (Eng. Abstr.) **(Spa)**

[Effect of transition metal cations on Na+-Ca2+-exchange in cell membrane] Man'ko VV. **Ukr Biokhim Zh** 1998 Nov-Dec;70(6):3–12 (78 ref.) (Eng. Abstr.) **(Ukr)**

PHARMACOKINETICS

Concerted actions of IL-1beta inhibit Na+ absorption and stimulate anion secretion by IMCD cells. Husted RF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):F946–54

Increased Na,K,Cl cotransporter and Na, K-ATPase activity of vascular tissue in two-kidney Goldblatt hypertension. Goecke A, et al. **Biol Res** 1998;31(3):263–71

Induction of astrocyte metallothioneins (MTs) by zinc confers resistance against the acute cytotoxic effects of methylmercury on cell swelling, Na+ uptake, and K+ release. Aschner M, et al. **Brain Res** 1998 Dec 7; 813(2):254–61

Influence of obstructive jaundice on jejunal absorption of glucose, electrolytes, and vitamin A in rats. Borges EL, et al. **Dig Dis Sci** 1998 Oct;43(10):2196–200

Ca2+-dependent cytotoxicity of H2O2 in L929 cells: the role of H2O2-induced Na+-influx. Jussofie A, et al. **Free Radic Biol Med** 1998 Oct;25(6):712–9

Salt and water absorption in the human colon: a modern appraisal. Sandle GI. **Gut** 1998 Aug;43(2):294–9

Isoprenylcysteine-O-carboxyl methyltransferase regulates aldosterone-sensitive Na(+) reabsorption. Stockand JD, et al. **J Biol Chem** 1999 Sep 17;274(38):26912–6

Persistent inward currents in cultured Retzius cells of the medicinal leech. Angstadt JD. **J Comp Physiol [A]** 1999 Jan;184(1):49–61

Potassium uptake supporting plant growth in the absence of AKT1 channel activity: Inhibition by ammonium and stimulation by sodium. Spalding EP, et al. **J Gen Physiol** 1999 Jun;113(6):909–18

Differences in epithelial morphology correlate to Na(+)-transport: a study of the proximal, mid, and distal regions of the coprodeum from hens on high and low NaCl diet. Elbrønd VS, et al. **J Morphol** 1999 Jan;239(1):75–86

Stoichiometry of the glial glutamate transporter GLT-1 expressed inducibly in a Chinese hamster ovary cell line selected for low endogenous Na+-dependent glutamate uptake. Levy LM, et al. **J Neurosci** 1998 Dec 1; 18(23):9620–8

Human red cells from prenatal hemopoiesis. Sodium/lithium exchange symmetry. Mújica G, et al. **J Physiol Biochem** 1998 Jun;54(2):85–90

Lateral iontophoretic solute transport in skin. Lai PM, et al. **Pharm Res** 1999 Jan;16(1):46–54

[Studies of lymphocyte membrane transport of sodium in patients with essential hypertension] Negrusz-Kawecka M. **Pol Merkuriusz Lek** 1999 Mar;6(33):125–7 (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

Sodium at high concentrations increases glucose-induced insulin secretion in the perfused rat pancreas. Mokuda O, et al. **Acta Diabetol** 1998 Oct;35(3):154–7

Effects of [Na+]o, [Ca2+]o and cyclopiazonic acid on decline of post-extrasystolic potentiation and twitch kinetics in guinea-pig and human myocardial preparations. Asgrimsson HJ, et al. **Acta Physiol Scand** 1999 Jul; 166(3):195–201

Creatine uptake in isolated soleus muscle: kinetics and dependence on sodium, but not on insulin. Willott CA, et al. **Acta Physiol Scand** 1999 Jun;166(2):99–104

Distribution of Fos immunoreactivity in rat brain after sodium consumption induced by peritoneal dialysis. Franchini LF, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1180–7

Inhibition by tetanus toxin of sodium-dependent, high-affinity [3H]5-hydroxytryptamine uptake in rat synaptosomes. Inserte J, et al. **Biochem Pharmacol** 1999 Jan 1;57(1):111–20

Modulation of agonist binding to recombinant human alpha2-adrenoceptors by sodium ions. Pihlavisto M, et al. **Biochim Biophys Acta** 1998 Nov 19;1448(1):135–46

Antisense oligonucleotide treatment reveals a physiologically relevant role for adrenomedullin gene products in sodium intake. Samson WK, et al. **Brain Res** 1999 Feb 6; 818(1):164–7

Mechanisms underlying the decrease in circulating angiotensin II concentration after sodium loading. Duggan KA, et al. **Clin Exp Pharmacol Physiol** 1998 Oct; 25(10):818–9

Fermenting Escherichia coli is able to grow in media of high osmolarity, but is sensitive to the presence of sodium ion. Trchounian A, et al. **Curr Microbiol** 1999 Aug;39(2):109–14

Effects of intracellular N+, M2+ and metabolites on C2+-activated K+ channels in pulmonary and ear arterial smooth muscle cells of the rabbit. Lee SH, et al. **Exp Physiol** 1998 Nov;83(6):707–15

mrp, a multigene, multifunctional locus in Bacillus subtilis with roles in resistance to cholate and to Na+ and in pH homeostasis. Ito M, et al. **J Bacteriol** 1999 Apr; 181(8):2394–402

Sodium-dependent glutamate uptake by an alkaliphilic, thermophilic Bacillus strain, TA2.A1. Peddie CJ, et al. **J Bacteriol** 1999 May;181(10):3172–7

Molecular determinants for sodium-dependent activation of G protein-gated K+ channels. Ho IH, et al. **J Biol Chem** 1999 Mar 26;274(13):8639–48

Cloning and functional expression of a human Na(+) and Cl(-)-dependent neutral and cationic amino acid transporter B(0+). Sloan JL, et al. **J Biol Chem** 1999 Aug 20;274(34):23740–5

Isoform-specific regulation of nitric oxide synthase mRNA in the kidney by sodium and blood pressure. Nadaud S, et al. **J Hypertens** 1998 Sep;16(9):1315–23

Effects of sodium concentration on Aedes triseriatus (Diptera: Culicidae) and microorganisms in treeholes. Paradise CJ, et al. **J Med Entomol** 1998 Sep;35(5):839–44

New drugs for the Na+/H+ exchanger. Influence of Na+ concentration and determination of inhibition constants with a microphysiometer. Fischer H, et al. **J Membr Biol** 1999 Mar 1;168(1):39–45

GSH transport in immortalized mouse brain endothelial cells: evidence for apical localization of a sodium-dependent GSH transporter. Kannan R, et al. **J Neurochem** 1999 Jul; 73(1):390–9

Effects of phosphatidylinositol 4,5-bisphosphate and phosphatidylinositol 4-phosphate on a Na+-gated nonselective cation channel. Zhainazarov AB, et al. **J Neurosci** 1999 Apr 15;19(8):2929–37

Epidermal growth factor and human growth hormone induce two sodium-dependent arginine transport systems after massive enterectomy. Iannoli P, et al. **JPEN J Parenter Enteral Nutr** 1998 Sep-Oct;22(5):326–30

Gastric acid secretion is augmented by the replacement of extracellular Na+ with K+ or other ions. Akagi K, et al. **Jpn J Pharmacol** 1998 Oct;78(2):147–59

Endurance exercise alters the contractile responsiveness of rat heart to extracellular Na+ and Ca2+. Lankford EB, et al. **Med Sci Sports Exerc** 1998 Oct;30(10):1502–9

The yeast inositol monophosphatase is a lithium- and sodium-sensitive enzyme encoded by a non-essential gene pair. Lopez F, et al. **Mol Microbiol** 1999 Feb;31(4):1255–64

Pivotal role of an aspartate residue in sodium sensitivity and coupling to G proteins of neurotensin receptors. Martin S, et al. **Mol Pharmacol** 1999 Feb;55(2):210–5

Extracellular sodium regulates airway ciliary motility by inhibiting a P2X receptor. Ma W, et al. **Nature** 1999 Aug 26;400(6747):894–7

The mechanism gated by external potassium and sodium controls the resting conductance in hippocampal and cortical neurons. Filippov V, et al. **Neuroscience** 1999; 92(4):1231–42

The effect of sodium, potassium and ammonium ions on the conformation of the dimeric quadruplex formed by the Oxytricha nova telomere repeat oligonucleotide d(G(4)T(4)G(4)). Schultze P, et al. **Nucleic Acids Res** 1999 Aug 1;27(15):3018–28

Evidence for an electrogenic, negatively protein-kinase-A-modulated, Na+-dependent HCO3- transporter in human lymphocytes. de la Rosa LA, et al. **Pflugers Arch** 1999 May;437(6):935–43

Na+-dependent regulation of the free Mg2+ concentration in neuropile glial cells and P neurones of the leech Hirudo medicinalis. Hintz K, et al. **Pflugers Arch** 1999 Feb; 437(3):354–62

A Na+-activated K+ current (IK,Na) is present in guinea-pig but not rat ventricular myocytes. Lawrence C, et al. **Pflugers Arch** 1999 May;437(6):831–8

PHYSIOLOGY

Cortical extracellular sodium transients after human head injury: an indicator of secondary brain damage? Alessandri B, et al. **Acta Neurochir Suppl (Wien)** 1998;71:237–40

Na+ and K+ regulate the phosphorylation state of nucleoside diphosphate kinase in human airway epithelium. Marshall LJ, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C109–19

Basolateral Na+ pump modulates apical Na+ and K+ conductances in rabbit cortical collecting ducts. Muto S, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F143–58

Amiloride-sensitive sodium signals and salt appetite: multiple gustatory pathways. Roitman MF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1732–8

Effect of sodium depletion by frusemide on tissue concentrations and metabolism of VIP. Duggan KA, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:515–8

Sodium-dependent uptake of [3H]scyllo-inositol by Tetrahymena: incorporation into phosphatidylinositol, phosphatidylinositol-linked glycans, and polyphosphoinositols. Ryals PE, et al.

Arch Biochem Biophys 1999 Jun 15;366(2):261–6

HCO3–secretion by bullfrog duodenum: dependence on nutrient Na+ during secretory stimulation. Goddard PJ, et al. **Can J Physiol Pharmacol** 1998 Sep;76(9):882–90

Regulation of Ca2+ homeostasis by atypical Na+ currents in cultured human coronary myocytes. Boccara G, et al. **Circ Res** 1999 Oct 1;85(7):606–13

Influence of sodium concentration on changes of membrane capacitance associated with the electrogenic ion transport by the Na,K–ATPase. Sokolov VS, et al. **Eur Biophys J** 1998;27(6):605–17

Cytoskeleton mediates inhibition of the fast Na+ current in respiratory brainstem neurons during hypoxia. Mironov SL, et al. **Eur J Neurosci** 1999 May;11(5):1831–4

Distinct roles for sodium, chloride, and calcium in excitotoxic dendritic injury and recovery. Hasbani MJ, et al. **Exp Neurol** 1998 Nov;154(1):241–58

Effects of chronic run training on Na+–dependent Ca2+ efflux from rat left ventricular myocytes. Palmer BM, et al. **J Appl Physiol** 1999 Feb;86(2):584–91

Decreased Na+–dependent taurocholate uptake and low expression of the sinusoidal Na+–taurocholate cotransporting protein (Ntcp) in livers of mdr2 P–glycoprotein–deficient mice. Koopen NR, et al. **J Hepatol** 1999 Jan;30(1):14–21

Characterization of a Na+–dependent betaine transporter with Cl– channel properties in squid motor neurons. Petty CN, et al. **J Neurophysiol** 1999 Apr;81(4):1567–74

Action potential and sodium current in the slowly and rapidly adapting stretch receptor neurons of the crayfish (Astacus astacus). Purali N, et al. **J Neurophysiol** 1998 Oct; 80(4):2121–32

Evidence for differential regulation of renal proximal tubular p–aminohippurate and sodium–dependent dicarboxylate transport. Gabriëls G, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):710–5

Effect of sodium perturbations on rat chemoreceptor spike generation: implications for a Poisson model. Donnelly DF, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):301–11

Absorptive apical amiloride–sensitive Na+ conductance in human endometrial epithelium. Matthews CJ, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):443–52

Rapid structural changes in nerve fibers and cells associated with their excitation processes. Tasaki I. **Jpn J Physiol** 1999 Apr;49(2):125–38 (62 ref.)

A pinch of salt for NMDA receptors [news] Salter MW. **Mol Psychiatry** 1999 May;4(3):209–11

Two sodium channels contribute to the TTX–R sodium current in primary sensory neurons. Tate S, et al. **Nat Neurosci** 1998 Dec;1(8):653–5

Gain control of NMDA–receptor currents by intracellular sodium. Yu XM, et al. **Nature** 1998 Dec 3;396(6710):469–74

Dendritic sodium spikes are variable triggers of axonal action potentials in hippocampal CA1 pyramidal neurons. Golding NL, et al. **Neuron** 1998 Nov;21(5):1189–200

Potential mechanisms for functional changes in taste receptor cells following sodium deficiency in mammals. Lundy RF Jr. **Neurosci Biobehav Rev** 1998;23(1):103–9 (85 ref.)

The pH dependence of late sodium current in large sensory neurons. Baker MD, et al. **Neuroscience** 1999;92(3):1119–30

Alteration of Na+ currents in dorsal root ganglion neurons from rats with a painful neuropathy. Kral MG, et al. **Pain** 1999 May;81(1–2):15–24

Stimulus–secretion coupling in neurohypophysial nerve endings: a role for intravesicular sodium? Thirion S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3206–10

THERAPEUTIC USE

Disorders of sodium balance [letter; comment] Ostoja–Chrzastowski W, et al. **Lancet** 1998 Oct 3; 352(9134):1147. Comment on: Lancet 1998 Jul 18;352(9123):220–8.

URINE

Urinary sodium and potassium profile of blacks and whites in relation to education in two different geographic urban areas. TOMHS Research Group. Treatment of Mild Hypertension Study. Ganguli MC, et al. **Am J Hypertens** 1999 Jan;12(1 Pt 1):69–72

Effects of digoxin–specific antibody Fab fragment (Digibind) on blood pressure and renal water–sodium metabolism in 5/6 reduced renal mass hypertensive rats. Kaide J, et al. **Am J Hypertens** 1999 Jun;12(6):611–9

Renal nerves are not involved in sodium and water retention during mechanical ventilation in awake dogs. Boemke W, et al. **Anesthesiology** 1998 Oct;89(4):942–53

Amplification by atrial natriuretic peptide of the haemodynamic and renal responses to an acute volumic stress in the rat. Caron N, et al. **Clin Exp Pharmacol Physiol** 1999 Apr;26(4):315–22

Inhibition of renal 11beta–hydroxysteroid dehydrogenase in vivo by carbenoxolone in the rat and its relationship to sodium excretion. Sewell KJ, et al. **Clin Sci (Colch)** 1998 Oct;95(4):435–43

A study of the renal sodium excretion during the normal menstrual cycle using method of passive leg rising. Lazúrová I, et al. **Exp Clin Endocrinol Diabetes** 1999; 107(3):198–202

Renal nerves promote sodium excretion during long–term increases in salt intake. Lohmeier TE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):487–92

Sodium–blood pressure interrelationship in pregnancy [see comments] Franx A, et al. **J Hum Hypertens** 1999 Mar; 13(3):159–66. Comment in: J Hum Hypertens 1999 Mar;13(3):157–8.

Effect of renal interstitial infusion of L–dopa on sodium and phosphate excretions. LeClaire MM, et al. **J Lab Clin Med** 1998 Oct;132(4):308–12

Tubular reabsorption and sodium excretion during urine reinfusion. Romano G, et al. **Panminerva Med** 1999 Jun; 41(2):119–24

Bone marrow as multidimensional orbit oscillator after autologous bone marrow transplantation. Hajek D, et al. **Stem Cells** 1999;17(1):25–30

[Sodium excretion in children with lithogenic disorders] Kovačević L, et al. **Srp Arh Celok Lek** 1998 Sep–Oct; 126(9–10):321–6 (Eng. Abstr.) **(Scc)**

SODIUM ACETATE

ANALOGS & DERIVATIVES see ACETATES

PHARMACOLOGY

Effects of sodium acetate on rat bone–nodule formation and mineralization in vitro. Visconti LA, et al. **Arch Oral Biol** 1998 Sep;43(9):729–33

Characterization of the interaction between manganese and tyrosine Z in acetate–inhibited photosystem II. Szalai VA, et al. **Biochemistry** 1998 Sep 29;37(39):13594–603

The role of [Ca2+]i, membrane potential and pHi in the relaxation of rat mesenteric arteries to hyperosmolar acetate. Aalkjaer C, et al. **Pflugers Arch** 1998 Oct; 436(5):705–11

SODIUM AZIDE

ANALYSIS

Optimisation of a reagentless laccase electrode for the detection of the inhibitor azide. Leech D, et al. **Analyst** 1998 Oct;123(10):1971–4

PHARMACOLOGY

Dual actions of the metabolic inhibitor, sodium azide on K(ATP) channel currents in the rat CRI–G1 insulinoma cell line. Harvey J, et al. **Br J Pharmacol** 1999 Jan; 126(1):51–60

Atriopeptin, sodium azide and cyclic GMP reduce secretion of aqueous humour and inhibit intracellular calcium release in bovine cultured ciliary epithelium. Shahidullah M, et al. **Br J Pharmacol** 1999 Jul;127(6):1438–46

Effects of the inhibitors azide, dicyclohexylcarbodiimide, and aurovertin on nucleotide binding to the three F1–ATPase catalytic sites measured using specific tryptophan probes. Weber J, et al. **J Biol Chem** 1998 Dec 11;273(50):33210–5

Induction of GLUT1 mRNA in response to azide and inhibition of protein synthesis. Behrooz A, et al. **Mol Cell Biochem** 1998 Oct;187(1–2):33–40

Intratubular application of sodium azide inhibits loop of Henle reabsorption and tubuloglomerular feedback response in anesthetized rats. Huang DY, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):367–73

Energy metabolism inhibition impairs amyloid precursor protein secretion from Alzheimer's fibroblasts. Gasparini L, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):197–200

POISONING

[Sodium azide: a review of biological effects and case reports] Chiba M, et al. **Nippon Eiseigaku Zasshi** 1999 Jan; 53(4):572–9 (18 ref.) (Eng. Abstr.) **(Jpn)**

SODIUM BENZOATE

ADVERSE EFFECTS

Sodium benzoate–induced acute leukocytoclastic vasculitis with unusual clinical appearance [letter] Vogt T, et al. **Arch Dermatol** 1999 Jun;135(6):726–7

ANALOGS & DERIVATIVES see BENZOATES

THERAPEUTIC USE

Treatment of oral candidiasis: a study to determine the clinical response of sodium benzoate compared with nystatin suspension [letter] Moshi AH, et al. **AIDS** 1998 Nov 12;12(16):2237–8

[Non–ketotic hyperglycinemia: clinical and therapeutic course in three patients] Rite Gracia S, et al. **An Esp Pediatr** 1999 Apr;50(4):408–10 **(Spa)**

SODIUM BICARBONATE

see related
BUFFERS

ADMINISTRATION & DOSAGE

Omeprazole and lansoprazole suspensions for nasogastric administration [letter] McAndrews KL Jr, et al. **Am J Health Syst Pharm** 1999 Jan 1;56(1):81

Sodium bicarbonate can be used as an ergogenic aid in high–intensity, competitive cycle ergometry of 1 h duration. McNaughton L, et al. **Eur J Appl Physiol** 1999 Jun;80(1):64–9

Comparison of three modified lidocaine solutions for use in eyelid anesthesia. Yuen VH, et al. **Ophthal Plast Reconstr Surg** 1999 Mar;15(2):143–7

ADVERSE EFFECTS

Prolonged severe hypercapnia complicating near fatal asthma [letter; comment] Jardin F. **Intensive Care Med** 1999 Apr; 25(4):425. Comment on: Intensive Care Med 1998 Dec;24(12):1335–8.

Daytime hypertension, sleep apnea and metabolic alkalosis in a haemodialysis patient––the result of sodium bicarbonate abuse. Okada H, et al. **Nephrol Dial Transplant** 1999 Feb; 14(2):452–4

CHEMISTRY

Alkalinization of local anesthetics [letter] King R, et al. **Reg Anesth Pain Med** 1999 Mar–Apr;24(2):193

DIAGNOSTIC USE

Urine glucose testing: another look at its relevance when blood glucose monitoring is unaffordable. Feleke Y, et al. **Ethiop Med J** 1998 Apr;36(2):93–9

METABOLISM

Tissue sequestration of C–labelled bicarbonate [HCO3–] in fed and fasted young sheep. Ram L, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Mar; 122(3):323–30

Sodium–bicarbonate cotransport in retinal astrocytes and Müller cells of the rat. Newman EA. **Glia** 1999 Jun; 26(4):302–8

PHARMACOLOGY

Sodium bicarbonate treatment reduces renal injury, renal production of transforming growth factor–beta, and urinary transforming growth factor–beta excretion in rats with doxorubicin–induced nephropathy. Baroni EA, et al. **Am J Kidney Dis** 1999 Aug;34(2):328–37

Role of skeletal muscle in plasma ion and acid–base regulation after NaHCO3 and KHCO3 loading in humans. Lindinger MI, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R32–43

Practice tip. Which cerumenolytic? Kamien M. **Aust Fam Physician** 1999 Aug;28(8):817, 828

Influence of ascorbic acid, sodium citrate, and sodium bicarbonate on the uptake of 59Fe–transferrin, 54Mn–transferrin, and 65Zn–transferrin from lactating mouse mammary gland cells. Moutafchiev DA, et al. **Biol Trace Elem Res** 1998 Jul;63(1):31–6

Effects of sodium bicarbonate administration on the exercise tolerance of normal subjects breathing through dead space. Light RW, et al. **Chest** 1999 Jan;115(1):102–8

Reversibility with sodium bicarbonate of styrene maleic anhydride, an intravasal injectable contraceptive, in male rats. Koul V, et al. **Contraception** 1998 Oct;58(4):227–31

Can pale, soft, exudative pork be prevented by postmortem sodium bicarbonate injection? Kauffman RG, et al. **J Anim Sci** 1998 Dec;76(12):3010–5

Effects of NaHCO3 loading on acid–base balance, lactate concentration, and performance in racing greyhounds. Kesl LD, et al. **J Appl Physiol** 1998 Sep;85(3):1037–43

Effects of feeding virginiamycin and sodium bicarbonate to grazing lactating dairy cows. Clayton EH, et al. **J Dairy Sci** 1999 Jul;82(7):1545–54

The influence of ispaghula husk on bowel habit. Davies GJ, et al. **J R Soc Health** 1998 Oct;118(5):267–71

POISONING

Severe metabolic alkalosis due to baking soda ingestion: case reports of two patients with unsuspected antacid overdose. Fitzgibbons LJ, et al. **J Emerg Med** 1999 Jan–Feb; 17(1):57–61

THERAPEUTIC USE

Patterns of food and acid reflux in patients with low–grade oesophagitis––the role of an anti–reflux agent. Washington N, et al. **Aliment Pharmacol Ther** 1998 Jan;12(1):53–8

TCA overdose [letter] Dick WF, et al. **Ann Emerg Med** 1999 Jun;33(6):723–4

Medication use in neonatal resuscitation. Burchfield DJ. **Clin Perinatol** 1999 Sep;26(3):683–91 (57 ref.)

Buffer treatment for cardiac resuscitation: putting the cart before the horse? [editorial; comment] Gazmuri RJ. **Crit Care Med** 1999 May;27(5):875–6 (17 ref.). Comment on: Crit Care Med 1999 May;27(5):1009–13.

Comparison of albumin versus bicarbonate treatment for neonatal metabolic acidosis. Dixon H, et al. **Eur J Pediatr** 1999 May;158(5):414–5

Adrenaline dosage and buffers in cardiac arrest. Adgey AA. **Heart** 1998 Oct;80(4):412–4 (10 ref.)

Reliable gastric tonometry after coronary artery surgery: need for acid secretion suppression despite transient failure of acid secretion [see comments] Bams JL, et al. **Intensive Care Med** 1998 Nov;24(11):1139–43. Comment in: Intensive Care Med 1998 Nov;24(11):1123–5.

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Alkalinisation in the

management of tricyclic antidepressant overdose. Mackway-Jones K. **J Accid Emerg Med** 1999 Mar; 16(2):139-40 (4 ref.)

Current understanding of the role of microscopic monitoring, baking soda, and hydrogen peroxide in the treatment of periodontal disease. Committee on Research, Science and Therapy. The American Academy of Periodontology [see comments] **J Periodontol** 1998 Aug;69(8):951-4. Comment in: J Periodontol 1999 Apr;70(4):455-6.

Acebutolol-induced ventricular tachycardia reversed with sodium bicarbonate. Donovan KD, et al. **J Toxicol Clin Toxicol** 1999;37(4):481-4

Targeted management strategies for cardiovascular toxicity from tricyclic antidepressant overdose: the pivotal role for alkalinization and sodium loading. Shanon M, et al. **Pediatr Emerg Care** 1998 Aug;14(4):293-8 (40 ref.)

SODIUM-CALCIUM CARRIER see **SODIUM-CALCIUM EXCHANGER**

SODIUM-CALCIUM EXCHANGER

Relationship between Na+-Ca2+-exchanger protein levels and diastolic function of failing human myocardium. Hasenfuss G, et al. **Circulation** 1999 Feb 9;99(5):641-8

Regulatory function of Na-Ca exchange in the heart: milestones and outlook. Egger M, et al. **J Membr Biol** 1999 Mar 15;168(2):107-30 (208 ref.)

ANTAGONISTS & INHIBITORS

Cardioprotective effects of KB-R7943: a novel inhibitor of the reverse mode of Na+/Ca2+ exchanger. Ladilov Y, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1868-76

Effect of Na+/Ca2+ exchange inhibitor, KB-R7943 on ouabain-induced arrhythmias in guinea-pigs. Watano T, et al. **Br J Pharmacol** 1999 Aug;127(8):1846-50

Inhibition of Na/Ca exchange by external Ni in guinea-pig ventricular myocytes at 37 degrees C, dialysed internally with cAMP-free and cAMP-containing solutions. Hinde AK, et al. **Cell Calcium** 1999 Apr;25(4):321-31

Protein kinase C-mediated up-regulation of Na+/Ca2+-exchanger in rat hepatocytes determined by a new Na+/Ca2+-exchanger inhibitor, KB-R7943. Ikari A, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):91-8

Na(+)/Ca(2+) exchange inhibitors modulate thapsigargin-induced Ca(2+) and Na(+) influx in human lymphocytes. Nofer JR, et al. **Int J Clin Lab Res** 1999; 29(2):89-92

The novel Na+/Ca2+ exchange inhibitor KB-R7943 protects CA1 neurons in rat hippocampal slices against hypoxic/hypoglycemic injury. Schröder UH, et al. **Neuropharmacology** 1999 Feb;38(2):319-21

Blockade of NMDA channels in acutely isolated rat hippocampal neurons by the Na+/Ca2+ exchange inhibitor KB-R7943. Sobolevsky AI, et al. **Neuropharmacology** 1999 Aug;38(8):1235-42

Zinc inhibits Ca2+ transport by rat brain NA+/Ca2+ exchanger. Colvin RA. **Neuroreport** 1998 Sep 14; 9(13):3091-6

C-terminal fragment of Alzheimer's amyloid precursor protein inhibits sodium/calcium exchanger activity in SK-N-SH cell. Kim HS, et al. **Neuroreport** 1999 Jan 18; 10(1):113-6

Pharmacological inhibition of the Na(+)/Ca(2+) exchanger enhances depolarizations induced by oxygen/glucose deprivation but not responses to excitatory amino acids in rat striatal neurons. Calabresi P, et al. **Stroke** 1999 Aug; 30(8):1687-94

[Role of Na+/Ca2+ exchange blocker in rat hippocampal injury during anoxia] Wan Q, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):205-8 (Eng. Abstr.) **(Chi)**

[Blocker of Na+/Ca2+ exchanger, benzamil, decreases Ca2+ influx and enhances the ability of hippocampal neuron against hypoxia] Wang F, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):79 **(Chi)**

BIOSYNTHESIS

Cardiac expression of the Na(+)/Ca(2+) exchanger NCX1 is GATA factor dependent. Nicholas SB, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H324-30

Functional expression of the human cardiac Na+/Ca2+ exchanger in Sf9 cells: rapid and specific Ni2+ transport. Egger M, et al. **Cell Calcium** 1999 Jan;25(1):9-17

Overexpression of the cardiac Na+/Ca2+ exchanger increases susceptibility to ischemia/reperfusion injury in male, but not female, transgenic mice. Cross HR, et al. **Circ Res** 1998 Dec 14-28;83(12):1215-23

CHEMISTRY

Characterization of the 70 kDa polypeptide of the Na/Ca exchanger. Saba RI, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):139-45

The Ca2+ pumps and the Na+/Ca2+ exchangers. Guerini D. **Biometals** 1998 Dec;11(4):319-30 (116 ref.)

A new topological model of the cardiac sarcolemmal Na+-Ca2+ exchanger. Nicoll DA, et al. **J Biol Chem** 1999 Jan 8;274(2):910-7

Fourier transform infrared spectroscopy study of the secondary and tertiary structure of the reconstituted Na+/Ca2+ exchanger 70-kDa polypeptide. Saba RI, et al. **J Biol Chem** 1999 May 28;274(22):15510-8

DRUG EFFECTS

Effects of antisense oligonucleotides to the cardiac Na+/Ca2+ exchanger on calcium dynamics in cultured cardiac myocytes. Takahashi K, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):117-21

Increased expression of the Na(+)/Ca(2+) exchanger in the rat heart after immobilization stress is not induced by cortisol. Zacikova L, et al. **FEBS Lett** 1999 Sep 3; 457(3):423-8

Does adrenaline modulate the Na+-Ca2+ exchanger in isolated toad pacemaker cells? Ju YK, et al. **Pflugers Arch** 1999 Aug;438(3):338-43

GENETICS

Ni2+ transport by the human Na+/Ca2+ exchanger expressed in Sf9 cells. Egger M, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1184-92

Molecular study of the Na+/Ca2+ exchanger in bovine adrenal chromaffin cells. Pan CY, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):305-10

The role of GATA, CArG, E-box, and a novel element in the regulation of cardiac expression of the Na+-Ca2+ exchanger gene. Cheng G, et al. **J Biol Chem** 1999 Apr 30;274(18):12819-26

Chimeric analysis of Na(+)/Ca(2+) exchangers NCX1 and NCX3 reveals structural domains important for differential sensitivity to external Ni(2+) or Li(+). Iwamoto T, et al. **J Biol Chem** 1999 Aug 13;274(33):23094-102

Truncation of the C terminus of the rat brain Na(+)-Ca(2+) exchanger RBE-1 (NCX1.4) impairs surface expression of the protein. Kasir J, et al. **J Biol Chem** 1999 Aug 27; 274(35):24873-80

A circularized sodium-calcium exchanger exon 2 transcript. Li XF, et al. **J Biol Chem** 1999 Mar 19;274(12):8153-60

Na+-Ca2+ exchange and sarcoplasmic reticular Ca2+ regulation in ventricular myocytes from transgenic mice overexpressing the Na+-Ca2+ exchanger. Terracciano CM, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):651-67

Large-scale expression of recombinant cardiac sodium-calcium exchange in insect larvae. Hale CC, et al. **Protein Expr Purif** 1999 Feb;15(1):121-6

METABOLISM

Direct evidence of Na+/Ca2+ exchange in squid rhabdomeric membranes. Bauer PJ, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C558-65

Ni2+ transport by the human Na+/Ca2+ exchanger expressed in Sf9 cells. Egger M, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1184-92

Physiological and molecular characterization of the Na+/Ca2+ exchanger in human platelets. Kimura M, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H911-7

Na+-K+-ATPase and Na+/Ca2+ exchange activities in gills of hyperregulating Carcinus maenas. Lucu C, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R490-9

Altered protein kinase C activation of Na+/Ca2+ exchange in mesangial cells from salt-sensitive rats. Mashburn NA, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):F574-80

Renal arteriolar Na+/Ca2+ exchange in salt-sensitive hypertension. Nelson LD, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):F567-73

Influence of SR Ca(2+)-ATPase and Na(+)-Ca(2+)-exchanger on the force-frequency relation. Schillinger W, et al. **Basic Res Cardiol** 1998;93 Suppl 1:38-45 (38 ref.)

Molecular study of the Na+/Ca2+ exchanger in bovine adrenal chromaffin cells. Pan CY, et al. **Biochem J** 1998 Dec 1;336 (Pt 2):305-10

Time-resolved monitoring of electrogenic Na+-Ca2+ exchange in the isolated cardiac sarcolemma vesicles by using a rapid-response fluorescent probe. Baazov D, et al. **Biochemistry** 1999 Feb 2;38(5):1435-45

Protein kinase C-dependent regulation of Na+/Ca2+ exchanger isoforms NCX1 and NCX3 does not require their direct phosphorylation. Iwamoto T, et al. **Biochemistry** 1998 Dec 8;37(49):17230-8

Metabolic pathways in the regulation of invertebrate and vertebrate Na+/Ca2+ exchange. DiPolo R, et al. **Biochim Biophys Acta** 1999 Feb 25;1422(1):57-71 (82 ref.)

Sensitivity of the synaptic membrane Na+/Ca2+ exchanger and the expressed NCX1 isoform to reactive oxygen species. Huschenbett J, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1-2):34-46

Transmembrane regulation of intracellular calcium by a plasma membrane sodium/calcium exchanger in mouse ova. Pepperell JR, et al. **Biol Reprod** 1999 May; 60(5):1137-43

The Ca2+ pumps and the Na+/Ca2+ exchangers. Guerini D. **Biometals** 1998 Dec;11(4):319-30 (116 ref.)

Significance of Na/Ca exchange for Ca2+ buffering and electrical activity in mouse pancreatic beta-cells. Gall D, et al. **Biophys J** 1999 Apr;76(4):2018-28

Effect of Na/Ca exchange on plateau fraction and [Ca]i in models for bursting in pancreatic beta-cells. Gall D, et al. **Biophys J** 1999 Jul;77(1):45-53

Endothelin-1 stimulates sodium-dependent calcium efflux from bovine adrenal chromaffin cells in culture. Houchi H, et al. **Br J Pharmacol** 1998 Sep;125(1):55-60

Involvement of the glutamate transporter and the sodium-calcium exchanger in the hypoxia-induced increase in intracellular Ca2+ in rat hippocampal slices. Yamaguchi S, et al. **Brain Res** 1998 Dec 7;813(2):351-8

Functional linkage of Na(+)-Ca2+ exchange and sarcoplasmic reticulum Ca2+ release mediates Ca2+ cycling in vascular smooth muscle. Nazer MA, et al. **Cell Calcium** 1998 Oct;24(4):275-83

Dynamic regulation of [Ca2+]i by plasma membrane Ca(2+)-ATPase and Na+/Ca2+ exchange during capacitative Ca2+ entry in bovine vascular endothelial cells. Sedova M, et al. **Cell Calcium** 1999 May;25(5):333-43

The sarcoplasmic reticulum and the Na+/Ca2+ exchanger both contribute to the Ca2+ transient of failing human ventricular myocytes. Dipla K, et al. **Circ Res** 1999 Mar 5;84(4):435-44

Reduced sodium pump alpha1, alpha3, and beta1-isoform protein levels and Na+,K+-ATPase activity but unchanged Na+-Ca2+ exchanger protein levels in human heart failure. Schwinger RH, et al. **Circulation** 1999 Apr 27;99(16):2105-12

Na+/Ca2+ exchanger overexpression impairs calcium signaling in fibroblasts: inhibition of the [Ca2+] increase at the cell periphery and retardation of cell adhesion. Iwamoto T, et al. **Eur J Cell Biol** 1998 Jul;76(3):228-36

Unique topology of the internal repeats in the cardiac Na+/Ca2+ exchanger. Iwamoto T, et al. **FEBS Lett** 1999 Mar 12;446(2-3):264-8

Increased expression of the Na(+)/Ca(2+) exchanger in the rat heart after immobilization stress is not induced by cortisol. Zacikova L, et al. **FEBS Lett** 1999 Sep 3; 457(3):423-8

Immunohistochemical localization of Na+/Ca2+ exchanger in human retina and retinal pigment epithelium. Loeffler KU, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec; 236(12):929-33

Parameters of lymphocyte Na+-Ca2+ regulation and blood pressure: the gender effect. Horiguchi M, et al. **Hypertension** 1998 Nov;32(5):869-74

Asymmetric distribution of functional sodium-calcium exchanger in primary osteoblasts. Stains JP, et al. **J Bone Miner Res** 1998 Dec;13(12):1862-9

Cytoplasmic sodium, calcium and free energy change of the Na+/Ca2+-exchanger in rat ventricular myocytes. Baartscheer A, et al. **J Mol Cell Cardiol** 1998 Nov; 30(11):2437-47

Cyclic stretch down-regulates calcium transporter gene expression in neonatal rat ventricular myocytes. Cadre BM, et al. **J Mol Cell Cardiol** 1998 Nov;30(11):2247-59

Cytosolic Ca2+ changes during in vitro ischemia in rat hippocampal slices: major roles for glutamate and Na+-dependent Ca2+ release from mitochondria. Zhang Y, et al. **J Neurosci** 1999 May 1;19(9):3307-15

Na+-Ca2+ exchange and sarcoplasmic reticular Ca2+ regulation in ventricular myocytes from transgenic mice overexpressing the Na+-Ca2+ exchanger. Terracciano CM, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):651-67

Taurine indirectly increases [Ca]i by inducing Ca2+ influx through the Na(+)-Ca2+ exchanger. Bkaily G, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):187-97

Cardiac sarcolemmal Na(+)-Ca2+ exchange and Na(+)-K+ ATPase activities and gene expression in alloxan-induced diabetes in rats. Golfman L, et al. **Mol Cell Biochem** 1998 Nov;188(1-2):91-101

N-methyl-D-aspartate excitotoxicity: relationships among plasma membrane potential, Na(+)/Ca(2+) exchange, mitochondrial Ca(2+) overload, and cytoplasmic concentrations of Ca(2+), H(+), and K(+). Kiedrowski L. **Mol Pharmacol** 1999 Sep;56(3):619-32

Zinc inhibits Ca2+ transport by rat brain NA+/Ca2+ exchanger. Colvin RA. **Neuroreport** 1998 Sep 14; 9(13):3091-6

Evidence for a Na+/Ca2+ exchange mechanism in rat peritoneal mast cells. Praetorius HA, et al. **Pflugers Arch** 1998 Dec;437(1):86-93

PHYSIOLOGY

Sodium/calcium exchange contributes to contraction and relaxation in failed human ventricular myocytes. Gaughan JP, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H714-24

INaCa and ICl(Ca) contribute to isoproterenol-induced delayed after depolarizations in midmyocardial cells. Zygmunt AC, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H1979-92

Interaction of the Na(+)-Ca2+ exchanger with small molecules on cell Ca2+ signaling. Fang Y, et al. **Biomed Pharmacother** 1998;52(10):459-64

Involvement of Na+/Ca2+ exchanger in inside-out signaling through the platelet integrin IIbbeta3. Shiraga M, et al. **Blood** 1998 Nov 15;92(10):3710-20

Role of Na+/Ca2+ exchange in endothelin-1-induced increases in Ca2+ transient and contractility in rabbit ventricular myocytes: pharmacological analysis with KB-R7943. Yang HT, et al. **Br J Pharmacol** 1999 Apr; 126(8):1785-95

Occurrence of Na(+)-Ca2+ exchange in the ciliate Euplotes crassus and its role in Ca2+ homeostasis. Burlando B, et al. **Cell Calcium** 1999 Feb;25(2):153-60

Overexpression of the cardiac Na+/Ca2+ exchanger increases susceptibility to ischemia/reperfusion injury in male, but not female, transgenic mice. Cross HR, et al. **Circ Res** 1998 Dec 14-28;83(12):1215-23

SODIUM-CALCIUM EXCHANGER

Reactive oxygen metabolites increase mitochondrial calcium in endothelial cells: implication of the Ca2+/Na+ exchanger. Jornot L, et al. **J Cell Sci** 1999 Apr;112 (Pt 7):1013-22

New kid on the block: a role for the Na/Ca exchanger in odor transduction [comment] Dionne VE. **J Gen Physiol** 1998 Nov;112(5):527-8 (5 ref.). Comment on: J Gen Physiol 1998 Nov;112(5):529-35.

Na+-dependent Ca2+ extrusion governs response recovery in frog olfactory receptor cells [see comments] Reisert J, et al. **J Gen Physiol** 1998 Nov;112(5):529-35. Comment in: J Gen Physiol 1998 Nov;112(5):527.

Quantitation of Na/Ca exchanger function in single ventricular myocytes. Su Z, et al. **J Mol Cell Cardiol** 1999 May;31(5):1125-35

Na+/Ca++ exchanger and myocardial ischemia/reperfusion. Mochizuki S, et al. **Jpn Heart J** 1998 Nov;39(6):707-14

Sequestration of depolarization-induced Ca2+ loads by mitochondria and Ca2+ efflux via mitochondrial Na+/Ca2+ exchanger in bovine adrenal chromaffin cells. Sorimachi M, et al. **Jpn J Physiol** 1999 Feb;49(1):35-46

Contribution of Na+/Ca2+ exchanger to glucose-induced [Ca2+]i increase in rat pancreatic islets. Yoshihashi K, et al. **Jpn J Physiol** 1999 Feb;49(1):71-80

NCX1 Na/Ca exchanger inhibition by antisense oligonucleotides in mouse distal convoluted tubule cells. White KE, et al. **Kidney Int** 1998 Sep;54(3):897-906

Ca2+ regulation by the Na(+)-Ca2+ exchanger in retinal horizontal cells depolarized by L-glutamate. Hayashida Y, et al. **Neurosci Res** 1998 Jul;31(3):189-99

Comparison of Na+-Ca2+ exchange current elicited from isolated rabbit ventricular myocytes by voltage ramp and step protocols. Convery MK, et al. **Pflugers Arch** 1999 May;437(6):944-54

Does adrenaline modulate the Na+-Ca2+ exchanger in isolated toad pacemaker cells? Ju YK, et al. **Pflugers Arch** 1999 Aug;438(3):338-43

Activation of Ca2+-sensitive Cl- current by reverse mode Na+/Ca2+ exchange in rabbit ventricular myocytes. Kuruma A, et al. **Pflugers Arch** 1998 Nov;436(6):976-83

Sodium/calcium exchange: its physiological implications. Blaustein MP, et al. **Physiol Rev** 1999 Jul;79(3):763-854 (1010 ref.)

Effect of amiloride on ischaemia and reperfusion injury in isolated, perfused rat hearts. Yoshizumi M, et al. **Scand Cardiovasc J** 1998;32(3):167-72

[Na(+)-Ca2+ exchange] Matsuoka S, et al. **Tanpakushitsu Kakusan Koso** 1998 Sep;43(12 Suppl):1555-60 (49 ref.) **(Jpn)**

SODIUM CEPHALOTHIN see **CEPHALOTHIN**

SODIUM CHANNELS

see related
NA(+)-K(+)-EXCHANGING ATPASE

A tetrodotoxin-sensitive fast Na+ current density has no correlation with the cell size in sinoatrial node. Muramatsu H, et al. **Nippon Ika Daigaku Zasshi** 1998 Dec;65(6):484-6

[Anti-GM1 antibodies did not induce conduction block in vivo] Hirota N. **Rinsho Shinkeigaku** 1999 Jan;39(1):96 **(Jpn)**

AGONISTS

Carbamazepine-induced up-regulation of voltage-dependent Na+ channels in bovine adrenal medullary cells in culture. Yoshimura R, et al. **J Pharmacol Exp Ther** 1998 Nov; 287(2):441-7

Inactivated state dependence of sodium channel modulation by beta-scorpion toxin. Tsushima RG, et al. **Pflugers Arch** 1999 Apr;437(5):661-8

ANALYSIS

Different spatial distributions of sodium channels in the slowly and rapidly adapting stretch receptor neuron of the crayfish. Lin JH, et al. **Brain Res** 1999 Jun 5;830(2):353-7

Immunocytochemical localization of NaCh6 in cultured spinal cord astrocytes. Reese KA, et al. **Glia** 1999 Mar; 26(1):92-6

Molecular cloning and regional distribution of a human proton receptor subunit with biphasic functional properties. Babinski K, et al. **J Neurochem** 1999 Jan;72(1):51-7

ANTAGONISTS & INHIBITORS

Blockade by cAMP of native sodium channels of adult rat skeletal muscle fibers. Desaphy JF, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):C1465-72

The combined effects of halothane and lamotrigine on excitatory postsynaptic potentials and use-dependent block in the rat dentate gyrus in vitro. Frizelle HP, et al. **Anesth Analg** 1999 Aug;89(2):496-501

Suppression of central nervous system sodium channels by propofol. Rehberg B, et al. **Anesthesiology** 1999 Aug; 91(2):512-20

Effects of amlodipine on native cardiac Na+ channels and cloned alpha-subunits of cardiac Na+ channels. Inoue Y, et al. **Arzneimittelforschung** 1999 May;49(5):394-7

Peptide inhibition of ENaC. Ismailov II, et al. **Biochemistry** 1999 Jan 5;38(1):354-63

Solution structure of the sodium channel inactivation gate. Rohl CA, et al. **Biochemistry** 1999 Jan 19;38(3):855-61

Enhancing effects of salicylate on tonic and phasic block of Na+ channels by class 1 antiarrhythmic agents in the ventricular myocytes and the guinea pig papillary muscle. Tanaka Y, et al. **Biochim Biophys Acta** 1999 May 12; 1418(2):320-34

Tetraethylammonium block of the BNC1 channel. Adams CM, et al. **Biophys J** 1999 Mar;76(3):1377-83

Tonic and phasic tetrodotoxin block of sodium channels with point mutations in the outer pore region. Boccaccio A, et al. **Biophys J** 1999 Jul;77(1):229-40

Cardiac sodium channel Markov model with temperature dependence and recovery from inactivation. Irvine LA, et al. **Biophys J** 1999 Apr;76(4):1868-85

1H-NMR and circular dichroism spectroscopic studies on changes in secondary structures of the sodium channel inactivation gate peptides as caused by the pentapeptide KIFMK. Kuroda Y, et al. **Biophys J** 1999 Sep; 77(3):1363-73

The Na channel voltage sensor associated with inactivation is localized to the external charged residues of domain IV, S4. Sheets MF, et al. **Biophys J** 1999 Aug;77(2):747-57

Ultra-slow inactivation in mu1 Na+ channels is produced by a structural rearrangement of the outer vestibule. Todt H, et al. **Biophys J** 1999 Mar;76(3):1335-45

State-dependent cocaine block of sodium channel isoforms, chimeras, and channels coexpressed with the beta1 subunit. Wright SN, et al. **Biophys J** 1999 Jan;76(1 Pt 1):233-45

Molecular analysis of the Na+ channel blocking actions of the novel class I anti-arrhythmic agent RSD 921. Pugsley MK, et al. **Br J Pharmacol** 1999 May;127(1):9-18

Inhibition of major cationic inward currents prevents spreading depression-like hypoxic depolarization in rat hippocampal tissue slices. Müller M, et al. **Brain Res** 1998 Nov 23;812(1-2):1-13

Postrepolarization refractoriness as a potential anti-atrial fibrillation mechanism of pilsicainide, a pure sodium channel blocker with slow recovery kinetics. Kanki H, et al. **Cardiovasc Drugs Ther** 1998 Oct;12(5):475-82

Tetrodotoxin suppresses morphological enhancement of the metastatic MAT-LyLu rat prostate cancer cell line. Fraser SP, et al. **Cell Tissue Res** 1999 Mar;295(3):505-12

Cellular basis for the ECG features of the LQT1 form of the long-QT syndrome: effects of beta-adrenergic agonists and antagonists and sodium channel blockers on transmural dispersion of repolarization and torsade de pointes. Shimizu W, et al. **Circulation** 1998 Nov 24;98(21):2314-22

The novel anticonvulsant AWD 140-190 acts as a highly use-dependent sodium channel blocker in neuronal cell preparations. Rundfeldt C. **Epilepsy Res** 1999 Mar; 34(1):57-64

Scorpion toxins specific for Na+-channels. Possani LD, et al. **Eur J Biochem** 1999 Sep;264(2):287-300 (156 ref.)

Riluzole delayed appearance of parkinsonian motor abnormalities in a chronic MPTP monkey model. Bezard E, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):101-4

Comparison of cocaine and Na+ channel blockers on cardio-respiratory function in the rabbit. Erzouki HK, et al. **Eur J Pharmacol** 1999 Jul 14;377(1):51-6

Na+ channel blocking effects of cibenzoline on guinea-pig ventricular cells. Niwa R, et al. **Eur J Pharmacol** 1998 Jul 10;352(2-3):317-27

Functional and structural features of gamma-zeathionins, a new class of sodium channel blockers. Kushmerick C, et al. **FEBS Lett** 1998 Dec 4;440(3):302-6

Mechanism of inhibition of the Na current by tocainide in guinea-pig isolated ventricular cells. Tanaka Y, et al. **Gen Pharmacol** 1999 May;32(5):541-50

Inhibition of the epithelial Na+ channel by interaction of Nedd4 with a PY motif deleted in Liddle's syndrome. Goulet CC, et al. **J Biol Chem** 1998 Nov 6;273(45):30012-7

Cystic fibrosis transmembrane conductance regulator inhibits epithelial Na+ channels carrying Liddle's syndrome mutations. Hopf A, et al. **J Biol Chem** 1999 May 14; 274(20):13894-9

Sodium channel-blocking properties of spiradoline, a kappa receptor agonist, are responsible for its antiarrhythmic action in the rat. Pugsley MK, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):863-74

Antiischemic effects of CP-060S, an inhibitor of pathologically modified sodium channels, assessed in the canine experimental model of angina pectoris. Sugiyama A, et al. **J Cardiovasc Pharmacol** 1999 Jan;33(1):70-7

Concentration-dependent block of sodium current in guinea pig ventricular myocytes by a class III antiarrhythmic agent, MS-551. Suzuki K, et al. **J Cardiovasc Pharmacol** 1998 Nov;32(5):819-25

Block of brain sodium channels by peptide mimetics of the isoleucine, phenylalanine, and methionine (IFM) motif from the inactivation gate. Eaholtz G, et al. **J Gen Physiol** 1999 Feb;113(2):279-94

Augmentation of recovery from inactivation by site-3 Na channel toxins. A single-channel and whole-cell study of persistent currents. Richard Benzinger G, et al. **J Gen Physiol** 1999 Feb;113(2):333-46

The position of the fast-inactivation gate during lidocaine block of voltage-gated Na+ channels. Vedantham V, et al. **J Gen Physiol** 1999 Jan;113(1):7-16

Solution structure of toxin 2 from centruroides noxius Hoffmann, a beta-scorpion neurotoxin acting on sodium channels. Pintar A, et al. **J Mol Biol** 1999 Mar 26; 287(2):359-67

Positive symptoms in multiple sclerosis: their treatment with sodium channel blockers, lidocaine and mexiletine. Sakurai M, et al. **J Neurol Sci** 1999 Jan 15;162(2):162-8

Effects of the sodium channel blocker tetrodotoxin on acute white matter pathology after experimental contusive spinal cord injury. Rosenberg LJ, et al. **J Neurosci** 1999 Jul 15; 19(14):6122-33

Mechanism of sodium channel block by venlafaxine in guinea pig ventricular myocytes. Khalifa M, et al. **J Pharmacol Exp Ther** 1999 Oct;291(1):280-4

RSD1000: a novel antiarrhythmic agent with increased potency under acidic and high-potassium conditions. Yong SL, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):236-44

Pore-blocking toxins as probes of voltage-dependent channels. French RJ, et al. **Methods Enzymol** 1999; 294:575-605

A common anticonvulsant binding site for phenytoin, carbamazepine, and lamotrigine in neuronal Na+ channels. Kuo CC. **Mol Pharmacol** 1998 Oct;54(4):712-21

Lysine point mutations in Na+ channel D4-S6 reduce inactivated channel block by local anesthetics. Wright SN, et al. **Mol Pharmacol** 1998 Oct;54(4):733-9

A novel Na+/Ca2+ channel blocker, NS-7, suppresses hypoxic injury in rat cerebrocortical slices. Tatsumi S, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):191-6

A novel Na+/Ca2+ channel blocker NS-7 inhibits evoked but not spontaneous dopamine release from rat striatum, as measured by intracerebral microdialysis. Itoh Y, et al. **Neurosci Lett** 1998 Aug 21;252(3):203-6

Effects of temperature and mexiletine on the F1473S Na+ channel mutation causing paramyotonia congenita. Fleischhauer R, et al. **Pflugers Arch** 1998 Oct;436(5):757-65

Drugs preventing Na+ and Ca2+ overload. Ravens U, et al. **Pharmacol Res** 1999 Mar;39(3):167-74 (50 ref.)

Time- and voltage-dependent block of sodium channels expressed in Xenopus oocytes by RSD 921, a novel class I antiarrhythmic drug. Pugsley MK, et al. **Proc West Pharmacol Soc** 1998;41:75-6

Volatile anesthetics significantly suppress central and peripheral mammalian sodium channels. Duch DS, et al. **Toxicol Lett** 1998 Nov 23;100-101:255-63 (47 ref.)

Ciguatoxins and brevetoxins, neurotoxic polyether compounds active on sodium channels. Dechraoui MY, et al. **Toxicon** 1999 Jan;37(1):125-43

Sodium channel modifiers from scorpion venom: structure-activity relationship, mode of action and application. Gurevitz M, et al. **Toxicon** 1998 Nov; 36(11):1671-82

BIOSYNTHESIS

Effect of subunit composition and Liddle's syndrome mutations on biosynthesis of ENaC. Prince LS, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1346-51

Occurrence of ENaC subunit mRNA and immunocytochemistry of the channel subunits in taste buds of the rat vallate papilla. Lindemann B, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:116-27

Cell surface expression and biosynthesis of epithelial Na+ channels. Prince LS, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):705-10

Biosynthesis and processing of epithelial sodium channels in Xenopus oocytes. Valentijn JA, et al. **J Biol Chem** 1998 Nov 13;273(46):30344-51

Differential expression of RNA and protein of the three pore-forming subunits of the amiloride-sensitive epithelial sodium channel in taste buds of the rat. Kretz O, et al. **J Histochem Cytochem** 1999 Jan;47(1):51-64

In vivo NGF deprivation reduces SNS expression and TTX-R sodium currents in IB4-negative DRG neurons. Fjell J, et al. **J Neurophysiol** 1999 Feb;81(2):803-10

Sodium channel expression in NGF-overexpressing transgenic mice. Fjell J, et al. **J Neurosci Res** 1999 Jul 1;57(1):39-47

The sodium channel auxiliary subunits beta1 and beta2 are differentially expressed in the spinal cord of neuropathic rats. Blackburn-Munro G, et al. **Neuroscience** 1999 Apr; 90(1):153-64

The molecular pathophysiology of pain: abnormal expression of sodium channel genes and its contributions to hyperexcitability of primary sensory neurons. Waxman SG. **Pain** 1999 Aug;Suppl 6:S133-40 (59 ref.)

CHEMISTRY

NMR studies of tandem WW domains of Nedd4 in complex with a PY motif-containing region of the epithelial sodium channel. Kanelis V, et al. **Biochem Cell Biol** 1998; 76(2-3):341-50

Solution structure of the sodium channel inactivation gate. Rohl CA, et al. **Biochemistry** 1999 Jan 19;38(3):855-61

Subunit stoichiometry of a core conduction element in a cloned epithelial amiloride-sensitive Na+ channel. Berdiev BK, et al. **Biophys J** 1998 Nov;75(5):2292-301

Charge immobilization caused by modification of internal cysteines in squid Na channels. Khodakhah K, et al. **Biophys J** 1998 Dec;75(6):2821-9

1H-NMR and circular dichroism spectroscopic studies on changes in secondary structures of the sodium channel inactivation gate peptides as caused by the pentapeptide KIFMK. Kuroda Y, et al. **Biophys J** 1999 Sep; 77(3):1363-73

The Na channel voltage sensor associated with inactivation is localized to the external charged residues of domain IV, S4. Sheets MF, et al. **Biophys J** 1999 Aug;77(2):747–57

Ultra-slow inactivation in mu1 Na+ channels is produced by a structural rearrangement of the outer vestibule. Todt H, et al. **Biophys J** 1999 Mar;76(3):1335–45

Structural determinants of slow inactivation in human cardiac and skeletal muscle sodium channels. Vilin YY, et al. **Biophys J** 1999 Sep;77(3):1384–93

Sodium channel fragments: contributions to voltage sensitivity and ion selectivity. Duclohier H, et al. **Biosci Rep** 1998 Dec;18(6):279–86

The pre-transmembrane 1 domain of acid-sensing ion channels participates in the ion pore. Coscoy S, et al. **J Biol Chem** 1999 Apr 9;274(15):10129–32

Number of subunits comprising the epithelial sodium channel. Eskandari S, et al. **J Biol Chem** 1999 Sep 17;274(38):27281–6

AKAP15 anchors cAMP-dependent protein kinase to brain sodium channels. Tibbs VC, et al. **J Biol Chem** 1998 Oct 2;273(40):25783–8

Molecular and kinetic determinants of local anaesthetic action on sodium channels. French RJ, et al. **Toxicol Lett** 1998 Nov 23;100–101:247–54 (31 ref.)

DEFICIENCY

Disruption of the beta subunit of the epithelial Na+ channel in mice: hyperkalemia and neonatal death associated with a pseudohypoaldosteronism phenotype. McDonald FJ, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1727–31

Salt restriction induces pseudohypoaldosteronism type I in mice expressing low levels of the beta-subunit of the amiloride-sensitive epithelial sodium channel. Pradervand S, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1732–7

DRUG EFFECTS

Neuroprotection--rationale for pharmacological modulation of Na(+)-channels. Urenjak J, et al. **Amino Acids** 1998; 14(1–3):151–8 (67 ref.)

Fundamental properties of local anesthetics: half-maximal blocking concentrations for tonic block of Na+ and K+ channels in peripheral nerve. Bräu ME, et al. **Anesth Analg** 1998 Oct;87(4):885–9

ATX II, a sodium channel toxin, sensitizes skeletal muscle to halothane, caffeine, and ryanodine. Fletcher JE, et al. **Anesthesiology** 1999 May;90(5):1294–301

Stereoselectivity of bupivacaine in local anesthetic-sensitive ion channels of peripheral nerve. Nau C, et al. **Anesthesiology** 1999 Sep;91(3):786–95

Effects of halothane and isoflurane on fast and slow inactivation of human heart hH1a sodium channels. Stadnicka A, et al. **Anesthesiology** 1999 Jun;90(6):1671–83

The insect voltage-gated sodium channel as target of insecticides. Zlotkin E. **Annu Rev Entomol** 1999;44:429–55 (73 ref.)

TTX-sensitive Na(+) and nifedipine-sensitive Ca(2+) channels in rat vas deferens smooth muscle cells. Belevych AE, et al. **Biochim Biophys Acta** 1999 Jul 15;1419(2):343–52

Batrachotoxin-resistant Na+ channels derived from point mutations in transmembrane segment D4–S6. Wang SY, et al. **Biophys J** 1999 Jun;76(6):3141–9

Opioid receptor independent effects of morphine on membrane currents in single cardiac myocytes. Hung CF, et al. **Br J Anaesth** 1998 Dec;81(6):925–31

Distinct molecular sites of anaesthetic action: pentobarbital block of human brain sodium channels is alleviated by removal of fast inactivation. Wartenberg HC, et al. **Br J Anaesth** 1999 Jan;82(1):74–80

Distribution of amiloride-sensitive sodium channels in the oral cavity of the hamster. Gilbertson TA, et al. **Chem Senses** 1998 Oct;23(5):495–9

Puerarin inhibits tetrodotoxin-resistant sodium current in rat dorsal root ganglion neurons. Ji HL, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 Mar;17(2):115–8

Inhibitory effects of vinpocetine on sodium current in rat cardiomyocytes. Wei Y, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):411–5

Carbamazepine effects on Na+ currents in human dentate granule cells from epileptogenic tissue. Reckziegel G, et al. **Epilepsia** 1999 Apr;40(4):401–7

Valproate selectively reduces the persistent fraction of Na+ current in neocortical neurons. Taverna S, et al. **Epilepsy Res** 1998 Sep;32(1–2):304–8

Biophysical properties of scorpion alpha-toxin-sensitive background sodium channel contributing to the pacemaker activity in insect neurosecretory cells (DUM neurons). Lapied B, et al. **Eur J Neurosci** 1999 Apr;11(4):1449–60

Two types of TTX-resistant and one TTX-sensitive Na+ channel in rat dorsal root ganglion neurons and their blockade by halothane. Scholz A, et al. **Eur J Neurosci** 1998 Aug;10(8):2547–56

Tension generation and increase in voltage-activated Na+ current by crotamine. Matavel AC, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):167–73

Mechanisms of bupivacaine action on Na+ and K+ channels in myelinated axons of Xenopus laevis. Nilsson J, et al. **Eur J Pharmacol** 1998 Oct 30;360(1):21–9

Reversal of convention: from man to experimental animal in elucidating the function of the renal amiloride-sensitive sodium channel. Hummler E. **Exp Nephrol** 1998 Jul–Aug; 6(4):265–71 (56 ref.)

delta-Atracotoxins from australian funnel-web spiders compete with scorpion alpha-toxin binding but differentially modulate alkaloid toxin activation of voltage-gated sodium channels. Little MJ, et al. **J Biol Chem** 1998 Oct 16;273(42):27076–83

Terfenadine block of sodium current in canine atrial myocytes. Lu Y, et al. **J Cardiovasc Pharmacol** 1999 Mar; 33(3):507–13

Roles of Ca2+ and protein tyrosine kinase in insulin action on cell volume via Na+ and K+ channels and Na+/K+/2Cl- cotransporter in fetal rat alveolar type II pneumocyte. Marunaka Y, et al. **J Membr Biol** 1999 Mar 1;168(1):91–101

Dynamic diversification from a putative common ancestor of scorpion toxins affecting sodium, potassium, and chloride channels. Froy O, et al. **J Mol Evol** 1999 Feb;48(2):187–96

Electrophysiological evidence for tetrodotoxin-resistant sodium channels in slowly conducting dural sensory fibers. Strassman AM, et al. **J Neurophysiol** 1999 Feb;81(2):413–24

Na+-gated nonselective cation channel from lobster olfactory projection neurons. Zhainazarov AB, et al. **J Neurophysiol** 1998 Dec;80(6):3387–91

Differential sensitivities of TTX-resistant and TTX-sensitive sodium channels to anesthetic concentrations of ethanol in rat sensory neurons. Wu JV, et al. **J Neurosci Res** 1998 Nov 15;54(4):433–43

Differential actions of pacific ciguatoxin-1 on sodium channel subtypes in mammalian sensory neurons. Strachan LC, et al. **J Pharmacol Exp Ther** 1999 Jan;288(1):379–88

Long-term myocardial preservation: effects of hyperkalemia, sodium channel, and Na/K/2Cl cotransport inhibition on extracellular potassium accumulation during hypothermic storage. Snabaitis AK, et al. **J Thorac Cardiovasc Surg** 1999 Jul;118(1):123–34

Effects of PKA inhibitors, H-compounds, on epithelial Na+ channels via PKA-independent mechanisms. Niisato N, et al. **Life Sci** 1999;65(10):PL109–14

A molecular basis for the different local anesthetic affinities of resting versus open and inactivated states of the sodium channel. Li HL, et al. **Mol Pharmacol** 1999 Jan;55(1):134–41

The tetrodotoxin-resistant sodium channel SNS has a specialized function in pain pathways. Akopian AN, et al. **Nat Neurosci** 1999 Jun;2(6):541–8

Inhibition of 5-HT3 receptor cation channels by ifenprodil in excised patches of N1E-115 cells. Barann M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Aug; 358(2):145–52

Functional expression of voltage-gated Na+ and Ca2+ channels during neuronal differentiation of PC12 cells with nerve growth factor or forskolin. Bouron A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 May; 359(5):370–7

Na+-channel modulating effect of the inotropic compound S(-)BDF 9196 in human myocardium. Müller-Ehmsen J, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1999 Jan; 359(1):60–4

Effect of mexiletine on sea anemone toxin-induced non-inactivating sodium channels of rat skeletal muscle: a model of sodium channel myotonia. Desaphy JF, et al. **Neuromuscul Disord** 1999 May;9(3):182–9

The alkaloid 6-benzoylheteratisine inhibits voltage-gated Na+ channels in rat brain synaptosomes. Gutser UT, et al. **Neuropharmacology** 1998 Sep;37(9):1139–46

Sodium channels (from rat, mouse, and man) in neuroblastoma cells and different expression systems have similar sensitivities to pentobarbital. Rehberg B, et al. **Neurosci Lett** 1999 Apr 2;264(1–3):81–4

Tetrodotoxin-resistant sodium channels of dorsal root ganglion neurons are readily activated in diabetic rats. Hirade M, et al. **Neuroscience** 1999 Mar;90(3):933–9

Action of the pyrethroid insecticide cypermethrin on rat brain IIa sodium channels expressed in xenopus oocytes. Smith TJ, et al. **Neurotoxicology** 1998 Dec;19(6):823–32

Forskolin increases apical sodium conductance in cultured toad kidney cells (A6) by stimulating membrane insertion. Erlij D, et al. **Pflugers Arch** 1999 Jul;438(2):195–204

Variability of channel subconductance states of the cardiac sodium channel induced by protease. Saint DA, et al. **Receptors Channels** 1999;6(4):283–94

Molecular and kinetic determinants of local anaesthetic action on sodium channels. French RJ, et al. **Toxicol Lett** 1998 Nov 23;100–101:247–54 (31 ref.)

Molecular genetical analysis of Drosophila ether sensitive mutants. Gamo S, et al. **Toxicol Lett** 1998 Nov 23; 100–101:329–37 (24 ref.)

Antibodies against Tityus discrepans venom do not abolish the effect of Tityus serrulatus venom on the rat sodium and potassium channels. Borges A, et al. **Toxicon** 1999 Jun; 37(6):867–81

New toxins acting on sodium channels from the scorpion Leiurus quinquestriatus hebraeus suggest a clue to mammalian vs insect selectivity. Sautière P, et al. **Toxicon** 1998 Aug;36(8):1141–54

[Antiarrhythmic effect of the antiopioid peptide nociceptin and its effect on fast Na+-channels in cardiomyocytes] Lishmanov IuB, et al. **Biull Eksp Biol Med** 1998 Dec; 126(12):655–7 **(Rus)**

[Morphine decreases the voltage sensitivity of the slow sodium channels] Krylov BV, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Feb;85(2):225–36 (Eng. Abstr.) **(Rus)**

[Ethanol modifies the ion selectivity of sodium channels in the rat sensory neurons] Krylov BV, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan;85(1):110–8 (Eng. Abstr.) **(Rus)**

[Stimulus-dependent effects of the sodium channel blockers in the C-fiber sensory units] Revenko SV, et al. **Ross Fiziol Zh Im I M Sechenova** 1999 Jan;85(1):119–27 (Eng. Abstr.) **(Rus)**

GENETICS

T594M mutation in the ENaC beta subunit and low-renin hypertension in blacks. Warnock DG. **Am J Kidney Dis** 1999 Sep;34(3):579–87

Antisense oligonucleotides against the alpha-subunit of ENaC decrease lung epithelial cation-channel activity. Jain L, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L1046–51

Induction of epithelial Na+ channel in rat ileum after proctocolectomy. Koyama K, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G975–84

Temperature dependence of early and late currents in human cardiac wild-type and long Q-T DeltaKPQ Na+ channels. Nagatomo T, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2016–24

O2-induced ENaC expression is associated with NF-kappaB activation and blocked by superoxide scavenger. Rafii B, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):L764–70

Developmental regulation of epithelial sodium channel subunit mRNA expression in rat colon and lung. Watanabe S, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1227–35

Structure and hormone responsiveness of the gene encoding the alpha-subunit of the rat amiloride-sensitive epithelial sodium channel. Otulakowski G, et al. **Am J Respir Cell Mol Biol** 1999 May;20(5):1028–40

Relation between alpha, beta, and gamma human amiloride-sensitive epithelial Na+ channel mRNA levels and nasal epithelial potential difference in healthy men. Otulakowski G, et al. **Am J Respir Crit Care Med** 1998 Oct; 158(4):1213–20

Cloning and functional analysis of the type III Na+ channel from human brain. Clare JJ, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:80–3

Involvement of genes encoding a K+ channel (ether a go-go) and a Na+ channel (smellblind) in Drosophila olfaction. Dubin AE, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:212–22 (28 ref.)

Diversity of mammalian voltage-gated sodium channels. Goldin AL. **Ann N Y Acad Sci** 1999 Apr 30;868:38–50 (110 ref.)

RNA editing of a Drosophila sodium channel gene. Hanrahan CJ, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:51–66 (54 ref.)

A novel mutation in the gene for the adult skeletal muscle sodium channel alpha-subunit (SCN4A) that causes paramyotonia congenita of von Eulenburg. Sasaki R, et al. **Arch Neurol** 1999 Jun;56(6):692–6

Identification of a point mutation in the para-type sodium channel gene from a pyrethroid-resistant cattle tick. He H, et al. **Biochem Biophys Res Commun** 1999 Aug 11; 261(3):558–61

Gene structure of the human amiloride-sensitive epithelial sodium channel beta subunit. Saxena A, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):208–13

Use of single-strand conformation polymorphism analysis to screen for the T594M sodium channel mutation. Dong Y, et al. **Biochem Soc Trans** 1998 Nov;26(4):S393

On mutations that uncouple sodium channel activation from inactivation. Goldman L. **Biophys J** 1999 May;76(5):2553–9

Differences in saxitoxin and tetrodotoxin binding revealed by mutagenesis of the Na+ channel outer vestibule. Penzotti JL, et al. **Biophys J** 1998 Dec;75(6):2647–57

Enhanced slow inactivation by V445M: a sodium channel mutation associated with myotonia. Takahashi MP, et al. **Biophys J** 1999 Feb;76(2):861–8

Batrachotoxin-resistant Na+ channels derived from point mutations in transmembrane segment D4–S6. Wang SY, et al. **Biophys J** 1999 Jun;76(6):3141–9

Mutant channels contribute <50% to Na+ current in paramyotonia congenita muscle. Mitrovic N, et al. **Brain** 1999 Jun;122 (Pt 6):1085–92

Regulation by an extract of embryonic chick brain of the densities of voltage-dependent Na+ and Ca2+ channels in embryonic chick skeletal muscle cells during their development in culture. Satoh R, et al. **Brain Res Dev Brain Res** 1998 Oct 1;110(2):261–7

Differential role of GDNF and NGF in the maintenance of two TTX-resistant sodium channels in adult DRG neurons. Fjell J, et al. **Brain Res Mol Brain Res** 1999 Apr 20; 67(2):267–82

Multiple pathways regulate the expression of genes encoding sodium channel subunits in developing neurons. Giraud P, et al. **Brain Res Mol Brain Res** 1998 May;56(1–2):238–55

Molecular mechanisms underlying ionic remodeling in a dog model of atrial fibrillation. Yue L, et al. **Circ Res** 1999 Apr 16;84(7):776–84

Congenital long-QT syndrome caused by a novel mutation in a conserved acidic domain of the cardiac Na+ channel. Wei J, et al. **Circulation** 1999 Jun 22;99(24):3165–71

SacI identifies a biallelic polymorphism in the coding sequence of the gamma subunit of the epithelial sodium channel (ENaC): a candidate gene for hypertension. Viaplana R, et al. **Clin Genet** 1998 Jul;54(1):104–5

Oncogenes and signal transduction pathways involved in the regulation of Na+ channel expression. Sashihara S, et al. **Crit Rev Oncog** 1998;9(1):19–34 (142 ref.)

Amiloride-sensitive Na channels. Horisberger JD. **Curr Opin Cell Biol** 1998 Aug;10(4):443–9 (43 ref.)

Mutations in the carboxy terminus of the beta and gamma subunits of the epithelial sodium channel are not present in patients with hypertensive crisis. Födinger M, et al. **Eur J Clin Invest** 1998 Sep;28(9):707–11

Exclusion of the SCN2B gene as candidate for CMT4B. Bolino A, et al. **Eur J Hum Genet** 1998 Nov–Dec; 6(6):629–34

Expression of the mRNA for the beta 2 subunit of the voltage-dependent sodium channel in rat CNS. Levy-Mozziconacci A, et al. **Eur J Neurosci** 1998 Sep; 10(9):2757–67

Cloning of a novel four repeat protein related to voltage-gated sodium and calcium channels. Lee JH, et al. **FEBS Lett** 1999 Feb 26;445(2–3):231–6

Functional consequences of a domain 1/S6 segment sodium channel mutation associated with painful congenital myotonia. Wang DW, et al. **FEBS Lett** 1999 Apr 9; 448(2–3):231–4

The structure of the rat amiloride-sensitive epithelial sodium channel gamma subunit gene and functional analysis of its promoter. Thomas CP, et al. **Gene** 1999 Mar 4; 228(1–2):111–22

Exon organization, coding sequence, physical mapping, and polymorphic intragenic markers for the human neuronal sodium channel gene SCN8A. Plummer NW, et al. **Genomics** 1998 Dec 1;54(2):287–96

Evolution and diversity of mammalian sodium channel genes. Plummer NW, et al. **Genomics** 1999 Apr 15;57(2):323–31 (88 ref.)

Dystonia associated with mutation of the neuronal sodium channel Scn8a and identification of the modifier locus Scnm1 on mouse chromosome 3. Sprunger LK, et al. **Hum Mol Genet** 1999 Mar;8(3):471–9

A de novo missense mutation (R1623Q) of the SCN5A gene in a Japanese girl with sporadic long QT sydrome. Mutations in brief no. 140. Online. Yamagishi H, et al. **Hum Mutat** 1998;11(6):481

Seven lessons from two candidate genes in human essential hypertension: angiotensinogen and epithelial sodium channel. Corvol P, et al. **Hypertension** 1999 Jun; 33(6):1324–31 (68 ref.)

Role of the kdr and super-kdr sodium channel mutations in pyrethroid resistance: correlation of allelic frequency to resistance level in wild and laboratory populations of horn flies (Haematobia irritans). Jamroz RC, et al. **Insect Biochem Mol Biol** 1998 Dec;28(12):1031–7

Mutations in the house fly Vssc1 sodium channel gene associated with super-kdr resistance abolish the pyrethroid sensitivity of Vssc1/tipE sodium channels expressed in Xenopus oocytes. Lee SH, et al. **Insect Biochem Mol Biol** 1999 Feb;29(2):185–94

Voltage-gated sodium channel genes hscp and hDSC1 of Heliothis virescens F. genomic organization. Park Y, et al. **Insect Mol Biol** 1999 May;8(2):161–70

Structure of a putative sodium channel from the sea anemone Aiptasia pallida. White GB, et al. **Invert Neurosci** 1998 Mar; 3(4):317–26

Fast- and slow-gating modes of the sodium channel are altered by a paramyotonia congenita-linked mutation. Moran O, et al. **J Bioenerg Biomembr** 1998 Dec; 30(6):579–88

Mutational analysis of cysteine-rich domains of the epithelium sodium channel (ENaC). Identification of cysteines essential for channel expression at the cell surface. Firsov D, et al. **J Biol Chem** 1999 Jan 29;274(5):2743–9

Interaction between the skeletal muscle type 1 Na+ channel promoter E-box and an upstream repressor element. Release of repression by myogenin. Kraner SD, et al. **J Biol Chem** 1999 Mar 19;274(12):8129–36

The gene expression of the amiloride-sensitive epithelial sodium channel alpha-subunit is regulated by antagonistic effects between glucocorticoid hormone and ras pathways in salivary epithelial cells. Lin HH, et al. **J Biol Chem** 1999 Jul 30;274(31):21544–54

Glucocorticoid induction of epithelial sodium channel expression in lung and renal epithelia occurs via trans-activation of a hormone response element in the 5'-flanking region of the human epithelial sodium channel alpha subunit gene. Sayegh R, et al. **J Biol Chem** 1999 Apr 30;274(18):12431–7

The amiloride-sensitive epithelial sodium channel alpha-subunit is transcriptionally down-regulated in rat parotid cells by the extracellular signal-regulated protein kinase pathway. Zentner MD, et al. **J Biol Chem** 1998 Nov 13;273(46):30770–6

Ion channels and the genetic contribution to epilepsy. Ryan SG. **J Child Neurol** 1999 Jan;14(1):58–66 (68 ref.)

Polymorphisms of amiloride-sensitive sodium channel subunits in five sporadic cases of pseudohypoaldosteronism: do they have pathologic potential? Arai K, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2434–7

Beat-to-beat repolarization variability in amplitude and duration in LQTS patients with the SCN5A sodium channel gene mutation. Couderc JP, et al. **J Electrocardiol** 1998;31 Suppl:134

On the molecular basis of ion permeation in the epithelial Na+ channel. Kellenberger S, et al. **J Gen Physiol** 1999 Jul;114(1):13–30

Polymorphisms of the gamma subunit of the epithelial Na+ channel in essential hypertension. Persu A, et al. **J Hypertens** 1999 May;17(5):639–45

Genetic analysis of the epithelial sodium channel in Liddle's syndrome. Uehara Y, et al. **J Hypertens** 1998 Aug; 16(8):1131–5

Screening of Haematobia irritans irritans (Diptera: Muscidae) populations for pyrethroid resistance-associated sodium channel gene mutations by using a polymerase chain reaction assay. Guerrero FD, et al. **J Med Entomol** 1998 Sep;35(5):710–5

Isolation of the 5'-flanking region for human brain sodium channel subtype II alpha-subunit. Lu CM, et al. **J Mol Neurosci** 1998 Dec;11(3):179–82

Molecular cloning and regional distribution of a human proton receptor subunit with biphasic functional properties. Babinski K, et al. **J Neurochem** 1999 Jan;72(1):51–7

Protein kinase C and the opposite regulation of sodium channel alpha- and beta1-subunit mRNA levels in adrenal chromaffin cells. Yanagita T, et al. **J Neurochem** 1999 Oct; 73(4):1749–57

Activation and inactivation of the voltage-gated sodium channel: role of segment S5 revealed by a novel hyperkalaemic periodic paralysis mutation. Bendahhou S, et al. **J Neurosci** 1999 Jun 15;19(12):4762–71

Zebrafish touch-insensitive mutants reveal an essential role for the developmental regulation of sodium current. Ribera AB, et al. **J Neurosci** 1998 Nov 15;18(22):9181–91

Characterization of a new sodium channel mutation at arginine 1448 associated with moderate Paramyotonia congenita in humans. Bendahhou S, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):337–44

Differential effects of homologous S4 mutations in human skeletal muscle sodium channels on deactivation gating from open and inactivated states. Groome JR, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):687–98

Mechanistic link between lidocaine block and inactivation probed by outer pore mutations in the rat micro1 skeletal muscle sodium channel. Kambouris NG, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):693–705

Comparison of slow inactivation in human heart and rat skeletal muscle Na+ channel chimaeras. O'Reilly JP, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):61–73

Two novel mutations in the beta subunit of the human epithelial sodium channel [letter] Födinger M, et al. **Kidney Int** 1999 Jun;55(6):2530–1

Epithelial sodium channel regulatory proteins identified by functional expression cloning. Vallet V, et al. **Kidney Int Suppl** 1998 Sep;67:S109–14 (25 ref.)

Genetic linkage of beta and gamma subunits of epithelial sodium channel to systolic blood pressure [see comments] Wong ZY, et al. **Lancet** 1999 Apr 10;353(9160):1222–5. Comment in: Lancet 1999 Apr 10;353(9160):1200–1. Comment in: Lancet 1999 Jun 26;353(9171):2245–6.

Altered properties of neuronal sodium channels associated with genetic resistance to pyrethroids. Lee D, et al. **Mol Pharmacol** 1999 Mar;55(3):584–93

Lysine point mutations in Na+ channel D4-S6 reduce inactivated channel block by local anesthetics. Wright SN, et al. **Mol Pharmacol** 1998 Oct;54(4):733–9

Cardiac conduction defects associate with mutations in SCN5A. Schott JJ, et al. **Nat Genet** 1999 Sep;23(1):20–1

Selective localization of cardiac SCN5A sodium channels in limbic regions of rat brain [letter] Hartmann HA, et al. **Nat Neurosci** 1999 Jul;2(7):593–5

Linking a genetic defect to its cellular phenotype in a cardiac arrhythmia. Clancy CE, et al. **Nature** 1999 Aug 5; 400(6744):566–9

Molecular analysis of the carboxy terminus of the beta and gamma subunits of the epithelial sodium channel in patients with end-stage renal disease. Födinger M, et al. **Nephron** 1999;81(4):381–6

Mutations of sodium channels in periodic paralysis: can they explain the disease and predict treatment? [editorial; comment] Griggs RC, et al. **Neurology** 1999 Apr 22; 52(7):1309–10. Comment on: Neurology 1999 Apr 22;52(7):1447–53.

Voltage sensor-trapping: enhanced activation of sodium channels by beta-scorpion toxin bound to the S3–S4 loop in domain II. Cestèle S, et al. **Neuron** 1998 Oct;21(4):919–31

Voltage sensors in domains III and IV, but not I and II, are immobilized by Na+ channel fast inactivation [see comments] Cha A, et al. **Neuron** 1999 Jan;22(1):73–87. Comment in: Neuron 1999 Jan;22(1):1–2.

The molecular pathophysiology of pain: abnormal expression of sodium channel genes and its contributions to hyperexcitability of primary sensory neurons. Waxman SG. **Pain** 1999 Aug;Suppl 6:S133–40 (59 ref.)

Hormonal regulation and genomic organization of the human amiloride-sensitive epithelial sodium channel alpha subunit gene. Chow YH, et al. **Pediatr Res** 1999 Aug;46(2):208–14

Effects of temperature and mexiletine on the F1473S Na+ channel mutation causing paramyotonia congenita. Fleischhauer R, et al. **Pflugers Arch** 1998 Oct;436(5):757–65

Voltage-dependent gating of veratridine-modified RIIA Na+ channel alpha subunit expressed heterologously in CHO cells. Ghatpande AS, et al. **Pflugers Arch** 1999 Aug; 438(3):378–83

Expression of the epithelial sodium channel (ENaC) during ontogenic differentiation of the renal cortical collecting duct epithelium. Huber SM, et al. **Pflugers Arch** 1999 Feb; 437(3):491–7

A single point mutation in the pore region of the epithelial Na+ channel changes ion selectivity by modifying molecular sieving. Kellenberger S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4170–5

Effect of gamma knife radiosurgery on rat brain sodium channel subunit mRNA expression. Bartolomei F, et al. **Stereotact Funct Neurosurg** 1998 Oct;70 Suppl 1:237–42

Molecular genetical analysis of Drosophila ether sensitive mutants. Gamo S, et al. **Toxicol Lett** 1998 Nov 23; 100–101:329–37 (24 ref.)

HISTORY

On the mechanism of action of aldosterone on sodium transport: the role of protein synthesis. 1963 [classical article] Edelman I, et al. **J Am Soc Nephrol** 1999 Mar; 10(3):675–81

IMMUNOLOGY

Antiidiotypic antibody recognizes an amiloride binding domain within the alpha subunit of the epithelial Na+ channel. Kieber-Emmons T, et al. **J Biol Chem** 1999 Apr 2;274(14):9648–55

ISOLATION & PURIFICATION

Quantitation and localization of ENaC subunit expression in fetal, newborn, and adult mouse lung. Talbot CL, et al. **Am J Respir Cell Mol Biol** 1999 Mar;20(3):398–406

METABOLISM

Expression of amiloride-sensitive sodium channel in rat eye. Matsuo T. **Acta Med Okayama** 1998 Oct;52(5):279–83

Regulation of voltage-sensitive sodium and calcium channels by phosphorylation. Rossie S. **Adv Second Messenger Phosphoprotein Res** 1999;33:23–48 (135 ref.)

Cloning and functional expression of the mouse epithelial sodium channel. Ahn YJ, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):F121–9

Regulation of the epithelial Na(+) channel by intracellular Na(+). Awayda MS. **Am J Physiol** 1999 Aug;277(2 Pt 1):C216–24

Genetic disorders of membrane transport. V. The epithelial sodium channel and its implication in human diseases. Hummler E, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G567–71 (34 ref.)

Hyperkalemic periodic paralysis M1592V mutation modifies activation in human skeletal muscle Na+ channel. Rojas CV, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C259–66

Developmental expression of the epithelial Na+ channel in kidney and uroepithelia. Watanabe S, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):F304–14

Identification of voltage-activated Na+ and K+ channels in human steroid-secreting ovarian cells. Bulling A, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:77–9

Slow voltage-dependent inactivation of a sustained sodium current in stellate cells of rat entorhinal cortex layer II. Magistretti J, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:84–7

Slow sodium channel inactivation in CA1 pyramidal cells. Mickus T, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:97–101

Properties of sodium currents and action potential firing in isolated cerebellar Purkinje neurons. Raman IM, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:93–6

H(+)-gated cation channels. Waldmann R, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:67–76 (37 ref.)

Differential distribution of voltage-gated sodium channel alpha- and beta-subunits in human brain. Whitaker WR, et al. **Ann N Y Acad Sci** 1999 Apr 30;868:88–92

Effects of ion channel modulators in the influx and efflux of Tc-99m-MIBI. Arbab AS, et al. **Ann Nucl Med** 1999 Feb;13(1):27–32

Sodium channels in alveolar epithelial cells: molecular characterization, biophysical properties, and physiological significance. Matalon S, et al. **Annu Rev Physiol** 1999; 61:627–61 (188 ref.)

WIN 17317-3, a new high-affinity probe for voltage-gated sodium channels. Wanner SG, et al. **Biochemistry** 1999 Aug 24;38(34):11137–46

Effect of protein kinase A-induced phosphorylation on the gating mechanism of the brain Na+ channel: model fitting to whole-cell current traces. d'Alcantara P, et al. **Biophys J** 1999 Jul;77(1):204–16

On mutations that uncouple sodium channel activation from inactivation. Goldman L. **Biophys J** 1999 May;76(5):2553–9

Cardiac sodium channel Markov model with temperature dependence and recovery from inactivation. Irvine LA, et al. **Biophys J** 1999 Apr;76(4):1868–85

Charge immobilization caused by modification of internal cysteines in squid Na channels. Khodakhah K, et al. **Biophys J** 1998 Dec;75(6):2821–9

Properties of slow, cumulative sodium channel inactivation in rat hippocampal CA1 pyramidal neurons. Mickus T, et al. **Biophys J** 1999 Feb;76(2):846–60

Differences in saxitoxin and tetrodotoxin binding revealed by mutagenesis of the Na+ channel outer vestibule. Penzotti JL, et al. **Biophys J** 1998 Dec;75(6):2647–57

Membrane stretch affects gating modes of a skeletal muscle sodium channel. Tabarean IV, et al. **Biophys J** 1999 Aug; 77(2):758–74

Sodium channel fragments: contributions to voltage sensitivity and ion selectivity. Duclohier H, et al. **Biosci Rep** 1998 Dec;18(6):279–86

Rapid sodium channel augmentation in response to

inflammation induced by complete Freund's adjuvant. Gould HJ 3rd, et al. **Brain Res** 1998 Aug 17;802(1-2):69-74
Repolarization abnormalities in cardiomyocytes of dogs with chronic heart failure: role of sustained inward current. Undrovinas AI, et al. **Cell Mol Life Sci** 1999 Mar; 55(3):494-505
Local anesthetic anchoring to cardiac sodium channels. Implications into tissue-selective drug targeting. Li RA, et al. **Circ Res** 1999 Jul 9;85(1):88-98
Decreased sodium and increased transient outward potassium currents in iron-loaded cardiac myocytes. Implications for the arrhythmogenesis of human siderotic heart disease. Kuryshev YA, et al. **Circulation** 1999 Aug 10;100(6):675-83
Oncogenes and signal transduction pathways involved in the regulation of Na+ channel expression. Sashihara S, et al. **Crit Rev Oncog** 1998;9(1):19-34 (142 ref.)
Mineralocorticoid hormone receptor and the epithelial sodium channel in a human leukemic cell line. Mirshahi M, et al. **Endocr Res** 1998 Aug-Nov;24(3-4):455-9
Immunochemical analysis of the sodium channel in rodent and human eye. Mirshahi M, et al. **Exp Eye Res** 1999 Jul; 69(1):21-32
Delta-atracotoxins from Australian funnel-web spiders compete with scorpion alpha-toxin binding on both rat brain and insect sodium channels. Little MJ, et al. **FEBS Lett** 1998 Nov 20;439(3):246-52
Establishment and characterization of a strial marginal cell line maintaining vectorial electrolyte transport. Tu TY, et al. **Hear Res** 1998 Sep;123(1-2):97-110
Protons activate brain Na+ channel 1 by inducing a conformational change that exposes a residue associated with neurodegeneration. Adams CM, et al. **J Biol Chem** 1998 Nov 13;273(46):30204-7
Paradoxical stimulation of a DEG/ENaC channel by amiloride. Adams CM, et al. **J Biol Chem** 1999 May 28; 274(22):15500-4
All three WW domains of murine Nedd4 are involved in the regulation of epithelial sodium channels by intracellular Na+. Harvey KF, et al. **J Biol Chem** 1999 Apr 30; 274(18):12525-30
Carboxylmethylation of the beta subunit of xENaC regulates channel activity. Rokaw MD, et al. **J Biol Chem** 1998 Oct 30;273(44):28746-51
Interaction of syntaxins with the amiloride-sensitive epithelial sodium channel. Saxena S, et al. **J Biol Chem** 1999 Jul 23;274(30):20812-7
Shear stress-mediated extracellular signal-regulated kinase activation is regulated by sodium in endothelial cells. Potential role for a voltage-dependent sodium channel. Traub O, et al. **J Biol Chem** 1999 Jul 16;274(29):20144-50
Tenascin-R is a functional modulator of sodium channel beta subunits. Xiao ZC, et al. **J Biol Chem** 1999 Sep 10; 274(37):26511-7
Association of the epithelial sodium channel with Apx and alpha-spectrin in A6 renal epithelial cells. Zuckerman JB, et al. **J Biol Chem** 1999 Aug 13;274(33):23286-95
AnkyrinG is required for clustering of voltage-gated Na channels at axon initial segments and for normal action potential firing. Zhou D, et al. **J Cell Biol** 1998 Nov 30; 143(5):1295-304
Induction of Na+ channel voltage sensitivity in Xenopus oocytes depends on Ca2+ mobilization. Charpentier G, et al. **J Cell Physiol** 1999 Feb;178(2):258-66
Defective regulation of the epithelial Na+ channel by Nedd4 in Liddle's syndrome. Abriel H, et al. **J Clin Invest** 1999 Mar;103(5):667-73
Role of gammaENaC subunit in lung liquid clearance and electrolyte balance in newborn mice. Insights into perinatal adaptation and pseudohypoaldosteronism. Barker PM, et al. **J Clin Invest** 1998 Oct 15;102(8):1634-40
Accessory factors and the regulation of epithelial sodium channel activity. Warnock DG. **J Clin Invest** 1999 Mar; 103(5):593
Type I and type II Na(+) channel alpha-subunit polypeptides exhibit distinct spatial and temporal patterning, and association with auxiliary subunits in rat brain. Gong B, et al. **J Comp Neurol** 1999 Sep 20; 412(2):342-52
Epithelial Na+ channel subunits in rat taste cells: localization and regulation by aldosterone. Lin W, et al. **J Comp Neurol** 1999 Mar 15;405(3):406-20
On the molecular basis of ion permeation in the epithelial Na+ channel. Kellenberger S, et al. **J Gen Physiol** 1999 Jul;114(1):13-30
Interaction between the pore and a fast gate of the cardiac sodium channel. Townsend C, et al. **J Gen Physiol** 1999 Feb;113(2):321-32
Comparative molecular field analysis of hydantoin binding to the neuronal voltage-dependent sodium channel. Brown ML, et al. **J Med Chem** 1999 May 6;42(9):1537-45
Crystal structures of two alpha-like scorpion toxins: non-proline cis peptide bonds and implications for new binding site selectivity on the sodium channel. He XL, et al. **J Mol Biol** 1999 Sep 10;292(1):125-35
Monitoring early neuronal differentiation by ion channels in ascidian embryos. Takahashi K, et al. **J Neurobiol** 1998 Oct;37(1):3-22 (60 ref.)
5-HT3 receptor-channels coupled with Na+ influx in human T cells: role in T cell activation. Khan NA, et al. **J Neuroimmunol** 1999 Sep 1;99(1):53-60
Feedback inhibition of rat amiloride-sensitive epithelial sodium channels expressed in Xenopus laevis oocytes. Abriel H, et al. **J Physiol (Lond)** 1999 Apr 1;516 (Pt 1):31-43
Encoding properties induced by a persistent voltage-gated muscarinic sodium current in rabbit sympathetic neurones. Gola M, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):387-99
Mechanistic link between lidocaine block and inactivation probed by outer pore mutations in the rat micro1 skeletal muscle sodium channel. Kambouris NG, et al. **J Physiol (Lond)** 1998 Nov 1;512 (Pt 3):693-705
Modulation of rat cardiac sodium channel by the stimulatory G protein alpha subunit. Lu T, et al. **J Physiol (Lond)** 1999 Jul 15;518 (Pt 2):371-84
Comparison of slow inactivation in human heart and rat skeletal muscle Na+ channel chimaeras. O'Reilly JP, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):61-73
Axonal expression of sodium channels in rat spinal neurones during postnatal development. Safronov BV, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):729-34
Distribution of sodium and potassium channels as well as myelin associated glycoprotein (MAG) during the early stages of Wallerian degeneration. Martinez AM. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):73-81
Voltage-gated sodium channels in human aortic smooth muscle cells. Cox RH, et al. **J Vasc Res** 1998 Sep-Oct; 35(5):310-7
The amino-terminal region of Vpr from human immunodeficiency virus type 1 forms ion channels and kills neurons. Piller SC, et al. **J Virol** 1999 May;73(5):4230-8
Epithelial sodium channel and its implication in the control of blood pressure. Hummler E. **Kidney Blood Press Res** 1998;21(2-4):253-5 (14 ref.)
Epithelial sodium channel regulatory proteins identified by functional expression cloning. Vallet V, et al. **Kidney Int Suppl** 1998 Sep;67:S109-14 (25 ref.)
The mechanism of coupling of the organic anion exchange to Na(+)-dicarboxylate symport in basolateral membrane vesicles. Rebane EN, et al. **Membr Cell Biol** 1998;12(1):51-6
Ras pathway activates epithelial Na+ channel and decreases its surface expression in Xenopus oocytes. Mastroberardino L, et al. **Mol Biol Cell** 1998 Dec;9(12):3417-27
Control of action potential-driven calcium influx in GT1 neurons by the activation status of sodium and calcium channels. Van Goor F, et al. **Mol Endocrinol** 1999 Apr; 13(4):587-603
A common anticonvulsant binding site for phenytoin, carbamazepine, and lamotrigine in neuronal Na+ channels. Kuo CC. **Mol Pharmacol** 1998 Oct;54(4):712-21
Point mutations at N434 in D1-S6 of mu1 Na(+) channels modulate binding affinity and stereoselectivity of local anesthetic enantiomers. Nau C, et al. **Mol Pharmacol** 1999 Aug;56(2):404-13
Immune-mediated peripheral neuropathies and voltage-gated sodiums channels. Benatar M, et al. **Muscle Nerve** 1999 Jan;22(1):108-10
Pulmonary epithelial sodium-channel dysfunction and excess airway liquid in pseudohypoaldosteronism. Kerem E, et al. **N Engl J Med** 1999 Jul 15;341(3):156-62
Defective slow inactivation of sodium channels contributes to familial periodic paralysis [see comments] Hayward LJ, et al. **Neurology** 1999 Apr 22;52(7):1447-53. Comment in: Neurology 1999 Apr 22;52(7):1309-10.
Voltage sensor-trapping: enhanced activation of sodium channels by beta-scorpion toxin bound to the S3-S4 loop in domain II. Cestèle S, et al. **Neuron** 1998 Oct;21(4):919-31
Abnormal expression of SNS/PN3 sodium channel in cerebellar Purkinje cells following loss of myelin in the taiep rat. Black JA, et al. **Neuroreport** 1999 Apr 6; 10(5):913-8
A tetrodotoxin-resistant voltage-gated sodium channel from human dorsal root ganglia, hPN3/SCN10A. Rabert DK, et al. **Pain** 1998 Nov;78(2):107-14
Characteristics of two slow inactivation mechanisms and their influence on the sodium channel activity of frog ventricular myocytes. Furue T, et al. **Pflugers Arch** 1998 Oct;436(5):631-8
Spatial heterogeneity and function of voltage- and ligand-gated ion channels in retinal amacrine neurons. Maguire G. **Proc R Soc Lond B Biol Sci** 1999 May 22; 266(1423):987-92
Terbutaline increases open channel density of epithelial sodium channel (ENaC) in distal lung. Baxendale-Cox LM. **Respir Physiol** 1999 Jun 1;116(1):1-8
An excitatory scorpion toxin with a distinctive feature: an additional alpha helix at the C terminus and its implications for interaction with insect sodium channels. Oren DA, et al. **Structure** 1998 Sep 15;6(9):1095-103
Use of a channel biosensor for the assay of paralytic shellfish toxins. Cheun BS, et al. **Toxicon** 1998 Oct;36(10):1371-81
Gettin' down with ubiquitin: turning off cell-surface receptors, transporters and channels. Hicke L. **Trends Cell Biol** 1999 Mar;9(3):107-12 (52 ref.)

PHYSIOLOGY

Sodium ion-dependent (N-methylamino)-alpha-isobutyric [correction of isobutryic] acid uptake by embryonic chick cells exposed to ethanol in ovo:response to the stimulation/downregulation of protein kinases. Shibley IA Jr, et al. **Alcohol Alcohol** 1998 Sep-Oct;33(5):451-6
Malignant human gliomas express an amiloride-sensitive Na+ conductance. Bubien JK, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1405-10
Intracellular H+ regulates the alpha-subunit of ENaC, the epithelial Na+ channel. Chalfant ML, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):C477-86
Osmotic pressure regulates alpha beta gamma-rENaC expressed in Xenopus oocytes [see comments] Ji HL, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1182-90. Comment in: Am J Physiol 1998 Nov;275(5 Pt 1):C1179-81.
Amiloride-sensitive Na+ channels in pelvic uroepithelium involved in renal sensory receptor activation. Kopp UC, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1780-92
Can ENaC regulate ICF as well as ECF volume? Focus on "osmotic pressure regulates alpha beta gamma-rENaC expressed in Xenopus oocytes" [editorial; comment] McDonough AA. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1179-81. Comment on: Am J Physiol 1998 Nov;275(5 Pt 1):C1182-90.
Temperature dependence of early and late currents in human cardiac wild-type and long Q-T DeltaKPQ Na+ channels. Nagatomo T, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2016-24
Regulation of brain renin-angiotensin system by benzamil-blockable sodium channels. Nishimura M, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1416-24
Effects of melatonin on ionic currents in cultured ocular tissues. Rich A, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C923-9
Relation between activation sequence fluctuation and arrhythmogenicity in sodium-channel blockades. Watanabe T, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H971-7
Voltage-dependent sodium channels and excitatory amino acids. Carter AJ. **Amino Acids** 1998;14(1-3):141-2
The importance of voltage-dependent sodium channels in cerebral ischaemia. Carter AJ. **Amino Acids** 1998; 14(1-3):159-69 (91 ref.)
Salty and sour transduction. Multiple mechanisms and strain differences. Miyamoto T, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:128-33
Inactivation of single cardiac Na+ channels in three different gating modes. Böhle T, et al. **Biophys J** 1998 Oct; 75(4):1740-8
Structural determinants of slow inactivation in human cardiac and skeletal muscle sodium channels. Vilin YY, et al. **Biophys J** 1999 Sep;77(3):1384-93
Development of inflammatory hypersensitivity and augmentation of sodium channels in rat dorsal root ganglia. Gould HJ 3rd, et al. **Brain Res** 1999 Apr 10;824(2):296-9
Characterization of the isoform-specific differences in the gating of neuronal and muscle sodium channels. O'Leary ME. **Can J Physiol Pharmacol** 1998 Oct-Nov; 76(10-11):1041-50
Role of voltage-dependent Na+ channels for rhythmic Ca2+ signalling in glucose-stimulated mouse pancreatic beta-cells. Eberhardson M, et al. **Cell Signal** 1999 May; 11(5):343-8
Novel, ultraslow inactivating sodium current in human ventricular cardiomyocytes. Maltsev VA, et al. **Circulation** 1998 Dec 8;98(23):2545-52
Cell volume-regulated cation channels. Wehner F. **Contrib Nephrol** 1998;123:8-20 (79 ref.)
Cell localization and ontogeny of sodium transport pathways in the distal nephron: perspectives in function and failure. Bachmann S. **Curr Opin Nephrol Hypertens** 1999 Jan; 8(1):31-8 (90 ref.)
Molecular physiology of colonic epithelial sodium absorption. Clauss W. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):453-5 (57 ref.)
Carbamazepine effects on Na+ currents in human dentate granule cells from epileptogenic tissue. Reckziegel G, et al. **Epilepsia** 1999 Apr;40(4):401-7
Effect of valproic acid on sodium currents in cortical neurons from patients with pharmaco-resistant temporal lobe epilepsy. Vreugdenhil M, et al. **Epilepsy Res** 1998 Sep; 32(1-2):309-20
Calcium dependent shifts of Na+ channel activation correlated with the state dependence of calcium-binding to the pore. Boccaccio A, et al. **Eur Biophys J** 1998; 27(6):558-66
Voltage sensitivity and conformational change of isolated S4L45 fragments from sodium channels are tuned to proline. Helluin O, et al. **Eur Biophys J** 1998;27(6):595-604
Scorpion alpha-like toxins, toxic to both mammals and insects, differentially interact with receptor site 3 on voltage-gated sodium channels in mammals and insects. Cestèle S, et al. **Eur J Neurosci** 1999 Mar;11(3):975-85
Potentiometric study of resting potential, contributing K+ channels and the onset of Na+ channel excitability in embryonic rat cortical cells. Maric D, et al. **Eur J Neurosci** 1998 Aug;10(8):2532-46
Reversal of convention: from man to experimental animal in elucidating the function of the renal amiloride-sensitive sodium channel. Hummler E. **Exp Nephrol** 1998 Jul-Aug; 6(4):265-71 (56 ref.)
IS3 peptide-formed ion channels in rat skeletal muscle cell membranes. Bao L, et al. **FEBS Lett** 1999 Mar 12; 446(2-3):351-4
Differential effects of alkaloids on sodium currents of isolated single skeletal muscle fibers. Körper S, et al. **FEBS Lett** 1998 Oct 2;436(2):251-5
Possible involvement of [Ca2+]i level in the modulation of the current-voltage relationship for the fast Na+ current in late embryonic chick cardiomyocytes. Satoh H. **Gen Pharmacol** 1999 Mar;32(3):335-9

SODIUM CHANNELS

Voltage-gated sodium and potassium channels in radial glial cells of trout optic tectum studied by patch clamp analysis and single cell RT-PCR. Rabe H, et al. **Glia** 1999 May; 26(3):221-32

Mechano-electrical transduction in mice lacking the alpha-subunit of the epithelial sodium channel. Rüsch A, et al. **Hear Res** 1999 May;131(1-2):170-6

Epithelial sodium channel activity is not increased in hypertension in whites. Baker EH, et al. **Hypertension** 1999 Apr;33(4):1031-5

A new approach to insect-pest control--combination of neurotoxins interacting with voltage sensitive sodium channels to increase selectivity and specificity. Gordon D. **Invert Neurosci** 1997 Sep-Dec;3(2-3):103-16 (55 ref.)

Functional interaction between PomA and PomB, the Na(+)-driven flagellar motor components of Vibrio alginolyticus. Yorimitsu T, et al. **J Bacteriol** 1999 Aug; 181(16):5103-6

Persistent inward currents in cultured Retzius cells of the medicinal leech. Angstadt JD. **J Comp Physiol [A]** 1999 Jan;184(1):49-61

Transient and persistent tetrodotoxin-sensitive sodium currents in squid olfactory receptor neurons. Chen N, et al. **J Comp Physiol [A]** 1999 Jan;184(1):63-72

Subunit composition determines the single channel kinetics of the epithelial sodium channel. Fyfe GK, et al. **J Gen Physiol** 1998 Oct;112(4):423-32

Movement of voltage sensor S4 in domain 4 is tightly coupled to sodium channel fast inactivation and gating charge immobilization. Kühn FJ, et al. **J Gen Physiol** 1999 Aug; 114(2):167-83

Downregulation of epithelial sodium channel (ENaC) by CFTR co-expressed in Xenopus oocytes is independent of Cl- conductance. Chabot H, et al. **J Membr Biol** 1999 Jun 1;169(3):175-88

Electrophysiological study of chimeric sodium channels from heart and skeletal muscle. Deschênes I, et al. **J Membr Biol** 1998 Jul 1;164(1):25-34

Voltage-dependent conductance changes in a nonvoltage-activated sodium current from a mast cell line. Parekh AB. **J Membr Biol** 1998 Sep 15;165(2):145-51

Involvement of methionine residues in the fast inactivation mechanism of the sodium current from toad skeletal muscle fibers. Quiñonez M, et al. **J Membr Biol** 1999 May 15; 169(2):83-90

Action potentials that mimic fibrillation activate sodium current. Ujhelyi MR, et al. **J Mol Cell Cardiol** 1999 Sep; 31(9):1673-84

Activation of protein kinase C increases neuronal excitability by regulating persistent Na+ current in mouse neocortical slices. Astman N, et al. **J Neurophysiol** 1998 Sep; 80(3):1547-51

Inactivation of macroscopic late Na+ current and characteristics of unitary late Na+ currents in sensory neurons. Baker MD, et al. **J Neurophysiol** 1998 Nov; 80(5):2538-49

Sodium action potentials are not required for light-evoked release of GABA or glycine from retinal amacrine cells. Bieda MC, et al. **J Neurophysiol** 1999 Jun;81(6):3092-5

Kinetic and stochastic properties of a persistent sodium current in mature guinea pig cerebellar Purkinje cells. Kay AR, et al. **J Neurophysiol** 1998 Sep;80(3):1167-79

Voltage-dependent sodium and calcium currents in acutely isolated adult rat trigeminal root ganglion neurons. Kim HC, et al. **J Neurophysiol** 1999 Mar;81(3):1123-34

Amplification of perforant-path EPSPs in CA3 pyramidal cells by LVA calcium and sodium channels. Urban NN, et al. **J Neurophysiol** 1998 Sep;80(3):1558-61

Molecular dynamics of the sodium channel pore vary with gating: interactions between P-segment motions and inactivation. Benitah JP, et al. **J Neurosci** 1999 Mar 1; 19(5):1577-85

Voltage-dependent neuromodulation of Na+ channels by D1-like dopamine receptors in rat hippocampal neurons. Cantrell AR, et al. **J Neurosci** 1999 Jul 1;19(13):5301-10

Slow closed-state inactivation: a novel mechanism underlying ramp currents in cells expressing the hNE/PN1 sodium channel. Cummins TR, et al. **J Neurosci** 1998 Dec 1;18(23):9607-19

Modulation of TTX-R INa by PKC and PKA and their role in PGE2-induced sensitization of rat sensory neurons in vitro. Gold MS, et al. **J Neurosci** 1998 Dec 15; 18(24):10345-55

High conductance sustained single-channel activity responsible for the low-threshold persistent Na(+) current in entorhinal cortex neurons. Magistretti J, et al. **J Neurosci** 1999 Sep 1;19(17):7334-41

Dependence of nodal sodium channel clustering on paranodal axoglial contact in the developing CNS. Rasband MN, et al. **J Neurosci** 1999 Sep 1;19(17):7516-28

Neurotoxins targetting receptor site 5 of voltage-dependent sodium channels increase the nodal volume of myelinated axons. Mattei C, et al. **J Neurosci Res** 1999 Mar 15; 55(6):666-73

Stimulation of epithelial sodium channel activity by the sulfonylurea glibenclamide. Chrabi A, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):341-7

BIIR 561 CL: a novel combined antagonist of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors and voltage-dependent sodium channels with anticonvulsive and neuroprotective properties. Weiser T, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1343-9

Tetrodotoxin-resistant impulses in single nociceptor nerve terminals in guinea-pig cornea. Brock JA, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):211-7

cAMP-dependent phosphorylation of the tetrodotoxin-resistant voltage-dependent sodium channel SNS. Fitzgerald EM, et al. **J Physiol (Lond)** 1999 Apr 15; 516 (Pt 2):433-46

Block of the helix FMRFamide-gated Na+ channel by FMRFamide and its analogues. Green KA, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:47-56

Effects of epoxyeicosatrienoic acids on the cardiac sodium channels in isolated rat ventricular myocytes. Lee HC, et al. **J Physiol (Lond)** 1999 Aug 15;519 Pt 1:153-68

Divalent cation permeability and blockade of Ca2+-permeant non-selective cation channels in rat adrenal zona glomerulosa cells. Lotshaw DP, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):397-411

Regulation of an amiloride-sensitive Na+-permeable channel by a beta2-adrenergic agonist, cytosolic Ca2+ and Cl- in fetal rat alveolar epithelium. Marunaka Y, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):669-83

Electrophysiological properties of sodium current subtypes in small cells from adult rat dorsal root ganglia. Rush AM, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):771-89

Gating of skeletal and cardiac muscle sodium channels in mammalian cells. Sheets MF, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):425-36

Single-channel currents of a peptide-gated sodium channel expressed in Xenopus oocytes. Zhainazarov AB, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):19-31

Implication of ENaC in salt-sensitive hypertension. Hummler E. **J Steroid Biochem Mol Biol** 1999 Apr-Jun; 69(1-6):385-90 (49 ref.)

The molecular basis for electrogenic computation in the brain: you can't step in the same river twice. Waxman SG. **Mol Psychiatry** 1999 May;4(3):222-8 (45 ref.)

Sodium channels, excitability of primary sensory neurons, and the molecular basis of pain. Waxman SG, et al. **Muscle Nerve** 1999 Sep;22(9):1177-87 (62 ref.)

The tetrodotoxin-resistant sodium channel SNS has a specialized function in pain pathways. Akopian AN, et al. **Nat Neurosci** 1999 Jun;2(6):541-8

Voltage-activated sodium channels amplify inhibition in neocortical pyramidal neurons. Stuart G. **Nat Neurosci** 1999 Feb;2(2):144-50

Two sodium channels contribute to the TTX-R sodium current in primary sensory neurons. Tate S, et al. **Nat Neurosci** 1998 Dec;1(8):653-5

From channels to behavior: an integrative model of NaCl taste. Boughter JD Jr, et al. **Neuron** 1999 Feb;22(2):213-5 (17 ref.)

Voltage sensors in domains III and IV, but not I and II, are immobilized by Na+ channel fast inactivation [see comments] Cha A, et al. **Neuron** 1999 Jan;22(1):73-87. Comment in: Neuron 1999 Jan;22(1):1-2.

A molecular component of the arterial baroreceptor mechanotransducer [see comments] Drummond HA, et al. **Neuron** 1998 Dec;21(6):1435-41. Comment in: Neuron 1998 Dec;21(6):1224-6.

Touch channels sense blood pressure [comment] Franco-Obregón A, et al. **Neuron** 1998 Dec;21(6):1224-6 (12 ref.). Comment on: Neuron 1998 Dec;21(6):1435-41.

Voltage-activated sodium currents in a cell line expressing a Cu,Zn superoxide dismutase typical of familial ALS. Zona C, et al. **Neuroreport** 1998 Oct 26;9(15):3515-8

Lack of effect of the novel anticonvulsant SB-204269 on voltage-dependent currents in neurones cultured from rat hippocampus. Caeser M, et al. **Neurosci Lett** 1999 Aug 13; 271(1):57-60

Ciguatoxin (CTX-1) modulates single tetrodotoxin-sensitive sodium channels in rat parasympathetic neurones. Hogg RC, et al. **Neurosci Lett** 1998 Aug 14;252(2):103-6

A tetrodotoxin-resistant sodium current mediates inflammatory pain in the rat. Khasar SG, et al. **Neurosci Lett** 1998 Oct 30;256(1):17-20

The action of local anaesthetics on the compound action potential is altered by the nature of the permeant ion in frog nerve. Lilley SJ, et al. **Neurosci Lett** 1998 Aug 7; 252(1):41-4

Tetrodotoxin-resistant sodium channels of dorsal root ganglion neurons are readily activated in diabetic rats. Hirade M, et al. **Neuroscience** 1999 Mar;90(3):933-9

Effects of depolarization evoked Na+ influx on intracellular Na+ concentration at neurosecretory nerve endings. Turner D, et al. **Neuroscience** 1998 Sep;86(2):547-56

Time-dependent regulation by aldosterone of the amiloride-sensitive Na+ channel in rabbit kidney. Dijkink L, et al. **Pflugers Arch** 1999 Aug;438(3):354-60

Spontaneous Na+ and Ca2+ spike firing of cerebellar Purkinje neurons at high pressure. Etzion Y, et al. **Pflugers Arch** 1999 Jan;437(2):276-84

Localization of sodium and potassium currents at sites of nerve-muscle contact in embryonic Xenopus muscle cells in culture. Fry M, et al. **Pflugers Arch** 1999 May; 437(6):895-902

Characteristics of two slow inactivation mechanisms and their influence on the sodium channel activity of frog ventricular myocytes. Furue T, et al. **Pflugers Arch** 1998 Oct;436(5):631-8

Voltage-dependent gating of veratridine-modified RIIA Na+ channel alpha subunit expressed heterologously in CHO cells. Ghatpande AS, et al. **Pflugers Arch** 1999 Aug; 438(3):378-83

A global defect in scaling relationship between electrical activity and availability of muscle sodium channels in hyperkalemic periodic paralysis. Melamed-Frank M, et al. **Pflugers Arch** 1999 Jul;438(2):213-7

Novel properties of the depolarization-induced endogenous sodium conductance in the Xenopus laevis oocyte. Rettinger J. **Pflugers Arch** 1999 May;437(6):917-24

Ionoregulatory specializations for exceptional tolerance of ion-poor, acidic waters in the neon tetra (Paracheirodon innesi). Gonzalez RJ, et al. **Physiol Biochem Zool** 1999 Mar-Apr;72(2):156-63

The physiological basis for altered Na+ and Cl- movements across the gills of rainbow trout (Oncorhynchus mykiss) in alkaline (pH = 9.5) water. Wilkie MP, et al. **Physiol Biochem Zool** 1999 May-Jun;72(3):360-8

Calcium block of Na+ channels and its effect on closing rate [see comments] Armstrong CM, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4154-7. Comment in: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3331-2.

Distinguishing surface effects of calcium ion from pore-occupancy effects in Na+ channels [see comments] Armstrong CM. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):4158-63. Comment in: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):3331-2.

Activation of nicotinic receptor-induced postsynaptic responses to luteinizing hormone-releasing hormone in bullfrog sympathetic ganglia via a Na+-dependent mechanism. Cao YJ, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12689-94

Epithelial sodium channel regulated by aldosterone-induced protein sgk. Chen SY, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2514-9

Tetrodotoxin-resistant Na+ currents and inflammatory hyperalgesia. Gold MS. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7645-9 (69 ref.)

The dual role of calcium: pore blocker and modulator of gating [comment] Horn R. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3331-2 (26 ref.). Comment on: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):4154-7. Comment on: Proc Natl Acad Sci U S A 1999 Mar 30;96(7):4158-63.

A single point mutation in the pore region of the epithelial Na+ channel changes ion selectivity by modifying molecular sieving. Kellenberger S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4170-5

Interaction of batrachotoxin with the local anesthetic receptor site in transmembrane segment IVS6 of the voltage-gated sodium channel. Linford NJ, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13947-52

A comparison of the potential role of the tetrodotoxin-insensitive sodium channels, PN3/SNS and NaN/SNS2, in rat models of chronic pain. Porreca F, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7640-4 (41 ref.)

The first-nucleotide binding domain of the cystic-fibrosis transmembrane conductance regulator is important for inhibition of the epithelial Na+ channel. Schreiber R, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5310-5

Interaction of voltage-gated sodium channels with the extracellular matrix molecules tenascin-C and tenascin-R. Srinivasan J, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15753-7

Molecular and functional remodeling of electrogenic membrane of hypothalamic neurons in response to changes in their input. Tanaka M, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):1088-93

Sodium channels and pain. Waxman SG, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7635-9 (53 ref.)

Spatial distribution of NA+ and K+ channels in spinal dorsal horn neurones: role of the soma, axon and dendrites in spike generation. Safronov BV. **Prog Neurobiol** 1999 Oct; 59(3):217-41 (125 ref.)

Hepatocyte growth factor inhibits amiloride-sensitive Na(+) channel function in cystic fibrosis airway epithelium in vitro. Shen BQ, et al. **Pulm Pharmacol Ther** 1999; 12(3):157-64

omega-Toxins affect Na+ currents in neurosecretory insect neurons. Wicher D, et al. **Receptors Channels** 1998; 5(6):355-66

Neuroprotective strategies: voltage-gated Na+-channel down-modulation versus presynaptic glutamate release inhibition. Obrenovitch TP. **Rev Neurosci** 1998 Jul-Dec; 9(3):203-11 (74 ref.)

Four types of late Na channel current in isolated ventricular myocytes with reference to their contribution to the lastingness of action potential plateau. Li CZ, et al. **Sheng Li Hsueh Pao** 1997 Jun;49(3):241-8

[Voltage dependence of late Na channel with burst mode in isolated cardiac myocytes] Liu YM, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):483-90 (Eng. Abstr.) **(Chi)**

[Ion trapsport in nasal and paranasal sinus mucosa in mucoviscidosis and chronic sinusitis] Rückes-Nilges C, et al. **HNO** 1999 Mar;47(3):157-66 (Eng. Abstr.) **(Ger)**

SODIUM CHLORIDE

see related

DIET, SODIUM-RESTRICTED

Towards the production of salt-tolerant crops. Barkla BJ,

et al. **Adv Exp Med Biol** 1999;464:77–89 (60 ref.)
Coronary vascular reactivity is improved by endothelin A receptor blockade in DOCA–salt hypertensive rats. Giulumian AD, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1613–8
Effect of amiloride analogs on DOCA–salt–induced hypertension in rats. Keep RF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2215–20
Endothelin–1 and CYP450 arachidonate metabolites interact to promote tissue injury in DOCA–salt hypertension. Oyekan AO, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R766–75
Amiloride–sensitive sodium signals and salt appetite: multiple gustatory pathways. Roitman MF, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1732–8
Salt–induced hypertension in Dahl salt–resistant and salt–sensitive rats with NOS II inhibition. Rudd MA, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H732–9
Thirst and salt appetite elicited by hypovolemia in rats with chronic lesions of the nucleus of the solitary tract. Schreihofer AM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R251–8
5–HT2B–receptor antagonist LY–272015 is antihypertensive in DOCA–salt–hypertensive rats. Watts SW, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):H944–52
A clinical trial of hypertonic saline nasal spray [letter; comment] Carlston M. **Arch Fam Med** 1999 Mar–Apr; 8(2):100. Comment on: Arch Fam Med 1998 Jan–Feb;7(1):39–43.
First clinical experience with a new concentrate system for dialysis with dry sodium chloride. Alquist M, et al. **ASAIO J** 1998 Sep–Oct;44(5):M592–5
Sodium chloride enhances markedly the thermal stability of thermolysin as well as its catalytic activity. Inouye K, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):209–14
Saline as an alternative to air for filling the laryngeal mask airway cuff. Coorey A, et al. **Br J Anaesth** 1998 Sep; 81(3):398–400
Effect of electrolytic and chemical lesion by ibotenic acid of the septal area on water and salt intake. Saad WA, et al. **Brain Res Bull** 1998 Sep 15;47(2):163–9
Incidence of contamination of preserved saline solutions during normal use. Sweeney DF, et al. **CLAO J** 1999 Jul; 25(3):167–75
Extreme hypoventilation reduces ventilator–induced lung injury during ventilation with low positive end–expiratory pressure in saline–lavaged rabbits [see comments] Hickling KG, et al. **Crit Care Med** 1998 Oct;26(10):1690–7. Comment in: Crit Care Med 1998 Oct;26(10):1632–3.
Renal injury and salt–sensitive hypertension after exposure to catecholamines. Johnson RJ, et al. **Hypertension** 1999 Jul;34(1):151–9
Impact evaluation of iron & iodine fortified salt. Nair KM, et al. **Indian J Med Res** 1998 Nov;108:203–11 (26 ref.)
Metamorphosis in the summer flounder, Paralichthys dentatus: thyroidal status influences salinity tolerance. Schreiber AM, et al. **J Exp Zool** 1999 Sep 1;284(4):414–24
Complementary antihypertensive action of rilmenidine on the pressure–natriuresis relationship and sodium preference in spontaneously hypertensive rats. Cechetto DF, et al. **J Hypertens Suppl** 1998 Aug;16(3):S13–7
Fetal response to neutral gas and liquid media for intraamniotic distension. Fauza DO, et al. **J Pediatr Surg** 1999 Apr;34(4):591–4
Breast implants rise again [editorial] Healy BP. **J Womens Health** 1998 Aug;7(6):639–40
Antimicrobial effects of electrolytic products of sodium chloride––comparative evaluation with sodium hypochlorite solution and efficacy in handwashing. Hitomi S, et al. **Kansenshogaku Zasshi** 1998 Nov;72(11):1176–81
Enterobacter cloacae bloodstream infections associated with contaminated prefilled saline syringes––California, November 1998. **MMWR Morb Mortal Wkly Rep** 1998 Nov 13;47(44):959–60
From channels to behavior: an integrative model of NaCl taste. Boughter JD Jr, et al. **Neuron** 1999 Feb;22(2):213–5 (17 ref.)
Salt stress in Mesembryanthemum crystallinum L. cell suspensions activates adaptive mechanisms similar to those observed in the whole plant. Vera–Estrella R, et al. **Planta** 1999 Jan;207(3):426–35
Preventing postoperative noise in saline breast implants. Eppley BL. **Plast Reconstr Surg** 1999 Jun;103(7):1979–81; discussion 1982
Sodium chloride concentration in drinking water and eggshell quality. Damron BL. **Poult Sci** 1998 Oct; 77(10):1488–91
Asteroidal water within fluid inclusion–bearing halite in an H5 chondrite, Monahans (1998) [see comments] Zolensky ME, et al. **Science** 1999 Aug 27;285(5432):1377–9. Comment in: Science 1999 Aug 27;285(5432):1364–5.
Water–glove balloon system: a useful option to salvage liver grafts with postreperfusion suprahepatic vena caval kinking. Boggi U, et al. **Transplantation** 1998 Nov 27; 66(10):1317–9
Ablation of renal tumors in a rabbit model with interstitial saline–augmented radiofrequency energy [letter] Zlotta AR, et al. **Urology** 1999 Aug;54(2):382–3

ADMINISTRATION & DOSAGE

Reliability of the drop test for the lacrimal drainage function. Sahlin S, et al. **Acta Ophthalmol Scand** 1999 Aug; 77(4):381–5
Percutaneous microwave coagulation therapy with intraperitoneal saline infusion for hepatocellular carcinoma in the hepatic dome. Ohmoto K, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):65–6
Genetic control of renal thiazide receptor response to dietary NaCl and hypertension. Fanestil DD, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R901–4
Intrapleural urokinase versus normal saline in the treatment of complicated parapneumonic effusions and empyema. A randomized, double–blind study. Bouros D, et al. **Am J Respir Crit Care Med** 1999 Jan;159(1):37–42
Intracuff saline infusion for the short–term repair of an endotracheal tube cuff leak [letter] Rudlof B, et al. **Anesthesiology** 1999 Jun;90(6):1801
Epidural saline solution prior to local anaesthetic produces differential nerve block. Okutomi T, et al. **Can J Anaesth** 1998 Nov;45(11):1091–3
Acute saline infusion reduces alveolar–capillary membrane conductance and increases airflow obstruction in patients with left ventricular dysfunction. Puri S, et al. **Circulation** 1999 Mar 9;99(9):1190–6
Hypertension development in Dahl S and R rats on high salt–low potassium diet: calcium, magnesium and sympathetic nervous system. Wu X, et al. **Clin Exp Hypertens** 1998 Oct;20(7):795–815
Nasogastric tube delivery of 3% saline to correct hyponatremia [letter] Robertson WO. **Clin Pediatr (Phila)** 1999 Sep;38(9):562
Experimental assessment of endoscopic mucosectomy with a cap–fitted panendoscope. Sadahiro S, et al. **Endoscopy** 1998 Oct;30(8):713–7
Relation between natriuresis and urinary excretion of hydrogen peroxide. Kuge N, et al. **Free Radic Res** 1999 Feb;30(2):119–23
Endoscopic resection fo large sessile colorectal polyps using a submucosal saline injection technique. Sorbi D, et al. **Gastrointest Endosc** 1999 Sep;50(3):448–9
Intradermal normal saline solution, self–selected music, and insertion difficulty effects on intravenous insertion pain. Jacobson AF. **Heart Lung** 1999 Mar–Apr;28(2):114–22
Both brain angiotensin II and "ouabain" contribute to sympathoexcitation and hypertension in Dahl S rats on high salt intake. Huang BS, et al. **Hypertension** 1998 Dec; 32(6):1028–33
Further optimization of culture method for rat keratinocytes: titration of glucose and sodium chloride. Oku H, et al. **In Vitro Cell Dev Biol Anim** 1999 Feb;35(2):67–74
Saline enemas––a potential hazard in newborns [letter] Singh Y, et al. **Indian Pediatr** 1998 Aug;35(8):799–800
Normal saline instillation with endotracheal suctioning: primum non nocere (first do no harm). Blackwood B. **J Adv Nurs** 1999 Apr;29(4):928–34 (38 ref.)
Neurally mediated cardiac syncope: autonomic modulation after normal saline infusion. Burklow TR, et al. **J Am Coll Cardiol** 1999 Jun;33(7):2059–66
Effect of intravenous saline, albumin, or hydroxyethylstarch on blood volume during combined ultrafiltration and hemodialysis. van der Sande FM, et al. **J Am Soc Nephrol** 1999 Jun;10(6):1303–8
Alpha–adrenergic systems mediate chronic central AII hypertension in rats fed high sodium chloride diet from weaning. Camara AK, et al. **J Auton Nerv Syst** 1999 Apr 16;76(1):28–34
Measurement of net whole–body transcapillary fluid transport and effective vascular compliance in humans. Watenpaugh DE, et al. **J Trauma** 1998 Dec;45(6):1062–8
Effect of intravenous infusions on laboratory results in blood specimens drawn proximal to the insertion site of an intravenous canula. van Vonderen MG, et al. **Neth J Med** 1998 Nov;53(5):224–7
A randomized comparison of extra–amniotic saline infusion and intracervical dinoprostone gel for cervical ripening. Goldman JB, et al. **Obstet Gynecol** 1999 Feb;93(2):271–4
Needle aspirate culture method in soft tissue infections: injection of saline vs. direct aspiration. Traylor KK, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):840–1
Changes of minimal erythema dose after water and salt water baths. Gambichler T, et al. **Photodermatol Photoimmunol Photomed** 1998 Jun–Aug; 14(3–4):109–11
A microstructural analysis of the control of water and isotonic saline ingestion by postingestional stimulation. Davis JD, et al. **Physiol Behav** 1999 May;66(3):543–8
Effects of bile duct ligation and captopril on salt appetite and renin–aldosterone axis in rats. Lane JR, et al. **Physiol Behav** 1999 May;66(3):419–25
Tonsillectomy and the value of peritonsillar infiltrations. Costas–Gastiaburo LA, et al. **S Afr J Surg** 1998 Nov; 36(4):142–5
O'Sullivan's hydrostatic reduction of an inverted uterus: sonar sequence recorded. Ward HR. **Ultrasound Obstet Gynecol** 1998 Oct;12(4):283–6
[The effect of epidural saline injection on analgesic level during combined spinal and epidural anesthesia] Kase S, et al. **Masui** 1998 Sep;47(9):1080–4 (Eng. Abstr.) **(Jpn)**
[Treatment of spontaneous intracranial hypotension with continuous epidural saline infusion: a case report] Kawasaki S, et al. **No To Shinkei** 1999 Aug;51(8):711–5 (Eng. Abstr.) **(Jpn)**
[The efficacy of treatment by drinking sodium–potassium chloride mineral water in patients with chronic acalculous cholecystitis and biliary dyskinesia] Bobrov LL, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May–Jun; (3):44–6 **(Rus)**
[Nonspecific resistance in patients with chronic gastritis undergoing treatment by drinking a calcium–sodium chloride low–mineralized mineral water] Bobrov LL, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 May–Jun; (3):32–4 **(Rus)**
[The therapeutic effects of a dry sodium chloride aerosol in bronchial asthma patients] Bobrov LL, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug;(4):8–12 **(Rus)**

ADVERSE EFFECTS

Rapid saline infusion produces hyperchloremic acidosis in patients undergoing gynecologic surgery [see comments] Scheingraber S, et al. **Anesthesiology** 1999 May; 90(5):1265–70. Comment in: Anesthesiology 1999 May;90(5):1247–9.
Salt and hypertension in end–stage renal disease [editorial] Kooman JP, et al. **Blood Purif** 1998;16(6):301–11 (69 ref.)
Extra–amniotic saline infusion for induction of labour in antepartum fetal death: a cost effective method worthy of wider use [letter; comment] van der Wijden C. **Br J Obstet Gynaecol** 1998 Aug;105(8):932. Comment on: Br J Obstet Gynaecol 1997 Sep;104(9):1058–61.
Evaluation of the potential interaction between NaCl and prostaglandin inhibition in elderly individuals with isolated systolic hypertension. Alam S, et al. **J Hypertens** 1999 Aug; 17(8):1195–202

ANTAGONISTS & INHIBITORS

NaCl–preferring NZB/B1NJ mice and NaCl–avoiding CBA/J mice have similar amiloride inhibition of chorda tympani responses to NaCl. Ninomiya Y, et al. **Chem Senses** 1998 Aug;23(4):411–5
Attenuation by genistein of sodium–chloride–enhanced gastric carcinogenesis induced by N–methyl–N'–nitro–N–nitrosoguanidine in Wistar rats. Tatsuta M, et al. **Int J Cancer** 1999 Jan 29;80(3):396–9
Stimulation of cell division in the rat by NaCl, KCl, MgCl2, and CaCl2, and inhibition of the sodium chloride effect on the glandular stomach by ascorbic acid and beta–carotene. Lugli SM, et al. **J Cancer Res Clin Oncol** 1999;125(3–4):209–13

CHEMISTRY

Compatibility and stability of vincristine sulfate, doxorubicin hydrochloride, and etoposide in 0.9% sodium chloride injection. Wolfe JL, et al. **Am J Health Syst Pharm** 1999 May 15;56(10):985–9
Effect of fluoridated salt intake in infancy: a blind caries and fluorosis study in 8th grade Hungarian pupils. Stephen KW, et al. **Community Dent Oral Epidemiol** 1999 Jun;27(3):210–5
Suppression of agglomeration in fluidized bed coating. II. Measurement of mist size in a fluidized bed chamber and effect of sodium chloride addition on mist size. Yuasa H, et al. **Int J Pharm** 1999 Feb 1;178(1):1–10
Nanoelectrospray––more than just a minimized–flow electrospray ionization source. Juraschek R, et al. **J Am Soc Mass Spectrom** 1999 Apr;10(4):300–8
Electrostatic ion chromatography of polarizable anions in saline waters with N–[2–[acetyl(3–sulfopropyl)amino]ethyl]–N,N–dimethyldodecanaminium hydroxide (ammonium sulfobetaine–1) as the stationary phase and a dilute electrolytic solution as the mobile phase. Hu W, et al. **J Chromatogr A** 1999 Jul 30;850(1–2):161–6
Effect of salt concentration on separation patterns in static capillary isoelectric focusing with imaging detection. Mao Q, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1–2):355–9
Magnetic resonance current density imaging of chemical processes and reactions. Beravs K, et al. **J Magn Reson** 1999 Mar;137(1):253–7
The combination of salt induced peptide formation reaction and clay catalysis: a way to higher peptides under primitive earth conditions. Rode BM, et al. **Orig Life Evol Biosph** 1999 May;29(3):273–86
Erratum to "23Na solid state MAS NMR of sodium halides occluded in zeolites" [corrected and republished article originally printed in Solid State Nucl Magn Reson 1997 Dec;9(2–4):129–41] Seidel A, et al. **Solid State Nucl Magn Reson** 1998 Aug;12(1):53–65
[A determination of iodides in salts: a validation of methods] Drobnik M, et al. **Rocz Panstw Zakl Hig** 1998;49(2):169–76 (Eng. Abstr.) **(Pol)**
[Suitability of the direct potentiometric method with the use of ion–selective electrodes for the evaluation of iodide ions in iodized table salt] Drobnik M. **Rocz Panstw Zakl Hig** 1998;49(4):457–62 (Eng. Abstr.) **(Pol)**

DIAGNOSTIC USE

Transvaginal saline hysterosonography: characteristics distinguishing malignant and various benign conditions. Laifer–Narin SL, et al. **AJR Am J Roentgenol** 1999 Jun; 172(6):1513–20
Real–time, three–dimensional echocardiography: feasibility of dynamic right ventricular volume measurement with

saline contrast. Ota T, et al. **Am Heart J** 1999 May; 137(5):958–66

Salt-load electrocochleography. Gamble BA, et al. **Am J Otol** 1999 May;20(3):325–30

Nonspecific nasal mucosal reactivity, expressed as changes in nasal airway resistance after bilateral saline provocation. Haavisto L, et al. **Am J Rhinol** 1998 Jul–Aug;12(4):275–8

Diagnosis of hepatopulmonary syndrome with contrast transesophageal echocardiography: advantages over contrast transthoracic echocardiography. Aller R, et al. **Dig Dis Sci** 1999 Jun;44(6):1243–8

Superiority of the combination of blood and agitated saline for routine contrast enhancement. Fan S, et al. **J Am Soc Echocardiogr** 1999 Feb;12(2):94–8

Microbubble intravenous contrast during transesophageal echocardiography: agitated 0.9% saline versus agitated 0.9% saline with benzyl alcohol [letter] Garduno C, et al. **J Cardiothorac Vasc Anesth** 1999 Aug;13(4):513

Diagnosing candidiasis. A new, cost-effective technique. Cibley LJ, et al. **J Reprod Med** 1998 Nov;43(11):925–8

Saline instillation of the uterine cavity in the assessment of uterine anomalies [letter] Meagher S, et al. **Ultrasound Obstet Gynecol** 1998 Oct;12(4):287–8

Intravaginal saline as a contrast agent for cervical sonography in the obstetric patient. O'Brien JM, et al. **Ultrasound Obstet Gynecol** 1999 Feb;13(2):137–9

[Comparison of contrast hysterosonography and transvaginal ultrasonography for uterus imaging] van den Brüle FA, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 May; 28(2):131–6 (Eng. Abstr.) **(Fre)**

[The usefulness of lumbar infusion test in the evaluation of the intracranial volume pressure compensation in hydrocephalus before and after shunt insertion] Czepko R, et al. **Neurol Neurochir Pol** 1998 Nov–Dec;32(6):1461–72 (Eng. Abstr.) **(Pol)**

METABOLISM

Energy cost of NaCl transport in isolated gills of cutthroat trout. Morgan JD, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R631–9

Renal excretory responses of taurine-depleted rats to hypotonic and hypertonic saline infusion. Mozaffari MS, et al. **Amino Acids** 1998;15(1–2):109–16

Neonatal and adult rabbit renal brush border membrane vesicle solute reflection coefficients. Quigley R, et al. **Biol Neonate** 1999 Aug;76(2):106–13

Salt appetite: interaction of forebrain angiotensinergic and hindbrain serotonergic mechanisms. Menani JV, et al. **Brain Res** 1998 Aug 10;801(1–2):29–35

Cystic fibrosis and the salt controversy. Guggino WB. **Cell** 1999 Mar 5;96(5):607–10 (20 ref.)

Sodium chloride transport of normal and dietary enlarged rat cecum in vitro. Schreiner J, et al. **Digestion** 1998 Nov–Dec;59(6):676–82

Combined effect of the growth temperature and salinity of the medium on the accumulation of compatible solutes by Rhodothermus marinus and Rhodothermus obamensis. Silva Z, et al. **Extremophiles** 1999 May;3(2):163–72

Handling 22NaCl by the blood–brain barrier and kidney: its relevance to salt-induced hypertension in dahl rats. Simchon S, et al. **Hypertension** 1999 Jan;33(1 Pt 2):517–23

Fermentation of low-salt miso as affected by supplementation with ethanol. Chiou RY, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):11–20

Marinobacter aquaeolei sp. nov., a halophilic bacterium isolated from a Vietnamese oil-producing well. Huu NB, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:367–75

Hyponatremia in the rat in the absence of positive water balance. Gowrishankar M, et al. **J Am Soc Nephrol** 1997 Apr;8(4):524–9

Sodium chloride and water transport in the medullary thick ascending limb of Henle: evidence for active chloride transport 1973 [classical article] Rocha AS, et al. **J Am Soc Nephrol** 1999 May;10(5):1145–56

NO3– nutrition and salt tolerance in the cyanobacterium Anabaena sp. PCC 7120 and mutant strains. Rai AK, et al. **J Appl Microbiol** 1999 Jun;86(6):991–8

Studies on diurnal blood pressure variation in kidney diseases associated with excessive salt and water retention. Barenbrock M, et al. **J Hum Hypertens** 1999 Apr; 13(4):269–73

Should we monitor more closely the dosage of 9 alpha-fluorohydrocortisone in salt-losing congenital adrenal hyperplasia? Lopes LA, et al. **J Pediatr Endocrinol Metab** 1998 Nov–Dec;11(6):733–7

Aldosterone receptor blockade inhibits increased furosemide-sensitive sodium reabsorption in rats with liver cirrhosis. Jonassen TE, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):931–6

Renal effects of an acute NaCl load in chronic nitric oxide blockade-induced hypertensive rats. Rodriguez-Pérez JC, et al. **J Physiol Biochem** 1998 Sep;54(3):127–33

Loss of CFTR chloride channels alters salt absorption by cystic fibrosis airway epithelia in vitro. Zabner J, et al. **Mol Cell** 1998 Sep;2(3):397–403

Sigma M, an ECF RNA polymerase sigma factor of Bacillus subtilis 168, is essential for growth and survival in high concentrations of salt. Horsburgh MJ, et al. **Mol Microbiol** 1999 Apr;32(1):41–50

A recessive Arabidopsis mutant that grows photoautotrophically under salt stress shows enhanced active oxygen detoxification. Tsugane K, et al. **Plant Cell** 1999 Jul;11(7):1195–206

Mechanisms of tubular sodium chloride transport. Venkatesh S, et al. **Ren Fail** 1998 Nov;20(6):783–99 (128 ref.)

Growth of infectious and non-infectious B. burgdorferi at different salt concentrations. Elias A, et al. **Wien Klin Wochenschr** 1998 Dec 23;110(24):863–5

Monovalent cation fluxes and physiological changes of Debaryomyces hansenii grown at high concentrations of KCl and NaCl. Thomé-Ortiz PE, et al. **Yeast** 1998 Nov; 14(15):1355–71

PHARMACOKINETICS

Salt-load electrocochleography. Gamble BA, et al. **Am J Otol** 1999 May;20(3):325–30

Effect of metabolic acidosis on NaCl transport in the proximal tubule. Wang T, et al. **Am J Physiol** 1998 Jun; 274(6 Pt 2):F1015–9

Distribution of normal saline and 5% albumin infusions in septic patients [see comments] Ernest D, et al. **Crit Care Med** 1999 Jan;27(1):46–50. Comment in: Crit Care Med 1999 Jan;27(1):3.

Stimulation of sodium chloride absorption from secreting rat colon by short-chain fatty acids. Krishnan S, et al. **Dig Dis Sci** 1999 Sep;44(9):1924–30

Regulation of inner ear fluid in the guinea pig cochlea after the application of saturated NaCl solution to the round window membrane. Hisashi K, et al. **Eur Arch Otorhinolaryngol** 1999;256 Suppl 1:S2–5

Hexose transport in the apical and basolateral membranes of enterocytes in chickens adapted to high and low NaCl intakes. Garriga C, et al. **J Physiol (Lond)** 1999 Jan 1;514 (Pt 1):189–99

PHARMACOLOGY

Hypotonic saline infusion alters the renal response to amino acids in men. Claris-Appiani A, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F137–42

Tubuloglomerular feedback in Dahl rats. Karlsen FM, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1561–9

Renal arteriolar Na+/Ca2+ exchange in salt-sensitive hypertension. Nelson LD, et al. **Am J Physiol** 1999 Apr; 276(4 Pt 2):F567–73

A combination of NaCl and urea enhances survival of IMCD cells to hyperosmolality. Santos BC, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1167–73

Low environmental temperature modulates gustatory nerve activity and behavioral responses to NaCl in rats. Shimizu Y, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R368–73

The effect of intravenous lactated Ringer's solution versus 0.9% sodium chloride solution on serum osmolality in human volunteers. Williams EL, et al. **Anesth Analg** 1999 May;88(5):999–1003

Response of Azospirillum brasilense Cd to sodium chloride stress. Rivarola V, et al. **Antonie Van Leeuwenhoek** 1998 Apr;73(3):255–61

Effects of halides on plasmid-mediated silver resistance in Escherichia coli. Gupta A, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5042–5

Virus passage through track-etch membranes modified by salinity and a nonionic surfactant. Lytle CD, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2773–5

Effects of salinity and temperature on long-term survival of the eel pathogen Vibrio vulnificus biotype 2 (serovar E). Marco-Noales E, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1117–26

Cloning and characterization of NADP-mannitol dehydrogenase cDNA from the button mushroom, Agaricus bisporus, and its expression in response to NaCl stress. Stoop JM, et al. **Appl Environ Microbiol** 1998 Dec; 64(12):4689–96

Isolation of salt-induced periplasmic proteins from Synechocystis sp. strain PCC 6803. Fulda S, et al. **Arch Microbiol** 1999 Feb;171(3):214–7

Taste responses in the greater superficial petrosal nerve: substantial sodium salt and amiloride sensitivities demonstrated in two rat strains. Sollars SI, et al. **Behav Neurosci** 1998 Aug;112(4):991–1000

Study of the influence of salt concentration on Newcastle disease virus matrix protein aggregation. Sagrera A, et al. **Biochem Mol Biol Int** 1998 Oct;46(3):429–35

Rat oocytes fertilized in modified rat 1-cell embryo culture medium containing a high sodium chloride concentration and bovine serum albumin maintain developmental ability to the blastocyst stage. Oh SH, et al. **Biol Reprod** 1998 Oct;59(4):884–9

Measurement of biodegradable substances using the salt-tolerant yeast Arxula adeninivorans for a microbial sensor immobilized with poly(carbamoyl)sulfonate (PCS). Part II: Application of the novel biosensor to real samples from coastal and island regions. Lehmann M, et al. **Biosens Bioelectron** 1999 Mar 15;14(3):295–302

Anteroventral third ventricle (AV3V) lesions alter c-fos expression induced by salt loading. Rocha MJ, et al. **Brain Res** 1999 May 22;829(1–2):197–200

Promoting effects of intravesical instillation of saline on bladder lesion development in rats pretreated with N-butyl-N-(4-hydroxybutyl) nitrosamine are inhibited by bacillus Calmette-Guerin. Okamura T, et al. **Cancer Lett** 1999 Jun 1;140(1–2):129–37

Effects of amiloride on gustatory quality descriptions and temporal patterns produced by NaCl. Halpern BP, et al. **Chem Senses** 1998 Oct;23(5):501–11

NaCl-preferring NZB/B1NJ mice and NaCl-avoiding CBA/J mice have similar amiloride inhibition of chorda tympani responses to NaCl. Ninomiya Y, et al. **Chem Senses** 1998 Aug;23(4):411–5

Acute saline infusion reduces alveolar–capillary membrane conductance and increases airflow obstruction in patients with left ventricular dysfunction. Puri S, et al. **Circulation** 1999 Mar 9;99(9):1190–6

Signalling and gene regulation by urea and NaCl in the renal medulla. Cohen DM. **Clin Exp Pharmacol Physiol** 1999 Jan; 26(1):69–73 (44 ref.)

Postprandial normal saline intake delays gastric emptying of solids in conscious dogs: partial involvement of CCK in its mechanism. Tanaka T, et al. **Dig Dis Sci** 1999 Aug; 44(8):1516–24

In yeast, upc2-1 confers a decrease in tolerance to LiCl and NaCl, which can be suppressed by the P-type ATPase encoded by ENA2. Leak FW Jr, et al. **DNA Cell Biol** 1999 Feb;18(2):133–9

An endogenous activator of renal glutamic acid decarboxylase effects of adenosine triphosphate, phosphate and chloride on the activity of this enzyme. Turský T, et al. **Eur J Biochem** 1999 Jun;262(3):696–703

Salt sensitivity correlates positively with insulin sensitivity in healthy volunteers. ter Maaten JC, et al. **Eur J Clin Invest** 1999 Mar;29(3):189–95

Differences in pre- and post-synaptic sensitivity to apomorphine between saline and 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-treated C57BL/6 mice as reflected in climbing activity. Spooren WP, et al. **Eur J Pharmacol** 1998 Jul 17;353(1):1–4

Nitric oxide synthase inhibitors do not substitute in rats trained to discriminate phencyclidine from saline. Wiley JL, et al. **Eur J Pharmacol** 1999 Feb 12;367(1):7–11

Studies on toxigenic fungi in roasted foodstuff (salted seed) and halotolerant activity of emodin-producing Aspergillus wentii. Hasan HA. **Folia Microbiol (Praha)** 1998; 43(4):383–91

The influence of alpha-amanitin on the NaCl-induced up-regulation of antioxidant enzyme activity in cotton callus tissue. Manchandia AM, et al. **Free Radic Res** 1999 Jun;30(6):429–38

Enhanced expression of a nuclease gene in leaves of barley plants under salt stress. Muramoto Y, et al. **Gene** 1999 Jul 8;234(2):315–21

Effect of exposure to balanced salt solution upon the hardness of the crystalline lens. Tabandeh H, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Dec;236(12):890–3

Salt-sensitive hypertension develops after short-term exposure to Angiotensin II. Lombardi D, et al. **Hypertension** 1999 Apr;33(4):1013–9

Physiological saline is not a biocompatible peritoneal dialysis solution. Wang T, et al. **Int J Artif Organs** 1999 Feb; 22(2):88–93

Attenuation by d-limonene of sodium chloride-enhanced gastric carcinogenesis induced by N-methyl-N'-nitro-N-nitrosoguanidine in Wistar rats. Yano H, et al. **Int J Cancer** 1999 Aug 27;82(5):665–8

Neuron loss in the mouse hippocampus following prenatal injection of tritiated thymidine or saline. Schmitz C, et al. **Int J Dev Neurosci** 1999 Jun;17(3):185–90

Predictive model to describe the combined effect of pH and NaCl on apparent heat resistance of Bacillus stearothermophilus. Periago PM, et al. **Int J Food Microbiol** 1998 Oct 20;44(1–2):21–30

Mathematical modeling to predict the bactericidal effect of processed vinegar on Escherichia coli O157:H7. Tsujihata S, et al. **Int J Food Microbiol** 1998 Aug 18;43(1–2):135–8

Extra-amniotic saline infusion versus extra-amniotic prostaglandin F2alpha for cervical ripening and induction of labor. Mawire CJ, et al. **Int J Gynaecol Obstet** 1999 Jan;64(1):35–41

Effect of salt concentration and pH on the hydrophobicity parameters of surfactants studied by TLC and spectral mapping technique. Cserháti T, et al. **J Biochem Biophys Methods** 1999 Jan 13;38(1):1–15

Repeat direct immunofluorescence (DIF) test, using, 1 M NaCl treated skin, in the subepidermal autoimmune bullous diseases that contain IgG at the dermal epidermal junction. Barnadas MA, et al. **J Cutan Pathol** 1999 Jan;26(1):37–41

Effectiveness of salt, pH, and diacetyl as inhibitors for Escherichia coli O157:H7 in dairy foods stored at refrigeration temperatures. Guraya R, et al. **J Food Prot** 1998 Sep;61(9):1098–102

Halotolerant and halophilic histamine-forming bacteria isolated during the ripening of salted anchovies (Engraulis encrasicholus). Hernandez-Herrero MM, et al. **J Food Prot** 1999 May;62(5):509–14

Effect of shift in growth temperature on tolerance of psychrotrophic and mesophilic strains of Bacillus cereus to heat and sodium chloride. Mahakarnchanakul W, et al. **J Food Prot** 1999 Jan;62(1):57–64

Behavior of Listeria spp. in smoked fish products affected by liquid smoke, NaCl concentration, and temperature. Thurette J, et al. **J Food Prot** 1998 Nov;61(11):1475–9

The effects of salinity, pH and temperature on the half-life and longevity of Echinostoma caproni miracidia. Ford DM, et al. **J Helminthol** 1998 Dec;72(4):325–30

Role of non-NMDA receptors in osmotic and glutamate stimulation of vasopressin release: effect of rapid receptor desensitization. Sladek CD, et al. **J Neuroendocrinol** 1998

Dec;10(12):897–903
Amiloride blocks acid responses in NaCl–best gustatory neurons of the hamster solitary nucleus. Boughter JD Jr, et al. **J Neurophysiol** 1998 Sep;80(3):1362–72
Neural representation of the taste of NaCl and KCl in gustatory neurons of the hamster solitary nucleus. Boughter JD Jr, et al. **J Neurophysiol** 1999 Jun;81(6):2636–46
Iron is well absorbed by healthy adults after ingestion of double-fortified (iron and dextran-coated iodine) table salt and urinary iodine excretion is unaffected. Sattarzadeh M, et al. **J Nutr** 1999 Jan;129(1):117–21
Resistance to cefotaxime and peptidoglycan composition in Enterococcus faecalis are influenced by exogenous sodium chloride. Mainardi JL, et al. **Microbiology** 1998 Oct;144 (Pt 10):2679–85
The osmoprotectant glycine betaine inhibits salt-induced cross-tolerance towards lethal treatment in Enterococcus faecalis. Pichereau V, et al. **Microbiology** 1999 Feb;145 (Pt 2):427–35
Salt-dependent chromosome viscoelasticity characterized by scanning force microscopy-based volume measurements. Fritzsche W. **Microsc Res Tech** 1999 Mar 1;44(5):357–62
Impact of salt intake on blood pressure and proteinuria in diabetes: importance of the renin-angiotensin system. Weir MR. **Miner Electrolyte Metab** 1998;24(6):438–45 (56 ref.)
Sodium withdrawal contractures in developing and regenerating rat extensor digitorum longus muscles. Louboutin JP, et al. **Muscle Nerve** 1998 Nov;21(11):1530–2
The influence of salt loading on vasopressin gene expression in magno- and parvocellular hypothalamic neurons: an immunocytochemical and in situ hybridization analysis. Amaya F, et al. **Neuroscience** 1999 Mar;89(2):515–23
Effects of miso and NaCl on the development of colonic aberrant crypt foci induced by azoxymethane in F344 rats. Masaoka Y, et al. **Nutr Cancer** 1998;32(1):25–8
Inhibition of NaCl-induced heat shock protein 72 expression renders MDCK cells susceptible to high urea concentrations. Neuhofer W, et al. **Pflugers Arch** 1999 Mar; 437(4):611–6
Modification of behavioral and neural taste responses to NaCl in C57BL/6 mice: effects of NaCl exposure and DOCA treatment. Bachmanov AA, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):817–22
Salt-specific regulation of the cytosolic O-acetylserine(thiol)lyase gene from Arabidopsis thaliana is dependent on abscisic acid. Barroso C, et al. **Plant Mol Biol** 1999 Jul;40(4):729–36
Alfin1, a novel zinc-finger protein in alfalfa roots that binds to promoter elements in the salt-inducible MsPRP2 gene. Bastola DR, et al. **Plant Mol Biol** 1998 Dec;38(6):1123–35
Isolation and characterization of two different cDNAs of delta1-pyrroline-5-carboxylate synthase in alfalfa, transcriptionally induced upon salt stress. Ginzberg I, et al. **Plant Mol Biol** 1998 Nov;38(5):755–64
Comparative effects of added sodium chloride, ammonium chloride, or potassium bicarbonate in the drinking water of broilers, and feed restriction, on the development of the ascites syndrome. Shlosberg A, et al. **Poult Sci** 1998 Sep; 77(9):1287–96
Genetic engineering of the unsaturation of fatty acids in membrane lipids alters the tolerance of Synechocystis to salt stress. Allakhverdiev SI, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5862–7
Effect of saline concentration, pH and growth temperature on the invasive capacity of Listeria monocytogenes. Galdiero E, et al. **Res Microbiol** 1997 May;148(4):305–13
Biomineralization of carbonates by Halomonas eurihalina in solid and liquid media with different salinities: crystal formation sequence. Rivadeneyra MA, et al. **Res Microbiol** 1998 Apr;149(4):277–87
Influence of salt concentration on the cellular fatty acid composition of the moderately halophilic bacterium Halomonas salina. Valderrama MJ, et al. **Res Microbiol** 1998 Oct;149(9):675–9
Nitric oxide, salt sensitivity, and cardiorenal injury in hypertension. Raij L. **Semin Nephrol** 1999 May; 19(3):296–303 (58 ref.)
A novel fluid resuscitation therapy for hemorrhagic shock. Roy JW, et al. **Shock** 1998 Sep;10(3):213–7
Potential mechanisms of the enhancement of aldicarb toxicity to Japanese medaka, Oryzias latipes, at high salinity. El-Alfy A, et al. **Toxicol Appl Pharmacol** 1998 Sep; 152(1):175–83
Secretion of a protoxin post-translationally controlled by NaCl in a halotolerant yeast, Pichia farinosa. Suzuki C. **Yeast** 1999 Jan 30;15(2):123–31
[Inhibition of growth of E. coli cells by anolites of sodium and potassium chloride after processing solutions in a diaphragmatic electrolyzer] Miroshnikov AI. **Biofizika** 1998 Nov-Dec;43(6):1032–6 (Eng. Abstr.) **(Rus)**
[Effect of the ozonized physiologic solution on biochemical parameters of liver during neoplasia] Goncharova TA, et al. **Biull Eksp Biol Med** 1998 Aug;126(8):207–9 **(Rus)**

POISONING

Salt poisoning in beef cattle on coastal pasture on Prince Edward Island. Van Leeuwen JA. **Can Vet J** 1999 May; 40(5):347–8
The management of extreme hypernatraemia secondary to salt poisoning in an infant. Paut O, et al. **Paediatr Anaesth** 1999;9(2):171–4

THERAPEUTIC USE

Bromocriptine-induced tachycardia in conscious rats: blunted response following isoproterenol pretreatment for 5 days. Lahlou S, et al. **Acta Physiol Pharmacol Ther Latinoam** 1998;48(3):165–74
Instillation of normal saline during endotracheal suctioning: effects on mixed venous oxygen saturation. Kinloch D. **Am J Crit Care** 1999 Jul;8(4):231–40; quiz 241–2
The impact of saline flush of the epidural catheter on resolution of epidural anesthesia in volunteers: a dose-response study. Chan VW, et al. **Anesth Analg** 1999 Oct;89(4):1006–10
Warmed versus room temperature saline solution for ocular irrigation: a randomized clinical trial. Ernst AA, et al. **Ann Emerg Med** 1998 Dec;32(6):676–9
Sodium chloride-citrate beverages attenuate hypovolemia in men resting 12 h at 2800 m altitude. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Oct;69(10):936–43
Comparison of dextranomer paste and saline dressings for management of decubital ulcers. Ljungberg S. **Clin Ther** 1998 Jul-Aug;20(4):737–43
Effect of amnioinfusion on the outcome of prenatally diagnosed gastroschisis. Luton D, et al. **Fetal Diagn Ther** 1999 May-Jun;14(3):152–5
Washout of small stones in the bile duct by saline infusion using a side-holed balloon catheter in patients undergoing endoscopic papillary balloon dilation. Komatsu Y, et al. **Gastrointest Endosc** 1999 Jan;49(1):101–4
Differential effects of serial hemodilution with hydroxyethyl starch, albumin, and 0.9% saline on whole blood coagulation. Tobias MD, et al. **J Clin Anesth** 1998 Aug; 10(5):366–71
Intravenous saline has no effect on blood ethanol clearance. Li J, et al. **J Emerg Med** 1999 Jan-Feb;17(1):1–5
Childhood intussusception: a comparative study of nonsurgical management. Hadidi AT, et al. **J Pediatr Surg** 1999 Feb;34(2):304–7
A randomized trial of heparin and saline for maintaining intravenous locks in neonates. Heilskov J, et al. **J Soc Pediatr Nurs** 1998 Jul-Sep;3(3):111–6
Hypertonic saline dextran attenuates leukocyte accumulation in the liver after hemorrhagic shock and resuscitation. Corso CO, et al. **J Trauma** 1999 Mar;46(3):417–23
Lactated ringer's is superior to normal saline in a model of massive hemorrhage and resuscitation. Healey MA, et al. **J Trauma** 1998 Nov;45(5):894–9
The effects of varying fluid volume and rate of resuscitation during uncontrolled hemorrhage. Soucy DM, et al. **J Trauma** 1999 Feb;46(2):209–15
Percutaneous hot saline injection therapy: effectiveness in large hepatocellular carcinoma. Yoon HK, et al. **J Vasc Interv Radiol** 1999 Apr;10(4):477–82
Chronic hyponatremic encephalopathy in postmenopausal women: association of therapies with morbidity and mortality. Ayus JC, et al. **JAMA** 1999 Jun 23-30; 281(24):2299–304
Saline flush during excimer laser angioplasty: short and long term effects in the rabbit femoral artery. van Leeuwen TG, et al. **Lasers Surg Med** 1998;23(3):128–40
Liposomal amphotericin B for fever and neutropenia [letter] Patel MA, et al. **N Engl J Med** 1999 Oct 7;341(15):1153; discussion 1154–5
Treating the syndrome of inappropriate ADH secretion with isotonic saline. Musch W, et al. **QJM** 1998 Nov; 91(11):749–53
Percutaneous epidural neuroplasty: prospective evaluation of 0.9% NaCl versus 10% NaCl with or without hyaluronidase [see comments] Heavner JE, et al. **Reg Anesth Pain Med** 1999 May-Jun;24(3):202–7. Comment in: Reg Anesth Pain Med 1999 May-Jun;24(3):198–201.
[The characteristics of the use of low-mineralization sodium chloride mineral water in the rehabilitative treatment of patients with the most common diseases of the internal organs] Babov KD, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jan-Feb; (1):27–30 (Eng. Abstr.) **(Rus)**
[The development of bromine sodium chloride brines in the Moscow area] Burakov AIu. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul-Aug; (4):38–41 **(Rus)**
[The use of sodium chloride baths in the treatment of diabetic patients with micro- and macroangiopathies] Davydova OB, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1998 Sep-Oct;(5):13–7 (Eng. Abstr.) **(Rus)**
[The effect of sodium chloride baths on the physical work capacity and extrasystole of patients with ischemic heart disease and stable stenocardia] Klemenkov SV, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 May-Jun; (3):19–21 (Eng. Abstr.) **(Rus)**

TOXICITY

Low-protein diet promotes sodium chloride-enhanced gastric carcinogenesis induced by N-methyl-N'-nitro-N-nitrosoguanidine in Wistar rats. Iishi H, et al. **Cancer Lett** 1999 Jul 1;141(1-2):117–22
Angiotensin AT1 receptor subtype as a cardiac target of aldosterone: role in aldosterone-salt-induced fibrosis. Robert V, et al. **Hypertension** 1999 Apr;33(4):981–6
Physiologic and hypertonic saline solutions impair ciliary activity in vitro. Boek WM, et al. **Laryngoscope** 1999 Mar; 109(3):396–9
Salt tolerance conferred by overexpression of a vacuolar Na+/H+ antiport in Arabidopsis [see comments] Apse MP, et al. **Science** 1999 Aug 20;285(5431):1256–8. Comment in: Science 1999 Aug 20;285(5431):1222–3.
Taking transgenic plants with a pinch of salt [comment] Frommer WB, et al. **Science** 1999 Aug 20;285(5431):1222–3 . Comment on: Science 1999 Aug 20;285(5431):1256–8.

SODIUM CHLORIDE, DIETARY

Impaired osmoregulatory responses in rats with area postrema lesions. Curtis KS, et al. **Am J Physiol** 1999 Jul; 277(1 Pt 2):R209–19
Effects of subfornical organ lesions on acutely induced thirst and salt appetite. Thunhorst RL, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R56–65
Effects of storage and cooking on the iodine content in iodized salt and study on monitoring iodine content in iodized salt. Wang GY, et al. **Biomed Environ Sci** 1999 Mar;12(1):1–9
Salinophagia in anorexia nervosa [letter] Morgan JF, et al. **Br J Psychiatry** 1998 Oct;173:352–3
Salt iodization in Bangladesh--problems and a suggestion [letter] Khorasani SS. **Bull World Health Organ** 1999; 77(2):205
Genetic analysis in Dahl salt-sensitive rats. Kato N. **Clin Exp Pharmacol Physiol** 1999 Jul;26(7):539–40 (20 ref.)
Iodized salt--a constant concern of society [editorial] Sinadinović J. **Med Pregl** 1998 Sep-Oct;51(9–10):389–94 **(Eng, Scr)**
Sedation and need-free salt intake in rats treated with clonidine. De Luca LA Jr, et al. **Pharmacol Biochem Behav** 1999 Apr;62(4):585–9
Posterodorsal amygdaloid lesions and NaCl intake: a failure to replicate enhanced intake. King BM, et al. **Physiol Behav** 1999 Mar;66(1):93–4
[Suitability of the direct potentiometric method with the use of ion-selective electrodes for the evaluation of iodide ions in iodized table salt] Drobnik M. **Rocz Panstw Zakl Hig** 1998;49(4):457–62 (Eng. Abstr.) **(Pol)**
[Effects of salting, cut type, and initial simmering temperature on protein and fat contents of meat broths: I. Beef] Gotera-Prado Z, et al. **Arch Latinoam Nutr** 1997 Dec; 47(4):362–6 (Eng. Abstr.) **(Spa)**

ADMINISTRATION & DOSAGE

To salt, or not to salt? [editorial] Kotchen TA. **Am J Physiol** 1999 May;276(5 Pt 2):H1807–10
Exercise increases the preference for salt in humans. Leshem M, et al. **Appetite** 1999 Apr;32(2):251–60
Influence of salt intake, ANG II synthesis and SFO lesion on thirst and blood pressure during sodium depletion. Subfornical organ. Starbuck EM, et al. **Appetite** 1998 Dec; 31(3):309–31
Optimum dietary arginine:lysine ratio for broiler chickens is altered during heat stress in association with changes in intestinal uptake and dietary sodium chloride. Brake J, et al. **Br Poult Sci** 1998 Dec;39(5):639–47
Effects of the alpha antagonists and agonists injected into the lateral hypothalamus on the water and sodium intake induced by angiotensin II injection into the subfornical organ. Araújo Almeida NA, et al. **Brain Res Bull** 1999 Mar 15;48(5):521–5
Central moxonidine on water and NaCl intake. Menani JV, et al. **Brain Res Bull** 1999 Jul 1;49(4):273–9
Role of angiotensin II and vasopressin receptors within the supraoptic nucleus in water and sodium intake induced by the injection of angiotensin II into the medial septal area. Antunes VR, et al. **Braz J Med Biol Res** 1998 Dec; 31(12):1597–600
Microvascular effects of atrial natriuretic peptide (ANP) in man: studies during high and low salt diet. Houben AJ, et al. **Cardiovasc Res** 1998 Aug;39(2):442–50
Effect of salt-loading on blood pressure, insulin sensitivity and limb blood flow in normal subjects. Foo M, et al. **Clin Sci (Colch)** 1998 Aug;95(2):157–64
Age-related changes in blood pressure twenty-four-hour pattern in normotensive subjects of two populations. Cugini P, et al. **Clin Ter** 1999 Jan-Feb;150(1):21–7
Comparison of three methods for estimating daily individual discretionary salt intake: 24 hour recall, duplicate-portion method, and urinary lithium-labelled household salt excretion. Melse-Boonstra A, et al. **Eur J Clin Nutr** 1999 Apr;53(4):281–7
Determinants of salt use in cooked meals in The Netherlands: attitudes and practices of food preparers. Van der Veen JE, et al. **Eur J Clin Nutr** 1999 May;53(5):388–94
Hypertension: therapeutic approach to weight loss, exercise, and salt intake. Butler RN, et al. **Geriatrics** 1999 May; 54(5):42, 45–6, 49–50 passim contd
Blood pressure, sodium intake, insulin resistance, and urinary nitrate excretion. Facchini FS, et al. **Hypertension** 1999 Apr;33(4):1008–12
Sympathoinhibitory effects of central nifedipine in spontaneously hypertensive rats on high versus regular sodium intake. Huang BS, et al. **Hypertension** 1999 Jan; 33(1):32–5
Loss of endothelium and receptor-mediated dilation in pial arterioles of rats fed a short-term high salt diet. Liu Y, et al. **Hypertension** 1999 Feb;33(2):686–8
NaCl-induced renal vasoconstriction in salt-sensitive African

Americans: antipressor and hemodynamic effects of potassium bicarbonate. Schmidlin O, et al. **Hypertension** 1999 Feb;33(2):633–9

Angiotensin-converting enzyme inhibition and salt in experimental myocardial infarction. Yoshida K, et al. **J Cardiovasc Pharmacol** 1998 Sep;32(3):357–65

A never-ending story of an insufficient iodine status without mandatory iodization of foods?--A German experience [letter] Remer T, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3755–6

Tissue-specific changes of type 1 angiotensin II receptor and angiotensin-converting enzyme mRNA in angiotensinogen gene-knockout mice. Tamura K, et al. **J Endocrinol** 1999 Mar;160(3):401–8

Interaction between lifetime captopril treatment and NaCl-sensitive hypertension in spontaneously hypertensive rats and Wistar-Kyoto rats. Fang Z, et al. **J Hypertens** 1999 Jul;17(7):983–91

High salt intake potentiates the renal vascular and glomerular damage caused by low doses of angiotensin II in uni-nephrectomized rats. Hirawa N, et al. **J Hypertens** 1999 Jul;17(7):923–32

Significance of sympathetic nervous system in sodium-induced nocturnal hypertension. Okuguchi T, et al. **J Hypertens** 1999 Jul;17(7):947–57

Microencapsulated NaCl for oral salt-replacement therapy in infants [letter] Claviez A, et al. **J Natl Cancer Inst** 1999 Sep 1;91(17):1513–4

Dietary salt intake, blood pressure and the kidney in hypertensive patients with non-insulin dependent diabetes mellitus. Campese VM, et al. **J Nephrol** 1998 Nov-Dec; 11(6):289–95

Less salt does not necessarily mean less taste [letter] Rodgers A, et al. **Lancet** 1999 Apr 17;353(9161):1332

High salt intake differentially regulates kidney angiotensin IV AT4 receptors in Wistar-Kyoto and spontaneously hypertensive rats. Grove KL, et al. **Life Sci** 1999; 64(20):1811–8

Selective potentiation of angiotensin-induced constriction of skeletal muscle resistance arteries by chronic elevations in dietary salt intake. Weber DS, et al. **Microvasc Res** 1999 May;57(3):310–9

Amiloride and vertebrate gustatory responses to NaCl. Halpern BP. **Neurosci Biobehav Rev** 1998;23(1):5–47 (128 ref.)

Influence of concomitant miso or NaCl treatment on induction of gastric tumors by N-methyl-N'-nitro-N-nitrosoguanidine in rats. Watanabe H, et al. **Oncol Rep** 1999 Sep-Oct;6(5):989–93

Possible mechanisms of salt-induced hypertension in Dahl salt-sensitive rats. Bayorh MA, et al. **Physiol Behav** 1998 Dec 1;65(3):563–8

[The effect of reduced sodium intake on blood pressure, body weight, renin, aldosterone, catecholamines, cholesterol and triglycerides. A meta-analysis] Graudal NA, et al. **Ugeskr Laeger** 1999 Apr 26;161(17):2526–30 (Eng. Abstr.) **(Dan)**

[Salt restriction and blood pressure (editorial)] Strandgaard S. **Ugeskr Laeger** 1999 Apr 26;161(17):2505 **(Dan)**

[Development of preventive iodine administration in Austria] Eber O. **Wien Klin Wochenschr** 1998 Nov 13;110(21):733–7 (25 ref.) **(Ger)**

[Preventive iodine administration and iodine excretion in the Vienna area and in the forest quarter] Wagner B, et al. **Wien Klin Wochenschr** 1998 Nov 13;110(21):751–4 (Eng. Abstr.) **(Ger)**

ADVERSE EFFECTS

The effects of high dietary calcium on salt-induced hypertension in rats. Adegunloye BJ, et al. **Afr J Med Med Sci** 1996 Sep;25(3):285–91

Genome scan and congenic strains for blood pressure QTL using Dahl salt-sensitive rats. Garrett MR, et al. **Genome Res** 1998 Jul;8(7):711–23

Potassium supplementation induces beneficial cardiovascular changes during rest and stress in salt sensitive individuals. West SG, et al. **Health Psychol** 1999 May;18(3):229–40

Role of the alpha2B-adrenergic receptor in the development of salt-induced hypertension. Makaritsis KP, et al. **Hypertension** 1999 Jan;33(1):14–7

Normotensive salt sensitivity: effects of race and dietary potassium. Morris RC Jr, et al. **Hypertension** 1999 Jan; 33(1):18–23

Metformin attenuates salt-induced hypertension in spontaneously hypertensive rats. Muntzel MS, et al. **Hypertension** 1999 May;33(5):1135–40

Functional reduction and associated cellular rearrangement in SHRSP rat basilar arteries are affected by salt load and calcium antagonist treatment. Arribas SM, et al. **J Cereb Blood Flow Metab** 1999 May;19(5):517–27

Indapamide improves flow-induced dilation in hypertensive rats with a high salt intake. Matrougui K, et al. **J Hypertens** 1998 Oct;16(10):1485–90

Does the Sabra hypertension-prone rat represent a model of salt or mineralocorticoid sensitivity? Yagil Y, et al. **J Hypertens** 1998 Oct;16(10):1481–4

Salt-sensitive hypertension: renal and cardiovascular implications. Campese VM. **Nutr Metab Cardiovasc Dis** 1999 Jun;9(3):143–56 (147 ref.)

Dietary salt reduction in hypertension--what is the evidence and why is it still controversial? Chrysant GS, et al. **Prog Cardiovasc Dis** 1999 Jul-Aug;42(1):23–38 (73 ref.)

Risks of iodine-induced hyperthyroidism after correction of iodine deficiency by iodized salt. Delange F, et al. **Thyroid** 1999 Jun;9(6):545–56

Salt and hypertension at the close of the millenium. Luft FC. **Wien Klin Wochenschr** 1998 Jul 31;110(13–14):459–66 (55 ref.)

[Salt and hypertension. The most current research on molecular biology increases the knowledge of the connection] Tindholdt TT, et al. **Ugeskr Laeger** 1999 Apr 26;161(17):2507–9 **(Dan)**

[Emotional irritability and anxiety in salt-sensitive persons at risk for essential hypertension] Buchholz K, et al. **Psychother Psychosom Med Psychol** 1999 Aug;49(8):284–9 (Eng. Abstr.) **(Ger)**

ANALYSIS

Dr. P. C. Sen Memorial Award Paper. Status of salt iodisation and iodine deficiency in selected districts of different states of India. Kapil U, et al. **Indian J Public Health** 1998 Jul-Sep;42(3):75–80

Impact after 1 year of compulsory iodisation on the iodine content of table salt at retailer level in South Africa. Jooste PL, et al. **Int J Food Sci Nutr** 1999 Jan;50(1):7–12

ANTAGONISTS & INHIBITORS

Area postrema, lateral parabrachial nucleus, and the antinatriorexic effect of bombesin. de Caro G, et al. **Peptides** 1998;19(8):1399–406

CHEMISTRY see SODIUM CHLORIDE/chemistry

DIAGNOSTIC USE

Salt-sensitivity classification in normotensive adults. Mattes RD, et al. **Clin Sci (Colch)** 1999 May;96(5):449–59

METABOLISM

Modulation by dietary salt of verapamil disposition in humans. Darbar D, et al. **Circulation** 1998 Dec 15; 98(24):2702–8

Function and expression of a novel rat salt-tolerant protein: evidence of a role in cellular sodium metabolism. Tsuji E, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1574–80

Differential effects of high salt intake on neuropeptide Y and adrenergic markers in hearts of Dahl rats. Nyquist-Battie C, et al. **Peptides** 1998;19(8):1377–83

Dietary salt reduction in hypertension--what is the evidence and why is it still controversial? Chrysant GS, et al. **Prog Cardiovasc Dis** 1999 Jul-Aug;42(1):23–38 (73 ref.)

PHARMACOLOGY

No evidence for dietary protein and dietary salt as main factors of calcium excretion in healthy children and adolescents [letter; comment] Lausen B. **Am J Clin Nutr** 1999 Apr;69(4):742–3. Comment on: Am J Clin Nutr 1998 Mar;67(3):438–44.

Roles of aldosterone and angiotensin in maturation of sodium appetite in furosemide-treated rats. Rowland NE, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1453–60

Antidiuretic hormone infusion reduces taurine and NaCl-induced hypernatremia in the rat. McBroom MJ, et al. **Amino Acids** 1998;15(1–2):89–97

Cloning of a novel kinase (SIK) of the SNF1/AMPK family from high salt diet-treated rat adrenal. Wang Z, et al. **FEBS Lett** 1999 Jun 18;453(1–2):135–9

Early onset salt-sensitive hypertension in bradykinin B(2) receptor null mice. Cervenka L, et al. **Hypertension** 1999 Aug;34(2):176–80

Effects of potassium on blood pressure in salt-sensitive and salt-resistant black adolescents. Wilson DK, et al. **Hypertension** 1999 Aug;34(2):181–6

Effects of feeding frequency and voluntary salt intake on fluid and electrolyte regulation in athletic horses. Jansson A, et al. **J Appl Physiol** 1999 May;86(5):1610–6

The kidney cytochrome P-450 2C23 arachidonic acid epoxygenase is upregulated during dietary salt loading. Holla VR, et al. **J Clin Invest** 1999 Sep;104(6):751–60

Angiotensinogen M235T variant and salt sensitivity in young normotensive Caucasians. Schorr U, et al. **J Hypertens** 1999 Apr;17(4):475–9

Differences in epithelial morphology correlate to Na(+)-transport: a study of the proximal, mid, and distal regions of the coprodeum from hens on high and low NaCl diet. Elbrønd VS, et al. **J Morphol** 1999 Jan;239(1):75–86

Abnormal regulation of proximal tubule renin mRNA in the Dahl/Rapp salt-sensitive rat. Tank JE, et al. **Kidney Int** 1998 Nov;54(5):1608–16

STANDARDS

[A determination of iodides in salts: a validation of methods] Drobnik M, et al. **Rocz Panstw Zakl Hig** 1998;49(2):169–76 (Eng. Abstr.) **(Pol)**

TOXICITY

Dietary NaCl-induced hypertension in uninephrectomized Wistar-Kyoto rats: role of kidney function. Mozaffari MS, et al. **J Cardiovasc Pharmacol** 1999 May;33(5):814–21

SODIUM CHLORIDE SOLUTION, HYPERTONIC see **SALINE SOLUTION, HYPERTONIC**

SODIUM CHOLATE

Chiral separation of polychlorinated biphenyls by micellar electrokinetic chromatography with sodium cholate. Crego AL, et al. **Electrophoresis** 1998 Sep;19(12):2113–8

ANALOGS & DERIVATIVES see CHOLATES

CHEMISTRY

Micelle formation of sodium cholate and solubilization into the micelle. Sugioka H, et al. **Biochim Biophys Acta** 1998 Oct 2;1394(1):99–110

Separation of urea, uric acid, creatine, and creatinine by micellar electrokinetic capillary chromatography with sodium cholate. Yan SL, et al. **J Chromatogr Sci** 1999 Feb; 37(2):45–50

SODIUM CLOXACILLIN see **CLOXACILLIN**

SODIUM COMPOUNDS

Factors influencing the choice of buffer in background electrolytes for indirect detection of fast anions by capillary electrophoresis. Doble P, et al. **Electrophoresis** 1998 Sep; 19(12):2257–61

ADMINISTRATION & DOSAGE

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795–801

ADVERSE EFFECTS

Returning perchlorate-contaminated fume hood systems to service. Part II. Disassembly, decontamination, disposal, and analytical procedures. Bader M, et al. **Appl Occup Environ Hyg** 1999 Jun;14(6):369–75

ANALYSIS

Extracellular water: sodium bromide dilution estimates compared with other markers in patients with acquired immunodeficiency syndrome. Kim J, et al. **JPEN J Parenter Enteral Nutr** 1999 Mar-Apr;23(2):61–6

ANTAGONISTS & INHIBITORS

Prevention of cytotoxic effects of arsenic by short-term dietary supplementation with selenium in mice in vivo. Biswas S, et al. **Mutat Res** 1999 Apr 26;441(1):155–60

CHEMICAL SYNTHESIS

Na2Zn3(CO3)4.3H2O: a potentially useful compound for zinc supplementation. Tobón-Zapata GE, et al. **J Trace Elem Med Biol** 1999 Apr;12(4):236–9

CHEMISTRY

Sodium peroxydisulfate is a stable and cheap substitute for ammonium peroxydisulfate (persulfate) in polyacrylamide gel electrophoresis [letter] Behrman EJ, et al. **J Chromatogr B Biomed Sci Appl** 1999 Feb 19; 723(1–2):325–6

Erratum to "23Na solid state MAS NMR of sodium halides occluded in zeolites" [corrected and republished article originally printed in Solid State Nucl Magn Reson 1997 Dec;9(2–4):129–41] Seidel A, et al. **Solid State Nucl Magn Reson** 1998 Aug;12(1):53–65

Ammonium and sodium urates precipitating from synthetic urine and fine structure of urate renal calculi. Grases F, et al. **Urol Res** 1999 Apr;27(2):141–7

PHARMACOLOGY

Reversal of sodium arsenite inhibition of rat liver microsomal Ca2+ pumping ATPase by vitamin C. Odunuga OO, et al. **Biosci Rep** 1999 Feb;19(1):11–5

Regulation of System A amino acid transport in L6 rat skeletal muscle cells by insulin, chemical and hyperthermic stress. McDowell HE, et al. **FEBS Lett** 1998 Dec 11; 441(1):15–9

Involvement of the tyrosine phosphorylation pathway in induction of human heme oxygenase-1 by hemin, sodium arsenite, and cadmium chloride. Masuya Y, et al. **J Biochem (Tokyo)** 1998 Sep;124(3):628–33

Na2Zn3(CO3)4.3H2O: a potentially useful compound for zinc supplementation. Tobón-Zapata GE, et al. **J Trace Elem Med Biol** 1999 Apr;12(4):236–9

Sodium arsenite-induced chromosomal aberrations in the Xq arm of Chinese hamster cell lines. Radha S, et al. **Mutagenesis** 1998 May;13(3):229–34

THERAPEUTIC USE

The use of perchlorate for the prevention of thyrotoxicosis in patients given iodine rich contrast agents. Lawrence JE, et al. **J Endocrinol Invest** 1999 May;22(5):405–7 (16 ref.)

TOXICITY

Arsenic(III), but not antimony(III), induces DNA-protein crosslinks. Gebel T, et al. **Anticancer Res** 1998 Nov-Dec; 18(6A):4253–7

A Daphnia magna first-brood chronic test: An alternative to the conventional 21-Day chronic bioassay? Guilhermino L, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):67-74

Vitamin E and C in the prevention of metal nephrotoxicity in developing rats. Appenroth D, et al. **Exp Toxicol Pathol** 1998 Sep;50(4-6):391-6

Prevention of cytotoxic effects of arsenic by short-term dietary supplementation with selenium in mice in vivo. Biswas S, et al. **Mutat Res** 1999 Apr 26;441(1):155-60

Effects of exposure protocols on induction of kinetochore-plus and -minus micronuclei by arsenite in diploid human fibroblasts. Yih LH, et al. **Mutat Res** 1999 Mar 15;440(1):75-82

Sodium arsenite enhances copper accumulation in human lung adenocarcinoma cells. Ho IC, et al. **Toxicol Sci** 1999 Feb;47(2):176-80

Teratogenic response to arsenite during neurulation: relative sensitivities of C57BL/6J and SWV/Fnn mice and impact of the splotch allele. Machado AF, et al. **Toxicol Sci** 1999 Sep;51(1):98-107

Effect of glutathione depletion and metallothionein gene expression on arsenic-induced cytotoxicity and c-myc expression in vitro. Shimizu M, et al. **Toxicol Sci** 1998 Oct; 45(2):204-11

Wild-type and Ras-transformed fibroblasts display differential mitogenic responses to transient sodium arsenite exposure. Trouba KJ, et al. **Toxicol Sci** 1999 Jul;50(1):72-81

SODIUM CROMOGLYCATE see **CROMOLYN SODIUM**

SODIUM CYANIDE

PHARMACOLOGY

Local injection of NaCN into the nucleus locus ceruleus of the rat brain induces respiratory depression. Chávez JC, et al. **Adv Exp Med Biol** 1998;454:461-5

Selective hypoxic loading of the ventrolateral medulla inhibits cholinergic outflow to the airways. Haxhiu MA, et al. **Adv Exp Med Biol** 1998;454:467-73

Effects of cyanide and hypoxia on membrane currents in neurones acutely dissociated from the rostral ventrolateral medulla of the rat. Kawai Y, et al. **Brain Res** 1999 Jun 5;830(2):246-57

TOXICITY

Acute effects of acetyl-L-carnitine on sodium cyanide-induced behavioral and biochemical deficits. Prickaerts J, et al. **Neurochem Int** 1998 Nov;33(5):435-43

SODIUM DEXTRAN SULFATE see **DEXTRAN SULFATE**

SODIUM 2,6-DICHLOROINDOPHENOL see **2,6-DICHLOROINDOPHENOL**

SODIUM, DIETARY

The extended amygdala and salt appetite. Johnson AK, et al. **Ann N Y Acad Sci** 1999 Jun 29;877:258-80 (77 ref.)

Diminished salt appetite in spontaneously hypertensive rats following local administration of the angiotensin II antagonist saralasin in the median preoptic area. Tanaka J, et al. **Behav Pharmacol** 1997 Dec;8(8):752-6

Effects of alpha-tocopheryl acetate supplementation and salt addition on the oxidative stability (TBARS) and warmed-over flavour (WOF) of cooked turkey meat. Higgins FM, et al. **Br Poult Sci** 1999 Mar;40(1):59-64

Self-efficacy for dietary behaviour concerning heart disease among Alexandria school pupils. Mounir GM, et al. **East Mediterr Health J** 1998 Dec;4(3):452-69

Renal nerves promote sodium excretion during long-term increases in salt intake. Lohmeier TE, et al. **Hypertension** 1999 Jan;33(1 Pt 2):487-92

Renal intramedullary infusion of L-arginine prevents reduction of medullary blood flow and hypertension in Dahl salt-sensitive rats. Miyata N, et al. **Hypertension** 1999 Jan;33(1 Pt 2):446-50

Role of aldosterone in renal vascular injury in stroke-prone hypertensive rats. Rocha R, et al. **Hypertension** 1999 Jan; 33(1 Pt 2):232-7

Role of neuronal nitric oxide synthase in Dahl salt-sensitive hypertension. Tan DY, et al. **Hypertension** 1999 Jan;33(1 Pt 2):456-61

Antihypertensive mechanisms underlying a novel salt-sensitive hypertensive model induced by sensory denervation. Wang DH, et al. **Hypertension** 1999 Jan;33(1 Pt 2):499-503

Effect of sodium in a rehydration beverage when consumed as a fluid or meal. Ray ML, et al. **J Appl Physiol** 1998 Oct;85(4):1329-36

The ontogeny of salt hunger in the rat. Leshem M. **Neurosci Biobehav Rev** 1999 May;23(5):649-59 (86 ref.)

The influence of dietary salt and energy on the response to low pH in juvenile rainbow trout. D'Cruz LM, et al. **Physiol Zool** 1998 Nov-Dec;71(6):642-57

Sodium chloride concentration in drinking water and eggshell quality. Damron BL. **Poult Sci** 1998 Oct; 77(10):1488-91

[Investigations on renal excretion of sodium in dairy cattle] Michelini F, et al. **DTW Dtsch Tierarztl Wochenschr** 1999 Jan;106(1):18-21 (Eng. Abstr.) **(Ger)**

[Source of information on salt intake in Japan and its influence on the understanding of nutrition guides on salt intake] Takemori K. **Nippon Koshu Eisei Zasshi** 1998 Sep; 45(9):841-5 **(Jpn)**

ADMINISTRATION & DOSAGE

Strict dietary sodium reduction worsens insulin sensitivity by increasing sympathetic nervous activity in patients with primary hypertension. Gomi T, et al. **Am J Hypertens** 1998 Sep;11(9):1048-55

Dietary compliance among salt-sensitive and salt-insensitive normotensive adults. Mattes RD, et al. **Am J Med Sci** 1999 May;317(5):287-94

Arterial baroreceptor denervation impairs long-term regulation of arterial pressure during dietary salt loading. Osborn JW, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1558-66

The effect of high-salt diet intake on muscular exercise ability in young Japanese women. Fukuba Y, et al. **Appl Human Sci** 1998 Jul;17(4):145-8

Estimates of interdialytic sodium and water intake based on the balance principle: differences between nondiabetic and diabetic subjects on hemodialysis. Ramdeen G, et al. **ASAIO J** 1998 Nov-Dec;44(6):812-7

Factors influencing left ventricular mass in salt sensitive and salt resistant essential hypertensive patients. Gerdts E, et al. **Blood Press** 1998 Jul;7(4):223-30

Kinins modulate the sodium-dependent autoregulation of renal medullary blood flow. Nafz B, et al. **Cardiovasc Res** 1998 Dec;40(3):573-9

Enhanced nitric oxide synthesis reverses salt-induced alterations in blood flow and cGMP levels. Bayorh MA, et al. **Clin Exp Hypertens** 1999 May;21(4):333-52

Lifestyle modifications to prevent and control hypertension. 5. Recommendations on dietary salt. Canadian Hypertension Society, Canadian Coalition for High Blood Pressure Prevention and Control, Laboratory Centre for Disease Control at Health Canada, Heart and Stroke Foundation of Canada. Fodor JG, et al. **CMAJ** 1999 May 4;160(9 Suppl):S29-34

Responses of blood pressure and catecholamine metabolism to high salt loading in endothelin-1 knockout mice. Morita H, et al. **Hypertens Res** 1999 Mar;22(1):11-6

Clustering of endothelial markers of vascular damage in human salt-sensitive hypertension: influence of dietary sodium load and depletion. Ferri C, et al. **Hypertension** 1998 Nov;32(5):862-8

Increased kidney xanthine oxidoreductase activity in salt-induced experimental hypertension. Laakso J, et al. **Hypertension** 1998 Nov;32(5):902-6

The DASH Diet, Sodium Intake and Blood Pressure Trial (DASH-sodium): rationale and design. DASH-Sodium Collaborative Research Group. Svetkey LP, et al. **J Am Diet Assoc** 1999 Aug;99(8 Suppl):S96-104

Determinants of dietary intake in a sample of white and Mexican-American children. Zive MM, et al. **J Am Diet Assoc** 1998 Nov;98(11):1282-9

Metabolic and productive responses of dairy cows to increased ion supplementation at early lactation in warm weather. Silanikove N, et al. **J Dairy Res** 1998 Nov; 65(4):529-43

Intake and excretion of sodium, potassium, and nitrogen and the effects on urine production by lactating dairy cows. Bannink A, et al. **J Dairy Sci** 1999 May;82(5):1008-18

A meta-analysis of randomised controlled trials (RCT) among healthy normotensive and essential hypertensive elderly patients to determine the effect of high salt (NaCl) diet of blood pressure. Alam S, et al. **J Hum Hypertens** 1999 Jun;13(6):367-74

Sodium sensitivity in young adults with high resting end-tidal CO2. Anderson DE, et al. **J Hypertens** 1998 Jul; 16(7):1015-22

Effect of the heme/heme oxygenase pathway on the relationship between salt consumption and blood pressure. dos Santos EA, et al. **J Hypertens** 1998 Dec;16(12 Pt 2):1965-9

Renin-angiotensin system and fibronectin gene expression in Dahl Iwai salt-sensitive and salt-resistant rats. Tamura K, et al. **J Hypertens** 1999 Jan;17(1):81-9

Regulation of vascular type 1 angiotensin II receptor in hypertension and sodium loading: role of angiotensin II. Wang DH, et al. **J Hypertens** 1998 Apr;16(4):467-75

The sodium concentration of enteral diets does not influence absorption of nutrients but induces intestinal secretion of water in miniature pigs. Ehrlein H, et al. **J Nutr** 1999 Feb; 129(2):410-8

Dietary salt regulates expression of Tamm-Horsfall glycoprotein in rats. Ying WZ, et al. **Kidney Int** 1998 Oct; 54(4):1150-6

Salt iodation and risk of neonatal brain damage [letter] Sundqvist J, et al. **Lancet** 1998 Jul 4;352(9121):34-5

Universal recommendations for sodium intake should be avoided [letter; comment] Beard TC, et al. **Med J Aust** 1999 Aug 2;171(3):162; discussion 162-3. Comment on: Med J Aust 1999 Feb 15;170(4):174-5.

Universal recommendations for sodium intake should be avoided [see comments] Kincaid-Smith P, et al. **Med J Aust** 1999 Feb 15;170(4):174-5 (00 ref.). Comment in: Med J Aust 1999 Aug 2;171(3):162; discussion 162-3.

Restriction of salt intake is needed to ameliorate the cardiovascular disease epidemic. Morgan TO. **Med J Aust** 1999 Feb 15;170(4):176-8 (00 ref.)

The salt dilemma: some answers, many questions. Nicholls MG, et al. **Med J Aust** 1999 Feb 15;170(4):178-80 (82 ref.)

ADVERSE EFFECTS

What is the role of dietary sodium and potassium in hypertension and target organ injury? He J, et al. **Am J Med Sci** 1999 Mar;317(3):152-9 (50 ref.)

Effects of ACE inhibition on cyclosporine A-induced hypertension and nephrotoxicity in spontaneously hypertensive rats on a high-sodium diet. Mervaala E, et al. **Blood Press** 1999;8(1):49-56

Salt and hypertension in end-stage renal disease [editorial] Kooman JP, et al. **Blood Purif** 1998;16(6):301-11 (69 ref.)

Salt induces myocardial and renal fibrosis in normotensive and hypertensive rats. Yu HC, et al. **Circulation** 1998 Dec 8;98(23):2621-8

Salt-sensitive hypertension induced by sensory denervation: introduction of a new model. Wang DH, et al. **Hypertension** 1998 Oct;32(4):649-53

Universal recommendations for sodium intake should be avoided [see comments] Kincaid-Smith P, et al. **Med J Aust** 1999 Feb 15;170(4):174-5 (00 ref.). Comment in: Med J Aust 1999 Aug 2;171(3):162; discussion 162-3.

Restriction of salt intake is needed to ameliorate the cardiovascular disease epidemic. Morgan TO. **Med J Aust** 1999 Feb 15;170(4):176-8 (00 ref.)

The salt dilemma: some answers, many questions. Nicholls MG, et al. **Med J Aust** 1999 Feb 15;170(4):178-80 (82 ref.)

The blunting of the antiproteinuric efficacy of ACE inhibition by high sodium intake can be restored by hydrochlorothiazide. Buter H, et al. **Nephrol Dial Transplant** 1998 Jul;13(7):1682-5

Salt: blood pressure, the kidney, and other harmful effects. MacGregor GA. **Nephrol Dial Transplant** 1998 Oct; 13(10):2471-9 (32 ref.)

Dietary sodium intake and mortality. Esslinger KA, et al. **Nutr Rev** 1998 Oct;56(10):311-3 (13 ref.)

Salt in hypertension: physiological and molecular aspects. Gavras I, et al. **Recent Prog Horm Res** 1998;53:1-6 (46 ref.)

BLOOD

Is cerebral control of plasma [Na] a major determinant for systemic sodium balance? Häberle DA, et al. **Kidney Int Suppl** 1998 Sep;67:S242-4

CHEMISTRY see SODIUM/chemistry

DIAGNOSTIC USE

Reproducibility of salt sensitivity testing using a dietary approach in essential hypertension. Gerdts E, et al. **J Hum Hypertens** 1999 Jun;13(6):375-84

METABOLISM

Long-term renal sodium handling in patients with cirrhosis treated with transjugular intrahepatic portosystemic shunts for refractory ascites. Wong W, et al. **Am J Med** 1999 Mar; 106(3):315-22

Dietary compliance among salt-sensitive and salt-insensitive normotensive adults. Mattes RD, et al. **Am J Med Sci** 1999 May;317(5):287-94

The effect of sodium balance on sweat sodium secretion and plasma aldosterone concentration. Allsopp AJ, et al. **Eur J Appl Physiol** 1998 Nov;78(6):516-21

Changes in the circadian rhythm of blood pressure in primary aldosteronism in response to dietary sodium restriction and adrenalectomy. Uzu T, et al. **J Hypertens** 1998 Dec;16(12 Pt 1):1745-8

Sodium balance and blood pressure response to salt ingestion in uninephrectomized rats. Ise T, et al. **Kidney Int Suppl** 1998 Sep;67:S245-9

PHARMACOKINETICS

Effect of metoprolol administration on renal sodium handling in experimental congestive heart failure. DiBona GF, et al. **Circulation** 1999 Jul 6;100(1):82-6

PHARMACOLOGY

Ambulatory blood pressure nondipping status in salt-sensitive and salt-resistant black adolescents. Wilson DK, et al. **Am J Hypertens** 1999 Feb;12(2 Pt 1):159-65

Chronic activation of brain areas by high-sodium diet in Dahl salt-sensitive rats. Budzikowski AS, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):H2046-52

The area postrema does not modulate the long-term salt sensitivity of arterial pressure. Collister JP, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1209-17

Cardiovascular, endocrine, and body fluid-electrolyte responses to salt loading in mRen-2 transgenic rats. Li P, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1130-7

SODIUM, DIETARY

Importance of the blood pressure–heart rate relationship. Folkow B, et al. **Blood Press** 1998 May;7(3):133–8 (30 ref.)
Cardiovascular effects of dietary salts and isosorbide–5–mononitrate in spontaneously hypertensive rats. Vaskonen T, et al. **Blood Press** 1998 May;7(3):184–92
Early effects of oral salt on plasma volume, orthostatic tolerance, and baroreceptor sensitivity in patients with syncope. Mtinangi BL, et al. **Clin Auton Res** 1998 Aug; 8(4):231–5
Salt overload does not modify plasma atrial natriuretic peptide or vasopressin during pregnancy in rats. Carvalho EG, et al. **Exp Physiol** 1998 Jul;83(4):503–11
Effects of renin–angiotensin system blockade and dietary salt intake on left ventricular hypertrophy in Dahl salt–sensitive rats. Sugimoto K, et al. **Hypertens Res** 1998 Sep;21(3):163–8
Structural vascular changes in hypertension: role of angiotensin II, dietary sodium supplementation, blood pressure, and time. Simon G, et al. **Hypertension** 1998 Oct; 32(4):654–60
Effect of chronic salt loading on adenosine metabolism and receptor expression in renal cortex and medulla in rats. Zou AP, et al. **Hypertension** 1999 Jan;33(1 Pt 2):511–6
Early dietary sodium restriction disrupts the peripheral anatomical development of the gustatory system. Krimm RF, et al. **J Neurobiol** 1999 May;39(2):218–26
Modulation of effect of dietary salt on prehepatic first–pass metabolism: effects of beta–blockade and intravenous salt loading. Fromm MF, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):253–8
Differential regulation of renal prostaglandin receptor mRNAs by dietary salt intake in the rat. Jensen BL, et al. **Kidney Int** 1999 Aug;56(2):528–37
Anion size of sodium salts and simple taste reaction times. Delwiche JF, et al. **Physiol Behav** 1999 Mar;66(1):27–32

TOXICITY

Protective effects of delapril, indapamide and their combination on stroke occurrence and lifespan in salt–loaded stroke–prone spontaneously hypertensive rats. Razzetti R, et al. **Arzneimittelforschung** 1998 Nov; 48(11):1083–7
Attenuation by all–trans–retinoic acid of sodium chloride–enhanced gastric carcinogenesis induced by N–methyl–N'–nitro–N–nitrosoguanidine in Wistar rats. Tatsuta M, et al. **Br J Cancer** 1999 Feb;79(5–6):732–6

SODIUM DODECYL SULFATE

Importance of sodium dodecyl sulfate pore–graduated polyacrylamide gel electrophoresis in the differential diagnostic of Balkan nephropathy. Ikonomov V, et al. **Artif Organs** 1999 Jan;23(1):75–80
Time course of SDS–alkaline lysis of recombinant bacterial cells for plasmid release. Ciccolini LA, et al. **Biotechnol Bioeng** 1998 Dec 20;60(6):768–70
Sodium dodecyl sulfate–capillary electrophoresis of proteins in a sieving matrix utilizing two–spectral channel laser–induced fluorescence detection. Craig DB, et al. **Electrophoresis** 1998 Sep;19(12):2175–8
Electrophoresis of proteins across a transverse sodium dodecyl sulfate gradient. Gianazza E, et al. **Electrophoresis** 1998 Jul;19(10):1631–41
Subnanomolar detection limit for sodium dodecyl sulfate–capillary gel electrophoresis using a fluorogenic, noncovalent dye. Harvey MD, et al. **Electrophoresis** 1998 Sep;19(12):2169–74
Detection of protease activities using specific aminoacyl or peptidyl p–nitroanilides after sodium dodecyl sulfate – polyacrylamide gel electrophoresis and its applications. Hou WC, et al. **Electrophoresis** 1999 Mar;20(3):486–90
Size separation of sodium dodecyl sulfate complexes of human plasma proteins by capillary electrophoresis employing linear polyacrylamide as a sieving polymer. Manabe T, et al. **Electrophoresis** 1998 Oct;19(13):2308–16
Simultaneous measurement of alpha–amylase and glucoamylase activities in sake rice koji by capillary electrophoresis of sodium dodecyl sulfate–protein complexes and activity measurement of glucoamylase by in–capillary enzyme reaction method. Watanabe T, et al. **Electrophoresis** 1998 Oct;19(13):2331–7
The structure of the antimicrobial active center of lactoferricin B bound to sodium dodecyl sulfate micelles. Schibli DJ, et al. **FEBS Lett** 1999 Mar 12;446(2–3):213–7
Solute–solvent interactions in micellar electrokinetic chromatography. Characterization of sodium dodecyl sulfate–Brij 35 micellar systems for quantitative structure–activity relationship modelling. Rosés M, et al. **J Chromatogr A** 1999 Jun 11;845(1–2):217–26
Fluorimetric and solubility studies of nadolol and atenolol in SDS micelles. de Castro B, et al. **J Pharm Biomed Anal** 1998 Dec;18(4–5):573–7
Horizontal SDS–PAGE for IPG–Dalt. Görg A, et al. **Methods Mol Biol** 1999;112:235–44 (15 ref.)

ADMINISTRATION & DOSAGE

Design and characterization of a surfactant–enriched tablet formulation for oral delivery of a poorly water–soluble immunosuppressive agent. Ruddy SB, et al. **Int J Pharm** 1999 May 25;182(2):173–86

ADVERSE EFFECTS

SLS–irritated human skin shows no correlation between degree of proliferation and TEWL increase. Welzel J, et al. **Arch Dermatol Res** 1998 Nov;290(11):615–20
Reproducibility of irritant patch test reactions to sodium lauryl sulfate in a double–blind placebo–controlled randomized study using clinical scoring. Results from a study group of the German Contact Dermatitis Research Group (Deutsche Kontaktallergie–Gruppe, DKG). Brasch J, et al. **Contact Dermatitis** 1999 Sep;41(3):150–5
Influence of patch–test application tape on reactions to sodium dodecyl sulfate. Fischer T, et al. **Contact Dermatitis** 1999 Jan;40(1):32–7
Skin susceptibility of atopic individuals. Löffler H, et al. **Contact Dermatitis** 1999 May;40(5):239–42
Clinical morphology of sodium lauryl sulfate (SLS) and nonanoic acid (NAA) irritant patch test reactions at 48 h and 96 h in 152 subjects. Reiche L, et al. **Contact Dermatitis** 1998 Nov;39(5):240–3
The relevance of rechallenges and pretreatment with sodium lauryl sulfate (SLS) in the guinea pig maximization test (GPMT) was evaluated [letter] Stropp G, et al. **Food Chem Toxicol** 1999 Feb–Mar;37(2–3):266–8
Prevention of sodium lauryl sulfate irritant contact dermatitis by Pro–Q aerosol foam skin protectant. Patterson SE, et al. **J Am Acad Dermatol** 1999 May;40(5 Pt 1):783–5

ANALYSIS

Construction and use of a detergent–sensitive electrode to measure dodecyl sulfate activity and binding. Mokus M, et al. **Anal Biochem** 1998 Nov 1;264(1):34–40

CHEMISTRY

Protein purification for the Lowry assay: acid precipitation of proteins in the presence of sodium dodecyl sulfate and other biological detergents. Yeang HY, et al. **Anal Biochem** 1998 Dec 15;265(2):381–4
Characterization of a heat modifiable protein, Escherichia coli outer membrane protein OmpA in binary surfactant system of sodium dodecyl sulfate and octylglucoside. Ohnishi S, et al. **Biochim Biophys Acta** 1998 Oct 15; 1375(1–2):101–9
Does sodium lauryl sulfate concentration vary with time? Sugár M, et al. **Contact Dermatitis** 1999 Mar;40(3):146–9
Interactions of hydroxy–s–triazines with sodium dodecyl sulfate–micelles investigated by micellar capillary electrophoresis. Freitag D, et al. **Electrophoresis** 1999 Jun; 20(7):1568–77
Influence of shaking and surfactants on the release of bsa from plga microspheres. Hernández RM, et al. **Eur J Drug Metab Pharmacokinet** 1998 Apr–Jun;23(2):92–6
Kinetic approach to the interaction of sodium n–dodecyl sulphate with heme enzymes. Gębicka L. **Int J Biol Macromol** 1999 Jan;24(1):69–74
Observation of gel–induced protein modifications in sodium dodecylsulfate [corrected] polyacrylamide gel electrophoresis and its implications for accurate molecular weight determination of gel–separated proteins by matrix–assisted laser desorption ionization time–of–flight mass spectrometry [published erratum appears in J Am Soc Mass Spectrom 1999 Aug;10(8):784] Jeannot MA, et al. **J Am Soc Mass Spectrom** 1999 Jun;10(6):512–20
Sodium dodecyl sulfate stability of HLA–DR1 complexes correlates with burial of hydrophobic residues in pocket 1. Natarajan SK, et al. **J Immunol** 1999 Mar 15; 162(6):3463–70

ISOLATION & PURIFICATION

Removal of sodium dodecyl sulfate from proteins. Kapp OH, et al. **Anal Biochem** 1978 Nov;91(1):230–5
Efficient removal of sodium dodecyl sulfate (SDS) enhances analysis of proteins by SDS–polyacrylamide gel electrophoresis coupled with matrix–assisted laser desorption/ionization time–of–flight mass spectrometry [letter] Li F, et al. **Rapid Commun Mass Spectrom** 1999; 13(5):464–5
Removal of sodium dodecyl sulfate from protein samples prior to matrix–assisted laser desorption/ionization mass spectrometry. Puchades M, et al. **Rapid Commun Mass Spectrom** 1999;13(5):344–9

METABOLISM

Determination of the binding constant of a protein kinase C substrate, NG(28–43), to sodium dodecyl sulfate via the diffusion coefficient measured by pulsed field gradient nuclear magnetic resonance. Chien WJ, et al. **Anal Biochem** 1998 Nov 15;264(2):211–5
Use of liquid chromatography–electrospray ionization–tandem mass spectrometry (LC–ESI–MS/MS) for routine identification of enzymatically digested proteins separated by sodium dodecyl sulfate–polyacrylamide gel electrophoresis. Stone KL, et al. **Electrophoresis** 1998 May; 19(6):1046–52

PHARMACOLOGY

Appearance of sodium dodecyl sulfate–stable amyloid beta–protein (Abeta) dimer in the cortex during aging. Enya M, et al. **Am J Pathol** 1999 Jan;154(1):271–9
Presence of sodium dodecyl sulfate–stable amyloid beta–protein dimers in the hippocampus CA1 not exhibiting neurofibrillary tangle formation. Funato H, et al. **Am J Pathol** 1999 Jul;155(1):23–8
A broad–spectrum microbicide with virucidal activity against sexually transmitted viruses. Howett MK, et al. **Antimicrob Agents Chemother** 1999 Feb;43(2):314–21
Overlapping between fluorescence modifications and activation of prostate transglutaminase induced by sodium dodecyl sulfate. Esposito C, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):47–54
Solubilization of liposomes by sodium dodecyl sulfate: new mechanism based on the direct formation of mixed micelles. López O, et al. **Arch Biochem Biophys** 1999 Jul 15; 367(2):153–60
Sequence–specific 1H NMR resonance assignments and secondary structure of human apolipoprotein C–I in the presence of sodium dodecyl sulfate. Rozek A, et al. **Biochem Cell Biol** 1998;76(2–3):267–75
Epidermal Langerhans cell apoptosis is induced in vivo by nonanoic acid but not by sodium lauryl sulphate. Forsey RJ, et al. **Br J Dermatol** 1998 Sep;139(3):453–61
Predictivity of an in vitro model for acute and chronic skin irritation (SkinEthic) applied to the testing of topical vehicles. de Brugerolle de Fraissinette, et al. **Cell Biol Toxicol** 1999 Apr;15(2):121–35
Biodegradation of diesel oil by cold–adapted microorganisms in presence of sodium dodecyl sulfate. Margesin R, et al. **Chemosphere** 1999 Jun;38(15):3463–72
Mechanisms of anionic detergent–induced hemolysis. Chernitsky E, et al. **Gen Physiol Biophys** 1998 Sep; 17(3):265–70
Inactivation and conformational changes of fatty acid synthase from chicken liver during unfolding by sodium dodecyl sulfate. Shi Y, et al. **Int J Biochem Cell Biol** 1998 Dec;30(12):1319–30
Influence of the level of ceramides on the permeability of stratum corneum lipid liposomes caused by a C12–betaine/sodium dodecyl sulfate mixture. Cócera M, et al. **Int J Pharm** 1999 Jun 25;183(2):165–73
Improved immunodetection of nuclear antigens after sodium dodecyl sulfate treatment of formaldehyde–fixed cells. Wilson DM 3rd, et al. **J Histochem Cytochem** 1999 Aug; 47(8):1095–100
Sodium dodecyl sulfate–resistant HLA–DR "superdimer" bands are in some cases class II heterodimers bound to antibody. Hitzel C, et al. **J Immunol** 1999 Apr 15; 162(8):4671–6
Characterization of detergent–induced barrier alterations -- effect of barrier cream on irritation. Fartasch M, et al. **J Investig Dermatol Symp Proc** 1998 Aug;3(2):121–7
Differential response of basal and tetrahydrobiopterin–stimulated activities of placental type III nitric oxide synthase to sodium dodecyl sulphate: relation to dimeric structure. Tóth M, et al. **Mol Hum Reprod** 1998 Dec;4(12):1165–72
Survival of scrapie agent after exposure to sodium dodecyl sulphate and heat. Taylor DM, et al. **Vet Microbiol** 1999 Jun 1;67(1):13–6
[Parameters of hemolysis by sodium dodecyl sulfate as an indicator of the structural states of erythrocyte membranes] Chernitskii EA, et al. **Biofizika** 1999 Jan–Feb;44(1):66–9 (Eng. Abstr.) **(Rus)**

TOXICITY

In vitro correlation between two colorimetric assays and the pyruvic acid consumption by fibroblasts cultured to determine the sodium laurylsulfate cytotoxicity. Verhulst C, et al. **J Pharmacol Toxicol Methods** 1998 Apr; 39(3):143–6

SODIUM DODECYL SULFATE–PAGE see **ELECTROPHORESIS, POLYACRYLAMIDE GEL**

SODIUM ETIDRONATE see **ETIDRONATE DISODIUM**

SODIUM FLUORESCEIN see **FLUORESCEIN**

SODIUM FLUORIDE

Hydrolysis of alpha–tricalcium phosphate in NaF solutions. TenHuisen KS, et al. **Biomaterials** 1999 Mar;20(5):427–34
[Dibucaine number (DN) and fluoride number (FN) of L330 I mutant recombinant cholinesterase by use of various substrates] Akizuki S, et al. **Rinsho Byori** 1999 May; 47(5):479–80 (Eng. Abstr.) **(Jpn)**

ADMINISTRATION & DOSAGE

Effect of professional flossing with NaF or SnF2 gel on approximal caries in 13–16–year–old schoolchildren. Gisselsson H, et al. **Acta Odontol Scand** 1999 Apr; 57(2):121–5
Using fluoride varnish in the practice. Blinkhorn A, et al. **Br Dent J** 1998 Sep 26;185(6):280–1
[The evaluation of the effect of sodium fluoride concentration on the mechanical strength of the femoral bone in growing rats] Bohatyrewicz A. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):285–92 (Eng. Abstr.) **(Pol)**

ANALYSIS

[The evaluation of the effect of sodium fluoride concentration on the mechanical strength of the femoral bone in growing

rats] Bohatyrewicz A. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):285–92 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Chemical rescue of the catalytically disabled clostridial glutamate dehydrogenase mutant D165S by fluoride ion. Hayden BM, et al. **Biochem J** 1999 Jun 1;340 (Pt 2):555–60

DIAGNOSTIC USE

[Positron-emission tomography of the skeletal system using 18FNa: the incidence, pattern of the findings and distribution of benign changes] Schirrmeister H, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):310–4 (Eng. Abstr.) **(Ger)**

METABOLISM

Retention of fluoride/triclosan in plaque following different modes of administration. Furuichi Y, et al. **J Clin Periodontol** 1999 Jan;26(1):14–8

PHARMACOKINETICS

In situ fluoride retention in enamel and dentine after the use of an amine fluoride dentifrice and amine fluoride/sodium fluoride mouthrinse. van Strijp AA, et al. **Caries Res** 1999; 33(1):61–5

PHARMACOLOGY

Stabilization of the enzyme--substrate complex of the mutant Asp-67Asn inorganic pyrophosphatase from Escherichia coli by fluoride ions. Avaeva SM, et al. **Biochemistry (Mosc)** 1999 Feb;64(2):169–74

A new mechanism of action of fluoride on streptococci. Cox SD, et al. **Biochim Biophys Acta** 1999 Aug 5; 1428(2–3):415–23

Relationship between NaF- and thapsigargin-induced endothelium-dependent hyperpolarization in rat mesenteric artery. Fukao M, et al. **Br J Pharmacol** 1999 Apr; 126(7):1567–74

Fluoride augments the mitogenic and antigenic response of human blood lymphocytes in vitro. Loftenius A, et al. **Caries Res** 1999;33(2):148–55

Cytotoxicity of sodium fluoride on human oral mucosal fibroblasts and its mechanisms. Jeng JH, et al. **Cell Biol Toxicol** 1998 Dec;14(6):383–9

Pitfalls when determining tissue distributions of organophosphorus chemicals: sodium fluoride accelerates chemical degradation. Moriya F, et al. **J Anal Toxicol** 1999 May-Jun;23(3):210–5

A simple assay for measuring cellobiose dehydrogenase activity in the presence of laccase. Baminger U, et al. **J Microbiol Methods** 1999 Apr;35(3):253–9

h1- and h2-calponins are not essential for norepinephrine- or sodium fluoride-induced contraction of rat aortic smooth muscle. Nigam R, et al. **J Muscle Res Cell Motil** 1998 Aug;19(6):695–703

Short exposure of polymorphonuclear leucocytes to sodium fluoride suppresses the response to fMLP. Knoll-Köhler E, et al. **J Trace Elem Med Biol** 1999 Jul;13(1–2):68–75

[The effect of sodium fluoride on selected biochemical markers of bone turnover in ovariectomized rats] Bohatyrewicz A. **Pol Merkuriusz Lek** 1998 Oct;5(28):192–4 (Eng. Abstr.) **(Pol)**

THERAPEUTIC USE

Effect of NaF-, SnF2-, and chlorhexidine-impregnated birch toothpicks on mutans streptococci and pH in approximal dental plaque. Kashani H, et al. **Acta Odontol Scand** 1998 Aug;56(4):197–201

Effects of mouth rinses with xylitol and fluoride on dental plaque and saliva. Giertsen E, et al. **Caries Res** 1999; 33(1):23–31

Effect of toothpicks with and without fluoride on De- and remineralization of enamel and dentine in situ. Kashani H, et al. **Caries Res** 1998;32(6):422–7

Caries prevention with fluoride varnish in a socially deprived community. Zimmer S, et al. **Community Dent Oral Epidemiol** 1999 Apr;27(2):103–8

Approximal caries development following intensive fluoride mouthrinsing in teenagers. A 3-year radiographic study [published erratum appears in Eur J Oral Sci 1999 Apr;107(2):154] Petersson LG, et al. **Eur J Oral Sci** 1998 Dec;106(6):1048–51

Cariostatic effects of a xylitol/NaF dentifrice in vivo. Gaffar A, et al. **Int Dent J** 1998 Feb;48(1):32–9

In postmenopausal osteoporosis the bone increasing effect of monofluorophosphate is not dependent on serum fluoride. Rigalli A, et al. **Medicina (B Aires)** 1999; 59(2):157–61

The relationships among fluoride, cariogenic oral flora, and salivary flow rate during radiation therapy. Epstein JB, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1998 Sep;86(3):286–92

Effects of different regimens of sodium fluoride treatment for osteoporosis on the structure, remodeling and mineralization of bone. Balena R, et al. **Osteoporos Int** 1998; 8(5):428–35

[Fragility of scientifically acquired data. The example of fluoride salts in osteoporosis] Villani P, et al. **Presse Med** 1998 Feb 28;27(8):361–2 (Eng. Abstr.) **(Fre)**

TOXICITY

Inflammatory responses of rat alveolar macrophages following exposure to fluoride. Hirano S, et al. **Arch Toxicol** 1999 Aug;73(6):310–5

Mechanism of toxic action of fluoride in dental fluorosis: whether trimeric G proteins participate in the disturbance of intracellular transport of secretory ameloblast exposed to fluoride. Matsuo S, et al. **Arch Toxicol** 1998 Dec; 72(12):798–806

Usefulness of the assessment of urinary enzyme leakage in monitoring acute fluoride nephrotoxicity. Usuda K, et al. **Arch Toxicol** 1999 Aug;73(6):346–51

Testing the potential of sodium fluoride to affect spermatogenesis: a morphometric study. Sprando RL, et al. **Food Chem Toxicol** 1998 Dec;36(12):1117–24

Influence of chronic fluorosis on membrane lipids in rat brain. Guan ZZ, et al. **Neurotoxicol Teratol** 1998 Sep-Oct; 20(5):537–42

SODIUM GAMMA-HYDROXYBUTYRATE see **SODIUM OXYBATE**

SODIUM-GLUCOSE TRANSPORT SYSTEM see **MONOSACCHARIDE TRANSPORT PROTEINS**

SODIUM GLUTAMATE

Development and genetics of glutamate taste preference. Beauchamp GK, et al. **Ann N Y Acad Sci** 1998 Nov 30; 855:412–6

Effects of monosodium glutamate on human food palatability. Bellisle F. **Ann N Y Acad Sci** 1998 Nov 30;855:438–41

The taste of monosodium glutamate (MSG), L-aspartic acid, and N-methyl-D-aspartate (NMDA) in rats: are NMDA receptors involved in MSG taste? Stapleton JR, et al. **Chem Senses** 1999 Aug;24(4):449–57

ADVERSE EFFECTS

[L-tryptophan-induced eosinophilia-myalgia syndrome, Chinese restaurant syndrome] Terao T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):650–3 (11 ref.) **(Jpn)**

IMMUNOLOGY

Monosodium glutamate sensitivity in asthma. Woessner KM, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):305–10

METABOLISM

Effects of ionic compositions of the medium on monosodium glutamate binding to taste epithelial cells. Hayashi Y, et al. **Biosci Biotechnol Biochem** 1999 Mar;63(3):480–4

PHARMACOKINETICS

Portal hyperglutamatemia after dietary supplementation with monosodium glutamate in pigs. Blachier F, et al. **Digestion** 1999 Jul-Aug;60(4):349–57

PHARMACOLOGY

Responses to monosodium glutamate and guanosine 5'-monophosphate in rat fungiform taste cells. Lin W, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:407–11

Improved postfixation treatment of glutaraldehyde fixed porcine aortic valves by monosodium glutamate. Liao K, et al. **Artif Organs** 1992 Jun;16(3):267–72

Temporospatial characteristics of light-induced fos immunoreactivity in suprachiasmatic nuclei are not modified in Syrian hamsters treated neonatally with monosodium glutamate. Chambille I. **Brain Res** 1998 Oct 19;808(2):250–61

Single-unit activity of dorsomedial arcuate neurons and diurnal changes of tuberoinfundibular dopaminergic neuron activity in female rats with neonatal monosodium glutamate treatment. Lin JY, et al. **Brain Res Bull** 1999 Jan 1; 48(1):103–8

Involvement of medullary tail-flick related neurons in descending facilitation evoked by chemical stimulation of rat lateral habenular nucleus. Huang LX, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jan;19(1):20–3

Effect of neonatal treatment with MSG (monosodium glutamate) on thyroid of the adult male rats. Miskowiak B, et al. **Histol Histopathol** 1999 Jan;14(1):63–7

Lectinhistochemistry and ultrastructure of microglial response to monosodium glutamate-mediated neurotoxicity in the arcuate nucleus. Peláez B, et al. **Histol Histopathol** 1999 Jan;14(1):165–74

Effect of neonatal exposure to monosodium L-glutamate on regional GABA release during postnatal development. Beas-Zárate C, et al. **Neurochem Int** 1998 Sep;33(3):217–32

Taste dimensions of monosodium glutamate (MSG) in a food system: role of glutamate in young American subjects. Okiyama A, et al. **Physiol Behav** 1998 Aug;65(1):177–81

The neuropeptide Y/agouti gene-related protein (AGRP) brain circuitry in normal, anorectic, and monosodium glutamate-treated mice. Broberger C, et al. **Proc Natl Acad Sci U S A** 1998 Dec 8;95(25):15043–8

Enhancement of pentylenetetrazol-induced kindling in mice treated neonatally with monosodium glutamate. Castellanos CA, et al. **Proc West Pharmacol Soc** 1998;41:53–4

[Effects of microinjection of sodium glutamate and glycine into ventrolateral nucleus of tractus solitarius on the discharges of phrenic nerve in rabbits] Liu SX, et al. **Sheng Li Hsueh Pao** 1997 Apr;49(2):227–9 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Postnatal monosodium glutamate treatment results in attenuation of corticosterone metabolic rate in adult rats. Macho L, et al. **Endocr Regul** 1999 Jun;33(2):61–7

TOXICITY

Nerve growth factors prevent glutamate toxicity in cortical neuronal cultures. Lin L, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):221–4

The effect of acute cold exposure and norepinephrine on uncoupling protein gene expression in brown adipose tissue of monosodium glutamate-obese mice. Tsukahara F, et al. **Jpn J Pharmacol** 1998 Jul;77(3):247–9

[Experimental study on the influence of sodium glutamate on embryonal brain development of mouse] Xu C, et al. **Wei Sheng Yen Chiu** 1997 Sep;26(5):315–7 (Eng. Abstr.) **(Chi)**

SODIUM GOLD THIOMALATE see **GOLD SODIUM THIOMALATE**

SODIUM GOLD THIOSULFATE see **GOLD SODIUM THIOSULFATE**

SODIUM-HYDROGEN ANTIPORTER

The acid test: Na+/H+ exchange and its inhibitors in acute myocardial ischaemia. Avkiran M. **Eur Heart J** 1999 Jul; 20(14):995–6

ANALYSIS

Demonstration of a Na(+)/H(+) exchanger NHE1 in fresh bovine corneal endothelial cell basolateral plasma membrane. Rimmer SJ, et al. **Biochim Biophys Acta** 1999 Jul 15;1419(2):283–8

Production and characterization of monoclonal antibodies directed against native epitopes of NhaA, the Na+/H+ antiporter of Escherichia coli. Padan E, et al. **FEBS Lett** 1998 Dec 11;441(1):53–8

Identification of mRNA transcripts and immunohistochemical localization of Na/H exchanger isoforms in gerbil inner ear. Bond BR, et al. **Hear Res** 1998 Sep;123(1–2):1–9

Basolateral Na(+)/HCO(3)(-) cotransport activity is regulated by the dissociable Na(+)/H(+) exchanger regulatory factor. Bernardo AA, et al. **J Clin Invest** 1999 Jul;104(2):195–201

A mechanism for branchial acid excretion in marine fish: identification of multiple Na+/H+ antiporter (NHE) isoforms in gills of two seawater teleosts. Claiborne JB, et al. **J Exp Biol** 1999 Feb;202 (Pt 3):315–24

ANTAGONISTS & INHIBITORS

Rational basis for use of sodium-hydrogen exchange inhibitors in myocardial ischemia. Avkiran M. **Am J Cardiol** 1999 May 20;83(10A):10G–17G; discussion 17G–18G (64 ref.)

Sodium-hydrogen exchange inhibition: novel strategy to prevent myocardial injury following ischemia and reperfusion. Buerke M, et al. **Am J Cardiol** 1999 May 20; 83(10A):19G–22G (35 ref.)

GUARD During Ischemia Against Necrosis (GUARDIAN) trial in acute coronary syndromes. Erhardt LR. **Am J Cardiol** 1999 May 20;83(10A):23G–25G

Protection of the myocardial cell during ischemia. Théroux P. **Am J Cardiol** 1999 May 20;83(10A):3G–9G (29 ref.)

A symposium: sodium-hydrogen exchange inhibition. Introduction. Théroux P. **Am J Cardiol** 1999 May 20; 83(10A):1G–2G

Squalamine, a novel cationic steroid, specifically inhibits the brush-border Na+/H+ exchanger isoform NHE3. Akhter S, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C136–44

Orally administered NHE1 inhibitor cariporide reduces acute responses to coronary occlusion and reperfusion. Humphreys RA, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H749–57

Inhibition of Na+/H+ exchange stimulates CCK secretion in STC-1 cells. Prpic V, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G689–95

Blockade of AT(1) receptors and Na(+)/H(+) exchanger and LV dysfunction after myocardial infarction in rats. Ruzicka M, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H610–6

Effects of MS-31-038, a novel Na(+)-H+ exchange inhibitor, on the myocardial infarct size in rats after postischemic administration. Banno H, et al. **Arzneimittelforschung** 1999 Apr;49(4):304–10

Ultrastructural study of calcium shift in ischemic/reperfused rat heart under treatment with dimethylthiourea, diltiazem and amiloride. Czarnowska E, et al. **Basic Res Cardiol** 1998 Aug;93(4):269–75

Effects and interaction, of cariporide and preconditioning on cardiac arrhythmias and infarction in rat in vivo. Aye NN, et al. **Br J Pharmacol** 1999 Jun;127(4):1048–55

Methyl isobutyl amiloride alters regional brain reperfusion after resuscitation from cardiac arrest in rats. Lauro KL, et al. **Brain Res** 1999 Jun 12;831(1-2):64-71

5-(N-Ethyl-N-isopropyl)-amiloride inhibits amino acid release from the ischemic rat cerebral cortex: role of Na+-H+ exchange. Phillis JW, et al. **Brain Res** 1998 Nov 23;812(1-2):297-300

5-(N-Ethyl-N-isopropyl)-amiloride, an Na(+)-H(+) exchange inhibitor, protects gerbil hippocampal neurons from ischemic injury. Phillis JW, et al. **Brain Res** 1999 Aug 21;839(1):199-202

Hydrogen peroxide induced impairment of post-ischemic ventricular function is prevented by the sodium-hydrogen exchange inhibitor HOE 642 (cariporide). Myers ML, et al. **Cardiovasc Res** 1998 Nov;40(2):290-6

Synthesis and quantitative structure-activity relationships of N-(3-oxo-3,4-dihydro-2H-benzo[1,4]oxazine-6-carbonyl) guanidines as Na/H exchange inhibitors. Yamamoto T, et al. **Chem Pharm Bull (Tokyo)** 1998 Nov;46(11):1716-23

Dose-dependent reduction of myocardial infarct mass in rabbits by the NHE-1 inhibitor cariporide (HOE 642). Linz W, et al. **Clin Exp Hypertens** 1998 Oct;20(7):733-49

The acid test: Na+/H+ exchange and its inhibitors in acute myocardial ischaemia. Avkiran M. **Eur Heart J** 1999 Jul; 20(14):995-6

Orthotopic transplantation of pig hearts harvested after 30 min of normothermic ischemia: controlled reperfusion with blood cardioplegia containing the Na+-H+-exchange inhibitor HOE 642. Martin J, et al. **Eur J Cardiothorac Surg** 1998 Dec;14(6):607-14

A Na+-H+ exchange inhibitor (SM-20550) protects from microvascular deterioration and myocardial injury after reperfusion. Ito Y, et al. **Eur J Pharmacol** 1999 Jun 25; 374(3):355-66

Lack of effects of the Na+/H+ exchanger inhibitor, cariporide against myocardial stunning in exercise-induced ischemia in dogs. Parent de Curzon O, et al. **Fundam Clin Pharmacol** 1998;12(6):646-8

The role of NHERF and E3KARP in the cAMP-mediated inhibition of NHE3. Lamprecht G, et al. **J Biol Chem** 1998 Nov 6;273(45):29972-8

Acute inhibition of Na/H exchanger NHE-3 by cAMP. Role of protein kinase a and NHE-3 phosphoserines 552 and 605. Zhao H, et al. **J Biol Chem** 1999 Feb 12;274(7):3978-87

cAMP-induced phosphorylation and inhibition of Na(+)/H(+) exchanger 3 (NHE3) are dependent on the presence but not the phosphorylation of NHE regulatory factor. Zizak M, et al. **J Biol Chem** 1999 Aug 27; 274(35):24753-8

Cariporide, a highly selective Na+/H+ exchange inhibitor, suppresses the reperfusion-induced lethal arrhythmias and "overshoot" phenomenon of creatine phosphate in situ rat heart. Sugiyama A, et al. **J Cardiovasc Pharmacol** 1999 Jan; 33(1):116-21

Na-H exchange inhibition with cariporide limits functional impairment caused by repetitive ischemia. Symons JD, et al. **J Cardiovasc Pharmacol** 1998 Dec;32(6):853-62

New drugs for the Na+/H+ exchanger. Influence of Na+ concentration and determination of inhibition constants with a microphysiometer. Fischer H, et al. **J Membr Biol** 1999 Mar 1;168(1):39-45

Inhibition of Na+-H+ exchanger protects diabetic and non-diabetic hearts from ischemic injury: insight into altered susceptibility of diabetic hearts to ischemic injury. Ramasamy R, et al. **J Mol Cell Cardiol** 1999 Apr; 31(4):785-97

Sensitization to hyperthermia by intracellular acidification of C6 glioma cells. Kitai R, et al. **J Neurooncol** 1998 Sep; 39(3):197-203

Mechanisms of protection of the ischemic and reperfused myocardium by sodium-hydrogen exchange inhibition. Karmazyn M. **J Thromb Thrombolysis** 1999 Jul;8(1):33-8 (38 ref.)

Protection of the myocardium with sodium-hydrogen exchange inhibitors: A cardiac surgical perspective. Myers ML. **J Thromb Thrombolysis** 1999 Jul;8(1):53-60 (49 ref.)

Development of the Na+/H+ exchange inhibitor cariporide as a cardioprotective drug: from the laboratory to the GUARDIAN trial. Scholz W, et al. **J Thromb Thrombolysis** 1999 Jul;8(1):61-70 (27 ref.)

S3226, a novel inhibitor of Na+/H+ exchanger subtype 3 in various cell types. Schwark JR, et al. **Pflugers Arch** 1998 Oct;436(5):797-800

Selective inhibition of the Na+/H+ exchanger type 3 activates CO2/H+-sensitive medullary neurones. Wiemann M, et al. **Pflugers Arch** 1999 Aug;438(3):255-62

Drugs preventing Na+ and Ca2+ overload. Ravens U, et al. **Pharmacol Res** 1999 Mar;39(3):167-74 (50 ref.)

BIOSYNTHESIS

Modulation of Na+/H+ exchange isoform 1 mRNA expression in isolated rat hearts. Gan XT, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):H993-8

Immunochemical characterization of Na+/H+ exchanger isoform NHE4. Pizzonia JH, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 2):F510-7

Redistribution of Na+/H+ exchanger isoform NHE3 in proximal tubules induced by acute and chronic hypertension. Yip KP, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):F565-75

Expression of the Na(+)-H+ exchanger isoform-1 and cyclooxygenases in human placentas: their implications in preeclampsia. Khan I, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):715-22

H(+)/solute-induced intracellular acidification leads to selective activation of apical Na(+)/H(+) exchange in human intestinal epithelial cells. Thwaites DT, et al. **J Clin Invest** 1999 Sep;104(5):629-35

Physiological consequences of expression of the Na+/H+ antiporter sod2 in Escherichia coli. Dibrov P, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):125-32

BLOOD

NHE-1 is the sodium-hydrogen exchanger isoform present in erythroid cells. Sarangarajan R, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1-2):56-62

Mobilization of intracellular Ca2+ modulates activation of Na+/H+ exchange in thrombin-stimulated platelets. Zeng S, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Mar;19(2):151-4

Platelet sodium/hydrogen exchanger activity in normotensives and hypertensives. Sagnella GA, et al. **Clin Chim Acta** 1999 May;283(1-2):105-18

Asn49 is the unique glycosylation site of the trout red blood cell Na+/H+ exchanger. Malapert M, et al. **Eur J Biochem** 1998 Oct 1;257(1):228-35

Enhanced Na+/H+ exchange in Cushing's syndrome reflects functional hypermineralocorticoidism. Koren W, et al. **J Hypertens** 1998 Aug;16(8):1187-91

Sodium pump and Na+/H+ antiport restoration in erythrocytes from cancer patients in remission. Kovacic HN, et al. **Oncol Res** 1998;10(6):333-9

CHEMISTRY

NHE2 contains subdomains in the COOH terminus for growth factor and protein kinase regulation. Nath SK, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C873-82

Regulation and characterization of the Na+/H+ exchanger. Fliegel L, et al. **Biochem Cell Biol** 1998;76(5):735-41 (79 ref.)

Expression, purification, and characterization of the carboxyl-terminal region of the Na+/H+ exchanger. Gebreselassie D, et al. **Biochem Cell Biol** 1998;76(5):837-42

Na+/H+ exchanger: proton modifier site regulation of activity. Kinsella JL, et al. **Biochem Cell Biol** 1998; 76(5):743-9 (22 ref.)

Proline-rich motifs of the Na+/H+ exchanger 2 isoform. Binding of Src homology domain 3 and role in apical targeting in epithelia. Chow CW, et al. **J Biol Chem** 1999 Apr 9;274(15):10481-8

A pH-dependent conformational change of NhaA Na(+)/H(+) antiporter of Escherichia coli involves loop VIII-IX, plays a role in the pH response of the protein, and is maintained by the pure protein in dodecyl maltoside. Gerchman Y, et al. **J Biol Chem** 1999 Aug 27; 274(35):24617-24

NHE3 kinase A regulatory protein E3KARP binds the epithelial brush border Na+/H+ exchanger NHE3 and the cytoskeletal protein ezrin. Yun CH, et al. **J Biol Chem** 1998 Oct 2;273(40):25856-63

DRUG EFFECTS

Short-term effects of thyroid hormones on the Na/H antiport in L-6 myoblasts: high molecular specificity for 3,3',5-triiodo-L-thyronine. Incerpi S, et al. **Endocrinology** 1999 Feb;140(2):683-9

Amiloride-insensitive Na+-H+ exchange: a candidate mediator of erythrocyte Na+-Li+ countertransport. Zerbini G, et al. **J Am Soc Nephrol** 1998 Dec;9(12):2203-11

Sodium ion/hydrogen ion exchange inhibition: a new pharmacologic approach to myocardial ischemia and reperfusion injury. Levitsky J, et al. **J Clin Pharmacol** 1998 Oct;38(10):887-97 (74 ref.)

Rapid effects of aldosterone on sodium-hydrogen exchange in isolated colonic crypts. Winter DC, et al. **J Membr Biol** 1999 Jul 1;170(1):17-26

Epidermal growth factor protects rat epithelial cells against acid-induced damage through the activation of Na+/H+ exchangers. Furukawa O, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):620-6

GENETICS

Targeted disruption of the murine Nhe1 locus induces ataxia, growth retardation, and seizures. Bell SM, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C788-95

Thyroid hormone stimulates the renal Na/H exchanger NHE3 by transcriptional activation. Cano A, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C102-8

Increased NHE2 expression in rat intestinal epithelium during ontogeny is transcriptionally mediated. Collins JF, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):C1143-50

Cloning and expression of the Na+/H+ exchanger from Amphiuma RBCs: resemblance to mammalian NHE1. McLean LA, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1025-37

Molecular cloning, tissue distribution, and functional expression of the human Na(+)/H(+) exchanger NHE2. Malakooti J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G383-90

Mechanism of proximal tubule bicarbonate absorption in NHE3 null mice. Wang T, et al. **Am J Physiol** 1999 Aug; 277(2 Pt 2):F298-302

Expression of a mammalian Na+/H+ antiporter in Saccharomyces cerevisiae. Montero-Lomeli M, et al. **Biochem Cell Biol** 1999;77(1):25-31

Molecular cloning and expression of the Na+/H+ exchanger gene in Oryza sativa. Fukuda A, et al. **Biochim Biophys Acta** 1999 Jul 7;1446(1-2):149-55

Analyses of a Bacillus subtilis homologue of the Na+/H+ antiporter gene which is important for pH homeostasis of alkaliphilic Bacillus sp. C-125. Kosono S, et al. **Biochim Biophys Acta** 1999 Jan 5;1409(3):171-5

Molecular cloning and characterization of the rat NHE-2 gene promoter. Muller YL, et al. **Biochim Biophys Acta** 1998 Nov 8;1442(2-3):314-9

Molecular cloning of NHE3 from LLC-PK1 cells and localization in pig kidney. Shugrue CA, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1649-57

Molecular cloning and functional expression of a rat Na+/H+ exchanger (NHE5) highly expressed in brain. Attaphitaya S, et al. **J Biol Chem** 1999 Feb 12;274(7):4383-8

Molecular cloning, genomic organization, and functional expression of Na+/H+ exchanger isoform 5 (NHE5) from human brain. Baird NR, et al. **J Biol Chem** 1999 Feb 12; 274(7):4377-82

Expression of transfected human Na+/H+ exchanger (NHE-1) in the the basolateral membrane of opossum kidney cells. Takaichi K, et al. **J Cell Physiol** 1999 Jan; 178(1):44-50

Regulation of the Na/H exchanger regulatory factor in OK cells. Weinman EJ, et al. **Miner Electrolyte Metab** 1999 May-Jun;25(3):135-42

Effects of genome position and the DNA damage checkpoint on the structure and frequency of sod2 gene amplification in fission yeast. Patterson TE, et al. **Mol Biol Cell** 1999 Jul;10(7):2199-208

Physiological consequences of expression of the Na+/H+ antiporter sod2 in Escherichia coli. Dibrov P, et al. **Mol Cell Biochem** 1998 Jun;183(1-2):125-32

Expression, functional characterization and tissue distribution of a Na+/H+ exchanger cloned from Xenopus laevis oocytes (XL-NHE). Busch S, et al. **Pflugers Arch** 1998 Nov;436(6):828-33

Taking transgenic plants with a pinch of salt [comment] Frommer WB, et al. **Science** 1999 Aug 20;285(5431):1222-3 . Comment on: Science 1999 Aug 20;285(5431):1256-8.

Characterization of a second gene (ZSOD22) of Na+/H+ antiporter from salt-tolerant yeast Zygosaccharomyces rouxii and functional expression of ZSOD2 and ZSOD22 in Saccharomyces cerevisiae. Iwaki T, et al. **Yeast** 1998 Sep 30;14(13):1167-74

IMMUNOLOGY

Production and characterization of monoclonal antibodies directed against native epitopes of NhaA, the Na+/H+ antiporter of Escherichia coli. Padan E, et al. **FEBS Lett** 1998 Dec 11;441(1):53-8

ISOLATION & PURIFICATION

Expression, purification, and characterization of the carboxyl-terminal region of the Na+/H+ exchanger. Gebreselassie D, et al. **Biochem Cell Biol** 1998;76(5):837-42

METABOLISM

Modulation of Na+ x H+ exchange by hydrostatic pressure in isolated bovine articular chondrocytes. Browning JA, et al. **Acta Physiol Scand** 1999 May;166(1):39-45

Human esophageal epithelial cells possess an Na+/H+ exchanger for H+ extrusion. Tobey NA, et al. **Am J Gastroenterol** 1998 Nov;93(11):2075-81

Can we use erythrocytes for the study of the activity of the ubiquitous Na+/H+ exchanger (NHE-1) in essential hypertension? Orlov SN, et al. **Am J Hypertens** 1998 Jul; 11(7):774-83

ATP dependence is not an intrinsic property of Na+/H+ exchanger NHE1: requirement for an ancillary factor. Aharonovitz O, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):C1303-11

Incubation of OKP cells in low-K+ media increases NHE3 activity after early decrease in intracellular pH. Amemiya M, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C711-6

Different acid secretagogues activate different Na+/H+ exchanger isoforms in rabbit parietal cells. Bachmann O, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):G1085-93

Shrinkage-induced activation of Na+/H+ exchange in rat renal mesangial cells. Bevensee MO, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C674-83

A unique Na+/H+ exchanger, analogous to NHE1, in the chicken embryonic fibroblast. Bhartur SG, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R838-46

Thyroid hormone stimulates the renal Na/H exchanger NHE3 by transcriptional activation. Cano A, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C102-8

In birds, NHE2 is major brush-border Na+/H+ exchanger in colon and is increased by a low-NaCl diet. Donowitz M, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):R1659-69

Expression of the Na+/H+ and Cl-/HCO-3 exchanger isoforms in proximal and distal human airways. Dudeja PK, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):L971-8

Differential regulation of NHE isoforms by sodium depletion in proximal and distal segments of rat colon. Ikuma M, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G539-49

Development of an endogenous epithelial Na(+)/H(+) exchanger (NHE3) in three clones of caco-2 cells. Janecki

AJ, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G292-305
Molecular cloning, tissue distribution, and functional expression of the human Na(+)/H(+) exchanger NHE2. Malakooti J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):G383-90
HCO-3 reabsorption in renal collecting duct of NHE-3-deficient mouse: a compensatory response. Nakamura S, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):F914-21
NHE2 contains subdomains in the COOH terminus for growth factor and protein kinase regulation. Nath SK, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C873-82
Changes in intracellular Na+ and pH in rat heart during ischemia: role of Na+/H+ exchanger. Park CO, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1581-90
Expression of multiple Na+/H+ exchanger isoforms in rat parotid acinar and ductal cells. Park K, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):G470-8
ETB receptor activation leads to activation and phosphorylation of NHE3. Peng Y, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C938-45
Subcellular localization of the Na+/H+ exchanger NHE1 in rat myocardium. Petrecca K, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H709-17
Role of Cl channels in Cl-dependent Na/H exchange. Rajendran VM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G73-8
Neonatal rabbit proximal tubule basolateral membrane Na+/H+ antiporter and Cl-/base exchange. Shah M, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1792-7
Functional polarity of Na+/H+ and Cl-/HCO3- exchangers in a rat cholangiocyte cell line. Spirli C, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):G1236-45
Acute regulation of Na/H exchanger NHE3 activity by protein kinase C: role of NHE3 phosphorylation. Wiederkehr MR, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1205-17
In vivo PTH provokes apical NHE3 and NaPi2 redistribution and Na-K-ATPase inhibition. Zhang Y, et al. **Am J Physiol** 1999 May;276(5 Pt 2):F711-9
Halothane stimulates a Na+H+ antiporter involved in the regulation of intracellular pH in alveolar epithelial cells. Juvin P, et al. **Anesth Analg** 1999 Aug;89(2):480-3
Calcium-calmodulin modulation of the activity of Na+/H+ exchanger in human platelets. Gende OA. **Arch Physiol Biochem** 1998 Jul;106(3):221-7
Sphingosylphosphorylcholine activates Gq, Gi-2, and Gi-3 in thyroid FRTL-5 cells: implications for the activation of calcium fluxes and Na+-H+ exchange. Nikmo A, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):812-5
Interferon-gamma, bacterial lipopolysaccharide, and tumor necrosis factor-alpha induce CD11a mRNA and protein via Na+/H+ exchange and protein kinase C-dependent mechanisms in tissue macrophages. Shackelford RE. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):635-41
Expression, purification, and characterization of the carboxyl-terminal region of the Na+/H+ exchanger. Gebreselassie D, et al. **Biochem Cell Biol** 1998;76(5):837-42
Mechanisms regulating the vascular smooth muscle Na/H exchanger (NHE-1) in diabetes. Hannan KM, et al. **Biochem Cell Biol** 1998;76(5):751-9 (85 ref.)
Na+/H+ exchanger: proton modifier site regulation of activity. Kinsella JL, et al. **Biochem Cell Biol** 1998; 76(5):743-9 (22 ref.)
Expression of a mammalian Na+/H+ antiporter in Saccharomyces cerevisiae. Montero-Lomeli M, et al. **Biochem Cell Biol** 1999;77(1):25-31
Expression of cation exchanger NHE and anion exchanger AE isoforms in primary human bone-derived osteoblasts. Mobasheri A, et al. **Cell Biol Int** 1998;22(7-8):551-62
p38 Kinase is a negative regulator of angiotensin II signal transduction in vascular smooth muscle cells: effects on Na+/H+ exchange and ERK1/2. Kusuhara M, et al. **Circ Res** 1998 Oct 19;83(8):824-31
Na+/H+ antiporter activity in hamster embryos is activated during fertilization. Lane M, et al. **Dev Biol** 1999 Apr 1; 208(1):244-52
K+-dependence of Na+-Ca2+ exchange in type I vestibular sensory cells of guinea-pig. Boyer C, et al. **Eur J Neurosci** 1999 Jun;11(6):1955-9
The role of Na+-H+ exchange in fluid and solute transport in the rat efferent ducts. Hansen LA, et al. **Exp Physiol** 1999 May;84(3):521-7
Cannabinoid receptor CB1 activates the Na+/H+ exchanger NHE-1 isoform via Gi-mediated mitogen activated protein kinase signaling transduction pathways. Bouaboula M, et al. **FEBS Lett** 1999 Apr 16;449(1):61-5
Expression of functional Na+/H+ antiporters of Helicobacter pylori in antiporter-deficient Escherichia coli mutants. Inoue H, et al. **FEBS Lett** 1999 Jan 22;443(1):11-6
The Na+ and K+ transport deficiency of an E. coli mutant lacking the NhaA and NhaB proteins is apparent and caused by impaired osmoregulation. Verkhovskaya ML, et al. **FEBS Lett** 1998 Nov 20;439(3):271-4
Involvement of Nha1 antiporter in regulation of intracellular pH in Saccharomyces cerevisiae. Sychrová H, et al. **FEMS Microbiol Lett** 1999 Feb 15;171(2):167-72
Intracellular pathways mediating Na+/H+ exchange activation by platelet-derived growth factor in rat hepatic stellate cells. Di Sario A, et al. **Gastroenterology** 1999 May; 116(5):1155-66
Expression and localization of the Na+-H+ exchanger in the guinea pig cochlea. Goto S, et al. **Hear Res** 1999 Feb; 128(1-2):89-96
Activation of the Na(+)-H+ exchanger modulates angiotensin II-stimulated Na(+)-dependent Mg2+ transport in vascular smooth muscle cells in genetic hypertension. Touyz RM, et al. **Hypertension** 1999 Sep; 34(3):442-9
Angiotensin II stimulates macula densa basolateral sodium/hydrogen exchange via type 1 angiotensin II receptors. Bell PD, et al. **J Am Soc Nephrol** 1999 Jan;10 Suppl 11:S225-9
Regulation of thick ascending limb ion transporter abundance in response to altered acid/base intake. Kim GH, et al. **J Am Soc Nephrol** 1999 May;10(5):935-42
Renal Na/H exchanger NHE-3 and Na-PO4 cotransporter NaPi-2 protein expression in glucocorticoid excess and deficient states. Loffing J, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1560-7
Molecular cloning of NHE3 from LLC-PK1 cells and localization in pig kidney. Shugrue CA, et al. **J Am Soc Nephrol** 1999 Aug;10(8):1649-57
A putative multisubunit Na+/H+ antiporter from Staphylococcus aureus. Hiramatsu T, et al. **J Bacteriol** 1998 Dec;180(24):6642-8
Specific association of megalin and the Na+/H+ exchanger isoform NHE3 in the proximal tubule. Biemesderfer D, et al. **J Biol Chem** 1999 Jun 18;274(25):17518-24
Dual mechanisms of regulation of Na/H exchanger NHE-3 by parathyroid hormone in rat kidney. Fan L, et al. **J Biol Chem** 1999 Apr 16;274(16):11289-95
Cell shrinkage regulates Src kinases and induces tyrosine phosphorylation of cortactin, independent of the osmotic regulation of Na+/H+ exchangers. Kapus A, et al. **J Biol Chem** 1999 Mar 19;274(12):8093-102
Mouse down-regulated in adenoma (DRA) is an intestinal Cl(-)/HCO(3)(-) exchanger and is up-regulated in colon of mice lacking the NHE3 Na(+)/H(+) exchanger. Melvin JE, et al. **J Biol Chem** 1999 Aug 6;274(32):22855-61
Protein kinase-mediated regulation of the Na(+)/H(+) exchanger in the rat myocardium by mitogen-activated protein kinase-dependent pathways. Moor AN, et al. **J Biol Chem** 1999 Aug 13;274(33):22985-92
A point mutation (G338S) and its suppressor mutations affect both the pH response of the NhaA-Na+/H+ antiporter as well as the growth phenotype of Escherichia coli. Rimon A, et al. **J Biol Chem** 1998 Oct 9;273(41):26470-6
p90(RSK) is a serum-stimulated Na+/H+ exchanger isoform-1 kinase. Regulatory phosphorylation of serine 703 of Na+/H+ exchanger isoform-1. Takahashi E, et al. **J Biol Chem** 1999 Jul 16;274(29):20206-14
Nerve growth factor inhibits HCO3- absorption in renal thick ascending limb through inhibition of basolateral membrane Na+/H+ exchange. Watts BA 3rd, et al. **J Biol Chem** 1999 Mar 19;274(12):7841-7
Dual effect of cicletanine on the Na+-H+ exchanger in chick embryonic cardiomyocytes. Samain E, et al. **J Cardiovasc Pharmacol** 1999 Jan;33(1):169-72
Cellular uptake of chloroquine is dependent on binding to ferriprotoporphyrin IX and is independent of NHE activity in Plasmodium falciparum. Bray PG, et al. **J Cell Biol** 1999 Apr 19;145(2):363-76
Glucocorticoids enhance acid activation of the Na+/H+ exchanger 3 (NHE3). Ambühl PM, et al. **J Clin Invest** 1999 Feb;103(3):429-35
Intracellular pH regulation of CA1 neurons in Na(+)/H(+) isoform 1 mutant mice. Yao H, et al. **J Clin Invest** 1999 Sep;104(5):637-45
The Na+/H+ exchanger modulates the fibrogenic effect of oxidative stress in rat hepatic stellate cells. Svegliati-Baroni G, et al. **J Hepatol** 1999 May;30(5):868-75
Effect of protein kinase C and insulin on Na+/H+ exchange in red blood cells of essential hypertensives. Ceolotto G, et al. **J Hum Hypertens** 1999 May;13(5):321-7
Regulation of intestinal epithelial brush border Na(+)/H(+) exchanger isoforms, NHE2 and NHE3, in C2bbe cells. Bookstein C, et al. **J Membr Biol** 1999 Sep 1;171(1):87-95
Difference in the mechanisms for compensating ischemic acidosis in diabetic rat hearts. Kusuoka H, et al. **J Mol Cell Cardiol** 1998 Aug;30(8):1643-9
Abnormal expression of brush-border membrane transporters in the duodenal mucosa of two patients with microvillus inclusion disease. Michail S, et al. **J Pediatr Gastroenterol Nutr** 1998 Nov;27(5):536-42
Na+-Ca2+ exchange and its implications for calcium homeostasis in primary cultured rat brain microvascular endothelial cells. Dömötör E, et al. **J Physiol (Lond)** 1999 Feb 15;515 (Pt 1):147-55
Membrane-limited expression and regulation of Na+-H+ exchanger isoforms by P2 receptors in the rat submandibular gland duct. Lee MG, et al. **J Physiol (Lond)** 1998 Dec 1;513 (Pt 2):341-57
Contribution of Na+-H+ exchange to sodium reabsorption in the loop of henle: a microperfusion study in rats. Shirley DG, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):243-9
Regulation of macula densa Na:H exchange by angiotensin II. Peti-Peterdi J, et al. **Kidney Int** 1998 Dec;54(6):2021-8
Regulation of the Na+/H+ antiporter in patients with mild chronic renal failure: effect of glucose. Tepel M, et al. **Kidney Int** 1999 Jul;56(1):172-80
Insulin-dependent diabetic sibling pairs are concordant for sodium-hydrogen antiport activity. Trevisan R, et al. **Kidney Int** 1999 Jun;55(6):2383-9
Regulation of intracellular pH in capacitated human spermatozoa by a Na+/H+ exchanger. Garcia MA, et al. **Mol Reprod Dev** 1999 Feb;52(2):189-95
Anoxia-evoked intracellular pH and Ca2+ concentration changes in cultured postnatal rat hippocampal neurons. Diarra A, et al. **Neuroscience** 1999;93(3):1003-16
The molecular mechanism of regulation of the NhaA Na+/H+ antiporter of Escherichia coli, a key transporter in the adaptation to Na+ and H+. Padan E, et al. **Novartis Found Symp** 1999;221:183-96; discussion 196-9 (57 ref.)
Na(+)-H(+) exchange in salivary secretory cells is controlled by an intracellular Na(+) receptor. Ishibashi H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17; 96(17):9949-53
Salt tolerance conferred by overexpression of a vacuolar Na+/H+ antiport in Arabidopsis [see comments] Apse MP, et al. **Science** 1999 Aug 20;285(5431):1256-8. Comment in: Science 1999 Aug 20;285(5431):1222-3.
[Effect of angiotensin ii on Na+/H+ exchangers of the renal tubule] Poggioli J, et al. **Nephrologie** 1998;19(7):421-5 (56 ref.) (Eng. Abstr.) **(Fre)**
[Effect of phenylephrine, endothelin and angiotensin II on reperfusion arrhythmias. A role for Na+/H+ exchanger activation via protein kinase C] Jia D, et al. **Nippon Ika Daigaku Zasshi** 1998 Aug;65(4):276-83 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Skeletal muscle Na+/H+ exchange in rats: pH dependency and the effect of training. Juel C. **Acta Physiol Scand** 1998 Oct;164(2):135-40
Activation of Na+, H+ exchanger produces vasoconstriction of renal resistance vessels. Tepel M, et al. **Am J Hypertens** 1998 Oct;11(10):1214-21
Targeted disruption of the murine Nhe1 locus induces ataxia, growth retardation, and seizures. Bell SM, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):C788-95
Regulation of intracellular pH gradients by identified Na/H exchanger isoforms and a short-chain fatty acid. Gonda T, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G259-70
Adaptation of NHE-3 in the rat thick ascending limb: effects of high sodium intake and metabolic alkalosis. Laghmani K, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):F18-26
Micropuncture analysis of single-nephron function in NHE3-deficient mice. Lorenz JN, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):F447-53
Regulation of cardiac sarcolemmal Na+/H+ exchanger activity by endogenous ligands. Relevance to ischemia. Avkiran M, et al. **Ann N Y Acad Sci** 1999 Jun 30;874:335-45 (77 ref.)
The role of the myocardial sodium-hydrogen exchanger in mediating ischemic and reperfusion injury. From amiloride to cariporide. Karmazyn M. **Ann N Y Acad Sci** 1999 Jun 30;874:326-34 (33 ref.)
Na+/H+ exchangers. Molecular diversity and relevance to heart. Orlowski J. **Ann N Y Acad Sci** 1999 Jun 30; 874:346-53 (81 ref.)
Functional role of cysteine residues in the Na+/H+ exchanger effects of mutation of cysteine residues on targeting and activity of the Na+/H+ exchanger. Wang H, et al. **Arch Biochem Biophys** 1998 Oct 1;358(1):116-24
Regulation and characterization of the Na+/H+ exchanger. Fliegel L, et al. **Biochem Cell Biol** 1998;76(5):735-41 (79 ref.)
pH-dependent growth retardation of Escherichia coli caused by overproduction of Na+/H+ antiporter. Inoue H, et al. **Biol Pharm Bull** 1998 Nov;21(11):1128-33
Regulation of intracellular pH in hamster preimplantation embryos by the sodium hydrogen (Na+/H+) antiporter. Lane M, et al. **Biol Reprod** 1998 Dec;59(6):1483-90
Angiotensin and endothelin: messengers that couple ventricular stretch to the Na+/H+ exchanger and cardiac hypertrophy [editorial] Dostal DE, et al. **Circ Res** 1998 Oct 19;83(8):870-3
Differential regulation of Na+/H+ exchange and DNA synthesis in vascular smooth muscle cells. Kanda Y, et al. **Eur J Pharmacol** 1999 Apr 23;371(1):69-74
Blockade of Na+/H+ exchanger contracts the portal vein of spontaneously hypertensive and Wistar Kyoto rats. Bamosa AO. **Indian J Physiol Pharmacol** 1997 Jul; 41(3):211-8
Sodium ion/hydrogen ion exchange inhibition: a new pharmacologic approach to myocardial ischemia and reperfusion injury. Levitsky J, et al. **J Clin Pharmacol** 1998 Oct;38(10):887-97 (74 ref.)
Characterization of the Na+/H+ exchanger in the luminal membrane of the distal nephron. Claveau D, et al. **J Membr Biol** 1998 Oct 1;165(3):265-74
Epidermal growth factor protects rat epithelial cells against acid-induced damage through the activation of Na+/H+ exchangers. Furukawa O, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):620-6
Adenosine inhibits the transfected Na+-H+ exchanger NHE3 in Xenopus laevis renal epithelial cells (A6/C1). Di Sole F, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):829-42
Regulation of cardiac sarcolemmal Na+/H+ exchanger activity: potential pathophysiological significance of endogenous mediators and oxidant stress. Avkiran M, et al. **J Thromb Thrombolysis** 1999 Jul;8(1):25-32 (84 ref.)

SODIUM-HYDROGEN ANTIPORTER

Functional and cellular regulation of the myocardial Na+/H+ exchanger. Fliegel L.
J Thromb Thrombolysis 1999 Jul;8(1):9–14 (52 ref.)

Role of the sodium-hydrogen exchanger in ischemia-reperfusion injury in diabetes. Goel DP, et al.
J Thromb Thrombolysis 1999 Jul;8(1):45–52 (94 ref.)

If ischemic preconditioning is the gold standard, has a platinum standard of cardioprotection arrived? Comparison with NHE inhibition. Gumina RJ, et al.
J Thromb Thrombolysis 1999 Jul;8(1):39–44 (37 ref.)

Protection of the myocardium with sodium-hydrogen exchange inhibitors: A cardiac surgical perspective. Myers ML. **J Thromb Thrombolysis** 1999 Jul;8(1):53–60 (49 ref.)

Sodium-hydrogen exchange and platelet function. Rosskopf D. **J Thromb Thrombolysis** 1999 Jul;8(1):15–24 (128 ref.)

The Nha1 antiporter of Saccharomyces cerevisiae mediates sodium and potassium efflux. Bañuelos MA, et al.
Microbiology 1998 Oct;144 (Pt 10):2749–58

Sodium proton exchanger (NHE) isoforms--potential relevance to hypertension and its complications [editorial] Ng LL. **Nephrol Dial Transplant** 1998 Dec;13(12):2994–6 (21 ref.)

Role of Na+/H+ exchangers, excitatory amino acid receptors and voltage-operated Ca2+ channels in human immunodeficiency virus type 1 gp120-mediated increases in intracellular Ca2+ in human neurons and astrocytes. Holden CP, et al. **Neuroscience** 1999;91(4):1369–78

Effect of amiloride on ischaemia and reperfusion injury in isolated, perfused rat hearts. Yoshizumi M, et al.
Scand Cardiovasc J 1998;32(3):167–72

THERAPEUTIC USE

The acid test: Na+/H+ exchange and its inhibitors in acute myocardial ischaemia. Avkiran M. **Eur Heart J** 1999 Jul; 20(14):995–6

ULTRASTRUCTURE

Projection structure of NhaA, a secondary transporter from Escherichia coli, at 4.0 A resolution. Williams KA, et al.
EMBO J 1999 Jul 1;18(13):3558–63

SODIUM HYDROXIDE

Rapid, simple alkaline extraction of human genomic DNA from whole blood, buccal epithelial cells, semen and forensic stains for PCR. Rudbeck L, et al.
Biotechniques 1998 Oct;25(4):588–90, 592

[Elimination of nitrogen dioxide and nitric oxide by soda lime and its components] Zhang D, et al.
Chung Hua I Hsueh Tsa Chih 1997 May;77(5):363–6 (Eng. Abstr.) **(Chi)**

CHEMISTRY

Low-flow anesthesia and reduced animal size increase carboxyhemoglobin levels in swine during desflurane and isoflurane breakdown in dried soda lime. Bonome C, et al. **Anesth Analg** 1999 Oct;89(4):909–16

The elimination of sodium and potassium hydroxides from desiccated soda lime diminishes degradation of desflurane to carbon monoxide and sevoflurane to compound A but does not compromise carbon dioxide absorption. Neumann MA, et al. **Anesth Analg** 1999 Sep;89(3):768–73

Dry soda lime markedly degrades sevoflurane during simulated inhalation induction. Funk W, et al.
Br J Anaesth 1999 Feb;82(2):193–8

Chiral separation of alpha-amino acids by ligand-exchange capillary electrophoresis using N-(2-hydroxy-octyl)-L-4-hydroxyproline as a selector. Végvári A, et al. **Electrophoresis** 1998 Sep;19(12):2109–12

[Soda lime: a review] Freys G. **Ann Fr Anesth Reanim** 1999 Mar;18(3):299–302 (29 ref.) **(Fre)**

[The soda-lime problem] Förster H. **Anaesthesist** 1999 Jun; 48(6):409–16 (71 ref.) **(Ger)**

DIAGNOSTIC USE

The sodium hydroxide erosion assay: a revision of the alkali resistance test. Kolbe L, et al. **Arch Dermatol Res** 1998 Jul;290(7):382–7

PHARMACOLOGY

Inactivation kinetics of model and relevant blood-borne viruses by treatment with sodium hydroxide and heat. Borovec S, et al. **Biologicals** 1998 Sep;26(3):237–44

Nucleation and growth of hydroxyapatite on titanium pretreated in NaOH solution: experiments and thermodynamic explanation. de Andrade MC, et al.
J Biomed Mater Res 1999 Sep 15;46(4):441–6

In vitro comparison of NALC-NaOH, tween 80, and C18-carboxypropylbetaine for processing of specimens for recovery of mycobacteria. Thornton CG, et al.
J Clin Microbiol 1998 Dec;36(12):3558–66

NaOH treatment to neutralize inhibitors of Taq polymerase. Bourke MT, et al. **J Forensic Sci** 1999 Sep;44(5):1046–50

Differential sensitivity of chromium-mediated DNA interstrand crosslinks and DNA-protein crosslinks to disruption by alkali and EDTA. Singh J, et al.
Toxicol Sci 1998 Sep;45(1):72–6

TOXICITY

Systemic harmful effects of ingestion of household bleaches. Andiran F, et al. **Drug Chem Toxicol** 1999 Aug;22(3):545–53

SODIUM HYPOCHLORITE

A preliminary evaluation of a modified needle-cleaning intervention using bleach among injection drug users. Carlson RG, et al. **AIDS Educ Prev** 1998 Dec;10(6):523–32

Dialyzer-dependent changes in solute and water permeability with bleach reprocessing. Scott MK, et al.
Am J Kidney Dis 1999 Jan;33(1):87–96

A bleach program for inmates in NSW: an HIV prevention strategy. Dolan KA, et al. **Aust N Z J Public Health** 1998 Dec;22(7):838–40

Combining periodic and continuous sodium hypochlorite treatment to control biofilms in dental unit water systems. Karpay RI, et al. **J Am Dent Assoc** 1999 Jul;130(7):957–65

What do we measure with luminol-, lucigenin- and penicillin-amplified chemiluminescence? 1. Investigations with hydrogen peroxide and sodium hypochlorite. Rost M, et al. **J Biolumin Chemilumin** 1998 Nov-Dec; 13(6):355–63

Antimicrobial effects of electrolytic products of sodium chloride--comparative evaluation with sodium hypochlorite solution and efficacy in handwashing. Hitomi S, et al. **Kansenshogaku Zasshi** 1998 Nov;72(11):1176–81

ADVERSE EFFECTS

Inadvertent injection of sodium hypochlorite into the maxillary sinus. Kavanagh CP, et al. **Br Dent J** 1998 Oct 10;185(7):336–7

Management of burns--Eusol [editorial; comment] Tovey F. **Trop Doct** 1999 Jan;29(1):2–3. Comment on: Trop Doct 1999 Jan;29(1):7–11.

PHARMACOLOGY

Apurinic endonuclease (Ref-1) is induced in mammalian cells by oxidative stress and involved in clastogenic adaptation. Grösch S, et al. **Cancer Res** 1998 Oct 1;58(19):4410–6

Viable Cryptosporidium parvum oocysts exposed to chlorine or other oxidising conditions may lack identifying epitopes. Moore AG, et al. **Int J Parasitol** 1998 Aug;28(8):1205–12

Chlorination and ozonation of waste-water: comparative analysis of efficacy through the effect on Escherichia coli membranes. Arana I, et al. **J Appl Microbiol** 1999 May; 86(5):883–8

Efficacy and mechanisms of action of sodium hypochlorite on Pseudomonas aeruginosa PAO1 phage F116. Maillard JY, et al. **J Appl Microbiol** 1998 Dec;85(6):925–32

Resistance of Pseudomonas aeruginosa PAO1 phage F116 to sodium hypochlorite. Maillard JY, et al.
J Appl Microbiol 1998 Nov;85(5):799–806

Changes in the strength of attachment of micro-organisms to surfaces following treatment with disinfectants and cleansing agents. Eginton PJ, et al. **Lett Appl Microbiol** 1998 Aug;27(2):101–5

[Alpha-hemolytic streptococci and root canal irrigants. An evaluation of the bactericidal efficacy of sodium hypochlorite and chlorhexidine gluconate plus cetrimide] D'Arcangelo C, et al. **Minerva Stomatol** 1998 Sep; 47(9):367–71 (Eng. Abstr.) **(Ita)**

[A comparative in-vitro study of the bactericidal efficacy of sodium hypochlorite and chlorhexidine gluconate plus cetrimide on root canal anaerobic bacterial flora] D'Arcangelo C, et al. **Minerva Stomatol** 1998 Sep; 47(9):381–6 (Eng. Abstr.) **(Ita)**

[Detoxication of blood plasma by sodium hypochlorite. Criteria of reinfusion] Fedorovskiĭ NM, et al.
Anesteziol Reanimatol 1998 Nov-Dec;(6):43–5 (Eng. Abstr.) **(Rus)**

[Prolonged bactericidal effect of sodium hypochlorite] Galenko-Iaroshevskiĭ PA, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):305–7 **(Rus)**

POISONING

Fatal ingestion of sodium hypochlorite bleach with associated hypernatremia and hyperchloremic metabolic acidosis. Ross MP, et al. **Vet Hum Toxicol** 1999 Apr;41(2):82–6 (34 ref.)

THERAPEUTIC USE

Labeling lapse. When the bottle doesn't contain what you think you're giving. Ahmed DS, et al. **Am J Nurs** 1999 Mar;99(3):12

The use of a modified Dakin's solution (sodium hypochlorite) in the treatment of Vibrio vulnificus infection. Milner SM, et al. **Wilderness Environ Med** 1999 Spring;10(1):10–2

[Use of sodium hypochlorite in the multimodal treatment of alcoholic delirium as a complication of acute poisoning] Luzhnikov EA, et al. **Anesteziol Reanimatol** 1998 Nov-Dec;(6):53–6 (Eng. Abstr.) **(Rus)**

[Detoxication and disinfection by sodium hypochlorite] Eventov VL, et al. **Med Tekh** 1998 Nov-Dec;(6):36–9 (15 ref.) (Eng. Abstr.) **(Rus)**

TOXICITY

Systemic harmful effects of ingestion of household bleaches. Andiran F, et al. **Drug Chem Toxicol** 1999 Aug;22(3):545–53

SODIUM IODIDE

ADMINISTRATION & DOSAGE

[Iodine prophylaxis legislation in Italy] Aghini-Lombardi F, et al. **Ann Ist Super Sanita** 1998;34(3):363–6 (Eng. Abstr.) **(Ita)**

[Project for the prevention of thyroid pathology and iodine prophylaxis education in the province of Campobasso] Aiello A, et al. **Ann Ist Super Sanita** 1998;34(3):423–4 (Eng. Abstr.) **(Ita)**

[Effects of iodine prophylaxis on a voluntary basis on the thyroid volume of a young population in Val Tiberina] Antonangeli L, et al. **Ann Ist Super Sanita** 1998; 34(3):399–402 (Eng. Abstr.) **(Ita)**

[Experience with iodine prophylaxis in the province of Bolzano] Franzellin F. **Ann Ist Super Sanita** 1998; 34(3):377–81 (Eng. Abstr.) **(Ita)**

[Epidemiology of endemic goiter in Tuscany] Maccherini D, et al. **Ann Ist Super Sanita** 1998;34(3):395–7 (Eng. Abstr.) **(Ita)**

[A project of the Ministry of Health for iodine prophylaxis in Italy: Salt in food for the prophylaxis of iodine deficiency and the prevention of hypertension] Marabelli R, et al.
Ann Ist Super Sanita 1998;34(3):367–70 (Eng. Abstr.) **(Ita)**

[Regional campaign promoting the use of sodium iodide: "a pinch of health"] Moscatelli R, et al.
Ann Ist Super Sanita 1998;34(3):393–4 (Eng. Abstr.) **(Ita)**

ANALYSIS

[Suitability of the direct potentiometric method with the use of ion-selective electrodes for the evaluation of iodide ions in iodized table salt] Drobnik M.
Rocz Panstw Zakl Hig 1998;49(4):457–62 (Eng. Abstr.) **(Pol)**

DIAGNOSTIC USE

Comparison of FDG PET and positron coincidence detection imaging using a dual-head gamma camera with 5/8-inch NaI(Tl) crystals in patients with suspected body malignancies. Boren EL Jr, et al. **Eur J Nucl Med** 1999 Apr;26(4):379–87

PHARMACOLOGY

Amiodarone compared with iodine exhibits a potent and persistent inhibitory effect on TSH-stimulated cAMP production in vitro: a possible mechanism to explain amiodarone-induced hypothyroidism. Pitsiavas V, et al.
Eur J Endocrinol 1999 Mar;140(3):241–9

TOXICITY

Both CD4(+) T cells and CD8(+) T cells are required for iodine accelerated thyroiditis in NOD mice. Hutchings PR, et al. **Cell Immunol** 1999 Mar 15;192(2):113–21

SODIUM IODOHIPPURATE see **IODOHIPPURIC ACID**

SODIUM LACTATE

Two-dimensional proton echo-planar spectroscopic imaging of brain metabolic changes during lactate-induced panic. Dager SR, et al. **Arch Gen Psychiatry** 1999 Jan;56(1):70–7

ANALOGS & DERIVATIVES see LACTATES

DIAGNOSTIC USE

Nocturnal and daytime panic attacks--comparison of sleep architecture, heart rate variability, and response to sodium lactate challenge. Sloan EP, et al. **Biol Psychiatry** 1999 May 15;45(10):1313–20

PHARMACOLOGY

Central thermoregulatory effects of lactate in the toad Bufo paracnemis. Branco LG, et al.
Comp Biochem Physiol A Mol Integr Physiol 1999 Apr; 122(4):457–61

Synergistic effect of heat and sodium lactate on the thermal resistance of Yersinia enterocolitica and Listeria monocytogenes in minced beef. McMahon CM, et al.
Lett Appl Microbiol 1999 May;28(5):340–4

SODIUM LAURYL SULFATE see **SODIUM DODECYL SULFATE**

SODIUM NAFCILLIN see **NAFCILLIN**

SODIUM NITRITE

ADVERSE EFFECTS

[Effect of nitrates and nitrites on small intestine] Grudziński IP. **Rocz Panstw Zakl Hig** 1998;49(3):321–30 (44 ref.) (Eng. Abstr.) **(Pol)**

BLOOD

Role of nitrite, a nitric oxide derivative, in K-Cl cotransport activation of low-potassium sheep red blood cells. Adragna

NC, et al. **J Membr Biol** 1998 Dec 1;166(3):157–67

METABOLISM

Inactivation of myocardial dihydrolipoamide dehydrogenase by myeloperoxidase systems: effect of halides, nitrite and thiol compounds. Gutierrez-Correa J, et al. **Free Radic Res** 1999 Feb;30(2):105–17

[Effect of carnosine on the transformation of sodium nitrite in vitro in the presence of catalase] Krys'ko OM, et al. **Ukr Biokhim Zh** 1999 Jan–Feb;71(1):86–8 (Eng. Abstr.) **(Ukr)**

PHARMACOKINETICS

[Effect of nitrates and nitrites on small intestine] Grudziński IP. **Rocz Panstw Zakl Hig** 1998;49(3):321–30 (44 ref.) (Eng. Abstr.) **(Pol)**

PHARMACOLOGY

Sodium nitrite, a potent relaxant of rat stomach fundus: in vitro evidence. Ceregrzyn M, et al. **Can J Physiol Pharmacol** 1998 Oct–Nov;76(10–11):989–99

Possible stimulation of Na+–K+–ATPase by NO produced from sodium nitrite by ultraviolet light in mouse gastric fundal strip. Yaktubay N, et al. **Gen Pharmacol** 1999 Jan; 32(1):159–62

[Effect of nitrite on the excitability of brain neurons in helix] Diakonova TL, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Nov;84(11):1264–72 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Persistent antihypertensive effect of oral nitrite supplied up to one year via the drinking water in spontaneously hypertensive rats. Haas M, et al. **Arzneimittelforschung** 1999 Apr;49(4):318–23

Effect of superoxide dismutase and acidified sodium nitrite on infarct size following ischemia and reperfusion in dogs. Tripathi Y, et al. **Indian J Physiol Pharmacol** 1997 Jul; 41(3):248–56

TOXICITY

Nitrite-induced cell proliferation and polyamine synthesis in the small intestine of mice. Grudzinski IP, et al. **Bull Environ Contam Toxicol** 1998 Dec;61(6):800–6

Initiating and promoting effects of concurrent oral administration of ethylenethiourea and sodium nitrite on uterine endometrial adenocarcinoma development in Donryu rats. Nishiyama K, et al. **In Vivo** 1998 Jul–Aug; 12(4):363–8

SODIUM NITROPRUSSIDE see **NITROPRUSSIDE**

SODIUM OXACILLIN see **OXACILLIN**

SODIUM OXYBATE

Cerebral blood flow velocity and carbon dioxide vasoreactivity during gamma-hydroxybutyrate/fentanyl anaesthesia in non-neurosurgical patients. Detsch O, et al. **Eur J Anaesthesiol** 1999 Mar;16(3):195–200

[Gamma-OH: a comeback (letter)] Otteni JC. **Ann Fr Anesth Reanim** 1999 Apr;18(4):469–71 **(Fre)**

ADMINISTRATION & DOSAGE

Spinal anaesthesia with gamma hydroxybutyrate. A study in a rat model. Chanimov M, et al. **Eur J Anaesthesiol** 1999 May;16(5):330–8

Continuous sedation during spinal anaesthesia: gamma-hydroxybutyrate vs. propofol. Kleinschmidt S, et al. **Eur J Anaesthesiol** 1999 Jan;16(1):23–30

Total intravenous anaesthesia with gamma-hydroxybutyrate (GHB) and sufentanil in patients undergoing coronary artery bypass graft surgery: a comparison in patients with unimpaired and impaired left ventricular function. Kleinschmidt S, et al. **Eur J Anaesthesiol** 1998 Sep; 15(5):559–64

Prodynorphin and proenkephalin mRNAs are increased in rat brain after acute and chronic administration of gamma-hydroxybutyrate. Schmidt-Mutter C, et al. **Neurosci Lett** 1999 Feb 26;262(1):65–8

ADVERSE EFFECTS

[Gamma-hydroxybutyrate--an endogenous substance and an intoxicant] Hovda KE, et al. **Tidsskr Nor Laegeforen** 1998 Nov 20;118(28):4390–3 (Eng. Abstr.) **(Nor)**

ANALOGS & DERIVATIVES

Synthesis, physicochemical properties, anticonvulsant activities, and GABA-ergic and voltage-sensitive calcium channel receptor affinities of alpha-substituted N-benzylamides of gamma-hydroxybutyric acid. Part 4: Search for new anticonvulsant compounds. Malawska B, et al. **Arch Pharm (Weinheim)** 1999 May;332(5):167–74

BLOOD

In vitro stability of endogenous gamma-hydroxybutyrate in postmortem blood [letter] Stephens BG, et al. **J Forensic Sci** 1999 Jan;44(1):231

CHEMICAL SYNTHESIS

Synthesis, physicochemical properties, anticonvulsant activities, and GABA-ergic and voltage-sensitive calcium channel receptor affinities of alpha-substituted N-benzylamides of gamma-hydroxybutyric acid. Part 4: Search for new anticonvulsant compounds. Malawska B, et al. **Arch Pharm (Weinheim)** 1999 May;332(5):167–74

METABOLISM

gamma-Hydroxybutyrate modulates synthesis and extracellular concentration of gamma-aminobutyric acid in discrete rat brain regions in vivo. Gobaille S, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):303–9

Neurochemical and electrophysiological evidence for the existence of a functional gamma-hydroxybutyrate system in NCB-20 neurons. Kemmel V, et al. **Neuroscience** 1998 Oct;86(3):989–1000

PHARMACOLOGY

Evaluation of the reinforcing and discriminative stimulus effects of gamma-hydroxybutyrate in rhesus monkeys. Woolverton WL, et al. **Drug Alcohol Depend** 1999 Apr 1;54(2):137–43

gamma-Hydroxybutyric acid, imidazoleacetic acid, cerebral metabolism and induced sleep. Rick JT, et al. **Isr J Med Sci** 1973;9 Suppl:55–62 (12 ref.)

Gamma-hydroxybutyrate is a GABAB receptor agonist that increases a potassium conductance in rat ventral tegmental dopamine neurons. Madden TE, et al. **J Pharmacol Exp Ther** 1998 Oct;287(1):261–5

Gamma-hydroxybutyrate increases gastric emptying in rats. Poggioli R, et al. **Life Sci** 1999;64(23):2149–54

Involvement of GABA(A) and GABA(B) receptors in the mediation of discriminative stimulus effects of gamma-hydroxybutyric acid. Colombo G, et al. **Physiol Behav** 1998 Jun 1;64(3):293–302

Twenty-four-hour preservation in gamma-hydroxybutyrate improves lung function in a canine single-lung allotransplantation. Yamasaki N, et al. **Transplantation** 1999 Feb 27;67(4):529–33

[The effect of gamma-hydroxybutyrate (GHB) on proinflammatory cytokine gene expression in coronary surgical procedures] Kleinschmidt S, et al. **Anaesthesist** 1998 Aug;47(8):651–62 (Eng. Abstr.) **(Ger)**

POISONING

Gamma-hydroxybutyric acid: an emerging recreational drug. Kam PC, et al. **Anaesthesia** 1998 Dec;53(12):1195–8 (29 ref.)

gamma-Hydroxybutyrate intoxication and overdose [letter; comment] Kohrs FP, et al. **Ann Emerg Med** 1999 Apr; 33(4):475–6. Comment on: Ann Emerg Med 1998 Jun;31(6):716–22. Comment on: Ann Emerg Med 1998 Jun;31(6):723–8. Comment on: Ann Emerg Med 1998 Jun;31(6):729–36.

THERAPEUTIC USE

Effect of gamma-hydroxybutyrate on pain, fatigue, and the alpha sleep anomaly in patients with fibromyalgia. Preliminary report. Scharf MB, et al. **J Rheumatol** 1998 Oct;25(10):1986–90

[Gamma-hydroxybutyrate for treatment of alcohol withdrawal syndrome in intensive care patients. A comparison between with two symptom-oriented therapeutic concepts] Lenzenhuber E, et al. **Anaesthesist** 1999 Feb;48(2):89–96 (Eng. Abstr.) **(Ger)**

TOXICITY

Tiapride-induced catalepsy is potentiated by gamma-hydroxybutyric acid administration. Navarro JF, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Jul; 22(5):835–44

SODIUM OXYBUTYRATE see **SODIUM OXYBATE**

SODIUM PERTECHNETATE TC 99M

The effects of selected antineoplastic agents on the labeling of erythrocytes with technetium-99m using the UltraTag RBC kit. Spicer JA, et al. **J Nucl Med Technol** 1999 Jun; 27(2):132–5

BLOOD

Effect of Peumus boldus on the labeling of red blood cells and plasma proteins with technetium-99m. Reiniger IW, et al. **Appl Radiat Isot** 1999 Aug;51(2):145–9

DIAGNOSTIC USE

Quantitative analysis of pulmonary emphysema: three-dimensional fractal analysis of single-photon emission computed tomography images obtained with a carbon particle radioaerosol. Nagao M, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1657–63

Differences in airway closure between normal and asthmatic subjects measured with single-photon emission computed tomography and technegas. King GG, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1900–6

Dual isotope F-18 FDG and Tc-99m RBC imaging for lung cancer. Burt R. **Clin Nucl Med** 1998 Dec;23(12):807–9

Increased pertechnegas lung clearance in interstitial lung disease. Mouratidis B, et al. **Clin Nucl Med** 1999 Feb; 24(2):105–8

Breast uptake of Tc-99m pertechnetate during perfusion lung scan in pregnancy. Sherigar RM, et al. **Clin Nucl Med** 1998 Oct;23(10):700–1

Tc-99m pertechnetate scintigraphy to diagnose rectal duplication. Tepmongkol S, et al. **Clin Nucl Med** 1999 Apr; 24(4):289

Use of Technegas as a radiopharmaceutical for the measurement of gastric emptying. Kwiatek MA, et al. **Eur J Nucl Med** 1999 Aug;26(8):903–6

Estimation of regional lung function in interstitial pulmonary disease using 99mTc-technegas and 99mTc-macroaggregated albumin single-photon emission tomography. Sasaki Y, et al. **Eur J Nucl Med** 1998 Dec; 25(12):1623–9

Tc-99m labeled red blood cells scintigraphy: a diagnostic method for orbital cavernous hemangioma. Gdal-On M, et al. **Eur J Ophthalmol** 1999 Apr–Jun;9(2):125–9

A new method for measuring aerosol nebulizer output using radioactive tracers. Gatnash AA, et al. **Eur Respir J** 1998 Aug;12(2):467–71

Dual-isotope SPECT using simultaneous acquisition of 99mTc and 123I radioisotopes: a double-injection technique for peri-ictal functional neuroimaging. Brinkmann BH, et al. **J Nucl Med** 1999 Apr;40(4):677–84

99mTc technegas ventilation and perfusion lung scintigraphy for the diagnosis of pulmonary embolus. Howarth DM, et al. **J Nucl Med** 1999 Apr;40(4):579–84

Ghost-like scintigraphy. Peksoy I, et al. **J Nucl Med** 1998 Dec;39(12):2189

99mTc-labeled antihuman epidermal growth factor receptor antibody in patients with tumors of epithelial origin: Part III. Clinical trials safety and diagnostic efficacy. Ramos-Suzarte M, et al. **J Nucl Med** 1999 May; 40(5):768–75

Pertechnetate scintigraphy in primary congenital hypothyroidism. Sfakianakis GN, et al. **J Nucl Med** 1999 May;40(5):799–804

Laparoscopic adjustable silicone gastric banding leakage assessed by 99mTc-pertechnetate scintigraphy. Van den Eeckhaut AC, et al. **J Nucl Med** 1999 May;40(5):783–5

Dual-isotope protocol for indium-111 capromab pendetide monoclonal antibody imaging. Kelty NL, et al. **J Nucl Med Technol** 1998 Sep;26(3):174–7

The utility of technetium 99m pertechnetate scintigraphy in the evaluation of patients with Meckel's diverticulum. Swaniker F, et al. **J Pediatr Surg** 1999 May;34(5):760–4; discussion 765

Mammary gland uptake of sodium Tc-pertechnetate in a cat with a drug-induced gynecomastia. Patricelli AJ, et al. **Vet Radiol Ultrasound** 1999 Jan–Feb;40(1):87–8

[First results of radioiodine therapy of multifocal and disseminated thyroid gland autonomy and use of a TcTUs-adapted dose concept] Oexle C, et al. **Nuklearmedizin** 1998;37(6):192–6 (Eng. Abstr.) **(Ger)**

[99mTc pertechnetate scintigraphy and premedication for the search for ectopic gastric mucosa in Meckel's diverticulum] Rampin L, et al. **Minerva Chir** 1998 Nov;53(11):877–82 (Eng. Abstr.) **(Ita)**

[Quantitative study of 99mTc-Technegas SPECT for ventilatory impairment in pulmonary emphysema] Mitani M, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1999 May; 59(6):261–4 (Eng. Abstr.) **(Jpn)**

[Radioimmunoscintigraphy of colorectal cancer using the anti-CEA monoclonal antibody BW 431/26. Final results] Oliva J, et al. **Rev Esp Med Nucl** 1999;18(1):5–15 (Eng. Abstr.) **(Spa)**

[Thyroid scintigraphy] Secades I, et al. **Rev Esp Med Nucl** 1999 Jun;18(3):227–30 **(Spa)**

PHARMACOKINETICS

Influence of urinary iodine excretion on thyroid technetium-99m pertechnetate uptake with and without TSH suppression: what happens when iodine supply increases? Reinhardt MJ, et al. **Eur J Nucl Med** 1998 Nov; 25(11):1475–81

Technetium-99m-antiepidermal growth factor-receptor antibody in patients with tumors of epithelial origin: part II. Pharmacokinetics and clearances. Iznaga-Escobar N, et al. **J Nucl Med** 1998 Nov;39(11):1918–27

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795–801

[Results of TcTUs-optimized radioiodine therapy in multifocal and disseminated autonomy] Dunkelmann S, et al. **Nuklearmedizin** 1999;38(5):131–9 (Eng. Abstr.) **(Ger)**

[Change of 99m technetium-pertechnetate uptake by the thyroid under suppression (TcTus) induced by optimization of iodine supply in Germany] Reinhardt MJ, et al. **Nuklearmedizin** 1998;37(6):202–7 (Eng. Abstr.) **(Ger)**

THERAPEUTIC USE

Pharmacokinetics of 99Tcm-pertechnetate and 188Re-perrhenate after oral administration of perchlorate: option for subsequent care after the use of liquid 188Re in a balloon catheter. Kotzerke J, et al. **Nucl Med Commun** 1998 Aug;19(8):795–801

SODIUM, POTASSIUM ADENOSINETRIPHOSPHATASE

SODIUM, POTASSIUM ADENOSINETRIPHOSPHATASE see **NA(+)-K(+)-EXCHANGING ATPASE**

SODIUM, POTASSIUM ATPASE see **NA(+)-K(+)-EXCHANGING ATPASE**

SODIUM-POTASSIUM PUMP see **NA(+)-K(+)-EXCHANGING ATPASE**

SODIUM PUMP see **NA(+)-K(+)-EXCHANGING ATPASE**

SODIUM RADIOISOTOPES

PHARMACOKINETICS

Handling 22NaCl by the blood-brain barrier and kidney: its relevance to salt-induced hypertension in dahl rats. Simchon S, et al. **Hypertension** 1999 Jan;33(1 Pt 2):517-23

SODIUM SALICYLATE

ADMINISTRATION & DOSAGE

Different effects of inhaled aspirinlike drugs on allergen-induced early and late asthmatic responses. Sestini P, et al. **Am J Respir Crit Care Med** 1999 Apr;159(4 Pt 1):1228-33

METABOLISM

NMR diffusion and relaxation study of drug-protein interaction [letter] Luo RS, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Aug; 55A(9):1897-901

PHARMACOLOGY

Sodium salicylate activates caspases and induces apoptosis of myeloid leukemia cell lines. Klampfer L, et al. **Blood** 1999 Apr 1;93(7):2386-94

Inhibition of cytokine gene expression by sodium salicylate in a macrophage cell line through an NF-kappaB-independent mechanism. Lemay S, et al. **Clin Diagn Lab Immunol** 1999 Jul;6(4):567-72

Salicylate inhibits fimbriae mediated HEp-2 cell adherence of and haemagglutination by enteroaggregative Escherichia coli. Kang G, et al. **FEMS Microbiol Lett** 1998 Sep 15; 166(2):257-65

Inhibition of the induction of the inducible nitric oxide synthase in murine brain microglial cells by sodium salicylate. Kim H, et al. **Immunology** 1998 Nov;95(3):389-94

Cell stress and MKK6b-mediated p38 MAP kinase activation inhibit tumor necrosis factor-induced IkappaB phosphorylation and NF-kappaB activation. Alpert D, et al. **J Biol Chem** 1999 Aug 6;274(32):22176-83

Cell-type-specific activation of c-Jun N-terminal kinase by salicylates. Schwenger P, et al. **J Cell Physiol** 1999 Apr; 179(1):109-14

Sodium salicylate and 17beta-estradiol attenuate nuclear transcription factor NF-kappaB translocation in cultured rat astroglial cultures following exposure to amyloid A beta(1-40) and lipopolysaccharides. Dodel RC, et al. **J Neurochem** 1999 Oct;73(4):1453-60

Induction of stromelysin gene expression by tumor necrosis factor alpha is inhibited by dexamethasone, salicylate, and N-acetylcysteine in synovial fibroblasts. Morin I, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1634-40

Salicylates inhibit NF-kappaB activation and enhance TNF-alpha-induced apoptosis in human pancreatic cancer cells. McDade TP, et al. **J Surg Res** 1999 May 1;83(1):56-61

Sodium salicylate inhibits macrophage TNF-alpha production and alters MAPK activation. Vittimberga FJ Jr, et al. **J Surg Res** 1999 Jun 15;84(2):143-9

The anti-inflammatory agents aspirin and salicylate inhibit the activity of I(kappa)B kinase-beta [see comments] Yin MJ, et al. **Nature** 1998 Nov 5;396(6706):77-80. Comment in: Nature 1998 Nov 5;396(6706):15, 17.

Modes of action of aspirin-like drugs: salicylates inhibit erk activation and integrin-dependent neutrophil adhesion. Pillinger MH, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14540-5

Suppression of inducible cyclooxygenase 2 gene transcription by aspirin and sodium salicylate. Xu XM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5292-7

Sodium salicylate enhances expression of tissue factor (TF) in human adherent monocytes and in whole blood [letter] Buchan KW, et al. **Thromb Haemost** 1998 Aug;80(2):346-7

Sodium salicylate protects hepatocytes but not endothelial cells during reperfusion after cold ischemia. De Maria N, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):1059-60

THERAPEUTIC USE

Inhibition of mast cell-dependent anaphylaxis by sodium salicylate. Kim HM, et al. **Immunology** 1999 Apr; 96(4):551-6

Effect of aspirin and sodium salicylate on cataract development in diabetic rats. Shastri GV, et al. **Indian J Exp Biol** 1998 Jul;36(7):651-7

TOXICITY

Prevention of reoxygenation injury by sodium salicylate in isolated-perfused rat liver. Colantoni A, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):87-94

SODIUM SELENITE

Selenite and selenium yeast as feed supplements to growing fattening pigs. Ortman K, et al. **Zentralbl Veterinarmed A** 1998 Nov;45(9):551-7

DIAGNOSTIC USE

Zinc-rich afferents to the rat neocortex: projections to the visual cortex traced with intracerebral selenite injections. Casanovas-Aguilar C, et al. **J Chem Neuroanat** 1998 Aug; 15(2):97-109

METABOLISM

The influence of supplements of selenite, selenate and selenium yeast on the selenium status of dairy heifers. Ortman K, et al. **Acta Vet Scand** 1999;40(1):23-34

PHARMACOLOGY

Induction of apoptosis by selenite and selenodiglutathione in HL-60 cells: correlation with cytotoxicity. Cho DY, et al. **Biochem Mol Biol Int** 1999 May;47(5):781-93

Acquisition of selenium tolerance by a selenium non-accumulating Astragalus species via selection. Wang Y, et al. **Biofactors** 1999;9(1):3-10

Influence of sodium selenite and selenomethionine on DNA/RNA synthesis and BaP binding to spleen lymphocytes in culture. Bansal MP, et al. **Biol Trace Elem Res** 1999 Oct;70(1):21-8

Prevention of the development of melphalan resistance in vitro by selenite. Caffrey PB, et al. **Biol Trace Elem Res** 1998 Dec;65(3):187-95

Effects of sodium selenite on deoxycholic acid-induced hyperproliferation of human colonic mucosa in short-term culture. Bartram HP, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1085-9

Correlation between prevention of cataract development by disulfiram and fates of selenium in selenite-treated rats. Ito Y, et al. **Curr Eye Res** 1999 Apr;18(4):292-9

Activation pattern of mitogen-activated protein kinases elicited by peroxynitrite: attenuation by selenite supplementation. Schieke SM, et al. **FEBS Lett** 1999 Apr 9;448(2-3):301-3

Sodium selenite-induced oxidative stress and apoptosis in human hepatoma HepG2 cells. Shen HM, et al. **Int J Cancer** 1999 May 31;81(5):820-8

Effects of sodium selenite on in vitro interactions between platelets and endothelial cells. Ricetti MM, et al. **Int J Clin Lab Res** 1999;29(2):80-4

The effect of cis-diamminedichloroplatinum, selenite and a conjugate of cisplatin with selenite [(NH3)2Pt(SeO3)] on oxidative stress in blood platelets measured by chemiluminescence method. Olas B, et al. **J Physiol Pharmacol** 1999 Jun;50(2):299-308

Prevention of cytotoxic effects of arsenic by short-term dietary supplementation with selenium in mice in vivo. Biswas S, et al. **Mutat Res** 1999 Apr 26;441(1):155-60

Inhibition of selenite-induced cytotoxicity and apoptosis in human colonic carcinoma (HT-29) cells by copper. Davis RL, et al. **Nutr Cancer** 1998;32(3):181-9

The effects of injectable sodium selenite on immune function and milk production in Sardinian sheep receiving adequate dietary selenium. Lacetera N, et al. **Vet Res** 1999 Jul-Aug; 30(4):363-70

[A study on the inhibitory effects of several chemicals on the production of nitrogen oxide in alveolar macrophage induced by asbestos] Fan J, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jan;31(1):31-3 (Eng. Abstr.) **(Chi)**

[Inhibition of sodium selenite on transformation of human B lymphocytes by Epstein-Barr virus] Luo H, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Jul;31(4):225-7 (Eng. Abstr.) **(Chi)**

[Scavenging effects of sodium selenite on hydroxyl radicals] Cao Z, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997; 22(3):275-6 **(Chi)**

[Effect of tocopherol deficiency and additional administration of tocopherol, dibunol and disodium selenite on enzyme activity in rat liver, which take part in the biotransformation of nitrosodimethylamine] Isotshyn VM, et al. **Ukr Biokhim Zh** 1998 Jul-Aug;70(4):110-7 (Eng. Abstr.) **(Ukr)**

THERAPEUTIC USE

[Effects of selenium supplement on acute lower respiratory tract infection caused by respiratory syncytial virus] Liu X, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1997 Nov; 31(6):358-61 (Eng. Abstr.) **(Chi)**

TOXICITY

Acute toxicity of sodium selenite to juvenile walleye. Mauk RJ, et al. **Bull Environ Contam Toxicol** 1999 Aug; 63(2):188-94

Effects of glutathione depletion on selenite- and selenate-induced embryotoxicity in cultured rat embryos. Usami M, et al. **Teratog Carcinog Mutagen** 1999; 19(4):257-66

SODIUM STIBOGLUCONATE see **ANTIMONY SODIUM GLUCONATE**

SODIUM TETRAPHENYLBORATE see **TETRAPHENYLBORATE**

SODIUM TETRATHIONATE see **TETRATHIONIC ACID**

SODIUM VALPROATE see **VALPROIC ACID**

SODOKU see **RAT-BITE FEVER**

SOFT CONTACT LENSES see **CONTACT LENSES, HYDROPHILIC**

SOFT TISSUE INFECTIONS

see related
SKIN DISEASES, INFECTIOUS

Obturator internus muscle abscess in children: report of seven cases and review. Viani RM, et al. **Clin Infect Dis** 1999 Jan;28(1):117-22 (14 ref.)

Hand infections in the trauma patient. Tsai E, et al. **Hand Clin** 1999 May;15(2):373-86 (59 ref.)

Head and neck mycetoma. Supanakorn S, et al. **J Med Assoc Thai** 1998 Dec;81(12):1019-22

[Skin and soft-tissue infections caused by Pseudomonas aeruginosa] Cainzos Fernández M. **Rev Clin Esp** 1998 Sep; 198 Suppl 2:21-4 (21 ref.) **(Spa)**

BLOOD

[Lipid peroxidation and the function of the antioxidant system in sepsis in patients with soft-tissue suppurative and inflammatory lesions] Shapoval SD. **Klin Khir** 1998; (11):15-6 (Eng. Abstr.) **(Rus)**

COMPLICATIONS

Recurrent subcutaneous abscess of the sternal region in ulcerative colitis. Murata I, et al. **Am J Gastroenterol** 1999 Mar;94(3):844-5

Upper extremity infections in patients with diabetes mellitus. Gonzalez MH, et al. **J Hand Surg [Am]** 1999 Jul;24(4):682-6

Metacarpal osteomyelitis complicating varicella-associated cellulitis of the hand: report of 2 cases. Aebi C, et al. **Scand J Infect Dis** 1998;30(3):306-9

DIAGNOSIS

Primary soft tissue hydatid disease: report of two cases with MRI characteristics. Memis A, et al. **Eur Radiol** 1999; 9(6):1101-3

Recurrent pleuritic chest pain [clinical conference] Zirkin WM, et al. **J Emerg Med** 1999 Mar-Apr;17(2):329-32

[A swelling in the distal part of the thigh] Smits TM, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1697-701 (Eng. Abstr.) **(Dut)**

[Anaerobic bacteria soft tissue infection. Etiology, diagnosis, treatment] Jarrin I, et al. **Rev Prat** 1998 May 15; 48(10):1109-14 (3 ref.) **(Fre)**

DRUG THERAPY

Sparfloxacin versus ciprofloxacin for the treatment of community-acquired, complicated skin and skin-structure infections. Lipsky BA, et al. **Clin Ther** 1999 Apr; 21(4):675-90

Levofloxacin. Its use in infections of the respiratory tract, skin, soft tissues and urinary tract. Langtry HD, et al. **Drugs** 1998 Sep;56(3):487-515 (126 ref.)

Outpatient parenteral anti-infective therapy for skin and soft-tissue infections. Deery HG 2nd. **Infect Dis Clin North Am** 1998 Dec;12(4):935-49, vii (50 ref.)

Targeting lurking pathogens in acute traumatic and chronic wounds. Eron LJ. **J Emerg Med** 1999 Jan-Feb;17(1):189-95 (35 ref.)

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198-201

Necrotizing soft tissue infection in heart transplantation recipients: two case reports. Chao CS, et al. **Transplant Proc** 1998 Nov;30(7):3347-9

[Use of pefloxacin in the treatment of patients with purulent wounds of soft tissues] Blatun LA, et al. **Antibiot Khimioter** 1999;44(1):20-2 (Eng. Abstr.) **(Rus)**

[The optimization of the regeneration of a suppurative wound in the maxillofacial area by using lymphogenic therapy] Shumskii AV, et al. **Voen Med Zh** 1999 May;320(5):28-33 **(Rus)**

ETIOLOGY

A 60-year-old man with septic arthritis and hypotension after a fall. Nowbar S, et al. **Chest** 1999 Mar;115(3):883-5

IMMUNOLOGY

[Specific antimicrobial immunity in patients with suppurative soft-tissue diseases undergoing conventional and modified ultraviolet irradiation of autologous blood] Ostrovskii VK, et al. **Anesteziol Reanimatol** 1998 Jul-Aug;(4):27-9 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Linezolid activity compared to those of selected macrolides and other agents against aerobic and anaerobic pathogens isolated from soft tissue bite infections in humans. Goldstein EJ, et al. **Antimicrob Agents Chemother** 1999 Jun; 43(6):1469–74

Activity of gatifloxacin compared to those of five other quinolones versus aerobic and anaerobic isolates from skin and soft tissue samples of human and animal bite wound infections. Goldstein EJ, et al.
Antimicrob Agents Chemother 1999 Jun;43(6):1475–9

Bacterial pathogens isolated from patients with skin and soft tissue infections: frequency of occurrence and antimicrobial susceptibility patterns from the SENTRY Antimicrobial Surveillance Program (United States and Canada, 1997). SENTRY Study Group (North America). Doern GV, et al. **Diagn Microbiol Infect Dis** 1999 May;34(1):65–72

Frequency of occurrence and antimicrobial susceptibility of bacterial pathogens associated with skin and soft tissue infections during 1997 from an International Surveillance Programme. SENTRY Participants Group. Jones ME, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jun;18(6):403–8

Skin and soft-tissue infections after injury in the ocean: culture methods and antibiotic therapy for marine bacteria. Reed KC, et al. **Mil Med** 1999 Mar;164(3):198–201

Rhinosporidiosis presenting with two soft tissue tumors followed by dissemination. Angunawela P, et al.
Pathology 1999 Feb;31(1):57–8

Neck mass resulting from local extension of pulmonary blastomycosis. Hoskere GV, et al. **South Med J** 1998 Oct; 91(10):946–8

PATHOLOGY

Percutaneous biopsy of the musculoskeletal system: a review of 77 cases. Hodge JC. **Can Assoc Radiol J** 1999 Apr; 50(2):121–5

Extra- and intracellular accumulation of ultrasmall superparamagnetic iron oxides (USPIO) in experimentally induced abscesses of the peripheral soft tissues and their effects on magnetic resonance imaging. Gellissen J, et al. **Magn Reson Imaging** 1999 May;17(4):557–67

Aeromonas sobria infection with severe soft tissue damage and segmental necrotizing gastroenteritis in a patient with alcoholic liver cirrhosis. Itoh H, et al. **Pathol Int** 1999 Jun; 49(6):541–6

Needle aspirate culture method in soft tissue infections: injection of saline vs. direct aspiration. Traylor KK, et al. **Pediatr Infect Dis J** 1998 Sep;17(9):840–1

RADIOGRAPHY

Role of computed tomography scan in the diagnosis and treatment of deep neck infections in children [letter; comment] Eliashar R, et al. **Laryngoscope** 1999 May; 109(5):844. Comment on: Laryngoscope 1997 Dec;107(12 Pt 1):1627–34.

Comparison of the sensitivity of lateral neck radiographs and computed tomography scanning in pediatric deep-neck infections. Nagy M, et al. **Laryngoscope** 1999 May; 109(5):775–9

Computed tomography in the evaluation of pediatric neck infections. Wetmore RF, et al.
Otolaryngol Head Neck Surg 1998 Dec;119(6):624–7

RADIONUCLIDE IMAGING

Rapid detection of human infections with fluorine-18 fluorodeoxyglucose and positron emission tomography: preliminary results. Sugawara Y, et al. **Eur J Nucl Med** 1998 Sep;25(9):1238–43

SURGERY

Rhinocerebral mucormycosis: report of two cases. Aköz T, et al. **Ann Plast Surg** 1999 Sep;43(3):309–12

[Recurrent soft tissue infections after accidental inoculation with BCG vaccine] Pinocy J, et al. **Unfallchirurg** 1998 Aug; 101(8):658–60 (Eng. Abstr.) **(Ger)**

[The successful treatment of an anaerobic gas infection of the lower extremity at a district hospital] Bogdanov SV, et al. **Vestn Khir Im I I Grek** 1999;158(2):68–9 **(Rus)**

THERAPY

Hyperbaric oxygen in the treatment of life-threatening soft-tissue infections. Clark LA, et al.
Respir Care Clin N Am 1999 Jun;5(2):203–19 (101 ref.)

[Anaerobic bacteria soft tissue infection. Etiology, diagnosis, treatment] Jarrin I, et al. **Rev Prat** 1998 May 15; 48(10):1109–14 (3 ref.) **(Fre)**

[Specific antimicrobial immunity in patients with suppurative soft-tissue diseases undergoing conventional and modified ultraviolet irradiation of autologous blood] Ostrovskii VK, et al. **Anesteziol Reanimatol** 1998 Jul-Aug;(4):27–9 (Eng. Abstr.) **(Rus)**

[Combined treatment of panaritium] Lisitsin AS, et al.
Khirurgiia (Mosk) 1998;(7):34–6 (Eng. Abstr.) **(Rus)**

[The current characteristics in the treatment of suppurative diseases of the face and neck] Gubin MA, et al.
Stomatologiia (Mosk) 1998;77(5):15–8 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

The role of power Doppler sonography in the evaluation of superficial soft tissue abscesses. Arslan H, et al.
Eur J Ultrasound 1998 Nov;8(2):101–6

VETERINARY

Musculoskeletal ultrasonography: seeing is believing [editorial] Cauvin ER. **Vet J** 1999 Jul;158(1):4–5

VIROLOGY

Necrotizing fasciitis caused by Vibrio damsela. Tang WM, et al. **Orthopedics** 1999 Apr;22(4):443–4

SOFT TISSUE INJURIES

Adult posttraumatic osteomyelitis of the tibia. Mader JT, et al. **Clin Orthop** 1999 Mar;(360):14–21 (53 ref.)

Adult posttraumatic osteomyelitis of the tibial diaphysis of the tibial shaft. Seligson D, et al. **Clin Orthop** 1999 Mar; (360):30–6

BLOOD

Calcitonin gene-related peptide and other neuropeptides in the plasma of patients with soft tissue injury. Onuoha GN, et al. **Life Sci** 1999;65(13):1351–8

CLASSIFICATION

Rank order analysis of tibial plafond fractures: does injury or reduction predict outcome? [letter; comment] Rööser B. **Foot Ankle Int** 1999 Aug;20(8):539. Comment on: Foot Ankle Int 1999 Jan;20(1):44–9.

[Classification in trauma surgery (2)] Petersen PF, et al.
Zentralbl Chir 1999;124(1):W1–6 (20 ref.) **(Ger)**

COMPLICATIONS

Fat embolism in a boy with minor nonfracture trauma. Hamood S, et al. **Pediatr Pulmonol** 1999 Mar;27(3):221–3

Fatal necrotizing fasciitis caused by a toothpick injury. Gilad J, et al. **Scand J Infect Dis** 1998;30(2):189–90

[Multiple organ insufficiency in destruction of soft tissues] Musselius SG, et al. **Khirurgiia (Mosk)** 1998;(10):41–5 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

MR imaging of musculoskeletal trauma to the pelvis and the lower limb. Brossmann J, et al. **Eur Radiol** 1999;9(2):183–91 (78 ref.)

Determinants of disability after a work related musculetal injury [see comments] Crook J, et al. **J Rheumatol** 1998 Aug;25(8):1570–7. Comment in: J Rheumatol 1998 Aug;25(8):1454–6.

Work disability and soft tissue rheumatism [letter] Sinclair DS. **J Rheumatol** 1999 Jun;26(6):1414–5

MRI in the assessment of the supportive soft tissues of the cervical spine in acute trauma in children. Keiper MD, et al. **Neuroradiology** 1998 Jun;40(6):359–63

Magnetic resonance imaging in the evaluation of ligament injuries. Farooki S, et al. **Skeletal Radiol** 1999 Feb; 28(2):61–74 (107 ref.)

[Diagnosis, first aid and classification of muscle injuries in sports medicine] Bily W, et al.
Sportverletz Sportschaden 1998 Sep;12(3):87–93 (70 ref.) (Eng. Abstr.) **(Ger)**

ETIOLOGY

Dermatitis in a musician. Part II: Injuries to skin, soft tissue, and bone from musical instruments [news] Fisher AA.
Cutis 1998 Nov;62(5):214–5

Freezing soft tissue injury from propane gas. VanGelder CM, et al. **J Trauma** 1999 Feb;46(2):355–6

IMMUNOLOGY

L-arginine: a unique amino acid for restoring the depressed macrophage functions after trauma-hemorrhage. Angele MK, et al. **J Trauma** 1999 Jan;46(1):34–41

Do different rates of fluid resuscitation adversely or beneficially influence immune responses after trauma-hemorrhage? Knöferl MW, et al. **J Trauma** 1999 Jan;46(1):23–33

METABOLISM

Effects of halothane, ketamine and nitrous oxide on dynorphin mRNA expression in dorsal horn neurons after peripheral tissue injury. Tanimoto M, et al. **Brain Res** 1998 Nov 16;811(1-2):88–95

Assessment of tissue oxygenation. Robertson PW, et al.
Respir Care Clin N Am 1999 Jun;5(2):221–63 (192 ref.)

PATHOLOGY

Necrosis of the urethra and tissue sloughing: a delayed complication after transurethral microwave thermotherapy. Stravodimos KG, et al. **J Endourol** 1998 Aug;12(4):379–80

[The histological changes and pathogenesis of an infarct of a long bone in soft-tissue trauma to an extremity with damage to the feeding artery] Grigorovskil VV.
Lik Sprava 1998 Dec;(8):136–40 (Eng. Abstr.) **(Rus)**

[An unusual case of trauma to the passenger in the interior compartment of a motor vehicle] Bastuev NV, et al.
Sud Med Ekspert 1999 Jul-Aug;42(4):38–9 **(Rus)**

PHYSIOPATHOLOGY

Pathophysiology of posttraumatic osteomyelitis. Tsukayama DT. **Clin Orthop** 1999 Mar;(360):22–9 (61 ref.)

Ankle sprains and other soft tissue injuries. Liu SH, et al. **Curr Opin Rheumatol** 1999 Mar;11(2):132–7 (71 ref.)

PSYCHOLOGY

Catastrophizing, pain, and disability in patients with soft-tissue injuries. Sullivan MJ, et al. **Pain** 1998 Sep; 77(3):253–60

RADIOGRAPHY

Extracranial soft-tissue swelling: a normal postmortem radiographic finding or a sign of trauma? Strouse PJ, et al. **Pediatr Radiol** 1998 Aug;28(8):594–6

CT of soft tissue injury and orbital fractures. Mauriello JA Jr, et al. **Radiol Clin North Am** 1999 Jan;37(1):241–52, xii (35 ref.)

REHABILITATION

Perspectives on prognosis of soft tissue musculoskeletal disorders. Hudak PL, et al. **Int J Rehabil Res** 1998 Mar; 21(1):29–40 (38 ref.)

Catastrophizing, pain, and disability in patients with soft-tissue injuries. Sullivan MJ, et al. **Pain** 1998 Sep; 77(3):253–60

[Falls incurred by the elderly resulting in injury: pathogenesis and rehabilitation] Rietz S, et al. **Rehabilitation (Stuttg)** 1999 Feb;38(1):16–9 (Eng. Abstr.) **(Ger)**

SURGERY

Serratus anterior free fascial flap for dorsal hand coverage. Fassio E, et al. **Ann Plast Surg** 1999 Jul;43(1):77–82

Repair of high-energy-induced tissue defects of the dorsal foot by free muscle transfer and skin graft. Işik S, et al. **Ann Plast Surg** 1999 Jul;43(1):21–9

The distally based ulnar artery forearm flap supplied by the dorsal carpal arch. Karacalar A, et al. **Ann Plast Surg** 1998 Sep;41(3):304–6

Combination latissimus dorsi and rectus abdominis musculocutaneous flap for primary repair of a large upper limb defect. Onishi K, et al. **Ann Plast Surg** 1998 Sep; 41(3):295–9

Split pectoralis major muscle flap reconstruction after clavicular-manubrial resection. Zehr KJ, et al.
Ann Thorac Surg 1999 May;67(5):1507–8

On the timing of soft-tissue reconstruction for open fractures of the lower leg. Hertel R, et al.
Arch Orthop Trauma Surg 1999;119(1-2):7–12

Non-free osteoplasty of the mandible in maxillofacial gunshot wounds: mandibular reconstruction by compression-osteodistraction. Shvyrkov MB, et al.
Br J Oral Maxillofac Surg 1999 Aug;37(4):261–7

Reconstruction of large soft tissue defects in the inguinal and suprapubic region using a variety of flaps. Schwabegger AH, et al. **Eur Urol** 1999 Apr;35(4):304–11

Treatment of composite tissue loss following hand and forearm trauma. Tomaino MM. **Hand Clin** 1999 May; 15(2):319–33, ix (31 ref.)

Microsurgical flaps for limb salvage in children. Yuen JC, et al. **J Ark Med Soc** 1999 Feb;95(9):387–8

Osteocutaneous radial forearm flap for hand reconstruction. Yajima H, et al. **J Hand Surg [Am]** 1999 May;24(3):594–603

The subcutaneous turn-over flap in the treatment of difficult wounds of the digits. Cavadas PC, et al.
J Hand Surg [Br] 1998 Aug;23(4):472–5

Ilizarov's technique used to expand skin from a groin flap. Low CK, et al. **J Hand Surg [Br]** 1999 Jun;24(3):361–2

Reconstruction of large palmar defects of the hand using free flaps. Ninković MM, et al. **J Hand Surg [Br]** 1997 Oct;22(5):623–30

Osteogenic ability of free periosteal autografts in tibial fractures with severe soft tissue damage: an experimental study. Reynders P, et al. **J Orthop Trauma** 1999 Feb; 13(2):121–8

The soft tissue management of children's open tibial fractures. Stewart KJ, et al. **J R Coll Surg Edinb** 1999 Feb;44(1):24–30

Reconstruction of ankle and heel defects by a modified wide-base reverse sural flap. Tu YK, et al. **J Trauma** 1999 Jul;47(1):82–8

Reconstruction of soft tissue and bone defects in lower extremity with free flaps. Kaplan I, et al. **Microsurgery** 1998;18(3):176–81

Reconstruction of foot defects due to mine explosion using muscle flaps. Selmanpakoglu N, et al. **Microsurgery** 1998; 18(3):182–8

Upper extremity salvage procedure with flow-through free flap transfer taken from the amputated part. Yavuz M, et al. **Microsurgery** 1998;18(3):163–5

Role of pin traction in wound closure. Sangwan SS, et al.
Orthopedics 1999 Apr;22(4):419–22

One-stage reconstruction of an infected skin and Achilles tendon defect with a composite distally planned lateral arm flap. Berthe JV, et al. **Plast Reconstr Surg** 1998 Oct; 102(5):1618–22

Versatility and reliability of combined flaps of the subscapular system. Germann G, et al. **Plast Reconstr Surg** 1999 Apr; 103(5):1386–99

The rectus abdominis free flap as an emergency procedure in extensive upper extremity soft-tissue defects. Horch RE,

et al. **Plast Reconstr Surg** 1999 Apr;103(5):1421-7

Reconstruction of soft-tissue defects using serratus anterior adipofascial free flap. Kim Y, et al. **Plast Reconstr Surg** 1999 Mar;103(3):925-9

Flow-through thin latissimus dorsi perforator flap for repair of soft-tissue defects in the legs. Koshima I, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1483-90

In vivo degradation and release kinetics of chloramphenicol-loaded poly(D,L)-lactide sponges. Taş C, et al. **Tissue Eng** 1998 Winter;4(4):353-63

[A turning point in the therapeutic history of open leg fractures: osteosynthesis coupled to the immediate dressing in the presence of major damage to the soft tissues] Vichard P, et al. **Bull Acad Natl Med** 1999;183(3):569-85; discussion 586-8 (Eng. Abstr.) **(Fre)**

[Atypical heparin-induced thrombocytopenia (HIT)--"heparin allergy" with thrombocytosis] Folwaczny EK, et al. **Chirurg** 1999 May;70(5):588-93; discussion 593-4 (Eng. Abstr.) **(Ger)**

[Soft tissue reconstruction of the finger with free, posterior ramus of the anterior interosseous artery-based septo-cutaneous flap. Anatomy--technique--case examples] Fritsche E, et al. **Handchir Mikrochir Plast Chir** 1999 Jan;31(1):27-34; discussion 35-6 (Eng. Abstr.) **(Ger)**

[Free microvascular rectus abdominis muscle flap for soft tissue reconstruction of the lower leg and foot: results and donor site defect] Geishauser M, et al. **Handchir Mikrochir Plast Chir** 1999 Jan;31(1):21-6 (Eng. Abstr.) **(Ger)**

[Treatment of soft tissue damage--definitive management] Heppert V, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:964-7 (Eng. Abstr.) **(Ger)**

[Does tissue perfusion after free microvascular tissue transplantation stay autonomous?] Machens HG, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1271-3 (Eng. Abstr.) **(Ger)**

[The floating joint injury of the lower and upper extremity--epidemiology, therapy and results in 40 extremities] Sommer C, et al. **Swiss Surg** 1998;(4):163-9 (Eng. Abstr.) **(Ger)**

[Trauma to the forearm with damage to the major arteries] Dudanov IP, et al. **Vestn Khir Im I I Grek** 1999;158(2):31-5 (Eng. Abstr.) **(Rus)**

THERAPY

Effects of cold water immersion on the symptoms of exercise-induced muscle damage. Eston R, et al. **J Sports Sci** 1999 Mar;17(3):231-8

Do different rates of fluid resuscitation adversely or beneficially influence immune responses after trauma-hemorrhage? Knöferl MW, et al. **J Trauma** 1999 Jan;46(1):23-33

Assessment of tissue oxygenation. Robertson PW, et al. **Respir Care Clin N Am** 1999 Jun;5(2):221-63 (192 ref.)

[Adaptation-reposition technological means in combination with a bioactive preparation Ximedon for stimulation of wound healing] Izmailov SG, et al. **Med Tekh** 1999 Mar-Apr;(2):16-21 (Eng. Abstr.) **(Rus)**

ULTRASONOGRAPHY

The feasibility of elastographic visualization of HIFU-induced thermal lesions in soft tissues. Image-guided high-intensity focused ultrasound. Kallel F, et al. **Ultrasound Med Biol** 1999 May;25(4):641-7

Elastographic imaging of thermal lesions in soft tissue: a preliminary study in vitro. Stafford RJ, et al. **Ultrasound Med Biol** 1998 Nov;24(9):1449-58

[Ultrasound in the demonstration of a wood splinter in the hand] Hierholzer J, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):169-70 **(Ger)**

[Ruptures of the medial gastrocnemius muscle: diagnosis with high resolution ultrasound] Dessl A, et al. **Ultraschall Med** 1998 Oct;19(5):230-3 (Eng. Abstr.) **(Ger)**

VETERINARY

Palmar digital vessel relaxation in healthy horses and in horses given carbohydrate. Schneider DA, et al. **Am J Vet Res** 1999 Feb;60(2):233-9

SOFT TISSUE NEOPLASMS

Soft tissue and bone sarcomas in association with pregnancy. Merimsky O, et al. **Acta Oncol** 1998;37(7-8):721-7

Parachordoma is immunohistochemically and cytogenetically distinct from axial chordoma and extraskeletal myxoid chondrosarcoma. Folpe AL, et al. **Am J Surg Pathol** 1999 Sep;23(9):1059-67

Adult soft tissue sarcoma. Mann GB, et al. **Aust N Z J Surg** 1999 May;69(5):336-43 (85 ref.)

Liposarcoma: a review of current diagnosis and management. Wong CK, et al. **Br J Hosp Med** 1998 Dec 10;58(11):589-91 (19 ref.)

Morpho-immunophenotypic-genotypic infidelity in synovial sarcoma [letter; comment] Mezzelani A, et al. **Diagn Mol Pathol** 1998 Aug;7(4):232-3. Comment on: Diagn Mol Pathol 1998 Feb;7(1):16-23.

Lipoma of the first metatarsophalangeal joint [letter] Sesto PG. **J Am Podiatr Med Assoc** 1999 Jun;89(6):320-2

Clinicopathological characteristics of melanomas of the hand. Hove LM, et al. **J Hand Surg [Br]** 1999 Aug;24(4):460-4

Ossifying fibromyxoid tumor of soft parts in a child: a case report. Ijiri R, et al. **J Pediatr Surg** 1999 Aug;34(8):1294-6 (18 ref.)

Lipoblastomatosis in a newborn: case report [letter; comment] Arda IS, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):156. Comment on: Pediatr Surg Int 1997;12(1):71-2.

Soft tissue sarcomas of infancy. Palumbo JS, et al. **Semin Perinatol** 1999 Aug;23(4):299-309 (61 ref.)

BLOOD SUPPLY

Angiography for assessment of preoperative chemotherapy in musculoskeletal sarcomas. Fujii J, et al. **Clin Orthop** 1999 Mar;(360):197-206

Color Doppler sonography of focal lesions of the skin and subcutaneous tissue. Giovagnorio F, et al. **J Ultrasound Med** 1999 Feb;18(2):89-93

CHEMICALLY INDUCED

Low susceptibility of specific inbred colonies of rats to nickel tumorigenesis in soft tissue. Ohmori T, et al. **Cancer Lett** 1999 Feb 8;136(1):53-8

The development of malignant rhabdoid tumor in a patient with Behçet's disease treated with ciclosporin. Muramatsu M, et al. **Graefes Arch Clin Exp Ophthalmol** 1998 Oct; 236(10):798-9

[Paraffinomas: history, clinical features and treatment. A case report] Mounios-Perchenet AS, et al. **Ann Chir Plast Esthet** 1997 Feb;42(1):27-30 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Recurrent ossifying fibromyxoid tumour of soft parts. Immunohistochemical profile and ultrastructure. Adamek D, et al. **Pol J Pathol** 1998;49(3):179-82

Expression of P53, MDM2 and Ki-67 antigens in soft tissue sarcomas. Szadowska A, et al. **Pol J Pathol** 1999;50(1):9-16

CLASSIFICATION

Morphologic review of 1000 soft tissue sarcomas from the Scandinavian Sarcoma Group (SSG) Register. The peer-review committee experience. Meis-Kindblom JM, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:18-26

Myofibroblastic tumours: an update. Fletcher CD. **Verh Dtsch Ges Pathol** 1998;82:75-82 (74 ref.)

[Soft tissue tumors. I. Classification and staging] Schneider G, et al. **Radiologe** 1999 Mar;39(3):W245-53 **(Ger)**

[Cutaneous and subcutaneous soft tissue tumors] Meister P. **Verh Dtsch Ges Pathol** 1998;82:112-20 (36 ref.) (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Chronic lower extremity deep vein thrombosis associated with femoral vein compression by a lipoma. Brady PS, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1697-8

Spontaneous chylothorax associated with primary lymphedema and a lymphangioma malformation. Dagenais F, et al. **Ann Thorac Surg** 1999 May;67(5):1480-2

Compartment syndrome. An unusual etiology [clinical conference] Goldfarb CA, et al. **Clin Orthop** 1998 Nov; (356):248-53, 264-6

Localized soft tissue angiomatosis with subsequent development of angiolymphoid hyperplasia with eosinophilia. Misago N, et al. **J Dermatol** 1999 Jan; 26(1):48-55

Rupture of the tendon of flexor digitorum profundus in association with an endchondroma of the terminal phalanx. Vaz FM, et al. **J Hand Surg [Br]** 1998 Aug;23(4):548-9

Kaposiform hemangioendothelioma with associated Kasabach-Merritt phenomenon. The Hemophilia Growth and Development Study. Arnaout MK, et al. **J Pediatr** 1998 Dec;133(6):788

Tumor-induced osteomalacia and symptomatic looser zones secondary to mesenchymal chondrosarcoma. Zura RD, et al. **J Surg Oncol** 1999 May;71(1):58-62

Characteristics of recovery from the euthyroid sick syndrome induced by tumor necrosis factor alpha in cancer patients. Feelders RA, et al. **Metabolism** 1999 Mar;48(3):324-9

A case report on aggressive fibromatosis with bone involvement. Tan YY, et al. **Singapore Med J** 1999 Feb; 40(2):111-2

Giant ossified cavernous hemangioma of an extremity associated with an equinovarus deformity. Wang YC, et al. **Skeletal Radiol** 1998 Sep;27(9):522-4

Extraspinal bone and soft-tissue tumors as a cause of sciatica. Clinical diagnosis and recommendations: analysis of 32 cases. Bickels J, et al. **Spine** 1999 Aug 1;24(15):1611-6

Acute onset of coagulopathy in a patient with Kasabach-Merritt syndrome following transurethral resection of bladder tumor. Shoji N, et al. **Urol Int** 1998; 61(2):115-8

CONGENITAL

Congenital mesoblastic nephroma t(12;15) is associated with ETV6-NTRK3 gene fusion: cytogenetic and molecular relationship to congenital (infantile) fibrosarcoma. Rubin BP, et al. **Am J Pathol** 1998 Nov;153(5):1451-8

Infantile fibrosarcoma. Report of two cases. Kagawa K, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):105-9

DIAGNOSIS

MR imaging of lipoma and liposarcoma. Einarsdottir H, et al. **Acta Radiol** 1999 Jan;40(1):64-8

Application of immunocytochemistry in the diagnosis of soft tissue sarcomas: a review and update. Ordóñez NG. **Adv Anat Pathol** 1998 Mar;5(2):67-85 (277 ref.)

Subcutaneous sacrococcygeal myxopapillary ependymoma. Chung JY, et al. **AJNR Am J Neuroradiol** 1999 Feb; 20(2):344-6

Soft-tissue malignancies in infancy. McCarville MB, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):973-7

MR imaging of a subungual glomus tumor. Opdenakker G, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):250-1

Aggressive angiomyxoma: findings on CT and MR imaging. Outwater EK, et al. **AJR Am J Roentgenol** 1999 Feb; 172(2):435-8

Soft tissue masses of the chest wall and axilla: has metastatic melanoma been considered? Schwarz RE, et al. **Am J Clin Oncol** 1999 Apr;22(2):174-7

Recent advances in soft tissue tumor diagnosis. Mentzel T, et al. **Am J Clin Pathol** 1998 Nov;110(5):660-70 (66 ref.)

Benign bone and soft-tissue tumors about the knee. Wurtz LD, et al. **Am J Knee Surg** 1998 Fall;11(4):246-56 (21 ref.)

Presentation and diagnosis of unilateral maxillary swelling in children. Koch BL, et al. **Am J Otolaryngol** 1999 Mar-Apr;20(2):106-29 (92 ref.)

Dendritic fibromyxolipoma: clinicopathologic study of a distinctive benign soft tissue lesion that may be mistaken for a sarcoma. Suster S, et al. **Ann Diagn Pathol** 1998 Apr; 2(2):111-20

Extraskeletal Ewing's sarcoma mimicking traumatic hematoma. Ogose A, et al. **Arch Orthop Trauma Surg** 1998; 118(3):172-3

Lipoblastomatosis of the shoulder: unusual MR appearance. Wang SF, et al. **Br J Radiol** 1998 Aug;71(848):884-5

Melanoma-associated antigen recognized by T cells (MART-1): the advent of a preferred immunocytochemical antibody for the diagnosis of metastatic malignant melanoma with fine-needle aspiration. Fetsch PA, et al. **Cancer** 1999 Feb 25;87(1):37-42

Metastatic alveolar rhabdomyosarcoma with increased serum creatine kinase MB and cardiac troponin T and normal cardiac troponin I [letter] Isotalo PA, et al. **Clin Chem** 1999 Sep;45(9):1576-8

Bilateral elastofibroma dorsi. Two case reports. Hsieh SC, et al. **Clin Imaging** 1999 Jan-Feb;23(1):47-50

Lymphoma presenting as a soft tissue mass. A soft tissue sarcoma simulator. Damron TA, et al. **Clin Orthop** 1999 Mar;(360):221-30

Elastofibroma dorsi. Study of two cases and magnetic resonance imaging findings. Zembsch A, et al. **Clin Orthop** 1999 Jul;(364):213-9

Diffuse neurofibroma of the ankle. Beggs I, et al. **Clin Radiol** 1998 Oct;53(10):755-9

Case report: Aggressive angiomyxoma of the pelvic soft tissues: US and CT findings. Catalano O. **Clin Radiol** 1998 Oct;53(10):782-3

The diagnosis and management of soft tissue sarcomas of the extremities in the adult. Rougraff B. **Curr Probl Cancer** 1999 Jan-Feb;23(1):1-50 (134 ref.)

Magnetic resonance imaging of musculoskeletal tumors: skeletal and soft tissue masses. Ma LD. **Curr Probl Diagn Radiol** 1999 Mar-Apr;28(2):29-62 (32 ref.)

Difficulties in the fine needle aspiration (FNA) diagnosis of schwannoma. Yu GH, et al. **Cytopathology** 1999 Jun; 10(3):186-94

Diagnosis of synovial sarcoma with the reverse transcriptase-polymerase chain reaction: analyses of 84 soft tissue and bone tumors. Hiraga H, et al. **Diagn Mol Pathol** 1998 Apr;7(2):102-10

Elastofibroma dorsi: MR and CT findings. Soler R, et al. **Eur J Radiol** 1998 Jul;27(3):264-7

Mis-diagnosis of an arteriovenous malformation. Chan YC, et al. **Eur J Vasc Endovasc Surg** 1998 Sep;16(3):259-61

US and CT findings of multicentric leiomyosarcomatosis. Akata D, et al. **Eur Radiol** 1999;9(4):711-4

Soft tissue Burkitt's lymphoma: radiological findings. García-Barredo R, et al. **Eur Radiol** 1998;8(9):1654-6

Liposarcoma: diagnosis and management [letter; comment] Grimer RJ, et al. **Hosp Med** 1998 Sep;59(9):737. Comment on: Hosp Med 1998 Sep;59(9):676-7.

Elastofibroma dorsi: a rare tumour. Simcock DE, et al. **Hosp Med** 1998 Nov;59(11):894-5

Role of electron microscopy in the evaluation of soft tissue neoplasms, with emphasis on spindle cell and pleomorphic tumors. Erlandson RA, et al. **Hum Pathol** 1998 Dec; 29(12):1372-81 (71 ref.)

Popliteal venous aneurysm mimicking a soft tissue tumour. A case report. Tsolakis JA, et al. **Int Angiol** 1999 Mar; 18(1):74-6

Para-articular chondroma and osteochondroma of the infrapatellar fat pad: a report of three cases. Sakai H, et al. **Int Orthop** 1999;23(2):114-7

Persistent "haematoma". Clancy MJ. **J Accid Emerg Med** 1999 Jul;16(4):303

Recurrent giant-cell tumor presenting as a soft-tissue mass. A report of four cases. Lee FY, et al.

J Bone Joint Surg Am 1999 May;81(5):703–7

Subungual glomus tumor: combined use of MRI and three-dimensional contrast MR angiography. Boudghene FP, et al. **J Magn Reson Imaging** 1998 Nov–Dec; 8(6):1326–8

Intramuscular hemangioma: a benign tumor masquerading as malignant soft tissue tumor. Report of two cases. Verna C, et al. **J Okla State Med Assoc** 1999 Jan;92(1):21–3

Diagnosis and treatment of soft tissue tumors. Iwamoto Y. **J Orthop Sci** 1999;4(1):54–65 (28 ref.)

Extraosseous osteogenic sarcoma--a rare pediatric malignancy: case report and review of the literature. Humphrey GM, et al. **J Pediatr Surg** 1999 Jun;34(6):1025–8 (29 ref.)

Childhood lipoma arborescens presenting as bilateral suprapatellar masses. Haasbeek JF, et al. **J Rheumatol** 1999 Mar;26(3):683–6

Recent advances in the diagnosis of pediatric soft-tissue tumors. Kilpatrick SE, et al. **Med Pediatr Oncol** 1999 May; 32(5):373–6 (22 ref.)

Mentzel T, Goodland JR, Smith MA, Fletcher CDM: Ancient hematoma: a unifying concept for a post-traumatic lesion mimicking an aggressive soft tissue neoplasm. Mod Pathol 1997;10:334–340 [letter; comment] Finn LS. **Mod Pathol** 1998 Aug;11(8):799–800. Comment on: Mod Pathol 1997 Apr;10(4):334–40.

An audit of magnetic resonance imaging in the paediatric orthopaedic setting. Walker ML, et al. **N Z Med J** 1998 Nov 13;111(1077):430–2

Spontaneous pelvic hematoma simulating neoplasm: case report and literature review. Chia SH, et al. **Oncol Rep** 1999 Jan–Feb;6(1):189–91

Non-Hodgkin's lymphoma presenting as facial swelling and nasal obstruction in a pediatric patient. Reichman OS, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):127–9

Lipoblastoma: MRI appearances of a rare paediatric soft tissue tumour. Reiseter T, et al. **Pediatr Radiol** 1999 Jul; 29(7):542–5

Application of a three-point method for water-fat MR imaging in children. Sargent MA, et al. **Pediatr Radiol** 1999 Jun;29(6):444–8

An unusual presentation of congenital infantile myofibromatosis arising from the interspinous ligament. Kubota A, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):138–9 (14 ref.)

MR imaging of benign soft-tissue masses of the foot and ankle. Llauger J, et al. **Radiographics** 1998 Nov–Dec; 18(6):1481–98 (27 ref.)

Desmoplastic small round cell tumor of the abdomen: radiologic-histopathologic correlation. Pickhardt PJ, et al. **Radiology** 1999 Mar;210(3):633–8

Controversial issues in diagnosis of liposarcomas of the thigh. A report of 18 cases. Ribuffo D, et al. **Scand J Plast Reconstr Surg Hand Surg** 1998 Sep; 32(3):323–30

Prognostic factors in soft tissue sarcoma. Levine EA. **Semin Surg Oncol** 1999 Jul–Aug;17(1):23–32 (76 ref.)

Soft tissue sarcomas in children. Pappo AS, et al. **Semin Surg Oncol** 1999 Mar;16(2):121–43 (127 ref.)

New diagnostic modalities in soft tissue sarcoma. Singer S. **Semin Surg Oncol** 1999 Jul–Aug;17(1):11–22 (78 ref.)

Optimal radiologic imaging of soft tissue sarcomas. Varma DG. **Semin Surg Oncol** 1999 Jul–Aug;17(1):2–10 (56 ref.)

Grading of subcutaneous soft tissue tumors by means of their relationship with the superficial fascia on MR imaging. Galant J, et al. **Skeletal Radiol** 1998 Dec;27(12):657–63

Dynamic contrast-enhanced MRI with subtraction of aggressive soft tissue tumors after resection. Vanel D, et al. **Skeletal Radiol** 1998 Sep;27(9):505–10

Giant ossified cavernous hemangioma of an extremity associated with an equinovarus deformity. Wang YC, et al. **Skeletal Radiol** 1998 Sep;27(9):522–4

Deep soft tissue leiomyoma of the thigh. Watson GM, et al. **Skeletal Radiol** 1999 Jul;28(7):411–4

The diagnostive evaluation and surgical management of soft tissue sarcomas. Igun GO. **West Afr J Med** 1998 Oct–Dec; 17(4):232–5

[New entities and pitfalls in the diagnosis of soft tissue tumors] Michal M, et al. **Rozhl Chir** 1999 Feb;78(2):76–82 (76 ref.) (Eng. Abstr.) **(Cze)**

[A swelling in the distal part of the thigh] Smits TM, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1697–701 (Eng. Abstr.) **(Dut)**

[Malignant melanoma of soft tissues. Apropos of a case] Boutry N, et al. **J Radiol** 1998 Aug;79(8):767–9 (Eng. Abstr.) **(Fre)**

[Desmoid tumor of the thoracic wall. A case manifesting as painful stiffness of the shoulder] Giraudet-Le Quintrec JS, et al. **Presse Med** 1998 Nov 7;27(34):1727–30 (Eng. Abstr.) **(Fre)**

[Soft tissue tumors. II] Schneider G, et al. **Radiologe** 1999 Apr;39(4):330–41 (0 ref.) **(Ger)**

[Intra-abdominal desmoplastic small-cell tumor--the rare differential diagnosis of a malignant peritoneal tumor] Rozeik C, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Sep;169(3):321–3 (10 ref.) **(Ger)**

[Aggressive fibromatosis in the supraclavicular region: findings with computerized tomography and magnetic resonance in a case] Barbiera F, et al. **Radiol Med (Torino)** 1998 Oct;96(4):399–401 **(Ita)**

[The allowable degree of compression of biological soft tissues for tumor diagnosis] Skovoroda AR, et al. **Biofizika** 1999 May–Jun;44(3):550–4 (Eng. Abstr.) **(Rus)**

[CD-34 expression in elastofibroma. Clinicopathological, histochemical, and immunohistochemical study of four cases] Ruelas Villavicencio AL, et al. **Rev Invest Clin** 1999 Jan–Feb;51(1):11–6 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Chemotherapy in soft tissue sarcoma. The Scandinavian Sarcoma Group experience. Fernberg JO, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:62–8

Phase II trial of first-line high-dose ifosfamide in advanced soft tissue sarcomas of the adult: a study of the Spanish Group for Research on Sarcomas (GEIS) [see comments] Buesa JM, et al. **Ann Oncol** 1998 Aug;9(8):871–6. Comment in: Ann Oncol 1999 Jan;10(1):123–4.

High-dose ifosfamide plus adriamycin in the treatment of adult advanced soft tissue sarcomas: is it feasible? [see comments] De Pas T, et al. **Ann Oncol** 1998 Aug;9(8):917–9 . Comment in: Ann Oncol 1998 Aug;9(8):807–9.

Phase I multicenter study of combined high-dose ifosfamide and doxorubicin in the treatment of advanced sarcomas. Swiss Group for Clinical Research (SAKK) [see comments] Leyvraz S, et al. **Ann Oncol** 1998 Aug;9(8):877–84. Comment in: Ann Oncol 1998 Aug;9(8):807–9.

High-dose ifosfamide for soft tissue sarcomas: set the scene, or senescence? [editorial; comment] Verweij J. **Ann Oncol** 1998 Aug;9(8):807–9. Comment on: Ann Oncol 1998 Aug;9(8):870–84. Comment on: Ann Oncol 1998 Aug;9(8):917–9.

Treatment of soft-tissue sarcomas: high-dose ifosfamide or combination of ifosfamide and etoposide? [letter; comment] Yalçin S. **Ann Oncol** 1999 Jan;10(1):123–4. Comment on: Ann Oncol 1998 Aug;9(8):871–6.

TNF alpha in isolated perfusion systems: success in the limb, developments for the liver credits, debits and future perspectives. Eggermont AM. **Anticancer Res** 1998 Sep–Oct;18(5D):3899–905 (80 ref.)

rIL-2 in metastatic soft tissue sarcomas refractory to chemotherapy: response and enhancement of further chemosensitivity. Gravis G, et al. **Anticancer Res** 1998 Sep–Oct;18(5B):3699–704

Caffeine-potentiated chemotherapy and conservative surgery for high-grade soft-tissue sarcoma. Tsuchiya H, et al. **Anticancer Res** 1998 Sep–Oct;18(5B):3651–6

Characterization of human soft-tissue sarcoma xenografts for use in secondary drug screening. Boven E, et al. **Br J Cancer** 1998 Dec;78(12):1586–93

High-dose epirubicin is not an alternative to standard-dose doxorubicin in the treatment of advanced soft tissue sarcomas. A study of the EORTC soft tissue and bone sarcoma group. Nielsen OS, et al. **Br J Cancer** 1998 Dec; 78(12):1634–9

Should patients with advanced sarcomas be treated with chemotherapy? [see comments] Benjamin RS, et al. **Eur J Cancer** 1998 Jun;34(7):958–65 (43 ref.). Comment in: Eur J Cancer 1999 Feb;35(2):327.

Chemotherapy dose-intensification for pediatric patients with Ewing's family of tumors and desmoplastic small round-cell tumors: a feasibility study at St. Jude Children's Research Hospital. Marina NM, et al. **J Clin Oncol** 1999 Jan;17(1):180–90

Prognostic factors for the outcome of chemotherapy in advanced soft tissue sarcoma: an analysis of 2,185 patients treated with anthracycline-containing first-line regimens--a European Organization for Research and Treatment of Cancer Soft Tissue and Bone Sarcoma Group Study. Van Glabbeke M, et al. **J Clin Oncol** 1999 Jan; 17(1):150–7

Toxicity and antitumor activity of interferon gamma alone and in combinations with TNFalpha and melphalan in isolated limb perfusion in the BN175 sarcoma tumor model in rats. Manusama ER, et al. **Oncol Rep** 1999 Jan–Feb; 6(1):173–7

Sacrococcygeal germ-cell tumours--the Red Cross War Memorial Children's Hospital experience, 1980–1996. Daubenton JD, et al. **S Afr Med J** 1998 Dec;88(12):1592–4

New chemotherapeutic strategies for soft tissue sarcomas. Patel SR, et al. **Semin Surg Oncol** 1999 Jul–Aug;17(1):47–51 (31 ref.)

Chemoradiation treatment strategies for localized sarcoma: conventional and investigational approaches. Pisters PW. **Semin Surg Oncol** 1999 Jul–Aug;17(1):66–71 (25 ref.)

[Chemotherapy of soft tissue sarcoma in the adult (published erratum appears in Cancer Radiother 1999 Jan–Feb;3(1):85)] Lagarde P, et al. **Cancer Radiother** 1998 Dec;2(6):747–51 (18 ref.) (Eng. Abstr.) **(Fre)**

[Adjuvant chemotherapy in early soft tissue sarcoma and palliative chemotherapy in advanced soft tissue sarcoma in adults] Sauer H. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1066–71 (72 ref.) (Eng. Abstr.) **(Ger)**

[How do we treat refractory soft tissue sarcomas? (editorial)] Colucci G. **Clin Ter** 1998 Sep–Oct;149(5):327–8 (22 ref.) **(Ita)**

ENZYMOLOGY

Telomerase activity and human telomerase reverse transcriptase mRNA expression in soft tissue tumors: correlation with grade, histology, and proliferative activity. Yan P, et al. **Cancer Res** 1999 Jul 1;59(13):3166–70

EPIDEMIOLOGY

A review of the epidemiology of soft tissue sarcoma. Olsson H. **Acta Orthop Scand Suppl** 1999 Jun;285:8–10 (29 ref.)

Occupational chlorophenol exposure and soft tissue sarcoma risk among men aged 30–60 years. Hoppin JA, et al. **Am J Epidemiol** 1998 Oct 1;148(7):693–703

The risk of angiosarcoma following primary breast cancer. Cozen W, et al. **Br J Cancer** 1999 Oct;81(3):532–6

Association of childhood cancer with factors related to pregnancy and birth. Schüz J, et al. **Int J Epidemiol** 1999 Aug;28(4):631–9

ETIOLOGY

Development of a desmoid tumor at the site of a total hip replacement. Gebhart M, et al. **Acta Orthop Belg** 1999 Jun; 65(2):230–4 (24 ref.)

Multiple giant cell tumors complicating Paget's disease. Pathak HJ, et al. **AJR Am J Roentgenol** 1999 Jun; 172(6):1696–7

Squamous cell carcinoma in chronic ulcerative lesions: a case report and literature review. Hensel KS, et al. **Am J Orthop** 1999 Apr;28(4):253–6 (14 ref.)

The development of a malignant fibrous histiocytoma after treatment for advanced testicular seminoma. Shinohara N, et al. **BJU Int** 1999 Feb;83(3):355–6

The pneumoperitoneum and its role in tumor seeding. Reymond MA, et al. **Dig Surg** 1998;15(2):105–9 (48 ref.)

Occupational risk factors for sarcoma subtypes. Hoppin JA, et al. **Epidemiology** 1999 May;10(3):300–6

Exposure to polymeric materials in vascular soft-tissue sarcomas. Rhomberg W. **Int Arch Occup Environ Health** 1998 Jul;71(5):343–7

Trauma-induced Kaposi's sarcoma of the hallux. An unusual case. Berkowitz KD, et al. **J Am Podiatr Med Assoc** 1998 Oct;88(10):500–5

Soft tissue malignant lymphoma at sites of previous surgery. Radhi JM, et al. **J Clin Pathol** 1998 Aug;51(8):629–32

Frequent beta-catenin abnormalities in bone and soft-tissue tumors. Iwao K, et al. **Jpn J Cancer Res** 1999 Feb; 90(2):205–9

Subacromial-subdeltoid lipoma arborescens associated with a rotator cuff tear. Nisolle JF, et al. **Skeletal Radiol** 1999 May;28(5):283–5

GENETICS

Reverse transcriptase polymerase chain reaction on fine needle aspirates for rapid detection of translocations in synovial sarcoma [see comments] Nilsson G, et al. **Acta Cytol** 1998 Nov–Dec;42(6):1317–24. Comment in: Acta Cytol 1998 Nov–Dec;42(6):1315–6.

Genetic changes in bone and soft tissue tumors. Mandahl N, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:30–40 (59 ref.)

Prognostic factors in soft tissue sarcoma. A review and the Scandinavian Sarcoma Group experience. Rydholm A, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:50–7 (72 ref.)

Congenital mesoblastic nephroma t(12;15) is associated with ETV6-NTRK3 gene fusion: cytogenetic and molecular relationship to congenital (infantile) fibrosarcoma. Rubin BP, et al. **Am J Pathol** 1998 Nov;153(5):1451–8

Poorly differentiated synovial sarcoma: an analysis of clinical, pathologic, and molecular genetic features. van de Rijn M, et al. **Am J Surg Pathol** 1999 Jan;23(1):106–12

Frequent loss of expression or aberrant alternative splicing of P2XM, a p53-inducible gene, in soft-tissue tumours. Nawa G, et al. **Br J Cancer** 1999 Jun;80(8):1185–9

Molecular alterations in bone and soft-tissue sarcoma. Bell RS, et al. **Can J Surg** 1999 Aug;42(4):259–66 (45 ref.)

Chromosome rearrangement at 17q25 and xp11.2 in alveolar soft-part sarcoma: A case report and review of the literature. Joyama S, et al. **Cancer** 1999 Oct 1;86(7):1246–50 (24 ref.)

H-ras and K-ras mutations in soft tissue sarcoma: comparative studies of sarcomas from Korean and American patients. Yoo J, et al. **Cancer** 1999 Jul 1; 86(1):58–63

Isochromosome (12p) and peritriploidy in a highly malignant extrarenal rhabdoid tumor. Comtesse PP, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):175–7

Loss of chromosome 13 is the most frequent genomic imbalance in malignant fibrous histiocytomas. A comparative genomic hybridization analysis of a series of 30 cases. Mairal A, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):134–8

Chromosome instability in elastofibroma [letter] Vanni R, et al. **Cancer Genet Cytogenet** 1999 Jun;111(2):182–3

Telomerase activity and human telomerase reverse transcriptase mRNA expression in soft tissue tumors: correlation with grade, histology, and proliferative activity. Yan P, et al. **Cancer Res** 1999 Jul 1;59(13):3166–70

The cytogenetic and molecular characterization of benign and malignant soft tissue tumors. Sreekantaiah C. **Cytogenet Cell Genet** 1998;82(1–2):13–29 (277 ref.)

Comparison of routine flow cytometric DNA analysis of fresh tissues in two laboratories: effects of differences in preparation methods and background models of cell cycle calculation. Heiden T, et al. **Cytometry** 1998 Aug 15; 34(4):187–97

Molecular assessment of clonality leads to the identification of a new germ line TP53 mutation associated with malignant cystosarcoma phyllodes and soft tissue sarcoma.

Bot FJ, et al. **Diagn Mol Pathol** 1998 Dec;7(6):295–301

Detection of TLS/FUS–CHOP fusion transcripts in myxoid and round cell liposarcomas by nested reverse transcription–polymerase chain reaction using archival paraffin–embedded tissues. Hisaoka M, et al. **Diagn Mol Pathol** 1998 Apr;7(2):96–101

Characterization of a variant SYT–SSX1 synovial sarcoma fusion transcript. Safar A, et al. **Diagn Mol Pathol** 1998 Oct;7(5):283–7

Competitive polymerase chain reaction for the determination of N–myc amplification in neuroblastoma: report of clinical cases. Hasan Z, et al. **Eur J Pediatr Surg** 1999 Jun; 9(3):138–41

Translocation (11;22)(q24;q12) in a small cell tumor of the thigh in a 2–year–old boy: immunohistology, cytogenetics, molecular genetics, and review of the literature. Mastik MF, et al. **Hum Pathol** 1999 Mar;30(3):352–5 (22 ref.)

Alterations of INK4A and INK4B genes in adult soft tissue sarcomas: effect on survival. Orlow I, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):73–9

Multidrug resistance phenotype in the RMS–GR human rhabdomyosarcoma cell line obtained after polychemotherapy. Prados J, et al. **Jpn J Cancer Res** 1999 Jul;90(7):788–93

Collagenous fibroma (desmoplastic fibroblastoma): genetic link with fibroma of tendon sheath? Sciot R, et al. **Mod Pathol** 1999 Jun;12(6):565–8

Cytogenetic and cytologic features of chondroid lipoma of soft tissue. Thomson TA, et al. **Mod Pathol** 1999 Jan; 12(1):88–91

Identical variant TSG101 transcripts in soft tissue sarcomas and various non–neoplastic tissues. Willeke F, et al. **Mol Carcinog** 1998 Dec;23(4):195–200

Malignant fibrous histiocytomas and H–ras–1 oncogene point mutations. Rieske P, et al. **Mol Pathol** 1999 Apr;52(2):64–7

Cytogenetic and morphologic characteristics of gastrointestinal stromal tumors. Recurrent rearrangement of chromosome 1 and losses of chromosomes 14 and 22 as common anomalies. Bergmann I, et al. **Verh Dtsch Ges Pathol** 1998;82:275–8

Cytogenetics of soft tissue tumours. Dal Cin P. **Verh Dtsch Ges Pathol** 1998;82:47–58 (100 ref.)

No correlation of c–myc overexpression and p53 mutations in liposarcomas. Schneider–Stock R, et al. **Virchows Arch** 1998 Oct;433(4):315–21

[What is the value of recent molecular biology knowledge for surgical oncologic therapy of soft tissue sarcoma?] Willeke F. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:393–8 (28 ref.) (Eng. Abstr.) **(Ger)**

[Multiple endocrine neoplasia associated with multiple lipomas] Hofmann M, et al. **Med Klin** 1998 Sep 15; 93(9):546–9 (Eng. Abstr.) **(Ger)**

[Morphology and molecular biology of malignant soft tissue sarcomas] Katenkamp D. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1043–9 (60 ref.) (Eng. Abstr.) **(Ger)**

[Diagnostic and predictive validity of DNA image cytometry in soft tissue tumors] Bollmann R, et al. **Verh Dtsch Ges Pathol** 1998;82:351–7 (Eng. Abstr.) **(Ger)**

HISTORY

The Scandinavian Sarcoma Group. Background, organization and the Central Register—the first 20 years. Alvegård TA, et al. **Acta Orthop Scand Suppl** 1999 Jun; 285:3–7

Interscapulo–thoracic resection for malignant tumors of the shoulder joint region. 1928 [classical article] Linberg BE. **Clin Orthop** 1999 Jan;(358):3–7

IMMUNOLOGY

Immunohistochemical analysis of Fas ligand expression in sarcomas. Sarcomas express high level of FasL in vivo. Lee SH, et al. **APMIS** 1998 Nov;106(11):1035–40

METABOLISM

Absence of SYT–SSX fusion products in soft tissue tumors other than synovial sarcoma. van de Rijn M, et al. **Am J Clin Pathol** 1999 Jul;112(1):43–9

Clinical relevance of pRb and p53 co–overexpression in soft tissue sarcomas. Würl P, et al. **Cancer Lett** 1999 May 24; 139(2):159–65

Melan–A/Mart–1 expression in various melanocytic lesions and in non–melanocytic soft tissue tumours. Orosz Z. **Histopathology** 1999 Jun;34(6):517–25

Epithelioid sarcoma: presence of vascular–endothelial cadherin and lack of epithelial cadherin. Smith ME, et al. **Histopathology** 1998 Nov;33(5):425–31

Osteocalcin and osteonectin immunoreactivity in extraskeletal osteosarcoma: a study of 28 cases. Fanburg–Smith JC, et al. **Hum Pathol** 1999 Jan;30(1):32–8

Detection of EWS–WT1 fusion mRNA in ascites of a patient with desmoplastic small round cell tumor by RT–PCR. Perez RP, et al. **Hum Pathol** 1999 Feb;30(2):239–42

h–Caldesmon in leiomyosarcoma and tumors with smooth muscle cell–like differentiation: its specific expression in the smooth muscle cell tumor. Watanabe K, et al. **Hum Pathol** 1999 Apr;30(4):392–6

Pharmacokinetics of ifosfamide administered according to three different schedules in metastatic soft tissue and bone sarcomas. Comandone A, et al. **J Chemother** 1998 Oct; 10(5):385–93

Coexpression of HGF and c–Met/HGF receptor in human bone and soft tissue tumors. Fukuda T, et al. **Pathol Int** 1998 Oct;48(10):757–62

Expression of p21WAF1/CIP1 in soft tissue sarcomas: a comparative immunohistochemical study with p53 and Ki–67. Pindzola JA, et al. **Pathol Res Pract** 1998; 194(10):685–91

p53 and Ki–67 proliferating cell nuclear antigen in benign and malignant peripheral nerve sheath tumors in children. Liapis H, et al. **Pediatr Dev Pathol** 1999 Jul–Aug; 2(4):377–84

MORTALITY

Multifactorial analysis of long–term follow–up (more than 5 years) of primary extremity sarcoma. Lewis JJ, et al. **Arch Surg** 1999 Feb;134(2):190–4

Extremity soft tissue sarcoma: factors predictive of local recurrence and survival. Wilson RB, et al. **Aust N Z J Surg** 1999 May;69(5):344–9

Malignant fibrous histiocytoma of the extremity. Salo JC, et al. **Cancer** 1999 Apr 15;85(8):1765–72

Prognostic factors for the outcome of chemotherapy in advanced soft tissue sarcoma: an analysis of 2,185 patients treated with anthracycline–containing first–line regimens—a European Organization for Research and Treatment of Cancer Soft Tissue and Bone Sarcoma Group Study. Van Glabbeke M, et al. **J Clin Oncol** 1999 Jan; 17(1):150–7

Prognostic factors in superficial adult soft tissue sarcomas: analysis of a series of 105 patients. Cany L, et al. **J Surg Oncol** 1999 May;71(1):4–9

NURSING

Gender issues in patients with extremity soft–tissue sarcoma: a pilot study. Znajda TL, et al. **Cancer Nurs** 1999 Apr; 22(2):111–8

PATHOLOGY

Aspiration cytology of lung metastasis of monophasic synovial sarcoma. Report of a case. Costa I, et al. **Acta Cytol** 1997 Jul–Aug;41(4 Suppl):1289–92

Fine needle aspiration of extramedullary myeloid cell tumor in myelodysplastic syndrome. A report of three cases. Gujral S, et al. **Acta Cytol** 1999 Jul–Aug;43(4):647–51

Scrape cytology of elastofibroma. Report of a case with diagnostic cytologic features. Kobayashi H, et al. **Acta Cytol** 1999 May–Jun;43(3):485–8

Features of benign granular cell tumor on fine needle aspiration. Liu K, et al. **Acta Cytol** 1999 Jul–Aug; 43(4):552–7

Fine needle aspiration cytology and core biopsy in the diagnosis of alveolar soft part sarcoma presenting with lung metastases. A case report. Logrono R, et al. **Acta Cytol** 1999 May–Jun;43(3):464–70

Immunohistochemical study of proliferating mesenchymal spindle cells in heterogenous soft tissue lesions. Nayak NC, et al. **Acta Histochem** 1998 Jul;100(3):315–27

Morphologic review of 1000 soft tissue sarcomas from the Scandinavian Sarcoma Group (SSG) Register. The peer–review committee experience. Meis–Kindblom JM, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:18–26

Prognostic factors in soft tissue sarcoma. A review and the Scandinavian Sarcoma Group experience. Rydholm A, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:50–7 (72 ref.)

Collagenous fibroma (desmoplastic fibroblastoma): a distinctive fibroblastic soft tissue tumor. Fukunaga M, et al. **Adv Anat Pathol** 1999 Sep;6(5):275–80

Elastofibroma dorsi anatomy [letter; comment] Wakeley C. **AJR Am J Roentgenol** 1999 Jun;172(6):1693. Comment on: AJR Am J Roentgenol 1998 Oct;171(4):977–80.

Liver metastases from extremity soft tissue sarcoma. Merimsky O, et al. **Am J Clin Oncol** 1999 Feb;22(1):70–2

Recommendations for reporting soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Am J Clin Pathol** 1999 May;111(5):594–8

Fine–needle aspiration biopsy of soft tissue sarcomas. A cytomorphologic analysis with emphasis on histologic subtyping, grading, and therapeutic significance. Kilpatrick SE, et al. **Am J Clin Pathol** 1999 Aug;112(2):179–88

Diagnostic accuracy in fine–needle aspiration of soft tissue and bone lesions. Influence of clinical history and experience. Liu K, et al. **Am J Clin Pathol** 1999 May; 111(5):632–40

A case of soft tissue mesenchymal chondrosarcoma metastatic to skin, clinically mimicking keratoacanthoma. Aramburu–González JA, et al. **Am J Dermatopathol** 1999 Aug;21(4):392–4

Histopathologic diagnosis of superficial soft tissue tumors, related lesions, and simulators: an algorithmic approach based on colors. Diaz–Cascajo C. **Am J Dermatopathol** 1999 Apr;21(2):193–9 (4 ref.)

Desmoplastic fibroblastoma (collagenous fibroma). Jang JG, et al. **Am J Dermatopathol** 1999 Jun;21(3):256–8

Leiomyosarcoma of soft tissue in children: clinicopathologic analysis of 20 cases. de Saint Aubain Somerhausen N, et al. **Am J Surg Pathol** 1999 Jul;23(7):755–63

Synovial sarcoma of the extremities: a clinicopathologic study of 34 cases, including semi–quantitative analysis of spindled, epithelial, and poorly differentiated areas. Machen SK, et al. **Am J Surg Pathol** 1999 Mar;23(3):268–75

Extraskeletal myxoid chondrosarcoma: a reappraisal of its morphologic spectrum and prognostic factors based on 117 cases. Meis–Kindblom JM, et al. **Am J Surg Pathol** 1999 Jun;23(6):636–50

Low–grade myofibroblastic sarcoma: analysis of 18 cases in the spectrum of myofibroblastic tumors. Mentzel T, et al. **Am J Surg Pathol** 1998 Oct;22(10):1228–38 (31 ref.)

Plexiform fibrohistiocytic tumor: clinicopathologic analysis of 22 cases. Remstein ED, et al. **Am J Surg Pathol** 1999 Jun;23(6):662–70

Stromal tumors of the abdominal colon: a clinicopathologic study of 20 cases. Tworek JA, et al. **Am J Surg Pathol** 1999 Aug;23(8):937–45

Stromal tumors of the anorectum: a clinicopathologic study of 22 cases. Tworek JA, et al. **Am J Surg Pathol** 1999 Aug; 23(8):946–54

Atypical and malignant solitary fibrous tumors in extrathoracic locations: evidence of their comparability to intra–thoracic tumors. Vallat–Decouvelaere AV, et al. **Am J Surg Pathol** 1998 Dec;22(12):1501–11

Poorly differentiated synovial sarcoma: an analysis of clinical, pathologic, and molecular genetic features. van de Rijn M, et al. **Am J Surg Pathol** 1999 Jan;23(1):106–12

Extrarenal rhabdoid tumors of soft tissue: a clinicopathologic and immunohistochemical study of 18 cases. Fanburg–Smith JC, et al. **Ann Diagn Pathol** 1998 Dec; 2(6):351–62

Synovial sarcoma. Fisher C. **Ann Diagn Pathol** 1998 Dec; 2(6):401–21 (179 ref.)

Parachordoma: a clinicopathologic and immunohistochemical study of four cases of an unusual soft tissue neoplasm. Fisher C, et al. **Ann Diagn Pathol** 1997 Oct;1(1):3–10

Histologic prognostication in soft tissue sarcomas: grading versus subtyping or both? A comprehensive review of the literature with proposed practical guidelines. Kilpatrick SE. **Ann Diagn Pathol** 1999 Feb;3(1):48–61 (97 ref.)

Dendritic fibromyxolipoma: clinicopathologic study of a distinctive benign soft tissue lesion that may be mistaken for a sarcoma. Suster S, et al. **Ann Diagn Pathol** 1998 Apr; 2(2):111–20

Myxomatous soft tissue tumors: correlation of cytopathology and histopathology. Wakely PE Jr. **Ann Diagn Pathol** 1999 Aug;3(4):227–42 (64 ref.)

Ossifying fibromyxoid tumor of soft parts: a report of 17 cases with emphasis on unusual histological features. Zámečník M, et al. **Ann Diagn Pathol** 1997 Dec;1(2):73–81

Pulmonary metastases from soft tissue sarcoma: analysis of patterns of diseases and postmetastasis survival. Billingsley KG, et al. **Ann Surg** 1999 May;229(5):602–10; discussion 610–2

Staging of soft tissue sarcomas [editorial; comment] Brennan MF. **Ann Surg Oncol** 1999 Jan–Feb;6(1):8–9. Comment on: Ann Surg Oncol 1999 Jan–Feb;6(1):57–69.

Modified staging system for extremity soft tissue sarcomas [see comments] Ramanathan RC, et al. **Ann Surg Oncol** 1999 Jan–Feb;6(1):57–69. Comment in: Ann Surg Oncol 1999 Jan–Feb;6(1):8–9.

Papillary endothelial hyperplasia presenting as a chest wall neoplasm. Duarte IG, et al. **Ann Thorac Surg** 1999 Jan; 67(1):238–40

Ossifying fibromyxoid tumour of soft parts: report of four cases including one mediastinal and one infantile. Ekfors TO, et al. **APMIS** 1998 Dec;106(12):1124–30

Subcutaneous nodule of the lower extremity. Biedermann TM, et al. **Arch Dermatol** 1999 Sep;135(9):1113, 1116

Giant trichoblastoma mimicking malignancy. Ogata T, et al. **Arch Orthop Trauma Surg** 1999;119(3–4):225–7 (16 ref.)

Pathologic quiz case 2. Liposarcoma of the larynx. Gal TJ, et al. **Arch Otolaryngol Head Neck Surg** 1998 Oct; 124(10):1171, 1173

Pathologic quiz case 2. Soft tissue myxoma of the parotid gland. Gourin CG, et al. **Arch Otolaryngol Head Neck Surg** 1999 Apr;125(4):463, 465–6

Neuron–specific enolase–producing epithelioid leiomyosarcoma with gross vascular invasion and intracardiac involvement. Dobashi Y, et al. **Arch Pathol Lab Med** 1998 Dec;122(12):1116–9

Immunohistochemical profile of myogenin and MyoD1 does not support skeletal muscle lineage in alveolar soft part sarcoma. Gómez JA, et al. **Arch Pathol Lab Med** 1999 Jun; 123(6):503–7

Pre–operative core biopsy of soft–tissue tumours facilitates their surgical management: comment [letter; comment] Clayer M. **Aust N Z J Surg** 1998 Dec;68(12):864. Comment on: Aust N Z J Surg 1998 May;68(5):345–9.

Percutaneous biopsy of the musculoskeletal system: a review of 77 cases. Hodge JC. **Can Assoc Radiol J** 1999 Apr; 50(2):121–5

Skeletal and extraskeletal myxoid chondrosarcoma: a comparative clinicopathologic, ultrastructural, and molecular study. Antonescu CR, et al. **Cancer** 1998 Oct 15;83(8):1504–21

Synovial sarcoma: identification of low and high risk groups [see comments] Bergh P, et al. **Cancer** 1999 Jun 15; 85(12):2596–607. Comment in: Cancer 1999 Jun 15;85(12):2497–8.

Fine–needle aspiration cytology of hemangiopericytoma: A report of five cases. Chhieng D, et al. **Cancer** 1999 Aug 25;87(4):190–5

The cytology of extraskeletal Ewing sarcoma. Guiter GE, et al. **Cancer** 1999 Jun 25;87(3):141–8

Low grade fibromyxoid sarcoma: fine-needle aspiration cytology with histologic, cytogenetic, immunohistochemical, and ultrastructural correlation. Lindberg GM, et al. **Cancer** 1999 Apr 25;87(2):75–82

Nuchal-type fibroma: a clinicopathologic study of 52 cases. Michal M, et al. **Cancer** 1999 Jan 1;85(1):156–63

Sacrococcygeal teratoma in adults: case reports and a review of the literature. Ng EW, et al. **Cancer** 1999 Oct 1; 86(7):1198–202 (25 ref.)

Patterns of recurrence in extremity liposarcoma: implications for staging and follow-up. Pearlstone DB, et al. **Cancer** 1999 Jan 1;85(1):85–92

Isochromosome (12p) and peritriploidy in a highly malignant extrarenal rhabdoid tumor. Comtesse PP, et al. **Cancer Genet Cytogenet** 1999 Mar;109(2):175–7

Pulmonary cysts as the sole metastatic manifestation of soft tissue sarcoma: case report and consideration of the pathogenesis. Hasegawa S, et al. **Chest** 1999 Jul; 116(1):263–5 (12 ref.)

Relative contribution of normal and neoplastic cells determines telomerase activity and telomere length in primary cancers of the prostate, colon, and sarcoma. Engelhardt M, et al. **Clin Cancer Res** 1997 Oct; 3(10):1849–57

Papillary clear cell adenocarcinoma of the groin arising from endometriosis. Klein AE, et al. **Clin Orthop** 1999 Apr; (361):192–8

Cytologic diagnosis and subtyping of rhabdomyosarcoma. Atahan S, et al. **Cytopathology** 1998 Dec;9(6):389–97

Fine needle aspiration (FNA) cytology of primary subcutaneous sacrococcygeal myxopapillary ependymoma. Pohar-Marinšek Z, et al. **Cytopathology** 1998 Dec; 9(6):415–20

Fine needle aspiration (FNA) cytology in the diagnosis of recurrent soft tissue sarcoma. Trovik CS, et al. **Cytopathology** 1998 Oct;9(5):320–8

Fine-needle aspiration biopsy of metastatic Ewing's sarcoma with MIC2 (CD99) immunocytochemistry. Collins BT, et al. **Diagn Cytopathol** 1998 Nov;19(5):382–4

Giant-cell tumor in soft parts in a patient with osseous Paget's disease: diagnosis by fine-needle aspiration. Galed-Placed I, et al. **Diagn Cytopathol** 1998 Nov;19(5):352–4

Myxofibrosarcoma of soft tissues: cytomorphologic analysis of a series. Kilpatrick SE, et al. **Diagn Cytopathol** 1999 Jan;20(1):6–9

Logistic regression analysis of myxoid sarcomas: a cytologic study. Layfield LJ, et al. **Diagn Cytopathol** 1998 Nov; 19(5):355–60

Fine-needle aspiration of neural lesions. Mooney EE, et al. **Diagn Cytopathol** 1999 Jan;20(1):1–5

Fine-needle aspiration of a presacral myelolipoma: a case presentation with flow cytometry and immunohistochemical studies. Saboorian MH, et al. **Diagn Cytopathol** 1999 Jan;20(1):47–51

Fine-needle aspiration cytology and immunocytochemistry of soft-tissue tumors and osteo/chondrosarcomas of the head and neck. Skoog L, et al. **Diagn Cytopathol** 1999 Mar; 20(3):131–6

Fine-needle aspiration cytology and immunocytochemistry of soft-tissue extramedullary plasma-cell neoplasms. Tani E, et al. **Diagn Cytopathol** 1999 Mar;20(3):120–4

Occupational risk factors for sarcoma subtypes. Hoppin JA, et al. **Epidemiology** 1999 May;10(3):300–6

Combined clear and granular cell leiomyoma of soft tissue: evidence of transformation to a histiocytic phenotype. Dobashi Y, et al. **Histopathology** 1999 Jun;34(6):526–31

Sclerosing epithelioid fibrosarcoma: a study of five cases emphasizing diagnostic criteria. Eyden BP, et al. **Histopathology** 1998 Oct;33(4):354–60

Liposarcoma with meningothelial-like whorls: a study of 17 cases of a distinctive histological pattern associated with dedifferentiated liposarcoma. Fanburg-Smith JC, et al. **Histopathology** 1998 Nov;33(5):414–24

Primary juxtaarticular soft tissue lymphoma arising in the vicinity of inflamed joints in patients with rheumatoid arthritis. Goodlad JR, et al. **Histopathology** 1999 Mar; 34(3):199–204

Unusual presentation of multiple subcutaneous glomus tumours of the lower limb with extensive glomus cell hyperplasia [letter] Graadt Van Roggen JF, et al. **Histopathology** 1999 May;34(5):474–5

Malignant fibrous histiocytoma in a child's hand [letter] Lim SC, et al. **Histopathology** 1998 Aug;33(2):191–2

Amyloid tumour (amyloidoma) of the leg: histology, immunohistochemistry and electron microscopy [letter] Romagnoli S, et al. **Histopathology** 1999 Aug;35(2):188–9

Pure monophasic, epithelial synovial sarcoma without a spindle cell component [letter] Tajima K, et al. **Histopathology** 1999 Jan;34(1):78–81

Recommendations for the reporting of soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Hum Pathol** 1999 Jan;30(1):3–7

Calcifying aponeurotic fibroma: a clinicopathologic study of 22 cases arising in uncommon sites. Fetsch JF, et al. **Hum Pathol** 1998 Dec;29(12):1504–10

Immunophenotype, ras oncogenes and p53 onco-suppressor gene in benzo(a)pyrene induced malignant soft tissue tumours in Wistar rats. Stefanou DG, et al. **In Vivo** 1998 Sep-Oct;12(5):511–21

Paravertebral extraosseous Ewing's sarcoma. Yadav TP, et al. **Indian Pediatr** 1998 Jun;35(6):557–60

Pleomorphic hyalinized angiectatic tumor of soft parts. Brim SP, et al. **J Am Podiatr Med Assoc** 1999 Jun;89(6):307–11

Cutaneous angioleiomyoma [letter] Pastore RL, et al. **J Am Podiatr Med Assoc** 1999 Mar;89(3):145–7

Extraskeletal chondroma of the foot. Williams DS, et al. **J Am Podiatr Med Assoc** 1998 Oct;88(10):506–9

Clinical and radiological aspects of idiopathic diabetic muscle infarction. Rational approach to diagnosis and treatment. Aboulafia AJ, et al. **J Bone Joint Surg Br** 1999 Mar; 81(2):323–6

Multiple gastrointestinal stromal tumors of the duodenum: case report. Giustozzi G, et al. **J Chemother** 1999 Jun; 11(3):232–3

Subcutaneous panniculitis-like T-cell lymphoma: further evidence for a distinct neoplasm originating from large granular lymphocytes of T/NK phenotype. Dargent JL, et al. **J Cutan Pathol** 1998 Aug;25(7):394–400

Solitary cellular schwannoma (neurilemmoma) showing malignant changes: evaluation through magnetic resonance imaging (M.R.I.), surgical intervention, and histopathology. Sehgal VN, et al. **J Dermatol** 1999 Mar;26(3):189–95

Massive fibrolipoma of a toe. Milgram JW. **J Foot Ankle Surg** 1999 May-Jun;38(3):223–6

Pacinian neurofibroma of the hand: a case report and literature review. MacLennan SE, et al. **J Hand Surg [Am]** 1999 Mar;24(2):413–6 (13 ref.)

Brain metastases in musculoskeletal sarcomas. Ogose A, et al. **Jpn J Clin Oncol** 1999 May;29(5):245–7

Recommendations for the reporting of soft tissue sarcomas. Association of Directors of Anatomic and Surgical Pathology. **Mod Pathol** 1998 Dec;11(12):1257–61

The role of fine-needle aspiration biopsy in the initial diagnosis of pediatric bone and soft tissue tumors: an institutional experience. Kilpatrick SE, et al. **Mod Pathol** 1998 Oct;11(10):923–8

Cytogenetic and cytologic features of chondroid lipoma of soft tissue. Thomson TA, et al. **Mod Pathol** 1999 Jan; 12(1):88–91

Pleomorphic leiomyosarcoma of the soft parts: a reassessment by histology and immunohistochemistry of pleomorphic soft tissue sarcomas. Yamamoto I, et al. **Oncol Rep** 1999 May-Jun;6(3):533–7

Solitary fibrous tumor of the oral cavity: an uncommon location for a ubiquitous neoplasm. Perez-Ordonez B, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):589–93

A case of pulmonary metastases of synovial sarcoma surviving for a long period after active surgery. Inoue K, et al. **Osaka City Med J** 1998 Jun;44(1):125–31

Melanotic peritoneal sarcomatosis originating from clear cell sarcoma. Ohba Y, et al. **Pathol Int** 1999 Jul;49(7):653–7

Myoepithelioma of soft tissue. Sasaguri T, et al. **Pathol Int** 1999 Jun;49(6):571–6 (19 ref.)

Giant cell fibroblastoma: an entity or a reactive phenomenon? Karabela-Bouropoulou V, et al. **Pathol Res Pract** 1999; 195(6):413–9

Hyalinizing spindle cell tumors with giant rosette-like structures. Ludvíková M, et al. **Pathol Res Pract** 1998; 194(8):577–81; discussion 583–6

Inflammatory myxoid tumor of the soft parts with bizarre giant cells. Michal M. **Pathol Res Pract** 1998;194(8):529–33

Intergroup Rhabdomyosarcoma Study: update for pathologists. Qualman SJ, et al. **Pediatr Dev Pathol** 1998 Nov-Dec;1(6):550–61 (35 ref.)

Pathology of lipomatous lesions in Proteus syndrome. Tihan T, et al. **Pediatr Dev Pathol** 1998 Sep-Oct;1(5):443–8

Tumors of the soft tissues composed of large eosinophilic cells. d'Amore ES, et al. **Semin Diagn Pathol** 1999 May; 16(2):178–89 (100 ref.)

Deep soft tissue hemangiomas [letter; comment] Munk PL, et al. **Skeletal Radiol** 1999 Jan;28(1):57–8. Comment on: Skeletal Radiol 1998 Apr;27(4):205–10.

Alveolar soft-part sarcoma: a review of the pathology and histogenesis. Ordóñez NG, et al. **Ultrastruct Pathol** 1998 Jul-Aug;22(4):275–92 (114 ref.)

Cytogenetics of soft tissue tumours. Dal Cin P. **Verh Dtsch Ges Pathol** 1998;82:47–58 (100 ref.)

Myofibroblastic tumours: an update. Fletcher CD. **Verh Dtsch Ges Pathol** 1998;82:75–82 (74 ref.)

Recent developments in soft tissue tumors. Fletcher CD. **Verh Dtsch Ges Pathol** 1998;82:33–46 (80 ref.)

Comparative analysis of prognostic indicators for sarcomas of the soft parts and the viscerae. Rudolph P, et al. **Verh Dtsch Ges Pathol** 1998;82:246–52

Recommendations for the reporting of soft tissue sarcoma. Association of Directors of Anatomic and Surgical Pathology. **Virchows Arch** 1999 Mar;434(3):187–91

Myoepitheliomas of the skin and soft tissues. Report of 12 cases. Michal M, et al. **Virchows Arch** 1999 May; 434(5):393–400

[Low grade malignant fibromyxoid sarcoma] Hušek K, et al. **Cesk Patol** 1998 Nov;34(4):139–41 (Eng. Abstr.) **(Cze)**

[A case of hyalinizing spindle cell tumor with giant rosettes in the presacral region. Immunohistochemical and ultrastructural study] de Pinieux G, et al. **Ann Pathol** 1998 Dec;18(6):488–91 (Eng. Abstr.) **(Fre)**

[Multicentric liposarcoma. Apropos of a case] Kemula M, et al. **Rev Med Interne** 1999 Jan;20(1):60–3 (Eng. Abstr.) **(Fre)**

[Color Doppler controlled needle biopsy in diagnosis of soft tissue and bone tumors] Schulte M, et al. **Chirurg** 1998 Oct; 69(10):1059–67 (Eng. Abstr.) **(Ger)**

[Radiation-induced submandibular extra-osseous osteogenic sarcoma] Ayad W, et al. **Mund Kiefer Gesichtschir** 1999 Mar;3(2):106–8 (Eng. Abstr.) **(Ger)**

[Hyalinizing spindle cell tumor with giant rosettes. Case report with immunohistochemical characterization] Meister P, et al. **Pathologe** 1999 May;20(3):183–8 (Eng. Abstr.) **(Ger)**

[Staging of musculoskeletal tumors in diagnostic imaging] Funovics M, et al. **Radiologe** 1999 Jul;39(7):591–9 (48 ref.) (Eng. Abstr.) **(Ger)**

[Morphology and molecular biology of malignant soft tissue sarcomas] Katenkamp D. **Schweiz Rundsch Med Prax** 1998 Aug 19;87(34):1043–9 (60 ref.) (Eng. Abstr.) **(Ger)**

[Diagnostic and predictive validity of DNA image cytometry in soft tissue tumors] Bollmann R, et al. **Verh Dtsch Ges Pathol** 1998;82:351–7 (Eng. Abstr.) **(Ger)**

[Prognostic factors for gastrointestinal stromal tumors] Gloeckner K, et al. **Verh Dtsch Ges Pathol** 1998;82:253–60 (Eng. Abstr.) **(Ger)**

[Prognostic factors of gastrointestinal stromal tumors of the stomach] Hillemanns M, et al. **Verh Dtsch Ges Pathol** 1998; 82:261–6 (Eng. Abstr.) **(Ger)**

[Intracellular distribution of beta-catenin in soft tissue tumors] Kuhnen C, et al. **Verh Dtsch Ges Pathol** 1998; 82:322–6 (Eng. Abstr.) **(Ger)**

[Cutaneous and subcutaneous soft tissue tumors] Meister P. **Verh Dtsch Ges Pathol** 1998;82:112–20 (36 ref.) (Eng. Abstr.) **(Ger)**

[Significance of differential nuclear expression of Ki-67 in adult soft tissue sarcomas] Rohr UP, et al. **Verh Dtsch Ges Pathol** 1998;82:345–50 (Eng. Abstr.) **(Ger)**

[Clear cell sarcoma of soft tissues. Clinico-pathological and ultrastructural analysis of a case in the head-neck region and a literature review] Bisceglia M, et al. **Pathologica** 1998 Aug;90(4):391–6 (40 ref.) (Eng. Abstr.) **(Ita)**

[Imprint cytological features of soft tissue sarcomas] Sonobe H. **Rinsho Byori** 1999 Jul;47(7):614–21 (Eng. Abstr.) **(Jpn)**

PSYCHOLOGY

Gender issues in patients with extremity soft-tissue sarcoma: a pilot study. Znajda TL, et al. **Cancer Nurs** 1999 Apr; 22(2):111–8

[Communication with cancer patients in an orthopedic department] Baek-Jensen J, et al. **Ugeskr Laeger** 1999 Aug 23;161(34):4756–60 (Eng. Abstr.) **(Dan)**

RADIOGRAPHY

A soft tissue extranodal mass as an initial manifestation of splenic lymphoma with circulating villous lymphocytes [letter] Orero MT, et al. **Br J Haematol** 1998 Dec; 103(4):1213–4

Clear cell sarcoma (malignant melanoma) of soft parts: A clinicopathologic study of 30 cases. Deenik W, et al. **Cancer** 1999 Sep 15;86(6):969–75

Angiography for assessment of preoperative chemotherapy in musculoskeletal sarcomas. Fujii J, et al. **Clin Orthop** 1999 Mar;(360):197–206

Case report: Axillary hibernoma--radiological and pathological findings of a rare tumour. Balestreri L, et al. **Clin Radiol** 1998 Nov;53(11):853–5

[Maffucci syndrome: a false venous malformation? A case with hemangioendothelioma with fusiform cells] Enjolras O, et al. **Ann Dermatol Venereol** 1998 Aug;125(8):512–5 (Eng. Abstr.) **(Fre)**

[Quantitative evaluation of the effectiveness of radiotherapy] Lebedenko IM, et al. **Med Tekh** 1998 Jul-Aug;(4):3–5 (Eng. Abstr.) **(Rus)**

[The importance of information about the role of radiology in the diagnosis of musculoskeletal tumors (letter)] Söderlundh S. **Lakartidningen** 1998 Oct 21;95(43):4714 **(Swe)**

RADIONUCLIDE IMAGING

Soft-tissue uptake of colonic metastases. Hain SF, et al. **Clin Nucl Med** 1999 May;24(5):358–9

Indium-111 pentetreotide scintigraphy of mesenchymal tumor with oncogenic osteomalacia. Nguyen BD, et al. **Clin Nucl Med** 1999 Feb;24(2):130–1

Resolved splenic accumulation of Tc-99m HMDP after recovery of disseminated intravascular coagulation in a patient with rhabdomyosarcoma. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):414–7

A PET study of 18FDG uptake in soft tissue masses. Lodge MA, et al. **Eur J Nucl Med** 1999 Jan;26(1):22–30

Fluorodeoxyglucose positron emission tomography of soft tissue tumours: is a non-invasive determination of biological activity possible? Schulte M, et al. **Eur J Nucl Med** 1999 Jun;26(6):599–605

FDG and L-[1-11C]-tyrosine imaging of soft-tissue tumors before and after therapy. Kole AC, et al. **J Nucl Med** 1999 Mar;40(3):381–6

Value of thallium-201 scintigraphy in bone and soft tissue tumors. Sato O, et al. **J Orthop Sci** 1998;3(6):297–303

Uterine blush mimicking a hypervascular tumour in the pelvis as demonstrated by a triple-phase bone scan. Tzen KY, et al. **Nucl Med Commun** 1998 Jun;19(6):605–7

[Quantitative assessment of 201Tl-SPECT in tumors of bone and soft tissue] Matsui R, et al. **Kaku Igaku** 1999 Apr;

36(3):219–28 (Eng. Abstr.) **(Jpn)**

RADIOTHERAPY

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma: is there a leg to stand on? [comment] Hsi RA, et al. **Cancer J Sci Am** 1999 Jan–Feb;5(1):18–9. Comment on: Cancer J Sci Am 1999 Jan–Feb;5(1):26–33.

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma arising in a previously radiated field [see comments] Pearlstone DB, et al. **Cancer J Sci Am** 1999 Jan–Feb;5(1):26–33. Comment in: Cancer J Sci Am 1999 Jan–Feb;5(1):18–9.

Adjuvant brachytherapy in the treatment of soft-tissue sarcomas. Crownover RL, et al.
Hematol Oncol Clin North Am 1999 Jun;13(3):595–607 (40 ref.)

Perioperative fractionated high-dose rate brachytherapy for malignant bone and soft tissue tumors. Koizumi M, et al. **Int J Radiat Oncol Biol Phys** 1999 Mar 15;43(5):989–93

Use of brachytherapy to preserve function in children with soft-tissue sarcomas. Nag S, et al. **Oncology (Huntingt)** 1999 Mar;13(3):361–69; discussion 369–70, 373–4 (32 ref.)

The advantages of three-dimensional conformal radiotherapy for treatment of childhood cancer. Smitt MC, et al.
Radiat Res 1998 Nov;150(5 Suppl):S170–7

Chemoradiation treatment strategies for localized sarcoma: conventional and investigational approaches. Pisters PW. **Semin Surg Oncol** 1999 Jul–Aug;17(1):66–71 (25 ref.)

Contemporary radiotherapy for soft tissue sarcoma. Wylie JP, et al. **Semin Surg Oncol** 1999 Jul–Aug;17(1):33–46 (91 ref.)

Interstitial brachytherapy in soft tissue sarcomas. The Tata Memorial Hospital experience. Chaudhary AJ, et al.
Strahlenther Onkol 1998 Oct;174(10):522–8

[Late results of radiotherapy of soft tissue sarcoma] Schultze J, et al. **Rontgenpraxis** 1998;51(11):413–9 (30 ref.) (Eng. Abstr.) **(Ger)**

[Radiotherapy of soft tissue sarcomas] Schwarz R, et al.
Schweiz Rundsch Med Prax 1998 Aug 19;87(34):1072–80 (100 ref.) (Eng. Abstr.) **(Ger)**

[The advantage of adjuvant radiotherapy in soft-tissue sarcomas—the results of a prospective randomized study] Budach V. **Strahlenther Onkol** 1998 Oct;174(10):542–4 **(Ger)**

[Quantitative evaluation of the effectiveness of radiotherapy] Lebedenko IM, et al. **Med Tekh** 1998 Jul–Aug;(4):3–5 (Eng. Abstr.) **(Rus)**

REHABILITATION

[Surgical management of soft tissue sarcomas: principles of resection and reconstructive plastic procedures] Steinau HU, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19; 87(34):1061–5 (17 ref.) (Eng. Abstr.) **(Ger)**

SECONDARY

Mucoepidermoid carcinoma of the parotid gland [letter] Laforga JB. **Acta Cytol** 1999 May–Jun;43(3):515–7

Malignant haemangioendothelioma of bone in a HbSC disease patient—a case report. Shokunbi WA, et al.
Afr J Med Med Sci 1996 Sep;25(3):293–6

Carcinoma of the uterine cervix metastatic to behind the zygomatic arch: a case report. Challagalla JD, et al.
Am J Otolaryngol 1999 May–Jun;20(3):195–7 (14 ref.)

Myxoid liposarcoma—the frequency and the natural history of nonpulmonary soft tissue metastases. Spillane AJ, et al.
Ann Surg Oncol 1999 Jun;6(4):389–94

Soft-tissue uptake of colonic metastases. Hain SF, et al.
Clin Nucl Med 1999 May;24(5):358–9

Ossifying intramuscular metastasis from colon cancer: report of a case. Yoshikawa H, et al. **Dis Colon Rectum** 1999 Sep; 42(9):1225–7

Ischiogluteal bursitis mimicking soft-tissue metastasis from a renal cell carcinoma. Völk M, et al. **Eur Radiol** 1998; 8(7):1140–1

Gingival metastasis from a prostate adenocarcinoma: report of a case. Piattelli A, et al. **J Periodontol** 1999 Apr; 70(4):441–4

Distant skin and soft tissue metastases from sarcomas. Rao UN, et al. **J Surg Oncol** 1998 Oct;69(2):94–8

SURGERY

Local recurrence after surgery for soft tissue sarcoma. The Scandinavian Sarcoma Group experience. Trovik CS, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:45–6 (16 ref.)

Mature presacral teratoma in an adult male: a case report. Bull J Jr, et al. **Am Surg** 1999 Jun;65(6):586–91

Malignant fibrous histiocytoma of the hand: multimodal therapy and extensor tendon reconstruction. Lohman R, et al. **Ann Plast Surg** 1998 Nov;41(5):544–9

Head and neck soft-tissue reconstruction using the vertical trapezius musculocutaneous flap [letter] Papadopoulos O, et al. **Ann Plast Surg** 1999 Apr;42(4):457–8

The enigma of desmoid tumors. Lewis JJ, et al.
Ann Surg 1999 Jun;229(6):866–72; discussion 872–3

Adherence of benign cervical teratomas to surrounding soft tissue [letter; comment] Kuhel WI.
Arch Otolaryngol Head Neck Surg 1999 Feb;125(2):236–7 . Comment on: Arch Otolaryngol Head Neck Surg 1998 Aug;124(8):927, 929.

Functional outcome in amputation versus limb sparing of patients with lower extremity sarcoma: a matched case-control study. Davis AM, et al.
Arch Phys Med Rehabil 1999 Jun;80(6):615–8

Importance of surgical resection in the successful management of soft tissue sarcoma. Flugstad DL, et al.
Arch Surg 1999 Aug;134(8):856–61; discussion 861–2

Tikhoff-Linberg procedure for bone and soft tissue tumors of the shoulder girdle. Voggenreiter G, et al.
Arch Surg 1999 Mar;134(3):252–7

Extremity soft tissue sarcoma: factors predictive of local recurrence and survival. Wilson RB, et al.
Aust N Z J Surg 1999 May;69(5):344–9

Cryosurgical ablation of soft tissue sarcomas: a phase I trial of feasibility and safety. Menendez LR, et al. **Cancer** 1999 Jul 1;86(1):50–7

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma: is there a leg to stand on? [comment] Hsi RA, et al. **Cancer J Sci Am** 1999 Jan–Feb;5(1):18–9. Comment on: Cancer J Sci Am 1999 Jan–Feb;5(1):26–33.

Re-resection with brachytherapy for locally recurrent soft tissue sarcoma arising in a previously radiated field [see comments] Pearlstone DB, et al. **Cancer J Sci Am** 1999 Jan–Feb;5(1):26–33. Comment in: Cancer J Sci Am 1999 Jan–Feb;5(1):18–9.

Functioning muscle transplantation after wide excision of sarcomas in the extremity. Ihara K, et al. **Clin Orthop** 1999 Jan;(358):140–8

Management of desmoid tumors in patients after ileal pouch–anal anastomosis for familial adenomatous polyposis. Sagar PM, et al. **Dis Colon Rectum** 1998 Nov; 41(11):1350–5; discussion 1355–6

Intra-articular lipoma of the hip. A case report. Margheritini F, et al. **Int Orthop** 1998;22(5):328–9

Solitary fibrous tumour of the forearm. A rare tumour in an atypical site. Harrington P, et al. **J Hand Surg [Br]** 1999 Jun;24(3):370–2 (8 ref.)

An unusual case of multiple recurrence of a glomangioma. Looi KP, et al. **J Hand Surg [Br]** 1999 Jun;24(3):387–9

Perineal hemangioma, anorectal malformation, and genital anomaly: a new association? Bouchard S, et al.
J Pediatr Surg 1999 Jul;34(7):1133–5

Combined pedicle and free-tissue transfer to improve functional restoration of the foot: the "backpack principle". Germann G, et al. **J Reconstr Microsurg** 1999 Aug; 15(6):409–13

Salvage and reconstruction of complex post-extirpative knee wounds: a successful surgical protocol. Isenberg JS, et al.
J Reconstr Microsurg 1999 Feb;15(2):115–8

Posterior compartment resection of the thigh for soft-tissue sarcomas. Kulaylat MN, et al. **J Surg Oncol** 1999 Aug; 71(4):243–5

Clinical features and management of oral and maxillofacial tumors in children. Tanaka N, et al.
Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1999 Jul;88(1):11–5

Facial reconstruction with local and distant tissue: the interface of aesthetic and reconstructive surgery. Menick FJ. **Plast Reconstr Surg** 1998 Oct;102(5):1424–33

Functional outcome after soft-tissue reconstruction for limb salvage after sarcoma surgery. Serletti JM, et al.
Plast Reconstr Surg 1998 Oct;102(5):1576–83; discussion 1584–5

Sacrococcygeal germ-cell tumours—the Red Cross War Memorial Children's Hospital experience, 1980–1996. Daubenton JD, et al. **S Afr Med J** 1998 Dec;88(12):1592–4

Reconstructive approaches in soft tissue sarcoma. Langstein HN, et al. **Semin Surg Oncol** 1999 Jul–Aug;17(1):52–65 (27 ref.)

Effective follow-up strategies in soft tissue sarcoma. Whooley BP, et al. **Semin Surg Oncol** 1999 Jul–Aug; 17(1):83–7

MRI evaluation of post-operative seromas in extremity soft tissue sarcomas. Poon-Chue A, et al. **Skeletal Radiol** 1999 May;28(5):279–82

The diagnostive evaluation and surgical management of soft tissue sarcomas. Igun GO. **West Afr J Med** 1998 Oct–Dec; 17(4):232–5

[Pathological type of liposarcoma and its effects of clinical treatment] Fang Z, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):204–6 (Eng. Abstr.) **(Chi)**

[Cutaneous and subcutaneous sarcomas] Champeau F, et al.
Ann Chir Plast Esthet 1998 Aug;43(4):421–38 (33 ref.) (Eng. Abstr.) **(Fre)**

[Free microvascular rectus abdominis muscle flap for soft tissue reconstruction of the lower leg and foot: results and donor site defect] Geishauser M, et al.
Handchir Mikrochir Plast Chir 1999 Jan;31(1):21–6 (Eng. Abstr.) **(Ger)**

[Case report of segmental neurofibromatosis of the 3rd finger ray] Mader N, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):249–53 (Eng. Abstr.) **(Ger)**

[Endoscopically-assisted lipoma removal] Berger A, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1538–40 (Eng. Abstr.) **(Ger)**

[Secondary resection of soft tissue sarcomas within the scope of a multimodality therapy concept] Peiper M, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1316–8 (Eng. Abstr.) **(Ger)**

[Morbidity and tumor control in limb-saving resection with intraoperative radiotherapy in a multimodality therapy concept in soft tissue sarcoma] Schwarzbach M, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1312–5 (Eng. Abstr.) **(Ger)**

[Tikhoff-Linberg interscapulothoracic resection in extra-compartmental tumors of the shoulder girdle] Voggenreiter G, et al.
Langenbecks Arch Chir Suppl Kongressbd 1998;115:1414–6 (Eng. Abstr.) **(Ger)**

[The therapy of benign bone and soft-tissue tumors of the oral area. The annual meeting of the Swiss Association for Oral Surgery and Mouth Diseases (SAKM) of 3 March 1998 in Bern] Isaak M. **Schweiz Monatsschr Zahnmed** 1998; 108(10):1040–1 **(Ger)**

[Surgical aspects in the multidisciplinary treatment of soft tissue sarcomas] Röhrborn A, et al.
Schweiz Rundsch Med Prax 1998 Aug 19;87(34):1050–60 (50 ref.) (Eng. Abstr.) **(Ger)**

[Surgical management of soft tissue sarcomas: principles of resection and reconstructive plastic procedures] Steinau HU, et al. **Schweiz Rundsch Med Prax** 1998 Aug 19; 87(34):1061–5 (17 ref.) (Eng. Abstr.) **(Ger)**

[A case of coronary artery bypass grafting for effort angina in a patient with post skin grafting for an extramammary Paget's disease] Kobayashi K, et al.
Jpn J Thorac Cardiovasc Surg 1998 Sep;46(9):878–81 (Eng. Abstr.) **(Jpn)**

[Should desmoid fibromas be operated?] Chissov VI, et al.
Khirurgiia (Mosk) 1998;(12):5–9 (5 ref.) (Eng. Abstr.) **(Rus)**

THERAPY

The Scandinavian Sarcoma Group Register. Bauer HC, et al. **Acta Orthop Scand Suppl** 1999 Jun;285:41–4 (19 ref.)

Childhood rhabdomyosarcoma of the trunk and extremities. Tabrizi P, et al. **Am J Orthop** 1999 Aug;28(8):440–6

Hyperthermic isolated limb perfusion with tumour necrosis factor-alpha and melphalan as palliative limb-saving treatment in patients with locally advanced soft-tissue sarcomas of the extremities with regional or distant metastases. Is it worthwhile? Olieman AF, et al.
Arch Orthop Trauma Surg 1998;118(1–2):70–4

Soft tissue sarcoma: opening the door to advances in diagnosis and treatment [editorial; comment] Biermann JS, et al. **Cancer** 1999 Jun 15;85(12):2497–8. Comment on: Cancer 1999 Jun 15;85(12):2596–607.

Soft tissue sarcoma in adults. Dirix LY, et al.
Curr Opin Oncol 1999 Jul;11(4):285–95 (66 ref.)

Rhabdomyosarcoma in children—a ten year review. Bradford WB, et al. **J Ky Med Assoc** 1998 Oct; 96(10):399–402

L-[1-11C]-tyrosine PET to evaluate response to hyperthermic isolated limb perfusion for locally advanced soft-tissue sarcoma and skin cancer. van Ginkel RJ, et al.
J Nucl Med 1999 Feb;40(2):262–7

Diagnosis and treatment of soft tissue tumors. Iwamoto Y.
J Orthop Sci 1999;4(1):54–65 (28 ref.)

What comprises appropriate therapy for children/adolescents with rhabdomyosarcoma arising in the abdominal wall? A report from the Intergroup Rhabdomyosarcoma Study Group. Beech TR, et al. **J Pediatr Surg** 1999 May; 34(5):668–71

Treatment and local control of primary extremity soft tissue sarcomas. Karakousis CP, et al. **J Surg Oncol** 1999 Jul; 71(3):155–61

Multifocal soft tissue sarcoma: limb salvage following hyperthermic isolated limb perfusion with high-dose tumor necrosis factor and melphalan. Lev-Chelouche D, et al.
J Surg Oncol 1999 Mar;70(3):185–9

Preclinical experimental therapeutic approaches in soft tissue sarcoma. Hunt KK, et al. **Semin Surg Oncol** 1999 Jul–Aug; 17(1):78–82 (27 ref.)

Immunotherapeutic approaches to sarcoma. Linehan DC, et al. **Semin Surg Oncol** 1999 Jul–Aug;17(1):72–7 (37 ref.)

Soft tissue sarcomas in children. Pappo AS, et al.
Semin Surg Oncol 1999 Mar;16(2):121–43 (127 ref.)

[Recommendations of the FNCLCC Sarcoma Group for pathologic management of soft tissue sarcoma in adults] Voigt JJ. **Ann Pathol** 1999 Apr;19(2):153 **(Fre)**

[Determinants for operative and multimodal treatment of malignant soft tissue tumors] Schlag PM, et al.
Verh Dtsch Ges Pathol 1998;82:64–6 (8 ref.) (Eng. Abstr.) **(Ger)**

[Recent advances in management of musculoskeletal tumors] Uchida A. **Gan To Kagaku Ryoho** 1999 Jun;26 Suppl 1:185–90 (4 ref.) (Eng. Abstr.) **(Jpn)**

[High-dose chemotherapy with autologous peripheral blood stem cell transplantation (PBSCT) for refractory bone and soft tissue sarcomas] Yonemoto K, et al.
Gan To Kagaku Ryoho 1999 Sep;26(10):1431–5 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Evaluation of soft-tissue masses using segmented color Doppler velocity images: preliminary observations. Adler RS, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):781–8

Infantile myofibromatosis of the triceps detected by prenatal sonography. Kubota A, et al. **J Clin Ultrasound** 1999 Mar–Apr;27(3):147–50

Differential diagnosis of cutaneous and subcutaneous tumours assessed by 7.5 MHz ultrasonography [letter] Ulrich J, et al. **J Eur Acad Dermatol Venereol** 1999 Mar;12(2):187–9

Ultrasonographic diagnosis of hemangiomas of soft tissue. Kang B, et al. **J Tongji Med Univ** 1997;17(3):168–71

High-resolution ultrasonography in detection and follow-up of a tumour of the forearm. Case report. Hsu TC, et al. **Scand J Plast Reconstr Surg Hand Surg** 1999 Mar; 33(1):125-7

[Ultrasonography of dorsal elastofibroma. Apropos of 6 cases] Baudrez V, et al. **J Radiol** 1998 Jun;79(6):549-51 (Eng. Abstr.) **(Fre)**

ULTRASTRUCTURE

Role of electron microscopy in the evaluation of soft tissue neoplasms, with emphasis on spindle cell and pleomorphic tumors. Erlandson RA, et al. **Hum Pathol** 1998 Dec; 29(12):1372-81 (71 ref.)

Alveolar soft-part sarcoma with unusual mitochondrial findings: a case report. Cardinalli IA, et al. **Ultrastruct Pathol** 1998 Jul-Aug;22(4):321-9

Granular cell tumor: a review of the pathology and histogenesis. Ordóñez NG, et al. **Ultrastruct Pathol** 1999 Jul-Aug;23(4):207-22 (154 ref.)

Microtubular aggregates within the rough endoplasmic reticulum of embryonal rhabdomyosarcoma cells: a case report. Tsuchida R, et al. **Ultrastruct Pathol** 1999 May-Jun; 23(3):193-8

[Ultrastructural differential diagnosis of gastrointestinal stromal tumors] Hermanns B, et al. **Verh Dtsch Ges Pathol** 1998;82:267-74 (Eng. Abstr.) **(Ger)**

VETERINARY

Intermuscular lipomas of the thigh region in dogs: 11 cases. Thomson MJ, et al. **J Am Anim Hosp Assoc** 1999 Mar-Apr; 35(2):165-7

Vaccine-Associated Feline Sarcoma Task Force guidelines. Diagnosis and treatment of suspected sarcomas. **J Am Vet Med Assoc** 1999 Jun 15;214(12):1745

What is your diagnosis? Soft tissue neoplasm of the right carpus in a dog. Applewhite AA, et al. **J Am Vet Med Assoc** 1999 Jan 1;214(1):29-30

Etiology of feline vaccine-associated sarcomas: history and update. Bergman PJ. **J Am Vet Med Assoc** 1998 Nov 15; 213(10):1424-5 (5 ref.)

Review of treatment options for vaccine-associated feline sarcoma. Couto CG, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1426-7 (4 ref.)

Injection-site sarcomas in cats [letter] Gemmill LT Jr. **J Am Vet Med Assoc** 1998 Oct 1;213(7):955

What is your diagnosis? Soft tissue sarcoma in the forelimb of a cat. Gieger T, et al. **J Am Vet Med Assoc** 1999 Apr 15;214(8):1155-6

Feline vaccine-associated sarcomas: current studies on pathogenesis. Hendrick MJ. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1425-6 (5 ref.)

Historical review and current knowledge of risk factors involved in feline vaccine-associated sarcomas. Hendrick MJ. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1422-3 (7 ref.)

Vaccine injection-site sarcoma in a ferret [letter] Murray J. **J Am Vet Med Assoc** 1998 Oct 1;213(7):955

Education/communication: history and current status. Richards JR. **J Am Vet Med Assoc** 1998 Nov 15; 213(10):1429-30 (0 ref.)

Vaccine-Associated Feline Sarcoma Task Force: a new model for problem solving in veterinary medicine. Starr RM. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1428-9

What is your diagnosis? Synovial sarcoma. Borenstein N, et al. **J Small Anim Pract** 1999 May;40(5):205, 236-7

Lymphangiosarcomas in cats: a retrospective study of 12 cases. Hinrichs U, et al. **Vet Pathol** 1999 Mar;36(2):164-7

SOFTBALL see **BASEBALL**

SOFTWARE

Scientists, senators, and "software": the keys to unlocking our future. Kelley RO. **Acad Med** 1999 Feb;74(2):101-7

1999 Joseph E. Whitley, MD, Award. Facilitating the production of digital radiology teaching files with the radiology annotation and publishing system: a software tool for radiology educators. Mehta A, et al. **Acad Radiol** 1999 Aug;6(8):496-501

Chiral recognition between host and guest: a binaphthyl-18-crown-6 host with D-phenylglycinium methyl ester perchlorate guest. A difficult structure solved with CRUNCH. Cram DJ, et al. **Acta Crystallogr B** 1999 Jun 1;55 (Pt 3):432-40

Crystallography & NMR system: A new software suite for macromolecular structure determination. Brünger AT, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):905-21

Further additions to MolScript version 1.4, including reading and contouring of electron-density maps. Esnouf RM. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):938-40

Software for handling macromolecular envelopes. Kleywegt GJ, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr; 55 (Pt 4):941-4

STEP--a trial-and-error procedure for crystal structure determination. II. The determination of two small protein structures. Lipu L, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):828-33

Integrated software for a macromolecular crystallography synchrotron beamline. Skinner JM, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):718-25

The use of SnB to determine an anomalous scattering substructure. Smith GD, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):799-804

A translation-function approach for heavy-atom location in macromolecular crystallography. Vagin A, et al. **Acta Crystallogr D Biol Crystallogr** 1998 May 1;54 (Pt 3):400-2

SFCHECK: a unified set of procedures for evaluating the quality of macromolecular structure-factor data and their agreement with the atomic model. Vaguine AA, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):191-205

Difference density quality (DDQ): a method to assess the global and local correctness of macromolecular crystal structures. van den Akker F, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):206-18

A comparison of two algorithms for electron-density map improvement by introduction of atomicity: skeletonization, and map sorting followed by refinement. Vellieux FM. **Acta Crystallogr D Biol Crystallogr** 1998 Jan 1;54 (Pt 1):81-5

Locating proper non-crystallographic symmetry in low-resolution electron-density maps with the program GETAX. Vonrhein C, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Jan;55 (Pt 1):225-9

CSF dynamics in a patient with a programmable shunt. Tsuji O, et al. **Acta Neurochir Suppl (Wien)** 1998;71:364-7

Four-year experience with the routine use of the programmable Hakim valve in the management of children with hydrocephalus. Rohde V, et al. **Acta Neurochir (Wien)** 1998;140(11):1127-34

A computer-based violence prevention intervention for young adolescents: pilot study. Bosworth K, et al. **Adolescence** 1998 Winter;33(132):785-95

Compartmental models: theory and practice using the SAAM II software system. Cobelli C, et al. **Adv Exp Med Biol** 1998;445:79-101

Developing and testing integrated multicompartment models to describe a single-input multiple-output study using the SAAM II software system. Foster DM. **Adv Exp Med Biol** 1998;445:59-78

The mathematics behind modeling. Rosenblatt J. **Adv Exp Med Biol** 1998;445:115-29

Approaches to population kinetic analysis with application to metabolic studies. Vicini P, et al. **Adv Exp Med Biol** 1998;445:103-13

Malpractice issues in radiology. Y2K. Berlin L. **AJR Am J Roentgenol** 1999 Mar;172(3):585-9

Software for nervous teachers [letter; comment] Dockray KT. **AJR Am J Roentgenol** 1999 Feb;172(2):552. Comment on: AJR Am J Roentgenol 1994 Jun;162(6):1439-41. Comment on: AJR Am J Roentgenol 1997 Dec;169(6):1483-6. Comment on: AJR Am J Roentgenol 1998 Aug;171(2):295-9.

Contingency plans for Y2K problems [letter] Dockray KT. **AJR Am J Roentgenol** 1999 Sep;173(3):855

Teleradiology using low-cost consumer-oriented computer hardware and software. Pysher L, et al. **AJR Am J Roentgenol** 1999 May;172(5):1181-4

Viewing DICOM-compliant CT images on a desktop personal computer: use of an inexpensive DICOM receive agent and freeware image display applications. Zeman RK, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):305-8

A computer software application for managing occupational exposure data. Morgan DA, et al. **Am Ind Hyg Assoc J** 1998 Oct;59(10):723-8

Safety and efficacy of implantable defibrillator therapy with programmed shock energy at twice the augmented step-down defibrillation threshold: results of the prospective, randomized, multicenter Low-Energy Endotak Trial Neuzner J, et al. **Am J Cardiol** 1999 Mar 11;83(5B):34D-39D

NIOSH life table program for personal computers. Steenland K, et al. **Am J Ind Med** 1998 Nov;34(5):517-8

Y2K: the millennium bug and recovery after lock-up. **Am J Orthod Dentofacial Orthop** 1998 Dec;114(6):718-20

The "3-D occlusogram" software. Fiorelli G, et al. **Am J Orthod Dentofacial Orthop** 1999 Sep;116(3):363-8

Automated sensory nerve conduction testing using fuzzy logic. Gitter A, et al. **Am J Phys Med Rehabil** 1999 Sep-Oct;78(5):425-34

A program which automatically quantitates gel electrophoretic autoradiograms. Schumaker MF. **Anal Biochem** 1978 Dec;91(2):375-93

Automatic quantification of microvessels using unsupervised image analysis. Ranefall P, et al. **Anal Cell Pathol** 1998; 17(2):83-92

Cellular automaton simulation of tumour growth -- equivocal relationships between simulation parameters and morphologic pattern features. Smolle J. **Anal Cell Pathol** 1998;17(2):71-82

Image analysis for comparative genomic hybridization based on a karyotyping program for windows. Roth K, et al. **Anal Quant Cytol Histol** 1997 Dec;19(6):461-74

Neural networks as "software sensors" in enzyme engineering. Linko S, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:46-58

The effects of wind and human movement on the heat and vapour transfer properties of clothing [comment] Parsons KC, et al. **Ann Occup Hyg** 1999 Jul;43(5):347-52. Comment on: Ann Occup Hyg 1999 Jul;43(5):329-38. Comment on: Ann Occup Hyg 1999 Jul;43(5):339-46.

Relationship between EABR thresholds and levels used to program the CLARION speech processor. Brown CJ, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:50-7

Programming features of the CLARION Multi-Strategy Cochlear Implant. Zimmerman-Phillips S, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:17-21

Estimating risk factors for patients with potential drug-related problems using electronic pharmacy data. IMPROVE investigators. Isaksen SF, et al. **Ann Pharmacother** 1999 Apr;33(4):406-12

Measuring outcomes in children's rehabilitation: a decision protocol. Law M, et al. **Arch Phys Med Rehabil** 1999 Jun; 80(6):629-36

A framework for building cooperative software agents in medical applications. Lanzola G, et al. **Artif Intell Med** 1999 Jul;16(3):223-49

Web-based health care agents; the case of reminders and todos, too (R2Do2). Silverman BG, et al. **Artif Intell Med** 1998 Nov;14(3):295-316

The Creatures global digital ecosystem. Cliff D, et al. **Artif Life** 1999 Winter;5(1):77-93

Personal computer supported eight channel surface stimulator for paraplegic walking: first results. Bijak M, et al. **Artif Organs** 1999 May;23(5):424-7

Ethical perspectives and practice behaviors involving computer-based test interpretation. McMinn MR, et al. **Assessment** 1999 Mar;6(1):71-8

New software for lens retro-illumination digital image analysis. Gershenzon A, et al. **Aust N Z J Ophthalmol** 1999 Jun-Aug;27(3-4):170-2

Ataxia following exposure to a virtual environment. Kolasinski EM, et al. **Aviat Space Environ Med** 1999 Mar; 70(3 Pt 1):264-9

Determining the power of multiple regression analyses both with and without repeated measures. Bakeman R, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):150-4

STAZ: interactive software for undergraduate statistics. Hatchette V, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):19-23

GPT.EXE: a powerful tool for the visualization and analysis of general processing tree models. Hu X, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):220-34

A new visual performance test offers new variables for assessing daytime vigilance: short pauses in performance. Jokinen T, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):122-8

Object Relocation: a program for setting up, running, and analyzing experiments on memory for object locations. Kessels RP, et al. **Behav Res Methods Instrum Comput** 1999 Aug;31(3):423-8

The generation effect: software demonstrating the phenomenon. Langston W. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):81-5

A software tool for auditory and speech perception experimentation. López-Bascuas LE, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):334-40

Hardware and software for tachistoscopy: how to make accurate measurements on any PC utilizing the Microsoft Windows operating system. McKinney CJ, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):129-36

Timing accuracy of PC programs running under DOS and Windows. Myors B. **Behav Res Methods Instrum Comput** 1999 May;31(2):322-8

SCRIPTKELL: a tool for measuring cognitive effort and time processing in writing and other complex cognitive activities. Piolat A, et al. **Behav Res Methods Instrum Comput** 1999 Feb;31(1):113-21

Generating fixed-length sequences satisfying any given nth-order transition probability matrix. Remillard G, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):235-43

Automated grading of homework assignments and tests in introductory and intermediate statistics courses using active server pages. Stockburger DW. **Behav Res Methods Instrum Comput** 1999 May;31(2):252-62

eXpTools: a C++ class library for animation, tachistoscopic presentation, and response timing. Warner CB, et al. **Behav Res Methods Instrum Comput** 1999 Aug;31(3):387-99

Using HOLE to predict the effects of PEG's on the conductance of alpha-toxin. Coates GM, et al. **Biochem Soc Trans** 1998 Aug;26(3):S193

Automated genome sequence analysis and annotation. Andrade MA, et al. **Bioinformatics** 1999 May;15(5):391-412

DINAMO: interactive protein alignment and model building. Bentz J, et al. **Bioinformatics** 1999 Apr;15(4):309-16

Statistical mechanical simulation of polymeric DNA melting with MELTSIM. Blake RD, et al. **Bioinformatics** 1999 May;15(5):370-5

A visual environment for the manipulation and integration of JAVA beans. Boyle J. **Bioinformatics** 1998;14(8):739-48

CoPE: a collaborative pedigree drawing environment. Brun-Samarcq L, et al. **Bioinformatics** 1999 Apr; 15(4):345-6

Combining many multiple alignments in one improved alignment. Bucka-Lassen K, et al. **Bioinformatics** 1999 Feb; 15(2):122-30

ProbeDesigner: for the design of probesets for branched

DNA (bDNA) signal amplification assays. Bushnell S, et al. **Bioinformatics** 1999 May;15(5):348–55

Calign: aligning sequences with restricted affine gap penalties. Chao KM. **Bioinformatics** 1999 Apr; 15(4):298–304

TLCQA: quantitative study of thin-layer chromatography. Chau FT, et al. **Bioinformatics** 1998;14(6):540–1

CRAWview: for viewing splicing variation, gene families, and polymorphism in clusters of ESTs and full-length sequences. Chou A, et al. **Bioinformatics** 1999 May; 15(5):376–81

Genetic Simulation Library. Conery J, et al. **Bioinformatics** 1999 Jan;15(1):85–6

A computer-driven approach to PCR-based differential screening, alternative to differential display. Consalez GG, et al. **Bioinformatics** 1999 Feb;15(2):93–105

Wrapping SRS with CORBA: from textual data to distributed objects. Coupaye T. **Bioinformatics** 1999 Apr;15(4):333–8

JPred: a consensus secondary structure prediction server. Cuff JA, et al. **Bioinformatics** 1998;14(10):892–3

FORESST: fold recognition from secondary structure predictions of proteins. Di Francesco V, et al. **Bioinformatics** 1999 Feb;15(2):131–40

WebBLAST 2.0: an integrated solution for organizing and analyzing sequence data. Ferlanti ES, et al. **Bioinformatics** 1999 May;15(5):422–3

JaDis: computing distances between nucleic acid sequences. Gonçalves I, et al. **Bioinformatics** 1999 May;15(5):424–5

ESPript: analysis of multiple sequence alignments in PostScript. Gouet P, et al. **Bioinformatics** 1999 Apr; 15(4):305–8

HIV-1 genotypic resistance: automated sequence analysis and interpretation. Goujon CP, et al. **Bioinformatics** 1998; 14(10):886–7

A vector-based method for drawing RNA secondary structure. Han K, et al. **Bioinformatics** 1999 Apr; 15(4):286–97

The hydrophobic cores of proteins predicted by wavelet analysis. Hirakawa H, et al. **Bioinformatics** 1999 Feb; 15(2):141–8

GeneDn: for high-level expression design of heterologous genes in a prokaryotic system. Ju LW, et al. **Bioinformatics** 1998;14(10):884–5

Mapplet: a CORBA-based genome map viewer. Jungfer K, et al. **Bioinformatics** 1998;14(8):734–8

Stem Trace: an interactive visual tool for comparative RNA structure analysis. Kasprzak W, et al. **Bioinformatics** 1999 Jan;15(1):16–31

GeneGenerator--a flexible algorithm for gene prediction and its application to maize sequences. Kleffe J, et al. **Bioinformatics** 1998;14(3):232–43

Functional promoter modules can be detected by formal models independent of overall nucleotide sequence similarity. Klingenhoff A, et al. **Bioinformatics** 1999 Mar; 15(3):180–6

Promoter2.0: for the recognition of PolII promoter sequences. Knudsen S. **Bioinformatics** 1999 May; 15(5):356–61

REPuter: fast computation of maximal repeats in complete genomes. Kurtz S, et al. **Bioinformatics** 1999 May; 15(5):426–7

TargetFinder: searching annotated sequence databases for target genes of transcription factors. Lavorgna G, et al. **Bioinformatics** 1999 Feb;15(2):172–3

An exact solution for the segment-to-segment multiple sequence alignment problem. Lenhof HP, et al. **Bioinformatics** 1999 Mar;15(3):203–10

VHMPT: a graphical viewer and editor for helical membrane protein topologies. Lin WJ, et al. **Bioinformatics** 1998; 14(10):866–8

PASSML: combining evolutionary inference and protein secondary structure prediction. Liò P, et al. **Bioinformatics** 1998;14(8):726–33

An NMR assignment module implemented in the Gifa NMR processing program. Malliavin TE, et al. **Bioinformatics** 1998;14(7):624–31

Imagene: an integrated computer environment for sequence annotation and analysis. Médigue C, et al. **Bioinformatics** 1999 Jan;15(1):2–15

JOY: protein sequence-structure representation and analysis. Mizuguchi K, et al. **Bioinformatics** 1998;14(7):617–23

EDITtoTrEMBL: a distributed approach to high-quality automated protein sequence annotation. Möller S, et al. **Bioinformatics** 1999 Mar;15(3):219–27

DIALIGN 2: improvement of the segment-to-segment approach to multiple sequence alignment. Morgenstern B. **Bioinformatics** 1999 Mar;15(3):211–8

Local sequence alignments with monotonic gap penalties. Mott R. **Bioinformatics** 1999 Jun;15(6):455–62

PredAcc: prediction of solvent accessibility. Mucchielli-Giorgi MH, et al. **Bioinformatics** 1999 Feb; 15(2):176–7

Gene recognition by combination of several gene-finding programs. Murakami K, et al. **Bioinformatics** 1998; 14(8):665–75

The domain-server: direct prediction of protein domain-homologies from BLAST search. Murvai J, et al. **Bioinformatics** 1999 Apr;15(4):343–4

SSMAL: similarity searching with alignment graphs. Nicodème P. **Bioinformatics** 1998;14(6):508–15

METATOOL: for studying metabolic networks. Pfeiffer T, et al. **Bioinformatics** 1999 Mar;15(3):251–7

QU-GENE: a simulation platform for quantitative analysis of genetic models. Podlich DW, et al. **Bioinformatics** 1998; 14(7):632–53

MODELTEST: testing the model of DNA substitution. Posada D, et al. **Bioinformatics** 1998;14(9):817–8

Homology modeling, model and software evaluation: three related resources. Rodriguez R, et al. **Bioinformatics** 1998; 14(6):523–8

DnaSP version 3: an integrated program for molecular population genetics and molecular evolution analysis. Rozas J, et al. **Bioinformatics** 1999 Feb;15(2):174–5

Protein analyst--a distributed object environment for protein sequence and structure analysis. Saqi MA, et al. **Bioinformatics** 1999 Jun;15(6):521–2

Automated analysis of interatomic contacts in proteins. Sobolev V, et al. **Bioinformatics** 1999 Apr;15(4):327–32

Z extensions to the RHMAPPER package. Soderlund C, et al. **Bioinformatics** 1998;14(6):538–9

EUCLID: automatic classification of proteins in functional classes by their database annotations. Tamames J, et al. **Bioinformatics** 1998;14(6):542–3

MIAH: automatic alignment of eukaryotic SSU rRNAs. Thébault P, et al. **Bioinformatics** 1999 Apr;15(4):341–2

BAliBASE: a benchmark alignment database for the evaluation of multiple alignment programs. Thompson JD, et al. **Bioinformatics** 1999 Jan;15(1):87–8

E-CELL: software environment for whole-cell simulation. Tomita M, et al. **Bioinformatics** 1999 Jan;15(1):72–84

New phylogenetic venues opened by a novel implementation of the DNAml algorithm. Trelles O, et al. **Bioinformatics** 1998;14(6):544–5

BEAUTY-X: enhanced BLAST searches for DNA queries. Worley KC, et al. **Bioinformatics** 1998;14(10):890–1

BLAST PRINTS--alternative perspectives on sequence similarity. Wright W, et al. **Bioinformatics** 1999 Jun; 15(6):523–4

Pharmacokinetic analysis program based on tank-in-series model, MULTI(TIS), for evaluation of capacity-limited local disposition. Fukumura K, et al. **Biol Pharm Bull** 1998 Dec;21(12):1338–43

Development of a computer program, MDGP, for population pharmacokinetic analysis written using ANSI C language on wide platforms. Tanikawa K, et al. **Biol Pharm Bull** 1998 Aug;21(8):847–52

Y2K action plans: manufacturers, users, and government address the year 2000 issue. **Biomed Instrum Technol** 1998 Nov-Dec;32(6):569

Software for real-time control of a tidal liquid ventilator. Heckman JL, et al. **Biomed Instrum Technol** 1999 May-Jun; 33(3):268–76

FDA's responsibility and involvement in the Y2K issue. Jorgens J 3rd. **Biomed Instrum Technol** 1998 Nov-Dec; 32(6):577–9

Medical devices and the Y2K problem. Olbrish KD. **Biomed Instrum Technol** 1998 Nov-Dec;32(6):570–2

The Y2K problem and medical device management in the Veterans Health Administration. Wexler S. **Biomed Instrum Technol** 1998 Nov-Dec;32(6):572–6

Design of an EEG-based brain-computer interface (BCI) from standard components running in real-time under Windows. Guger C, et al. **Biomed Tech (Berl)** 1999 Jan-Feb;44(1-2):12–6

Templates for design of inhibitors for serine proteases: application of the program DOCK to the discovery of novel inhibitors for thrombin. Massova I, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2463–6

COVOL: an interactive program for evaluating second virial coefficients from the triaxial shape or dimensions of rigid macromolecules. Harding SE, et al. **Biophys J** 1999 May; 76(5):2432–8

Rule-based programming paradigm: a formal basis for biological, chemical and physical computation. Krishnamurthy V, et al. **Biosystems** 1999 Mar;49(3):205–28

Spreadsheet-based program for alignment of overlapping DNA sequences. Anbazhagan R, et al. **Biotechniques** 1999 Jun;26(6):1180–5

Computer program for automatically calculating similarity indexes from DNA fingerprints. Archer ES, et al. **Biotechniques** 1998 Aug;25(2):252–4

User-friendly and versatile software for analysis of protein hydrophobicity. Han B, et al. **Biotechniques** 1998 Aug; 25(2):256–9, 262–3

WinGene/WinPep: user-friendly software for the analysis of amino acid sequences. Hennig L. **Biotechniques** 1999 Jun;26(6):1170–2

Scripting Wizards for Chime and RasMol. Horton RM. **Biotechniques** 1999 May;26(5):874–6

Biological sequence analysis using regular expressions. Horton RM. **Biotechniques** 1999 Jul;27(1):76–8

JavaScript program for browser-based presentations. Horton RM. **Biotechniques** 1999 Mar;26(3):456–8

An introduction to Perl: the QuizMaker revisited. Horton RM, et al. **Biotechniques** 1999 Sep;27(3):470–2

ScienceLabDatabase: a computer program to organize a molecular biology laboratory. Nayler O, et al. **Biotechniques** 1999 Jun;26(6):1186–91

The primer generator: a program that facilitates the selection of oligonucleotides for site-directed mutagenesis. Turchin A, et al. **Biotechniques** 1999 Apr;26(4):672–6

JavaScript-based program for converting the relative centrifugal force and speed of common rotors. Wang D, et al. **Biotechniques** 1999 Mar;26(3):441–2

Automated production of cultured epidermal autografts and sub-confluent epidermal autografts in a computer controlled bioreactor. Prenosil JE, et al. **Biotechnol Bioeng** 1998 Sep 20;59(6):679–83

Prediction of cardiovascular risk. Hypothesis of program is flawed [letter; comment] Gueyffier F, et al. **BMJ** 1999 May 22;318(7195):1418–9. Comment on: **BMJ** 1999 Jan 9;318(7176):101–5.

A simple computer program for guiding management of cardiovascular risk factors and prescribing [see comments] Hingorani AD, et al. **BMJ** 1999 Jan 9;318(7176):101–5. Comment in: BMJ 1999 May 22;318(7195):1418; discussion 1419. Comment in: BMJ 1999 May 22;318(7195):1418–9.

Prediction of cardiovascular risk. Program is not suitable for diabetic patients [letter; comment] Zambanini A, et al. **BMJ** 1999 May 22;318(7195):1418; discussion 1419. Comment on: BMJ 1999 Jan 9;318(7176):101–5.

Newsgroups/file transfer protocol [see comments] Downes PK. **Br Dent J** 1998 Sep 26;185(6):270–4. Comment in: Br Dent J 1998 Nov 28;185(10):502.

Millenium bug [letter] Thornley P. **Br Dent J** 1999 Mar 27; 186(6):262–3

Cutaneous sinus tract of dental origin--imaging with a dental CT software programme. Bodner L, et al. **Br J Oral Maxillofac Surg** 1998 Aug;36(4):311–3

Software implementation of statistical methods for the analysis of structure and patterns in neuroanatomical objects. Baader SL, et al. **Brain Res Brain Res Protoc** 1998 Nov;3(2):173–82

Nutrition advocacy and national development: the PROFILES programme and its application. Burkhalter BR, et al. **Bull World Health Organ** 1999;77(5):407–15

Ensuring that Siemens medical equipment is ready for the year 2000 [letter] Hartwell WR. **Can Assoc Radiol J** 1998 Dec;49(6):420

Voice-recognition software: transforming record keeping [letter] Dermer M. **Can Fam Physician** 1999 Jul;45:1650

Y2K fever: what veterinarians need to know about the "year-2000 bug". Stowe JD. **Can Vet J** 1998 Oct; 39(10):653–8 **(Eng, Fre)**

The role of computerized corneal topography in rigid gas permeable contact lens fitting. Bufidis T, et al. **CLAO J** 1998 Oct;24(4):206–9

Software for prenatal down syndrome risk calculation: a comparative study of six software packages. Muller F, et al. **Clin Chem** 1999 Aug;45(8 Pt 1):1278–80

Evaluation of the Abbott system in maternal serum screening for Down syndrome: the AxSym analyzer, AFP and hCG reagents and Maciel Prenatal Interpretive Software. Muller F, et al. **Clin Chim Acta** 1998 Sep 14;277(1):65–75

Validation and comparison of two computerized methods of obtaining a diet history. Landig J, et al. **Clin Nutr** 1998 Jun;17(3):113–7

Software for population pharmacokinetics and pharmacodynamics. Aarons L. **Clin Pharmacokinet** 1999 Apr;36(4):255–64

"I need more power, Scotty" [letter] Dermer M. **CMAJ** 1999 Aug 10;161(3):246

Time's running out as physicians await Y2K fallout. Elash A. **CMAJ** 1998 Sep 22;159(6):697–9

Winnipeg software designed to give FPs easy access to specialists' advice. Stewart J. **CMAJ** 1998 Nov 3; 159(9):1161–2

Computer assisted densitometric image analysis (CADIA) of bone density in periradicular bone defects healing. Katanec D, et al. **Coll Antropol** 1998 Dec;22 Suppl:7–13

A user's guide to producing and interpreting tree diagrams in taxonomy and phylogenetics. Part 4: Practice. Clewley JP. **Commun Dis Public Health** 1998 Dec;1(4):285–7

Computer-assisted creation of psychiatric advance directives. Sherman PS. **Community Ment Health J** 1998 Aug; 34(4):351–62

Butterworth equations for homomorphic filtering of images. Adelmann HG. **Comput Biol Med** 1998 Mar;28(2):169–81

A software package for non-invasive, real-time beat-to-beat monitoring of stroke volume, blood pressure, total peripheral resistance and for assessment of autonomic function. Gratze G, et al. **Comput Biol Med** 1998 Mar; 28(2):121–42

Validation of automated forms processing. A comparison of Teleform with manual data entry. Jørgensen CK, et al. **Comput Biol Med** 1998 Nov;28(6):659–67

A computer program to calculate indicators of descriptive epidemiology. Bidoli E, et al. **Comput Biomed Res** 1999 Jun;32(3):252–63

CombiTool--a new computer program for analyzing combination experiments with biologically active agents. Dressler V, et al. **Comput Biomed Res** 1999 Apr; 32(2):145–60

Computer assisted neurophysiology by a distributed Java program. Jeandenans L, et al. **Comput Biomed Res** 1998 Dec;31(6):465–75

PALIREL, a computer program for analyzing particle-to-membrane relations, with emphasis on electron micrographs of immunocytochemical preparations and gold labeled molecules. Ruud HK, et al. **Comput Biomed Res** 1999 Apr;32(2):93–122

A World Wide Web-service to aid the development of AMBER parameters using analogy to standard parameters. Ravna AW, et al. **Comput Chem** 1999 Sep 1;23(5):435–7

VoxeLine: a software program for 3D real-time visualization of biomedical images. Diallo B, et al.

Comput Med Imaging Graph 1998 Jul-Aug;22(4):275-89

Simple bootstrap statistical inference using the SAS system. Cole SR. **Comput Methods Programs Biomed** 1999 Jul; 60(1):79-82

Using 'off the shelf', computer programs to mine additional insights from published data: diurnal variation in potency of ACTH stimulation of cortisol secretion revealed. Gonzalez-Heydrich J, et al.
Comput Methods Programs Biomed 1999 Mar;58(3):227-38

EasyBound--a user-friendly approach to nonlinear regression analysis of binding data. Hedlund PB, et al.
Comput Methods Programs Biomed 1999 Mar;58(3):245-9

Generating the Snellen Chart by computer. Johnson AT, et al. **Comput Methods Programs Biomed** 1998 Nov; 57(3):161-6

Xpose--an S-PLUS based population pharmacokinetic/pharmacodynamic model building aid for NONMEM. Jonsson EN, et al.
Comput Methods Programs Biomed 1999 Jan;58(1):51-64

A software for recording and analysis of human tremor. Lauk M, et al. **Comput Methods Programs Biomed** 1999 Jul; 60(1):65-77

Residual analysis in random regressions using SAS and S-PLUS. Mazumdar S, et al.
Comput Methods Programs Biomed 1999 Mar;58(3):281-2

Using semantic constraints to help verify the completeness of a computer-based clinical guideline for childhood immunization. Miller DW Jr, et al.
Comput Methods Programs Biomed 1999 Mar;58(3):267-80

A procedure for generating bootstrap samples for the validation of nonlinear mixed-effects population models. Parke J, et al. **Comput Methods Programs Biomed** 1999 Apr; 59(1):19-29

Virtual instrumentation for pH measurements in biological systems. Rigobello MP, et al.
Comput Methods Programs Biomed 1999 Jul;60(1):55-64

Graphical simulation of early development of the cerebral cortex. Ryder EF, et al.
Comput Methods Programs Biomed 1999 May;59(2):107-14

Structure of the standardized computerized 24-h diet recall interview used as reference method in the 22 centers participating in the EPIC project. European Prospective Investigation into Cancer and Nutrition. Slimani N, et al.
Comput Methods Programs Biomed 1999 Mar;58(3):251-66

Using ARROWSMITH: a computer-assisted approach to formulating and assessing scientific hypotheses. Smalheiser NR, et al. **Comput Methods Programs Biomed** 1998 Nov; 57(3):149-53

An EXCEL-based method to search for potential Ser/Thr-phosphorylation sites in proteins. Wera S.
Comput Methods Programs Biomed 1999 Jan;58(1):65-8

GEECAT and GEEGOR: computer programs for the analysis of correlated categorical response data. Williamson JM, et al. **Comput Methods Programs Biomed** 1999 Jan; 58(1):25-34

Building quantitative stereology data files with scion image, a public domain image processing and analysis software. Xu YH, et al. **Comput Methods Programs Biomed** 1999 May; 59(2):131-42

COMPROC and CHECKNORM: computer programs for comparing accuracies of diagnostic tests using ROC curves in the presence of verification bias. Zhou XH, et al.
Comput Methods Programs Biomed 1998 Nov;57(3):179-86

Wired for thought. Electronic meetings in nursing education. O'Brien BS, et al. **Comput Nurs** 1999 Jan-Feb;17(1):27-31

Correct homeostasis model assessment (HOMA) evaluation uses the computer program [letter; comment] Levy JC, et al. **Diabetes Care** 1998 Dec;21(12):2191-2. Comment on: Diabetes Care 1998 Apr;21(4):673-4.

A computer program for conducting incinerator risk assessments. Walter MA. **Drug Chem Toxicol** 1999 Feb; 22(1):213-20

Interactive software for evaluating auditory discrimination [letter] Carrell TD, et al. **Ear Hear** 1999 Apr;20(2):175-6

Applicability of CATALYST in ecotoxicology, a new promising tool for 3D-QSAR: study of chlorophenols. Briens F, et al. **Ecotoxicol Environ Saf** 1999 Jul;43(3):241-51

Multiple parameter cross-species protein identification using MultiIdent--a world-wide web accessible tool. Wilkins MR, et al. **Electrophoresis** 1998 Dec;19(18):3199-206

Y2K: the moment of truth. Chepesiuk R.
Environ Health Perspect 1999 May;107(5):A252-5

Software for hierarchical modeling of epidemiologic data [published erratum appears in Epidemiology 1999 Jul;10(4):470] Witte JS, et al. **Epidemiology** 1998 Sep; 9(5):563-6

Clinical utility of sleep-deprived versus computer-assisted ambulatory 16-channel EEG in epilepsy patients: a multi-center study. Liporace J, et al. **Epilepsy Res** 1998 Nov;32(3):357-62

Calculation of NMR relaxation, covolume, and scattering-related properties of bead models using the SOLPRO computer program. Garcia de la Torre J, et al. **Eur Biophys J** 1999;28(2):119-32

Human cytokine gene nucleotide sequence alignments: supplement 1. Bidwell JL, et al. **Eur J Immunogenet** 1999 Apr-Jun;26(2-3):135-223

Use of a spreadsheet to quantitate the equilibrium binding of an allosteric modulator. Christopoulos A, et al.
Eur J Pharmacol 1998 Aug 14;355(1):103-11

A PC program for estimating organ dose and effective dose values in computed tomography. Kalender WA, et al.
Eur Radiol 1999;9(3):555-62

Collective adaptation: the exchange of coding segments. Haynes T. **Evol Comput** 1998 Winter;6(4):311-38

Code growth, explicitly defined introns, and alternative selection schemes. Smith PW, et al. **Evol Comput** 1998 Winter;6(4):339-60

Effects of code growth and parsimony pressure on populations in genetic programming. Soule T, et al.
Evol Comput 1998 Winter;6(4):293-309

Motifer, a search tool for finding amino acid sequence patterns from nucleotide sequence databases. Jörnvall H.
FEBS Lett 1999 Jul 30;456(1):85-8

FramePlot: a new implementation of the frame analysis for predicting protein-coding regions in bacterial DNA with a high G + C content. Ishikawa J, et al.
FEMS Microbiol Lett 1999 May 15;174(2):251-3

BLAST 2 Sequences, a new tool for comparing protein and nucleotide sequences [published erratum appears in FEMS Microbiol Lett 1999 Aug 1;177(1):187-8] Tatusova TA, et al. **FEMS Microbiol Lett** 1999 May 15;174(2):247-50

Therapy cost 2000: an electronic tool for evaluating the cost-effectiveness of therapeutic regimens [letter] Day D, et al. **Front Biosci** 1998 Dec 1;3:L3-4

Computer programs for automatic interpretation of protein difference Patterson and for automatic solving of organic structures. Pavelčík F, et al. **Gen Physiol Biophys** 1998 Jun; 17 Suppl 1:30-3

CINEMA--a novel colour INteractive editor for multiple alignments. Parry-Smith DJ, et al. **Gene** 1998 Oct 9; 221(1):GC57-63

Protein-coding regions prediction combining similarity searches and conservative evolutionary properties of protein-coding sequences. Rogozin IB, et al. **Gene** 1999 Jan 8;226(1):129-37

A computer program for aligning a cDNA sequence with a genomic DNA sequence. Florea L, et al.
Genome Res 1998 Sep;8(9):967-74

A software system for data analysis in automated DNA sequencing. Giddings MC, et al. **Genome Res** 1998 Jun; 8(6):644-65

How to interpret an anonymous bacterial genome: machine learning approach to gene identification. Hayes WS, et al.
Genome Res 1998 Nov;8(11):1154-71

An effective approach for analyzing "prefinished" genomic sequence data. Kuehl PM, et al. **Genome Res** 1999 Feb; 9(2):189-94

DNA sequence chromatogram browsing using JAVA and CORBA. Parsons JD, et al. **Genome Res** 1999 Mar; 9(3):277-81

Panning for genes--A visual strategy for identifying novel gene orthologs and paralogs. Retief JD, et al.
Genome Res 1999 Apr;9(4):373-82

Automated sequence preprocessing in a large-scale sequencing environment. Wendl MC, et al. **Genome Res** 1998 Sep;8(9):975-84

Integrated mapping package--a physical mapping software tool kit. Zhang P, et al. **Genomics** 1999 Jan 1;55(1):78-87

WWW accessible system for national/regional registries of clinical results of cord blood transplants: a tool to facilitate cooperative clinical research. Fernández MN, et al.
Haematologica 1998 Dec;83(12):1099-103

The impact of computer-tailored feedback and iterative feedback on fat, fruit, and vegetable intake. Brug J, et al.
Health Educ Behav 1998 Aug;25(4):517-31

Year 2000 issues [news] Busby B. **Health Phys** 1998 Dec; 75(6):570-1

Neyman-Pearson confidence intervals for extreme low-level, paired counting. Potter WE. **Health Phys** 1999 Feb; 76(2):186-90

Comparative study of the PARK and ASTRAL post-accidental decision support software. Renaud P, et al. **Health Phys** 1999 May;76(5):502-9

Boltzmann analysis of CM waveforms using virtual instrument software. Patuzzi RB, et al. **Hear Res** 1999 Jul; 133(1-2):155-9

Joint British recommendations on prevention of coronary heart disease in clinical practice. British Cardiac Society, British Hyperlipidaemia Association, British Hypertension Society, endorsed by the British Diabetic Association.
Heart 1998 Dec;80 Suppl 2:S1-29

Technology. Fess up [news] **Hosp Health Netw** 1998 Nov 5;72(21):16

Y2K OK? Sink or swim [news] Pasternack A.
Hosp Health Netw 1999 Apr;73(4):26

Chronic care. Case-sensitive software. Pasternack A.
Hosp Health Netw 1998 Oct 5;72(19):50

Count up 2000. The bug eating your budget. Pasternack A.
Hosp Health Netw 1998 Nov 20;72(22):44, 46

B-SPID: an object-relational database architecture to store, retrieve, and manipulate neuroimaging data. Diallo B, et al. **Hum Brain Mapp** 1999;7(2):136-50

Software for 3-D visualization/analysis of optic-disc images. Yogesan K, et al. **IEEE Eng Med Biol Mag** 1999 Jan-Feb; 18(1):43-9

A software program to calculate Goodman and Kruskal's gamma: a method to monitor surgical-site infection rates. Wasser TE. **Infect Control Hosp Epidemiol** 1998 Nov; 19(11):869-71

Risk assessment of hazardous release in air due to the chemical production of "P. Karaminchev" company in the town of Rousse. Diankova M.
Int Arch Occup Environ Health 1998 Sep;71 Suppl:S75-8

A system for the objective screening of dysphonia and the possibilities for its application in exposed workers. Doskov D. **Int Arch Occup Environ Health** 1998 Sep;71 Suppl:S79-80

The teaching of computer programming and digital image processing in radiography. Allan GL, et al.
Int J Med Inf 1998 Jun;50(1-3):139-43

CORBA security services for health information systems. Blobel B, et al. **Int J Med Inf** 1998 Oct-Dec;52(1-3):29-37

The standard 'Healthcare Information Systems Architecture' and the DHE middleware. Ferrara FM. **Int J Med Inf** 1998 Oct-Dec;52(1-3):39-51

Computerised controllers for safety critical medical applications. Halang WA, et al. **Int J Med Inf** 1998 Apr; 49(2):139-55

Availability of software services for a hospital information system. Sakamoto N. **Int J Med Inf** 1998 Mar;49(1):89-96

Towards specialised middleware for healthcare information systems. Spahni S, et al. **Int J Med Inf** 1999 Feb-Mar; 53(2-3):193-201

Solving linear integer programming problems by a novel neural model. Cavalieri S. **Int J Neural Syst** 1999 Feb; 9(1):27-39

Neural networks and linear programming for the satisfiability problem. Monfroglio A. **Int J Neural Syst** 1999 Feb; 9(1):11-25

Are calculated log P values for some guanine derivatives by different computer programs reliable? Kristl A, et al.
Int J Pharm 1999 Apr 30;181(2):219-26

Accuracy evaluation of fusion of CT, MR, and spect images using commercially available software packages (SRS PLATO and IFS). Mongioj V, et al.
Int J Radiat Oncol Biol Phys 1999 Jan 1;43(1):227-34

The use of an interactive software program for quantitative characterization of microcalcifications on digitized film-screen mammograms. Leichter I, et al.
Invest Radiol 1999 Jun;34(6):394-400

Segment-based scores for pairwise and multiple sequence alignments. Morgenstern B, et al. **Ismb** 1998;6:115-21

Analysing qualitative data: computerized and other approaches. Webb C. **J Adv Nurs** 1999 Feb;29(2):323-30 (29 ref.)

Use of a common computerized program for echocardiogram archiving and reporting over a regional territory: feasibility and clinical and research impact during a 5-year experience. Badano LP, et al. **J Am Soc Echocardiogr** 1999 Aug;12(8):669-78

Differential regulation of mesenteric and femoral blood flow in the rat as revealed by computerized data acquisition and evaluation. Heinemann A, et al. **J Auton Pharmacol** 1998 Feb;18(1):39-48

A semi-automated program for volume measurement in focal hepatic lesions: a first clinical experience. De Vriendt G, et al. **J Belge Radiol** 1998 Aug;81(4):181-3

CAMRA: chemical shift based computer aided protein NMR assignments. Gronwald W, et al. **J Biomol NMR** 1998 Oct; 12(3):395-405

Overview of nucleic acid analysis programs. Lu XJ, et al.
J Biomol Struct Dyn 1999 Feb;16(4):833-43 (42 ref.)

Problematic formulations of SAS PROC.MIXED models for repeated measurements. Overall JE, et al.
J Biopharm Stat 1999 Mar;9(1):189-216

Evaluation of low density spine software for the assessment of bone mineral density in children. Leonard MB, et al.
J Bone Miner Res 1998 Nov;13(11):1687-90

Development and solution of finite-difference equations for burn injury with spreadsheet software. Diller KR.
J Burn Care Rehabil 1999 Jan-Feb;20(1 Pt 1):25-32

Modeling thermal skin burns on a personal computer. Diller KR. **J Burn Care Rehabil** 1998 Sep-Oct;19(5):420-9

BurnWare: National Tracs/ABA computer use in the burn center. A review of reviews. Miller SF.
J Burn Care Rehabil 1999 Mar-Apr;20(2):179-81

Comparison of COBE Spectra software version 4.7 PBSC and version 6.0 auto PBSC program. Wilke R, et al.
J Clin Apheresis 1999;14(1):26-30

Critical observations on computerized analysis of banding patterns with commercial software packages [letter; comment] Cardinali G, et al. **J Clin Microbiol** 1999 Mar; 37(3):876-7. Comment on: J Clin Microbiol 1998 May;36(5):1318-23.

Evaluation of AMPLILINK software for the COBAS AMPLICOR system. Kessler HH, et al.
J Clin Microbiol 1999 Feb;37(2):436-7

BUNDLE: a program for building the transmembrane domains of G-protein-coupled receptors. Filizola M, et al. **J Comput Aided Mol Des** 1998 Mar;12(2):111-8

Nutrient requirements for dairy cattle of the National Research Council versus some commonly used ration software. Eastridge ML, et al. **J Dairy Sci** 1998 Nov; 81(11):3049-62

A picture archiving and communications system featuring multiple monitors using Windows98. Ernst R, et al.
J Digit Imaging 1999 May;12(2 Suppl 1):106-8

A desktop digital imaging and communications in medicine picture archiving and communications system with multiple monitors using Windows 98. Lutzker S, et al.
J Digit Imaging 1999 May;12(2 Suppl 1):191

Using commercially available off-the-shelf software and hardware to develop an intranet-based hypertext markup language teaching file. Wendt GJ. **J Digit Imaging** 1999 May;12(2 Suppl 1):122-3

Inaccurate Web site review [letter] Alper BS. **J Fam Pract** 1999 Feb;48(2):149
Computerized assessment software update 1999. Lynch WJ. **J Head Trauma Rehabil** 1999 Jun;14(3):325–8
Lineshape calculations on spreadsheet software. Mayer C. **J Magn Reson** 1999 May;138(1):1–11
Improved hardware and software for single-crystal NMR spectroscopy. Vosegaard T, et al. **J Magn Reson** 1998 Nov; 135(1):126–32
Calculation of roc curves in multidimensional likelihood ratio based screening with Down's syndrome as a special case. Larsen SO, et al. **J Med Screen** 1998;5(2):57–62
Estimating microbial population counts by 'most probable number' using Microsoft Excel. Briones AM Jr, et al. **J Microbiol Methods** 1999 Mar;35(2):157–61
The discovery of steroids and other novel FKBP inhibitors using a molecular docking program. Burkhard P, et al. **J Mol Biol** 1999 Apr 16;287(5):853–8
Recognition of spatial motifs in protein structures. Kleywegt GJ. **J Mol Biol** 1999 Jan 29;285(4):1887–97
LearnCoil-VMF: computational evidence for coiled-coil-like motifs in many viral membrane-fusion proteins. Singh M, et al. **J Mol Biol** 1999 Jul 30; 290(5):1031–41
High-throughput mass spectrometric discovery of protein post-translational modifications. Wilkins MR, et al. **J Mol Biol** 1999 Jun 11;289(3):645–57
Multiple sequence alignment in HTML: colored, possibly hyperlinked, compact representations. Campagne F, et al. **J Mol Graph Model** 1998 Feb;16(1):6–10, 34–5
SLASH: a program for analysing the functional groups in molecules. Cosgrove DA, et al. **J Mol Graph Model** 1998 Feb;16(1):19–32
World Wide Web-based system for the calculation of substituent parameters and substituent similarity searches. Ertl P. **J Mol Graph Model** 1998 Feb;16(1):11–3, 36
LIGSITE: automatic and efficient detection of potential small molecule-binding sites in proteins. Hendlich M, et al. **J Mol Graph Model** 1997 Dec;15(6):359–63, 389
Molecular modelling of Me(2+)-(8-hydroxy-quinolinate)2 complexes using ZINDO and ESSF methods. Nicolau DV, et al. **J Mol Graph Model** 1998 Apr;16(2):83–96, 99–100
Dynamic contact maps of protein structures. Sonnhammer EL, et al. **J Mol Graph Model** 1998 Feb;16(1):1–5, 33
Characterizing cavities in model inclusion molecules: a comparative study. Torrens F, et al. **J Mol Graph Model** 1998 Apr;16(2):57–71
BrainView: a computer program for reconstruction and interactive visualization of 3D data sets. Lohmann K, et al. **J Neurosci Methods** 1998 Oct 1;84(1–2):143–54
DOSE3D: EGS4 Monte Carlo code-based software for internal radionuclide dosimetry. Clairand I, et al. **J Nucl Med** 1999 Sep;40(9):1517–23
Y2K (year 2000) [news] Walker T. **J Okla State Med Assoc** 1999 Feb;92(2):89–91
Optimizing calvarial bone graft harvesting with the SIM/Plant software system. Gerencer R, et al. **J Otolaryngol** 1999 Jun;28(3):173–7
Assessment of quality of life in the younger child: the use of an animated computer program. Büller H. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):S53–5 (11 ref.)
RTS, a computer program for the experimental set-up and interpretation of ruggedness tests. Questier F, et al. **J Pharm Biomed Anal** 1998 Nov;18(3):287–303
A pharmacokinetic/pharmacodynamic comparison of SAAM II and PC/WinNonlin modeling software. Heatherington AC, et al. **J Pharm Sci** 1998 Oct;87(10):1255–63
Predictive performance of a semiparametric method to estimate population pharmacokinetic parameters using NONMEM. Bressolle F, et al. **J Pharmacokinet Biopharm** 1998 Jun;26(3):349–61
A computer program to compare sequence fingerprints of homologous proteins for the rapid assessment of their primary structure differences. Caporale C, et al. **J Protein Chem** 1998 Nov;17(8):867–73
JavaScope: A Web-based TEM control interface. Kisseberth N, et al. **J Struct Biol** 1999 Apr-May;125(2-3):229–34
XtalView/Xfit--A versatile program for manipulating atomic coordinates and electron density. McRee DE. **J Struct Biol** 1999 Apr-May;125(2-3):156–65
A data mining approach for analyzing density maps representing macromolecular structures. Ravantti JJ, et al. **J Struct Biol** 1999 Apr-May;125(2-3):216–22
QVIEW: software for rapid selection of particles from digital electron micrographs. Shah AK, et al. **J Struct Biol** 1998 Sep;123(1):17–21
Ximdisp--A visualization tool to aid structure determination from electron microscope images. Smith JM. **J Struct Biol** 1999 Apr-May;125(2-3):223–8
Situs: A package for docking crystal structures into low-resolution maps from electron microscopy. Wriggers W, et al. **J Struct Biol** 1999 Apr-May;125(2-3):185–95
Hospital trauma registries linked with population-based data. Clark DE, et al. **J Trauma** 1999 Sep;47(3):448–54
GIDEON computer program for diagnosing and teaching geographic medicine. Keystone JS. **J Travel Med** 1999 Jun; 6(2):152–4 (4 ref.)
A novel and innovative quantitative kinetic software for virological colorimetric assays. Giacomini M, et al. **J Virol Methods** 1998 Aug;73(2):201–9
The GPRIME package: computer programs for identifying the best regions of aligned genes to target in nucleic acid hybridisation-based diagnostic tests, and their use with plant viruses. Gibbs A, et al. **J Virol Methods** 1998 Sep; 74(1):67–76
Application of a computer program for genetic typing of classical swine fever virus isolates from Germany. Greiser-Wilke I, et al. **J Virol Methods** 1998 Nov; 75(2):141–50
Critical level and detection limit: performance measures for PCR-based assays. Markert-Hahn C, et al. **J Virol Methods** 1998 Oct;74(2):139–48
Computers--a sympathetic shoulder to cry on [news] Mitchell P. **Lancet** 1999 Jun 12;353(9169):2046
Computerized evaluation procedure for comparing the electrophoretic protein patterns of bacterial strains. Bernáth S, et al. **Lett Appl Microbiol** 1998 Oct;27(4):235–8
A PC-based workstation for processing and analysis of MRI data. Marzola P, et al. **MAGMA** 1998 Nov;7(1):16–20
Visualizing blood flow patterns using streamlines, arrows, and particle paths. Buonocore MH. **Magn Reson Med** 1998 Aug;40(2):210–26
A programmable pre-emphasis system. Gach HM, et al. **Magn Reson Med** 1998 Sep;40(3):427–31
Evaluation of quick medical reference (QMR) as a teaching tool. Arene I, et al. **MD Comput** 1998 Sep-Oct;15(5):323–6
Computer program for the diagnosis and treatment of polycythemia rubra vera. Djulbegovic B, et al. **MD Comput** 1999 Jan-Feb;16(1):83–9
Computer-supported identification and intervention for diabetic patients at risk for amputation. Khoury A, et al. **MD Comput** 1998 Sep-Oct;15(5):307–10
A freely available statistical program for testing associations. Lee YJ, et al. **MD Comput** 1998 Sep-Oct;15(5):327–30
MARVIN, multi-agent softbot to retrieve multilingual medical information on the Web. Baujard O, et al. **Med Inform (Lond)** 1998 Jul-Sep;23(3):187–91
A JAVA environment for medical image data analysis: initial application for brain PET quantitation. Mikolajczyk K, et al. **Med Inform (Lond)** 1998 Jul-Sep;23(3):207–14
A software tool for the quantitative evaluation of 3D dose calculation algorithms. Harms WB Sr, et al. **Med Phys** 1998 Oct;25(10):1830–6
MABDOSE. II: Validation of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1396–403
MABDOSE. I: Characterization of a general purpose dose estimation code. Johnson TK, et al. **Med Phys** 1999 Jul; 26(7):1389–95
XINPUT: a program to edit "DOSRZ" input files. Lauterbach MH, et al. **Med Phys** 1999 May;26(5):760–2
Use of project ontologies and terminology servers to support software engineering. Bång M, et al. **Medinfo** 1998;9 Pt 1:639–43
Why good hospitals get bad computing. Bleich HL. **Medinfo** 1998;9 Pt 2:969–72
Extending a teleradiology system by tools for 3D-visualization and volumetric analysis through a plug-in mechanism. Evers H, et al. **Medinfo** 1998;9 Pt 2:1033–5
Organizational & medical ontologies for co-operative patient management. Falasconi S, et al. **Medinfo** 1998;9 Pt 2:1192–6
The software challenge for the next decade: the global objects scenario. Leão B de F, et al. **Medinfo** 1998;9 Pt 1:202–6
The millennium bug: a prescription for action. Meador L, et al. **Medinfo** 1998;9 Pt 2:973–6
A data dictionary approach to multilingual documentation and decision support for the diagnosis of acute abdominal pain. (COPERNICUS 555, an European concerted action). Ohmann C, et al. **Medinfo** 1998;9 Pt 1:462–6
Dental interview system with a native-language interpreting engine. Ojima M, et al. **Medinfo** 1998;9 Pt 1:319–21
VM-in-Protégé: a study of software reuse. Park JY, et al. **Medinfo** 1998;9 Pt 1:644–8
'The Electronic Wardeni management of the data security access in a heterogeneous university hospital environment in Belgium. Piret C, et al. **Medinfo** 1998;9 Pt 2:949–51
Plug and play--fiction or reality? Schweiger R, et al. **Medinfo** 1998;9 Pt 2:999–1001
An object-modeling method for hospital information systems. Seto K, et al. **Medinfo** 1998;9 Pt 2:981–5
Middleware for healthcare information systems. Spahni S, et al. **Medinfo** 1998;9 Pt 1:212–6
The nurse scheduling problem: a combinatorial problem, solved by the combination of constraint programming and real users heuristics. Weil G, et al. **Medinfo** 1998;9 Pt 1:508–12
Domain ontologies in software engineering: use of Protégé with the EON architecture. Musen MA. **Methods Inf Med** 1998 Nov;37(4-5):540–50
Using MycDB on the World-Wide Web. Bergh S, et al. **Methods Mol Biol** 1998;101:109–18
Computer analysis of IS6110 RFLP patterns of Mycobacterium tuberculosis. Heersma HF, et al. **Methods Mol Biol** 1998;101:395–422
Protein identification and analysis tools in the ExPASy server. Wilkins MR, et al. **Methods Mol Biol** 1999; 112:531–52 (16 ref.)
Product review: lucis image processing software. Johnson JE Jr. **Microsc Res Tech** 1999 Apr 1;45(1):59–61
CRITICA: coding region identification tool invoking comparative analysis. Badger JH, et al. **Mol Biol Evol** 1999 Apr;16(4):512–24
A simple program to calculate codon bias index. Wang TT, et al. **Mol Biotechnol** 1998 Oct;10(2):103–6
Flexible programs for the prediction of average amphipathicity of multiply aligned homologous proteins: application to integral membrane transport proteins. Le T, et al. **Mol Membr Biol** 1999 Apr-Jun;16(2):173–9
Extending the boundaries of molecular modeling. Sansom C. **Nat Biotechnol** 1998 Oct;16(10):917–8
Genome complexity, robustness and genetic interactions in digital organisms [see comments] Lenski RE, et al. **Nature** 1999 Aug 12;400(6745):661–4. Comment in: Nature 1999 Aug 12;400(6745):618–9.
A million volunteers join the online search for extraterrestrial life [news] Reichhardt T. **Nature** 1999 Aug 26; 400(6747):804
Development of a computer-controlled tensiometer for real-time measurements of tension in tubular organs. Gregersen H, et al. **Neurogastroenterol Motil** 1999 Apr; 11(2):109–18
Pfam 3.1: 1313 multiple alignments and profile HMMs match the majority of proteins. Bateman A, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):260–2
DNAPROBE, a computer program which generates oligonucleotide probes from protein alignments. Drummond M, et al. **Nucleic Acids Res** 1999 Sep 1; 27(17):3493
New features of the Blocks Database servers. Henikoff JG, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):226–8
DNA Data Bank of Japan dealing with large-scale data submission. Sugawara H, et al. **Nucleic Acids Res** 1999 Jan 1;27(1):25–8
A comprehensive comparison of multiple sequence alignment programs. Thompson JD, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2682–90
Computerized information and support for patients with breast cancer or HIV infection. Rolnick SJ, et al. **Nurs Outlook** 1999 Mar-Apr;47(2):78–83
Linear programming based approach to the derivation of a contact potential for protein threading. Akutsu T, et al. **Pac Symp Biocomput** 1998;:413–24
Recognition of human genes by stochastic parsing. Asai K, et al. **Pac Symp Biocomput** 1998;:228–39
Using constraint programming for lattice protein folding. Backofen R. **Pac Symp Biocomput** 1998;:389–400
Field-based similarity forcing in energy minimization and molecular matching. Blinn JR, et al. **Pac Symp Biocomput** 1999;:415–25
A prototype molecular interactive collaborative environment (MICE). Bourne P, et al. **Pac Symp Biocomput** 1998;:118–29
Thermodynamics and kinetics of ligand-protein binding studied with the weighted histogram analysis method and simulated annealing. Bouzida D, et al. **Pac Symp Biocomput** 1999;:426–37
Empirical free energy calculations of phage 434 repressor- and cro-DNA complexes support the 'indirect readout' hypothesis of specificity. Brown LM, et al. **Pac Symp Biocomput** 1998;:339–48
Focus-2D: a new approach to the design of targeted combinatorial chemical libraries. Cho SJ, et al. **Pac Symp Biocomput** 1998;:305–16
Protein disorder and the evolution of molecular recognition: theory, predictions and observations. Dunker AK, et al. **Pac Symp Biocomput** 1998;:473–84
Protein model determination from crystallographic data. Edgecombe K, et al. **Pac Symp Biocomput** 1998;:449–60
Toward information extraction: identifying protein names from biological papers. Fukuda K, et al. **Pac Symp Biocomput** 1998;:707–18
Prediction and visualization of structural switches in RNA. Giegerich R, et al. **Pac Symp Biocomput** 1999;:126–37
Empirical vs. "rational" methods of discovering new drugs. Gund P. **Pac Symp Biocomput** 1999;:438–43
Surface solid angle-based site points for molecular docking. Hendrix DK, et al. **Pac Symp Biocomput** 1998;:317–26
The object technology framework: an object-oriented interface to molecular data and its application to collagen. Huang CC, et al. **Pac Symp Biocomput** 1998;:349–61
Visualizing nerve cells with VolVis. Kaufman A. **Pac Symp Biocomput** 1998;:165–76
Development of software tools at BioInformatics Centre (BIC) at the National University of Singapore (NUS). Kolatkar PR, et al. **Pac Symp Biocomput** 1998;:735–46
Application of parameter optimization to molecular comparison problems. Lemmen C, et al. **Pac Symp Biocomput** 1999;:482–93
Improving the efficiency of a user-driven learning system with reconfigurable hardware. Application to DNA splicing. Lemoine E, et al. **Pac Symp Biocomput** 1999; :290–301
Ligand-receptor 3-D similarity studies using multiple 4-point pharmacophores. Mason JS, et al. **Pac Symp Biocomput** 1999;:456–67
Protalign: a 3-dimensional protein alignment assessment tool. Meads D, et al. **Pac Symp Biocomput** 1999;:354–67
Optimizing Smith-Waterman alignments. Olsen R, et al. **Pac Symp Biocomput** 1999;:302–13
Are binding residues conserved? Ouzounis C, et al. **Pac Symp Biocomput** 1998;:401–12
The GAIA software framework for genome annotation. Overton GC, et al. **Pac Symp Biocomput** 1998;:291–302
MAVIS: an interactive visualization tool for computational chemistry calculations in a distributed networked environment. Parkinson CI, et al. **Pac Symp Biocomput**

1998;:189–200
Computing minimum description length for robust linear regression model selection. Qian G. **Pac Symp Biocomput** 1999;:314–25
BioJAKE: a tool for the creation, visualization and manipulation of metabolic pathways. Salamonsen W, et al. **Pac Symp Biocomput** 1999;:392–400
An information theoretic view of gapped and other alignments. Schmidt JP. **Pac Symp Biocomput** 1998;:561–72
Two-dimensional reaction of biological molecules studied by Weighted-Ensemble Brownian dynamics. Shkel IA, et al. **Pac Symp Biocomput** 1999;:468–79
Time and memory efficient algorithm for extracting palindromic and repetitive subsequences in nucleic acid sequences. Tsunoda T, et al. **Pac Symp Biocomput** 1999; :202–13
Automatic extraction of position specific cooccurrence of transcription factor bindings on promoters. Tsunoda T, et al. **Pac Symp Biocomput** 1998;:252–63
Effective query filtering for fast homology searching. Williams HE. **Pac Symp Biocomput** 1999;:214–25
A virtual laboratory notebook for simulation models. Winfield AJ. **Pac Symp Biocomput** 1998;:177–88
From sequence to structure to literature: the protocol approach to bioinformation. Wu OP, et al. **Pac Symp Biocomput** 1998;:747–58
A software sensor using neural networks for detection of patient workload. Andersson JL, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 2):2204–8
The impact of the millennium problem on implantable pacemakers and defibrillators. Dassen WR, et al. **Pacing Clin Electrophysiol** 1999 Mar;22(3):517–20
Implantable cardiac devices and Y2K (Y2K-year 2000) [editorial] Furman S. **Pacing Clin Electrophysiol** 1999 Mar; 22(3):405–6
Pacemaker trials: software or hardware randomization? [editorial] Gribbin GM, et al. **Pacing Clin Electrophysiol** 1998 Aug;21(8):1503–7 (37 ref.)
The mean ventricular fibrillation cycle length: a potentially useful parameter for programming implantable cardioverter defibrillators. Li H, et al. **Pacing Clin Electrophysiol** 1998 Sep;21(9):1789–94
Effects of computer feedback on adherence to exercise. Annesi JJ. **Percept Mot Skills** 1998 Oct;87(2):723–30
Efficacy outcome and sex difference in learning of hypermedia programming skills. Tam SF. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):855–8
The effect of collinearity on parameter estimates in nonlinear mixed effect models. Bonate PL. **Pharm Res** 1999 May; 16(5):709–17
Automated covariate model building within NONMEM. Jonsson EN, et al. **Pharm Res** 1998 Sep;15(9):1463–8
Analyzing rich data using different methods provided by NONMEM: pharmacokinetics of telmisartan following intravenous infusion to healthy volunteers. Wallenstein GC, et al. **Pharm Res** 1999 May;16(5):772–6
A control systems approach for the simulation of renal dynamic software phantoms for nuclear medicine. Houston AS, et al. **Phys Med Biol** 1999 Feb;44(2):401–11
STESYS software for computer-assisted stereology. Karen P, et al. **Physiol Res** 1998;47(4):271–8
Is Y2K really such a big problem? Tips on preparing your clinical practice. Bergeron BP. **Postgrad Med** 1999 Jun; 105(7):29–30
Component architecture for web based EMR applications. Berkowicz DA, et al. **Proc AMIA Symp** 1998;:116–20
Baby CareLink: development and implementation of a WWW-based system for neonatal home telemedicine.Gray J, et al. **Proc AMIA Symp** 1998;:351–5
Large scale database scrubbing using object oriented software components. Herting RL Jr, et al. **Proc AMIA Symp** 1998; :508–12
Nationwide telecare for diabetics: a pilot implementation of the HOLON architecture. Jones PC, et al. **Proc AMIA Symp** 1998;:346–50
A component-based problem list subsystem for the HOLON testbed. Health Object Library Online. Law V, et al. **Proc AMIA Symp** 1998;:411–5
MCM generator: a Java-based tool for generating medical metadata. Munoz F, et al. **Proc AMIA Symp** 1998;:648–52
Using web technology and Java mobile software agents to manage outside referrals. Murphy SN, et al. **Proc AMIA Symp** 1998;:101–5
Modern architectures for intelligent systems: reusable ontologies and problem-solving methods. Musen MA. **Proc AMIA Symp** 1998;:46–52 (31 ref.)
MediAgent: a WWW-based scalable and self-learning medical search engine. Tay J, et al. **Proc AMIA Symp** 1998; :597–601
Development of a web based electronic patient record extending accessibility to clinical information and integrating ancillary applications. Wang DJ, et al. **Proc AMIA Symp** 1998;:131–4
A software architecture to support a large-scale, multi-tier clinical information system. Yungton JA, et al. **Proc AMIA Symp** 1998;:210–4
DOMPLOT: a program to generate schematic diagrams of the structural domain organization within proteins, annotated by ligand contacts. Todd AE, et al. **Protein Eng** 1999 May;12(5):375–9
Factors limiting the performance of prediction-based fold recognition methods. de la Cruz X, et al. **Protein Sci** 1999 Apr;8(4):750–9
Predicting the structures of 18 peptides using Geocore. Ishikawa K, et al. **Protein Sci** 1999 Apr;8(4):716–21
CORA--topological fingerprints for protein structural families. Orengo CA. **Protein Sci** 1999 Apr;8(4):699–715
Self-organizing tree-growing network for the classification of protein sequences. Wang HC, et al. **Protein Sci** 1998 Dec;7(12):2613–22
Combinatorial codons: a computer program to approximate amino acid probabilities with biased nucleotide usage. Wolf E, et al. **Protein Sci** 1999 Mar;8(3):680–8
New features and enhancements in the X-PLOR computer program. Badger J, et al. **Proteins** 1999 Apr 1;35(1):25–33
Software, hardware, and data for new GIS users. **Public Health Rep** 1999 Jul-Aug;114(4):362–73
Consulting with radiologists outside the hospital by using Java. Lee SK, et al. **Radiographics** 1999 Jul-Aug; 19(4):1069–75
The year 2000 threat: preparing radiology for nine realms of risk. Berland LL. **Radiology** 1999 Jan;210(1):17–24
A new highly specific method for predicting the carcinogenic potential of pharmaceuticals in rodents using enhanced MCASE QSAR-ES software. Matthews EJ, et al. **Regul Toxicol Pharmacol** 1998 Dec;28(3):242–64
Knowledge-based support for the participatory design and implementation of shift systems. Gissel A, et al. **Scand J Work Environ Health** 1998;24 Suppl 3:88–95
How to steal millions in chump change. Wallich P. **Sci Am** 1999 Aug;281(2):32–3
Protein structure at your desk. Basham B. **Science** 1999 Feb 19;283(5405):1132
Looking good from this window. Mitchell KE, et al. **Science** 1999 Feb 19;283(5405):1131–2
DNA analysis: new kid on the block. Nishimura D. **Science** 1999 Jul 16;285(5426):355–6
All-in-one sequence analysis. Rajagopal I. **Science** 1999 Jan 29;283(5402):652–3
Cooking up sugar chains in a hurry [news] Service RF. **Science** 1999 Feb 12;283(5404):911,913
CAMPASS: a database of structurally aligned protein superfamilies. Sowdhamini R, et al. **Structure** 1998 Sep 15; 6(9):1087–94 (50 ref.)
A randomized comparison of a computer-based dosing program with a manual system to monitor oral anticoagulant therapy. Ageno W, et al. **Thromb Res** 1998 Sep 1;91(5):237–40
The PCR-SSP Manager computer program: a tool for maintaining sequence alignments and automatically updating the specificities of PCR-SSP primers and primer mixes. Bunce M, et al. **Tissue Antigens** 1998 Aug; 52(2):158–74
Virtual DNA analysis--a new tool for combination and standardised evaluation of SSO, SSP and sequencing-based typing results. Helmberg W, et al. **Tissue Antigens** 1998 Jun;51(6):587–92
Iterated profile searches with PSI-BLAST--a tool for discovery in protein databases. Altschul SF, et al. **Trends Biochem Sci** 1998 Nov;23(11):444–7 (30 ref.)
MolSurfer: two-dimensional maps for navigating three-dimensional structures of proteins. Gabdoulline RR, et al. **Trends Biochem Sci** 1999 Jul;24(7):285–7
Multiple sequence alignment with Clustal X. Jeanmougin F, et al. **Trends Biochem Sci** 1998 Oct;23(10):403–5
DATABANKS - a catalogue database of molecular biology databases. Kreil DP, et al. **Trends Biochem Sci** 1999 Apr; 24(4):155–7
PSORT: a program for detecting sorting signals in proteins and predicting their subcellular localization. Nakai K, et al. **Trends Biochem Sci** 1999 Jan;24(1):34–6
Applying neural networks as software sensors for enzyme engineering. Linko S, et al. **Trends Biotechnol** 1999 Apr; 17(4):155–62 (56 ref.)
A brief guide to phylogenetic software. Eernisse DJ. **Trends Genet** 1998 Nov;14(11):473–5
Clinical interpretation of ultrasound biometry for dating and for assessment of fetal growth using a wheel and chart: is it sufficiently accurate? [see comments] Hutchon DJ, et al. **Ultrasound Obstet Gynecol** 1999 Feb;13(2):103–6. Comment in: Ultrasound Obstet Gynecol 1999 Feb;13(2):84–5.
[Optimalization of rate adaptation using Holter functions in DDD/R pacemakers] Novotný T, et al. **Vnitr Lek** 1998 Jun;44(6):342–6 (Eng. Abstr.) **(Cze)**
[Computerized reference management] Grønvold M, et al. **Ugeskr Laeger** 1999 Jan 25;161(4):411–3 **(Dan)**
["CAPCIL". Posologic adjustment of aminoglycoside treatments] Gougnard T, et al. **Acta Clin Belg Suppl** 1999; 1:17–9 (Eng. Abstr.) **(Fre)**
[Tox-Didact:CD-ROM for toxicology education. Value in hospital toxicology] Page G, et al. **Acta Clin Belg Suppl** 1999;1:79–81 (Eng. Abstr.) **(Fre)**
[Interobserver agreement on diagnoses classified according the International Classification of Primary Care] Emond JG, et al. **Can Fam Physician** 1998 Oct;44:2128–33 (Eng. Abstr.) **(Fre)**
[Structuring action from using a model for planning health promotion programs] Proulx M, et al. **Can J Public Health** 1999 Jan-Feb;90(1):23–6 (Eng. Abstr.) **(Fre)**
[Bibliographic references made easy with EndNote 3.0 for ophthalmology] Desmettre T, et al. **J Fr Ophtalmol** 1999 Aug-Sep;22(7):810–7 **(Fre)**
[Evaluation of the Humphrey perimetry programs SITA Standard and SITA Fast in normal probands and patients with glaucoma] Nordmann JP, et al. **J Fr Ophtalmol** 1998 Oct;21(8):549–54 (Eng. Abstr.) **(Fre)**
[Kinetic modeling of LDL oxidation using software (NELOP program) and validation in a population at vascular risk] Morena M, et al. **J Soc Biol** 1999;193(2):211–7 (Eng. Abstr.) **(Fre)**
[Requirements for the successful implementation of unity of care: study of a computer-assisted dispensation of pharmaceuticals] Lezin B, et al. **Rev Med Interne** 1999 Aug; 20(8):664–9 (Eng. Abstr.) **(Fre)**
[Analytic methods for functional magnetic resonance data] Erné SN, et al. **Biomed Tech (Berl)** 1998;43 Suppl:16–7 **(Ger)**
[Interactive computer program for separating respiratory pressure in newborn infants into its elastic, viscous and inert components] Foitzik B, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:278–9 **(Ger)**
[Development and validation of a method for wear measurement of polyethylene hip acetabulum with metal backing using roentgen images] Gölzhäuser G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:66–7 **(Ger)**
[Software components for data processing of measurement values in experimental studies with PTCA catheters] Kraft M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:136–7 **(Ger)**
[Software platform for analysis of electro- and magnetocardiography databanks] Link S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:96–7 **(Ger)**
[3D reconstruction of anatomic structures with the TIM (tomographic imaging) visualization software] Rudolph I, et al. **Biomed Tech (Berl)** 1998;43 Suppl:64–5 **(Ger)**
[Segmenting image series based on complex adaptive estimates] Steuer D, et al. **Biomed Tech (Berl)** 1998;43 Suppl:44–5 **(Ger)**
[Digital data collection based on "DICOM Supplement Structured Reporting" in radiology] von Gehlen S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:46–7 **(Ger)**
[Time-efficient and objective diagnosis of muscle function by video analysis with the BMP meter] Walther A. **Biomed Tech (Berl)** 1998;43 Suppl:84–5 **(Ger)**
[ImaView--imaging station for pre-processing tomography image data] Wehmöller M, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:42–3 **(Ger)**
[TEIS--a system for public health offices for assessing, presenting, evaluating and communicating data on the quality of drinking water] Henke A, et al. **Gesundheitswesen** 1999 May;61(5):248–51 (Eng. Abstr.) **(Ger)**
[Edeka does all--machine speech recognition in social medicine expert testimony] Michel E, et al. **Gesundheitswesen** 1998 Oct;60(10):567–71 (Eng. Abstr.) **(Ger)**
[Computer-assisted evaluation of aortic aneurysm morphology for choosing the method of therapy] Allenberg JR, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:105–7 (Eng. Abstr.) **(Ger)**
[Development of a computer-assisted learning program for liver transplantation] Golling M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:882–4 (Eng. Abstr.) **(Ger)**
[Computer program for retinopathy of prematurity screening] Vögele C, et al. **Ophthalmologe** 1999 Feb;96(2):82–6 (Eng. Abstr.) **(Ger)**
[Addendum to the work. Experience with the reference manager EndNote-EndLink (letter)] Reiss M, et al. **Radiologe** 1999 Mar;39(3):244 **(Ger)**
[Experience with the reference manager EndNote-EndLink] Reiss M, et al. **Radiologe** 1998 Sep;38(9):779–82 (Eng. Abstr.) **(Ger)**
[HemoSurf--an interactive hematology atlas on the world wide web] Woermann U, et al. **Schweiz Med Wochenschr** 1998 Oct 17;128(42):1605–7 (Eng. Abstr.) **(Ger)**
[EPIC-SOFT a European computer program for 24-hour dietary protocols] Voss S, et al. **Z Ernahrungswiss** 1998 Sep;37(3):227–33 (Eng. Abstr.) **(Ger)**
[Value of spiro-ergometry and stress echocardiography on optimized programming of the upper frequency limit of dual chamber cardiac pacemakers] Krüger S, et al. **Z Kardiol** 1998 Oct;87(10):817–25 (Eng. Abstr.) **(Ger)**
[Optimized programming of sustained rate duration in patients with implantable cardioverter-defibrillators and diagnosed atrial fibrillation] Wieckhorst A, et al. **Z Kardiol** 1999 Jun;88(6):426–33 (Eng. Abstr.) **(Ger)**
[Use of hypertext as information and training tools in the prevention of occupational risk] Franco G. **G Ital Med Lav Ergon** 1998 Jul-Sep;20(3):115–22 (Eng. Abstr.) **(Ita)**
[Study and implementation of a computerized program for personalized prescriptions for patients treated with radioiodine to be discharged] Puccini S, et al. **Radiol Med (Torino)** 1999 Apr;97(4):279–85 (Eng. Abstr.) **(Ita)**
[Application of a semi-automatic ROI setting system for brain PET images to animal PET studies] Kuge Y, et al. **Kaku Igaku** 1998 Oct;35(8):733–40 (Eng. Abstr.) **(Jpn)**
[Evaluation of estimated blood concentration of propofol on wake-up using "ConGrase", a software to control the syringe pump for propofol infusion] Nagata O, et al. **Masui** 1998 Oct;47(10):1246–52 (Eng. Abstr.) **(Jpn)**
[IS&C image viewing and conversion software for Macintosh

computer] Kunieda E, et al.
Nippon Igaku Hoshasen Gakkai Zasshi 1998 Sep;58(11):585 (Eng. Abstr.) **(Jpn)**
[Report management system using Web server and search engine] Sasaki M, et al.
Nippon Igaku Hoshasen Gakkai Zasshi 1998 Jul; 58(8):447-50 (Eng. Abstr.) **(Jpn)**
[Analog-digital conversion using pCLAMP and DOS/V] Kohara M. **Nippon Seirigaku Zasshi** 1998;60(4):187-99 (6 ref.) **(Jpn)**
[A computer program for intralaboratory quality control Qcontrol, version 1.0] Dvorkin VI. **Klin Lab Diagn** 1998 Nov;(11):37-9 **(Rus)**
[A programmed system of nonlinear calibration of the devices in an express laboratory] Iakovleva NV.
Klin Lab Diagn 1999 May;(5):12-4 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

[Major statistical software usable in epidemiology] Binquet C, et al. **Rev Epidemiol Sante Publique** 1998 Sep; 46(4):329-36 (Eng. Abstr.) **(Fre)**

ECONOMICS

Price and niche wars in a free-market economy of software agents. Kephart JO, et al. **Artif Life** 1998 Winter;4(1):1-23
Technology. It's gonna cost you [news]
Hosp Health Netw 1998 Sep 20;72(18):12
Risk perception during information system development in non-profit health care organizations. Vimarlund V, et al. **Methods Inf Med** 1998 Sep;37(3):302-6

STANDARDS

Be wary of computer interfaces and Y2K [letter] Hunter BH, et al. **Am J Health Syst Pharm** 1999 Apr 1;56(7):674-5
Be wary of computer interfaces and Y2K [letter] Rector NT, et al. **Am J Health Syst Pharm** 1999 Apr 1;56(7):675
Engineering in software testing: statistical testing based on a usage model applied to medical device development. Jones PL, et al. **Biomed Instrum Technol** 1999 Jul-Aug; 33(4):311-22
Year 2000 compliance issues. **Health Devices** 1999 Mar; 28(3):104-12
To be realistic or stick one's head in the sand? [news] Ferry J. **Lancet** 1999 Apr 3;353(9159):1162
HOLON: extending Web document libraries via objects in order to support the health information infrastructure. Health Object Library Online. Silverman BG, et al.
Proc AMIA Symp 1998;:406-10

STATISTICS & NUMERICAL DATA

Computing the Cox model for case cohort designs. Therneau TM, et al. **Lifetime Data Anal** 1999 Jun;5(2):99-112

TRENDS

Evolution of the Glasgow program for computer-assisted reporting of electrocardiograms--1964/1998. Macfarlane PW. **Acta Cardiol** 1998;53(2):117-20
Spilling the beans on java 3D: a tool for the virtual anatomist. Guttmann GD. **Anat Rec** 1999 Apr 15;257(2):73-9 (14 ref.)
How can usability measurement affect the re-engineering process of clinical software procedures? Terazzi A, et al. **Int J Med Inf** 1998 Oct-Dec;52(1-3):229-34
The dependence of educational infrastructure on clinical infrastructure. Cimino C. **Proc AMIA Symp** 1998;:462-6
Evolution of a knowledge base for a clinical decision support system encoded in the Arden Syntax. Jenders RA, et al. **Proc AMIA Symp** 1998;:558-62
Issues in accommodating national changes and local variation in a computer-based guideline for childhood immunization and in related knowledge maintenance tools. Miller PL, et al. **Proc AMIA Symp** 1998;:563-7
[The millenium switch on 01 January 2000--a foreseeable crash for gynecologic and obstetrical software applications?] Merten R, et al. **Zentralbl Gynakol** 1998; 120(10):521-3 (Eng. Abstr.) **(Ger)**

SOFTWARE DESIGN

Balancing needs, efficiency, and functionality in the provision of modeling software: a perspective of the NIH WinSAAM Project. Greif P, et al. **Adv Exp Med Biol** 1998;445:3-20
A visual environment for the manipulation and integration of JAVA beans. Boyle J. **Bioinformatics** 1998;14(8):739-48
Platform independent implementation of DICOM-based miniPACS. Grodzki M, et al. **Biomed Tech (Berl)** 1998;43 Suppl:578-81
A methodology for simulating biological systems using Microsoft Excel. Brown AM.
Comput Methods Programs Biomed 1999 Feb;58(2):181-90
A software implementation for detailed volume conductor modelling in electrophysiology using finite difference method. Kauppinen P, et al.
Comput Methods Programs Biomed 1999 Feb;58(2):191-203
An algorithm for preoperative prediction of reoperation risk after internal fixation of femoral neck fractures. Lindequist S. **Comput Methods Programs Biomed** 1998 Nov; 57(3):187-99
Evaluation of compliance with a computerized protocol: weaning from mechanical ventilator support using pressure support. Randolph AG, et al.
Comput Methods Programs Biomed 1998 Nov;57(3):201-15
Designing an information technology application for use in community-focused nursing education. Nightingale Tracker Field Test Nurse Team. **Comput Nurs** 1999 Mar-Apr;17(2):73-81
Creating an interactive multimedia computer-assisted instruction program. Rouse DP. **Comput Nurs** 1999 Jul-Aug;17(4):171-6; quiz 177-9
Integrating task and data flow analyses using the pentanalysis technique. Diaper D, et al. **Ergonomics** 1998 Nov; 41(11):1553-82
Task analysis for the investigation of human error in safety-critical software design: a convergent methods approach. Shryane NM, et al. **Ergonomics** 1998 Nov; 41(11):1719-36
Expertise in professional software design: a process study. Sonnentag S. **J Appl Psychol** 1998 Oct;83(5):703-15
Shorter turn-around-time and improved patient care in peripheral blood progenitor cell collection procedures. Ratcliffe N, et al. **J Clin Apheresis** 1999;14(1):35-41
Software-based correction of single compartment series resistance errors. Traynelis SF. **J Neurosci Methods** 1998 Dec 31;86(1):25-34
Design of practical T2-selective RF excitation (TELEX) pulses. Sussman MS, et al. **Magn Reson Med** 1998 Dec; 40(6):890-9
A new design of stochastic partnership models for epidemics of sexually transmitted diseases with stages. Mode CJ, et al. **Math Biosci** 1999 Mar 1;156(1-2):95-122
Hospital information system: reusability, designing, modelling, recommendations for implementing. Huet B. **Medinfo** 1998;9 Pt 2:952-6
The medical software quality deployment method. Hallberg N, et al. **Methods Inf Med** 1999 Mar;38(1):66-73
Development of a database for assessing dietary phytoestrogen intake. Pillow PC, et al. **Nutr Cancer** 1999; 33(1):3-19
Interface design for health care environments: the role of cognitive science. Patel VL, et al. **Proc AMIA Symp** 1998; :29-37 (42 ref.)
[Definition and specification requirements for PAC-systems (picture archiving and communication system). A performance index with reference to the standard "IEEE Recommended Practice for Software Requirement Specifications"] König H, et al. **Radiologe** 1999 Apr; 39(4):269-75 (Eng. Abstr.) **(Ger)**

SOFTWARE ENGINEERING see **SOFTWARE**

SOFTWARE TOOLS see **SOFTWARE**

SOFTWARE VALIDATION

Y2K action plans: manufacturers, users, and government address the year 2000 issue. **Biomed Instrum Technol** 1998 Nov-Dec;32(6):570-2
Medical devices and the Y2K problem. Olbrish KD.
Biomed Instrum Technol 1998 Nov-Dec;32(6):570-2
A graphic orientated data analysis system for hemodynamic research. Hu WC, et al.
Comput Methods Programs Biomed 1999 Jun;59(3):197-214
Simple and powerful visual stimulus generator. Kremlácek J, et al. **Comput Methods Programs Biomed** 1999 Feb; 58(2):175-80
A study of the application sharing capabilities in telemedicine. Mattioli P, et al. **Comput Methods Programs Biomed** 1999 Feb;58(2):89-97
Design of optimal two-sample bolus injection tests for measuring low plasma clearance rates. Thomaseth K.
Comput Methods Programs Biomed 1999 Feb;58(2):147-58
Development of a 3-D measurement and evaluation system for facial forms with a liquid crystal range finder. Yamada T, et al. **Comput Methods Programs Biomed** 1999 Feb; 58(2):159-73
An object-oriented Monte Carlo simulator for 3D cylindrical positron tomographs. Zaidi H, et al.
Comput Methods Programs Biomed 1999 Feb;58(2):133-45
Automated outbreak detection: a quantitative retrospective analysis. Stern L, et al. **Epidemiol Infect** 1999 Feb; 122(1):103-10
Tritium dose overestimates by CAP88-PC. Parks BS.
Health Phys 1999 Feb;76(2 Suppl):S37-8
Episodes of care: theoretical frameworks versus current operational realities. Rosen AK, et al.
Jt Comm J Qual Improv 1999 Mar;25(3):111-28 (51 ref.)
Taking HL7 to the next level. Beeler GW Jr.
MD Comput 1999 Mar-Apr;16(2):21-4
The year 2000 problem: hiccough or approaching Armageddon. Harvey MP. **Pathology** 1999 May; 31(2):169-70
Doppler Monte Carlo simulations of light scattering in tissue to support laser-Doppler perfusion measurements. de Mul FF, et al. **Technol Health Care** 1999;7(2-3):171-83
Processing of laser-Doppler signals from free flaps. Söderström T, et al. **Technol Health Care** 1999; 7(2-3):219-23
[3D automatic expansion: clinical application] Gaboriaud G, et al. **Cancer Radiother** 1998 Sep-Oct;2(5):619-22 (Eng. Abstr.) **(Fre)**

SOFTWARE VERIFICATION see **SOFTWARE VALIDATION**

SOIL

Fallout beryllium-7 as a tracer in soil erosion investigations. Blake WH, et al. **Appl Radiat Isot** 1999 Nov;51(5):599-605
High incidence of Kaposi's sarcoma in Iceland and the Faroe Islands [letter; comment] Simonart T, et al.
Br J Cancer 1999 Jan;79(2):373. Comment on: Br J Cancer 1998 Apr;77(7):1190-3.
Sorption of pentachlorophenol on peat-bentonite mixtures. Viraraghavan T, et al. **Chemosphere** 1999 Oct;39(9):1487-96
Plant and soil enantioselective biodegradation of racemic phenoxyalkanoic herbicides. Schneiderheinze JM, et al.
Chirality 1999;11(4):330-7
Optimisation of different physical parameters for bioleaching of phosphate by Aspergillus niger from Indian rock phosphate. Ghosh R, et al. **Indian J Exp Biol** 1998 Jul; 36(7):688-92
Influence of soil storage and exposure period on DNA recovery from teeth. Pfeiffer H, et al. **Int J Legal Med** 1999;112(2):142-4
The toxicity of dithiocarbamate fungicides to soil nematodes, assessed using a stress-inducible transgenic strain of Caenorhabditis elegans. Guven K, et al.
J Biochem Mol Toxicol 1999;13(6):324-33
Evaluating peats for their capacities to remove odorous compounds from liquid swine manure using headspace "solid-phase microextraction". Rizzuti AM, et al.
J Environ Sci Health B 1999 Jul;34(4):709-48
Adult responses to a survey of soil contact-related behaviors. Garlock TJ, et al. **J Expo Anal Environ Epidemiol** 1999 Mar-Apr;9(2):134-42
Evolutionary biology. Dirty eating for healthy living [news] Diamond JM. **Nature** 1999 Jul 8;400(6740):120-1
Use of plant roots for phytoremediation and molecular farming. Gleba D, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):5973-7 (42 ref.)
Perceptions of soil-eating and anaemia among pregnant women on the Kenyan coast. Geissler PW, et al.
Soc Sci Med 1999 Apr;48(8):1069-79
The effect on performance and biochemical parameters when soil was added to aflatoxin-contaminated poultry rations. Madden UA, et al. **Vet Hum Toxicol** 1999 Aug;41(4):213-21
Pica and iron deficiency. A case report. Wallace J, et al.
WMJ 1999 May-Jun;98(3):54-6

ANALYSIS

Analysis of VX on soil particles using ion trap secondary ion mass spectrometry. Groenewold GS, et al.
Anal Chem 1999 Jul 1;71(13):2318-23
Immunosensor for 2,4-dichlorophenoxyacetic acid in aqueous/organic solvent soil extracts. Kröger S, et al.
Anal Chem 1998 Dec 1;70(23):5047-53
Determination of chemical warfare agent degradation products at low-part-per-billion levels in aqueous samples and sub-part-per-million levels in soils using capillary electrophoresis. Nassar AE, et al. **Anal Chem** 1999 Apr 1;71(7):1285-92
Chloramphenicol inhibition of denitrifying enzyme activity in two agricultural soils. Murray RE, et al.
Appl Environ Microbiol 1999 Aug;65(8):3487-92
Health hazard evaluation of methyl bromide soil fumigations. Lenhart SW, et al. **Appl Occup Environ Hyg** 1999 Jul; 14(7):407-12
Screening of new bioactive materials from microbial extracts of soil microorganism (I). Antimicrobial activity from 200 samples using microdilution assay. Jung SO, et al.
Arch Pharm Res 1998 Jun;21(3):278-85
Comparison of two extraction procedures for determination of trace metals in soil by atomic absorption spectrometry. Kučak A, et al. **Arh Hig Rada Toksikol** 1998 Dec; 49(4):327-34
Wageningen Evaluating Programmes for Analytical Laboratories (WEPAL). van Dijk D, et al.
Arh Hig Rada Toksikol 1999 Mar;50(1):31-6
Degradation of polycyclic aromatic hydrocarbons with three to seven aromatic rings by higher fungi in sterile and unsterile soils. Gramss G, et al. **Biodegradation** 1999 Feb; 10(1):51-62
Effect of nitrogen and phosphorus addition on phenanthrene biodegradation in four soils. Johnson CR, et al.
Biodegradation 1999 Feb;10(1):43-50
Fate and behavior of organic compounds in an artificial saturated subsoil under controlled redox conditions: the sequential soil column system. Nay M, et al.
Biodegradation 1999 Feb;10(1):75-82
Accelerated volatilization rates of selenium from different soils. Stork A, et al. **Biol Trace Elem Res** 1999 Sep; 69(3):217-34
Dissipation of phloxine B and uranine in protein bait sprayed in a coffee field for the suppression of Mediterranean fruit fly. Alcantara-Licudine JP, et al.
Bull Environ Contam Toxicol 1999 Mar;62(3):344-51
Influence of BHC and fenvalerate on mineralization and availability of some plant nutrients in soil. Das AC, et al.
Bull Environ Contam Toxicol 1999 Mar;62(3):371-6
Persistence of phorate and carbofuran in relation to their effect on the mineralization of C, N, and P in alluvial soil. Das AC, et al. **Bull Environ Contam Toxicol** 1998 Dec; 61(6):709-15
Soil leaching column chromatographic technique for estimation of leaching behavior of atrazine, deethylatrazine, deisopropylatrazine, and hydroxyatrazine on soil. Xu F,

et al. **Bull Environ Contam Toxicol** 1999 Jul;63(1):87–93

Speciation of heavy metals in marine sediments vs their bioaccumulation by mussels. Pempkowiak J, et al. **Chemosphere** 1999 Jul;39(2):313–21

Trace element inputs into soils by anthropogenic activities and implications for human health. Senesi GS, et al. **Chemosphere** 1999 Jul;39(2):343–77 (111 ref.)

Ecotoxicological hazard and risk assessment of heavy metal contents in agricultural soils of central Germany. Manz M, et al. **Ecotoxicol Environ Saf** 1999 Feb;42(2):191–201

Effect of heavy metals and storage time on two types of forest litter: basal respiration rate and exchangeable metals. Niklińska M, et al. **Ecotoxicol Environ Saf** 1998 Sep; 41(1):8–18

Bioassay-directed fractionation and chemical identification of mutagens in bioremediated soils. Brooks LR, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1435–40

The contribution of lead-contaminated house dust and residential soil to children's blood lead levels. A pooled analysis of 12 epidemiologic studies. Lanphear BP, et al. **Environ Res** 1998 Oct;79(1):51–68

Agricultural produce in the dry bed of the River Ganga in Kanpur, India--a new source of pesticide contamination in human diets. Hansi RK, et al. **Food Chem Toxicol** 1999 Aug;37(8):847–52

In- and out-flows of elements in bones embedded in reference soils. Shinomiya T, et al. **Forensic Sci Int** 1998 Nov 30;98(1–2):109–18

A new mechanism for hot particle development in soil following ionic contamination with radiocesium. Nageldinger G, et al. **Health Phys** 1998 Dec;75(6):646–7

A comparison of minimum detectable and proposed maximum allowable soil concentration cleanup levels for selected radionuclides. Wood JL, et al. **Health Phys** 1999 Apr;76(4):413–7

Analysis of cations in drainage water and soil solution by single-column ion chromatography. Fernández-Boy ME, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):279–83

Analysis of inorganic anions in drainage water and soil solution by single-column ion chromatography. Fernández-Boy ME, et al. **J Chromatogr A** 1998 Oct 9; 823(1–2):285–90

Determination of chlorpyrifos in air, leaves and soil from a greenhouse by gas-chromatography with nitrogen-phosphorus detection, high-performance liquid chromatography and capillary electrophoresis. Guardino X, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):91–6

Effect of cation-exchange pretreatment of aqueous soil extracts on the gas chromatographic-mass spectrometric determination of nerve agent hydrolysis products after tert.-butyldimethylsilylation. Kataoka M, et al. **J Chromatogr A** 1998 Oct 23;824(2):211–21

Chromatographic models for the sorption of neutral organic compounds by soil from water and air. Poole SK, et al. **J Chromatogr A** 1999 Jun 11;845(1–2):381–400

Capillary ion electrophoresis screening of nerve agent degradation products in environmental samples using conductivity detection. Rosso TE, et al. **J Chromatogr A** 1998 Oct 16;824(1):125–34

Experimental design approach for the optimization of supercritical fluid extraction of chlorophenols from polluted soils. Santos FJ, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):249–58

High-performance liquid chromatography-fluorescence determination of dinitropyrenes in soil after column chromatographic clean-up and on-line reduction. Watanabe T, et al. **J Chromatogr A** 1999 Apr 16; 839(1–2):41–8

The distribution of selenium levels in Saudi dairy farms: a preliminary report from Al-Kharj. Al-Saleh IA, et al. **J Environ Pathol Toxicol Oncol** 1999;18(1):37–46

Determination of organochlorine and organophosphate pesticide residues in fruits, vegetables and sediments. Ahmad N, et al. **J Environ Sci Health B** 1999 Sep; 34(5):829–48

Soil hydric characteristics and environmental ice nuclei influence supercooling capacity of hatchling painted turtles Chrysemys picta. Costanzo JP, et al. **J Exp Biol** 1998 Nov; 201 (Pt 22):3105–12

Slow desorption of volatile organic compounds from soil: evidence of desorption step limitations. Raihala TS, et al. **J Hazard Mater** 1999 Mar 19;65(3):247–65

Thermogravimetric study of thermal decontamination of soils polluted by hexachlorobenzene, 4-chlorobiphenyl, naphthalene, or n-decane. Risoul V, et al. **J Hazard Mater** 1999 Feb 15;64(3):295–311

The challenge of pollen analysis in palaeoenvironmental studies of hominid beds: the record from Sterkfontein caves. Carrión JS, et al. **J Hum Evol** 1999 Apr;36(4):401–8

Peroxide-modified titanium dioxide: a chemical analog of putative Martian soil oxidants. Quinn RC, et al. **Orig Life Evol Biosph** 1999 Jan;29(1):59–72 (27 ref.)

The relationship between soil copper content and copper resistance in yeast of an ultisol in midwestern Nigeria. Ekundayo EO, et al. **Plant Foods Hum Nutr** 1999; 53(2):175–81

Natural 13C abundance: a tool to trace the incorporation of dung-derived carbon into soil particle-size fractions. Amelung W, et al. **Rapid Commun Mass Spectrom** 1999; 13(13):1291–4

Stable isotopes in ecosystem science: structure, function and dynamics of a subtropical Savanna. Boutton TW, et al. **Rapid Commun Mass Spectrom** 1999;13(13):1263–77

Evaluation of enzyme-linked immunosorbent assay for the determination of polycyclic aromatic hydrocarbons in house dust and residential soil. Chuang JC, et al. **Sci Total Environ** 1998 Dec 11;224(1–3):189–99

Fate and effects of linear alkylbenzene sulphonates (LAS) in the terrestrial environment. Jensen J. **Sci Total Environ** 1999 Feb 9;226(2–3):93–111 (90 ref.)

The fate of heavy oil wastes in soil microcosms. I: A performance assessment of biotransformation indices. Pollard SJ, et al. **Sci Total Environ** 1999 Feb 2;226(1):1–22

The fate of heavy oil wastes in soil microcosms. II: A performance assessment of source correlation indices. Whittaker M, et al. **Sci Total Environ** 1999 Feb 2; 226(1):23–34

[The sanitary microbiological and biochemical characteristics of the soils under the conditions of urbanization] Naprasnikova EV, et al. **Gig Sanit** 1999 May-Jun;(3):15–7 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY see SOIL MICROBIOLOGY

PARASITOLOGY

Use of a sentinel system for field measurements of Cryptosporidium parvum oocyst inactivation in soil and animal waste. Jenkins MB, et al. **Appl Environ Microbiol** 1999 May;65(5):1998–2005

Method for detection and enumeration of Cryptosporidium parvum oocysts in feces, manures, and soils. Kuczynska E, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2820–6

Nematode intestinal parasites of children in rural Guinea, Africa: prevalence and relationship to geophagia. Glickman LT, et al. **Int J Epidemiol** 1999 Feb;28(1):169–74

A study on the prevalence of Toxocora spp eggs at public places in Andhra Pradesh. Kumar BV, et al. **J Commun Dis** 1998 Sep;30(3):197–8

Soil contamination and human infection by Toxocara sp. in the urban area of Lima, Peru. Lescano SA, et al. **Mem Inst Oswaldo Cruz** 1998 Nov-Dec;93(6):733–4

An unusual ground larval habitat of Aedes albopictus. Forattini OP, et al. **Rev Inst Med Trop Sao Paulo** 1998 Mar-Apr;40(2):121–2

Epidemiology of soil-transmitted nematode infections in Ha Nam Province, Vietnam. Needham C, et al. **Trop Med Int Health** 1998 Nov;3(11):904–12

[Incidence of Toxocara ova--especially ova of visceral larva migrans in beach sand of Warnemünde in 1997] Schöttler G. **Gesundheitswesen** 1998 Dec;60(12):766–7 (Eng. Abstr.) **(Ger)**

[Toxocariasis in dogs and contamination of soil with Toxocara spp. eggs in the Poznań region] Mizgajska H, et al. **Przegl Epidemiol** 1998;52(4):441–6 (Eng. Abstr.) **(Pol)**

[Contamination, by Toxocara spp eggs, in public parks and squares in Botucatu, São Paulo, Brazil] Santarém VA, et al. **Rev Soc Bras Med Trop** 1998 Nov-Dec;31(6):529–32 (Eng. Abstr.) **(Por)**

[Soil contamination in Ciudad de La Habana province with Toxocara canis eggs] Duménigo B, et al. **Rev Cubana Med Trop** 1995;47(3):178–80 (Eng. Abstr.) **(Spa)**

STANDARDS

Soil factors influencing the distribution of Oncomelania quadrasi, the intermediate host of Schistosoma japonicum, on Bohol Island, Philippines. Nihei N, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):699–710

VIROLOGY see SOIL MICROBIOLOGY

SOIL MICROBIOLOGY

Chromium-resistant soil actinomycetes: their tolerance to other metals and antibiotics. Basu M, et al. **Acta Microbiol Immunol Hung** 1999;46(1):25–32

Indigenous microflora responses to introduction of cyanogenic strains of Pseudomonas fluorescens into soil. Piotrowska-Seget Z, et al. **Acta Microbiol Pol** 1999; 48(1):73–8

Epidemiology of Burkholderia pseudomallei in Thailand. Vuddhakul V, et al. **Am J Trop Med Hyg** 1999 Mar; 60(3):458–61

Zoophilic and geophilic fungi as a cause of skin disease in farmers. Spiewak R. **Ann Agric Environ Med** 1998; 5(2):97–102 (23 ref.)

Extracellular proteinases from extremophiles. Morita Y, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:300–4

An isolation procedure for arachidonic acid producing Mortierella species. Botha A, et al. **Antonie Van Leeuwenhoek** 1999 Apr;75(3):253–6

Pyrolysis mass spectrometry analysis of free-living and symbiotic cyanobacteria. West NJ, et al. **Antonie Van Leeuwenhoek** 1999 Apr;75(3):201–6

Barriers to horizontal gene transfer by natural transformation in soil bacteria. Nielsen KM. **APMIS Suppl** 1998;84:77–84 (60 ref.)

Contrasting effects of a nonionic surfactant on the biotransformation of polycyclic aromatic hydrocarbons to cis-dihydrodiols by soil bacteria. Allen CC, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1335–9

Culture-independent identification of microorganisms that respond to specified stimuli. Borneman J. **Appl Environ Microbiol** 1999 Aug;65(8):3398–400

Comparative diversity of ammonia oxidizer 16S rRNA gene sequences in native, tilled, and successional soils. Bruns MA, et al. **Appl Environ Microbiol** 1999 Jul;65(7):2994–3000

Anaerobic benzene biodegradation linked to nitrate reduction. Burland SM, et al. **Appl Environ Microbiol** 1999 Feb;65(2):529–33

Effect of temperature on structure and function of the methanogenic archaeal community in an anoxic rice field soil. Chin KJ, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2341–9

Counting and size classification of active soil bacteria by fluorescence in situ hybridization with an rRNA oligonucleotide probe. Christensen H, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1753–61

Diversity of arbuscular mycorrhizal fungus populations in heavy-metal-contaminated soils. Del Val C, et al. **Appl Environ Microbiol** 1999 Feb;65(2):718–23

Methods for detection of Anticarsia gemmatalis nucleopolyhedrovirus DNA in soil. de Moraes RR, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2307–11

Microbial diversity in a hydrocarbon- and chlorinated-solvent-contaminated aquifer undergoing intrinsic bioremediation. Dojka MA, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3869–77

Levels of bacterial community diversity in four arid soils compared by cultivation and 16S rRNA gene cloning. Dunbar J, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1662–9

High-affinity methane oxidation by a soil enrichment culture containing a type II methanotroph. Dunfield PF, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1009–14

Effect of phenylurea herbicides on soil microbial communities estimated by analysis of 16S rRNA gene fingerprints and community-level physiological profiles. el Fantroussi S, et al. **Appl Environ Microbiol** 1999 Mar; 65(3):982–8

Quantification of 16S rRNAs in complex bacterial communities by multiple competitive reverse transcription-PCR in temperature gradient gel electrophoresis fingerprints. Felske A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4581–7

In situ detection of an uncultured predominant bacillus in Dutch grassland soils. Felske A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4588–90

Optimization of differential display of prokaryotic mRNA: application to pure culture and soil microcosms. Fleming JT, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3698–706

Involvement of two plasmids in the degradation of carbaryl by Arthrobacter sp. strain RC100. Hayatsu M, et al. **Appl Environ Microbiol** 1999 Mar;65(3):1015–9

Metal accumulation and vanadium-induced multidrug resistance by environmental isolates of Escherichia hermannii and Enterobacter cloacae. Hernández A, et al. **Appl Environ Microbiol** 1998 Nov;64(11):4317–20

Characterization of methanotrophic bacterial populations in soils showing atmospheric methane uptake. Holmes AJ, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3312–8

Regional differences in production of aflatoxin B1 and cyclopiazonic acid by soil isolates of aspergillus flavus along a transect within the United States. Horn BW, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1444–9

Composition of toluene-degrading microbial communities from soil at different concentrations of toluene. Hubert C, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3064–70

Quantitative selective PCR of 16S ribosomal DNA correlates well with selective agar plating in describing population dynamics of indigenous Pseudomonas spp. in soil hot spots. Johnsen K, et al. **Appl Environ Microbiol** 1999 Apr; 65(4):1786–8

Molecular analysis of bacterial community structure and diversity in unimproved and improved upland grass pastures. McCaig AE, et al. **Appl Environ Microbiol** 1999 Apr;65(4):1721–30

Microbial population changes during bioremediation of an experimental oil spill. MacNaughton SJ, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3566–74

Inhibition of nitrifiers and methanotrophs from an agricultural humisol by allylsulfide and its implications for environmental studies. Neufeld JD, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2461–5

Soil bacterial community shift correlated with change from forest to pasture vegetation in a tropical soil. Nüsslein K, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3622–6

Degradation of chlorobenzenes at nanomolar concentrations by Burkholderia sp. strain PS14 in liquid cultures and in soil. Rapp P, et al. **Appl Environ Microbiol** 1999 Jun; 65(6):2547–52

Culturable populations of Sporomusa spp. and Desulfovibrio spp. in the anoxic bulk soil of flooded rice microcosms. Rosencrantz D, et al. **Appl Environ Microbiol** 1999 Aug; 65(8):3526–33

Abundance and diversity of Archaea in heavy-metal-contaminated soils. Sandaa RA, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3293–7

A new approach to utilize PCR-single-strand-conformation polymorphism for 16S rRNA gene-based microbial community analysis. Schwieger F, et al. **Appl Environ Microbiol** 1998 Dec;64(12):4870–6

Effect of toxic metals on indigenous soil beta-subgroup proteobacterium ammonia oxidizer community structure

and protection against toxicity by inoculated metal-resistant bacteria. Stephen JR, et al. **Appl Environ Microbiol** 1999 Jan;65(1):95-101

Biodegradation of atrazine by Agrobacterium radiobacter J14a and use of this strain in bioremediation of contaminated soil. Struthers JK, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3368-75

Phylogenetic affiliation of soil bacteria that degrade aliphatic polyesters available commercially as biodegradable plastics. Suyama T, et al. **Appl Environ Microbiol** 1998 Dec; 64(12):5008-11

Simultaneous monitoring of cell number and metabolic activity of specific bacterial populations with a dual gfp-luxAB marker system. Unge A, et al. **Appl Environ Microbiol** 1999 Feb;65(2):813-21

Utility of green fluorescent nucleic acid dyes and aluminum oxide membrane filters for rapid epifluorescence enumeration of soil and sediment bacteria. Weinbauer MG, et al. **Appl Environ Microbiol** 1998 Dec;64(12):5000-3

Analysis of nifH gene pool complexity in soil and litter at a Douglas fir forest site in the Oregon cascade mountain range. Widmer F, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):374-80

Pseudomonas sp. strain 273, an aerobic alpha, omega-dichloroalkaneDegrading bacterium. Wischnak C, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3507-11

Aerobic degradation of a hydrocarbon mixture in natural uncontaminated potting soil by indigenous microorganisms at 20 degrees C and 6 degrees C. Eriksson M, et al. **Appl Microbiol Biotechnol** 1999 Apr;51(4):532-5

Bacterial dehalogenation. Fetzner S. **Appl Microbiol Biotechnol** 1998 Dec;50(6):633-57 (183 ref.)

Cometabolic biodegradation of methyl t-butyl ether by Pseudomonas aeruginosa grown on pentane. Garnier PM, et al. **Appl Microbiol Biotechnol** 1999 Apr;51(4):498-503

Bioavailability of hydrocarbons during microbial remediation of a sandy soil. Löser C, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):105-11

Isolation and characterization of Enterobacter cloacae capable of metabolizing asparagine. Nawaz MS, et al. **Appl Microbiol Biotechnol** 1998 Nov;50(5):568-72

Bioremediation of atrazine-contaminated soil by repeated applications of atrazine-degrading bacteria. Newcombe DA, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):877-82

Degradation of cyanide in agroindustrial or industrial wastewater in an acidification reactor or in a single-step methane reactor by bacteria enriched from soil and peels of cassava. Siller H, et al. **Appl Microbiol Biotechnol** 1998 Sep;50(3):384-9

Copper speciation and microbial activity in long-term contaminated soils. Dumestre A, et al. **Arch Environ Contam Toxicol** 1999 Feb;36(2):124-31

Selective enrichment and characterization of Roseospirillum parvum, gen. nov. and sp. nov., a new purple nonsulfur bacterium with unusual light absorption properties. Glaeser J, et al. **Arch Microbiol** 1999 May-Jun;171(6):405-16

Biochemical and phylogenetic analyses of psychrophilic isolates belonging to the Arthrobacter subgroup and description of Arthrobacter psychrolactophilus, sp. nov. Loveland-Curtze J, et al. **Arch Microbiol** 1999 May-Jun; 171(6):355-63

Linear alkanesulfonates as carbon and energy sources for gram-positive and gram-negative bacteria. Reichenbecher W, et al. **Arch Microbiol** 1999 May-Jun;171(6):430-8

Bacillus arsenicoselenatis, sp. nov., and Bacillus selenitireducens, sp. nov.: two haloalkaliphiles from Mono Lake, California that respire oxyanions of selenium and arsenic. Switzer Blum J, et al. **Arch Microbiol** 1998 Dec; 171(1):19-30

Screening of new bioactive materials from microbial extracts of soil microorganism (I). Antimicrobial activity from 200 samples using microdilution assay. Jung SO, et al. **Arch Pharm Res** 1998 Jun;21(3):278-85

Electrochemically induced FT-IR difference spectra of the two- and four-subunit cytochrome c oxidase from P. denitrificans reveal identical conformational changes upon redox transitions. Hellwig P, et al. **Biochim Biophys Acta** 1998 Dec 1;1409(2):107-12

Analyses of polycyclic aromatic hydrocarbon-degrading bacteria isolated from contaminated soils. Ahn Y, et al. **Biodegradation** 1999 Apr;10(2):149-57

Degradation of polycyclic aromatic hydrocarbons with three to seven aromatic rings by higher fungi in sterile and unsterile soils. Gramss G, et al. **Biodegradation** 1999 Feb; 10(1):51-62

Biodegradation of crude oil by soil microorganisms in the tropic. Palittapongarnpim M, et al. **Biodegradation** 1998; 9(2):83-90

Intrinsic capacities of soil microflorae for gasoline degradation. Solano-Serena F, et al. **Biodegradation** 1998; 9(5):319-26

Lindane degradation and effects on soil microbial activity. Farghaly M, et al. **Biomed Environ Sci** 1998 Sep; 11(3):218-25

Effect of endosulfan on methane production from three tropical soils incubated under flooded condition. Bharati K, et al. **Bull Environ Contam Toxicol** 1999 Aug;63(2):211-8

Anaerobic-aerobic biodegradation of DDT (dichlorodiphenyl trichloroethane) in soils. Corona-Cruz A, et al. **Bull Environ Contam Toxicol** 1999 Aug; 63(2):219-25

Characteristics of phenanthrene-degrading bacteria isolated from soils contaminated with polycyclic aromatic hydrocarbons. Aitken MD, et al. **Can J Microbiol** 1998 Aug;44(8):743-52

Survival of insect pathogenic and human clinical isolates of Photorhabdus luminescens in previously sterile soil. Bleakley BH, et al. **Can J Microbiol** 1999 Mar;45(3):273-8

Characterization of the bacterial community of a zinc-polluted soil. Brim H, et al. **Can J Microbiol** 1999 Apr;45(4):326-38

Biodegradation of cyanide compounds by a Pseudomonas species (S1). Dhillon JK, et al. **Can J Microbiol** 1999 Mar; 45(3):201-8

Monoclonal antibodies to 2,4-dichlorophenol hydroxylase as probes for the 2,4-D-degradative phenotype. Farhana L, et al. **Can J Microbiol** 1998 Oct;44(10):920-8

Characterization of metal-resistant soil eubacteria by polymerase chain reaction--denaturing gradient gel electrophoresis with isolation of resistant strains. Macnaughton S, et al. **Can J Microbiol** 1999 Feb; 45(2):116-24

Degradation of morpholine, piperidine, and pyrrolidine by mycobacteria: evidences for the involvement of a cytochrome P450. Poupin P, et al. **Can J Microbiol** 1999 Mar;45(3):209-16

Gene sequences of the pcpB gene of pentachlorophenol-degrading Sphingomonas chlorophenolica found in nondegrading bacteria. Saboo VM, et al. **Can J Microbiol** 1998 Jul;44(7):667-75

TB infection: an exploratory study of BCG protective properties and the possible role of environmental mycobacteria. Chihota VN, et al. **Cent Afr J Med** 1998 Jun;44(6):145-8

Molecular biological access to the chemistry of unknown soil microbes: a new frontier for natural products. Handelsman J, et al. **Chem Biol** 1998 Oct;5(10):R245-9

Inefficiency of Mycobacterium chlorophenolicum PCP-1 to enhance mineralization of pentachlorophenol in soil microcosms. Combrisson J, et al. **Chemosphere** 1999 Mar; 38(6):1305-11

Degradation of three phenylurea herbicides (chlortoluron, isoproturon and diuron) by micromycetes isolated from soil. Khadrani A, et al. **Chemosphere** 1999 Jun; 38(13):3041-50

Biodegradation of coplanar polychlorinated biphenyls by anaerobic microorganisms from estuarine sediments. Kuo CE, et al. **Chemosphere** 1999 Oct;39(9):1445-58

Biodegradation of diesel oil by cold-adapted microorganisms in presence of sodium dodecyl sulfate. Margesin R, et al. **Chemosphere** 1999 Jun;38(15):3463-72

Modulation of metabolic activity prevents degradation of sorbed toluene. Roch F, et al. **Chemosphere** 1999 Apr; 38(8):1797-810

Biodegradation of fluoranthene by soil fungi. Salicis F, et al. **Chemosphere** 1999 Jun;38(13):3031-9

A comparison between toxicity tests using single species and a microbial process. van Beelen P, et al. **Chemosphere** 1999 Jun;38(14):3277-90

Identification of single cultured micro-organisms based on their whole-community fatty acid profiles, using an extended extraction procedure. Zelles L. **Chemosphere** 1999 Aug;39(4):665-82

Conversion of unsaturated fatty acids by bacteria isolated from compost. Kaneshiro T, et al. **Curr Microbiol** 1999 Apr;38(4):250-5

Accumulation of poly (3-hydroxybutyric acid) by some soil Streptomyces. Manna A, et al. **Curr Microbiol** 1999 Sep; 39(3):153-8

Effects of organic pollutants on soil microbial activity: the influence of sorption, solubility, and speciation. Welp G, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):83-90

Microbes mediate mining metals [news] **Environ Health Perspect** 1998 Nov;106(11):A531-2

Presence of Campylobacter and Salmonella in sand from bathing beaches. Bolton FJ, et al. **Epidemiol Infect** 1999 Feb;122(1):7-13

A phylogenetic analysis of microbial communities associated with methane hydrate containing marine fluids and sediments in the Cascadia margin (ODP site 892B). Bidle KA, et al. **FEMS Microbiol Lett** 1999 Aug 1;177(1):101-8

Detection of polycyclic aromatic hydrocarbon degradation genes in different soil bacteria by polymerase chain reaction and DNA hybridization. Hamann C, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):255-63

An efficient microbiological growth medium for screening phosphate solubilizing microorganisms. Nautiyal CS. **FEMS Microbiol Lett** 1999 Jan 1;170(1):265-70

Pythium prolatum isolated from soil in the Burgundy region: a new record for Europe. Paul B, et al. **FEMS Microbiol Lett** 1999 Apr 1;173(1):69-75

Isolation and characterization of a thermophilic Bacillus sp. JF8 capable of degrading polychlorinated biphenyls and naphthalene. Shimura M, et al. **FEMS Microbiol Lett** 1999 Sep 1;178(1):87-93

Fate of phenanthrene, pyrene and benzo[a]pyrene during biodegradation of crude oil added to two soils. Smith MJ, et al. **FEMS Microbiol Lett** 1999 Apr 15;173(2):445-52

Soil exposure no protection against atopy [letter] Montgomery SM, et al. **Immunol Today** 1999 Jun; 20(6):289-90

Burkholderia caribensis sp. nov., an exopolysaccharide-producing bacterium isolated from vertisol microaggregates in Martinique. Achouak W, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:787-94

Kitasatospora cheerisanensis sp. nov., a new species of the genus Kitasatospora that produces an antifungal agent. Chung YR, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:753-8

Methylopila capsulata gen. nov., sp. nov., a novel non-pigmented aerobic facultatively methylotrophic bacterium. Doronina NV, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1313-21

Nocardia uniformis nom. rev. Isik K, et al. **Int J Syst Bacteriol** 1999 Jul;49 Pt 3:1227-30

Description of Saccharomonospora xinjiangensis sp. nov. based on chemical and molecular classification. Jin X, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1095-9

Isolation and characterization of Desulfovibrio burkinensis sp. nov. from an African ricefield, and phylogeny of Desulfovibrio alcoholivorans. Ouattara AS, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:639-43

Verrucosispora gifhornensis gen. nov., sp. nov., a new member of the actinobacterial family Micromonosporaceae. Rheims H, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1119-27

Diversity of rhizobia associated with Amorpha fruticosa isolated from Chinese soils and description of Mesorhizobium amorphae sp. nov. Wang ET, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:51-65

Streptomyces thermogriseus, a new species of the genus Streptomyces from soil, lake and hot-spring. Xu LH, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1089-93

Three new species of the genus Actinobispora of the family Pseudonocardiaceae, Actinobispora alaniniphila sp. nov., Actinobispora aurantiaca sp. nov. and Actinobispora xinjiangensis sp. nov. Xu LH, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:881-6

Isolation of isoproturon-degrading bacteria from treated soil via three different routes. Roberts SJ, et al. **J Appl Microbiol** 1998 Aug;85(2):309-16

Quantitative detection of Sphingomonas chlorophenolica in soil via competitive polymerase chain reaction. van Elsas JD, et al. **J Appl Microbiol** 1998 Sep;85(3):463-71

Genotypic and phenotypic relationships in Burkholderia cepacia isolated from cystic fibrosis patients and the environment. Wigley P, et al. **J Appl Microbiol** 1999 Mar; 86(3):460-8

The occurrence of fungi along the Red Sea coast and variability among isolates of Fusarium as revealed by isozyme analysis. Abd-Elaah GA. **J Basic Microbiol** 1998; 38(5-6):303-11

Production of lipase by soil fungi and partial characterization of lipase from a selected strain (Penicillium wortmanii). Costa MA, et al. **J Basic Microbiol** 1999;39(1):11-5

A new direct microscopy based method for evaluating in-situ bioremediation. Bhupathiraju VK, et al. **J Hazard Mater** 1999 Jun 30;67(3):299-312

Isolation and characterisation of neurotoxigenic Clostridium butyricum from soil in China. Meng X, et al. **J Med Microbiol** 1999 Feb;48(2):133-7

Development of radiographic and microscopic techniques for the characterization of bacterial transport in intact sediment cores from Oyster, Virginia. Dong H, et al. **J Microbiol Methods** 1999 Aug;37(2):139-54

Reviewing the DA001-files: a 16S rRNA chase on suspect #X99967, a Bacillus and Dutch underground activist. Felske A. **J Microbiol Methods** 1999 May;36(1-2):77-93

Responses of the soil microbiota to elevated CO2 in an artificial tropical ecosystem. Insam H, et al. **J Microbiol Methods** 1999 May;36(1-2):45-54

Community level physiological profile of soil bacteria unaffected by extraction method. Mayr C, et al. **J Microbiol Methods** 1999 May;36(1-2):29-33

Elevated CO2 alters community-level physiological profiles and enzyme activities in alpine grassland. Mayr C, et al. **J Microbiol Methods** 1999 May;36(1-2):35-43

Method for purification of bacterial endospores from soils: UV resistance of natural Sonoran desert soil populations of Bacillus spp. with reference to B. subtilis strain 168. Nicholson WL, et al. **J Microbiol Methods** 1999 Feb; 35(1):13-21

Use of biochemical indices in the mediterranean environment: comparison among soils under different forest vegetation. Pinzari F, et al. **J Microbiol Methods** 1999 May; 36(1-2):21-8

Molecular monitoring of an uncultured group of the class Actinobacteria in two terrestrial environments. Rheims H, et al. **J Microbiol Methods** 1999 May;36(1-2):65-75

Isolation of a Paracoccidioides brasiliensis strain from the soil of a coffee plantation in Ibiá, State of Minas Gerais, Brazil. Silva-Vergara ML, et al. **Med Mycol** 1998 Feb; 36(1):37-42

Effects of moisture and sorption on bioavailability of p-hydroxybenzoic acid to Arthrobacter sp. in soil. Johnson TA, et al. **Microbiol Res** 1999 Jan;153(4):349-53

Mineralization of benzo[a]pyrene by Marasmiellus troyanus, a mushroom isolated from a toxic waste site. Wunch KG, et al. **Microbiol Res** 1999 May;154(1):75-9

Direct conjugal transfers of Ti plasmid to soil microflora. Teyssier-Cuvelle S, et al. **Mol Ecol** 1999 Aug;8(8):1273-84

Ecology of cycloheximide-resistant fungi in field soils receiving raw city wastewater or normal irrigation water. Ali-Shtayeh MS, et al. **Mycopathologia** 1998-99; 144(1):39-54

Impact of some ecological factors on the occurrence of

poultry soil-inhabiting keratinophiles. Kaul S, et al. **Mycopathologia** 1998-99;143(3):155-9

A study of the enzymatic profile of soil isolates of Nocardia asteroides. Khan ZU, et al. **Mycopathologia** 1998-99; 143(3):151-4

Soil fungi of some low-altitude desert cotton fields and ability of their extracts to inhibit Aspergillus flavus. Klich MA. **Mycopathologia** 1998;142(2):97-100

Survey of keratinophilic fungi isolated from city park soils of Pisa, Italy. Papini R, et al. **Mycopathologia** 1998; 143(1):17-23

Incidence of keratinophilic fungi in the soil of primary schools and public parks of Madras City, India. Ramesh VM, et al. **Mycopathologia** 1998-99;143(3):139-45

Fusarium species from plant debris associated with soils from maize production areas in the Transkei region of South Africa. Rheeder JP, et al. **Mycopathologia** 1998; 143(2):113-9

Pathogenicities and GP43kDa gene of three Paracoccidioides brasiliensis isolates originated from a nine-banded armadillo (Dasypus novemcinctus). Sano A, et al. **Mycopathologia** 1998-99;144(2):61-5

Exocellular proteases of Malbranchea gypsea and their role in keratin deterioration. Singh CJ. **Mycopathologia** 1998-99; 143(3):147-50

Antimicrobial susceptibilities of strains of Nocardia brasiliensis isolated from soil of Tucumán. van Gelderen de Komaid AA, et al. **Mycopathologia** 1998;141(3):115-21

Use of RAPD-PCR fingerprinting to detect genetic diversity of soil Streptomyces isolates. Malkawi HI, et al. **New Microbiol** 1999 Jan;22(1):53-8

Genetic determinants of active antibiotic-producing soil streptomycetes. Saadoun I, et al. **New Microbiol** 1999 Jul; 22(3):233-9

Horizontal gene transfers in the environment: natural transformation as a putative process for gene transfers between transgenic plants and microorganisms. Bertolla F, et al. **Res Microbiol** 1999 Jul-Aug;150(6):375-84 (81 ref.)

Genotypic characterization of thermophilic bacilli: a study on new soil isolates and several reference strains. Mora D, et al. **Res Microbiol** 1998 Nov-Dec;149(10):711-22

Isolation and characterisation of a new antagonistic Burkholderia strain from the rhizosphere of healthy tomato plants. Sfalanga A, et al. **Res Microbiol** 1999 Jan-Feb; 150(1):45-59

Study of the presence of Campylobacter jejuni and C. coli in sand samples from four Swiss chicken farms. Studer E, et al. **Res Microbiol** 1999 Apr;150(3):213-9

Influence of pH on the toxicity and survival of total cells and spores of Bacillus thuringiensis. Dias SC, et al. **Rev Argent Microbiol** 1998 Jul-Sep;30(3):122-9

Effect of Azospirillum brasilense inoculation on urease activity in soil and gamma-sterilized soil. Perotti EB, et al. **Rev Argent Microbiol** 1999 Jan-Mar;31(1):36-41

Comparison of the fuel oil biodegradation potential of hydrocarbon-assimilating microorganisms isolated from a temperate agricultural soil. Chaineau CH, et al. **Sci Total Environ** 1999 Mar 9;227(2-3):237-47

Isolation of acidophilic methane-oxidizing bacteria from northern peat wetlands. Dedysh SN, et al. **Science** 1998 Oct 9;282(5387):281-4

Amplified rDNA restriction analysis and further genotypic characterisation of metal-resistant soil bacteria and related facultative hydrogenotrophs. Brim H, et al. **Syst Appl Microbiol** 1999 May;22(2):258-68

Analysis of broad-scale differences in microbial community composition of two pristine forest soils. Chatzinotas A, et al. **Syst Appl Microbiol** 1998 Dec;21(4):579-87

Hymenobacter roseosalivarius gen. nov., sp. nov. from continental Antartica soils and sandstone: bacteria of the Cytophaga/Flavobacterium/Bacteroides line of phylogenetic descent. Hirsch P, et al. **Syst Appl Microbiol** 1998 Aug;21(3):374-383

Phylogeny, ribosomal RNA gene typing and relative abundance of new Pseudomonas species (sensu stricto) isolated from two pinyon-juniper woodland soils of the arid southwest U.S. Kuske CR, et al. **Syst Appl Microbiol** 1999 May;22(2):300-11

Contribution to phenotypic and genotypic characterization of Bacillus licheniformis and description of new genomovars. Manachini PL, et al. **Syst Appl Microbiol** 1998 Dec;21(4):520-9

Phylogenetic and physiological diversity of sulphate-reducing bacteria isolated from a salt marsh sediment. Rooney-Varga JN, et al. **Syst Appl Microbiol** 1998 Dec;21(4):557-68

Sulfur oxidation in rice field soil: activity, enumeration, isolation and characterization of thiosulfate-oxidizing bacteria. Stubner S, et al. **Syst Appl Microbiol** 1998 Dec; 21(4):569-78

Sulfate-reducing bacteria in rice field soil and on rice roots. Wind T, et al. **Syst Appl Microbiol** 1999 May;22(2):269-79

[An experimental study of a microbiological index in the complex setting of standards for lead, copper and zinc in the soil] Balabanov Ts, et al. **Probl Khig** 1997;22:17-24 (Eng. Abstr.) **(Bul)**

[Simultaneous presence of three cryptic plasmids of various size in a soil strain of Bacillus subtilis] Poluéktova EU, et al. **Genetika** 1999 Jan;35(1):46-9 (Eng. Abstr.) **(Rus)**

[The sanitary microbiological and biochemical characteristics of the soils under the conditions of urbanization] Naprasnikova EV, et al. **Gig Sanit** 1999 May-Jun;(3):15-7 (Eng. Abstr.) **(Rus)**

[Use of electrical impulses for selective isolation of actinomycetes f rom soil] Bulina TI, et al. **Mikrobiologiia** 1998 Jul-Aug;67(4):556-60 (Eng. Abstr.) **(Rus)**

[Dormant forms of Yersinia pseudotuberculosis during interaction with green algae and their exometabolites (population dynamics and ultrastructure)] Pushkareva VI, et al. **Zh Mikrobiol Epidemiol Immunobiol** 1998 Sep-Oct; (5):9-13 (Eng. Abstr.) **(Rus)**

[Chitinase production by a strain of Streptomyces griseoruber isolated from the rhizosphere of sugar cane] Carrillo L, et al. **Rev Argent Microbiol** 1998 Apr-Jun;30(2):73-8 (Eng. Abstr.) **(Spa)**

[Effect of pesticides on Bacillus thuringiensis strains under controlled conditions] Salerno C, et al. **Rev Argent Microbiol** 1999 Apr-Jun;31(2):58-64 (Eng. Abstr.) **(Spa)**

SOIL POLLUTANTS

Effects of processing of heavy metal content of foods. Morgan JN. **Adv Exp Med Biol** 1999;459:195-211 (25 ref.)

Microbial diversity in a hydrocarbon- and chlorinated-solvent-contaminated aquifer undergoing intrinsic bioremediation. Dojka MA, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3869-77

Reduction of norflurazon leaching in a sandy soil by adjuvants. Chandran RS, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):315-23

Biodegradation of diesel oil by cold-adapted microorganisms in presence of sodium dodecyl sulfate. Margesin R, et al. **Chemosphere** 1999 Jun;38(15):3463-72

In situ (mesocosm) assessment of immunotoxicity risks to small mammals inhabiting petrochemical waste sites. Propst TL, et al. **Chemosphere** 1999 Feb;38(5):1049-67

Lowering water's octane [news] **Environ Health Perspect** 1998 Oct;106(10):A475

Adult responses to a survey of soil contact-related behaviors. Garlock TJ, et al. **J Expo Anal Environ Epidemiol** 1999 Mar-Apr;9(2):134-42

A new direct microscopy based method for evaluating in-situ bioremediation. Bhupathiraju VK, et al. **J Hazard Mater** 1999 Jun 30;67(3):299-312

Influence of water on the supercritical fluid extraction of naphthalene from soil. Smyth TJ, et al. **J Hazard Mater** 1999 Jun 11;67(2):183-96

alpha-1-Microglobulin: epidemiological indicator for tubular dysfunction induced by cadmium? Pless-Mulloli T, et al. **Occup Environ Med** 1998 Jul;55(7):440-5

Use of plant roots for phytoremediation and molecular farming. Gleba D, et al. **Proc Natl Acad Sci U S A** 1999 May 25;96(11):5973-7 (42 ref.)

ADVERSE EFFECTS

Soil lead abatement and children's blood lead levels in an urban setting [see comments] Farrell KP, et al. **Am J Public Health** 1998 Dec;88(12):1837-9. Comment in: Am J Public Health 1998 Dec;88(12):1759-60.

Long-term effect of increased lead absorption on intelligence of children. Soong WT, et al. **Arch Environ Health** 1999 Jul-Aug;54(4):297-301

Effects of in ovo exposure to 2,3,7,8-TCDD on F1 generation adult chickens (Gallus gallus). Alonso KR, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):1873-83

Report of the WHO working group on the assessment of health risks for human infants from exposure to PCDDs, PCDFs and PCBs. Brouwer A, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):1627-43

Comparison of tributyltin compound effects on the alga Scenedesmus quadricauda and the benthic organisms Tubifex tubifex and Chironomus plumosus. Fargašová A. **Ecotoxicol Environ Saf** 1998 Nov;41(3):222-30

Feeding activity of midge larvae (Chironomus riparius meigen) in metal-polluted river sediments. Leppänen MT, et al. **Ecotoxicol Environ Saf** 1998 Nov;41(3):251-7

Biomarker assessment of the effects of coal strip-mine contamination on channel catfish. Martin LK Jr, et al. **Ecotoxicol Environ Saf** 1998 Nov;41(3):307-20

Human health risk assessment: A case study involving heavy metal soil contamination after the flooding of the river Meuse during the winter of 1993-1994. Albering HJ, et al. **Environ Health Perspect** 1999 Jan;107(1):37-43

Birth weight and sex of children and the correlation to the body burden of PCDDs/PCDFs and PCBs of the mother. Vartiainen T, et al. **Environ Health Perspect** 1998 Feb; 106(2):61-6

Field measurement of dermal soil loadings in occupational and recreational activities. Holmes KK Jr, et al. **Environ Res** 1999 Feb;80(2 Pt 1):148-57

Soldiers claim ill health after contact with contaminated soil in Croatia [news] Kondro W. **Lancet** 1999 Aug 7; 354(9177):494

ANALYSIS

Environmental analysis. Clement RE, et al. **Anal Chem** 1999 Jun 15;71(12):257R-292R (756 ref.)

Immunosensor for 2,4-dichlorophenoxyacetic acid in aqueous/organic solvent soil extracts. Kröger S, et al. **Anal Chem** 1998 Dec 1;70(23):5047-53

Spectrofluorimetric determination of paraquat by manual and flow injection methods. Pérez-Ruíz T, et al. **Analyst** 1998 Jul;123(7):1577-81

Development of an ELISA for detection of parathion, carbofuran, and 2,4-dichlorophenoxyacetic acid in water, soil, vegetables, and fruits. Razak CN, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:479-84

Diversity of arbuscular mycorrhizal fungus populations in heavy-metal-contaminated soils. Del Val C, et al. **Appl Environ Microbiol** 1999 Feb;65(2):718-23

Polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) in muscle and eggs of salmonid fishes from the Great Lakes. Giesy JP, et al. **Arch Environ Contam Toxicol** 1999 May;36(4):432-46

Nuclear magnetic resonance in environmental engineering: principles and applications. Lens PN, et al. **Biodegradation** 1998;9(6):393-409 (107 ref.)

Trace elements in soil and coniferous needles. Blanusa M, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):700-7

Persistence of phorate and carbofuran in relation to their effect on the mineralization of C, N, and P in alluvial soil. Das AC, et al. **Bull Environ Contam Toxicol** 1998 Dec; 61(6):709-15

Methyl bromide and bromide ion in soil after experimental greenhouse fumigation. Dimitriou A, et al. **Bull Environ Contam Toxicol** 1998 Dec;61(6):695-701

Health hazard from dry river bed agriculture. Farooq M, et al. **Bull Environ Contam Toxicol** 1999 May;62(5):555-62

Polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran congener profiles in fish, crayfish, and sediment collected near a wood treating facility and a bleached kraft pulp mill. Foster EP, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):239-46

Relationship between contaminant loss and toxicity during phytoremediation using solid-phase Microtox(R) tests. Harkey GA, et al. **Bull Environ Contam Toxicol** 1998 Oct; 61(4):419-25

Heavy metal toxicity monitoring in sediments of Jinhae bay, Korea. Kong I, et al. **Bull Environ Contam Toxicol** 1998 Oct;61(4):505-11

Agricultural inputs of pesticide residues to stream and pond sediments in a small catchment in southern Sweden. Kreuger J, et al. **Bull Environ Contam Toxicol** 1999 Jan; 62(1):55-62

Dissipation of phloxine B and uranine in sediment and water at a Kauai spill site. Li QX, et al. **Bull Environ Contam Toxicol** 1998 Oct;61(4):426-32

Trace metal distribution along the southern coast of Bahia de La Paz (Gulf of California), México. Méndez L, et al. **Bull Environ Contam Toxicol** 1998 Nov;61(5):616-22

Selenium and copper in vegetables and fruits grown on long-term impacted soils from Valparaiso region, Chile. Pinochet H, et al. **Bull Environ Contam Toxicol** 1999 Sep; 63(3):327-34

Fractioning of Cu, Mn, Zn, and Pb in mineral soils along an oak forest vegetation gradient in Mexico City. Quiroz A, et al. **Bull Environ Contam Toxicol** 1999 Feb; 62(2):138-43

Sequential extraction of copper, lead, cadmium, and zinc in sediments from Ebro river (Spain): relationship with levels detected in earthworms. Ramos L, et al. **Bull Environ Contam Toxicol** 1999 Mar;62(3):301-8

Three digestion methods to determine concentrations of Cu, Zn, Cd, Ni, Pb, Cr, Mn, and Fe in mangrove sediments from Sai Keng, Chek Keng, and Sha Tau Kok, Hong Kong. Tam NF, et al. **Bull Environ Contam Toxicol** 1999 Jun; 62(6):708-16

Essential elements in environmental samples from selected regions in Slovakia. Ursínyová M, et al. **Bull Environ Contam Toxicol** 1999 Apr;62(4):409-15

PCDDs/PCDFs, coplanar PCBs and PCBs in barn owl eggs from different areas in the state of Brandenburg, Germany. Wiesmüller T, et al. **Bull Environ Contam Toxicol** 1999 Jul; 63(1):15-24

Soil leaching column chromatographic technique for estimation of leaching behavior of atrazine, deethylatrazine, deisopropylatrazine, and hydroxyatrazine on soil. Xu F, et al. **Bull Environ Contam Toxicol** 1999 Jul;63(1):87-93

Identification of 1,6- and 1,8-dinitropyrene isomers as major mutagens in organic extracts of soil from Osaka, Japan. Watanabe T, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1501-7

PCDD, PCDF, and PCB in farm-raised catfish from southeast United States--concentrations, sources, and CYP1A induction. Fiedler H, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):1645-56

Atrazine and metolachlor residues in Brookston CL following conventional and conservation tillage culture. Gaynor JD, et al. **Chemosphere** 1998 Jun;36(15):3199-210

PCDD/F, PCB and PAH content of Brazilian compost. Grossi G, et al. **Chemosphere** 1998 Oct-Nov; 37(9-12):2153-60

Time trends in human dietary exposure to PCDDs, PCDFs and PCBs in the UK. Harrison N, et al. **Chemosphere** 1998 Oct-Nov;37(9-12):1657-70

Sediment toxicity and stormwater runoff in a contaminated receiving system: consideration of different bioassays in the laboratory and field. Hatch AC, et al. **Chemosphere** 1999 Sep;39(6):1001-17

The environmental fate of the primary degradation products of alkylphenol ethoxylate surfactants in recycled paper sludge. Hawrelak M, et al. **Chemosphere** 1999 Aug; 39(5):745-52

A new enzyme immunoassay for PCDD/F TEQ screening in environmental samples: comparison to micro-EROD assay and to chemical analysis. Li W, et al. **Chemosphere** 1999 Jun;38(14):3313–8

Relationships between dioxins in soil, air, ash, and emissions from a municipal solid waste incinerator emitting large amounts of dioxins. Lorber M, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2173–97

PCB and PCDD/DF concentrations in egg and poultry meat samples from known urban and rural locations in Wales and England. Lovett AA, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):1671–85

Update of PCDD/PCDF-intake from food in Germany. Malisch R. **Chemosphere** 1998 Oct–Nov;37(9–12):1687–98

Polychlorinated dioxin and dibenzofuran levels in the environment and food from the Republic of Bashkortostan, Russia. Maystrenko V, et al. **Chemosphere** 1998 Oct–Nov; 37(9–12):1699–708

Levels of PCBs, PCDDs and PCDFs in commercial butter samples in Spain. Ramos L, et al. **Chemosphere** 1999 Jun; 38(13):3141–53

PCDD and PCDF contamination in catfish feed from Arkansas, USA. Rappe C, et al. **Chemosphere** 1998 Jun; 36(13):2705–20

Chlorinated hydrocarbon contaminants in Hong Kong surficial sediments. Richardson BJ, et al. **Chemosphere** 1999 Sep;39(6):913–23

Origin attribution of polychlorinated dibenzo-p-dioxins and dibenzofurans in sediment and soil from a Japanese freshwater lake area through congener-specific data analysis. Sakurai T, et al. **Chemosphere** 1998 Oct–Nov; 37(9–12):2211–24

PCDD/PCDF on land around an industrial site and identification of source. Sandalls J, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2225–37

A comparison of dioxins, dibenzofurans and coplanar PCBs in uncooked and broiled ground beef, catfish and bacon. Schecter A, et al. **Chemosphere** 1998 Oct–Nov; 37(9–12):1723–30

Levels of PCDD/Fs in soil samples in the vicinity of a municipal solid waste incinerator. Schuhmacher M, et al. **Chemosphere** 1998 Oct–Nov;37(9–12):2127–37

Effect of heavy metals and storage time on two types of forest litter: basal respiration rate and exchangeable metals. Niklińska M, et al. **Ecotoxicol Environ Saf** 1998 Sep; 41(1):8–18

Bioassay-directed fractionation and chemical identification of mutagens in bioremediated soils. Brooks LR, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1435–40

Comparison of pesticides and other compounds in carpet dust samples collected from used vacuum cleaner bags and from a high-volume surface sampler. Colt JS. **Environ Health Perspect** 1998 Nov;106(11):721–4

Analysis of breast milk to assess exposure to chlorinated contaminants in Kazakstan: high levels of 2,3,7, 8-tetrachlorodibenzo-p-dioxin (TCDD) in agricultural villages of southern Kazakstan. Hooper K, et al. **Environ Health Perspect** 1998 Dec;106(12):797–806

Birth weight and sex of children and the correlation to the body burden of PCDDs/PCDFs and PCBs of the mother. Vartiainen T, et al. **Environ Health Perspect** 1998 Feb; 106(2):61–6

Assessing environmental exposure to PCBs among Mohawks at Akwesasne through the use of geostatistical methods. Hwang SA, et al. **Environ Res** 1999 Feb;80(2 Pt 2):S189–S199

A multivariate linear regression model for predicting children's blood lead levels based on soil lead levels: A study at four superfund sites. Lewin MD, et al. **Environ Res** 1999 Jul;81(1):52–61

The urban environment and children's health: soils as an integrator of lead, zinc, and cadmium in New Orleans, louisiana, U.S.A. Mielke HW, et al. **Environ Res** 1999 Aug; 81(2):117–29

Determination of the insecticide pyridafenthion in river water, soils and wine by adsorptive stripping voltammetry. Sampedro MC, et al. **Food Addit Contam** 1998 Oct; 15(7):793–800

Radioactive cesium in Swedish hunters. Agren G. **Health Phys** 1999 Mar;76(3):240–3

Capillary electrophoresis determinative and LC–MS confirmatory method for screening selected imidazolinone herbicides from soil. Nejad H, et al. **J Capillary Electrophor** 1998 Jan–Apr;5(1–2):81–7

Comparative studies of the leachate of an industrial landfill by gas chromatography–mass spectrometry, liquid chromatography–nuclear magnetic resonance and liquid chromatography–mass spectrometry. Benfenati E, et al. **J Chromatogr A** 1999 Jan 29;831(2):243–56

Chemical characterization and screening of hydrocarbon pollution in industrial soils by headspace solid-phase microextraction. Havenga WJ, et al. **J Chromatogr A** 1999 Jul 2;848(1–2):279–95

Experimental design approach for the optimization of supercritical fluid extraction of chlorophenols from polluted soils. Santos FJ, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):249–58

Runoff and leaching of atrazine and alachlor on a sandy soil as affected by application in sprinkler irrigation. Abdel-Rahman AR, et al. **J Environ Sci Health B** 1999 May;34(3):381–96

Atrazine, alachlor, and total inorganic nitrogen concentrations of winter wind-eroded sediment samples. DeSutter TM, et al. **J Environ Sci Health B** 1998 Nov; 33(6):683–91

The influence of organic amendment and nickel pollution on tomato fruit yield and quality. Palacios G, et al. **J Environ Sci Health B** 1999 Jan;34(1):133–50

Chlorinated pesticide residues in surface sediments from the River Kaveri, south India. Rajendran RB, et al. **J Environ Sci Health B** 1999 Mar;34(2):269–88

Simultaneous analysis of triasulfuron, metsulfuron-methyl and chlorsulfuron in water and alkaline soils by high-performance liquid chromatography. Sarmah AK, et al. **J Environ Sci Health B** 1999 May;34(3):363–80

High lead exposures resulting from pottery production in a village in Michoacán State, Mexico. Hibbert R, et al. **J Expo Anal Environ Epidemiol** 1999 Jul–Aug;9(4):343–51

Simplified soil washing processes for a variety of soils. Kuhlman MI, et al. **J Hazard Mater** 1999 Apr 23; 66(1–2):31–45

Full-scale and pilot-scale soil washing. Mann MJ. **J Hazard Mater** 1999 Apr 23;66(1–2):119–36

Chelant extraction of heavy metals from contaminated soils. Peters RW. **J Hazard Mater** 1999 Apr 23;66(1–2):151–210 (91 ref.)

Oxygen release kinetics from solid phase oxygen in Arctic Alaska. Schmidtke T, et al. **J Hazard Mater** 1999 Jan 29; 64(2):157–65

Laboratory treatability testing of soils contaminated with lead and PCBs using particle-size separation and soil washing. Sheets RG, et al. **J Hazard Mater** 1999 Apr 23; 66(1–2):137–50

Extraction of TNT from aggregate soil fractions. Williford CW Jr, et al. **J Hazard Mater** 1999 Apr 23;66(1–2):1–13

Vertical column hydroclassification of metal-contaminated soils. Williford CW Jr, et al. **J Hazard Mater** 1999 Apr 23;66(1–2):15–30

Bacterial metal-lux biosensors for a rapid determination of the heavy metal bioavailability and toxicity in solid samples. Corbisier P. **Res Microbiol** 1997 Jul–Aug;148(6):534–6

Microbial methods for assessing contaminant effects in sediments. Eismann F, et al. **Rev Environ Contam Toxicol** 1999;159:41–93 (349 ref.)

Mass balance and distribution of sludge-borne trace elements in a silt loam soil following long-term applications of sewage sludge. Baveye P, et al. **Sci Total Environ** 1999 Feb 16;227(1):13–28

Determination of lead and other metals in a residential area of greater Calcutta. Chatterjee A, et al. **Sci Total Environ** 1999 Mar 9;227(2–3):175–85

Quantification of polycyclic aromatic hydrocarbons in soil at McMurdo Station, Antarctica. Mazzera D, et al. **Sci Total Environ** 1999 May 7;229(1–2):65–71

Monitoring metals in the vicinity of a municipal waste incinerator: temporal variation in soils and vegetation. Meneses M, et al. **Sci Total Environ** 1999 Feb 9; 226(2–3):157–64

The geochemistry of mercury in central Amazonian soils developed on the Alter-do-Chão formation of the lower Tapajós River Valley, Pará state, Brazil. Roulet M, et al. **Sci Total Environ** 1998 Nov 3;223(1):1–24

The fate of heavy oil wastes in soil microcosms. II: A performance assessment of source correlation indices. Whittaker M, et al. **Sci Total Environ** 1999 Feb 2; 226(1):23–34

[Biological monitoring of persons in areas with increased soil mercury, arsenic and antimony content] Gebel T, et al. **Gesundheitswesen** 1998 Oct;60(10):580–5 (Eng. Abstr.) **(Ger)**

[Public health relevant levels of pollutants in soil. Considerations for preventive, environmental health protection] Müller L. **Gesundheitswesen** 1998 Jul; 60(7):439–44 (Eng. Abstr.) **(Ger)**

[Bromide residues: an index of environmental contamination in greenhouse cultivation] Fallico R, et al. **Ann Ig** 1999 Jan–Feb;11(1):71–7 (Eng. Abstr.) **(Ita)**

[Natural radioactivity of underground waters: surveying of alpha and beta global activity] Zak A, et al. **Med Pr** 1999; 50(1):51–60 (Eng. Abstr.) **(Pol)**

[Methods of determination of tributyltin in water and soil] Saniagina NA, et al. **Gig Sanit** 1999 Jul–Aug;(4):68–9 **(Rus)**

BLOOD

Polychlorinated dibenzo-p-dioxins and related compounds: correlations of levels in human tissues and in blood. Iida T, et al. **Chemosphere** 1999 May;38(12):2767–74

CLASSIFICATION

Vertical column hydroclassification of metal-contaminated soils. Williford CW Jr, et al. **J Hazard Mater** 1999 Apr 23;66(1–2):15–30

METABOLISM

Study of the soil-plant (carrot)-animal cycle of nutritive and hazardous minerals in a rabbit model. Bersényi A, et al. **Acta Vet Hung** 1999;47(2):181–90

Removal of dibenzofuran, dibenzo-p-dioxin, and 2-chlorodibenzo-p-dioxin from soils inoculated with Sphingomonas sp. strain RW1. Halden RU, et al. **Appl Environ Microbiol** 1999 May;65(5):2246–9

Formation of bound residues during microbial degradation of [14C]anthracene in soil. Kästner M, et al. **Appl Environ Microbiol** 1999 May;65(5):1834–42

Microbial population changes during bioremediation of an experimental oil spill. MacNaughton SJ, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3566–74

Biodegradation of atrazine by Agrobacterium radiobacter J14a and use of this strain in bioremediation of contaminated soil. Struthers JK, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3368–75

Bioavailability of hydrocarbons during microbial remediation of a sandy soil. Löser C, et al. **Appl Microbiol Biotechnol** 1999 Jan;51(1):105–11

Bioremediation of atrazine-contaminated soil by repeated applications of atrazine-degrading bacteria. Newcombe DA, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):877–82

Glutathione, glutathione-related enzymes, and catalase activities in the earthworm Eisenia fetida andrei. Saint-Denis M, et al. **Arch Environ Contam Toxicol** 1998 Nov;35(4):602–14

Metal contaminated soil—is natural attenuation acceptable? Eccles H. **Biochem Soc Trans** 1998 Nov;26(4):657–61 (10 ref.)

Fungi as potential bioremediation agents in soil contaminated with heavy or radioactive metals. Gray SN. **Biochem Soc Trans** 1998 Nov;26(4):666–70 (34 ref.)

Analyses of polycyclic aromatic hydrocarbon-degrading bacteria isolated from contaminated soils. Ahn Y, et al. **Biodegradation** 1999 Apr;10(2):149–57

Extracellular oxidative enzyme production and PAH removal in soil by exploratory mycelium of white rot fungi. Novotný C, et al. **Biodegradation** 1999 Jun;10(3):159–68

Biodegradation of crude oil by soil microorganisms in the tropic. Palittapongarnpim M, et al. **Biodegradation** 1998; 9(2):83–90

Intrinsic capacities of soil microflorae for gasoline degradation. Solano-Serena F, et al. **Biodegradation** 1998; 9(5):319–26

Biodegradation of dicyclopentadiene in the field. Stehmeier LG, et al. **Biodegradation** 1999 Apr;10(2):135–48

Independent prediction of naphthalene transport and biodegradation in soil with a mathematical model. Ahn IS, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):65–75

Soil immobilization: new concept for biotreatment of soil contaminants. Karamanev DG, et al. **Biotechnol Bioeng** 1998 Feb 20;57(4):471–6

Sulcotrione soil metabolism in summer corn crops. Rouchaud J, et al. **Bull Environ Contam Toxicol** 1998 Nov; 61(5):669–76

Characteristics of phenanthrene-degrading bacteria isolated from soils contaminated with polycyclic aromatic hydrocarbons. Aitken MD, et al. **Can J Microbiol** 1998 Aug;44(8):743–52

Enhancement of PAH biodegradation in soil by physicochemical pretreatment. Bonten LT, et al. **Chemosphere** 1999 Jun;38(15):3627–36

Studies of the behaviour and fate of the polymer-additives octadecyl-3-(3.5-di-t-butyl-4-hydroxyphenyl)propionate and tri-(2.4-di-t-butylphenyl)phosphite in the environment. Fischer K, et al. **Chemosphere** 1999 Aug; 39(4):611–25

Degradation of 4-fluorobiphenyl in soil investigated by 19F NMR spectroscopy and 14C radiolabelling analysis. Green NA, et al. **Chemosphere** 1999 Feb;38(5):1085–101

Aerobic biodegradation of dichloroethylenes in surface and subsurface soils. Klier NJ, et al. **Chemosphere** 1999 Feb; 38(5):1175–88

A model for the formation and degradation of bound residues of the herbicide 14C-isoproturon in soil. Reuter S, et al. **Chemosphere** 1999 Aug;39(4):627–39

Simulation of herbicide degradation in different soils by use of Pedo-transfer functions (PTF) and non-linear kinetics. von Götz N, et al. **Chemosphere** 1999 Mar;38(6):1401–7

Cu-Cd interactions in earthworms maintained in laboratory microcosms: the examination of a putative copper paradox. Mariño F, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):217–23

Developments in terrestrial bacterial remediation of metals. Stephen JR, et al. **Curr Opin Biotechnol** 1999 Jun; 10(3):230–3 (36 ref.)

Trace metal levels in chironomid larvae and sediments from a Bolivian river: impact of mining activities. Bervoets L, et al. **Ecotoxicol Environ Saf** 1998 Nov;41(3):275–83

Accumulation kinetics of polycyclic aromatic hydrocarbons adsorbed to sediment by the mollusk Corbicula fluminea. Narbonne JF, et al. **Ecotoxicol Environ Saf** 1999 Jan; 42(1):1–8

Fungal utilization of organophosphate pesticides and their degradation by Aspergillus flavus and A. sydowii in soil. Hasan HA. **Folia Microbiol (Praha)** 1999;44(1):77–84

Degradation of fluoranthene by Pasteurella sp. IFA and Mycobacterium sp. PYR-1:isolation and identification of metabolites. Sepić E, et al. **J Appl Microbiol** 1998 Oct; 85(4):746–54

Effects of hydrocarbon enrichment on trichloroethylene biodegradation and microbial populations in finished compost. Sukesan S, et al. **J Appl Microbiol** 1998 Oct; 85(4):635–42

Leaching of mecoprop and dichlorprop in calcareous soil. Effect of the exogen organic matter addition in this process. Matallo M, et al. **J Environ Sci Health B** 1999 Jul; 34(4):617–32

Chlorpyrifos degradation in Turkish soil. Yücel U, et al. **J Environ Sci Health B** 1999 Jan;34(1):75–95

Bioremediation of phenols and polycyclic aromatic hydrocarbons in creosote contaminated soil using ex-situ landtreatment. Guerin TF. **J Hazard Mater** 1999 Mar 19; 65(3):305–15

Thermogravimetric study of thermal decontamination of soils polluted by hexachlorobenzene, 4-chlorobiphenyl, naphthalene, or n-decane. Risoul V, et al. **J Hazard Mater** 1999 Feb 15;64(3):295–311

Degradation of 2,4,6-trichlorophenol by a specialized organism and by indigenous soil microflora: bioaugmentation and self-remediability for soil restoration. Andreoni V, et al. **Lett Appl Microbiol** 1998 Aug; 27(2):86–92

Transgenic phytoremediation blasts onto the scene [news; comment] Hooker BS, et al. **Nat Biotechnol** 1999 May; 17(5):428. Comment on: Nat Biotechnol 1999 May;17(5):491–4.

Isolation of a soil psychrotrophic toluene-degrading Pseudomonas strain: influence of temperature on the growth characteristics on different substrates. Chablain PA, et al. **Res Microbiol** 1997 Feb;148(2):153–61

Enhanced mineralization of UL-14C-pentachlorophenol by mushroom composts. Semple KT, et al. **Res Microbiol** 1997 Dec;148(9):795–8

Comparison of the fuel oil biodegradation potential of hydrocarbon-assimilating microorganisms isolated from a temperate agricultural soil. Chaîneau CH, et al. **Sci Total Environ** 1999 Mar 9;227(2–3):237–47

Engineering plants to cope with metals [news] Moffat AS. **Science** 1999 Jul 16;285(5426):369–70

PHARMACOKINETICS

Bioavailability of PCBs to male laboratory rats maintained on litters of contaminated soils: PCB burden and induction of alkoxyresorufin O-dealkylase activities in liver and lung. Fouchécourt MO, et al. **Arch Environ Contam Toxicol** 1998 Nov;35(4):680–7

Uptake of 109Cd from natural sediments by the blue mussel Mytilus trossulus in relation to sediment nutritional and geochemical composition. Pollet I, et al. **Arch Environ Contam Toxicol** 1999 Apr;36(3):288–94

Herbicide mobility using soil leaching columns. Futch SH, et al. **Bull Environ Contam Toxicol** 1999 May;62(5):520–9

Bacterial degradation of chlorpyrifos in pure cultures and in soil. Mallick K, et al. **Bull Environ Contam Toxicol** 1999 Jan;62(1):48–54

Effect of carbofuran and hexachlorocyclohexane on N2O production in alluvial soils. Singh N, et al. **Bull Environ Contam Toxicol** 1999 May;62(5):584–90

Copper, zinc, cadmium, and lead in sheep grazing in North Greece. Zantopoulos N, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):691–9

Assessment of organic contaminant fate in waste water treatment plants. I: Selected compounds and physicochemical properties. Alcock RE, et al. **Chemosphere** 1999 Apr;38(10):2247–62 (60 ref.)

Anaerobic incorporation of the radiolabeled explosive TNT and metabolites into the organic soil matrix of contaminated soil after different treatment procedures. Drzyzga O, et al. **Chemosphere** 1999 Apr;38(9):2081–95

Polychlorinated dibenzo-p-dioxins and related compounds: correlations of levels in human tissues and in blood. Iida T, et al. **Chemosphere** 1999 May;38(12):2767–74

Quantification of runoff in laboratory-scale chambers. Isensee AR, et al. **Chemosphere** 1999 Apr;38(8):1733–44

Modulation of metabolic activity prevents degradation of sorbed toluene. Roch F, et al. **Chemosphere** 1999 Apr; 38(8):1797–810

Clearance of PCDD/Fs via the gastrointestinal tract in occupationally exposed persons. Rohde S, et al. **Chemosphere** 1999 Jun;38(14):3397–410

Model simulation of environmental profile transformation and fate of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans by the multimedia environmental fate model. Suzuki N, et al. **Chemosphere** 1998 Oct-Nov;37(9–12):2239–50

Treatment of PCB-contaminated soil in a pilot-scale continuous decomposition system. Taniguchi S, et al. **Chemosphere** 1998 Oct-Nov;37(9–12):2315–26

Effect of liquid inhibitors on PCDD/F formation. Prediction of particle-phase PCDD/F concentrations using PLS modelling with gas-phase chlorophenol concentrations as independent variables. Tuppurainen K, et al. **Chemosphere** 1999 Apr;38(10):2205–17

Effects of culture parameters on the degradation of 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4-dichlorophenol (2,4-DCP) by selected fungi. Groupe pour l'Etude du Devenir des Xénobiotiques dans l'Environnement (GEDEXE). Vroumsia T, et al. **Chemosphere** 1999 Oct;39(9):1397–405

Prediction of metal bioavailability in Dutch field soils for the oligochaete Enchytraeus crypticus. Peijnenburg WJ, et al. **Ecotoxicol Environ Saf** 1999 Jun;43(2):170–86

Bioavailability of soilborne lead in adults, by stable isotope dilution. Maddaloni M, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1589–94

Talking trash: the economic and environmental issues of landfills. Taylor D. **Environ Health Perspect** 1999 Aug; 107(8):A404–9

Assessment of the bioavailability of PAHs in rats exposed to a polluted soil by natural routes: induction of EROD activity and DNA adducts and PAH burden in both liver and lung. Fouchécourt MO, et al. **Environ Res** 1999 May; 80(4):330–9

Accumulation of potentially toxic elements in plants and their transfer to human food chain. Dudka S, et al. **J Environ Sci Health B** 1999 Jul;34(4):681–708

Caesium-137 migration in Hungarian soils. Szerbin P, et al. **Sci Total Environ** 1999 Mar 9;227(2–3):215–27

[Effect of protoporphyrin on digestive tract absorption of dioxins in rats] Morita K, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):162–70 (Eng. Abstr.) **(Jpn)**

[Effect of green vegetable on digestive tract absorption of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans in rats] Morita K, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):171–83 (Eng. Abstr.) **(Jpn)**

PHARMACOLOGY

[Effect of pesticides on Bacillus thuringiensis strains under controlled conditions] Salerno C, et al. **Rev Argent Microbiol** 1999 Apr-Jun;31(2):58–64 (Eng. Abstr.) **(Spa)**

POISONING

Recent trend of polychlorinated dibenzo-p-dioxins and their related compounds in the blood and sebum of Yusho and Yu Cheng patients. Iida T, et al. **Chemosphere** 1999 Feb; 38(5):981–93

RADIATION EFFECTS

Immobilization of chromium-contaminated soil by means of microwave energy. Tai HS, et al. **J Hazard Mater** 1999 Mar 19;65(3):267–75

TOXICITY

Abundance and diversity of Archaea in heavy-metal-contaminated soils. Sandaa RA, et al. **Appl Environ Microbiol** 1999 Aug;65(8):3293–7

Toxicity of lead-contaminated sediment to mallards. Heinz GH, et al. **Arch Environ Contam Toxicol** 1999 Apr; 36(3):323–33

Cytological and biochemical alterations in Carassius auratus hepatocytes from exposure to sediment containing dioxins and related compounds. Wu WZ, et al. **Arch Environ Contam Toxicol** 1999 Oct;37(3):358–63

Effect of cadmium on the hatching of Metaphire posthuma cocoons. Gupta SK, et al. **Biomed Environ Sci** 1999 Mar; 12(1):50–3

Acute and genotoxic effects of Baku Harbor sediment on Russian sturgeon, Acipenser guildensteidti. Bickham JW, et al. **Bull Environ Contam Toxicol** 1998 Oct;61(4):512–8

Wound healing in earthworms Lumbricus terrestris: a cellular-based biomarker for assessing sublethal chemical toxicity. Cikutovic MA, et al. **Bull Environ Contam Toxicol** 1999 Apr;62(4):508–14

Ecotoxicity of river and spring sediment along the Hanford Reach. Delistraty DA, et al. **Bull Environ Contam Toxicol** 1998 Dec;61(6):754–61

Estrogenic effects of organic environmental extracts with the trout hepatocyte vitellogenin assay. Gagné F, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):723–30

Toxicity of sediment associated PAHs to the estuarine crustaceans, Palaemonetes pugio and Amphiascus tenuiremis. Wirth EF, et al. **Bull Environ Contam Toxicol** 1998 Nov;61(5):637–44

Identification of 1,6- and 1,8-dinitropyrene isomers as major mutagens in organic extracts of soil from Osaka, Japan. Watanabe T, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1501–7

Comparative sensitivity of 20 bioassays for soil quality. Bierkens J, et al. **Chemosphere** 1998 Dec;37(14–15):2935–47

Toxicity evaluation of organic sediment extracts resolved by size exclusion chromatography using rainbow trout hepatocytes. Gagné F, et al. **Chemosphere** 1999 Oct; 39(9):1545–70

The toxicity and concentrations of PAHs in creosote-contaminated lake sediment. Hyötyläinen T, et al. **Chemosphere** 1999 Feb;38(5):1135–44

Toxicological characterization of sediments from Baie des Anglais on the St. Lawrence Estuary. Lee K, et al. **Chemosphere** 1999 Sep;39(6):1019–35

Primer for evaluating ecological risk at petroleum release sites. Claff R. **Drug Chem Toxicol** 1999 Feb;22(1):311–6

Development of toxicity criteria for petroleum hydrocarbon fractions in the Petroleum Hydrocarbon Criteria Working Group approach for risk-based management of total petroleum hydrocarbons in soil. Twerdok LE. **Drug Chem Toxicol** 1999 Feb;22(1):275–91 (31 ref.)

Ecotoxicological hazard and risk assessment of heavy metal contents in agricultural soils of central Germany. Manz M, et al. **Ecotoxicol Environ Saf** 1999 Feb;42(2):191–201

Temperature-time relationship in collembolan response to chemical exposure. Martikainen E, et al. **Ecotoxicol Environ Saf** 1999 Mar;42(3):236–44

Short-term toxicological effects of cadmium on the woodlouse, Porcellio laevis (Crustacea, Isopoda). Odendaal JP, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):30–4

Resistance of Eisenia fetida (Oligochaeta) to cadmium after long-term exposure. Reinecke SA, et al. **Ecotoxicol Environ Saf** 1999 Jan;42(1):75–80

Toxicity of nickel to a soil-dwelling springtail, Folsomia fimetaria (Collembola: Isotomidae). Scott-Fordsmand JJ, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):57–61

Ecotoxicological characterization of energetic substances using a soil extraction procedure. Sunahara GI, et al. **Ecotoxicol Environ Saf** 1999 Jun;43(2):138–48

Effects of organic pollutants on soil microbial activity: the influence of sorption, solubility, and speciation. Welp G, et al. **Ecotoxicol Environ Saf** 1999 May;43(1):83–90

Bioassay-directed fractionation and chemical identification of mutagens in bioremediated soils. Brooks LR, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1435–40

Genotoxicity of bioremediated soils from the Reilly Tar site, St. Louis Park, Minnesota. Hughes TJ, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1427–33

Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife. Van den Berg M, et al. **Environ Health Perspect** 1998 Dec;106(12):775–92 (225 ref.)

Arsenic toxicity and accumulation in radish as affected by arsenic chemical speciation. Carbonell-Barrachina AA, et al. **J Environ Sci Health B** 1999 Jul;34(4):661–79

Elevated ovarian and thymic cell apoptosis in wild cotton rats inhabiting petrochemical-contaminated terrestrial ecosystems. Savabieasfahani M, et al. **J Toxicol Environ Health** 1999 Aug 27;57(8):521–7

Genotoxicity of soil from farmland irrigated with wastewater using three plant bioassays. Cabrera GL, et al. **Mutat Res** 1999 May 19;426(2):211–4

Assessment of the genotoxicity of contaminated soil with the Allium/Vicia-micronucleus and the Tradescantia-micronucleus assays. Cotelle S, et al. **Mutat Res** 1999 May 19;426(2):167–71

Monitoring the genotoxicity of soil extracts from two heavily polluted sites in Prague using the Tradescantia stamen hair and micronucleus (MNC) assays. Gichner T, et al. **Mutat Res** 1999 May 19;426(2):163–6

Detection of genotoxic effects of heavy metal contaminated soils with plant bioassays. Knasmüller S, et al. **Mutat Res** 1998 Dec 3;420(1–3):37–48

Genotoxicity of contaminated soil and shallow well water detected by plant bioassays. Kong MS, et al. **Mutat Res** 1999 May 19;426(2):221–8

Clastogenicity of chromium contaminated soil samples evaluated by Vicia root-micronucleus assay. Wang H. **Mutat Res** 1999 May 19;426(2):147–9

Spatial and temporal trends of contaminants in Canadian Arctic freshwater and terrestrial ecosystems: a review. Braune B, et al. **Sci Total Environ** 1999 Jun 1; 230(1–3):145–207 (204 ref.)

Antiestrogenicity of environmental polycyclic aromatic hydrocarbons in human breast cancer cells. Arcaro KF, et al. **Toxicology** 1999 Apr 15;133(2–3):115–27

[An experimental study of a microbiological index in the complex setting of standards for lead, copper and zinc in the soil] Balabanov Ts, et al. **Probl Khig** 1997;22:17–24 (Eng. Abstr.) **(Bul)**

[The hygienic validation of the permissible loads of synthetic anionic surface-active substances in the soil during irrigation] Mudryĭ IV. **Gig Sanit** 1999 Mar-Apr;(2):8–10 (Eng. Abstr.) **(Rus)**

SOIL POLLUTANTS, RADIOACTIVE

Kinetics of fuel particle weathering and 90Sr mobility in the Chernobyl 30-km exclusion zone. Kashparov VA, et al. **Health Phys** 1999 Mar;76(3):251–9

A new mechanism for hot particle development in soil following ionic contamination with radiocesium. Nageldinger G, et al. **Health Phys** 1998 Dec;75(6):646–7

In search of spatial extremes. Stein A, et al. **Novartis Found Symp** 1999;220:8–26; discussion 26–32, 52–8

ADVERSE EFFECTS

[The immunoglobulin content in the saliva of children living under different radioecological conditions] Mel'nichenko EM, et al. **Stomatologiia (Mosk)** 1999;78(2):12–4 (Eng. Abstr.) **(Rus)**

[The effect of radiation factors on cerebrovascular diseases in the region of northern Bukovina] Derkach VH, et al. **Lik Sprava** 1998 Aug;(6):11–4 (Eng. Abstr.) **(Ukr)**

ANALYSIS

Fallout beryllium-7 as a tracer in soil erosion investigations. Blake WH, et al. **Appl Radiat Isot** 1999 Nov;51(5):599–605

137Cs contamination of Techa river flood plain in Brodokalmak settlement. Chesnokov AV, et al. **Appl Radiat Isot** 1999 Jun;50(6):1121–9

Detection limits for 90Sr, Pu, Am and Cm in soil and pasture vegetation shortly after a nuclear accident. Friberg I, et al. **Appl Radiat Isot** 1999 Aug;51(2):229–37

The spatial variability of Chernobyl-derived 137Cs inventories in a small agricultural drainage basin in central Russia. Golosov VN, et al. **Appl Radiat Isot** 1999 Sep; 51(3):341–52

Procedures for the determination of 222Rn exhalation and effective 226Ra activity in soil samples. Gómez Escobar V, et al. **Appl Radiat Isot** 1999 Jun;50(6):1039–47

Distribution pattern of 90Sr and 137Cs in the Nile delta and the adjacent regions after Chernobyl accident. Shawky S, et al. **Appl Radiat Isot** 1999 Feb;50(2):435–43

SOIL POLLUTANTS, RADIOACTIVE

Determining soil contamination profiles from intensities of capture-gamma rays using above-surface neutron sources. Shultis JK, et al. **Appl Radiat Isot** 1999 Feb;50(2):415-33

Resolving Nevada test site and global fallout plutonium in attic dust and soils using 137Cs/239+240Pu activity ratios. Cizdziel J, et al. **Health Phys** 1999 Jul;77(1):67-75

Decontamination in a Russian settlement. Fogh CL, et al. **Health Phys** 1999 Apr;76(4):421-30

A screening assessment of external radiation levels on the shore of Lake Issyk-Kyol in the Kyrghyz Republic. Hamby DM, et al. **Health Phys** 1999 Oct;77(4):427-30

Comparison of 241Am, (239,240)Pu and 137Cs concentrations in soil around rocky flats. Hulse SE, et al. **Health Phys** 1999 Mar;76(3):275-87

Soil concentration, vertical distribution and inventory of plutonium, 241Am, 90Sr and 137Cs in the Marche Region of Central Italy. Jia G, et al. **Health Phys** 1999 Jul; 77(1):52-61

Plutonium contamination in soils in open space and residential areas near Rocky Flats, Colorado. Litaor MI. **Health Phys** 1999 Feb;76(2):171-9

A comparison of minimum detectable and proposed maximum allowable soil concentration cleanup levels for selected radionuclides. Wood JL, et al. **Health Phys** 1999 Apr;76(4):413-7

Particle size separation via soil washing to obtain volume reduction. Anderson R, et al. **J Hazard Mater** 1999 Apr 23;66(1-2):89-98

Bench- and pilot-scale studies relating to the removal of uranium from uranium-contaminated soils using carbonate and citrate lixiviants. Francis CW, et al. **J Hazard Mater** 1999 Apr 23;66(1-2):67-87

Selective removal of plutonium 238 from a canal sediment using a carbonate-chelant soil washing technology (ACT*DE*CON). Negri MC, et al. **J Hazard Mater** 1999 Apr 23;66(1-2):99-118

Application of remedy studies to the development of a soil washing pilot plant that uses mineral processing technology: a practical experience. Richardson WS 3rd, et al. **J Hazard Mater** 1999 Apr 23;66(1-2):47-65 (20 ref.)

Association of Chernobyl-derived 239+240Pu, 241Am, 90Sr and 137Cs with different molecular size fractions of organic matter in the soil solution of two grassland soils. Bunzl K, et al. **Radiat Environ Biophys** 1998 Oct;37(3):195-200

Measurement of resuspended aerosol in the Chernobyl area. Part III. Size distribution and dry deposition velocity of radioactive particles during anthropogenic enhanced resuspension. Garger EK, et al. **Radiat Environ Biophys** 1998 Oct;37(3):201-8

In situ gamma-spectrometry several years after deposition of radiocesium. II. Peak-to-valley method. Gering F, et al. **Radiat Environ Biophys** 1998 Dec;37(4):283-91

Temporal and small-scale spatial variability of 222Rn gas in a soil with a high gravel content. Bunzl K, et al. **Sci Total Environ** 1998 Sep 18;220(2-3):157-66

Radiocesium accumulation in edible wild mushrooms from coniferous forests around the Nuclear Centre of Mexico. Gaso MI, et al. **Sci Total Environ** 1998 Nov 10; 223(2-3):119-29

Distribution of radiocaesium in an Austrian forest stand. Strebl F, et al. **Sci Total Environ** 1999 Feb 2;226(1):75-83

Distribution of cesium-137 in Japanese forest soils: correlation with the contents of organic carbon. Takenaka C, et al. **Sci Total Environ** 1998 Oct 27;222(3):193-9

METABOLISM

Fungi as potential bioremediation agents in soil contaminated with heavy or radioactive metals. Gray SN. **Biochem Soc Trans** 1998 Nov;26(4):666-70 (34 ref.)

STANDARDS

A biosphere modeling methodology for dose assessments of the potential Yucca Mountain deep geological high level radioactive waste repository. Watkins BM, et al. **Health Phys** 1999 Apr;76(4):355-67

A comparison of minimum detectable and proposed maximum allowable soil concentration cleanup levels for selected radionuclides. Wood JL, et al. **Health Phys** 1999 Apr;76(4):413-7

TOXICITY

Transfer of 137Cs and stable Cs from soil to potato in agricultural fields. Tsukada H, et al. **Sci Total Environ** 1999 Apr 5;228(2-3):111-20

Plant genotoxicity. Peters R, et al. **Science** 1998 Dec 18; 282(5397):2214

[Use of metal salts for radioprotection of plants during radioactive pollution of the territory] Gudkov IN, et al. **Radiats Biol Radioecol** 1999 Mar-Jun;39(2-3):349-53 (Eng. Abstr.) **(Rus)**

SOLANACEAE

Dental wear and growth performance in steers fed sweetpotato cannery waste. Rogers GM, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):681-7

Seasonal variation in molluscicidal activity of Solanum nigrum L. Ahmed AH, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):621-9

Dried green leaf powders of Jew's mellow (Corchorus), persimmon (Diosphyros kaki) and sweet potato (Ipomoea batatas poir) lower hepatic cholesterol concentration and increase fecal bile acid excretion in rats fed a cholesterol-free diet. Innami S, et al. **Plant Foods Hum Nutr** 1998;52(1):55-65

CHEMISTRY

Purification of chitinolytic protein from Rehmannia glutinosa showing N-terminal amino acid sequence similarity to thaumatin-like proteins. Pan CH, et al. **Biosci Biotechnol Biochem** 1999 Jun;63(6):1138-40

Antimutagenicity of sweetpotato (Ipomoea batatas) roots. Yoshimoto M, et al. **Biosci Biotechnol Biochem** 1999 Mar; 63(3):537-41

Development of a simple sample preparation technique for gas chromatographic-mass spectrometric determination of nicotine in edible nightshades (Solanaceae). Siegmund B, et al. **J Chromatogr A** 1999 Apr 30;840(2):249-60

Suppressive effect of cyclophosphamide-induced toxicity by Withania somnifera extract in mice. Davis L, et al. **J Ethnopharmacol** 1998 Oct;62(3):209-14

A pilot study on the clinical efficacy of Solanum xanthocarpum and Solanum trilobatum in bronchial asthma. Govindan S, et al. **J Ethnopharmacol** 1999 Aug; 66(2):205-10

Difference in the effects of radioprotection between aerial and root parts of Lycium chinense. Hsu HY, et al. **J Ethnopharmacol** 1999 Feb;64(2):101-8

Neuropharmacological activity of Solanum nigrum fruit. Perez RM, et al. **J Ethnopharmacol** 1998 Aug;62(1):43-8

Solakhasoside, a novel steroidal saponin from Solanum khasianum. Putalun W, et al. **J Nat Prod** 1999 Jan; 62(1):181-3

Isolation and identification of compounds with antinociceptive action from Ipomoea pes-caprae (L.) R. Br. Krogh R, et al. **Pharmazie** 1999 Jun;54(6):464-6

Steroidal alkaloid glycosides from Solanum orbignianum. Coelho RM, et al. **Phytochemistry** 1998 Oct;49(3):893-7

Amino acid sequence of ferredoxin from Physalis alkekengi var. francheti. Mino Y, et al. **Phytochemistry** 1998 Nov; 49(6):1631-6

Effect of the crude extract of Cestrum parqui on carrageenin-induced rat paw oedema and aggregation of human blood platelets. Shehnaz D, et al. **Phytother Res** 1999 Aug;13(5):445-7

Antioxidant activity of flavonoids from Solanum melongena. Sudheesh S, et al. **Phytother Res** 1999 Aug;13(5):393-6

Proximate composition and some functional properties of extrusion cooked soybean and sweet potato blends. Iwe MO, et al. **Plant Foods Hum Nutr** 1999;53(2):121-32

Antineoplastic agents. III: Steroidal glycosides from Solanum nigrum. Hu K, et al. **Planta Med** 1999 Feb;65(1):35-8

[Chemical constituents in the roots of Lycium chinense Mill.] Zhou X, et al. **Chung Kuo Chung Yao Tsa Chih** 1996 Nov; 21(11):675-6, 704 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Ultrastructural effects of AAL-toxin TA from the fungus Alternaria alternata on black nightshade (Solanum nigrum L.) leaf discs and correlation with biochemical measures of toxicity. Abbas HK, et al. **Toxicon** 1998 Dec; 36(12):1821-32

ENZYMOLOGY

The active site of purple acid phosphatase from sweet potatoes (Ipomoea batatas) metal content and spectroscopic characterization. Durmus A, et al. **Eur J Biochem** 1999 Mar;260(3):709-16

Biochemical and spectroscopic characterization of catechol oxidase from sweet potatoes (Ipomoea batatas) containing a type-3 dicopper center. Eicken C, et al. **FEBS Lett** 1998 Oct 2;436(2):293-9

Calcium-calmodulin-induced dimerization of the carboxyl-terminal domain from petunia glutamate decarboxylase. A novel calmodulin-peptide interaction motif. Yuan T, et al. **J Biol Chem** 1998 Nov 13; 273(46):30328-35

Expression of cysteine proteinase during developmental events associated with programmed cell death in brinjal. Xu FX, et al. **Plant J** 1999 Feb;17(3):321-7

GENETICS

Genomic organization of the genes encoding dihydroflavonol 4-reductase for flower pigmentation in the Japanese and common morning glories. Inagaki Y, et al. **Gene** 1999 Jan 21;226(2):181-8

Characterization of cDNAs encoding cytoplasmic ribosomal protein L15 and L27a in petunia (Petunia hybrida): primary structures and coordinate expression. Lee HS, et al. **Gene** 1999 Jan 21;226(2):155-63

Genome mapping in capsicum and the evolution of genome structure in the solanaceae. Livingstone KD, et al. **Genetics** 1999 Jul;152(3):1183-202

Cytological and molecular characterization of repetitive DNA sequences of Solanum brevidens and Solanum tuberosum. Rokka VM, et al. **Genome** 1998 Aug; 41(4):487-94

Analysis of cDNAs expressed during first cell division of petunia petal protoplast cultures using expressed sequence tags. Yu HJ, et al. **Mol Cells** 1999 Jun 30;9(3):258-64

Epigenetic interactions among three dTph1 transposons in two homologous chromosomes activate a new excision-repair mechanism in petunia. van Houwelingen A, et al. **Plant Cell** 1999 Jul;11(7):1319-36

L-galactono-gamma-lactone dehydrogenase from sweet potato: purification and cDNA sequence analysis. Imai T, et al. **Plant Cell Physiol** 1998 Dec;39(12):1350-8

Expression of Atropa belladonna putrescine N-methyltransferase gene in root pericycle. Suzuki K, et al. **Plant Cell Physiol** 1999 Mar;40(3):289-97

Expression of cysteine proteinase during developmental events associated with programmed cell death in brinjal. Xu FX, et al. **Plant J** 1999 Feb;17(3):321-7

Self-incompatibility alleles from Physalis: implications for historical inference from balanced genetic polymorphisms. Richman AD, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):168-72

IMMUNOLOGY

Tobacco allergy: demonstration of cross-reactivity with other members of Solanaceae family and mugwort pollen. Ortega N, et al. **Ann Allergy Asthma Immunol** 1999 Feb; 82(2):194-7

METABOLISM

Investigation of liquid-solid hydrodynamic boundary layers and oxygen requirements in hairy root cultures. Williams GR, et al. **Biotechnol Bioeng** 1999 Sep 20;64(6):729-40

PHYSIOLOGY

Self-incompatibility and other pollen-pistil interactions. McCormick S. **Curr Opin Plant Biol** 1998 Feb;1(1):18-25 (43 ref.)

POISONING

[Hamlet, henbane and ion channels (editorial)] Kotsias BA. **Medicina (B Aires)** 1998;58(4):433-5 **(Spa)**

TOXICITY

Evaluation in rabbits of the fetal effects of maternal ingestion of Solanum malacoxylon. Górniak SL, et al. **Vet Res Commun** 1999 Aug;23(5):307-16

VIROLOGY

RNA extraction from virus-diseased sweet potato for reverse transcriptase polymerase chain reaction analysis. Fenby NS, et al. **Mol Biotechnol** 1998 Oct;10(2):187-90

SOLANACEOUS ALKALOIDS

see related
PARASYMPATHOLYTICS

ANALYSIS

Glycoalkaloid concentration in Alberta potatoes determined by matrix-assisted laser desorption/ionization mass spectrometry. Driedger DR, et al. **J AOAC Int** 1999 Jul-Aug;82(4):908-14

[Solanine and chaconine: occurrence, properties, methods for determination] Badowski P, et al. **Rocz Panstw Zakl Hig** 1999;50(1):69-75 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Postharvest changes in glycoalkaloid content of potatoes. Friedman M, et al. **Adv Exp Med Biol** 1999;459:121-43 (124 ref.)

A pilot study on the clinical efficacy of Solanum xanthocarpum and Solanum trilobatum in bronchial asthma. Govindan S, et al. **J Ethnopharmacol** 1999 Aug; 66(2):205-10

[Steroidal glycoalkaloids from the Solanaceae family] Zimowski J. **Postepy Biochem** 1998;44(3):254-62 (72 ref.) **(Pol)**

HISTORY

Love potions and the ointment of witches: historical aspects of the nightshade alkaloids. Müller JL. **J Toxicol Clin Toxicol** 1998;36(6):617-27

[Witch ointments and aphrodisiacs. A contribution to the cultural history of nightshade plants] Müller J. **Gesnerus** 1998;55(3-4):205-20 (Eng. Abstr.) **(Ger)**

METABOLISM

Watching what your patients eat [news] **J Am Dent Assoc** 1998 Dec;129(12):1670, 1674

PHARMACOLOGY

Protective effect of anisodamine on reperfusion injury of skeletal muscles in rabbit. Wei X, et al. **Acta Orthop Scand** 1998 Dec;69(6):633-7

[Effects of hypoxia and anisodamine on products of TXA2 and PGI2 in cultured intra-pulmonary arteriolar smooth muscle cells] Hu DH, et al. **Sheng Li Hsueh Pao** 1997 Dec; 49(6):671-4 (Eng. Abstr.) **(Chi)**

POISONING

[Solanine and chaconine: occurrence, properties, methods for

determination] Badowski P, et al.
Rocz Panstw Zakl Hig 1999;50(1):69–75 (Eng. Abstr.) **(Pol)**

THERAPEUTIC USE

A pilot study on the clinical efficacy of Solanum xanthocarpum and Solanum trilobatum in bronchial asthma. Govindan S, et al. **J Ethnopharmacol** 1999 Aug; 66(2):205–10

TOXICITY

Evaluation in rabbits of the fetal effects of maternal ingestion of Solanum malacoxylon. Górniak SL, et al.
Vet Res Commun 1999 Aug;23(5):307–16

SOLANINE

ANALOGS & DERIVATIVES

Glycoalkaloid concentration in Alberta potatoes determined by matrix-assisted laser desorption/ionization mass spectrometry. Driedger DR, et al. **J AOAC Int** 1999 Jul–Aug;82(4):908–14

Amelioration by glucose-6-phosphate and NADP of potato glycoalkaloid inhibition in cell, enzyme and liposome assays. Roddick JG, et al. **Phytochemistry** 1999 May; 51(1):23–7

ANALYSIS

Glycoalkaloid concentration in Alberta potatoes determined by matrix-assisted laser desorption/ionization mass spectrometry. Driedger DR, et al. **J AOAC Int** 1999 Jul–Aug;82(4):908–14

[Solanine and chaconine: occurrence, properties, methods for determination] Badowski P, et al.
Rocz Panstw Zakl Hig 1999;50(1):69–75 (Eng. Abstr.) **(Pol)**

ANTAGONISTS & INHIBITORS

Amelioration by glucose-6-phosphate and NADP of potato glycoalkaloid inhibition in cell, enzyme and liposome assays. Roddick JG, et al. **Phytochemistry** 1999 May; 51(1):23–7

POISONING

[Solanine and chaconine: occurrence, properties, methods for determination] Badowski P, et al.
Rocz Panstw Zakl Hig 1999;50(1):69–75 (Eng. Abstr.) **(Pol)**

SOLANUM ALKALOIDS see **SOLANACEOUS ALKALOIDS**

SOLANUM TUBEROSUM see **POTATOES**

SOLAR ACTIVITY

see related
COSMIC RADIATION

UK hospitals assess eye damage after solar eclipse [news] Dobson R. **BMJ** 1999 Aug 21;319(7208):469

Staying safe during the eclipse. Turn your back on the sun [editorial] Dowler J. **BMJ** 1999 Aug 7;319(7206):329–30

Environmental imprinting in breast cancer patients [letter; comment] Dimitrov BD. **Coll Antropol** 1998 Dec; 22(2):651–4. Comment on: Coll Antropol 1997 Jun;21(1):175–84. Comment on: Coll Antropol 1997 Jun;21(1):185–94.

Do geomagnetic disturbances of solar origin affect arterial blood pressure? Ghione S, et al. **J Hum Hypertens** 1998 Nov;12(11):749–54

Wars and increased solar-geomagnetic activity: aggression or change in intraspecies dominance? Persinger MA.
Percept Mot Skills 1999 Jun;88(3 Pt 2):1351–5

[The determination of the radiation risk during an interplanetary space flight at different periods of solar activity] Shafirkin AV, et al. **Aviakosm Ekolog Med** 1999; 33(3):13–5 (Eng. Abstr.) **(Rus)**

[The origin of the biological week from data on the rhythm of cardiac contractions in people during the solar activity cycle] Cornelissen G, et al. **Biofizika** 1998 Jul–Aug; 43(4):666–9 (Eng. Abstr.) **(Rus)**

[Effect of the approximately 2400-year solar climatic cycle on the lives of peoples] Dergachev VA, et al. **Biofizika** 1998 Sep–Oct;43(5):940–4 (Eng. Abstr.) **(Rus)**

[Effect of variations of the geomagnetic field and solar activity on human physiological indicators] Doronin VN, et al. **Biofizika** 1998 Jul–Aug;43(4):647–53 (Eng. Abstr.) **(Rus)**

[Correlation of some indicators of intracellular energetics of nonpregnant and pregnant women with heliogeophysical and meteorological factors] Kachergene NB, et al.
Biofizika 1998 Sep–Oct;43(5):849–52 (Eng. Abstr.) **(Rus)**

[Quantity and quality of animal immunocompetent cells in relation with variations in solar activity] Karnaukhova NA, et al. **Biofizika** 1999 Mar–Apr;44(2):313–7 (Eng. Abstr.) **(Rus)**

[Heliogeophysical factors and aviation accidents] Komarov FI, et al. **Biofizika** 1998 Jul–Aug;43(4):742–5 (Eng. Abstr.) **(Rus)**

[Intraday geo- and heliophysically significant periods in the integral rhythm of motor activity of animals] Martyniuk VS. **Biofizika** 1998 Sep–Oct;43(5):789–96 (Eng. Abstr.) **(Rus)**

[Cosmic rays as the main factor affecting solar variability on climatic and atmospheric parameters] Raspopov OM, et al. **Biofizika** 1998 Sep–Oct;43(5):902–8 (Eng. Abstr.) **(Rus)**

[Heliomagnetic activity and level of extreme situations at the Polar cap] Shumilov OI, et al. **Biofizika** 1998 Jul–Aug; 43(4):670–6 (Eng. Abstr.) **(Rus)**

[Biophysics and history] Vladimirskiĭ BM, et al. **Biofizika** 1998 Sep–Oct;43(5):757–60 (Eng. Abstr.) **(Rus)**

[Heliogeophysical factors and ENT diseases] Kubyshkina IV. **Vestn Otorinolaringol** 1998;(6):54–6 (39 ref.) **(Rus)**

SOLAR AGING OF SKIN see **SKIN AGING**

SOLAR ENERGY

Enhancement of solar water pasteurization with reflectors. Safapour N, et al. **Appl Environ Microbiol** 1999 Feb; 65(2):859–61

Photoinduced electron transfer from synthetic chlorophyll analogue to fullerene C60 on carbon paste electrode. Preparation of a novel solar cell. Kureishi Y, et al.
Bioelectrochem Bioenerg 1999 Feb;48(1):95–100

How photosynthetic bacteria harvest solar energy. Cogdell RJ, et al. **J Bacteriol** 1999 Jul;181(13):3869–79 (77 ref.)

[The electric furnace of Henri Moissan at one hundred years: connection with the electric furnace, the solar furnace, the plasma furnace?] Royère C. **Ann Pharm Fr** 1999 Mar; 57(2):116–30 (70 ref.) (Eng. Abstr.) **(Fre)**

SOLAR FLARES see **SOLAR ACTIVITY**

SOLAR PARTICLE EVENTS see **SOLAR ACTIVITY**

SOLAR PLEXUS see **CELIAC PLEXUS**

SOLAR SYSTEM

The planetary positions and relationships at the dates of birth of a cohort of Nigerian schizophrenics. Ohaeri JU.
Afr J Med Med Sci 1997 Sep–Dec;26(3–4):127–33

Risking the eclipse [editorial] **Lancet** 1999 Aug 7; 354(9177):439

Mass-independent isotope effects in planetary atmospheres and the early solar system. Thiemens MH. **Science** 1999 Jan 15;283(5400):341–5

Oxygen reservoirs in the early solar nebula inferred from an Allende CAI. Young ED, et al. **Science** 1998 Oct 16; 282(5388):452–5

Oxygen isotope exchange between refractory inclusion in Allende and solar nebula gas [published errata appear in Science 1999 Jan 1;283(5398):35 and 1999 Mar 26;283(5410):2102] Yurimoto H, et al. **Science** 1998 Dec 4;282(5395):1874–7

[Solar retinopathy] Kawa P, et al. **Klin Oczna** 1998; 100(4):235–7 (Eng. Abstr.) **(Pol)**

SOLCOSERYL see **ACTIHAEMYL**

SOLDIERS see **MILITARY PERSONNEL**

SOLE see **FLATFISHES**

SOLENOPOTES see **ANOPLURA**

SOLEUS MUSCLE see **MUSCLE, SKELETAL**

SOLITARY CYSTS see **BONE CYSTS**

SOLITARY NUCLEUS

ANATOMY & HISTOLOGY

The distribution of calcitonin gene-related peptide in gastric vagal circuit of rats. Lee HS, et al.
Anat Histol Embryol 1998 Oct;27(5):331–3

CHEMISTRY

Prolactin-releasing peptide-immunoreactivity in A1 and A2 noradrenergic neurons of the rat medulla. Chen C, et al.
Brain Res 1999 Mar 20;822(1–2):276–9

NMDA receptor subunit NR1-immunoreactivity in the rat pons and brainstem and colocalization with Fos induced by nasal stimulation. Dutschmann M, et al. **Brain Res** 1998 Nov 2;809(2):221–30

Modulation of arterial baroreflexes by antisense oligodeoxynucleotides to NMDAR1 receptors in the nucleus tractus solitarius. Dean C, et al.
J Auton Nerv Syst 1998 Dec 11;74(2–3):109–15

Angiotensin II receptors within the nucleus of the solitary tract mediate the developmental attenuation of the baroreceptor vagal reflex in pre-weaned rats. Kasparov S, et al. **J Auton Nerv Syst** 1998 Dec 11;74(2–3):160–8

Glutamate receptor subunits in the nucleus of the tractus solitarius and other regions of the medulla oblongata in the cat. Ambalavanar R, et al. **J Comp Neurol** 1998 Dec 7;402(1):75–92

Brainstem application of melanocortin receptor ligands produces long-lasting effects on feeding and body weight. Grill HJ, et al. **J Neurosci** 1998 Dec 1;18(23):10128–35

Presence of glutamate receptor subtypes on barosensitive neurons in the nucleus tractus solitarius of the dog. Botsford SA, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):113–7

CYTOLOGY

Respiratory action of capsaicin microinjected into the nucleus of the solitary tract: involvement of vanilloid and tachykinin receptors. Mazzone SB, et al.
Br J Pharmacol 1999 May;127(2):473–81

Distribution of cortical fibers and fos immunoreactive neurons in ventrolateral medulla and in nucleus tractus solitarius following the motor cortex stimulation in the rat. Ba-M'Hamed S, et al. **Brain Res** 1998 Dec 7;813(2):411–5

A subpopulation of neurons in the rat rostral nucleus of the solitary tract that project to the parabrachial nucleus express glutamate-like immunoreactivity. Gill CF, et al.
Brain Res 1999 Mar 13;821(2):251–62

Increased insulin-like growth factor-I (IGF-I) expression during early postnatal development differentially increases neuron number and growth in medullary nuclei of the mouse. Dentremont KD, et al.
Brain Res Dev Brain Res 1999 Apr 12;114(1):135–41

Effects of GABA on acutely isolated neurons from the gustatory zone of the rat nucleus of the solitary tract. Du J, et al. **Chem Senses** 1998 Dec;23(6):683–8

Evaluation of pulmonary afferent fibers in the nucleus tractus solitarius: a horseradish peroxidase and c-fos like immunohistochemical study in the rat. Xie Q, et al.
J Auton Nerv Syst 1998 Dec 11;74(2–3):120–5

Receptor subtype specific effects of GABA agonists on neurons receiving aortic depressor nerve inputs within the nucleus of the solitary tract. Zhang J, et al.
J Auton Nerv Syst 1998 Nov 10;73(2–3):170–81

Oxytocinergic inputs to the nucleus of the solitary tract and dorsal motor nucleus of the vagus in neonatal rats. Rinaman L. **J Comp Neurol** 1998 Sep 14;399(1):101–9

Efferent and collateral organization of paratrigeminal nucleus projections: an anterograde and retrograde fluorescent tracer study in the rat. Saxon DW, et al.
J Comp Neurol 1998 Dec 7;402(1):93–110

Differential roles for NMDA and non-NMDA receptor subtypes in baroreceptor afferent integration in the nucleus of the solitary tract of the rat. Zhang J, et al.
J Physiol (Lond) 1998 Sep 15;511 (Pt 3):733–45

Hypoxia induces c-Fos protein expression in NMDA but not AMPA glutamate receptor labeled neurons within the nucleus tractus solitarii of the conscious rat. Gozal D, et al. **Neurosci Lett** 1999 Mar 5;262(2):93–6

H+-sensitivity of cultured neurons from the dorsomedial and ventrolateral medulla of neonate rats. Sugama S, et al. **Neurosci Lett** 1998 Aug 7;252(1):29–32

Postnatal development of rat nucleus tractus solitarius neurons: morphological and electrophysiological evidence. Vincent A, et al. **Neuroscience** 1999;93(1):293–305

DRUG EFFECTS

Norepinephrine release in the amygdala after systemic injection of epinephrine or escapable footshock: contribution of the nucleus of the solitary tract. Williams CL, et al. **Behav Neurosci** 1998 Dec;112(6):1414–22

Differential effects of excitatory amino acid receptor antagonism in the ventral respiratory group. Anderson MK, et al. **Brain Res** 1999 May 22;829(1–2):69–76

Cardiovascular responses to microinjections of glutamate into the nucleus tractus solitarii of unanesthetized supracollicular decerebrate rats. Dhruva A, et al.
Brain Res 1998 Aug 10;801(1–2):88–100

Unilateral reversible inactivations of the nucleus tractus solitarius and amygdala attenuate the effects of bombesin on memory storage. Rashidy-Pour A, et al. **Brain Res** 1998 Dec 14;814(1–2):127–32

Role of carbon monoxide in L-glutamate-induced cardiovascular responses in nucleus tractus solitarius of conscious rats. Silva CC, et al. **Brain Res** 1999 Apr 10; 824(2):147–52

Impaired arterial baroreflex regulation of heart rate after blockade of P2-purinoceptors in the nucleus tractus solitarius. Scislo TJ, et al. **Brain Res Bull** 1998 Sep 1; 47(1):63–7

Glucocorticoid receptor activation in the rat nucleus of the solitary tract facilitates memory consolidation: involvement of the basolateral amygdala. Roozendaal B, et al.
Eur J Neurosci 1999 Apr;11(4):1317–23

Neuronal responses to cannabinoid receptor ligands in the solitary tract nucleus. Himmi T, et al. **Eur J Pharmacol** 1998 Oct 16;359(1):49–54

Cardiovascular effects of nitric oxide and adenosine in the nucleus tractus solitarii of rats. Lo WC, et al.
Hypertension 1998 Dec;32(6):1034–8

Neural representation of the taste of NaCl and KCl in gustatory neurons of the hamster solitary nucleus. Boughter JD Jr, et al. **J Neurophysiol** 1999 Jun;81(6):2636–46

Glossopharyngeal nerve transection eliminates quinine-stimulated fos-like immunoreactivity in the nucleus of the solitary tract: implications for a functional topography of gustatory nerve input in rats. King CT, et al. **J Neurosci** 1999 Apr 15;19(8):3107–21

[Effects of arginine-vasopressin on neuronal interaction from the area postrema to the nucleus tractus solitarii in rat brain

slices] Migita K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct; 112 Suppl 1:148P-152P (Eng. Abstr.) **(Jpn)**

ENZYMOLOGY

Hypoxia induces selective SAPK/JNK-2-AP-1 pathway activation in the nucleus tractus solitarii of the conscious rat. Gozal E, et al. **J Neurochem** 1999 Aug;73(2):665-74

GROWTH & DEVELOPMENT

Increased insulin-like growth factor-I (IGF-I) expression during early postnatal development differentially increases neuron number and growth in medullary nuclei of the mouse. Dentremont KD, et al.
Brain Res Dev Brain Res 1999 Apr 12;114(1):135-41

Postnatal development of rat nucleus tractus solitarius neurons: morphological and electrophysiological evidence. Vincent A, et al. **Neuroscience** 1999;93(1):293-305

METABOLISM

Activation of GABAA but not GABAB receptors in the NTSblocked bradycardia of chemoreflex in awake rats. Callera JC, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H1902-10

Differential control of renal vs. adrenal sympathetic nerve activity by NTS A2a and P2x purinoceptors. Scislo TJ, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2130-9

Nicotinic acetylcholine receptor mediated modulation of evoked excitatory amino acid release in the nucleus tractus solitarius of the rat: evidence from in vivo microdialysis. Ashworth-Preece MA, et al. **Brain Res** 1998 Sep 28; 806(2):287-91

Autoradiographic visualisation of axonal transport of adenosine A1 receptors along the rat vagus nerve and characterisation of adenosine A1 receptor binding in the dorsal vagal complex of hypertensive and normotensive rats. Krstew E, et al. **Brain Res** 1998 Aug 17;802(1-2):61-8

Altered respiratory response to substance P and reduced NK1 receptor binding in the nucleus of the solitary tract of aged rats. Mazzone SB, et al. **Brain Res** 1999 Apr 24; 826(1):139-42

CO(2)-induced expression of c-fos in the nucleus of the solitary tract and the area postrema of developing swine. Sica AL, et al. **Brain Res** 1999 Aug 7;837(1-2):106-16

Ultrastructure of glutamate and GABA immunoreactive axon terminals of the rat nucleus tractus solitarius, with a note on infralimbic cortex afferents. Torrealba F, et al.
Brain Res 1999 Feb 27;820(1-2):20-30

Postnatal development of synaptophysin immunoreactivity in the rat nucleus tractus solitarii and caudal ventrolateral medulla. Rao H, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):281-5

Type I and II metabotropic glutamate receptors regulate the outflow of [3H]D-aspartate and [14C]gamma-aminobutyric acid in rat solitary nucleus. Jones NM, et al.
Eur J Pharmacol 1998 Jul 17;353(1):43-51

Elevated Fos expression in the nucleus tractus solitarii is associated with reduced baroreflex response in spontaneously hypertensive rats. Chan JY, et al.
Hypertension 1998 Nov;32(5):939-44

Skeletal muscle afferent fibres release substance P in the nucleus tractus solitarii of anaesthetized cats. Potts JT, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):829-41

c-Fos induction in the rat nucleus of the solitary tract correlates with the retention and forgetting of a conditioned taste aversion. Houpt TA, et al.
Learn Mem 1996 Jul-Aug;3(1):25-30

Neurokinin-1 receptor immunoreactivity in the nucleus of the solitary tract in the hamster. Davis BJ, et al.
Neuroreport 1999 Apr 6;10(5):1003-6

Substance P receptor-expressing neurons in the medullary and spinal dorsal horns projecting to the nucleus of the solitary tract in the rat. Guan ZL, et al. **Neurosci Res** 1998 Mar;30(3):213-8

N-methyl-D-aspartate receptors are present in vagal afferents and their dendritic targets in the nucleus tractus solitarius. Aicher SA, et al. **Neuroscience** 1999;91(1):119-32

Phosphorylation of transcription factor cyclic-AMP response element binding protein mediates c-fos induction elicited by sustained hypertension in rat nucleus tractus solitarii. Chan JY, et al. **Neuroscience** 1999;88(4):1199-212

Glutamate release in the nucleus tractus solitarius induced by peripheral lipopolysaccharide and interleukin-1 beta. Mascarucci P, et al. **Neuroscience** 1998 Oct;86(4):1285-90

Presence of mu-opioid receptors in targets of efferent projections from the central nucleus of the amygdala to the nucleus of the solitary tract. Pickel VM, et al.
Synapse 1999 Aug;33(2):141-52

PHYSIOLOGY

Non-NMDA and NMDA receptors in the synaptic pathway between area postrema and nucleus tractus solitarius. Aylwin ML, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):H1236-46

Non-NMDA and NMDA receptors transmit area postrema input to aortic baroreceptor neurons in NTS. Chen CY, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):H1695-706

Stimulation of the paraventricular nucleus modulates firing of neurons in the nucleus of the solitary tract. Duan YF, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):R403-11

Glutamate in the nucleus of the solitary tract activates both ionotropic and metabotropic glutamate receptors. Foley CM, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1858-66

Sympathoexcitatory neurotransmission of the chemoreflex in the NTS of awake rats. Haibara AS, et al.
Am J Physiol 1999 Jan;276(1 Pt 2):R69-80

Metabotropic glutamate receptors depress vagal and aortic baroreceptor signal transmission in the NTS. Liu Z, et al.
Am J Physiol 1998 Nov;275(5 Pt 2):H1682-94

Angiotensin II acts at AT1 receptors in the nucleus of the solitary tract to attenuate the baroreceptor reflex. Matsumura K, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1611-9

Intracellular pH regulation in neurons from chemosensitive and nonchemosensitive areas of the medulla. Ritucci NA, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1152-63

Thirst and salt appetite elicited by hypovolemia in rats with chronic lesions of the nucleus of the solitary tract. Schreihofer AM, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R251-8

Cholinergic systems in the nucleus of the solitary tract of rats. Shihara M, et al. **Am J Physiol** 1999 Apr;276(4 Pt 2):R1141-8

Central processing of aggregation pheromones in solitary and gregarious desert locusts, Schistocerca gregaria. Anton S, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:525-8

Neural circuits for taste. Excitation, inhibition, and synaptic plasticity in the rostral gustatory zone of the nucleus of the solitary tract. Bradley RM, et al.
Ann N Y Acad Sci 1998 Nov 30;855:467-74 (22 ref.)

Ionic mechanism of GABAA biphasic synaptic potentials in gustatory nucleus of the solitary tract. Grabauskas G, et al. **Ann N Y Acad Sci** 1998 Nov 30;855:486-7

Differential distribution of amygdaloid input across rostral solitary nucleus subdivisions in rat. Halsell CB.
Ann N Y Acad Sci 1998 Nov 30;855:482-5

Excitatory amino acid neurotransmission in the primary gustatory nucleus of the goldfish Carassius auratus. Smeraski CA, et al. **Ann N Y Acad Sci** 1998 Nov 30; 855:442-9

Cardiovascular responses to microinjections of glutamate into the nucleus tractus solitarii of unanesthetized supracollicular decerebrate rats. Dhruva A, et al.
Brain Res 1998 Aug 10;801(1-2):88-100

The tachykinin NK1 receptor antagonist GR205171 prevents vagal stimulation-induced retching but not neuronal transmission from emetic vagal afferents to solitary nucleus neurons in dogs. Fukuda H, et al. **Brain Res** 1998 Aug 17;802(1-2):221-31

Association between the amygdala and nucleus of the solitary tract in mu-opioid induced feeding in the rat. Giraudo SQ, et al. **Brain Res** 1998 Aug 17;802(1-2):184-8

Effect of superior laryngeal nerve transection on pharyngeal muscle contraction timing and sequence of activity during eating and stimulation of the nucleus solitarius in dogs. Venker-van Haagen AJ, et al. **Brain Res Bull** 1999 Aug; 49(6):393-400

Carbon monoxide: from toxin to endogenous modulator of cardiovascular functions. Johnson RA, et al.
Braz J Med Biol Res 1999 Jan;32(1):1-14 (57 ref.)

Endogenous vasopressin and the central control of heart rate during dynamic exercise. Michelini LC.
Braz J Med Biol Res 1998 Sep;31(9):1185-95 (52 ref.)

Effects of chorda tympani nerve anesthesia on taste responses in the NST. Dinkins ME, et al. **Chem Senses** 1998 Dec; 23(6):661-73

Regulation of limbic motor seizures by GABA and glutamate transmission in nucleus tractus solitarius. Walker BR, et al. **Epilepsia** 1999 Aug;40(8):1051-7

Modulatory effects of endothelin on baroreflex activation in the nucleus of the solitary tract. Mosqueda-Garcia R, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):203-7

Endothelin-1 facilitates synaptic transmission in the nucleus tractus solitarii in normotensive rats but not in spontaneously hypertensive rats. Hirooka Y, et al.
Hypertens Res 1999 Mar;22(1):43-8

Systemic administration of lipopolysaccharide induces release of nitric oxide and glutamate and c-fos expression in the nucleus tractus solitarii of rats. Lin HC, et al.
Hypertension 1999 May;33(5):1218-24

Modulation of arterial baroreflexes by antisense oligodeoxynucleotides to NMDAR1 receptors in the nucleus tractus solitarius. Dean C, et al.
J Auton Nerv Syst 1998 Dec 11;74(2-3):109-15

Autoradiographic determination of local cerebral blood flow and local cerebral glucose utilization during chemical stimulation of the nucleus tractus solitarii of anesthetized rats. Maeda M, et al. **J Auton Nerv Syst** 1998 Apr 30; 69(2-3):132-40

Involvement of the ipsilateral rostral ventrolateral medulla in the pressor response to L-glutamate microinjection into the nucleus tractus solitarii of awake rats. Mauad H, et al. **J Auton Nerv Syst** 1998 Nov 25;74(1):43-8

Activation of neuropeptide FF neurons in the brainstem nucleus tractus solitarius following cardiovascular challenge and opiate withdrawal. Jhamandas JH, et al.
J Comp Neurol 1998 Dec 14;402(2):210-21

Efferent projections of the nucleus of the solitary tract to peri-locus coeruleus dendrites in rat brain: evidence for a monosynaptic pathway. Van Bockstaele EJ, et al.
J Comp Neurol 1999 Sep 27;412(3):410-28

Recovery of functional response in the nucleus of the solitary tract after peripheral gustatory nerve crush and regeneration. Barry MA. **J Neurophysiol** 1999 Jul; 82(1):237-47

Amiloride blocks acid responses in NaCl-best gustatory neurons of the hamster solitary nucleus. Boughter JD Jr, et al. **J Neurophysiol** 1998 Sep;80(3):1362-72

Responses of simultaneously recorded respiratory-related medullary neurons to stimulation of multiple sensory modalities. Li Z, et al. **J Neurophysiol** 1999 Jul;82(1):176-87

Differential roles of NMDA and non-NMDA receptors in synaptic responses of neurons in nucleus tractus solitarii of the rat. Yen JC, et al. **J Neurophysiol** 1999 Jun; 81(6):3034-43

Brainstem application of melanocortin receptor ligands produces long-lasting effects on feeding and body weight. Grill HJ, et al. **J Neurosci** 1998 Dec 1;18(23):10128-35

Vagally evoked synaptic currents in the immature rat nucleus tractus solitarii in an intact in vitro preparation. Smith BN, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):149-62

Role of the solitary tract nucleus and caudal ventrolateral medulla in temperature responses in endotoxemic rats. Koulchitsky SV, et al. **Life Sci** 1999;64(1):37-43

Early appearance of acetylcholinergic, serotoninergic, and peptidergic neurons and fibers in the developing human central nervous system. Yew DT, et al.
Microsc Res Tech 1999 Jun 15;45(6):389-400 (123 ref.)

Modulation of cardiovascular effects produced by nitric oxide and ionotropic glutamate receptor interaction in the nucleus tractus solitarii of rats. Lin HC, et al.
Neuropharmacology 1999 Jul;38(7):935-41

Presence of glutamate receptor subtypes on barosensitive neurons in the nucleus tractus solitarius of the dog. Botsford SA, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):113-7

Non-N-methyl-D-aspartate receptors may mediate the transmission of emetic signals between visceral vagal afferents and the solitary nucleus in dogs. Furukawa N, et al. **Neurosci Lett** 1998 Dec 11;258(1):53-6

The evidence for tonic GABAergic regulation of basal L-DOPA release via activation of inhibitory GABA(A) receptors in the nucleus tractus solitarii of anesthetized rats. Goshima Y, et al. **Neurosci Lett** 1999 Feb 19;261(3):155-8

GABA may function tonically via GABA(A) receptors to inhibit hypotension and bradycardia by L-DOPA microinjected into depressor sites of the nucleus tractus solitarii in anesthetized rats. Honjo K, et al.
Neurosci Lett 1999 Feb 12;261(1-2):93-6

Hypoxia attenuates the respiratory response to injection of substance P into the nucleus of the solitary tract of the rat. Mazzone SB, et al. **Neurosci Lett** 1998 Oct 30; 256(1):9-12

Effects of arginine-vasopressin on neuronal interaction from the area postrema to the nucleus tractus solitarii in rat brain slices. Migita K, et al. **Neurosci Lett** 1998 Oct 30; 256(1):45-8

GABA(B) receptors in the nucleus tractus solitarii modulate the carotid chemoreceptor reflex in rats. Suzuki M, et al.
Neurosci Lett 1999 Jan 22;260(1):21-4

Recovery of retching after lesions involving the nucleus of the solitary tract. Miller AD, et al. **Neurosci Res** 1998 May; 31(1):77-80

Electrophysiological and morphological characterization of cytochemically-defined neurons in the caudal nucleus of tractus solitarius of the rat. Kawai Y, et al.
Neuroscience 1999;89(4):1347-55

Structure and function of gustatory neurons in the nucleus of the solitary tract. IV. The morphology and synaptology of GABA-immunoreactive terminals. Leonard NL, et al.
Neuroscience 1999;92(1):151-62

Medial prefrontal cortex depressor response: role of the solitary tract nucleus in the rat. Owens NC, et al.
Neuroscience 1999;89(4):1331-46

Reflex response and convergence of pharyngoesophageal and peripheral chemoreceptors in the nucleus of the solitary tract. Paton JF, et al. **Neuroscience** 1999;93(1):143-54

[Effect of injection of cholecystokinin into the nucleus tractus solitarius on extrasystoles induced by hypothalamic stimulation in rabbits] Li X, et al.
Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih 1997 Feb; 13(1):49 **(Chi)**

[Effects of NPY microionophoresis on the units in nucleus tractus solitarius (NTS) responsive to baro- and chemoreceptor] Zhao H, et al.
Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih 1997 Nov; 13(4):333-6 (Eng. Abstr.) **(Chi)**

[Activation of locus coeruleus inhibits vagal inputs in nucleus tractus solitarius] Chen YY, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):39-44 (Eng. Abstr.) **(Chi)**

[Effects of microinjection of sodium glutamate and glycine into ventrolateral nucleus of tractus solitarius on the discharges of phrenic nerve in rabbits] Liu SX, et al.
Sheng Li Hsueh Pao 1997 Apr;49(2):227-9 (Eng. Abstr.) **(Chi)**

[Response of respiratory muscles to microinjections of acetylcholine and propranolol into the rat solitary nucleus] Sergeeva LI, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 Aug;84(8):798-805 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Enhanced gamma-aminobutyric acid-B receptor agonist responses and mRNA within the nucleus of the solitary tract in hypertension. Durgam VR, et al. **Hypertension** 1999 Jan;33(1 Pt 2):530-6

Relative importance of medullary brain nuclei for the

sympatho-inhibitory actions of rilmenidine in the anaesthetized rabbit. Head GA, et al. **J Hypertens** 1998 Apr;16(4):503-17

Role of endogenous nitric oxide in the nucleus tratus solitarii on baroreflex control of heart rate in spontaneously hypertensive rats. Pontieri V, et al. **J Hypertens** 1998 Dec; 16(12 Pt 2):1993-9

ULTRASTRUCTURE

Ultrastructure of glutamate and GABA immunoreactive axon terminals of the rat nucleus tractus solitarius, with a note on infralimbic cortex afferents. Torrealba F, et al. **Brain Res** 1999 Feb 27;820(1-2):20-30

Glycine-immunoreactive synaptic terminals in the nucleus tractus solitarii of the cat: ultrastructure and relationship to GABA-immunoreactive terminals. Saha S, et al. **Synapse** 1999 Sep 1;33(3):192-206

SOLO PRACTICE see **PRIVATE PRACTICE**

SOLUBILITY

Mucoadhesive buccal disks for novel nalbuphine prodrug controlled delivery: effect of formulation variables on drug release and mucoadhesive performance. Han RY, et al. **Int J Pharm** 1999 Jan 25;177(2):201-9

Comments concerning: solubility prediction of caffeine in aqueous N,N-dimethylformamide mixtures using the extended Hildebrand solubility approach [letter] Jouyban-Gharamaleki A, et al. **Int J Pharm** 1999 Jan 15; 177(1):127-8

Comparison of various cosolvency models for calculating solute solubility in water-cosolvent mixtures. Jouyban-Gharamaleki A, et al. **Int J Pharm** 1999 Jan 15; 177(1):93-101 (35 ref.)

Application of an encapsulated filamentous fungus in solubilization of inorganic phosphate. Vassileva M, et al. **J Biotechnol** 1998 Jul 30;63(1):67-72

Evaluation and comparison of dissolution data derived from different modified release dosage forms: an alternative method. Pillay V, et al. **J Controlled Release** 1998 Oct 30; 55(1):45-55

Correlation and estimation of gas-chloroform and water-chloroform partition coefficients by a linear free energy relationship method. Abraham MH, et al. **J Pharm Sci** 1999 Jul;88(7):670-9

Dissolution specifications based on release rates. Elkoshi Z. **J Pharm Sci** 1999 Apr;88(4):434-44

Combined effect of complexation and pH on solubilization. Li P, et al. **J Pharm Sci** 1998 Dec;87(12):1535-7

Link between drug absorption solubility and permeability measurements in Caco-2 cells. Pade V, et al. **J Pharm Sci** 1998 Dec;87(12):1604-7

General solution for diffusion-controlled dissolution of spherical particles. 1. Theory. Wang J, et al. **J Pharm Sci** 1999 Jul;88(7):731-8

Analysis of drug dissolution data. Lee JC, et al. **Stat Med** 1999 Apr 15;18(7):799-814

SOLUBLE INDIGO BLUE see **INDIGO CARMINE**

SOLUTIONS

see related
PHARMACEUTICAL SOLUTIONS

Saturation units for use in aquatic bioassays. Kahl MD, et al. **Chemosphere** 1999 Aug;39(3):539-51

Stability of cocarboxylase in parenteral nutrition mixtures stored in multilayer bags. Allwood MC, et al. **Clin Nutr** 1998 Oct;17(5):231-4

Separation of double-stranded and single-stranded DNA in polymer solutions: I. Mobility and separation mechanism. Heller C. **Electrophoresis** 1999 Jul;20(10):1962-77

Separation of double-stranded and single-stranded DNA in polymer solutions: II. Separation, peak width and resolution. Heller C. **Electrophoresis** 1999 Jul; 20(10):1978-86

Steady-state electrolysis of an ampholyte solution and possibility of violation of the "law of pH monotony". Stoyanov AV, et al. **Electrophoresis** 1998 Oct; 19(13):2269-72

Experience with isotonic 2.2% glycine as distension medium for hysteroscopic endomyometrial resection. Tapper AM, et al. **Gynecol Obstet Invest** 1999;47(4):263-7

[Iatrogenic extravasations of cytotoxic or hyperosmolar aqueous solutions. Value of surgical emergency by aspiration and lavage] Lambert F, et al. **Ann Chir Plast Esthet** 1997 Aug;42(4):305-13 (Eng. Abstr.) **(Fre)**

[The Dakin solution] Bohand X, et al. **Med Trop (Mars)** 1998; 58(4):329-30 **(Fre)**

ADVERSE EFFECTS

Toxicity of ocular surgical solutions. Anderson NJ, et al. **Int Ophthalmol Clin** 1999 Spring;39(2):91-106 (56 ref.)

ANALYSIS

Trace element contamination of total parenteral nutrition. 1. Contribution of component solutions. Pluhator-Murton MM, et al. **JPEN J Parenter Enteral Nutr** 1999 Jul-Aug; 23(4):222-7

Trace element contamination of total parenteral nutrition. 2. Effect of storage duration and temperature. Pluhator-Murton MM, et al. **JPEN J Parenter Enteral Nutr** 1999 Jul-Aug;23(4):228-32

Aluminium contamination of parenteral fluids, need for product label information [editorial; comment] Fell GS. **Nutrition** 1999 Sep;15(9):715. Comment on: Nutrition 1999 Sep;15(9):683-6.

Aluminum contamination of parenteral nutrition additives, amino acid solutions, and lipid emulsions [see comments] Popińska K, et al. **Nutrition** 1999 Sep;15(9):683-6. Comment in: Nutrition 1999 Sep;15(9):715.

CHEMISTRY

Thermodynamics of extremely diluted aqueous solutions. Elia V, et al. **Ann N Y Acad Sci** 1999 Jun 30;879:241-8

Precipitation of trace elements in parenteral nutrition mixtures. Allwood MC, et al. **Clin Nutr** 1998 Oct; 17(5):223-6

A simple, inexpensive apparatus for performance of preparative scale solution phase multiple parallel synthesis of drug analogs. II. Biological evaluation of a retrospective library of quinolone antiinfective agents. Frank KE, et al. **Comb Chem High Throughput Screen** 1998 Jun;1(2):89-99

Solution phase combinatorial chemistry. Merritt AT. **Comb Chem High Throughput Screen** 1998 Jun;1(2):57-72 (72 ref.)

Modeling of supersaturated dissolution data. Valsami G, et al. **Int J Pharm** 1999 Apr 30;181(2):153-7

Incorporation mechanism of guest molecules in crystals: solid solution or inclusion? Zhang GG, et al. **Int J Pharm** 1999 Apr 20;181(1):61-70

An in situ drying method for preparing NMR samples with extremely low water content. Goez M. **J Magn Reson** 1998 Nov;135(1):14-6

Signal selection in high-resolution NMR by pulsed field gradients. I. Geometrical analysis. Mitschang L. **J Magn Reson** 1999 Mar;137(1):1-9

Signal selection in high-resolution NMR by pulsed field gradients. Thomas DJ, et al. **J Magn Reson** 1999 Mar; 137(1):10-24

Selective detection of biexponential relaxation in isotropic solutions by mixed coherence filtering NMR. Yamada H, et al. **J Magn Reson** 1998 Nov;135(1):99-103

Protecting solutions of parenteral nutrition from peroxidation. Laborie S, et al. **JPEN J Parenter Enteral Nutr** 1999 Mar-Apr;23(2):104-8

Aqueous trifluorethanol solutions simulate the environment of DNA in the crystalline state. Kypr J, et al. **Nucleic Acids Res** 1999 Sep 1;27(17):3466-73

Phase behavioral effects on particle formation processes using supercritical fluids. Palakodaty S, et al. **Pharm Res** 1999 Jul;16(7):976-85 (55 ref.)

[Calculation of the concentration Rayleigh number for isothermal transport processes across a polymeric membrane by a method for measuring diffusion flux in three component non-electrolytic solutions] Slęzak A, et al. **Polim Med** 1998;28(3-4):11-22 (Eng. Abstr.) **(Pol)**

[Gravity-osmotic pressure effect for flat polymeric membranes and three-component non-electrolyte solutions] Slęzak A, et al. **Polim Med** 1998;28(3-4):23-35 (Eng. Abstr.) **(Pol)**

[Experience in preparing injection solutions in the pharmacy of a military hospital] Chirkov AI, et al. **Voen Med Zh** 1999 May;320(5):73-4 **(Rus)**

PHARMACOKINETICS

Uterine fluid irrigation and absorption in hysteroscopic endometrial ablation. Baskett TF, et al. **Obstet Gynecol** 1998 Dec;92(6):976-8

Distribution and elimination of the solute and water components of urological irrigating fluids. Hahn RG, et al. **Scand J Urol Nephrol** 1999 Feb;33(1):35-41

PHARMACOLOGY

Side-effects of rinsing fluids on the rat femoral artery. A histological and electron microscopic study. Delaere O, et al. **J Hand Surg [Br]** 1997 Oct;22(5):568-73

STANDARDS

Evaluation of microparticles released from an adsorber used for low density lipoprotein apheresis [letter; comment] Otto V, et al. **ASAIO J** 1999 Jan-Feb;45(1):115-6. Comment on: ASAIO J 1998 Sep-Oct;44(5):M470-4.

THERAPEUTIC USE

Labeling lapse. When the bottle doesn't contain what you think you're giving. Ahmed DS, et al. **Am J Nurs** 1999 Mar;99(3):12

TOXICITY

Acute inhalation toxicity of neutralized chemical agent identification sets (CAIS) containing agent in chloroform. Olajos EJ, et al. **J Appl Toxicol** 1998 Sep-Oct;18(5):363-71

SOLUTIONS, HEMODIALYSIS see **HEMODIALYSIS SOLUTIONS**

SOLUTIONS, ORGAN PRESERVATION see **ORGAN PRESERVATION SOLUTIONS**

SOLVENTS

Volatile solvent use among Western Australian adolescents. Carroll A, et al. **Adolescence** 1998 Winter;33(132):877-89

Within-shift variability of short-term exposure to organic solvent in indoor workplaces. Kumagai S, et al. **Am Ind Hyg Assoc J** 1999 Jan-Feb;60(1):16-21

New PBPK model applied to old occupational exposure to benzene. Sherwood RJ, et al. **Am Ind Hyg Assoc J** 1999 Mar-Apr;60(2):259-65

Comparative study of hydrocarbon, fluorocarbon, and aromatic bonded RP-HPLC stationary phases by linear solvation energy relationships. Reta M, et al. **Anal Chem** 1999 Aug 15;71(16):3484-96

Control of exposure to perchloroethylene in commercial drycleaning (substitution). National Institute for Occupational Safety and Health. **Appl Occup Environ Hyg** 1999 Jul;14(7):433-5

X-ray studies on two forms of bovine beta-trypsin crystals in neat cyclohexane. Zhu G, et al. **Biochim Biophys Acta** 1998 Dec 8;1429(1):142-50

Approximate solvent-accessible surface areas from tetrahedrally directed neighbor densities. Weiser J, et al. **Biopolymers** 1999 Oct 5;50(4):373-80

Removal of ethidium bromide and cesium chloride from plasmid DNA by ethanol precipitation. Song J, et al. **Biotechniques** 1999 Jun;26(6):1056-60

Phencyclidine- and diazepam-like discriminative stimulus effects of inhalants in mice. Bowen SE, et al. **Exp Clin Psychopharmacol** 1999 Feb;7(1):28-37

Formation of ondansetron polymorphs. Llácer JM, et al. **Int J Pharm** 1999 Jan 25;177(2):221-9

Molar absorptivities of aflatoxins B1, B2, G1, and G2 in acetonitrile, methanol, and toluene-acetonitrile (9 + 1) (modification of AOAC Official Method 971.22): collaborative study. Nesheim S, et al. **J AOAC Int** 1999 Mar-Apr;82(2):251-8

Active efflux of organic solvents by Pseudomonas putida S12 is induced by solvents. Kieboom J, et al. **J Bacteriol** 1998 Dec;180(24):6769-72

Effect of solvent on the characteristics of pentamidine loaded microcapsule. Mandal TK. **J Biomater Sci Polym Ed** 1999; 10(1):1-17

Empirical relationship between chiral selectivity and mobile phase modifier properties. Blackwell JA, et al. **J Chromatogr A** 1999 Aug 13;852(2):383-94

Use of detergents and high contents of organic solvents for simultaneous quantitation of ionic and nonionic drugs by electrokinetic chromatography. Cifuentes A, et al. **J Chromatogr A** 1998 Oct 16;824(1):99-108

Optimization and validation of solvent and supercritical-fluid extractions for the trace-determination of polycyclic aromatic hydrocarbons in sewage sludges by liquid chromatography coupled to diode-array and fluorescence detection. Miège C, et al. **J Chromatogr A** 1998 Oct 9; 823(1-2):219-30

A flexible triangulation method to describe the solvent-accessible surface of biopolymers. Juffer AH, et al. **J Comput Aided Mol Des** 1998 May;12(3):289-99

The influence of collagenase solvent on the isolation of islets from 5 week old pigs: a comparison of TCM-199 and UW. Heald KA, et al. **J Mol Med** 1999 Jan;77(1):83-6

Some characteristics of bacteria found in a bioreactor to treat trichloroethylene-contaminated groundwater. Arai K, et al. **J Vet Med Sci** 1999 Mar;61(3):295-8

Methanol/acetone treatment helps the amplification of FMR1 CGG repeat fragment in dried blood spots from Guthrie cards [letter] Hong CJ, et al. **Lancet** 1999 Apr 3; 353(9159):1153-4

Acute upper airway obstruction after recreational inhalation of a hydrofluorocarbon propellant. Kuhn JJ, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):587-90

Selecting near-native conformations in homology modeling: the role of molecular mechanics and solvation terms. Janardhan A, et al. **Protein Sci** 1998 Aug;7(8):1772-80

Empirical solvent-mediated potentials hold for both intra-molecular and inter-molecular inter-residue interactions. Keskin O, et al. **Protein Sci** 1998 Dec; 7(12):2578-86

The effect of solvent and matrix combinations on the analysis of bacteria by matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry. Domin MA, et al. **Rapid Commun Mass Spectrom** 1999;13(4):222-6

Radioimmunoassay of regulatory peptides in the presence of acetonitrile: marked improvement of cholecystokinin assays. Herrington MK, et al. **Regul Pept** 1998 Jun 30; 74(2-3):85-90

Organic solvent induced quenching of porous silicon photoluminescence. Jin WJ, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Sep; 54A(10):1407-14

Lemon juice as a solvent for heroin in Spain. Page JB, et al. **Subst Use Misuse** 1999 Jun;34(8):1193-7

Physiologically based pharmacokinetic model for chronic inhalation of 2-butoxyethanol. Lee KM, et al. **Toxicol Appl Pharmacol** 1998 Dec;153(2):211-26

Hemovigilance: clinical tolerance of solvent-detergent treated plasma. Baudoux E, et al. **Vox Sang** 1998;74 Suppl 1:237-9

In vitro characterization of solvent/detergent-treated human

plasma and of quarantine fresh frozen plasma. Beeck H, et al. **Vox Sang** 1998;74 Suppl 1:219–23

Solvent/detergent treatment of human plasma—a very robust method for virus inactivation. Validated virus safety of OCTAPLAS. Biesert L, et al. **Vox Sang** 1998;74 Suppl 1:207–12 (12 ref.)

A randomized trial of solvent/detergent and standard fresh frozen plasma in the treatment of the coagulopathy seen during Orthotopic Liver Transplantation. Freeman JW, et al. **Vox Sang** 1998;74 Suppl 1:225–9

Virus inactivation by solvent/detergent treatment and the manufacture of SD-plasma. Horowitz B, et al. **Vox Sang** 1998;74 Suppl 1:203–6 (22 ref.)

SD Plasma in TTP and coagulation factor deficiencies for which no concentrates are available. Horowitz MS, et al. **Vox Sang** 1998;74 Suppl 1:231–5

ADMINISTRATION & DOSAGE

Fan-shaped hepatic parenchymal damage after ethanol injection therapy for hepatocellular carcinoma: MRI appearances. Fujita T, et al. **Abdom Imaging** 1999 Jan–Feb; 24(1):56–60

Bronchoscopic therapy for mucosa-associated lymphoid tissue lymphoma of the trachea. Tsurutani J, et al. **Intern Med** 1999 Mar;38(3):276–8

Pancreatic regeneration after chronic ethanol feeding in rats. Rydzewska G, et al. **J Physiol Pharmacol** 1999 Jun; 50(2):227–41

ADVERSE EFFECTS

Coma in a premature infant associated with the transdermal absorption of propylene glycol. Peleg O, et al. **Acta Paediatr** 1998 Nov;87(11):1195–6

A reexamination of the angiotoxicity of superselective injection of DMSO in the swine rete embolization model. Chaloupka JC, et al. **AJNR Am J Neuroradiol** 1999 Mar; 20(3):401–10

Petroleum distillate solvents as risk factors for undifferentiated connective tissue disease (UCTD). Lacey JV Jr, et al. **Am J Epidemiol** 1999 Apr 15;149(8):761–70

Gender differences in risk of renal cell carcinoma and occupational exposures to chlorinated aliphatic hydrocarbons. Dosemeci M, et al. **Am J Ind Med** 1999 Jul;36(1):54–9

Breast cancer risk among relatively young women employed in solvent-using industries. Hansen J. **Am J Ind Med** 1999 Jul;36(1):43–7

Occupational health survey on workers exposed to 2-bromopropane at low concentrations. Ichihara G, et al. **Am J Ind Med** 1999 May;35(5):523–31

A case-control study of fatty liver disease and organic solvent exposure [published erratum appears in Am J Ind Med 1999 Apr;35(4):436] Lundqvist G, et al. **Am J Ind Med** 1999 Feb;35(2):132–6

Substitution of organic solvent cleaning agents in the lithographic printing industry: comment [letter] Packham C. **Ann Occup Hyg** 1999 Aug;43(6):429–30

Control of exposure to perchloroethylene in commercial drycleaning. **Appl Occup Environ Hyg** 1999 Jun;14(6):365–6

Determination of volatile organohalogen compounds in human urine. Polkowska Z, et al. **Appl Occup Environ Hyg** 1999 Apr;14(4):240–5

The occupational exposure level (OEL) for 2-bromopropane: the first OEL established by Korea. Yu IJ, et al. **Appl Occup Environ Hyg** 1999 Jun;14(6):356–8 (15 ref.)

Health effects of environmental contaminant exposure: an intrafile comparison of the Trichloroethylene Subregistry. Burg JR, et al. **Arch Environ Health** 1999 Jul–Aug; 54(4):231–41

Two-year evolution of perchloroethylene-induced color-vision loss. Gobba F, et al. **Arch Environ Health** 1998 May–Jun;53(3):196–8

Clinical and immunological responses in subjects sensitive to solvents. Little CH, et al. **Arch Environ Health** 1999 Jan–Feb;54(1):6–14

Evaluation of organic solvent ototoxicity by the upper limit of hearing. Morioka I, et al. **Arch Environ Health** 1999 Sep–Oct;54(5):341–6

Exposure to myelotoxic agents and myelodysplasia: case-control study and correlation with clinicobiological findings. Rigolin GM, et al. **Br J Haematol** 1998 Oct; 103(1):189–97

Method for analyzing urinary toluene and xylene by solid-phase microextraction (SPME), and its application to workers using organic solvents. Asakawa F, et al. **Bull Environ Contam Toxicol** 1999 Feb;62(2):109–16

Burn injuries during paint thinner sniffing. Ho WS, et al. **Burns** 1998 Dec;24(8):757–9

Non-Hodgkin's lymphoma risk derived from exposure to organic solvents: a review of epidemiologic studies. Rêgo MA. **Cad Saude Publica** 1998;14 Suppl 3:41–66 (98 ref.)

Dermacase. Irritant contact dermatitis. Enta T. **Can Fam Physician** 1998 Sep;44:1829, 1836

Exposure to organic solvents. Does it adversely affect pregnancy? McMartin KI, et al. **Can Fam Physician** 1999 Jul;45:1671–3

Optic neuritis with residual tunnel vision in perchloroethylene toxicity. Onofrj M, et al. **Eur Neurol** 1999 Jan;41(1):51–3

Reticulocytes and solvents: an epidemiological study. Cardoso E, et al. **Hematol Cell Ther** 1999 Apr;41(2):39–45

Case-referent study on occupational risk factors for bladder cancer in southern Israel. Carel R, et al. **Int Arch Occup Environ Health** 1999 Aug;72(5):304–8

Increased acquired dyschromatopsia among solvent-exposed workers: an epidemiology study on 249 employees of an aluminum-foil printing factory. Gonzalez M, et al. **Int Arch Occup Environ Health** 1998 Jul;71(5):317–24

Application of biological monitoring to the quantitative exposure assessment for neuropsychological effect by chronic exposure to organic solvents. Jang JY, et al. **Int Arch Occup Environ Health** 1999 Mar;72(2):107–14

Re: "Renal cell cancer correlated with occupational exposure to trichloroethylene" [letter; comment] Green LC, et al. **J Cancer Res Clin Oncol** 1999 Jul;125(7):430–2. Comment on: J Cancer Res Clin Oncol 1998;124(7):374–82.

Analysis of an accident at a solvent recovery plant. Cozzani V, et al. **J Hazard Mater** 1999 Jun 11;67(2):145–61

Trichloroethylene exposure and specific somatic mutations in patients with renal cell carcinoma. Brauch H, et al. **J Natl Cancer Inst** 1999 May 19;91(10):854–61

Risk of adverse outcomes in pregnant women exposed to solvents. Hewitt JB, et al. **J Obstet Gynecol Neonatal Nurs** 1998 Sep–Oct;27(5):521–31

Long-term follow-up of psychological distress, social functioning, and coping style in treated and untreated patients with solvent-induced chronic toxic encephalopathy. Abjörnsson G, et al. **J Occup Environ Med** 1998 Sep;40(9):801–7

Absence of polyneuropathy among workers previously diagnosed with solvent-induced toxic encephalopathy. Albers JW, et al. **J Occup Environ Med** 1999 Jun; 41(6):500–9

Eruptive cherry angiomas and irritant symptoms after one acute exposure to the glycol ether solvent 2-butoxyethanol. Raymond LW, et al. **J Occup Environ Med** 1998 Dec; 40(12):1059–64

Occupational exposure to tetrachloroethene and its effects on the kidneys. Verplanke AJ, et al. **J Occup Environ Med** 1999 Jan;41(1):11–6

Organic solvent exposure during pregnancy and congenital malformations [letter] Arrieta MJ, et al. **JAMA** 1999 Sep 15;282(11):1033

Pregnancy outcome following gestational exposure to organic solvents: a prospective controlled study. Khattak S, et al. **JAMA** 1999 Mar 24–31;281(12):1106–9

Case-control study of interactions between genetic and environmental factors in Parkinson's disease [letter] De Palma G, et al. **Lancet** 1998 Dec 19–26;352(9145):1986–7

Hair dye use and occupational exposure to organic solvents as risk factors for myelodysplastic syndrome. Nagata C, et al. **Leuk Res** 1999 Jan;23(1):57–62

Predictors of involvement in P300 latency in solvent-exposed adults. Morrow LA, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Jul; 11(3):146–50

MRI in chronic toluene abuse: low signal in the cerebral cortex on T2-weighted images. Kamran S, et al. **Neuroradiology** 1998 Aug;40(8):519–21

Health effects of solvent exposure among dockyard painters: mortality and neuropsychological symptoms. Chen R, et al. **Occup Environ Med** 1999 Jun;56(6):383–7

Neuropsychological function in retired workers with previous long-term occupational exposure to solvents. Daniell WE, et al. **Occup Environ Med** 1999 Feb; 56(2):93–105

Occupational exposures to solvents and aluminium and estimated risk of Alzheimer's disease. Graves AB, et al. **Occup Environ Med** 1998 Sep;55(9):627–33

Dementia and occupational exposure to organic solvents. Palmer K, et al. **Occup Environ Med** 1998 Oct;55(10):712–5

Exposure to toluene in the printing industry is associated with subfecundity in women but not in men. Plenge-Bönig A, et al. **Occup Environ Med** 1999 Jul;56(7):443–8

Effect of chloroform, xylene, and halothane on enamel and dentin microhardness of human teeth. Rotstein I, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Mar;87(3):366–8

Regional cerebral blood flow abnormalities in chronic solvent abusers. Okada S, et al. **Psychiatry Clin Neurosci** 1999 Jun; 53(3):351–6

Audiological disturbances caused by long-term exposure to industrial solvents. Relation to the diagnosis of toxic encephalopathy. Niklasson M, et al. **Scand Audiol** 1998; 27(3):131–6

Effects of occupational solvent exposure on fertility. Lindbohm ML. **Scand J Work Environ Health** 1999;25 Suppl 1:44–6 (10 ref.)

Mortality and cancer incidence among Swedish paint industry workers with long-term exposure to organic solvents. Lundberg I, et al. **Scand J Work Environ Health** 1998 Aug;24(4):270–5

Suprathreshold intensity and annoyance reactions in experimental challenge to toluene and n-butyl acetate among subjects with long-term solvent exposure. Orbaek P, et al. **Scand J Work Environ Health** 1998 Oct;24(5):432–8

Carbamazepine, hepatotoxicity, organic solvents, and paints. Kaufman KR. **Seizure** 1999 Jun;8(4):250–2

U.S. Environmental Protection Agency's revised cancer guidelines for carcinogen risk assessment [letter; comment] Andersen M, et al. **Toxicol Appl Pharmacol** 1998 Nov; 153(1):133–6. Comment on: Toxicol Appl Pharmacol 1998 Jan;148(1):137–47.

[The neurobehavioral effects of solvents] Tsenova B. **Probl Khig** 1997;22:39–54 (19 ref.) (Eng. Abstr.) **(Bul)**

[Rentolin wood-preserving oil--a toxicologic evaluation] Viskum S. **Ugeskr Laeger** 1999 Feb 22;161(8):1142–4 **(Dan)**

[Obstructive sleep apnea syndrome caused by occupational exposure to solvents] Muttray A, et al. **Dtsch Med Wochenschr** 1999 Mar 12;124(10):279–81 (Eng. Abstr.) **(Ger)**

[Polyneuropathy and encephalopathy caused by organic solvents and mixed solvent solutions. Occupational medicine and neurologic aspects of a new occupational disease] Triebig G, et al. **Nervenarzt** 1999 Apr;70(4):306–14 (59 ref.) (Eng. Abstr.) **(Ger)**

[The evaluation of the balance organ in workers occupationally exposed to organic solvents and tinctorial dusts] Pospiech L, et al. **Med Pr** 1998;49(4):363–9 (Eng. Abstr.) **(Pol)**

[Assessment of acute neurotoxic effect of exposure to certain organic solvents based on an analysis of bioelectric function of the rat cerebral cortex] Tomas T, et al. **Med Pr** 1998; 49(6):563–71 (Eng. Abstr.) **(Pol)**

[Difficult to prove the connection between exposure-occupational injury. A painter was denied compensation because of incorrect conclusions] Bring J. **Lakartidningen** 1998 Sep 23;95(39):4223–4 **(Swe)**

[Exposure to solvents and MS: complex pathogenesis causes problems when it comes to the right of occupational injury compensation] Landtblom AM. **Lakartidningen** 1999 Mar 24;96(12):1471–3 **(Swe)**

ANALYSIS

The control of press cleaning solvent vapors in a small lithographic printing establishment. Crouch KG, et al. **Appl Occup Environ Hyg** 1999 May;14(5):329–38

A method for detecting breakthrough of organic solvent vapors in a charcoal tube using semiconductor gas sensors. Hori H, et al. **Appl Occup Environ Hyg** 1999 Aug; 14(8):558–64

Health effects of environmental contaminant exposure: an intrafile comparison of the Trichloroethylene Subregistry. Burg JR, et al. **Arch Environ Health** 1999 Jul–Aug; 54(4):231–41

Methyl tert-butyl ether (MTBE) contamination in private wells near gasoline stations in upstate New York. Lince DP, et al. **Bull Environ Contam Toxicol** 1998 Oct; 61(4):484–8

Ionization constants of weak acids and bases in organic solvents. Sarmini K, et al. **J Biochem Biophys Methods** 1999 Jan 29;38(2):123–37

Non-aqueous capillary electrophoresis of drugs: properties and application of selected solvents. Tjørnelund J, et al. **J Biochem Biophys Methods** 1999 Jan 29;38(2):139–53

Analysis of an accident at a solvent recovery plant. Cozzani V, et al. **J Hazard Mater** 1999 Jun 11;67(2):145–61

Residual solvents determination in pharmaceutical products by GC–HS and GC–MS–SPME. Camarasu CC, et al. **J Pharm Biomed Anal** 1998 Dec;18(4–5):623–38

Solvents in urine as exposure markers. Ikeda M. **Toxicol Lett** 1999 Sep 5;108(2–3):99–106 (18 ref.)

[Identification and quantitative determination of chlorinated++ solvents after solid phase microextraction. Applications in hospital toxicology] Humbert L, et al. **Acta Clin Belg Suppl** 1999;1:89–93 (Eng. Abstr.) **(Fre)**

[Headspace solid phase micro-extraction method optimization for residual solvent analysis] Camarasu C, et al. **Acta Pharm Hung** 1999 Apr;69(2):77–84 (Eng. Abstr.) **(Hun)**

[The biological monitoring of occupational exposures to solvents by using their urinary concentrations] Perbellini L, et al. **Med Lav** 1998 Sep–Oct;89(5):375–86 (Eng. Abstr.) **(Ita)**

[Remaining solvents in dry cleaned over clothes] Tashiro H, et al. **Sangyo Eiseigaku Zasshi** 1999 Mar;41(2):24–9 (Eng. Abstr.) **(Jpn)**

[The comparative characteristics of methods for determining technological liquids in clinical toxicology] Kliuev AE, et al. **Sud Med Ekspert** 1998 Nov–Dec;41(6):34–6 (Eng. Abstr.) **(Rus)**

CHEMISTRY

Crystals of Thermus thermophilus tRNAAsp complexed with its cognate aspartyl-tRNA synthetase have a solvent content of 75%. Comparison with other aminoacylation systems. Briand C, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1382–6

Discrimination of solvent from protein regions in native Fouriers as a means of evaluating heavy-atom solutions in the MIR and MAD methods. Terwilliger TC, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Feb;55 (Pt 2):501–5

Voltammetric and amperometric transduction for solvent polymeric membrane ion sensors. Jadhav S, et al. **Anal Chem** 1999 Sep 1;71(17):3657–64

Computer simulations with explicit solvent: recent progress in the thermodynamic decomposition of free energies and in modeling electrostatic effects. Levy RM, et al. **Annu Rev Phys Chem** 1998;49:531–67 (199 ref.)

A novel strategy for the preparation of liposomes: rapid solvent exchange. Buboltz JT, et al.

Biochim Biophys Acta 1999 Mar 4;1417(2):232–45
Thermodynamic and kinetic aspects on water vs. organic solvent as reaction media in the enzyme-catalysed reduction of ketones. Jönsson, et al.
Biochim Biophys Acta 1999 Mar 19;1430(2):313–22
Soluble polymer traceless linker investigations: solvent effects on the desulfonylation of polyethylene glycol (PEG) substituted aryl alkyl sulfones with sodium amalgam. Zhao XY, et al. **Bioorg Med Chem Lett** 1998 Sep 22;8(18):2439–42
Solvent effect on kinetics of appearance of haemorphins in the course of peptic hydrolysis of bovine haemoglobin. Lignot B, et al. **Biotechnol Appl Biochem** 1999 Feb;29 (Pt 1):25–30
Propionic acid production by extractive fermentation. I. Solvent considerations. Gu Z, et al. **Biotechnol Bioeng** 1998 Feb 20;57(4):454–61
On enzymatic activity in organic solvents as a function of enzyme history. Ke T, et al. **Biotechnol Bioeng** 1998 Mar 20;57(6):746–50
Thermobarostability of alpha-chymotrypsin in reversed micelles of aerosol OT in octane solvated by water-glycerol mixtures. Rariy RV, et al.
Biotechnol Bioeng 1998 Mar 5;57(5):552–6
Site-directed and random immobilization of subtilisin on functionalized membranes: activity determination in aqueous and organic media. Viswanath S, et al.
Biotechnol Bioeng 1998 Dec 5;60(5):608–16
Formation of 4,4-dialkoxycyclohexa-2,5-dienone N-(thiol-S-yl)imine during reaction of 4-alkoxynitrosobenzenes with thiols in alcoholic solvents. Gallemann D, et al. **Chem Res Toxicol** 1998 Dec; 11(12):1423–33
Examination of the polymorphism of piroxicam in connection with the preparation of a new "soft-patch" type pharmaceutical dosage form. Csóka G, et al.
Drug Dev Ind Pharm 1999 Jun;25(6):813–6
Pairwise calculation of protein solvent-accessible surface areas. Street AG, et al. **Fold Des** 1998;3(4):253–8
The effect of solvents on spider silk studied by mechanical testing and single-fibre Raman spectroscopy. Shao Z, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):295–300
Bombyx mori silk fibroin liquid crystallinity and crystallization at aqueous fibroin-organic solvent interfaces. Valluzzi R, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):227–36
Role of residual solvents in the formation of volatile compounds after radiosterilisation of cefotaxime. Barbarin N, et al. **Int J Pharm** 1999 Feb 15;178(2):203–12
Continuum solvent studies of the stability of RNA hairpin loops and helices. Srinivasan J, et al.
J Biomol Struct Dyn 1998 Dec;16(3):671–82
An in situ drying method for preparing NMR samples with extremely low water content. Goez M. **J Magn Reson** 1998 Nov;135(1):14–6
Solvent influence on spray-dried biodegradable microspheres. Bain DF, et al. **J Microencapsul** 1999 Jul-Aug;16(4):453–74
Helix-enhancing propensity of fluoro and alkyl alcohols: influence of pH, temperature and cosolvent concentration on the helical conformation of peptides. Kumaran S, et al. **J Pept Res** 1999 Mar;53(3):284–93
Cryochemistry: freezing effect on peptide coupling in different organic solutions. Vajda T, et al. **J Pept Sci** 1998 Jun;4(4):300–4

METABOLISM

Biodegradation of aromatic compounds and TCE by a filamentous bacteria-dominated consortium. Bielefeldt AR, et al. **Biodegradation** 1999 Feb;10(1):1–13
Biodegradation of N-methylmorpholine-N-oxide. Meister G, et al. **Biodegradation** 1998;9(2):91–102
Cometabolism of chlorinated solvents and binary chlorinated solvent mixtures using M. trichosporium OB3b PP358. Aziz CE, et al. **Biotechnol Bioeng** 1999 Oct 5;65(1):100–7
On the degradability of tetrachloroethene in biologically treated wastes. Schön T, et al. **Chemosphere** 1999 Aug; 39(4):603–9
Metabolic interferences in subjects occupationally exposed to binary styrene-acetone mixtures. Apostoli P, et al.
Int Arch Occup Environ Health 1998 Oct;71(7):445–52
Occupational chronic exposure to organic solvents XVII. Ambient and biological monitoring of workers exposed to xylenes. Krämer A, et al.
Int Arch Occup Environ Health 1999 Jan;72(1):52–5
Influence of gender and acetone pretreatment on benzene metabolism in mice exposed by nose-only inhalation. Kenyon EM, et al. **J Toxicol Environ Health** 1998 Nov 27;55(6):421–43
In vitro screening for metabolic interactions among frequently occurring binary mixtures of volatile organic chemicals in Norwegian occupational atmosphere. Mortensen B, et al. **Pharmacol Toxicol** 1998 Aug; 83(2):49–56

PHARMACOKINETICS

Systemic uptake and clearance of chloroform by hairless rats following dermal exposure: II. Absorption of the neat solvent. Islam MS, et al. **Am Ind Hyg Assoc J** 1999 Jul-Aug;60(4):438–43
Dermal uptake of solvents from the vapour phase: an experimental study in humans. Brooke I, et al.
Ann Occup Hyg 1998 Nov;42(8):531–40
Toxicokinetics of 1,2,4-trimethylbenzene in humans exposed to vapours of white spirit: comparison with exposure to 1,2,4-trimethylbenzene alone. Järnberg J, et al.
Arch Toxicol 1998 Jul-Aug;72(8):483–91
Toxicokinetics of organic solvents: a review of modifying factors. Löf A, et al. **Crit Rev Toxicol** 1998 Nov; 28(6):571–650 (650 ref.)
Comparison of internal dose measures of solvents in breath, blood and urine and genotoxic changes in aircraft maintenance personnel. Lemasters GK, et al.
Drug Chem Toxicol 1999 Feb;22(1):181–200
Trichloroethene levels in human blood and exhaled breath from controlled inhalation exposure [see comments] Pleil JD, et al. **Environ Health Perspect** 1998 Sep;106(9):573–80 . Comment in: Environ Health Perspect 1998 Sep;106(9):531–3.
Trichloroethylene [correction of Trichloroethene] levels in human blood and exhaled breath from controlled inhalation exposure [comment] Wallace L.
Environ Health Perspect 1998 Sep;106(9):531–3. Comment on: Environ Health Perspect 1998 Sep;106(9):573–80.
Developments toward large-scale bacterial bioprocesses in the presence of bulk amounts of organic solvents. Schmid A, et al. **Extremophiles** 1998 Aug;2(3):249–56 (40 ref.)
Effects of sodium alginate and fish oil to reduce trichloroethylene accumulation in rats. Ikegami S, et al. **J Nutr Sci Vitaminol (Tokyo)** 1999 Apr;45(2):193–201
Identification of S-(1,2-dichlorovinyl)glutathione in the blood of human volunteers exposed to trichloroethylene. Lash LH, et al. **J Toxicol Environ Health** 1999 Jan 8; 56(1):1–21
Penetration of chloroform, trichloroethylene, and tetrachloroethylene through human skin. Nakai JS, et al. **J Toxicol Environ Health** 1999 Oct 15;58(3):157–70
Toxicokinetics of inhaled 2-butoxyethanol and its major metabolite, 2-butoxyacetic acid, in F344 rats and B6C3F1 mice. Dill JA, et al. **Toxicol Appl Pharmacol** 1998 Dec; 153(2):227–42
A human physiologically based pharmacokinetic model for trichloroethylene and its metabolites, trichloroacetic acid and free trichloroethanol. Fisher JW, et al.
Toxicol Appl Pharmacol 1998 Oct;152(2):339–59
Biotransformation of perchloroethene: dose-dependent excretion of trichloroacetic acid, dichloroacetic acid, and N-acetyl-S-(trichlorovinyl)-L-cysteine in rats and humans after inhalation. Völkel W, et al.
Toxicol Appl Pharmacol 1998 Nov;153(1):20–7
Uptake of 10 polar organic solvents during short-term respiration. Kumagai S, et al. **Toxicol Sci** 1999 Apr; 48(2):255–63

PHARMACOLOGY

Methanol elevates cytosolic calcium ions in cultured canine cerebral vascular smooth muscle cells: possible relation to CNS toxicity. Li W, et al. **Alcohol** 1999 Jun-Jul; 18(2-3):221–4
Effect of organic solvents on the yield of solvent-tolerant Pseudomonas putida S12. Isken S, et al.
Appl Environ Microbiol 1999 Jun;65(6):2631–5
Cholesterol oxidase from Streptomyces hygroscopicus and Brevibacterium sterolicum: effect of surfactants and organic solvents on activity. Pollegioni L, et al.
Biotechnol Appl Biochem 1999 Aug;30 (Pt 1):27–33
Optimizing the salt-induced activation of enzymes in organic solvents: effects of lyophilization time and water content. Ru MT, et al. **Biotechnol Bioeng** 1999 Apr 20;63(2):233–41
Effect of dimethylsulfoxide on sphingomyelinase activity and cholesterol metabolism in Niemann-Pick type C fibroblasts. Scalco FB, et al. **Braz J Med Biol Res** 1999 Jan;32(1):23–8
Organic solvent-tolerant mutants of Pseudomonas aeruginosa display multiple antibiotic resistance. Li XZ, et al.
Can J Microbiol 1999 Jan;45(1):18–22
Effects of removal of stratum corneum, delipidization and addition of enhancers, ethanol and l-menthol, on skin permeation of benzoic acid and its 4-n-alkyl substituents in excised guinea pig dorsal skin. Kitagawa S, et al.
Chem Pharm Bull (Tokyo) 1999 Jan;47(1):44–7
Effect of methanol, ethanol, dimethyl sulfoxide, and acetonitrile on in vitro activities of cDNA-expressed human cytochromes P-450. Busby WF Jr, et al.
Drug Metab Dispos 1999 Feb;27(2):246–9
A direct comparison of inhalant effects on locomotor activity and schedule-controlled behavior in mice. Bowen SE, et al. **Exp Clin Psychopharmacol** 1998 Aug;6(3):235–47
Enhanced dissolution of gallstone by combining ethanol with two commonly used cholelitholytic solvents. Lim MY, et al. **Hepatogastroenterology** 1999 Mar-Apr;46(26):758–61
Study of the cardiovascular effects of occupational exposure to organic solvents. Kotseva K, et al.
Int Arch Occup Environ Health 1998 Sep;71 Suppl:S87–91
Enhancement of liposomal gene delivery in human breast cancer cells by dimethyl sulfoxide. Jain PT, et al.
Int J Mol Med 1998 Mar;1(3):609–11
Is it safe to apply the additivity rule to evaluating health effects of exposure to Farbasol? Korsak Z, et al.
Int J Occup Med Environ Health 1999;12(1):85–92
Neurotoxicity assessment of selected organic solvents based on spontaneous and evoked cortical and hippocampal activity in rats. Tomas T, et al.
Int J Occup Med Environ Health 1999;12(1):73–84
Effect of ethanol/propylene glycol on the in vitro percutaneous absorption of aspirin, biophysical changes and macroscopic barrier properties of the skin. Levang AK, et al. **Int J Pharm** 1999 Apr 30;181(2):255–63
Involvement of the cis/trans isomerase Cti in solvent resistance of Pseudomonas putida DOT-T1E. Junker F, et al. **J Bacteriol** 1999 Sep;181(18):5693–700
Factors influencing the potential use of Aliquat 336 for the in situ extraction of carboxylic acids from cultures of Pseudomonas putida. Jaquet A, et al. **J Biotechnol** 1999 Feb 19;68(2-3):185–96
Plasticising effect of water and glycerin on human skin in vivo. Pedersen LK, et al. **J Dermatol Sci** 1999 Jan; 19(1):48–52
The matrix effects on kinetic rate constants of antibody-antigen interactions reflect solvent viscosity. Morgan CL, et al. **J Immunol Methods** 1998 Aug 1; 217(1-2):51–60
Endothelium-dependent relaxation in response to ethanol in the porcine isolated pulmonary artery. Lawrence RN, et al. **J Pharm Pharmacol** 1998 Aug;50(8):885–90
Enhancement by terpenes of 5-fluorouracil permeation through the stratum corneum: model solvent approach. Moghimi HR, et al. **J Pharm Pharmacol** 1998 Sep; 50(9):955–64
Enthalpy-entropy compensation for the solubility of drugs in solvent mixtures: paracetamol, acetanilide, and nalidixic acid in dioxane-water. Bustamante P, et al.
J Pharm Sci 1998 Dec;87(12):1590–6
Solubility enhancement of phenol and phenol derivatives in perfluorooctyl bromide. Williams TD, et al.
J Pharm Sci 1998 Dec;87(12):1585–9
Influence of gender and acetone pretreatment on benzene metabolism in mice exposed by nose-only inhalation. Kenyon EM, et al. **J Toxicol Environ Health** 1998 Nov 27;55(6):421–43
The modulation of membrane structure and stability by dimethyl sulphoxide (review). Yu ZW, et al.
Mol Membr Biol 1998 Apr-Jun;15(2):59–68 (61 ref.)
Beta-frequency (15–35 Hz) electroencephalogram activities elicited by toluene and electrical stimulation in the behaving rat. Chapman CA, et al. **Neuroscience** 1998 Oct; 86(4):1307–19
The effects of inhaled isoparaffins on locomotor activity and operant performance in mice. Bowen SE, et al.
Pharmacol Biochem Behav 1998 Nov;61(3):271–80
The effect of in vitro exposure to white spirit on [Ca2+i] in synaptosomes from rats exposed prenatally to white spirit. Edelfors S, et al. **Pharmacol Toxicol** 1999 May; 84(5):197–200
Ethanol inhibits thrombin-induced secretion of the contents of human platelet dense and alpha-granules and lysosomes. Nguyen A, et al. **Thromb Haemost** 1998 Oct;80(4):662–7
Decreased formation of ethoxyacetic acid from ethylene glycol monoethyl ether and reduced atrophy of testes in male rats upon combined administration with toluene and xylene. Chung WG, et al. **Toxicol Lett** 1999 Jan 11; 104(1-2):143–50
Co-administration of toluene and xylene antagonized the testicular toxicity but not the hematopoietic toxicity caused by ethylene glycol monoethyl ether in Sprague-Dawley rats. Yu IJ, et al. **Toxicol Lett** 1999 Sep 20;109(1-2):11–20
Ethanol improves adenovirus-mediated gene transfer and expression to the bladder epithelium of rodents. Engler H, et al. **Urology** 1999 May;53(5):1049–53
[Effect of organic solvents on catalytic and functional activity of transport Ca2+,Mg2+-ATPase from smooth muscle cell membrane] Kosterin SA, et al. **Biofizika** 1998 Nov-Dec;43(6):1037–42 (Eng. Abstr.) **(Rus)**

POISONING

Successful double lung transplantation with a graft obtained from a methanol-poisoned donor. Evrard P, et al.
Chest 1999 May;115(5):1458–9
Chronic toxic encephalopathy in a painter exposed to mixed solvents [clinical conference] Feldman RG, et al.
Environ Health Perspect 1999 May;107(5):417–22
Combined toxicity of methanol and formic acid: two cases of methanol poisoning. Kinoshita H, et al.
Int J Legal Med 1998;111(6):334–5
Ether suicide poisoning by intravenous injection [letter; comment] Serrano N, et al. **Intensive Care Med** 1999 Mar; 25(3):337–8. Comment on: Intensive Care Med 1998 Jun;24(6):624–5.
A fatal case of benzene poisoning. Barbera N, et al.
J Forensic Sci 1998 Nov;43(6):1250–1
Parkinsonism, pyramidal signs, polyneuropathy, and cognitive decline after long-term occupational solvent exposure. Hageman G, et al. **J Neurol** 1999 Mar; 246(3):198–206
Hemodialysis following butoxyethanol ingestion. Burkhart KK, et al. **J Toxicol Clin Toxicol** 1998;36(7):723–5
Optic neuritis with residual tunnel vision in perchloroethylene toxicity. Onofrj M, et al.
J Toxicol Clin Toxicol 1998;36(6):603–7
Chronic solvent neurotoxicity in New Zealand: notified cases between 1993 and 1997. Dryson EW, et al.
N Z Med J 1998 Nov 13;111(1077):425–7
Acute lung injury after inhalation of water-proofing spray while smoking a cigarette. Jinn Y, et al. **Respiration** 1998; 65(6):486–8
An alleged poisoning with methanol and formaldehyde. Sidhu KS, et al. **Vet Hum Toxicol** 1999 Aug;41(4):237–42

SOLVENTS

[Identification and quantitative determination of chlorinated + + solvents after solid phase microextraction. Applications in hospital toxicology] Humbert L, et al. **Acta Clin Belg Suppl** 1999;1:89–93 (Eng. Abstr.) **(Fre)**

[A case of suicidal chloroform poisoning] Nadjem H, et al. **Arch Kriminol** 1998 Jul–Aug;202(1–2):29–37 (Eng. Abstr.) **(Ger)**

[Polyneuropathies from solvents] Neundörfer B, et al. **Fortschr Neurol Psychiatr** 1998 Dec;66(12):539–44 (67 ref.) (Eng. Abstr.) **(Ger)**

[Acute dimethylformamide (DMF) poisoning: a case report] Amatimaggio F, et al. **Med Lav** 1998 Nov–Dec;89(6):533–7 (14 ref.) (Eng. Abstr.) **(Ita)**

[A case report of organic solvent abuse with amotivational syndrome] Kitabayashi Y, et al. **Nihon Arukoru Yakubutsu Igakkai Zasshi** 1999 Apr; 34(2):130–7 (Eng. Abstr.) **(Jpn)**

[Organic solvents (poisoning)] Kumamoto T. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):633–7 (12 ref.) **(Jpn)**

[The effect of thymogen on the postintoxication immunodeficiency state induced by acute acetonitrile poisoning] Zabrodskii PF. **Eksp Klin Farmakol** 1999 May–Jun;62(3):48–9 (Eng. Abstr.) **(Rus)**

STANDARDS

Clinical effectiveness of low-temperature sterilization technologies. Rutala WA, et al. **Infect Control Hosp Epidemiol** 1998 Oct;19(10):798–804 (27 ref.)

THERAPEUTIC USE

Topical application of DMSO as an adjunct to tissue expansion for breast reconstruction. Raposio E, et al. **Br J Plast Surg** 1999 Apr;52(3):194–7

Percutaneous ultrasound-guided chemical parathyroid ablation for treatment of primary hyperparathyroidism in dogs. Long CD, et al. **J Am Vet Med Assoc** 1999 Jul 15; 215(2):217–21

Intratumoral ethanol injection [letter] Okada Y, et al. **J Neurosurg** 1999 Sep;91(3):521–3

Medical management of common bile duct stones. González-Koch A, et al. **World J Surg** 1998 Nov; 22(11):1145–50 (48 ref.)

TOXICITY

Strategies for reducing solvent toxicity in extractive ethanol fermentation. Kapucu H, et al. **Appl Biochem Biotechnol** 1998 Nov–Dec;75(2–3):205–14

Toxicokinetics of 1,2,4-trimethylbenzene in humans exposed to vapours of white spirit: comparison with exposure to 1,2,4-trimethylbenzene alone. Järnberg J, et al. **Arch Toxicol** 1998 Jul–Aug;72(8):483–91

Coexposure to epichlorohydrin on the elimination of urinary metabolites of dimethylformamide. Chang MJ, et al. **Bull Environ Contam Toxicol** 1999 Sep;63(3):372–8

Cytochrome P450 destruction by quinones: comparison of effects in rat and human liver microsomes. Soucek P. **Chem Biol Interact** 1999 Aug 1;121(3):223–36

The comparison of the antioxidant defense potential of brain to liver of rats after methanol ingestion. Skrzydlewska E, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):289–94

Comparison of internal dose measures of solvents in breath, blood and urine and genotoxic changes in aircraft maintenance personnel. Lemasters GK, et al. **Drug Chem Toxicol** 1999 Feb;22(1):181–200

15N investigation into the effect of a pollutant on the nitrogen metabolism of Tetrahymena pyriformis as a model for environmental medical research. Arndt K, et al. **Environ Health Perspect** 1998 Aug;106(8):493–7

Environmental complex mixture toxicity assessment. Gardner HS Jr, et al. **Environ Health Perspect** 1998 Dec;106 Suppl 6:1299–305

Effects of chronic exposure to low doses of trichloroethylene on steroid hormone and insulin levels in normal men. Goh VH, et al. **Environ Health Perspect** 1998 Jan;106(1):41–4

Improvement of organic solvent tolerance level of Escherichia coli by overexpression of stress-responsive genes. Aono R. **Extremophiles** 1998 Aug;2(3):239–48 (48 ref.)

Bacteria tolerant to organic solvents. Isken S, et al. **Extremophiles** 1998 Aug;2(3):229–38 (113 ref.)

The preliminary evaluation of liver damage in rats intoxicated with methanol. Kasacka I, et al. **Folia Histochem Cytobiol** 1999;37(2):109–10

Parenchymal cell mitochondria in the liver of rats after methanol intoxication. Kasacka I, et al. **Folia Histochem Cytobiol** 1999;37(2):111–2

Role of SAM-dependent thiol methylation in the renal toxicity of several solvents in mice. Morel G, et al. **J Appl Toxicol** 1999 Jan–Feb;19(1):47–54

The effect of different solvents on the ATP/ADP content and growth properties of HeLa cells. Forman S, et al. **J Biochem Mol Toxicol** 1999;13(1):11–5

Effect of trichloroethylene on DNA methylation and expression of early-intermediate protooncogenes in the liver of B6C3F1 mice. Tao L, et al. **J Biochem Mol Toxicol** 1999;13(5):231–7

Induction of micronuclei in human lymphocytes by organic solvents in vitro. Zarani F, et al. **J Environ Pathol Toxicol Oncol** 1999;18(1):21–8

Formate-induced inhibition of photoreceptor function in methanol intoxication. Seme MT, et al. **J Pharmacol Exp Ther** 1999 Apr;289(1):361–70

Ethanol co-exposure increases lethality of allyl alcohol in male Sprague-Dawley rats. Lee JY, et al. **J Toxicol Environ Health** 1999 Jan 22;56(2):121–30

Activity of cathepsin G, elastase, and their inhibitors in plasma during methanol intoxication. Skrzydlewska E, et al. **J Toxicol Environ Health** 1999 Jul 23;57(6):431–42

Occurrence of toxicity and cell proliferation after a single gavage administration of chloroform to male F344 rats. Miyagawa M, et al. **J Toxicol Sci** 1998 Aug;23(3):205–11

Genotoxicity of Farbasol and its component: 4-ethyltoluene. Janik-Spiechowicz E, et al. **Mutat Res** 1998 Sep 11; 417(2–3):95–100

Evaluation of DNA damage by the Comet assay in shoe workers exposed to toluene and other organic solvents. Pitarque M, et al. **Mutat Res** 1999 Apr 26;441(1):115–27

Effects of short-term hydrocarbon inhalation on rat tracheal mucosa. Koptagel E, et al. **Okajimas Folia Anat Jpn** 1998 Aug;75(2–3):71–86

Alterations in superoxide dismutase activities, lipid peroxidation and glutathione levels in thinner inhaled rat lungs: relationship between histopathological properties. Ulakoğlu EZ, et al. **Pharmacol Res** 1998 Sep;38(3):209–14

Calculation of benchmark doses for reproductive and developmental toxicity observed after exposure to isopropanol. Allen B, et al. **Regul Toxicol Pharmacol** 1998 Aug;28(1):38–44

Safety assessment of lactate esters. Clary JJ, et al. **Regul Toxicol Pharmacol** 1998 Apr;27(2):88–97 (67 ref.)

Exposure to hydrocarbons and renal disease: an experimental animal model. Mutti A, et al. **Ren Fail** 1999 May–Jul; 21(3–4):369–85

Effects of 2-bromopropane on spermatogenesis in the Sprague-Dawley rat. Son HY, et al. **Reprod Toxicol** 1999 May–Jun;13(3):179–87

Analysis of lung damage induced by trichloroethylene inhalation in mice fed diets with low, normal, and high copper content. Giovanetti A, et al. **Toxicol Pathol** 1998 Sep–Oct;26(5):628–35

Disseminated thrombosis and bone infarction in female rats following inhalation exposure to 2-butoxyethanol. Nyska A, et al. **Toxicol Pathol** 1999 May–Jun;27(3):287–94

Chronic inhalation carcinogenicity study of commercial hexane solvent in F-344 rats and B6C3F1 mice. Daughtrey W, et al. **Toxicol Sci** 1999 Mar;48(1):21–9

2-Nitropropane-induced lipid peroxidation: antitoxic effects of melatonin. Kim SJ, et al. **Toxicology** 1998 Sep 15; 130(2–3):183–90

Trichloroethylene inhibits aldehyde dehydrogenase only for aliphatic aldehydes of short chains in rats. Wang RS, et al. **Toxicology** 1999 Jan 1;132(1):9–18

Psychiatric disorders related to solvent-exposure. Trabert W. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):121–6 (13 ref.)

[Neurotoxicity of 1-bromopropane in rats] Ohnishi A, et al. **Sangyo Ika Daigaku Zasshi** 1999 Mar 1;21(1):23–8 (Eng. Abstr.) **(Jpn)**

[Effect of benzene exposure on hematology and hepatic drug metabolic enzymes in ethanol administrated rats] Yamamura K, et al. **Sangyo Ika Daigaku Zasshi** 1999 Mar 1;21(1):29–35 (Eng. Abstr.) **(Jpn)**

[Effects of a plant preparation Korrda-K on metabolic reactions in the liver of rats exposed to acetone] Rakhmanin IuA, et al. **Gig Sanit** 1999 Jul–Aug;(4):41–4 (Eng. Abstr.) **(Rus)**

[The hygienic standardization of gamma-butyrolactone in the air of populated sites] Shugaev VA, et al. **Gig Sanit** 1999 Mar–Apr;(2):3–5 **(Rus)**

SOMAN

Medical management of organophosphate-induced seizures. Lallement G, et al. **J Physiol Paris** 1998 Oct–Dec; 92(5–6):369–73 (32 ref.)

ANALOGS & DERIVATIVES

On-line solid-phase extraction liquid chromatography-continuous flow frit fast atom bombardment mass spectrometric and tandem mass spectrometric determination of hydrolysis products of nerve agents alkyl methylphosphonic acids by p-bromophenacyl derivatization. Katagi M, et al. **J Chromatogr A** 1999 Feb 19;833(2):169–79

Postinoculation PMPA treatment, but not preinoculation immunomodulatory therapy, protects against development of acute disease induced by the unique simian immunodeficiency virus SIVsmmPBj. Hodge S, et al. **J Virol** 1999 Oct;73(10):8630–9

ANALYSIS

Polymer-based lanthanide luminescent sensor for detection of the hydrolysis product of the nerve agent Soman in water. Jenkins AL, et al. **Anal Chem** 1999 Jan 15; 71(2):373–8

Determination of alkylmethylphosphonic acids, the main metabolites of organophosphorus nerve agents, in biofluids by gas chromatography-mass spectrometry and liquid-liquid-solid-phase-transfer-catalyzed pentafluorobenzylation. Miki A, et al. **J Anal Toxicol** 1999 Mar–Apr;23(2):86–93

CHEMISTRY

Exploring the active center of human acetylcholinesterase with stereomers of an organophosphorus inhibitor with two chiral centers. Ordentlich A, et al. **Biochemistry** 1999 Mar 9;38(10):3055–66

IMMUNOLOGY

Hydrolysis of organophosphorus nerve agent soman by the monoclonal antibodies elicited against an oxyphosphorane hapten. Yli-Kauhaluoma J, et al. **Acta Chem Scand** 1999 Jul;53(7):473–9

METABOLISM

Hydrolysis of organophosphorus nerve agent soman by the monoclonal antibodies elicited against an oxyphosphorane hapten. Yli-Kauhaluoma J, et al. **Acta Chem Scand** 1999 Jul;53(7):473–9

The interaction of sarin and soman with plasma proteins: the identification of a novel phosphonylation site. Black RM, et al. **Arch Toxicol** 1999 Mar;73(2):123–6

A closer look at the natural substrate for a nerve-gas hydrolyzing enzyme in squid nerve. Hoskin FC, et al. **Biol Bull** 1998 Oct;195(2):197–8

PHARMACOLOGY

The pH dependence of dealkylation in soman-inhibited cholinesterases and their mutants: further evidence for a push-pull mechanism. Saxena A, et al. **Biochemistry** 1998 Oct 27;37(43):15086–96

Small molecular products of dealkylation in soman-inhibited electric eel acetylcholinesterase. Viragh C, et al. **Biochemistry** 1999 Jul 27;38(30):9557–61

Seizure-related opening of the blood-brain barrier produced by the anticholinesterase compound, soman: new ultrastructural observations. Grange-Messent V, et al. **Cell Mol Biol (Noisy-le-grand)** 1999 Feb;45(1):1–14

POISONING

Acute soman poisoning in primates neither pretreated nor receiving immediate therapy: value of gacyclidine (GK-11) in delayed medical support. Lallement G, et al. **Arch Toxicol** 1999 Mar;73(2):115–22

Nitric oxide and soman poisoning. Wang YX, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Sep;19(5):470–2

New generic approach to the treatment of organophosphate poisoning: adenosine receptor mediated inhibition of ACh-release. van Helden HP, et al. **Drug Chem Toxicol** 1998;21 Suppl 1:171–81

A comparison of the efficacy of a new asymmetric bispyridinium oxime BI-6 with currently available oximes and H oximes against soman by in vitro and in vivo methods. Kassa J, et al. **Toxicology** 1999 Feb 15; 132(2–3):111–8

TOXICITY

Toxicokinetics of soman in cerebrospinal fluid and blood of anaesthetized pigs. Göransson-Nyberg A, et al. **Arch Toxicol** 1998 Jul–Aug;72(8):459–67

Soman-induced hypertension in conscious rats is mediated by prolonged central muscarinic stimulation. Létienne R, et al. **Fundam Clin Pharmacol** 1999;13(4):468–74

Anticonvulsants for soman-induced seizure activity. Shih T, et al. **J Biomed Sci** 1999 Mar–Apr;6(2):86–96

GM1 monosialoganglioside pretreatment protects against soman-induced seizure-related brain damage. Ballough GP, et al. **Mol Chem Neuropathol** 1998 May;34(1):1–23

Low level nose-only exposure to the nerve agent soman: toxicokinetics of soman stereoisomers and cholinesterase inhibition in atropinized guinea pigs. Benschop HP, et al. **Toxicol Appl Pharmacol** 1998 Dec;153(2):179–85

Sarin-like and soman-like organophosphorous agents activate PLCgamma in rat brains. Niijima H, et al. **Toxicol Appl Pharmacol** 1999 Apr 1;156(1):64–9

Effect of soman on N-methyl-D-aspartate-stimulated [3H]norepinephrine release from rat cortical slices. Tang HW, et al. **Toxicol Lett** 1998 Nov 12;99(3):169–73

[Comparison of the effects of BI-6, a new asymmetric bipyridine oxime, with HI-6 oxime and obidoxime in combination with atropine on soman and fosdrine toxicity in mice] Kassa J. **Ceska Slov Farm** 1999 Jan;48(1):44–7 (Eng. Abstr.) **(Cze)**

SOMATIC CELL HYBRIDS see **HYBRID CELLS**

SOMATIC GENE THERAPY see **GENE THERAPY**

SOMATIZATION DISORDER see **SOMATOFORM DISORDERS**

SOMATOCRININ see **SOMATOTROPIN-RELEASING HORMONE**

SOMATOFORM DISORDERS

Managing somatic preoccupation [see comments] Righter EL, et al. **Am Fam Physician** 1999 Jun;59(11):3113–20 (44

ref.). Comment in: Am Fam Physician 1999 Jun;59(11):2980, 2982.
Functional somatic syndromes. Barsky AJ, et al. **Ann Intern Med** 1999 Jun 1;130(11):910–21 (204 ref.)
Body dysmorphic disorder in a Ghanaian male: case report. Turkson SN, et al. **East Afr Med J** 1999 Feb;76(2):111–4
Somatized mental disorder among primary care Arab patients: I. Prevalence and clinical and sociodemographic characteristics. El-Rufaie OE, et al. **J Psychosom Res** 1999 Jun;46(6):549–55
Persistent attenders and heartsink [editorial] Bligh H. **Med Educ** 1999 Jun;33(6):398
Psychogenic nonepileptic seizures: theoretic and clinical considerations. Sirven JI, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1998 Oct; 11(4):225–35 (75 ref.)
Hypochondriasis, somatization, and perceived health and utilization of health care services. Hollifield M, et al. **Psychosomatics** 1999 Sep–Oct;40(5):380–6
Psychogenic parasitosis. A case series and literature review. Slaughter JR, et al. **Psychosomatics** 1998 Nov–Dec; 39(6):491–500 (38 ref.)

BLOOD

Maternal blood group in ABO and Rh systems and somatic condition of newborns. Litwiejko-Pietryńczak E, et al. **Rocz Akad Med Bialymst** 1998;43:154–9
[Decrease in the platelet level of 43 kDa immunoreactive fraction of serotonin transporting protein correlates with depressive symptoms in patients with somatoform disorders] Belous AR, et al. **Vopr Med Khim** 1999 May–Jun; 45(3):256–62 (Eng. Abstr.) **(Rus)**

CLASSIFICATION

DSM-IV somatoform disorders: do we need a new classification? [editorial] Escobar JI, et al. **Gen Hosp Psychiatry** 1999 May–Jun;21(3):154–6
Toward empirically based criteria for the classification of somatoform disorders. Rief W, et al. **J Psychosom Res** 1999 Jun;46(6):507–18
Problems with psychodiagnostics at "environmental patients". Tretter F. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2–4):139–51 (27 ref.)

COMPLICATIONS

Posttraumatic stress disorder in hospitalized adolescents: psychiatric comorbidity and clinical correlates. Lipschitz DS, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Apr; 38(4):385–92
The value of provocation methods in patients suspected of having non-epileptic seizures. Dericioğlu N, et al. **Seizure** 1999 May;8(3):152–6
[Metamorphopsia of the Alice in Wonderland-syndrome (see comments)] Rodrigues Pereira R, et al. **Ned Tijdschr Geneeskd** 1998 Dec 19;142(51):2787–9 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 Mar 27;696; discussion 696; discussion 697–8. Comment in: Ned Tijdschr Geneeskd 1999 Mar 27;696; discussion 696–7; discussion 697–8. Comment in: Ned Tijdschr Geneeskd 1999 Mar 27;696; discussion 697; discussion 697–8. **(Dut)**
[Depression and somatic diseases. On one retrospective study of 210 patients with major depression hospitalized in a psychiatric hospital] Bigot T, et al. **Encephale** 1999 Jan–Feb;25(1):3–10 (Eng. Abstr.) **(Fre)**
[Autonomic effect of grandaxin in the treatment of neurotic disorders in general somatic practice (lecture)] Aleksandrovskiĭ IuA, et al. **Ter Arkh** 1998;70(10):76–8 **(Rus)**
[Paranoid nosogenic reactions in patients with somatoform disorders] Vybornykh DE. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):18–21 (34 ref.) (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Depressive disorders among somatizing patients in primary health care. Posse M, et al. **Acta Psychiatr Scand** 1998 Sep; 98(3):187–92
Body dysmorphic disorder and aesthetic surgery: case report. Castelló JR, et al. **Aesthetic Plast Surg** 1998 Sep–Oct; 22(5):329–31
Labeling the somatically preoccupied: have we gone too far? [editorial; comment] McCahill ME. **Am Fam Physician** 1999 Jun;59(11):2980, 2982. Comment on: Am Fam Physician 1999 Jun;59(11):3113–20.
Malingering assessment in behavioral toxicology: what, why, and how. Ben-Avi I, et al. **Am J Ind Med** 1998 Oct; 34(4):325–30 (32 ref.)
Health status, somatization, and severity of posttraumatic stress disorder in Vietnam combat veterans with posttraumatic stress disorder. Beckham JC, et al. **Am J Psychiatry** 1998 Nov;155(11):1565–9
Psychiatric symptoms endorsed by somatization disorder patients in a psychiatric clinic. Lenze EJ, et al. **Ann Clin Psychiatry** 1999 Jun;11(2):73–9
Stability of somatization disorder and somatization symptoms among primary care patients. Simon GE, et al. **Arch Gen Psychiatry** 1999 Jan;56(1):90–5
More thoughts on somatization [letter; comment] Zwillich SH. **Arch Intern Med** 1999 Aug 9–23;159(15):1813–4. Comment on: Arch Intern Med 1999 Feb 8;159(3):215–22.
Are there fundamental differences in the peripheral mechanisms of visceral and somatic pain? McMahon SB. **Behav Brain Sci** 1997 Sep;20(3):381–91; discussion 435–513
Body dysmorphic disorder by proxy [letter] Godden D. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):331
Psychological assessment of patients requesting orthognathic surgery and the relevance of body dysmorphic disorder. Cunningham SJ, et al. **Br J Orthod** 1998 Nov;25(4):293–8 (22 ref.)
Somatisation disorder in primary care. Escobar JI, et al. **Br J Psychiatry** 1998 Sep;173:262–6
The relations among body image, physical attractiveness, and body mass in adolescence. Rosenblum GD, et al. **Child Dev** 1999 Jan–Feb;70(1):50–64
Psychiatric patients presenting with primarily somatic symptoms: report of two cases. Turkson SN. **East Afr Med J** 1998 Sep;75(9):556–7
DSM-IV somatoform disorders: do we need a new classification? [editorial] Escobar JI, et al. **Gen Hosp Psychiatry** 1999 May–Jun;21(3):154–6
The somatoform conundrum: a question of nosological values. Martin RD. **Gen Hosp Psychiatry** 1999 May–Jun; 21(3):177–86 (22 ref.)
Hysteria—a chameleon or a fossil? Bhatia MS, et al. **Indian J Med Sci** 1998 Jun;52(6):227–30 (24 ref.)
Marital status, marital satisfaction, and body image dissatisfaction. Friedman MA, et al. **Int J Eat Disord** 1999 Jul;26(1):81–5
Evolving ideals of male body image as seen through action toys. Pope HG Jr, et al. **Int J Eat Disord** 1999 Jul; 26(1):65–72
Concordance between mothers' and children's reports of somatic and emotional symptoms in patients with recurrent abdominal pain or emotional disorders. Garber J, et al. **J Abnorm Child Psychol** 1998 Oct;26(5):381–91
Thirty-three cases of body dysmorphic disorder in children and adolescents. Albertini RS, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Apr;38(4):453–9
A comparison study of body dysmorphic disorder and obsessive-compulsive disorder. Phillips KA, et al. **J Clin Psychiatry** 1998 Nov;59(11):568–75
Perceived stress in body dysmorphic disorder. DeMarco LM, et al. **J Nerv Ment Dis** 1998 Nov;186(11):724–6
Diagnosis of "non-organic" limb paresis by a novel objective motor assessment: the quantitative Hoover's test. Ziv I, et al. **J Neurol** 1998 Dec;245(12):797–802
A comprehensive approach to the chronically somatizing patient [editorial] Barsky AJ. **J Psychosom Res** 1998 Oct; 45(4):301–6 (33 ref.)
Screening for somatization and hypochondriasis in primary care and neurological in-patients: a seven-item scale for hypochondriasis and somatization. Fink P, et al. **J Psychosom Res** 1999 Mar;46(3):261–73
Chronic burnout, somatic arousal and elevated salivary cortisol levels. Melamed S, et al. **J Psychosom Res** 1999 Jun;46(6):591–8
Rethinking somatoform disorders [editorial] Ono Y, et al. **J Psychosom Res** 1999 Jun;46(6):537–9
Toward empirically based criteria for the classification of somatoform disorders. Rief W, et al. **J Psychosom Res** 1999 Jun;46(6):507–18
Dysmorphophobia-by-proxy [letter; comment] Persaud R. **J R Soc Med** 1998 Aug;91(8):453–4. Comment on: J R Soc Med 1998 May;91(5):266.
Exploratory and confirmatory factor analyses of the Brief Symptom Inventory among substance abusers. Benishek LA, et al. **J Subst Abuse** 1998;10(2):103–14
Functional somatic syndromes: one or many? Wessely S, et al. **Lancet** 1999 Sep 11;354(9182):936–9 (29 ref.)
Limitations of a structured psychiatric diagnostic instrument in assessing somatization among Latino patients in primary care. Villaseñor Y, et al. **Med Care** 1999 Jul;37(7):637–46
The somatizing patient. Servan-Schreiber D, et al. **Prim Care** 1999 Jun;26(2):225–42 (38 ref.)
Minor head trauma. Weight DG. **Psychiatr Clin North Am** 1998 Sep;21(3):609–24 (58 ref.)
A hierarchical classes analysis (HICLAS) of primary care patients with medically unexplained somatic symptoms. Gara MA, et al. **Psychiatry Res** 1998 Oct 19;81(1):77–86
Brain fag symptoms in rural South African secondary school pupils. Peltzer K, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1187–96
Cardiorespiratory symptoms in response to physiological arousal. Barsky AJ, et al. **Psychosom Med** 1998 Sep–Oct; 60(5):604–9
An investigation of the co-occurrence of panic and somatization disorders through temperamental variables. Battaglia M, et al. **Psychosom Med** 1998 Nov–Dec; 60(6):726–9
Abridged somatization: a study in primary care. Escobar JI, et al. **Psychosom Med** 1998 Jul–Aug;60(4):466–72
Identifying illness: pitfalls and discoveries [editorial; comment] Frances AJ, et al. **Psychosom Med** 1998 Nov–Dec;60(6):669–70. Comment on: Psychosom Med 1998 Nov–Dec;60(6):663–8.
Association between somatic symptoms and 24-hour ambulatory blood pressure levels. Kristal-Boneh E, et al. **Psychosom Med** 1998 Sep–Oct;60(5):616–9
Signs, symptoms, and ill-defined conditions in Persian Gulf War veterans: findings from the Comprehensive Clinical Evaluation Program [see comments] Roy MJ, et al. **Psychosom Med** 1998 Nov–Dec;60(6):663–8. Comment in: Psychosom Med 1998 Nov–Dec;60(6):669–70.
Positive perceptions of parental caring are associated with reduced psychiatric and somatic symptoms. Russek LG, et al. **Psychosom Med** 1998 Sep–Oct;60(5):654–7
Psychiatric disorders in patients with fibromyalgia. A multicenter investigation. Epstein SA, et al. **Psychosomatics** 1999 Jan–Feb;40(1):57–63
Improved health care resource utilization following video-EEG-confirmed diagnosis of nonepileptic psychogenic seizures. Martin RC, et al. **Seizure** 1998 Oct; 7(5):385–90
Non-epileptic attack disorder and clinical outcome: a pilot study. Riaz H, et al. **Seizure** 1998 Oct;7(5):365–8
Cosmetic surgery: surgical tools—psychosocial goals. Grossbart TA, et al. **Semin Cutan Med Surg** 1999 Jun; 18(2):101–11 (32 ref.)
Somatized depression as a subgroup of fibromyalgia syndrome. Meyer-Lindenberg A, et al. **Z Rheumatol** 1998; 57 Suppl 2:92–3
Self-reported depression, familial history of depression and fibromyalgia (FM), and psychological distress in patients with FM. Offenbaecher M, et al. **Z Rheumatol** 1998;57 Suppl 2:94–6
Psychosocial factors and the fibromyalgia syndrome. Wolfe F, et al. **Z Rheumatol** 1998;57 Suppl 2:88–91 (24 ref.)
Interdisciplinary clinical assessment of patients with illness attributed to environmental factors. Schulze-Röbbecke R, et al. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):165–78
[Somatization in general practice] Jørgensen CK, et al. **Ugeskr Laeger** 1998 Oct 5;160(41):5919–23 (37 ref.) (Eng. Abstr.) **(Dan)**
[Ignorance does not hurt—or does it? (letter; comment)] Kallehauge H. **Ugeskr Laeger** 1999 Mar 1;161(9):1286–7. Comment on: Ugeskr Laeger 1998 Oct 19;160(43):6193. **(Dan)**
[Metamorphopsia of the Alice in Wonderland-syndrome (letter)] Rodrigues Pereira R, et al. **Ned Tijdschr Geneeskd** 1999 Mar 27;143(13):704 **(Dut)**
[Validation of a questionnaire of physical sensations in a French-Canadian population] Stephenson R, et al. **Encephale** 1998 Sep–Oct;24(5):415–25 (Eng. Abstr.) **(Fre)**
[Painful somatoform disorder and work incapacity] Fauchère PA. **Rev Med Suisse Romande** 1998 Sep;118(9):801–5 (10 ref.) **(Fre)**
[Dysmorphophobia—symptom or diagnosis?] Wegner U, et al. **Nervenarzt** 1999 Mar;70(3):233–9 (Eng. Abstr.) **(Ger)**
[Practicability and clinical relevance of routine psychological screening of patients in general internal medicine units] Herrmann C, et al. **Psychother Psychosom Med Psychol** 1999 Feb;49(2):48–54 (Eng. Abstr.) **(Ger)**
[Is early differentiation between psychogenic and somatogenic lumbago-ischialgia syndrome patients possible by anamnesis? Results of a screening study] von Plessen K, et al. **Psychother Psychosom Med Psychol** 1998 Nov; 48(11):451–6 (Eng. Abstr.) **(Ger)**
[The "small penis": considerations about subjective penile deficiency] Rosso C, et al. **Arch Ital Urol Androl** 1998 Dec; 70(5):227–33 (Eng. Abstr.) **(Ita)**
[The evaluation of the psychosomatic development in children after infectious and idiopathic cholestatic jaundice in neonatal and infantile period] Woś H, et al. **Wiad Lek** 1998;51(7–8):347–51 (Eng. Abstr.) **(Pol)**
[Clinical aspects of somatic disease and internal course of the disease (heart ischemia and bronchial asthma model)] Smulevich AB, et al. **Klin Med (Mosk)** 1999;77(2):17–23 (Eng. Abstr.) **(Rus)**
[The characteristics of the clinical picture and of the psychotherapy of somatogenically induced neurosis-like disorders in people subjected to ionizing radiation exposure as a result of the accident at the Chernobyl Atomic Electric Power Station] Svintsitskiĭ AS, et al. **Lik Sprava** 1998 Dec; (8):36–8 (Eng. Abstr.) **(Rus)**
[Paranoid nosogenic reactions in patients with somatoform disorders] Vybornykh DE. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(12):18–21 (34 ref.) (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Fluvoxamine for somatoform disorders: an open trial. Noyes R Jr, et al. **Gen Hosp Psychiatry** 1998 Nov;20(6):339–44
Somatic style and symptom reporting in rheumatoid arthritis. Barsky AJ, et al. **Psychosomatics** 1999 Sep–Oct; 40(5):396–403
Symptoms of patients suffering from somatoform disorders and ifenprodil [letter] Masuda Y. **Psychosomatics** 1999 Sep–Oct;40(5):449
[Opipramol (Insidon) in the treatment of somatoform disorders] Freyberger HJ, et al. **Fortschr Neurol Psychiatr** 1998 Dec;66 Suppl 1:S25–30 **(Fre)**
[Opipramol in anxiety and somatoform disorders. Results of a controlled study] Volz HP, et al. **Fortschr Neurol Psychiatr** 1998 Dec;66 Suppl 1:S21–4 **(Ger)**

EPIDEMIOLOGY

Antisocial behavior, substance use, and somatization in families of adolescent drug abusers and adolescent controls. Taylor J, et al. **Am J Drug Alcohol Abuse** 1998 Nov; 24(4):635–46
Frequency and comorbidity of social phobia and social fears

in adolescents. Essau CA, et al. **Behav Res Ther** 1999 Sep; 37(9):831–43

Illness behaviour in elite middle and long distance runners. Currie A, et al. **Br J Sports Med** 1999 Feb;33(1):19–21

Body dysmorphic disorder in psychiatric outpatients: recognition, prevalence, comorbidity, demographic, and clinical correlates. Zimmerman M, et al. **Compr Psychiatry** 1998 Sep–Oct;39(5):265–70

Prevalence of somatoform disorders in a psychiatric population: an Italian nationwide survey. Italian Collaborative Group on Somatoform Disorders. Altamura AC, et al. **Eur Arch Psychiatry Clin Neurosci** 1998; 248(6):267–71

The epidemiology of comorbidity between depression, anxiety disorders and somatic diseases. Maier W, et al. **Int Clin Psychopharmacol** 1999 May;14 Suppl 2:S1–6 (28 ref.)

Eating disorders and Axis I psychiatric comorbidity in amenorrheic women. Verri A, et al. **Int J Eat Disord** 1998 Sep;24(2):137–46

Somatic complaints and psychopathology in children and adolescents: stomach aches, musculoskeletal pains, and headaches. Egger HL, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Jul;38(7):852–60

Comorbid social anxiety and body dysmorphic disorder: managing the complicated patient. Hollander E, et al. **J Clin Psychiatry** 1999;60 Suppl 9:27–31

Medically unexplained symptoms in primary care. Katon WJ, et al. **J Clin Psychiatry** 1998;59 Suppl 20:15–21 (54 ref.)

Application of the high risk model of threat perception to a primary care patient population. McGrady A, et al. **J Nerv Ment Dis** 1999 Jun;187(6):369–75

Outbreak of Coca-Cola-related illness in Belgium: a true association [letter] Van Loock F, et al. **Lancet** 1999 Aug 21;354(9179):680–1

Post-traumatic stress disorder and somatization symptoms: a prospective study. Andreski P, et al. **Psychiatry Res** 1998 Jun 15;79(2):131–8

Chronic fatigue syndrome in psychiatric patients: lifetime and premorbid personal history of physical health. Endicott NA. **Psychosom Med** 1998 Nov–Dec;60(6):744–51

Somatization in primary care. Prevalence, health care utilization, and general practitioner recognition. Fink P, et al. **Psychosomatics** 1999 Jul–Aug;40(4):330–8

[Psychiatric disorders: incidence, psychosocial effects and correlation with physical illnesses] Wittchen HU, et al. **Gesundheitswesen** 1998 Dec;60 Suppl 2:S95–100 **(Ger)**

ETHNOLOGY

Limitations of a structured psychiatric diagnostic instrument in assessing somatization among Latino patients in primary care. Villaseñor Y, et al. **Med Care** 1999 Jul;37(7):637–46

Postpartum illness in Fiji: a sociosomatic perspective [see comments] Becker AE. **Psychosom Med** 1998 Jul–Aug; 60(4):431–8. Comment in: Psychosom Med 1998 Jul–Aug;60(4):389–93.

The sociosomatic course of depression and trauma: a cultural analysis of suffering and resilience in the life of a Puerto Rican woman [see comment] Jenkins JH, et al. **Psychosom Med** 1998 Jul–Aug;60(4):439–47. Comment on: Psychosom Med 1998 Jul–Aug;60(4):389–93.

Culture and somatization: clinical, epidemiological, and ethnographic perspectives [see comments] Kirmayer LJ, et al. **Psychosom Med** 1998 Jul–Aug;60(4):420–30 (95 ref.) . Comment in: Psychosom Med 1998 Jul–Aug;60(4):389–93.

Estranged bodies, simulated harmony, and misplaced cultures: neurasthenia in contemporary Chinese society [see comments] Lee S. **Psychosom Med** 1998 Jul–Aug; 60(4):448–57 (52 ref.). Comment in: Psychosom Med 1998 Jul–Aug;60(4):389–93.

ETIOLOGY

Multiple forms of stress in refugee and immigrant children. Sack WH. **Child Adolesc Psychiatr Clin N Am** 1998 Jan; 7(1):153–67, ix–x (54 ref.)

Life stage, substance use and health decline in a community cohort of urban African Americans. Brunswick AF, et al. **J Addict Dis** 1999;18(1):53–71

Persistent somatization in cancer: a controlled follow-up study. Chaturvedi SK, et al. **J Psychosom Res** 1998 Sep; 45(3):249–56

Degree of somatoform and psychological dissociation in dissociative disorder is correlated with reported trauma. Nijenhuis ER, et al. **J Trauma Stress** 1998 Oct;11(4):711–30

The association of sexual and physical abuse with somatization: characteristics of patients presenting with irritable bowel syndrome and non-epileptic attack disorder. Reilly J, et al. **Psychol Med** 1999 Mar;29(2):399–406

Urban traffic noise and self-reported health. Gómez-Jacinto L, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1105–8

A long-term follow-up study of psychosocial functioning after autologous bone marrow transplantation in childhood. Arvidson J, et al. **Psychooncology** 1999 Mar–Apr; 8(2):123–34

Body dysmorphic disorder and a prosthesis. Roskes E. **Psychosomatics** 1999 Sep–Oct;40(5):436–7

HIV dementia presenting with somatic delusions and psychogenic polydipsia [letter] Torruella I, et al. **Psychosomatics** 1999 Mar–Apr;40(2):134

Chronic pelvic pain as a somatoform disorder. Ehlert U, et al. **Psychother Psychosom** 1999 Mar–Apr;68(2):87–94

Adverse reactions to peak flow monitoring. Report of 5 patients. Schoch OD, et al. **Respiration** 1998;65(4):320–2

Environmental psychosomatics--an integrative model. Küchenhoff J. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2–4):261–71

Environmental odours and somatic complaints. Steinheider B. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):101–19

Problems with psychodiagnostics at "environmental patients". Tretter F. **Zentralbl Hyg Umweltmed** 1999 Aug; 202(2–4):139–51 (27 ref.)

[Organic somatoform disorder. Case report] Caixeta M, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):120–5 (Eng. Abstr.) **(Por)**

HISTORY

In the Darwin family tradition: another look at Charles Darwin's ill health. Katz-Sidlow RJ. **J R Soc Med** 1998 Sep;91(9):484–8

Medical knowledge and the intractable patient: the case of chronic low back pain. May C, et al. **Soc Sci Med** 1999 Feb;48(4):523–34

PHYSIOPATHOLOGY

Psychic and somatic anxiety: worries, somatic symptoms and physiological changes. Hoehn-Saric R. **Acta Psychiatr Scand Suppl** 1998;393:32–8 (36 ref.)

Negative affect, respiratory reactivity, and somatic complaints in a CO2 enriched air inhalation paradigm. Stegen K, et al. **Biol Psychol** 1998 Sep;49(1–2):109–22

The effects of cognitive and somatic anxiety and self-confidence on components of performance during competition. Parfitt G, et al. **J Sports Sci** 1999 May; 17(5):351–6

Possible association between delusional disorder, somatic type and reduced regional cerebral blood flow. Wada T, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb;23(2):353–7

Symptoms of patients suffering from somatoform disorders and ifenprodil [letter] Masuda Y. **Psychosomatics** 1999 Sep–Oct;40(5):449

PSYCHOLOGY

Body dysmorphic disorder and aesthetic surgery: case report. Castelló JR, et al. **Aesthetic Plast Surg** 1998 Sep–Oct; 22(5):329–31

Communicating effectively with a patient who has a somatization disorder. Johns M. **Am Fam Physician** 1999 May 1;59(9):2639–40

Sequelae of postpartum sterilization. Rosenfeld BL, et al. **Arch Gynecol Obstet** 1998;261(4):183–7

Somatization reconsidered: incorporating the patient's experience of illness [see comments] Epstein RM, et al. **Arch Intern Med** 1999 Feb 8;159(3):215–22 (86 ref.). Comment in: Arch Intern Med 1999 Aug 9–23;159(15):1813–4.

More thoughts on somatization [letter; comment] Zwillich SH. **Arch Intern Med** 1999 Aug 9–23;159(15):1813–4. Comment on: Arch Intern Med 1999 Feb 8;159(3):215–22.

Management of somatisers in primary care: are family doctors motivated? Garcia-Campayo J, et al. **Aust N Z J Psychiatry** 1998 Aug;32(4):528–33

Patients' perceptions of medical explanations for somatisation disorders: qualitative analysis. Salmon P, et al. **BMJ** 1999 Feb 6;318(7180):372–6

Hypochondriacal concerns, symptom reporting and secondary gain mechanisms. Ferguson E. **Br J Med Psychol** 1998 Sep;71 (Pt 3):281–95

Research notes on social order and subjectivity: individuals' experience of susto and fallen fontanelle in a rural community in central Mexico. Castro R, et al. **Cult Med Psychiatry** 1998 Jun;22(2):203–30

Temporomandibular disorders: evidence for significant overlap with psychopathology. Kight M, et al. **Health Psychol** 1999 Mar;18(2):177–82

Dhat syndrome--culture bound sex neurosis. Bhatia MS, et al. **Indian J Med Sci** 1998 Jan;52(1):30–5 (25 ref.)

Marital status, marital satisfaction, and body image dissatisfaction. Friedman MA, et al. **Int J Eat Disord** 1999 Jul;26(1):81–5

Somatization in young versus older female panic disorder patients. Sheikh JI, et al. **Int J Geriatr Psychiatry** 1998 Aug;13(8):564–7

Prevalence of somatic indicators of distress in diabetes patients: comparison to psychiatric patients and community nonpatients. Aikens JE. **Int J Psychiatry Med** 1998; 28(3):265–72

Sexuality and somatic illness. Nasir Ilahi M. **Int J Psychoanal** 1998 Jun;79 (Pt 3):579–82

Health beliefs and reported symptoms among a sample of incarcerated adolescent females. Williams RA, et al. **J Adolesc Health** 1999 Jan;24(1):21–7

Somatization in pediatric primary care: association with psychopathology, functional impairment, and use of services. Campo JV, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Sep; 38(9):1093–101

A psychological perspective of irritable bowel syndrome. Kohutis EA. **J Clin Gastroenterol** 1998 Sep;27(2):158–61

Differential effects of treatment modality on psychosocial functioning of cocaine-dependent men. Kasarabada ND, et al. **J Clin Psychol** 1999 Feb;55(2):257–74

Avoidance personal goals and the personality-illness relationship. Elliot AJ, et al. **J Pers Soc Psychol** 1998 Nov; 75(5):1282–99

Subjective symptoms and breathing pattern at rest and following hyperventilation in anxiety and somatoform disorders. Han JN, et al. **J Psychosom Res** 1998 Dec; 45(6):519–32

Chronic burnout, somatic arousal and elevated salivary cortisol levels. Melamed S, et al. **J Psychosom Res** 1999 Jun;46(6):591–8

Rethinking somatoform disorders [editorial] Ono Y, et al. **J Psychosom Res** 1999 Jun;46(6):537–9

Dysmorphophobia: a distorted perception of one's self-appearance. Mawn LA, et al. **Ophthal Plast Reconstr Surg** 1998 Nov;14(6):446–50

Psychogenic pain; in whose mind? Re: Kendall et al., Pain, 78 (1998) 223–225 [letter] Thompson EN. **Pain** 1999 Jul; 82(1):109–10

Highly somatizing young adolescents and the risk of depression. Zwaigenbaum L, et al. **Pediatrics** 1999 Jun; 103(6 Pt 1):1203–9

The association of sexual and physical abuse with somatization: characteristics of patients presenting with irritable bowel syndrome and non-epileptic attack disorder. Reilly J, et al. **Psychol Med** 1999 Mar;29(2):399–406

A long-term follow-up study of psychosocial functioning after autologous bone marrow transplantation in childhood. Arvidson J, et al. **Psychooncology** 1999 Mar–Apr; 8(2):123–34

Do antidepressants have an analgesic effect in psychogenic pain and somatoform pain disorder? A meta-analysis. Fishbain DA, et al. **Psychosom Med** 1998 Jul–Aug; 60(4):503–9

Association between somatic symptoms and 24-hour ambulatory blood pressure levels. Kristal-Boneh E, et al. **Psychosom Med** 1998 Sep–Oct;60(5):616–9

The development of a cognitive scale for functional bowel disorders. Toner BB, et al. **Psychosom Med** 1998 Jul–Aug; 60(4):492–7

Sociosomatics and illness in chronic fatigue syndrome [see comments] Ware NC. **Psychosom Med** 1998 Jul–Aug; 60(4):394–401. Comment in: Psychosom Med 1999 Mar–Apr;61(2):256.

Notes on an evolutionary medicine. Weiner H. **Psychosom Med** 1998 Jul–Aug;60(4):510–20 (83 ref.)

Somatic style and symptom reporting in rheumatoid arthritis. Barsky AJ, et al. **Psychosomatics** 1999 Sep–Oct; 40(5):396–403

Panic disorder patients and their medical care. Barsky AJ, et al. **Psychosomatics** 1999 Jan–Feb;40(1):50–6

Irritable bowel syndrome and recurrent abdominal pain. A comparative review. Burke P, et al. **Psychosomatics** 1999 Jul–Aug;40(4):277–85 (86 ref.)

Hypochondriasis and somatization related to personality and attitudes toward self. Hollifield M, et al. **Psychosomatics** 1999 Sep–Oct;40(5):387–95

Attachment and interpersonal communication in somatization. Stuart S, et al. **Psychosomatics** 1999 Jan–Feb; 40(1):34–43 (68 ref.)

Psychiatric disorders and survival after lung transplantation. Woodman CL, et al. **Psychosomatics** 1999 Jul–Aug; 40(4):293–7

Psychological and psychiatric aspects of fibromyalgia syndrome (FMS). Keel P. **Z Rheumatol** 1998;57 Suppl 2:97–100 (15 ref.)

The fibromyalgia syndrome as a manifestation of neuroticism? Netter P, et al. **Z Rheumatol** 1998;57 Suppl 2:105–8 (32 ref.)

Environmental odours and somatic complaints. Steinheider B. **Zentralbl Hyg Umweltmed** 1999 Aug;202(2–4):101–19

[Anxiety and somatoform disorders. Their diagnosis, epidemiology, biological causes and therapy] Maier W. **Fortschr Neurol Psychiatr** 1998 Dec;66 Suppl 1:S3–8 (17 ref.) **(Ger)**

[Prevalence of psychological symptoms in dermatologic patients of an acute clinic] Windemuth D, et al. **Hautarzt** 1999 May;50(5):338–43 (Eng. Abstr.) **(Ger)**

[Conversion syndromes in neurology. A psychopathological and psychodynamic differentiation of conversion disorder, somatization disorder and factitious disorder] Kapfhammer HP, et al. **Psychother Psychosom Med Psychol** 1998 Dec; 48(12):463–74 (Eng. Abstr.) **(Ger)**

[Personality of patients with somatoform disorders] Hasler G, et al. **Schweiz Rundsch Med Prax** 1999 Mar 25; 88(13):559–63 (Eng. Abstr.) **(Ger)**

[Can psychosomatic concepts make a contribution in surgery?] Adler RH. **Swiss Surg** 1999;5(4):167–9 (Eng. Abstr.) **(Ger)**

[Psychological stress factors in erectile dysfunctions. Causal models and empirical results] Hartmann U. **Urologe A** 1998 Sep;37(5):487–94 (Eng. Abstr.) **(Ger)**

[Psychological stress of inpatients with acute and chronic lumbar syndrome] Quint U, et al. **Z Orthop Ihre Grenzgeb** 1998 Sep–Oct;136(5):444–50 (Eng. Abstr.) **(Ger)**

[Clinical aspects of somatic disease and internal course of the disease (heart ischemia and bronchial asthma model)] Smulevich AB, et al. **Klin Med (Mosk)** 1999;77(2):17–23 (Eng. Abstr.) **(Rus)**

[Difficulties in the physician-patient relationship in somaticizers (I). Patient expectations] Garcia-Campayo J, et al. **Med Clin (Barc)** 1999 Jan 30;112(3):102–5 (37 ref.)

(Spa)

[Difficulties in the physician-patient relationship in somaticizers (II). The reactions of the professional and the types of relationship] Sanz-Carrillo C, et al. **Med Clin (Barc)** 1999 Feb 6;112(4):147-50 **(Spa)**

REHABILITATION

Rehabilitation hospitalism. Barolin GS. **Int J Rehabil Res** 1998 Jun;21(2):211-22

[Partial inpatient treatment as a responsibility in psychosomatic rehabilitation] Mans EJ. **Gesundheitswesen** 1998 Jul;60(7):399-405 (Eng. Abstr.) **(Ger)**

[Homeopathy--possibilities and limits] Halter K. **Schweiz Rundsch Med Prax** 1998 Aug 5;87(31-32):969-74 (0 ref.) **(Ger)**

[Quality assurance in inpatient psychosomatic treatment and rehabilitation] Rüddel H. **Schweiz Rundsch Med Prax** 1998 Sep 23;87(39):1248-51 (Eng. Abstr.) **(Ger)**

THERAPY

The bifocal strategy. A new model for flexible liaison between departments of somatic medicine and psychiatrists or psychologists. Jonckheere P, et al. **Acta Clin Belg** 1999 Apr;54(2):72-9

Labeling the somatically preoccupied: have we gone too far? [editorial; comment] McCahill ME. **Am Fam Physician** 1999 Jun;59(11):2980, 2982. Comment on: Am Fam Physician 1999 Jun;59(11):3113-20.

Cognitive behavior group therapy for body dysmorphic disorder: a case series. Wilhelm S, et al. **Behav Res Ther** 1999 Jan;37(1):71-5

Effect of comorbid anxiety, depressive, and personality disorders on treatment outcome of somatoform disorders. Leibbrand R, et al. **Compr Psychiatry** 1999 May-Jun; 40(3):203-9

Diagnostic delays and dilemmas. Management of affected patients in the psychiatric inpatient unit of a general children's hospital. Fennig S, et al. **Gen Hosp Psychiatry** 1999 Mar-Apr;21(2):122-7

Comorbid social anxiety and body dysmorphic disorder: managing the complicated patient. Hollander E, et al. **J Clin Psychiatry** 1999;60 Suppl 9:27-31

Influence of personality disorders on therapy outcome in somatoform disorders at 2-year follow-up. Leibbrand R, et al. **J Nerv Ment Dis** 1999 Aug;187(8):509-12

The somatizing patient. Servan-Schreiber D, et al. **Prim Care** 1999 Jun;26(2):225-42 (38 ref.)

Cognitive-behavioral therapy for paruresis: a case report. Jaspers JP. **Psychol Rep** 1998 Aug;83(1):187-96

Integrating medical and psychiatric treatment in an inpatient medical setting. The type IV program. Kishi Y, et al. **Psychosomatics** 1999 Jul-Aug;40(4):345-55

Cognitive behavioural therapy for patients with electric sensitivity - a multidisciplinary approach in a controlled study. Hillert L, et al. **Psychother Psychosom** 1998; 67(6):302-10

Non-epileptic attack disorder and clinical outcome: a pilot study. Riaz H, et al. **Seizure** 1998 Oct;7(5):365-8

[Phytotherapy. 6: Nervous system applications] Ernst E, et al. **Fortschr Med** 1998 Aug 30;116(24):37-8 **(Ger)**

[Geriatric psychosomatic disorders and psychotherapy of the elderly. Current concept and approaches to treatment] Heuft G. **Psychother Psychosom Med Psychol** 1998 Jul; 48(7):232-42 (130 ref.) (Eng. Abstr.) **(Ger)**

[Clinical hypnosis. Current status of theory and empirical aspects] Revenstorf D. **Psychother Psychosom Med Psychol** 1999 Jan;49(1):5-13 (68 ref.) (Eng. Abstr.) **(Ger)**

[The Symptom Checklist-90-R (SCL-90-R) for presenting statistically and clinically significant psychotherapy outcome] Schauenburg H, et al. **Psychother Psychosom Med Psychol** 1998 Jul;48(7):257-64 (Eng. Abstr.) **(Ger)**

SOMATOMAMMOTROPIN, CHORIONIC see **PLACENTAL LACTOGEN**

SOMATOMAMMOTROPIN RECEPTORS see **RECEPTORS, SOMATOTROPIN**

SOMATOMEDIN-BINDING PROTEINS see **INSULIN-LIKE GROWTH-FACTOR-BINDING PROTEINS**

SOMATOMEDIN C see **INSULIN-LIKE GROWTH FACTOR I**

SOMATOMEDIN C RECEPTORS see **RECEPTORS, INSULIN-LIKE-GROWTH FACTOR I**

SOMATOMEDIN MSA see **INSULIN-LIKE GROWTH FACTOR II**

SOMATOMEDIN RECEPTORS see **RECEPTORS, SOMATOMEDIN**

SOMATOMEDINS

see related
RECEPTORS, SOMATOMEDIN

ANALYSIS

Insulin-like growth factors in human breast cancer. Ellis MJ, et al. **Breast Cancer Res Treat** 1998;52(1-3):175-84 (62 ref.)

Evaluation of continuous infusion suramin in metastatic breast cancer: impact on plasma levels of insulin-like growth factors (IGFs) and IGF-binding proteins. Lawrence JB, et al. **Clin Cancer Res** 1997 Oct;3(10):1713-20

Increased cortical bone content of insulin-like growth factors in acromegalic patients. Ueland T, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):123-7

Serum levels of insulin-like growth factor system components and relationship to bone metabolism in Type 1 and Type 2 diabetes mellitus patients. Jehle PM, et al. **J Endocrinol** 1998 Nov;159(2):297-306

BIOSYNTHESIS

Tissue-specific expression of messenger ribonucleic acids for insulin-like growth factors and insulin-like growth factor-binding proteins during perinatal development of the rat uterus. Gu Y, et al. **Biol Reprod** 1999 May; 60(5):1172-82

Expression of insulin-like growth factors and corresponding binding proteins (IGFBP 1-6) in rat spinal cord and peripheral nerve after axonal injuries. Hammarberg H, et al. **J Comp Neurol** 1998 Oct 12;400(1):57-72

CEREBROSPINAL FLUID

Insulin-like growth factor system in serum and cerebrospinal fluid in patients with multiple sclerosis. Wilczak N, et al. **Neurosci Lett** 1998 Dec 4;257(3):168-70

CHEMISTRY

Analysis of the extent of unfolding of denatured insulin-like growth factor. Chang JY, et al. **Protein Sci** 1999 Jul; 8(7):1463-8

GENETICS

Insulin-like growth factor (IGF)-I, IGF-II, IGF-binding protein-2 and pregnancy-associated glycoprotein mRNA in pigs with somatotropin-enhanced fetal growth. Sterle JA, et al. **J Endocrinol** 1998 Dec;159(3):441-50

Follicular and luteal expression of insulin-like growth factors I and II and the type 1 IGF receptor in the bovine ovary. Perks CM, et al. **J Reprod Fertil** 1999 May;116(1):157-65

METABOLISM

Changes in the circulating IGF system during short-term fasting and refeeding in rats. Frystyk J, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E245-52

Insulin-like growth factors and prostate cancer. Pollak M, et al. **Cancer Metastasis Rev** 1998-99;17(4):383-90 (44 ref.)

Serum insulin-like growth factors and insulin-like growth factor-binding proteins: clinical implications. Rosen CJ. **Clin Chem** 1999 Aug;45(8 Pt 2):1384-90 (75 ref.)

Recombinant human insulin-like growth factor-I (rhIGF-I) therapy in adults with type 1 diabetes mellitus: effects on IGFs, IGF-binding proteins, glucose levels and insulin treatment. Carroll PV, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):739-46

Effects of growth hormone treatment on serum levels of insulin-like growth factors (IGFs) and IGF binding proteins 1-4 in postmenopausal women. Kassem M, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):747-56

Some of my not so favorite things about insulin and insulin-like growth factors in fish. Plisetskaya EM. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep; 121(1):3-11 (78 ref.)

Growth factors in preimplantation development: role of insulin and insulin-like growth factors. Heyner S. **Early Pregnancy** 1997 Sep;3(3):153-63 (86 ref.)

Structure of the IGF-binding domain of the insulin-like growth factor-binding protein-5 (IGFBP-5): implications for IGF and IGF-I receptor interactions. Kalus W, et al. **EMBO J** 1998 Nov 16;17(22):6558-72

Expression of mouse ovarian insulin growth factor system components during follicular development and atresia. Wandji SA, et al. **Endocrinology** 1998 Dec;139(12):5205-14

Expression of the insulin-like growth factors and their receptors in adenocarcinoma of the colon. Freier S, et al. **Gut** 1999 May;44(5):704-8

Differentiated phenotype of smooth muscle cells depends on signaling pathways through insulin-like growth factors and phosphatidylinositol 3-kinase. Hayashi K, et al. **J Biol Chem** 1998 Oct 30;273(44):28860-7

N-Linked glycosylation and sialylation of the acid-labile subunit. Role in complex formation with insulin-like growth factor (IGF)-binding protein-3 and the IGFs. Janosi JB, et al. **J Biol Chem** 1999 Feb 26;274(9):5292-8

Effects of recombinant human insulin-like growth factor I (IGF-I) therapy on the growth hormone-IGF system of a patient with a partial IGF-I gene deletion. Camacho-Hübner C, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1611-6

Decreased serum levels of acid-labile subunit in patients with anorexia nervosa. Fukuda I, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2034-6

Cellular distribution and ontogeny of insulin-like growth factors (IGFs) and IGF binding protein messenger RNAs and peptides in developing rat pancreas. Hill DJ, et al. **J Endocrinol** 1999 Feb;160(2):305-17

The pediatric growth curve as a cancer research tool [editorial; comment] Blatt J, et al. **J Pediatr** 1999 Feb; 134(2):138-40. Comment on: J Pediatr 1999 Feb;134(2):178-84.

Growth hormone resistance and somatomedins in children with end-stage liver disease awaiting transplantation. Greer RM, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug; 27(2):148-54

Growth hormone bioactivity, insulin-like growth factors (IGFs), and IGF binding proteins in obese children. Radetti G, et al. **Metabolism** 1998 Dec;47(12):1490-3

Role of insulin-like growth factor binding proteins in controlling IGF actions. Clemmons DR. **Mol Cell Endocrinol** 1998 May 25;140(1-2):19-24 (32 ref.)

Enhancement of insulin-like growth factor signaling in human breast cancer: estrogen regulation of insulin receptor substrate-1 expression in vitro and in vivo. Lee AV, et al. **Mol Endocrinol** 1999 May;13(5):787-96

Insulin-like growth factors and binding proteins in multiple sclerosis plaques. Gveric D, et al. **Neuropathol Appl Neurobiol** 1999 Jun;25(3):215-25

Insulin-like growth factor system in serum and cerebrospinal fluid in patients with multiple sclerosis. Wilczak N, et al. **Neurosci Lett** 1998 Dec 4;257(3):168-70

["Prostatic" kallikreins, sex hormones and insulin-like growth factors: complex of male and female regulatory elements in health and carcinogenesis] Zezerov EG, et al. **Vestn Ross Akad Med Nauk** 1999;(3):49-56 (63 ref.) (Eng. Abstr.) **(Rus)**

[The role of insulin-like growth factor in polycystic ovary syndrome] Aquino Carlos P, et al. **Ginecol Obstet Mex** 1999 Jun;67:267-71 (Eng. Abstr.) **(Spa)**

PHARMACOLOGY

Interaction of angiotensin II and the insulin-like growth factor system in vascular smooth muscle cells. Gustafsson T, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H499-507

Proteoglycans in human malignant mesothelioma. Stimulation of their synthesis induced by epidermal, insulin and platelet-derived growth factors involves receptors with tyrosine kinase activity. Syrokou A, et al. **Biochimie** 1999 Jul;81(7):733-44

Effect of insulin-like growth factors (IGFs) and IGF-binding proteins on in vitro sperm motility. Miao ZR, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):235-9

Growth hormone and insulin-like growth factors have different effects on sebaceous cell growth and differentiation. Deplewski D, et al. **Endocrinology** 1999 Sep; 140(9):4089-94

Regulation of steroidogenesis by insulin-like growth factors (IGFs) in adult human adrenocortical cells: IGF-I and, more potently, IGF-II preferentially enhance androgen biosynthesis through interaction with the IGF-I receptor and IGF-binding proteins. Fottner C, et al. **J Endocrinol** 1998 Sep;158(3):409-17

Insulin-like growth factors prevent cytokine-mediated cell death in isolated islets of Langerhans from pre-diabetic non-obese diabetic mice. Hill DJ, et al. **J Endocrinol** 1999 Apr;161(1):153-65

Effect of follicle stimulating hormone and insulin-like growth factors on proteolysis of insulin-like growth factor binding protein-4 in human granulosa cells. Iwashita M, et al. **Mol Hum Reprod** 1998 Apr;4(4):401-5

PHYSIOLOGY

Peptide growth factors and prostate cancer: new models, new opportunities. Foster BA, et al. **Cancer Metastasis Rev** 1998-99;17(4):317-24 (55 ref.)

Insulin-like growth factors and prostate cancer. Pollak M, et al. **Cancer Metastasis Rev** 1998-99;17(4):383-90 (44 ref.)

Role of insulin-like growth factors and related binding proteins in glycemic control in children and adolescents with IDDM. Amemiya S, et al. **Endocr J** 1998 Apr;45 Suppl:S133-6

Insulin-like growth factors - insulin-like growth factor binding protein axis and diabetic control in insulin-dependent diabetes mellitus. Hasegawa T, et al. **Endocr J** 1998 Apr;45 Suppl:S129-31

The insulin-related ovarian regulatory system in health and disease. Poretsky L, et al. **Endocr Rev** 1999 Aug; 20(4):535-82 (811 ref.)

Growth factor action on ovarian function in polycystic ovary syndrome. Giudice LC. **Endocrinol Metab Clin North Am** 1999 Jun;28(2):325-39, vi (117 ref.)

The role of cell surface attachment and proteolysis in the insulin-like growth factor (IGF)-independent effects of IGF-binding protein-3 on apoptosis in breast epithelial cells. Maile LA, et al. **Endocrinology** 1999 Sep; 140(9):4040-5

Luteinizing hormone-releasing hormone agonists interfere with the mitogenic activity of the insulin-like growth factor system in androgen-independent prostate cancer cells. Marelli MM, et al. **Endocrinology** 1999 Jan;140(1):329-34

The insulin-like growth factors (IGF) and IGF type I receptor during postnatal growth of the murine mammary gland: sites of messenger ribonucleic acid expression and potential functions. Richert MM, et al. **Endocrinology** 1999 Jan;140(1):454-61

Insulin-like growth factor binding proteins: new proteins,

SOMATOMEDINS

new functions. Ferry Jr RJ, et al. **Horm Res** 1999; 51(2):53–67 (166 ref.)

The IGF axis and programmed cell death. Butt AJ, et al. **Immunol Cell Biol** 1999 Jun;77(3):256–62 (76 ref.)

The relationship between endogenous insulin-like growth factors and growth in pigs. Owens PC, et al. **J Anim Sci** 1999 Aug;77(8):2098–103

The matrix metalloproteinase-9 regulates the insulin-like growth factor-triggered autocrine response in DU-145 carcinoma cells. Mañes S, et al. **J Biol Chem** 1999 Mar 12;274(11):6935–45

IGFs and IGF-binding proteins in the regulation of human ovarian and endometrial function. Wang HS, et al. **J Endocrinol** 1999 Apr;161(1):1–13 (136 ref.)

Mechanisms of insulin-like growth factor regulation of programmed cell death of developing avian motoneurons. D'Costa AP, et al. **J Neurobiol** 1998 Sep 5;36(3):379–94

Characterization of the insulin-like growth factor axis in the human thymus. Kecha O, et al. **J Neuroendocrinol** 1999 Jun;11(6):435–40

Developing Schwann cells acquire the ability to survive without axons by establishing an autocrine circuit involving insulin-like growth factor, neurotrophin-3, and platelet-derived growth factor-BB. Meier C, et al. **J Neurosci** 1999 May 15;19(10):3847–59

Insulin-like growth factor-II increases and IGF is required for postnatal rat spinal motoneuron survival following sciatic nerve axotomy. Pu SF, et al. **J Neurosci Res** 1999 Jan 1;55(1):9–16

Insulin-like growth factors and ovarian physiology. Yoshimura Y. **J Obstet Gynaecol Res** 1998 Oct;24(5):305–23 (117 ref.)

Paracrine actions of insulin-like growth factors and IGF binding protein-1 in non-pregnant human endometrium and at the decidual-trophoblast interface. Giudice LC, et al. **J Reprod Immunol** 1998 Aug;39(1–2):133–48 (66 ref.)

Do insulin-like growth factors mediate the effect of alcohol on breast cancer risk? Yu H, et al. **Med Hypotheses** 1999 Jun;52(6):491–6 (76 ref.)

Asphyxial brain injury—the role of the IGF system. Gluckman PD, et al. **Mol Cell Endocrinol** 1998 May 25; 140(1–2):95–9 (33 ref.)

The IGF system during fetal-placental development of the mouse. van Kleffens M, et al. **Mol Cell Endocrinol** 1998 May 25;140(1–2):129–35 (59 ref.)

The growth hormone-insulin-like growth factor axis in kidney re-revisited. Hammerman MR. **Nephrol Dial Transplant** 1999 Aug;14(8):1853–60 (54 ref.)

Interactions between glucocorticoids and the growth hormone-insulin-like growth factor axis. Tönshoff B, et al. **Pediatr Transplant** 1997 Nov;1(2):183–9 (62 ref.)

Roles of the insulinlike growth factor family in nonpregnant human endometrium and at the decidual: trophoblast interface. Giudice LC, et al. **Semin Reprod Endocrinol** 1999; 17(1):13–21 (92 ref.)

RADIATION EFFECTS

[The effect of laser radiation on the blood somatomedin activity in patients with spinal osteochondrosis] Bogatyreva TV. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug; (4):21–3 **(Rus)**

SECRETION

Is there a local IGF-system in human adrenocortical cells? l'Allemand D, et al. **Mol Cell Endocrinol** 1998 May 25; 140(1–2):169–73

SOMATOSENSORY CORTEX

ANATOMY & HISTOLOGY

Connectivity in the somatosensory cortex of the adolescent rat: an in vitro biocytin study. Staiger JF, et al. **Anat Embryol (Berl)** 1999 Apr;199(4):357–65

Experience-dependent changes in function and anatomy of adult barrel cortex. Kossut M. **Exp Brain Res** 1998 Nov; 123(1–2):110–6 (30 ref.)

Interhemispheric connections of somatosensory cortex in the flying fox. Krubitzer L, et al. **J Comp Neurol** 1998 Dec 28;402(4):538–59

Phospholipase C-beta1 expression correlates with neuronal differentiation and synaptic plasticity in rat somatosensory cortex. Hannan AJ, et al. **Neuropharmacology** 1998 Apr–May;37(4–5):593–605

[A study of the motor and sensory cortex using functional magnetic resonance: tasks of active and passive movement] Alvarez-Linera J, et al. **Rev Neurol** 1999 Apr 1–15; 28(7):681–5 (Eng. Abstr.) **(Spa)**

BLOOD SUPPLY

Nitric oxide: a modulator, but not a mediator, of neurovascular coupling in rat somatosensory cortex. Lindauer U, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H799–811

Functional MRI of the rat somatosensory cortex: effects of hyperventilation. Hsu EW, et al. **Magn Reson Med** 1998 Sep;40(3):421–6

Vascular filters of functional MRI: spatial localization using BOLD and CBV contrast. Mandeville JB, et al. **Magn Reson Med** 1999 Sep;42(3):591–8

Local cerebral blood flow during the first hour following acute ligation of multiple arterioles in rat whisker barrel cortex. Wei L, et al. **Neurobiol Dis** 1998 Sep;5(3):142–50

Blood flow dynamics in different layers of the somatosensory region of the cerebral cortex on the rat during mechanical stimulation of the vibrissae. Moskalenko YE, et al. **Neurosci Behav Physiol** 1998 Jul–Aug;28(4):459–67

Transcranial laser doppler mapping of activation flow coupling of the rat somatosensory cortex. Ances BM, et al. **Neurosci Lett** 1998 Nov 20;257(1):25–8

Pain affect without pain sensation in a patient with a postcentral lesion. Ploner M, et al. **Pain** 1999 May; 81(1–2):211–4

CHEMISTRY

Calcitonin gene-related peptide and neuropeptide Y in the raccoon cuneate nucleus. Dick SH, et al. **Brain Res Bull** 1998 Nov 1;47(4):387–91

Neuronal, glial, and epithelial localization of gamma-aminobutyric acid transporter 2, a high-affinity gamma-aminobutyric acid plasma membrane transporter, in the cerebral cortex and neighboring structures. Conti F, et al. **J Comp Neurol** 1999 Jul 5;409(3):482–94

Neurotransmitter system markers in adult barrel field. Czupryn A, et al. **Somatosens Mot Res** 1998;15(3):230–2

CYTOLOGY

Morphology of pyramidal neurones in cytochrome oxidase modules of the S-I bill representation of the platypus. Elston GN, et al. **Brain Behav Evol** 1999;53(2):87–101

Effects of ethanol on rat somatosensory cortical neurons. Sessler FM, et al. **Brain Res** 1998 Sep 7;804(2):266–74

Infraorbital nerve transection alters serotonin transporter expression in sensory pathways in early postnatal rat development. Hansson SR, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):305–14

Kinetics of the migration of neurons to rat somatosensory cortex. Miller MW. **Brain Res Dev Brain Res** 1999 Jun 2;115(2):111–22

Dendritic bias of neurons in rat somatosensory cortex associated with a functional boundary. Hickmott PW, et al. **J Comp Neurol** 1999 Jul 5;409(3):385–99

Cascade projections from somatosensory cortex to the rat basolateral amygdala via the parietal insular cortex. Shi CJ, et al. **J Comp Neurol** 1998 Oct 5;399(4):469–91

Thalamocortical and intracortical projections to the forelimb-stump SI representation of rats that sustained neonatal forelimb removal. Stojic AS, et al. **J Comp Neurol** 1998 Nov 16;401(2):187–204

Monkey somatosensory cerebrocerebellar pathways: uneven densities of corticopontine neurons in different body representations of areas 3b, 1, and 2. Vassbø K, et al. **J Comp Neurol** 1999 Mar 29;406(1):109–28

Primary and secondary somatosensory projections in direct-developing plethodontid salamanders. Dicke U, et al. **J Morphol** 1998 Dec;238(3):307–26

Formation of functional synaptic connections between cultured cortical neurons from agrin-deficient mice. Li Z, et al. **J Neurobiol** 1999 Jun 15;39(4):547–57

Changes in membrane and synaptic properties of thalamocortical circuitry caused by hydrogen peroxide. Frantseva MV, et al. **J Neurophysiol** 1998 Sep; 80(3):1317–26

Specification of somatosensory area identity in cortical explants. Gitton Y, et al. **J Neurosci** 1999 Jun 15; 19(12):4889–98

Neurogenesis and commitment of corticospinal neurons in reeler. Polleux F, et al. **J Neurosci** 1998 Dec 1; 18(23):9910–23

Development of functional topography in the corticorubral projection: An in vivo assessment using synaptic potentials recorded from fetal and newborn cats. Song WJ, et al. **J Neurosci** 1998 Nov 15;18(22):9354–64

Age-related changes in the cytoarchitectonics of the human sensorimotor cortex. Shumeiko NS. **Neurosci Behav Physiol** 1998 Jul–Aug;28(4):345–8

Intrathecally applied morphine inhibits nociceptive C fiber input to the primary somatosensory cortex (SI) of the rat. Kalliomäki J, et al. **Pain** 1998 Sep;77(3):323–9

Experience-dependent alteration of synaptic zinc in rat somatosensory barrel cortex. Land PW, et al. **Somatosens Mot Res** 1999;16(2):139–50

Inverted pyramidal neurons in chimpanzee sensorimotor cortex are revealed by immunostaining with monoclonal antibody SMI-32. Qi HX, et al. **Somatosens Mot Res** 1999; 16(1):49–56

DRUG EFFECTS

Effects of tetanus toxin on functional inhibition after injection in separate cortical areas in rat. Hagemann G, et al. **Brain Res** 1999 Feb 6;818(1):127–34

Chronic inhibition of NOS does not prevent plasticity of rat somatosensory (S1) cortex following deafferentation. Won Sohn N, et al. **Brain Res** 1999 Jan 23;816(2):396–404

Partial blocking of NMDA receptors reduces plastic changes induced by short-lasting classical conditioning in the SI barrel cortex of adult mice. Jablonska B, et al. **Cereb Cortex** 1999 Apr–May;9(3):222–31

BDNF and NT-3 applied in the whisker pad reverse cortical changes after peripheral deafferentation in neonatal rats. Calia E, et al. **Eur J Neurosci** 1998 Oct;10(10):3194–200

Acute reorganization of the forepaw representation in the rat SI cortex after focal cortical injury: neuroprotective effects of piracetam treatment. Coq JO, et al. **Eur J Neurosci** 1999 Aug;11(8):2597–608

Effect of activity blockade on changes in vibrissae-related patterns in the rat's primary somatosensory cortex induced by serotonin depletion. Rhoades RW, et al. **J Comp Neurol** 1998 Dec 14;402(2):276–83

Simultaneous reorganization in thalamocortical ensembles evolves over several hours after perioral capsaicin injections. Katz DB, et al. **J Neurophysiol** 1999 Aug; 82(2):963–77

Ethanol modulates AMPA-induced current responses of primary somatosensory cortical neurons. Lu SM, et al. **Neurochem Int** 1999 Aug;35(2):175–83

Sustained attention modulates the immediate effect of de-afferentation on the cortical representation of the digits: source localization of somatosensory evoked potentials in humans. Buchner H, et al. **Neurosci Lett** 1999 Jan 22; 260(1):57–60

Primary cortical glial reaction versus secondary thalamic glial response in the excitotoxically injured young brain: astroglial response and metallothionein expression. Acarin L, et al. **Neuroscience** 1999;92(3):827–39

ENZYMOLOGY

Expression of two forms of glutamic acid decarboxylase (GAD67 and GAD65) during postnatal development of rat somatosensory barrel cortex. Kiser PJ, et al. **J Comp Neurol** 1998 Dec 7;402(1):62–74

Expression of type 2 iodothyronine deiodinase in hypothyroid rat brain indicates an important role of thyroid hormone in the development of specific primary sensory systems. Guadaño-Ferraz A, et al. **J Neurosci** 1999 May 1;19(9):3430–9

Phospholipase C-beta1 expression correlates with neuronal differentiation and synaptic plasticity in rat somatosensory cortex. Hannan AJ, et al. **Neuropharmacology** 1998 Apr–May;37(4–5):593–605

GROWTH & DEVELOPMENT

Neuronal activity influences the growth of barrels in developing rat primary somatosensory cortex without affecting the expression pattern of four major GABAA receptor alpha subunits. Penschuck S, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):117–27

Neonatal whisker clipping alters intracortical, but not thalamocortical projections, in rat barrel cortex. Keller A, et al. **J Comp Neurol** 1999 Sep 13;412(1):83–94

Expression of two forms of glutamic acid decarboxylase (GAD67 and GAD65) during postnatal development of rat somatosensory barrel cortex. Kiser PJ, et al. **J Comp Neurol** 1998 Dec 7;402(1):62–74

Primary and secondary somatosensory projections in direct-developing plethodontid salamanders. Dicke U, et al. **J Morphol** 1998 Dec;238(3):307–26

Nicotine selectively enhances NMDA receptor-mediated synaptic transmission during postnatal development in sensory neocortex. Aramakis VB, et al. **J Neurosci** 1998 Oct 15;18(20):8485–95

Partial forelimb deafferentation during early ontogenesis in rats increases somatosensory cortex neuron reactivity. Sitnikova EYu. **Neurosci Behav Physiol** 1999 Mar–Apr; 29(2):181–3

INJURIES

Scanning electron microscopy of the floor of the fourth ventricle in rats subjected to graded impact injury to the sensorimotor cortex. Sarphie TG, et al. **J Neurosurg** 1999 Apr;90(4):734–42

Functional recovery from cortical hemiplegia in the rat: effects of a callosotomy. Zepeda A, et al. **J Neurotrauma** 1999 Mar;16(3):267–71

METABOLISM

Neuronal activity influences the growth of barrels in developing rat primary somatosensory cortex without affecting the expression pattern of four major GABAA receptor alpha subunits. Penschuck S, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):117–27

Defensive conditioning-related increase in AP-1 transcription factor in the rat cortex. Lukasiuk K, et al. **Brain Res Mol Brain Res** 1999 Apr 6;67(1):64–73

Multiple promoters direct stimulus and temporal specific expression of brain-derived neurotrophic factor in the somatosensory cortex. Nanda S, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):216–9

Laminar and cellular distribution of AMPA, kainate, and NMDA receptor subunits in monkey sensory-motor cortex. Muñoz A, et al. **J Comp Neurol** 1999 May 17;407(4):472–90

Expression of NR2 receptor subunit in rat somatic sensory cortex: synaptic distribution and colocalization with NR1 and PSD-95. Valtschanoff JG, et al. **J Comp Neurol** 1999 Aug 9;410(4):599–611

Delayed 5-HT release in the developing cortex of microencephalic rats. Ueda S, et al. **Neuroreport** 1999 Apr 26;10(6):1215–9

Induction of c-Fos-like protein in bulbar catecholaminergic neurones by electrical stimulation of the sensorimotor cortex in the rat. Viltart O, et al. **Neurosci Lett** 1999 Jan 22;260(1):65–8

Immunohistochemical evidence for dysregulation of the GABAergic system ipsilateral to photochemically induced cortical infarcts in rats. Neumann-Haefelin T, et al. **Neuroscience** 1998 Dec;87(4):871-9

Experience-dependent alteration of synaptic zinc in rat somatosensory barrel cortex. Land PW, et al. **Somatosens Mot Res** 1999;16(2):139-50

[Protein level in rat brain neurons predisposed or resistant to emotional stress] Gershtein LM, et al. **Biull Eksp Biol Med** 1998 Oct;126(10):477-80 **(Rus)**

PATHOLOGY

Decreased BOLD functional MR activation of the motor and sensory cortices adjacent to a glioblastoma multiforme: implications for image-guided neurosurgery [see comments] Holodny AI, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):609-12. Comment in: AJNR Am J Neuroradiol 1999 Apr;20(4):536.

Enlargement of cortical vibrissa representation in the surround of an ischemic cortical lesion. Schiene K, et al. **J Neurol Sci** 1999 Jan 1;162(1):6-13

The effect of normal aging on the coupling of neural activity to the bold hemodynamic response. D'Esposito M, et al. **Neuroimage** 1999 Jul;10(1):6-14

Functional MR imaging with venography for neurosurgical identification of the central sulcus. Okumura A, et al. **Neurol Res** 1999 Mar;21(2):185-90

PHYSIOLOGY

Spectroscopic investigation of reflectance changes in the barrel cortex following whisker stimulation. Mayhew J, et al. **Adv Exp Med Biol** 1998;454:139-48

Localization of the first and second somatosensory areas in the human cerebral cortex with functional MR imaging. Polonara G, et al. **AJNR Am J Neuroradiol** 1999 Feb; 20(2):199-205

Nitric oxide: a modulator, but not a mediator, of neurovascular coupling in rat somatosensory cortex. Lindauer U, et al. **Am J Physiol** 1999 Aug;277(2 Pt 2):H799-811

The role of somatosensory input for the perception of verticality. Anastasopoulos D, et al. **Ann N Y Acad Sci** 1999 May 28;871:379-83

Effects of locus coeruleus stimulation on the responses of SI neurons of the rat to controlled natural and electrical stimulation of the skin. Snow PJ, et al. **Arch Ital Biol** 1999 Feb;137(1):1-28

Relationship between dendritic pruning and behavioral recovery following sensorimotor cortex lesions. Kozlowski DA, et al. **Behav Brain Res** 1998 Dec;97(1-2):89-98

'Mouth-feeding' in monkeys after sensorimotor system lesions: an analysis based upon the Denny-Brown collection. Vilensky JA, et al. **Behav Brain Res** 1998 Aug; 94(2):311-5

Oscillatory corticothalamic response to somatosensory input. Gelenbe E, et al. **Biosystems** 1998 Sep-Dec;48(1-3):67-75

Functional coupling of human cortical sensorimotor areas during bimanual skill acquisition. Andres FG, et al. **Brain** 1999 May;122 (Pt 5):855-70

Functional mapping of human sensorimotor cortex with electrocorticographic spectral analysis. I. Alpha and beta event-related desynchronization. Crone NE, et al. **Brain** 1998 Dec;121 (Pt 12):2271-99

Functional mapping of human sensorimotor cortex with electrocorticographic spectral analysis. II. Event-related synchronization in the gamma band. Crone NE, et al. **Brain** 1998 Dec;121 (Pt 12):2301-15

Interhemispheric asymmetries in the perception of unimanual and bimanual cutaneous stimuli. A study using transcranial magnetic stimulation. Oliveri M, et al. **Brain** 1999 Sep;122 (Pt 9):1721-9

Bilateral neuromagnetic activation of human primary sensorimotor cortex in preparation and execution of unilateral voluntary finger movements. Babiloni C, et al. **Brain Res** 1999 May 8;827(1-2):234-6

Electrophysiological evidence against a neurotransmitter role of corticotropin-releasing hormone (CRH) in primary somatosensory cortex. Cahusac PM, et al. **Brain Res** 1998 May 18;793(1-2):73-8

Signal averaged laser Doppler measurements of activation-flow coupling in the rat forepaw somatosensory cortex. Detre JA, et al. **Brain Res** 1998 Jun 15;796(1-2):91-8

The use of fMRI for determining the topographic organization of cortical fields in human and nonhuman primates. Disbrow E, et al. **Brain Res** 1999 May 22; 829(1-2):167-73

Human somatosensory cortical activation strengths: comparison between males and females and age-related changes. Huttunen J, et al. **Brain Res** 1999 Feb 13; 818(2):196-203

EEG evidence of stimulus-directed response dynamics in human somatosensory cortex. Kelly EF, et al. **Brain Res** 1999 Jan 9;815(2):326-36

Mapping of secondary somatosensory cortex activation induced by vibrational stimulation: an fMRI study. Maldjian JA, et al. **Brain Res** 1999 Apr 10;824(2):291-5

Corticofugal action on somatosensory response properties of rat nucleus gracilis cells. Malmierca E, et al. **Brain Res** 1998 Nov 9;810(1-2):172-80

Temporally structured impulse activity in spontaneously discharging somatosensory cortical neurons in the awake cat: recognition and quantitative description of four different patterns of bursts, post-recording GFAP immunohistology and computer reconstruction of the studied cortical surface. Miasnikov AA, et al. **Brain Res Brain Res Protoc** 1999 Apr;4(1):49-68

Relation of bimanual coordination to activation in the sensorimotor cortex and supplementary motor area: analysis using functional magnetic resonance imaging. Toyokura M, et al. **Brain Res Bull** 1999 Jan 15;48(2):211-7

Somatosensory automatic responses to deviant stimuli. Shinozaki N, et al. **Brain Res Cogn Brain Res** 1998 Oct; 7(2):165-71

Experience-dependent alteration of zinc-containing circuits in somatosensory cortex of the mouse. Quaye VL, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):283-7

Changes in field potentials and membrane currents in rat sensorimotor cortex following repeated tetanization of the corpus callosum in vivo. Chapman CA, et al. **Cereb Cortex** 1998 Dec;8(8):730-42

Spatiotemporal properties of layer V neurons of the rat primary somatosensory cortex. Ghazanfar AA, et al. **Cereb Cortex** 1999 Jun;9(4):348-61

Impaired experience-dependent plasticity in barrel cortex of mice lacking the alpha and delta isoforms of CREB. Glazewski S, et al. **Cereb Cortex** 1999 Apr-May;9(3):249-56

Representational plasticity in cortical area 3b paralleling tactual-motor skill acquisition in adult monkeys. Xerri C, et al. **Cereb Cortex** 1999 Apr-May;9(3):264-76

Spatio-temporal analysis of cortical activity evoked by gustatory stimulation in humans. Kobayakawa T, et al. **Chem Senses** 1999 Apr;24(2):201-9

Orienting response and frontal midline theta activity: a somatosensory spectral perturbation study. Dietl T, et al. **Clin Neurophysiol** 1999 Jul;110(7):1204-9

Are there discrete distal-proximal representations of the index finger and palm in the human somatosensory cortex? A neuromagnetic study. Hashimoto I, et al. **Clin Neurophysiol** 1999 Mar;110(3):430-7

Functional MRI of human primary somatosensory and motor cortex during median nerve stimulation. Spiegel J, et al. **Clin Neurophysiol** 1999 Jan;110(1):47-52

Intraoperative localization of functional regions in the sensorimotor cortex by neuronavigation and cortical mapping. Krombach GA, et al. **Comput Aided Surg** 1998; 3(2):64-73

Hierarchical somatosensory processing. Iwamura Y. **Curr Opin Neurobiol** 1998 Aug;8(4):522-8 (90 ref.)

Sensing and deciding in the somatosensory system. Romo R, et al. **Curr Opin Neurobiol** 1999 Aug;9(4):487-93

Human somatosensory evoked magnetic fields to vibratory stimulation of the index finger: is there frequency organization in SI? Hashimoto I, et al. **Electroencephalogr Clin Neurophysiol** 1998 Oct; 109(5):454-61

Magnetic sensory cortical responses evoked by tactile stimulations of the human face, oral cavity and flap reconstructions of the tongue. Yamashita H, et al. **Eur Arch Otorhinolaryngol** 1999;256 Suppl 1:S42-6

Intramembranous structure of synaptic membranes with special reference to spinules in the rat sensorimotor cortex. Bozhilova-Pastirova A, et al. **Eur J Neurosci** 1999 May; 11(5):1843-6

Partial denervation of the whiskerpad in adult mice: altered patterns of metabolic activity in barrel cortex. Bronchti G, et al. **Eur J Neurosci** 1999 Aug;11(8):2847-55

Experience-dependent depression of vibrissae responses in adolescent rat barrel cortex. Glazewski S, et al. **Eur J Neurosci** 1998 Jun;10(6):2107-16

Different cortical organization of visceral and somatic sensation in humans. Schnitzler A, et al. **Eur J Neurosci** 1999 Jan;11(1):305-15

Experimental model of trigeminal pain in the rat by constriction of one infraorbital nerve: changes in neuronal activities in the somatosensory cortices corresponding to the infraorbital nerve. Benoist JM, et al. **Exp Brain Res** 1999 Jun;126(3):383-98

Reprogramming of grip aperture in a double-step virtual grasping paradigm. Bock O, et al. **Exp Brain Res** 1999 Mar; 125(1):61-6

Environmental enrichment alters organizational features of the forepaw representation in the primary somatosensory cortex of adult rats. Coq JO, et al. **Exp Brain Res** 1998 Jul;121(2):191-204

Facilitation of neuronal activity in somatosensory and posterior parietal cortex during prehension. Gardner EP, et al. **Exp Brain Res** 1999 Aug;127(4):329-54

Functional magnetic resonance imaging of motor, sensory, and posterior parietal cortical areas during performance of sequential typing movements. Gordon AM, et al. **Exp Brain Res** 1998 Jul;121(2):153-66

Effects of voluntary hyperventilation on cortical sensory responses. Electroencephalographic and magnetoencephalographic studies. Huttunen J, et al. **Exp Brain Res** 1999 Apr;125(3):248-54

Comparative study of the neuronal plasticity along the neuraxis of the vibrissal sensory system of adult rat following unilateral infraorbital nerve damage and subsequent regeneration. Kis Z, et al. **Exp Brain Res** 1999 May;126(2):259-69

Experience-dependent changes in function and anatomy of adult barrel cortex. Kossut M. **Exp Brain Res** 1998 Nov; 123(1-2):110-6 (30 ref.)

Spatiotemporal reorganization of electrical activity in the human brain associated with a timing transition in rhythmic auditory-motor coordination. Mayville JM, et al. **Exp Brain Res** 1999 Aug;127(4):371-81

Integration of visual and somatosensory target information in goal-directed eye and arm movements. Neggers SF, et al. **Exp Brain Res** 1999 Mar;125(1):97-107

Representation of the midline trunk, bilateral arms, and shoulders in the monkey postcentral somatosensory cortex. Taoka M, et al. **Exp Brain Res** 1998 Dec;123(3):315-22

Differences in functional magnetic resonance imaging of sensorimotor cortex during static and dynamic finger flexion. Thickbroom GW, et al. **Exp Brain Res** 1999 Jun; 126(3):431-8

Isometric force-related activity in sensorimotor cortex measured with functional MRI. Thickbroom GW, et al. **Exp Brain Res** 1998 Jul;121(1):59-64

Gating of the sensory activity within barrel cortex of the awake rat. Wróbel A, et al. **Exp Brain Res** 1998 Nov; 123(1-2):117-23 (39 ref.)

Motor and somatosensory deficits following uni- and bilateral lesions of the cortex induced by aspiration or thermocoagulation in the adult rat. Napieralski JA, et al. **Exp Neurol** 1998 Nov;154(1):80-8

Maturation of NADPH-d activity in the rat's barrel-field cortex and its relationship to cytochrome oxidase activity. Vercelli A, et al. **Exp Neurol** 1999 Apr;156(2):294-315

Activation of multiple cortical areas in response to somatosensory stimulation: combined magnetoencephalographic and functional magnetic resonance imaging. Korvenoja A, et al. **Hum Brain Mapp** 1999;8(1):13-27

Analysis of optical signals evoked by peripheral nerve stimulation in rat somatosensory cortex: dynamic changes in hemoglobin concentration and oxygenation. Nemoto M, et al. **J Cereb Blood Flow Metab** 1999 Mar;19(3):246-59

Enhancement of left-right sensorimotor EEG differences during feedback-regulated motor imagery. Neuper C, et al. **J Clin Neurophysiol** 1999 Jul;16(4):373-82

Dissociable processes for learning the surface structure and abstract structure of sensorimotor sequences. Dominey PF, et al. **J Cogn Neurosci** 1998 Nov;10(6):734-51

Cerebellar contributions to motor timing: a PET study of auditory and visual rhythm reproduction. Penhune VB, et al. **J Cogn Neurosci** 1998 Nov;10(6):752-65

Organization of somatosensory cortex in three species of marsupials, Dasyurus hallucatus, Dactylopsila trivirgata, and Monodelphis domestica: neural correlates of morphological specializations. Huffman KJ, et al. **J Comp Neurol** 1999 Jan 5;403(1):5-32

Barrels and septa: separate circuits in rat barrels field cortex. Kim U, et al. **J Comp Neurol** 1999 Jun 14;408(4):489-505

Reorganization of sensory modalities evoked by microstimulation in region of the thalamic principal sensory nucleus in patients with pain due to nervous system injury. Lenz FA, et al. **J Comp Neurol** 1998 Sep 14;399(1):125-38

Development of metabotropic glutamate receptors from trigeminal nuclei to barrel cortex in postnatal mouse. Muñoz A, et al. **J Comp Neurol** 1999 Jul 12;409(4):549-66

Increased number and size of dendritic spines in ipsilateral barrel field cortex following unilateral whisker trimming in postnatal rat. Vees AM, et al. **J Comp Neurol** 1998 Oct 12;400(1):110-24

Refractory periods observed by intrinsic signal and fluorescent dye imaging. Cannestra AF, et al. **J Neurophysiol** 1998 Sep;80(3):1522-32

Organization of somatosensory areas I and II in marsupial cerebral cortex: parallel processing in the possum sensory cortex. Coleman GT, et al. **J Neurophysiol** 1999 May; 81(5):2316-24

Functional MRI study of thalamic and cortical activations evoked by cutaneous heat, cold, and tactile stimuli. Davis KD, et al. **J Neurophysiol** 1998 Sep;80(3):1533-46

Identification of the cerebral loci processing human swallowing with H2(15)O PET activation. Hamdy S, et al. **J Neurophysiol** 1999 Apr;81(4):1917-26

Contribution of supragranular layers to sensory processing and plasticity in adult rat barrel cortex. Huang W, et al. **J Neurophysiol** 1998 Dec;80(6):3261-71

Simultaneous early processing of sensory input in human primary (SI) and secondary (SII) somatosensory cortices. Karhu J, et al. **J Neurophysiol** 1999 May;81(5):2017-25

Source of inappropriate receptive fields in cortical somatotopic maps from rats that sustained neonatal forelimb removal. Lane RD, et al. **J Neurophysiol** 1999 Feb;81(2):625-33

Attention modulates both primary and second somatosensory cortical activities in humans: a magnetoencephalographic study. Mima T, et al. **J Neurophysiol** 1998 Oct; 80(4):2215-21

Spatio-temporal subthreshold receptive fields in the vibrissa representation of rat primary somatosensory cortex. Moore CI, et al. **J Neurophysiol** 1998 Dec;80(6):2882-92

Varying the degree of single-whisker stimulation differentially affects phases of intrinsic signals in rat barrel cortex. Polley DB, et al. **J Neurophysiol** 1999 Feb; 81(2):692-701

Synchronization of local neural networks in the somatosensory cortex: A comparison of stationary and moving stimuli. Roy S, et al. **J Neurophysiol** 1999 Mar; 81(3):999-1013

Neuronal activity in somatosensory cortex of monkeys using

a precision grip. I. Receptive fields and discharge patterns. Salimi I, et al. **J Neurophysiol** 1999 Feb;81(2):825–34
Neuronal activity in somatosensory cortex of monkeys using a precision grip. II. Responses To object texture and weights. Salimi I, et al. **J Neurophysiol** 1999 Feb; 81(2):835–44
Neuronal activity in somatosensory cortex of monkeys using a precision grip. III. Responses to altered friction perturbations. Salimi I, et al. **J Neurophysiol** 1999 Feb; 81(2):845–57
Mechanisms underlying burst and regular spiking evoked by dendritic depolarization in layer 5 cortical pyramidal neurons. Schwindt P, et al. **J Neurophysiol** 1999 Mar; 81(3):1341–54
Gustatory neural coding in the cortex of the alert cynomolgus macaque: the quality of bitterness. Scott TR, et al. **J Neurophysiol** 1999 Jan;81(1):60–71
Sensorimotor state of the contralateral leg affects ipsilateral muscle coordination of pedaling. Ting LH, et al. **J Neurophysiol** 1998 Sep;80(3):1341–51
Intrinsic firing patterns and whisker-evoked synaptic responses of neurons in the rat barrel cortex. Zhu JJ, et al. **J Neurophysiol** 1999 Mar;81(3):1171–83
Velocity invariance of receptive field structure in somatosensory cortical area 3b of the alert monkey. DiCarlo JJ, et al. **J Neurosci** 1999 Jan 1;19(1):401–19
Behavioral modulation of tactile responses in the rat somatosensory system. Fanselow EE, et al. **J Neurosci** 1999 Sep 1;19(17):7603–16
NR2A subunit expression shortens NMDA receptor synaptic currents in developing neocortex. Flint AC, et al. **J Neurosci** 1997 Apr 1;17(7):2469–76
Specification of somatosensory area identity in cortical explants. Gitton Y, et al. **J Neurosci** 1999 Jun 15; 19(12):4889–98
Vibrissae-evoked behavior and conditioning before functional ontogeny of the somatosensory vibrissae cortex. Landers MS, et al. **J Neurosci** 1999 Jun 15;19(12):5131–7
Short-term memory for reaching to visual targets: psychophysical evidence for body-centered reference frames. McIntyre J, et al. **J Neurosci** 1998 Oct 15; 18(20):8423–35
Cortical involvement in the induction, but not expression, of thalamic plasticity. Parker JL, et al. **J Neurosci** 1999 Oct 1;19(19):8623–9
Experience-dependent plasticity of adult rat S1 cortex requires local NMDA receptor activation. Rema V, et al. **J Neurosci** 1998 Dec 1;18(23):10196–206
Propagating activation during oscillations and evoked responses in neocortical slices. Wu JY, et al. **J Neurosci** 1999 Jun 15;19(12):5005–15
Chronic recording capability of the Utah Intracortical Electrode Array in cat sensory cortex. Rousche PJ, et al. **J Neurosci Methods** 1998 Jul 1;82(1):1–15
A multichannel system for recording and analysis of cortical field potentials in freely moving rats. Shaw FZ, et al. **J Neurosci Methods** 1999 Apr 1;88(1):33–43
Patterns of lateral sensory cortical activation determined using functional magnetic resonance imaging. Hodge CJ Jr, et al. **J Neurosurg** 1998 Nov;89(5):769–79
Cerebral blood flow responses to somatosensory stimulation are unaffected by scopolamine in unanesthetized rat. Nakao Y, et al. **J Pharmacol Exp Ther** 1999 Aug;290(2):929–34
Cholinergic activation and tonic excitation induce persistent gamma oscillations in mouse somatosensory cortex in vitro. Buhl EH, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):117–26
Involvement of NMDA and non-NMDA receptors in the neuronal responses of the primary motor cortex to input from the supplementary motor area and somatosensory cortex: studies of task-performing monkeys. Shima K, et al. **Jpn J Physiol** 1998 Aug;48(4):275–90
Cortical representation of swallowing in normal adults: functional implications. Mosier K, et al. **Laryngoscope** 1999 Sep;109(9):1417–23
Gradient echo time dependence and quantitative parameter maps for somatosensory activation in rats at 7 T. Grüne M, et al. **Magn Reson Med** 1999 Jul;42(1):118–26
Investigation of the early response to rat forepaw stimulation. Marota JJ, et al. **Magn Reson Med** 1999 Feb;41(2):247–52
Cortically induced thalamic plasticity in the primate somatosensory system [see comments] Ergenzinger ER, et al. **Nat Neurosci** 1998 Jul;1(3):226–9. Comment in: Nat Neurosci 1998 Jul;1(3):179–80.
Simultaneous encoding of tactile information by three primate cortical areas. Nicolelis MA, et al. **Nat Neurosci** 1998 Nov;1(7):621–30
Spread of dendritic excitation in layer 2/3 pyramidal neurons in rat barrel cortex in vivo. Svoboda K, et al. **Nat Neurosci** 1999 Jan;2(1):65–73
Why does the somatosensory homunculus have hands next to face and feet next to Genitals? A hypothesis. Farah MJ. **Neural Comput** 1998 Nov 15;10(8):1983–5
Areas 3a, 3b, and 1 of human primary somatosensory cortex. Geyer S, et al. **Neuroimage** 1999 Jul;10(1):63–83
Deconvolution of impulse response in event-related BOLD fMRI. Glover GH. **Neuroimage** 1999 Apr;9(4):416–29
The sensory somatotopic map of the human hand demonstrated at 4 Tesla. Maldjian JA, et al. **Neuroimage** 1999 Jul;10(1):55–62
Spectroscopic analysis of changes in remitted illumination: the response to increased neural activity in brain. Mayhew J, et al. **Neuroimage** 1999 Sep;10(3 Pt 1):304–26
High-resolution mapping of discrete representational areas in rat somatosensory cortex using blood volume-dependent functional MRI. Palmer JT, et al. **Neuroimage** 1999 Apr; 9(4):383–92
Somatosensory cortical activations are suppressed in patients with tactile extinction: a PET study. Remy P, et al. **Neurology** 1999 Feb;52(3):571–7
Functionally distinct NMDA receptors mediate horizontal connectivity within layer 4 of mouse barrel cortex. Fleidervish IA, et al. **Neuron** 1998 Nov;21(5):1055–65
Long-term potentiation in vivo in layers II/III of rat barrel cortex. Glazewski S, et al. **Neuropharmacology** 1998 Apr-May;37(4–5):581–92
Representation of nociceptive stimuli in primary sensory cortex. Berman HH, et al. **Neuroreport** 1998 Dec 21; 9(18):4179–87
Frequency representation in the human hand somatosensory cortex: a reappraisal. Hashimoto I, et al. **Neuroreport** 1999 Apr 6;10(5):959–63
Neural activity in SII modifies sensory evoked potentials in SI in awake rats. Jackson ME, et al. **Neuroreport** 1998 Oct 26;9(15):3379–82
Effects of stimulus intensity on signals from human somatosensory cortices. Jousmäki V, et al. **Neuroreport** 1998 Oct 26;9(15):3427–31
Topography of the secondary somatosensory cortex in humans: a magnetoencephalo-graphic study. Maeda K, et al. **Neuroreport** 1999 Feb 5;10(2):301–6
Spontaneous variability reveals principal components in cortical evoked potentials. Musial P, et al. **Neuroreport** 1998 Aug 3;9(11):2627–31
Proprioception acts as the main source of input in human S-I activation experiments: a functional MRI study. Rausch M, et al. **Neuroreport** 1998 Aug 24;9(12):2865–8
High-frequency magnetic oscillations evoked by posterior tibial nerve stimulation. Sakuma K, et al. **Neuroreport** 1999 Feb 5;10(2):227–30
fMRI evidence for an inverted face representation in human somatosensory cortex. Servos P, et al. **Neuroreport** 1999 May 14;10(7):1393–5
Temporal discrimination of somesthetic stimuli is impaired in dystonic patients. Tinazzi M, et al. **Neuroreport** 1999 May 14;10(7):1547–50
Blood flow dynamics in different layers of the somatosensory region of the cerebral cortex on the rat during mechanical stimulation of the vibrissae. Moskalenko YE, et al. **Neurosci Behav Physiol** 1998 Jul-Aug;28(4):459–67
Effects of electrical stimulation of the caudate nucleus on functionally identified neurons of the sensorimotor cortex in the cat brain. Sidyakin VG, et al. **Neurosci Behav Physiol** 1998 Jul-Aug;28(4):409–13
Partial forelimb deafferentation during early ontogenesis in rats increases somatosensory cortex neuron reactivity. Sitnikova EYu. **Neurosci Behav Physiol** 1999 Mar-Apr; 29(2):181–3
Transcranial laser doppler mapping of activation flow coupling of the rat somatosensory cortex. Ances BM, et al. **Neurosci Lett** 1998 Nov 20;257(1):25–8
Bilateral representation of sequential finger movements in human cortical areas. Baraldi P, et al. **Neurosci Lett** 1999 Jul 9;269(2):95–8
Interaction of finger representation in the human first somatosensory cortex: a neuromagnetic study. Biermann K, et al. **Neurosci Lett** 1998 Jul 17;251(1):13–6
Comparable activity levels in developmentally deprived and non-deprived layer IV cortical columns of the adult rat primary somatosensory cortex. Gutiérrez-Ospina G, et al. **Neurosci Lett** 1998 May 8;247(1):5–8
Tactile stimulation of the hand causes bilateral cortical activation: a functional magnetic resonance study in humans. Hansson T, et al. **Neurosci Lett** 1999 Aug 13; 271(1):29–32
A parametric analysis of the 'rate effect' in the sensorimotor cortex: a functional magnetic resonance imaging analysis in human subjects. Jäncke L, et al. **Neurosci Lett** 1998 Aug 7;252(1):37–40
Short-term reorganization of the rat somatosensory cortex following hypodynamia-hypokinesia. Langlet C, et al. **Neurosci Lett** 1999 May 7;266(2):145–8
Removal of superficial inhibition releases hyperexcitability in middle and deep horizontal slices from rat somatosensory neocortex. Yang L, et al. **Neurosci Lett** 1998 Nov 20; 257(1):33–6
Alpha-1-adrenergic receptors mediate sensorimotor gating deficits produced by intracerebral dizocilpine administration in rats. Bakshi VP, et al. **Neuroscience** 1999; 92(1):113–21
High-frequency transitions in cortical spike trains related to short-term memory. Bodner M, et al. **Neuroscience** 1998 Oct;86(4):1083–7
Activation of the primary motor cortex by somatosensory stimulation in adult rats is mediated mainly by associational connections from the somatosensory cortex. Farkas T, et al. **Neuroscience** 1999 May;90(2):353–61
Gamma-band oscillations in the "barrel cortex" precede rat's exploratory whisking. Hamada Y, et al. **Neuroscience** 1999; 88(3):667–71
Altered spatial patterns of functional thalamocortical connections in the barrel cortex after neonatal infraorbital nerve cut revealed by optical recording. Higashi S, et al. **Neuroscience** 1999;91(2):439–52
Evidence for homeostatic adjustments of rat somatosensory cortical neurons to changes in extracellular acetylcholine concentrations produced by iontophoretic administration of acetylcholine and by systemic diisopropylfluorophosphate treatment. Testylier G, et al. **Neuroscience** 1999;91(3):843–70
Orphanin FQ (nociceptin) modulates responses of trigeminal neurons evoked by excitatory amino acids and somatosensory stimuli, and blocks the substance P-induced facilitation of N-methyl-D-aspartate-evoked responses. Wang XM, et al. **Neuroscience** 1999;93(2):703–12
Double anterograde tracing of outputs from adjacent "barrel columns" of rat somatosensory cortex. Neostriatal projection patterns and terminal ultrastructure. Wright AK, et al. **Neuroscience** 1999 Jan;88(1):119–33
Phantom sensations following acute pain. Knecht S, et al. **Pain** 1998 Aug;77(2):209–13
Regionalized sensorimotor plasticity after hemispherectomy fMRI evaluation. Graveline CJ, et al. **Pediatr Neurol** 1998 Nov;19(5):337–42
Magnetoencephalography in the study of human somatosensory cortical processing. Hari R, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jul 29; 354(1387):1145–54 (99 ref.)
Immediate thalamic sensory plasticity depends on corticothalamic feedback [see comments] Krupa DJ, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8200–5. Comment in: Proc Natl Acad Sci U S A 1999 Jul 6;96(14):7622–3.
Disrupted cortical map and absence of cortical barrels in growth-associated protein (GAP)-43 knockout mice. Maier DL, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9397–402
Laser pain fails to inhibit innocuous-related activity in the central somatosensory pathways. Dowman R. **Psychophysiology** 1999 May;36(3):371–8
Thalamic and brainstem contributions to large-scale plasticity of primate somatosensory cortex [see comments] Jones EG, et al. **Science** 1998 Nov 6;282(5391):1121–5. Comment in: Science 1998 Nov 6;282(5391):1062–3.
Long-term change of mind [comment] Merzenich M. **Science** 1998 Nov 6;282(5391):1062–3. Comment on: Science 1998 Nov 6;282(5391):1117–21. Comment on: Science 1998 Nov 6;282(5391):1121–5.
Proprioceptive control of wrist extensor motor units in humans: dependence on handedness. Aimonetti JM, et al. **Somatosens Mot Res** 1999;16(1):11–29
Sensitivity of neurons in somatosensory cortex (S1) to cutaneous stimulation of the hindlimb immediately following a sciatic nerve crush. Barbay S, et al. **Somatosens Mot Res** 1999;16(2):103–14
Vibrotactile stimulus order effects in somatosensory cortical areas of rhesus monkeys. Burton H, et al. **Somatosens Mot Res** 1998;15(4):316–24
Sex differences in heat pain thresholds as a function of assessment method and rate of rise. Fillingim RB, et al. **Somatosens Mot Res** 1999;16(1):57–62
Laminar differences in bicuculline methiodide's effects on cortical neurons in the rat whisker/barrel system. Kyriazi H, et al. **Somatosens Mot Res** 1998;15(2):146–56
Mechanisms of attention in touch. Lloyd DM, et al. **Somatosens Mot Res** 1999;16(1):3–10
Organization of the forepaw representation in ferret somatosensory cortex. McLaughlin DF, et al. **Somatosens Mot Res** 1998;15(4):253–68
Subdivisions of the motor and somatosensory thalamus of primates revealed with Wisteria floribunda agglutinin histochemistry. Preuss TM, et al. **Somatosens Mot Res** 1998; 15(3):211–9
Nerve growth factor increases stimulus-evoked metabolic activity in acetylcholine-depleted barrel cortex. Rahimi O, et al. **Somatosens Mot Res** 1999;16(2):151–62
The effect of vibrissa deprivation pattern on the form of plasticity induced in rat barrel cortex. Wallace H, et al. **Somatosens Mot Res** 1999;16(2):122–38
[Post-lesional plasticity of somatosensory cortex maps: a review] Xerri C. **C R Acad Sci III** 1998 Feb-Mar; 321(2–3):135–51 (113 ref.) **(Fre)**
[MEG studies of the somatosensory system by passive hand movement] Nowak H, et al. **Biomed Tech (Berl)** 1998;43 Suppl:252–3 **(Ger)**
[Functional localization of the somatomotor area by magnetoencephalography] Nagamine T. **Rinsho Shinkeigaku** 1999 Jan;39(1):42–3 (4 ref.) (Eng. Abstr.) **(Jpn)**
[Long-term potentiation of the neuronal activity in the motor cortex induced by simultaneous stimulation of the thalamus and somatosensory cortex in cats] Kimura A, et al. **Ross Fiziol Zh Im I M Sechenova** 1998 May-Jun; 84(5–6):460–8 (Eng. Abstr.) **(Rus)**
[The cerebral control of the somatosensory and auditory afferent projections to the cerebral cortex in man and animals] Liubimov NN, et al. **Usp Fiziol Nauk** 1998 Jul-Sep;29(3):3–20 (Eng. Abstr.) **(Rus)**
[Motor and sensory asymmetry in rabbits] Pavlova IV. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep-Oct; 48(5):902–4 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

Abnormal cerebral activation associated with a motor task in Tourette syndrome. Biswal B, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1509–12

Abnormal somatosensory homunculus in dystonia of the hand. Bara-Jimenez W, et al. **Ann Neurol** 1998 Nov; 44(5):828-31

Epileptic discharge of cortical, subcortical and spinal neurons in penicillin induced experimental epilepsy. Mameli O, et al. **Arch Ital Biol** 1999 Feb;137(1):29-46

Anatomy of sensory findings in patients with posterior cerebral artery territory infarction. Georgiadis AL, et al. **Arch Neurol** 1999 Jul;56(7):835-8

Left frontal transcranial magnetic stimulation reduces contralesional extinction in patients with unilateral right brain damage. Oliveri M, et al. **Brain** 1999 Sep;122 (Pt 9):1731-9

Localization of somatosensory evoked potentials in primary somatosensory cortex: a comparison between PCA and MUSIC. Mühlnickel W, et al. **Brain Topogr** 1999 Spring; 11(3):185-91

Increased gamma-range activity in human sensorimotor cortex during performance of visuomotor tasks. Aoki F, et al. **Clin Neurophysiol** 1999 Mar;110(3):524-37

Intracortical recordings of early pain-related CO2-laser evoked potentials in the human second somatosensory (SII) area. Frot M, et al. **Clin Neurophysiol** 1999 Jan; 110(1):133-45

Somatosensory evoked magnetic fields from the primary somatosensory cortex (SI) in acute stroke. Wikström H, et al. **Clin Neurophysiol** 1999 May;110(5):916-23

Acute reorganization of the forepaw representation in the rat SI cortex after focal cortical injury: neuroprotective effects of piracetam treatment. Coq JO, et al. **Eur J Neurosci** 1999 Aug;11(8):2597-608

Consequences of altered cerebellar input for the cortical regulation of motor coordination, as reflected in EEG potentials. Verleger R, et al. **Exp Brain Res** 1999 Aug; 127(4):409-22

Use-dependent exaggeration of brain injury: is glutamate involved? Humm JL, et al. **Exp Neurol** 1999 Jun; 157(2):349-58

Generators of short latency human somatosensory-evoked potentials recorded over the spine and scalp. Lee EK, et al. **J Clin Neurophysiol** 1998 May;15(3):227-34 (65 ref.)

Enlargement of cortical vibrissa representation in the surround of an ischemic cortical lesion. Schiene K, et al. **J Neurol Sci** 1999 Jan 1;162(1):6-13

Parallel activation of primary and secondary somatosensory cortices in human pain processing. Ploner M, et al. **J Neurophysiol** 1999 Jun;81(6):3100-4

Localization of somatosensory function by using positron emission tomography scanning: a comparison with intraoperative cortical stimulation [see comments] Bittar RG, et al. **J Neurosurg** 1999 Mar;90(3):478-83. Comment in: J Neurosurg 1999 Jul;91(1):166-7.

Resolution of central pain [letter] Canavero S, et al. **J Neurosurg** 1999 Oct;91(4):715-6

Functional positron emission tomography [letter; comment] Leblanc R. **J Neurosurg** 1999 Jul;91(1):166-7. Comment on: J Neurosurg 1999 Mar;90(3):478-83.

Thalamic stimulation and functional magnetic resonance imaging: localization of cortical and subcortical activation with implanted electrodes. Technical note. Rezai AR, et al. **J Neurosurg** 1999 Mar;90(3):583-90

Evidence for an abnormal cortical sensory processing in dystonia: selective enhancement of lower limb P37-N50 somatosensory evoked potential. Tinazzi M, et al. **Mov Disord** 1999 May;14(3):473-80

Motor dysfunction and sensorimotor cortex activation changes in schizophrenia: A study with functional magnetic resonance imaging. Schröder J, et al. **Neuroimage** 1999 Jan; 9(1):81-7

Surgical treatment of intractable epilepsy originating from the primary sensory area of the hand--case report. Asano E, et al. **Neurol Med Chir (Tokyo)** 1999 Mar;39(3):246-50

Alteration of digital representations in somatosensory cortex in focal hand dystonia. Elbert T, et al. **Neuroreport** 1998 Nov 16;9(16):3571-5

Cortical focusing is an alternative explanation for improved sensory acuity on an amputation stump. Moore CE, et al. **Neurosci Lett** 1999 Aug 6;270(3):185-7

Primary cortical glial reaction versus secondary thalamic glial response in the excitotoxically injured young brain: astroglial response and metallothionein expression. Acarin L, et al. **Neuroscience** 1999;92(3):827-39

Pain perception: is there a role for primary somatosensory cortex? Bushnell MC, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7705-9 (51 ref.)

Large-scale sprouting of cortical connections after peripheral injury in adult macaque monkeys [see comments] Florence SL, et al. **Science** 1998 Nov 6;282(5391):1117-21. Comment in: Science 1998 Nov 6;282(5391):1062-3.

Unilateral saccadic pursuit in patients with sensory stroke: sign of a pontine tegmentum lesion. Johkura K, et al. **Stroke** 1998 Nov;29(11):2377-80

Reorganization of sensory and motor systems in hemiplegic stroke patients. A positron emission tomography study. Nelles G, et al. **Stroke** 1999 Aug;30(8):1510-6

[Do systems theory models promote understanding of disorders of sensorimotor function in neurology?] Glasauer S, et al. **Nervenarzt** 1998 Oct;69(10):919-23 (18 ref.) **(Ger)**

[Location of primary somatosensory area in cerebral arteriovenous malformation involving sensorimotor area] Mine S, et al. **No To Shinkei** 1999 Apr;51(4):331-7 (Eng. Abstr.) **(Jpn)**

[Bioelectrical activity in the sensorimotor cortex in rats with pain syndrome of the spinal origin] Zinkevich VA, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):35-8 **(Rus)**

RADIATION EFFECTS

[Mitochondrial megaconia and pleioconia in the rat brain as possible and adaptive reactions in lethal radiation and radio-modified injuries] Zabolotskii NN, et al. **Morfologiia** 1999;115(3):27-31 (Eng. Abstr.) **(Rus)**

[Analysis of pulsed bioelectric activity of rabbit cerebral cortex in response to low-intensity microwave radiation] Luk'ianova SN, et al. **Radiats Biol Radioecol** 1998 Sep-Oct; 38(5):763-8 (Eng. Abstr.) **(Rus)**

RADIONUCLIDE IMAGING

Functional positron emission tomography [letter; comment] Leblanc R. **J Neurosurg** 1999 Jul;91(1):166-7. Comment on: J Neurosurg 1999 Mar;90(3):478-83.

Somatosensory cortical activations are suppressed in patients with tactile extinction: a PET study. Remy P, et al. **Neurology** 1999 Feb;52(3):571-7

ULTRASONOGRAPHY

Signal averaged laser Doppler measurements of activation-flow coupling in the rat forepaw somatosensory cortex. Detre JA, et al. **Brain Res** 1998 Jun 15;796(1-2):91-8

ULTRASTRUCTURE

Freeze-etching study of the axosomatic synapses in the rat sensorimotor cortex. Bozhilova-Pastirova A. **Eur J Morphol** 1998 Jul;36(3):189-200

Immunogold localization of AMPA and NMDA receptors in somatic sensory cortex of albino rat. Kharazia VN, et al. **J Comp Neurol** 1999 Sep 20;412(2):292-302

SOMATOSENSORY EVOKED POTENTIALS see **EVOKED POTENTIALS, SOMATOSENSORY**

SOMATOSTATIN

see related
RECEPTORS, SOMATOSTATIN

Labeling peptides with rhenium-188. Meléndez-Alafort L, et al. **Int J Pharm** 1999 May 25;182(2):165-72

ADMINISTRATION & DOSAGE

Influence of somatostatin on acute pancreatitis in rats. Berthet B, et al. **Eur J Surg** 1998 Oct;164(10):785-90

Randomized controlled trial of sclerotherapy versus somatostatin infusion in the prevention of early rebleeding following acute variceal hemorrhage in patients with cirrhosis. Variceal Bleeding Study Group. Escorsell A, et al. **J Hepatol** 1998 Nov;29(5):779-88

Novel lipoamino acid- and liposaccharide-based system for peptide delivery: application for oral administration of tumor-selective somatostatin analogues. Tóth I, et al. **J Med Chem** 1999 Sep 23;42(19):4010-3

ADVERSE EFFECTS

Can somatostatin be administered in association with morphine in advanced cancer patients with pain? [letter] Ripamonti C, et al. **Ann Oncol** 1998 Aug;9(8):921-3

AGONISTS

Nonpeptidyl somatostatin agonists demonstrate that sst2 and sst5 inhibit stimulated growth hormone secretion from rat anterior pituitary cells. Parmar RM, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):276-80

Potent, orally bioavailable somatostatin agonists: good absorption achieved by urea backbone cyclization. Pasternak A, et al. **Bioorg Med Chem Lett** 1999 Feb 8; 9(3):491-6

2-pyridylthioureas: novel nonpeptide somatostatin agonists with SST4 selectivity. Liu S, et al. **Curr Pharm Des** 1999 Apr;5(4):255-63 (59 ref.)

Effects of repeated doses and continuous infusions of the growth hormone-releasing peptide hexarelin in conscious male rats. Conley LK, et al. **J Endocrinol** 1998 Sep; 158(3):367-75

Nonpeptide somatostatin agonists with sst4 selectivity: synthesis and structure-activity relationships of thioureas. Liu S, et al. **J Med Chem** 1998 Nov 19;41(24):4693-705

Hypothalamic obesity caused by cranial insult in children: altered glucose and insulin dynamics and reversal by a somatostatin agonist [see comments] Lustig RH, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):162-8. Comment in: J Pediatr 1999 Aug;135(2 Pt 1):142-4.

Discovery and development of somatostatin agonists. Marbach P, et al. **Pharm Biotechnol** 1998;11:183-209

[Somatostatin agonists in the treatment of acromegaly] Jaquet P, et al. **Ann Endocrinol (Paris)** 1998 Nov;59(4):301-4 (20 ref.) **(Fre)**

ANALOGS & DERIVATIVES

A pitfall with the use of 111In-pentetreotide scintigraphy in the resected bronchopulmonary carcinoids follow-up: a case report. Grazia M, et al. **Acta Chir Hung** 1999; 38(1):35-7

Primary cerebral lymphoma visualised by means of In-111-pentetreotide scintigraphy. Roland J, et al. **Acta Neurol Belg** 1998 Dec;98(4):356-9

Regression of acromegalic left ventricular hypertrophy after lanreotide (a slow-release somatostatin analog). Hradec J, et al. **Am J Cardiol** 1999 May 15;83(10):1506-9, A8

Phase II study of high-dose somatostatin analogue in patients either previously treated or untreated who have extensive-stage small cell lung cancer. Marschke RF Jr, et al. **Am J Clin Oncol** 1999 Feb;22(1):15-7

Successful treatment of an advanced hepatocellular carcinoma with the long-acting somatostatin analog lanreotide. Raderer M, et al. **Am J Gastroenterol** 1999 Jan; 94(1):278-9

Inhibition of human endometrial cancer cell growth in vitro and in vivo by somatostatin analog RC-160. Mishima M, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):583-90

Summing up 15 years of somatostatin analog therapy in neuroendocrine tumors: future outlook. Eriksson B, et al. **Ann Oncol** 1999;10 Suppl 2:S31-8 (63 ref.)

Intraoperative gamma detection of 125I-lanreotide in women with primary breast cancer. Cuntz MC, et al. **Ann Surg Oncol** 1999 Jun;6(4):367-72

Structural basis for the binding specificity of a SSTR1-selective analog of somatostatin. Chen L, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):689-94

Preparation, 99mTc-labeling, and in vitro characterization of HYNIC and N3S modified RC-160 and [Tyr3]octreotide. Decristoforo C, et al. **Bioconjug Chem** 1999 May-Jun;10(3):431-8

Phase II study of RC-160 (vapreotide), an octapeptide analogue of somatostatin, in the treatment of metastatic breast cancer. O'Byrne KJ, et al. **Br J Cancer** 1999 Mar; 79(9-10):1413-8

Treatment of advanced pancreatic cancer with the long-acting somatostatin analogue lanreotide: in vitro and in vivo results. Raderer M, et al. **Br J Cancer** 1999 Feb; 79(3-4):535-7

The effects of vapreotide, a somatostatin analogue, on gastric acidity, gallbladder emptying and hormone release after 1 week of continuous subcutaneous infusion in normal subjects. Ritz MA, et al. **Br J Clin Pharmacol** 1999 Feb; 47(2):195-201

Differential effects of somatostatin and angiopeptin on cell proliferation. Alderton F, et al. **Br J Pharmacol** 1998 May; 124(2):323-30

Imaging of somatostatin receptors by indium-111-pentetreotide correlates with quantitative determination of somatostatin receptor type 2 gene expression in neuroblastoma tumors. Briganti V, et al. **Clin Cancer Res** 1997 Dec;3(12 Pt 1):2385-91

In vitro antineoplastic activity of a novel lanthionine-containing peptide. Zheng H, et al. **Clin Cancer Res** 1997 Aug;3(8):1323-30

Octreotide and ectopic Cushing's syndrome--a commentary [comment] James RA. **Clin Endocrinol (Oxf)** 1998 Oct; 49(4):419-20. Comment on: Clin Endocrinol (Oxf) 1998 Oct;49(4):541-6.

Occult ectopic ACTH secretion due to recurrent lung carcinoid: long-term control of hypercortisolism by continuous subcutaneous infusion of octreotide [see comments] Van den Bruel A, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):541-6. Comment in: Clin Endocrinol (Oxf) 1998 Oct;49(4):419-20.

In-111 pentetreotide scintigraphy to monitor nonsecreting neuroendocrine tumors. Buffaz PD, et al. **Clin Nucl Med** 1999 Jun;24(6):459-60

Indium-111 pentetreotide lung uptake in infectious lung disease. Castellani M, et al. **Clin Nucl Med** 1999 May; 24(5):343-5

Somatostatin receptor scintigraphy and somatostatin therapy in the evaluation and treatment of malignant thymoma. Lin K, et al. **Clin Nucl Med** 1999 Jan;24(1):24-8

Indium-111 pentetreotide scintigraphy of mesenchymal tumor with oncogenic osteomalacia. Nguyen BD, et al. **Clin Nucl Med** 1999 Feb;24(2):130-1

Dose-dependent gastrointestinal effects of the somatostatin analog lanreotide in healthy volunteers. Drewe J, et al. **Clin Pharmacol Ther** 1999 Apr;65(4):413-9

Suppression of post-glucose hyperinsulinaemia does not affect blood pressure in either normotensive or hypertensive subjects. Savage MW, et al. **Clin Sci (Colch)** 1998 Jun;94(6):609-14

An open, phase III study of lanreotide (Somatuline PR) in the treatment of acromegaly. Lin JD, et al. **Endocr J** 1999 Feb;46(1):193-8

The role of octreoscan in thyroid eye disease. Krassas GE, et al. **Eur J Endocrinol** 1999 May;140(5):373-5 (24 ref.)

Use of somatostatin analogue scintigraphy in the localization of recurrent medullary thyroid carcinoma. Bernà L, et al. **Eur J Nucl Med** 1998 Nov;25(11):1482-8

Technetium-99m somatostatin analogues: effect of labelling methods and peptide sequence. Decristoforo C, et al. **Eur J Nucl Med** 1999 Aug;26(8):869-76

Somatostatin receptor imaging in patients with sarcoidosis. Kwekkeboom DJ, et al. **Eur J Nucl Med** 1998 Sep; 25(9):1284-92

Somatostatin receptor scintigraphy to predict the clinical evolution and therapeutic response of thyroid-associated ophthalmopathy. Nocaudie M, et al. **Eur J Nucl Med** 1999 May;26(5):511-7

Experiences with high dose radiopeptide therapy: the health

physics perspective. Espenan GD, et al. **Health Phys** 1999 Mar;76(3):225–35

Somatuline LA: a new treatment for acromegaly. Bouloux PM. **Hosp Med** 1998 Aug;59(8):642–5

Importance of the test medium for the release kinetics of a somatostatin analogue from poly(D,L-lactide-co-glycolide) microspheres. Blanco-Prieto MJ, et al. **Int J Pharm** 1999 Jul 20; 184(2):243–50

Stability studies of a somatostatin analogue in biodegradable implants. Rothen-Weinhold A, et al. **Int J Pharm** 1999 Feb 15;178(2):213–21

Effect of a somatostatin analogue (SMS 201-995) on tear secretion in rats. Kapicioğlu Z, et al. **Int Ophthalmol** 1998; 22(1):43–5

Cardiac effects of slow-release lanreotide, a slow-release somatostatin analog, in acromegalic patients. Baldelli R, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):527–32

Tumor localization--the ectopic ACTH syndrome [editorial; comment] de Herder WW, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1184–5. Comment on: J Clin Endocrinol Metab 1999 Apr;84(4):1186–92. Comment on: J Clin Endocrinol Metab 1999 Apr;84(4):1193–202.

Uneventful pregnancy in an acromegalic patient treated with slow-release lanreotide: a case report [letter; comment] de Menis E, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1489. Comment on: J Clin Endocrinol Metab 1998 Mar;83(3):727–31.

Comment of long-acting lanreotide inducing clinical and biochemical remission of acromegaly caused by disseminated GHRH secreting carcinoid [letter; comment] Krassowski J, et al. **J Clin Endocrinol Metab** 1999 May; 84(5):1761–2. Comment on: J Clin Endocrinol Metab 1998 Sep;83(9):3104–9.

Comment on primary localization of an ectopic ACTH-producing bronchial carcinoid tumor by indium111 pentetreotide scintigraphy [letter] Reincke M, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3399–400; discussion 3402–3

Lack of utility of (111)In-pentetreotide scintigraphy in localizing ectopic ACTH producing tumors: follow-up of 18 patients [see comments] Torpy DJ, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1186–92. Comment in: J Clin Endocrinol Metab 1999 Apr;84(4):1184–5.

The effect of low dose octreotide administration on renal function and on gene expression of IGF-I axis components in experimental diabetes mellitus. Rubinger D, et al. **J Endocrinol** 1998 Oct;159(1):133–40

Effectiveness and tolerability of slow release lanreotide treatment in active acromegaly. Colao A, et al. **J Endocrinol Invest** 1999 Jan;22(1):40–7

Short- and long-term effect of a long-acting somatostatin analogue, lanreotide (SR-L) on metastatic gastrinoma. Gaztambide S, et al. **J Endocrinol Invest** 1999 Feb; 22(2):144–6

Long-term treatment of acromegaly with the somatostatin analogue SR-lanreotide. Suliman M, et al. **J Endocrinol Invest** 1999 Jun;22(6):409–18

Effectiveness of slow-release lanreotide, a long-acting somatostatin analogue, in the treatment of acromegaly. Chang TC, et al. **J Formos Med Assoc** 1998 Oct; 97(10):684–9

Comparison of four 64Cu-labeled somatostatin analogues in vitro and in a tumor-bearing rat model: evaluation of new derivatives for positron emission tomography imaging and targeted radiotherapy. Lewis JS, et al. **J Med Chem** 1999 Apr 22;42(8):1341–7

Novel lipoamino acid- and liposaccharide-based system for peptide delivery: application for oral administration of tumor-selective somatostatin analogues. Tóth I, et al. **J Med Chem** 1999 Sep 23;42(19):4010–3

Factor analysis of dynamic series (FADS) in somatostatin receptor imaging. Kolesnikov-Gauthier H, et al. **J Nucl Med** 1999 Jan;40(1):33–9

Comparison of 111In-DOTA-Tyr3-octreotide and 111In-DTPA-octreotide in the same patients: biodistribution, kinetics, organ and tumor uptake. Kwekkeboom DJ, et al. **J Nucl Med** 1999 May;40(5):762–7

Making the best of imperfect tumor-localizing radiopharmaceuticals [editorial; comment] Shapiro B, et al. **J Nucl Med** 1999 Apr;40(4):554–5. Comment on: J Nucl Med 1999 Apr;40(4):539–53.

Indium-111-DOTA-lanreotide: biodistribution, safety and radiation absorbed dose in tumor patients. Virgolini I, et al. **J Nucl Med** 1998 Nov;39(11):1928–36

Conformational analyses by 1H NMR and computer simulations of cyclic hexapeptides related to somatostatin containing acidic and basic peptoid residues. Mattern RH, et al. **J Pept Res** 1999 Feb;53(2):146–60

Synthesis and binding potencies of cyclic hexapeptide analogs of somatostatin incorporating acidic and basic peptoid residues. Tran TA, et al. **J Pept Res** 1999 Feb;53(2):134–45

Synthesis and characterization of multiply-tyrosinated, multiply-iodinated somatostatin analogs. Woltering EA, et al. **J Pept Res** 1999 Feb;53(2):201–13

Conformational analyses of cyclic hexapeptide analogs of somatostatin containing arylalkyl peptoid and naphthylalanine residues. Mattern RH, et al. **J Pept Sci** 1999 Apr;5(4):161–75

Synthesis and binding properties of cyclohexapeptide somatostatin analogs containing naphthylalanine and arylalkyl peptoid residues. Tran TA, et al. **J Pept Sci** 1999 Mar;5(3):113–30

Growth-hormone and prolactin excess. Colao A, et al. **Lancet** 1998 Oct 31;352(9138):1455–61 (70 ref.)

Corticotropin-releasing factor-induced suppression of gastric emptying in the rat is blocked by cyclo(7-aminoheptanoyl-phe-D-TRP-LYS-THR[BZL], an in vivo somatostatin antagonist. Smedh U, et al. **Neurosci Lett** 1999 Jan 22;260(1):41–4

In vitro and in vivo evaluation of 64Cu-TETA-Tyr3-octreotate. A new somatostatin analog with improved target tissue uptake. Lewis JS, et al. **Nucl Med Biol** 1999 Apr;26(3):267–73

In vivo inaccessibility of somatostatin receptors to 111In-pentreotide in primary renal cell carcinoma. Montravers F, et al. **Nucl Med Commun** 1998 Oct; 19(10):953–61

111In-pentetreotide scintigraphy is superior to 123I-MIBG scintigraphy in the diagnosis and location of chemodectoma. Muros MA, et al. **Nucl Med Commun** 1998 Aug;19(8):735–42

Lipophilization of somatostatin analog RC-160 improves its bioactivity and stability. Dasgupta P, et al. **Pharm Res** 1999 Jul;16(7):1047–53

Slow-release lanreotide treatment in acromegaly: effects on quality of life. Sonino N, et al. **Psychother Psychosom** 1999; 68(3):165–7

Multiple endocrine neoplastic-associated thymic carcinoid tumour in close relatives: octreotide scan as a new diagnostic and follow-up modality. Two case reports. Satta J, et al. **Scand Cardiovasc J** 1999;33(1):49–53 (15 ref.)

Intraoperative localization of gut endocrine tumors with radiolabeled somatostatin analogs and a gamma-detecting probe. Benevento A, et al. **Semin Surg Oncol** 1998 Dec; 15(4):239–44

Somatostatin receptor scintigraphy before and after treatment with somatostatin analogues in patients with thyroid eye disease. Krassas GE, et al. **Thyroid** 1999 Jan;9(1):47–52

Evaluation of indium-111 pentetreotide somatostatin receptor scintigraphy to detect recurrent thyroid carcinoma in patients with negative radioiodine scintigraphy. Valli N, et al. **Thyroid** 1999 Jun;9(6):583–9

The current status of somatostatin receptors in malignant melanoma. Fletcher WS, et al. **Yale J Biol Med** 1997 Sep-Dec;70(5–6):561–3

The potential role of somatostatin analogues in breast cancer treatment. Pollak M. **Yale J Biol Med** 1997 Sep-Dec; 70(5–6):535–9 (40 ref.)

[International symposium on somatostatin analogues: fundamental aspects and clinical perspectives. Venice, Italy, 24–25 October 1997. Abstracts] **Ann Endocrinol (Paris)** 1998;59 Suppl 2:1–52 **(Fre)**

[Intraoperative isotope-controlled probe localization after somatostatin receptor scintigraphy of occult neuroendocrine tumors] Runkel N, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1034–7 (Eng. Abstr.) **(Ger)**

[Efficacy of delayed-release lanreotide in the medical therapy of acromegaly] Papi G, et al. **Minerva Endocrinol** 1998 Jun; 23(2):57–63 (Eng. Abstr.) **(Ita)**

[A case of mediastinal pancreatic pseudocysts successfully treated with somatostatin analogue] Ishibashi K, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Feb;96(2):176–80 **(Jpn)**

[The use of somatostatin analogs in the treatment of patients with digestive system diseases] Frol'kis AV. **Ter Arkh** 1999; 71(2):83–5 (40 ref.) **(Rus)**

[Pregnancy in an acromegalic patient treated with lanreotide and bromocryptin (letter)] Sánchez R, et al. **Med Clin (Barc)** 1999 Jul 10;113(5):198 (4 ref.) **(Spa)**

[Lanreotide in the treatment of the dumping syndrome (letter)] Alcalde Rubio M, et al. **Rev Esp Enferm Dig** 1999 Mar;91(3):223–4 **(Spa)**

ANALYSIS

Sex differentiation of growth hormone-releasing hormone and somatostatin neurons in the mouse hypothalamus: an immunohistochemical and morphological study. Nurhidayat, et al. **Brain Res** 1999 Mar 13;821(2):309–21

Quantitative analysis of inputs to somatostatin-immunoreactive descending interneurons in the myenteric plexus of the guinea-pig small intestine. Pompolo S, et al. **Cell Tissue Res** 1998 Nov;294(2):219–26

Chromogranin A-, somatostatin- and serotonin- containing endocrine cells in the corporal gastric mucosa of patients with Helicobacter pylori associated chronic gastritis. Tzaneva M, et al. **Endocr Regul** 1999 Jun;33(2):79–82

Prosomatostatin and somatostatin in pig pineal gland. An immunohistochemical study. Przybylska-Gornowicz B, et al. **Folia Histochem Cytobiol** 1999;37(2):75–6

Somatostatin in the ovary of an African lungfish (Protopterus annectens): an in situ hybridisation, immunohistochemical, and autoradiographical study. Masini MA, et al. **Gen Comp Endocrinol** 1999 May;114(2):287–92

Pre- and posthatch developmental changes in hypothalamic thyrotropin-releasing hormone and somatostatin concentrations and in circulating growth hormone and thyrotropin levels in the chicken. Geris KL, et al. **J Endocrinol** 1998 Nov;159(2):219–25

Effect of intragastric ammonia on gastrin-, somatostatin-and somatostatin receptor subtype 2 positive-cells in rat antral mucosa. Iyo T, et al. **Life Sci** 1999;64(26):2497–504

Somatostatin immunoreactivity in esophageal premotor neurons of the rat. Broussard DL, et al. **Neurosci Lett** 1998 Jul 10;250(3):201–4

Postsynaptic targets of somatostatin-immunoreactive interneurons in the rat hippocampus. Katona I, et al. **Neuroscience** 1999 Jan;88(1):37–55

Epidermal growth factor receptor, somatostatin and bcl-2 in human pancreatic tumor xenografts. An immunohistochemical study. Zalatnai A. **Pathol Oncol Res** 1999;5(2):146–51

[A case of duct-islet cell carcinoma of the pancreas positive for somatostatin immunostain] Andoh T, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Aug;96(8):973–6 **(Jpn)**

ANTAGONISTS & INHIBITORS

Homogeneous pharmacologic and cell-based screens provide diverse strategies in drug discovery: somatostatin antagonists as a case study. Zysk JR, et al. **Comb Chem High Throughput Screen** 1998 Dec;1(4):171–83 (59 ref.)

Exogenous cysteamine increases basal pancreatic exocrine secretion in the rat. Lee HS, et al. **J Korean Med Sci** 1999 Feb;14(1):52–6

kappa- and mu-opioids reverse the somatostatin inhibition of Ca2+ currents in ciliary and dorsal root ganglion neurons. Polo-Parada L, et al. **J Neurosci** 1999 Jul 1; 19(13):5213–27

A linear hexapeptide somatostatin antagonist blocks somatostatin activity in vitro and influences growth hormone release in rats. Baumbach WR, et al. **Mol Pharmacol** 1998 Nov;54(5):864–73

Peripheral application of cyclo-somatostatin, a somatostatin antagonist, increases the mechanosensitivity of rat knee joint afferents. Heppelmann B, et al. **Neurosci Lett** 1999 Jan 4;259(1):62–4

BIOSYNTHESIS

Evidence for a synergistic effect of the HIV-1 envelope protein gp120 and brain-derived neurotrophic factor (BDNF) leading to enhanced expression of somatostatin neurons in aggregate cultures derived from the human fetal cortex. Barnea A, et al. **Brain Res** 1999 Jan 9;815(2):349–57

Somatostatin is expressed in FRTL-5 thyroid cells and prevents thyrotropin-mediated down-regulation of the cyclin-dependent kinase inhibitor p27kip1. Medina DL, et al. **Endocrinology** 1999 Jan;140(1):87–95

Expression of cholecystokinin and somatostatin in the cortex of hydrocephalic and normal HTx rats. Liniger P, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:65–6

Substance P regulates somatostatin expression in inflammation. Blum AM, et al. **J Immunol** 1998 Dec 1; 161(11):6316–22

Ontogeny and sexual differentiation of somatostatin biosynthesis and secretion in the hypothalamic periventricular-median eminence pathway. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):35–42

BLOOD

Gallbladder emptying and somatostatin and cholecystokinin plasma levels in celiac disease. Fraquelli M, et al. **Am J Gastroenterol** 1999 Jul;94(7):1866–70

Reciprocal changes in progression of gastric mucosa-associated lymphoid tissue lymphoma and pancreatic somatostatinoma. Maekawa T, et al. **Am J Med** 1998 Dec;105(6):539–41

Neuroendocrine evidence for dopaminergic actions of hypericum extract (LI 160) in healthy volunteers. Franklin M, et al. **Biol Psychiatry** 1999 Aug 15;46(4):581–4

Effect of pirenzepine on gastric endocrine cell kinetics during lansoprazole administration. Omura N, et al. **J Gastroenterol** 1998 Oct;33(5):634–9

Plasma somatostatin and cholecystokinin levels in preterm infants during kangaroo care with and without nasogastric tube-feeding. Törnhage CJ, et al. **J Pediatr Endocrinol Metab** 1998 Sep-Oct;11(5):645–51

Plasma somatostatin and cholecystokinin levels in response to feeding in preterm infants. Törnhage CJ, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug;27(2):199–205

Effect of omeprazole treatment on plasma concentrations of the gastric peptides, xenin, gastrin and somatostatin, and of pepsinogen. Stoschus B, et al. **J Pept Res** 1998 Jul; 52(1):27–33

CEREBROSPINAL FLUID

Cerebrospinal fluid somatostatin, mood, and cognition in multiple sclerosis. Roca CA, et al. **Biol Psychiatry** 1999 Aug 15;46(4):551–6

Cerebrospinal fluid concentrations of corticotropin-releasing hormone, vasopressin, and somatostatin in depressed patients and healthy controls: response to amitriptyline treatment. Heuser I, et al. **Depress Anxiety** 1998;8(2):71–9

Effects of electro-acupuncture on somatostatin and pancreatic polypeptide in ischemic cerebrovascular diseases. Zhang X, et al. **J Tradit Chin Med** 1999 Mar; 19(1):54–8

Cerebrospinal fluid somatostatin in West syndrome: changes in response to combined treatment with high-dose pyridoxal phosphate and low-dose corticotropin. Hirai K, et al. **Neuropeptides** 1998 Dec;32(6):581–6

CHEMICAL SYNTHESIS

Comparison of four 64Cu-labeled somatostatin analogues in vitro and in a tumor-bearing rat model: evaluation of new derivatives for positron emission tomography imaging and targeted radiotherapy. Lewis JS, et al. **J Med Chem** 1999 Apr 22;42(8):1341-7

CHEMISTRY

Purification and characterization of insulin and peptides derived from proglucagon and prosomatostatin from the fruit-eating fish, the pacu Piaractus mesopotamicus. de Lima JA, et al.
Comp Biochem Physiol B Biochem Mol Biol 1999 Jan; 122(1):127-35

A conformational study in solution of pro-somatostatin fragments by NMR and computational methods. Falcigno L, et al. **J Pept Sci** 1998 Aug;4(5):305-18

Preparation and chromatographic purification of 125I-[Tyr0]-somatostatin-14 for the use in radioimmunoassay and receptor-binding experiments. Rissler K, et al. **Prep Biochem Biotechnol** 1998 Aug; 28(3):219-33

DIAGNOSTIC USE

Use of somatostatin analogue scintigraphy in the localization of recurrent medullary thyroid carcinoma. Bernà L, et al. **Eur J Nucl Med** 1998 Nov;25(11):1482-8

DRUG EFFECTS

Somatostatin- and factor XIIIa-immunoreactive cells in psoriasis during clobetasol propionate and calciprotriol treatment. Talme T, et al. **Acta Derm Venereol** 1999 Jan; 79(1):44-8

GENETICS

Regulation of the preprosomatostatin gene by cyclic-AMP in cerebrocortical neurons. Capone G, et al.
Brain Res Mol Brain Res 1998 Oct 1;60(2):247-58

Regulation of hypothalamic somatostatin and growth hormone releasing hormone mRNA levels by inhibin. Carro E, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1-2):191-4

Expression of three distinct somatostatin messenger ribonucleic acids (mRNAs) in goldfish brain: characterization of the complementary deoxyribonucleic acids, distribution and seasonal variation of the mRNAs, and action of a somatostatin-14 variant. Lin X, et al.
Endocrinology 1999 May;140(5):2089-99

Brain-derived neurotrophic factor and neurotrophin-3 enhance somatostatin gene expression through a likely direct effect on hypothalamic somatostatin neurons. Rage F, et al. **Endocrinology** 1999 Feb;140(2):909-16

Pax6 and Pdx1 form a functional complex on the rat somatostatin gene upstream enhancer. Andersen FG, et al. **FEBS Lett** 1999 Feb 26;445(2-3):315-20

Somatostatin and its receptor family. Patel YC.
Front Neuroendocrinol 1999 Jul;20(3):157-98 (233 ref.)

Polygenic expression of somatostatin in rainbow trout, Oncorhynchus mykiss: evidence of a preprosomatostatin encoding somatostatin-14. Kittilson JD, et al.
Gen Comp Endocrinol 1999 Apr;114(1):88-96

Cloning and characterization of the bovine somatostatin gene. Furu LM, et al. **J Anim Sci** 1999 Feb;77(2):492-3

Functional and cooperative interactions between the homeodomain PDX1, Pbx, and Prep1 factors on the somatostatin promoter. Goudet G, et al. **J Biol Chem** 1999 Feb 12;274(7):4067-73

Molecular cloning of the cDNAs and distribution of the mRNAs encoding two somatostatin precursors in the African lungfish Protopterus annectens. Trabucchi M, et al. **J Comp Neurol** 1999 Aug 9;410(4):643-52

Correlation of hypothalamic somatostatin mRNA expression and peptide content with secretion: sexual dimorphism and differential regulation by gonadal factors. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):27-33

Effects of somatostatin, somatostatin analogs, and endothelial cell somatostatin gene transfer on smooth muscle cell proliferation in vitro. Sarkar R, et al. **J Vasc Surg** 1999 Apr;29(4):685-93

Decreased expression of the mRNA for somatostatin in the periventricular nucleus of depression-model rats. Zhang K, et al. **Life Sci** 1999;65(9):PL87-94

Differential regulation of basal and cyclic adenosine 3',5'-monophosphate-induced somatostatin gene transcription in neural cells by DNA control elements that bind homeodomain proteins. Schwartz PT, et al.
Mol Endocrinol 1998 Sep;12(9):1280-93

Hilar somatostatin-mRNA containing neurons are preserved after perforant path kindling in the rat. Dalby NO, et al. **Neurosci Lett** 1998 Oct 9;255(1):45-8

Localization of the preprosomatostatin-mRNA by in situ hybridization in the ewe hypothalamus. Bruneau G, et al. **Peptides** 1998;19(10):1749-58

IMMUNOLOGY

Active immunoneutralization of somatostatin in the sheep: effects on gastrointestinal somatostatin expression, storage and secretion. Shulkes A, et al. **Regul Pept** 1999 Jun 30; 82(1-3):59-64

ISOLATION & PURIFICATION

Purification and characterization of insulin and peptides derived from proglucagon and prosomatostatin from the fruit-eating fish, the pacu Piaractus mesopotamicus. de Lima JA, et al.
Comp Biochem Physiol B Biochem Mol Biol 1999 Jan; 122(1):127-35

Multiple forms of glucagon and somatostatin isolated from the intestine of the southern-hemisphere lamprey Geotria australis. Wang Y, et al. **Gen Comp Endocrinol** 1999 Feb; 113(2):274-82

METABOLISM

Human proximal tubular epithelial cells express somatostatin: regulation by growth factors and cAMP. Turman MA, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2):F1095-101

Concurrent elevation of fundic somatostatin prevents gastrin stimulation by GRP. Zavros Y, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):G21-7

Expression of somatostatin messenger RNA and receptor in cultured brain tumor cells. Hirota N, et al.
Anticancer Res 1998 Sep-Oct;18(5A):3295-7

Examination of somatostatin involvement in the inhibitory action of GIP, GLP-1, amylin and adrenomedullin on gastric acid release using a new SRIF antagonist analogue. Rossowski WJ, et al. **Br J Pharmacol** 1998 Nov; 125(5):1081-7

Somatostatin displayed on filamentous phage as a receptor-specific agonist. Rousch M, et al.
Br J Pharmacol 1998 Sep;125(1):5-16

Distribution of somatostatin receptor subtypes in rat lumbar spinal cord examined with gold-labelled somatostatin and anti-receptor antibodies. Segond von Banchet G, et al.
Brain Res 1999 Jan 16;816(1):254-7

Raphe serotonergic neurons projecting to the olfactory bulb contain galanin or somatostatin but not neurotensin. Araneda S, et al. **Brain Res Bull** 1999 Jun;49(3):209-14

Cerebrospinal fluid concentrations of corticotropin-releasing hormone, vasopressin, and somatostatin in depressed patients and healthy controls: response to amitriptyline treatment. Heuser I, et al. **Depress Anxiety** 1998;8(2):71-9

Activin A and follistatin influence expression of somatostatin in the ciliary ganglion in vivo. Darland DC, et al.
Dev Biol 1998 Oct 15;202(2):293-303

Tachykinins stimulate release of peptide hormones (glucagon-like peptide-1) and paracrine (somatostatin) and neurotransmitter (vasoactive intestinal polypeptide) from porcine ileum through NK-1 receptors. Schmidt PT, et al. **Dig Dis Sci** 1999 Jul;44(7):1273-81

The neuropeptide Y Y1 receptor is a somatic receptor on dorsal root ganglion neurons and a postsynaptic receptor on somatostatin dorsal horn neurons. Zhang X, et al.
Eur J Neurosci 1999 Jul;11(7):2211-25

Decreased sensory neuropeptide release from trachea of rats with streptozotocin-induced diabetes. Nemeth J, et al.
Eur J Pharmacol 1999 Mar 19;369(2):221-4

Somatostatin and its receptor family. Patel YC.
Front Neuroendocrinol 1999 Jul;20(3):157-98 (233 ref.)

Somatostatin and hepatocellular carcinoma. Kapadia CR.
Gastroenterology 1998 Nov;115(5):1298-9

Somatostatin binding to hepatocytes isolated from rainbow trout, Oncorhynchus mykiss, is modulated by insulin and glucagon. Pesek MJ, et al. **Gen Comp Endocrinol** 1998 Nov; 112(2):183-90

The histamine H3 receptor agonist N alpha-methylhistamine produced by Helicobacter pylori does not alter somatostatin release from cultured rabbit fundic D-cells. Beales IL, et al. **Gut** 1998 Aug;43(2):176-81

Age-related changes in antral endocrine cells in mice. Sandström O, et al. **Histol Histopathol** 1999 Jan;14(1):31-6

Receptor-mediated internalization is critical for the inhibition of the expression of growth hormone by somatostatin in the pituitary cell line AtT-20. Sarret P, et al.
J Biol Chem 1999 Jul 2;274(27):19294-300

Characterization of a mutant pancreatic eIF-2alpha kinase, PEK, and co-localization with somatostatin in islet delta cells. Shi Y, et al. **J Biol Chem** 1999 Feb 26;274(9):5723-30

Transient expression of somatostatin sst2 receptors in rat cerebellar nuclei during development. Bucharles C, et al.
J Chem Neuroanat 1999 May;16(3):223-9

Leptin regulates GH secretion in the rat by acting on GHRH and somatostatinergic functions. Cocchi D, et al.
J Endocrinol 1999 Jul;162(1):95-9

Coexistence of proguanylin (1-15) and somatostatin in the gastrointestinal tract. Ieda H, et al.
J Gastroenterol Hepatol 1998 Dec;13(12):1225-33

Correlation of hypothalamic somatostatin mRNA expression and peptide content with secretion: sexual dimorphism and differential regulation by gonadal factors. Murray HE, et al. **J Neuroendocrinol** 1999 Jan;11(1):27-33

Effect of milk on somatostatin degradation in suckling rat jejunum in vivo. Rao RK, et al.
J Pediatr Gastroenterol Nutr 1999 Jan;28(1):84-94

Urethane-induced somatostatin mediated inhibition of gastric acid: reversal by the somatostatin 2 receptor antagonist, PRL-2903. Kawakubo K, et al. **Life Sci** 1999; 65(10):PL115-20

Somatostatin activation of mitogen-activated protein kinase via somatostatin receptor 1 (SSTR1). Florio T, et al.
Mol Endocrinol 1999 Jan;13(1):24-37

Somatostatin immunoreactivity in bone and joint tissues. Elhassan AM, et al. **Neuroreport** 1998 Aug 3;9(11):2573-5

Somatostatin binding sites in the white matter of the developing human brainstem: inverse relationship with the myelination process. Carpentier V, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):49-52

Loss of somatostatin-like immunoreactivity in the frontal cortex of Alzheimer patients carrying the apolipoprotein epsilon 4 allele. Grouselle D, et al. **Neurosci Lett** 1998 Oct 9;255(1):21-4

Cholinergic lesions of the rat brain by ibotenic acid and 192 IgG-saporin: effects on somatostatin, substance P and neuropeptide Y levels in the cerebral cortex and the hippocampus. Nag S, et al. **Neurosci Lett** 1998 Aug 14; 252(2):83-6

Up-regulation of somatostatin after lesions in the cerebellum of the teleost fish Apteronotus leptorhynchus. Zupanc GK. **Neurosci Lett** 1999 Jun 25;268(3):135-8

Estrogen modulation of neuropeptides: somatostatin, neurotensin and substance P, in the ventrolateral and arcuate nuclei of the female guinea pig. Dufourny L, et al. **Neurosci Res** 1999 Mar;33(3):223-8

Localization of the preprosomatostatin-mRNA by in situ hybridization in the ewe hypothalamus. Bruneau G, et al. **Peptides** 1998;19(10):1749-58

Processing of neuropeptide Y and somatostatin in human cerebrospinal fluid as monitored by radioimmunoassay and mass spectrometry. Nilsson C, et al. **Peptides** 1998; 19(7):1137-46

Regulation of the action of the novel cholecystokinin-releasing peptide diazepam binding inhibitor by inhibitory hormones and taurocholate. Herzig KH, et al. **Regul Pept** 1998 Jun 30;74(2-3):193-8

[Effects of cytokines on somatostatin in nude mice bearing human renal cell carcinoma] Li G, et al.
Chung Hua Wai Ko Tsa Chih 1997 Jun;35(6):333-5 (Eng. Abstr.) **(Chi)**

[Effects of new constituents L-6a and L-10 from leaves of Luffa cylinderica on learning, memory, and hippocampal somatostatin in rats] Qi SB, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Nov;18(6):529-31 (Eng. Abstr.) **(Chi)**

PHARMACOLOGY

Effects of somatostatins on gonadotrophic cells in female rats. Lovren M, et al. **Acta Histochem** 1998 Jul;100(3):329-35

Effects of somatostatin on proximal gastric motor function and visceral perception. Mearadji B, et al.
Aliment Pharmacol Ther 1998 Nov;12(11):1163-9

Inhibition of L-type calcium channels by somatostatins in human neuroendocrine tumor cells of the gut. Glassmeier G, et al. **Ann N Y Acad Sci** 1998 Nov 17;859:208-9

Modulation by somatostatin of rat parotid salivary secretion stimulated by cholinergic, adrenergic and peptidergic agents. Ostuni MA, et al. **Arch Oral Biol** 1999 Jul; 44(7):549-56

Antiproliferative and GH-inhibitory activity of chimeric peptides consisting of GHRP-6 and somatostatin. Dasgupta P, et al. **Biochem Biophys Res Commun** 1999 Jun 7; 259(2):379-84

Effect of somatostatin infusion on the somatotrope responsiveness to growth hormone-releasing hormone in patients with anorexia nervosa. Gianotti L, et al.
Biol Psychiatry 1999 Feb 1;45(3):334-9

Potent, orally bioavailable somatostatin agonists: good absorption achieved by urea backbone cyclization. Pasternak A, et al. **Bioorg Med Chem Lett** 1999 Feb 8; 9(3):491-6

Differential effects of somatostatin and angiopeptin on cell proliferation. Alderton F, et al. **Br J Pharmacol** 1998 May; 124(2):323-30

Differential agonist activity of somatostatin and L-362855 at human recombinant sst4 receptors. Smalley KS, et al.
Br J Pharmacol 1998 Oct;125(4):833-41

Somatostatin potentiates voltage-dependent K+ and Ca2+ channel expression induced by nerve growth factor in PC12 cells. Rhie DJ, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):267-74

Somatostatin enhances neurite outgrowth in PC12 cells. Traina G, et al. **Brain Res Dev Brain Res** 1998 Dec 7; 111(2):223-30

Effect of continuous subcutaneous insulin infusion with lispro on hepatic responsiveness to glucagon in type 1 diabetes. Launay B, et al. **Diabetes Care** 1998 Oct;21(10):1627-31

Rat somatostatin receptor subtype 4 can be made sensitive to agonist-induced internalization by mutation of a single threonine (residue 331). Kreienkamp HJ, et al.
DNA Cell Biol 1998 Oct;17(10):869-78

Inhibitory and stimulatory effects of somatostatin on two human pancreatic cancer cell lines: a primary role for tyrosine phosphatase SHP-1. Douziech N, et al.
Endocrinology 1999 Feb;140(2):765-77

In vitro characterization of somatostatin receptors in the human thymus and effects of somatostatin and octreotide on cultured thymic epithelial cells. Ferone D, et al.
Endocrinology 1999 Jan;140(1):373-80

Somatostatin induces hyperpolarization in pancreatic islet alpha cells by activating a G protein-gated K+ channel. Yoshimoto Y, et al. **FEBS Lett** 1999 Feb 12;444(2-3):265-9

Inhibitory effect of somatostatin on Helicobacter pylori proliferation in vitro. Yamashita K, et al.
Gastroenterology 1998 Nov;115(5):1123-30

Human circular colonic smooth muscle cells possess active

somatostatin receptors. Corleto VD, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):505–9

Central somatostatin diminished inhibitory action of central CGRP on pancreatic basal secretion in conscious rats. Miyasaka K, et al. **J Auton Nerv Syst** 1998 Nov 10; 73(2–3):143–8

L-arginine stimulates NO-dependent vasodilation in healthy humans--effect of somatostatin pretreatment. Bode-Böger SM, et al. **J Investig Med** 1999 Jan;47(1):43–50

A nitric oxide/cyclic GMP-dependent protein kinase pathway alters transmitter release and inhibition by somatostatin at a site downstream of calcium entry. Gray DB, et al. **J Neurochem** 1999 May;72(5):1981–90

Somatostatin acts in CA1 and CA3 to reduce hippocampal epileptiform activity. Tallent MK, et al. **J Neurophysiol** 1999 Apr;81(4):1626–35

Neurotransmitter activation of inwardly rectifying potassium current in dissociated hippocampal CA3 neurons: interactions among multiple receptors. Sodickson DL, et al. **J Neurosci** 1998 Oct 15;18(20):8153–62

Structural and compositional determinants of cortistatin activity. Criado JR, et al. **J Neurosci Res** 1999 Jun 15; 56(6):611–9

Synthesis and characterization of multiply-tyrosinated, multiply-iodinated somatostatin analogs. Woltering EA, et al. **J Pept Res** 1999 Feb;53(2):201–13

Epidermal growth factor inhibits somatostatin-induced apoptosis. Thompson JS. **J Surg Res** 1999 Jan;81(1):95–100

Effects of somatostatin, somatostatin analogs, and endothelial cell somatostatin gene transfer on smooth muscle cell proliferation in vitro. Sarkar R, et al. **J Vasc Surg** 1999 Apr;29(4):685–93

Effect of somatostatin on beta-endorphin release in rat experimental chronic inflammation. Corsi MM, et al. **Life Sci** 1999;64(24):2247–54

Effect of somatostatin on human gallbladder motility: an in vitro study. Maselli MA, et al. **Neurogastroenterol Motil** 1999 Feb;11(1):47–53

Characterisation of the fish sst3 receptor, a member of the SRIF1 receptor family: atypical pharmacological features. Siehler S, et al. **Neuropharmacology** 1999 Mar;38(3):449–62

The growth hormone secretagogue KP-102-induced stimulation of food intake is modified by fasting, restraint stress, and somatostatin in rats. Shibasaki T, et al. **Neurosci Lett** 1998 Oct 9;255(1):9–12

Mechanisms mediating somatostatin-induced reduction of cytosolic free calcium in PC12 cells. Traina G, et al. **Neurosci Lett** 1999 Apr 16;265(2):123–6

Somatostatin decreases somatostatin messenger ribonucleic acid levels in the rat periventricular nucleus. Aguila MC. **Peptides** 1998;19(9):1573–9

Growth inhibitory effects of somatostatin on human leukemia cell lines mediated by somatostatin receptor subtype 1. Ishihara S, et al. **Peptides** 1999;20(3):313–8

Somatostatin administration alters taste preferences in the rat. Scalera G, et al. **Peptides** 1998;19(9):1565–72

Somatostatin administration modifies food intake, body weight, and gut motility in rat. Scalera G, et al. **Peptides** 1998;19(6):991–7

Somatostatin and octreotide modulate the function of Kupffer cells in liver cirrhosis. Chao TC, et al. **Regul Pept** 1999 Feb 5;79(2–3):117–24

Somatostatin-14 modulates acid-dependent inhibition of meal-stimulated gastrin via muscarinic pathways in dogs. Fung LC, et al. **Regul Pept** 1998 Jun 30;74(2–3):159–66

[Effect of somatostatin on human sphincter of Oddi motility] Zou D, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Mar; 36(3):177–9 (Eng. Abstr.) **(Chi)**

[Somatostatin and electroacupuncture inhibited c-fos expression in spinal cord of arthritic rats] Ruan HZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):474–6 (Eng. Abstr.) **(Chi)**

[Somatostatin in NRM plays roles in inducing analgesia and enhancing electroacupuncture analgesia] Liu L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):342–5 (Eng. Abstr.) **(Chi)**

[Somatostatin inhibited pain modulation action of substance P in spinal cord] Ruan HZ, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):13–7 (Eng. Abstr.) **(Chi)**

[Effect of somatostatin-octreotide on secretion of adrenocorticotropin, cortisol and neuro-hypophyseal hormones in acromegaly] Julesz J, et al. **Orv Hetil** 1998 Dec 20;139(51):3071–4 (Eng. Abstr.) **(Hun)**

PHYSIOLOGY

The opposite effects of cysteamine on the acquisition of two different tasks in mice are associated with bidirectional testing-induced changes in hippocampal adenylyl cyclase activity. Guillou JL, et al. **Behav Neurosci** 1998 Aug; 112(4):900–8

Twenty-four hour rhythms of hypothalamic corticotropin-releasing hormone, thyrotropin-releasing hormone, growth hormone-releasing hormone and somatostatin in rats injected with Freund's adjuvant. Esquifino AI, et al. **Biol Signals Recept** 1999 May-Jun; 8(3):178–90

Receptors and effects of the inhibitory neuropeptide somatostatin in microglial cells. Feindt J, et al. **Brain Res Mol Brain Res** 1998 Oct 1;60(2):228–33

Differential regulation of somatostatin receptor type 2 (sst 2) expression in AR4-2J tumor cells implanted into mice during octreotide treatment. Froidevaux S, et al. **Cancer Res** 1999 Aug 1;59(15):3652–7

The role of somatostatin in the pathophysiology of rheumatoid arthritis. Sakane T, et al. **Clin Exp Rheumatol** 1998 Nov-Dec;16(6):745–9 (44 ref.)

Evolution of neuroendocrine peptide systems: gonadotropin-releasing hormone and somatostatin. Lin XW, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):375–88 (105 ref.)

Somatostatin and octreotide: physiological background and pharmacological application. Beglinger C, et al. **Digestion** 1999;60 Suppl 2:2–8 (24 ref.)

Water extracts of Helicobacter pylori delay healing of chronic gastric ulcers in rats: role of cytokines and gastrin-somatostatin link. Brzozowski T, et al. **Digestion** 1999 Jan-Feb;60(1):22–33

Somatostatin-dependent adenylyl cyclase activity in nonactivated and mitogen-activated human T cells: evidence for uncoupling of sst3 receptor from adenylyl cyclase. Giannetti N, et al. **J Cell Biochem** 1999 Feb 1; 72(2):221–31

Involvement of endogenous cholecystokinin and somatostatin in gastroprotection induced by intraduodenal fat. Brzozowski T, et al. **J Clin Gastroenterol** 1998;27 Suppl 1:S125–37

The role of somatostatin (octreotide) in the regulation of melatonin secretion in healthy volunteers and in patients with primary hypothyroidism. Wikner J, et al. **J Endocrinol Invest** 1999 Jul-Aug;22(7):527–34

Growth hormone and somatostatin in glomerular injury. Baud L, et al. **J Nephrol** 1999 Jan-Feb;12(1):18–23 (65 ref.)

Age-related blunting of growth hormone secretion during exercise may not be soley due to increased somatostatin tone. Marcell TJ, et al. **Metabolism** 1999 May;48(5):665–70

A linear hexapeptide somatostatin antagonist blocks somatostatin activity in vitro and influences growth hormone release in rats. Baumbach WR, et al. **Mol Pharmacol** 1998 Nov;54(5):864–73

A novel role for receptor-associated protein in somatostatin modulation: implications for Alzheimer's disease. Van Uden E, et al. **Neuroscience** 1999;88(3):687–700

Somatostatin and the gastrointestinal tract. Tulassay Z. **Scand J Gastroenterol Suppl** 1998;228:115–21 (45 ref.)

[Somatostatin: a ubiquitous peptide] Epelbaum J, et al. **C R Seances Soc Biol Fil** 1998;192(4):597–606 (44 ref.) (Eng. Abstr.) **(Fre)**

[Cellular mechanism of growth hormone secretion by hypothalamic peptides] Kato M. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):402–4 (21 ref.) **(Jpn)**

[Somatostatin as a regulator of cardiovascular system functions] Osadchii OE, et al. **Usp Fiziol Nauk** 1998 Oct-Dec;29(4):24–41 (146 ref.) (Eng. Abstr.) **(Rus)**

SECRETION

Stimulation by 2-deoxy-D-glucose tetraacetates of hormonal secretion from the perfused rat pancreas. Leclercq-Meyer V, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E689–96

Dual mode of action of glucose pentaacetates on hormonal secretion from the isolated perfused rat pancreas. Leclercq-Meyer V, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E610–7

Effects of imidazoline derivative RX871024 on insulin, glucagon, and somatostatin secretion from isolated perfused rat pancreas. Efanova IB, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):162–5

Systemic anti-inflammatory effect induced by counter-irritation through a local release of somatostatin from nociceptors. Szolcsányi J, et al. **Br J Pharmacol** 1998 Oct;125(4):916–22

Developmental regulation of gastric somatostatin secretion in the sheep. Grabau BJ, et al. **Endocrinology** 1999 Feb; 140(2):603–8

Helicobacter pylori and somatostatin cells [comment] Calam J. **Eur J Gastroenterol Hepatol** 1998 Apr;10(4):281–3. Comment on: Eur J Gastroenterol Hepatol 1998 Apr;10(4):289–91.

Failure of human and mouse leptin to affect insulin, glucagon and somatostatin secretion by the perfused rat pancreas at physiological glucose concentration. Leclercq-Meyer V, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1–2):111–8

Inhibin suppresses in vivo growth hormone secretion. Carro E, et al. **Neuroendocrinology** 1998 Nov;68(5):293–6

Somatostatin decreases somatostatin messenger ribonucleic acid levels in the rat periventricular nucleus. Aguila MC. **Peptides** 1998;19(9):1573–9

Intraluminal thyrotropin-releasing hormone affects gastric somatostatin and acid secretion through its specific receptor in rats. Nishio Y, et al. **Scand J Gastroenterol** 1999 Mar; 34(3):270–5

Calcitonin-producing pancreatic somatostatinoma: report of a case. Sugimoto F, et al. **Surg Today** 1998;28(12):1279–82 (9 ref.)

[Somatostatin and its secretory cells in tumor surrounding mucosa in colorectal cancer patients and its significance] Zhao R, et al. **Chung Hua Wai Ko Tsa Chih** 1997 May; 35(5):268–70 (Eng. Abstr.) **(Chi)**

THERAPEUTIC USE

Phase II study of high-dose somatostatin analogue in patients either previously treated or untreated who have extensive-stage small cell lung cancer. Marschke RF Jr, et al. **Am J Clin Oncol** 1999 Feb;22(1):15–7

Summing up 15 years of somatostatin analog therapy in neuroendocrine tumors: future outlook. Eriksson B, et al. **Ann Oncol** 1999;10 Suppl 2:S31–8 (63 ref.)

Somatostatin receptor scintigraphy and somatostatin therapy in the evaluation and treatment of malignant thymoma. Lin K, et al. **Clin Nucl Med** 1999 Jan;24(1):24–8

Pharmacotherapy of acute non-variceal bleeding [editorial; comment] Gostout CJ. **Dig Dis** 1998 Sep-Oct;16(5):263–5. Comment on: Dig Dis 1998 Jul-Aug;16(4):214–24.

Role of octreotide and somatostatin in the treatment of intestinal fistulae. Dorta G. **Digestion** 1999;60 Suppl 2:53–6 (23 ref.)

Somatostatin or octreotide in acute variceal bleeding. Hadengue A. **Digestion** 1999;60 Suppl 2:31–41 (60 ref.)

The role of octreotide and somatostatin in acute and chronic pancreatitis. Uhl W, et al. **Digestion** 1999;60 Suppl 2:23–31 (95 ref.)

Somatostatin in the prevention of recurrent bleeding after endoscopic haemostasis of peptic ulcer haemorrhage: a preliminary report. Coraggio F, et al. **Eur J Gastroenterol Hepatol** 1998 Aug;10(8):673–6

Somatostatin for acute severe bleeding from portal hypertensive gastropathy. Kouroumalis EA, et al. **Eur J Gastroenterol Hepatol** 1998 Jun;10(6):509–12

Necrolytic migratory erythema, first symptom of a malignant glucagonoma: treatment by long-acting somatostatin and surgical resection. Report of three cases. El Rassi Z, et al. **Eur J Surg Oncol** 1998 Dec;24(6):562–7 (56 ref.)

Somatostatin controls Kaposi's sarcoma tumor growth through inhibition of angiogenesis. Albini A, et al. **FASEB J** 1999 Apr;13(6):647–55

Prophylactic effect of somatostatin on post-ERCP pancreatitis: a randomized controlled trial [see comments] Poon RT, et al. **Gastrointest Endosc** 1999 May;49(5):593–8. Comment in: Gastrointest Endosc 1999 May;49(5):660–2.

Somatostatin alone or combined with emergency sclerotherapy in the treatment of acute esophageal variceal bleeding: a prospective randomized trial. Villanueva C, et al. **Hepatology** 1999 Aug;30(2):384–9

Plasmapheresis combined with somatostatin is a successful treatment of porphyrias. Medenica R, et al. **Ther Apher** 1997 May;1(2):159–64

Metabolism of the intestine with intermediate ischemia after intestinal ischemia-reperfusion injury: therapeutic effects of somatostatin. Ariceta J, et al. **Transplant Proc** 1999 Sep; 31(6):2572

Prevention by somatostatine and N-acetylcisteine of multiorgan failure mediated by oxidative stress after intestinal ischemia. Ferrer JV, et al. **Transplant Proc** 1999 Sep;31(6):2570–1

The potential role of somatostatin analogues in breast cancer treatment. Pollak M. **Yale J Biol Med** 1997 Sep-Dec; 70(5–6):535–9 (40 ref.)

[Changes of inflammatory mediator in aucte necrotizing pancreatitis and effect of somatostatin analogne stilamin in rats] Zhang Q, et al. **Chung Hua I Hsueh Tsa Chih** 1997 May;77(5):355–8 (Eng. Abstr.) **(Chi)**

[International symposium on somatostatin analogues: fundamental aspects and clinical perspectives. Venice, Italy, 24–25 October 1997. Abstracts] **Ann Endocrinol (Paris)** 1998;59 Suppl 2:1–52 **(Fre)**

[The use of somatostatin analogs in the treatment of patients with digestive system diseases] Frol'kis AV. **Ter Arkh** 1999; 71(2):83–5 (40 ref.) **(Rus)**

SOMATOSTATIN CELLS see **D CELLS**

SOMATOSTATIN RECEPTORS see **RECEPTORS, SOMATOSTATIN**

SOMATOSTATIN-14 see **SOMATOSTATIN**

SOMATOSTATINOMA

Ampullary somatostatinoma in a patient with Merkel cell carcinoma. Fincher RK, et al. **Am J Gastroenterol** 1999 Jul;94(7):1955–7

COMPLICATIONS

Duodenal somatostatinoma presenting as upper gastrointestinal bleeding. Saifuddin T, et al. **Am J Gastroenterol** 1999 May;94(5):1405–8 (20 ref.)

[Duodenal somatostatinomas associated with von Recklinghausen disease] Blaser A, et al. **Schweiz Med Wochenschr** 1998 Dec 12;128(50):1984–7 (Eng. Abstr.) **(Fre)**

[Glucagonoma--somatostatinoma] Schusdziarra V. **Z Gastroenterol** 1999 Jun;Suppl 1:33–5 (20 ref.) (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Carcinoid somatostatinoma of the duodenum. Fulfaro F, et al. **Eur J Surg Oncol** 1998 Dec;24(6):601–4

[Von Recklinghausen type I neurofibromatosis and neuroendocrine tumor (somatostatinoma) in a 50-year-old woman] Reichardt M, et al. **Med Klin** 1998 Sep 15; 93(9):550–3 (26 ref.) (Eng. Abstr.) **(Ger)**

MORTALITY

Prognostic factors in patients with endocrine tumours of the duodenopancreatic area. Madeira I, et al. **Gut** 1998 Sep; 43(3):422–7

PATHOLOGY

Heterotopic pancreas, periampullary somatostatinoma and type I neurofibromatosis: a pathogenetic proposal. Chetty R, et al. **Pathology** 1999 May;31(2):95–7

PHYSIOPATHOLOGY

Somatostatinoma/inhibitory syndrome: a statistical evaluation of 173 reported cases as compared to other pancreatic endocrinomas. Soga J, et al. **J Exp Clin Cancer Res** 1999 Mar;18(1):13–22

RADIOGRAPHY

CT detection of an ampullary somatostatinoma in a patient with von Recklinghausen's disease. Hamissa S, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):503–4

SECONDARY

Reciprocal changes in progression of gastric mucosa-associated lymphoid tissue lymphoma and pancreatic somatostatinoma. Mackawa T, et al. **Am J Med** 1998 Dec;105(6):539–41

SOMATOTROPIN

see related
RECEPTORS, SOMATOTROPIN

25th International Symposium on Growth Hormone and Growth Factors in Endocrinology and Metabolism and the 3rd International Workshop on Growth Hormone Insensitivity. Istanbul, Turkey, 24–27 April 1998. Proceedings and Abstracts. **Acta Paediatr Suppl** 1999 Feb; 88(428):1–210

Growth hormone induced increase in serum IGFBP-3 level is reversed by anabolic steroids in substance abusing power athletes. Karila T, et al. **Clin Endocrinol (Oxf)** 1998 Oct; 49(4):459–63

Standardization of Growth Hormone Measurement. Evidence-Based Medicine. Proceedings of the 3rd KIGS/KIMS Expert Meeting on Growth and Growth Disorders. Sorrento, Italy, November 19–20, 1998. **Horm Res** 1999;51 Suppl 1:1–88

ADMINISTRATION & DOSAGE

Increased milk levels of insulin-like growth factor 1 (IGF-1) for the identification of bovine somatotropin (bST) treated cows. Daxenberger A, et al. **Analyst** 1998 Dec; 123(12):2429–35

A decade of growth hormone treatment in girls with Turner syndrome in the UK. UK KIGS Executive Group. Betts PR, et al. **Arch Dis Child** 1999 Mar;80(3):221–5

Insulin-like growth factor-1 concentrations in milk and plasma after growth hormone treatment. Faulkner A. **Biochem Soc Trans** 1998 Nov;26(4):S386

European ban on bovine growth hormones should continue: expert [news] Sibbald B. **CMAJ** 1999 Sep 21;161(6):677

Moderate doses of porcine somatotropin do not increase plasma insulin-like growth factor-I (IGF-I) or IGF binding protein-3. Dunshea FR, et al. **Domest Anim Endocrinol** 1999 Apr;16(3):149–57

Effect of additional cobalt, copper, manganese, and zinc on reproduction and milk yield of lactating dairy cows receiving bovine somatotropin. Campbell MH, et al. **J Dairy Sci** 1999 May;82(5):1019–25

[Tablets in the treatment of growth hormone deficiency?] Rasmussen MH, et al. **Ugeskr Laeger** 1999 Feb 15; 161(7):962 **(Dan)**

ADVERSE EFFECTS

Are all beneficial effects of growth hormone really beneficial? [comment] Van der Lely AJ, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):573–5. Comment on: Clin Endocrinol (Oxf) 1998 Nov;49(5):597–602.

US and Canada draw different conclusions on rBST [news] [see comments] Nolen S. **J Am Vet Med Assoc** 1999 Apr 1;214(7):985–6. Comment in: J Am Vet Med Assoc 1999 May 15;214(10):1468.

ANALOGS & DERIVATIVES

A vibrational spectroscopic assignment of the disulfide bridges in recombinant bovine growth hormone and growth hormone analogs. Thamann TJ. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Jul; 55A(7-8):1661–6

ANALYSIS

Ultrastructural simultaneous identification of growth hormone and its messenger ribonucleic acid. Matsuno A, et al. **Endocr J** 1998 Apr;45 Suppl:S101–4

International standards for growth hormone. Bristow AF. **Horm Res** 1999;51 Suppl 1:7–12

Influence of growth hormone binding protein on growth hormone estimation in different immunoassays. Fisker S, et al. **Scand J Clin Lab Invest** 1998 Aug;58(5):373–81

ANTAGONISTS & INHIBITORS

Antiproliferative and GH-inhibitory activity of chimeric peptides consisting of GHRP-6 and somatostatin. Dasgupta P, et al. **Biochem Biophys Res Commun** 1999 Jun 7; 259(2):379–84

Suppression of growth hormone does not affect ongoing spermatogenesis in rats. Awoniyi CA, et al. **J Androl** 1999 Jan-Feb;20(1):102–8

Insulin inhibits growth hormone signaling via the growth hormone receptor/JAK2/STAT5B pathway. Ji S, et al. **J Biol Chem** 1999 May 7;274(19):13434–42

Lipophilization of somatostatin analog RC-160 improves its bioactivity and stability. Dasgupta P, et al. **Pharm Res** 1999 Jul;16(7):1047–53

BIOSYNTHESIS

Production of a biologically active novel goldfish growth hormone in Escherichia coli. Mahmoud SS, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug; 120(4):657–63

Endocrine regulation of gonadotropin and growth hormone gene transcription in fish. Melamed P, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):325–38 (125 ref.)

Thyroid hormone is essential for pituitary somatotropes and lactotropes. Stahl JH, et al. **Endocrinology** 1999 Apr; 140(4):1884–92

Effect of the synthetic glucocorticoid, deflazacort, on body growth, pulsatile secretion of GH and thymolysis in the rat. Latta K, et al. **Eur J Endocrinol** 1999 May;140(5):441–6

Growth hormone (GH) and gonadotropin subunit gene expression and pituitary and plasma changes during spermatogenesis and oogenesis in rainbow trout (Oncorhynchus mykiss). Gomez JM, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):413–28

Receptor-mediated internalization is critical for the inhibition of the expression of growth hormone by somatostatin in the pituitary cell line AtT-20. Sarret P, et al. **J Biol Chem** 1999 Jul 2;274(27):19294–300

Salivary gland is capable of GH synthesis under GHRH stimulation. Tresguerres JA, et al. **J Endocrinol** 1999 Feb; 160(2):217–22

Expression of Ca(2+)-mobilizing endothelin(A) receptors and their role in the control of Ca(2+) influx and growth hormone secretion in pituitary somatotrophs. Tomić M, et al. **J Neurosci** 1999 Sep 15;19(18):7721–31

BLOOD

Correlation between longitudinal bone growth, growth hormone, and insulin-like growth factor-I in prepubertal dogs. Conzemius MG, et al. **Am J Vet Res** 1998 Dec; 59(12):1608–12

Insulin-like growth factor-I, but not growth hormone, is dependent on a high protein intake to increase nitrogen balance in the rat. Sánchez-Gómez M, et al. **Br J Nutr** 1999 Feb;81(2):145–52

Recent primary transnasal surgical outcomes associated with intraoperative growth hormone measurement in acromegaly. Abe T, et al. **Clin Endocrinol (Oxf)** 1999 Jan; 50(1):27–35

The relationship between the growth hormone and insulin-like growth factor axis in long-term survivors of childhood brain tumours. Achermann JC, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):639–45

Peak and trough growth hormone (GH) concentrations influence growth and serum insulin like growth factor-1 (IGF-1) concentrations in short children. Achermann JC, et al. **Clin Endocrinol (Oxf)** 1999 Mar;50(3):301–8

Hypothalamic derangement in traumatized patients: growth hormone (GH) and prolactin response to thyrotrophin-releasing hormone and GH-releasing hormone. De Marinis L, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):741–7

Reduced androgen levels in adult turner syndrome: influence of female sex steroids and growth hormone status. Hojbjerg Gravholt C, et al. **Clin Endocrinol (Oxf)** 1999 Jun; 50(6):791–800

Comparison of the diagnostic utility of the simplified and standard i.m. glucagon stimulation test (IMGST). Orme SM, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):773–8

Can intra-operative GH measurement in acromegalic subjects predict completeness of surgery? van den Berg G, et al. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):45–51

Seasonal levels of metabolic hormones and substrates in male and female reindeer (Rangifer tarandus). Bubenik GA, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):307–15

Gender differences in the responsiveness of the sex-dependent isoforms of hepatic P450 to the feminine plasma growth hormone profile. Pampori NA, et al. **Endocrinology** 1999 Mar;140(3):1245–54

Neurosurgery restores late GH rise after glucose-induced suppression in cured acromegalics. Attanasio R, et al. **Eur J Endocrinol** 1999 Jan;140(1):23–8

Growth hormone-releasing peptide-2 infusion synchronizes growth hormone, thyrotrophin and prolactin release in prolonged critical illness. Van den Berghe G, et al. **Eur J Endocrinol** 1999 Jan;140(1):17–22

Novel hexarelin analogs stimulate feeding in the rat through a mechanism not involving growth hormone release. Torsello A, et al. **Eur J Pharmacol** 1998 Nov 6; 360(2-3):123–9

Maternal serum placental growth hormone and insulinlike growth factor binding proteins 1 and 3 in pregnancies affected by fetal aneuploidy and other abnormalities: implications for prenatal diagnosis of trisomy 21. Moghadam S, et al. **Fetal Diagn Ther** 1998 Sep-Oct; 13(5):291–7

Effects of photoperiod on the cessation of growth during autumn in male red deer and growth hormone and insulin-like growth factor-I secretion. Webster JR, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):464–77

Fat storage capacity in growth-selected and control mouse lines is associated with line-specific gene expression and plasma hormone levels. Timtchenko D, et al. **Int J Obes Relat Metab Disord** 1999 Jun;23(6):586–94

Growth hormone and IGF-I plasma concentrations and macronutrient intake measured in a free-living elderly population during a one-year period. Darling-Raedeke M, et al. **J Am Coll Nutr** 1998 Aug;17(4):392–7

Effects of oral chlortetracycline and dietary protein level on plasma concentrations of growth hormone and thyroid hormones in beef steers before and after challenge with a combination of thyrotropin-releasing hormone and growth hormone-releasing hormone. Rumsey TS, et al. **J Anim Sci** 1999 Aug;77(8):2079–87

Evaluation of self-similar features in time series of serum growth hormone and prolactin levels by fractal analysis: effect of delayed sleep and complexity of diurnal variation. Noguchi T, et al. **J Biomed Sci** 1998;5(3):221–5

Pre- and posthatch developmental changes in hypothalamic thyrotropin-releasing hormone and somatostatin concentrations and in circulating growth hormone and thyrotropin levels in the chicken. Geris KL, et al. **J Endocrinol** 1998 Nov;159(2):219–25

Leptin alters the response of the growth hormone releasing factor- growth hormone--insulin-like growth factor-I axis to fasting. LaPaglia N, et al. **J Endocrinol** 1998 Oct; 159(1):79–83

Neuropeptide Y restores appetite and alters concentrations of GH after central administration to endotoxic sheep. McMahon CD, et al. **J Endocrinol** 1999 May;161(2):333–9

Effects of endotoxin lipopolysaccharide administration on the somatotropic axis. Soto L, et al. **J Endocrinol** 1998 Nov; 159(2):239–46

Growth hormone isoforms in a girl with gigantism. Ng LL, et al. **J Pediatr Endocrinol Metab** 1999 Jan-Feb; 12(1):99–106

Six-hour and four-hour nocturnal sampling for growth hormone. Rose SR, et al. **J Pediatr Endocrinol Metab** 1999 Mar-Apr;12(2):167–73

Caloric restriction for 24 hours increases mean night growth hormone. Rose SR, et al. **J Pediatr Endocrinol Metab** 1999 Mar-Apr;12(2):175–83

Clonidine-growth-hormone testing in Parkinson's disease [letter; comment] Mathias CJ, et al. **Lancet** 1999 Jul 24; 354(9175):339–40. Comment on: Lancet 1999 Apr 17;353(9161):1329–30.

Effects of low-dose recombinant human insulin-like growth factor-I on insulin sensitivity, growth hormone and glucagon levels in young adults with insulin-dependent diabetes mellitus. Acerini CL, et al. **Metabolism** 1998 Dec; 47(12):1481–9

Growth hormone bioactivity, insulin-like growth factors (IGFs), and IGF binding proteins in obese children. Radetti G, et al. **Metabolism** 1998 Dec;47(12):1490–3

Resistance to growth hormone in children with chronic liver disease. Bucuvalas JC, et al. **Pediatr Transplant** 1997 Aug; 1(1):73–9 (46 ref.)

Methods in determining growth hormone concentrations: an immunofunctional assay. Strasburger CJ. **Pediatrics** 1999 Oct;104(4 Pt 2):1024–8

Hypothalamo-pituitary-adrenal axis and growth hormone axis in patients with rheumatoid arthritis. Demir H, et al. **Scand J Rheumatol** 1999;28(1):41–6

[The relationship between concentration of growth hormone in serum and microangiopathy in patients with diabetes mellitus] Chen M, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Oct;77(10):765–7 (Eng. Abstr.) **(Chi)**

[Effects of cold exposure on some endocrine activities in rats] Li S, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):91 **(Chi)**

[Somatotropin function in term and premature newborns during the first month of life] Radetti G, et al. **Arch Pediatr** 1998;5 Suppl 4:338S-344S (Eng. Abstr.) **(Fre)**

CEREBROSPINAL FLUID

GH, IGF-I, IGFBP-3 and IGFBP-2 in cerebrospinal fluid of infants, during puberty and in adults. Heinze E, et al. **Exp Clin Endocrinol Diabetes** 1998;106(3):197–202

Insulin-like growth factor-1 and growth hormone (GH) levels in canine cerebrospinal fluid are unaffected by GH or GH secretagogue (MK-0677) administration. Prahalada S, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):133–7

CHEMICAL SYNTHESIS

Thiazole-derived potent, highly bioavailable short duration growth hormone secretagogues. Yang L, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1761–6

SOMATOTROPIN

CHEMISTRY

RP-HPLC binding domains of proteins. Aguilar MI, et al. **Anal Chem** 1998 Dec 1;70(23):5010–8

Generation of chicken growth hormone-binding proteins by proteolysis. Vleurick L, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):283–9

A vibrational spectroscopic assignment of the disulfide bridges in recombinant bovine growth hormone and growth hormone analogs. Thamann TJ. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Jul; 55A(7–8):1661–6

DEFICIENCY

Growth hormone induces muscle fibre type transformation in growth hormone–deficient rats. Daugaard JR, et al. **Acta Physiol Scand** 1998 Oct;164(2):119–26

Decreased hexosamine biosynthesis in GH–deficient dwarf rat muscle. reversal with GH, but not IGF–I, therapy. Robinson KA, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E435–42

Growth hormone––a panacea for aging? [editorial] Nugent AG, et al. **Aust N Z J Med** 1998 Dec;28(6):761–4 (36 ref.)

The effect of short–term cortisol changes on growth hormone responses to the pyridostigmine–growth–hormone–releasing–hormone test in healthy adults and patients with suspected growth hormone deficiency. Andersen M, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):241–9

One–year follow–up of quality of life in adults with untreated growth hormone deficiency. Badia X, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):765–71

A low individualized GH dose in young patients with childhood onset GH deficiency normalized serum IGF–I without significant deterioration in glucose tolerance. Bülow B, et al. **Clin Endocrinol (Oxf)** 1999 Jan;50(1):45–55

Hypokalaemia during insulin–induced hypoglycaemia in hypopituitary adults with and without growth hormone deficiency. Davies JS, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):217–20

Endothelial dysfunction in hypopituitary adults with growth hormone deficiency. Evans LM, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):457–64

Relationship between serum and urinary insulin–like growth factor–I through childhood and adolescence: their use in the assessment of disordered growth. Hall CM, et al. **Clin Endocrinol (Oxf)** 1999 May;50(5):611–8

Circadian variation of plasma cortisol in prepubertal children with normal stature, short stature and growth hormone deficiency. Hermida RC, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):473–9

HDL–cholesterol reductions associated with adult growth hormone replacement. Leese GP, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):673–7

Dose titration and patient selection increases the efficacy of GH replacement in severely GH deficient adults. Murray RD, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):749–57

Evaluation of free insulin–like growth factor–I measurement on the diagnosis and follow–up treatment of growth hormone–deficient adult patients. Musolino NR, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):441–9

Effect of long–term growth hormone treatment on carbohydrate metabolism in children with growth hormone deficiency. Seminara S, et al. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):125–30

Growth hormone replacement inhibits renal and hepatic 11 beta–hydroxysteroid dehydrogenases in ACTH–deficient patients. Walker BR, et al. **Clin Endocrinol (Oxf)** 1998 Aug; 49(2):257–63

Long–term results of GH therapy in GH–deficient children treated before 1 year of age. Huet F, et al. **Eur J Endocrinol** 1999 Jan;140(1):29–34

Changes in body composition and leptin levels during growth hormone (GH) treatment in short children with various GH secretory capacities. Matsuoka H, et al. **Eur J Endocrinol** 1999 Jan;140(1):35–42

Long–term effects of growth hormone (GH) on body fluid distribution in GH deficient adults: a four months double blind placebo controlled trial. Møller J, et al. **Eur J Endocrinol** 1999 Jan;140(1):11–6

A Japanese family with autosomal dominant growth hormone deficiency. Saitoh H, et al. **Eur J Pediatr** 1999 Aug; 158(8):624–7

Growth hormone deficiency and atherosclerosis––is there a link? McGrath S, et al. **Growth Horm IGF Res** 1999 Apr; 9 Suppl A:9–13 (20 ref.)

The effect of the deterioration of insulin sensitivity on beta–cell function in growth–hormone–deficient adults following 4–month growth hormone replacement therapy. Rosenfalck AM, et al. **Growth Horm IGF Res** 1999 Apr; 9(2):96–105

The growth hormone cascade: progress and long–term results of growth hormone treatment in growth hormone deficiency. Grumbach MM, et al. **Horm Res** 1998;49 Suppl 2:41–57 (129 ref.)

Insulin action in growth hormone–deficient and age–matched control rats: effect of growth hormone treatment. Daugaard JR, et al. **J Endocrinol** 1999 Jan;160(1):127–35

Localized lipoatrophy due to recombinant growth hormone therapy in a child with 6.7 kilobase gene deletion isolated growth hormone deficiency. Büyükgebiz A, et al. **J Pediatr Endocrinol Metab** 1999 Jan–Feb;12(1):95–7

One–year treatment with recombinant human growth hormone of children with meningomyelocele and growth hormone deficiency: a comparison of supine length and arm span. Hochhaus F, et al. **J Pediatr Endocrinol Metab** 1999 Mar–Apr;12(2):153–9

Growth–hormone–releasing factor for growth hormone deficiency. **Med Lett Drugs Ther** 1999 Jan 1;41(1043):2–3

Serum leptin levels and leptin expression in growth hormone (GH)–deficient and healthy adults: influence of GH treatment, gender, and fasting. Kristensen K, et al. **Metabolism** 1998 Dec;47(12):1514–9

Differential effect of nephrectomy on renal expressions of IGF–I and IGFBPs mRNA in selective growth hormone–deficient rats. Kobayashi S, et al. **Nephron** 1998 Dec;80(4):468–75

Growth hormone releasing hormone expression during postnatal development in growth hormone–deficient Ames dwarf mice: mRNA in situ hybridization. Hurley DL, et al. **Neuroendocrinology** 1998 Sep;68(3):201–9

Sexual dimorphism in growth as measured by microknemometry: different responses to GH deficiency and exogenous GH administration. Rol de Lama MA, et al. **Neuroendocrinology** 1998 Sep;68(3):210–9

Reversible growth failure among Hispanic children: instances of psychosocial short stature. Nieves–Rivera F, et al. **P R Health Sci J** 1998 Jun;17(2):107–12

Multiple granular cell tumors and growth hormone deficiency in a child. Seiter S, et al. **Pediatr Dermatol** 1999 Jul–Aug;16(4):308–10

Atrioventricular block in a patient with growth hormone deficiency during growth hormone therapy. Okada T, et al. **Pediatr Int** 1999 Feb;41(1):90–3

Acid–base homeostasis in children with growth hormone deficiency. Glaser NS, et al. **Pediatrics** 1998 Dec; 102(6):1407–14

Hepatic cytochrome P450 and flavin–containing monooxygenase in male Nts:Mini rat, a transgenic rat carrying antisense RNA transgene for rat growth hormone. Tani Y, et al. **Toxicol Lett** 1999 Jun 1;106(2–3):159–69

[New growth hormone secretagogues: from physiology to the first therapeutic applications] Ahnfelt–Rønne I, et al. **Arch Pediatr** 1998;5 Suppl 4:390S–396S (35 ref.) (Eng. Abstr.) **(Fre)**

[Growth hormone deficiency. Treatment with growth hormone and body composition] Antoniazzi F, et al. **Arch Pediatr** 1998;5 Suppl 4:327S–331S (Eng. Abstr.) **(Fre)**

[Cerebral anomalies associated with growth hormone insufficiency in children: major markers for diagnosis?] Arifa N, et al. **Arch Pediatr** 1999 Jan;6(1):14–21 (Eng. Abstr.) **(Fre)**

[Hypopituitarism during the first year of life. A collaborative Italian study] De Luca Ff2p4, et al. **Arch Pediatr** 1998;5 Suppl 4:313S–317S (Eng. Abstr.) **(Fre)**

[Catch–up growth in growth hormone deficit children treated with GH since the first year of life] Huet F, et al. **Arch Pediatr** 1998;5 Suppl 4:318S–321S (Eng. Abstr.) **(Fre)**

[Role of growth hormone underproduction and support load deficit in development of muscle atrophy and osteopenia in tail–suspended rats] Kaplanskiĭ AS, et al. **Aviakosm Ekolog Med** 1999;33(1):20–4 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

'Paresis of facial and abducens nerves in a patient with growth–hormone receptor deficiency treated with insulin–like growth factor I' [letter] Vesterhus P. **Dev Med Child Neurol** 1999 Apr;41(4):285

Pharmacological characterisation of a new oral GH secretagogue, NN703. Hansen BS, et al. **Eur J Endocrinol** 1999 Aug;141(2):180–9

Low doses of ipsapirone increase growth hormone but not oxytocin secretion in normal male and female subjects. Newman ME, et al. **Psychopharmacology (Berl)** 1999 Jul; 145(1):99–104

GENETICS

A non–destructive technique for 3–D microstructural phenotypic characterisation of bones in genetically altered mice: preliminary data in growth hormone transgenic animals and normal controls. Graichen H, et al. **Anat Embryol (Berl)** 1998 Mar;199(3):239–48

An MspI polymorphism at the bovine growth hormone (bGH) gene is linked to a locus affecting milk protein percentage. Lagziel A, et al. **Anim Genet** 1999 Aug; 30(4):296–9

Identification of four new members of the rat prolactin/growth hormone gene family. Ishibashi K, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):575–8

Solubilization of recombinant ovine growth hormone with retention of native–like secondary structure and its refolding from the inclusion bodies of Escherichia coli. Khan RH, et al. **Biotechnol Prog** 1998 Sep–Oct;14(5):722–8

Production of a biologically active novel goldfish growth hormone in Escherichia coli. Mahmoud SS, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Aug; 120(4):657–63

Endocrine regulation of gonadotropin and growth hormone gene transcription in fish. Melamed P, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):325–38 (125 ref.)

Structure and functional analysis of a tilapia (Oreochromis mossambicus) growth hormone gene: activation and repression by pituitary transcription factor Pit–1. Sekkali B, et al. **DNA Cell Biol** 1999 Jun;18(6):489–502

cDNA cloning and sequence analysis of bubaline growth hormone. Verma S, et al. **DNA Seq** 1999;10(2):101–3

Effects of immunosuppressant agents on growth hormone release and gene expression. Ohye H, et al. **Endocr J** 1998 Apr;45 Suppl:S93–6

Construction and in vivo efficacy of a replication–deficient recombinant adenovirus encoding murine growth hormone. Marmary Y, et al. **Endocrinology** 1999 Jan;140(1):260–5

Molecular mechanisms of the negative effect of insulin–like growth factor–I on growth hormone gene expression in MtT/S somatotroph cells. Niiori–Onishi A, et al. **Endocrinology** 1999 Jan;140(1):344–9

A Japanese family with autosomal dominant growth hormone deficiency. Saitoh H, et al. **Eur J Pediatr** 1999 Aug; 158(8):624–7

Transgenic rabbits overexpressing growth hormone develop acromegaly and diabetes mellitus. Costa C, et al. **FASEB J** 1998 Nov;12(14):1455–60

Studies on the GH/SL gene family: cloning of African lungfish (Protopterus annectens) growth hormone and somatolactin and toad (Bufo marinus) growth hormone. May D, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):121–35

An improved ultrastructural double–staining method for rat growth hormone and its mRNA using LR White resin: a technical note [see comments] Matsuno A, et al. **Histochem J** 1998 Feb;30(2):105–9. Comment in: Histochem J 1999 Jan;31(1):79.

Use of nonautologous microencapsulated fibroblasts in growth hormone gene therapy to improve growth of midget swine. Cheng WT, et al. **Hum Gene Ther** 1998 Sep 20;9(14):1995–2003

Tissue–engineered human bioartificial muscles expressing a foreign recombinant protein for gene therapy. Powell C, et al. **Hum Gene Ther** 1999 Mar 1;10(4):565–77

Components of growth in mice hemizygous for a MT/bGH transgene. Kaps M, et al. **J Anim Sci** 1999 May; 77(5):1148–54

Role of GHF–1 in the regulation of the rat growth hormone gene promoter by thyroid hormone and retinoic acid receptors. Palomino T, et al. **J Biol Chem** 1998 Oct 16; 273(42):27541–7

Association of growth hormone loci with milk yield traits in Holstein bulls. Vukasinovic N, et al. **J Dairy Sci** 1999 Apr;82(4):788–94

Role of hyperinsulinemia on hepatic insulin receptor concentration and autophosphorylation in the presence of high growth hormone levels in transgenic mice overexpressing growth hormone gene. Dominici FP, et al. **J Endocrinol** 1998 Oct;159(1):15–25

Cloning and characterisation of the gene encoding mole rat (Spalax ehrenbergi) growth hormone. Lioupis A, et al. **J Mol Endocrinol** 1999 Feb;22(1):29–36

Production and characterisation of deletion mutants of ovine growth hormone. Sami AJ, et al. **J Mol Endocrinol** 1999 Aug;23(1):97–106

Duplicate growth hormone genes in sheep and goat. Wallis M, et al. **J Mol Endocrinol** 1998 Aug;21(1):1–5 (28 ref.)

High, persistent hepatocellular proliferation and apoptosis precede hepatocarcinogenesis in growth hormone transgenic mice. Snibson KJ, et al. **Liver** 1999 Jun; 19(3):242–52

Transgene and host growth hormone gene expression in pituitary and nonpituitary tissues of normal and growth hormone transgenic salmon. Mori T, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):129–39

Pit–1 mediates cell–specific and cAMP–induced transcription of the tilapia GH gene. Sekkali B, et al. **Mol Cell Endocrinol** 1999 Jun 25;152(1–2):111–23

Phylogeny of salmonine fishes based on growth hormone introns: Atlantic (Salmo) and Pacific (Oncorhynchus) salmon are not sister taxa. Oakley TH, et al. **Mol Phylogenet Evol** 1999 Apr;11(3):381–93

Foreign DNA introduced into the vas deferens is gained by mammalian spermatozoa. Huguet E, et al. **Mol Reprod Dev** 1998 Sep;51(1):42–52

Early embryonic expression of the growth hormone family protein genes in the developing rainbow trout, Oncorhynchus mykiss. Yang BY, et al. **Mol Reprod Dev** 1999 Jun;53(2):127–34

Preparation and characterization of recombinant dolphin fish (Coryphaena hippurus) growth hormone. Paduel A, et al. **Protein Expr Purif** 1999 Aug;16(3):417–23

Stimulated growth hormone (GH) release in Friesian cattle with respect to GH genotypes. Grochowska R, et al. **Reprod Nutr Dev** 1999 Mar–Apr;39(2):171–80

Overexpression of growth hormone affects alternatively spliced IGF–I mRNA expression in oMt1a–oGH transgenic mice. Lin WW, et al. **Transgenic Res** 1998 Jul; 7(4):295–302

Expression of a novel piscine growth hormone gene results in growth enhancement in transgenic tilapia (Oreochromis niloticus). Rahman MA, et al. **Transgenic Res** 1998 Sep; 7(5):357–69

[The genetic polymorphism of somatotropin] Balatskiĭ VN, et al. **Tsitol Genet** 1998 Mar–Apr;32(2):92–104 (77 ref.) (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Augmentation of hormonal activities with antibodies from cattle immunized with a combination of synthetic and recombinant growth hormone peptide [published erratum appears in Anim Biotechnol 1998;9(3):229] Wang BS, et al. **Anim Biotechnol** 1998;9(2):121–33

Introduction: hormones, blood cells and immunity, with special reference to prolactin, growth hormone and insulin-like growth factor-I. Hooghe-Peters EL, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1057–8

Prolactin and growth hormone signal transduction in lymphohaemopoietic cells. Yu-Lee L, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1067–75 (103 ref.)

Immunological aspects of human growth hormone and prolactin. Hattori N, et al. **Domest Anim Endocrinol** 1998 Sep;15(5):371–5 (11 ref.)

Endocrine modulation of physiological responses to catabolic disease. Sartin JL, et al. **Domest Anim Endocrinol** 1998 Sep; 15(5):423–9 (38 ref.)

Anti-idiotypic responses of lactating cows immunized with monoclonal antibodies against bovine somatotropin. Roberge S, et al. **J Dairy Sci** 1999 Aug;82(8):1707–15

Anti-idiotypic sera against monoclonal anti-porcine growth hormone antibodies: production in rabbits and characterization of specificity. Cahill CM, et al. **J Immunoassay** 1999 Feb-May;20(1-2):45–55

ISOLATION & PURIFICATION

Solubilization of recombinant ovine growth hormone with retention of native-like secondary structure and its refolding from the inclusion bodies of Escherichia coli. Khan RH, et al. **Biotechnol Prog** 1998 Sep-Oct;14(5):722–8

METABOLISM

Monoclonal antibodies to growth hormone (GH) prolong liver GH binding and GH-induced IGF-I/IGFBP-3 synthesis. Beauloye V, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E308–15

Activity of GH/IGF-I axis in patients with dilated cardiomyopathy [see comments] Broglio F, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):417–30. Comment in: Clin Endocrinol (Oxf) 1999 Apr;50(4):415–6.

Congenital growth hormone insensitivity syndromes and their relevance to idiopathic short stature. Clayton PE, et al. **Clin Endocrinol (Oxf)** 1999 Mar;50(3):275–83 (44 ref.)

Growth hormone, sexual maturity and steroids in male carp (Cyprinus carpio). Degani G, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Oct;120(3):433–40

Effects of immunosuppressant agents on growth hormone release and gene expression. Ohye H, et al. **Endocr J** 1998 Apr;45 Suppl:S93–6

GH kinase activity in bovine anterior pituitary subcellular fractions. Wicks JR, et al. **Endocrine** 1999 Feb;10(1):77–82

Identification of novel sites in the ovine growth hormone receptor involved in binding hormone and conferring species specificity. Allan GJ, et al. **Eur J Biochem** 1999 Apr;261(2):555–62

Ipamorelin, the first selective growth hormone secretagogue. Raun K, et al. **Eur J Endocrinol** 1998 Nov;139(5):552–61

Caveolar internalization of growth hormone. Lobie PE, et al. **Exp Cell Res** 1999 Jan 10;246(1):47–55

Consequences of limited exposure to elevated growth hormone in the mature oMt1a-oGH transgenic mouse. Oberbauer AM, et al. **Growth Dev Aging** 1998 Autumn; 62(3):87–93

Regular fluctuations in growth hormone (GH) release determine normal human growth. Gill MS, et al. **Growth Horm IGF Res** 1999 Apr;9(2):114–22

A functional DNA binding domain is required for growth hormone-induced nuclear accumulation of Stat5B. Herrington J, et al. **J Biol Chem** 1999 Feb 19;274(8):5138–45

Loss of sensitivity to insulin at early events of the insulin signaling pathway in the liver of growth hormone-transgenic mice. Dominici FP, et al. **J Endocrinol** 1999 Jun;161(3):383–92

A missense mutation in the GHR gene of Cornell sex-linked dwarf chickens does not abolish serum GH binding. Hull KL, et al. **J Endocrinol** 1999 Jun;161(3):495–501

Tissue-specific response of IGF-I mRNA expression to obesity-associated GH decline in the male Zucker fatty rat. Melián E, et al. **J Endocrinol** 1999 Jan;160(1):49–56

Endocrine control of Na+,K+-ATPase and chloride cell development in brown trout (Salmo trutta): interaction of insulin-like growth factor-I with prolactin and growth hormone. Seidelin M, et al. **J Endocrinol** 1999 Jul; 162(1):127–35

Identification of serum GH-binding proteins in the goldfish (Carassius auratus) and comparison with mammalian GH-binding proteins. Zhang Y, et al. **J Endocrinol** 1999 May;161(2):255–62

Blood-brain barrier for human growth hormone and insulin-like growth factor-I. Coculescu M. **J Pediatr Endocrinol Metab** 1999 Mar-Apr;12(2):113–24 (82 ref.)

Growth hormone corrects acidosis-induced renal nitrogen wasting and renal phosphate depletion and attenuates renal magnesium wasting in humans. Mahlbacher K, et al. **Metabolism** 1999 Jun;48(6):763–70

Nitric oxide modulation of the growth hormone-releasing activity of Hexarelin in young and old dogs. Rigamonti AE, et al. **Metabolism** 1999 Feb;48(2):176–82

Definition of a high affinity growth hormone DNA response element. Bergad PL, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1-2):151–9

Evolutionary divergence of the truncated growth hormone receptor isoform in its ability to generate a soluble growth hormone binding protein [published erratum appears in Mol Cell Endocrinol 1998 Jun 25; 141(1-2):195] Dastot F, et al. **Mol Cell Endocrinol** 1998 Feb;137(1):79–84

Effect of chronic GH overproduction on cardiac ANP expression and circulating ANP levels. Dirsch VM, et al. **Mol Cell Endocrinol** 1998 Sep 25;144(1-2):109–18

Ternary complex factors Elk-1 and Sap-1a mediate growth hormone-induced transcription of egr-1 (early growth response factor-1) in 3T3-F442A preadipocytes. Clarkson RW, et al. **Mol Endocrinol** 1999 Apr;13(4):619–31

Termination of growth hormone pulse-induced STAT5b signaling. Gebert CA, et al. **Mol Endocrinol** 1999 Jan; 13(1):38–56

Developmental action of estrogen receptor-alpha feminizes the growth hormone-Stat5b pathway and expression of Cyp2a4 and Cyp2d9 genes in mouse liver. Sueyoshi T, et al. **Mol Pharmacol** 1999 Sep;56(3):473–7

Severe experimental uraemia does not decrease the population of rat pituitary somatotrophs. Rodriguez J, et al. **Nephrol Dial Transplant** 1998 Oct;13(10):2563–5

The in vitro effect of leptin on basal and growth hormone-releasing hormone-stimulated growth hormone secretion from the ovine pituitary gland. Roh S, et al. **Neuroendocrinology** 1998 Dec;68(6):361–4

Endocrine regulation of fetal adipose tissue metabolism in the pig: interaction of porcine growth hormone and thyroxine. Hausman DB, et al. **Obes Res** 1999 Jan; 7(1):76–82

Possible protective role of growth hormone in hypoxia-ischemia in neonatal rats. Gustafson K, et al. **Pediatr Res** 1999 Mar;45(3):318–23

Immune function in transgenic mice overexpressing growth hormone (GH) releasing hormone, GH or GH antagonist. Dialynas E, et al. **Proc Soc Exp Biol Med** 1999 Jul; 221(3):178–83

[Phenotype-genotype relations in growth hormone insensitivity] Savage MO, et al. **Arch Pediatr** 1998;5 Suppl 4:364S-370S (Eng. Abstr.) **(Fre)**

PHARMACOKINETICS

[Does the growth hormone pharmacokinetic profile help to predict the treatment response?] Bozzola M, et al. **Arch Pediatr** 1998;5 Suppl 4:322S-326S (Eng. Abstr.) **(Fre)**

PHARMACOLOGY

Growth hormone induces muscle fibre type transformation in growth hormone-deficient rats. Daugaard JR, et al. **Acta Physiol Scand** 1998 Oct;164(2):119–26

Monoclonal antibodies to growth hormone (GH) prolong liver GH binding and GH-induced IGF-I/IGFBP-3 synthesis. Beauloye V, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E308–15

Augmentation of hormonal activities with antibodies from cattle immunized with a combination of synthetic and recombinant growth hormone peptide [published erratum appears in Anim Biotechnol 1998;9(3):229] Wang BS, et al. **Anim Biotechnol** 1998;9(2):121–33

Transgenic models of growth hormone action. Kopchick JJ, et al. **Annu Rev Nutr** 1999;19:437–61 (162 ref.)

Somatotropin-dependent decrease in fatty acid synthase mRNA abundance in 3T3-F442A adipocytes is the result of a decrease in both gene transcription and mRNA stability. Yin D, et al. **Biochem J** 1998 May 1;331 (Pt 3):815–20

Interactions of gender, growth hormone, and phenobarbital induction on murine Cyp2b expression. Sharma MC, et al. **Biochem Pharmacol** 1998 Nov 1;56(9):1251–8

Growth hormone regulation of mammary glucose. Faulkner A. **Biochem Soc Trans** 1998 Aug;26(3):S206

Effect of growth hormone on the translocation of GLUT4 and its relation to insulin-like and anti-insulin action. Yokota I, et al. **Biochim Biophys Acta** 1998 Sep 16; 1404(3):451–6

Additive effect of voluntary exercise and growth hormone treatment on bone strength assessed at four different skeletal sites in an aged rat model. Mosekilde L, et al. **Bone** 1999 Feb;24(2):71–80

Growth hormone and cortisol metabolism. Monson JP. **Clin Endocrinol (Oxf)** 1998 Sep;49(3):281–2

The influence of bovine growth hormone and growth hormone releasing factor on acetyl-CoA carboxylase and fatty acid synthase in primiparous Holstein cows. Beswick NS, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):241–9

Interactions between environmental temperature and porcine growth hormone (pGH) treatment in neonatal pigs. Carroll JA, et al. **Domest Anim Endocrinol** 1999 Feb;16(2):103–13

The effects of equine somatotropin (eST) on follicular development and circulating plasma hormone profiles in cyclic mares treated during different stages of the estrous cycle. Cochran RA, et al. **Domest Anim Endocrinol** 1999 Jan;16(1):57–67

Augmentation of DNA synthesis in placental and fetal tissues in utero by maternal growth hormone treatment. Botero-Ruiz W, et al. **Early Pregnancy** 1997 Dec; 3(4):272–80

Insulin produces a growth hormone-like increase in intracellular free calcium concentration in okadaic acid-treated adipocytes. Gaur S, et al. **Endocrinology** 1998 Dec;139(12):4953–61

Growth hormone regulates steroidogenic acute regulatory protein expression and steroidogenesis in Leydig cell progenitors. Kanzaki M, et al. **Endocrinology** 1999 Apr; 140(4):1681–6

Construction and in vivo efficacy of a replication-deficient recombinant adenovirus encoding murine growth hormone. Marmary Y, et al. **Endocrinology** 1999 Jan;140(1):260–5

Investigation of insulin-like growth factor (IGF)-I and insulin receptor binding and expression in jejunum of parenterally fed rats treated with IGF-I or growth hormone. Ney DM, et al. **Endocrinology** 1999 Oct; 140(10):4850–60

Growth hormone stimulates the tyrosine kinase activity of JAK2 and induces tyrosine phosphorylation of insulin receptor substrates and Shc in rat tissues. Thirone AC, et al. **Endocrinology** 1999 Jan;140(1):55–62

Growth hormone and dexamethasone stimulate lipolysis and activate adenylyl cyclase in rat adipocytes by selectively shifting Gi alpha2 to lower density membrane fractions. Yip RG, et al. **Endocrinology** 1999 Mar;140(3):1219–27

Local action of exogenous growth hormone and insulin-like growth factor-I on dihydroxyvitamin D production in LLC-PK1 cells. Wei S, et al. **Eur J Endocrinol** 1998 Oct; 139(4):454–60

Effects of growth hormone and insulin-like growth factor-I on radiation enteritis. a comparative study. Alexandrides T, et al. **Eur Surg Res** 1998;30(5):305–11

Growth hormone induces insulin-like growth factor-I gene transcription by a synergistic action of STAT5 and HNF-1alpha. Metón I, et al. **FEBS Lett** 1999 Feb 12; 444(2-3):155–9

Preparation of recombinant gilthead seabream (Sparus aurata) growth hormone and its use for stimulation of larvae growth by oral administration. Ben-Atia I, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):155–64

The effect of GH and IGF-I on preadipocytes from Large White and Meishan pigs in primary culture. Gerfault V, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):396–404

Influence of continuous growth hormone or insulin-like growth factor I administration in adult female chickens. Scanes CG, et al. **Gen Comp Endocrinol** 1999 Jun; 114(3):315–23

Regulation of gill cytosolic corticosteroid receptors in juvenile Atlantic salmon: interaction effects of growth hormone with prolactin and triiodothyronine. Shrimpton JM, et al. **Gen Comp Endocrinol** 1998 Nov;112(2):262–74

Effects of prolactin and growth hormone on plasma immunoglobulin M levels of hypophysectomized rainbow trout, Oncorhynchus mykiss. Yada T, et al. **Gen Comp Endocrinol** 1999 Jul;115(1):46–52

The effect of growth hormone on rat myocardial collagen. Brüel A, et al. **Growth Horm IGF Res** 1999 Apr;9(2):123–30

Placental development and fetal growth in growth hormone-treated ewes. Jenkinson CM, et al. **Growth Horm IGF Res** 1999 Feb;9(1):11–7

Effects of porcine somatotropin on calcium and phosphorus balance and markers of bone metabolism in finishing pigs. Carter SD, et al. **J Anim Sci** 1999 Aug;77(8):2163–71

The effect of bovine somatotropin treatment on production of lactating angora does with kids. Davis JJ, et al. **J Anim Sci** 1999 Jan;77(1):17–24

Effects of bovine somatotropin and ruminally undegraded protein on feed intake, live weight gain, and mohair production by yearling Angora wethers. Davis JJ, et al. **J Anim Sci** 1999 May;77(5):1029–36

Effects of Synovex-S and recombinant bovine growth hormone (Somavubove) on growth responses of steers: III. Muscle growth and protein responses. Elsasser TH, et al. **J Anim Sci** 1998 Sep;76(9):2346–53

Growth, body composition, and endocrine responses to chronic administration of insulin-like growth factor I and(or) porcine growth hormone in pigs. Klindt J, et al. **J Anim Sci** 1998 Sep;76(9):2368–81

Growth hormone stimulates phosphorylation and activation of elk-1 and expression of c-fos, egr-1, and junB through activation of extracellular signal-regulated kinases 1 and 2. Hodge C, et al. **J Biol Chem** 1998 Nov 20; 273(47):31327–36

Growth hormone-dependent differentiation of 3T3-F442A preadipocytes requires Janus kinase/signal transducer and activator of transcription but not mitogen-activated protein kinase or p70 S6 kinase signaling. Yarwood SJ, et al. **J Biol Chem** 1999 Mar 26;274(13):8662–8

Cross-talk between janus kinase-signal transducer and activator of transcription (JAK-STAT) and peroxisome proliferator-activated receptor-alpha (PPARalpha) signaling pathways. Growth hormone inhibition of pparalpha transcriptional activity mediated by stat5b. Zhou YC, et al. **J Biol Chem** 1999 Jan 29;274(5):2672–81

Growth hormone stimulates the formation of a multiprotein signaling complex involving p130(Cas) and CrkII. Resultant activation of c-Jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK). Zhu T, et al. **J Biol Chem** 1998 Dec 11;273(50):33864–75

Growth hormone increases cortical and cancellous bone mass

in young growing rats with glucocorticoid-induced osteopenia. Ortoft G, et al. **J Bone Miner Res** 1999 May; 14(5):710–21

Changes in plasma and milk concentrations of glucose and IGF-1 in response to exogenous growth hormone in lactating goats. Faulkner A. **J Dairy Res** 1999 May; 66(2):207–14

Effect of bovine somatotropin on neutrophil functions and clinical symptoms during Streptococcus uberis mastitis. Hoeben D, et al. **J Dairy Sci** 1999 Jul;82(7):1465–81

Effect of somatotropin, insulin, and glucocorticoid on lipolysis in chronic cultures of adipose tissue from lactating cows. Lanna DP, et al. **J Dairy Sci** 1999 Jan;82(1):60–8

Effects of long daily photoperiod and bovine somatotropin (Trobest) on milk yield in cows. Miller AR, et al. **J Dairy Sci** 1999 Aug;82(8):1716–22

Metabolic and production responses to dietary protein and exogenous somatotropin in late gestation dairy cows. Putnam DE, et al. **J Dairy Sci** 1999 May;82(5):982–95

Glucose kinetic responses to protein supplementation and exogenous somatotropin in late gestation dairy cows. Putnam DE, et al. **J Dairy Sci** 1999 Jun;82(6):1274–81

Performance and nutrient digestibility by dairy cows treated with bovine somatotropin and fed diets with steam-flaked sorghum or steam-rolled corn during early lactation. Santos JE, et al. **J Dairy Sci** 1999 Feb;82(2):404–11

Effects of GH, prolactin and cortisol on hepatic heat shock protein 70 expression in a marine teleost Sparus sarba. Deane EE, et al. **J Endocrinol** 1999 Jun;161(3):413–21

Regulation of the GTP-binding protein-based antilipolytic system of sheep adipocytes by growth hormone. Doris RA, et al. **J Endocrinol** 1998 Sep;158(3):295–303

The role of growth hormone and glucocorticoid in glucose handling in vivo. Johansen T, et al. **J Endocrinol** 1999 Jul; 162(1):87–93

GH but not IGF-I or insulin increases lipoprotein lipase activity in muscle tissues of hypophysectomised rats. Oscarsson J, et al. **J Endocrinol** 1999 Feb;160(2):247–55

Effects of growth hormone on lipoprotein lipase and hepatic lipase. Oscarsson J, et al. **J Endocrinol Invest** 1999;22(5 Suppl):2–9

Leptin expression in porcine adipose tissue is not increased by endotoxin but is reduced by growth hormone. Spurlock ME, et al. **J Interferon Cytokine Res** 1998 Dec; 18(12):1051–8

Effects of testosterone and growth hormone on muscle function. Urban RJ. **J Lab Clin Med** 1999 Jul;134(1):7–10 (34 ref.)

Refeeding reverses cardiac myosin shifts induced by undernutrition in aged rats: modulation by growth hormone. Ameredes BT, et al. **J Mol Cell Cardiol** 1998 Aug;30(8):1525–33

Effect of growth hormone administration on IGF binding protein-3 mRNA levels in porcine tissues. Dunaiski V, et al. **J Mol Endocrinol** 1999 Jun;22(3):261–72

Somatotropin regulates adipose tissue metabolism in neonatal swine. Wang Y, et al. **J Nutr** 1999 Jan;129(1):139–45

The haematopoietic effects of growth hormone and insulin-like growth factor-I. Merchav S. **J Pediatr Endocrinol Metab** 1998 Nov–Dec;11(6):677–85 (97 ref.)

Growth hormone and insulin-like growth factor-I therapy promote protein deposition and growth in dexamethasone-treated piglets. Ward WE, et al. **J Pediatr Gastroenterol Nutr** 1999 Apr;28(4):404–10

Recombinant growth hormone's effects on the strength and thickness of radiation-injured ileal anastomoses: a rat model. Silver DF, et al. **J Surg Res** 1999 Jul;85(1):66–70

Influences of somatotropin on biomechanical properties of porcine skin. Caperna TJ, et al. **Lab Anim Sci** 1999 Apr; 49(2):212–5

The regulation of GH-dependent hormones and enzymes after feed restriction in dwarf and control chickens. Dewil E, et al. **Life Sci** 1999;64(16):1359–71

Treatment with growth hormone suppresses cortisol production in man. Vierhapper H, et al. **Metabolism** 1998 Nov;47(11):1376–8

Growth hormone and the heart. Cittadini A, et al. **Miner Electrolyte Metab** 1999 Jan–Apr;25(1–2):51–5 (39 ref.)

Growth hormone suppression of insulin-like growth factor binding protein-1 promoter activity. Lu X, et al. **Mol Cell Endocrinol** 1999 Mar 25;149(1–2):19–28

Growth hormone and insulin-like growth factor-I enhance beta-glucuronidase gene activation by androgen in mouse kidney. Niermann GL, et al. **Mol Cell Endocrinol** 1999 Jul 20;153(1–2):47–55

Acute pretranslational regulation of type III iodothyronine deiodinase by growth hormone and dexamethasone in chicken embryos. Van der Geyten S, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):49–56

Characterization of the inhibitory effect of growth hormone on primary preadipocyte differentiation. Hansen LH, et al. **Mol Endocrinol** 1998 Aug;12(8):1140–9

Follicle-stimulating hormone and growth hormone act differently on nuclear maturation while both enhance developmental competence of in vitro matured bovine oocytes. Izadyar F, et al. **Mol Reprod Dev** 1998 Nov; 51(3):339–45

Sexual dimorphism in growth as measured by microknemometry: different responses to GH deficiency and exogenous GH administration. Rol de Lama MA, et al. **Neuroendocrinology** 1998 Sep;68(3):210–9

Dexamethasone-induced abnormalities in growth and bone metabolism in piglets are partially attenuated by growth hormone with no synergistic effect of insulin-like growth factor-I. Ward WE, et al. **Pediatr Res** 1998 Aug; 44(2):215–21

Effect of growth hormone on bacterial translocation in experimental short-bowel syndrome. Eizaguirre I, et al. **Pediatr Surg Int** 1999;15(3–4):160–3

Postnatal growth of broilers in response to in ovo administration of chicken growth hormone. Kocamis H, et al. **Poult Sci** 1999 Aug;78(8):1219–26

Prolactin and growth hormone stimulation of lactation in mice requires thyroid hormones. Capuco AV, et al. **Proc Soc Exp Biol Med** 1999 Sep;221(4):345–51

Comparative effect of growth hormone and pterocercoid growth factor in the intestinal resection in rat. Candelas S, et al. **Rev Esp Enferm Dig** 1998 Sep;90(9):625–38 **(Eng, Spa)**

Effects of follicle-stimulating hormone, bovine somatotrophin and okadaic acid on cumulus expansion and nuclear maturation of blue fox (Alopex lagopus) oocytes in vitro. Srŝeň V, et al. **Zygote** 1998 Nov;6(4):299–309

[Bone and hormones. Effects of growth hormone on bone tissue in adults] Chapurlat RD, et al. **Presse Med** 1999 Mar 13;28(10):559–62 (48 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Cytokines in endocrine function. Silva CM, et al. **Adv Protein Chem** 1998;52:199–221 (72 ref.)

GH insensitivity induced by endotoxin injection is associated with decreased liver GH receptors. Defalque D, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):E565–72

Molecular basis of intestinal adaptation: the role of the insulin-like growth factor system. Lund PK. **Ann N Y Acad Sci** 1998 Nov 17;859:18–36 (87 ref.)

Consequences of overexpression of growth hormone in transgenic mice on liver cytochrome P450 enzymes. Cheriathundam E, et al. **Biochem Pharmacol** 1998 May 1; 55(9):1481–7

Growth hormone and a partial mediator of its biological action, insulin-like growth factor I. Pankov YA. **Biochemistry (Mosc)** 1999 Jan;64(1):1–7 (85 ref.)

Could some biomechanical effects of growth hormone help to explain its effects on bone formation and resorption? Frost HM. **Bone** 1998 Nov;23(5):395–8 (35 ref.)

Alterations in the neural growth hormone axis following hypoxic-ischemic brain injury. Scheepens A, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):88–100

A role for growth hormone and prolactin in leukaemia and lymphoma? Hooghe R, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1095–101 (85 ref.)

The role of growth hormone and insulin-like growth factors in the immune system. van Buul-Offers SC, et al. **Cell Mol Life Sci** 1998 Oct;54(10):1083–94 (160 ref.)

Growth hormone: a paracrine growth factor in embryonic development? Harvey S, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Jun;119(3):305–15 (103 ref.)

Insulin-like growth factor-I (IGF-1) and growth hormone (GH) in immunity and inflammation. Heemskerk VH, et al. **Cytokine Growth Factor Rev** 1999 Mar;10(1):5–14 (109 ref.)

Role of prolactin and growth hormone on thymus physiology. De Mello-Coelho V, et al. **Dev Immunol** 1998; 6(3–4):317–23 (45 ref.)

Molecular mechanism of growth hormone signalling. Billestrup N, et al. **Endocr J** 1998 Apr;45 Suppl:S41–5 (34 ref.)

Growth hormone inhibits its own secretion by acting on the hypothalamus through its receptors on neuropeptide Y neurons in the arcuate nucleus and somatostatin neurons in the periventricular nucleus. Minami S, et al. **Endocr J** 1998 Apr;45 Suppl:S19–26 (35 ref.)

Growth hormone-induced tyrosine phosphorylation of EGF receptor as an essential element leading to MAP kinase activation and gene expression. Yamauchi T, et al. **Endocr J** 1998 Apr;45 Suppl:S27–31 (25 ref.)

Growth hormone-mediated regulation of insulin-like growth factor I promoter activity in C6 glioma cells. Benbassat C, et al. **Endocrinology** 1999 Jul;140(7):3073–81

Growth hormone (GH) and 17beta-estradiol regulation of the expression of mouse GH receptor and GH-binding protein in cultured mouse hepatocytes. Contreras B, et al. **Endocrinology** 1999 Oct;140(10):4725–31

The fetal adrenal and the maturation of the growth hormone and prolactin axes [editorial] Freemark M. **Endocrinology** 1999 May;140(5):1963–5 (41 ref.)

Growth hormone-independent cardioprotective effects of hexarelin in the rat. Locatelli V, et al. **Endocrinology** 1999 Sep;140(9):4024–31

Evidence that insulin-like growth factor I and growth hormone are required for prostate gland development. Ruan W, et al. **Endocrinology** 1999 May;140(5):1984–9

The role of the growth hormone/insulin-like growth factor I axis in stimulation of protein synthesis in skeletal muscles following oral refeeding. Svanberg E, et al. **Endocrinology** 1998 Dec;139(12):4906–10

Growth hormone regulation of SOCS-2, SOCS-3, and CIS messenger ribonucleic acid expression in the rat. Tollet-Egnell P, et al. **Endocrinology** 1999 Aug; 140(8):3693–704

Does growth hormone prevent or accelerate aging? Bartke A, et al. **Exp Gerontol** 1998 Nov–Dec;33(7–8):675–87 (78 ref.)

Effects of thyroid hormone deficiency on mice selected for increased and decreased body weight and fatness. Bünger L, et al. **Genet Res** 1998 Aug;72(1):39–53

Effects of zinc ion concentration on growth, fat content and reproduction in oMT1a-oGH transgenic mice. Eisen EJ, et al. **Growth Dev Aging** 1998 Winter;62(4):173–86

Thermogenic activity of growth hormone transgenic mice. Moura AS, et al. **Growth Dev Aging** 1998 Winter; 62(4):149–59

26th International Symposium on Growth Hormone and Growth Factors in Endocrinology and Metabolism. Palma de Mallorca, October 1998. Proceedings and abstracts. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:1–163

Regular fluctuations in growth hormone (GH) release determine normal human growth. Gill MS, et al. **Growth Horm IGF Res** 1999 Apr;9(2):114–22

Effects of growth hormone on hepatic cholesterol metabolism. Lessons from studies in rats and humans. Rudling M, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:1–7 (41 ref.)

Growth hormone inhibits rat liver alpha-1-acid glycoprotein gene expression in vivo and in vitro. Mejdoubi N, et al. **Hepatology** 1999 Jan;29(1):186–94

Regulation of prolactin receptor (PRLR) gene expression in insulin-producing cells. Prolactin and growth hormone activate one of the rat prlr gene promoters via STAT5a and STAT5b. Galsgaard ED, et al. **J Biol Chem** 1999 Jun 25;274(26):18686–92

The effects of gonadectomy on bone size, mass, and volumetric density in growing rats are gender-, site-, and growth hormone-specific. Zhang XZ, et al. **J Bone Miner Res** 1999 May;14(5):802–9

GH response to exercise: assessment of the pituitary refractory period, and relationship with circulating components of the GH-IGF-I axis in adolescent females. Eliakim A, et al. **J Pediatr Endocrinol Metab** 1999 Jan–Feb; 12(1):47–55

Metabolic and hormonal changes during aerobic exercise in distance runners. Fernández-Pastor VJ, et al. **J Physiol Biochem** 1999 Mar;55(1):7–16

Growth hormone enhances regeneration of nitric oxide synthase-containing penile nerves after cavernous nerve neurotomy in rats. Jung GW, et al. **J Urol** 1998 Nov; 160(5):1899–904

Growth of long bones in renal failure: roles of hyperparathyroidism, growth hormone and calcitriol. Sanchez CP, et al. **Kidney Int** 1998 Dec;54(6):1879–87

Physiological role of human placental growth hormone. Alsat E, et al. **Mol Cell Endocrinol** 1998 May 25;140(1–2):121–7 (36 ref.)

Canine mammary growth hormone gene transcription initiates at the pituitary-specific start site in the absence of Pit-1. Lantinga-van Leeuwen IS, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):121–8

Down-regulation of liver JAK2-STAT5b signaling by the female plasma pattern of continuous growth hormone stimulation. Gebert CA, et al. **Mol Endocrinol** 1999 Feb; 13(2):213–27

The growth hormone-insulin-like growth factor axis in kidney re-revisited. Hammerman MR. **Nephrol Dial Transplant** 1999 Aug;14(8):1853–60 (54 ref.)

Growth hormone-dependent regulation of pituitary GH secretagogue receptor (GHS-R) mRNA levels in the spontaneous dwarf Rat. Kamegai J, et al. **Neuroendocrinology** 1998 Nov;68(5):312–8

The immune-endocrine loop during aging: role of growth hormone and insulin-like growth factor-I. Burgess W, et al. **Neuroimmunomodulation** 1999 Jan–Apr;6(1–2):56–68 (133 ref.)

Growth factors in children with end-stage liver disease before and after liver transplantation: a review. Maes M, et al. **Pediatr Transplant** 1997 Nov;1(2):171–5 (34 ref.)

Metabolic disturbances in male broilers of different strains. 2. Relationship between the thyroid and somatotropic axes with growth rate and mortality. Gonzales E, et al. **Poult Sci** 1999 Apr;78(4):516–21

[Physiopathology of the somatotropin axis in chronic renal insufficiency] Cabrol S, et al. **Arch Pediatr** 1998;5 Suppl 4:348S–353S (44 ref.) (Eng. Abstr.) **(Fre)**

[Bone and hormones. Effects of growth hormone on bone tissue in adults] Chapurlat RD, et al. **Presse Med** 1999 Mar 13;28(10):559–62 (48 ref.) (Eng. Abstr.) **(Fre)**

[Sex-specific analysis of bone mass in normal and growth hormone transgenic mice using dual energy x-ray absorptiometry (DXA)] Lochmüller EM, et al. **Anat Anz** 1999 Mar;181(2):191–8 (Eng. Abstr.) **(Ger)**

[The role of the GH/IGF-1 axis in cardiovascular physiopathology and therapy: the lessons from animal studies] Cittadini A, et al. **Cardiologia** 1998 Nov; 43(11):1185–92 (53 ref.) **(Ita)**

SECRETION

Insulin hypoglycemia and growth hormone secretion in sheep: a paradox revisited. Jaffe CA, et al. **Am J Physiol** 1999 Aug;277(2 Pt 1):E253–8

Genesis of the ultradian rhythm of GH secretion: a new model unifying experimental observations in rats. Wagner C, et al. **Am J Physiol** 1998 Dec;275(6 Pt 1):E1046–54

Localization of pituitary adenylate cyclase-activating

polypeptide in the central nervous system of the European eel Anguilla anguilla: stimulatory effect of PACAP on GH secretion. Montero M, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:475–7

Effects of pituitary adenylate cyclase-activating polypeptide (PACAP) on cAMP formation and growth hormone release from chicken anterior pituitary cells. Peeters K, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:471–4

Nonpeptidyl somatostatin agonists demonstrate that sst2 and sst5 inhibit stimulated growth hormone secretion from rat anterior pituitary cells. Parmar RM, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):276–80

Glucose regulation of growth hormone secretion in lactating sheep. Faulkner A. **Biochem Soc Trans** 1998 Nov;26(4):S387

Synthesis and biological activities of phenyl piperazine-based peptidomimetic growth hormone secretagogues. Barakat KJ, et al. **Bioorg Med Chem Lett** 1998 Jun 2;8(11):1431–6

Potent 3-spiropiperidine growth hormone secretagogues. Yang L, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):107–12

Tripeptide growth hormone secretagogues. Yang L, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):759–64

Thiazole-derived potent, highly bioavailable short duration growth hormone secretagogues. Yang L, et al. **Bioorg Med Chem Lett** 1999 Jul 5;9(13):1761–6

Orphanin FQ stimulates prolactin and growth hormone release in male and female rats. Bryant W, et al. **Brain Res** 1998 Oct 5;807(1–2):228–33

Calcitonin gene-related peptide as a GH secretagogue in human and rat pituitary somatotrophs. Nakamura Y, et al. **Brain Res** 1998 Oct 5;807(1–2):203–7

Histones as extracellular messengers: effects on growth hormone secretion. Brown OA, et al. **Cell Biol Int** 1997 Dec;21(12):787–92

The effect of short-term cortisol changes on growth hormone responses to the pyridostigmine-growth-hormone-releasing-hormone test in healthy adults and patients with suspected growth hormone deficiency. Andersen M, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):241–9

Can GHRH or GH secretagogues re-initiate pituitary GH pulsatility? Chappel S. **Clin Endocrinol (Oxf)** 1999 May; 50(5):547–56 (113 ref.)

Reduced foetal growth and growth hormone secretion in adult life. Flanagan DE, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):735–40

Growth hormone and exercise. Jenkins PJ. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):683–9 (70 ref.)

The outcome of surgery for acromegaly: the need for a specialist pituitary surgeon for all types of growth hormone (GH) secreting adenoma. Lissett CA, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):653–7 (16 ref.)

Growth hormone and prolactin responses to corticotrophin-releasing-hormone in patients with Cushing's disease: a paracrine action of the adenomatous corticotrophic cells? Loli P, et al. **Clin Endocrinol (Oxf)** 1998 Oct;49(4):433–9

Echocardiographic evidence for a direct effect of GH/IGF-I hypersecretion on cardiac mass and function in young acromegalics. Minniti G, et al. **Clin Endocrinol (Oxf)** 1998 Jul;49(1):101–6

Outpatient assessment of residual growth hormone secretion in treated acromegaly with overnight urinary growth hormone excretion, random serum growth hormone and insulin like growth factor-1. Parfitt VJ, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):647–52

The effect of body composition on hexarelin-induced growth hormone release in normal elderly subjects. Rahim A, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):659–64

Discrepancy between serum leptin values and total body fat in response to the oral growth hormone secretagogue MK-677. Svensson J, et al. **Clin Endocrinol (Oxf)** 1999 Apr; 50(4):451–6

Effect of bursal antisteroidogenic peptide (BASP) on chicken embryonic pituitary secretion of growth hormone (GH) and prolactin (PRL): evaluation in a reverse hemolytic plaque assay (RHPA). Caldwell DJ, et al. **Domest Anim Endocrinol** 1999 Jan;16(1):81–7

Oral administration of peptidergic growth hormone (GH) secretagogue KP102 stimulates GH release in goats. Hashizume T, et al. **Domest Anim Endocrinol** 1999 Jan; 16(1):31–9

Injection of neuropeptide Y into the third cerebroventricle differentially influences pituitary secretion of luteinizing hormone and growth hormone in ovariectomized cows. Thomas MG, et al. **Domest Anim Endocrinol** 1999 Apr; 16(3):159–69

Calcitonin gene-related peptide (CGRP) as a GH secretagogue in rat and human pituitary tumoral cells. Nakamura Y, et al. **Endocr J** 1998 Apr;45 Suppl:S89–91

Pathophysiology of the neuroregulation of growth hormone secretion in experimental animals and the human. Giustina A, et al. **Endocr Rev** 1998 Dec;19(6):717–97 (1103 ref.)

Hypothalamic mediated action of free fatty acid on growth hormone secretion in sheep. Briard N, et al. **Endocrinology** 1998 Dec;139(12):4811–9

Regulation of somatotroph differentiation and growth hormone (GH) secretion by corticosterone and GH-releasing hormone during embryonic development. Dean CE, et al. **Endocrinology** 1999 Mar;140(3):1104–10

Regulation of growth hormone secretion by alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptors in infantile, prepubertal, and adult male rats. González LC, et al. **Endocrinology** 1999 Mar; 140(3):1279–84

Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581–6

Pituitary adenylate cyclase-activating polypeptide (PACAP) 38 and PACAP27 activate common and distinct intracellular signaling pathways to stimulate growth hormone secretion from porcine somatotropes. Martinez-Fuentes AJ, et al. **Endocrinology** 1998 Dec; 139(12):5116–24

Expression of insulin-like growth factor I messenger ribonucleic acid in developing osteophytes in murine experimental osteoarthritis and in rats inoculated with growth hormone-secreting tumor. Okazaki K, et al. **Endocrinology** 1999 Oct;140(10):4821–30

Growth hormone (GH)-releasing factor differentially activates cyclic adenosine 3',5'-monophosphate- and inositol phosphate-dependent pathways to stimulate GH release in two porcine somatotrope subpopulations. Ramirez JL, et al. **Endocrinology** 1999 Apr;140(4):1752–9

Somatotroph and lactotroph changes in the adenohypophyses of mice with disrupted insulin-like growth factor I gene [see comments] Stefaneanu L, et al. **Endocrinology** 1999 Sep;140(9):3881–9. Comment in: Endocrinology 1999 Sep;140(9):3879–80.

Differential actions of the dopamine agonist bromocriptine on growth of SMtTW tumors exhibiting a prolactin and/or a somatotroph cell phenotype: relation to dopamine D2 receptor expression. Trouillas J, et al. **Endocrinology** 1999 Jan;140(1):13–21

Differential effect of insulin-like growth factor I on in vitro gonadotropin (I and II) and growth hormone secretions in rainbow trout (Oncorhynchus mykiss) at different stages of the reproductive cycle. Weil C, et al. **Endocrinology** 1999 May;140(5):2054–62

The secretory patterns of growth hormone in pregnant and hysterectomized ewes. Al-Gubory KH, et al. **Eur J Endocrinol** 1999 Jul;141(1):83–9

Diaphragm strength and cross-bridge properties during chronic growth hormone hypersecretion. Lecarpentier Y, et al. **Eur Respir J** 1999 May;13(5):1070–7

Residual effects of thyroid hormone on secretory activity of somatotroph population. Bonaterra M, et al. **Exp Clin Endocrinol Diabetes** 1998;106(6):494–9

N-glycans are not a universal signal for apical sorting of secretory proteins. Su T, et al. **FEBS Lett** 1999 Jun 25; 453(3):391–4

Enhancement by proopiomelanocortin-derived peptides of growth hormone and prolactin secretion by bullfrog pituitary cells. Aida T, et al. **Gen Comp Endocrinol** 1999 Jul;115(1):101–9

Study of growth hormone secretion and action in growth-retarded children with juvenile chronic arthritis (JCA). Tsatsoulis A, et al. **Growth Horm IGF Res** 1999 Apr;9(2):143–9

Feeding colostrum increases circulating insulin-like growth factor I in newborn pigs independent of endogenous growth hormone secretion. Wester TJ, et al. **J Anim Sci** 1998 Dec;76(12):3003–9

Leptin regulates GH secretion in the rat by acting on GHRH and somatostatinergic functions. Cocchi D, et al. **J Endocrinol** 1999 Jul;162(1):95–9

Effects of repeated doses and continuous infusions of the growth hormone-releasing peptide hexarelin in conscious male rats. Conley LK, et al. **J Endocrinol** 1998 Sep; 158(3):367–75

Pituitary growth hormone release and gene expression in cafeteria-diet-induced obese rats. Zhou X, et al. **J Endocrinol** 1998 Oct;159(1):165–72

The effect of growth hormone secretagogues and neuropeptide Y on hypothalamic hormone release from acute rat hypothalamic explants. Korbonits M, et al. **J Neuroendocrinol** 1999 Jul;11(7):521–8

Evidence that corticotropin-releasing hormone acts as a growth hormone-releasing factor in a primitive teleost, the European eel (Anguilla anguilla). Rousseau K, et al. **J Neuroendocrinol** 1999 May;11(5):385–92

Effect of growth hormone-releasing peptide 1-6 on GH secretion-stimulated by GHRH and pyridostigmine in lambs. Rico M, et al. **J Physiol Biochem** 1998 Jun; 54(2):67–76

Relationship between GHRP-6 and TPA in the regulation of growth hormone secretion by human pituitary somatotrophinomas. Liu Q, et al. **J Tongji Med Univ** 1997; 17(3):132–5

The effect of cyclosporine administration on growth hormone release and serum concentrations of insulin-like growth factor-I in male rats. López-Calderón A, et al. **Life Sci** 1999;64(17):1473–83

Effect of cysteamine hydrochloride on secretion of growth hormone in male swine. McElwain KV, et al. **Life Sci** 1999; 64(24):2233–8

Direct effects of growth hormone (GH)-releasing hexapeptide (GHRP-6) and GH-releasing factor (GRF) on GH secretion from cultured porcine somatotropes. Sánchez-Hormigo A, et al. **Life Sci** 1998;63(23):2079–88

A linear hexapeptide somatostatin antagonist blocks somatostatin activity in vitro and influences growth hormone release in rats. Baumbach WR, et al. **Mol Pharmacol** 1998 Nov;54(5):864–73

Effect of corticotropin releasing factor injected into the median eminence on growth hormone secretion in male rats. Frias J, et al. **Neurochem Res** 1999 Jun;24(6):715–8

Interaction between leptin and neuropeptide Y on in vivo growth hormone secretion. Carro E, et al. **Neuroendocrinology** 1998 Sep;68(3):187–91

Cytokine-mediated growth hormone release from cultured ovine pituitary cells. Fry C, et al. **Neuroendocrinology** 1998 Sep;68(3):192–200

Effects of amylin and salmon calcitonin on beta-endorphin-induced growth hormone and prolactin secretion in the rat. Pagani F, et al. **Neuroendocrinology** 1998 Sep;68(3):220–8

Cellular signaling mechanisms for stimulation of growth hormone secretion and growth hormone primary transcripts by immunosuppressant agents, FK506 and cyclosporin A, in cultured rat pituitary cells. Ohye H, et al. **Neuroimmunomodulation** 1998 Nov-Dec;5(6):309–17

Preoperative short-term administration of octreotide for facilitating transsphenoidal removal of invasive growth hormone-secreting macroadenomas. Tachibana E, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):496–9; discussion 499–501

Orally active growth hormone secretagogues. Patchett AA, et al. **Pharm Biotechnol** 1998;11:525–54 (97 ref.)

Stimulated growth hormone (GH) release in Friesian cattle with respect to GH genotypes. Grochowska R, et al. **Reprod Nutr Dev** 1999 Mar-Apr;39(2):171–80

[New growth hormone secretagogues: from physiology to the first therapeutic applications] Ahnfelt-Rønne I, et al. **Arch Pediatr** 1998;5 Suppl 4:390S–396S (35 ref.) (Eng. Abstr.) **(Fre)**

[Cellular mechanism of growth hormone secretion by hypothalamic peptides] Kato M. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):402–4 (21 ref.) **(Jpn)**

[An autoregulatory system of growth hormone secretion] Minami S. **Nippon Ika Daigaku Zasshi** 1998 Oct; 65(5):409–12 (14 ref.) **(Jpn)**

[The influence of sleep breathing disorder on growth hormone secretion in children with tonsil hypertrophy] Chiba S, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul; 101(7):873–8 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

Growth hormone, alone and in combination with insulin, increases whole body and skeletal muscle protein kinetics in cancer patients after surgery [see comments] Berman RS, et al. **Ann Surg** 1999 Jan;229(1):1–10. Comment in: Ann Surg 1999 Jan;229(1):19–20.

Growth hormone—a panacea for aging? [editorial] Nugent AG, et al. **Aust N Z J Med** 1998 Dec;28(6):761–4 (36 ref.)

The growth hormone IGF-I axis in dilated cardiomyopathy [comment] Jenkins RC, et al. **Clin Endocrinol (Oxf)** 1999 Apr;50(4):415–6. Comment on: Clin Endocrinol (Oxf) 1999 Apr;50(4):417–30.

Growth hormone treatment improves body fluid distribution in patients undergoing elective abdominal surgery [see comments] Møller J, et al. **Clin Endocrinol (Oxf)** 1998 Nov; 49(5):597–602. Comment in: Clin Endocrinol (Oxf) 1998 Nov;49(5):573–5.

Dose titration and patient selection increases the efficacy of GH replacement in severely GH deficient adults. Murray RD, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):749–57

Growth hormone replacement inhibits renal and hepatic 11 beta-hydroxysteroid dehydrogenases in ACTH-deficient patients. Walker BR, et al. **Clin Endocrinol (Oxf)** 1998 Aug; 49(2):257–63

Growth hormone as a potential future therapy for congestive heart failure. Fazio S, et al. **Coron Artery Dis** 1999 Sep; 10(6):383–8 (43 ref.)

Growth hormone therapy for non-growth hormone-deficient children with short stature. Guyda HJ. **Curr Opin Pediatr** 1998 Aug;10(4):416–21 (47 ref.)

Therapy with growth hormone: major prospects for the treatment of male subfertility? Breier BH, et al. **Endocr J** 1998 Apr;45 Suppl:S53–60 (31 ref.)

A pilot study of growth hormone therapy in dilated cardiomyopathy [letter] Birnbacher R, et al. **Eur J Pediatr** 1999 Apr;158(4):340–1

The effect of the deterioration of insulin sensitivity on beta-cell function in growth-hormone-deficient adults following 4-month growth hormone replacement therapy. Rosenfalck AM, et al. **Growth Horm IGF Res** 1999 Apr; 9(2):96–105

The growth hormone cascade: progress and long-term results of growth hormone treatment in growth hormone deficiency. Grumbach MM, et al. **Horm Res** 1998;49 Suppl 2:41–57 (129 ref.)

Hypoglycemic effects of insulin-like growth factor-1 in experimental uremia: can concomitant growth hormone administration prevent this effect? Kovacs GT, et al. **Horm Res** 1999;51(4):193–200

The two sides on hormone-treated beef [letter] Carr A. **J Am Vet Med Assoc** 1999 Aug 15;215(4):473–4

Use of bovine somatotropin at the time of surgery for left displacement of the abomasum in dairy cows. Minnesota Dairy Practitioners Study Group. Fetrow JP, et al. **J Am Vet Med Assoc** 1999 Feb 15;214(4):529–31

Response to growth hormone therapy in experimental ischemic acute renal failure. Fervenza FC, et al.

J Lab Clin Med 1999 May;133(5):434–9
Decreased trabecular bone mineral density in children with idiopathic short stature: normalization of bone density and increased bone turnover after 1 year of growth hormone treatment. Lanes R, et al. **J Pediatr** 1999 Aug;135(2 Pt 1):177–81
Psychosocial aspects of short stature and growth hormone therapy [letter; comment] Sandberg DE, et al. **J Pediatr** 1999 Jul;135(1):133–4. Comment on: J Pediatr 1998 Sep;133(3):366–73.
Growth hormone supplementation in Turner's syndrome [letter; comment] Van Vliet G, et al. **J Pediatr** 1998 Dec; 133(6):803–4. Comment on: J Pediatr 1998 Feb;132(2):319–24.
Reduced injury and scar in acute myocardial infarctions treated with human growth hormone. Laguens RP, et al. **Jpn Heart J** 1998 Nov;39(6):809–17
Use of neuroendocrine hormones to promote reconstitution after bone marrow transplantation. Woody MA, et al. **Neuroimmunomodulation** 1999 Jan–Apr;6(1–2):69–80 (101 ref.)
Atrioventricular block in a patient with growth hormone deficiency during growth hormone therapy. Okada T, et al. **Pediatr Int** 1999 Feb;41(1):90–3
Acid–base homeostasis in children with growth hormone deficiency. Glaser NS, et al. **Pediatrics** 1998 Dec; 102(6):1407–14
Combined use of growth hormone and gonadotropin-releasing hormone analogues: the national cooperative growth study experience. Kohn B, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1014–8
Combined use of growth hormone and gonadotropin-releasing hormone analogues in precocious puberty: theoretic and practical considerations. Walvoord EC, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1010–4 (38 ref.)
Who benefits from growth hormone? Bareille P, et al. **Practitioner** 1998 Jun;242(1587):486–8 (11 ref.)
[Growth hormone deficiency. Treatment with growth hormone and body composition] Antoniazzi F, et al. **Arch Pediatr** 1998;5 Suppl 4:327S–331S (Eng. Abstr.) **(Fre)**
[Does the growth hormone pharmacokinetic profile help to predict the treatment response?] Bozzola M, et al. **Arch Pediatr** 1998;5 Suppl 4:322S–326S (Eng. Abstr.) **(Fre)**
[Growth hormone treatment of children with short stature secondary to intrauterine growth retardation] Chaussain JL, et al. **Arch Pediatr** 1998;5 Suppl 4:345S–347S (Eng. Abstr.) **(Fre)**
[Hypopituitarism during the first year of life. A collaborative Italian study] De Luca Ff2p4, et al. **Arch Pediatr** 1998;5 Suppl 4:313S–317S (Eng. Abstr.) **(Fre)**
[Catch-up growth in growth hormone deficit children treated with GH since the first year of life] Huet F, et al. **Arch Pediatr** 1998;5 Suppl 4:318S–321S (Eng. Abstr.) **(Fre)**
[Critical evaluation of growth hormone treatment in children with chronic renal insufficiency] Perfumo F, et al. **Arch Pediatr** 1998;5 Suppl 4:354S–359S (39 ref.) (Eng. Abstr.) **(Fre)**
[Effect of hormonal treatment on bone mineralization in Turner syndrome] Saggese G, et al. **Arch Pediatr** 1998;5 Suppl 4:371S–374S (28 ref.) (Eng. Abstr.) **(Fre)**
[Growth hormone treatment of familial hypophosphatemic rickets] Saggese G, et al. **Arch Pediatr** 1998;5 Suppl 4:360S–363S (Eng. Abstr.) **(Fre)**
[Therapeutic use of growth hormone in the Spanish National Health System] García Comas L, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):542–5 **(Spa)**

URINE

The impact of gender, puberty and body mass on reference values for urinary growth hormone (GH) excretion in normally growing non-obese and obese children. Bona G, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):775–81
Comparison of monthly intramuscular injections of Sandostatin LAR with multiple subcutaneous injections of octreotide in the treatment of acromegaly: effects on growth hormone and other markers of growth hormone secretion. Hunter SJ, et al. **Clin Endocrinol (Oxf)** 1999 Feb; 50(2):245–51

SOMATOTROPIN (HUMAN) see **SOMATROPIN**

SOMATOTROPIN RECEPTORS see **RECEPTORS, SOMATOTROPIN**

SOMATOTROPIN RELEASE-INHIBITING HORMONE see **SOMATOSTATIN**

SOMATOTROPIN-RELEASING FACTOR 44 see **SOMATOTROPIN-RELEASING HORMONE**

SOMATOTROPIN-RELEASING HORMONE

ADMINISTRATION & DOSAGE

Does growth hormone-releasing factor assist follicular development in poor responder patients undergoing ovarian stimulation for in-vitro fertilization? Howles CM, et al. **Hum Reprod** 1999 Aug;14(8):1939–43
Intrapreoptic microinjection of GHRH or its antagonist alters sleep in rats. Zhang J, et al. **J Neurosci** 1999 Mar 15; 19(6):2187–94
A determinant factor in the efficacy of GHRH administration in promoting sleep: high peak concentration versus recurrent increasing slopes. Marshall L, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):363–70
[Tablets in the treatment of growth hormone deficiency?] Rasmussen MH, et al. **Ugeskr Laeger** 1999 Feb 15; 161(7):962 **(Dan)**

ANALYSIS

Growth hormone excess in a child with neurofibromatosis type 1 and optic pathway tumor: a patient report. Fuqua JS, et al. **Clin Pediatr (Phila)** 1998 Dec;37(12):749–52
Expression of growth hormone-releasing hormone (GHRH) messenger ribonucleic acid and the presence of biologically active GHRH in human breast, endometrial, and ovarian cancers. Kahán Z, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):582–9
Bioassay for growth hormone releasing hormone (GHRH) using a recombinant receptor and cAMP-responsive reporter system. Frank-Heinrich JA, et al. **Mol Cell Endocrinol** 1999 Apr 25;150(1–2):65–72

ANTAGONISTS & INHIBITORS

Inhibition of growth, production of insulin-like growth factor-II (IGF-II), and expression of IGF-II mRNA of human cancer cell lines by antagonistic analogs of growth hormone-releasing hormone in vitro. Csernus VJ, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):3098–103
Decrease in telomerase activity in U-87MG human glioblastomas after treatment with an antagonist of growth hormone-releasing hormone. Kiaris H, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):226–31
Synthesis and biological evaluation of antagonists of growth hormone-releasing hormone with high and protracted in vivo activities. Varga JL, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):692–7

BIOSYNTHESIS

Hormonal and volumetric long term control of a growth hormone-releasing hormone-producing carcinoid tumor. Van den Bruel A, et al. **J Clin Endocrinol Metab** 1999 Sep; 84(9):3162–9

BLOOD

Peripheral plasma levels of human growth hormone releasing hormone (GHRH) during the sleep test in short children. Inoue S, et al. **Endocr J** 1998 Apr;45 Suppl:S71–5
Development and clinical application of a highly sensitive enzyme immunoassay (EIA) for human growth hormone-releasing hormone (hGHRH) in plasma. Katakami H, et al. **Endocr J** 1998 Apr;45 Suppl:S67–70
Acute N-methyl-D,L-aspartate administration stimulates the luteinizing hormone releasing hormone pulse generator in the ovine fetus. Bettendorf M, et al. **Horm Res** 1999; 51(1):25–30
Pituitary somatotroph adenoma producing growth hormone (GH)-releasing hormone (GHRH) with an elevated plasma GHRH concentration: a model case for autocrine and paracrine regulation of GH secretion by GHRH. Matsuno A, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3241–7
Detection of doping [letter; comment] Jenkins P. **Lancet** 1999 May 1;353(9163):1532. Comment on: Lancet 1999 Mar 13;353(9156):895.
A determinant factor in the efficacy of GHRH administration in promoting sleep: high peak concentration versus recurrent increasing slopes. Marshall L, et al. **Psychoneuroendocrinology** 1999 Apr;24(3):363–70
[What is the value of determining immunoreactive GHRH in acromegaly?] Müller B, et al. **Schweiz Med Wochenschr** 1999 Aug 21;129(33):1152–61 (Eng. Abstr.) **(Ger)**

DIAGNOSTIC USE

Diagnostic and therapeutic uses of growth hormone-releasing substances in adult and elderly subjects. Ghigo E, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):341–58 (100 ref.)
Effect of somatostatin infusion on the somatotrope responsiveness to growth hormone-releasing hormone in patients with anorexia nervosa. Gianotti L, et al. **Biol Psychiatry** 1999 Feb 1;45(3):334–9
The effect of short-term cortisol changes on growth hormone responses to the pyridostigmine-growth-hormone-releasing-hormone test in healthy adults and patients with suspected growth hormone deficiency. Andersen M, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):241–9
Can we predict diabetic complications by examining GH response to GH-RH infusion test in patients with NIDDM? Iizuka T, et al. **Endocr J** 1998 Apr;45 Suppl:S77–80
Circulating leptin level and growth hormone response to stimulation tests in obese and normal children. Coutant R, et al. **Eur J Endocrinol** 1998 Dec;139(6):591–7
GH stimulation tests: evaluation of GH responses to heat test versus insulin-tolerance test. Fisker S, et al. **Eur J Endocrinol** 1998 Dec;139(6):605–10
Differences in reproducibility and peak growth hormone responses to repeated testing with various stimulators in healthy adults. Hoeck HC, et al. **Growth Horm IGF Res** 1999 Feb;9(1):18–24
Evaluation of pre- and postprandial growth hormone (GH)-releasing hormone-induced GH response in subjects with persistent body weight normalisation after biliopancreatic diversion. De Marinis L, et al. **Int J Obes Relat Metab Disord** 1998 Oct;22(10):1011–8
Effects of oral chlortetracycline and dietary protein level on plasma concentrations of growth hormone and thyroid hormones in beef steers before and after challenge with a combination of thyrotropin-releasing hormone and growth hormone-releasing hormone. Rumsey TS, et al. **J Anim Sci** 1999 Aug;77(8):2079–87
The growth hormone (GH) response to the arginine plus GH-releasing hormone test is correlated to the severity of lipid profile abnormalities in adult patients with GH deficiency. Colao A, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1277–82
Low dose hexarelin and growth hormone (GH)-releasing hormone as a diagnostic tool for the diagnosis of GH deficiency in adults: comparison with insulin-induced hypoglycemia test. Gasperi M, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2633–7
IGF-I levels rise and GH responses to GHRH decrease during long-term prednisone treatment in man. Borges MH, et al. **J Endocrinol Invest** 1999 Jan;22(1):12–7
Hexarelin-induced growth hormone response in short stature. Comparison with growth hormone-releasing hormone plus pyridostigmine and arginine plus estrogen. Guzzaloni G, et al. **J Endocrinol Invest** 1999 May;22(5):360–8
Assessment of GH/IGF-I axis in obesity by evaluation of IGF-I levels and the GH response to GHRH+arginine test. Maccario M, et al. **J Endocrinol Invest** 1999 Jun; 22(6):424–9
Growth hormone response to hexarelin, growth hormone-releasing hormone plus pyridostigmine and arginine plus estrogen in prepubertal and early pubertal short children. Guzzaloni G, et al. **Minerva Endocrinol** 1998 Dec;23(4):99–104
Growth hormone response to growth hormone-releasing hormone stimulation in obsessive-compulsive disorder. Brambilla F, et al. **Psychiatry Res** 1998 Dec 14;81(3):293–9

DRUG EFFECTS

Alcohol, slow wave sleep, and the somatotropic axis. Lands WE. **Alcohol** 1999 Jun–Jul;18(2–3):109–22 (101 ref.)

GENETICS

Sleep deprivation increases rat hypothalamic growth hormone-releasing hormone mRNA. Zhang J, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1755–61
Regulation of hypothalamic somatostatin and growth hormone releasing hormone mRNA levels by inhibin. Carro E, et al. **Brain Res Mol Brain Res** 1999 Mar 20; 66(1–2):191–4
Regulation of body fluid balance in human GH-releasing hormone (hGHRH)-transgenic rats. Katakami H, et al. **Endocr J** 1998 Apr;45 Suppl:S81–3
Expression of growth hormone-releasing hormone (GHRH) messenger ribonucleic acid and the presence of biologically active GHRH in human breast, endometrial, and ovarian cancers. Kahán Z, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):582–9
Humoral regulation of physiological sleep: cytokines and GHRH. Krueger JM, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:53–9 (49 ref.)
Growth hormone releasing hormone expression during postnatal development in growth hormone-deficient Ames dwarf mice: mRNA in situ hybridization. Hurley DL, et al. **Neuroendocrinology** 1998 Sep;68(3):201–9

IMMUNOLOGY

Effects of active immunization against growth-hormone releasing factor on puberty and reproductive development in gilts. Swanchara KW, et al. **J Anim Sci** 1999 Jul; 77(7):1807–14
Humoral regulation of physiological sleep: cytokines and GHRH. Krueger JM, et al. **J Sleep Res** 1999 Jun;8 Suppl 1:53–9 (49 ref.)

METABOLISM

Leptin regulates GH secretion in the rat by acting on GHRH and somatostatinergic functions. Cocchi D, et al. **J Endocrinol** 1999 Jul;162(1):95–9
Leptin alters the response of the growth hormone releasing factor- growth hormone--insulin-like growth factor-I axis to fasting. LaPaglia N, et al. **J Endocrinol** 1998 Oct; 159(1):79–83
Long-term calorie restriction protects rat pituitary growth hormone-releasing hormone binding sites from age-related alterations. Girard N, et al. **Neuroendocrinology** 1998 Jul; 68(1):21–9
The in vitro effect of leptin on basal and growth hormone-releasing hormone-stimulated growth hormone secretion from the ovine pituitary gland. Roh S, et al. **Neuroendocrinology** 1998 Dec;68(6):361–4
Immune function in transgenic mice overexpressing growth hormone (GH) releasing hormone, GH or GH antagonist.

Dialynas E, et al. **Proc Soc Exp Biol Med** 1999 Jul; 221(3):178–83

PHARMACOKINETICS

Pharmacokinetic evaluation of ipamorelin and other peptidyl growth hormone secretagogues with emphasis on nasal absorption. Johansen PB, et al. **Xenobiotica** 1998 Nov; 28(11):1083–92

PHARMACOLOGY

Nonpeptidyl somatostatin agonists demonstrate that sst2 and sst5 inhibit stimulated growth hormone secretion from rat anterior pituitary cells. Parmar RM, et al. **Biochem Biophys Res Commun** 1999 Sep 24;263(2):276–80

Can GHRH or GH secretagogues re-initiate pituitary GH pulsatility? Chappel S. **Clin Endocrinol (Oxf)** 1999 May; 50(5):547–56 (113 ref.)

The influence of bovine growth hormone and growth hormone releasing factor on acetyl-CoA carboxylase and fatty acid synthase in primiparous Holstein cows. Beswick NS, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):241–9

Growth hormone response to placebo, apomorphine and growth hormone releasing hormone in abstinent alcoholics and control subjects. Wiesbeck GA, et al. **Drug Alcohol Depend** 1998 Sep 1;52(1):53–6

Regulation of somatotroph differentiation and growth hormone (GH) secretion by corticosterone and GH-releasing hormone during embryonic development. Dean CE, et al. **Endocrinology** 1999 Mar;140(3):1104–10

Differential in vivo regulation of the pituitary growth hormone-releasing hormone (GHRH) receptor by GHRH in young and aged rats. Girard N, et al. **Endocrinology** 1999 Jun;140(6):2836–42

Growth hormone (GH)-releasing hormone (GHRH) and the GH secretagogue (GHS), L692,585, differentially modulate rat pituitary GHS receptor and GHRH receptor messenger ribonucleic acid levels. Kineman RD, et al. **Endocrinology** 1999 Aug;140(8):3581–6

Growth hormone (GH)-releasing factor differentially activates cyclic adenosine 3',5'-monophosphate- and inositol phosphate-dependent pathways to stimulate GH release in two porcine somatotrope subpopulations. Ramirez JL, et al. **Endocrinology** 1999 Apr;140(4):1752–9

Heterozygous gsp mutation renders ion channels of human somatotroph adenoma cells unresponsive to growth hormone-releasing hormone. Yasufuku-Takano J, et al. **Endocrinology** 1999 May;140(5):2018–26

Molecular cloning of pit-1 cDNA from porcine anterior pituitary and its involvement in pituitary stimulation by growth hormone-releasing factor. Chung HO, et al. **Exp Clin Endocrinol Diabetes** 1998;106(3):203–10

Effect of menopause and different combined estradiol-progestin regimens on basal and growth hormone-releasing hormone-stimulated serum growth hormone, insulin-like growth factor-1, insulin-like growth factor binding protein (IGFBP)-1, and IGFBP-3 levels. Cano A, et al. **Fertil Steril** 1999 Feb;71(2):261–7

Effect of growth hormone releasing hormone on luteinizing hormone stimulated progestin biosynthesis in cultured rat ovarian granulosa cells. Kotani E, et al. **Gynecol Endocrinol** 1998 Oct;12(5):307–13

Growth hormone-insulin-like growth factor-I axis in adult insulin-dependent diabetic patients: evidence for central hypersensitivity to growth hormone-releasing hormone and peripheral resistance to growth hormone. Fainstein Day P, et al. **Horm Metab Res** 1998 Dec;30(12):737–42

Growth hormone (GH) response to GH-releasing peptide-6 in type 1 diabetic patients with exaggerated GH-releasing hormone-stimulated GH secretion. Catalina PF, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3663–7

Effect of acute pharmacological reduction of plasma free fatty acids on growth hormone (GH) releasing hormone-induced GH secretion in obese adults with and without hypopituitarism. Cordido F, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4350–4

Effects of recombinant human insulin-like growth factor I administration on growth hormone (GH) secretion, both spontaneous and stimulated by GH-releasing hormone or hexarelin, a peptidyl GH secretagogue, in humans. Ghigo E, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):285–90

Secretory mechanisms of growth hormone (GH)-releasing peptide-, GH-releasing hormone-, and thyrotropin-releasing hormone-induced GH release in patients with acromegaly. Hanew K, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3578–83

Tripartite neuroendocrine activation of the human growth hormone (GH) axis in women by continuous 24-hour GH-releasing peptide infusion: pulsatile, entropic, and nyctohemeral mechanisms. Shah N, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2140–50

Salivary gland is capable of GH synthesis under GHRH stimulation. Tresguerres JA, et al. **J Endocrinol** 1999 Feb; 160(2):217–22

Effect of growth hormone-releasing peptide 1-6 on GH secretion-stimulated by GHRH and pyridostigmine in lambs. Rico M, et al. **J Physiol Biochem** 1998 Jun; 54(2):67–76

Relationship between GHRP-6 and TPA in the regulation of growth hormone secretion by human pituitary somatotrophinomas. Liu Q, et al. **J Tongji Med Univ** 1997; 17(3):132–5

Direct effects of growth hormone (GH)-releasing hexapeptide (GHRP-6) and GH-releasing factor (GRF) on GH secretion from cultured porcine somatotropes. Sánchez-Hormigo A, et al. **Life Sci** 1998;63(23):2079–88

Elevated insulin levels contribute to the reduced growth hormone (GH) response to GH-releasing hormone in obese subjects. Lanzi R, et al. **Metabolism** 1999 Sep;48(9):1152–6

Growth hormone (GH) response to GH-releasing peptide-6 and GH-releasing hormone in normal-weight and overweight patients with non-insulin-dependent diabetes mellitus. Micić D, et al. **Metabolism** 1999 Apr;48(4):525–30

Effects of cholinergic muscarinic blockade on growth hormone responses to growth hormone-releasing hormone in uraemic patients. Diez JJ, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1704–9

Sleep and endocrine changes after intranasal administration of growth hormone-releasing hormone in young and aged humans. Perras B, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):743–57

PHYSIOLOGY

Galanin: analysis of its coexpression in gonadotropin-releasing hormone and growth hormone-releasing hormone neurons. Hohmann JG, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:221–35 (62 ref.)

Twenty-four hour rhythms of hypothalamic corticotropin-releasing hormone, thyrotropin-releasing hormone, growth hormone-releasing hormone and somatostatin in rats injected with Freund's adjuvant. Esquifino AI, et al. **Biol Signals Recept** 1999 May-Jun; 8(3):178–90

Regulation of body fluid balance in human GH-releasing hormone (hGHRH)-transgenic rats. Katakami H, et al. **Endocr J** 1998 Apr;45 Suppl:S81–3

Hypothalamic growth hormone-releasing factor (GRF) regulates its own receptor gene expression in vivo in the rat pituitary. Ono M, et al. **Endocr J** 1998 Apr;45 Suppl:S85–8

Growth hormone-releasing peptide-2 (GHRP-2) does not act via the human growth hormone-releasing factor receptor in GC cells. Chen C, et al. **Endocrine** 1998 Aug; 9(1):71–7

The human growth hormone-releasing hormone transgenic mouse as a model of modest obesity: differential changes in leptin receptor (OBR) gene expression in the anterior pituitary and hypothalamus after fasting and OBR localization in somatotrophs. Cai A, et al. **Endocrinology** 1999 Aug;140(8):3609–14

Galanin within the normal and hyperplastic anterior pituitary gland: localization, secretion, and functional analysis in normal and human growth hormone-releasing hormone transgenic mice. Moore JP Jr, et al. **Endocrinology** 1999 Apr;140(4):1789–99

Effects of active immunization against growth-hormone releasing factor on puberty and reproductive development in gilts. Swanchara KW, et al. **J Anim Sci** 1999 Jul; 77(7):1807–14

The growth hormone (GH)-releasing hormone-GH-insulin-like growth factor-1 axis in patients with fibromyalgia syndrome. Leal-Cerro A, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3378–81

[Cellular mechanism of growth hormone secretion by hypothalamic peptides] Kato M. **Nippon Ika Daigaku Zasshi** 1998 Oct;65(5):402–4 (21 ref.) **(Jpn)**

SECRETION

Comment of long-acting lanreotide inducing clinical and biochemical remission of acromegaly caused by disseminated GHRH secreting carcinoid [letter; comment] Krassowski J, et al. **J Clin Endocrinol Metab** 1999 May; 84(5):1761–2. Comment on: J Clin Endocrinol Metab 1998 Sep;83(9):3104–9.

Interrelations between sleep and the somatotropic axis. Van Cauter E, et al. **Sleep** 1998 Sep 15;21(6):553–66 (129 ref.)

THERAPEUTIC USE

Diagnostic and therapeutic uses of growth hormone-releasing substances in adult and elderly subjects. Ghigo E, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):341–58 (100 ref.)

Long-term treatment with GHRH [1-44] amide in prepubertal children with classical growth hormone deficiency. Duck SC, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):531–6

Growth-hormone-releasing factor for growth hormone deficiency. **Med Lett Drugs Ther** 1999 Jan 1;41(1043):2–3

SOMATOTROPIN-RELEASING-HORMONE(1-29) AMIDE see **SERMORELIN**

SOMATOTROPINS, RECOMBINANT

Bovine somatotropin--who's crying over spilt milk? [news] Morris K. **Lancet** 1999 Jan 23;353(9149):306

ADMINISTRATION & DOSAGE

Safety of high doses of recombinant human growth hormone. Van Loon K. **Horm Res** 1998;49 Suppl 2:78–81 (2 ref.)

Factors predictive of the short- and long-term efficacy of growth hormone treatment in prepubertal children with chronic renal failure. The German Study Group for Growth Hormone Treatment in Chronic Renal Failure. Haffner D, et al. **J Am Soc Nephrol** 1998 Oct; 9(10):1899–907

ADVERSE EFFECTS

Short-term growth hormone administration at the time of opportunistic infections in HIV-positive patients. Paton NI, et al. **AIDS** 1999 Jul 9;13(10):1195–202

Report of the Canadian Veterinary Medical Association Expert Panel on rBST. Executive Summary. **Can Vet J** 1999 Mar;40(3):160–2 **(Eng, Fre)**

Safety of high doses of recombinant human growth hormone. Van Loon K. **Horm Res** 1998;49 Suppl 2:78–81 (2 ref.)

Disagrees with position on rBST [letter; comment] Anderson BC. **J Am Vet Med Assoc** 1999 May 15;214(10):1468. Comment on: J Am Vet Med Assoc 1999 Apr 1;214(7):985–6.

Localized lipoatrophy due to recombinant growth hormone therapy in a child with 6.7 kilobase gene deletion isolated growth hormone deficiency. Büyükgebiz A, et al. **J Pediatr Endocrinol Metab** 1999 Jan-Feb;12(1):95–7

Debate continues on recombinant bovine somatotropin [letter] Collier RJ. **Lancet** 1999 Aug 21;354(9179):684

Captopril reduces the proteinuric effect of human growth hormone in adriamycin nephrosis. Milner LS, et al. **Pediatr Nephrol** 1999 Jun;13(5):391–5

Effects of recombinant human growth hormone on the development of burn scarring. Barret JP, et al. **Plast Reconstr Surg** 1999 Sep;104(3):726–9

[Reduced incidence of side-effects of growth hormone substitution in 404 patients with hypophyseal insufficiency. Results of a multicenter indications study] Wüster C, et al. **Med Klin** 1998 Oct 15;93(10):585–91 (Eng. Abstr.) **(Ger)**

BIOSYNTHESIS

Lactotroph hyperplasia in the pituitaries of female mice expressing high levels of bovine growth hormone. Vidal S, et al. **Transgenic Res** 1999 Jun;8(3):191–202

BLOOD

Detection of doping [letter; comment] Jenkins P. **Lancet** 1999 May 1;353(9163):1532. Comment on: Lancet 1999 Mar 13;353(9156):895.

Detection of doping with human growth hormone [letter] [see comments] Wu Z, et al. **Lancet** 1999 Mar 13; 353(9156):895. Comment in: Lancet 1999 May 1;353(9163):1532.

CHEMICAL SYNTHESIS

Synthesis and biological activities of spiroheterocyclic growth hormone secretagogues. Chen MH, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1261–6

CHEMISTRY

Raman spectroscopic studies of a dimeric form of recombinant bovine growth hormone. Thamann TJ. **Anal Biochem** 1998 Dec 15;265(2):202–7

On the structural preservation of recombinant human growth hormone in a dried film of a synthetic biodegradable polymer. Carrasquillo KG, et al. **J Pharm Sci** 1999 Feb; 88(2):166–73

Use of infrared spectroscopy to assess secondary structure of human growth hormone within biodegradable microspheres. Yang TH, et al. **J Pharm Sci** 1999 Feb; 88(2):161–5

PHARMACOKINETICS

The absorption profile and availability of a physiological subcutaneously administered dose of recombinant human growth hormone (GH) in adults with GH deficiency. Janssen YJ, et al. **Br J Clin Pharmacol** 1999 Mar;47(3):273–8

Spontaneous pulsatility and pharmacokinetics of growth hormone in liver cirrhotic patients. Baruch Y, et al. **J Hepatol** 1998 Oct;29(4):559–64

PHARMACOLOGY

Changes of plasma insulin, urea, amino acids and rumen metabolites in somatotropin treated dairy cows. Cheli F, et al. **Amino Acids** 1998;15(3):187–94

In vitro regulation of expression of cartilage-derived morphogenetic proteins by growth hormone and insulinlike growth factor 1 in the bovine cricoid chondrocyte. Tomaski SM, et al. **Arch Otolaryngol Head Neck Surg** 1999 Aug;125(8):901–6

Growth hormone increases vertebral and femoral bone strength in osteopenic, ovariectomized, aged rats in a dose-dependent and site-specific manner. Mosekilde L, et al. **Bone** 1998 Oct;23(4):343–52

Recombinant growth hormone accelerates bone regenerate consolidation in distraction osteogenesis. Raschke MJ, et al. **Bone** 1999 Feb;24(2):81–8

Differential effects of growth hormone on cardiomyocyte and extracellular matrix protein remodeling following experimental myocardial infarction. Grimm D, et al.

Cardiovasc Res 1998 Nov;40(2):297–306

Measurement of biological activity of somatotropin in hypophysectomized rats. Zhu CJ, et al.
Chung Kuo Yao Li Hsueh Pao 1997 Nov;18(6):489–93

Lack of effects of recombinant human GH on spermatogenesis in the adult cynomolgus monkey (Macaca fascicularis). Sjögren I, et al. **Eur J Endocrinol** 1999 Apr; 140(4):350–7

Effects of prolactin and growth hormone on strategies of hypoosmotic adaptation in a marine teleost, Sparus sarba. Kelly SP, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):9–22

The effects of long-term administration of recombinant bovine somatotropin (Posilac) and Synovex on performance, plasma hormone and amino acid concentration, and muscle and subcutaneous fat fatty acid composition in Holstein-Friesian bull calves. Holzer Z, et al. **J Anim Sci** 1999 Jun;77(6):1422–30

Effects of recombinant equine somatotropin on wound healing, carbohydrate and lipid metabolism, and endogenous somatotropin responses to secretagogues in geldings. Smith LA, et al. **J Anim Sci** 1999 Jul; 77(7):1815–22

Angiotensin II blockade followed by growth hormone as adjunctive therapy after experimental myocardial infarction. Hongo M, et al. **J Card Fail** 1998 Sep; 4(3):213–24

Demonstration of in vivo mammogenic and lactogenic effects of recombinant ovine placental lactogen and mammogenic effect of recombinant ovine GH in ewes during artificial induction of lactation. Kann G, et al. **J Endocrinol** 1999 Mar;160(3):365–77

Isolated porcine ovarian follicles as a model for the study of hormone and growth factor action on ovarian secretory activity. Sirotkin AV, et al. **J Endocrinol** 1998 Nov; 159(2):313–21

Insulin-like growth factor (IGF)-I, IGF-II, IGF-binding protein-2 and pregnancy-associated glycoprotein mRNA in pigs with somatotropin-enhanced fetal growth. Sterle JA, et al. **J Endocrinol** 1998 Dec;159(3):441–50

Body composition in children receiving recombinant human growth hormone after renal transplantation. Feber J, et al. **Kidney Int** 1998 Sep;54(3):951–5

Acute leptin regulation in end-stage renal failure: the role of growth hormone and IGF-1 [see comments] Fouque D, et al. **Kidney Int** 1998 Sep;54(3):932–7. Comment in: Kidney Int 1998 Sep;54(3):997–8.

Hormonal modulation of branchial Na+-K+-ATPase subunit mRNA in a marine teleost Sparus sarba. Deane EE, et al. **Life Sci** 1999;64(20):1819–29

Comment on 'The effect of rhGH in vitro on donor-specific hyporesponsiveness in pediatric transplantation [letter; comment] Benfield M. **Pediatr Transplant** 1998 May; 2(2):177. Comment on: Pediatr Transplant 1997 Aug;1(1):90–7.

The effect of rhGH in vitro on donor-specific hyporesponsiveness in pediatric transplantation [see comments] Benfield MR, et al. **Pediatr Transplant** 1997 Aug;1(1):90–7. Comment in: Pediatr Transplant 1998 May;2(2):177.

Chronic effects of somatotropin treatment in vivo and in vitro on lipogenic activity of goat adipose tissue in a glucose-free buffer during acute incubation. Skarda J. **Physiol Res** 1999; 48(1):43–9

[Influence of recombinant growth hormone on protein metabolism during severe infection: an animal experiment] Gu J, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Feb; 35(2):104–7 (Eng. Abstr.) **(Chi)**

[Effect of recombinant growth hormone on amino acids metabolism in blood and urine after major operation] He G, et al.
Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao 1997 Jun; 19(3):192–6 (Eng. Abstr.) **(Chi)**

[The beneficial effects of growth hormone replacement therapy on elderly men] Kozakowski J, et al.
Pol Merkuriusz Lek 1999 Mar;6(33):131–4 (Eng. Abstr.) **(Pol)**

SECRETION

Synthesis and biological activities of spiroheterocyclic growth hormone secretagogues. Chen MH, et al.
Bioorg Med Chem Lett 1999 May 3;9(9):1261–6

THERAPEUTIC USE

Quality of life of young adults with idiopathic short stature: effect of growth hormone treatment. Dutch Growth Hormone Working Group. Rekers-Mombarg LT, et al. **Acta Paediatr** 1998 Aug;87(8):865–70

Short-term growth hormone administration at the time of opportunistic infections in HIV-positive patients. Paton NI, et al. **AIDS** 1999 Jul 9;13(10):1195–202

Evaluation of growth hormone administration in patients with chronic heart failure secondary to coronary artery disease. Spallarossa P, et al. **Am J Cardiol** 1999 Aug 15; 84(4):430–3

Growth hormone found effective in short, healthy children. But when should it be used? [news] Kepple SR.
Am J Health Syst Pharm 1999 Apr 1;56(7):607–8

Reversal of protease inhibitor-related visceral abdominal fat accumulation with recombinant human growth hormone [letter] Mauss S, et al. **Ann Intern Med** 1999 Aug 17; 131(4):313–4

Growth hormone treatment in pediatric burns: a safe therapeutic approach. Ramirez RJ, et al. **Ann Surg** 1998 Oct;228(4):439–48

Metacarpal index in short stature before and during growth hormone treatment. Bettendorf M, et al. **Arch Dis Child** 1998 Aug;79(2):165–8

Diagnostic and therapeutic uses of growth hormone-releasing substances in adult and elderly subjects. Ghigo E, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):341–58 (100 ref.)

Recombinant human growth hormone as potential therapy for osteoporosis. Marcus R.
Baillieres Clin Endocrinol Metab 1998 Jul;12(2):251–60 (43 ref.)

A trial of growth hormone therapy in well-controlled hypophosphataemic rickets. Cameron FJ, et al.
Clin Endocrinol (Oxf) 1999 May;50(5):577–82

Final height after combined growth hormone and gonadotrophin-releasing hormone analogue therapy in short healthy children entering into normally timed puberty. Lanes R, et al. **Clin Endocrinol (Oxf)** 1998 Aug; 49(2):197–202

A placebo-controlled study of growth hormone in patients with congestive heart failure. Isgaard J, et al.
Eur Heart J 1998 Nov;19(11):1704–11

The effect of chronic treatment with GH on gonadal function in men with isolated GH deficiency. Carani C, et al.
Eur J Endocrinol 1999 Mar;140(3):224–30

Growth hormone treatment of osteoporotic postmenopausal women – a one-year placebo-controlled study. Sääf M, et al. **Eur J Endocrinol** 1999 May;140(5):390–9

Although both rhGh and rhIGF-I have the potential to provide clinical benefit, each also has the potential to produce unwanted side-effects [editorial] Le Roith D.
Growth Horm IGF Res 1999 Apr;9(2):83

Management of recombinant human growth hormone therapy at puberty. Albers N. **Horm Res** 1998;49 Suppl 2:58–61 (13 ref.)

Low-dose growth hormone treatment with diet restriction accelerates body fat loss, exerts anabolic effect and improves growth hormone secretory dysfunction in obese adults. Kim KR, et al. **Horm Res** 1999;51(2):78–84

Growth hormone therapy in patients with dilated cardiomyopathy: preliminary observations of a pilot study. Jose VJ, et al. **Indian Heart J** 1999 Mar-Apr;51(2):183–5

HCFA mandates Medicaid reimbursement for AIDS wasting drug [news] **J Assoc Nurses AIDS Care** 1999 Jul-Aug; 10(4):95

The effects of 10 years of recombinant human growth hormone (GH) in adult GH-deficient patients. Gibney J, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2596–602

Changes in muscle volume, strength, and bioenergetics during recombinant human growth hormone (GH) therapy in adults with GH deficiency. Janssen YJ, et al.
J Clin Endocrinol Metab 1999 Jan;84(1):279–84

Serum free insulin-like growth factor I (IGF-I), total IGF-I, and IGF-binding protein-3 concentrations in normal children and children with growth hormone deficiency. Kawai N, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):82–9

Derivation and validation of a mathematical model for predicting the response to exogenous recombinant human growth hormone (GH) in prepubertal children with idiopathic GH deficiency. KIGS International Board. Kabi Pharmacia International Growth Study [see comments] Ranke MB, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1174–83. Comment in: J Clin Endocrinol Metab 1999 Apr;84(4):1172–3.

A mathematical model for predicting growth response to growth hormone replacement therapy--a useful clinical tool or an intellectual exercise? [editorial; comment] Rosenbloom AL. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1172–3. Comment on: J Clin Endocrinol Metab 1999 Apr;84(4):1174–83.

Effect of recombinant bovine somatotropin on milk production and composition of cows with Streptococcus uberis mastitis. Hoeben D, et al. **J Dairy Sci** 1999 Aug; 82(8):1671–83

One-year treatment with recombinant human growth hormone of children with meningomyelocele and growth hormone deficiency: a comparison of supine length and arm span. Hochhaus F, et al.
J Pediatr Endocrinol Metab 1999 Mar-Apr;12(2):153–9

The effect of growth hormone treatment on stature in Aarskog syndrome. Petryk A, et al.
J Pediatr Endocrinol Metab 1999 Mar-Apr;12(2):161–5

Plasma leptin levels in trauma patients: effect of adjuvant recombinant human growth hormone in intravenously fed multiple trauma patients. Jeevanandam M, et al.
JPEN J Parenter Enteral Nutr 1998 Nov-Dec;22(6):340–6

Growth hormone therapy in dilated cardiomyopathy monitored with MRI. Friedrich MG, et al. **MAGMA** 1998 Sep;6(2–3):152–4

31P-MR spectroscopy in human end-stage heart failure during therapy with recombinant human growth hormone. Wittlinger T, et al. **MAGMA** 1998 Sep;6(2–3):171–2

Gender difference in the response of growth hormone (GH)-deficient adults to GH therapy. Hayes FJ, et al.
Metabolism 1999 Mar;48(3):308–13

High-affinity growth hormone (GH)-binding protein (GHBP), body fat mass, and insulin-like growth factor-binding protein-3 predict the GHBP response to GH therapy in adult GH deficiency syndrome. Roelen CA, et al. **Metabolism** 1999 Mar;48(3):314–8

Carbohydrate and lipid metabolism during various growth hormone dosing regimens in girls with Turner syndrome. Dutch Working Group on Growth Hormone. van Teunenbroek A, et al. **Metabolism** 1999 Jan;48(1):7–14

Factors affecting growth and strategies for treatment in children after renal transplantation. Tönshoff B, et al.
Pediatr Transplant 1997 Nov;1(2):176–82 (37 ref.)

Growth hormone stimulation test results as predictors of recombinant human growth hormone treatment outcomes: preliminary analysis of the national cooperative growth study database. Bright GM, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1028–31

Regular monitoring of bone age is useful in children treated with growth hormone. Kaufman FR, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1039–42

Analysis of bone age data from national cooperative growth study substudy VII. Kemp SF, et al. **Pediatrics** 1999 Oct; 104(4 Pt 2):1031–6

Regular monitoring of bone age is not useful in children treated with growth hormone. Wilson DM. **Pediatrics** 1999 Oct;104(4 Pt 2):1036–9

Melanocytic nevi in children treated with growth hormone. Wyatt D. **Pediatrics** 1999 Oct;104(4 Pt 2):1045–50

Does growth hormone therapy in conjunction with resistance exercise increase muscle force production and muscle mass in men and women aged 60 years or older? Zachwieja JJ, et al. **Phys Ther** 1999 Jan;79(1):76–82 (38 ref.)

Nasal airflow in growth hormone treatment. Ellegård E, et al. **Rhinology** 1998 Jun;36(2):66–8

[Therapy of dilated cardiomyopathy with growth hormone (letter)] Dreifuss P. **Z Kardiol** 1999 Apr;88(4):300–1 **(Ger)**

SOMATOTYPES

Factor analysis and somatotyping, are these two physique classification methods comparable? Susanne C, et al.
Ann Hum Biol 1998 Sep-Oct;25(5):405–14

BMI and Heath-Carter somatotypes of female students in Ljubljana. Zerbo D, et al. **Coll Antropol** 1998 Dec; 22(2):451–63

A woman's build and the risk of breast cancer. Cold S, et al. **Eur J Cancer** 1998 Jul;34(8):1163–74 (129 ref.)

Differences in the relationship between body fat and body mass index between two different Indonesian ethnic groups: the effect of body build. Gurrici S, et al.
Eur J Clin Nutr 1999 Jun;53(6):468–72

Reproductive and occupational stereotypes of bodily curvaceousness and weight. Barber N. **J Soc Psychol** 1999 Apr;139(2):247–9

Importance of typologies for science and service in mental retardation. Fidler DJ, et al. **Ment Retard** 1998 Dec; 36(6):489–95

One number fits all? Why typology is poor science. Gelb SA. **Ment Retard** 1998 Dec;36(6):496–8

Chinese and American college students' body-image: perceived body shape and body affect. Chen W, et al.
Percept Mot Skills 1998 Oct;87(2):395–403

[Body build related body composition and nutrition in adulthood--a comparison of skinfold thickness measurement and bioelectric impedance analysis] Trippo U, et al. **Anthropol Anz** 1998 Dec;56(4):335–49 (Eng. Abstr.) **(Ger)**

[Body fat distribution in a Swiss population: the AIR94 Study. Epidemiology and consequences for clinical practice] Suter PM, et al. **Schweiz Rundsch Med Prax** 1998 Sep 9;87(37):1170–6 (Eng. Abstr.) **(Ger)**

[Anorexia nervosa--the triad of metric index, BMI age-specific percentile curve and goal weight] Neumärker KJ, et al. **Z Kinder Jugendpsychiatr Psychother** 1999 Feb; 27(1):5–17 (Eng. Abstr.) **(Ger)**

[Somatotype as an indicator of individual growth rates and maturation of a child] Sukhanova NN. **Gig Sanit** 1998 Sep-Oct;(5):36–7 (Eng. Abstr.) **(Rus)**

[Body weight--a quantity integrated with the development of multidirectional signs characterizing the human body] Shaparenko PF. **Morfologiia** 1999;116(4):64–7 (Eng. Abstr.) **(Rus)**

[Constitutional features of cardiovascular shadow characteristics] Sokolov VV, et al. **Morfologiia** 1999; 115(2):25–9 (Eng. Abstr.) **(Rus)**

PHYSIOLOGY

Patterns of body fat deposition in youth and their relation to left ventricular markers of adverse cardiovascular prognosis. Mensah GA, et al. **Am J Cardiol** 1999 Sep 1; 84(5):583–8

Interactions between somatometric parameters and endogenous hormone levels as well as hormonal induced events in females. Kirchengast S. **Anthropol Anz** 1998 Sep; 56(3):251–65

Relationship of somatotype and physical characteristics to distance running performance in middle age runners. Berg K, et al. **J Sports Med Phys Fitness** 1998 Sep;38(3):253–7

SOMATREM

PHARMACOLOGY

Short-term anabolic effects of recombinant human growth

hormone in young patients with a renal transplant. Ghio L, et al. **Transpl Int** 1998;11 Suppl 1:S69–72

THERAPEUTIC USE

National Cooperative Growth Study: Guidance in Growth. Proceedings of the National Cooperative Growth Study 12th Annual Investigators Meeting. New Orleans, Louisiana, USA. October 8–11, 1998. **Pediatrics** 1999 Oct; 104(4 Pt 2):999–1049

SOMATROPIN

Growth hormone insensitivity: physiologic and genetic basis, phenotype, and treatment. Rosenbloom AL. **J Pediatr** 1999 Sep;135(3):280–9 (45 ref.)

Charges fly in $1bn hormone patent battle [news] Dalton R. **Nature** 1999 May 27;399(6734):289

Statement from Peter Seeburg [letter] Seeburg PH. **Nature** 1999 May 27;399(6734):298

No winners in patent shootout [news] Barinaga M. **Science** 1999 Jun 11;284(5421):1752–3

UC–Genentech trial [letter; comment] Henner D, et al. **Science** 1999 May 28;284(5419):1465. Comment on: Science 1999 May 7;284(5416):883, 885–6.

UC–Genentech trial [letter; comment] Seeburg PH. **Science** 1999 May 28;284(5419):1465–6. Comment on: Science 1999 May 7;284(5416):883, 885–6.

ADMINISTRATION & DOSAGE

Effect of growth hormone (GH) during puberty in GH–deficient children: preliminary results from an ongoing randomized trial with different dose regimens. Albertsson Wikland K, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):80–4

Can growth hormone counteract the effects of glucocorticoids on protein metabolism? Beaufrère B. **Acta Paediatr Suppl** 1999 Feb;88(428):97–9 (24 ref.)

Final height of growth hormone–treated patients with growth hormone deficiency: the North American experience. Hintz RL. **Acta Paediatr Suppl** 1999 Feb; 88(428):70–1

Growth hormone therapy in hypochondroplasia. Ramaswami U, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):116–7 (9 ref.)

Short–term increments of insulin–like growth factor I (IGF–I) and IGF–binding protein–3 predict the growth response to growth hormone (GH) therapy in GH–sensitive children. Schwarze CP, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):200–8

Molecular defects in achondroplasia and the effects of growth hormone treatment. Seino Y, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):118–20

Growth hormone treatment of short stature and metabolic dysfunction in juvenile chronic arthritis. Simon D, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):100–5

When and how to combine growth hormone with a luteinizing hormone–releasing hormone analogue. Tanaka T, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):85–8

High–dose growth hormone (GH) treatment in prepubertal GH–deficient children. Yokoya S, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):76–9

Final height in girls with Turner's syndrome treated with once or twice daily growth hormone injections. Dutch Advisory Group on Growth Hormone. Sas TC, et al. **Arch Dis Child** 1999 Jan;80(1):36–41

Comparison of the anabolic effects and complications of human growth hormone and the testosterone analog, oxandrolone, after severe burn injury. Demling RH. **Burns** 1999 May;25(3):215–21

Administration of a glucocorticoid with depot effect counteracts the stimulating effect of growth hormone on cancellous and cortical bone of the vertebral body in rats. Ortoft G, et al. **Calcif Tissue Int** 1998 Jul;63(1):14–21

GH replacement in 1034 growth hormone deficient hypopituitary adults: demographic and clinical characteristics, dosing and safety. Abs R, et al. **Clin Endocrinol (Oxf)** 1999 Jun;50(6):703–13

The IGF–I response to very low rhGH doses is preserved in human ageing. Arvat E, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):757–63

Weight relative to height before and during growth hormone therapy in prepubertal children. Kaplowitz PB, et al. **Horm Metab Res** 1998 Sep;30(9):565–9

Serum leptin concentrations during short–term administration of growth hormone and triiodothyronine in healthy adults: a randomised, double–blind placebo–controlled study. Wolthers T, et al. **Horm Metab Res** 1999 Jan;31(1):37–40

The effect of different growth hormone administration frequencies on growth in growth hormone–deficient patients. Cavallo L, et al. **Horm Res** 1998;49 Suppl 2:73–7

Recombinant human growth hormone decreases lung and liver tissue lipid peroxidation and increases antioxidant activity after thermal injury in rats. Youn YK, et al. **J Burn Care Rehabil** 1998 Nov–Dec;19(6):542–8

Serum leptin response to the acute and chronic administration of growth hormone (GH) to elderly subjects with GH deficiency. Gill MS, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1288–95

Growth hormone treatment in children with short stature born small for gestational age: 5–year results of a randomized, double–blind, dose–response trial. Sas T, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3064–70

Acute metabolic effects of human growth hormone on 15N–nitrogen balance in patients with thalassaemia as compared to patients with other types of short stature. Zachmann M, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:851–6 (30 ref.)

Small bowel adaptation with growth hormone and glutamine after massive resection of rat's small bowel. Waitzberg DL, et al. **Nutr Hosp** 1999 Mar–Apr;14(2):81–90 (66 ref.)

ADVERSE EFFECTS

Metabolic effects of discontinuing growth hormone treatment. Cowan FJ, et al. **Arch Dis Child** 1999 Jun; 80(6):517–23

Dose–related effects of growth hormone on IGF–1 and IGF–binding protein–3 levels in non–islet cell tumour hypoglycaemia. Drake WM, et al. **Eur J Endocrinol** 1998 Nov;139(5):532–6

Different effects of continuous and intermittent patterns of growth hormone administration on lipoprotein levels in growth hormone–deficient patients. Laursen T, et al. **Horm Res** 1998;50(5):284–91

Recent status in the occurrence of leukemia in growth hormone–treated patients in Japan. GH Treatment Study Committee of the Foundation for Growth Science, Japan. Nishi Y, et al. **J Clin Endocrinol Metab** 1999 Jun; 84(6):1961–5

Long–term effects of growth hormone (GH) replacement in men with childhood–onset GH deficiency. ter Maaten JC, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2373–80

Can growth hormone treatment in boys without growth hormone deficiency impair testicular function? [see comments] Bertelloni S, et al. **J Pediatr** 1999 Sep; 135(3):367–70. Comment in: J Pediatr 1999 Sep;135(3):278–9.

A red flag unfurled? Growth hormone treatment and testicular function [editorial; comment] Frasier SD. **J Pediatr** 1999 Sep;135(3):278–9 (11 ref.). Comment on: J Pediatr 1999 Sep;135(3):367–70.

Does growth hormone augment brain edema caused by brain injury? A study with a freeze brain injury model in the rat. Yamamura H, et al. **J Trauma** 1999 Feb;46(2):292–6

Growth hormone therapy in critically ill patients [editorial; comment] Demling R. **N Engl J Med** 1999 Sep 9; 341(11):837–9. Comment on: N Engl J Med 1999 Sep 9;341(11):785–92.

Increased mortality associated with growth hormone treatment in critically ill adults [see comments] Takala J, et al. **N Engl J Med** 1999 Sep 9;341(11):785–92. Comment in: N Engl J Med 1999 Sep 9;341(11):837–9.

Pseudotumor cerebri in children receiving recombinant human growth hormone. Rogers AH, et al. **Ophthalmology** 1999 Jun;106(6):1186–9; discussion 1189–90

Multiple drug use and dietary restraint in a Mr. Universe competitor: psychobiological effects. Wilson–Fearon C, et al. **Percept Mot Skills** 1999 Apr;88(2):579–80

[Iatrogenic Creutzfeld–Jakob disease. Significance of cases observed after extracted growth hormone treatment (editorial)] Billette de Villemeur T. **Rev Neurol (Paris)** 1998 Oct;154(10):651–2 **(Fre)**

[Creutzfeldt–Jakob disease after treatment with growth hormone: the point in July, 1998] Brandel JP, et al. **Rev Neurol (Paris)** 1998 Oct;154(10):654–5 **(Fre)**

ANALOGS & DERIVATIVES

Stable production of a human growth hormone antagonist from CHO cells adapted to serum–free suspension culture. Haldankar R, et al. **Biotechnol Prog** 1999 May–Jun; 15(3):336–46

ANALYSIS

Growth hormone excess in a child with neurofibromatosis type 1 and optic pathway tumor: a patient report. Fuqua JS, et al. **Clin Pediatr (Phila)** 1998 Dec;37(12):749–52

Registration system for growth hormone (GH) treatment with standardized immunoreactive GH values in Japan. Tanaka T, et al. **Endocr J** 1998 Aug;45(4):459–65

International standards for growth hormone. Bristow AF. **Horm Res** 1999;51 Suppl 1:7–12

Quantifying biosynthetic human growth hormone in Escherichia coli with capillary electrophoresis under hydrophobic conditions. Jørgensen TK, et al. **J Chromatogr A** 1998 Aug 21;817(1–2):205–14

Construction of a specific and sensitive sandwich enzyme immunoassay for 20 kDa human growth hormone. Hashimoto Y, et al. **J Immunol Methods** 1998 Dec 1; 221(1–2):77–85

[Growth hormone and its effects on cholesterol and lipoprotein metabolism following surgical intervention (hGH and cholesterol metabolism during surgery)] Martin R, et al. **Nutr Hosp** 1998 Jul–Aug;13(4):181–5 (Eng. Abstr.) **(Spa)**

ANTAGONISTS & INHIBITORS

Stable production of a human growth hormone antagonist from CHO cells adapted to serum–free suspension culture. Haldankar R, et al. **Biotechnol Prog** 1999 May–Jun; 15(3):336–46

The human growth hormone antagonist B2036 does not interact with the prolactin receptor. Goffin V, et al. **Endocrinology** 1999 Aug;140(8):3853–6

Studies with a growth hormone antagonist and dual–fluorescent confocal microscopy demonstrate that the full–length human growth hormone receptor, but not the truncated isoform, is very rapidly internalized independent of Jak2–Stat5 signaling. Maamra M, et al. **J Biol Chem** 1999 May 21;274(21):14791–8

BIOSYNTHESIS

Growth disorders caused by genetic defects in the growth hormone pathway. Cogan JD, et al. **Adv Pediatr** 1998; 45:337–61 (46 ref.)

A patient with GH–producing pituitary adenoma presenting with a binasal superior quadrantanopsia [letter] Nagai Y, et al. **Endocr J** 1999 Apr;46(2):345–6

In vivo delivery of recombinant human growth hormone from genetically engineered human fibroblasts implanted within Baxter immunoisolation devices. Josephs SF, et al. **J Mol Med** 1999 Jan;77(1):211–4

[The release of growth hormone in response to injection of trihexiphenidyl in patients with Alzheimer's disease, multi infarction dementia and in schizophrenic patients with intact cognitive functions (preliminary results)] Salganik I. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(5):53–4 **(Rus)**

BLOOD

Actions of estrogen on pulsatile, nyctohemeral, and entropic modes of growth hormone secretion. Shah N, et al. **Am J Physiol** 1999 May;276(5 Pt 2):R1351–8

Decreased serum levels of insulin–like growth factor (IGF)–I in patients with lung cancer: temporal relationship with growth hormone (GH) levels. Mazzoccoli G, et al. **Anticancer Res** 1999 Mar–Apr;19(2B):1397–9

Growth hormone, insulin–like growth factor–I and insulin–like growth factor binding protein–3 are regulated differently in small–for–gestational–age and appropriate–for–gestational–age neonates. Cance–Rouzaud A, et al. **Biol Neonate** 1998;73(6):347–55

Growth hormone, insulin–like growth factors and their binding proteins in adult hemodialysis patients treated with recombinant human growth hormone. Jensen PB, et al. **Clin Nephrol** 1999 Aug;52(2):103–9

Behavioral, cardiovascular, and neuroendocrine profiles following CCK–4 challenge in healthy volunteers: a comparison of panickers and nonpanickers. Koszycki D, et al. **Depress Anxiety** 1998;8(1):1–7

Failure of nocturnal changes in growth hormone to alter carbohydrate tolerance the following morning. Nielsen MF, et al. **Diabetologia** 1998 Sep;41(9):1064–72

Can we predict diabetic complications by examining GH response to GH–RH infusion test in patients with NIDDM? Iizuka T, et al. **Endocr J** 1998 Apr;45 Suppl:S77–80

An acromegalic patient with pulsatile secretion of growth hormone (GH) coincident with the slow–wave sleep. Matsuno M, et al. **Endocr J** 1998 Oct;45(5):687–92

Growth hormone responses to continuous and intermittent exercise in females under oral contraceptive therapy. Bernardes RP, et al. **Eur J Appl Physiol** 1998 Dec; 79(1):24–9

Influence of training on the response to exercise of adrenocorticotropin and growth hormone plasma concentrations in human swimmers. Bonifazi M, et al. **Eur J Appl Physiol** 1998 Oct;78(5):394–7

Normal spontaneous and stimulated GH levels despite decreased IGF–I concentrations in cystic fibrosis patients. Laursen EM, et al. **Eur J Endocrinol** 1999 Apr; 140(4):315–21

Paradoxical GH response to TRH during status epilepticus in man. Lindbom U, et al. **Eur J Endocrinol** 1999 Apr; 140(4):307–14

Effect of opioid blockade on insulin and growth hormone (GH) secretion in patients with polycystic ovary syndrome: the heterogeneity of impaired GH secretion is related to both obesity and hyperinsulinism. Villa P, et al. **Fertil Steril** 1999 Jan;71(1):115–21

Differences in reproducibility and peak growth hormone responses to repeated testing with various stimulators in healthy adults. Hoeck HC, et al. **Growth Horm IGF Res** 1999 Feb;9(1):18–24

Growth hormone–insulin–like growth factor–I axis in adult insulin–dependent diabetic patients: evidence for central hypersensitivity to growth hormone–releasing hormone and peripheral resistance to growth hormone. Fainstein Day P, et al. **Horm Metab Res** 1998 Dec;30(12):737–42

Growth hormone heterogeneity in human pituitary and plasma. Baumann G. **Horm Res** 1999;51 Suppl 1:2–6 (22 ref.)

Variety in growth hormone determinations due to use of different immunoassays and to the interference of growth hormone–binding protein. Ebdrup L, et al. **Horm Res** 1999; 51 Suppl 1:20–6

Suppression of growth hormone by oral glucose in the evaluation of tall stature. Holl RW, et al. **Horm Res** 1999; 51(1):20–4

Low–dose growth hormone treatment with diet restriction accelerates body fat loss, exerts anabolic effect and improves growth hormone secretory dysfunction in obese adults. Kim KR, et al. **Horm Res** 1999;51(2):78–84

Consensus on how to measure growth hormone in serum. Ranke MB, et al. **Horm Res** 1999;51 Suppl 1:27–9

Serum growth hormone measurements in clinical practice: An audit of performance from the UK National External Quality Assessment scheme. Seth J, et al. **Horm Res** 1999; 51 Suppl 1:13–9

Hypothalamic histamine, growth rate, plasma prolactin and growth hormone levels in rats with long-term portacaval anastomosis. Lozeva V, et al. **Inflamm Res** 1999 Feb; 48(2):81–5

GH/IGF-I axis in azoospermia in primary and secondary hypogonadism: a study before and during replacement therapy. Carani C, et al. **Int J Androl** 1999 Jun;22(3):184–9

Evaluation of pre- and postprandial growth hormone (GH)-releasing hormone-induced GH response in subjects with persistent body weight normalisation after biliopancreatic diversion. De Marinis L, et al. **Int J Obes Relat Metab Disord** 1998 Oct;22(10):1011–8

Impact of acute exercise intensity on pulsatile growth hormone release in men. Pritzlaff CJ, et al. **J Appl Physiol** 1999 Aug;87(2):498–504

Growth hormone (GH) response to GH-releasing peptide-6 in type 1 diabetic patients with exaggerated GH-releasing hormone-stimulated GH secretion. Catalina PF, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3663–7

Effect of growth hormone (GH) and insulin-like growth factor I on prostate diseases: an ultrasonographic and endocrine study in acromegaly, GH deficiency, and healthy subjects. Colao A, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1986–91

Serum levels of 20-kilodalton human growth hormone (GH) are parallel those of 22-kilodalton human GH in normal and short children. Ishikawa M, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):98–104

Obesity attenuates the growth hormone response to exercise. Kanaley JA, et al. **J Clin Endocrinol Metab** 1999 Sep; 84(9):3156–61

Selective lack of growth hormone (GH) response to the GH-releasing peptide hexarelin in patients with GH-releasing hormone receptor deficiency. Maheshwari HG, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):956–9

Effect of growth hormone (GH) on serum concentrations of leptin: study in patients with acromegaly and GH deficiency. Miyakawa M, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3476–9

Insulin, insulin-like growth factor I (IGF-I), IGF-binding protein-1, growth hormone, and feeding in the newborn. Ogilvy-Stuart AL, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3550–7

Time mode of growth hormone (GH) entry into the bloodstream and steady-state plasma GH concentrations, rather than sex, estradiol, or menstrual cycle stage, primarily determine the GH elimination rate in healthy young women and men. Shah N, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2862–9

Growth hormone (GH) receptor blockade with a PEG-modified GH (B2036-PEG) lowers serum insulin-like growth factor-I but does not acutely stimulate serum GH. Thorner MO, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2098–103

Serum concentration of 20K human growth hormone (20K hGH) measured by a specific enzyme-linked immunosorbent assay. Study Group of 20K hGH. Tsushima T, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):317–22

Blunted growth hormone response to maximal exercise in middle-aged versus young subjects and no effect of endurance training. Zaccaria M, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2303–7

Tyr-Ala-Hexarelin, a synthetic octapeptide, possesses the same endocrine activities of Hexarelin and GHRP-2 in humans. Arvat E, et al. **J Endocrinol Invest** 1999 Feb; 22(2):91–7

IGF-I levels rise and GH responses to GHRH decrease during long-term prednisone treatment in man. Borges MH, et al. **J Endocrinol Invest** 1999 Jan;22(1):12–7

Growth hormone secretion in Prader-Willi syndrome. Grosso S, et al. **J Endocrinol Invest** 1998 Jul-Aug; 21(7):418–22

Different effects of octreotide by continuous night infusion at increasing rate or by evening injections at different times on morning hyperglycemia and growth hormone levels in insulin-dependent diabetic patients. Lunetta M, et al. **J Endocrinol Invest** 1998 Jul-Aug;21(7):454–8

Growth hormone binding protein activity in obese children. Seminara S, et al. **J Endocrinol Invest** 1998 Jul-Aug; 21(7):441–4

Spontaneous pulsatility and pharmacokinetics of growth hormone in liver cirrhotic patients. Baruch Y, et al. **J Hepatol** 1998 Oct;29(4):559–64

Growth hormone/insulin-like growth factor I axis alterations contribute to disturbed protein metabolism in cirrhosis patients after hepatectomy. Inaba T, et al. **J Hepatol** 1999 Aug;31(2):271–6

The hormonal response to stress is not modified by the dramatic decrease in prolactin plasma concentration during surgery for microprolactinoma. Guieu R, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):502–7

Differential effects of octreotide treatment and transsphenoidal surgery on growth hormone-binding protein levels in patients with acromegaly. Hernandez I, et al. **J Neurosurg** 1999 Apr;90(4):647–50

Possible role of plasma neurotensin on growth hormone regulation in neonates. Bozzola M, et al. **J Pediatr Endocrinol Metab** 1998 Sep-Oct;11(5):607–13

Elevated response of growth hormone to graded doses of apomorphine in schizophrenic patients. Müller-Spahn F, et al. **J Psychiatr Res** 1998 Sep-Oct;32(5):265–71

Failure of the clonidine growth hormone stimulation test to differentiate multiple system atrophy from early or advanced idiopathic Parkinson's disease [letter] [see comments] Clarke CE, et al. **Lancet** 1999 Apr 17; 353(9161):1329–30. Comment in: Lancet 1999 Jul 24;354(9175):339–40.

Detection of doping with human growth hormone [letter] [see comments] Wu Z, et al. **Lancet** 1999 Mar 13; 353(9156):895. Comment in: Lancet 1999 May 1;353(9163):1532.

The hypothalamic-pituitary response in SLE. Regulation of prolactin, growth hormone and cortisol release. Rovenský J, et al. **Lupus** 1998;7(6):409–13

Adipose tissue distribution and behaviour of selected gastro-entero-pancreatic hormones, glycaemia, growth hormone and somatomedin C in obese children. Zajadacz B. **Mater Med Pol** 1998 Jan-Jun;30(1-2):20–7

Natural immunity and bone and muscle remodelling hormones in the elderly. Mariani E, et al. **Mech Ageing Dev** 1998 May 15;102(2-3):279–92

Increased serum levels of growth hormone and insulin-like growth factor-I associated with simultaneous decrease of circulating insulin in postmenopausal women receiving hormone replacement therapy. Fonseca E, et al. **Menopause** 1999 Spring;6(1):56–60

Long-term effects of recombinant human erythropoietin therapy on growth hormone secretion in uremic patients undergoing peritoneal dialysis. Diez JJ, et al. **Metabolism** 1999 Feb;48(2):210–6

Elevated insulin levels contribute to the reduced growth hormone (GH) response to GH-releasing hormone in obese subjects. Lanzi R, et al. **Metabolism** 1999 Sep;48(9):1152–6

Growth hormone (GH) response to GH-releasing peptide-6 and GH-releasing hormone in normal-weight and overweight patients with non-insulin-dependent diabetes mellitus. Micić D, et al. **Metabolism** 1999 Apr;48(4):525–30

Growth hormone response to hexarelin, growth hormone-releasing hormone plus pyridostigmine and arginine plus estrogen in prepubertal and early pubertal short children. Guzzaloni G, et al. **Minerva Endocrinol** 1998 Dec;23(4):99–104

Relationship between cognitive function, growth hormone and insulin-like growth factor I plasma levels in aged subjects. Rollero A, et al. **Neuropsychobiology** 1998; 38(2):73–9

Growth hormone response to growth hormone-releasing hormone stimulation in obsessive-compulsive disorder. Brambilla F, et al. **Psychiatry Res** 1998 Dec 14;81(3):293–9

Association of depressiveness with blunted growth hormone response to maximal physical exercise in young healthy men. Harro J, et al. **Psychoneuroendocrinology** 1999 Jul; 24(5):505–17

Effects of mirtazapine on growth hormone, prolactin, and cortisol secretion in healthy male subjects. Laakmann G, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):769–84

Sleep and endocrine changes after intranasal administration of growth hormone-releasing hormone in young and aged humans. Perras B, et al. **Psychoneuroendocrinology** 1999 Oct;24(7):743–57

Growth hormone response to baclofen in patients with seasonal affective disorder: effects of light therapy. Shiah IS, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):143–53

[Serum levels of growth hormone and insulin-like growth factor in women with empty sella] Krzysiek JA, et al. **Przegl Lek** 1998;55(2):51–6 (Eng. Abstr.) **(Pol)**

CHEMISTRY

Tween protects recombinant human growth hormone against agitation-induced damage via hydrophobic interactions. Bam NB, et al. **J Pharm Sci** 1998 Dec;87(12):1554–9

On the structural preservation of recombinant human growth hormone in a dried film of a synthetic biodegradable polymer. Carrasquillo KG, et al. **J Pharm Sci** 1999 Feb; 88(2):166–73

Effect of excipients on the stability and structure of lyophilized recombinant human growth hormone. Costantino HR, et al. **J Pharm Sci** 1998 Nov;87(11):1412–20

Use of infrared spectroscopy to assess secondary structure of human growth hormone within biodegradable microspheres. Yang TH, et al. **J Pharm Sci** 1999 Feb; 88(2):161–5

Expression, folding, and characterization of small proteins with increasing disulfide complexity by a pT7-7-derived phagemid. Peterson FC, et al. **Protein Expr Purif** 1999 Feb; 15(1):16–23

Macromolecular docking of a three-body system: the recognition of human growth hormone by its receptor [published erratum appears in Protein Sci 1999 Jul;8(7):1566] Hendrix DK, et al. **Protein Sci** 1999 May; 8(5):1010–22

DEFICIENCY

Dental maturity in children of short stature--a two-year longitudinal study of growth hormone substitution. Krekmanova L, et al. **Acta Odontol Scand** 1999 Apr; 57(2):93–6

Reduced spontaneous growth hormone secretion in patients with Turner's syndrome. Pirazzoli P, et al. **Acta Paediatr** 1999 Jun;88(6):610–3

Effect of growth hormone (GH) during puberty in GH-deficient children: preliminary results from an ongoing randomized trial with different dose regimens. Albertsson Wikland K, et al. **Acta Paediatr Suppl** 1999 Feb; 88(428):80–4

Final height of growth hormone-treated patients with growth hormone deficiency: the North American experience. Hintz RL. **Acta Paediatr Suppl** 1999 Feb; 88(428):70–1

High-dose growth hormone (GH) treatment in prepubertal GH-deficient children. Yokoya S, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):76–9

MR imaging in idiopathic growth hormone deficiency. Hamilton J, et al. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1609–15

MR findings in growth hormone deficiency: correlation with severity of hypopituitarism. Kornreich L, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1495–9

Familial growth hormone deficiency associated with MRI abnormalities. Hamilton J, et al. **Am J Med Genet** 1998 Nov 2;80(2):128–32

Strength and its relationship to changes in fat-free mass, total body potassium, total body water and IGF-1 in adults with growth hormone deficiency: effect of treatment with growth hormone. Bell W, et al. **Ann Hum Biol** 1999 Jan-Feb;26(1):63–78

The genie in the bottle [letter; comment] Bernstein M. **Ann Intern Med** 1998 Dec 15;129(12):1082. Comment on: Ann Intern Med 1998 Apr 1;128(7):595–6.

Metabolic effects of discontinuing growth hormone treatment. Cowan FJ, et al. **Arch Dis Child** 1999 Jun; 80(6):517–23

Failure of IGF-I and IGFBP-3 to diagnose growth hormone insufficiency. Mitchell H, et al. **Arch Dis Child** 1999 May; 80(5):443–7

Severe and recurrent fasting hypoglycemia due to growth hormone deficiency? [letter] Fukui M, et al. **Arch Intern Med** 1999 Sep 13;159(16):1954–5

Impact of recombinant human growth hormone (RH-GH) treatment on psychiatric, neuropsychological and clinical profiles of GH deficient adults. A placebo-controlled trial. Soares C de N, et al. **Arq Neuropsiquiatr** 1999 Jun; 57(2A):182–9

Diagnostic and therapeutic uses of growth hormone-releasing substances in adult and elderly subjects. Ghigo E, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):341–58 (100 ref.)

Growth hormone deficiency and cardiovascular risk. Hew FL, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):199–216 (74 ref.)

Growth hormone therapy and fracture risk in the growth hormone-deficient adult. Johannsson G, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):233–50 (107 ref.)

The absorption profile and availability of a physiological subcutaneously administered dose of recombinant human growth hormone (GH) in adults with GH deficiency. Janssen YJ, et al. **Br J Clin Pharmacol** 1999 Mar;47(3):273–8

Hemorheology of growth hormone-deficient adults. Peyreigne C, et al. **Clin Hemorheol Microcirc** 1999; 20(3):167–74

Growth hormone deficiency in a child with sarcoidosis [letter] Basdemir D, et al. **Clin Pediatr (Phila)** 1999 May; 38(5):315–6

Growth hormone (GH) receptor and IGF-I receptor messenger RNA expression in peripheral lymphocytes from patients with GH deficiency and acromegaly. Fukuda I, et al. **Endocr J** 1998 Apr;45 Suppl:S109–12

Changes in levels of serum and urinary collagen-related substances in growth hormone deficient children following discontinuation of growth hormone therapy. Kuno T, et al. **Endocr J** 1998 Apr;45 Suppl:S151–3

Slipped capital femoral epiphysis, Perthes' disease and scoliosis in children with growth hormone deficiency. Nishi Y, et al. **Endocr J** 1998 Apr;45 Suppl:S167–9

The effect of chronic treatment with GH on gonadal function in men with isolated GH deficiency. Carani C, et al. **Eur J Endocrinol** 1999 Mar;140(3):224–30

Effects of 42 months of GH treatment on bone mineral density and bone turnover in GH-deficient adults. Välimäki MJ, et al. **Eur J Endocrinol** 1999 Jun;140(6):545–54

Growth hormone treatment in a child with Williams-Beuren syndrome: a case report. Kuijpers GM, et al. **Eur J Pediatr** 1999 Jun;158(6):451–4

Adult growth hormone deficiency syndrome: a personal approach to diagnosis, treatment and monitoring. Cook DM. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:129–33 (26 ref.)

Growth hormone binding protein correlates strongly with leptin and percentage body fat in GH-deficient adults, is increased by GH replacement but does not predict IGF-I response. Florkowski CM, et al. **Growth Horm IGF Res** 1999 Feb;9(1):35–40

Evidence supporting a direct suppressive effect of growth hormone on serum IGFBP-1 levels. Experimental studies in normal, obese and GH-deficient adults. Nørrelund H, et al. **Growth Horm IGF Res** 1999 Feb;9(1):52–60

The use of growth hormone (GH) secretagogues in the diagnosis of GH deficiency in humans. Peino R, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:101–5 (38 ref.)

Growth hormone (GH) and atherosclerosis: changes in

morphology and function of major arteries during GH treatment. Pfeifer M, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:25–30

Absence of catch–down growth in Russell–Silver syndrome after short–term growth hormone treatment. Azcona C, et al. **Horm Res** 1999;51(1):47–9

The effect of different growth hormone administration frequencies on growth in growth hormone–deficient patients. Cavallo L, et al. **Horm Res** 1998;49 Suppl 2:73–7

Effects of recombinant human growth hormone on height and skeletal maturation in growth hormone–deficient children with and without severe pretreatment bone age delay. Frindik JP, et al. **Horm Res** 1999;51(1):15–9

Effects of growth hormone replacement therapy on IGF–related parameters and on the pituitary–gonadal axis in GH–deficient males. A double–blind, placebo–controlled crossover study. Juul A, et al. **Horm Res** 1998;49(6):269–78

Different effects of continuous and intermittent patterns of growth hormone administration on lipoprotein levels in growth hormone–deficient patients. Laursen T, et al. **Horm Res** 1998;50(5):284–91

Growth hormone replacement in an adult with mild growth hormone deficiency and hereditary motor and sensory neuropathy: growth hormone restores independent mobility. Lissett CA, et al. **Horm Res** 1998;50(4):232–6

Near–normal linear growth in the setting of markedly reduced growth hormone and IGF–1. A case report. Murashita M, et al. **Horm Res** 1999;51(4):184–8

KIGS and KIMS as tools for evidence–based medicine. Ranke MB, et al. **Horm Res** 1999;51 Suppl 1:83–6

Plasma levels of insulin–like growth factor (IGF)–I, IGF–II and IGF–binding protein–3 in the evaluation of childhood growth hormone deficiency. Rikken B, et al. **Horm Res** 1998 Sep;50(3):166–76

Diagnosis and treatment of growth hormone deficiency in children and adolescents: towards a consensus. Ten years after the Availability of Recombinant Human Growth Hormone Workshop held in Pisa, Italy, 27–28 March 1998. Saggese G, et al. **Horm Res** 1998;50(6):320–40 (101 ref.)

Three cases of congenital growth hormone deficiency with micropenis and hypospadias: what does growth hormone have to do with it? Urzola A, et al. **Horm Res** 1999; 51(2):101–4

Validity of height velocity as a diagnostic criterion for idiopathic growth hormone deficiency and Turner syndrome. Van den Broeck J, et al. **Horm Res** 1999; 51(2):68–73

Interpretative difficulties with growth hormone provocative retesting in childhood–onset growth hormone deficiency. Van den Broeck J, et al. **Horm Res** 1999;51(1):1–9 (74 ref.)

The molecular genetics of growth hormone deficiency. Procter AM, et al. **Hum Genet** 1998 Sep;103(3):255–72 (181 ref.)

Isolated partial growth hormone deficient short stature with syringomyelia not associated with birth injury. Koga T, et al. **Intern Med** 1998 Aug;37(8):674–7

Decrease in carotid intima–media thickness after one year growth hormone (GH) treatment in adults with GH deficiency. Borson–Chazot F, et al.
J Clin Endocrinol Metab 1999 Apr;84(4):1329–33

Growth hormone deficiency with ectopic neurohypophysis: anatomical variations and relationship between the visibility of the pituitary stalk asserted by magnetic resonance imaging and anterior pituitary function. Chen S, et al.
J Clin Endocrinol Metab 1999 Jul;84(7):2408–13

Effects of growth hormone (GH) replacement therapy on very low density lipoprotein apolipoprotein B100 kinetics in patients with adult GH deficiency: a stable isotope study. Christ ER, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):307–16

Bone loss is correlated to the severity of growth hormone deficiency in adult patients with hypopituitarism. Colao A, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1919–24

Effect of growth hormone (GH) and insulin–like growth factor I on prostate diseases: an ultrasonographic and endocrine study in acromegaly, GH deficiency, and healthy subjects. Colao A, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):1986–91

The growth hormone (GH) response to the arginine plus GH–releasing hormone test is correlated to the severity of lipid profile abnormalities in adult patients with GH deficiency. Colao A, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1277–82

Growth hormone (GH) substitution in hypogonadotropic, GH–deficient women decreases the follicle–stimulating hormone threshold for monofollicular growth. de Boer JA, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):590–5

Comment on alteration of monocyte function in patients with growth hormone deficiency: effect of substitutive GH therapy [letter] Elhadd T, et al.
J Clin Endocrinol Metab 1999 Sep;84(9):3405–6

Low dose hexarelin and growth hormone (GH)–releasing hormone as a diagnostic tool for the diagnosis of GH deficiency in adults: comparison with insulin–induced hypoglycemia test. Gasperi M, et al.
J Clin Endocrinol Metab 1999 Aug;84(8):2633–7

The effects of 10 years of recombinant human growth hormone (GH) in adult GH–deficient patients. Gibney J, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2596–602

Serum leptin response to the acute and chronic administration of growth hormone (GH) to elderly subjects with GH deficiency. Gill MS, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1288–95

Reduced retinal vascularization in children with growth hormone deficiency. Hellström A, et al.
J Clin Endocrinol Metab 1999 Feb;84(2):795–8

Serum levels of insulin–like growth factor I in 152 patients with growth hormone deficiency, aged 19–82 years, in relation to those in healthy subjects. Hilding A, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2013–9

How is whole body protein turnover perturbed in growth hormone–deficient adults? Hoffman DM, et al.
J Clin Endocrinol Metab 1998 Dec;83(12):4344–9

Changes in muscle volume, strength, and bioenergetics during recombinant human growth hormone (GH) therapy in adults with GH deficiency. Janssen YJ, et al.
J Clin Endocrinol Metab 1999 Jan;84(1):279–84

Gender differences in the effects of long term growth hormone (GH) treatment on bone in adults with GH deficiency. Johansson AG, et al.
J Clin Endocrinol Metab 1999 Jun;84(6):2002–7

The acid–labile subunit of human ternary insulin–like growth factor binding protein complex in serum: hepatosplanchnic release, diurnal variation, circulating concentrations in healthy subjects, and diagnostic use in patients with growth hormone deficiency. Juul A, et al.
J Clin Endocrinol Metab 1998 Dec;83(12):4408–15

Serum free insulin–like growth factor I (IGF–I), total IGF–I, and IGF–binding protein–3 concentrations in normal children and children with growth hormone deficiency. Kawai N, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):82–9

Growth hormone (GH) therapy in GH–deficient adults influences the response to a dietary load of cholesterol and saturated fat in terms of cholesterol synthesis, but not serum low density lipoprotein cholesterol levels. Leonsson M, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1296–303

Growth hormone (GH) deficiency (GHD) of childhood onset: reassessment of GH status and evaluation of the predictive criteria for permanent GHD in young adults. Maghnie M, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1324–8

Effect of growth hormone (GH) on serum concentrations of leptin: study in patients with acromegaly and GH deficiency. Miyakawa M, et al.
J Clin Endocrinol Metab 1998 Oct;83(10):3476–9

Comment on "true" and "apparent" bone density measurement in children with GH deficiency [letter; comment] Parfitt AM. **J Clin Endocrinol Metab** 1999 Apr;84(4):1490–1. Comment on: J Clin Endocrinol Metab 1998 Sep;83(9):3150–4.

Growth hormone (GH) treatment reverses early atherosclerotic changes in GH–deficient adults. Pfeifer M, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):453–7

Derivation and validation of a mathematical model for predicting the response to exogenous recombinant human growth hormone (GH) in prepubertal children with idiopathic GH deficiency. KIGS International Board. Kabi Pharmacia International Growth Study [see comments] Ranke MB, et al. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1174–83. Comment in: J Clin Endocrinol Metab 1999 Apr;84(4):1172–3.

A mathematical model for predicting growth response to growth hormone replacement therapy--a useful clinical tool or an intellectual exercise? [editorial; comment] Rosenbloom AL. **J Clin Endocrinol Metab** 1999 Apr; 84(4):1172–3. Comment on: J Clin Endocrinol Metab 1999 Apr;84(4):1174–83.

Comments on adults with childhood–onset GH deficiency: the psychosocial adjustment can be negatively conditioned by a final "unsatisfactory" height [letter; comment] Sartorio A, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4533–4 . Comment on: J Clin Endocrinol Metab 1998 Apr;83(4):1134–42.

Alterations of monocyte function in patients with growth hormone (GH) deficiency: effect of substitutive GH therapy. Serri O, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):58–63

Long–term effects of growth hormone (GH) replacement in men with childhood–onset GH deficiency. ter Maaten JC, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2373–80

Growth hormone replacement therapy in the elderly with hypothalamic–pituitary disease: a dose–finding study. Toogood AA, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):131–6

Changes in thyroid hormone levels during growth hormone therapy in initially euthyroid patients: lack of need for thyroxine supplementation. Wyatt DT, et al.
J Clin Endocrinol Metab 1998 Oct;83(10):3493–7

Usefulness of IGF–I assay for the diagnosis of GH deficiency in adults. Aimaretti G, et al. **J Endocrinol Invest** 1998 Sep; 21(8):506–11

Evaluation of growth hormone bioactivity using the Nb2 cell bioassay in children with growth disorders. Bozzola M, et al. **J Endocrinol Invest** 1998 Dec;21(11):765–70

Growth hormone insufficiency in a girl with the autoimmune polyendocrinopathy–candidiasis–ectodermal dystrophy. Franzese A, et al. **J Endocrinol Invest** 1999 Jan;22(1):66–9

Hexarelin–induced growth hormone response in short stature. Comparison with growth hormone–releasing hormone plus pyridostigmine and arginine plus estrogen. Guzzaloni G, et al. **J Endocrinol Invest** 1999 May;22(5):360–8

Growth hormone and the metabolic syndrome. Johannsson G, et al. **J Endocrinol Invest** 1999;22(5 Suppl):41–6 (42 ref.)

Effects of two years of growth hormone (GH) replacement therapy on bone metabolism and mineral density in childhood and adulthood onset GH deficient patients. Longobardi S, et al. **J Endocrinol Invest** 1999 May; 22(5):333–9

The use of self–rating questionnaires as a quantitative measure of quality of life in adult growth hormone deficiency. Murray RD, et al. **J Endocrinol Invest** 1999;22(5 Suppl):118–26 (37 ref.)

Long–term monitoring of rec–GH treatment by serial determination of serum aminoterminal propeptide of type III procollagen in children and adults with GH deficiency. Sartorio A, et al. **J Endocrinol Invest** 1999 Mar;22(3):169–75

Clinical experience in identical twins discordant for adult–onset growth hormone deficiency. Simpson H, et al.
J Endocrinol Invest 1999;22(5 Suppl):61–3

Plasma IGF–I is a useful marker of growth hormone deficiency in adults. Span JP, et al. **J Endocrinol Invest** 1999 Jun;22(6):446–50

Adults with childhood–onset growth hormone deficiency: effects of growth hormone treatment on cardiac structure. Sartorio A, et al. **J Intern Med** 1997 Jun;241(6):515–20

A red flag unfurled? Growth hormone treatment and testicular function [editorial; comment] Frasier SD.
J Pediatr 1999 Sep;135(3):278–9 (11 ref.). Comment on: J Pediatr 1999 Sep;135(3):367–70.

Growth hormone deficiency and solid tumor chemotherapy [letter; comment] Riaño I, et al. **J Pediatr** 1998 Oct; 133(4):582–3. Comment on: J Pediatr 1997 Jul;131(1 Pt 1):105–12.

Robinow syndrome with growth hormone deficiency: treatment with growth hormone. Castells S, et al.
J Pediatr Endocrinol Metab 1999 Jul–Aug;12(4):565–71

Long–term treatment with GHRH [1–44] amide in prepubertal children with classical growth hormone deficiency. Duck SC, et al. **J Pediatr Endocrinol Metab** 1999 Jul–Aug;12(4):531–6

The diagnosis of childhood growth hormone insufficiency and growth hormone resistance. McGrath SA, et al.
J Pediatr Endocrinol Metab 1998;11 Suppl 3:803–9 (49 ref.)

Effect of growth–hormone therapy on early atherosclerotic changes in GH–deficient adults. Bengtsson BA, et al.
Lancet 1999 Jun 5;353(9168):1898–9

Individualized low–dose growth hormone (GH) treatment in GH–deficient adults with childhood–onset disease: metabolic effects during fasting and hypoglycemia. Bülow B, et al. **Metabolism** 1999 Aug;48(8):1003–10

High–affinity growth hormone (GH)–binding protein (GHBP), body fat mass, and insulin–like growth factor–binding protein–3 predict the GHBP response to GH therapy in adult GH deficiency syndrome. Roelen CA, et al. **Metabolism** 1999 Mar;48(3):314–8

Growth hormone therapy in adults and children. Vance ML, et al. **N Engl J Med** 1999 Oct 14;341(16):1206–16 (99 ref.)

Growth hormone deficiency following radiotherapy for orbital and parameningeal sarcomas. Goddard AG, et al.
Pediatr Hematol Oncol 1999 Jan–Feb;16(1):23–33

Gitelman disease associated with growth hormone deficiency, disturbances in vasopressin secretion and empty sella: a new hereditary renal tubular–pituitary syndrome? Bettinelli A, et al. **Pediatr Res** 1999 Aug;46(2):232–8

Issues in the transition from childhood to adult growth hormone therapy. Allen DB. **Pediatrics** 1999 Oct;104(4 Pt 2):1004–10

Growth failure after treatment of pediatric brain tumors. Clarson CL, et al. **Pediatrics** 1999 Mar;103(3):E37

Adult height in growth hormone deficiency: historical perspective and examples from the national cooperative growth study. Frindik JP, et al. **Pediatrics** 1999 Oct;104(4 Pt 2):1000–4

The QoL–AGHDA: an instrument for the assessment of quality of life in adults with growth hormone deficiency. McKenna SP, et al. **Qual Life Res** 1999 Jun;8(4):373–83

X–linked agammaglobulinemia and isolated growth hormone deficiency. Arslan D, et al. **Turk J Pediatr** 1998 Oct–Dec; 40(4):609–12

Disordered growth hormone secretion in fibromyalgia: a review of recent findings and a hypothesized etiology. Bennett RM. **Z Rheumatol** 1998;57 Suppl 2:72–6 (36 ref.)

[The effect of recombinant human growth hormone on thyroid function in patients with growth hormone deficiency] Tang D, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Nov;36(11):754–8 (Eng. Abstr.) **(Chi)**

[Pituitary stalk transection syndrome] Barbeau C, et al.
Arch Pediatr 1998 Mar;5(3):274–9 (Eng. Abstr.) **(Fre)**

[The beneficial effects of growth hormone replacement therapy on elderly men] Kozakowski J, et al.
Pol Merkuriusz Lek 1999 Mar;6(33):131–4 (Eng. Abstr.) **(Pol)**

DRUG EFFECTS

Alcohol, slow wave sleep, and the somatotropic axis. Lands WE. **Alcohol** 1999 Jun–Jul;18(2–3):109–22 (101 ref.)

Tetracycline–regulatable expression vectors tightly regulate in vitro gene expression of secreted proteins. Sturtz FG, et al. **Gene** 1998 Oct 23;221(2):279–85

Effects of inhaled corticosteroids and inhaled cromolyn sodium on urinary growth hormone excretion in asthmatic children. Soferman R, et al. **Pediatr Pulmonol** 1998 Nov; 26(5):339–43

[The beneficial effects of growth hormone replacement therapy on elderly men] Kozakowski J, et al.

Pol Merkuriusz Lek 1999 Mar;6(33):131-4 (Eng. Abstr.) **(Pol)**

GENETICS

Human growth disorders: molecular genetics of the growth hormone-insulin-like growth factor I axis. Rotwein P. **Acta Paediatr Suppl** 1999 Feb;88(428):148-51; discussion 152 (32 ref.)

Relationship between phenotype and genotype in growth hormone insensitivity syndrome. Woods KA, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):158-62; discussion 163 (13 ref.)

Lamellarity of cationic liposomes and mode of preparation of lipoplexes affect transfection efficiency. Zuidam NJ, et al. **Biochim Biophys Acta** 1999 Jul 15;1419(2):207-20

Variations on a theme: testis-derived neuropeptide hormones [comment] DiMeglio LA, et al. **Eur J Endocrinol** 1998 Oct; 139(4):361-2 (11 ref.). Comment on: Eur J Endocrinol 1998 Oct;139(4):424-7.

Complex alternative splicing of the GH-V gene in the human testis [see comments] Untergasser G, et al. **Eur J Endocrinol** 1998 Oct;139(4):424-7. Comment in: Eur J Endocrinol 1998 Oct;139(4):361-2.

Pituitary estrogen receptor alpha and dopamine subtype 2 receptor gene expression in transgenic mice with overproduction of heterologous growth hormones. Vidal S, et al. **Histochem Cell Biol** 1999 Mar;111(3):235-41

Growth hormone heterogeneity in human pituitary and plasma. Baumann G. **Horm Res** 1999;51 Suppl 1:2-6 (22 ref.)

Delivery of recombinant gene products to the central nervous system with nonautologous cells in alginate microcapsules. Ross CJ, et al. **Hum Gene Ther** 1999 Jan 1;10(1):49-59

Encapsulation of various recombinant mammalian cell types in different alginate microcapsules. Peirone M, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):587-96

Inhibition of growth hormone (GH) secretion by a mutant GH-I gene product in neuroendocrine cells containing secretory granules: an implication for isolated GH deficiency inherited in an autosomal dominant manner. Hayashi Y, et al. **J Clin Endocrinol Metab** 1999 Jun; 84(6):2134-9

Chronic stress associated with spousal caregiving of patients with Alzheimer's dementia is associated with downregulation of B-lymphocyte GH mRNA. Wu H, et al. **J Gerontol A Biol Sci Med Sci** 1999 Apr;54(4):M212-5

A highly sensitive and specific assay using a novel human growth hormone cDNA reporter gene regulated by the human interleukin-4 inducible germline epsilon transcript promoter. Jenh CH, et al. **J Immunol Methods** 1998 Aug 1;217(1-2):87-95

In vivo delivery of recombinant human growth hormone from genetically engineered human fibroblasts implanted within Baxter immunoisolation devices. Josephs SF, et al. **J Mol Med** 1999 Jan;77(1):211-4

Insulin-like growth factor-I treatment in two children with growth hormone gene deletions. Arnhold IJ, et al. **J Pediatr Endocrinol Metab** 1999 Jul-Aug;12(4):499-506

Pattern of presentation of the human growth hormone variant (hGH-V) gene in the normal population. Costoya JA, et al. **J Pediatr Endocrinol Metab** 1998 Sep-Oct;11(5):591-5

An improved polymerase chain reaction (PCR) protocol for unambigous detection of growth hormone gene deletions. Mone CM, et al. **J Pediatr Endocrinol Metab** 1998 Jul-Aug; 11(4):563-8

A role for A/T-rich sequences and Pit-1/GHF-1 in a distal enhancer located in the human growth hormone locus control region with preferential pituitary activity in culture and transgenic mice. Jin Y, et al. **Mol Endocrinol** 1999 Aug; 13(8):1249-66

High-level expressing YAC vector for transgenic animal bioreactors. Fujiwara Y, et al. **Mol Reprod Dev** 1999 Apr; 52(4):414-20

as Seeburg faces misconduct inquiry [news] Abbott A. **Nature** 1999 Jun 10;399(6736):512

US jury split over hormone patent case... [news] Dalton R. **Nature** 1999 Jun 10;399(6736):512

A 500-bp region, approximately 40 kb upstream of the human CYP19 (aromatase) gene, mediates placenta-specific expression in transgenic mice. Kamat A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4575-80

Long-term regulated expression of growth hormone in mice after intramuscular gene transfer. Rivera VM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8657-62

Startling revelations in UC-Genentech battle [news] [see comments] Marshall E. **Science** 1999 May 7; 284(5416):883,885-6. Comment in: Science 1999 May 28;284(5419):1465. Comment in: Science 1999 May 28;284(5419):1465-6.

Human growth hormone transgene expression increases the biomechanical structural properties of mouse vertebrae. Steinke B, et al. **Spine** 1999 Jan 1;24(1):1-4

[The genetic polymorphism of somatotropin] Balatskil VN, et al. **Tsitol Genet** 1998 Mar-Apr;32(2):92-104 (77 ref.) (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Growth hormone in immune reconstitution. Chappel S. **J Acquir Immune Defic Syndr Hum Retrovirol** 1999 Apr 15;20(5):423-31 (132 ref.)

ISOLATION & PURIFICATION

The human growth hormone saga. Canova-Davis E. **Dev Biol Stand** 1998;96:105-11

Expression and purification of a mutant human growth hormone that is resistant to proteolytic cleavage by thrombin, plasmin and human plasma in vitro. Alam KS, et al. **J Biotechnol** 1998 Oct 27;65(2-3):183-90

High-yield purification of biosynthetic human growth hormone secreted in Escherichia coli periplasmic space. de Oliveira JE, et al. **J Chromatogr A** 1999 Aug 13; 852(2):441-50

Divalent metal cation chelators enhance chromatographic separation of structurally similar macromolecules: separation of human growth hormone isoforms. Haro LS, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):39-47

METABOLISM

The Pharmacia & Upjohn International Symposia series on growth hormone and growth factors in endocrinology and metabolism. Besser GM. **Acta Paediatr Suppl** 1999 Feb; 88(428):3-4

Growth retardation in chronic diseases: possible mechanisms. Underwood LE. **Acta Paediatr Suppl** 1999 Feb; 88(428):93-6 (10 ref.)

Growth hormone and ovarian function. Franks S. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):331-40 (47 ref.)

Acquired growth hormone resistance in adults. Jenkins RC, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):315-29 (73 ref.)

Growth hormone binding affinity for its receptor surpasses the requirements for cellular activity. Pearce KH Jr, et al. **Biochemistry** 1999 Jan 5;38(1):81-9

Expression of growth hormone receptors by lymphocyte subpopulations in the human tonsil. Thellin O, et al. **Dev Immunol** 1998;6(3-4):295-304

Human growth hormone site 2 lactogenic activity requires a distant tyrosine164. Duda KM, et al. **FEBS Lett** 1999 Apr 23;449(2-3):120-4

Alterations in the growth hormone-insulin-like growth factor axis in insulin dependent diabetes mellitus. Bereket A, et al. **Horm Metab Res** 1999 Feb-Mar;31(2-3):172-81 (76 ref.)

Expression of growth hormone and insulin-like growth factor in the immune system of children. Yang Y, et al. **Horm Metab Res** 1999 Jun;31(6):380-4

Growth hormone kinetics in polycystic ovary syndrome [letter; comment] Homburg R. **Hum Reprod** 1999 Jan; 14(1):271-2. Comment on: Hum Reprod 1998 Jan;13(1):22-6.

Spaceflight suppresses exercise-induced release of bioassayable growth hormone. McCall GE, et al. **J Appl Physiol** 1999 Sep;87(3):1207-12

Effects of gender on exercise-induced growth hormone release. Wideman L, et al. **J Appl Physiol** 1999 Sep; 87(3):1154-62

Biological properties of human prolactin analogs depend not only on global hormone affinity, but also on the relative affinities of both receptor binding sites. Kinet S, et al. **J Biol Chem** 1999 Sep 10;274(37):26033-43

Tripartite neuroendocrine activation of the human growth hormone (GH) axis in women by continuous 24-hour GH-releasing peptide infusion: pulsatile, entropic, and nyctohemeral mechanisms. Shah N, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2140-50

Immunohistochemical detection of glycoprotein hormone alpha subunit in somatoprolactinic and pure somatotroph adenomas. Vantyghem MC, et al. **J Endocrinol Invest** 1998 Jul-Aug;21(7):434-40

Beta cell proliferation and growth factors. Nielsen JH, et al. **J Mol Med** 1999 Jan;77(1):62-6 (49 ref.)

Effects of growth hormone-releasing peptide-6 on the nocturnal secretion of GH, ACTH and cortisol and on the sleep EEG in man: role of routes of administration. Frieboes RM, et al. **J Neuroendocrinol** 1999 Jun;11(6):473-8

Plurihormonal pituitary tumor [letter; comment] Matsuno A, et al. **J Neurosurg** 1999 Mar;90(3):608-9. Comment on: J Neurosurg 1998 Jun;88(6):1111-5.

Effects of cholinergic muscarinic blockade on growth hormone responses to growth hormone-releasing hormone in uraemic patients. Diez JJ, et al. **Nephrol Dial Transplant** 1999 Jul;14(7):1704-9

Regulation of insulin-like growth factor-I in starvation and injury. Thissen JP, et al. **Nutr Rev** 1999 Jun;57(6):167-76 (53 ref.)

Human growth hormone transgene expression increases the biomechanical structural properties of mouse vertebrae. Steinke B, et al. **Spine** 1999 Jan 1;24(1):1-4

PHARMACOKINETICS

Appraisal of growth hormone (GH) secretion: evaluation of a composite pharmacokinetic model that discriminates multiple components of GH input. Bright GM, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3301-8

Partially unfolded proteins efficiently penetrate cell membranes--implications for oral drug delivery. Milstein SJ, et al. **J Controlled Release** 1998 Apr 30;53(1-3):259-67

A pharmacokinetic/pharmacodynamic model for recombinant human growth hormone effects on induction of insulin-like growth factor I in monkeys. Sun YN, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1523-32

Plasma concentration of hGH and anti-hGH antibodies after subcutaneous administration of hGH for 3 weeks to immunosuppressed pigs. Agersø H, et al. **J Pharmacol Toxicol Methods** 1999 Feb;41(1):1-8

PHARMACOLOGY

Dental maturity in children of short stature--a two-year longitudinal study of growth hormone substitution. Krekmanova L, et al. **Acta Odontol Scand** 1999 Apr; 57(2):93-6

Depression of liver protein synthesis during surgery is prevented by growth hormone. Barle H, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E620-7

Dose-response study of GH effects on circulating IGF-I and IGFBP-3 levels in healthy young men and women. Ghigo E, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1009-13

Peripheral injection of growth hormone stimulates protein intake in aged male and female Lou rats. Veyrat-Durebex C, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1105-11

Insulin but not growth hormone stimulates protein anabolism in skin wound and muscle. Zhang XJ, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E712-20

Stimulation of lipolysis but not of leptin release by growth hormone is abolished in adipose tissue from Stat5a and b knockout mice. Fain JN, et al. **Biochem Biophys Res Commun** 1999 Sep 16;263(1):201-5

Growth hormone-mediated transcriptional activation of the rat serine protease inhibitor 2.1 gene involves both interleukin-1 beta-sensitive and -insensitive pathways. Le Cam A, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):311-4

Growth hormone stimulates tyrosine phosphorylation of focal adhesion kinase (p125(FAK)) and actin stress fiber formation in human osteoblast-like cells, Saos2. Takahashi MO, et al. **Biochem Biophys Res Commun** 1999 Sep 16; 263(1):100-6

Cooperative and differential effects of estrogen, prolactin, 22K and 20K human growth hormones on cyclin D1/PRAD1 gene expression in T-47D human breast cancer cells. Kaneko H, et al. **Biochem Mol Biol Int** 1998 Oct;46(2):411-4

Effects of growth hormone and testosterone on cortical bone formation and bone density in aged orchiectomized rats. Prakasam G, et al. **Bone** 1999 May;24(5):491-7

Prophylactic treatment with growth hormone and insulin-like growth factor I improve systemic bacterial clearance and survival in a murine model of burn-induced gut-derived sepsis. Fukushima R, et al. **Burns** 1999 Aug; 25(5):425-30

Metabolic studies on eel (Anguilla anguilla L.) hepatocytes in primary culture: effect of 17 beta-estradiol and growth hormone. Peyon P, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Sep; 121(1):35-44

Growth hormone response to placebo, apomorphine and growth hormone releasing hormone in abstinent alcoholics and control subjects. Wiesbeck GA, et al. **Drug Alcohol Depend** 1998 Sep 1;52(1):53-6

Effects of growth hormone on leptin gene expression in rats. Isozaki O, et al. **Endocr J** 1998 Apr;45 Suppl:S117-9

Mild serum thyroid hormone increase during and after five-day administration of human growth hormone in healthy male adults. Ito Y, et al. **Endocr J** 1998 Apr;45 Suppl:S125-7

Protein kinase C (PKC)-mediated growth hormone (GH) actions. Wakai K, et al. **Endocr J** 1998 Apr;45 Suppl:S97-9

Osteo-anabolic effects of human growth hormone with 22K- and 20K Daltons on human osteoblast-like cells. Wang DS, et al. **Endocr J** 1999 Feb;46(1):125-32

The effects of growth hormone on corpus luteum of superovulated rats. Kiya T, et al. **Endocr Res** 1999 May; 25(2):179-93

Growth hormone and insulin-like growth factors have different effects on sebaceous cell growth and differentiation. Deplewski D, et al. **Endocrinology** 1999 Sep; 140(9):4089-94

Insulin receptor substrate-1 enhances growth hormone-induced proliferation. Liang L, et al. **Endocrinology** 1999 May;140(5):1972-83

Growth hormone regulation of SOCS-2, SOCS-3, and CIS messenger ribonucleic acid expression in the rat. Tollet-Egnell P, et al. **Endocrinology** 1999 Aug; 140(8):3693-704

The 20-kilodalton (kDa) human growth hormone (hGH) differs from the 22-kDa hGH in the effect on the human prolactin receptor. Tsunekawa B, et al. **Endocrinology** 1999 Sep;140(9):3909-18

Lack of effects of recombinant human GH on spermatogenesis in the adult cynomolgus monkey (Macaca fascicularis). Sjögren I, et al. **Eur J Endocrinol** 1999 Apr; 140(4):350-7

Growth hormone prevents human monocytic cells from Fas-mediated apoptosis by up-regulating Bcl-2 expression. Haeffner A, et al. **Eur J Immunol** 1999 Jan;29(1):334-44

Dual effects of suppressor of cytokine signaling (SOCS-2) on growth hormone signal transduction. Favre H, et al. **FEBS Lett** 1999 Jun 18;453(1-2):63-6

Growth hormone-insulin-like growth factor-I axis in adult insulin-dependent diabetic patients: evidence for central hypersensitivity to growth hormone-releasing hormone and peripheral resistance to growth hormone. Fainstein

Day P, et al. **Horm Metab Res** 1998 Dec;30(12):737–42

Effects of human growth hormone on the porto-arterial concentration differences of glucose and amino acids in the newborn piglet. Fhölenhag K, et al. **Horm Metab Res** 1999 Jan;31(1):22–6

Monoclonal antibody enhanced stimulation of human growth hormone action in vitro using ovine costal cartilage growth plate chondrocytes. Mockridge JW, et al. **Horm Metab Res** 1998 Oct;30(10):610–3

In vitro effect of human recombinant growth hormone on lymphocyte and granulocyte function of healthy and uremic children. Derfalvi B, et al. **Immunol Lett** 1998 Aug; 63(1):41–7

Lymphoid cell–growth hormone interactions: a serum-free model [letter] Shaw JE, et al. **In Vitro Cell Dev Biol Anim** 1998 Sep;34(8):604–6

Expression and purification of a mutant human growth hormone that is resistant to proteolytic cleavage by thrombin, plasmin and human plasma in vitro. Alam KS, et al. **J Biotechnol** 1998 Oct 27;65(2–3):183–90

The effect of short stature, portal hypertension, and cholestasis on growth hormone resistance in children with liver disease. Holt RI, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3277–82

Acute and short-term effects of growth hormone on insulin-like growth factors and their binding proteins: serum levels and hepatic messenger ribonucleic acid responses in humans. Olivecrona H, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):553–60

Mediation of the hepatic effects of growth hormone by its lipolytic activity. Piatti PM, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1658–63

Reduced growth hormone receptor messenger ribonucleic acid in an aged man with chronic malnutrition and growth hormone resistance. Shuto Y, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2320–3

Unchanged testosterone production rates in growth hormone–treated healthy men. Vierhapper H, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3735–6

Growth hormone directly inhibits leptin gene expression in visceral fat tissue in fatty Zucker rats. Isozaki O, et al. **J Endocrinol** 1999 Jun;161(3):511–6

Acute cardiovascular and hormonal effects of GH and hexarelin, a synthetic GH-releasing peptide, in humans. Bisi G, et al. **J Endocrinol Invest** 1999 Apr;22(4):266–72

Evaluation of growth hormone bioactivity using the Nb2 cell bioassay in children with growth disorders. Bozzola M, et al. **J Endocrinol Invest** 1998 Dec;21(11):765–70

Effect of growth hormone on adipose tissue and skeletal muscle lipoprotein lipase activity in humans. Richelsen B. **J Endocrinol Invest** 1999;22(5 Suppl):10–5 (31 ref.)

Adults with childhood-onset growth hormone deficiency: effects of growth hormone treatment on cardiac structure. Sartorio A, et al. **J Intern Med** 1997 Jun;241(6):515–20

The diagnosis of childhood growth hormone insufficiency and growth hormone resistance. McGrath SA, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:803–9 (49 ref.)

Growth hormone stimulates, through tyrosine kinase, ion transport and proliferation in human intestinal cells. Canani RB, et al. **J Pediatr Gastroenterol Nutr** 1999 Mar; 28(3):315–20

Age- and growth hormone–induced alterations in renal sulfate transport. Sagawa K, et al. **J Pharmacol Exp Ther** 1999 Sep;290(3):1182–7

A pharmacokinetic/pharmacodynamic model for recombinant human growth hormone effects on induction of insulin-like growth factor I in monkeys. Sun YN, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1523–32

Recombinant human growth hormone alters acute phase reactant proteins, cytokine expression, and liver morphology in burned rats. Jeschke MG, et al. **J Surg Res** 1999 May 15;83(2):122–9

Increased expression of insulin-like growth factor–I in serum and liver after recombinant human growth hormone administration in thermally injured rats. Jeschke MG, et al. **J Surg Res** 1999 Jul;85(1):171–7

Epidermal growth factor and human growth hormone induce two sodium-dependent arginine transport systems after massive enterectomy. Iannoli P, et al. **JPEN J Parenter Enteral Nutr** 1998 Sep–Oct;22(5):326–30

Growth hormone inhibits apoptosis and up-regulates reactive oxygen intermediates production by human polymorphonuclear neutrophils. Matsuda T, et al. **JPEN J Parenter Enteral Nutr** 1998 Nov–Dec;22(6):368–74

Individualized low-dose growth hormone (GH) treatment in GH-deficient adults with childhood-onset disease: metabolic effects during fasting and hypoglycemia. Bülow B, et al. **Metabolism** 1999 Aug;48(8):1003–10

Growth hormone and the expression of mRNAs for matrix proteins and oncogenes in bone. Salih MA, et al. **Mol Cell Endocrinol** 1999 Jan 25;147(1–2):149–59

Growth hormone and insulin-like growth factor I augment bactericidal capacity of human polymorphonuclear neutrophils. Inoue T, et al. **Shock** 1998 Oct;10(4):278–84

[Can normalization of vascular cytoadhesive activity be explained by the anti-atherosclerosis effect of growth hormone?] Marek J, et al. **Cas Lek Cesk** 1998 Nov 16; 137(22):690–3 (Eng. Abstr.) **(Cze)**

PHYSIOLOGY

Height, health and growth hormone [see comments] Samaras TT, et al. **Acta Paediatr** 1999 Jun;88(6):602–9 (61 ref.). Comment in: Acta Paediatr 1999 Jun;88(6):588–9.

Growth factors and malnutrition in chronic renal failure. Fouque DP, et al. **Adv Nephrol Necker Hosp** 1998; 28:259–85 (88 ref.)

Inverse effects of 20K and 22K human growth hormones on the growth of T-47D human breast cancer cells in culture and in nude mice. Fujikawa T, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):719–24

The maternal, fetal and postnatal somatotrophic axes in intrauterine growth retardation. Oliver MH, et al. **Biochem Soc Trans** 1999 Feb;27(2):69–73 (62 ref.)

Prolactin, growth hormone and the immune system in humans. Velkeniers B, et al. **Cell Mol Life Sci** 1998 Oct; 54(10):1102–8 (75 ref.)

The regulatory effect of growth hormone on growth hormone–binding protein in human serum. Horikawa R, et al. **Endocr J** 1998 Apr;45 Suppl:S113–5

GH signalling in pancreatic beta-cells. Sekine N, et al. **Endocr J** 1998 Apr;45 Suppl:S33–40 (36 ref.)

Growth hormone and bone diseases. Tanaka H. **Endocr J** 1998 Apr;45 Suppl:S47–52 (8 ref.)

Autocrine stimulation of human mammary carcinoma cell proliferation by human growth hormone. Kaulsay KK, et al. **Exp Cell Res** 1999 Jul 10;250(1):35–50

Neuroendocrinology of the human growth hormone–insulin–like growth factor I axis during ageing. Arvat E, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:111–5 (55 ref.)

The role of growth hormone and insulin-like growth factor I in the regulation of apoptosis. Isgaard J, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:125–8 (43 ref.)

Frailty and the somatopause [see comments] Martin F. **Growth Horm IGF Res** 1999 Feb;9(1):3–10 (84 ref.). Comment in: Growth Horm IGF Res 1999 Feb;9(1):1–2.

Growth hormone and the somatopause [editorial; comment] Sonsken P. **Growth Horm IGF Res** 1999 Feb;9(1):1–2. Comment on: Growth Horm IGF Res 1999 Feb;9(1):3–10.

Growth hormone and ageing. van der Lely AJ. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:117–9 (16 ref.)

The role of the GH/IGF-I axis for cardiac function and structure. Isgaard J, et al. **Horm Metab Res** 1999 Feb–Mar; 31(2–3):50–4 (62 ref.)

Long-term treatment of growth hormone insensitivity syndrome with IGF-I. Results of the European Multicentre Study. The Working Group on Growth Hormone Insensitivity Syndromes. Ranke MB, et al. **Horm Res** 1999; 51(3):128–34

The prenatal attenuation of brain/body development through interactions between growth hormone, triiodothyronine and testosterone during prenatal development of female neonates. Tan U, et al. **Int J Neurosci** 1998 Sep; 95(3–4):237–45

Effects of recombinant human insulin-like growth factor I (IGF-I) therapy on the growth hormone–IGF system of a patient with a partial IGF-I gene deletion. Camacho-Hübner C, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1611–6

Interactions between growth hormone, insulin-like growth factor I, and basic fibroblast growth factor in melanocyte growth. Edmondson SR, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1638–44

Functional characterization of truncated growth hormone (GH) receptor–(1–277) causing partial GH insensitivity syndrome with high GH-binding protein. Iida K, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):1011–6

Growth hormone and prostate cancer: guilty by association? Grimberg A, et al. **J Endocrinol Invest** 1999;22(5 Suppl):64–73 (71 ref.)

Is the measurement of free IGF-I more indicative than that of total IGF-I in the evaluation of the biological activity of the GH/IGF-I axis? Janssen JA, et al. **J Endocrinol Invest** 1999 Apr;22(4):313–5

Assessment of GH/IGF-I axis in obesity by evaluation of IGF-I levels and the GH response to GHRH+arginine test. Maccario M, et al. **J Endocrinol Invest** 1999 Jun; 22(6):424–9

Growth hormone and somatostatin in glomerular injury. Baud L, et al. **J Nephrol** 1999 Jan–Feb;12(1):18–23 (65 ref.)

Interactions between glucocorticoids and the growth hormone–insulin–like growth factor axis. Tönshoff B, et al. **Pediatr Transplant** 1997 Nov;1(2):183–9 (62 ref.)

Neuroendocrine control of growth hormone secretion. Müller EE, et al. **Physiol Rev** 1999 Apr;79(2):511–607 (1131 ref.)

Opposing actions of intact and N-terminal fragments of the human prolactin/growth hormone family members on angiogenesis: an efficient mechanism for the regulation of angiogenesis. Struman I, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1246–51

[The growth hormone and aging] Fernández-Tresguerres JA. **An R Acad Nac Med (Madr)** 1998;115(4):907–17; discussion 917–22 (56 ref.) **(Spa)**

SECRETION

Reduced spontaneous growth hormone secretion in patients with Turner's syndrome. Pirazzoli P, et al. **Acta Paediatr** 1999 Jun;88(6):610–3

Maternal endocrine adaptations to placental hormones in humans. Evain-Brion D. **Acta Paediatr Suppl** 1999 Feb; 88(428):12–6 (46 ref.)

Alcoholism abolishes the gamma-aminobutyric acid (GABA)ergic control of GH secretion in humans. Vescovi PP, et al. **Alcohol** 1998 Nov;16(4):325–8

Effect of Ca2+ and cAMP on capacitance-measured hormone secretion in human GH-secreting adenoma cells. Takei T, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E649–54

Interaction between body composition, leptin and growth hormone status. Casanueva FF, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):297–314 (96 ref.)

Ageing and growth hormone status. Toogood AA, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):281–96 (81 ref.)

Calcitonin gene-related peptide as a GH secretagogue in human and rat pituitary somatotrophs. Nakamura Y, et al. **Brain Res** 1998 Oct 5;807(1–2):203–7

Insulin-like growth factor–1 (IGF–1)–induced inhibition of growth hormone secretion is associated with sleep suppression. Obál F Jr, et al. **Brain Res** 1999 Feb 13; 818(2):267–74

Octreotide effect on hypersecretion of growth hormone in a patient with fibrous dysplasia: a case report. Chen HS, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Aug; 62(8):554–9

Gender differences in diurnal growth hormone and epinephrine values in young adults during ambulation. Engström BE, et al. **Clin Chem** 1999 Aug;45(8 Pt 1):1235–9

Exercise-induced growth hormone secretion and hemorheology during exercise in elite athletes. Peyreigne C, et al. **Clin Hemorheol Microcirc** 1998 Oct;19(2):169–76

Long-term treatment with bromocriptine of a plurihormonal pituitary adenoma secreting thyrotropin, growth hormone and prolactin. Shimatsu A, et al. **Endocr J** 1999 Feb; 46(1):159–65

Heterozygous gsp mutation renders ion channels of human somatotroph adenoma cells unresponsive to growth hormone–releasing hormone. Yasufuku-Takano J, et al. **Endocrinology** 1999 May;140(5):2018–26

Free alpha-subunit and intact TSH secretion in vitro are closely associated in human somatotroph adenomas. Aylwin SJ, et al. **Eur J Endocrinol** 1998 Oct;139(4):378–86

Circulating leptin level and growth hormone response to stimulation tests in obese and normal children. Coutant R, et al. **Eur J Endocrinol** 1998 Dec;139(6):591–7

GH stimulation tests: evaluation of GH responses to heat test versus insulin-tolerance test. Fisker S, et al. **Eur J Endocrinol** 1998 Dec;139(6):605–10

Exercise-induced GH secretion is enhanced by the oral ingestion of melatonin in healthy adult male subjects. Meeking DR, et al. **Eur J Endocrinol** 1999 Jul;141(1):22–6

Clinical and morphological features of undifferentiated monomorphous GH/TSH-secreting pituitary adenoma. Skorić T, et al. **Eur J Endocrinol** 1999 Jun;140(6):528–37

Growth hormone secretion, puberty and adult height after cranial irradiation with 18 Gy for leukaemia. Melin AE, et al. **Eur J Pediatr** 1998 Sep;157(9):703–7

Growth hormone (GH) secretagogues and neuroendocrine regulation of GH secretion. Dickson SL, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:89–91 (20 ref.)

L-arginine-induced growth hormone secretion is not influenced by co-infusion of the nitric oxide synthase inhibitor N-monomethyl-L-arginine in healthy men. Fisker S, et al. **Growth Horm IGF Res** 1999 Feb;9(1):69–73

Interpretative difficulties with growth hormone provocative retesting in childhood-onset growth hormone deficiency. Van den Broeck J, et al. **Horm Res** 1999;51(1):1–9 (74 ref.)

Growth hormone in obesity. Scacchi M, et al. **Int J Obes Relat Metab Disord** 1999 Mar;23(3):260–71 (150 ref.)

Transsphenoidal microsurgery for growth hormone–secreting pituitary adenomas: initial outcome and long-term results [see comments] Abosch A, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3411–8. Comment in: J Clin Endocrinol Metab 1998 Oct;83(10):3409–10.

Activating mutations of the Gs alpha gene are associated with low levels of Gs alpha protein in growth hormone–secreting tumors. Ballaré E, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4386–90

Short-term fasting suppresses leptin and (conversely) activates disorderly growth hormone secretion in midluteal phase women—a clinical research center study. Bergendahl M, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):883–94

Appraisal of growth hormone (GH) secretion: evaluation of a composite pharmacokinetic model that discriminates multiple components of GH input. Bright GM, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3301–8

The growth hormone (GH) response to the arginine plus GH-releasing hormone test is correlated to the severity of lipid profile abnormalities in adult patients with GH deficiency. Colao A, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1277–82

Effect of acute pharmacological reduction of plasma free fatty acids on growth hormone (GH) releasing hormone–induced GH secretion in obese adults with and without hypopituitarism. Cordido F, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4350–4

Evaluation of disease status with sensitive measures of growth hormone secretion in 60 postoperative patients with acromegaly. Freda PU, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3808–16

Effects of recombinant human insulin-like growth factor I administration on growth hormone (GH) secretion, both spontaneous and stimulated by GH-releasing hormone or hexarelin, a peptidyl GH secretagogue, in humans. Ghigo

E, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):285–90

Effects of androgen administration on the growth hormone–insulin–like growth factor I axis in men with acquired immunodeficiency syndrome wasting. Grinspoon S, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4251–6

Secretory mechanisms of growth hormone (GH)–releasing peptide–, GH–releasing hormone–, and thyrotropin–releasing hormone–induced GH release in patients with acromegaly. Hanew K, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3578–83

Inhibition of growth hormone (GH) secretion by a mutant GH–1 gene product in neuroendocrine cells containing secretory granules: an implication for isolated GH deficiency inherited in an autosomal dominant manner. Hayashi Y, et al. **J Clin Endocrinol Metab** 1999 Jun; 84(6):2134–9

A sexually dimorphic pattern of growth hormone secretion in the elderly. Hindmarsh PC, et al. **J Clin Endocrinol Metab** 1999 Aug;84(8):2679–85

Interferon–alpha–2a is a potent inhibitor of hormone secretion by cultured human pituitary adenomas. Hofland LJ, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3336–43

The control on growth hormone release by free fatty acids is maintained in acromegaly. Lanzi R, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1234–8

The growth hormone (GH)–releasing hormone–GH–insulin–like growth factor–1 axis in patients with fibromyalgia syndrome. Leal–Cerro A, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3378–81

The growth hormone response to hexarelin in patients with different hypothalamic–pituitary abnormalities. Maghnie M, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3886–9

Pituitary somatotroph adenoma producing growth hormone (GH)–releasing hormone (GHRH) with an elevated plasma GHRH concentration: a model case for autocrine and paracrine regulation of GH secretion by GHRH. Matsuno A, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3241–7

Tight control of growth hormone: an attainable outcome for acromegaly treatment [editorial; comment] Melmed S. **J Clin Endocrinol Metab** 1998 Oct;83(10):3409–10. Comment on: J Clin Endocrinol Metab 1998 Oct;83(10):3411–8. Comment on: J Clin Endocrinol Metab 1998 Oct;83(10):3419–26.

Genetic control of 24–hour growth hormone secretion in man: a twin study. Mendlewicz J, et al. **J Clin Endocrinol Metab** 1999 Mar;84(3):856–62

Peak bone mass in young healthy men is correlated with the magnitude of endogenous growth hormone secretion. Russell–Aulet M, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3463–8

Intact leptin receptor is selectively expressed in human fetal pituitary and pituitary adenomas and signals human fetal pituitary growth hormone secretion. Shimon I, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):4059–64

Jointly amplified basal and pulsatile growth hormone (GH) secretion and increased process irregularity in women with anorexia nervosa: indirect evidence for disruption of feedback regulation within the GH–insulin–like growth factor I axis. Støving RK, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2056–63

Treatment of obese subjects with the oral growth hormone secretagogue MK–677 affects serum concentrations of several lipoproteins, but not lipoprotein(a). Svensson J, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2028–33

Reactivation of pituitary hormone release and metabolic improvement by infusion of growth hormone–releasing peptide and thyrotropin–releasing hormone in patients with protracted critical illness. Van den Berghe G, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1311–23

Influence of galanin and serotonin on the endocrine response to Hexarelin, a synthetic peptidyl GH–secretagogue, in normal women. Arvat E, et al. **J Endocrinol Invest** 1998 Nov;21(10):673–9

Effects of the combined administration of hexarelin, a synthetic peptidyl GH secretagogue, and hCRH on ACTH, cortisol and GH secretion in patients with Cushing's disease. Arvat E, et al. **J Endocrinol Invest** 1999 Jan; 22(1):23–8

Hexarelin, a synthetic GH–releasing peptide, is a powerful stimulus of GH secretion in pubertal children and in adults but not in prepubertal children and in elderly subjects. Bellone J, et al. **J Endocrinol Invest** 1998 Sep;21(8):494–500

Growth hormone bioactivity and immunoactivity in tall children. Bozzola M, et al. **J Endocrinol Invest** 1999 Jul–Aug;22(7):541–6

The growth hormone response to hexarelin in patients with Prader–Willi syndrome. Cappa M, et al. **J Endocrinol Invest** 1998 Sep;21(8):501–5

The role of nitric oxide in L–arginine–stimulated growth hormone release. Fisker S, et al. **J Endocrinol Invest** 1999; 22(5 Suppl):89–93 (31 ref.)

Scintigraphic imaging of pituitary adenomas: an in vivo evaluation of somatostatin receptors. Oppizzi G, et al. **J Endocrinol Invest** 1998 Sep;21(8):512–9

Regulation of growth hormone secretion by signals produced by the adipose tissue. Pombo M, et al. **J Endocrinol Invest** 1999;22(5 Suppl):22–6 (28 ref.)

Is the somatopause an indication for growth hormone replacement? Savine R, et al. **J Endocrinol Invest** 1999;22(5 Suppl):142–9 (49 ref.)

TRH is a tonic secretagogue in growth hormone secreting but not in nonfunctioning pituitary tumors. Somjen D, et al. **J Endocrinol Invest** 1999 Feb;22(2):104–8

The somatopause is no indication for growth hormone therapy. von Werder K. **J Endocrinol Invest** 1999;22(5 Suppl):137–41 (20 ref.)

Oral arginine does not stimulate basal or augment exercise–induced GH secretion in either young or old adults. Marcell TJ, et al. **J Gerontol A Biol Sci Med Sci** 1999 Aug;54(8):M395–9

Plasma neurotensin levels in prepubertal children and adults: possible involvement in the regulation of growth hormone secretion. Bozzola M, et al. **J Pediatr Endocrinol Metab** 1998 Sep–Oct;11(5):615–21

Growth hormone secretion and bone histomorphometric study in thalassaemic patients with acquired skeletal dysplasia secondary to desferrioxamine. De Sanctis V, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:827–33

New GH secretagogues and potential usefulness in thalassemia. Karydis I, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:857–62 (60 ref.)

Growth–hormone and prolactin excess. Colao A, et al. **Lancet** 1998 Oct 31;352(9138):1455–61 (70 ref.)

Age–related blunting of growth hormone secretion during exercise may not be soley due to increased somatostatin tone. Marcell TJ, et al. **Metabolism** 1999 May;48(5):665–70

Preservation of growth hormone secretion in response to growth hormone–releasing peptide–2 during prednisone therapy. Meacham LR, et al. **Metabolism** 1999 May; 48(5):585–9

Alcoholism abolishes the effects of melatonin on growth hormone secretion in humans. Coiro V, et al. **Neuropeptides** 1998 Jun;32(3):211–4

Growth hormone–secreting pituitary adenomas in childhood and adolescence: features and results of transnasal surgery. Abe T, et al. **Neurosurgery** 1999 Jul;45(1):1–10

Suppression of nocturnal growth hormone secretion in epilepsy with continuous spike–waves during slow–wave sleep. Iyoda K, et al. **Pediatr Int** 1999 Apr;41(2):192–4

Neuroendocrine control of growth hormone secretion. Müller EE, et al. **Physiol Rev** 1999 Apr;79(2):511–607 (1131 ref.)

Zolmitriptan–induced growth hormone release in humans: mediation by 5–HT1D receptors? Whale R, et al. **Psychopharmacology (Berl)** 1999 Jul;145(2):223–6

Improved nasal breathing in snorers increases nocturnal growth hormone secretion and serum concentrations of insulin–like growth factor 1 subsequently. Löth S, et al. **Rhinology** 1998 Dec;36(4):179–83

Interrelations between sleep and the somatotropic axis. Van Cauter E, et al. **Sleep** 1998 Sep 15;21(6):553–66 (129 ref.)

THERAPEUTIC USE

The use of growth hormone in the treatment of extensive burns: a case report. Koller J, et al. **Acta Chir Plast** 1998; 40(3):76–8

Final height in idiopathic growth hormone deficiency: the KIGS experience. KIGS International Board. Cutfield W, et al. **Acta Paediatr Suppl** 1999 Feb;88(428):72–5

Growth hormone insensitivity: our current understanding and future directions. Rosenfeld RG. **Acta Paediatr Suppl** 1999 Feb;88(428):209–10

Partial growth hormone insensitivity--idiopathic short stature is not always idiopathic. Saenger P. **Acta Paediatr Suppl** 1999 Feb;88(428):194–8 (20 ref.)

Endocrine predictors of acute hemodynamic effects of growth hormone in congestive heart failure [see comments] Giustina A, et al. **Am Heart J** 1999 Jun;137(6):1035–43. Comment in: Am Heart J 1999 Jun;137(6):989–91.

Growth hormone therapy in patients with congestive heart failure: need for further research [editorial; comment] Johnson MR, et al. **Am Heart J** 1999 Jun;137(6):989–91 (21 ref.). Comment on: Am Heart J 1999 Jun;137(6):1035–43.

Physician attitudes toward human growth hormone products. Nelson WW, et al. **Am J Health Syst Pharm** 1999 Jan 1; 56(1):51–6

Double–blind, placebo–controlled study of growth hormone treatment in elderly patients undergoing chronic hemodialysis: anabolic effect and functional improvement. Johannsson G, et al. **Am J Kidney Dis** 1999 Apr; 33(4):709–17

Recombinant human growth hormone and Gitelman's syndrome. Ko CW, et al. **Am J Kidney Dis** 1999 Apr; 33(4):778–81

Strength and its relationship to changes in fat–free mass, total body potassium, total body water and IGF–1 in adults with growth hormone deficiency: effect of treatment with growth hormone. Bell W, et al. **Ann Hum Biol** 1999 Jan–Feb;26(1):63–78

Perioperative growth hormone treatment and functional outcome after major abdominal surgery: a randomized, double–blind, controlled study. Kissmeyer–Nielsen P, et al. **Ann Surg** 1999 Feb;229(2):298–302

Absence of effect of recombinant growth hormone to classic gonadotropin treatment on spermatogenesis of patients with severe hypogonadotropic hypogonadism. Giagulli VA. **Arch Androl** 1999 Jul–Aug;43(1):47–53

Growth hormone treatment in young children with Down's syndrome: effects on growth and psychomotor development. Annerén G, et al. **Arch Dis Child** 1999 Apr; 80(4):334–8

Randomised controlled trial of recombinant human growth hormone in prepubertal and pubertal renal transplant recipients. British Association for Pediatric Nephrology. Maxwell H, et al. **Arch Dis Child** 1998 Dec;79(6):481–7

Growth hormone attenuates tumor necrosis factor alpha in burned children. Chrysopoulo MT, et al. **Arch Surg** 1999 Mar;134(3):283–6

Impact of recombinant human growth hormone (RH–GH) treatment on psychiatric, neuropsychological and clinical profiles of GH deficient adults. A placebo–controlled trial. Soares C de N, et al. **Arq Neuropsiquiatr** 1999 Jun; 57(2A):182–9

Cholesterol and lipoprotein metabolism in aging: reversal of hypercholesterolemia by growth hormone treatment in old rats. Parini P, et al. **Arterioscler Thromb Vasc Biol** 1999 Apr;19(4):832–9

How much, and by what mechanisms, does growth hormone replacement improve the quality of life in GH–deficient adults? Chrisoulidou A, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):261–79 (52 ref.)

Growth hormone deficiency and cardiovascular risk. Hew FL, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul; 12(2):199–216 (74 ref.)

Growth hormone therapy and fracture risk in the growth hormone–deficient adult. Johannsson G, et al. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):233–50 (107 ref.)

Recombinant human growth hormone as potential therapy for osteoporosis. Marcus R. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):251–60 (43 ref.)

Growth hormone: a new therapy for heart failure? Sacca L. **Baillieres Clin Endocrinol Metab** 1998 Jul;12(2):217–31 (83 ref.)

Effect of growth hormone therapy in burn patients on conservative treatment. Singh KP, et al. **Burns** 1998 Dec; 24(8):733–8

Growth hormone preserves cardiac sarcoplasmic reticulum Ca2+ release channels (ryanodine receptors) and enhances cardiac function in cardiomyopathic hamsters. Ueyama T, et al. **Cardiovasc Res** 1998 Oct;40(1):64–73

Recombinant growth hormone therapy in patients with ischemic cardiomyopathy : effects on hemodynamics, left ventricular function, and cardiopulmonary exercise capacity. Genth–Zotz S, et al. **Circulation** 1999 Jan 5–12; 99(1):18–21

Growth hormone, cardiomyocyte contractile reserve, and heart failure [editorial; comment] Ross J Jr. **Circulation** 1999 Jan 5–12;99(1):15–7 (19 ref.). Comment on: Circulation 1999 Jan 5–12;99(1):127–34.

Treatment with growth hormone enhances contractile reserve and intracellular calcium transients in myocytes from rats with postinfarction heart failure [see comments] Tajima M, et al. **Circulation** 1999 Jan 5–12;99(1):127–34. Comment in: Circulation 1999 Jan 5–12;99(1):15–7.

Bone mineral density, bone metabolism and body composition of children with chronic renal failure, with and without growth hormone treatment. Boot AM, et al. **Clin Endocrinol (Oxf)** 1998 Nov;49(5):665–72

Effects of growth hormone treatment on serum levels of insulin–like growth factors (IGFs) and IGF binding proteins 1–4 in postmenopausal women. Kassem M, et al. **Clin Endocrinol (Oxf)** 1998 Dec;49(6):747–56

Glucocorticoid therapy suppresses abnormal secretion of big IGF–II by non–islet cell tumours inducing hypoglycaemia (NICTH). Teale JD, et al. **Clin Endocrinol (Oxf)** 1998 Oct; 49(4):491–8

Growth hormone therapy in children in Canada: what have we learned in the past decade from an unlimited supply of growth hormone? [editorial; comment] Dean H. **Clin Invest Med** 1999 Apr;22(2):60–2. Comment on: Clin Invest Med 1999 Apr;22(2):53–9.

Recombinant human growth hormone for reconditioning of respiratory muscle after lung volume reduction surgery [see comments] Felbinger TW, et al. **Crit Care Med** 1999 Aug; 27(8):1634–8. Comment in: Crit Care Med 1999 Aug;27(8):1687–8. Comment in: Crit Care Med 1999 Aug;27(8):1689–90.

Treatment of cachexia with recombinant growth hormone in a patient before lung transplantation: a case report. Pichard C, et al. **Crit Care Med** 1999 Aug;27(8):1639–42

Assessing new technology, another chapter: lung volume reduction surgery/recombinant human growth hormone [editorial; comment] Slonim AD, et al. **Crit Care Med** 1999 Aug;27(8):1687–8 (15 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1634–8.

Changes in levels of serum and urinary collagen–related substances in growth hormone deficient children following discontinuation of growth hormone therapy. Kuno T, et al. **Endocr J** 1998 Apr;45 Suppl:S151–3

Clinical course of long term treatment with intermittent subcutaneous injection of LHRH in combination with GH replacement in a male patient with hypothalamic hypogonadism due to disruption of the pituitary stalk. Mori T, et al. **Endocr J** 1998 Apr;45 Suppl:S155–8

GH and zinc treatments for short stature caused by steroid treatments in a young patient with autoimmune hepatitis (type 1). Mori Y, et al. **Endocr J** 1998 Apr;45 Suppl:S163–5

Effect of growth hormone (GH) replacement on plasma carboxy–terminal propeptide of type I procollagen (PICP) and pyridinoline cross–linked carboxyterminal telopeptide of type I collagen (ICTP) levels in GH–deficient adult

patients. Murakami Y, et al. **Endocr J** 1998 Apr;45 Suppl:S121–4
Growth hormone and bone diseases. Tanaka H. **Endocr J** 1998 Apr;45 Suppl:S47–52 (8 ref.)
Registration system for growth hormone (GH) treatment with standardized immunoreactive GH values in Japan. Tanaka T, et al. **Endocr J** 1998 Aug;45(4):459–65
Severe juvenile hypothyroidism: treatment with GH and GnRH agonist in addition to thyroxine. Watanabe T, et al. **Endocr J** 1998 Apr;45 Suppl:S159–62
Lymphocyte subsets in renal transplant recipients during growth hormone therapy. Lebl J, et al. **Endocr Regul** 1999 Mar;33(1):3–8
Why growth hormone therapy is efficient in heart failure? [letter; comment] Beranek JT. **Eur Heart J** 1999 Feb; 20(3):242–3. Comment on: Eur Heart J 1998 Apr;19(4):623–7.
Growth hormone treatment in chronic heart failure: lessons from the first 99 patients [editorial; comment] Cicoira M, et al. **Eur Heart J** 1998 Nov;19(11):1605–7. Comment on: Eur Heart J 1998 Nov;19(11):1740–11.
Growth hormone in dilated cardiomyopathy (advantages and disadvantages) [letter; comment] Dreifuss P. **Eur Heart J** 1999 Feb;20(3):243–4. Comment on: Eur Heart J 1998 Apr;19(4):623–7.
Long-term results of GH therapy in GH-deficient children treated before 1 year of age. Huet F, et al. **Eur J Endocrinol** 1999 Jan;140(1):29–34
Growth hormone for the failing heart. Hussain MA. **Eur J Endocrinol** 1998 Nov;139(5):476–8 (37 ref.)
Apo E phenotype and changes in serum lipids in adult patients during growth hormone replacement. Leese GP, et al. **Eur J Endocrinol** 1999 Feb;140(2):174–9
Changes in body composition and leptin levels during growth hormone (GH) treatment in short children with various GH secretory capacities. Matsuoka H, et al. **Eur J Endocrinol** 1999 Jan;140(1):35–42
Long-term effects of growth hormone (GH) on body fluid distribution in GH deficient adults: a four months double blind placebo controlled trial. Møller J, et al. **Eur J Endocrinol** 1999 Jan;140(1):11–6
Growth hormone treatment of osteoporotic postmenopausal women – a one-year placebo-controlled study. Sääf M, et al. **Eur J Endocrinol** 1999 May;140(5):390–9
Effects of 42 months of GH treatment on bone mineral density and bone turnover in GH-deficient adults. Välimäki MJ, et al. **Eur J Endocrinol** 1999 Jun;140(6):545–54
Growth hormone treatment of infantile dilated cardiomyopathy [letter] Ikemoto Y, et al. **Eur J Pediatr** 1999 Mar;158(3):265–6
Growth hormone treatment in a child with Williams–Beuren syndrome: a case report. Kuijpers GM, et al. **Eur J Pediatr** 1999 Jun;158(6):451–4
The effects of recombinant human growth hormone on cardiopulmonary function in elective abdominal aortic aneurysm repair. Barry MC, et al. **Eur J Vasc Endovasc Surg** 1998 Oct;16(4):311–9
High incidence of cardiovascular disease and increased prevalence of cardiovascular risk factors in women with hypopituitarism not receiving growth hormone treatment: preliminary results. Erfurth EM, et al. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:21–4
Growth hormone binding protein correlates strongly with leptin and percentage body fat in GH-deficient adults, is increased by GH replacement but does not predict IGF-I response. Florkowski CM, et al. **Growth Horm IGF Res** 1999 Feb;9(1):35–40
Administration of growth hormone to catabolic patients. Hinds CJ. **Growth Horm IGF Res** 1999 Apr;9 Suppl A:71–5 (49 ref.)
Growth hormone treatment in critical illness--a critical appraisal. Isaksson OG. **Growth Horm IGF Res** 1999 Apr; 9 Suppl A:83–4 (2 ref.)
Although both rhGh and rhIGF-I have the potential to provide clinical benefit, each also has the potential to produce unwanted side-effects [editorial] Le Roith D. **Growth Horm IGF Res** 1999 Apr;9(2):83
Evidence supporting a direct suppressive effect of growth hormone on serum IGFBP-1 levels. Experimental studies in normal, obese and GH-deficient adults. Nørrelund H, et al. **Growth Horm IGF Res** 1999 Feb;9(1):52–60
The effect of the deterioration of insulin sensitivity on beta-cell function in growth-hormone-deficient adults following 4-month growth hormone replacement therapy. Rosenfalck AM, et al. **Growth Horm IGF Res** 1999 Apr; 9(2):96–105
Growth hormone improves weight velocity and height velocity in prepubertal children with cystic fibrosis. Hardin DS, et al. **Horm Metab Res** 1998 Oct;30(10):636–41
Absence of catch-down growth in Russell-Silver syndrome after short-term growth hormone treatment. Azcona C, et al. **Horm Res** 1999;51(1):47–9
What observational studies can offer decision makers. Black N. **Horm Res** 1999;51 Suppl 1:44–9
Growth hormone in the treatment of short stature in young children with intrauterine growth retardation. Czernichow P, et al. **Horm Res** 1998;49 Suppl 2:23–7
What decision analysis can offer the clinical decision maker. Why outcome databases such as KIGS and KIMS are vital sources for decision analysis. Dowie J. **Horm Res** 1999;51 Suppl 1:73–82
Patient attitudes and preferences regarding treatment: GH therapy for childhood short stature. Finkelstein BS, et al. **Horm Res** 1999;51 Suppl 1:67–72
Effects of recombinant human growth hormone on height and skeletal maturation in growth hormone-deficient children with and without severe pretreatment bone age delay. Frindik JP, et al. **Horm Res** 1999;51(1):15–9
Growth hormone therapy in patients with Turner syndrome. Haeusler G. **Horm Res** 1998;49 Suppl 2:62–6 (36 ref.)
Effects of growth hormone replacement therapy on IGF-related parameters and on the pituitary-gonadal axis in GH-deficient males. A double-blind, placebo-controlled crossover study. Juul A, et al. **Horm Res** 1998;49(6):269–78
High-dose growth hormone therapy in idiopathic short stature. Kamp GA, et al. **Horm Res** 1998;49 Suppl 2:67–72 (47 ref.)
Growth hormone treatment of children with Prader-Willi syndrome: effects on glucose and insulin homeostasis. Swedish National Growth Hormone Advisory Group. Lindgren AC, et al. **Horm Res** 1999;51(4):157–61
Growth hormone replacement in an adult with mild growth hormone deficiency and hereditary motor and sensory neuropathy: growth hormone restores independent mobility. Lissett CA, et al. **Horm Res** 1998;50(4):232–6
Potential role for growth hormone in human lactation insufficiency. Milsom SR, et al. **Horm Res** 1998 Sep; 50(3):147–50
Towards better decision making in growth hormone therapy. Pliskin JS. **Horm Res** 1999;51 Suppl 1:30–5
KIGS and KIMS as tools for evidence-based medicine. Ranke MB, et al. **Horm Res** 1999;51 Suppl 1:83–6
Catch-up growth after childhood-onset substitution in primary hypothyroidism: is it a guide towards optimal growth hormone treatment in idiopathic growth hormone deficiency? Ranke MB, et al. **Horm Res** 1998;50(5):264–70
Growth hormone treatment of Russell-Silver syndrome. Stanhope R, et al. **Horm Res** 1998;49 Suppl 2:37–40 (24 ref.)
Craniofacial growth and dental maturation in short children born small for gestational age: effect of growth hormone treatment. Own observations and review of the literature. Van Erum R, et al. **Horm Res** 1998 Sep;50(3):141–6 (35 ref.)
Attenuation of skeletal muscle wasting with recombinant human growth hormone secreted from a tissue-engineered bioartificial muscle. Vandenburgh H, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2555–64
Metabolic effects of biosynthetic growth hormone treatment in severely energy-restricted obese women. Tagliaferri M, et al. **Int J Obes Relat Metab Disord** 1998 Sep;22(9):836–41
Anabolic effects of growth hormone treatment in young children with cystic fibrosis [see comments] Alemzadeh R, et al. **J Am Coll Nutr** 1998 Oct;17(5):419–24. Comment in: J Am Coll Nutr 1998 Oct;17(5):405–6.
Growth hormone (GH) treatment in non-GH deficient chronic disease [editorial; comment] Richton SM. **J Am Coll Nutr** 1998 Oct;17(5):405–6. Comment on: J Am Coll Nutr 1998 Oct;17(5):419–24.
Short stature associated with high circulating insulin-like growth factor (IGF)-binding protein-1 and low circulating IGF-II: effect of growth hormone therapy. Barreca A, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3534–41
Effects of growth hormone (GH) replacement therapy on very low density lipoprotein apolipoprotein B100 kinetics in patients with adult GH deficiency: a stable isotope study. Christ ER, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):307–16
Growth hormone (GH) substitution in hypogonadotropic, GH-deficient women decreases the follicle-stimulating hormone threshold for monofollicular growth. de Boer JA, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):590–5
Early, discontinuous, high dose growth hormone treatment to normalize height and weight of short children born small for gestational age: results over 6 years. de Zegher F, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1558–61
Optimizing growth hormone replacement therapy by dose titration in hypopituitary adults. Drake WM, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3913–9
Comment on alteration of monocyte function in patients with growth hormone deficiency: effect of substitutive GH therapy [letter] Elhadd T, et al. **J Clin Endocrinol Metab** 1999 Sep;84(9):3405–6
Treatment of hemangiopericytoma-induced hypoglycemia with growth hormone and corticosteroids [letter] Gullo D, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1758–9
Gender differences in the effects of long term growth hormone (GH) treatment on bone in adults with GH deficiency. Johansson AG, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2002–7
Long-term prospective study of body composition and lipid profiles during and after growth hormone (GH) treatment in children with GH deficiency: gender-specific metabolic effects. Kuromaru R, et al. **J Clin Endocrinol Metab** 1998 Nov;83(11):3890–6
Human growth hormone treatment of short-stature children born small for gestational age: effect on muscle and adipose tissue mass during a 3-year treatment period and after 1 year's withdrawal. Leger J, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3512–6
Growth hormone (GH) therapy in GH-deficient adults influences the response to a dietary load of cholesterol and saturated fat in terms of cholesterol synthesis, but not serum low density lipoprotein cholesterol levels. Leonsson M, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1296–303
Adult height in girls with central precocious puberty treated with gonadotropin-releasing hormone analogues and growth hormone [published erratum appears in J Clin Endocrinol Metab 1999 Jun;84(6):1978] Pasquino AM, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):449–52
Growth hormone (GH) treatment reverses early atherosclerotic changes in GH-deficient adults. Pfeifer M, et al. **J Clin Endocrinol Metab** 1999 Feb;84(2):453–7
Effects of chronic renal failure and growth hormone on serum levels of insulin-like growth factor-binding protein-4 (IGFBP-4) and IGFBP-5 in children: a report of the Southwest Pediatric Nephrology Study Group. Powell DR, et al. **J Clin Endocrinol Metab** 1999 Feb; 84(2):596–601
Long-term treatment with growth hormone has no persisting effect on lipoprotein(a) in patients with Turner's syndrome. Querfeld U, et al. **J Clin Endocrinol Metab** 1999 Mar; 84(3):967–70
Growth hormone replacement therapy in the elderly with hypothalamic-pituitary disease: a dose-finding study. Toogood AA, et al. **J Clin Endocrinol Metab** 1999 Jan; 84(1):131–6
Changes in thyroid hormone levels during growth hormone therapy in initially euthyroid patients: lack of need for thyroxine supplementation. Wyatt DT, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3493–7
The effect of growth hormone therapy on craniofacial growth and dental maturity in children with Down syndrome. Carlstedt K, et al. **J Craniofac Genet Dev Biol** 1999 Jan–Mar;19(1):20–3
Insulin action in growth hormone-deficient and age-matched control rats: effect of growth hormone treatment. Daugaard JR, et al. **J Endocrinol** 1999 Jan;160(1):127–35
Insulin sensitivity in growth hormone (GH)-deficient adults and effect of GH replacement therapy. Alford FP, et al. **J Endocrinol Invest** 1999;22(5 Suppl):28–32
Nitric oxide and the mediation of the hemodynamic effects of growth hormone in humans. Böger RH. **J Endocrinol Invest** 1999;22(5 Suppl):75–81 (42 ref.)
Dynamics of lipoprotein metabolism in adult growth hormone deficiency. Christ ER, et al. **J Endocrinol Invest** 1999;22(5 Suppl):16–21 (23 ref.)
The influence of growth hormone (GH) deficiency and GH replacement on quality of life in GH-deficient patients. Deijen JB, et al. **J Endocrinol Invest** 1999;22(5 Suppl):127–36 (54 ref.)
Growth hormone and body composition in athletes. Frisch H. **J Endocrinol Invest** 1999;22(5 Suppl):106–9 (24 ref.)
Determinants of circulating insulin-like growth factor-I. Hall K, et al. **J Endocrinol Invest** 1999;22(5 Suppl):48–57 (58 ref.)
Gender difference in growth hormone response in adults. Johansson AG. **J Endocrinol Invest** 1999;22(5 Suppl):58–60 (22 ref.)
Long-term effects of growth hormone therapy on intermediary metabolism and insulin sensitivity in hypopituitary adults. Johnston DG, et al. **J Endocrinol Invest** 1999;22(5 Suppl):37–40 (19 ref.)
Two hot topics in the field of GH therapy: quality of life in hypopituitary adults, and clinical implications of the somatopause. Report from an interactive discussion. Jørgensen JO. **J Endocrinol Invest** 1999;22(5 Suppl):150–6 (26 ref.)
Effects of two years of growth hormone (GH) replacement therapy on bone metabolism and mineral density in childhood and adulthood onset GH deficient patients. Longobardi S, et al. **J Endocrinol Invest** 1999 May; 22(5):333–9
Effect of low-dosage recombinant human growth hormone therapy on pulmonary function in hypopituitary patients with adult-onset growth hormone deficiency. Meineri I, et al. **J Endocrinol Invest** 1998 Jul–Aug;21(7):423–7
Long-term monitoring of rec-GH treatment by serial determination of serum aminoterminal propeptide of type III procollagen in children and adults with GH deficiency. Sartorio A, et al. **J Endocrinol Invest** 1999 Mar;22(3):169–75
Aged-rodent models of long-term growth hormone therapy: lack of deleterious effect on longevity. Kalu DN, et al. **J Gerontol A Biol Sci Med Sci** 1998 Nov;53(6):B452–63
Growth hormone promotes somatic and skeletal muscle growth recovery in rats following chronic protein-energy malnutrition. Gautsch TA, et al. **J Nutr** 1999 Apr; 129(4):828–37
Growth hormone improves body composition, fat utilization, physical strength and agility, and growth in Prader-Willi syndrome: A controlled study. Carrel AL, et al. **J Pediatr** 1999 Feb;134(2):215–21
Growth hormone therapy in Noonan syndrome [letter; comment] Cianfarani S. **J Pediatr** 1999 Mar;134(3):385–6. Comment on: J Pediatr 1996 May;128(5 Pt 2):S18–21. Comment on: J Pediatr 1997 Jun;130(6):885–9.
Short-term therapy with recombinant growth hormone in polytransfused thalassaemia major patients with growth deficiency. Cavallo L, et al. **J Pediatr Endocrinol Metab** 1998;11 Suppl 3:845–9
Treatment of peripubertal children after renal transplantation (RTX) with recombinant human growth hormone: auxological data and effects on insulin-like growth factor-I (IGF-I) and IGF-binding protein-3 (IGFBP-3) during 24 months. Riedl S, et al. **J Pediatr Endocrinol Metab** 1998 Nov–Dec;11(6):713–8

SOMATROPIN

Growth hormone resistance and somatomedins in children with end-stage liver disease awaiting transplantation. Greer RM, et al. **J Pediatr Gastroenterol Nutr** 1998 Aug; 27(2):148–54

Nutritional, respiratory, and psychological effects of recombinant human growth hormone in patients undergoing abdominal aortic aneurysm repair. Barry MC, et al. **JPEN J Parenter Enteral Nutr** 1999 May–Jun; 23(3):128–35

Effect of growth-hormone therapy on early atherosclerotic changes in GH-deficient adults. Bengtsson BA, et al. **Lancet** 1999 Jun 5;353(9168):1898–9

Gender difference in the response of growth hormone (GH)-deficient adults to GH therapy. Hayes FJ, et al. **Metabolism** 1999 Mar;48(3):308–13

High-affinity growth hormone (GH)-binding protein (GHBP), body fat mass, and insulin-like growth factor-binding protein-3 predict the GHBP response to GH therapy in adult GH deficiency syndrome. Roelen CA, et al. **Metaboiism** 1999 Mar;48(3):314–8

Treatment of hypopituitarism in infancy. Effect on head circumference growth. Di Maio S, et al. **Minerva Pediatr** 1999 Apr;51(4):89–92

Treatments for wasting in patients with the acquired immunodeficiency syndrome. Corcoran C, et al. **N Engl J Med** 1999 Jun 3;340(22):1740–50 (78 ref.)

Effect of growth hormone treatment on adult height of children with idiopathic short stature. Genentech Collaborative Group [see comments] Hintz RL, et al. **N Engl J Med** 1999 Feb 18;340(7):502–7. Comment in: N Engl J Med 1999 Feb 18;340(7):557–9.

Growth hormone use in normal, short children--a plea for reason [editorial; comment] Oberfield SE. **N Engl J Med** 1999 Feb 18;340(7):557–9. Comment on: N Engl J Med 1999 Feb 18;340(7):502–7.

Growth hormone therapy in adults and children. Vance ML, et al. **N Engl J Med** 1999 Oct 14;341(16):1206–16 (99 ref.)

Growth hormone deficiency following radiotherapy for orbital and parameningeal sarcomas. Goddard AG, et al. **Pediatr Hematol Oncol** 1999 Jan–Feb;16(1):23–33

Growth hormone exerts potent anabolic effects in an adolescent with human immunodeficiency virus wasting. Dreimane D, et al. **Pediatr Infect Dis J** 1999 Feb; 18(2):167–9

Effects of growth hormone in short children after renal transplantation. French Society of Pediatric Nephrology. Guest G, et al. **Pediatr Nephrol** 1998 Aug;12(6):437–46

Combination growth hormone and estrogen increase bone mineralization in girls with Turner syndrome. Beckett PR, et al. **Pediatr Res** 1999 May;45(5 Pt 1):709–13

Impact of growth hormone treatment on a Belgian population of short children with renal allografts. Janssen F, et al. **Pediatr Transplant** 1997 Nov;1(2):190–6

Long-term experience with growth hormone treatment in children with chronic renal failure. Schaefer F, et al. **Perit Dial Int** 1999;19 Suppl 2:S467–72 (35 ref.)

Anticatabolic and anabolic strategies in critical illness: a review of current treatment modalities. Chang DW, et al. **Shock** 1998 Sep;10(3):155–60 (77 ref.)

[The effect of recombinant human growth hormone on thyroid function in patients with growth hormone deficiency] Tang D, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Nov;36(11):754–8 (Eng. Abstr.) **(Chi)**

[New conditions for the use of growth hormone and outcomes for different indications] Rochiccioli P, et al. **Ann Endocrinol (Paris)** 1998 Nov;59(4):296–9 (8 ref.) **(Fre)**

[Growth hormone: a magical potion?] Schlienger JL, et al. **Rev Med Interne** 1998 Apr;19(4):279–85 (47 ref.) (Eng. Abstr.) **(Fre)**

[Growth hormone in adolescents and in young adults] Saggese G, et al. **Minerva Pediatr** 1998 Jun;50(6):197–201 (34 ref.) **(Ita)**

[Growth and the assessment of body composition in children treated with the growth hormone] Marco Hernández M, et al. **An Esp Pediatr** 1999 Jun;50(6):587–93 (Eng. Abstr.) **(Spa)**

[Growth hormone therapy in short bowel syndrome (letter)] Moreno Villares JM, et al. **An Esp Pediatr** 1998 Nov; 49(5):544–5 **(Spa)**

[The behavior of atherogenic indices under the effect of growth hormone in postoperative disease] Martin Perandrés RM, et al. **An Med Interna** 1999 Feb;16(2):73–5 (Eng. Abstr.) **(Spa)**

URINE

Development and evaluation of a direct immunofluorimetric assay for urinary growth hormone. McConway MG, et al. **Ann Clin Biochem** 1999 Sep;36 (Pt 5):649–54

Influence of gender in growth hormone status in adults: role of urinary growth hormone [letter; comment] Cappellin E, et al. **Clin Chem** 1999 Mar;45(3):443–4. Comment on: Clin Chem 1998 Jun;44(6 Pt 1):1289–95.

Sleep, respiratory rate, and growth hormone in chronic neonatal lung disease. Fitzgerald D, et al. **Pediatr Pulmonol** 1998 Oct;26(4):241–9

Effects of inhaled corticosteroids and inhaled cromolyn sodium on urinary growth hormone excretion in asthmatic children. Soferman R, et al. **Pediatr Pulmonol** 1998 Nov; 26(5):339–43

SOMITES

The lunatic fringe gene is a target of the molecular clock linked to somite segmentation in avian embryos. McGrew MJ, et al. **Curr Biol** 1998 Aug 27;8(17):979–82

Expression of SC1 is associated with the migration of myotomes along the dermomyotome during somitogenesis in early mouse embryos. Ringuette M, et al. **Dev Genes Evol** 1998 Sep;208(7):403–6

The cellular mechanism by which the dermomyotome contributes to the second wave of myotome development. Kahane N, et al. **Development** 1998 Nov;125(21):4259–71

A Drosophila doublesex-related gene, terra, is involved in somitogenesis in vertebrates. Meng A, et al. **Development** 1999 Mar;126(6):1259–68

Mesoderm patterning and somite formation during node regression: differential effects of chordin and noggin. Streit A, et al. **Mech Dev** 1999 Jul;85(1-2):85–96

CYTOLOGY

Apoptosis of epaxial myotome in Danforth's short-tail (Sd) mice in somites that form following notochord degeneration. Asakura A, et al. **Dev Biol** 1998 Nov 15; 203(2):276–89

N-cadherin/catenin-mediated morphoregulation of somite formation. Linask KK, et al. **Dev Biol** 1998 Oct 1; 202(1):85–102

Somitogenesis controlled by Noggin. Tonegawa A, et al. **Dev Biol** 1998 Oct 15;202(2):172–82

Anterior-posterior subdivision of the somite in embryonic zebrafish: implications for motor axon guidance. Bernhardt RR, et al. **Dev Dyn** 1998 Nov;213(3):334–47

her1, a zebrafish pair-rule like gene, acts downstream of notch signalling to control somite development. Takke C, et al. **Development** 1999 Jul;126(13):3005–14

Sonic hedgehog promotes somitic chondrogenesis by altering the cellular response to BMP signaling. Murtaugh LC, et al. **Genes Dev** 1999 Jan 15;13(2):225–37

DRUG EFFECTS

Effects of boric acid on axial skeletal development in rats. Narotsky MG, et al. **Biol Trace Elem Res** 1998 Winter; 66(1-3):373–94

Disruption of zebrafish somite development by pharmacologic inhibition of Hsp90. Lele Z, et al. **Dev Biol** 1999 Jun 1;210(1):56–70

Morphological alterations induced by sodium valproate on somites and spinal nerves in rat embryos. Menegola E, et al. **Teratology** 1999 Feb;59(2):110–9

METABOLISM

Dynamic expression of lunatic fringe suggests a link between notch signaling and an autonomous cellular oscillator driving somite segmentation. Aulehla A, et al. **Dev Biol** 1999 Mar 1;207(1):49–61

A role for DNA methylation in gastrulation and somite patterning. Martin CC, et al. **Dev Biol** 1999 Feb 15; 206(2):189–205

her1, a zebrafish pair-rule like gene, acts downstream of notch signalling to control somite development. Takke C, et al. **Development** 1999 Jul;126(13):3005–14

Genetic rescue of segmentation defect in MesP2-deficient mice by MesP1 gene replacement. Saga Y. **Mech Dev** 1998 Jul;75(1-2):53–66

Expression of Zkrml2, a homologue of the Krml1/val segmentation gene, during embryonic patterning of the zebrafish (Danio rerio). Schvarzstein M, et al. **Mech Dev** 1999 Feb;80(2):223–6

Isolation, expression and regulation of a zebrafish paraxis homologue. Shanmugalingam S, et al. **Mech Dev** 1998 Nov; 78(1-2):85–9

F-Spondin, expressed in somite regions avoided by neural crest cells, mediates inhibition of distinct somite domains to neural crest migration. Debby-Brafman A, et al. **Neuron** 1999 Mar;22(3):475–88

PATHOLOGY

Heat shock produces periodic somitic disturbances in the zebrafish embryo. Roy MN, et al. **Mech Dev** 1999 Jul; 85(1-2):27–34

PHYSIOLOGY

Defect repair after somite removal in avian embryos is not true regeneration. Jüngel-Waas K, et al. **Anat Embryol (Berl)** 1998 Oct;198(4):255–65

Activation of Pax6 depends on somitogenesis in the chick embryo cervical spinal cord. Pituello F, et al. **Development** 1999 Feb;126(3):587–96

Eph signaling is required for segmentation and differentiation of the somites. Durbin L, et al. **Genes Dev** 1998 Oct 1; 12(19):3096–109

Compartmentalisation of the developing trigeminal ganglion into maxillary and mandibular divisions does not depend on target contact. Scott L, et al. **J Anat** 1999 Jul;195 (Pt 1):137–45

Role of growth factors in shaping the developing somite. Hirsinger E, et al. **Mol Cell Endocrinol** 1998 May 25; 140(1-2):83–7 (20 ref.)

TRANSPLANTATION

Grafting of somites. Stern CD. **Methods Mol Biol** 1999; 97:255–64

SOMNAMBULISM

Recent onset of sleepwalking in early adolescence. Stein MT, et al. **J Dev Behav Pediatr** 1998 Aug;19(4):306–8

CHEMICALLY INDUCED

Lithium-induced somnambulism [letter] Landry P, et al. **Can J Psychiatry** 1998 Nov;43(9):957–8

Somnambulistic-like behaviour in patients attending a lithium clinic. Landry P, et al. **Int Clin Psychopharmacol** 1999 May; 14(3):173–5

Zolpidem tartrate and somnambulism. Harazin J, et al. **Mil Med** 1999 Sep;164(9):669–70

Agitated sleepwalking with fluoroquinolone therapy [letter] von Vigier RO, et al. **Pediatr Infect Dis J** 1999 May; 18(5):484–5

COMPLICATIONS

Somnambulism and trauma: case report and short review of the literature. Milliet N, et al. **J Trauma** 1999 Aug; 47(2):420–2 (12 ref.)

EPIDEMIOLOGY

Night terrors, sleepwalking, and confusional arousals in the general population: their frequency and relationship to other sleep and mental disorders. Ohayon MM, et al. **J Clin Psychiatry** 1999 Apr;60(4):268–76; quiz 277

SOMNOGRAPHY see **POLYSOMNOGRAPHY**

SONGBIRDS

Causes of death of wild birds of the family Fringillidae in Britain [see comments] Pennycott TW, et al. **Vet Rec** 1998 Aug 8;143(6):155–8. Comment in: Vet Rec 1998 Aug 22;143(8):231. Comment in: Vet Rec 1998 Sep 26;143(13):371–2.

Visual pigments and oil droplets in the retina of a passerine bird, the canary Serinus canaria: microspectrophotometry and opsin sequences. Das D, et al. **Vision Res** 1999 Aug; 39(17):2801–15

[Polyomavirus infections in exotic birds in Switzerland] Sandmeier P, et al. **Schweiz Arch Tierheilkd** 1999; 141(5):223–9 (Eng. Abstr.) **(Ger)**

ANATOMY & HISTOLOGY

Evaluation of pulmonary volumetric morphometry at the light and electron microscopy level in several species of passerine birds. Vitali SD, et al. **J Anat** 1998 Nov;193 (Pt 4):573–80

Multiple cell types distinguished by physiological, pharmacological, and anatomic properties in nucleus HVc of the adult zebra finch. Dutar P, et al. **J Neurophysiol** 1998 Oct;80(4):1828–38

BLOOD

Effects of vasoactive intestinal peptide on plasma prolactin in passerines. Maney DL, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):323–30

CLASSIFICATION

Phylogeny and rapid northern and southern hemisphere speciation of goldfinches during the Miocene and Pliocene epochs [published erratum appears in Cell Mol Life Sci 1999 Jan;55(1):148] Arnaiz-Villena A, et al. **Cell Mol Life Sci** 1998 Sep;54(9):1031–41

Molecular phylogeny and ecological diversification in a clade of New World songbirds (genus Vireo). Cicero C, et al. **Mol Ecol** 1998 Oct;7(10):1359–70

Mitochondrial phylogeny of the genus Regulus and implications on the evolution of breeding behavior in sylvioid songbirds. Sturmbauer C, et al. **Mol Phylogenet Evol** 1998 Aug;10(1):144–9

EMBRYOLOGY

Influence of heavy metal exposure during different phases of the ontogeny on the development of pied flycatchers, Ficedula hypoleuca, in natural populations. Nyholm NE. **Arch Environ Contam Toxicol** 1998 Nov;35(4):632–7

GENETICS

A W-chromosome linked marker for gender identification in the zebra finch. Runciman D, et al. **Anim Genet** 1999 Feb;30(1):66–7

Phylogeny and rapid northern and southern hemisphere speciation of goldfinches during the Miocene and Pliocene epochs [published erratum appears in Cell Mol Life Sci 1999 Jan;55(1):148] Arnaiz-Villena A, et al. **Cell Mol Life Sci** 1998 Sep;54(9):1031–41

Polymorphism and transcription of Mhc class I genes in a passerine bird, the great reed warbler. Westerdahl H, et al. **Immunogenetics** 1999 Mar;49(3):158–70

Distribution of aromatase, estrogen receptor, and androgen receptor mRNA in the forebrain of songbirds and

nonsongbirds. Metzdorf R, et al. **J Comp Neurol** 1999 Apr 28;407(1):115-29
Molecular phylogeny and ecological diversification in a clade of New World songbirds (genus Vireo). Cicero C, et al. **Mol Ecol** 1998 Oct;7(10):1359-70
Microsatellite primers for studies of gene flow and mating systems in white-eyes (Zosterops). Degnan SM, et al. **Mol Ecol** 1999 Jan;8(1):159-60
Geographic analysis of nucleotide diversity and song sparrow (Aves: Emberizidae) population history. Fry AJ, et al. **Mol Ecol** 1998 Oct;7(10):1303-13
Characterization of hypervariable microsatellites in the cooperatively breeding white-browed sparrow weaver Plocepasser mahali. McRae SB, et al. **Mol Ecol** 1999 May; 8(5):903-4
Microsatellite primers from Geospiza fortis and cross-species amplification in Darwin's finches. Petren K. **Mol Ecol** 1998 Dec;7(12):1782-4
Amplified fragment length polymorphism (AFLP) markers reveal extra-pair parentage in a bird species: the bluethroat (Luscinia svecica). Questiau S, et al. **Mol Ecol** 1999 Aug; 8(8):1331-9
Population boundaries and genetic diversity in the endangered Mariana crow (Corvus kubaryi). Tarr CL, et al. **Mol Ecol** 1999 Jun;8(6):941-9
Molecular phylogenetics of finches and sparrows: consequences of character state removal in cytochrome b sequences. Groth JG. **Mol Phylogenet Evol** 1998 Dec; 10(3):377-90
A molecular phylogeny of the New World orioles (Icterus): the importance of dense taxon sampling. Omland KE, et al. **Mol Phylogenet Evol** 1999 Jul;12(2):224-39
Phylogeny of Darwin's finches as revealed by mtDNA sequences. Sato A, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27;96(9):5101-6

GROWTH & DEVELOPMENT

Development of the cerebral cortex: XI. Sexual dimorphism in the brain. Kirn J, et al. **J Am Acad Child Adolesc Psychiatry** 1998 Nov; 37(11):1228-30

IMMUNOLOGY

Health of tree swallows (Tachycineta bicolor) nesting in pesticide-sprayed apple orchards in Ontario, Canada. I. Immunological parameters. Bishop CA, et al. **J Toxicol Environ Health** 1998 Dec 25;55(8):531-59

METABOLISM

Second messenger production in avian medullary nephron segments in response to peptide hormones. Goldstein DL, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R847-54
Effect of skin removal on estimated levels of organochlorine pesticide contamination in passerine birds. Frick JA, et al. **Bull Environ Contam Toxicol** 1998 Nov;61(5):658-63
Effects of ambient temperature on photo-induced prolactin secretion in three subspecies of white-crowned sparrow, Zonotrichia leucophrys. Maney DL, et al. **Gen Comp Endocrinol** 1999 Mar;113(3):445-56
Androgen synthesis in a songbird: a study of cyp17 (17alpha-hydroxylase/C17,20-lyase) activity in the zebra finch. Schlinger BA, et al. **Gen Comp Endocrinol** 1999 Jan; 113(1):46-58
Daily estradiol and progesterone levels relative to laying and onset of incubation in canaries. Sockman KW, et al. **Gen Comp Endocrinol** 1999 May;114(2):257-68
Effects of vasoactive intestinal peptide on prolactin secretion in three species of passerine birds. Vleck CM, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):146-54
Central vasotocin-immunoreactive system in a male passerine bird (Junco hyemalis). Panzica GC, et al. **J Comp Neurol** 1999 Jun 21;409(1):105-17
The sexually dimorphic expression of androgen receptors in the song nucleus hyperstriatalis ventrale pars caudale of the zebra finch develops independently of gonadal steroids. Gahr M, et al. **J Neurosci** 1999 Apr 1;19(7):2628-36
Song-induced phosphorylation of cAMP response element-binding protein in the songbird brain. Sakaguchi H, et al. **J Neurosci** 1999 May 15;19(10):3973-81

MICROBIOLOGY

PCR detection of Chlamydia psittaci in faecal samples from passerine birds in Sweden. Olsen B, et al. **Epidemiol Infect** 1998 Oct;121(2):481-4

PARASITOLOGY

Taxonomic review of Cotingacola (Phthiraptera: Philopteridae) from the cotingas (Passeriformes: Tyrannidae), with descriptions of two new species. Clayton DH, et al. **J Med Entomol** 1998 Sep;35(5):732-9
Effect of temperature on the development of Culiseta melanura (Diptera: Culicidae) and its impact on the amplification of eastern equine encephalomyelitis virus in birds. Mahmood F, et al. **J Med Entomol** 1998 Nov; 35(6):1007-12
An Eimeriid origin of isosporoid coccidia with Stieda bodies as shown by phylogenetic analysis of small subunit ribosomal RNA gene sequences. Carreno RA, et al. **J Parasitol** 1999 Feb;85(1):77-83
Epizootic podoknemidokoptiasis in American robins. Pence DB, et al. **J Wildl Dis** 1999 Jan;35(1):1-7
Description of Pythonella scleruri n. sp. (Apicomplexa: Eimeriidae) from a brazilian bird rufous-breasted-leaftosser Sclerurus scansor, 1835 (Passeriformes: Furnariidae). Kawazoe U, et al. **Mem Inst Oswaldo Cruz** 1999 Mar-Apr; 94(2):157-9

PHYSIOLOGY

Anterior forebrain pathway is needed for stable song expression in adult male white-crowned sparrows (Zonotrichia leucophrys). Benton S, et al. **Behav Brain Res** 1998 Nov;96(1-2):135-50
Song behavior, NGF level and NPY distribution in the brain of adult male zebra finches. Fiore M, et al. **Behav Brain Res** 1999 May;101(1):85-92
Effect of septal lesions on male song and aggression in the colonial zebra finch (Taeniopygia guttata) and the territorial field sparrow (Spizella pusilla) [corrected and republished with original paging, article originally printed in Behav Brain Res 1999 Jan;98(1):167-80] Goodson JL, et al. **Behav Brain Res** 1999 May;101(1):167-80
Effect of septal lesions on male song and aggression in the colonial zebra finch (Taeniopygia guttata) and the territorial field sparrow (Spizella pusilla) [corrected and republished in Behav Brain Res 1999 May;101(1):167-80] Goodson JL, et al. **Behav Brain Res** 1999 Jan;98(1):167-80
Involvement of threshold photoperiod in control of reproductive rhythmicity in migratory blackheaded bunting, Emberiza melanocephala. Mishra MK, et al. **Chronobiol Int** 1999 Jan;16(1):59-67
Seasonal and diel transitions in physiology and behavior in the migratory dark-eyed junco. Ramenofsky M, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Apr; 122(4):385-97
Alterations in hypothalamic-pituitary-adrenal function associated with captivity in Gambel's white-crowned sparrows (Zonotrichia leucophrys gambelii). Romero LM, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jan;122(1):13-20
Sensitive periods and circuits for learned birdsong. Mooney R. **Curr Opin Neurobiol** 1999 Feb;9(1):121-7 (66 ref.)
Androgen receptor, estrogen receptor alpha, and estrogen receptor beta show distinct patterns of expression in forebrain song control nuclei of European starlings. Bernard DJ, et al. **Endocrinology** 1999 Oct;140(10):4633-43
Egg yolk layers vary in the concentration of steroid hormones in two avian species. Lipar JL, et al. **Gen Comp Endocrinol** 1999 Aug;115(2):220-7
Long days and thyroxine program american tree sparrows for seasonality: evidence for temporal flexibility of the breeding season of euthyroid females. Wilson FE, et al. **Gen Comp Endocrinol** 1999 Jan;113(1):136-45
Time of thyroidectomy variably affects seasonality in female American tree sparrows (Spizella arborea). Wilson FE, et al. **Gen Comp Endocrinol** 1999 Jun;114(3):425-30
Adjustable frequency selectivity of auditory forebrain neurons recorded in a freely moving songbird via radiotelemetry. Nieder A, et al. **Hear Res** 1999 Jan; 127(1-2):41-54
Territorial aggression and dawn song are modulated by septal vasotocin and vasoactive intestinal polypeptide in male field sparrows (Spizella pusilla). Goodson JL. **Horm Behav** 1998 Aug;34(1):67-77
Neurally active stress peptide inhibits territorial defense in wild birds. Romero LM, et al. **Horm Behav** 1998 Dec; 34(3):239-47
The passerine hippocampus is a site of high aromatase: inter- and intraspecies comparisons. Saldanha CJ, et al. **Horm Behav** 1998 Oct;34(2):85-97
The effect of exogenous testosterone on parental behavior, plasma prolactin, and prolactin binding sites in dark-eyed juncos. Schoech SJ, et al. **Horm Behav** 1998 Aug;34(1):1-10
Parental and first generation effects of exogenous 17beta-estradiol on reproductive performance of female zebra finches (Taeniopygia guttata). Williams TD. **Horm Behav** 1999 Apr;35(2):135-43
Increased capillarity in leg muscle of finches living at altitude. Hepple RT, et al. **J Appl Physiol** 1998 Nov;85(5):1871-6
Influence of pinealectomy and pineal stalk deflection on circadian gastrointestinal tract melatonin rhythms in zebra finches (Taeniopygia guttata). Van't Hof TJ, et al. **J Biol Rhythms** 1999 Jun;14(3):185-9
Age- and sex-related differences in opioid receptor densities in the songbird vocal control system. Gulledge CC, et al. **J Comp Neurol** 1999 Feb 22;404(4):505-14
Long-range GABAergic projection in a circuit essential for vocal learning. Luo M, et al. **J Comp Neurol** 1999 Jan 5; 403(1):68-84
Noradrenergic system of the zebra finch brain: immunocytochemical study of dopamine-beta-hydroxylase. Mello CV, et al. **J Comp Neurol** 1998 Oct 19;400(2):207-28
Seasonal changes in androgen receptor immunoreactivity in the song nucleus HVc of a wild bird. Soma KK, et al. **J Comp Neurol** 1999 Jun 28;409(2):224-36
Tetrachromacy, oil droplets and bird plumage colours. Vorobyev M, et al. **J Comp Physiol [A]** 1998 Nov; 183(5):621-33
Frequency-range discriminations: special and general abilities in zebra finches (Taeniopygia guttata) and humans (Homo sapiens). Weisman R, et al. **J Comp Psychol** 1998 Sep; 112(3):244-58
Timing and classifying brief acoustic stimuli by songbirds and humans. Weisman R, et al. **J Exp Psychol Anim Behav Process** 1999 Apr;25(2):139-52
Diel rhythms of basal and stress-induced corticosterone in a wild, seasonal vertebrate, Gambel's white-crowned sparrow. Breuner CW, et al. **J Exp Zool** 1999 Aug 1; 284(3):334-42
Developmental regulation of NMDA receptor 2B subunit mRNA and ifenprodil binding in the zebra finch anterior forebrain. Basham ME, et al. **J Neurobiol** 1999 May; 39(2):155-67
Intrinsic and synaptic properties of neurons in the vocal-control nucleus IMAN from in vitro slice preparations of juvenile and adult zebra finches. Bottjer SW, et al. **J Neurobiol** 1998 Dec;37(4):642-58
Photoperiod and testosterone independently affect vocal control region volumes in adolescent male songbirds. Gulledge CC, et al. **J Neurobiol** 1998 Sep 15;36(4):550-8
Neural correlates of singing behavior in male zebra finches (Taeniopygia guttata). MacDougall-Shackleton SA, et al. **J Neurobiol** 1998 Sep 5;36(3):421-30
Inspiratory muscle activity during bird song. Wild JM, et al. **J Neurobiol** 1998 Sep 5;36(3):441-53
Changes in adult zebra finch song require a forebrain nucleus that is not necessary for song production. Williams H, et al. **J Neurobiol** 1999 Apr;39(1):14-28
Effect of intraseptal vasotocin and vasoactive intestinal polypeptide infusions on courtship song and aggression in the male zebra finch (Taeniopygia guttata). Goodson JL, et al. **J Neuroendocrinol** 1999 Jan;11(1):19-25
Neuroendocrine suppression of female courtship in a wild passerine: corticotropin-releasing factor and endogenous opioids. Maney DL, et al. **J Neuroendocrinol** 1998 Aug; 10(8):593-9
Multiple cell types distinguished by physiological, pharmacological, and anatomic properties in nucleus HVc of the adult zebra finch. Dutar P, et al. **J Neurophysiol** 1998 Oct;80(4):1828-38
Long-range inhibition within the zebra finch song nucleus RA can coordinate the firing of multiple projection neurons. Spiro JE, et al. **J Neurophysiol** 1999 Jun; 81(6):3007-20
Development of topography within song control circuitry of zebra finches during the sensitive period for song learning. Iyengar S, et al. **J Neurosci** 1999 Jul 15; 19(14):6037-57
A GABAergic, strongly inhibitory projection to a thalamic nucleus in the zebra finch song system. Luo M, et al. **J Neurosci** 1999 Aug 1;19(15):6700-11
Contributions of tutor and bird's own song experience to neural selectivity in the songbird anterior forebrain. Solis MM, et al. **J Neurosci** 1999 Jun 1;19(11):4559-84
Contributions of social cues and photoperiod to seasonal plasticity in the adult avian song control system. Tramontin AD, et al. **J Neurosci** 1999 Jan 1;19(1):476-83
High-frequency auditory feedback is not required for adult song maintenance in Bengalese finches. Woolley SM, et al. **J Neurosci** 1999 Jan 1;19(1):358-71
The comparative nutrition of two passerine species: the canary (Serinus canarius) and the zebra finch (Poephila guttata). Harper EJ, et al. **J Nutr** 1998 Dec;128(12 Suppl):2684S-2685S
Sperm transport in the reproductive tract of female zebra finches (Taeniopygia guttata). Birkhead TR, et al. **J Reprod Fertil** 1998 Sep;114(1):141-5
Health of tree swallows (Tachycineta bicolor) nesting in pesticide-sprayed apple orchards in Ontario, Canada. II. Sex and thyroid hormone concentrations and testes development. Bishop CA, et al. **J Toxicol Environ Health** 1998 Dec 25;55(8):561-81
Estrogen promotes the initial migration and inception of NgCAM-dependent calcium-signaling by new neurons of the adult songbird brain. Williams S, et al. **Mol Cell Neurosci** 1999 Jan;13(1):41-55
Social context modulates singing-related neural activity in the songbird forebrain. Hessler NA, et al. **Nat Neurosci** 1999 Mar;2(3):209-11
Gating of auditory responses in the vocal control system of awake songbirds. Schmidt MF, et al. **Nat Neurosci** 1998 Oct;1(6):513-8
Decrystallization of adult birdsong by perturbation of auditory feedback. Leonardo A, et al. **Nature** 1999 Jun 3; 399(6735):466-70
For whom the bird sings: context-dependent gene expression [see comments] Jarvis ED, et al. **Neuron** 1998 Oct; 21(4):775-88. Comment in: Neuron 1998 Oct;21(4):645-7.
Pharmacological characterization of an unusual mGluR-evoked neuronal hyperpolarization mediated by activation of GIRK channels. Dutar P, et al. **Neuropharmacology** 1999 Apr;38(4):467-75
Functional organisation of the field-L-complex of adult male zebra finches. Gehr DD, et al. **Neuroreport** 1999 Feb 5; 10(2):375-80
Auditory-vocal cholinergic pathway in zebra finch brain. Li R, et al. **Neuroreport** 1999 Jan 18;10(1):165-9
A comparative study of the beta-adrenoceptors in higher song nuclei of birds. Revilla V, et al. **Neurosci Lett** 1999 Aug 13;271(1):9-12
Organ mass dynamics in relation to yolk precursor production and egg formation in European starlings Sturnus vulgaris. Christians JK, et al. **Physiol Biochem Zool** 1999 Jul-Aug;72(4):455-61

SONGBIRDS

Effects of dietary quality on basal metabolic rate and internal morphology of European starlings (Sturnus vulgaris). Geluso K, et al. **Physiol Biochem Zool** 1999 Mar-Apr; 72(2):189-97

Test, rejection, and reformulation of a chemical reactor-based model of gut function in a fruit-eating bird. Levey DJ, et al. **Physiol Biochem Zool** 1999 May-Jun; 72(3):369-83

The role of the nasal passages in the water economy of crested larks and desert larks. Tieleman BI, et al. **Physiol Biochem Zool** 1999 Mar-Apr;72(2):219-26

Food intake, locomotor activity, and egg laying in zebra finches: contributions to reproductive energy demand? Williams TD, et al. **Physiol Biochem Zool** 1999 Jan-Feb; 72(1):19-27

The influence of wind and locomotor activity on surface temperature and energy expenditure of the Eastern house finch (Carpodacus mexicanus) during cold stress. Zerba E, et al. **Physiol Biochem Zool** 1999 May-Jun;72(3):265-76

Digestive responses during food restriction and realimentation in nestling house sparrows (Passer domesticus). Lepczyk CA, et al. **Physiol Zool** 1998 Sep-Oct;71(5):561-73

Seasonal neuroplasticity in the songbird telencephalon: a role for melatonin. Bentley GE, et al. **Proc Natl Acad Sci U S A** 1999 Apr 13;96(8):4674-9

Estrogen-inducible, sex-specific expression of brain-derived neurotrophic factor mRNA in a forebrain song control nucleus of the juvenile zebra finch. Dittrich F, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):8241-6

Birds may refine their songs while sleeping [news; comment] Barinaga M. **Science** 1998 Dec 18;282(5397):2163,2165. Comment on: Science 1998 Dec 18;282(5397):2250-4.

Behavioral state modulation of auditory activity in a vocal motor system [see comments] Dave AS, et al. **Science** 1998 Dec 18;282(5397):2250-4. Comment in: Science 1998 Dec 18;282(5397):2163, 2165.

Male attractiveness and differential testosterone investment in zebra finch eggs [see comments] Gil D, et al. **Science** 1999 Oct 1;286(5437):126-8. Comment in: Science 1999 Oct 1;286(5437):23.

Evolution. Handsome finches win a boost for their offspring [news; comment] Vogel G. **Science** 1999 Oct 1;286(5437):23 . Comment on: Science 1999 Oct 1;286(5437):126-8.

[Teaching hooded crows (Corvus cornix L.) the abstract rule of choice by the matching/oddity of the sample] Smirnova AA, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep-Oct;48(5):855-67 (Eng. Abstr.) **(Rus)**

VIROLOGY

Eastern equine encephalitis virus in birds: relative competence of European starlings (Sturnus vulgaris). Komar N, et al. **Am J Trop Med Hyg** 1999 Mar; 60(3):387-91

Isolation of avian serotype 3 paramyxoviruses from imported caged birds in Israel. Shihmanter E, et al. **Avian Dis** 1998 Oct-Dec;42(4):829-31

SONICATION

Sonication lyses cells and exposes DNA for PCR amplification: potential transfer of technology from clinical microbiology to forensic pathology [letter] Hamilton R, et al. **Am J Forensic Med Pathol** 1999 Mar;20(1):102-4

Protein purification from polyacrylamide gels by sonication extraction. Retamal CA, et al. **Anal Biochem** 1999 Mar 1; 268(1):15-20

Bioreduction of Tempone and spin-labeled gentamicin by gram-negative bacteria: kinetics and effect of ultrasound. Rapoport N, et al. **Arch Biochem Biophys** 1999 Feb 15; 362(2):233-41

The effects of low-frequency ultrasound on Staphylococcus epidermidis. Singer AJ, et al. **Curr Microbiol** 1999 Mar; 38(3):194-6

Resistance of heat-shocked cells of Listeria monocytogenes to mano-sonication and mano-thermo-sonication. Pagán R, et al. **Lett Appl Microbiol** 1999 Jan;28(1):71-5

Performance of sonication and microfluidization for liquid-liquid emulsification. Maa YF, et al. **Pharm Dev Technol** 1999 May;4(2):233-40

Dissolved organic matter inhibition of sonochemical degradation of aqueous polycyclic aromatic hydrocarbons. Taylor E Jr, et al. **Ultrason Sonochem** 1999 Sep;6(4):175-83

Sonoporation of cultured cells in the rotating tube exposure system. Miller DL, et al. **Ultrasound Med Biol** 1999 Jan; 25(1):143-9

SONOGRAPHY, SPEECH see **SOUND SPECTROGRAPHY**

SONOGRAPHY, TRANSCRANIAL DOPPLER see **ULTRASONOGRAPHY, DOPPLER, TRANSCRANIAL**

SOOTY MANGABEY see **CERCOCEBUS ATYS**

SOR GENE PRODUCTS see **GENE PRODUCTS, VIF**

SORBIC ACID

ADMINISTRATION & DOSAGE

Sol-gel composite films with controlled release of biocides. Böttcher H, et al. **J Controlled Release** 1999 Jun 28; 60(1):57-65

ADVERSE EFFECTS

Allergic contact dermatitis caused by sorbic acid: rare occurrence [letter] Patrizi A, et al. **Am J Contact Dermat** 1999 Mar;10(1):52

ANALOGS & DERIVATIVES

Trans,trans-muconic acid, a biological indicator to low levels of environmental benzene: some aspects of its specificity. Pezzagno G, et al. **Am J Ind Med** 1999 May;35(5):511-8

Substrate specificity of and product formation by muconate cycloisomerases: an analysis of wild-type enzymes and engineered variants. Vollmer MD, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3290-9

Docking of 4-oxalocrotonate tautomerase substrates: implications for the catalytic mechanism. Soares TA, et al. **Biopolymers** 1999 Sep;50(3):319-28

Determination of the urinary benzene metabolites S-phenylmercapturic acid and trans,trans-muconic acid by liquid chromatography-tandem mass spectrometry. Melikian AA, et al. **Carcinogenesis** 1999 Apr;20(4):719-26

Evaluation of passive smoking by measuring urinary trans, trans-muconic acid and exhaled carbon monoxide levels. Taniguchi S, et al. **Ind Health** 1999 Jan;37(1):88-94

Analysis and evaluation of trans,trans-muconic acid as a biomarker for benzene exposure. Scherer G, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 9; 717(1-2):179-99 (96 ref.)

Urinary excretion of phenol, catechol, hydroquinone, and muconic acid by workers occupationally exposed to benzene. Rothman N, et al. **Occup Environ Med** 1998 Oct; 55(10):705-11

ANALYSIS

Determination of sorbic acid in urine by gas chromatography-mass spectrometry. Renner T, et al. **J Chromatogr A** 1999 Jun 25;847(1-2):127-33

PHARMACOLOGY

Weak organic acid treatment causes a trehalose accumulation in low-pH cultures of Saccharomyces cerevisiae, not displayed by the more preservative-resistant Zygosaccharomyces bailii. Cheng L, et al. **FEMS Microbiol Lett** 1999 Jan 1;170(1):89-95

Comparison of the inhibitory effect of sorbic acid and amphotericin B on Saccharomyces cerevisiae: is growth inhibition dependent on reduced intracellular pH? Bracey D, et al. **J Appl Microbiol** 1998 Dec;85(6):1056-66

Modeling the aerobic growth and decline of Staphylococcus aureus as affected by pH and potassium sorbate concentration. Giannuzzi L, et al. **J Food Prot** 1999 Apr; 62(4):356-62

Individual and combined effects of vanillin and potassium sorbate on Penicillium digitatum, Penicillium glabrum, and Penicillium italicum growth. Matamoros-León B, et al. **J Food Prot** 1999 May;62(5):540-2

Evidence that sorbic acid does not inhibit yeast as a classic 'weak acid preservative'. Stratford M, et al. **Lett Appl Microbiol** 1998 Oct;27(4):203-6

SORBITAN DERIVATIVES see **POLYSORBATES**

SORBITOL

Sorbitol-mannitol solution for urological electrosurgical resection-- a safer fluid than glycine 1.5%. Dawkins GP, et al. **Eur Urol** 1999 Aug;36(2):99-102

ADMINISTRATION & DOSAGE

Sorbitol in oral liquid cisapride [letter; comment] Hoekstra JH. **J Pediatr Gastroenterol Nutr** 1998 Sep;27(3):374-5. Comment on: J Pediatr Gastroenterol Nutr 1997 Aug;25(2):199-203.

[Polystyrene sodium sulfonate enema: with or without sorbitol? (letter)] Marion F, et al. **Presse Med** 1999 Feb 20;28(7):338 **(Fre)**

ADVERSE EFFECTS

Pneumatosis intestinale in childhood [letter; comment] Barton LL. **J Pediatr** 1999 Jan;134(1):124-5. Comment on: J Pediatr 1998 Mar;132(3 Pt 1):546-9.

ANALOGS & DERIVATIVES

The use of fluoro- and deoxy-substrate analogs to examine binding specificity and catalysis in the enzymes of the sorbitol pathway. Scott ME, et al. **Carbohydr Res** 1998 Dec 15;313(3-4):247-53

Synthesis and biological evaluation of ureido and thioureido derivatives of 2-amino-2-deoxy-D-glucose and related aminoalcohols as N-acetyl-beta-D-hexosaminidase inhibitors. Tournaire-Arellano C, et al. **Carbohydr Res** 1998 Dec 21;314(1-2):47-63

Efficacy of amphipathic dithiocarbamates in intracellular cadmium mobilization and in modulation of hepatic and renal metallothionein in cadmium pre-exposed rat. Tandon SK, et al. **Chem Biol Interact** 1998 Jul 24;114(3):161-75

ANALYSIS

Quantification of N-(glucitol)ethanolamine and N-(carboxymethyl)serine: two products of nonenzymatic modification of aminophospholipids formed in vivo. Fountain WC, et al. **Anal Biochem** 1999 Jul 15;272(1):48-55

CHEMISTRY

Surface acidity of solid pharmaceutical excipients III. Excipients for solid dosage forms. Scheef CA, et al. **Eur J Pharm Biopharm** 1998 Sep;46(2):209-13

METABOLISM

Effects of thyroid hormone on the sorbitol pathway in streptozotocin-induced diabetic rats. Shinohara R, et al. **Biochim Biophys Acta** 1998 Nov 27;1425(3):577-86

The use of fluoro- and deoxy-substrate analogs to examine binding specificity and catalysis in the enzymes of the sorbitol pathway. Scott ME, et al. **Carbohydr Res** 1998 Dec 15;313(3-4):247-53

Sorbitol accumulation in rats kept on diabetic condition for short and prolonged periods. Ferraz M, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):309-11

Mechanisms of osmolyte release. Kinne RK. **Contrib Nephrol** 1998;123:34-49 (78 ref.)

Effect of aldose reductase inhibitors on glucose-induced changes in sorbitol and myo-inositol metabolism in human neutrophils. Suzuki K, et al. **Diabet Med** 1999 Jan; 16(1):67-73

Alpha-lipoic acid: effect on glucose uptake, sorbitol pathway, and energy metabolism in experimental diabetic neuropathy. Kishi Y, et al. **Diabetes** 1999 Oct; 48(10):2045-51

Molecular basis for thermoprotection in Bemisia: structural differences between whitefly ketose reductase and other medium-chain dehydrogenases/reductases. Wolfe GR, et al. **Insect Biochem Mol Biol** 1999 Feb;29(2):113-20

Sorbitol removal by the metastatic liver: a predictor of systemic toxicity of intra-arterial chemotherapy in patients with liver metastases. Bar F, et al. **J Hepatol** 1999 Jun; 30(6):1112-8

A large outbreak of hemolytic uremic syndrome caused by an unusual sorbitol-fermenting strain of Escherichia coli O157:H-. Ammon A, et al. **J Infect Dis** 1999 May; 179(5):1274-7

Characterization of polyol pathway in Schwann cells isolated from adult rat sciatic nerves. Suzuki T, et al. **J Neurosci Res** 1999 Aug 15;57(4):495-503

Effects of two aldose reductase inhibitors upon sorbitol output, D-glucose metabolism and insulin release in islets from normal and hereditarily diabetic rats. Flores LE, et al. **Pharmacol Res** 1998 Jun;37(6):493-6

PHARMACOKINETICS

Irrigation fluid absorption during transurethral resection of the prostate: spinal vs. general anaesthesia. Gehring H, et al. **Acta Anaesthesiol Scand** 1999 Apr;43(4):458-63

Prediction by mathematical simulation of different pathophysiological effects on D-sorbitol bioavailability. Torchio M, et al. **Comput Biol Med** 1998 Mar;28(2):91-104

Evaluation of hepatic function in liver cirrhosis: clinical utility of galactose elimination capacity, hepatic clearance of D-sorbitol, and laboratory investigations. Garello E, et al. **Dig Dis Sci** 1999 Apr;44(4):782-8

Fructose-sorbitol malabsorption and symptom provocation in irritable bowel syndrome: relationship to enteric hypersensitivity and dysmotility. Evans PR, et al. **Scand J Gastroenterol** 1998 Nov;33(11):1158-63

THERAPEUTIC USE

Transcranial doppler monitoring of intracranial pressure therapy with mannitol, sorbitol and glycerol in patients with acute stroke. Treib J, et al. **Eur Neurol** 1998 Nov; 40(4):212-9

Changes of cerebral perfusion after osmotherapy in acute cerebral edema assessed with perfusion weighted MRI. Stoll M, et al. **Neurol Res** 1998 Sep;20(6):474-8

SORBITOL DEHYDROGENASE see **IDITOL DEHYDROGENASE**

SORBOSE

METABOLISM

Interactions of sodium pentobarbital with D-glucose and L-sorbose transport in human red cells. Naftalin RJ, et al. **Biochim Biophys Acta** 1999 Jun 9;1419(1):78-88

TOXICITY

L-Sorbose but not D-tagatose induces hemolysis of dog erythrocytes in vitro. Bär A, et al. **Regul Toxicol Pharmacol** 1999 Apr;29(2 Pt 2):S43-5

SORCERY see **WITCHCRAFT**

SORDARIALES

GENETICS

Spo76p is a conserved chromosome morphogenesis protein

that links the mitotic and meiotic programs. van Heemst D, et al. **Cell** 1999 Jul 23;98(2):261–71

The pro1(+) gene from Sordaria macrospora encodes a C6 zinc finger transcription factor required for fruiting body development. Masloff S, et al. **Genetics** 1999 May; 152(1):191–9

SORE THROAT see **PHARYNGITIS**

SORPTION DETOXIFICATION

Hydrotalcites and organo–hydrotalcites as sorbents for removing pesticides from water. Villa MV, et al. **J Environ Sci Health B** 1999 May;34(3):509–25

[Clinical immunoadsorption] Toepfer M, et al. **Dtsch Med Wochenschr** 1999 Apr 16;124(15):461–5 (59 ref.) **(Ger)**

[Complex program of detoxication measures in terminal peritonitis using ozone and hydropressive technologies] Glukhov AA, et al. **Anesteziol Reanimatol** 1998 Nov–Dec; (6):56–8 (Eng. Abstr.) **(Rus)**

[Detoxicating effects of physico–chemical hemotherapy in acute exogenous poisoning] Gol'dfarb IuS, et al. **Anesteziol Reanimatol** 1998 Nov–Dec;(6):7–11 (Eng. Abstr.) **(Rus)**

[Structural formation of adhesions in abdominal cavity and bowel walls in treatment of peritonitis by sorbent with absorbed metrinidazole or lipoorizinum (experimental study)] Maiborodin IV, et al. **Khirurgiia (Mosk)** 1999; (2):24–8 (Eng. Abstr.) **(Rus)**

[Efficiency of papaya sublimate as a means for detoxication in chronic lead poisoning] Krasniuk EP. **Med Tr Prom Ekol** 1999;(4):43–6 **(Rus)**

[Scientific validation of the use of efferent methods] Aksenov VA. **Ter Arkh** 1998;70(12):66–70 **(Rus)**

[Clinical manifestation, diagnosis and treatment of rare forms of acute drug poisoning (lecture)] Luzhnikov EA, et al. **Ter Arkh** 1998;70(10):65–8 **(Rus)**

[Principal indications and contraindications of the use of extracorporeal hemocorrection in psychiatry] Davydov AT, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999; 99(2):31–3 (Eng. Abstr.) **(Rus)**

[Use of a composite organic biosilicone sorption preparation imosdinit in the treatment of anaerobic infections in surgery] Bieliaieva OO, et al. **Klin Khir** 1998;(12):23–7 (Eng. Abstr.) **(Ukr)**

ADVERSE EFFECTS

[Complications of sorption–application therapy of purulent wounds] Pavlov VV, et al. **Khirurgiia (Mosk)** 1999;(1):12–3 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

Surface treated large bore catheters with silver based coatings versus untreated catheters for extracorporeal detoxification methods. Bambauer R, et al. **ASAIO J** 1998 Jul–Aug; 44(4):303–8

METHODS

[Treatment of peritonitis using ozone and hydropressive technology] Bulynin VI, et al. **Khirurgiia (Mosk)** 1999; (7):9–11 (Eng. Abstr.) **(Rus)**

[Functional activity of placental, splenic and hepatic tissues in pyo–septic diseases under conditions of extracorporeal detoxication] Pisarevskii AA, et al. **Khirurgiia (Mosk)** 1998; (7):40–3 (Eng. Abstr.) **(Rus)**

[The use of cryopreserved hepatocytes in the combined treatment of patients with acute liver failure] Lebedeva IuN, et al. **Lik Sprava** 1998 Oct–Nov;(7):67–70 (Eng. Abstr.) **(Rus)**

[The immunosorption of the cerebrospinal fluid in the treatment of inflammatory demyelinating polyneuropathies] Ponomarev VV. **Zh Nevrol Psikhiatr Im S S Korsakova** 1999;99(6):27–8 (Eng. Abstr.) **(Rus)**

[The use of Dnipro activated charcoal filamentous material in performing extracorporeal sorption detoxification] Popov VD, et al. **Klin Khir** 1998;(9–10):57–8 (Eng. Abstr.) **(Ukr)**

SOS RESPONSE (GENETICS)

Structural insights into the regulation of SOS mutagenesis. Gonzalez M, et al. **Acta Biochim Pol** 1998;45(1):163–72

Escherichia coli HU protein suppresses DNA–gyrase–mediated illegitimate recombination and SOS induction. Shanado Y, et al. **Genes Cells** 1998 Aug; 3(8):511–20

Mutations affecting the ability of the Escherichia coli UmuD' protein to participate in SOS mutagenesis. Ohta T, et al. **J Bacteriol** 1999 Jan;181(1):177–85

SOS and UVM pathways have lesion–specific additive and competing effects on mutation fixation at replication–blocking DNA lesions. Rahman MS, et al. **J Bacteriol** 1999 Mar;181(5):1515–23

Transient transcriptional activation of the IncI1 plasmid anti–restriction gene (ardA) and SOS inhibition gene (psiB) early in conjugating recipient bacteria. Althorpe NJ, et al. **Mol Microbiol** 1999 Jan;31(1):133–42

SOS and Mayday: multiple inducible mutagenic pathways in Escherichia coli. Humayun MZ. **Mol Microbiol** 1998 Dec;30(5):905–10 (39 ref.)

FtsK is an essential cell division protein that is localized to the septum and induced as part of the SOS response. Wang L, et al. **Mol Microbiol** 1998 Aug;29(3):731–40

The isfA mutation specifically inhibits the SOS–dependent mutagenic pathway and does not selectively affect any particular base substitution. Felczak M, et al. **Mutagenesis** 1999 May;14(3):295–300

Influence of the UV–activated SOS response on the gamma–radiation–induced mutation spectrum in the lacI gene. Wijker CA, et al. **Mutat Res** 1998 Sep 11; 408(3):195–201

[Photosensitized inactivation of plasmid and bacteriophage lambda DNA: relative contribution to the lethal effect of monoadducts and diadducts of 8–methoxypsoralen and their repair in SOS–induced Escherichia coli cells] Zavil'gel'skii GB, et al. **Biofizika** 1998 Nov–Dec; 43(6):1020–5 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

[Expression and functions of adaptive response genes in Escherichia coli treated with mono– and bifunctional alkylating agents. Interference with SOS response] Vasil'eva SV, et al. **Genetika** 1999 Apr;35(4):444–9 (Eng. Abstr.) **(Rus)**

GENETICS

Reconstitution of an SOS response pathway: derepression of transcription in response to DNA breaks. Anderson DG, et al. **Cell** 1998 Dec 23;95(7):975–9

A consensus sequence for the Rhodospirillaceae SOS operators. Labazi M, et al. **FEMS Microbiol Lett** 1999 Feb 1;171(1):37–42

Identification of genetic factors altering the SOS induction of DNA damage–inducible yebG gene in Escherichia coli. Oh TJ, et al. **FEMS Microbiol Lett** 1999 Aug 15; 177(2):271–7

Normal induction of the SOS response in Bacillus subtilis is prevented by the mutant repressor from phage phi 105cts23. Rubinstein CP, et al. **FEMS Microbiol Lett** 1998 Oct 15;167(2):315–20

An operon that confers UV resistance by evoking the SOS mutagenic response in streptococcal conjugative transposon Tn5252. Munoz–Najar U, et al. **J Bacteriol** 1999 May;181(9):2782–8

Identification and expression of the SOS response, aidB–like, gene in the marine sponge Geodia cydonium: implication for the phylogenetic relationships of metazoan acyl–CoA dehydrogenases and acyl–CoA oxidases. Krasko A, et al. **J Mol Evol** 1998 Sep;47(3):343–52

Dynamics of the inducing signal for the SOS regulatory system in Escherichia coli after ultraviolet irradiation. Aksenov SV. **Math Biosci** 1999 Mar 15;157(1–2):269–86

Determination of the Paracoccus denitrificans SOS box. del Rey A, et al. **Microbiology** 1999 Mar;145 (Pt 3):577–84

Molecular analysis of the recA gene and SOS box of the purple non–sulfur bacterium Rhodopseudomonas palustris no. 7. Dumay V, et al. **Microbiology** 1999 May;145 (Pt 5):1275–85

SOS induction by gamma–radiation in Escherichia coli strains defective in repair and/or recombination mechanisms. Breña–Valle M, et al. **Mutagenesis** 1998 Nov;13(6):637–41

Evaluation of transcriptional fusions with green fluorescent protein versus luciferase as reporters in bacterial mutagenicity tests. Justus T, et al. **Mutagenesis** 1999 Jul; 14(4):351–6

Inactivation of DNA proofreading obviates the need for SOS induction in frameshift mutagenesis. Fuchs RP, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13114–9

Yeast and human genes that affect the Escherichia coli SOS response. Perkins EL, et al. **Proc Natl Acad Sci U S A** 1999 Mar 2;96(5):2204–9

PHYSIOLOGY

The expression of recombinant genes from bacteriophage lambda strong promoters triggers the SOS response in Escherichia coli. Aris A, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):551–9

SOS–dependent A––>G transitions induced by hydroxyl radical generating system hypoxanthine/xanthine oxidase/Fe3+/EDTA are accompanied by the increase of Fapy–adenine content in M13 mp18 phage DNA. Grąziewicz MA, et al. **Mutat Res** 1999 May 14;434(1):41–52

RADIATION EFFECTS

SOS induction by gamma–radiation in Escherichia coli strains defective in repair and/or recombination mechanisms. Breña–Valle M, et al. **Mutagenesis** 1998 Nov;13(6):637–41

SOTALIA see **DOLPHINS**

SOTALOL

ADMINISTRATION & DOSAGE

Maintenance of sinus rhythm with oral d,l–sotalol therapy in patients with symptomatic atrial fibrillation and/or atrial flutter. d,l–Sotalol Atrial Fibrillation/Flutter Study Group. Benditt DG, et al. **Am J Cardiol** 1999 Aug 1;84(3):270–7

Cardioversion with sotalol in selected patients with vagally and adrenergically mediated paroxysmal atrial fibrillation. Yeşil M, et al. **Angiology** 1999 Sep;50(9):729–33

Pharmacokinetic, pharmacodynamic, and safety evaluation of an accelerated dose titration regimen of sotalol in healthy middle–aged subjects. Barbey JT, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):91–9

Selective versus non–selective antiarrhythmic approach for prevention of atrial fibrillation after coronary surgery: is there a need for pre–operative risk stratification? A prospective placebo–controlled study using low–dose sotalol [see comments] Weber UK, et al. **Eur Heart J** 1998 May;19(5):794–800. Comment in: Eur Heart J 1998 May;19(5):684–5. Comment in: Eur Heart J 1999 Feb;20(4):317.

An open label, randomised, crossover study comparing sotalol and atenolol in the treatment of symptomatic paroxysmal atrial fibrillation. Steeds RP, et al. **Heart** 1999 Aug;82(2):170–5

Oral d,l sotalol reduces the incidence of postoperative atrial fibrillation in coronary artery bypass surgery patients: a randomized, double–blind, placebo–controlled study. Gomes JA, et al. **J Am Coll Cardiol** 1999 Aug;34(2):334–9

Treatment of recent onset atrial fibrillation with intravenous sotalol and/or flecainide. Peters FP, et al. **Neth J Med** 1998 Sep;53(3):93–6

Low–dose sotalol in pediatric arrhythmia therapy [letter; comment] Rokicki W, et al. **Pediatr Cardiol** 1999 Mar–Apr; 20(2):172–3. Comment on: Pediatr Cardiol 1997 Jan–Feb;18(1):28–34.

ADVERSE EFFECTS

JTc prolongation with d,l–sotalol in women versus men. Lehmann MH, et al. **Am J Cardiol** 1999 Feb 1;83(3):354–9

Migratory pulmonary infiltrates in a patient treated with sotalol [letter; comment] Portel L, et al. **Eur Respir J** 1998 Jul;12(1):259–60. Comment on: Eur Respir J 1997 Sep;10(9):2159–62.

T wave alternans after sotalol: evidence for increased sensitivity to sotalol after conversion from atrial fibrillation to sinus rhythm. Tan HL, et al. **Heart** 1998 Sep;80(3):303–6

A case of sotalol associated torsades de pointes tachycardia in a 15 month old child [letter; comment] Smith W. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 1):143. Comment on: Pacing Clin Electrophysiol 1998 May;21(5):1164–6.

Two cases of torsades de pointes caused by sotalol therapy. Cammu G, et al. **Resuscitation** 1999 Jan;40(1):49–51

[Sotalol––atrial fibrillation, reduced renal function and sudden death] Bathen J, et al. **Tidsskr Nor Laegeforen** 1998 Oct 30;118(26):4086–7 (Eng. Abstr.) **(Nor)**

PHARMACOLOGY

Influence of sotalol on the time constant of isovolumic left ventricular relaxation in anesthetized dogs. Seidler RW, et al. **Am J Vet Res** 1999 Jun;60(6):717–21

Differential rate and potassium–dependent effects of the class III agents d–sotalol and dofetilide on guinea pig papillary muscle. Marschang H, et al. **Cardiovasc Drugs Ther** 1998 Dec;12(6):573–83

Effects of dauricine, quinidine, and sotalol on action potential duration of papillary muscles in vitro. Guo DL, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Jul;18(4):348–50

Pharmacokinetic, pharmacodynamic, and safety evaluation of an accelerated dose titration regimen of sotalol in healthy middle–aged subjects. Barbey JT, et al. **Clin Pharmacol Ther** 1999 Jul;66(1):91–9

Effect of amiodarone and sotalol on the defibrillation threshold in comparison to patients without antiarrhythmic drug treatment. Kühlkamp V, et al. **Int J Cardiol** 1999 Jun 1;69(3):271–9

Compared effects of sotalol, flecainide and propafenone on ventricular repolarization in patients free of underlying structural heart disease. Sarubbi B, et al. **Int J Cardiol** 1998 Sep 30;66(2):157–64

Combination of sotalol and quinidine in a canine model of torsades de pointes: no increase in the QT–related proarrhythmic action of sotalol. Chézalviel–Guilbert F, et al. **J Cardiovasc Electrophysiol** 1998 May;9(5):498–507

Attenuation of Ca paradox injury in guinea pig heart by K+ channel blocker, d–sotalol. Tribulova N, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):137–47

Steady–state and dynamic behavior of ventricular repolarization and refractoriness in the dog: the effect of multiple cycle length changes and d–sotalol administration. Leerssen HM, et al. **Pacing Clin Electrophysiol** 1998 Sep; 21(9):1766–77

Rate and time dependent effects of D–sotalol on the monophasic action potential after sudden increase of the heart rate. Melichercik J, et al. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 1):65–72

THERAPEUTIC USE

Sotalol: An important new antiarrhythmic. Anderson JL, et al. **Am Heart J** 1999 Mar;137(3):388–409 (81 ref.)

Predictability of response rates, efficacy, risks, and intolerance with sotalol when used for sustained ventricular arrhythmias [letter; comment] Reiffel JA. **Am Heart J** 1999 Feb;137(2):372–3. Comment on: Am Heart J 1996 Nov;132(5):973–8.

Comparison of sotalol versus quinidine for maintenance of normal sinus rhythm in patients with chronic atrial fibrillation. Southworth MR, et al. **Am J Cardiol** 1999 Jun

SOTALOL

15;83(12):1629–32

Comparison of sotalol with amiodarone for long-term treatment of spontaneous sustained ventricular tachyarrhythmia based on coronary artery disease [see comments] Kovoor P, et al. **Eur Heart J** 1999 Mar; 20(5):364–74. Comment in: Eur Heart J 1999 Mar;20(5):321–3.

Predicting the effect of D,L-sotalol on ventricular tachycardia inducibility from the RR variability response. Brembilla-Perrot B, et al. **Heart** 1999 Sep;82(3):307–11

Incidence and modes of onset of early reinitiation of atrial fibrillation after successful internal cardioversion, and its prevention by intravenous sotalol. Tse HF, et al. **Heart** 1999 Sep;82(3):319–24

Superiority of ibutilide (a new class III agent) over DL-sotalol in converting atrial flutter and atrial fibrillation. The Ibutilide/Sotalol Comparator Study Group. Vos MA, et al. **Heart** 1998 Jun;79(6):568–75

Suppression of sustained ventricular tachyarrhythmias: a comparison of d,l-sotalol with no antiarrhythmic drug treatment [see comments] Kühlkamp V, et al. **J Am Coll Cardiol** 1999 Jan;33(1):46–52. Comment in: J Am Coll Cardiol 1999 Jan;33(1):53–4.

Efficacy and efficacy testing of sotalol [editorial; comment] Mason JW. **J Am Coll Cardiol** 1999 Jan;33(1):53–4. Comment on: J Am Coll Cardiol 1999 Jan;33(1):46–52.

Long-term reproducibility of electrophysiologically guided therapy with sotalol in patients with ventricular tachyarrhythmias. Mewis C, et al. **J Am Coll Cardiol** 1999 Jun;33(7):1989–95

Pharmacologic cardioversion of chronic atrial fibrillation in the goat by class IA, IC, and III drugs: a comparison between hydroquinidine, cibenzoline, flecainide, and d-sotalol. Wijffels MC, et al. **J Cardiovasc Electrophysiol** 1999 Feb;10(2):178–93

A comparison of electrophysiologic properties between responders and non-responders to DL-sotalol among patients with ventricular tachyarrhythmia. Importance of the lack of a reverse use-dependent effect on ventricular refractoriness to responders. Naitoh N, et al. **Jpn Heart J** 1998 Sep;39(5):619–30

Prevention of implantable-defibrillator shocks by treatment with sotalol. d,l-Sotalol Implantable Cardioverter-Defibrillator Study Group [see comments] Pacifico A, et al. **N Engl J Med** 1999 Jun 17; 340(24):1855–62. Comment in: N Engl J Med 1999 Jun 17;340(24):1910–2.

Effects of procainamide and dl-sotalol on the changes of atrial electrophysiology induced by high current stimulation. Yu WC, et al. **Pacing Clin Electrophysiol** 1998 Nov;21(11 Pt 1):2064–9

[Medicamentous prevention after electric cardioversion of chronic atrial fibrillation. Goals and design of the PAFAC Study] Fetsch T, et al. **Z Kardiol** 1999 Mar;88(3):195–207 (Eng. Abstr.) **(Ger)**

[Medicamentous prevention of symptomatic paroxysmal atrial fibrillation/flutter onset. Goals and design of the SOPAT Study. Executive committee of the investigators representing trial physicians] Patten M, et al. **Z Kardiol** 1999 Mar;88(3):185–94 (Eng. Abstr.) **(Ger)**

[The effectiveness and safety of d,l-sotalol in the ambulatory treatment of atrial fibrillation and flutter] Cruz Cruz F, et al. **Arch Inst Cardiol Mex** 1998 Nov-Dec;68(6):482–91 (Eng. Abstr.) **(Spa)**

TOXICITY

Electrophysiological effects of cetirizine, astemizole and D-sotalol in a canine model of long QT syndrome. Weissenburger J, et al. **Clin Exp Allergy** 1999 Jul;29 Suppl 3:190–6

Drug-related torsades de pointes in the isolated rabbit heart: comparison of clofilium, d,l-sotalol, and erythromycin. Eckardt L, et al. **J Cardiovasc Pharmacol** 1998 Sep; 32(3):425–34

SOUND

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ACOUSTIC STIMULATION
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Applied studies of plant meridian system: I. The effect of agri-wave technology on yield and quality of tomato. Hou TZ, et al. **Am J Chin Med** 1999;27(1):1–10

Emergency warning lights and sirens [letter; comment] Hunt RC, et al. **Ann Emerg Med** 1999 Jul;34(1):114–5. Comment on: Ann Emerg Med 1998 Nov;32(5):585–8.

Relationship of the utriculus and sacculus to the stapes footplate: anatomic implications for sound-and/or pressure-induced otolith activation. Backous DD, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):548–53

Vibro-acoustic modelling of the outer and middle ear using the finite-element method. Prendergast PJ, et al. **Audiol Neurootol** 1999 May-Aug;4(3–4):185–91

The foundations of literacy: learning the sounds of letters. Treiman R, et al. **Child Dev** 1998 Dec;69(6):1524–40

Cortical processing of complex sounds. Rauschecker JP. **Curr Opin Neurobiol** 1998 Aug;8(4):516–21 (53 ref.)

Behavioral state affects heart rate response to low-intensity sound in human fetuses. Groome LJ, et al. **Early Hum Dev** 1999 Feb;54(1):39–54

The localisation of spectrally restricted sounds by human listeners. Carlile S, et al. **Hear Res** 1999 Feb; 128(1–2):175–89

Spatiotemporal representation of binaural difference in time and intensity of sound in the guinea pig auditory cortex. Hosokawa Y, et al. **Hear Res** 1999 Aug;134(1–2):123–32

Changes in spontaneous neural activity in the dorsal cochlear nucleus following exposure to intense sound: relation to threshold shift. Kaltenbach JA, et al. **Hear Res** 1998 Oct; 124(1–2):78–84

The effects of vibroacoustic music on symptom reduction. Patrick G. **IEEE Eng Med Biol Mag** 1999 Mar-Apr; 18(2):97–100

An acoustical study of sound production in biphonic singing, Xöömij. Adachi S, et al. **J Acoust Soc Am** 1999 May; 105(5):2920–32

The direct estimation of sound speed using pulse-echo ultrasound. Anderson ME, et al. **J Acoust Soc Am** 1998 Nov;104(5):3099–106

Temporal integration and multiple looks, revisited: weights as a function of time. Buus S. **J Acoust Soc Am** 1999 Apr; 105(4):2466–75

Aeroelastic structural acoustic control. Clark RL, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):743–54

Blowing pressure, power, and spectrum in trumpet playing. Fletcher NH, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):874–81

Constrained adaptation for feedback cancellation in hearing aids. Kates JM. **J Acoust Soc Am** 1999 Aug;106(2):1010–9

Perception of complex tones and its analogy to echo spectral analysis in the bat, Megaderma lyra. Krumbholz K, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):898–911

A least-squares spectral element method for sound propagation in acoustic ducts [letter] Lin WH. **J Acoust Soc Am** 1998 Nov;104(5):3111–4

Fractal dimensions of speech sounds: computation and application to automatic speech recognition. Maragos P, et al. **J Acoust Soc Am** 1999 Mar;105(3):1925–32

Dolphin hearing: relative sensitivity as a function of point of application of a contact sound source in the jaw and head region. Møhl B, et al. **J Acoust Soc Am** 1999 Jun; 105(6):3421–4

Factors affecting the loudness of modulated sounds. Moore BC, et al. **J Acoust Soc Am** 1999 May;105(5):2757–72

Some aspects of the lateralization of echoed sound in man. II. The role of the stimulus spectrum. Tollin DJ, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):838–49

The muscle sound properties of different muscle fiber types during voluntary and electrically induced contractions. Yoshitake Y, et al. **J Electromyogr Kinesiol** 1999 Jun; 9(3):209–17

Communication signals and sound production mechanisms of mormyrid electric fish. Crawford JD, et al. **J Exp Biol** 1999 May;202 (Pt 10):1417–26

Change of intensity fails to produce an irrelevant sound effect: implications for the representation of unattended sound. Tremblay S, et al. **J Exp Psychol Hum Percept Perform** 1999 Aug; 25(4):1005–15

Sensitivity to simulated directional sound motion in the rat primary auditory cortex. Doan DE, et al. **J Neurophysiol** 1999 May;81(5):2075–87

Azimuth coding in primary auditory cortex of the cat. I. Spike synchrony versus spike count representations. Eggermont JJ, et al. **J Neurophysiol** 1998 Oct;80(4):2133–50

Azimuth coding in primary auditory cortex of the cat. II. Relative latency and interspike interval representation. Eggermont JJ. **J Neurophysiol** 1998 Oct;80(4):2151–61

Coding of sound envelopes by inhibitory rebound in neurons of the superior olivary complex in the unanesthetized rabbit. Kuwada S, et al. **J Neurosci** 1999 Mar 15; 19(6):2273–87

Analysis of temporal structure in sound by the human brain [see comments] Griffiths TD, et al. **Nat Neurosci** 1998 Sep; 1(5):422–7. Comment in: Nat Neurosci 1998 Sep;1(5):333. Comment in: Nat Neurosci 1998 Sep;1(5):343–5.

Responses of auditory-cortex neurons to structural features of natural sounds [see comments] Nelken I, et al. **Nature** 1999 Jan 14;397(6715):154–7. Comment in: Nature 1999 Jan 14;397(6715):108–9.

ERP correlates of phoneme perception in speech and sound contexts. Celsis P, et al. **Neuroreport** 1999 May 14; 10(7):1523–7

Effects of sound pressure levels on fundamental frequency in tracheoesophageal speakers. Deschler DG, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):23–6

Role of cholecystokinin type B receptors in ultrasound induced behavior in rats. Voits M, et al. **Peptides** 1999; 20(3):383–6

Loudness in listening to music with portable headphone stereos. Kageyama T. **Percept Mot Skills** 1999 Apr; 88(2):423

Speech sound perception and learning: biologic bases. Kraus N, et al. **Scand Audiol Suppl** 1998;49:7–17

A simple and accurate formula for the sound velocity in water. Lubbers J, et al. **Ultrasound Med Biol** 1998 Sep; 24(7):1065–8

[Preference for high frequency sounds of contact calls in primates: Japanese macaques and ringtailed lemurs] Tanaka T. **Shinrigaku Kenkyu** 1998 Jun;69(2):113–21 (Eng. Abstr.) **(Jpn)**

[Hearing sensitivity to contrast of sound spectrum patterns] Supin AIa, et al. **Dokl Akad Nauk** 1999 Apr;365(4):571–3 **(Rus)**

[Clinical assessment of infrasonic phonophoresis efficacy in the treatment of bacterial keratitis] Sidorenko EI, et al. **Vestn Oftalmol** 1999 Mar-Apr;115(2):31–2 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Stress reaction to intense sound exposure under different arousal levels in guinea pigs. Muchnik C, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):646–50

Latent cochlear damage in personal stereo users: a study based on click-evoked otoacoustic emissions [see comments] LePage EL, et al. **Med J Aust** 1998 Dec 7–21; 169(11–12):588–92. Comment in: Med J Aust 1998 Dec 7–21;169(11–12):587–8.

Changes in pulse rate among the civilian population during air-raid alerts in the city of Zagreb. Gregurek R, et al. **Mil Med** 1998 Dec;163(12):850–2

Increases in spontaneous activity in the dorsal cochlear nucleus of the rat following exposure to high-intensity sound [published erratum appears in Neurosci Lett 1998 Aug 14;252(2):668] Zhang JS, et al. **Neurosci Lett** 1998 Jul 10;250(3):197–200

DIAGNOSTIC USE

Amplitude and frequency spectrum of temporomandibular joint sounds from subjects with and without other signs/symptoms of temporomandibular disorders. Sano T, et al. **J Oral Rehabil** 1999 Feb;26(2):145–50

SOUND LOCALIZATION

see related
ECHOLOCATION

Monitoring the environment: sound localization equipment for deaf-blind people. Borg E, et al. **Acta Otolaryngol (Stockh)** 1999 Mar;119(2):146–9

Sound lateralization and speech discrimination in patients with sensorineural hearing loss. Kubo T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:63–9

Aurally and visually guided visual search in a virtual environment. Flanagan P, et al. **Hum Factors** 1998 Sep; 40(3):461–8

Effects of localized auditory information on visual target detection performance using a helmet-mounted display. Nelson WT, et al. **Hum Factors** 1998 Sep;40(3):452–60

A real-time experimental prototype for enhancement of vision rehabilitation using auditory substitution. Capelle C, et al. **IEEE Trans Biomed Eng** 1998 Oct;45(10):1279–93

The NavBelt--a computerized travel aid for the blind based on mobile robotics technology. Shoval S, et al. **IEEE Trans Biomed Eng** 1998 Nov;45(11):1376–86

Kinematics of eye movements of cats to broadband acoustic targets. Populin LC, et al. **J Neurophysiol** 1999 Aug; 82(2):955–62

Auditory perception. Sounds in a virtual world [news; comments] Semple MN. **Nature** 1998 Dec 24–31; 396(6713):721, 723–4

The effects of attenuation of frequency segments on binaural localization of sound. Burlingame JA, et al. **Percept Psychophys** 1998 Nov;60(8):1374–83

The effect of timing and spatial separation on the velocity of auditory apparent motion. Strybel TZ, et al. **Percept Psychophys** 1998 Nov;60(8):1441–51

PHYSIOLOGY

Sound localization for a virtual sound source in cases of chronic otitis media. Kawase T, et al. **Audiology** 1999 Mar-Apr;38(2):83–90

Changes in occipital cortex activity in early blind humans using a sensory substitution device. De Volder AG, et al. **Brain Res** 1999 Apr 24;826(1):128–34

Selective tuning of the left and right auditory cortices during spatially directed attention. Alho K, et al. **Brain Res Cogn Brain Res** 1999 Jan;7(3):335–41

The effect of sound direction on frequency tuning in mouse inferior collicular neurons. Cain D, et al. **Chin J Physiol** 1999 Mar 31;42(1):1–8

Auditory perception: does practice make perfect? King AJ. **Curr Biol** 1999 Feb 25;9(4):R143–6 (25 ref.)

Effect of GABA on the processing of interaural time differences in nucleus laminaris, neurons in the chick. Brückner S, et al. **Eur J Neurosci** 1998 Nov;10(11):3438–50

Neuronal coding of interaural transient envelope disparities. Heil P. **Eur J Neurosci** 1998 Sep;10(9):2831–47

Localising awareness of action with transcranial magnetic stimulation. Haggard P, et al. **Exp Brain Res** 1999 Jul; 127(1):102–7

Influence of head-to-trunk position on sound lateralization. Lewald J, et al. **Exp Brain Res** 1998 Aug;121(3):230–8

The localisation of spectrally restricted sounds by human listeners. Carlile S, et al. **Hear Res** 1999 Feb; 128(1–2):175–89

Perceptual consequences of the interactions between spontaneous otoacoustic emissions and external tones. I. Monaural diplacusis and aftertones. Long G. **Hear Res** 1998 May;119(1–2):49–60

Lateralized auditory spatial perception and the contralaterality of cortical processing as studied with functional magnetic resonance imaging and

magnetoencephalography. Woldorff MG, et al. **Hum Brain Mapp** 1999;7(1):49–66

Effects of earplugs and protective headgear on auditory localization ability in the horizontal plane. Vause NL, et al. **Hum Factors** 1999 Jun;41(2):282–94

Speech intelligibility and localization in a multi-source environment. Hawley ML, et al. **J Acoust Soc Am** 1999 Jun;105(6):3436–48

Perception of complex tones and its analogy to echo spectral analysis in the bat, Megaderma lyra. Krumbholz K, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):898–911

Sound localization in noise in hearing-impaired listeners. Lorenzi C, et al. **J Acoust Soc Am** 1999 Jun;105(6):3454–63

Sound localization in noise in normal-hearing listeners. Lorenzi C, et al. **J Acoust Soc Am** 1999 Mar;105(3):1810–20

Locating animals from their sounds and tomography of the atmosphere: experimental demonstration. Spiesberger JL. **J Acoust Soc Am** 1999 Aug;106(2):837–46

Some aspects of the lateralization of echoed sound in man. II. The role of the stimulus spectrum. Tollin DJ, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):838–49

Strategies used to detect auditory signals in small sets of random maskers. Wright BA, et al. **J Acoust Soc Am** 1999 Mar;105(3):1765–75

Sound localization in the median sagittal plane by listeners with presbyacusis. Rakerd B, et al. **J Am Acad Audiol** 1998 Dec;9(6):466–79

Sound localization in an Old-World fruit bat (Rousettus aegyptiacus): acuity, use of binaural cues, and relationship to vision. Heffner RS, et al. **J Comp Psychol** 1999 Sep; 113(3):297–306

A connectionist model of left-right sound discrimination by the Mauthner system. Guzik AL, et al. **J Comput Neurosci** 1999 Mar–Apr;6(2):121–44

Midbrain combinatorial code for temporal and spectral information in concurrent acoustic signals. Bodnar DA, et al. **J Neurophysiol** 1999 Feb;81(2):552–63

Receptive fields and binaural interactions for virtual-space stimuli in the cat inferior colliculus. Delgutte B, et al. **J Neurophysiol** 1999 Jun;81(6):2833–51

Sensitivity to simulated directional sound motion in the rat primary auditory cortex. Doan DE, et al. **J Neurophysiol** 1999 May;81(5):2075–87

Influence of head position on the spatial representation of acoustic targets. Goossens HH, et al. **J Neurophysiol** 1999 Jun;81(6):2720–36

Modeling of auditory spatial receptive fields with spherical approximation functions. Jenison RL, et al. **J Neurophysiol** 1998 Nov;80(5):2645–56

Single cortical neurons serve both echolocation and passive sound localization. Razak KA, et al. **J Neurophysiol** 1999 Mar;81(3):1438–42

Transformation of binaural response properties in the ascending auditory pathway: influence of time-varying interaural phase disparity. Spitzer MW, et al. **J Neurophysiol** 1998 Dec;80(6):3062–76

Temporal and binaural properties in dorsal cochlear nucleus and its output tract. Joris PX, et al. **J Neurosci** 1998 Dec 1;18(23):10157–70

Modality-specific frontal and parietal areas for auditory and visual spatial localization in humans. Bushara KO, et al. **Nat Neurosci** 1999 Aug;2(8):759–66

Relearning sound localization with new ears [see comments] Hofman PM, et al. **Nat Neurosci** 1998 Sep;1(5):417–21. Comment in: Nat Neurosci 1998 Sep;1(5):337–9.

Neural bases of an auditory illusion and its elimination in owls. Saberi K, et al. **Nat Neurosci** 1999 Jul;2(7):656–9

A neuronal representation of the location of nearby sounds. Graziano MS, et al. **Nature** 1999 Feb 4;397(6718):428–30

Role of spectral detail in sound-source localization [see comments] Kulkarni A, et al. **Nature** 1998 Dec 24–31; 396(6713):747–9. Comment in: Nature 1998 Dec 24–31;396(6713):721, 723–4.

Improved auditory spatial tuning in blind humans. Röder B, et al. **Nature** 1999 Jul 8;400(6740):162–6

Auditory cortical responses in the cat to sounds that produce spatial illusions. Xu L, et al. **Nature** 1999 Jun 17; 399(6737):688–91

Selective visual and auditory attention toward utterances–a PET study. Kawashima R, et al. **Neuroimage** 1999 Aug; 10(2):209–15

Effects of interaural decorrelation on neural and behavioral detection of spatial cues. Saberi K, et al. **Neuron** 1998 Oct; 21(4):789–98

Distinct short-term memory systems for sound content and sound localization. Clarke S, et al. **Neuroreport** 1998 Oct 26;9(15):3433–7

A distinct low-level mechanism for interaural timing analysis in human hearing. Griffiths TD, et al. **Neuroreport** 1998 Oct 26;9(15):3383–6

A PET study of human auditory spatial processing. Weeks RA, et al. **Neurosci Lett** 1999 Mar 12;262(3):155–8

Increasing-loudness aftereffect following decreasing-intensity adaptation: spectral dependence in interotic and monotic testing. Reinhardt-Rutland AH. **Perception** 1998;27(4):473–82

Auditory apparent motion between sine waves differing in frequency. Strybel TZ, et al. **Perception** 1998;27(4):483–95

Variable cerebral responses to equally distinct deviance in four auditory dimensions: a mismatch negativity study. Deouell LY, et al. **Psychophysiology** 1998 Nov;35(6):745–54

Speeded responses to audiovisual signal changes result from bimodal integration. Schröger E, et al. **Psychophysiology** 1998 Nov;35(6):755–9

Measures of the binaural interaction component in human auditory brainstem response using objective detection criteria. Brantberg K, et al. **Scand Audiol** 1999;28(1):15–26

[Influence of visual attention upon sound localization] Kitajima N, et al. **Shinrigaku Kenkyu** 1999 Feb;69(6):459–67 (Eng. Abstr.) **(Jpn)**

SOUND SPECTROGRAPHY

Acoustic and perceptual evaluation of voice and speech quality: a study of patients with laryngeal cancer treated with laryngectomy vs irradiation. Finizia C, et al. **Arch Otolaryngol Head Neck Surg** 1999 Feb;125(2):157–63

Acoustic assessment of voice signal deformation after partial surgery of the larynx. Modrzejewski M, et al. **Auris Nasus Larynx** 1999 Apr;26(2):183–90

Sonographic structure of isolation-induced ultrasonic calls of rat pups. Brudzynski SM, et al. **Dev Psychobiol** 1999 Apr;34(3):195–204

Working-day effects on the spectral characteristics of teaching voice. Rantala L, et al. **Folia Phoniatr Logop** 1998; 50(4):205–11

Discrimination of productive and non-productive cough by sound analysis. Murata A, et al. **Intern Med** 1998 Sep; 37(9):732–5

Speaking behavior and speech sound characteristics in acute schizophrenia. Püschel J, et al. **J Psychiatr Res** 1998 Mar–Apr;32(2):89–97

Intensity of snoring in patients with sleep-related breathing disorders. Itasaka Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):299–300

Placing crackles on the flow-volume plane: a study of the relationship between the time position, the flow and the volume. Rossi M, et al. **Technol Health Care** 1998 Jun; 6(1):91–7

[Peak sound pressure levels of gunshots from starter's pistols] Rothschild MA, et al. **HNO** 1998 Dec;46(12):986–92 (Eng. Abstr.) **(Ger)**

[Perceptive and instrumental examination of voice quality in patients with lip-jaw-palate clefts] Bressmann T, et al. **Laryngorhinootologie** 1998 Dec;77(12):700–8 (Eng. Abstr.) **(Ger)**

[Method of cough spectrography] Provotorov VM, et al. **Med Tekh** 1998 Jul–Aug;(4):15–20 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

A simple audio data logger for objective assessment of snoring in the home. Lee BW, et al. **Physiol Meas** 1999 May;20(2):119–27

Ceptral voice analysis: link with perception and stroboscopy. Dejonckere PH. **Rev Laryngol Otol Rhinol (Bord)** 1998; 119(4):245–6

[Noninvasive diagnosis of joint damage using an acoustic emission analysis] Fink J, et al. **Biomed Tech (Berl)** 1998; 43 Suppl:260–1 **(Ger)**

[Acoustic emission analysis of human bones within the scope of clinical diagnosis] Orth J, et al. **Biomed Tech (Berl)** 1998 Jul–Aug;43(7–8):194–201 (Eng. Abstr.) **(Ger)**

[Quantitative diagnosis of hypernasality in cleft lip and palate patients by computerized nasal quality assessment] Bressmann T, et al. **Mund Kiefer Gesichtschir** 1999 May; 3 Suppl 1:S154–7 (Eng. Abstr.) **(Ger)**

METHODS

Wheezing Lung Sounds Analysis with adaptive local trigonometric transform. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):41–51

Time-scale segmentation of respiratory sounds. Ademovic E, et al. **Technol Health Care** 1998 Jun;6(1):53–63

Classification of respiratory sounds based on wavelet packet decomposition and learning vector quantization. Pesu L, et al. **Technol Health Care** 1998 Jun;6(1):65–74

Inverse filtering applied to upper airway sounds. Plante F, et al. **Technol Health Care** 1998 Jun;6(1):23–32

A new versatile PC-based lung sound analyzer with automatic crackle analysis (HeLSA); repeatability of spectral parameters and sound amplitude in healthy subjects. Sovijärvi AR, et al. **Technol Health Care** 1998 Jun;6(1):11–22

Real time analysis of lung sounds. Sun X, et al. **Technol Health Care** 1998 Jun;6(1):3–10

Distribution of crackles on the flow-volume plane in different pulmonary diseases. Vanderschoot J, et al. **Technol Health Care** 1998 Jun;6(1):81–9

A new method to detect crackles in respiratory sounds. Vannuccini L, et al. **Technol Health Care** 1998 Jun; 6(1):75–9

A new method for automatic wheeze detection. Waris M, et al. **Technol Health Care** 1998 Jun;6(1):33–40

STANDARDS

Estimation of analogue pre-filtering characteristics for CORSA standardisation. Sun XQ, et al. **Technol Health Care** 1998 Nov;6(4):275–83

SOUSA see **DOLPHINS**

SOUTHERN BLOTTING see **BLOTTING, SOUTHERN**

SOUTHERN DOLPHINS see **DOLPHINS**

SOY BEANS see **SOYBEANS**

SOY PROTEINS

Nutritional adequacy of cow's milk substitutes. Lombardo G, et al. **Allergy** 1998;53(46 Suppl):118–21 (50 ref.)

Lipoprotein(a) and dietary proteins: casein lowers lipoprotein(a) concentrations as compared with soy protein. Nilausen K, et al. **Am J Clin Nutr** 1999 Mar;69(3):419–25

Methionine supplementation of soya products: effects on nitrogen balance parameters. de Oliveira JE, et al. **Arch Latinoam Nutr** 1998 Mar;48(1):35–40

Soy protein formula. The Australian College of Paediatrics. **J Paediatr Child Health** 1998 Aug;34(4):318–9

The story of soy formula feeding in infants: a road paved with good intentions [letter] Zoppi G, et al. **J Pediatr Gastroenterol Nutr** 1999 May;28(5):541–3 (39 ref.)

Nutritional value of the proteins of soybeans roasted at a small-scale unit level in Africa as assessed using growing rats. Ouédraogo CL, et al. **Reprod Nutr Dev** 1999 Mar–Apr; 39(2):201–12

[Evaluation of rheological and sensorial characteristics of breads prepared with a mix of sunflower protein concentrate and texturized soy protein] Gómez-Juárez C, et al. **Arch Latinoam Nutr** 1998 Jun;48(2):165–8 (Eng. Abstr.) **(Spa)**

ADMINISTRATION & DOSAGE

Daily intake and urinary excretion of genistein and daidzein by infants fed soy- or dairy-based infant formulas. Irvine CH, et al. **Am J Clin Nutr** · 1998 Dec;68(6 Suppl):1462S–1465S

Use of soy-protein formulas and soyfood for feeding infants and children in Asia. Quak SH, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1444S–1446S (16 ref.)

Influence of soybean processing, habitual diet, and soy dose on urinary isoflavonoid excretion. Slavin JL, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1492S–1495S

Soy intake and risk of breast cancer in Asians and Asian Americans. Wu AH, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1437S–1443S (46 ref.)

Supplementation of milk replacers containing soy protein with threonine, methionine, and lysine in the diets of calves. Kanjanapruthipong J. **J Dairy Sci** 1998 Nov;81(11):2912–5

Effect of freeze-dried soybean curd (tofu) on various bodily functions. Fujii M, et al. **J Med Invest** 1999 Feb; 46(1–2):67–74

Feeding soybean resistant protein to rats raises fecal bile acid excretion but counteracts a deoxycholate-caused decrease in colonic aberrant crypt foci. Azuma N, et al. **J Nutr Sci Vitaminol (Tokyo)** 1999 Apr;45(2):183–92

Dietary soy supplementation and phytoestrogen levels. Albertazzi P, et al. **Obstet Gynecol** 1999 Aug;94(2):229–31

Partial replacement of dietary casein with soy protein isolate can reduce the severity of retinoid-induced hypertriglyceridemia. Radcliffe JD, et al. **Plant Foods Hum Nutr** 1998;52(2):97–108

Treatment of rheumatoid arthritis with a peptide diet: a randomized, controlled trial. Holst-Jensen SE, et al. **Scand J Rheumatol** 1998;27(5):329–36

ADVERSE EFFECTS

A study on severe food reactions in Sweden--is soy protein an underestimated cause of food anaphylaxis? Foucard T, et al. **Allergy** 1999 Mar;54(3):261–5

Effect of reducing the phytate content and of partially hydrolyzing the protein in soy formula on zinc and copper absorption and status in infant rhesus monkeys and rat pups. Lönnerdal B, et al. **Am J Clin Nutr** 1999 Mar;69(3):490–6

Isoflavones and soy protein formulas. Cantani A. **Eur Rev Med Pharmacol Sci** 1998 Mar–Apr;2(2):97–8

ANALYSIS

Isoflavones in human breast milk and other biological fluids. Franke AA, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1466S–1473S

Soy isoflavone analysis: quality control and a new internal standard. Song T, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1474S–1479S

Characterization and quantitation of soybean proteins in commercial soybean products by capillary electrophoresis. Garcia-Ruiz C, et al. **Electrophoresis** 1999 Jul; 20(10):2003–12

Detection of the presence of soya protein in milk powder by sodium dodecyl sulfate capillary electrophoresis. López-Tapia J, et al. **J Chromatogr A** 1999 Mar 19; 836(1):153–60

A perfusion reversed-phase chromatographic method for ultrarapid determination of soybean proteins in soybean infant formulas and soybean milks: method development and validation. García MC, et al. **J Chromatogr Sci** 1998 Nov;36(11):527–34

Yield, protein, and oil quality of soybean genotypes selected for tofu production. Rao MS, et al. **Plant Foods Hum Nutr** 1998;52(3):241–51

[Method of soy protein detection in sausage products] Pisareva VM. **Vopr Pitan** 1998;(4):42–3 (Eng. Abstr.) **(Rus)**

SOY PROTEINS

CHEMISTRY

Chemical modification of isoflavones in soyfoods during cooking and processing. Coward L, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1486S–1491S

Bioactive small peptides from soybean protein. Zhang XZ, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:640–5

Solubility and stability of lorazepam in bile salt/soya phosphatidylcholine–mixed micelles. Hammad MA, et al. **Drug Dev Ind Pharm** 1999 Apr;25(4):409–17

Molecular basis of film formation from a soybean protein: comparison between the conformation of glycinin in aqueous solution and in films. Subirade M, et al. **Int J Biol Macromol** 1998 Nov;23(4):241–9

Ability of endogenous folate from soy protein isolate to maintain plasma homocysteine and hepatic DNA methylation during methyl group depletion in rats. Le Leu RK, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Jun; 44(3):457–64

IMMUNOLOGY

Antigenicity of the proteins in soy lecithin and soy oil in soybean allergy. Awazuhara H, et al. **Clin Exp Allergy** 1998 Dec;28(12):1559–64

The natural history of intolerance to soy and extensively hydrolyzed formula in infants with multiple food protein intolerance. Hill DJ, et al. **J Pediatr** 1999 Jul;135(1):118–21

Soy allergy in infants and children with IgE–associated cow's milk allergy. Zeiger RS, et al. **J Pediatr** 1999 May; 134(5):614–22

ISOLATION & PURIFICATION

[Method of soy protein detection in sausage products] Pisareva VM. **Vopr Pitan** 1998;(4):42–3 (Eng. Abstr.) **(Rus)**

METABOLISM

Influence of feeding alkaline/heat processed proteins on growth and protein and mineral status of rats. Sarwar G, et al. **Adv Exp Med Biol** 1999;459:161–77 (29 ref.)

Soy, soy phytoestrogens (isoflavones), and breast cancer (letter). Messina M. **Am J Clin Nutr** 1999 Oct;70(4):574–5

Isoflavone content of infant formulas and the metabolic fate of these phytoestrogens in early life. Setchell KD, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1453S–1461S (86 ref.)

Phytoestrogens: the biochemistry, physiology, and implications for human health of soy isoflavones. Setchell KD. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1333S–1346S (226 ref.)

Comparison of egg–yolk protein hydrolysate and soyabean protein hydrolysate in terms of nitrogen utilization. Gutierrez MA, et al. **Br J Nutr** 1998 Nov;80(5):477–84

Infusion of soy and casein protein meals affects interorgan amino acid metabolism and urea kinetics differently in pigs. Deutz NE, et al. **J Nutr** 1998 Dec;128(12):2435–45

Trypsin inhibitors and endogenous amino acids [letter; comment] Leterme P, et al. **J Nutr** 1998 Dec; 128(12):2526–7. Comment on: J Nutr 1998 Mar;128(3):598–605.

PHARMACOLOGY

Effects of mammalian and plant estrogens on mammary glands and uteri of macaques. Foth D, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1413S–1417S

Sex and long–term soy diets affect the metabolism and excretion of soy isoflavones in humans. Lu LJ, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1500S–1504S (35 ref.)

Effects of soy–protein supplementation on epithelial proliferation in the histologically normal human breast. McMichael–Phillips DF, et al. **Am J Clin Nutr** 1998 Dec; 68(6 Suppl):1431S–1435S

Soy isoflavonoids exhibit in vitro biological activities of loop diuretics. Martínez RM, et al. **Am J Clin Nutr** 1998 Dec; 68(6 Suppl):1354S–1357S

Variable lipemic response to dietary soy protein in healthy, normolipemic men. Nilausen K, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1380S–1384S

Soy protein and isoflavones: their effects on blood lipids and bone density in postmenopausal women. Potter SM, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1375S–1379S

A randomized trial comparing the effect of casein with that of soy protein containing varying amounts of isoflavones on plasma concentrations of lipids and lipoproteins. Crouse JR 3rd, et al. **Arch Intern Med** 1999 Sep 27;159(17):2070–6

Soy protein isolate in the presence of cornstarch reduces body fat gain in rats. Hurley C, et al. **Can J Physiol Pharmacol** 1998 Oct–Nov;76(10–11):1000–7

Dietary soy isoflavones inhibit in–vivo constrictor responses of coronary arteries to collagen–induced platelet activation. Williams JK, et al. **Coron Artery Dis** 1998;9(11):759–64

Dietary soy protein effects on inherited polycystic kidney disease are influenced by gender and protein level. Aukema HM, et al. **J Am Soc Nephrol** 1999 Feb;10(2):300–8

Soy isoflavones exert modest hormonal effects in premenopausal women. Duncan AM, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):192–7

Intact dietary soy protein, but not adding an isoflavone–rich soy extract to casein, improves plasma lipids in ovariectomized cynomolgus monkeys. Greaves KA, et al. **J Nutr** 1999 Aug;129(8):1585–92

Soy protein peptic hydrolysate with bound phospholipids decreases micellar solubility and cholesterol absorption in rats and caco–2 cells. Nagaoka S, et al. **J Nutr** 1999 Sep; 129(9):1725–30

Effects of soybean protein and very low dietary cholesterol on serum lipids, biliary lipids, and fecal sterols in humans. Duane WC. **Metabolism** 1999 Apr;48(4):489–94

Evidence for up–regulation of brain–derived neurotrophic factor mRNA by soy phytoestrogens in the frontal cortex of retired breeder female rats. Pan Y, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):17–20

Soy–derived antiapoptotic fractions protect gastrointestinal epithelium from damage caused by methotrexate treatment in the rat. Logvinova AV, et al. **Nutr Cancer** 1999; 33(1):33–9

Effect of dietary soy protein isolate, genistein, and 1,4–phenylenebis(methylene)selenocyanate on DNA binding of 7,12–dimethylbenz[a]anthracene in mammary glands of CD rats. Upadhyaya P, et al. **Oncol Rep** 1998 Nov–Dec;5(6):1541–5

Effects of soy protein diet on digestive lumenal polyamines and colonic cell proliferation in pigs. Benamouzig R, et al. **Reprod Nutr Dev** 1999 Mar–Apr;39(2):213–21

[Immunological prognosis of the effectiveness of soybean diet] Pershin BB, et al. **Vopr Pitan** 1999;68(4):14–20 (Eng. Abstr.) **(Rus)**

[Effects of antiatherosclerosis diet including soy protein on the dynamics of clinical, biochemical and immunologic indicators in patients with ischemic heart disease and hypertension] Pogozheva AV, et al. **Vopr Pitan** 1999; 68(4):27–31 (Eng. Abstr.) **(Rus)**

THERAPEUTIC USE

Cardiovascular effects of soybean phytoestrogens. St. Clair R. **Am J Cardiol** 1998 Nov 19;82(10A):40S–42S

Effects of soy protein on renal function and proteinuria in patients with type 2 diabetes. Anderson JW, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1347S–1353S (46 ref.)

Effects of soy isoflavones on atherosclerosis: potential mechanisms. Anthony MS, et al. **Am J Clin Nutr** 1998 Dec; 68(6 Suppl):1390S–1393S

Role of soy protein with normal or reduced isoflavone content in reversing bone loss induced by ovarian hormone deficiency in rats. Arjmandi BH, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1358S–1363S

Bone–sparing effect of soy protein in ovarian hormone–deficient rats is related to its isoflavone content. Arjmandi BH, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1364S–1368S

Soy protein for the prevention and treatment of children with cow–milk allergy. Businco L, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1447S–1452S (78 ref.)

Prevention of precancerous colonic lesions in rats by soy flakes, soy flour, genistein, and calcium. Thiagarajan DG, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1394S–1399S

Cholesterol–lowering effect of soy protein in normocholesterolemic and hypercholesterolemic men. Wong WW, et al. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1385S–1389S

Comparison of soy–based formulas with lactose and with sucrose in the treatment of acute diarrhea in infants. Fayad IM, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):675–80

The use of soy protein isolate to reduce the severity of 13–cis retinoic acid–induced hypertriglyceridemia. Radcliffe JD, et al. **Cancer Detect Prev** 1998;22(6):526–32

Soy protein, isoflavones and cardiovascular disease risk. Lichtenstein AH. **J Nutr** 1998 Oct;128(10):1589–92 (56 ref.)

Dietary soy protein isolate, compared with casein, reduces atherosclerotic lesion area in apolipoprotein E–deficient mice. Ni W, et al. **J Nutr** 1998 Nov;128(11):1884–9

Soybean phytochemicals inhibit the growth of transplantable human prostate carcinoma and tumor angiogenesis in mice. Zhou JR, et al. **J Nutr** 1999 Sep;129(9):1628–35

Complementary treatments highlighted at recent meeting [news] **Oncology (Huntingt)** 1999 Feb;13(2):166

URINE

Usual dietary consumption of soy foods and its correlation with the excretion rate of isoflavonoids in overnight urine samples among Chinese women in Shanghai. Chen Z, et al. **Nutr Cancer** 1999;33(1):82–7

SOYA OIL see **SOYBEAN OIL**

SOYBEAN OIL

Lipase–catalyzed syntheses of monoglycerides by hydrolysis of soybean oil in AOT/isooctane reversed micelles. Fan HL, et al. **Ann N Y Acad Sci** 1998 Dec 13;864:267–72

ANALYSIS

Yield, protein, and oil quality of soybean genotypes selected for tofu production. Rao MS, et al. **Plant Foods Hum Nutr** 1998;52(3):241–51

CHEMISTRY

Increase production of lactonizing lipase (LipL) from Pseudomonas sp. strain 109 by lipids and detergents. Tanaka J, et al. **Biosci Biotechnol Biochem** 1999 May; 63(5):900–4

Interaction of soybean oil with phosphatidylcholine and their formation of small dispersed particles. Asai Y, et al. **Drug Dev Ind Pharm** 1999 May;25(5):643–50

IMMUNOLOGY

Antigenicity of the proteins in soy lecithin and soy oil in soybean allergy. Awazuhara H, et al. **Clin Exp Allergy** 1998 Dec;28(12):1559–64

METABOLISM

The role of the alternative respiratory pathway in the stimulation of cephalosporin C formation by soybean oil in Acremonium chrysogenum. Karaffa L, et al. **Appl Microbiol Biotechnol** 1999 May;51(5):633–8

Use of soybean oil and ammonium sulfate additions to optimize secondary metabolite production. Junker B, et al. **Biotechnol Bioeng** 1998 Dec 5;60(5):580–8

Absorption, by humans, of beta–carotene from fortified soybean oil added to rice: effect of heat treatment. Dutra–de–Oliveira JE, et al. **J Am Coll Nutr** 1998 Aug; 17(4):361–5

PHARMACOKINETICS

Effect of composition on biological fate of oil particles after intravenous injection of O/W lipid emulsions. Sakaeda T, et al. **J Drug Target** 1998;6(4):273–84

PHARMACOLOGY

Effects of soybean oil emulsion and eicosapentaenoic acid on stress response and immune function after a severely stressful operation. Furukawa K, et al. **Ann Surg** 1999 Feb; 229(2):255–61

NADPH–oxidase activity and lipid peroxidation in neutrophils from rats fed fat–rich diets. Lopes LR, et al. **Cell Biochem Funct** 1999 Mar;17(1):57–64

Influence of soybean oil in high fiber diets fed to nonlactating cows on ruminal unsaturated fatty acids and nutrient digestibility. Bateman HG 2nd, et al. **J Dairy Sci** 1998 Sep; 81(9):2451–8

Effects of soybean oil and fish oil emulsions on glucose and lipid metabolism in streptozotocin–induced diabetic rats receiving total parenteral nutrition. Yeh SL, et al. **JPEN J Parenter Enteral Nutr** 1998 Sep–Oct;22(5):297–301

Replacement of partially hydrogenated soybean oil by palm oil in margarine without unfavorable effects on serum lipoproteins. Müller H, et al. **Lipids** 1998 Sep;33(9):879–87

Soybean– and olive–oils–enriched diets increase insulin secretion to glucose stimulus in isolated pancreatic rat islets. Picinato MC, et al. **Physiol Behav** 1998 Nov 15;65(2):289–94

THERAPEUTIC USE

Soy lecithin reduces plasma lipoprotein cholesterol and early atherogenesis in hypercholesterolemic monkeys and hamsters: beyond linoleate. Wilson TA, et al. **Atherosclerosis** 1998 Sep;140(1):147–53

Prevention of sudden cardiac death by dietary pure omega–3 polyunsaturated fatty acids in dogs. Billman GE, et al. **Circulation** 1999 May 11;99(18):2452–7

SOYBEAN PROTEINS see **SOY PROTEINS**

SOYBEANS

Biotechnology and the soybean. Rogers SG. **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1330S–1332S

Gas production in human ingesting a soybean flour derived from beans naturally low in oligosaccharides. Suarez FL, et al. **Am J Clin Nutr** 1999 Jan;69(1):135–9

Asthma visits to emergency rooms and soybean unloading in the harbors of Valencia and A Coruña, Spain. Ballester F, et al. **Am J Epidemiol** 1999 Feb 15;149(4):315–22

Possible role of soyabean therapy in isolated platelet factor 3 (PF3) availability defect [letter] Saxena R, et al. **Am J Hematol** 1999 Feb;60(2):170

Effects of consumption of oat milk, soya milk, or cow's milk on plasma lipids and antioxidative capacity in healthy subjects. Oning G, et al. **Ann Nutr Metab** 1998; 42(4):211–20

Soyfoods, isoflavones and risk of colonic cancer: a review of the in vitro and in vivo data. Messina M, et al. **Baillieres Clin Endocrinol Metab** 1998 Dec;12(4):707–28 (109 ref.)

Dietary soybean protein moderates the deleterious disturbance of lipid metabolism caused by exogenous oxidized cholesterol in rats. Osada K, et al. **Biochim Biophys Acta** 1999 May 24;1427(3):337–50

Nasal insulin delivery in rabbits using soybean–derived sterylglucoside and sterol mixtures as novel enhancers in suspension dosage forms. Ando T, et al. **Biol Pharm Bull** 1998 Aug;21(8):862–5

Association of liposomes containing a soybean–derived sterylglucoside mixture with rat primary cultured hepatocytes. Shimizu K, et al. **Biol Pharm Bull** 1998 Aug; 21(8):818–22

High absorbency and subchronic morphologic effects on the nasal epithelium of a nasal insulin powder dosage form with a soybean–derived sterylglucoside mixture in rabbits. Yamamoto T, et al. **Biol Pharm Bull** 1998 Aug;21(8):866–70

Does high soy milk intake reduce prostate cancer incidence? The Adventist Health Study (United States) [see comments] Jacobsen BK, et al. **Cancer Causes Control** 1998 Dec; 9(6):553–7. Comment in: Cancer Causes Control 1998 Dec;9(6):541–3.

Effects of soy isoflavones on estrogen and phytoestrogen metabolism in premenopausal women. Xu X, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Dec;7(12):1101–8

Effects of long term feeding of raw soya bean flour on virus-induced pancreatic carcinogenesis in guinea fowl. Kirev T, et al. **Cancer Lett** 1999 Jan 29;135(2):195–202

Effects of soy or rye supplementation of high-fat diets on colon tumour development in azoxymethane-treated rats. Davies MJ, et al. **Carcinogenesis** 1999 Jun;20(6):927–31

Effects of a soy milk supplement on plasma cholesterol levels and oxidative DNA damage in men--a pilot study. Mitchell JH, et al. **Eur J Nutr** 1999 Jun;38(3):143–8

Reproductive effects of dietary soy in female Wistar rats. Gallo D, et al. **Food Chem Toxicol** 1999 May;37(5):493–502

Development of a soy food frequency questionnaire to estimate isoflavone consumption in US adults. Kirk P, et al. **J Am Diet Assoc** 1999 May;99(5):558–63

Performance and digestibilities of beef cattle fed diets supplemented with either soybean meal or roasted soybeans and implanted with Synovex. Rumsey TS, et al. **J Anim Sci** 1999 Jul;77(7):1631–7

Determination of polychlorinated biphenyls in soybean infant formulas by gas chromatography. Ramos L, et al. **J Chromatogr A** 1998 Oct 9;823(1–2):365–72

Elevation of conjugated cis-9, trans-11-octadecadienoic acid in bovine milk because of dietary supplementation. Lawless F, et al. **J Dairy Sci** 1998 Dec;81(12):3259–67

Dietary soybeans intake and bone mineral density among 995 middle-aged women in Yokohama. Tsuchida K, et al. **J Epidemiol** 1999 Feb;9(1):14–9

Starter culture activity in refrigerated fermented soymilk. Garro MS, et al. **J Food Prot** 1999 Jul;62(7):808–10

Detection of bovine milk proteins in soymilk by Western blotting. Molina E, et al. **J Food Prot** 1998 Dec; 61(12):1691–4

Digestion and absorption rates of [3H]-oleic acid and [14C]-triolein do not differ in rats fed heated (-) and (+) gossypol cottonseed and soybean flours. Prost J, et al. **J Nutr** 1998 Nov;128(11):2001–8

Pharmacokinetics of soybean isoflavones in plasma, urine and feces of men after ingestion of 60 g baked soybean powder (kinako). Watanabe S, et al. **J Nutr** 1998 Oct;128(10):1710–5

Bioavailability of magnesium contained in roasted and ground soybean (kinako) as evaluated by serum and bone magnesium contents, kidney calcification, and magnesium absorption. Hanai M, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Jun;44(3):437–46

Fermentation of soybean flour with Aspergillus usamii improves availabilities of zinc and iron in rats. Hirabayashi M, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Dec; 44(6):877–86

Combined effect of vegetable protein (soy) and soluble fiber added to a standard cholesterol-lowering diet. Jenkins DJ, et al. **Metabolism** 1999 Jun;48(6):809–16

Survival of Enterobacter cloacae and Pseudomonas paucimobilis in yoghurts manufactured from cow's milk and soymilk during storage at different temperatures. Canganella F, et al. **Microbiol Res** 1999 May;154(1):15–21

Usual dietary consumption of soy foods and its correlation with the excretion rate of isoflavonoids in overnight urine samples among Chinese women in Snanghai. Chen Z, et al. **Nutr Cancer** 1999;33(1):82–7

Influence of concomitant miso or NaCl treatment on induction of gastric tumors by N-methyl-N'-nitro-N-nitrosoguanidine in rats. Watanabe H, et al. **Oncol Rep** 1999 Sep–Oct;6(5):989–93

Protein and starch digestibilities and mineral availability of products developed from potato, soy and corn flour. Gahlawat P, et al. **Plant Foods Hum Nutr** 1998;52(2):151–60

Bioavailability of tryptophan in soybean meal and tryptophan retention in the carcasses of four-week-old ducks. Adeola O. **Poult Sci** 1998 Sep;77(9):1312–9

Nutrient content and protein and energy digestibilities of ethanol-extracted, low alpha-galactoside soybean meal as compared to intact soybean meal. Leske KL, et al. **Poult Sci** 1999 Aug;78(8):1177–83

Effect of enzyme supplementation of broiler diets based on corn and soybeans. Zanella I, et al. **Poult Sci** 1999 Apr; 78(4):561–8

China: the soyabean-pork dilemma. Geissler C. **Proc Nutr Soc** 1999 May;58(2):345–53 (54 ref.)

Nutritional value of the proteins of soybeans roasted at a small-scale unit level in Africa as assessed using growing rats. Ouédraogo CL, et al. **Reprod Nutr Dev** 1999 Mar–Apr; 39(2):201–12

[Germination of soybeans BR-13 and Paraná: effects on mineral constituents] Ribeiro ML, et al. **Arch Latinoam Nutr** 1997 Dec;47(4):352–8 (Eng. Abstr.) **(Por)**

[Soybeans--nutrition--health] Zakharov VP. **Voen Med Zh** 1999 Mar;320(3):50–1 **(Rus)**

[Immunological prognosis of the effectiveness of soybean diet] Pershin BB, et al. **Vopr Pitan** 1999;68(4):14–20 (Eng. Abstr.) **(Rus)**

[A supplementary sportmen food formulation and characterization] Del Castillo VC, et al. **Arch Latinoam Nutr** 1999 Mar;49(1):61–6 (Eng. Abstr.) **(Spa)**

[Lipoxygenase and trypsin inhibitor inactivation in soymilk processing by direct milling and ultra high temperature (DM-UHT)] Geronazzo H, et al. **Arch Latinoam Nutr** 1998 Mar;48(1):52–7 (Eng. Abstr.) **(Spa)**

[Nutritional improvement of French type bread] Sánchez HD, et al. **Arch Latinoam Nutr** 1998 Dec;48(4):349–53 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Pizza, an unsuspected source of soybean allergen exposure. Senna GE, et al. **Allergy** 1998 Nov;53(11):1106–7

Long term outcome of soybean epidemic asthma after an allergen reduction intervention. Antó JM, et al. **Thorax** 1999 Aug;54(8):670–4

CHEMISTRY

Quantification of isoflavones by capillary zone electrophoresis in soybean seeds: effects of variety and environment. Aussenac T, et al. **Am J Clin Nutr** 1998 Dec; 68(6 Suppl):1480S–1485S

Methionine supplementation of soya products: effects on nitrogen balance parameters. de Oliveira JE, et al. **Arch Latinoam Nutr** 1998 Mar;48(1):35–40

Analysis of thermal stability of soya globulins using monoclonal antibodies. Huang L, et al. **Biochim Biophys Acta** 1998 Oct 14;1388(1):215–26

Incorporation of esterified soybean isoflavones with antioxidant activity into low density lipoprotein. Meng QH, et al. **Biochim Biophys Acta** 1999 Jun 10;1438(3):369–76

Isolation of a French bean (Phaseolus vulgaris L.) homolog to the beta-glucan elicitor-binding protein of soybean (Glycine max L.). Mithöfer A, et al. **Biochim Biophys Acta** 1999 Apr 14;1418(1):127–32

Quality and safety evaluation of genetically engineered rice with soybean glycinin: analyses of the grain composition and digestibility of glycinin in transgenic rice. Momma K, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):314–8

Relationship between chemical structures and biological activities of triterpenoid saponins from soybean. Yoshiki Y, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2291–9 (60 ref.)

Gender effects of tall oil versus soybean phytosterols as cholesterol-lowering agents in hamsters. Ntanios FY, et al. **Can J Physiol Pharmacol** 1998 Jul–Aug;76(7–8):780–7

Soy, its components, and cancer prevention: a review of the in vitro, animal, and human data. Fournier DB, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov;7(11):1055–65 (137 ref.)

Cardiovascular effects of total soyasaponin in central nervous system and its relationship with monoamine transmitters. Guo JH, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May; 17(3):239–41

Ion-pair solid-phase extraction of biogenic amines before micellar electrokinetic chromatography with laser-induced fluorescence detection of their fluorescein thiocarbamyl derivatives. Rodriguez I, et al. **Electrophoresis** 1999 Jul; 20(9):1862–8

Absence of limiting amino acids in calves fed a corn and soybean meal diet past three months of age. Abe M, et al. **J Anim Sci** 1999 Mar;77(3):769–79

Determination of phosphine residues in whole grains and soybeans by ion chromatography via conversion to phosphate. Carlson M, et al. **J AOAC Int** 1998 Nov-Dec; 81(6):1190–201

Ultrarapid detection of bovine whey proteins in powdered soybean milk by perfusion reversed-phase high-performance liquid chromatography. García MC, et al. **J Chromatogr A** 1998 Oct 2;822(2):225–32

Refining the MAOI diet: tyramine content of pizzas and soy products. Shulman KI, et al. **J Clin Psychiatry** 1999 Mar; 60(3):191–3

Novel isoflavone, cinnamic acid, and triterpenoid glycosides in soybean molasses. Hosny M, et al. **J Nat Prod** 1999 Jun; 62(6):853–8

Soybean isoflavones reduce experimental metastasis in mice. Li D, et al. **J Nutr** 1999 May;129(5):1075–8

Urinary disposition of the soybean isoflavones daidzein, genistein and glycitein differs among humans with moderate fecal isoflavone degradation activity. Zhang Y, et al. **J Nutr** 1999 May;129(5):957–62

Soybean beta-conglycinin alpha subunit is phosphorylated on two distinct serines by protein kinase CK2 in vitro. Ralet MC, et al. **J Protein Chem** 1999 Apr;18(3):315–23

Effects of a soybean isoflavone mixture on carcinogenesis in prostate and seminal vesicles of F344 rats. Onozawa M, et al. **Jpn J Cancer Res** 1999 Apr;90(4):393–8

Infantile leukemia and soybeans--a hypothesis [editorial] Abe T. **Leukemia** 1999 Mar;13(3):317–20

A novel 53-kDa nodulin of the symbiosome membrane of soybean nodules, controlled by Bradyrhizobium japonicum. Winzer T, et al. **Mol Plant Microbe Interact** 1999 Mar; 12(3):218–26

Nutritional evaluation of Zambia indigenous soy bean (Glycine max) and sunflower (Helianthus annus) as protein sources in poultry and pigs diets. Aregheore EM. **Nahrung** 1998 Oct;42(5):298–301

Proximate composition and some functional properties of extrusion cooked soybean and sweet potato blends. Iwe MO, et al. **Plant Foods Hum Nutr** 1999;53(2):121–32

Nutritional evaluation of lectin-free soybeans for poultry. Douglas MW, et al. **Poult Sci** 1999 Jan;78(1):91–5

[Effect of malting and thermoplastic extrusion on the technologic quality of soybean-derived products] Trugo LC, et al. **Arch Latinoam Nutr** 1998 Jun;48(2):169–74 (Eng. Abstr.) **(Por)**

CYTOLOGY

Color coding the cell death status of plant suspension cells. Shigaki T, et al. **Biotechniques** 1999 Jun;26(6):1060–2

DRUG EFFECTS

The effect of lanthanide chloride on abscisic acid and electron-transport activity of some crops. Zeng FL, et al. **Biol Trace Elem Res** 1999 Mar;67(3):277–84

Induction of ascorbate peroxidase by ethylene and hydrogen peroxide during growth of cultured soybean cells. Lee SC, et al. **Mol Cells** 1999 Apr 30;9(2):166–71

ENZYMOLOGY

Sol-gel thin-film immobilized soybean peroxidase biosensor for the amperometric determination of hydrogen peroxide in acid medium. Wang B, et al. **Anal Chem** 1999 May 15; 71(10):1935–9

Class I heme peroxidases: characterization of soybean ascorbate peroxidase. Jones DK, et al. **Arch Biochem Biophys** 1998 Dec 15;360(2):173–8

Molecular characterization of the enzyme catalyzing the aryl migration reaction of isoflavonoid biosynthesis in soybean. Steele CL, et al. **Arch Biochem Biophys** 1999 Jul 1; 367(1):146–50

Uncovering a calcium-regulated membrane-binding mechanism for soybean lipoxygenase-1. Tatulian SA, et al. **Biochemistry** 1998 Nov 3;37(44):15481–90

Synthesis of azidophospholipids and labeling of lysophosphatidylcholine acyltransferase from developing soybean cotyledons. Tumaney AW, et al. **Biochim Biophys Acta** 1999 Jul 9;1439(1):47–56

Comparison of conformational changes and inactivation of soybean lipoxygenase-1 during urea denaturation. Wu Y, et al. **Biochim Biophys Acta** 1998 Nov 10;1388(2):325–36

New minimal substrate structural requirements in the enzymatic peroxidation of alkenes with soybean lipoxygenase. Novak MJ. **Bioorg Med Chem Lett** 1999 Jan 4;9(1):31–4

Lipoxygenase-1 from soybean seed inhibiting the activity of pancreatic lipase. Satouchi K, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1498–503

Characterization of soybean seed coat peroxidase: resonance Raman evidence for a structure-based classification of plant peroxidases. Nissum M, et al. **Biospectroscopy** 1998; 4(6):355–64

Evolutionary changes in the structures of the cox2 and atp6 loci in the mitochondrial genome of soybean involving recombination across small interspersed sequences. Kato S, et al. **Curr Genet** 1998 Oct;34(4):303–12

The involvement of poly(ADP-ribose) polymerase in the oxidative stress responses in plants. Amor Y, et al. **FEBS Lett** 1998 Nov 27;440(1–2):1–7

An alternative oxidase monoclonal antibody recognises a highly conserved sequence among alternative oxidase subunits. Finnegan PM, et al. **FEBS Lett** 1999 Mar 19; 447(1):21–4

Reactivity of soybean lipoxygenase-1 to linoleic acid entrapped in phosphatidylcholine vesicles. Kato M, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):294–9

9-Hydroxy-traumatin, a new metabolite of the lipoxygenase pathway. Gardner HW. **Lipids** 1998 Aug;33(8):745–9

NADH oxidase activity of soybean plasma membranes inhibited by submicromolar concentrations of ATP. Morré DJ. **Mol Cell Biochem** 1998 Oct;187(1–2):41–6

Molecular cloning and characterization of a new basic peroxidase cDNA from soybean hypocotyls infected with Phytophthora sojae f.sp. glycines. Yi SY, et al. **Mol Cells** 1998 Oct 31;8(5):556–64

Distribution of two isoforms of NADP-dependent isocitrate dehydrogenase in soybean (Glycine max). Park KS, et al. **Plant Mol Biol** 1999 May;40(1):13–21

Enhanced expression and differential inducibility of soybean chalcone synthase genes by supplemental UV-B in dark-grown seedlings. Shimizu T, et al. **Plant Mol Biol** 1999 Mar;39(4):785–95

Purification of the trehalase GMTRE1 from soybean nodules and cloning of its cDNA. GMTRE1 is expressed at a low level in multiple tissues. Aeschbacher RA, et al. **Plant Physiol** 1999 Feb;119(2):489–96

Arginase is inoperative in developing soybean embryos. Goldraij A, et al. **Plant Physiol** 1999 Jan;119(1):297–304

A multisubunit acetyl coenzyme A carboxylase from soybean. Reverdatto S, et al. **Plant Physiol** 1999 Mar;119(3):961–78

Expression of a soybean gene encoding the tetrapyrrole-synthesis enzyme glutamyl-tRNA reductase in symbiotic root nodules. Sangwan I, et al. **Plant Physiol** 1999 Feb;119(2):593–8

Expression of a soybean cytochrome P450 monooxygenase cDNA in yeast and tobacco enhances the metabolism of phenylurea herbicides. Siminszky B, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1750–5

Purification and characterization of a soybean root nodule phosphatase expressed in Pichia pastoris. Penheiter AR, et al. **Protein Expr Purif** 1998 Oct;14(1):125–30

N-demethylation of phenothiazines by lipoxygenase from soybean and human term placenta in the presence of

hydrogen peroxide. Rajadhyaksha AV, et al. **Teratog Carcinog Mutagen** 1999;19(3):211–22
Co-oxidation of acrylonitrile by soybean lipoxygenase and partially purified human lung lipoxygenase. Roy P, et al. **Xenobiotica** 1999 May;29(5):511–31

GENETICS

Isolation, analysis and expression of homologues of the soybean early nodulin gene GmENOD93 (GmN93) from rice. Reddy PM, et al. **Biochim Biophys Acta** 1998 Dec 22;1443(3):386–92
Molecular cloning and ethylene-inducible expression of Chib1 chitinase from soybean (Glycine max (L.) Merr.). Watanabe A, et al. **Biosci Biotechnol Biochem** 1999 Feb; 63(2):251–6
Development and application of a selective detection method for genetically modified soy and soy-derived products. Hoef AM, et al. **Food Addit Contam** 1998 Oct;15(7):767–74
Phylogenetic relationships of the mitochondrial genomes in the genus Glycine subgenus Soja. Kanazawa A, et al. **Genes Genet Syst** 1998 Aug;73(4):255–61
IUPAC collaborative trial study of a method to detect genetically modified soy beans and maize in dried powder. Lipp M, et al. **J AOAC Int** 1999 Jul–Aug;82(4):923–8
Teaching a new dog old tricks: identifying quantitative trait loci using lessons from plants. Chase K, et al. **J Hered** 1999 Jan–Feb;90(1):43–51
Cross-species amplification of soybean (Glycine max) simple sequence repeats (SSRs) within the genus and other legume genera: implications for the transferability of SSRs in plants. Peakall R, et al. **Mol Biol Evol** 1998 Oct; 15(10):1275–87
Instability at the k2 Mdh1-n y20 chromosomal region in soybean. Chen XF, et al. **Mol Gen Genet** 1998 Nov; 260(4):309–18
Polygalacturonase and polygalacturonase inhibitor protein: gene isolation and transcription in Glycine max–Heterodera glycines interactions. Mahalingam R, et al. **Mol Plant Microbe Interact** 1999 Jun;12(6):490–8
A soybean cDNA encoding a chromatin-binding peptide inhibits mitosis of mammalian cells. Galvez AF, et al. **Nat Biotechnol** 1999 May;17(5):495–500
Yield, protein, and oil quality of soybean genotypes selected for tofu production. Rao MS, et al. **Plant Foods Hum Nutr** 1998;52(3):241–51
Rice ENOD40: isolation and expression analysis in rice and transgenic soybean root nodules. Kouchi H, et al. **Plant J** 1999 Apr;18(2):121–9
The soybean ENOD40(2) promoter is active in Arabidopsis thaliana and is temporally and spatially regulated. Mirabella R, et al. **Plant Mol Biol** 1999 Jan;39(1):177–81
Cloning of genes by mRNA differential display induced during the hypersensitive reaction of soybean after inoculation with Pseudomonas syringae pv. glycinea. Seehaus K, et al. **Plant Mol Biol** 1998 Dec;38(6):1225–34
A strong constitutive positive element is essential for the ammonium-regulated expression of a soybean gene encoding cytosolic glutamine synthetase. Tercé-Laforgue T, et al. **Plant Mol Biol** 1999 Feb;39(3):551–64
Purification of the trehalase GMTRE1 from soybean nodules and cloning of its cDNA. GMTRE1 is expressed at a low level in multiple tissues. Aeschbacher RA, et al. **Plant Physiol** 1999 Feb;119(2):489–96
Hydrophobic protein synthesized in the pod endocarp adheres to the seed surface. Gijzen M, et al. **Plant Physiol** 1999 Aug;120(4):951–9
Arginase is inoperative in developing soybean embryos. Goldraij A, et al. **Plant Physiol** 1999 Jan;119(1):297–304
Expression of a soybean gene encoding the tetrapyrrole-synthesis enzyme glutamyl-tRNA reductase in symbiotic root nodules. Sangwan I, et al. **Plant Physiol** 1999 Feb;119(2):593–8
Purification and characterization of a soybean root nodule phosphatase expressed in Pichia pastoris. Penheiter AR, et al. **Protein Expr Purif** 1998 Oct;14(1):125–30
Transgenic potato plants expressing soybean beta-1,3-endoglucanase gene exhibit an increased resistance to Phytophthora infestans. Borkowska M, et al. **Z Naturforsch [C]** 1998 Nov–Dec;53(11–12):1012–6

IMMUNOLOGY

Antigenicity of the proteins in soy lecithin and soy oil in soybean allergy. Awazuhara H, et al. **Clin Exp Allergy** 1998 Dec;28(12):1559–64
Increased positivity of skin test and allergenic stability of glycerinated soybean hull extracts. Morell F, et al. **Clin Exp Allergy** 1999 Mar;29(3):388–93
Neoallergens in heated soybean hull. Codina R, et al. **Int Arch Allergy Immunol** 1998 Oct;117(2):120–5
Identification of the soybean hull allergens responsible for the Barcelona asthma outbreaks. Codina R, et al. **Int Arch Allergy Immunol** 1999 May;119(1):69–71
Corn allergens: IgE antibody reactivity and cross-reactivity with rice, soy, and peanut. Lehrer SB, et al. **Int Arch Allergy Immunol** 1999 Feb–Apr;118(2–4):298–9
Quantitative analysis of Gly m Bd 28K in soybean products by a sandwich enzyme-linked immunosorbent assay. Bando N, et al. **J Nutr Sci Vitaminol (Tokyo)** 1998 Oct; 44(5):655–64

METABOLISM

Differentiation of soy sauce types by HPLC profile pattern recognition. Isolation of novel isoflavones. Kinoshita E, et al. **Adv Exp Med Biol** 1998;439:117–29
Molybdenum absorption and utilization in humans from soy and kale intrinsically labeled with stable isotopes of molybdenum. Turnlund JR, et al. **Am J Clin Nutr** 1999 Jun;69(6):1217–23
Chlorination and nitration of soy isoflavones. Boersma BJ, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):265–75
Soybean iron metabolism and nutrition. Latunde-Dada O. **Biochem Soc Trans** 1998 Aug;26(3):S247
Oxidation of NADH by intact segments of soybean hypocotyls and stimulation by 2,4-D. Hicks C, et al. **Biochim Biophys Acta** 1998 Oct 15;1375(1–2):1–5
Uptake and distribution of trace elements in maturing soybean. Shinonaga T, et al. **Biol Trace Elem Res** 1999 Jun;68(3):235–48
Effects of soy milk and bifidobacterium fermented soy milk on lipid metabolism in aged ovariectomized rats. Kikuchi-Hayakawa H, et al. **Biosci Biotechnol Biochem** 1998 Sep;62(9):1688–92
Novel histamine measurement by HPLC analysis used to assay histidine decarboxylase inhibitory activity of shoyuflavones from soy sauce. Kinoshita E, et al. **Biosci Biotechnol Biochem** 1998 Aug;62(8):1488–91
Oxidative stability of liposomes prepared from soybean PC, chicken egg PC, and salmon egg PC. Nara E, et al. **Biosci Biotechnol Biochem** 1997 Oct;61(10):1736–8
Effect of media constituents on the formation by halophilic yeast of the 2 (or 5)-ethyl-5 (or 2)-methyl-4-hydroxy-3 (2H)-furanone aroma component specific to miso. Sugawara E, et al. **Biosci Biotechnol Biochem** 1999 Apr; 63(4):749–52
The roles of the N-linked glycans and extension regions of soybean beta-conglycinin in folding, assembly and structural features. Maruyama N, et al. **Eur J Biochem** 1998 Dec 1;258(2):854–62
Fermentation of low-salt miso as affected by supplementation with ethanol. Chiou RY, et al. **Int J Food Microbiol** 1999 Apr 1;48(1):11–20
Changes in the contents of fat-soluble vitamins and provitamins during tempe fermentation. Denter J, et al. **Int J Food Microbiol** 1998 Dec 8;45(2):129–34
Soybean hulls as a dietary fiber source for dogs. Cole JT, et al. **J Anim Sci** 1999 Apr;77(4):917–24
Evidence for the formation of dinor isoprostanes E1 from alpha-linolenic acid in plants. Parchmann S, et al. **J Biol Chem** 1998 Dec 4;273(49):32650–5
Detection of bovine milk proteins in soymilk by Western blotting. Molina E, et al. **J Food Prot** 1998 Dec; 61(12):1691–4
Effect of soymilk consumption on serum estrogen concentrations in premenopausal Japanese women. Nagata C, et al. **J Natl Cancer Inst** 1998 Dec 2;90(23):1830–5
Degradation of Bowman-Birk protease inhibitor mRNA with a cell-free extract. Cheng Y, et al. **Phytochemistry** 1999 Sep;52(2):233–8
The 68 kDa DNA compacting nucleoid protein from soybean chloroplasts inhibits DNA synthesis in vitro. Cannon GC, et al. **Plant Mol Biol** 1999 Mar;39(4):835–45
Involvement of specific calmodulin isoforms in salicylic acid-independent activation of plant disease resistance responses. Heo WD, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):766–71
Antimutagenic activity of chemical fractions isolated from a commercial soybean processing by-product. Plewa MJ, et al. **Teratog Carcinog Mutagen** 1999;19(2):121–35

MICROBIOLOGY

A hemorrhagic factor (Apicidin) produced by toxic Fusarium isolates from soybean seeds. Park JS, et al. **Appl Environ Microbiol** 1999 Jan;65(1):126–30
Purification and characterization of a soybean-milk-coagulating enzyme from Bacillus pumilus TYO-67. Yasuda M, et al. **Appl Microbiol Biotechnol** 1999 Apr;51(4):474–9
Bacteriological investigation of an outbreak of Clostridium perfringens food poisoning caused by Japanese food without animal protein. Miwa N, et al. **Int J Food Microbiol** 1999 Aug 1;49(1–2):103–6
Glucosamine content of tempe mould, Rhizopus oligosporus. Sparringa RA, et al. **Int J Food Microbiol** 1999 Mar 1; 47(1–2):153–7
The use of enterocin CCM 4231 in soy milk to control the growth of Listeria monocytogenes and Staphylococcus aureus. Lauková A, et al. **J Appl Microbiol** 1999 Jul; 87(1):182–6
Thermoregulated expression and characterization of an NAD(P)H-dependent 2-cyclohexen-1-one reductase in the plant pathogenic bacterium Pseudomonas syringae pv. glycinea. Rohde BH, et al. **J Bacteriol** 1999 Feb; 181(3):814–22
Characterization of kefir grains grown in cows' milk and in soya milk. Abraham AG, et al. **J Dairy Res** 1999 May; 66(2):327–33
Quality of commercial shelf-stable soymilk products. Bai Y, et al. **J Food Prot** 1998 Sep;61(9):1161–4
Cloning of genes by mRNA differential display induced during the hypersensitive reaction of soybean after inoculation with Pseudomonas syringae pv. glycinea. Seehaus K, et al. **Plant Mol Biol** 1998 Dec;38(6):1225–34

PARASITOLOGY

The soybean cyst nematode, Heterodera glycines: a genetic model system for the study of plant-parasitic nematodes. Opperman CH, et al. **Curr Opin Plant Biol** 1998 Aug; 1(4):342–6 (27 ref.)

PHYSIOLOGY

Mutation in GDP-fucose synthesis genes of Sinorhizobium fredii alters Nod factors and significantly decreases competitiveness to nodulate soybeans. Lamrabet Y, et al. **Mol Plant Microbe Interact** 1999 Mar;12(3):207–17

RADIATION EFFECTS

The structural, biochemical, and genetic characterization of a new radiation-induced, variegated leaf mutant of soybean [Glycine max (L.) Merr.] Cheng TS, et al. **Proc Natl Sci Counc Repub China B** 1999 Jan;23(1):27–37

THERAPEUTIC USE

The Role of Soy in Preventing and Treating Chronic Disease. Proceedings of a symposium. Brussels, Belgium, September 15–19, 1996 [published erratum appears in Am J Clin Nutr 1999 May;69(5):1018–9] **Am J Clin Nutr** 1998 Dec;68(6 Suppl):1329S–1544S
Cardiovascular and renal benefits of dry bean and soybean intake. Anderson JW, et al. **Am J Clin Nutr** 1999 Sep;70(3 Suppl):464S–474S (154 ref.)
Legumes and soybeans: overview of their nutritional profiles and health effects. Messina MJ. **Am J Clin Nutr** 1999 Sep; 70(3 Suppl):439S–450S (188 ref.)
Soy, its components, and cancer prevention: a review of the in vitro, animal, and human data. Fournier DB, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Nov;7(11):1055–65 (137 ref.)
Clinico-haematological profile of isolated PF3 availability defect: therapeutic potential of soya bean--a pilot study. Saxena R, et al. **Eur J Haematol** 1999 May;62(5):327–31
Soybeans may be linked to pain relief [news] **J Am Dent Assoc** 1999 Mar;130(3):328
Soybean phytochemicals inhibit the growth of transplantable human prostate carcinoma and tumor angiogenesis in mice. Zhou JR, et al. **J Nutr** 1999 Sep;129(9):1628–35
The clinical applications of Ginkgo biloba, St. John's wort, saw palmetto, and soy. Glisson J, et al. **Nurse Pract** 1999 Jun;24(6):28, 31, 35–6 passim; quiz 47–9 (65 ref.)
Soy, disease prevention, and prostate cancer. Moyad MA. **Semin Urol Oncol** 1999 May;17(2):97–102 (110 ref.)

TOXICITY

Soybean isoflavones, genistein and genistin, inhibit rat myoblast proliferation, fusion and myotube protein synthesis. Ji S, et al. **J Nutr** 1999 Jul;129(7):1291–7

VIROLOGY

Sequence and expression in Escherichia coli of the coat protein gene of the dwarfing strain of soybean dwarf luteovirus. Smith OP, et al. **Virus Genes** 1998;17(3):207–11

SP1-BINDING SITE, HIV see **HIV LONG TERMINAL REPEAT**

SP1 PREGNANCY PROTEIN see **PREGNANCY-SPECIFIC BETA 1-GLYCOPROTEIN**

SP1 TRANSCRIPTION FACTOR see **TRANSCRIPTION FACTOR, SP1**

SP3 see **PREGNANCY ZONE PROTEINS**

SP-K RECEPTORS see **RECEPTORS, NEUROKININ-2**

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SPACE ADAPTATION SYNDROME see **SPACE MOTION SICKNESS**

SPACE (ASTRONOMY) see **EXTRATERRESTRIAL ENVIRONMENT**

SPACE CLOSURE, ORTHODONTIC see **ORTHODONTIC SPACE CLOSURE**

SPACE CRAFT see **SPACECRAFT**

SPACE EXPLORATION see **SPACE FLIGHT**

SPACE FLIGHT

see related
ASTRONAUTS
ECOLOGICAL SYSTEMS, CLOSED
EXTRATERRESTRIAL ENVIRONMENT
SPACECRAFT
WEIGHTLESSNESS

Ventricular tachycardia during spaceflight [letter; comment] Ellestad MH. **Am J Cardiol** 1999 Apr 15;83(8):1300. Comment on: Am J Cardiol 1998 Jun 1;81(11):1391–2.

Stability of vision during space flight in an astronaut with bilateral intraocular lenses. Mader TH, et al. **Am J Ophthalmol** 1999 Mar;127(3):342–3

Calcium metabolism before, during, and after a 3–mo spaceflight: kinetic and biochemical changes. Smith SM, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):R1–10

Protein kinetics during and after long–duration spaceflight on MIR. Stein TP, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1014–21

Endocrine relationships during human spaceflight. Stein TP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):E155–62

Energy expenditure and balance during spaceflight on the space shuttle. Stein TP, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1739–48

Alteration of renal function of rats following spaceflight. Wade CE, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1058–65

Children's symptoms in the wake of Challenger: a field study of distant–traumatic effects and an outline of related conditions. Terr LC, et al. **Am J Psychiatry** 1999 Oct; 156(10):1536–44

Artificial gravity considerations for a mars exploration mission. Young LR. **Ann N Y Acad Sci** 1999 May 28; 871:367–78 (37 ref.)

Bacterial growth in space flight: logistic growth curve parameters for Escherichia coli and Bacillus subtilis. Kacena MA, et al. **Appl Microbiol Biotechnol** 1999 Feb; 51(2):229–34

Surgical care in space. Campbell MR. **Aviat Space Environ Med** 1999 Feb;70(2):181–4 (24 ref.)

Medical issues for a mission to Mars. Davis JR. **Aviat Space Environ Med** 1999 Feb;70(2):162–8 (18 ref.)

Plasma volume expansion with oral fluids in hypohydrated men at rest and during exercise. Greenleaf JE, et al. **Aviat Space Environ Med** 1998 Sep;69(9):837–44

Endocrine status and LBNP–induced hormone changes during a 438–day spaceflight: a case study. Hinghofer–Szalkay HG, et al. **Aviat Space Environ Med** 1999 Jan;70(1):1–5

Psychiatric issues affecting long duration space missions. Kanas N. **Aviat Space Environ Med** 1998 Dec;69(12):1211–6 (42 ref.)

Electrical and contractile parameters of muscle in man: effects of 7–day "dry" water immersion. Koryak Y. **Aviat Space Environ Med** 1999 May;70(5):459–64

Pharmaceutical use by U.S. astronauts on space shuttle missions. Putcha L, et al. **Aviat Space Environ Med** 1999 Jul;70(7):705–8

Gender differences in astronaut selection [letter] Rowe WJ. **Aviat Space Environ Med** 1999 Sep;70(9):939

Internet and World Wide Web technologies for medical data management and remote access to clinical expertise. Sargsyan AE, et al. **Aviat Space Environ Med** 1999 Feb; 70(2):185–90

Maintenance of complex performance during a 135–day spaceflight simulation. Sauer J, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 1):236–44

Performance evaluation in analogue space environments: adaptation during an 8–month Antarctic wintering–over expedition. Sauer J, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 1):230–5

Biomedical investigations conducted in support of the Extended Duration Orbiter Medical Project. Sawin CF. **Aviat Space Environ Med** 1999 Feb;70(2):169–80 (20 ref.)

Plasma amino acids during human spaceflight. Stein TP, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 1):250–5

Relativistic velocities and biological processes [letter; comment] Warmflash D. **Aviat Space Environ Med** 1998 Sep;69(9):918–9. Comment on: Aviat Space Environ Med 1997 Jun;68(6):538–41.

Self–generated lower body negative pressure exercise. Watenpaugh DE, et al. **Aviat Space Environ Med** 1999 May; 70(5):522–6

Histomorphometric, physical, and mechanical effects of spaceflight and insulin–like growth factor–I on rat long bones. Bateman TA, et al. **Bone** 1998 Dec;23(6):527–35

Musculoskeletal change during spaceflight: a new view of an old problem. Goode A. **Br J Sports Med** 1999 Jun; 33(3):154 (9 ref.)

Space Neuroscience Research. Proceedings of a workshop. Paris, France, April 22–24, 1997. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):1–232

Neuronal plasticity: adaptation and readaptation to the environment of space. Correia MJ. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):61–5 (25 ref.)

In–flight electrocorticograms compared to ground controls in behaving monkeys: differences in attentional states? Graille C, et al. **Brain Res Brain Res Rev** 1998 Nov; 28(1–2):52–60 (18 ref.)

Mental performance during short–term and long–term spaceflight. Manzey D, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):215–21 (25 ref.)

Posture, locomotion, spatial orientation, and motion sickness as a function of space flight. Reschke MF, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):102–17 (189 ref.)

Postnatal development under conditions of simulated weightlessness and space flight. Walton K. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):25–34 (35 ref.)

Post–spaceflight orthostatic intolerance: possible relationship to microgravity–induced plasticity in the vestibular system. Yates BJ, et al. **Brain Res Brain Res Rev** 1998 Nov; 28(1–2):73–82 (61 ref.)

Increase in rat soleus myotendinous interface after a 14–d spaceflight. Roffino S, et al. **C R Acad Sci III** 1998 Jul; 321(7):557–64

Collagenase and tissue plasminogen activator production in developing rat calvariae: normal progression despite fetal exposure to microgravity. Davis BA, et al. **Calcif Tissue Int** 1998 Nov;63(5):416–22

Resident's project on osteoporosis flies with Shuttle [news] **CMAJ** 1998 Dec 1;159(11):1347

An integrated logistics support system for training crew medical officers in advanced cardiac life support management. Gonzalez MA, et al. **Comput Methods Programs Biomed** 1999 May;59(2):115–29

Gravity and space flight: effects on nutritional status. Smith SM, et al. **Curr Opin Clin Nutr Metab Care** 1999 Jul; 2(4):335–8 (35 ref.)

Neurolab mission. Highstein SM, et al. **Curr Opin Neurobiol** 1999 Aug;9(4):495–9

Grip forces exerted against stationary held objects during gravity changes. Hermsdörfer J, et al. **Exp Brain Res** 1999 May;126(2):205–14

Proprioceptive information processing in weightlessness. Roll R, et al. **Exp Brain Res** 1998 Oct;122(4):393–402

Sustained microgravity reduces intrinsic wound healing and growth factor responses in the rat. Davidson JM, et al. **FASEB J** 1999 Feb;13(2):325–9

Chromosome mechanics of fungi under spaceflight conditions—tetrad analysis of two–factor crosses between spore color mutants of Sordaria macrospora. Hahn A, et al. **FASEB J** 1999;13 Suppl:S149–56

The kinetics of translocation and cellular quantity of protein kinase C in human leukocytes are modified during spaceflight. Hatton JP, et al. **FASEB J** 1999;13 Suppl:S23–33

Space travel directly induces skeletal muscle atrophy. Vandenburgh H, et al. **FASEB J** 1999 Jun;13(9):1031–8

Spin–offs from blood pressure and heart rate studies for health care and space research. Halberg F, et al. **In Vivo** 1999 Jan–Feb;13(1):67–76 (133 ref.)

Inhibition in a microgravity environment of the recovery of Escherichia coli cells damaged by heavy ion beams during the NASDA ISS phase I program of NASA Shuttle/Mir mission no. 6. Harada K, et al. **Int J Mol Med** 1998 May;1(5):817–22

Immune responses in space flight. Sonnenfeld G. **Int J Sports Med** 1998 Jul;19 Suppl 3:S195–202; discussion S202–4 (71 ref.)

Effects of spaceflight and PEG–IL–2 on rat physiological and immunological responses. Chapes SK, et al. **J Appl Physiol** 1999 Jun;86(6):2065–76

Spaceflight suppresses exercise–induced release of bioassayable growth hormone. McCall GE, et al. **J Appl Physiol** 1999 Sep;87(3):1207–12

Spaceflight and development of immune responses. Sonnenfeld G, et al. **J Appl Physiol** 1998 Oct;85(4):1429–33

Chest volume and shape and intrapleural pressure in microgravity [letter] West JB, et al. **J Appl Physiol** 1999 Sep;87(3):1240–1

Methodological and technological implications of quantitative human movement analysis in long term space flights. Ferrigno G, et al. **J Biomech** 1999 Apr;32(4):431–6

Multivariate changes in coordination of postural control following spaceflight. Speers RA, et al. **J Biomech** 1998 Oct;31(10):883–9

Gas chromatography in space. Akapo SO, et al. **J Chromatogr A** 1999 May 28;843(1–2):147–62 (55 ref.)

Collagen cross–link excretion during space flight and bed rest. Smith SM, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3584–91

Effects of laparotomy, cage type, gestation period and spaceflight on abdominal muscles of pregnant rodents. Fejtek M, et al. **J Exp Zool** 1999 Aug 1;284(3):252–64

Leukocyte subsets and neutrophil function after short–term spaceflight. Stowe RP, et al. **J Leukoc Biol** 1999 Feb; 65(2):179–86

Effects of spaceflight on rhesus quadrupedal locomotion after return to 1G. Recktenwald MR, et al. **J Neurophysiol** 1999 May;81(5):2451–63

Effect of a 17 day spaceflight on contractile properties of human soleus muscle fibres. Widrick JJ, et al. **J Physiol (Lond)** 1999 May 1;516 (Pt 3):915–30

Heart period and heart period variability during sleep on the MIR space station. Gundel A, et al. **J Sleep Res** 1999 Mar;8(1):37–43

The effect of head–to–trunk position on the direction of arm movements before, during, and after space flight. Berger M, et al. **J Vestib Res** 1998 Sep–Oct;8(5):341–54

Haemopoietic, thrombopoietic, and vascular endothelial growth factor in space [letter] [see comments] Gunga HC, et al. **Lancet** 1999 Feb 6;353(9151):470. Comment in: Lancet 1999 May 1;353(9163):1529.

Space flight and growth factors [letter; comment] Gunsilius E, et al. **Lancet** 1999 May 1;353(9163):1529. Comment on: Lancet 1999 Feb 6;353(9151):470.

Cardiac atrial natriuretic peptide (ANP) in rat dams and fetuses developed in space (NIH–R1 and NIH–R2 experiments). Davet J, et al. **Life Sci** 1999;64(17):1533–41

T2 vertebral bone marrow changes after space flight. LeBlanc A, et al. **Magn Reson Med** 1999 Mar;41(3):495–8

Pseudohyphal variations of yeasts exposed to specific space flight parameters. Volz PA, et al. **Microbios** 1998; 95(380):25–34

Space flight micro–fungi after 27 years storage in water and in continuous culture. Volz PA, et al. **Microbios** 1998; 96(384):111–25

Report recommends ground testing for space research [news] Novak K. **Nat Med** 1998 Nov;4(11):1215

Into orbit [editorial] **Nat Neurosci** 1998 May;1(1):2

Neurolab launches the decade of the brain into space [news] Aamodt S. **Nat Neurosci** 1998 May;1(1):10–2

Pie in the sky [editorial] **Nature** 1998 Nov 19;396(6708):199

Brazil's space programme comes of age [news] Reichhardt T. **Nature** 1999 Apr 1;398(6726 Suppl):A19

Europe will fly animals on space station [news] Reichhardt T. **Nature** 1999 Apr 22;398(6729):642

Counteraction of spaceflight–induced changes in the rat central serotonergic system by adrenalectomy and corticosteroid replacement. Blanc S, et al. **Neurochem Int** 1998 Oct;33(4):375–82

The minimum duration of microgravity experience during space flight which affects the development of the roll induced vestibulo–ocular reflex in an amphibian (Xenopus laevis). Sebastian C, et al. **Neurosci Lett** 1998 Sep 11; 253(3):171–4

Drug development in space? [letter; comment] Laver WG. **Science** 1999 Jun 25;284(5423):2089. Comment on: Science 1999 Jun 4;284(5420):1621.

Endoscopic surgery and telemedicine in microgravity: developing contingency procedures for exploratory class spaceflight. Jones JA, et al. **Urology** 1999 May;53(5):892–7

[The adaptation of the blood circulation to the long–term microgravity: ballistic–cardiographic investigation during 14 month space flight] Baevskiĭ RM, et al. **Aviakosm Ekolog Med** 1998;32(3):23–30 (Eng. Abstr.) **(Rus)**

[Dynamic changes in the reactivity of the hormonal system regulation with the impact by LBNP sessions in long–term space mission] Grigor'ev AI, et al. **Aviakosm Ekolog Med** 1998;32(3):18–23 (Eng. Abstr.) **(Rus)**

[Effect of geomagnetic field screening during orbital flight on expression of recombinant differentiation factor in escherichia coli cells] Kostanian IA, et al. **Aviakosm Ekolog Med** 1998;32(4):52–3 **(Rus)**

[Human tolerance of +Gx loads in anti–G suits during deorbiting of the "Soiuz" space vehicles] Kotovskaia AR, et al. **Aviakosm Ekolog Med** 1998;32(6):30–6 (Eng. Abstr.) **(Rus)**

[Influence of hypodynamia on organism of Japanese quail] Lebedeva ZN, et al. **Aviakosm Ekolog Med** 1999;33(1):24–7 (Eng. Abstr.) **(Rus)**

[The diagnosis of disorders of the T–cell immunity component in space flight] Lesniak AT, et al. **Aviakosm Ekolog Med** 1999;33(3):62–7 (Eng. Abstr.) **(Rus)**

[The influence of space flight factors on the growth and development of super dwarf wheat cultivated in greenhouse Svet] Levinskikh MA, et al. **Aviakosm Ekolog Med** 1999;33(2):37–41 (Eng. Abstr.) **(Rus)**

[Lipid peroxidation and indicators of antioxidant defence system in plasma and blood serum of rats during 14–day spaceflight on–board orbital laboratory "Spacelab–2"] Markin AA, et al. **Aviakosm Ekolog Med** 1998;32(4):53–5 **(Rus)**

[Chromosome aberrations as a bio–dosimetric test of space radiation (experimental data from the seeds of higher plants)] Nevzgodina LV, et al. **Aviakosm Ekolog Med** 1999; 33(2):42–4 (Eng. Abstr.) **(Rus)**

[Comparative evaluation of Russian and foreign methods of off–gas testing of polymer materials] Pashin SS, et al. **Aviakosm Ekolog Med** 1998;32(3):66–70 (Eng. Abstr.) **(Rus)**

[Concept of acceptable risk in space flight medical support system] Petrov VM. **Aviakosm Ekolog Med** 1998; 32(5):46–51 (3 ref.) (Eng. Abstr.) **(Rus)**

[Errors in targeted movements of the hand under the conditions of orbital space flight] Popov KE, et al. **Aviakosm Ekolog Med** 1999;33(2):3–5 (Eng. Abstr.) **(Rus)**

[The methodology of establishing the radiation hazard to cosmonauts on long–term mission based on the generalized dosimetric functional] Shafirkin AV, et al. **Aviakosm Ekolog Med** 1999;33(2):55–9 (Eng. Abstr.) **(Rus)**

[An algorithm to compute the radiation risk during interplanetary space flights] Shafirkin AV, et al. **Aviakosm Ekolog Med** 1999;33(3):56–61 (Eng. Abstr.) **(Rus)**

[The determination of the radiation risk during an interplanetary space flight at different periods of solar activity] Shafirkin AV, et al. **Aviakosm Ekolog Med** 1999; 33(3):13–5 (Eng. Abstr.) **(Rus)**

[Hybrid biophysical–chemical life support systems for human] Shepelev EIa, et al. **Aviakosm Ekolog Med** 1998; 32(6):27–30 (8 ref.) (Eng. Abstr.) **(Rus)**

[Recovery and use of deuterium–free water in extended space expeditions] Siniak IuE, et al. **Aviakosm Ekolog Med** 1999; 33(1):56–9 (Eng. Abstr.) **(Rus)**

[The study of biocide effectiveness of ultraviolet treatment in media stimulating space station environment] Vasin VB, et al. **Aviakosm Ekolog Med** 1998;32(3):62–6 (Eng. Abstr.) **(Rus)**

SPACE FLIGHT

[Cyto-embryologic investigation of super dwarf wheat grown on board of the Mir orbital complex] Veselova TD, et al. **Aviakosm Ekolog Med** 1999;33(2):30–7 (Eng. Abstr.) **(Rus)**

[Residential colonization of orbital complex "Mir" environment by penicillium chrysogenum and problem of ecological safety in long-term space flight] Viktorov AN, et al. **Aviakosm Ekolog Med** 1998;32(5):57–62 (Eng. Abstr.) **(Rus)**

[Relation between the space flight-induced frequency of dominant lethal mutations and the level of allozyme heterozygosity in Drosophila melanogaster populations] Altukhov IuP, et al. **Dokl Akad Nauk** 1998 Aug; 361(5):709–11 **(Rus)**

[Human skeletal muscle fibers after long-term space flight] Shenkman BS, et al. **Dokl Akad Nauk** 1999 Jul; 367(2):279–81 **(Rus)**

[Functional study of the visual system in the cosmonaut by color campimetry] Prokof'ev AB, et al. **Voen Med Zh** 1999 Feb;320(2):56–63, 96 (Eng. Abstr.) **(Rus)**

HISTORY

[The history of the development of life support systems under the conditions of the vacuum of space] Cherniakov IN. **Usp Fiziol Nauk** 1999 Jan-Mar;30(1):90–6 (31 ref.) **(Rus)**

TRENDS

Space medicine: what lies ahead? Jennings RT, et al. **Aviat Space Environ Med** 1999 Feb;70(2):153–4

SPACE MAINTENANCE

INSTRUMENTATION

A retrospective study of 50 treatments using an appliance to produce localised occlusal space by relative axial tooth movement. Gough MB, et al. **Br Dent J** 1999 Aug 14; 187(3):134–9

The longevity of space maintainers: a retrospective study. Qudeimat MA, et al. **Pediatr Dent** 1998 Jul-Aug; 20(4):267–72

METHODS

Management of space problems in the primary and mixed dentitions. Ngan P, et al. **J Am Dent Assoc** 1999 Sep; 130(9):1330–9 (52 ref.)

SPACE MEDICINE see **AEROSPACE MEDICINE**

SPACE MOTION SICKNESS

PHYSIOPATHOLOGY

Posture, locomotion, spatial orientation, and motion sickness as a function of space flight. Reschke MF, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):102–17 (189 ref.)

SPACE PERCEPTION

Estimates of shape by eye, or, the little invariant that could. Niall KK. **Acta Psychol (Amst)** 1999 Jan;100(3):291–320

Perception of novel changes in a familiar environment by socially-housed rhesus monkeys. Platt DM, et al. **Am J Primatol** 1999;47(2):117–31

Striate, extrastriate and collicular processing of spatial disparity cues. Bacon BA, et al. **Arch Physiol Biochem** 1998 Jul;106(3):236–44

Spatial disorientation in U.S. Army rotary-wing operations. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Nov; 69(11):1031–7

The hazard of spatial disorientation during helicopter flight using night vision devices. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1038–44

Reduce risk of inducing spatial disorientation using physiologically compatible ground lighting. Schmidt RT. **Aviat Space Environ Med** 1999 Jun;70(6):598–603 (22 ref.)

EEG topographical analysis of spatial disorientation. Tokumaru O, et al. **Aviat Space Environ Med** 1999 Mar; 70(3 Pt 1):256–63

Mechanisms of reorientation and object localization by children: a comparison with rats. Wang RF, et al. **Behav Neurosci** 1999 Jun;113(3):475–85

The mental model theory of spatial reasoning re-examined: the role of relevance in premise order. van der Henst JB. **Br J Psychol** 1999 Feb;90 (Pt 1):73–84

Spatial deficits in ideomotor limb apraxia. A kinematic analysis of aiming movements. Haaland KY, et al. **Brain** 1999 Jun;122 (Pt 6):1169–82

Physical imagery: kinematic versus dynamic models. Schwartz DL. **Cognit Psychol** 1999 May;38(3):433–64

Early sex differences in spatial skill. Levine SC, et al. **Dev Psychol** 1999 Jul;35(4):940–9

Motor coordination and spatial orientation are affected by neurofilament maldistribution: correlations with regional brain activity of cytochrome oxidase. Lalonde R, et al. **Exp Brain Res** 1999 May;126(2):223–34

The precision of proprioceptive position sense. van Beers RJ, et al. **Exp Brain Res** 1998 Oct;122(4):367–77

Spatial cognition in rhesus monkeys: male superiority declines with age. Lacreuse A, et al. **Horm Behav** 1999 Aug; 36(1):70–6

Aurally and visually guided visual search in a virtual environment. Flanagan P, et al. **Hum Factors** 1998 Sep; 40(3):461–8

Contributions of proprioception to navigation in virtual environments. Grant SC, et al. **Hum Factors** 1998 Sep; 40(3):489–97

The influence of body movement on subjective presence in virtual environments. Slater M, et al. **Hum Factors** 1998 Sep;40(3):469–77

Can face recognition really be dissociated from object recognition? Gauthier I, et al. **J Cogn Neurosci** 1999 Jul; 11(4):349–70

Verbal and spatial short-term memory: common sources of developmental change? Chuah YM, et al. **J Exp Child Psychol** 1999 May;73(1):7–44

Visual environmental rotation: a novel disorder of visiospatial integration. Girkin CA, et al. **J Neuroophthalmol** 1999 Mar; 19(1):13–6

Environmental knowledge is subserved by separable dorsal/ventral neural areas. Aguirre GK, et al. **J Neurosci** 1997 Apr 1;17(7):2512–8

Spatial attention deficits in patients with acquired or developmental cerebellar abnormality. Townsend J, et al. **J Neurosci** 1999 Jul 1;19(13):5632–43

Spatial orientation of the angular vestibulo-ocular reflex. Cohen B, et al. **J Vestib Res** 1999;9(3):163–72 (49 ref.)

Simultaneous evaluation of spatial working memory and motivation by the allocentric place discrimination task in the water maze in rats. Kikusui T, et al. **J Vet Med Sci** 1999 Jun;61(6):673–81

Spatial knowledge acquisition from maps and from navigation in real and virtual environments. Richardson AE, et al. **Mem Cognit** 1999 Jul;27(4):741–50

Implicit learning in 3D object recognition: the importance of temporal context. Becker S. **Neural Comput** 1999 Feb 15;11(2):347–74

Enhanced learning of proportional math through music training and spatial-temporal training. Graziano AB, et al. **Neurol Res** 1999 Mar;21(2):139–52

Enhancement of spatial-temporal reasoning after a Mozart listening condition in Alzheimer's disease: a case study. Johnson JK, et al. **Neurol Res** 1998 Dec;20(8):666–72

Egocentric frame of reference: its role in spatial bias after right hemisphere lesions. Bartolomeo P, et al. **Neuropsychologia** 1999 Jul;37(8):881–94

Verbs, events and spatial representations. Chatterjee A, et al. **Neuropsychologia** 1999 Apr;37(4):395–402

Unilateral spatial neglect in dissociable frames of reference: a comment on Farah, Brunn, Wong, Wallace, and Carpenter (1990) [comment] Hillis AE, et al. **Neuropsychologia** 1998 Nov;36(11):1257–62 (23 ref.). Comment on: Neuropsychologia 1990;28(4):335–47.

Eye movements and spatial working memory in Parkinson's disease. Hodgson TL, et al. **Neuropsychologia** 1999 Jul; 37(8):927–38

Differences in the ability to process a visuo-spatial task are reflected in event-related slow cortical potentials of human subjects. Lamm C, et al. **Neurosci Lett** 1999 Jul 16; 269(3):137–40

Contrast restoration model for contrast matching of cosine gratings of various spatial frequencies and areas. Näsänen R, et al. **Ophthalmic Physiol Opt** 1998 May;18(3):269–78

Spatial ability in children's play with Lego blocks. Brosnan MJ. **Percept Mot Skills** 1998 Aug;87(1):19–28

Sex differences in route learning by children. Gibbs AC, et al. **Percept Mot Skills** 1999 Apr;88(2):590–4

The pictorial context dependency of savant artists: a research note. Hermelin B, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):995–1001

Representational momentum in children: dynamic information and analogue representation. Hubbard TL, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):910–6

An exploratory study of effects of smoking on mental rotation and mental paper-folding task. Iwaki T, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1171–82

Writing Chinese characters and success on Mental Rotation Test. Li C, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1261–70

Background spatial frequency influences perception of luminance-based apparent movement. Petersik JT. **Percept Mot Skills** 1999 Feb;88(1):259–63

Difficulty of a spatial task and sex difference in gains from practice. Schaefer PD, et al. **Percept Mot Skills** 1998 Aug; 87(1):56–8

Sex of player and practice in lateral discrimination and videogame performance. Tkacz S, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1395–404

Locomotion improves children's spatial search: a meta-analytic review. Yan JH, et al. **Percept Mot Skills** 1998 Aug;87(1):67–82

Object-based visual selective attention and perceptual organization. Watson SE, et al. **Percept Psychophys** 1999 Jan;61(1):31–49

Haptic underestimation of angular extent. Lakatos S, et al. **Perception** 1998;27(6):737–54

Change in visually perceived eye level without change in perceived pitch. Li W, et al. **Perception** 1998;27(5):553–72

The warped geometry of visual space near a line assessed using a hyperacuity displacement task. Ruda H. **Spat Vis** 1998;11(4):401–19

[Concept formation and space perception in the blind--a summary of behavioral psychological studies] Kemter P. **Rehabilitation (Stuttg)** 1999 Feb;38(1):27–32 (Eng. Abstr.) **(Ger)**

[The crossover effect of the propositional text representation and the mental model:the role of individual differences in spatial imagery ability] Dutke S. **Z Exp Psychol** 1999; 46(3):164–76 (Eng. Abstr.) **(Ger)**

[Egocentric inference of object positions during reading and listening] Hörnig R, et al. **Z Exp Psychol** 1999;46(3):140–51 (Eng. Abstr.) **(Ger)**

DRUG EFFECTS

Prenatal exposure to anticonvulsant drugs and spatial ability in adulthood. Dessens A, et al. **Acta Neurobiol Exp (Warsz)** 1998;58(3):221–5

Spatial signal detection in rats is differentially disrupted by delta-9-tetrahydrocannabinol, scopolamine, and MK-801. Presburger G, et al. **Behav Brain Res** 1999 Feb 15; 99(1):27–34

Sensitivity to cholinergic drug treatments of aged rats with variable degrees of spatial memory impairment. Stemmelin J, et al. **Behav Brain Res** 1999 Jan;98(1):53–66

Effects of haloperidol and d-amphetamine on working and reference memory performance in a spatial cone field task. Blokland A, et al. **Behav Pharmacol** 1998 Sep;9(5–6):429–36

Estradiol enhances learning and memory in a spatial memory task and effects levels of monoaminergic neurotransmitters. Luine VN, et al. **Horm Behav** 1998 Oct;34(2):149–62

Korean red ginseng saponins with low ratios of protopanaxadiol and protopanaxatriol saponin improve scopolamine-induced learning disability and spatial working memory in mice. Jin SH, et al. **J Ethnopharmacol** 1999 Aug;66(2):123–9

The influence of Cerebrolysin and E021 on spatial navigation of 24-month-old rats. Gschanes A, et al. **J Neural Transm Suppl** 1998;53:313–21

Can Cerebrolysin influence chronic deterioration of spatial learning and memory? Valoušková V, et al. **J Neural Transm Suppl** 1998;53:343–9

Dopamine agonists reorient visual exploration away from the neglected hemispace. Grujic Z, et al. **Neurology** 1998 Nov; 51(5):1395–8

Involvement of cholinergic system in losartan-induced facilitation of spatial and short-term working memory. Raghavendra V, et al. **Neuropeptides** 1998 Oct;32(5):417–21

The alpha2 agonist, clonidine, improves spatial working performance in Parkinson's disease. Riekkinen M, et al. **Neuroscience** 1999;92(3):983–9

Effect of exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB 126) throughout gestation and lactation on development and spatial delayed alternation performance in rats. Rice DC. **Neurotoxicol Teratol** 1999 Jan-Feb;21(1):59–69

Spatial-frequency discrimination, brain lateralisation, and acute intake of alcohol. Watten RG, et al. **Perception** 1998; 27(6):729–36

PHYSIOLOGY

Spatial sound detection and the role of the inferior colliculus in the Long-Evans rat. Zrull MC, et al. **Acta Otolaryngol** 1999;119(3):326–32

The Gap effect for spatially oriented responses. Pratt J, et al. **Acta Psychol (Amst)** 1999 Jul;102(1):1–12

Visual and visual cognitive dysfunction in Parkinson's disease: spatial and chromatic vision. Bodis-Wollner IG, et al. **Adv Neurol** 1999;80:383–8 (30 ref.)

Conscious neurosensory mapping of the internal structures of the human knee without intraarticular anesthesia. Dye SF, et al. **Am J Sports Med** 1998 Nov-Dec;26(6):773–7

The contributions of vestibular signals to the representations of space in the posterior parietal cortex. Andersen RA, et al. **Ann N Y Acad Sci** 1999 May 28;871:282–92 (44 ref.)

Control of spatial orientation of the angular vestibulo-ocular reflex by the nodulus and uvula of the vestibulocerebellum. Sheliga BM, et al. **Ann N Y Acad Sci** 1999 May 28; 871:94–122

Role of otoliths in spatial orientation during passive travel in a curve. Siegler I, et al. **Ann N Y Acad Sci** 1999 May 28;871:447–50

Space and attention in parietal cortex. Colby CL, et al. **Annu Rev Neurosci** 1999;22:319–49 (84 ref.)

Neuroethology of spatial learning: the birds and the bees. Capaldi EA, et al. **Annu Rev Psychol** 1999;50:651–82 (216 ref.)

Possible recoding of visual space in covert orienting tasks. Berlucchi G, et al. **Arch Ital Biol** 1999 May;137(2-3):127–37

The optokinetic cervico reflex during simulated helicopter flight. Braithwaite MG, et al. **Aviat Space Environ Med** 1998 Dec;69(12):1166–73

Posterior parietal cortex lesions severely disrupt spatial learning in DBA mice characterized by a genetic hippocampal dysfunction. Ammassari-Teule M, et al. **Behav Brain Res** 1998 Sep;95(1):85–90

Visual representation of space in congenital and acquired strabismus. Battaglini PP, et al. **Behav Brain Res** 1999 May; 101(1):29–36

Ibotenate lesions of the hippocampus impair spatial learning but not contextual fear conditioning in mice. Cho YH, et al. **Behav Brain Res** 1999 Jan;98(1):77–87

Long-term voluntary ethanol consumption affects neither spatial nor passive avoidance learning, nor hippocampal acetylcholine release in alcohol-preferring rats. Fadda F,

et al. **Behav Brain Res** 1999 Aug;103(1):71–6

Spatial memory, habituation, and reactions to spatial and nonspatial changes in rats with selective lesions of the hippocampus, the entorhinal cortex or the subiculum. Galani R, et al. **Behav Brain Res** 1998 Nov;96(1–2):1–12

An examination of the spatial working memory deficit following neurotoxic medial dorsal thalamic lesions in rats. Hunt PR, et al. **Behav Brain Res** 1998 Dec;97(1–2):129–41

A 2-year longitudinal study of swimming navigation in mice devoid of the prion protein: no evidence for neurological anomalies or spatial learning impairments. Lipp HP, et al. **Behav Brain Res** 1998 Sep;95(1):47–54

The effects of lesions to the caudolateral neostriatum on sun compass based spatial learning in homing pigeons. Riters LV, et al. **Behav Brain Res** 1999 Jan;98(1):1–15

Modelling recovery of cognitive function after traumatic brain injury: spatial navigation in the Morris water maze after complete or partial transections of the perforant path in rats. Skelton RW. **Behav Brain Res** 1998 Nov; 96(1–2):13–35

Disrupted allocentric but preserved egocentric spatial learning in transgenic mice with impaired glucocorticoid receptor function. Steckler T, et al. **Behav Brain Res** 1999 Apr;100(1–2):77–89

Neurobehavioral development, adult openfield exploration and swimming navigation learning in mice with a modified beta-amyloid precursor protein gene. Tremml P, et al. **Behav Brain Res** 1998 Sep;95(1):65–76

Effects of hippocampal lesions on spatial operant discrimination in pigeons. Watanabe S. **Behav Brain Res** 1999 Aug;103(1):77–84

The hippocampus and transverse patterning guided by olfactory cues. Dusek JA, et al. **Behav Neurosci** 1998 Aug; 112(4):762–71

Mood and spatial memory: emotion and right hemisphere contribution to spatial cognition. Tucker DM, et al. **Biol Psychol** 1999 Jun;50(2):103–25

Unilateral neglect and disambiguation of the Necker cube. Bisiach E, et al. **Brain** 1999 Jan;122 (Pt 1):131–40

A large-scale distributed network for covert spatial attention: further anatomical delineation based on stringent behavioural and cognitive controls. Gitelman DR, et al. **Brain** 1999 Jun;122 (Pt 6):1093–106

Cortical areas with enhanced activation during object-centred spatial information processing. A PET study. Honda M, et al. **Brain** 1998 Nov;121 (Pt 11):2145–58

Space exploration in neglect. Karnath HO, et al. **Brain** 1998 Dec;121 (Pt 12):2357–67

Differential spatial memory impairment after right temporal lobectomy demonstrated using temporal titration. Nunn JA, et al. **Brain** 1999 Jan;122 (Pt 1):47–59

The Corsi block-tapping task: methodological and theoretical considerations. Berch DB, et al. **Brain Cogn** 1998 Dec; 38(3):317–38 (92 ref.)

Change of spatial field effects in 16- to 20-week-old infants. Lange-Küttner C, et al. **Brain Cogn** 1999 Mar;39(2):75–92

Line bisection and neglect severity. Marshall JC. **Brain Cogn** 1998 Nov;38(2):275–80

The role of stimulus factors in making categorical and coordinate spatial judgments. Wilkinson D, et al. **Brain Cogn** 1999 Apr;39(3):171–85

Reduced mastication stimulates impairment of spatial memory and degeneration of hippocampal neurons in aged SAMP8 mice. Onozuka M, et al. **Brain Res** 1999 Apr 24; 826(1):148–53

Perception of spatial orientation in microgravity. Glasauer S, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):185–93 (34 ref.)

Posture, locomotion, spatial orientation, and motion sickness as a function of space flight. Reschke MF, et al. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):102–17 (189 ref.)

Relationship between selected orientation rest frame, circular vection and space motion sickness. Harm DL, et al. **Brain Res Bull** 1998 Nov 15;47(5):497–501

Selective tuning of the left and right auditory cortices during spatially directed attention. Alho K, et al. **Brain Res Cogn Brain Res** 1999 Jan;7(3):335–41

Choice and stimulus-response compatibility affect duration of response selection. Dassonville P, et al. **Brain Res Cogn Brain Res** 1999 Jan;7(3):235–40

Non-specific directional adaptation to asymmetrical visual-vestibular stimulation. Viaud-Delmon I, et al. **Brain Res Cogn Brain Res** 1999 Mar;7(4):507–10

Temporal isolation of the neural correlates of spatial mnemonic processing with fMRI. Zarahn E, et al. **Brain Res Cogn Brain Res** 1999 Jan;7(3):255–68

The role of peripheral and central visual information for the directional control of manual aiming movements. Abahnini K, et al. **Can J Exp Psychol** 1999 Jun;53(2):160–75

Distribution of cortical activation during visuospatial n-back tasks as revealed by functional magnetic resonance imaging. Carlson S, et al. **Cereb Cortex** 1998 Dec;8(8):743–52

Spatial view cells in the primate hippocampus: allocentric view not head direction or eye position or place. Georges-François P, et al. **Cereb Cortex** 1999 Apr-May; 9(3):197–212

Spatiotemporal properties of layer V neurons of the rat primary somatosensory cortex. Ghazanfar AA, et al. **Cereb Cortex** 1999 Jun;9(4):348–61

Firing characteristics of deep layer neurons in prefrontal cortex in rats performing spatial working memory tasks. Jung MW, et al. **Cereb Cortex** 1998 Jul-Aug;8(5):437–50

Dynamic cortical networks of verbal and spatial working memory: effects of memory load and task practice. McEvoy LK, et al. **Cereb Cortex** 1998 Oct-Nov; 8(7):563–74

A spatiotemporal profile of visual system activation revealed by current source density analysis in the awake macaque. Schroeder CE, et al. **Cereb Cortex** 1998 Oct-Nov; 8(7):575–92

ERP correlates of error processing in spatial S-R compatibility tasks. Leuthold H, et al. **Clin Neurophysiol** 1999 Feb;110(2):342–57

Identifying objects in conventional and contorted poses: contributions of hemisphere-specific mechanisms. Laeng B, et al. **Cognition** 1999 Feb 1;70(1):53–85

Spatial cognition in males with Fragile-X syndrome: evidence for a neuropsychological phenotype. Cornish KM, et al. **Cortex** 1999 Apr;35(2):263–71

Pure topographical disorientation due to right posterior cingulate lesion. Katayama K, et al. **Cortex** 1999 Apr; 35(2):279–82

Evidence for separate allocentric and egocentric space processing in neglect patients. Pizzamiglio L, et al. **Cortex** 1998 Dec;34(5):719–30

No effect of age on spatial interval discrimination as a function of eccentricity or separation. Latham K, et al. **Curr Eye Res** 1998 Oct;17(10):1010–7

Cortical visual-vestibular interaction for spatial orientation and self-motion perception [editorial] Brandt T. **Curr Opin Neurol** 1999 Feb;12(1):1–4

Does pattern electroretinogram spatial tuning alteration in Parkinson's disease depend on motor disturbances or retinal dopaminergic loss? Peppe A, et al. **Electroencephalogr Clin Neurophysiol** 1998 Apr; 106(4):374–82

Visuospatial attentional functioning in mice: interactions between cholinergic manipulations and genotype. Humby T, et al. **Eur J Neurosci** 1999 Aug;11(8):2813–23

Interaction of frontal and perirhinal cortices in visual object recognition memory in monkeys. Parker A, et al. **Eur J Neurosci** 1998 Oct;10(10):3044–57

The effects of NMDA-induced retrohippocampal lesions on performance of four spatial memory tasks known to be sensitive to hippocampal damage in the rat. Pouzet B, et al. **Eur J Neurosci** 1999 Jan;11(1):123–40

Retrograde amnesia for spatial information: a dissociation between intra and extramaze cues following hippocampus lesions in rats. Ramos JM. **Eur J Neurosci** 1998 Oct; 10(10):3295–301

The effects of lesions to the anterior thalamic nuclei on object-place associations in rats. Sziklas V, et al. **Eur J Neurosci** 1999 Feb;11(2):559–66

Role of alpha2C-adrenoceptor subtype in spatial working memory as revealed by mice with targeted disruption of the alpha2C-adrenoceptor gene. Tanila H, et al. **Eur J Neurosci** 1999 Feb;11(2):599–603

The use of optical velocities for distance discrimination and reproduction during visually simulated self motion. Bremmer F, et al. **Exp Brain Res** 1999 Jul;127(1):33–42

Attentional coding for three-dimensional objects and two-dimensional shapes. Differential interference effects. Castiello U. **Exp Brain Res** 1998 Dec;123(3):289–97

Idiothetic input into object-place configuration as the contribution to memory of the monkey and human hippocampus: a review. Gaffan D. **Exp Brain Res** 1998 Nov;123(1–2):201–9 (64 ref.)

Spatial disparity affects visual-auditory interactions in human sensorimotor processing. Harrington LK, et al. **Exp Brain Res** 1998 Sep;122(2):247–52

Combined deficits of saccades and visuo-spatial orientation after cortical lesions. Heide W, et al. **Exp Brain Res** 1998 Nov;123(1–2):164–71

Disconjugate memory-guided saccades to disparate targets: evidence for 3D sensitivity. Kapoula Z, et al. **Exp Brain Res** 1998 Oct;122(4):413–23

Perception of horizontal distances in patients with spatial neglect. Karnath HO. **Exp Brain Res** 1998 Nov; 123(1–2):190–1

Disorders of visuospatial orientation in the frontal plane in patients with visual neglect following right or left parietal lesions. Kerkhoff G, et al. **Exp Brain Res** 1998 Sep; 122(1):108–20

Spatial-frequency-related efficacy of visual stabilisation of posture. Kunkel M, et al. **Exp Brain Res** 1998 Aug; 121(4):471–7

Cerebellar contribution to spatial event processing: characterization of procedural learning. Leggio MG, et al. **Exp Brain Res** 1999 Jul;127(1):1–11

Neck-proprioceptive influence on auditory lateralization. Lewald J, et al. **Exp Brain Res** 1999 Apr;125(4):389–96

Perceptual distortions in the neural representation of visual space. McGraw PV, et al. **Exp Brain Res** 1999 Mar; 125(2):122–8

Pointing to remembered visual targets after active one-step self-displacements within reaching space. Medendorp WP, et al. **Exp Brain Res** 1999 Mar;125(1):50–60

Visual size processing in spatial neglect. Milner AD, et al. **Exp Brain Res** 1998 Nov;123(1–2):192–200 (41 ref.)

Assessment of the perception of verticality and horizontality with self-paced saccades. Pettorossi VE, et al. **Exp Brain Res** 1998 Jul;121(1):46–50

The timing of color and location processing in the motor context. Pisella L, et al. **Exp Brain Res** 1998 Aug; 121(3):270–6

Electrophysiological localization of brain regions involved in perceptual memory. Reinvang I, et al. **Exp Brain Res** 1998 Dec;123(4):481–4

A fronto-parietal system for computing the egocentric spatial frame of reference in humans. Vallar G, et al. **Exp Brain Res** 1999 Feb;124(3):281–6

Spatial coding of eye movements relative to perceived earth and head orientations during static roll tilt. Wood SJ, et al. **Exp Brain Res** 1998 Jul;121(1):51–8

Spatial and temporal visual filtering in patients with glaucoma and ocular hypertension. Vogt U, et al. **Eye** 1998;12 (Pt 4):691–6

Superior colliculus and active navigation: role of visual and non-visual cues in controlling cellular representations of space. Cooper BG, et al. **Hippocampus** 1998;8(4):340–72

Neural circuit analysis of spatial working memory: role of pre- and parasubiculum, medial and lateral entorhinal cortex. Kesner RP, et al. **Hippocampus** 1998;8(4):416–23

Head direction cells in the primate pre-subiculum. Robertson RG, et al. **Hippocampus** 1999;9(3):206–19

Comparison of the timing of hippocampal and subicular spatial signals: implications for path integration. Sharp PE. **Hippocampus** 1999;9(2):158–72

Hippocampal place cells can develop distinct representations of two visually identical environments. Tanila H. **Hippocampus** 1999;9(3):235–46

Functional anatomy of verbal and visuospatial span tasks in Alzheimer's disease. Collette F, et al. **Hum Brain Mapp** 1997;5(2):110–8

ERP and fMRI measures of visual spatial selective attention. Mangun GR, et al. **Hum Brain Mapp** 1998;6(5–6):383–9

Neural correlates of visual form and visual spatial processing. Shen L, et al. **Hum Brain Mapp** 1999;8(1):60–71

Lateralized auditory spatial perception and the contralaterality of cortical processing as studied with functional magnetic resonance imaging and magnetoencephalography. Woldorff MG, et al. **Hum Brain Mapp** 1999;7(1):49–66

Investigation of the effects of temporal and spatial interactions on speech-recognition skills in cochlear-implant subjects. Throckmorton CS, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):861–73

Resolution of front-back ambiguity in spatial hearing by listener and source movement. Wightman FL, et al. **J Acoust Soc Am** 1999 May;105(5):2841–53

Lateralized ultradian rhythms in time and space: a chronobiological field study in Kenyan Maasai. Meier-Koll A. **J Biosoc Sci** 1999 Apr;31(2):233–43

Normative data for equivalent, parallel forms of the Judgment of Line Orientation Test. Woodard JL, et al. **J Clin Exp Neuropsychol** 1998 Aug;20(4):457–62

Disentangling gravitational, environmental, and egocentric reference frames in spatial neglect. Karnath HO, et al. **J Cogn Neurosci** 1998 Nov;10(6):680–90

Spatial response properties of contralateral inhibited lobula plate tangential cells in the fly visual system. Gauck V, et al. **J Comp Neurol** 1999 Mar 29;406(1):51–71

Input-output relationships of the dorsal nucleus of the lateral lemniscus: possible substrate for the processing of dynamic spatial cues. Shneiderman A, et al. **J Comp Neurol** 1999 Jul 26;410(2):265–76

Estimation of spatiotemporal neural activity using radial basis function networks. Anderson RW, et al. **J Comput Neurosci** 1998 Dec;5(4):421–41

A model of visuospatial working memory in prefrontal cortex: recurrent network and cellular bistability. Camperi M, et al. **J Comput Neurosci** 1998 Dec;5(4):383–405

Representation of visual space in area 7a neurons using the center of mass equation. Siegel RM. **J Comput Neurosci** 1998 Dec;5(4):365–81

Inhibition of return to successively stimulated locations in a sequential visual search paradigm. Danziger S, et al. **J Exp Psychol Hum Percept Perform** 1998 Oct; 24(5):1467–75

What is learned during automatization? II. Obligatory encoding of spatial location. Logan GD. **J Exp Psychol Hum Percept Perform** 1998 Dec; 24(6):1720–36

Haptic perception of the distance walked when blindfolded. Schwartz M. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):852–65

Attentional effects on preattentive vision: spatial precues affect the detection of simple features. Theeuwes J, et al. **J Exp Psychol Hum Percept Perform** 1999 Apr;25(2):341–7

Memory representation of alphabetic position and interval information. Jou J, et al. **J Exp Psychol Learn Mem Cogn** 1999 May;25(3):680–701

Age-related differences in spatial memory: effects of structural and organizational context. Cherry KE, et al. **J Gen Psychol** 1999 Jan;126(1):53–73

Enriched environment increases neurogenesis in the adult rat dentate gyrus and improves spatial memory. Nilsson M, et al. **J Neurobiol** 1999 Jun 15;39(4):569–78

Oscillopsia: impaired vision during motion in the absence of the vestibulo-ocular reflex [editorial; comment] Leigh RJ. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):808. Comment on: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):828–35.

Spatial receptive fields of primary auditory cortical neurons in quiet and in the presence of continuous background

noise. Brugge JF, et al. **J Neurophysiol** 1998 Nov; 80(5):2417–32

Influence of head position on the spatial representation of acoustic targets. Goossens HH, et al. **J Neurophysiol** 1999 Jun;81(6):2720–36

Strobe rearing reduces direction selectivity in area 17 by altering spatiotemporal receptive-field structure. Humphrey AL, et al. **J Neurophysiol** 1998 Dec; 80(6):2991–3004

Strobe rearing prevents the convergence of inputs with different response timings onto area 17 simple cells. Humphrey AL, et al. **J Neurophysiol** 1998 Dec; 80(6):3005–20

Temporal and spatial response to second-order stimuli in cat area 18. Mareschal I, et al. **J Neurophysiol** 1998 Dec; 80(6):2811–23

Spatio-temporal subthreshold receptive fields in the vibrissa representation of rat primary somatosensory cortex. Moore CI, et al. **J Neurophysiol** 1998 Dec;80(6):2882–92

Macaque SEF neurons encode object-centered directions of eye movements regardless of the visual attributes of instructional cues. Olson CR, et al. **J Neurophysiol** 1999 May;81(5):2340–6

Effect of spatial attention on the responses of area MT neurons. Seidemann E, et al. **J Neurophysiol** 1999 Apr; 81(4):1783–94

Evidence for an eye-centered spherical representation of the visuomotor map. Vetter P, et al. **J Neurophysiol** 1999 Feb; 81(2):935–9

Lateralized human cortical activity for shifting visuospatial attention and initiating saccades. Wauschkuhn B, et al. **J Neurophysiol** 1998 Dec;80(6):2900–10

Failure of centrally placed objects to control the firing fields of hippocampal place cells. Cressant A, et al. **J Neurosci** 1997 Apr 1;17(7):2531–42

Neurotoxic lesions of the dorsomedial thalamus impair the acquisition but not the performance of delayed matching to place by rats: a deficit in shifting response rules. Hunt PR, et al. **J Neurosci** 1998 Dec 1;18(23):10045–52

Excitotoxic septal lesions result in spatial memory deficits and altered flexibility of hippocampal single-unit representations. Leutgeb S, et al. **J Neurosci** 1999 Aug 1; 19(15):6661–72

Functionally independent components of the late positive event-related potential during visual spatial attention. Makeig S, et al. **J Neurosci** 1999 Apr 1;19(7):2665–80

Spatial- and task-dependent neuronal responses during real and virtual translocation in the monkey hippocampal formation. Matsumura N, et al. **J Neurosci** 1999 Mar 15; 19(6):2381–93

Optokinetic and vestibular stimulation determines the spatial orientation of negative optokinetic afternystagmus in the rabbit. Pettorossi VE, et al. **J Neurosci** 1999 Feb 15; 19(4):1524–31

Spatial firing properties of hippocampal CA1 populations in an environment containing two visually identical regions. Skaggs WE, et al. **J Neurosci** 1998 Oct 15;18(20):8455–66

Optic flow input to the hippocampal formation from the accessory optic system. Wylie DR, et al. **J Neurosci** 1999 Jul 1;19(13):5514–27

Adaptation of the circular platform spatial memory task for mice: use in detecting cognitive impairment in the APP(SW) transgenic mouse model for Alzheimer's disease. Pompl PN, et al. **J Neurosci Methods** 1999 Feb 1; 87(1):87–95

Effect of traumatic brain injury on mouse spatial and nonspatial learning in the Barnes circular maze. Fox GB, et al. **J Neurotrauma** 1998 Dec;15(12):1037–46

The contribution of vision in dynamic spontaneous sways of male classical dancers according to student or professional level. Golomer E, et al. **J Physiol Paris** 1999 May-Jun;93(3):233–7

Hippocampal CA3 region predicts memory sequences: accounting for the phase precession of place cells. Jensen O, et al. **Learn Mem** 1996 Sep-Oct;3(2–3):279–87

Integration of olfactory information in a spatial representation enabling accurate arm choice in the radial arm maze. Lavenex P, et al. **Learn Mem** 1996 Jan-Feb;2(6):299–319

Recognition memory for object form and object location: an event-related potential study. Mecklinger A, et al. **Mem Cognit** 1998 Sep;26(5):1068–88

Evidence for abstract, schematic knowledge of three spatial diagram representations. Novick LR, et al. **Mem Cognit** 1999 Mar;27(2):288–308

Goal-specific influences on the representation of spatial perspective. Taylor HA, et al. **Mem Cognit** 1999 Mar; 27(2):309–19

Computational implications of modeling grasping as a form of (multiple-parallel) reaching [comment] Morasso PG, et al. **Motor Control** 1999 Jul;3(3):276–9; discussion 316–25. Comment on: Motor Control 1999 Jul;3(3):237–71.

A new view on grasping [see comments] Smeets JB, et al. **Motor Control** 1999 Jul;3(3):237–71 (86 ref.). Comment in: Motor Control 1999 Jul;3(3):272–5; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):276–9; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):280–4; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):285–8; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):289–97; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):298–301; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):302–6; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):307–11; discussion 316–25. Comment in: Motor Control 1999 Jul;3(3):312–5; discussion 316–25.

Temporal and spatial relationship between reaching and grasping. Commentary on "A new view on grasping" [comment] Wang J, et al. **Motor Control** 1999 Jul; 3(3):307–11; discussion 316–25. Comment on: Motor Control 1999 Jul;3(3):237–71.

The reach-to-grasp movement: A new look at an old problem? [comment] Weir P. **Motor Control** 1999 Jul; 3(3):312–5; discussion 316–25. Comment on: Motor Control 1999 Jul;3(3):237–71.

Spatial characteristics of the second-order visual pathway revealed by positional adaptation. McGraw PV, et al. **Nat Neurosci** 1999 May;2(5):479–84

Involvement of striate and extrastriate visual cortical areas in spatial attention. Martinez A, et al. **Nat Neurosci** 1999 Apr;2(4):364–9

The time course of cortical facilitation during cued shifts of spatial attention [see comments] Müller MM, et al. **Nat Neurosci** 1998 Nov;1(7):631–4. Comment in: Nat Neurosci 1998 Nov;1(7):546–7.

Contrast's effect on spatial summation by macaque V1 neurons. Sceniak MP, et al. **Nat Neurosci** 1999 Aug; 2(8):733–9

Sex, lies and virtual reality. Viaud-Delmon I, et al. **Nat Neurosci** 1998 May;1(1):15–6

Latency difference, not spatial extrapolation. Whitney D, et al. **Nat Neurosci** 1998 Dec;1(8):656–7

Influence of motion signals on the perceived position of spatial pattern. Nishida S, et al. **Nature** 1999 Feb 18; 397(6720):610–2

Improved auditory spatial tuning in blind humans. Röder B, et al. **Nature** 1999 Jul 8;400(6740):162–6

Separate body- and world-referenced representations of visual space in parietal cortex. Snyder LH, et al. **Nature** 1998 Aug 27;394(6696):887–91

Auditory cortical responses in the cat to sounds that produce spatial illusions. Xu L, et al. **Nature** 1999 Jun 17; 399(6737):688–91

Attention improves or impairs visual performance by enhancing spatial resolution. Yeshurun Y, et al. **Nature** 1998 Nov 5;396(6706):72–5

Spatial and temporal pattern analysis via spiking neurons. Natschläger T, et al. **Network** 1998 Aug;9(3):319–32

Spatio-temporal influences at the neural level of object recognition. Wallis G. **Network** 1998 May;9(2):265–78

Analysis of a correlation-based model for the development of orientation-selective receptive fields in the visual cortex. Wimbauer S, et al. **Network** 1998 Nov;9(4):449–66

Spatial decorrelation in orientation-selective cortical cells. Dimitrov A, et al. **Neural Comput** 1998 Oct 1;10(7):1779–95

Age-related psychomotor and spatial learning deficits in 129/SvJ mice. Hengemihle JM, et al. **Neurobiol Aging** 1999 Jan-Feb;20(1):9–18

Individual differences in spatial memory and striatal ChAT activity among young and aged rats. Colombo PJ, et al. **Neurobiol Learn Mem** 1998 Nov;70(3):314–27

Reproducibility of fMRI results across four institutions using a spatial working memory task. Casey BJ, et al. **Neuroimage** 1998 Oct;8(3):249–61

MRI of functional deactivation: temporal and spatial characteristics of oxygenation-sensitive responses in human visual cortex. Fransson P, et al. **Neuroimage** 1999 Jun;9(6 Pt 1):611–8

The large-scale neural network for spatial attention displays multifunctional overlap but differential asymmetry. Kim YH, et al. **Neuroimage** 1999 Mar;9(3):269–77

Right-side neglect in Alzheimer's disease. Bartolomeo P, et al. **Neurology** 1998 Oct;51(4):1207–9

Line bisection performance of normal adults: two subgroups with opposite biases. Braun JG, et al. **Neurology** 1999 Aug 11;53(3):527–32

Misrepresentation of horizontal space in left unilateral neglect: role of hemianopia. Doricchi F, et al. **Neurology** 1999 Jun 10;52(9):1845–52

The parahippocampal place area: recognition, navigation, or encoding? Epstein R, et al. **Neuron** 1999 May;23(1):115–25

The retinotopy of visual spatial attention. Tootell RB, et al. **Neuron** 1998 Dec;21(6):1409–22

Stimulus-response compatibility in representational space. Bächtold D, et al. **Neuropsychologia** 1998 Aug;36(8):731–5

The nature of the spatial deficit in young females with Fragile-X syndrome: a neuropsychological and molecular perspective. Cornish KM, et al. **Neuropsychologia** 1998 Nov;36(11):1239–46

Spatial influences on motor and language function. Coslett HB. **Neuropsychologia** 1999 Jun;37(6):695–706

No abrupt change in visual hemineglect from near to far space. Cowey A, et al. **Neuropsychologia** 1999 Jan;37(1):1–6

How efficient are central mechanisms for the learning and retention of coincident timing actions? Fleury M, et al. **Neuropsychologia** 1999 Jun;37(6):723–30

Neglect-associated constructional disorders: a paradoxical phenomenon? Grossi D, et al. **Neuropsychologia** 1999 May; 37(5):589–94

Residual perceptual distortion in 'recovered' hemispatial neglect. Harvey M, et al. **Neuropsychologia** 1999 Jun; 37(6):745–50

A cognitive activation study of memory for spatial relationships. Johnsrude IS, et al. **Neuropsychologia** 1999 Jun;37(7):829–41

Is space representation distorted in neglect? Karnath HO, et al. **Neuropsychologia** 1999 Jan;37(1):7–15

At which steps of spatial working memory processing do striatofrontal circuits intervene in humans? Le Bras C, et al. **Neuropsychologia** 1999 Jan;37(1):83–90

Visuospatial attention in line bisection: stimulus modulation of pseudoneglect. McCourt ME, et al. **Neuropsychologia** 1999 Jun;37(7):843–55

Motor and perceptual factors in pseudoneglect. MacLeod MS, et al. **Neuropsychologia** 1999 Jun;37(6):707–13

Facilitation and inhibition arising from the exogenous orienting of covert attention depends on the temporal properties of spatial cues and targets. Maruff P, et al. **Neuropsychologia** 1999 Jun;37(6):731–44

Selective spatial memory impairment after right unilateral temporal lobectomy. Nunn JA, et al. **Neuropsychologia** 1998 Sep;36(9):837–48

Blockade of NMDA receptors located at the dorsomedial prefrontal cortex impairs spatial working memory in rats. Aura J, et al. **Neuroreport** 1999 Feb 5;10(2):243–8

Categorical and coordinate spatial relations: fMRI evidence for hemispheric specialization. Baciu M, et al. **Neuroreport** 1999 Apr 26;10(6):1373–8

Positional firing properties of perirhinal cortex neurons. Burwell RD, et al. **Neuroreport** 1998 Sep 14;9(13):3013–8

A dissociation between spatial and identity matching in callosotomy patients. Corballis PM, et al. **Neuroreport** 1999 Jul 13;10(10):2183–7

Binding visual features during high-rate serial presentation. Cortese F, et al. **Neuroreport** 1999 May 14;10(7):1565–70

Attentional modulation of implicit processing of information in spatial neglect. Danckert J, et al. **Neuroreport** 1999 Apr 6;10(5):1077–83

Activity of prefrontal neurons during location and color delayed matching tasks. Ferrera VP, et al. **Neuroreport** 1999 Apr 26;10(6):1315–22

Visual background motion reduces size distortion in spatial neglect. Kerkhoff G, et al. **Neuroreport** 1999 Feb 5; 10(2):319–23

Gravity affects the preferred vertical and horizontal in visual perception of orientation. Lipshits M, et al. **Neuroreport** 1999 Apr 6;10(5):1085–9

Random dots blinking: a new approach to elucidate the activities of the extrastriate cortex in humans. Okusa T, et al. **Neuroreport** 1998 Dec 1;9(17):3961–5

Selective interference reveals dissociation between memory for location and colour. Vuontela V, et al. **Neuroreport** 1999 Aug 2;10(11):2235–40

Relationship between the characteristics of visual short-term memory in monkeys and the spatial properties of images. Dudkin KN, et al. **Neurosci Behav Physiol** 1998 Nov-Dec; 28(6):698–705

Topographic study of human event-related potentials using a task requiring mental rotation. Inoue M, et al. **Neurosci Lett** 1998 Sep 4;253(2):107–10

Illusory motion capture and release in rotating 3-D figure in humans. Kojo I, et al. **Neurosci Lett** 1999 Apr 9; 265(1):45–8

Instruction differentiates the processing of temporal and spatial sequential patterns: evidence from slow wave activity in humans. Schubotz R. **Neurosci Lett** 1999 Apr 9;265(1):1–4

Cerebral hypoperfusion yields capillary damage in the hippocampal CA1 area that correlates with spatial memory impairment. De Jong GI, et al. **Neuroscience** 1999; 91(1):203–10

Glutamatergic and dopaminergic afferents to the prefrontal cortex regulate spatial working memory in rats. Romanides AJ, et al. **Neuroscience** 1999;92(1):97–106

Effects of lifetime lead exposure on spatial and temporal visual function in monkeys. Rice DC. **Neurotoxicology** 1998 Dec;19(6):893–902

Positional acuity in amblyopia: does a perceptual consequence of neural recruitment exist? McGraw PV, et al. **Ophthalmic Physiol Opt** 1998 Sep;18(5):423–9

Differences in spatial visualization as a function of scores on hemisphericity of mathematics teachers. Hassan MM, et al. **Percept Mot Skills** 1999 Apr;88(2):387–90

Relations between biased tonicity of the body and vertical judgement in poststroke hemiplegic persons. Ishikura K. **Percept Mot Skills** 1999 Jun;88(3 Pt 1):952–6

Autonomic physiological activity in mental rotation tasks. Kalamas AD, et al. **Percept Mot Skills** 1999 Feb; 88(1):211–4

Walking through a maze alters the architecture of sleep. Meier-Koll A, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1141–59

Attentional effects on reaching in hemispace. Rabb C, et al. **Percept Mot Skills** 1999 Apr;88(2):701–2

Visual selection mediated by location: feature-based selection of noncontiguous locations. Bichot NP, et al. **Percept Psychophys** 1999 Apr;61(3):403–23

Can new objects override attentional control settings? Folk CL, et al. **Percept Psychophys** 1999 May;61(4):727–39

Age similarities in the inertial properties of attention. Gottlob LR, et al. **Percept Psychophys** 1999 May;61(4):740–55

Tactile roughness perception with a rigid link interposed between skin and surface. Klatzky RL, et al. **Percept Psychophys** 1999 May;61(4):591–607

Examining the effect of practice on inhibition of return in static displays. Pratt J, et al. **Percept Psychophys** 1999 May; 61(4):756–65

Anisotropy in haptic curvature and shape perception. Pont

SC, et al. **Perception** 1998;27(5):573–89

Deficit in the water–maze after lesions in the anteromedial extrastriate cortex in rats. Espinoza S, et al. **Physiol Behav** 1999 May;66(3):493–6

Spatial memory under acute cold and restraint stress. Stillman MJ, et al. **Physiol Behav** 1998 Jul;64(5):605–9

Inputs to directionally selective simple cells in macaque striate cortex. De Valois RL, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14488–93

The cerebellum in the spatial problem solving: a co–star or a guest star? Petrosini L, et al. **Prog Neurobiol** 1998 Oct; 56(2):191–210 (117 ref.)

Visual and mental exploration of visuo–spatial configurations: behavioral and neuroimaging approaches. Cocude M, et al. **Psychol Res** 1999;62(2–3):93–106 (57 ref.)

Visual–spatial working memory, attention, and scene representation: a neuro–cognitive theory. Schneider WX. **Psychol Res** 1999;62(2–3):220–36 (106 ref.)

Spatial information with pictures and words in visual short–term memory. Zimmer HD. **Psychol Res** 1998; 61(4):277–84

Sex differences and menstrual cycle effects in human spatial memory. Postma A, et al. **Psychoneuroendocrinology** 1999 Feb;24(2):175–92

Attending to quadrants and ring–shaped regions: ERP effects of visual attention in different spatial selection tasks. Eimer M. **Psychophysiology** 1999 Jul;36(4):491–503

Effects of early and late nocturnal sleep on priming and spatial memory. Plihal W, et al. **Psychophysiology** 1999 Sep; 36(5):571–82

How body asymmetries determine accessibility in spatial frameworks. Bryant DJ, et al. **Q J Exp Psychol A** 1999 May;52(2):487–508

Spatial interval discrimination in the presence of flanking lines. Bondarko VM, et al. **Spat Vis** 1999;12(2):239–53

Spatial interactions in simple and combined–feature visual search. Casco C, et al. **Spat Vis** 1999;12(4):467–83

Dynamic characteristics of spatial mechanisms coding contour structures. Dresp B. **Spat Vis** 1999;12(2):129–42 (37 ref.)

Effects of parametric manipulation of inter–stimulus similarity on 3D object categorization. Edelman S, et al. **Spat Vis** 1999;12(1):107–23

Spatial frequency and visual persistence: cortical reset. Francis G. **Spat Vis** 1999;12(1):31–50

The effects of eccentricity and spatial frequency on the orientation discrimination asymmetry. Poirier FJ, et al. **Spat Vis** 1998;11(4):349–66

The effects of attentional spread and attentional effort on orientation discrimination. Sade A, et al. **Spat Vis** 1998; 11(4):367–83

Cooperative and competitive spatial interactions in motion integration. Lorenceau J, et al. **Vis Neurosci** 1999 Jul–Aug; 16(4):755–70

Alignment of separated patches: multiple location tags. Akutsu H, et al. **Vision Res** 1999 Feb;39(4):789–801

Coherence and the judgment of spatial displacements in retinitis pigmentosa. Alexander KR, et al. **Vision Res** 1999 Jun;39(13):2267–74

Idiosyncratic characteristics of saccadic eye movements when viewing different visual environments. Andrews TJ, et al. **Vision Res** 1999 Aug;39(17):2947–53

Spatial distortions in rotating radial figures. Anstis S, et al. **Vision Res** 1999 Apr;39(8):1455–63

Attentional interference at small spatial separations. Bahcall DO, et al. **Vision Res** 1999 Jan;39(1):71–86

Contrast integration across space. Bonneh Y, et al. **Vision Res** 1999 Aug;39(16):2597–602

Optimal spatial localization is limited by contrast sensitivity. Carney T, et al. **Vision Res** 1999 Feb;39(3):503–11

Temporal modulation enhances the efficiency of spatial offset discriminations by 6–month–olds. Dannemiller JL. **Vision Res** 1998 Jul;38(14):2127–34

Contour integration in the peripheral field. Hess RF, et al. **Vision Res** 1999 Mar;39(5):947–59

Modification of saccade–contingent visual mislocalization by the presence of a visual frame of reference. Honda H. **Vision Res** 1999 Jan;39(1):51–7

How much of the visual object is used in estimating its position? Kontsevich LL, et al. **Vision Res** 1998 Oct; 38(20):3025–9

Wondering about the wandering cyclopean eye. Mapp AP, et al. **Vision Res** 1999 Jul;39(14):2381–6

Shapes, surfaces and saccades. Melcher D, et al. **Vision Res** 1999 Aug;39(17):2929–46

The Poggendorff illusion: a bias in the estimation of the orientation of virtual lines by second–stage filters. Morgan MJ. **Vision Res** 1999 Jul;39(14):2361–80

Search for feature and for relative position: measurement of capacity limitations. Põder E. **Vision Res** 1999 Apr; 39(7):1321–7

Scaled medial axis representation: evidence from position discrimination task. Wang X, et al. **Vision Res** 1998 Jun; 38(13):1947–59

The effect of suprathreshold contrast on stimulus centroid and its implications for the perceived location of objects. Whitaker D, et al. **Vision Res** 1998 Nov;38(22):3591–9

The representation of space and the hippocampus in rats, robots and humans. Burgess N, et al. **Z Naturforsch [C]** 1998 Jul–Aug;53(7–8):504–9

Emergence of spatio–temporal patterns in neuronal activity. Haalman I, et al. **Z Naturforsch [C]** 1998 Jul–Aug; 53(7–8):657–69

[Apoptosis in the repeated cerebral ischemia--behavioral & histochemical study] Iwasaki K, et al. **Nippon Yakurigaku Zasshi** 1998 Oct;112 Suppl 1:88P–92P (Eng. Abstr.) **(Jpn)**

[Preschooler peer interaction and performance on Doise spatial task] Hayashi S. **Shinrigaku Kenkyu** 1998 Jun; 69(2):130–6 (Eng. Abstr.) **(Jpn)**

[Effect of surrounding stimuli on the determination of the orientation of rectangular gratings at the limit of resolution of the human visual system] Bondarko VM, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):65–71 **(Rus)**

[Role of the right and left cerebral hemispheres in space perception. I. Object perception and reflection in the frontal plane] Nikolaenko NN, et al. **Fiziol Cheloveka** 1998 Sep–Oct;24(5):54–64 (38 ref.) **(Rus)**

[The role of the right and left cerebral hemispheres in space perception. II. Depth perception as an interhemispheric phenomenon] Nikolaenko NN, et al. **Fiziol Cheloveka** 1998 Nov–Dec;24(6):21–31 (32 ref.) **(Rus)**

[Electrophysiological studies of human spatial vision under interference conditions] Shelenin IuE, et al. **Fiziol Cheloveka** 1999 Jan–Feb;25(1):24–34 **(Rus)**

[Spatially selective neurons of the prefrontal cortex of monkeys in delayed reaction to stimulus approach/removal] Carlson S, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep–Oct; 48(5):905–8 (Eng. Abstr.) **(Rus)**

SPACE SIMULATION

see related
WEIGHTLESSNESS SIMULATION

Performance evaluation in analogue space environments: adaptation during an 8–month Antarctic wintering–over expedition. Sauer J, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 1):230–5

Maintenance of complex performance during a 135–day spaceflight simulation. Sauer J, et al. **Aviat Space Environ Med** 1999 Mar;70(3 Pt 1):236–44

[Cytoembryologic studies of super dwarf wheat grown in "Svet" greenhouse in the ground–based experiments] Levinskikh MA, et al. **Aviakosm Ekolog Med** 1998; 32(4):37–43 (Eng. Abstr.) **(Rus)**

[Migration capacity of phagocytes during simulation of some spaceflight factors under the terrestrial conditions] Meshkov DO, et al. **Aviakosm Ekolog Med** 1998; 32(5):18–21 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Hormonal changes during a 20–week confinement. Maillet A, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1045–51

SPACE SUITS

[Effect of loading suit "Penguin" on human metabolism during movements] Barer AS, et al. **Aviakosm Ekolog Med** 1998; 32(4):4–8 (Eng. Abstr.) **(Rus)**

[The monitoring of gas bubbles with a pulsed Doppler ultrasonic locator in humans working in a space suit] Barer AS, et al. **Aviakosm Ekolog Med** 1999;33(3):34–7 (Eng. Abstr.) **(Rus)**

[The influence of space loading suits on interhemispheric asymmetry of the brain in infantile spastic cerebral palsy] Iavorskii AB, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(9):26–9 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Carbon dioxide accumulation, walking performance, and metabolic cost in the NASA launch and entry suit. Bishop PA, et al. **Aviat Space Environ Med** 1999 Jul;70(7):656–65

SPACE–TIME CLUSTERING

see related
DISEASE OUTBREAKS

SPACE–WALK see **EXTRAVEHICULAR ACTIVITY**

SPACECRAFT

Protein kinetics during and after long–duration spaceflight on MIR. Stein TP, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1014–21

Medical support for the International Space Station. Barratt M. **Aviat Space Environ Med** 1999 Feb;70(2):155–61

Biomedical investigations conducted in support of the Extended Duration Orbiter Medical Project. Sawin CF. **Aviat Space Environ Med** 1999 Feb;70(2):169–80 (20 ref.)

Particulates from PTFE degradation in terrestrial and microgravity. Srivastava R, et al. **Aviat Space Environ Med** 1999 May;70(5):505–10

Assessing the Winning Teams program of interactive satellite–based training. Wolfe CR, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):275–80

Vestibulo–oculomotor research and measurement technology for the space station era. Clarke AH. **Brain Res Brain Res Rev** 1998 Nov;28(1–2):173–84 (72 ref.)

Geostatistics and remote sensing as predictive tools of tick distribution: a cokriging system to estimate Ixodes scapularis (Acari: Ixodidae) habitat suitability in the United States and Canada from advanced very high resolution radiometer satellite imagery. Estrada–Peña A. **J Med Entomol** 1998 Nov;35(6):989–95

Agencies to mitigate space station delays [news] Reichhardt T, et al. **Nature** 1998 Oct 1;395(6701):419

A methodology to select a wire insulation for use in habitable spacecraft. Paulos T, et al. **Risk Anal** 1998 Aug; 18(4):471–510

Space–grown neuraminidase crystals [letter] [see comments] DeLucas LJ. **Science** 1999 Jun 4;284(5420):1621. Comment in: Science 1999 Jun 25;284(5423):2089.

Drug development in space? [letter; comment] Laver WG. **Science** 1999 Jun 25;284(5423):2089. Comment on: Science 1999 Jun 4;284(5420):1621.

Deriving meteorological variables across Africa for the study and control of vector–borne disease: a comparison of remote sensing and spatial interpolation of climate. Hay SI, et al. **Trop Med Int Health** 1999 Jan;4(1):58–71

[Refinement of technique for cosmonaut's body radiation loading estimation using of orbital station dosimetric monitoring system] Bengin VV, et al. **Aviakosm Ekolog Med** 1998;32(5):63–9 (Eng. Abstr.) **(Rus)**

[Dynamics of radiation environment of space station "Mir" by the "DOZA–A1" readings] Chernykh IV, et al. **Aviakosm Ekolog Med** 1998;32(5):51–7 (Eng. Abstr.) **(Rus)**

[Retinal regeneration after dissection of the optic nerve in newts exposed on board the Bion–11 biosatellite] Grigorian EN, et al. **Aviakosm Ekolog Med** 1999;33(3):15–20 (Eng. Abstr.) **(Rus)**

[Method for determination of radiation effects in cosmonauts by board dosimeter readings made during orbital mission] Kolomenskii AV, et al. **Aviakosm Ekolog Med** 1998; 32(4):44–9 (Eng. Abstr.) **(Rus)**

[Cytoembryologic studies of super dwarf wheat grown in "Svet" greenhouse in the ground–based experiments] Levinskikh MA, et al. **Aviakosm Ekolog Med** 1998; 32(4):37–43 (Eng. Abstr.) **(Rus)**

[Biological life support systems: investigations on board of orbital complex "Mir"] Sychev VN, et al. **Aviakosm Ekolog Med** 1999;33(1):10–6 (17 ref.) (Eng. Abstr.) **(Rus)**

[Cyto–embryologic investigation of super dwarf wheat grown on board of the Mir orbital complex] Veselova TD, et al. **Aviakosm Ekolog Med** 1999;33(2):30–7 (Eng. Abstr.) **(Rus)**

[Effect of geomagnetic activity on the human body in extreme conditions and correlation with data from laboratory observations] Breus TK, et al. **Biofizika** 1998 Sep–Oct;43(5):811–8 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

The fallout from Cassini [news] Alpert M. **Sci Am** 1999 Sep; 281(3):13–4

SPALAX see **MOLE RATS**

SPANISH AMERICANS see **HISPANIC AMERICANS**

SPARC GLYCOPROTEIN see **OSTEONECTIN**

SPARGANOSIS

see related
DIPHYLLOBOTHRIASIS

COMPLICATIONS

Epilepsy and solitary lesions. Bharucha NE, et al. **Surg Neurol** 1999 Aug;52(2):208–9

DIAGNOSIS

[Laboratory diagnosis of protozoan and parasitic diseases. 2. Helminthiasis. a. Sparganosis] Hasegawa H. **Rinsho Byori** 1998 Nov;Suppl 108:210–4 (6 ref.) **(Jpn)**

PARASITOLOGY

Epilepsy and solitary lesions. Bharucha NE, et al. **Surg Neurol** 1999 Aug;52(2):208–9

PATHOLOGY

Sparganosis of brain and spinal cord: unusual tapeworm infestation (report of two cases). Kudesia S, et al. **Clin Neurol Neurosurg** 1998 Jun;100(2):148–52

THERAPY

Cerebral sparganosis: case report. Tan TY, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Jun;22(2):287–92

VETERINARY

Proliferative sparganosis in Australian dogs. Beveridge I, et al. **Aust Vet J** 1998 Nov;76(11):757–9

Sparganosis in feral hogs (Sus scrofa) from Florida. Gray ML, et al. **J Am Vet Med Assoc** 1999 Jul 15;215(2):204–8

SPARGANUM

ISOLATION & PURIFICATION

Sparganosis in feral hogs (Sus scrofa) from Florida. Gray ML, et al. **J Am Vet Med Assoc** 1999 Jul 15;215(2):204–8

METABOLISM

Arachidonic acid metabolism to prostaglandin E2, D2, F2alpha, and I2 in the plerocercoid of Spirometra erinaceieuropaei. Gao T, et al. **J Parasitol** 1998 Dec; 84(6):1107–11

SPARID FISH see **PERCIFORMES**

SPARROWS see **SONGBIRDS**

SPARSOMYCIN

ANALOGS & DERIVATIVES

Direct crosslinking of the antitumor antibiotic sparsomycin, and its derivatives, to A2602 in the peptidyl transferase center of 23S-like rRNA within ribosome-tRNA complexes. Porse BT, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9003–8

CHEMICAL SYNTHESIS

Synthesis and morphological reversion activity on srctsNRK cells of pyrimidinylpropanamide antibiotics, sparsomycin, sparoxomycin A1, A2, and their analogues. Nakajima N, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3331–4

METABOLISM

Direct crosslinking of the antitumor antibiotic sparsomycin, and its derivatives, to A2602 in the peptidyl transferase center of 23S-like rRNA within ribosome-tRNA complexes. Porse BT, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9003–8

SPARTEINE

Codeine in post-operative pain. Study of the influence of sparteine phenotype and serum concentrations of morphine and morphine-6-glucuronide. Poulsen L, et al. **Eur J Clin Pharmacol** 1998 Aug;54(6):451–4

METABOLISM

Ultrarapid metabolism of sparteine: frequency of alleles with duplicated CYP2D6 genes in a Danish population as determined by restriction fragment length polymorphism and long polymerase chain reaction. Bathum L, et al. **Pharmacogenetics** 1998 Apr;8(2):119–23

The stereoselective metabolism of fluoxetine in poor and extensive metabolizers of sparteine. Fjordside L, et al. **Pharmacogenetics** 1999 Feb;9(1):55–60

POISONING

Anticholinergic toxicity associated with lupine seeds as a home remedy for diabetes mellitus. Tsiodras S, et al. **Ann Emerg Med** 1999 Jun;33(6):715–7

TOXICITY

A comparative study of the effects of sparteine, lupanine and lupin extract on the central nervous system of the mouse. Pothier J, et al. **J Pharm Pharmacol** 1998 Aug;50(8):949–54

SPARUS see **PERCIFORMES**

SPASM

see related
MUSCLE CRAMP
MYOTONIA

CHEMICALLY INDUCED

Suxamethonium, masseter spasm and later malignant hyperthermia. Ramirez JA, et al. **Anaesthesia** 1998 Nov; 53(11):1111–6

Masseter spasm during induction of anaesthesia using propofol and fentanyl [letter] Asai T, et al. **Eur J Anaesthesiol** 1998 Sep;15(5):614–5

COMPLICATIONS

Laryngeal long latency response conditioning in abductor spasmodic dysphonia. Deleyiannis FW, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):612–9

The origin of hypsarrhythmia and tonic spasms in West syndrome: evidence from a case of porencephaly and hydrocephalus with focal hypsarrhythmia. Haginoya K, et al. **Brain Dev** 1999 Mar;21(2):129–31

Emotional symptoms are secondary to the voice disorder in patients with spasmodic dysphonia. Liu CY, et al. **Gen Hosp Psychiatry** 1998 Jul;20(4):255–9

Phonatory air flow characteristics of adductor spasmodic dysphonia and muscle tension dysphonia. Higgins MB, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):101–11

Acoustic variations in adductor spasmodic dysphonia as a function of speech task. Sapienza CM, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):127–40

The effect of patient factors on response outcomes to Botox treatment of spasmodic dysphonia. Lundy DS, et al. **J Voice** 1998 Dec;12(4):460–6

Voluntary nystagmus associated with accommodation spasms. Sato M, et al. **Jpn J Ophthalmol** 1999 Jan–Feb; 43(1):1–4

DRUG THERAPY

One man's poison—clinical applications of botulinum toxin [editorial; comment] Hallett M. **N Engl J Med** 1999 Jul 8;341(2):118–20. Comment on: N Engl J Med 1999 Jul 8;341(2):65–9.

[Botulinum toxin therapy for cricopharyngeal spasm] Kamitsukasa I, et al. **Rinsho Shinkeigaku** 1999 Feb–Mar; 39(2–3):364–6 (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

Satoyoshi's syndrome in an adult: a review of the literature of adult onset cases. Ikeda K, et al. **Intern Med** 1998 Sep; 37(9):784–7 (19 ref.)

ETIOLOGY

Latent tetany associated with the hypokalaemia of Conn's syndrome. Davies JS, et al. **Int J Clin Pract** 1998 Jul–Aug; 52(5):347–8

Painful pectoralis major myospasm as a result of sternal wound reconstruction: complete resolution with bilateral pectoral neurectomies. Mast BA. **Plast Reconstr Surg** 1999 Sep;104(3):798–800

PATHOLOGY

Vasospasm, vascular injury, and atherogenesis: a perspective. Gutstein WH. **Hum Pathol** 1999 Apr;30(4):365–71 (111 ref.)

PHYSIOPATHOLOGY

Laryngeal long latency response conditioning in abductor spasmodic dysphonia. Deleyiannis FW, et al. **Ann Otol Rhinol Laryngol** 1999 Jun;108(6):612–9

Inhibitory casting decreases a vibratory inhibition index of the H-reflex in the spastic upper limb. Childers MK, et al. **Arch Phys Med Rehabil** 1999 Jun;80(6):714–6

Phonatory air flow characteristics of adductor spasmodic dysphonia and muscle tension dysphonia. Higgins MB, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):101–11

Acoustic variations in adductor spasmodic dysphonia as a function of speech task. Sapienza CM, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):127–40

[Spasmus nutans: apropos of 16 cases] Doummar D, et al. **Arch Pediatr** 1998 Mar;5(3):264–8 (Eng. Abstr.) **(Fre)**

[Current data on bipolar disorders, epilepsy and spasticity. 4. Neuro-Forum, Dresden] **Fortschr Neurol Psychiatr** 1999 May;67(5 Suppl Aktuelles):1–12 **(Ger)**

PREVENTION & CONTROL

Relief of pain and/or spasm during diagnostic hysteroscopy? [letter; comment] Stefanidis K. **Fertil Steril** 1999 Apr; 71(4):776. Comment on: Fertil Steril 1998 Aug;70(2):378–80.

Nicardipine infusion for the prevention of radial artery spasm during myocardial revascularization. Grigore AM, et al. **J Cardiothorac Vasc Anesth** 1998 Oct;12(5):556–7

THERAPY

Should people with nocturnal leg cramps drink tonic water and bitter lemon? Brasić JR. **Psychol Rep** 1999 Apr; 84(2):355–67 (69 ref.)

SPASM, ESOPHAGEAL see **ESOPHAGEAL SPASM, DIFFUSE**

SPASM, HEMIFACIAL see **HEMIFACIAL SPASM**

SPASMOLYTICS see **PARASYMPATHOLYTICS**

SPASMOPHILIA see **TETANY**

SPASMS, INFANTILE

[General principles of treatment and effects of childhood intractable epilepsy] Iinuma K. **Rinsho Shinkeigaku** 1999 Jan;39(1):75–6 (0 ref.) (Eng. Abstr.) **(Jpn)**

CEREBROSPINAL FLUID

Infantile spasm: the effect of corticotropin (ACTH) on the free amino acid profile in cerebrospinal fluid. Tekgül H, et al. **Brain Dev** 1999 Jan;21(1):20–3

Cerebrospinal fluid somatostatin in West syndrome: changes in response to combined treatment with high-dose pyridoxal phosphate and low-dose corticotropin. Hirai K, et al. **Neuropeptides** 1998 Dec;32(6):581–6

CHEMICALLY INDUCED

Infantile spasms associated with a histamine H1 antagonist. Yasuhara A, et al. **Neuropediatrics** 1998 Dec;29(6):320–1

COMPLICATIONS

The origin of hypsarrhythmia and tonic spasms in West syndrome: evidence from a case of porencephaly and hydrocephalus with focal hypsarrhythmia. Haginoya K, et al. **Brain Dev** 1999 Mar;21(2):129–31

Vigabatrin in the treatment of infantile spasms in tuberous sclerosis: literature review. Hancock E, et al. **J Child Neurol** 1999 Feb;14(2):71–4 (26 ref.)

Sotos syndrome associated with West syndrome and a visual disorder. Suzuki N, et al. **Pediatr Int** 1999 Aug;41(4):395–8

West syndrome with periventricular leukomalacia: a morphometric MRI study. Ozawa H, et al. **Pediatr Neurol** 1998 Nov;19(5):358–63

DIAGNOSIS

REM sleep components predict the response to initial treatment of infantile spasms. Kohyama J, et al. **Epilepsia** 1999 Jul;40(7):992–6

Occurrence, outcome, and prognostic factors of infantile spasms and Lennox-Gastaut syndrome. Rantala H, et al. **Epilepsia** 1999 Mar;40(3):286–9

The Smith-Magenis syndrome: a new case with infant spasms. Roccella M, et al. **Minerva Pediatr** 1999 Mar; 51(3):65–71 **(Eng, Ita)**

Neuroradiologic aspects of West syndrome. Aydinli N, et al. **Pediatr Neurol** 1998 Sep;19(3):211–6

West syndrome with periventricular leukomalacia: a morphometric MRI study. Ozawa H, et al. **Pediatr Neurol** 1998 Nov;19(5):358–63

Infantile spasms: a proposal for a staged evaluation. Trasmonte JV, et al. **Pediatr Neurol** 1998 Nov;19(5):368–71

[Clinical and prognostic heterogeneity in Aicardi's syndrome: a description of two cases] Cruz-Velarde JA, et al. **Rev Neurol** 1999 Apr 16–30;28(8):784–5 (Eng. Abstr.) **(Spa)**

[Cerebral magnetic resonance in the study of West syndrome] Galicchio S, et al. **Rev Neurol** 1999 Apr 1–15;28(7):685–7 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Infantile spasms and vigabatrin. Visual field defects may be permanent [letter; comment] Lhatoo SD, et al. **BMJ** 1999 Jan 2;318(7175):57. Comment on: BMJ 1997 Jan 18;314(7075):180–1. Comment on: BMJ 1998 Nov 7;317(7168):1322.

Infantile spasms and vigabatrin. Study will compare effects of drugs [letter; comment] Osborne JP, et al. **BMJ** 1999 Jan 2;318(7175):56–7. Comment on: BMJ 1998 Nov 7;317(7168):1322.

Adrenocorticotropic hormone therapy for infantile spasms alters pyruvate metabolism in the central nervous system. Miyazaki M, et al. **Brain Dev** 1998 Aug;20(5):312–8

Infantile spasm: the effect of corticotropin (ACTH) on the free amino acid profile in cerebrospinal fluid. Tekgül H, et al. **Brain Dev** 1999 Jan;21(1):20–3

Treatment of infantile spasms with zonisamide. Yanai S, et al. **Brain Dev** 1999 Apr;21(3):157–61

A pilot study of topiramate in the treatment of infantile spasms. Glauser TA, et al. **Epilepsia** 1998 Dec; 39(12):1324–8

Treatment of infantile spasms: results of a population-based study with vigabatrin as the first drug for spasms. Granström ML, et al. **Epilepsia** 1999 Jul;40(7):950–7

REM sleep components predict the response to initial treatment of infantile spasms. Kohyama J, et al. **Epilepsia** 1999 Jul;40(7):992–6

Vigabatrin in the treatment of infantile spasms in tuberous sclerosis: literature review. Hancock E, et al. **J Child Neurol** 1999 Feb;14(2):71–4 (26 ref.)

Folinic acid-responsive neonatal seizures. Torres OA, et al. **J Child Neurol** 1999 Aug;14(8):529–32

ACTH versus vigabatrin therapy in infantile spasms: a retrospective study [see comments] Cossette P, et al. **Neurology** 1999 May 12;52(8):1691–4. Comment in: Neurology 1999 May 12;52(8):1537–8.

Is the devil we know the lesser of two evils? Vigabatrin and visual fields [editorial; comment] Sankar R, et al. **Neurology** 1999 May 12;52(8):1537–8. Comment on: Neurology 1999 May 12;52(8):1691–4. Comment on: Neurology 1999 May 12;52(8):1713–4.

Vigabatrin as a first-line drug in West syndrome: clinical and electroencephalographic outcome. Wohlrab G, et al. **Neuropediatrics** 1998 Jun;29(3):133–6

Cerebrospinal fluid somatostatin in West syndrome: changes in response to combined treatment with high-dose pyridoxal phosphate and low-dose corticotropin. Hirai K, et al. **Neuropeptides** 1998 Dec;32(6):581–6

Vigabatrin in the treatment of infantile spasms. Koo B. **Pediatr Neurol** 1999 Feb;20(2):106–10

Pneumocystis carinii pneumonia in a child receiving ACTH for infantile spasms. Dunagan DP, et al. **Pediatr Pulmonol** 1999 Apr;27(4):286–9 (17 ref.)

A case of West syndrome well controlled by very short and low-dose ACTH therapy. Kimura M, et al. **Psychiatry Clin Neurosci** 1999 Feb;53(1):67–70

Long-term follow-up study of vigabatrin in pretreated children with West syndrome. Siemes H, et al. **Seizure** 1998 Aug;7(4):293–7

[Efficacy of zonisamide in West syndrome] Kawawaki H, et al. **No To Hattatsu** 1999 May;31(3):263–7 (Eng. Abstr.) **(Jpn)**

[Ventricular outflow tract obstruction by cardiac tumors during ACTH therapy of an infant with tuberous sclerosis]

Yoshimi S, et al. **No To Hattatsu** 1999 Mar;31(2):165–70 (12 ref.) (Eng. Abstr.) **(Jpn)**

EPIDEMIOLOGY

The descriptive epidemiology of infantile spasms among Atlanta children. Trevathan E, et al. **Epilepsia** 1999 Jun; 40(6):748–51

Epilepsy in the first year of life: a review. Kramer U. **J Child Neurol** 1999 Aug;14(8):485–9 (57 ref.)

ETIOLOGY

Vein of Galen malformation and infantile spasms. Incorpora G, et al. **J Child Neurol** 1999 Mar;14(3):196–8

Defective glucose transport across brain tissue barriers: a newly recognized neurological syndrome. Klepper J, et al. **Neurochem Res** 1999 Apr;24(4):587–94

Infantile spasms: a proposal for a staged evaluation. Trasmonte JV, et al. **Pediatr Neurol** 1998 Nov;19(5):368–71

A case of West syndrome well controlled by very short and low-dose ACTH therapy. Kimura M, et al. **Psychiatry Clin Neurosci** 1999 Feb;53(1):67–70

[Cerebral magnetic resonance in the study of West syndrome] Galicchio S, et al. **Rev Neurol** 1999 Apr 1–15;28(7):685–7 (Eng. Abstr.) **(Spa)**

GENETICS

Confirmation of linkage in X-linked infantile spasms (West syndrome) and refinement of the disease locus to Xp21.3–Xp22.1. Bruyere H, et al. **Clin Genet** 1999 Mar; 55(3):173–81

Infantile spasms in a patient with partial duplication of chromosome 2p [letter] Kubo T, et al. **Clin Genet** 1999 Jul;56(1):93–4

Benign familial neonatal epilepsy with mutations in two potassium channel genes. Leppert M, et al. **Curr Opin Neurol** 1999 Apr;12(2):143–7 (36 ref.)

X linked mental retardation and infantile spasms in a family: new clinical data and linkage to Xp11.4–Xp22.11. Strømme P, et al. **J Med Genet** 1999 May;36(5):374–8

The Smith-Magenis syndrome: a new case with infant spasms. Roccella M, et al. **Minerva Pediatr** 1999 Mar; 51(3):65–71 **(Eng, Ita)**

Benign infantile familial convulsions: natural history of a case and clinical characteristics of a large Italian family. Giordano L, et al. **Neuropediatrics** 1999 Apr;30(2):99–101

Two cases of chromosome 4q35-linked early onset facioscapulohumeral muscular dystrophy with mental retardation and epilepsy. Miura K, et al. **Neuropediatrics** 1998 Oct;29(5):239–41

METABOLISM

Adrenocorticotropic hormone therapy for infantile spasms alters pyruvate metabolism in the central nervous system. Miyazaki M, et al. **Brain Dev** 1998 Aug;20(5):312–8

Topiramate pharmacokinetics in infants. Glauser TA, et al. **Epilepsia** 1999 Jun;40(6):788–91

PHYSIOPATHOLOGY

Interhemispheric interactions analyzed by coherence during flexor spasms. Otsubo H, et al. **Clin Neurophysiol** 1999 Feb; 110(2):374–7

Spectral properties of EEG fast activity ictal discharges associated with infantile spasms. Panzica F, et al. **Clin Neurophysiol** 1999 Apr;110(4):593–603

RADIONUCLIDE IMAGING

[Prognostic value of SPECT in newly diagnosed symptomatic West syndrome] Goto M, et al. **No To Hattatsu** 1999 Jul;31(4):323–8 (Eng. Abstr.) **(Jpn)**

SURGERY

Infantile spasms: facial expression of affect before and after epilepsy surgery. Caplan R, et al. **Brain Cogn** 1999 Mar; 39(2):116–32

Surgery for the treatment of medically intractable infantile spasms: a cautionary case. Shields WD, et al. **Epilepsia** 1999 Sep;40(9):1305–8

SPASMUS NUTANS see **SPASMS, INFANTILE**

SPASTIC DIPLEGIA see **CEREBRAL PALSY**

SPASTIC PARAPARESIS see **PARAPARESIS, TROPICAL SPASTIC**

SPASTIC PARAPLEGIA see **PARAPLEGIA**

SPASTIC PARAPLEGIA, HEREDITARY

Spastic paraplegia, optic atrophy, microcephaly with normal intelligence, and XY sex reversal: a new autosomal recessive syndrome? Teebi AS, et al. **J Med Genet** 1998 Sep;35(9):759–62

[Familial spastic paraplegia (FSP)] Shibasaki Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):221–3 (6 ref.) **(Jpn)**

[Molecular genetics of familial spastic paraplegia] Shibasaki Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):224–6 (8 ref.) **(Jpn)**

DIAGNOSIS

Clinical heterogeneity of autosomal recessive spastic paraplegias: analysis of 106 patients in 46 families. Coutinho P, et al. **Arch Neurol** 1999 Aug;56(8):943–9

[A case of spastic paraparesis with mental deterioration and markedly thin corpus callosum--callosal dysfunction demonstrated by magnetic stimulation] Katayama T, et al. **Rinsho Shinkeigaku** 1998 May;38(5):418–22 (Eng. Abstr.) **(Jpn)**

DRUG THERAPY

[Objective measures of muscle stiffness in the ankle. Evaluation of the effect of intrathecal injection of baclofen in spastic patients] Detrembleur C, et al. **Neurochirurgie** 1998 Sep;44(3):197–200 (Eng. Abstr.) **(Fre)**

GENETICS

Novel locus for autosomal dominant hereditary spastic paraplegia, on chromosome 8q. Hedera P, et al. **Am J Hum Genet** 1999 Feb;64(2):563–9

Different mutations in the same codon of the proteolipid protein gene, PLP, may help in correlating genotype with phenotype in Pelizaeus-Merzbacher disease/X-linked spastic paraplegia (PMD/SPG2). Hodes ME, et al. **Am J Med Genet** 1999 Jan 15;82(2):132–9

Genetic anticipation in a large family with pure autosomal dominant hereditary spastic paraplegia. Thurmon TF, et al. **Am J Med Genet** 1999 Apr 23;83(5):392–6

Novel exon 3B proteolipid protein gene mutation causing late-onset spastic paraplegia type 2 with variable penetrance in female family members. Sivakumar K, et al. **Ann Neurol** 1999 May;45(5):680–3

Linkage of AD HSP and cognitive impairment to chromosome 2p: haplotype and phenotype analysis indicates variable expression and low or delayed penetrance. Byrne PC, et al. **Eur J Hum Genet** 1998 May-Jun;6(3):275–82

Quality assessment of whole genome mapping data in the refined familial spastic paraplegia interval on chromosome 14q. Paternotte C, et al. **Genome Res** 1998 Nov; 8(11):1216–27

Hereditary spastic paraplegia: mitochondrial metalloproteases of yeast. Pearce DA. **Hum Genet** 1999 Jun;104(6):443–8 (54 ref.)

Genomic structure and expression analysis of the spastic paraplegia gene, SPG7. Settasatian C, et al. **Hum Genet** 1999 Jul-Aug;105(1–2):139–44

Clinical heterogeneity of familial spastic paraplegia linked to chromosome 2p21. Nance MA, et al. **Hum Hered** 1998 May-Jun;48(3):169–78

CAG repeat expansion in autosomal dominant familial spastic paraparesis: novel expansion in a subset of patients. Benson KF, et al. **Hum Mol Genet** 1998 Oct;7(11):1779–86

The EAAT2 (GLT-1) gene in motor neuron disease: absence of mutations in amyotrophic lateral sclerosis and a point mutation in patients with hereditary spastic paraplegia. Meyer T, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):594–6

"Pure" hereditary spastic paraplegias: the story becomes complicated [editorial; comment] Figlewicz DA, et al. **Neurology** 1999 Jul 13;53(1):5–7 (16 ref.). Comment on: Neurology 1999 Jul 13;53(1):44–50. Comment on: Neurology 1999 Jul 13;53(1):50–6.

Phenotypic analysis of autosomal dominant hereditary spastic paraplegia linked to chromosome 8q [see comments] Hedera P, et al. **Neurology** 1999 Jul 13;53(1):44–50. Comment in: Neurology 1999 Jul 13;53(1):5–7.

Genetic localization of a new locus for recessive familial spastic paraparesis to 15q13–15 [see comments] Martinez Murillo F, et al. **Neurology** 1999 Jul 13;53(1):50–6. Comment in: Neurology 1999 Jul 13;53(1):5–7.

Analysis of microtubule-associated protein 1a gene in hereditary spastic paraplegia. Rainier S, et al. **Neurology** 1998 Nov;51(5):1509–10

Clinical observations in autosomal recessive spastic paraplegia in childhood and further evidence for genetic heterogeneity. Topaloğlu H, et al. **Neuropediatrics** 1998 Aug;29(4):189–94

[Linkage studies of a familial spastic paraplegia pedigree from Tibet] Li H, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Feb 10;16(1):5–8 (Eng. Abstr.) **(Chi)**

[A case of autosomal dominant, pure form spastic paraplegia with thinning of the corpus callosum] Tomiyasu H, et al. **Rinsho Shinkeigaku** 1998 May;38(5):435–9 (Eng. Abstr.) **(Jpn)**

PATHOLOGY

Mitochondrial involvement in Parkinson's disease, Huntington's disease, hereditary spastic paraplegia and Friedreich's ataxia [see comments] Schapira AH. **Biochim Biophys Acta** 1999 Feb 9;1410(2):159–70 (112 ref.) . Comment in: Biochim Biophys Acta 1999 Feb 9;1410(2):99–102.

Hereditary spastic paraplegia with a thin corpus callosum and thalamic involvement in Japan. Ueda M, et al. **Neurology** 1998 Dec;51(6):1751–4

[Neuropathology of familial spastic paraplegia] Iwabuchi K. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):227–30 (12 ref.) **(Jpn)**

PHYSIOPATHOLOGY

Strümpell's disease in a patient presenting for Cesarean section. McTiernan C, et al. **Can J Anaesth** 1999 Jul; 46(7):679–82

REHABILITATION

Management of spasticity in hereditary spastic paraplegia. Richardson D, et al. **Physiother Res Int** 1999;4(1):68–76

SPASTICITY, MUSCLE see **MUSCLE SPASTICITY**

SPATIAL BEHAVIOR

Coordination among the body segments during reach-to-grasp action involving the trunk. Wang J, et al. **Exp Brain Res** 1998 Dec;123(3):346–50

Noverbal communication and alliance in therapy: the body formation coding system. de Roten Y, et al. **J Clin Psychol** 1999 Apr;55(4):425–38

Loss of CA1 cells following global ischaemia correlates with spatial deficits in the circular platform task. Milani H, et al. **J Neurosci Methods** 1998 Mar 13;80(1):19–27

Biomedicine on the spatial periphery: the (re)production of a metaphorical landscape by rural health care practitioners in northern California. Lockhart C. **Med Anthropol Q** 1999 Jun;13(2):163–85

Microgeographical patterns of schistosomiasis and water contact behavior; examples from Africa and Brazil. Kloos H, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:37–50

Working memory in young children: evidence for modality-specificity and implications for cerebral reorganization in early childhood. Fastenau PS, et al. **Neuropsychologia** 1998 Jul;36(7):643–52

Spatial and discrimination learning in rodents infected with the nematode Strongyloides ratti. Braithwaite VA, et al. **Parasitology** 1998 Aug;117 (Pt 2):145–54

Attenuation of scopolamine-induced spatial learning impairments by an angiotensin IV analog. Pederson ES, et al. **Regul Pept** 1998 Jun 30;74(2–3):97–103

[The dynamics of the spatial organization of communities of small mammals (exemplified by rodents of the trans-Altai Gobi of Mongolia)] Rogovin KA. **Zh Obshch Biol** 1998 Sep-Oct;59(5):477–97 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Erythropoietin prevents place navigation disability and cortical infarction in rats with permanent occlusion of the middle cerebral artery. Sadamoto Y, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):26–32

Downregulation of brain mineralocorticoid and glucocorticoid receptor by antisense oligodeoxynucleotide treatment fails to alter spatial navigation in rats. Engelmann M, et al. **Eur J Pharmacol** 1998 Nov 13;361(1):17–26

A novel computerized system for analyzing motor and social behavior in groups of animals. Vatine JJ, et al. **J Neurosci Methods** 1998 Nov 1;85(1):1–11

A partial agonist at strychnine-insensitive glycine sites facilitates spatial learning in aged rats. Popik P, et al. **J Physiol Pharmacol** 1999 Mar;50(1):139–51

Norepinephrine infused into the basolateral amygdala posttraining enhances retention in a spatial water maze task. Hatfield T, et al. **Neurobiol Learn Mem** 1999 Mar; 71(2):232–9

Involvement of the posteroventral caudate-putamen in memory consolidation in the Morris water maze. Setlow B, et al. **Neurobiol Learn Mem** 1999 Mar;71(2):240–7

The class I metabotropic glutamate receptor antagonist, AIDA, improves short-term and impairs long-term memory in a spatial task for rats. Christoffersen GR, et al. **Neuropharmacology** 1999 Jun;38(6):817–23

The anti-craving drug acamprosate inhibits the conditioned place aversion induced by naloxone-precipitated morphine withdrawal in rats. Kratzer U, et al. **Neurosci Lett** 1998 Aug 7;252(1):53–6

Hippocampal dynorphin B injections impair spatial learning in rats: a kappa-opioid receptor-mediated effect. Sandin J, et al. **Neuroscience** 1998 Jul;85(2):375–82

Effects of lesions to the glutamatergic afferents to the nucleus accumbens in the modulation of reactivity to spatial and non-spatial novelty in mice. Sargolini F, et al. **Neuroscience** 1999;93(3):855–67

Effects of postnatal exposure of monkeys to a PCB mixture on spatial discrimination reversal and DRL performance. Rice DC. **Neurotoxicol Teratol** 1998 Jul-Aug;20(4):391–400

Effect of inositol treatment on the behavior of rhesus monkeys: preliminary results. Einat H, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1998 Aug; 22(6):999–1005

PHYSIOLOGY

Avian hippocampus as a model to study spatial orientation-related synaptic plasticity. Wieraszko A. **Adv Exp Med Biol** 1998;446:107–29 (150 ref.)

Posture and support use of Old World monkeys (Cercopithecidae): the influence of foraging strategies, activity patterns, and the spatial distribution of preferred

food items. McGraw WS. **Am J Primatol** 1998;46(3):229–50
Replication of passive whole-body linear displacements from inertial cues. Facts and mechanisms. Grasso R, et al. **Ann N Y Acad Sci** 1999 May 28;871:345–66
Role of otoliths in spatial orientation during passive travel in a curve. Siegler I, et al. **Ann N Y Acad Sci** 1999 May 28;871:447–50
Cue control and head direction cells. Goodridge JP, et al. **Behav Neurosci** 1998 Aug;112(4):749–61
A distributed control model for the air-righting reflex of a cat. Arabyan A, et al. **Biol Cybern** 1998 Nov; 79(5):393–401
Spatial memory impairment in ventral subicular lesioned rats. Laxmi TR, et al. **Brain Res** 1999 Jan 16;816(1):245–8
Deprivation of endogenous brain-derived neurotrophic factor results in impairment of spatial learning and memory in adult rats. Mu JS, et al. **Brain Res** 1999 Jul 24; 835(2):259–65
Motion sickness and development of synergy within the spatial orientation system. A hypothetical unifying concept. Guedry FE, et al. **Brain Res Bull** 1998 Nov 15;47(5):475–80 (60 ref.)
The associative parietal cortex and spatial processing in rodents. Thinus-Blanc C, et al. **C R Acad Sci III** 1998 Feb-Mar;321(2–3):179–83 (45 ref.)
Human spatial navigation: cognitive maps, sexual dimorphism, and neural substrates. Maguire EA, et al. **Curr Opin Neurobiol** 1999 Apr;9(2):171–7 (76 ref.)
Cortical visual-vestibular interaction for spatial orientation and self-motion perception [editorial] Brandt T. **Curr Opin Neurol** 1999 Feb;12(1):1–4
Updating visual space during passive and voluntary head-in-space movements. Blouin J, et al. **Exp Brain Res** 1998 Sep;122(1):93–100
Learned interaction of visual and idiothetic cues in the control of place field orientation. Jeffery KJ, et al. **Exp Brain Res** 1999 Jul;127(2):151–61
What do comparative studies of inbred mice add to current investigations on the neural basis of spatial behaviors? Rossi-Arnaud C, et al. **Exp Brain Res** 1998 Nov; 123(1–2):36–44 (48 ref.)
Comparison of medial and lateral septal neuron activity during performance of spatial tasks in rats. Zhou TL, et al. **Hippocampus** 1999;9(3):220–34
Expression of testosterone conditioned place preference is blocked by peripheral or intra-accumbens injection of alpha-flupenthixol. Packard MG, et al. **Horm Behav** 1998 Aug;34(1):39–47
Perseveration and strategy in a novel spatial self-ordered sequencing task for nonhuman primates: effects of excitotoxic lesions and dopamine depletions of the prefrontal cortex. Collins P, et al. **J Cogn Neurosci** 1998 May;10(3):332–54
Gaze shifts in three-dimensional space: A closer look at the superior colliculus [comment] Guitton D. **J Comp Neurol** 1999 Oct 11;413(1):77–82 (52 ref.). Comment on: J Comp Neurol 1999 Oct 11;413(1):68–70.
Age-related differences in spatial memory: effects of structural and organizational context. Cherry KE, et al. **J Gen Psychol** 1999 Jan;126(1):53–73
Spatial alignment of rotational and static tilt responses of vestibulospinal neurons in the cat. Perlmutter SI, et al. **J Neurophysiol** 1999 Aug;82(2):855–62
Functionally dissociating aspects of event memory: the effects of combined perirhinal and postrhinal cortex lesions on object and place memory in the rat. Bussey TJ, et al. **J Neurosci** 1999 Jan 1;19(1):495–502
Head direction cells in rats with hippocampal or overlying neocortical lesions: evidence for impaired angular path integration. Golob EJ, et al. **J Neurosci** 1999 Aug 15; 19(16):7198–211
Path integration absent in scent-tracking fimbria-fornix rats: evidence for hippocampal involvement in "sense of direction" and "sense of distance" using self-movement cues. Whishaw IQ, et al. **J Neurosci** 1999 Jun 1;19(11):4662–73
A theory of geometric constraints on neural activity for natural three-dimensional movement. Zhang K, et al. **J Neurosci** 1999 Apr 15;19(8):3122–45 (124 ref.)
Assessing cognitive functions in tree shrews: visuo-spatial and spatial learning in the home cage. Ohl F, et al. **J Neurosci Methods** 1998 Jun 1;81(1–2):35–40
Landmark discrimination learning in the dog. Milgram NW, et al. **Learn Mem** 1999 Jan-Feb;6(1):54–61
Goal-specific influences on the representation of spatial perspective. Taylor HA, et al. **Mem Cognit** 1999 Mar; 27(2):309–19
Rodent navigation after dissociation of the allocentric and idiothetic representations of space. Bures J, et al. **Neuropharmacology** 1998 Apr-May;37(4–5):689–99
Learning of landmark stability and instability by hippocampal place cells. Jeffery KJ. **Neuropharmacology** 1998 Apr-May; 37(4–5):677–87
Alpha2C-adrenoceptor overexpression disrupts execution of spatial and non-spatial search patterns. Björklund M, et al. **Neuroscience** 1999;88(4):1187–98
Sex and seasonal differences in the rate of cell proliferation in the dentate gyrus of adult wild meadow voles. Galea LA, et al. **Neuroscience** 1999 Mar;89(3):955–64
Blockade of N-methyl-D-aspartate receptors in the insular cortex disrupts taste aversion and spatial memory formation. Gutiérrez H, et al. **Neuroscience** 1999 Mar; 89(3):751–8
A neural network model with dopamine-like reinforcement signal that learns a spatial delayed response task. Suri RE, et al. **Neuroscience** 1999;91(3):871–90
Ventral hippocampal dopamine D1 and D2 systems and spatial working memory in rats. Wilkerson A, et al. **Neuroscience** 1999 Mar;89(3):743–9
Spatial attention and neglect: parietal, frontal and cingulate contributions to the mental representation and attentional targeting of salient extrapersonal events. Mesulam MM. **Philos Trans R Soc Lond B Biol Sci** 1999 Jul 29; 354(1387):1325–46 (191 ref.)
Place cells can flexibly terminate and develop their spatial firing. A new theory for their function. Ludvig N. **Physiol Behav** 1999 Aug 1;67(1):57–67
Both here and there: simultaneous expression of autonomous spatial memories in rats. Fenton AA, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11493–8
Neuronal activity in the primate supplementary motor area and the primary motor cortex in relation to spatio-temporal bimanual coordination. Kermadi I, et al. **Somatosens Mot Res** 1998;15(4):287–308
[Effects of advance information given by sensory cues on the duration and precision of a pointing movement in Parkinson's disease] Gueye L, et al. **Dakar Med** 1998; 43(1):49–53 (Eng. Abstr.) **(Fre)**
[The spatial-temporal structure of graphic movements] Kurganskii AV, et al. **Fiziol Cheloveka** 1998 Jul-Aug; 24(4):92–100 **(Rus)**

RADIATION EFFECTS

Reversal of the bicycle drawing direction in Parkinson's disease by AC pulsed electromagnetic fields. Sandyk R. **Int J Neurosci** 1998 Sep;95(3–4):255–69

SPEARMAN RANK CORRELATION COEFFICIENT see **STATISTICS, NONPARAMETRIC**

SPECIALISM

The long-term effect of an innovative family physician curricular pathway on the specialty and location of graduates of the University of Washington. Phillips TJ, et al. **Acad Med** 1999 Mar;74(3):285–8
Complementary roles of generalists and specialists in academic radiology [editorial] Steckel RJ, et al. **Acad Radiol** 1998 Sep;5(9):589–90
The diploma of the medical care of catastrophes (DMCC). Leppäniemi A, et al. **Ann Chir Gynaecol** 1999;88(2):145–6
Impact of asthma specialists on patient outcomes [letter; comment] Eisner MD. **Arch Intern Med** 1999 Jan 25; 159(2):196–7. Comment on: Arch Intern Med 1998 Aug 10–24;158(15):1596–608.
Generalist and specialty care [letter; comment] Rastegar DA. **Arch Intern Med** 1999 Jan 25;159(2):196; discussion 196–7 . Comment on: Arch Intern Med 1998 Aug 10–24;158(15):1596–608.
Intensive care medicine comes of age. And offers a multidisciplinary model for future emerging specialties [editorial] Soni N, et al. **BMJ** 1999 Jul 31;319(7205):271–2
The nature of ethical expertise. Yoder SD. **Hastings Cent Rep** 1998 Nov-Dec;28(6):11–9 (35 ref.)
Trainee specialist: meeting the needs of service provision and career development. Hilton R, et al. **Int J Lang Commun Disord** 1998;33 Suppl:232–7
Commentary on medical specialties (editorial). Wolf S. **Integr Physiol Behav Sci** 1998 Oct-Dec;33(4):311
Educational needs of internal medicine residency graduates: general internist versus subspecialists. Baker MZ, et al. **Med Educ** 1998 Sep;32(5):527–32
The changing role of acute-care hospitals [letter] Kelly WJ. **Med J Aust** 1999 Aug 16;171(4):223–4
Specialist palliative care needs specialists [editorial] O'Keefe K. **Palliat Med** 1999 May;13(3):181–2
My modest proposal [editorial] Gatti JE. **Plast Reconstr Surg** 1999 Oct;104(5):1553–4
What prevents Japan from establishing a clinical service of sleep medicine: experience gained at a local hospital. Oka Y, et al. **Psychiatry Clin Neurosci** 1999 Apr;53(2):263–5
Career modification [letter] Kushner J. **Surg Neurol** 1999 May;51(5):579–80
[Deontologic arguments for a better recognition of preclinical emergency medicine] Joye F, et al. **Ann Fr Anesth Reanim** 1998;17(10):1285 **(Fre)**
[Pediatrics in question (editorial)] Laugier J. **Arch Pediatr** 1999 Jan;6(1):12–3 **(Fre)**
[Colorectal surgery—an integral part of general surgery!] Renzulli P, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:619–26 (21 ref.) (Eng. Abstr.) **(Ger)**
[Crisis of medicine and information] Dri P. **Ann Ist Super Sanita** 1998;34(2):281–4 (Eng. Abstr.) **(Ita)**
[If it is supposed to be specialization, make it true specialization! (letter; comment)] Fiorista F. **G Ital Cardiol** 1999 Apr;29(4):472; discussion 473–4. Comment on: G Ital Cardiol 1999 Jan;29(1):86–8. **(Ita)**
[If it is supposed to be specialization, make it true specialization (see comments)] Masoni A. **G Ital Cardiol** 1999 Jan;29(1):86–8. Comment in: G Ital Cardiol 1999 Apr;29(4):472; discussion 473–4. **(Ita)**
[If it is supposed to be specialization, make it true specialization! (letter; comment)] Petrolati S. **G Ital Cardiol** 1999 Apr;29(4):472; discussion 473–4. Comment on: G Ital Cardiol 1999 Jan;29(1):86–8. **(Ita)**

ECONOMICS

Subspecialty care in radiology: oncologic imaging. Hricak H, et al. **Acad Radiol** 1998 Sep;5 Suppl 2:S288–90

HISTORY

[Johann Georg Heine—treatment leeway for technical specialists after Bavarian medical reform in the early 19th century] Schwarzmann-Schafhauser D. **Sudhoffs Arch Z Wissenschaftsgesch** 1998;82(1):52–73 (Eng. Abstr.) **(Ger)**

STANDARDS

Accord reached over specialty designations [news] [see comments] Kahler SC. **J Am Vet Med Assoc** 1999 May 15;214(10):1447, 1457. Comment in: J Am Vet Med Assoc 1999 Jul 15;215(2):186.
Disagrees with comments on specialty designations [letter; comment] Mattise AW. **J Am Vet Med Assoc** 1999 Jul 15; 215(2):186. Comment on: J Am Vet Med Assoc 1999 May 15;214(10):1447, 1457.

STATISTICS & NUMERICAL DATA

Referral patterns, lesion prevalence, and patient care parameters in a clinical oral pathology practice. Haberland CM, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):583–8

TRENDS

Respiratory psychophysiology as a discipline: introduction to the special issue [editorial] Wientjes CJ, et al. **Biol Psychol** 1998 Sep;49(1–2):1–8
Formation of emergency medicine in Italy. Cottino A, et al. **Eur J Emerg Med** 1998 Dec;5(4):457–60
The UEMS specialist section in paediatric surgery. Carachi R. **Eur J Pediatr Surg** 1999 Jun;9(3):132–7
Has surgical subspecialization gone too far? Black J. **Hosp Med** 1999 Mar;60(3):206–9 (16 ref.)
Occupational health psychology: an emerging discipline. Sauter SL, et al. **Ind Health** 1999 Apr;37(2):199–211 (90 ref.)
Commentary. Responding to change [letter] Roosth HP. **J Bone Joint Surg Am** 1999 Sep;81(9):1346; discussion 1347–8
Substantiating the benefits of subspecialty care: pediatric cardiology. Fasules JW. **Pediatr Ann** 1998 Sep;27(9):577–80
The medical professional in the next millennium [editorial] Marten E. **Plast Reconstr Surg** 1999 Apr;103(4):1311
[What will the future bring in cutaneous histopathology? (editorial)] Grosshans E. **Ann Dermatol Venereol** 1999 May; 126(5):396–8 **(Fre)**
[Angiology (letter; comment)] Mühling H. **Internist (Berl)** 1998 Sep;39(9):1000. Comment on: Internist (Berl) 1998 Apr;39(4):340–1. **(Ger)**
[Infectiology] Ruf BR, et al. **Internist (Berl)** 1999 Apr; 40(4):369–80 (42 ref.) **(Ger)**
[Current status and future prospects for specializing in surgery in united Europe] Gruwez JA, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:822–31 (Eng. Abstr.) **(Ger)**
[Education of foreign physicians from developing countries] Richter-Turtur M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:832–5 (Eng. Abstr.) **(Ger)**
[Surgery for obesity: a current trend or a specialty to be taken seriously?] Wolf AM, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1004–6 (Eng. Abstr.) **(Ger)**
[Tissue fragment diagnosis in gynecopathology] Löning T. **Pathologe** 1999 Jan;20(1):6–8 (Eng. Abstr.) **(Ger)**
[1998 highlights in surgery: reducing invasiveness, technology, specialization] Schlumpf R. **Schweiz Med Wochenschr** 1999 Jan 12;129(1–2):37–40 **(Ger)**
[Too infrequently considered borderline specialties in urology] Hohenfellner R. **Urologe A** 1999 Jan;38(1):90–2 **(Ger)**
[Biogerontology: status and current developments] Ahlert G. **Z Gerontol Geriatr** 1999 Apr;32(2):112–23 (97 ref.) (Eng. Abstr.) **(Ger)**

SPECIALTIES, DENTAL

Radiology—a dental specialty awaiting its just recognition [editorial] Ruprecht A, et al. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 May;87(5):525
[Further specialist titles from the SSO. Société Suisse d'Odonto-Stomatologie (editorial)] Hirzel HC. **Schweiz Monatsschr Zahnmed** 1999;109(4):357, 359 **(Ger, Fre)**
[Is it time for oral specialists? (see comments)] Klinge B. **Lakartidningen** 1998 Dec 16;95(51–52):5899–901. Comment in: Lakartidningen 1999 Mar 17;96(11):1288. **(Swe)**

EDUCATION

Diploma regulation [letter] Kurer HG. **Br Dent J** 1999 Jan

23;186(2):53

LEGISLATION & JURISPRUDENCE

Litigation, legislation, and ethics. Degree discrimination: misleading advertising or not? Jerrold L.
Am J Orthod Dentofacial Orthop 1999 Sep;116(3):369–70

ORGANIZATION & ADMINISTRATION

Oral and maxillofacial surgery, oral surgery and surgical dentistry: better together [editorial] Shepherd J.
Br Dent J 1999 Apr 24;186(8):366–7

STANDARDS

Specialties and the code [letter] Berringer RD.
J Am Dent Assoc 1998 Dec;129(12):1664, 1666

SPECIALTIES, MEDICAL

Development and psychometric properties of the Washington Primary Care Interest Inventory. Brock DM, et al.
Acad Med 1998 Dec;73(12):1299–304

Postgraduate specialization of Argentinian medical students in the 1960s and 1990s [letter; comment] D'Ottavio AE, et al. **Acad Med** 1998 Oct;73(10):1029–30. Comment on: Acad Med 1997 Oct;72(10):833–4.

Specialist palliative care within the acute hospital setting [see comments] Hockley J. **Acta Oncol** 1999;38(4):491–4. Comment in: Acta Oncol 1999 ;38(4):403–4.

Preference of preclinical medical students for medical specialties and the basic medical sciences. Oyebola DD, et al. **Afr J Med Med Sci** 1998 Sep–Dec;27(3–4):209–12

The importance of neuroradiologist authorship in nonspecialty journals [letter] Wolpert SM.
AJNR Am J Neuroradiol 1999 May;20(5):947

Primary care: beyond disciplines [editorial] Irby DM.
Am J Med 1999 May;106(5):596–7

Learning primary care in medical school: does specialty or geographic location of the teaching site make a difference? [see comments] Irigoyen MM, et al. **Am J Med** 1999 May; 106(5):561–4. Comment in: Am J Med 1999 May;106(5):596–7.

Use of venous duplex scans to evaluate symptoms of deep vein thrombosis: an analysis of ultrasound usage by various medical specialties. McCoy KL, et al. **Am Surg** 1999 May; 65(5):417–20

Critical care—the worldwide perspective. Fisher M.
Ann Acad Med Singapore 1998 May;27(3):376–80 (22 ref.)

Intensivists for the intensive care unit—do they make a difference? [editorial] Lew TW, et al.
Ann Acad Med Singapore 1998 May;27(3):305–7 (20 ref.)

Bioethics in the medical subspecialty literature. Paola FA, et al. **Ann Ital Med Int** 1997 Oct–Dec;12(4):238–41

The role of transfusion medicine physicians. A vanishing breed? AuBuchon JP. **Arch Pathol Lab Med** 1999 Aug; 123(8):663–7 (31 ref.)

The pediatric primary–specialty care interface: how pediatricians refer children and adolescents to specialty care. Forrest CB, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):705–14

Physician characteristics and the physician–patient relationship. Impact of sex, year of graduation, and specialty. Barnsley J, et al. **Can Fam Physician** 1999 Apr; 45:935–42

The Janeway Lecture. Gynecologic oncology in the last quarter century. Averette HE, et al. **Cancer J Sci Am** 1998 Nov–Dec;4(6):339–44

The role of the maternal–fetal medicine specialist. Philipson EH. **Cleve Clin J Med** 1999 Jul–Aug;66(7):407–9, 413–4 (10 ref.)

Impact of infectious diseases specialists and microbiological data on the appropriateness of antimicrobial therapy for bacteremia. Byl B, et al. **Clin Infect Dis** 1999 Jul;29(1):60–6; discussion 67–8

Cooperation between general practitioners and diabetologists and clinical audit improve the management of type 2 diabetic patients. Varroud-Vial M, et al.
Diabetes Metab 1999 Mar;25(1):55–63

Academic titles and authorship [letter] Basso L.
Dis Colon Rectum 1999 Aug;42(8):1106–7

Family physicians are praised by specialist [letter] Bujenovic S. **Fam Med** 1998 Sep;30(8):542–3

How well do GPs and hospital consultants work together? A survey of the professional relationship. Marshall MN.
Fam Pract 1999 Feb;16(1):33–8

Blue shield of California's Access+ HMO. Richard K, et al. **Health Aff (Millwood)** 1999 May–Jun;18(3):174–7

Board specialty and treatment of HIV infection [letter; comment] Dodge WT. **Hosp Pract (Off Ed)** 1999 Apr 15; 34(4):62. Comment on: Hosp Pract (Off Ed) 1998 Dec 15;33(12):53–6, 61–4, 67–9; discussion 69–71.

A day in the life of a hospitalist. Greeno R.
Hosp Pract (Off Ed) 1999 Aug 15;34(8):39–40, 50, 52

Medical angiology/vascular medicine. Vascular Independent Research and Education, European Organization. European Working Group on Medical Angiology. International Union of Angiology International Committee on Medical Angiology. **Int Angiol** 1999 Mar;18(1 Suppl 1):1–100

Specialist registrar grade—the Irish perspective [editorial] McKenna JJ. **Ir Med J** 1999 Mar;92(2):261–2

Specialist registrar grade [editorial] Young HL. **Ir Med J** 1999 Mar;92(2):260–1

The care of HIV–infected persons: a specialty? [editorial; comment] Carmichael JK. **J Am Board Fam Pract** 1999 Mar–Apr;12(2):178–80. Comment on: J Am Board Fam Pract 1999 Mar–Apr;12(2):115–9.

The next generation of research in provider optimization [editorial] Greenfield S. **J Gen Intern Med** 1999 Aug; 14(8):516–7

Effect of ambulatory utilization review on referrals from generalists to specialists. Grimm CT, et al.
J Gen Intern Med 1998 Nov;13(11):778–80

Beyond us versus them [editorial; comment] Klempner MS. **J Gen Intern Med** 1999 Aug;14(8):514–5. Comment on: J Gen Intern Med 1999 Aug;14(8):499–511.

Principles of generalist–specialist relationships. Pearson SD. **J Gen Intern Med** 1999 Jan;14 Suppl 1:S13–20 (30 ref.)

The role of the hypertension specialist [see comments] Beevers DG. **J Hum Hypertens** 1998 Oct;12(10):659–61 (16 ref.). Comment in: J Hum Hypertens 1999 Feb;13(2):151–2.

The role of the hypertension specialists. ASH Working Committee [letter; comment] Krakoff LR.
J Hum Hypertens 1999 Feb;13(2):151–2. Comment on: J Hum Hypertens 1998 Oct;12(10):659–61.

A keyword search system for medical doctors to introduce their patients to specialists. Hanada E, et al.
J Med Syst 1999 Feb;23(1):73–6

The impact of occupational medicine specialty practice on the injury rate and lost–time incidence in industry of a community [letter] Ramphal L. **J Occup Environ Med** 1999 Jan;41(1):1–2

Recertification or maintenance of certification: by decree or by choice? [news] Haslam RH.
J Pediatr Gastroenterol Nutr 1999 Jan;28(1):1–2

Palliative medicine as a specialty [letter; comment] Fordham S, et al. **J R Soc Med** 1999 May;92(5):269. Comment on: J R Soc Med 1998 Nov;91(11):568–72. Comment on: J R Soc Med 1999 Jan;92(1):53. Comment on: J R Soc Med 1999 Jan;92(1):54. Comment on: J R Soc Med 1999 Feb;92(2):100. Comment on: J R Soc Med 1999 Feb;92(2):100–1.

Palliative medicine: is it really specialist territory? [see comments] Fordham S, et al. **J R Soc Med** 1998 Nov; 91(11):568–72 (78 ref.). Comment in: J R Soc Med 1998 Nov;91(11):563–4. Comment in: J R Soc Med 1999 Jan;92(1):53. Comment in: J R Soc Med 1999 Jan;92(1):54. Comment in: J R Soc Med 1999 Feb;92(2):100. Comment in: J R Soc Med 1999 Feb;92(2):100–1. Comment in: J R Soc Med 1999 Feb;92(2):101. Comment in: J R Soc Med 1999 Mar;92(3):157. Comment in: J R Soc Med 1999 May;92(5):269.

Variations in physicians' judgments about corticosteroid induced osteoporosis by physician specialty. Buckley LM, et al. **J Rheumatol** 1998 Nov;25(11):2195–202

Clinical breast examination in primary care: perceptions and predictors among three specialties. Desnick L, et al.
J Womens Health 1999 Apr;8(3):389–97

Enabling students to deal with the disabled [news] Mitka M. **JAMA** 1999 Feb 17;281(7):595–6

Specialist delivery of primary care [letter; comment] Rosen NJ. **JAMA** 1998 Nov 18;280(19):1659. Comment on: JAMA 1998 May 6;279(17):1364–70. Comment on: JAMA 1998 May 6;279(17):1394–5.

Perceived effectiveness of international medical personnel working in Bosnia [letter] VanRooyen MJ, et al.
JAMA 1999 Aug 4;282(5):428–9

Are professional attitudes related to gender and medical specialty? Batenburg V, et al. **Med Educ** 1999 Jul; 33(7):489–92

Australian doctors' beliefs and practice regarding Helicobacter pylori [see comments] Mollison LC, et al.
Med J Aust 1999 Apr 19;170(8):354–7. Comment in: Med J Aust 1999 Apr 19;170(8):348–9.

Sending specialist reports to GPs using EDI. Kooijman CJ, et al. **Medinfo** 1998;9 Pt 1:408–11

Much ado about doing nothing. Gutmann EJ, et al.
Mod Pathol 1999 Jan;12(1):95–7

Primary care providers. The view from where I stand [comment] Neelon FA. **N C Med J** 1999 Jul–Aug;60(4):211 . Comment on: N C Med J 1999 Jul–Aug;60(4):208–10.

Is downsizing and disbanding specialty care teams a counterproductive strategy for cost reduction in health care? Ryder M, et al. **Nutrition** 1998 Sep;14(9):725–8 (40 ref.)

Sunscreens do protect against melanoma, says skin cancer specialist. **Oncology (Huntingt)** 1998 Sep;12(9):1328

The transfusion medicine consultant and hospital transfusion committee. Popovsky MA. **Vox Sang** 1998;74 Suppl 2:391–3 (6 ref.)

[Alcohol and drug problems. "Toolbox for practitioners" (editorial)] Zwahlen A. **Rev Med Suisse Romande** 1998 Sep; 118(9):731 **(Fre)**

[The role of the national education physician in the management of child abuse (published erratum appears in Sante Publique 1999 Mar;11(1):following 9)] Le Bihan C, et al. **Sante Publique** 1998 Sep;10(3):305–10 (Eng. Abstr.) **(Fre)**

[List of medical specialty societies in Tunisia] **Tunis Med** 1999 Jun–Jul;77(6–7):389–92 **(Fre)**

[Recommendations for medical specialist continuing education towards the DGAI and OGARI. Documentation and quality assurance in anesthesia] Benson M, et al.
Anasthesiol Intensivmed Notfallmed Schmerzther 1999 Jul; 34(7):415–37 **(Ger)**

[Extended resection of locally advanced primary and recurrent rectal carcinomas by interdisciplinary cooperation of various surgical specialties] Jürgens C, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:338–41 (Eng. Abstr.) **(Ger)**

[Clinical psychology in medicine] Bagdy E. **Orv Hetil** 1998 Nov 8;139(45):2691–7 (Eng. Abstr.) **(Hun)**

[Why has the arrhythmia cardiologist become the specialist in syncope?] Brignole M. **G Ital Cardiol** 1999 Apr; 29(4):460–1 **(Ita)**

[Recruitment and production of specialists—numbers and the real situation] Johansen BK. **Tidsskr Nor Laegeforen** 1999 Feb 20;119(5):645 **(Nor)**

[Spinal medicine—reliability of the specialty is suffering] Lie H. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1636–7 **(Nor)**

[Humorology—a new specialty?] Stien R.
Tidsskr Nor Laegeforen 1999 Mar 10;119(7):917 **(Nor)**

[Medical specialists and hiring of personnel in Norway (letter)] Svendsen KR. **Tidsskr Nor Laegeforen** 1998 Oct 20;118(25):3996 **(Nor)**

[The problems of military toxicology as a science and academic discipline] Murin MB, et al. **Voen Med Zh** 1998 Dec;319(12):11–8, 95 (Eng. Abstr.) **(Rus)**

[Angiology as a most important specialty and an integral part of internal medicine] Gavornik P. **Vnitr Lek** 1998 Oct; 44(10):606–8 (Eng. Abstr.) **(Slo)**

[The satisfaction of our specialists (letter; comment)] Blasco Casares FJ. **Med Clin (Barc)** 1998 Sep 5;111(6):236. Comment on: Med Clin (Barc) 1997 Nov 8;109(16):615–8. **(Spa)**

[Multidisciplinary medical ethics] Munthe C.
Lakartidningen 1999 Feb 10;96(6):575–6 **(Swe)**

[Analgesia specialists wonder: why are you afraid of us?] Sjölund B, et al. **Lakartidningen** 1999 Sep 8;96(36):3752–4 **(Swe)**

ECONOMICS

Differences in resource use and costs of primary care in a large HMO according to physician specialty [see comments] Selby JV, et al. **Health Serv Res** 1999 Jun; 34(2):503–18. Comment in: Health Serv Res 1999 Jun;34(2):519–24.

Weighing capitation's cost [news] Parkins S, et al.
Hosp Health Netw 1999 Sep;73(9):28

Specialty contact capitation. Frank C, et al.
J Health Care Finance 1999 Spring;25(3):17–21

Visits to specialists under Medicare: socioeconomic advantage and access to care. Blustein J, et al.
J Health Care Poor Underserved 1998 May;9(2):153–69

The increasing debt of medical students: how much is too much? Marci CD, et al. **JAMA** 1998 Dec 2;280(21):1879–80

How do you stack up? Stoneham L. **Tex Med** 1998 Dec; 94(12):62–4

EDUCATION

Change in GME programs among twelve major specialties: 1988–1996. Cooksey JA, et al. **Acad Med** 1998 Oct;73(10 Suppl):S6–9

The ability of a long–case assessment in one discipline to predict students' performances on long–case assessments in other disciplines. Olson LG. **Acad Med** 1999 Jul; 74(7):835–9

Assessing the quality of medical subspecialty training programs. Kahn MJ, et al. **Am J Med** 1999 Jun;106(6):601–4

University and practice–based physicians' input on the content of a surgical curriculum. Curet MJ, et al.
Am J Surg 1999 Jul;178(1):78–84

Education and training module for a specialist registrar: a move forward in specialist registrar education. White A, et al. **Br J Fam Plann** 1999 Jul;25(2):77–80

Results of the Multidisciplinary Critical Care Knowledge Assessment Program, 1998 [editorial] Cornwell EE 3rd. **Crit Care Med** 1998 Oct;26(10):1619

Specialist registrar training and the generalist: views of trusts and health authorities. Heard SR, et al. **Hosp Med** 1998 Jul;59(7):574–5

Has the Medical Council of India succeeded in its aim of improvement of standard of teaching by implementation of full time teachers in clinical subjects? Patel JC.
Indian J Med Sci 1998 Aug;52(8):362–5

Orthopaedic surgery fellowships: a ten–year assessment. Fellowship accreditation and certification methodologies of other specialties. Nestler SP. **J Bone Joint Surg Am** 1998 Dec;80(12):1843–6; discussion 1846–50

Survey of primary care training in Louisiana. LSMS Committee on Medical Education. **J La State Med Soc** 1999 May;151(5):233–5

[The status of pain therapy—an introduction by president of the German Society for the Study of Pain (DGSS)] Lehmann KA. **Ther Umsch** 1999 Aug;56(8):420–2 **(Ger)**

[Towards the institution of an "epidemiological statistical" discipline in the public health area. The Associazione Italiana di Epidemiologia (news)] **Epidemiol Prev** 1998 Oct–Dec;22(4):250 **(Ita)**

[Professional training in medicine does not stop once one graduates from a department and obtains the diploma of physician (editorial)] Carstocea B. **Oftalmologia** 1998; 42(2):3 **(Rum)**

[Improvement in the system of training and refresher training

for the specialists in epidemiological health institutions] Anan'ev VV, et al. **Voen Med Zh** 1998 Aug;319(8):15–7 **(Rus)**

[The training of medical service specialists of the Federal Border Guards Service of Russia who conduct epidemiological health surveillance] Rakhmanov RS, et al. **Voen Med Zh** 1999 May;320(5):63–6 **(Rus)**

[Pediatric subspecialties: many storm clouds till the sun comes out (letter; comment)] Moral Gil L. **An Esp Pediatr** 1998 Sep;49(3):331–2. Comment on: An Esp Pediatr 1998 Feb;48(2):116–21. **(Spa)**

[Urology in the Republic of Argentina] Bernstein-Hahn L, et al. **Arch Esp Urol** 1999 Jun;52(5):419–21 **(Spa)**

[Urology in Germany] Hohenfellner R. **Arch Esp Urol** 1999 Jun;52(5):423–7 **(Spa)**

[The education of the interventionist cardiologist (editorial)] Gaspar J, et al. **Arch Inst Cardiol Mex** 1998 Jul–Aug; 68(4):286–8 **(Spa)**

HISTORY

The shift to specialism in medicine: the U.S. Army in World War II. Ginzberg E. **Acad Med** 1999 May;74(5):522–5

LEGISLATION & JURISPRUDENCE

Italy enforces EU directive on specialist practice [news] Simini B. **Lancet** 1999 Aug 21;354(9179):660

MANPOWER

Hypertension specialists: ready or not, here we come [editorial] Krakoff LR. **Am J Hypertens** 1999 Feb;12(2 Pt 1):242–3

Racial, ethnic, and gender diversity and the resident operative experience. How can the Academic Orthopaedic Society shape the future of orthopaedic surgery? Simon MA. **Clin Orthop** 1999 Mar;(360):253–9

Are there need-based geographical differences between international medical graduates and U.S. medical graduates in rural U.S. counties? Mick SS, et al. **J Rural Health** 1999 Winter;15(1):26–43

Old questions, new audiences [editorial] Clancy CM, et al. **Med Care** 1999 Apr;37(4):329–32

Issues in planning for specialist physicians. Roos NP, et al. **Med Care** 1999 Jun;37(6 Suppl):JS229–53

[Feminization of the medical profession] Bawin-Legros B, et al. **Rev Med Liege** 1999 Apr;54(4):224–8 (Eng. Abstr.) **(Fre)**

[Information to students] Chabot JM. **Rev Prat** 1998 Sep 1; 48(13):1447–8 **(Fre)**

METHODS

Reasons for outpatient referrals from generalists to specialists [see comments] Donohoe MT, et al. **J Gen Intern Med** 1999 May;14(5):281–6. Comment in: J Gen Intern Med 1999 May;14(5):320–1.

The good (gatekeeper), the bad (gatekeeper), and the ugly (situation) [editorial; comment] Laine C, et al. **J Gen Intern Med** 1999 May;14(5):320–1 (17 ref.). Comment on: J Gen Intern Med 1999 May;14(5):281–6. Comment on: J Gen Intern Med 1999 May;14(5):287–96.

ORGANIZATION & ADMINISTRATION

Senology: the urgent need for establishing rules for expert training and organization of multidisciplinary breast units. Markopoulos CJ. **Eur J Gynaecol Oncol** 1999;20(1):53–5

The rise, heyday, and incipient decline of specialization: hospitals in Denmark, 1930–1990. Vallgårda S. **Int J Health Serv** 1999;29(2):431–57 (34 ref.)

Competition through physician-managed care: the case for capitated multispecialty group practices. Tillinghast SJ. **Int J Qual Health Care** 1998 Oct;10(5):427–34

President's page: the ACC and subspecialty societies: the beauty of the quilt [news] Garson A Jr. **J Am Coll Cardiol** 1999 Jun;33(7):2085–6

The AOA Sports Vision Section: a valuable membership benefit [editorial] Sanet RB. **J Am Optom Assoc** 1999 Feb; 70(2):75–6

Shared care: what mix of generalist and specialist care optimizes patient outcomes? [editorial; comment] Stange KC. **J Fam Pract** 1999 Mar;48(3):177–9. Comment on: J Fam Pract 1999 Mar;48(3):180–71. Comment on: J Fam Pract 1999 Mar;48(3):188–95.

Palliative medicine: is it really specialist territory? [letter; comment] [see comments] Finlay I, et al. **J R Soc Med** 1999 Feb;92(2):100–1. Comment on: J R Soc Med 1998 Nov;91(11):568–72. Comment in: J R Soc Med 1999 May;92(5):269.

Palliative medicine: is it really specialist territory? [letter; comment] [see comments] Sloan R. **J R Soc Med** 1999 Feb; 92(2):100. Comment on: J R Soc Med 1998 Nov;91(11):568–72. Comment in: J R Soc Med 1999 May;92(5):269.

Governmental steering of highly specialized medical services [editorial] [see comments] Forfang K. **Scand Cardiovasc J** 1998;32(4):197–9 (5 ref.). Comment in: Scand Cardiovasc J 1998;32(4):195.

[Subspecialty blood transfusion medicine] Brand A, et al. **Ned Tijdschr Geneeskd** 1998 Jul 25;142(30):1733–4 (Eng. Abstr.) **(Dut)**

[Fractures and frontiers] Chabot JM. **Rev Prat** 1999 Feb 15; 49(4):407–8 **(Fre)**

[Physicians of the national education system: Stakes and perspectives for a new profession] Carvalho J, et al. **Sante Publique** 1998 Sep;10(3):269–85 (Eng. Abstr.) **(Fre)**

[Elementary school health and the national education physician-teacher partnership: apropos of 2 surveys conducted by national education physicians in training] Danzon A, et al. **Sante Publique** 1998 Sep;10(3):289–302 (Eng. Abstr.) **(Fre)**

[The role of physician teams in the complex prevention of parasitoses] Tumol'skaia NI, et al. **Med Parazitol (Mosk)** 1998 Jul–Sep;(3):26–9 **(Rus)**

[The organizational aspects of specialized medical care for servicemen] Chizh IM. **Voen Med Zh** 1999 Mar;320(3):4–10, 96 (Eng. Abstr.) **(Rus)**

STANDARDS

Outcome following acute myocardial infarction: are differences among physician specialties the result of quality of care or case mix? Frances CD, et al. **Arch Intern Med** 1999 Jul 12;159(13):1429–36

Quality of primary care practice in a large HMO according to physician specialty [see comments] Grumbach K, et al. **Health Serv Res** 1999 Jun;34(2):485–502. Comment in: Health Serv Res 1999 Jun;34(2):519–24.

Commentary: practice environment, specialty, and primary care [comment] O'Connor PJ. **Health Serv Res** 1999 Jun; 34(2):519–24. Comment on: Health Serv Res 1999 Jun;34(2):485–502. Comment on: Health Serv Res 1999 Jun;34(2):503–18.

Palliative medicine: is it really specialist territory? [letter; comment] Hain R. **J R Soc Med** 1999 Feb;92(2):101. Comment on: J R Soc Med 1998 Nov;91(11):568–72.

Opportunities for maloccurrence in delivery of specialized care in the managed care environment. Fung WE. **Surv Ophthalmol** 1998 Nov–Dec;43(3):280–2

STATISTICS & NUMERICAL DATA

Results of the National Resident Matching Program for 1999. Lostumbo EM, et al. **Acad Med** 1999 Jun;74(6):722–4

Referral rates and waiting lists: some empirical evidence. Goddard JA, et al. **Health Econ** 1998 Sep;7(6):545–9

Medicare physician referral patterns. Shea D, et al. **Health Serv Res** 1999 Apr;34(1 Pt 2):331–48

Specialty-related disparities of readmission in patients with chronic heart failure: the importance of hospital-clinic cooperation. Sakakibara M, et al. **Intern Med** 1999 Sep; 38(9):705–9

Physician substance use by medical specialty. Hughes PH, et al. **J Addict Dis** 1999;18(2):23–37

Specialty differences in cardiovascular disease prevention practices. Stafford RS, et al. **J Am Coll Cardiol** 1998 Nov; 32(5):1238–43

Medical utilisation and costs in panic disorder: a comparison with social phobia. Rees CS, et al. **J Anxiety Disord** 1998 Sep–Oct;12(5):421–35

Knowledge, patterns of care, and outcomes of care for generalists and specialists [see comments] Harrold LR, et al. **J Gen Intern Med** 1999 Aug;14(8):499–511 (92 ref.). Comment in: J Gen Intern Med 1999 Aug;14(8):514–5.

Women's preferences for specialists who provide cancer screening and general medical care. Pemberton AG, et al. **J Gen Intern Med** 1998 Sep;13(9):624–6

Productivity of SCI Korean medical papers: 1996–1997. Lee CS. **J Korean Med Sci** 1999 Aug;14(4):351–8 (20 ref.)

Do interventional radiologists pose a significant threat to the practice of vascular surgery? Levin DC, et al. **J Vasc Interv Radiol** 1999 Sep;10(8):1007–11

Self-reported physician specialties and the primary care content of medical practice: a study of the AMA physician masterfile. American Medical Association. Shea JA, et al. **Med Care** 1999 Apr;37(4):333–8

Course of antidepressant treatment drug type, and prescriber's specialty. Fairman KA, et al. **Psychiatr Serv** 1998 Sep;49(9):1180–6

[How to encourage the direction of students?] Chabot JM. **Rev Prat** 1999 Apr 1;49(7):749–50 **(Fre)**

[Prescriptions of low therapeutic value imposed on primary care] Segui Diaz M, et al. **Aten Primaria** 1998 Sep 15; 22(4):227–32 (Eng. Abstr.) **(Spa)**

[Prescription use by specialist care in the Toledo Health Area (letter; comment)] Viñas González B, et al. **Aten Primaria** 1999 Apr 15;23(6):388–9. Comment on: Aten Primaria 1998 Dec;22(10):619–21. **(Spa)**

TRENDS

Is the orthopedic generalist moving toward extinction? Goldner JL, et al. **Am J Orthop** 1999 Jul;28(7):389–96 (16 ref.)

The hospitalist: a new medical specialty? Kelley MA. **Ann Intern Med** 1999 Feb 16;130(4 Pt 2):373–5

Clinical information technology: a new medical field? Romano C, et al. **Arch Ital Urol Androl** 1998 Sep; 70(4):183–6

A boutique practice or specialist to the world. McLone DG. **Childs Nerv Syst** 1998 Nov;14(11):630–5

Nuclear medicine in the 21st century: integration with other specialties [news] Kotz D. **J Nucl Med** 1999 Jul; 40(7):13N–14N, 21N, 25N–26N

The drawbacks of overspecialisation. Loefler IJ. **J R Coll Surg Edinb** 1999 Feb;44(1):11–2

The medical professional in the next millennium [editorial] Marten E. **Plast Reconstr Surg** 1999 Apr;103(4):1311

[Inspection of medical education 1997 (letter; comment)] Stork J. **Ned Tijdschr Geneeskd** 1998 Aug 1;142(31):1788. Comment on: Ned Tijdschr Geneeskd 1998 Apr 4;142(14):802–4. **(Dut)**

[Sanology as a science] Apanasenko GL, et al. **Lik Sprava** 1998 Aug;(6):3–6 (Eng. Abstr.) **(Rus)**

[Clinical microbiology: a specialty in crisis? (editorial)] Perea EJ. **Enferm Infecc Microbiol Clin** 1998 Dec;16(10):445–8 **(Spa)**

SPECIALTIES, NURSING

Evaluating community-based Parkinson's disease nurse specialists: rationale, methodology, and representativeness of patient sample in a large randomized controlled trial. Hurwitz B, et al. **Adv Neurol** 1999;80:431–8 (10 ref.)

Your guide to certification. **Am J Nurs** 1999 Jan;99(1 Pt 2):35–43

When I grow up I want to be a...? Where undergraduate student nurses want to work after graduation. Happell B. **J Adv Nurs** 1999 Feb;29(2):499–505

A pinch of this... [editorial] Stewart-Amidei C. **J Neurosci Nurs** 1998 Aug;30(4):219

[Nurses working with anticoagulants—a new subspecialty? Time for a new and important kind of training] Stockelberg D, et al. **Lakartidningen** 1999 Mar 10;96(10):1205–7 **(Swe)**

EDUCATION

Evolving trends in critical care nursing practice: results of a certification role delineation study. Biel M, et al. **Am J Crit Care** 1999 Sep;8(5):285–90

Cross-training: does it really promote safe and effective perinatal nursing care? Phillips CR, et al. **MCN Am J Matern Child Nurs** 1999 May–Jun;24(3):120–1

MANPOWER

Fulfilling regional needs for specialty nurses through limited-cohort graduate education. Block DE, et al. **Nurs Outlook** 1999 Jan–Feb;47(1):23–9

METHODS

A primer on BMT for new transplant nurses [news] **Oncology (Huntingt)** 1999 Feb;13(2):275–6, 278

ORGANIZATION & ADMINISTRATION

Sharing the dance toward the next century [editorial] Highsmith C. **J Assoc Nurses AIDS Care** 1999 Mar–Apr; 10(2):20–1

Neuroscience nursing practice in a new millennium. Hickey JV, et al. **Nurs Clin North Am** 1999 Sep;34(3):541–54 (24 ref.)

Ethical perspectives in neuroscience nursing practice. Murphy WJ. **Nurs Clin North Am** 1999 Sep;34(3):621–35 (38 ref.)

STANDARDS

Working with glaucoma patients – prospects for "shared care". Martin LM. **Acta Ophthalmol Scand** 1999 Feb; 77(1):103–6

Outcomes research and the neuroscience nurse: what's in it for clinical practice? Mitchell PH. **J Neurosci Nurs** 1998 Oct;30(5):318–21 (35 ref.)

ONS guidelines on office-based clinical trials [news] **Oncology (Huntingt)** 1999 Feb;13(2):162, 165

TRENDS

Evolving trends in critical care nursing practice: results of a certification role delineation study. Biel M, et al. **Am J Crit Care** 1999 Sep;8(5):285–90

The critical care trajectory [editorial] Bryan-Brown CW, et al. **Am J Crit Care** 1999 May;8(3):137–9

SPECIALTIES, SURGICAL

Bioethics in the medical subspecialty literature. Paola FA, et al. **Ann Ital Med Int** 1997 Oct–Dec;12(4):238–41

Can there be too many surgical specialties? Watkin D. **Ann R Coll Surg Engl** 1998 May;80(3 Suppl):105–8

Re: Editorial 'Should there be a new specialty of head and neck surgery?' [letter] Grew NR, et al. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):246–7

Should there be a new specialty of 'head and neck surgery'? [editorial] McGurk M. **Br J Oral Maxillofac Surg** 1998 Dec;36(6):405

XII National Congress of the Italian Polyspecialistic Society of the Young Surgeons (SPIGC). 20–22 May 1999. Abstracts. **J Surg Oncol Suppl** 1999;4:7–133

Trauma faculty and trauma team activation: impact on trauma system function and patient outcome. Khetarpal S, et al. **J Trauma** 1999 Sep;47(3):576–81

Founding of a German society of Visceral Surgery [editorial] Beger HG, et al. **Langenbecks Arch Surg** 1999 Apr; 384(2):131–2

Definition of oral and maxillofacial surgery [letter; comment] Ding AS. **Oral Surg Oral Med Oral Pathol Oral Radiol Endod** 1999 Apr;87(4):395–6. Comment on: Oral Surg Oral Med Oral

Pathol Oral Radiol Endod 1998 Jul;86(1):1.
Pediatric facial fractures: who should treat what, and how? [letter; comment] Emery RW, et al. **Plast Reconstr Surg** 1999 Jan;103(1):325–6; discussion 326–7 . Comment on: Plast Reconstr Surg 1998 Jul;102(1):28–31.
Pediatric facial fractures: who should treat what, and how? [letter; comment] Steinberg B. **Plast Reconstr Surg** 1999 Jan;103(1):326–7. Comment on: Plast Reconstr Surg 1998 Jul;102(1):28–31.
Written communication from specialists to general practitioners in cancer care. What are the expectations and how are they met? Stålhammar J, et al. **Scand J Prim Health Care** 1998 Sep;16(3):154–9
Hernia registers and specialization. Nilsson E, et al. **Surg Clin North Am** 1998 Dec;78(6):1141–55, ix
[Fewer, but more specialized surgeons after the millennium shift] Haglund U. **Lakartidningen** 1999 Sep 8;96(36):3762–4 **(Swe)**

EDUCATION

Training in pediatric surgery in Europe [editorial] Holschneider AM, et al. **Eur J Pediatr Surg** 1999 Feb; 9(1):2–3
The longitudinal study of surgical residents, 1994 to 1996 [see comments] Kwakwa F, et al. **J Am Coll Surg** 1999 Jun;188(6):575–85. Comment in: J Am Coll Surg 1999 Jun;188(6):676–7.
Teaching bioethics to surgical residents. McKneally MF. **Semin Thorac Cardiovasc Surg** 1998 Jul;10(3):188–9

HISTORY

The first 30 years of the British Society for Surgery of the Hand. Barton NJ. **J Hand Surg [Br]** 1998 Dec;23(6):711–23

MANPOWER

Subspecialties in ophthalmology [letter; comment] Lee AG. **Arch Ophthalmol** 1999 Feb;117(2):288. Comment on: Arch Ophthalmol 1998 Jul;116(7):917–20.
Patterns of surgical practice in a small rural hospital. Sariego J. **J Am Coll Surg** 1999 Jul;189(1):8–10
The market for pediatric surgeons: a survey of recent graduates. Parkerton PH, et al. **J Pediatr Surg** 1999 Jun; 34(6):931–9
Issues in planning for specialist physicians. Roos NP, et al. **Med Care** 1999 Jun;37(6 Suppl):JS229–53

ORGANIZATION & ADMINISTRATION

Presidential address: legend, leadership, legacy. Abbott WM. **J Vasc Surg** 1999 Jan;29(1):1–7
[The organizational aspects of specialized medical care for servicemen] Chizh IM. **Voen Med Zh** 1999 Mar;320(3):4–10, 96 (Eng. Abstr.) **(Rus)**

STANDARDS

Performance standards in bariatric surgery. Oria HE, et al. **Eur J Gastroenterol Hepatol** 1999 Feb;11(2):77–84
[Systematic scientific quality improvement in surgical specialties. The AQS mode] Rageth JC, et al. **Swiss Surg** 1999;5(2):62–72 (23 ref.) (Eng. Abstr.) **(Ger)**

STATISTICS & NUMERICAL DATA

Measuring serum total cholesterol: do vascular surgeons know what they are doing? Wijesinghe LD, et al. **Ann R Coll Surg Engl** 1999 Jan;81(1):32–6
Referral rates and waiting lists: some empirical evidence. Goddard JA, et al. **Health Econ** 1998 Sep;7(6):545–9

TRENDS

Has surgical subspecialization gone too far? Black J. **Hosp Med** 1999 Mar;60(3):206–9 (16 ref.)
A time for co-opetition. Green RM. **J Vasc Surg** 1998 Dec; 28(6):955–63

SPECIALTY BOARDS

Neutralizing the "clerkship-timing effect" [letter] Belmont JM, et al. **Acad Med** 1999 Mar;74(3):205
The Intercollegiate Academic Board of Sport and Exercise Medicine. MacLeod DA. **Br J Sports Med** 1999 Apr; 33(2):73–4
Training psychiatric residents for Part II of the American Board of Psychiatry and Neurology Examination. Warnock JK, et al. **Bull Menninger Clin** 1999 Winter;63(1):111–7
ATI—mapping the future of testing. Assessment Technologies, Inc. [news] **J Am Board Fam Pract** 1999 Mar–Apr;12(2):184–5
The value of recertification to orthopaedic surgery and to the public. Simon MA, et al. **J Bone Joint Surg Am** 1999 Feb;81(2):292–4
Board certification in palliative care for U.S. physicians. Officers and Trustees of the American Board of Hospice and Palliative Medicine. Holman GH, et al. **J Pain Symptom Manage** 1999 May;17(5):309–10
Medical and osteopathic boards' positions on chaperones during gynecologic examinations. Stagno SJ, et al. **Obstet Gynecol** 1999 Sep;94(3):352–4
Aiken's Law, Marino's Law, and the dueling diplomas [editorial] Frileck SP. **Plast Reconstr Surg** 1999 May; 103(6):1779–84
[The veterinary disciplinary board] **Tijdschr Diergeneeskd** 1999 Mar 15;124(6):185–8 **(Dut)**

LEGISLATION & JURISPRUDENCE

Impaired doctors. The modern approach of medical boards. Breen KJ, et al. **Aust Fam Physician** 1998 Nov; 27(11):1005–8 (0 ref.)
Complaint resolution process delivers. **N Y State Dent J** 1998 Dec;64(10):18–20

ORGANIZATION & ADMINISTRATION

Graduate education in thoracic surgery and the American Board of Thoracic Surgery. Gay WA Jr. **Semin Thorac Cardiovasc Surg** 1998 Jul;10(3):178–80

STANDARDS

Meritocracy in graduate medical education? Some suggestions for creating a report card. Iverson DJ. **Acad Med** 1998 Dec;73(12):1223–5 (21 ref.)
State boards consider outcomes-based regulation [news] Landis NT. **Am J Health Syst Pharm** 1999 Apr 15; 56(8):699–700
Report of the Task Force on Residency Training Information (1998–1999), American Board of Emergency Medicine. Hoffman GL, et al. **Ann Emerg Med** 1999 May;33(5):529–45
Specialties and the code [letter] Berringer RD. **J Am Dent Assoc** 1998 Dec;129(12):1664, 1666
Effect of evaluator and resident gender on the American Board of Internal Medicine evaluation scores. Rand VE, et al. **J Gen Intern Med** 1998 Oct;13(10):670–4
[Who inspects the disciplinary board? (letter)] Coops WJ. **Tijdschr Diergeneeskd** 1999 Feb 1;124(3):89 **(Dut)**

STATISTICS & NUMERICAL DATA

Comparing achievement on the Medical Council of Canada Qualifying Examination Part I of students in conventional and problem-based learning curricula. Kaufman DM, et al. **Acad Med** 1998 Nov;73(11):1211–3

SPECIES SPECIFICITY

Multiplex amplification of mitochondrial DNA for human and species identification in forensic evaluation. Bataille M, et al. **Forensic Sci Int** 1999 Jan 25;99(3):165–70
Species differences in cis-elements of the proalpha1(I) procollagen promoter and their binding proteins. Peterkofsky B, et al. **J Cell Biochem** 1999 Jun 1; 73(3):408–22
Reactivities of genus-specific monoclonal antibody EM-6E11 against Listeria species and serotypes of Listeria monocytogenes grown in nonselective and selective enrichment broth media. Nannapaneni R, et al. **J Food Prot** 1998 Sep;61(9):1195–8
Modulation of allospecific CTL responses during pregnancy in equids: an immunological barrier to interspecies matings? Baker JM, et al. **J Immunol** 1999 Apr 15;162(8):4496–501
Comparison of pig and chicken pepsins for protein hydrolysis. Crevieu-Gabriel I, et al. **Reprod Nutr Dev** 1999 Jul-Aug; 39(4):443–54
[Role of biodiversity in maintaining Earth;s climate and and human civilization. Problems of geobiophysics] Karnaukhov AV, et al. **Biofizika** 1998 Nov-Dec; 43(6):1106–21 (Eng. Abstr.) **(Rus)**
[Is there a connection between biodiversity and the greenhouse effect] Rozanov SI. **Biofizika** 1998 Nov-Dec; 43(6):1101–5 (Eng. Abstr.) **(Rus)**
[Two positions in evaluating the role of biodiversity] Rozanov SI. **Biofizika** 1998 Nov-Dec;43(6):1122–4 (Eng. Abstr.) **(Rus)**

SPECIESISM see **ANIMAL RIGHTS**

SPECIFIC PATHOGEN-FREE ORGANISMS

Seroprevalence of antibodies against gram-negative core antigens in rabbits, using an Escherichia coli J5 antigen-capture enzyme-linked immunosorbent assay. Ruble RP, et al. **Am J Vet Res** 1999 Apr;60(4):501–6
Defining appropriate health status and management programs for specific-pathogen-free swine for xenotransplantation. Swindle MM. **Ann N Y Acad Sci** 1998 Dec 30;862:111–20
Long-term culture of free or encapsulated islets isolated from specific pathogen-free (SPF) pigs. Duvivier V, et al. **Diabetes Metab** 1998 Dec;24(6):517–22
Glycoconjugate expression in follicle-associated epithelium (FAE) covering the nasal-associated lymphoid tissue (NALT) in specific pathogen-free and conventional rats. Jeong KI, et al. **Exp Anim** 1999 Jan;48(1):23–9
Establishment of specific pathogen-free rabbit colonies with limited-flora rabbits associated with conventional rabbit flora, and monitoring of their cecal flora. Yanabe M, et al. **Exp Anim** 1999 Apr;48(2):101–6
Production of ex-germfree rabbits for establishment of specific pathogen-free (SPF) colonies. Yanabe M, et al. **Exp Anim** 1999 Apr;48(2):79–86
B-virus specific-pathogen-free breeding colonies of macaques (Macaca mulatta): retrospective study of seven years of testing. Hilliard JK, et al. **Lab Anim Sci** 1999 Apr; 49(2):144–8
Specific-pathogen-free conditions enhance inflammatory bowel disease in T-cell receptor knockout, but not C3H/HeJBir mice [letter; comment] Patterson MM, et al. **Lab Anim Sci** 1998 Oct;48(5):432–3. Comment on: Lab Anim Sci 1997 Dec;47(6):650–5.
Rhesus monkey (Macaca mulatta) model of Helicobacter pylori: noninvasive detection and derivation of specific-pathogen-free monkeys. Solnick JV, et al. **Lab Anim Sci** 1999 Apr;49(2):197–201
Surgical procedure for specific pathogen free piglet production by modified terminal hysterectomy. Muñoz A, et al. **Transplant Proc** 1999 Sep;31(6):2627–9

SPECIFICITY see **SENSITIVITY AND SPECIFICITY**

SPECIMEN HANDLING

Selection of core biopsy specimens for pathologic evaluation of targeted microcalcifications. Brem RF, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):901–2
Comparison of enteric neuronal morphology as demonstrated by DiI-tracing under different tissue-handling conditions. Brehmer A, et al. **Anat Embryol (Berl)** 1999 Jan; 199(1):57–62
Dissociation of human chorionic gonadotropin into its free subunits is dependent on naturally occurring molecular structural variation, sample matrix and storage conditions. Butler SA, et al. **Ann Clin Biochem** 1998 Nov;35 (Pt 6):754–60
Handling sentinel lymph node biopsy specimens.A work in progress. Cibull ML. **Arch Pathol Lab Med** 1999 Jul; 123(7):620–1
Surely doctors should follow the spirit, rather than the letter, of the law [letter] James RH. **BMJ** 1999 Jul 3;319(7201):57
System to monitor a portion of the total testing process in medical clinics and laboratories: evaluation of a split-specimen design. Shahangian S, et al. **Clin Chem** 1999 Feb;45(2):269–80
Effect of shipment, storage, anticoagulant, and cell separation on lymphocyte proliferation assays for human immunodeficiency virus-infected patients. Weinberg A, et al. **Clin Diagn Lab Immunol** 1998 Nov;5(6):804–7
Norm values for eosinophil cationic protein in nasal secretions: influence of specimen collection. Klimek L, et al. **Clin Exp Allergy** 1999 Mar;29(3):367–74
The application of near patient testing to microbiology. Bevan VM, et al. **Commun Dis Public Health** 1999 Jan; 2(1):14–21 (28 ref.)
Collection of genomic DNA by buccal swabs for polymerase chain reaction-based biomarker assays. Walker AH, et al. **Environ Health Perspect** 1999 Jul;107(7):517–20
Effect of urine specimen dilution on the performance of two commercial systems in the detection of Chlamydia trachomatis infection in men. Pasternack R, et al. **Eur J Clin Microbiol Infect Dis** 1998 Sep;17(9):676–8
In vitro fertilization and intracytoplasmic sperm injection pregnancies after successful transport of oocytes by airplane. Buckett WM, et al. **Fertil Steril** 1999 Apr; 71(4):753–5
Change of some values of fetal metric features during storage and preservation. Gworys B. **Folia Morphol (Warsz)** 1998; 57(3):263–7
Propofol concentrations in follicular fluid during general anaesthesia for transvaginal oocyte retrieval. Christiaens F, et al. **Hum Reprod** 1999 Feb;14(2):345–8
Putting new drugs to good use [letter] Malpani A. **Hum Reprod** 1999 Feb;14(2):572
Diagnostic epididymal and testicular sperm recovery and genetic aspects in azoospermic men. Westlander G, et al. **Hum Reprod** 1999 Jan;14(1):118–22
Diagnostic tests and specimens used to screen for Chlamydia trachomatis in genitourinary medicine clinics in the United Kingdom. David LM. **Int J STD AIDS** 1999 Aug; 10(8):527–30
Quality control of smear microscopy for acid-fast bacilli: the case for blinded re-reading. Nguyen TN, et al. **Int J Tuberc Lung Dis** 1999 Jan;3(1):55–61
Reproducibility of sputum smear examination for acid-fast bacilli: practical problems met during cross-checking. Van Deun A, et al. **Int J Tuberc Lung Dis** 1999 Sep;3(9):823–9
Performance of AdultaCheck 4 test strips for the detection of adulteration at the point of collection of urine specimens used for drugs-of-abuse testing. King EJ. **J Anal Toxicol** 1999 Jan-Feb;23(1):72
Effects of sample preparation conditions on biomolecular solid-state NMR lineshapes. Jakeman DL, et al. **J Biomol NMR** 1998 Oct;12(3):417–21
Proceedings of the 8th Symposium on Handling of Environmental and Biological Samples in Chromatography and the 26th Scientific Meeting of the Spanish Group of Chromatography. Almeria, Spain, 26–29 October 1997. **J Chromatogr A** 1998 Oct 9;823(1-2):1–571
Buccal mucosa in vitro experiments. I. Confocal imaging of vital staining and MTT assays for the determination of tissue viability. Imbert D, et al. **J Controlled Release** 1999 Mar 8;58(1):39–50
The New Children's Hospital Tumour Bank [letter] Coupland LA, et al. **Med J Aust** 1999 Mar 15;170(6):284–5
Extreme hyperkalemia in Munchausen-by-proxy syndrome [letter] Magen D, et al. **N Engl J Med** 1999 Apr 22; 340(16):1293–4
Effect of intravenous infusions on laboratory results in blood

specimens drawn proximal to the insertion site of an intravenous canula. van Vonderen MG, et al. **Neth J Med** 1998 Nov;53(5):224–7

Use of the cotton swab method in diagnosing Tinea capitis. Friedlander SF, et al. **Pediatrics** 1999 Aug;104(2 Pt 1):276–9

The relationship between salivary cortisol concentrations in frozen versus mailed samples. Clements AD, et al. **Psychoneuroendocrinology** 1998 Aug;23(6):613–6

Evaluation of modified Stuart's medium in Culturettes for transport of Neisseria gonorrhoeae. Ebright JR, et al. **Sex Transm Dis** 1982 Jan–Mar;9(1):45–7

Sample suitability for the detection of minor white cell populations (microchimerism) by polymerase chain reaction. Reed W, et al. **Transfusion** 1998 Nov–Dec; 38(11–12):1041–5

[Effect of oocyte transportation (IVF transport) on effectiveness of the IVF and ET program] Drbohlav P, et al. **Ceska Gynekol** 1998 Aug;63(4):301–5 (Eng. Abstr.) **(Cze)**

[Detection of Chlamydia trachomatis infection among young people. The effect of home-sampling and mailing the samples] Ostergaard LJ, et al. **Ugeskr Laeger** 1999 Aug 9;161(32):4514–8 (Eng. Abstr.) **(Dan)**

[With special reference to clinical specimen handlings] Takagi Y. **Nippon Naika Gakkai Zasshi** 1998 Oct 10;87(10):1980–4 (2 ref.) **(Jpn)**

[Sampling and quality assurance] Kayamori Y, et al. **Rinsho Byori** 1998 Dec;46(12):1190–6 (7 ref.) (Eng. Abstr.) **(Jpn)**

[Perineal bag versus urethral catheterization of suprapubic aspiration for the diagnosis of urinary tract infections in infants in emergency units] Martin Puerto MJ, et al. **An Esp Pediatr** 1999 May;50(5):447–50 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Potential adverse effect of semen processing on human sperm deoxyribonucleic acid integrity. Zini A, et al. **Fertil Steril** 1999 Sep;72(3):496–9

[Newborn infants do feel pain! Technique and environment in connection with specimen collection can be improved] Finnström O, et al. **Lakartidningen** 1998 Dec 9; 95(50):5718–20 (20 ref.) **(Swe)**

ECONOMICS

Morbidity and cost-effectiveness analysis of outpatient analgesia versus general anaesthesia for testicular sperm extraction in men with azoospermia due to defects in spermatogenesis. Ezeh UI, et al. **Hum Reprod** 1999 Feb; 14(2):321–8

HISTORY

Some historical aspects of urinals and urine receptacles. Mattelaer JJ. **World J Urol** 1999 Jun;17(3):145–50

INSTRUMENTATION

Technique for harvesting keratolimbal allografts from corneoscleral buttons. Mannis MJ, et al. **Am J Ophthalmol** 1999 Aug;128(2):237–8

Automated sampling device for monitoring intracellular metabolite dynamics. Schaefer U, et al. **Anal Biochem** 1999 May 15;270(1):88–96

An improved sample packing device for rapid freeze-trap electron paramagnetic resonance spectroscopy kinetic measurements. Tsai AL, et al. **Anal Biochem** 1998 Nov 15; 264(2):165–71

Diagnosis of nosocomial pneumonia in cancer patients undergoing mechanical ventilation: a prospective comparison of the plugged telescoping catheter with the protected specimen brush. Casetta M, et al. **Chest** 1999 Jun; 115(6):1641–5

Not a matter of life and death! [editorial; comment] Johanson WG Jr. **Chest** 1999 Apr;115(4):916–7. Comment on: Chest 1999 Apr;115(4):1076–84.

Technical note: a device for obtaining time-integrated samples of ruminal fluid. Corley RN 3rd, et al. **J Anim Sci** 1999 Sep;77(9):2540–4

On optimizing high-pressure freezing: from heat transfer theory to a new microbiopsy device. Shimoni E, et al. **J Microsc** 1998 Dec;192 (Pt 3):236–47

Pad urine collection for early childhood urinary-tract infection [letter] Macfarlane PI, et al. **Lancet** 1999 Aug 14;354(9178):571

Simple apparatus for plunge-freezing biological material: Some design considerations. Mollenhauer HH. **Microsc Res Tech** 1999 Jan 15–Feb 1;44(2–3):195–200

[Preliminary evaluation of a histocytological association predicted in a single sample of uterine exploration via a modified pipette: Mark II pipette] Cornier E, et al. **Contracept Fertil Sex** 1999 May;27(5):388–92 (Eng. Abstr.) **(Fre)**

[Liquid dispense check] Neumann E. **Biomed Tech (Berl)** 1998;43 Suppl:68–9 **(Ger)**

[Devices for saliva collection from the major salivary glands. Results in normal subjects (published erratum appears in Rev Med Chil 1998 Jul;126(7):887)] Morales I, et al. **Rev Med Chil** 1998 May;126(5):538–47 (Eng. Abstr.) **(Spa)**

METHODS

Efficacy of two sputum collection techniques in patients with air flow obstruction. Kennedy TC, et al. **Acta Cytol** 1999 Jul–Aug;43(4):630–6

Evaluation of vaginal introital sampling as an alternative approach for the detection of genital Chlamydia trachomatis infection in women. Dometika M, et al. **Acta Obstet Gynecol Scand** 1999 Feb;78(2):131–6

Ultrasonic nebulization of hypertonic solution: a new method for obtaining specimens from nasal mucosa for morphologic and biochemical analysis in allergic rhinitis. Melillo G, et al. **Allergy** 1998 Aug;53(8):794–7

Brain banking: basic science methods. McKee AC. **Alzheimer Dis Assoc Disord** 1999 Apr–Jun;13 Suppl 1:S39–44

Maternal self-collection of specimens for GBS culture [letter; comment] Spieker MR. **Am Fam Physician** 1999 Jan 1; 59(1):49, 51. Comment on: Am Fam Physician 1998 Jun;57(11):2602, 2605–6. Comment on: Am Fam Physician 1998 Jun;57(11):2713–20, 2725.

Breast fine-needle aspiration. A comparison of ThinPrep and conventional smears. Bédard YC, et al. **Am J Clin Pathol** 1999 Apr;111(4):523–7

More biopsies per block [letter; comment] Haggitt RC, et al. **Am J Clin Pathol** 1999 Sep;112(3):425–8. Comment on: Am J Clin Pathol 1998 Aug;110(2):219–23.

Effect of sampling site, repeated sampling, pH, and PCO2 on plasma lactate concentration in healthy dogs. Hughes D, et al. **Am J Vet Res** 1999 Apr;60(4):521–4

Manual collection and characterization of semen from Asian elephants (Elephas maximus). Schmitt DL, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):309–14

The effect of repeated sampling on paraffin-stimulated salivary flow rates in menopausal women. Laine M, et al. **Arch Oral Biol** 1999 Jan;44(1):93–5

Specimen banks for cancer prognostic factor research. Burke HB, et al. **Arch Pathol Lab Med** 1998 Oct;122(10):871–4 (38 ref.)

Protocol for the examination of specimens from patients with non-Hodgkin's lymphoma: a basis for checklists. Cancer Committee, College of American Pathologists. Compton CC, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):68–74

Protocol for the examination of specimens from patients with Hodgkin's disease: a basis for checklists. Cancer Committee, College of American Pathologists. Compton CC, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):75–80

Protocol for the examination of specimens from patients with carcinomas of renal tubular origin, exclusive of Wilms tumor and tumors of urothelial origin: a basis for checklists. Cancer Committee, College of American Pathologists. Farrow G, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):23–7

Protocol for the examination of specimens from patients with primary cardiac tumors: a basis for checklists. Cancer Committee, College of American Pathologists. Hammond EH. **Arch Pathol Lab Med** 1999 Jan;123(1):20–2

Protocol for the examination of specimens from patients with carcinomas of the cervix: a basis for checklists. Cancer Committee, College of American Pathologists. Kurman RJ, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):55–61

Protocol for the examination of specimens from patients with gestational trophoblastic malignancies: a basis for checklists. Cancer Committee, College of American Pathologists. Lage JM. **Arch Pathol Lab Med** 1999 Jan; 123(1):50–4

Protocol for the examination of specimens removed from patients with carcinomas of the upper aerodigestive tract: carcinomas of the oral cavity including lip and tongue, nasal and paranasal sinuses, pharynx, larynx, salivary glands, hypopharynx, oropharynx, and nasopharynx. Cancer Committee, College of American Pathologists. Min KW, et al. **Arch Pathol Lab Med** 1998 Mar;122(3):222–30 (58 ref.)

Protocol for the examination of specimens from patients with malignant pleural mesothelioma: a basis for checklists. Cancer Committee, College of American Pathologists. Nash G, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):39–44

Protocol for the examination of specimens from patients with carcinoma of the fallopian tube: a basis for checklists. Cancer Committee, College of American Pathologists. Scully RE, et al. **Arch Pathol Lab Med** 1999 Jan;123(1):33–8

Protocol for the examination of specimens from patients with carcinoma of the vagina: a basis for checklists. Cancer Committee, College of American Pathologists. Scully RE. **Arch Pathol Lab Med** 1999 Jan;123(1):62–7

Protocol for the examination of specimens from patients with carcinomas of the endometrium: a basis for checklists. Cancer Committee, College of American Pathologists. Silverberg SG. **Arch Pathol Lab Med** 1999 Jan;123(1):28–32

Protocol for the examination of specimens from patients with malignant tumors of the thyroid gland, exclusive of lymphomas: a basis for checklists. Cancer Committee, College of American Pathologists. Sneed DC. **Arch Pathol Lab Med** 1999 Jan;123(1):45–9

Protocol for the examination of specimens from patients with malignant germ cell and sex cord-stromal tumors of the testis, exclusive of paratesticular malignancies: a basis for checklists. Cancer Committee, College of American Pathologists. Ulbright TM. **Arch Pathol Lab Med** 1999 Jan; 123(1):14–9

Saliva collection technique for cytologic, microbiologic and viral evaluation in pediatric HIV infection. Flaitz CM, et al. **ASDC J Dent Child** 1998 Sep–Oct;65(5):318–24, 355

The incidence and management of failed Pipelle sampling in a general outpatient clinic. Gordon SJ, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):115–8

Stability of RNA molecules stored in GITC. Gilleland RC, et al. **Biotechniques** 1998 Dec;25(6):944–6, 948

Intracellular filling and reconstruction of identified neurons in fixed rat brain slices. Prusky G, et al. **Brain Res Brain Res Protoc** 1999 Jan;3(3):313–9

Storage duration and temperature and the acute toxicities of estuarine sediments to Mysidopsis bahia and Leptocheirus plumulosus. Norton BL, et al. **Bull Environ Contam Toxicol** 1999 Aug;63(2):157–66

A simple mouthwash method for obtaining genomic DNA in molecular epidemiological studies. Lum A, et al. **Cancer Epidemiol Biomarkers Prev** 1998 Aug;7(8):719–24

Levels of free prostate-specific antigen (PSA) can be selectively measured by heat treatment of serum: free/total-PSA ratios improve detection of prostate carcinoma. Yoshida K, et al. **Clin Chim Acta** 1999 Feb; 280(1–2):195–203

A safe, simple, standardized method should be used for sputum induction for research purposes [editorial; comment] Fahy JV. **Clin Exp Allergy** 1998 Sep; 28(9):1047–9 (18 ref.). Comment on: Clin Exp Allergy 1998 Sep;28(9):1081–8.

A new collection method for the evaluation of nasal mucus proteins [see comments] Ruocco L, et al. **Clin Exp Allergy** 1998 Jul;28(7):881–8. Comment in: Clin Exp Allergy 1999 May;29(5):719–20.

Influence of arteriovenous sampling on remifentanil pharmacokinetics and pharmacodynamics. Hermann DJ, et al. **Clin Pharmacol Ther** 1999 May;65(5):511–8

Detection of the source of mislabeled biopsy tissue paraffin block and histopathological section on glass slide. Giroti R, et al. **Diagn Mol Pathol** 1998 Dec;7(6):331–4

Isolation of Neisseria gonorrhoeae using urine as a holding medium. Ihunwo OA, et al. **East Afr Med J** 1998 Oct; 75(10):572–5

Retroactive DNA analysis for sex determination and dystrophin gene by polymerase chain reaction with archived cytogenetic slides. Choi SK, et al. **Exp Mol Med** 1999 Mar 31;31(1):36–41

In vitro maturation of baboon oocytes retrieved at the time of cesarean section. Brzyski RG, et al. **Fertil Steril** 1999 Jun;71(6):1153–6

ICSI for selected oocytes within a batch--save for the 2nd time around? Intracytoplasmic sperm injection [letter; comment] Gurgan T, et al. **Fertil Steril** 1998 Dec; 70(6):1184–5. Comment on: Fertil Steril 1997 Jul;68(1):171–3.

Advanced surgical sperm recovery is a viable option for intracytoplasmic sperm injection in patients with obstructive or nonobstructive azoospermia. Jaroudi K, et al. **Fertil Steril** 1999 Sep;72(3):479–83

Effect of storage temperature on sperm cryopreservation. Trummer H, et al. **Fertil Steril** 1998 Dec;70(6):1162–4

Genotyping for DQA1 and PM loci in urine using PCR-based amplification: effects of sample volume, storage temperature, preservatives, and aging on DNA extraction and typing. Vu NT, et al. **Forensic Sci Int** 1999 May 31; 102(1):23–34

Transcervical recovery of fetal cells from the lower uterine pole: reliability of recovery and histological/immunocytochemical analysis of recovered cell populations. Miller D, et al. **Hum Reprod** 1999 Feb; 14(2):521–31

Testicular sperm extraction: microdissection improves sperm yield with minimal tissue excision. Schlegel PN. **Hum Reprod** 1999 Jan;14(1):131–5

Testicular biopty gun needle biopsy in collecting spermatozoa for intracytoplasmic injection, cryopreservation and histology. Tuuri T, et al. **Hum Reprod** 1999 May; 14(5):1274–8

Methods of semen collection not based on masturbation or surgical sperm retrieval. Gerris J. **Hum Reprod Update** 1999 May–Jun;5(3):211–5 (20 ref.)

Production of ex vivo expanded hematopoietic cells and progenitors in a closed bioreactor, starting with a small volume marrow collection: A feasibility study in patients with poor-risk breast cancer and receiving high-doses of cyclophosphamide. Chabannon C, et al. **Int J Oncol** 1999 Sep;15(3):511–8

Sampling technique influences the detection of K-ras mutations in normal appearing mucosa of colorectal cancer patients. Schimanski CC, et al. **Int J Oncol** 1999 Aug; 15(2):391–8

Tuberculosis of bones and joints: diagnostic approaches. Mousa HA. **Int Orthop** 1998;22(4):245–6

Onychomycosis: an evaluation of three sampling methods. Hull PR, et al. **J Am Acad Dermatol** 1998 Dec;39(6):1015–7

Nitrite contamination in urine collection kit component-absorbent sheet [letter] Wu A, et al. **J Anal Toxicol** 1998 Sep;22(5):401–2

Evaluation of sampling methods for the detection of Salmonella in broiler flocks. Skov MN, et al. **J Appl Microbiol** 1999 Apr;86(4):695–700

Determination of ifosfamide by HPLC using on-line sample preparation. Zolezzi C, et al. **J Chemother** 1999 Feb; 11(1):69–73

Construction of a roller device for the collection of hair and fiber evidence. Swinton SF. **J Forensic Sci** 1999 Sep; 44(5):1089–90

Microtubule nucleating capacity of centrosomes in tissue sections. Salisbury JL, et al. **J Histochem Cytochem** 1999 Oct;47(10):1265–74

Self–sampled and air–dried cervicovaginal secretions can be used for analyses of mucosal antibodies. Hordnes K, et al. **J Immunol Methods** 1998 Nov 1;220(1–2):151–9

A simple and reproducible method for collecting nasal secretions in frail elderly adults, for measurement of virus–specific IgA. Walsh EE, et al. **J Infect Dis** 1999 May; 179(5):1268–73

Method for long–term cerebrospinal fluid collection in the conscious dog. Wilsson–Rahmberg M, et al. **J Invest Surg** 1998 May–Jun;11(3):207–14

Characterization of enzymatic pectin digests by matrix–assisted laser desorption/ionization mass spectrometry. Körner R, et al. **J Mass Spectrom** 1998 Sep; 33(9):836–42

An overhead specimen handling system for variable workloads. Eggert AA, et al. **J Med Syst** 1999 Feb; 23(1):1–11

Molecular genetic analysis as a tool for evaluating stereotactic biopsies of glioma specimens. Müller MB, et al. **J Neuropathol Exp Neurol** 1999 Jan;58(1):40–5

Is urethral catheterization a successful alternative to suprapubic aspiration in neonates? Austin BJ, et al. **J Paediatr Child Health** 1999 Feb;35(1):34–6

A randomized controlled trial of two methods for collection of sterile urine in neonates. Tobiansky R, et al. **J Paediatr Child Health** 1998 Oct;34(5):460–2

Sampling of interstitial fluid and measurement of colloid osmotic pressure (COPi) in pigs: evaluation of the wick method. Heltne JK, et al. **Lab Anim** 1998 Oct;32(4):439–45

Packed–cell volume in athletes [letter] Dugué B, et al. **Lancet** 1998 Oct 24;352(9137):1387–8

Ambient temperatures and potassium concentrations [letter] Ulahannan TJ, et al. **Lancet** 1998 Nov 21;352(9141):1680–1

Noninvasive measurement of alpha–tocopherol gradients in human stratum corneum by high–performance liquid chromatography analysis of sequential tape strippings. Thiele JJ, et al. **Methods Enzymol** 1999;300:413–9

Visualization of blood vessels without prior perfusion. Zwi LJ, et al. **Microvasc Res** 1999 Jul;58(1):79–82

Self–collection of group B Streptococcus cultures in pregnant women. Spieker MR, et al. **Mil Med** 1999 Jul;164(7):471–4

Usefulness of Telfa pads in the histologic assessment of stereotactic–guided breast biopsy specimens. Gala I, et al. **Mod Pathol** 1999 May;12(5):553–7

Procurement of population–based cancer tissue in Iowa. Lynch CF, et al. **Mod Pathol** 1999 Apr;12(4):422–6

Viability studies on actinomycetes. Taddei A, et al. **Mycopathologia** 1998–99;143(3):161–4

Effect of delayed inoculation of selective media in antenatal detection of group B streptococci. Crisp BJ, et al. **Obstet Gynecol** 1998 Dec;92(6):923–5

Guidelines for the collection, processing, storage and of administration of hemopoietic stem and progenitor cells for transplantation. Report of the Working Party on Hemopoietic Stem Cell Processing, Hematology Discipline Advisory Committee, the Royal College of Pathologists of Australasia [published erratum appears in Pathology 1999 Feb;31(1):following 75] To LB, et al. **Pathology** 1998 Aug;30(3):276–85

Practical approach to processing osteosarcomas in the surgical pathology laboratory. Wold LE. **Pediatr Dev Pathol** 1998 Sep–Oct;1(5):449–54 (4 ref.)

Can overnight urine collections in children be successful? [editorial] van Aalderen WM, et al. **Pediatr Pulmonol** 1999 Jan;27(1):65

The paraxanthine:caffeine ratio in serum or in saliva as a measure of CYP1A2 activity: when should the sample be obtained? Spigset O, et al. **Pharmacogenetics** 1999 Jun; 9(3):409–12

Analysis of fetal sex in TCC sample DNA: a contribution to the validation of this approach. Falcinelli C, et al. **Prenat Diagn** 1998 Nov;18(11):1109–16

Difficulties in interpretation of culture results in sinusitis. Verschraegen G, et al. **Rhinology** 1998 Jun;36(2):55–8 (17 ref.)

Retrieval of specimens in laparoscopy using reclosable zipper–type plastic bags: a simple, cheap, and useful method. Weber A, et al. **Surg Laparosc Endosc** 1998 Dec; 8(6):457–9 (21 ref.)

Stage–specific apoptosis of male germ cells in the rat: mechanisms of cell death studied by supravital squash preparations. Henriksén K, et al. **Tissue Cell** 1998 Dec; 30(6):692–701

A comparison of endoscopic and surgical collection procedures for the analysis of the bacterial flora in duodenal fluid from cats. Johnston KL, et al. **Vet J** 1999 Jan; 157(1):85–9

[Bank tissue. Directions for use] Coindre JM. **Ann Pathol** 1998;18(5 Suppl):22–4 **(Fre)**

[Banks of cryopreserved specimens. Conservation techniques] Sastre–Garau X. **Ann Pathol** 1998;18(5 Suppl):21–2 **(Fre)**

[Site specific difference of PCB concentration in the skin derived sebum and collection of excreted sebum with commercial sebum–remover sheet] Watanabe M, et al. **Fukuoka Igaku Zasshi** 1999 May;90(5):154–6 (Eng. Abstr.) **(Jpn)**

[Collection of samples, their management and examination to identify the causative organisms] Yamaguchi K. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2223–7 (4 ref.) **(Jpn)**

[The stability of the microalbuminuria numbers in relation to their reading time and mode of preservation] González Castro ML, et al. **Aten Primaria** 1999 May 31;23(9):533–6 (Eng. Abstr.) **(Spa)**

STANDARDS

Synovial fluid sampling from the temporomandibular joint: sample quality criteria and levels of interleukin–1 beta and serotonin. Alstergren P, et al. **Acta Odontol Scand** 1999 Feb;57(1):16–22

The incidence and management of failed Pipelle sampling in a general outpatient clinic. Gordon SJ, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):115–8

Specimen adequacy and false–negative diagnosis rate in fine–needle aspirates of palpable breast masses [see comments] Boerner S, et al. **Cancer** 1998 Dec 25; 84(6):344–8. Comment in: Cancer 1998 Dec 25;84(6):319–23.

A safe, simple, standardized method should be used for sputum induction for research purposes [editorial; comment] Fahy JV. **Clin Exp Allergy** 1998 Sep; 28(9):1047–9 (18 ref.). Comment on: Clin Exp Allergy 1998 Sep;28(9):1081–8.

A standardized blood sampling scheme in quantitative FDG–PET studies. Bentourkia M, et al. **IEEE Trans Med Imaging** 1999 May;18(5):379–84

Limitations and requirements for quality control of sputum smear microscopy for acid–fast bacilli. Van Deun A, et al. **Int J Tuberc Lung Dis** 1998 Sep;2(9):756–65

Quality of proof [editorial] Sunshine I. **J Anal Toxicol** 1999 Jul–Aug;23(4):229

The multi–item univariate delta check method: a new approach. Rheem I, et al. **Medinfo** 1998;9 Pt 2:859–63

The autolysed specimen: a novel grading system [letter] Folpe AL. **Mod Pathol** 1999 Apr;12(4):437–8

[Quality assurance and quality development of the patho–anatomical specimens of resected colorectal carcinoma] Holck S, et al. **Ugeskr Laeger** 1999 Aug 2; 161(31):4406–9 **(Dan)**

[Securing evidence after sexual offences is an important task for physicians. Increasing severity of crimes and use of DNA analyses necessitate higher quality standards] Ansell R. **Lakartidningen** 1998 Oct 14;95(42):4626–8, 4630–1 (10 ref.) (Eng. Abstr.) **(Swe)**

VETERINARY

Effect of sampling site, repeated sampling, pH, and PCO2 on plasma lactate concentration in healthy dogs. Hughes D, et al. **Am J Vet Res** 1999 Apr;60(4):521–4

Effects of sample storage and delayed secondary enrichment on detection of Salmonella spp in swine feces. O'Carroll JM, et al. **Am J Vet Res** 1999 Mar;60(3):359–62

Evaluation of the effect of storage at –70 degrees C for six months on hemostatic function testing in dogs. Bateman SW, et al. **Can J Vet Res** 1999 Jul;63(3):216–20

Influence of sampling site on concentrations and carbohydrate–degrading enzyme activities of protozoa and bacteria in the rumen. Martin C, et al. **J Anim Sci** 1999 Apr;77(4):979–87

Accuracy of quantitative collection of urine in carnivores. Wamberg S, et al. **J Nutr** 1998 Dec;128(12 Suppl):2758S–2760S

Effect of compatible solutes and diluent composition on the post–thaw motility of ram sperm. Sánchez–Partida LG, et al. **Reprod Fertil Dev** 1998;10(4):347–57

Assessment of a breath collection technique and portable breath hydrogen monitor for use in cats and dogs. German AJ, et al. **Res Vet Sci** 1998 Sep–Oct;65(2):173–5

Carriage of pathological samples [letter] McKelvey WA. **Vet Rec** 1998 Dec 19–26;143(25):698

SPECT see **TOMOGRAPHY, EMISSION–COMPUTED, SINGLE–PHOTON**

SPECTACLED BEAR see **BEARS**

SPECTACLED PORPOISES see **PORPOISES**

SPECTACLES see **EYEGLASSES**

SPECTINOMYCIN

ANALYSIS

HPLC determination of residues of spectinomycin in various tissue types from husbandry animals. Bergwerff AA, et al. **Analyst** 1998 Oct;123(10):2139–44

Application of microbial receptor assay to quantitation of residues of spectinomycin in bovine milk and comparison with liquid chromatographic analysis. Shaikh B, et al. **J AOAC Int** 1999 Jul–Aug;82(4):1002–5

Confirmation of spectinomycin in milk using ion–pair solid–phase extraction and liquid chromatography–electrospray ion trap mass spectrometry. Carson MC, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):95–102

METABOLISM

The Escherichia coli cmlA gene encodes the multidrug efflux pump Cmr/MdfA and is responsible for isopropyl–beta–D–thiogalactopyranoside exclusion and spectinomycin sensitivity. Bohn C, et al. **J Bacteriol** 1998 Nov;180(22):6072–5

PHARMACOLOGY

In vitro and in vivo comparisons of valnemulin, tiamulin, tylosin, enrofloxacin, and lincomycin/spectinomycin against Mycoplasma gallisepticum. Jordan FT, et al. **Avian Dis** 1998 Oct–Dec;42(4):738–45

The aadA gene of plasmid R100 confers resistance to spectinomycin and streptomycin in Myxococcus xanthus. Magrini V, et al. **J Bacteriol** 1998 Dec;180(24):6757–60

Effects of tetracycline and spectinomycin on the tertiary structure of ribosomal RNA in the Escherichia coli 30 S ribosomal subunit. Noah JW, et al. **J Biol Chem** 1999 Jun 4;274(23):16576–81

THERAPEUTIC USE

Efficacy of a single dose of oral antibiotic given within two hours of birth in preventing watery mouth disease and illthrift in colostrum–deficient lambs. Hodgson JC, et al. **Vet Rec** 1999 Jul 17;145(3):67–71

SPECTRIN

ANALYSIS

Association of spectrin with a subcompartment of the endoplasmic reticulum in honeybee photoreceptor cells. Baumann O. **Cell Motil Cytoskeleton** 1998;41(1):74–86

CHEMISTRY

Ionic strength effect on the thermal unfolding of alpha–spectrin peptides. Lusitani D, et al. **Biochemistry** 1998 Nov 24;37(47):16546–54

Thermodynamic analysis of alpha–spectrin SH3 and two of its circular permutants with different loop lengths: discerning the reasons for rapid folding in proteins. Martinez JC, et al. **Biochemistry** 1999 Jan 12;38(2):549–59

The native state conformational ensemble of the SH3 domain from alpha–spectrin. Sadqi M, et al. **Biochemistry** 1999 Jul 13;38(28):8899–906

Electric birefringence of recombinant spectrin segments 14, 14–15, 14–16, and 14–17 from Drosophila alpha–spectrin. Bjørkøy A, et al. **Biochim Biophys Acta** 1999 Mar 19; 1430(2):323–40

Rapid diffusion of spectrin bound to a lipid surface. O'Toole PJ, et al. **Biochim Biophys Acta** 1999 Jun 9;1419(1):64–70

Structures of two repeats of spectrin suggest models of flexibility. Grum VL, et al. **Cell** 1999 Aug 20;98(4):523–35

Transient electric birefringence of human erythroid spectrin dimers and tetramers at ionic strengths of 4 mM and 53 mM. Bjørkøy A, et al. **Eur Biophys J** 1999;28(4):269–78

Properties of normal and mutant polypeptide fragments from the dimer self–association sites of human red cell spectrin. Lecomte MC, et al. **Eur Biophys J** 1999;28(3):208–15

Interaction of the DNA–binding antitumor antibiotics, chromomycin and mithramycin with erythroid spectrin. Majee S, et al. **Eur J Biochem** 1999 Mar;260(3):619–26

High populations of non–native structures in the denatured state are compatible with the formation of the native folded state. Blanco FJ, et al. **J Mol Biol** 1998 Dec 11; 284(4):1153–64

Exploring the conformational properties of the sequence space between two proteins with different folds: an experimental study. Blanco FJ, et al. **J Mol Biol** 1999 Jan 15;285(2):741–53

Single molecule force spectroscopy of spectrin repeats: low unfolding forces in helix bundles. Rief M, et al. **J Mol Biol** 1999 Feb 19;286(2):553–61

DEFICIENCY

Hematopoietic cells from –spectrin–deficient mice are sufficient to induce thrombotic events in hematopoietically ablated recipients. Wandersee NJ, et al. **Blood** 1998 Dec 15;92(12):4856–63

[Hereditary spherocytosis: one year study of erythrocyte membrane proteins] Tshilolo L, et al. **Rev Med Brux** 1998 Oct;19(5 Pt 1):417–23 (Eng. Abstr.) **(Fre)**

GENETICS

Thermodynamic analysis of alpha–spectrin SH3 and two of its circular permutants with different loop lengths: discerning the reasons for rapid folding in proteins. Martinez JC, et al. **Biochemistry** 1999 Jan 12;38(2):549–59

Genetic studies of spectrin: new life for a ghost protein. Dubreuil RR, et al. **Bioessays** 1998 Nov;20(11):875–8 (25 ref.)

Coinheritance of alpha–and beta–spectrin gene mutations in a case of hereditary elliptocytosis [letter] Dhermy D, et al. **Blood** 1998 Dec 1;92(11):4481–2

cDNA sequence of the human erythroid alpha–spectrin: identification of a base deletion in the sequence database [letter] Galluzzi L, et al. **Blood** 1999 Apr 1;93(7):2421–2

Hereditary spherocytosis with spectrin deficiency related to null mutations of the beta–spectrin gene. Dhermy D, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):251–61

Hematologically important mutations: spectrin and ankyrin variants in hereditary spherocytosis. Gallagher PG, et al. **Blood Cells Mol Dis** 1998 Dec;24(4):539–43 (48 ref.)

The frequency of allele alpha(LELY), a low expression allele of the gene encoding erythroid spectrin alpha-chain, in the Greek population [letter] Papassideri I, et al. **Haematologica** 1999 Aug;84(8):754–5

A human beta-spectrin gene promoter directs high level expression in erythroid but not muscle or neural cells. Gallagher PG, et al. **J Biol Chem** 1999 Mar 5; 274(10):6062–73

Substitution of the human beta-spectrin promoter for the human agamma-globin promoter prevents silencing of a linked human beta-globin gene in transgenic mice. Sabatino DE, et al. **Mol Cell Biol** 1998 Nov;18(11):6634–40

Elf3 encodes a novel 200-kD beta-spectrin: role in liver development. Mishra L, et al. **Oncogene** 1999 Jan 14; 18(2):353–64

A widely expressed betaIII spectrin associated with Golgi and cytoplasmic vesicles. Stankewich MC, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14158–63

[Hereditary spherocytosis: one year study of erythrocyte membrane proteins] Tshilolo L, et al. **Rev Med Brux** 1998 Oct;19(5 Pt 1):417–23 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Accelerated elimination from the circulation of homologous aged red blood cells in rats bearing anti-spectrin antibodies. Graldi G, et al. **Mech Ageing Dev** 1999 Feb 1;107(1):21–36

METABOLISM

Ultrastructural localization of alpha-, beta- and gamma-sarcoglycan and their mutual relation, and their relation to dystrophin, beta-dystroglycan and beta-spectrin in normal skeletal myofiber. Wakayama Y, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):288–96

Engagement of spectrin and actin in capping of FcgammaRII revealed by studies on permeabilized U937 cells. Kwiatkowska K, et al. **Biochem Biophys Res Commun** 1999 Jun 7;259(2):287–93

The role of ankyrin and spectrin in membrane transport and domain formation. De Matteis MA, et al. **Curr Opin Cell Biol** 1998 Aug;10(4):542–9 (51 ref.)

Alteration of alpha-spectrin ubiquitination due to age-dependent changes in the erythrocyte membrane. Corsi D, et al. **Eur J Biochem** 1999 May;261(3):775–83

Characterization of NF-L and betaIISigma1-spectrin interaction in live cells. Macioce P, et al. **Exp Cell Res** 1999 Jul 10;250(1):142–54

Calpain-induced proteolysis of beta-spectrins. Löfvenberg L, et al. **FEBS Lett** 1999 Jan 25;443(2):89–92

Ultrastructural localisation of spectrin in sensory and supporting cells of guinea-pig organ of Corti. Mahendrasingam S, et al. **Hear Res** 1998 Dec; 126(1-2):151–60

Interactions of the alpha-spectrin N-terminal region with beta-spectrin. Implications for the spectrin tetramerization reaction. Cherry L, et al. **J Biol Chem** 1999 Jan 22; 274(4):2077–84

Association of the epithelial sodium channel with Apx and alpha-spectrin in A6 renal epithelial cells. Zuckerman JB, et al. **J Biol Chem** 1999 Aug 13;274(33):23286–95

Spectrin localization in osteoclasts: immunocytochemistry, cloning, and partial sequencing. Hunter SJ, et al. **J Cell Biochem** 1998 Nov 1;71(2):204–15

Apical spectrin is essential for epithelial morphogenesis but not apicobasal polarity in Drosophila. Zarnescu DC, et al. **J Cell Biol** 1999 Sep 6;146(5):1075–86

Effect of fever-like whole-body hyperthermia on lymphocyte spectrin distribution, protein kinase C activity, and uropod formation. Wang XY, et al. **J Immunol** 1999 Mar 15;162(6):3378–87

Brain beta-spectrin phosphorylation: phosphate analysis and identification of threonine-347 as a heparin-sensitive protein kinase phosphorylation site. Sihag RK. **J Neurochem** 1998 Nov;71(5):2220–8

The role of calpain-mediated spectrin proteolysis in traumatically induced axonal injury. Büki A, et al. **J Neuropathol Exp Neurol** 1999 Apr;58(4):365–75

Generation of spectrin breakdown products in peripheral nerves by addition of M-calpain. Castejon MS, et al. **Muscle Nerve** 1999 Jul;22(7):905–9

Regional calpain and caspase-3 proteolysis of alpha-spectrin after traumatic brain injury. Pike BR, et al. **Neuroreport** 1998 Aug 3;9(11):2437–42

PHARMACOLOGY

Multilamellar vesicular clusters of phosphatidylcholine and their sensitivity to spectrin: a study by fractal analysis. Lahiri T, et al. **J Struct Biol** 1998 Nov;123(3):179–86

PHYSIOLOGY

A spectrin membrane skeleton of the Golgi complex. Beck KA, et al. **Biochim Biophys Acta** 1998 Aug 14; 1404(1-2):153–60 (43 ref.)

SPECTROFLUOROMETRY see SPECTROMETRY, FLUORESCENCE

SPECTROMETRY, FLUORESCENCE

Noninvasive diagnosis of oral neoplasia based on fluorescence spectroscopy and native tissue autofluorescence. Gillenwater A, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov;124(11):1251–8

New method for detection of heart allograft rejection: validation of sensitivity and reliability in a rat heterotopic allograft model. Morgan DC, et al. **Circulation** 1999 Sep 14;100(11):1236–41

Single molecule detection and ultrasensitive analysis in life sciences. Proceedings of a workshop. Berlin, Germany, 30 September-2 October 1998. **Cytometry** 1999 Jul 1; 36(3):162–264

Application of fluorescence resonance energy transfer in the clinical laboratory: routine and research. Szöllosi J, et al. **Cytometry** 1998 Aug 15;34(4):159–79 (132 ref.)

Fluorescence spectroscopy: a technique with potential to improve the early detection of aerodigestive tract neoplasia. Gillenwater A, et al. **Head Neck** 1998 Sep;20(6):556–62 (23 ref.)

Some aspects of beta-lactoglobulin structural properties in solution studied by fluorescence quenching. Busti P, et al. **Int J Biol Macromol** 1998 Aug;23(2):143–8

Role of basement membrane collagen and elastin in the autofluorescence spectra of the colon. Banerjee B, et al. **J Investig Med** 1999 Jul;47(6):326–32

Instrumentation for the diagnosis of term and preterm labour. Garfield RE, et al. **J Perinat Med** 1998;26(6):413–36 (128 ref.)

Fluorescence spectroscopy of the cervix: influence of acetic acid, cervical mucus, and vaginal medications. Agrawal A, et al. **Lasers Surg Med** 1999;25(3):237–49

Cervical fluorescence of normal women. Brookner CK, et al. **Lasers Surg Med** 1999;24(1):29–37

Multiphoton excitation microscopy, confocal microscopy, and spectroscopy of living cells and tissues; functional metabolic imaging of human skin in vivo. Masters BR, et al. **Methods Enzymol** 1999;307:513–36

Fluorescence spectroscopy for diagnosis of squamous intraepithelial lesions of the cervix. Mitchell MF, et al. **Obstet Gynecol** 1999 Mar;93(3):462–70 (70 ref.)

Spectrofluorimetric detection of DMBA-induced mouse skin carcinoma. Karthikeyan K, et al. **Pathol Oncol Res** 1999; 5(1):46–8

PCR detection of bacteria in seven minutes. Belgrader P, et al. **Science** 1999 Apr 16;284(5413):449–50

Fluorescence spectroscopy of single biomolecules. Weiss S. **Science** 1999 Mar 12;283(5408):1676–83 (87 ref.)

[Use of two-dimensional fluorescence diagnosis in oncological practice] Vel'sher LZ, et al. **Khirurgiia (Mosk)** 1998;(11):43–5 **(Rus)**

[ANS fluorescence. I. Effect of self-association on the spectral properties of the probe] Uverskiĭ VN. **Tsitologiia** 1999;41(2):173–82 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

A fluorescence plate reader assay for monitoring the susceptibility of biological samples to lipid peroxidation. Tirmenstein MA, et al. **Anal Biochem** 1998 Dec 15; 265(2):246–52

Noninvasive diagnosis of oral neoplasia based on fluorescence spectroscopy and native tissue autofluorescence. Gillenwater A, et al. **Arch Otolaryngol Head Neck Surg** 1998 Nov;124(11):1251–8

Hydrolysis of monodisperse phosphatidylcholines by phospholipase A2 occurs on vessel walls and air bubbles. Yu BZ, et al. **Biochemistry** 1999 Aug 10;38(32):10449–56

Peptidyl chemosensors incorporating a FRET mechanism for detection of Ni(II). Pearce DA, et al. **Bioorg Med Chem Lett** 1998 Aug 4;8(15):1963–8

A new UV-visible confocal laser scanning microspectrofluorometer designed for spectral cellular imaging Favard C, et al. **Biospectroscopy** 1999;5(2):101–15

Fluorescence correlation spectroscopy as a tool to investigate chemical reactions in solutions and on cell surfaces. Widengren J, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Jul;44(5):857–79 (77 ref.)

A complete vision. Imaging Research Inc. Wells WA. **Chem Biol** 1998 Aug;5(8):R205–6

[Validation of a filtration vessel to determine regional blood flow of the heart using fluorescent microspheres] Raab S, et al. **Biomed Tech (Berl)** 1998;43 Suppl:538–9 **(Ger)**

[Validation of a robot for determination of regional perfusion with fluorescent microspheres] Thein E, et al. **Biomed Tech (Berl)** 1998;43 Suppl:536–7 **(Ger)**

METHODS

Comparison of fluorescence, (31)P NMR, and (7)Li NMR spectroscopic methods for investigating Li(+)/Mg(2+) competition for biomolecules. Amari L, et al. **Anal Biochem** 1999 Jul 15;272(1):1–7

Quantitation of methionyl peptides in nanomole quantities by a fluorometric method. Anderson WL, et al. **Anal Biochem** 1978 Dec;91(2):481–9

A continuous fluorescence assay for the study of P-glycoprotein-mediated drug efflux using inside-out membrane vesicles. Bebawy M, et al. **Anal Biochem** 1999 Mar 15;268(2):270–7

New fluorogenic substrates for N-arginine dibasic convertase. Csuhai E, et al. **Anal Biochem** 1999 Apr 10; 269(1):149–54

A fluorescent microplate assay for microcystin-LR. Fontal OI, et al. **Anal Biochem** 1999 May 1;269(2):289–96

Fluorometric determination of aminopolycarboxylates using Fluo-3. Kawasaki N, et al. **Anal Biochem** 1999 Jun 1; 270(2):329–31

Isolation and lipid composition of apical and basolateral membranes of colonic segments of guinea Pig. Meyer zu Düttingdorf H, et al. **Anal Biochem** 1999 Apr 10; 269(1):45–53

A continuous fluorescence assay for tryptophan hydroxylase. Moran GR, et al. **Anal Biochem** 1999 Jan 1;266(1):148–52

Purine nucleoside phosphorylase: its use in a spectroscopic assay for inorganic phosphate and for removing inorganic phosphate with the aid of phosphodeoxyribomutase. Nixon AE, et al. **Anal Biochem** 1998 Dec 15;265(2):299–307

Simultaneous determination of salicylamide and salsalate in serum and urine by first derivative variable-angle synchronous fluorescence spectrometry. Pulgarín JA, et al. **Anal Biochem** 1998 Dec 15;265(2):331–9

A continuous fluorometric assay for leukotriene D4 hydrolase. White IJ, et al. **Anal Biochem** 1999 Mar 15; 268(2):245–51

Determination of nitrite in waters by microplate fluorescence spectroscopy and HPLC with fluorescence detection. Büldt A, et al. **Anal Chem** 1999 Aug 1;71(15):3003–7

Direct, ultrasensitive, and selective optical detection of protein toxins using multivalent interactions. Song X, et al. **Anal Chem** 1999 Jun 1;71(11):2097–107

Imaging epicardial oxygen. Barlow CH, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):76–85

Spectrofluorimetric quantification of malondialdehyde for evaluation of cyclooxygenase-1/thromboxane synthase inhibition. Dannhardt G, et al. **Arch Pharm (Weinheim)** 1998 Nov;331(11):359–64

The incipient stage in thrombin-induced fibrin polymerization detected by FCS at the single molecule level. Bark N, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):35–41

Agonist binding and affinity state transitions in reconstituted nicotinic acetylcholine receptors revealed by single and sequential mixing stopped-flow fluorescence spectroscopies. Raines DE, et al. **Biochim Biophys Acta** 1998 Sep 23;1374(1-2):83–93

A fluorometric assay for glycosyltransferase activities using sugars aminated and tagged with 7-hydroxycoumarin-3-carboxylic acid as substrates and high performance liquid chromatography. Higai K, et al. **Biol Pharm Bull** 1999 Apr;22(4):333–8

Determination of 4-hydroxy-2-nonenal in primary rat hepatocyte cultures by liquid chromatography with laser induced fluorescence detection. Liu YM, et al. **Biomed Chromatogr** 1999 Feb;13(1):75–80

The photon counting histogram in fluorescence fluctuation spectroscopy. Chen Y, et al. **Biophys J** 1999 Jul; 77(1):553–67

Image correlation spectroscopy. II. Optimization for ultrasensitive detection of preexisting platelet-derived growth factor-beta receptor oligomers on intact cells. Wiseman PW, et al. **Biophys J** 1999 Feb;76(2):963–77

A new UV-visible confocal laser scanning microspectrofluorometer designed for spectral cellular imaging. Favard C, et al. **Biospectroscopy** 1999;5(2):101–15

A dual-probe fluorescence method to examine selective perturbations of membrane permeability by melittin. El Jastimi R, et al. **Biospectroscopy** 1999;5(3):133–40

Surface-enhanced Raman scattering and fluorescence spectroscopy reveal molecular interactions of all-trans retinoic acid and RAR gamma ligand-binding domain. Morjani H, et al. **Biospectroscopy** 1998;4(5):297–302

Fluorescence and surface-enhanced Raman study of 9-aminoacridine in relation to its aggregation and excimer emission in aqueous solution and on silver surface. Murza A, et al. **Biospectroscopy** 1998;4(5):327–39

Detection of asymmetric PCR products in homogeneous solution by fluorescence correlation spectroscopy. Kinjo M. **Biotechniques** 1998 Oct;25(4):706–12, 714–5

Seven-color, homogeneous detection of six PCR products. Lee LG, et al. **Biotechniques** 1999 Aug;27(2):342–9

Rapid measurements of intracellular calcium using a fluorescence plate reader. Lin K, et al. **Biotechniques** 1999 Feb;26(2):318–22, 324–6

Multiprobe fluorescence imaging and microspectrofluorimetry of cell transformation and differentiation: implications in terms of applied biochemistry and biotechnology. Kohen E, et al. **Biotechnol Appl Biochem** 1999 Jun;29 (Pt 3):191–205

Uptake of reconstituted Na,K-ATPase vesicles by isolated lymphocytes measured by FACS, confocal microscopy and spectrofluorometry. Anner BM, et al. **Cell Biochem Biophys** 1999;30(3):437–54

Neuronal free calcium measurement using BTC/AM, a low affinity calcium indicator. Hyrc KL, et al. **Cell Calcium** 1998 Sep;24(3):165–75

Fluorescence correlation microscopy (FCM)-fluorescence correlation spectroscopy (FCS) taken into the cell. Brock R, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Jul; 44(5):847–56

Laser-induced autofluorescence spectroscopy of dental caries. König K, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Dec;44(8):1293–300

New time-resolved techniques in two-photon microscopy. So PT, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Jul; 44(5):771–93 (85 ref.)

Fluorescence correlation spectroscopy as a tool to investigate chemical reactions in solutions and on cell surfaces.

Widengren J, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Jul;44(5):857-79 (77 ref.)

A fluorescence method for the determination of plasma susceptibility to lipid peroxidation. Cervato G, et al. **Clin Biochem** 1999 Apr;32(3):171-7

Theoretical investigation of aspects of single-molecule fluorescence detection in microcapillaries. Enderlein J. **Cytometry** 1999 Jul 1;36(3):195-9

Fluorescence correlation spectroscopy with single-molecule sensitivity on cell and model membranes. Schwille P, et al. **Cytometry** 1999 Jul 1;36(3):176-82

Multiplexed short tandem repeat polymorphisms of the Weber 8A set of markers using tailed primers and infrared fluorescence detection. Oetting WS, et al. **Electrophoresis** 1998 Dec;19(18):3079-83

Application of fluorescence resonance energy transfer techniques to the study of lectin-binding site distribution on Paramecium primaurelia (Protista, Ciliophora) cell surface. Locatelli D, et al. **Eur J Histochem** 1998; 42(3):205-12

A high-sensitive spectrofluorimetric method for the determination of micromolar concentrations of iron(III) in bovine liver with 4-hydroxyquinoline. Ragos GC, et al. **Farmaco** 1998 Aug-Sep;53(8-9):611-6

Undercarboxylation of recombinant prothrombin revealed by analysis of gamma-carboxyglutamic acid using capillary electrophoresis and laser-induced fluorescence. Vo HC, et al. **FEBS Lett** 1999 Feb 26;445(2-3):256-60

Colonic polyp differentiation using time-resolved autofluorescence spectroscopy. Mycek MA, et al. **Gastrointest Endosc** 1998 Oct;48(4):390-4

Microscopical and spectroscopic studies on the fluorescence of a daunomycin-aluminum complex. Juarranz A, et al. **Histochem J** 1999 Mar;31(3):201-7

Checking the integrity of albumin after pasteurisation: a fluorescent assay for quantitating monomeric albumin using anthroyloxy-fatty acids analogs. Gallez B, et al. **J Biochem Biophys Methods** 1998 Sep 24;37(1-2):5-9

Quantitation of homocysteine in human plasma by capillary electrophoresis and laser-induced fluorescence detection. Caussé E, et al. **J Chromatogr A** 1998 Aug 21; 817(1-2):181-5

False-positive fluorescence by pink salmon tissue and staphylococci in a rapid test for Escherichia coli. Himelbloom BH, et al. **J Food Prot** 1998 Sep;61(9):1119-23

Internally quenched fluorogenic substrates for angiotensin I-converting enzyme. Araujo MC, et al. **J Hypertens** 1999 May;17(5):665-72

Endogenous skin fluorescence includes bands that may serve as quantitative markers of aging and photoaging. Kollias N, et al. **J Invest Dermatol** 1998 Nov;111(5):776-80

Electrogenic partial reactions of the SR-Ca-ATPase investigated by a fluorescence method. Butscher C, et al. **J Membr Biol** 1999 Mar 15;168(2):169-81

Determination of the affinity of drugs toward serum albumin by measurement of the quenching of the intrinsic tryptophan fluorescence of the protein. Epps DE, et al. **J Pharm Pharmacol** 1999 Jan;51(1):41-8

Fluorescence and quenching comparative studies of halophilic and bovine glutamate dehydrogenase. Ferrer J, et al. **J Photochem Photobiol B** 1998 Dec;47(2-3):148-54

Effect of liquid-nitrogen and formalin-based conservation in the in vitro measurement of laser-induced fluorescence from peripheral vascular tissue. Filippidis G, et al. **J Photochem Photobiol B** 1998 Dec;47(2-3):109-14

The sequential mechanism of guanidine hydrochloride-induced denaturation of cAMP receptor protein from Escherichia coli. A fluorescent study using 8-anilino-1-naphthalenesulfonic acid. Malecki J, et al. **J Protein Chem** 1998 Nov;17(8):745-55

Fluorescent determination of chloride in nanoliter samples. Garcia NH, et al. **Kidney Int** 1999 Jan;55(1):321-5

Trace determination of hydroxyl radical using fluorescence detection. Li B, et al. **Methods Enzymol** 1999;300:202-16

Fluorescence-based expression monitoring using microarrays. Winzeler EA, et al. **Methods Enzymol** 1999; 306:3-18 (25 ref.)

Reduced glutathione and glutathione disulfide. Browne RW, et al. **Methods Mol Biol** 1998;108:347-52

In vivo technique for autofluorescent lipopigments. Delori FC, et al. **Methods Mol Biol** 1998;108:229-43

A fluorescent-based assay for measurement of phospholipase A2 activity. A facile assay for cell sonicates. Nicotera TM, et al. **Methods Mol Biol** 1998;108:211-6

Autofluorescent ceroid/lipofuscin. Yin D, et al. **Methods Mol Biol** 1998;108:217-27

Probing the interaction of thyroglobulin with metal ions by terbium(III) luminescence spectroscopy. Gentile F, et al. **Mol Cell Endocrinol** 1998 Jun 25;141(1-2):21-7

Nuclear receptors have distinct affinities for coactivators: characterization by fluorescence resonance energy transfer. Zhou G, et al. **Mol Endocrinol** 1998 Oct;12(10):1594-604

Visualizing gallstone formation [news] Fricker J. **Mol Med Today** 1999 Mar;5(3):96

Diagnosis of oral cancer by light-induced autofluorescence spectroscopy using double excitation wavelengths. Wang CY, et al. **Oral Oncol** 1999 Mar;35(2):144-50

Near-infrared fluorescence spectroscopy detects Alzheimer's disease in vitro. Hanlon EB, et al. **Photochem Photobiol** 1999 Aug;70(2):236-42

In vivo fluorescence spectroscopy and imaging for oncological applications. Wagnières GA, et al. **Photochem Photobiol** 1998 Nov;68(5):603-32 (400 ref.)

Single-pair fluorescence resonance energy transfer on freely diffusing molecules: observation of Förster distance dependence and subpopulations. Deniz AA, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):3670-5

A bioluminescence resonance energy transfer (BRET) system: application to interacting circadian clock proteins. Xu Y, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5; 96(1):151-6

Nucleotide binding to the G12V-mutant of Cdc42 investigated by X-ray diffraction and fluorescence spectroscopy: two different nucleotide states in one crystal. Rudolph MG, et al. **Protein Sci** 1999 Apr;8(4):778-87

Structural and dynamic aspects of beta-glycosidase from mesophilic and thermophilic bacteria by multityrptophanyl emission decay studies. Bismuto E, et al. **Proteins** 1999 May 1;35(2):163-72

Fluorescence imaging and spectroscopy of biomaterials in air and liquid by scanning near-field optical/atomic force microscopy. Muramatsu H, et al. **Scanning Microsc** 1996; 10(4):975-82

Spectrofluorometric determination of DNA and RNA with berberine [letter] Gong GQ, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1999 Aug; 55A(9):1903-7

Study on a fluorescence-enhanced system of 1,2,4-trihydroxyanthroquinone-Be(2+)-DNA. Yang J, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Oct; 54A(12):2019-24

Using GFP in FRET-based applications. Pollok BA, et al. **Trends Cell Biol** 1999 Feb;9(2):57-60 (14 ref.)

[Single molecule detection using fluorescence correlation spectroscopy] Kinjo M. **Tanpakushitsu Kakusan Koso** 1999 Jul;44(9):1431-8 (39 ref.) **(Jpn)**

STATISTICS & NUMERICAL DATA

Resolution of fluorescence correlation measurements. Meseth U, et al. **Biophys J** 1999 Mar;76(3):1619-31

SPECTROMETRY, GAMMA

Neanderthal skeleton from Tabun: U-series data by gamma-ray spectrometry. Schwarcz HP, et al. **J Hum Evol** 1998 Dec;35(6):635-45

METHODS

In situ gamma-spectrometry several years after deposition of radiocesium. II. Peak-to-valley method. Gering F, et al. **Radiat Environ Biophys** 1998 Dec;37(4):283-91

SPECTROMETRY, MASS see **SPECTRUM ANALYSIS, MASS**

SPECTROMETRY, MASS, FAST ATOM BOMBARDMENT

Transient and stable transfection of Leishmania by particle bombardment. Sbicego S, et al. **Mol Biochem Parasitol** 1998 Jul 1;94(1):123-6

Postionization of molecules desorbed from surfaces by keV Ion bombardment with femtosecond laser pulses. Willey KF, et al. **Rapid Commun Mass Spectrom** 1998; 12(18):1253-60

INSTRUMENTATION

Laser desorption fast gas chromatography-mass spectrometry in supersonic molecular beams. Shahar T, et al. **J Am Soc Mass Spectrom** 1998 Jun;9(6):628-37

METHODS

On-line solid-phase extraction liquid chromatography-continuous flow frit fast atom bombardment mass spectrometric and tandem mass spectrometric determination of hydrolysis products of nerve agents alkyl methylphosphonic acids by p-bromophenacyl derivatization. Katagi M, et al. **J Chromatogr A** 1999 Feb 19;833(2):169-79

Determination of Aconitum alkaloids in blood and urine samples. II. Capillary liquid chromatographic-frit fast atom bombardment mass spectrometric analysis. Ohta H, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):215-21

Detection and identification of morphine in urine extracts using thin-layer chromatography and tandem mass spectrometry. Tames F, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):341-6

alpha-d-glucopyranosyl-, d-alanyl- and l-lysylcardiolipin from gram-positive bacteria: analysis by fast atom bombardment mass spectrometry. Peter-Katalinic J, et al. **J Lipid Res** 1998 Nov;39(11):2286-92

Precolumn derivatization and capillary liquid chromatographic/frit-fast atom bombardment mass spectrometric analysis of cytokinins in Arabidopsis thaliana. Astot C, et al. **J Mass Spectrom** 1998 Sep;33(9):892-902

SPECTROMETRY, MASS-GAS CHROMATOGRAPHY see **MASS FRAGMENTOGRAPHY**

SPECTROMETRY, MASS, MATRIX-ASSISTED LASER DESORPTION-IONIZATION

Studies of peptide binding to allyl amine and vinyl acetic acid-modified polymers using matrix-assisted laser desorption/ionization mass spectrometry. Walker AK, et al. **Anal Biochem** 1999 Jul 1;271(2):123-30

Monitoring the growth of a bacteria culture by MALDI-MS of whole cells. Arnold RJ, et al. **Anal Chem** 1999 May 15;71(10):1990-6

Effects of protein-surface interactions on protein ion signals in MALDI mass spectrometry. Walker AK, et al. **Anal Chem** 1999 Jan 1;71(1):268-72

Matrix-assisted laser desorption/ionization mass spectrometry of neutral and acidic oligosaccharides with collision-induced dissociation. Mechref Y, et al. **Carbohydr Res** 1998 Dec 15;313(3-4):145-55

Structural determination of N-linked carbohydrates by matrix-assisted laser desorption/ionization-mass spectrometry following enzymatic release within sodium dodecyl sulphate-polyacrylamide electrophoresis gels: application to species-specific glycosylation of alpha1-acid glycoprotein. Küster B, et al. **Electrophoresis** 1998 Aug; 19(11):1950-9

Identification of yeast proteins from two-dimensional gels: working out spot cross-contamination. Parker KC, et al. **Electrophoresis** 1998 Aug;19(11):1920-32

The Australian Proteome Analysis Facility (APAF): assembling large scale proteomics through integration and automation. Walsh BJ, et al. **Electrophoresis** 1998 Aug; 19(11):1883-90 (31 ref.)

Application of capillary electrophoresis, liquid chromatography, electrospray-mass spectrometry and matrix-assisted laser desorption/ionization - time of flight - mass spectrometry to the characterization of recombinant human erythropoietin. Zhou GH, et al. **Electrophoresis** 1998 Oct;19(13):2348-55

Peptide and protein identification by matrix-assisted laser desorption ionization (MALDI) and MALDI-post-source decay time-of-flight mass spectrometry. Chaurand P, et al. **J Am Soc Mass Spectrom** 1999 Feb;10(2):91-103 (67 ref.)

Do charge-remote fragmentations occur under matrix-assisted laser desorption ionization post-source decompositions and matrix-assisted laser desorption ionization collisionally activated decompositions? Domingues MR, et al. **J Am Soc Mass Spectrom** 1999 Mar; 10(3):217-23

Glycoalkaloid concentration in Alberta potatoes determined by matrix-assisted laser desorption/ionization mass spectrometry. Driedger DR, et al. **J AOAC Int** 1999 Jul-Aug;82(4):908-14

Evaluation of bumetanide as a matrix for prompt fragmentation matrix-assisted laser desorption/ionization and demonstration of prompt fragmentation/post-source decay matrix-assisted laser desorption/ionization mass spectrometry. Lavine G, et al. **J Mass Spectrom** 1999 Jul; 34(7):741-8

Differential display of peptides induced during the immune response of Drosophila: a matrix-assisted laser desorption ionization time-of-flight mass spectrometry study. Bulet P, et al. **J Protein Chem** 1998 Aug;17(6):528-9

Contribution of mass spectrometry to contemporary immunology. de Jong A. **Mass Spectrom Rev** 1998 Sep-Oct;17(5):311-35 (127 ref.)

Differential display of peptides induced during the immune response of Drosophila: a matrix-assisted laser desorption ionization time-of-flight mass spectrometry study. Uttenweiler-Joseph S, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11342-7

Mass spectrometric identification and microcharacterization of proteins from electrophoretic gels: strategies and applications. Jensen ON, et al. **Proteins** 1998;Suppl 2:74-89

Rapid identification and screening of proteins from whole cell lysates of human erythroleukemia cells in the liquid phase, using non-porous reversed phase high-performance liquid chromatography separations of proteins followed by matrix-assisted [correction of multi-assisted] laser desorption/ionization mass spectrometry analysis and sequence database searching. Chen Y, et al. **Rapid Commun Mass Spectrom** 1998;12(24):1994-2003

[Laser mass spectrometric analysis of biomedical samples using basic and second harmonics of yttrium-aluminum-garnet laser] Leonov BI, et al. **Med Tekh** 1999 Jan-Feb;(1):22-5 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

A peptide concentration and purification method for protein characterization in the subpicomole range using matrix assisted laser desorption/ionization-postsource decay (MALDI-PSD) sequencing. Gevaert K, et al. **Electrophoresis** 1998 May;19(6):909-17

A high resolving power ion selector for post-source decay measurements in a reflecting time-of-flight mass spectrometer. Piyadasa CK, et al. **Rapid Commun Mass Spectrom** 1998;12(22):1655-64

METHODS

Matrix-assisted laser desorption ionization time-of-flight

mass spectrometric analysis of glycosphingolipids including gangliosides. Taketomi T, et al. **Acta Biochim Pol** 1998; 45(4):987–99

Protein sequencing by matrix-assisted laser desorption ionization-postsource decay-mass spectrometry analysis of the N-Tris(2,4,6-trimethoxyphenyl)phosphine-acetylated tryptic digests. Huang ZH, et al. **Anal Biochem** 1999 Mar 15;268(2):305–17

Matrix-assisted laser desorption ionization mass spectrometry: a new tool for probing interactions between proteins and metal surfaces. Use in dental implantology. Leize EM, et al. **Anal Biochem** 1999 Jul 15;272(1):19–25

Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for identifying the composition of labeled proteins. Lu J, et al. **Anal Biochem** 1999 May 1; 269(2):312–6

Protein identification on two-dimensional gels archived nearly two decades ago by in-gel digestion and matrix-assisted laser desorption ionization time-of-flight mass spectrometry. Matsumoto H, et al. **Anal Biochem** 1999 May 15;270(1):176–9

Peptide mapping and disulfide bond analysis of myeloid progenitor inhibitory chemokine and keratinocyte growth factor by matrix-assisted laser desorption ionization mass spectrometry. Navale V, et al. **Anal Biochem** 1999 Feb 1; 267(1):125–34

Lipid analysis by matrix-assisted laser desorption and ionization mass spectrometry: A methodological approach. Schiller J, et al. **Anal Biochem** 1999 Feb 1;267(1):46–56

Coupling capillary high-performance liquid chromatography to matrix-assisted laser desorption/ionization mass spectrometry and N-terminal sequencing of peptides via automated microblotting onto membrane substrates. Stevenson TI, et al. **Anal Biochem** 1998 Sep 10; 262(2):99–109

Helicobacter pylori biomarkers [news] **Anal Chem** 1999 Aug 1;71(15):512A

Enhanced detection of oligonucleotides in UV MALDI MS using the tetraamine spermine as a matrix additive. Asara JM, et al. **Anal Chem** 1999 Jul 15;71(14):2866–70

Conformational stability of adsorbed insulin studied with mass spectrometry and hydrogen exchange. Buijs J, et al. **Anal Chem** 1999 Aug 1;71(15):3219–25

Stable-isotope-assisted MALDI-TOF mass spectrometry for accurate determination of nucleotide compositions of PCR products. Chen X, et al. **Anal Chem** 1999 Aug 1; 71(15):3118–25

Investigation of the potential of capillary electrophoresis with off-line matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for clinical analysis: examination of a glycoprotein factor associated with cancer cachexia. Choudhary G, et al. **Anal Chem** 1999 Feb 15; 71(4):855–9

Role of accurate mass measurement (+/- 10 ppm) in protein identification strategies employing MS or MS/MS and database searching. Clauser KR, et al. **Anal Chem** 1999 Jul 15;71(14):2871–82

Analysis of phospho- and glycopolypeptides with infrared matrix-assisted laser desorption and ionization. Cramer R, et al. **Anal Chem** 1998 Dec 1;70(23):4939–44

Characterization of proteins from human cerebrospinal fluid by a combination of preparative two-dimensional liquid-phase electrophoresis and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Davidsson P, et al. **Anal Chem** 1999 Feb 1;71(3):642–7

Microorganism identification by mass spectrometry and protein database searches. Demirev PA, et al. **Anal Chem** 1999 Jul 15;71(14):2732–8

Coupling 2D SDS-PAGE with CNBr cleavage and MALDI-TOFMS: a strategy applied to the identification of proteins induced by a hypochlorous acid stress in Escherichia coli. Dukan S, et al. **Anal Chem** 1998 Oct 15; 70(20):4433–40

Effects of the water content in the sample preparation for MALDI on the mass spectra. Figueroa ID, et al. **Anal Chem** 1998 Nov 1;70(21):4527–33

Analysis of high-molecular-weight oligosaccharides from human milk by liquid chromatography and MALDI-MS. Finke B, et al. **Anal Chem** 1999 Sep 1;71(17):3755–62

Structural analysis of glycoconjugates by on-target enzymatic digestion and MALDI-TOF-MS. Geyer H, et al. **Anal Chem** 1999 Jan 15;71(2):476–82

Identification of bacterial proteins observed in MALDI TOF mass spectra from whole cells. Holland RD, et al. **Anal Chem** 1999 Aug 1;71(15):3226–30

Toward a simple, expedient, and complete analysis of human hemoglobin by MALDI-TOFMS. Houston CT, et al. **Anal Chem** 1999 Aug 15;71(16):3397–404

Use of poly(tetrafluoroethylene)s as a sample support for the MALDI-TOF analysis of DNA and proteins. Hung KC, et al. **Anal Chem** 1999 Jan 15;71(2):518–21

Negative ion postsource decay time-of-flight mass spectrometry of peptides containing acidic amino acid residues. Jai-nhuknan J, et al. **Anal Chem** 1998 Dec 15; 70(24):5122–8

Applications of in-source fragmentation of protein ions for direct sequence analysis by delayed extraction MALDI-TOF mass spectrometry. Katta V, et al. **Anal Chem** 1998 Oct 15;70(20):4410–6

Direct identification of protein epitopes by mass spectrometry without immobilization of antibody and isolation of antibody-peptide complexes. Kiselar JG, et al. **Anal Chem** 1999 May 1;71(9):1792–801

Characterization of hemoglobin variants by MALDI-TOF MS using a polyurethane membrane as the sample support. McComb ME, et al. **Anal Chem** 1998 Dec 15;70(24):5142–9

Measurement of amide hydrogen exchange by MALDI-TOF mass spectrometry. Mandell JG, et al. **Anal Chem** 1998 Oct 1;70(19):3987–95

Structural analysis of oligosaccharides derivatized with 4-aminobenzoic acid 2-(diethylamino)ethyl ester by matrix-assisted laser desorption/ionization mass spectrometry. Mo W, et al. **Anal Chem** 1998 Nov 1; 70(21):4520–6

On-line MALDI-TOF MS using a continuous vacuum deposition interface. Preisler J, et al. **Anal Chem** 1998 Dec 15;70(24):5278–87

IR-MALDI-mass analysis of electroblotted proteins directly from the membrane: comparison of different membranes, application to on-membrane digestion, and protein identification by database searching. Schleuder D, et al. **Anal Chem** 1999 Aug 1;71(15):3238–47

Rapid profiling of induced proteins in bacteria using MALDI-TOF mass spectrometric detection of nonporous RP HPLC-separated whole cell lysates. Wall DB, et al. **Anal Chem** 1999 Sep 1;71(17):3894–900

A general method for producing bioaffinity MALDI probes. Wang H, et al. **Anal Chem** 1999 May 15;71(10):2014–20

Nanoliter chemistry combined with mass spectrometry for peptide mapping of proteins from single mammalian cell lysates. Whittal RM, et al. **Anal Chem** 1998 Dec 15; 70(24):5344–7

Direct analysis and identification of Helicobacter and Campylobacter species by MALDI-TOF mass spectrometry. Winkler MA, et al. **Anal Chem** 1999 Aug 15;71(16):3416–9

Characterization of microdialysis acidification for capillary isoelectric focusing-microelectrospray ionization mass spectrometry. Yang L, et al. **Anal Chem** 1998 Dec 1; 70(23):4945–50

Study of enzyme-catalysed polymerization of lactic acid by HPLC and MALDI-MS. Szakács-Schmidt A, et al. **Biomed Chromatogr** 1999 May;13(3):252–3

Structural analysis of xyloglucan oligosaccharides by the post-source decay fragmentation method of MALDI-TOF mass spectrometry: influence of the degree of substitution by branched galactose, xylose, and fucose on the fragment ion intensities. Yamagaki T, et al. **Biosci Biotechnol Biochem** 1998 Dec;62(12):2470–5

Evaluation of glycated globins by matrix-assisted laser desorption/ionization mass spectrometry. Lapolla A, et al. **Clin Chem** 1999 Feb;45(2):288–90

Routine identification of proteins from sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) gels or polyvinyl difluoride membranes using matrix assisted laser desorption/ionization-time of flight-mass spectrometry (MALDI-TOF-MS). Fernandez J, et al. **Electrophoresis** 1998 May;19(6):1036–45

Analysis of proteins from membrane-enriched cerebellar preparations by two-dimensional gel electrophoresis and mass spectrometry. Friso G, et al. **Electrophoresis** 1999 Apr-May;20(4-5):917–27

A peptide concentration and purification method for protein characterization in the subpicomole range using matrix assisted laser desorption/ionization-postsource decay (MALDI-PSD) sequencing. Gevaert K, et al. **Electrophoresis** 1998 May;19(6):909–17

Mass spectrometric identification of proteins from silver-stained polyacrylamide gel: a method for the removal of silver ions to enhance sensitivity. Gharahdaghi F, et al. **Electrophoresis** 1999 Mar;20(3):601–5

Suppression effects in enzymatic peptide ladder sequencing using ultraviolet - matrix assisted laser desorption/ionization - mass spectormetry. Kratzer R, et al. **Electrophoresis** 1998 Aug;19(11):1910–9

A two-dimensional electrophoresis database of rat heart proteins. Li XP, et al. **Electrophoresis** 1999 Apr-May; 20(4-5):891–7

High sensitivity mass spectrometric methods for obtaining intact molecular weights from gel-separated proteins. Loo JA, et al. **Electrophoresis** 1999 Apr-May;20(4-5):743–8

Identification of proteins in a human pleural exudate using two-dimensional preparative liquid-phase electrophoresis and matrix-assisted laser desorption/ionization mass spectrometry. Nilsson CL, et al. **Electrophoresis** 1999 Apr-May;20(4-5):860–5

Proteomics and automation. Quadroni M, et al. **Electrophoresis** 1999 Apr-May;20(4-5):664–77 (108 ref.)

Capillary column chromatography improves sample preparation for mass spectrometric analysis: complete characterization of human alpha-enolase from two-dimensional gels following in situ proteolytic digestion. Reid GE, et al. **Electrophoresis** 1998 May; 19(6):946–55

Peptide mass fingerprint sequence coverage from differently stained proteins on two-dimensional electrophoresis patterns by matrix assisted laser desorption/ionization-mass spectrometry (MALDI-MS). Scheler C, et al. **Electrophoresis** 1998 May;19(6):918–27

Mapping and identification of HeLa cell proteins separated by immobilized pH-gradient two-dimensional gel electrophoresis and construction of a two-dimensional polyacrylamide gel electrophoresis database. Shaw AC, et al. **Electrophoresis** 1999 Apr-May;20(4-5):977–83

Mapping and identification of interferon gamma-regulated HeLa cell proteins separated by immobilized pH gradient two-dimensional gel electrophoresis. Shaw AC, et al. **Electrophoresis** 1999 Apr-May;20(4-5):984–93

Towards an automated approach for protein identification in proteome projects. Traini M, et al. **Electrophoresis** 1998 Aug;19(11):1941–9

Method for identification and quantitative analysis of protein lysine methylation using matrix-assisted laser desorption/ionization--time-of-flight mass spectrometry and amino acid analysis. Yan JX, et al. **Electrophoresis** 1999 Apr-May;20(4-5):749–54

Ultramicroanalysis of peptide profiles in biological samples using MALDI mass spectrometry. Jiménez CR, et al. **Exp Nephrol** 1998 Sep-Oct;6(5):421–8 (26 ref.)

Detection of trinucleotide expansion in neurodegenerative disease by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Taranenko NI, et al. **Genet Anal** 1999 Mar;15(1):25–31

Automated mass spectrometry imaging with a matrix-assisted laser desorption ionization time-of-flight instrument. Stoeckli M, et al. **J Am Soc Mass Spectrom** 1999 Jan; 10(1):67–71

Examination of micro-tip reversed-phase liquid chromatographic extraction of peptide pools for mass spectrometric analysis. Erdjument-Bromage H, et al. **J Chromatogr A** 1998 Nov 27;826(2):167–81

Characterization of peptides from Aplysia using microbore liquid chromatography with matrix-assisted laser desorption/ionization time-of-flight mass spectrometry guided purification. Floyd PD, et al. **J Chromatogr A** 1999 Jan 8;830(1):105–13

Capillary zone electrophoresis and MALDI-mass spectrometry for the monitoring of in vitro O-glycosylation of a threonine/serine-rich MUC5AC hexadecapeptide. Soudan B, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):65–74

Electrospray and MALDI mass spectrometry in the identification of spermicides in criminal investigations. Hollenbeck TP, et al. **J Forensic Sci** 1999 Jul;44(4):783–8

Optimization of a hydrophobic solid-phase extraction interface for matrix-assisted laser desorption/ionization. Brockman AH, et al. **J Mass Spectrom** 1998 Nov; 33(11):1141–7

Basic matrices in the analysis of non-covalent complexes by matrix-assisted laser desorption/ionization mass spectrometry. Jespersen S, et al. **J Mass Spectrom** 1998 Nov;33(11):1088–93

Characterization of enzymatic pectin digests by matrix-assisted laser desorption/ionization mass spectrometry. Körner R, et al. **J Mass Spectrom** 1998 Sep; 33(9):836–42

Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for the analysis of RNase H cleavage products. Polo LM, et al. **J Mass Spectrom** 1998 Dec; 33(12):1226–31

High-throughput mass spectrometric discovery of protein post-translational modifications. Wilkins MR, et al. **J Mol Biol** 1999 Jun 11;289(3):645–57

A rapid and sensitive procedure for the micro-purification and subsequent characterization of peptides and protein samples by N-terminal sequencing and matrix assisted laser desorption ionization time of flight mass spectrometry. Grimm R, et al. **J Pharm Biomed Anal** 1998 Dec; 18(4-5):545–54

Sample preparation procedures for ultrasensitive protein identification by PSD-MALDI-TOF mass spectrometry. Gevaert K, et al. **J Protein Chem** 1998 Aug;17(6):560

Elucidation of functionally significant structural modifications by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry with post-source decay. Gorman JJ, et al. **J Protein Chem** 1998 Aug;17(6):526–7

Protein identification and protein characterization by high-performance time-of-flight mass spectrometry. Hines WM, et al. **J Protein Chem** 1998 Aug;17(6):525–6

Detection of specific zinc-finger peptide complexes with matrix-assisted laser desorption/ionization mass spectrometry. Lehmann E, et al. **J Protein Chem** 1998 Aug; 17(6):517–8

Identification of proteins by matrix-assisted laser desorption/ionization mass spectrometry using peptide and fragment ion masses. Courchesne PL, et al. **Methods Mol Biol** 1999;112:487–511 (28 ref.)

Sample preparation methods for mass spectrometric peptide mapping directly from 2-DE gels. Jensen ON, et al. **Methods Mol Biol** 1999;112:513–30 (56 ref.)

Obtaining molecular weights of proteins and their cleavage products by directly combining gel electrophoresis with mass spectrometry. Ogorzalek Loo RR, et al. **Methods Mol Biol** 1999;112:473–85 (31 ref.)

Genotyping by mass spectrometry takes flight [news; comment] Kwok PY. **Nat Biotechnol** 1998 Dec; 16(13):1314–5. Comment on: Nat Biotechnol 1998 Dec;16(13):1347–50. Comment on: Nat Biotechnol 1998 Dec;16(13):1352–6.

High level multiplex genotyping by MALDI-TOF mass spectrometry [see comments] Ross P, et al. **Nat Biotechnol** 1998 Dec;16(13):1347–51. Comment in: Nat Biotechnol 1998 Dec;16(13):1314–5.

Mass spectrometric survey of interganglionically transported peptides in Aplysia. Li L, et al. **Peptides** 1998;19(8):1425–33

Characterization of recombinant cytokine fragments using isotachophoresis-capillary zone electrophoresis, reversed-phase high performance liquid chromatography, and mass spectrometry. Gysler J, et al. **Pharm Res** 1999 May;16(5):695-701

Analysis of phloem protein patterns from different organs of Cucurbita maxima Duch. by matrix-assisted laser desorption/ionization time of flight mass spectroscopy combined with sodium dodecyl sulfate polyacrylamide gel electrophoresis. Kehr J, et al. **Planta** 1999 Feb;207(4):612-9

Chip-based genotyping by mass spectrometry. Tang K, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10016-20

Application of the post-source pulse-focusing technique in matrix-assisted laser desorption/ionization time-of-flight mass spectrometry: optimization of the experimental parameters and their influence on the capability of the method. Amft M, et al. **Rapid Commun Mass Spectrom** 1998;12(23):1879-88

Protein profiles and identification of high performance liquid chromatography isolated proteins of cancer cell lines using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Chong BE, et al. **Rapid Commun Mass Spectrom** 1998;12(24):1986-93

Analysis of the multimeric state of proteins by matrix assisted laser desorption/ionization mass spectrometry after cross-linking with glutaraldehyde. Helin J, et al. **Rapid Commun Mass Spectrom** 1999;13(3):185-90

Extracting and visualizing matrix-assisted laser desorption/ionization time-of-flight mass spectral fingerprints. Jarman KH, et al. **Rapid Commun Mass Spectrom** 1999;13(15):1586-94

Homogeneous sample preparation for automated high throughput analysis with matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry. Onnerfjord P, et al. **Rapid Commun Mass Spectrom** 1999; 13(5):315-22

A high resolving power multiple reflection matrix-assisted laser desorption/ionization time-of-flight mass spectrometer. Piyadasa CK, et al. **Rapid Commun Mass Spectrom** 1999;13(7):620-4

Matrix-assisted laser desorption/ionization mass spectrometry in evaluation of protein profiles of infant formulae. Sabbadin S, et al. **Rapid Commun Mass Spectrom** 1999;13(14):1438-43

Reproducibility of matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for replicate bacterial culture analysis. Saenz AJ, et al. **Rapid Commun Mass Spectrom** 1999;13(15):1580-5

Matrix-assisted laser desorption/ionization time-of-flight mass spectrometric analysis of phospholipase A2 and fibrinolytic enzyme, two enzymes obtained from Chinese Agkistrodon blomhoffii Ussurensis venom. Sun MZ, et al. **Rapid Commun Mass Spectrom** 1999;13(3):150-5

STANDARDS

Negative ion matrix-assisted laser desorption/ionization time-of-flight post-source decay calibration by using fibrinopeptide B. Jai-nhuknan J, et al. **J Am Soc Mass Spectrom** 1998 May;9(5):540-4

SPECTROMETRY, MASS, SECONDARY ION

Spatially resolved detection of attomole quantities of organic molecules localized in picoliter vials using time-of-flight secondary ion mass spectrometry. Braun RM, et al. **Anal Chem** 1999 Aug 15;71(16):3318-24

Imaging of total calcium in urediospore germlings of Uromyces by ion microscopy. Chandra S, et al. **Fungal Genet Biol** 1999 Jun;27(1):77-87

Mass spectrometric analysis of arachidonyl-containing phospholipids in human U937 cells. Li C, et al. **J Mass Spectrom** 1999 May;34(5):521-36

INSTRUMENTATION

Preliminary evaluation of an SF5+ polyatomic primary ion beam for analysis of organic thin films by secondary ion mass spectrometry. Gillen G, et al. **Rapid Commun Mass Spectrom** 1998;12(19):1303-12

METHODS

An ion funnel interface for improved ion focusing and sensitivity using electrospray ionization mass spectrometry. Shaffer SA, et al. **Anal Chem** 1998 Oct 1;70(19):4111-9

Use of liquid chromatography-electrospray ionization-tandem mass spectrometry (LC-ESI-MS/MS) for routine identification of enzymatically digested proteins separated by sodium dodecyl sulfate-polyacrylamide gel electrophoresis. Stone KL, et al. **Electrophoresis** 1998 May; 19(6):1046-52

The identification of peptide modifications derived from gel-separated proteins using electrospray triple quadrupole and ion trap analyses. Swiderek KM, et al. **Electrophoresis** 1998 May;19(6):989-97

Positive- and negative-ion mass spectrometry of non-steroidal antiinflammatory agents and their clean-up with Bond Elut Glass C18 from biological samples [letter] Seno H, et al. **Forensic Sci Int** 1999 Mar 15;100(1-2):143-7

Applications of focused ion beam systems in gunshot residue investigation. Niewöhner L, et al. **J Forensic Sci** 1999 Jan; 44(1):105-9

Electrospray ionization mass spectrometry of 1-phenyl-3-methyl-5-pyrazolone derivatives of neutral and N-acetylated oligosaccharides. Shen X, et al. **J Mass Spectrom** 1999 May;34(5):502-10

Study of the interaction of sulphate-reducing bacteria exopolymers with iron using X-ray photoelectron spectroscopy and time-of-flight secondary ionisation mass spectrometry. Beech IB, et al. **J Microbiol Methods** 1999 May;36(1-2):3-10

Effect of the sample matrix on the determination of indinavir in human urine by HPLC with turbo ion spray tandem mass spectrometric detection. Fu I, et al. **J Pharm Biomed Anal** 1998 Nov;18(3):347-57

[Plasma concentrations of vitamin K1 and acenocoumarol related to international normalized ratios] Gougnard T, et al. **Acta Clin Belg Suppl** 1999;1:32-4 (Eng. Abstr.) **(Fre)**

SPECTROMETRY, NEAR-INFRARED see **SPECTROSCOPY, NEAR-INFRARED**

SPECTROMETRY, PARTICLE-INDUCED X-RAY EMISSION see **SPECTROMETRY, X-RAY EMISSION**

SPECTROMETRY, PROTON-INDUCED X-RAY EMISSION see **SPECTROMETRY, X-RAY EMISSION**

SPECTROMETRY, X-RAY EMISSION

X-ray fluorescence analysis (XFA) of thyroidal iodine content (TIC) with an improved measuring system. Reiners C, et al. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 3:S31-3

Development of RGD peptides grafted onto silica surfaces: XPS characterization and human endothelial cell interactions. Porté-Durrieu MC, et al. **J Biomed Mater Res** 1999 Sep 5;46(3):368-75

Off-axis x-ray spectra: a comparison of Monte Carlo simulated and computed x-ray spectra with measured spectra. Bhat M, et al. **Med Phys** 1999 Feb;26(2):303-9

[The use of emission spectrum analysis in the forensic medical expertise of gunshot wounds (experimental research)] Makarenko TF, et al. **Sud Med Ekspert** 1999 Mar-Apr; 42(2):5-12 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

Evaluation of a portable X-ray fluorescence instrument for the determination of lead in workplace air samples. Morley JC, et al. **Appl Occup Environ Hyg** 1999 May;14(5):306-16

Digital radiology using active matrix readout: amplified pixel detector array for fluoroscopy. Matsuura N, et al. **Med Phys** 1999 May;26(5):672-81

Plane polarized x-ray fluorescence system for the in vivo measurement of platinum in head and neck tumours. Ali PA, et al. **Phys Med Biol** 1998 Aug;43(8):2337-45

The feasibility of a sensitive low-dose method for the in vivo evaluation of Fe in skin using K-shell x-ray fluorescence (XRF). Farquharson MJ, et al. **Phys Med Biol** 1999 Apr; 44(4):955-65

METHODS

In vivo energy dispersive X-ray fluorescence for measuring the content of essential and toxic trace elements in teeth. Zaichick V, et al. **Appl Radiat Isot** 1999 Feb;50(2):283-93

Digital radiology using active matrix readout: amplified pixel detector array for fluoroscopy. Matsuura N, et al. **Med Phys** 1999 May;26(5):672-81

Plane polarized x-ray fluorescence system for the in vivo measurement of platinum in head and neck tumours. Ali PA, et al. **Phys Med Biol** 1998 Aug;43(8):2337-45

The feasibility of a sensitive low-dose method for the in vivo evaluation of Fe in skin using K-shell x-ray fluorescence (XRF). Farquharson MJ, et al. **Phys Med Biol** 1999 Apr; 44(4):955-65

Factors affecting in vivo measurement precision and accuracy of 109Cd K x-ray fluorescence measurements. McNeill FE, et al. **Phys Med Biol** 1999 Sep;44(9):2263-73

Application of the fundamental parameter method to the in vivo x-ray fluorescence analysis of Pt. Szalóki I, et al. **Phys Med Biol** 1999 May;44(5):1245-55

Comments on the paper 'Monte Carlo simulation of source-excited in vivo x-ray fluorescence measurements of heavy metals' [letter; comment] Tartari A, et al. **Phys Med Biol** 1999 Mar;44(3):L3-6. Comment on: Phys Med Biol 1998 Jun;43(6):1413-28.

SPECTROMETRY, X-RAY EMISSION, ELECTRON MICROSCOPIC see **ELECTRON PROBE MICROANALYSIS**

SPECTROMETRY, X-RAY EMISSION, ELECTRON PROBE see **ELECTRON PROBE MICROANALYSIS**

SPECTROMETRY, X-RAY FLUORESCENCE see **SPECTROMETRY, X-RAY EMISSION**

SPECTROPHOTOMETRY

The ABCD system of melanoma detection: a spectrophotometric analysis of the Asymmetry, Border, Color, and Dimension. Bono A, et al. **Cancer** 1999 Jan 1; 85(1):72-7

Methodological and analytical aspects of simple methods for measuring iodine in urine. Comparison with HPLC and Technicon Autoanalyzer II. Bier D, et al. **Exp Clin Endocrinol Diabetes** 1998;106 Suppl 3:S27-31

Influence of incubation time, inoculum size, and glucose concentrations on spectrophotometric endpoint determinations for amphotericin B, fluconazole, and itraconazole. Nguyen MH, et al. **J Clin Microbiol** 1999 Jan;37(1):141-5

Applicability of the Kubelka-Munk theory for the evaluation of reflectance spectra demonstrated for haemoglobin-free perfused heart tissue. Hoffmann J, et al. **Phys Med Biol** 1998 Dec;43(12):3571-87

Spectroscopic study of Y210C lambda-repressor: implications for cooperative interaction. Deb S, et al. **Protein Eng** 1998 Jun;11(6):481-7

[Spectrophotometric method for determination of sulfoxides] Kosian AM. **Ukr Biokhim Zh** 1998 Jan-Feb;70(1):125-30 (Eng. Abstr.) **(Ukr)**

INSTRUMENTATION

Accessing lysozyme nucleation with a novel dynamic light scattering detector. Peters R, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Sep 1;54 (Pt 5):873-7

Quantification of burn induced extravasation of Evans blue albumin based on digital image analysis. Jönsson A, et al. **Comput Biol Med** 1998 Mar;28(2):153-67

A rapid wavelength changer based on liquid crystal shutters for use in ratiometric microspectrophotometry. Coles JA, et al. **Pflugers Arch** 1999 May;437(6):986-9

[Evaluation of experimental cell and tissue cultures for improved tissue culture monitoring] Jummel I, et al. **Biomed Tech (Berl)** 1998;43 Suppl:492-3 **(Ger)**

METHODS

A spectrophotometric method for the determination of proteins damaged by oxidized lipids. Hidalgo FJ, et al. **Anal Biochem** 1998 Sep 10;262(2):129-36

Quantifying amyloid beta-peptide (Abeta) aggregation using the Congo red-Abeta (CR-abeta) spectrophotometric assay. Klunk WE, et al. **Anal Biochem** 1999 Jan 1; 266(1):66-76

A continuous spectrophotometric assay for thymidine and deoxycytidine kinases. Liu Y, et al. **Anal Biochem** 1998 Nov 15;264(2):259-62

Spectrophotometric quantitation of antioxidant capacity through the formation of a phosphomolybdenum complex: specific application to the determination of vitamin E. Prieto P, et al. **Anal Biochem** 1999 May 1;269(2):337-41

Measurement of sarcoplasmic reticulum Ca2+-ATPase activity and E-type Mg2+-ATPase activity in rat heart homogenates. Saborido A, et al. **Anal Biochem** 1999 Mar 1;268(1):79-88

A continuous spectrophotometric assay for P450 BM-3, a fatty acid hydroxylating enzyme, and its mutant F87A. Schwaneberg U, et al. **Anal Biochem** 1999 May 1; 269(2):359-66

Radioactivity-based and spectrophotometric assays for isoorotate decarboxylase: identification of the thymidine salvage pathway in lower eukaryotes. Smiley JA, et al. **Anal Biochem** 1999 Jan 1;266(1):85-92

A continuous spectrophotometric assay for the hepatitis C virus serine protease. Zhang R, et al. **Anal Biochem** 1999 Jun 1;270(2):268-75

Full second-order chromatographic/spectrometric data matrices for automated sample identification and component analysis by non-data-reducing image analysis. Nielsen NP, et al. **Anal Chem** 1999 Feb 1;71(3):727-35

CSF spectrophotometry and subarachnoid haemorrhage [letter; comment] Evans K. **Ann Clin Biochem** 1998 Sep; 35 (Pt 5):684; discussion 685-6. Comment on: Ann Clin Biochem 1998 Jan;35 (Pt 1):1-4.

The estimation of factor VIII levels in horse, cattle, sheep and pig plasma by the use of synthetic chromogenic substrate. Ledwożyw A, et al. **Arch Vet Pol** 1993; 33(3-4):275-81

Spectrophotometric quantitative analysis of the main hemoglobin derivatives. Adamov SA, et al. **Biochemistry (Mosc)** 1998 Oct;63(10):1160-3

Search for novel redox groups in mitochondrial NADH:ubiquinone oxidoreductase (complex I) by diode array UV/VIS spectroscopy. Schulte U, et al. **Biofactors** 1998;8(3-4):177-86

Applications of neural networks to colour recognition. Jungwirth PJ, et al. **Biol Cybern** 1998 Nov;79(5):361-5

Advances in photoacoustic noninvasive glucose testing. MacKenzie HA, et al. **Clin Chem** 1999 Sep;45(9):1587-95 (58 ref.)

Spectrophotometric determination of trace amounts of hemoglobin using the oxidative decomposition reaction of a copper(II)-phthalocyanine complex. Takahata K, et al. **Clin Chim Acta** 1999 May;283(1-2):129-38

Using difference spectrophotometry to study the influence of different ions and buffer systems on drug protein binding. Afifi NN. **Drug Dev Ind Pharm** 1999 Jun;25(6):735-43

Applications of fiber-optic evanescent wave spectroscopy. Squillante E 3rd. **Drug Dev Ind Pharm** 1998 Dec; 24(12):1163-75 (73 ref.)

Spectrophotometric evaluation of postmortem lividity.

Bohnert M, et al. **Forensic Sci Int** 1999 Jan 11;99(2):149–58

Study of molybdate ion sorption on chitosan gel beads by different spectrometric analyses. Guibal E, et al. **Int J Biol Macromol** 1999 Jan;24(1):49–59

A study of strontium binding to albumins, by a chromatographic method involving atomic emission spectrometric detection. Sandier A, et al. **Int J Biol Macromol** 1999 Jan;24(1):43–8

Flow-injection spectrophotometric determination of phenolic drugs and carbamate pesticides by coupling with diazotized 2,4,6-trimethylaniline. Alvarez-Rodriguez L, et al. **J AOAC Int** 1999 Jul-Aug;82(4):937–47

New spectrophotometric procedure for determining cefotaxime based on derivatization with 1,2-naphthoquinone-4-sulphonate into solid-phase extraction cartridges--application to pharmaceutical and urine samples. Martinez LG, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):143–51

Synthesis and spectroscopic properties of copper(II) complexes derived from thiophene-2-carbaldehyde thiosemicarbazone. Structure and biological activity of [Cu(C6H6N3S2)2]. García-Tojal J, et al. **J Inorg Biochem** 1999 May 30;75(1):45–54

Cytochrome c oxidase assay in minute amounts of human skeletal muscle using single wavelength spectrophotometers. Miró O, et al. **J Neurosci Methods** 1998 Mar 13;80(1):107–11

Utility of certain pi-acceptors for the spectrophotometric determination of perindopril. Abdellatef HE. **J Pharm Biomed Anal** 1998 Sep;17(8):1267–71

Simultaneous determination of pteridines in multicomponent mixtures using derivative spectrophotometry and partial least-squares calibration. Espinosa-Mansilla A, et al. **J Pharm Biomed Anal** 1998 Sep;17(8):1325–34

First derivative spectrophotometric and high-performance liquid chromatographic determination of cinchocaine hydrochloride in presence of its acid degradation product. el-Gindy A, et al. **J Pharm Biomed Anal** 1998 Sep; 17(8):1357–70

Application of derivative spectrophotometry for determination of coenzyme Q10 in pharmaceuticals and plasma. Karpińska J, et al. **J Pharm Biomed Anal** 1998 Sep; 17(8):1345–50

Fluorimetric and spectrophotometric determination of ritodrine hydrochloride in bulk and pharmaceutical formulations. Razak OA. **J Pharm Biomed Anal** 1998 Nov; 18(3):359–65

The potentiometric and spectrophotometric determination of dissociation constants for some 2-mercapto-5-R-amino-1,3,4-thiadiazole derivatives. Roman L, et al. **J Pharm Biomed Anal** 1998 Oct; 18(1-2):137–44

Analysis of spectra from multiwavelength oxygen-binding studies of mixed metal hybrid hemoglobins. Klinger AL, et al. **Methods Enzymol** 1998;295:190–207

Ferrous ion oxidation in presence of xylenol orange for detection of lipid hydroperoxides in plasma. Nourooz-Zadeh J. **Methods Enzymol** 1999;300:58–62

Multiwavelength spectrophotometric determination of acid dissociation constants: Part II. First derivative vs. target factor analysis. Tam KY, et al. **Pharm Res** 1999 Mar; 16(3):374–81

Comments on the paper 'Optical properties of bovine muscle tissue in vitro; a comparison of methods' [letter; comment] Marchesini R. **Phys Med Biol** 1999 Apr;44(4):L7–8. Comment on: Phys Med Biol 1998 Oct;43(10):3065–81.

Development of tissue-simulating optical phantoms: poly-N-isopropylacrylamide solution entrapped inside a hydrogel. Marquez G, et al. **Phys Med Biol** 1999 Jan; 44(1):309–18

A comparison of spectrophotometry and color charts for evaluating total plasma carotenoids in wild birds. Tella JL, et al. **Physiol Zool** 1998 Nov-Dec;71(6):708–11

A spectrophotometric method for the determination of hydroperoxides in liposomes. Cimato A, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Oct; 54A(12):2001–8

[Novel chiroptical methods in pharmaceutical analysis] Gergely A, et al. **Acta Pharm Hung** 1999 Jun;69(3):128–34 (Eng. Abstr.) **(Hun)**

[Are ultraviolet and visible spectroscopy and spectrophotometry obsolete methods in pharmaceutical analysis?] Görög S, et al. **Acta Pharm Hung** 1999 Apr; 69(2):60–8 (Eng. Abstr.) **(Hun)**

[Pulse dye-densitometry] Iijima T. **Masui** 1998 Dec;47 Suppl:S101–8 (9 ref.) **(Jpn)**

[Modification of method for determination of medium-molecular peptides and its application in pediatric surgery] Gisak SN, et al. **Khirurgiia (Mosk)** 1998;(12):53–4 (Eng. Abstr.) **(Rus)**

STANDARDS

Measurement of blood concentration of indocyanine green by pulse dye densitometry--comparison with the conventional spectrophotometric method. Imai T, et al. **J Clin Monit Comput** 1998 Dec;14(7-8):477–84

VETERINARY

The estimation of factor VIII levels in horse, cattle, sheep and pig plasma by the use of synthetic chromogenic substrate. Ledwożyw A, et al. **Arch Vet Pol** 1993; 33(3-4):275–81

SPECTROPHOTOMETRY, ATOMIC ABSORPTION

Use of colloidal gold surface plasmon resonance peak shift to infer affinity constants from the interactions between protein antigens and antibodies specific for single or multiple epitopes. Englebienne P. **Analyst** 1998 Jul; 123(7):1599–603

Atomic absorption spectrophotometry (AAS) for the evaluation of metallosis in prostheses and artificial organs: a new approach. Pierini G, et al. **Int J Artif Organs** 1999 Jul;22(7):522–7

Use of microwave digestion and atomic absorption spectrophotometry to determine chromic oxide as a digestibility marker in feed, feces, and ileal content. García-Rico L, et al. **J AOAC Int** 1999 May-Jun; 82(3):575–8

Determination of calcium by inductively coupled plasma-atomic emission spectrometry, and lead by graphite furnace atomic absorption spectrometry, in calcium supplements after microwave dissolution or dry-ash digestion: method trial. Siitonen PH, et al. **J AOAC Int** 1998 Nov-Dec;81(6):1233–9

On-column formation of arsenic-glutathione species detected by size-exclusion chromatography in conjunction with arsenic-specific detectors. Gailer J, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):83–93

INSTRUMENTATION

Purge-and-trap isothermal multicapillary gas chromatographic sample introduction accessory for speciation of mercury by microwave-induced plasma atomic emission spectrometry. Rodriguez Pereiro I, et al. **Anal Chem** 1998 Oct 1;70(19):4063–9

METHODS

Survey of serum potassium reference measurements. Van Nuwenborg JE, et al. **Ann Clin Biochem** 1999 Jan;36 (Pt 1):80–5

Direct determination of selenium in human blood plasma and seminal plasma by graphite furnace atomic absorption spectrophotometry and clinical application. Lin TH, et al. **Biol Trace Elem Res** 1998 Summer;64(1-3):133–49

Problems related to determination of trace elements in spent continuous ambulatory peritoneal dialysis fluids by electrothermal atomic absorption spectrometry. Scancar J, et al. **Clin Chim Acta** 1999 May;283(1-2):139–50

Interference in the quantitation of methylated arsenic species in human urine. Del Razo LM, et al. **J Anal Toxicol** 1999 Mar-Apr;23(2):103–7

Determination of tin, vanadium, iron, and molybdenum in various matrices by atomic absorption spectrometry using a simultaneous liquid-liquid extraction procedure. Sánchez-Viñas M, et al. **J Anal Toxicol** 1999 Mar-Apr; 23(2):108–12

Arsenic determination in certifiable color additives by dry ashing followed by hydride generation atomic absorption spectrometry. Hepp NM. **J AOAC Int** 1999 Mar-Apr; 82(2):327–30

Determination of chromium in wine and other alcoholic beverages consumed in spain by electrothermal atomic absorption spectrometry. Lendinez E, et al. **J AOAC Int** 1998 Sep-Oct;81(5):1043–7

Determination of selenium in meat products by hydride generation atomic absorption spectrophotometry. Tinggi U. **J AOAC Int** 1999 Mar-Apr;82(2):364–7

Fast determination of lead and copper in dairy products by graphite furnace atomic absorption spectrometry. Viñas P, et al. **J AOAC Int** 1999 Mar-Apr;82(2):368–73

Spectrophotometric determination of some catecholamine drugs using sodium bismuthate. Sorouraddin MH, et al. **J Pharm Biomed Anal** 1998 Dec;18(4-5):877–81

Determination of nickel in saliva by electrothermal atomic absorption spectrometry using various chemical modifiers with Zeeman-effect background correction. Burguera E, et al. **J Trace Elem Med Biol** 1998 Jul;12(2):115–20

A comparison of inductively coupled plasma mass spectrometry with electrothermal atomic absorption spectrophotometry for the determination of trace elements in blood and urine from non occupationally exposed populations. White MA. **J Trace Elem Med Biol** 1999 Jul; 13(1-2):93–101

Trace element analysis of biological samples by analytical atomic spectroscopy. Haraguchi H, et al. **Methods Mol Biol** 1998;108:389–411

The measurement of cadmium in biological materials, using graphite furnace atomic absorption spectrometry with Zeeman background correction. Abernathy TV, et al. **Oncol Rep** 1999 Jan-Feb;6(1):155–9

[Atomic absorption spectrophotometry study of copper ion release by copper-bearing intrauterine devices] Berthou J, et al. **Contracept Fertil Sex** 1998 Nov;26(11):781–9 (Eng. Abstr.) **(Fre)**

SPECTROPHOTOMETRY, INFRARED

Comparison of isotope ratio mass spectrometry and nondispersive isotope-selective infrared spectroscopy for 13C-urea breath test. Savarino V, et al. **Am J Gastroenterol** 1999 May;94(5):1203–8

Infrared spectra of basal cell carcinomas are distinct from non-tumor-bearing skin components. McIntosh LM, et al. **J Invest Dermatol** 1999 Jun;112(6):951–6

Skeletal muscle deoxygenation during exercise assessed by near-infrared spectroscopy and its relation to expired gas analysis parameters. Miura T, et al. **Jpn Circ J** 1998 Sep; 62(9):649–57

The structure of plant vacuolar membranes according to infrared spectroscopy. Makarenko SP, et al. **Membr Cell Biol** 1998;12(3):385–400

MRI measurements of cerebral deoxyhaemoglobin concentration [dHb]--correlation with near infrared spectroscopy (NIRS). Punwani S, et al. **NMR Biomed** 1998 Oct;11(6):281–9

Nondispersive infrared spectrometry for 13CO2/12CO2-measurements: a clinically feasible analyzer for stable isotope breath tests in gastroenterology. Braden B, et al. **Z Gastroenterol** 1999 Jun;37(6):477–81

[Chromatic interferences reduction by near infrared spectrophotometry: application on clinical biochemistry analyzer] Piton A, et al. **Ann Biol Clin (Paris)** 1999 Jan-Feb; 57(1):98–102 **(Fre)**

[Comparative respective importance of infrared analysis and classical chemical analysis in the etiologic diagnosis of urinary calculi] Ben Ammar S, et al. **Tunis Med** 1998 Feb; 76(2):1056–60 (Eng. Abstr.) **(Fre)**

[Lithogenic bile typing based on parameters of cluster analysis of IR-spectra] Sheleketina II, et al. **Ukr Biokhim Zh** 1998 Sep-Oct;70(5):75–80 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

Portable infrared analyzers. Palassis J. **Appl Occup Environ Hyg** 1999 Aug;14(8):510–4

Estimation of desflurane concentration using isoflurane channel in optical infrared analyzer. Tsui BC, et al. **Can J Anaesth** 1999 Feb;46(2):192–5

A complete vision. Imaging Research Inc. Wells WA. **Chem Biol** 1998 Aug;5(8):R205–6

METHODS

A pitfall in the use of calcium fluoride cells for infrared spectral measurements of calcium-binding proteins. Moncrieffe MC, et al. **Anal Biochem** 1999 Mar 1; 268(1):163–4

Infrared spectroscopy. Ng LM, et al. **Anal Chem** 1999 Jun 15;71(12):343R–350R (106 ref.)

Colloidal gold filtrates as metal substrates for surface-enhanced infrared absorption spectroscopy. Seelenbinder JA, et al. **Anal Chem** 1999 May 15; 71(10):1963–6

Attenuated total reflection infrared spectroscopy of proteins and lipids in biological membranes. Goormaghtigh E, et al. **Biochim Biophys Acta** 1999 Jul 6;1422(2):105–85 (397 ref.)

Single bead IR monitoring of a novel benzimidazole synthesis. Sun Q, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):361–4

Multiplexed short tandem repeat polymorphisms of the Weber 8A set of markers using tailed primers and infrared fluorescence detection. Oetting WS, et al. **Electrophoresis** 1998 Dec;19(18):3079–83

Determination of 13CO2/12CO2 ratio by IRMS and NDIRS. Barth E, et al. **Isotopes Environ Health Stud** 1998; 34(1-2):209–13

Evaluation of spurious results in the infrared measurement of CO2 isotope ratios due to spectral effects: a computer simulation study. Mansfield CD, et al. **Phys Med Biol** 1999 May;44(5):1155–67

Application of temporal filters to time resolved data in optical tomography. Schweiger M, et al. **Phys Med Biol** 1999 Jul; 44(7):1699–717

The influence of a clear layer on near-infrared spectrophotometry measurements using a liquid neonatal head phantom. Wolf M, et al. **Phys Med Biol** 1999 Jul; 44(7):1743–53

Near-infrared spectrophotometry of the brain in cardiovascular surgery. Nollert G, et al. **Thorac Cardiovasc Surg** 1998 Jun;46(3):167–75 (98 ref.)

VETERINARY

In situ and laboratory assessment of heart rate in a Mediterranean limpet using a noninvasive technique. Santini G, et al. **Physiol Biochem Zool** 1999 Mar-Apr; 72(2):198–204

SPECTROPHOTOMETRY, ULTRAVIOLET

Temperature dependence of the ultraviolet-visible spectra of ionized and un-ionized forms of nitrophenol: consequence for the determination of enzymatic activities using nitrophenyl derivatives-A warning. Fourage L, et al. **Anal Biochem** 1999 May 15;270(1):184–5

UV spectrophotometry and nonaqueous determination of terbinafine hydrochloride in dosage forms. Cardoso SG, et al. **J AOAC Int** 1999 Jul-Aug;82(4):830–3

Molar absorptivities of aflatoxins B1, B2, G1, and G2 in

acetonitrile, methanol, and toluene-acetonitrile (9 + 1) (modification of AOAC Official Method 971.22): collaborative study. Nesheim S, et al. **J AOAC Int** 1999 Mar-Apr;82(2):251-8

Thermodynamic stability of ribonuclease A in alkylurea solutions and preferential solvation changes accompanying its thermal denaturation: a calorimetric and spectroscopic study. Poklar N, et al. **Protein Sci** 1999 Apr;8(4):832-40

METHODS

A one-step method for protein estimation in biological samples: nitration of tyrosine in nitric acid. Bible KC, et al. **Anal Biochem** 1999 Feb 1;267(1):217-21

Molar absorbance of tRNA. Guéron M, et al. **Anal Biochem** 1978 Dec;91(2):691-5

Coupling of erratic Belousov-Zhabotinsky oscillators observed by spectrophotometric measure. Branca M, et al. **Ann N Y Acad Sci** 1999 Jun 30;879:228-34

Two-dimensional mid-IR and near-IR correlation spectra of ribonuclease A: using overtones and combination modes to monitor changes in secondary structure. Schultz CP, et al. **Biospectroscopy** 1998;4(5 Suppl):S19-29

Enhancement of sample loadings for the analysis of oligosaccharides isolated from Pseudomonas aeruginosa using transient isotachophoresis and capillary zone electrophoresis - electrospray - mass spectrometry. Auriola S, et al. **Electrophoresis** 1998 Nov;19(15):2665-76

Analysis of etorphine in postmortem samples by HPLC with UV diode-array detection. Elliott SP, et al. **Forensic Sci Int** 1999 Apr 12;101(1):9-16

Quantitation of active ingredients and excipients in nasal sprays by high-performance liquid chromatography, capillary electrophoresis and UV spectroscopy. Bernal JL, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):423-31

Quality control of pentosane polysulfate by capillary zone electrophoresis using indirect detection. Degenhardt M, et al. **J Chromatogr A** 1998 Aug 21;817(1-2):297-306

Determination of fleroxacin in human serum and in dosage forms by derivative UV spectrophotometry. Jelikic-Stankov M, et al. **J Pharm Biomed Anal** 1998 Oct; 18(1-2):145-50

Simultaneous determination of salicylic acid and acetylsalicylic acid in aspirin delayed-release tablet formulations by second-derivative UV spectrophotometry. Kokot Z, et al. **J Pharm Biomed Anal** 1998 Dec; 18(4-5):871-5

UV-spectrophotometric determination of ampicillin sodium and sulbactam sodium in two-component mixtures. Mahgoub H, et al. **J Pharm Biomed Anal** 1998 Sep; 17(8):1273-8

An improved HPLC method overcoming Beer's law deviations arising from supramolecular interactions in tolfenamic acid and cyclodextrins complexes. Rozou S, et al. **J Pharm Biomed Anal** 1998 Dec;18(4-5):899-905

Spectrophotometric determination of some vic-diol containing drugs using ion-exchange resins. Sorouraddin MH, et al. **J Pharm Biomed Anal** 1998 Dec;18(4-5):883-8

Spectrophotometric determination of some catecholamine drugs using sodium bismuthate. Sorouraddin MH, et al. **J Pharm Biomed Anal** 1998 Dec;18(4-5):877-81

Measurement of oxidizability of blood plasma. Kontush A, et al. **Methods Enzymol** 1999;299:35-49

Analysis of oxidation and antioxidants using microtiter plates. Camejo G, et al. **Methods Mol Biol** 1998;108:377-87

SPECTROSCOPY see **SPECTRUM ANALYSIS**

SPECTROSCOPY, FOURIER TRANSFORM INFRARED

Human breast carcinomal tissues display distinctive FTIR spectra: implication for the histological characterization of carcinomas. Gao T, et al. **Anal Cell Pathol** 1999;18(2):87-93

Infrared spectroscopy in the evaluation of the process of calcification of valvular bioprostheses. Shen M, et al. **Ann Thorac Surg** 1998 Dec;66(6 Suppl):S236-9

Transmission FT-IR microspectroscopy of mineral phases in calcified tissues. Bohic S, et al. **C R Acad Sci III** 1998 Oct;321(10):865-76

pH-dependent secondary conformation of bovine lens alpha-crystallin: ATR infrared spectroscopic study with second-derivative analysis. Lin SY, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Feb;237(2):157-60

Resonance Raman and infrared spectral studies on radical anions of model photosynthetic reaction center quinones (naphthoquinone derivatives). Balakrishnan G, et al. **J Biomol Struct Dyn** 1998 Aug;16(1):123-31

FTIR characterization of the secondary structure of proteins encapsulated within PLGA microspheres. Fu K, et al. **J Controlled Release** 1999 Apr 19;58(3):357-66

Examination of full fat and reduced fat Cheddar cheese during ripening by Fourier transform infrared spectroscopy. Chen M, et al. **J Dairy Sci** 1998 Nov; 81(11):2791-7

Changes in the secondary structure of bovine casein by Fourier transform infrared spectroscopy: effects of calcium and temperature. Curley DM, et al. **J Dairy Sci** 1998 Dec; 81(12):3154-62

Quantitative determination of the extent of neutralization of carboxylic acid functionality in carbopol 974P NF by diffuse reflectance fourier transform infrared spectrometry using Kubelka-Munk function. Juang RH, et al. **Pharm Res** 1998 Nov;15(11):1714-20

Penetration studies of clotrimazole from semisolid formulation using step-scan FT-IR photoacoustic spectroscopy. Schendzielorz A, et al. **Pharm Res** 1999 Jan; 16(1):42-5

Integrality of benign prostatic hyperplasia tissues after transurethral thermotherapy evidenced by transmittance fourier transform infrared spectroscopy combined with thermal analyzer. Lin SY, et al. **Scand J Urol Nephrol** 1998 Jul;32(4):256-60

Imaging molecular chemistry with infrared microscopy. Wetzel DL, et al. **Science** 1999 Aug 20;285(5431):1224-5

FT infrared and Raman investigation of saccharide-phosphatidylcholine interactions using novel structure probes. Grdadolnik J, et al. **Spectrochim Acta A Mol Biomol Spectrosc** 1998 Oct; 54A(12):1989-2000

Differentiation of brewing yeast strains by pyrolysis mass spectrometry and Fourier transform infrared spectroscopy. Timmins EM, et al. **Yeast** 1998 Jul;14(10):885-93

METHODS

In situ determination of proportion of cell types in wood by Fourier transform Raman spectroscopy. Ona T, et al. **Anal Biochem** 1999 Mar 1;268(1):43-8

Genetic algorithm-based wavelength selection for the near-infrared determination of glucose in biological matrixes: initialization strategies and effects of spectral resolution. Ding Q, et al. **Anal Chem** 1998 Nov 1; 70(21):4472-9

Effective use of molecular recognition in gas sensing: results from acoustic wave and in situ FT-IR measurements. Hierlemann A, et al. **Anal Chem** 1999 Aug 1;71(15):3022-35

Applications of 1.06-micron IR laser desorption on a Fourier transform mass spectrometer. Ho YP, et al. **Anal Chem** 1998 Dec 1;70(23):4890-5

Application of multilayer feed-forward neural networks to automated compound identification in low-resolution open-path FT-IR spectrometry. Yang H, et al. **Anal Chem** 1999 Feb 1;71(3):751-61

Effect of anion binding on iodopsin studied by low-temperature fourier transform infrared spectroscopy. Imamoto Y, et al. **Biochemistry** 1999 Sep 7;38(36):11749-54

Identification of beta-turn and random coil amide III infrared bands for secondary structure estimation of proteins. Cai S, et al. **Biophys Chem** 1999 Jul 19;80(1):7-20

Membrane helix orientation from linear dichroism of infrared attenuated total reflection spectra. Bechinger B, et al. **Biophys J** 1999 Jan;76(1 Pt 1):552-63

Quantitative orientation measurements in thin lipid films by attenuated total reflection infrared spectroscopy. Picard F, et al. **Biophys J** 1999 Jan;76(1 Pt 1):539-51

A study on the differences between oral squamous cell carcinomas and normal oral mucosas measured by Fourier transform infrared spectroscopy. Fukuyama Y, et al. **Biospectroscopy** 1999;5(2):117-26

Separable contributions of ordered and disordered lipid fatty acyl chain segments to nuCH2 bands in model and biological membranes: a Fourier transform infrared spectroscopic study. Kóta Z, et al. **Biospectroscopy** 1999; 5(3):169-78

Fourier transform infrared spectroscopy as a probe for the study of the hydration of lipid self-assemblies. I. Methodology and general phenomena. Pohle W, et al. **Biospectroscopy** 1998;4(4):267-80

Fourier transform infrared spectroscopy as a probe for the study of the hydration of lipid self-assemblies. II. Water binding versus phase transitions. Selle C, et al. **Biospectroscopy** 1998;4(4):281-94

Complementary information on bone ultrastructure from scanning small angle X-ray scattering and Fourier-transform infrared microspectroscopy. Camacho NP, et al. **Bone** 1999 Sep;25(3):287-93

Spectral morphometric characterization of breast carcinoma cells. Barshack I, et al. **Br J Cancer** 1999 Mar; 79(9-10):1613-9

Human oral mucosa studies with varying blood glucose concentration by non-invasive ATR-FT-IR-spectroscopy. Heise HM, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Sep;44(6):899-912

Vibrational circular dichroism: an incisive tool for stereochemical applications. Nafie LA, et al. **Enantiomer** 1998;3(4-5):283-97 (27 ref.)

Distortion of the L-->M transition in the photocycle of the bacteriorhodopsin mutant D96N: a time-resolved step-scan FTIR investigation. Rödig C, et al. **FEBS Lett** 1999 Feb 19;445(1):14-8

Chemical analysis of multiple sclerosis lesions by FT-IR microspectroscopy. LeVine SM, et al. **Free Radic Biol Med** 1998 Jul 1;25(1):33-41

Non-invasive blood glucose measurement by Fourier transform infrared spectroscopic analysis through the mucous membrane of the lip: application of a chalcogenide optical fiber system. Uemura T, et al. **Front Med Biol Eng** 1999;9(2):137-53

Rapid analysis of the expression of heterologous proteins in Escherichia coli using pyrolysis mass spectrometry and Fourier transform infrared spectroscopy with chemometrics: application to alpha 2-interferon production. McGovern AC, et al. **J Biotechnol** 1999 Jul 2;72(3):157-67

Role of Fourier transform infrared spectroscopy in the rehearsal phase of combinatorial chemistry: a thin-layer chromatography equivalent for on-support monitoring of solid-phase organic synthesis. Yan B, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2;725(1):91-102 (54 ref.)

Spin-label electron spin resonance and Fourier transform infrared spectroscopy for structural/dynamic measurements on ion channels. Marsh D. **Methods Enzymol** 1999;294:59-92

Oxidized and unoxidized fatty acyl esters. Sergent O, et al. **Methods Mol Biol** 1998;108:131-7

A rapid method to screen for cell-wall mutants using discriminant analysis of Fourier transform infrared spectra. Chen L, et al. **Plant J** 1998 Nov;16(3):385-92

Cytologically normal cells from neoplastic cervical samples display extensive structural abnormalities on IR spectroscopy: implications for tumor biology. Cohenford MA, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22; 95(26):15327-32

UTILIZATION

Vascular graft healing: I. FTIR analysis of an implant model for studying the healing of a vascular graft. Lyman DJ, et al. **J Biomed Mater Res** 1999;48(2):172-86

SPECTROSCOPY, INFRARED, FOURIER TRANSFORM see **SPECTROSCOPY, FOURIER TRANSFORM INFRARED**

SPECTROSCOPY, MAGNETIC RESONANCE see **NUCLEAR MAGNETIC RESONANCE**

SPECTROSCOPY, MASS see **SPECTRUM ANALYSIS, MASS**

SPECTROSCOPY, MASS, FAST ATOM BOMBARDMENT see **SPECTROMETRY, MASS, FAST ATOM BOMBARDMENT**

SPECTROSCOPY, MASS, MATRIX-ASSISTED LASER DESORPTION-IONIZATION see **SPECTROMETRY, MASS, MATRIX-ASSISTED LASER DESORPTION-IONIZATION**

SPECTROSCOPY, MASS, SECONDARY ION see **SPECTROMETRY, MASS, SECONDARY ION**

SPECTROSCOPY, MOSSBAUER

Iron coordination geometry in full-length, truncated, and dehydrated forms of human tyrosine hydroxylase studied by Mössbauer and X-ray absorption spectroscopy. Schünemann V, et al. **J Biol Inorg Chem** 1999 Apr; 4(2):223-31

SPECTROSCOPY, NEAR-INFRARED

The use of near infrared spectroscopy (NIRS) in children after traumatic brain injury: a preliminary report. Adelson PD, et al. **Acta Neurochir Suppl (Wien)** 1998;71:250-4

NIRS: dose dependency of local changes of cerebral HbO2 and Hb with pCO2 in parietal cortex. Benni PB, et al. **Acta Neurochir Suppl (Wien)** 1998;71:258-9

Assessment of cerebrovascular reactivity in patients with carotid artery disease using near-infrared spectroscopy. Smielewski P, et al. **Acta Neurochir Suppl (Wien)** 1998; 71:263-5

Dynamics of tissue oxygenation in isolated rabbit heart as measured with near-infrared spectroscopy. de Groot B, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1616-24

Comparative analysis of NMR and NIRS measurements of intracellular PO2 in human skeletal muscle. Tran TK, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1682-90

Novel assessment of acute lung injury by in vivo near-infrared spectroscopy. Shibata S, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):317-23

Influence of popliteal vein thrombosis on subsequent ambulatory venous function measured by near-infrared spectroscopy. Hosoi Y, et al. **Am J Surg** 1999 Feb; 177(2):111-6

Near-infrared spectroscopy in the pharmaceutical industry. Blanco M, et al. **Analyst** 1998 Aug;123(8):135R-150R (204 ref.)

Quantification of paracetamol in intact tablets using near-infrared transmittance spectroscopy. Eustaquio A, et al. **Analyst** 1998 Nov;123(11):2303-6

Near-infrared mass median particle size determination of lactose monohydrate, evaluating several chemometric approaches. Frake P, et al. **Analyst** 1998 Oct;123(10):2043-6

The application of multiple linear regression to the measurement of the median particle size of drugs and pharmaceutical excipients by near-infrared spectroscopy. O'Neil AJ, et al. **Analyst** 1998 Nov;123(11):2297-302

Chronic compartment syndrome of the lower leg: a new diagnostic method using near-infrared spectroscopy and a new technique of endoscopic fasciotomy. Ota Y, et al. **Arthroscopy** 1999 May;15(4):439-43

Measurement of cerebral oxyhaemoglobin saturation and jugular blood flow in term healthy newborn infants by near-infrared spectroscopy and jugular venous occlusion. Buchvald FF, et al. **Biol Neonate** 1999;75(2):97-103

CO2 reactivity of the cerebral hemoglobin concentration in healthy term newborns measured by near infrared spectrophotometry. Dietz V, et al. **Biol Neonate** 1999; 75(2):85–90

Correlation of near infrared spectroscopy cerebral blood flow estimations and microsphere quantitations in newborn piglets. Goddard-Finegold J, et al. **Biol Neonate** 1998 Nov; 74(5):376–84

Determination of blood flow in the finger using near-infrared spectroscopy. Rendell M, et al. **Clin Physiol** 1998 Sep; 18(5):426–34

Cerebrovascular reactivity measurement using near-infrared spectroscopy [comment] Grosset D. **Clin Sci (Colch)** 1998 Oct;95(4):395. Comment on: Clin Sci (Colch) 1998 Oct;95(4):497–504.

Evaluation of potential factors affecting the measurement of cerebrovascular reactivity by near-infrared spectroscopy [see comments] Totaro R, et al. **Clin Sci (Colch)** 1998 Oct; 95(4):497–504. Comment in: Clin Sci (Colch) 1998 Oct;95(4):395.

Frontal brain activation during the Wisconsin Card Sorting Test assessed with two-channel near-infrared spectroscopy. Fallgatter AJ, et al. **Eur Arch Psychiatry Clin Neurosci** 1998;248(5):245–9

Monitoring of regional cerebral oxygenation by near-infrared spectroscopy during continuous retrograde cerebral perfusion for aortic arch surgery. Ogino H, et al. **Eur J Cardiothorac Surg** 1998 Oct;14(4):415–8

Near infrared spectroscopy can detect changes in splanchnic oxygen delivery in neonates during apnoeic episodes [letter] Petros AJ, et al. **Eur J Pediatr** 1999 Feb;158(2):173–4

Near infrared spectroscopy and transcranial Doppler in monohemispheric stroke. Vernieri F, et al. **Eur Neurol** 1999; 41(3):159–62

Reliability and concurrent validity of Futrex and bioelectrical impedance [see comments] Vehrs P, et al. **Int J Sports Med** 1998 Nov;19(8):560–6. Comment in: Int J Sports Med 1999 Jul;20(5):339–42.

Noninvasive infrared spectroscopy as a monitor of retrograde cerebral perfusion during deep hypothermia [letter] Blas ML, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):244–5

Prediction of laboratory and in situ protein fractions in legume and grass silages using near-infrared reflectance spectroscopy. Hoffman PC, et al. **J Dairy Sci** 1999 Apr; 82(4):764–70

Application of standardisation methods to correct the spectral differences induced by a fibre optic probe used for the near-infrared analysis of pharmaceutical tablets. Bouveresse E, et al. **J Pharm Biomed Anal** 1998 Oct; 18(1-2):35–42 (33 ref.)

Development and validation of a method for the analysis of a pharmaceutical preparation by near-infrared diffuse reflectance spectroscopy. Blanco M, et al. **J Pharm Sci** 1999 May;88(5):551–6

Near-infrared spectroscopic assessment of tissue hydration following surgery. Sowa MG, et al. **J Surg Res** 1999 Sep; 86(1):62–9

Monitoring for compartmental syndrome using near-infrared spectroscopy: a noninvasive, continuous, transcutaneous monitoring technique. Garr JL, et al. **J Trauma** 1999 Apr; 46(4):613–6; discussion 617–8

Continuous measurement of gut pH with near-infrared spectroscopy during hemorrhagic shock. Puyana JC, et al. **J Trauma** 1999 Jan;46(1):9–15

A theoretical study of the signal contribution of regions of the adult head to near-infrared spectroscopy studies of visual evoked responses. Firbank M, et al. **Neuroimage** 1998 Jul;8(1):69–78

Near infrared spectroscopy : an emerging non-invasive optical imaging technique [editorial] Tandon PN. **Neurol India** 1999 Jun;47(2):83–4

Near infrared spectroscopic monitoring of secondary cerebral energy failure after transient global hypoxia-ischemia in the newborn piglet. Chang YS, et al. **Neurol Res** 1999 Mar; 21(2):216–24

Assessment of quadriceps oxygenation in patients with myopathies by near infrared spectroscopy [letter; comment] [corrected] [published erratum appears in Neurology 1999 Jan 1;52(1):221] Quaresima V, et al. **Neurology** 1998 Oct; 51(4):1238–9. Comment on: Neurology 1997 Sep;49(3):837–41.

Non-invasive assessment of language dominance with near-infrared spectroscopic mapping. Watanabe E, et al. **Neurosci Lett** 1998 Oct 30;256(1):49–52

Quantitative broadband near-infrared spectroscopy of tissue-simulating phantoms containing erythrocytes. Hull EL, et al. **Phys Med Biol** 1998 Nov;43(11):3381–404

A multiwavelength frequency-domain near-infrared cerebral oximeter. Kurth CD, et al. **Phys Med Biol** 1999 Mar; 44(3):727–40

Near-infrared oximetry of the brain. Madsen PL, et al. **Prog Neurobiol** 1999 Aug;58(6):541–60 (192 ref.)

Comparison of near-infrared spectroscopy and somatosensory evoked potentials for the detection of cerebral ischemia during carotid endarterectomy [see comments] Beese U, et al. **Stroke** 1998 Oct;29(10):2032–7 . Comment in: Stroke 1999 Apr;30(4):895; discussion 896–7. Comment in: Stroke 1999 Apr;30(4):895–7.

Comparison of near-infrared spectroscopy and somatosensory evoked potentials for the detection of cerebral ischemia during carotid endarterectomy [letter; comment] Chant H, et al. **Stroke** 1999 Apr;30(4):895–7. Comment on: Stroke 1998 Oct;29(10):2032–7.

Near infrared spectroscopy of the normal bovine claw. Pringle J, et al. **Vet J** 1998 Sep;156(2):155–8

[Near-infrared spectroscopy during hypothermic selective cerebral perfusion--a clinical study of its value] Ito T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Dec;46(12):1260–6 (Eng. Abstr.) **(Jpn)**

[Evaluation of cerebral circulation during cardiopulmonary bypass using near-infrared spectroscopy] Ohata T, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Jul;46(7):603–9 (Eng. Abstr.) **(Jpn)**

[Evaluation of the effect of ischemic preconditioning using near-infrared spectroscopy] Ikeda M, et al. **Kyobu Geka** 1998 Dec;51(13):1095–8 (Eng. Abstr.) **(Jpn)**

[A comparative study of transcranial Doppler sonography and near-infrared spectroscopy for the assessment of cerebrovascular CO2 reactivity] Endoh H, et al. **Masui** 1998 Sep;47(9):1090–5 (Eng. Abstr.) **(Jpn)**

[Fundamentals and clinical application of near-infrared spectrophotometry--with special reference to cytochrome oxidase] Tamura M, et al. **Masui** 1998 Dec;47 Suppl:S33–45 (23 ref.) **(Jpn)**

INSTRUMENTATION

A comparison of the monitors INVOS 3100 and NIRO 500 in detecting changes in cerebral oxygenation. Grubhofer G, et al. **Acta Anaesthesiol Scand** 1999 Apr;43(4):470–5

Preliminary evaluation of a prototype spatially resolved spectrometer. al-Rawi PG, et al. **Acta Neurochir Suppl (Wien)** 1998;71:255–7

A comparison of the Hamamatsu NIRO 500 and the INVOS 3100 near-infrared spectrophotometers. Gomersall CD, et al. **Anaesth Intensive Care** 1998 Oct;26(5):548–57

New instrument that uses near-infrared spectroscopy for the monitoring of human muscle oxygenation. Muellner T, et al. **J Trauma** 1999 Jun;46(6):1082–4

Non-invasive optical monitoring of the newborn piglet brain using continuous-wave and frequency-domain spectroscopy. Fantini S, et al. **Phys Med Biol** 1999 Jun; 44(6):1543–63

[In vitro determination of substance concentration in scattering media with NIR laser remssionspectroscopy] Hampel U, et al. **Biomed Tech (Berl)** 1998;43 Suppl:116–7 **(Ger)**

METHODS

BOLD MRI vs. NIR spectrophotometry. Will the best technique come forward? Dunn JF, et al. **Adv Exp Med Biol** 1998;454:103–13

Heterogeneity (DVT) depth determination using phase shift and time constant values from NIR-TRS spectra. Hemelt MW, et al. **Adv Exp Med Biol** 1998;454:671–9

Evaluation of near infrared spectroscopy in patients with traumatic brain injury. Kerr ME, et al. **Adv Exp Med Biol** 1998;454:131–7

Localization of a fluorescent object in highly scattering media via frequency response analysis of near infrared-time resolved spectroscopy spectra. Kang KA, et al. **Ann Biomed Eng** 1998 Jan-Feb;26(1):138–45

Multianalyte serum analysis using mid-infrared spectroscopy. Shaw RA, et al. **Ann Clin Biochem** 1998 Sep;35 (Pt 5):624–32

Near-infrared spectroscopy for bioprocess monitoring and control. Yeung KS, et al. **Biotechnol Bioeng** 1999 Jun 20; 63(6):684–93

Near infrared spectroscopy. Owen-Reece H, et al. **Br J Anaesth** 1999 Mar;82(3):418–26 (74 ref.)

Tissue viability by multispectral near infrared imaging: a fuzzy C-means clustering analysis. Mansfield JR, et al. **IEEE Trans Med Imaging** 1998 Dec;17(6):1011–8

Determination of fat, protein, and total solids in ovine milk by near-infrared spectroscopy. Albanell E, et al. **J AOAC Int** 1999 May-Jun;82(3):753–8

Use of mitochondrial inhibitors to demonstrate that cytochrome oxidase near-infrared spectroscopy can measure mitochondrial dysfunction noninvasively in the brain. Cooper CE, et al. **J Cereb Blood Flow Metab** 1999 Jan;19(1):27–38

Sensitivity of near infrared spectroscopy to cerebral and extra-cerebral oxygenation changes is determined by emitter-detector separation. Germon TJ, et al. **J Clin Monit Comput** 1998 Jul;14(5):353–60

Detection of biomolecules in the near-infrared spectral region via a fiber-optic immunosensor. Daneshvar MI, et al. **J Immunol Methods** 1999 Jun 24;226(1-2):119–28

Comparison of classification approaches applied to NIR-spectra of clinical study lots. Candolfi A, et al. **J Pharm Biomed Anal** 1998 Apr;16(8):1329–47

Multivariate calibration: applications to pharmaceutical analysis. Forina M, et al. **J Pharm Biomed Anal** 1998 Oct; 18(1-2):21–33 (11 ref.)

Automated system for the on-line monitoring of powder blending processes using near-infrared spectroscopy. Part II. Qualitative approaches to blend evaluation. Sekulic SS, et al. **J Pharm Biomed Anal** 1998 Sep;17(8):1285–309

Effects of microbial invasion on cerebral hemodynamics and oxygenation monitored by near infrared spectroscopy in experimental Escherichia coli meningitis in the newborn piglet. Park WS, et al. **Neurol Res** 1999 Jun;21(4):391–8

Non-invasive optical monitoring of the newborn piglet brain using continuous-wave and frequency-domain spectroscopy. Fantini S, et al. **Phys Med Biol** 1999 Jun; 44(6):1543–63

Application of near-infrared time-resolved spectroscopy to rat liver--a preliminary report for surgical application. Kitai T, et al. **Phys Med Biol** 1999 Aug;44(8):2049–61

New technologies in pediatric neurology. Near-infrared spectroscopy. Soul JS, et al. **Semin Pediatr Neurol** 1999 Jun;6(2):101–10 (53 ref.)

Regional differences of cerebral hemoglobin concentration in preterm infants measured by near infrared spectrophotometry. Keel M, et al. **Technol Health Care** 1999;7(1):63–73

VETERINARY

Near infrared spectroscopy in large animals: optical pathlength and influence of hair covering and epidermal pigmentation. Pringle J, et al. **Vet J** 1999 Jul;158(1):48–52

SPECTROSCOPY, NMR see **NUCLEAR MAGNETIC RESONANCE**

SPECTROSCOPY, NUCLEAR MAGNETIC RESONANCE see **NUCLEAR MAGNETIC RESONANCE**

SPECTRUM ANALYSIS

Proceedings of the VIIIth International Symposium on Luminescence Spectrometry in Biomedical and Environmental Analysis--Detection Techniques and Applications in Chromatography and Capillary Electrophoresis. Canary Islands, Spain, 26–29 May 1998. **Analyst** 1998 Nov;123(11):2217–84

Single-molecule electron tunneling spectroscopy of the higher plant light-harvesting complex LHC II. Lukins PB. **Biochem Biophys Res Commun** 1999 Mar 16;256(2):288–92

Diffusing wave spectroscopy microrheology of actin filament networks [published erratum appears in Biophys J 1999 Apr;76(4):2317] Palmer A, et al. **Biophys J** 1999 Feb; 76(2):1063–71

Technical and clinical aspects of spectrometric analysis of trace elements in clinical samples. Chan S, et al. **Clin Lab Med** 1998 Dec;18(4):615–29 (40 ref.)

Spectral imaging for quantitative histology and cytogenetics. Rothmann C, et al. **Histol Histopathol** 1998 Jul;13(3):921–6 (27 ref.)

Development of multispectral autoradiography with solid state detector. Kusaka N, et al. **Medinfo** 1998;9 Pt 2:1036–40

[The use of laser spectroscopy of the blood plasma for selecting rectal cancer patients with a colostomy for the performance of a restorative operation] Bilenko AA. **Klin Khir** 1998;(11):19–21 (Eng. Abstr.) **(Rus)**

INSTRUMENTATION

A low-volume, short-path length dynamic light scattering sample cell for highly turbid suspensions. Patapoff TW, et al. **Anal Biochem** 1999 Jun 1;270(2):338–40

FASSST: a new gas-phase analytical tool. Albert S, et al. **Anal Chem** 1998 Nov 1;70(21):719A–727A

Inductively coupled wideband transceiver for bioimpedance spectroscopy (IBIS). Scharfetter H, et al. **Ann N Y Acad Sci** 1999 Apr 20;873:322–34

Characterization of three-dimensional tissue cultures using electrical impedance spectroscopy. Kyle AH, et al. **Biophys J** 1999 May;76(5):2640–8

The determination of in vivo human tissue optical properties and absolute chromophore concentrations using spatially resolved steady-state diffuse reflectance spectroscopy. Doornbos RM, et al. **Phys Med Biol** 1999 Apr;44(4):967–81

Parallel electron energy-loss spectroscopy free from gain variation. Feng JL, et al. **Ultramicroscopy** 1999 Apr; 76(4):221–31

[In vitro evaluation of an implantable measuring system for impedance spectroscopy for evaluating tissue status] Gerhäusser A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:258–9 **(Ger)**

[Use of impedance spectroscopy in biotechnology] König A, et al. **Biomed Tech (Berl)** 1998;43 Suppl:245–7 **(Ger)**

[Dielectric spectroscopy for noninvasive examination of corneal tissue] Oltrup T, et al. **Biomed Tech (Berl)** 1999 Apr;44(4):78–82 (Eng. Abstr.) **(Ger)**

[Oxygen saturation of retinal vessels. Studies for measuring with polarized light] Hammer M, et al. **Ophthalmologe** 1999 Jul;96(7):428–31 (Eng. Abstr.) **(Ger)**

METHODS

Use of a mixed-mode packing and voltage tuning for peptide mixture separation in pressurized capillary electrochromatography with an ion trap storage/reflectron time-of-flight mass spectrometer detector. Huang P, et al. **Anal Chem** 1999 May 1;71(9):1786–91

Flame, flameless, and plasma spectroscopy. Komaromy-Hiller G. **Anal Chem** 1999 Jun 15; 71(12):338R–342R (127 ref.)

Separation and analysis of peptides and proteins. Larive CK, et al. **Anal Chem** 1999 Jun 15;71(12):389R–423R (80 ref.)

Geochemical and cosmochemical materials. Lipschutz ME, et al. **Anal Chem** 1999 Jun 15;71(12):1R–20R (312 ref.)

Interaction of chemically modified antisense oligonucleotides with sense DNA: a label-free interaction study with reflectometric interference spectroscopy. Sauer M, et al. **Anal Chem** 1999 Jul 15;71(14):2850–7

Spectroscopic and biophysical approaches for studying the structure and function of the P-glycoprotein multidrug transporter. Sharom FJ, et al. **Biochem Cell Biol** 1998; 76(5):695–708 (69 ref.)
Time domain dielectric spectroscopy study of human cells. II. Normal and malignant white blood cells. Polevaya Y, et al. **Biochim Biophys Acta** 1999 Jul 15;1419(2):257–71
In situ analysis of sulfur in the sulfur globules of phototrophic sulfur bacteria by X-ray absorption near edge spectroscopy. Prange A, et al. **Biochim Biophys Acta** 1999 Aug 5;1428(2–3):446–54
Microbial degradation of polymeric coatings measured by electrochemical impedance spectroscopy. Gu JD, et al. **Biodegradation** 1998;9(1):39–45
Genetic programming as an analytical tool for non-linear dielectric spectroscopy. Woodward AM, et al. **Bioelectrochem Bioenerg** 1999 May;48(2):389–96
VIIIth International Symposium on Luminescence Spectrometry in Biomedical and Environmental Analysis: Detection Techniques and Applications in Chromatography and Capillary Electrophoresis. Canary Islands, Spain, 26–29 May 1998. Extended abstracts. **Biomed Chromatogr** 1999 Apr;13(2):97–194
Real-time monitoring of yeast cell division by dielectric spectroscopy. Asami K, et al. **Biophys J** 1999 Jun; 76(6):3345–8
The use of optical spectroscopy in combinatorial chemistry. Gremlich HU. **Biotechnol Bioeng** 1998–99;61(3):179–87
Spectroscopic and clinical aspects of noninvasive glucose measurements. Khalil OS. **Clin Chem** 1999 Feb;45(2):165–77 (141 ref.)
IFCC methods for measurement of catalytic concentration of enzymes. Part 9. IFCC method for alpha-amylase [1,4-alpha-D-glucan 4-glucanohydrolase, EC 3.2.1.1]. International Federation of Clinical Chemistry. **Clin Chim Acta** 1999 Mar;281(1–2):S5–39
Determination of silicon in urine by inductive coupled plasma-optical emission spectroscopy. Widner B, et al. **Clin Chim Acta** 1998 Sep 14;277(1):51–63
Microcirculatory oxygenation and shunting in sepsis and shock [see comments] Ince C, et al. **Crit Care Med** 1999 Jul;27(7):1369–77 (75 ref.). Comment in: Crit Care Med 1999 Jul;27(7):1400–1.
Dysoxia and "dat" oxia: where does the oxygen go? [editorial; comment] Nelson LD. **Crit Care Med** 1999 Jul;27(7):1400–1 . Comment on: Crit Care Med 1999 Jul;27(7):1369–77.
Structural difference in the H+,K+-ATPase between the E1 and E2 conformations. An attenuated total reflection infrared spectroscopy, UV circular dichroism and raman spectroscopy study. Raussens V, et al. **Eur J Biochem** 1999 May;262(1):176–83
Implications of lag time concept in the oxidation of LDL. Parthasarathy S, et al. **Free Radic Res** 1998 Jun; 28(6):583–91 (39 ref.)
Determination of calcium by inductively coupled plasma-atomic emission spectrometry, and lead by graphite furnace atomic absorption spectrometry, in calcium supplements after microwave dissolution or dry-ash digestion: method trial. Siitonen PH, et al. **J AOAC Int** 1998 Nov-Dec;81(6):1233–9
An ESR assay for alpha-amylase activity toward succinylated starch, amylose and amylopectin. Marcazzan M, et al. **J Biochem Biophys Methods** 1999 Feb 8; 38(3):191–202
Dielectric spectroscopy in the cultivation of suspended and immobilized hybridoma cells. Noll T, et al. **J Biotechnol** 1998 Aug 27;63(3):187–98
Determination of trans-beta-carotene and other carotenoids in blood plasma using high-performance liquid chromatography and thermal lens detection. Franko M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23; 718(1):47–54
The analysis of methamphetamine hydrochloride by thermal desorption ion mobility spectrometry and SIMPLISMA. Reese ES, et al. **J Forensic Sci** 1999 Jan;44(1):68–76
X-ray microanalysis of native airway surface liquid collected by cryotechnique. Baconnais S, et al. **J Microsc** 1998 Sep; 191 (Pt 3):311–9
Single molecule force spectroscopy of spectrin repeats: low unfolding forces in helix bundles. Rief M, et al. **J Mol Biol** 1999 Feb 19;286(2):553–61
Applications of chiroptical spectroscopy for the characterization of pharmaceutical compounds. Brittain HG. **J Pharm Biomed Anal** 1998 Sep 1;17(6-7):933–40 (44 ref.)
Dielectric single particle spectroscopy for measurement of dispersion. Schnelle T, et al. **Med Biol Eng Comput** 1999 Mar;37(2):264–71
Time-resolved spectroscopy of mitochondria, cells and tissues under normal and pathological conditions. Beauvoit B, et al. **Mol Cell Biochem** 1998 Jul;184(1-2):445–55
Penetration studies of clotrimazole from semisolid formulation using step-scan FT-IR photoacoustic spectroscopy. Schendzielorz A, et al. **Pharm Res** 1999 Jan; 16(1):42–5
The determination of in vivo human tissue optical properties and absolute chromophore concentrations using spatially resolved steady-state diffuse reflectance spectroscopy. Doornbos RM, et al. **Phys Med Biol** 1999 Apr;44(4):967–81
Non-invasive measurement of chemotherapy drug concentrations in tissue: preliminary demonstrations of in vivo measurements. Mourant JR, et al. **Phys Med Biol** 1999 May;44(5):1397–417
Optical properties of bovine muscle tissue in vitro; a comparison of methods [see comments] Zijp JR, et al. **Phys Med Biol** 1998 Oct;43(10):3065–81. Comment in: Phys Med Biol 1999 Apr;44(4):L7–8.
Spatially resolved force spectroscopy of biological surfaces using the atomic force microscope. Heinz WF, et al. **Trends Biotechnol** 1999 Apr;17(4):143–50 (74 ref.)
Parallel electron energy-loss spectroscopy free from gain variation. Feng JL, et al. **Ultramicroscopy** 1999 Apr; 76(4):221–31
Towards single atom analysis of biological structures. Leapman RD, et al. **Ultramicroscopy** 1999 Jun; 78(1-4):251–68
Wide-band acoustic spectroscopy of biological material based on a laser-induced grating technique. Maznev AA, et al. **Ultrasound Med Biol** 1999 May;25(4):601–7
[Laser correlation spectroscopy of blood plasma for diagnosis of postradiation sequels] Kiselev MF, et al. **Radiats Biol Radioecol** 1999 Jan-Feb;39(1):64–78 (Eng. Abstr.) **(Rus)**
[Classification of results of studying blood plasma with laser correlation spectroscopy based on semiotics of preclinical and clinical states] Ternovoi KS, et al. **Ukr Biokhim Zh** 1998 Mar-Apr;70(2):53–65 (Eng. Abstr.) **(Rus)**
[Comparative analysis of semiotic shifts, established by LCS of blood plasma from random samples of studied subjects from the zone of the Chernobyl accident, "Ural Radiation Trace", and collaborators from St. Petersburg Institute of Nuclear Physics of the Russian Academy of Sciences] Ternovoi KS, et al. **Ukr Biokhim Zh** 1998 May-Jun; 70(3):81–5 (Eng. Abstr.) **(Rus)**

SPECTRUM ANALYSIS, MASS

Comparison of isotope ratio mass spectrometry and nondispersive isotope-selective infrared spectroscopy for 13C-urea breath test. Savarino V, et al. **Am J Gastroenterol** 1999 May;94(5):1203–8
Analysis of recombinant human ADP-ribosylation factors by reversed-phase high-performance liquid chromatography and electrospray mass spectrometry. Berger SJ, et al. **Anal Biochem** 1998 Nov 1;264(1):53–65
Selective bridging of bis-cysteinyl residues by arsonous acid derivatives as an approach to the characterization of protein tertiary structures and folding pathways by mass spectrometry. Happersberger HP, et al. **Anal Biochem** 1998 Nov 15;264(2):237–50
Multiplexed screening of neutral mass-tagged RNA targets against ligand libraries with electrospray ionization FTICR MS: a paradigm for high-throughput affinity screening. Hofstadler SA, et al. **Anal Chem** 1999 Aug 15; 71(16):3436–40
C-terminal peptide sequencing via multistage mass spectrometry. Lin T, et al. **Anal Chem** 1998 Dec 15; 70(24):5162–5
Electrospray ionization mass spectrometry: a promising new technique in the study of protein/DNA noncovalent complexes. Veenstra TD. **Biochem Biophys Res Commun** 1999 Apr 2;257(1):1–5 (21 ref.)
Polyatomics in zinc isotope ratio analysis of plasma samples by inductively coupled plasma-mass spectrometry and applicability of nonextracted samples for zinc kinetics. Ramanujam VM, et al. **Biol Trace Elem Res** 1999 May; 68(2):143–58
Mass spectrometric analysis in combinatorial chemistry. Swali V, et al. **Curr Opin Chem Biol** 1999 Jun;3(3):337–41 (36 ref.)
Capillary electrophoresis, nuclear magnetic resonance and mass spectrometry studies of opposite chiral recognition of chlorpheniramine enantiomers with various cyclodextrins. Chankvetadze B, et al. **Electrophoresis** 1998 Sep;19(12):2101–8
On-line capillary electrophoresis-electrospray ionization mass spectrometry using a polymerized anionic surfactant. Lu W, et al. **Electrophoresis** 1998 Sep;19(12):2193–9
Database searching using mass spectrometry data. Yates JR 3rd. **Electrophoresis** 1998 May;19(6):893–900 (48 ref.)
Application of capillary electrophoresis, liquid chromatography, electrospray-mass spectrometry and matrix-assisted laser desorption/ionization - time of flight - mass spectrometry to the characterization of recombinant human erythropoietin. Zhou GH, et al. **Electrophoresis** 1998 Oct;19(13):2348–55
Estimates of mineral intakes using food composition tables vs measures by inductively-coupled plasma mass spectrometry: Part 2: sodium, potassium, magnesium, copper, zinc. Shimbo S, et al. **Eur J Clin Nutr** 1999 Mar; 53(3):233–8
Estimates of mineral intakes using food composition tables vs measures by inductively-coupled plasma mass spectrometry: Part 1. calcium, phosphorus and iron. Zhang ZW, et al. **Eur J Clin Nutr** 1999 Mar;53(3):226–32
Direct observation of lipid hydroperoxides in phospholipid vesicles by electrospray mass spectrometry. Spickett CM, et al. **Free Radic Biol Med** 1998 Sep;25(4-5):613–20
Reliable genotyping of short tandem repeat loci without an allelic ladder using time-of-flight mass spectrometry. Butler JM, et al. **Int J Legal Med** 1999;112(1):45–9
Hydration of gas-phase ions formed by electrospray ionization. Rodriguez-Cruz SE, et al. **J Am Soc Mass Spectrom** 1999 Oct;10(10):958–68
Archive of mass spectral data files on recordable CD-ROMs and creation and maintenance of a searchable computerized database. Amick GD. **J Anal Toxicol** 1999 Jan-Feb; 23(1):46–53
Detection of thiazide-based diuretics in equine urine by liquid chromatography/mass spectrometry. Garbis SD, et al. **J AOAC Int** 1998 Sep-Oct;81(5):948–57
Validation of an immunoassay method for the determination of traces of carbaryl in vegetable and fruit extracts by liquid chromatography with photodiode array and mass spectrometric detection. Nunes GS, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):109–20
Impact of mass spectrometry on combinatorial chemistry. Süssmuth RD, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2;725(1):49–65 (102 ref.)
Tandem mass spectrometry--the potential. Bartlett K, et al. **J Inherit Metab Dis** 1999 Jun;22(4):568–71 (12 ref.)
Mass spectral study of polymorphism of the apolipoproteins of very low density lipoprotein. Bondarenko PV, et al. **J Lipid Res** 1999 Mar;40(3):543–55
Current literature in mass spectrometry. **J Mass Spectrom** 1998 Nov;33(11):1151–61
Current literature in mass spectrometry. **J Mass Spectrom** 1999 Mar;34(3):230–8
Characterization of O-glycosylation sites in MUC2 glycopeptides by nanoelectrospray QTOF mass spectrometry. Alving K, et al. **J Mass Spectrom** 1999 Apr; 34(4):395–407
Negative ion electrospray and tandem mass spectrometric analysis of platelet activating factor (PAF) (1-hexadecyl-2-acetyl-glycerophosphocholine). Harrison KA, et al. **J Mass Spectrom** 1999 Apr;34(4):330–5
Matrix-assisted laser desorption/ionization time-of-flight and nano-electrospray ionization ion trap mass spectrometric characterization of 1-cyano-2-substituted-benz[f]isoindole derivatives of peptides for fluorescence detection. Linnemayr K, et al. **J Mass Spectrom** 1999 Apr;34(4):427–34
Oligonucleotide sequencing using guanine-specific methylation and electrospray ionization ion trap mass spectrometry. Marzilli LA, et al. **J Mass Spectrom** 1999 Apr;34(4):276–80
Mass spectrometric analysis of Klebsiella pneumoniae ssp. pneumoniae rough strain R20 (O1-; K20-) lipopolysaccharide preparations: identification of novel core oligosaccharide components and three 3-deoxy-D-manno-oct-2-ulopyranosonic artifacts. Olsthoorn MM, et al. **J Mass Spectrom** 1999 Jun; 34(6):622–36
Quantitative determination of DNA adducts using liquid chromatography/electrospray ionization mass spectrometry and liquid chromatography/high-resolution inductively coupled plasma mass spectrometry. Siethoff C, et al. **J Mass Spectrom** 1999 Apr;34(4):421–6
Electrospray mass spectrometry in the structural characterization of cephalosporins. Tenconi S, et al. **J Mass Spectrom** 1999 Apr;34(4):268–75
Post-source decay mass spectrometry: optimized calibration procedure and structural characterization of permethylated oligosaccharides. Viseux N, et al. **J Mass Spectrom** 1999 Apr;34(4):364–76
Identification of tyrosine sulfation in Conus pennaceus conotoxins alpha-PnIA and alpha-PnIB: further investigation of labile sulfo- and phosphopeptides by electrospray, matrix-assisted laser desorption/ionization (MALDI) and atmospheric pressure MALDI mass spectrometry. Wolfender JL, et al. **J Mass Spectrom** 1999 Apr;34(4):447–54
Protein sequencing or genome sequencing. Where does mass spectrometry fit into the picture? Roepstorff P. **J Protein Chem** 1998 Aug;17(6):542–3
Tandem mass spectrometry: the tool of choice for diagnosing inborn errors of metabolism [news] Sansom C. **Mol Med Today** 1999 Mar;5(3):95
Efficient sequence analysis of the six gene products (7-74 kDa) from the Escherichia coli thiamin biosynthetic operon by tandem high-resolution mass spectrometry. Kelleher NL, et al. **Protein Sci** 1998 Aug;7(8):1796–801
Mass spectrometric characterization of oat phytochrome A: isoforms and posttranslational modifications. Lapko VN, et al. **Protein Sci** 1999 May;8(5):1032–44
Selected papers from the Stable Isotope Mass Spectrometry Users Group (SIMSUG) meeting. Exeter, United Kingdom, 19–20 January 1999. **Rapid Commun Mass Spectrom** 1999;13(13):1209–345
Report and papers arising from the 23rd annual meeting of the British Mass Spectrometry Society. University of Warwick, United Kingdom, 13–16 September 1998. **Rapid Commun Mass Spectrom** 1999;13(4):193–293
Third MS - pharmaday - MASSA 99 meeting, held at the University of Siena, June 1-4, 1999. Newton RP. **Rapid Commun Mass Spectrom** 1999;13(16):1703–4
Controlling charge states of large ions. Scalf M, et al. **Science** 1999 Jan 8;283(5399):194–7
Nondispersive infrared spectrometry for 13CO2/12CO2-measurements: a clinically feasible analyzer for stable isotope breath tests in gastroenterology. Braden B, et al. **Z Gastroenterol** 1999 Jun;37(6):477–81
[Chemical analysis of clinical materials using mass spectrometry] Shimizu A, et al. **Rinsho Byori** 1999 Feb;

Suppl 109:116–25 (16 ref.) (Jpn)

HISTORY

Ben Sherman Freiser (1951–1997). Cooks RG. **J Am Soc Mass Spectrom** 1998 Jun;9(6):565–8

INSTRUMENTATION

ESI/ion trap/ion mobility/time-of-flight mass spectrometry for rapid and sensitive analysis of biomolecular mixtures. Henderson SC, et al. **Anal Chem** 1999 Jan 15;71(2):291–301

Infrared multiphoton dissociation in an external ion reservoir. Hofstadler SA, et al. **Anal Chem** 1999 Jun 1;71(11):2067–70

Comment on the cylindrical capacitor electrospray interface [letter] König S, et al. **Anal Chem** 1998 Oct 15;70(20):4453–5

Integration of microfabricated devices to capillary electrophoresis–electrospray mass spectrometry using a low dead volume connection: application to rapid analyses of proteolytic digests. Li J, et al. **Anal Chem** 1999 Aug 1;71(15):3036–45

Hydroquinone as a buffer additive for suppression of bubbles formed by electrochemical oxidation of the CE buffer at the outlet electrode in capillary electrophoresis/electrospray ionization–mass spectrometry. Moini M, et al. **Anal Chem** 1999 Apr 15;71(8):1658–61

Characterization of an improved electrodynamic ion funnel interface for electrospray ionization mass spectrometry. Shaffer SA, et al. **Anal Chem** 1999 Aug 1;71(15):2957–64

An integrated microfabricated device for dual microdialysis and on-line ESI-ion trap mass spectrometry for analysis of complex biological samples. Xiang F, et al. **Anal Chem** 1999 Apr 15;71(8):1485–90

Microfabricated devices for capillary electrophoresis–electrospray mass spectrometry. Zhang B, et al. **Anal Chem** 1999 Aug 1;71(15):3258–64

Simultaneous analysis of endogenous neurotransmitters and neuropeptides in brain tissue using capillary electrophoresis––microelectrospray–tandem mass spectrometry. Jäverfalk–Hoyes EM, et al. **Electrophoresis** 1999 Jun;20(7):1527–32

18O exchange in suspensions of red blood cells: determination of parameters of mass spectrometer inlet system. Wunder MA, et al. **Isotopes Environ Health Stud** 1998;34(3):303–10

Application of micro–electrospray liquid chromatography techniques to FT–ICR MS to enable high–sensitivity biological analysis. Emmett MR, et al. **J Am Soc Mass Spectrom** 1998 Apr;9(4):333–40

A novel nonmetallized tip for electrospray mass spectrometry at nanoliter flow rate. Fong KW, et al. **J Am Soc Mass Spectrom** 1999 Jan;10(1):72–5

Electrospray ionization–Fourier transform ion cyclotron resonance mass spectrometry at 11.5 tesla: instrument design and initial results. Gorshkov MV, et al. **J Am Soc Mass Spectrom** 1998 Jul;9(7):692–700

Nanoelectrospray––more than just a minimized-flow electrospray ionization source. Juraschek R, et al. **J Am Soc Mass Spectrom** 1999 Apr;10(4):300–8

Microfabricated modules for sample handling, sample concentration and flow mixing: application to protein analysis by tandem mass spectrometry. Figeys D, et al. **J Biomech Eng** 1999 Feb;121(1):7–12

Microcolumn size–exclusion chromatography coupled with electrospray ionization mass spectrometry. Prokai L, et al. **J Chromatogr A** 1999 Mar 12;835(1–2):121–6

A real–time algorithm to improve the response time of a clinical multigas analyser. Wong L, et al. **J Clin Monit Comput** 1998 Aug;14(6):441–6

Ion/ion chemistry of high–mass multiply charged ions [published erratum appears in Mass Spectrom Rev 1999 Jan–Feb;18(1):83–6] McLuckey SA, et al. **Mass Spectrom Rev** 1998 Nov–Dec;17(6):369–407 (107 ref.)

Performance characteristics of a chemical imaging time–of–flight mass spectrometer. Braun RM, et al. **Rapid Commun Mass Spectrom** 1998;12(18):1246–52

Microfabricated device coupled with an electrospray ionization quadrupole time–of–flight mass spectrometer: protein identifications based on enhanced–resolution mass spectrometry and tandem mass spectrometry data. Figeys D, et al. **Rapid Commun Mass Spectrom** 1998; 12(20):1435–44

[Limits of beryllium detection with laser microprobe mass spectrometry (LAMMS)] Entzian P, et al. **Pneumologie** 1998 Dec;52(12):674–9 (Eng. Abstr.) (Ger)

METHODS

Mass isotopomer distribution analysis at eight years: theoretical, analytic, and experimental considerations. Hellerstein MK, et al. **Am J Physiol** 1999 Jun;276(6 Pt 1):E1146–70 (40 ref.)

A simple and reliable method of detecting variant transthyretins by multidimensional liquid chromatography coupled to electrospray ionization mass spectrometry. Kishikawa M, et al. **Amyloid** 1999 Mar;6(1):48–53

Assessing the relative stabilities of engineered hemoglobins using electrospray mass spectrometry. Apostol I. **Anal Biochem** 1999 Jul 15;272(1):8–18

Observation of Escherichia coli ribosomal proteins and their posttranslational modifications by mass spectrometry. Arnold RJ, et al. **Anal Biochem** 1999 Apr 10;269(1):105–12

Extraction method for analysis of detergent–solubilized bacteriorhodopsin and hydrophobic peptides by electrospray ionization mass spectrometry. Barnidge DR, et al. **Anal Biochem** 1999 Apr 10;269(1):1–9

Intrinsic erythrocyte labeling and attomole pharmacokinetic tracing of 14C–labeled folic acid with accelerator mass spectrometry. Buchholz BA, et al. **Anal Biochem** 1999 May 1;269(2):348–52

Analysis of cytochrome P450 metabolites of arachidonic and linoleic acids by liquid chromatography–mass spectrometry with ion trap MS. Bylund J, et al. **Anal Biochem** 1998 Dec 1;265(1):55–68

In vivo determination of very–low–density lipoprotein–apolipoprotein B100 secretion rates in humans with a low dose of l–[1–13C]valine and isotope ratio mass spectrometry. de Sain–van der Velden MG, et al. **Anal Biochem** 1998 Dec 15;265(2):308–12

A simplified gradient solvent delivery system for capillary liquid chromatography–electrospray ionization mass spectrometry. Ducret A, et al. **Anal Biochem** 1998 Dec 1;265(1):129–38

Electrospray ionization mass spectrometric analysis of blood for differentiation of species. Espinoza EO, et al. **Anal Biochem** 1999 Mar 15;268(2):252–61

Ionspray ionization–mass spectrometric separation and determination of heptafluorobutyryl derivatives of polyamines. Furuumi N, et al. **Anal Biochem** 1998 Dec 15; 265(2):253–9

Protein identification at the low femtomole level from silver–stained gels using a new fritless electrospray interface for liquid chromatography–microspray and nanospray mass spectrometry. Gatlin CL, et al. **Anal Biochem** 1998 Oct 1;263(1):93–101

Analysis of reduced and oxidized forms of cytochrome c by capillary electrophoresis and capillary electrophoresis–mass spectrometry. He T, et al. **Anal Biochem** 1999 Jul 1;271(2):189–92

Analysis of DNA adduct, S–[2–(N7–guanyl)ethyl]glutathione, by liquid chromatography/mass spectrometry and liquid chromatography/tandem mass spectrometry. Huang H, et al. **Anal Biochem** 1998 Dec 1;265(1):139–50

Characterization of cholyl–adenylate in rat liver microsomes by liquid chromatography/electrospray ionization–mass spectrometry. Ikegawa S, et al. **Anal Biochem** 1999 Jan 1;266(1):125–32

Analysis of 3– and 6–linked sialic acids in mixtures of gangliosides using blotting to polyvinylidene difluoride membranes, binding assays, and various mass spectrometry techniques with application to recognition by Helicobacter pylori. Johansson L, et al. **Anal Biochem** 1998 Dec 15; 265(2):260–8

Analysis of carbohydrate heterogeneity in a glycoprotein using liquid chromatography/mass spectrometry and liquid chromatography with tandem mass spectrometry. Kawasaki N, et al. **Anal Biochem** 1999 May 1; 269(2):297–303

Mass spectrometric analysis of catechol–histidine adducts from insect cuticle. Kerwin JL, et al. **Anal Biochem** 1999 Mar 15;268(2):229–37

Detection of metallothionein isoforms from three different species using on–line capillary electrophoresis–mass spectrometry. Knudsen CB, et al. **Anal Biochem** 1998 Dec 1;265(1):167–75

Separation of selenium–containing proteins in human and mouse plasma using tandem high–performance liquid chromatography columns coupled with inductively coupled plasma–mass spectrometry. Koyama H, et al. **Anal Biochem** 1999 Feb 1;267(1):84–91

Iron(III)–immobilized metal ion affinity chromatography and mass spectrometry for the purification and characterization of synthetic phosphopeptides. Li S, et al. **Anal Biochem** 1999 May 15;270(1):9–14

Partial vapor–phase hydrolysis of peptide bonds: A method for mass spectrometric determination of O–glycosylated sites in glycopeptides. Mirgorodskaya E, et al. **Anal Biochem** 1999 Apr 10;269(1):54–65

Characterization of pyrroloquinoline quinone amino acid derivatives by electrospray ionization mass spectrometry and detection in human milk. Mitchell AE, et al. **Anal Biochem** 1999 May 1;269(2):317–25

Mass spectrometric sequencing of site–specific carcinogen–modified oligodeoxyribonucleotides containing bulky benzo[a]pyrene diol epoxide–deoxyguanosyl adducts. Ni J, et al. **Anal Biochem** 1998 Nov 15;264(2):222–9

Measuring protein synthesis by mass isotopomer distribution analysis (MIDA). Papageorgopoulos C, et al. **Anal Biochem** 1999 Feb 1;267(1):1–16

Electrospray ionization mass spectrometry: analysis of the Ca2+–binding properties of human recombinant alpha–parvalbumin and nine mutant proteins. Troxler H, et al. **Anal Biochem** 1999 Mar 1;268(1):64–71

Determination of amino acid isotope enrichment using liquid chromatography–mass spectrometry. van Eijk HM, et al. **Anal Biochem** 1999 Jun 15;271(1):8–17

Sequencing regular and labeled oligonucleotides using enzymatic digestion and ionspray mass spectrometry. Wu H, et al. **Anal Biochem** 1998 Oct 15;263(2):129–38

Electrospray ionization–mass spectrometry study of the interaction of cisplatin–adducted oligonucleotides with human XPA minimal binding domain protein. Xu N, et al. **Anal Biochem** 1999 Jul 15;272(1):26–33

Narrow–band collisional activation technique for ion trap mass spectrometers. Baker AG, et al. **Anal Chem** 1999 Jul 15;71(14):2945–50

Differentiation of microorganisms based on pyrolysis–ion trap mass spectrometry using chemical ionization. Barshick SA, et al. **Anal Chem** 1999 Feb 1;71(3):633–41

Isotope dilution high–performance liquid chromatography/tandem mass spectrometry method for quantifying urinary metabolites of atrazine, malathion, and 2,4–dichlorophenoxyacetic acid. Beeson MD, et al. **Anal Chem** 1999 Aug 15;71(16):3526–30

High–mass–measurement accuracy and 100% sequence coverage of enzymatically digested bovine serum albumin from an ESI–FTICR mass spectrum. Bruce JE, et al. **Anal Chem** 1999 Jul 15;71(14):2595–9

Fragmentation reactions in the mass spectrometry analysis of neutral oligosaccharides. Cancilla MT, et al. **Anal Chem** 1999 Aug 1;71(15):3206–18

Identification of polar toxicants in industrial wastewaters using toxicity–based fractionation with liquid chromatography/mass spectrometry. Castillo M, et al. **Anal Chem** 1999 Sep 1;71(17):3769–76

Identification and quantitation of despropionyl–bezitramide in postmortem samples by liquid chromatography coupled to electrospray ionization tandem mass spectrometry. De Baere SM, et al. **Anal Chem** 1999 Jul 15;71(14):2908–14

Advances in CE/MS. Ding J, et al. **Anal Chem** 1999 Jun 1;71(11):378A–385A (47 ref.)

Characterization of allosteric insulin hexamers by electrospray ionization mass spectrometry. Fabris D, et al. **Anal Chem** 1999 Jan 15;71(2):384–7

Nanoflow solvent gradient delivery from a microfabricated device for protein identifications by electrospray ionization mass spectrometry. Figeys D, et al. **Anal Chem** 1998 Sep 15;70(18):3721–7

An integrated microfluidics–tandem mass spectrometry system for automated protein analysis. Figeys D, et al. **Anal Chem** 1998 Sep 15;70(18):3728–34

Mass Spectrometry in DNA analysis. Guo B. **Anal Chem** 1999 Jun 15;71(12):333R–337R (47 ref.)

ESI/ion trap/ion mobility/time–of–flight mass spectrometry for rapid and sensitive analysis of biomolecular mixtures. Henderson SC, et al. **Anal Chem** 1999 Jan 15;71(2):291–301

Sample preparation for LC/MS/MS: analyzing biological and environmental samples. Henion J, et al. **Anal Chem** 1998 Oct 1;70(19):650A–656A

Infrared multiphoton dissociation in an external ion reservoir. Hofstadler SA, et al. **Anal Chem** 1999 Jun 1;71(11):2067–70

On–line cation exchange for suppression of adduct formation in negative–ion electrospray mass spectrometry of nucleic acids. Huber CG, et al. **Anal Chem** 1998 Dec 15; 70(24):5288–95

Probing proteomes using capillary isoelectric focusing–electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry. Jensen PK, et al. **Anal Chem** 1999 Jun 1;71(11):2076–84

On–line capillary electrophoresis/microelectrospray ionization–tandem mass spectrometry using an ion trap storage/time–of–flight mass spectrometer with SWIFT technology. Jin X, et al. **Anal Chem** 1999 Aug 15; 71(16):3591–7

Flame, flameless, and plasma spectroscopy. Komaromy–Hiller G. **Anal Chem** 1999 Jun 15; 71(12):338R–342R (127 ref.)

Electrospray quadrupole mass spectrometry analysis of model oligonucleotides and polymerase chain reaction products: determination of base substitutions, nucleotide additions/deletions, and chemical modifications. Krahmer MT, et al. **Anal Chem** 1999 Jul 15;71(14):2893–900

Size exclusion chromatography–chemical reaction interface mass spectrometry: "a perfect match". Lecchi P, et al. **Anal Chem** 1999 Jul 15;71(14):2951–5

Integration of microfabricated devices to capillary electrophoresis–electrospray mass spectrometry using a low dead volume connection: application to rapid analyses of proteolytic digests. Li J, et al. **Anal Chem** 1999 Aug 1;71(15):3036–45

Geochemical and cosmochemical materials. Lipschutz ME, et al. **Anal Chem** 1999 Jun 15;71(12):1R–20R (312 ref.)

Preliminary investigation of electrothermal vaporization sample introduction for inductively coupled plasma time–of–flight mass spectrometry. Mahoney PP, et al. **Anal Chem** 1999 Apr 1;71(7):1378–83

A microscale electrospray interface incorporating a monolithic, poly(styrene–divinylbenzene) support for on–line liquid chromatography/tandem mass spectrometry analysis of peptides and proteins. Moore RE, et al. **Anal Chem** 1998 Dec 1;70(23):4879–84

BIA/MS of epitope–tagged peptides directly from E. coli lysate: multiplex detection and protein identification at low–femtomole to subfemtomole levels. Nelson RW, et al. **Anal Chem** 1999 Jul 15;71(14):2858–65

Silver–plated vitamins: a method of detecting tocopherols and carotenoids in LC/ESI–MS coupling. Rentel C, et al. **Anal Chem** 1998 Oct 15;70(20):4394–400

Characterization of an improved electrodynamic ion funnel interface for electrospray ionization mass spectrometry. Shaffer SA, et al. **Anal Chem** 1999 Aug 1;71(15):2957–64

Selective determination of aromatic sulfonates in landfill leachates and groundwater using microbore liquid chromatography coupled with mass spectrometry. Suter MJ, et al. **Anal Chem** 1999 Feb 15;71(4):897–904

Characterization of transthyretin mutants from serum using immunoprecipitation, HPLC/electrospray ionization and matrix–assisted laser desorption/ionization mass

spectrometry. Théberge R, et al. **Anal Chem** 1999 Jan 15; 71(2):452–9

Identification of proteins in complexes by solid-phase microextraction/multistep elution/capillary electrophoresis/tandem mass spectrometry. Tong W, et al. **Anal Chem** 1999 Jul 1;71(13):2270–8

Multiple-stage tandem mass spectrometry for structural characterization of saponins. van Setten DC, et al. **Anal Chem** 1998 Oct 15;70(20):4401–9

Phase correction for collision model analysis and enhanced resolving power of fourier transform ion cyclotron resonance mass spectra. Vining BA, et al. **Anal Chem** 1999 Jan 15;71(2):460–7

Structural assignment of permethylated oligosaccharide subunits using sequential tandem mass spectrometry. Viseux N, et al. **Anal Chem** 1998 Dec 1;70(23):4951–9

Microfabricated devices for capillary electrophoresis-electrospray mass spectrometry. Zhang B, et al. **Anal Chem** 1999 Aug 1;71(15):3258–64

The important contribution of high precision mass spectrometric methods in the study of the structure-function relationship of proteins and enzymes. Devreese B, et al. **Analyst** 1998 Dec;123(12):2457–61 (38 ref.)

Determination of serum physiological concentration of methylmalonic acid by gas chromatography-mass spectrometry with selected ion monitoring. Rifai N, et al. **Ann Clin Biochem** 1998 Sep;35 (Pt 5):633–6

Mineral fibre sampling and size selection. Morigi MP, et al. **Ann Occup Hyg** 1999 Feb;43(2):117–24

Inter-strain comparison by pyrolysis mass spectrometry of Staphylococcus aureus isolates associated with nosocomial infection. Sisson PR, et al. **Antonie Van Leeuwenhoek** 1998 May;73(4):327–30

Identification of glu-277 as the catalytic nucleophile of Thermoanaerobacterium saccharolyticum beta-xylosidase using electrospray MS. Vocadlo DJ, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):449–55

Determination of total arsenic concentrations in nails by inductively coupled plasma mass spectrometry. Chen KL, et al. **Biol Trace Elem Res** 1999 Feb;67(2):109–25

Matrix interferences in the analysis of digested biological tissues with inductively coupled plasma-mass spectrometry. Ejima A, et al. **Biol Trace Elem Res** 1999 Aug;69(2):99–109

Trace elements in formulas based on cow and soy milk and in Austrian cow milk determined by inductively coupled plasma mass spectrometry. Krachler M, et al. **Biol Trace Elem Res** 1998 Oct;65(1):53–74

Separatory determination of diastereomeric ibuprofen glucuronides in human urine by liquid chromatography/electrospray ionization-mass spectrometry. Ikegawa S, et al. **Biomed Chromatogr** 1998 Nov-Dec;12(6):317–21

On-line sample clean-up and chromatography coupled with electrospray ionization mass spectrometry to characterize the primary sequence and disulfide bond content of recombinant calcium binding proteins. Johnson KL, et al. **Biomed Chromatogr** 1999 Feb;13(1):37–45

An automated method for the simultaneous determination of pravastatin and its main metabolite in human plasma by high-performance liquid chromatography/atmospheric pressure chemical ionization mass spectrometry. Kawabata K, et al. **Biomed Chromatogr** 1998 Sep-Oct;12(5):271–5

Applications of mass spectrometry in combinatorial chemistry. Siuzdak G, et al. **Biotechnol Bioeng** 1998 Spring; 61(2):127–34

Screening of newborn infants for cholestatic hepatobiliary disease with tandem mass spectrometry. Mushtaq I, et al. **BMJ** 1999 Aug 21;319(7208):471–7

Direct identification of major histocompatibility complex class I-bound tumor-associated peptide antigens of a renal carcinoma cell line by a novel mass spectrometric method. Flad T, et al. **Cancer Res** 1998 Dec 15;58(24):5803–11

Structural studies of a heteroxylan from Plantago major L. seeds by partial hydrolysis, HPAEC-PAD, methylation and GC-MS, ESMS and ESMS/MS. Samuelsen AB, et al. **Carbohydr Res** 1999 Feb 28;315(3–4):312–8

Determination of the urinary benzene metabolites S-phenylmercapturic acid and trans,trans-muconic acid by liquid chromatography-tandem mass spectrometry. Melikian AA, et al. **Carcinogenesis** 1999 Apr;20(4):719–26

Liquid chromatography with particle-beam electron-impact mass spectrometry of diacylglycerol nicotinates. Dobson G, et al. **Chem Phys Lipids** 1998 Dec;97(1):27–39

Interactions between essential and toxic elements in lead exposed children in Katowice, Poland. Osman K, et al. **Clin Biochem** 1998 Nov;31(8):657–65

Newborn screening by tandem mass spectrometry: a new era [editorial; comment] Levy HL. **Clin Chem** 1998 Dec; 44(12):2401–2. Comment on: Clin Chem 1998 Dec;44(12):2405–9.

An LC-MS method to determine concentrations of isoflavones and their sulfate and glucuronide conjugates in urine. Cimino CO, et al. **Clin Chim Acta** 1999 Sep; 287(1–2):69–82

Sensitivity of electrospray-tandem mass spectrometry using the phenylalanine/tyrosine-ratio for differential diagnosis of hyperphenylalaninemia in neonates. Schulze A, et al. **Clin Chim Acta** 1999 May;283(1–2):15–20

LC/MS with a particle beam interface in forensic toxicology. Spratt E, et al. **Clin Lab Med** 1998 Dec;18(4):651–63, viii

High throughput liquid chromatography-mass spectrometry assessment of the metabolic activity of commercially available hepatocytes from 96-well plates. Caldwell GW, et al. **Comb Chem High Throughput Screen** 1999 Feb; 2(1):39–51

Screening for xenobiotic electrophilic metabolites using pulsed ultrafiltration-mass spectrometry. Nikolic D, et al. **Comb Chem High Throughput Screen** 1999 Jun;2(3):165–75

Screening for inhibitors of dihydrofolate reductase using pulsed ultrafiltration mass spectrometry. Nikolic D, et al. **Comb Chem High Throughput Screen** 1998 Apr;1(1):47–55

Ratio encoding combinatorial libraries with stable isotopes and their utility in pharmaceutical research. Wagner DS, et al. **Comb Chem High Throughput Screen** 1998 Oct; 1(3):143–53

New developments in automated PrepLCMS extends the robustness and utility of the method for compound library analysis and purification. Zeng L, et al. **Comb Chem High Throughput Screen** 1998 Jun;1(2):101–11

Direct electrospray-ionization mass spectrometric analysis of the major ganglioside from crucian carp liver after thin layer chromatography. Hildebrandt H, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1999 Jan; 122(1):83–8

Analysis of deprenyl metabolites in the rat brain using HPLC-ES-MS. Kalász H, et al. **Curr Med Chem** 1999 Apr; 6(4):271–8

Bioanalytical applications of mass spectrometry. Costello CE. **Curr Opin Biotechnol** 1999 Feb;10(1):22–8 (60 ref.)

Tandem spectrometry in newborn screening. Seashore MR. **Curr Opin Pediatr** 1998 Dec;10(6):609–14 (30 ref.)

6-pyruvoyltetrahydropterin synthase deficiency diagnosed in tandem mass spectrometry-based newborn screening. al-Essa M, et al. **East Mediterr Health J** 1998 Dec; 4(3):593–6

Rapid identification of comigrating gel-isolated proteins by ion trap-mass spectrometry. Arnott D, et al. **Electrophoresis** 1998 May;19(6):968–80

Enhancement of sample loadings for the analysis of oligosaccharides isolated from Pseudomonas aeruginosa using transient isotachophoresis and capillary zone electrophoresis - electrospray - mass spectrometry. Auriola S, et al. **Electrophoresis** 1998 Nov;19(15):2665–76

Rat metallothionein-2 contains N(alpha)-acetylated and unacetylated isoforms. Beattie JH, et al. **Electrophoresis** 1999 Jun;20(7):1613–8

Peptide capillary zone electrophoresis mass spectrometry of recombinant human erythropoietin: an evaluation of the analytical method. Boss HJ, et al. **Electrophoresis** 1998 Nov; 19(15):2654–64

Pressure-assisted and pressure-programmed capillary electrophoresis/electrospray ionization time of flight-mass spectrometry for the analysis of peptide mixtures. Cao P, et al. **Electrophoresis** 1998 Sep;19(12):2200–6

Optimization of solid phase microextraction - capillary zone electrophoresis - mass spectrometry for high sensitivity protein identification. Figeys D, et al. **Electrophoresis** 1998 Oct;19(13):2338–47

High sensitivity analysis of proteins and peptides by capillary electrophoresis-tandem mass spectrometry: recent developments in technology and applications. Figeys D, et al. **Electrophoresis** 1998 May;19(6):885–92 (126 ref.)

Electrophoresis combined with novel mass spectrometry techniques: powerful tools for the analysis of proteins and proteomes. Figeys D, et al. **Electrophoresis** 1998 Jul; 19(10):1811–8

Analysis of the mouse proteome. (I) Brain proteins: separation by two-dimensional electrophoresis and identification by mass spectrometry and genetic variation. Gauss C, et al. **Electrophoresis** 1999 Mar;20(3):575–600

Protein analysis by mass spectrometry and sequence database searching: tools for cancer research in the post-genomic era. Gygi SP, et al. **Electrophoresis** 1999 Feb;20(2):310–9

Isolation and characterization of beta-cyclodextrin sulfates by preparative gradient polyacrylamide gel electrophoresis, capillary electrophoresis and electrospray ionization - mass spectrometry. Hileman RE, et al. **Electrophoresis** 1998 Nov; 19(15):2677–81

Simultaneous analysis of endogenous neurotransmitters and neuropeptides in brain tissue using capillary electrophoresis--microelectrospray-tandem mass spectrometry. Jäverfalk-Hoyes EM, et al. **Electrophoresis** 1999 Jun;20(7):1527–32

On-line nonaqueous capillary electrophoresis and electrospray mass spectrometry of tricyclic antidepressants and metabolic profiling of amitriptyline by Cunninghamella elegans. Liu CS, et al. **Electrophoresis** 1998 Dec; 19(18):3183–9

Capillary electrophoresis interfaced to inductively coupled plasma mass spectrometry for element selective detection in arsenic speciation. Michalke B, et al. **Electrophoresis** 1998 Sep;19(12):2220–5

Study of Burkitt lymphoma cell line proteins by high resolution two-dimensional gel electrophoresis and nanoelectrospray mass spectrometry. Müller EC, et al. **Electrophoresis** 1999 Feb;20(2):320–30

Enhanced sensitivity for sequence determination of major histocompatibility complex class I peptides by membrane preconcentration-capillary electrophoresis-microspray-tandem mass spectrometry. Naylor S, et al. **Electrophoresis** 1998 Sep;19(12):2207–12

Comparison of protein mixtures in aqueous humor by membrane preconcentration - capillary electrophoresis - mass spectrometry. Rohde E, et al. **Electrophoresis** 1998 Oct;19(13):2361–70

High resolution analysis of protein phosphorylation using capillary isoelectric focusing - electrospray ionization - mass spectrometry. Wei J, et al. **Electrophoresis** 1998 Oct; 19(13):2356–60

On-line partial filling micellar electrokinetic capillary chromatography-electrospray ionization-mass spectrometry of corticosteroids. Wiedmer SK, et al. **Electrophoresis** 1998 Jul;19(10):1711–8

Mass spectrometric analysis of the electroeluates of fluorescent proteins after preparative electrophoresis in the automated HPGE-1000 apparatus. Yarmola E, et al. **Electrophoresis** 1999 Mar;20(3):445–51

Capillary electrophoresis and capillary electrophoresis-electrospray-mass spectroscopy for the analysis of heterocyclic amines. Zhao Y, et al. **Electrophoresis** 1998 Sep;19(12):2213–9

Uranium and thorium in urine of United States residents: reference range concentrations. Ting BG, et al. **Environ Res** 1999 Jul;81(1):45–51

Rapid analysis of epitope-paratope interactions between HIV-1 and a 17-amino-acid neutralizing microantibody by electrospray ionization mass spectrometry. Millar AL, et al. **Eur J Biochem** 1998 Nov 15;258(1):164–9

Simultaneous determination of trace benzodiazepines from drinks by using direct electrospray probe/mass spectrometry (DEP/MS). Chen YC, et al. **Forensic Sci Int** 1999 Jul 26;103(2):79–88

Analysis of psilocybin and psilocin in Psilocybe subcubensis Guzmán by ion mobility spectrometry and gas chromatography-mass spectrometry. Keller T, et al. **Forensic Sci Int** 1999 Jan 11;99(2):93–105

Differential sequencing with mass spectrometry. Graber JH, et al. **Genet Anal** 1999 Feb;14(5–6):215–9 (24 ref.)

Identification of potential diagnostic and vaccine candidates of Helicobacter pylori by "proteome" technologies. McAtee CP, et al. **Helicobacter** 1998 Sep;3(3):163–9

Identification of a new transthyretin variant (Ile49) in familial amyloidotic polyneuropathy using electrospray ionization mass spectrometry and nonisotopic RNase cleavage assay. Nakamura M, et al. **Hum Hered** 1999 Jul;49(4):186–9

Determination of 13CO2/12CO2 ratio by IRMS and NDIRS. Barth E, et al. **Isotopes Environ Health Stud** 1998; 34(1–2):209–13

Multi-anode detection in electrospray ionization time-of-flight mass spectrometry. Barbacci DC, et al. **J Am Soc Mass Spectrom** 1998 Dec;9(12):1328–33

Flow injection with chemical reaction interface-isotope ratio mass spectrometry: an alternative to off-line combustion for detecting low levels of enriched 13C in mass balance studies. Chen P, et al. **J Am Soc Mass Spectrom** 1999 Feb; 10(2):153–8

Effects of salt concentration on analyte response using electrospray ionization mass spectrometry. Constantopoulos TL, et al. **J Am Soc Mass Spectrom** 1999 Jul;10(7):625–34

Ideal velocity focusing in a reflectron time-of-flight mass spectrometer. Doroshenko VM, et al. **J Am Soc Mass Spectrom** 1999 Oct;10(10):992–9

Unfolding of proteins monitored by electrospray ionization mass spectrometry: a comparison of positive and negative ion modes. Konermann L, et al. **J Am Soc Mass Spectrom** 1998 Dec;9(12):1248–54

Time-resolved measurements with single droplet introduction to investigate space-charge effects in plasma mass spectrometry. Stewart II, et al. **J Am Soc Mass Spectrom** 1999 Feb;10(2):159–74

Low temperature aqueous electrospray ionization mass spectrometry of noncovalent complexes. Veenstra TD, et al. **J Am Soc Mass Spectrom** 1998 Jun;9(6):580–4

Residues of chlormequat and mepiquat in grain--results from the Danish National Pesticide Survey. Juhler RK, et al. **J AOAC Int** 1999 Mar-Apr;82(2):331–6

Application of overpressured layer chromatography combined with digital autoradiography and mass spectrometry in the study of deramciclane metabolism. Ludányi K, et al. **J AOAC Int** 1999 Mar-Apr;82(2):231–8

Determination of arsenic in traditional Chinese medicine by microwave digestion with flow injection-inductively coupled plasma mass spectrometry (FI-ICP-MS). Ong ES, et al. **J AOAC Int** 1999 Jul-Aug;82(4):963–7

Analysis of lipophilic peptides and therapeutic drugs: on-line-nonaqueous capillary electrophoresis-mass spectrometry. Yang Q, et al. **J Biochem Biophys Methods** 1999 Jan 29;38(2):103–21 (49 ref.)

Rapid analysis of the expression of heterologous proteins in Escherichia coli using pyrolysis mass spectrometry and Fourier transform infrared spectroscopy with chemometrics: application to alpha 2-interferon production. McGovern AC, et al. **J Biotechnol** 1999 Jul 2;72(3):157–67

Combination of suppressed and non-suppressed ion chromatography with atmospheric pressure ionization mass spectrometry for the determination of anions. Buchberger W, et al. **J Chromatogr A** 1999 Jul 30;850(1–2):99–106

Selective identification by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry of different types of gluten in foods made with cereal mixtures. Camafeita E, et al. **J Chromatogr A** 1998 Oct 9;

823(1-2):299-306
Ion-pair liquid chromatography--atmospheric pressure ionization mass spectrometry for the determination of quaternary ammonium herbicides. Castro R, et al. **J Chromatogr A** 1999 Jan 8;830(1):145-54
Thin-layer chromatography-mass spectrometry using activated carbon, surface-assisted laser desorption/ionization. Chen YC, et al. **J Chromatogr A** 1998 Nov 20;826(1):77-86
Capillary electrochromatography of biomolecules with on-line electrospray ionization and time-of-flight mass spectrometry. Choudhary G, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):469-80
Confirmation of residues of thyreostatic drugs in thyroid glands by multiple mass spectrometry after thin-layer chromatographic screening. De Wasch K, et al. **J Chromatogr A** 1998 Sep 11;819(1-2):99-111
New approach to the direct detection of known and new diarrhoeic shellfish toxins in mussels and phytoplankton by liquid chromatography-mass spectrometry. Draisci R, et al. **J Chromatogr A** 1999 Jun 25;847(1-2):213-21
Sensitive method for the determination of baclofen in plasma by means of solid-phase extraction and liquid chromatography-tandem mass spectrometry. Flärdh M, et al. **J Chromatogr A** 1999 Jun 18;846(1-2):169-73
Column switching in high-performance liquid chromatography with tandem mass spectrometric detection for high-throughput preclinical pharmacokinetic studies. Gao VC, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):141-8
Utility of isotachophoresis-capillary zone electrophoresis, mass spectrometry and high-performance size-exclusion chromatography for monitoring of interleukin-6 dimer formation. Gysler J, et al. **J Chromatogr A** 1999 May 7; 841(1):63-73
On-line solid-phase extraction-short-column liquid chromatography combined with various tandem mass spectrometric scanning strategies for the rapid study of transformation of pesticides in surface water. Hogenboom AC, et al. **J Chromatogr A** 1999 May 7;841(1):33-44
Evaluation of volatile eluents and electrolytes for high-performance liquid chromatography-electrospray ionization mass spectrometry and capillary electrophoresis-electrospray ionization mass spectrometry of proteins. I. Liquid chromatography. Huber CG, et al. **J Chromatogr A** 1999 Jul 16;849(1):161-73
Evaluation of volatile eluents and electrolytes for high-performance liquid chromatography-electrospray ionization mass spectrometry and capillary electrophoresis-electrospray ionization mass spectrometry of proteins. II. Capillary electrophoresis. Huber CG, et al. **J Chromatogr A** 1999 Jul 16;849(1):175-89
Gas chromatographic and mass spectrometric analysis of 36 lignin-related methoxyphenols from uncontrolled combustion of wood. Kjällstrand J, et al. **J Chromatogr A** 1998 Oct 23;824(2):205-10
Automated sample preparation for the determination of budesonide in plasma samples by liquid chromatography and tandem mass spectrometry. Kronkvist K, et al. **J Chromatogr A** 1998 Oct 9;823(1-2):401-9
Liquid chromatography-electrospray mass spectrometry multi-residue determination of pesticides in apples and pears. Lacassie E, et al. **J Chromatogr A** 1999 Jan 8; 830(1):135-43
Analysis of biopolymers by size-exclusion chromatography-mass spectrometry. Lecchi P, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):509-13
Determination of 1,4-benzodiazepines and their metabolites by capillary electrophoresis and high-performance liquid chromatography using ultraviolet and electrospray ionisation mass spectrometry. McClean S, et al. **J Chromatogr A** 1999 Apr 9;838(1-2):273-91
Identification of phosphonic acids by capillary electrophoresis-ionspray mass spectrometry. Mercier JP, et al. **J Chromatogr A** 1998 Oct 30;825(1):71-80
Antimony speciation in environmental samples by interfacing capillary electrophoresis on-line to an inductively coupled plasma mass spectrometer. Michalke B, et al. **J Chromatogr A** 1999 Feb 26;834(1-2):341-8
Determination of daminozide in apples and apple leaves by liquid chromatography--mass spectrometry. Mol HG, et al. **J Chromatogr A** 1999 Feb 12;833(1):53-60
Various applications of liquid chromatography-mass spectrometry to the analysis of phenolic compounds. Pérez-Magariño S, et al. **J Chromatogr A** 1999 Jun 25; 847(1-2):75-81
High-performance liquid chromatography-atmospheric-pressure chemical ionization mass spectrometry as a new tool for the determination of the mycotoxin zearalenone in food and feed. Rosenberg E, et al. **J Chromatogr A** 1998 Sep 11;819(1-2):277-88
Determination of the mycotoxin moniliformin in cultures of Fusarium subglutinans and in naturally contaminated maize by high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry. Sewram V, et al. **J Chromatogr A** 1999 Jul 2;848(1-2):185-91
Determination of chlorinated acid herbicides and related compounds in water by capillary electrophoresis-electrospray negative ion mass spectrometry. Song X, et al. **J Chromatogr A** 1998 Dec 31;829(1-2):327-40
Determination of molsidomine and its active metabolite in human plasma using liquid chromatography with tandem mass spectrometric detection. Streel B, et al. **J Chromatogr A** 1998 Sep 11;819(1-2):113-23
Determination of fluspririlene in human plasma by liquid chromatography-tandem mass spectrometry with electrospray ionisation. Swart KJ, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):219-27
Column switching in capillary liquid chromatography-tandem mass spectrometry for the quantitation of pg/ml concentrations of the free basic drug tolterodine and its active 5-hydroxymethyl metabolite in microliter volumes of plasma. Swart R, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):209-18
Development of an on-line preconcentration method for the analysis of pathogenic lipopolysaccharides using capillary electrophoresis-electrospray mass spectrometry. Application to small colony isolates. Thibault JL, et al. **J Chromatogr A** 1998 Aug 21;817(1-2):325-36
Determination of the antifouling agent zinc pyrithione in water samples by copper chelate formation and high-performance liquid chromatography-atmospheric pressure chemical ionisation mass spectrometry. Thomas KV. **J Chromatogr A** 1999 Feb 12;833(1):105-9
High-performance liquid chromatography-mass spectrometry of an osteocalcin derivative. Vähätalo H, et al. **J Chromatogr A** 1999 Jun 18;846(1-2):49-57
Simultaneous determination of omeprazole and 5'-hydroxyomeprazole in human plasma by liquid chromatography-tandem mass spectrometry. Woolf EJ, et al. **J Chromatogr A** 1998 Dec 18;828(1-2):229-38
Liquid chromatography-mass spectrometry and gas chromatography-mass spectrometry of omega- and (omega-1)-hydroxylated metabolites of elaidic and oleic acids in human and rat liver microsomes. Adas F, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4;714(2):133-44
Screening urine for exogenous testosterone by isotope ratio mass spectrometric analysis of one pregnanediol and two androstanediols. Aguilera R, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):95-105
Determination of benzimidazole residues using liquid chromatography and tandem mass spectrometry. Balizs G. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):167-77
Determination of cyclophosphamide and its metabolites in human plasma by high-performance liquid chromatography-mass spectrometry. Baumann F, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):297-305
Liquid chromatographic-electrospray tandem mass spectrometric determination of novel antifungal agents in plasma. Bu HZ, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19;724(2):311-7
Determination of the glucocorticoid fluticasone propionate in plasma by automated solid-phase extraction and liquid chromatography-tandem mass spectrometry. Callejas SL, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 6; 718(2):243-50
Simultaneous determination of thiabendazole and its major metabolite, 5-hydroxythiabendazole, in bovine tissues using gradient liquid chromatography with thermospray and atmospheric pressure chemical ionisation mass spectrometry. Cannavan A, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):103-13
Confirmation of spectinomycin in milk using ion-pair solid-phase extraction and liquid chromatography-electrospray ion trap mass spectrometry. Carson MC, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):95-102
Analyses of compound libraries obtained by high-throughput parallel synthesis: strategy of quality control by high-performance liquid chromatography, mass spectrometry and nuclear magnetic resonance techniques. Duléry BD, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 2;725(1):39-47
Separation and identification of neuropeptide Y, two of its fragments and their degradation products using capillary electrophoresis-mass spectrometry. Ensing K, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):53-61
Quantitative analysis of human serum corticosterone by high-performance liquid chromatography coupled to electrospray ionization mass spectrometry. Ghulam A, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):227-33
Qualitative and quantitative determination of sesquiterpenoids in Achillea species by reversed-phase high-performance liquid chromatography, mass-spectrometry and thin-layer chromatography. Glasl S, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):361-8
Analysis of diagnostic metabolites by capillary electrophoresis-mass spectrometry. He T, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1-2):43-52
Specific detection and quantification of palmitoyl-stearoyl-phosphatidylserine in human blood using normal-phase liquid chromatography coupled with electrospray mass spectrometry. Hvattum E, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):47-56
Sensitive and specific method for the determination of josamycin in human plasma by liquid chromatography-mass spectrometry. Kikuchi Y, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):81-7
Capillary electrophoresis-mass spectrometry coupling versus micro-high-performance liquid chromatography-mass spectrometry coupling: a case study. Lausecker B, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):1-13
Simultaneous determination of gamma-aminobutyric acid and glutamic acid in the brain of 3-mercaptopropionic acid-treated rats using liquid chromatography-atmospheric pressure chemical ionization mass spectrometry. Ma D, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1-2):285-90
Simultaneous determination of donepezil (aricept) enantiomers in human plasma by liquid chromatography-electrospray tandem mass spectrometry. Matsui K, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11;729(1-2):147-55
Development of high-performance liquid chromatography-tandem mass spectrometric methods for the determination of a new oxytocin receptor antagonist (L-368,899) extracted from human plasma and urine: a case of lack of specificity due to the presence of metabolites. Matuszewski BK, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):195-208
Separation and identification of corticosterone metabolites by liquid chromatography--electrospray ionization mass spectrometry. Miksik I, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1-2):59-69
Determination of leukotriene E4 in human urine using liquid chromatography-tandem mass spectrometry. Mizugaki M, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):279-85
Direct plasma injection for high-performance liquid chromatographic-mass spectrometric quantitation of the anxiolytic agent CP-93 393. Needham SR, et al. **J Chromatogr B Biomed Sci Appl** 1998 Oct 23;718(1):87-94
Rapid and selective method for norepinephrine in rat urine using reversed-phase ion-pair high-performance liquid chromatography-tandem mass spectrometry. Neubecker TA, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 6; 718(2):225-33
Determination of ethyl glucuronide, a minor metabolite of ethanol, in human serum by liquid chromatography-electrospray ionization mass spectrometry. Nishikawa M, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16; 726(1-2):105-10
Measurement of the novel decapeptide cetrorelix in human plasma and urine by liquid chromatography-electrospray ionization mass spectrometry. Niwa M, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 11; 729(1-2):245-53
Sensitive and specific liquid chromatographic-tandem mass spectrometric assay for barnidipine in human plasma. Pawula M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Nov 20;719(1-2):113-23
Isotope dilution high-performance liquid chromatography-electrospray tandem mass spectrometry assay for the measurement of 8-oxo-7,8-dihydro-2'-deoxyguanosine in biological samples. Ravanat JL, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 18;715(2):349-56
Rapid, highly sensitive method for the determination of morphine and its metabolites in body fluids by liquid chromatography-mass spectrometry. Schänzle G, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jan 8;721(1):55-65
Development of a high-performance liquid chromatographic-electrospray mass spectrometric assay for the specific and sensitive quantification of the novel immunosuppressive macrolide 40-O-(2-hydroxyethyl)rapamycin. Segarra I, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):179-87
Studies on neurosteroids. VII. Determination of pregnenolone and its 3-stearate in rat brains using high-performance liquid chromatography-atmospheric pressure chemical ionization mass spectrometry. Shimada K, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 4; 714(2):153-60
Analysis of tert.-butyldimethylsilyl [1-13C]palmitic acid in stool samples by gas chromatography-mass spectrometry with electron impact ionisation: comparison with combustion isotope-ratio mass spectrometry. Slater C, et al. **J Chromatogr B Biomed Sci Appl** 1998 Sep 25; 716(1-2):1-6
Size-exclusion chromatography performed in capillaries. Studies by liquid chromatography-mass spectrometry. Smoluch MT, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 16;726(1-2):37-43
Application of two-dimensional high-performance liquid chromatography--mass spectrometry with particle beam interface. Song D, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jul 9;730(2):141-51
Simultaneous determination of nifedipine and dehydronifedipine in human plasma by liquid chromatography-tandem mass spectrometry. Streel B, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):119-28
High-performance liquid chromatographic-electrospray

ionization mass spectrometric analyses for the integration of natural products with modern high-throughput screening. Strege MA.
J Chromatogr B Biomed Sci Appl 1999 Apr 2;725(1):67-78 (37 ref.)

Screening of sulphonamides in egg using gas chromatography-mass-selective detection and liquid chromatography-mass spectrometry. Tarbin JA, et al.
J Chromatogr B Biomed Sci Appl 1999 Jun 11; 729(1-2):127-38

Quantitative analysis of sirolimus (Rapamycin) in blood by high-performance liquid chromatography-electrospray tandem mass spectrometry. Taylor PJ, et al.
J Chromatogr B Biomed Sci Appl 1998 Nov 6;718(2):251-7

Screening of eltanolone metabolites in dog urine by anion-exchange/reversed-phase liquid chromatography and mass spectrometry. Tjernberg A, et al.
J Chromatogr B Biomed Sci Appl 1998 Sep 18; 715(2):395-407

Determination of androstenone in pig fat using packed column supercritical fluid chromatography-mass spectrometry. Tuomola M, et al.
J Chromatogr B Biomed Sci Appl 1998 Nov 20; 719(1-2):25-30

High-performance liquid chromatography-mass spectrometry for the quantification of nortriptyline and 10-hydroxynortriptyline in plasma. Tybring G, et al.
J Chromatogr B Biomed Sci Appl 1998 Sep 25; 716(1-2):382-6

Analysis of tetracyclines in raw urine by column-switching high-performance liquid chromatography and tandem mass spectrometry. Weimann A, et al.
J Chromatogr B Biomed Sci Appl 1999 Jan 8;721(1):47-54

Ultrasensitive determination of NE-100, a novel sigma ligand, in human plasma by liquid chromatography and electrospray ionization tandem mass spectrometry combined with a column-switching technique. Yamaguchi J, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 25; 730(1):61-70

Sensitive liquid chromatographic-mass spectrometric assay for the simultaneous quantitation of nefazodone and its metabolites hydroxynefazodone m-chlorophenylpiperazine and triazole-dione in human plasma using single-ion monitoring. Yao M, et al.
J Chromatogr B Biomed Sci Appl 1998 Oct 23;718(1):77-85

Rapid detection of dihydrocodeine by thermospray mass spectrometry. Yoshida M, et al.
J Chromatogr B Biomed Sci Appl 1998 Oct 23;718(1):55-60

Determination of clindamycin in human plasma by liquid chromatography-electrospray tandem mass spectrometry: application to the bioequivalence study of clindamycin. Yu LL, et al. **J Chromatogr B Biomed Sci Appl** 1999 Mar 19; 724(2):287-94

Determination of domperidone in human serum and human breast milk by high-performance liquid chromatography-electrospray mass spectrometry. Zavitsanos AP, et al. **J Chromatogr B Biomed Sci Appl** 1999 Jun 25;730(1):9-24

Enantioselective determination of propafenone and its metabolites in human plasma by liquid chromatography-mass spectrometry. Zhong D, et al.
J Chromatogr B Biomed Sci Appl 1999 Jan 8;721(1):67-75

Real-time measurement of sub-PPM concentrations of airborne chemicals in semiconductor manufacturing. Corn M, et al. **J Expo Anal Environ Epidemiol** 1993;3 Suppl 1:37-49

Inaccurate measurement of free carnitine by the electrospray tandem mass spectrometry screening method for blood spots. Johnson DW. **J Inherit Metab Dis** 1999 Apr; 22(2):201-2

Quantitative measurement of different ceramide species from crude cellular extracts by electrospray ionization tandem mass spectrometry (ESI-MS/MS). Liebisch G, et al.
J Lipid Res 1999 Aug;40(8):1539-46

Determination of cholesterol at the low picomole level by nano-electrospray ionization tandem mass spectrometry. Sandhoff R, et al. **J Lipid Res** 1999 Jan;40(1):126-32

Analysis of di-n-butylphthalate biotransformation in cattle by liquid chromatography/ion trap mass spectrometry/mass spectrometry. Coldham NG, et al.
J Mass Spectrom 1998 Sep;33(9):803-10

Surface mass spectrometry of molecular species. Hanley L, et al. **J Mass Spectrom** 1999 Jul;34(7):705-23 (130 ref.)

Molecular species of sphingomyelin: determination by high-performance liquid chromatography/mass spectrometry with electrospray and high-performance liquid chromatography/tandem mass spectrometry with atmospheric pressure chemical ionization. Karlsson AA, et al. **J Mass Spectrom** 1998 Dec;33(12):1192-8

A fast screening method for the identification of siderophores from fluorescent Pseudomonas spp. by liquid chromatography/electrospray mass spectrometry. Kilz S, et al. **J Mass Spectrom** 1999 Apr;34(4):281-90

Simultaneous determination of diphenhydramine, its N-oxide metabolite and their deuterium-labeled analogues in ovine plasma and urine using liquid chromatography/electrospray tandem mass spectrometry. Kumar S, et al. **J Mass Spectrom** 1998 Dec;33(12):1171-81

Isolation from pig liver microsomes, identification by electrospray tandem mass spectrometry and in vitro immunosuppressive activity of a rapamycin tris-epoxide metabolite. Lhoëst G, et al. **J Mass Spectrom** 1999 Jan; 34(1):28-32

High-sensitivity analysis and sequencing of peptides and proteins by quadrupole ion trap mass spectrometry. Marina A, et al. **J Mass Spectrom** 1999 Jan;34(1):17-27

Characterization of olanzapine (LY170053) in human liver slices by liquid chromatography/tandem mass spectrometry. Murphy AT, et al. **J Mass Spectrom** 1998 Dec;33(12):1237-45

Electrospray ionization mass spectrometry for the study of non-covalent complexes: an emerging technology. Pramanik BN, et al. **J Mass Spectrom** 1998 Oct; 33(10):911-20

Low-energy collisionally activated decomposition and structural characterization of cyclic heptapeptide microcystins by electrospray ionization mass spectrometry. Yuan M, et al. **J Mass Spectrom** 1999 Jan;34(1):33-43

Determination of N-linked glycosylation of yeast external invertase by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Zeng C, et al.
J Mass Spectrom 1999 Apr;34(4):311-29

Combining solid-phase preconcentration, capillary electrophoresis and off-line matrix-assisted laser desorption/ionization mass spectrometry: intracerebral metabolic processing of peptide E in vivo. Zhang H, et al. **J Mass Spectrom** 1999 Apr;34(4):377-83

Membrane inlet ion trap mass spectrometry for the direct measurement of dissolved gases in ecological samples. Cowie G, et al. **J Microbiol Methods** 1999 Feb;35(1):1-12

Combinatorial peptide on-resin analysis: optimization of static nanoelectrospray ionization technique for sequence determination. Biederman KJ, et al. **J Pept Res** 1999 Mar; 53(3):234-43

The use of hyphenated LC-MS technique for characterisation of impurity profiles during drug development. Ermer J. **J Pharm Biomed Anal** 1998 Dec; 18(4-5):707-14

Sequencing of gel-isolated proteins using microblotter capillary liquid chromatography-electrospray mass spectrometry. Bauer MD, et al. **J Protein Chem** 1999 Apr; 18(3):337-47

Novel detection methods for modification sites using chemical cleavages and mass spectrometry. Kamo M, et al. **J Protein Chem** 1998 Aug;17(6):511

High performance two dimensional gel electrophoresis and nanoelectrospray mass spectrometry as powerful tool to study apoptosis-associated processes in a Burkitt lymphoma cell line. Otto A, et al. **J Protein Chem** 1998 Aug; 17(6):564-5

Structural investigations on human erythrocyte acylpeptide hydrolase by mass spectrometric procedures. Scaloni A, et al. **J Protein Chem** 1999 Apr;18(3):349-60

Use of mass spectrometric methods for protein identification in receptor research. Schrotz-King P, et al.
J Recept Signal Transduct Res 1999 Jan-Jul;19(1-4):659-72

Direct determination of selenium and other trace elements in serum samples by ICP-MS. Forrer R, et al.
J Trace Elem Med Biol 1999 Apr;12(4):240-7

A comparison of inductively coupled plasma mass spectrometry with electrothermal atomic absorption spectrophotometry for the determination of trace elements in blood and urine from non occupationally exposed populations. White MA. **J Trace Elem Med Biol** 1999 Jul; 13(1-2):93-101

Analysis of novel hydroperoxides and other metabolites of oleic, linoleic, and linolenic acids by liquid chromatography-mass spectrometry with ion trap MSn. Oliw EH, et al. **Lipids** 1998 Sep;33(9):843-52

S-methyl derivatives from thiol compounds by the pyrolytic reaction with trimethylsulfonium hydroxide. Vosmann K, et al. **Lipids** 1998 Oct;33(10):1037-41

Ion/ion chemistry of high-mass multiply charged ions [published erratum appears in Mass Spectrom Rev 1999 Jan-Feb;18(1):83-6] McLuckey SA, et al.
Mass Spectrom Rev 1998 Nov-Dec;17(6):369-407 (107 ref.)

Charge derivatization of peptides for analysis by mass spectrometry. Roth KD, et al. **Mass Spectrom Rev** 1998 Jul-Aug;17(4):255-74 (73 ref.)

Mass spectrometric quantification of F2-isoprostanes in biological fluids and tissues as measure of oxidant stress. Morrow JD, et al. **Methods Enzymol** 1999;300:3-12

Trace element analysis of biological samples by analytical atomic spectroscopy. Haraguchi H, et al.
Methods Mol Biol 1998;108:389-411

Peptide sequencing of 2-DE gel-isolated proteins by nanoelectrospray tandem mass spectrometry. Jensen ON, et al. **Methods Mol Biol** 1999;112:571-88 (34 ref.)

Automated protein identification using microcolumn liquid chromatography-tandem mass spectrometry. Yates JR 3rd, et al. **Methods Mol Biol** 1999;112:553-69 (17 ref.)

Typing of Leishmania lipophosphoglycans by electrospray mass spectrometry. Wilson IB, et al.
Mol Biochem Parasitol 1999 May 25;100(2):207-15

Picolinyl esters for the structural determination of fatty acids by GC/MS. Harvey DJ. **Mol Biotechnol** 1998 Dec; 10(3):251-60

Genotyping by mass spectrometric analysis of short DNA fragments [see comments] Laken SJ, et al.
Nat Biotechnol 1998 Dec;16(13):1352-6. Comment in: Nat Biotechnol 1998 Dec;16(13):1314-5.

Direct analysis of protein complexes using mass spectrometry. Link AJ, et al. **Nat Biotechnol** 1999 Jul; 17(7):676-82

Desorption-ionization mass spectrometry on porous silicon. Wei J, et al. **Nature** 1999 May 20;399(6733):243-6

Selective detection of ribose-methylated nucleotides in RNA by a mass spectrometry-based method. Qiu F, et al.
Nucleic Acids Res 1999 Sep 15;27(18):e20

New techniques for the rapid characterization of oligonucleotides by mass spectrometry. McCloskey JA, et al. **Nucleosides Nucleotides** 1999 Jun-Jul;18(6-7):1549-53

A method for high-sensitivity peptide sequencing using postsource decay matrix-assisted laser desorption ionization mass spectrometry. Keough T, et al.
Proc Natl Acad Sci U S A 1999 Jun 22;96(13):7131-6

Toward the bilayer proteome, electrospray ionization-mass spectrometry of large, intact transmembrane proteins. Whitelegge JP, et al. **Proc Natl Acad Sci U S A** 1999 Sep 14;96(19):10695-8

Applications of mass spectrometry to signal transduction. Resing KA, et al. **Prog Biophys Mol Biol** 1999; 71(3-4):501-23 (166 ref.)

Monitoring metal ion flux in reactions of metallothionein and drug-modified metallothionein by electrospray mass spectrometry. Zaia J, et al. **Protein Sci** 1998 Nov; 7(11):2398-404

Charge derivatization of peptides to simplify their sequencing with an ion trap mass spectrometer. Adamczyk M, et al.
Rapid Commun Mass Spectrom 1999;13(14):1413-22

Malononitrile as a new derivatizing reagent for high-sensitivity analysis of oligosaccharides by electrospray ionization mass spectrometry. Ahn YH, et al.
Rapid Commun Mass Spectrom 1998;12(24):2011-5

A rapid and reliable method for NO quantification and 15NO/14NO determination using isotope ratio mass spectrometry: an application for the detection of NO synthesis in propionibacteria. Avice JC, et al.
Rapid Commun Mass Spectrom 1999;13(12):1197-200

Ultra-high flow rate capillary liquid chromatography with mass spectrometric detection for the direct analysis of pharmaceuticals in plasma at sub-nanogram per millilitre concentrations. Ayrton J, et al.
Rapid Commun Mass Spectrom 1999;13(16):1657-62

Biomedical applications of accelerator mass spectrometry-isotope measurements at the level of the atom. Barker J, et al. **Rapid Commun Mass Spectrom** 1999; 13(4):285-93 (42 ref.)

The effect of solvent and matrix combinations on the analysis of bacteria by matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry. Domin MA, et al.
Rapid Commun Mass Spectrom 1999;13(4):222-6

Ammonia chemical ionization tandem mass spectrometry in structure determination of alkaloids. I. Pyrrolidines, piperidines, decahydroquinolines, pyrrolizidines, indolizidines, quinolizidines and an azabicyclo[5.3.0]decane. Garraffo HM, et al. **Rapid Commun Mass Spectrom** 1999; 13(15):1553-63

Structural elucidation studies of erythromycins by electrospray tandem mass spectrometry. Gates PJ, et al.
Rapid Commun Mass Spectrom 1999;13(4):242-6

Determination of 4-hydroxy-2-nonenal at cellular levels by means of electrospray mass spectrometry. Gioacchini AM, et al. **Rapid Commun Mass Spectrom** 1999;13(15):1573-9

Nano-electrospray tandem mass spectrometry for the analysis of neurosteroid sulphates. Griffiths WJ, et al.
Rapid Commun Mass Spectrom 1999;13(15):1595-610

Energy-resolved mass spectrometry: a comparison of quadrupole cell and cone-voltage collision-induced dissociation. Harrison AG.
Rapid Commun Mass Spectrom 1999;13(16):1663-70

Electrospray ionization and tandem ion trap mass spectrometry for the confirmation of seven beta-lactam antibiotics in bovine milk. Heller DN, et al.
Rapid Commun Mass Spectrom 1998;12(24):2031-40

Interpretation of electrospray and atmospheric pressure chemical ionization mass spectra of 10-formyl-7,8-dihydrofolic acid and 5-formyl-5,6,7,8-tetrahydropteroic acid. Holcapek M, et al. **Rapid Commun Mass Spectrom** 1999;13(14):1423-6

A versatile system of high-flow high performance liquid chromatography with tandem mass spectrometry for rapid direct-injection analysis of plasma samples for quantitation of a beta-lactam drug candidate and its open-ring biotransformation product. Jemal M, et al.
Rapid Commun Mass Spectrom 1999;13(14):1462-71

Tamoxifen metabolism in rat liver microsomes: identification of a dimeric metabolite derived from free radical intermediates by liquid chromatography/mass spectrometry. Jones RM, et al.
Rapid Commun Mass Spectrom 1999;13(4):211-5

Rapid characterization of urinary metabolites of pibutidine hydrochloride in humans by liquid chromatography/electrospray ionization tandem mass spectrometry. Kato K, et al.
Rapid Commun Mass Spectrom 1999;13(15):1626-32

Matrix-assisted laser desorption/ionization mass spectrometry of deoxynucleotides labeled with an IMI dye. Lan ZH, et al. **Rapid Commun Mass Spectrom** 1999; 13(14):1454-7

The identification of unusual bile acid metabolites by tandem mass spectrometry: use of low-energy collision-induced dissociation to produce informative spectra. Lemonde HA, et al. **Rapid Commun Mass Spectrom** 1999;13(12):1159-64

Multipole storage assisted dissociation, a novel in-source dissociation technique for electrospray ionization generated

SPECTRUM ANALYSIS, MASS

ions. Sannes-Lowery K, et al.
Rapid Commun Mass Spectrom 1998;12(23):1957-61

Post-column metal complexation of quinolone antibiotics in a quadrupole ion trap. Shen J, et al.
Rapid Commun Mass Spectrom 1999;13(14):1381-9

Elimination of difluorocarbene from the molecular ions of alpha, alpha,alpha-trifluorocresols with a fluorine atom migration in an ion trap mass spectrometer. Tajima S, et al. **Rapid Commun Mass Spectrom** 1999;13(14):1458-61

A simple method for characterizing a neutral species lost in a metastable decomposition using a tandem mass spectrum of a naturally abundant isotopic ion containing a (13)C atom [letter] Tajima S, et al.
Rapid Commun Mass Spectrom 1999;13(17):1770-2

Investigating the use of an octupole ion guide for ion storage and high-pass mass filtering to improve the quantitative performance of electrospray ion trap mass spectrometry. Voyksner RD, et al. **Rapid Commun Mass Spectrom** 1999; 13(14):1427-37

Atmospheric pressure ion mobility spectrometry of protonated and sodiated peptides. Wu C, et al.
Rapid Commun Mass Spectrom 1999;13(12):1138-42

A simple liquid-liquid extraction with hexane for low-picogram determination of drugs and their metabolites in plasma by high-performance liquid chromatography with positive ion electrospray tandem mass spectrometry. Xia YQ, et al. **Rapid Commun Mass Spectrom** 1999; 13(15):1611-21

Mass spectral fragmentation of cis- and trans-1a,3-disubstituted 1, 1-dichloro-1a,2,3,4-tetrahydro-1H-azirino[1,2-a] [1, 5]benzodiazepines. Xu J, et al.
Rapid Commun Mass Spectrom 1999;13(14):1444-7

Elemental and molecular imaging of human hair using secondary ion mass spectrometry. Gillen G, et al.
Scanning 1999 May-Jun;21(3):173-81

Applications of laser microprobe mass spectrometry in biology and medicine. Bakker A, et al.
Scanning Microsc 1996;10(3):753-72; discussion 772-5

The use of isotope ratios to apportion sources of lead in Jersey City, NJ, house dust wipe samples. Adgate JL, et al.
Sci Total Environ 1998 Oct 8;221(2-3):171-80

Determination of carboplatinum and cisplatinum by interfacing HPLC with ICP-MS using ultrasonic nebulisation. Falter R, et al. **Sci Total Environ** 1999 Jan 12;225(1-2):167-76

On the analysis of iodine-129 and iodine-127 in environmental materials by accelerator mass spectrometry and ion chromatography. Schmidt A, et al.
Sci Total Environ 1998 Nov 10;223(2-3):131-56 (102 ref.)

Techview: biochemistry. Biomolecule mass spectrometry. McLafferty FW, et al. **Science** 1999 May 21; 284(5418):1289-90

Application of electrospray tandem mass spectrometry to neonatal screening. Rashed MS, et al. **Semin Perinatol** 1999 Apr;23(2):183-93 (55 ref.)

Dynamic delay time compensation for sampling capillaries used in respiratory mass spectrometry. Eberhard L, et al.
Technol Health Care 1999;7(4):243-59

High-performance liquid chromatography-electrospray tandem mass spectrometry for the measurement of 1-(3,4-dichlorobenzyl)-5-octylbiguanide in human serum. Kudo S, et al. **Ther Drug Monit** 1998 Dec;20(6):697-705

Study of FK-binding protein: FK506-metabolite complexes by electrospray mass spectrometry: correlation to immunosuppressive activity. Trepanier DJ, et al.
Ther Drug Monit 1999 Jun;21(3):274-80

Oligosaccharide configuration of fibrinogen Kaiserslautern: electrospray ionisation analysis of intact gamma chains. Brennan SO, et al. **Thromb Haemost** 1998 Aug;80(2):263-5

Sensitive quantitation of chromium-DNA adducts by inductively coupled plasma mass spectrometry with a direct injection high-efficiency nebulizer. Singh J, et al.
Toxicol Sci 1998 Dec;46(2):260-5

Quantitative studies on the urinary metabolic fate of 2-chloro-4-trifluoromethylaniline in the rat using 19F-NMR spectroscopy and directly coupled HPLC-NMR-MS. Scarfe GB, et al. **Xenobiotica** 1999 Jan; 29(1):77-91

Differentiation of brewing yeast strains by pyrolysis mass spectrometry and Fourier transform infrared spectroscopy. Timmins EM, et al. **Yeast** 1998 Jul;14(10):885-93

[A new approach for the characterization of aberrant hemoglobins: the applications of current advanced mass spectrometric techniques (nanoESIMS, MS3)] Nakanishi T. **Rinsho Byori** 1999 Mar;47(3):224-31 (Eng. Abstr.) **(Jpn)**

STANDARDS

The critical evaluation of a comprehensive mass spectral library [published erratum appears in J Am Soc Mass Spectrom 1999 Jun;10(6):565] Ausloos P, et al.
J Am Soc Mass Spectrom 1999 Apr;10(4):287-99

STATISTICS & NUMERICAL DATA

Pressure limited sustained off-resonance irradiation for collision-activated dissociation in fourier transform mass spectrometry. Gorshkov MV, et al.
J Am Soc Mass Spectrom 1999 Jan;10(1):15-8

A universal algorithm for fast and automated charge state deconvolution of electrospray mass-to-charge ratio spectra. Zhang Z, et al. **J Am Soc Mass Spectrom** 1998 Mar;9(3):225-33

TRENDS

High sensitivity analysis of proteins and peptides by capillary electrophoresis-tandem mass spectrometry: recent developments in technology and applications. Figeys D, et al. **Electrophoresis** 1998 May;19(6):885-92 (126 ref.)

A mass spectrum that today is rarely seen. Abramson FP.
J Am Soc Mass Spectrom 1999 Jan;10(1):76-7

Proteomics: quantitative and physical mapping of cellular proteins. Blackstock WP, et al. **Trends Biotechnol** 1999 Mar; 17(3):121-7 (44 ref.)

SPECTRUM ANALYSIS, MASS-GAS CHROMATOGRAPHY see **MASS FRAGMENTOGRAPHY**

SPECTRUM ANALYSIS, RAMAN

Polarized Raman spectroscopic studies of tetragonal lysozyme single crystals. Kudryavtsev AB, et al.
Acta Crystallogr D Biol Crystallogr 1998 Nov 1;54(2 (Pt 6)):1216-29

Resonance Raman spectroscopic study of the caa3 oxidase from Thermus thermophilus. Gerscher S, et al.
Biospectroscopy 1998;4(6):365-77

Characterization of soybean seed coat peroxidase: resonance Raman evidence for a structure-based classification of plant peroxidases. Nissum M, et al. **Biospectroscopy** 1998; 4(6):355-64

Absence in amphotericin B-spiked human plasma of the free monomeric drug, as detected by SERS. Ridente Y, et al.
FEBS Lett 1999 Mar 12;446(2-3):283-6

Raman spectroscopy, the sleeping giant in structural biology, awakes. Carey PR. **J Biol Chem** 1999 Sep 17; 274(38):26625-8 (46 ref.)

Characterization of low-salt and high-salt conformation of poly(dI-dC) by hydrogen-deuterium exchange kinetics: a classical Raman spectroscopy study. Fabriciova G, et al.
J Biomol Struct Dyn 1998 Oct;16(2):281-8

Non-invasive assessment of ocular pharmacokinetics using Confocal Raman Spectroscopy. Bauer NJ, et al.
J Ocul Pharmacol Ther 1999 Apr;15(2):123-34

A micro-Raman spectroscopic study of hydrazine-treated human dental calculus. Tsuda H, et al.
Scanning Microsc 1996;10(4):1015-23; discussion 1023-4

FT infrared and Raman investigation of saccharide-phosphatidylcholine interactions using novel structure probes. Grdadolnik J, et al.
Spectrochim Acta A Mol Biomol Spectrosc 1998 Oct; 54A(12):1989-2000

INSTRUMENTATION

Isotachophoretic separations on a microchip. Normal Raman spectroscopy detection. Walker PA 3rd, et al.
Anal Chem 1998 Sep 15;70(18):3766-9

METHODS

A holistic approach to protein secondary structure characterization using amide I band Raman spectroscopy. Sane SU, et al. **Anal Biochem** 1999 May 1;269(2):255-72

Raman spectroscopy of protein and nucleic acid assemblies. Thomas GJ Jr. **Annu Rev Biophys Biomol Struct** 1999; 28:1-27 (97 ref.)

Raman spectroscopy for quantifying cholesterol in intact coronary artery wall. Römer TJ, et al. **Atherosclerosis** 1998 Nov;141(1):117-24

In vitro and in vivo Raman spectroscopy of human skin. Caspers PJ, et al. **Biospectroscopy** 1998;4(5 Suppl):S31-9

Composition, constitution, and interaction of bone with hydroxyapatite coatings determined by FT Raman microscopy. Dippel B, et al. **Biospectroscopy** 1998; 4(6):403-12

Lichen biodeterioration of the Convento de la Peregrina, Sahagún, Spain. Edwards HG, et al. **Biospectroscopy** 1999; 5(1):47-52

A novel Raman spectrophotometric method for quantitative measurement of nucleoside triphosphate hydrolysis. Jenkins RH, et al. **Biospectroscopy** 1999;5(1):3-8

Applications of Raman spectroscopy to ophthalmology: spectroscopic characterization of disposable soft contact lenses. Monti P, et al. **Biospectroscopy** 1998;4(6):413-9

Surface-enhanced Raman scattering and fluorescence spectroscopy reveal molecular interactions of all-trans retinoic acid and RAR gamma ligand-binding domain. Morjani H, et al. **Biospectroscopy** 1998;4(5):297-302

Fluorescence and surface-enhanced Raman study of 9-aminoacridine in relation to its aggregation and excimer emission in aqueous solution and on silver surface. Murza A, et al. **Biospectroscopy** 1998;4(5):327-39

Surface interactions of a homologous series of alpha,omega-amino acids on colloidal silver and gold. Ooka AA, et al. **Biospectroscopy** 1999;5(1):9-17

Biodeterioration of granite monuments by Ochrolechia parella (L.) mass: an FT Raman spectroscopic study. Prieto B, et al. **Biospectroscopy** 1999;5(1):53-9

Characterization of island films as surface-enhanced Raman spectroscopy substrates for detecting low antitumor drug concentrations at single cell level. Sockalingum GD, et al. **Biospectroscopy** 1998;4(5 Suppl):S71-8

Semiempirical and Raman spectroscopic studies of carotenoids. Weesie RJ, et al. **Biospectroscopy** 1999; 5(1):19-33

Raman microspectrometry studies of brushite cement: in vivo evolution in a sheep model. Penel G, et al. **Bone** 1999 Aug; 25(2 Suppl):81S-84S

The effect of solvents on spider silk studied by mechanical testing and single-fibre Raman spectroscopy. Shao Z, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):295-300

Surface enhanced Raman spectroscopic monitor of P. acnes lipid hydrolysis in vitro. Weldon MK, et al.
J Lipid Res 1998 Sep;39(9):1896-9

Raman spectroscopic studies of the structures, energetics, and bond distortions of substrates bound to enzymes. Deng H, et al. **Methods Enzymol** 1999;308:176-201

Confocal Raman-spectroscopy: analytical approach to solid dispersions and mapping of drugs. Breitenbach J, et al.
Pharm Res 1999 Jul;16(7):1109-13

Fourier transform Raman spectroscopy of polyacrylamide gels (PAGs) for radiation dosimetry. Baldock C, et al.
Phys Med Biol 1998 Dec;43(12):3617-27

A vibrational spectroscopic assignment of the disulfide bridges in recombinant bovine growth hormone and growth hormone analogs. Thamann TJ.
Spectrochim Acta A Mol Biomol Spectrosc 1999 Jul; 55A(7-8):1661-6

Fourier transform Raman approach to structural correlation in hemoglobin derivatives. Venkatesh B, et al.
Spectrochim Acta A Mol Biomol Spectrosc 1999 Jul; 55A(7-8):1691-7

SPECULUM see **SURGICAL INSTRUMENTS**

SPEECH

see related
VERBAL BEHAVIOR

A cross-sectional validation study of Self-Evaluation of Communication Experiences after Laryngeal Cancer--a questionnaire for use in the voice rehabilitation of laryngeal cancer patients. Finizia C, et al. **Acta Oncol** 1999; 38(5):573-80

A study of speech fractal dimensions. Ouayoun M, et al.
Acta Otolaryngol (Stockh) 1999 Mar;119(2):261-6

Prelingually profoundly deaf schizophrenic patients who hear voices: a phenomenological analysis. du Feu M, et al.
Acta Psychiatr Scand 1999 Jun;99(6):453-9

The evolution of human speech: the role of enhanced breathing control. MacLarnon AM, et al.
Am J Phys Anthropol 1999 Jul;109(3):341-63 (160 ref.)

Cautery-assisted palatal stiffening operation and nasalance of speech. Hoolsema EM. **Ann Otol Rhinol Laryngol** 1999 Jul;108(7 Pt 1):705-7

Functional results after oropharyngeal reconstruction: a different perspective [letter; comment] Reece GP, et al.
Arch Otolaryngol Head Neck Surg 1999 Apr;125(4):474-7 . Comment on: Arch Otolaryngol Head Neck Surg 1998 Jun;124(6):625-30.

Descriptive study of cooperative language in primary care consultations by male and female doctors. Skelton JR, et al. **BMJ** 1999 Feb 27;318(7183):576-9

Dialogical engagement with voices: a single case study. Davies P, et al. **Br J Med Psychol** 1999 Jun;72 (Pt 2):179-87

Doctors' narratives in Balint groups. Rabin S, et al.
Br J Med Psychol 1999 Mar;72 (Pt 1):121-5

Language related brain potentials in patients with cortical and subcortical left hemisphere lesions. Friederici AD, et al. **Brain** 1999 Jun;122 (Pt 6):1033-47

Verbal short-term store-rehearsal system and the cerebellum. Evidence from a patient with a right cerebellar lesion. Silveri MC, et al. **Brain** 1998 Nov;121 (Pt 11):2175-87

Morphological errors in casual conversation. Bond ZS.
Brain Lang 1999 Jun 1-15;68(1-2):144-50

Temporal structure of spoken-word recognition in Croatian in light of the cohort theory. Erdeljac V, et al.
Brain Lang 1999 Jun 1-15;68(1-2):95-103

Spoken-word recognition: the access to embedded words. Isel F, et al. **Brain Lang** 1999 Jun 1-15;68(1-2):61-7

Lexical access in Chinese speech comprehension and production. Packard JL. **Brain Lang** 1999 Jun 1-15; 68(1-2):89-94

Phonotactics, neighborhood activation, and lexical access for spoken words. Vitevitch MS, et al. **Brain Lang** 1999 Jun 1-15;68(1-2):306-11

Individual differences in the hemispheric specialization of dual route variables. Weekes NY, et al. **Brain Lang** 1999 Apr;67(2):110-33

Tolerance and intolerance: children's and adolescents' judgments of dissenting beliefs, speech, persons, and conduct. Wainryb C, et al. **Child Dev** 1998 Dec; 69(6):1541-55

Speakers' intuitions and pragmatic theory. Gibbs RW Jr.
Cognition 1999 Jan 1;69(3):355-9

Financial disclosure is needed at the lectern, as well as in print [letter] Landow L. **Crit Care Med** 1998 Dec; 26(12):2093-4

Person versus process praise and criticism: implications for contingent self-worth and coping. Kamins ML, et al.
Dev Psychol 1999 May;35(3):835-47

Early metalinguistic competence: speech monitoring and repair behavior. Levy Y. **Dev Psychol** 1999 May;

35(3):822–34
Effects of prosodic stress and serial position on syllable omission in first words. Lewis LB, et al. **Dev Psychol** 1999 Jan;35(1):45–59
Distinctive messages in infant-directed lullabies and play songs. Rock AM, et al. **Dev Psychol** 1999 Mar;35(2):527–34
If memory serves, will language? Later verbal accessibility of early memories. Bauer PJ, et al. **Dev Psychopathol** 1998 Fall;10(4):655–79
Methods for diagnosis and treatment of stimulus–correlated motion in generic brain activation studies using fMRI. Bullmore ET, et al. **Hum Brain Mapp** 1999;7(1):38–48
Auditory and visual word processing studied with fMRI. Chee MW, et al. **Hum Brain Mapp** 1999;7(1):15–28
Functional magnetic resonance imaging of neural activity related to orthographic, phonological, and lexico–semantic judgments of visually presented characters and words. Fujimaki N, et al. **Hum Brain Mapp** 1999;8(1):44–59
Speech modifications algorithms used for training language learning–impaired children. Nagarajan SS, et al. **IEEE Trans Rehabil Eng** 1998 Sep;6(3):257–68
Health risks from the use of laser pointers [news] **Indian Pediatr** 1998 Nov;35(11):1155–8
Active versus passive cleft–type speech characteristics. Harding A, et al. **Int J Lang Commun Disord** 1998 Jul–Sep; 33(3):329–52
Thinking out loud: an exploration of problem–solving language in preschoolers with and without language impairment. Sturn A, et al. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):1–15
Speech recognition, speech production and speech intelligibility in children with hearing aids versus implanted children. Löhle E, et al. **Int J Pediatr Otorhinolaryngol** 1999 Feb 15;47(2):165–9
Acoustic correlates of talker sex and individual talker identity are present in a short vowel segment produced in running speech. Bachorowski JA, et al. **J Acoust Soc Am** 1999 Aug; 106(2):1054–63
Acquisition of a tactile–alone vocabulary by normally hearing users of the Tickle Talker. Galvin KL, et al. **J Acoust Soc Am** 1999 Aug;106(2):1084–9
Articulatory tradeoffs reduce acoustic variability during American English /r/ production. Guenther FH, et al. **J Acoust Soc Am** 1999 May;105(5):2854–65
Continuous speech recognition for clinicians. Zafar A, et al. **J Am Med Inform Assoc** 1999 May–Jun;6(3):195–204
The contributions of eye movements to the efficacy of brief exposure treatment for reducing fear of public speaking. Carrigan MH, et al. **J Anxiety Disord** 1999 Jan–Apr; 13(1–2):101–18
The effect of the cognitive interview on face identification accuracy: release from verbal overshadowing. Finger K, et al. **J Appl Psychol** 1999 Jun;84(3):340–8
Grammatical and caregiver cues in early sentence comprehension. Shady M, et al. **J Child Lang** 1999 Feb; 26(1):163–75
Temporal characteristics of speech produced by inexperienced signers during simultaneous communication. Whitehead RL, et al. **J Commun Disord** 1999 Mar–Apr; 32(2):79–94; quiz 94–5
Effects of age and passage difficulty on listening–rate preferences for time–altered speech. Wingfield A, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 May;54(3):P199–202
Clustering and switching strategies in verbal fluency tasks: comparison between schizophrenics and healthy adults. Robert PH, et al. **J Int Neuropsychol Soc** 1998 Nov; 4(6):539–46
Building syntactic structure in speaking. Tree JE, et al. **J Psycholinguist Res** 1999 Jan;28(1):71–92
Some people are born with stage fright [news] **J Psychosoc Nurs Ment Health Serv** 1999 Jun;37(6):6
Grammatical morphology and the role of weak syllables in the speech of Italian–speaking children with specific language impairment. Leonard LB, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1363–74
Some issues in the statistical analysis of completely randomized and repeated measures designs for speech, language, and hearing research. Max L, et al. **J Speech Lang Hear Res** 1999 Apr;42(2):261–70
The impact of emphatic stress on novel word learning by children with specific language impairment. Weismer SE, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1444–58
Voice source characteristics in six premier country singers. Sundberg J, et al. **J Voice** 1999 Jun;13(2):168–83
Syntactic persistence in Dutch. Hartsuiker RJ, et al. **Lang Speech** 1998 Apr–Jun;41 (Pt 2):143–84
Vocal function after vertical partial laryngectomy with glottic reconstruction by false vocal fold flap: durational and frequency measures. Biacabe B, et al. **Laryngoscope** 1999 May;109(5):698–704
Intact enhancement of declarative memory for emotional material in amnesia. Hamann SB, et al. **Learn Mem** 1997 Sep–Oct;4(3):301–9
A word to the wise [letter] Davies R. **N Engl J Med** 1999 Jun 24;340(25):2008
Analysis of laughter and speech sounds in Italian and German students. Rothgänger H, et al. **Naturwissenschaften** 1998 Aug;85(8):394–402
Repetitive transcranial magnetic stimulation of the dominant hemisphere can disrupt visual naming in temporal lobe epilepsy patients. Wassermann EM, et al. **Neuropsychologia** 1999 May;37(5):537–44
A comment on women's speech and its synthesis. Whiteside SP. **Percept Mot Skills** 1999 Feb;88(1):110–2
TraumaTalk: content–to–speech generation for decision support at point of care. Bierner G. **Proc AMIA Symp** 1998; :698–702
Planning and executing fast movement sequences: a comparison of speech and handwriting. Fuchs H, et al. **Res Q Exerc Sport** 1999 Jun;70(2):190–5
No last word on language origins [news] [see comments] Holden C. **Science** 1998 Nov 20;282(5393):1455–8. Comment in: Science 1998 Dec 11;282(5396):1991. Comment in: Science 1999 Jan 8;283(5399):175.
Silver–tongued Neandertals? [letter; comment] Lieberman P. **Science** 1999 Jan 8;283(5399):175. Comment on: Science 1998 Nov 20;282(5393):1455–8. Comment on: Science 1998 Dec 11;282(5396):1991.
Proprioception and the McGurk effect [letter; comment] Moody J. **Science** 1998 Dec 11;282(5396):1994–5. Comment on: Science 1998 Feb 20;279(5354):1213–6.
Understanding the continuum of discrete–trial traditional behavioral to social–pragmatic developmental approaches in communication enhancement for young children with autism/PDD. Prizant BM, et al. **Semin Speech Lang** 1998; 19(4):329–52; quiz 353; 424 (98 ref.)
Native language shifts across sleep–wake states in bilingual sleeptalkers. Pareja JA, et al. **Sleep** 1999 Mar 15;22(2):243–7
[Oral and written language] Billard C, et al. **Arch Pediatr** 1999;6 Suppl 2:387s–388s **(Fre)**
[Edeka does all––machine speech recognition in social medicine expert testimony] Michel E, et al. **Gesundheitswesen** 1998 Oct;60(10):567–71 (Eng. Abstr.) **(Ger)**
[The power of speech] Fischer RB. **Psychiatr Prax** 1999 Mar; 26(2):53–5 **(Ger)**
[Effective presentation of an academic study] Uemura K. **Masui** 1998 Dec;47 Suppl:S184–9 **(Jpn)**
[Oral presentation of scientific research] Rodriguez de Castro F. **Arch Bronconeumol** 1999 Feb;35 Suppl 1:43–6 **(Spa)**

CLASSIFICATION

Gender differences in the use of linguistic devices by youths with mental retardation: a preliminary analysis. Wilkinson KM. **Am J Ment Retard** 1999 May;104(3):227–35

DRUG EFFECTS

Progressive behavioral response to repeated d–amphetamine challenge: further evidence for sensitization in humans. Strakowski SM, et al. **Biol Psychiatry** 1998 Dec 1; 44(11):1171–7
Longitudinal assessment of methylphenidate effects on oral word production and symptoms in first–episode schizophrenia at acute and stabilized phases. Szeszko PR, et al. **Biol Psychiatry** 1999 Mar 15;45(6):680–6

PHYSIOLOGY

Speech articulation after subtotal glossectomy and reconstruction with a myocutaneous flap. Knuuttila H, et al. **Acta Otolaryngol** 1999;119(5):621–6
Interdependency between intensity and pitch in the normal speaking voice. Debruyne F, et al. **Acta Otorhinolaryngol Belg** 1998;52(3):201–5
Late onset canonical babbling: a possible early marker of abnormal development. Oller DK, et al. **Am J Ment Retard** 1998 Nov;103(3):249–63
Pressure from the lips on the teeth during speech. Thüer U, et al. **Angle Orthod** 1999 Apr;69(2):133–40
Speech and voice characteristics after near–total laryngectomy. A preliminary prospective study. Laccourreye O, et al. **Ann Otol Rhinol Laryngol** 1998 Dec; 107(12):1061–5
Speech production results in children implanted with the CLARION implant. Brown C, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:110–2
Birdsong and human speech: common themes and mechanisms. Doupe AJ, et al. **Annu Rev Neurosci** 1999; 22:567–631 (220 ref.)
The frame/content theory of evolution of speech production. MacNeilage PF. **Behav Brain Sci** 1998 Aug;21(4):499–511; discussion 511–46 (456 ref.)
Linear correlates in the speech signal: the orderly output constraint. Sussman HM, et al. **Behav Brain Sci** 1998 Apr; 21(2):241–59; discussion 260–99 (248 ref.)
Sleeptalking in twins: epidemiology and psychiatric comorbidity. Hublin C, et al. **Behav Genet** 1998 Jul; 28(4):289–98
Competition between gas exchange and speech production in ventilated subjects. Shea SA, et al. **Biol Psychol** 1998 Sep;49(1–2):9–27
Cerebral organization of motor programming and verbal processing as a function of degree of hand preference and familial sinistrality. Keane AM. **Brain Cogn** 1999 Aug; 40(3):500–15
Cerebellar contributions to the perception of temporal cues within the speech and nonspeech domain. Ackermann H, et al. **Brain Lang** 1999 May;67(3):228–41
Is speech arrest during wada testing a valid method for determining hemispheric representation of language? Benbadis SR, et al. **Brain Lang** 1998 Dec;65(3):441–6
Cerebral specialization for speech production in persons with Down syndrome. Heath M, et al. **Brain Lang** 1999 Sep; 69(2):193–211
Activity in the paracingulate and cingulate sulci during word generation: an fMRI study of functional anatomy. Crosson B, et al. **Cereb Cortex** 1999 Jun;9(4):307–16
Is there a "trochaic bias" in early word learning? Evidence from infant production in English and French. Vihman MM, et al. **Child Dev** 1998 Aug;69(4):935–49
A finite element model of the soft palate. Berry DA, et al. **Cleft Palate Craniofac J** 1999 May;36(3):217–23
Nasalance statistics for two Mexican populations. Nichols AC. **Cleft Palate Craniofac J** 1999 Jan;36(1):57–63
Perception of middorsum palatal stops from the speech of three children with repaired cleft palate. Santelmann L, et al. **Cleft Palate Craniofac J** 1999 May;36(3):233–42
The influence of dentures on nasalance values in speech. Scarsellone JM, et al. **Cleft Palate Craniofac J** 1999 Jan; 36(1):51–6
Velopharyngeal function for speech after the Frolova primary palatoplasty technique. Williams WN, et al. **Cleft Palate Craniofac J** 1998 Nov;35(6):481–8
A method for generating natural–sounding speech stimuli for cognitive brain research. Alku P, et al. **Clin Neurophysiol** 1999 Aug;110(8):1329–33
Localization and characterization of speech arrest during transcranial magnetic stimulation. Epstein CM, et al. **Clin Neurophysiol** 1999 Jun;110(6):1073–9
Assessment of basal sound identification skills and communication abilities in profoundly deaf children fitted with hearing aids or a cochlear implant. van den Borne S, et al. **Clin Otolaryngol** 1998 Oct;23(5):455–61
Serial order in phonological encoding: an exploration of the 'word onset effect' using laboratory–induced errors. Wilshire CE. **Cognition** 1998 Aug;68(2):143–66
An event–based analysis of the coordination of early infant vocalizations and facial actions. Yale ME, et al. **Dev Psychol** 1999 Mar;35(2):505–13
Evaluation of voice and speech following subtotal reconstructive laryngectomy. Pastore A, et al. **Eur Arch Otorhinolaryngol** 1998;255(7):371–4
Clinical applications of functional MRI at 1.0 T: motor and language studies in healthy subjects and patients. Papke K, et al. **Eur Radiol** 1999;9(2):211–20
Dynamics of intergestural timing: a perturbation study of lip–larynx coordination. Saltzman E, et al. **Exp Brain Res** 1998 Dec;123(4):412–24
The relationship between oral and written language [see comments] de Montfort Supple M. **Folia Phoniatr Logop** 1998;50(5):243–55 (86 ref.). Comment in: Folia Phoniatr Logop 1998 ;50(5):239–42.
Diadochokinetic skills: normal and atypical performance in children aged 3–5 years. Williams P, et al. **Int J Lang Commun Disord** 1998;33 Suppl:481–6
Development of speech in 2–year–old children with cochlear implant. Molina M, et al. **Int J Pediatr Otorhinolaryngol** 1999 Feb 15;47(2):177–9
An acoustical study of sound production in biphonic singing, Xöömij. Adachi S, et al. **J Acoust Soc Am** 1999 May; 105(5):2920–32
Some lengthening factors in English speech combine additively at most rates. Cummins F. **J Acoust Soc Am** 1999 Jan;105(1):476–80
Glottal characteristics of male speakers: acoustic correlates and comparison with female data. Hanson HM, et al. **J Acoust Soc Am** 1999 Aug;106(2):1064–77
On the lingual organization of the German vowel system. Hoole P. **J Acoust Soc Am** 1999 Aug;106(2):1020–32
Development of adaptive phonetic gestures in children: evidence from vowel devoicing in two different dialects of Japanese. Imaizumi S, et al. **J Acoust Soc Am** 1999 Aug; 106(2):1033–44
Acoustics of children's speech: developmental changes of temporal and spectral parameters. Lee S, et al. **J Acoust Soc Am** 1999 Mar;105(3):1455–68
Interarticulator programming in VCV sequences: lip and tongue movements. Löfqvist A, et al. **J Acoust Soc Am** 1999 Mar;105(3):1864–76
Vocal tract normalization for midsagittal articulatory recovery with analysis–by–synthesis. McGowan RS, et al. **J Acoust Soc Am** 1999 Aug;106(2):1090–105
Fractal dimensions of speech sounds: computation and application to automatic speech recognition. Maragos P, et al. **J Acoust Soc Am** 1999 Mar;105(3):1925–32
Perturbation–free measurement of the harmonics–to–noise ratio in voice signals using pitch synchronous harmonic analysis. Murphy PJ. **J Acoust Soc Am** 1999 May; 105(5):2866–81
Modeling global and focal hyperarticulation during human–computer error resolution. Oviatt S, et al. **J Acoust Soc Am** 1998 Nov;104(5):3080–98
Speech segment durations and quantity in Icelandic. Pind J. **J Acoust Soc Am** 1999 Aug;106(2):1045–53
The estimation of signal–to–noise ratio in continuous speech for disordered voices [letter] Qi Y, et al. **J Acoust Soc Am** 1999 Apr;105(4):2532–5
Can macaques perceive place of articulation from formant transition information? Sinnott JM, et al. **J Acoust Soc Am** 1999 Aug;106(2):929–37
Preferred self–to–other ratios in choir singing. Ternström S. **J Acoust Soc Am** 1999 Jun;105(6):3563–74
Messa di voce: an investigation of the symmetry of crescendo and decrescendo in a singing exercise. Titze IR, et al. **J Acoust Soc Am** 1999 May;105(5):2933–40
Proportional frequency compression of speech for listeners

with sensorineural hearing loss. Turner CW, et al. **J Acoust Soc Am** 1999 Aug;106(2):877–86

Influences of pellet markers on speech production behavior: acoustical and perceptual measures. Weismer G, et al. **J Acoust Soc Am** 1999 May;105(5):2882–94

An MEG study of picture naming. Levelt WJ, et al. **J Cogn Neurosci** 1998 Sep;10(5):553–67

Real time modulation of speech--orofacial motor performance by means of motion sense. Barlow SM. **J Commun Disord** 1998 Nov–Dec;31(6):511–33; quiz 533–4; 553

From the big bang to the brain. Boliek CA, et al. **J Commun Disord** 1999 Jul–Aug;32(4):271–6 (12 ref.)

An overview of neural function and feedback control in human communication. Hood LJ. **J Commun Disord** 1998 Nov–Dec;31(6):461–9; quiz 469–70; 553

Cross-modality influences in speech motor control: the use of pitch shifting for the study of F0 control. Larson CR. **J Commun Disord** 1998 Nov–Dec;31(6):489–502; quiz 502–3; 553

The differential maturation of two processing rates related to digit span. Cowan N. **J Exp Child Psychol** 1999 Mar; 72(3):193–209

Development and phonetic differentiation of speech movement patterns. Goffman L, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):649–60

Differential association of HIV-related neuropsychological impairment with semantic versus repetition priming. Jasiukaitis P, et al. **J Int Neuropsychol Soc** 1999 Jul; 5(5):434–41

The effects of age, education, and ethnicity on verbal fluency. Kempler D, et al. **J Int Neuropsychol Soc** 1998 Nov; 4(6):531–8

Regulation of parkinsonian speech volume: the effect of interlocuter distance. Ho AK, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):199–202

Mastication, deglutition and speech considerations in prosthodontic rehabilitation of a total glossectomy patient. Cötert HS, et al. **J Oral Rehabil** 1999 Jan;26(1):75–9

Parameterization of the voice source by combining spectral decay and amplitude features of the glottal flow. Alku P, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):990–1002

A note on vowel centralization in stuttering and nonstuttering individuals. Blomgren M, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1042–51

Intentional changes in sound pressure level and rate: their impact on measures of respiration, phonation, and articulation. Dromey C, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1003–18

Older adult performance on the Communication Profile for the Hearing Impaired: gender difference. Garstecki DC, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):785–96

Metrical effects on speech movements in children and adults. Goffman L, et al. **J Speech Lang Hear Res** 1999 Aug; 42(4):1003–15

Phonatory air flow characteristics of adductor spasmodic dysphonia and muscle tension dysphonia. Higgins MB, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):101–11

Effect of tape recording on perturbation measures. Jiang J, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1031–41

The relationship between prelinguistic vocalization and later expressive vocabulary in young children with developmental delay. McCathren RB, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):915–24

The integration of laughter and speech in vocal communication: a dynamic systems perspective. Nwokah EE, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):880–94

Analysis of observational data in speech and language research using generalizability theory. Scarsellone JM. **J Speech Lang Hear Res** 1998 Dec;41(6):1341–7

Prosodic markers of syntactic boundaries in the speech of 4-year-old children with normal and disordered language development. Snow D. **J Speech Lang Hear Res** 1998 Oct; 41(5):1158–70

A prominence account of syllable reduction in early speech development: the child's prosodic phonology of tiger and giraffe. Snow D. **J Speech Lang Hear Res** 1998 Oct; 41(5):1171–84

FO processing and the separation of competing speech signals by listeners with normal hearing and with hearing loss. Summers V, et al. **J Speech Lang Hear Res** 1998 Dec; 41(6):1294–306

Speaking-rate-induced variability in F2 trajectories. Tjaden K, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):976–89

Reliability of single sample experimental designs: comfortable effort level. Brown WS Jr, et al. **J Voice** 1998 Dec; 12(4):453–9

Task complexity effect on vocal reaction time in aged speakers. Fozo MS, et al. **J Voice** 1998 Dec;12(4):404–14

Preliminary study on the ability of trained singers to control the intrinsic and extrinsic laryngeal musculature. Lovetri J, et al. **J Voice** 1999 Jun;13(2):219–26

Vocal fold strain and vocal pitch in singing: radiographic observations of singers and nonsingers. Sonninen A, et al. **J Voice** 1998 Sep;12(3):274–86

Formant frequencies in country singers' speech and singing. Stone RE Jr, et al. **J Voice** 1999 Jun;13(2):161–7

Voice source characteristics in six premier country singers. Sundberg J, et al. **J Voice** 1999 Jun;13(2):168–83

More (or less) on Broca [see comments] Donnan GA, et al. **Lancet** 1999 Mar 27;353(9158):1031–2. Comment in: Lancet 1999 Mar 27;353(9158):1057–61.

Brain regions involved in articulation [see comments] Wise RJ, et al. **Lancet** 1999 Mar 27;353(9158):1057–61. Comment in: Lancet 1999 Mar 27;353(9158):1031–2.

The structure and development of French prosodic representations. Gérard C, et al. **Lang Speech** 1998 Apr–Jun;41 (Pt 2):117–42

Objective aerodynamic and acoustic measurement of voice improvement after phonosurgery. Giovanni A, et al. **Laryngoscope** 1999 Apr;109(4):656–60

Age-related changes in orofacial force generation in women. McHenry MA, et al. **Laryngoscope** 1999 May;109(5):827–30

Brain potentials indicate immediate use of prosodic cues in natural speech processing [see comments] Steinhauer K, et al. **Nat Neurosci** 1999 Feb;2(2):191–6. Comment in: Nat Neurosci 1999 Feb;2(2):103–4.

"Both" means more than "two": localizing and counting in patients with visuospatial neglect. Vuilleumier P, et al. **Nat Neurosci** 1999 Sep;2(9):783–4

ERP mapping in phonological and lexical semantic monitoring tasks: A study complementing previous PET results. Thierry G, et al. **Neuroimage** 1998 Nov; 8(4):391–408

A comparison of Wada test for cerebral speech dominance by use of amytal or brietal. Bacia T, et al. **Neurol Neurochir Pol** 1998;32 Suppl 2:247–61 **(Eng, Pol)**

Motor planning center for speech articulation in the normal human brain. Kuriki S, et al. **Neuroreport** 1999 Mar 17; 10(4):765–9

Effect of articulatory and mental tasks on postural control. Yardley L, et al. **Neuroreport** 1999 Feb 5;10(2):215–9

Subject's own speech reduces reactivity of the human auditory cortex. Numminen J, et al. **Neurosci Lett** 1999 Apr 16;265(2):119–22

Nucleus subputaminalis (Ayala): the still disregarded magnocellular component of the basal forebrain may be human specific and connected with the cortical speech area. Simić G, et al. **Neuroscience** 1999 Mar;89(1):73–89

Quantitative electroencephalogram of posterior cortical areas of fluent and stuttering participants during reading with normal and altered auditory feedback. Rastatter MP, et al. **Percept Mot Skills** 1998 Oct;87(2):623–33

Some temporal characteristics of phrases produced by 6- to 10-yr.-old children. Whiteside SP. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1200–2

Effects of response type on coordinated responses during arm movement. Azuma R, et al. **Percept Psychophys** 1999 May;61(4):579–90

Relationship between rhythmic behavior and canonical babbling in infant vocal development. Ejiri K. **Phonetica** 1998 Oct–Dec;55(4):226–37

Effects of contrastive emphasis on jaw opening. Erickson D. **Phonetica** 1998;55(3):147–69

Do airstream mechanisms influence tongue movement paths? Hoole P. **Phonetica** 1998;55(3):131–46

Non-sibilant fricatives in English: spectral information above 10 kHz. Tabain M. **Phonetica** 1998;55(3):107–30

Consistency of tone-syllable alignment across different syllable structures and speaking rates. Xu Y. **Phonetica** 1998 Oct–Dec;55(4):179–203

Hypoglossal canal size and hominid speech. DeGusta D, et al. **Proc Natl Acad Sci U S A** 1999 Feb 16;96(4):1800–4

A theoretical investigation of reference frames for the planning of speech movements. Guenther FH, et al. **Psychol Rev** 1998 Oct;105(4):611–33

Inferring sublexical correspondences from sight vocabulary: evidence from 6- and 7-year-olds. Stuart M, et al. **Q J Exp Psychol A** 1999 May;52(2):353–66

Modified Campbell diagram to assess respiratory muscle action in speech. Johnston S, et al. **Respirology** 1999 Sep; 4(3):213–22

[Special schools for deaf children. Their status of hearing, speech and clinical history] Zaleski T. **Otolaryngol Pol** 1998;52(6):719–21 (Eng. Abstr.) **(Pol)**

[Diagnosis of healthy and depressed patients based on their speech patterns] Frolov MV, et al. **Aviakosm Ekolog Med** 1999;33(2):59–64 (Eng. Abstr.) **(Rus)**

[Age-related changes in the auditory, speech and visual memories of boys and girls 6–12 years old] Davydova Elu, et al. **Fiziol Cheloveka** 1999 Mar–Apr;25(2):14–20 **(Rus)**

[Speech as an index of the states of persons in operator jobs and of depressed patients] Frolov MV, et al. **Fiziol Cheloveka** 1999 Jan–Feb;25(1):52–8 **(Rus)**

[Brain processing of visually presented verbal stimuli at different levels of their integration. II. The orthographic and syntactic aspects] Vorob'ev VA, et al. **Fiziol Cheloveka** 1998 Jul–Aug;24(4):55–63 **(Rus)**

[The effect of afferent subcortical conduction pathways on speech function status] Lukashevich IP, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1999 Mar–Apr; 49(2):227–33 (Eng. Abstr.) **(Rus)**

[The neurophysiological aspects of the recurrent functioning of the "hidden" variables of the speech apparatus] Skliarov OP. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Sep–Oct; 48(5):827–35 (Eng. Abstr.) **(Rus)**

SPEECH ACOUSTICS

A bit of history on standards for acoustical measurements of hearing aids. Lybarger SF, et al. **Am J Audiol** 1999 Jun; 8(1):3–5

Does classroom amplification aid comprehension? Arnold P, et al. **Br J Audiol** 1999 Jun;33(3):171–8

Cerebellar contributions to the perception of temporal cues within the speech and nonspeech domain. Ackermann H, et al. **Brain Lang** 1999 May;67(3):228–41

Prosody, linguistic demands, and auditory comprehension in aphasia. Kimelman MD. **Brain Lang** 1999 Sep;69(2):212–21

Fundamental frequency encoding of linguistic and emotional prosody by right hemisphere-damaged speakers. Pell MD. **Brain Lang** 1999 Sep;69(2):161–92

Children with language impairment can be accurately identified using temporal processing measures: A response to Zhang and Tomblin, Brain and Language, 65, 395–403 (1998). Tallal P. **Brain Lang** 1999 Sep;69(2):222–9

Auditory evoked M100 reflects onset acoustics of speech sounds. Gage N, et al. **Brain Res** 1998 Dec 14; 814(1–2):236–9

An acoustical study of sound production in biphonic singing, Xöömij. Adachi S, et al. **J Acoust Soc Am** 1999 May; 105(5):2920–32

Effects of noise and spectral resolution on vowel and consonant recognition: acoustic and electric hearing. Fu QJ, et al. **J Acoust Soc Am** 1998 Dec;104(6):3586–96

Articulatory tradeoffs reduce acoustic variability during American English /r/ production. Guenther FH, et al. **J Acoust Soc Am** 1999 May;105(5):2854–65

Glottal characteristics of male speakers: acoustic correlates and comparison with female data. Hanson HM, et al. **J Acoust Soc Am** 1999 Aug;106(2):1064–77

Acoustics of children's speech: developmental changes of temporal and spectral parameters. Lee S, et al. **J Acoust Soc Am** 1999 Mar;105(3):1455–68

Prediction of conductive hearing loss based on acoustic ear-canal response using a multivariate clinical decision theory. Piskorski P, et al. **J Acoust Soc Am** 1999 Mar; 105(3):1749–64

Compression and expansion of the temporal envelope: evaluation of speech intelligibility and sound quality. van Buuren RA, et al. **J Acoust Soc Am** 1999 May; 105(5):2903–13

Influences of pellet markers on speech production behavior: acoustical and perceptual measures. Weismer G, et al. **J Acoust Soc Am** 1999 May;105(5):2882–94

Acoustic studies of dysarthric speech: methods, progress, and potential. Kent RD, et al. **J Commun Disord** 1999 May–Jun; 32(3):141–80, 183–6; quiz 181–3, 187–9 (140 ref.)

Acoustic and perceptual improvements in tracheoesophageal voice using a neck strap. Kapusta-Shemie C, et al. **J Otolaryngol** 1999 Apr;28(2):102–4

Emotion in speech: the acoustic attributes of fear, anger, sadness, and joy. Sobin C, et al. **J Psycholinguist Res** 1999 Jul;28(4):347–65

Acoustic examination of preterm and full-term infant cries: the long-time average spectrum. Goberman AM, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):850–61

Temporal and spectral aspects of coarticulation in ataxic dysarthria: an acoustic analysis. Hertrich I, et al. **J Speech Lang Hear Res** 1999 Apr;42(2):367–81

Adaptation of stuttering frequency during repeated readings: associated changes in acoustic parameters of perceptually fluent speech. Max L, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1265–81

Acoustic variations in adductor spasmodic dysphonia as a function of speech task. Sapienza CM, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):127–40

Speaking-rate-induced variability in F2 trajectories. Tjaden K, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):976–89

Acoustic voice analysis in patients with essential tremor. Gamboa J, et al. **J Voice** 1998 Dec;12(4):444–52

The effects of excessive vocalization on acoustic and videostroboscopic measures of vocal fold condition. Mann EA, et al. **J Voice** 1999 Jun;13(2):294–302

Acoustic analysis of induced vocal stress by means of cognitive workload tasks. Mendoza E, et al. **J Voice** 1998 Sep;12(3):263–73

An acoustical and perceptual analysis of the vocal behavior of classroom teachers. Schmidt CP, et al. **J Voice** 1998 Dec;12(4):434–43

Objective aerodynamic and acoustic measurement of voice improvement after phonosurgery. Giovanni A, et al. **Laryngoscope** 1999 Apr;109(4):656–60

Note on voice and perturbation measures in simulated vocal emotions. Whiteside SP. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1219–22

[Speech comprehension by patients with Alzheimer disease. Possibilities for improvement] Boelen HJ, et al. **Tijdschr Gerontol Geriatr** 1999 Aug;30(4):164–7 (Eng. Abstr.) **(Dut)**

[Speech audiometry using the American Word Lists for Japanese subjects with normal hearing] Shimizu T, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul;101(7):879–83 (Eng. Abstr.) **(Jpn)**

[Voice acoustic analysis in patients with a hearing aid or cochlear implant] Pruszewicz A, et al. **Otolaryngol Pol** 1998;52(6):695–700 (Eng. Abstr.) **(Pol)**

[The acoustic characteristics of the vocalizations of hypoacusic children] Garbaruk VI. **Vestn Otorinolaringol** 1998;(4):62–4 (Eng. Abstr.) **(Rus)**

[Acoustic analysis of the normal voice in nonsmoking adults] Fernández Liesa R, et al. **Acta Otorrinolaringol Esp** 1999 Mar;50(2):134–41 (Eng. Abstr.) **(Spa)**

[Digital analysis of the acoustic signal in vocal pathology diagnosis. Sensitivity and specificity of shimmer and jitter

measurements] Preciado JA, et al.
Acta Otorrinolaringol Esp 1998 Aug-Sep;49(6):475-81 (Eng. Abstr.) **(Spa)**
[Acoustic voice analysis in phonatory fistuloplasty after total laryngectomy] Rosique M, et al.
Acta Otorrinolaringol Esp 1999 Mar;50(2):129-33 (Eng. Abstr.) **(Spa)**

SPEECH, ALARYNGEAL

see related
LARYNX, ARTIFICIAL

The long-term indwelling tracheoesophageal prosthesis for alaryngeal voice rehabilitation. Graville D, et al.
Arch Otolaryngol Head Neck Surg 1999 Mar;125(3):288-92
Speech rehabilitation after laryngectomy with the amatsu tracheoesophageal shunt. Vieira MB, et al.
Auris Nasus Larynx 1999 Jan;26(1):69-77
The treatment of hypertonicity of the pharyngo-oesophageal segment after laryngectomy. Brok HA, et al.
Clin Otolaryngol 1998 Aug;23(4):302-7 (51 ref.)
Acoustic and perceptual improvements in tracheoesophageal voice using a neck strap. Kapusta-Shemie C, et al.
J Otolaryngol 1999 Apr;28(2):102-4
Enhancement of electrolaryngeal speech by adaptive filtering. Espy-Wilson CY, et al.
J Speech Lang Hear Res 1998 Dec;41(6):1253-64
Aerodynamic characteristics of tracheostomy speaking valves: an updated report. Zajac DJ, et al.
J Speech Lang Hear Res 1999 Feb;42(1):92-100
Tracheostomal stenosis revision with simultaneous tracheoesophageal puncture. Wax MK, et al.
Laryngoscope 1998 Oct;108(10):1509-13
[Laparoscopy-assisted harvesting of free small intestine transplants for reconstruction of voice and deglutition after total laryngopharyngectomy--an animal experiment study] Marusch F, et al. **Zentralbl Chir** 1998;123(8):944-9 (Eng. Abstr.) **(Ger)**
[Analysis of qualitative voice and speech quality judgments after total laryngectomy] Miani C, et al.
Acta Otorhinolaryngol Ital 1998 Jun;18(3):143-7 (Eng. Abstr.) **(Ita)**
[Voice restoration and clinical outcome in patients undergoing laryngectomy with voice prostheses] Kumazawa H, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Nov;101(11):1303-10 (31 ref.) (Eng. Abstr.) **(Jpn)**

METHODS

The influence of stoma occlusion on aspects of tracheoesophageal voice. van As CJ, et al.
Acta Otolaryngol (Stockh) 1998 Sep;118(5):732-8
[Evaluation of various phonatory parameters in laryngectomized patients: comparison of esophageal and tracheo-esophageal prosthesis phonation] Gervasio CF, et al. **Acta Otorhinolaryngol Ital** 1998 Apr;18(2):101-6 (Eng. Abstr.) **(Ita)**

SPEECH ARTICULATION TESTS

INSTRUMENTATION

Pressure from the lips on the teeth during speech. Thüer U, et al. **Angle Orthod** 1999 Apr;69(2):133-40

STANDARDS

DDK rates in the paediatric clinic: a methodological minefield. Cohen W, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:428-33 (13 ref.)

SPEECH DISCRIMINATION see **SPEECH PERCEPTION**

SPEECH DISCRIMINATION TESTS

Some computational analyses of the PBK test: effects of frequency and lexical density on spoken word recognition. Meyer TA, et al. **Ear Hear** 1999 Aug;20(4):363-71
Speech tests as measures of outcome. Gatehouse S.
Scand Audiol Suppl 1998;49:54-60
[Clinical assessment of dysarthria: presentation and validation of a method] Auzou P, et al. **Rev Neurol (Paris)** 1998 Jul; 154(6-7):523-30 (Eng. Abstr.) **(Fre)**
[Problems and possible solutions in evaluation of dichotic discrimination tests for children] Berger R, et al. **HNO** 1998 Aug;46(8):753-6 (Eng. Abstr.) **(Ger)**
[Speech audiometry using the American Word Lists for Japanese subjects with normal hearing] Shimizu T, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul;101(7):879-83 (Eng. Abstr.) **(Jpn)**

METHODS

Assessment of basal sound identification skills and communication abilities in profoundly deaf children fitted with hearing aids or a cochlear implant. van den Borne S, et al. **Clin Otolaryngol** 1998 Oct;23(5):455-61
Use of the NAL-AB wordlists as a South African English speech discrimination test. Wilson WJ, et al.
S Afr J Commun Disord 1998;45:77-86

STANDARDS

A screening test of auditory comprehension for individuals with severe physical disability (PACST). Beaumont JG, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):1-4

STATISTICS & NUMERICAL DATA

Psychometric functions for discrimination of two-component complex tones in listeners with normal hearing and listeners with hearing loss. Arehart KH, et al. **J Acoust Soc Am** 1999 Apr;105(4):2454-65
[Test construction, analysis and trial of the Heidelberg Sound Discrimination Test for measuring auditory-kinesthetic perceptual discrimination acuity] Dierks A, et al.
Z Kinder Jugendpsychiatr Psychother 1999 Feb;27(1):29-36 (Eng. Abstr.) **(Ger)**

SPEECH DISORDERS

see related
LANGUAGE DISORDERS

Evaluation and management of the child with speech delay. Leung AK, et al. **Am Fam Physician** 1999 Jun; 59(11):3121-8, 3135 (23 ref.)
Invited commentaries on: nuclear schizophrenic symptoms as a window on the relationship between thought and speech [comment] Trimble M, et al. **Br J Psychiatry** 1998 Oct;173:310-1. Comment on: Br J Psychiatry 1998 Oct;173 :303-9.
Auditory temporal processing in disabled readers with and without oral language delay. Heath SM, et al.
J Child Psychol Psychiatry 1999 May;40(4):637-47
[Disability because of hearing and speech disorders has low priority in society. Cooperation and resources are needed] Lundborg T, et al. **Lakartidningen** 1998 Oct 21; 95(43):4757-8 (5 ref.) **(Swe)**

CHEMICALLY INDUCED

Speech disturbance and marked decrease in function seen in several older patients on olanzapine [letter] Gaile S, et al. **J Am Geriatr Soc** 1998 Oct;46(10):1330-1

CLASSIFICATION

Long-term stability of postpalatoplasty perceptual speech ratings: a prospective study. Witt PD, et al.
Ann Plast Surg 1999 Sep;43(3):246-51
Analysis of language and communication function in traumatic brain injured patients. Cools C, et al.
Int J Rehabil Res 1998 Sep;21(3):323-9

COMPLICATIONS

Criteria defining refractory schizophrenia. Hori A, et al.
Acta Psychiatr Scand 1999 Feb;99(2):141-7
Preliminary investigation of voice onset time production in persons with dysphagia. Ryalls J, et al. **Dysphagia** 1999 Summer;14(3):169-75
The effect of auditory feedback on the control of oral-nasal balance by pediatric cochlear implant users. Svirsky MA, et al. **Ear Hear** 1998 Oct;19(5):385-93
The use of noncontingent escape to reduce disruptive behaviors in children with speech delays. Coleman CL, et al. **J Appl Behav Anal** 1998 Winter;31(4):687-90
Increasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. Schepis MM, et al.
J Appl Behav Anal 1998 Winter;31(4):561-78
Adolescent substance use disorders: findings from a 14-year follow-up of speech/language-impaired and control children. Beitchman JH, et al. **J Clin Child Psychol** 1999 Sep;28(3):312-21
A molecular to molar analysis of communicative and problem behaviors. Oliver C, et al. **Res Dev Disabil** 1999 May-Jun; 20(3):197-213
[A case report of dementia with cluttering-like speech disorder and apraxia of gait] Hashimoto R, et al.
Rinsho Shinkeigaku 1999 May;39(5):520-6 (10 ref.) (Eng. Abstr.) **(Jpn)**
[Disorders of speech and imagery functioning in children with epilepsy in the right or left cerebral hemisphere as primary loci of lesions] Sorokina ND, et al.
Zh Nevrol Psikhiatr Im S S Korsakova 1999;99(3):7-11 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Swallowing and speech in infants following tracheotomy. Rosingh HJ, et al. **Acta Otorhinolaryngol Belg** 1999; 53(1):59-63
Intonation unit analysis of conversational discourse in closed head injury. Wozniak RJ, et al. **Brain Inj** 1999 Mar; 13(3):191-203
Assessing speech, language and communication. Paul R, et al. **Child Adolesc Psychiatr Clin N Am** 1999 Apr; 8(2):297-322, vii (44 ref.)
Effect of stimulus length on nasalance scores. Watterson T, et al. **Cleft Palate Craniofac J** 1999 May;36(3):243-7
Preliminary investigation of voice onset time production in persons with dysphagia. Ryalls J, et al. **Dysphagia** 1999 Summer;14(3):169-75
The effect of auditory feedback on the control of oral-nasal balance by pediatric cochlear implant users. Svirsky MA, et al. **Ear Hear** 1998 Oct;19(5):385-93
A comparison of babbling and speech at pre-speech level, 3, and 5 years of age in children with cleft lip and palate treated with delayed hard palate closure. Lohmander-Agerskov A, et al. **Folia Phoniatr Logop** 1998 Nov-Dec;50(6):320-34
Prosodic features of familial language impairment: constraints on stress assignment. Piggott GL, et al.
Folia Phoniatr Logop 1999;51(1-2):55-69
Screening for speech and language delay: a systematic review of the literature. Law J, et al. **Health Technol Assess** 1998; 2(9):1-184 (598 ref.)
Early intervention project: evaluation of WILSTAAR, Hanen and specialist playgroup. Awcock C, et al.
Int J Lang Commun Disord 1998;33 Suppl:500-5
DDK rates in the paediatric clinic: a methodological minefield. Cohen W, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:428-33 (13 ref.)
Encouraging speech and language development in exceptional circumstances. Coulter L.
Int J Lang Commun Disord 1998;33 Suppl:506-8
Screening for primary speech and language delay: a systematic review of the literature. Law J, et al.
Int J Lang Commun Disord 1998;33 Suppl:21-3 (3 ref.)
GOS.SP.ASS.'98: an assessment for speech disorders associated with cleft palate and/or velopharyngeal dysfunction (revised). Sell D, et al.
Int J Lang Commun Disord 1999 Jan-Mar;34(1):17-33
The impact of early onset otitis media on babbling and early language development. Rvachew S, et al.
J Acoust Soc Am 1999 Jan;105(1):467-75
The preserved speech variant: a subgroup of the Rett complex: a clinical report of 30 cases. Zappella M, et al.
J Autism Dev Disord 1998 Dec;28(6):519-26
Precursors to speech in infancy: the prediction of speech and language disorders [see comments] Oller DK, et al.
J Commun Disord 1999 Jul-Aug;32(4):223-45 (47 ref.). Comment in: J Commun Disord 1999 Jul-Aug;32(4):247-50.
Amnesic patients' impaired category exemplar production priming. Cermak LS, et al. **J Int Neuropsychol Soc** 1998 Nov;4(6):576-83
Oral diadochokinetic rate in adults. Prathanee B.
J Med Assoc Thai 1998 Oct;81(10):784-8
Gestures and words in early development of children with Down syndrome. Caselli MC, et al.
J Speech Lang Hear Res 1998 Oct;41(5):1125-35
Nonword repetition and child language impairment. Dollaghan C, et al. **J Speech Lang Hear Res** 1998 Oct; 41(5):1136-46
Probability estimates and paths to consonant normalization in children with speech delay. Gruber FA.
J Speech Lang Hear Res 1999 Apr;42(2):448-59
Variability and sequential order of consonant normalization in children with speech delay. Gruber FA.
J Speech Lang Hear Res 1999 Apr;42(2):460-72
Causative alternations of children with specific language impairment. Loeb DF, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1103-14
Prosodic markers of syntactic boundaries in the speech of 4-year-old children with normal and disordered language development. Snow D. **J Speech Lang Hear Res** 1998 Oct; 41(5):1158-70
A molecular to molar analysis of communicative and problem behaviors. Oliver C, et al. **Res Dev Disabil** 1999 May-Jun; 20(3):197-213
Use of technology in phonological assessment: evaluation of early meaningful speech and prelinguistic vocalizations. Masterson JJ, et al. **Semin Speech Lang** 1999;20(2):133-47; quiz 147-8
[Higher touch and kinesthetic functions in children with former speech/language development disorders: a neuropsychological study] Kiese-Himmel C, et al.
Folia Phoniatr Logop 1998;50(4):195-204 (Eng. Abstr.) **(Ger)**
[Quantitative diagnosis of hypernasality in cleft lip and palate patients by computerized nasal quality assessment] Bressmann T, et al. **Mund Kiefer Gesichtschir** 1999 May; 3 Suppl 1:S154-7 (Eng. Abstr.) **(Ger)**
[A study of the phenomenon of voice intonation: analysis, usage and diagnosis] Kazanecka E, et al.
Otolaryngol Pol 1997;51 Suppl 25:263-70 (Eng. Abstr.) **(Pol)**
[Dysphagia and speech disorders] Pruszewicz A, et al.
Otolaryngol Pol 1999;53(2):183-8 (Eng. Abstr.) **(Pol)**
[Disorders of speech and imagery functioning in children with epilepsy in the right or left cerebral hemisphere as primary loci of lesions] Sorokina ND, et al.
Zh Nevrol Psikhiatr Im S S Korsakova 1999;99(3):7-11 (Eng. Abstr.) **(Rus)**

EPIDEMIOLOGY

A cross-sectional study of speech- and language-abilities of children with normal hearing, mild fluctuating conductive hearing loss, or moderate to profound sensoneurinal hearing loss. Schönweiler R, et al.
Int J Pediatr Otorhinolaryngol 1998 Aug 10;44(3):251-8

ETIOLOGY

Swallowing and speech in infants following tracheotomy. Rosingh HJ, et al. **Acta Otorhinolaryngol Belg** 1999; 53(1):59-63
Competence in discourse as a measure of social integration and quality of life in persons with traumatic brain injury. Galski T, et al. **Brain Inj** 1998 Sep;12(9):769-82

SPEECH DISORDERS

Intonation unit analysis of conversational discourse in closed head injury. Wozniak RJ, et al. **Brain Inj** 1999 Mar; 13(3):191–203

Early ear problems and developmental problems at school age. Lindsay RL, et al. **Clin Pediatr (Phila)** 1999 Mar; 38(3):123–32 (30 ref.)

CleftNet (Scotland): a network for the treatment of cleft palate speech using EPG. Gibbon F, et al. **Int J Lang Commun Disord** 1998;33 Suppl:44–9

GOS.SP.ASS.98: an assessment for speech disorders associated with cleft palate and/or velopharyngeal dysfunction (revised). Sell D, et al. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):17–33

Analysis of speech disorders in acute pseudobulbar palsy: a longitudinal study of a patient with lingual paralysis. Leroy–Malherbe V, et al. **Int J Rehabil Res** 1998 Dec; 21(4):419–26

The impact of early onset otitis media on babbling and early language development. Rvachew S, et al. **J Acoust Soc Am** 1999 Jan;105(1):467–75

Language, speech, and educational outcomes of otitis media. Gravel JS, et al. **J Otolaryngol** 1998;27 Suppl 2:17–25 (74 ref.)

Gestures and words in early development of children with Down syndrome. Caselli MC, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1125–35

Speech arrest caused by meningioma––two case reports. Shiino A, et al. **Neurol Med Chir (Tokyo)** 1998 Aug; 38(8):475–7

Apraxia of speech associated with an infarct in the precentral gyrus of the insula. Nagao M, et al. **Neuroradiology** 1999 May;41(5):356–7

Factors related to dropout in a study of head and neck cancer patients after surgery. Colangelo LA, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):368–74

Using differential reinforcement to treat functional hypophonia in a paediatric rehabilitation patient. Amari A, et al. **Pediatr Rehabil** 1998 Apr–Jun;2(2):89–94

Phonological deterioration in adults with an acquired severe hearing impairment. Andersson U, et al. **Scand Audiol Suppl** 1998;49:93–100

GENETICS

Prosodic features of familial language impairment: constraints on stress assignment. Piggott GL, et al. **Folia Phoniatr Logop** 1999;51(1–2):55–69

Retrospective analysis of feeding and speech disorders in 50 patients with velo–cardio–facial syndrome. Rommel N, et al. **Genet Couns** 1999;10(1):71–8

HISTORY

[Afhild Tamm––an early expert on speech disorders in children] Nettelbladt U, et al. **Lakartidningen** 1998 Dec 16;95(51–52):5918–20 **(Swe)**

PATHOLOGY

Smith–Fineman–Myers syndrome in apparently monozygotic twins. Guion–Almeida ML, et al. **Am J Med Genet** 1998 Sep 23;79(3):205–8 (4 ref.)

PHYSIOPATHOLOGY

When is a /k/ not a [k]? EPG as a diagnostic and therapeutic tool for abnormal velar stops. Friel S. **Int J Lang Commun Disord** 1998;33 Suppl:439–44

Speech processing abilities in children with speech vs speech and language difficulties. Nathan L, et al. **Int J Lang Commun Disord** 1998;33 Suppl:457–62

Diadochokinetic skills: normal and atypical performance in children aged 3–5 years. Williams P, et al. **Int J Lang Commun Disord** 1998;33 Suppl:481–6

A study of auditory afferent organization in children with dyslalia. Milicić D, et al. **Int J Pediatr Otorhinolaryngol** 1998 Nov 15;46(1–2):43–56

Acquired and isolated asymmetrical palatal palsy. Cuvellier JC, et al. **Neuropediatrics** 1998 Dec;29(6):324–5

Neural basis of an inherited speech and language disorder. Vargha–Khadem F, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12695–700

An exploratory study of an undefined acquired neuromotor speech disorder within the context of the four level framework for speech sensorimotor control. Schmulian D, et al. **S Afr J Commun Disord** 1997;44:87–97

PSYCHOLOGY

Nuclear schizophrenic symptoms as a window on the relationship between thought and speech [see comments] Crow TJ. **Br J Psychiatry** 1998 Oct;173:303–9. Comment in: Br J Psychiatry 1998 Oct;173 :310–1.

Invited commentaries on: nuclear schizophrenic symptoms as a window on the relationship between thought and speech [comment] Trimble M, et al. **Br J Psychiatry** 1998 Oct;173:310–1. Comment on: Br J Psychiatry 1998 Oct;173 :303–9.

Fundamental frequency encoding of linguistic and emotional prosody by right hemisphere–damaged speakers. Pell MD. **Brain Lang** 1999 Sep;69(2):161–92

RADIONUCLIDE IMAGING

SPET study of verbal fluency in schizophrenia and epilepsy. Mellers JD, et al. **Br J Psychiatry** 1998 Jul;173:69–74

REHABILITATION

Issues in augmentative and alternative communication in child psychiatry. Sevcik RA, et al. **Child Adolesc Psychiatr Clin N Am** 1999 Jan;8(1):77–87 (29 ref.)

Using differential reinforcement to treat functional hypophonia in a paediatric rehabilitation patient. Amari A, et al. **Pediatr Rehabil** 1998 Apr–Jun;2(2):89–94

[Speech disorders in Alajouanine syndrome] Niedzielska G, et al. **Otolaryngol Pol** 1999;53(3):321–2 (Eng. Abstr.) **(Pol)**

SURGERY

Muscular reconstruction to improve the deterioration of facial appearance and speech caused by mandibular atrophy: technique and case reports. Bosker H, et al. **Br J Oral Maxillofac Surg** 1999 Aug;37(4):277–84 (11 ref.)

THERAPY

Carcinoma of the tongue: the speech therapist's perspective. Jackson MS, et al. **Br J Oral Maxillofac Surg** 1999 Jun; 37(3):200–4

Issues to consider in the evaluation of speech and language therapy for preschool children. Roulstone S, et al. **Child Care Health Dev** 1999 Mar;25(2):141–55 (31 ref.)

A prospective study of speech and voice rehabilitation after total laryngectomy with the low–resistance Groningen, Nijdam and Provox voice prostheses. van den Hoogen FJ, et al. **Clin Otolaryngol** 1998 Oct;23(5):425–31

Parents and children together (PACT): a collaborative approach to phonological therapy [see comments] Bowen C, et al. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):35–55. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):55–9. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):60–1; discussion 65–83. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):62–5; discussion 65–83.

Modelling the consultation process in a secondary referral unit for children. David R, et al. **Int J Lang Commun Disord** 1998;33 Suppl:532–7

Innovation and partnership: the voluntary sector contribution. Edelman G, et al. **Int J Lang Commun Disord** 1998;33 Suppl:10–5

PACT: some comments and considerations [comment] Fey ME. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):55–9; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.

Parents' beliefs and ideas about children's early speech and language difficulties. Glogowska M. **Int J Lang Commun Disord** 1998;33 Suppl:538–43

Collaborative working with specific speech & language disorder in mainstream education. Greenwell L, et al. **Int J Lang Commun Disord** 1998;33 Suppl:587–92

Phonological therapy: a collaborative approach [comment] Grundy K. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):62–5; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.

An innovative phonological therapy programme [comment] Ingram D, et al. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):60–1; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.

Efficacy of speech and language therapy for particular speech sounds in children. Munro J. **Int J Lang Commun Disord** 1998;33 Suppl:451–6

Running a randomised controlled trial in a service setting: a progress report. Roulstone S, et al. **Int J Lang Commun Disord** 1998;33 Suppl:31–6

Targeting speech processing strengths to facilitate pronunciation change. Waters D, et al. **Int J Lang Commun Disord** 1998;33 Suppl:469–74

Speech and language therapy provision for bilingual children: aspects of the current service. Winter K. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):85–98

I :reasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. Schepis MM, et al. **J Appl Behav Anal** 1998 Winter;31(4):561–78

Tutorial: survival analysis––a statistic for clinical, efficacy, and theoretical applications. Gruber FA. **J Speech Lang Hear Res** 1999 Apr;42(2):432–47

Teaching partner–focused questions to individuals who use augmentative and alternative communication to enhance their communicative competence. Light JC, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):241–55

Attitudes of a group of South African speech–language pathologists towards stutterers and stuttering therapy. Baker B, et al. **S Afr J Commun Disord** 1997;44:13–23

Speechreading: advances in understanding its cortical bases and implications for deafness and speech rehabilitation. Campbell R. **Scand Audiol Suppl** 1998;49:80–6 (31 ref.)

[New approaches in the treatment of speech disorders in children with an organic brain lesion] Dubovtseva OA, et al. **Lik Sprava** 1999 Apr–May;(3):121–4 (Eng. Abstr.) **(Rus)**

SPEECH, ESOPHAGEAL

Esophageal contractility synchronous with expiration. Mohri M, et al. **Ann Otol Rhinol Laryngol** 1999 Aug;108(8):806–9

Acoustic and perceptual evaluation of voice and speech quality: a study of patients with laryngeal cancer treated with laryngectomy vs irradiation. Finizia C, et al. **Arch Otolaryngol Head Neck Surg** 1999 Feb;125(2):157–63

Acoustic and perceptual improvements in tracheoesophageal voice using a neck strap. Kapusta–Shemie C, et al. **J Otolaryngol** 1999 Apr;28(2):102–4

Botulinum toxin injection to improve tracheoesophageal speech after total laryngectomy. Zormeier MM, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):314–9

[Esophageal morphology with ultrasound imaging after laryngectomy: effect on quality of esophageal speech] Tranquart F, et al. **J Radiol** 1998 Jan;79(1):33–7 (Eng. Abstr.) **(Fre)**

[Subtotal esophagus resection and stomach tube transposition in laryngectomized patients without loss of esophageal speech] Lörken M, et al. **Chirurg** 1999 Mar;70(3):308–9 (Eng. Abstr.) **(Ger)**

[Analysis of qualitative voice and speech quality judgments after total laryngectomy] Miani C, et al. **Acta Otorhinolaryngol Ital** 1998 Jun;18(3):143–7 (Eng. Abstr.) **(Ita)**

METHODS

Restoration of voice after laryngectomy. Jassar P, et al. **J R Soc Med** 1999 Jun;92(6):299–302 (25 ref.)

[Evaluation of various phonatory parameters in laryngectomized patients: comparison of esophageal and tracheo–esophageal prosthesis phonation] Gervasio CF, et al. **Acta Otorhinolaryngol Ital** 1998 Apr;18(2):101–6 (Eng. Abstr.) **(Ita)**

SPEECH INTELLIGIBILITY

see related
SPEECH PRODUCTION MEASUREMENT

What did you say? I can't quite understand your spoken order. Karch AM, et al. **Am J Nurs** 1999 Aug;99(8):12

Speech intelligibility in children after cochlear implantation. Allen MC, et al. **Am J Otol** 1998 Nov;19(6):742–6

Intelligibility of vowels produced by post–lingually deafened cochlear implant users. Langereis MC, et al. **Audiology** 1999 Jul–Aug;38(4):206–24

Female voice communications in high level aircraft cockpit noises––part II: vocoder and automatic speech recognition systems. Nixon C, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1087–94

Auditory vs visual speech timing cues as external rate control to enhance verbal intelligibility in mixed spastic–ataxic dysarthric speakers: a pilot study. Pilon MA, et al. **Brain Inj** 1998 Sep;12(9):793–803

Conversational skills of preschool and school–age children with cleft lip and palate. Chapman KL, et al. **Cleft Palate Craniofac J** 1998 Nov;35(6):503–16

The intrajudge reliability of the perceptual rating of cleft palate speech before and after pharyngeal flap surgery: the effect of judges and speech samples. Keuning KH, et al. **Cleft Palate Craniofac J** 1999 Jul;36(4):328–33

Quality of life measurements of speech in the head and neck cancer patient population. Karnell LH, et al. **Head Neck** 1999 May;21(3):229–38

Speech recognition, speech production and speech intelligibility in children with hearing aids versus implanted children. Löhle E, et al. **Int J Pediatr Otorhinolaryngol** 1999 Feb 15;47(2):165–9

Influence of communication mode on speech intelligibility and syntactic structure of sentences in profoundly hearing impaired French children implanted between 5 and 9 years of age. Vieu A, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jun 1;44(1):15–22

Dysarthric sentence intelligibility: contribution of iconic gestures and message predictiveness. Garcia JM, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1282–93

When can listeners detect disfluency in spontaneous speech? Lickley RJ, et al. **Lang Speech** 1998 Apr–Jun;41 (Pt 2):203–26

Near–field speech intelligibility in chemical–biological warfare masks. Bishop J, et al. **Mil Med** 1999 Aug; 164(8):543–50

Magnitude estimation scaling judgments of speech intelligibility and speech acceptability. Ellis LW. **Percept Mot Skills** 1999 Apr;88(2):625–30

[Clinical assessment of dysarthria: presentation and validation of a method] Auzou P, et al. **Rev Neurol (Paris)** 1998 Jul; 154(6–7):523–30 (Eng. Abstr.) **(Fre)**

DRUG EFFECTS

The effect of intrathecal baclofen on functional intelligibility of speech. Mason C, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:24–5

PHYSIOLOGY

Speech articulation after subtotal glossectomy and reconstruction with a myocutaneous flap. Knuuttila H, et al. **Acta Otolaryngol** 1999;119(5):621–6

Acoustic and perceptual evaluation of voice and speech quality: a study of patients with laryngeal cancer treated with laryngectomy vs irradiation. Finizia C, et al. **Arch Otolaryngol Head Neck Surg** 1999 Feb;125(2):157–63

SPEECH-LANGUAGE PATHOLOGY

Schools SID? A response [letter; comment] Aungst L. **ASHA** 1998 Fall;40(4):6. Comment on: ASHA 1998 Summer;40(3):6–7.
Rural service delivery: unique challenges, creative solutions. Coleman TJ, et al. **ASHA** 1999 Jan–Feb;41(1):40–5
Donna Geffner. A celebration of diversity [interview by Ellen Uffen] Geffner D. **ASHA** 1999 Jan–Feb;41(1):23–7
More on old grades [letter] Koffman S. **ASHA** 1999 Jan–Feb; 41(1):7, 54
Gatekeepers need education [letter] Silverman FH, et al. **ASHA** 1999 Jan–Feb;41(1):6
Study of suicidal risk and tendency in defectologists and logopedists from a school for handicapped children. Georguiev D. **Folia Med (Plovdiv)** 1999;41(1):161–3
Learning from multiple perspectives: global implications for speech–language and hearing professionals [see comments] Cheng L. **Folia Phoniatr Logop** 1998;50(5):283–90. Comment in: Folia Phoniatr Logop 1998 ;50(5):239–42.
Speech and language therapist–teacher collaboration in a literacy summer school. Drew MF. **Int J Lang Commun Disord** 1998;33 Suppl:581–6
Inappropriate sexual behaviour experienced by speech–language therapists. Williams TH, et al. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):99–111
Speech and language therapy provision for bilingual children: aspects of the current service. Winter K. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):85–98
Paediatricians: referral rates and speech pathology waiting lists. Keating D, et al. **J Paediatr Child Health** 1998 Oct; 34(5):451–5
Vocal fold nodules in adult singers: regional opinions about etiologic factors, career impact, and treatment. A survey of otolaryngologists, speech pathologists, and teachers of singing. Hogikyan ND, et al. **J Voice** 1999 Mar; 13(1):128–42
Atypical temporal lobe language representation: MEG and intraoperative stimulation mapping correlation. Simos PG, et al. **Neuroreport** 1999 Jan 18;10(1):139–42
Assessment of swallowing and referral to speech and language therapists in acute stroke. Hinds NP, et al. **QJM** 1998 Dec;91(12):829–35
Attitudes of a group of South African speech–language pathologists towards stutterers and stuttering therapy. Baker B, et al. **S Afr J Commun Disord** 1997;44:13–23

ECONOMICS

Caps? What caps? [letter] Lohrman JA. **ASHA** 1998 Fall; 40(4):6

EDUCATION

Educational issues in teaching dysphagia to speech pathologists. Perry A. **Folia Phoniatr Logop** 1999 Jul–Oct; 51(4–5):231–8
Interdisciplinary pilot project in a rehabilitation setting. Cox PD, et al. **J Allied Health** 1999 Spring;28(1):25–9
Impact of curricular change in an undergraduate program for speech pathologists on perceived preparedness for the workplace. Harris LM, et al. **J Allied Health** 1998 Fall–Winter;27(4):221–7
Communication pathology: the way in Africa. Hugo R. **S Afr J Commun Disord** 1998;45:3–9

HISTORY

[The Saint–Petersburg Ear, Nose, Throat and Speech Research Institute (a brief historical essay)] Lantsov AA. **Vestn Otorinolaringol** 1998;(4):4–8 **(Rus)**
[On the history of phoniatrics in Russia] Vasilenko IuS. **Vestn Otorinolaringol** 1999;(2):59–61 **(Rus)**

MANPOWER

Making a global difference. Reflections on working abroad. Pickering M, et al. **ASHA** 1998 Fall;40(4):34–42
So you want to go abroad? Here's how. Uffen E. **ASHA** 1998 Fall;40(4):43–6

METHODS

Communicative intervention for children with psychiatric and communication disorders. Roth FP. **Child Adolesc Psychiatr Clin N Am** 1999 Jan;8(1):137–52 (36 ref.)
Parents and children together (PACT): a collaborative approach to phonological therapy [see comments] Bowen C, et al. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):35–55. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):55–9. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):60–1; discussion 65–83. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):62–5; discussion 65–83.
Team work and skillmix. Do they improve care for older patients? Williams BO. **Int J Lang Commun Disord** 1998; 33 Suppl:634–8
Collaborative working practices in schools for children with physical disabilities. Wright JA, et al. **Int J Lang Commun Disord** 1998;33 Suppl:626–31

ORGANIZATION & ADMINISTRATION

Your service: the many face(t)s of ASHA's National Office. Uffen E. **ASHA** 1999 Mar–Apr;41(2):28–31
Making team working work--a real life experience. Boland J, et al. **Int J Lang Commun Disord** 1998;33 Suppl:570–4
Collaboration in Glasgow's primary school language units. Fletcher M. **Int J Lang Commun Disord** 1998;33 Suppl:575–80
Let's talk: a working party for special schools. Hodson A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:599–601
'Excellence for all children' a redefinition of the role of the speech and language therapist. Topping CT, et al. **Int J Lang Commun Disord** 1998;33 Suppl:608–13
Equitable service provision for inclusive education and effective early intervention. Wicks KM. **Int J Lang Commun Disord** 1998;33 Suppl:562–7

STANDARDS

Credibility and credentialing. ASHA's commitment to the CCCs [editorial] Swigert N, et al. **ASHA** 1998 Fall;40(4):10
The ASHA way: growth through standards. American Speech–Language Hearing Association. Seymour CM. **S Afr J Commun Disord** 1998;45:103–8

SPEECH PATHOLOGY see **SPEECH–LANGUAGE PATHOLOGY**

SPEECH PERCEPTION

Speech discrimination scores of postlingually deaf adults implanted with the Combi 40 cochlear implant. Gstoettner WK, et al. **Acta Otolaryngol (Stockh)** 1998 Sep;118(5):640–5
Sound lateralization and speech discrimination in patients with sensorineural hearing loss. Kubo T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;538:63–9
Hearing results with deep insertion of cochlear implant electrodes. Hodges AV, et al. **Am J Otol** 1999 Jan; 20(1):53–5
Bilateral cochlear implants controlled by a single speech processor. Lawson DT, et al. **Am J Otol** 1998 Nov; 19(6):758–61
Speech perception in children after cochlear implantation. O'Donoghue GM, et al. **Am J Otol** 1998 Nov;19(6):762–7
Mechanisms of hallucinations [letter; comment] Feinberg I. **Am J Psychiatry** 1999 May;156(5):805–7. Comment on: Am J Psychiatry 1997 Dec;154(12):1683–9.
Selective speech perception alterations in schizophrenic patients reporting hallucinated "voices". Hoffman RE, et al. **Am J Psychiatry** 1999 Mar;156(3):393–9
"Pure word deafness": implications for assessment and management in communication disorder--a report of two cases. Wee J, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):1106–9
Instruments for assessment of auditory hallucinations. Frederick JA, et al. **Arch Psychiatr Nurs** 1998 Oct; 12(5):255–63 (24 ref.)
Female voice communications in high level aircraft cockpit noises--part II: vocoder and automatic speech recognition systems. Nixon C, et al. **Aviat Space Environ Med** 1998 Nov;69(11):1087–94
Voicing judgements by chinchillas trained with a reward paradigm. Ohlemiller KK, et al. **Behav Brain Res** 1999 Apr; 100(1–2):185–95
Prosody, linguistic demands, and auditory comprehension in aphasia. Kimelman MD. **Brain Lang** 1999 Sep;69(2):212–21
Biological significance of the zoning of the masking effect of noise, related to the adaptive capacities of the auditory analyzer for speech communication. Tzaneva L. **Cent Eur J Public Health** 1998 Nov;6(4):291–2
Informativeness of critical ratios "useful signal–masking noise" in speech communication. Tzaneva L. **Cent Eur J Public Health** 1998 Nov;6(4):293–5
Sensitivity to discontinuous dependencies in language learners: evidence for limitations in processing space. Santelmann LM, et al. **Cognition** 1998 Dec;69(2):105–34
Achieving incremental semantic interpretation through contextual representation. Sedivy JC, et al. **Cognition** 1999 Jun 22;71(2):109–47
Continuous processing in word recognition at 24 months. Swingley D, et al. **Cognition** 1999 Jun 22;71(2):73–108
Speech discrimination and phonological working memory in children with ADHD. Norrelgen F, et al. **Dev Med Child Neurol** 1999 May;41(5):335–9
A lack of evidence in 4–month–old human infants for paternal voice preference. Ward CD, et al. **Dev Psychobiol** 1999 Jul;35(1):49–59
Effects of electrode location and spacing on phoneme recognition with the Nucleus–22 cochlear implant. Fu QJ, et al. **Ear Hear** 1999 Aug;20(4):321–31
Effects of electrode configuration and frequency allocation on vowel recognition with the Nucleus–22 cochlear implant. Fu QJ, et al. **Ear Hear** 1999 Aug;20(4):332–44
Public awareness of stuttering. Van Borsel J, et al. **Folia Phoniatr Logop** 1999;51(3):124–32
Comparative study of visual, auditory, and olfactory function in Usher syndrome. Seeliger M, et al. **Graefes Arch Clin Exp Ophthalmol** 1999 Apr;237(4):301–7
Comprehension of language in congenitally deaf children with and without cochlear implants. Truy E, et al. **Int J Pediatr Otorhinolaryngol** 1998 Sep 15;45(1):83–9
Influence of communication mode on speech intelligibility and syntactic structure of sentences in profoundly hearing impaired French children implanted between 5 and 9 years of age. Vieu A, et al. **Int J Pediatr Otorhinolaryngol** 1998 Jun 1;44(1):15–22
Re: "Development of SCAN–A: test of auditory processing disorders in adolescents and adults" (J Am Acad Audiol 1996;6:286–292) [letter] Keith RW. **J Am Acad Audiol** 1998 Aug;9(4):311
Narrowing the distance to language: one step at a time [see comments] Jusczyk PW. **J Commun Disord** 1999 Jul–Aug; 32(4):207–22 (60 ref.). Comment in: J Commun Disord 1999 Jul–Aug;32(4):247–50.
Processing lexically embedded spoken words. Luce PA, et al. **J Exp Psychol Hum Percept Perform** 1999 Feb; 25(1):174–83
Competitor priming in spoken word recognition. Monsell S, et al. **J Exp Psychol Learn Mem Cogn** 1998 Nov; 24(6):1495–520
Unusual modality effects in less–skilled readers. Penney CG, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jan;25(1):284–9
Production of intoxication states by actors: perception by lay listeners. Hollien H, et al. **J Forensic Sci** 1998 Nov; 43(6):1153–62
Unraveling social categorization in the "who said what?" paradigm. Klauer KC, et al. **J Pers Soc Psychol** 1998 Nov; 75(5):1155–78
HINT list equivalency using older listeners. Hanks WD, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1335–40
Adaptation of stuttering frequency during repeated readings: associated changes in acoustic parameters of perceptually fluent speech. Max L, et al. **J Speech Lang Hear Res** 1998 Dec;41(6):1265–81
When can listeners detect disfluency in spontaneous speech? Lickley RJ, et al. **Lang Speech** 1998 Apr–Jun;41 (Pt 2):203–26
Metrical segmentation in Dutch: vowel quality or stress? Quené H, et al. **Lang Speech** 1998 Apr–Jun;41 (Pt 2):185–202
A partial matching theory of the mirror effect in immediate probed recognition. Murray DJ, et al. **Mem Cognit** 1998 Nov;26(6):1196–213
The importance of semantic similarity to the irrelevant speech effect. Neely CB, et al. **Mem Cognit** 1999 Jan;27(1):37–44
Implicit memory for phonological processes in visual stem completion. Rueckl JG, et al. **Mem Cognit** 1999 Jan; 27(1):1–11
Contrasting effects of age of acquisition and word frequency on auditory and visual lexical decision. Turner JE, et al. **Mem Cognit** 1998 Nov;26(6):1282–91
Hidden neural networks. Krogh A, et al. **Neural Comput** 1999 Feb 15;11(2):541–63
Spared comprehension of emotional prosody in a patient with global aphasia. Barrett AM, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Apr; 12(2):117–20
Speech perception results in children with cochlear implants: contributing factors. Hodges AV, et al. **Otolaryngol Head Neck Surg** 1999 Jul;121(1):31–4
The case for early identification of hearing loss in children. Auditory system development, experimental auditory deprivation, and development of speech perception and hearing. Sininger YS, et al. **Pediatr Clin North Am** 1999 Feb;46(1):1–14 (62 ref.)
Motor speech impairment following traumatic brain injury in childhood: a physiological and perceptual analysis of one case. Theodoros DG, et al. **Pediatr Rehabil** 1998 Jul–Sep;2(3):107–22
Magnitude–estimation scaling of computerized (digitized) speech under different listening conditions. Bettagere R, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1363–78
Influence of prosodic boundaries on comprehension of spoken English sentences. Blasko DG, et al. **Percept Mot Skills** 1998 Aug;87(1):3–18
Speech–Sounds Perception Test: analysis of a randomized answer form. Charter RA, et al. **Percept Mot Skills** 1998 Aug;87(1):64–6
Magnitude estimation scaling judgments of speech intelligibility and speech acceptability. Ellis LW. **Percept Mot Skills** 1999 Apr;88(2):625–30
Comparison of listeners' judgments of simulated and authentic stuttering using magnitude estimation scaling. Fucci D, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1103–6
Comparison of magnitude estimation and interval scaling of loudness. McColl D, et al. **Percept Mot Skills** 1999 Feb; 88(1):25–30
Background sound pressure fluctuations (5 DB) from overhead ventilation systems increase subjective fatigue of university students during three–hour lectures. Persinger MA, et al. **Percept Mot Skills** 1999 Apr;88(2):451–6
Note on voice and perturbation measures in simulated vocal emotions. Whiteside SP. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1219–22
Effects of talker, rate, and amplitude variation on recognition memory for spoken words. Bradlow AR, et al. **Percept Psychophys** 1999 Feb;61(2):206–19
Brain–wave recognition of sentences. Suppes P, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15861–6
Fast noisy speech: age differences in processing rapid speech with background noise. Tun PA. **Psychol Aging** 1998 Sep; 13(3):424–34
Connectionist modeling of speech perception. Protopapas A. **Psychol Bull** 1999 Jul;125(4):410–36 (145 ref.)
Measuring the perceptual magnet effect in the perception of /i/ by German listeners. Diesch E, et al. **Psychol Res** 1999;62(1):1–19

Potential perceptual bases for successful use of a vibrotactile speech perception aid. Bernstein LE, et al. **Scand J Psychol** 1998 Sep;39(3):181–6

Phonological representation and speech understanding with cochlear implants in deafened adults. Lyxell B, et al. **Scand J Psychol** 1998 Sep;39(3):175–9

Proprioception and the McGurk effect [letter; comment] Moody J. **Science** 1998 Dec 11;282(5396):1994–5. Comment on: Science 1998 Feb 20;279(5354):1213–6.

[Speech comprehension by patients with Alzheimer disease. Possibilities for improvement] Boelen HJ, et al. **Tijdschr Gerontol Geriatr** 1999 Aug;30(4):164–7 (Eng. Abstr.) **(Dut)**

[Phonological priming and auditory event-related brain potentials] Jibu T, et al. **Shinrigaku Kenkyu** 1998 Dec; 69(5):367–75 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Review of the roles of temporal and place coding of frequency in speech discrimination. Moller AR. **Acta Otolaryngol** 1999;119(4):424–30

Influence of speech-coding strategy on cortical activity in cochlear implant users: a positron emission tomographic study. Fujiki N, et al. **Acta Otolaryngol (Stockh)** 1998 Nov; 118(6):797–802

Auditory hallucinations: phenomenology, neuropsychology and neuroimaging update. David AS. **Acta Psychiatr Scand Suppl** 1999;395:95–104 (112 ref.)

New methods for studying hallucinated 'voices' in schizophrenia. Hoffman RE. **Acta Psychiatr Scand Suppl** 1999;395:89–94

Synthetic stimuli attenuate the effect of attention on the dichotic right-ear advantage. Wiens S, et al. **Acta Psychol (Amst)** 1999 Jul;102(1):13–9

Speech recognition after implantation of the ossified cochlea. Hodges AV, et al. **Am J Otol** 1999 Jul;20(4):453–6

Residual speech recognition and cochlear implant performance: effects of implantation criteria. Rubinstein JT, et al. **Am J Otol** 1999 Jul;20(4):445–52

Multichannel cochlear implantation in children with cochlear ossification. Steenerson RL, et al. **Am J Otol** 1999 Jul; 20(4):442–4

A comparison of the growth of open-set speech perception between the nucleus 22 and nucleus 24 cochlear implant systems. Waltzman SB, et al. **Am J Otol** 1999 Jul; 20(4):435–41

The effect of long-term deafness on speech recognition in postlingually deafened adult CLARION cochlear implant users. Geier L, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:80–3

Speech perception results for children implanted with the CLARION cochlear implant at the Medical University of Hannover. Illg A, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:93–8

Comparison of speech perception in pediatric CLARION cochlear implant and hearing aid users. Svirsky MA, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:104–9

Speech perception of young children using nucleus 22-channel or CLARION cochlear implants. Young NM, et al. **Ann Otol Rhinol Laryngol Suppl** 1999 Apr;177:99–103

Influences on infant speech processing: toward a new synthesis. Werker JF, et al. **Annu Rev Psychol** 1999; 50:509–35 (126 ref.)

Pure alexia and word-meaning deafness in a patient with multiple sclerosis. Jónsdóttir MK, et al. **Arch Neurol** 1998 Nov;55(11):1473–4

Human frequency-following responses to two-tone approximations of steady-state vowels. Krishnan A. **Audiol Neurootol** 1999 Mar–Apr;4(2):95–103

Auditory, visual and audiovisual perception of segmental speech features by severely hearing-impaired children. Lamoré PJ, et al. **Audiology** 1998 Nov–Dec;37(6):396–419

Studies of prosody perception by cochlear implant patients. Richardson LM, et al. **Audiology** 1998 Jul–Aug; 37(4):231–45

Predictors of cochlear implant performance. van Dijk JE, et al. **Audiology** 1999 Mar–Apr;38(2):109–16

Speech intelligibility in noisy environments with one- and two-microphone hearing aids. Wouters J, et al. **Audiology** 1999 Mar–Apr;38(2):91–8

Correlation between rCBF and speech perception in cochlear implant users. Fujiki N, et al. **Auris Nasus Larynx** 1999 Jul;26(3):229–36

A software tool for auditory and speech perception experimentation. López-Bascuas LE, et al. **Behav Res Methods Instrum Comput** 1999 May;31(2):334–40

Impaired categorical perception of synthetic speech sounds in schizophrenia. Cienfuegos A, et al. **Biol Psychiatry** 1999 Jan 1;45(1):82–8

Semantic, repetition and rime priming between spoken words: behavioral and electrophysiological evidence. Radeau M, et al. **Biol Psychol** 1998 Jun;48(2):183–204

Does classroom amplification aid comprehension? Arnold P, et al. **Br J Audiol** 1999 Jun;33(3):171–8

Psychometric evaluation of the Gothenburg Profile for measurement of experienced hearing disability and handicap: applications with new hearing aid candidates and experienced hearing aid users. Ringdahl A, et al. **Br J Audiol** 1998 Dec;32(6):375–85

Language processing is strongly left lateralized in both sexes. Evidence from functional MRI. Frost JA, et al. **Brain** 1999 Feb;122 (Pt 2):199–208

Morphology of the planum temporale and corpus callosum in left handers with evidence of left and right hemisphere speech representation. Moffat SD, et al. **Brain** 1998 Dec; 121 (Pt 12):2369–79

Sentence processing in Parkinson's disease. Grossman M. **Brain Cogn** 1999 Jul;40(2):387–413 (92 ref.)

Interpreting ambiguous advertisements: the effect of frontal lobe damage. Pearce S, et al. **Brain Cogn** 1998 Nov; 38(2):150–64

Assessing auditory comprehension in the context of severe physical disability: the PACST. Beaumont JG, et al. **Brain Inj** 1999 Feb;13(2):99–112

Cerebellar contributions to the perception of temporal cues within the speech and nonspeech domain. Ackermann H, et al. **Brain Lang** 1999 May;67(3):228–41

How "regular" is sentence comprehension in Broca's aphasia? It depends on how you select the patients. Berndt RS, et al. **Brain Lang** 1999 May;67(3):242–7

Impaired speech perception in poor readers: evidence from hearing and speech reading. de Gelder B, et al. **Brain Lang** 1998 Oct 1;64(3):269–81

Temporal structure of spoken-word recognition in Croatian in light of the cohort theory. Erdeljac V, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):95–103

Locus of functional impairment in the production of speech rhythm after brain damage: a preliminary study. Grela B, et al. **Brain Lang** 1998 Oct 1;64(3):361–76

Sentence comprehension deficits in Alzheimer's disease: a comparison of off-line vs. on-line sentence processing. Kempler D, et al. **Brain Lang** 1998 Oct 1;64(3):297–316

The role of prosody in the mental lexicon. Lindfield KC, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):312–7

Hemispheric involvement in the perception of syntactic prosody is dynamically dependent on task demands. Luks TL, et al. **Brain Lang** 1998 Nov;65(2):313–32

Why simple verb forms can be so difficult to spell: the influence of homophone frequency and distance in Dutch. Sandra D, et al. **Brain Lang** 1999 Jun 1–15;68(1–2):277–83

Preattentive control of serial auditory processing in dichotic listening. Yund EW, et al. **Brain Lang** 1999 Feb 15; 66(3):358–76

Hemispheric lateralization of the neural encoding of temporal speech features: a whole-head magnetencephalography study. Ackermann H, et al. **Brain Res Cogn Brain Res** 1999 Mar;7(4):511–8

Decomposition of morphologically complex words in English: evidence from event-related brain potentials. Münte TF, et al. **Brain Res Cogn Brain Res** 1999 Jan; 7(3):241–53

Pre-attentive detection of vowel contrasts utilizes both phonetic and auditory memory representations. Winkler I, et al. **Brain Res Cogn Brain Res** 1999 Jan;7(3):357–69

Specialization of left auditory cortex for speech perception in man depends on temporal coding. Liégeois-Chauvel C, et al. **Cereb Cortex** 1999 Jul–Aug;9(5):484–96

Intermodal perception of adult and child faces and voices by infants. Bahrick LE, et al. **Child Dev** 1998 Oct; 69(5):1263–75

Perception of middorsum palatal stops from the speech of three children with repaired cleft palate. Santelmann L, et al. **Cleft Palate Craniofac J** 1999 May;36(3):233–42

A method for generating natural-sounding speech stimuli for cognitive brain research. Alku P, et al. **Clin Neurophysiol** 1999 Aug;110(8):1329–33

Assessment of basal sound identification skills and communication abilities in profoundly deaf children fitted with hearing aids or a cochlear implant. van den Borne S, et al. **Clin Otolaryngol** 1998 Oct;23(5):455–61

Interpreting indirect replies. Holtgraves T. **Cognit Psychol** 1998 Oct;37(1):1–27

Phonotactic and prosodic effects on word segmentation in infants. Mattys SL, et al. **Cognit Psychol** 1999 Jun; 38(4):465–94

Artificial grammar learning by 1-year-olds leads to specific and abstract knowledge. Gomez RL, et al. **Cognition** 1999 Mar 1;70(2):109–35

Comprehension of prosody in Parkinson's disease. Lloyd AJ. **Cortex** 1999 Jun;35(3):389–402

Children's performance on pseudoword repetition depends on auditory trace quality: evidence from event-related potentials. Ceponiene R, et al. **Dev Psychol** 1999 May; 35(3):709–20

Children's ability to infer utterance veracity from speaker informedness. Robinson EJ, et al. **Dev Psychol** 1999 Mar; 35(2):535–46

Spatial perception of speech in various signal to noise ratios. Abouchacra KS, et al. **Ear Hear** 1998 Aug;19(4):298–309

Client preferences for compression threshold in single-channel wide dynamic range compression hearing aids. Barker C, et al. **Ear Hear** 1999 Apr;20(2):127–39

A modification of play audiometry to assess speech discrimination ability in severe-profoundly deaf 2- to 4-year-old children. Dawson PW, et al. **Ear Hear** 1998 Oct;19(5):371–84

The identification of speech in noise by cochlear implant patients and normal-hearing listeners using 6-channel signal processors. Dorman MF, et al. **Ear Hear** 1998 Dec; 19(6):481–4

Predicting audiometric status from distortion product otoacoustic emissions using multivariate analyses. Dorn PA, et al. **Ear Hear** 1999 Apr;20(2):149–63

Aided growth of masking for speech and nonspeech signals. Fortune T. **Ear Hear** 1999 Jun;20(3):214–27

Children's speech recognition in noise using omni-directional and dual-microphone hearing aid technology. Gravel JS, et al. **Ear Hear** 1999 Feb;20(1):1–11

Comparison of linear gain and wide dynamic range compression hearing aid circuits: aided speech perception measures. Jenstad LM, et al. **Ear Hear** 1999 Apr; 20(2):117–26

A comparison of response time and word recognition measures using a word-monitoring and closed-set identification task. Mackersie C, et al. **Ear Hear** 1999 Apr; 20(2):140–8

Cortical evoked response to acoustic change within a syllable. Ostroff JM, et al. **Ear Hear** 1998 Aug;19(4):290–7

Within-patient longitudinal speech reception measures with continuous interleaved sampling processors for ineraid implanted subjects. Pelizzone M, et al. **Ear Hear** 1999 Jun; 20(3):228–37

Quantifying the contribution of audibility to recognition of compression-amplified speech. Souza PE, et al. **Ear Hear** 1999 Feb;20(1):12–20

The production of English inflectional morphology, speech production and listening performance in children with cochlear implants. Spencer LJ, et al. **Ear Hear** 1998 Aug; 19(4):310–8

Influence of automatic gain control parameter settings on speech understanding of cochlear implant users employing the continuous interleaved sampling strategy. Stöbich B, et al. **Ear Hear** 1999 Apr;20(2):104–16

Tolerable hearing aid delays. I. Estimation of limits imposed by the auditory path alone using simulated hearing losses. Stone MA, et al. **Ear Hear** 1999 Jun;20(3):182–92

Natural vowel and consonant recognition by Laura cochlear implantees. van Wieringen A, et al. **Ear Hear** 1999 Apr; 20(2):89–103

Amplitude mapping and phoneme recognition in cochlear implant listeners. Zeng FG, et al. **Ear Hear** 1999 Feb; 20(1):60–74

Cochlear implant performance and electrically-evoked auditory brain-stem response characteristics. Gallego S, et al. **Electroencephalogr Clin Neurophysiol** 1998 Nov; 108(6):521–5

Comparison of different voice samples for perceptual analysis. Revis J, et al. **Folia Phoniatr Logop** 1999; 51(3):108–16

Ensemble responses of the auditory nerve to normal and whispered stop consonants. Stevens HE, et al. **Hear Res** 1999 May;131(1–2):47–62

PET imaging of cochlear-implant and normal-hearing subjects listening to speech and nonspeech. Wong D, et al. **Hear Res** 1999 Jun;132(1–2):34–42

Speech sound perception, neurophysiology, and plasticity. Kraus N. **Int J Pediatr Otorhinolaryngol** 1999 Feb 15; 47(2):123–9

Perceptual asymmetry differences between major depression with or without a comorbid anxiety disorder: a dichotic listening study. Bruder GE, et al. **J Abnorm Psychol** 1999 May;108(2):233–9

Syllable intelligibility for temporally filtered LPC cepstral trajectories. Arai T, et al. **J Acoust Soc Am** 1999 May; 105(5):2783–91

Nonsense-syllable recognition in noise using monaural and binaural listening strategies. Arsenault MD, et al. **J Acoust Soc Am** 1999 Mar;105(3):1821–30

Time-delay estimation of reverberated speech exploiting harmonic structure. Brandstein MS. **J Acoust Soc Am** 1999 May;105(5):2914–9

Temporal mechanisms underlying recovery from forward masking in multielectrode-implant listeners. Chatterjee M. **J Acoust Soc Am** 1999 Mar;105(3):1853–63

Pitch accent in spoken-word recognition in Japanese [published erratum appears in J Acoust Soc Am 1999 Aug;106(2):1191] Cutler A, et al. **J Acoust Soc Am** 1999 Mar;105(3):1877–88

Missing-data model of vowel identification. de Cheveigné A, et al. **J Acoust Soc Am** 1999 Jun;105(6):3497–508

The recognition of sentences in noise by normal-hearing listeners using simulations of cochlear-implant signal processors with 6–20 channels. Dorman MF, et al. **J Acoust Soc Am** 1998 Dec;104(6):3583–5

Segmental and syllabic representations in the perception of speech by young infants. Eimas PD. **J Acoust Soc Am** 1999 Mar;105(3):1901–11

Recognition of spectrally degraded and frequency-shifted vowels in acoustic and electric hearing. Fu QJ, et al. **J Acoust Soc Am** 1999 Mar;105(3):1889–900

Effects of amplitude nonlinearity on phoneme recognition by cochlear implant users and normal-hearing listeners. Fu QJ, et al. **J Acoust Soc Am** 1998 Nov;104(5):2570–7

Phoneme recognition by cochlear implant users as a function of signal-to-noise ratio and nonlinear amplitude mapping. Fu QJ, et al. **J Acoust Soc Am** 1999 Aug;106(2):L18–23

Effects of noise and spectral resolution on vowel and consonant recognition: acoustic and electric hearing. Fu QJ, et al. **J Acoust Soc Am** 1998 Dec;104(6):3586–96

Enhancing the speech envelope of continuous interleaved sampling processors for cochlear implants. Geurts L, et al. **J Acoust Soc Am** 1999 Apr;105(4):2476–84

Speech intelligibility and localization in a multi-source environment. Hawley ML, et al. **J Acoust Soc Am** 1999 Jun;105(6):3436–48

Identification of resynthesized /hVd/ utterances: effects of

formant contour. Hillenbrand JM, et al. **J Acoust Soc Am** 1999 Jun;105(6):3509–23

Role of experience for language-specific functional mappings of vowel sounds. Kluender KR, et al. **J Acoust Soc Am** 1998 Dec;104(6):3568–82

Psychoacoustical evaluation of PSOLA. II. Double-formant stimuli and the role of vocal perturbation. Kortekaas RW, et al. **J Acoust Soc Am** 1999 Jan;105(1):522–35

The effect of changes in hearing status on speech sound level and speech breathing: a study conducted with cochlear implant users and NF-2 patients. Lane H, et al. **J Acoust Soc Am** 1998 Nov;104(5):3059–69

Acoustics of children's speech: developmental changes of temporal and spectral parameters. Lee S, et al. **J Acoust Soc Am** 1999 Mar;105(3):1455–68

Frequency discrimination of stylized synthetic vowels with two formants. Lyzenga J, et al. **J Acoust Soc Am** 1998 Nov;104(5):2956–66

Center frequency modulation detection for harmonic complexes resembling vowel formants and its interference by off-frequency maskers. Lyzenga J, et al. **J Acoust Soc Am** 1999 May;105(5):2792–806

Vocal tract normalization for midsagittal articulatory recovery with analysis-by-synthesis. McGowan RS, et al. **J Acoust Soc Am** 1999 Aug;106(2):1090–105

The perceptual effects of current pulse duration in electrical stimulation of the auditory nerve. McKay CM, et al. **J Acoust Soc Am** 1999 Aug;106(2):998–1009

Fractal dimensions of speech sounds: computation and application to automatic speech recognition. Maragos P, et al. **J Acoust Soc Am** 1999 Mar;105(3):1925–32

Discriminability of vowel representations in cat auditory-nerve fibers after acoustic trauma. Miller RL, et al. **J Acoust Soc Am** 1999 Jan;105(1):311–25

Influence of speech stimuli intensity on the activation of auditory cortex investigated with functional magnetic resonance imaging. Mohr CM, et al. **J Acoust Soc Am** 1999 May;105(5):2738–45

Benefits of linear amplification and multichannel compression for speech comprehension in backgrounds with spectral and temporal dips. Moore BC, et al. **J Acoust Soc Am** 1999 Jan;105(1):400–11

Measuring the threshold for speech reception by adaptive variation of the signal bandwidth. I. Normal-hearing listeners. Noordhoek IM, et al. **J Acoust Soc Am** 1999 May; 105(5):2895–902

Speech segment durations and quantity in Icelandic. Pind J. **J Acoust Soc Am** 1999 Aug;106(2):1045–53

Language identification with suprasegmental cues: a study based on speech resynthesis. Ramus F, et al. **J Acoust Soc Am** 1999 Jan;105(1):512–21

Response distributions in intensity resolution and speech discrimination. Schouten ME, et al. **J Acoust Soc Am** 1998 Nov;104(5):2980–90

Cortical auditory evoked potential correlates of categorical perception of voice-onset time. Sharma A, et al. **J Acoust Soc Am** 1999 Aug;106(2):1078–83

Can macaques perceive place of articulation from formant transition information? Sinnott JM, et al. **J Acoust Soc Am** 1999 Aug;106(2):929–37

Monosyllabic word recognition at higher-than-normal speech and noise levels. Studebaker GA, et al. **J Acoust Soc Am** 1999 Apr;105(4):2431–44

Investigation of the effects of temporal and spatial interactions on speech-recognition skills in cochlear-implant subjects. Throckmorton CS, et al. **J Acoust Soc Am** 1999 Feb;105(2 Pt 1):861–73

Does hearing aid benefit increase over time? [letter; comment] Turner CW, et al. **J Acoust Soc Am** 1998 Dec; 104(6):3673–4. Comment on: J Acoust Soc Am 1998 Apr;103(4):1705–21.

Proportional frequency compression of speech for listeners with sensorineural hearing loss. Turner CW, et al. **J Acoust Soc Am** 1999 Aug;106(2):877–86

Compression and expansion of the temporal envelope: evaluation of speech intelligibility and sound quality. van Buuren RA, et al. **J Acoust Soc Am** 1999 May; 105(5):2903–13

Importance of temporal-envelope cues in consonant recognition. van der Horst R, et al. **J Acoust Soc Am** 1999 Mar;105(3):1801–9

Influences of pellet markers on speech production behavior: acoustical and perceptual measures. Weismer G, et al. **J Acoust Soc Am** 1999 May;105(5):2882–94

Spatial audiometry: detection of spondaic words in noise. Abouchacra K, et al. **J Am Acad Audiol** 1998 Dec; 9(6):399–409

Development of suprathreshold word recognition test for Russian-speaking patients. Aleksandrovsky IV, et al. **J Am Acad Audiol** 1998 Dec;9(6):417–25

Effect of gender on the mismatch negativity auditory evoked potential. Barrett KA, et al. **J Am Acad Audiol** 1998 Dec; 9(6):444–51

Professional education and assessment practices in central auditory processing. Chermak GD, et al. **J Am Acad Audiol** 1998 Dec;9(6):452–65

Central auditory processing in a patient with bilateral temporal lobe tumors: case report. Fallis-Cunningham R, et al. **J Am Acad Audiol** 1998 Aug;9(4):299–304

Effects of contralateral speech competition on auditory event-related potentials recorded from elderly listeners: brain map study. Hymel MR, et al. **J Am Acad Audiol** 1998 Oct;9(5):385–97

Acoustic-phonetic approach toward understanding neural processes and speech perception. Koch DB, et al. **J Am Acad Audiol** 1999 Jun;10(6):304–18 (96 ref.)

Auditory gap detection, perceptual channels, and temporal resolution in speech perception. Phillips DP. **J Am Acad Audiol** 1999 Jun;10(6):343–54 (72 ref.)

Field trial evaluations of a switched directional/omnidirectional in-the-ear hearing instrument. Preves DA, et al. **J Am Acad Audiol** 1999 May;10(5):273–84

Asymmetric suprathreshold speech recognition and the telephone ear phenomenon. Silman S, et al. **J Am Acad Audiol** 1998 Oct;9(5):380–4

Children's comprehension of unfamiliar regional accents: a preliminary investigation. Nathan L, et al. **J Child Lang** 1998 Jun;25(2):343–65

Assessment of functional cerebral laterality for language using magnetoencephalography. Simos PG, et al. **J Clin Neurophysiol** 1998 Jul;15(4):364–72

Is there a self-monitoring speech perception system? Ludlow CL, et al. **J Commun Disord** 1998 Nov-Dec;31(6):505–10; 553

Processing linguistic and perceptual dimensions of speech: interactions in speeded classification. Ben-Artzi E, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):579–95

Auditory objects of attention: the role of interaural time differences. Darwin CJ, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):617–29

Is level irrelevant in "irrelevant speech"? Effects of loudness, signal-to-noise ratio, and binaural unmasking. Ellermeier W, et al. **J Exp Psychol Hum Percept Perform** 1998 Oct; 24(5):1406–14

Identity priming in English is compromised by phonological ambiguity. Lukatela G, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):775–90

Change of intensity fails to produce an irrelevant sound effect: implications for the representation of unattended sound. Tremblay S, et al. **J Exp Psychol Hum Percept Perform** 1999 Aug; 25(4):1005–15

Rate of forgetting in amnesia: I. Recall and recognition of prose. Isaac CL, et al. **J Exp Psychol Learn Mem Cogn** 1999 Jul;25(4):942–62 (75 ref.)

Age and the allocation of attention across the time course of word recognition. Simpson GB, et al. **J Gen Psychol** 1999 Apr;126(2):119–33

Phonological and orthographic processing of Hebrew words: electrophysiological aspects. Barnea A, et al. **J Genet Psychol** 1998 Dec;159(4):492–504

The effects of context and feedback on age differences in spoken word recognition. Stine-Morrow EA, et al. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):P125–34

Treatment of a case of phonological alexia with agraphia using the Auditory Discrimination in Depth (ADD) program. Conway TW, et al. **J Int Neuropsychol Soc** 1998 Nov;4(6):608–20

Neuropsychological characteristics of five children with the Landau-Kleffner syndrome: dissociation of auditory and phonological discrimination. Korkman M, et al. **J Int Neuropsychol Soc** 1998 Nov;4(6):566–75

The effect of Arabic vowels on the reading comprehension of second- and sixth-grade native Arab children. Abu-Rabia S. **J Psycholinguist Res** 1999 Jan;28(1):93–101

Categorization of ambiguous sentences as a function of a changing prosodic parameter: a dynamical approach. Rączaszek J, et al. **J Psycholinguist Res** 1999 Jul; 28(4):367–93

Phoneme awareness in children: a function of sonority. Yavas MS, et al. **J Psycholinguist Res** 1999 May;28(3):245–60

Different origin of auditory and phonological processing problems in children with language impairment: evidence from a twin study. Bishop DV, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):155–68

Development of adult-like performance in backward, simultaneous, and forward masking. Buss E, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):844–9

Gestures and words in early development of children with Down syndrome. Caselli MC, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1125–35

Effects of time-interval judgement training on real-time measurement of stuttering. Cordes AK, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):862–79

Optimizing the reliability of speech recognition scores. Gelfand SA. **J Speech Lang Hear Res** 1998 Oct; 41(5):1088–102

Profile of auditory temporal processing in older listeners. Gordon-Salant S, et al. **J Speech Lang Hear Res** 1999 Apr; 42(2):300–11

Naming errors of children with specific language impairment. Lahey M, et al. **J Speech Lang Hear Res** 1999 Feb; 42(1):195–205

Sensitivity to grammatical morphemes in children with specific language impairment. McNamara M, et al. **J Speech Lang Hear Res** 1998 Oct;41(5):1147–57

The effects of decreased audibility produced by high-pass noise masking on N1 and the mismatch negativity to speech sounds /ba/and/da. Martin BA, et al. **J Speech Lang Hear Res** 1999 Apr;42(2):271–86

Speech perception in perceivers with hearing loss: synergy of multiple modalities. Massaro DW, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):21–41

Do temporal processing deficits cause phonological processing problems? Nittrouer S. **J Speech Lang Hear Res** 1999 Aug;42(4):925–42

Speech perception performance in experienced cochlear-implant patients receiving the SPEAK processing strategy in the Nucleus Spectra-22 cochlear implant. Parkinson AJ, et al. **J Speech Lang Hear Res** 1998 Oct; 41(5):1073–87

The role of consonant-vowel amplitude ratio in the recognition of voiceless stop consonants by listeners with hearing impairment. Sammeth CA, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):42–55

The effects of speaker accent and target predictability on perception of mispronunciations. Schmid PM, et al. **J Speech Lang Hear Res** 1999 Feb;42(1):56–64

Limiting spectral resolution in speech for listeners with sensorineural hearing loss. Turner CW, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):773–84

Children's auditory lexical decisions: a limited processing capacity account of language impairment. Windsor J, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):990–1002

Learning voice analysis using an interactive multi-media package: development and preliminary evaluation. Oates J, et al. **J Voice** 1998 Dec;12(4):500–12

The structure and development of French prosodic representations. Gérard C, et al. **Lang Speech** 1998 Apr-Jun;41 (Pt 2):117–42

Brain potentials indicate immediate use of prosodic cues in natural speech processing [see comments] Steinhauer K, et al. **Nat Neurosci** 1999 Feb;2(2):191–6. Comment in: Nat Neurosci 1999 Feb;2(2):103–4.

Speech boundaries, syntax and the brain [editorial; comment] Van Petten C, et al. **Nat Neurosci** 1999 Feb;2(2):103–4. Comment on: Nat Neurosci 1999 Feb;2(2):191–6.

Cognitive restoration of reversed speech [letter] Saberi K, et al. **Nature** 1999 Apr 29;398(6730):760

PET studies of syntactic processing with auditory sentence presentation. Caplan D, et al. **Neuroimage** 1999 Mar; 9(3):343–51

Differential fMRI responses in the left posterior superior temporal gyrus and left supramarginal gyrus to habituation and change detection in syllables and tones. Celsis P, et al. **Neuroimage** 1999 Jan;9(1):135–44

Selective visual and auditory attention toward utterances-a PET study. Kawashima R, et al. **Neuroimage** 1999 Aug; 10(2):209–15

Functional specialization for semantic and phonological processing in the left inferior prefrontal cortex. Poldrack RA, et al. **Neuroimage** 1999 Jul;10(1):15–35

ERP mapping in phonological and lexical semantic monitoring tasks: A study complementing previous PET results. Thierry G, et al. **Neuroimage** 1998 Nov; 8(4):391–408

Functional anatomy of dominance for speech comprehension in left handers vs right handers. Tzourio N, et al. **Neuroimage** 1998 Jul;8(1):1–16 (100 ref.)

Investigation of receptive affective prosodic ability in school-aged boys with and without depression. Emerson CS, et al. **Neuropsychiatry Neuropsychol Behav Neurol** 1999 Apr;12(2):102–9

Brain activation during dichotic presentations of consonant-vowel and musical instrument stimuli: a 15O-PET study. Hugdahl K, et al. **Neuropsychologia** 1999 Apr;37(4):431–40

Recognition of prosody following unilateral brain lesion: influence of functional and structural attributes of prosodic contours. Pell MD. **Neuropsychologia** 1998 Aug; 36(8):701–15

Verbal and music dichotic listening tasks reveal variations in functional cerebral asymmetry across the menstrual cycle that are phase and task dependent. Sanders G, et al. **Neuropsychologia** 1998 Sep;36(9):869–74

Vestibular stimulation affects dichotic lexical decision performance. Schüeli H, et al. **Neuropsychologia** 1999 Jun; 37(6):653–9

Right hemisphere emotional perception: evidence across multiple channels. Borod JC, et al. **Neuropsychology** 1998 Jul;12(3):446–58

Intact recognition of vocal expressions of fear following bilateral lesions of the human amygdala. Anderson AK, et al. **Neuroreport** 1998 Nov 16;9(16):3607–13

ERP correlates of phoneme perception in speech and sound contexts. Celsis P, et al. **Neuroreport** 1999 May 14; 10(7):1523–7

Limbic ERPs predict verbal memory after left-sided hippocampectomy. Grunwald T, et al. **Neuroreport** 1998 Oct 26;9(15):3375–8

Analysis of speech sounds is left-hemisphere predominant at 100–150ms after sound onset. Rinne T, et al. **Neuroreport** 1999 Apr 6;10(5):1113–7

Noise affects speech-signal processing differently in the cerebral hemispheres. Shtyrov Y, et al. **Neuroreport** 1999 Jul 13;10(10):2189–92

Human brain specialization for phonetic attention. Szymanski MD, et al. **Neuroreport** 1999 May 14;10(7):1605–8

The time course of auditory perceptual learning: neurophysiological changes during speech-sound training. Tremblay K, et al. **Neuroreport** 1998 Nov 16;9(16):3557–60

Hemispheric lateralization in preattentive processing of speech sounds. Alho K, et al. **Neurosci Lett** 1998 Dec 11; 258(1):9–12

A functional magnetic resonance imaging study of listening comprehension of languages in human at 3

tesla-comprehension level and activation of the language areas. Nakai T, et al. **Neurosci Lett** 1999 Mar 19;263(1):33–6
Neuronal populations in the human brain extracting invariant relationships from acoustic variance. Paavilainen P, et al. **Neurosci Lett** 1999 Apr 23;265(3):179–82
Background acoustic noise and the hemispheric lateralization of speech processing in the human brain: magnetic mismatch negativity study. Shtyrov Y, et al. **Neurosci Lett** 1998 Jul 24;251(2):141–4
Clinical design and evaluation of the prototype of a new digital audioprosthesis for profound hearing loss: speech recognition aspects. Urquiza R, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May–Jun; 61(3):133–41
Effects of second language study of phonemic discrimination and auditory event-related potentials in adults. Grubb JD, et al. **Percept Mot Skills** 1998 Oct;87(2):447–56
Adults' perception of native and nonnative vowels: implications for the perceptual magnet effect. Frieda EM, et al. **Percept Psychophys** 1999 Apr;61(3):561–77
Inhibition and aging: similarities between younger and older adults as revealed by the processing of unattended auditory information. Murphy DR, et al. **Psychol Aging** 1999 Mar; 14(1):44–59
Spoken word recognition in individuals with dementia of the Alzheimer's type: changes in talker normalization and lexical discrimination. Sommers MS. **Psychol Aging** 1998 Dec;13(4):631–46
An electrophysiological analysis of modality-specific aspects of word repetition. Joyce CA, et al. **Psychophysiology** 1999 Sep;36(5):655–65
Brain responses reveal the learning of foreign language phonemes. Winkler I, et al. **Psychophysiology** 1999 Sep; 36(5):638–42
Control of hearing-aid saturated sound pressure level by frequency-shaped output compression limiting. McDermott HJ, et al. **Scand Audiol** 1999;28(1):27–38
Average thresholds in the 8 to 20 kHz range in young adults. Sakamoto M, et al. **Scand Audiol** 1998;27(3):169–72
Speechreading: advances in understanding its cortical bases and implications for deafness and speech rehabilitation. Campbell R. **Scand Audiol Suppl** 1998;49:80–6 (31 ref.)
Speech tests as measures of outcome. Gatehouse S. **Scand Audiol Suppl** 1998;49:54–60
Speech sound perception and learning: biologic bases. Kraus N, et al. **Scand Audiol Suppl** 1998;49:7–17
Non-linear signal processing in digital hearing aids. Lunner T, et al. **Scand Audiol Suppl** 1998;49:40–9
Use of patient-specific estimates in patient evaluation and rehabilitation. Stephens D, et al. **Scand Audiol Suppl** 1998; 49:61–8
The relationship between affect expression and affect recognition in schizophrenia. Shaw RJ, et al. **Schizophr Res** 1999 Jun 22;37(3):245–50
Speech discrimination by elderly hearing instrument users. van Wyk L, et al. **S Afr J Commun Disord** 1997;44:99–108 (Eng. Abstr.) **(Afr)**
[Peripheral auditory lateralization] Khalfa S, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Jun;115(3):156–60 (Eng. Abstr.) **(Fre)**
[Auditory speech-evoked cerebral cortex potentials in patients with stuttering syndromes] Rosanowski F, et al. **Laryngorhinootologie** 1998 Dec;77(12):709–14 (29 ref.) (Eng. Abstr.) **(Ger)**
[Word list for evaluating oral language perception in children with total and partial hearing impairment] Villalba Pérez A, et al. **Acta Otorrinolaringol Esp** 1999 Mar;50(2):151–7 (Eng. Abstr.) **(Spa)**

SPEECH PRODUCTION MEASUREMENT

Effects of mild traumatic brain injury on narrative discourse production. Tucker FM, et al. **Brain Inj** 1998 Sep; 12(9):783–92
An acoustical study of sound production in biphonic singing, Xöömij. Adachi S, et al. **J Acoust Soc Am** 1999 May; 105(5):2920–32
Word production: dissociation of two retrieval modes of semantic memory across time. Fernaeus SE, et al. **J Clin Exp Neuropsychol** 1998 Apr;20(2):137–43
Voice onset time in speech produced by inexperienced signers during simultaneous communication. Schiavetti N, et al. **J Commun Disord** 1999 Jan–Feb;32(1):37–48; quiz 48–9
Are brain functions really additive? Sidtis JJ, et al. **Neuroimage** 1999 May;9(5):490–6
Ceptral voice analysis: link with perception and stroboscopy. Dejonckere PH. **Rev Laryngol Otol Rhinol (Bord)** 1998; 119(4):245–6

INSTRUMENTATION

Speech outcome in children with cleft palate: aerophonoscope assessment of nasal emission. Devani P, et al. **J Craniomaxillofac Surg** 1999 Jun;27(3):180–6

METHODS

Effect of stimulus length on nasalance scores. Watterson T, et al. **Cleft Palate Craniofac J** 1999 May;36(3):243–7
The production of English inflectional morphology, speech production and listening performance in children with cochlear implants. Spencer LJ, et al. **Ear Hear** 1998 Aug; 19(4):310–8
Acoustic studies of dysarthric speech: methods, progress, and potential. Kent RD, et al. **J Commun Disord** 1999 May–Jun; 32(3):141–80, 183–6; quiz 181–3, 187–9 (140 ref.)
Development and phonetic differentiation of speech movement patterns. Goffman L, et al. **J Exp Psychol Hum Percept Perform** 1999 Jun;25(3):649–60
Older adult performance on the Communication Profile for the Hearing Impaired: gender difference. Garstecki DC, et al. **J Speech Lang Hear Res** 1999 Aug;42(4):785–96

STATISTICS & NUMERICAL DATA

Some temporal characteristics of phrases produced by 6- to 10-yr.-old children. Whiteside SP. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1200–2

SPEECH RECEPTION THRESHOLD TEST

Measuring the threshold for speech reception by adaptive variation of the signal bandwidth. I. Normal-hearing listeners. Noordhoek IM, et al. **J Acoust Soc Am** 1999 May; 105(5):2895–902
[Language comprehension by children with profound congenital deafness after cochlear implant] Truy E, et al. **Rev Laryngol Otol Rhinol (Bord)** 1998;119(4):271–5 (Eng. Abstr.) **(Fre)**
[Speech audiometry using the American Word Lists for Japanese subjects with normal hearing] Shimizu T, et al. **Nippon Jibiinkoka Gakkai Kaiho** 1998 Jul;101(7):879–83 (Eng. Abstr.) **(Jpn)**

METHODS

Speech audiometry in noise-exposed workers: the SRT-PTA relationship revisited. Picard M, et al. **Audiology** 1999 Jan–Feb;38(1):30–43 (106 ref.)

SPEECH SOUNDS see **PHONETICS**

SPEECH SYNTHESIZERS see **COMMUNICATION AIDS FOR DISABLED**

SPEECH THERAPY

see related

VOICE TRAINING

Role of speech therapy and sign language prior to cochlear implantation. Deggouj N, et al. **Acta Otorhinolaryngol Belg** 1998;52(4):275–9
Speech rehabilitation after laryngectomy with the amatsu tracheoesophageal shunt. Vieira MB, et al. **Auris Nasus Larynx** 1999 Jan;26(1):69–77
Carcinoma of the tongue: the speech therapist's perspective. Jackson MS, et al. **Br J Oral Maxillofac Surg** 1999 Jun; 37(3):200–4
Study of suicidal risk and tendency in defectologists and logopedists from a school for handicapped children. Georguiev D. **Folia Med (Plovdiv)** 1999;41(1):161–3
Changes in referral to speech and language therapy. Enderby P, et al. **Int J Lang Commun Disord** 1998;33 Suppl:16–20
Treatment for aphasia following stroke: evidence for effectiveness. Greener J, et al. **Int J Lang Commun Disord** 1998;33 Suppl:158–61 (13 ref.)
Beliefs about effectiveness of treatment for aphasia after stroke. Greener J, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:162–3
Case weighting in a speech and language therapy service. Papathanasiou I, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:176–9
An audit tool for health visitors and SLTs working with the pre-school population. van der Gaag A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:37–41
Reliability of student evaluations of voice therapy implications for theory and training. Andrews ML, et al. **J Voice** 1999 Jun;13(2):227–33
Long-term ventilator-dependent children: a vocal profile analysis. Fraser J, et al. **Pediatr Rehabil** 1998 Apr–Jun; 2(2):71–5
Note on ambient noise levels in head start speech-language therapy rooms. Porter R, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1057–8
More on 'the invisible disability' [letter; comment] Sigmund S. **Postgrad Med** 1998 Nov;104(5):49–50. Comment on: Postgrad Med 1998 Sep;104(3):81–3, 87–90.
Attitudes of a group of South African speech-language pathologists towards stutterers and stuttering therapy. Baker B, et al. **S Afr J Commun Disord** 1997;44:13–23
The curriculum of practice: a conceptual framework for speech-language therapy and audiology practice with a black African first language clientele. Pillay M, et al. **S Afr J Commun Disord** 1997;44:109–17
Improving outcomes for persons with aphasia in advanced community-based treatment programs. Aftonomos LB, et al. **Stroke** 1999 Jul;30(7):1370–9
[Bioresonance therapy (biophysical information therapy) in stuttering children] Wille A. **Forsch Komplementarmed** 1999 Feb;6 Suppl 1:50–2 (Eng. Abstr.) **(Ger)**

EDUCATION

Students, clinicians and university tutors: triangulation of clinical data. Bray M, et al. **Int J Lang Commun Disord** 1998;33 Suppl:226–31
A comparison of training approaches for support assistants using the Hanen philosophy. Dobson S, et al. **Int J Lang Commun Disord** 1998;33 Suppl:515–9
An audit of personal logs--1997. Hamrouge S. **Int J Lang Commun Disord** 1998;33 Suppl:50–2
The use of a paediatric speech and language therapy outcome measurement scale. Hesketh E. **Int J Lang Commun Disord** 1998;33 Suppl:54–9
Trainee specialist: meeting the needs of service provision and career development. Hilton R, et al. **Int J Lang Commun Disord** 1998;33 Suppl:232–7
Communicate: organisational issues and their relevance for clinical evaluation. Jordan L, et al. **Int J Lang Commun Disord** 1998;33 Suppl:60–5
PATSy: a distributed multimedia approach to client assessment skills training. Lum C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:170–5
The hidden determiner of student learning opportunity on clinical placement. Morris C. **Int J Lang Commun Disord** 1998;33 Suppl:238–43
Exploring the crisis in clinical training: looking to the future. Morris C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:244–9
Facilitating effective learning during clinical placement. Nettleton J, et al. **Int J Lang Commun Disord** 1998;33 Suppl:250–4
New approaches to learning on clinical placement. Parker A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:255–60
An audit of clinical placements. Pickstone C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:78–83
The effect of perceptual training on ability to use the Vocal Profile Analysis Scheme. Shewell C. **Int J Lang Commun Disord** 1998;33 Suppl:322–6
Why are there so few ethnic minority speech and language therapists? Stapleford J, et al. **Int J Lang Commun Disord** 1998;33 Suppl:261–6
Providing appropriate training and skills in developing countries. Winterton T. **Int J Lang Commun Disord** 1998; 33 Suppl:108–13

INSTRUMENTATION

Effect of placement of a speech appliance on levator veli palatini muscle activity during blowing. Tachimura T, et al. **Cleft Palate Craniofac J** 1999 May;36(3):224–32
A simple, expeditious method for placement of thermoplastic impression material for speech aid prostheses. Psillakis JJ, et al. **J Prosthet Dent** 1999 Feb;81(2):247–8

METHODS

Auditory vs visual speech timing cues as external rate control to enhance verbal intelligibility in mixed spastic-ataxic dysarthric speakers: a pilot study. Pilon MA, et al. **Brain Inj** 1998 Sep;12(9):793–803
A prospective study of speech and voice rehabilitation after total laryngectomy with the low-resistance Groningen, Nijdam and Provox voice prostheses. van den Hoogen FJ, et al. **Clin Otolaryngol** 1998 Oct;23(5):425–31
Real-time speech pattern element displays for interactive therapy. Abberton E, et al. **Int J Lang Commun Disord** 1998;33 Suppl:292–7
Larynx synchronised stroboscopy--a new tool for outcome measures in the voice clinic. Bootle C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:298–303
Parents and children together (PACT): a collaborative approach to phonological therapy [see comments] Bowen C, et al. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):35–55. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):55–9. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):60–1; discussion 65–83. Comment in: Int J Lang Commun Disord 1999 Jan–Mar;34(1):62–5; discussion 65–83.
Helping people to keep their voices healthy and to communicate effectively. Comins R. **Int J Lang Commun Disord** 1998;33 Suppl:310–5
The Speech and Language Therapy Research Unit at Frenchay Hospital, Bristol. Cotton S. **Int J Lang Commun Disord** 1998;33 Suppl:6–9
Modelling the consultation process in a secondary referral unit for children. David R, et al. **Int J Lang Commun Disord** 1998;33 Suppl:532–7
Evaluation of facilitated communication. Emerson A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:397–402
PACT: some comments and considerations [comment] Fey ME. **Int J Lang Commun Disord** 1999 Jan–Mar;34(1):55–9; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.
When is a /k/ not a [k]? EPG as a diagnostic and therapeutic tool for abnormal velar stops. Friel S. **Int J Lang Commun Disord** 1998;33 Suppl:439–44
CleftNet (Scotland): a network for the treatment of cleft palate speech using EPG. Gibbon F, et al. **Int J Lang Commun Disord** 1998;33 Suppl:44–9
Phonological therapy: a collaborative approach [comment] Grundy K. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):62–5; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.
The use of clinical measures in the Lidcombe Programme for children who stutter. Hayhow R, et al. **Int J Lang Commun Disord** 1998;33 Suppl:364–9

Outcome measurement for children with specific speech and language impairment. Henry G, et al. **Int J Lang Commun Disord** 1998;33 Suppl:53
Is anyone speaking my language? Horton S, et al. **Int J Lang Commun Disord** 1998;33 Suppl:126–31
An innovative phonological therapy programme [comment] Ingram D, et al. **Int J Lang Commun Disord** 1999 Jan–Mar; 34(1):60–1; discussion 65–83. Comment on: Int J Lang Commun Disord 1999 Jan–Mar;34(1):35–55.
Measuring client and carer perspectives. John A. **Int J Lang Commun Disord** 1998;33 Suppl:132–7
What is the outcome of the outcomes? Evaluation of the therapy outcome measures. Le May M, et al. **Int J Lang Commun Disord** 1998;33 Suppl:75–7
Objective assessment of voice intervention: a clinical audit. Lockhart MS. **Int J Lang Commun Disord** 1998;33 Suppl:316–21
Variation in the management of dysphagia after stroke: does SLT make a difference? Lucas C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:284–9
Partnership with parents'--a progressive pathway. McCartan PA, et al. **Int J Lang Commun Disord** 1998;33 Suppl:550–5
A paradigm for improving effectiveness and efficiency of speech-language therapy. MacKenzie EH, et al. **Int J Lang Commun Disord** 1998;33 Suppl:544–9
Metaphonological skills of children with phonological disorders before and after phonological and metaphonological intervention. Major EM, et al. **Int J Lang Commun Disord** 1998 Oct–Dec;33(4):413–44
The value of single-case research. Millard SK. **Int J Lang Commun Disord** 1998;33 Suppl:370–3
Supporting practitioner research in speech and language therapy. Miller C. **Int J Lang Commun Disord** 1998;33 Suppl:26–30
Efficacy of speech and language therapy for particular speech sounds in children. Munro J. **Int J Lang Commun Disord** 1998;33 Suppl:451–6
An effective model for a speech and language therapy service in mainstream schools. New E. **Int J Lang Commun Disord** 1998;33 Suppl:602–7
The case for early intervention with pre-school dysfluent children. Nicholas A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:374–7
A survey of speech and language therapists' practice in the assessment of aphasia. Petheram B. **Int J Lang Commun Disord** 1998;33 Suppl:180–2
Running a randomised controlled trial in a service setting: a progress report. Roulstone S, et al. **Int J Lang Commun Disord** 1998;33 Suppl:31–6
Can phonological awareness training facilitate minimal pair therapy? Smith J, et al. **Int J Lang Commun Disord** 1998; 33 Suppl:463–8
Targeting speech processing strengths to facilitate pronunciation change. Waters D, et al. **Int J Lang Commun Disord** 1998;33 Suppl:469–74
Equitable service provision for inclusive education and effective early intervention. Wicks KM. **Int J Lang Commun Disord** 1998;33 Suppl:562–7
Outcome measurement in adult stuttering therapy: a self-rating profile. Wright L, et al. **Int J Lang Commun Disord** 1998;33 Suppl:378–83
Increasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. Schepis MM, et al. **J Appl Behav Anal** 1998 Winter;31(4):561–78
A study of the effectiveness of voice therapy in the treatment of 45 patients with nonorganic dysphonia. Carding PN, et al. **J Voice** 1999 Mar;13(1):72–104 (77 ref.)
Using differential reinforcement to treat functional hypophonia in a paediatric rehabilitation patient. Amari A, et al. **Pediatr Rehabil** 1998 Apr–Jun;2(2):89–94

ORGANIZATION & ADMINISTRATION

Three into one will go! Collaborative practice in practice. Le May M, et al. **Int J Lang Commun Disord** 1998;33 Suppl:72–4
Setting speech and language therapy priorities: theory and practice. Rice A. **Int J Lang Commun Disord** 1998;33 Suppl:90–5
Prioritisation in speech and language therapy departments in Scotland and Malaysia. Santiago C, et al. **Int J Lang Commun Disord** 1998;33 Suppl:102–7
Analysis of practice-role perceptions of physical therapy, occupational therapy, and speech-language therapy students. Conner-Kerr TA, et al. **J Allied Health** 1998 Fall; 27(3):128–31

PSYCHOLOGY

"White coat effect" induced by therapist's presence during speech therapy for stroke rehabilitation: a single case study. Sakamoto H, et al. **Arch Phys Med Rehabil** 1999 Apr; 80(4):470–2

STANDARDS

Issues to consider in the evaluation of speech and language therapy for preschool children. Roulstone S, et al. **Child Care Health Dev** 1999 Mar;25(2):141–55 (31 ref.)
Addressing the needs of a clinical service in the operational constraints of commissioning. Kot A, et al. **Int J Lang Commun Disord** 1998;33 Suppl:66–71
Developing critical practice: a South African's perspective. Pillay M. **Int J Lang Commun Disord** 1998;33 Suppl:84–9
Volunteer stroke scheme revisited. Walker SA, et al. **Int J Lang Commun Disord** 1998;33 Suppl:183–7

SPEECHREADING see **LIPREADING**

SPERM see **SPERMATOZOA**

SPERM AGGLUTINATION

Immunolocalization of anti-agglutinin for spermatozoa in boars. Harayama H, et al. **Mol Reprod Dev** 1999 Mar; 52(3):269–76

IMMUNOLOGY

Characterization of a potent sperm-agglutinating monoclonal antibody and its cognate antigens. Yakirevich E, et al. **Fertil Steril** 1999 Mar;71(3):502–10

SPERM BANKS

Sperm collection from shot red deer stags (Cervus elaphus) and the utilisation of sperm frozen and subsequently thawed. Zomborszky Z, et al. **Acta Vet Hung** 1999; 47(2):263–70
Semen storage for special purposes at Monash IVF from 1977 to 1997. Audrins P, et al. **Fertil Steril** 1999 Jul;72(1):179–81
[Sperm donors in Umea after 1985: increased number of sperm donors and higher pregnancy rate] Lalos O, et al. **Lakartidningen** 1998 Dec 2;95(49):5636–8 **(Swe)**

LEGISLATION & JURISPRUDENCE

Postmortem sperm procurement: a legal perspective. Kahan SE, et al. **J Urol** 1999 Jun;161(6):1840–3

SPERM CAPACITATION

Localisation of low molecular weight sperm antigens during capacitation and acrosome reaction. Bathla H, et al. **Anim Reprod Sci** 1998 Dec 1;54(1):55–64
Sperm–oviduct interaction: induction of capacitation and preferential binding of uncapacitated spermatozoa to oviductal epithelial cells in porcine species. Fazeli A, et al. **Biol Reprod** 1999 Apr;60(4):879–86
Effect of image sampling frequency on established and smoothing-independent kinematic values of capacitating human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1999 Apr;14(4):997–1004
The development of smoothing-independent kinematic measures of capacitating human sperm movement. Mortimer ST, et al. **Hum Reprod** 1999 Apr;14(4):986–96
Human sperm capacitation and in-vitro fertilization in a chemically defined and protein-free medium SMART1. Parinaud J, et al. **Hum Reprod** 1998 Sep;13(9):2579–82
X-ray microscopy of human spermatozoa shows change of mitochondrial morphology after capacitation. Vorup-Jensen T, et al. **Hum Reprod** 1999 Apr;14(4):880–4
Effect of in vitro incubation on spontaneous acrosome reaction in fresh and cryopreserved human spermatozoa. Esteves SC, et al. **Int J Fertil Womens Med** 1998 Sep–Oct; 43(5):235–42
Determination of the steady-state intracellular chloride concentration in capacitated human spermatozoa [published erratum appears in J Androl 1999 May–Jun;20(3):434] Garcia MA, et al. **J Androl** 1999 Jan–Feb;20(1):88–93
Regulation of sperm function by protein tyrosine phosphorylation in diverse wild felid species. Pukazhenthi BS, et al. **J Androl** 1998 Nov–Dec;19(6):675–85
Cholesterol efflux-mediated signal transduction in mammalian sperm. beta-cyclodextrins initiate transmembrane signaling leading to an increase in protein tyrosine phosphorylation and capacitation. Visconti PE, et al. **J Biol Chem** 1999 Jan 29;274(5):3235–42
Influence of capacitation and fluids from the male and female genital tract on the zona binding ability of bull spermatozoa. Topper EK, et al. **J Reprod Fertil** 1999 Jan; 115(1):175–83
Simple histochemical stain for acrosomes on sperm from several species. Larson JL, et al. **Mol Reprod Dev** 1999 Apr;52(4):445–9
[The development of andrology must have a scientific basis (letter)] Eliasson R. **Lakartidningen** 1999 Feb 17;96(7):716–7 **(Swe)**

DRUG EFFECTS

Chloroquine reduces fertilizing capacity of epididyma sperm in rats. Adeeko AO, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):63–4
Effects of medium containing heparin and theophylline on capacitation and metabolic enzyme activities of ejaculated spermatozoa from dogs with asthenozoospermia. Kawakami E, et al. **Anim Reprod Sci** 1999 Jan 29; 54(4):251–9
Cyclodextrin removes cholesterol from mouse sperm and induces capacitation in a protein-free medium. Choi YH, et al. **Biol Reprod** 1998 Dec;59(6):1328–33
Nitric oxide regulates human sperm capacitation and protein-tyrosine phosphorylation in vitro. Herrero MB, et al. **Biol Reprod** 1999 Sep;61(3):575–81
Heparin and high-density lipoprotein mediate bovine sperm capacitation by different mechanisms. Lane M, et al. **Biol Reprod** 1999 Jan;60(1):169–75
Strontium supports human sperm capacitation but not follicular fluid-induced acrosome reaction. Marin-Briggiler CI, et al. **Biol Reprod** 1999 Sep;61(3):673–80
Paradoxical effect of reagents for sulfhydryl and disulfide groups on human sperm capacitation and superoxide production. de Lamirande E, et al. **Free Radic Biol Med** 1998 Nov 1;25(7):803–17
Pentoxifylline-stimulated capacitation and acrosome reaction in hamster spermatozoa: involvement of intracellular signalling molecules. Ain R, et al. **Mol Hum Reprod** 1999 Jul;5(7):618–26
Signal transduction pathways in guinea pig sperm. Li M, et al. **Sci China C Life Sci** 1996 Oct;39(5):484–90

GENETICS

Mice carrying two t haplotypes: sperm populations with reduced Zona pellucida binding are deficient in capacitation. Si Y, et al. **Biol Reprod** 1999 Jul;61(1):305–11

PHYSIOLOGY

Capacitation induces tyrosine phosphorylation of proteins in the boar sperm plasma membrane. Flesch FM, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):787–92
Identification of phosphoproteins coupled to initiation of motility in live epididymal mouse sperm. Tash JS, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):557–63
Involvement of protein serine and threonine phosphorylation in human sperm capacitation. Naz RK. **Biol Reprod** 1999 Jun;60(6):1402–9
Major proteins of bovine seminal plasma and high-density lipoprotein induce cholesterol efflux from epididymal sperm. Thérien I, et al. **Biol Reprod** 1998 Oct;59(4):768–76
Roles of bicarbonate, cAMP, and protein tyrosine phosphorylation on capacitation and the spontaneous acrosome reaction of hamster sperm. Visconti PE, et al. **Biol Reprod** 1999 Jul;61(1):76–84
Mammalian sperm chemotaxis and its association with capacitation. Eisenbach M. **Dev Genet** 1999;25(2):87–94 (58 ref.)
Effect of seminal plasma on capacitation and hyperactivation in human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1998 Aug;13(8):2139–46
Role of estradiol in the capacitation and acrosome reaction of hamster epididymal spermatozoa in the isolated uterus of mice incubated in vitro. Bathla H, et al. **Indian J Physiol Pharmacol** 1999 Apr;43(2):211–7
Interaction between Ca2+, cyclic 3',5' adenosine monophosphate, the superoxide anion, and tyrosine phosphorylation pathways in the regulation of human sperm capacitation. Leclerc P, et al. **J Androl** 1998 Jul–Aug;19(4):434–43
Bicarbonate-dependent lipid ordering and protein aggregation are part of the nongenomic action of progesterone on capacitated spermatozoa. Purohit SB, et al. **J Androl** 1998 Sep–Oct;19(5):608–18
Regional influences of the fallopian tubes on the rate of boar sperm capacitation in surgically inseminated gilts. Hunter RH, et al. **J Reprod Fertil** 1998 Sep;114(1):17–23
Interactions between a decapacitation factor and mouse spermatozoa appear to involve fucose residues and a GPI-anchored receptor. Fraser LR. **Mol Reprod Dev** 1998 Oct;51(2):193–202
Regulation of intracellular pH in capacitated human spermatozoa by a Na+/H+ exchanger. Garcia MA, et al. **Mol Reprod Dev** 1999 Feb;52(2):189–95
Ovarian follicular fluid, progesterone and Ca2+ ion influences on sperm release from the fallopian tube reservoir. Hunter RH, et al. **Mol Reprod Dev** 1999 Nov; 54(3):283–91
Identification of capacitation-associated phosphoproteins in porcine sperm electroporated with ATP-gamma-(32)P. Tardif S, et al. **Mol Reprod Dev** 1999 Nov;54(3):292–302
An update on human fertilization. De Jonge CJ. **Semin Reprod Endocrinol** 1998;16(3):209–17 (84 ref.)
Culture conditions required to induce capacitation and the acrosome reaction of canine sperm in vitro. Hewitt DA, et al. **Vet Rec** 1999 Jan 2;144(1):22–3

SPERM COUNT

see related

OLIGOSPERMIA

Biophysical and biochemical analysis of semen in infertile Nigerian males. Adejuwon CA, et al. **Afr J Med Med Sci** 1996 Sep;25(3):217–9
Comparison of sperm quantity and quality in antegrade V retrograde ejaculates obtained by vibratory penile stimulation in males with spinal cord injury. Chen D, et al. **Am J Phys Med Rehabil** 1999 Jan–Feb;78(1):46–51
Effects of post-ovulatory food deprivation on oviductal sperm concentration, embryo development and hormonal profiles in the pig. Mburu JN, et al. **Anim Reprod Sci** 1998 Sep 11;52(3):221–34
Semen analysis in men from Mérida, Venezuela, over a 15-year period. Tortolero I, et al. **Arch Androl** 1999 Jan–Feb;42(1):29–34
Rat epididymal sperm quantity, quality, and transit time after guanethidine-induced sympathectomy. Kempinas WD, et al. **Biol Reprod** 1998 Oct;59(4):890–6

SPERM COUNT

Repeat epididymovasostomies: are they worthwhile? Nigam AK, et al. **BJU Int** 1999 May;83(7):816–9

Re "Have sperm densities declined? A reanalysis of global trend data" [letter; comment] Becker S, et al. **Environ Health Perspect** 1998 Sep;106(9):A420–1. Comment on: Environ Health Perspect 1997 Nov;105(11):1228–32.

Regional differences invalidate U.S. sperm trend conclusions [letter; comment] Heinze J. **Environ Health Perspect** 1999 Mar;107(3):A132. Comment on: Environ Health Perspect 1998 Aug;106(8):A369–70; discussion A370–1.

Interregional differences undermine sperm trend conclusions [letter] [see comments] Heinze J. **Environ Health Perspect** 1998 Aug;106(8):A369–70; discussion A370–1. Comment in: Environ Health Perspect 1999 Mar;107(3):A132.

Debate about sperm count decline [letter] Orejuela F, et al. **Environ Health Perspect** 1998 Aug;106(8):A370; discussion A370–1

Testosterone level as a potential selection bias for semen donors in assessing population fertility [letter] Mullard A, et al. **Epidemiology** 1999 Jul;10(4):467–8

Numerical dose-compensated in vitro fertilization inseminations yield high fertilization and pregnancy rates. Benoff S, et al. **Fertil Steril** 1999 Jun;71(6):1019–28

Experience with external quality control in spermatology. Cooper TG, et al. **Hum Reprod** 1999 Mar;14(3):765–9

Secular movements in dizygotic twinning rates and in sperm counts [letter; comment] James WH. **Hum Reprod** 1998 Aug;13(8):2335–6. Comment on: Hum Reprod 1998 Jan;13(1):95–8.

The secular decline in reported sperm counts [letter; comment] James WH. **Hum Reprod** 1998 Oct; 13(10):2974–5. Comment on: Hum Reprod 1997 Dec;12(12):2701–5.

Comparison between intracytoplasmic sperm injection and in-vitro fertilization (IVF) with high insemination concentration after total fertilization failure in a previous IVF attempt. Kastrop PM, et al. **Hum Reprod** 1999 Jan; 14(1):65–9

The ratio of 2nd to 4th digit length: a predictor of sperm numbers and concentrations of testosterone, luteinizing hormone and oestrogen. Manning JT, et al. **Hum Reprod** 1998 Nov;13(11):3000–4

Exogenous influences on human fertility: fluctuations in sperm parameters and results of in-vitro fertilization coincide with conceptions in the normal population. Ossenbühn S. **Hum Reprod** 1998 Aug;13(8):2165–71

Improvement of sperm count and motility after ligation of varicoceles detected with colour Doppler ultrasonography. Pierik FH, et al. **Int J Androl** 1998 Oct;21(5):256–60

Dizygotic twinning rates and the possibility that the decline in sperm counts is a cohort phenomenon [letter; comment] James WH. **Int J Epidemiol** 1998 Jun;27(3):538. Comment on: Int J Epidemiol 1997 Dec;26(6):1289–97.

Evaluation of rat sperm by flow cytometry: simultaneous analysis of sperm count and sperm viability. Yamamoto T, et al. **J Toxicol Sci** 1998 Dec;23(5):373–8

Age at unilateral orchiopexy: effect on hormone levels and sperm count in adulthood. Coughlin MT, et al. **J Urol** 1999 Sep;162(3 Pt 2):986–8; discussion 989

Varicocele repair improves semen parameters in azoospermic men with spermatogenic failure. Kim ED, et al. **J Urol** 1999 Sep;162(3 Pt 1):737–40

Semen quality and reproductive hormones before and after orchiectomy in men with testicular cancer. Petersen PM, et al. **J Urol** 1999 Mar;161(3):822–6

Declining sperm counts in the United States? A critical review. Saidi JA, et al. **J Urol** 1999 Feb;161(2):460–2 (7 ref.)

Effect of repeated ejaculation on semen quality in spinal cord injured men [see comments] Sønksen J, et al. **J Urol** 1999 Apr;161(4):1163–5. Comment in: J Urol 1999 Apr;161(4):1166–7.

Semen quality and fertility [letter; comment] Foresta C, et al. **Lancet** 1998 Dec 5;352(9143):1861–2. Comment on: Lancet 1998 Oct 10;352(9135):1172–7.

Improvement of semen quality in infected asymptomatic infertile male after bacteriological cure. Cardoso EM, et al. **Medicina (B Aires)** 1998;58(2):160–4

Semen quality and sex hormones among organic and traditional Danish farmers. ASCLEPIOS Study Group. Larsen SB, et al. **Occup Environ Med** 1999 Feb;56(2):139–44

Effects of frequency of semen collection on quantitative and qualitative characteristics of semen in turkey breeder males. Noirault J, et al. **Poult Sci** 1999 Jul;78(7):1034–9

Individual prognosis for changes in sperm quality on the basis of perceived stress. Pook M, et al. **Psychother Psychosom** 1999 Mar-Apr;68(2):95–101

Are sperm counts really falling? de Kretser DM. **Reprod Fertil Dev** 1998;10(1):93–5 (33 ref.)

Year of birth and sperm count in 10 Danish occupational studies. Bonde JP, et al. **Scand J Work Environ Health** 1998 Oct;24(5):407–13

Environmental semen studies--is infertility increased by a decline in sperm count? Bonde JP, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:12–6; discussion 76–8

Evaluation of the relationship between semen parameters, pregnancy rate of wives of infertile men with varicocele, and gonadotropin-releasing hormone test before and after varicocelectomy. Segenreich E, et al. **Urology** 1998 Nov; 52(5):853–7

[The spermogram and the exigencies of quality] Clavert A, et al. **Ann Biol Clin (Paris)** 1999 May;57(3):334–6 (19 ref.) **(Fre)**

[Is today's man really less fertile?] Marmor D, et al. **Presse Med** 1998 Oct 3;27(29):1484–90 (59 ref.) (Eng. Abstr.) **(Fre)**

[Gonadotropin response to GnRH and seminal parameters in low grade varicocele] Foppiani L, et al. **Arch Ital Urol Androl** 1999 Feb;71(1):7–12 (Eng. Abstr.) **(Ita)**

[Analysis of decline in seminal fluid in the Italian population during the past 15 years] Bilotta P, et al. **Minerva Ginecol** 1999 Jun;51(6):223–31 (53 ref.) (Eng. Abstr.) **(Ita)**

[The spermiogram in adolescence] Paris E, et al. **Minerva Pediatr** 1998 Jun;50(6):303 **(Ita)**

[Decrease in sperm count of human semen] Omura M. **Fukuoka Igaku Zasshi** 1998 Jul;89(7):201–6 (27 ref.) **(Jpn)**

[The development of andrology must have a scientific basis (letter)] Eliasson R. **Lakartidningen** 1999 Feb 17;96(7):716–7 **(Swe)**

DRUG EFFECTS

Sterological estimation of seminiferous tubular dysfunction in chloroquine treated rats. Okanlawon AO, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):101–6

Reproductive and endocrine function in rams exposed to the organochlorine pesticides lindane and pentachlorophenol from conception. Beard AP, et al. **J Reprod Fertil** 1999 Mar;115(2):303–14

While Japan studies drop in sperm counts [news] **Nature** 1998 Oct 29;395(6705):828

The effect of the aqueous extract of Cynomorium coccineum on the epididymal sperm pattern of the rat. Abd el-Rahman HA, et al. **Phytother Res** 1999 May;13(3):248–50

Dominant lethal study of alpha-asarone in male mice. Chamorro G, et al. **Toxicol Lett** 1998 Oct 15;99(2):71–7

INSTRUMENTATION

Evaluation of the SQA IIB: a new version of a sperm quality analyzer. Makler A, et al. **Fertil Steril** 1999 Apr;71(4):761–4

Delay in the application of the cover glass is a potential source of error with the Makler Counting Chamber. Matson P, et al. **Fertil Steril** 1999 Sep;72(3):559–61

METHODS

[The family practitioner and the postcoital test (comment) (see comments)] Bossuyt PM, et al. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2028–9 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Sep 12;142(37):2056–7. Comment in: Ned Tijdschr Geneeskd 1998 Nov 28;142(48):2646. **(Dut)**

[Postcoital test--a useful aid for the family physician (see comments)] Ponsioen BP. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2056–7 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Sep 12;142(37):2028–9. Comment in: Ned Tijdschr Geneeskd 1998 Nov 28;142(48):2646. **(Dut)**

SPERM FLAGELLUM see **SPERM TAIL**

SPERM HEAD

Fertility of ejaculated and testicular megalohead spermatozoa with intracytoplasmic sperm injection. Kahraman S, et al. **Hum Reprod** 1999 Mar;14(3):726–30

Effects of cryopreservation on bull sperm head morphometry. Gravance CG, et al. **J Androl** 1998 Nov-Dec;19(6):704–9

CHEMISTRY

Isolation of proteins from subacrosomal region of spermatozoa from a marsupial, the tammar wallaby (Macropus eugenii). Lin M, et al. **J Reprod Fertil** 1998 Jul;113(2):257–67

IMMUNOLOGY

Monoclonal antibody that recognizes an epitope of the sperm equatorial region and specifically inhibits sperm-oolemma fusion but not binding. Noor MM, et al. **J Reprod Fertil** 1999 Mar;115(2):215–24

METABOLISM

FISH on sperm heads allows the analysis of chromosome segregation and interchromosomal effects in carriers of structural rearrangements: results in a translocation carrier, t(5;8)(q33;q13). Blanco J, et al. **Cytogenet Cell Genet** 1998; 83(3-4):275–80 (47 ref.)

PATHOLOGY

Alterations in the mitochondria of rat spermatozoa after experimental hyperprolactinemia. Laszczyńska M, et al. **Folia Histochem Cytobiol** 1999;37(2):87–8

Failure of pregnancy after intracytoplasmic sperm injection with decapitated spermatozoa: case report. Saïas-Magnan J, et al. **Hum Reprod** 1999 Aug;14(8):1989–92

PHYSIOLOGY

Extraction of sp18 family membrane proteins on posterior head of bull sperm and the effect of anti-sp18 IgG on sperm motility and murine in vitro fertilization. Gou KM, et al. **Anim Biotechnol** 1998;9(2):149–53

Gender preselection in cattle with intracytoplasmically injected, flow cytometrically sorted sperm heads. Hamano K, et al. **Biol Reprod** 1999 May;60(5):1194–7

Fertilization of porcine oocytes following intracytoplasmic spermatozoon or isolated sperm head injection. Kim NH, et al. **Mol Reprod Dev** 1998 Dec;51(4):436–44

Quantitative changes in sperm head morphology during passage through the male excurrent duct system of the rabbit. Pérez-Sánchez F, et al. **Mol Reprod Dev** 1998 Oct; 51(2):203–9

Fertility therapy may aid gene transfer [news; comment] Hagmann M. **Science** 1999 May 14;284(5417):1097–8. Comment on: Science 1999 May 14;284(5417):1180–3.

Mammalian transgenesis by intracytoplasmic sperm injection [see comments] Perry AC, et al. **Science** 1999 May 14; 284(5417):1180–3. Comment in: Science 1999 May 14;284(5417):1097–8.

ULTRASTRUCTURE

Influence of sperm plasma membrane destruction on human sperm head decondensation and pronuclear formation. Ahmadi A, et al. **Arch Androl** 1999 Jan-Feb;42(1):1–7

Chromosome analysis of BALB/c mouse spermatozoa with normal and abnormal head morphology. Kishikawa H, et al. **Biol Reprod** 1999 Sep;61(3):809–12

Human sperm head morphometric distribution and its influence on human fertility. Aziz N, et al. **Fertil Steril** 1998 Nov;70(5):883–91

Primed in situ labeling (PRINS): a method for rapid identification and quantification of human chromosomes in both lymphocytes and sperm nuclei. Musio A, et al. **Genome** 1998 Oct;41(5):739–41

Replicate and technician variation associated with computer aided bull sperm head morphometry analysis (ASMA). Gravance CG, et al. **Int J Androl** 1999 Apr;22(2):77–82

SPERM MATURATION

see related

ANTISPERMATOGENIC AGENTS

Proceedings of a workshop on molecular andrology. Giessen, Germany, May 5–6, 1997. **Andrologia** 1998 Aug-Sep; 30(4-5):171–307

Expression and phosphorylation of mitogen-activated protein kinases during spermatogenesis and epididymal sperm maturation in mice. Lu Q, et al. **Arch Androl** 1999 Jul-Aug; 43(1):55–66

Morphometric assessment of mature and diminished-maturity human spermatozoa: sperm regions that reflect differences in maturity. Gergely A, et al. **Hum Reprod** 1999 Aug; 14(8):2007–14

DRUG EFFECTS

Effects of ethanol treatment on epididymal secretory products and sperm maturation in albino rats. Srikanth V, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):509–15

PHYSIOLOGY

Function of human epididymal proteins in sperm maturation. Kirchhoff C, et al. **Andrologia** 1998 Aug-Sep; 30(4-5):225–32

Contribution of epididymal factors to sperm maturation and storage. Moore HD. **Andrologia** 1998 Aug-Sep; 30(4-5):233–9 (63 ref.)

Assisted reproduction for testicular failure: management of germ cell maturation arrest. Tesarik J, et al. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):283–8 (48 ref.)

Difficulties in distinguishing between a mature spermatid and testicular spermatozoon [letter; comment] Mansour RT, et al. **Hum Reprod** 1999 Jan;14(1):267–8. Comment on: Hum Reprod 1998 Jan;13(1):104–10.

Maturation-dependent modification of the protein phosphorylation profile of isolated goat sperm plasma membrane. Nath D, et al. **J Reprod Fertil** 1999 Jan; 115(1):29–37

SPERM MATURATION BLOCKING AGENTS see **ANTISPERMATOGENIC AGENTS**

SPERM MOTILITY

Evaluation of a cut-off value for sperm motility after different hours of incubation to select the suitable reproductive technology (IVF or ICSI). Zollner U, et al. **Acta Obstet Gynecol Scand** 1999 Apr;78(4):326–31

Correlation of smoking and coffee drinking with sperm progressive motility in infertile males. Adelusi B, et al. **Afr J Med Med Sci** 1998 Mar-Jun;27(1-2):47–50

Comparison of sperm quantity and quality in antegrade V retrograde ejaculates obtained by vibratory penile stimulation in males with spinal cord injury. Chen D, et al. **Am J Phys Med Rehabil** 1999 Jan-Feb;78(1):46–51

Morphometrical comparison of human spermatozoa obtained from semen and swim-up methodology. Domínguez LA, et al. **Andrologia** 1999 Jan;31(1):23–6

Lipid peroxidation in human spermatozoa and maintenance of progressive sperm motility. Engel S, et al. **Andrologia** 1999 Jan;31(1):17–22

Application of the upgraded image superimposition system (SIAS) to the assessment of sperm kinematics. Mazzilli F, et al. **Andrologia** 1999 Jul;31(4):187–94

The effect of pH on the motility of spermatozoa from chicken, turkey and quail. Holm L, et al. **Anim Reprod Sci** 1998 Dec 1;54(1):45–54

Evaluation of the effects of different trypsin treatments on semen quality after BHV–1 inactivation, and a comparison of the results before and after freezing, assessed by a computer image analyzer. Silva N, et al. **Anim Reprod Sci** 1999 Jan 29;54(4):227–35

Tctex2–related outer arm dynein light chain is phosphorylated at activation of sperm motility. Inaba K, et al. **Biochem Biophys Res Commun** 1999 Mar 5; 256(1):177–83

Sperm subpopulations in boar (Sus scrofa) and gazelle (Gazella dama mhorr) semen as revealed by pattern analysis of computer–assisted motility assessments. Abaigar T, et al. **Biol Reprod** 1999 Jan;60(1):32–41

Effect of postprepared sperm parameters and insemination specimen volume on the outcome of intrauterine insemination. Tsai MY, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Sep;21(3):265–70

Increased recovery of swim–up spermatozoa by application of "antigravitational" centrifugation. Babbo CJ, et al. **Fertil Steril** 1999 Sep;72(3):556–8

Are sperm motion parameters influenced by varicocele ligation? Ismail MT, et al. **Fertil Steril** 1999 May; 71(5):886–90

Evaluation of the SQA IIB: a new version of a sperm quality analyzer. Makler A, et al. **Fertil Steril** 1999 Apr;71(4):761–4

Modified sperm stress test: a simple assay that predicts sperm–related abnormal in–vitro fertilization. Calamera JC, et al. **Hum Reprod** 1998 Sep;13(9):2484–8

Experience with external quality control in spermatology. Cooper TG, et al. **Hum Reprod** 1999 Mar;14(3):765–9

Diagnostic accuracy of computer–assisted sperm motion analysis. De Geyter C, et al. **Hum Reprod** 1998 Sep; 13(9):2512–20

Time course of hypo–osmotic swellings of human spermatozoa: evidence of ordered transition between swelling subtypes. Hossain AM, et al. **Hum Reprod** 1998 Jun;13(6):1578–83

The development of smoothing–independent kinematic measures of capacitating human sperm movement. Mortimer ST, et al. **Hum Reprod** 1999 Apr;14(4):986–96

Effect of image sampling frequency on established and smoothing–independent kinematic values of capacitating human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1999 Apr;14(4):997–1004

Ureaplasma urealyticum reduces motility and induces membrane alterations in human spermatozoa. Núñez–Calonge R, et al. **Hum Reprod** 1998 Oct; 13(10):2756–61

Exogenous influences on human fertility: fluctuations in sperm parameters and results of in–vitro fertilization coincide with conceptions in the normal population. Ossenbühn S. **Hum Reprod** 1998 Aug;13(8):2165–71

Semen preparation by standard swim–up versus swim–up with test yolk buffer incubation in intrauterine insemination: a randomized study. Ragni G, et al. **Hum Reprod** 1998 Jul; 13(7):1859–63

In–vitro fertilization treatment for severe male factor: the fertilization potential of immotile spermatozoa obtained by testicular extraction. Shulman A, et al. **Hum Reprod** 1999 Mar;14(3):749–52

A first prospective study of the individual straight line velocity of the spermatozoon and its influences on the fertilization rate after intracytoplasmic sperm injection. Van den Bergh M, et al. **Hum Reprod** 1998 Nov; 13(11):3103–7

Controlled comparison of conventional in–vitro fertilization and intracytoplasmic sperm injection in patients with asthenozoospermia. Verheyen G, et al. **Hum Reprod** 1999 Sep;14(9):2313–9

Hyperactivated motility of human spermatozoa: a review of physiological function and application in assisted reproduction. Kay VJ, et al. **Hum Reprod Update** 1998 Nov–Dec;4(6):776–86 (128 ref.)

Human spermatozoal motility and lipid peroxidation. Verma A, et al. **Indian J Exp Biol** 1999 Jan;37(1):83–5

Improvement of sperm count and motility after ligation of varicoceles detected with colour Doppler ultrasonography. Pierik FH, et al. **Int J Androl** 1998 Oct;21(5):256–60

Effects of sauna on sperm movement characteristics of normal men measured by computer–assisted sperm analysis. Saikhun J, et al. **Int J Androl** 1998 Dec;21(6):358–63

The evaluation of the sperm migration test as a predictor for success with intrauterine insemination. Buckett WM, et al. **Int J Fertil Womens Med** 1998 Sep–Oct;43(5):257–61

Effect of peritoneal fluid from endometriosis patients on sperm motion characteristics and acrosome reaction. Sharma RK, et al. **Int J Fertil Womens Med** 1999 Jan–Feb; 44(1):31–7

Sperm motility enhancement by nitric oxide produced by the oocytes of fathead minnows, Pimephelas promelas. Creech MM, et al. **J Androl** 1998 Nov–Dec;19(6):667–74

Rabbit spermatozoa: a model system for studying ATP homeostasis and motility. Minelli A, et al. **J Androl** 1999 Mar–Apr;20(2):259–66

Fertility and its relationship to motility characteristics of spermatozoa in ewes after cervical, transcervical, and intrauterine insemination with frozen–thawed ram semen. Sánchez–Partida LG, et al. **J Androl** 1999 Mar–Apr; 20(2):280–8

Motility potential of macaque epididymal sperm: the role of protein phosphatase and glycogen synthase kinase–3 activities. Smith GD, et al. **J Androl** 1999 Jan–Feb; 20(1):47–53

Tenacity of exogenous human papillomavirus DNA in sperm washing. Brossfield JE, et al. **J Assist Reprod Genet** 1999 Jul;16(6):325–8

Deletion of type IIalpha regulatory subunit delocalizes protein kinase A in mouse sperm without affecting motility or fertilization. Burton KA, et al. **J Biol Chem** 1999 Aug 20;274(34):24131–6

Localized depolymerization of the major sperm protein cytoskeleton correlates with the forward movement of the cell body in the amoeboid movement of nematode sperm. Italiano JE Jr, et al. **J Cell Biol** 1999 Sep 6;146(5):1087–96

Studies on the relationship between urokinase plasminogen activator (uPA) and human sperm motility. Huang X, et al. **J Tongji Med Univ** 1997;17(4):213–7

Varicocele repair improves semen parameters in azoospermic men with spermatogenic failure. Kim ED, et al. **J Urol** 1999 Sep;162(3 Pt 1):737–40

Quality of cryopreserved testicular sperm in patients with obstructive and nonobstructive azoospermia. Prins GS, et al. **J Urol** 1999 May;161(5):1504–8

Effect of repeated ejaculation on semen quality in spinal cord injured men [see comments] Sønksen J, et al. **J Urol** 1999 Apr;161(4):1163–5. Comment in: J Urol 1999 Apr;161(4):1166–7.

Semen quality and fertility [letter; comment] Foresta C, et al. **Lancet** 1998 Dec 5;352(9143):1861–2. Comment on: Lancet 1998 Oct 10;352(9135):1172–7.

Improvement of semen quality in infected asymptomatic infertile male after bacteriological cure. Cardoso EM, et al. **Medicina (B Aires)** 1998;58(2):160–4

The effect of incubation periods under 95% oxygen on the stimulated acrosome reaction and motility of human spermatozoa. Whittington K, et al. **Mol Hum Reprod** 1998 Nov;4(11):1053–7

Assessment of ejaculate quality and sperm characteristics in turkeys: sperm mobility phenotype is independent of time. Holsberger DR, et al. **Poult Sci** 1998 Nov;77(11):1711–7

Individual prognosis for changes in sperm quality on the basis of perceived stress. Pook M, et al. **Psychother Psychosom** 1999 Mar–Apr;68(2):95–101

Effect of compatible solutes and diluent composition on the post–thaw motility of ram sperm. Sánchez–Partida LG, et al. **Reprod Fertil Dev** 1998;10(4):347–57

Practical evaluation of the fertilising capacity of frozen–thawed horse semen. Newcombe JR. **Vet Rec** 1999 Jul 10;145(2):46–7

[The family practitioner and the postcoital test (comment) (see comments)] Bossuyt PM, et al. **Ned Tijdschr Geneeskd** 1998 Sep 12;142(37):2028–9 (Eng. Abstr.). Comment on: Ned Tijdschr Geneeskd 1998 Sep 12;142(37):2056–7. Comment in: Ned Tijdschr Geneeskd 1998 Nov 28;142(48):2646. **(Dut)**

[Intra–spermatic L–carnitine and survival of sperm motility] Mazzilli F, et al. **Minerva Ginecol** 1999 Apr;51(4):129–34 (Eng. Abstr.) **(Ita)**

[The development of andrology must have a scientific basis (letter)] Eliasson R. **Lakartidningen** 1999 Feb 17;96(7):716–7 **(Swe)**

DRUG EFFECTS

Effect of metal compounds on boar sperm motility in vitro. Altamirano–Lozano M, et al. **Adv Exp Med Biol** 1998; 444:105–10; discussion 110–1

Effect of panax notoginseng extracts on inferior sperm motility in vitro. Chen JC, et al. **Am J Chin Med** 1999; 27(1):123–8

Direct effect of alcohol on the motility and morphology of human spermatozoa. Donnelly GP, et al. **Andrologia** 1999 Jan;31(1):43–7

Pentoxifylline stimulates various sperm motion parameters and cervical mucus penetrability in patients with asthenozoospermia. Nassar A, et al. **Andrologia** 1999 Jan; 31(1):9–15

Human sperm motility and lipid peroxidation in different ascorbic acid concentrations: an in vitro analysis. Verma A, et al. **Andrologia** 1998 Nov;30(6):325–9

Multiple actions of a hybrid PACAP antagonist: neuronal cell killing and inhibition of sperm motility. Gozes I, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:266–73

New system for long–term monitoring of sperm motility: EDTA effect on semen. Kuo YL, et al. **Arch Androl** 1998 Sep–Oct;41(2):127–33

Computer–assisted sperm motion analysis of bovine sperm treated with insulin–like growth factor I and II: implications as motility regulators and chemokinetic factors. Lackey BR, et al. **Arch Androl** 1998 Sep–Oct; 41(2):115–25

Influence of pentoxifylline on sperm membrane functional integrity. Ponce AA, et al. **Arch Androl** 1999 Jul–Aug; 43(1):77–84

Effects of vasoactive intestinal peptide on human sperm motility. Siow Y, et al. **Arch Androl** 1999 Jul–Aug; 43(1):67–71

Maintenance of motility in mouse sperm permeabilized with streptolysin O. Johnson LR, et al. **Biol Reprod** 1999 Mar; 60(3):683–90

Effect of insulin–like growth factors (IGFs) and IGF–binding proteins on in vitro sperm motility. Miao ZR, et al. **Clin Endocrinol (Oxf)** 1998 Aug;49(2):235–9

Inhibition of flagellar motility of demembranated fowl spermatozoa by protease substrates. Ashizawa K, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep; 121(1):77–83

Dose–response effects of gramicidin–D, EDTA, and nonoxynol–9 on sperm motion parameters and acrosome status. Centola GM. **Contraception** 1998 Jul;58(1):35–8

Membrane hyperpolarization by sperm–activating and –attracting factor increases cAMP level and activates sperm motility in the ascidian Ciona intestinalis. Izumi H, et al. **Dev Biol** 1999 Sep 15;213(2):246–56

Sperm–activating proteins obtained from the herring eggs are homologous to trypsin inhibitors and synthesized in follicle cells. Oda S, et al. **Dev Biol** 1998 Dec 1;204(1):55–63

Purification and characterization of prolyl endopeptidase from the Pacific herring, Clupea pallasi, and its role in the activation of sperm motility. Yoshida K, et al. **Dev Growth Differ** 1999 Apr;41(2):217–25

Enhancement or initiation of testicular sperm motility by in vitro culture of testicular tissue. Angelopoulos T, et al. **Fertil Steril** 1999 Feb;71(2):240–3

Antioxidant supplementation in vitro does not improve human sperm motility. Donnelly ET, et al. **Fertil Steril** 1999 Sep;72(3):484–95

Modulation of sperm tail protein tyrosine phosphorylation by pentoxifylline and its correlation with hyperactivated motility. Nassar A, et al. **Fertil Steril** 1999 May; 71(5):919–23

The effects of coital lubricants on sperm motility in vitro. Anderson L, et al. **Hum Reprod** 1998 Dec;13(12):3351–6

Müllerian inhibiting substance improves longevity of motility and viability of fresh and cryopreserved sperm. Siow Y, et al. **J Androl** 1998 Sep–Oct;19(5):568–72

Effect of acute androgen withdrawal by GnRH antagonist on epididymal sperm motility and morphology in the cynomolgus monkey. Yeung CH, et al. **J Androl** 1999 Jan–Feb;20(1):72–9

Inhibition of human sperm motility by specific herbs used in alternative medicine. Ondrizek RR, et al. **J Assist Reprod Genet** 1999 Feb;16(2):87–91

Effects of taurine on the motility and intracellular free Ca2+ concentration of fowl spermatozoa in vitro. Barna J, et al. **J Reprod Fertil** 1998 Nov;114(2):225–9

Characterization of epididymal sperm motion and its correlation with stages of target cells in rats given alpha–chlorohydrin, cyclophosphamide or nitrazepam. Kaneto M, et al. **J Toxicol Sci** 1999 Aug;24(3):187–97

Availability of sperm examination for male reproductive toxicities in rats treated with boric acid. Yoshizaki H, et al. **J Toxicol Sci** 1999 Aug;24(3):199–208

Secretory leukocyte protease inhibitor (SLPI) concentrations in seminal plasma: SLPI restores sperm motility reduced by elastase. Moriyama A, et al. **Mol Hum Reprod** 1998 Oct;4(10):946–50

The effect of the aqueous extract of Cynomorium coccineum on the epididymal sperm pattern of the rat. Abd el–Rahman HA, et al. **Phytother Res** 1999 May;13(3):248–50

Epididymal sperm motion as a parameter of male reproductive toxicity: sperm motion, fertility, and histopathology in ethinylestradiol–treated rats. Kaneto M, et al. **Reprod Toxicol** 1999 Jul–Aug;13(4):279–89

Dominant lethal study of alpha–asarone in male mice. Chamorro G, et al. **Toxicol Lett** 1998 Oct 15;99(2):71–7

[Effects of semen Cuscutae, rhizoma Curculiginis, radix Morindae officinalis on human spermatozoan's motility and membrane function in vitro] Peng SJ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar; 17(3):145–7 (Eng. Abstr.) **(Chi)**

GENETICS

Mapping and cloning recombinant breakpoints demarcating the hybrid sterility 6–specific sperm tail assembly defect. Samant SA, et al. **Mamm Genome** 1999 Feb;10(2):88–94

Multiple deletions of mitochondrial DNA are associated with the decline of motility and fertility of human spermatozoa. Kao SH, et al. **Mol Hum Reprod** 1998 Jul;4(7):657–66

PHYSIOLOGY

Sperm viability in ram semen diluted and stored in three different extenders. López A, et al. **Acta Vet Scand** 1999; 40(1):1–9

Measurements of bovine sperm velocities under true anaerobic and aerobic conditions. Krzyzosiak J, et al. **Anim Reprod Sci** 1999 Apr 31;55(3–4):163–73

Hyaluronic acid and chemoattractant substance from follicular fluid: in vitro effect of human sperm migration. Sliwa L. **Arch Androl** 1999 Jul–Aug;43(1):73–6

Identification of phosphoproteins coupled to initiation of motility in live epididymal mouse sperm. Tash JS, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):557–63

The motility of human spermatozoa as influenced by prostasomes at various pH levels. Arienti G, et al. **Biol Cell** 1999 Jan;91(1):51–4

Turkey sperm mobility influences paternity in the context

of competitive fertilization. Donoghue AM, et al. **Biol Reprod** 1999 Aug;61(2):422–7

Sperm mobility: A primary determinant of fertility in the domestic fowl (Gallus domesticus). Froman DP, et al. **Biol Reprod** 1999 Aug;61(2):400–5

Analysis of in vitro migration patterns of human spermatozoa by a petri dish–based horizontal column. Hossain AM, et al. **Biol Reprod** 1999 Aug;61(2):406–10

Protein tyrosine phosphorylation during hyperactivated motility of cynomolgus monkey (Macaca fascicularis) spermatozoa. Mahony MC, et al. **Biol Reprod** 1999 May; 60(5):1239–43

Hyperactivation of hamster sperm motility by temperature-dependent tyrosine phosphorylation of an 80-kDa protein. Si Y. **Biol Reprod** 1999 Jul;61(1):247–52

Swimming of spermatozoa in a linear viscoelastic fluid. Fulford GR, et al. **Biorheology** 1998 Jul–Oct; 35(4–5):295–309

The use of phosphocreatine plus ADP as energy source for motility of membrane-deprived trout spermatozoa. Saudrais C, et al. **Cell Motil Cytoskeleton** 1998;41(2):91–106

Temperature-dependent flagellar motility of demembranated, cytosol-free fowl spermatozoa. Ashizawa K, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Sep; 121(1):83–9

Inhibition of flagellar motility of demembranated fowl spermatozoa by protease substrates. Ashizawa K, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Sep; 121(1):77–83

Membrane hyperpolarization by sperm-activating and -attracting factor increases cAMP level and activates sperm motility in the ascidian Ciona intestinalis. Izumi H, et al. **Dev Biol** 1999 Sep 15;213(2):246–56

The carboxy-terminal sequence Asp427–Glu432 of beta-tubulin plays an important function in axonemal motility. Audebert S, et al. **Eur J Biochem** 1999 Apr; 261(1):48–56

Microgravity alters protein phosphorylation changes during initiation of sea urchin sperm motility. Tash JS, et al. **FASEB J** 1999;13 Suppl:S43–54

Comparison of sperm separation methods: effect on recovery, motility, motion parameters, and hyperactivation. Centola GM, et al. **Fertil Steril** 1998 Dec;70(6):1173–5

Relevance of zinc in human sperm flagella and its relation to motility. Henkel R, et al. **Fertil Steril** 1999 Jun; 71(6):1138–43

Dynamic aspects concerned with the mechanism of separating motile sperm from nonmotile sperm, leukocytes, and debris with the use of high-density Percoll gradients [see comments] Makler A, et al. **Fertil Steril** 1998 Nov; 70(5):961–6. Comment in: Fertil Steril 1999 Apr;71(4):778–9.

Human sperm endothelial nitric oxide synthase expression: correlation with sperm motility. O'Bryan MK, et al. **Fertil Steril** 1998 Dec;70(6):1143–7

Increased recovery of viable spermatozoa through oscillating centrifugation. Ozornek MH, et al. **Fertil Steril** 1998 Oct; 70(4):712–4

Effect of storage temperature on sperm cryopreservation. Trummer H, et al. **Fertil Steril** 1998 Dec;70(6):1162–4

The heparin–glutathione test: an alternative to the hypo-osmotic swelling test to select viable sperm for intracytoplasmic sperm injection. Vendrell FJ, et al. **Fertil Steril** 1998 Dec;70(6):1156–61

Characterization of reactive oxygen species induced effects on human spermatozoa movement and energy metabolism. Armstrong JS, et al. **Free Radic Biol Med** 1999 Apr; 26(7–8):869–80

Morphology comparison of individually selected hyperactivated and non-hyperactivated human spermatozoa. Green S, et al. **Hum Reprod** 1999 Jan; 14(1):123–30

Effect of seminal plasma on capacitation and hyperactivation in human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1998 Aug;13(8):2139–46

Assisted reproduction for infertile patients with 9 + 0 immotile spermatozoa associated with autosomal dominant polycystic kidney disease [published erratum appears in Hum Reprod 1999 Jun;14(6):1166] Okada H, et al. **Hum Reprod** 1999 Jan;14(1):110–3

Mouse spermatozoa modify their motility parameters and chemotactic response to factors from the oocyte microenvironment. Giojalas LC, et al. **Int J Androl** 1998 Aug;21(4):201–6

Direct and indirect effects of electrical stimulation on the motility of human sperm. Saito K, et al. **Int J Urol** 1999 Apr;6(4):196–9

Optimal utilization of cryopreserved human semen for assisted reproduction: recovery and maintenance of sperm motility and viability. Polcz TE, et al. **J Assist Reprod Genet** 1998 Sep;15(8):504–12

Sperm metabolism of the teleost fishes Chalcalburnus chalcoides and Oncorhynchus mykiss and its relation to motility and viability. Lahnsteiner F, et al. **J Exp Zool** 1999 Sep 1;284(4):454–65

Effects of osmolality, morphology perturbations and intracellular nucleotide content during the movement of sea bass (Dicentrarchus labrax) spermatozoa. Dreanno C, et al. **J Reprod Fertil** 1999 May;116(1):113–25

Increased velocity and induction of chemotactic response in mouse spermatozoa by follicular and oviductal fluids. Oliveira RG, et al. **J Reprod Fertil** 1999 Jan;115(1):23–7

Chelation of intracellular zinc ions affects human sperm cell motility. Sørensen MB, et al. **Mol Hum Reprod** 1999 Apr; 5(4):338–41

The 12 kD FK 506 binding protein FKBP12 is released in the male reproductive tract and stimulates sperm motility. Walensky LD, et al. **Mol Med** 1998 Aug;4(8):502–14

Nucleotide content, oxidative phosphorylation, morphology, and fertilizing capacity of turbot (Psetta maxima) spermatozoa during the motility period. Dreanno C, et al. **Mol Reprod Dev** 1999 Jun;53(2):230–43

Lowered sperm motility in subordinate social status of mice. Koyama S, et al. **Physiol Behav** 1999 Jan 1–15;65(4–5):665–9

Biochemical parameters regulating forward motility initiation in vitro in goat immature epididymal spermatozoa. Jaiswal BS, et al. **Reprod Fertil Dev** 1998;10(4):299–307

Xenopus laevis fertilisation: analysis of sperm motility in egg jelly using video light microscopy. Reinhart D, et al. **Zygote** 1998 May;6(2):173–82

[Lipid peroxidation, morphological stress pattern and nuclear maturity of spermatozoon] Laudat A, et al. **Ann Biol Clin (Paris)** 1999 Jan–Feb;57(1):51–6 (Eng. Abstr.) **(Fre)**

[The movement of the human spermatozoon] Jouannet P, et al. **Bull Acad Natl Med** 1998;182(5):1025–34; discussion 1034–6 (25 ref.) (Eng. Abstr.) **(Fre)**

SPERM NUMBER see **SPERM COUNT**

SPERM-OVUM INTERACTIONS

Proceedings of a workshop on molecular andrology. Giessen, Germany, May 5–6, 1997. **Andrologia** 1998 Aug–Sep; 30(4–5):171–307

Sperm penetration through the human zona pellucida as a predictor of in vitro fertilization. Morales P, et al. **Andrologia** 1999 May;31(3):131–5

In vitro interactions of cryopreserved stallion spermatozoa and oviduct (uterine tube) epithelial cells or their secretory products. Ellington JE, et al. **Anim Reprod Sci** 1999 May 17;56(1):51–65

Prediction of porcine semen fertility by homologous in vitro penetration (hIVP) assay. Gadea J, et al. **Anim Reprod Sci** 1998 Dec 31;54(2):95–108

Role of egg sulfolipidimmobilizing protein 1 on mouse sperm–egg plasma membrane binding. Ahnonkitpanit V, et al. **Biol Reprod** 1999 Sep;61(3):749–56

Mammalian fertilization misread? Sperm penetration of the eutherian zona pellucida is unlikely to be a lytic event. Bedford JM. **Biol Reprod** 1998 Dec;59(6):1275–87 (149 ref.)

A combinatorial phage display library for the generation of specific Fab fragments recognizing human spermatozoa and inhibiting fertilizing capacity in vitro. Clayton R, et al. **Biol Reprod** 1998 Nov;59(5):1180–6

Potential contraceptive use of epididymal proteins: immunization of male rats with epididymal protein DE inhibits sperm fusion ability. Ellerman DA, et al. **Biol Reprod** 1998 Nov;59(5):1029–36

A possible role for the pentose phosphate pathway of spermatozoa in gamete fusion in the mouse. Urner F, et al. **Biol Reprod** 1999 Mar;60(3):733–9

The 350-kDa sea urchin egg receptor for sperm is localized in the vitelline layer. Hirohashi N, et al. **Dev Biol** 1998 Dec 1;204(1):305–15

Analyses of oviductal pars recta-induced fertilizability of coelomic eggs in Xenopus laevis. Katagiri C, et al. **Dev Biol** 1999 Jun 15;210(2):269–76

Specific glycoconjugates are present at the oolemma of the fertilization site in the egg of Discoglossus pictus (Anurans) and bind spermatozoa in an in vitro assay. Maturi G, et al. **Dev Biol** 1998 Dec 1;204(1):210–23

Genetic risk in natural and medically assisted procreation. Koulischer L, et al. **Early Pregnancy** 1997 Sep;3(3):164–71 (41 ref.)

Human sperm head morphometric distribution and its influence on human fertility. Aziz N, et al. **Fertil Steril** 1998 Nov;70(5):883–91

Your genome—just another credit card to carry around [letter] [see comments] Cardellina JH II, et al. **Fertil Steril** 1999 Aug;72(2):378–9. Comment in: Fertil Steril 1999 Aug;72(2):380–1.

Characterization of aneuploidy rates, protamine levels, ultrastructure, and functional ability of round-headed sperm from two siblings and implications for intracytoplasmic sperm injection. Carrell DT, et al. **Fertil Steril** 1999 Mar;71(3):511–6

Expression of mannose-ligand receptors on human spermatozoa: effect of lecithin and association with sperm binding to the zona pellucida. Gamzu R, et al. **Fertil Steril** 1998 Oct;70(4):766–70

Effects of human oviductal cell coculture on various functional parameters of human spermatozoa. Yao YQ, et al. **Fertil Steril** 1999 Feb;71(2):232–9

Sperm disintegrins, egg integrins, and other cell adhesion molecules of mammalian gamete plasma membrane interactions. Evans JP. **Front Biosci** 1999 Jan 15;4:D114–31 (147 ref.)

The clinical significance of sperm-zona pellucida binding. Franken DR. **Front Biosci** 1998 Dec 15;3:E247–53

Scanning electron microscopy analysis of the human zona pellucida: influence of maturity and fertilization on morphology and sperm binding pattern. Magerkurth C, et al. **Hum Reprod** 1999 Apr;14(4):1057–66

A prospective analysis of the accuracy of the TEST-yolk buffer enhanced hamster egg penetration test and acrosin activity in discriminating fertile from infertile males. Romano R, et al. **Hum Reprod** 1998 Aug;13(8):2115–21

Relationship between human in-vitro fertilization and intracytoplasmic sperm injection and the zona-free hamster egg penetration test. Shibahara H, et al. **Hum Reprod** 1998 Jul;13(7):1928–32

Carbohydrate-based interactions on the route of a spermatozoon to fertilization. Töpfer-Petersen E. **Hum Reprod Update** 1999 Jul–Aug;5(4):314–29 (129 ref.)

Mouse spermatozoa modify their motility parameters and chemotactic response to factors from the oocyte microenvironment. Giojalas LC, et al. **Int J Androl** 1998 Aug;21(4):201–6

The use of two fluorescent dyes to identify sperm in a competitive binding assay to oocytes. Miller DJ, et al. **J Androl** 1998 Nov–Dec;19(6):650–6

An improved mouse sperm–oocyte plasmalemma binding assay: studies on characteristics of sperm binding in medium with or without glucose. Redkar AA, et al. **J Androl** 1999 Jul–Aug;20(4):500–8

Destruction of protamine in human sperm inhibits sperm binding and penetration in the zona-free hamster penetration test but increases sperm head decondensation and male pronuclear formation in the hamster-ICSI assay. Ahmadi A, et al. **J Assist Reprod Genet** 1999 Mar; 16(3):128–32

Effects of reducing insemination time in human in vitro fertilization and embryo development by using sibling oocytes. Coskun S, et al. **J Assist Reprod Genet** 1998 Nov; 15(10):605–8

Is intracytoplasmic sperm injection necessary for couples undergoing in vitro fertilization–embryo transfer with normal semen analyses but failing hamster egg penetration assays? Surrey ES, et al. **J Assist Reprod Genet** 1999 Feb; 16(2):69–72

Influence of capacitation and fluids from the male and female genital tract on the zona binding ability of bull spermatozoa. Topper EK, et al. **J Reprod Fertil** 1999 Jan; 115(1):175–83

Evidence that a functional fertilin–like ADAM plays a role in human sperm–oolemmal interactions. Bronson RA, et al. **Mol Hum Reprod** 1999 May;5(5):433–40

Effect of post-ovulatory age and calcium in the injection medium on the male pronucleus formation and metaphase entry following injection of human spermatozoa into golden hamster oocytes. Goud PT, et al. **Mol Hum Reprod** 1999 Mar;5(3):227–33

Functional analysis of activation of porcine oocytes by spermatozoa, calcium ionophore, and electrical pulse. Wang WH, et al. **Mol Reprod Dev** 1998 Nov;51(3):346–53

Measuring sperm:egg interaction to assess breeding efficiency in chickens and turkeys. Wishart GJ, et al. **Poult Sci** 1999 Mar;78(3):428–36

Sperm chemotaxis. Eisenbach M. **Rev Reprod** 1999 Jan; 4(1):56–66 (77 ref.)

American Society for Cell Biology. Homing in on a sperm receptor [news] Strauss E. **Science** 1999 Jan 8;283(5399):169

The site of fertilisation determines dorsoventral polarity but not chirality in the zebra mussel embryo. Luetjens CM, et al. **Zygote** 1998 May;6(2):125–35

[Contribution of chromosomal abnormalities to in vitro fertilization failures] Smith R, et al. **Rev Med Chil** 1998 May;126(5):511–9 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Inhibition of human sperm–zona–free hamster oocyte binding and penetration by protein C inhibitor. España F, et al. **Andrologia** 1999 Jul;31(4):217–23

Pentoxifylline stimulates various sperm motion parameters and cervical mucus penetrability in patients with asthenozoospermia. Nassar A, et al. **Andrologia** 1999 Jan; 31(1):9–15

Oviductin, the Xenopus laevis oviductal protease that processes egg envelope glycoprotein gp43, increases sperm binding to envelopes, and is translated as part of an unusual mosaic protein composed of two protease and several CUB domains. Lindsay LL, et al. **Biol Reprod** 1999 Apr; 60(4):989–95

Sperm and oocyte treatments to improve the formation of male and female pronuclei and subsequent development following intracytoplasmic sperm injection into bovine oocytes. Rho GJ, et al. **Biol Reprod** 1998 Oct;59(4):918–24

Electron microscopic observations on sperm penetration in cytochalasin-treated eggs of the rose bitterling. Ohta T, et al. **Cell Struct Funct** 1998 Jun;23(3):179–86

Tyrosine kinase inhibitors block sperm-induced egg activation in Xenopus laevis. Glahn D, et al. **Dev Biol** 1999 Jan 1;205(1):171–80

An alternative medicine study of herbal effects on the penetration of zona-free hamster oocytes and the integrity of sperm deoxyribonucleic acid. Ondrizek RR, et al. **Fertil Steril** 1999 Mar;71(3):517–22

Gonadotrophin-releasing hormone antagonists inhibit sperm binding to the human zona pellucida. Morales P, et al. **Hum Reprod** 1999 Aug;14(8):2069–74

Exposure of human, boar, or bull sperm to a synthetic peptide increases binding to an egg-membrane substrate. Amann RP, et al. **J Androl** 1999 Jan–Feb;20(1):34–41

Enhancement of bovine oocyte fertilization in vitro with a bovine oviductal specific glycoprotein. Martus NS, et al.

J Reprod Fertil 1998 Jul;113(2):323–9

GENETICS

Mice carrying two t haplotypes: sperm populations with reduced Zona pellucida binding are deficient in capacitation. Si Y, et al. **Biol Reprod** 1999 Jul;61(1):305–11

Sperm segregation analysis of a complex chromosome rearrangement, 2;22;11, by whole chromosome painting. Cifuentes P, et al. **Cytogenet Cell Genet** 1998;82(3–4):204–9

IMMUNOLOGY

Monoclonal antibody that recognizes an epitope of the sperm equatorial region and specifically inhibits sperm–oolemma fusion but not binding. Noor MM, et al. **J Reprod Fertil** 1999 Mar;115(2):215–24

Molecular basis of sperm–egg interaction and the prospects for immunocontraception. Kerr LE, et al. **J Reprod Immunol** 1998 Nov;40(2):103–18 (87 ref.)

PHYSIOLOGY

Protein–carbohydrate interactions during fertilization. Sinowatz F, et al. **Acta Anat (Basel)** 1998;161(1–4):196–205 (92 ref.)

A new assay to asses aneuploidy in human–hamster embryos. Ponsa I, et al. **Adv Exp Med Biol** 1998;444:185–90

Human sperm penetration in different media. Engel S, et al. **Andrologia** 1999 Jul;31(4):233–9

Molecular mechanisms of sperm–egg interactions and egg activation. Evans JP, et al. **Andrologia** 1998 Aug–Sep; 30(4–5):297–307 (68 ref.)

New aspects of sperm–zona pellucida binding. Franken DR. **Andrologia** 1998 Aug–Sep;30(4–5):263–8 (35 ref.)

Relationship of subnormal semen parameters and subsequent zona pellucida thinning following in vitro fertilization. Check JH, et al. **Arch Androl** 1998 Nov–Dec;41(3):145–50

Do human eggs attract spermatozoa? Eisenbach M, et al. **Bioessays** 1999 Mar;21(3):203–10 (68 ref.)

Mammalian sperm–egg recognition: does fertilin beta have a major role to play? Frayne J, et al. **Bioessays** 1999 Mar; 21(3):183–7 (20 ref.)

A novel trans–complementation assay suggests full mammalian oocyte activation is coordinately initiated by multiple, submembrane sperm components. Perry AC, et al. **Biol Reprod** 1999 Mar;60(3):747–55

Characterization of glycolysis and pentose phosphate pathway activity during sperm entry into the mouse oocyte. Urner F, et al. **Biol Reprod** 1999 Apr;60(4):973–8

Characterization of the sperm–induced calcium wave in Xenopus eggs using confocal microscopy. Fontanilla RA, et al. **Biophys J** 1998 Oct;75(4):2079–87

Mediation of sperm–egg fusion: evidence that mouse egg alpha6beta1 integrin is the receptor for sperm fertilinbeta. Chen H, et al. **Chem Biol** 1999 Jan;6(1):1–10

Fertilin beta peptides inhibit sperm binding to zona–free eggs in a homologous baboon in vitro fertilization system. Mwethera PG, et al. **Contraception** 1999 Feb;59(2):131–5

The frequency of calcium oscillations in mouse eggs at fertilization is modulated by the number of fused sperm. Faure JE, et al. **Dev Biol** 1999 Sep 15;213(2):370–7

Xenopus laevis egg jelly contains small proteins that are essential to fertilization. Olson JH, et al. **Dev Biol** 1999 Jun 15;210(2):401–10

Voltage–dependent activation of frog eggs by a sperm surface disintegrin peptide. Shilling FM, et al. **Dev Biol** 1998 Oct 1;202(1):113–24

The passage of Ca2+ and fluorescent markers between the sperm and egg after fusion in the mouse. Jones KT, et al. **Development** 1998 Dec;125(23):4627–35

Sperm–triggered calcium oscillations during meiosis in ascidian oocytes first pause, restart, then stop: correlations with cell cycle kinase activity. McDougall A, et al. **Development** 1998 Nov;125(22):4451–9

Your genome--just another credit card to carry around [letter] Agarwal A. **Fertil Steril** 1999 Aug;72(2):378–9

Fertilization abnormalities and pronucleus size asynchrony after intracytoplasmic sperm injection are related to oocyte postmaturity. Goud P, et al. **Fertil Steril** 1999 Aug; 72(2):245–52

Early events in mammalian egg activation. Raz T, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:133–45 (93 ref.)

Glycodelins: role in regulation of reproduction, potential for contraceptive development and diagnosis of male infertility. Seppälä M, et al. **Hum Reprod** 1998 Jun;13 Suppl 3:262–9; discussion 270 (39 ref.)

Glycoproteins present in human follicular fluid that inhibit the zona–binding capacity of spermatozoa. Yao YQ, et al. **Hum Reprod** 1998 Sep;13(9):2541–7

Pre–freezing sperm preparation does not impair thawed spermatozoa binding to the zona pellucida. Yogev L, et al. **Hum Reprod** 1999 Jan;14(1):114–7

The role of sperm morphology in assisted reproduction. Kruger TF, et al. **Hum Reprod Update** 1999 Mar–Apr; 5(2):172–8 (72 ref.)

The correlation of sperm chromatin decondensation following in vitro exposure to heparin and sperm penetration rates. Carrell DT, et al. **J Assist Reprod Genet** 1998 Oct;15(9):560–4

Use of failed–fertilized oocytes for diagnostic zona binding purposes after sperm binding improvement with a modified medium. Henkel R, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):24–9

Modulation of integrin function inhibits HIV transmission to epithelial cells and fertilization. Davidson JB, et al. **J Reprod Immunol** 1998 Dec;41(1–2):271–90 (91 ref.)

Investigations into the molecular basis of human sperm–egg interactions: what's next? [comment] Benoff S. **Mol Hum Reprod** 1998 Oct;4(10):925–8 (85 ref.). Comment on: Mol Hum Reprod 1998 Jun;4(6):523–4. Comment on: Mol Hum Reprod 1998 Jun;4(6):524–5.

Direct evidence for the involvement of carbohydrate sequences in human sperm–zona pellucida binding. Ozgur K, et al. **Mol Hum Reprod** 1998 Apr;4(4):318–24

Sperm conceive cues in surprising ways. Gurwitz D. **Mol Med Today** 1999 Jan;5(1):8 (3 ref.)

An investigation of the latency period between sperm oolemmal adhesion and oocyte penetration. Bronson RA, et al. **Mol Reprod Dev** 1999 Mar;52(3):319–27

Intracytoplasmic injection of porcine, bovine, mouse, or human spermatozoon into porcine oocytes. Kim NH, et al. **Mol Reprod Dev** 1999 May;53(1):84–91

Expanded cumuli induce acrosome reaction in boar sperm. Mattioli M, et al. **Mol Reprod Dev** 1998 Dec;51(4):445–53

Lysophosphatidylcholine induces changes in physicochemical, morphological, and functional properties of mouse zona pellucida: a possible role of phospholipase A2 in sperm–zona pellucida interaction. Riffo M, et al. **Mol Reprod Dev** 1999 May;53(1):68–76

Requirement of sperm–oocyte plasma membrane fusion for establishment of the plasma membrane block to polyspermy in human pronuclear oocytes. Sengoku K, et al. **Mol Reprod Dev** 1999 Feb;52(2):183–8

PH–20 but not acrosin is involved in sperm penetration of the macaque zona pellucida. Yudin AI, et al. **Mol Reprod Dev** 1999 Jul;53(3):350–62

Identifying potentially subfertile toms via a sperm–binding assay. Gill SP, et al. **Poult Sci** 1999 Aug;78(8):1208–18

Control of the low voltage–activated calcium channel of mouse sperm by egg ZP3 and by membrane hyperpolarization during capacitation. Arnoult C, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6757–62

Xenopus laevis sperm receptor gp69/64 glycoprotein is a homolog of the mammalian sperm receptor ZP2. Tian J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):829–34

Mitogen–activated protein kinase and cell cycle progression during mouse egg activation induced by various stimuli. Sun QY, et al. **Z Naturforsch [C]** 1999 Mar–Apr; 54(3–4):285–94

Sperm plasma membrane receptors for the porcine oocyte plasma membrane. Betancourt M, et al. **Zygote** 1998 May; 6(2):155–8

Phosphate exposure during the late 1–cell and early 2–cell stages induces a time–specific decrease in cyclin B and cdc25B mRNAs in AKR/N mouse embryos in vitro. Haraguchi S, et al. **Zygote** 1999 Feb;7(1):87–93

Mouse oocytes and parthenogenetic eggs lose the ability to be penetrated by spermatozoa after fusion with zygotes. Krukowska A, et al. **Zygote** 1998 Nov;6(4):321–8

Xenopus laevis fertilisation: analysis of sperm motility in egg jelly using video light microscopy. Reinhart D, et al. **Zygote** 1998 May;6(2):173–82

p–Aminobenzamidine–sensitive acrosomal protease(s) other than acrosin serve the sperm penetration of the egg zona pellucida in mouse. Yamagata K, et al. **Zygote** 1998 Nov; 6(4):311–9

[Gamete interactions: which sperm ligands for the oocyte membrane?] Fénichel P. **Contracept Fertil Sex** 1998 Jul–Aug;26(7–8):549–53 (Eng. Abstr.) **(Fre)**

[Gamete recognition in mammals: sperm and zona pellucida interactions] Finaz C, et al. **Contracept Fertil Sex** 1998 Jul–Aug;26(7–8):542–8 (Eng. Abstr.) **(Fre)**

[Sperm morphology and xenogenic human sperm–hamster oocyte penetration assay in vitro] Szczygiel M, et al. **Ginekol Pol** 1999 Jan;70(1):26–32 (Eng. Abstr.) **(Pol)**

SPERM PENETRATION see **SPERM–OVUM INTERACTIONS**

SPERM PRESERVATION see **SEMEN PRESERVATION**

SPERM TAIL

CHEMISTRY

Rat testis motor proteins associated with spermatid translocation (dynein) and spermatid flagella (kinesin–II). Miller MG, et al. **Biol Reprod** 1999 Apr;60(4):1047–56

Conservation and function of a bovine sperm A–kinase anchor protein homologous to mouse AKAP82. Moss SB, et al. **Biol Reprod** 1999 Aug;61(2):335–42

Role of tyrosine phosphorylation of flagellar proteins in hamster sperm hyperactivation. Si Y, et al. **Biol Reprod** 1999 Jul;61(1):240–6

Proteins with tandemly arranged repeats of a highly charged 16–amino–acid motif encoded by the Dhmst101 gene family are structural components of the outer sheath of the extremely elongated sperm tails of Drosophila hydei. Neesen J, et al. **Dev Growth Differ** 1999 Feb;41(1):93–9

Relevance of zinc in human sperm flagella and its relation to motility. Henkel R, et al. **Fertil Steril** 1999 Jun; 71(6):1138–43

Flagellar mitochondrial association of the male–specific Don Juan protein in Drosophila spermatozoa. Santel A, et al. **J Cell Sci** 1998 Nov;111 (Pt 22):3299–309

ENZYMOLOGY

Temperature–dependent flagellar motility of demembranated, cytosol–free fowl spermatozoa. Ashizawa K, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Sep; 121(1):83–9

Real–time visual detection of Pi released by flagellar dynein ATPase. Vernon GG, et al. **Pflugers Arch** 1999 Apr; 437(5):771–5

IMMUNOLOGY

Production and characterization of monoclonal antibodies to the major protein of boar outer dense fibers. Villegas J, et al. **J Reprod Immunol** 1998 Oct;40(1):81–91

METABOLISM

Tctex2–related outer arm dynein light chain is phosphorylated at activation of sperm motility. Inaba K, et al. **Biochem Biophys Res Commun** 1999 Mar 5; 256(1):177–83

Hyperactivation of hamster sperm motility by temperature–dependent tyrosine phosphorylation of an 80–kDa protein. Si Y. **Biol Reprod** 1999 Jul;61(1):247–52

Spag4, a novel sperm protein, binds outer dense–fiber protein Odf1 and localizes to microtubules of manchette and axoneme. Shao X, et al. **Dev Biol** 1999 Jul 1;211(1):109–23

Rhophilin, a small GTPase Rho–binding protein, is abundantly expressed in the mouse testis and localized in the principal piece of the sperm tail. Nakamura K, et al. **FEBS Lett** 1999 Feb 19;445(1):9–13

Modulation of sperm tail protein tyrosine phosphorylation by pentoxifylline and its correlation with hyperactivated motility. Nassar A, et al. **Fertil Steril** 1999 May; 71(5):919–23

Identification of tethering domains for protein kinase A type Ialpha regulatory subunits on sperm fibrous sheath protein FSC1. Miki K, et al. **J Biol Chem** 1998 Dec 18; 273(51):34384–90

An X–linked gene encodes a major human sperm fibrous sheath protein, hAKAP82. Genomic organization, protein kinase A–RII binding, and distribution of the precursor in the sperm tail. Turner RM, et al. **J Biol Chem** 1998 Nov 27;273(48):32135–41

Mapping and cloning recombinant breakpoints demarcating the hybrid sterility 6–specific sperm tail assembly defect. Samant SA, et al. **Mamm Genome** 1999 Feb;10(2):88–94

Outer dense fibre proteins from human sperm tail: molecular cloning and expression analyses of two cDNA transcripts encoding proteins of approximately 70 kDa. Petersen C, et al. **Mol Hum Reprod** 1999 Jul;5(7):627–35

Mouse Odf2 cDNAs consist of evolutionary conserved as well as highly variable sequences and encode outer dense fiber proteins of the sperm tail. Hoyer–Fender S, et al. **Mol Reprod Dev** 1998 Oct;51(2):167–75

Regulation of microtubule sliding by a 36–kDa phosphoprotein in hamster sperm flagella. Si Y, et al. **Mol Reprod Dev** 1999 Mar;52(3):328–34

PATHOLOGY

Alterations in the mitochondria of rat spermatozoa after experimental hyperprolactinemia. Laszczyńska M, et al. **Folia Histochem Cytobiol** 1999;37(2):87–8

PHYSIOLOGY

Effects of vasoactive intestinal peptide on human sperm motility. Siow Y, et al. **Arch Androl** 1999 Jul–Aug; 43(1):67–71

Dynein–ADP as a force–generating intermediate revealed by a rapid reactivation of flagellar axoneme. Tani T, et al. **Biophys J** 1999 Sep;77(3):1518–27

Bending patterns of ATP–reactivated sea urchin sperm flagella following high salt extraction for removal of outer dynein arms. Brokaw CJ. **Cell Motil Cytoskeleton** 1999; 42(2):125–33

Computer simulation of flagellar movement: VII. Conventional but functionally different cross–bridge models for inner and outer arm dyneins can explain the effects of outer arm dynein removal. Brokaw CJ. **Cell Motil Cytoskeleton** 1999;42(2):134–48

Effects of the central pair apparatus on microtubule sliding velocity in sea urchin sperm flagella. Yoshimura M, et al. **Cell Struct Funct** 1999 Feb;24(1):43–54

Relevance of zinc in human sperm flagella and its relation to motility. Henkel R, et al. **Fertil Steril** 1999 Jun; 71(6):1138–43

SPERM TRANSPORT

Rat testis motor proteins associated with spermatid translocation (dynein) and spermatid flagella (kinesin–II). Miller MG, et al. **Biol Reprod** 1999 Apr;60(4):1047–56

Sperm migration into and through the oviduct following artificial insemination at different stages of the estrous cycle in the rat. Orihuela PA, et al. **Biol Reprod** 1999 Apr; 60(4):908–13

Sperm transport and storage in the agile antechinus (Antechinus agilis). Shimmin GA, et al. **Biol Reprod** 1999 Jun;60(6):1353–9

PHYSIOLOGY

Spermatid translocation in the rat seminiferous epithelium:

coupling membrane trafficking machinery to a junction plaque. Beach SF, et al. **Biol Reprod** 1999 Apr; 60(4):1036–46

Rat epididymal sperm quantity, quality, and transit time after guanethidine-induced sympathectomy. Kempinas WD, et al. **Biol Reprod** 1998 Oct;59(4):890–6

Sonographic evidence for the involvement of the utero-ovarian counter-current system in the ovarian control of directed uterine sperm transport. Kunz G, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):667–72

Sperm transport in the human female genital tract and its modulation by oxytocin as assessed by hysterosalpingoscintigraphy, hysterotonography, electrohysterography and Doppler sonography. Wildt L, et al. **Hum Reprod Update** 1998 Sep–Oct;4(5):655–66

Acrosome formation during sperm transit through the epididymis in two marsupials, the tammar wallaby (Macropus eugenii) and the brushtail possum (Trichosurus vulpecula). Lin M, et al. **J Anat** 1999 Feb;194 (Pt 2):223–32

Sperm transport in the reproductive tract of female zebra finches (Taeniopygia guttata). Birkhead TR, et al. **J Reprod Fertil** 1998 Sep;114(1):141–5

SPERM WHALE see **WHALES**

SPERM WHALES see **WHALES**

SPERMATIC CORD

Missed lipoma of the spermatic cord. A pitfall of transabdominal preperitoneal laparoscopic hernia repair. Gersin KS, et al. **Surg Endosc** 1999 Jun;13(6):585–7

[Two cases of giant testicular tumor with widespread extension to the spermatic cord: usefulness of upfront chemotherapy] Kin T, et al. **Hinyokika Kiyo** 1999 Mar; 45(3):191–4 (Eng. Abstr.) **(Jpn)**

[Liposarcoma of the spermatic cord: a report of a new case and a review of the literature] Soler Soler JL, et al. **Actas Urol Esp** 1999 May;23(5):447–54 (38 ref.) (Eng. Abstr.) **(Spa)**

BLOOD SUPPLY

Differential effects of superior and inferior spermatic nerves on testosterone secretion and spermatic blood flow in cats. Chiocchio SR, et al. **Endocrinology** 1999 Mar; 140(3):1036–43

Histologic evaluation of spermatic veins in patients with varicocele. Tanji N, et al. **Int J Urol** 1999 Jul;6(7):355–60

Incidence and pattern of varicocele recurrence after laparoscopic ligation of the internal spermatic vein with preservation of the testicular artery. Kattan S. **Scand J Urol Nephrol** 1998 Sep;32(5):335–40

Characterization of local tissue damage evoked by Bothrops jararaca venom in the rat connective tissue microcirculation: an intravital microscopic study. Farsky SH, et al. **Toxicon** 1999 Jul;37(7):1079–83

INJURIES

Inguinal hernia in the male child: where the latest skirmish line has formed [editorial; comment] Dehner LP. **Am J Surg Pathol** 1999 Aug;23(8):869–71. Comment on: Am J Surg Pathol 1999 Aug;23(8):880–5.

The incidence of spermatic cord structures in inguinal hernia sacs from male children [see comments] Steigman CK, et al. **Am J Surg Pathol** 1999 Aug;23(8):880–5. Comment in: Am J Surg Pathol 1999 Aug;23(8):869–71.

INNERVATION

Local infiltration and spermatic cord block for inguinal, scrotal and testicular surgery. Magoha GA. **East Afr Med J** 1998 Oct;75(10):579–81

Differential effects of superior and inferior spermatic nerves on testosterone secretion and spermatic blood flow in cats. Chiocchio SR, et al. **Endocrinology** 1999 Mar; 140(3):1036–43

PARASITOLOGY

Human Dirofilaria repens infection in Hungary: a case in the spermatic cord and a review of the literature. Pampiglione S, et al. **Acta Vet Hung** 1999;47(1):77–83

PATHOLOGY

Spermatic cord sarcoma in adults. Merimsky O, et al. **Acta Oncol** 1999;38(5):635–8

Isolated periarteritis nodosa of the spermatic cord presenting as a scrotal mass: report of a case. Kameyama K, et al. **Heart Vessels** 1998;13(3):152–4

Phaeochromocytoma of the spermatic cord. Young IE, et al. **J Clin Pathol** 1999 Apr;52(4):305–6

The effects of mesh bioprosthesis on the spermatic cord structures: a preliminary report in a canine model. Uzzo RG, et al. **J Urol** 1999 Apr;161(4):1344–9

[A nodule of the spermatic cord] Fermeaux V, et al. **Ann Pathol** 1999 Mar;19(1):51–2 **(Fre)**

SURGERY

Viability of an inguinal testis after laparoscopic cauterization and transection of its blood supply. Bergeron JA, et al. **J Am Vet Med Assoc** 1998 Nov 1;213(9):1303–4, 1280

ULTRASONOGRAPHY

Neuroblastoma with spermatic cord metastasis in a child: sonographic findings. Köseoğlu V, et al. **J Clin Ultrasound** 1999 Jun;27(5):287–9

Spiral twist of the spermatic cord: a reliable sign of testicular torsion. Baud C, et al. **Pediatr Radiol** 1998 Dec;28(12):950–4

SPERMATIC CORD TORSION

Diagnosis and treatment of the acute scrotum. Galejs LE. **Am Fam Physician** 1999 Feb 15;59(4):817–24 (15 ref.)

["Acute scrotum" caused by torsion of the hydatid of Morgagni] Pagano G, et al. **Minerva Chir** 1998 Jul–Aug; 53(7–8):663–6 (Eng. Abstr.) **(Ita)**

[Testicular torsion after 12 hours. III] Granados EA, et al. **Arch Esp Urol** 1998 Dec;51(10):978–81 (Eng. Abstr.) **(Spa)**

[Testicular torsion before 6 hours. I] Granados EA, et al. **Arch Esp Urol** 1998 Dec;51(10):971–4 (Eng. Abstr.) **(Spa)**

[Testicular torsion between 6 and 12 hours. II] Granados EA, et al. **Arch Esp Urol** 1998 Dec;51(10):975–7 (Eng. Abstr.) **(Spa)**

COMPLICATIONS

The effect of naloxone pretreatment before relieving testicular torsion. Vigueras RM, et al. **Proc West Pharmacol Soc** 1998;41:41–2

DIAGNOSIS

Intra-uterine testicular torsion: early diagnosis and treatment. Al-Salem AH. **BJU Int** 1999 Jun;83(9):1023–5

Testicular torsion: can the testicle be saved one week later? Barbalias GA, et al. **Int Urol Nephrol** 1999;31(2):247–51

Assessment of acute scrotal symptoms and findings. A clinician's dilemma. Hawtrey CE. **Urol Clin North Am** 1998 Nov;25(4):715–23, x (45 ref.)

[Torsion of the appendix testis] Chou YH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Jun; 15(6):322–5 (Eng. Abstr.) **(Chi)**

[Essential testodynia] Krarup T. **Ugeskr Laeger** 1998 Dec 14;160(51):7444–6 (Eng. Abstr.) **(Dan)**

[Torsion of the spermatic cord. Diagnosis, emergency treatment] Aubert D, et al. **Rev Prat** 1999 Feb 1; 49(3):327–31 **(Fre)**

[Clinical aspects of hydatid torsion. Diagnosis and therapy in 104 consecutive patients] Altinkilic BM, et al. **Urologe A** 1999 Jul;38(4):353–7 (Eng. Abstr.) **(Ger)**

[Testicular torsion is difficult to diagnose (letter)] Johansson G. **Lakartidningen** 1999 Mar 31;96(13):1556 **(Swe)**

[Torsion of the hydatid of Morgagni--a hereditary disease? The most common cause of acute scrotum in children] Skorpil M, et al. **Lakartidningen** 1999 Mar 17;96(11):1320–2 **(Swe)**

EMBRYOLOGY

Fusional anomalies of the testis and epididymis. Merksz M. **Acta Chir Hung** 1998;37(3–4):153–70 (56 ref.)

ETIOLOGY

Vascular hamartoma: another cause of testicular torsion in a newborn [letter] Bodas A, et al. **Acta Paediatr** 1998 Aug; 87(8):910

Testicular torsion after previous orchidopexy for undescended testis. Nesa S, et al. **Acta Urol Belg** 1998 Oct; 66(3):25–6

METABOLISM

Noradrenaline and nitrite-nitrate concentrations in the contralateral testes during ipsilateral spermatic cord torsion in the presence or absence of a testis and epididymis. Tanyel FC, et al. **BJU Int** 1999 May;83(7):833–6

NURSING

Emergency! Testicular torsion. A surgical emergency primarily affecting young men. Miller KM. **Am J Nurs** 1999 Jun;99(6):33

PATHOLOGY

Effect of unilateral testicular torsion on blood flow and histology of contralateral testes. Nguyen L, et al. **J Pediatr Surg** 1999 May;34(5):680–3

PHYSIOPATHOLOGY

DNA flow cytometry reveals depressed spermatogenetic activity in the contralateral testis within 24 h of ipsilateral spermatic cord torsion independently of the presence of the testis and epididymis. Salman AB, et al. **Eur Urol** 1998 Oct;34(4):377–81

New animal model to evaluate testicular blood flow during testicular torsion. Lievano G, et al. **J Pediatr Surg** 1999 Jun;34(6):1004–6

Effect of unilateral testicular torsion on blood flow and histology of contralateral testes. Nguyen L, et al. **J Pediatr Surg** 1999 May;34(5):680–3

SURGERY

Neonatal testicular torsion. Driver CP, et al. **Br J Urol** 1998 Dec;82(6):855–8 (47 ref.)

Division of the genitofemoral nerve and late orchiectomy: effects on the contralateral testis in ipsilateral testicular torsion. Tander B, et al. **Pediatr Surg Int** 1998 Nov; 14(1–2):14–6

THERAPY

Manual derotation of the twisted spermatic cord. Cornel EB, et al. **BJU Int** 1999 Apr;83(6):672–4

Testicular torsion: can the testicle be saved one week later? Barbalias GA, et al. **Int Urol Nephrol** 1999;31(2):247–51

ULTRASONOGRAPHY

Color and spectral doppler sonography of partial torsion of the spermatic cord. Sanelli PC, et al. **AJR Am J Roentgenol** 1999 Jan;172(1):49–51

Clinical and imaging features of testicular torsion: role of ultrasound. Sidhu PS. **Clin Radiol** 1999 Jun;54(6):343–52 (104 ref.)

Spiral twist of the spermatic cord: a reliable sign of testicular torsion. Baud C, et al. **Pediatr Radiol** 1998 Dec;28(12):950–4

Clinics in diagnostic imaging (33). Missed testicular torsion [published erratum appears in Singapore Med J 1999 Feb;40(2):73] Muttarak M, et al. **Singapore Med J** 1999 Jan;40(1):53–6

Color Doppler ultrasound evaluation of the acute scrotum. Galejs LE, et al. **Tech Urol** 1998 Dec;4(4):182–4

[Usefulness of ultrasonography in the diagnosis of torsion of Morgagni's hydatid: report of 4 cases] Parenti GC, et al. **Radiol Med (Torino)** 1998 Oct;96(4):408–9 **(Ita)**

SPERMATIDS

Successful pregnancy after spermatid injection. Bernabeu R, et al. **Hum Reprod** 1998 Jul;13(7):1898–900

Light and electron microscopic analysis of human testicular spermatozoa and spermatids from frozen and thawed testicular biopsies. Nogueira D, et al. **Hum Reprod** 1999 Aug;14(8):2041–9

Spermatid injection: reconsidering spermatid injection. Prapas Y, et al. **Hum Reprod** 1999 Sep;14(9):2186–8 (36 ref.)

Spermatid conception [letter; comment] Silber SJ, et al. **Hum Reprod** 1998 Oct;13(10):2976–9. Comment on: Hum Reprod 1998 Feb;13(2):255–8.

Is there a future for spermatid injections? Vanderzwalmen P, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:71–84 (48 ref.)

Can we justify spermatid microinjection for severe male factor infertility? Aslam I, et al. **Hum Reprod Update** 1998 May–Jun;4(3):213–22 (93 ref.)

Micro- and macro-consequences of ooplasmic injections of early haploid male gametes. Sofikitis N, et al. **Hum Reprod Update** 1998 May–Jun;4(3):197–212 (87 ref.)

Bypassing spermiogenesis for several generations does not have detrimental consequences on the fertility and neurobehavior of offspring: a study using the mouse. Tamashiro KL, et al. **J Assist Reprod Genet** 1999 Jul; 16(6):315–24

CHEMISTRY

Transition protein 4 from boar late spermatid nuclei is a topological factor that stimulates DNA-relaxing activity of topoisomerase I. Akama K, et al. **FEBS Lett** 1999 Jan 15;442(2–3):189–92

Co-localization of HP1 and TP1 transcripts in human spermatids by double electron microscopy in situ hybridization. Siffroi JP, et al. **Int J Androl** 1999 Apr; 22(2):83–90

Flagellar mitochondrial association of the male-specific Don Juan protein in Drosophila spermatozoa. Santel A, et al. **J Cell Sci** 1998 Nov;111 (Pt 22):3299–309

Expression of a zinc-binding domain of boar spermatidal transition protein 2 in Escherichia coli. Sato H, et al. **Protein Expr Purif** 1999 Aug;16(3):454–62

Immunoelectron microscopic visualization of intermediate basic proteins HPI1 and HPI2 in human spermatids and spermatozoa. Prigent Y, et al. **Reprod Nutr Dev** 1998 Jul–Aug;38(4):417–27

CYTOLOGY

In-vitro maturation of round spermatids using co-culture on Vero cells. Cremades N, et al. **Hum Reprod** 1999 May; 14(5):1287–93

Flow cytometric method to isolate round spermatids from mouse testis. Lassalle B, et al. **Hum Reprod** 1999 Feb; 14(2):388–94

Difficulties in distinguishing between a mature spermatid and a testicular spermatozoon [letter; comment] Lewis SE, et al. **Hum Reprod** 1998 Oct;13(10):2979–80. Comment on: Hum Reprod 1998 Jan;13(1):104–10.

DRUG EFFECTS

Spermatids of prepubertal male rats are susceptible to carbendazim during early spermiogenesis. Nakai M, et al. **Arch Histol Cytol** 1998 Dec;61(5):433–7

Differentiation of spermatogenic cells during in-vitro culture of testicular biopsy samples from patients with obstructive azoospermia: effect of recombinant follicle stimulating hormone. Tesarik J, et al. **Hum Reprod** 1998 Oct; 13(10):2772–81

The fungicide carbendazim induces meiotic micronuclei in the spermatids of the rat testis. Matsuo F, et al. **J Vet Med Sci** 1999 May;61(5):573–6

ENZYMOLOGY

Identification and characterization of a haploid germ cell–specific nuclear protein kinase (Haspin) in spermatid nuclei and its effects on somatic cells. Tanaka H, et al. **J Biol Chem** 1999 Jun 11;274(24):17049–57

METABOLISM

Intracellular Ca2+ homeostasis in rat round spermatids. Berrios J, et al. **Biol Cell** 1998 Sep;90(5):391–8

Flow cytometry isolation and reverse transcriptase-polymerase chain reaction characterization of human round spermatids in infertile patients. Ziyyat A, et al. **Hum Reprod** 1999 Feb;14(2):379–87

Follicle-stimulating hormone and testosterone stimulation of immature and mature Sertoli cells in vitro: inhibin and N-cadherin levels and round spermatid binding. Lampa J, et al. **J Androl** 1999 May–Jun;20(3):399–406

Genomic structure of the spermatid-specific hsp70 homolog gene located in the class III region of the major histocompatibility complex of mouse and man. Ito Y, et al. **J Biochem (Tokyo)** 1998 Aug;124(2):347–53

Expression of the spermatid-specific Hsp70 antigen is conserved in mammals including marsupials. Tsunekawa N, et al. **J Vet Med Sci** 1999 Apr;61(4):381–8

Sequence-independent assembly of spermatid mRNAs into messenger ribonucleoprotein particles. Schmidt EE, et al. **Mol Cell Biol** 1999 May;19(5):3904–15

Two distinct forms of the 64,000 Mr protein of the cleavage stimulation factor are expressed in mouse male germ cells. Wallace AM, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6763–8

Expression of a zinc-binding domain of boar spermatidal transition protein 2 in Escherichia coli. Sato H, et al. **Protein Expr Purif** 1999 Aug;16(3):454–62

Fate of microinjected spermatid mitochondria in the mouse oocyte and embryo. Cummins JM, et al. **Zygote** 1998 Aug; 6(3):213–22

PATHOLOGY

Correlation of testicular pathology and sperm extraction in azoospermic men with ejaculated spermatids detected by immunofluorescent localization. Ezeh UI, et al. **Hum Reprod** 1998 Nov;13(11):3061–5

Influence of the male reproductive tract on the reproductive potential of round spermatids abnormally released from the seminiferous epithelium. Sofikitis N, et al. **Hum Reprod** 1999 Aug;14(8):1998–2006

Differentiation of spermatogenic cells during in-vitro culture of testicular biopsy samples from patients with obstructive azoospermia: effect of recombinant follicle stimulating hormone. Tesarik J, et al. **Hum Reprod** 1998 Oct; 13(10):2772–81

Simple and reliable identification of the human round spermatid by inverted phase-contrast microscopy. Verheyen G, et al. **Hum Reprod** 1998 Jun;13(6):1570–7

Flow cytometry isolation and reverse transcriptase-polymerase chain reaction characterization of human round spermatids in infertile patients. Ziyyat A, et al. **Hum Reprod** 1999 Feb;14(2):379–87

PHYSIOLOGY

Transcriptional and translational regulation of gene expression in haploid spermatids. Steger K. **Anat Embryol (Berl)** 1999 Jun;199(6):471–87 (174 ref.)

Round spermatid transfer and embryo development. Sasagawa I, et al. **Arch Androl** 1998 Nov–Dec;41(3):151–7 (32 ref.)

Spermatid translocation in the rat seminiferous epithelium: coupling membrane trafficking machinery to a junction plaque. Beach SF, et al. **Biol Reprod** 1999 Apr; 60(4):1036–46

Rat testis motor proteins associated with spermatid translocation (dynein) and spermatid flagella (kinesin-II). Miller MG, et al. **Biol Reprod** 1999 Apr;60(4):1047–56

A novel testicular haploid expressed gene (THEG) involved in mouse spermatid-sertoli cell interaction. Nayernia K, et al. **Biol Reprod** 1999 Jun;60(6):1488–95

Birth of a healthy infant after conception with round spermatids isolated from cryopreserved testicular tissue. Gianaroli L, et al. **Fertil Steril** 1999 Sep;72(3):539–41

Evaluation of the fertilization potential of freshly isolated, in-vitro cultured and cryopreserved human spermatids by injection into hamster oocytes. Aslam I, et al. **Hum Reprod** 1999 Jun;14(6):1528–33

Reproductive capacity of round spermatids compared with mature spermatozoa in a population of azoospermic men. Ghazzawi IM, et al. **Hum Reprod** 1999 Mar;14(3):736–40

Difficulties in distinguishing between a mature spermatid and testicular spermatozoon [letter; comment] Mansour RT, et al. **Hum Reprod** i999 Jan;14(1):267–8. Comment on: Hum Reprod 1998 Jan;13(1):104–10.

Round spermatids from hybrid sterile mice can initiate normal embryo development. Sasagawa I, et al. **Hum Reprod** 1998 Nov;13(11):3099–102

Status of genomic imprinting in mouse spermatids. Shamanski FL, et al. **Hum Reprod** 1999 Apr;14(4):1050–6

Clinical efficacy of spermatid conception: analysis using a new spermatid classification scheme. Sousa M, et al. **Hum Reprod** 1999 May;14(5):1279–86

Spermatids as gametes: indications and limitations. Tesarik J, et al. **Hum Reprod** 1998 Jun;13 Suppl 3:89–107; discussion 108–11 (84 ref.)

The degenerative fate of germ cells not conforming to stage in the pubertal golden hamster testis. Miething A. **J Anat** 1998 Nov;193 (Pt 4):519–27

DNA damage in round spermatids of mice with a targeted disruption of the Pp1cgamma gene and in testicular biopsies of patients with non-obstructive azoospermia. Jurisicova A, et al. **Mol Hum Reprod** 1999 Apr;5(4):323–30

Fertilization, embryonic development, and offspring from mouse eggs injected with round spermatids combined with Ca2+ oscillation–inducing sperm factor. Sakurai A, et al. **Mol Hum Reprod** 1999 Feb;5(2):132–8

The Hsp70 homolog gene, Hsc70t, is expressed under translational control during mouse spermiogenesis. Tsunekawa N, et al. **Mol Reprod Dev** 1999 Apr; 52(4):383–91

ULTRASTRUCTURE

Difficulties in distinguishing between a mature spermatid and testicular spermatozoon [letter; comment] Mansour RT, et al. **Hum Reprod** 1999 Jan;14(1):267–8. Comment on: Hum Reprod 1998 Jan;13(1):104–10.

Mouse spermatid nuclei can support full term development after premature chromosome condensation within mature oocytes. Ogura A, et al. **Hum Reprod** 1999 May; 14(5):1294–8

On-stage selection of single round spermatids using a vital, mitochondrion-specific fluorescent probe MitoTracker(TM) and high resolution differential interference contrast microscopy. Sutovsky P, et al. **Hum Reprod** 1999 Sep;14(9):2301–12

Ooplasmic injections of rabbit round spermatid nuclei or intact round spermatids from fresh, cryopreserved and cryostored samples. Yamamoto Y, et al. **Hum Reprod** 1999 Jun;14(6):1506–15

Successful metaphase chromosome analysis of human elongated spermatids using mouse oocytes. Araki Y, et al. **Mol Hum Reprod** 1999 Aug;5(8):784–7

Structural and biochemical features of fractionated spermatid manchettes and sperm axonemes of the azh/azh mutant mouse. Mochida K, et al. **Mol Reprod Dev** 1999 Apr; 52(4):434–44

SPERMATOBLASTS see **SPERMATIDS**

SPERMATOCELE

DIAGNOSIS

Pronounced cystic transformation of the Rete testis. MRI appearance. Meyer DR, et al. **Invest Radiol** 1999 Sep; 34(9):600–3

[Tubular ectasia of the rete testis as cystic space-occupying lesion of the testis--magnetic resonance tomography aspects in 5 cases] Hüppe T, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):594–7 **(Ger)**

PATHOLOGY

Degeneration of the seminiferous epithelium with ageing is a cause of spermatoceles? Itoh M, et al. **Int J Androl** 1999 Apr;22(2):91–6

[Calcified spermatocele simulating a neoplasm] Medina Pérez M, et al. **Arch Esp Urol** 1998 Sep;51(7):725–6 (Eng. Abstr.) **(Spa)**

VETERINARY

Spermatic granuloma in the ram: diagnosis by ultrasonography and semen characteristics. Karaca F, et al. **Vet Radiol Ultrasound** 1999 Jul–Aug;40(4):402–6

SPERMATOCIDAL AGENTS

The protective effect of condoms and nonoxynol-9 against HIV infection: a response to Wittkowski and colleagues [letter; comment] Feldblum PJ, et al. **Am J Public Health** 1999 Jan;89(1):108–10. Comment on: Am J Public Health 1998 Apr;88(4):590–6.

ADMINISTRATION & DOSAGE

Vaginal viricides-another way to tackle HIV transmission. Berger A. **BMJ** 1998 Oct 17;317(7165):1053

Dose-response effects of gramicidin-D, EDTA, and nonoxynol-9 on sperm motion parameters and acrosome status. Centola GM. **Contraception** 1998 Jul;58(1):35–8

Contraceptive effectiveness of two spermicides: a randomized trial. Raymond E, et al. **Obstet Gynecol** 1999 Jun; 93(6):896–903

Novel vaginal controlled-delivery systems incorporating coprecipitates of nonoxynol-9. Digenis GA, et al. **Pharm Dev Technol** 1999 Aug;4(3):421–30

ADVERSE EFFECTS

Effects of multiple applications of benzalkonium chloride and nonoxynol 9 on the vaginal epithelium in the pigtailed macaque (Macaca nemestrina). Patton DL, et al. **Am J Obstet Gynecol** 1999 May;180(5):1080–7

Urinary tract infections and condoms [letter; comment] Stein ZA. **Epidemiology** 1998 Sep;9(5):582–3. Comment on: Epidemiology 1997 Nov;8(6):612–4. Comment on: Epidemiology 1997 Nov;8(6):637–41.

ANALYSIS

Electrospray and MALDI mass spectrometry in the identification of spermicides in criminal investigations. Hollenbeck TP, et al. **J Forensic Sci** 1999 Jul;44(4):783–8

CHEMISTRY

Spermicidal activity of oxovanadium(IV) complexes of 1, 10-phenanthroline, 2,2'-bipyridyl, 5'-bromo-2'-hydroxyacetophenone and derivatives in humans. D'Cruz OJ, et al. **Biol Reprod** 1999 Feb; 60(2):435–44

Structural and functional characterization of seven spermicidal vanadium(IV) complexes: potentiation of activity by methyl substitution on the cyclopentadienyl rings. Ghosh P, et al. **J Inorg Biochem** 1999 Jun 15; 75(2):135–43

Structural and biological characterization of a novel spermicidal vanadium(IV) complex: bis(pi-cyclopentadienyl)-N,N-diethyl dithiocarbamato vanadium(IV) tetrafluoro borate, [VCp2(DeDtc)](BF4). Ghosh P, et al. **J Inorg Biochem** 1998 Oct;72(1–2):89–98

PHARMACOKINETICS

Duration of vaginal retention and potential duration of antiviral activity for five nonoxynol-9 containing intravaginal contraceptives. Witter FR, et al. **Int J Gynaecol Obstet** 1999 May;65(2):165–70

Factors influencing nonoxynol-9 permeation and bioactivity in cervical mucus. Owen DH, et al. **J Controlled Release** 1999 Jun 28;60(1):23–34

PHARMACOLOGY

Women's preferences regarding the formulation of over-the-counter vaginal spermicides [letter] Coggins C, et al. **AIDS** 1998 Jul 30;12(11):1389–91

Spermicidal activity of oxovanadium(IV) complexes of 1, 10-phenanthroline, 2,2'-bipyridyl, 5'-bromo-2'-hydroxyacetophenone and derivatives in humans. D'Cruz OJ, et al. **Biol Reprod** 1999 Feb; 60(2):435–44

Novel derivatives of phenethyl-5-bromopyridylthiourea and dihydroalkoxybenzyloxopyrimidine are dual-function spermicides with potent anti-human immunodeficiency virus activity. D'Cruz OJ, et al. **Biol Reprod** 1999 Jun; 60(6):1419–28

Effect of amino acids on inhibition of lactate dehydrogenase-X by gossypol. Javed MH, et al. **Exp Mol Med** 1999 Mar 31;31(1):25–9

Effect of potash alum (aluminium potassium sulphate) on human semen and sperm. Singh HP, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):311–4

The effects of three nonoxynol-9 preparations on vaginal flora and epithelium. Watts DH, et al. **J Infect Dis** 1999 Aug;180(2):426–37

Structural and functional characterization of seven spermicidal vanadium(IV) complexes: potentiation of activity by methyl substitution on the cyclopentadienyl rings. Ghosh P, et al. **J Inorg Biochem** 1999 Jun 15; 75(2):135–43

Synthesis, characterization and preclinical formulation of a dual-action phenyl phosphate derivative of bromo-methoxy zidovudine (compound WHI-07) with potent anti-HIV and spermicidal activities. D'Cruz OJ, et al. **Mol Hum Reprod** 1999 May;5(5):421–32

Spermicidal activity of chelated complexes of bis(cyclopentadienyl)vanadium(IV). Di Cruz OJ, et al. **Mol Hum Reprod** 1998 Jul;4(7):683–93

Carrageenan-based nonoxynol-9 spermicides for prevention of sexually transmitted infections. Maguire RA, et al. **Sex Transm Dis** 1998 Oct;25(9):494–500

STANDARDS

Measuring true contraceptive efficacy. A randomized approach--condom vs. spermicide vs. no method. Steiner MJ, et al. **Contraception** 1998 Dec;58(6):375–8

THERAPEUTIC USE

Views of Cameroonian sex workers on a woman-controlled method of contraception and disease protection. Visness CM, et al. **Int J STD AIDS** 1998 Nov;9(11):695–9

Prospective study of barrier contraception for the prevention of sexually transmitted diseases: study design and general characteristics of the study group. Macaluso M, et al. **Sex Transm Dis** 1999 Mar;26(3):127–36

SPERMATOCYTES

see related

SPERM MATURATION

Micromanipulation of chromosomes and spindles in insect spermatocytes. Zhang D, et al. **Methods Cell Biol** 1999; 61:209–18 (18 ref.)

SPERMATOCYTES

CHEMISTRY

Squash procedure for protein immunolocalization in meiotic cells. Page J, et al. **Chromosome Res** 1998 Dec;6(8):639–42

[Immunolocalization of actin in synaptonemal complexes in spermatocytes of Mesocricetus auratus] Wang Y, et al. **I Chuan Hsueh Pao** 1999;26(2):150–6 (Eng. Abstr.) **(Chi)**

CYTOLOGY

Metaphase-specific cell death in meiotic spermatocytes in mice. Kon Y, et al. **Cell Tissue Res** 1999 May;296(2):359–69

Genetic and molecular characterization of sting, a gene involved in crystal formation and meiotic drive in the male germ line of Drosophila melanogaster. Schmidt A, et al. **Genetics** 1999 Feb;151(2):749–60

Tension-sensitive kinetochore phosphorylation in vitro. Nicklas RB, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3189–96

The Des-1 protein, required for central spindle assembly and cytokinesis, is associated with mitochondria along the meiotic spindle apparatus and with the contractile ring during male meiosis in Drosophila melanogaster. Basu J, et al. **Mol Gen Genet** 1998 Oct;259(6):664–73

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291–4

DRUG EFFECTS

IGF-I, IGF-II and insulin promote differentiation of spermatogonia to primary spermatocytes in organ culture of newt testes. Nakayama Y, et al. **Int J Dev Biol** 1999 Jul;43(4):343–7

Meiotic activation of rat pachytene spermatocytes with okadaic acid: the behaviour of synaptonemal complex components SYN1/SCP1 and COR1/SCP3. Tarsounas M, et al. **J Cell Sci** 1999 Feb;112 (Pt 4):423–34

Spermicidal activity of chelated complexes of bis(cyclopentadienyl)vanadium(IV). Di Cruz OJ, et al. **Mol Hum Reprod** 1998 Jul;4(7):683–93

Colchicine effects on meiosis in the male mouse. II. Inhibition of synapsis and induction of nondisjunction. Tepperberg JH, et al. **Mutat Res** 1999 Aug 11;429(1):93–105

Influence of teniposide (VM-26) on radiation-induced damage to mouse spermatogenesis: a flow cytometric evaluation. Jyothi P, et al. **Reprod Toxicol** 1998 Nov-Dec; 12(6):601–11

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291–4

ENZYMOLOGY

A novel 14-base-pair regulatory element is essential for in vivo expression of murine beta4-galactosyltransferase-I in late pachytene spermatocytes and round spermatids. Charron M, et al. **Mol Cell Biol** 1999 Aug;19(8):5823–32

GROWTH & DEVELOPMENT

FSH-initiated differentiation of newt spermatogonia to primary spermatocytes in germ-somatic cell reaggregates cultured within a collagen matrix. Ito R, et al. **Int J Dev Biol** 1999 Mar;43(2):111–6

METABOLISM

Specific expression of the mRNA for 25 kDA heat-shock protein in the spermatocytes of mouse seminiferous tubules. Wakayama T, et al. **Anat Embryol (Berl)** 1999 May; 199(5):419–25

Chromosome movement during meiotic prophase in crane-fly spermatocytes: IV. Actin and the effects of cytochalasin D. LaFountain JR Jr, et al. **Cell Motil Cytoskeleton** 1999;43(3):199–212

RADHA--a new male germ line-specific chromosomal protein of Drosophila. Harhangi HR, et al. **Chromosoma** 1999 Aug;108(4):235–42

Meiotic segregation analysis by FISH investigations in sperm and spermatocytes of translocation heterozygotes [letter] Armstrong SJ, et al. **Eur J Hum Genet** 1998 Sep-Oct; 6(5):430–1

The murine nuclear orphan receptor GCNF is expressed in the XY body of primary spermatocytes. Bauer UM, et al. **FEBS Lett** 1998 Nov 20;439(3):208–14

Bloom's syndrome protein, BLM, colocalizes with replication protein A in meiotic prophase nuclei of mammalian spermatocytes. Walpita D, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5622–7

PATHOLOGY

Chromosomal constitution of human spermatocytic seminomas: comparative genomic hybridization supported by conventional and interphase cytogenetics. Rosenberg C, et al. **Genes Chromosomes Cancer** 1998 Dec;23(4):286–91

Role of class B scavenger receptor type I in phagocytosis of apoptotic rat spermatogenic cells by Sertoli cells. Shiratsuchi A, et al. **J Biol Chem** 1999 Feb 26;274(9):5901–8

Germ-cell degeneration in experimental unilateral cryptorchidism: role of apoptosis. Wang ZQ, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):9–13

PHYSIOLOGY

Factors affecting meiotic and developmental competence of primary spermatocyte nuclei injected into mouse oocytes. Kimura Y, et al. **Biol Reprod** 1998 Oct;59(4):871–7

Cloning of TCFL5 encoding a novel human basic helix-loop-helix motif protein that is specifically expressed in primary spermatocytes at the pachytene stage. Maruyama O, et al. **Cytogenet Cell Genet** 1998;82(1-2):41–5

Acquisition of competence to condense metaphase I chromosomes during spermatogenesis. Cobb J, et al. **Dev Biol** 1999 Jan 1;205(1):49–64

Atm deficiency results in severe meiotic disruption as early as leptonema of prophase I. Barlow C, et al. **Development** 1998 Oct;125(20):4007–17

Different roles of prepubertal and postpubertal germ cells and Sertoli cells in the regulation of serum inhibin B levels. Andersson AM, et al. **J Clin Endocrinol Metab** 1998 Dec; 83(12):4451–8

Cre expression in primary spermatocytes: a tool for genetic engineering of the germ line. Vidal F, et al. **Mol Reprod Dev** 1998 Nov;51(3):274–80

RADIATION EFFECTS

Possible carcinogenic effects of X-rays in a transgenerational study with CBA mice. Mohr U, et al. **Carcinogenesis** 1999 Feb;20(2):325–32

ULTRASTRUCTURE

The synaptic process in Locusta migratoria spermatocytes by synaptonemal complex analysis. Molina J, et al. **Histol Histopathol** 1998 Oct;13(4):949–54

Architecture of the nuclear periphery of rat pachytene spermatocytes: distribution of nuclear envelope proteins in relation to synaptonemal complex attachment sites. Alsheimer M, et al. **Mol Biol Cell** 1999 Apr;10(4):1235–45

SPERMATOCYTOGENESIS see **SPERMATOGENESIS**

SPERMATOGENESIS

see related
ANTISPERMATOGENIC AGENTS
SPERMATOGENESIS-BLOCKING AGENTS

Protective mechanisms in germ cells: stress proteins in spermatogenesis. Dix DJ, et al. **Adv Exp Med Biol** 1998; 444:137–43; discussion 143–4 (28 ref.)

Proceedings of a workshop on molecular andrology. Giessen, Germany, May 5–6, 1997. **Andrologia** 1998 Aug-Sep; 30(4–5):171–307

Calculation of spermatogenic transformations based on dual-flow cytometric analysis of testicular tissue in seasonal breeders. Blottner S, et al. **Andrologia** 1998 Nov;30(6):331–7

Serum levels of inhibin B in men with different causes of spermatogenic failure. Bohring C, et al. **Andrologia** 1999 May;31(3):137–41

Photoperiodic effects on pubertal maturation of spermatogenesis, pituitary responsiveness to exogenous GnRH, and expression of boar taint in crossbred boars. Andersson H, et al. **Anim Reprod Sci** 1998 Dec 31; 54(2):121–37

Expression and phosphorylation of mitogen-activated protein kinases during spermatogenesis and epididymal sperm maturation in mice. Lu Q, et al. **Arch Androl** 1999 Jul-Aug; 43(1):55–66

Stage-specific localization of basigin, a member of the immunoglobulin superfamily, during mouse spermatogenesis. Maekawa M, et al. **Arch Histol Cytol** 1998 Dec;61(5):405–15

Spermatids of prepubertal male rats are susceptible to carbendazim during early spermiogenesis. Nakai M, et al. **Arch Histol Cytol** 1998 Dec;61(5):433–7

Molecular cloning of a centrin homolog from Marsilea vestita and evidence for its translational control during spermiogenesis. Hart PE, et al. **Biochem Cell Biol** 1999; 77(2):101–8

Expression and possible role of muscle-type carnitine palmitoyltransferase I during sperm development in the rat. Adams SH, et al. **Biol Reprod** 1998 Dec;59(6):1399–405

Effect of long-term immunization against inhibin on sperm output in bulls. Bame JH, et al. **Biol Reprod** 1999 Jun; 60(6):1360–6

Identification of a nuclear localization signal in activin/inhibin betaA subunit; intranuclear betaA in rat spermatogenic cells. Bläuer M, et al. **Biol Reprod** 1999 Mar; 60(3):588–93

Effects of spinal cord injury on spermatogenesis and the expression of messenger ribonucleic acid for sertoli cell proteins in rat Sertoli cell-enriched testes. Huang HF, et al. **Biol Reprod** 1999 Mar;60(3):635–41

Xenogeneic spermatogenesis following transplantation of hamster germ cells to mouse testes. Ogawa T, et al. **Biol Reprod** 1999 Feb;60(2):515–21

Recovery of spermatogenesis following bone marrow transplantation. Jacob A, et al. **Bone Marrow Transplant** 1998 Aug;22(3):277–9

hMSH5: a human MutS homologue that forms a novel heterodimer with hMSH4 and is expressed during spermatogenesis. Bocker T, et al. **Cancer Res** 1999 Feb 15; 59(4):816–22

Spermatogonial stem cells. de Rooij DG, et al. **Curr Opin Cell Biol** 1998 Dec;10(6):694–701 (67 ref.)

Biphasic subcellular localization of the DAZL-related protein boule in Drosophila spermatogenesis. Cheng MH, et al. **Dev Biol** 1998 Dec 15;204(2):567–76

Stage-specific expression of the Kit receptor and its ligand (KL) during male gametogenesis in the mouse: a Kit-KL interaction critical for meiosis. Vincent S, et al. **Development** 1998 Nov;125(22):4585–93

Type 4 cyclic adenosine monophosphate-specific phosphodiesterases are expressed in discrete subcellular compartments during rat spermiogenesis. Salanova M, et al. **Endocrinology** 1999 May;140(5):2297–306

Developmentally regulated expression of cyclin D3 and its potential in vivo interacting proteins during murine gametogenesis. Zhang Q, et al. **Endocrinology** 1999 Jun; 140(6):2790–800

Inhalation of diesel engine exhaust affects spermatogenesis in growing male rats. Watanabe N, et al. **Environ Health Perspect** 1999 Jul;107(7):539–44

The effect of testicular seminoma in semen quality. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1999 Apr; 83(2):219–22

Differential expression of gap-junction gene connexin 31 in seminiferous epithelium of rat testes. Mok BW, et al. **FEBS Lett** 1999 Jun 25;453(3):243–8

Microdeletion of the DAZ (deleted in azoospermia) gene or the YRRM (Y chromosome ribonucleic acid recognition motif) gene does not occur in patients with Klinefelter's syndrome with and without spermatogenesis. Tateno T, et al. **Fertil Steril** 1999 Apr;71(4):746–9

TESE and the distribution of spermatogenesis in the testicles of azoospermic men [letter; comment] Balet R, et al. **Hum Reprod** 1998 Jul;13(7):2034–5. Comment on: Hum Reprod 1997 Nov;12(11):2422–8.

Anti-Müllerian hormone as a seminal marker for spermatogenesis in non-obstructive azoospermia. Fénichel P, et al. **Hum Reprod** 1999 Aug;14(8):2020–4

Efficacy and safety of recombinant human follicle stimulating hormone (Gonal-F) with urinary human chorionic gonadotrophin for induction of spermatogenesis and fertility in gonadotrophin-deficient men. Liu PY, et al. **Hum Reprod** 1999 Jun;14(6):1540–5

The effect of industrial and agricultural pollution on human spermatogenesis. Spira A, et al. **Hum Reprod** 1998 Aug; 13(8):2041–2 (17 ref.)

The spermatogenic cycle in the silver fox (Vulpes vulpes): frequency of the different stages prior to and during the breeding season. Berg KA, et al. **Int J Androl** 1998 Dec; 21(6):377–82

Stem cells in the testis. de Rooij DG. **Int J Exp Pathol** 1998 Apr;79(2):67–80 (97 ref.)

Ultrastructure of spermiogenesis of Dipylidium caninum (Cestoda, Cyclophyllidea, Dipylidiidae), an intestinal parasite of Canis familiaris. Miquel J, et al. **Int J Parasitol** 1998 Sep;28(9):1453–8

Spermatogenesis in early and chronic phases of experimental spinal cord injury in the rodent model. Hirsch IH, et al. **J Androl** 1999 Jan-Feb;20(1):63–71

Selective expression of a glutathione S-transferase subclass during spermatogenesis. Rowe JD, et al. **J Androl** 1998 Sep-Oct;19(5):558–67

Serum inhibin B in combination with serum follicle-stimulating hormone (FSH) is a more sensitive marker than serum FSH alone for impaired spermatogenesis in men, but cannot predict the presence of sperm in testicular tissue samples. von Eckardstein S, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2496–501

The mouse gene encoding the testis-specific isoform of Poly(A) binding protein (Pabp2) is an expressed retroposon: intimations that gene expression in spermatogenic cells facilitates the creation of new genes. Kleene KC, et al. **J Mol Evol** 1998 Sep;47(3):275–81

Regulating the balance between differentiation and apoptosis: role of CREM in the male germ cells. Sassone-Corsi P. **J Mol Med** 1998 Nov-Dec;76(12):811–7 (34 ref.)

Spermiogenesis in phytophagous bug (Hemiptera, Pentatomidae): an ultrastructural study. Fernandes AP, et al. **J Submicrosc Cytol Pathol** 1998 Oct;30(4):485–93

In-vitro spermatogenesis [letter; comment] Foresta C, et al. **Lancet** 1999 May 15;353(9165):1707–8. Comment on: Lancet 1999 FEb 13;353(9152):555–6.

Science versus clinical adventurism in treatment of azoospermia [comment] Steele EK, et al. **Lancet** 1999 Feb 13;353(9152):516–7. Comment on: Lancet 1999 Feb 13;353(9152):555–6.

Restoration of fertility by in-vitro spermatogenesis [letter] [see comments] Tesarik J, et al. **Lancet** 1999 Feb 13; 353(9152):555–6. Comment in: Lancet 1999 Feb 13;353(9152):516–7. Comment in: Lancet 1999 May 15;353(9165):1707–8.

Expression of mRNA and protein of nucleoproteins during human spermiogenesis. Steger K, et al. **Mol Hum Reprod** 1998 Oct;4(10):939–45

Germ cell apoptosis in men with complete and incomplete spermiogenesis failure. Tesarik J, et al. **Mol Hum Reprod** 1998 Aug;4(8):757–62

Post-meiotic expression of the mouse dihydropyrimidinase-related protein 3 (DRP-3) gene during spermiogenesis. Kato Y, et al. **Mol Reprod Dev** 1998 Sep;51(1):105–11

A novel stage-specific antigen is expressed only in early stages of spermatogonia in Japanese eel, Anguilla japonica testis. Kobayashi T, et al. **Mol Reprod Dev** 1998 Dec; 51(4):355–61

Dual function of the selenoprotein PHGPx during sperm maturation [see comments] Ursini F, et al. **Science** 1999

Aug 27;285(5432):1393–6. Comment in: Science 1999 Aug 27;285(5432):1339.

Development of germ cell transplants: morphometric and ultrastructural studies. Parreira GG, et al. **Tissue Cell** 1999 Jun;31(3):242–54

Exposure to constant light during testis development increases daily sperm production in adult Wistar rats. Rocha DC, et al. **Tissue Cell** 1999 Jun;31(3):372–9

Restoration of spermatogenesis after scrotal replacement of experimentally cryptorchid rat testis: assessment of germ cell apoptosis and eNOS expression. Zini A, et al. **Urology** 1999 Jan;53(1):223–7

Localisation of inositol trisphosphate and ryanodine receptors during mouse spermatogenesis: possible functional implications. Treviño CL, et al. **Zygote** 1998 May; 6(2):159–72

[Serum inhibin B as a marker of spermatogenesis] Andersson AM, et al. **Ugeskr Laeger** 1999 Jan 4;161(1):51 **(Dan)**

[Follicle-stimulating hormone in azoospermia in prediction of spermatogenic patterns] Weiss DB, et al. **Harefuah** 1998 Sep;135(5–6):169–75, 256 (Eng. Abstr.) **(Heb)**

[Histological analysis of the testis of Apodemus sylvaticus and Clethrionomys rutilus living in radioactively contaminated areas] Mamina VP. **Radiats Biol Radioecol** 1998 Nov–Dec;38(6):813–8 (Eng. Abstr.) **(Rus)**

[Effect of induced diabetes on reproduction and development] Palomino Garibay MA, et al. **Ginecol Obstet Mex** 1998 Oct;66:403–6 (Eng. Abstr.) **(Spa)**

DRUG EFFECTS

Flow cytometry as a tool for the evaluation of testicular toxicity. Bobadilla M, et al. **Adv Exp Med Biol** 1998; 444:73–6; discussion 76–8

Sterological estimation of seminiferous tubular dysfunction in chloroquine treated rats. Okanlawon AO, et al. **Afr J Med Med Sci** 1998 Mar–Jun;27(1–2):101–6

Neonatal exposure of male rats to estradiol benzoate causes rete testis dilation and backflow impairment of spermatogenesis. Aceitero J, et al. **Anat Rec** 1998 Sep; 252(1):17–33

Improvement of spermatogenesis in adult cryptorchid rat testis by intratesticular infusion of lactate. Courtens JL, et al. **Biol Reprod** 1999 Jul;61(1):154–61

The effect of streptomycin, oxytetracycline, tilmicosin and phenylbutazone on spermatogenesis in bulls. Barth AD, et al. **Can Vet J** 1998 Feb;39(2):103–6

Hormonal treatment after cytotoxic therapy stimulates recovery of spermatogenesis. Meistrich ML, et al. **Cancer Res** 1999 Aug 1;59(15):3557–60

Carbendazim-induced abnormal development of the acrosome during early phases of spermiogenesis in the rat testis. Nakai M, et al. **Cell Tissue Res** 1998 Oct; 294(1):145–52

Antispermatogenic effect of Achillea millefolium L. in mice. Montanari T, et al. **Contraception** 1998 Nov;58(5):309–13

Lithium-induced alterations in the testis of the male roseringed parakeet (Psittacula krameri) : evidence for significant structural changes and disruption in the spermatogenetic activity. Banerji TK, et al. **Endocr Res** 1999 Feb;25(1):35–49

Spermatogenesis without gonadotropins: maintenance has a lower testosterone threshold than initiation. Handelsman DJ, et al. **Endocrinology** 1999 Sep;140(9):3938–46

The detrimental effects of spinal cord injury on spermatogenesis in the rat is partially reversed by testosterone, but enhanced by follicle-stimulating hormone. Huang HF, et al. **Endocrinology** 1999 Mar;140(3):1349–55

The effect of chronic treatment with GH on gonadal function in men with isolated GH deficiency. Carani C, et al. **Eur J Endocrinol** 1999 Mar;140(3):224–30

Lack of effects of recombinant human GH on spermatogenesis in the adult cynomolgus monkey (Macaca fascicularis). Sjögren I, et al. **Eur J Endocrinol** 1999 Apr; 140(4):350–7

Effect of FSH on spermiogenesis? [letter; comment] Tesarik J, et al. **Fertil Steril** 1998 Nov;70(5):983–4. Comment on: Fertil Steril 1998 Apr;69(4):636–42.

Testing the potential of sodium fluoride to affect spermatogenesis: a morphometric study. Sprando RL, et al. **Food Chem Toxicol** 1998 Dec;36(12):1117–24

Differentiation of spermatogenic cells during in-vitro culture of testicular biopsy samples from patients with obstructive azoospermia: effect of recombinant follicle stimulating hormone. Tesarik J, et al. **Hum Reprod** 1998 Oct; 13(10):2772–81

A lower dosage levonorgestrel and testosterone combination effectively suppresses spermatogenesis and circulating gonadotropin levels with fewer metabolic effects than higher dosage combinations. Anawalt BD, et al. **J Androl** 1999 May–Jun;20(3):407–14

Suppression of growth hormone does not affect ongoing spermatogenesis in rats. Awoniyi CA, et al. **J Androl** 1999 Jan–Feb;20(1):102–8

Testosterone-dependent restoration of spermatogenesis in adult rats is impaired by a 5alpha-reductase inhibitor. O'Donnell L, et al. **J Androl** 1999 Jan–Feb;20(1):109–17

Suppression of spermatogenesis in man induced by Nal-Glu gonadotropin releasing hormone antagonist and testosterone enanthate (TE) is maintained by TE alone. Swerdloff RS, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3527–33

Human spermatogenesis in vitro: respective effects of follicle-stimulating hormone and testosterone on meiosis, spermiogenesis, and Sertoli cell apoptosis. Tesarik J, et al. **J Clin Endocrinol Metab** 1998 Dec;83(12):4467–73

Oral progestogen combined with testosterone as a potential male contraceptive: additive effects between desogestrel and testosterone enanthate in suppression of spermatogenesis, pituitary-testicular axis, and lipid metabolism. Wu FC, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):112–22

The cycle duration of the seminiferous epithelium remains unaltered during GnRH antagonist-induced testicular involution in rats and monkeys. Aslam H, et al. **J Endocrinol** 1999 May;161(2):281–8

Characterization of epididymal sperm motion and its correlation with stages of target cells in rats given alpha-chlorohydrin, cyclophosphamide or nitrazepam. Kaneto M, et al. **J Toxicol Sci** 1999 Aug;24(3):187–97

Chronic treatment with finasteride daily does not affect spermatogenesis or semen production in young men. Overstreet JW, et al. **J Urol** 1999 Oct;162(4):1295–300

The effect of zinc supplementation on the effects of lead on the rat testis. Batra N, et al. **Reprod Toxicol** 1998 Sep–Oct;12(5):535–40

Effects of 2-bromopropane on spermatogenesis in the Sprague–Dawley rat. Son HY, et al. **Reprod Toxicol** 1999 May–Jun;13(3):179–87

Animal testing. One mouse's meat is another one's poison [news; comment] Helmuth L. **Science** 1999 Aug 20; 285(5431):1190–1. Comment on: Science 1999 Aug 20;285(5431):1259–61.

Genetic variation in susceptibility to endocrine disruption by estrogen in mice [see comments] Spearow JL, et al. **Science** 1999 Aug 20;285(5431):1259–61. Comment in: Science 1999 Aug 20;285(5431):1190–1.

Toxic effects of octylphenol on cultured rat spermatogenic cells and Sertoli cells. Raychoudhury SS, et al. **Toxicol Appl Pharmacol** 1999 Jun 15;157(3):192–202

"Have you seen this?" Progression of drug-induced testicular toxicity. Morton D. **Toxicol Pathol** 1999 May–Jun; 27(3):380–1

[Effect of 2,4–D ecotoxicants on spermatogenesis and fertility of albino rats] Galimov ShN, et al. **Aviakosm Ekolog Med** 1999;33(1):32–4 (Eng. Abstr.) **(Rus)**

[Sensitivity of developing spermatogenic cells from transgenic mice to the effect of the supermutagen nitrosomethylurea (NMU)] Zakhidov ST, et al. **Dokl Akad Nauk** 1999 Mar;365(2):273–5 **(Rus)**

GENETICS

Histological characterization of defective spermatogenesis in mice lacking the basigin gene. Toyama Y, et al. **Anat Histol Embryol** 1999 Jul;28(3):205–13

Cloning of novel temperature-related expressed sequence tags in rat testis during spermatogenesis. Guo CX, et al. **Biochem Biophys Res Commun** 1999 May 10;258(2):401–6

Germ cell genotype controls cell cycle during spermatogenesis in the rat. França LR, et al. **Biol Reprod** 1998 Dec;59(6):1371–7

Completion of meiosis is not always required for acrosome formation in HSP70–2 null mice. Mori C, et al. **Biol Reprod** 1999 Sep;61(3):813–22

DNA nicks and increased sensitivity of DNA to fluorescence in situ end labeling during functional spermiogenesis. Smith A, et al. **Biotechniques** 1998 Sep;25(3):496–502

Stage- and subcellular-specific expression of Id proteins in male germ and Sertoli cells implicates distinctive regulatory roles for Id proteins during meiosis, spermatogenesis, and Sertoli cell function. Sablitzky F, et al. **Cell Growth Differ** 1998 Dec;9(12):1015–24

Regulated expression of p14 (cofactor A) during spermatogenesis. Fanarraga ML, et al. **Cell Motil Cytoskeleton** 1999;43(3):243–54

Advances in Y chromosome mapping. Yen PH. **Curr Opin Obstet Gynecol** 1999 Jun;11(3):275–81 (71 ref.)

Histone ubiquitination and chromatin remodeling in mouse spermatogenesis. Baarends WM, et al. **Dev Biol** 1999 Mar 15;207(2):322–33

Acquisition of competence to condense metaphase I chromosomes during spermatogenesis. Cobb J, et al. **Dev Biol** 1999 Jan 1;205(1):49–64

Regulation of meiosis during mammalian spermatogenesis: the A-type cyclins and their associated cyclin-dependent kinases are differentially expressed in the germ-cell lineage. Ravnik SE, et al. **Dev Biol** 1999 Mar 15;207(2):408–18

Spermiogenesis is impaired in mice bearing a targeted mutation in the protein phosphatase 1cgamma gene. Varmuza S, et al. **Dev Biol** 1999 Jan 1;205(1):98–110

Cloning of cDNA for newt WT1 and the differential expression during spermatogenesis of the Japanese newt, Cynops pyrrhogaster. Nakayama Y, et al. **Dev Growth Differ** 1998 Dec;40(6):599–608

Tex27, a gene containing a zinc-finger domain, is up-regulated during the haploid stages of spermatogenesis. de Luis O, et al. **Exp Cell Res** 1999 Jun 15;249(2):320–6

Testosterone mediates expression of the selenoprotein PHGPx by induction of spermatogenesis and not by direct transcriptional gene activation. Maiorino M, et al. **FASEB J** 1998 Oct;12(13):1359–70

The locus of sY84 is not associated with spermatogenesis--"is it better to find Adam or study spermatogenesis?--a different opinion" [letter] [see comments] Tseng SL, et al. **Fertil Steril** 1999 Aug;72(2):375–6. Comment in: Fertil Steril 1999 Aug;72(2):376–8.

The ovo gene required for cuticle formation and oogenesis in flies is involved in hair formation and spermatogenesis in mice. Dai X, et al. **Genes Dev** 1998 Nov 1;12(21):3452–63

Hidden effects of X chromosome introgressions on spermatogenesis in Drosophila simulans x D. mauritiana hybrids unveiled by interactions among minor genetic factors. Maside XR, et al. **Genetics** 1998 Oct;150(2):745–54

spe-12 encodes a sperm cell surface protein that promotes spermiogenesis in Caenorhabditis elegans. Nance J, et al. **Genetics** 1999 May;152(1):209–20

Genetic analysis of viable Hsp90 alleles reveals a critical role in Drosophila spermatogenesis. Yue L, et al. **Genetics** 1999 Mar;151(3):1065–79

Acquisition of the H19 methylation imprint occurs differentially on the parental alleles during spermatogenesis. Davis TL, et al. **Genomics** 1999 May 15;58(1):18–28

Mammalian spermatogenesis investigated by genetic engineering. Escalier D. **Histol Histopathol** 1999 Jul; 14(3):945–58 (83 ref.)

The mouse Y chromosome interval necessary for spermatogonial proliferation is gene dense with syntenic homology to the human AZFa region. Mazeyrat S, et al. **Hum Mol Genet** 1998 Oct;7(11):1713–24

Genetic contribution to male infertility. Chandley AC. **Hum Reprod** 1998 Jun;13 Suppl 3:76–83; discussion 84–8 (43 ref.)

Developmental and genetic disorders in spermatogenesis. Diemer T, et al. **Hum Reprod Update** 1999 Mar–Apr; 5(2):120–40 (154 ref.)

Expression of mitochondrial marker proteins during spermatogenesis. Meinhardt A, et al. **Hum Reprod Update** 1999 Mar–Apr;5(2):108–19 (116 ref.)

Y bind RNA for spermatogenesis? Ruggiu M, et al. **Int J Androl** 1999 Feb;22(1):19–27 (73 ref.)

Gene expression in the epididymis. Kirchhoff C. **Int Rev Cytol** 1999;188:133–202 (311 ref.)

The role of autosomal cell apoptosis regulator genes in human spermatogenesis. Lin WW, et al. **Int Urol Nephrol** 1999; 31(2):237–46

The role of transcriptional control during spermatogenesis. Lele K, et al. **J Androl** 1998 Nov–Dec;19(6):639–49 (90 ref.)

Spermatogenic ability is different among males in different Y chromosome lineage. Kuroki Y, et al. **J Hum Genet** 1999; 44(5):289–92

Abnormal spermatogenesis in the common liver fluke (Fasciola sp.) from Japan and Korea. Terasaki K, et al. **J Vet Med Sci** 1998 Dec;60(12):1305–9

Mea2/Golga3 gene is disrupted in a line of transgenic mice with a reciprocal translocation between Chromosomes 5 and 19 and is responsible for a defective spermatogenesis in homozygotes. Matsukuma S, et al. **Mamm Genome** 1999 Jan;10(1):1–5

A locus responsible for arrest of spermatogenesis is located on rat Chromosome 12. Noguchi J, et al. **Mamm Genome** 1999 Feb;10(2):189–90

Differential expression of the zinc finger gene Zfp105 during spermatogenesis. Przyborski SA, et al. **Mamm Genome** 1998 Sep;9(9):758–62

A novel 14-base-pair regulatory element is essential for in vivo expression of murine beta4-galactosyltransferase-I in late pachytene spermatocytes and round spermatids. Charron M, et al. **Mol Cell Biol** 1999 Aug;19(8):5823–32

Sequence-independent assembly of spermatid mRNAs into messenger ribonucleoprotein particles. Schmidt EE, et al. **Mol Cell Biol** 1999 May;19(5):3904–15

Knockout mouse model and gametogenic failure. Grootegoed JA, et al. **Mol Cell Endocrinol** 1998 Oct 25; 145(1–2):161–6 (45 ref.)

Expression of DAZ (deleted in azoospermia), DAZL1 (DAZ-like) and protamine-2 in testis and its application for diagnosis of spermatogenesis in non-obstructive azoospermia. Lee JH, et al. **Mol Hum Reprod** 1998 Sep; 4(9):827–34

Localization and quantitative expression of mRNAs encoding the testis-specific histone TH2B, the phosphoprotein p19, the transition proteins 1 and 2 during pubertal development and throughout the spermatogenic cycle of the rat. Marret C, et al. **Mol Reprod Dev** 1998 Sep;51(1):22–35

Two testicular cDNA clones suppressed by gonadotropin stimulation exhibit ZP2- and ZP3-like structures in Japanese eel. Miura T, et al. **Mol Reprod Dev** 1998 Nov; 51(3):235–42

Influence of p53 zygosity on select sperm parameters of the mouse. Marty MS, et al. **Mutat Res** 1999 Jun 1;427(1):39–45

The candidate spermatogenesis gene RBMY has a homologue on the human X chromosome [letter] Delbridge ML, et al. **Nat Genet** 1999 Jul;22(3):223–4

Impairing follicle-stimulating hormone (FSH) signaling in vivo: targeted disruption of the FSH receptor leads to aberrant gametogenesis and hormonal imbalance. Dierich A, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10; 95(23):13612–7

Apoptosis regulator bcl-w is essential for spermatogenesis but appears otherwise redundant. Print CG, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12424–31

Impairment of spermatogenesis in mice lacking a functional aromatase (cyp 19) gene. Robertson KM, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7986–91

SPERMATOGENESIS

Identification of morc (microrchidia), a mutation that results in arrest of spermatogenesis at an early meiotic stage in the mouse. Watson ML, et al.
Proc Natl Acad Sci U S A 1998 Nov 24;95(24):14361-6

Genetic disorders and spermatogenesis. McLachlan RI, et al. **Reprod Fertil Dev** 1998;10(1):97-104 (52 ref.)

Y chromosome and male infertility. Cooke HJ.
Rev Reprod 1999 Jan;4(1):5-10 (40 ref.)

Hormonal and genetic control of germ cell apoptosis in the testis. Sinha Hikim AP, et al. **Rev Reprod** 1999 Jan; 4(1):38-47 (57 ref.)

Post-transcriptional control of gene expression during spermatogenesis. Braun RE. **Semin Cell Dev Biol** 1998 Aug; 9(4):483-9 (50 ref.)

Regulation of gene expression during spermatogenesis [see comments] Eddy EM. **Semin Cell Dev Biol** 1998 Aug; 9(4):451-7 (40 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Genetic control of cell proliferation and differentiation in Drosophila spermatogenesis [see comments] Fuller MT. **Semin Cell Dev Biol** 1998 Aug;9(4):433-44 (63 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Spermatogenesis as a model system for developmental analysis of regulatory mechanisms associated with tissue-specific gene expression [see comments] McCarrey JR. **Semin Cell Dev Biol** 1998 Aug;9(4):459-66 (28 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

CREM: a master-switch governing male germ cells differentiation and apoptosis. Sassone-Corsi P.
Semin Cell Dev Biol 1998 Aug;9(4):475-82 (28 ref.)

[Genetic control of spermatogenesis: Y chromosome and male infertility] Krausz C, et al. **Ann Biol Clin (Paris)** 1999 May;57(3):309-17 (50 ref.) **(Fre)**

PHYSIOLOGY

Neonatal exposure of male rats to estradiol benzoate causes rete testis dilation and backflow impairment of spermatogenesis. Aceitero J, et al. **Anat Rec** 1998 Sep; 252(1):17-33

Stages of the cycle of the seminiferous epithelium of the viscacha (Lagostomus maximus maximus). Muñoz EM, et al. **Anat Rec** 1998 Sep;252(1):8-16

Possible involvement of proteases in the regulation of spermatogenesis. Monsees TK, et al. **Andrologia** 1998 Aug-Sep;30(4-5):185-91

Absence of effect of recombinant growth hormone to classic gonadotropin treatment on spermatogenesis of patients with severe hypogonadotropic hypogonadism. Giagulli VA. **Arch Androl** 1999 Jul-Aug;43(1):47-53

Hepatoma-derived growth factor-related protein (HRP)-1 gene in spermatogenesis in mice. Kuroda T, et al.
Biochem Biophys Res Commun 1999 Aug 27;262(2):433-7

Short day length alone does not inhibit spermatogenesis in the seasonally breeding four-striped field mouse (Rhabdomys pumilio). Jackson C, et al. **Biol Reprod** 1999 Jun;60(6):1320-3

Decreased spermatogenic and androgenic testicular functions in adult rats submitted to immobilization-induced stress from prepuberty. Almeida SA, et al.
Braz J Med Biol Res 1998 Nov;31(11):1443-8

The role of the tumor suppressor p53 in spermatogenesis. Beumer TL, et al. **Cell Death Differ** 1998 Aug;5(8):669-77

Centriole and centrin degeneration during mouse spermiogenesis. Manandhar G, et al.
Cell Motil Cytoskeleton 1999;43(2):137-44

The POLO kinase is required at multiple stages during spermatogenesis in Drosophila melanogaster. Herrmann S, et al. **Chromosoma** 1998 Dec;107(6-7):440-51

Centrosome reduction during mouse spermiogenesis. Manandhar G, et al. **Dev Biol** 1998 Nov 15;203(2):424-34

p53-mediated germ cell quality control in spermatogenesis. Yin Y, et al. **Dev Biol** 1998 Dec 1;204(1):165-71

Behavior of centrioles during meiosis in the male silkworm, Bombyx mori (Lepidoptera). Yamashiki N, et al.
Dev Growth Differ 1998 Dec;40(6):619-30

Lanosterol 14alpha-demethylase (CYP51) and spermatogenesis. Rozman D, et al. **Drug Metab Dispos** 1998 Dec;26(12):1199-201 (11 ref.)

Spermatogenesis without gonadotropins: maintenance has a lower testosterone threshold than initiation. Handelsman DJ, et al. **Endocrinology** 1999 Sep;140(9):3938-46

Cytoplasmic liberation of protein gene product 9.5 during the seasonal regulation of spermatogenesis in the monkey (Macaca fuscata). Tokunaga Y, et al. **Endocrinology** 1999 Apr;140(4):1875-83

Stage-specific regulation of stem cell factor gene expression in the rat seminiferous epithelium. Yan W, et al.
Endocrinology 1999 Mar;140(3):1499-504

Developmental expression of the protein kinase C substrate/binding protein (clone 72/SSeCKS) in rat testis identification as a scaffolding protein containing an A-kinase-anchoring domain which is expressed during late-stage spermatogenesis. Erlichman J, et al.
Eur J Biochem 1999 Aug;263(3):797-805

DNA flow cytometry reveals depressed spermatogenetic activity in the contralateral testis within 24 h of ipsilateral spermatic cord torsion independently of the presence of the testis and epididymis. Salman AB, et al. **Eur Urol** 1998 Oct;34(4):377-81

Secretion of D-aspartic acid by the rat testis and its role in endocrinology of the testis and spermatogenesis. D'Aniello A, et al. **FEBS Lett** 1998 Sep 25;436(1):23-7

Growth hormone (GH) and gonadotropin subunit gene expression and pituitary and plasma changes during spermatogenesis and oogenesis in rainbow trout (Oncorhynchus mykiss). Gomez JM, et al.
Gen Comp Endocrinol 1999 Mar;113(3):413-28

Identification of four novel ADAMs with potential roles in spermatogenesis and fertilization. Zhu GZ, et al. **Gene** 1999 Jul 8;234(2):227-37

spe-12 encodes a sperm cell surface protein that promotes spermiogenesis in Caenorhabditis elegans. Nance J, et al. **Genetics** 1999 May;152(1):209-20

Genetic analysis of viable Hsp90 alleles reveals a critical role in Drosophila spermatogenesis. Yue L, et al. **Genetics** 1999 Mar;151(3):1065-79

What are the germ cell phenotypes from infertile men telling us about spermatogenesis? Escalier D.
Histol Histopathol 1999 Jul;14(3):959-71 (113 ref.)

New gene family defined by MORC, a nuclear protein required for mouse spermatogenesis. Inoue N, et al.
Hum Mol Genet 1999 Jul;8(7):1201-7

Testicular CFTR splice variants in patients with congenital absence of the vas deferens. Larriba S, et al.
Hum Mol Genet 1998 Oct;7(11):1739-43

Meiotic abnormalities and spermatogenic parameters in severe oligoasthenozoospermia. Vendrell JM, et al.
Hum Reprod 1999 Feb;14(2):375-8

Recent biochemical approaches to post-testicular, epididymal contraception. Cooper TG, et al. **Hum Reprod Update** 1999 Mar-Apr;5(2):141-52 (117 ref.)

A matter of death and life: the significance of germ cell death during spermatogenesis. Blanco-Rodriguez J.
Int J Androl 1998 Oct;21(5):236-48 (138 ref.)

Ultrastructure of spermiogenesis and the spermatozoon of Mesocestoides litteratus (Cestoda, Mesocestoididae). Miquel J, et al. **Int J Parasitol** 1999 Mar;29(3):499-510

The degenerative fate of germ cells not conforming to stage in the pubertal golden hamster testis. Miething A.
J Anat 1998 Nov;193 (Pt 4):519-27

Follicle-stimulating hormone is required for the initial phase of spermatogenic restoration in adult rats following gonadotropin suppression. Meachem SJ, et al. **J Androl** 1998 Nov-Dec;19(6):725-35

Bypassing spermiogenesis for several generations does not have detrimental consequences on the fertility and neurobehavior of offspring: a study using the mouse. Tamashiro KL, et al. **J Assist Reprod Genet** 1999 Jul; 16(6):315-24

DNA-interacting proteins in the spermiogenesis of the mollusc Murex brandaris. Cáceres C, et al.
J Biol Chem 1999 Jan 8;274(2):649-56

The presenilin protein family member SPE-4 localizes to an ER/Golgi derived organelle and is required for proper cytoplasmic partitioning during Caenorhabditis elegans spermatogenesis. Arduengo PM, et al. **J Cell Sci** 1998 Dec 18;111 (Pt 24):3645-54

The Parkes Lecture. Heat and the testis. Setchell BP.
J Reprod Fertil 1998 Nov;114(2):179-94 (258 ref.)

Ultrastructure of spermiogenesis and the spermatozoon of Vampirolepis microstoma (Cestoda, Hymenolepididae), intestinal parasite of Rattus rattus. Bâ CT, et al.
Microsc Res Tech 1998 Aug 1;42(3):218-25

The ubiquitin system in gametogenesis. Baarends WM, et al. **Mol Cell Endocrinol** 1999 May 25;151(1-2):5-16 (120 ref.)

The Hsp70 homolog gene, Hsc70t, is expressed under translational control during mouse spermiogenesis. Tsunekawa N, et al. **Mol Reprod Dev** 1999 Apr; 52(4):383-91

Tyro-3 family receptors are essential regulators of mammalian spermatogenesis. Lu Q, et al. **Nature** 1999 Apr 22;398(6729):723-8

Complex gangliosides are essential in spermatogenesis of mice: possible roles in the transport of testosterone. Takamiya K, et al. **Proc Natl Acad Sci U S A** 1998 Oct 13;95(21):12147-52

Ram lambs need FSH for normal testicular growth, Sertoli cell numbers and onset of spermatogenesis. Kilgour RJ, et al. **Reprod Nutr Dev** 1998 Sep-Oct;38(5):539-50

Role of heat shock protein HSP70-2 in spermatogenesis. Eddy EM. **Rev Reprod** 1999 Jan;4(1):23-30 (62 ref.)

Androgen receptor transactivation domain and control of spermatogenesis. Yong EL, et al. **Rev Reprod** 1998 Sep; 3(3):141-4 (21 ref.)

The role of Y-encoded genes in mammalian spermatogenesis [see comments] Burgoyne PS. **Semin Cell Dev Biol** 1998 Aug;9(4):423-32 (56 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Dynamics of meiotic prophase I during spermatogenesis: from pairing to division [see comments] Cobb J, et al.
Semin Cell Dev Biol 1998 Aug;9(4):445-50 (31 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

The central role of Sertoli cells in spermatogenesis [see comments] Griswold MD. **Semin Cell Dev Biol** 1998 Aug; 9(4):411-6 (41 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Spermatogenesis as a model system for developmental analysis of regulatory mechanisms associated with tissue-specific gene expression [see comments] McCarrey JR. **Semin Cell Dev Biol** 1998 Aug;9(4):459-66 (28 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

CREM: a master-switch governing male germ cells differentiation and apoptosis. Sassone-Corsi P.
Semin Cell Dev Biol 1998 Aug;9(4):475-82 (28 ref.)

Spermatogenesis: its regulation by testosterone and FSH [see comments] Zirkin BR. **Semin Cell Dev Biol** 1998 Aug; 9(4):417-21 (39 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Duration of spermatogenesis and sperm transit time through the epididymis in the Piau boar. França LR, et al.
Tissue Cell 1998 Oct;30(5):573-82

The length of the cycle of seminiferous epithelium in goats (Capra hircus). França LR, et al. **Tissue Cell** 1999 Jun; 31(3):274-80

Seminiferous epithelium cycle and its duration in capybaras (Hydrochoerus hydrochaeris). Paula TA, et al.
Tissue Cell 1999 Jun;31(3):327-34

Spermatogenesis and spermatogenic control: a state of the art. Verhoeven G. **Verh K Acad Geneeskd Belg** 1999; 61(3):417-32 (35 ref.)

[Apoptosis in normal and pathological spermatogenesis] Angelopoulou R, et al. **Contracept Fertil Sex** 1999 Feb; 27(2):99-106 (86 ref.) **(Fre)**

[Apoptosis in the male gonad] Royère D, et al.
Contracept Fertil Sex 1998 Jul-Aug;26(7-8):517-21 (Eng. Abstr.) **(Fre)**

[Spermatogenesis in developmental age] De Sanctis V, et al. **Minerva Pediatr** 1998 Jun;50(6):269-74 (17 ref.) **(Ita)**

[The spermiogram in adolescence] Paris E, et al.
Minerva Pediatr 1998 Jun;50(6):303 **(Ita)**

[Spermatogenesis in SAMP1 inbred mice, predisposed to accelerated aging] Zakhidov ST, et al.
Dokl Akad Nauk 1999 Mar;365(3):403-5 **(Rus)**

RADIATION EFFECTS

Short term pretreatment with medroxyprogesterone and testosterone may potentiate irradiation damage to spermatogenesis in rats. Es-slami S, et al. **Cancer** 1999 Mar 15;85(6):1313-22

Radiation-induced malformations after exposure of murine germ cells in various stages of spermatogenesis. Müller WU, et al. **Mutat Res** 1999 Mar 10;425(1):99-106

Hormone pretreatment enhances recovery of spermatogenesis in rats after neutron irradiation. Wilson G, et al. **Radiat Res** 1999 Jul;152(1):51-6

Influence of teniposide (VM-26) on radiation-induced damage to mouse spermatogenesis: a flow cytometric evaluation. Jyothi P, et al. **Reprod Toxicol** 1998 Nov-Dec; 12(6):601-11

[Flow cytometric analysis of the effects of 50 Hz magnetic fields on mouse spermatogenesis] Furuya H, et al.
Nippon Eiseigaku Zasshi 1998 Jul;53(2):420-5 (Eng. Abstr.) **(Jpn)**

[Reproductive status of aviation specialists who participated in the clean-up of the Chernobyl AES accident] Ushakov IB, et al. **Med Tr Prom Ekol** 1999;(3):32-6 **(Rus)**

[Effect of prenatal irradiation of rats on morphofunctional state of progeny testis] Verechshako GG, et al.
Radiats Biol Radioecol 1998 Jul-Aug;38(4):483-7 (Eng. Abstr.) **(Rus)**

SPERMATOGENESIS-BLOCKING AGENTS

Male contraceptive research steps back into spotlight [news] Bonn D. **Lancet** 1999 Jan 23;353(9149):302

SPERMATOGONIA

CYTOLOGY

Magnetic cell sorting is a fast and effective method of enriching viable spermatogonia from Djungarian hamster, mouse, and marmoset monkey testes. von Schönfeldt V, et al. **Biol Reprod** 1999 Sep;61(3):582-9

Stimulation of spermatogonial differentiation in juvenile spermatogonial depletion (jsd) mutant mice by gonadotropin-releasing hormone antagonist treatment. Matsumiya K, et al. **Endocrinology** 1999 Oct;140(10):4912-5

Computer assisted image analysis to assess colonization of recipient seminiferous tubules by spermatogonial stem cells from transgenic donor mice. Dobrinski I, et al.
Mol Reprod Dev 1999 Jun;53(2):142-8

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291-4

Culture of mouse spermatogonial stem cells. Nagano M, et al. **Tissue Cell** 1998 Aug;30(4):389-97

DRUG EFFECTS

Sister-chromatid exchanges induced by disulfiram in bone marrow and spermatogonial cells of mice treated in vivo. Madrigal-Bujaidar E, et al. **Food Chem Toxicol** 1999 Jul; 37(7):757-63

Radioprotective effect of misoprostol on mouse spermatogonial stem cells. de Rooij DG, et al.
Genet Res 1998 Dec;72(3):185-9

IGF-I, IGF-II and insulin promote differentiation of spermatogonia to primary spermatocytes in organ culture of newt testes. Nakayama Y, et al. **Int J Dev Biol** 1999 Jul;43(4):343-7

Cytotoxic effect of endosulfan on rat Sertoli-germ cell coculture. Sinha N, et al. **Reprod Toxicol** 1999 Jul-Aug; 13(4):291-4

Histopathological evidence that spermatogonia are the target

cells of 2-bromopropane. Omura M, et al. **Toxicol Lett** 1999 Jan 11;104(1-2):19-26

[Sensitivity of developing spermatogenic cells from transgenic mice to the effect of the supermutagen nitrosomethylurea (NMU)] Zakhidov ST, et al. **Dokl Akad Nauk** 1999 Mar;365(2):273-5 **(Rus)**

GROWTH & DEVELOPMENT

FSH-initiated differentiation of newt spermatogonia to primary spermatocytes in germ-somatic cell reaggregates cultured within a collagen matrix. Ito R, et al. **Int J Dev Biol** 1999 Mar;43(2):111-6

IMMUNOLOGY

A novel stage-specific antigen is expressed only in early stages of spermatogonia in Japanese eel, Anguilla japonica testis. Kobayashi T, et al. **Mol Reprod Dev** 1998 Dec; 51(4):355-61

beta1- and alpha6-integrin are surface markers on mouse spermatogonial stem cells. Shinohara T, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5504-9

METABOLISM

Cell death patterns of the rat spermatogonial cell progeny induced by sertoli cell geometric changes and Fas (CD95) agonist. Tres LL, et al. **Dev Dyn** 1999 Apr;214(4):361-71

PATHOLOGY

Arrest of spermatogonial differentiation in jsd/jsd, Sl17H/Sl17H, and cryptorchid mice. de Rooij DG, et al. **Biol Reprod** 1999 Sep;61(3):842-7

Classification of several types of maturational arrest of spermatogonia according to Sertoli cell morphology: an approach to aetiology. Nistal M, et al. **Int J Androl** 1998 Dec;21(6):317-26

PHYSIOLOGY

Effects of stem cell factor and granulocyte macrophage-colony stimulating factor on survival of porcine type A spermatogonia cultured in KSOM. Dirami G, et al. **Biol Reprod** 1999 Jul;61(1):225-30

Cell death patterns of the rat spermatogonial cell progeny induced by sertoli cell geometric changes and Fas (CD95) agonist. Tres LL, et al. **Dev Dyn** 1999 Apr;214(4):361-71

Differentiation: the selective potentiation of chromatin domains. Kramer JA, et al. **Development** 1998 Dec; 125(23):4749-55

Function of stem cell factor as a survival factor of spermatogonia and localization of messenger ribonucleic acid in the rat seminiferous epithelium. Hakovirta H, et al. **Endocrinology** 1999 Mar;140(3):1492-8

Stimulation of spermatogonial differentiation in juvenile spermatogonial depletion (jsd) mutant mice by gonadotropin-releasing hormone antagonist treatment. Matsumiya K, et al. **Endocrinology** 1999 Oct;140(10):4912-5

Elevation of plasma prolactin concentrations by low temperature is the cause of spermatogonial cell death in the newt, Cynops pyrrhogaster. Yazawa T, et al. **Gen Comp Endocrinol** 1999 Feb;113(2):302-11

TRANSPLANTATION

Pattern and kinetics of mouse donor spermatogonial stem cell colonization in recipient testes. Nagano M, et al. **Biol Reprod** 1999 Jun;60(6):1429-36

Development of germ cell transplants in mice. Parreira GG, et al. **Biol Reprod** 1998 Dec;59(6):1360-70

Spermatogonial stem cell transplantation, cryopreservation and culture [see comments] Brinster RL, et al. **Semin Cell Dev Biol** 1998 Aug;9(4):401-9 (33 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379-91.

Leuprolide, a gonadotropin-releasing hormone agonist, enhances colonization after spermatogonial transplantation into mouse testes. Ogawa T, et al. **Tissue Cell** 1998 Oct; 30(5):583-8

Development of germ cell transplants: morphometric and ultrastructural studies. Parreira GG, et al. **Tissue Cell** 1999 Jun;31(3):242-54

ULTRASTRUCTURE

Cytoplasmic liberation of protein gene product 9.5 during the seasonal regulation of spermatogenesis in the monkey (Macaca fuscata). Tokunaga Y, et al. **Endocrinology** 1999 Apr;140(4):1875-83

SPERMATOPHORES see **SPERMATOGONIA**

SPERMATOZOA

see related
ANTISPERMATOGENIC AGENTS
OLIGOSPERMIA
SPERM BANKS
SPERMATOCIDAL AGENTS

Testicular sperm aspiration (first Hungarian results). Papp G, et al. **Acta Chir Hung** 1998;37(3-4):195-9

Secular trends in sperm variables for groups of men in fertile and infertile couples. Ulstein M, et al. **Acta Obstet Gynecol Scand** 1999 Apr;78(4):332-5

Evidence of somatic and germinal mosaicism in pseudo-low-penetrant hereditary retinoblastoma, by constitutional and single-sperm mutation analysis [letter] Munier FL, et al. **Am J Hum Genet** 1998 Dec;63(6):1903-8

Ongoing pregnancy after intracytoplasmic injection of testicular spermatozoa into cryopreserved human oocytes. Porcu E, et al. **Am J Obstet Gynecol** 1999 Apr; 180(4):1044-5

Proceedings of a workshop on molecular andrology. Giessen, Germany, May 5-6, 1997. **Andrologia** 1998 Aug-Sep; 30(4-5):171-307

Recovery of ejaculated spermatozoa for intracytoplasmic sperm injection after anti-inflammatory treatment of an azoospermic patient with genital tract infection: a case report. Montag M, et al. **Andrologia** 1999 May;31(3):179-81

Artificial insemination in Callithrix jacchus using fresh or cryopreserved sperm. Morrell JM, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):165-74

Cryopreservation of non-human primate sperm: priorities for future research. Morrell JM, et al. **Anim Reprod Sci** 1998 Oct;53(1-4):43-63 (66 ref.)

Surely doctors should follow the spirit, rather than the letter, of the law [letter] James RH. **BMJ** 1999 Jul 3;319(7201):57

Osmotic effects on volume and motility of bull sperm exposed to membrane permeable and nonpermeable agents. Liu Z, et al. **Cryobiology** 1998 Nov;37(3):207-18

Survival of bull sperm frozen at different rates in media varying in osmolarity. Liu Z, et al. **Cryobiology** 1998 Nov; 37(3):219-30

Injection of sperm extract mimics spatiotemporal dynamics of Ca2+ responses and progression of meiosis at fertilization of ascidian oocytes. Kyozuka K, et al. **Development** 1998 Oct;125(20):4099-105

Re "Have sperm densities declined? A reanalysis of global trend data" [letter; comment] Becker S, et al. **Environ Health Perspect** 1998 Sep;106(9):A420-1. Comment on: Environ Health Perspect 1997 Nov;105(11):1228-32.

Nocturnal sperm emission in men with psychogenic anejaculation. Hovav Y, et al. **Fertil Steril** 1999 Aug; 72(2):364-5

Advanced surgical sperm recovery is a viable option for intracytoplasmic sperm injection in patients with obstructive or nonobstructive azoospermia. Jaroudi K, et al. **Fertil Steril** 1999 Sep;72(3):479-83

Testicular sperm aspiration and intracytoplasmic sperm injection for persistent infection of the ejaculate. Seidman DS, et al. **Fertil Steril** 1999 Mar;71(3):564-6

Reprogramming the male gamete genome: a window to successful gene therapy. Krawetz SA, et al. **Gene** 1999 Jun 24;234(1):1-9 (70 ref.)

Targeting genes for self-excision in the germ line. Bunting M, et al. **Genes Dev** 1999 Jun 15;13(12):1524-8

Production of fertile unreduced sperm by hybrid males of the Rutilus alburnoides complex (Teleostei, cyprinidae). An alternative route to genome tetraploidization in unisexuals. Alves MJ, et al. **Genetics** 1999 Jan;151(1):277-83

Fine-mapping of a region of variation in recombination rate on BTA23 to the D23S22-D23S23 interval using sperm typing and meiotic breakpoint analysis. Park C, et al. **Genomics** 1999 Jul 15;59(2):143-9

FISH studies of the sperm of fathers of paternally derived cases of trisomy 21: no evidence for an increase in aneuploidy. Hixon M, et al. **Hum Genet** 1998 Dec; 103(6):654-7

Variation of site-specific methylation patterns in the factor VIII (F8C) gene in human sperm DNA. Millar DS, et al. **Hum Genet** 1998 Aug;103(2):228-33

Obstetric outcome after prenatal diagnosis in pregnancies obtained after intracytoplasmic sperm injection. Aytoz A, et al. **Hum Reprod** 1998 Oct;13(10):2958-61

TESE and the distribution of spermatogenesis in the testicles of azoospermic men [letter; comment] Balet R, et al. **Hum Reprod** 1998 Jul;13(7):2034-5. Comment on: Hum Reprod 1997 Nov;12(11):2422-8.

Testicular sperm retrieval and cryopreservation prior to initiating ovarian stimulation as the first line approach in patients with non-obstructive azoospermia. Ben-Yosef D, et al. **Hum Reprod** 1999 Jul;14(7):1794-801

AZFb deletions predict the absence of spermatozoa with testicular sperm extraction: preliminary report of a prognostic genetic test. Brandell RA, et al. **Hum Reprod** 1998 Oct;13(10):2812-5

Comparative evaluation of two density gradient preparations for sperm separation for medically assisted conception. Chen MJ, et al. **Hum Reprod** 1999 Mar;14(3):759-64

Testicular sperm extraction and intracytoplasmic sperm injection. Devroey P. **Hum Reprod** 1998 Aug;13(8):2045-6 (14 ref.)

Clinical application of new micromanipulative technologies to treat the male. Devroey P. **Hum Reprod** 1998 Jun;13 Suppl 3:112-22; discussion 123-6 (44 ref.)

Intracytoplasmic sperm injection into zona-free human oocytes results in normal fertilization and blastocyst development. Ding J, et al. **Hum Reprod** 1999 Feb; 14(2):476-8

Morbidity and cost-effectiveness analysis of outpatient analgesia versus general anaesthesia for testicular sperm extraction in men with azoospermia due to defects in spermatogenesis. Ezeh UI, et al. **Hum Reprod** 1999 Feb; 14(2):321-8

A prospective study of multiple needle biopsies versus a single open biopsy for testicular sperm extraction in men with non-obstructive azoospermia. Ezeh UI, et al. **Hum Reprod** 1998 Nov;13(11):3075-80

Vigorous prostatic massage: a simple method to retrieve spermatozoa for intracytoplasmic sperm injection in psychogenic anejaculation: case report. Fahmy I, et al. **Hum Reprod** 1999 Aug;14(8):2050-3

Diagnostic testicular biopsy and cryopreservation of testicular tissue as an alternative to repeated surgical openings in the treatment of azoospermic men. Gianaroli L, et al. **Hum Reprod** 1999 Apr;14(4):1034-8

Long distance transport ICSI [letter; comment] Harrison KL, et al. **Hum Reprod** 1998 Dec;13(12):3576-7. Comment on: Hum Reprod 1997 Aug;12(8):1654-6.

Pregnancies achieved after frozen-thawed pronuclear oocytes obtained by intracytoplasmic sperm injection with spermatozoa extracted from frozen-thawed testicular tissues from non-obstructive azoospermic men. Al-Hasani S, et al. **Hum Reprod** 1999 Aug;14(8):2031-5

Multiple testicular sampling in non-obstructive azoospermia--is it necessary? Hauser R, et al. **Hum Reprod** 1998 Nov;13(11):3081-5

Comparison of clinical outcome after cryopreservation of embryos obtained from intracytoplasmic sperm injection and in-vitro fertilization. Kowalik A, et al. **Hum Reprod** 1998 Oct;13(10):2848-51

Does intracytoplasmic sperm injection lead to a rise in the frequency of microdeletions in the AZFc region of the Y chromosome in future generations? Kremer JA, et al. **Hum Reprod** 1998 Oct;13(10):2808-11

Testicular fine needle aspiration: the alternative method for sperm retrieval in non-obstructive azoospermia. Lewin A, et al. **Hum Reprod** 1999 Jul;14(7):1785-90

Oocyte quality and treatment outcome in intracytoplasmic sperm injection cycles of polycystic ovarian syndrome patients. Ludwig M, et al. **Hum Reprod** 1999 Feb; 14(2):354-8

Abnormalities for chromosomes 13 and 21 detected in spermatozoa from infertile men. McInnes B, et al. **Hum Reprod** 1998 Oct;13(10):2787-90

Implications of complete fertilization failure after intracytoplasmic sperm injection for subsequent fertilization and reproductive outcome. Moomjy M, et al. **Hum Reprod** 1998 Aug;13(8):2212-6

Intracytoplasmic sperm injection as a routine indication in low responder patients [see comments] Moreno C, et al. **Hum Reprod** 1998 Aug;13(8):2126-9. Comment in: Hum Reprod 1999 Jul;14(7):1919.

A novel approach to sperm cryopreservation. Morris GJ, et al. **Hum Reprod** 1999 Apr;14(4):1013-21

Light and electron microscopic analysis of human testicular spermatozoa and spermatids from frozen and thawed testicular biopsies. Nogueira D, et al. **Hum Reprod** 1999 Aug;14(8):2041-9

Semen quality: is there a paternal effect on pregnancy outcome in in-vitro fertilization/intracytoplasmic sperm injection? Oehninger S, et al. **Hum Reprod** 1998 Aug; 13(8):2161-4

Randomized comparison of three media used for embryo culture after intracytoplasmic sperm injection. Parinaud J, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:212-7

The predictive value of day 3 embryo morphology regarding blastocyst formation, pregnancy and implantation rate after day 5 transfer following in-vitro fertilization or intracytoplasmic sperm injection. Rijnders PM, et al. **Hum Reprod** 1998 Oct;13(10):2869-73

Birth of a healthy neonate following the intracytoplasmic injection of testicular spermatozoa from a patient with Klinefelter's syndrome. Ron-el R, et al. **Hum Reprod** 1999 Feb;14(2):368-70

Testicular sperm extraction: microdissection improves sperm yield with minimal tissue excision. Schlegel PN. **Hum Reprod** 1999 Jan;14(1):131-5

Controlled comparison of percutaneous and microsurgical sperm retrieval in men with obstructive azoospermia. Sheynkin YR, et al. **Hum Reprod** 1998 Nov;13(11):3086-9

The outcome of in-vitro fertilization treatment by egg donation and intracytoplasmatic sperm injection for severe male factor infertility: a preliminary report. Shulman A, et al. **Hum Reprod** 1998 Aug;13(8):2158-60

No differences in outcome after intracytoplasmic sperm injection with fresh or with frozen-thawed epididymal spermatozoa. Tournaye H, et al. **Hum Reprod** 1999 Jan; 14(1):90-5

Testicular biopty gun needle biopsy in collecting spermatozoa for intracytoplasmic injection, cryopreservation and histology. Tuuri T, et al. **Hum Reprod** 1999 May; 14(5):1274-8

The first births and ongoing pregnancies associated with sperm cryopreservation within evacuated egg zonae. Walmsley R, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:61-70

Diagnostic epididymal and testicular sperm recovery and genetic aspects in azoospermic men. Westlander G, et al. **Hum Reprod** 1999 Jan;14(1):118-22

The usefulness of a piezo-micromanipulator in intracytoplasmic sperm injection in humans. Yanagida K, et al. **Hum Reprod** 1999 Feb;14(2):448-53

Influence of oocyte preincubation time on fertilization after intracytoplasmic sperm injection. Yanagida K, et al. **Hum Reprod** 1998 Aug;13(8):2223-6

Expression of mitochondrial marker proteins during spermatogenesis. Meinhardt A, et al. **Hum Reprod Update** 1999 Mar-Apr;5(2):108-19 (116 ref.)

Microdissection TESE: sperm retrieval in non-obstructive azoospermia. Schlegel PN, et al. **Hum Reprod Update** 1998 Jul-Aug;4(4):439

Seminal fructose levels in male infertility: relationship with sperm characteristics. Andrade-Rocha FT. **Int Urol Nephrol** 1999;31(1):107-11

Centrifugal pulsing increases the recovery of viable spermatozoa. Bielfeld P, et al. **J Assist Reprod Genet** 1998 Nov;15(10):609-11

The outcome of cryopreserved human embryos after intracytoplasmic sperm injection and traditional IVF. Emiliani S, et al. **J Assist Reprod Genet** 1999 Sep; 16(8):405-9

Fertilization, embryo quality, and cryosurvival in in vitro fertilization and intracytoplasmic sperm injection cycles. Moilanen JM, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):17-23

The outcome of sperm retrieval and intracytoplasmic sperm injection in patients with obstructive azoospermia: impact of previous tuberculous epididymitis. Moon SY, et al. **J Assist Reprod Genet** 1999 Sep;16(8):431-5

Use of a medium devoid of any human or animal compound (SMART2) for embryo culture in intracytoplasmic sperm injection. Parinaud J, et al. **J Assist Reprod Genet** 1999 Jan;16(1):13-6

Fluorescence in situ hybridization with chromosome paint probes: a novel approach to assess aneuploidy in human sperm nuclei. Rives N, et al. **J Assist Reprod Genet** 1999 Jan;16(1):46-51

Implications of sperm chromosome abnormalities in recurrent miscarriage. Rubio C, et al. **J Assist Reprod Genet** 1999 May;16(5):253-8

Human pregnancies after transfer of fresh (four- to eight-cell) versus frozen-thawed blastocysts resulting from intracytoplasmic sperm injection. Servy EJ, et al. **J Assist Reprod Genet** 1998 Aug;15(7):422-6

Comparison of cryopreservation outcome following intracytoplasmic sperm injection and conventional in vitro fertilization. Simon A, et al. **J Assist Reprod Genet** 1998 Aug;15(7):431-7

Structure of the avian oviduct with emphasis on sperm storage in poultry. Bakst MR. **J Exp Zool** 1998 Nov-Dec 1;282(4-5):618-26 (29 ref.)

Oviductal sperm storage as a reproductive tactic of turtles. Gist DH, et al. **J Exp Zool** 1998 Nov-Dec 1; 282(4-5):526-34 (48 ref.)

Fertilization capability of frozen epididymal sperm for intracytoplasmic sperm injection. Chang HC, et al. **J Formos Med Assoc** 1999 Mar;98(3):171-4

Surgical and pathologic observations of epididymal tubules during microscopic epididymal sperm aspiration for intracytoplasmic sperm injection. Chiang HS, et al. **J Formos Med Assoc** 1998 Dec;97(12):838-44

Detection of numerical chromosome abnormalities in human spermatozoa by three-color fluorescence in situ hybridization. Li P, et al. **J Obstet Gynaecol Res** 1998 Dec; 24(6):385-92

Sperm/DNA interaction: integration of foreign DNA sequences in the mouse sperm genome. Magnano AR, et al. **J Reprod Immunol** 1998 Dec;41(1-2):187-96 (23 ref.)

Percutaneous testicular sperm aspiration: a convenient and effective office procedure to retrieve sperm for in vitro fertilization with intracytoplasmic sperm injection. Belker AM, et al. **J Urol** 1998 Dec;160(6 Pt 1):2058-62

Testicular sperm extraction and intracytoplasmic sperm injection: a chance of fertility in nonobstructive azoospermia [see comments] Gil-Salom M, et al. **J Urol** 1998 Dec;160(6 Pt 1):2063-7. Comment in: J Urol 1998 Dec;160(6 Pt 1):2072-3.

The fate of cryopreserved sperm acquired during vasectomy reversals. Glazier DB, et al. **J Urol** 1999 Feb;161(2):463-6

Postmortem sperm procurement: a legal perspective. Kahan SE, et al. **J Urol** 1999 Jun;161(6):1840-3

Assisted reproduction technology for patients with congenital bilateral absence of vas deferens [see comments] Okada H, et al. **J Urol** 1999 Apr;161(4):1157-62. Comment in: J Urol 1999 Apr;161(4):1166-7.

Quality of cryopreserved testicular sperm in patients with obstructive and nonobstructive azoospermia. Prins GS, et al. **J Urol** 1999 May;161(5):1504-8

Preoperative screening for genetic abnormalities in men with nonobstructive azoospermia before testicular sperm extraction [see comments] Rucker GB, et al. **J Urol** 1998 Dec;160(6 Pt 1):2068-71. Comment in: J Urol 1998 Dec;160(6 Pt 1):2072-3.

Testicular sperm extraction with intracytoplasmic sperm injection for nonobstructive azoospermia: testicular histology can predict success of sperm retrieval. Su LM, et al. **J Urol** 1999 Jan;161(1):112-6

Relation between semen quality and fertility: a population-based study of 430 first-pregnancy planners [see comments] Bonde JP, et al. **Lancet** 1998 Oct 10; 352(9135):1172-7. Comment in: Lancet 1998 Dec 5;352(9143):1861-2.

The effect of incubation periods under 95% oxygen on the stimulated acrosome reaction and motility of human spermatozoa. Whittington K, et al. **Mol Hum Reprod** 1998 Nov;4(11):1053-7

Nucleotide content, oxidative phosphorylation, morphology, and fertilizing capacity of turbot (Psetta maxima) spermatozoa during the motility period. Dreanno C, et al. **Mol Reprod Dev** 1999 Jun;53(2):230-43

Adenovirus-mediated introduction of DNA into pig sperm and offspring. Farre L, et al. **Mol Reprod Dev** 1999 Jun; 53(2):149-58

Increased telomere size in sperm cells of mammals with long terminal (TTAGGG)n arrays. Kozik A, et al. **Mol Reprod Dev** 1998 Sep;51(1):98-104

Selective sweep of a newly evolved sperm-specific gene in Drosophila [see comments] Nurminsky DI, et al. **Nature** 1998 Dec 10;396(6711):572-5. Comment in: Nature 1998 Dec 10;396(6711):522-3.

Strange tales of small men: homunculi in reproduction. Pinto-Correia C. **Perspect Biol Med** 1999 Winter; 42(2):225-44

Isolation of sperm storage tubules from the uterovaginal junction mucosa of the turkey. King LM, et al. **Poult Sci** 1999 Jul;78(7):1044-7

Sheep oocyte activation after intracytoplasmic sperm injection (ICSI). Gómez MC, et al. **Reprod Fertil Dev** 1998; 10(2):197-205

Testicular sperm extraction for nonobstructive azoospermia: results of a multibiopsy approach with optimized tissue dispersion. Ostad M, et al. **Urology** 1998 Oct;52(4):692-6

Spermatic granuloma in the ram: diagnosis by ultrasonography and semen characteristics. Karaca F, et al. **Vet Radiol Ultrasound** 1999 Jul-Aug;40(4):402-6

[Epididymal and testicular sperm in the in vitro fertilization program: the origin of sperm does not affect the results of intracytoplasmic sperm injection] Sobotka V, et al. **Ceska Gynekol** 1999 Jan;64(1):39-42 **(Cze)**

[Assisted fertilization in azoospermic men: results of CHUV from 1994 to 1997] Wisard M, et al. **Schweiz Med Wochenschr** 1999 Mar 20;129(11):425-32 (Eng. Abstr.) **(Fre)**

[The blood groups of bulls as genetic markers of sperm quality] Chukhrii BM, et al. **Tsitol Genet** 1998 Mar-Apr; 32(2):74-9 (Eng. Abstr.) **(Ukr)**

ABNORMALITIES

Teratozoospermia and its effect on male fertility potential. Szczygiel M, et al. **Andrologia** 1999 Mar;31(2):63-75 (107 ref.)

Chromosome analysis of BALB/c mouse spermatozoa with normal and abnormal head morphology. Kishikawa H, et al. **Biol Reprod** 1999 Sep;61(3):809-12

Sensitivity of domestic cat (Felis catus) sperm from normospermic versus teratospermic donors to cold-induced acrosomal damage. Pukazhenthi B, et al. **Biol Reprod** 1999 Jul;61(1):135-41

Spermiogenesis is impaired in mice bearing a targeted mutation in the protein phosphatase 1cgamma gene. Varmuza S, et al. **Dev Biol** 1999 Jan 1;205(1):98-110

Sperm abnormalities associated with high copper levels in impala (Aepyceros melampus) in the Kruger National Park, South Africa. Ackerman DJ, et al. **Ecotoxicol Environ Saf** 1999 Jul;43(3):261-6

The sperm deformity and the sperm multiple anomalies indexes in patients who underwent unilateral orchectomy and preventive radiotherapy. Panidis D, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Oct;80(2):247-50

Numerical dose-compensated in vitro fertilization inseminations yield high fertilization and pregnancy rates. Benoff S, et al. **Fertil Steril** 1999 Jun;71(6):1019-28

Incidence of sperm aneuploidy in relation to semen characteristics and assisted reproductive outcome. Colombero LT, et al. **Fertil Steril** 1999 Jul;72(1):90-6

Analysis of the sex chromosome constitution of sperm in men with a 47, XYY mosaic karyotype by fluorescence in situ hybridization. Lim AS, et al. **Fertil Steril** 1999 Jul; 72(1):121-3

Evaluation of the SQA IIB: a new version of a sperm quality analyzer. Makler A, et al. **Fertil Steril** 1999 Apr;71(4):761-4

Aneuploidy frequencies in semen fractions from ten oligoasthenoteratozoospermic patients donating sperm for intracytoplasmic sperm injection. Pfeffer J, et al. **Fertil Steril** 1999 Sep;72(3):472-8

Acephalic spermatozoa and abnormal development of the head-neck attachment: a human syndrome of genetic origin. Chemes HE, et al. **Hum Reprod** 1999 Jul; 14(7):1811-8

Cytogenetic analysis of unfertilized oocytes following intracytoplasmic sperm injection using spermatozoa from a globozoospermic man. Edirisinghe WR, et al. **Hum Reprod** 1998 Nov;13(11):3094-8

Fertility of ejaculated and testicular megalohead spermatozoa with intracytoplasmic sperm injection. Kahraman S, et al. **Hum Reprod** 1999 Mar;14(3):726-30

Triplet pregnancy and delivery after intracytoplasmic injection of round-headed spermatozoa. Kilani ZM, et al. **Hum Reprod** 1998 Aug;13(8):2177-9

Prevalence of morphologic defects in spermatozoa from beef bulls. Johnson KR, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1468-71

Deficiency of fucosidase results in acrosomal dysgenesis and impaired sperm maturation. Veeramachaneni DN, et al. **J Androl** 1998 Jul-Aug;19(4):444-9

Structural and biochemical features of fractionated spermatid manchettes and sperm axonemes of the azh/azh mutant mouse. Mochida K, et al. **Mol Reprod Dev** 1999 Apr; 52(4):434-44

Globozoospermia in mice lacking the casein kinase II alpha' catalytic subunit. Xu X, et al. **Nat Genet** 1999 Sep; 23(1):118-21

Semen quality and sex hormones among organic and traditional Danish farmers. ASCLEPIOS Study Group. Larsen SB, et al. **Occup Environ Med** 1999 Feb;56(2):139-44

[A clinico-genetic study of male infertility with globozoospermia] Stanislavov R, et al. **Akush Ginekol (Sofiia)** 1998;37(4):20-2 (Eng. Abstr.) **(Bul)**

CHEMISTRY

Fructose concentration in seminal fluids and the deoxyribonucleic acid content of spermatozoa from infertile human males. Oforofuo IA, et al. **Afr J Reprod Health** 1997 Mar;1(1):89-96

Identification of low-molecular-weight compounds in goat epididymis using multinuclear nuclear magnetic resonance. Patel AB, et al. **Anal Biochem** 1999 Jan 15;266(2):205-15

Occurrence and formation of cytoskeletal proteins in mammalian spermatozoa. Oko R. **Andrologia** 1998 Aug-Sep;30(4-5):193-206

Fitting genetic mapping functions based on sperm typing: results for three chromosomal segments in cattle. Windemuth C, et al. **Anim Genet** 1998 Dec;29(6):425-34

Anti-MIC2 as a tool in examination of testicular biopsies. Visfeldt J, et al. **APMIS** 1999 Jul;107(7):631-5

Maturation-related changes in distribution of lectin receptors in baboon (Papio anubis) spermatozoa during epididymal maturation. Mburu DN. **Arch Androl** 1999 May-Jun; 42(3):199-203

Isolation and characterization of low density detergent-insoluble membrane (LD-DIM) fraction from sea urchin sperm. Ohta K, et al. **Biochem Biophys Res Commun** 1999 May 19;258(3):616-23

Effects of ethanol ingestion on sperm monosaccharides and fertility. Srikanth V, et al. **Biochem Mol Biol Int** 1999 Jan; 47(1):71-7

Liposomes fuse with sperm cells and induce activation by delivery of impermeant agents. Garrett FE, et al. **Biochim Biophys Acta** 1999 Feb 4;1417(1):77-88

Relative impact of oxidative stress on the functional competence and genomic integrity of human spermatozoa. Aitken RJ, et al. **Biol Reprod** 1998 Nov;59(5):1037-46

Hamster sperm protein, p26h: a member of the short-chain dehydrogenase/reductase superfamily. Gaudreault C, et al. **Biol Reprod** 1999 Jul;61(1):264-73

A novel trans-complementation assay suggests full mammalian oocyte activation is coordinately initiated by multiple, submembrane sperm components. Perry AC, et al. **Biol Reprod** 1999 Mar;60(3):747-55

Voltage-dependent activation of frog eggs by a sperm surface disintegrin peptide. Shilling FM, et al. **Dev Biol** 1998 Oct 1;202(1):113-24

Numerical and structural chromosomal abnormalities detected in human sperm with a combination of multicolor FISH assays. Baumgartner A, et al. **Environ Mol Mutagen** 1999;33(1):49-58

Your genome--just another credit card to carry around [letter] Agarwal A. **Fertil Steril** 1999 Aug;72(2):378-9

Immunofluorescent evidence of the platelet-activating factor receptor on human spermatozoa. Reinhardt JC, et al. **Fertil Steril** 1999 May;71(5):941-2

Potential adverse effect of semen processing on human sperm deoxyribonucleic acid integrity. Zini A, et al. **Fertil Steril** 1999 Sep;72(3):496-9

Actin and major sperm protein in spermatozoa of a nematode, Graphidium strigosum (Strongylida: Trichostrongylidae). Mansir A, et al. **Folia Parasitol (Praha)** 1999;46(1):47-51

Techniques for sorting X and Y spermatozoa may adversely affect histone-associated regions in human spermatozoa [letter; comment] Gardiner-Garden M. **Hum Reprod** 1999 May;14(5):1403-4. Comment on: Hum Reprod 1998 Sep;13(9):2367-70.

Sperm artificially exposed to antisperm antibodies show altered deoxyribonucleic acid. Evans ML, et al. **J Assist Reprod Genet** 1999 Sep;16(8):443-9

Migration and ultrastructural localization of the c-kit receptor protein in spermatogenic cells and spermatozoa of the mouse. Sandlow JI, et al. **J Urol** 1999 May; 161(5):1676-80

Are there inositol 1,4,5-triphosphate (IP3) receptors in human sperm? Kuroda Y, et al. **Life Sci** 1999;65(2):135-43

Cellular distribution and molecular heterogeneity of MAC393 antigen (clusterin, beta-chain) on the surface membrane of bull spermatozoa. Howes EA, et al. **Mol Hum Reprod** 1998 Jul;4(7):673-81

Disomy rates for chromosomes 14 and 21 studied by fluorescent in-situ hybridization in spermatozoa from three men over 60 years of age. Rousseaux S, et al. **Mol Hum Reprod** 1998 Jul;4(7):695-9

Detection of benzo[a]pyrene diol epoxide-DNA adducts in embryos from smoking couples: evidence for transmission by spermatozoa. Zenzes MT, et al. **Mol Hum Reprod** 1999 Feb;5(2):125-31

Analysis of hamster protamines: primary sequence and species distribution. Corzett M, et al. **Mol Reprod Dev** 1999 Nov;54(3):273-82

Immunolocalization of anti-agglutinin for spermatozoa in boars. Harayama H, et al. **Mol Reprod Dev** 1999 Mar; 52(3):269-76

Purification and partial peptide sequence analysis of the boar proacrosin binding protein. Huh K, et al. **Mol Reprod Dev** 1999 Sep;54(1):76-80

Human sperm DNA integrity assessed by the Comet and

ELISA assays. Hughes CM, et al. **Mutagenesis** 1999 Jan; 14(1):71–5

Ion channels in sperm physiology. Darszon A, et al. **Physiol Rev** 1999 Apr;79(2):481–510 (327 ref.)

Immunoelectron microscopic visualization of intermediate basic proteins HPI1 and HPI2 in human spermatids and spermatozoa. Prigent Y, et al. **Reprod Nutr Dev** 1998 Jul–Aug;38(4):417–27

[Intra-spermatic L-carnitine and survival of sperm motility] Mazzilli F, et al. **Minerva Ginecol** 1999 Apr;51(4):129–34 (Eng. Abstr.) **(Ita)**

CLASSIFICATION

Sperm subpopulations in boar (Sus scrofa) and gazelle (Gazella dama mhorr) semen as revealed by pattern analysis of computer-assisted motility assessments. Abaigar T, et al. **Biol Reprod** 1999 Jan;60(1):32–41

Morphological classification of sperm heads using artificial neural networks. Yi WJ, et al. **Medinfo** 1998;9 Pt 2:1071–4

CYTOLOGY

Sperm morphology and IVF: embryo quality in relation to sperm morphology following the WHO and Krüger's strict criteria. Høst E, et al. **Acta Obstet Gynecol Scand** 1999 Jul;78(6):526–9

Effects of rapamycin and FK 506 on rat Sertoli cells in vitro. Clemann N, et al. **Adv Exp Med Biol** 1998;444:67–70; discussion 70–1

In vitro culture systems for germ cells from mouse embryo: primordial germ cells and oocytes. De Felici M. **Adv Exp Med Biol** 1998;444:41–7; discussion 47–9

Morphological characterization of ejaculated cynomolgus monkey (Macaca fascicularis) sperm. Gago C, et al. **Am J Primatol** 1999;47(2):105–15

Histological characterization of defective spermatogenesis in mice lacking the basigin gene. Toyama Y, et al. **Anat Histol Embryol** 1999 Jul;28(3):205–13

Repeatability and variance analysis on multiple computer-assisted (IVOS) sperm morphology readings. Coetzee K, et al. **Andrologia** 1999 May;31(3):163–8

Morphometrical comparison of human spermatozoa obtained from semen and swim-up methodology. Domínguez LA, et al. **Andrologia** 1999 Jan;31(1):23–6

Multicenter study on reproducibility of sperm morphology assessments. Ombelet W, et al. **Arch Androl** 1998 Sep–Oct; 41(2):103–14

Hepatoma-derived growth factor-related protein (HRP)-1 gene in spermatogenesis in mice. Kuroda T, et al. **Biochem Biophys Res Commun** 1999 Aug 27;262(2):433–7

Haploid male germ cells show no susceptibility to transformation by simian virus 40 large tumour antigen in transgenic mice. Nayernia K, et al. **Cell Biol Int** 1998; 22(6):437–43

Seminal androgen concentrations and residual sperm cytoplasm. Laudat A, et al. **Clin Chim Acta** 1998 Aug 10; 276(1):11–8

Separation of sperm and vaginal cells based on ploidy, MHC class I-, CD45-, and cytokeratin expression for enhancement of DNA typing after sexual assault. Schoell WM, et al. **Cytometry** 1999 Aug 1;36(4):319–23

p53-mediated germ cell quality control in spermatogenesis. Yin Y, et al. **Dev Biol** 1998 Dec 1;204(1):165–71

Advanced semen analysis: a simple screening test to predict intrauterine insemination success. Branigan EF, et al. **Fertil Steril** 1999 Mar;71(3):547–51

Sperm viability assays--a matter of life and death! [letter] Esteves SC, et al. **Fertil Steril** 1999 Jul;72(1):184–5

Fertilization abnormalities and pronucleus size asynchrony after intracytoplasmic sperm injection are related to oocyte postmaturity. Goud P, et al. **Fertil Steril** 1999 Aug; 72(2):245–52

Testis sperm extraction and intracytoplasmic sperm injection guided by prior fine-needle aspiration mapping in patients with nonobstructive azoospermia. Turek PJ, et al. **Fertil Steril** 1999 Mar;71(3):552–7

Intra- and inter-laboratory variability in the assessment of sperm morphology by strict criteria: impact of semen preparation, staining techniques and manual versus computerized analysis. Barroso G, et al. **Hum Reprod** 1999 Aug;14(8):2036–40

Sperm separation for sex selection [letter; comment] Bernstein ME. **Hum Reprod** 1998 Sep;13(9):2658–9. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

What constitutes a normal seminal analysis? Semen parameters of 243 fertile men. Chia SE, et al. **Hum Reprod** 1998 Dec;13(12):3394–8

Evaluation of three substitutes for Percoll in sperm isolation by density gradient centrifugation. Claassens OE, et al. **Hum Reprod** 1998 Nov;13(11):3139–43

Human sperm function in co-culture with human, macaque or bovine oviduct epithelial cell monolayers. Ellington JE, et al. **Hum Reprod** 1998 Oct;13(10):2797–804

Births of normal daughters after MicroSort sperm separation and intrauterine insemination, in-vitro fertilization, or intracytoplasmic sperm injection [see comments] Fugger EF, et al. **Hum Reprod** 1998 Sep;13(9):2367–70. Comment in: Hum Reprod 1999 May;14(5):1403–4.

Immature germ cell separation using a modified discontinuous Percoll gradient technique in human semen. Gandini L, et al. **Hum Reprod** 1999 Apr;14(4):1022–7

Difficulties in distinguishing between a mature spermatid and a testicular spermatozoon [letter; comment] Lewis SE, et al. **Hum Reprod** 1998 Oct;13(10):2979–80. Comment on: Hum Reprod 1998 Jan;13(1):104–10.

Flow cytometric light scattering analysis, acrosome reaction, reactive oxygen species production and leukocyte contamination of semen preparation in prediction of fertilization rate in vitro. Moilanen JM, et al. **Hum Reprod** 1998 Sep;13(9):2568–74

Effect of image sampling frequency on established and smoothing-independent kinematic values of capacitating human spermatozoa. Mortimer ST, et al. **Hum Reprod** 1999 Apr;14(4):997–1004

The reproductive option of sex selection. Simpson JL, et al. **Hum Reprod** 1999 Apr;14(4):870–2

Sperm separation for sex selection [letter; comment] Wang JX, et al. **Hum Reprod** 1998 Sep;13(9):2659. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

Penile vibratory stimulation yields increased spermatozoa and accessory gland production compared with rectal electroejaculation in a neurologically intact primate (Saimiri boliviensis). Yeoman RR, et al. **Hum Reprod** 1998 Sep;13(9):2527–31

A matter of death and life: the significance of germ cell death during spermatogenesis. Blanco-Rodriguez J. **Int J Androl** 1998 Oct;21(5):236–48 (138 ref.)

Freezing of testicular tissue as a minced suspension preserves sperm quality better than whole-biopsy freezing when glycerol is used as cryoprotectant. Crabbé E, et al. **Int J Androl** 1999 Feb;22(1):43–8

Associations among age, scrotal circumference, and proportion of morphologically normal spermatozoa in young beef bulls during an initial breeding soundness examination. Coe PH. **J Am Vet Med Assoc** 1999 Jun 1; 214(11):1664–7

Antioxidant potential of human serum albumin: role in the recovery of high quality human spermatozoa for assisted reproductive technology. Armstrong JS, et al. **J Androl** 1998 Jul–Aug;19(4):412–9

Potential daily sperm production, Sertoli cell number, and seminiferous tubule characteristics in beef bulls fed conventional or gossypol-enriched diets. Cerelli JS, et al. **J Androl** 1999 Jul–Aug;20(4):519–28

Evidence for cross-talk between Sertoli and germ cells using selected cathepsins as markers. Chung SS, et al. **J Androl** 1998 Nov–Dec;19(6):686–703

Quantification of apoptotic testicular germ cells in normal and methoxyacetic acid-treated mice as determined by flow cytometry. Krishnamurthy H, et al. **J Androl** 1998 Nov–Dec;19(6):710–7

The use of two fluorescent dyes to identify sperm in a competitive binding assay to oocytes. Miller DJ, et al. **J Androl** 1998 Nov–Dec;19(6):650–6

Localized depolymerization of the major sperm protein cytoskeleton correlates with the forward movement of the cell body in the amoeboid movement of nematode sperm. Italiano JE Jr, et al. **J Cell Biol** 1999 Sep 6;146(5):1087–96

Are caspases involved in the death of cells with a transcriptionally inactive nucleus? Sperm and chicken erythrocytes. Weil M, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2707–15

Effect of aging and dietary restriction on rat testicular germ cell apoptosis. Barnes CJ, et al. **J Gerontol A Biol Sci Med Sci** 1999 May;54(5):B199–204; discussion B205–6

Changes in lectin binding patterns of mouse male germ cells (gonocytes) during prespermatogenesis. Nagano R, et al. **J Vet Med Sci** 1999 May;61(5):465–70

Morphological classification of sperm heads using artificial neural networks. Yi WJ, et al. **Medinfo** 1998;9 Pt 2:1071–4

Gamma-tubulin during the differentiation of spermatozoa in various mammals and man. Fouquet JP, et al. **Mol Hum Reprod** 1998 Dec;4(12):1122–9

Preimplantation genetic diagnosis and sperm analysis by fluorescence in-situ hybridization for the most common reciprocal translocation t(11;22). Van Assche E, et al. **Mol Hum Reprod** 1999 Jul;5(7):682–90

Influence of p53 zygosity on select sperm parameters of the mouse. Marty MS, et al. **Mutat Res** 1999 Jun 1;427(1):39–45

Role of Ahch in gonadal development and gametogenesis [see comments] Yu RN, et al. **Nat Genet** 1998 Dec; 20(4):353–7. Comment in: Nat Genet 1998 Dec;20(4):318–9.

Evolution of sperm size in nematodes: sperm competition favours larger sperm. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):263–7

Larger sperm outcompete smaller sperm in the nematode Caenorhabditis elegans. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 22; 265(1409):1997–2002

Quality assurance of semen analysis in multicenter studies. Asclepios. Giwercman A, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:23–5; discussion 76–8

Analysis of chromosome aneuploidy in sperm by fluorescence in situ hybridization--a new approach to the study of male fertility in environmental exposures. Asclepios. Lähdetie J, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:26–7

Introduction: the male germ cell; origin, migration, proliferation and differentiation [comment] Bellvé AR. **Semin Cell Dev Biol** 1998 Aug;9(4):379–91. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):393–400. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):401–9. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):411–6. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):417–21. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):423–32. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):433–49. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):445–50. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):451–7. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):459–66. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):467–74.

Stage-specific apoptosis of male germ cells in the rat: mechanisms of cell death studied by supravital squash preparations. Henriksén K, et al. **Tissue Cell** 1998 Dec; 30(6):692–701

Germline cysts: a conserved phase of germ cell development? Pepling ME, et al. **Trends Cell Biol** 1999 Jul;9(7):257–62 (53 ref.)

Study on the origin of seminal leucocytes using split ejaculate technique and the effect of leucocytospermia on sperm characteristics. Simbini T, et al. **Urol Int** 1998;61(2):95–100

[The morphology of human spermatozoa--the norm and pathology] Stanislavov R. **Akush Ginekol (Sofiia)** 1998; 37(3):41–3 (Eng. Abstr.) **(Bul)**

[The transducing pathway of Ca2+ influx during progesterone-initiated acrosome reaction of guinea pig sperm] Jia ZY, et al. **Sheng Li Hsueh Pao** 1997 Jun; 49(3):349–53 (Eng. Abstr.) **(Chi)**

DRUG EFFECTS

Flow cytometry as a tool for the evaluation of testicular toxicity. Bobadilla M, et al. **Adv Exp Med Biol** 1998; 444:73–6; discussion 76–8

Sperm aneuploidy among Chinese pesticide factory workers: scoring by the FISH method. Padungtod C, et al. **Am J Ind Med** 1999 Aug;36(2):230–8

Improvement in semen quality associated with decreasing occupational lead exposure. Viskum S, et al. **Am J Ind Med** 1999 Mar;35(3):257–63

Direct effect of alcohol on the motility and morphology of human spermatozoa. Donnelly GP, et al. **Andrologia** 1999 Jan;31(1):43–7

In vitro effects of peroxynitrite on human spermatozoa. Oztezcan S, et al. **Andrologia** 1999 Jul;31(4):195–8

Effects of extracellular ions on the reactivation of human spermatozoa preserved in electrolyte-free solution. Saito K, et al. **Andrologia** 1999 Jul;31(4):211–5

Effects of progesterone on human spermatozoa: clinical implications. Forti G, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):107–10 (31 ref.)

Effect of actinomycin D and cycloheximide on human sperm function. Naz RK. **Arch Androl** 1998 Sep–Oct;41(2):135–42

Influence of pentoxifylline on sperm membrane functional integrity. Ponce AA, et al. **Arch Androl** 1999 Jul–Aug; 43(1):77–84

Murine strain differences and the effects of zinc on cadmium concentrations in tissues after acute cadmium exposure. King LM, et al. **Arch Toxicol** 1998 Oct;72(10):650–5

Age-related changes in rat testicular oxidative stress parameters by hexachlorocyclohexane. Samanta L, et al. **Arch Toxicol** 1999 Mar;73(2):96–107

Progesterone enhances prostaglandin E2 production via interaction with nitric oxide in the mouse acrosome reaction. Herrero MB, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):324–8

Effects of ethanol ingestion on sperm monosaccharides and fertility. Srikanth V, et al. **Biochem Mol Biol Int** 1999 Jan; 47(1):71–7

Progesterone-induced acrosome reaction in stallion spermatozoa is mediated by a plasma membrane progesterone receptor. Cheng FP, et al. **Biol Reprod** 1998 Oct;59(4):733–42

Cyclodextrin removes cholesterol from mouse sperm and induces capacitation in a protein-free medium. Choi YH, et al. **Biol Reprod** 1998 Dec;59(6):1328–33

Spermicidal activity of oxovanadium(IV) complexes of 1, 10-phenanthroline, 2,2'-bipyridyl, 5'-bromo-2'-hydroxyacetophenone and derivatives in humans. D'Cruz OJ, et al. **Biol Reprod** 1999 Feb; 60(2):435–44

Strontium supports human sperm capacitation but not follicular fluid-induced acrosome reaction. Marín-Briggiler CI, et al. **Biol Reprod** 1999 Sep;61(3):673–80

Sperm and oocyte treatments to improve the formation of male and female pronuclei and subsequent development following intracytoplasmic sperm injection into bovine oocytes. Rho GJ, et al. **Biol Reprod** 1998 Oct;59(4):918–24

Increased production of mouse embryos in in vitro fertilization by preincubating sperm cells with the nuclease inhibitor aurintricarboxylic acid. Zaccagnini G, et al. **Biol Reprod** 1998 Dec;59(6):1549–53

Arginine activates glycolysis of goat epididymal spermatozoa: an NMR study. Patel AB, et al. **Biophys J** 1998 Sep;75(3):1522–8

Toxicity of metals and pesticides using the sperm cell bioassay with the sea urchin Arbacia spatuligera. Larrain A, et al. **Bull Environ Contam Toxicol** 1999 Jun;62(6):749–57

Analysis of sperm chromosome complements before, during, and after chemotherapy. Martin RH, et al. **Cancer Genet Cytogenet** 1999 Jan 15;108(2):133–6

Effects of organochlorine xenobiotics on human spermatozoa. Silvestroni L, et al. **Chemosphere** 1999 Oct;39(8):1249–52

Mouse spermatozoa in high concentrations of glycerol: chemical toxicity vs osmotic shock at normal and reduced oxygen concentrations. Katkov II, et al. **Cryobiology** 1998 Dec;37(4):325–38

Anion channel blockers differentially affect T-type Ca(2+) currents of mouse spermatogenic cells, alpha1E currents expressed in Xenopus oocytes and the sperm acrosome reaction. Espinosa F, et al. **Dev Genet** 1999;25(2):103–14

Aneuploidy in sperm and exposure to fungicides and lifestyle factors. ASCLEPIOS. A European Concerted Action on Occupational Hazards to Male Reproductive Capability. Härkönen K, et al. **Environ Mol Mutagen** 1999;34(1):39–46

Treatment of asthenozoospermia with zinc sulphate: andrological, immunological and obstetric outcome. Omu AE, et al. **Eur J Obstet Gynecol Reprod Biol** 1998 Aug; 79(2):179–84

An alternative medicine study of herbal effects on the penetration of zona-free hamster oocytes and the integrity of sperm deoxyribonucleic acid. Ondrizek RR, et al. **Fertil Steril** 1999 Mar;71(3):517–22

Paradoxical effect of reagents for sulfhydryl and disulfide groups on human sperm capacitation and superoxide production. de Lamirande E, et al. **Free Radic Biol Med** 1998 Nov 1;25(7):803–17

The effects of coital lubricants on sperm motility in vitro. Anderson L, et al. **Hum Reprod** 1998 Dec;13(12):3351–6

Free radicals, antioxidants and human spermatozoa: clinical implications. Geva E, et al. **Hum Reprod** 1998 Jun; 13(6):1422–4

Effects of co-trimoxazole, erythromycin, amoxycillin, tetracycline and chloroquine on sperm function in vitro. Hargreaves CA, et al. **Hum Reprod** 1998 Jul;13(7):1878–86

A rationale for glutathione therapy. Lenzi A, et al. **Hum Reprod** 1998 Jun;13(6):1419–22

Antioxidant treatment of patients with asthenozoospermia or moderate oligoasthenozoospermia with high-dose vitamin C and vitamin E: a randomized, placebo-controlled, double-blind study. Rolf C, et al. **Hum Reprod** 1999 Apr; 14(4):1028–33

Sperm treatment with extracellular ATP increases fertilization rates in in-vitro fertilization for male factor infertility. Rossato M, et al. **Hum Reprod** 1999 Mar; 14(3):694–7

Recent biochemical approaches to post-testicular, epididymal contraception. Cooper TG, et al. **Hum Reprod Update** 1999 Mar-Apr;5(2):141–52 (117 ref.)

Effect of potash alum (aluminium potassium sulphate) on human semen and sperm. Singh HP, et al. **Indian J Physiol Pharmacol** 1998 Apr;42(2):311–4

Change in semen quality and sperm chromatin structure following occupational styrene exposure. ASCLEPIOS [see comments] Kolstad HA, et al. **Int Arch Occup Environ Health** 1999 May;72(3):135–41. Comment in: Int Arch Occup Environ Health 1999 May;72(3):133–4.

A re-appraisal of the post-testicular action and toxicity of chlorinated antifertility compounds. Jones AR, et al. **Int J Androl** 1999 Jun;22(3):130–8 (62 ref.)

Exposure of human, boar, or bull sperm to a synthetic peptide increases binding to an egg-membrane substrate. Amann RP, et al. **J Androl** 1999 Jan-Feb;20(1):34–41

Exposure of thawed frozen bull sperm to a synthetic peptide before artificial insemination increases fertility. Amann RP, et al. **J Androl** 1999 Jan-Feb;20(1):42–6

Extender components and surfactants affect boar sperm function and membrane behavior during cryopreservation. Pettitt MJ, et al. **J Androl** 1998 Nov-Dec;19(6):736–46

Müllerian inhibiting substance improves longevity of motility and viability of fresh and cryopreserved sperm. Siow Y, et al. **J Androl** 1998 Sep-Oct;19(5):568–72

Effect of acute androgen withdrawal by GnRH antagonist on epididymal sperm motility and morphology in the cynomolgus monkey. Yeung CH, et al. **J Androl** 1999 Jan-Feb;20(1):72–9

Effects of piperine on testis of albino rats. Malini T, et al. **J Ethnopharmacol** 1999 Mar;64(3):219–25

Antispermatogenic and androgenic activities of Momordica charantia (Karela) in albino rats. Naseem MZ, et al. **J Ethnopharmacol** 1998 May;61(1):9–16

Characterization of epididymal sperm motion and its correlation with stages of target cells in rats given alpha-chlorohydrin, cyclophosphamide or nitrazepam. Kaneto M, et al. **J Toxicol Sci** 1999 Aug;24(3):187–97

Availability of sperm examination for male reproductive toxicities in rats treated with boric acid. Yoshizaki H, et al. **J Toxicol Sci** 1999 Aug;24(3):199–208

FPP modulates mammalian sperm function via TCP-11 and the adenylyl cyclase/cAMP pathway. Adeoya-Osiguwa SA, et al. **Mol Reprod Dev** 1998 Dec;51(4):468–76

Detection of aneuploidy by multicolor FISH in mouse sperm after in vivo treatment with acrylamide, colchicine, diazepam or thiabendazole. Schmid TE, et al. **Mutagenesis** 1999 Mar;14(2):173–9

Colcemid and econazole do not show aneugenicity in male mouse germ cells. Shi Q, et al. **Mutagenesis** 1998 Jul; 13(4):409–16

N-ethyl-N-nitrosourea predominantly induces mutations at AT base pairs in pre-meiotic germ cells of Drosophila males. Tosal L, et al. **Mutagenesis** 1998 Jul;13(4):375–80

Germ cell mutagenicity of phthalic acid in mice. Jha AM, et al. **Mutat Res** 1998 Dec 3;422(2):207–12

Griseofulvin-induced aneuploidy and meiotic delay in male mouse germ cells: detected by using conventional cytogenetics and three-color FISH. Qinghua S, et al. **Mutat Res** 1999 May 17;441(2):181–90

Effects of a purified fraction from Echeveria gibbiflora aqueous crude extract on guinea-pig spermatozoa. Delgado NM, et al. **Phytother Res** 1999 Feb;13(1):46–9

Arachidonic acid-induced acrosomal loss in the spermatozoa of a marsupial, the tammar wallaby (Macropus eugenii). Sistina Y, et al. **Reprod Fertil Dev** 1997;9(8):803–9

Involvement of germ cell apoptosis in the induction of testicular toxicity following hydroxyurea treatment. Shin JH, et al. **Toxicol Appl Pharmacol** 1999 Mar 1;155(2):139–49

Can alcohol retain the reproductive and genetic potential of sperm nuclei? Chromosome analysis of mouse spermatozoa stored in alcohol. Tateno H, et al. **Zygote** 1998 Aug;6(3):233–8

[Effects of semen Cuscutae, rhizoma Curculiginis, radix Morindae officinalis on human spermatozoan's motility and membrane function in vitro] Peng SJ, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Mar; 17(3):145–7 (Eng. Abstr.) **(Chi)**

[Exposure to pseudo-estrogens and the quality of sperm] van Kooij RJ, et al. **Ned Tijdschr Geneeskd** 1998 Nov 14; 142(46):2505–8 (20 ref.) (Eng. Abstr.) **(Dut)**

[Features of development of male sex cells in mice subjected to the effect of chemical mutagens dipine and nitrosomethylurea (NMM) during the prenatal period] Zakhidov ST, et al. **Dokl Akad Nauk** 1998 Sep;362(1):127–9 **(Rus)**

ENZYMOLOGY

Lipid metabolising enzymes in isolated rat testicular germ cells and changes associated with meiosis. Bajpai M, et al. **Andrologia** 1998 Nov;30(6):311–5

Localisation of enzymes in live spermatozoa by CellProbe reagents (preliminary results). Glander HJ, et al. **Andrologia** 1999 Jan;31(1):37–42

The soluble sperm factor that causes Ca2+ release from sea-urchin (Lytechinus pictus) egg homogenates also triggers Ca2+ oscillations after injection into mouse eggs. Parrington J, et al. **Biochem J** 1999 Jul 1;341 (Pt 1):1–4

A 105- to 94-kilodalton protein in the epididymal fluids of domestic mammals is angiotensin I-converting enzyme (ACE); evidence that sperm are the source of this ACE. Gatti JL, et al. **Biol Reprod** 1999 Apr;60(4):937–45

Protein tyrosine phosphorylation during hyperactivated motility of cynomolgus monkey (Macaca fascicularis) spermatozoa. Mahony MC, et al. **Biol Reprod** 1999 May; 60(5):1239–43

A plasma membrane-associated hyaluronidase is localized to the posterior acrosomal region of stallion sperm and is associated with spermatozoal function. Meyers SA, et al. **Biol Reprod** 1999 Aug;61(2):444–51

Rat sperm surface mannosidase is first expressed on the plasma membrane of testicular germ cells. Pereira BM, et al. **Biol Reprod** 1998 Dec;59(6):1288–95

Testisin, a new human serine proteinase expressed by premeiotic testicular germ cells and lost in testicular germ cell tumors. Hooper JD, et al. **Cancer Res** 1999 Jul 1; 59(13):3199–205

Identification of Rab3A GTPase as an acrosome-associated small GTP-binding protein in rat sperm. Iida H, et al. **Dev Biol** 1999 Jul 1;211(1):144–55

Activation of Xenopus eggs by proteases: possible involvement of a sperm protease in fertilization. Mizote A, et al. **Dev Biol** 1999 Apr 1;208(1):79–92

Protein kinase profile of sperm and eggs: cloning and characterization of two novel testis-specific protein kinases (AIE1, AIE2) related to yeast and fly chromosome segregation regulators. Tseng TC, et al. **DNA Cell Biol** 1998 Oct;17(10):823–33

Characterization and immunolocalization of beta-D-glucuronidase in mouse testicular germ cells and spermatozoa. Abou-Haila A, et al. **Exp Cell Res** 1999 Feb 25;247(1):48–60

A mammalian sperm cytosolic phospholipase C activity generates inositol trisphosphate and causes Ca2+ release in sea urchin egg homogenates. Jones KT, et al. **FEBS Lett** 1998 Oct 23;437(3):297–300

Human sperm endothelial nitric oxide synthase expression: correlation with sperm motility. O'Bryan MK, et al. **Fertil Steril** 1998 Dec;70(6):1143–7

Role of phospholipases during sperm acrosomal exocytosis. Roldan ER. **Front Biosci** 1998 Nov 1;3:D1109–19 (122 ref.)

Relationship between creatine kinase activity and semen characteristics in subfertile men. Sidhu RS, et al. **Int J Fertil Womens Med** 1998 Jul-Aug;43(4):192–7

Interaction between Ca2+, cyclic 3',5' adenosine monophosphate, the superoxide anion, and tyrosine phosphorylation pathways in the regulation of human sperm capacitation. Leclerc P, et al. **J Androl** 1998 Jul-Aug;19(4):434–43

Evidence for the role of heterotrimeric guanine nucleotide-binding regulatory proteins in the regulation of the mouse sperm adenylyl cyclase by the egg's zona pellucida. Leclerc P, et al. **J Androl** 1999 Jan-Feb; 20(1):126–34

Selective expression of a glutathione S-transferase subclass during spermatogenesis. Rowe JD, et al. **J Androl** 1998 Sep-Oct;19(5):558–67

Motility potential of macaque epididymal sperm: the role of protein phosphatase and glycogen synthase kinase-3 activities. Smith GD, et al. **J Androl** 1999 Jan-Feb; 20(1):47–53

Sperm creatine kinase activity in normospermic and oligozospermic Hungarian men. Gergely A, et al. **J Assist Reprod Genet** 1999 Jan;16(1):35–40

Deletion of type IIalpha regulatory subunit delocalizes protein kinase A in mouse sperm without affecting motility or fertilization. Burton KA, et al. **J Biol Chem** 1999 Aug 20;274(34):24131–6

Follicular fluid proteins stimulate nitric oxide (NO) synthesis in human sperm: a possible role for NO in acrosomal reaction. Revelli A, et al. **J Cell Physiol** 1999 Jan; 178(1):85–92

Are caspases involved in the death of cells with a transcriptionally inactive nucleus? Sperm and chicken erythrocytes. Weil M, et al. **J Cell Sci** 1998 Sep;111 (Pt 18):2707–15

Changes in hyaluronidase, acrosin, and N-acetylhexosaminidase activities of dog sperm after incubation. Kawakami E, et al. **J Vet Med Sci** 1999 Feb; 61(2):183–4

Phorbol esters and synthetic diacylglycerols inhibit gamma-aminobutyric acid uptake in human spermatozoa: an effect mediated by protein kinase C? Aanesen A, et al. **Mol Hum Reprod** 1998 Apr;4(4):339–44

Phosphoinositide 3-kinase is involved in the induction of the human sperm acrosome reaction downstream of tyrosine phosphorylation. Fisher HM, et al. **Mol Hum Reprod** 1998 Sep;4(9):849–55

Detection of mRNA transcripts of cyclic nucleotide phosphodiesterase subtypes in ejaculated human spermatozoa. Richter W, et al. **Mol Hum Reprod** 1999 Aug; 5(8):732–6

Plasma membrane-associated protein tyrosine phosphatase activity in hamster spermatozoa. Devi KU, et al. **Mol Reprod Dev** 1999 May;53(1):42–50

Plasma membrane association and preliminary characterization of Drosophila sperm surface glycosidases. Pasini ME, et al. **Mol Reprod Dev** 1999 Feb;52(2):166–73

[Male germ cells. A new source of estrogens in the mammalian testis] Carreau S, et al. **Ann Endocrinol (Paris)** 1998 Jul;59(2):79–92 (142 ref.) (Eng. Abstr.) **(Fre)**

GROWTH & DEVELOPMENT

Introduction: the male germ cell; origin, migration, proliferation and differentiation [comment] Bellvé AR. **Semin Cell Dev Biol** 1998 Aug;9(4):379–91. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):393–400. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):401–9. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):411–6. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):417–21. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):423–32. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):433–49. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):445–50. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):451–7. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):459–66. Comment on: Semin Cell Dev Biol 1998 Aug;9(4):467–74.

IMMUNOLOGY

Antisperm antibodies in prepubertal boys and their reactivity with antigenic determinants on differentiated spermatozoa. Domagala A, et al. **Am J Reprod Immunol** 1998 Sep; 40(3):223–9

Do autoantibodies to sperm reduce fecundity? A mini-review in historical perspective. Hjort T. **Am J Reprod Immunol** 1998 Sep;40(3):215–22 (50 ref.)

Quantification of C3 and C4 in infertile men with antisperm antibody in their seminal plasma. Rahimi A, et al. **Am J Reprod Immunol** 1999 May;41(5):330–6

Localisation of low molecular weight sperm antigens during capacitation and acrosome reaction. Bathla H, et al. **Anim Reprod Sci** 1998 Dec 1;54(1):55–64

Semen culture, leukocytospermia, and the presence of sperm antibodies in seminal hyperviscosity. Munuce MJ, et al. **Arch Androl** 1999 Jan-Feb;42(1):21–8

Complement component 1 inhibitor (C1-INH) like protein on murine spermatozoa: anti-C1-INH inhibits in vitro fertilization. Pillai (fka. Mathur) S, et al. **Autoimmunity** 1998;28(2):69–76

A combinatorial phage display library for the generation of specific Fab fragments recognizing human spermatozoa and inhibiting fertilizing capacity in vitro. Clayton R, et al. **Biol Reprod** 1998 Nov;59(5):1180–6

Effects of experimentally generated bull antisperm antibodies on in vitro fertilization. Kim CA, et al. **Biol Reprod** 1999 Jun;60(6):1285–91

Human sperm proteome: immunodominant sperm surface antigens identified with sera from infertile men and women. Shetty J, et al. **Biol Reprod** 1999 Jul;61(1):61–9

Postcoital testing. Postcoital test should be performed as routine infertility test [letter; comment] Cohlen BJ, et al. **BMJ** 1999 Apr 10;318(7189):1008–9. Comment on: BMJ 1998 Aug 22;317(7175):502–5.

Postcoital testing. Male partner should be assessed [letter; comment] Hendry WF. **BMJ** 1999 Apr 10; 318(7189):1007–8; discussion 1008–9. Comment on: BMJ 1998 Aug 22;317(7157):502–5.

The characterization of human spermatozoa membrane proteins--surface antigens and immunological infertility. Bohring C, et al. **Electrophoresis** 1999 Apr-May; 20(4–5):971–6

N-linked glycan of a sperm CD52 glycoform associated with human infertility. Diekman AB, et al. **FASEB J** 1999 Aug; 13(11):1303–13

Leukocytospermia and genuine genital tract infections? [letter; comment] Carranza-Lira S. **Fertil Steril** 1999 May; 71(5):973. Comment on: Fertil Steril 1998 Aug;70(2):315-9.
Antisperm antibodies: etiology, pathogenesis, diagnosis, and treatment. Mazumdar S, et al. **Fertil Steril** 1998 Nov; 70(5):799-810 (100 ref.)
Fertilization antigen-1 removes antisperm autoantibodies from spermatozoa of infertile men and results in increased rates of acrosome reaction. Menge AC, et al. **Fertil Steril** 1999 Feb;71(2):256-60
Characterization of a potent sperm-agglutinating monoclonal antibody and its cognate antigens. Yakirevich E, et al. **Fertil Steril** 1999 Mar;71(3):502-10
The intra- and inter-assay variation of the indirect mixed antiglobulin reaction test: is a quality control suitable? Bohring C, et al. **Hum Reprod** 1999 Jul;14(7):1802-5
Detection of antisperm antibodies: an argument against therapeutic nihilism. Bronson R. **Hum Reprod** 1999 Jul; 14(7):1671-3 (27 ref.)
Antisperm antibodies: detection assays for antisperm antibodies: what do they test? Helmerhorst FM, et al. **Hum Reprod** 1999 Jul;14(7):1669-71 (34 ref.)
Survey of the diagnosis and management of antisperm antibodies. Krapez JA, et al. **Hum Reprod** 1998 Dec; 13(12):3363-7
Immunological assessment of infertility by estimation of antisperm antibodies in infertile couples. Kapoor A, et al. **Indian J Pathol Microbiol** 1999 Jan;42(1):37-43
Study on serum sperm agglutination in cases of unexplained infertility. Thakur P, et al. **Indian J Pathol Microbiol** 1998 Jul;41(3):343-50
A prospective clinical trial investigating the efficacy of a method of preparing subpopulations of antibody-free spermatozoa from the ejaculates of antibody-positive patients. Grundy CE, et al. **Int J Androl** 1998 Oct; 21(5):261-70
Immunohistochemical expression of monoclonal antibody 43-9F in testicular germ cell tumours. Heidenreich A, et al. **Int J Androl** 1998 Oct;21(5):283-8
Immunomodulators in human seminal plasma: a vital protection for spermatozoa in the presence of infection? Kelly RW. **Int J Androl** 1999 Feb;22(1):2-12 (121 ref.)
The effect of spermatozoa and seminal plasma on leukocyte migration into the uterus of gilts. Rozeboom KJ, et al. **J Anim Sci** 1999 Aug;77(8):2201-6
Antisperm antibody: a monkey wrench in conception/magic bullet of contraception? Kamada M, et al. **J Med Invest** 1999 Feb;46(1-2):19-28 (51 ref.)
Post-obstruction rat sperm autoantigens identified by two-dimensional gel electrophoresis and western blotting. Flickinger CJ, et al. **J Reprod Immunol** 1999 May; 43(1):35-53
The potential use of sperm antigens as targets for immunocontraception; past, present and future. Frayne J, et al. **J Reprod Immunol** 1999 May;43(1):1-33 (202 ref.)
HLA expression on immature and mature human germ cells. Hutter H, et al. **J Reprod Immunol** 1998 Jul;38(2):101-22 (99 ref.)
Absence of antisperm surface antibodies in prepubertal boys with cryptorchidism and other anomalies of the inguinoscrotal region before and after surgery. Mirilas P, et al. **J Urol** 1999 Jul;162(1):177-81
Antisperm antibodies in cryptorchidism before and after surgery. Sinisi AA, et al. **J Urol** 1998 Nov;160(5):1834-7
Identification of linear surface epitopes on the guinea pig sperm membrane protein PH-20. Chan CP, et al. **Life Sci** 1999;64(22):1989-2000
Sperm survival in the female reproductive tract: presence of immunosuppression or absence of recognition? [see comments] Barratt CL, et al. **Mol Hum Reprod** 1998 Apr; 4(4):309-13 (56 ref.). Comment in: Mol Hum Reprod 1998 Apr;4(4):313-7.
Spermatozoa and antibodies [comment] Cohen J. **Mol Hum Reprod** 1998 Apr;4(4):313-7 (32 ref.). Comment on: Mol Hum Reprod 1998 Apr;4(4):309-12.
Expression of recombinant mouse sperm protein sp56 and assessment of its potential for use as an antigen in an immunocontraceptive vaccine. Hardy CM, et al. **Mol Reprod Dev** 1999 Feb;52(2):216-24
Hamster sperm antigen P26h is a phosphatidylinositol-anchored protein. Légaré C, et al. **Mol Reprod Dev** 1999 Feb;52(2):225-33
Cloning and sequencing of cDNA encoding for a human sperm antigen involved in fertilization. Zhu X, et al. **Mol Reprod Dev** 1998 Oct;51(2):176-83
[An experimental study on inhibitory effect of Chinese medicine tai-bao on antisperm antibody] Lai AN, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jun; 17(6):360-2 (Eng. Abstr.) **(Chi)**

METABOLISM

GABA and human spermatozoa: characterization and regulation of GABA transport proteins. Aanesen A. **Acta Physiol Scand Suppl** 1998 Nov;642:1-61 (243 ref.)
Molecular cloning and developmental pattern of expression of MSJ-1, a new male germ cell-specific DNAJ homologue. Berruti G, et al. **Adv Exp Med Biol** 1998; 444:145-50; discussion 151 (14 ref.)
FMR1 CGG-repeat instability in single sperm and lymphocytes of fragile-X premutation males. Nolin SL, et al. **Am J Hum Genet** 1999 Sep;65(3):680-8
Major histocompatibility complex expression on human, male germ cells: a review. Fiszer D, et al. **Am J Reprod Immunol** 1998 Sep;40(3):172-6 (34 ref.)
News and views of non-genomic progesterone receptors on spermatozoa. Blackmore PF. **Andrologia** 1998 Aug-Sep; 30(4-5):255-61 (69 ref.)
New aspects of sperm-zona pellucida binding. Franken DR. **Andrologia** 1998 Aug-Sep;30(4-5):263-8 (35 ref.)
Adhesion molecules and matrix proteins on human spermatozoa. Glander HJ, et al. **Andrologia** 1998 Aug-Sep; 30(4-5):289-96 (35 ref.)
Involvement of selectin-like carbohydrate binding specificity in human gamete interaction. Oehninger S, et al. **Andrologia** 1998 Aug-Sep;30(4-5):269-74
Relationship between human sperm lipid peroxidation, comprehensive quality parameters and IVF outcome. Zabludovsky N, et al. **Andrologia** 1999 Mar;31(2):91-8
Identification of ampullary and isthmic oviductal fluid proteins that associate with the bovine sperm membrane. Rodriguez C, et al. **Anim Reprod Sci** 1998 Dec 1;54(1):1-12
Effect of nitric oxide releasers on some metabolic processes of rabbit spermatozoa. Guzmán-Grenfell AM, et al. **Arch Androl** 1999 Mar-Apr;42(2):119-23
Eliciting an immune response by plasmid DNA encoding a human sperm protein (HSD-1). Wu YW, et al. **Arch Androl** 1999 May-Jun;42(3):127-36
Biochemical and MALDI analysis of the human sperm antigen gp20, homologue of leukocyte CD52. Focarelli R, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):639-43
Progesterone enhances prostaglandin E2 production via interaction with nitric oxide in the mouse acrosome reaction. Herrero MB, et al. **Biochem Biophys Res Commun** 1998 Nov 18;252(2):324-8
Cloning and characterization of SOB1, a new testis-specific cDNA encoding a human sperm protein probably involved in oocyte recognition. Lefevre A, et al. **Biochem Biophys Res Commun** 1999 May 27;259(1):60-6
Long PCR analysis of human gamete mtDNA suggests defective mitochondrial maintenance in spermatozoa and supports the bottleneck theory for oocytes. Reynier P, et al. **Biochem Biophys Res Commun** 1998 Nov 18; 252(2):373-7
Molecular cloning and expression of rat contraception associated protein 1 (CAP1), a protein putatively involved in fertilization. Wagenfeld A, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):545-9
Transcripts encoding the sperm surface protein tMDC II are non-functional in the human. Frayne J, et al. **Biochem J** 1999 Aug 1;341 (Pt 3):771-5
Protein-protein interactions between the testis brain RNA-binding protein and the transitional endoplasmic reticulum ATPase, a cytoskeletal gamma actin and Trax in male germ cells and the brain. Wu XQ, et al. **Biochemistry** 1999 Aug 31;38(35):11261-70
Functional expression of sperm angiotensin II type I receptor in Xenopus oocyte: modulation of a sperm Ca2+-activated K+ channel. So SC, et al. **Biochim Biophys Acta** 1998 Dec 9;1415(1):261-5
Recent and rapid amplification of the sperm basic nuclear protein genes in winter flounder. Watson CE, et al. **Biochim Biophys Acta** 1999 Mar 19;1444(3):337-45
Developmental profile of a caltrin-like protease inhibitor, P12, in mouse seminal vesicle and characterization of its binding sites on sperm surface. Chen LY, et al. **Biol Reprod** 1998 Dec;59(6):1498-505
Cyclodextrin removes cholesterol from mouse sperm and induces capacitation in a protein-free medium. Choi YH, et al. **Biol Reprod** 1998 Dec;59(6):1328-33
Expression of interleukin-1 system genes in human gametes. de los Santos MJ, et al. **Biol Reprod** 1998 Dec;59(6):1419-24
Subzero water permeability parameters of mouse spermatozoa in the presence of extracellular ice and cryoprotective agents. Devireddy RV, et al. **Biol Reprod** 1999 Sep;61(3):764-75
Calcium-dependent actin filament-severing protein scinderin levels and localization in bovine testis, epididymis, and spermatozoa. Pelletier R, et al. **Biol Reprod** 1999 May; 60(5):1128-36
Bovine seminal plasma phospholipid-binding proteins stimulate phospholipid efflux from epididymal sperm. Thérien I, et al. **Biol Reprod** 1999 Sep;61(3):590-8
Major proteins of bovine seminal plasma and high-density lipoprotein induce cholesterol efflux from epididymal sperm. Thérien I, et al. **Biol Reprod** 1998 Oct;59(4):768-76
Antioxidant systems in rat epididymal spermatozoa. Tramer F, et al. **Biol Reprod** 1998 Oct;59(4):753-8
Roles of bicarbonate, cAMP, and protein tyrosine phosphorylation on capacitation and the spontaneous acrosome reaction of hamster sperm. Visconti PE, et al. **Biol Reprod** 1999 Jul;61(1):76-84
Regionalized lipid diffusion in the plasma membrane of mammalian spermatozoa. Wolfe CA, et al. **Biol Reprod** 1998 Dec;59(6):1506-14
In vivo gene transfer to mouse spermatogenic cells by deoxyribonucleic acid injection into seminiferous tubules and subsequent electroporation. Yamazaki Y, et al. **Biol Reprod** 1998 Dec;59(6):1439-44
Arginine activates glycolysis of goat epididymal spermatozoa: an NMR study. Patel AB, et al. **Biophys J** 1998 Sep;75(3):1522-8
Increase of human spermatozoa intracellular Ca2+ concentration after fusion with prostasomes. Palmerini CA, et al. **Cell Calcium** 1999 Apr;25(4):291-6
Two alternatively spliced Meig1 messenger RNA species are differentially expressed in the somatic and in the germ-cell compartments of the testis. Ever L, et al. **Cell Growth Differ** 1999 Jan;10(1):19-26
Expression of glycylated tubulin during the differentiation of spermatozoa in mammals. Kann ML, et al. **Cell Motil Cytoskeleton** 1998;41(4):341-52
The use of phosphocreatine plus ADP as energy source for motility of membrane-deprived trout spermatozoa. Saudrais C, et al. **Cell Motil Cytoskeleton** 1998;41(2):91-106
Treatment of mouse oocytes with PI-PLC releases 70-kDa (pI 5) and 35- to 45-kDa (pI 5.5) protein clusters from the egg surface and inhibits sperm-oolemma binding and fusion. Coonrod SA, et al. **Dev Biol** 1999 Mar 15; 207(2):334-49
Sperm-egg binding in the sea urchin: a high level of intracellular ATP stabilizes sperm attachment to the egg receptor. Hirohashi N, et al. **Dev Biol** 1998 Sep 15; 201(2):270-9
Centrosome reduction during mouse spermiogenesis. Manandhar G, et al. **Dev Biol** 1998 Nov 15;203(2):424-34
Spatiotemporal dynamics of the [Ca2+]i rise induced by microinjection of sperm extract into mouse eggs: preferential induction of a Ca2+ wave from the cortex mediated by the inositol 1,4,5-trisphosphate receptor. Oda S, et al. **Dev Biol** 1999 May 1;209(1):172-85
Spatiotemporal characterization of intracellular Ca2+ rise during the acrosome reaction of mammalian spermatozoa induced by zona pellucida. Shirakawa H, et al. **Dev Biol** 1999 Apr 1;208(1):70-8
Processing of the sperm protein Sp17 during the acrosome reaction and characterization as a calmodulin binding protein. Wen Y, et al. **Dev Biol** 1999 Feb 15;206(2):113-22
Discrete regional distributions suggest diverse functional roles of calcium channel alpha1 subunits in sperm. Westenbroek RE, et al. **Dev Biol** 1999 Mar 15;207(2):457-69
Partial characterization of the calcium-releasing activity of porcine sperm cytosolic extracts. Wu H, et al. **Dev Biol** 1998 Nov 15;203(2):369-81
Anion channel blockers differentially affect T-type Ca(2+) currents of mouse spermatogenic cells, alpha1E currents expressed in Xenopus oocytes and the sperm acrosome reaction. Espinosa F, et al. **Dev Genet** 1999;25(2):103-14
The amino acid sequence of the ram spermatidal protein 3--a transition protein TP3 or TP4? Chevaillier P, et al. **Eur J Biochem** 1998 Dec 1;258(2):460-4
Structure and expression of the highly repetitive histone H1-related sperm chromatin proteins from winter flounder. Watson CE, et al. **Eur J Biochem** 1999 Jun;262(2):258-67
Meiotic segregation analysis by FISH investigations in sperm and spermatocytes of translocation heterozygotes [letter] Armstrong SJ, et al. **Eur J Hum Genet** 1998 Sep-Oct; 6(5):430-1
Microgravity alters protein phosphorylation changes during initiation of sea urchin sperm motility. Tash JS, et al. **FASEB J** 1999;13 Suppl:S43-54
Molecular cloning of haploid germ cell-specific tektin cDNA and analysis of the protein in mouse testis. Iguchi N, et al. **FEBS Lett** 1999 Aug 6;456(2):315-21
Characterization of aneuploidy rates, protamine levels, ultrastructure, and functional ability of round-headed sperm from two siblings and implications for intracytoplasmic sperm injection. Carrell DT, et al. **Fertil Steril** 1999 Mar;71(3):511-6
Expression of mannose-ligand receptors on human spermatozoa: effect of lecithin and association with sperm binding to the zona pellucida. Gamzu R, et al. **Fertil Steril** 1998 Oct;70(4):766-70
Detection of benzo(a)pyrene diol epoxide-DNA adducts in sperm of men exposed to cigarette smoke. Zenzes MT, et al. **Fertil Steril** 1999 Aug;72(2):330-5
Voltage dependent calcium channels in mammalian spermatozoa. Benoff S. **Front Biosci** 1998 Dec 1; 3:D1220-40 (254 ref.)
The clinical significance of sperm-zona pellucida binding. Franken DR. **Front Biosci** 1998 Dec 15;3:E247-53
Synthesis of 17,20alpha/beta-dihydroxy-4-pregnen-3-one and 5beta-pregnanes in spermatozoa of primary and 17alpha-methyltestosterone-induced secondary male grouper (Epinephelus coioides). Lee ST, et al. **Gen Comp Endocrinol** 1998 Oct;112(1):1-9
Genetic testing for male infertility: a postulated role for mutations in sperm nuclear matrix attachment regions. Kramer JA, et al. **Genet Test** 1997;1(2):125-9
Comparison of expanded CAG repeat tracts in sperm and lymphocyte DNA from Machado Joseph disease and spinocerebellar ataxia type I patients. Maurer DJ, et al. **Hum Mutat** 1998;Suppl 1:S74-7
Lipid dynamics in the plasma membrane of fresh and cryopreserved human spermatozoa. James PS, et al. **Hum Reprod** 1999 Jul;14(7):1827-32
A prospective analysis of the accuracy of the TEST-yolk buffer enhanced hamster egg penetration test and acrosin activity in discriminating fertile from infertile males. Romano R, et al. **Hum Reprod** 1998 Aug;13(8):2115-21
alpha-Mannosidase from rat epididymal fluid is a ligand for phosphomannosyl receptors on the sperm surface. Belmonte SA, et al. **Int J Androl** 1998 Oct;21(5):277-82
In vitro inhibition of superoxide anion production and superoxide dismutase activity by zinc in human spermatozoa. Gavella M, et al. **Int J Androl** 1999 Aug;

22(4):266–74
Relative contribution of leukocytes and of spermatozoa to reactive oxygen species production in human sperm suspensions. Whittington K, et al. **Int J Androl** 1999 Aug; 22(4):229–35
Molecular cloning and developmental expression of the major fibrous sheath protein (FS 75) of rat sperm. El-Alfy M, et al. **J Androl** 1999 Mar–Apr;20(2):307–18
Antioxidant potential of human serum albumin: role in the recovery of high quality human spermatozoa for assisted reproductive technology. Armstrong JS, et al. **J Androl** 1998 Jul–Aug;19(4):412–9
Determination of the steady-state intracellular chloride concentration in capacitated human spermatozoa [published erratum appears in J Androl 1999 May–Jun;20(3):434] Garcia MA, et al. **J Androl** 1999 Jan–Feb;20(1):88–93
Reproductive tract secretions and bull spermatozoa contain different clusterin isoforms that cluster cells and inhibit complement-induced cytolysis. Ibrahim NM, et al. **J Androl** 1999 Mar–Apr;20(2):230–40
Rabbit spermatozoa: a model system for studying ATP homeostasis and motility. Minelli A, et al. **J Androl** 1999 Mar–Apr;20(2):259–66
SP22: a novel fertility protein from a highly conserved gene family. Welch JE, et al. **J Androl** 1998 Jul–Aug; 19(4):385–93
Cholesterol efflux-mediated signal transduction in mammalian sperm. beta-cyclodextrins initiate transmembrane signaling leading to an increase in protein tyrosine phosphorylation and capacitation. Visconti PE, et al. **J Biol Chem** 1999 Jan 29;274(5):3235–42
Hexose transporter expression and function in mammalian spermatozoa: cellular localization and transport of hexoses and vitamin C. Angulo C, et al. **J Cell Biochem** 1998 Nov 1;71(2):189–203
Stability of transbilayer phospholipid asymmetry in viable ram sperm cells after cryotreatment. Müller K, et al. **J Cell Sci** 1999 Jan;112 (Pt 1):11–20
Identification and characterization of a novel functional estrogen receptor on human sperm membrane that interferes with progesterone effects. Luconi M, et al. **J Clin Endocrinol Metab** 1999 May;84(5):1670–8
Sperm metabolism of the telost fishes Chalcalburnus chalcoides and Oncorhynchus mykiss and its relation to motility and viability. Lahnsteiner F, et al. **J Exp Zool** 1999 Sep 1;284(4):454–65
Presence of platelet-activating factor in rhesus (Macaca mulatta) spermatozoa. Diaz E, et al. **J Med Primatol** 1999 Feb;28(1):32–5
The Amoroso Lecture. The human spermatozoon—a cell in crisis? Aitken RJ. **J Reprod Fertil** 1999 Jan;115(1):1–7 (49 ref.)
Effects of taurine on the motility and intracellular free Ca2+ concentration of fowl spermatozoa in vitro. Barna J, et al. **J Reprod Fertil** 1998 Nov;114(2):225–9
Effects of osmolality, morphology perturbations and intracellular nucleotide content during the movement of sea bass (Dicentrarchus labrax) spermatozoa. Dreanno C, et al. **J Reprod Fertil** 1999 May;116(1):113–25
Protein synthesis and secretion by the epididymis of the brushtail possum, Trichosurus vulpecula. Lamont AE, et al. **J Reprod Fertil** 1998 Sep;114(1):169–77
Maturation-dependent modification of the protein phosphorylation profile of isolated goat sperm plasma membrane. Nath D, et al. **J Reprod Fertil** 1999 Jan; 115(1):29–37
Studies on the relationship between urokinase plasminogen activator (uPA) and human sperm motility. Huang X, et al. **J Tongji Med Univ** 1997;17(4):213–7
Re: Reactive oxygen species production by the spermatozoa of patients with idiopathic infertility: relationship to seminal plasma antioxidants [letter; comment] Durak I, et al. **J Urol** 1999 May;161(5):1583–4. Comment on: J Urol 1997 Jan;157(1):140–3.
Varicocele is associated with elevated spermatozoal reactive oxygen species production and diminished seminal plasma antioxidant capacity. Hendin BN, et al. **J Urol** 1999 Jun; 161(6):1831–4
The molecular evolution of sperm bindin in six species of sea urchins (Echinoida: Strongylocentrotidae). Biermann CH. **Mol Biol Evol** 1998 Dec;15(12):1761–71
Phorbol esters and synthetic diacylglycerols inhibit gamma-aminobutyric acid uptake in human spermatozoa: an effect mediated by protein kinase C? Aanesen A, et al. **Mol Hum Reprod** 1998 Apr;4(4):339–44
The neoglycoprotein mannose-bovine serum albumin, but not progesterone, activates T-type calcium channels in human spermatozoa. Blackmore PF, et al. **Mol Hum Reprod** 1999 Jun;5(6):498–506
Tyrosine phosphorylation of a 95 kDa protein and induction of the acrosome reaction in human spermatozoa by recombinant human zona pellucida glycoprotein 3. Brewis IA, et al. **Mol Hum Reprod** 1998 Dec;4(12):1136–44
Isolation of the Ca2+ releasing component(s) of mammalian sperm extracts: the search continues. Fissore RA, et al. **Mol Hum Reprod** 1999 Mar;5(3):189–92 (57 ref.)
Gamma-tubulin during the differentiation of spermatozoa in various mammals and man. Fouquet JP, et al. **Mol Hum Reprod** 1998 Dec;4(12):1122–9
Binding of annexin V to plasma membranes of human spermatozoa: a rapid assay for detection of membrane changes after cryostorage. Glander HJ, et al. **Mol Hum Reprod** 1999 Feb;5(2):109–15
Identification and localization of G protein subunits in human spermatozoa. Merlet F, et al. **Mol Hum Reprod** 1999 Jan; 5(1):38–45
Occurrence of GABA and GABA receptors in human spermatozoa. Ritta MN, et al. **Mol Hum Reprod** 1998 Aug; 4(8):769–73
Calpain-calpastatin: a novel, complete calcium-dependent protease system in human spermatozoa. Rojas FJ, et al. **Mol Hum Reprod** 1999 Jun;5(6):520–6
Interactions between a decapacitation factor and mouse spermatozoa appear to involve fucose residues and a GPI-anchored receptor. Fraser LR. **Mol Reprod Dev** 1998 Oct;51(2):193–202
Flow cytometric detection of transbilayer movement of fluorescent phospholipid analogues across the boar sperm plasma membrane: elimination of labeling artifacts. Gadella BM, et al. **Mol Reprod Dev** 1999 May;53(1):108–25
Foreign DNA introduced into the vas deferens is gained by mammalian spermatozoa. Huguet E, et al. **Mol Reprod Dev** 1998 Sep;51(1):42–52
Ovarian follicular fluid, progesterone and Ca2+ ion influences on sperm release from the fallopian tube reservoir. Hunter RH, et al. **Mol Reprod Dev** 1999 Nov; 54(3):283–91
Lipid diffusion in the plasma membrane of ram and boar spermatozoa during maturation in the epididymis measured by fluorescence recovery after photobleaching. James PS, et al. **Mol Reprod Dev** 1999 Feb;52(2):207–15
Regulation of protein tyrosine phosphorylation in boar sperm through a cAMP-dependent pathway. Kalab P, et al. **Mol Reprod Dev** 1998 Nov;51(3):304–14
Delayed sperm incorporation into parthenogenetic mouse eggs: sperm nucleus transformation and development of resulting embryos. Maleszewski M, et al. **Mol Reprod Dev** 1999 Nov;54(3):303–10
c-Abl proto-oncoprotein is expressed and tyrosine phosphorylated in human sperm cell. Naz RK. **Mol Reprod Dev** 1998 Oct;51(2):210–7
Expression of mixed lineage kinase 2 in germ cells of the testis. Phelan DR, et al. **Mol Reprod Dev** 1999 Feb; 52(2):135–40
Identification of capacitation-associated phosphoproteins in porcine sperm electroporated with ATP-gamma-(32)P. Tardif S, et al. **Mol Reprod Dev** 1999 Nov;54(3):292–302
Sperm chromatin damage associated with male smoking. Potts RJ, et al. **Mutat Res** 1999 Jan 25;423(1–2):103–11
Identification of a novel Sry-related gene and its germ cell-specific expression. Osaki E, et al. **Nucleic Acids Res** 1999 Jun 15;27(12):2503–10
Origin and roles of genomic methylation patterns in male germ cells [see comments] Trasler JM. **Semin Cell Dev Biol** 1998 Aug;9(4):467–74 (68 ref.). Comment in: Semin Cell Dev Biol 1998 Aug;9(4):379–91.
Nongenomic progesterone receptor on human spermatozoa: biochemical aspects and clinical implications. Baldi E, et al. **Steroids** 1999 Jan–Feb;64(1–2):143–8 (53 ref.)
Time course of pronuclear formation and fertilisation after insemination in vitro and intracytoplasmic sperm injection of in vitro matured sheep oocytes. Gómez MC, et al. **Zygote** 1998 Aug;6(3):261–70
Phosphorylation of endogenous and TEST-yolk buffer proteins by intact human sperm. Miceli DC, et al. **Zygote** 1998 Aug;6(3):203–12
Functional interactions between sulphated polysaccharides and proacrosin: implications in sperm binding and digestion of zona pellucida. Moreno RD, et al. **Zygote** 1999 May; 7(2):105–11
[Iron and nonheme iron protein metabolism in ejaculates with varying degrees of fertility] Nikolaev AA, et al. **Urol Nefrol (Mosk)** 1998 Sep–Oct;(5):27–31 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

Ureaplasma urealyticum reduces motility and induces membrane alterations in human spermatozoa. Núñez-Calonge R, et al. **Hum Reprod** 1998 Oct; 13(10):2756–61
Improvement of semen quality in infected asymptomatic infertile male after bacteriological cure. Cardoso EM, et al. **Medicina (B Aires)** 1998;58(2):160–4

PATHOLOGY

Chromosome 21 disomy in the spermatozoa of the fathers of children with trisomy 21, in a population with a high prevalence of Down syndrome: increased incidence in cases of paternal origin. Blanco J, et al. **Am J Hum Genet** 1998 Oct;63(4):1067–72
Germ-cell nondisjunction in testes biopsies of men with idiopathic infertility. Huang WJ, et al. **Am J Hum Genet** 1999 Jun;64(6):1638–45
Sex chromosome aneuploidies in sperm of 47,XYY men. Morel F, et al. **Arch Androl** 1999 Jul–Aug;43(1):27–36 (28 ref.)
Spermatic granulomas resembling testicular neoplasia [letter] Divani S, et al. **Cytopathology** 1998 Oct;9(5):354–5
Abnormal sperm parameters in humans are indicative of an abortive apoptotic mechanism linked to the Fas-mediated pathway. Sakkas D, et al. **Exp Cell Res** 1999 Sep 15; 251(2):350–5
Lack of correlation between oocyte-corona-cumulus complex morphology and nuclear maturity of oocytes collected in stimulated cycles for intracytoplasmic sperm injection. Rattanachaiyanont M, et al. **Fertil Steril** 1999 May;71(5):937–40
Smoking cigarettes is associated with increased sperm disomy in teenage men. Rubes J, et al. **Fertil Steril** 1998 Oct; 70(4):715–23
What are the germ cell phenotypes from infertile men telling us about spermatogenesis? Escalier D. **Histol Histopathol** 1999 Jul;14(3):959–71 (113 ref.)
Multicolor fluorescence in situ hybridization analysis of the spermatozoa of a male heterozygous for a reciprocal translocation t(11;22)(q23;q11). Estop AM, et al. **Hum Genet** 1999 May;104(5):412–7
Estimates of sperm sex chromosome disomy and diploidy rates in a 47,XXY/46,XY mosaic Klinefelter patient. Lim AS, et al. **Hum Genet** 1999 May;104(5):405–9
Analysis of sex chromosome aneuploidy in sperm from fathers of Turner syndrome patients. Martinez-Pasarell O, et al. **Hum Genet** 1999 Apr;104(4):345–9
Partial obstruction of the seminal path, a frequent cause of oligozoospermia in men. Belmonte IG, et al. **Hum Reprod** 1998 Dec;13(12):3402–5
Study of aneuploidy in normal and abnormal germ cells from semen of fertile and infertile men. Bernardini L, et al. **Hum Reprod** 1998 Dec;13(12):3406–13
Ultrastructural pathology of the sperm flagellum: association between flagellar pathology and fertility prognosis in severely asthenozoospermic men. Chemes HE, et al. **Hum Reprod** 1998 Sep;13(9):2521–6
Enzymatic digestion of testicular tissue may rescue the intracytoplasmic sperm injection cycle in some patients with non-obstructive azoospermia. Crabbé E, et al. **Hum Reprod** 1998 Oct;13(10):2791–6
Utility of the sperm chromatin structure assay as a diagnostic and prognostic tool in the human fertility clinic. Evenson DP, et al. **Hum Reprod** 1999 Apr;14(4):1039–49
Establishment of predictive variables associated with testicular sperm retrieval in men with non-obstructive azoospermia. Ezeh UI, et al. **Hum Reprod** 1999 Apr; 14(4):1005–12
Correlation of testicular pathology and sperm extraction in azoospermic men with ejaculated spermatids detected by immunofluorescent localization. Ezeh UI, et al. **Hum Reprod** 1998 Nov;13(11):3061–5
Correlation of testicular sperm extraction with morphological, biophysical and endocrine profiles in men with azoospermia due to primary gonadal failure. Ezeh UI, et al. **Hum Reprod** 1998 Nov;13(11):3066–74
Morphology comparison of individually selected hyperactivated and non-hyperactivated human spermatozoa. Green S, et al. **Hum Reprod** 1999 Jan; 14(1):123–30
Density gradient centrifugation and glass wool filtration of semen remove spermatozoa with damaged chromatin structure. Larson KL, et al. **Hum Reprod** 1999 Aug; 14(8):2015–9
Serial sonography and colour flow Doppler imaging following testicular and epididymal sperm extraction. Ron-El R, et al. **Hum Reprod** 1998 Dec;13(12):3390–3
Sperm retrieval and fertilization in repeated percutaneous epididymal sperm aspiration. Rosenlund B, et al. **Hum Reprod** 1998 Oct;13(10):2805–7
Effect of immobilization stress on testicular germ cell apoptosis in rats. Yazawa H, et al. **Hum Reprod** 1999 Jul; 14(7):1806–10
Effect of varicocelectomy on the abnormal retention of residual cytoplasm by human spermatozoa. Zini A, et al. **Hum Reprod** 1999 Jul;14(7):1791–3
Differences in the DNA-stainability of spermatozoa from fertile and suspected infertile men. Bito M, et al. **Int J Androl** 1999 Aug;22(4):275–81
Extra-epididymal spermatozoa express nuclear abnormalities. Potts RJ, et al. **Int J Androl** 1999 Aug;22(4):282–8
Spermatic granulomata are experimentally induced in epididymides of mice receiving high-dose testosterone implants. I. A light-microscopical study. Itoh M, et al. **J Androl** 1999 Jul–Aug;20(4):551–8
Assessment of the dominant abnormal form is useful for predicting the outcome of intracytoplasmic sperm injection in the case of severe teratozoospermia. Osawa Y, et al. **J Assist Reprod Genet** 1999 Sep;16(8):436–42
Serum inhibin B in combination with serum follicle-stimulating hormone (FSH) is a more sensitive marker than serum FSH alone for impaired spermatogenesis in men, but cannot predict the presence of sperm in testicular tissue samples. von Eckardstein S, et al. **J Clin Endocrinol Metab** 1999 Jul;84(7):2496–501
Sperm abnormalities and histopathological changes in the testes in Crj:CD(SD)IGS rats. Matsumoto K, et al. **J Toxicol Sci** 1999 Feb;24(1):63–8
Is hyperdiploidy of immature ejaculated germ cells predictive of testis malignancy? A comparative study in healthy normozoospermic, infertile, and testis tumor suffering subjects. Salanova M, et al. **Lab Invest** 1999 Sep; 79(9):1127–35
Mea2/Golga3 gene is disrupted in a line of transgenic mice with a reciprocal translocation between Chromosomes 5 and 19 and is responsible for a defective spermatogenesis in homozygotes. Matsukuma S, et al. **Mamm Genome** 1999 Jan;10(1):1–5
Improvement of semen quality in infected asymptomatic

infertile male after bacteriological cure. Cardoso EM, et al. **Medicina (B Aires)** 1998;58(2):160–4

Germ cell apoptosis in men with complete and incomplete spermiogenesis failure. Tesarik J, et al. **Mol Hum Reprod** 1998 Aug;4(8):757–62

[The morphology of human spermatozoa--the norm and pathology] Stanislavov R. **Akush Ginekol (Sofiia)** 1998; 37(3):41–3 (Eng. Abstr.) **(Bul)**

[Apoptosis in normal and pathological spermatogenesis] Angelopoulou R, et al. **Contracept Fertil Sex** 1999 Feb; 27(2):99–106 (86 ref.) **(Fre)**

[The role of oxygen radicals in the physiology and pathology of human sperm] Man'kovs'ka IM, et al. **Fiziol Zh** 1998; 44(5–6):118–25 (37 ref.) (Eng. Abstr.) **(Ukr)**

PHYSIOLOGY

Sperm collection from shot red deer stags (Cervus elaphus) and the utilisation of sperm frozen and subsequently thawed. Zomborszky Z, et al. **Acta Vet Hung** 1999; 47(2):263–70

Sperm viability in ram semen diluted and stored in three different extenders. López A, et al. **Acta Vet Scand** 1999; 40(1):1–9

Analysis of gene regulation in Sertoli cells by a gene trap approach. López-Fernández LA, et al. **Adv Exp Med Biol** 1998;444:153–62

A new assay to asses aneuploidy in human–hamster embryos. Ponsa I, et al. **Adv Exp Med Biol** 1998;444:185–90

Effect of aging on spontaneous and induced mouse testicular germ cell apoptosis. Barnes CJ, et al. **Aging (Milano)** 1998 Dec;10(6):497–501

Fas regulates germ cell apoptosis in the human testis in vitro. Pentikäinen V, et al. **Am J Physiol** 1999 Feb;276(2 Pt 1):E310–6

Effects of bovine serum albumin on function of cryopreserved stallion spermatozoa during medium culture and uterine tube epithelial cell coculture. Ellington JE, et al. **Am J Vet Res** 1999 Mar;60(3):363–7

ART success and in vivo sperm cell selection depend on the ultramorphological status of spermatozoa. Berkovitz A, et al. **Andrologia** 1999 Jan;31(1):1–8

Lipid peroxidation in human spermatozoa and maintenance of progressive sperm motility. Engel S, et al. **Andrologia** 1999 Jan;31(1):17–22

Modulation of mammalian sperm function by fertilization promoting peptide (FPP). Fraser LR. **Andrologia** 1998 Aug–Sep;30(4–5):241–7 (33 ref.)

Effect of angiotensin converting enzyme (ACE) and angiotensins on human sperm functions. Köhn FM, et al. **Andrologia** 1998 Aug–Sep;30(4–5):207–15

Effects of extracellular ions on the reactivation of human spermatozoa preserved in electrolyte–free solution. Saito K, et al. **Andrologia** 1999 Jul;31(4):211–5

Spermadhesins: a new protein family. Facts, hypotheses and perspectives. Töpfer-Petersen E, et al. **Andrologia** 1998 Aug–Sep;30(4–5):217–24 (65 ref.)

Human sperm motility and lipid peroxidation in different ascorbic acid concentrations: an in vitro analysis. Verma A, et al. **Andrologia** 1998 Nov;30(6):325–9

Ongoing pregnancies resulting from intracytoplasmic sperm injection (ICSI) of spermatozoa from frozen-th wed testicular biopsy specimens. Windt ML, et al. **Andrologia** 1999 May;31(3):169–72

Relative efficacy of conventional sperm parameters and sperm penetration bioassay to assess bull fertility in vitro. Brahmkshtri BP, et al. **Anim Reprod Sci** 1999 Jan 8; 54(3):159–68

The hypoosmotic swelling test performed with coulter counter: a method to assay functional integrity of sperm membrane in rainbow trout. Cabrita E, et al. **Anim Reprod Sci** 1999 Apr 31;55(3–4):279–87

In vitro interactions of cryopreserved stallion spermatozoa and oviduct (uterine tube) epithelial cells or their secretory products. Ellington JE, et al. **Anim Reprod Sci** 1999 May 17;56(1):51–65

Fundamental cryobiology of selected African mammalian spermatozoa and its role in biodiversity preservation through the development of genome resource banking. Gilmore JA, et al. **Anim Reprod Sci** 1998 Oct; 53(1–4):277–97

Characteristics of fresh and frozen-thawed red wolf (Canis rufus) spermatozoa. Goodrowe KL, et al. **Anim Reprod Sci** 1998 Oct;53(1–4):299–308

Effects of medium containing heparin and theophylline on capacitation and metabolic enzyme activities of ejaculated spermatozoa from dogs with asthenozoospermia. Kawakami E, et al. **Anim Reprod Sci** 1999 Jan 29; 54(4):251–9

Measurements of bovine sperm velocities under true anaerobic and aerobic conditions. Krzyzosiak J, et al. **Anim Reprod Sci** 1999 Apr 31;55(3–4):163–73

Membrane integrity and fertilizing potential of cryopreserved spermatozoa in European mouflon. Naitana S, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):105–12

Effects of progesterone on human spermatozoa: clinical implications. Forti G, et al. **Ann Endocrinol (Paris)** 1999 Jul;60(2):107–10 (31 ref.)

Men's bodies, men's minds: seminal emissions and sexual anxiety in the Middle Ages. Murray J. **Annu Rev Sex Res** 1997;8:1–26 (66 ref.)

Effect of progesterone on acrosome reaction, hypoosmotic swelling test, and DNA stability in human spermatozoa. Contreras HR, et al. **Arch Androl** 1999 Mar–Apr; 42(2):97–104

Nucleons, I: A model for studying the mechanism of sperm nucleus swelling in vitro. Delgado NM, et al. **Arch Androl** 1999 Jul–Aug;43(1):85–95

Postmortem assessment of sperm characteristics of the red deer during the breeding season. Garde JJ, et al. **Arch Androl** 1998 Nov–Dec;41(3):195–202

Fresh and frozen epididymal sperm yield comparable pregnancy rates for intracytoplasmic sperm injection. Garrels KL, et al. **Arch Androl** 1998 Nov–Dec;41(3):159–65

Aggregation of human sperm at higher temperature is due to hyperactivation. Keppler EL, et al. **Arch Androl** 1999 Jan–Feb;42(1):35–9

Influence of progesterone and GABAA receptor on calcium mobilization during human sperm acrosome reaction. Kuroda Y, et al. **Arch Androl** 1999 May–Jun;42(3):185–91

Expression and phosphorylation of mitogen–activated protein kinases during spermatogenesis and epididymal sperm maturation in mice. Lu Q, et al. **Arch Androl** 1999 Jul–Aug; 43(1):55–66

Maturation–related changes in distribution of lectin receptors in baboon (Papio anubis) spermatozoa during epididymal maturation. Mburu DN. **Arch Androl** 1999 May–Jun; 42(3):199–203

Recurrent failure of pronucleus formation after intracytoplasmic sperm injection. Rosenbusch BE, et al. **Arch Gynecol Obstet** 1999;262(3–4):185–8

Capacitation induces tyrosine phosphorylation of proteins in the boar sperm plasma membrane. Flesch FM, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):787–92

Is sperm galactosyltransferase a signaling subunit of a multimeric gamete receptor? Shur BD. **Biochem Biophys Res Commun** 1998 Sep 29;250(3):537–43 (79 ref.)

Identification of phosphoproteins coupled to initiation of motility in live epididymal mouse sperm. Tash JS, et al. **Biochem Biophys Res Commun** 1998 Oct 20;251(2):557–63

Liposomes fuse with sperm cells and induce activation by delivery of impermeant agents. Garrett FE, et al. **Biochim Biophys Acta** 1999 Feb 4;1417(1):77–88

Do human eggs attract spermatozoa? Eisenbach M, et al. **Bioessays** 1999 Mar;21(3):203–10 (68 ref.)

New insights into the t-complex and control of sperm function. Fraser LR, et al. **Bioessays** 1999 Apr;21(4):304–12 (53 ref.)

Sperm cells and foreign DNA: a controversial relation. Spadafora C. **Bioessays** 1998 Nov;20(11):955–64 (52 ref.)

Expression and possible role of muscle–type carnitine palmitoyltransferase I during sperm development in the rat. Adams SH, et al. **Biol Reprod** 1998 Dec;59(6):1399–405

Relative impact of oxidative stress on the functional competence and genomic integrity of human spermatozoa. Aitken RJ, et al. **Biol Reprod** 1998 Nov;59(5):1037–46

Sperm–oviduct interaction: induction of capacitation and preferential binding of uncapacitated spermatozoa to oviductal epithelial cells in porcine species. Fazeli A, et al. **Biol Reprod** 1999 Apr;60(4):879–86

Germ cell genotype controls cell cycle during spermatogenesis in the rat. França LR, et al. **Biol Reprod** 1998 Dec;59(6):1371–7

Progesterone–mediated calcium influx and acrosome reaction of human spermatozoa: pharmacological investigation of T–type calcium channels. Garcia MA, et al. **Biol Reprod** 1999 Jan;60(1):102–9

Human sperm chemotaxis: is progesterone a chemoattractant? Jaiswal BS, et al. **Biol Reprod** 1999 Jun;60(6):1314–9

Rat epididymal sperm quantity, quality, and transit time after guanethidine–induced sympathectomy. Kempinas WD, et al. **Biol Reprod** 1998 Oct;59(4):890–6

Fertility of rat epididymal sperm after chemically and surgically induced sympathectomy. Kempinas WD, et al. **Biol Reprod** 1998 Oct;59(4):897–904

Oviductin, the Xenopus laevis oviductal protease that processes egg envelope glycoprotein gp43, increases sperm binding to envelopes, and is translated as part of an unusual mosaic protein composed of two protease and several CUB domains. Lindsay LL, et al. **Biol Reprod** 1999 Apr; 60(4):989–95

The role of carbohydrates in the induction of the acrosome reaction in mouse spermatozoa. Loeser CR, et al. **Biol Reprod** 1999 Jan;60(1):94–101

A plasma membrane–associated hyaluronidase is localized to the posterior acrosomal region of stallion sperm and is associated with spermatozoal function. Meyers SA, et al. **Biol Reprod** 1999 Aug;61(2):444–51

CD26 and adenosine deaminase interaction: its role in the fusion between horse membrane vesicles and spermatozoa. Minelli A, et al. **Biol Reprod** 1999 Sep;61(3):802–8

Characterization of domains in mice of calnexin-t, a putative molecular chaperone required in sperm fertility, with use of glutathione S–transferase–fusion proteins. Ohsako S, et al. **Biol Reprod** 1998 Nov;59(5):1214–23

A novel trans–complementation assay suggests full mammalian oocyte activation is coordinately initiated by multiple, submembrane sperm components. Perry AC, et al. **Biol Reprod** 1999 Mar;60(3):747–55

Scimitar–horned oryx (Oryx dammah) spermatozoa are functionally competent in a heterologous bovine in vitro fertilization system after cryopreservation on dry ice, in a dry shipper, or over liquid nitrogen vapor. Roth TL, et al. **Biol Reprod** 1999 Feb;60(2):493–8

Mice carrying two t haplotypes: sperm populations with reduced Zona pellucida binding are deficient in capacitation. Si Y, et al. **Biol Reprod** 1999 Jul;61(1):305–11

Role of tyrosine phosphorylation of flagellar proteins in hamster sperm hyperactivation. Si Y, et al. **Biol Reprod** 1999 Jul;61(1):240–6

Circannual variations in intraovarian oocyte but not epididymal sperm quality in the domestic Cat. Spindler RE, et al. **Biol Reprod** 1999 Jul;61(1):188–94

Timing of mating, sperm dynamics, and ovulation in a wild population of agile Antechinus (Marsupialia: dasyuridae). Taggart DA, et al. **Biol Reprod** 1999 Feb;60(2):283–9

A possible role for the pentose phosphate pathway of spermatozoa in gamete fusion in the mouse. Urner F, et al. **Biol Reprod** 1999 Mar;60(3):733–9

Apoptosis in the rat spermatogenic epithelium following androgen withdrawal: changes in apoptosis–related genes. Woolveridge I, et al. **Biol Reprod** 1999 Feb;60(2):461–70

Increased production of mouse embryos in in vitro fertilization by preincubating sperm cells with the nuclease inhibitor aurintricarboxylic acid. Zaccagnini G, et al. **Biol Reprod** 1998 Dec;59(6):1549–53

Comparison of sperm viability with seminal plasma metal levels. Dawson EB, et al. **Biol Trace Elem Res** 1998 Summer;64(1–3):215–9

Characterization of the sperm–induced calcium wave in Xenopus eggs using confocal microscopy. Fontanilla RA, et al. **Biophys J** 1998 Oct;75(4):2079–87

Swimming of spermatozoa in a linear viscoelastic fluid. Fulford GR, et al. **Biorheology** 1998 Jul–Oct; 35(4–5):295–309

Haploid male germ cells show no susceptibility to transformation by simian virus 40 large tumour antigen in transgenic mice. Nayernia K, et al. **Cell Biol Int** 1998; 22(6):437–43

Three–dimensional motion of avian spermatozoa. Vernon GG, et al. **Cell Motil Cytoskeleton** 1999;42(2):149–61

Mediation of sperm–egg fusion: evidence that mouse egg alpha6beta1 integrin is the receptor for sperm fertilinbeta. Chen H, et al. **Chem Biol** 1999 Jan;6(1):1–10

No association between the androgen receptor gene CAG repeat and impaired sperm production in Swedish men [letter] Giwercman YL, et al. **Clin Genet** 1998 Nov; 54(5):435–6

Fertilin beta peptides inhibit sperm binding to zona–free eggs in a homologous baboon in vitro fertilization system. Mwethera PG, et al. **Contraception** 1999 Feb;59(2):131–5

Wise, winsome, or weird? Mechanisms of sperm storage in female animals. Neubaum DM, et al. **Curr Top Dev Biol** 1999;41:67–97 (156 ref.)

Sperm nuclear activation during fertilization. Wright SJ. **Curr Top Dev Biol** 1999;46:133–78 (238 ref.)

A novel nozzle for more efficient sperm orientation to improve sorting efficiency of X and Y chromosome–bearing sperm. Rens W, et al. **Cytometry** 1998 Dec 1;33(4):476–81

The 350–kDa sea urchin egg receptor for sperm is localized in the vitelline layer. Hirohashi N, et al. **Dev Biol** 1998 Dec 1;204(1):305–15

Analyses of oviductal pars recta–induced fertilizability of coelomic eggs in Xenopus laevis. Katagiri C, et al. **Dev Biol** 1999 Jun 15;210(2):269–76

Xenopus laevis egg jelly contains small proteins that are essential to fertilization. Olson JH, et al. **Dev Biol** 1999 Jun 15;210(2):401–10

Aster–forming abilities of the egg, polar body, and sperm centrosomes in early starfish development. Saiki T, et al. **Dev Biol** 1998 Nov 1;203(1):62–74

Mammalian sperm chemotaxis and its association with capacitation. Eisenbach M. **Dev Genet** 1999;25(2):87–94 (58 ref.)

Acrosome reaction in spermatozoa of the hagfish Eptatretus burgeri (Agnatha). Morisawa S. **Dev Growth Differ** 1999 Feb;41(1):109–12

Sperm surface heparin/heparan sulfate is responsible for sperm binding to the uterine envelope in the newt, Cynops pyrrhogaster. Nakai S, et al. **Dev Growth Differ** 1999 Feb; 41(1):101–7

The passage of Ca2+ and fluorescent markers between the sperm and egg after fusion in the mouse. Jones KT, et al. **Development** 1998 Dec;125(23):4627–35

Developmental potential of mouse primordial germ cells. Kato Y, et al. **Development** 1999 May;126(9):1823–32

Genetic risk in natural and medically assisted procreation. Koulischer L, et al. **Early Pregnancy** 1997 Sep;3(3):164–71 (41 ref.)

Constitutive expression of interleukin–1alpha messenger ribonucleic acid in rat Sertoli cells is dependent upon interaction with germ cells. Jonsson CK, et al. **Endocrinology** 1999 Aug;140(8):3755–61

The Fas system, a regulator of testicular germ cell apoptosis, is differentially up–regulated in Sertoli cell versus germ cell injury of the testis. Lee J, et al. **Endocrinology** 1999 Feb;140(2):852–8

Single exposure to heat induces stage–specific germ cell apoptosis in rats: role of intratesticular testosterone on stage specificity. Lue YH, et al. **Endocrinology** 1999 Apr; 140(4):1709–17

Expression of sperm Ca2+–activated K+ channels in Xenopus oocytes and their modulation by extracellular ATP. Chan HC, et al. **FEBS Lett** 1998 Nov 6;438(3):177–82

Increased recovery of swim–up spermatozoa by application

of "antigravitational" centrifugation. Babbo CJ, et al. **Fertil Steril** 1999 Sep;72(3):556–8

Your genome—just another credit card to carry around [letter] [see comments] Cardellina JH II, et al. **Fertil Steril** 1999 Aug;72(2):378–9. Comment in: Fertil Steril 1999 Aug;72(2):380–1.

Comparison of the sperm quality necessary for successful intrauterine insemination with World Health Organization threshold values for normal sperm. Dickey RP, et al. **Fertil Steril** 1999 Apr;71(4):684–9

Higher-quality human sperm in a sample selectively attach to oviduct (fallopian tube) epithelial cells in vitro. Ellington JE, et al. **Fertil Steril** 1999 May;71(5):924–9

Fertilization abnormalities and pronucleus size asynchrony after intracytoplasmic sperm injection are related to oocyte postmaturity. Goud P, et al. **Fertil Steril** 1999 Aug; 72(2):245–52

Ultrarapid detection of sex chromosomes with the use of fluorescence in situ hybridization with direct label DNA probes in single human blastomeres, spermatozoa, amniocytes, and lymphocytes. Liu J, et al. **Fertil Steril** 1998 Nov;70(5):927–32

Oocyte morphology correlates with embryo quality and pregnancy rate after intracytoplasmic sperm injection. Loutradis D, et al. **Fertil Steril** 1999 Aug;72(2):240–4

Vascular endothelial growth factor and its receptors in male fertility. Obermair A, et al. **Fertil Steril** 1999 Aug; 72(2):269–75

Characterization of reactive oxygen species induced effects on human spermatozoa movement and energy metabolism. Armstrong JS, et al. **Free Radic Biol Med** 1999 Apr; 26(7–8):869–80

Nongenomic effects of progesterone on spermatozoa: mechanisms of signal transduction and clinical implications. Baldi E, et al. **Front Biosci** 1998 Nov 1;3:D1051–9 (86 ref.)

Signaling events during male germ cell differentiation: bases and perspectives. Berruti G. **Front Biosci** 1998 Nov 1; 3:D1097–108 (117 ref.)

Role of fertilization promoting peptide (FPP) in modulating mammalian sperm function. Fraser LR. **Front Biosci** 1998 Dec 1;3:D1187–91 (34 ref.)

The role of carbohydrates in mammalian sperm–egg interactions: how important are carbohydrate epitopes? Zara J, et al. **Front Biosci** 1998 Oct 15;3:D1028–38 (96 ref.)

Sperm competition in the absence of fertilization in Caenorhabditis elegans. Singson A, et al. **Genetics** 1999 May;152(1):201–8

Standard in vitro fertilization or intracytoplasmic sperm injection in advanced female age—what may be expected? Bar-Hava I, et al. **Gynecol Endocrinol** 1999 Apr;13(2):93–7

Fertility potential of individual sperm donors. Al-Inany HG, et al. **Gynecol Obstet Invest** 1999;47(3):147–50

Developmental capacity of damaged spermatozoa. Ahmadi A, et al. **Hum Reprod** 1999 Sep;14(9):2279–85

Absence of chromosomal instability in spermatozoa of men affected by testicular cancer. Alvarez R, et al. **Hum Reprod** 1999 Jan;14(1):247–51

What constitutes a normal seminal analysis? Semen parameters of 243 fertile men. Chia SE, et al. **Hum Reprod** 1998 Dec;13(12):3394–8

Fertilization, pregnancy and embryo implantation rates after ICSI with fresh or frozen-thawed testicular spermatozoa. De Croo I, et al. **Hum Reprod** 1998 Jul;13(7):1893–7

Human sperm function in co-culture with human, macaque or bovine oviduct epithelial cell monolayers. Ellington JE, et al. **Hum Reprod** 1998 Oct;13(10):2797–804

The modulation of sperm function by fertilization promoting peptide. Fraser LR. **Hum Reprod** 1998 Dec;13 Suppl 4:1–10 (32 ref.)

Reproductive capacity of round spermatids compared with mature spermatozoa in a population of azoospermic men. Ghazzawi IM, et al. **Hum Reprod** 1999 Mar;14(3):736–40

Subfertile men with constitutive chromosome abnormalities do not necessarily refrain from intracytoplasmic sperm injection treatment: a follow-up study on 75 Dutch patients. Giltay JC, et al. **Hum Reprod** 1999 Feb; 14(2):318–20

Morphology comparison of individually selected hyperactivated and non-hyperactivated human spermatozoa. Green S, et al. **Hum Reprod** 1999 Jan; 14(1):123–30

The incidence of spontaneous acrosome reaction in homogeneous populations of hyperactivated human spermatozoa. Green S, et al. **Hum Reprod** 1999 Jul; 14(7):1819–22

Influence of oxygen tension on function of isolated spermatozoa from ejaculates of oligozoospermic patients and normozoospermic fertile donors. Griveau JF, et al. **Hum Reprod** 1998 Nov;13(11):3108–13

Role of the ionic environment and internal pH on sperm activity. Hamamah S, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:20–30 (62 ref.)

Comparison between chromatin condensation and morphology from testis biopsy extracted and ejaculated spermatozoa and their relationship to ICSI outcome. Hammadeh ME, et al. **Hum Reprod** 1999 Feb;14(2):363–7

Time course of hypo-osmotic swellings of human spermatozoa: evidence of ordered transition between swelling subtypes. Hossain AM, et al. **Hum Reprod** 1998 Jun;13(6):1578–83

The contribution of subtle oocyte or sperm dysfunction affecting fertilization in endometriosis-associated or unexplained infertility: a controlled comparison with tubal infertility and use of donor spermatozoa. Hull MG, et al. **Hum Reprod** 1998 Jul;13(7):1825–30

Sex ratios following the use of the Ericsson method of sex selection, and following ICSI [letter; comment] James WH. **Hum Reprod** 1998 Sep;13(9):2659–60. Comment on: Hum Reprod 1998 Jan;13(1):146–9.

Donor age and the frequency of disomy for chromosomes 1, 13, 21 and structural abnormalities in human spermatozoa using multicolour fluorescence in-situ hybridization. McInnes B, et al. **Hum Reprod** 1998 Sep;13(9):2489–94

Triplet pregnancy achieved through intracytoplasmic sperm injection with spermatozoa obtained by prostatic massage of a paraplegic patient: case report. Marina S, et al. **Hum Reprod** 1999 Jun;14(6):1546–8

Flow cytometric light scattering analysis, acrosome reaction, reactive oxygen species production and leukocyte contamination of semen preparation in prediction of fertilization rate in vitro. Moilanen JM, et al. **Hum Reprod** 1998 Sep;13(9):2568–74

Timing of oocyte activation, pronucleus formation and cleavage in humans after intracytoplasmic sperm injection (ICSI) with testicular spermatozoa and after ICSI or in-vitro fertilization on sibling oocytes with ejaculated spermatozoa. Nagy ZP, et al. **Hum Reprod** 1998 Jun; 13(6):1606–12

Coping with infertility: distress and changes in sperm quality. Pook M, et al. **Hum Reprod** 1999 Jun;14(6):1487–92

Voltage-operated Ca2+ channels and the acrosome reaction: which channels are present and what do they do? Publicover SJ, et al. **Hum Reprod** 1999 Apr;14(4):873–9 (74 ref.)

Sperm treatment with extracellular ATP increases fertilization rates in in-vitro fertilization for male factor infertility. Rossato M, et al. **Hum Reprod** 1999 Mar; 14(3):694–7

Sperm nuclear DNA damage and altered chromatin structure: effect on fertilization and embryo development. Sakkas D, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:11–9 (39 ref.)

Glycodelins: role in regulation of reproduction, potential for contraceptive development and diagnosis of male infertility. Seppälä M, et al. **Hum Reprod** 1998 Jun;13 Suppl 3:262–9; discussion 270 (39 ref.)

Blastocyst development from supernumerary embryos after intracytoplasmic sperm injection: a paternal influence? Shoukir Y, et al. **Hum Reprod** 1998 Jun;13(6):1632–7

In-vitro fertilization treatment for severe male factor: the fertilization potential of immotile spermatozoa obtained by testicular extraction. Shulman A, et al. **Hum Reprod** 1999 Mar;14(3):749–52

Analysis of the impact of intracellular reactive oxygen species generation on the structural and functional integrity of human spermatozoa: lipid peroxidation, DNA fragmentation and effectiveness of antioxidants. Twigg J, et al. **Hum Reprod** 1998 Jun;13(6):1429–36

A first prospective study of the individual straight line velocity of the spermatozoon and its influences on the fertilization rate after intracytoplasmic sperm injection. Van den Bergh M, et al. **Hum Reprod** 1998 Nov; 13(11):3103–7

Immunoexpression of testis-specific histone 2B in human spermatozoa and testis tissue. van Roijen HJ, et al. **Hum Reprod** 1998 Jun;13(6):1559–66

X-ray microscopy of human spermatozoa shows change of mitochondrial morphology after capacitation. Vorup-Jensen T, et al. **Hum Reprod** 1999 Apr;14(4):880–4

Effects of hypercholesterolaemia on Leydig and Sertoli cell secretory function and the overall sperm fertilizing capacity in the rabbit. Yamamoto Y, et al. **Hum Reprod** 1999 Jun; 14(6):1516–21

Pre-freezing sperm preparation does not impair thawed spermatozoa binding to the zona pellucida. Yogev L, et al. **Hum Reprod** 1999 Jan;14(1):114–7

Hyperactivated motility of human spermatozoa: a review of physiological function and application in assisted reproduction. Kay VJ, et al. **Hum Reprod Update** 1998 Nov-Dec;4(6):776–86 (128 ref.)

Carbohydrate-based interactions on the route of a spermatozoon to fertilization. Töpfer-Petersen E. **Hum Reprod Update** 1999 Jul-Aug;5(4):314–29 (129 ref.)

Non-surgical sperm recovery: part I. Tournaye H. **Hum Reprod Update** 1999 May-Jun;5(3):210

Sperm transport in the human female genital tract and its modulation by oxytocin as assessed by hysterosalpingoscintigraphy, hysterotonography, electrohysterography and Doppler sonography. Wildt L, et al. **Hum Reprod Update** 1998 Sep-Oct;4(5):655–66

The mean of sperm parameters in semen donations from the same donor. An important prognostic factor in insemination. Ecochard R, et al. **Int J Androl** 1999 Jun; 22(3):163–72

Mouse spermatozoa modify their motility parameters and chemotactic response to factors from the oocyte microenvironment. Giojalas LC, et al. **Int J Androl** 1998 Aug;21(4):201–6

Influence of seminal plasma on cryopreservation of human spermatozoa in a biological material-free medium: study of normal and low-quality semen. Grizard G, et al. **Int J Androl** 1999 Jun;22(3):190–6

A prospective clinical trial investigating the efficacy of a method of preparing subpopulations of antibody-free spermatozoa from the ejaculates of antibody-positive patients. Grundy CE, et al. **Int J Androl** 1998 Oct; 21(5):261–70

Effect of freeze-thawing procedure on chromatin stability, morphological alteration and membrane integrity of human spermatozoa in fertile and subfertile men. Hammadeh ME, et al. **Int J Androl** 1999 Jun;22(3):155–62

Reactive oxygen species influence the acrosome reaction but not acrosin activity in human spermatozoa. Ichikawa T, et al. **Int J Androl** 1999 Feb;22(1):37–42

To store or mature spermatozoa? The primary role of the epididymis. Jones RC. **Int J Androl** 1999 Apr;22(2):57–67 (91 ref.)

Prognostic value of male diagnostic profiles in intracytoplasmic sperm injection (ICSI). Koppers B, et al. **Int J Androl** 1998 Aug;21(4):227–32

The effects of feeding an Asian or Western diet on sperm numbers, sperm quality and serum hormone levels in cynomolgus monkeys (Macaca fascicularis) injected with testosterone enanthate (TE) plus depot medroxyprogesterone acetate (DMPA). Suhana N, et al. **Int J Androl** 1999 Apr;22(2):102–12

The maturation of sperm motility in the epididymis and vas deferens of the vervet monkey, Cercopithecus aethiops. van Der Horst G, et al. **Int J Androl** 1999 Jun;22(3):197–207

Reactive oxygen species (ROS) production and the outcome of diagnostic tests of sperm function. Whittington K, et al. **Int J Androl** 1999 Aug;22(4):236–42

Effects of male accessory sex glands on sperm decondensation and oocyte activation during in vivo fertilization in golden hamsters. Ying Y, et al. **Int J Androl** 1999 Apr;22(2):68–76

The correlates and alleged biochemical background of the resazurin reduction test in semen. Zalata AA, et al. **Int J Androl** 1998 Oct;21(5):289–94

Sperm characteristics and zona pellucida binding in relation to field fertility of frozen-thawed semen from dairy AI bulls. Zhang BR, et al. **Int J Androl** 1998 Aug;21(4):207–16

Semen quality changes among 2343 healthy Slovenian men included in an IVF-ET programme from 1983 to 1996. Zorn B, et al. **Int J Androl** 1999 Jun;22(3):178–83

Effect of in vitro incubation on spontaneous acrosome reaction in fresh and cryopreserved human spermatozoa. Esteves SC, et al. **Int J Fertil Womens Med** 1998 Sep–Oct; 43(5):235–42

A flow cytometric technique using peanut agglutinin for evaluating acrosomal loss from human spermatozoa. Cooper TG, et al. **J Androl** 1998 Sep–Oct;19(5):542–50

Attributes of fertile spermatozoa: an update. De Jonge C. **J Androl** 1999 Jul-Aug;20(4):463–73 (114 ref.)

Comparison of fresh and cryopreserved human sperm attachment to bovine oviduct (uterine tube) epithelial cells in vitro. Ellington JE, et al. **J Androl** 1999 Jul-Aug; 20(4):492–9

Acrosome reaction in dog sperm is induced by a membrane-localized progesterone receptor. Sirivaidyapong S, et al. **J Androl** 1999 Jul-Aug; 20(4):537–44

Adhesion and signaling proteins spatiotemporally associated with spermiation in the rat. Wine RN, et al. **J Androl** 1999 Mar-Apr;20(2):198–213

Destruction of protamine in human sperm inhibits sperm binding and penetration in the zona-free hamster penetration test but increases sperm head decondensation and male pronuclear formation in the hamster-ICSI assay. Ahmadi A, et al. **J Assist Reprod Genet** 1999 Mar; 16(3):128–32

G-protein regulation of the solubilized human zona pellucida-mediated acrosome reaction and zona pellucida binding. Bastiaan H, et al. **J Assist Reprod Genet** 1999 Jul; 16(6):332–6

The correlation of sperm chromatin decondensation following in vitro exposure to heparin and sperm penetration rates. Carrell DT, et al. **J Assist Reprod Genet** 1998 Oct;15(9):560–4

Use of failed-fertilized oocytes for diagnostic zona binding purposes after sperm binding improvement with a modified medium. Henkel R, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):24–9

Differential effect of common laboratory treatments on hypoosmotic swelling responses of human spermatozoa. Hossain AM, et al. **J Assist Reprod Genet** 1999 Jan; 16(1):30–4

Separating X-bearing human spermatozoa through a discontinuous Percoll density gradient proved to be inefficient by double-label fluorescent in situ hybridization. Lin SP, et al. **J Assist Reprod Genet** 1998 Oct;15(9):565–9

The presenilin protein family member SPE-4 localizes to an ER/Golgi derived organelle and is required for proper cytoplasmic partitioning during Caenorhabditis elegans spermatogenesis. Arduengo PM, et al. **J Cell Sci** 1998 Dec 18;111 (Pt 24):3645–54

Subcellular distribution of the Xenopus p58/lamin B receptor in oocytes and eggs. Gajewski A, et al. **J Cell Sci** 1999 Aug;112 (Pt 15):2583–96

Cyclic adenosine 3',5'-monophosphate-responsive element modulator gene expression in germ cells of normo- and oligoazoospermic men. Peri A, et al. **J Clin Endocrinol Metab** 1998 Oct;83(10):3722–6

Altered sperm function or sperm antibodies are not associated with chlamydial antibodies in infertile men with leucocytospermia. Habermann B, et al.

J Eur Acad Dermatol Venereol 1999 Jan;12(1):25–9

Reactivation of sea-urchin sperm flagella induced by rapid photolysis of caged ATP. Tani T, et al. **J Exp Biol** 1998 May;201 (Pt 10):1493–503

Comparative biology of sperm storage in female salamanders. Sever DM, et al. **J Exp Zool** 1998 Nov-Dec 1; 282(4–5):460–76

Sperm storage in females of the smooth newt (Triturus v. vulgaris L.): I. Ultrastructure of the spermathecae during the breeding season. Sever DM, et al. **J Exp Zool** 1999 Jan 1;283(1):51–70

On sperm competition games: raffles and roles revisited. Mesterton-Gibbons M. **J Math Biol** 1999 Aug;39(2):91–108

Increased velocity and induction of chemotactic response in mouse spermatozoa by follicular and oviductal fluids. Oliveira RG, et al. **J Reprod Fertil** 1999 Jan;115(1):23–7

Sperm–oviduct epithelial cell monolayer co-culture: an in vitro model of sperm–female tract interactions in a marsupial, the tammar wallaby (Macropus eugenii). Sidhu KS, et al. **J Reprod Fertil** 1998 Sep;114(1):55–61

Antibiotic therapy for seminal infection. Effect on antioxidant activity and T-helper cytokines. Omu AE, et al. **J Reprod Med** 1998 Oct;43(10):857–64

Sperm competition I: basic model, ESS and dynamics. Fryer T, et al. **J Theor Biol** 1999 Jan 7;196(1):81–100

The cost of sex revisited: effects of male gamete output of hermaphrodites that are asexual in their female capacity. Joshi A, et al. **J Theor Biol** 1998 Dec 21;195(4):533–42

Evaluation of rat sperm by flow cytometry: simultaneous analysis of sperm count and sperm viability. Yamamoto T, et al. **J Toxicol Sci** 1998 Dec;23(5):373–8

Electroejaculation and semen characteristics of the captive Hokkaido brown bear (Ursus arctos yesoensis). Ishikawa A, et al. **J Vet Med Sci** 1998 Aug;60(8):965–8

Live mice from cryopreserved embryos derived in vitro with cryopreserved ejaculated spermatozoa [see comments] Songsasen N, et al. **Lab Anim Sci** 1998 Jun;48(3):275–81. Comment in: Lab Anim Sci 1998 Jun;48(3):224.

High-resolution mapping of sperm function defects in the t complex fourth inversion. Redkar AA, et al. **Mamm Genome** 1998 Oct;9(10):825–30

cDNA copies of the testis-specific lactate dehydrogenase (LDH-C) mRNA are present in spermatogenic cells in mice, but processed pseudogenes are not derived from mRNAs that are expressed in haploid and late meiotic spermatogenic cells. Zhong X, et al. **Mamm Genome** 1999 Jan;10(1):6–12

Isolation and molecular characterization of AKAP110, a novel, sperm-specific protein kinase A-anchoring protein. Vijayaraghavan S, et al. **Mol Endocrinol** 1999 May; 13(5):705–17

Pentoxifylline-stimulated capacitation and acrosome reaction in hamster spermatozoa: involvement of intracellular signalling molecules. Ain R, et al. **Mol Hum Reprod** 1999 Jul;5(7):618–26

Investigations into the molecular basis of human sperm–egg interactions: what's next? [comment] Benoff S. **Mol Hum Reprod** 1998 Oct;4(10):925–8 (85 ref.). Comment on: Mol Hum Reprod 1998 Jun;4(6):523–4. Comment on: Mol Hum Reprod 1998 Jun;4(6):524–5.

Progesterone promotes the acrosome reaction in capacitated human spermatozoa as judged by flow cytometry and CD46 staining. Bronson RA, et al. **Mol Hum Reprod** 1999 Jun;5(6):507–12

Cytogenetic analysis of spermatozoa in the father of a child with a de-novo reciprocal translocation t(7;9) (q22;p23). Colls P, et al. **Mol Hum Reprod** 1998 Dec;4(12):1145–9

Sperm-induced calcium oscillations. Soluble factor, factors or receptors? Dale B, et al. **Mol Hum Reprod** 1999 Jan; 5(1):1–4 (65 ref.)

A sialoglycoprotein, gp20, of the human capacitated sperm surface is a homologue of the leukocyte CD52 antigen: analysis of the effect of anti-CD52 monoclonal antibody (CAMPATH-1) on capacitated spermatozoa. Focarelli R, et al. **Mol Hum Reprod** 1999 Jan;5(1):46–51

Effect of post-ovulatory age and calcium in the injection medium on the male pronucleus formation and metaphase entry following injection of human spermatozoa into golden hamster oocytes. Goud PT, et al. **Mol Hum Reprod** 1999 Mar;5(3):227–33

Detection of partial and complete acrosome reaction in human spermatozoa: which inducers and probes to use? Jaiswal BS, et al. **Mol Hum Reprod** 1999 Mar;5(3):214–9

Human semen induces interleukin 10 and 70 kDa heat shock protein gene transcription and inhibits interferon-gamma messenger RNA production in peripheral blood mononuclear cells. Jeremias J, et al. **Mol Hum Reprod** 1998 Nov;4(11):1084–8

On the search for the sperm oscillogen. Swann K, et al. **Mol Hum Reprod** 1998 Nov;4(11):1010–2 (31 ref.)

Oscillin--reopening the hunting season. Tesarik J. **Mol Hum Reprod** 1998 Nov;4(11):1007–9

Detection of benzo[a]pyrene diol epoxide–DNA adducts in embryos from smoking couples: evidence for transmission by spermatozoa. Zenzes MT, et al. **Mol Hum Reprod** 1999 Feb;5(2):125–31

Regulation of flagellar bending by cAMP and Ca2+ in hamster sperm. Aoki F, et al. **Mol Reprod Dev** 1999 May; 53(1):77–83

An investigation of the latency period between sperm oolemmal adhesion and oocyte penetration. Bronson RA, et al. **Mol Reprod Dev** 1999 Mar;52(3):319–27

Calcium and phospholipase A2 are both required for the acrosome reaction mediated by G-proteins stimulation in human spermatozoa. Dominguez L, et al. **Mol Reprod Dev** 1999 Mar;52(3):297–302

Regulation of intracellular pH in capacitated human spermatozoa by a Na+/H+ exchanger. Garcia MA, et al. **Mol Reprod Dev** 1999 Feb;52(2):189–95

Organelle-specific probe JC-1 identifies membrane potential differences in the mitochondrial function of bovine sperm. Garner DL, et al. **Mol Reprod Dev** 1999 Jun;53(2):222–9

Intracytoplasmic injection of porcine, bovine, mouse, or human spermatozoon into porcine oocytes. Kim NH, et al. **Mol Reprod Dev** 1999 May;53(1):84–91

Requirement of sperm–oocyte plasma membrane fusion for establishment of the plasma membrane block to polyspermy in human pronuclear oocytes. Sengoku K, et al. **Mol Reprod Dev** 1999 Feb;52(2):183–8

PH-20 but not acrosin is involved in sperm penetration of the macaque zona pellucida. Yudin AI, et al. **Mol Reprod Dev** 1999 Jul;53(3):350–62

Potential of fetal germ cells for nuclear transfer in cattle. Zakhartchenko V, et al. **Mol Reprod Dev** 1999 Apr; 52(4):421–6

New life for sperm-mediated transgenesis? [news] Robl JM. **Nat Biotechnol** 1999 Jul;17(7):636–7

Reproductive biology. Distinguished sperm in competition [news; comment] Birkhead T. **Nature** 1999 Jul 29; 400(6743):406–7. Comment on: Nature 1999 Jul 29;400(6743):449–52.

Sperm competition between Drosophila males involves both displacement and incapacitation [see comments] Price CS, et al. **Nature** 1999 Jul 29;400(6743):449–52. Comment in: Nature 1999 Jul 29;400(6743):406–7.

Ion channels in sperm physiology. Darszon A, et al. **Physiol Rev** 1999 Apr;79(2):481–510 (327 ref.)

The influence of wheat dehydration-induced proteins on the function of turkey spermatozoa after twenty-four-hour in vitro storage. Donoghue AM, et al. **Poult Sci** 1999 Feb; 78(2):235–41

Assessment of ejaculate quality and sperm characteristics in turkeys: sperm mobility phenotype is independent of time. Holsberger DR, et al. **Poult Sci** 1998 Nov;77(11):1711–7

Evaluation of the duration of sperm fertilizing ability in five lines of commercial broiler breeder and Delaware cross males. Kirby JD, et al. **Poult Sci** 1998 Nov;77(11):1688–94

Effects of transient treatment with 6-N-propyl-2-thiouracil on testis development and function in breeder turkeys. Knowlton JA, et al. **Poult Sci** 1999 Jul;78(7):999–1005

Effects of frequency of semen collection on quantitative and qualitative characteristics of semen in turkey breeder males. Noirault J, et al. **Poult Sci** 1999 Jul;78(7):1034–9

Comparison of cryoprotectants and methods of cryopreservation of fowl spermatozoa. Tselutin K, et al. **Poult Sci** 1999 Apr;78(4):586–90

Control of the low voltage-activated calcium channel of mouse sperm by egg ZP3 and by membrane hyperpolarization during capacitation. Arnoult C, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6757–62

Xenopus laevis sperm receptor gp69/64 glycoprotein is a homolog of the mammalian sperm receptor ZP2. Tian J, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):829–34

Identification of morc (microrchidia), a mutation that results in arrest of spermatogenesis at an early meiotic stage in the mouse. Watson ML, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14361–6

Larger sperm outcompete smaller sperm in the nematode Caenorhabditis elegans. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1998 Oct 22; 265(1409):1997–2002

Evolution of sperm size in nematodes: sperm competition favours larger sperm. LaMunyon CW, et al. **Proc R Soc Lond B Biol Sci** 1999 Feb 7;266(1416):263–7

Effect of compatible solutes and diluent composition on the post-thaw motility of ram sperm. Sánchez-Partida LG, et al. **Reprod Fertil Dev** 1998;10(4):347–57

Sperm chemotaxis. Eisenbach M. **Rev Reprod** 1999 Jan; 4(1):56–66 (77 ref.)

Fertilization promoting peptide: an important regulator of sperm function in vivo? Fraser LR. **Rev Reprod** 1998 Sep; 3(3):151–4 (32 ref.)

Origin of DNA damage in ejaculated human spermatozoa. Sakkas D, et al. **Rev Reprod** 1999 Jan;4(1):31–7 (59 ref.)

Hormonal and genetic control of germ cell apoptosis in the testis. Sinha Hikim AP, et al. **Rev Reprod** 1999 Jan; 4(1):38–47 (57 ref.)

Seminal characteristics following exposure to pesticides among agricultural workers. Asclepios. Larsen SB, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:74–5; discussion 76–8

Female x male interactions in Drosophila sperm competition. Clark AG, et al. **Science** 1999 Jan 8;283(5399):217–20

Unmasking a cheating gene [comment] Crow JF. **Science** 1999 Mar 12;283(5408):1651–2. Comment on: Science 1999 Mar 12;283(5408):1742–5.

Selenium's role in infertility explained [news; comment] Strauss E. **Science** 1999 Aug 27;285(5432):1339. Comment on: Science 1999 Aug 27;285(5432):1393–6.

Dual function of the selenoprotein PHGPx during sperm maturation [see comments] Ursini F, et al. **Science** 1999 Aug 27;285(5432):1393–6. Comment in: Science 1999 Aug 27;285(5432):1339.

Oxidation and the spermatozoa. Kim JG, et al. **Semin Reprod Endocrinol** 1998;16(4):235–9 (43 ref.)

Extragenomic actions of progesterone in human sperm and progesterone metabolites in human platelets. Blackmore PF. **Steroids** 1999 Jan-Feb;64(1–2):149–56 (71 ref.)

Duration of spermatogenesis and sperm transit time through the epididymis in the Piau boar. França LR, et al. **Tissue Cell** 1998 Oct;30(5):573–82

The role of structural integrity of the fertilising spermatozoon in early human embryogenesis. Colombero LT, et al. **Zygote** 1999 May;7(2):157–63

Calmodulin, gametes and fertilisation. Courtot AM, et al. **Zygote** 1999 May;7(2):95–104

Fate of genetically marked mitochondrial DNA from spermatocytes microinjected into mouse zygotes. Cummins JM, et al. **Zygote** 1999 May;7(2):151–6

Hyaluronic acid enhances induction of the acrosome reaction of human sperm through interaction with the PH-20 protein. Sabeur K, et al. **Zygote** 1998 May;6(2):103–11

Cloning, sequencing and site of origin of the rat sperm receptor protein, ZP3. Scobie GA, et al. **Zygote** 1999 Feb; 7(1):27–35

Proteolytic activity of rabbit perivitelline spermatozoa. Valdivia M, et al. **Zygote** 1999 May;7(2):143–9

Soluble extracts from ascidian spermatozoa trigger intracellular calcium release independently of the activation of the ADP ribose channel. Wilding M, et al. **Zygote** 1998 May;6(2):149–54

[Lipid peroxidation, morphological stress pattern and nuclear maturity of spermatozoon] Laudat A, et al. **Ann Biol Clin (Paris)** 1999 Jan-Feb;57(1):51–6 (Eng. Abstr.) **(Fre)**

[Computer-assisted analysis of sperm morphology in veterinary medicine] Boersma A, et al. **Berl Munch Tierarztl Wochenschr** 1999 Mar;112(3):81–5 (50 ref.) (Eng. Abstr.) **(Ger)**

[In vitro assessment of semen for the prediction of fertility] Waberski D, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Feb; 27(1):1–7 (27 ref.) (Eng. Abstr.) **(Ger)**

[Spermatogenesis in developmental age] De Sanctis V, et al. **Minerva Pediatr** 1998 Jun;50(6):269–74 (17 ref.) **(Ita)**

[The spermiogram in adolescence] Paris E, et al. **Minerva Pediatr** 1998 Jun;50(6):303 **(Ita)**

[Chromosomal abnormalities in male gametes] Szczygiel M, et al. **Ginekol Pol** 1997 Nov;68(11):549–53 (Eng. Abstr.) **(Pol)**

[Sperm morphology and xenogenic human sperm–hamster oocyte penetration assay in vitro] Szczygiel M, et al. **Ginekol Pol** 1999 Jan;70(1):26–32 (Eng. Abstr.) **(Pol)**

[Variability of gamete thermoresistance and heat selection of gametes in frogs and molluscs] Andronikov VB, et al. **Tsitologiia** 1998;40(6):559–67 (Eng. Abstr.) **(Rus)**

[The role of oxygen radicals in the physiology and pathology of human sperm] Man'kovs'ka IM, et al. **Fiziol Zh** 1998; 44(5–6):118–25 (37 ref.) (Eng. Abstr.) **(Ukr)**

RADIATION EFFECTS

DNA damage in human and mouse spermatozoa after in vitro-irradiation assessed by the comet assay. Haines G, et al. **Adv Exp Med Biol** 1998;444:79–91; discussion 92–3

Effects of exposure to static magnetic fields on the morphology and morphometry of mouse epididymal sperm. Tablado L, et al. **Bioelectromagnetics** 1998;19(6):377–83

Age-related ultramorphologic sperm abnormalities among salvage workers from the Chernobyl nuclear power plant [letter] Zabludovsky N, et al. **Int J Occup Environ Health** 1999 Jan-Mar;5(1):72–5

Radiation-induced malformations after exposure of murine germ cells in various stages of spermatogenesis. Müller WU, et al. **Mutat Res** 1999 Mar 10;425(1):99–106

TRANSPLANTATION

Successful testicular sperm extraction and fertilization in an azoospermic man with postpubertal mumps orchitis. Lin YM, et al. **BJU Int** 1999 Mar;83(4):526–7

Science commentary: what is involved in intracytoplasmic sperm injection? Berger A. **BMJ** 1999 Mar 13; 318(7185):705

Children born after intracytoplasmic sperm injection: population control study. Sutcliffe AG, et al. **BMJ** 1999 Mar 13;318(7185):704–5

Retrieving semen from a dead patient. Swinn M, et al. **BMJ** 1998 Dec 5;317(7172):1583

Germ cell transfer into rat, bovine, monkey and human testes. Schlatt S, et al. **Hum Reprod** 1999 Jan;14(1):144–50

Prospects and problems for germ cell transplantation in the male. Schlatt S. **Int J Androl** 1999 Feb;22(1):13–8 (27 ref.)

Non-random chromosome positioning in human sperm and sex chromosome anomalies following intracytoplasmic sperm injection [letter] Luetjens CM, et al. **Lancet** 1999 Apr 10;353(9160):1240

[Intracytoplasmic injection (ICSI) of cryopreserved testicular spermatozoa (Cryo-TESE): a retrospective study of the first 250 treatment cycles] Würfel W, et al. **Zentralbl Gynakol** 1998;120(8):386–90 (Eng. Abstr.) **(Ger)**

ULTRASTRUCTURE

DNA strand breaks in human sperm cells: a comparison between men with normal and oligozoospermic sperm samples. Høst E, et al. **Acta Obstet Gynecol Scand** 1999

Apr;78(4):336–9
Membrane integrity and fertilizing potential of cryopreserved spermatozoa in European mouflon. Naitana S, et al. **Anim Reprod Sci** 1998 Aug 21;52(2):105–12
Influence of sperm plasma membrane destruction on human sperm head decondensation and pronuclear formation. Ahmadi A, et al. **Arch Androl** 1999 Jan–Feb;42(1):1–7
Quantitative ultramorphological (QUM) analysis of human sperm: diagnosis and management of male infertility. Bartoov B, et al. **Arch Androl** 1999 May–Jun;42(3):161–77
Quantitative ultramorphological analysis of human sperm: fifteen years of experience in the diagnosis and management of male factor infertility. Bartoov B, et al. **Arch Androl** 1999 Jul–Aug;43(1):13–25
Nucleons, I: A model for studying the mechanism of sperm nucleus swelling in vitro. Delgado NM, et al. **Arch Androl** 1999 Jul–Aug;43(1):85–95
Use of lectins to characterize plasma membrane preparations from boar spermatozoa: a novel technique for monitoring membrane purity and quantity. Flesch FM, et al. **Biol Reprod** 1998 Dec;59(6):1530–9
Chromosome analysis of BALB/c mouse spermatozoa with normal and abnormal head morphology. Kishikawa H, et al. **Biol Reprod** 1999 Sep;61(3):809–12
Scrotal heat stress induces altered sperm chromatin structure associated with a decrease in protamine disulfide bonding in the stallion [published erratum appears in Biol Reprod 1999 May;60(5):1271] Love CC, et al. **Biol Reprod** 1999 Mar;60(3):615–20
Sensitivity of domestic cat (Felis catus) sperm from normospermic versus teratospermic donors to cold-induced acrosomal damage. Pukazhenthi B, et al. **Biol Reprod** 1999 Jul;61(1):135–41
An intact sperm nuclear matrix may be necessary for the mouse paternal genome to participate in embryonic development. Ward WS, et al. **Biol Reprod** 1999 Mar; 60(3):702–6
Male pronuclear formation in denuded porcine oocytes after in vitro maturation in the presence of cysteamine. Yamauchi N, et al. **Biol Reprod** 1999 Sep;61(3):828–33
Sperm analysis in a subfertile male with a Y;16 translocation, using four-color FISH. Giltay JC, et al. **Cytogenet Cell Genet** 1999;84(1–2):67–72
Aneuploidy in pig sperm: multicolor fluorescence in situ hybridization using probes for chromosomes 1, 10, and Y. Rubeš J, et al. **Cytogenet Cell Genet** 1999;85(3–4):200–4
Characterization of aneuploidy rates, protamine levels, ultrastructure, and functional ability of round-headed sperm from two siblings and implications for intracytoplasmic sperm injection. Carrell DT, et al. **Fertil Steril** 1999 Mar;71(3):511–6
Clinical value of using an automated sperm morphology analyzer (IVOS). Coetzee K, et al. **Fertil Steril** 1999 Feb; 71(2):222–5
Assessment of interlaboratory and intralaboratory sperm morphology readings with the use of a Hamilton Thorne Research integrated visual optical system semen analyzer. Coetzee K, et al. **Fertil Steril** 1999 Jan;71(1):80–4
Plasma membrane integrity of cryopreserved human sperm: an investigation of the results of the hypoosmotic swelling test, the water test, and eosin-Y staining. Lin MH, et al. **Fertil Steril** 1998 Dec;70(6):1148–55
Morphometric assessment of mature and diminished-maturity human spermatozoa: sperm regions that reflect differences in maturity. Gergely A, et al. **Hum Reprod** 1999 Aug; 14(8):2007–14
Difficulties in distinguishing between a mature spermatid and testicular spermatozoon [letter; comment] Mansour RT, et al. **Hum Reprod** 1999 Jan;14(1):267–8. Comment on: Hum Reprod 1998 Jan;13(1):104–10.
Sperm nuclear DNA damage and altered chromatin structure: effect on fertilization and embryo development. Sakkas D, et al. **Hum Reprod** 1998 Dec;13 Suppl 4:11–9 (39 ref.)
The applicability of the flow cytometric sperm chromatin structure assay in epidemiological studies. Asclepios. Spanò M, et al. **Hum Reprod** 1998 Sep;13(9):2495–505
Glass wool filtration leads to a higher percentage of spermatozoa with intact acrosomes: an ultrastructural analysis. Sterzik K, et al. **Hum Reprod** 1998 Sep; 13(9):2506–11
Oxidative damage to DNA in human spermatozoa does not preclude pronucleus formation at intracytoplasmic sperm injection. Twigg JP, et al. **Hum Reprod** 1998 Jul; 13(7):1864–71
X-ray microscopy of human spermatozoa shows change of mitochondrial morphology after capacitation. Vorup-Jensen T, et al. **Hum Reprod** 1999 Apr;14(4):880–4
The role of sperm morphology in assisted reproduction. Kruger TF, et al. **Hum Reprod Update** 1999 Mar–Apr; 5(2):172–8 (72 ref.)
The glycocalyx of the sperm surface. Schröter S, et al. **Hum Reprod Update** 1999 Jul–Aug;5(4):302–13 (115 ref.)
Papanicolaou and Kruger assessment of sperm morphology: thresholds and agreement. Vazquez-Levin MH, et al. **Int J Androl** 1998 Dec;21(6):327–31
Ultrastructure of spermiogenesis and the spermatozoon of Mesocestoides litteratus (Cestoda, Mesocestoididae). Miquel J, et al. **Int J Parasitol** 1999 Mar;29(3):499–510
Acrosomal status of mouse spermatozoa in the oviductal isthmus. Esponda P, et al. **J Exp Zool** 1998 Oct 15; 282(3):360–6
Semen parameters and electron microscope observations of spermatozoa of the red wolf, Canis rufus. Koehler JK, et al. **J Reprod Fertil** 1998 Sep;114(1):95–101
Spermiogenesis in phytophagous bug (Hemiptera, Pentatomidae): an ultrastructural study. Fernandes AP, et al. **J Submicrosc Cytol Pathol** 1998 Oct;30(4):485–93
Localization of lamins in mammalian spermatozoa. Goldman RD, et al. **J Submicrosc Cytol Pathol** 1998 Oct;30(4):573–80
Ultrastructure of spermiogenesis and the spermatozoon of Vampirolepis microstoma (Cestoda, Hymenolepididae), intestinal parasite of Rattus rattus. Bà CT, et al. **Microsc Res Tech** 1998 Aug 1;42(3):218–25
Binding of annexin V to plasma membranes of human spermatozoa: a rapid assay for detection of membrane changes after cryostorage. Glander HJ, et al. **Mol Hum Reprod** 1999 Feb;5(2):109–15
Nuclear chromatin variations in human spermatozoa undergoing swim-up and cryopreservation evaluated by the flow cytometric sperm chromatin structure assay. Spanò M, et al. **Mol Hum Reprod** 1999 Jan;5(1):29–37
Structural and biochemical features of fractionated spermatid manchettes and sperm axonemes of the azh/azh mutant mouse. Mochida K, et al. **Mol Reprod Dev** 1999 Apr; 52(4):434–44
Ultrastructural aspects of mammalian fertilization: new discoveries and inspirations from the work of Daniel Szöllösi. Sutovsky P, et al. **Reprod Nutr Dev** 1998 Nov–Dec;38(6):629–41 (105 ref.)
Sperm chromatin structure and semen quality following occupational styrene exposure. Asclepios. Kolstad HA, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:70–3; discussion 76–8
Flow cytometric sperm chromatin structure assay as an independent descriptor of human semen quality. Spanò M, et al. **Scand J Work Environ Health** 1999;25 Suppl 1:28–30; discussion 76–8
The chromatin structure of well-spread demembranated human sperm nuclei revealed by atomic force microscopy. Allen MJ, et al. **Scanning Microsc** 1996;10(4):989–94; discussion 994–6
Death to sperm mitochondria [news] Hopkin K. **Sci Am** 1999 Mar;280(3):21
Altered nuclear activation parameters of rat sperm treated in vitro with chromatin-damaging agents. Sawyer DE, et al. **Toxicol Sci** 1998 Jul;44(1):52–62
[The electron microscopic pathology of human spermatozoa] Stanislavov R, et al. **Akush Ginekol (Sofiia)** 1998;37(3):44–6 (Eng. Abstr.) **(Bul)**
[Aneuploidy detection by multi-color fluorescence in situ hybridization in mouse sperm] Wang X, et al. **J Chuan Hsueh Pao** 1999;26(2):112–8 (Eng. Abstr.) **(Chi)**

VIROLOGY

Evaluation of sperm washing as a potential method of reducing HIV transmission in HIV-discordant couples wishing to have children. Kim LU, et al. **AIDS** 1999 Apr 16;13(6):645–51
Detection of herpes simplex virus DNA in human spermatozoa by in situ hybridization technique. Kotronias D, et al. **In Vivo** 1998 Jul–Aug;12(4):391–4
Tenacity of exogenous human papillomavirus DNA in sperm washing. Brossfield JE, et al. **J Assist Reprod Genet** 1999 Jul;16(6):325–8
HIV and germinal cells: how close an association? Alexander NJ. **J Reprod Immunol** 1998 Dec;41(1–2):17–26 (62 ref.)
The debate on the presence of HIV-1 in human gametes. Baccetti B, et al. **J Reprod Immunol** 1998 Dec;41(1–2):41–67 (48 ref.)
New insights into the interaction between the gp120 and the HIV receptor in human sperm (human.sperm/gp120/galactoglycerolipid/antigalactosylceramide/seminolip id/spermatogonia). Brogi A, et al. **J Reprod Immunol** 1998 Dec;41(1–2):213–31
Detection of HIV-1 in seminal plasma and seminal cells of HIV-1 seropositive men. Dulioust E, et al. **J Reprod Immunol** 1998 Dec;41(1–2):27–40
Glycolipids as potential binding sites for HIV: topology in the sperm plasma membrane in relation to the regulation of membrane fusion. Gadella BM, et al. **J Reprod Immunol** 1998 Dec;41(1–2):233–53
Testicular germ cells of HIV-seropositive asymptomatic men are infected by the virus. Muciaccia B, et al. **J Reprod Immunol** 1998 Dec;41(1–2):81–93
Microscopic evidence against HIV-1 infection of germ cells or attachment to sperm. Pudney J, et al. **J Reprod Immunol** 1998 Dec;41(1–2):105–25 (29 ref.)
The case against an association between HIV-1 and sperm: molecular evidence. Quayle AJ, et al. **J Reprod Immunol** 1998 Dec;41(1–2):127–36 (20 ref.)
Sperm as infection-potentiating cofactors in HIV transmission. Scofield VL. **J Reprod Immunol** 1998 Dec; 41(1–2):359–72 (58 ref.)
[Detection of caprine arthritis encephalitis virus in sperm of experimentally infected bucks] Travassos C, et al. **Vet Res** 1998 Nov–Dec;29(6):579–84 (Eng. Abstr.) **(Fre)**

SPERMICIDAL AGENTS see **SPERMATOCIDAL AGENTS**

SPERMIDINE

Sensitivity of spermidine-deficient Saccharomyces cerevisiae to paromomycin. Balasundaram D, et al. **Antimicrob Agents Chemother** 1999 May;43(5):1314–6

ADMINISTRATION & DOSAGE

Spermidine, a polyamine site agonist, attenuates working memory deficits caused by blockade of hippocampal muscarinic receptors and mGluRs in rats. Kishi A, et al. **Brain Res** 1998 May 18;793(1–2):311–4

ANALOGS & DERIVATIVES

The Achilles' heel of trypanosomatids: trypanothione-mediated hydroperoxide metabolism. Flohé L. **Biofactors** 1998;8(1–2):87–91 (20 ref.)
Synthesis and electrochemical studies of a new iron tetra-catecholamide complex. Cheraïti N, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2309–14
Synthesis of spermidine and norspermidine dimers as high affinity polyamine transport inhibitors. Covassin L, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1709–14
Entamoeba histolytica: a eukaryote with trypanothione metabolism instead of glutathione metabolism. Ondarza RN, et al. **Biotechnol Appl Biochem** 1999 Aug;30 (Pt 1):47–52
A new enzyme, edeine B1 amidinohydrolase, from Bacillus brevis TT02-8. Purification and determination of the N-terminal amino acid sequence. Shimotohno KW, et al. **J Antibiot (Tokyo)** 1999 Apr;52(4):407–11
Synthesis and biological evaluation of boron-containing polyamines as potential agents for neutron capture therapy of brain tumors. Zhuo JC, et al. **J Med Chem** 1999 Apr 8;42(7):1282–92
N8-acetyl spermidine protects rat cerebellar granule cells from low K+-induced apoptosis. Berry MD. **J Neurosci Res** 1999 Feb 1;55(3):341–51
Endogenous glutathione conjugates: occurrence and biological functions. Wang W, et al. **Pharmacol Rev** 1998 Sep;50(3):335–56 (204 ref.)
Crystal structure of Trypanosoma cruzi trypanothione reductase in complex with trypanothione, and the structure-based discovery of new natural product inhibitors. Bond CS, et al. **Structure Fold Des** 1999 Jan 15;7(1):81–9

ANALYSIS

Polyamines in human breast cancer and its relations to classical prognostic features: clinical implications. Leveque J, et al. **Anticancer Res** 1999 May–Jun;19(3B):2275–9

BLOOD

Development of a simple high-performance capillary electrophoretic method with on-line mode in capillary derivatization for the determination of spermidine. Oguri S, et al. **Electrophoresis** 1998 Nov;19(16–17):2986–90

CHEMICAL SYNTHESIS

Synthesis of spermidine and norspermidine dimers as high affinity polyamine transport inhibitors. Covassin L, et al. **Bioorg Med Chem Lett** 1999 Jun 21;9(12):1709–14

CHEMISTRY

Relative effects of graft copolymer and polyamines on triplex stabilization under physiological conditions. Ferdous A, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1651–3

METABOLISM

Binding of spermidine and putrescine to energized liver mitochondria. Dalla Via L, et al. **Arch Biochem Biophys** 1999 May 15;365(2):231–8
Antizyme-dependent and -independent mechanisms are responsible for increased spermidine transport in amino acid-restricted human cancer cells. Aubel C, et al. **Biochem Biophys Res Commun** 1999 Mar 24;256(3):646–51
Human vascular endothelial cells incorporate spermine, but not spermidine or putrescine, into a 20 kDa protein. Morgan DM, et al. **Biochem Soc Trans** 1998 Nov;26(4):S367
Identification of two new proteins in spermidine nucleoids isolated from Escherichia coli. Murphy LD, et al. **J Bacteriol** 1999 Jun;181(12):3842–4
Transcriptional inhibition of the operon for the spermidine uptake system by the substrate-binding protein PotD. Antognoni F, et al. **J Biol Chem** 1999 Jan 22;274(4):1942–8
Enhanced uptake of [3H] spermidine by 9L rat brain tumors after direct intratumoral infusion of inhibitors of enzymes of the polyamine biosynthetic pathway. Redgate ES, et al. **J Neurooncol** 1999 Apr;42(2):123–30
Alzheimer's amyloid beta-peptide associated free radicals increase rat embryonic neuronal polyamine uptake and ornithine decarboxylase activity: protective effect of vitamin E. Yatin SM, et al. **Neurosci Lett** 1999 Mar 19; 263(1):17–20

PHARMACOLOGY

2-deoxy-d-ribose-induced apoptosis in HL-60 cells is associated with the cell cycle progression by spermidine. Giuseppina Monti M, et al. **Biochem Biophys Res Commun** 1999 Apr 13;257(2):460–5
Effect of spermidine on the activation of homocysteine. Leirvaag B, et al. **Biochem Soc Trans** 1998 Nov;26(4):S374
Spermidine-induced glycoprotein fucosylation in immature

rat intestine. Gréco S, et al. **C R Acad Sci III** 1999 Jul; 322(7):543–9
Accelerated cyclization of lambda DNA. Jary D, et al. **C R Acad Sci III** 1998 Jan;321(1):1–4
Spermidine determines the sensitivity to the calmodulin antagonist, chlorpromazine, for the circadian conidiation rhythm but not for the mycelial growth in Neurospora crassa. Katagiri S, et al. **J Biol Rhythms** 1998 Dec; 13(6):452–60
Inhibition of vacuolar ion channels by polyamines. Dobrovinskaya OR, et al. **J Membr Biol** 1999 Jan 15; 167(2):127–40
Spermidine-induced aggregation of nucleosome core particles: evidence for multiple liquid crystalline phases. Leforestier A, et al. **J Mol Biol** 1999 Jul 9;290(2):481–94
Poiyamines found in the inflamed periodontium inhibit priming and apoptosis in human polymorphonuclear leukocytes. Ratasirayakorn W, et al. **J Periodontol** 1999 Feb;70(2):179–84
Characterization of the effects of polyamines on [125I]MK–801 binding to recombinant N–methyl–D–aspartate receptors. Sharma TA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1041–7
Phencyclidine–like discriminative stimulus effects of polyamine modulators of N–methyl–D–aspartate receptor activity in rats. Nicholson KL, et al. **Neurosci Lett** 1998 Aug 28;253(1):53–6
Ferrous iron modulates quinolinate–mediated [3H]MK–801 binding to rat brain synaptic membranes in the presence of glycine and spermidine. St'astny F, et al. **Neurosci Lett** 1999 Mar 5;262(2):105–8

SPERMIDINE SYNTHASE

GENETICS

Isolation of spermidine synthase gene (spsA) of Dictyostelium discoideum. Guo K, et al. **Biochim Biophys Acta** 1999 Apr 1;1449(3):211–6
Differential expression of two spermidine synthase genes during early fruit development and in vegetative tissues of pea. Alabadí D, et al. **Plant Mol Biol** 1999 Mar; 39(5):933–43

METABOLISM

Spe3, which encodes spermidine synthase, is required for full repression through NRE(DIT) in Saccharomyces cerevisiae. Friesen H, et al. **Genetics** 1998 Sep;150(1):59–73

SPERMIDINE SYNTHETASE see **SPERMIDINE SYNTHASE**

SPERMINE

ANALOGS & DERIVATIVES

Selectivity of spermine homologs on triplex DNA stabilization. Antony T, et al. **Antisense Nucleic Acid Drug Dev** 1999 Apr;9(2):221–31
Nitrate tolerance is specific for nitric acid esters and its recovery requires an intact protein synthesis. Hinz B, et al. **Biochem Biophys Res Commun** 1998 Nov 9;252(1):232–5
Overexpression of spermidine/spermine N1–acetyltransferase under the control of mouse metallothionein I promoter in transgenic mice: evidence for a striking post–transcriptional regulation of transgene expression by a polyamine analogue. Suppola S, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):311–6
Polyamine analogue–mediated cell cycle responses in human melanoma cells involves the p53, p21, Rb regulatory pathway. Kramer DL, et al. **Biochem Soc Trans** 1998 Nov; 26(4):609–14 (25 ref.)
Solid phase organic synthesis of polyamine derivatives and initial biological evaluation of their antitumoral activity. Tomasi S, et al. **Bioorg Med Chem Lett** 1998 Mar 17; 8(6):635–40
Polyamine analog bis(ethylamino)–5,10,15–triazanonadecane (BE–4–4–4–4) enhances simian virus 40 late gene expression. Basu HS, et al. **Cancer Chemother Pharmacol** 1999;43(4):336–40
Tumor–targeted apoptosis by a novel spermine analogue, 1,12–diaziridinyl–4,9–diazadodecane, results in therapeutic efficacy and enhanced radiosensitivity of human prostate cancer. Eiseman JL, et al. **Cancer Res** 1998 Nov 1; 58(21):4864–70
Polyamine analogue induction of the p53–p21WAF1/CIP1–Rb pathway and G1 arrest in human melanoma cells. Kramer DL, et al. **Cancer Res** 1999 Mar 15;59(6):1278–86
Preclinical antitumor efficacy of the polyamine analogue N1, N11–diethylnorspermine administered by multiple injection or continuous infusion. Bernacki RJ, et al. **Clin Cancer Res** 1995 Aug;1(8):847–57
The induction of spermidine/spermine N1–acetyltransferase (SSAT) is a common event in the response of human primary non–small cell lung carcinomas to exposure to the new antitumor polyamine analogue N1,N11–bis(ethyl)norspermine. Gabrielson EW, et al. **Clin Cancer Res** 1999 Jul;5(7):1638–41
Polyamine analogue induction of programmed cell death in human lung tumor cells. McCloskey DE, et al. **Clin Cancer Res** 1996 Mar;2(3):441–6
Antitumor efficacy of N1,N11–diethylnorspermine on a human bladder tumor xenograft in nude athymic mice. Sharma A, et al. **Clin Cancer Res** 1997 Aug;3(8):1239–44
Structure/function correlation of spermine–analogue–induced modulation of peptidyltransferase activity. Karahalios P, et al. **Eur J Biochem** 1998 Dec 1;258(2):437–44
In vitro comparison of two NONOates (novel nitric oxide donors) on rat pulmonary arteries. Homer K, et al. **Eur J Pharmacol** 1998 Aug 28;356(1):49–57
Comparative relaxant effects of the NO donors sodium nitroprusside, DEA/NO and SPER/NO in rabbit carotid arteries. Salom JB, et al. **Gen Pharmacol** 1999 Jan;32(1):75–9
Effects of ethyl and benzyl analogues of spermine on Escherichia coli peptidyltransferase activity, polyamine transport, and cellular growth. Karahalios P, et al. **J Bacteriol** 1999 Jul;181(13):3904–11
Regulation of the Salmonella typhimurium flavohemoglobin gene. A new pathway for bacterial gene expression in response to nitric oxide [published erratum appears in J Biol Chem 1999 Feb 5;274(6):3918] Crawford MJ, et al. **J Biol Chem** 1998 Dec 18;273(51):34028–32
Conformationally restricted analogues of 1N,12N–bisethylspermine: synthesis and growth inhibitory effects on human tumor cell lines. Reddy VK, et al. **J Med Chem** 1998 Nov 19;41(24):4723–32
N8–acetyl spermidine protects rat cerebellar granule cells from low K+–induced apoptosis. Berry MD. **J Neurosci Res** 1999 Feb 1;55(3):341–51
Transgenic mice with activated polyamine catabolism due to overexpression of spermidine/spermine N1–acetyltransferase show enhanced sensitivity to the polyamine analog, N1, N11–diethylnorspermine. Alhonen L, et al. **Mol Pharmacol** 1999 Apr;55(4):693–8
A novel cytotoxic agent for human carcinoid tumors. Litvak DA, et al. **Surgery** 1998 Dec;124(6):1071–6

ANALYSIS

Polyamines in human breast cancer and its relations to classical prognostic features: clinical implications. Leveque J, et al. **Anticancer Res** 1999 May–Jun;19(3B):2275–9

CHEMICAL SYNTHESIS

Conformationally restricted analogues of 1N,12N–bisethylspermine: synthesis and growth inhibitory effects on human tumor cell lines. Reddy VK, et al. **J Med Chem** 1998 Nov 19;41(24):4723–32

CHEMISTRY

Enhanced detection of oligonucleotides in UV MALDI MS using the tetraamine spermine as a matrix additive. Asara JM, et al. **Anal Chem** 1999 Jul 15;71(14):2866–70
Fluorescence property of oxazole yellow–linked oligonucleotide. Triple helix formation and photocleavage of double–stranded DNA in the presence of spermine. Inoue T, et al. **Bioorg Med Chem** 1999 Jun;7(6):1207–11
Design and semisynthesis of spermine–sensitive Ribonuclease S'. Hamachi I, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1215–8
The synthesis of symmetrical spermine conjugates using solid–phase chemistry. Page P, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1751–6
Matrix–assisted laser desorption/ionization mass spectrometry of acidic glycoconjugates facilitated by the use of spermine as a co–matrix. Mechref Y, et al. **J Am Soc Mass Spectrom** 1998 Dec;9(12):1293–302
Formation of a complex containing ATP, Mg2+, and spermine. Structural evidence and biological significance. Meksuriyen D, et al. **J Biol Chem** 1998 Nov 20; 273(47):30939–44
Hairpin ribozyme cleavage catalyzed by aminoglycoside antibiotics and the polyamine spermine in the absence of metal ions. Earnshaw DJ, et al. **Nucleic Acids Res** 1998 Dec 15;26(24):5551–61
Relative effects of graft copolymer and polyamines on triplex stabilization under physiological conditions. Ferdous A, et al. **Nucleosides Nucleotides** 1999 Jun–Jul;18(6–7):1651–3
A spermine–deoxycholic acid conjugate based lipid as a transfecting agent. Ajmani PS, et al. **Pharmazie** 1999 Mar; 54(3):191–4

IMMUNOLOGY

Molecular analysis of the combining site of a monoclonal antibody against spermine. Bouillé N, et al. **Mol Immunol** 1999 Feb;36(2):93–102

METABOLISM

Kinetic analysis of spermine binding to NRD convertase. Csuhai E, et al. **Arch Biochem Biophys** 1999 Feb 15; 362(2):291–300
Binding of spermidine and putrescine to energized liver mitochondria. Dalla Via L, et al. **Arch Biochem Biophys** 1999 May 15;365(2):231–8
Proteoglycan involvement in polyamine uptake. Belting M, et al. **Biochem J** 1999 Mar 1;338 (Pt 2):317–23
Human vascular endothelial cells incorporate spermine, but not spermidine or putrescine, into a 20 kDa protein. Morgan DM, et al. **Biochem Soc Trans** 1998 Nov;26(4):S367
Preparation of a spermine conjugate of the bis–phenanthroline ligand Clip–Phen and evaluation of the corresponding copper complex. Pitié M, et al. **Bioconjug Chem** 1998 Sep–Oct;9(5):604–11
Regional variations in spermine levels in the developing rat brain following exposure to lead. Hilliard AL, et al. **Brain Res Bull** 1999 Jul 15;49(5):349–53
A regulatory domain (R1–R2) in the amino terminus of the N–methyl–D–aspartate receptor: effects of spermine, protons, and ifenprodil, and structural similarity to bacterial leucine/isoleucine/valine binding protein. Masuko T, et al. **Mol Pharmacol** 1999 Jun;55(6):957–69
Spermine inhibition of the 2,5–diaziridinyl–1,4–benzoquinone (DZQ) crosslinking reaction with DNA duplexes containing poly(purine). poly(pyrimidine) tracts. Shamma T, et al. **Nucleic Acids Res** 1999 Jul 1;27(13):2601–9

PHARMACOKINETICS

The presence of an Na+/spermine antiporter in the rat renal brush–border membrane. Kobayashi M, et al. **J Pharm Pharmacol** 1999 Mar;51(3):279–84

PHARMACOLOGY

Comparison between the natural postnatal maturation and the spermine–induced maturation of the rat intestine. Peulen O, et al. **Arch Physiol Biochem** 1998 Feb; 106(1):46–55
Inhibition by aminosalicylates of phosphatidic acid formation induced by superoxide, calcium or spermine in enterocyte mitochondria. Madesh M, et al. **Biochem Pharmacol** 1998 May 1;55(9):1489–95
Spermine and arcaine block and permeate N–methyl–D–aspartate receptor channels. Araneda RC, et al. **Biophys J** 1999 Jun;76(6):2899–911
Spermine–induced aggregation of DNA, nucleosome, and chromatin. Raspaud E, et al. **Biophys J** 1999 Sep; 77(3):1547–55
Inhibition of GTPase activity of Gi proteins and decreased agonist affinity at M2 muscarinic acetylcholine receptors by spermine and methoctramine. Daeffler L, et al. **Br J Pharmacol** 1999 Jun;127(4):1021–9
Effect of spermine administration on pancreatic maturation in unweaned rats. Romain N, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun; 120(2):379–84
Spermine affects intestinal in vitro permeability to different–sized molecules in rats. Osman NE, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1998 Aug;120(2):211–6
Spermine triggers the activation of caspase–3 in a cell–free model of apoptosis. Stefanelli C, et al. **FEBS Lett** 1999 May 21;451(2):95–8
Spermine causes caspase activation in leukaemia cells. Stefanelli C, et al. **FEBS Lett** 1998 Oct 23;437(3):233–6
Radioprotection of DNA by spermine: a molecular modelling approach. Sy D, et al. **Int J Radiat Biol** 1999 Aug; 75(8):953–61
Effect of spermine and alpha–difluoromethylornithine on KCl– and CaCl2–induced contraction in rat uterine smooth muscle. Revuelta MP, et al. **J Auton Pharmacol** 1998 Aug; 18(4):223–30
Polyamines and epidermal growth factor in the recovery of gastric mucosa from stress–induced gastric lesions. Konturek PC, et al. **J Clin Gastroenterol** 1998;27 Suppl 1:S97–104
Inhibition of vacuolar ion channels by polyamines. Dobrovinskaya OR, et al. **J Membr Biol** 1999 Jan 15; 167(2):127–40
Zinc and ifenprodil allosterically inhibit two separate polyamine–sensitive sites at N–methyl–D–aspartate receptor complex. Berger ML, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1584–91
Characterization of the effects of polyamines on [125I]MK–801 binding to recombinant N–methyl–D–aspartate receptors. Sharma TA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):1041–7
An allosteric interaction between the NMDA receptor polyamine and ifenprodil sites in rat cultured cortical neurones. Kew JN, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):17–28
Multiple sites of action of neomycin, Mg2+ and spermine on the NMDA receptors of rat hippocampal CA1 pyramidal neurones. Lu WY, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):29–46
Spermine inhibits [3H]glycine binding at the NMDA receptors from plexiform layers of chick retina. Calderón F, et al. **Neurochem Res** 1998 Nov;23(11):1363–9
Phencyclidine–like discriminative stimulus effects of polyamine modulators of N–methyl–D–aspartate receptor activity in rats. Nicholson KL, et al. **Neurosci Lett** 1998 Aug 28;253(1):53–6
Mutation of structural determinants lining the N–methyl–D–aspartate receptor channel differentially affects phencyclidine block and spermine potentiation and block. Zheng X, et al. **Neuroscience** 1999;93(1):125–34
The modulatory effect of spermine on the glutamate–NMDA receptor is regionally variable in normal human adult cerebral cortex. Mortensen M, et al. **Pharmacol Toxicol** 1999 Mar;84(3):135–42
Involvement of ornithine decarboxylase and polyamines in epidermal growth factor–induced recovery of gastric mucosa from gastric lesions provoked by stress. Brzozowski T, et al. **Regul Pept** 1998 Jun 30;74(2–3):73–84

SPERMINE

Oral spermine administration inhibits nitric oxide-mediated intestinal damage and levels of systemic inflammatory mediators in a mouse endotoxin model. ter Steege JC, et al. **Shock** 1999 Feb;11(2):115-9

PHYSIOLOGY

Mg-ATP binding: its modification by spermine, the relevance to cytosolic Mg2+ buffering, changes in the intracellular ionized Mg2+ concentration and the estimation of Mg2+ by 31P-NMR. Lüthi D, et al. **Exp Physiol** 1999 Mar; 84(2):231-52 (57 ref.)

Spermine triggers the activation of caspase-3 in a cell-free model of apoptosis. Stefanelli C, et al. **FEBS Lett** 1999 May 21;451(2):95-8

The natural polyamine spermine functions directly as a free radical scavenger. Ha HC, et al. **Proc Natl Acad Sci U S A** 1998 Sep 15;95(19):11140-5

SPERMINE SYNTHASE

GENETICS

Analysis of the spermine synthase gene region in Fugu rubripes, Tetraodon fluviatilis, and Danio rerio. Boeddrich A, et al. **Genomics** 1999 Apr 1;57(1):164-8

SPERMINE SYNTHETASE see **SPERMINE SYNTHASE**

SPERMIOCYTES see **SPERMATOCYTES**

SPERMIOGENESIS see **SPERMATOGENESIS**

SPERMOPHILUS see **SCIURIDAE**

SPHAEROMONAS see **NEOCALLIMASTICALES**

SPHAEROPHORUS see **FUSOBACTERIUM**

SPHAEROPHORUS INFECTIONS see **FUSOBACTERIUM INFECTIONS**

SPHAEROPHORUS NECROPHORUS see **FUSOBACTERIUM NECROPHORUM**

SPHAEROTILUS see **GRAM-NEGATIVE AEROBIC BACTERIA**

SPHAGNUM see **MOSSES**

SPHENOID BONE

Mucocele involving the anterior clinoid process: MR and CT findings. Lim CC, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):287-90

Trans-sphenoidal treatment of postsurgical cerebrospinal fluid fistula: CT-guided closure. Floris R, et al. **Neuroradiology** 1998 Oct;40(10):690-4

Primary spheno-orbital angiosarcoma: case report and review of the literature. Lopes M, et al. **Neurosurgery** 1999 Feb;44(2):405-7; discussion 407-8 (39 ref.)

Primary Ewing's sarcoma of the sphenoid bone: a rare presentation. Varan A, et al. **Pediatr Radiol** 1998 May; 28(5):311

Transcranial approach for transsphenoidal encephalocele: report of two cases. Tsutsumi K, et al. **Surg Neurol** 1999 Mar;51(3):252-7

Long-term survival of a patient with a giant-cell tumor of the sphenoid body: a case report. Pau A, et al. **Tumori** 1999 Mar-Apr;85(2):137-9 (28 ref.)

ABNORMALITIES

Persistent hypophyseal (craniopharyngeal) canal. Hughes ML, et al. **Br J Radiol** 1999 Feb;72(854):204-6

ANATOMY & HISTOLOGY

Magnetic resonance images and histology of the spheno-occipital synchondrosis in young monkeys (Macaca fuscata). Nakamura Y, et al. **Am J Orthod Dentofacial Orthop** 1999 Feb;115(2):138-42

The posterior border of the sphenoid greater wing and its phylogenetic usefulness in human evolution. Braga J, et al. **Am J Phys Anthropol** 1998 Dec;107(4):387-99

Computer-aided three-dimensional reconstruction and measurement of the optic canal and intracanalicular structures. Tao H, et al. **Laryngoscope** 1999 Sep; 109(9):1499-502

Anterior sphenoid in modern humans [letter] Spoor F, et al. **Nature** 1999 Feb 18;397(6720):572

Surgical anatomy and morphometric analysis of the optico-chiasmatic apparatus, optic canal and sphenoid ridge. Oztürk A, et al. **Okajimas Folia Anat Jpn** 1999 Mar; 75(6):319-22

EMBRYOLOGY

Effects of pulsed ultrasound on sphenoid bone temperature and the heart rate in guinea-pig foetuses. Horder MM, et al. **Early Hum Dev** 1998 Oct;52(3):221-33

PATHOLOGY

Endoscopic transsphenoidal biopsy of the sphenoid and clival mass. Kelley TF, et al. **Am J Rhinol** 1999 Jan-Feb; 13(1):17-21

Comparison of MR imaging with CT in depiction of tumour extension into the pterygopalatine fossa. Tomura N, et al. **Clin Radiol** 1999 Jun;54(6):361-6

Alterations in optic canal following resection of nerve in rats. Ciglar-Knežević I, et al. **Coll Antropol** 1999 Jun; 23(1):159-65

Mucocele of the anterior clinoid process: case report. Chung DS, et al. **Neurosurgery** 1999 Aug;45(2):376-8

Juxtaorbital en plaque meningiomas. Report of four cases and review of literature. Charbel FT, et al. **Radiol Clin North Am** 1999 Jan;37(1):89-100, x (59 ref.)

Dumbbell tumor of the anterior skull base. Meningioma? No, adenoid cystic carcinoma! Brunori A, et al. **Surg Neurol** 1998 Nov;50(5):470-4

Sellar-sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461-3; discussion 463-4

Sphenoid pneumoceles cause episodic pressure-related blindness. Hanasono MM, et al. **West J Med** 1998 Nov; 169(5):295-9

[Spheno-ethmoidal rhinoscleroma. Report of a case and review of the literature] Evrard I, et al. **Ann Otolaryngol Chir Cervicofac** 1998 May;115(2):85-8 (12 ref.) (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

Pictorial review: radiology of the sphenoid bone. Chong VF, et al. **Clin Radiol** 1998 Dec;53(12):882-93 (26 ref.)

Sellar-sphenoid sinus hemangioblastoma: case report. Kachhara R, et al. **Surg Neurol** 1998 Nov;50(5):461-3; discussion 463-4

[The persistence of a spheno-occipital synchondrosis in an adult] Adem C, et al. **J Radiol** 1999 Aug;80(8):863-5 (Eng. Abstr.) **(Fre)**

SURGERY

Trans-sphenoidal surgery for microprolactinoma: an acceptable alternative to dopamine agonists? Turner HE, et al. **Eur J Endocrinol** 1999 Jan;140(1):43-7

Analysis of 356 pterygomaxillary implants in edentulous arches for fixed prosthesis anchorage. Balshi TJ, et al. **Int J Oral Maxillofac Implants** 1999 May-Jun; 14(3):398-406

Complications in a contemporary series of patients who underwent transsphenoidal surgery for Cushing's disease. Semple PL, et al. **J Neurosurg** 1999 Aug;91(2):175-9

[Spheno-mandibular ankylosis. A case] Péron JM, et al. **Rev Stomatol Chir Maxillofac** 1998 Dec;99(5-6):241-3 (Eng. Abstr.) **(Fre)**

[The pterional approach] Shimanskiĭ VN, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr-Jun; (2):40-4 **(Rus)**

SPHENOID SINUS

Mucocele involving the anterior clinoid process: MR and CT findings. Lim CC, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):287-90

Anatomic variations of the paranasal sinuses: CT examination for endoscopic sinus surgery. Arslan H, et al. **Auris Nasus Larynx** 1999 Jan;26(1):39-48

Sphenoid sinus schwannoma treated by endoscopic excision. Srinivasan V, et al. **J Laryngol Otol** 1999 May;113(5):466-8

Intrasphenoid cephalocele: MRI in two cases. Deasy NP, et al. **Neuroradiology** 1999 Jul;41(7):497-500

Detection of an occult transclival cerebrospinal fluid fistula by CT and MRI. Schick B, et al. **Neuroradiology** 1998 Dec; 40(12):797-9

Isolated sphenoid lesions: diagnosis and management. Sethi DS. **Otolaryngol Head Neck Surg** 1999 May;120(5):730-6

Current surgical treatment for sphenoorbital meningiomas. Carrizo A, et al. **Surg Neurol** 1998 Dec;50(6):574-8

[Clinical, etiologic and therapeutic aspects of chronic sphenoid opacities] Erminy M, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Dec;115(6):332-7 (Eng. Abstr.) **(Fre)**

[Interesting case no. 16. Wegener disease (Wegener granulomatosis)] Stöver T, et al. **Laryngorhinootologie** 1998 Sep;77(9):528-30 **(Ger)**

ABNORMALITIES

Hypoplasia of the sphenoid sinuses as a diagnostic tool in cystic fibrosis. Eggesbø HB, et al. **Acta Radiol** 1999 Sep; 40(5):479-85

ANATOMY & HISTOLOGY

Endoscopic anatomy of the sphenoid sinus. Elwany S, et al. **J Laryngol Otol** 1999 Feb;113(2):122-6

BLOOD SUPPLY

The role of the crista ethmoidalis in endoscopic sphenopalatine artery ligation. Bolger WE, et al. **Am J Rhinol** 1999 Mar-Apr;13(2):81-6

CYTOLOGY

Isolated mucocele in an Onodi cell. Ogata Y, et al. **ORL J Otorhinolaryngol Relat Spec** 1998 Nov-Dec; 60(6):349-52

MICROBIOLOGY

Ocular presentation and successful outcome of invasive sphenoid sinus aspergillosis in acute myelogenous leukemia. Carta A, et al. **Haematologica** 1998 Dec;83(12):1116-9

PATHOLOGY

Endoscopic transsphenoidal biopsy of the sphenoid and clival mass. Kelley TF, et al. **Am J Rhinol** 1999 Jan-Feb; 13(1):17-21

Sphenoid pneumoceles cause episodic pressure-related blindness. Hanasono MM, et al. **West J Med** 1998 Nov; 169(5):295-9

RADIOGRAPHY

Benign expansile lesions of the sphenoid sinus: differentiation from normal asymmetry of the lateral recesses. Lewin JS, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):461-6

A Le Fort I osteotomy approach to lateral sphenoid sinus encephalocoeles. Reynolds JM, et al. **J Laryngol Otol** 1998 Aug;112(8):779-81

Isolated sphenoethmoid recess polyps. Sethi DS, et al. **J Laryngol Otol** 1998 Jul;112(7):660-3

Numerous transorbital wooden foreign bodies in the sphenoid sinus. Mori S, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 May-Jun; 61(3):165-8

Squamous cell carcinoma of the sinonasal cavities. Hermans R, et al. **Semin Ultrasound CT MR** 1999 Jun;20(3):150-61 (12 ref.)

[Interesting case no. 17. Jaffé-Lichtenstein fibrous dysplasia (osteodystrophia fibrosa)] Stöver T, et al. **Laryngorhinootologie** 1998 Oct;77(10):596-8 **(Ger)**

SURGERY

A combined transorbital-transclinoid and transsylvian approach to carotid-ophthalmic aneurysms without retraction of the brain. Dolenc VV. **Acta Neurochir Suppl (Wien)** 1999;72:89-97 (97 ref.)

Transsphenoidal-transtuberculum sellae approach for supradiaphragmatic tumours: technical note. Kato T, et al. **Acta Neurochir (Wien)** 1998;140(7):715-8; discussion 719

Effect of sinus surgery on visual disturbance caused by spheno-ethmoid mucoceles. Yumoto E, et al. **Am J Rhinol** 1997 Sep-Oct;11(5):337-43

Neurosurgical aspects of sphenoid sinus mucocele. Iqbal J, et al. **Br J Neurosurg** 1998 Dec;12(6):527-30 (23 ref.)

Olfactory groove meningioma with paranasal sinus and nasal cavity extension: removal by combined subfrontal and nasal approach. Maiuri F, et al. **J Craniomaxillofac Surg** 1998 Oct;26(5):314-7 (21 ref.)

Preoperative short-term administration of octreotide for facilitating transsphenoidal removal of invasive growth hormone-secreting macroadenomas. Tachibana E, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):496-9; discussion 499-501

Use of the superior meatus and superior turbinate in the endoscopic approach to the sphenoid sinus. Bolger WE, et al. **Otolaryngol Head Neck Surg** 1999 Mar;120(3):308-13 (13 ref.)

SPHENOID SINUSITIS

[A sinus neglected for so long...(editorial)] Bonfils P. **Ann Otolaryngol Chir Cervicofac** 1998 Jun;115(3):105 **(Fre)**

[Acute and chronic sphenoid sinusitis. Review of the literature] Erminy M, et al. **Ann Otolaryngol Chir Cervicofac** 1998 Jun;115(3):106-16; quiz 117 (73 ref.) (Eng. Abstr.) **(Fre)**

[Sphenoid sinusitis] Takayama M, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(25 Pt 3):298-9 (3 ref.) **(Jpn)**

COMPLICATIONS

Sinusitis with contiguous abscess involvement of the clivus and petrous apices. Case report. Hoistad DL, et al. **Ann Otol Rhinol Laryngol** 1999 May;108(5):463-6

Is sphenoid sinus opacity significant in patients with optic neuritis? Moorman CM, et al. **Eye** 1999;13 (Pt 1):76-82

Superior branch palsy of the oculomotor nerve caused by acute sphenoid sinusitis. Chotmongkol V, et al. **J Med Assoc Thai** 1999 Apr;82(4):410-3

DIAGNOSIS

Isolated sphenoidal sinusitis in children. Haimi-Cohen Y, et al. **Eur J Pediatr** 1999 Apr;158(4):298-301

Infratentorial subdural empyema, pituitary abscess, and septic cavernous sinus thrombophlebitis secondary to paranasal sinusitis: case report. Sahjpaul RL, et al. **Neurosurgery** 1999 Apr;44(4):864-6; discussion 866-8

[Acute and chronic sphenoidal sinusitis] **Ann Otolaryngol Chir Cervicofac** 1998 Jun;115(3):117 **(Fre)**

SPHEROCYTES

PATHOLOGY

An animal model to study erythrocyte senescence with a narrow time window of erythrocyte production: alterations

in osmotic fragility and deformability of erythrocytes during their life span. Wen ZY, et al. **Clin Hemorheol Microcirc** 1998 Dec;19(4):299–306

SPHEROCYTOSIS, HEREDITARY

see related
ANEMIA, SIDEROBLASTIC

[Hereditary membrane-deficient hemolytic anemias] Shamov IA. **Klin Med (Mosk)** 1998;76(9):63–7 (0 ref.) **(Rus)**

BLOOD

Hereditary spherocytosis and elliptocytosis erythrocytes show a normal transbilayer phospholipid distribution. de Jong K, et al. **Blood** 1999 Jul 1;94(1):319–25

A case of pseudothrombocytosis. Bonifazi F, et al. **Haematologica** 1999 Mar;84(3):275

[Hereditary spherocytosis: one year study of erythrocyte membrane proteins] Tshilolo L, et al. **Rev Med Brux** 1998 Oct;19(5 Pt 1):417–23 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

A case of pigmented purpuric eruption associated with hereditary spherocytosis [letter] Taşkapan O, et al. **Acta Derm Venereol** 1998 Sep;78(5):397–8

Inherited protein C deficiency, protein S deficiency and hyperhomocysteinaemia in a patient with hereditary spherocytosis. Taylor CP, et al. **Clin Lab Haematol** 1999 Jun;21(3):211–4

Index of suspicion. Case #3. Discussion: hereditary spherocytosis. Borden M, et al. **Pediatr Rev** 1999 Aug; 20(8):273; discussion 2756

[Juvenile polyposis coli associated with hereditary spherocytosis] Agnifili A, et al. **Minerva Chir** 1998 Oct; 53(10):811–7 (Eng. Abstr.) **(Ita)**

[Case of hereditary spherocytosis complicated by human parvovirus B19-associated hemophagocytosis syndrome and aplastic crisis] Sano F, et al. **Nippon Naika Gakkai Zasshi** 1999 Jan 10;88(1):127–9 **(Jpn)**

DIAGNOSIS

The GEN.S: a fortuitous finding of a routine screening test for hereditary spherocytosis. Chiron M, et al. **Hematol Cell Ther** 1999 Jun;41(3):113–6

End tidal carbon monoxide concentration in childhood haemolytic disorders. Chan GC, et al. **J Paediatr Child Health** 1998 Oct;34(5):447–50

Index of suspicion. Case #3. Discussion: hereditary spherocytosis. Borden M, et al. **Pediatr Rev** 1999 Aug; 20(8):273; discussion 2756

GENETICS

Band 3 Tokyo: Thr837-->Ala837 substitution in erythrocyte band 3 protein associated with spherocytic hemolysis. Iwase S, et al. **Acta Haematol** 1998;100(4):200–3

Hereditary spherocytosis due to a novel frameshift mutation in AE1 cytoplasmic COOH terminal tail: band 3 Vesuvio. Perrotta S, et al. **Blood** 1999 Mar 15;93(6):2131–2

Hereditary spherocytosis with spectrin deficiency related to null mutations of the beta-spectrin gene. Dhermy D, et al. **Blood Cells Mol Dis** 1998 Jun;24(2):251–61

Hematologically important mutations: spectrin and ankyrin variants in hereditary spherocytosis. Gallagher PG, et al. **Blood Cells Mol Dis** 1998 Dec;24(4):539–43 (48 ref.)

4.2 Nippon mutation in a non-Japanese patient with hereditary spherocytosis [letter] Perrotta S, et al. **Haematologica** 1999 Jul;84(7):660–2

[Hereditary spherocytosis: one year study of erythrocyte membrane proteins] Tshilolo L, et al. **Rev Med Brux** 1998 Oct;19(5 Pt 1):417–23 (Eng. Abstr.) **(Fre)**

METABOLISM

Mild spherocytosis and altered red cell ion transport in protein 4.2-null mice. Peters LL, et al. **J Clin Invest** 1999 Jun;103(11):1527–37

SURGERY

Laparoscopy improves outcomes for pediatric splenectomy. Curran TJ, et al. **J Pediatr Surg** 1998 Oct;33(10):1498–500

The role of prophylactic cholecystectomy during splenectomy in children with hereditary spherocytosis. Sandler A, et al. **J Pediatr Surg** 1999 Jul;34(7):1077–8

THERAPY

Cardiac surgery using only autologous blood for a patient with hereditary spherocytosis: a case report. Yamagishi I, et al. **Ann Thorac Cardiovasc Surg** 1998 Oct;4(5):294–7

A new approach to optimal dynamic therapy planning. Magni P. **Proc AMIA Symp** 1998;:936–40

SPHEROIDS

Coupled cellular trafficking and diffusional limitations in delivery of immunotoxins to multicell tumor spheroids. Wenning LA, et al. **Biotechnol Bioeng** 1999 Mar 5; 62(5):562–75

Formation of a spherical multicellular aggregate (spheroid) of animal cells in the pores of polyurethane foam as a cell culture substratum and its application to a hybrid artificial liver. Ijima H, et al. **J Biomater Sci Polym Ed** 1998; 9(7):765–78

CYTOLOGY

In vitro study of multicellular hepatocyte spheroids formed in microcapsules. Ito Y, et al. **Artif Organs** 1992 Aug; 16(4):422–7

Repair, redistribution and repopulation in V79 spheroids during multifraction irradiation. Brown RC, et al. **Cell Prolif** 1994 Jun;27(6):343–54

Oscillating growth patterns of multicellular tumour spheroids. Chignola R, et al. **Cell Prolif** 1999 Feb; 32(1):39–48

The lifetime of hypoxic human tumor cells. Durand RE, et al. **Int J Radiat Oncol Biol Phys** 1998 Nov 1;42(4):711–5

Differentiation and proliferation of primary rat hepatocytes cultured as spheroids. Hamamoto R, et al. **J Biochem (Tokyo)** 1998 Nov;124(5):972–9

Integration of endothelial cells in multicellular spheroids prevents apoptosis and induces differentiation. Korff T, et al. **J Cell Biol** 1998 Nov 30;143(5):1341–52

DRUG EFFECTS

Clonogenic inactivation of colon cancer-derived cells treated with 5-fluorouracil and indomethacin in hybrid spheroids. Djordjevic B, et al. **Acta Oncol** 1998;37(7–8):735–9

Cell fusion studies to examine the mechanism for etoposide resistance in Chinese hamster V79 spheroids. Luo C, et al. **Exp Cell Res** 1998 Sep 15;243(2):282–9

Taxol-induced bcl-2 phosphorylation in ovarian cancer cell monolayer and spheroids. Makhija S, et al. **Int J Oncol** 1999 Mar;14(3):515–21

[Multicellular resistance: another mechanisms of pleiotropic resistance?] Desoize B, et al. **Bull Cancer** 1998 Sep; 85(9):785–93 (Eng. Abstr.) **(Fre)**

[Treosulfan displays cytotoxic effect on spheroids of primary cell cultures of renal cell carcinoma independent of p-glycoprotein expression] Kugler A, et al. **Urologe A** 1998 Jul;37(4):367–71 (Eng. Abstr.) **(Ger)**

METABOLISM

Uptake, penetration, and binding of monoclonal antibodies with increasing affinity in human osteosarcoma multicell spheroids. Hjelstuen MH, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3153–61

Inhibition of phospholipase C-gamma1 activation blocks glioma cell motility and invasion of fetal rat brain aggregates. Khoshyomn S, et al. **Neurosurgery** 1999 Mar; 44(3):568–77; discussion 577–8

PATHOLOGY

Stimulation of tumour growth by wound-derived growth factors. Abramovitch R, et al. **Br J Cancer** 1999 Mar; 79(9–10):1392–8

Multicellular spheroids as an in vitro tumor model. Hamilton G. **Cancer Lett** 1998 Sep 11;131(1):29–34 (40 ref.)

Analysis of growth of multicellular tumour spheroids by mathematical models. Marusić M, et al. **Cell Prolif** 1994 Feb;27(2):73–94

Evaluation of the growth rate of MCF-7 breast cancer multicellular spheroids using three mathematical models. Olea N, et al. **Cell Prolif** 1994 Apr;27(4):213–23

Incidence of neuronal perikaryal spheroids in neuronal ceroid lipofuscinoses (Batten disease). Elleder M, et al. **Clin Neuropathol** 1998 Jul–Aug;17(4):184–9

Bacillus-Calmette-Guérin (BCG) and 3D tumors: an in vitro model for the study of adhesion and invasion. Durek C, et al. **J Urol** 1999 Aug;162(2):600–5

Three-dimensional spheroid model in tumor biology. Santini MT, et al. **Pathobiology** 1999 May–Jun;67(3):148–57 (63 ref.)

PHYSIOLOGY

Biodegradable polymer film as a source for formation of human fetal retinal pigment epithelium spheroids. Rezai KA, et al. **Invest Ophthalmol Vis Sci** 1999 May;40(6):1223–8

RADIATION EFFECTS

Comparison between fractionated high dose rate irradiation and continuous low dose rate irradiation in spheroids. Omura M, et al. **Acta Oncol** 1998;37(7–8):681–6

Repair, redistribution and repopulation in V79 spheroids during multifraction irradiation. Brown RC, et al. **Cell Prolif** 1994 Jun;27(6):343–54

Multicellular tumour spheroids in radiation biology. Santini MT, et al. **Int J Radiat Biol** 1999 Jul;75(7):787–99 (51 ref.)

Tumor cell spheroids as a model for evaluation of metabolic changes after irradiation. Senekowitsch-Schmidtke R, et al. **J Nucl Med** 1998 Oct;39(10):1762–8

Radiotoxicity of bismuth-213 bound to membranes of monolayer and spheroid cultures of tumor cells. Kennel SJ, et al. **Radiat Res** 1999 Mar;151(3):244–56

RADIONUCLIDE IMAGING

Simultaneous recovery of size and radioactivity concentration of small spheroids with PET data. Chen CH, et al. **J Nucl Med** 1999 Jan;40(1):118–30

TRANSPLANTATION

A new model of retinal pigment epithelium transplantation with microspheres. Oganesian A, et al. **Arch Ophthalmol** 1999 Sep;117(9):1192–200

SPHEROPLASTS

CHEMISTRY

Surface charge density and light-scattering of the Plectonema boryanum spheroplasts. Doltchinkova V. **Bioelectrochem Bioenerg** 1999 Feb;48(1):237–41

DRUG EFFECTS

Implication of cell wall constituents in the sensitivity of Kluyveromyces lactis strains to amphotericin B. Ramanandraibe E, et al. **Res Microbiol** 1998 Feb; 149(2):109–18

GROWTH & DEVELOPMENT

The spheroplast lysis assay for yeast in microtiter plate format. Ovalle R, et al. **Appl Environ Microbiol** 1999 Aug; 65(8):3325–7

A spheroplast rate assay for determination of cell wall integrity in yeast. Ovalle R, et al. **Yeast** 1998 Sep 30; 14(13):1159–66

SPHINCTEROPLASTY, TRANSDUODENAL see **SPHINCTEROTOMY, TRANSHEPATIC**

SPHINCTEROTOMY, ENDOSCOPIC

Spontaneous rupture of an intrahepatic bile duct with biloma treated by percutaneous drainage and endoscopic sphincterotomy. Fujiwara H, et al. **Am J Gastroenterol** 1998 Nov;93(11):2282–4

Significance of retroperitoneal air after endoscopic retrograde cholangiopancreatography with sphincterotomy. Genzlinger JL, et al. **Am J Gastroenterol** 1999 May;94(5):1267–70

The utility of liver function test abnormalities concomitant with biliary symptoms in predicting a favorable response to endoscopic sphincterotomy in patients with presumed sphincter of Oddi dysfunction. Lin OS, et al. **Am J Gastroenterol** 1998 Oct;93(10):1833–6

Sump syndrome: endoscopic treatment and late recurrence. Mavrogiannis C, et al. **Am J Gastroenterol** 1999 Apr; 94(4):972–5

Should postpapillotomy screening for Ascaris lumbricoides infection be routine in communities endemic for ascariasis? [letter] Raj SM, et al. **Am J Gastroenterol** 1999 Aug; 94(8):2329

Choledocholithiasis: endoscopic versus laparoscopic management. Heili MJ, et al. **Am Surg** 1999 Feb;65(2):135–8

Early ERCP is an essential part of the management of all cases of acute pancreatitis. Gupta R, et al. **Ann R Coll Surg Engl** 1999 Jan;81(1):46–50 (23 ref.)

'Vegebilia'--a late complication of endoscopic sphincterotomy [letter] Frankish PD. **Aust N Z J Med** 1999 Feb;29(1):90

Follow-up study in patients with no stone retrieval from the bile duct after endoscopic sphincterotomy. Lin CH, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Jan; 62(1):6–12

Endoscopic sphincterotomy for common bile duct stones in younger patients. Pedersen FM, et al. **Dan Med Bull** 1998 Nov;45(5):533–5

Effect of endoscopic sphincterotomy on bile lithogenicity in patients with gallbladder in situ. Caroli-Bosc FX, et al. **Endoscopy** 1999 Aug;31(6):437–41

The role of therapeutic endoscopy associated with extracorporeal shock-wave lithotripsy and bile acid treatment in the management of Caroli's disease [see comments] Caroli-Bosc FX, et al. **Endoscopy** 1998 Aug; 30(6):559–63. Comment in: Endoscopy 1999 Mar;31(3):280.

Therapeutic biliary endoscopy. Choudari CP, et al. **Endoscopy** 1999 Jan;31(1):80–7 (52 ref.)

Endoscopic papillotomy: surgery should not be forgotten. Feussner H. **Endoscopy** 1998 Nov;30(9):A228–30 (27 ref.)

The role of ERCP and sphincterotomy in acute biliary pancreatitis. Fölsch UR. **Endoscopy** 1998 Nov;30(9):A253–5 (13 ref.)

Long-term sequelae of endoscopic papillotomy. Frimberger E. **Endoscopy** 1998 Nov;30(9):A221–7 (71 ref.)

Biliary pancreatitis needs endoscopic retrograde cholangiopancreatography with endoscopic sphincterotomy for cure. Nowak A, et al. **Endoscopy** 1998 Nov;30(9):A256–9

Endoscopic sphincterotomy and balloon sphincteroplasty for common bile duct stones: a Chinese experience [news] Zhang QL. **Endoscopy** 1999 Mar;31(3):N5–6

Common bile duct thrombus: a cause of persisting obstructive jaundice after endoscopic sphincterotomy. Ala A, et al. **Gastrointest Endosc** 1999 Aug;50(2):285–6

Laparoscopic cholecystectomy and intraoperative endoscopic sphincterotomy in the treatment of cholecysto-choledocholithiasis. Basso N, et al. **Gastrointest Endosc** 1999 Oct;50(4):532–5

Endoscopic sphincterotomy could have been a better alternative [letter; comment] Contractor QQ. **Gastrointest Endosc** 1999 Feb;49(2):273–4. Comment on:

Gastrointest Endosc 1998 Feb;47(2):181–3.
Is pre-cut papillotomy guilty as accused? [letter] Dhir V, et al. **Gastrointest Endosc** 1999 Jul;50(1):143–4
Does cholecystectomy after endoscopic sphincterotomy prevent the recurrence of biliary complications? Lai KH, et al. **Gastrointest Endosc** 1999 Apr;49(4 Pt 1):483–7
Electrophysical factors influencing endoscopic sphincterotomy. Ratani RS, et al. **Gastrointest Endosc** 1999 Jan;49(1):43–52
Effectiveness of endoscopic sphincterotomy in complicated hepatic hydatid disease. Rodriguez AN, et al. **Gastrointest Endosc** 1998 Dec;48(6):593–7
Routine intravenous cholangiography, selective ERCP, and endoscopic treatment of bile duct stones before laparoscopic cholecystectomy. Sarli L, et al. **Gastrointest Endosc** 1999 Aug;50(2):200–8
Long-term consequence of endoscopic sphincterotomy for bile duct stones [see comments] Tanaka M, et al. **Gastrointest Endosc** 1998 Nov;48(5):465–9. Comment in: Gastrointest Endosc 1998 Nov;48(5):540–2.
Laparo-endoscopic "rendezvous": a new technique in the choledocholithiasis treatment. Cavina E, et al. **Hepatogastroenterology** 1998 Sep–Oct;45(23):1430–5
Endoscopic sphincterotomy in the management of biliary leakage after partial hepatectomy. Okan A, et al. **Hepatogastroenterology** 1999 Mar–Apr;46(26):790–1
Early ERCP in biliary pancreatitis? Finch MD, et al. **HPB Surg** 1998;11(2):129–31
Spontaneous passage of gallbladder calculi--facilitation by endoscopic sphincterotomy. Sharma BC, et al. **HPB Surg** 1998;11(1):23–6
T-tube access for endoscopic sphincterotomy: a variant of combined percutaneous and endoscopic approach. Dhiman RK, et al. **Indian J Gastroenterol** 1999 Jan–Mar;18(1):29–30
Endoscopic pancreaticobiliary procedures in patients with a Billroth II resection: a 10-year follow-up study [see comments] Aabakken L, et al. **Ital J Gastroenterol Hepatol** 1998 Jun;30(3):301–5. Comment in: Ital J Gastroenterol Hepatol 1998 Jun;30(3):306–9.
ERCP and endoscopic sphincterotomy in Billroth II patients: a demanding technique for experts only? [comment] Costamagna G. **Ital J Gastroenterol Hepatol** 1998 Jun;30(3):306–9. Comment on: Ital J Gastroenterol Hepatol 1998 Jun;30(3):297–300. Comment on: Ital J Gastroenterol Hepatol 1998 Jun;30(3):301–5.
The prediction of common bile duct stones using a neural network. Golub R, et al. **J Am Coll Surg** 1998 Dec;187(6):584–90 (64 ref.)
Endoscopic management of choledocholithiasis. Soetikno RM, et al. **J Clin Gastroenterol** 1998 Dec;27(4):296–305 (35 ref.)
Endoscopic management of choledocholithiasis: to cut, stretch or relax? Misra SP, et al. **J Gastroenterol Hepatol** 1998 Dec;13(12):1180–2 (23 ref.)
Comparing the treatment outcomes of endoscopic papillary dilation and endoscopic sphincterotomy for removal of bile duct stones. Ochi Y, et al. **J Gastroenterol Hepatol** 1999 Jan;14(1):90–6
Single-stage laparoscopic and endoscopic treatment for choledocholithiasis: a novel approach. Moroni J, et al. **J Laparoendosc Adv Surg Tech A** 1999 Feb;9(1):69–74
Nonvisualization of gallbladder after endoscopic retrograde sphincterotomy. Kao CH. **Semin Nucl Med** 1999 Jan;29(1):82–4
Management of common bile duct stones in a single operation combining laparoscopic cholecystectomy and perioperative endoscopic sphincterotomy. Meyer C, et al. **Surg Endosc** 1999 Sep;13(9):874–7
Influence of bile duct stones on patient features and effect of endoscopic sphincterotomy on early outcome of edematous gallstone pancreatitis. Hammarström LE, et al. **World J Surg** 1999 Jan;23(1):12–7
[Endoscopic papillosphincterotomy for the treatment of pancreaticobiliary disease] Zhou Y, et al. **Chung Hua Wai Ko Tsa Chih** 1997 May;35(5):274–6 (Eng. Abstr.) **(Chi)**
[What place for endoscopic sphincterotomy in treatment of acute pancreatitis?] Cuilleret J, et al. **Chirurgie** 1998 Apr;123(2):131–7; discussion 137–8 (Eng. Abstr.) **(Fre)**
[Treatment of common bile duct calculi: laparoscopy or sphincterotomy? Controlled prospective study] Huguier M. **Chirurgie** 1998 Apr;123(2):215–6 **(Fre)**
[Endoscopic sphincteroclasy for choledocholithiasis of the principal bile duct. Short-term results and follow-up] Kalimsky E, et al. **Gastroenterol Clin Biol** 1999 Feb;23(2):187–94 (Eng. Abstr.) **(Fre)**
[Symptomatic common bile duct lithiasis: endoscopic treatment or surgical treatment?] Hay JM. **J Chir (Paris)** 1998 Feb;135(1):4–9 (17 ref.) (Eng. Abstr.) **(Fre)**
[Two-stage therapy makes sense] Stiefelhagen P. **Fortschr Med** 1998 Aug 30;116(24):32–3 **(Ger)**
[Biliary pancreatitis--epidemiology, progress with a new therapy concept?] Ulrich M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1130–2 (Eng. Abstr.) **(Ger)**
[A patient with choledocholithiasis--no therapy without risk] Schmassmann A. **Ther Umsch** 1998 Sep;55(9):589–91 (Eng. Abstr.) **(Ger)**
[Ultrasound-controlled endoscopic papillotomy in pregnancy in severe biliary pancreatitis] Freistühler M, et al. **Z Gastroenterol** 1999 Jan;37(1):27–30 (Eng. Abstr.) **(Ger)**
[Endoscopic therapy of ischemia-type biliary lesions in patients following orthotopic liver transplantation] Hintze RE, et al. **Z Gastroenterol** 1999 Jan;37(1):13–20 (Eng. Abstr.) **(Ger)**
[Are there advantages to early ERCP and papillotomy in comparison with conservative therapy in treatment of acute biliary pancreatitis?] Kellner H, et al. **Z Gastroenterol** 1999 Mar;37(3):249–51 **(Ger)**
[Lesions of the main bile duct: combined percutaneous-endoscopic treatment] Montesano G, et al. **Ann Ital Chir** 1999 May–Jun;70(3):421–4; discussion 425 (Eng. Abstr.) **(Ita)**
[Acute pancreatitis. Our experience during 20 years] Amboldi A, et al. **Minerva Chir** 1999 May;54(5):305–12 (Eng. Abstr.) **(Ita)**
[Endoscopic sphincterotomy in acute biliary pancreatitis. A multicenter study] Gargiulo A, et al. **Minerva Chir** 1998 Dec;53(12):965–71 (Eng. Abstr.) **(Ita)**
[Update on the treatment of choledocholithiasis] Vadalà G, et al. **Minerva Chir** 1999 May;54(5):339–42 (Eng. Abstr.) **(Ita)**
[Cholecystic-choledochal calculi. Endolaparoscopic treatment] Vadalà G, et al. **Minerva Chir** 1999 May;54(5):299–303 (Eng. Abstr.) **(Ita)**
[Successful endoscopic accessory sphincterotomy for pancreas divisum with a pancreatic stone] Sasada Y, et al. **Nippon Shokakibyo Gakkai Zasshi** 1998 Dec;95(12):1387–91 (15 ref.) **(Jpn)**
[Minimally invasive methods for treatment of cholelithiasis, complicated by choledocholithiasis] Shestakov AL, et al. **Khirurgiia (Mosk)** 1999;(2):29–32 (Eng. Abstr.) **(Rus)**
[Endoscopic interventions as an alternative to reconstructive operations in postcholecystectomy syndrome] Nazyrov FG, et al. **Klin Khir** 1998;(12):51–2 **(Rus)**
[Prophylactic effects of ceftriaxone in patients after endoscopic papillosphincterotomy] Batovsky M, et al. **Bratisl Lek Listy** 1999 Mar;100(3):164–7 (Eng. Abstr.) **(Slo)**
[Precut sphincterotomy: efficacy and complications] Güitrón A, et al. **Rev Gastroenterol Mex** 1998 Jul–Sep;63(3):148–52 (Eng. Abstr.) **(Spa)**
[Endoscopic treatment of dyskinesia of the Oddi's sphincter] Suárez Morán E. **Rev Gastroenterol Mex** 1998 Oct–Dec;63(4 Suppl 1):S69–73 (Eng. Abstr.) **(Spa)**
[Endoscopic treatment of choledocholithiasis] Torres Durazo E. **Rev Gastroenterol Mex** 1998 Oct–Dec;63(4 Suppl 1):S52–61 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Octreotide in the prevention of pancreatic injury associated with endoscopic cholangiopancreatography. Tulassay Z, et al. **Aliment Pharmacol Ther** 1998 Nov;12(11):1109–12
Predicting endoscopic sphincterotomy-induced pancreatitis using serum amylase levels [editorial; comment] Sherman S. **Am J Gastroenterol** 1999 May;94(5):1129–30. Comment on: Am J Gastroenterol 1999 May;94(5):1235–41.
Does endoscopic sphincterotomy cause prolonged pancreatobiliary reflux? Sugiyama M, et al. **Am J Gastroenterol** 1999 Mar;94(3):795–8
Serum amylase measured four hours after endoscopic sphincterotomy is a reliable predictor of postprocedure pancreatitis [see comments] Testoni PA, et al. **Am J Gastroenterol** 1999 May;94(5):1235–41. Comment in: Am J Gastroenterol 1999 May;94(5):1129–30.
Short-term complications after endoscopic sphincterotomy (ES) are not increased in relatively young and healthy patients with small bile ducts, when sphincterotomy for stones is performed by an expert [letter; comment] Cetta F, et al. **Ann Surg** 1998 Oct;228(4):624–5. Comment on: Ann Surg 1998 Feb;227(2):201–4.
Complications of endoscopic sphincterotomy. Freeman ML. **Endoscopy** 1998 Nov;30(9):A216–20 (36 ref.)
Endoscopic biliary sphincterotomy complicated by abscess formation in a simple renal cyst. Gilad J, et al. **Endoscopy** 1999 Feb;31(2):S5–6
Hemolysis due to G-6-PD deficiency induced by endoscopic sphincterotomy [letter] Katsinelos P, et al. **Endoscopy** 1998 Aug;30(6):581
Endoscopic hemostasis in sphincterotomy-induced hemorrhage: its efficacy and safety. Kim HJ, et al. **Endoscopy** 1999 Aug;31(6):431–6
Routine biliary sphincterotomy may not be indispensable for endoscopic pancreatic sphincterotomy. Kim MH, et al. **Endoscopy** 1998 Oct;30(8):697–701
Immediate and late bleeding after endoscopic sphincterotomy [letter; comment] Mosca S, et al. **Endoscopy** 1999 Mar;31(3):278–9. Comment on: Endoscopy 1998 Jan;30(1):37–9.
Twenty-four-hour serum amylase predicting pancreatic reaction after endoscopic sphincterotomy. Testoni PA, et al. **Endoscopy** 1999 Feb;31(2):131–6
Pancreatic stenting prevents pancreatitis after biliary sphincterotomy in patients with sphincter of Oddi dysfunction [see comments] Tarnasky PR, et al. **Gastroenterology** 1998 Dec;115(6):1518–24. Comment in: Gastroenterology 1998 Dec;115(6):1591–4. Comment in: Gastroenterology 1999 Jul;117(1):283.
Long-term complications of endoscopic biliary sphincterotomy for choledocholithiasis [editorial; comment] Cass O. **Gastrointest Endosc** 1998 Nov;48(5):540–2. Comment on: Gastrointest Endosc 1998 Nov;48(5):457–64. Comment on: Gastrointest Endosc 1998 Nov;48(5):465–9.
Same-day discharge after endoscopic biliary sphincterotomy: observations from a prospective multicenter complication study. The Multicenter Endoscopic Sphincterotomy (MESH) Study Group [see comments] Freeman ML, et al. **Gastrointest Endosc** 1999 May;49(5):580–6. Comment in: Gastrointest Endosc 1999 May;49(5):660–2.
Long-term results (7 to 10 years) of endoscopic papillotomy for choledocholithiasis. Multivariate analysis of prognostic factors for the recurrence of biliary symptoms [see comments] Pereira-Lima JC, et al. **Gastrointest Endosc** 1998 Nov;48(5):457–64. Comment in: Gastrointest Endosc 1998 Nov;48(5):540–2.
The influence of sphincterotomy and hepatic plexus vagotomy on ascending infections of the biliary tract: an experimental study in dogs. Güler O, et al. **Hepatogastroenterology** 1998 May–Jun;45(21):662–4
Endoscopic sphincterotomy for acute pancreatitis: arguments in favour. Uomo G, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):557–61 (58 ref.)
Biliary ascariasis complicating endoscopic sphincterotomy for choledocholithiasis in India. Gupta R, et al. **J Gastroenterol Hepatol** 1998 Oct;13(10):1072–3
[Obstructive cholangiopathy: are endoscopic retrograde cholangiopancreatography and papillotomy always really necessary?] Pierie JP, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1497–9 (Eng. Abstr.) **(Dut)**
[Endoscopic sphincterotomy in acute biliary pancreatitis: the complications] Gargiulo A, et al. **Ann Ital Chir** 1998 Jul–Aug;69(4):473–7 (Eng. Abstr.) **(Ita)**
[Phlegmon of retroperitoneal cellular tissue after endoscopic papillosphincterotomy] Maksimov IuM, et al. **Khirurgiia (Mosk)** 1998;(10):58–61 (Eng. Abstr.) **(Rus)**

CONTRAINDICATIONS

Endoscopic sphincterotomy for acute pancreatitis: arguments against. Nitsche R, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):562–5 (9 ref.)
[Obstructive cholangiopathy: are endoscopic retrograde cholangiopancreatography and papillotomy always really necessary?] Pierie JP, et al. **Ned Tijdschr Geneeskd** 1999 Jul 17;143(29):1497–9 (Eng. Abstr.) **(Dut)**

ECONOMICS

Cost-effectiveness of endoscopic sphincterotomy. Costamagna G, et al. **Endoscopy** 1998 Nov;30(9):A212–5 (35 ref.)

HISTORY

25 years of endoscopic sphincterotomy in Erlangen: assessment of the experience in 3498 patients. Rabenstein T, et al. **Endoscopy** 1998 Nov;30(9):A194–201

INSTRUMENTATION

Use of a front-viewing scope after failure to cannulate a deep intraduverticular papilla. Maroy B. **Endoscopy** 1998 Jun;30(5):S63
The transduodenal rendezvous: a new approach to deeply cannulate the main pancreatic duct. Dumonceau JM, et al. **Gastrointest Endosc** 1999 Aug;50(2):274–6
Reuse of disposable sphincterotomes for diagnostic and therapeutic ERCP: a one-year prospective study. Kozarek RA, et al. **Gastrointest Endosc** 1999 Jan;49(1):39–42
In vitro and in vivo evaluation of a reusable double-channel sphincterotome. Lee RM, et al. **Gastrointest Endosc** 1999 Apr;49(4 Pt 1):477–82
Needle-knife fistulotomy versus needle-knife precut papillotomy for the treatment of common bile duct stones. Mavrogiannis C, et al. **Gastrointest Endosc** 1999 Sep;50(3):334–9
Eight years' experience with the use of a transcystic common bile duct duodenal double-lumen catheter for the treatment of choledocholithiasis. Fitzgibbons RJ Jr, et al. **Surgery** 1998 Oct;124(4):699–705; discussion 705–6

METHODS

Management of common bile duct stones by laparoscopic cholecystectomy and endoscopic sphincterotomy: pre-, per- or postoperative sphincterotomy? Meyer C, et al. **Dig Surg** 1999;16(1):26–31
Current status of endoscopic balloon dilation for stone removal [letter] Choudari CP, et al. **Endoscopy** 1999 Jun;31(5):406–8
Feasibility of stent placement above the sphincter of Oddi ("inside-stent") for patients with malignant biliary obstruction [see comments] Liu Q, et al. **Endoscopy** 1998 Oct;30(8):687–90. Comment in: Endoscopy 1998 Oct;30(8):727–9.
Needle-knife papillotomy: a helpful and safe adjunct to endoscopic retrograde cholangiopancreatography in a selected population. Rollhauser C, et al. **Endoscopy** 1998 Oct;30(8):691–6
Safety and efficacy of pancreatic sphincterotomy in chronic pancreatitis. Ell C, et al. **Gastrointest Endosc** 1998 Sep;48(3):244–9
Common bile duct stones become smaller after endoscopic biliary stenting. Fink SD, et al. **Gastrointest Endosc** 1999 Jun;49(6):812–3
Selective basket insertion into the left intrahepatic duct [letter] Hirata N, et al. **Gastrointest Endosc** 1999 Feb;

49(2):274–5
The effect of endoscopic sphincterotomy on acute and chronic complications of biliary endoprostheses. Margulies C, et al. **Gastrointest Endosc** 1999 Jun;49(6):716–9
Needle-knife fistulotomy versus needle-knife precut papillotomy for the treatment of common bile duct stones. Mavrogiannis C, et al. **Gastrointest Endosc** 1999 Sep; 50(3):334–9
Acute pancreatitis caused by hydatid membranes in the biliary tract: treatment with endoscopic sphincterotomy. Sáez-Royuela F, et al. **Gastrointest Endosc** 1999 Jun; 49(6):793–6
To what extent is surgery superior to endoscopic therapy in the management of chronic pancreatitis? Bassi C, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):571–9 (35 ref.)
Endoscopic treatment in chronic pancreatitis. Laugier R, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):566–70 (46 ref.)
Endoscopic sphincterotomy for acute pancreatitis: arguments against. Nitsche R, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):562–5 (9 ref.)
Endoscopic sphincterotomy for acute pancreatitis: arguments in favour. Uomo G, et al. **Ital J Gastroenterol Hepatol** 1998 Oct;30(5):557–61 (58 ref.)
Endoscopic and surgical integration in the approach to biliary tract disease. Montori A, et al. **J Clin Gastroenterol** 1999 Apr;28(3):198–201
Endoscopic sphincterotomy and laparoscopic cholecystectomy in an infant with cholecysto-choledocholithiasis. Sanada Y, et al. **J Pediatr Surg** 1998 Aug;33(8):1312–4

SPHINCTEROTOMY, TRANSDUODENAL see **SPHINCTEROTOMY, TRANSHEPATIC**

SPHINCTEROTOMY, TRANSHEPATIC

A mini-invasive approach to transduodenal sphincteroplasty. Carlo VM, et al. **Bol Asoc Med P R** 1998 Jul-Dec; 90(7–12):117–20
Reliability of visual and quantitative hepatobiliary scintigraphy in the follow-up of patients who have undergone cholecystectomy and transduodenal sphincteroplasty. Banci M, et al. **Clin Nucl Med** 1999 May; 24(5):330–3
Long-term effects of transduodenal sphincterotomy: symptoms and hepatobiliary function. Makinen AM, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1436–41
[2 cases of choledochal calculosis associated with juxtapapillary diverticulum in patients with gastric resection: submesocolon approach] Taschieri AM, et al. **Chir Ital** 1999 Jan-Feb;51(1):87–90 (Eng. Abstr.) **(Ita)**

SPHINGOGLYCOLIPIDS see **GLYCOSPHINGOLIPIDS**

SPHINGOLIPIDOSES

DIAGNOSIS

Broad screening test for sphingolipid-storage diseases [see comments] Chen CS, et al. **Lancet** 1999 Sep 11; 354(9182):901–5. Comment in: Lancet 1999 Sep 11;354(9182):879–80.
Outlook for screening for sphingolipidoses [comment] Winchester B. **Lancet** 1999 Sep 11;354(9182):879–80. Comment on: Lancet 1999 Sep 11;354(9182):901–5.

PATHOLOGY

Neuronopathic juvenile glucosylceramidosis due to sap-C deficiency: clinical course, neuropathology and brain lipid composition in this Gaucher disease variant. Pampols T, et al. **Acta Neuropathol (Berl)** 1999 Jan;97(1):91–7

SPHINGOLIPIDS

see related
SPHINGOSINE

ADMINISTRATION & DOSAGE

Ceramides and ceramide metabolites in cell regulation: evidence for dietary sphingolipids as inhibitors of colon carcinogenesis [editorial] Schmelz EM, et al. **Nutrition** 1998 Sep;14(9):717–9

ANTAGONISTS & INHIBITORS

Fumonisins and human health. Nair MG.
Ann Trop Paediatr 1998 Sep;18 Suppl:S47–52 (41 ref.)

BIOSYNTHESIS

Yeast sphingolipids. Dickson RC, et al.
Biochim Biophys Acta 1999 Jan 6;1426(2):347–57 (99 ref.)
Cells defective in sphingolipids biosynthesis express low amounts of muscle nicotinic acetylcholine receptor. Roccamo AM, et al. **Eur J Neurosci** 1999 May; 11(5):1615–23
Inhibition of fungal sphingolipid biosynthesis by rustmicin, galbonolide B and their new 21-hydroxy analogs. Harris GH, et al. **J Antibiot (Tokyo)** 1998 Sep;51(9):837–44
Activation of the de novo biosynthesis of sphingolipids mediates angiotensin II type 2 receptor-induced apoptosis. Lehtonen JY, et al. **J Biol Chem** 1999 Jun 11; 274(24):16901–6
SEC14-dependent secretion in Saccharomyces cerevisiae. Nondependence on sphingolipid synthesis-coupled diacylglycerol production. Stock SD, et al.
J Biol Chem 1999 May 7;274(19):12979–83
[Biosynthesis and intracellular trafficking of sphingolipids in mammalian cells] Hanada K, et al.
Tanpakushitsu Kakusan Koso 1999 Jun;44(8 Suppl):1200–6 (43 ref.) **(Jpn)**

CHEMICAL SYNTHESIS

Synthesis and evaluation of morpholino- and pyrrolidinosphingolipids as inhibitors of glucosylceramide synthase. Miura T, et al. **Bioorg Med Chem** 1998 Sep; 6(9):1481–9

CHEMISTRY

On the character and functions of sphingolipids. Karlsson KA. **Acta Biochim Pol** 1998;45(2):429–38 (25 ref.)
Use of sphingolipid analogs: benefits and risks. Ghidoni R, et al. **Biochim Biophys Acta** 1999 Jul 9;1439(1):17–39 (285 ref.)
The differential miscibility of lipids as the basis for the formation of functional membrane rafts. Rietveld A, et al. **Biochim Biophys Acta** 1998 Nov 10;1376(3):467–79 (143 ref.)
Modulation of nanotube formation by structural modifications of sphingolipids. Kulkarni VS, et al.
Biophys J 1999 Jul;77(1):319–30
Analysis of phosphorylated sphingolipid long-chain bases reveals potential roles in heat stress and growth control in Saccharomyces. Skrzypek MS, et al. **J Bacteriol** 1999 Feb;181(4):1134–40

METABOLISM

On the character and functions of sphingolipids. Karlsson KA. **Acta Biochim Pol** 1998;45(2):429–38 (25 ref.)
Sphingolipid functions in Saccharomyces cerevisiae: comparison to mammals. Dickson RC.
Annu Rev Biochem 1998;67:27–48 (138 ref.)
Effects of cholesterol depletion by cyclodextrin on the sphingolipid microdomains of the plasma membrane. Ilangumaran S, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):433–40
Lipid phosphate phosphohydrolase-1 degrades exogenous glycerolipid and sphingolipid phosphate esters. Jasinska R, et al. **Biochem J** 1999 Jun 15;340 (Pt 3):677–86
Metabolism and selected functions of sphingolipids in the yeast Saccharomyces cerevisiae. Dickson RC, et al.
Biochim Biophys Acta 1999 Jun 10;1438(3):305–21 (125 ref.)
Cell cycle control of PDGF-induced Ca(2+) signaling through modulation of sphingolipid metabolism. Fatatis A, et al. **FASEB J** 1999 Aug;13(11):1291–301
Sphingolipid depletion increases formation of the scrapie prion protein in neuroblastoma cells infected with prions. Naslavsky N, et al. **J Biol Chem** 1999 Jul 23; 274(30):20763–71
Apical sorting of bovine enteropeptidase does not involve detergent-resistant association with sphingolipid-cholesterol rafts. Zheng X, et al.
J Biol Chem 1999 Jan 15;274(3):1596–605
Oligomerization of Vibrio cholerae cytolysin yields a pentameric pore and has a dual specificity for cholesterol and sphingolipids in the target membrane. Zitzer A, et al.
J Biol Chem 1999 Jan 15;274(3):1375–80
N-Glycans mediate the apical sorting of a GPI-anchored, raft-associated protein in Madin-Darby canine kidney cells. Benting JH, et al. **J Cell Biol** 1999 Jul 26;146(2):313–20
Intracellular targeting of the endoplasmic reticulum/nuclear envelope by retrograde transport may determine cell hypersensitivity to verotoxin via globotriaosyl ceramide fatty acid isoform traffic. Arab S, et al. **J Cell Physiol** 1998 Dec;177(4):646–60
The human multidrug resistance protein MRP1 translocates sphingolipid analogs across the plasma membrane. Raggers RJ, et al. **J Cell Sci** 1999 Feb;112 (Pt 3):415–22
Effects of Echinostoma caproni infection on the phospholipid and sphingolipid content of the intestinal mucosa of ICR mice. Albrecht BK, et al. **J Helminthol** 1998 Dec; 72(4):355–7
Role of sphingolipids in the transport of prosaposin to the lysosomes. Lefrancois S, et al. **J Lipid Res** 1999 Sep; 40(9):1593–603
Internalization and sorting of plasma membrane sphingolipid analogues in differentiating oligodendrocytes. Watanabe R, et al. **J Neurochem** 1999 Oct;73(4):1375–83
Sphingolipid metabolism in the regulation of bioactive molecules. Luberto C, et al. **Lipids** 1999;34 Suppl:S5–11 (62 ref.)
Actin filaments and microtubules are involved in different membrane traffic pathways that transport sphingolipids to the apical surface of polarized HepG2 cells. Zegers MM, et al. **Mol Biol Cell** 1998 Jul;9(7):1939–49
Sphingolipid metabolism during human platelet activation. Simon CG Jr, et al. **Thromb Res** 1999 Apr 1;94(1):13–23
[Sphingolipids and cancer] Diatlovitskaia EV.
Bioorg Khim 1998 Oct;24(10):723–30 (115 ref.) (Eng. Abstr.) **(Rus)**

PHARMACOLOGY

Synthesis and evaluation of morpholino- and pyrrolidinosphingolipids as inhibitors of glucosylceramide synthase. Miura T, et al. **Bioorg Med Chem** 1998 Sep; 6(9):1481–9
Induction and suppression of endothelial cell apoptosis by sphingolipids: a possible in vitro model for cell-cell interactions between platelets and endothelial cells. Hisano N, et al. **Blood** 1999 Jun 15;93(12):4293–9
Cerebrosides A and C, sphingolipid elicitors of hypersensitive cell death and phytoalexin accumulation in rice plants. Koga J, et al. **J Biol Chem** 1998 Nov 27;273(48):31985–91
Characterization of cytotoxicity induced by sphingolipids in multidrug-resistant leukemia cells. Klostergaard J, et al. **Leuk Res** 1998 Nov;22(11):1049–56
Artemisinin and its derivatives are transported by a vacuolar-network of Plasmodium falciparum and their anti-malarial activities are additive with toxic sphingolipid analogues that block the network. Akompong T, et al.
Mol Biochem Parasitol 1999 Jun 25;101(1–2):71–9

PHYSIOLOGY

Distinct roles for sphingolipids and glycosphingolipids at different stages of neuronal development. Futerman AH.
Acta Biochim Pol 1998;45(2):469–78 (33 ref.)
Lipid second messengers derived from glycerolipids and sphingolipids, and their role in smooth muscle function. Ohanian J, et al. **Acta Physiol Scand** 1998 Dec; 164(4):533–48 (138 ref.)
Sphingolipids in atherosclerosis and vascular biology. Chatterjee S. **Arterioscler Thromb Vasc Biol** 1998 Oct; 18(10):1523–33 (101 ref.)
Sphingolipids and cell signalling. Fredman P.
J Inherit Metab Dis 1998 Aug;21(5):472–80 (38 ref.)
Regulation of mitogen-activated protein kinases by sphingolipid products in oligodendrocytes. Hida H, et al.
J Neurosci 1999 Sep 1;19(17):7458–67
Sphingolipids in food and the emerging importance of sphingolipids to nutrition. Vesper H, et al. **J Nutr** 1999 Jul;129(7):1239–50 (181 ref.)
[Glycosphingolipid microdomains/caveolae and signal transduction] Kasahara K, et al.
Tanpakushitsu Kakusan Koso 1998 Dec;43(16 Suppl):2522–30 (46 ref.) **(Jpn)**

THERAPEUTIC USE

Ceramides and ceramide metabolites in cell regulation: evidence for dietary sphingolipids as inhibitors of colon carcinogenesis [editorial] Schmelz EM, et al. **Nutrition** 1998 Sep;14(9):717–9

SPHINGOMYELIN CHOLINEPHOSPHOHYDROLASE see **SPHINGOMYELIN PHOSPHODIESTERASE**

SPHINGOMYELIN CLEAVING ENZYME see **SPHINGOMYELIN PHOSPHODIESTERASE**

SPHINGOMYELIN PHOSPHODIESTERASE

see related
NIEMANN-PICK DISEASE

ANTAGONISTS & INHIBITORS

Scyphostatin, a neutral sphingomyelinase inhibitor from a discomycete, Trichopeziza mollissima: taxonomy of the producing organism, fermentation, isolation, and physico-chemical properties. Nara F, et al.
J Antibiot (Tokyo) 1999 Jun;52(6):525–30
Biological activities of scyphostatin, a neutral sphingomyelinase inhibitor from a discomycete, Trichopeziza mollissima. Nara F, et al.
J Antibiot (Tokyo) 1999 Jun;52(6):531–5
Alutenusin, a specific neutral sphingomyelinase inhibitor, produced by Penicillium sp. FO-7436. Uchida R, et al.
J Antibiot (Tokyo) 1999 Jun;52(6):572–4

BIOSYNTHESIS

Ceramide accumulation during oxidant renal tubular injury: mechanisms and potential consequences. Zager RA, et al.
J Am Soc Nephrol 1998 Sep;9(9):1670–80
Transcription factors Sp1 and AP-2 mediate induction of acid sphingomyelinase during monocytic differentiation. Langmann T, et al. **J Lipid Res** 1999 May;40(5):870–80

CHEMISTRY

Sphingomyelinase induces lipid microdomain formation in a fluid phosphatidylcholine/sphingomyelin membrane. Holopainen JM, et al. **Biochemistry** 1998 Dec 15; 37(50):17562–70
Expression of recombinant human acid sphingomyelinase in insect Sf21 cells: purification, processing and enzymatic characterization. Bartelsen O, et al. **J Biotechnol** 1998 Jul 30;63(1):29–40
Identification, partial purification, and localization of a neutral sphingomyelinase in rabbit skeletal muscle: neutral sphingomyelinase in skeletal muscle. Ghosh N, et al.
Mol Cell Biochem 1998 Dec;189(1–2):161–8

SPHINGOMYELIN PHOSPHODIESTERASE

DEFICIENCY

Fluorescence-based selection of gene-corrected hematopoietic stem and progenitor cells from acid sphingomyelinase-deficient mice: implications for Niemann-Pick disease gene therapy and the development of improved stem cell gene transfer procedures. Erlich S, et al. **Blood** 1999 Jan 1;93(1):80-6

DRUG EFFECTS

Effect of dimethylsulfoxide on sphingomyelinase activity and cholesterol metabolism in Niemann-Pick type C fibroblasts. Scalco FB, et al. **Braz J Med Biol Res** 1999 Jan;32(1):23-8

ISOLATION & PURIFICATION

Characterization of human acid sphingomyelinase purified from the media of overexpressing Chinese hamster ovary cells. He X, et al. **Biochim Biophys Acta** 1999 Jul 13; 1432(2):251-64

Purification and characterization of a membrane bound neutral pH optimum magnesium-dependent and phosphatidylserine-stimulated sphingomyelinase from rat brain. Liu B, et al. **J Biol Chem** 1998 Dec 18; 273(51):34472-9

Identification, partial purification, and localization of a neutral sphingomyelinase in rabbit skeletal muscle: neutral sphingomyelinase in skeletal muscle. Ghosh N, et al. **Mol Cell Biochem** 1998 Dec;189(1-2):161-8

METABOLISM

Content and structure of ceramide and sphingomyelin and sphingomyelinase activity in mouse hepatoma-22. Rylova SN, et al. **Biochemistry (Mosc)** 1999 Apr;64(4):437-41

Signalling sphingomyelinases: which, where, how and why? Levade T, et al. **Biochim Biophys Acta** 1999 Apr 19; 1438(1):1-17 (186 ref.)

Familial adenomatous polyposis is associated with a marked decrease in alkaline sphingomyelinase activity: a key factor to the unrestrained cell proliferation? Hertervig E, et al. **Br J Cancer** 1999 Sep;81(2):232-6

Effect of dimethylsulfoxide on sphingomyelinase activity and cholesterol metabolism in Niemann-Pick type C fibroblasts. Scalco FB, et al. **Braz J Med Biol Res** 1999 Jan;32(1):23-8

Fas/CD95/Apo-I activates the acidic sphingomyelinase via caspases. Brenner B, et al. **Cell Death Differ** 1998 Jan; 5(1):29-37

Acid sphingomyelinase-derived ceramide is not required for inflammatory cytokine signalling in murine macrophages. Manthey CL, et al. **Cytokine** 1998 Sep;10(9):654-61

Activation of the sphingomyelinase/ceramide signal transduction pathway in insulin-secreting beta-cells: role in cytokine-induced beta-cell death. Major CD, et al. **Diabetes** 1999 Jul;48(7):1372-80

Impaired neutral sphingomyelinase activation and cutaneous barrier repair in FAN-deficient mice. Kreder D, et al. **EMBO J** 1999 May 4;18(9):2472-9

L-carnitine prevents doxorubicin-induced apoptosis of cardiac myocytes: role of inhibition of ceramide generation. Andrieu-Abadie N, et al. **FASEB J** 1999 Sep; 13(12):1501-10

Negative regulation of interleukin-1beta-activated neutral sphingomyelinase by protein kinase C in rat mesangial cells. Kaszkin M, et al. **FEBS Lett** 1998 Nov 27;440(1-2):163-6

Mg2+ binding and catalytic function of sphingomyelinase from Bacillus cereus. Fujii S, et al. **J Biochem (Tokyo)** 1998 Dec 1;124(6):1178-87

Increases in ceramide levels in normal human mesangial cells subjected to different cellular stresses result from changes in distinct enzyme activities and can influence cellular responses to other stimuli. Sweeney EA, et al. **J Biochem (Tokyo)** 1999 Apr;125(4):737-45

Role of sphingosine 1-phosphate in the mitogenesis induced by oxidized low density lipoprotein in smooth muscle cells via activation of sphingomyelinase, ceramidase, and sphingosine kinase. Augé N, et al. **J Biol Chem** 1999 Jul 30;274(31):21533-8

Purification and characterization of a membrane bound neutral pH optimum magnesium-dependent and phosphatidylserine-stimulated sphingomyelinase from rat brain. Liu B, et al. **J Biol Chem** 1998 Dec 18; 273(51):34472-9

Ceramide generation in nitric oxide-induced apoptosis. Activation of magnesium-dependent neutral sphingomyelinase via caspase-3. Takeda Y, et al. **J Biol Chem** 1999 Apr 9;274(15):10654-60

Tumor necrosis factor-alpha, sphingomyelinase, and ceramide inhibit store-operated calcium entry in thyroid FRTL-5 cells. Törnquist K, et al. **J Biol Chem** 1999 Apr 2;274(14):9370-7

Requirement of FADD for tumor necrosis factor-induced activation of acid sphingomyelinase. Wiegmann K, et al. **J Biol Chem** 1999 Feb 26;274(9):5267-70

A role for neutral sphingomyelinase-mediated ceramide production in T cell receptor-induced apoptosis and mitogen-activated protein kinase-mediated signal transduction. Tonnetti L, et al. **J Exp Med** 1999 May 17; 189(10):1581-9

A possible role of nuclear ceramide and sphingosine in hepatocyte apoptosis in rat liver [see comments] Tsugane K, et al. **J Hepatol** 1999 Jul;31(1):8-17. Comment in: J Hepatol 1999 Jul;31(1):161-4.

Signaling through CD5 involves acidic sphingomyelinase, protein kinase C-zeta, mitogen-activated protein kinase kinase, and c-Jun NH2-terminal kinase. Simarro M, et al. **J Immunol** 1999 May 1;162(9):5149-55

Localization of sphingomyelinase in lesional skin of atopic dermatitis patients. Kusuda S, et al. **J Invest Dermatol** 1998 Nov;111(5):733-8

Inhibition of neutral sphingomyelinase activation and ceramide formation by glutathione in hypoxic PC12 cell death. Yoshimura S, et al. **J Neurochem** 1999 Aug; 73(2):675-83

Dietary pectin lowers sphingomyelin concentration in VLDL and raises hepatic sphingomyelinase activity in rats. Bladergroen BA, et al. **J Nutr** 1999 Mar;129(3):628-33

Surface pressure-dependent cross-modulation of sphingomyelinase and phospholipase A2 in monolayers. Fanani ML, et al. **Lipids** 1998 Nov;33(11):1079-87

Measurement of sphingomyelin and ceramide cellular levels after sphingomyelinase-mediated sphingomyelin hydrolysis. Santana P, et al. **Methods Mol Biol** 1998; 105:217-21 (6 ref.)

PHARMACOLOGY

Sphingomyelinases in the venom of the spider Loxosceles intermedia are responsible for both dermonecrosis and complement-dependent hemolysis. Tambourgi DV, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):366-73

Role of nuclear factor-kappaB activation in cytokine- and sphingomyelinase-stimulated inducible nitric oxide synthase gene expression in vascular smooth muscle cells. Katsuyama K, et al. **Endocrinology** 1998 Nov; 139(11):4506-12

Extracellular sphingomyelinase induces interleukin-6 synthesis in osteoblasts. Tokuda H, et al. **J Cell Biochem** 1999 Feb 1;72(2):262-8

Effect of the lactic acid bacterium Streptococcus thermophilus on ceramide levels in human keratinocytes in vitro and stratum corneum in vivo. Di Marzio L, et al. **J Invest Dermatol** 1999 Jul;113(1):98-106

Induction of the manganese superoxide dismutase gene by sphingomyelinase and ceramide. Pahan K, et al. **J Neurochem** 1999 Aug;73(2):513-20

PHYSIOLOGY

Dexamethasone-induced thymocyte apoptosis: apoptotic signal involves the sequential activation of phosphoinositide-specific phospholipase C, acidic sphingomyelinase, and caspases. Cifone MG, et al. **Blood** 1999 Apr 1;93(7):2282-96

Sphingomyelinase induces aggregation and fusion, but phospholipase A2 only aggregation, of low density lipoprotein (LDL) particles. Two distinct mechanisms leading to increased binding strength of LDL to human aortic proteoglycans. Oörni K, et al. **J Biol Chem** 1998 Oct 30;273(44):29127-34

[Implications of "ceramide-regulating biostat system" from the discovery of "sphingomyelin cycle"] Okazaki T. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1052-8 (11 ref.) **(Jpn)**

SPHINGOMYELINASE see **SPHINGOMYELIN PHOSPHODIESTERASE**

SPHINGOMYELINS

ANALYSIS

Simultaneous quantitation from infrared spectra of glucose concentrations, lactate concentrations, and lecithin/sphingomyelin ratios in amniotic fluid. Liu KZ, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):696-702

Meconium has no lecithin or sphingomyelin but affects the lecithin/sphingomyelin ratio. Longo SA, et al. **Am J Obstet Gynecol** 1998 Dec;179(6 Pt 1):1640-2

Evaluation of fetal lung maturity in diamniotic twins. Whitworth NS, et al. **Am J Obstet Gynecol** 1999 Jun;180(6 Pt 1):1438-41

The rate of sphingomyelin synthesis de novo is influenced by the level of cholesterol in cultured human skin fibroblasts. Leppimäki P, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):285-91

Biochemical analysis of myelin lipids and proteins in a model of methyl donor pathway deficit: effect of S-adenosylmethionine. Bianchi R, et al. **Exp Neurol** 1999 Sep;159(1):258-66

Analysis of molecular species of cellular sphingomyelins and ceramides. Clejan S. **Methods Mol Biol** 1998;105:275-85 (11 ref.)

Measurement of sphingomyelin and ceramide cellular levels after sphingomyelinase-mediated sphingomyelin hydrolysis. Santana P, et al. **Methods Mol Biol** 1998; 105:217-21 (6 ref.)

Sphingomyelin and ceramide mass assay. Santana P, et al. **Methods Mol Biol** 1998;105:223-31 (5 ref.)

Prediction of RDS from amniotic fluid analysis: a comparison of the prognostic value of TLC and infra-red spectroscopy. Liu KZ, et al. **Prenat Diagn** 1998 Dec;18(12):1267-75

BIOSYNTHESIS

The rate of sphingomyelin synthesis de novo is influenced by the level of cholesterol in cultured human skin fibroblasts. Leppimäki P, et al. **Biochem J** 1998 Oct 15;335 (Pt 2):285-91

Cholesterol regulates oxysterol binding protein (OSBP) phosphorylation and Golgi localization in Chinese hamster ovary cells: correlation with stimulation of sphingomyelin synthesis by 25-hydroxycholesterol. Storey MK, et al. **Biochem J** 1998 Nov 15;336 (Pt 1):247-56

Preparation of Golgi subfractions with free-solution isotachophoresis: analysis of sphingomyelin synthesis in Golgi subfractions from rat liver. Hofmeister R, et al. **Electrophoresis** 1998 Jun;19(7):1185-94

Maturation of the axonal plasma membrane requires upregulation of sphingomyelin synthesis and formation of protein-lipid complexes. Ledesma MD, et al. **EMBO J** 1999 Apr 1;18(7):1761-71

Sphingomyelin synthesis in helminths: a minireview. Bankov I, et al. **Folia Parasitol (Praha)** 1998;45(4):257-60 (19 ref.)

Genetic evidence for ATP-dependent endoplasmic reticulum-to-Golgi apparatus trafficking of ceramide for sphingomyelin synthesis in Chinese hamster ovary cells. Fukasawa M, et al. **J Cell Biol** 1999 Feb 22;144(4):673-85

Chinese hamster ovary cells overexpressing the oxysterol binding protein (OSBP) display enhanced synthesis of sphingomyelin in response to 25-hydroxycholesterol. Lagace TA, et al. **J Lipid Res** 1999 Jan;40(1):109-16

BLOOD

Dietary pectin lowers sphingomyelin concentration in VLDL and raises hepatic sphingomyelinase activity in rats. Bladergroen BA, et al. **J Nutr** 1999 Mar;129(3):628-33

CHEMISTRY

Sphingomyelinase induces lipid microdomain formation in a fluid phosphatidylcholine/sphingomyelin membrane. Holopainen JM, et al. **Biochemistry** 1998 Dec 15; 37(50):17562-70

Comparative investigation of sphingoid bases and fatty acids in ceramides and sphingomyelins from human ovarian malignant tumors and normal ovary. Rylova SN, et al. **Biochemistry (Mosc)** 1998 Sep;63(9):1057-60

Association of ethanol with lipid membranes containing cholesterol, sphingomyelin and ganglioside: a titration calorimetry study. Trandum C, et al. **Biochim Biophys Acta** 1999 Aug 20;1420(1-2):179-88

Comparison of the biophysical properties of racemic and d-erythro-N-acyl sphingomyelins. Ramstedt B, et al. **Biophys J** 1999 Sep;77(3):1498-506

Morphological transitions of brain sphingomyelin are determined by the hydration protocol: ripples re-arrange in plane, and sponge-like networks disintegrate into small vesicles. Meyer HW, et al. **Chem Phys Lipids** 1999 Jun; 99(2):111-23

Molecular species of sphingomyelin: determination by high-performance liquid chromatography/mass spectrometry with electrospray and high-performance liquid chromatography/tandem mass spectrometry with atmospheric pressure chemical ionization. Karlsson AA, et al. **J Mass Spectrom** 1998 Dec;33(12):1192-8

Sphingomyelins of rat liver: biliary enrichment with molecular species containing 16:0 fatty acids as compared to canalicular-enriched plasma membranes. Nibbering CP, et al. **J Membr Biol** 1999 Jan 15;167(2):165-71

Effects of feeding Lunaria oil rich in nervonic and erucic acids on the fatty acid compositions of sphingomyelins from erythrocytes, liver, and brain of the quaking mouse mutant. Cook C, et al. **Lipids** 1998 Oct;33(10):993-1000

METABOLISM

The formation of ceramide from sphingomyelin is associated with cellular apoptosis. Dawson G, et al. **Acta Biochim Pol** 1998;45(2):287-97

The role of cholesterol and sphigomyelin in tyrosine phosphorylation of proteins and capping of Fcgamma receptor II. Drzewiecka A, et al. **Acta Biochim Pol** 1999; 46(1):107-16

Vitamin D metabolites activate the sphingomyelin pathway and induce death of glioblastoma cells. Magrassi L, et al. **Acta Neurochir (Wien)** 1998;140(7):707-13; discussion 713-4

Nuclear membrane sphingomyelin-cholesterol changes in rat liver after hepatectomy. Albi E, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):692-5

Content and structure of ceramide and sphingomyelin and sphingomyelinase activity in mouse hepatoma-22. Rylova SN, et al. **Biochemistry (Mosc)** 1999 Apr;64(4):437-41

Effect of D57N mutation on membrane activity and molecular unfolding of cobra cardiotoxin. Lo CC, et al. **Biophys J** 1998 Nov;75(5):2382-8

Interaction of cholesterol with sphingomyelins and acyl-chain-matched phosphatidylcholines: a comparative study of the effect of the chain length. Ramstedt B, et al. **Biophys J** 1999 Feb;76(2):908-15

The effect of interleukin 1 beta on the biosynthesis of cholesterol, phosphatidylcholine, and sphingomyelin in fibroblasts, and on their efflux from cells to lipid-free apolipoprotein A-I. Kronqvist R, et al. **Eur J Biochem** 1999 Jun;262(3):939-46

Platelet-activating factor modulates brain sphingomyelin metabolism. Latorre E, et al. **Eur J Biochem** 1999 Jun; 262(2):308-14

Choline deficiency-induced apoptosis in PC12 cells is associated with diminished membrane phosphatidylcholine

and sphingomyelin, accumulation of ceramide and diacylglycerol, and activation of a caspase. Yen CL, et al. **FASEB J** 1999 Jan;13(1):135–42

Mg2+ modulates membrane sphingolipid and lipid second messenger levels in vascular smooth muscle cells. Morrill GA, et al. **FEBS Lett** 1998 Nov 27;440(1-2):167–71

Delta9-tetrahydrocannabinol induces apoptosis in C6 glioma cells. Sánchez C, et al. **FEBS Lett** 1998 Sep 25;436(1):6–10

Alteration of the daunorubicin–triggered sphingomyelin–ceramide pathway and apoptosis in MDR cells: influence of drug transport abnormalities. Côme MG, et al. **Int J Cancer** 1999 May 17;81(4):580–7

Apoptosis and activation of the sphingomyelin–ceramide pathway induced by oxidized low density lipoproteins are not causally related in ECV-304 endothelial cells. Escargueil-Blanc I, et al. **J Biol Chem** 1998 Oct 16; 273(42):27389–95

Mammalian cell mutants resistant to a sphingomyelin-directed cytolysin. Genetic and biochemical evidence for complex formation of the LCB1 protein with the LCB2 protein for serine palmitoyltransferase. Hanada K, et al. **J Biol Chem** 1998 Dec 11;273(50):33787–94

Differential effects of sphingomyelin hydrolysis and cholesterol transport on oxysterol-binding protein phosphorylation and Golgi localization. Ridgway ND, et al. **J Biol Chem** 1998 Nov 20;273(47):31621–8

H2O2 acts on cellular membranes to generate ceramide signaling and initiate apoptosis in tracheobronchial epithelial cells. Goldkorn T, et al. **J Cell Sci** 1998 Nov; 111 (Pt 21):3209–20

Enrichment of canalicular membrane with cholesterol and sphingomyelin prevents bile salt–induced hepatic damage. Amigo L, et al. **J Lipid Res** 1999 Mar;40(3):533–42

The stimulation of ketogenesis by cannabinoids in cultured astrocytes defines carnitine palmitoyltransferase I as a new ceramide–activated enzyme. Blázquez C, et al. **J Neurochem** 1999 Apr;72(4):1759–68

Sphingomyelin, glycosphingolipids and ceramide signalling in cells exposed to P-fimbriated Escherichia coli. Hedlund M, et al. **Mol Microbiol** 1998 Sep;29(5):1297–306

Involvement of sphingomyelin hydrolysis and the mitogen–activated protein kinase cascade in the Delta9–tetrahydrocannabinol–induced stimulation of glucose metabolism in primary astrocytes. Sánchez C, et al. **Mol Pharmacol** 1998 Nov;54(5):834–43

beta–Sitosterol activates the sphingomyelin cycle and induces apoptosis in LNCaP human prostate cancer cells. von Holtz RL, et al. **Nutr Cancer** 1998;32(1):8–12

Lipid and glycolipid mediators in CD95–induced apoptotic signaling. Malisan F, et al. **Results Probl Cell Differ** 1999; 23:65–76 (59 ref.)

Sphingomyelin hydrolysis in the gut and clinical implications in colorectal tumorigenesis and other gastrointestinal diseases. Duan RD. **Scand J Gastroenterol** 1998 Jul; 33(7):673–83 (101 ref.)

Macrophage TNF mRNA expression induced by LPS is regulated by sphingomyelin metabolites. Lo CJ, et al. **Shock** 1999 Jun;11(6):411–5

PHARMACOLOGY

Ceramide potentiates, but sphingomyelin inhibits, vitamin D–induced keratinocyte differentiation: comparison between keratinocytes and HL–60 cells. Pillai S, et al. **Arch Dermatol Res** 1999 May;291(5):284–9

Cholesterol relieves the inhibitory effect of sphingomyelin on type II secretory phospholipase A2. Koumanov KS, et al. **Biochem J** 1998 Dec 15;336 (Pt 3):625–30

SPHINGOSINE

see related
SPHINGOLIPIDS

ANALOGS & DERIVATIVES

Mobilization of intracellular calcium by intracellular flash photolysis of caged dihydrosphingosine in cultured neonatal rat sensory neurones. Ayar A, et al. **Acta Biochim Pol** 1998;45(2):311–26

Exogenous sphingosine 1–phosphate and sphingosylphosphorylcholine do not stimulate phospholipase D in C6 glioma cells. Dygas A, et al. **Acta Biochim Pol** 1999;46(1):99–106

Sphingosine 1–phosphate is a blood constituent released from activated platelets, possibly playing a variety of physiological and pathophysiological roles. Igarashi Y, et al. **Acta Biochim Pol** 1998;45(2):299–309 (29 ref.)

Sphingosine, sphingosylphosphorylcholine and sphingosine 1–phosphate modulate phosphatidylserine homeostasis in glioma C6 cells. Wójcik M, et al. **Acta Biochim Pol** 1999; 46(1):125–31

Sphingosylphosphorylcholine stimulates mitogen–activated protein kinase via a Ca2+–dependent pathway. Chin TY, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):C1255–63

Src kinase and PI 3–kinase as a transduction pathway in ceramide–induced contraction of colonic smooth muscle. Ibitayo AI, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G705–11

Depression of excitability by sphingosine 1–phosphate in rat ventricular myocytes. MacDonell KL, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2291–9

Differential activation of phosphoinositide 3–kinase by endothelin and ceramide in colonic smooth muscle cells. Su X, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G853–61

Enzymatic measurement of sphingosine 1–phosphate. Edsall LC, et al. **Anal Biochem** 1999 Jul 15;272(1):80–6

Ceramide, a mediator of interleukin 1, tumour necrosis factor alpha, as well as Fas receptor signalling, induces apoptosis of rheumatoid arthritis synovial cells. Mizushima N, et al. **Ann Rheum Dis** 1998 Aug;57(8):495–9

Ethanol potentiates the mitogenic effects of sphingosine 1–phosphate by a zinc– and calcium–dependent mechanism in fibroblasts. Huang JS, et al. **Arch Biochem Biophys** 1999 Jun 1;366(1):131–8

Sphingosylphosphorylcholine activates Gq, Gi–2, and Gi–3 in thyroid FRTL–5 cells: implications for the activation of calcium fluxes and Na+–H+ exchange. Nikmo A, et al. **Biochem Biophys Res Commun** 1999 May 19; 258(3):812–5

EDG3 is a functional receptor specific for sphingosine 1–phosphate and sphingosylphosphorylcholine with signaling characteristics distinct from EDG1 and AGR16. Okamoto H, et al. **Biochem Biophys Res Commun** 1999 Jun 24;260(1):203–8

Downregulation of mRNA expression of Edg–3, a putative sphingosine 1–phosphate receptor coupled to Ca2+ signaling, during differentiation of HL–60 leukemia cells. Sato K, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):253–6

Intracellular calcium mobilization and phospholipid degradation in sphingosylphosphorylcholine–stimulated human airway epithelial cells. Orlati S, et al. **Biochem J** 1998 Sep 15;334 (Pt 3):641–9

Sphingosine 1–phosphate stimulation of the p42/p44 mitogen–activated protein kinase pathway in airway smooth muscle. Role of endothelial differentiation gene 1, c–Src tyrosine kinase and phosphoinositide 3–kinase. Rakhit S, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):643–9

N–Acetylsphingosine stimulates phosphatidylglycerolphosphate synthase activity in H9c2 cardiac cells. Xu FY, et al. **Biochem J** 1999 Feb 1;337 (Pt 3):483–90

Sphingosine–1–phosphate: extracellular mediator or intracellular second messenger? Hla T, et al. **Biochem Pharmacol** 1999 Jul 15;58(2):201–7 (61 ref.)

Effects of sphingosine 1–phosphate and bradykinin on phospholipid signalling in human epithelial A549 cells. Vasta V, et al. **Biochem Soc Trans** 1998 Aug;26(3):S229

Spectroscopic detection of endovesiculation by large unilamellar phosphatidylcholine vesicles: effects of chlorpromazine, dibucaine, and safingol. Tedesco MM, et al. **Bioorg Med Chem** 1999 Jul;7(7):1373–9

Synthesis, in vitro cytotoxicity and in vivo anti–inflammatory activity of long chain 3–amino–1,2–diols. Padrón JM, et al. **Bioorg Med Chem Lett** 1999 Mar 22;9(6):821–6

Synthesis and evaluation of a photolyzable derivative of sphingosine 1–phosphate—caged SPP. Qiao L, et al. **Bioorg Med Chem Lett** 1998 Apr 7;8(7):711–4

Sphingosine 1–phosphate stimulates fibronectin matrix assembly through a Rho–dependent signal pathway. Zhang Q, et al. **Blood** 1999 May 1;93(9):2984–90

Activation of integrin and ceramide signalling pathways can inhibit the mitogenic effect of insulin–like growth factor I (IGF–I) in human breast cancer cell lines. Perks CM, et al. **Br J Cancer** 1999 Feb;79(5–6):701–6

Ceramide triggers p53–dependent apoptosis in genetically defined fibrosarcoma tumour cells. Pruschy M, et al. **Br J Cancer** 1999 May;80(5–6):693–8

FK506 prevents stroke–induced generation of ceramide and apoptosis signaling. Herr I, et al. **Brain Res** 1999 May 1; 826(2):210–9

Beneficial effects of N,N,N–trimethylsphingosine following ischemia and reperfusion in the isolated perfused rat heart. Campbell B, et al. **Cardiovasc Res** 1998 Aug;39(2):393–400

Sphingosylphosphorylcholine and sphingosine–1–phosphate mobilize cytosolic calcium through different mechanisms in human airway epithelial cells. Orlati S, et al. **Cell Calcium** 1998 Jun;23(6):387–94

The growth arrest and downregulation of c–myc transcription induced by ceramide are related events dependent on p21 induction, Rb underphosphorylation and E2F sequestering. Alesse E, et al. **Cell Death Differ** 1998 May;5(5):381–9

Effect of ceramide on interleukin–6 synthesis in osteoblast–like cells. Shinoda J, et al. **Cell Signal** 1999 Jun; 11(6):435–41

Assessment of the extracellular and intracellular actions of sphingosine 1–phosphate by using the p42/p44 mitogen–activated protein kinase cascade as a model. Tolan D, et al. **Cell Signal** 1999 May;11(5):349–54

A pilot clinical/pharmacological study of the protein kinase C–specific inhibitor safingol alone and in combination with doxorubicin. Schwartz GK, et al. **Clin Cancer Res** 1997 Apr;3(4):537–43

In vitro and in vivo induction of apoptosis by sphingosine and N, N–dimethylsphingosine in human epidermoid carcinoma KB–3–1 and its multidrug–resistant cells. Shirahama T, et al. **Clin Cancer Res** 1997 Feb;3(2):257–64

Effect of C2 ceramide on the inositol phospholipid metabolism (uptake of 32P, 3H–serine and 3H–palmitic acid) and apoptosis–related morphological changes in Tetrahymena. Kovács P, et al. **Comp Biochem Physiol C Pharmacol Toxicol Endocrinol** 1999 Feb;122(2):215–24

Differential stimulation of proline–rich tyrosine kinase 2 and mitogen–activated protein kinase by sphingosine 1–phosphate. Guo C, et al. **Eur J Biochem** 1998 Oct 15; 257(2):403–8

Novel glycoinositolphosphosphingolipids, basidiolipids, from Agaricus. Jennemann R, et al. **Eur J Biochem** 1999 Jan; 259(1–2):331–8

Discrimination between plasma membrane and intracellular target sites of sphingosylphosphorylcholine. Meyer zu Heringdorf D, et al. **Eur J Pharmacol** 1998 Jul 31; 354(1):113–22

Sphingosine 1–phosphate regulates heat shock protein 27 induction by a p38 MAP kinase–dependent mechanism in aortic smooth muscle cells. Kozawa O, et al. **Exp Cell Res** 1999 Aug 1;250(2):376–80

Killing of T lymphocytes by synthetic ceramide is by a nonapoptotic mechanism and is abrogated following mitogenic activation. Mengubas K, et al. **Exp Cell Res** 1999 May 25;249(1):116–22

Involvement of focal adhesion kinase in inhibition of motility of human breast cancer cells by sphingosine 1–phosphate. Wang F, et al. **Exp Cell Res** 1999 Feb 25;247(1):17–28

Induction of apoptosis by synthetic ceramide analogues in the human keratinocyte cell line HaCaT. Bektas M, et al. **Exp Dermatol** 1998 Dec;7(6):342–9

Inhibition of human erythroid colony formation by ceramide. Dallalio G, et al. **Exp Hematol** 1999 Jul;27(7):1133–8

Diversity of cellular receptors and functions for the lysophospholipid growth factors lysophosphatidic acid and sphingosine 1–phosphate. Goetzl EJ, et al. **FASEB J** 1998 Dec;12(15):1589–98 (52 ref.)

N–acetyl–sphingenine–1–phosphate is a potent calcium mobilizing agent. Gijsbers S, et al. **FEBS Lett** 1999 Jun 25;453(3):269–72

Receptor–mediated activation of phospholipase D by sphingosine 1–phosphate in skeletal muscle C2C12 cells. A role for protein kinase C. Meacci E, et al. **FEBS Lett** 1999 Aug 27;457(2):184–8

Sphingosylphosphorylcholine induces cytosolic Ca(2+) elevation in endothelial cells in situ and causes endothelium–dependent relaxation through nitric oxide production in bovine coronary artery. Mogami K, et al. **FEBS Lett** 1999 Sep 3;457(3):375–80

Activation of phospholipase C–Ca2+ system by sphingosine 1–phosphate in CHO cells transfected with Edg–3, a putative lipid receptor. Sato K, et al. **FEBS Lett** 1999 Jan 22;443(1):25–30

Comparative analysis of three murine G–protein coupled receptors activated by sphingosine–1–phosphate. Zhang G, et al. **Gene** 1999 Feb 4;227(1):89–99

Ceramide induces caspase–independent apoptosis in rat hepatocytes sensitized by inhibition of RNA synthesis. Jones BE, et al. **Hepatology** 1999 Jul;30(1):215–22

Effect of ceramide on KCa channel activity and vascular tone in coronary arteries. Li PL, et al. **Hypertension** 1999 Jun;33(6):1441–6

Fumonisin B1 induces apoptosis in cultured human keratinocytes through sphinganine accumulation and ceramide depletion. Tolleson WH, et al. **Int J Oncol** 1999 May;14(5):833–43

Analysis of phosphorylated sphingolipid long–chain bases reveals potential roles in heat stress and growth control in Saccharomyces. Skrzypek MS, et al. **J Bacteriol** 1999 Feb;181(4):1134–40

Role of sphingosine 1–phosphate in the mitogenesis induced by oxidized low density lipoprotein in smooth muscle cells via activation of sphingomyelinase, ceramidase, and sphingosine kinase. Augé N, et al. **J Biol Chem** 1999 Jul 30;274(31):21533–8

Role of ceramide in lipopolysaccharide (LPS)–induced signaling. LPS increases ceramide rather than acting as a structural homolog. MacKichan ML, et al. **J Biol Chem** 1999 Jan 15;274(3):1767–75

EDG1 is a functional sphingosine–1–phosphate receptor that is linked via a Gi/o to multiple signaling pathways, including phospholipase C activation, Ca2+ mobilization, Ras–mitogen–activated protein kinase activation, and adenylate cyclase inhibition. Okamoto H, et al. **J Biol Chem** 1998 Oct 16;273(42):27104–10

Aryl hydrocarbon receptor regulation of ceramide–induced apoptosis in murine hepatoma 1c1c7 cells. A function independent of aryl hydrocarbon receptor nuclear translocator. Reiners JJ Jr, et al. **J Biol Chem** 1999 Jan 22;274(4):2502–10

Sphingosine 1–phosphate–induced cell rounding and neurite retraction are mediated by the G protein–coupled receptor H218. Van Brocklyn JR, et al. **J Biol Chem** 1999 Feb 19; 274(8):4626–32

Epidermal growth factor inhibits ceramide–induced apoptosis and lowers ceramide levels in primary placental trophoblasts. Payne SG, et al. **J Cell Physiol** 1999 Aug; 180(2):263–70

Analytical method for the determination of sphinganine and sphingosine in serum as a potential biomarker for fumonisin exposure. Castegnaro M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1–2):15–24

Quantitative analysis of free sphingoid bases in the brain and spinal cord tissues by high–performance liquid chromatography with a fluorescence detection. Kwon OS, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11;

720(1-2):9-14
The balance between sphingosine and sphingosine-1-phosphate is decisive for mast cell activation after Fc epsilon receptor I triggering. Prieschl EE, et al. **J Exp Med** 1999 Jul 5;190(1):1-8
Lysophosphatidic acid and sphingosine 1-phosphate protection of T cells from apoptosis in association with suppression of Bax. Goetzl EJ, et al. **J Immunol** 1999 Feb 15;162(4):2049-56
Products of sphingolipid catabolism block activation of the p21-activated protein kinases in neutrophils. Lian JP, et al. **J Immunol** 1998 Oct 15;161(8):4375-81
Sphingosylphosphorylcholine is a potent inducer of intercellular adhesion molecule-1 expression in human keratinocytes. Imokawa G, et al. **J Invest Dermatol** 1999 Jan;112(1):91-6
Sphingosine 1-phosphate: a prototype of a new class of second messengers. Spiegel S. **J Leukoc Biol** 1999 Mar; 65(3):341-4 (41 ref.)
Chemical synthesis of D-ribo-phytosphingosine-1-phosphate, a potential modulator of cellular processes. Li S, et al. **J Lipid Res** 1999 Jan;40(1):117-25
A new 6-hydroxy-4-sphingenine-containing ceramide in human skin. Stewart ME, et al. **J Lipid Res** 1999 Aug; 40(8):1434-9
Extended ceramide exposure activates the trkA receptor by increasing receptor homodimer formation. MacPhee I, et al. **J Neurochem** 1999 Apr;72(4):1423-30
Induction of the manganese superoxide dismutase gene by sphingomyelinase and ceramide. Pahan K, et al. **J Neurochem** 1999 Aug;73(2):513-20
In vitro autoradiographic visualization of guanosine-5'-O-(3-[35S]thio)triphosphate binding stimulated by sphingosine 1-phosphate and lysophosphatidic acid. Waeber C, et al. **J Neurochem** 1999 Sep;73(3):1212-21
Inhibition of neutral sphingomyelinase activation and ceramide formation by glutathione in hypoxic PC12 cell death. Yoshimura S, et al. **J Neurochem** 1999 Aug; 73(2):675-83
Fumonisin B1 consumption by rats causes reversible, dose-dependent increases in urinary sphinganine and sphingosine. Wang E, et al. **J Nutr** 1999 Jan;129(1):214-20
Ca2+ signaling induced by sphingosylphosphorylcholine and sphingosine 1-phosphate via distinct mechanisms in rat glomerular mesangial cells. Chen PF, et al. **Kidney Int** 1998 Nov;54(5):1470-83
Tumor necrosis factor-alpha and ceramides in insulin resistance. Brindley DN, et al. **Lipids** 1999;34 Suppl:S85-8
Ligand-induced trafficking of the sphingosine-1-phosphate receptor EDG-1. Liu CH, et al. **Mol Biol Cell** 1999 Apr; 10(4):1179-90
Induction of programmed cell death in human retinoblastoma Y79 cells by C2-ceramide. Vento R, et al. **Mol Cell Biochem** 1998 Aug;185(1-2):7-15
CLN3 defines a novel antiapoptotic pathway operative in neurodegeneration and mediated by ceramide. Puranam KL, et al. **Mol Genet Metab** 1999 Apr;66(4):294-308
Possible involvement of cell surface receptors in sphingosine 1-phosphate-induced activation of extracellular signal-regulated kinase in C6 glioma cells. Sato K, et al. **Mol Pharmacol** 1999 Jan;55(1):126-33
Sphingosylphosphorylcholine in Niemann-Pick disease brain: accumulation in type A but not in type B. Rodriguez-Lafrasse C, et al. **Neurochem Res** 1999 Feb; 24(2):199-205
Ceramide induces apoptosis to immature cerebellar granule cells in culture. Taniwaki T, et al. **Neurochem Res** 1999 May;24(5):685-90
Partial lithium-associated protection against apoptosis induced by C2-ceramide in cerebellar granule neurons. Centeno F, et al. **Neuroreport** 1998 Dec 21;9(18):4199-203
C2-ceramide attenuates prostaglandin F2alpha-induced vasoconstriction and elevation of [Ca2+]i in canine cerebral vascular smooth muscle. Zheng T, et al. **Neurosci Lett** 1998 Nov 6;256(2):113-6
Sphingosylphosphorylcholine increases calcium concentration in isolated brain nuclei. Calcerrada MC, et al. **Neurosci Res** 1999 Mar;33(3):229-32
Inhibition of skin carcinomas but not papillomas by sphingosine, N-methylsphingosine, and N-acetylsphingosine. Birt DF, et al. **Nutr Cancer** 1998; 31(2):119-26
Ceramide-induced killing of normal and malignant human lymphocytes is by a non-apoptotic mechanism. Mengubas K, et al. **Oncogene** 1999 Apr 15;18(15):2499-506
Lysophospholipid enhancement of human T cell sensitivity to diphtheria toxin by increased expression of heparin-binding epidermal growth factor. Goetzl EJ, et al. **Proc Assoc Am Physicians** 1999 May-Jun;111(3):259-69
Ultrastructural effects of AAL-toxin TA from the fungus Alternaria alternata on black nightshade (Solanum nigrum L.) leaf discs and correlation with biochemical measures of toxicity. Abbas HK, et al. **Toxicon** 1998 Dec; 36(12):1821-32
[Recent development of sphingosin 1-phosphate studies as a second messenger or a second agonist in cell signaling] Igarashi Y. **Tanpakushitsu Kakusan Koso** 1999 Jun;44(8 Suppl):1059-66 (43 ref.) **(Jpn)**
[Signal transduction related to sphingosine 1-phosphate] Yatomi Y, et al. **Tanpakushitsu Kakusan Koso** 1998 Dec; 43(16 Suppl):2510-5 (44 ref.) **(Jpn)**

BIOSYNTHESIS

Ceramide accumulation during oxidant renal tubular injury: mechanisms and potential consequences. Zager RA, et al. **J Am Soc Nephrol** 1998 Sep;9(9):1670-80

BLOOD

Analytical method for the determination of sphinganine and sphingosine in serum as a potential biomarker for fumonisin exposure. Castegnaro M, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):15-24

CHEMISTRY

New methods for determining the enantiomeric purity of erythro -sphingosine. Li S, et al. **J Lipid Res** 1999 Apr; 40(4):764-72

METABOLISM

Sphingosine, sphingosylphosphorylcholine and sphingosine 1-phosphate modulate phosphatidylserine homeostasis in glioma C6 cells. Wójcik M, et al. **Acta Biochim Pol** 1999; 46(1):125-31
The novel sphingosine 1-phosphate receptor AGR16 is coupled via pertussis toxin-sensitive and -insensitive G-proteins to multiple signalling pathways. Gonda K, et al. **Biochem J** 1999 Jan 1;337 (Pt 1):67-75
Predominance of the acylation route in the metabolic processing of exogenous sphingosine in neural and extraneural cells in culture. Riboni L, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):147-51
The effects of exogenous sphingosine on Neuro2a cells are strictly related to the overall capacity of cells to metabolize sphingosine. Riboni L, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):900-4
Quantitative analysis of free sphingoid bases in the brain and spinal cord tissues by high-performance liquid chromatography with a fluorescence detection. Kwon OS, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):9-14
The balance between sphingosine and sphingosine-1-phosphate is decisive for mast cell activation after Fc epsilon receptor I triggering. Prieschl EE, et al. **J Exp Med** 1999 Jul 5;190(1):1-8

PHARMACOLOGY

Sphingosine and phorbol ester modulate protein kinase C activity and modify ATP-evoked calcium mobilization in glioma C6 cells. Czajkowski R, et al. **Biochem Biophys Res Commun** 1999 Jul 14;260(3):614-8
Activation of caspase-3-like proteases in apoptosis induced by sphingosine and other long-chain bases in Hep3B hepatoma cells. Hung WC, et al. **Biochem J** 1999 Feb 15; 338 (Pt 1):161-6
Sphingosine induces phospholipase D and mitogen activated protein kinase in vascular smooth muscle cells. Taher MM, et al. **Biochem Mol Biol Int** 1998 Dec;46(5):993-1005
Sphingosine blocks human polymorphonuclear leukocyte phagocytosis through inhibition of mitogen-activated protein kinase activation. Raeder EM, et al. **Blood** 1999 Jan 15;93(2):686-93
In vitro and in vivo induction of apoptosis by sphingosine and N, N-dimethylsphingosine in human epidermoid carcinoma KB-3-1 and its multidrug-resistant cells. Shirahama T, et al. **Clin Cancer Res** 1997 Feb;3(2):257-64
Adenosine inhibits the renal plasma-membrane (Ca2+ + Mg2+)-ATPase through a pathway sensitive to cholera toxin and sphingosine. Coka-Guevara S, et al. **Eur J Biochem** 1999 Jul;263(1):71-8
Analysis of bax protein in sphingosine-induced apoptosis in the human leukemic cell line TF1 and its bcl-2 transfectants. Isogai C, et al. **Exp Hematol** 1998 Nov; 26(12):1118-25
Sphingosine inhibits nitric oxide synthase from cerebellar granule cells differentiated in vitro. Viani P, et al. **FEBS Lett** 1999 Jul 9;454(3):321-4
The effects of exogenous sphingosine on Neuro2a cells are strictly related to the overall capacity of cells to metabolize sphingosine. Riboni L, et al. **J Biochem (Tokyo)** 1998 Nov; 124(5):900-4
Ceramide can induce cell death in sensory neurons, whereas ceramide analogues and sphingosine promote survival. Ping SE, et al. **J Neurosci Res** 1998 Oct 15;54(2):206-13
Inhibition of skin carcinomas but not papillomas by sphingosine, N-methylsphingosine, and N-acetylsphingosine. Birt DF, et al. **Nutr Cancer** 1998; 31(2):119-26
Sphingosine stimulates thrombin-induced gelation of the fibrinogen. Kim SH, et al. **Thromb Res** 1997 Aug 1; 87(3):331-7

PHYSIOLOGY

Endogenous substrates of sphingosine-dependent kinases (SDKs) are chaperone proteins: heat shock proteins, glucose-regulated proteins, protein disulfide isomerase, and calreticulin. Megidish T, et al. **Biochemistry** 1999 Mar 16; 38(11):3369-78
A possible role of nuclear ceramide and sphingosine in hepatocyte apoptosis in rat liver [see comments] Tsugane K, et al. **J Hepatol** 1999 Jul;31(1):8-17. Comment in: J Hepatol 1999 Jul;31(1):161-4.
Role of sphingosine in induced apoptosis. Alessenko AV, et al. **Lipids** 1999;34 Suppl:S75-6

TOXICITY

Phytotoxicity and cytotoxicity of the fumonisin C and P series of mycotoxins from Fusarium spp. fungi. Abbas HK, et al. **Toxicon** 1998 Dec;36(12):2033-7

URINE

Fumonisin B1 consumption by rats causes reversible, dose-dependent increases in urinary sphinganine and sphingosine. Wang E, et al. **J Nutr** 1999 Jan;129(1):214-20

SPHINGOSINE GALACTOSIDE see **PSYCHOSINE**

SPHYGMOMANOMETERS

A new skin-protective sphygmomanometer cuff. Watanabe H, et al. **Anesth Analg** 1999 Jul;89(1):240-2
Mercury poisoning after spillage at home from a sphygmomanometer on loan from hospital. Rennie AC, et al. **BMJ** 1999 Aug 7;319(7206):366-7
Independent prognostic information provided by sphygmomanometrically determined pulse pressure and mean arterial pressure in patients with left ventricular dysfunction. Domanski MJ, et al. **J Am Coll Cardiol** 1999 Mar 15;33(4):951-8
Sphygmomanometry induces different blood pressure changes in normotensive and untreated (borderline) hypertensive subjects [letter] Rollnik JD, et al. **J Hypertens** 1999 Feb;17(2):303-4
Hospital blood pressure measurement: staff and device assessment. Carney SL, et al. **J Qual Clin Pract** 1999 Jun; 19(2):95-8
Bioelectrical impedance sphygmography for hydrostatic toe pressure measurement: a new non-invasive method to assess limb ischaemia. Beyenal-Ogmen B. **Vasa** 1999 Feb; 28(1):15-8
The hydrostatic measurement of systolic toe blood pressure: a preliminary validation of the method. Hiller B. **Vasa** 1998 Nov;27(4):229-32

STANDARDS

Will the millimetre of mercury be replaced by the kilopascal? [letter; comment] Colquitt PJ. **J Hypertens** 1999 Feb; 17(2):305-6. Comment on: J Hypertens 1998 Mar;16(3):259-61.

SPHYGMOMANOMETERS, CONTINUOUS see **BLOOD PRESSURE MONITORS**

SPICES

Characterization of allergens in plant-derived spices: Apiaceae spices, pepper (Piperaceae), and paprika (bell peppers, Solanaceae). Ebner C, et al. **Allergy** 1998;53(46 Suppl):52-4
Effects of red pepper added to high-fat and high-carbohydrate meals on energy metabolism and substrate utilization in Japanese women. Yoshioka M, et al. **Br J Nutr** 1998 Dec;80(6):503-10
Antimicrobial activity of spices. Arora DS, et al. **Int J Antimicrob Agents** 1999 Aug;12(3):257-62
Comparison of effects of Wasabia japonica and allyl isothiocyanate on the growth of four strains of Vibrio parahaemolyticus in lean and fatty tuna meat suspensions. Hasegawa N, et al. **Int J Food Microbiol** 1999 Aug 1; 49(1-2):27-34
Influence of spices on the bacterial (enzyme) activity in experimental colon cancer. Nalini N, et al. **J Ethnopharmacol** 1998 Aug;62(1):15-24

ADVERSE EFFECTS

Duodenal obstruction secondary to bay leaf impaction [letter] Tsang TK, et al. **Ann Intern Med** 1999 Apr 20;130(8):701-2
[Hallucinations after voluntary ingestion of nutmeg: an unrecognized drug abuse (letter)] Servan J, et al. **Rev Neurol (Paris)** 1998 Oct;154(10):708 **(Fre)**
[Occupational skin changes in persons working in contact with food spices] Swierczyńska MK, et al. **Med Pr** 1998; 49(2):187-90 (13 ref.) **(Pol)**

ANALYSIS

The crystal structure of licarin-B, (C20H20O4), a component of the seeds of Myristica fragrans. Kim YB, et al. **Arch Pharm Res** 1991 Mar;14(1):1-6
Study on volatile components in salami by reverse carrier gas headspace gas chromatography-mass spectrometry. Procida G, et al. **J Chromatogr A** 1999 Jan 8;830(1):175-82

POISONING

[Nutmeg--more than a spice] Pytte M, et al. **Tidsskr Nor Laegeforen** 1998 Nov 20;118(28):4346-7 (Eng. Abstr.) **(Nor)**

THE PAPER AND INK USED IN THE ORIGINAL PUBLICATION MAY AFFECT THE QUALITY OF THE MICROFORM EDITION.

TOXICITY

Toxicity studies in mice of common spices, Cinnamomum zeylanicum bark and Piper longum fruits. Shah AH, et al. **Plant Foods Hum Nutr** 1998;52(3):231-9

SPIDER BITE see **ARACHNIDISM**

SPIDER MONKEY see **CEBIDAE**

SPIDER VENOMS

Redback spider antivenom used to treat envenomation by a juvenile Steatoda spider [letter] South M, et al. **Med J Aust** 1998 Dec 7-21;169(11-12):642

ANALYSIS

Quantifying the venom dose of the spider Cupiennius salei using monoclonal antibodies. Malli H, et al. **Toxicon** 1998 Dec;36(12):1959-69

BIOSYNTHESIS

Functional expression of alpha-latrotoxin in baculovirus system. Volynski KE, et al. **FEBS Lett** 1999 Jan 8; 442(1):25-8

CHEMISTRY

Inhibition of voltage-activated K+ currents in cultured sensory neurons by the polyamine spider toxin argiotoxin-636 may involve a polyamine transporter and an intracellular site of action. Scott RH, et al. **Biochem Soc Trans** 1998 Nov;26(4):614-20

A novel endogenous inhibitor of phenoloxidase from Musca domestica has a cystine motif commonly found in snail and spider toxins. Daquinag AC, et al. **Biochemistry** 1999 Feb 16;38(7):2179-88

Selective peptide antagonist of the class E calcium channel from the venom of the tarantula Hysterocrates gigas. Newcomb R, et al. **Biochemistry** 1998 Nov 3; 37(44):15353-62

PhTx4, a new class of toxins from Phoneutria nigriventer spider venom, inhibits the glutamate uptake in rat brain synaptosomes. Mafra RA, et al. **Brain Res** 1999 Jun 12; 831(1-2):297-300

Black widow spider alpha-latrotoxin: a presynaptic neurotoxin that shares structural homology with the glucagon-like peptide-1 family of insulin secretagogic hormones. Holz GG, et al. **Comp Biochem Physiol B Biochem Mol Biol** 1998 Oct; 121(2):177-84

Polypeptide neurotoxins from spider venoms. Grishin E. **Eur J Biochem** 1999 Sep;264(2):276-80 (39 ref.)

Structure-function studies of omega-atracotoxin, a potent antagonist of insect voltage-gated calcium channels. Wang X, et al. **Eur J Biochem** 1999 Sep;264(2):488-94

Horseshoe crab hemocyte-derived antimicrobial polypeptides, tachystatins, with sequence similarity to spider neurotoxins. Osaki T, et al. **J Biol Chem** 1999 Sep 10;274(37):26172-8

Sex-linked variation of Loxosceles intermedia spider venoms. Cristina de Oliveira K, et al. **Toxicon** 1999 Jan;37(1):217-21

Structures of spider toxins: hydroxyindole-3-acetylpolyamines and a new generalized structure of type-E compounds obtained from the venom of the Joro spider, Nephila clavata. Hisada M, et al. **Toxicon** 1998 Aug;36(8):1115-25

Investigation of the effect of PhTx2, from the venom of the spider Phoneutria nigriventer, on the release of [3H]-acetylcholine from rat cerebrocortical synaptosomes. Moura JR, et al. **Toxicon** 1998 Aug;36(8):1189-92

1H NMR study of robustoxin, the lethal neurotoxin from the funnel web spider Atrax robustus. Temple MD, et al. **Toxicon** 1999 Mar;37(3):485-506

Oligosaccharide residues of Loxosceles intermedia (brown spider) venom proteins: dependence on glycosylation for dermonecrotic activity. Veiga SS, et al. **Toxicon** 1999 Apr; 37(4):587-607

GENETICS

Functional expression of alpha-latrotoxin in baculovirus system. Volynski KE, et al. **FEBS Lett** 1999 Jan 8; 442(1):25-8

Cloning, cDNA sequence analysis and patch clamp studies of a toxin from the venom of the armed spider (Phoneutria nigriventer). Kalapothakis E, et al. **Toxicon** 1998 Dec; 36(12):1971-80

Cloning of cDNAS encoding neurotoxic peptides from the spider Phoneutria nigriventer. Kalapothakis E, et al. **Toxicon** 1998 Dec;36(12):1843-50

[Molecular cloning and primary structure of cDNA fragment for alpha-latrocrustatoxin from black widow spider venom] Volynskii KE, et al. **Bioorg Khim** 1999 Jan;25(1):25-30 (Eng. Abstr.) **(Rus)**

IMMUNOLOGY

Miller Fisher anti-GQ1b antibodies: alpha-latrotoxin-like effects on motor end plates [published erratum appears in Ann Neurol 1999 Jun;45(6):823] Plomp JJ, et al. **Ann Neurol** 1999 Feb;45(2):189-99

ISOLATION & PURIFICATION

Purification and characterization of huwentoxin-II, a neurotoxic peptide from the venom of the Chinese bird spider Selenocosmia huwena. Shu Q, et al. **J Pept Res** 1999 May;53(5):486-91

Ontogenetic development of Loxosceles intermedia spider venom. Gonçalves de Andrade RM, et al. **Toxicon** 1999 Apr;37(4):627-32

METABOLISM

alpha-latrotoxin action probed with recombinant toxin: receptors recruit alpha-latrotoxin but do not transduce an exocytotic signal. Ichtchenko K, et al. **EMBO J** 1998 Nov 2;17(21):6188-99

Delta-atracotoxins from Australian funnel-web spiders compete with scorpion alpha-toxin binding on both rat brain and insect sodium channels. Little MJ, et al. **FEBS Lett** 1998 Nov 20;439(3):246-52

Structural requirements for alpha-latrotoxin binding and alpha-latrotoxin-stimulated secretion. A study with calcium-independent receptor of alpha-latrotoxin (CIRL) deletion mutants. Krasnoperov V, et al. **J Biol Chem** 1999 Feb 5;274(6):3590-6

delta-Atracotoxins from australian funnel-web spiders compete with scorpion alpha-toxin binding but differentially modulate alkaloid toxin activation of voltage-gated sodium channels. Little MJ, et al. **J Biol Chem** 1998 Oct 16;273(42):27076-83

Neurexins are functional alpha-latrotoxin receptors. Sugita S, et al. **Neuron** 1999 Mar;22(3):489-96

PHARMACOKINETICS

Mechanisms of alpha-latrotoxin action. Henkel AW, et al. **Cell Tissue Res** 1999 May;296(2):229-33 (29 ref.)

PHARMACOLOGY

Sphingomyelinases in the venom of the spider Loxosceles intermedia are responsible for both dermonecrosis and complement-dependent hemolysis. Tambourgi DV, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):366-73

Effects of phrixotoxins on the Kv4 family of potassium channels and implications for the role of Ito1 in cardiac electrogenesis. Diochot S, et al. **Br J Pharmacol** 1999 Jan; 126(1):251-63

Apolipoprotein E isoforms increase intracellular Ca2+ differentially through a omega-agatoxin IVa-sensitive Ca2+-channel. Müller W, et al. **Brain Pathol** 1998 Oct; 8(4):641-53

The nonpeptide alpha-eudexp6l from Juniperus virginiana Linn. (Cupressaceae) inhibits omega-agatoxin IVA-sensitive Ca2+ currents and synaptosomal 45Ca2+ uptake. Asakura K, et al. **Brain Res** 1999 Mar 27; 823(1-2):169-76

Alpha-latrotoxin stimulates inward current, rise in cytosolic calcium concentration, and exocytosis in at pituitary gonadotropes. Tse FW, et al. **Endocrinology** 1999 Jul; 140(7):3025-33

Activation by Phoneutria nigriventer spider venom of autonomic nerve fibers in the isolated rat heart. Costa SK, et al. **Eur J Pharmacol** 1998 Dec 18;363(2-3):139-46

Ca2+ permeability and joro spider toxin sensitivity of AMPA and kainate receptors on cerebellar granule cells. Savidge JR, et al. **Eur J Pharmacol** 1998 Jun 12; 351(1):131-8

Loxosceles spider venom induces the production of alpha and beta chemokines: implications for the pathogenesis of dermonecrotic arachnidism. Gomez HF, et al. **Inflammation** 1999 Jun;23(3):207-15

Effect of omega-conotoxin GVIA and omega-agatoxin IVA on the capsaicin-sensitive calcitonin gene-related peptide release and autoregulatory vasodilation in rat pial arteries. Hong KW, et al. **J Cereb Blood Flow Metab** 1999 Jan; 19(1):53-60

Phoneutria nigriventer toxin Tx3-1 blocks A-type K+ currents controlling Ca2+ oscillation frequency in GH3 cells. Kushmerick C, et al. **J Neurochem** 1999 Apr; 72(4):1472-81

Effects of omega-agatoxin IVA, a P-type calcium channel antagonist, on the development of spinal neuronal hyperexcitability caused by knee inflammation in rats. Nebe J, et al. **J Neurophysiol** 1999 Jun;81(6):2620-6

Loxosceles deserta spider venom induces NF-kappaB-dependent chemokine production by endothelial cells. Desai A, et al. **J Toxicol Clin Toxicol** 1999;37(4):447-56

Dissociation between the Joro spider toxin sensitivity of recombinant alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors and their ability to increase intracellular calcium. Meucci O, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1431-43

Inhibitory actions of synthesised polyamine spider toxins and their analogues on Ca2+-activated Cl- currents recorded from cultured DRG neurones from neonatal rats. Sutton KG, et al. **Neurosci Lett** 1998 Jul 24;251(2):117-20

Electrical and optical monitoring of alpha-latrotoxin action at Drosophila neuromuscular junctions. Umbach JA, et al. **Neuroscience** 1998 Dec;87(4):913-24

Norepinephrine exocytosis stimulated by alpha-latrotoxin requires both external and stored Ca2+ and is mediated by latrophilin, G proteins and phospholipase C. Rahman MA, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Feb 28;354(1381):379-86 (46 ref.)

The neuromuscular action of Ancylometes sp. spider venom in the rat phrenic nerve-diaphragm preparation. Grégio AM, et al. **Toxicon** 1999 Mar;37(3):545-50

POISONING

The toxicology of the Latrodectus hasselti spider--the Australian red back spider. Bonnet MS. **Br Homeopath J** 1999 Jan;88(1):2-6

A clinical and epidemiological study of Loxosceles spider envenoming in Santa Catarina, Brazil. Sezerino UM, et al. **Trans R Soc Trop Med Hyg** 1998 Sep-Oct;92(5):546-8

THERAPEUTIC USE

Sicarius (six-eyed crab spider): a homeopathic treatment for Ebola haemorrhagic fever and disseminated intravascular coagulation? Richardson-Boedler C. **Br Homeopath J** 1999 Jan;88(1):24-7 (23 ref.)

TOXICITY

Mechanisms of alpha-latrotoxin action. Henkel AW, et al. **Cell Tissue Res** 1999 May;296(2):229-33 (29 ref.)

Serum sickness from funnelweb spider antivenom [letter] Miller MK, et al. **Med J Aust** 1999 Jul 5;171(1):54

Development and evaluation of the neutralizing capacity of horse antivenom against the Brazilian spider Loxosceles intermedia. Braz A, et al. **Toxicon** 1999 Sep;37(9):1323-8

Sex-linked variation of Loxosceles intermedia spider venoms. Cristina de Oliveira K, et al. **Toxicon** 1999 Jan;37(1):217-21

Black widow spider toxins: the present and the future. Grishin EV. **Toxicon** 1998 Nov;36(11):1693-701

Pathological changes induced by PhTx1 from Phoneutria nigriventer spider venom in mouse skeletal muscle in vitro. Mattiello-Sverzut AC, et al. **Toxicon** 1998 Oct; 36(10):1349-61

SPIDERS

Keratitis and retinitis secondary to tarantula hair. Shrum KR, et al. **Arch Ophthalmol** 1999 Aug;117(8):1096-7

The toxicology of the Latrodectus hasselti spider--the Australian red back spider. Bonnet MS. **Br Homeopath J** 1999 Jan;88(1):2-6

Can the pattern of the Leucauge venusto webs Be used to indicate environmental contamination? Buckles VP. **Bull Environ Contam Toxicol** 1999 May;62(5):563-9

Jumping to unfortunate conclusions: Phidippus audax, the most common cause of spider bites. Huntley AC. **Dermatol Online J** 1997 Dec;3(2):5

The effects of changing contexts on return of fear following exposure therapy for spider fear. Mineka S, et al. **J Consult Clin Psychol** 1999 Aug;67(4):599-604

Evolutionary biology. Origin of the spider's head [news] Averof M. **Nature** 1998 Oct 1;395(6701):436-7

Pathological changes induced by PhTx1 from Phoneutria nigriventer spider venom in mouse skeletal muscle in vitro. Mattiello-Sverzut AC, et al. **Toxicon** 1998 Oct; 36(10):1349-61

CHEMISTRY

Spider (Araneus diadematus) cocoon silk: a case of non-periodic lattice crystals with a twist? Barghout JY, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):211-7

The effect of post-spin drawing on spider silk microstructure: a birefringence model. Carmichael S, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):219-26

A comparison of the composition of silk proteins produced by spiders and insects. Craig CL, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):109-18

Atomistic modeling of interphases in spider silk fibers. Fossey SA, et al. **Int J Biol Macromol** 1999 Mar-Apr; 24(2-3):119-25

Short and long range order of the morphology of silk from Latrodectus hesperus (Black Widow) as characterized by atomic force microscopy. Gould SA, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):151-7

Molecular chain orientation in supercontracted and re-extended spider silk. Grubb DT, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):203-10

Hypotheses that correlate the sequence, structure, and mechanical properties of spider silk proteins. Hayashi CY, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):271-5

Orientation, structure, wet-spinning, and molecular basis for supercontraction of spider dragline silk. Jelinski LW, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):197-201

Variability in the mechanical properties of spider silks on three levels: interspecific, intraspecific and intraindividual. Madsen B, et al. **Int J Biol Macromol** 1999 Mar-Apr; 24(2-3):301-6

Transmission of vibrations in funnel and sheet spider webs. Naftilan SA. **Int J Biol Macromol** 1999 Mar-Apr; 24(2-3):289-93

Is the mechanical strength of spider's drag-lines reasonable as lifeline? Osaki S. **Int J Biol Macromol** 1999 Mar-Apr; 24(2-3):283-7

Aspects of X-ray diffraction on single spider fibers. Riekel C, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):179-86

The effect of solvents on spider silk studied by mechanical

SPIDERS

testing and single-fibre Raman spectroscopy. Shao Z, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):295-300

Supercontracted spider dragline silk: a solid-state NMR study of the local structure. van Beek JD, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):173-8

Biology of spider silk. Vollrath F. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):81-8 (33 ref.)

Designing recombinant spider silk proteins to control assembly. Winkler S, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):265-70

Spiders and Borrelia burgdorferi: no evidence of reservoir occurrence in central Arkansas. Suffridge PJ, et al. **Int J Dermatol** 1999 Apr;38(4):296-7

Rotational-echo double-resonance in complex biopolymers: a study of Nephila clavipes dragline silk. Michal CA, et al. **J Biomol NMR** 1998 Aug;12(2):231-41

Distribution of histamine in the CNS of different spiders. Schmid A, et al. **Microsc Res Tech** 1999 Jan 15-Feb 1; 44(2-3):81-93

CLASSIFICATION

Envenomation by a spider, Agelenopsis aperta (family: Agelenidae) previously considered harmless. Vetter RS. **Ann Emerg Med** 1998 Dec;32(6):739-41

EMBRYOLOGY

A Hox class 3 orthologue from the spider Cupiennius salei is expressed in a Hox-gene-like fashion. Damen WG, et al. **Dev Genes Evol** 1998 Dec;208(10):586-90

Abdominal-B expression in a spider suggests a general role for Abdominal-B in specifying the genital structure. Damen WG, et al. **J Exp Zool** 1999 Apr 15;285(1):85-91

ENZYMOLOGY

Biosynthesis of D-amino acid-containing peptides: exploring the role of peptide isomerases. Volkmann RA, et al. **EXS** 1998;85:87-105 (65 ref.)

Tarantula hemocyanin shows phenoloxidase activity. Decker H, et al. **J Biol Chem** 1998 Oct 2;273(40):25889-92

GENETICS

A Hox class 3 orthologue from the spider Cupiennius salei is expressed in a Hox-gene-like fashion. Damen WG, et al. **Dev Genes Evol** 1998 Dec;208(10):586-90

A spider tRNA(Ala) requires a far upstream sequence element for expression. Cintrón I, et al. **Gene** 1999 Apr 29;231(1-2):195-201

Phylogenetic relationships of Central European wolf spiders (Araneae: lycosidae) inferred from 12S ribosomal DNA sequences. Zehethofer K, et al. **Mol Phylogenet Evol** 1998 Dec;10(3):391-8

GROWTH & DEVELOPMENT

Ontogenetic development of Loxosceles intermedia spider venom. Gonçalves de Andrade RM, et al. **Toxicon** 1999 Apr;37(4):627-32

METABOLISM

Lipid binding capacity of spider hemocyanin. Cunningham M, et al. **J Exp Zool** 1999 Sep 1;284(4):368-73

1H NMR study of robustoxin, the lethal neurotoxin from the funnel web spider Atrax robustus. Temple MD, et al. **Toxicon** 1999 Mar;37(3):485-506

PHYSIOLOGY

Principal dynamic mode analysis of nonlinear transduction in a spider mechanoreceptor. Marmarelis VZ, et al. **Ann Biomed Eng** 1999 May-Jun;27(3):391-402

Estimated single-channel conductance of mechanically-activated channels in a spider mechanoreceptor. Höger U, et al. **Brain Res** 1999 May 1; 826(2):230-5

Structure and function of the silk production pathway in the spider Nephila edulis. Vollrath F, et al. **Int J Biol Macromol** 1999 Mar-Apr;24(2-3):243-9

Effects of size, motility and paralysation time of prey on the quantity of venom injected by the hunting spider Cupiennius salei. Malli H, et al. **J Exp Biol** 1999 Aug;202 (Pt 15):2083-9

Voltage-activated potassium outward currents in two types of spider mechanoreceptor neurons. Sekizawa SI, et al. **J Neurophysiol** 1999 Jun;81(6):2937-44

Sexually transmitted chemical defense in a moth (Utetheisa ornatrix). González A, et al. **Proc Natl Acad Sci U S A** 1999 May 11;96(10):5570-4

Sex-linked variation of Loxosceles intermedia spider venoms. Cristina de Oliveira K, et al. **Toxicon** 1999 Jan;37(1):217-21

[Effect of modafinil on electroretinograms of Lycosa tarentula in relation visual circadian rhythm (Araneae, Lycosidae)] Carricaburu P, et al. **C R Seances Soc Biol Fil** 1998;192(6):1163-73 (Eng. Abstr.) **(Fre)**

SPIKE POTENTIALS see **ACTION POTENTIALS**

SPILOGALAE see **SKUNKS**

SPIN LABELS

see related
ELECTRON SPIN RESONANCE SPECTROSCOPY
SPIN TRAPPING

ESR and HPLC-EC analysis of the interaction of hydroxyl radical with DMSO: rapid reduction and quantification of POBN and PBN nitroxides. Stoyanovsky DA, et al. **Anal Chem** 1999 Feb 1;71(3):715-21

Nitroxide spin-spin interactions: applications to protein structure and dynamics. Hustedt EJ, et al. **Annu Rev Biophys Biomol Struct** 1999;28:129-53 (71 ref.)

NTBN, a free radical spin trap induces programmed cell death in human pancreatic cancer (PANC-1) cells. Anderson KM, et al. **Anticancer Res** 1998 Sep-Oct; 18(5A):3213-22

Bioreduction of Tempone and spin-labeled gentamicin by gram-negative bacteria: kinetics and effect of ultrasound. Rapoport N, et al. **Arch Biochem Biophys** 1999 Feb 15; 362(2):233-41

Structural features and light-dependent changes in the sequence 59-75 connecting helices I and II in rhodopsin: a site-directed spin-labeling study. Altenbach C, et al. **Biochemistry** 1999 Jun 22;38(25):7945-9

Structural features and light-dependent changes in the sequence 306-322 extending from helix VII to the palmitoylation sites in rhodopsin: a site-directed spin-labeling study. Altenbach C, et al. **Biochemistry** 1999 Jun 22;38(25):7931-7

Structure of the KcsA potassium channel from Streptomyces lividans: a site-directed spin labeling study of the second transmembrane segment. Gross A, et al. **Biochemistry** 1999 Aug 10;38(32):10324-35

Structural features of the C-terminal domain of bovine rhodopsin: a site-directed spin-labeling study. Langen R, et al. **Biochemistry** 1999 Jun 22;38(25):7918-24

Motion of spin-labeled side chains in T4 lysozyme: effect of side chain structure. Mchaourab HS, et al. **Biochemistry** 1999 Mar 9;38(10):2947-55

EPR mapping of interactions between spin-labeled variants of human carbonic anhydrase II and GroEL: evidence for increased flexibility of the hydrophobic core by the interaction. Persson M, et al. **Biochemistry** 1999 Jan 5; 38(1):432-41

Microsecond rotational dynamics of spin-labeled myosin regulatory light chain induced by relaxation and contraction of scallop muscle. Roopnarine O, et al. **Biochemistry** 1998 Oct 13;37(41):14428-36

Structural information on a membrane transport protein from nuclear magnetic resonance spectroscopy using sequence-selective nitroxide labeling. Spooner PJ, et al. **Biochemistry** 1999 Jul 27;38(30):9634-9

Proximity between periplasmic loops in the lactose permease of Escherichia coli as determined by site-directed spin labeling. Sun J, et al. **Biochemistry** 1999 Mar 9; 38(10):3100-5

Interaction of a spin-labeled adenine-acridine conjugate with a DNA duplex containing an abasic site model. Thomas F, et al. **Biochemistry** 1999 Feb 9;38(6):1930-7

Probing DMPG vesicle surface with a cationic aqueous soluble spin label. Riske KA, et al. **Biochim Biophys Acta** 1999 Apr 14;1418(1):133-46

Introduction of a nitroxide group on position 2 of 9-phenoxyacridine: easy access to spin labelled DNA-binding conjugates. Belmont P, et al. **Bioorg Med Chem Lett** 1998 Mar 17;8(6):669-74

Recent advances in site-directed spin labeling of proteins. Hubbell WL, et al. **Curr Opin Struct Biol** 1998 Oct; 8(5):649-56 (35 ref.)

Novel free radical spin traps protect against malonate and MPTP neurotoxicity. Matthews RT, et al. **Exp Neurol** 1999 May;157(1):120-6

Evaluation of DEPMPO as a spin trapping agent in biological systems. Liu KJ, et al. **Free Radic Biol Med** 1999 Mar; 26(5-6):714-21

ESR and HPLC-EC analysis of ethanol oxidation to 1-hydroxyethyl radical: rapid reduction and quantification of POBN and PBN nitroxides. Stoyanovsky DA, et al. **Free Radic Biol Med** 1998 Sep;25(4-5):536-45

Linewidth analysis of spin labels in liquids. I. Theory and data analysis. Robinson BH, et al. **J Magn Reson** 1999 Jun; 138(2):199-209

Linewidth analysis of spin labels in liquids. II. Experimental. Robinson BH, et al. **J Magn Reson** 1999 Jun;138(2):210-9

A DNP investigation of pi and final sigma transitions for nitroxide spin probes at 1.53 mT. Salman AO, et al. **J Magn Reson** 1998 Sep;134(1):1-6

Relaxation effects in a system of a spin-1/2 nucleus coupled to a quadrupolar spin subjected to RF irradiation: evaluation of broadband decoupling schemes. Smith SA, et al. **J Magn Reson** 1999 Jan;136(1):27-36

MR perfusion imaging of pulmonary parenchyma using pulsed arterial spin labeling techniques: FAIRER and FAIR. Mai VM, et al. **J Magn Reson Imaging** 1999 Mar; 9(3):483-7

Electron and light microscopy studies on particulate EPR spin probes lithium phthalocyanine, fusinite and synthetic chars. Norby SW, et al. **J Microsc** 1998 Nov;192 (Pt 2):172-85

Perfusion imaging of the human lung using flow-sensitive alternating inversion recovery with an extra radiofrequency pulse (FAIRER). Mai VM, et al. **Magn Reson Imaging** 1999 Apr;17(3):355-61

Perfusion analysis using dynamic arterial spin labeling (DASL). Barbier EL, et al. **Magn Reson Med** 1999 Feb; 41(2):299-308

A general kinetic model for quantitative perfusion imaging with arterial spin labeling. Buxton RB, et al. **Magn Reson Med** 1998 Sep;40(3):383-96

Multiple bond 13C-13C spin-spin coupling provides complementary information in a 13C NMR isotopomer analysis of glutamate. Carvalho RA, et al. **Magn Reson Med** 1999 Jul;42(1):197-200

Dynamic imaging of perfusion in human skeletal muscle during exercise with arterial spin labeling. Frank LR, et al. **Magn Reson Med** 1999 Aug;42(2):258-67

A strategy to optimize the signal-to-noise ratio in one-coil arterial spin tagging perfusion imaging. Lei H, et al. **Magn Reson Med** 1999 Mar;41(3):563-8

Enhancement of nitroxide-reducing activity in rats after chronic administration of vitamin E, vitamin C, and idebenone examined by an in vivo electron spin resonance technique. Matsumoto S, et al. **Magn Reson Med** 1998 Aug; 40(2):330-3

Pseudo-continuous arterial spin labeling technique for measuring CBF dynamics with high temporal resolution. Silva AC, et al. **Magn Reson Med** 1999 Sep;42(3):425-9

A theoretical and experimental comparison of continuous and pulsed arterial spin labeling techniques for quantitative perfusion imaging. Wong EC, et al. **Magn Reson Med** 1998 Sep;40(3):348-55

Continuous assessment of perfusion by tagging including volume and water extraction (CAPTIVE): a steady-state contrast agent technique for measuring blood flow, relative blood volume fraction, and the water extraction fraction. Zaharchuk G, et al. **Magn Reson Med** 1998 Nov; 40(5):666-78

FAIR excluding radiation damping (FAIRER). Zhou J, et al. **Magn Reson Med** 1998 Nov;40(5):712-9

Iron diethyldithiocarbamate as spin trap for nitric oxide detection. Vanin AF. **Methods Enzymol** 1999;301:269-79 (36 ref.)

Spin trapping and electron paramagnetic resonance spectroscopy. Brackett DJ, et al. **Methods Mol Biol** 1998; 108:15-25

PBN spin trapping of free radicals in the reperfusion-injured heart. Limitations for pharmacological investigations. Vrbjar N, et al. **Mol Cell Biochem** 1998 Sep;186(1-2):107-15

Protection against aminoglycoside otic drop-induced ototoxicity by a spin trap: I. Acute effects. Hester TO, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):581-7

Recent developments in spin labelling. Marsh D, et al. **Phys Med Biol** 1998 Jul;43(7):1977-86 (30 ref.)

The efficacy of paramagnetic ions on spin lattice relaxation time in biological systems. Akber SF. **Physiol Chem Phys Med NMR** 1998;30(2):175-84 (38 ref.)

A novel 5$displacement spin-labeling technique for electron paramagnetic resonance spectroscopy of RNA. Macosko JC, et al. **RNA** 1999 Sep;5(9):1158-66

CHEMICAL SYNTHESIS

Synthesis and application of novel bifunctional spin labels. Lösel RM, et al. **Bioconjug Chem** 1999 Jul-Aug; 10(4):578-82

Synthesis of alpha-aryl N-adamant-1-yl nitrones and using them for spin trapping of hydroxyl radicals. Sár CP, et al. **Bioorg Med Chem Lett** 1998 Feb 17;8(4):379-84

The design of spin probes for electron magnetic resonance spectroscopy and imaging. Sutcliffe LH. **Phys Med Biol** 1998 Jul;43(7):1987-93

SPIN TRAPPING

Clarification of the relationship between free radical spin trapping and carbon tetrachloride metabolism in microsomal systems. Connor HD, et al. **Free Radic Biol Med** 1998 Jun;24(9):1364-8

Field-cycling NMR relaxometry of molecules undergoing Lévy walks at the surface of fine particles and porous glass. Zavada T, et al. **Magn Reson Imaging** 1998 Jun-Jul; 16(5-6):711-3

In vivo imaging of spin-trapped nitric oxide in rats with septic shock: MRI spin trapping. Fujii H, et al. **Magn Reson Med** 1999 Aug;42(2):235-9

NMR spin trapping: detection of free radical reactions using a phosphorus-containing nitrone spin trap. Khramtsov V, et al. **Magn Reson Med** 1999 Aug;42(2):228-34

Protection against aminoglycoside otic drop-induced ototoxicity by a spin trap: I. Acute effects. Hester TO, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):581-7

METHODS

Spin trapping of nitric oxide in aqueous solutions of cigarette smoke. Shinagawa K, et al. **Biochem Biophys Res Commun** 1998 Dec 9;253(1):99-103

Spin trapping for nitric oxide produced in LPS-treated mouse using various new dithiocarbamate iron complexes having substituted proline and serine moiety. Nakagawa H, et al. **Biochem Mol Biol Int** 1998 Sep;45(6):1129-38

Fluorescence detection of nitric oxide based on cheletropic spin traps. Bätz M, et al. **Methods Enzymol** 1999;301:532-9

Iron diethyldithiocarbamate as spin trap for nitric oxide detection. Vanin AF. **Methods Enzymol** 1999;301:269-79

(36 ref.)

SPINA BIFIDA see **SPINAL DYSRAPHISM**

SPINA BIFIDA APERTA see **SPINA BIFIDA CYSTICA**

SPINA BIFIDA CYSTICA

COMPLICATIONS

Dermoid cyst with dermal sinus tract complicated with spinal subdural abscess. Chen CY, et al. **Pediatr Neurol** 1999 Feb; 20(2):157–60

EPIDEMIOLOGY

Prenatal screening for open neural-tube defects in Maine [letter] Palomaki GE, et al. **N Engl J Med** 1999 Apr 1; 340(13):1049–50

PHYSIOPATHOLOGY

Neurological dysfunction above cele level in children with spina bifida cystica. Dahl M, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:64–5

PSYCHOLOGY

Assessment of adherence with multiple informants in pre-adolescents with spina bifida: initial development of a multidimensional, multitask parent-report questionnaire. Holmbeck GN, et al. **J Pers Assess** 1998 Jun;70(3):427–40

SPINA BIFIDA MANIFESTA see **SPINA BIFIDA CYSTICA**

SPINA BIFIDA OCCULTA

COMPLICATIONS

Congenital occipital dermal sinus with intracranial dermoid cyst complicated by recurrent Escherichia coli meningitis [letter] Hsu ST, et al. **Br J Dermatol** 1998 Nov;139(5):922–4

Dermal sinus and intramedullary spinal cord abscess. Report of two cases and review of the literature. Morandi X, et al. **Childs Nerv Syst** 1999 Apr;15(4):202–6; discussion 207–8 (25 ref.)

Caudal appendage in a full-term infant. Svatek M, et al. **Curr Opin Pediatr** 1998 Dec;10(6):635–9

Anomaly of the axis causing cervical myelopathy. Case report. Asakawa H, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):121–3

Dorsal dermal sinus and dermoid cysts in occult spinal dysraphism. Hattori H, et al. **J Pediatr** 1999 Jun;134(6):793

Unilateral hyperhidrosis, callosities, and nail dystrophy in a boy with tethered spinal cord syndrome [letter] Wollina U, et al. **Pediatr Dermatol** 1998 Nov-Dec;15(6):486–7

Cutaneomeningospinal angiomatosis (Cobb syndrome) with tethered cord. Brant AJ, et al. **Pediatr Neurosurg** 1999 Feb; 30(2):93–5

Intramedullary spinal teratoma and diastematomyelia. Case report and review of the literature. Hader WJ, et al. **Pediatr Neurosurg** 1999 Mar;30(3):140–5 (19 ref.)

Adjacent thoracic neuroenteric and arachnoid cysts. Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):164–5

Coexistent neurenteric cyst and enterogenous cyst. Further support for a common embryologic error. Kincaid PK, et al. **Pediatr Radiol** 1999 Jul;29(7):539–41

[An unusual anomaly : cervical spondylolysis in an adult] Fessy MH, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May; 85(2):174–7 (Eng. Abstr.) **(Fre)**

[Paraplegia as initial manifestation of tethered spinal cord. Case report] Guardiola A, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):101–5 (Eng. Abstr.) **(Por)**

DIAGNOSIS

Neurenteric cyst: its various presentations. Kim CY, et al. **Childs Nerv Syst** 1999 Jul;15(6–7):333–41

Early clinical signs and symptoms in occult spinal dysraphism: a retrospective case study of 47 patients. Soonawala N, et al. **Clin Neurol Neurosurg** 1999 Mar; 101(1):11–4

Caudal appendage in a full-term infant. Svatek M, et al. **Curr Opin Pediatr** 1998 Dec;10(6):635–9

Guidelines of care: hemangiomas of infancy [letter; comment] Haimowitz JE. **J Am Acad Dermatol** 1998 Oct;39(4 Pt 1):662. Comment on: J Am Acad Dermatol 1997 Oct;37(4):631–7.

Imaging in neurenteric cysts of the posterior cranial fossa. Chaynes P, et al. **Neuroradiology** 1998 Jun;40(6):374–6

Enterogenous cyst of the fourth ventricle: case report [letter; comment] Dias MS. **Neurosurgery** 1998 Oct;43(4):984. Comment on: Neurosurgery 1998 Mar;42(3):655–8.

The human tail. Lu FL, et al. **Pediatr Neurol** 1998 Sep; 19(3):230–3

Cervical cord tethering mimicking focal muscular atrophy. Kuo MF, et al. **Pediatr Neurosurg** 1999 Apr;30(4):189–92

Adjacent thoracic neuroenteric and arachnoid cysts. Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):164–5

Occult lumbosacral dysraphism in children and young adults: diagnostic performance of fast screening and conventional MR imaging. Santiago Medina L, et al. **Radiology** 1999 Jun;211(3):767–71

[Spinal neurenteric cyst revealed by a cauda equina syndrome] Rougerie C, et al. **Presse Med** 1999 Feb 6; 28(5):229–30 (Eng. Abstr.) **(Fre)**

ETIOLOGY

Lesson of the week: tethered cord syndrome after myelomeningocoele repair. Jeelani NO, et al. **BMJ** 1999 Feb 20;318(7182):516–7

Spinal cord ultrasonography in children with myelomeningocele [see comments] Brezner A, et al. **Dev Med Child Neurol** 1999 Jul;41(7):450–5. Comment in: Dev Med Child Neurol 1999 Jul;41(7):435.

Recurrent tethering: a common long-term problem after lipomyelomeningocele repair. Colak A, et al. **Pediatr Neurosurg** 1998 Oct;29(4):184–90

[Lumbosacral intraspinal lipomas associated or not with a tethered cord syndrome (series of 8 cases)] Sakho Y, et al. **Dakar Med** 1998;43(1):13–20 (18 ref.) (Eng. Abstr.) **(Fre)**

PATHOLOGY

Diastematomyelia in two sisters. Balci S, et al. **Am J Med Genet** 1999 Sep 10;86(2):180–2

Anatomy of the spinal cord in patients with meningomyelocele with and without hypoplasia or hydromyelia. Moskowitz D, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:18–21

Pre-natal diagnosis of occult spinal dysraphism by ultrasonography and post-natal evaluation by MR scanning. Sattar TS, et al. **Eur J Pediatr Surg** 1998 Dec; 8 Suppl 1:31–3

Tethered cord syndrome: ventral displacement of the spinal cord at the thoracolumbar junction in magnetic resonance imaging. Saita K, et al. **Eur J Radiol** 1998 Jul;27(3):254–7

Neurenteric cyst at the craniovertebral junction: report of two cases. Fuse T, et al. **Surg Neurol** 1998 Nov;50(5):431–6 (21 ref.)

PHYSIOPATHOLOGY

Urodynamic findings in adults with the tethered cord syndrome. Giddens JL, et al. **J Urol** 1999 Apr; 161(4):1249–54

Concerning the article by Andar UB et al. Pediatr Neurosurg 1997; 26: 17–24: Upper and lower motor neuron dysfunction in closed spinal dysraphism [letter; comment] Cornette L, et al. **Pediatr Neurosurg** 1998 Oct;29(4):222–3 . Comment on: Pediatr Neurosurg 1997 Jan;26(1):17–24.

RADIOGRAPHY

Radiological case of the month. Neurenteric cyst. Paterson A, et al. **Arch Pediatr Adolesc Med** 1999 Jun;153(6):645–6

A split cord malformation. Katoh M, et al. **Childs Nerv Syst** 1998 Aug;14(8):398–400

3D spiral CT imaging of bone anomalies in a case of diastematomyelia. Skalej M, et al. **Eur J Radiol** 1999 Mar; 29(3):262–5

Incidental spina bifida occulta in functional enuresis observed during laser reflexo therapy. Kalra V, et al. **J Child Neurol** 1999 Aug;14(8):541–3

Spina bifida occulta mimicking a destructive lesion. DeBono V, et al. **J Manipulative Physiol Ther** 1998 Jul–Aug; 21(6):419–22

[An unusual anomaly : cervical spondylolysis in an adult] Fessy MH, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May; 85(2):174–7 (Eng. Abstr.) **(Fre)**

SURGERY

Recurrent intracranial neurenteric cysts. Chaynes P, et al. **Acta Neurochir (Wien)** 1998;140(9):905–11 (33 ref.)

Neurenteric cyst: its various presentations. Kim CY, et al. **Childs Nerv Syst** 1999 Jul;15(6–7):333–41

Tethered cord [letter; comment] Rafael H. **J Neurosurg** 1999 Jan;90(1):175. Comment on: J Neurosurg 1998 Jun;88(6):958–61.

The use of Gore-Tex membrane for adhesion prevention in tethered spinal cord surgery: technical case reports. Aliredjo RP, et al. **Neurosurgery** 1999 Mar;44(3):674–7; discussion 677–8

Functional deterioration following placode untethering in myelomeningocele. Cochrane DD, et al. **Pediatr Neurosurg** 1998 Feb;28(2):57–62

Concerning the article by Andar UB et al. Pediatr Neurosurg 1997; 26: 17–24: Upper and lower motor neuron dysfunction in closed spinal dysraphism [letter; comment] Cornette L, et al. **Pediatr Neurosurg** 1998 Oct;29(4):222–3 . Comment on: Pediatr Neurosurg 1997 Jan;26(1):17–24.

Filum terminale fusion and dural sac termination: study in 27 cadavers. Hansasuta A, et al. **Pediatr Neurosurg** 1999 Apr;30(4):176–9

Neurenteric cyst at the craniovertebral junction: report of two cases. Fuse T, et al. **Surg Neurol** 1998 Nov;50(5):431–6 (21 ref.)

Management of tight filum terminale syndrome with special emphasis on normal level conus medullaris (NLCM). Selçuki M, et al. **Surg Neurol** 1998 Oct;50(4):318–22; discussion 322

[Tethered cord syndrome in adults] Guyotat J, et al. **Neurochirurgie** 1998 Apr;44(2):75–82 (Eng. Abstr.) **(Fre)**

ULTRASONOGRAPHY

Pre-natal diagnosis of occult spinal dysraphism by ultrasonography and post-natal evaluation by MR scanning. Sattar TS, et al. **Eur J Pediatr Surg** 1998 Dec; 8 Suppl 1:31–3

Fetal neurenteric cyst causing hydrops: case report and review of the literature. Wilkinson CC, et al. **Prenat Diagn** 1999 Feb;19(2):118–21 (17 ref.)

[Standardized sonographic investigation of the lumbar spine in 247 newborns] Vocke AK, et al. **Klin Padiatr** 1999 Jan–Feb;211(1):22–6 (Eng. Abstr.) **(Ger)**

VETERINARY

Atypical dermoid sinus in a chow chow dog. Booth MJ. **J S Afr Vet Assoc** 1998 Sep;69(3):102–4

SPINA BIFIDA, OPEN see **SPINA BIFIDA CYSTICA**

SPINACH

Not enough spinach? [news] **Environ Health Perspect** 1998 Jan;106(1):A10–1

Reversals of age-related declines in neuronal signal transduction, cognitive, and motor behavioral deficits with blueberry, spinach, or strawberry dietary supplementation. Joseph JA, et al. **J Neurosci** 1999 Sep 15;19(18):8114–21

The food matrix of spinach is a limiting factor in determining the bioavailability of beta-carotene and to a lesser extent of lutein in humans. Castenmiller JJ, et al. **J Nutr** 1999 Feb;129(2):349–55

ADVERSE EFFECTS

[Crossed spinach-latex allergy revealed by exercise-induced anaphylaxis] Maillard H, et al. **Allerg Immunol (Paris)** 1999 May;31(5):156–7 (Eng. Abstr.) **(Fre)**

CHEMISTRY

Structure of the mutant E92K of [2Fe-2S] ferredoxin I from Spinacia oleracea at 1.7 A resolution. Binda C, et al. **Acta Crystallogr D Biol Crystallogr** 1998 Nov 1;54(2 (Pt 6)):1353–8

P680(+)* reduction kinetics and redox transition probability of the water oxidizing complex as a function of pH and H/D isotope exchange in spinach thylakoids. Christen G, et al. **Biochemistry** 1999 May 11;38(19):6082–92

Dual-mode EPR study of new signals from the S3-state of oxygen-evolving complex in photosystem II. Matsukawa T, et al. **Biochemistry** 1999 Mar 30;38(13):4072–7

An electron spin-echo envelope modulation (ESEEM) study of the QA binding pocket of PS II reaction centers from spinach and Synechocystis. Peloquin JM, et al. **Biochemistry** 1999 Feb 16;38(7):2057–67

Kinetic properties of a single nucleotide binding site on chloroplast coupling factor 1 (CF1). Günther S, et al. **Eur J Biochem** 1998 Dec 1;258(2):710–5

Three-dimensional structure of higher plant photosystem I determined by electron crystallography. Kitmitto A, et al. **J Biol Chem** 1998 Nov 6;273(45):29592–9

Uclacyanins, stellacyanins, and plantacyanins are distinct subfamilies of phytocyanins: plant-specific mononuclear blue copper proteins. Nersissian AM, et al. **Protein Sci** 1998 Sep;7(9):1915–29

Crystal structure of spinach plastocyanin at 1.7 A resolution. Xue Y, et al. **Protein Sci** 1998 Oct;7(10):2099–105

DRUG EFFECTS

Influence of herbicide binding on the redox potential of the quinone acceptor in photosystem II: relevance to photodamage and phytotoxicity. Krieger-Liszkay A, et al. **Biochemistry** 1998 Dec 15;37(50):17339–44

ENZYMOLOGY

Regulation of spinach chloroplast acetyl-CoA carboxylase. Hunter SC, et al. **Arch Biochem Biophys** 1998 Nov 15; 359(2):170–8

Protein heterogeneity of spinach pullulanase results from the coexistence of interconvertible isomeric forms of the monomeric enzyme. Henker A, et al. **Biochem J** 1998 May 1;331 (Pt 3):929–35

cDNA sequence and heterologous expression of monomeric spinach pullulanase: multiple isomeric forms arise from the same polypeptide. Renz A, et al. **Biochem J** 1998 May 1; 331 (Pt 3):937–45

Alternatively spliced mRNA variants of chloroplast ascorbate peroxidase isoenzymes in spinach leaves. Yoshimura K, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):41–8

Oxidation-reduction properties of chloroplast thioredoxins, ferredoxin:thioredoxin reductase, and thioredoxin f-regulated enzymes. Hirasawa M, et al. **Biochemistry** 1999 Apr 20;38(16):5200–5

Incision at nucleotide insertions/deletions and base pair mismatches by the SP nuclease of spinach. Oleykowski CA, et al. **Biochemistry** 1999 Feb 16;38(7):2200–5

Characterization of intermediates in the process of plant peroxisomal protein import. Pool MR, et al. **EMBO J** 1998 Dec 1;17(23):6854–62

Rapid purification of membrane extrinsic F1-domain of chloroplast ATP synthase in monodisperse form suitable for 3D-crystallization. Groth G, et al. **Eur J Biochem** 1999 Feb;260(1):15–21

14-3-3 proteins control proteolysis of nitrate reductase in spinach leaves. Weiner H, et al. **FEBS Lett** 1999 Jul 16; 455(1-2):75-8

Probing the function of the invariant glutamyl residue 312 in spinach ferredoxin-NADP+ reductase. Aliverti A, et al. **J Biol Chem** 1998 Dec 18;273(51):34008-15

Plant riboflavin biosynthesis. Cloning, chloroplast localization, expression, purification, and partial characterization of spinach lumazine synthase. Jordan DB, et al. **J Biol Chem** 1999 Jul 30;274(31):22114-21

Phylogenetic transfer of organelle genes to the nucleus can lead to new mechanisms of protein integration into membranes. Michl D, et al. **Plant J** 1999 Jan;17(1):31-40

The endogenous choline supply limits glycine betaine synthesis in transgenic tobacco expressing choline monooxygenase. Nuccio ML, et al. **Plant J** 1998 Nov; 16(4):487-96

Site-directed mutagenesis of serine 158 demonstrates its role in spinach leaf sucrose-phosphate synthase modulation. Toroser D, et al. **Plant J** 1999 Feb;17(4):407-13

D-Ribulose-5-phosphate 3-epimerase: cloning and heterologous expression of the spinach gene, and purification and characterization of the recombinant enzyme. Chen YR, et al. **Plant Physiol** 1998 Sep; 118(1):199-207

Organellar and cytosolic localization of four phosphoribosyl diphosphate synthase isozymes in spinach. Krath BN, et al. **Plant Physiol** 1999 Feb;119(2):497-506

Two SNF1-related protein kinases from spinach leaf phosphorylate and inactivate 3-hydroxy-3-methylglutaryl-coenzyme A reductase, nitrate reductase, and sucrose phosphate synthase in vitro. Sugden C, et al. **Plant Physiol** 1999 May;120(1):257-74

Clp protease complexes and their diversity in chloroplasts. Sokolenko A, et al. **Planta** 1998 Dec;207(2):286-95

Overexpression in Escherichia coli and characterization of the chloroplast triosephosphate isomerase from spinach. Tang GL, et al. **Protein Expr Purif** 1999 Aug;16(3):432-9

Heterologous overexpression of membrane-anchored subunit II of spinach chloroplast ATP synthase and its detergent-free purification as a soluble protein. Tiburzy HJ, et al. **Z Naturforsch [C]** 1999 Mar-Apr;54(3-4):230-8

GENETICS

D-Ribulose-5-phosphate 3-epimerase: cloning and heterologous expression of the spinach gene, and purification and characterization of the recombinant enzyme. Chen YR, et al. **Plant Physiol** 1998 Sep; 118(1):199-207

METABOLISM

EPR kinetic studies of oxygen release in thylakoids and PSII membranes: a kinetic intermediate in the S3 to S0 transition. Razeghifard MR, et al. **Biochemistry** 1999 Jan 26; 38(4):1252-7

Availability of food folate in humans. Prinz-Langenohl R, et al. **J Nutr** 1999 Apr;129(4):913-6

N alpha- and N epsilon-D-galacturonoyl-L-lysine amides: properties and possible occurrence in plant cell walls. Perrone P, et al. **Phytochemistry** 1998 Dec;49(7):1879-90

Coordinate and non-coordinate expression of the stress 70 family and other molecular chaperones at high and low temperature in spinach and tomato. Li QB, et al. **Plant Mol Biol** 1999 Jan;39(1):21-34

Plant ribosome recycling factor homologue is a chloroplastic protein and is bactericidal in escherichia coli carrying temperature-sensitive ribosome recycling factor. Rolland N, et al. **Proc Natl Acad Sci U S A** 1999 May 11; 96(10):5464-9

Spinach holo-acyl carrier protein: overproduction and phosphopantetheinylation in Escherichia coli BL21(DE3), in vitro acylation, and enzymatic desaturation of histidine-tagged isoform I. Broadwater JA, et al. **Protein Expr Purif** 1999 Apr;15(3):314-26

The effect of volatile anesthetics on light-induced phosphorylation in spinach chloroplasts. Nakao H, et al. **Toxicol Lett** 1998 Nov 23;100-101:135-8

MICROBIOLOGY

Bacteriological investigation of an outbreak of Clostridium perfringens food poisoning caused by Japanese food without animal protein. Miwa N, et al. **Int J Food Microbiol** 1999 Aug 1;49(1-2):103-6

ULTRASTRUCTURE

Single-molecule high-resolution structure and electron conduction of photosystem II from scanning tunneling microscopy and spectroscopy. Lukins PB, et al. **Biochim Biophys Acta** 1998 Nov 2;1409(1):1-11

Three-dimensional electron microscopy of the photosystem II core complex. Mayanagi K, et al. **J Struct Biol** 1998 Nov;123(3):211-24

VIROLOGY

Genetic analysis of large-sized RNA 2 species of a TCM-like tobacco rattle virus source from spinach. Schmidt K, et al. **Arch Virol** 1999;144(3):503-11

SPINACIA OLERACEA see **SPINACH**

SPINAL ACCESSORY NERVE see **ACCESSORY NERVE**

SPINAL BIFIDA, CLOSED see **SPINA BIFIDA OCCULTA**

SPINAL CANAL

Revisited: spinal angiolipoma--three additional cases. Labram EK, et al. **Br J Neurosurg** 1999 Feb;13(1):25-9 (29 ref.)

Case report of a retained bullet in the lumbar spinal canal with preservation of cauda equina function. Jeffery JA, et al. **Injury** 1998 Nov;29(9):724-6

ANATOMY & HISTOLOGY

Experimental stationary potential recorded with using spine and skull model. Uraisami T, et al. **Electromyogr Clin Neurophysiol** 1999 Jan-Feb;39(1):55-60

Determining the sagittal dimensions of the canal of the cervical spine. The reliability of ratios of anatomical measurements. Blackley HR, et al. **J Bone Joint Surg Br** 1999 Jan;81(1):110-2

Anatomy of soft tissues of the spinal canal. Hogan Q, et al. **Reg Anesth Pain Med** 1999 Jul-Aug;24(4):303-10

CYTOLOGY

[Presence of epithelial cells in the medullary canal after spinal anesthesia] Reina Perticone MA, et al. **Minerva Anestesiol** 1998 Nov;64(11):489-97 (Eng. Abstr.) **(Ita)**

INJURIES

[Epidural hematoma after removal of an epidural catheter] Blasi A, et al. **Rev Esp Anestesiol Reanim** 1998 Aug-Sep; 45(7):294-7 (Eng. Abstr.) **(Spa)**

PATHOLOGY

Spinal canal capacity in simulated displacements of the atlantoaxial segment: a skeletal study. Tucker SK, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1073-8

Idiopathic localized hydromyelia: dilatation of the central canal of the spinal cord of probable congenital origin. Jinkins JR, et al. **J Comput Assist Tomogr** 1999 May-Jun; 23(3):351-3

New method for measuring area of spinal canal after double-door laminoplasty. Hirabayashi S, et al. **J Orthop Sci** 1999;4(2):78-82

Spinal subdural hematoma after resection of an acoustic neuroma. Marx SV, et al. **Otolaryngol Head Neck Surg** 1999 Apr;120(4):540-2

Residual deformity of the spinal canal in patients with traumatic paraplegia and secondary changes of the spinal cord. Abel R, et al. **Spinal Cord** 1999 Jan;37(1):14-9

Imaging corner. Khoury JG, et al. **Spine** 1999 May 1; 24(9):924-5

PHYSIOPATHOLOGY

A review of biomechanics of the central nervous system--Part I: spinal canal deformations resulting from changes in posture. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 May;22(4):227-34 (67 ref.)

RADIOGRAPHY

Dimensions of the lumbar spinal canal: variations and correlations with somatometric parameters using CT. Karantanas AH, et al. **Eur Radiol** 1998;8(9):1581-5

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part II: Results of a multicenter study. Fehlings MG, et al. **Spine** 1999 Mar 15;24(6):605-13

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part I: An evidence-based analysis of the published literature. Rao SC, et al. **Spine** 1999 Mar 15;24(6):598-604

SURGERY

Osteoplastic laminotomy using titanium microplates for reconstruction of the laminar roof: a technical note. Wiedemayer H, et al. **Neurosurg Rev** 1998;21(2-3):93-7

ULTRASONOGRAPHY

[Panorama ultrasound of the spinal canal with determination of the level of the conus medullaris in newborn infants and infants] Staatz G, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):564-7 (Eng. Abstr.) **(Ger)**

SPINAL CORD

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CORDOTOMY
MOTOR NEURONS
MYELOGRAPHY

High thoracic/low cervical, long-term intrathecal (i.t.) infusion of bupivacaine alleviates "refractory" pain in patients with unstable angina pectoris. Report of 2 cases. Dahm P, et al. **Acta Anaesthesiol Scand** 1998 Sep; 42(8):1010-7

Spinal cord stimulation in chronic intractable angina pectoris: a randomized, controlled efficacy study [see comments] Hautvast RW, et al. **Am Heart J** 1998 Dec;136(6):1114-20 . Comment in: Am Heart J 1998 Dec;136(6):943-4.

Kinematic analysis of recovered locomotor movements of the hindlimbs in paraplegic rats transplanted with monoaminergic embryonic neurons. Gimenez y Ribotta M, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:521-3

Recovery of locomotion following transplantation of monoaminergic neurons in the spinal cord of paraplegic rats. Gimenez y Ribotta M, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:393-411 (73 ref.)

Mechanisms of spontaneous activity in the developing spinal cord and their relevance to locomotion. O'Donovan MJ, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:130-41 (33 ref.)

Transplant-mediated locomotion is improved by selective serotonergic agonists. Yi DK, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:524-7

Spinal cord stimulation significantly decreases the need for acute hospital admission for chest pain in patients with refractory angina pectoris. Murray S, et al. **Heart** 1999 Jul; 82(1):89-92

Clinical outcome of patients treated with spinal cord stimulation for therapeutically refractory angina pectoris. The Working Group on Neurocardiology. TenVaarwerk IA, et al. **Heart** 1999 Jul;82(1):82-8

Potential for disruption of central nervous system tissue in beef cattle by different types of captive bolt stunners. Schmidt GR, et al. **J Food Prot** 1999 Apr;62(4):390-3

An enzyme-linked immunosorbent assay for glial fibrillary acidic protein as an indicator of the presence of brain or spinal cord in meat. Schmidt GR, et al. **J Food Prot** 1999 Apr;62(4):394-7

Direct convective macromolecule delivery [letter; comment] Stehle G, et al. **J Neurosurg** 1999 Mar;90(3):610-1. Comment on: J Neurosurg 1998 Oct;89(4):610-5. Comment on: J Neurosurg 1998 Oct;89(4):616-22.

Spinal-cord stimulation in critical limb ischaemia: a randomised trial. ESES Study Group. Klomp HM, et al. **Lancet** 1999 Mar 27;353(9158):1040-4

Spinal cord stimulation for the treatment of refractory angina pectoris: a two-year follow-up. Greco S, et al. **Pacing Clin Electrophysiol** 1999 Jan;22(1 Pt 1):26-32

Variability of somatosensory-evoked potentials in different stages of scoliosis surgery. Luk KD, et al. **Spine** 1999 Sep 1;24(17):1799-804

[Treatment of chronic critical ischemia of the lower limbs with spinal cord electrostimulation] Bruni T, et al. **Chir Ital** 1999 Jan-Feb;51(1):53-8 (Eng. Abstr.) **(Ita)**

[Effects of spinal cord stimulation on regional myocardial blood flow in patients with refractory angina. A positron emission tomography study] Mobilia G, et al. **G Ital Cardiol** 1998 Oct;28(10):1113-9 (Eng. Abstr.) **(Ita)**

[Bioelectrical activity in the sensorimotor cortex in rats with pain syndrome of the spinal origin] Zinkevich VA, et al. **Biull Eksp Biol Med** 1999 Jan;127(1):35-8 **(Rus)**

[Spinal cord stimulation in angina pectoris--what is the current situation?] Norrsell H, et al. **Lakartidningen** 1999 Mar 24;96(12):1430-2, 1435-7 (37 ref.) (Eng. Abstr.) **(Swe)**

ABNORMALITIES

Segmental spinal dysgenesis: neuroradiologic findings with clinical and embryologic correlation. Tortori-Donati P, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):445-56

Arthrogryposis multiplex congenita [letter] Gadoth N, et al. **Brain Dev** 1999 Jun;21(4):283-4

A split cord malformation. Katoh M, et al. **Childs Nerv Syst** 1998 Aug;14(8):398-400

Peduncular hallucinosis following a transoral odontoidectomy for cranio-vertebral junction malformation. A case report. Qasho R, et al. **J Neurosurg Sci** 1998 Mar;42(1):47-9

MR imaging of congenital anomalies of the pediatric spine. Egelhoff JC. **Magn Reson Imaging Clin N Am** 1999 Aug; 7(3):459-79 (97 ref.)

Cell kinetics of surgically induced spinal open neural tube defect in chick embryos. Park IS, et al. **Neurosci Lett** 1998 Apr 3;245(2):65-8

Congenital intraspinal lipomas: histological analysis of 234 cases and review of the literature. Lellouch-Tubiana A, et al. **Pediatr Dev Pathol** 1999 Jul-Aug;2(4):346-52 (25 ref.)

A novel embryogenetic mechanism for Currarino's triad: inadequate dorsoventral separation of the caudal eminence from hindgut endoderm. Dias MS, et al. **Pediatr Neurosurg** 1998 May;28(5):223-9

Intramedullary spinal teratoma and diastematomyelia. Case report and review of the literature. Hader WJ, et al. **Pediatr Neurosurg** 1999 Mar;30(3):140-5 (19 ref.)

[Hydromyelia associated with spinal lipoma] Wada K, et al. **No To Shinkei** 1998 Nov;50(11):989-93 (Eng. Abstr.) **(Jpn)**

ANATOMY & HISTOLOGY

Age-related morphologic changes of the central canal of the human spinal cord. Yasui K, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):253-9

New indirect pathways subserving the pupillary light reflex:

projections of the accessory oculomotor nuclei and the periaqueductal gray to the Edinger-Westphal nucleus and the thoracic spinal cord in rats. Klooster J, et al. **Anat Embryol (Berl)** 1998 Aug;198(2):123-32

Cervicothalamic tract termination: a reexamination and comparison with the distribution of monoclonal antibody Cat-301 immunoreactivity in the cat. Zhang M, et al. **Anat Embryol (Berl)** 1998 Dec;198(6):451-72

Investigations on the postnatal development of the macroscopic proportions and the topographic anatomy of the feline spinal cord. Maierl J, et al. **Anat Histol Embryol** 1998 Dec;27(6):375-9

Fluorescent double-label study of lateral reticular nucleus projections to the spinal cord and periaqueductal gray in the rat. Lee HS, et al. **Anat Rec** 1999 Sep 1;256(1):91-8

Descending neural projections to the spinal cord in the channel catfish, Ictalurus punctatus. New JG, et al. **Anat Rec** 1998 Oct;252(2):235-53

Origin, course, and laterality of spinocerebellar axons in the North American opossum, Didelphis virginiana. Terman JR, et al. **Anat Rec** 1998 Aug;251(4):528-47

Level of termination of the spinal cord and the dural sac: a magnetic resonance study. Macdonald A, et al. **Clin Anat** 1999;12(3):149-52

High-resolution MRI of intact and transected rat spinal cord. Fraidakis M, et al. **Exp Neurol** 1998 Oct;153(2):299-312

Estimation of fiber diameters in the spinal dorsal columns from clinical data. Wesselink WA, et al. **IEEE Trans Biomed Eng** 1998 Nov;45(11):1355-62

The cranial-spinal junction in medulloblastoma: does it matter? Narayana A, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):81-4

Evaluation of gadopentetate dimeglumine magnetic resonance cisternography in an animal model: preliminary report. Jinkins JR, et al. **Invest Radiol** 1999 Feb;34(2):156-9

The central canal of the human spinal cord: a computerised 3-D study. Storer KP, et al. **J Anat** 1998 May;192 (Pt 4):565-72

Immunohistochemistry and spinal projections of the reticular formation in the northern leopard frog, Rana pipiens. Adli DS, et al. **J Comp Neurol** 1999 Feb 15;404(3):387-407

Brainstem neurons with descending projections to the spinal cord of two elasmobranch fishes: thornback guitarfish, Platyrhinoidis triseriata, and horn shark, Heterodontus francisci. Cruce WL, et al. **J Comp Neurol** 1999 Jan 25; 403(4):534-60

Projections from the lowest lumbar and sacral-caudal segments to the cerebellar nuclei in the rat, studied by anterograde axonal tracing. Matsushita M. **J Comp Neurol** 1999 Feb 1;404(1):21-32

Morphology of single primary spindle afferents of the intercostal muscles in the cat. Nakayama K, et al. **J Comp Neurol** 1998 Sep 7;398(4):459-72

Vascular suppression technique in MRI using Gd-DTPA: improving image quality of MR myelography. Nasu K, et al. **J Comput Assist Tomogr** 1999 May-Jun;23(3):346-50

In vivo echo-planar imaging of rat spinal cord. Fenyes DA, et al. **Magn Reson Imaging** 1998 Dec;16(10):1249-55

In vivo diffusion characteristics of rat spinal cord. Fenyes DA, et al. **Magn Reson Imaging** 1999 Jun;17(5):717-22

Reproducibility of magnetic resonance imaging measurements of spinal cord atrophy: the role of quality assurance. Leary SM, et al. **Magn Reson Imaging** 1999 Jun; 17(5):773-6

In vivo relaxation times of gray matter and white matter in spinal cord. Narayana P, et al. **Magn Reson Imaging** 1999 May;17(4):623-6

Magnetic resonance diffusion imaging of the human cervical spinal cord in vivo. Clark CA, et al. **Magn Reson Med** 1999 Jun;41(6):1269-73

In vivo diffusion tensor imaging of rat spinal cord with echo planar imaging. Fenyes DA, et al. **Magn Reson Med** 1999 Aug;42(2):300-6

In vivo gradient echo microimaging of rodent spinal cord at 7 T. Meyerand ME, et al. **Magn Reson Med** 1998 Nov; 40(5):789-91

BOLD MRI of the human cervical spinal cord at 3 tesla. Stroman PW, et al. **Magn Reson Med** 1999 Sep;42(3):571-6

Neuronal labeling in the rat brain and spinal cord from the ovary using viral transneuronal tracing technique. Gerendai I, et al. **Neuroendocrinology** 1998 Oct;68(4):244-56

Segmental distribution of the motoneurons innervating trunk muscles in the spinal cord of the cat and rat. Izumi A, et al. **Neurosci Res** 1998 Mar;30(3):247-55

The epidural dorsomedian septum as a possible cause for unilateral anaesthesia in an infant. Finkel JC. **Paediatr Anaesth** 1999;9(5):456-9

In vivo diffusion-weighted magnetic resonance microscopy of rat spinal cord: effect of ischemia and intrathecal hyperbaric 5% lidocaine. Benveniste H, et al. **Reg Anesth Pain Med** 1999 Jul-Aug;24(4):311-8

Spinal cord neural anatomy in rats examined by in vivo magnetic resonance microscopy [see comments] Benveniste H, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6):589-99 . Comment in: Reg Anesth Pain Med 1998 Nov-Dec;23(6):529-30.

Relationship of cervical spinal cord diameter to vertebral dimensions: a radiographic study of normal dogs. Fourie SL, et al. **Vet Radiol Ultrasound** 199[illegible] Mar-Apr; 40(2):137-43

[Delineation of the white and gray matter of the normal human cervical spinal cord using diffusion-weighted echo planar imaging] Nagayoshi K, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Sep; 58(11):578-80 (Eng. Abstr.) **(Jpn)**

[Quantification of pericentral NADPH-diaphorase neurons in the spinal cord of rabbits] Kluchová D, et al. **Bratisl Lek Listy** 1998 Nov;99(11):610-6 (Eng. Abstr.) **(Slo)**

[Spinal anesthesia and anatomical knowledge (editorial; comment)] Galve BJ, et al. **Rev Esp Anestesiol Reanim** 1999 Mar;46(3):97-8. Comment on: Rev Esp Anestesiol Reanim 1999 Mar;46(3):99-105. **(Spa)**

BLOOD SUPPLY

Sameridine--intrathecal injection in the rat. Morphometric and morphologic analysis after chronic administration and effects on spinal cord blood flow. Karlsten R, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):573-9

Multiple cerebral arteriovenous malformations (AVMs) associated with spinal AVM. Hasegawa S, et al. **Acta Neurochir (Wien)** 1999;141(3):315-9 (27 ref.)

Cervical infarction associated with vertebral artery occlusion due to spondylotic degeneration: case report. Okuno S, et al. **Acta Neurochir (Wien)** 1998;140(9):981-5

Paravertebral arteriovenous malformations with epidural drainage: clinical spectrum, imaging features, and results of treatment. Goyal M, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):749-55

Direct emergence of the dorsospinal artery from the aorta supplying the anterior spinal artery: report of two cases. Lefournier V, et al. **AJNR Am J Neuroradiol** 1998 Nov-Dec;19(10):1961-2

Presumed venous infarction in spinal decompression sickness. Manabe Y, et al. **AJNR Am J Neuroradiol** 1998 Sep; 19(8):1578-80

The use of electrolytically detachable coils in treating high-flow arteriovenous fistulas. Nesbit GM, et al. **AJNR Am J Neuroradiol** 1998 Sep;19(8):1565-9

Anterior spinal artery syndrome associated with severe stenosis of the vertebral artery. Suzuki K, et al. **AJNR Am J Neuroradiol** 1998 Aug;19(7):1353-5

Endovascular treatment of a cervical paraspinal arteriovenous malformation via arterial and venous approaches. Szajner M, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1097-9

Acute flank pain: an unusual presentation of a spinal AVM. Felner EI, et al. **Am J Emerg Med** 1999 Jul;17(4):382-4

Fibrocartilagenous embolism: an unusual cause of spinal cord infarction. Yousef OM, et al. **Am J Forensic Med Pathol** 1998 Dec;19(4):395-9

Nitric oxide mediates sympathetic vasoconstriction at supraspinal, spinal, and synaptic levels. Iida N. **Am J Physiol** 1999 Mar;276(3 Pt 2):H918-25

Perivascular structures in corrosion casts of the human central nervous system: a confocal laser and scanning electron microscope study. Rodriguez-Baeza A, et al. **Anat Rec** 1998 Oct;252(2):176-84

The age-related effects of epidural lidocaine, with and without epinephrine, on spinal cord blood flow in anesthetized rabbits. Bouaziz H, et al. **Anesth Analg** 1999 Jun;88(6):1302-7

The effects of N(G)-nitro-L-arginine-methyl ester on neurologic and histopathologic outcome after transient spinal cord ischemia in rabbits. Matsumoto M, et al. **Anesth Analg** 1999 Sep;89(3):696-702

The effects of moderate hypothermia and intrathecal tetracaine on glutamate concentrations of intrathecal dialysate and neurologic and histopathologic outcome in transient spinal cord ischemia in rabbits. Wakamatsu H, et al. **Anesth Analg** 1999 Jan;88(1):56-62

Direct effects of alpha1- and alpha2-adrenergic agonists on spinal and cerebral pial vessels in dogs. Iida H, et al. **Anesthesiology** 1999 Aug;91(2):479-85

The effect of graded postischemic spinal cord hypothermia on neurological outcome and histopathology after transient spinal ischemia in rat. Kakinohana M, et al. **Anesthesiology** 1999 Mar;90(3):789-98

The effect of direct lidocaine injection into the clamped aortic segment on the spinal evoked potential: early diagnosis for spinal cord ischemia. Nohara H, et al. **Ann Thorac Cardiovasc Surg** 1999 Feb;5(1):40-8

Three different approaches to spinal cord monitoring for the prediction of spinal cord ischemia during thoracic aortic aneurysm surgery. Sueda T, et al. **Ann Thorac Cardiovasc Surg** 1998 Oct;4(5):290-3

Left heart bypass reduces paraplegia rates after thoracoabdominal aortic aneurysm repair. Coselli JS, et al. **Ann Thorac Surg** 1999 Jun;67(6):1931-4; discussion 1953-8

Selective protection of gray and white matter during spinal cord ischemic injury. Follis FM, et al. **Ann Thorac Surg** 1999 May;67(5):1362-9

Sensitivity, specificity, and surgical impact of somatosensory evoked potentials in descending aorta surgery. Guerit JM, et al. **Ann Thorac Surg** 1999 Jun;67(6):1943-6; discussion 1953-8

Hypothermic cardiopulmonary bypass for spinal cord protection: rationale and clinical results. Kouchoukos NT, et al. **Ann Thorac Surg** 1999 Jun;67(6):1940-2; discussion 1953-8

Spinal cord protection during aortic cross-clamping using retrograde venous perfusion. Parrino PE, et al. **Ann Thorac Surg** 1999 Jun;67(6):1589-94; discussion 1594-5

Spinal cord protection in descending thoracic and thoracoabdominal aortic repair. Safi HJ, et al. **Ann Thorac Surg** 1999 Jun;67(6):1937-9; discussion 1953-8

Impact of left heart bypass on the results of thoracoabdominal aortic aneurysm repair. Schepens MA, et al. **Ann Thorac Surg** 1999 Jun;67(6):1963-7; discussion 1979-80

An approach to spinal cord protection during descending or thoracoabdominal aortic repairs. Svensson LG. **Ann Thorac Surg** 1999 Jun;67(6):1935-6; discussion 1953-8

Ischemic preconditioning reduces neurologic injury in a rat model of spinal cord ischemia. Zvara DA, et al. **Ann Thorac Surg** 1999 Sep;68(3):874-80

Spinal epidural hematoma complicating active systemic lupus erythematosus. Goker B, et al. **Arthritis Rheum** 1999 Mar; 42(3):577-8

Acute urinary retention: an unusual presentation of a spinal arteriovenous malformation. Hussain IF, et al. **BJU Int** 1999 Jun;83(9):1079-80

Monitoring spinal cord function during aortic surgery: can we reduce the risks? [editorial] Sansome AJ, et al. **Br J Anaesth** 1999 Mar;82(3):315-8

Activation of nuclear factor-kappaB in the rabbit spinal cord following ischemia and reperfusion. Zhang S, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):121-32

Hypothermia prevents biphasic glutamate release and corresponding neuronal degeneration after transient spinal cord ischemia in the rat. Ishikawa T, et al. **Cell Mol Neurobiol** 1999 Apr;19(2):199-208

Spinal cord arteriovenous malformations in two patients with hereditary hemorrhagic telangiectasia. Mandzia JL, et al. **Childs Nerv Syst** 1999 Mar;15(2-3):80-3

Lumbosacral anterolateral spinal arteries and brief review of "accessory" longitudinal arteries of the spinal cord. Parke WW, et al. **Clin Anat** 1999;12(3):171-8

Spinal cord ischaemia [letter; comment] Dimakakos P, et al. **Eur J Vasc Endovasc Surg** 1999 Jun;17(6):544-5. Comment on: Eur J Vasc Endovasc Surg 1998 Oct;16(4):362-4.

Monitoring of evoked potentials during spinal cord ischaemia: experimental evaluation in a rabbit model. Gonzalez-Fajardo JA, et al. **Eur J Vasc Endovasc Surg** 1998 Oct;16(4):320-8

Identification and selective perfusion of the spinal cord-feeding arteries by intrathecal pO2 monitoring for spinal cord protection. Ishizaki M, et al. **Eur J Vasc Endovasc Surg** 1999 Jul;18(1):17-24

Magnetic resonance imaging of spinal cord infarction after infrarenal vascular surgery [see comments] Paaske WP, et al. **Eur J Vasc Endovasc Surg** 1998 Oct;16(4):362-4. Comment in: Eur J Vasc Endovasc Surg 1999 Jun;17(6):544-5.

Simultaneous medullar and cutaneous revelation of a cutaneomeningospinal angiomatosis. Krolak-Salmon P, et al. **Eur Neurol** 1999;41(3):170-1

Association between spinal extradural and cerebral arteriovenous malformations appearing as acute paraplegia after epidural hemorrhage [letter] Bozzao A, et al. **Eur Radiol** 1999;9(5):1007-8

Rupture of a cervical spinal cord arteriovenous malformation: a rare complication of endovascular embolization. Defreyne L, et al. **Eur Radiol** 1999;9(4):734-7

Spinal cord protection by papaverine and intrathecal cooling during aortic crossclamping. Sun J, et al. **J Cardiovasc Surg (Torino)** 1998 Dec;39(6):839-42

Inductions of 3-L-nitrotyrosine in motor neurons after transient spinal cord ischemia in rabbits. Sakurai M, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1233-8

Spinal cord monitoring with somatosensory techniques. Nuwer MR. **J Clin Neurophysiol** 1998 May;15(3):183-93 (118 ref.)

Failure of topical DMSO to improve blood flow or evoked potentials in rat spinal cord injury. Park YK, et al. **J Korean Med Sci** 1998 Dec;13(6):638-44

Spinal epidural hematoma caused by extradural arteriovenous malformation: a case report and review of the literature. Saeheng S, et al. **J Med Assoc Thai** 1999 May;82(5):520-7 (80 ref.)

Elsberg syndrome due to infarction of the conus medullaris associated with a prothrombin mutation [letter] Wildgruber D, et al. **J Neurol** 1999 Jun;246(6):507-8

Cluster headache-like attack as an opening symptom of a unilateral infarction of the cervical cord: persistent anaesthesia and dysaesthesia to cold stimuli. de la Sayette V, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar; 66(3):397-400

The spinal cord descending pathway for micturition: analysis in patients with spinal cord infarction. Inatomi Y, et al. **J Neurol Sci** 1998 May 7;157(2):154-7

Upregulation of vascular endothelial growth factor is associated with radiation-induced blood-spinal cord barrier breakdown. Tsao MN, et al. **J Neuropathol Exp Neurol** 1999 Oct;58(10):1051-60

Microsurgical anatomy of the artery of Adamkiewicz and its segmental artery. Alleyne CH Jr, et al. **J Neurosurg** 1998 Nov;89(5):791-5

Subdural hematoma from a Type I spinal arteriovenous malformation. Case report. Han PP, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):255-7

Results of the surgical treatment of perimedullary arteriovenous fistulas with special reference to embolization. Hida K, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):198-205

Dural arteriovenous shunts at the craniocervical junction.

Kinouchi H, et al. **J Neurosurg** 1998 Nov;89(5):755–61

Transarterial embolization of aneurysms associated with spinal cord arteriovenous malformations. Report of four cases. Konan AV, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):148–54

De novo development of a cavernous malformation of the spinal cord following spinal axis radiation. Case report. Maraire JN, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):234–8

Posterior approach for cervical intramedullary arteriovenous malformation with diffuse-type nidus. Report of three cases. Ohata K, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):105–11

Prothrombin G20210A mutation in a child with spinal cord infarction. Young G, et al. **J Pediatr** 1999 Jun;134(6):777–9

Does the Adamkiewicz artery originate from the larger segmental arteries? Koshino T, et al.
J Thorac Cardiovasc Surg 1999 May;117(5):898–905

Riluzole prevents ischemic spinal cord injury caused by aortic crossclamping. Lang-Lazdunski L, et al.
J Thorac Cardiovasc Surg 1999 May;117(5):881–9

A word of caution in interpreting the ischemic time causing apoptosis in spinal cord ischemia [letter; comment] Miyamota TA, et al. **J Thorac Cardiovasc Surg** 1999 May; 117(5):1038–9. Comment on: J Thorac Cardiovasc Surg 1998 Jun;115(6):1310–5.

Paraplegia after coronary bypass operations: relationship to severe hypertension and vascular disease. Thomas NJ, et al. **J Thorac Cardiovasc Surg** 1999 Apr;117(4):834–6

The neuroprotective effects of intrathecal administration of the selective N-type calcium channel blocker ziconotide in a rat model of spinal ischemia. Burns LH, et al.
J Vasc Surg 1999 Aug;30(2):334–43

Strategies to prevent neurologic deficit based on motor-evoked potentials in type I and II thoracoabdominal aortic aneurysm repair. Jacobs MJHM, et al.
J Vasc Surg 1999 Jan;29(1):48–57; discussion 57–9

Spinal cord ischemia after abdominal aortic operation: is it preventable? Rosenthal D. **J Vasc Surg** 1999 Sep; 30(3):391–7

In vivo adenovirus-mediated gene transfer and expression in ischemic rabbit spinal cord. Sakurai M, et al.
J Vasc Surg 1999 Sep;30(3):542–50

Vascular anatomy and disorders of the lumbar spine and spinal cord. Bowen BC, et al.
Magn Reson Imaging Clin N Am 1999 Aug;7(3):555–71 (54 ref.)

Spinal cord vascular injuries following surgery of advanced thoracic neuroblastoma: an unusual catastrophic complication. Boglino C, et al. **Med Pediatr Oncol** 1999 May;32(5):349–52

Regional changes of membrane phospholipid concentrations in rabbit spinal cord following brief repeated ischemic insults. Lukáčová N, et al. **Mol Chem Neuropathol** 1998 Aug-Dec;35(1–3):61–76

Treatment strategies and results in spinal vascular malformations. Huffmann BC, et al.
Neurol Med Chir (Tokyo) 1998 Sep;38 Suppl:231–7

Functional prognosis after treatment of spinal dural arteriovenous fistulas. Ushikoshi S, et al.
Neurol Med Chir (Tokyo) 1999 Mar;39(3):206–12; discussion 212–3

Progressive myelopathy caused by dural arteriovenous fistula at the craniocervical junction--case report. Yoshida S, et al. **Neurol Med Chir (Tokyo)** 1999 May;39(5):376–9

Cervical cord and dorsal medullary infarction presenting with retro-orbital pain. de la Sayette V, et al.
Neurology 1999 Aug 11;53(3):632–4

Spinal cord infarcts with contrast enhancement of the cauda equina: two cases. Amano Y, et al. **Neuroradiology** 1998 Oct;40(10):669–72

Enhanced cervical MRI in identifying intracranial dural arteriovenous fistulae with spinal perimedullary venous drainage. Chen CJ, et al. **Neuroradiology** 1998 Jun; 40(6):393–7

Spinal arteriovenous malformations. Detweiler PW, et al.
Neurosurg Clin N Am 1999 Jan;10(1):89–100 (51 ref.)

Intramedullary cavernous malformations of the spinal cord. Ghogawala Z, et al. **Neurosurg Clin N Am** 1999 Jan; 10(1):101–11 (28 ref.)

Clinical syndromes, natural history, and pathophysiology of vascular lesions of the spinal cord. Grote EH, et al.
Neurosurg Clin N Am 1999 Jan;10(1):17–45 (101 ref.)

Vascular anatomy of the spinal cord. Krauss WE.
Neurosurg Clin N Am 1999 Jan;10(1):9–15 (8 ref.)

Vascular lesions of the spinal cord: history and classification. Marsh WR. **Neurosurg Clin N Am** 1999 Jan;10(1):1–8 (42 ref.)

Outcome from treatment for spinal arteriovenous malformation. Morgan MK. **Neurosurg Clin N Am** 1999 Jan;10(1):113–9 (26 ref.)

Endovascular treatment of spinal vascular malformations. Niimi Y, et al. **Neurosurg Clin N Am** 1999 Jan;10(1):47–71 (76 ref.)

The surgical management of spinal dural vascular malformations. Watson JC, et al. **Neurosurg Clin N Am** 1999 Jan;10(1):73–87 (47 ref.)

Surgical management of angiographically occult spinal dural arteriovenous fistulae (type I spinal arteriovenous malformations): three technical case reports. Alleyne CH Jr, et al. **Neurosurgery** 1999 Apr;44(4):891–4; discussion 894–5

In vivo rat closed spinal window for spinal microcirculation: observation of pial vessels, leukocyte adhesion, and red blood cell velocity. Ishikawa M, et al. **Neurosurgery** 1999 Jan;44(1):156–61; discussion 161–2

Diagnostic and surgical management of spinal dural arteriovenous fistulas. Lee TT, et al. **Neurosurgery** 1998 Aug;43(2):242–6; discussion 246–7

Spinal dural arteriovenous fistula with an associated feeding artery aneurysm: case report. Malek AM, et al.
Neurosurgery 1999 Apr;44(4):877–80

Spinal dural arteriovenous fistulae draining to the anterior spinal vein: angiographic diagnosis. Niimi Y, et al.
Neurosurgery 1999 May;44(5):999–1003; discussion 1003–4

Patients with spinal cord cavernous malformations are at an increased risk for multiple neuraxis cavernous malformations. Vishteh AG, et al. **Neurosurgery** 1999 Jul; 45(1):30–2; discussion 33

Familial occurrence of an arteriovenous fistula with a giant perimedullary pseudoaneurysm of the thoracic spinal cord in 2 young siblings. Khoo LT, et al. **Pediatr Neurosurg** 1998 Jun;28(6):286–92 (32 ref.)

Interstitial adenosine and serotonin in the feline lumbar spinal cord during short-term ischaemia. Kolenda H, et al.
Physiol Res 1997;46(4):295–302

In vivo diffusion-weighted magnetic resonance microscopy of rat spinal cord: effect of ischemia and intrathecal hyperbaric 5% lidocaine. Benveniste H, et al.
Reg Anesth Pain Med 1999 Jul-Aug;24(4):311–8

Intraventricular hemorrhage as a false localizing sign of a thoracolumbar arteriovenous malformation: case report. Barzó P, et al. **Surg Neurol** 1999 Apr;51(4):430–4

Experimental study of the protection of ischemic preconditioning to spinal cord ischemia. Fan T, et al.
Surg Neurol 1999 Sep;52(3):299–305

Spinal cord arteriovenous fistulas involving the conus medullaris: presentation, management, and embryologic considerations. Hurst RW, et al. **Surg Neurol** 1999 Jul; 52(1):95–9

Albert Adamkiewicz (1850–1921)--his artery and its significance for the retroperitoneal surgeon. Milen MT, et al. **World J Urol** 1999 Jun;17(3):168–70

[Intracranial dural arteriovenous fistula with perimedullary venous drainage] Brunet E, et al. **J Neuroradiol** 1998 Jul; 25(2):103–10 (Eng. Abstr.) **(Fre)**

[Hematomyelia complicating a spinal dural arteriovenous fistula. Report of a case] Mascalchi M, et al.
J Neuroradiol 1998 Jul;25(2):140–3 (Eng. Abstr.) **(Fre)**

[Angiitis of the central nervous system in systemic diseases] Biousse V, et al. **Rev Med Interne** 1998 Jun;19(6):415–26 (77 ref.) (Eng. Abstr.) **(Fre)**

[Prediction of spinal cord ischemia with a retrievable stent graft on endovascular treatment for a case of thoracic aortic aneurysm] Kawaguchi S, et al.
Jpn J Thorac Cardiovasc Surg 1998 Oct;46(10):1047–51 (Eng. Abstr.) **(Jpn)**

[Glutamate neurotoxicity during spinal cord ischemia--neuroprotective effects of glutamate receptor antagonists] Nakamichi T.
Jpn J Thorac Cardiovasc Surg 1998 Sep;46(9):854–9 (Eng. Abstr.) **(Jpn)**

[Spinal arteriovenous malformation with ischemic myelopathy diagnosed on high field-strength magnetic resonance imaging] Miyata E, et al. **No To Shinkei** 1999 Jan;51(1):78–9 **(Jpn)**

[Monoparesis of the left leg with bilateral pyramidal signs due to posterior spinal artery syndrome] Izumi Y, et al.
Rinsho Shinkeigaku 1998 Jul;38(7):686–8 (Eng. Abstr.) **(Jpn)**

[Long-term gadolinium-enhancement of cauda equina on MRI in a case of spinal cord infarction after epidural anesthesia] Kawaguchi C, et al. **Rinsho Shinkeigaku** 1998 May;38(5):440–5 (Eng. Abstr.) **(Jpn)**

[Serial MRI study on a case of anterior spinal artery syndrome] Ono K, et al. **Rinsho Shinkeigaku** 1998 Sep; 38(9):806–10 (Eng. Abstr.) **(Jpn)**

[A case of aortic coarctation presenting with Brown-Séquard syndrome due to radicular artery aneurysm] Tsutsumi K, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):625–30 (15 ref.) (Eng. Abstr.) **(Jpn)**

[An arteriovenous malformation of the cervical spinal cord with drainage into the cranial cavity combined with thymus hyperplasia] Panuntsev VS, et al.
Zh Vopr Neirokhir Im N N Burdenko 1999 Apr-Jun; (2):28–30 (18 ref.) **(Rus)**

[The selective phlebography of the large tributaries of the vena cava system in the diagnosis of venous circulatory disorders in the spinal complex] Tsuladze II.
Zh Vopr Neirokhir Im N N Burdenko 1999 Apr-Jun; (2):8–13; discussion 14 (Eng. Abstr.) **(Rus)**

[Gradual postischemic reoxygenation as protection against spinal cord ischemia in an experiment] Radoňak J, et al.
Rozhl Chir 1999 Mar;78(3):105–8 (Eng. Abstr.) **(Slo)**

[Epidural regional hypothermia for prevention of paraplegia in experimental aortic clamping] Radoňak J, et al.
Rozhl Chir 1999 Mar;78(3):109–13 (Eng. Abstr.) **(Slo)**

CHEMISTRY

Activation of spinal opioid receptors contributes to hypotension after hemorrhage in conscious rats. Ang KK, et al. **Am J Physiol** 1999 May;276(5 Pt 2):H1552–8

Pre- versus postformalin effects of ketamine or large-dose alfentanil in the rat: discordance between pain behavior and spinal Fos-like immunoreactivity. Gilron I, et al.
Anesth Analg 1999 Jul;89(1):128–35

NMDA receptor-mediated oscillatory properties: potential role in rhythm generation in the mammalian spinal cord. Schmidt BJ, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:189–202 (82 ref.)

Pre- and postsynaptic distribution of cannabinoid and mu opioid receptors in rat spinal cord. Hohmann AG, et al.
Brain Res 1999 Mar 20;822(1–2):17–25

Osteocalcin-immunoreactive primary sensory neurons in the rat spinal and trigeminal nervous systems. Ichikawa H, et al. **Brain Res** 1999 Aug 14;838(1–2):205–9

Ectopic substance P-immunoreactive boutons are preferentially presynaptic to neurokinin-1 receptor immunoreactive dendrites in the spinal white matter of transgenic mice. McLeod AL, et al. **Brain Res** 1999 Jul 31;836(1–2):1–8

Neurochemical evidence for inflammation-induced activation of the coeruleospinal modulation system in the rat. Tsuruoka M, et al. **Brain Res** 1999 Mar 6;821(1):236–40

Transient expression of calcitonin gene-related peptide immunoreactivity in the ventral horn of the post-natal rat cervical spinal cord. Gibson CL, et al.
Brain Res Dev Brain Res 1999 Jun 8;115(1):93–6

Influence of hypergravity on the development of monoaminergic systems in the rat spinal cord. Giménez y Ribotta M, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):147–57

Differential distribution of immunoreactivity in the developing rat spinal cord revealed by the monoclonal antibody Py. Houweling DA, et al.
Brain Res Dev Brain Res 1999 Aug 5;116(1):87–96

Alpha1-adrenergic receptors in human spinal cord: specific localized expression of mRNA encoding alpha1-adrenergic receptor subtypes at four distinct levels. Smith MS, et al.
Brain Res Mol Brain Res 1999 Jan 8;63(2):254–61

Properties of NMDA receptors in rat spinal cord motoneurons. Paleček JI, et al. **Eur J Neurosci** 1999 Mar; 11(3):827–36

Immunocytochemical localization of somatostatin receptor sst2A in the rat spinal cord and dorsal root ganglia. Schulz S, et al. **Eur J Neurosci** 1998 Dec;10(12):3700–8

Distribution of 1,25-dihydroxyvitamin D3 receptor immunoreactivity in the rat brain and spinal cord. Prüfer K, et al. **J Chem Neuroanat** 1999 Feb;16(2):135–45

Differential expression of nerve terminal protein isoforms in VAChT-containing varicosities of the spinal cord ventral horn. Hellström J, et al. **J Comp Neurol** 1999 Sep 6; 411(4):578–90

Ultrastructural localization of beta-arrestin-1 and -2 in rat lumbar spinal cord. Kittel A, et al. **J Comp Neurol** 1999 Oct 4;412(4):649–55

Immunocytochemical localization of the insulin-responsive glucose transporter 4 (Glut4) in the rat central nervous system. El Messari S, et al. **J Comp Neurol** 1998 Oct 5; 399(4):492–512

Analysis of calcitonin gene-related peptide (CGRP)-containing nerve fibres in the rat spinal cord using light and electron microscopy. Nasu F.
J Electron Microsc (Tokyo) 1999;48(3):267–75

Effects of peripheral axotomy on cholecystokinin neurotransmission in the rat spinal cord. Antunes Bras JM, et al. **J Neurochem** 1999 Feb;72(2):858–67

GC/MS analysis of anandamide and quantification of N-arachidonoylphosphatidylethanolamides in various brain regions, spinal cord, testis, and spleen of the rat. Yang HY, et al. **J Neurochem** 1999 May;72(5):1959–68

Aluminum decreases the magnesium concentration of spinal cord and trabecular bone in rats fed a low calcium, high aluminum diet. Yasui M, et al. **J Neurol Sci** 1998 Apr 15; 157(1):37–41

Cutaneous responsiveness of lumbar spinal dorsal horn neurons is reduced by general anesthesia, an effect dependent in part on GABAA mechanisms. Ota K, et al.
J Neurophysiol 1998 Sep;80(3):1383–90

GABAergic neurons that contain neuropeptide Y selectively target cells with the neurokinin 1 receptor in laminae III and IV of the rat spinal cord. Polgár E, et al.
J Neurosci 1999 Apr 1;19(7):2637–46

Effect of spinal cord transection on N-methyl-D-aspartate receptors in the cord. Krenz NR, et al. **J Neurotrauma** 1998 Dec;15(12):1027–36

Weak binding and removal of extrinsic proteinase activities of myelin membranes. Haas U, et al.
Mol Chem Neuropathol 1998 Jun-Aug;34(2–3):179–95

Phospholipid composition in spinal cord regions after ischemia/reperfusion. Lukácová N, et al.
Neurochem Res 1998 Aug;23(8):1069–77

Enhanced Fos expression in rat lumbar spinal cord cultured with cerebrospinal fluid from patients with amyotrophic lateral sclerosis. Manabe Y, et al. **Neurol Res** 1999 Apr; 21(3):309–12

The onset of diffuse noxious inhibitory controls in postnatal rat pups: a C-Fos study. Boucher T, et al.
Neurosci Lett 1998 Nov 20;257(1):9–12

The distribution of substance P receptor (NK1)-like immunoreactive neurons in the newborn and adult human spinal cord. Ding YQ, et al. **Neurosci Lett** 1999 May 7; 266(2):133–6

Regulation of cannabinoid and mu opioid receptors in rat lumbar spinal cord following neonatal capsaicin treatment. Hohmann AG, et al. **Neurosci Lett** 1998 Aug 7;252(1):13–6

Identification of alternative splicing forms of GLT-1 mRNA

in the spinal cord of amyotrophic lateral sclerosis patients. Nagai M, et al. **Neurosci Lett** 1998 Mar 20;244(3):165–8
Substance P receptor (NK1)-immunoreactive neurons projecting to the periaqueductal gray: distribution in the spinal trigeminal nucleus and the spinal cord of the rat. Li JL, et al. **Neurosci Res** 1998 Mar;30(3):219–25
Immunocytochemical evidence of vesicular localization of the orphan transporter RXT1 in the rat spinal cord. Fischer J, et al. **Neuroscience** 1999;92(2):729–43
Vimentin immunohistochemistry in human fetal brain: methods of standard incubation versus thermal intensification achieve different objectives. Sarnat HB. **Pediatr Dev Pathol** 1998 May-Jun;1(3):222–9
Spatial distribution of NA+ and K+ channels in spinal dorsal horn neurones: role of the soma, axon and dendrites in spike generation. Safronov BV. **Prog Neurobiol** 1999 Oct; 59(3):217–41 (125 ref.)
VIP and PACAP: very important in pain? Dickinson T, et al. **Trends Pharmacol Sci** 1999 Aug;20(8):324–9 (77 ref.)
[Receptors of monoamine in sympathetic preganglionic neurons of neonatal rat spinal cord in vitro] Cai SR, et al. **Sheng Li Hsueh Pao** 1997 Oct;49(5):581–4 (Eng. Abstr.) **(Chi)**

CYTOLOGY

Preganglionic fibers in the rat hypogastric nerve project bilaterally to pelvic ganglia. Harji F, et al. **Anat Rec** 1998 Oct;252(2):229–34
Endogenous lectin (RL-29) expression of the autonomic preganglionic neurons in the rat spinal cord. Park MJ, et al. **Anat Rec** 1999 Jan;254(1):53–60
Histopathologic changes after repetitive peridural administration of metoclopramide in dogs. Kurtipek O, et al. **Anesth Analg** 1999 Jan;88(1):100–2
GABAA and GABAB modulations of synaptic transmission between L1–L2 locomotor network and the motoneurons in the newborn rat isolated spinal cord. Bertrand S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:470–1
Organization of rhythmic motor patterns in the lumbosacral spinal cord of neonate mouse. Bonnot A, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:432–5
The contribution of cutaneous inputs to locomotion in the intact and the spinal cat. Bouyer LJ, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:508–12
GABAergic control of spinal locomotor networks in the neonatal rat. Cazalets JR, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:168–80 (58 ref.)
Comparison of NMDA-induced membrane potential oscillations and spontaneous rhythmic activity in the chick spinal cord. Chub N, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:467–9
Crossed reciprocal inhibition and scratch rhythmogenesis in the turtle spinal cord. Currie SN, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:458–60
Differential effects of the noradrenergic agonist clonidine on the locomotion of intact, partially and completely spinalized adult cats. Giroux N, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:517–20
How do we approach the locomotor network in the mammalian spinal cord? Hultborn H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:70–82 (36 ref.)
Modulation of information forwarded to feline cerebellum by monoamines. Jankowska E, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:106–9 (8 ref.)
Segmental afferent regulation of hindlimb wiping in the spinal frog. Kargo WJ, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:456–7
Distribution of central pattern generators for rhythmic motor outputs in the spinal cord of limbed vertebrates. Kiehn O, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:110–29 (50 ref.)
Reorganization of locomotor activity during development in the prenatal rat. Kudo N, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:306–17 (36 ref.)
Modeling of the spinal neuronal circuitry underlying locomotion in a lower vertebrate. Lansner A, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:239–49 (35 ref.)
Vestibulo- and reticulospinal control of the extensor half-center in locomotion. Leblond H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:563–5
Lumbar spinoreticular neurons in the rat: part of the central pattern generator for locomotion? Magnuson DS, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:436–40
Lumbar interneurons involved in the generation of fictive locomotion in cats. Matsuyama K, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:441–3
Cerebellar-induced locomotion: reticulospinal control of spinal rhythm generating mechanism in cats. Mori S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:94–105 (40 ref.)
Selective activation and graded recruitment of functional muscle groups through spinal cord stimulation. Mushahwar VK, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:531–5
Development and aminergic neuromodulation of a spinal locomotor network controlling swimming in Xenopus larvae. Sillar KT, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:318–32 (49 ref.)
Engines, accelerators, and brakes on functional spinal cord repair. Steeves JD, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:412–24 (51 ref.)
Spinal motor patterns in the turtle. Stein PS, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:142–54 (53 ref.)
Statistical analysis and intersegmental delays reveal possible roles of network depression in the generation of spontaneous activity in the chick embryo spinal cord. Tabak J, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:428–31
Coherence between locomotor drive potentials and neurograms of motor pools with variable patterns of locomotion. Trank TV, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:448–51
Interlimb coupling patterns in human locomotion: are we bipeds or quadrupeds? Van Emmerik RE, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:539–42
Physiological and molecular characterization of interneurons in the developing spinal cord. Wenner P, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:425–7
Mechanism of selective motor neuronal death after exposure of spinal cord to glutamate: involvement of glutamate-induced nitric oxide in motor neuron toxicity and nonmotor neuron protection. Urushitani M, et al. **Ann Neurol** 1998 Nov;44(5):796–807
Cervical and reticular projections of neurones located in S1 and S2 segments of the cat's spinal cord. Mrówczyński W, et al. **Arch Ital Biol** 1998 Nov;136(4):237–45
The electrophysiological study of axonal branching of the C6–C7 neurones of the cat's spinal cord projecting to the lateral reticular nucleus and the cerebellum. Mrówczyński W, et al. **Arch Ital Biol** 1999 Aug;137(4):279–88
HSP90 has neurite-promoting activity in vitro for telencephalic and spinal neurons of chick embryos. Ishimoto T, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):283–7
Inosine and guanosine preserve neuronal and glial cell viability in mouse spinal cord cultures during chemical hypoxia. Litsky ML, et al. **Brain Res** 1999 Mar 13; 821(2):426–32
Adenoviral gene transfer to spinal-cord neurons: intrathecal vs. intraparenchymal administration. Mannes AJ, et al. **Brain Res** 1998 May 18;793(1-2):1–6
The origin and development of the vagal and spinal innervation of the external muscle of the mouse esophagus. Sang Q, et al. **Brain Res** 1998 Nov 2;809(2):253–68
Spinal inputs from lateral columns to reticulospinal neurons in lampreys. Vinay L, et al. **Brain Res** 1998 Oct 19; 808(2):279–93
Recording of long-term potentiation in single dorsal horn neurons in vivo in the rat. Svendsen F, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):165–72
Microglia in the human fetal spinal cord--patterns of distribution, morphology and phenotype. Rezaie P, et al. **Brain Res Dev Brain Res** 1999 Jun 8;115(1):71–81
A sonic hedgehog-independent, retinoid-activated pathway of neurogenesis in the ventral spinal cord. Pierani A, et al. **Cell** 1999 Jun 25;97(7):903–15
Isolation of rat sacral dorsal commissural neurons. Xu TL, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 May;19(3):227–32
Region-specific cell clones in the developing spinal cord of the zebrafish. Papan C, et al. **Dev Genes Evol** 1999 Mar; 209(3):135–44
Nociceptive integration in the rat spinal cord: role of non-linear membrane properties of deep dorsal horn neurons. Morisset V, et al. **Eur J Neurosci** 1998 Dec; 10(12):3642–52
Properties of NMDA receptors in rat spinal cord motoneurons. Paleček JI, et al. **Eur J Neurosci** 1999 Mar; 11(3):827–36
Low sensitivity of dorsal spinocerebellar neurons to limb movement speed. Bosco G, et al. **Exp Brain Res** 1999 Apr; 125(3):313–22
Recovery of synapses in axotomized adult cat spinal motoneurons after reinnervation into muscle. Brännström T, et al. **Exp Brain Res** 1999 Mar;125(1):19–27
Bötzinger-complex, bulbospinal expiratory neurones monosynaptically inhibit ventral-group respiratory neurones in the decerebrate rat. Tian GF, et al. **Exp Brain Res** 1999 Jan;124(2):173–80
Multipotent neurospheres can be derived from forebrain subependymal zone and spinal cord of adult mice after protracted postmortem intervals. Laywell ED, et al. **Exp Neurol** 1999 Apr;156(2):430–3
Electrophysiological properties of mitogen-expanded adult rat spinal cord and subventricular zone neural precursor cells. Liu RH, et al. **Exp Neurol** 1999 Jul;158(1):143–54
Restitution of functional neural connections in chick embryos assessed in vitro after spinal cord transection in Ovo. Sholomenko GN, et al. **Exp Neurol** 1998 Dec;154(2):430–51
Degradation of chondroitin sulfate proteoglycan enhances the neurite-promoting potential of spinal cord tissue. Zuo J, et al. **Exp Neurol** 1998 Dec;154(2):654–62
Triple projections of neurones located in S1 and S2 segments of the cat spinal cord to the C6 segment, the cerebellum and the reticular formation. Grottel K, et al. **Exp Physiol** 1998 Nov;83(6):737–46
Adaptive resistance to nitric oxide in motor neurons. Bishop A, et al. **Free Radic Biol Med** 1999 Apr;26(7-8):978–86
Effects of competitive NMDA receptor antagonists on excitatory amino acid-evoked currents in mouse spinal cord neurones. D'Hooge R, et al. **Fundam Clin Pharmacol** 1999; 13(1):67–74
Molecular heterogeneity of oligodendrocytes in chicken white matter. Anderson ES, et al. **Glia** 1999 Jul;27(1):15–21
Regional potential for oligodendrocyte generation in the rodent embryonic spinal cord following exposure to EGF and FGF-2. Chandran S, et al. **Glia** 1998 Dec;24(4):382–9
Dye coupling between spinal cord oligodendrocytes: differences in coupling efficiency between gray and white matter. Pastor A, et al. **Glia** 1998 Sep;24(1):108–20
Immunocytochemical localization of NaCh6 in cultured spinal cord astrocytes. Reese KA, et al. **Glia** 1999 Mar; 26(1):92–6
Glial swelling and astrogliosis produce diffusion barriers in the rat spinal cord. Syková E, et al. **Glia** 1999 Jan; 25(1):56–70
Presence of the vesicular inhibitory amino acid transporter in GABAergic and glycinergic synaptic terminal boutons. Dumoulin A, et al. **J Cell Sci** 1999 Mar;112 (Pt 6):811–23
Input-output connections of the "hindlimb" region of the inferior olive in cats. Apps R. **J Comp Neurol** 1998 Oct 5;399(4):513–29
Anatomical study of vestibulospinal neurons in lampreys. Bussieres N, et al. **J Comp Neurol** 1999 May 17; 407(4):512–26
Characterization of commissural interneurons in the lumbar region of the neonatal rat spinal cord. Eide AL, et al. **J Comp Neurol** 1999 Jan 18;403(3):332–45
Distribution of bulbospinal gamma-aminobutyric acid-synthesizing neurons of the ventral respiratory group of the rat. Ellenberger HH. **J Comp Neurol** 1999 Aug 16; 411(1):130–44
Substantia gelatinosa neurons in the medullary dorsal horn: An intracellular labeling study in the rat. Li YQ, et al. **J Comp Neurol** 1999 Aug 30;411(3):399–412
Spinal organization and steroid sensitivity of motoneurons innervating the pubococcygeus muscle in the male rat. Manzo J, et al. **J Comp Neurol** 1999 Jul 5;409(3):358–68
Morphology of single pontine reticulospinal axons in the lumbar enlargement of the cat: a study using the anterograde tracer PHA-L. Matsuyama K, et al. **J Comp Neurol** 1999 Aug 2;410(3):413–30
Ventrally located commissural neurons express the GABAergic phenotype in developing rat spinal cord. Phelps PE, et al. **J Comp Neurol** 1999 Jun 28;409(2):285–98
Anatomical study of spinobulbar neurons in lampreys. Vinay L, et al. **J Comp Neurol** 1998 Aug 10;397(4):475–92
Cytokinetic pattern in the thoracic spinal cord of chick embryos (incubation day 5–13) using PCNA staining and TUNEL method. Wang KC, et al. **J Korean Med Sci** 1998 Aug;13(4):405–13
Evaluation of neuronal loss, astrocytosis and abnormalities of cytoskeletal components of large motor neurons in the human anterior horn in aging. Cruz-Sánchez FF, et al. **J Neural Transm** 1998;105(6-7):689–701
Development of electrical excitability in embryonic neurons: mechanisms and roles. Spitzer NC, et al. **J Neurobiol** 1998 Oct;37(1):190–7 (86 ref.)
Developmental expression pattern of the myelin proteolipid MAL indicates different functions of MAL for immature Schwann cells and in a late step of CNS myelinogenesis. Frank M, et al. **J Neurochem** 1999 Aug;73(2):587–97
Arachidonic acid-induced oxidative injury to cultured spinal cord neurons. Toborek M, et al. **J Neurochem** 1999 Aug; 73(2):684–92
Development of ionic currents underlying changes in action potential waveforms in rat spinal motoneurons. Gao BX, et al. **J Neurophysiol** 1998 Dec;80(6):3047–61
NMDA-Induced intrinsic voltage oscillations depend on L-type calcium channels in spinal motoneurons of adult turtles. Guertin PA, et al. **J Neurophysiol** 1998 Dec; 80(6):3380–2
Cellular properties of lateral spinal nucleus neurons in the rat L6-S1 spinal cord. Jiang MC, et al. **J Neurophysiol** 1999 Jun;81(6):3078–86
Calcium channels involved in synaptic transmission from reticulospinal axons in lamprey. Krieger P, et al. **J Neurophysiol** 1999 Apr;81(4):1699–705
Cutaneous responsiveness of lumbar spinal dorsal horn neurons is reduced by general anesthesia, an effect dependent in part on GABAA mechanisms. Ota K, et al. **J Neurophysiol** 1998 Sep;80(3):1383–90
Neuropeptide-mediated facilitation and inhibition of sensory inputs and spinal cord reflexes in the lamprey. Ullström M, et al. **J Neurophysiol** 1999 Apr;81(4):1730–40
Distinct subtypes of metabotropic glutamate receptors mediate differential actions on excitability of spinal respiratory motoneurons. Dong XW, et al. **J Neurosci** 1999 Jul 1;19(13):5173–84
Chronic pain is associated with increased TrkA immunoreactivity in spinoreticular neurons. Pezet S, et al. **J Neurosci** 1999 Jul 1;19(13):5482–92
The chemokine growth-regulated oncogene-alpha promotes spinal cord oligodendrocyte precursor proliferation. Robinson S, et al. **J Neurosci** 1998 Dec 15;18(24):10457–63
Positionally selective growth of embryonic spinal cord neurites on muscle membranes. Wang H, et al. **J Neurosci** 1999 Jun 15;19(12):4984–93
Antisense ablation of type I metabotropic glutamate receptor mGluR1 inhibits spinal nociceptive transmission. Young MR, et al. **J Neurosci** 1998 Dec 1;18(23):10180–8
NK-1 receptor immunoreactivity in distinct morphological types of lamina I neurons of the primate spinal cord. Yu XH, et al. **J Neurosci** 1999 May 1;19(9):3545–55
A novel and rapid method for culturing pure rat spinal cord astrocytes on untreated glass. Silva GA, et al. **J Neurosci Methods** 1998 Mar 13;80(1):75–9
Lineage restriction of neuroepithelial precursor cells from fetal human spinal cord. Quinn SM, et al. **J Neurosci Res** 1999 Sep 1;57(5):590–602
Topical axonal transport blocker vincristine prevents nerve

injury-induced spinal neuron sensitization in rats. Sotgiu ML, et al. **J Neurotrauma** 1998 Dec;15(12):1077-82

Distribution of cholinergic contacts on Renshaw cells in the rat spinal cord: a light microscopic study. Alvarez FJ, et al. **J Physiol (Lond)** 1999 Mar 15;515 (Pt 3):787-97

A leu-enkephalin depresses transmission from muscle and skin non-nociceptors to first-order feline spinal neurones. Jankowska E, et al. **J Physiol (Lond)** 1998 Jul 15;510 (Pt 2):513-25

Non-linear summation of excitatory synaptic inputs to small neurones: a case study in spinal motoneurones of the young Xenopus tadpole. Wolf E, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):871-86

Modulation of the glycine response by Ca2+-permeable AMPA receptors in rat spinal neurones. Xu TL, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):701-11

Synaptic integration in spinal motoneurones. Binder MD, et al. **J Physiol Paris** 1999 Jan-Apr;93(1-2):71-9

Control of neuron outgrowth by NMDA receptors. Cuppini R, et al. **J Submicrosc Cytol Pathol** 1999 Jan;31(1):31-40

Volume measurements in confocal microscopy. Sieck GC, et al. **Methods Enzymol** 1999;307:296-315

Modulation of early but not later stages of programmed cell death in embryonic avian spinal cord by sonic hedgehog. Oppenheim RW, et al. **Mol Cell Neurosci** 1999 May; 13(5):348-61

Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos. Muhr J, et al. **Neuron** 1999 Aug;23(4):689-702

Retraction of muscle afferents from the rat ventral horn during development. Gibson CL, et al. **Neuroreport** 1999 Feb 5;10(2):231-5

Infusion of GDNF into the cerebral spinal fluid through two different routes: effects on body weight and corticospinal neuron survival. Giehl KM, et al. **Neuroreport** 1998 Aug 24;9(12):2809-13

Immunocytochemical localization of GDNF in primary afferents of the lumbar dorsal horn. Holstege JC, et al. **Neuroreport** 1998 Aug 24;9(12):2893-7

Substance P induces brief, localized increase in [Ca2+]i in dorsal horn neurons. Marvizón JC, et al. **Neuroreport** 1998 Oct 26;9(15):3369-74

Region-specific increase in glutamate release from dorsal horn of rats with adjuvant inflammation. Sasaki M, et al. **Neuroreport** 1998 Oct 5;9(14):3219-22

An immunohistochemical investigation of the opioid cell column in lamina X of the male rat lumbosacral spinal cord. Nicholas AP, et al. **Neurosci Lett** 1999 Jul 23;270(1):9-12

Melatonin potentiates the GABA(A) receptor-mediated current in cultured chick spinal cord neurons. Wu FS, et al. **Neurosci Lett** 1999 Feb 5;260(3):177-80

Electrically mediated regeneration and guidance of adult mammalian spinal axons into polymeric channels. Borgens RB. **Neuroscience** 1999;91(1):251-64

Substance P receptor (neurokinin-1)-expressing neurons in lamina I of the spinal cord encode for the intensity of noxious stimulation: a c-Fos study in rat. Doyle CA, et al. **Neuroscience** 1999 Mar;89(1):17-28

The role of apoptosis and excitotoxicity in the death of spinal motoneurons and interneurons after neonatal nerve injury. Lawson SJ, et al. **Neuroscience** 1998 Nov;87(2):337-48

Paradoxical inhibition of nociceptive neurons in the dorsal horn of the rat spinal cord during a nociceptive hindlimb reflex. Morgan MM. **Neuroscience** 1999 Jan;88(2):489-98

Mediation and modulation by eicosanoids of responses of spinal dorsal horn neurons to glutamate and substance P receptor agonists: results with indomethacin in the rat in vivo. Pitcher GM, et al. **Neuroscience** 1999;93(3):1109-21

Glutamatergic receptors regulate expression, phosphorylation and accumulation of neurofilaments in spinal cord neurons. Vartiainen N, et al. **Neuroscience** 1999; 93(3):1123-33

Building blocks of pain: the regulation of key molecules in spinal sensory neurones during development and following peripheral axotomy. Alvares D, et al. **Pain** 1999 Aug;Suppl 6:S71-85 (193 ref.)

Spinal bicuculline produces hypersensitivity of dorsal horn neurons: effects of excitatory amino acid antagonists. Sorkin LS, et al. **Pain** 1998 Aug;77(2):181-90

Neurons in the dorsal column white matter of the spinal cord: complex neuropil in an unexpected location. Abbadie C, et al. **Proc Natl Acad Sci U S A** 1999 Jan 5;96(1):260-5

Vasopressin acting at V1-type receptors produces membrane depolarization in neonatal rat spinal lateral column neurons. Kolaj M, et al. **Prog Brain Res** 1998;119:275-84 (63 ref.)

Central autonomic innervation of the lower urinary tract--a neuroanatomy study. Zermann DH, et al. **World J Urol** 1998;16(6):417-22

[The structural organization of the nucleus thoracicus in the feline spinal cord after destruction of the amygdaloid body in the brain] Flegontova VV. **Morfologiia** 1998;114(4):32-6 (Eng. Abstr.) **(Rus)**

DRUG EFFECTS

Motor neuron degeneration due to aluminium deposition in the spinal cord: a light microscopical study. Tanridag T, et al. **Acta Histochem** 1999 Apr;101(2):193-201

Spinal effects of the calmodulin inhibitor calmidazolium on dorsal horn neurons in the rat. Menéndez L, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(1):31-5

Isoflurane depresses motoneuron excitability by a direct spinal action: an F-wave study. Antognini JF, et al. **Anesth Analg** 1999 Mar;88(3):681-5

Continuing inflammation does enhance spinally mediated antinociception by neostigmine in the rat model [letter] Buerkle H, et al. **Anesth Analg** 1999 Jul;89(1):255-6

Halothane minimum alveolar anesthetic concentration and neuronal nitric oxide synthase activity of the dorsal horn and the locus ceruleus in rats. Fukuda T, et al. **Anesth Analg** 1999 Oct;89(4):1035-9

Pre- versus postinjury effects of intravenous GABAergic anesthetics on formalin-induced Fos immunoreactivity in the rat spinal cord. Gilron I, et al. **Anesth Analg** 1999 Feb; 88(2):414-20

Histopathologic changes after repetitive peridural administration of metoclopramide in dogs. Kurtipek O, et al. **Anesth Analg** 1999 Jan;88(1):100-2

The spinal antinociceptive effects of a novel competitive AMPA receptor antagonist, YM872, on thermal or formalin-induced pain in rats. Nishiyama T, et al. **Anesth Analg** 1999 Jul;89(1):143-7

Acute phase histopathological study of spinally administered midazolam in cats. Nishiyama T, et al. **Anesth Analg** 1999 Sep;89(3):717-20

Increasing isoflurane from 0.9 to 1.1 minimum alveolar concentration minimally affects dorsal horn cell responses to noxious stimulation. Antognini JF, et al. **Anesthesiology** 1999 Jan;90(1):208-14

Preclinical toxicity screening of intrathecal adenosine in rats and dogs. Chiari A, et al. **Anesthesiology** 1999 Sep; 91(3):824-32

Effect of systemic morphine on the responses of convergent neurons to noxious heat stimuli applied over graded surface areas. Gall O, et al. **Anesthesiology** 1999 Apr;90(4):1129-36

Spinal action of ketorolac, S(+)- and R(-)-ibuprofen on non-noxious activation of the catechol oxidation in the rat locus coeruleus: evidence for a central role of prostaglandins in the strychnine model of allodynia. Hall SR, et al. **Anesthesiology** 1999 Jan;90(1):165-73

Spinal antinociceptive effect of epidural nonsteroidal antiinflammatory drugs on nitric oxide-induced hyperalgesia in rats. Masue T, et al. **Anesthesiology** 1999 Jul;91(1):198-206

Acetaminophen inhibits spinal prostaglandin E2 release after peripheral noxious stimulation. Muth-Selbach US, et al. **Anesthesiology** 1999 Jul;91(1):231-9

Isoflurane can indirectly depress lumbar dorsal horn activity in the goat via action within the brain. Jinks S, et al. **Br J Anaesth** 1999 Feb;82(2):244-9

Effect of BSO and etanidazole on neurofilament degradation in neonatal rat spinal cord cultures. Palayoor ST, et al. **Br J Cancer Suppl** 1996 Jul;27:S117-21

Peripheral and/or central effects of racemic-, S(+)- and R(-)-flurbiprofen on inflammatory nociceptive processes: a c-Fos protein study in the rat spinal cord. Buritova J, et al. **Br J Pharmacol** 1998 Sep;125(1):87-101

Evidence that [Phe1 psi(CH2-NH)Gly2]nociceptin-(1-13)-NH2, a peripheral ORL-1 receptor antagonist, acts as an agonist in the rat spinal cord. Carpenter KJ, et al. **Br J Pharmacol** 1998 Nov; 125(5):949-51

Mechanisms involved in the metabotropic glutamate receptor-enhancement of NMDA-mediated motoneurone responses in frog spinal cord. Holohean AM, et al. **Br J Pharmacol** 1999 Jan;126(1):333-41

Absence of G-protein activation by mu-opioid receptor agonists in the spinal cord of mu-opioid receptor knockout mice. Narita M, et al. **Br J Pharmacol** 1999 Jan;126(2):451-6

Electrophysiological studies on the postnatal development of the spinal antinociceptive effects of the delta opioid receptor agonist DPDPE in the rat. Rahman W, et al. **Br J Pharmacol** 1999 Mar;126(5):1115-22

Differential effects of wortmannin on the release of substance P and amino acids from the isolated spinal cord of the neonatal rat. Suzuki H, et al. **Br J Pharmacol** 1998 Dec; 125(8):1661-8

In vivo pathway of thermal hyperalgesia by intrathecal administration of alpha,beta-methylene ATP in mouse spinal cord: involvement of the glutamate-NMDA receptor system. Tsuda M, et al. **Br J Pharmacol** 1999 May; 127(2):449-56

Effects of opioid receptor antagonists on the effects of i.v. morphine on carrageenin evoked c-Fos expression in the superficial dorsal horn of the rat spinal cord. Catheline G, et al. **Brain Res** 1999 Apr 3;824(1):105-11

Inhibitory and indirect excitatory effects of dopamine on sympathetic preganglionic neurones in the neonatal rat spinal cord in vitro. Gladwell SJ, et al. **Brain Res** 1999 Feb 13;818(2):397-407

Nociceptin receptors in the rat spinal cord during morphine tolerance. Gouardères C, et al. **Brain Res** 1999 Aug 14; 838(1-2):85-94

Stress reduces morphine's antinociceptive potency: dependence upon spinal cholecystokinin processes. Hawranko AA, et al. **Brain Res** 1999 Apr 10;824(2):251-7

Development of tolerance to the antinociceptive effect of systemic morphine at the lumbar spinal cord level: a c-Fos study in the rat. Le Guen S, et al. **Brain Res** 1998 Nov 30;813(1):128-38

Extracellular cholecystokinin levels in the rat spinal cord following chronic morphine exposure: an in vivo microdialysis study. Lucas GA, et al. **Brain Res** 1999 Mar 6;821(1):79-86

Neurotrophins promote regeneration of sensory axons in the adult rat spinal cord. Oudega M, et al. **Brain Res** 1999 Feb 13;818(2):431-8

Effects of halothane, ketamine and nitrous oxide on dynorphin mRNA expression in dorsal horn neurons after peripheral tissue injury. Tanimoto M, et al. **Brain Res** 1998 Nov 16;811(1-2):88-95

Glial cells potentiate kainate-induced neuronal death in a motoneuron-enriched spinal coculture system. Vandenberghe W, et al. **Brain Res** 1998 Oct 5;807(1-2):1-10

Segmental effect of NMDA block in the dorsal horn on the pressor reflex. Wilson LB, et al. **Brain Res** 1998 Oct 5; 807(1-2):222-7

Complex effects of general anesthesia on sensory processing in the spinal dorsal horn. Yanagidani T, et al. **Brain Res** 1998 Nov 23;812(1-2):301-4

Action of capsaicin on dorsal root-evoked synaptic transmission to substantia gelatinosa neurons in adult rat spinal cord slices. Yang K, et al. **Brain Res** 1999 Jun 5; 830(2):268-73

Effects of ZD6169, a KATP channel opener, on bladder hyperactivity and spinal c-fos expression evoked by bladder irritation in rats. Yu Y, et al. **Brain Res** 1998 Oct 5;807(1-2):11-8

Substance P and central respiratory activity: a comparative in vitro study on foetal and newborn rat. Ptak K, et al. **Brain Res Dev Brain Res** 1999 May 14;114(2):217-27

Expression of melanocortin receptors and pro-opiomelanocortin in the rat spinal cord in relation to neurotrophic effects of melanocortins. van der Kraan M, et al. **Brain Res Mol Brain Res** 1999 Jan 8;63(2):276-86

Isoflurane indirectly depresses middle latency auditory evoked potentials by action in the spinal cord in the goat. Antognini JF, et al. **Can J Anaesth** 1999 Jul;46(7):692-5

Mechanism of action of nonsteroidal anti-inflammatory drugs [see comments] Yaksh TL, et al. **Cancer Invest** 1998; 16(7):509-27 (154 ref.). Comment in: Cancer Invest 1998 ;16(7):538-9.

Effect of synthetic peptides derived from SCO-spondin conserved domains on chick cortical and spinal-cord neurons in cell cultures. Monnerie H, et al. **Cell Tissue Res** 1998 Sep;293(3):407-18

Differential effects of the 5HT1B/1D receptor agonist naratriptan on trigeminal versus spinal nociceptive responses. Cumberbatch MJ, et al. **Cephalalgia** 1998 Dec; 18(10):659-63

General anesthesia. Nash HA. **Curr Biol** 1999 Feb 11; 9(3):R83-5 (7 ref.)

An investigation of the possible neurotoxic effects of intrathecal midazolam combined with fentanyl in the rat. Bahar M, et al. **Eur J Anaesthesiol** 1998 Nov;15(6):695-701

Selective up-regulation of P- and R-type Ca2+ channels in rat embryo motoneurons by BDNF. Baldelli P, et al. **Eur J Neurosci** 1999 Apr;11(4):1127-33

Network bursting by organotypic spinal slice cultures in the presence of bicuculline and/or strychnine is developmentally regulated. Ballerini L, et al. **Eur J Neurosci** 1998 Sep;10(9):2871-9

NT-3, but not BDNF, prevents atrophy and death of axotomized spinal cord projection neurons. Bradbury EJ, et al. **Eur J Neurosci** 1998 Oct;10(10):3058-68

Long-term effects of methylprednisolone following transection of adult rat spinal cord. Oudega M, et al. **Eur J Neurosci** 1999 Jul;11(7):2453-64

GABA(B) receptors as potential targets for drugs able to prevent excessive excitatory amino acid transmission in the spinal cord. Bonanno G, et al. **Eur J Pharmacol** 1998 Dec 4;362(2-3):143-8

Effects of U-69,593, a kappa-opioid receptor agonist, on carrageenin-induced peripheral oedema and Fos expression in the rat spinal cord. Catheline G, et al. **Eur J Pharmacol** 1999 Apr 16;370(3):287-96

Differential effects of (R)- and (S)-8-hydroxy-2-(di-n-propylamino)tetralin on the monosynaptic spinal reflex in rats. Honda M, et al. **Eur J Pharmacol** 1999 Jun 4;373(2-3):171-9

Enhancing effect of dimethyl sulfoxide on nociceptive transmission in isolated spinal cord of newborn rat. Kubota K, et al. **Eur J Pharmacol** 1998 Jun 19;351(2):173-9

Sustained exposure to a glycine receptor partial agonist differentially alters NMDA receptor agonist and antagonist potencies in cultured spinal cord neurons. Lin Y, et al. **Eur J Pharmacol** 1998 Sep 4;356(2-3):255-60

Spinal analgesic action of endomorphins in acute, inflammatory and neuropathic pain in rats. Przewlocka B, et al. **Eur J Pharmacol** 1999 Feb 19;367(2-3):189-96

Metamizol potentiates morphine effects on visceral pain and evoked c-Fos immunoreactivity in spinal cord. Taylor J, et al. **Eur J Pharmacol** 1998 Jun 12;351(1):39-47

The effects of mitotic inhibition on the spinal cord response to the superimposed injuries of spinal cord hemisection and peripheral axotomy. Gould DJ, et al. **Exp Neurol** 1999 Aug; 158(2):394-402

Electrophysiological properties of mitogen-expanded adult rat spinal cord and subventricular zone neural precursor cells. Liu RH, et al. **Exp Neurol** 1999 Jul;158(1):143-54

Spongiform neuropathy induced in dogs by prolonged, low-level administration of 6-aminonicotinamide (6-ANA). Krinke GJ, et al. **Exp Toxicol Pathol** 1998 Sep; 50(4-6):277-82

Kappa opioid receptor agonists differentially inhibit two classes of rat spinal neurons excited by colorectal distention. Ness TJ. **Gastroenterology** 1999 Aug;

117(2):388–94
Sensitization to the locomotor stimulant effect of cocaine modifies the binding of [3H]MK–801 to brain regions and spinal cord of the mouse. Bhargava HN, et al. **Gen Pharmacol** 1999 Mar;32(3):359–63
FGF–9 is an autocrine/paracrine neurotrophic substance for spinal motoneurons. Kanda T, et al. **Int J Dev Neurosci** 1999 Jun;17(3):191–200
Neurite outgrowth–regulating properties of GABA and the effect of serum on mouse spinal cord neurons in culture. Bird M, et al. **J Anat** 1998 Nov;193 (Pt 4):503–8
Neuronal sensitivity to tetanus toxin requires gangliosides. Williamson LC, et al. **J Biol Chem** 1999 Aug 27; 274(35):25173–80
Procaine spinal anesthesia: a pilot study of the incidence of transient neurologic symptoms. Axelrod EH, et al. **J Clin Anesth** 1998 Aug;10(5):404–9
Pigment epithelium–derived factor promotes the survival and differentiation of developing spinal motor neurons. Houenou LJ, et al. **J Comp Neurol** 1999 Sep 27; 412(3):506–14
Intraspinal and behavioral consequences of nerve growth factor–induced nociceptive sprouting and nerve growth factor–induced hyperalgesia compared in adult rats. Pertens E, et al. **J Comp Neurol** 1999 Jul 19;410(1):73–89
In–vivo glutaraldehyde fixation of the brain stem and spinal cord after inadvertent intrathecal injection. Davis JH, et al. **J Forensic Sci** 1998 Nov;43(6):1232–6
Failure of topical DMSO to improve blood flow or evoked potentials in rat spinal cord injury. Park YK, et al. **J Korean Med Sci** 1998 Dec;13(6):638–44
Corticosterone treatment differentially affects adrenocorticoid receptors expression and binding in the hippocampus and spinal cord of the rat. Patacchioli FR, et al. **J Mol Neurosci** 1998 Aug;11(1):95–103
Thymulin induces c–fos expression in the spinal cord of rats which is reversed by meloxicam and morphine. Saadé NE, et al. **J Neuroimmunol** 1999 Jun 1;97(1–2):16–24
Oxidative damage to nucleic acids in motor neurons containing mercury. Pamphlett R, et al. **J Neurol Sci** 1998 Aug 14;159(2):121–6
Fictive rhythmic motor patterns induced by NMDA in an in vitro brain stem–spinal cord preparation from an adult urodele. Delvolvé I, et al. **J Neurophysiol** 1999 Aug; 82(2):1074–7
Pre– and postsynaptic inhibitory actions of methionine–enkephalin on identified bulbospinal neurons of the rat RVL. Hayar A, et al. **J Neurophysiol** 1998 Oct; 80(4):2003–14
Cannabinoid suppression of noxious heat–evoked activity in wide dynamic range neurons in the lumbar dorsal horn of the rat. Hohmann AG, et al. **J Neurophysiol** 1999 Feb; 81(2):575–83
Effects of noradrenaline on locomotor rhythm–generating networks in the isolated neonatal rat spinal cord. Kiehn O, et al. **J Neurophysiol** 1999 Aug;82(2):741–6
Enhancement of bistability in spinal motoneurons in vivo by the noradrenergic alpha1 agonist methoxamine. Lee RH, et al. **J Neurophysiol** 1999 May;81(5):2164–74
Ca(2+)–activated nonselective cationic current (I(CAN)) in turtle motoneurons. Perrier JF, et al. **J Neurophysiol** 1999 Aug;82(2):730–5
N–Methyl–D–aspartate–induced oscillations in whole cell clamped neurons from the isolated spinal cord of Xenopus laevis embryos. Prime L, et al. **J Neurophysiol** 1999 Aug; 82(2):1069–73
Spinal cord modular organization and rhythm generation: an NMDA iontophoretic study in the frog. Saltiel P, et al. **J Neurophysiol** 1998 Nov;80(5):2323–39
Sonic hedgehog promotes neuronal differentiation of murine spinal cord precursors and collaborates with neurotrophin 3 to induce Islet–1. Dutton R, et al. **J Neurosci** 1999 Apr 1;19(7):2601–8
Brain–derived neurotrophic factor modulates nociceptive sensory inputs and NMDA–evoked responses in the rat spinal cord. Kerr BJ, et al. **J Neurosci** 1999 Jun 15; 19(12):5138–48
Basic fibroblast growth factor increases long–term survival of spinal motor neurons and improves respiratory function after experimental spinal cord injury. Teng YD, et al. **J Neurosci** 1999 Aug 15;19(16):7037–47
Intraspinal injection of adenosine agonists protect against L–NAME induced neuronal loss in the rat. Dora CD, et al. **J Neurotrauma** 1998 Jul;15(7):473–83
Dual role for nitric oxide in dynorphin spinal neurotoxicity. Hu WH, et al. **J Neurotrauma** 1999 Jan;16(1):85–98
Toxic effect of hemoglobin on spinal cord neurons in culture. Regan RF, et al. **J Neurotrauma** 1998 Aug;15(8):645–53
Moxonidine, a selective alpha2–adrenergic and imidazoline receptor agonist, produces spinal antinociception in mice. Fairbanks CA, et al. **J Pharmacol Exp Ther** 1999 Jul; 290(1):403–12
Dose–related opposite modulation by nociceptin/orphanin FQ of substance P nociception in the nociceptors and spinal cord. Inoue M, et al. **J Pharmacol Exp Ther** 1999 Oct; 291(1):308–13
Chelation of zinc in the extracellular area of the spinal cord, using ethylenediaminetetraacetic acid disodium–calcium salt or dipicolinic acid, inhibits the antinociceptive effect of capsaicin in adult mice. Larson AA, et al. **J Pharmacol Exp Ther** 1999 Feb;288(2):759–65
Spinal blockade of opioid receptors prevents the analgesia produced by TENS in arthritic rats. Sluka KA, et al. **J Pharmacol Exp Ther** 1999 May;289(2):840–6
Ethanol directly depresses AMPA and NMDA glutamate currents in spinal cord motor neurons independent of actions on GABAA or glycine receptors. Wang MY, et al. **J Pharmacol Exp Ther** 1999 Jul;290(1):362–7
Neuromuscular responses to pyridostigmine bromide in organotypic spinal cord–muscle culture. Drake–Baumann R, et al. **J Physiol Paris** 1998 Jun–Aug;92(3–4):305–8
Supersensitivity of spinal opioid receptors to antagonists in intrathecal butorphanol and morphine dependence. Wongchanapai W, et al. **Life Sci** 1998;63(24):2175–80
Pharmacological and neuroanatomical studies of the antinociceptive effects of intrathecally administered gabapentin. Hammond DL, et al. **Masui** 1998 Dec;47 Suppl:S229–30
Effects of a tachykinin NK3 receptor antagonist, SR 142801, studied in isolated neonatal rat spinal cord. Guo JZ, et al. **Neuropeptides** 1998 Dec;32(6):537–42
Antinociceptive effects of isoleucine derivatives of deltorphin I and deltorphin II in rat spinal cord: a search for selectivity of delta receptor subtypes. Labuz D, et al. **Neuropeptides** 1998 Dec;32(6):511–7
Selective depression of dorsal root–evoked high threshold synaptic excitation by the selective kappa opioid receptor agonist enadoline in the neonatal rat hemisected spinal cord in vitro. Faber ES, et al. **Neuropharmacology** 1998 Jun; 37(6):745–50
Dexamethasone prevents the induction of COX–2 mRNA and prostaglandins in the lumbar spinal cord following intraplantar FCA in parallel with inhibition of oedema. Hay CH, et al. **Neuropharmacology** 1998 Jun;37(6):739–44
Pharmacological differentiation of kainate receptors on neonatal rat spinal motoneurones and dorsal roots [published erratum appears in Neuropharmacology 1999 Mar;38(3):463] Thomas NK, et al. **Neuropharmacology** 1998 Oct–Nov;37(10–11):1223–37
Skin cooling attenuates rat dorsal horn neuronal responses to intracutaneous histamine. Carstens E, et al. **Neuroreport** 1998 Dec 21;9(18):4145–9
Spinal cord ischemia reduces mu–opioid receptors in rats: correlation with morphine insensitivity. Yu W, et al. **Neuroreport** 1999 Jan 18;10(1):87–91
Effects of delta–aminolaevulinic acid upon electrical activity of rat spinal cord in vivo. Abdul–Razzak R, et al. **Neurosci Lett** 1998 Aug 21;252(3):175–8
Effect of colchicine on neuropeptide Y expression in rat dorsal root ganglia and spinal cord. Cougnon–Aptel N, et al. **Neurosci Lett** 1999 Jan 4;259(1):45–8
Uraemic guanidino compounds inhibit gamma–aminobutyric acid–evoked whole cell currents in mouse spinal cord neurones. D'Hooge R, et al. **Neurosci Lett** 1999 Apr 16; 265(2):83–6
Effects of the P2–purinoceptor antagonists suramin and pyridoxal–phosphate–6–azophenyl–2',4'–disulfonic acid on glutamatergic synaptic transmission in rat dorsal horn neurons of the spinal cord. Gu JG, et al. **Neurosci Lett** 1998 Sep 11;253(3):167–70
Cannabinoid modulation of wide dynamic range neurons in the lumbar dorsal horn of the rat by spinally administered WIN55,212–2. Hohmann AG, et al. **Neurosci Lett** 1998 Dec 4;257(3):119–22
Fos expression in the trigeminocervical complex of the cat after stimulation of the superior sagittal sinus is reduced by L–NAME. Hoskin KL, et al. **Neurosci Lett** 1999 May 14;266(3):173–6
JTP–2942, a novel thyrotropin–releasing hormone analogue, protects against spinal motor neuron degeneration in the wobbler mouse. Ikeda K, et al. **Neurosci Lett** 1998 Jun 26;250(1):9–12
Roles of nitric oxide in the spinal cord in cardiovascular regulation in rats. Koga N, et al. **Neurosci Lett** 1999 Jun 4;267(3):173–6
Potential role for imidazole in the rhythmic respiratory activity of the in vitro neonatal rat brainstem. Krause WL, et al. **Neurosci Lett** 1998 Jul 31;251(3):153–6
Central respiratory effects of substance P in neonatal mice: an in vitro study. Ptak K, et al. **Neurosci Lett** 1999 May 14;266(3):189–92
Melatonin potentiates the GABA(A) receptor–mediated current in cultured chick spinal cord neurons. Wu FS, et al. **Neurosci Lett** 1999 Feb 5;260(3):177–80
Propentofylline attenuates microglial reaction in the rat spinal cord induced by middle cerebral artery occlusion. Wu YP, et al. **Neurosci Lett** 1999 Jan 22;260(1):17–20
Development of the spatial pattern of 5–HT–induced locomotor rhythm in the lumbar spinal cord of rat fetuses in vitro. Iizuka M, et al. **Neurosci Res** 1998 Jun;31(2):107–11
Prenatal administration of para–chlorophenylalanine results in suppression of serotonergic system and disturbance of swimming movements in newborn rats. Nakajima K, et al. **Neurosci Res** 1998 Jun;31(2):155–69
Non–volatile general anaesthetics reduce spinal activity by suppressing plateau potentials. Guertin PA, et al. **Neuroscience** 1999 Jan;88(2):353–8
Antagonism by (1,2,5,6–tetrahydropyridine–4–yl) methylphosphinic acid of synaptic transmission in the neonatal rat spinal cord in vitro: an electrophysiological study. Rozzo A, et al. **Neuroscience** 1999 Mar;90(3):1085–92
The effect of pyridostigmine administration on the expression of pro–opiomelanocortin–derived peptides in motoneurones. Amos ML, et al. **Neurotoxicology** 1998 Dec; 19(6):799–807
Neurotoxicity of midazolam in the rabbit. Erdine S, et al. **Pain** 1999 Mar;80(1–2):419–23
Inhibition of evoked C–fibre responses in the dorsal horn after contralateral intramuscular injection of capsaicin involves activation of descending pathways. Gjerstad J, et al. **Pain** 1999 Mar;80(1–2):413–8
NSAID–induced cyclooxygenase inhibition differentially depresses long–lasting versus brief synaptically–elicited responses of rat spinal dorsal horn neurons in vivo. Pitcher GM, et al. **Pain** 1999 Aug;82(2):173–86
Spinal actions of GR73632, a novel tachykinin NK1 receptor agonist. Sakurada C, et al. **Peptides** 1999;20(2):301–4
NMDA–induced spinal hypersensitivity is reduced by naturally derived peptide analog [Ser1]histogranin. Hama AT, et al. **Pharmacol Biochem Behav** 1999 Jan;62(1):67–74
Fetal alcohol exposure blocks full masculinization of the dorsolateral nucleus in rat spinal cord. Ward IL, et al. **Physiol Behav** 1999 Jun;66(4):571–5
Serotonin–induced inhibition of locomotor rhythm of the rat isolated spinal cord is mediated by the 5–HT1 receptor class. Beato M, et al. **Proc R Soc Lond B Biol Sci** 1998 Nov 7;265(1410):2073–80
Antianalgesic action of dynorphin A mediated by spinal cholecystokinin. Rady JJ, et al. **Proc Soc Exp Biol Med** 1999 Mar;220(3):178–83
Commentary: neurotoxicity of local anesthetics––an issue or a scapegoat? Moore DC, et al. **Reg Anesth Pain Med** 1998 Nov–Dec;23(6):605–10 (78 ref.)
Can scapegoats stand on shifting sands? [editorial] Neal JM, et al. **Reg Anesth Pain Med** 1998 Nov–Dec;23(6):533–7
Macroscopic sites of anesthetic action: brain versus spinal cord. Antognini JF, et al. **Toxicol Lett** 1998 Nov 23; 100–101:51–8 (30 ref.)
Inorganic mercury pre–exposures protect against methyl mercury toxicity in NSC–34 (neuron x spinal cord hybrid) cells. Chapman LA, et al. **Toxicology** 1999 Feb 15; 132(2–3):167–78
[Antinociceptive effects of intrathecally administered GABA agonists at the spinal cord level] Yamada Y, et al. **Masui** 1999 Jun;48(6):605–10 (Eng. Abstr.) **(Jpn)**

EMBRYOLOGY

Early development of descending supraspinal pathways: a tracing study in fixed and isolated rat embryos. de Boer–van Huizen RT, et al. **Anat Embryol (Berl)** 1999 Jun; 199(6):539–47
Development of glomerular synaptic complexes and immunohistochemical differentiation in the superficial dorsal horn of the embryonic primate spinal cord. Knyihar–Csillik E, et al. **Anat Embryol (Berl)** 1999 Feb; 199(2):125–48
Reorganization of locomotor activity during development in the prenatal rat. Kudo N, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:306–17 (36 ref.)
Prenatal expression of pituitary adenylate cyclase activating polypeptide (PACAP) in autonomic and sensory ganglia and spinal cord of rat embryos. Nielsen HS, et al. **Ann N Y Acad Sci** 1998 Dec 11;865:533–6
Cell lineage in the developing neural tube. Kalyani AJ, et al. **Biochem Cell Biol** 1998;76(6):1051–68 (168 ref.)
Neurotrophic factors BDNF and GDNF protect embryonic chick spinal cord motoneurons from ethanol neurotoxicity in vivo. Bradley DM, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):99–106
Influence of hypergravity on the development of monoaminergic systems in the rat spinal cord. Giménez y Ribotta M, et al. **Brain Res Dev Brain Res** 1998 Dec 7;111(2):147–57
Functionally related motor neuron pool and muscle sensory afferent subtypes defined by coordinate ETS gene expression [see comments] Lin JH, et al. **Cell** 1998 Oct 30;95(3):393–407. Comment in: Cell 1998 Oct 30;95(3):303–6.
Identification of early postmitotic cells in distinct embryonic sites and their possible roles in morphogenesis. Kahane N, et al. **Cell Tissue Res** 1998 Nov;294(2):297–307
Temperature and neuromuscular development in embryos of the trout (Salmo trutta L.). Killeen JR, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Jan; 122(1):53–64
Development in the absence of skeletal muscle results in the sequential ablation of motor neurons from the spinal cord to the brain. Kablar B, et al. **Dev Biol** 1999 Apr 1; 208(1):93–109
Expression and genetic interaction of transcription factors GATA–2 and GATA–3 during development of the mouse central nervous system. Nardelli J, et al. **Dev Biol** 1999 Jun 15;210(2):305–21
Hoxa5 gene regulation: A gradient of binding activity to a brachial spinal cord element. Nowling T, et al. **Dev Biol** 1999 Apr 1;208(1):134–46
Early migrating neural crest cells can form ventral neural tube derivatives when challenged by transplantation. Ruffins S, et al. **Dev Biol** 1998 Nov 15;203(2):295–304
Distinct 5' SCL enhancers direct transcription to developing brain, spinal cord, and endothelium: neural expression is mediated by GATA factor binding sites. Sinclair AM, et al. **Dev Biol** 1999 May 1;209(1):128–42
Bending of the neural plate during mouse spinal neurulation is independent of actin microfilaments. Ybot–Gonzalez P, et al. **Dev Dyn** 1999 Jul;215(3):273–83

Region-specific cell clones in the developing spinal cord of the zebrafish. Papan C, et al. **Dev Genes Evol** 1999 Mar; 209(3):135–44

PAX6 intronic sequence targets expression to the spinal cord. Xu ZP, et al. **Dev Genet** 1998;23(4):259–63

Ventral midline cells are required for the local control of commissural axon guidance in the mouse spinal cord. Matise MP, et al. **Development** 1999 Aug;126(16):3649–59

Sonic hedgehog signaling is required during the appearance of spinal cord oligodendrocyte precursors. Orentas DM, et al. **Development** 1999 Jun;126(11):2419–29

Activation of Pax6 depends on somitogenesis in the chick embryo cervical spinal cord. Pituello F, et al. **Development** 1999 Feb;126(3):587–96

Hyaluronate receptor CD44 is expressed by astrocytes in the adult chicken and in astrocyte cell precursors in early development of the chick spinal cord. Alfei L, et al. **Eur J Histochem** 1999;43(1):29–38

Astrocytes regulate the developmental appearance of GABAergic and glutamatergic postsynaptic currents in cultured embryonic rat spinal neurons. Li YX, et al. **Eur J Neurosci** 1999 Jul;11(7):2537–51

Fetal spinal cord transplants and exogenous neurotrophic support enhance c-Jun expression in mature axotomized neurons after spinal cord injury. Broude E, et al. **Exp Neurol** 1999 Jan;155(1):65–78

Restitution of functional neural connections in chick embryos assessed in vitro after spinal cord transection in Ovo. Sholomenko GN, et al. **Exp Neurol** 1998 Dec;154(2):430–51

Neuronal patterning by BMPs: a requirement for GDF7 in the generation of a discrete class of commissural interneurons in the mouse spinal cord. Lee KJ, et al. **Genes Dev** 1998 Nov 1;12(21):3394–407

Can nuchal cord cause transient increased nuchal translucency thickness? [published erratum appears in Hum Reprod 1999 Apr;14(4):1140] Maymon R, et al. **Hum Reprod** 1999 Feb;14(2):556–9

Illusive transience of parvalbumin expression during embryonic development of the primate spinal cord. Knyihár-Csillik E, et al. **Int J Dev Neurosci** 1999 Apr; 17(2):79–97

Neurite outgrowth-regulating properties of GABA and the effect of serum on mouse spinal cord neurons in culture. Bird M, et al. **J Anat** 1998 Nov;193 (Pt 4):503–8

Mu opioid receptors in developing human spinal cord. Ray SB, et al. **J Anat** 1999 Jul;195 (Pt 1):11–8

Reduction in cell size during development of the spinal cord. Chen A, et al. **J Comp Neurol** 1999 Jul 12;409(4):592–602

Ventrally located commissural neurons express the GABAergic phenotype in developing rat spinal cord. Phelps PE, et al. **J Comp Neurol** 1999 Jun 28;409(2):285–98

Close spatial-temporal relationship between islet-1-expressing cells and growing primary afferent axons in the dorsal spinal cord of chick embryo. Shiga T, et al. **J Comp Neurol** 1999 Mar 15;405(3):388–93

Cell differentiation in the embryonic mammalian spinal cord. Mayer-Pröschel M. **J Neural Transm Suppl** 1999;55:1–8 (40 ref.)

Mechanisms of spontaneous activity in developing spinal networks. O'Donovan MJ, et al. **J Neurobiol** 1998 Oct; 37(1):131–45 (73 ref.)

Optical mapping of neural network activity in chick spinal cord at an intermediate stage of embryonic development. Arai Y, et al. **J Neurophysiol** 1999 Apr;81(4):1889–902

Spontaneous network activity transiently depresses synaptic transmission in the embryonic chick spinal cord. Fedirchuk B, et al. **J Neurosci** 1999 Mar 15;19(6):2102–12

Activity patterns and synaptic organization of ventrally located interneurons in the embryonic chick spinal cord. Ritter A, et al. **J Neurosci** 1999 May 1;19(9):3457–71

Positionally selective growth of embryonic spinal cord neurites on muscle membranes. Wang H, et al. **J Neurosci** 1999 Jun 15;19(12):4984–93

Identification of an interneuronal population that mediates recurrent inhibition of motoneurons in the developing chick spinal cord. Wenner P, et al. **J Neurosci** 1999 Sep 1; 19(17):7557–67

Segmental specificity of chick sympathetic preganglionic projections is influenced by preganglionic neurons from neighboring spinal cord segments. Yip JW, et al. **J Neurosci** 1998 Dec 15;18(24):10473–80

Lineage restriction of neuroepithelial precursor cells from fetal human spinal cord. Quinn SM, et al. **J Neurosci Res** 1999 Sep 1;57(5):590–602

Delayed production of adenosine underlies temporal modulation of swimming in frog embryo. Dale N. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):265–72

Patterning signals acting in the spinal cord override the organizing activity of the isthmus. Grapin-Botton A, et al. **Mech Dev** 1999 Jun;84(1–2):41–53

The winged helix transcription factor Hfh2 is expressed in neural crest and spinal cord during mouse development. Labosky PA, et al. **Mech Dev** 1998 Aug;76(1–2):185–90

Pax3 and Pax7 are expressed in commissural neurons and restrict ventral neuronal identity in the spinal cord. Mansouri A, et al. **Mech Dev** 1998 Nov;78(1–2):171–8

Fgf-R3 is expressed in a subset of chicken spinal motorneurons. Philippe JM, et al. **Mech Dev** 1998 Nov; 78(1–2):119–23

Colonisation of the developing human brain and spinal cord by microglia: a review. Rezaie P, et al. **Microsc Res Tech** 1999 Jun 15;45(6):359–82 (241 ref.)

Modulation of early but not later stages of programmed cell death in embryonic avian spinal cord by sonic hedgehog. Oppenheim RW, et al. **Mol Cell Neurosci** 1999 May; 13(5):348–61

Pax6 influences the time and site of origin of glial precursors in the ventral neural tube. Sun T, et al. **Mol Cell Neurosci** 1998 Nov;12(4–5):228–39

Requirement for the homeobox gene Hb9 in the consolidation of motor neuron identity [see comments] Arber S, et al. **Neuron** 1999 Aug;23(4):659–74. Comment in: Neuron 1999 Aug;23(4):626–7.

Convergent inductive signals specify midbrain, hindbrain, and spinal cord identity in gastrula stage chick embryos. Muhr J, et al. **Neuron** 1999 Aug;23(4):689–702

EphA4 (Sek1) receptor tyrosine kinase is required for the development of the corticospinal tract. Dottori M, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13248–53

Molecular mechanisms of commissural axon pathfinding. Stoeckli ET. **Prog Brain Res** 1998;117:105–14 (641 ref.)

[How to construct a neural tube: molecular genetics of neuro-embryological development] Sarnat HB. **Rev Neurol** 1999 Jan 16-31;28(2):110–6 (48 ref.) (Eng. Abstr.) **(Spa)**

ENZYMOLOGY

Spinal nerve lesion induces upregulation of neuronal nitric oxide synthase in the spinal cord. An immunohistochemical investigation in the rat. Gordh T, et al. **Amino Acids** 1998; 14(1–3):105–12

Enhanced oxygen radical production in a transgenic mouse model of familial amyotrophic lateral sclerosis. Liu R, et al. **Ann Neurol** 1998 Nov;44(5):763–70

Alteration of spinal protein kinase C expression and kinetics in morphine, but not clonidine, tolerance. Li Y, et al. **Biochem Pharmacol** 1999 Aug 1;58(3):493–501

The types of neuron which contain protein kinase C gamma in rat spinal cord. Polgár E, et al. **Brain Res** 1999 Jun 26; 833(1):71–80

Monoamine oxidase in the intermediolateral nucleus of the thoracic spinal cord of the rat. A histochemical study. Yamada H, et al. **Brain Res** 1999 Jul 3;833(2):302–7

Axotomy increases NADPH-diaphorase activity in the dorsal root ganglia and lumbar spinal cord of the turtle Trachemys dorbigni. Partata WA, et al. **Braz J Med Biol Res** 1999 Apr;32(4):489–93

The controversy about spinal neuronal nitric oxide synthase: under which conditions is it up- or downregulated? Callsen-Cencic P, et al. **Cell Tissue Res** 1999 Feb; 295(2):183–94 (104 ref.)

Possible involvement of spinal protein kinase C in thermal allodynia and hyperalgesia in diabetic mice. Ohsawa M, et al. **Eur J Pharmacol** 1999 May 21;372(3):221–8

Methionine adenosyltransferase activity in erythrocytes and spinal cord of patients with sporadic amyotrophic lateral sclerosis. Ekegren T, et al. **Exp Neurol** 1999 Aug; 158(2):422–7

Expression of cyclooxygenase isoforms in the rat spinal cord and their regulation during adjuvant-induced arthritis. Beiche F, et al. **Inflamm Res** 1998 Dec;47(12):482–7

Localization of NADPHd-exhibiting neurons in the spinal cord of the rabbit. Marsala J, et al. **J Comp Neurol** 1999 Apr 5;406(2):263–84

Purification of substance P endopeptidase (SPE) activity in human spinal cord and subsequent comparative studies with SPE in cerebrospinal fluid and with chymotrypsin. Karlsson K, et al. **J Mol Recognit** 1998 Winter; 11(1–6):266–9

Inducible nitric oxide synthase up-regulation in a transgenic mouse model of familial amyotrophic lateral sclerosis. Almer G, et al. **J Neurochem** 1999 Jun;72(6):2415–25

Expression of nitric oxide synthase in the spinal cord in amyotrophic lateral sclerosis. Phul RK, et al. **J Neurol Sci** 1998 Oct;160 Suppl 1:S87–91

Changes in expression of the DNA repair protein complex DNA-dependent protein kinase after ischemia and reperfusion. Shackelford DA, et al. **J Neurosci** 1999 Jun 15;19(12):4727–38

Role of cyclooxygenase 2 in acute spinal cord injury. Resnick DK, et al. **J Neurotrauma** 1998 Dec;15(12):1005–13

Expression of Na+,K(+)-ATPase alpha and beta subunit isoforms in the motor neurons of the rat spinal cord. Dolapchieva SD. **Membr Cell Biol** 1998;12(3):355–61

The change of different forms of AChE during the ontogenetic development of the central nervous system. Lehotai L. **Neurobiology (Bp)** 1998;6(4):405–20

Purification of a galanin degrading 70 kDa metallo-peptidase from bovine spinal cord. Juréus A, et al. **Neuropeptides** 1998 Oct;32(5):453–60

Partial biochemical characterization of nitric oxide synthase in the caudal spinal cord of the teleost Oreochromis niloticus. Cioni C, et al. **Neurosci Lett** 1998 Aug 28; 253(1):68–70

Carboxypeptidase D is a potential candidate to carry out redundant processing functions of carboxypeptidase E based on comparative distribution studies in the rat central nervous system. Dong W, et al. **Neuroscience** 1999; 89(4):1301–17

Inflammation-induced up-regulation of protein kinase Cgamma immunoreactivity in rat spinal cord correlates with enhanced nociceptive processing. Martin WJ, et al. **Neuroscience** 1999;88(4):1267–74

Intrathecal oxotremorine affects formalin-induced behavior and spinal nitric oxide synthase immunoreactivity in rats. Przewlocka B, et al. **Pharmacol Biochem Behav** 1999 Mar; 62(3):531–6

Abnormalities of protein kinases in neurodegenerative diseases. Wagey RT, et al. **Prog Drug Res** 1998;51:133–83 (248 ref.)

[The relationship between alteration of mitochondrial enzyme activities and mitochondrial function after cervical cord injury] Xiao J, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):326–8 (Eng. Abstr.) **(Chi)**

GROWTH & DEVELOPMENT

Age-related morphologic changes of the central canal of the human spinal cord. Yasui K, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):253–9

Posthatching development of spinal motoneurons in the angelfish Pterophyllum scalare. Yoshida M, et al. **Brain Behav Evol** 1999;53(4):180–6

Effects of assisted feeding on Wobbler mouse motoneuron disease and on serotonergic and peptidergic sprouting in the cervical spinal ventral horn. Bose P, et al. **Brain Res Bull** 1999 Mar 1;48(4):429–39

Postnatal growth of corticospinal axons in the spinal cord of developing mice. Gianino S, et al. **Brain Res Dev Brain Res** 1999 Feb 5;112(2):189–204

Differential patterning of ventral midline cells by axial mesoderm is regulated by BMP7 and chordin. Dale K, et al. **Development** 1999 Jan;126(2):397–408

Genetic evidence for cell death mediated by nerve growth factor and the neurotrophin receptor p75 in the developing mouse retina and spinal cord. Frade JM, et al. **Development** 1999 Feb;126(4):683–90

Expression patterns of transmembrane and released forms of neuregulin during spinal cord and neuromuscular synapse development. Loeb JA, et al. **Development** 1999 Feb; 126(4):781–91

The effect of a peripheral nerve lesion on calbindin D28k immunoreactivity in the cervical ventral horn of developing and adult rats. Fallah Z, et al. **Exp Neurol** 1999 Mar;156(1):111–20

Axonal expression of sodium channels in rat spinal neurones during postnatal development. Safronov BV, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):729–34

Linear modeling of mRNA expression levels during CNS development and injury. D'Haeseleer P, et al. **Pac Symp Biocomput** 1999;:41–52

Partial deafferentation of the developing rat spinal cord delays the spontaneous repression of GAD67 mRNAs in spinal cells. Feldblum S, et al. **Perspect Dev Neurobiol** 1998; 5(2–3):131–43

Physiological functions of GABA-induced depolarizations in the developing rat spinal cord. Ziskind-Conhaim L. **Perspect Dev Neurobiol** 1998;5(2–3):279–87 (70 ref.)

Failure of spinal cord oligodendrocyte development in mice lacking neuregulin. Vartanian T, et al. **Proc Natl Acad Sci U S A** 1999 Jan 19;96(2):731–5

IMMUNOLOGY

Persistent expression of experimental autoimmune encephalomyelitis (EAE)-specific Vbeta8.2 TCR spectratype in the central nervous system of rats with chronic relapsing EAE. Kim G, et al. **J Immunol** 1998 Dec 15;161(12):6993–8

Stage-dependent usage of TCR alpha chains with different CDR3 motifs by spinal cord T cells in autoimmune encephalomyelitis. Kim G, et al. **J Neuroimmunol** 1999 Apr 1;96(1):66–72

Peritoneal antigen-presenting cells pulsed in vivo with myelin basic protein induce the suppression of experimental autoimmune encephalomyelitis (EAE) in Wistar rats. Maccioni M, et al. **J Neuroimmunol** 1999 Apr 1;96(1):46–56

INJURIES see SPINAL CORD INJURIES

METABOLISM

Mivazerol inhibits intrathecal release of glutamate evoked by halothane withdrawal in rats. Zhang X, et al. **Acta Anaesthesiol Scand** 1998 Sep;42(8):1004–9

Immunohistochemical analysis of spinal cord lesions in amyotrophic lateral sclerosis using microtubule-associated protein 2 (MAP2) antibodies. Kikuchi H, et al. **Acta Neuropathol (Berl)** 1999 Jan;97(1):13–21

Mercury in human spinal motor neurons. Pamphlett R, et al. **Acta Neuropathol (Berl)** 1998 Nov;96(5):515–9

Endogenous lectin (RL-29) expression of the autonomic preganglionic neurons in the rat spinal cord. Park MJ, et al. **Anat Rec** 1999 Jan;254(1):53–60

Enantioselectivity of thiopental distribution into the central neural tissue of rats: an interaction with halothane. Mather LE, et al. **Anesth Analg** 1999 Jul;89(1):230–5

Clonidine inhibits and phorbol acetate activates glutamate release from rat spinal synaptoneurosomes. Shinomura T, et al. **Anesth Analg** 1999 Jun;88(6):1401–5

Protein modification by the lipid peroxidation product 4-hydroxynonenal in the spinal cords of amyotrophic lateral sclerosis patients. Pedersen WA, et al. **Ann Neurol** 1998 Nov;44(5):819–24

Effects of the competitive N-methyl-D-aspartate antagonist CGP 37849 and its ethylester CGP 39551 on N-methyl-D-aspartate-evoked whole-cell currents in

cultured spinal neurones and on vestibular stimulation-induced seizures in EL mice. D'Hooge R, et al. **Arzneimittelforschung** 1998 Dec;48(12):1121-5

6-Methyl-3'-bromoflavone, a high-affinity ligand for the benzodiazepine binding site of the GABA(A) receptor with some antagonistic properties. Viola H, et al. **Biochem Biophys Res Commun** 1999 Sep 7;262(3):643-6

Differential subcellular localization of the survival motor neuron protein in spinal cord and skeletal muscle. Williams BY, et al. **Biochem Biophys Res Commun** 1999 Jan 8; 254(1):10-4

Enhanced mRNA expression of neurofilament subunits in the brain and spinal cord of diisopropyl phosphorofluoridate-treated hens. Gupta RP, et al. **Biochem Pharmacol** 1999 Jun 1;57(11):1245-51

Primary afferent-evoked release of immunoreactive galanin in the spinal cord of the neuropathic rat. Colvin LA, et al. **Br J Anaesth** 1998 Sep;81(3):436-43

Induction of Fos protein expression in spinal cord neurons of tumour-bearing rats. Kergozien S, et al. **Br J Cancer** 1999 Jul;80(10):1512-7

In vitro prostanoid release from spinal cord following peripheral inflammation: effects of substance P, NMDA and capsaicin. Dirig DM, et al. **Br J Pharmacol** 1999 Mar; 126(6):1333-40

NMDA receptor activation modulates evoked release of substance P from rat spinal cord. Malcangio M, et al. **Br J Pharmacol** 1998 Dec;125(8):1625-6

Nociceptin-induced scratching, biting and licking in mice: involvement of spinal NK1 receptors. Sakurada T, et al. **Br J Pharmacol** 1999 Aug;127(7):1712-8

NK-3 receptors mediate enhancement of substance P release from capsaicin-sensitive spinal cord afferent terminals. Schmid G, et al. **Br J Pharmacol** 1998 Oct;125(4):621-6

Frequency dependence of muscarinic facilitation of transmitter release in urinary bladder strips from neurally intact or chronic spinal cord transected rats. Somogyi GT, et al. **Br J Pharmacol** 1998 Sep;125(2):241-6

Polyarthritis-associated changes in the opioid control of spinal CGRP release in the rat. Ballet S, et al. **Brain Res** 1998 Jun 15;796(1-2):198-208

Distribution of 5-hydroxytryptamine-immunoreactive boutons on immunohistochemically-identified Renshaw cells in cat and rat lumbar spinal cord. Carr PA, et al. **Brain Res** 1999 Mar 27;823(1-2):198-201

Effects of opioid receptor antagonists on the effects of i.v. morphine on carrageenin evoked c-Fos expression in the superficial dorsal horn of the rat spinal cord. Catheline G, et al. **Brain Res** 1999 Apr 3;824(1):105-11

Exposure and isolation of the superior sagittal sinus elicits Fos in the trigeminal nucleus caudalis and dorsal horn of the cervical spinal cord: how long should you wait? Hoskin KL, et al. **Brain Res** 1999 Apr 3;824(1):133-5

Immunohistochemical demonstration of a neuronal calmodulin-binding protein, NAP-22, in the rat spinal cord. Iino S, et al. **Brain Res** 1999 Jul 10;834(1-2):66-73

The effects of RB101, a mixed inhibitor of enkephalin-catabolizing enzymes, on carrageenin-induced spinal c-Fos expression are completely blocked by beta-funaltrexamine, a selective mu-opioid receptor antagonist. Le Guen S, et al. **Brain Res** 1999 Jul 10; 834(1-2):200-6

Interrelations of opioids with monoamines in descending inhibition of nociceptive transmission at the spinal level: an immunocytochemical study. Liu RJ, et al. **Brain Res** 1999 May 29;830(1):183-90

Unilateral joint inflammation induces bilateral and time-dependent changes in neuropeptide FF binding in the superficial dorsal horn of the rat spinal cord: implication of supraspinal descending systems. Lombard MC, et al. **Brain Res** 1999 Jan 23;816(2):598-608

Spatial and temporal expression of c-Fos protein in the spinal cord of anesthetized rat induced by subcutaneous bee venom injection. Luo C, et al. **Brain Res** 1998 Sep 28; 806(2):175-85

Expression of GDNF receptor (RET and GDNFR-alpha) mRNAs in the spinal cord of patients with amyotrophic lateral sclerosis. Mitsuma N, et al. **Brain Res** 1999 Feb 27; 820(1-2):77-85

Modulation of serotonin 5-HT3 receptor expression in injured adult rat spinal cord motoneurons. Rende M, et al. **Brain Res** 1999 Mar 27;823(1-2):234-40

Nitric oxide (NO) release by glutamate and NMDA in the dorsal horn of the spinal cord: an in vivo electrochemical approach in the rat. Rivot JP, et al. **Brain Res** 1999 Mar 6;821(1):101-10

Distribution of somatostatin receptor subtypes in rat lumbar spinal cord examined with gold-labelled somatostatin and anti-receptor antibodies. Segond von Banchet G, et al. **Brain Res** 1999 Jan 16;816(1):254-7

The time-course of abeta-evoked c-fos expression in neurons of the dorsal horn and gracile nucleus after peripheral nerve injury. Shortland P, et al. **Brain Res** 1998 Nov 9; 810(1-2):288-93

Effects of systemic resiniferatoxin treatment on substance P mRNA in rat dorsal root ganglia and substance P receptor mRNA in the spinal dorsal horn. Szallasi A, et al. **Brain Res** 1999 Jan 9;815(2):177-84

Differential expression of the muscarinic m2 acetylcholine receptor by small and large motoneurons of the rat spinal cord. Welton J, et al. **Brain Res** 1999 Jan 30;817(1-2):215-9

Distribution and developmental changes in metabotropic glutamate receptor messenger RNA expression in the rat lumbar spinal cord. Berthele A, et al. **Brain Res Dev Brain Res** 1999 Jan 11;112(1):39-53

Ontogeny of vesicular monoamine transporter mRNAs VMAT1 and VMAT2. I. The developing rat central nervous system. Hansson SR, et al. **Brain Res Dev Brain Res** 1998 Sep 10;110(1):135-58

Increase of interleukin-6 mRNA in the spinal cord following peripheral nerve injury in the rat: potential role of IL-6 in neuropathic pain. Arruda JL, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):228-35

Identification and characterization of RPTP rho, a novel RPTP mu/kappa-like receptor protein tyrosine phosphatase whose expression is restricted to the central nervous system. McAndrew PE, et al. **Brain Res Mol Brain Res** 1998 May;56(1-2):9-21

Tissue-specific enhancement and restriction of galanin gene expression in transgenic mice by 5' flanking sequences. Rökaeus A, et al. **Brain Res Mol Brain Res** 1998 Oct 1; 60(2):150-9

Activation of nuclear factor-kappaB in the rabbit spinal cord following ischemia and reperfusion. Zhang S, et al. **Brain Res Mol Brain Res** 1998 Dec 10;63(1):121-32

Expression of neurotrophin receptors trkB and trkC and their ligands in rat adrenal gland and the intermediolateral column of the spinal cord. Schober A, et al. **Cell Tissue Res** 1999 May;296(2):271-9

Age-dependent retinoic acid regulation of gene expression distinguishes the cervical, thoracic, lumbar, and sacral spinal cord regions during development. Rubin WW, et al. **Dev Neurosci** 1999;21(2):113-25

Tenascin-Y in the developing and adult avian nervous system. Tucker RP, et al. **Dev Neurosci** 1999;21(2):126-33

Subpopulations of GABAergic and non-GABAergic rat dorsal horn neurons express Ca2+-permeable AMPA receptors. Albuquerque C, et al. **Eur J Neurosci** 1999 Aug; 11(8):2758-66

The expression of the glial glutamate transporter protein EAAT2 in motor neuron disease: an immunohistochemical study. Fray AE, et al. **Eur J Neurosci** 1998 Aug; 10(8):2481-9

Proteolytic processing, axonal transport and differential distribution of chromogranins A and B, and secretogranin II (secretoneurin) in rat sciatic nerve and spinal cord. Li JY, et al. **Eur J Neurosci** 1999 Feb;11(2):528-44

Substance P release in the dorsal horn assessed by receptor internalization: NMDA receptors counteract a tonic inhibition by GABA(B) receptors. Marvizón JC, et al. **Eur J Neurosci** 1999 Feb;11(2):417-26

Cells in laminae III and IV of the rat spinal cord which possess the neurokinin-1 receptor receive monosynaptic input from myelinated primary afferents. Naim MM, et al. **Eur J Neurosci** 1998 Sep;10(9):3012-9

Increased glutathione levels in neurochemically identified fibre systems in the aged rat lumbar motor nuclei. Ramírez-León V, et al. **Eur J Neurosci** 1999 Aug; 11(8):2935-48

Stimulation of mu- and delta-opioid receptors enhances phosphoinositide metabolism in mouse spinal cord: evidence for subtypes of delta-receptors. Sánchez-Blázquez P, et al. **Eur J Neurosci** 1999 Jun; 11(6):2059-64

P2X3 is expressed by DRG neurons that terminate in inner lamina II. Vulchanova L, et al. **Eur J Neurosci** 1998 Nov; 10(11):3470-8

Characterization of [3H]thiocolchicoside binding sites in rat spinal cord and cerebral cortex. Balduini W, et al. **Eur J Pharmacol** 1999 Jul 2;376(1-2):149-57

Excessive release of [3H]noradrenaline and glutamate in response to simulation of ischemic conditions in rat spinal cord slice preparation: effect of NMDA and AMPA receptor antagonists. Nakai T, et al. **Eur J Pharmacol** 1999 Feb 5;366(2-3):143-50

Characterization of endomorphin-1 and -2 on [35S]GTPgammaS binding in the mouse spinal cord. Narita M, et al. **Eur J Pharmacol** 1998 Jun 26;351(3):383-7

The marginal nuclei of the spinal cord in turtles: neuron assemblies in which gamma-aminobutyric acid and nitric oxide synthase are colocalized. Fernández A, et al. **Exp Brain Res** 1998 Sep;122(1):128-30

Changes in brain-derived neurotrophic factor immunoreactivity in rat dorsal root ganglia, spinal cord, and gracile nuclei following cut or crush injuries. Cho HJ, et al. **Exp Neurol** 1998 Nov;154(1):224-30

NK1, NMDA, 5HT1a, and 5HT2 receptor binding sites in the rat lumbar spinal cord: modulation following sciatic nerve crush. Croul S, et al. **Exp Neurol** 1998 Nov; 154(1):66-79

The effect of a peripheral nerve lesion on calbindin D28k immunoreactivity in the cervical ventral horn of developing and adult rats. Fallah Z, et al. **Exp Neurol** 1999 Mar;156(1):111-20

Clusterin upregulation following rubrospinal tract lesion in the adult rat. Liu L, et al. **Exp Neurol** 1999 May; 157(1):69-76

Persistence of botulinum neurotoxin action in cultured spinal cord cells. Keller JE, et al. **FEBS Lett** 1999 Jul 30; 456(1):137-42

Hypotensive action of bromocriptine in the DOCA-salt hypertensive rat: contribution of spinal dopamine receptors. Lahlou S, et al. **Fundam Clin Pharmacol** 1998;12(6):599-606

A role for spinal nitric oxide in mediating visceral hyperalgesia in the rat. Coutinho SV, et al. **Gastroenterology** 1999 Jun;116(6):1399-408

Pharmacological characteristics and regulation of 5-HT receptor-stimulated phosphoinositide hydrolysis in the rat spinal cord. Toscano E, et al. **Gen Pharmacol** 1999 Mar; 32(3):351-8

Neuronal patterning by BMPs: a requirement for GDF7 in the generation of a discrete class of commissural interneurons in the mouse spinal cord. Lee KJ, et al. **Genes Dev** 1998 Nov 1;12(21):3394-407

Metastasis-associated mts1 (S100A4) protein is selectively expressed in white matter astrocytes and is up-regulated after peripheral nerve or dorsal root injury. Kozlova EN, et al. **Glia** 1999 Sep;27(3):249-58

Evidence for the presence of major peripheral myelin glycoprotein P0 in mammalian spinal cord and a change of its glycosylation state during aging. Sato Y, et al. **Glycobiology** 1999 Jul;9(7):655-60

Increased spinal expression of c-Fos following stimulation of the lower urinary tract in chronic spinal cord-injured rats. Callsen-Cencic P, et al. **Histochem Cell Biol** 1999 Jul; 112(1):63-72

Modifications in the distribution of met-enkephalin in the cat spinal cord after administration of clonidine. An immunocytochemical study. Vázquez J, et al. **Histol Histopathol** 1998 Oct;13(4):955-9

BCL-2 overexpression attenuates cortical cell loss after traumatic brain injury in transgenic mice. Raghupathi R, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1259-69

Inductions of 3-L-nitrotyrosine in motor neurons after transient spinal cord ischemia in rabbits. Sakurai M, et al. **J Cereb Blood Flow Metab** 1998 Nov;18(11):1233-8

Changes in GAD- and GABA- immunoreactivity in the spinal dorsal horn after peripheral nerve injury and promotion of recovery by lumbar transplant of immortalized serotonergic precursors. Eaton MJ, et al. **J Chem Neuroanat** 1998 Dec;16(1):57-72

Quantitative analysis of free sphingoid bases in the brain and spinal cord tissues by high-performance liquid chromatography with a fluorescence detection. Kwon OS, et al. **J Chromatogr B Biomed Sci Appl** 1998 Dec 11; 720(1-2):9-14

Immunohistochemistry and spinal projections of the reticular formation in the northern leopard frog, Rana pipiens. Adli DS, et al. **J Comp Neurol** 1999 Feb 15;404(3):387-407

Autoradiographic study of alpha1- and alpha2-noradrenergic and serotonin1A receptors in the spinal cord of normal and chronically transected cats. Giroux N, et al. **J Comp Neurol** 1999 Apr 12;406(3):402-14

Distribution of preprovasopressin mRNA in the rat central nervous system. Hallbeck M, et al. **J Comp Neurol** 1999 Aug 23;411(2):181-200

Metabotropic glutamate receptors in superficial laminae of the rat dorsal horn. Jia H, et al. **J Comp Neurol** 1999 Aug 9;410(4):627-42

Distribution of the P2X2 receptor subunit of the ATP-gated ion channels in the rat central nervous system. Kanjhan R, et al. **J Comp Neurol** 1999 Apr 28;407(1):11-32

Distribution of pre-pro-glucagon and glucagon-like peptide-1 receptor messenger RNAs in the rat central nervous system. Merchenthaler I, et al. **J Comp Neurol** 1999 Jan 11;403(2):261-80

Distribution of neurons expressing immunoreactivity for the 5HT3 receptor subtype in the rat brain and spinal cord. Morales M, et al. **J Comp Neurol** 1998 Dec 21; 402(3):385-401

Different expressions of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid and N-methyl-D-aspartate receptor subunit mRNAs between visceromotor and somatomotor neurons of the rat lumbosacral spinal cord. Shibata T, et al. **J Comp Neurol** 1999 Feb 8;404(2):172-82

Quantitative study of neurofilament-positive fiber length in rat spinal cord lesions using isotropic virtual planes. von Euler M, et al. **J Comp Neurol** 1998 Nov 2;400(4):441-8

Anomalous L-type calcium channels of rat spinal motoneurons. Hivert B, et al. **J Gen Physiol** 1999 May; 113(5):679-94

Temporal changes of preproenkephalin mRNA and leu-enkephalin-like immunoreactivity in the neurons of the caudal spinal trigeminal nucleus and upper cervical cord after noxious stimuli. Wu SX, et al. **J Hirnforsch** 1998; 39(2):217-22

Cyclic AMP regulates the expression of neurokinin1 receptors by neonatal rat spinal neurons in culture. Abrahams LG, et al. **J Neurochem** 1999 Jul;73(1):50-8

Effects of peripheral axotomy on cholecystokinin neurotransmission in the rat spinal cord. Antunes Bras JM, et al. **J Neurochem** 1999 Feb;72(2):858-67

Pharmacological characterization of morphine-induced in vivo release of cholecystokinin in rat dorsal horn: effects of ion channel blockers. Gustafsson H, et al. **J Neurochem** 1999 Sep;73(3):1145-54

The expression of myelin basic protein exon 1 and exon 2 containing transcripts during myelination of the neonatal rat spinal cord--an in situ hybridization study. Woodruff RH, et al. **J Neurocytol** 1998 Sep;27(9):683-93

Radiation myelopathy with partial functional recovery: PET evidence of long-term increased metabolic activity of the spinal cord. Esik O, et al. **J Neurol Sci** 1999 Feb 1; 163(1):39-43 (15 ref.)

Spinal cord GLT-1 glutamate transporter and blood glutamic

acid alterations in motor neuron degeneration (Mnd) mice. Mennini T, et al. **J Neurol Sci** 1998 Apr 15;157(1):31–6

The endogenous antioxidant glutathione as a factor in the survival of physically injured mammalian spinal cord neurons. Lucas JH, et al. **J Neuropathol Exp Neurol** 1998 Oct;57(10):937–54

NMDA receptor–mediated control of presynaptic calcium and neurotransmitter release. Cochilla AJ, et al. **J Neurosci** 1999 Jan 1;19(1):193–205

Distribution of brain-derived neurotrophic factor (BDNF) protein and mRNA in the normal adult rat CNS: evidence for anterograde axonal transport. Conner JM, et al. **J Neurosci** 1997 Apr 1;17(7):2295–313

The distribution of neurons expressing calcium–permeable AMPA receptors in the superficial laminae of the spinal cord dorsal horn. Engelman HS, et al. **J Neurosci** 1999 Mar 15;19(6):2081–9

Ciliary neurotrophic factor receptor alpha in spinal motoneurons is regulated by gonadal hormones. Forger NG, et al. **J Neurosci** 1998 Nov 1;18(21):8720–9

Alterations in AMPA receptor subunit expression after experimental spinal cord contusion injury. Grossman SD, et al. **J Neurosci** 1999 Jul 15;19(14):5711–20

Insertion of a retrotransposon in Mbp disrupts mRNA splicing and myelination in a new mutant rat. O'Connor LT, et al. **J Neurosci** 1999 May 1;19(9):3404–13

Differential expression of brain–derived neurotrophic factor, neurotrophin–3, and neurotrophin–4/5 in the adult rat spinal cord: regulation by the glutamate receptor agonist kainic acid. Scarisbrick IA, et al. **J Neurosci** 1999 Sep 15; 19(18):7757–69

Hypothalamic hypocretin (orexin): robust innervation of the spinal cord. van den Pol AN. **J Neurosci** 1999 Apr 15; 19(8):3171–82

The distribution of zinc selenite and expression of metallothionein–III mRNA in the spinal cord and dorsal root ganglia of the rat suggest a role for zinc in sensory transmission. Velázquez RA, et al. **J Neurosci** 1999 Mar 15;19(6):2288–300

Subcellular distribution of delta–opioid receptors in the rat spinal cord: an approach using a three–dimensional reconstruction of confocal series of immunolabelled neurons. Mailly P, et al. **J Neurosci Methods** 1999 Feb 1; 87(1):17–24

Expression of the beta–trace protein in human pachymeninx as revealed by in situ hybridization and immunocytochemistry. Blödorn B, et al. **J Neurosci Res** 1999 Sep 1;57(5):730–4

Expression of neurotrophins in the adult spinal cord in vivo. Dreyfus CF, et al. **J Neurosci Res** 1999 Apr 1;56(1):1–7

Four–kilobase sequence of the mouse CNP gene directs spatial and temporal expression of lacZ in transgenic mice. Gravel M, et al. **J Neurosci Res** 1998 Aug 15;53(4):393–404

GDNF–related factor persephin is widely distributed throughout the nervous system. Jaszai J, et al. **J Neurosci Res** 1998 Aug 15;53(4):494–501

Calpain expression varies among different rat and bovine central nervous system regions. Shields DC, et al. **J Neurosci Res** 1998 Aug 15;53(4):482–9

Adenoviral nerve growth factor and beta–galactosidase transfer to spinal cord: a behavioral and histological analysis. Boulis NM, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):99–108

Convective delivery of macromolecules into the naive and traumatized spinal cords of rats. Wood JD, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):115–20

Increased jun immunoreactivity in an in vitro model of mammalian spinal neuron physical injury. Raghupathi R, et al. **J Neurotrauma** 1998 Jul;15(7):555–61

Dynorphin mRNA expression in dorsal horn neurons after traumatic spinal cord injury: temporal and spatial analysis using in situ hybridization. Tachibana T, et al. **J Neurotrauma** 1998 Jul;15(7):485–94

Periaqueductal gray stimulation–induced inhibition of nociceptive dorsal horn neurons in rats is associated with the release of norepinephrine, serotonin, and amino acids. Cui M, et al. **J Pharmacol Exp Ther** 1999 May; 289(2):868–76

Interaction between medullary and spinal delta1 and delta2 opioid receptors in the production of antinociception in the rat. Hurley RW, et al. **J Pharmacol Exp Ther** 1999 May;289(2):993–9

Axonal expression of sodium channels in rat spinal neurones during postnatal development. Safronov BV, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):729–34

Modulation of the glycine response by Ca2+–permeable AMPA receptors in rat spinal neurones. Xu TL, et al. **J Physiol (Lond)** 1999 Feb 1;514 (Pt 3):701–11

Torsional injury resulting in disc degeneration in the rabbit: II. Associative changes in dorsal root ganglion and spinal cord neurotransmitter production. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):318–21

AMPA/kainate receptors permeable to divalent cations in amphibian central nervous system. Estabel J, et al. **Life Sci** 1999;64(8):607–16

Morphine tolerance in arthritic rats and serotonergic system. Li JY, et al. **Life Sci** 1999;64(10):PL111–6

Apparent water diffusion measurements in electrically stimulated neural tissue. Gulani V, et al. **Magn Reson Med** 1999 Feb;41(2):241–6

The expression of P2X3 purinoreceptors in sensory neurons: effects of axotomy and glial–derived neurotrophic factor. Bradbury EJ, et al. **Mol Cell Neurosci** 1998 Nov; 12(4–5):256–68

Molecular cloning, tissue–specific expression, and chromosomal localization of a novel nerve growth factor–regulated G–protein– coupled receptor, nrg–4. Glickman M, et al. **Mol Cell Neurosci** 1999 Aug; 14(2):141–52

Regional changes of membrane phospholipid concentrations in rabbit spinal cord following brief repeated ischemic insults. Lukáčová N, et al. **Mol Chem Neuropathol** 1998 Aug–Dec;35(1–3):61–76

Gene for pain modulatory neuropeptide NPFF: induction in spinal cord by noxious stimuli. Vilim FS, et al. **Mol Pharmacol** 1999 May;55(5):804–11

hKCa3/KCNN3 potassium channel gene: association of longer CAG repeats with schizophrenia in Israeli Ashkenazi Jews, expression in human tissues and localization to chromosome 1q21. Dror V, et al. **Mol Psychiatry** 1999 May;4(3):254–60

Synaptic corelease of ATP and GABA in cultured spinal neurons [see comments] Jo YH, et al. **Nat Neurosci** 1999 Mar;2(3):241–5. Comment in: Nat Neurosci 1999 Mar;2(3):199–200.

Kainate–receptor–mediated sensory synaptic transmission in mammalian spinal cord. Li P, et al. **Nature** 1999 Jan 14; 397(6715):161–4

Differential expression of group I metabotropic glutamate receptors in rat spinal cord somatic and autonomic motoneurons: possible implications for the pathogenesis of amyotrophic lateral sclerosis. Anneser JM, et al. **Neurobiol Dis** 1999 Apr;6(2):140–7

GAP–43 (B–50) and C–Jun are up–regulated in axotomized neurons of Clarke's nucleus after spinal cord injury in the adult rat. Schmitt AB, et al. **Neurobiol Dis** 1999 Apr; 6(2):122–30

The 21–aminosteroid U–74389F attenuates hyperexpression of GAP–43 and NADPH–diaphorase in the spinal cord of wobbler mouse, a model for amyotrophic lateral sclerosis. González Deniselle MC, et al. **Neurochem Res** 1999 Jan;24(1):1–8

A delta afferent fiber stimulation activates descending noradrenergic system from the locus coeruleus. Hitoto T, et al. **Neurochem Res** 1998 Dec;23(12):1461–5

NMDA and AMPA receptors evoke transmitter release from noradrenergic axon terminals in the rat spinal cord. Sundström E, et al. **Neurochem Res** 1998 Dec;23(12):1501–7

Depolarization and cAMP elevation rapidly recruit TrkB to the plasma membrane of CNS neurons. Meyer–Franke A, et al. **Neuron** 1998 Oct;21(4):681–93

Novel anchorage of GluR2/3 to the postsynaptic density by the AMPA receptor–binding protein ABP. Srivastava S, et al. **Neuron** 1998 Sep;21(3):581–91

Expression of angiogenic factors in rabbit spinal cord after transient ischaemia. Hayashi T, et al. **Neuropathol Appl Neurobiol** 1999 Feb;25(1):63–71

Orphanin FQ/nociceptin modulates glutamate– and kainic acid–induced currents in acutely isolated rat spinal dorsal horn neurons. Shu YS, et al. **Neuropeptides** 1998 Dec; 32(6):567–71

NGF levels decrease in the spinal cord and dorsal root ganglion after spinal hemisection. Bennett AD, et al. **Neuroreport** 1999 Mar 17;10(4):889–93

Calbindin D28k expression in immunohistochemically identified Renshaw cells. Carr PA, et al. **Neuroreport** 1998 Aug 3;9(11):2657–61

Spinal kappa1 and kappa2 opioid binding sites in rats, guinea pigs, monkeys and humans. Caudle RM, et al. **Neuroreport** 1998 Aug 3;9(11):2523–5

Decreased neuropeptide content in the spinal cord of aged rats: the effect of GM1 ganglioside. Goettl VM, et al. **Neuroreport** 1999 Feb 25;10(3):513–6

Diazepam induces FGF–2 and its mRNA in the spinal cord. Gómez–Pinilla F, et al. **Neuroreport** 1999 Apr 26; 10(6):1273–6

Immunocytochemical localization of GDNF in primary afferents of the lumbar dorsal horn. Holstege JC, et al. **Neuroreport** 1998 Aug 24;9(12):2893–7

Depletion of GDNF from primary afferents in adult rat dorsal horn following peripheral axotomy. Jongen JL, et al. **Neuroreport** 1999 Mar 17;10(4):867–71

c–Fos basal immunoreactivity decreases in rat spinal cord during normal ageing. Kim JM, et al. **Neuroreport** 1999 Feb 25;10(3):585–8

Internalization of mu–opioid receptors in rat spinal cord slices. Marvizón JC, et al. **Neuroreport** 1999 Aug 2; 10(11):2329–34

Region–specific increase in glutamate release from dorsal horn of rats with adjuvant inflammation. Sasaki M, et al. **Neuroreport** 1998 Oct 5;9(14):3219–22

Alteration of spinal cord IGF–I receptors and skeletal muscle IGF–I after hind–limb immobilization in the rat. Suliman IA, et al. **Neuroreport** 1999 Apr 26;10(6):1195–9

GDNF, RET and GFRalpha–1–3 mRNA expression in the developing human spinal cord and ganglia. Widenfalk J, et al. **Neuroreport** 1999 May 14;10(7):1433–9

Increase in fiber density for immunoreactive serotonin, substance P, enkephalin and thyrotropin–releasing hormone occurs during the early presymptomatic period of motoneuron disease in Wobbler mouse spinal cord ventral horn. Bose P, et al. **Neurosci Lett** 1999 Feb 5;260(3):196–200

The tissue–specific transcription factor Pit–1 is expressed in the spinal cord of the lancelet, Branchiostoma lanceolatum. Candiani S, et al. **Neurosci Lett** 1999 Jan 22;260(1):25–8

Activation of protein kinase C enhances peptide release from rat spinal cord slices. Frayer SM, et al. **Neurosci Lett** 1999 Apr 9;265(1):17–20

C1qB and clusterin mRNA increase in association with neurodegeneration in sporadic amyotrophic lateral sclerosis. Grewal RP, et al. **Neurosci Lett** 1999 Aug 13; 271(1):65–7

Relationship between neuronal activity and substance P–immunoreactivity in the rat spinal cord during acute and persistent myositis. Hoheisel U, et al. **Neurosci Lett** 1998 Nov 20;257(1):21–4

Noxious thermal stimulation of c–fos activity induced in rat lumbar spinal cord is reduced by AP–5 but not by glycine. Huang W, et al. **Neurosci Lett** 1999 Jan 4;259(1):1–4

Regeneration of the lateral vestibulospinal tract in adult rats by transplants of embryonic brain tissue. Ito J, et al. **Neurosci Lett** 1999 Jan 8;259(2):67–70

Expression of adenosine A2a receptors gene in the olfactory bulb and spinal cord of rat and mouse. Kaelin–Lang A, et al. **Neurosci Lett** 1999 Feb 19;261(3):189–91

Increased ciliary neurotrophic factor expression in reactive astrocytes following spinal cord injury in the rat. Lee MY, et al. **Neurosci Lett** 1998 Oct 16;255(2):79–82

Preprodynorphin–like immunoreactivity in medullary dorsal horn neurons projecting to the thalamic regions in the rat. Li JL, et al. **Neurosci Lett** 1999 Apr 2;264(1–3):13–6

Glutamate receptor subunits associated with rat sympathetic preganglionic neurons. McNair CJ, et al. **Neurosci Lett** 1998 Oct 30;256(1):29–32

S–100beta protein is upregulated in astrocytes and motor neurons in the spinal cord of patients with amyotrophic lateral sclerosis. Migheli A, et al. **Neurosci Lett** 1999 Feb 12;261(1–2):25–8

Differential distribution of alternatively spliced somatostatin receptor 2 isoforms (sst2A and sst2B) in rat spinal cord. Schulz S, et al. **Neurosci Lett** 1998 Nov 20;257(1):37–40

Group I and II metabotropic glutamate receptor expression in cultured rat spinal cord astrocytes. Silva GA, et al. **Neurosci Lett** 1999 Mar 26;263(2–3):117–20

Release of nociceptin–like substances from the rat spinal cord dorsal horn. Williams CA, et al. **Neurosci Lett** 1998 Mar 20;244(3):141–4

Whole body hyperthermia selectively induces heat shock protein 72 in neurons of the rat spinal cord. Xia H, et al. **Neurosci Lett** 1998 Dec 24;258(3):151–4

Localization of neuroendocrine secretory protein 55 messenger RNA in the rat brain. Bauer R, et al. **Neuroscience** 1999;91(2):685–94

Spinal section and opioid receptor blockade induce the appearance of Fos–like immunoreactivity in the spinal cord of the decerebrated rabbit. Bhandari RN, et al. **Neuroscience** 1999 Apr;90(1):191–9

The sodium channel auxiliary subunits beta1 and beta2 are differentially expressed in the spinal cord of neuropathic rats. Blackburn–Munro G, et al. **Neuroscience** 1999 Apr; 90(1):153–64

Co–localization of substance P and dopamine beta–hydroxylase with growth–associated protein–43 is lost caudal to a spinal cord transection. Cassam AK, et al. **Neuroscience** 1999;88(4):1275–88

The intraspinal release of prostaglandin E2 in a model of acute arthritis is accompanied by an up–regulation of cyclo–oxygenase–2 in the spinal cord. Ebersberger A, et al. **Neuroscience** 1999;93(2):775–81

Differential expression of bcl–w and bcl–x messenger RNA in the developing and adult rat nervous system. Hamnér S, et al. **Neuroscience** 1999;91(2):673–84

Intrathecal substance P–induced thermal hyperalgesia and spinal release of prostaglandin E2 and amino acids. Hua XY, et al. **Neuroscience** 1999 Mar;89(2):525–34

trkA, trkB, and trkC messenger RNA expression by bulbospinal cells of the rat. King VR, et al. **Neuroscience** 1999;92(3):935–44

Cadherin–8 protein expression in gray matter structures and nerve fibers of the neonatal and adult mouse brain. Korematsu K, et al. **Neuroscience** 1998 Nov;87(1):303–15

Differential expression of retinoid receptors in the adult mouse central nervous system. Krezel W, et al. **Neuroscience** 1999;89(4):1291–300

Regulation of ciliary neurotrophic factor receptor alpha in sciatic motor neurons following axotomy. MacLennan AJ, et al. **Neuroscience** 1999;91(4):1401–13

Neurokinin–3 receptor distribution in rat and human brain: an immunohistochemical study. Mileusnic D, et al. **Neuroscience** 1999;89(4):1269–90

Increased calpain I–mediated proteolysis, and preferential loss of dephosphorylated NF200, following traumatic spinal cord injury. Schumacher PA, et al. **Neuroscience** 1999;91(2):733–44

Regulation of galanin and neuropeptide Y in dorsal root ganglia and dorsal horn in rat mononeuropathic models: possible relation to tactile hypersensitivity. Shi TJ, et al. **Neuroscience** 1999;93(2):741–57

A quantitative study of neurons which express neurokinin–1 or somatostatin sst2a receptor in rat spinal dorsal horn. Todd AJ, et al. **Neuroscience** 1998 Jul;85(2):459–73

Endomorphin–like immunoreactivity in the rat dorsal horn and inhibition of substantia gelatinosa neurons in vitro. Wu SY, et al. **Neuroscience** 1999 Mar;89(2):317–21

Considerations in the determination by microdialysis of resting extracellular amino acid concentrations and release

upon spinal cord injury. Xu GY, et al. **Neuroscience** 1998 Oct;86(3):1011–21

Receptor for calcitonin gene–related peptide: localization in the dorsal and ventral spinal cord. Ye Z, et al. **Neuroscience** 1999;92(4):1389–97

Characterization of adenoviral gene expression in spinal cord after remote vector delivery. Boulis NM, et al. **Neurosurgery** 1999 Jul;45(1):131–7; discussion 137–8

Neurotrophic agents in fibrin glue mediate adult dorsal root regeneration into spinal cord. Iwaya K, et al. **Neurosurgery** 1999 Mar;44(3):589–95; discussion 595–6

Cluster analysis and data visualization of large–scale gene expression data. Michaels GS, et al. **Pac Symp Biocomput** 1998;:42–53

Are there long–term changes in the basal or evoked Fos expression in the dorsal horn of the spinal cord of the mononeuropathic rat? Catheline G, et al. **Pain** 1999 Mar; 80(1–2):347–57

The effect of phorbol esters on spinal cord amino acid concentrations and responsiveness of rats to mechanical and thermal stimuli. Palecek J, et al. **Pain** 1999 Apr; 80(3):597–605

Nucleus reticularis gigantocellularis and nucleus raphe magnus in the brain stem exert opposite effects on behavioral hyperalgesia and spinal Fos protein expression after peripheral inflammation [published erratum appears in Pain 1999 May;81(1–2):215–9] Wei F, et al. **Pain** 1999 Mar;80(1–2):127–41

Metabolic fate of nociceptin/orphanin FQ in the rat spinal cord and biological activity of its released fragment. Suder P, et al. **Peptides** 1999;20(2):239–47

Cloning of the cDNA encoding the urotensin II precursor in frog and human reveals intense expression of the urotensin II gene in motoneurons of the spinal cord. Coulouarn Y, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15803–8

A nerve growth factor mimetic TrkA antagonist causes withdrawal of cortical cholinergic boutons in the adult rat. Debeir T, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30; 96(7):4067–72

Effect of Staphylococcus aureus bacteria and bacterial toxins on meningeal permeability in vitro. Ummenhofer WC, et al. **Reg Anesth Pain Med** 1999 Jan–Feb;24(1):24–9

Respiratory pattern formation in the isolated bullfrog (Rana catesbeiana) brainstem–spinal cord. Reid SG, et al. **Respir Physiol** 1998 Dec;114(3):239–55

Changes in substance P and calcitonin gene–related peptide binding in the dorsal horn of rat spinal cord following pronase–induced deafferentation. Helgren ME, et al. **Somatosens Mot Res** 1999;16(1):31–8

Deafferentation–induced regulation of AMPA receptors in the spinal cord of the adult rat. Helgren ME, et al. **Somatosens Mot Res** 1999;16(1):39–48

[Studies on the changes of morphometry and neuropeptide of spinal neurons after peripheral nerve injury] Huang Y, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):6–9 (Eng. Abstr.) **(Chi)**

[The distribution of motoneuronotrophic factor 1 (MNTF1) and its receptor–like substance in the spinal cord and limb muscles of mice with motoneuron disease] Zhou M, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Jun; 19(3):171–8 (Eng. Abstr.) **(Chi)**

[Effect of corticotropin on formalin–evoked c–fos expression of spinal cord and receptors analysis in rat] Li HD, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):394–6 (Eng. Abstr.) **(Chi)**

[Somatostatin and electroacupuncture inhibited c–fos expression in spinal cord of arthritic rats] Ruan HZ, et al. **Chung Kuo Yao Li Hsueh Pao** 1997 Sep;18(5):474–6 (Eng. Abstr.) **(Chi)**

[Expression of c–fos in spinal cord, medulla oblongata and thalamus following epicardial application of adenosine] Ma XY, et al. **Sheng Li Hsueh Pao** 1997 Aug;49(4):395–9 (Eng. Abstr.) **(Chi)**

[Changes in phospholipids after repeated induced sublethal spinal cord ischemia in rabbits] Lukáčová N, et al. **Bratisl Lek Listy** 1998 Jul;99(7):359–63 (Eng. Abstr.) **(Slo)**

MICROBIOLOGY

Fatal biphasic brainstem and spinal leptomeningitis with Cryptococcus neoformans in a non–immunocompromised child. Ruggieri M, et al. **Acta Paediatr** 1999 Jun;88(6):671–4

Effect of Staphylococcus aureus bacteria and bacterial toxins on meningeal permeability in vitro. Ummenhofer WC, et al. **Reg Anesth Pain Med** 1999 Jan–Feb;24(1):24–9

PARASITOLOGY

Spinal cord hydatid cysts in Egypt. Mazyad MA, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):655–8

Neospora caninum–associated equine protozoal myeloencephalitis. Hamir AN, et al. **Vet Parasitol** 1998 Nov 27;79(4):269–74

PATHOLOGY

Fatal biphasic brainstem and spinal leptomeningitis with Cryptococcus neoformans in a non–immunocompromised child. Ruggieri M, et al. **Acta Paediatr** 1999 Jun;88(6):671–4

The relationship between the functional abilities of patients with cervical spinal cord injury and the severity of damage revealed by MR imaging. Flanders AE, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):926–34

CNS involvement in neuro–Behçet syndrome: an MR study. Koçek N, et al. **AJNR Am J Neuroradiol** 1999 Jun–Jul; 20(6):1015–24

Newer sequences for spinal MR imaging: smorgasbord or succotash of acronyms? Ross JS. **AJNR Am J Neuroradiol** 1999 Mar;20(3):361–73 (82 ref.)

Contrast–enhanced T1–weighted three–dimensional gradient–echo MR imaging of the whole spine for intradural tumor dissemination [see comments] Sugahara T, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1773–9 . Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1595–6.

Fluoroscopically guided percutaneous needle biopsy of the cervical spinal cord. Geremia G, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):723–5

The effects of N(G)–nitro–L–arginine–methyl ester on neurologic and histopathologic outcome after transient spinal cord ischemia in rabbits. Matsumoto M, et al. **Anesth Analg** 1999 Sep;89(3):696–702

The effects of moderate hypothermia and intrathecal tetracaine on glutamate concentrations of intrathecal dialysate and neurologic and histopathologic outcome in transient spinal cord ischemia in rabbits. Wakamatsu H, et al. **Anesth Analg** 1999 Jan;88(1):56–62

Diaminobenzidine as a myelin stain in semithin plastic sections. Krueger SK, et al. **Biotech Histochem** 1999 Mar; 74(2):105–9

HLA–DPB1*0501–associated opticospinal multiple sclerosis: clinical, neuroimaging and immunogenetic studies. Yamasaki K, et al. **Brain** 1999 Sep;122 (Pt 9):1689–96

The role of voltage–gated Ca2+ channels in anoxic injury of spinal cord white matter. Imaizumi T, et al. **Brain Res** 1999 Jan 30;817(1–2):84–92

Spinal cord involvement in pediatric systemic lupus erythematosus: case report and literature review. al–Mayouf SM, et al. **Clin Exp Rheumatol** 1999 Jul–Aug; 17(4):505–8 (20 ref.)

Acute lupus myelitis affecting the clonus medullaris [letter] Mok CC, et al. **Clin Exp Rheumatol** 1999 Jan–Feb; 17(1):123–4

Sensory impairments in spinal multiple sclerosis: a combined clinical, magnetic resonance imaging and somatosensory evoked potential study. Fukutake T, et al. **Clin Neurol Neurosurg** 1998 Sep;100(3):199–204

Anatomy of the spinal cord in patients with meningomyelocele with and without hypoplasia or hydromyelia. Moskowitz D, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:18–21

Tethered cord syndrome: ventral displacement of the spinal cord at the thoracolumbar junction in magnetic resonance imaging. Saita K, et al. **Eur J Radiol** 1998 Jul;27(3):254–7

NMR studies in demyelinating and non–demyelinating experimental allergic encephalomyelitis. An approach involving a dehydration procedure. Namer IJ, et al. **Eur Neurol** 1999 Jan;41(1):24–30

Evaluation of the role of magnetic resonance myelography in lumbar spine imaging. Thornton MJ, et al. **Eur Radiol** 1999;9(5):924–9

A clinico–pathological study of cervical myelopathy in rheumatoid arthritis: post–mortem analysis of two cases. Fujiwara K, et al. **Eur Spine J** 1999;8(1):46–53

Clusterin upregulation following rubrospinal tract lesion in the adult rat. Liu L, et al. **Exp Neurol** 1999 May; 157(1):69–76

Depletion of hematogenous macrophages promotes partial hindlimb recovery and neuroanatomical repair after experimental spinal cord injury. Popovich PG, et al. **Exp Neurol** 1999 Aug;158(2):351–65

Myelinolytic lesions in spinal cord of cobalamin–deficient rats are TNF–alpha–mediated. Buccellato FR, et al. **FASEB J** 1999 Feb;13(2):297–304

Bulbo–spinal pathology in neurocardiac sudden death of adults: a pragmatic approach to a neglected problem. Rossi L. **Int J Legal Med** 1999;112(2):83–90 (53 ref.)

Use of magnetic resonance imaging in spinal trauma: indications, techniques, and utility. Slucky AV, et al. **J Am Acad Orthop Surg** 1998 May–Jun;6(3):134–45 (22 ref.)

DNA plasmid that codes for human Bcl–2 gene preserves axotomized Clarke's nucleus neurons and reduces atrophy after spinal cord hemisection in adult rats. Takahashi K, et al. **J Comp Neurol** 1999 Feb 8;404(2):159–71

Caspase–1 regulates the inflammatory process leading to autoimmune demyelination. Furlan R, et al. **J Immunol** 1999 Sep 1;163(5):2403–9

MR imaging of acute transverse myelitis. Huang TY, et al. **J Ky Med Assoc** 1999 Apr;97(4):165–7

Activation of macrophages/microglia with the calcium–binding proteins MRP14 and MRP8 is related to the lesional activities in the spinal cord of HTLV–I associated myelopathy. Abe M, et al. **J Neurol** 1999 May; 246(5):358–64

Meningomyelitis in a case of toxocariasis with markedly isolated CSF eosinophilia and an MRI–documented thoracic cord lesion [letter] Strupp M, et al. **J Neurol** 1999 Aug;246(8):741–4

No transneuronal degeneration between human cortical motor neurons and spinal motor neurons [letter] Terao S, et al. **J Neurol** 1999 Jan;246(1):61–2

Histological investigation of spinal cord lesions in the spinal hyperostotic mouse (twy/twy): morphological changes in anterior horn cells and immunoreactivity to neurotropic factors. Uchida K, et al. **J Neurol** 1998 Dec;245(12):781–93

Intracranial dural fistula as a cause of diffuse MR enhancement of the cervical spinal cord. Bousson V, et al. **J Neurol Neurosurg Psychiatry** 1999 Aug;67(2):227–30

Spinal corpora amylacea and motor neuron disease: a quantitative study. Cavanagh JB. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):488–91

Reversible hydromyelia in a synchronised swimmer with recurrent thoracic girdle pains [letter] Fukutake T, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):606

Resolution of extensive spinal epidural haematoma with conservative treatment [letter] Kumar R, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):949–50

Three dimensional MRI estimates of brain and spinal cord atrophy in multiple sclerosis. Liu C, et al. **J Neurol Neurosurg Psychiatry** 1999 Mar;66(3):323–30

Collagen abnormalities in the spinal cord from patients with amyotrophic lateral sclerosis. Ono S, et al. **J Neurol Sci** 1998 Oct 8;160(2):140–7

Triple dose of gadolinium–DTPA increases the sensitivity of spinal cord MRI in detecting enhancing lesions in multiple sclerosis. Yousry TA, et al. **J Neurol Sci** 1998 Jun 30;158(2):221–5

Effects of the sodium channel blocker tetrodotoxin on acute white matter pathology after experimental contusive spinal cord injury. Rosenberg LJ, et al. **J Neurosci** 1999 Jul 15; 19(14):6122–33

Digitized image analysis reveals diffuse abnormalities in normal–appearing white matter during acute experimental autoimmune encephalomyelitis. Kawczak JA, et al. **J Neurosci Res** 1998 Nov 1;54(3):364–72

Apoptosis in cellular compartments of rat spinal cord after severe contusion injury. Yong C, et al. **J Neurotrauma** 1998 Jul;15(7):459–72

Subdural injection of contrast medium as a complication of myelography. Penderis J, et al. **J Small Anim Pract** 1999 Apr;40(4):173–6

Reduced MTR in the corticospinal tract and normal T2 in amyotrophic lateral sclerosis. Tanabe JL, et al. **Magn Reson Imaging** 1998 Dec;16(10):1163–9

Does loss of gray– and white–matter contrast in injured spinal cord signify secondary injury? In vivo longitudinal MRI studies. Narayana P, et al. **Magn Reson Med** 1999 Feb; 41(2):315–20

Normal–appearing white matter changes in multiple sclerosis: the contribution of magnetic resonance techniques. Filippi M, et al. **Mult Scler** 1999 Aug;5(4):273–82 (86 ref.)

Are there any body fluid markers of brain atrophy in multiple sclerosis? Giovannoni G, et al. **Mult Scler** 1998 Jun; 4(3):138–42 (40 ref.)

Magnetic resonance imaging in the monitoring of disease progression in multiple sclerosis. Stevenson VL, et al. **Mult Scler** 1999 Aug;5(4):268–72 (49 ref.)

Images in clinical medicine. Brown–Séquard syndrome [see comments] Firlik AD, et al. **N Engl J Med** 1999 Jan 28; 340(4):285. Comment in: N Engl J Med 1999 Jul 1;341(1):57.

Cervical cord and dorsal medullary infarction presenting with retro–orbital pain. de la Sayette V, et al. **Neurology** 1999 Aug 11;53(3):632–4

MRI follow–up of herpes simplex virus (type 1) radiculomyelitis. Küker W, et al. **Neurology** 1999 Mar 23; 52(5):1102–3

Magnetization transfer imaging of the spinal cord and the optic nerve in patients with multiple sclerosis. van Waesberghe JH, et al. **Neurology** 1999;53(5 Suppl 3):S46–8 (11 ref.)

MRI of spinal cord and brain lesions in subacute combined degeneration [see comments] Katsaros VK, et al. **Neuroradiology** 1998 Nov;40(11):716–9. Comment in: Neuroradiology 1999 May;41(5):387.

Subacute combined degeneration of the spinal cord: demonstration of contrast enhancement [letter; comment] Küker W, et al. **Neuroradiology** 1999 May;41(5):387. Comment on: Neuroradiology 1998 Jun;40(6):398–400. Comment on: Neuroradiology 1998 Nov;40(11):716–9.

Improved imaging of the spinal cord in multiple sclerosis using three–dimensional fast spin echo. Stevenson VL, et al. **Neuroradiology** 1998 Jul;40(7):416–9

X–irradiation–induced loss of O–2A progenitor cells in rat spinal cord is inhibited by implants of cells engineered to secrete glial growth factor 2. Noel F, et al. **Neuroreport** 1999 Feb 25;10(3):535–40

Increase in fiber density for immunoreactive serotonin, substance P, enkephalin and thyrotropin–releasing hormone occurs during the early presymptomatic period of motoneuron disease in Wobbler mouse spinal cord ventral horn. Bose P, et al. **Neurosci Lett** 1999 Feb 5;260(3):196–200

Nociceptin/orphanin FQ binding increases in superficial laminae of the rat spinal cord during persistent peripheral inflammation. Jia Y, et al. **Neurosci Lett** 1998 Jun 26; 250(1):21–4

Two modes of corticospinal reinnervation occur close to spinal targets following unilateral lesion of the motor cortex in neonatal hamsters. Aisaka A, et al. **Neuroscience** 1999 Apr;90(1):53–67

A rare case of extramedullary spinal cord germinoma. Kiyuna M, et al. **Pathol Int** 1999 Jul;49(7):633–7 (13 ref.)

Pathological changes of the spinal cord in centenarians. Wang Y, et al. **Pathol Int** 1999 Feb;49(2):118–24

Spontaneous resolution of a cervicothoracic syrinx in a child.

Case report and review of the literature. Avellino AM, et al. **Pediatr Neurosurg** 1999 Jan;30(1):43–6 (24 ref.)
Idiopathic thoracolumbar syrinx with cutaneous marker. Mittler MA, et al. **Pediatr Neurosurg** 1999 Feb;30(2):100–1
Residual deformity of the spinal canal in patients with traumatic paraplegia and secondary changes of the spinal cord. Abel R, et al. **Spinal Cord** 1999 Jan;37(1):14–9
The applied neuropathology of human spinal cord injury [letter] Dietz V. **Spinal Cord** 1999 Aug;37(8):595
The applied neuropathology of human spinal cord injury. Kakulas BA. **Spinal Cord** 1999 Feb;37(2):79–88 (70 ref.)
The changes in human spinal sympathetic preganglionic neurons after spinal cord injury. Krassioukov AV, et al. **Spinal Cord** 1999 Jan;37(1):6–13
Acute nontraumatic spinal epidural hematomas. An important differential diagnosis in spinal emergencies. Alexiadou-Rudolf C, et al. **Spine** 1998 Aug 15; 23(16):1810–3
Magnetic resonance evaluation of the intervertebral disc, spinal ligaments, and spinal cord before and after closed traction reduction of cervical spine dislocations. Vaccaro AR, et al. **Spine** 1999 Jun 15;24(12):1210–7
"Disproportion theory" of the cervical spine and spinal cord in patients with juvenile cervical flexion myelopathy. A study comparing cervical magnetic resonance images with those of normal controls. Kohno M, et al. **Surg Neurol** 1998 Nov;50(5):421–30
A rapid and sensitive method for detecting human cells in xenogeneic hosts. Zompa EA, et al. **Transplantation** 1998 Oct 15;66(7):928–31
Dramatic development of quadriplegia in a young man while engaged in heavy manual labour: a post-traumatic spinal cord injury? Schlüter E, et al. **Virchows Arch** 1998 Nov; 433(5):487–91
[A surprising aglycorrachia! A case of neurocysticercosis] Cheillan D, et al. **Ann Biol Clin (Paris)** 1999 May; 57(3):356–9 **(Fre)**
[Polyneuropathies of pregnancy. Clinical neurophysiological, and anatomo-pathological study apropos of 38 cases collected at the Neurology Clinic of the the Fann University Hospital Center] Thiam A, et al. **Dakar Med** 1996;41(1):47–54 (20 ref.) (Eng. Abstr.) **(Fre)**
[Spinal cord MRI in multiple sclerosis: comparison of turbo-spin echo sequences and turbo-MRI] Neugroschl C, et al. **J Neuroradiol** 1998 Dec;25(4):263–7 (Eng. Abstr.) **(Fre)**
[Spinal localization of Gorham's syndrome. Case report] Grelet V, et al.
Rev Chir Orthop Reparatrice Appar Mot 1999 Mar; 85(1):81–7 (Eng. Abstr.) **(Fre)**
[Superficial siderosis of the central nervous system] Durieux A, et al. **Rev Neurol (Paris)** 1999 Mar;155(3):201–7 (35 ref.) (Eng. Abstr.) **(Fre)**
[Nervous system borreliosis with pseudo-lymphoma cells in cerebrospinal fluid] Kaminsky P, et al.
Rev Neurol (Paris) 1998 Feb;154(2):170–2 (Eng. Abstr.) **(Fre)**
[Intramedullary cysticercosis: case report] Dantas FL, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2A):301–5 (Eng. Abstr.) **(Por)**
[Spontaneous epidural spinal hematoma] Casado I, et al. **Neurologia** 1998 Oct;13(8):400 **(Spa)**
[Spontaneous epidural spinal hematoma: report of 2 cases and review of the literature] Horcajadas A, et al. **Neurologia** 1998 Oct;13(8):401–4 (26 ref.) (Eng. Abstr.) **(Spa)**

PHYSIOLOGY

Application of spinal pain mapping in the diagnosis of low back pain--analysis of 104 cases. Pang WW, et al. **Acta Anaesthesiol Sin** 1998 Jun;36(2):71–4
Anesthetic management for pheochromocytoma resection using spinal cord stimulation and intravenous nicardipine--a case report. Shiraishi M, et al. **Acta Anaesthesiol Sin** 1999 Jun;37(2):83–7
Divergence of lamina VII and VIII neurones of S1 and S2 segments of the cat's spinal cord to the cerebellum and the reticular formation. Krutki P, et al. **Acta Neurobiol Exp (Warsz)** 1999;59(2):81–8
Convergence of nociceptive and non-nociceptive inputs onto spinal reflex pathways to the tibialis anterior muscle in humans. Ellrich J, et al. **Acta Physiol Scand** 1998 Aug; 163(4):391–401
Cortico-spinal inhibition reflects time but not event preparation: neural mechanisms of preparation dissociated by transcranial magnetic stimulation. Hasbroucq T, et al. **Acta Psychol (Amst)** 1999 Apr;101(2–3):243–66
Vasopressin's depolarizing action on neonatal rat spinal lateral horn neurons may involve multiple conductances. Kolaj M, et al. **Adv Exp Med Biol** 1998;449:201–10
GABA receptors in the phrenic nucleus of the rat. Chitravanshi VC, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):R420–8
Early changes in muscle fiber size and gene expression in response to spinal cord transection and exercise. Dupont-Versteegden EE, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 1):C1124–33
Pressor reflex evoked by static muscle contraction: role of nitric oxide in the dorsal horn. Wilson LB, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1639–46
Assessment of dorsal nerve root and spinal cord dorsal horn function in clinically normal dogs by determination of cord dorsum potentials. Cuddon PA, et al. **Am J Vet Res** 1999 Feb;60(2):222–6
Persistence of hybrid fibers in rat soleus after spinal cord transection. Talmadge RJ, et al. **Anat Rec** 1999 Jun 1; 255(2):188–201
Isoflurane depresses motoneuron excitability by a direct spinal action: an F-wave study. Antognini JF, et al. **Anesth Analg** 1999 Mar;88(3):681–5
Xenon has greater inhibitory effects on spinal dorsal horn neurons than nitrous oxide in spinal cord transected cats. Miyazaki Y, et al. **Anesth Analg** 1999 Apr;88(4):893–7
Role of spinal NO in antiallodynic effect of intrathecal clonidine in neuropathic rats. Pan HL, et al. **Anesthesiology** 1998 Dec;89(6):1518–23
Barrier properties of the spinal meninges are markedly decreased by freezing meningeal tissues. Thompson SJ, et al. **Anesthesiology** 1998 Nov;89(5):1276–8
Incision-induced changes in receptive field properties of rat dorsal horn neurons. Zahn PK, et al. **Anesthesiology** 1999 Sep;91(3):772–85
Organization of rhythmic motor patterns in the lumbosacral spinal cord of neonate mouse. Bonnot A, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:432–5
The contribution of cutaneous inputs to locomotion in the intact and the spinal cat. Bouyer LJ, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:508–12
GABAergic control of spinal locomotor networks in the neonatal rat. Cazalets JR, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:168–80 (58 ref.)
Comparison of NMDA-induced membrane potential oscillations and spontaneous rhythmic activity in the chick spinal cord. Chub N, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:467–9
Crossed reciprocal inhibition and scratch rhythmogenesis in the turtle spinal cord. Currie SN, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:458–60
Evidence for a spinal central pattern generator in humans. Dimitrijevic MR, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:360–76
Is there a functional response-overlap between 5-HT3 and nicotinic ion channel receptors? Gyermek L, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:255–7
How do we approach the locomotor network in the mammalian spinal cord? Hultborn H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:70–82 (36 ref.)
Modulation of information forwarded to feline cerebellum by monoamines. Jankowska E, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:106–9 (8 ref.)
Segmental afferent regulation of hindlimb wiping in the spinal frog. Kargo WJ, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:456–7
Distribution of central pattern generators for rhythmic motor outputs in the spinal cord of limbed vertebrates. Kiehn O, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:110–29 (50 ref.)
Modeling of the spinal neuronal circuitry underlying locomotion in a lower vertebrate. Lansner A, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:239–49 (35 ref.)
Vestibulo- and reticulospinal control of the extensor half-center in locomotion. Leblond H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:563–5
Evidence for unstable periodic orbits in intact swimming lampreys, isolated spinal cords, and intermediate preparations. Lesher S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:486–91
Lumbar spinoreticular neurons in the rat: part of the central pattern generator for locomotion? Magnuson DS, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:436–40
Lumbar interneurons involved in the generation of fictive locomotion in cats. Matsuyama K, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:441–3
Cerebellar-induced locomotion: reticulospinal control of spinal rhythm generating mechanism in cats. Mori S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:94–105 (40 ref.)
Selective activation and graded recruitment of functional muscle groups through spinal cord stimulation. Mushahwar VK, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:531–5
Influence of glycinergic inhibition on spinal neuron excitability during amphibian tadpole locomotion. Perrins R, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:472–4
NMDA receptor-mediated oscillatory properties: potential role in rhythm generation in the mammalian spinal cord. Schmidt BJ, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:189–202 (82 ref.)
Analysis and modeling of the locomotor central pattern generator as a network of coupled oscillators. Sigvardt KA, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:250–65 (63 ref.)
Development and aminergic neuromodulation of a spinal locomotor network controlling swimming in Xenopus larvae. Sillar KT, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:318–32 (49 ref.)
Engines, accelerators, and brakes on functional spinal cord repair. Steeves JD, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:412–24 (51 ref.)
Spinal motor patterns in the turtle. Stein PS, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:142–54 (53 ref.)
Statistical analysis and intersegmental delays reveal possible roles of network depression in the generation of spontaneous activity in the chick embryo spinal cord. Tabak J, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:428–31
Coherence between locomotor drive potentials and neurograms of motor pools with variable patterns of locomotion. Trank TV, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:448–51
Interlimb coupling patterns in human locomotion: are we bipeds or quadrupeds? Van Emmerik RE, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:539–42
Physiological and molecular characterization of interneurons in the developing spinal cord. Wenner P, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:425–7
Instrumental learning within the spinal cord: I. Behavioral properties. Grau JW, et al. **Behav Neurosci** 1998 Dec; 112(6):1366–86
A role for presynaptic NMDA receptors in central sensitization in the spinal cord dorsal horn? [letter; comment] Hudspith M, et al. **Br J Anaesth** 1998 Aug; 81(2):294–5. Comment on: Br J Anaesth 1998 Mar;80(3):348–53.
Monitoring spinal cord function during aortic surgery: can we reduce the risks? [editorial] Sansome AJ, et al. **Br J Anaesth** 1999 Mar;82(3):315–8
Modulation of afferent-evoked neurotransmission by 5-HT3 receptors in young rat dorsal horn neurones in vitro: a putative mechanism of 5-HT3 induced anti-nociception. Khasabov SG, et al. **Br J Pharmacol** 1999 Jun;127(4):843–52
Changes in transmission in the pathway of heteronymous spinal recurrent inhibition from soleus to quadriceps motor neurons during movement in man. Iles JF, et al. **Brain** 1999 Sep;122 (Pt 9):1757–64
The foam production system of the male Japanese quail: characterization of structure and function. Seiwert CM, et al. **Brain Behav Evol** 1998;52(2):61–80
Spinal cord noradrenergic dynamics in diabetic and hypercortisolaemic states. Bitar MS, et al. **Brain Res** 1999 May 29;830(1):1–9
Melanin-concentrating hormone and neuropeptide EI projections from the lateral hypothalamic area and zona incerta to the medial septal nucleus and spinal cord: a study using multiple neuronal tracers. Bittencourt JC, et al. **Brain Res** 1998 Sep 14;805(1–2):1–19
Hemisegmental localisation of rhythmic networks in the lumbosacral spinal cord of neonate mouse. Bonnot A, et al. **Brain Res** 1998 May 18;793(1–2):136–48
Differential effects of potassium channel blockers on the activity of the locomotor network in neonatal rat. Cazalets JR, et al. **Brain Res** 1999 May 8;827(1–2):185–97
Microinjections of carbachol into the phrenic motor nucleus inhibit phrenic nerve activity in the rat. Chitravanshi VC, et al. **Brain Res** 1999 Aug 7;837(1–2):298–300
Bladder and urethral pressures evoked by microstimulation of the sacral spinal cord in cats. Grill WM, et al. **Brain Res** 1999 Jul 31;836(1–2):19–30
Identification of the spinal neural network involved in coordination of micturition in the male cat. Grill WM, et al. **Brain Res** 1998 Jun 15;796(1–2):150–60
Optical responses evoked by single-pulse stimulation to the dorsal root in the rat spinal dorsal horn in slice. Ikeda H, et al. **Brain Res** 1998 Nov 23;812(1–2):81–90
An in vitro functionally mature mouse spinal cord preparation for the study of spinal motor networks. Jiang Z, et al. **Brain Res** 1999 Jan 23;816(2):493–9
Inhibition of strychnine-allodynia is mediated by spinal adenosine A1- but not A2-receptors in the rat. Khandwala H, et al. **Brain Res** 1998 Oct 12;808(1):106–9
Myelinated afferents sprout into lamina II of L3–5 dorsal horn following chronic constriction nerve injury in rats. Nakamura S, et al. **Brain Res** 1999 Feb 13;818(2):285–90
Effects of electrical stimulation of thalamic nucleus submedius and periaqueductal gray on the visceral nociceptive responses of spinal dorsal horn neurons in the rat. Okada K, et al. **Brain Res** 1999 Jul 10;834(1–2):112–21
Ascending spinal projections to the optic tectum, facial and vagal lobes in the goldfish, Carassius auratus. Prasada Rao PD, et al. **Brain Res** 1999 Jan 30;817(1–2):209–14
Neurons in the hypothalamic paraventricular nucleus send collaterals to the spinal cord and to the rostral ventrolateral medulla in the rat. Shafton AD, et al. **Brain Res** 1998 Aug 10;801(1–2):239–43
Neurokinin-1 receptors and spinal cord control of blood pressure in spontaneously hypertensive rats. Solomon SG, et al. **Brain Res** 1999 Jan 2;815(1):116–20
Long term potentiation of single WDR neurons in spinalized rats. Svendsen F, et al. **Brain Res** 1999 Jan 23;816(2):487–92
Spinal inputs from lateral columns to reticulospinal neurons in lampreys. Vinay L, et al. **Brain Res** 1998 Oct 19; 808(2):279–93
Induction of microglial reaction and expression of nitric oxide synthase I in the nucleus dorsalis and red nucleus following lower thoracic spinal cord hemisection. Xu M, et al. **Brain Res** 1998 Oct 12;808(1):23–30
Tectal projections to the parvicellular reticular formation and the upper cervical spinal cord in the rat, with special reference to axon collateral innervation. Yasui Y, et al. **Brain Res** 1998 Aug 31;804(1):149–54
Tapping into spinal circuits to restore motor function. Barbeau H, et al. **Brain Res Brain Res Rev** 1999 Jul; 30(1):27–51 (203 ref.)
Branching and/or collateral projections of spinal dorsal horn neurons. Lu GW, et al. **Brain Res Brain Res Rev** 1999 Jan; 29(1):50–82 (231 ref.)
Influences of neck afferents on sympathetic and respiratory nerve activity. Bolton PS, et al. **Brain Res Bull** 1998 Nov 15;47(5):413–9
Transmitters involved in antinociception in the spinal cord. Fürst S. **Brain Res Bull** 1999 Jan 15;48(2):129–41 (97 ref.)

Involvement of endogenous opioids and ATP-sensitive potassium channels in the mediation of apomorphine-induced antinociception at the spinal level: a study using EMG planimetry of flexor reflex in rats. Hu WM, et al. **Brain Res Bull** 1999 Feb;48(3):315-8

Propriospinal neurons in the C1-C2 spinal segments project to the L5-S1 segments of the rat spinal cord. Miller KE, et al. **Brain Res Bull** 1998 Sep 1;47(1):43-7

Developmental plasticity of ascending spinal axons studies using the North American opossum, Didelphis virginiana. Terman JR, et al. **Brain Res Dev Brain Res** 1999 Jan 11; 112(1):65-77

Dual effects of pentobarbital on rat sacral dorsal commissural neurons in vitro. Pang ZP, et al. **Chung Kuo Yao Li Hsueh Pao** 1998 Jul;19(4):327-31

Neurogenesis during caudal spinal cord regeneration in adult newts. Benraiss A, et al. **Dev Genes Evol** 1999 Jun; 209(6):363-9

PAX6 intronic sequence targets expression to the spinal cord. Xu ZP, et al. **Dev Genet** 1998;23(4):259-63

Origin of renewed spinal ganglia during tail regeneration in urodeles. Koussoulakos S, et al. **Dev Neurosci** 1999; 21(2):134-9

Neurogastroenterology--information processing from the viscera to the brain in humans. Enck P, et al. **DTW Dtsch Tierarztl Wochenschr** 1998 Dec;105(12):468-71 (28 ref.)

Specializations in the lumbosacral spinal cord of birds: morphological and behavioural evidence for a sense of equilibrium. Necker R. **Eur J Morphol** 1999 Apr; 37(2-3):211-4

The effect of etomidate on sensory transmission in the dorsal column pathway in the urethane-anaesthetized rat. Angel A, et al. **Eur J Neurosci** 1999 Jul;11(7):2497-505

Presynaptic GABAergic control of the locomotor drive in the isolated spinal cord of neonatal rats. Bertrand S, et al. **Eur J Neurosci** 1999 Feb;11(2):583-92

Endogenous activation of metabotropic glutamate receptors contributes to burst frequency regulation in the lamprey locomotor network. Krieger P, et al. **Eur J Neurosci** 1998 Nov;10(11):3333-42

Re-establishment of direct synaptic connections between sensory axons and motoneurons after lesions of neonatal opossum CNS (Monodelphis domestica) in culture. Lepre M, et al. **Eur J Neurosci** 1998 Aug;10(8):2500-10

Long-term depression of C-fibre-evoked spinal field potentials by stimulation of primary afferent A delta-fibres in the adult rat. Liu XG, et al. **Eur J Neurosci** 1998 Oct; 10(10):3069-75

Axoaxonic synapses on terminals of group II muscle spindle afferent axons in the spinal cord of the cat. Maxwell DJ, et al. **Eur J Neurosci** 1999 Jun;11(6):2151-9

Nociceptive integration in the rat spinal cord: role of non-linear membrane properties of deep dorsal horn neurons. Morisset V, et al. **Eur J Neurosci** 1998 Dec; 10(12):3642-52

In vitro electrophysiological properties of rat dorsal column nuclei neurons. Nuñez A, et al. **Eur J Neurosci** 1999 Jun; 11(6):1865-76

Spatial organization of proprioception in the cat spinocerebellum. Purkinje cell responses to passive foot rotation. Perciavalle V, et al. **Eur J Neurosci** 1998 Jun; 10(6):1975-85

Effects of dorsolateral spinal lesions on stretch reflex threshold and stiffness in awake cats. Taylor J, et al. **Eur J Neurosci** 1999 Jan;11(1):363-8

Involvement of spinal dopamine receptors in mediation of the hypotensive and bradycardic effects of systemic quinpirole in anaesthetised rats. Lahlou S. **Eur J Pharmacol** 1998 Jul 24;353(2-3):227-37

Contribution of spinal mu1-opioid receptors to morphine-induced antinociception. Sato T, et al. **Eur J Pharmacol** 1999 Mar 19;369(2):183-7

Thoracoabdominal aortic surgery with special reference to spinal cord protection and perfusion techniques. "Second Nordic Workshop-group". Jacobs MJ, et al. **Eur J Vasc Endovasc Surg** 1999 Mar;17(3):253-6

Antinociception after both peripheral and intrathecal injection of oxotremorine is modulated by spinal nitric oxide. Machelska H, et al. **Eur Neuropsychopharmacol** 1999 Mar;9(3):213-7

Facilitation of spinal sciatic neuron responses to hindpaw thermal stimulation after formalin injection in rat tail. Biella G, et al. **Exp Brain Res** 1999 Jun;126(4):501-8

Low sensitivity of dorsal spinocerebellar neurons to limb movement speed. Bosco G, et al. **Exp Brain Res** 1999 Apr; 125(3):313-22

Prolonged GABA(B) receptor-mediated synaptic inhibition in the cat spinal cord: an in vivo study. Curtis DR, et al. **Exp Brain Res** 1998 Aug;121(3):319-33

Comparison of input-output patterns in the corticospinal system of normal subjects and incomplete spinal cord injured patients. Davey NJ, et al. **Exp Brain Res** 1999 Aug; 127(4):382-90

Pharmacologically evoked fictive motor patterns in the acutely spinalized marmoset monkey (Callithrix jacchus). Fedirchuk B, et al. **Exp Brain Res** 1998 Oct;122(3):351-61

A hierarchical foundation for models of sensorimotor control. Loeb GE, et al. **Exp Brain Res** 1999 May;126(1):1-18

Coordination of spinal locomotor activity in the lamprey: long-distance coupling of spinal oscillators. McClellan AD, et al. **Exp Brain Res** 1999 May;126(1):93-108

Activity-dependent development of cortical axon terminations in the spinal cord and brain stem. Martin JH, et al. **Exp Brain Res** 1999 Mar;125(2):184-99

Effects of electrical stimulation of the tooth pulp and phrenic nerve fibers on C1 spinal neurons in the rat. Matsumoto S, et al. **Exp Brain Res** 1999 Jun;126(3):351-8

Terminals of paraventricular spinal neurones are closely associated with adrenal medullary sympathetic preganglionic neurones: immunocytochemical evidence for vasopressin as a possible neurotransmitter in this pathway. Motawei K, et al. **Exp Brain Res** 1999 May;126(1):68-76

The influence of stimulus temperature rise rate, adapting temperature, and stimulus duration on suprathreshold responses evoked by noxious heat in the glabrous skin of the limb. Comparison of neuronal discharge in the rat spinal dorsal horn with human sensations. Pertovaara A. **Exp Brain Res** 1999 Jun;126(4):482-94

Flexor reflex afferents reset the step cycle during fictive locomotion in the cat. Schomburg ED, et al. **Exp Brain Res** 1998 Oct;122(3):339-50

Inhibitory influences on receptive field size in the dorsal column nuclei. Schwark HD, et al. **Exp Brain Res** 1999 Jun;126(3):439-42

Transplantation of sciatic nerve segments into normal and glia-depleted spinal cords. Sims TJ, et al. **Exp Brain Res** 1999 Apr;125(4):495-501

Mutual inhibition between Bötzinger-complex bulbospinal expiratory neurons detected with cross-correlation in the decerebrate rat. Tian GF, et al. **Exp Brain Res** 1999 Apr; 125(4):440-6

Regeneration of brainstem-spinal axons after lesion and immunological disruption of myelin in adult rat. Dyer JK, et al. **Exp Neurol** 1998 Nov;154(1):12-22

Penile erection produced by microstimulation of the sacral spinal cord of the cat. Tai C, et al. **IEEE Trans Rehabil Eng** 1998 Dec;6(4):374-81

Dynamic electromyographic response following acupuncture: possible influence on synergistic coordination. Tanaka TH, et al. **Int J Neurosci** 1998 Jul;95(1-2):51-61

Pattern of expiratory muscle activation during lower thoracic spinal cord stimulation. DiMarco AF, et al. **J Appl Physiol** 1999 Jun;86(6):1881-9

Rhythmic sympathetic nerve discharges in an in vitro neonatal rat brain stem-spinal cord preparation. Su CK. **J Appl Physiol** 1999 Sep;87(3):1066-74

Spinal cord segments mediating tonic sympathetic nerve discharge to the kidney in the anesthetized cat. Gyimesi-Pelczer K, et al. **J Auton Nerv Syst** 1998 Apr 30;69(2-3):122-6

Neurofilament-dependent radial growth of motor axons and axonal organization of neurofilaments does not require the neurofilament heavy subunit (NF-H) or its phosphorylation [see comments] Rao MV, et al. **J Cell Biol** 1998 Oct 5; 143(1):171-81. Comment in: J Cell Biol 1998 Oct 5;143(1):1-4.

Localization of components of glycinergic synapses during rat spinal cord development. Colin I, et al. **J Comp Neurol** 1998 Aug 31;398(3):359-72

Descending projections from the nucleus retroambiguus to the iliopsoas motoneuronal cell groups in the female golden hamster: possible role in reproductive behavior. Gerrits PO, et al. **J Comp Neurol** 1999 Jan 11;403(2):219-28

Colocalization of androgen receptors and mating-induced FOS immunoreactivity in neurons that project to the central tegmental field in male rats. Gréco B, et al. **J Comp Neurol** 1999 May 31;408(2):220-36

Spinal cord-projecting vasopressinergic neurons in the rat paraventricular hypothalamus. Hallbeck M, et al. **J Comp Neurol** 1999 Aug 23;411(2):201-11

Properties of spinal motoneurons and interneurons in the adult turtle: provisional classification by cluster analysis. McDonagh JC, et al. **J Comp Neurol** 1998 Nov 2; 400(4):544-70

Projections from the upper lumbar cord to the cerebellar nuclei in the rat, studied by anterograde axonal tracing. Matsushita M. **J Comp Neurol** 1999 Oct 4;412(4):633-48

Vasoactive intestinal polypeptide in sacral primary sensory pathways in the cat. Morgan CW, et al. **J Comp Neurol** 1999 May 10;407(3):381-94

Projections from the lateral vestibular nucleus to the upper cervical spinal cord of the cat: A correlative light and electron microscopic study of axon terminals stained with PHA-L. Rose PK, et al. **J Comp Neurol** 1999 Aug 9; 410(4):571-85

Distribution of glutamic acid decarboxylase mRNA-containing neurons in rat medulla projecting to thoracic spinal cord in relation to monoaminergic brainstem neurons. Stornetta RL, et al. **J Comp Neurol** 1999 May 10;407(3):367-80

Location of reticular premotor areas of a motor center innervating craniocervical muscles in the mallard (Anas platyrhynchos L.). Tellegen AJ, et al. **J Comp Neurol** 1999 Mar 15;405(3):281-98

Mu- and delta-opioid receptor mRNAs are expressed in spinally projecting serotonergic and nonserotonergic neurons of the rostral ventromedial medulla. Wang H, et al. **J Comp Neurol** 1999 Feb 8;404(2):183-96

Axon projections of reciprocal inhibitory interneurons in the spinal cord of young Xenopus tadpoles and implications for the pattern of inhibition during swimming and struggling. Yoshida M, et al. **J Comp Neurol** 1998 Nov 2;400(4):504-18

Cortical neurite outgrowth and growth cone behaviors reveal developmentally regulated cues in spinal cord membranes. Nagashima M, et al. **J Neurobiol** 1999 Jun 5;39(3):393-406

Absence of spontaneous central nervous system remyelination in class II-deficient mice infected with Theiler's virus. Njenga MK, et al. **J Neuropathol Exp Neurol** 1999 Jan;58(1):78-91

Optical mapping of neural network activity in chick spinal cord at an intermediate stage of embryonic development. Arai Y, et al. **J Neurophysiol** 1999 Apr;81(4):1889-902

Recovery of locomotion after ventral and ventrolateral spinal lesions in the cat. II. Effects of noradrenergic and serotoninergic drugs. Brustein E, et al. **J Neurophysiol** 1999 Apr;81(4):1513-30

Recovery of locomotion after ventral and ventrolateral spinal lesions in the cat. I. Deficits and adaptive mechanisms. Brustein E, et al. **J Neurophysiol** 1998 Sep;80(3):1245-67

Commissural interneurons in rhythm generation and intersegmental coupling in the lamprey spinal cord. Buchanan JT. **J Neurophysiol** 1999 May;81(5):2037-45

Studies on the corticospinal control of human walking. I. Responses to focal transcranial magnetic stimulation of the motor cortex. Capaday C, et al. **J Neurophysiol** 1999 Jan; 81(1):129-39

Hindlimb locomotor and postural training modulates glycinergic inhibition in the spinal cord of the adult spinal cat. de Leon RD, et al. **J Neurophysiol** 1999 Jul; 82(1):359-69

Differential patterns of spinal sympathetic outflow involving a 10-Hz rhythm. Gebber GL, et al. **J Neurophysiol** 1999 Aug;82(2):841-54

NMDA-Induced intrinsic voltage oscillations depend on L-type calcium channels in spinal motoneurons of adult turtles. Guertin PA, et al. **J Neurophysiol** 1998 Dec; 80(6):3380-2

Vasopressin-induced currents in rat neonatal spinal lateral horn neurons are G-protein mediated and involve two conductances. Kolaj M, et al. **J Neurophysiol** 1998 Oct; 80(4):1900-10

Calcium channels involved in synaptic transmission from reticulospinal axons in lamprey. Krieger P, et al. **J Neurophysiol** 1999 Apr;81(4):1699-705

ATP P2x receptors and sensory synaptic transmission between primary afferent fibers and spinal dorsal horn neurons in rats. Li P, et al. **J Neurophysiol** 1998 Dec; 80(6):3356-60

Nitric oxide-mediated spinal disinhibition contributes to the sensitization of primate spinothalamic tract neurons. Lin Q, et al. **J Neurophysiol** 1999 Mar;81(3):1086-94

Firing behavior of vestibular neurons during active and passive head movements: vestibulo-spinal and other non-eye-movement related neurons. McCrea RA, et al. **J Neurophysiol** 1999 Jul;82(1):416-28

Response patterns and force relations of monkey spinal interneurons during active wrist movement. Maier MA, et al. **J Neurophysiol** 1998 Nov;80(5):2495-513

Role of metabotropic glutamate receptor subtype mGluR1 in brief nociception and central sensitization of primate STT cells. Neugebauer V, et al. **J Neurophysiol** 1999 Jul; 82(1):272-82

Glycinergic miniature synaptic currents and receptor cluster sizes differ between spinal cord interneurons. Oleskevich S, et al. **J Neurophysiol** 1999 Jul;82(1):312-9

Activity of spinal interneurons and their effects on forearm muscles during voluntary wrist movements in the monkey. Perlmutter SI, et al. **J Neurophysiol** 1998 Nov; 80(5):2475-94

Spatial alignment of rotational and static tilt responses of vestibulospinal neurons in the cat. Perlmutter SI, et al. **J Neurophysiol** 1999 Aug;82(2):855-62

Cannabinoid WIN 55,212-2 inhibits the activity-dependent facilitation of spinal nociceptive responses. Strangman NM, et al. **J Neurophysiol** 1999 Jul;82(1):472-7

Physiological studies of spinohypothalamic tract neurons in the lumbar enlargement of monkeys. Zhang X, et al. **J Neurophysiol** 1999 Aug;82(2):1054-8

Junctional versus extrajunctional glycine and GABA(A) receptor-mediated IPSCs in identified lamina I neurons of the adult rat spinal cord. Chéry N, et al. **J Neurosci** 1999 Sep 1;19(17):7342-55

Robust regeneration of adult sensory axons in degenerating white matter of the adult rat spinal cord. Davies SJ, et al. **J Neurosci** 1999 Jul 15;19(14):5810-22

Spinal cord-evoked potentials and muscle responses evoked by transcranial magnetic stimulation in 10 awake human subjects. Houlden DA, et al. **J Neurosci** 1999 Mar 1; 19(5):1855-62

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213-24

Synaptic control of glycine and GABA(A) receptors and gephyrin expression in cultured motoneurons. Lévi S, et al. **J Neurosci** 1999 Sep 1;19(17):7434-49

Transplants of fibroblasts genetically modified to express BDNF promote regeneration of adult rat rubrospinal axons and recovery of forelimb function. Liu Y, et al. **J Neurosci** 1999 Jun 1;19(11):4370-87

Complete compensation in skilled reaching success with associated impairments in limb synergies, after dorsal column lesion in the rat. McKenna JE, et al. **J Neurosci** 1999 Mar 1;19(5):1885-94

NMDA-induced dendritic oscillations during a soma voltage clamp of chick spinal neurons. Moore LE, et al. **J Neurosci** 1999 Oct 1;19(19):8271-80

Ionic basis for plateau potentials in deep dorsal horn neurons of the rat spinal cord. Morisset V, et al. **J Neurosci** 1999 Sep 1;19(17):7309-16

Activity-dependent metaplasticity of inhibitory and excitatory synaptic transmission in the lamprey spinal cord locomotor network. Parker D, et al. **J Neurosci** 1999 Mar 1;19(5):1647-56

Ca(2+)-permeable AMPA receptors and spontaneous presynaptic transmitter release at developing excitatory spinal synapses. Rohrbough J, et al. **J Neurosci** 1999 Oct 1;19(19):8528-41

Glial cell line-derived neurotrophic factor rescues target-deprived sympathetic spinal cord neurons but requires transforming growth factor-beta as cofactor in vivo. Schober A, et al. **J Neurosci** 1999 Mar 15; 19(6):2008-15

Neuromuscular activity blockade induced by muscimol and d-tubocurarine differentially affects the survival of embryonic chick motoneurons. Usiak MF, et al. **J Neurosci** 1999 Sep 15;19(18):7925-39

Antisense ablation of type I metabotropic glutamate receptor mGluR1 inhibits spinal nociceptive transmission. Young MR, et al. **J Neurosci** 1998 Dec 1;18(23):10180-8

Thin slice CNS explants maintained on collagen-coated culture dishes. Parsley CP, et al. **J Neurosci Methods** 1998 Mar 13;80(1):65-74

Glial depolarization evokes a larger potassium accumulation around oligodendrocytes than around astrocytes in gray matter of rat spinal cord slices. Chvátal A, et al. **J Neurosci Res** 1999 Jun 1;56(5):493-505

Embryonic raphe neurons grafted in vitro on fetal spinal cord slices recognize specific target areas. Giménez y Ribotta M, et al. **J Neurosci Res** 1999 Jul 1;57(1):117-23

Expression of colony stimulating factor-1 receptor (CSF-1R) by CNS neurons in mice. Wang Y, et al. **J Neurosci Res** 1999 Sep 1;57(5):616-32

A new type of microelectrode for obtaining unitary recordings in the human spinal cord. Guenot M, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):25-32

Influence of fentanyl, alfentanil, and sufentanil on motor evoked potentials. Thees C, et al. **J Neurosurg Anesthesiol** 1999 Apr;11(2):112-8

Operant conditioning of H-reflex increase in spinal cord--injured rats. Chen XY, et al. **J Neurotrauma** 1999 Feb;16(2):175-86

Pharmacological properties of trimebutine and N-monodesmethyltrimebutine. Roman FJ, et al. **J Pharmacol Exp Ther** 1999 Jun;289(3):1391-7

Generation of rhythmic patterns of activity by ventral interneurones in rat organotypic spinal slice culture. Ballerini L, et al. **J Physiol (Lond)** 1999 Jun 1;517 (Pt 2):459-75

Actions of opioids on excitatory and inhibitory transmission in substantia gelatinosa of adult rat spinal cord. Kohno T, et al. **J Physiol (Lond)** 1999 Aug 1;518 (Pt 3):803-13

Endogenous calcium buffering in motoneurones of the nucleus hypoglossus from mouse. Lips MB, et al. **J Physiol (Lond)** 1998 Aug 15;511 (Pt 1):105-17

Does a C3-C4 propriospinal system transmit corticospinal excitation in the primate? An investigation in the macaque monkey. Maier MA, et al. **J Physiol (Lond)** 1998 Aug 15; 511 (Pt 1):191-212

Cortical control of spinal pathways mediating group II excitation to human thigh motoneurones. Marchand-Pauvert V, et al. **J Physiol (Lond)** 1999 May 15;517 (Pt 1):301-13

Fictive hindlimb motor patterns evoked by AMPA and NMDA in turtle spinal cord-hindlimb nerve preparations. Currie SN. **J Physiol Paris** 1999 May-Jun;93(3):199-211

Projection to the lateral reticular nucleus from neurons located in C6-C7 segments of the spinal cord. An electrophysiological study in the cat. Krutki P, et al. **J Physiol Paris** 1999 May-Jun;93(3):251-6

Electrophysiological and morphological properties of neurons in the ventral horn of the turtle spinal cord. McDonagh JC, et al. **J Physiol Paris** 1999 Jan-Apr; 93(1-2):3-16

Electroacupuncture decreases c-fos expression in the spinal cord induced by noxious stimulation of the rat bladder. Chang CJ, et al. **J Urol** 1998 Dec;160(6 Pt 1):2274-9

A neural model of cerebellar learning for arm movement control: cortico-spino-cerebellar dynamics. Contreras-Vidal JL, et al. **Learn Mem** 1997 Mar-Apr; 3(6):475-502

Muscarinic-mediated analgesia. Eisenach JC. **Life Sci** 1999; 64(6-7):549-54 (29 ref.)

Endogenous adenosine involved in the mediation of spinal antinociception produced by stimulating locus coeruleus. Zhao Y, et al. **Life Sci** 1999;65(5):PL67-74

BOLD MRI of the human cervical spinal cord at 3 tesla. Stroman PW, et al. **Magn Reson Med** 1999 Sep;42(3):571-6

Spinal cord segments controlling the canine vas deferens and differentiation of the primate sympathetic pathways to the vas deferens. Sato K, et al. **Microsc Res Tech** 1998 Sep 15;42(6):390-7

Neuronal injury increases retrograde axonal transport of the neurotrophins to spinal sensory neurons and motor neurons via multiple receptor mechanisms. Curtis R, et al. **Mol Cell Neurosci** 1998 Oct;12(3):105-18

Distinctive patterns of PDGF-A, FGF-2, IGF-I, and TGF-beta1 gene expression during remyelination of experimentally-induced spinal cord demyelination. Hinks GL, et al. **Mol Cell Neurosci** 1999 Aug;14(2):153-68

Regulation of neuronal plasticity in the central nervous system by phosphorylation and dephosphorylation. Tokuda M, et al. **Mol Neurobiol** 1998 Winter;17(1-3):137-56 (131 ref.)

Spinal anticipation and cortical correction: coordination of movements (1930). Beek PJ, et al. **Motor Control** 1999 Jan; 3(1):2-8

The cutaneous silent period is mediated by spinal inhibitory reflex. Logigian EL, et al. **Muscle Nerve** 1999 Apr; 22(4):467-72

Corticomotoneuronal PSTH studies [editorial; comment] Mills KR. **Muscle Nerve** 1999 Mar;22(3):297-8 (13 ref.). Comment on: Muscle Nerve 1999 Mar;22(3):299-306.

Nociceptive and thermoreceptive lamina I neurons are anatomically distinct [see comments] Han ZS, et al. **Nat Neurosci** 1998 Jul;1(3):218-25. Comment in: Nat Neurosci 1998 Jul;1(3):177-8.

The construction of movement by the spinal cord. Tresch MC, et al. **Nat Neurosci** 1999 Feb;2(2):162-7

Evaluation of chronic intrathecal catheterization in rats. Dobos I, et al. **Neurobiology (Bp)** 1998;6(4):469-70

Monitoring spinal cord motor and somatosensory evoked potentials in anesthetized primates. Ghaly RF, et al. **Neurol Res** 1999 Jun;21(4):359-67

Long-term reorganization of motor cortex outputs after arm amputation. Röricht S, et al. **Neurology** 1999 Jul 13; 53(1):106-11

Leptin activates hypothalamic CART neurons projecting to the spinal cord. Elias CF, et al. **Neuron** 1998 Dec; 21(6):1375-85

Dissociation between Ca2+-triggered synaptic vesicle exocytosis and clathrin-mediated endocytosis at a central synapse. Gad H, et al. **Neuron** 1998 Sep;21(3):607-16

Reversal of behavioural and electrophysiological correlates of experimental peripheral neuropathy by the NK1 receptor antagonist GR205171 in rats. Cumberbatch MJ, et al. **Neuropharmacology** 1998 Dec;37(12):1535-43

Nociceptive and antinociceptive responses to intrathecally administered nicotinic agonists. Khan IM, et al. **Neuropharmacology** 1998 Dec;37(12):1515-25

Corticospinal excitability is specifically modulated by motor imagery: a magnetic stimulation study. Fadiga L, et al. **Neuropsychologia** 1999 Feb;37(2):147-58

Modulatory action of noradrenergic system on spinal motoneurons in humans. Palmeri A, et al. **Neuroreport** 1999 Apr 26;10(6):1225-9

The effects of baclofen on calcium channel currents in dorsal sensory cells of the spinal cord in the lamprey. Batueva IV, et al. **Neurosci Behav Physiol** 1999 Jan-Feb;29(1):79-89

Calcium currents and GABAB receptors in the dorsal sensory cells of the lamprey spinal cord. Batueva IV, et al. **Neurosci Behav Physiol** 1999 Jan-Feb;29(1):67-77

Spinal integration of antidromic mediated cutaneous vasodilation during dorsal spinal cord stimulation in the rat. Barron KW, et al. **Neurosci Lett** 1999 Feb 5; 260(3):173-6

Sacral spinal cord neurons responsive to bladder pelvic and perineal inputs in cats. Coonan EM, et al. **Neurosci Lett** 1999 Jan 29;260(2):137-40

Uraemic guanidino compounds inhibit gamma-aminobutyric acid-evoked whole cell currents in mouse spinal cord neurones. D'Hooge R, et al. **Neurosci Lett** 1999 Apr 16; 265(2):83-6

D-2-amino-5-phosphonovalerate, and NMDA receptor antagonist, blocks induction of associative long-term potentiation of the flexion reflex in spinal cat. Durkovic RG, et al. **Neurosci Lett** 1998 Dec 4;257(3):162-4

Gastrin/CCK-ergic innervation of cutaneous mucous gland by the supramedullary cells of the puffer fish Takifugu niphobles. Funakoshi K, et al. **Neurosci Lett** 1998 Dec 24; 258(3):171-4

L-type calcium channels but not N-methyl-D-aspartate receptor channels mediate rhythmic activity induced by cholinergic agonist in motoneurons from turtle spinal cord slices. Guertin PA, et al. **Neurosci Lett** 1999 Feb 12; 261(1-2):81-4

Antisense of c-fos gene attenuates Fos expression in the spinal cord induced by unilateral constriction of the sciatic nerve in the rat. Huang W, et al. **Neurosci Lett** 1999 Mar 19; 263(1):61-4

Ketamine suppresses c-fos expression in dorsal horn neurons after acute constrictive sciatic nerve injury in the rat. Huang W, et al. **Neurosci Lett** 1999 Jul 16;269(3):165-8

Three times as many lamina I neurons project to the periaqueductal gray than to the thalamus: a retrograde tracing study in the cat. Mouton LJ, et al. **Neurosci Lett** 1998 Oct 16;255(2):107-10

Flunarizine enhances functional recovery following sciatic nerve crush lesion in rats. Patro IK, et al. **Neurosci Lett** 1999 Mar 26;263(2-3):97-100

Differential cholera-toxin sensitivity of supraspinal antinociception induced by the cannabinoid agonists delta9-THC, WIN 55,212-2 and anandamide in mice. Raffa RB, et al. **Neurosci Lett** 1999 Mar 19;263(1):29-32

Different effect of high doses of naloxone on spinal reflexes in normal subjects and chronic paraplegic patients. Sandrini G, et al. **Neurosci Lett** 1999 Feb 12;261(1-2):5-8

Axonal trajectories of the nucleus reticularis gigantocellularis neurons in the C2-C3 segments in cats. Sasaki S, et al. **Neurosci Lett** 1999 Apr 2;264(1-3):137-40

Contralateral inhibitory control of spinal nociceptive transmission in rats with chronic peripheral nerve injury. Sotgiu ML, et al. **Neurosci Lett** 1998 Aug 28;253(1):21-4

The effects of morphine on supraspinal and propriospinal somatocardiac reflexes in anesthetized rats. Uchida S, et al. **Neurosci Lett** 1999 Jul 16;269(3):161-4

Effect of nocistatin and its interaction with nociceptin/orphanin FQ on the rat formalin test. Yamamoto T, et al. **Neurosci Lett** 1999 Mar 12; 262(3):179-82

Constriction of the ear pinna vascular bed accompanies the trigeminal depressor response in rabbits. Yu YH, et al. **Neurosci Lett** 1998 Oct 23;255(3):172-4

Recurrent excitation of motoneurons in the isolated spinal cord of newborn rats detected by whole-cell recording. Ichinose T, et al. **Neurosci Res** 1998 Jul;31(3):179-87

Effects of long-term physical exercise on age-related changes of spinal motoneurons and peripheral nerves in rats. Kanda K, et al. **Neurosci Res** 1998 May;31(1):69-75

Contribution of group III and IV muscle afferents to multisensorial spinal motor control in cats. Schomburg ED, et al. **Neurosci Res** 1999 Mar;33(3):195-206

Comparative analysis of L-DOPA actions on nociceptive and non-nociceptive spinal reflex pathways in the cat. Schomburg ED, et al. **Neurosci Res** 1998 Aug;31(4):307-16

5-Hydroxytryptamine2C receptors on spinal neurons controlling penile erection in the rat. Bancila M, et al. **Neuroscience** 1999;92(4):1523-37

Physiological and morphological correlates of presynaptic inhibition in primary afferents of the lamprey spinal cord. Batueva I, et al. **Neuroscience** 1999;88(3):975-87

Gradual development of the ventral funiculus input to lumbar motoneurons in the neonatal rat. Brocard F, et al. **Neuroscience** 1999;90(4):1543-54

Selective stimulation of dendrite outgrowth from identified corticospinal neurons by homotopic astrocytes. Dijkstra S, et al. **Neuroscience** 1999;92(4):1331-42

Responses of primate spinomesencephalic tract cells to intradermal capsaicin. Dougherty PM, et al. **Neuroscience** 1999;90(4):1377-92

A role for spinal lamina I neurokinin-1-positive neurons in cold thermoreception in the rat. Doyle CA, et al. **Neuroscience** 1999;91(2):723-32

Increased activity in the form of endurance training increases calcitonin gene-related peptide content in lumbar motoneuron cell bodies and in sciatic nerve in the rat. Gharakhanlou R, et al. **Neuroscience** 1999;89(4):1229-39

P2Y and P2U receptors differentially release intracellular Ca2+ via the phospholipase c/inositol 1,4,5-triphosphate pathway in astrocytes from the dorsal spinal cord. Idestrup CP, et al. **Neuroscience** 1998 Oct;86(3):913-23

Sprouting of primary afferent fibers after spinal cord transection in the rat. Krenz NR, et al. **Neuroscience** 1998 Jul;85(2):443-58

Activation of spinal N-methyl-D-aspartate or neurokinin receptors induces long-term potentiation of spinal C-fibre-evoked potentials. Liu XG, et al. **Neuroscience** 1998 Oct;86(4):1209-16

Paradoxical inhibition of nociceptive neurons in the dorsal horn of the rat spinal cord during a nociceptive hindlimb reflex. Morgan MM. **Neuroscience** 1999 Jan;88(2):489-98

Identification of an efferent projection from the paraventricular nucleus of the hypothalamus terminating close to spinally projecting rostral ventrolateral medullary neurons. Pyner S, et al. **Neuroscience** 1999;88(3):949-57

Antagonism by (1,2,5,6-tetrahydropyridine-4-yl) methylphosphinic acid of synaptic transmission in the neonatal rat spinal cord in vitro: an electrophysiological study. Rozzo A, et al. **Neuroscience** 1999 Mar;90(3):1085-92

Transtracheal electrical stimulation of the spinal cord for intraoperative monitoring of the motor pathway. Csécsei GI, et al. **Neurosurg Rev** 1998;21(4):232-6

Can short-latency vestibulospinal reflexes in lower leg muscles be elicited by tapping the head? Iida M, et al. **ORL J Otorhinolaryngol Relat Spec** 1999 Jan-Feb;61(1):1-5

Spinal cord monitoring: current state of the art. Padberg AM, et al. **Orthop Clin North Am** 1999 Jul;30(3):407-33, viii (71 ref.)

Response properties of spinal interneurons in awake, behaving primates. Fetz EE. **Pain** 1999 Aug;Suppl 6:S55-60 (37 ref.)

Dorsal column lesion prevents mechanical hyperalgesia and allodynia in osteotomy model. Houghton AK, et al. **Pain** 1999 Jul;82(1):73-80

Windup leads to characteristics of central sensitization. Li J, et al. **Pain** 1999 Jan;79(1):75-82

Spinal neurokinin3 receptors mediate thermal but not mechanical hyperalgesia via nitric oxide. Linden DR, et al. **Pain** 1999 Mar;80(1-2):309-17

Partial deafferentation of the developing rat spinal cord delays the spontaneous repression of GAD67 mRNAs in spinal cells. Feldblum S, et al. **Perspect Dev Neurobiol** 1998; 5(2-3):131-43

Physiological functions of GABA-induced depolarizations in the developing rat spinal cord. Ziskind-Conhaim L. **Perspect Dev Neurobiol** 1998;5(2-3):279-87 (70 ref.)

Relative involvement of spinal opioid receptors in physical dependence on intrathecal butorphanol and morphine. Wongchanapai W, et al. **Pharmacol Biochem Behav** 1998 Aug;60(4):899-907

Simulations of neuromuscular control in lamprey swimming. Ekeberg O, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 May 29;354(1385):895–902

Glutamate-, kainate- and NMDA-evoked membrane currents in identified glial cells in rat spinal cord slice. Ziak D, et al. **Physiol Res** 1998;47(5):365–75

Spinal cord stimulation improves survival in ischemic skin flaps: an experimental study of the possible mediation by calcitonin gene-related peptide. Gherardini G, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1221–8

Differential effects of intrathecally and intracerebroventricularly administered nitric oxide donors on noxious mechanical and thermal stimulation. Machelska H, et al. **Pol J Pharmacol** 1998 Nov–Dec;50(6):407–15

Long-range signaling within growing neurites mediated by neurotrophin-3. Chang S, et al. **Proc Natl Acad Sci U S A** 1999 Mar 30;96(7):4095–100

The postnatal development of spinal sensory processing. Fitzgerald M, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7719–22 (49 ref.)

Preferential synaptic relationships between substance P-immunoreactive boutons and neurokinin 1 receptor sites in the rat spinal cord. McLeod AL, et al. **Proc Natl Acad Sci U S A** 1998 Dec 22;95(26):15775–80

Neurotrophins: peripherally and centrally acting modulators of tactile stimulus-induced inflammatory pain hypersensitivity. Mannion RJ, et al. **Proc Natl Acad Sci U S A** 1999 Aug 3;96(16):9385–90

Ca2+/calmodulin-dependent kinase II mediates simultaneous enhancement of gap-junctional conductance and glutamatergic transmission. Pereda AE, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13272–7

Widespread accumulation of [(3)H]testosterone in the spinal cord of a wild bird with an elaborate courtship display. Schultz JD, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10428–32

Brain-derived neurotrophic factor is an endogenous modulator of nociceptive responses in the spinal cord. Thompson SW, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7714–8 (28 ref.)

Antianalgesic action of dynorphin A mediated by spinal cholecystokinin. Rady JJ, et al. **Proc Soc Exp Biol Med** 1999 Mar;220(3):178–83

Vasopressin in the locus coeruleus and dorsal pontine tegmentum affects posture and vestibulospinal reflexes. Pompeiano O. **Prog Brain Res** 1998;119:537–54 (65 ref.)

Oligodendrocyte regeneration in the adult rodent CNS and the failure of this process in multiple sclerosis. Wolswijk G. **Prog Brain Res** 1998;117:233–47 (82 ref.)

An investigation of the neurophysiologic mechanisms of tourniquet-related pain: changes in spontaneous activity and receptive field size in spinal dorsal horn neurons [see comments] Crews JC, et al. **Reg Anesth Pain Med** 1999 Mar–Apr;24(2):102–9. Comment in: Reg Anesth Pain Med 1999 Mar–Apr;24(2):99–101.

Determination of epidural catheter placement using nerve stimulation in obstetric patients. Tsui BC, et al. **Reg Anesth Pain Med** 1999 Jan–Feb;24(1):17–23

N-methyl-D-aspartate-mediated bulbospinal respiratory drive is pH/P(CO2)-insensitive in turtle brainstem-spinal cord. Johnson SM, et al. **Respir Physiol** 1998 Sep; 113(3):201–12

Brain, heal thyself. Lowenstein DH, et al. **Science** 1999 Feb 19;283(5405):1126–7 (13 ref.)

Impaired detection of repetitive stimulation following interruption of the dorsal spinal column in primates. Vierck CJ Jr. **Somatosens Mot Res** 1998;15(2):157–63

Spinal cord stimulation in chronic pain syndromes. ten Vaarwerk IA, et al. **Spinal Cord** 1998 Oct;36(10):671–82 (80 ref.)

Advances in spinal cord regeneration. Lu J, et al. **Spine** 1999 May 1;24(9):926–30 (68 ref.)

In vivo human cervical spinal cord deformation and displacement in flexion. Yuan Q, et al. **Spine** 1998 Aug 1;23(15):1677–83

Modulation of spinal pain mechanisms by spinal cord stimulation and the potential role of adjuvant pharmacotherapy. Meyerson BA, et al. **Stereotact Funct Neurosurg** 1997;68(1–4 Pt 1):129–40

Spinal cord stimulation: a quarter century of development and investigation. A review of its development and effectiveness in 1,336 cases. Waltz JM. **Stereotact Funct Neurosurg** 1997;69(1–4 Pt 2):288–99

An ependymal cell culture system for the study of spinal cord regeneration. Chernoff EA, et al. **Wound Repair Regen** 1998 Jul–Aug;6(4):403–12

Modular organization of motor behavior. Bizzi E, et al. **Z Naturforsch [C]** 1998 Jul–Aug;53(7–8):510–7

[Somatostatin inhibited pain modulation action of substance P in spinal cord] Ruan HZ, et al. **Sheng Li Hsueh Pao** 1997 Feb;49(1):13–7 (Eng. Abstr.) **(Chi)**

[Characteristics of synaptic responses of motoneurons to ventrolateral funiculus stimulation in vitro] Wang MY, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):625–31 (Eng. Abstr.) **(Chi)**

[Role of spinal alpha adrenoceptor in the inhibition of renal sympathetic nerve activity and natriuresis induced by blood volume expansion in rabbits] Wang Y, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):679–84 (Eng. Abstr.) **(Chi)**

[Monitoring the neurogenic mixed evoked potentials during surgery of the spine: a good solution?] Péréon Y, et al. **Neurophysiol Clin** 1998 Sep;28(4):321–34 (64 ref.) (Eng. Abstr.) **(Fre)**

[Development of a surface coating for spinal cord stimulation] Bayer G, et al. **Biomed Tech (Berl)** 1998;43 Suppl:556–7 **(Ger)**

[Midazolam presynaptically inhibits excitatory synaptic transmission in the superficial dorsal horn of the rat spinal cord] Hanzawa S. **Masui** 1999 May;48(5):474–80 (Eng. Abstr.) **(Jpn)**

[Use of H-reflex in the assessment of the excitability of spinal cord nociceptive neurons in man] Kukushkin ML, et al. **Anesteziol Reanimatol** 1998 Sep–Oct;(5):16–9 **(Rus)**

[Electrophysiological analysis of the topical organization of vestibulospinal neurons in frog] Fanardzhian VV, et al. **Dokl Akad Nauk** 1999 Jun;366(5):708–11 **(Rus)**

[Spinal locomotor generators in humans: problems in assessing effectiveness of stimulations] Shapkov IuT, et al. **Med Tekh** 1998 Jul–Aug;(4):24–7 (Eng. Abstr.) **(Rus)**

[Topography and cellular composition of sensory centers of the thoracic region of the cat spinal cord] Flegontova VV. **Morfologiia** 1999;115(3):62–4 (Eng. Abstr.) **(Rus)**

[NMDA-Induced oscillations of membrane potential in isolated spinal neurons from lamprey, Lampetra fluviatilis] Batueva IV, et al. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug; 34(4):407–18 **(Rus)**

[Structural and functional characteristics of supraspinal fibers monosynaptically connected with the lumbar motoneurons of the spinal cord from the frog, Rana ridibunda] Chmykhova NM, et al. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug;34(4):458–70 **(Rus)**

[Functional characteristics of correlation of the vestibular input and the vestibulospinal system of the frog, Rana ridibunda] Fanardzhian VV, et al. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug;34(4):471–9 **(Rus)**

[GABA-Activated cloride currents in isolated spinal neurons from lamprey, Lampetra fluviatilis] Sagatelian AK, et al. **Zh Evol Biokhim Fiziol** 1998 Jul–Aug;34(4):419–29 **(Rus)**

PHYSIOPATHOLOGY

Is reversible enlargement of the spinal cord a presyrinx state? [see comments] Milhorat TH. **AJNR Am J Neuroradiol** 1999 Jan;20(1):21–2. Comment in: AJNR Am J Neuroradiol 1999 Jan;20(1):7–20.

Spinal and peripheral mechanisms contributing to hyperactive voiding in spontaneously hypertensive rats. Persson K, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1366–73

c-Fos induction in spinal cord neurons after renal arterial or venous occlusion. Rosas-Arellano MP, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R120–7

Spinal cord evoked potentials and edema in the pathophysiology of rat spinal cord injury. Involvement of nitric oxide. Winkler T, et al. **Amino Acids** 1998; 14(1–3):131–9

The effect of graded postischemic spinal cord hypothermia on neurological outcome and histopathology after transient spinal ischemia in rat. Kakinohana M, et al. **Anesthesiology** 1999 Mar;90(3):789–98

Intrathecal clonidine alleviates allodynia in neuropathic rats: interaction with spinal muscarinic and nicotinic receptors. Pan HL, et al. **Anesthesiology** 1999 Feb;90(2):509–14

Regulation of expression of galanin and galanin receptors in dorsal root ganglia and spinal cord after axotomy and inflammation. Zhang X, et al. **Ann N Y Acad Sci** 1998 Dec 21;863:402–13 (50 ref.)

Epileptic discharge of cortical, subcortical and spinal neurons in penicillin induced experimental epilepsy. Mameli O, et al. **Arch Ital Biol** 1999 Feb;137(1):29–46

Increased c-fos expression in spinal lumbosacral projection neurons and preganglionic neurons after irritation of the lower urinary tract in the rat. Birder LA, et al. **Brain Res** 1999 Jul 10;834(1–2):55–65

Microglia, but not astrocytes, react to sciatic nerve injury in aging rats. Gilmore SA, et al. **Brain Res** 1998 Sep 21; 806(1):113–6

Dorsolateral funiculus-lesions unmask inhibitory or disfacilitatory mechanisms which modulate the effects of innocuous mechanical stimulation on spinal Fos expression after inflammation. Wei F, et al. **Brain Res** 1999 Feb 27; 820(1–2):112–6

The effect of perineural colchicine on nerve injury-induced spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Brain Res Bull** 1999 Aug;49(6):419–27

Free radicals as mediators of neuronal injury. Facchinetti F, et al. **Cell Mol Neurobiol** 1998 Dec;18(6):667–82 (126 ref.)

Long-term home treatment with epidural analgesia does not affect later spinal cord stimulation in patients with otherwise intractable angina pectoris. Andersen C, et al. **Clin J Pain** 1998 Dec;14(4):315–9

Abnormally large evoked potentials arising from dorsal column fibers in the region of chronically compressed spinal cord. Hoshino Y, et al. **Clin Neurophysiol** 1999 Feb; 110(2):305–16

Regeneration in the spinal cord. Bregman BS. **Curr Opin Neurobiol** 1998 Dec;8(6):800–7 (56 ref.)

Spinal motoneuron function in lower motor neuron disease: normal corticomotoneuronal and peripheral Ia EPSPs in patients with spinal muscular atrophy. Gonschorek AS, et al. **Electromyogr Clin Neurophysiol** 1999 Jan–Feb; 39(1):27–32

Peripheral nerve insult induces NMDA receptor-mediated, delayed degeneration in spinal neurons. Azkue JJ, et al. **Eur J Neurosci** 1998 Jun;10(6):2204–6

Phase contrast MRI assessment of thoraco-lumbar spinal cord motion in spinal dysraphism. Jones R, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:60–2

Neuronal pathways for spinal reflexes activated by group I and group II muscle afferents in the spinal segment (Co1) innervating the tail in the low spinalized cat. Wada N, et al. **Exp Brain Res** 1999 Mar;125(2):129–38

The effect of site and type of nerve injury on spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Exp Neurol** 1999 Jun;157(2):289–304

Relapsing ulcerative colitis associated with spinal cord stimulation. Kemler MA, et al. **Gastroenterology** 1999 Jul; 117(1):215–7

Generators of short latency human somatosensory-evoked potentials recorded over the spine and scalp. Lee EK, et al. **J Clin Neurophysiol** 1998 May;15(3):227–34 (65 ref.)

Axonal regeneration from injured dorsal roots into the spinal cord of adult rats. Chong MS, et al. **J Comp Neurol** 1999 Jul 19;410(1):42–54

Caspase-1 regulates the inflammatory process leading to autoimmune demyelination. Furlan R, et al. **J Immunol** 1999 Sep 1;163(5):2403–9

A review of biomechanics of the central nervous system--Part I: spinal canal deformations resulting from changes in posture. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 May;22(4):227–34 (67 ref.)

A review of biomechanics of the central nervous system--part II: spinal cord strains from postural loads. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 Jun; 22(5):322–32 (49 ref.)

Neurological complications of anterior spinal surgery for kyphosis with normal somatosensory evoked potentials (SEPs). Pelosi L, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):662–4

New method to measure central motor conduction time using transcranial magnetic stimulation and T-response. Ofuji A, et al. **J Neurol Sci** 1998 Sep 18;160(1):26–32

Midbrain periaqueductal gray (PAG) inhibits nociceptive inputs to sacral dorsal horn nociceptive neurons through alpha2-adrenergic receptors. Budai D, et al. **J Neurophysiol** 1998 Nov;80(5):2244–54

Effects of omega-agatoxin IVA, a P-type calcium channel antagonist, on the development of spinal neuronal hyperexcitability caused by knee inflammation in rats. Nebe J, et al. **J Neurophysiol** 1999 Jun;81(6):2620–6

Leukemia inhibitory factor augments neurotrophin expression and corticospinal axon growth after adult CNS injury. Blesch A, et al. **J Neurosci** 1999 May 1;19(9):3556–66

Spinal substance P receptor expression and internalization in acute, short-term, and long-term inflammatory pain states. Honor P, et al. **J Neurosci** 1999 Sep 1;19(17):7670–8

Neutralizing intraspinal nerve growth factor blocks autonomic dysreflexia caused by spinal cord injury. Krenz NR, et al. **J Neurosci** 1999 Sep 1;19(17):7405–14

Reinnervation of denervated lumbar ventral roots and their target muscle by thoracic spinal motoneurons via an implanted nerve autograft in adult rats after spinal cord injury. Liu S, et al. **J Neurosci Res** 1999 Jun 1;56(5):506–17

Evoked potentials [letter; comment] Kombos T, et al. **J Neurosurg** 1999 Feb;90(2):376. Comment on: J Neurosurg 1998 Mar;88(3):457–70.

Site of origin of spinal cerebrospinal fluid pulse wave. Nakamura K, et al. **J Orthop Sci** 1998;3(1):60–6

The neuroprotective effects of intrathecal administration of the selective N-type calcium channel blocker ziconotide in a rat model of spinal ischemia. Burns LH, et al. **J Vasc Surg** 1999 Aug;30(2):334–43

Microcirculatory investigations to determine the effect of spinal cord stimulation for critical leg ischemia: the Dutch multicenter randomized controlled trial [see comments] Ubbink DT, et al. **J Vasc Surg** 1999 Aug;30(2):236–44. Comment in: J Vasc Surg 1999 Aug;30(2):370–1.

MR imaging of cerebrospinal fluid flow and spinal cord motion in neurologic disorders of the spine. Levy LM. **Magn Reson Imaging Clin N Am** 1999 Aug;7(3):573–87 (60 ref.)

Dysfunction of Ib (autogenic) spinal inhibition in patients with progressive supranuclear palsy. Fine EJ, et al. **Mov Disord** 1998 Jul;13(4):668–72

Dissociation of spinothalamic sensation in lateral medullary infarction [letter; comment] Suranyi L. **Neurology** 1998 Dec;51(6):1773–4. Comment on: Neurology 1997 Dec;49(6):1557–63.

Involvement of the spinal posterior horn in Gerstmann-Sträussler-Scheinker disease (PrP P102L). Yamada M, et al. **Neurology** 1999 Jan 15;52(2):260–5

Regeneration of dorsal column fibers into and beyond the lesion site following adult spinal cord injury [see comments] Neumann S, et al. **Neuron** 1999 May;23(1):83–91. Comment in: Neuron 1999 May;23(1):2–4.

Dynamics of microglial activation in the spinal cord after cerebral infarction are revealed by expression of MHC class II antigen. Schmitt AB, et al. **Neuropathol Appl Neurobiol** 1998 Jun;24(3):167–76

The role of VIP/PACAP receptor subtypes in spinal somatosensory processing in rats with an experimental peripheral mononeuropathy. Dickinson T, et al. **Neuropharmacology** 1999 Jan;38(1):167–80

Actions of kainate and AMPA selective glutamate receptor ligands on nociceptive processing in the spinal cord. Procter MJ, et al. **Neuropharmacology** 1998 Oct-Nov; 37(10-11):1287-97

Urethral pudendal afferent-evoked bladder and sphincter reflexes in decerebrate and acute spinal cats. Shefchyk SJ, et al. **Neurosci Lett** 1998 Mar 20;244(3):137-40

Transsynaptic changes of neurons and associated microglial reaction in the spinal cord of rats following middle cerebral artery occlusion. Wu YP, et al. **Neurosci Lett** 1998 Oct 30;256(1):41-4

Temperature can alter the function outcome of spinal cord regeneration in larval lampreys. Cohen AH, et al. **Neuroscience** 1999 Mar;90(3):957-65

Time-course of spinal sensitization following carrageenan-induced inflammation in the young rat: a comparative electrophysiological and behavioural study in vitro and in vivo. Hedo G, et al. **Neuroscience** 1999; 92(1):309-18

Effect of graded spinal cord compression on cardiovascular neurons in the rostro-ventro-lateral medulla. Krassioukov AV, et al. **Neuroscience** 1999;88(3):959-73

A capsaicin-receptor antagonist, capsazepine, reduces inflammation-induced hyperalgesic responses in the rat: evidence for an endogenous capsaicin-like substance. Kwak JY, et al. **Neuroscience** 1998 Sep;86(2):619-26

Inflammation-induced up-regulation of protein kinase Cgamma immunoreactivity in rat spinal cord correlates with enhanced nociceptive processing. Martin WJ, et al. **Neuroscience** 1999;88(4):1267-74

Descending facilitatory influences from the rostral medial medulla mediate secondary, but not primary hyperalgesia in the rat. Urban MO, et al. **Neuroscience** 1999 May; 90(2):349-52

Somatosensory spinal cord evoked potentials in the evaluation of the effect of dexamethasone in experimental spinal cord injury. Güney O, et al. **Neurosurg Rev** 1998; 21(4):265-9

Intramedullary pressure in syringomyelia: clinical and pathophysiological correlates of syrinx distension [letter; comment] Davis CH. **Neurosurgery** 1998 Sep;43(3):648-9. Comment on: Neurosurgery 1997 Nov;41(5):1102-10.

The involvement of bulbospinal pathways in fentanyl-induced inhibition of spinal withdrawal reflexes in the decerebrated rabbit. Clarke RW, et al. **Pain** 1998 Dec;78(3):197-207

Spinal neurokin3 receptors facilitate the nociceptive flexor reflex via a pathway involving nitric oxide. Linden DR, et al. **Pain** 1999 Mar;80(1-2):301-8

Responses of dorsal column nuclei neurons in rats with experimental mononeuropathy. Miki K, et al. **Pain** 1998 Jun;76(3):407-15

Natural noxious stimulation can induce long-term increase of spinal nociceptive responses. Rygh LJ, et al. **Pain** 1999 Sep;82(3):305-10

Behavioral manifestations of neuropathic pain and mechanical allodynia, and changes in spinal dorsal horn neurons, following L4-L6 dorsal root constriction in rats. Tabo E, et al. **Pain** 1999 Apr;80(3):503-20

Spinal cord stimulation attenuates dorsal horn neuronal hyperexcitability in a rat model of mononeuropathy. Yakhnitsa V, et al. **Pain** 1999 Feb;79(2-3):223-33

Regulation of spinal nociceptive processing: where we went when we wandered onto the path marked by the gate. Yaksh TL. **Pain** 1999 Aug;Suppl 6:S149-52 (26 ref.)

Intraoperative spinal cord monitoring for intramedullary surgery: an essential adjunct? [letter; comment] Albright AL. **Pediatr Neurosurg** 1998 Aug;29(2):112. Comment on: Pediatr Neurosurg 1997 May;26(5):247-54.

Intraoperative monitoring [letter; comment] Kothbauer KF, et al. **Pediatr Neurosurg** 1998 Jul;29(1):54-5. Comment on: Pediatr Neurosurg 1997 May;26(5):247-54.

Central motor reorganization in cerebral palsy patients with bilateral cerebral lesions [published erratum appears in Pediatr Res 1999 Jul;46(1):130] Maegaki Y, et al. **Pediatr Res** 1999 Apr;45(4 Pt 1):559-67

Cellular mechanisms of neuropathic pain, morphine tolerance, and their interactions. Mayer DJ, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7731-6 (47 ref.)

Supraspinal contributions to hyperalgesia. Urban MO, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7687-92 (53 ref.)

A visceral pain pathway in the dorsal column of the spinal cord. Willis WD, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7675-9 (13 ref.)

The spinal biology in humans and animals of pain states generated by persistent small afferent input. Yaksh TL, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7680-6 (80 ref.)

Induction of a schizophreniform disorder by a spinal cord stimulator. Zdanowicz N, et al. **Psychosomatics** 1999 Jan-Feb;40(1):76-8

Spinal mechanisms of acute and persistent pain. Basbaum AI. **Reg Anesth Pain Med** 1999 Jan-Feb;24(1):59-67 (46 ref.)

Spinal cord stimulation in vibration white finger. Sciacca V, et al. **Vasa** 1998 Nov;27(4):247-9

[Influence of low energy He-Ne laser on regeneration of peripheral nerve] Shi K, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):14-8 (Eng. Abstr.) **(Chi)**

[Chemical anatomy of the nociceptive transmission and modulation in the spinal dorsal horn] Wei F. **Sheng Li Ko Hsueh Chin Chan** 1996 Oct;27(4):327-30 (Eng. Abstr.) **(Chi)**

[Changes in excitability of the spinal cord and dorsal column nucleus and gene expression in neuropathic pain models] Noguchi K. **Masui** 1998 Dec;47 Suppl:S218-23 (7 ref.) **(Jpn)**

[Two cases in which the presence of ciliospinal response led to indecisiveness in the evaluation of brain death] Ikeda H, et al. **No To Shinkei** 1999 Feb;51(2):161-6 (Eng. Abstr.) **(Jpn)**

[The spinal somatosensory evoked potentials in amyotrophic lateral sclerosis in relation to the spinal cord conduction velocities] Matsumoto A, et al. **No To Shinkei** 1999 Jan; 51(1):41-7 (Eng. Abstr.) **(Jpn)**

[L-Arginine effects during central spinal pain syndrome] Danilova EI, et al. **Biull Eksp Biol Med** 1999 Feb; 127(2):160-3 **(Rus)**

RADIATION EFFECTS

Radiation myelopathy. Rampling R, et al. **Curr Opin Neurol** 1998 Dec;11(6):627-32 (69 ref.)

Apoptosis and its relationship with cell proliferation in the irradiated rat spinal cord. Li YQ, et al. **Int J Radiat Biol** 1998 Oct;74(4):405-17

Late radiation injury following hyperfractionated craniospinal radiotherapy for primitive neuroectodermal tumor. Russo C, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):85-90

Radiation myelopathy with partial functional recovery: PET evidence of long-term increased metabolic activity of the spinal cord. Esik O, et al. **J Neurol Sci** 1999 Feb 1; 163(1):39-43 (15 ref.)

Upregulation of vascular endothelial growth factor is associated with radiation-induced blood-spinal cord barrier breakdown. Tsao MN, et al. **J Neuropathol Exp Neurol** 1999 Oct;58(10):1051-60

Spinal cord dose is higher than expected in head and neck radiation. Allison R, et al. **Med Dosim** 1999 Summer; 24(2):135-9

X-irradiation-induced loss of O-2A progenitor cells in rat spinal cord is inhibited by implants of cells engineered to secrete glial growth factor 2. Noel F, et al. **Neuroreport** 1999 Feb 25;10(3):535-40

Boron neutron capture therapy: re-irradiation response of the rat spinal cord. Morris GM, et al. **Radiother Oncol** 1998 Sep;48(3):313-7

HIT '91 (prospective, co-operative study for the treatment of malignant brain tumors in childhood): accuracy and acute toxicity of the irradiation of the craniospinal axis. Results of the quality assurance program. Kortmann RD, et al. **Strahlenther Onkol** 1999 Apr;175(4):162-9

[Influence of low energy He-Ne laser on spinal motor nerve cell] Shi K, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):10-3 (Eng. Abstr.) **(Chi)**

[HIT '91: Precision and acute maximal side effects of radiotherapy of craniospinal axis. Concerning the contribution by R.D. Kortmann et al., Strahlenther Onkol 1999;175:162-9 (No.4) (letter)] Weiss E, et al. **Strahlenther Onkol** 1999 May;175(5):245-6 **(Ger)**

[Magnetic shielding of vertebrate brain] Lebedev SV, et al. **Biull Eksp Biol Med** 1998 Dec;126(12):684-6 **(Rus)**

RADIOGRAPHY

Effect of decompression enlargement laminoplasty for posterior shifting of the spinal cord. Sodeyama T, et al. **Spine** 1999 Aug 1;24(15):1527-31; discussion 1531-2

[Spontaneous epidural spinal hematoma: report of 2 cases and review of the literature] Horcajadas A, et al. **Neurologia** 1998 Oct;13(8):401-4 (26 ref.) (Eng. Abstr.) **(Spa)**

RADIONUCLIDE IMAGING

In vivo imaging of the spinal cord cholinergic system with PET. Gage HD, et al. **J Comput Assist Tomogr** 1999 Jan-Feb;23(1):25-33

SECRETION

Measurement of cholecystokinin release in vivo in the rat spinal dorsal horn. Gustafsson H, et al. **Brain Res Brain Res Protoc** 1999 Jul;4(2):192-200

SURGERY

Ensheathing glia transplants promote dorsal root regeneration and spinal reflex restitution after multiple lumbar rhizotomy. Navarro X, et al. **Ann Neurol** 1999 Feb; 45(2):207-15

Intraoperative motor evoked potentials monitoring in spinal neurosurgery. Cioni B, et al. **Arch Ital Biol** 1999 May; 137(2-3):115-26 (36 ref.)

Transplants of neuronal cells bioengineered to synthesize GABA alleviate chronic neuropathic pain. Eaton MJ, et al. **Cell Transplant** 1999 Jan-Feb;8(1):87-101

Purification of adrenal chromaffin cells increases antinociceptive efficacy of xenotransplants without immunosuppression. Michalewicz P, et al. **Cell Transplant** 1999 Jan-Feb;8(1):103-9

Spatial facilitation of motor evoked responses in monitoring during spinal surgery. Andersson G, et al. **Clin Neurophysiol** 1999 Apr;110(4):720-4

Spinal cord implantation of avulsed ventral roots in primates; correlation between restored motor function and morphology. Hallin RG, et al. **Exp Brain Res** 1999 Feb; 124(3):304-10

Peripheral nerve graft and neurotrophic factors enhance neuronal survival and expression of nitric oxide synthase in Clarke's nucleus after hemisection of the spinal cord in adult rat. Yick LW, et al. **Exp Neurol** 1999 Sep; 159(1):131-8

Poly(alpha-hydroxyacids) for application in the spinal cord: resorbability and biocompatibility with adult rat Schwann cells and spinal cord. Gautier SE, et al. **J Biomed Mater Res** 1998 Dec 15;42(4):642-54

Neurological complications of anterior spinal surgery for kyphosis with normal somatosensory evoked potentials (SEPs). Pelosi L, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):662-4

Recovery of locomotion after ventral and ventrolateral spinal lesions in the cat. I. Deficits and adaptive mechanisms. Brustein E, et al. **J Neurophysiol** 1998 Sep;80(3):1245-67

Adverse urologic consequences of spinal cord resection at the time of kyphectomy: value of preoperative urodynamic evaluation. Pontari MA, et al. **J Pediatr Orthop** 1998 Nov-Dec;18(6):820-3

Anaesthesia for lambs undergoing spinal surgery: a case series. Clutton RE, et al. **Lab Anim** 1998 Oct;32(4):414-21

Endoscopy of spinal cord and posterior fossa by a lumbar percutaneous approach: endoscopic anatomy in cadavers. Eguchi T, et al. **Minim Invasive Neurosurg** 1999 Jun; 42(2):74-8 (9 ref.)

Anterolateral approach for cervical spinal cord tumors via an anterior microforaminotomy: technical note. Jho HD, et al. **Minim Invasive Neurosurg** 1999 Mar;42(1):1-5

Extracranial stereotactic radiosurgery: applications for the spine and beyond. Takacs I, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):257-70 (54 ref.)

Results of microsurgical treatment for intramedullary spinal cord ependymomas: analysis of 36 cases. Hoshimaru M, et al. **Neurosurgery** 1999 Feb;44(2):264-9

Radical excision of intramedullary cavernous angiomas [letter; comment] Vishteh AG, et al. **Neurosurgery** 1999 Feb;44(2):428. Comment on: Neurosurgery 1998 Sep;43(3):424-30; discussion 430-1.

Combined use of a true-bipolar sensing implantable cardioverter defibrillator in a patient having a prior implantable spinal cord stimulator for intractable pain. Monahan K, et al. **Pacing Clin Electrophysiol** 1998 Dec; 21(12):2669-72

Results of spinal cord decompression and thoracolumbar pedicle stabilisation in relation to the time of operation. Gaebler C, et al. **Spinal Cord** 1999 Jan;37(1):33-9

Thoracolumbar fractures [letter] Jaffray DC. **Spinal Cord** 1999 May;37(5):377

A rapid and sensitive method for detecting human cells in xenogeneic hosts. Zompa EA, et al. **Transplantation** 1998 Oct 15;66(7):928-31

[Giant cervical disc herniation: case report] Dantas FL, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2A):296-300 (Eng. Abstr.) **(Por)**

[Changes in the somatosensory evoked potentials of patients with complicated spinal trauma after an omentomyelopexy operation] Sokolova AA, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan-Mar; (1):15-20 (Eng. Abstr.) **(Rus)**

TRANSPLANTATION

Effects of osteogenic protein-1 (OP-1) treatment on fetal spinal cord transplants to the anterior chamber of the eye. Granholm AC, et al. **Cell Transplant** 1999 Jan-Feb; 8(1):75-85

Differences in myelination between spinal cord and corticular tissue transplanted intraocularly in rats. Kálman M, et al. **Int J Dev Neurosci** 1998 Apr;16(2):115-21

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213-24

Reinnervation of denervated lumbar ventral roots and their target muscle by thoracic spinal motoneurons via an implanted nerve autograft in adult rats after spinal cord injury. Liu S, et al. **J Neurosci Res** 1999 Jun 1;56(5):506-17

Effects of fetal spinal cord tissue transplants and cycling exercise on the soleus muscle in spinalized rats. Houle JD, et al. **Muscle Nerve** 1999 Jul;22(7):846-56

Neural repair of the injured spinal cord by grafting: comparison between peripheral nerve segments and embryonic homologous structures as a conduit of CNS axons. Asada Y, et al. **Neurosci Res** 1998 Jul;31(3):241-9

[Recovery of motor function of spinal cord with embryonic spinal cord graft in adult rat] Zhao G, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):332-4 (Eng. Abstr.) **(Chi)**

ULTRASONOGRAPHY

Spinal cord ultrasonography in children with myelomeningocele [see comments] Brezner A, et al. **Dev Med Child Neurol** 1999 Jul;41(7):450-5. Comment in: Dev Med Child Neurol 1999 Jul;41(7):435.

Application of M-mode sonography to functional evaluation in pediatric patients. Riccabona M, et al. **Eur Radiol** 1998;

8(8):1457–61

Can nuchal cord cause transient increased nuchal translucency thickness? [published erratum appears in Hum Reprod 1999 Apr;14(4):1140] Maymon R, et al. **Hum Reprod** 1999 Feb;14(2):556–9

Dilation of the ventriculus terminalis: sonographic findings. Truong BC, et al. **J Ultrasound Med** 1998 Nov;17(11):713–5

ULTRASTRUCTURE

Branching and/or collateral projections of spinal dorsal horn neurons. Lu GW, et al. **Brain Res Brain Res Rev** 1999 Jan; 29(1):50–82 (231 ref.)

Direct immunogold labeling of connexins and aquaporin-4 in freeze-fracture replicas of liver, brain, and spinal cord: factors limiting quantitative analysis. Rash JE, et al. **Cell Tissue Res** 1999 May;296(2):307–21

The Echigo-1: a panencephalopathic strain of Creutzfeldt-Jakob disease: a passage to hamsters and ultrastructural studies. Liberski PP, et al. **Folia Neuropathol** 1997;35(4):250–4

Redistribution of Schwann cells at the developing PNS-CNS borderline. An ultrastructural and autoradiographic study on the S1 dorsal root of the cat. Nilsson Remahl I, et al. **J Neurocytol** 1998 Feb;27(2):85–97

Ultrastructural detection of neuronally transported choleragenoid by postembedding immunocytochemistry in freeze-substituted Lowicryl HM20 embedded tissue. Ragnarson B, et al. **J Neurosci Methods** 1998 Apr 30; 80(2):129–36

Effect of mexiletine on lipid peroxidation and early ultrastructural findings in experimental spinal cord injury. Kaptanoglu E, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):200–4

Mesencephalic projections from superficial and deep laminae of the medullary dorsal horn. Iwata K, et al. **J Oral Sci** 1998 Dec;40(4):159–63

Ultrastructural pathology of a Chilean case of tropical spastic paraparesis/human T-cell lymphotropic type I-associated myelopathy (TSP/HAM). Liberski PP, et al. **Ultrastruct Pathol** 1999 May-Jun;23(3):157–62

[Effect of crushing of sciatic nerve on neuron of lumbar spinal cord] Dong Z, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 Mar;12(2):113–6 (Eng. Abstr.) **(Chi)**

VIROLOGY

A rat model of human T lymphocyte virus type I (HTLV-I) infection: in situ detection of HTLV-I provirus DNA in microglia/macrophages in affected spinal cords of rats with HTLV-I-induced chronic progressive myeloneuropathy. Kasai T, et al. **Acta Neuropathol (Berl)** 1999 Feb; 97(2):107–12

Perivascular T cells are infected with HTLV-I in the spinal cord lesions with HTLV-I-associated myelopathy/tropical spastic paraparesis: double staining of immunohistochemistry and polymerase chain reaction in situ hybridization. Matsuoka E, et al. **Acta Neuropathol (Berl)** 1998 Oct;96(4):340–6

Spread of swine hemagglutinating encephalomyelitis virus from peripheral nerves to the CNS. Hirano N, et al. **Adv Exp Med Biol** 1998;440:601–7

Two loci, Tmevp2 and Tmevp3, located on the telomeric region of chromosome 10, control the persistence of Theiler's virus in the central nervous system of mice. Bihl F, et al. **Genetics** 1999 May;152(1):385–92

Cell-to-cell spread of poliovirus in the spinal cord of bonnet monkeys (Macaca radiata). Ponnuraj EM, et al. **J Gen Virol** 1998 Oct;79 (Pt 10):2393–403

An attenuated variant of the GDVII strain of Theiler's virus does not persist and does not infect the white matter of the central nervous system. Jarousse N, et al. **J Virol** 1999 Jan;73(1):801–4

Isolation and molecular characterization of a poliovirus type 1 mutant that replicates in the spinal cords of mice. Jia Q, et al. **J Virol** 1999 Jul;73(7):6041–7

The GDVII strain of Theiler's virus spreads via axonal transport. Martinat C, et al. **J Virol** 1999 Jul;73(7):6093–8

Neuronal labeling in the rat brain and spinal cord from the ovary using viral transneuronal tracing technique. Gerendai I, et al. **Neuroendocrinology** 1998 Oct;68(4):244–56

SPINAL CORD COMPRESSION

A craniospinal enterogenous cyst: case report. Wagner HJ, et al. **Neuropediatrics** 1998 Aug;29(4):212–4

[Ossification of the posterior longitudinal ligament in the cervical spine: case report] Scola RH, et al. **Arq Neuropsiquiatr** 1998 Sep;56(3A):480–5 (Eng. Abstr.) **(Por)**

CHEMICALLY INDUCED

Epidural thoracic lipomatosis induced by long-term steroid treatment case illustration. Pinsker MO, et al. **Acta Neurochir (Wien)** 1998;140(9):991–2

Spinal cord compression from precipitation of drug solute around an epidural catheter. Johnston MK, et al. **Br J Neurosurg** 1998 Oct;12(5):445–7

Symptomatic spinal epidural lipomatosis after local epidural corticosteroid injections: case report. Sandberg DI, et al. **Neurosurgery** 1999 Jul;45(1):162–5

COMPLICATIONS

A case of renal pseudotumor associated with chronic pachymeningitis. Tanaka T, et al. **Int J Urol** 1999 Feb; 6(2):107–10

Medullary compression and hypertension [letter; comment] Coley SC, et al. **J Neurosurg** 1998 Nov;89(5):894–5. Comment on: J Neurosurg 1998 Feb;88(2):226–31.

Role of norepinephrine and excitatory amino acids in edema of the spinal cord after experimental compression injury in rats. Yoshino S, et al. **J Orthop Sci** 1998;3(1):54–9

Morphine-induced ventilatory failure after spinal cord compression. Quevedo F, et al. **J Pain Symptom Manage** 1999 Aug;18(2):140–2

Ventral brain stem compression in pediatric and young adult patients with Chiari I malformations. Grabb PA, et al. **Neurosurgery** 1999 Mar;44(3):520–7; discussion 527–8

Extraosseous calcified plasmacytoma causing thoracic myelopathy. Taira H, et al. **Skeletal Radiol** 1999 Jun; 28(6):347–9

Sciatica caused by cervical and thoracic spinal cord compression. Ito T, et al. **Spine** 1999 Jun 15;24(12):1265–7

Quantitative analysis of edema in the dorsal nerve roots induced by acute mechanical compression. Matsui T, et al. **Spine** 1998 Sep 15;23(18):1931–6

[Spinal cord injury in multiple myeloma] Martynov IuS, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998;98(11):9–13 (Eng. Abstr.) **(Rus)**

[Spontaneous epidural spinal hematoma: report of 2 cases and review of the literature] Horcajadas A, et al. **Neurologia** 1998 Oct;13(8):401–4 (26 ref.) (Eng. Abstr.) **(Spa)**

DIAGNOSIS

Spinal cord emergencies: false reassurance from reflexes. Glick TH, et al. **Acad Emerg Med** 1998 Oct;5(10):1041–3

Cervical myelopathy due to rheumatoid arthritis. Case report and review of the literature. Keersmaekers A, et al. **Acta Neurol Belg** 1998 Sep;98(3):284–8 (22 ref.)

Metastatic spinal cord compression: diagnostic delay, treatment, and outcome. Solberg A, et al. **Anticancer Res** 1999 Jan-Feb;19(1B):677–84

Artifacts in magnetic resonance images following anterior cervical discectomy and fusion: report of two cases. Arunkumar MJ, et al. **Br J Neurosurg** 1998 Dec;12(6):553–5

Ossification of the posterior longitudinal ligament in an Indian man: MR appearance of an uncommon cause of cord compression. Malcolm PN, et al. **Clin Radiol** 1999 Jul; 54(7):480–2

Abnormal subcortical somatosensory evoked potentials indicate high cervical myelopathy in achondroplasia. Boor R, et al. **Eur J Pediatr** 1999 Aug;158(8):662–7

The value of somatosensory and motor evoked evoked potentials in pre-clinical spondylotic cervical cord compression. Bednařík J, et al. **Eur Spine J** 1998; 7(6):493–500

Transducers for dynamic measurement of spine neural-space occlusions. Raynak GC, et al. **J Biomech Eng** 1998 Dec; 120(6):787–91

Spinal cord monitoring with somatosensory techniques. Nuwer MR. **J Clin Neurophysiol** 1998 May;15(3):183–93 (118 ref.)

Cervical spondylotic myelopathy in elderly people: a high incidence of conduction block at C3-4 or C4-5. Tani T, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):456–64

Pitfalls of bungee jumping. Case report and review of the literature. Louw D, et al. **J Neurosurg** 1998 Dec; 89(6):1040–2 (08 ref.)

Neurofibromatosis: an unusual cause of cervical myopathy. Barber DB, et al. **J Spinal Cord Med** 1998 Apr;21(2):148–50

Quantitative assessment of cervical spondylotic myelopathy by a simple walking test. Singh A, et al. **Lancet** 1999 Jul 31;354(9176):370–3

Primary epidural non-Hodgkin lymphoma: spinal cord compression syndrome as the initial form of presentation in childhood non-Hodgkin lymphoma. Mora J, et al. **Med Pediatr Oncol** 1999 Feb;32(2):102–5

Motor and somatosensory evoked potentials in asymptomatic spondylotic cord compression. Tavy DL, et al. **Muscle Nerve** 1999 May;22(5):628–34

Acute cauda equina syndrome secondary to lumbar disc herniation mimicking pure conus medullaris syndrome--case report. Fujisawa H, et al. **Neurol Med Chir (Tokyo)** 1998 Jul;38(7):429–31

Cervical spondylotic myelopathy: patterns of neurological deficit and recovery after anterior cervical decompression. Chiles BW 3rd, et al. **Neurosurgery** 1999 Apr;44(4):762–9; discussion 769–70

An unusual case of pigmented villonodular synovitis of the spine: benign aggressive and/or malignant? [letter] Clerc D, et al. **Rheumatology (Oxford)** 1999 May;38(5):476–7

Acute nontraumatic spinal epidural hematomas. An important differential diagnosis in spinal emergencies. Alexiadou-Rudolf C, et al. **Spine** 1998 Aug 15; 23(16):1810–3

The value of somatosensory- and motor-evoked potentials in predicting and monitoring the effect of therapy in spondylotic cervical myelopathy. Prospective randomized study. Bednařík J, et al. **Spine** 1999 Aug 1;24(15):1593–8

Unknown case. Dockery WD, et al. **Spine** 1999 Jan 15; 24(2):198–9

Imaging corner. Khoury JG, et al. **Spine** 1999 May 1; 24(9):924–5

Comparison of computed tomography myelography and magnetic resonance imaging in the evaluation of cervical spondylotic myelopathy and radiculopathy. Shafaie FF, et al. **Spine** 1999 Sep 1;24(17):1781–5

Can intramedullary signal change on magnetic resonance imaging predict surgical outcome in cervical spondylotic myelopathy? Wada E, et al. **Spine** 1999 Mar 1;24(5):455–61; discussion 462

Assessing suspected spinal cord compression: a multidisciplinary outcomes analysis of 342 episodes. Talcott JA, et al. **Support Care Cancer** 1999 Jan;7(1):31–8

[Vertebral body exocytosis and spinal cord compression] el Quessar A, et al. **J Neuroradiol** 1998 Oct;25(3):233–6 (Eng. Abstr.) **(Fre)**

[Acute spinal epidural hematoma--comments on MRI diagnosis using fluid-attenuated inversion recovery sequence (FLAIR)] Textor HJ, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):231–2 **(Ger)**

[Spontaneous epidural spinal hematoma: report of 2 cases and review of the literature] Horcajadas A, et al. **Neurologia** 1998 Oct;13(8):401–4 (26 ref.) (Eng. Abstr.) **(Spa)**

[Analysis of the neurologic consultations in an oncologic hospital: contributions of neuro-oncology] Porta-Etessam J, et al. **Neurologia** 1999 Jun-Jul;14(6):266–74 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Effect of treatment with 21-aminosteroid U-74389G and glucocorticoid steroid methylprednisolone on somatosensory evoked potentials in rat spinal cord during mild compression. Harat M, et al. **J Neurotrauma** 1999 Feb; 16(2):187–93

EPIDEMIOLOGY

Cervical spondylotic myelopathy in elderly people: a high incidence of conduction block at C3-4 or C4-5. Tani T, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):456–64

ETIOLOGY

Classification system based on kinematic MR imaging in cervical spondylitic myelopathy [see comments] Muhle C, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1763–71. Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1594.

Vertebral erosion, paraplegia, and spinal gout. Pfister AK, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1430–1

Neuroradiology case of the day. Spinal cord compression caused by extramedullary hematopoiesis. Rowe DW, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):806, 810–2

Irradiation of recurrent respiratory papillomatosis causing spinal cord compression. Shelton CH, et al. **Am J Otolaryngol** 1999 May-Jun;20(3):180–3

Compressive cervical myelopathy due to calcium pyrophosphate dihydrate deposition disease: report of a case and review of the literature. Fye KH, et al. **Arch Intern Med** 1999 Jan 25;159(2):189–93 (21 ref.)

Cervical spine cord compression by eosinophilic granuloma. Case report. Duarte-Silva EB, et al. **Arq Neuropsiquiatr** 1999 Jun;57(2B):498–503

Acute spinal cord and head injury: case report and discussion of cardiac, respiratory and endocrine abnormalities. Johnson CD, et al. **Bol Asoc Med P R** 1998 Apr-Jun; 90(4–6):95–101

Trauma in congenital atlanto-axial dislocation. Bhagwati SN, et al. **Childs Nerv Syst** 1998 Dec;14(12):719–21

Osteochondroma of the thoracic spine: a dumbbell mass associated with spinal cord compression. Nuri Sener R. **Comput Med Imaging Graph** 1998 Jul-Aug;22(4):361–3

Spinal cord compression due to costal Echinococcus multilocularis. Savas R, et al. **Comput Med Imaging Graph** 1999 Mar-Apr;23(2):85–8

Chronic recurrent multifocal osteomyelitis causing spinal cord compression. Baulot E, et al. **Eur Spine J** 1998; 7(4):340–3

Acute spinal cord compression due to intraspinal bleeding from a vertebral hemangioma: two case-reports. Castel E, et al. **Eur Spine J** 1999;8(3):244–8

Spinal cord compression secondary to extramedullary hematopoiesis in thalassemia intermedia. Coşkun E, et al. **Eur Spine J** 1998;7(6):501–4

Unusual presentation of spinal cord compression related to misplaced pedicle screws in thoracic scoliosis. Papin P, et al. **Eur Spine J** 1999;8(2):156–9; discussion 160

Three-level thoracic disc herniation: case report and review of the literature (P. G. Korovessis et al., ESJ 1997, Vol. 6, p. 74–76) [letter; comment] Turgut M. **Eur Spine J** 1998; 7(4):348–50. Comment on: Eur Spine J 1997;6(1):74–6.

Spinal cord compression due to extramedullary hematopoiesis in beta-thalassemia intermedia. Munn RK, et al. **Int J Radiat Oncol Biol Phys** 1998 Oct 1;42(3):607–9

Delayed spinal cord compression in ankylosing spondylitis. Harun S. **J Accid Emerg Med** 1998 Sep;15(5):336

Transducers for dynamic measurement of spine neural-space occlusions. Raynak GC, et al. **J Biomech Eng** 1998 Dec; 120(6):787–91

Osteochondroma with compression of the spinal cord. A report of two cases. Govender S, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):667–9

Radiation therapy of metastatic spinal cord compression. Multidisciplinary team diagnosis and treatment. Kovner F, et al. **J Neurooncol** 1999 Mar;42(1):85–92

Anomaly of the axis causing cervical myelopathy. Case report. Asakawa H, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):121–3

Multiple extradural arachnoid cysts as a cause of spinal cord compression in a child. Case report. Myles LM, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):116–20 (22 ref.)

Cervical cord compression caused by a pillow in a postlaminectomy patient undergoing magnetic resonance imaging. Case report. Suzuki F, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):145–7

Spinal malignant melanotic schwannoma. Case report. Noubari BA, et al. **J Neurosurg Sci** 1998 Dec;42(4):245–9

Histomorphometric study of iliac bones in cervical myelopathy with ossification of the posterior longitudinal ligament. Aita I, et al. **J Orthop Sci** 1998;3(6):324–9

Cervical myelopathy due to dynamic compression by the laminectomy membrane: dynamic MR imaging study. Morimoto T, et al. **J Spinal Disord** 1999 Apr;12(2):172–3

A long-term follow-up study of cervical spondylotic myelopathy treated by "French window" laminoplasty. Saruhashi Y, et al. **J Spinal Disord** 1999 Apr;12(2):99–101

Spinal cord compression: histologic spectrum of lesions. Soomro IN, et al. **JPMA J Pak Med Assoc** 1998 Sep; 48(9):266–9

A case of cervical myelopathy with developmental canal stenosis at the level of the atlas. A case report. Okamoto K, et al. **Kobe J Med Sci** 1998 Jun;44(3):135–40

Brief report: Intraspinal leukemia with cord compression. Geetha N, et al. **Med Pediatr Oncol** 1999 Aug;33(2):132–3

Delayed diffuse upper motor neuron syndrome after compressive thoracic myelopathy. Riggs JE, et al. **Mil Med** 1999 Sep;164(9):666–8

Metastatic spinal cord compression. Clinical remarks. Salvati M, et al. **Minerva Chir** 1998 Sep;53(9):727–30

Spinal cord compression by catheter granulomas in high-dose intrathecal morphine therapy: case report [letter] Langsam A. **Neurosurgery** 1999 Mar;44(3):689–91

Cervical actinomycosis causing spinal cord compression and multisegmental root failure: case report and review of the literature. Oruçkaptan HH, et al. **Neurosurgery** 1998 Oct; 43(4):937–40 (20 ref.)

Cervical myelopathy caused by hypoplasia of the atlas: two case reports and review of the literature. Phan N, et al. **Neurosurgery** 1998 Sep;43(3):629–33 (33 ref.)

Microvascular decompression of the left lateral medulla oblongata for severe refractory neurogenic hypertension. Rafael H. **Neurosurgery** 1999 Mar;44(3):691–2

A neurosurgically reversible cause of respiratory dysfunction in rheumatoid arthritis. Ashkan K, et al. **Postgrad Med J** 1998 Aug;74(874):507–8

Progressive neurological symptoms in a diabetic patient. al-Mahroos S, et al. **Postgrad Med J** 1998 Nov; 74(877):699–700

An elderly man with an irritable hip. Vahidassr MD, et al. **Postgrad Med J** 1998 Sep;74(875):547–8

Spinal cord compression in beta-thalassemia: follow-up after radiotherapy. da Fonseca SF, et al. **Rev Paul Med** 1998 Nov-Dec;116(6):1879–81

Neurological complications in insufficiency fractures of the sacrum. Three case-reports. Jacquot JM, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):109–14

Spinal extradural compression caused by granuloma of brucellosis. Coskun E, et al. **Scand J Infect Dis** 1998; 30(3):311–3

Pathology of the spinal cord damaged by ossification of the posterior longitudinal ligament associated with spinal cord injury. Mizuno J, et al. **Spinal Cord** 1999 Mar;37(3):224–7

Vertebral synovial osteochondromatosis with compressive myelopathy. Birchall D, et al. **Spine** 1999 May 1;24(9):921–3

Spontaneous spinal epidural hematoma with spinal cord compression complicating plasma cell myeloma. A case report. Hayem G, et al. **Spine** 1998 Nov 15;23(22):2432–5

The solitary intraspinal vertebral osteochondroma. An unusual cause of compressive myelopathy: features and literature review. Khosla A, et al. **Spine** 1999 Jan 1; 24(1):77–81 (16 ref.)

Sequential or simultaneous, same-day anterior decompression and posterior stabilization in the management of vertebral osteomyelitis of the lumbar spine. Safran O, et al. **Spine** 1998 Sep 1;23(17):1885–90

Radiculopathy after laminoplasty of the cervical spine. Uematsu Y, et al. **Spine** 1998 Oct 1;23(19):2057–62

Spinal cord compression caused by unusual location and extension of ossified ligamenta flava in a Caucasian male. A case report and literature review. van Oostenbrugge RJ, et al. **Spine** 1999 Mar 1;24(5):486–8 (21 ref.)

Morphologic limitations of posterior decompression by midsagittal splitting method for myelopathy caused by ossification of the posterior longitudinal ligament in the cervical spine. Yamazaki A, et al. **Spine** 1999 Jan 1; 24(1):32–4

Metastatic spinal cord compression. Influence of time between onset of motoric deficits and start of irradiation on therapeutic effect. Rades D, et al. **Strahlenther Onkol** 1999 Aug;175(8):378–81

Endoscopic suction decompression of idiopathic epidural lipomatosis. Frank E. **Surg Neurol** 1998 Oct;50(4):333–5; discussion 335

Multiple myeloma mimicking bone metastasis from breast cancer: report of a case. Tomono H, et al. **Surg Today** 1998;28(12):1304–6

Comparison of two different radiotherapy schedules for spinal cord compression in prostate cancer. Maranzano E, et al. **Tumori** 1998 Jul-Aug;84(4):472–7

[Cystic lesion and compression of the posterior epidural space associated with bilateral lumbar spondylolysis. Presentation of a case. Correlation with observable arthrographic images in a case of spondylolysis] Mailleux P, et al. **Acta Orthop Belg** 1999 Jun;65(2):218–22 (Eng. Abstr.) **(Fre)**

[Dorsal cord compression by aspergilloma. Apropos of a case] Ba MC, et al. **Dakar Med** 1997;42(1):74–6 (Eng. Abstr.) **(Fre)**

[Spinal cord compression due to tophaceous vertebral gout: a case report and literature review] Marsaudon E, et al. **Rev Med Interne** 1999 Mar;20(3):253–7 (39 ref.) (Eng. Abstr.) **(Fre)**

[Compressive vertebral angiomas: a case report] Ben Hamouda I, et al. **Tunis Med** 1999 Apr;77(4):236–41 (Eng. Abstr.) **(Fre)**

[Metastatic tumors in vertebral canal] Janusz W, et al. **Neurol Neurochir Pol** 1999 Mar-Apr;33(2):403–12 (Eng. Abstr.) **(Pol)**

[A case of congenital fissure of C2 and C3 arches with compression of cervical spinal cord] Mendel T, et al. **Neurol Neurochir Pol** 1999 Mar-Apr;33(2):475–82 (Eng. Abstr.) **(Pol)**

[Spinal cord compression in patients with cancer: some thoughts concerning an editorial (letter; comment)] de Castro Carpeño J, et al. **Med Clin (Barc)** 1998 Sep 12; 111(7):277–8. Comment on: Med Clin (Barc) 1997 Sep 27;109(10):373–4. **(Spa)**

[Analysis of the neurologic consultations in an oncologic hospital: contributions of neuro-oncology] Porta-Etessam J, et al. **Neurologia** 1999 Jun-Jul;14(6):266–74 (Eng. Abstr.) **(Spa)**

[Epidural hematoma after removal of an epidural catheter] Blasi A, et al. **Rev Esp Anestesiol Reanim** 1998 Aug-Sep; 45(7):294–7 (Eng. Abstr.) **(Spa)**

[Spinal cord compression secondary to epidural extramedullary hematopoiesis in thalassemia: a clinical case and review of literature] Martínez-Rodrigo MA, et al. **Rev Neurol** 1998 Dec;27(160):998–1004 (61 ref.) (Eng. Abstr.) **(Spa)**

GENETICS

Improved recovery after spinal cord trauma in ICAM-1 and P-selectin knockout mice. Farooque M, et al. **Neuroreport** 1999 Jan 18;10(1):131–4

METABOLISM

Cell proliferation and nestin expression in the ependyma of the adult rat spinal cord after injury. Namiki J, et al. **J Neuropathol Exp Neurol** 1999 May;58(5):489–98

Changes in ornithine decarboxylase activity and putrescine concentrations after spinal cord compression injury in the rat. Mautes AE, et al. **Neurosci Lett** 1999 Apr 2; 264(1-3):153–6

The effect of duration of compression on lipid peroxidation after experimental spinal cord injury. Kaynar MY, et al. **Neurosurg Rev** 1998;21(2-3):117–20

Effect of methylprednisolone, tirilazad mesylate and vitamin E on lipid peroxidation after experimental spinal cord injury. Koc RK, et al. **Spinal Cord** 1999 Jan;37(1):29–32

MICROBIOLOGY

[Neurological manifestations indicative of brucellosis] Gouider R, et al. **Rev Neurol (Paris)** 1999 Mar;155(3):215–8 (Eng. Abstr.) **(Fre)**

NURSING

Cancer-related spinal cord compression. Garner CM. **Am J Nurs** 1999 Jul;99(7):34–5

Metastatic epidural spinal cord compression. Bucholtz JD. **Semin Oncol Nurs** 1999 Aug;15(3):150–9 (27 ref.)

PATHOLOGY

Spinal canal capacity in simulated displacements of the atlantoaxial segment: a skeletal study. Tucker SK, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1073–8

Histological investigation of spinal cord lesions in the spinal hyperostotic mouse (twy/twy): morphological changes in anterior horn cells and immunoreactivity to neurotropic factors. Uchida K, et al. **J Neurol** 1998 Dec;245(12):781–93

Cell proliferation and nestin expression in the ependyma of the adult rat spinal cord after injury. Namiki J, et al. **J Neuropathol Exp Neurol** 1999 May;58(5):489–98

Trivial injuries, associated congenital anomaly and medicolegal interpretation of death. Badkur DS, et al. **Med Sci Law** 1999 Jan;39(1):72–6

Compression of spinal cord and cauda equina in Charcot-Marie-Tooth disease type 1A. Bütefisch C, et al. **Neurology** 1999 Mar 10;52(4):890–1

Serial magnetic resonance imaging findings for a spontaneously resolving spinal subdural hematoma: case report [letter; comment] Chung CK. **Neurosurgery** 1998 Dec;43(6):1495. Comment on: Neurosurgery 1998 Feb;42(2):398–400; discussion 400–1.

Spontaneous regression of periodontoid pannus mass in psoriatic atlantoaxial subluxation. Case report. Lu K, et al. **Spine** 1999 Mar 15;24(6):578–81

PHYSIOPATHOLOGY

Abnormally large evoked potentials arising from dorsal column fibers in the region of chronically compressed spinal cord. Hoshino Y, et al. **Clin Neurophysiol** 1999 Feb; 110(2):305–16

Correlation between spinal cord compression and abnormal patterns of median nerve somatosensory evoked potentials in compressive cervical myelopathy: comparison of surface and epidurally recorded responses. Kaneko K, et al. **J Neurol Sci** 1998 Jun 30;158(2):193–202

New method to measure central motor conduction time using transcranial magnetic stimulation and T-response. Ofuji A, et al. **J Neurol Sci** 1998 Sep 18;160(1):26–32

Balloon device for experimental graded spinal cord compression in the rat. Oro JJ, et al. **J Spinal Disord** 1999 Jun;12(3):257–61

Effect of graded spinal cord compression on cardiovascular neurons in the rostro-ventro-lateral medulla. Krassioukov AV, et al. **Neuroscience** 1999;88(3):959–73

A review of the pathophysiology of cervical spondylotic myelopathy with insights for potential novel mechanisms drawn from traumatic spinal cord injury. Fehlings MG, et al. **Spine** 1998 Dec 15;23(24):2730–7 (74 ref.)

Effect of age and loading rate on human cervical spine injury threshold. Pintar FA, et al. **Spine** 1998 Sep 15; 23(18):1957–62

[Spontaneous resolution of idiopathic spinal subdural hematoma: case report] Tamano Y, et al. **No Shinkei Geka** 1998 Nov;26(11):1013–8 (Eng. Abstr.) **(Jpn)**

PREVENTION & CONTROL

Effect of decompression enlargement laminoplasty for posterior shifting of the spinal cord. Sodeyama T, et al. **Spine** 1999 Aug 1;24(15):1527–31; discussion 1531–2

RADIOGRAPHY

Suspected spinal cord compression in breast cancer patients: a multidisciplinary risk assessment. Lu C, et al. **Breast Cancer Res Treat** 1998 Sep;51(2):121–31

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part II: Results of a multicenter study. Fehlings MG, et al. **Spine** 1999 Mar 15;24(6):605–13

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part I: An evidence-based analysis of the published literature. Rao SC, et al. **Spine** 1999 Mar 15;24(6):598–604

Costal osteochondroma. A rare cause of spinal cord compression. Tang WM, et al. **Spine** 1998 Sep 1; 23(17):1900–3

RADIONUCLIDE IMAGING

Potential usefulness of 18F-2-fluoro-deoxy-D-glucose positron emission tomography in cervical compressive myelopathy. Baba H, et al. **Spine** 1999 Jul 15;24(14):1449–54

RADIOTHERAPY

Spinal cord compression in beta-thalassemia: follow-up after radiotherapy. da Fonseca SF, et al. **Rev Paul Med** 1998 Nov-Dec;116(6):1879–81

Comparison of two different radiotherapy schedules for spinal cord compression in prostate cancer. Maranzano E, et al. **Tumori** 1998 Jul-Aug;84(4):472–7

REHABILITATION

Rehabilitation outcome of individuals with nontraumatic myelopathy resulting from spinal stenosis. McKinley WO, et al. **J Spinal Cord Med** 1998 Apr;21(2):131–6

Neurologic injury and recovery in patients with burst fracture of the thoracolumbar spine. Kim NH, et al. **Spine** 1999 Feb 1;24(3):290–3; discussion 294

SURGERY

Spinal cord compression by a metastasizing thymoma. Alafaci C, et al. **Acta Neurochir (Wien)** 1999;141(2):215–6

Idiopathic spinal epidural lipomatosis. Iplikçioğlu AC, et al. **Acta Neurochir (Wien)** 1998;140(4):405–6

Pyogenic osteomyelitis of an invaginated odontoid process with rapid deterioration of high cervical myelopathy: a case report. Kurimoto M, et al. **Acta Neurochir (Wien)** 1998; 140(10):1093–4

Kinematic MR imaging in surgical management of cervical disc disease, spondylosis and spondylotic myelopathy. Muhle C, et al. **Acta Radiol** 1999 Mar;40(2):146–53

Disc extrusion in a Rottweiler dog with caudal cervical spondylomyelopathy after failure of intervertebral distraction/stabilisation. Marchevsky AM, et al. **Aust Vet J** 1999 May;77(5):295–7

Expansive laminoplasty for myelopathy in ossification of the longitudinal ligament. Hirabayashi K, et al. **Clin Orthop** 1999 Feb;(359):35–48 (100 ref.)

Diffuse idiopathic skeletal hyperostosis in the cervical spine. Meyer PR Jr. **Clin Orthop** 1999 Feb;(359):49–57

Cervical spondylotic myelopathy. Approaches to surgical

treatment. Orr RD, et al. **Clin Orthop** 1999 Feb;(359):58–66 (44 ref.)
Anterior floating method for cervical myelopathy caused by ossification of the posterior longitudinal ligament. Yamaura I, et al. **Clin Orthop** 1999 Feb;(359):27–34
Surgical management of cervical myelopathy. Emery SE. **Instr Course Lect** 1999;48:423–6 (21 ref.)
Anterior cervical corpectomy in patients previously managed with a laminectomy: short-term complications. Riew KD, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):950–7
Treatment of cervical compressive myelopathy with a new dorsolateral decompressive procedure. Hidai Y, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):178–85
Surgical treatment for patients with cervical flexion myelopathy. Kohno M, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):33–42
A long-term follow-up study of cervical spondylotic myelopathy treated by "French window" laminoplasty. Saruhashi Y, et al. **J Spinal Disord** 1999 Apr;12(2):99–101
Microscopic laminotomies for degenerative lumbar spinal stenosis. Tsai RY, et al. **J Spinal Disord** 1998 Oct; 11(5):389–94
Anterior cervical corpectomy for cervical spondylotic myelopathy. Fessler RG, et al. **Neurosurgery** 1998 Aug; 43(2):257–65; discussion 265–7
Multisegmental cervical spondylotic myelopathy and radiculopathy treated by multilevel oblique corpectomies without fusion. George B, et al. **Neurosurgery** 1999 Jan; 44(1):81–90 (117 ref.)
Ventral brain stem compression in pediatric and young adult patients with Chiari I malformations. Grabb PA, et al. **Neurosurgery** 1999 Mar;44(3):520–7; discussion 527–8
Analysis of dural configuration for evaluation of posterior decompression in cervical myelopathy. Ishida Y, et al. **Neurosurgery** 1999 Jan;44(1):91–5; discussion 95–6
Cervical arachnoid cysts after craniocervical decompression for Chiari II malformations: report of three cases. Jean WC, et al. **Neurosurgery** 1998 Oct;43(4):941–4; discussion 944–5
Surgical management of spinal cord compression from plexiform neurofibromas in patients with neurofibromatosis 1. Pollack IF, et al. **Neurosurgery** 1998 Aug;43(2):248–55; discussion 255–6
Microvascular decompression of the left lateral medulla oblongata for severe refractory neurogenic hypertension. Rafael H. **Neurosurgery** 1999 Mar;44(3):691–2
Complete rotational burst fracture of the third lumbar vertebra managed by posterior surgery. A case report. Chaloupka R. **Spine** 1999 Feb 1;24(3):302–5
Microdecompression and uninstrumented single-level fusion for spinal canal stenosis with degenerative spondylolisthesis. McCulloch JA. **Spine** 1998 Oct 15; 23(20):2243–52
Outcomes of surgical treatment for cervical myelopathy in patients more than 75 years of age. Matsuda Y, et al. **Spine** 1999 Mar 15;24(6):529–34
Sequential or simultaneous, same-day anterior decompression and posterior stabilization in the management of vertebral osteomyelitis of the lumbar spine. Safran O, et al. **Spine** 1998 Sep 1;23(17):1885–90
Developmental and dynamic canal stenosis as radiologic factors affecting surgical results of anterior cervical fusion for myelopathy. Shoda E, et al. **Spine** 1999 Jul 15; 24(14):1421–4
Morphologic limitations of posterior decompression by midsagittal splitting method for myelopathy caused by ossification of the posterior longitudinal ligament in the cervical spine. Yamazaki A, et al. **Spine** 1999 Jan 1; 24(1):32–4
Endoscopic suction decompression of idiopathic epidural lipomatosis. Frank E. **Surg Neurol** 1998 Oct;50(4):333–5; discussion 335
[L5 sciatica caused by the compression of the lumbo-sacral trunk of osseous origin at the sacro-iliac level. Treatment by an antero-lateral subperitoneal approach] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):377–80 (Eng. Abstr.) **(Fre)**
[Functional sequelae of surgical decompression of the lumbar spine--a biomechanical study in vitro] Quint U, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug;136(4):350–7 (Eng. Abstr.) **(Ger)**
[A case of congenital fissure of C2 and C3 arches with compression of cervical spinal cord] Mendel T, et al. **Neurol Neurochir Pol** 1999 Mar-Apr;33(2):475–82 (Eng. Abstr.) **(Pol)**

THERAPY

Management of pain and spinal cord compression in patients with advanced cancer. ACP-ASIM End-of-life Care Consensus Panel. American College of Physicians-American Society of Internal Medicine. Abrahm JL. **Ann Intern Med** 1999 Jul 6;131(1):37–46 (115 ref.)
Successful conservative treatment of rheumatoid subaxial subluxation resulting in improvement of myelopathy, reduction of subluxation, and stabilisation of the cervical spine. A report of two cases. Oostveen JC, et al. **Ann Rheum Dis** 1999 Feb;58(2):126–9
The fatigue of cancer [letter; comment] Potter PJ. **CMAJ** 1998 Oct 20;159(8):921. Comment on: CMAJ 1998 Jun 30;158(13):1748–50.
Systemic hypothermia after spinal cord compression injury in the rat: does recorded temperature in accessible organs reflect the intramedullary temperature in the spinal cord? Westergren H, et al. **J Neurotrauma** 1998 Nov; 15(11):943–54
Management of patients with vertebral compression fractures. Lyles KW. **Pharmacotherapy** 1999 Jan;19(1 Pt 2):21S–24S (27 ref.)
Effect of hypertonic saline on leukocyte activity after spinal cord injury. Spera PA, et al. **Spine** 1998 Nov 15; 23(22):2444–8; discussion 2448–9

VETERINARY

Cervical spinal cord compression caused by cryptococcosis in a dog: successful treatment with surgery and fluconazole. Kerwin SC, et al. **J Am Anim Hosp Assoc** 1998 Nov-Dec; 34(6):523–6
Cervical myelopathy associated with extradural synovial cysts in 4 dogs. Levitski RE, et al. **J Vet Intern Med** 1999 May-Jun;13(3):181–6
Radiographic diagnosis: effect of right vs. left lateral recumbency on myelographic appearance of a lateralized extradural mass. Matteucci ML, et al. **Vet Radiol Ultrasound** 1999 Jul-Aug;40(4):351–2
Oxytocin content of the cerebrospinal fluid of dogs and its relationship to pain induced by spinal cord compression. Brown DC, et al. **Vet Surg** 1998 Nov-Dec;27(6):607–11

SPINAL CORD DISEASES

Intramedullary epidermoid cyst in cervicodorsal spinal cord. Jadhav RN, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):161
Thoracolumbar accessory penis: etiology, diagnosis, and management. Ostad M, et al. **Urology** 1999 Feb;53(2):425–7

CHEMICALLY INDUCED

Cytokine-induced acute inflammation in the brain and spinal cord. Schnell L, et al. **J Neuropathol Exp Neurol** 1999 Mar; 58(3):245–54
Myeloneuropathy following nitrous oxide anesthaesia in a patient with macrocytic anaemia. Sesso RM, et al. **Neuroradiology** 1999 Aug;41(8):588–90
Spinal epidural hematoma following MI [letter; comment] Groen RJ. **Surg Neurol** 1999 Mar;51(3):349–50. Comment on: Surg Neurol 1998 May;49(5):520–2; discussion 523.
[Transverse myelopathy as a complication following long-term intrathecal application of morphine in chronic back pain] Schimpf J, et al. **Anasthesiol Intensivmed Notfallmed Schmerzther** 1999 Aug; 34(8):506–9 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Dermal sinus and intramedullary spinal cord abscess. Report of two cases and review of the literature. Morandi X, et al. **Childs Nerv Syst** 1999 Apr;15(4):202–6; discussion 207–8 (25 ref.)
Anterior sacral meningocele completely occupied by an epidermoid tumor. Shamoto H, et al. **Childs Nerv Syst** 1999 Apr;15(4):209–11
Delayed focal neurological deficit secondary to a cervico-thoracic spinal cord epidural haematoma. Newey ML, et al. **Eur Spine J** 1999;8(4):332–3
Extreme lymphocytopenia associated with toxic shock syndrome. Galus MA, et al. **J Intern Med** 1998 Oct; 244(4):351–4
Restless legs syndrome associated with spinal cord lesions [letter] Hartmann M, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):688–9
Myelopathy secondary to spinal epidural abscess: case reports and a review. Yin KS, et al. **J Spinal Cord Med** 1998 Oct; 21(4):348–54 (32 ref.)
Spinal cord compression: histologic spectrum of lesions. Soomro IN, et al. **JPMA J Pak Med Assoc** 1998 Sep; 48(9):266–9
Spinal epidural hematoma and high thromboembolic risk: between Scylla and Charybdis. Phuong LK, et al. **Mayo Clin Proc** 1999 Feb;74(2):147–9
Latex allergy in an Australian population of children and adolescents with spinal dysfunction. Valentine JP, et al. **Med J Aust** 1999 Jan 4;170(1):15–8
Ehlers-Danlos syndrome associated with multiple spinal meningeal cysts—case report. Isono M, et al. **Neurol Med Chir (Tokyo)** 1999 May;39(5):380–3
Spinal arachnoid cyst with weakness in the limbs and abdominal pain. Aithala GR, et al. **Pediatr Neurol** 1999 Feb;20(2):155–6
Adjacent thoracic neuroenteric and arachnoid cysts. Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):164–5
Intravesical resiniferatoxin for the treatment of detrusor hyperreflexia refractory to capsaicin in patients with chronic spinal cord diseases. Lazzeri M, et al. **Scand J Urol Nephrol** 1998 Sep;32(5):331–4
Heterotopic ossification in non-traumatic myelopathies. Taly AB, et al. **Spinal Cord** 1999 Jan;37(1):47–9
Efficacy of intraoperative monitoring for pediatric patients with spinal cord pathology undergoing spinal deformity surgery. Wilson-Holden TJ, et al. **Spine** 1999 Aug 15; 24(16):1685–92
[Cystic lesion and compression of the posterior epidural space associated with bilateral lumbar spondylolysis. Presentation of a case. Correlation with observable arthrographic images in a case of spondylolysis] Mailleux P, et al. **Acta Orthop Belg** 1999 Jun;65(2):218–22 (Eng. Abstr.) **(Fre)**
[Spinal subarachnoid hemorrhage presenting as disturbance of consciousness with severe hypoglycorrhachia] Nakamura T, et al. **Nippon Ronen Igakkai Zasshi** 1998 Dec; 35(12):924–8 (Eng. Abstr.) **(Jpn)**
[A case of hereditary motor and sensory neuropathy with pyramidal tract sign, optic nerve atrophy and mental retardation] Adachi T, et al. **Rinsho Shinkeigaku** 1998 Dec; 38(12):1037–41 (15 ref.) (Eng. Abstr.) **(Jpn)**

CONGENITAL

Idiopathic localized hydromyelia: dilatation of the central canal of the spinal cord of probable congenital origin. Jinkins JR, et al. **J Comput Assist Tomogr** 1999 May-Jun; 23(3):351–3

DIAGNOSIS

Schistosomal myelopathy: relevance and limits of contrast-enhanced magnetic resonance imaging in spinal cord infections. Goffette S, et al. **Acta Neurol Belg** 1998 Sep;98(3):289–91
Profile of non-compressive myelopathy in eastern India: a 2-year study. Das K, et al. **Acta Neurol Scand** 1999 Feb; 99(2):100–5 (28 ref.)
Idiopathic spinal cord herniation: value of MR phase-contrast imaging. Brugières P, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):935–9
Midline spinal cord hamartomas: MR imaging features of two patients. Castillo M, et al. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):1169–71
Three different approaches to spinal cord monitoring for the prediction of spinal cord ischemia during thoracic aortic aneurysm surgery. Sueda T, et al. **Ann Thorac Cardiovasc Surg** 1998 Oct;4(5):290–3
Spinal cord sarcoidosis presenting as an intramedullary mass: a case report. Wang PY. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Apr;62(4):250–4
Intradural-extramedullary spinal cysticercosis: MR imaging findings. Ciftçi E, et al. **Comput Med Imaging Graph** 1999 May-Jun;23(3):161–4
Acute cytomegalovirus meningomyelitis in an immunocompetent patient. De Socio GV, et al. **Eur J Clin Microbiol Infect Dis** 1998 Dec;17(12):885–7
Contrast-enhanced time-resolved MR angiography of spinal vascular malformations. Mascalchi M, et al. **J Comput Assist Tomogr** 1999 May-Jun;23(3):341–5
Proton MR spectroscopy in clinically isolated syndromes suggestive of multiple sclerosis. Brex PA, et al. **J Neurol Sci** 1999 Jun 15;166(1):16–22
Spinal cord granulomatous vasculitis: an unusual clinical presentation of sarcoidosis. Diri E, et al. **J Rheumatol** 1999 Jun;26(6):1408–10
Posttraumatic spinal cord lesions without skeletal or discal and ligamentous abnormalities: the role of MR imaging. Paleologos TS, et al. **J Spinal Disord** 1998 Aug;11(4):346–9
MR imaging of cerebrospinal fluid flow and spinal cord motion in neurologic disorders of the spine. Levy LM. **Magn Reson Imaging Clin N Am** 1999 Aug;7(3):573–87 (60 ref.)
Spinal cord schistosomiasis. A report of 2 cases and review emphasizing clinical aspects. Ferrari TC. **Medicine (Baltimore)** 1999 May;78(3):176–90 (104 ref.)
Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 35-1998. A 54-year-old woman with a progressive gait disturbance and painful leg paresthesias [clinical conference] [see comments] **N Engl J Med** 1998 Nov 19;339(21):1534–41. Comment in: N Engl J Med 1999 Apr 8;340(14):1123.
Cervical fast spin echo three-dimensional magnetic resonance myelography. Ishii M, et al. **Neurol Med Chir (Tokyo)** 1998 Oct;38(10):641–6; discussion 646–7
Granulomatous compressive thoracic myelopathy as the initial manifestation of Wegener's granulomatosis. Kelly PJ, et al. **Neurology** 1998 Dec;51(6):1769–70
Imaging of spinal intradural arachnoid cysts: MRI, myelography and CT. Silbergleit R, et al. **Neuroradiology** 1998 Oct;40(10):664–8
Chronic spinal subdural haematoma associated with intracranial subdural haematoma: CT and MRI. Tillich M, et al. **Neuroradiology** 1999 Feb;41(2):137–9
A case of subacute combined degeneration: MRI findings [see comments] Yamada K, et al. **Neuroradiology** 1998 Jun; 40(6):398–400. Comment in: Neuroradiology 1999 May;41(5):387.
Idiopathic spinal cord herniation: case report and review of the literature. Marshman LA, et al. **Neurosurgery** 1999 May;44(5):1129–33 (22 ref.)
A snail tale [letter] Polam S, et al. **Pediatr Infect Dis J** 1999 Feb;18(2):173–4
Adjacent thoracic neuroenteric and arachnoid cysts. Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):164–5
A case report of intraspinal paracoccidioidomycosis. do Valle AC, et al. **Rev Inst Med Trop Sao Paulo** 1998 May-Jun; 40(3):203–7
Case of the season. Megaloblastic anemia with subacute combined degeneration (SCD) of the spinal cord. Sharma S, et al. **Semin Roentgenol** 1999 Jan;34(1):2–4
Pachymeningeal gadolinium enhancement of the lumbar region secondary to neuraxis hypotension. Fedder SL. **Spine** 1999 Mar 1;24(5):463–4
Cervical myelopathy due to migration of Torkildsen's shunt: case report. Schulder M, et al. **Surg Neurol** 1999 Jan;

51(1):27–30
[MRI aspects of spinal cord abscesses. Report of 5 cases and review of the literature] Condette-Auliac S, et al. **J Neuroradiol** 1998 Oct;25(3):189–200 (36 ref.) (Eng. Abstr.) **(Fre)**
[Hematomyelia complicating a spinal dural arteriovenous fistula. Report of a case] Mascalchi M, et al. **J Neuroradiol** 1998 Jul;25(2):140–3 (Eng. Abstr.) **(Fre)**
[Epidural and intramedullary abscess of acute onset (letter)] Pagès M, et al. **Rev Neurol (Paris)** 1998 Feb;154(2):173–4 **(Fre)**
[Pyramidal syndrome. Diagnostic guidelines] Masson C. **Rev Prat** 1999 Apr 1;49(7):783–8 **(Fre)**
[MRI in funicular myelosis] Warmuth-Metz M, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):591–3 (Eng. Abstr.) **(Ger)**
[Spinal arteriovenous malformation with ischemic myelopathy diagnosed on high field-strength magnetic resonance imaging] Miyata E, et al. **No To Shinkei** 1999 Jan;51(1):78–9 **(Jpn)**

DRUG THERAPY

Analgesic effect of oral ketamine in chronic neuropathic pain of spinal origin: a case report. Fisher K, et al. **J Pain Symptom Manage** 1999 Jul;18(1):61–6
[Cytomegalovirus polyradiculomyelopathy in AIDS] Jayaweera DT, et al. **Medicina (B Aires)** 1998;58(2):135–40 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Neurologic complications of type I aortic dissection. Blanco M, et al. **Acta Neurol Scand** 1999 Apr;99(4):232–5
Postradiation colospinal fistula: a rare cause of spinal epidural abscess. Wang WY, et al. **AJNR Am J Neuroradiol** 1998 Nov–Dec;19(10):1959–60
Left leg paralysis in a renal transplant. Hiller R, et al. **Am J Kidney Dis** 1999 Jan;33(1):E4
Risk factors of myelopathy at the atlantoaxial level in spondyloepiphyseal dysplasia congenita. Nakamura K, et al. **Arch Orthop Trauma Surg** 1998;117(8):468–70
A clinico-pathological study of cervical myelopathy in rheumatoid arthritis: post-mortem analysis of two cases. Fujiwara K, et al. **Eur Spine J** 1999;8(1):46–53
Myelopathy due to calcification of the cervical ligamenta flava: a report of two cases in West Indian patients. Pascal-Moussellard H, et al. **Eur Spine J** 1999;8(3):238–40
Subacute combined degeneration: clinical, electrophysiological, and magnetic resonance imaging findings [see comments] Hemmer B, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):822–7. Comment in: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):807.
Myeloradicular damage in traumatic cervical disc herniation. Bucciero A, et al. **J Neurosurg Sci** 1998 Dec;42(4):203–11
Posttraumatic spinal cord lesions without skeletal or discal and ligamentous abnormalities: the role of MR imaging. Paleologos TS, et al. **J Spinal Disord** 1998 Aug;11(4):346–9
MR appearance of an intracranial dural arteriovenous fistula leading to cervical myelopathy. Hähnel S, et al. **Neurology** 1998 Oct;51(4):1131–5 (10 ref.)
MRI of the spinal cord in myelopathy complicating vitamin B12 deficiency: two additional cases and a review of the literature. Bassi SS, et al. **Neuroradiology** 1999 Apr; 41(4):271–4 (17 ref.)
Spinal cord abscess in a heroin addict: case report. Sverzut JM, et al. **Neuroradiology** 1998 Jul;40(7):455–8
Neurological deficit following spinal anaesthesia: MRI and CT evidence of spinal cord gas embolism. Tedeschi E, et al. **Neuroradiology** 1999 Apr;41(4):275–8
Neuraxial bleeding: fibrinolytics/thrombolytics. Rosenquist RW, et al. **Reg Anesth Pain Med** 1998 Nov–Dec;23(6 Suppl 2):152–6
Do antiplatelet agents contribute to the development of perioperative spinal hematoma? Urmey WF, et al. **Reg Anesth Pain Med** 1998 Nov–Dec;23(6 Suppl 2):146–51 (16 ref.)
Intramedullary spinal cord abscess associated with cervical spondylodiskitis and epidural abscess. Derkinderen P, et al. **Scand J Infect Dis** 1998;30(6):618–9
Management of multilevel cervical spondylosis with myelopathy. Sypert GW, et al. **Surg Neurol** 1999 Jan; 51(1):4–5
[Cervical myelopathy from ossification of the posterior longitudinal vertebral ligament. Report of 2 cases] Okais N, et al. **Neurochirurgie** 1999 Mar;45(1):49–53 (Eng. Abstr.) **(Fre)**
[Epidural abscess following a lumbar epidural catheter for mobilization of the knee] Kranke W, et al. **Anaesthesist** 1999 Mar;48(3):169–72 (Eng. Abstr.) **(Ger)**
[Radiation myelopathy] Arakawa K, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):438–41 (15 ref.) **(Jpn)**
[Neurological disorders of vitamin B12 deficiency] Tomczykiewicz K, et al. **Neurol Neurochir Pol** 1998 Nov–Dec;32(6):1473–84 (20 ref.) (Eng. Abstr.) **(Pol)**
[Myelopathy and human immunodeficiency virus infection] Lleó A, et al. **Med Clin (Barc)** 1999 Mar 27;112(11):423–7 (86 ref.) **(Spa)**

GENETICS

Spinal xanthomatosis: a variant of cerebrotendinous xanthomatosis. Verrips A, et al. **Brain** 1999 Aug;122 (Pt 8):1589–95
Spinocerebellar ataxia genes--expansion of the phenotype [editorial] Morrison PJ. **Ir Med J** 1998 Dec;91(6):194, 196
Posterior column ataxia with retinitis pigmentosa (AXPC1) maps to chromosome 1q31–q32. Higgins JJ, et al. **Neurology** 1999 Jan 1;52(1):146–50

HISTORY

What, if anything, is spinal shock? Nacimiento W, et al. **Arch Neurol** 1999 Aug;56(8):1033–5

IMMUNOLOGY

Optic-spinal form of multiple sclerosis and anti-thyroid autoantibodies. Sakuma R, et al. **J Neurol** 1999 Jun; 246(6):449–53
Antibodies to urinary tract pathogens in patients with spinal cord lesions. Moser C, et al. **Spinal Cord** 1998 Sep; 36(9):613–6

MICROBIOLOGY

Myelopathy resulting from invasive aspergillosis. Koh S, et al. **Pediatr Neurol** 1998 Aug;19(2):135–8
Spinal cord disease due to melioidosis. Bartley PP, et al. **Trans R Soc Trop Med Hyg** 1999 Mar–Apr;93(2):175–6

PARASITOLOGY

An unusual cause of spinal paraplegia intramedullary schistosomiasis. Ansari SA, et al. **Acta Neurochir (Wien)** 1999;141(1):105–6
Sparganosis of brain and spinal cord: unusual tapeworm infestation (report of two cases). Kudesia S, et al. **Clin Neurol Neurosurg** 1998 Jun;100(2):148–52
Spinal cord hydatid cysts in Egypt. Mazyad MA, et al. **J Egypt Soc Parasitol** 1998 Dec;28(3):655–8
Spinal cord schistosomiasis. A report of 2 cases and review emphasizing clinical aspects. Ferrari TC. **Medicine (Baltimore)** 1999 May;78(3):176–90 (104 ref.)

PATHOLOGY

MR of CNS sarcoidosis: correlation of imaging features to clinical symptoms and response to treatment. Christoforidis GA, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):655–69
Spinal xanthomatosis: a variant of cerebrotendinous xanthomatosis. Verrips A, et al. **Brain** 1999 Aug;122 (Pt 8):1589–95
MRI in vitamin B12 deficiency myelopathy. Locatelli ER, et al. **Can J Neurol Sci** 1999 Feb;26(1):60–3
Dermal sinus and intramedullary spinal cord abscess. Report of two cases and review of the literature. Morandi X, et al. **Childs Nerv Syst** 1999 Apr;15(4):202–6; discussion 207–8 (25 ref.)
Anterior sacral meningocele completely occupied by an epidermoid tumor. Shamoto H, et al. **Childs Nerv Syst** 1999 Apr;15(4):209–11
A clinico-pathological study of cervical myelopathy in rheumatoid arthritis: post-mortem analysis of two cases. Fujiwara K, et al. **Eur Spine J** 1999;8(1):46–53
Isolated ischemia of the spinal cord due to bilateral vertebral artery dissection [letter] Garnier P, et al. **J Neurol Neurosurg Psychiatry** 1999 Jun;66(6):804
Subacute combined degeneration: clinical, electrophysiological, and magnetic resonance imaging findings [see comments] Hemmer B, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):822–7. Comment in: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):807.
Subacute combined degeneration [editorial; comment] Thomas PK. **J Neurol Neurosurg Psychiatry** 1998 Dec; 65(6):807. Comment on: J Neurol Neurosurg Psychiatry 1998 Dec;65(6):822–7.
Spinal cord compression: histologic spectrum of lesions. Soomro IN, et al. **JPMA J Pak Med Assoc** 1998 Sep; 48(9):266–9
Spinal cord lesions--pathologist point of view [editorial] Soomro IN. **JPMA J Pak Med Assoc** 1998 Sep;48(9):260–1 (12 ref.)
Cervical cord and dorsal medullary infarction presenting with retro-orbital pain. de la Sayette V, et al. **Neurology** 1999 Aug 11;53(3):632–4
Quantitative MRI in patients with clinically isolated syndromes suggestive of demyelination. Sailer M, et al. **Neurology** 1999 Feb;52(3):599–606
Spinal cord pathology and viral burden in homosexuals and drug users with AIDS. Shepherd EJ, et al. **Neuropathol Appl Neurobiol** 1999 Feb;25(1):2–10
Malignant glial tumor arising from the site of a previous hamartoma/ganglioglioma: coincidence or malignant transformation? Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):132–4
Wasting of the small hand muscles in upper and mid-cervical cord lesions. Mathews JA. **QJM** 1998 Oct;91(10):691–700
[Dynamic MRI in the evaluation of syringomyelic cysts] Brugières P, et al. **Neurochirurgie** 1999 Jun;45 Suppl 1:115–29 (Eng. Abstr.) **(Fre)**
[Unique medullary neurosarcoidosis] Obadia M, et al. **Rev Neurol (Paris)** 1999 Jan;155(1):46–7 **(Fre)**

PHYSIOPATHOLOGY

The effect of experimental spinal cord edema on the spinal evoked potential. Tanaka K, et al. **Acta Neurochir Suppl (Wien)** 1998;71:101–3
A clinical study of motor evoked potentials using a triple stimulation technique. Magistris MR, et al. **Brain** 1999 Feb; 122 (Pt 2):265–79
Sympathetic skin response in myelopathies. Nair KP, et al. **Clin Auton Res** 1998 Aug;8(4):207–11
Intramedullary abscess of the spinal cord in the antibiotic era: clinical features, microbial etiologies, trends in pathogenesis, and outcomes. Chan CT, et al. **Clin Infect Dis** 1998 Sep;27(3):619–26 (36 ref.)
Comparing deficits following excitotoxic and contusion injuries in the thoracic and lumbar spinal cord of the adult rat. Magnuson DS, et al. **Exp Neurol** 1999 Mar; 156(1):191–204
[Propriospinal myoclonus induced by relaxation and drowsiness] Tison F, et al. **Rev Neurol (Paris)** 1998 Jun; 154(5):423–5 (Eng. Abstr.) **(Fre)**

RADIOGRAPHY

Interventional neuroradiology. Nakstad PH. **Acta Radiol** 1999 Jul;40(4):344–59 (148 ref.)
Consistency of lumbar discograms of the same disc obtained twice at a 2-week interval: influence of needle tip position. Urasaki T, et al. **J Orthop Sci** 1998;3(5):243–51
Neuroradiology case of the day. Extradural lipomatosis. Greiner FG, et al. **Radiographics** 1999 Sep–Oct; 19(5):1397–400
[Secret information provided by lumbosacral myelography] Parlier-Cuau C, et al. **Ann Radiol (Paris)** 1997;40(4):215–24 (Eng. Abstr.) **(Fre)**

REHABILITATION

Social consequences of long term impairments and disabilities: conceptual approach and assessment of handicap. Fougeyrollas P, et al. **Int J Rehabil Res** 1998 Jun;21(2):127–41

SURGERY

Multiple regression analysis of the factors influencing the results of expansive open-door laminoplasty for cervical myelopathy due to ossification of the posterior longitudinal ligament. Fujimura Y, et al. **Arch Orthop Trauma Surg** 1998; 117(8):471–4
Measuring outcomes in cervical myelopathy and radiculopathy. Ludwig SC, et al. **Instr Course Lect** 1999; 48:417–21 (27 ref.)
Axial symptoms and cervical alignments after cervical anterior spinal fusion for patients with cervical myelopathy. Kawakami M, et al. **J Spinal Disord** 1999 Feb;12(1):50–6
Extracranial stereotactic radiosurgery: applications for the spine and beyond. Takacs I, et al. **Neurosurg Clin N Am** 1999 Apr;10(2):257–70 (54 ref.)
Nonneoplastic intramedullary spinal cord lesions mimicking tumors. Lee M, et al. **Neurosurgery** 1998 Oct;43(4):788–94; discussion 794–5
Idiopathic spinal cord herniation: case report and review of the literature. Marshman LA, et al. **Neurosurgery** 1999 May;44(5):1129–33 (22 ref.)
Surgery for cervical myelopathy in geriatric patients. Razack N, et al. **Spinal Cord** 1998 Sep;36(9):629–32
Cervical myelopathy due to migration of Torkildsen's shunt: case report. Schulder M, et al. **Surg Neurol** 1999 Jan; 51(1):27–30
Management of multilevel cervical spondylosis with myelopathy. Sypert GW, et al. **Surg Neurol** 1999 Jan; 51(1):4–5

THERAPY

Long-term follow-up and outcome in patients treated for spinal dural arteriovenous fistula. Behrens S, et al. **J Neurol** 1999 Mar;246(3):181–5
Magnetic resonance imaging with implanted neurostimulators: an in vitro and in vivo study. Tronnier VM, et al. **Neurosurgery** 1999 Jan;44(1):118–25; discussion 125–6

ULTRASONOGRAPHY

Dilation of the ventriculus terminalis: sonographic findings. Truong BC, et al. **J Ultrasound Med** 1998 Nov;17(11):713–5

VETERINARY

Arteriovenous malformation of the cervical spinal cord in a dog. Hayashida E, et al. **J Comp Pathol** 1999 Jul; 121(1):71–6
Atlanto-occipital malformation, osteoarthropathy, and myelopathy in a Duroc boar. Helie P, et al. **J Vet Diagn Invest** 1999 Mar;11(2):182–4
Magnetic resonance imaging of the cervical spine in 27 dogs. Levitski RE, et al. **Vet Radiol Ultrasound** 1999 Jul–Aug; 40(4):332–41
Radiographic diagnosis: focal spinal cord malacia in a cat. Sanders S, et al. **Vet Radiol Ultrasound** 1999 Mar–Apr; 40(2):122–5

VIROLOGY

[Cytomegalovirus polyradiculomyelopathy in AIDS]

Jayaweera DT, et al. **Medicina (B Aires)** 1998;58(2):135–40 (Eng. Abstr.) **(Spa)**

SPINAL CORD INJURIES

Use of suxamethonium in cord patients--whether and when [letter; comment] Gronert GA. **Anaesthesia** 1998 Oct; 53(10):1035–6. Comment on: Anaesthesia 1998 Mar;53(3):273–89.

Anaesthesia for chronic spinal cord lesions and multiple sclerosis [letter; comment] Watt JW. **Anaesthesia** 1998 Aug; 53(8):825–6. Comment on: Anaesthesia 1998 Mar;53(3):273–89.

Feasibility study of a novel approach to sore prevention in patients with spinal cord lesions: the computerized dynamic control Matrix 200 system. Catz A, et al. **Clin Rehabil** 1999 Feb;13(1):44–7

Ageing with spinal cord injury: the impact of spousal support. Holicky R, et al. **Disabil Rehabil** 1999 May–Jun; 21(5–6):250–7

Expectations of independence and life satisfaction among ageing spinal cord injured adults. McColl MA, et al. **Disabil Rehabil** 1999 May–Jun;21(5–6):231–40

16th Annual National Neurotrauma Symposium. Los Angeles, California, USA, November 6–7, 1998. Abstracts. **J Neurotrauma** 1998 Oct;15(10):851–910

Effect of repeated ejaculation on semen quality in spinal cord injured men [see comments] Sønksen J, et al. **J Urol** 1999 Apr;161(4):1163–5. Comment in: J Urol 1999 Apr;161(4):1166–7.

Animal models of spinal cord contusion injuries. Khan T, et al. **Lab Anim Sci** 1999 Apr;49(2):161–72

Spinal cord trauma. Buckley DA, et al. **Nurs Clin North Am** 1999 Sep;34(3):661–87 (38 ref.)

SCIM–spinal cord independence measure: a new disability scale for patients with spinal cord lesions. Catz et al. Spinal Cord 1998; 35: 850–56 [letter; comment] Dickson HG. **Spinal Cord** 1998 Oct;36(10):734–5. Comment on: Spinal Cord 1997 Dec;35(12):850–6.

[Neurotrophic factors and spinal cord injury. A review] Liu W, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):19–21 (26 ref.) **(Chi)**

BLOOD

Platelet-stimulated thrombin and PDGF are normalized by insulin and Ca2+ channel blockers. Kahn NN. **Am J Physiol** 1999 May;276(5 Pt 1):E856–62

Individuals with extreme inactivity do not have abnormal serum lipoprotein (a) levels. Bauman WA, et al. **Horm Metab Res** 1998 Sep;30(9):601–3

Changes in lipid, lipoprotein and apolipoprotein profiles in persons with spinal cord injuries during the first 2 years post-injury. Dallmeijer AJ, et al. **Spinal Cord** 1999 Feb; 37(2):96–102

Diurnal variation of antidiuretic hormone and urinary output in spinal cord injury. Kilinç S, et al. **Spinal Cord** 1999 May; 37(5):332–5

CEREBROSPINAL FLUID

Sampling of low molecular weight iron by microdialysis following spinal cord injury. de Castro R Jr, et al. **J Neurosci Res** 1999 Sep 1;57(5):735–9

CHEMICALLY INDUCED

Toxic effect of hemoglobin on spinal cord neurons in culture. Regan RF, et al. **J Neurotrauma** 1998 Aug;15(8):645–53

Cervical epidural steroid injection with intrinsic spinal cord damage. Two case reports [see comments] Hodges SD, et al. **Spine** 1998 Oct 1;23(19):2137–42; discussion 2141–2 . Comment in: Spine 1999 Jun 1;24(11):1170–2.

CLASSIFICATION

Independent living long-term outcome variables in spinal cord injury: a replication of DeJong. Boschen KA, et al. **Int J Rehabil Res** 1998 Sep;21(3):285–300

A test of the 1992 International Standards for Neurological and Functional Classification of Spinal Cord Injury. Cohen ME, et al. **Spinal Cord** 1998 Aug;36(8):554–60

[International standards in assessing the neurological disorders in spinal and spinal cord trauma] Iarikov DE, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan–Mar; (1):36–8 **(Rus)**

COMPLICATIONS

Posttraumatic syringomyelia: pathogenesis, imaging, and treatment. Schwartz ED, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):487–92

Risk factors for development of proteinuria in chronic spinal cord injury. Wall BM, et al. **Am J Kidney Dis** 1999 May; 33(5):899–903

UTI prophylaxis in paralyzed patients [news] **Am J Nurs** 1999 Jun;99(6):18

Lower thoracic spinal cord injury--a severe complication of shoulder dystocia. Hankins GD. **Am J Perinatol** 1998 Jul;15(7):443–4

Reduced anti-allodynic effect of the adenosine A1-receptor agonist R-phenylisopropyladenosine on repeated intrathecal administration and lack of cross-tolerance with morphine in a rat model of central pain. von Heijne M, et al. **Anesth Analg** 1998 Dec;87(6):1367–71

Randomized trial of sildenafil for the treatment of erectile dysfunction in spinal cord injury. Sildenafil Study Group. Giuliano F, et al. **Ann Neurol** 1999 Jul;46(1):15–21

Evaluation of results and treatment variables for pressure ulcers in 48 veteran spinal cord-injured patients. Goodman CM, et al. **Ann Plast Surg** 1999 Jun;42(6):665–72

The efficacy of single-stage surgical management of multiple pressure sores in spinal cord-injured patients. Rubayi S, et al. **Ann Plast Surg** 1999 May;42(5):533–9

Bladder shape impact on the accuracy of ultrasonic estimation of bladder volume. Bih LI, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1553–6

Sonographic diagnosis of hydronephrosis in patients with spinal cord injury: influence of bladder fullness. Bih LI, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1557–9

A multicenter investigation of age-related differences in lengths of stay, hospitalization charges, and outcomes for a matched tetraplegia sample. Cifu DX, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):733–40

Muscle strength changes as measured by dynamometry following functional rehabilitation in individuals with spinal cord injury. Drolet M, et al. **Arch Phys Med Rehabil** 1999 Jul;80(7):791–800

Influence of urinary management on urologic complications in a cohort of spinal cord injury patients. Gallien P, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1206–9

Predictors of dysphagia after spinal cord injury. Kirshblum S, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1101–5

The predictive value of plantar flexion of the toes in the assessment of neuropathic voiding disorders in patients with spine lesions at the thoracolumbar level. Schurch B. **Arch Phys Med Rehabil** 1999 Jun;80(6):681–6

Perceived difficulty in dealing with consequences of spinal cord injury. Widerström-Noga EG, et al. **Arch Phys Med Rehabil** 1999 May;80(5):580–6

Relapsing pulmonary embolism in a patient with a spinal cord–injury. Vacanti LJ, et al. **Arq Bras Cardiol** 1999 Jan; 72(1):71–8 **(Eng, Por)**

Contribution of the assisted reproductive technologies to fertility in males suffering spinal cord injury. Taylor Z, et al. **Aust N Z J Obstet Gynaecol** 1999 Feb;39(1):84–7

Phenoxybenzamine in the management of neuropathic bladder following spinal cord injury. Al-Ali M, et al. **Aust N Z J Surg** 1999 Sep;69(9):660–3

The impact of contemporary bladder management techniques on struvite calculi associated with spinal cord injury. Donnellan SM, et al. **BJU Int** 1999 Aug;84(3):280–5

Surgical management of urethral damage in neurologically impaired female patients with chronic indwelling catheters. Andrews HO, et al. **Br J Urol** 1998 Dec;82(6):820–4

Calcium influx and activation of calpain I mediate acute reactive gliosis in injured spinal cord. Du S, et al. **Exp Neurol** 1999 May;157(1):96–105

Triplet pregnancy achieved through intracytoplasmic sperm injection with spermatozoa obtained by prostatic massage of a paraplegic patient: case report. Marina S, et al. **Hum Reprod** 1999 Jun;14(6):1546–8

Quadriplegia caused by cervical hyperextension injury and intramedullary spinal cord tumour: a case report of autopsy. Fujimura Y, et al. **Injury** 1998 Jun;29(5):377–9

Labor and delivery of patients with spinal cord injury. Sasa H, et al. **Int J Gynaecol Obstet** 1998 Nov;63(2):189–90

Relating clinical and neurophysiological assessment of spasticity by machine learning. Zupan B, et al. **Int J Med Inf** 1998 Apr;49(2):243–51

A comparison of posttraumatic stress disorder in veterans with and without spinal cord injury. Radnitz CL, et al. **J Abnorm Psychol** 1998 Nov;107(4):676–80

The prevalence and natural history of gallstones in spinal cord injured patients. Moonka R, et al. **J Am Coll Surg** 1999 Sep;189(3):274–81

Cellular and molecular causes of male infertility in spinal cord injury. Rajasekaran M, et al. **J Androl** 1999 May–Jun; 20(3):326–30 (52 ref.)

Early onset pneumonia in neurosurgical intensive care unit patients. Berrouane Y, et al. **J Hosp Infect** 1998 Dec; 40(4):275–80

The human motor cortex after incomplete spinal cord injury: an investigation using proton magnetic resonance spectroscopy. Puri BK, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov;65(5):748–54

Upper airway obstruction by retropharyngeal hematoma after cervical spine trauma: report of a case treated with percutaneous dilational tracheostomy. Mazzon D, et al. **J Neurosurg Anesthesiol** 1998 Oct;10(4):237–40

Nuchal cord changes in children with os odontoideum: evidence for associated trauma. Kuhns LR, et al. **J Pediatr Orthop** 1998 Nov–Dec;18(6):815–9

A prospective evaluation of upper extremity tendon transfers in children with cervical spinal cord injury. Mulcahey MJ, et al. **J Pediatr Orthop** 1999 May–Jun;19(3):319–28

Neurological symptoms 27 years after tiger bite. Papadopoulos MC, et al. **J R Soc Med** 1999 Jun;92(6):303–4

Sexual response in women with spinal cord injuries: implications for our understanding of the able bodied. Sipski ML, et al. **J Sex Marital Ther** 1999 Jan–Mar; 25(1):11–22

Bowel management in children and adolescents with spinal cord injury. Goetz LL, et al. **J Spinal Cord Med** 1998 Oct; 21(4):335–41

Bladder cancer risk in patients with spinal cord injury. Vereczkey ZA, et al. **J Spinal Cord Med** 1998 Jul; 21(3):230–9

Posttraumatic spinal cord lesions without skeletal or discal and ligamentous abnormalities: the role of MR imaging. Paleologos TS, et al. **J Spinal Disord** 1998 Aug;11(4):346–9

Delayed cortical blindness and recurrent quadriplegia after cervical trauma. Vaccaro AR, et al. **J Spinal Disord** 1998 Dec;11(6):535–9

Association of head trauma with cervical spine injury, spinal cord injury, or both. Iida H, et al. **J Trauma** 1999 Mar; 46(3):450–2

Spinal shock--spinal man [editorial; comment] White RJ, et al. **J Trauma** 1999 May;46(5):979–80. Comment on: J Trauma 1993 Oct;35(4):578–82; discussion 582–3.

Sphincteric stent versus external sphincterotomy in spinal cord injured men: prospective randomized multicenter trial. Chancellor MB, et al. **J Urol** 1999 Jun;161(6):1893–8

Long-term followup of the North American multicenter UroLume trial for the treatment of external detrusor-sphincter dyssynergia [see comments] Chancellor MB, et al. **J Urol** 1999 May;161(5):1545–50. Comment in: J Urol 1999 May;161(5):1556.

"Skin-CNS-bladder" reflex pathway for micturition after spinal cord injury and its underlying mechanisms. Xiao CG, et al. **J Urol** 1999 Sep;162(3 Pt 1):936–42

Images in clinical medicine. Brown-Séquard syndrome [see comments] Firlik AD, et al. **N Engl J Med** 1999 Jan 28; 340(4):285. Comment in: N Engl J Med 1999 Jul 1;341(1):57.

Horner's syndrome [letter; comment] Lewis SL. **N Engl J Med** 1999 Jul 1;341(1):57. Comment on: N Engl J Med 1999 Jan 28;340(4):285.

Efficacy and safety of oral sildenafil (Viagra) in men with erectile dysfunction caused by spinal cord injury. Derry FA, et al. **Neurology** 1998 Dec;51(6):1629–33

Anti-hyperalgesic and anti-allodynic effects of intrathecal nociceptin/orphanin FQ in rats after spinal cord injury, peripheral nerve injury and inflammation. Hao JX, et al. **Pain** 1998 Jun;76(3):385–93

A case of spinal cord injury-related pain with baseline rCBF brain SPECT imaging and beneficial response to gabapentin. Ness TJ, et al. **Pain** 1998 Nov;78(2):139–43

Energy cost of propulsion in standard and ultralight wheelchairs in people with spinal cord injuries. Beekman CE, et al. **Phys Ther** 1999 Feb;79(2):146–58

Musculocutaneous nerve palsy following traumatic spinal cord injury. Abbott KM, et al. **Spinal Cord** 1998 Aug; 36(8):588–90

Upper extremity pain after spinal cord injury. Dalyan M, et al. **Spinal Cord** 1999 Mar;37(3):191–5

Osteoporosis after spinal cord injury. Demirel G, et al. **Spinal Cord** 1998 Dec;36(12):822–5

Isolated musculocutaneous nerve palsy in a spinal cord injury. Fattal C, et al. **Spinal Cord** 1998 Aug;36(8):591–2

The treatment of immature heterotopic ossification in spinal cord injury with combination surgery, radiation therapy and NSAID. Freebourn TM, et al. **Spinal Cord** 1999 Jan; 37(1):50–3

Correlates of stress in long-term spinal cord injury. Gerhart KA, et al. **Spinal Cord** 1999 Mar;37(3):183–90

Autonomic dysreflexia during urodynamics [see comments] Giannantoni A, et al. **Spinal Cord** 1998 Nov;36(11):756–60 . Comment in: Spinal Cord 1999 Apr;37(4):308–9.

The application of air bag technology: an objective clinical measure of involuntary muscle spasm. Granat MH, et al. **Spinal Cord** 1999 Jul;37(7):501–7

Urological management of tetraplegic patients. Iwatsubo E, et al. **Spinal Cord** 1999 Jan;37(1):1–5

Intraurethral stent prosthesis in spinal cord injured patients with sphincter dyssynergia. Juan Garcia FJ, et al. **Spinal Cord** 1999 Jan;37(1):54–7

Autonomic dysreflexia. Karlsson AK. **Spinal Cord** 1999 Jun; 37(6):383–91 (85 ref.)

The role of intestinal stoma in patients with spinal cord injury. Kelly SR, et al. **Spinal Cord** 1999 Mar;37(3):211–4

Has botulinum toxin type A a place in the treatment of spasticity in spinal cord injury patients? Al-Khodairy AT, et al. **Spinal Cord** 1998 Dec;36(12):854–8

Obstructive sleep apneas in relation to severity of cervical spinal cord injury. Klefbeck B, et al. **Spinal Cord** 1998 Sep; 36(9):621–8

Urodynamic assessment during intravesical infusion of capsaicin for the treatment of refractory detrusor hyperreflexia. Lazzeri M, et al. **Spinal Cord** 1999 Jun; 37(6):440–3

A two-part pilot study of sildenafil (VIAGRA) in men with erectile dysfunction caused by spinal cord injury. Maytom MC, et al. **Spinal Cord** 1999 Feb;37(2):110–6

Pathology of the spinal cord damaged by ossification of the posterior longitudinal ligament associated with spinal cord injury. Mizuno J, et al. **Spinal Cord** 1999 Mar;37(3):224–7

Indiana pouch in female patients with spinal cord injury. Plancke HR, et al. **Spinal Cord** 1999 Mar;37(3):208–10

Chronic pain after spinal cord injury: a survey of practice in UK spinal injury units. Ravenscroft A, et al. **Spinal Cord** 1999 Jan;37(1):25–8

Contribution of D-Dimer determination in the exclusion of deep venous thrombosis in spinal cord injury patients. Roussi J, et al. **Spinal Cord** 1999 Aug;37(8):548–52

A comprehensive approach to the management of male infertility following spinal cord injury. Rutkowski SB, et al. **Spinal Cord** 1999 Jul;37(7):508–14

Inhibition of airway hyperreactivity by oxybutynin chloride in subjects with cervical spinal cord injury. Singas E, et al. **Spinal Cord** 1999 Apr;37(4):279–83

Spinal cord injured men and infertility [letter] Stien R. **Spinal Cord** 1999 Jul;37(7):527

Polyethylene glycol versus vegetable oil based bisacodyl suppositories to initiate side-lying bowel care: a clinical trial in persons with spinal cord injury. Stiens SA, et al. **Spinal Cord** 1998 Nov;36(11):777–81

Efficacy and safety of propiverine in SCI-patients suffering from detrusor hyperreflexia--a double-blind, placebo-controlled clinical trial. Stöhrer M, et al. **Spinal Cord** 1999 Mar;37(3):196–200

Pathophysiology of autonomic dysreflexia: long-term treatment with terazosin in adult and paediatric spinal cord injury patients manifesting recurrent dysreflexic episodes. Vaidyanathan S, et al. **Spinal Cord** 1998 Nov;36(11):761–70

Prolonged penile erection association with terazosin in a cervical spinal cord injury patient [letter] Vaidyanathan S, et al. **Spinal Cord** 1998 Nov;36(11):805

Recurrent urinary infection, raised serum levels of C-reactive protein, and the risk of cardiovascular disease in patients with spinal cord injury: a hypothesis [letter; comment] Vaidyanathan S, et al. **Spinal Cord** 1998 Dec;36(12):868–9 . Comment on: Spinal Cord 1998 Apr;36(4):266–74.

Femoral fracture and iatrogenic hyperthyroidism in spinal cord injury. Valayer-Chaleat E, et al. **Spinal Cord** 1998 Aug;36(8):593–5

Fracture rates and risk factors for fractures in patients with spinal cord injury. Vestergaard P, et al. **Spinal Cord** 1998 Nov;36(11):790–6

Screening cystoscopy in chronically catheterized spinal cord injury patients. Yang CC, et al. **Spinal Cord** 1999 Mar; 37(3):204–7

The influence of spinal canal narrowing and timing of decompression on neurologic recovery after spinal cord contusion in a rat model. Dimar JR 2nd, et al. **Spine** 1999 Aug 15;24(16):1623–33

Surgical challenge of massive bilateral staghorn renal calculi in a spinal cord injury patient. Issa MM, et al. **Urol Int** 1998;61(4):247–50

Intraurethral alprostadil for treatment of erectile dysfunction in patients with spinal cord injury. Bodner DR, et al. **Urology** 1999 Jan;53(1):199–202

Role of chronic catheterization in the development of bladder cancer in patients with spinal cord injury. West DA, et al. **Urology** 1999 Feb;53(2):292–7

Dramatic development of quadriplegia in a young man while engaged in heavy manual labour: a post-traumatic spinal cord injury? Schlüter E, et al. **Virchows Arch** 1998 Nov; 433(5):487–91

Implantation of anterior sacral root stimulators combined with posterior sacral rhizotomy in spinal injury patients. Egon G, et al. **World J Urol** 1998;16(5):342–9

Selective detrusor activation by sacral ventral nerve-root stimulation: results of intraoperative testing in humans during implantation of a Finetech-Brindley system. Rijkhoff NJ, et al. **World J Urol** 1998;16(5):337–41

[Evaluation and repair of bladder function after spinal cord injuries] Liu Z, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Mar;35(3):189–91 (21 ref.) **(Chi)**

[Post-traumatic syringomyelia] Perrouin-Verbe B, et al. **Neurochirurgie** 1999 Jun;45 Suppl 1:58–66 (Eng. Abstr.) **(Fre)**

[Respiratory problems after injuries of the cervical spine] Stocker R, et al. **Schweiz Med Wochenschr** 1998 Sep 26; 128(39):1462–6 (13 ref.) (Eng. Abstr.) **(Ger)**

[Posttraumatic syringomyelia. A report of an atypical case] Bucciero A, et al. **Minerva Chir** 1998 Nov;53(11):943–6 (21 ref.) (Eng. Abstr.) **(Ita)**

[Clinical features of transurethral anterior sphincterotomy and urological management of patients with cervical spinal cord injury] Kajio K, et al. **Nippon Hinyokika Gakkai Zasshi** 1998 Nov;89(11):885–93 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Spinal cord emergencies: false reassurance from reflexes. Glick TH, et al. **Acad Emerg Med** 1998 Oct;5(10):1041–3

The relationship between the functional abilities of patients with cervical spinal cord injury and the severity of damage revealed by MR imaging. Flanders AE, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):926–34

Electrodiagnosis in spinal cord injured persons with new weakness or sensory loss: central and peripheral etiologies. Bursell JP, et al. **Arch Phys Med Rehabil** 1999 Aug; 80(8):904–9

Case of the month. A double whammy! Reid JH, et al. **Br J Radiol** 1998 Nov;71(851):1215–6

Diagnosis and treatment of acute central cervical cord injury. Dai L, et al. **Chin Med J (Engl)** 1998 Apr;111(4):351–3

Evaluation of the patient with spinal trauma and back pain: an evidence based approach. Petri R, et al. **Emerg Med Clin North Am** 1999 Feb;17(1):25–39, vii–viii (28 ref.)

Use of magnetic resonance imaging in spinal trauma: indications, techniques, and utility. Slucky AV, et al. **J Am Acad Orthop Surg** 1998 May-Jun;6(3):134–45 (22 ref.)

The ankle clonus test for assessment of the integrity of the spinal cord during operations for scoliosis [letter; comment] Ewen A, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):1044 . Comment on: J Bone Joint Surg Am 1997 Feb;79(2):208–12.

Spinal cord monitoring with somatosensory techniques. Nuwer MR. **J Clin Neurophysiol** 1998 May;15(3):183–93 (118 ref.)

MR imaging of the spine in sports injuries. Gundry CR, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):85–103 (48 ref.)

Spine and spinal cord war injuries during the war in Croatia. Janković S, et al. **Mil Med** 1998 Dec;163(12):847–9

Emergency magnetic resonance imaging of cervical spinal cord injuries: clinical correlation and prognosis. Selden NR, et al. **Neurosurgery** 1999 Apr;44(4):785–92; discussion 792–3

Paramedic use of a spinal injury clearance algorithm reduces spinal immobilization in the out-of-hospital setting. Muhr MD, et al. **Prehosp Emerg Care** 1999 Jan-Mar;3(1):1–6

Electrophysiological recordings in patients with spinal cord injury: significance for predicting outcome. Curt A, et al. **Spinal Cord** 1999 Mar;37(3):157–65 (58 ref.)

Magnetic resonance evaluation of the intervertebral disc, spinal ligaments, and spinal cord before and after closed traction reduction of cervical spine dislocations. Vaccaro AR, et al. **Spine** 1999 Jun 15;24(12):1210–7

[Tingling in the hands] Geelen JA, et al. **Ned Tijdschr Geneeskd** 1999 Jul 31;143(31):1593–7 (9 ref.) (Eng. Abstr.) **(Dut)**

[The use micro-polarization in spinal cord lesions] Sheliakin AM, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998; 98(12):22–4 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

Neuroprotective effects of riluzole in neurotrauma models: a review. Wahl F, et al. **Acta Neurochir Suppl (Wien)** 1999; 73:103–10

Clomethiazole (ZENDRA, CMZ) improves hind limb motor function and reduces neuronal damage after severe spinal cord injury in rat. Farooque M, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):22–30

4-Aminopyridine enhances motor evoked potentials following graded spinal cord compression injury in rats. Gruner JA, et al. **Brain Res** 1999 Jan 23;816(2):446–56

Methylprednisolone inhibition of TNF-alpha expression and NF-kB activation after spinal cord injury in rats. Xu J, et al. **Brain Res Mol Brain Res** 1998 Aug 31;59(2):135–42

The detrimental effects of spinal cord injury on spermatogenesis in the rat is partially reversed by testosterone, but enhanced by follicle-stimulating hormone. Huang HF, et al. **Endocrinology** 1999 Mar;140(3):1349–55

Brain-derived neurotrophic factor stimulates hindlimb stepping and sprouting of cholinergic fibers after spinal cord injury. Jakeman LB, et al. **Exp Neurol** 1998 Nov; 154(1):170–84

Tacrolimus (FK506) increases neuronal expression of GAP-43 and improves functional recovery after spinal cord injury in rats. Madsen JR, et al. **Exp Neurol** 1998 Dec;154(2):673–83

Peripherally administered insulin-like growth factor-I preserves hindlimb reflex and spinal cord noradrenergic circuitry following a central nervous system lesion in rats. Pulford BE, et al. **Exp Neurol** 1999 Sep;159(1):114–23

Influence of glutamate receptor antagonists on micturition in rats with spinal cord injury. Yoshiyama M, et al. **Exp Neurol** 1999 Sep;159(1):250–7

Clenbuterol, a beta(2)-adrenoceptor agonist, improves locomotor and histological outcomes after spinal cord contusion in rats. Zeman RJ, et al. **Exp Neurol** 1999 Sep; 159(1):267–73

Acute repair of crushed guinea pig spinal cord by polyethylene glycol. Shi R, et al. **J Neurophysiol** 1999 May; 81(5):2406–14

2,3-Dihydroxy-6-nitro-7-sulfamoyl-benzo(f)quinoxaline reduces glial loss and acute white matter pathology after experimental spinal cord contusion. Rosenberg LJ, et al. **J Neurosci** 1999 Jan 1;19(1):464–75

Basic fibroblast growth factor increases long-term survival of spinal motor neurons and improves respiratory function after experimental spinal cord injury. Teng YD, et al. **J Neurosci** 1999 Aug 15;19(16):7037–47

Methylprednisolone or tirilazad mesylate administration after acute spinal cord injury: 1-year follow up. Results of the third National Acute Spinal Cord Injury randomized controlled trial. Bracken MB, et al. **J Neurosurg** 1998 Nov; 89(5):699–706

Functional recovery after central infusion of alpha-melanocyte-stimulating hormone in rats with spinal cord contusion injury. Lankhorst AJ, et al. **J Neurotrauma** 1999 Apr;16(4):323–31

Neuroprotective effects of basic fibroblast growth factor following spinal cord contusion injury in the rat. Lee TT, et al. **J Neurotrauma** 1999 May;16(5):347–56

Randomized double-blind crossover trial of fampridine-SR (sustained release 4-aminopyridine) in patients with incomplete spinal cord injury. Potter PJ, et al. **J Neurotrauma** 1998 Oct;15(10):837–49

4-Aminopyridine alters gait characteristics and enhances locomotion in spinal cord injured humans. Segal JL, et al. **J Spinal Cord Med** 1998 Jul;21(3):200–4

Steroids and spinal cord injury: revisiting the NASCIS 2 and NASCIS 3 trials. Nesathurai S. **J Trauma** 1998 Dec; 45(6):1088–93

Pathogenesis and pharmacological strategies for mitigating secondary damage in acute spinal cord injury. Amar AP, et al. **Neurosurgery** 1999 May;44(5):1027–39; discussion 1039–40 (106 ref.)

Safety and efficacy of 4-aminopyridine in humans with spinal cord injury: a long-term, controlled trial. Segal JL, et al. **Pharmacotherapy** 1999 Jun;19(6):713–23

Neuroprotective effect of magnesium on lipid peroxidation and axonal function after experimental spinal cord injury. Süzer T, et al. **Spinal Cord** 1999 Jul;37(7):480–4

Risk of avascular necrosis following short term megadose methylprednisolone treatment. Wing PC, et al. **Spinal Cord** 1998 Sep;36(9):633–6

A study of adenosine treatment in experimental acute spinal cord injury. Effect on arachidonic acid metabolites. Akpek EA, et al. **Spine** 1999 Jan 15;24(2):128–32

Therapeutic time window for methylprednisolone in spinal cord injured rat. Yoon DH, et al. **Yonsei Med J** 1999 Aug; 40(4):313–20

ECONOMICS

Relation of disability costs to function: spinal cord injury. Hamilton BB, et al. **Arch Phys Med Rehabil** 1999 Apr; 80(4):385–91

Treatment of acute deep vein thrombosis in spinal cord injured patients with enoxaparin: a cost analysis. Tomaio A, et al. **J Spinal Cord Med** 1998 Jul;21(3):205–10

ENZYMOLOGY

Brain derived neurotrophic factor and insulin like growth factor-1 attenuate upregulation of nitric oxide synthase and cell injury following trauma to the spinal cord. An immunohistochemical study in the rat. Sharma HS, et al. **Amino Acids** 1998;14(1-3):121–9

Peroxynitrite production and activation of poly (adenosine diphosphate-ribose) synthetase in spinal cord injury. Scott GS, et al. **Ann Neurol** 1999 Jan;45(1):120–4

Possible involvement of interleukin-1 in cyclooxygenase-2 induction after spinal cord injury in rats. Tonai T, et al. **J Neurochem** 1999 Jan;72(1):302–9

Activation of the caspase-3 apoptotic cascade in traumatic spinal cord injury. Springer JE, et al. **Nat Med** 1999 Aug; 5(8):943–6

Transitory expression of NADPH diaphorase (NOS) in axonal swellings after spinal cord injury. Guizar-Sahagún G, et al. **Neuroreport** 1998 Aug 24;9(12):2899–902

Early changes in nitric oxide synthase activity in atrial intramural arteries following experimental spinal cord injury in rats. Bravo G, et al. **Neurosci Lett** 1999 Aug 13; 271(1):37–40

[The relationship between alteration of mitochondrial enzyme activities and mitochondrial function after cervical cord injury] Xiao J, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):326–8 (Eng. Abstr.) **(Chi)**

EPIDEMIOLOGY

Substance abuse, violence, and outcome after traumatic spinal cord injury. McKinley WO, et al. **Am J Phys Med Rehabil** 1999 Jul-Aug;78(4):306–12

Nontraumatic spinal cord injury: incidence, epidemiology, and functional outcome. McKinley WO, et al. **Arch Phys Med Rehabil** 1999 Jun;80(6):619–23

Disabling injuries of the cervical spine in Argentine rugby over the last 20 years. Secin FP, et al. **Br J Sports Med** 1999 Feb;33(1):33–6

Spinal injuries in the Plateau State, Nigeria. Igun GO, et al. **East Afr Med J** 1999 Feb;76(2):75–9

Spinal cord injuries in ice hockey in Finland and Sweden from 1980 to 1996. Mölsä JJ, et al. **Int J Sports Med** 1999 Jan;20(1):64–7

The changing nature of admissions to a spinal cord injury center: violence on the rise. Farmer JC, et al. **J Spinal Disord** 1998 Oct;11(5):400–3

An apparent reduction in the incidence and severity of spinal cord injuries in schoolboy rugby players in the western Cape since 1990. Noakes TD, et al. **S Afr Med J** 1999 May;89(5):540–5

Spinal cord injuries--epidemiology in Portugal's central region. Martins F, et al. **Spinal Cord** 1998 Aug;36(8):574–8

Characteristics of injuries to the cervical spine and spinal cord in polytrauma patient population: experience from a regional trauma unit. Prasad VS, et al. **Spinal Cord** 1999 Aug;37(8):560–8

ETIOLOGY

Paraplegia, a severe complication to epidural analgesia. Bülow PM, et al. **Acta Anaesthesiol Scand** 1999 Feb; 43(2):233–5

Clinical presentations, medical complications, and functional outcomes of individuals with gunshot wound-induced spinal cord injury. McKinley WO, et al. **Am J Phys Med Rehabil** 1999 Mar-Apr;78(2):102–7

Nerve injury associated with anesthesia: a closed claims analysis. Cheney FW, et al. **Anesthesiology** 1999 Apr; 90(4):1062–9

Postrehabilitation outcomes after spinal cord injury caused by firearms and motor vehicle crash among ethnically diverse groups. Waters RL, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1237–43

Spinal cord injury after electrical trauma treated in a burn unit. Arévalo JM, et al. **Burns** 1999 Aug;25(5):449–52

Spinal cord insults in the prenatal, perinatal, and neonatal

periods [see comments] Ruggieri M, et al. **Dev Med Child Neurol** 1999 May;41(5):311–7. Comment in: Dev Med Child Neurol 1999 May;41(5):291.

Spinal cord injuries in ice hockey in Finland and Sweden from 1980 to 1996. Mölsä JJ, et al. **Int J Sports Med** 1999 Jan;20(1):64–7

Dysfunction of the spinal cord during spinal arthrodesis for scoliosis: recommendations for early detection and treatment. A case report. Potenza V, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1679–83

The relationship of developmental narrowing of the cervical spinal canal to reversible and irreversible injury of the cervical spinal cord in football players. An epidemiological study [letter; comment] Summerfield SL. **J Bone Joint Surg Am** 1998 Oct;80(10):1554–5. Comment on: J Bone Joint Surg Am 1996 Sep;78(9):1308–14.

The spectrum of lap belt injuries sustained by two cousins in the same motor vehicle crash. Statter MB, et al. **J Trauma** 1998 Oct;45(4):835–7

Pathogenesis and pharmacological strategies for mitigating secondary damage in acute spinal cord injury. Amar AP, et al. **Neurosurgery** 1999 May;44(5):1027–39; discussion 1039–40 (106 ref.)

Spinal cord injuries in rugby players--more of the same [editorial] Noakes T. **S Afr Med J** 1999 May;89(5):531–2

Double spinal cord injury in a patient with ankylosing spondylitis. Akman MN, et al. **Spinal Cord** 1999 Apr; 37(4):305–7

'Camel collision as a major cause of low cervical spinal cord injury'. Spinal Cord (1998) 36, 415–417 [letter; comment] Ansari S, et al. **Spinal Cord** 1998 Nov;36(11):804. Comment on: Spinal Cord 1998 Jun;36(6):415–7.

Cervical spinal cord injury in sapho syndrome. Deltombe T, et al. **Spinal Cord** 1999 Apr;37(4):301–4

The role of decompression for acute incomplete cervical spinal cord injury in cervical spondylosis. Chen TY, et al. **Spine** 1998 Nov 15;23(22):2398–403

Cervical epidural steroid injection with intrinsic spinal cord damage [letter; comment] Manchikanti L. **Spine** 1999 Jun 1;24(11):1170–2. Comment on: Spine 1998 Oct 1;23(19):2137–42; discussion 2141–2.

[A posterior horn syndrome presumably due to direct trauma to the sacral cord: a rare complication of epidural anesthesia] Arai M. **Masui** 1999 Jun;48(6):654–5 (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Adrenal and pituitary hormone patterns after spinal cord injury. Campagnolo DI, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):361–6

Accumulation of immunoreactivity to ubiquitin carboxyl-terminal hydrolase PGP 9.5 in axons of human cases with spinal cord lesions. Yu WR, et al. **APMIS** 1998 Nov;106(11):1081–7

Immunogenicity of pneumococcal vaccine in persons with spinal cord injury. Waites KB, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1504–9

The natural killer cell response to exercise in spinal cord injured individuals. Klokker M, et al. **Eur J Appl Physiol** 1998 Dec;79(1):106–9

T cell responses to myelin basic protein in patients with spinal cord injury and multiple sclerosis. Kil K, et al. **J Neuroimmunol** 1999 Aug 3;98(2):201–7

Seminal plasma PSA in spinal cord injured men: a preliminary report. Brasso K, et al. **Spinal Cord** 1998 Nov;36(11):771–3

Antibodies to urinary tract pathogens in patients with spinal cord lesions. Moser C, et al. **Spinal Cord** 1998 Sep; 36(9):613–6

METABOLISM

Systemic hypothermia following compression injury of rat spinal cord: reduction of plasma protein extravasation demonstrated by immunohistochemistry. Yu WR, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):15–21

Lower daily energy expenditure as measured by a respiratory chamber in subjects with spinal cord injury compared with control subjects. Monroe MB, et al. **Am J Clin Nutr** 1998 Dec;68(6):1223–7

Calpain activity and translational expression increased in spinal cord injury. Ray SK, et al. **Brain Res** 1999 Jan 23; 816(2):375–80

Injury induces neuropsin mRNA in the central nervous system. Tomizawa K, et al. **Brain Res** 1999 Apr 10; 824(2):308–11

Glucocorticoid regulation of motoneuronal parameters in rats with spinal cord injury. Gonzalez SL, et al. **Cell Mol Neurobiol** 1999 Oct;19(5):597–611

Fetal spinal cord transplants and exogenous neurotrophic support enhance c-Jun expression in mature axotomized neurons after spinal cord injury. Broude E, et al. **Exp Neurol** 1999 Jan;155(1):65–78

Tacrolimus (FK506) increases neuronal expression of GAP-43 and improves functional recovery after spinal cord injury in rats. Madsen JR, et al. **Exp Neurol** 1998 Dec;154(2):673–83

Induction of Eph B3 after spinal cord injury. Miranda JD, et al. **Exp Neurol** 1999 Mar;156(1):218–22

Exercise-induced overexpression of key regulatory proteins involved in glucose uptake and metabolism in tetraplegic persons: molecular mechanism for improved glucose homeostasis. Hjeltnes N, et al. **FASEB J** 1998 Dec; 12(15):1701–12

Increased spinal expression of c-Fos following stimulation of the lower urinary tract in chronic spinal cord-injured rats. Callsen-Cencic P, et al. **Histochem Cell Biol** 1999 Jul; 112(1):63–72

Abnormal reaction to central nervous system injury in mice lacking glial fibrillary acidic protein and vimentin. Pekny M, et al. **J Cell Biol** 1999 May 3;145(3):503–14

Expression of insulin-like growth factors and corresponding binding proteins (IGFBP 1–6) in rat spinal cord and peripheral nerve after axonal injuries. Hammarberg H, et al. **J Comp Neurol** 1998 Oct 12;400(1):57–72

Induction of apoptosis signal regulating kinase 1 (ASK1) after spinal cord injury in rats: possible involvement of ASK1-JNK and -p38 pathways in neuronal apoptosis. Nakahara S, et al. **J Neuropathol Exp Neurol** 1999 May; 58(5):442–50

Alterations in AMPA receptor subunit expression after experimental spinal cord contusion injury. Grossman SD, et al. **J Neurosci** 1999 Jul 15;19(14):5711–20

Myelin gene expression after experimental contusive spinal cord injury. Wrathall JR, et al. **J Neurosci** 1998 Nov 1; 18(21):8780–93

Effect of mexiletine on lipid peroxidation and early ultrastructural findings in experimental spinal cord injury. Kaptanoglu E, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):200–4

Vascular endothelial growth/permeability factor in spinal cord injury. Vaquero J, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):220–3

Convective delivery of macromolecules into the naive and traumatized spinal cords of rats. Wood JD, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):115–20

Role of group I metabotropic glutamate receptors in traumatic spinal cord white matter injury. Agrawal SK, et al. **J Neurotrauma** 1998 Nov;15(11):929–41

Alterations in temporal/spatial distribution of GFAP- and vimentin-positive astrocytes after spinal cord contusion with the New York University spinal cord injury device. Baldwin SA, et al. **J Neurotrauma** 1998 Dec;15(12):1015–26

Expression of ICAM-1 and CD11b after experimental spinal cord injury in rats. Isaksson J, et al. **J Neurotrauma** 1999 Feb;16(2):165–73

Effect of spinal cord transection on N-methyl-D-aspartate receptors in the cord. Krenz NR, et al. **J Neurotrauma** 1998 Dec;15(12):1027–36

Increased jun immunoreactivity in an in vitro model of mammalian spinal neuron physical injury. Raghupathi R, et al. **J Neurotrauma** 1998 Jul;15(7):555–61

Role of cyclooxygenase 2 in acute spinal cord injury. Resnick DK, et al. **J Neurotrauma** 1998 Dec;15(12):1005–13

Dynorphin mRNA expression in dorsal horn neurons after traumatic spinal cord injury: temporal and spatial analysis using in situ hybridization. Tachibana T, et al. **J Neurotrauma** 1998 Jul;15(7):485–94

Serum and semen prostate specific antigen concentrations are different in young spinal cord injured men compared to normal controls. Lynne CM, et al. **J Urol** 1999 Jul; 162(1):89–91

Catecholamine concentration in rat liver after high level transection of the spinal cord. Dimova-Apostolova G, et al. **Life Sci** 1999;64(25):2375–81

GAP-43 (B-50) and C-Jun are up-regulated in axotomized neurons of Clarke's nucleus after spinal cord injury in the adult rat. Schmitt AB, et al. **Neurobiol Dis** 1999 Apr; 6(2):122–30

Cyclosporin-A inhibits lipid peroxidation after spinal cord injury in rats. Diaz-Ruiz A, et al. **Neurosci Lett** 1999 Apr 30;266(1):61–4

Increased ciliary neurotrophic factor expression in reactive astrocytes following spinal cord injury in the rat. Lee MY, et al. **Neurosci Lett** 1998 Oct 16;255(2):79–82

Spinal section and opioid receptor blockade induce the appearance of Fos-like immunoreactivity in the spinal cord of the decerebrated rabbit. Bhandari RN, et al. **Neuroscience** 1999 Apr;90(1):191–9

Co-localization of substance P and dopamine beta-hydroxylase with growth-associated protein-43 is lost caudal to a spinal cord transection. Cassam AK, et al. **Neuroscience** 1999;88(4):1275–88

Increased calpain I-mediated proteolysis, and preferential loss of dephosphorylated NF200, following traumatic spinal cord injury. Schumacher PA, et al. **Neuroscience** 1999;91(2):733–44

Effect of nimodipine and N-acetylcysteine on lipid peroxidation after experimental spinal cord injury. Kaynar MY, et al. **Neurosurg Rev** 1998;21(4):260–4

NADPH-diaphorase histochemistry during the acute cardiovascular changes after spinal cord injury in the rat. Rojas-Martinez R, et al. **Proc West Pharmacol Soc** 1998; 41:115–6

The effect of epidural cooling on lipid peroxidation after experimental spinal cord injury. Tüzgen S, et al. **Spinal Cord** 1998 Sep;36(9):654–7

[Changes of BDNF mRNA by molecular hybridization during embryonic spinal cord repairing injury of adult rats] Li B, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Jul; 77(7):516–20 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

A quantitative study of genital skin flora and urinary colonization in spinal cord injured patients. Hamamci N, et al. **Spinal Cord** 1998 Sep;36(9):617–20

MORTALITY

[Survival and cause of death after traumatic spinal cord injury. A long-term epidemiological study] Hartkopp PA, et al. **Ugeskr Laeger** 1998 Oct 19;160(43):6207–10 (Eng. Abstr.) **(Dan)**

NURSING

Pregnancy in women with spinal cord injuries. Atterbury JL, et al. **Nurs Clin North Am** 1998 Dec;33(4):603–13 (52 ref.)

PATHOLOGY

Prevention of human diaphragm atrophy with short periods of electrical stimulation. Ayas NT, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2018–20

Increased osteoclast-like cells formation in long-term bone marrow cultures from patients with a spinal cord injury. Demulder A, et al. **Calcif Tissue Int** 1998 Nov; 63(5):396–400

Synergetic protective effects of combined blockade by two kinds of autolesion mediator receptor on neurological function after cervical cord injury. Xiao J, et al. **Chin Med J (Engl)** 1998 May;111(5):443–6

Influence of complete spinal cord injury on skeletal muscle cross-sectional area within the first 6 months of injury. Castro MJ, et al. **Eur J Appl Physiol** 1999 Sep;80(4):373–8

A simple means of increasing muscle size after spinal cord injury: a pilot study. Dudley GA, et al. **Eur J Appl Physiol** 1999 Sep;80(4):394–6

High-resolution MRI of intact and transected rat spinal cord. Fraidakis M, et al. **Exp Neurol** 1998 Oct;153(2):299–312

Temporal profile of apoptotic-like changes in neurons and astrocytes following controlled cortical impact injury in the rat. Newcomb JK, et al. **Exp Neurol** 1999 Jul; 158(1):76–88

Leukocytes in semen from men with spinal cord injuries. Aird IA, et al. **Fertil Steril** 1999 Jul;72(1):97–103

Carbon filaments direct the growth of postlesional plastic axons after spinal cord injury. Chauhan NB, et al. **Int J Dev Neurosci** 1999 Jun;17(3):255–64

Influence of complete spinal cord injury on skeletal muscle within 6 mo of injury. Castro MJ, et al. **J Appl Physiol** 1999 Jan;86(1):350–8

Quantitative study of neurofilament-positive fiber length in rat spinal cord lesions using isotropic virtual planes. von Euler M, et al. **J Comp Neurol** 1998 Nov 2;400(4):441–8

MRI in patients with intraspinal bullets [see comments] Smugar SS, et al. **J Magn Reson Imaging** 1999 Jan; 9(1):151–3. Comment in: J Magn Reson Imaging 1999 Jul;10(1):107.

Effects of the sodium channel blocker tetrodotoxin on acute white matter pathology after experimental contusive spinal cord injury. Rosenberg LJ, et al. **J Neurosci** 1999 Jul 15; 19(14):6122–33

Apoptosis after traumatic human spinal cord injury. Emery E, et al. **J Neurosurg** 1998 Dec;89(6):911–20

Effect of mexiletine on lipid peroxidation and early ultrastructural findings in experimental spinal cord injury. Kaptanoglu E, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):200–4

Apoptosis following spinal cord injury in rats and preventative effect of N-methyl-D-aspartate receptor antagonist. Wada S, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):98–104

Differential activation of microglia after experimental spinal cord injury. Watanabe T, et al. **J Neurotrauma** 1999 Mar; 16(3):255–65

Apoptosis in cellular compartments of rat spinal cord after severe contusion injury. Yong C, et al. **J Neurotrauma** 1998 Jul;15(7):459–72

Does loss of gray- and white-matter contrast in injured spinal cord signify secondary injury? In vivo longitudinal MRI studies. Narayana P, et al. **Magn Reson Med** 1999 Feb; 41(2):315–20

Transitory expression of NADPH diaphorase (NOS) in axonal swellings after spinal cord injury. Guizar-Sahagún G, et al. **Neuroreport** 1998 Aug 24;9(12):2899–902

Bladder tissue biopsies in spinal cord injured patients: histopathologic aspects of 61 cases. Janzen J, et al. **Neurourol Urodyn** 1998;17(5):525–30

Spinal cord injury in the rat. Taoka Y, et al. **Prog Neurobiol** 1998 Oct;56(3):341–58 (190 ref.)

Bladder afferent pathway and spinal cord injury: possible mechanisms inducing hyperreflexia of the urinary bladder. Yoshimura N. **Prog Neurobiol** 1999 Apr;57(6):583–606 (123 ref.)

Residual deformity of the spinal canal in patients with traumatic paraplegia and secondary changes of the spinal cord. Abel R, et al. **Spinal Cord** 1999 Jan;37(1):14–9

Histochemical changes in muscle of individuals with spinal cord injury following functional electrical stimulated exercise training. Chilibeck PD, et al. **Spinal Cord** 1999 Apr;37(4):264–8

The applied neuropathology of human spinal cord injury [letter] Dietz V. **Spinal Cord** 1999 Aug;37(8):595

The applied neuropathology of human spinal cord injury. Kakulas BA. **Spinal Cord** 1999 Feb;37(2):79–88 (70 ref.)

Bone mineral status after pediatric spinal cord injury. Kannisto M, et al. **Spinal Cord** 1998 Sep;36(9):641–6

The changes in human spinal sympathetic preganglionic neurons after spinal cord injury. Krassioukov AV, et al. **Spinal Cord** 1999 Jan;37(1):6–13

Apoptosis as a mechanism of neuronal cell death following acute experimental spinal cord injury. Lou J, et al. **Spinal Cord** 1998 Oct;36(10):683–90

Experimental study on MRI evaluation of the course of cervical spinal cord injury. Ohta K, et al. **Spinal Cord** 1999 Aug;37(8):580–4

Post-traumatic syringomyelia and post-traumatic spinal canal stenosis [letter] Pringle RG. **Spinal Cord** 1998 Sep;36(9):664

Sequential MR studies of cervical cord injury: correlation with neurological damage and clinical outcome. Shimada K, et al. **Spinal Cord** 1999 Jun;37(6):410–5

Why does the central nervous system not regenerate after injury? Nicholls JG, et al. **Surv Ophthalmol** 1999 Jun;43 Suppl 1:S136–41 (21 ref.)

[Subtotal spinal cord dissection from a stab injury] Neubauer T, et al. **Unfallchirurg** 1999 Mar;102(3):232–5 (Eng. Abstr.) **(Ger)**

[The morphological basis for using low-intensity laser radiation in patients with foci of spinal cord contusion] Stupak VV, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct–Dec;(4):36–40 **(Rus)**

PHYSIOPATHOLOGY

Clomethiazole (ZENDRA, CMZ) improves hind limb motor function and reduces neuronal damage after severe spinal cord injury in rat. Farooque M, et al. **Acta Neuropathol (Berl)** 1999 Jul;98(1):22–30

Gastric myoelectrical activity in patients with cervical spinal cord injury. Lu CL, et al. **Am J Gastroenterol** 1998 Dec;93(12):2391–6

Comparison of sperm quantity and quality in antegrade V retrograde ejaculates obtained by vibratory penile stimulation in males with spinal cord injury. Chen D, et al. **Am J Phys Med Rehabil** 1999 Jan–Feb;78(1):46–51

Increased norepinephrine levels during catheterization in patients with spinal cord injury. Chiou-Tan FY, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):350–3

Bladder volume measurement with electrical impedance analysis in spinal cord–injured patients. Kim CT, et al. **Am J Phys Med Rehabil** 1998 Nov–Dec;77(6):498–502

Physical performance and cardiovascular and metabolic adaptation of elite female wheelchair basketball players in wheelchair ergometry and in competition. Schmid A, et al. **Am J Phys Med Rehabil** 1998 Nov–Dec;77(6):527–33

Effect of capsaicin on the micturition reflex in normal and chronic spinal cord–injured cats. Cheng CL, et al. **Am J Physiol** 1999 Sep;277(3 Pt 2):R786–94

Early changes in muscle fiber size and gene expression in response to spinal cord transection and exercise. Dupont-Versteegden EE, et al. **Am J Physiol** 1998 Oct; 275(4 Pt 1):C1124–33

Cough reflex sensitivity in subjects with cervical spinal cord injury. Dicpinigaitis PV, et al. **Am J Respir Crit Care Med** 1999 May;159(5 Pt 1):1660–2

Spinal cord evoked potentials and edema in the pathophysiology of rat spinal cord injury. Involvement of nitric oxide. Winkler T, et al. **Amino Acids** 1998; 14(1–3):131–9

Effect of locomotor training related to clinical and electrophysiological examinations in spinal cord injured humans. Colombo G, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:536–8

Evidence for a spinal central pattern generator in humans. Dimitrijevic MR, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:360–76

Kinematic analysis of recovered locomotor movements of the hindlimbs in paraplegic rats transplanted with monoaminergic embryonic neurons. Gimenez y Ribotta M, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:521–3

Pattern generators and cortical maps in locomotion of spinal injured rats. Giszter S, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:554–5

Engines, accelerators, and brakes on functional spinal cord repair. Steeves JD, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:412–24 (51 ref.)

Stepping in nonhuman primates with a complete spinal cord transection: old and new data, and implications for humans. Vilensky JA, et al. **Ann N Y Acad Sci** 1998 Nov 16; 860:528–30 (15 ref.)

Wheelchair marathon racing causes striated muscle distress in individuals with spinal cord injury. Ide M, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):324–7

Incomplete spinal cord injury: neuronal mechanisms of motor recovery and hyperreflexia. Little JW, et al. **Arch Phys Med Rehabil** 1999 May;80(5):587–99 (119 ref.)

Impaired adrenal reserve in men with spinal cord injury: results of low- and high-dose adrenocorticotropin stimulation tests. Wang YH, et al. **Arch Phys Med Rehabil** 1999 Aug;80(8):863–6

Stability and velocity in incomplete spinal cord injured subject gaits. Karcnik T, et al. **Artif Organs** 1999 May; 23(5):421–3

Effects of spinal cord injury on spermatogenesis and the expression of messenger ribonucleic acid for sertoli cell proteins in rat Sertoli cell–enriched testes. Huang HF, et al. **Biol Reprod** 1999 Mar;60(3):635–41

Impaired modulation of quadriceps tendon jerk reflex during spastic gait: differences between spinal and cerebral lesions. Faist M, et al. **Brain** 1999 Mar;122 (Pt 3):567–79

Induction of microglial reaction and expression of nitric oxide synthase I in the nucleus dorsalis and red nucleus following lower thoracic spinal cord hemisection. Xu M, et al. **Brain Res** 1998 Oct 12;808(1):23–30

The glial scar and central nervous system repair. Fawcett JW, et al. **Brain Res Bull** 1999 Aug;49(6):377–91 (216 ref.)

Decreased gastric emptying and gastrointestinal and intestinal transits of liquid after complete spinal cord transection in awake rats. Gondim F, et al. **Braz J Med Biol Res** 1998 Dec;31(12):1605–10

24-hour leg and forearm haemodynamics in transected spinal cord subjects. Casiglia E, et al. **Cardiovasc Res** 1999 Jan; 41(1):312–6

Effects of a beta2-agonist on airway hyperreactivity in subjects with cervical spinal cord injury. DeLuca RV, et al. **Chest** 1999 Jun;115(6):1533–8

Heart rate variability is altered following spinal cord injury. Bunten DC, et al. **Clin Auton Res** 1998 Dec;8(6):329–34

Non-invasive assessment of autonomic nervous system integrity in able-bodied and spinal cord–injured individuals. Houtman S, et al. **Clin Auton Res** 1999 Jun; 9(3):115–22

Effect of spinal cord injury on the heart and cardiovascular fitness. Phillips WT, et al. **Curr Probl Cardiol** 1998 Nov; 23(11):641–716 (246 ref.)

Spinal cord insults in the prenatal, perinatal, and neonatal periods [see comments] Ruggieri M, et al. **Dev Med Child Neurol** 1999 May;41(5):311–7. Comment in: Dev Med Child Neurol 1999 May;41(5):291.

Gastric emptying in spinal cord injury patients. Kao CH, et al. **Dig Dis Sci** 1999 Aug;44(8):1512–5

Variability of the fatigue response of paralyzed skeletal muscle in relation to the time after spinal cord injury: mechanical and electrophysiological characteristics. Gaviria M, et al. **Eur J Appl Physiol** 1999 Jul;80(2):145–53

Effect of a pulsating anti-gravity suit on peak exercise performance in individual with spinal cord injuries. Houtman S, et al. **Eur J Appl Physiol** 1999 Jan;79(2):202–4

The natural killer cell response to exercise in spinal cord injured individuals. Klokker M, et al. **Eur J Appl Physiol** 1998 Dec;79(1):106–9

How does the human brain deal with a spinal cord injury? Bruehlmeier M, et al. **Eur J Neurosci** 1998 Dec; 10(12):3918–22

Long-term effects of methylprednisolone following transection of adult rat spinal cord. Oudega M, et al. **Eur J Neurosci** 1999 Jul;11(7):2453–64

Effects of dorsolateral spinal lesions on stretch reflex threshold and stiffness in awake cats. Taylor J, et al. **Eur J Neurosci** 1999 Jan;11(1):363–8

Regrowth of axons into the distal spinal cord through a Schwann-cell-seeded mini-channel implanted into hemisected adult rat spinal cord. Xu XM, et al. **Eur J Neurosci** 1999 May;11(5):1723–40

Comparison of input-output patterns in the corticospinal system of normal subjects and incomplete spinal cord injured patients. Davey NJ, et al. **Exp Brain Res** 1999 Aug; 127(4):382–90

Adaptation of the walking pattern to uphill walking in normal and spinal-cord injured subjects. Leroux A, et al. **Exp Brain Res** 1999 Jun;126(3):359–68

Asymmetric bipedal locomotion--an adaptive response to incomplete spinal injury in the chick. Muir GD, et al. **Exp Brain Res** 1998 Oct;122(3):275–82

The effects of FK506 on dorsal column axons following spinal cord injury in adult rats: neuroprotection and local regeneration. Bavetta S, et al. **Exp Neurol** 1999 Aug; 158(2):382–93

The use of single phrenic axon recordings to assess diaphragm recovery after cervical spinal cord injury. El-Bohy AA, et al. **Exp Neurol** 1999 Mar;156(1):172–9

The effects of mitotic inhibition on the spinal cord response to the superimposed injuries of spinal cord hemisection and peripheral axotomy. Gould DJ, et al. **Exp Neurol** 1999 Aug; 158(2):394–402

Trophic factor modulation of c-Jun expression in supraspinal neurons after chronic spinal cord injury. Houle JD, et al. **Exp Neurol** 1998 Dec;154(2):602–11

Comparing deficits following excitotoxic and contusion injuries in the thoracic and lumbar spinal cord of the adult rat. Magnuson DS, et al. **Exp Neurol** 1999 Mar; 156(1):191–204

Innervation and properties of the rat FDSBQ muscle: an animal model to evaluate voluntary muscle strength after incomplete spinal cord injury. Thomas CK, et al. **Exp Neurol** 1999 Aug;158(2):279–89

Semen retrieval by penile vibratory stimulation in men with spinal cord injury. Brackett NL. **Hum Reprod Update** 1999 May-Jun;5(3):216–22 (46 ref.)

A study of shoulder motions as a control source for adolescents with C4 level SCI. Sarver JJ, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):27–34

Effect of naloxone on the bladder activity of rabbits with acute spinal injury. Kameoka H, et al. **Int J Urol** 1998 Nov;5(6):588–94

Spermatogenesis in early and chronic phases of experimental spinal cord injury in the rodent model. Hirsch IH, et al. **J Androl** 1999 Jan–Feb;20(1):63–71

Airway hyperresponsiveness to ultrasonically nebulized distilled water in subjects with tetraplegia. Grimm DR, et al. **J Appl Physiol** 1999 Apr;86(4):1165–9

Heart rate during exercise with leg vascular occlusion in spinal cord–injured humans. Kjaer M, et al. **J Appl Physiol** 1999 Mar;86(3):806–11

Failure of topical DMSO to improve blood flow or evoked potentials in rat spinal cord injury. Park YK, et al. **J Korean Med Sci** 1998 Dec;13(6):638–44

Pseudo Chiari type I malformation secondary to cerebrospinal fluid leakage. Samii C, et al. **J Neurol** 1999 Mar;246(3):162–4

Non-painful sensory phenomena after spinal cord injury. Siddall PJ, et al. **J Neurol Neurosurg Psychiatry** 1999 May; 66(5):617–22

Primary afferent fibers that contribute to increased substance P receptor internalization in the spinal cord after injury. Allen BJ, et al. **J Neurophysiol** 1999 Mar;81(3):1379–90

Retention of hindlimb stepping ability in adult spinal cats after the cessation of step training. De Leon RD, et al. **J Neurophysiol** 1999 Jan;81(1):85–94

Fetal transplants rescue axial muscle representations in M1 cortex of neonatally transected rats that develop weight support. Giszter SF, et al. **J Neurophysiol** 1998 Dec; 80(6):3021–30

Leukemia inhibitory factor augments neurotrophin expression and corticospinal axon growth after adult CNS injury. Blesch A, et al. **J Neurosci** 1999 May 1;19(9):3556–66

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213–24

Neutralizing intraspinal nerve growth factor blocks autonomic dysreflexia caused by spinal cord injury. Krenz NR, et al. **J Neurosci** 1999 Sep 1;19(17):7405–14

Upregulation of tumor necrosis factor alpha transport across the blood–brain barrier after acute compressive spinal cord injury. Pan W, et al. **J Neurosci** 1999 May 1;19(9):3649–55

Reinnervation of denervated lumbar ventral roots and their target muscle by thoracic spinal motoneurons via an implanted nerve autograft in adult rats after spinal cord injury. Liu S, et al. **J Neurosci Res** 1999 Jun 1;56(5):506–17

Spasticity in rats with sacral spinal cord injury. Bennett DJ, et al. **J Neurotrauma** 1999 Jan;16(1):69–84

Distribution and latency of muscle responses to transcranial magnetic stimulation of motor cortex after spinal cord injury in humans. Calancie B, et al. **J Neurotrauma** 1999 Jan;16(1):49–67

Operant conditioning of H-reflex increase in spinal cord--injured rats. Chen XY, et al. **J Neurotrauma** 1999 Feb;16(2):175–86

In vitro central nervous system models of mechanically induced trauma: a review. Morrison B 3rd, et al. **J Neurotrauma** 1998 Nov;15(11):911–28 (137 ref.)

Alteration in rate modulation of reflexes to lumbar motoneurons after midthoracic spinal cord injury in the rat. I. Contusion injury. Thompson FJ, et al. **J Neurotrauma** 1998 Jul;15(7):495–508

Gastric emptying in male neurologic trauma. Kao CH, et al. **J Nucl Med** 1998 Oct;39(10):1798–801

Review of oxidative stress in brain and spinal cord injury: suggestions for pharmacological and nutritional management strategies. Juurlink BH, et al. **J Spinal Cord Med** 1998 Oct;21(4):309–34 (285 ref.)

Mechanical properties of bone in a paraplegic rat model. Sugawara H, et al. **J Spinal Cord Med** 1998 Oct;21(4):302–8

Intrathecal clonidine for refractory detrusor hyperreflexia in spinal cord injured patients: a preliminary report. Denys P, et al. **J Urol** 1998 Dec;160(6 Pt 1):2137–8

Effects of intravesical capsaicin and resiniferatoxin on distension-induced bladder contraction in conscious rats with and without chronic spinal cord injury. Komiyama I, et al. **J Urol** 1999 Jan;161(1):314–9

Evoked potentials in high cervical spine injury. Bakhamees HS, et al. **Middle East J Anesthesiol** 1998 Oct;14(6):451–8

Contractile properties of the quadriceps muscle in individuals with spinal cord injury. Gerrits HL, et al. **Muscle Nerve** 1999 Sep;22(9):1249–56

The cutaneous silent period is mediated by spinal inhibitory reflex. Logigian EL, et al. **Muscle Nerve** 1999 Apr; 22(4):467–72

Differential response of fast hindlimb extensor and flexor muscles to exercise in adult spinalized cats. Roy RR, et al. **Muscle Nerve** 1999 Feb;22(2):230–41

New compensations for spinal injury [editorial; comment] **Nat Neurosci** 1998 Jun;1(2):85. Comment on: Nat Neurosci 1998 Jun;1(2):124–31.

Anorectal functions in patients with spinal cord injury. Greving I, et al. **Neurogastroenterol Motil** 1998 Dec; 10(6):509–15

Simple and reproducible model of rat spinal cord injury induced by a controlled cortical impact device. Hiruma S, et al. **Neurol Res** 1999 Apr;21(3):313–23

Regeneration of dorsal column fibers into and beyond the lesion site following adult spinal cord injury [see comments] Neumann S, et al. **Neuron** 1999 May;23(1):83–91. Comment in: Neuron 1999 May;23(1):2–4.

Local application of collagen containing brain-derived neurotrophic factor decreases the loss of function after spinal cord injury in the adult rat. Houweling DA, et al. **Neurosci Lett** 1998 Jul 31;251(3):193–6

The effect of treadmill gait training on low-frequency depression of the soleus H-reflex: comparison of a spinal cord injured man to normal subjects. Trimble MH, et al. **Neurosci Lett** 1998 May 1;246(3):186–8

Considerations in the determination by microdialysis of resting extracellular amino acid concentrations and release upon spinal cord injury. Xu GY, et al. **Neuroscience** 1998 Oct;86(3):1011–21

Somatosensory spinal cord evoked potentials in the evaluation of the effect of dexamethasone in experimental spinal cord injury. Güney O, et al. **Neurosurg Rev** 1998; 21(4):265–9

The affinity of lipid–coated microbubbles to maturing spinal cord injury sites. Kureshi IU, et al. **Neurosurgery** 1999 May; 44(5):1047–53

Pain report and the relationship of pain to physical factors in the first 6 months following spinal cord injury. Siddall PJ, et al. **Pain** 1999 May;81(1–2):187–97

CM101–mediated recovery of walking ability in adult mice paralyzed by spinal cord injury. Wamil AW, et al. **Proc Natl Acad Sci U S A** 1998 Oct 27;95(22):13188–93

The spinal biology in humans and animals of pain states generated by persistent small afferent input. Yaksh TL, et al. **Proc Natl Acad Sci U S A** 1999 Jul 6;96(14):7680–6 (80 ref.)

Pathophysiological mechanisms involved in systemic and metabolic alterations secondary to spinal cord injury. Guizar–Sahagún G, et al. **Proc West Pharmacol Soc** 1998; 41:237–40 (40 ref.)

Early cardiovascular alterations following experimental spinal cord injury. Larios F, et al. **Proc West Pharmacol Soc** 1998;41:117–9

Glutamate and its receptors in the pathophysiology of brain and spinal cord injuries. Alessandri B, et al. **Prog Brain Res** 1998;116:303–30 (180 ref.)

Spinal cord injury: bridging the lesion and the role of neurotrophic factors in repair. Houweling DA, et al. **Prog Brain Res** 1998;117:455–71 (140 ref.)

Experimental strategies to promote axonal regeneration after traumatic central nervous system injury. Stichel CC, et al. **Prog Neurobiol** 1998 Oct;56(2):119–48 (467 ref.)

Blood redistribution and circulatory responses to submaximal arm exercise in persons with spinal cord injury. Hopman MT, et al. **Scand J Rehabil Med** 1998 Sep;30(3):167–74

Urological situation five years after spinal cord injury. Biering–Sørensen F, et al. **Scand J Urol Nephrol** 1999 Jun; 33(3):157–61

Theoretical aspects of sensory substitution and of neurotransmission–related reorganization in spinal cord injury. Bach–y–Rita P. **Spinal Cord** 1999 Jul;37(7):465–74 (81 ref.)

Central pain following spinal and supraspinal lesions. Bowsher D. **Spinal Cord** 1999 Apr;37(4):235–8 (34 ref.)

The effect of electrical stimulation on colonic transit following spinal cord injury in cats. Bruninga K, et al. **Spinal Cord** 1998 Dec;36(12):847–53

Pathophysiological mechanisms of central neuropathic pain after spinal cord injury. Eide PK. **Spinal Cord** 1998 Sep; 36(9):601–12 (93 ref.)

Isokinetic assessment of spasticity in subjects with traumatic spinal cord injury (ASIA A). Franzoi AC, et al. **Spinal Cord** 1999 Jun;37(6):416–20

Surface electrical stimulation of skeletal muscle after spinal cord injury. Hillegass EA, et al. **Spinal Cord** 1999 Apr; 37(4):251–7

Preliminary investigation of the lateral postural stability of spinal cord–injured individuals subjected to dynamic perturbations. Kamper D, et al. **Spinal Cord** 1999 Jan; 37(1):40–6

Insulin resistance and sympathetic function in high spinal cord injury. Karlsson AK. **Spinal Cord** 1999 Jul; 37(7):494–500

The pattern of reflex recovery during spinal shock. Ko HY, et al. **Spinal Cord** 1999 Jun;37(6):402–9

Attentional requirements of walking in spinal cord injured patients compared to normal subjects. Lajoie Y, et al. **Spinal Cord** 1999 Apr;37(4):245–50

Analysis of assisted–gait characteristics in persons with incomplete spinal cord injury. Melis EH, et al. **Spinal Cord** 1999 Jun;37(6):430–9

Evaluation of the lower motor neuron integrity of upper extremity muscles in high level spinal cord injury. Mulcahey MJ, et al. **Spinal Cord** 1999 Aug;37(8):585–91

Comparison of three methods to assess muscular strength in individuals with spinal cord injury. Noreau L, et al. **Spinal Cord** 1998 Oct;36(10):716–23

Effects of drugs on walking after spinal cord injury. Norman KE, et al. **Spinal Cord** 1998 Oct;36(10):699–715

Delayed diaphragm recovery in 12 patients after high cervical spinal cord injury. A retrospective review of the diaphragm status of 107 patients ventilated after acute spinal cord injury. Oo T, et al. **Spinal Cord** 1999 Feb; 37(2):117–22

Augmented upper body contribution to oxygen uptake during upper body exercise with concurrent leg functional electrical stimulation in persons with spinal cord injury. Phillips WT, et al. **Spinal Cord** 1998 Nov;36(11):750–5

Spinal shock and brain death': somatic pathophysiological equivalence and implications for the integrative–unity rationale. Shewmon DA. **Spinal Cord** 1999 May; 37(5):313–24 (102 ref.)

Life expectancy in traumatic spinal injuries [letter] Silver J. **Spinal Cord** 1998 Nov;36(11):804–5

SCI women do have orgasms! [letter] Sipski M. **Spinal Cord** 1998 Aug;36(8):596

What is the optimum fluid intake in male patients with spinal cord injury and neuropathic bladder? [letter] Vaidyanathan S, et al. **Spinal Cord** 1999 Aug;37(8):594–5

The QA pressure measurement system: an accuracy and reliability study. van Dijk D, et al. **Spinal Cord** 1999 Feb; 37(2):123–8

The validity in persons with spinal cord injury of a self–reported functional measure derived from the functional independence measure. Hoenig H, et al. **Spine** 1999 Mar 15;24(6):539–43; discussion 543–4

Acute spinal cord injuries: a search for functional improvement. Goldsmith HS. **Surg Neurol** 1999 Feb; 51(2):231–3

[Methods to observe the experimental study of spinal cord injuries] Li P, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):254–6 (19 ref.) **(Chi)**

[The electron–neurogram manifestation of acute traumatic cervical spinal cord injury without fracture or dislocation] Zhang L. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1998 May;12(3):150–2 (Eng. Abstr.) **(Chi)**

[Changes in the somatosensory evoked potentials of patients with complicated spinal trauma after an omentomyelopexy operation] Sokolova AA, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan–Mar; (1):15–20 (Eng. Abstr.) **(Rus)**

[The assessment of the dynamics of somatosensory evoked potentials in the surgical and conservative treatment of patients following spinal and spinal cord trauma] Vishnevskiĭ AA, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct–Dec; (4):30–5 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

Left heart bypass reduces paraplegia rates after thoracoabdominal aortic aneurysm repair. Coselli JS, et al. **Ann Thorac Surg** 1999 Jun;67(6):1931–4; discussion 1953–8

Spinal cord protection in descending thoracic and thoracoabdominal aortic repair. Safi HJ, et al. **Ann Thorac Surg** 1999 Jun;67(6):1937–9; discussion 1953–8

An approach to spinal cord protection during descending or thoracoabdominal aortic repairs. Svensson LG. **Ann Thorac Surg** 1999 Jun;67(6):1935–6; discussion 1953–8

Memantine for prevention of spinal cord injury in a rabbit model. Ehrlich M, et al. **J Thorac Cardiovasc Surg** 1999 Feb;117(2):285–91

Cervical spine evaluation in obtunded or comatose pediatric trauma patients: A pilot study. Scarrow AM, et al. **Pediatr Neurosurg** 1999 Apr;30(4):169–75

Characteristics of 'low risk' and 'high risk' dives by young adults: risk reduction in spinal cord injury. Blitvich JD, et al. **Spinal Cord** 1999 Aug;37(8):553–9

PSYCHOLOGY

Performance of health–related quality–of–life instruments in a spinal cord injured population. Andresen EM, et al. **Arch Phys Med Rehabil** 1999 Aug;80(8):877–84

Correlates of life satisfaction among persons with spinal cord injury. Dijkers MP. **Arch Phys Med Rehabil** 1999 Aug; 80(8):867–76

Suicide in a spinal cord injured population: its relation to functional status. Hartkopp A, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1356–61

Antidepressant exacerbation of spasticity. Stolp–Smith KA, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):339–42

Long–term outcomes and life satisfaction of adults who had pediatric spinal cord injuries. Vogel LC, et al. **Arch Phys Med Rehabil** 1998 Dec;79(12):1496–503

Perceived difficulty in dealing with consequences of spinal cord injury. Widerström–Noga EG, et al. **Arch Phys Med Rehabil** 1999 May;80(5):580–6

Depression and life satisfaction among people ageing with post–polio and spinal cord injury. Kemp BJ, et al. **Disabil Rehabil** 1999 May–Jun;21(5–6):241–9

Control cognitions and psychological disturbance in people with contrasting physically disabling conditions. Macleod L, et al. **Disabil Rehabil** 1998 Dec;20(12):448–56

Sexual response in women with spinal cord injuries: implications for our understanding of the able bodied. Sipski ML, et al. **J Sex Marital Ther** 1999 Jan–Mar; 25(1):11–22

Posttraumatic stress disorder in veterans with spinal cord injury: trauma–related risk factors. Radnitz CL, et al. **J Trauma Stress** 1998 Jul;11(3):505–20

Cutaneous texture discrimination following transection of the dorsal spinal column in monkeys. Vierck CJ Jr, et al. **Somatosens Mot Res** 1998;15(4):309–15

Improving the long–term adjustment of spinal cord injured persons. Craig A, et al. **Spinal Cord** 1999 May;37(5):345–50

Correlates of stress in long–term spinal cord injury. Gerhart KA, et al. **Spinal Cord** 1999 Mar;37(3):183–90

Attentional requirements of walking in spinal cord injured patients compared to normal subjects. Lajoie Y, et al. **Spinal Cord** 1999 Apr;37(4):245–50

Health behavior in persons with spinal cord injury: development and initial validation of an outcome measure. Pruitt SD, et al. **Spinal Cord** 1998 Oct;36(10):724–31

Quality of marital life in Korean spinal cord injured patients. Yim SY, et al. **Spinal Cord** 1998 Dec;36(12):826–31

RADIOGRAPHY

Evaluation of pediatric cervical spine injuries. Baker C, et al. **Am J Emerg Med** 1999 May;17(3):230–4

Computed tomography of the spine as an important diagnostic tool in the management of war missile spinal trauma. Splavski B, et al. **Arch Orthop Trauma Surg** 1998; 117(6–7):360–3

Influence of heterotopic ossification of the hip on bone densitometry: a study in spinal cord injured patients. Jaovisidha S, et al. **Spinal Cord** 1998 Sep;36(9):647–53

Clinical outcomes of cervical spinal cord injuries without radiographic evidence of trauma. Saruhashi Y, et al. **Spinal Cord** 1998 Aug;36(8):567–73

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part II: Results of a multicenter study. Fehlings MG, et al. **Spine** 1999 Mar 15;24(6):605–13

The optimal radiologic method for assessing spinal canal compromise and cord compression in patients with cervical spinal cord injury. Part I: An evidence–based analysis of the published literature. Rao SC, et al. **Spine** 1999 Mar 15;24(6):598–604

[Application of ultrafast 3D–CT in cervical spine injury] Nishikawa M, et al. **No Shinkei Geka** 1998 Dec; 26(12):1083–7 (Eng. Abstr.) **(Jpn)**

RADIOTHERAPY

[The morphological basis for using low–intensity laser radiation in patients with foci of spinal cord contusion] Stupak VV, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1998 Oct–Dec; (4):36–40 **(Rus)**

[The possibility of immunocorrection in spinal–spinal cord trauma by using intravenous laser irradiation] Stupak VV, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan–Mar; (1):20–5 (Eng. Abstr.) **(Rus)**

REHABILITATION

Substance abuse, violence, and outcome after traumatic spinal cord injury. McKinley WO, et al. **Am J Phys Med Rehabil** 1999 Jul–Aug;78(4):306–12

Clinical presentations, medical complications, and functional outcomes of individuals with gunshot wound–induced spinal cord injury. McKinley WO, et al. **Am J Phys Med Rehabil** 1999 Mar–Apr;78(2):102–7

Does neurorehabilitation play a role in the recovery of walking in neurological populations? Barbeau H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:377–92 (60 ref.)

Walking after spinal cord injury: evaluation, treatment, and functional recovery. Barbeau H, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):225–35 (153 ref.)

Comparison of functional electrical stimulation to long leg braces for upright mobility for children with complete thoracic level spinal injuries. Bonaroti D, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):1047–53

Neurologic recovery in SCI [letter; comment] Curt A, et al. **Arch Phys Med Rehabil** 1999 May;80(5):607–8. Comment on: Arch Phys Med Rehabil 1998 Nov;79(11):1456–66.

Changes of tibia bone properties after spinal cord injury: effects of early intervention. de Bruin ED, et al. **Arch Phys Med Rehabil** 1999 Feb;80(2):214–20

Discharge disposition from model spinal cord injury care system rehabilitation programs. DeVivo MJ. **Arch Phys Med Rehabil** 1999 Jul;80(7):785–90

The John Stanley Coulter Lecture. Predicting recovery after spinal cord injury: a rehabilitation imperative. Ditunno JF Jr. **Arch Phys Med Rehabil** 1999 Apr;80(4):361–4

Predicting neurologic recovery in traumatic cervical spinal cord injury [see comments] Kirshblum SC, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1456–66 (132 ref.) . Comment in: Arch Phys Med Rehabil 1999 Apr;80(4):474. Comment in: Arch Phys Med Rehabil 1999 May;80(5):607–8.

A new dynamic triceps–driven orthosis (DTDO): achieving elbow flexion in patients with C5 deficits. Lawlor BD, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1309–11

Incomplete spinal cord injury: neuronal mechanisms of motor recovery and hyperreflexia. Little JW, et al. **Arch Phys Med Rehabil** 1999 May;80(5):587–99 (119 ref.)

Immobilization hypercalcemia treatment with pamidronate disodium after spinal cord injury. Massagli TL, et al. **Arch Phys Med Rehabil** 1999 Sep;80(9):998–1000

Neurological level effect on the discharge functional status of spinal cord injured persons after rehabilitation. Middleton JW, et al. **Arch Phys Med Rehabil** 1998 Nov; 79(11):1428–32

Intravenous pamidronate attenuates bone density loss after acute spinal cord injury. Nance PW, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):243–51

Clinical evaluation of the bionic glove. Popović D, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):299–304

Predicting neurologic recovery in SCI [letter; comment] Potter PJ, et al. **Arch Phys Med Rehabil** 1999 Apr;80(4):474 . Comment on: Arch Phys Med Rehabil 1998 Nov;79(11):1456–66.

Duplex ultrasound screening for deep vein thrombosis in spinal cord injured patients at rehabilitation admission. Powell M, et al. **Arch Phys Med Rehabil** 1999 Sep; 80(9):1044–6

Return to school after spinal cord injury. Sandford PR, et

al. **Arch Phys Med Rehabil** 1999 Aug;80(8):885–8

Satisfaction with and usage of a hand neuroprosthesis. Stroh Wuolle K, et al. **Arch Phys Med Rehabil** 1999 Feb; 80(2):206–13

Postrehabilitation outcomes after spinal cord injury caused by firearms and motor vehicle crash among ethnically diverse groups. Waters RL, et al. **Arch Phys Med Rehabil** 1998 Oct;79(10):1237–43

Quality of life and traumatic spinal cord injury. Westgren N, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1433–9

Multicenter evaluation of electrical stimulation systems for walking. Wieler M, et al. **Arch Phys Med Rehabil** 1999 May;80(5):495–500

Static exercise-induced increase in blood pressure in individuals with cervical spinal cord injury. Yamamoto M, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):288–93

Trauma and rehabilitation. **Curr Opin Neurol** 1998 Dec; 11(6):705–22

Driving cognitive and motor gains with rehabilitation after brain and spinal cord injury [editorial] Dobkin BH. **Curr Opin Neurol** 1998 Dec;11(6):639–41

Biological interventions for spinal cord injury. Giménez y Ribotta M, et al. **Curr Opin Neurol** 1998 Dec;11(6):647–54 (80 ref.)

Postural muscle responses in the spinal cord injured persons during forward reaching. Potten YJ, et al. **Ergonomics** 1999 Sep;42(9):1200–15

Implantable electrode lead in a growing limb. Akers JM, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):35–45

A method for custom-contoured cushion design using interface pressure measurements. Brienza DM, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):99–108

Optimal control of walking with functional electrical stimulation: a computer simulation study. Popović D, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):69–79

Isometric torque about the knee joint generated by microstimulation of the cat L6 spinal cord. Tai C, et al. **IEEE Trans Rehabil Eng** 1999 Mar;7(1):46–55

Spinal cord injuries in adolescents after gunshot wounds: an increasing phenomenon in urban North America. Carrillo EH, et al. **Injury** 1998 Sep;29(7):503–7

Employment outcomes following spinal cord injury. Engel S, et al. **Int J Rehabil Res** 1998 Jun;21(2):223–9

New assistive technology for passive standing. Gear AJ, et al. **J Burn Care Rehabil** 1999 Mar–Apr;20(2):164–9 (14 ref.)

Restorative treatment of persons with spinal cord injury: current trends [editorial] Ragnarsson KT. **J Rehabil Res Dev** 1998 Oct;35(4):xi–xiv (8 ref.)

Clinical practice guidelines: Neurogenic bowel management in adults with spinal cord injury. Spinal Cord Medicine Consortium. **J Spinal Cord Med** 1998 Jul;21(3):248–93

Sexual satisfaction and sexual drive in spinal cord injured women. Black K, et al. **J Spinal Cord Med** 1998 Jul; 21(3):240–4

Self-reported use of an implanted FES hand system by adolescents with tetraplegia. Davis SE, et al. **J Spinal Cord Med** 1998 Jul;21(3):220–6

Magnetic resonance imaging data in the evaluation of effects of functional electrical stimulation on knee joints of adolescents with spinal cord injury. Rizzo M, et al. **J Spinal Cord Med** 1998 Apr;21(2):124–30

Malone antegrade continence enemas for autonomic dysreflexia secondary to neurogenic bowel. Teichman JM, et al. **J Spinal Cord Med** 1998 Jul;21(3):245–7

Optimization of sacral ventral root stimulation following SCI: two case reports with six-month follow-up. Walter JS, et al. **J Spinal Cord Med** 1998 Jul;21(3):211–9

Donal Munro Lecture: Functional and neurologic recovery following acute SCI. Waters RL, et al. **J Spinal Cord Med** 1998 Jul;21(3):195–9 (11 ref.)

Botulinum toxin injections for voiding dysfunction following SCI. Wheeler JS Jr, et al. **J Spinal Cord Med** 1998 Jul; 21(3):227–9

Gait control system for functional electrical stimulation using neural networks. Tong KY, et al. **Med Biol Eng Comput** 1999 Jan;37(1):35–41

Physical performance in persons with spinal cord injuries after discharge from rehabilitation. Dallmeijer AJ, et al. **Med Sci Sports Exerc** 1999 Aug;31(8):1111–7

Cardiorespiratory responses to arm cranking and electrical stimulation leg cycling in people with paraplegia. Raymond J, et al. **Med Sci Sports Exerc** 1999 Jun;31(6):822–8

Perinatal spinal cord injury requiring long-term home mechanical ventilation: a report of four cases. Lumeng JC, et al. **Pediatr Rehabil** 1999 Apr–Jun;3(2):53–8

Comparison of multiple prediction models for ambulation following spinal cord injury. Rowland T, et al. **Proc AMIA Symp** 1998;:528–32

A medial linkage orthosis to assist ambulation after spinal cord injury. Middleton JW, et al. **Prosthet Orthot Int** 1998 Dec;22(3):258–64

Improving the long-term adjustment of spinal cord injured persons. Craig A, et al. **Spinal Cord** 1999 May;37(5):345–50

Ambulation training of neurological patients on the treadmill with a new Walking Assistance and Rehabilitation Device (WARD). Gazzani F, et al. **Spinal Cord** 1999 May; 37(5):336–44

The needs assessment checklist: a clinical approach to measuring outcome. Kennedy P, et al. **Spinal Cord** 1999 Feb;37(2):136–9

SURGERY

Recovery of locomotion following transplantation of monoaminergic neurons in the spinal cord of paraplegic rats. Gimenez y Ribotta M, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:393–411 (73 ref.)

Early versus delayed surgery for acute cervical spinal cord injury. Mirza SK, et al. **Clin Orthop** 1999 Feb;(359):104–14

Surgical controversies in the management of spinal cord injury. Amar AP, et al. **J Am Coll Surg** 1999 May; 188(5):550–66 (169 ref.)

An evidence-based review of decompressive surgery in acute spinal cord injury: rationale, indications, and timing based on experimental and clinical studies. Fehlings MG, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):1–11

Current use and timing of spinal surgery for management of acute spinal surgery for management of acute spinal cord injury in North America: results of a retrospective multicenter study. Tator CH, et al. **J Neurosurg** 1999 Jul; 91(1 Suppl):12–8

Grafts of meningeal fibroblasts in adult rat spinal cord lesion promote axonal regrowth. Franzen R, et al. **Neuroreport** 1999 May 14;10(7):1551–6

Neural repair of the injured spinal cord by grafting: comparison between peripheral nerve segments and embryonic homologous structures as a conduit of CNS axons. Asada Y, et al. **Neurosci Res** 1998 Jul;31(3):241–9

Potential repair of rat spinal cord injuries using stimulated homologous macrophages. Schwartz M, et al. **Neurosurgery** 1999 May;44(5):1041–5; discussion 1045–6 (41 ref.)

Spinal cord injury: bridging the lesion and the role of neurotrophic factors in repair. Houweling DA, et al. **Prog Brain Res** 1998;117:455–71 (140 ref.)

Spinal cord repair: from experimental models to human application. Fawcett JW. **Spinal Cord** 1998 Dec; 36(12):811–7 (22 ref.)

The role of decompression for acute incomplete cervical spinal cord injury in cervical spondylosis. Chen TY, et al. **Spine** 1998 Nov 15;23(22):2398–403

The influence of spinal canal narrowing and timing of decompression on neurologic recovery after spinal cord contusion in a rat model. Dimar JR 2nd, et al. **Spine** 1999 Aug 15;24(16):1623–33

Acute spinal cord injuries: a search for functional improvement. Goldsmith HS. **Surg Neurol** 1999 Feb; 51(2):231–3

[Recovery of motor function of spinal cord with embryonic spinal cord graft in adult rat] Zhao G, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Nov;11(6):332–4 (Eng. Abstr.) **(Chi)**

[Surgical management of tetraplegia (editorial; comment)] Bühren V. **Unfallchirurg** 1999 Jan;102(1):1. Comment on: Unfallchirurg 1999 Jan;102(1):2–12. **(Ger)**

[Surgical management of tetraplegia [see comments] Bühren V, et al. **Unfallchirurg** 1999 Jan;102(1):2–12 (37 ref.) (Eng. Abstr.). Comment in: Unfallchirurg 1999 Jan;102(1):1. **(Ger)**

[A method for closing a defect in the anterior wall of the dura mater of the spinal cord] Perederko IG, et al. **Klin Khir** 1998;(9–10):103 **(Rus)**

THERAPY

Management of a tetraplegic patient in a small rural hospital in Uganda. Lederer W. **Acad Emerg Med** 1999 Jun; 6(6):660–1

Spinal injuries [letter; comment] Glick T. **Am J Nurs** 1998 Dec;98(12):23. Comment on: Am J Nurs 1998 Jun;98(6):33.

Prevention of human diaphragm atrophy with short periods of electrical stimulation. Ayas NT, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):2018–20

Does neurorehabilitation play a role in the recovery of walking in neurological populations? Barbeau H, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:377–92 (60 ref.)

Effect of locomotor training related to clinical and electrophysiological examinations in spinal cord injured humans. Colombo G, et al. **Ann N Y Acad Sci** 1998 Nov 16;860:536–8

Use of functional electrical stimulation in the lower extremities of incomplete spinal cord injured patients. Bajd T, et al. **Artif Organs** 1999 May;23(5):403–9

Demand for and use of functional electrical stimulation systems and conventional orthoses in the spinal lesioned community of the UK. Maxwell DJ, et al. **Artif Organs** 1999 May;23(5):410–2

ABC of intensive care: neurological support. Grant IS, et al. **BMJ** 1999 Jul 10;319(7202):110–3 (0 ref.)

Novel therapeutic strategy against central baroreflex failure: a bionic baroreflex system. Sato T, et al. **Circulation** 1999 Jul 20;100(3):299–304

A simple means of increasing muscle size after spinal cord injury: a pilot study. Dudley GA, et al. **Eur J Appl Physiol** 1999 Sep;80(4):394–6

Enhanced axonal regeneration following combined demyelination plus schwann cell transplantation therapy in the injured adult spinal cord. Keirstead HS, et al. **Exp Neurol** 1999 Sep;159(1):225–36

Intraspinal delivery of neurotrophin-3 using neural stem cells genetically modified by recombinant retrovirus. Liu Y, et al. **Exp Neurol** 1999 Jul;158(1):9–26

Depletion of hematogenous macrophages promotes partial hindlimb recovery and neuroanatomical repair after experimental spinal cord injury. Popovich PG, et al. **Exp Neurol** 1999 Aug;158(2):351–65

Adenoviral gene transfer into the normal and injured spinal cord: enhanced transgene stability by combined administration of temperature-sensitive virus and transient immune blockade. Romero MI, et al. **Gene Ther** 1998 Dec; 5(12):1612–21

Evaluation of a suture electrode for direct bladder stimulation in a lower motor neuron lesioned animal model. Walter JS, et al. **IEEE Trans Rehabil Eng** 1999 Jun;7(2):159–66

Acute management of spinal cord injury. Delamarter RB, et al. **J Am Acad Orthop Surg** 1999 May–Jun;7(3):166–75

Heterogeneous PHPMA hydrogels for tissue repair and axonal regeneration in the injured spinal cord. Woerly S, et al. **J Biomater Sci Polym Ed** 1998;9(7):681–711

Direct agonists for serotonin receptors enhance locomotor function in rats that received neural transplants after neonatal spinal transection. Kim D, et al. **J Neurosci** 1999 Jul 15;19(14):6213–24

An imposed oscillating electrical field improves the recovery of function in neurologically complete paraplegic dogs. Borgens RB, et al. **J Neurotrauma** 1999 Jul;16(7):639–57

Using a direct current electrical field to promote spinal-cord regeneration. Shen NJ, et al. **J Reconstr Microsurg** 1999 Aug;15(6):427–31

A feasibility study of video-based home telecare for clients with spinal cord injuries. Phillips VL, et al. **J Telemed Telecare** 1998;4(4):219–23

Virtual artificial sensor technique for functional electrical stimulation. Tong KY, et al. **Med Eng Phys** 1998 Sep; 20(6):458–68

Spine and spinal cord war injuries during the war in Croatia. Janković S, et al. **Mil Med** 1998 Dec;163(12):847–9

Acute management of traumatic cervical spinal cord injuries. Dyson-Hhudson TA, et al. **Mt Sinai J Med** 1999 May; 66(3):170–8 (34 ref.)

A clinical overview of treatment decisions in the management of spasticity. Gormley ME Jr, et al. **Muscle Nerve Suppl** 1997;6:S14–20 (14 ref.)

Percutaneous access to the anterior spinal canal through a cervical disk. Florman JE, et al. **Neuroradiology** 1998 Sep; 40(9):597–9

Indications for prehospital spinal immobilization. National Association of EMS Physicians Standards and Clinical Practice Committee. Domeier RM. **Prehosp Emerg Care** 1999 Jul–Sep;3(3):251–3 (37 ref.)

Neurotrophin gene therapy in CNS models of trauma and degeneration. Blesch A, et al. **Prog Brain Res** 1998; 117:473–84 (116 ref.)

Quality indicators in spinal cord injury care: a Swedish collaborative project. The Swedish Spinal Cord Injury Council 1998. Levi R, et al. **Scand J Rehabil Med Suppl** 1998;38:1–80 (26 ref.)

Repairing the damaged spinal cord. McDonald JW. **Sci Am** 1999 Sep;281(3):64–73 (4 ref.)

Detraining from total body exercise ergometry in individuals with spinal cord injury. Gurney AB, et al. **Spinal Cord** 1998 Nov;36(11):782–9

Workshop on spinal cord injuries (SCI) management: the Chiang Mai experience. Kovindha A, et al. **Spinal Cord** 1999 Mar;37(3):218–20

Augmented upper body contribution to oxygen uptake during upper body exercise with concurrent leg functional electrical stimulation in persons with spinal cord injury. Phillips WT, et al. **Spinal Cord** 1998 Nov;36(11):750–5

Gait after spinal cord injury and the central pattern generator for locomotion. Pinter MM, et al. **Spinal Cord** 1999 Aug; 37(8):531–7 (40 ref.)

Clinical outcomes of cervical spinal cord injuries without radiographic evidence of trauma. Saruhashi Y, et al. **Spinal Cord** 1998 Aug;36(8):567–73

[Experimental study on nerve growth factor in protecting injured spinal cord] Pang Q, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):3–5 (Eng. Abstr.) **(Chi)**

[The use micro-polarization in spinal cord lesions] Sheliakin AM, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998; 98(12):22–4 (Eng. Abstr.) **(Rus)**

URINE

Does refrigeration of urine alter culture results in hospitalized patients with neurogenic bladders? Horton JA 3rd, et al. **J Spinal Cord Med** 1998 Oct;21(4):342–7

A quantitative study of genital skin flora and urinary colonization in spinal cord injured patients. Hamamci N, et al. **Spinal Cord** 1998 Sep;36(9):617–20

Diurnal variation of antidiuretic hormone and urinary output in spinal cord injury. Kilinç S, et al. **Spinal Cord** 1999 May; 37(5):332–5

VETERINARY

An imposed oscillating electrical field improves the recovery of function in neurologically complete paraplegic dogs. Borgens RB, et al. **J Neurotrauma** 1999 Jul;16(7):639–57

Findings in a fox rescued from hounds [letter; comment] Cunningham JA. **Vet Rec** 1999 Apr 24;144(17):483. Comment on: Vet Rec 1999 Apr 10;144(15):424.

Spinal cord injury in small animals. 1. Mechanisms of spontaneous recovery. Jeffery ND, et al. **Vet Rec** 1999 Apr 10;144(15):407–13 (81 ref.)

SPINAL CORD NEOPLASMS

Cavernous haemangiomas of the spinal cord. A review of 117 cases. Zevgaridis D, et al. **Acta Neurochir (Wien)** 1999; 141(3):237–45 (55 ref.)

Neoplasms. **Curr Opin Neurol** 1998 Dec;11(6):695–705

CHEMISTRY

Cyclin D1 and MIB–1 immunohistochemistry in ependymomas: a study of 41 cases. Prayson RA. **Am J Clin Pathol** 1998 Nov;110(5):629–34

COMPLICATIONS

Footdrop as an initial manifestation of an intramedullary metastatic bronchial carcinoma. Mühlbauer M, et al. **Acta Neurochir (Wien)** 1998;140(12):1315–6

Lower urinary tract dysfunction in children with central nervous system tumours. Soler D, et al. **Arch Dis Child** 1998 Oct;79(4):344–7

Quadriplegia caused by cervical hyperextension injury and intramedullary spinal cord tumour: a case report of autopsy. Fujimura Y, et al. **Injury** 1998 Jun;29(5):377–9

Spinal cord ganglioglioma in a child with neurofibromatosis type 2. Case report and literature review. Sawin PD, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):231–3

Brief report: Intraspinal leukemia with cord compression. Geetha N, et al. **Med Pediatr Oncol** 1999 Aug;33(2):132–3

Association of lower cranial nerve schwannoma with spinal ependymoma in ? NF2. Kumar R, et al. **Neurol India** 1999 Jun;47(2):145–7

Intracranial hypertension as a clinical manifestation of cauda equina paraganglioma. Haslbeck KM, et al. **Neurology** 1999 Apr 12;52(6):1297–8

Intramedullary spinal teratoma presenting with urinary retention: case report and review of the literature. Poeze M, et al. **Neurosurgery** 1999 Aug;45(2):379–85 (62 ref.)

Dermoid cyst with dermal sinus tract complicated with spinal subdural abscess. Chen CY, et al. **Pediatr Neurol** 1999 Feb; 20(2):157–60

Cervicomedullary astrocytoma simulating a neuromuscular disorder. Felice KJ, et al. **Pediatr Neurol** 1999 Jan; 20(1):78–80

Cutaneomeningospinal angiomatosis (Cobb syndrome) with tethered cord. Brant AJ, et al. **Pediatr Neurosurg** 1999 Feb; 30(2):93–5

Intramedullary spinal teratoma and diastematomyelia. Case report and review of the literature. Hader WJ, et al. **Pediatr Neurosurg** 1999 Mar;30(3):140–5 (19 ref.)

Intramedullary lipoma of dorsocervicothoracic spinal cord with intracranial extension and hydrocephalus. Kogler A, et al. **Pediatr Neurosurg** 1998 May;28(5):257–60

Spinal subarachnoid hemorrhage attributable to schwannoma of the cauda equina. Cordan T, et al. **Surg Neurol** 1999 Apr;51(4):373–5

Syringomyelia in myotonic dystrophy due to spinal hemangioblastoma. Mascalchi M, et al. **Surg Neurol** 1998 Nov;50(5):446–8

[Two children with a rare etiology of torticollis: primitive neuro–ectodermal tumor and Grisel's syndrome (letter; comment)] Cruysberg JR, et al. **Ned Tijdschr Geneeskd** 1998 Jul 4;142(27):1573–4. Comment on: Ned Tijdschr Geneeskd 1998 May 2;142(18):1030–3. **(Dut)**

[Two children with unusual causes of torticollis: primitive neuroectodermal tumor and Grisel's syndrome (see comments)] Koot RW, et al. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1030–3 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Jul 4;142(27):1573–4. Comment in: Ned Tijdschr Geneeskd 1998 Jul 19;142(29):1686. **(Dut)**

[Precocious puberty secondary to an intramedullary germinoma] de Monléon JV, et al. **Arch Pediatr** 1999 Jan; 6(1):46–9 (Eng. Abstr.) **(Fre)**

[Analysis of spinal cord hemangioblastoma in von Hippel–Lindau disease] Nakashima H, et al. **No Shinkei Geka** 1999 Jun;27(6):533–40 (Eng. Abstr.) **(Jpn)**

[Hydromyelia associated with spinal lipoma] Wada K, et al. **No To Shinkei** 1998 Nov;50(11):989–93 (Eng. Abstr.) **(Jpn)**

[A case of primary central nervous system lymphoma with the onset of impotence] Hori T, et al. **Rinsho Shinkeigaku** 1999 Feb–Mar;39(2–3):333–9 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Spinal cord compression in patients with cancer: some thoughts concerning an editorial (letter; comment)] de Castro Carpeño J, et al. **Med Clin (Barc)** 1998 Sep 12; 111(7):277–8. Comment on: Med Clin (Barc) 1997 Sep 27;109(10):373–4. **(Spa)**

DIAGNOSIS

Multiple intraparenchymal schwannomas in the cerebellum, brainstem, and cervical spinal cord. Lee SH, et al. **Acta Neurochir (Wien)** 1999;141(7):779–80

Synaptophysin staining for ganglioglioma [letter; comment] Quinn B. **AJNR Am J Neuroradiol** 1999 Mar;20(3):526–9 . Comment on: AJNR Am J Neuroradiol 1998 May;19(5):879–87.

Advancing techniques in spinal MR imaging: but are they necessary for spinal leptomeningeal tumor? [editorial; comment] Sze GK. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1595–6. Comment on: AJNR Am J Neuroradiol 1998 Oct;19(9):1773–9.

Hemangioblastoma of the filum terminale: MR imaging. Arbelaez A, et al. **AJR Am J Roentgenol** 1999 Sep; 173(3):857–8

Metastatic spinal cord compression: diagnostic delay, treatment, and outcome. Solberg A, et al. **Anticancer Res** 1999 Jan–Feb;19(1B):677–84

Primary yolk sac tumor in the spinal cord. Kurisaka M, et al. **Childs Nerv Syst** 1998 Nov;14(11):653–7

Prognosis of ependymoma. Schiffer D, et al. **Childs Nerv Syst** 1998 Aug;14(8):357–61 (59 ref.)

Magnetic resonance imaging of intraspinal melanotic schwannoma [letter] Bendszus M, et al. **Eur Radiol** 1998; 8(7):1197

Intradural extramedullary spinal canal secondary neoplasms: MR findings in 30 patients. Frey I, et al. **Eur Radiol** 1998; 8(7):1187–92

Lhermitte's sign in cavernous angioma of the cervical spinal cord [letter] Murphy DK, et al. **J Neurol Neurosurg Psychiatry** 1998 Dec;65(6):954–5

Renal cell carcinoma: a rare source of cauda equina metastasis. Case report. Maxwell M, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):129–32

Dumbbell lymphoma of the cervical spine in a child. Case report. Gezen F, et al. **J Neurosurg Sci** 1998 Dec; 42(4):239–44 (27 ref.)

Thoracic intramedullary schwannoma. Lee DY, et al. **J Spinal Disord** 1999 Apr;12(2):174–6 (22 ref.)

Multiple spinal meningiomas—a case report. Lee KS, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1999 Mar; 15(3):182–6

Pediatric vertebral and spinal cord tumors: a retrospective study of musculoskeletal aspects of presentation, treatment, and complications. Mehlman CT, et al. **Orthopedics** 1999 Jan;22(1):49–55; discussion 55–6

The human tail. Lu FL, et al. **Pediatr Neurol** 1998 Sep; 19(3):230–3

MRI features of intracranial and spinal ependymomas. Lefton DR, et al. **Pediatr Neurosurg** 1998 Feb;28(2):97–105

Diffuse neonatal hemangiomatosis with extensive involvement of the brain and cervical spinal cord. Balaci E, et al. **Pediatr Radiol** 1999 Jun;29(6):441–3

Cervicomedullary astrocytomas of childhood: clinical and imaging follow–up. Young Poussaint T, et al. **Pediatr Radiol** 1999 Sep;29(9):662–8

Extrinsic spinal cord mass lesions. Francel PC. **Pediatr Rev** 1998 Nov;19(11):389–94

An unusual case of pigmented villonodular synovitis of the spine: benign aggressive and/or malignant? [letter] Clerc D, et al. **Rheumatology (Oxford)** 1999 May;38(5):476–7

Congenital maldevelopment of intervertebral disc simulating a neurofibroma. Goyal M, et al. **Skeletal Radiol** 1998 Jul; 27(7):388–91

[Tingling in the hands] Geelen JA, et al. **Ned Tijdschr Geneeskd** 1999 Jul 31;143(31):1593–7 (9 ref.) (Eng. Abstr.) **(Dut)**

[Diagnosis and treatment of spinal cord tumors] Seppälä M. **Duodecim** 1995;111(21):2071–7 (17 ref.) **(Fin)**

[Precocious puberty secondary to an intramedullary germinoma] de Monléon JV, et al. **Arch Pediatr** 1999 Jan; 6(1):46–9 (Eng. Abstr.) **(Fre)**

[Dermoid cyst of the conus medullaris revealed by chronic urinary retention. Contribution of imaging] Akhaddar A, et al. **J Neuroradiol** 1999 Jun;26(2):132–6 (Eng. Abstr.) **(Fre)**

[Pilocytic astrocytoma of the conus medullaris] Baréa D, et al. **J Radiol** 1999 Jul;80(7):736–8 (Eng. Abstr.) **(Fre)**

[Intramedullary spinal cord metastasis and leptomeningeal involvement in Hodgkin's disease. Case report and review of the literature] Jardin F, et al. **Rev Med Interne** 1999 Mar;20(3):267–71 (30 ref.) (Eng. Abstr.) **(Fre)**

[Cystic opacity of the posterior mediastinum] Wislez M, et al. **Rev Pneumol Clin** 1998 Feb;54(1):30–3 (Eng. Abstr.) **(Fre)**

[Dystonic pseudocamptocormia secondary to lumbar ependymoma (letter)] Lema C, et al. **Rev Neurol** 1998 Apr; 26(152):662–3 **(Spa)**

DRUG THERAPY

Chemotherapy for spinal cord astrocytoma: can natural history be modified? Lowis SP, et al. **Childs Nerv Syst** 1998 Jul;14(7):317–21

Second lung adenocarcinoma after combination chemotherapy in two patients with primary non–Hodgkin's lymphoma. Yamada T, et al. **Jpn J Clin Oncol** 1999 Apr; 29(4):226–8

EPIDEMIOLOGY

Intraspinal tumours in children—clinical presentation. Shariff SY, et al. **Ir Med J** 1997 Nov;90(7):264–5

ETIOLOGY

Intradural spinal teratoma: evidence for a dysembryogenic origin. Report of four cases. Koen JL, et al. **J Neurosurg** 1998 Nov;89(5):844–51

[A 29–year–old man with diabetes insipidus and cerebellar ataxia and development of spinal cord swelling 15 years after the onset (letter)] Sugiyama K. **No To Shinkei** 1999 Feb;51(2):180–1 **(Jpn)**

GENETICS

Molecular genetic analysis of ependymal tumors. NF2 mutations and chromosome 22q loss occur preferentially in intramedullary spinal ependymomas. Ebert C, et al. **Am J Pathol** 1999 Aug;155(2):627–32

Cytogenetic investigation in subependymoma [letter] Dal Cin P, et al. **Cancer Genet Cytogenet** 1999 Jan 1;108(1):84

The deletion of 22q13 region in both intracranial and spinal meningiomas in a patient (case report). Durmaz R, et al. **Clin Neurol Neurosurg** 1998 Sep;100(3):219–23

Familial neurilemoma of the spinal cord in a mother and daughter. Horiuchi H, et al. **J Spinal Disord** 1998 Aug; 11(4):359–61

HISTORY

Charles S. Sherrington (1857–1952): historical perspective [letter; comment] [see comments] Wilson PJ. **Neurosurgery** 1998 Aug;43(2):399–400. Comment on: Neurosurgery 1997 Dec;41(6):1442–5. Comment in: Neurosurgery 1998 Dec;43(6):1496–7.

PATHOLOGY

Solitary fibrous tumor of the spinal cord. Report of a case with scrape cytology. Kanahara T, et al. **Acta Cytol** 1999 May–Jun;43(3):425–8

Diffusion tensor MR imaging and comparative histology of glioma engrafted in the rat spinal cord. Inglis BA, et al. **AJNR Am J Neuroradiol** 1999 Apr;20(4):713–6

Fluoroscopically guided percutaneous needle biopsy of the cervical spinal cord. Geremia G, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):723–5

Clinicopathologic study of 61 patients with ependymoma including MIB–1 immunohistochemistry. Prayson RA. **Ann Diagn Pathol** 1999 Feb;3(1):11–8

Pathologic quiz case. Extrarenal rhabdoid tumor. Zhou Y, et al. **Arch Pathol Lab Med** 1999 Sep;123(9):853–4 (9 ref.)

Pediatric intramedullary spinal cord tumors. Critical review of the literature. Nadkarni TD, et al. **Childs Nerv Syst** 1999 Jan;15(1):17–28 (75 ref.)

Oligodendroglioma of the "widespread" type in the spinal cord. Ushida T, et al. **Childs Nerv Syst** 1998 Dec; 14(12):751–5 (19 ref.)

Spinal neuroblastoma masquerading as acute flaccid paralysis. Riyaz A, et al. **Indian Pediatr** 1998 Oct;35(10):1015–7

Multiple schwannomas [letter; comment] Altinörs N, et al. **J Neurosurg** 1999 Aug;91(2):351–2. Comment on: J Neurosurg 1998 Jul;89(1):36–41.

Long–term outcome of patients with intraspinal neuroblastoma. Hoover M, et al. **Med Pediatr Oncol** 1999 May;32(5):353–9

Cystic spinal cord tumors: magnetic resonance imaging correlated to histopathological findings. Matsui H, et al. **Neurosurg Rev** 1998;21(2–3):147–51

A rare case of extramedullary spinal cord germinoma. Kiyuna M, et al. **Pathol Int** 1999 Jul;49(7):633–7 (13 ref.)

Extraneural metastasizing ependymoma of the spinal cord. Graf M, et al. **Pathol Oncol Res** 1999;5(1):56–60 (36 ref.)

Congenital intraspinal lipomas: histological analysis of 234 cases and review of the literature. Lellouch–Tubiana A, et al. **Pediatr Dev Pathol** 1999 Jul–Aug;2(4):346–52 (25 ref.)

15–year–old male with neck pain [clinical conference] Huhn SL, et al. **Pediatr Neurosurg** 1998 Sep;29(3):154–9

High–grade pediatric spinal cord tumors. Merchant TE, et al. **Pediatr Neurosurg** 1999 Jan;30(1):1–5

Malignant glial tumor arising from the site of a previous hamartoma/ganglioglioma: coincidence or malignant transformation? Mittler MA, et al. **Pediatr Neurosurg** 1999 Mar;30(3):132–4

Pigmented schwannoma of the ventral spinal cord. Singer RJ, et al. **South Med J** 1999 May;92(5):532–4

Mobile neurinoma of the cervicothoracic junction. Iizuka H, et al. **Surg Neurol** 1998 Nov;50(5):492–3

[Neuro–meningeal location of Richter syndrome] Agard G, et al. **Rev Med Interne** 1999 Jan;20(1):64–7 (Eng. Abstr.) **(Fre)**

[Intramedullary metastases of bronchogenic carcinoma. Two cases] Ferroir JP, et al. **Rev Neurol (Paris)** 1998 Feb; 154(2):166–9 (Eng. Abstr.) **(Fre)**

[Cavernous angiomatosis of the central nervous system starting in the medulla. A case report] Tessa C, et al. **Radiol Med (Torino)** 1998 Nov;96(5):521–2 **(Ita)**

[A case of thoracic extradural spinal cord teratoma with neurological sequelae more than 10 years after surgery] Kondo M, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):693–6 (Eng. Abstr.) **(Jpn)**

[Own experience in surgical treatment of intramedullary spinal cord lipomas] Jarmundowicz W, et al. **Neurol Neurochir Pol** 1998 Jul–Sep;32(4):969–78 (Eng. Abstr.) **(Pol)**

[A 77–year–old patient with recurrent thrombosis and paravertebral mass in dorsal column (clinical conference)] **Rev Clin Esp** 1998 Sep;198(9):610–8 **(Spa)**

PHYSIOPATHOLOGY

Somatosensory and motor evoked potentials in patients with tumours in the spinal canal. Székely G Jr, et al. **Acta Neurochir (Wien)** 1998;140(6):533–8; discussion 539

[Urodynamic studies on the untethering of spinal lipoma in the children] Wada K, et al. **No To Shinkei** 1999 Mar; 51(3):229–33 (Eng. Abstr.) **(Jpn)**

SPINAL CORD NEOPLASMS

RADIOGRAPHY

[Clinical studies of patients with spinal cord metastases] Atanasov V, et al. **Khirurgiia (Sofiia)** 1998;51(4):5–7 (Eng. Abstr.) **(Bul)**

RADIOTHERAPY

Prognostic factors and survival in patients with spinal cord glioma: after radiation therapy. Abdel-Wahab M, et al. **Am J Clin Oncol** 1999 Aug;22(4):344–51

Radiation myelopathy. Rampling R, et al. **Curr Opin Neurol** 1998 Dec;11(6):627–32 (69 ref.)

The cranial-spinal junction in medulloblastoma: does it matter? Narayana A, et al. **Int J Radiat Oncol Biol Phys** 1999 Apr 1;44(1):81–4

The results of radiotherapy for ependymomas: the Mayo Clinic experience. Schild SE, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):953–8

De novo development of a cavernous malformation of the spinal cord following spinal axis radiation. Case report. Maraire JN, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):234–8

Outcome after radiotherapy of primary spinal cord glial tumors. McLaughlin MP, et al. **Radiat Oncol Investig** 1998; 6(6):276–80

SECONDARY

Spinal drop metastases in recurrent glioblastoma multiforme. Buhl R, et al. **Acta Neurochir (Wien)** 1998;140(10):1001–5

Footdrop as an initial manifestation of an intramedullary metastatic bronchial carcinoma. Mühlbauer M, et al. **Acta Neurochir (Wien)** 1998;140(12):1315–6

Intramedullary spinal metastasis from carcinoma of the cervix. Amin R. **Br J Radiol** 1999 Jan;72(853):89–91

Neuroimaging and treatment implications of patients with multiple epidural spinal metastases. Schiff D, et al. **Cancer** 1998 Oct 15;83(8):1593–601

Intradural extramedullary spinal canal secondary neoplasms: MR findings in 30 patients. Frey I, et al. **Eur Radiol** 1998; 8(7):1187–92

Recurrent spinal epidural metastases: a prospective study with a complete follow up. van der Sande JJ, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):623–7

Radiation therapy of metastatic spinal cord compression. Multidisciplinary team diagnosis and treatment. Kovner F, et al. **J Neurooncol** 1999 Mar;42(1):85–92

Renal cell carcinoma: a rare source of cauda equina metastasis. Case report. Maxwell M, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):129–32

Correlation of MRI and CSF cytology in the diagnosis of medulloblastoma spinal metastases. Harrison SK, et al. **Pediatr Radiol** 1998 Aug;28(8):571–4

Spinal metastases of malignant intracranial meningioma. Lee TT, et al. **Surg Neurol** 1998 Nov;50(5):437–41

[Clinical studies of patients with spinal cord metastases] Atanasov V, et al. **Khirurgiia (Sofiia)** 1998;51(4):5–7 (Eng. Abstr.) **(Bul)**

[Intramedullary metastases of bronchogenic carcinoma. Two cases] Ferroir JP, et al. **Rev Neurol (Paris)** 1998 Feb; 154(2):166–9 (Eng. Abstr.) **(Fre)**

[Intramedullary metastasis of small cell lung cancer] Ito K, et al. **Nihon Kokyuki Gakkai Zasshi** 1999 Jun;37(6):485–8 (Eng. Abstr.) **(Jpn)**

SURGERY

Surgical management of intramedullary hemangioblastoma of the spinal cord. Cristante L, et al. **Acta Neurochir (Wien)** 1999;141(4):333–9; discussion 339–40

Surgical treatment of spinal ependymoma and post-operative radiotherapy. Lee TT, et al. **Acta Neurochir (Wien)** 1998; 140(4):309–13

Surgical outcome of intramedullary spinal cord ependymoma. Ohata K, et al. **Acta Neurochir (Wien)** 1999; 141(4):341–6; discussion 346–7

Answer to case of the month #60. Postoperative dissemination of fat particles in the subarachnoid spaces and intraventricular system from spinal dermoid tumour. Belley G, et al. **Can Assoc Radiol J** 1999 Apr;50(2):131–4

Development of postoperative fibromatosis after resection of an intraspinal meningioma. Case report. Lynch JJ, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):121–4

Intraspinal epidermoid cyst occurring 15 years after lipomyelomeningocele repair. Case report. Song JH, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):252–4

Surgical management of giant schwannoma in the lumbosacral region. Iwasaki M, et al. **J Spinal Disord** 1998 Oct;11(5):444–7

Three cases of spinal cord tumor originating from the second cervical nerve root. Sato M, et al. **J Spinal Disord** 1998 Aug;11(4):354–8

Ependymoma of the spinal cord and the cauda equina region. Yoshii S, et al. **J Spinal Disord** 1999 Apr;12(2):157–61

Posterolateral approach for anteriorly located cervical spine tumors: technical note. Jho HD. **Minim Invasive Neurosurg** 1998 Dec;41(4):204–8

Anterolateral approach for cervical spinal cord tumors via an anterior microforaminotomy: technical note. Jho HD, et al. **Minim Invasive Neurosurg** 1999 Mar;42(1):1–5

Clinical experience with image-guided robotic radiosurgery (the Cyberknife) in the treatment of brain and spinal cord tumors. Chang SD, et al. **Neurol Med Chir (Tokyo)** 1998 Nov;38(11):780–3

Treatment strategies and results in spinal vascular malformations. Huffmann BC, et al. **Neurol Med Chir (Tokyo)** 1998 Sep;38 Suppl:231–7

Photoablation of meningiomas and neurinomas by Holmium Yag laser radiation. Leyser S, et al. **Neurol Res** 1999 Jan; 21(1):96–8

Intra-operative spinal cord neuromonitoring in patients operated on for intramedullary tumors and syringomyelia. Prestor B, et al. **Neurol Res** 1999 Jan;21(1):125–9

Radical excision of intramedullary cavernous angiomas [see comments] Cristante L, et al. **Neurosurgery** 1998 Sep; 43(3):424–30; discussion 430–1. Comment in: Neurosurgery 1999 Feb;44(2):428.

Results of microsurgical treatment for intramedullary spinal cord ependymomas: analysis of 36 cases. Hoshimaru M, et al. **Neurosurgery** 1999 Feb;44(2):264–9

Anterior approach to intramedullary hemangioblastoma: case report. Iwasaki Y, et al. **Neurosurgery** 1999 Mar;44(3):655–7

Nonneoplastic intramedullary spinal cord lesions mimicking tumors. Lee M, et al. **Neurosurgery** 1998 Oct;43(4):788–94; discussion 794–5

Spinal cord hamartoma: case report. Riley K, et al. **Neurosurgery** 1999 May;44(5):1125–7; discussion 1127–8

Patients with spinal cord cavernous malformations are at an increased risk for multiple neuraxis cavernous malformations. Vishteh AG, et al. **Neurosurgery** 1999 Jul; 45(1):30–2; discussion 33

Intraoperative spinal cord monitoring for intramedullary surgery: an essential adjunct? [letter; comment] Albright AL. **Pediatr Neurosurg** 1998 Aug;29(2):112. Comment on: Pediatr Neurosurg 1997 May;26(5):247–54.

Intraoperative monitoring [letter; comment] Kothbauer KF, et al. **Pediatr Neurosurg** 1998 Jul;29(1):54–5. Comment on: Pediatr Neurosurg 1997 May;26(5):247–54.

Intramedullary spinal cord ependymomas in children: treatment, results and follow-up. Lonjon M, et al. **Pediatr Neurosurg** 1998 Oct;29(4):178–83

Combined posterior and posterolateral one-stage removal of a giant cervical dumbbell schwannoma. Oruçkaptan HH, et al. **Pediatr Neurosurg** 1999 Feb;30(2):102–7

Excision of spinal tumor in a patient with severe pulmonary dysfunction using combined spinal and epidural anesthesia with two epidural catheters. Takiguchi T, et al. **Reg Anesth Pain Med** 1999 May-Jun;24(3):267–71

Recapping T-saw laminoplasty for spinal cord tumors. Kawahara N, et al. **Spine** 1999 Jul 1;24(13):1363–70

Extradural spinal hemangioblastomas: report of two cases. Tronnier V, et al. **Zentralbl Neurochir** 1999;60(2):86–92

[Integrated (biopsychosocial) treatment in the family practice: a pregnant patient with a sacral tumor and severe posttraumatic stress disorder] Boenink AD, et al. **Ned Tijdschr Geneeskd** 1998 May 30;142(22):1274–7 (Eng. Abstr.) **(Dut)**

[Spinal microsurgery at the thoracic to sacral level in the "prone-oblique" position] Niijima K, et al. **No Shinkei Geka** 1998 Nov;26(11):979–83 (Eng. Abstr.) **(Jpn)**

[Urodynamic studies on the untethering of spinal lipoma in the children] Wada K, et al. **No To Shinkei** 1999 Mar; 51(3):229–33 (Eng. Abstr.) **(Jpn)**

[Own experience in surgical treatment of intramedullary spinal cord lipomas] Jarmundowicz W, et al. **Neurol Neurochir Pol** 1998 Jul-Sep;32(4):969–78 (Eng. Abstr.) **(Pol)**

[Complications after the surgery for spinal cord tumor and their prevention] Ermol'ev AI. **Klin Khir** 1998;(5):28–30 (Eng. Abstr.) **(Rus)**

THERAPY

Prognostic factors in pediatric spinal cord astrocytoma. Bouffet E, et al. **Cancer** 1998 Dec 1;83(11):2391–9

Neoplasms [editorial] Thomas DG. **Curr Opin Neurol** 1998 Dec;11(6):617–8

Pediatric vertebral and spinal cord tumors: a retrospective study of musculoskeletal aspects of presentation, treatment, and complications. Mehlman CT, et al. **Orthopedics** 1999 Jan;22(1):49–55; discussion 55–6

[Diagnosis and treatment of spinal cord tumors] Seppälä M. **Duodecim** 1995;111(21):2071–7 (17 ref.) **(Fin)**

SPINAL CORD SYPHILIS see **TABES DORSALIS**

SPINAL CURVATURES

Spinal deformity in progressive neuromuscular disease. Natural history and management. Hart DA, et al. **Phys Med Rehabil Clin N Am** 1998 Feb;9(1):213–32, viii (92 ref.)

[Cervical curvature. A cephalometric study in position of clinical rest] Sandoval P, et al. **Rev Med Chil** 1999 May; 127(5):547–55 (Eng. Abstr.) **(Spa)**

COMPLICATIONS

Does spinal morphology influence the occurrence of low back pain? A retrospective clinical, anthropometric, and radiological study. Gautier J, et al. **Rev Rhum Engl Ed** 1999 Jan;66(1):29–34

CONGENITAL

Congenital spine deformities: scoliosis, kyphosis, and lordosis. Lonstein JE. **Orthop Clin North Am** 1999 Jul;30(3):387–405, viii (38 ref.)

DIAGNOSIS

Determination of the object surface function by structured light: application to the study of spinal deformities. Buendia M, et al. **Phys Med Biol** 1999 Jan;44(1):75–86

ETIOLOGY

Spinal deformity, pulmonary compromise, and quality of life in osteogenesis imperfecta. Widmann RF, et al. **Spine** 1999 Aug 15;24(16):1673–8

PATHOLOGY

Analysis of the cervical spine alignment following laminoplasty and laminectomy. Matsunaga S, et al. **Spinal Cord** 1999 Jan;37(1):20–4

PHYSIOPATHOLOGY

[Function of peripheral airways in children and adolescents with deformities of the anterior chest wall] Zaba R. **Pneumonol Alergol Pol** 1999;67(1-2):12–6 (Eng. Abstr.) **(Pol)**

RADIOGRAPHY

Does spinal morphology influence the occurrence of low back pain? A retrospective clinical, anthropometric, and radiological study. Gautier J, et al. **Rev Rhum Engl Ed** 1999 Jan;66(1):29–34

Spinal deformity, pulmonary compromise, and quality of life in osteogenesis imperfecta. Widmann RF, et al. **Spine** 1999 Aug 15;24(16):1673–8

SURGERY

Complications in the adult spinal deformity patient having combined surgery. Does revision increase the risk? Linville DA, et al. **Spine** 1999 Feb 15;24(4):355–63

SPINAL DISEASES

Spondylarthropathies. **Curr Opin Rheumatol** 1998 Jul; 10(4):B133–8

Juvenile rheumatoid arthritis and spondyloarthropathies. Dressler F. **Curr Opin Rheumatol** 1998 Sep;10(5):468–74 (63 ref.)

Usefulness of Posner's definition of spinal instability for selection of surgical treatment for lumbar spinal stenosis. Yone K, et al. **J Spinal Disord** 1999 Feb;12(1):40–4

Spine focus—cervical spine [editorial] Garfin SR. **Spine** 1998 Dec 15;23(24):2661–2

CHEMICALLY INDUCED

Symptomatic spinal epidural lipomatosis after local epidural corticosteroid injections: case report. Sandberg DI, et al. **Neurosurgery** 1999 Jul;45(1):162–5

[Corticosteroid-induced epidural lipomatosis. Efficacy of medical treatment] Lemaire M, et al. **Ann Med Interne (Paris)** 1998 Nov;149(7):459–63 (20 ref.) (Eng. Abstr.) **(Fre)**

CLASSIFICATION

Classification of inflammatory arthritis [letter; comment] [see comments] François RJ. **Lancet** 1998 Dec 12; 352(9144):1938–9. Comment on: Lancet 1998 Oct 3;352(9134):1137–40. Comment in: Lancet 1999 Feb 20;353(9153):671.

[Vertebral osteolysis: but what kind?] Bergonzini R, et al. **Radiol Med (Torino)** 1998 Dec;96(6):654–6 **(Ita)**

COMPLICATIONS

Vertebral erosion, paraplegia, and spinal gout. Pfister AK, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1430–1

What of cervicogenic headaches? [letter] Wilk V. **Aust Fam Physician** 1998 Oct;27(10):877–8

Pott's disease with unstable cervical spine, retropharyngeal cold abscess and progressive airway obstruction. Pollard BA, et al. **Can J Anaesth** 1999 Aug;46(8):772–5

Acute anterior uveitis and spondyloarthropathies. Feltkamp TE, et al. **Curr Opin Rheumatol** 1998 Jul;10(4):314–8 (50 ref.)

Mycotic aortic thoracic aneurysm with osteomyelitis treated by homograft. Le Rochais JP, et al. **Eur J Cardiothorac Surg** 1999 Jun;15(6):873

Nutritional supply to the cauda equina in lumbar adhesive arachnoiditis in rats. Miaki K, et al. **Eur Spine J** 1999; 8(4):310–6

Detrusor overactivity and penile erection in patients with lower lumbar spine lesions. Yamanishi T, et al. **Eur Urol** 1998 Oct;34(4):360–4

Enthesitis, arthritis, and heel pain. Lehman TJ. **J Am Podiatr Med Assoc** 1999 Jan;89(1):18–9

Use of the intubating laryngeal mask airway to facilitate awake orotracheal intubation in patients with cervical spine disorders. Wong JK, et al. **J Clin Anesth** 1999 Jun; 11(4):346–8

Solitary vertebral collapse: distinction between benign and malignant causes using MR patterns. Shih TT, et al. **J Magn Reson Imaging** 1999 May;9(5):635–42

Primary hydatid disease of the spine: an unusual cause of

progressive paraplegia. Case report and review of the literature. Bhojraj SY, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):216–8 (16 ref.)

Pulmonary function in children affected by juvenile spondyloarthropathy. Camiciottoli G, et al. **J Rheumatol** 1999 Jun;26(6):1382–6

Low-back pain caused by spinal tophus--a complication of gout in a kidney transplant recipient. Peeters P, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3245–7

Retropharyngeal abscess associated with vertebral osteomyelitis and spinal epidural abscess. Jang YJ, et al. **Otolaryngol Head Neck Surg** 1998 Dec;119(6):705–8

Evaluation of lower back pain with bone scintigraphy and SPECT. De Maeseneer M, et al. **Radiographics** 1999 Jul-Aug;19(4):901–12; discussion 912–4 (25 ref.)

Influence of lumbar spine pathology on the incidence of paresthesia during spinal anesthesia. Tetzlaff JE, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6):560–3

HLA B27 and respiratory involvement in axial spondylarthropathies. A retrospective study in 107 male patients. Eulry F, et al. **Rev Rhum Engl Ed** 1998 Oct; 65(10):560–6

Vertebral synovial osteochondromatosis with compressive myelopathy. Birchall D, et al. **Spine** 1999 May 1;24(9):921–3

Membranocystic lesion in lumbar yellow ligament. Okada K, et al. **Spine** 1999 Jun 1;24(11):1147–50

Recurrent low back pain and early disc degeneration in the young. Salminen JJ, et al. **Spine** 1999 Jul 1;24(13):1316–21

Postoperative prognosis of Brown-Séquard-type myelopathy in patients with cervical lesions. Kohno M, et al. **Surg Neurol** 1999 Mar;51(3):241–6

[Chest pains related to pain of spinal origin] Pirotte B. **Rev Med Brux** 1998 Dec;19(6):A511–3 **(Fre)**

[Therapeutic approaches in chronic back pain] Hildebrandt J. **Ther Umsch** 1999 Aug;56(8):455–9 (9 ref.) (Eng. Abstr.) **(Ger)**

[Ketamine infusion therapy for refractory neuralgia in spinal disease: report of two cases] Matsuda W, et al. **No Shinkei Geka** 1999 Feb;27(2):195–200 (Eng. Abstr.) **(Jpn)**

[Calcification of the intervertebral disks in childhood as the cause of acute torticollis] Ferrer Ferrán J, et al. **An Esp Pediatr** 1999 Jun;50(6):607–9 (9 ref.) **(Spa)**

[Use of TV-capillaroscopy in choosing tactics of the surgical treatment of neurological complications in spinal osteochondrosis] Iuryk OE. **Klin Khir** 1999;(7):36–8 (Eng. Abstr.) **(Ukr)**

CONGENITAL

Helical computed tomography and three-dimensional reconstruction of a bipedicular developmental anomaly of the C2 vertebra. Power DM, et al. **Spine** 1999 May 15; 24(10):984–6

DIAGNOSIS

Volume (three-dimensional) fast spin-echo imaging of the lumbar spine. Maldjian C, et al. **Acad Radiol** 1999 Jun; 6(6):339–42

Bilateral ganglion cysts: case report and review of the literature. Diamantopoulos J, et al. **Acta Neurochir (Wien)** 1999;141(7):783–4 (5 ref.)

Degenerative conditions of the spine. Current diagnostic procedures and treatment modalities. Garfin SR. **Acta Orthop Scand Suppl** 1998 Jun;281:38–46 (134 ref.)

Conditions of the spine. Stanitski CL. **Adolesc Med** 1998 Oct; 9(3):515–32, vi (17 ref.)

Acute spontaneous spinal epidural hematomas. Fukui MB, et al. **AJNR Am J Neuroradiol** 1999 Aug;20(7):1365–72

Measuring diffusion of solutes into intervertebral disks with MR imaging and paramagnetic contrast medium. Nguyen-minh C, et al. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1781–4

MR imaging changes of lumbar vertebral sarcoidosis. Fisher AJ, et al. **AJR Am J Roentgenol** 1999 Aug;173(2):354–6 (8 ref.)

Intrathecal gadolinium-enhanced MR myelography and cisternography: a pilot study in human patients. Zeng Q, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1109–15

Vertebra plana of the lumbar spine caused by an aneurysmal bone cyst: a case report. Papagelopoulos PJ, et al. **Am J Orthop** 1999 Feb;28(2):119–24

Epidural abscess: a delayed complication of esophageal stenting for benign stricture. Boulis NM, et al. **Ann Thorac Surg** 1999 Aug;68(2):568–70

Rigid spine syndrome. Case report. Zétola VH, et al. **Arq Neuropsiquiatr** 1998 Dec;56(4):812–8

Primary amyloidoma of the thoracic spine. Mathew JM, et al. **Br J Neurosurg** 1998 Oct;12(5):448–51

Anterior cervical spinal epidural abscess in an infant. Lee JK, et al. **Childs Nerv Syst** 1999 Mar;15(2-3):137–9

MRI findings of isolated beta-2 microglobulin amyloidosis presenting as a cervical spine mass. Case report and review of literature. Moonis G, et al. **Clin Imaging** 1999 Jan-Feb; 23(1):11–4 (12 ref.)

Spinal aspergillus osteomyelitis. Vinas FC, et al. **Clin Infect Dis** 1999 Jun;28(6):1223–9 (49 ref.)

Metastatic complication of bacteremia in a hemodialysis patient--a diagnostic dilemma [letter] Pandya B, et al. **Clin Nephrol** 1999 Jul;52(1):62–3

Diagnosis and monitoring of spondyloarthropathy. Dougados M. **Compr Ther** 1998 Nov-Dec;24(11-12):590–5 (22 ref.)

Cryptococcosis of thoracic vertebra simulating tuberculosis: diagnosis by fine-needle aspiration biopsy cytology--a case report. Jain M, et al. **Diagn Cytopathol** 1999 Jun;20(6):385–6

Limp as unusual presentation of Langerhans' cell histiocytosis. Bodart E, et al. **Eur J Pediatr** 1999 May; 158(5):384–6

Langerhans cell histiocytosis of the cervical spine: case report of an unusual location. Geusens E, et al. **Eur Radiol** 1998; 8(7):1142–4

Blastomycosis of the lumbar spine: case report and review of the literature, with emphasis on diagnostic laboratory tools and management. Hadjipavlou AG, et al. **Eur Spine J** 1998;7(5):416–21 (34 ref.)

The LIRCE principle: a risk-value score for the spine. Krämer J. **Eur Spine J** 1998;7(5):353–7

Intraosseous lipomata of adjacent vertebral bodies. Pande KC, et al. **Eur Spine J** 1998;7(4):344–7

Extradural inflammation associated with annular tears: demonstration with gadolinium-enhanced lumbar spine MRI. Saifuddin A, et al. **Eur Spine J** 1999;8(1):34–9

The value of MR imaging in differentiating between hard and soft cervical disc disease: a comparison with intraoperative findings. Sengupta DK, et al. **Eur Spine J** 1999;8(3):199–204

Rapidly progressive polyostotic eosinophilic granuloma involving spine: a case report. Kandoi M, et al. **Indian J Med Sci** 1998 Jan;52(1):22–4

Evaluation of the spine utilizing the AMA Guides to the Evaluation of Permanent Impairment, 4th edition. Haralson RH 3rd. **Instr Course Lect** 1999;48:451–61 (3 ref.)

Back pain in childhood and adolescence. Richards BS, et al. **Instr Course Lect** 1999;48:525–42 (115 ref.)

Ochronotic arthropathy: case report and review of the literature. Hamdi N, et al. **Int Orthop** 1999;23(2):122–5 (13 ref.)

Aneurysmal bone cyst: rapid deterioration in a long-standing tumor. Krissi H, et al. **J Am Board Fam Pract** 1999 Jul-Aug;12(4):340–3

Actinomycosis--an unusual case of an uncommon disease. Petrone LR, et al. **J Am Board Fam Pract** 1999 Mar-Apr; 12(2):158–61

Spinal brucellosis. Vergauwen S, et al. **J Belge Radiol** 1998 Oct;81(5):255

The frequency of positive common spinal clinical examination findings in a sample of premenstrual syndrome sufferers. Walsh MJ, et al. **J Manipulative Physiol Ther** 1999 May;22(4):216–20

A clinical study of Thai patients with spondyloarthropathy. Louthrenoo W, et al. **J Med Assoc Thai** 1998 Dec; 81(12):986–92

Tumoral calcinosis of the lumbar spine. Case illustration. Vaicys C, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):137

Aneurysmal bone cyst of the spine: 31 cases and the importance of the surgical approach. de Kleuver M, et al. **J Pediatr Orthop B** 1998 Oct;7(4):286–92 (19 ref.)

Pain provocation tests for the assessment of sacroiliac joint dysfunction [letter] Bogduk N. **J Spinal Disord** 1999 Aug; 12(4):357–8

Oblique MRI as a useful adjunct in evaluation of cervical foraminal impingement. Humphreys SC, et al. **J Spinal Disord** 1998 Aug;11(4):295–9

Comparative study of MR myelography and conventional myelography in the diagnosis of lumbar spinal diseases. Kuroki H, et al. **J Spinal Disord** 1998 Dec;11(6):487–92

Spinal epidural abscess: a review of epidemiology, diagnosis, and treatment. Sampath P, et al. **J Spinal Disord** 1999 Apr; 12(2):89–93 (31 ref.)

Use of contrast in MR imaging of the lumbar spine. Bradley WG. **Magn Reson Imaging Clin N Am** 1999 Aug; 7(3):439–57, vii

Degenerative disc disease and back pain. Modic MT. **Magn Reson Imaging Clin N Am** 1999 Aug;7(3):481–91, viii (67 ref.)

Quantitative magnetic resonance imaging in the assessment of degenerative disc disease. Antoniou J, et al. **Magn Reson Med** 1998 Dec;40(6):900–7

Inter-examiner and intra-examiner reliability of the standing flexion test. Vincent-Smith B, et al. **Man Ther** 1999 May; 4(2):87–93

Congenital dilation of the cervical epidural venous plexus: neuroradiology and endovenous management. Rodiek SO, et al. **Minim Invasive Neurosurg** 1999 Jun;42(2):69–73

Camptocormia (bent spine) in patients with Parkinson's disease--characterization and possible pathogenesis of an unusual phenomenon. Djaldetti R, et al. **Mov Disord** 1999 May;14(3):443–7

Spinal epidural abscess. Wong D, et al. **N Z Med J** 1998 Sep 11;111(1073):345–7

Clinical neurophysiologic studies: which test is useful and when? Lomen-Hoerth C, et al. **Neurol Clin** 1999 Feb; 17(1):65–74 (27 ref.)

Differential diagnosis: a reasonable clinical approach. Swenson R. **Neurol Clin** 1999 Feb;17(1):43–63 (81 ref.)

MRI in primary intraspinal extradural hydatid disease: case report. Berk C, et al. **Neuroradiology** 1998 Jun;40(6):390–2 (12 ref.)

Spinal disease in neurologically symptomatic HIV-positive patients. Taber KH, et al. **Neuroradiology** 1999 May; 41(5):360–8 (53 ref.)

Spinal lipoma controversy [clinical conference] Chapman P, et al. **Neurosurgery** 1999 Jan;44(1):186–92; discussion 192–3

Calcium pyrophosphate deposition disease mimicking infection in the lumbar spine. Bartlett CS 3rd, et al. **Orthopedics** 1999 Jan;22(1):79–81

Management of vertebral diskitis and osteomyelitis. Khan IA, et al. **Orthopedics** 1999 Aug;22(8):758–65 (56 ref.)

MRI description of vertebral osteomyelitis, neoplasm, and compression fracture. Vaccaro AR, et al. **Orthopedics** 1999 Jan;22(1):67–73; quiz 74–5 (18 ref.)

Posturography does not test vestibulospinal function. Evans MK, et al. **Otolaryngol Head Neck Surg** 1999 Feb; 120(2):164–73

Spinal imaging and intervention: 1998. Mink JH, et al. **Phys Med Rehabil Clin N Am** 1998 May;9(2):343–80, viii (116 ref.)

Psoriatic arthritis. Gladman DD. **Rheum Dis Clin North Am** 1998 Nov;24(4):829–44, x (81 ref.)

Subjective and objective image qualities: a comparison of sagittal T2 weighted spin-echo and Turbo-spin-echo sequences in magnetic resonance imaging of the spine by use of a subjective ranking system. Görres G, et al. **Rontgenpraxis** 1998;51(7):258–65

Vertebral osteomyelitis at a Norwegian university hospital 1987–97: clinical features, laboratory findings and outcome. Chelsom J, et al. **Scand J Infect Dis** 1998;30(2):147–51

Sclerotic lesions of the cervical spine in sarcoidosis. Jelinek JS, et al. **Skeletal Radiol** 1998 Dec;27(12):702–4

Vertebral involvement in SAPHO syndrome: MRI findings. Nachtigal A, et al. **Skeletal Radiol** 1999 Mar;28(3):163–8

Cryptococcoma of the sacrum. Noh HM, et al. **Skeletal Radiol** 1999 Jan;28(1):49–51

Sclerotome distribution of melorheostosis and multicentric fibromatosis. Rhys R, et al. **Skeletal Radiol** 1998 Nov; 27(11):633–6 (16 ref.)

Diagnosis and treatment of common metabolic spinal disorders in the geriatric population. Eck JC, et al. **South Med J** 1998 Dec;91(12):1090–7 (32 ref.)

Pyogenic osteomyelitis of the spine in the elderly: three cases of a synchronous non-axial infection by a different pathogen. Velan GJ, et al. **Spinal Cord** 1999 Mar; 37(3):215–7

Unknown case. Dockery WD, et al. **Spine** 1999 Jan 15; 24(2):198–9

Spinal biomodeling. D'Urso PS, et al. **Spine** 1999 Jun 15; 24(12):1247–51

Epidemiology, physical examination, and neurodiagnostics. Dvorák J. **Spine** 1998 Dec 15;23(24):2663–73 (56 ref.)

Diagnosis of Os odontoideum using kinematic magnetic resonance imaging. A case report. Hughes TB Jr, et al. **Spine** 1999 Apr 1;24(7):715–8

Pathologic features of spinal disorders in patients treated with long-term hemodialysis. Ito M, et al. **Spine** 1998 Oct 1; 23(19):2127–33

Imaging of the cervical spine. Kaiser JA, et al. **Spine** 1998 Dec 15;23(24):2701–12 (70 ref.)

Interobserver reliability of detecting lumbar intervertebral disc high-intensity zone on magnetic resonance imaging and association of high-intensity zone with pain and anular disruption. Smith BM, et al. **Spine** 1998 Oct 1; 23(19):2074–80

Ultrafine flexible spinal endoscope (myeloscope) and discovery of an unreported subarachnoid lesion. Uchiyama S, et al. **Spine** 1998 Nov 1;23(21):2358–62

Intertester reliability of a low back pain classification system. Wilson L, et al. **Spine** 1999 Feb 1;24(3):248–54

Chronic progressive hematomyelia: case reports and review of the literature. Matsumura A, et al. **Surg Neurol** 1999 May;51(5):559–63 (27 ref.)

Spinal epidural abscess: contemporary trends in etiology, evaluation, and management. Rigamonti D, et al. **Surg Neurol** 1999 Aug;52(2):189–96; discussion 197

[Vertebral necrosis] Legaye J. **Acta Orthop Belg** 1999;65 Suppl 1:97–8 (11 ref.) **(Fre)**

[Spinal neurenteric cyst revealed by a cauda equina syndrome] Rougerie C, et al. **Presse Med** 1999 Feb 6; 28(5):229–30 (Eng. Abstr.) **(Fre)**

[Surgery for degenerative lumbar disc disease. Should the black disc be grafted?] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Nov; 84(7):583–9 (Eng. Abstr.) **(Fre)**

[Spinal localization of Gorham's syndrome. Case report] Grelet V, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Mar; 85(1):81–7 (Eng. Abstr.) **(Fre)**

[Spinal cord compression due to tophaceous vertebral gout: a case report and literature review] Marsaudon E, et al. **Rev Med Interne** 1999 Mar;20(3):253–7 (39 ref.) (Eng. Abstr.) **(Fre)**

[Vertebral destruction with massive pain in the SAPHO syndrome (letter)] Valentin R. **Dtsch Med Wochenschr** 1999 Jul 30;124(30):916; discussion 917 **(Ger)**

[Diagnostic assessment in lumbar back pain. I. Anamnesis and clinical examination] Boos N, et al. **Schweiz Rundsch Med Prax** 1999 Feb 18;88(8):305–13 (13 ref.) (Eng. Abstr.) **(Ger)**

[Diagnostic assessment in lumbar back pain. II. Imaging and image-guided infiltrations] Pfirrmann CW, et al. **Schweiz Rundsch Med Prax** 1999 Feb 18;88(8):315–21 (19 ref.) (Eng. Abstr.) **(Ger)**

[Therapeutic approaches in chronic back pain] Hildebrandt J. **Ther Umsch** 1999 Aug;56(8):455–9 (9 ref.) (Eng. Abstr.) **(Ger)**

[Radicular and pseudo-radicular pain syndrome] Knutti O,

et al. **Ther Umsch** 1998 Oct;55(10):601-12 (29 ref.) (Eng. Abstr.) **(Ger)**

[Status of knowledge in expert assessment of occupational disease 2108-2110] Hansis M. **Unfallchirurg** 1998 Oct; 101(10):799-801 (Eng. Abstr.) **(Ger)**

[Lipoatrophia semicircularis--an orthopedic diagnosis?] Cossmann J, et al. **Z Orthop Ihre Grenzgeb** 1998 May-Jun; 136(3):278-80 (Eng. Abstr.) **(Ger)**

[The management of cases of "conditional" work fitness due to spinal pathologies in health personnel] Occhipinti E. **Med Lav** 1999 Mar-Apr;90(2):428-35 (Eng. Abstr.) **(Ita)**

[Diagnosis and treatment of spinal epidural abscess] Roel JE, et al. **Medicina (B Aires)** 1999;59(1):59-62 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

Acute spinal epidural abscess without concurrent spondylodiscitis. Successful closed treatment in 10 cases. Ahl T, et al. **Acta Orthop Scand** 1999 Apr;70(2):199-202

Symptomatic lumbar facet joint synovial cysts: clinical assessment of facet joint steroid injection after 1 and 6 months and long-term follow-up in 30 patients. Parlier-Cuau C, et al. **Radiology** 1999 Feb;210(2):509-13

Glucocorticoid therapy in common lumbar spinal disorders. Rozenberg S. **Rev Rhum Engl Ed** 1998 Nov;65(11):649-55 (77 ref.)

EPIDEMIOLOGY

Epidemiology of acute vertebral osteomyelitis in Denmark: 137 cases in Denmark 1978-1982, compared to cases reported to the National Patient Register 1991-1993. Krogsgaard MR, et al. **Acta Orthop Scand** 1998 Oct; 69(5):513-7

Radiographic abnormalities of the lumbar spine in college football players. A comparative analysis. Jones DM, et al. **Am J Sports Med** 1999 May-Jun;27(3):335-8

The effect of comorbidity on care seeking for back problems in the United States. Hurwitz EL, et al. **Ann Epidemiol** 1999 May;9(4):262-70

Nine cases of nontraumatic spinal epidural hematoma. Hejazi N, et al. **Neurol Med Chir (Tokyo)** 1998 Nov;38(11):718-23; discussion 723-4 (18 ref.)

Juxtafacet cysts of the cervical spine. Krauss WE, et al. **Neurosurgery** 1998 Dec;43(6):1363-8 (10 ref.)

Bowel inflammation and the spondyloarthropathies. De Keyser F, et al. **Rheum Dis Clin North Am** 1998 Nov; 24(4):785-813, ix-x (146 ref.)

Epidemiology, physical examination, and neurodiagnostics. Dvorák J. **Spine** 1998 Dec 15;23(24):2663-73 (56 ref.)

Intertester reliability of a low back pain classification system. Wilson L, et al. **Spine** 1999 Feb 1;24(3):248-54

Cumulative incidence of lumbar disc diseases leading to hospitalization up to the age of 28 years. Zitting P, et al. **Spine** 1998 Nov 1;23(21):2337-43; discussion 2343-4

ETIOLOGY

Paraspinal muscle abscess after Chinese Kong Fu practitioner manipulation--a case report. Sun HL, et al. **Acta Anaesthesiol Sin** 1998 Jun;36(2):107-10

Whole-body vibration of tractor drivers during harrowing. Sorainen E, et al. **Am Ind Hyg Assoc J** 1998 Sep;59(9):642-4

Adjacent-segment degeneration after lumbar fusion: a review of clinical, biomechanical, and radiologic studies. Eck JC, et al. **Am J Orthop** 1999 Jun;28(6):336-40

Sickle cell disease of the spine in children. Roger E, et al. **Can J Surg** 1999 Aug;42(4):289-92

Spinal epidural abscess after tattooing. Chowfin A, et al. **Clin Infect Dis** 1999 Jul;29(1):225-6

Vertebral osteomyelitis associated with cat-scratch disease. Hulzebos CV, et al. **Clin Infect Dis** 1999 Jun;28(6):1310-2 (28 ref.)

Graded thoracolumbar spinal injuries: development of multidirectional instability. Panjabi MM, et al. **Eur Spine J** 1998;7(4):332-9

Ochronotic arthropathy: case report and review of the literature. Hamdi N, et al. **Int Orthop** 1999;23(2):122-5 (13 ref.)

Risk factors for adjacent-segment failure following lumbar fixation with rigid instrumentation for degenerative instability. Etebar S, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):163-9

Intraspinal epidermoid cyst occurring 15 years after lipomyelomeningocele repair. Case report. Song JH, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):252-4

Spondyloarthropathy and human immunodeficiency virus infection in Zambia. Njobvu P, et al. **J Rheumatol** 1998 Aug;25(8):1553-9

Torsional injury resulting in disc degeneration in the rabbit: II. Associative changes in dorsal root ganglion and spinal cord neurotransmitter production. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):318-21

Torsional injury resulting in disc degeneration: I. An in vivo rabbit model. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):312-7

Epidural metastatic abscess: a rare complication of an infected osteosynthesis in a distal lower leg fracture. Weber T, et al. **J Trauma** 1999 Feb;46(2):346-9

Spinal epidural abscess associated with epidural catheterization: report of a case and a review of the literature. Okano K, et al. **Jpn J Clin Oncol** 1999 Jan; 29(1):49-52 (31 ref.)

Cause of adjacent-segment disease after spinal fusion. Javedan SP, et al. **Lancet** 1999 Aug 14;354(9178):530-1

Spinal subdural hematoma: a rare complication of lumbar puncture. Case report and review of the literature. Egede LE, et al. **Md Med J** 1999 Jan-Feb;48(1):15-7 (15 ref.)

Vertebra plana due to a Ewing tumor. Kager L, et al. **Med Pediatr Oncol** 1999 Jan;32(1):57-9

Camptocormia (bent spine) in patients with Parkinson's disease--characterization and possible pathogenesis of an unusual phenomenon. Djaldetti R, et al. **Mov Disord** 1999 May;14(3):443-7

Early destructive spondyloarthropathy from combined beta2-microglobulin and transthyretin Met30 amyloidosis in a dialysed patient. Beirão I, et al. **Nephrol Dial Transplant** 1998 Dec;13(12):3223-5

Traumatic epidural hematoma of the cervical spine: magnetic resonance imaging diagnosis and spontaneous resolution: case report. Lefranc F, et al. **Neurosurgery** 1999 Feb; 44(2):408-10; discussion 410-1

Evolving magnetic resonance spinal cord trauma in child: from hemorrhage to intradural arachnoid cyst. Fobe JL, et al. **Spinal Cord** 1998 Dec;36(12):864-6

Complications and predictive factors for the successful treatment of flatback deformity (fixed sagittal imbalance). Booth KC, et al. **Spine** 1999 Aug 15;24(16):1712-20

Compression-induced changes in intervertebral disc properties in a rat tail model. Iatridis JC, et al. **Spine** 1999 May 15;24(10):996-1002

Compression-induced degeneration of the intervertebral disc: an in vivo mouse model and finite-element study. Lotz JC, et al. **Spine** 1998 Dec 1;23(23):2493-506

Multiple gigantic arteriovenous malformations with destruction of lumbar vertebral bodies. A case report. Nagata N, et al. **Spine** 1999 Jul 1;24(13):1377-80

Iatrogenic Mycobacterium infection after an epidural injection. O'Brien DP, et al. **Spine** 1999 Jun 15; 24(12):1257-9

[Peridural abscess complicating spinal anesthesia in a diabetic patient] Popesco D, et al. **Ann Fr Anesth Reanim** 1997; 16(8):964-6 (Eng. Abstr.) **(Fre)**

[Invalidating and febrile spondylarthritis] Carli P, et al. **Rev Med Interne** 1998;19 Suppl 2:243s-246s **(Fre)**

[An increased risk of spinal injury in high performance gymnasts during pubertal growth?] Lohrer H. **Wien Med Wochenschr** 1998;148(10):235-8 (Eng. Abstr.) **(Ger)**

[Vertebral erosion caused by aortic pseudoaneurysm. Findings with computerized tomography and magnetic resonance] Blandino A, et al. **Radiol Med (Torino)** 1999 Apr;97(4):310-2 **(Ita)**

GENETICS

Presence of emerinopathy in cases of rigid spine syndrome. Kubo S, et al. **Neuromuscul Disord** 1998 Oct;8(7):502-7

Molecular biology and spinal disorders. A survey for the clinician. Altman DA, et al. **Spine** 1999 Apr 1;24(7):723-30 (14 ref.)

HISTORY

Anterior and posterior cervical spine fusions. 1964 [classical article] Robinson RA. **Clin Orthop** 1999 Feb;(359):4-17

The old and the new camptocormia. Karbowski K. **Spine** 1999 Jul 15;24(14):1494-8

IMMUNOLOGY

Drug-induced pancytopenia in a patient with juvenile HLA-B27-associated spondylarthritis: comment on the article by Leipold et al [letter; comment] Schmidt KL. **Arthritis Rheum** 1998 Oct;41(10):1899-900. Comment on: Arthritis Rheum 1997 Oct;40(10):1896-8.

Spondyloarthropathies [editorial] Khan MA. **Curr Opin Rheumatol** 1998 Jul;10(4):279-81

Spinal epidural haematoma in haemophilia A. Schmitz A, et al. **Haemophilia** 1998 Jan;4(1):51-5

HLA B27 and respiratory involvement in axial spondylarthropathies. A retrospective study in 107 male patients. Eulry F, et al. **Rev Rhum Engl Ed** 1998 Oct; 65(10):560-6

METABOLISM

Torsional injury resulting in disc degeneration in the rabbit: II. Associative changes in dorsal root ganglion and spinal cord neurotransmitter production. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):318-21

The effect of compressive force applied to the intervertebral disc in vivo. A study of proteoglycans and collagen. Hutton WC, et al. **Spine** 1998 Dec 1;23(23):2524-37

MICROBIOLOGY

Fungal spinal osteomyelitis in the immunocompromised patient: MR findings in three cases. Williams RL, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):381-5

Vertebral osteomyelitis and discitis associated with Abiotrophia adiacens (nutritionally variant streptococcus) infection [letter] Heath CH, et al. **Aust N Z J Med** 1998 Oct;28(5):663

Paraspinal abscess following facet joint injection. Cook NJ, et al. **Clin Rheumatol** 1999;18(1):52-3

Possible salmonella osteomyelitis of spine following laser disc decompression. Farrar MJ, et al. **Eur Spine J** 1998; 7(6):509-11

Epidural abscess in an infant. Grevitt MP, et al. **Eur Spine J** 1998;7(5):413-5

MR imaging of spinal infections. Dagirmanjian A, et al. **Magn Reson Imaging Clin N Am** 1999 Aug;7(3):525-38 (52 ref.)

Epidural abscess of the cervical spine with osteomyelitis of the odontoid process. Wiedau-Pazos M, et al. **Spine** 1999 Jan 15;24(2):133-6

Pyogenic vertebral osteomyelitis caused by Campylobacter fetus subspecies fetus. A case report. Yamashita K, et al. **Spine** 1999 Mar 15;24(6):582-4

Spinal epidural abscess: contemporary trends in etiology, evaluation, and management. Rigamonti D, et al. **Surg Neurol** 1999 Aug;52(2):189-96; discussion 197

[Clinical study of polymerase chain reaction technique in the diagnosis of bone tuberculosis] Sun Y, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Jun; 20(3):145-8 (Eng. Abstr.) **(Chi)**

MORTALITY

Mortality associated with vertebral deformity in men and women: results from the European Prospective Osteoporosis Study (EPOS). Ismail AA, et al. **Osteoporos Int** 1998;8(3):291-7

PARASITOLOGY

[Isolated lumbar intradural hydatid cyst] Kabbaj-El Kouhen N, et al. **J Radiol** 1999 Feb;80(2):147-9 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Changes in end-plate vascularity after Nd: YAG laser application to the guinea pig intervertebral disc. Turgut M, et al. **Acta Neurochir (Wien)** 1998;140(8):819-25; discussion 825-6

CT-guided fine-needle aspiration biopsy of spinal lesions. Kang M, et al. **Acta Radiol** 1999 Sep;40(5):474-8

Spinal tophaceous gout [letter] Clerc D, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):621

Laparoscopic assisted spine surgery. Heini PF, et al. **Dig Surg** 1998;15(2):185-6

Anatomy and pathology of the aging spine. Prescher A. **Eur J Radiol** 1998 Jul;27(3):181-95 (50 ref.)

Lumbar intraspinal synovial cysts of different etiologies: diagnosis by CT and MR imaging. Farrokh D. **J Belge Radiol** 1998 Dec;81(6):275-8 (20 ref.)

Sonographically guided fine-needle aspiration biopsy of lytic lesions of the spine: technique and indications. Gupta S, et al. **J Clin Ultrasound** 1999 Mar-Apr;27(3):123-9

Anteroposterior atlantoaxial subluxation in cervical spine osteoarthritis: case reports and review of the literature. Daumen-Legré V, et al. **J Rheumatol** 1999 Mar; 26(3):687-91 (30 ref.)

Relationship between morphology of iliolumbar ligament and lower lumbar disc degeneration. Fujiwara A, et al. **J Spinal Disord** 1999 Aug;12(4):348-52

Aggressive enterogenous cyst with extensive craniospinal spread: case report. Perry A, et al. **Neurosurgery** 1999 Feb; 44(2):401-4; discussion 404-5

Pitfalls and artifacts encountered in clinical MR imaging of the spine. Taber KH, et al. **Radiographics** 1998 Nov-Dec; 18(6):1499-521 (62 ref.)

MR imaging of the lumbar spine: prevalence of intervertebral disk extrusion and sequestration, nerve root compression, end plate abnormalities, and osteoarthritis of the facet joints in asymptomatic volunteers. Weishaupt D, et al. **Radiology** 1998 Dec;209(3):661-6

Langerhans' cell histiocytosis of the spine: use of MRI in guiding biopsy. Kaplan GR, et al. **Skeletal Radiol** 1998 Dec; 27(12):673-6

Conus medullaris hematomyelia associated with an intradural-extramedullary cavernous angioma. Mastronardi L, et al. **Spinal Cord** 1999 Jan;37(1):68-70

The study of apoptosis in spine pathology [letter; comment] Alvarez L, et al. **Spine** 1999 Mar 1;24(5):500. Comment on: Spine 1998 Apr 1;23(7):751-7.

[Clinical study of the relationship between the lateral recesses and the nerve roots] Lian P, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):229-33 (Eng. Abstr.) **(Chi)**

[A rare case of tuberculosis of the spine] Lukawski S, et al. **Chir Narzadow Ruchu Ortop Pol** 1998;63(5):501-3 (Eng. Abstr.) **(Pol)**

[A dystrophic process in the spinal tissues in the modelling of a functional blockage of the spinal motor segment] Gongal'skiĭ VV, et al. **Lik Sprava** 1998 Oct-Nov;(7):89-91 **(Rus)**

PHYSIOPATHOLOGY

Can you get a stiff back from lack of spinal stiffness? [editorial; comment] Milette PC. **AJNR Am J Neuroradiol** 1999 Jun-Jul;20(6):960-2. Comment on: AJNR Am J Neuroradiol 1999 Jun-Jul;20(6):1161-5.

Adjacent-segment degeneration after lumbar fusion: a review of clinical, biomechanical, and radiologic studies. Eck JC, et al. **Am J Orthop** 1999 Jun;28(6):336-40

HLA-B27 and other predisposing factors in spondyloarthropathies. Khare SD, et al.

Curr Opin Rheumatol 1998 Jul;10(4):282–91 (73 ref.)
Degeneration affects the anisotropic and nonlinear behaviors of human anulus fibrosus in compression. Iatridis JC, et al. **J Biomech** 1998 Jun;31(6):535–44
Spinal motion in lumbar degenerative disc disease. McGregor AH, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1009–13
Cause of adjacent-segment disease after spinal fusion. Javedan SP, et al. **Lancet** 1999 Aug 14;354(9178):530–1
Use of patient-centered function and symptom rating systems in spinal disorders. Deen HG Jr. **Mayo Clin Proc** 1999 Jan; 74(1):40–4 (42 ref.)
Rigid spine syndrome with fiber type disproportion [letter] Unal I, et al. **Muscle Nerve** 1999 Apr;22(4):542–3
Anaesthetic implications of rigid spine syndrome. Jorgensen BG, et al. **Paediatr Anaesth** 1999;9(4):352–5
Cervical lesions related to the systemic progression in rheumatoid arthritis. Fujiwara K, et al. **Spine** 1998 Oct 1; 23(19):2052–6
Langerhans' cell histiocytosis of the spine. Analysis of twenty-three cases. Yeom JS, et al. **Spine** 1999 Aug 15; 24(16):1740–9
Postoperative prognosis of Brown-Séquard-type myelopathy in patients with cervical lesions. Kohno M, et al. **Surg Neurol** 1999 Mar;51(3):241–6
Spinal factors in the generation of fibromyalgia syndrome. Müller W, et al. **Z Rheumatol** 1998;57 Suppl 2:36–42 (21 ref.)
[Microcirculatory bed of bulbar conjunctiva and fundus oculi vessels in cervical osteochondrosis] Samoĭlov AN. **Vestn Oftalmol** 1998 Nov-Dec;114(6):37–9 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

Acute spinal epidural abscess without concurrent spondylodiscitis. Successful closed treatment in 10 cases. Ahl T, et al. **Acta Orthop Scand** 1999 Apr;70(2):199–202
Plain radiography of the lumbosacral spine. An audit of referrals from general practitioners. Espeland A, et al. **Acta Radiol** 1999 Jan;40(1):52–9
Dense bone around the sacroiliac joint: a radiological review of the differential diagnosis. Dihlmann W, et al. **Eur J Radiol** 1998 Jul;27(3):241–9
Degenerative diseases of the spine. The role of myelography and myelo-CT. Kretzschmar K. **Eur J Radiol** 1998 Jul; 27(3):229–34
Cervical spine abnormalities in professional singers. Scotto Di Carlo N. **Folia Phoniatr Logop** 1998;50(4):212–8
Possible manifestation of temporomandibular joint dysfunction on chiropractic cervical X-ray studies. Knutson GA, et al. **J Manipulative Physiol Ther** 1999 Jan; 22(1):32–7
Reevaluation of discograms not classified into usual classifications. Ito S, et al. **J Spinal Disord** 1999 Apr; 12(2):151–6
Answer please. Hydatid disease of the spine. Arazi M, et al. **Orthopedics** 1998 Aug;21(8):912, 909–10
Radiologic case study. Vertebral body osteonecrosis. Horesh L, et al. **Orthopedics** 1998 Oct;21(10):1156, 1153
Complications related to osteopenia in the thoracic spine on admission chest radiographs of substance abuse detoxification patients. Haramati LB, et al. **Skeletal Radiol** 1998 Oct;27(10):565–8
Helical computed tomography and three-dimensional reconstruction of a bipedicular developmental anomaly of the C2 vertebra. Power DM, et al. **Spine** 1999 May 15; 24(10):984–6
Langerhans' cell histiocytosis of the spine. Analysis of twenty-three cases. Yeom JS, et al. **Spine** 1999 Aug 15; 24(16):1740–9
[Correlation between shape and direction of small articular surface in lower lumbar vertebrae and degeneration of intervertebral disc] Tan L, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(4):327–9 (Eng. Abstr.) **(Chi)**
[Secret information provided by lumbosacral myelography] Parlier-Cuau C, et al. **Ann Radiol (Paris)** 1997;40(4):215–24 (Eng. Abstr.) **(Fre)**
[Radiological study of destructive spondyloarthropathy in patients receiving a long-term of hemodialysis] Nakamura M. **Fukuoka Igaku Zasshi** 1999 Feb;90(2):59–66 (Eng. Abstr.) **(Jpn)**
[Radiological imaging in lumbago and sciatica] Dullerud R. **Tidsskr Nor Laegeforen** 1999 May 10;119(12):1778–81 (14 ref.) (Eng. Abstr.) **(Nor)**
[Radiography of the lumbosacral spine--do the referrals conform to clinical recommendations?] Espeland A, et al. **Tidsskr Nor Laegeforen** 1999 Jun 10;119(15):2219–23 (Eng. Abstr.) **(Nor)**
[The cauda equina syndrome and a sacral lithic mass] Zambrana García JL, et al. **Rev Clin Esp** 1999 Jul; 199(7):471–2 (7 ref.) **(Spa)**

RADIONUCLIDE IMAGING

Photopenic area visualized on bone scintigraphy in a patient with eosinophilic granuloma. Ayabe K, et al. **Clin Nucl Med** 1999 Mar;24(3):184–5
Evaluation of lower back pain with bone scintigraphy and SPECT. De Maeseneer M, et al. **Radiographics** 1999 Jul-Aug;19(4):901–12; discussion 912–4 (25 ref.)
[Vertebral destruction with massive pain in the SAPHO syndrome (letter)] Schmitt M. **Dtsch Med Wochenschr** 1999 Jul 30;124(30):916; discussion 917 **(Ger)**
[Use of bone SPECT of the dorsolumbar spine in oncological patients with suspected bone metastases] Fuster D, et al. **Rev Esp Med Nucl** 1998;17(4):278–82 (Eng. Abstr.) **(Spa)**

REHABILITATION

Dysafferentation: a novel term to describe the neuropathologic effects of joint complex dysfunction--a look at likely mechanisms of symptom generation [letter; comment] Knutson GA. **J Manipulative Physiol Ther** 1999 Jan;22(1):45–8 (21 ref.). Comment on: J Manipulative Physiol Ther 1998 May;21(4):267–80.
Should extended disability be an exclusion criterion for tertiary rehabilitation? Socioeconomic outcomes of early versus late functional restoration in compensation spinal disorders. Jordan KD, et al. **Spine** 1998 Oct 1; 23(19):2110–6; discussion 2117
A controlled prospective outcome study of implantable electrical stimulation with spinal instrumentation in a high-risk spinal fusion population. Kucharzyk DW. **Spine** 1999 Mar 1;24(5):465–8; discussion 469
Outcomes of disabling cervical spine disorders in compensation injuries. A prospective comparison to tertiary rehabilitation response for chronic lumbar spinal disorders. Wright A, et al. **Spine** 1999 Jan 15;24(2):178–83

SURGERY

Surgical results after soft system stabilization of the lumbar spine in degenerative disc disease--long-term results. Brechbühler D, et al. **Acta Neurochir (Wien)** 1998; 140(6):521–5
The extent of drilling in lateral approaches to the cranio-cervical junction area from a series of 125 cases. Lot G, et al. **Acta Neurochir (Wien)** 1999;141(2):111–8
Mechanically elicited nerve root discharge: mechanical irritation and waveform. Obi T, et al. **Acta Neurol Scand** 1999 Sep;100(3):185–8
Aneurysmal bone cysts of the spine. Ozaki T, et al. **Arch Orthop Trauma Surg** 1999;119(3–4):159–62
Spontaneous spinal epidural hematoma [letter; comment] Cirek B, et al. **Arch Phys Med Rehabil** 1999 Jan;80(1):125 . Comment on: Arch Phys Med Rehabil 1998 Apr;79(4):460–3.
Outcome analysis in lumbar spine: instabilities/degenerative disease. Fessler RG. **Clin Neurosurg** 1997;44:297–303 (12 ref.)
Neurosurgery of the spine in the year 2001: a four-year review. Haid RW Jr, et al. **Clin Neurosurg** 1999;45:153–9 (18 ref.)
Degenerative lumbar spinal instability: technical aspects of operative treatment. Karahalios DG, et al. **Clin Neurosurg** 1997;44:109–35 (38 ref.)
Selection criteria for degenerative lumbar spine instability. McCormick PC. **Clin Neurosurg** 1997;44:29–39 (39 ref.)
Functional outcome of plate fusions for disorders of the occipitocervical junction. Huckell CB, et al. **Clin Orthop** 1999 Feb;(359):136–45
Transpedicle screw fixation of the cervical spine. Ludwig SC, et al. **Clin Orthop** 1999 Feb;(359):77–88 (24 ref.)
Disorders of the cervical spine [editorial] Sherk H. **Clin Orthop** 1999 Feb;(359):2–3
Radiology of intervertebral cages in spinal surgery. Hanley SD, et al. **Clin Radiol** 1999 Apr;54(4):201–6 (7 ref.)
Can autologous bone culture predict spinal fusion capacity? Christensen FB, et al. **Eur Spine J** 1999;8(1):54–60
Radiculopathy and myelopathy at segments adjacent to the site of a previous anterior cervical arthrodesis. Hilibrand AS, et al. **J Bone Joint Surg Am** 1999 Apr;81(4):519–28
An evaluation of the effectiveness of patient-controlled analgesia after spinal surgery. White CL, et al. **J Neurosci Nurs** 1998 Aug;30(4):225–32
One-stage posterior decompression and reconstruction of the cervical spine by using pedicle screw fixation systems. Abumi K, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):19–26
Cervical corpectomy: report of 185 cases and review of the literature [see comments] Eleraky MA, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):35–41. Comment in: J Neurosurg 1999 Jul;91(1 Suppl):138.
Spinal instability [letter] Hacker RJ, et al. **J Neurosurg** 1999 Oct;91(4):719–20
Intraspinal synovial cysts: 10-year experience at the Ochsner Clinic. Howington JU, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):193–9
Occipitocervicothoracic fixation for spinal instability in patients with neoplastic processes. Jackson RJ, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):81–9
Fiberoptic intubation in 327 neurosurgical patients with lesions of the cervical spine. Fuchs G, et al. **J Neurosurg Anesthesiol** 1999 Jan;11(1):11–6
New method for measuring area of spinal canal after double-door laminoplasty. Hirabayashi S, et al. **J Orthop Sci** 1999;4(2):78–82
Accurate pedicle screw insertion under the control of a computer-assisted image guiding system: laboratory test and clinical study. Kamimura M, et al. **J Orthop Sci** 1999; 4(3):197–206
External pedicular fixation of the lumbar spine: outcome evaluation by functional tests. Axelsson P, et al. **J Spinal Disord** 1999 Apr;12(2):147–50
Analysis of circumferential lumbar fusion outcome in the treatment of degenerative disc disease of the lumbar spine. Gertzbein SD, et al. **J Spinal Disord** 1998 Dec;11(6):472–8
Axial symptoms and cervical alignments after cervical anterior spinal fusion for patients with cervical myelopathy. Kawakami M, et al. **J Spinal Disord** 1999 Feb;12(1):50–6
Anterior debridement, fusion, and extrafocal stabilization in the treatment of osteomyelitis of the spine. Krödel A, et al. **J Spinal Disord** 1999 Feb;12(1):17–26
Uninstrumented posterolateral lumbar fusion for single level isolated disc resorption and/or degenerative disc disease. McCulloch JA. **J Spinal Disord** 1999 Feb;12(1):34–9
A multi-center prospective study of the CD Spinal System in patients with degenerative disc disease. Michelsen C, et al. **J Spinal Disord** 1998 Dec;11(6):465–70; discussion 471 (10 ref.)
Biomechanical comparison of plates and rods in the unstable thoracic spine. Rapoff AJ, et al. **J Spinal Disord** 1999 Apr; 12(2):115–9
Segmental square spinal instrumentation for posterior lumbar spinal fixation. Tajima N, et al. **J Spinal Disord** 1999 Jun; 12(3):240–4
Degenerative conditions of the lumbar spine treated with intervertebral titanium cages and posterior instrumentation for circumferential fusion. Whitecloud TS 3rd, et al. **J Spinal Disord** 1998 Dec;11(6):479–86
Long-term follow-up of the vascularized iliac bone graft. Ikeda K, et al. **Microsurgery** 1998;18(7):419–23
Anterior cervical epidural abscess treated by endoscopy-assisted minimally invasive microsurgery via posterior approach. Roselli R, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):161–5
Universal calibration of surgical instruments for spinal stereotaxy. Kim KD, et al. **Neurosurgery** 1999 Jan; 44(1):173–7; discussion 177–8
Occipitocervical fixation using hooks and screws for upper cervical instability. Paquis P, et al. **Neurosurgery** 1999 Feb; 44(2):324–30; discussion 330–1
Contemporary management of spinal osteomyelitis. Rezai AR, et al. **Neurosurgery** 1999 May;44(5):1018–25; discussion 1025–6
Indications for thoracic and lumbar spine fusion and trends in use. Abraham DJ, et al. **Orthop Clin North Am** 1998 Oct;29(4):803 (70 ref.)
Indications and trends in use in cervical spinal fusions. Abraham DJ, et al. **Orthop Clin North Am** 1998 Oct; 29(4):731–44 (116 ref.)
Complications in spinal fusion. Brown CA, et al. **Orthop Clin North Am** 1998 Oct;29(4):679–99 (120 ref.)
Complications of spinal fusion in adult patients more than 60 years of age. Fujita T, et al. **Orthop Clin North Am** 1998 Oct;29(4):669–78
Thoracic and lumbar fusions for degenerative disorders: rationale for selecting the appropriate fusion techniques. Gelalis ID, et al. **Orthop Clin North Am** 1998 Oct; 29(4):829–42
Clinical outcome after fusion of the thoracic or lumbar spine in the adult patient. Hellman EW, et al. **Orthop Clin North Am** 1998 Oct;29(4):859–69 (84 ref.)
The use of diagnostic imaging to assess spinal arthrodesis. Hilibrand AS, et al. **Orthop Clin North Am** 1998 Oct; 29(4):591–601 (34 ref.)
Clinical outcomes after cervical spine fusion. Huckell CB. **Orthop Clin North Am** 1998 Oct;29(4):787–99 (51 ref.)
Alternatives to spinal fusion. Kostuik JP. **Orthop Clin North Am** 1998 Oct;29(4):701–15 (37 ref.)
Cervical deformity: rationale for selecting the appropriate fusion technique (anterior, posterior, and 360 degree). Liew SM, et al. **Orthop Clin North Am** 1998 Oct;29(4):779–86
Thoracic and lumbar deformity: rationale for selecting the appropriate fusion technique (Anterior, posterior, and 360 degree). Liew SM, et al. **Orthop Clin North Am** 1998 Oct; 29(4):843–58
Percutaneous interbody fusions. Mathews HH. **Orthop Clin North Am** 1998 Oct;29(4):647–53 (28 ref.)
Minimally invasive posterolateral lumbar arthrodesis. Moskovitz PA. **Orthop Clin North Am** 1998 Oct;29(4):665–7 (10 ref.)
Biomechanical testing sequelae relevant to spinal fusion and instrumentation. Puttlitz CM, et al. **Orthop Clin North Am** 1998 Oct;29(4):571–89 (130 ref.)
Cervical degenerative disease: rationale for selecting the appropriate fusion technique (Anterior, posterior, and 360 degree). Rushton SA, et al. **Orthop Clin North Am** 1998 Oct;29(4):755–77 (78 ref.)
Biologic enhancement of spinal fusion. Sandhu HS, et al. **Orthop Clin North Am** 1998 Oct;29(4):621–31 (75 ref.)
Laparoscopic spinal fusion. Zdeblick TA. **Orthop Clin North Am** 1998 Oct;29(4):635–45 (43 ref.)
Venous thrombosis after THA [letter; comment] Johnson RG. **Orthopedics** 1999 May;22(5):476–7. Comment on: Orthopedics 1998 Dec;21(12):1275–81.
Extradural infections of the spine. Klekamp J, et al. **Spinal Cord** 1999 Feb;37(2):103–9
Complications and predictive factors for the successful treatment of flatback deformity (fixed sagittal imbalance). Booth KC, et al. **Spine** 1999 Aug 15;24(16):1712–20
Anterior discectomy and fusion for painful cervical disc disease. A report of 50 patients with an average follow-up of 21 years. Gore DR, et al. **Spine** 1998 Oct 1; 23(19):2047–51
Surgery in the degenerative cervical spine. Grob D. **Spine** 1998 Dec 15;23(24):2674–83 (64 ref.)

Hippocrates. The father of spine surgery. Marketos SG, et al. **Spine** 1999 Jul 1;24(13):1381–7

Anterior cervical discectomy with freeze-dried fibula allograft. Overview of 317 cases and literature review. Martin GJ Jr, et al. **Spine** 1999 May 1;24(9):852–8; discussion 858–9 (51 ref.)

Minimum 5-year follow-up of anterior column structural allografts in the thoracic and lumbar spine. Molinari RW, et al. **Spine** 1999 May 15;24(10):967–72

Preliminary design and experimental studies of a novel soft implant for correcting sagittal plane instability in the lumbar spine [letter; comment] Moon MS. **Spine** 1999 Mar 1;24(5):499–500. Comment on: Spine 1997 Aug 15;22(16):1819–25; discussion 1826–7.

Laparoscopic fusion of the lumbar spine: minimally invasive spine surgery. A prospective multicenter study evaluating open and laparoscopic lumbar fusion. Regan JJ, et al. **Spine** 1999 Feb 15;24(4):402–11

Radiation dose for pedicle screw insertion. Fluoroscopic method versus computer-assisted surgery. Slomczykowski M, et al. **Spine** 1999 May 15;24(10):975–82; discussion 983

Anterior interbody fusion of the cervical spine with coralline hydroxyapatite. Thalgott JS, et al. **Spine** 1999 Jul 1; 24(13):1295–9

Surgical management for instability and paraplegia caused by spinal sarcoidosis. A case report. Tzagarakis GP, et al. **Spine** 1998 Aug 1;23(15):1711–4 (24 ref.)

Efficacy of intraoperative monitoring for pediatric patients with spinal cord pathology undergoing spinal deformity surgery. Wilson-Holden TJ, et al. **Spine** 1999 Aug 15; 24(16):1685–92

Complications in thoracoscopic spinal surgery: a study of 90 consecutive patients. Huang TJ, et al. **Surg Endosc** 1999 Apr;13(4):346–50

Video-assisted thoracoscopic surgery to the upper thoracic spine. Huang TJ, et al. **Surg Endosc** 1999 Feb;13(2):123–6

Comparison of tension band wiring and lateral mass plating for subaxial posterior cervical fusion. Lowry DW, et al. **Surg Neurol** 1998 Oct;50(4):323–31; discussion 331–2

Nordic Congress on Spinal Surgery. Stockholm, Sweden, September 25–26, 1997. Abstracts. **Ups J Med Sci Suppl** 1998;54:7–60

[Isolated intramedullary cysticercosis. Case report] Aghakhani N, et al. **Neurochirurgie** 1998 Apr;44(2):127–31 (Eng. Abstr.) **(Fre)**

[Surgery for degenerative lumbar disc disease. Should the black disc be grafted?] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Nov; 84(7):583–9 (Eng. Abstr.) **(Fre)**

[Spinal localization of Gorham's syndrome. Case report] Grelet V, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Mar; 85(1):81–7 (Eng. Abstr.) **(Fre)**

[Static and dynamic changes of the cervical spine after laminectomy for cervical spondylotic myelopathy] Guigui P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Feb; 84(1):17–25 (Eng. Abstr.) **(Fre)**

[Percutaneous vertebral augmentation (PVA) in osteoporosis of the vertebrae--an experimental study] Jerosch J, et al. **Biomed Tech (Berl)** 1999 Jul-Aug;44(7–8):190–3 (Eng. Abstr.) **(Ger)**

[Dorsal occipitocervical fusion--indications and results] Plötz GM, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul-Aug; 136(4):364–74 (Eng. Abstr.) **(Ger)**

[Patients with chronic degenerative spinal disease--can conservative treatment reduce the waiting list for surgery?] Brox JI, et al. **Tidsskr Nor Laegeforen** 1999 May 10; 119(12):1784–7 (Eng. Abstr.) **(Nor)**

[Transthoracic approach to the spinal column] Freixinet J, et al. **Arch Bronconeumol** 1998 Nov;34(10):492–5 (Eng. Abstr.) **(Spa)**

THERAPY

Degenerative conditions of the spine. Current diagnostic procedures and treatment modalities. Garfin SR. **Acta Orthop Scand Suppl** 1998 Jun;281:38–46 (134 ref.)

Conditions of the spine. Stanitski CL. **Adolesc Med** 1998 Oct; 9(3):515–32, vi (17 ref.)

Pulmonary embolism caused by acrylic cement: a rare complication of percutaneous vertebroplasty. Padovani B, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):375–7

Aspiration of intraspinal synovial cyst: recurrence after temporal improvement. Imai K, et al. **Arch Orthop Trauma Surg** 1998;118(1–2):103–5 (10 ref.)

Can spinal surgery be prevented by aggressive strengthening exercises? A prospective study of cervical and lumbar patients. Nelson BW, et al. **Arch Phys Med Rehabil** 1999 Jan;80(1):20–5

Vertebroplasty: clinical experience and follow-up results. Martin JB, et al. **Bone** 1999 Aug;25(2 Suppl):11S–15S

Diagnosis and monitoring of spondyloarthropathy. Dougados M. **Compr Ther** 1998 Nov-Dec;24(11–12):590–5 (22 ref.)

Blastomycosis of the lumbar spine: case report and review of the literature, with emphasis on diagnostic laboratory tools and management. Hadjipavlou AG, et al. **Eur Spine J** 1998;7(5):416–21 (34 ref.)

The LIRCE principle: a risk-value score for the spine. Krämer J. **Eur Spine J** 1998;7(5):353–7

Nonsurgical treatment of cervical degenerative disease. Rechtine GR. **Instr Course Lect** 1999;48:433–5 (18 ref.)

Aneurysmal bone cyst of the spine: 31 cases and the importance of the surgical approach. de Kleuver M, et al. **J Pediatr Orthop B** 1998 Oct;7(4):286–92 (19 ref.)

Spinal epidural abscess: a review of epidemiology, diagnosis, and treatment. Sampath P, et al. **J Spinal Disord** 1999 Apr; 12(2):89–93 (31 ref.)

Management of vertebral diskitis and osteomyelitis. Khan IA, et al. **Orthopedics** 1999 Aug;22(8):758–65 (56 ref.)

Spinal imaging and intervention: 1998. Mink JH, et al. **Phys Med Rehabil Clin N Am** 1998 May;9(2):343–80, viii (116 ref.)

Vertebroplasty: don't squander the cement! [editorial] Hardouin P. **Rev Rhum Engl Ed** 1999 Mar;66(3):125–6

Prognosis, course of disease, and treatment of the spondyloarthropathies. Leirisalo-Repo M. **Rheum Dis Clin North Am** 1998 Nov;24(4):737–51, viii (81 ref.)

A double-blind study of capacitively coupled electrical stimulation as an adjunct to lumbar spinal fusions. Goodwin CB, et al. **Spine** 1999 Jul 1;24(13):1349–56; discussion 1357

Conservative management of pyogenic osteomyelitis of the occipitocervical junction. Spies EH, et al. **Spine** 1999 Apr 15;24(8):818–22

[One hundred years of orthopedics in the Netherlands. IV. Spinal abnormalities] Been HD, et al. **Ned Tijdschr Geneeskd** 1998 May 2;142(18):1009–15 (Eng. Abstr.) **(Dut)**

[Corticosteroid-induced epidural lipomatosis. Efficacy of medical treatment] Lemaire M, et al. **Ann Med Interne (Paris)** 1998 Nov;149(7):459–63 (20 ref.) (Eng. Abstr.) **(Fre)**

[Percutaneous vertebroplasty complicated by pulmonary embolus of acrylic cement] Perrin C, et al. **Rev Mal Respir** 1999 Apr;16(2):215–7 (Eng. Abstr.) **(Fre)**

[Spinal medicine--reliability of the specialty is suffering] Lie H. **Tidsskr Nor Laegeforen** 1999 Apr 30;119(11):1636–7 **(Nor)**

[Diagnosis and treatment of spinal epidural abscess] Roel JE, et al. **Medicina (B Aires)** 1999;59(1):59–62 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

A possible correlation between vertebral artery insufficiency and degenerative changes in the cervical spine. Strek P, et al. **Eur Arch Otorhinolaryngol** 1998;255(9):437–40

Sonographically guided fine-needle aspiration biopsy of lytic lesions of the spine: technique and indications. Gupta S, et al. **J Clin Ultrasound** 1999 Mar-Apr;27(3):123–9

VETERINARY

Pathologic changes in the lumbosacral vertebrae and pelvis in Thoroughbred racehorses. Haussler KK, et al. **Am J Vet Res** 1999 Feb;60(2):143–53

Disc extrusion in a Rottweiler dog with caudal cervical spondylomyelopathy after failure of intervertebral distraction/stabilisation. Marchevsky AM, et al. **Aust Vet J** 1999 May;77(5):295–7

The spine. Adams WH. **Clin Tech Small Anim Pract** 1999 Aug;14(3):148–59 (74 ref.)

What is your diagnosis? Osteolysis of the cranial aspect of C5 and cranial and caudal vertebral bodies of C6 and C7. Freshwater R, et al. **J Am Vet Med Assoc** 1999 Feb 1; 214(3):333–4

Back problems. Chiropractic evaluation and management. Haussler KK. **Vet Clin North Am Equine Pract** 1999 Apr; 15(1):195–209 (43 ref.)

Osseous spinal pathology. Haussler KK. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):103–12, vii (53 ref.)

Back problems. Historical perspective and clinical indications. Jeffcott LB. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):1–12, v (17 ref.)

Spinal muscle pathology. Valberg SJ. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):87–96, vi–vii (15 ref.)

Magnetic resonance imaging of the cervical spine in 27 dogs. Levitski RE, et al. **Vet Radiol Ultrasound** 1999 Jul-Aug; 40(4):332–41

SPINAL DYSRAPHISM

Proceedings of the Genoa Meeting of the Society for Research into Hydrocephalus and Spina Bifida, 1998. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:1–76

Does deficient sensorimotor experience affect drawing of human figures? Evans AL. **Pediatr Rehabil** 1999 Apr-Jun; 3(2):37–9

Labor analgesia with paravertebral lumbar sympathetic block. Suelto MD, et al. **Reg Anesth Pain Med** 1999 Mar-Apr;24(2):179–81

CHEMICALLY INDUCED

Case-control studies using only malformed infants: are we interpreting the results correctly? [letter] Prieto L, et al. **Teratology** 1999 Jul;60(1):1–2

COMPLICATIONS

Latex allergy in Saudi children with spina bifida. Kattan H, et al. **Allergy** 1999 Jan;54(1):70–3

Urolithiasis in spina bifida. Gros DA, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:68–9

Bowel dysfunction in spina bifida--an American experience with the ACE procedure. Webb HW, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:37–8

Latex provocation tests in patients with spina bifida: who is at risk of becoming symptomatic? Niggemann B, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):665–70

Latex sensitization in spina bifida appears disease-associated. Szepfalusi Z, et al. **J Pediatr** 1999 Mar;134(3):344–8

Leg lengthening in spinal dysraphism. Haddad FS, et al. **J Pediatr Orthop** 1999 May-Jun;19(3):391–3

Erectile dysfunction in spina bifida is treatable [letter] Palmer JS, et al. **Lancet** 1999 Jul 10;354(9173):125–6

Cervical spine dysraphism with teratoma exhibiting pulmonary differentiation: case report and review of the literature. Ramdial PK, et al. **Pediatr Dev Pathol** 1998 Nov-Dec;1(6):528–33 (22 ref.)

Faecal incontinence in children with spina bifida: the best conservative treatment. Eire PF, et al. **Spinal Cord** 1998 Nov;36(11):774–6

Treatment of hydromyelia in spina bifida. Caldarelli M, et al. **Surg Neurol** 1998 Nov;50(5):411–20

DIAGNOSIS

Pediatric neurosurgical disease. Dias MS, et al. **Pediatr Clin North Am** 1998 Dec;45(6):1539–78, x (105 ref.)

[Prenatal diagnosis and outcome of patients with spina bifida] Gressens P, et al. **Arch Pediatr** 1998 Sep;5(9):1004–8 (10 ref.) (Eng. Abstr.) **(Fre)**

EMBRYOLOGY

Fibronectin expression in the developing human spinal cord, nerves, and ganglia. Krolo M, et al. **Croat Med J** 1998 Dec;39(4):386–91

A novel embryogenetic mechanism for Currarino's triad: inadequate dorsoventral separation of the caudal eminence from hindgut endoderm. Dias MS, et al. **Pediatr Neurosurg** 1998 May;28(5):223–9

ENZYMOLOGY

The C677T mutation of the 5,10-methylenetetrahydrofolate reductase gene is a moderate risk factor for spina bifida in Italy. de Franchis R, et al. **J Med Genet** 1998 Dec; 35(12):1009–13

EPIDEMIOLOGY

Epidemiology of spina bifida in Tottori Prefecture, Japan, 1976–1995. Ehara H, et al. **Pediatr Neurol** 1998 Sep; 19(3):199–203

GENETICS

Re: "Maternal vitamin use, genetic variation of infant methylenetetrahydrofolate reductase, and risk for spina bifida" [letter; comment] Botto LD, et al. **Am J Epidemiol** 1999 Aug 1;150(3):323–4. Comment on: Am J Epidemiol 1998 Jul 1;148(1):30–7.

Decreased proportion of female newborn infants homozygous for the 677 C-->T mutation in methylenetetrahydrofolate reductase [letter] Rozen R, et al. **Am J Med Genet** 1999 Mar 12;83(2):142–3

Susceptibility to spina bifida; an association study of five candidate genes. Morrison K, et al. **Ann Hum Genet** 1998 Sep;62 (Pt 5):379–96

Transgenic rescue of congenital heart disease and spina bifida in Splotch mice. Li J, et al. **Development** 1999 Jun; 126(11):2495–503

The C677T mutation of the 5,10-methylenetetrahydrofolate reductase gene is a moderate risk factor for spina bifida in Italy. de Franchis R, et al. **J Med Genet** 1998 Dec; 35(12):1009–13

Infant methionine synthase variants and risk for spina bifida [letter] Shaw GM, et al. **J Med Genet** 1999 Jan;36(1):86–7

A common variant in methionine synthase reductase combined with low cobalamin (vitamin B12) increases risk for spina bifida. Wilson A, et al. **Mol Genet Metab** 1999 Aug;67(4):317–23

Altered regulation of platelet-derived growth factor receptor-alpha gene-transcription in vitro by spina bifida-associated mutant Pax1 proteins. Joosten PH, et al. **Proc Natl Acad Sci U S A** 1998 Nov 24;95(24):14459–63

IMMUNOLOGY

Risk factors for latex allergy in patients with spina bifida and latex sensitization. Bernardini R, et al. **Clin Exp Allergy** 1999 May;29(5):681–6

Effects of prophylaxis on latex sensitization in children with spina bifida. Cremer R, et al. **Eur J Pediatr Surg** 1998 Dec; 8 Suppl 1:59

Latex provocation tests in patients with spina bifida: who is at risk of becoming symptomatic? Niggemann B, et al. **J Allergy Clin Immunol** 1998 Oct;102(4 Pt 1):665–70

Prevalence of and risk factors for latex sensitization in patients with spina bifida. Bernardini R, et al. **J Urol** 1998 Nov;160(5):1775–8

METABOLISM

Impaired regeneration of monoglutamyl tetrahydrofolate leads to cellular folate depletion in mothers affected by a spina bifida pregnancy. Lucock MD, et al.

Mol Genet Metab 1998 Sep;65(1):18–30

NURSING

Mothers' experiences of living worried when parenting children with spina bifida. Monsen RB. **J Pediatr Nurs** 1999 Jun;14(3):157–63

PATHOLOGY

Fibronectin expression in the developing human spinal cord, nerves, and ganglia. Krolo M, et al. **Croat Med J** 1998 Dec;39(4):386–91

Accessory limbs associated with spina bifida – a second look. Krishna A, et al. **Pediatr Surg Int** 1999;15(3–4):248–50 (16 ref.)

PHYSIOPATHOLOGY

The role of somatosensory evoked potentials in spinal dysraphism--do they have a prognostic significance? Kale SS, et al. **Childs Nerv Syst** 1998 Jul;14(7):328–31; discussion 332

Age-related walking in children with spina bifida. Williams EN, et al. **Dev Med Child Neurol** 1999 Jul;41(7):446–9

Phase contrast MRI assessment of thoraco–lumbar spinal cord motion in spinal dysraphism. Jones R, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:60–2

[Prenatal diagnosis and outcome of patients with spina bifida] Gressens P, et al. **Arch Pediatr** 1998 Sep;5(9):1004–8 (10 ref.) (Eng. Abstr.) **(Fre)**

PREVENTION & CONTROL

Folic-acid–preventable spina bifida and anencephaly. Oakley GP Jr. **Bull World Health Organ** 1998;76 Suppl 2:116–7

Spina bifida and folate [letter; comment] Bower C, et al. **Med J Aust** 1999 Feb 1;170(3):143–4. Comment on: Med J Aust 1995 Apr 17;162(8):403–6. Comment on: Med J Aust 1998 Aug 17;169(4):182–3.

Spina bifida and folate [letter; comment] Cumming FJ, et al. **Med J Aust** 1999 Feb 1;170(3):144. Comment on: Med J Aust 1998 Aug 17;169(4):182–3.

[Folic acid supplementation by 200 microgram per day during the periconceptional period: a necessary public health approach to reducing incidence of spina bifida] Bradaï R, et al. **Contracept Fertil Sex** 1999 Mar;27(3):238–42 (Eng. Abstr.) **(Fre)**

PSYCHOLOGY

Laparoscopy-assisted pediatric reconstruction procedures. Hedican SP, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:71–2

Eating disorders in adolescents and young women with spina bifida. Silber TJ, et al. **Int J Eat Disord** 1999 May; 25(4):457–61

Neuropsychologic and adaptive functioning in adolescents and young adults shunted for congenital hydrocephalus. Hommet C, et al. **J Child Neurol** 1999 Mar;14(3):144–50 (48 ref.)

Mothers' experiences of living worried when parenting children with spina bifida. Monsen RB. **J Pediatr Nurs** 1999 Jun;14(3):157–63

REHABILITATION

[Factors relevant to long-term social prognosis of patients with spina bifida] Nakamura M, et al. **No To Hattatsu** 1999 Jan;31(1):21–6 (Eng. Abstr.) **(Jpn)**

SURGERY

Urinary continence and erectile function after bladder neck sling suspension in male patients with spinal dysraphism. Dik P, et al. **BJU Int** 1999 Jun;83(9):971–5

A case of split notochord syndrome: presence of dorsal enteric diverticulum adjacent to the dorsal enteric fistula. Akgür FM, et al. **J Pediatr Surg** 1998 Aug;33(8):1317–9 (19 ref.)

Laparoscopic assisted reconstructive surgery. Hedican SP, et al. **J Urol** 1999 Jan;161(1):267–70

Successful fetal surgery for spina bifida [letter] [see comments] Adzick NS, et al. **Lancet** 1998 Nov 21; 352(9141):1675–6. Comment in: Lancet 1999 Jan 30;353(9150):406; discussion 407. Comment in: Lancet 1999 Jan 30;353(9150):406–7.

Fetal surgery for spina bifida [letter; comment] Magram G. **Lancet** 1999 Jan 30;353(9150):406; discussion 407. Comment on: Lancet 1998 Nov 21;352(9141):1675–6.

Fetal surgery for spina bifida [letter; comment] Sobkowiak CA. **Lancet** 1999 Jan 30;353(9150):406–7. Comment on: Lancet 1998 Nov 21;352(9141):1675–6.

Fetal surgery for spina bifida [letter; comment] Tulipan N, et al. **Lancet** 1999 Jan 30;353(9150):406; discussion 407. Comment on: Lancet 1998 Nov 21;352(9141):1675–6.

Pediatric neurosurgical disease. Dias MS, et al. **Pediatr Clin North Am** 1998 Dec;45(6):1539–78, x (105 ref.)

THERAPY

Young people with spina bifida: transfer from paediatric to adult health care. Sawyer SM, et al. **J Paediatr Child Health** 1998 Oct;34(5):414–7

ULTRASONOGRAPHY

Occult spinal dysraphism in neonates: assessment of high-risk cutaneous stigmata on sonography. Kriss VM, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1687–92

Cost-benefit analysis of targeted ultrasonography for prenatal detection of spina bifida in patients with an elevated concentration of second-trimester maternal serum alpha-fetoprotein. Vintzileos AM, et al. **Am J Obstet Gynecol** 1999 May;180(5):1227–33

SPINAL FLUID PRESSURE see **CEREBROSPINAL FLUID PRESSURE**

SPINAL FRACTURES

Introduction to thoracolumbar fractures. Cotler JM. **Instr Course Lect** 1999;48:427–8

Pediatric spine fractures. Akbarnia BA. **Orthop Clin North Am** 1999 Jul;30(3):521–36, x (90 ref.)

Cervical spine trauma. An HS. **Spine** 1998 Dec 15; 23(24):2713–29 (107 ref.)

BLOOD

Serum fructosamine level and the risk of hip fracture in elderly women: a case-cohort study within the study of osteoporotic fractures. Jamal SA, et al. **Am J Med** 1998 Dec;105(6):488–93

CLASSIFICATION

[Loading on internal spinal fixation devices] Rohlmann A, et al. **Orthopade** 1999 May;28(5):451–7 (Eng. Abstr.) **(Ger)**

[Instability of spinal fractures--therapeutic relevance of different classifications] Leibl T, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Feb;170(2):174–80 (Eng. Abstr.) **(Ger)**

COMPLICATIONS

Laminar and arch fractures with dural tear and nerve root entrapment in patients operated upon for thoracic and lumbar spine injuries. Kahamba JF, et al. **Acta Neurochir (Wien)** 1998;140(2):114–9

Common pain scenarios. Hall S. **Aust Fam Physician** 1999 Jan;28(1):31–5

Acute spinal cord and head injury: case report and discussion of cardiac, respiratory and endocrine abnormalities. Johnson CD, et al. **Bol Asoc Med P R** 1998 Apr–Jun; 90(4–6):95–101

Is there an association between fractures of the cervical spine and first- and second-rib fractures? Logan PM. **Can Assoc Radiol J** 1999 Feb;50(1):41–3

Managing acute osteoporotic vertebral fractures with calcitonin. Maksymowych WP. **Can Fam Physician** 1998 Oct;44:2160–6 (27 ref.)

Complete upper airway obstruction during awake fibreoptic intubation in patients with unstable cervical spine fractures [see comments] McGuire G, et al. **Can J Anaesth** 1999 Feb; 46(2):176–8. Comment in: Can J Anaesth 1999 Feb;46(2):99–104.

One successful case of 6-organ-failure after severe polytrauma. Sun C, et al. **Chin Med J (Engl)** 1998 Feb; 111(2):187–9

Traumatic L5–S1 spondylolisthesis: report of three cases and a review of the literature. Fabris D, et al. **Eur Spine J** 1999;8(4):290–5 (25 ref.)

Graded thoracolumbar spinal injuries: development of multidirectional instability. Panjabi MM, et al. **Eur Spine J** 1998;7(4):332–9

Pathologic odontoid fracture and benign fibrous histiocytoma of bone. Peicha G, et al. **Eur Spine J** 1999;8(2):161–3

Magnetic resonance imaging–monitored conservative management of traumatic spinal epidural hematomas. Report of four cases. La Rosa G, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):128–32

Delayed cortical blindness and recurrent quadriplegia after cervical trauma. Vaccaro AR, et al. **J Spinal Disord** 1998 Dec;11(6):535–9

Entrapment and obstruction of the esophagus from thoracic spine hyperextension–dislocation injury. Chiu WC, et al. **J Trauma** 1999 May;46(5):959–61

Cardiac arrest caused by reperfusion injury after lumbar paraspinal compartment syndrome. Sava J, et al. **J Trauma** 1999 Jan;46(1):196–7

Detection of vertebral artery injury after cervical spine trauma using magnetic resonance angiography. Weller SJ, et al. **J Trauma** 1999 Apr;46(4):660–6 (40 ref.)

Intrathecal infusion of bupivacaine with or without buprenorphine relieved intractable pain in three patients with vertebral compression fractures caused by osteoporosis. Dahm PO, et al. **Reg Anesth Pain Med** 1999 Jul–Aug;24(4):352–7

Neurological complications in insufficiency fractures of the sacrum. Three case-reports. Jacquot JM, et al. **Rev Rhum Engl Ed** 1999 Feb;66(2):109–14

Sacral insufficiency fractures: an unsuspected cause of low back pain [letter; comment] Isdale AH. **Rheumatology (Oxford)** 1999 Jan;38(1):90. Comment on: Br J Rheumatol 1998 Jul;37(7):789–93.

Sacral insufficiency fractures as an unsuspected cause of low back pain [letter; comment] Weber M, et al. **Rheumatology (Oxford)** 1999 Jan;38(1):90–1. Comment on: Br J Rheumatol 1998 Jul;37(7):789–93.

Traumatic open anterior lumbosacral fracture dislocation. A report of two cases. Carlson JR, et al. **Spine** 1999 Jan 15; 24(2):184–8

Chylous leakage after circumferential thoracolumbar fusion for correction of kyphosis resulting from fracture: report of three cases [letter; comment] Lubicky JP. **Spine** 1998 Aug 15;23(16):1814–5. Comment on: Spine 1997 Dec 1;22(23):2766–9.

Neurologic compromise after an isolated laminar fracture of the cervical spine. Makan P. **Spine** 1999 Jun 1;24(11):1144–6

Traumatic instabilities of the cervical spine caused by high-speed axial compression in a human model. An in vitro biomechanical study. Zhu Q, et al. **Spine** 1999 Mar 1;24(5):440–4

[Fractures of the sacrum and neurologic lesions. Apropos of a case] Bédat B, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):281–4 (Eng. Abstr.) **(Fre)**

[Posttraumatic syringomyelia. A report of an atypical case] Bucciero A, et al. **Minerva Chir** 1998 Nov;53(11):943–6 (21 ref.) (Eng. Abstr.) **(Ita)**

DIAGNOSIS

Spinous process fractures in a jockey: a case report. Matz SR, et al. **Am J Orthop** 1999 Jun;28(6):365–6

Fractures of the thoracolumbar spine in major trauma patients. ATLS manual does recognise importance of distracting injuries [letter; comment] McGlone R. **BMJ** 1999 May 8;318(7193):1287–8. Comment on: BMJ 1998 Nov 21;317(7170):1442–3.

Fractures of the thoracolumbar spine in major trauma patients. It happened to me! [letter; comment] Walters S. **BMJ** 1999 May 8;318(7193):1288. Comment on: BMJ 1998 Nov 21;317(7170):1442–3.

Prediction of vertebral failure loads from spinal and femoral dual-energy X-ray absorptiometry, and calcaneal ultrasound: an in situ analysis with intact soft tissues. Lochmüller EM, et al. **Bone** 1998 Nov;23(5):417–24

Use of magnetic resonance imaging in spinal trauma: indications, techniques, and utility. Slucky AV, et al. **J Am Acad Orthop Surg** 1998 May–Jun;6(3):134–45 (22 ref.)

An algorithm to reduce the incidence of false-negative FAST examinations in patients at high risk for occult injury. Focused Assessment for the Sonographic Examination of the Trauma patient. Ballard RB, et al. **J Am Coll Surg** 1999 Aug;189(2):145–50; discussion 150–1

Role of clinical examination in screening for blunt cervical spine injury. Gonzalez RP, et al. **J Am Coll Surg** 1999 Aug; 189(2):152–7

Solitary vertebral collapse: distinction between benign and malignant causes using MR patterns. Shih TT, et al. **J Magn Reson Imaging** 1999 May;9(5):635–42

Usefulness of MRI in isolated upper cervical spine fractures in adults. Vaccaro AR, et al. **J Spinal Disord** 1998 Aug; 11(4):289–93; discussion 294

MRI description of vertebral osteomyelitis, neoplasm, and compression fracture. Vaccaro AR, et al. **Orthopedics** 1999 Jan;22(1):67–73; quiz 74–5 (18 ref.)

Stiffness in discrimination of patients with vertebral fractures. Mikhail MB, et al. **Osteoporos Int** 1999;9(1):24–8

Usefulness of armspan and height comparison in detecting vertebral deformities in women. Versluis RG, et al. **Osteoporos Int** 1999;9(2):129–33

MR appearance at different ages of osteoporotic compression fractures of the vertebrae. Yamato M, et al. **Radiat Med** 1998 Sep–Oct;16(5):329–34

Cervical spine imaging in patients with trauma: determination of fracture risk to optimize use. Blackmore CC, et al. **Radiology** 1999 Jun;211(3):759–65

Occult vertebral fractures in ankylosing spondylitis. Finkelstein JA, et al. **Spinal Cord** 1999 Jun;37(6):444–7

Computed tomographic and magnetic resonance imaging of chronic odontoid fractures. Blacksin MF, et al. **Spine** 1999 Jan 15;24(2):158–61; discussion 162

Efficacy of magnetic resonance imaging in the evaluation of posterior cervical spine fractures. Klein GR, et al. **Spine** 1999 Apr 15;24(8):771–4

DRUG THERAPY

Advice given to patients with fractures. Drug treatments that reduce fracture rate are underused after vertebral fractures [letter; comment] Torgerson DJ, et al. **BMJ** 1999 Jun 19; 318(7199):1698. Comment on: BMJ 1999 Feb 20;318(7182):500–1.

Recurrence of vertebral fracture with cyclical etidronate therapy in osteoporosis: histomorphometry and X-Ray microanalysis evaluation. Thomas T, et al. **J Bone Miner Res** 1999 Feb;14(2):198–205

EPIDEMIOLOGY

Spatial relationships between prevalent and incident spine fractures. Davis JW, et al. **Bone** 1999 Mar;24(3):261–4

A high incidence of vertebral fracture in women with breast cancer. Kanis JA, et al. **Br J Cancer** 1999 Mar; 79(7–8):1179–81

The change of bone mineral density in secondary osteoporosis and vertebral fracture incidence. Hirano Y, et al. **J Bone Miner Metab** 1999;17(2):119–24

Reduction of vertebral fracture risk in postmenopausal

women with osteoporosis treated with raloxifene: results from a 3-year randomized clinical trial. Multiple Outcomes of Raloxifene Evaluation (MORE) Investigators [see comments] Ettinger B, et al. **JAMA** 1999 Aug 18; 282(7):637-45. Comment in: JAMA 1999 Aug 18;282(7):687-9.

Trochanteric hip fracture: strong association with spinal trabecular bone mineral density measured with quantitative CT. Lang TF, et al. **Radiology** 1998 Nov;209(2):525-30

Lumbar olisthesis and lower back symptoms in elderly white women. The Study of Osteoporotic Fractures. Vogt MT, et al. **Spine** 1998 Dec 1;23(23):2640-7

ETHNOLOGY

Vertebral and hip fractures in Japan [comment] Nakamura T, et al. **Bull World Health Organ** 1999;77(5):430-1. Comment on: Bull World Health Organ 1999 ;77(5):416-22.

ETIOLOGY

Childhood leukemia presenting with back pain and vertebral compression fractures. Santangelo JR, et al. **Am J Orthop** 1999 Apr;28(4):257-60

Vertebral fractures and mortality in older women: a prospective study. Study of Osteoporotic Fractures Research Group. Kado DM, et al. **Arch Intern Med** 1999 Jun 14;159(11):1215-20

Fracture of the axis after dome-like cervical laminoplasty. Ito H, et al. **Arch Orthop Trauma Surg** 1998;118(1-2):106-8 (3 ref.)

Lesson of the week: fractures of the thoracolumbar spine in major trauma patients [see comments] Meek S. **BMJ** 1998 Nov 21;317(7170):1442-3 (11 ref.). Comment in: BMJ 1999 May 8;318(7193):1287-8. Comment in: BMJ 1999 May 8;318(7193):1288.

Secondary osteoporosis and the risk of vertebral deformities in women. Melton LJ 3rd, et al. **Bone** 1999 Jan;24(1):49-55

Strong bones in later life: luxury or necessity? A patient's perspective [see comments] Peckham A. **Bull World Health Organ** 1999;77(5):433. Comment in: Bull World Health Organ 1999 ;77(5):416-22.

Transverse fracture of the second sacral vertebra: description of a clinical case. Rotini R, et al. **Chir Organi Mov** 1998 Jul-Sep;83(3):309-14 **(Eng, Ita)**

Pathological fracture of a lumbar vertebra caused by rheumatoid arthritis--a case report. Nakase T, et al. **Int Orthop** 1998;22(6):397-9

Recurrence of vertebral fracture with cyclical etidronate therapy in osteoporosis: histomorphometry and X-Ray microanalysis evaluation. Thomas T, et al. **J Bone Miner Res** 1999 Feb;14(2):198-205

Fracture risk during pedicle screw insertion in osteoporotic spine. Hirano T, et al. **J Spinal Disord** 1998 Dec;11(6):493-7

The spectrum of lap belt injuries sustained by two cousins in the same motor vehicle crash. Statter MB, et al. **J Trauma** 1998 Oct;45(4):835-7

Disorientation and vertebral fractures. McConnaughey D, et al. **Lancet** 1999 May 29;353(9167):1848

Health-related quality of life in economic evaluations for osteoporosis: whose values should we use? Gabriel SE, et al. **Med Decis Making** 1999 Apr-Jun;19(2):141-8

Oestrogen deficiency: an important risk marker for fractures. Vij U. **Natl Med J India** 1999 May-Jun;12(3):119-20

Number and type of vertebral deformities: epidemiological characteristics and relation to back pain and height loss. European Vertebral Osteoporosis Study Group. Ismail AA, et al. **Osteoporos Int** 1999;9(3):206-13

Case-control study of the pathogenesis and sequelae of symptomatic vertebral fractures in men. Scane AC, et al. **Osteoporos Int** 1999;9(1):91-7

Fatty infiltration of osseous structures: a long-term complication of oleothorax--case report. Freedman BJ, et al. **Radiology** 1999 Feb;210(2):515-7

Occult vertebral fractures in ankylosing spondylitis. Finkelstein JA, et al. **Spinal Cord** 1999 Jun;37(6):444-7

Vertebral pseudarthrosis in the osteoporotic spine. Hasegawa K, et al. **Spine** 1998 Oct 15;23(20):2201-6

Seat belt fracture with late development of an enterocolic fistula in a child. A case report. Letts M, et al. **Spine** 1999 Jun 1;24(11):1151-5

[Severe osteoporosis during glucocorticoid therapy] Aitio ML, et al. **Duodecim** 1995;111(20):1949-53 **(Fin)**

[Lumbar bone density (letter; comment)] Winter EF. **Dtsch Med Wochenschr** 1998 Dec 11;123(50):1532-3. Comment on: Dtsch Med Wochenschr 1998 May 22;123(21):651-7. **(Ger)**

GENETICS

FokI polymorphism at translation initiation site of the vitamin D receptor gene predicts bone mineral density and vertebral fractures in postmenopausal Italian women. Gennari L, et al. **J Bone Miner Res** 1999 Aug;14(8):1379-86

An Sp1 binding site polymorphism in the COLIA1 gene predicts osteoporotic fractures in both men and women. Langdahl BL, et al. **J Bone Miner Res** 1998 Sep; 13(9):1384-9

METABOLISM

Changes of biochemical markers during fracture healing. Ohishi T, et al. **Arch Orthop Trauma Surg** 1998; 118(3):126-30

MICROBIOLOGY

Osteomyelitis and pathological fracture of the axis. Case illustration. Anton K, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):162

MORTALITY

Vertebral fractures and mortality in older women: a prospective study. Study of Osteoporotic Fractures Research Group. Kado DM, et al. **Arch Intern Med** 1999 Jun 14;159(11):1215-20

PATHOLOGY

Isolated fracture of the vertebral articular facet in a gymnast. A spondylolysis mimic. McCormack RG, et al. **Am J Sports Med** 1999 Jan-Feb;27(1):104-6

Bone density reduction in various measurement sites in men and women with osteoporotic fractures of spine and hip: the European quantitation of osteoporosis study. Kröger H, et al. **Calcif Tissue Int** 1999 Mar;64(3):191-9

Correlation of MR images of disc injuries with anatomic sections in experimental thoracolumbar spine fractures. Oner FC, et al. **Eur Spine J** 1999;8(3):194-8

Classification of thoracolumbar fractures and posterior instrumentation for treatment of thoracolumbar fractures. Capen DA. **Instr Course Lect** 1999;48:437-41 (24 ref.)

Thoracolumbar trauma imaging overview. Flanders AE. **Instr Course Lect** 1999;48:429-31 (16 ref.)

Defining incident vertebral deformity: a prospective comparison of several approaches. The Study of Osteoporotic Fractures Research Group. Black DM, et al. **J Bone Miner Res** 1999 Jan;14(1):90-101

PHYSIOPATHOLOGY

The external spinal fixator does not reduce anterior column motion under axial compressive loads. A mechanical in vitro study. Lund T, et al. **Acta Orthop Scand** 1999 Feb; 70(1):37-41

Pregnancy-associated osteoporosis with elevated levels of circulating parathyroid hormone-related protein: a report of two cases. Anai T, et al. **J Obstet Gynaecol Res** 1999 Feb;25(1):63-7

Reduced pulmonary function in patients with spinal osteoporotic fractures. Schlaich C, et al. **Osteoporos Int** 1998;8(3):261-7

A biomechanical study of Jefferson fractures. Beckner MA, et al. **Spine** 1998 Sep 1;23(17):1832-6

Surface strain distribution on thoracic and lumbar vertebrae under axial compression. The role in burst fractures. Hongo M, et al. **Spine** 1999 Jun 15;24(12):1197-202

Micro-compression: a novel technique for the nondestructive assessment of local bone failure. Müller R, et al. **Technol Health Care** 1998 Dec;6(5-6):433-44

[Amelioration of perioperative somatosensory evoked potentials in the surgery of injuries of the spine] Martin F, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Apr; 84(2):189-93 (Eng. Abstr.) **(Fre)**

[Pseudarthrosis of an occult fracture in zone III of the sacrum] Westphal T, et al. **Unfallchirurg** 1999 Jun; 102(6):493-6 (Eng. Abstr.) **(Ger)**

PREVENTION & CONTROL

Larger increases in bone mineral density during alendronate therapy are associated with a lower risk of new vertebral fractures in women with postmenopausal osteoporosis. Fracture Intervention Trial Research Group. Hochberg MC, et al. **Arthritis Rheum** 1999 Jun;42(6):1246-54

Raloxifene reduces spinal fractures postmenopausally [news] MacReady N. **Lancet** 1999 Aug 21;354(9179):653

PSYCHOLOGY

Family situation and psychosocial issues including problems that impact on partnership or resettlement in the home and into society [clinical conference] Kreuter M, et al. **Spinal Cord** 1999 May;37(5):325-31

RADIOGRAPHY

Subtle radiographic findings in an unstable pediculolaminar fracture. Kemper AC, et al. **AJR Am J Roentgenol** 1999 May;172(5):1234

Spondylolysis of the axis vertebra: a rare anomaly simulating hangman's fracture. Mondschein J, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):556-7

Optimal assessment of cervical spine trauma in critically ill patients: a prospective evaluation. Ajani AE, et al. **Anaesth Intensive Care** 1998 Oct;26(5):487-91

Cervical spine radiography in blunt trauma [letter] Blue M, et al. **Ann Emerg Med** 1999 Jun;33(6):727-8

Analysis of trabecular microarchitecture of human iliac bone using microcomputed tomography in patients with hip arthrosis with or without vertebral fracture. Ito M, et al. **Bone** 1998 Aug;23(2):163-9

A phantom based study on the effect of subject positioning on morphometric X-ray absorptiometry using the Lunar Expert-XL. Thorpe JA, et al. **Br J Radiol** 1998 Nov; 71(851):1153-61

Results of spiral CT in patients with fractures of the craniocervical junction suspected on conventional radiographs [letter] Schmieder K, et al. **Eur Radiol** 1999; 9(5):1008

Computer generated odontoid peg "fracture", a cause for concern? Collier A, et al. **Injury** 1998 Nov;29(9):719-23

Neglected complete fracture-dislocation at the cervico-thoracic level without neurological deficit. Sapkas GS, et al. **Injury** 1998 Jun;29(5):385-9

Fracture-dislocation of the lumbar spine after arthrodesis with instrumentation for idiopathic scoliosis. Neyt JG, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):111-4

Computed tomographic scanning of cervical spine fractures: does it influence treatment? Katz MA, et al. **J Orthop Trauma** 1999 Jun-Jul;13(5):338-43

Physical therapy, chiropractic manipulation, or an educational booklet for back pain [letter; comment] Ott SM. **N Engl J Med** 1999 Feb 4;340(5):389-90. Comment on: N Engl J Med 1998 Oct 8;339(15):1021-9.

Adjacent fracture-dislocations of the lumbosacral spine: case report. Kaplan SS, et al. **Neurosurgery** 1999 May; 44(5):1134-7

Image-based assessment of spinal trabecular bone structure from high-resolution CT images. Gordon CL, et al. **Osteoporos Int** 1998;8(4):317-25

Fractal analysis of trabecular bone texture on radiographs: discriminant value in postmenopausal osteoporosis. Pothuaud L, et al. **Osteoporos Int** 1998;8(6):618-25

Vertebral fracture assessment using the lateral scoutview of computed tomography in comparison with radiographs. Takada M, et al. **Osteoporos Int** 1998;8(3):197-203

Five month old in a motor vehicle accident. Swischuk LE. **Pediatr Emerg Care** 1998 Aug;14(4):299-301

CT appearance of congenital defect resembling the Hangman's fracture. Williams JP 3rd, et al. **Pediatr Radiol** 1999 Jul;29(7):549-50

Clay-shoveler's fracture. Stress fracture of the lower cervical and upper thoracic spinous processes. Dellestable F, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):575-82 (35 ref.)

Bisegmental rotational fracture dislocation of the pediatric cervical spine. A case report. Hoffmann RF, et al. **Spine** 1999 May 1;24(9):904-7

Neurologic injury and recovery in patients with burst fracture of the thoracolumbar spine. Kim NH, et al. **Spine** 1999 Feb 1;24(3):290-3; discussion 294

[Fractures of the thoraco-lumbar junction. Conservative management] Daniaux H, et al. **Orthopade** 1999 Aug; 28(8):682-91 **(Ger)**

[Combined surgery for fractures of the thoraco-lumbar junction using the inlay-span method] Kossmann T, et al. **Orthopade** 1999 May;28(5):432-40 (47 ref.) (Eng. Abstr.) **(Ger)**

RADIONUCLIDE IMAGING

Stress fractures of the thoracic spine transverse processes in a water skier. Goodear M, et al. **Clin Nucl Med** 1999 Apr;24(4):285-6

REHABILITATION

Acute hospitalization and discharge outcome of neurologically intact trauma patients sustaining thoracolumbar vertebral fractures managed conservatively with thoracolumbosacral orthoses and physical therapy. Melchiorre PJ. **Arch Phys Med Rehabil** 1999 Feb; 80(2):221-4

Positive effects of physiotherapy on chronic pain and performance in osteoporosis. Malmros B, et al. **Osteoporos Int** 1998;8(3):215-21

SURGERY

Comparison of two types of surgery for thoraco-lumbar burst fractures: combined anterior and posterior stabilisation vs. posterior instrumentation only. Been HD, et al. **Acta Neurochir (Wien)** 1999;141(4):349-57

Occipito-cervical fusion with the cervical Cotrel-Dubousset rod system. Heidecke V, et al. **Acta Neurochir (Wien)** 1998; 140(9):969-76 (31 ref.)

The external spinal fixator does not reduce anterior column motion under axial compressive loads. A mechanical in vitro study. Lund T, et al. **Acta Orthop Scand** 1999 Feb; 70(1):37-41

An improved retractor for the anterior approach in the surgical management of vertebral fractures. Barone GW, et al. **Am J Orthop** 1998 Oct;27(10):703-4

The Combitube elective anesthetic airway management in a patient with cervical spine fracture. Deroy R, et al. **Anesth Analg** 1998 Dec;87(6):1441-2

Massive bleeding during spine surgery in a patient with ankylosing spondylitis. Tetzlaff JE, et al. **Can J Anaesth** 1998 Sep;45(9):903-6

AO fixateur interne in treating burst fractures of the thoracolumbar spine. Liu CL, et al. **Chung Hua I Hsueh Tsa Chih (Taipei)** 1999 Sep; 62(9):619-25

Upper cervical spine trauma: outcome assessment. Alexander JT, et al. **Clin Neurosurg** 1997;44:305-13 (37 ref.)

Surgical techniques for upper cervical spine decompression and stabilization. Dickman CA, et al. **Clin Neurosurg** 1997; 44:137-60 (42 ref.)

Evidence-based management of type II odontoid fractures. Traynelis VC. **Clin Neurosurg** 1997;44:41-9 (22 ref.)

MR imaging for early complications of transpedicular screw fixation. Colak A, et al. **Eur Spine J** 1999;8(2):151-5

Treatment of thoracolumbar burst fractures without neurologic deficit by indirect reduction and posterior

instrumentation: bisegmental stabilization with monosegmental fusion. Müller U, et al. **Eur Spine J** 1999; 8(4):284–9

Operative treatment of unstable injuries of the cervicothoracic junction. Sapkas G, et al. **Eur Spine J** 1999; 8(4):279–83

Reducing the cervical flexion tear-drop fracture with a posterior approach and plating technique: an original method. Signoret F, et al. **Eur Spine J** 1999;8(2):110–6; discussion 117

Steffee variable screw placement system in the management of unstable thoracolumbar fractures: a Third World experience. Chadha M, et al. **Injury** 1998 Dec;29(10):737–42

Combined anterior and posterior surgery for fractures of the thoracolumbar spine. Vaccaro AR. **Instr Course Lect** 1999; 48:443–9 (9 ref.)

An unusual complication of anterior spinal instrumentation: hemothorax contralateral to the side of the incision. A case report. Hsieh PH, et al. **J Bone Joint Surg Am** 1999 Jul; 81(7):998–1001

Complex atlantoaxial fractures. Guiot B, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):139–43

Outcome of 51 cases of unilateral locked cervical facets: interspinous braided cable for lateral mass plate fusion compared with interspinous wire and facet wiring with iliac crest. Shapiro S, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):19–24

A new instrumentation for posterior stabilization of cervical traumatic instability. Cigliano A, et al. **J Neurosurg Sci** 1998 Jun;42(2):101–9

Use of interactive-intraoperative guidance during vertebrectomy and anterior spinal fusion with instrumental fixation: technical note. Vinas FC, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):166–71

Intraoperative ultrasonography evaluation of posterior vertebral wall displacement in thoracolumbar fractures. Lazennec JY, et al. **Neurol Med Chir (Tokyo)** 1999 Jan; 39(1):8–14; discussion 14–5

Spinal instrumentation for unstable C1–2 injury. Mizuno J, et al. **Neurol Med Chir (Tokyo)** 1999 Jun;39(6):434–9; discussion 439–41

Odontoid process and C1–C2 corrective osteotomy through a posterior approach: technical case report. Grundy PL, et al. **Neurosurgery** 1998 Dec;43(6):1483–6; discussion 1486–7

Adjacent fracture-dislocations of the lumbosacral spine: case report. Kaplan SS, et al. **Neurosurgery** 1999 May; 44(5):1134–7

Lumbar L5 burst fracture in a child. García Mata S, et al. **Orthopedics** 1998 Oct;21(10):1148–50

Atlantoaxial fixation technique [letter; comment] McGuire RA Jr. **Orthopedics** 1998 Oct;21(10):1077, 1080, 1092. Comment on: Orthopedics 1998 Apr;21(4):455–9.

Pediatric atlantoaxial instability: management with screw fixation. Wang J, et al. **Pediatr Neurosurg** 1999 Feb; 30(2):70–8

Results of spinal cord decompression and thoracolumbar pedicle stabilisation in relation to the time of operation. Gaebler C, et al. **Spinal Cord** 1999 Jan;37(1):33–9

Thoracolumbar fractures [letter] Jaffray DC. **Spinal Cord** 1999 May;37(5):377

Management of an unstable lumbar fracture with a laminar split. Wing P, et al. **Spinal Cord** 1999 Jun;37(6):392–401

Complete rotational burst fracture of the third lumbar vertebra managed by posterior surgery. A case report. Chaloupka R. **Spine** 1999 Feb 1;24(3):302–5

Vertebral pseudarthrosis in the osteoporotic spine. Hasegawa K, et al. **Spine** 1998 Oct 15;23(20):2201–6

Posterior approach with Louis plates for fractures of the thoracolumbar and lumbar spine with and without neurologic deficits. Louis CA, et al. **Spine** 1998 Sep 15; 23(18):2030–9; discussion 2040

Urgent surgical stabilization of spinal fractures in polytrauma patients. McLain RF, et al. **Spine** 1999 Aug 15; 24(16):1646–54

Anterior decompression with single segmental spinal interbody fusion for lumbar burst fracture. Miyakoshi N, et al. **Spine** 1999 Jan 1;24(1):67–73

Functional outcome of surgically and conservatively managed dens fractures. Seybold EA, et al. **Spine** 1998 Sep 1;23(17):1837–45; discussion 1845–6

The efficacy of anterior cervical plating in the management of symptomatic pseudoarthrosis of the cervical spine. Tribus CB, et al. **Spine** 1999 May 1;24(9):860–4

Transoral fusion with internal fixation in a displaced hangman's fracture. Wilson AJ, et al. **Spine** 1999 Feb 1; 24(3):295–8

Posterior C1–C2 transarticular screw fixation in the treatment of displaced type II odontoid fractures in the geriatric population--review of seven cases. Campanelli M, et al. **Surg Neurol** 1999 Jun;51(6):596–600; discussion 600–1

Anterior screw fixation of odontoid fractures. Morandi X, et al. **Surg Neurol** 1999 Mar;51(3):236–40

[Significance of surgical treatment of bursting fracture with CT estimation analysis of the anatomy of pedicle of vertebral arch] Zou D, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jun;35(6):344–7 (Eng. Abstr.) **(Chi)**

[Internal fixation with U-shaped pin in the treatment of fracture-dislocation of the cervical spine] Liao Q, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(1):87–9 (Eng. Abstr.) **(Chi)**

[Results after surgical treatment of unstable thoracolumbar fractures] Laursen M, et al. **Ugeskr Laeger** 1999 Mar 29; 161(13):1910–4 (Eng. Abstr.) **(Dan)**

[Thoracolumbar fractures. Pathomorphology and indications for treatment] Senegas J. **Acta Orthop Belg** 1998 Dec; 64(4):354–9 (Eng. Abstr.) **(Fre)**

[Evaluation of the risk of mediastinal or retroperitoneal injuries caused by dorso-lumbar pedicle screws] Hernigou P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Sep; 84(5):411–20 (Eng. Abstr.) **(Fre)**

[Thoracoscopic management of fractures of the thoracic and lumbar spine] Bühren V. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:108–12 (Eng. Abstr.) **(Ger)**

[Bone metastases--stabilization as the goal] Schulte M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:134–7 **(Ger)**

[Transpedicular implantation of screws in the thoracolumbar spine. Results of a survey of methods, frequency and complications] Bastian L, et al. **Orthopade** 1999 Aug; 28(8):693–702 (31 ref.) (Eng. Abstr.) **(Ger)**

[Effect of a crosslink or cerclage on the mechanical stability of an internal fixator] Bastian L, et al. **Orthopade** 1999 Aug; 28(8):714–22 (37 ref.) (Eng. Abstr.) **(Ger)**

[Endoscopically controlled division of the diaphragm. A minimally invasive approach to ventral management of thoracolumbar fractures of the spine] Beisse R, et al. **Unfallchirurg** 1998 Aug;101(8):619–27 (Eng. Abstr.) **(Ger)**

[Injuries of the cervical spine in children (editorial)] Blauth M. **Unfallchirurg** 1998 Aug;101(8):588–9 **(Ger)**

[Injuries of the cervical spine in children] Blauth M, et al. **Unfallchirurg** 1998 Aug;101(8):590–612 (167 ref.) (Eng. Abstr.) **(Ger)**

[Accident-induced pseudarthroses of the dens axis. Etiology, follow-up and therapy] Müller EJ, et al. **Unfallchirurg** 1998 Oct;101(10):750–4 (Eng. Abstr.) **(Ger)**

[Factors influencing the anchoring stability of spinal bone screws--an experimental study] Hackenberg L, et al. **Z Orthop Ihre Grenzgeb** 1998 Sep-Oct;136(5):451–6 (Eng. Abstr.) **(Ger)**

[Indications for surgical management of injuries of the cervical spine] Bühren V, et al. **Zentralbl Chir** 1998; 123(8):907–13 (11 ref.) (Eng. Abstr.) **(Ger)**

[Dorsal stabilization of fractures of the thoracic and lumbar spine by external fixator--technique and outcome] Pizanis A, et al. **Zentralbl Chir** 1998;123(8):936–43 (20 ref.) (Eng. Abstr.) **(Ger)**

[Surgical therapy of dens fracture] Roth R, et al. **Zentralbl Chir** 1998;123(8):914–8 (13 ref.) (Eng. Abstr.) **(Ger)**

[Anterior screw fixation combined with posterior interlaminar fusion for fracture of axis: report of two cases] Suzuki F, et al. **No Shinkei Geka** 1999 Jan;27(1):95–100 (Eng. Abstr.) **(Jpn)**

[Preliminary evaluation of the efficacy of transpedicular refilling of spongiosa loss with autologous grafts in thoraco-lumbar vertebral bodies using the Daniaux method] Godlewski P, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):265–71 (Eng. Abstr.) **(Pol)**

THERAPY

Exposure of medical personnel to methylmethacrylate vapor during percutaneous vertebroplasty. Cloft HJ, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):352–3

Intubating laryngeal mask and rapid sequence induction in patients with cervical spine injury. Schuschnig C, et al. **Anaesthesia** 1999 Aug;54(8):793–7

An in vitro biomechanical evaluation of bone cements used in percutaneous vertebroplasty. Belkoff SM, et al. **Bone** 1999 Aug;25(2 Suppl):23S–26S

Nonsurgical treatment of thoracic and lumbar fractures. Rechtine GR. **Instr Course Lect** 1999;48:413–6 (20 ref.)

Split coronal fractures of the lumbar spine. Treatment by posterior internal fixation and transpedicular bone grafting. De Boeck H, et al. **Int Orthop** 1999;23(2):87–90

Computed tomographic scanning of cervical spine fractures: does it influence treatment? Katz MA, et al. **J Orthop Trauma** 1999 Jun-Jul;13(5):338–43

Fractures of the odontoid process: a report of 15 cases in children younger than 6 years. Odent T, et al. **J Pediatr Orthop** 1999 Jan-Feb;19(1):51–4

Percutaneous access to the anterior spinal canal through a cervical disk. Florman JE, et al. **Neuroradiology** 1998 Sep; 40(9):597–9

Management of patients with vertebral compression fractures. Lyles KW. **Pharmacotherapy** 1999 Jan;19(1 Pt 2):21S–24S (27 ref.)

The use of an injectable, biodegradable calcium phosphate bone substitute for the prophylactic augmentation of osteoporotic vertebrae and the management of vertebral compression fractures. Bai B, et al. **Spine** 1999 Aug 1; 24(15):1521–6

Treatment of stable burst fracture of the atlas (Jefferson fracture) with rigid cervical collar. Lee TT, et al. **Spine** 1998 Sep 15;23(18):1963–7

Nonsurgical treatment of three-column thoracolumbar junction burst fractures without neurologic deficit. Shen WJ, et al. **Spine** 1999 Feb 15;24(4):412–5

Biomechanical efficacy of unipedicular versus bipedicular vertebroplasty for the management of osteoporotic compression fractures. Tohmeh AG, et al. **Spine** 1999 Sep 1;24(17):1772–6

ULTRASONOGRAPHY

Intraoperative ultrasonography evaluation of posterior vertebral wall displacement in thoracolumbar fractures. Lazennec JY, et al. **Neurol Med Chir (Tokyo)** 1999 Jan; 39(1):8–14; discussion 14–5

VETERINARY

Stress fractures of the vertebral lamina and pelvis in Thoroughbred racehorses [see comments] Haussler KK, et al. **Equine Vet J** 1998 Sep;30(5):374–81. Comment in: Equine Vet J 1998 Sep;30(5):364–5.

Cervical vertebral fractures in 56 dogs: a retrospective study. Hawthorne JC, et al. **J Am Anim Hosp Assoc** 1999 Mar-Apr;35(2):135–46

[A surgical method for the stabilization of traumatic subluxation, luxation and fractures of the thoracic and lumbar vertebrae in dogs and cats] Koch DA, et al. **Schweiz Arch Tierheilkd** 1998;140(10):413–8 (Eng. Abstr.) **(Ger)**

SPINAL FUSION

see related

LAMINECTOMY

Enterocutaneous fistula: a complication of posterior iliac bone graft harvesting not previously described. Dösoğlu M, et al. **Acta Neurochir (Wien)** 1998;140(10):1089–92

Psychological distress deteriorates the subjective outcome of lumbosacral fusion. A prospective study. Van Susante J, et al. **Acta Orthop Belg** 1998 Dec;64(4):371–7

Adjacent-segment degeneration after lumbar fusion: a review of clinical, biomechanical, and radiologic studies. Eck JC, et al. **Am J Orthop** 1999 Jun;28(6):336–40

Reduction of blood loss and transfusion requirement by aprotinin in posterior lumbar spine fusion. Lentschener C, et al. **Anesth Analg** 1999 Sep;89(3):590–7

Cardiopulmonary dysfunction during minimally invasive thoraco-lumboendoscopic spine surgery. Vollmar B, et al. **Anesth Analg** 1999 Jun;88(6):1244–51

Use of autologous growth factors in lumbar spinal fusion. Lowery GL, et al. **Bone** 1999 Aug;25(2 Suppl):47S–50S

Spinal fusion and pedicle screw instrumentation in the treatment of spondylolisthesis over the age of 60. Wang PJ, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec; 21(4):436–41

Upper cervical spine trauma: outcome assessment. Alexander JT, et al. **Clin Neurosurg** 1997;44:305–13 (37 ref.)

Selection criteria for degenerative lumbar spine instability. McCormick PC. **Clin Neurosurg** 1997;44:29–39 (39 ref.)

Bone repair and enhancement clinical trial design. Spine applications. Boden SD. **Clin Orthop** 1998 Oct;(355 Suppl):S336–46 (48 ref.)

Modern alternatives and techniques for one-level discectomy and fusion. Whitecloud TS 3rd. **Clin Orthop** 1999 Feb; (359):67–76 (27 ref.)

Autogenic versus allogenic bone grafts in anterior lumbar interbody fusion. Wimmer C, et al. **Clin Orthop** 1999 Mar; (360):122–6

Syndrome of inappropriate antidiuretic hormone secretion in children following spinal fusion. Lieh-Lai MW, et al. **Crit Care Med** 1999 Mar;27(3):622–7

Effects of controlled hypotension with sevoflurane anaesthesia on hepatic function of surgical patients. Fukusaki M, et al. **Eur J Anaesthesiol** 1999 Feb;16(2):111–6

Surgical treatment of scoliosis associated with myelomeningocele. Stella G, et al. **Eur J Pediatr Surg** 1998 Dec;8 Suppl 1:22–5

Adolescent idiopathic thoracic scoliosis: apical correction with specialized pedicle hooks. Arlet V, et al. **Eur Spine J** 1999;8(4):266–71

Functional outcome after posterolateral spinal fusion using pedicle screws: comparison between primary and salvage procedure. Christensen FB, et al. **Eur Spine J** 1998; 7(4):321–7

Can autologous bone culture predict spinal fusion capacity? Christensen FB, et al. **Eur Spine J** 1999;8(1):54–60

Activities and functional assessment 1 year after spinal fusion for paralytic scoliosis. Larsson EL, et al. **Eur Spine J** 1999; 8(2):100–9

Long-term three-dimensional changes of the spine after posterior spinal instrumentation and fusion in adolescent idiopathic scoliosis. Papin P, et al. **Eur Spine J** 1999; 8(1):16–21

Plate fixation adds stability to two-level anterior fusion in the cervical spine: a randomized study using radiostereometry. Zoëga B, et al. **Eur Spine J** 1998; 7(4):302–7

Management of the collapsing spine for patients with Duchenne muscular dystrophy. Rice JJ, et al. **Ir J Med Sci** 1998 Oct-Dec;167(4):242–5

Lumbar arthrodesis for the treatment of back pain. Hanley EN Jr, et al. **J Bone Joint Surg Am** 1999 May;81(5):716–30 (228 ref.)

Radiculopathy and myelopathy at segments adjacent to the site of a previous anterior cervical arthrodesis. Hilibrand AS, et al. **J Bone Joint Surg Am** 1999 Apr;81(4):519–28

Fracture-dislocation of the lumbar spine after arthrodesis with instrumentation for idiopathic scoliosis. Neyt JG, et

al. **J Bone Joint Surg Am** 1999 Jan;81(1):111–4
Anterior cervical corpectomy in patients previously managed with a laminectomy: short-term complications. Riew KD, et al. **J Bone Joint Surg Am** 1999 Jul;81(7):950–7
Aerobic and anaerobic microbiology of surgical-site infection following spinal fusion. Brook I, et al. **J Clin Microbiol** 1999 Mar;37(3):841–3
An unusual complication of Cloward's procedure presenting to the otolaryngologist. Nair SB, et al. **J Laryngol Otol** 1998 Nov;112(11):1087–9
Is fusion necessary? [letter; comment] Beatty RA. **J Neurosurg** 1999 Aug;91(2):354. Comment on: J Neurosurg 1999 Jan;90(1 Suppl):8–12.
Is fusion necessary? [letter; comment] Cirak B, et al. **J Neurosurg** 1999 Aug;91(2):353–4. Comment on: J Neurosurg 1999 Jan;90(1 Suppl):8–12.
Anterior cervical discectomy: is fusion necessary? [see comments] Dowd GC, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):8–12. Comment in: J Neurosurg 1999 Aug;91(2):353–4. Comment in: J Neurosurg 1999 Aug;91(2):354.
Bilateral vocal cord paralysis following anterior cervical discectomy and fusion. Case report. Manski TJ, et al. **J Neurosurg** 1998 Nov;89(5):839–43 (97 ref.)
A biomechanical study of posterolateral lumbar fusion using a three-dimensional nonlinear finite element method. Totoribe K, et al. **J Orthop Sci** 1999;4(2):115–26
Wound infection after spinal fusion in children with cerebral palsy. Szöke G, et al. **J Pediatr Orthop** 1998 Nov–Dec; 18(6):727–33
The effectiveness of a standardized educational program for children using patient-controlled analgesia. Kotzer AM, et al. **J Soc Pediatr Nurs** 1998 Jul–Sep;3(3):117–26
Effect of prior lumbar discectomy on outcome of lumbar fusion: a prospective analysis using the SF-36 measure. Glassman SD, et al. **J Spinal Disord** 1998 Oct;11(5):383–8
Axial symptoms and cervical alignments after cervical anterior spinal fusion for patients with cervical myelopathy. Kawakami M, et al. **J Spinal Disord** 1999 Feb;12(1):50–6
Anterior debridement, fusion, and extrafocal stabilization in the treatment of osteomyelitis of the spine. Krödel A, et al. **J Spinal Disord** 1999 Feb;12(1):17–26
Functional outcome after partial reduction and 360 degree fusion in grade III–V spondylolisthesis in adolescent and adult patients. Laursen M, et al. **J Spinal Disord** 1999 Aug; 12(4):300–6
Factors affecting lumbar spinal fusion. Snider RK, et al. **J Spinal Disord** 1999 Apr;12(2):107–14
Early failure of long segment anterior cervical plate fixation. Vaccaro AR, et al. **J Spinal Disord** 1998 Oct;11(5):410–5
Aseptic loosening after CD instrumentation in the treatment of scoliosis: a report about eight cases. Wimmer C, et al. **J Spinal Disord** 1998 Oct;11(5):440–3
Cause of adjacent-segment disease after spinal fusion. Javedan SP, et al. **Lancet** 1999 Aug 14;354(9178):530–1
Surgical treatment of lumbar canal stenosis in the elderly. Hanakita J, et al. **Neurol Med Chir (Tokyo)** 1999 Jul; 39(7):519–22; discussion 522–3
A prospective randomized study of anterior single-level cervical disc operations with long-term follow-up: surgical fusion is unnecessary [letter; comment] Dan NG. **Neurosurgery** 1999 Apr;44(4):919. Comment on: Neurosurgery 1998 Jul;43(1):51–5.
Cervical spondylotic myelopathy: functional and radiographic long-term outcome after laminectomy and posterior fusion. Kumar VG, et al. **Neurosurgery** 1999 Apr; 44(4):771–7; discussion 777–8
The safety of OP-1 for lumbar fusion with decompression--a canine study. Paramore CG, et al. **Neurosurgery** 1999 May;44(5):1151–5; discussion 1155–6
Indications and trends in use in cervical spinal fusions. Abraham DJ, et al. **Orthop Clin North Am** 1998 Oct; 29(4):731–44 (116 ref.)
Indications for thoracic and lumbar spine fusion and trends in use. Abraham DJ, et al. **Orthop Clin North Am** 1998 Oct;29(4):803 (70 ref.)
Outcome assessment after spinal fusion: why and how? Boden SD. **Orthop Clin North Am** 1998 Oct;29(4):717–28
The biology of posterolateral lumbar spinal fusion. Boden SD. **Orthop Clin North Am** 1998 Oct;29(4):603–19 (127 ref.)
Thoracic and lumbar fusions for degenerative disorders: rationale for selecting the appropriate fusion techniques. Gelalis ID, et al. **Orthop Clin North Am** 1998 Oct; 29(4):829–42
Clinical outcome after fusion of the thoracic or lumbar spine in the adult patient. Hellman EW, et al. **Orthop Clin North Am** 1998 Oct;29(4):859–69 (84 ref.)
The use of diagnostic imaging to assess spinal arthrodesis. Hilibrand AS, et al. **Orthop Clin North Am** 1998 Oct; 29(4):591–601 (34 ref.)
Clinical outcomes after cervical spine fusion. Huckell CB. **Orthop Clin North Am** 1998 Oct;29(4):787–99 (51 ref.)
Cervical deformity: rationale for selecting the appropriate fusion technique (anterior, posterior, and 360 degree). Liew SM, et al. **Orthop Clin North Am** 1998 Oct;29(4):779–86
Thoracic and lumbar deformity: rationale for selecting the appropriate fusion technique (Anterior, posterior, and 360 degree). Liew SM, et al. **Orthop Clin North Am** 1998 Oct; 29(4):843–58
Thoracic and lumbar trauma: rationale for selecting the appropriate fusion technnique. McCullen G, et al. **Orthop Clin North Am** 1998 Oct;29(4):813–28 (87 ref.)
Biomechanical testing sequelae relevant to spinal fusion and instrumentation. Puttlitz CM, et al. **Orthop Clin North Am** 1998 Oct;29(4):571–89 (130 ref.)
Biologic enhancement of spinal fusion. Sandhu HS, et al. **Orthop Clin North Am** 1998 Oct;29(4):621–31 (75 ref.)
Preoperative SF-36 responses as a predictor of reoperation following lumbar fusion. Glassman SD, et al. **Orthopedics** 1998 Nov;21(11):1201–3
Evaluation of cervical laminectomy and laminoplasty. A longitudinal study in the goat model. Baisden J, et al. **Spine** 1999 Jul 1;24(13):1283–8; discussion 1288–9
Results and morbidity in a consecutive series of patients undergoing spinal fusion for neuromuscular scoliosis. Benson ER, et al. **Spine** 1998 Nov 1;23(21):2308–17; discussion 2318
Posterolateral lumbar intertransverse process spine arthrodesis with recombinant human bone morphogenetic protein 2/hydroxyapatite-tricalcium phosphate after laminectomy in the nonhuman primate. Boden SD, et al. **Spine** 1999 Jun 15;24(12):1179–85
Minimum 5-year results of degenerative spondylolisthesis treated with decompression and instrumented posterior fusion. Booth KC, et al. **Spine** 1999 Aug 15;24(16):1721–7
Postoperative pain control after lumbar spine fusion [letter; comment] Borgeat A, et al. **Spine** 1998 Sep 1;23(17):1923–4 . Comment on: Spine 1997 Aug 15;22(16):1892–6; discussion 1896–7.
Process measures and patient/parent evaluation of surgical management of spinal deformities in patients with progressive flaccid neuromuscular scoliosis (Duchenne's muscular dystrophy and spinal muscular atrophy). Bridwell KH, et al. **Spine** 1999 Jul 1;24(13):1300–9
The selection of fusion levels using torsional correction techniques in the surgical treatment of idiopathic scoliosis. Burton DC, et al. **Spine** 1999 Aug 15;24(16):1728–39
Complete rotational burst fracture of the third lumbar vertebra managed by posterior surgery. A case report. Chaloupka R. **Spine** 1999 Feb 1;24(3):302–5
Hemodilution as a method to reduce transfusion requirements in adolescent spine fusion surgery. Copley LA, et al. **Spine** 1999 Feb 1;24(3):219–22; discussion 223–4
Thromboembolic complications after major thoracolumbar spine surgery. Dearborn JT, et al. **Spine** 1999 Jul 15; 24(14):1471–6
The ability of pressure-controlled discography to predict surgical and nonsurgical outcomes. Derby R, et al. **Spine** 1999 Feb 15;24(4):364–71; discussion 371–2
A kinematic study of the cervical spine before and after segmental arthrodesis. Fuller DA, et al. **Spine** 1998 Aug 1;23(15):1649–56
Spondyloptosis of the cervical spine in neurofibromatosis. A case report. Goffin J, et al. **Spine** 1999 Mar 15; 24(6):587–90 (18 ref.)
A double-blind study of capacitively coupled electrical stimulation as an adjunct to lumbar spinal fusions. Goodwin CB, et al. **Spine** 1999 Jul 1;24(13):1349–56; discussion 1357
Anterior discectomy and fusion for painful cervical disc disease. A report of 50 patients with an average follow-up of 21 years. Gore DR, et al. **Spine** 1998 Oct 1; 23(19):2047–51
The transition zone above a lumbosacral fusion. Hambly MF, et al. **Spine** 1998 Aug 15;23(16):1785–92
Management of degenerative disc disease above an L5-S1 segment requiring arthrodesis. Herkowitz HN, et al. **Spine** 1999 Jun 15;24(12):1268–70 (15 ref.)
Intraoperative electromyography during thoracolumbar spinal surgery. Holland NR. **Spine** 1998 Sep 1; 23(17):1915–22 (35 ref.)
Biomechanical analysis of anterior versus circumferential spinal reconstruction for various anatomic stages of tumor lesions. Kanayama M, et al. **Spine** 1999 Mar 1;24(5):445–50
Does spinal instrumentation influence the healing process of posterolateral spinal fusion? An in vivo animal model. Kanayama M, et al. **Spine** 1999 Jun 1;24(11):1058–65
Volumetric change of the graft bone after intertransverse fusion. Kim KW, et al. **Spine** 1999 Mar 1;24(5):428–33
Spontaneous lumbar curve coronal correction after selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Lenke LG, et al. **Spine** 1999 Aug 15; 24(16):1663–71; discussion 1672
Spontaneous regression of periodontoid pannus mass in psoriatic atlantoaxial subluxation. Case report. Lu K, et al. **Spine** 1999 Mar 15;24(6):578–81
Stability of the whole lumbar spine after multilevel fenestration and discectomy. Lu WW, et al. **Spine** 1999 Jul 1;24(13):1277–82
Coronal and sagittal balance in surgically treated adolescent idiopathic scoliosis with the King II curve pattern. A review of 67 consecutive cases having selective thoracic arthrodesis. McCance SE, et al. **Spine** 1998 Oct 1; 23(19):2063–73
Spinal growth and a histologic evaluation of the Risser grade in idiopathic scoliosis. Noordeen MH, et al. **Spine** 1999 Mar 15;24(6):535–8
Sweet's syndrome associated with spinal surgical intervention. A case report. Propst DA, et al. **Spine** 1998 Aug 1;23(15):1708–10
Developmental and dynamic canal stenosis as radiologic factors affecting surgical results of anterior cervical fusion for myelopathy. Shoda E, et al. **Spine** 1999 Jul 15; 24(14):1421–4
Controversy. The use of selective nerve root blocks: diagnostic, therapeutic, or placebo? Slosar PJ Jr, et al. **Spine** 1998 Oct 15;23(20):2253–6
Surgical management for instability and paraplegia caused by spinal sarcoidosis. A case report. Tzagarakis GP, et al. **Spine** 1998 Aug 1;23(15):1711–4 (24 ref.)
A biomechanical evaluation of graft loading characteristics for anterior cervical discectomy and fusion. A comparison of traditional and reverse grafting techniques. Wang JC, et al. **Spine** 1998 Nov 15;23(22):2450–4
Patients' perceptions of overall function, pain, and appearance after primary posterior instrumentation and fusion for idiopathic scoliosis. White SF, et al. **Spine** 1999 Aug 15;24(16):1693–9; discussion 1699–700
Congenital scoliosis with posterior spinal arthrodesis T2–L3 at age 3 years with 41-year follow-up. A case report. Winter RB, et al. **Spine** 1999 Jan 15;24(2):194–7
Effectiveness of a hands-on training course for laparoscopic spine surgery in a porcine model. Olinger A, et al. **Surg Endosc** 1999 Feb;13(2):118–22
Anatomic basis of minimal anterior extraperitoneal approach to the lumbar spine. Lazennec JY, et al. **Surg Radiol Anat** 1999;21(1):7–15
Lumbar intradiscal pressure after posterolateral fusion and pedicle screw fixation. Abe E, et al. **Tohoku J Exp Med** 1998 Dec;186(4):243–53
[Surgical treatment of idiopathic scoliosis in adolescents and young adults] Chopin D. **Bull Acad Natl Med** 1999; 183(4):737–42 (Eng. Abstr.) **(Fre)**
[Surgery for degenerative lumbar disc disease. Should the black disc be grafted?] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Nov; 84(7):583–9 (Eng. Abstr.) **(Fre)**
[Transpedicular fusion of the thoraco-lumbar junction. Clinical, radiographic and CT results] Knop C, et al. **Orthopade** 1999 Aug;28(8):703–13 (35 ref.) (Eng. Abstr.) **(Ger)**
[Thoracoscopy-guided management of the "anterior column". Methods and results] Potulski M, et al. **Orthopade** 1999 Aug;28(8):723–30 (Eng. Abstr.) **(Ger)**
[Possibilities for static and dynamic stabilization of the spine in lesions of the anterior and posterior ligament complex] Quint U, et al. **Unfallchirurg** 1998 Sep;101(9):684–90 (Eng. Abstr.) **(Ger)**
[Surgical management of severe thoracic lordosis in myelomeningocele--a case report with review of the literature] Niemeyer T, et al. **Z Orthop Ihre Grenzgeb** 1998 Sep-Oct;136(5):463–6 (17 ref.) (Eng. Abstr.) **(Ger)**
[Surgical therapy of the injured spine (editorial)] Weckbach A. **Zentralbl Chir** 1998;123(8):893 **(Ger)**
[Tuberculosis of the spine--surgical treatment] Yokozeki K, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):184–7 (10 ref.) **(Jpn)**
[Patients with chronic degenerative spinal disease--can conservative treatment reduce the waiting list for surgery?] Brox JI, et al. **Tidsskr Nor Laegeforen** 1999 May 10; 119(12):1784–7 (Eng. Abstr.) **(Nor)**
[Fatal gas embolism during corrective surgery for scoliosis using the posterior approach] López LM, et al. **Rev Esp Anestesiol Reanim** 1999 Jun-Jul;46(6):267–70 (Eng. Abstr.) **(Spa)**
[The ethics committee at the Karolinska Institute comments on shortages of a study on spinal surgery (letter)] Terenius L. **Lakartidningen** 1999 Jun 23;96(25):3055 **(Swe)**

ADVERSE EFFECTS

Fatal pulmonary fat embolism after dorsal spinal fusion. Brandt SE, et al. **Eur Spine J** 1998;7(5):426–8
Paradoxical cerebral embolism complicating a major orthopaedic operation. A report of two cases. Della Valle CJ, et al. **J Bone Joint Surg Am** 1999 Jan;81(1):108–10 (20 ref.)
Dysfunction of the spinal cord during spinal arthrodesis for scoliosis: recommendations for early detection and treatment. A case report. Potenza V, et al. **J Bone Joint Surg Am** 1998 Nov;80(11):1679–83
Pharyngeal pouch following anterior cervical fusion. Sood S, et al. **J Laryngol Otol** 1998 Nov;112(11):1085–6 (15 ref.)
Risk factors for adjacent-segment failure following lumbar fixation with rigid instrumentation for degenerative instability. Etebar S, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):163–9
Visceral and vascular complications resulting from anterior lumbar interbody fusion. Rajaraman V, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):60–4
Factors predicting postoperative complications following spinal fusions in children with cerebral palsy. Lipton GE, et al. **J Spinal Disord** 1999 Jun;12(3):197–205
Long-term follow-up study of posterior lumbar interbody fusion. Nakai S, et al. **J Spinal Disord** 1999 Aug;12(4):293–9
Anterior cervical interbody fusion with plate fixation for chronic spondylotic radiculopathy: a 2- to 8-year follow-up. Schneeberger AG, et al. **J Spinal Disord** 1999 Jun;12(3):215–20; discussion 221
Influence of antibiotics on infection in spinal surgery: a prospective study of 110 patients. Wimmer C, et al. **J Spinal Disord** 1998 Dec;11(6):498–500
Complications in spinal fusion. Brown CA, et al. **Orthop Clin North Am** 1998 Oct;29(4):679–99 (120 ref.)
Complications of spinal fusion in adult patients more than 60 years of age. Fujita T, et al. **Orthop Clin North Am** 1998 Oct;29(4):669–78
Analysis of the cervical spine alignment following

laminoplasty and laminectomy. Matsunaga S, et al. **Spinal Cord** 1999 Jan;37(1):20–4

External iliac artery occlusion in posterior spinal surgery. Akagi S, et al. **Spine** 1999 Apr 15;24(8):823–5

Fatal cardiac tamponade associated with posterior spinal instrumentation. A case report. Heini P, et al. **Spine** 1998 Oct 15;23(20):2226–30

Proximal kyphosis after posterior spinal fusion in patients with idiopathic scoliosis. Lee GA, et al. **Spine** 1999 Apr 15;24(8):795–9

Complications in the adult spinal deformity patient having combined surgery. Does revision increase the risk? Linville DA, et al. **Spine** 1999 Feb 15;24(4):355–63

Chylous leakage after circumferential thoracolumbar fusion for correction of kyphosis resulting from fracture: report of three cases [letter; comment] Lubicky JP. **Spine** 1998 Aug 15;23(16):1814–5. Comment on: Spine 1997 Dec 1;22(23):2766–9.

Strain on intervertebral discs after anterior cervical decompression and fusion. Matsunaga S, et al. **Spine** 1999 Apr 1;24(7):670–5

[Intravenous iron in the treatment of postoperative anemia in surgery of the spine in infants and adolescents] Bernière J, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):319–22 (Eng. Abstr.) **(Fre)**

ECONOMICS

The cost of spine surgery [letter; comment] Shuey HM Jr. **Surg Neurol** 1998 Nov;50(5):498–9. Comment on: Surg Neurol 1997 Dec;48(6):560–5.

HISTORY

Anterior and posterior cervical spine fusions. 1964 [classical article] Robinson RA. **Clin Orthop** 1999 Feb;(359):4–17

INSTRUMENTATION

Occipito–cervical fusion with the cervical Cotrel–Dubousset rod system. Heidecke V, et al. **Acta Neurochir (Wien)** 1998; 140(9):969–76 (31 ref.)

Postoperative deep wound infection in instrumented spinal surgery. Aydinli U, et al. **Acta Orthop Belg** 1999 Jun; 65(2):182–7

One–level cervical spine fusion. A randomized study, with or without plate fixation, using radiostereometry in 27 patients. Zoëga B, et al. **Acta Orthop Scand** 1998 Aug; 69(4):363–8

Translaminar facet screw placement: an anatomic study. Lu J, et al. **Am J Orthop** 1998 Aug;27(8):550–5

Surgical management of low–grade ly'ic spondylolisthesis with C–D instrumentation in adult patients. Nooraie H, et al. **Arch Orthop Trauma Surg** 1999;119(5–6):337–9

Anterior cervical fusion: the case for fusion without plating. Branch CL Jr. **Clin Neurosurg** 1999;45:22–4; discussion 21

Surgical techniques for upper cervical spine decompression and stabilization. Dickman CA, et al. **Clin Neurosurg** 1997; 44:137–60 (42 ref.)

The argument for single–level anterior cervical discectomy and fusion with anterior plate fixation. Geer CP, et al. **Clin Neurosurg** 1999;45:25–9; discussion 21 (21 ref.)

Degenerative lumbar spinal instability: technical aspects of operative treatment. Karahalios DG, et al. **Clin Neurosurg** 1997;44:109–35 (38 ref.)

A concept of idiopathic scoliosis deformities as imperfect torsion(s). Asher MA, et al. **Clin Orthop** 1999 Jul; (364):11–25 (50 ref.)

Modified Gallie technique versus transarticular screw fixation in C1–C2 fusion. Farey ID, et al. **Clin Orthop** 1999 Feb; (359):126–35

Functional outcome of plate fusions for disorders of the occipitocervical junction. Huckell CB, et al. **Clin Orthop** 1999 Feb;(359):136–45

Transpedicle screw fixation of the cervical spine. Ludwig SC, et al. **Clin Orthop** 1999 Feb;(359):77–88 (24 ref.)

S rod fixation to the sacrum in patients with neuromuscular spinal deformities. McCarthy RE, et al. **Clin Orthop** 1999 Jul;(364):26–31

Lumbosacral fusion in children and adolescents using the modified sacral bar technique. Widmann RF, et al. **Clin Orthop** 1999 Jul;(364):85–91

Radiology of intervertebral cages in spinal surgery. Hanley SD, et al. **Clin Radiol** 1999 Apr;54(4):201–6 (7 ref.)

Occipito–cervical fusion using posterior titanium plates. Lieberman IH, et al. **Eur Spine J** 1998;7(4):308–12

A new approach to scoliosis. Yazar T, et al. **Eur Spine J** 1999;8(2):86–92

An unusual complication of anterior spinal instrumentation: hemothorax contralateral to the side of the incision. A case report. Hsieh PH, et al. **J Bone Joint Surg Am** 1999 Jul; 81(7):998–1001

Interbody fusion cages in reconstructive operations on the spine. McAfee PC. **J Bone Joint Surg Am** 1999 Jun; 81(6):859–80 (110 ref.)

Metal mania: fact or fiction? Winter RB. **J Bone Joint Surg Am** 1999 May;81(5):741–2

Anterior instrumentation for the treatment of spinal tuberculosis. Yilmaz C, et al. **J Bone Joint Surg Am** 1999 Sep;81(9):1261–7

Posterior lumbar interbody fusion with cages: an independent review of 71 cases. Agazzi S, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):186–92

Intraoperative electromyographic assessment of recurrent laryngeal nerve stress and pharyngeal injury during anterior cervical spine surgery with Caspar instrumentation. Jellish WS, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):170–4

Transpedicular instrumentation as an adjunct in the treatment of thoracolumbar and lumbar spine tuberculosis with early stage bone destruction. Lee TC, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):163–9

Outcome of 51 cases of unilateral locked cervical facets: interspinous braided cable for lateral mass plate fusion compared with interspinous wire and facet wiring with iliac crest. Shapiro S, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):19–24

A new instrumentation for posterior stabilization of cervical traumatic instability. Cigliano A, et al. **J Neurosurg Sci** 1998 Jun;42(2):101–9

New remote–controlled growing–rod spinal instrumentation possibly applicable for scoliosis in young children. Takaso M, et al. **J Orthop Sci** 1998;3(6):336–40

Modification of Cotrel–Dubousset's original hook constructs for idiopathic scoliosis. Grossman BS, et al. **J Pediatr Orthop** 1999 Jul–Aug;19(4):500–3

Correction of adolescent idiopathic thoracic scoliosis with a new type of offset apical instrumentation: preliminary results. Arlet V, et al. **J Spinal Disord** 1998 Oct;11(5):404–9

The USS pedicle hook system: a morphometric analysis of its safety in the thoracic spine. Universal Spine System. Berlet GC, et al. **J Spinal Disord** 1999 Jun;12(3):234–9

Analysis of circumferential lumbar fusion outcome in the treatment of degenerative disc disease of the lumbar spine. Gertzbein SD, et al. **J Spinal Disord** 1998 Dec;11(6):472–8

A multi–center prospective study of the CD Spinal System in patients with degenerative disc disease. Michelsen C, et al. **J Spinal Disord** 1998 Dec;11(6):465–70; discussion 471 (10 ref.)

Pedicle screw placement at the sacrum: anatomical characterization and limitations at S1. Robertson PA, et al. **J Spinal Disord** 1999 Jun;12(3):227–33

A prospective study of 342 patients using transpedicular fixation instrumentation for lumbosacral spine arthrodesis. Simmons JW, et al. **J Spinal Disord** 1998 Oct;11(5):367–74

Segmental square spinal instrumentation for posterior lumbar spinal fixation. Tajima N, et al. **J Spinal Disord** 1999 Jun; 12(3):240–4

Degenerative conditions of the lumbar spine treated with intervertebral titanium cages and posterior instrumentation for circumferential fusion. Whitecloud TS 3rd, et al. **J Spinal Disord** 1998 Dec;11(6):479–86

Use of interactive–intraoperative guidance during vertebrectomy and anterior spinal fusion with instrumental fixation: technical note. Vinas FC, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):166–71

Spinal instrumentation for unstable C1–2 injury. Mizuno J, et al. **Neurol Med Chir (Tokyo)** 1999 Jun;39(6):434–9; discussion 439–41

Use of the BendMeister rod bender for occipitocervical fusion: technical note. Apostolides PJ, et al. **Neurosurgery** 1998 Aug;43(2):389–90; discussion 391

Posterior C1–C2 transarticular screw fixation for atlantoaxial arthrodesis. Dickman CA, et al. **Neurosurgery** 1998 Aug; 43(2):275–80; discussion 280–1

The Ray Threaded Fusion Cage for posterior lumbar interbody fusion [letter; comment] Hacker RJ. **Neurosurgery** 1998 Oct;43(4):982–3. Comment on: Neurosurgery 1998 Jan;42(1):200–4; discussion 204–5.

The effects of design and configuration on the biomechanical response of an internal spinal fixator. Alkalay RN, et al. **Proc Inst Mech Eng [H]** 1999;213(2):137–46

Low postoperative infection rates with instrumented lumbar fusion. Hodges SD, et al. **South Med J** 1998 Dec; 91(12):1132–6

Comparison of anterior and posterior instrumentation for correction of adolescent thoracic idiopathic scoliosis. Betz RR, et al. **Spine** 1999 Feb 1;24(3):225–39

Pedicle instrumentation in the thoracic spine. A morphometric and cadaveric study for placement of screws. Cinotti G, et al. **Spine** 1999 Jan 15;24(2):114–9

Biomechanical comparison of spondylolysis fixation techniques. Deguchi M, et al. **Spine** 1999 Feb 15; 24(4):328–33

Safety and accuracy of transarticular screw fixation C1–C2 using an aiming device. An anatomic study. Gebhard JS, et al. **Spine** 1998 Oct 15;23(20):2185–9

Direct repair of spondylolysis without spondylolisthesis, using a rod–screw construct and bone grafting of the pars defect. Gillet P, et al. **Spine** 1999 Jun 15;24(12):1252–6

Anterior cervical fusion with the Orion locking plate system. Heidecke V, et al. **Spine** 1998 Aug 15;23(16):1796–802; discussion 1803

Fatal cardiac tamponade associated with posterior spinal instrumentation. A case report. Heini P, et al. **Spine** 1998 Oct 15;23(20):2226–30

Pedicle and transverse process screws of the upper thoracic spine. Biomechanical comparison of loads to failure. Heller JG, et al. **Spine** 1999 Apr 1;24(7):654–8

Biomechanical studies on two anterior thoracolumbar implants in cadaveric spines. Hitchon PW, et al. **Spine** 1999 Feb 1;24(3):213–8

Recapping T–saw laminoplasty for spinal cord tumors. Kawahara N, et al. **Spine** 1999 Jul 1;24(13):1363–70

Reconstruction after multilevel corpectomy in the cervical spine. A sagittal plane biomechanical study. Kirkpatrick JS, et al. **Spine** 1999 Jun 15;24(12):1186–90; discussion 1191

The efficacy of using an image–guided Kerrison punch in performing an anterior cervical foraminotomy. An anatomic analysis. Klein GR, et al. **Spine** 1999 Jul 1; 24(13):1358–62

A controlled prospective outcome study of implantable electrical stimulation with spinal instrumentation in a high–risk spinal fusion population. Kucharzyk DW. **Spine** 1999 Mar 1;24(5):465–8; discussion 469

Anterior cervical reconstruction using titanium cages with anterior plating. Majd ME, et al. **Spine** 1999 Aug 1; 24(15):1604–10

The ideal position of sacral transpedicular endplate screws in Jackson's intrasacral fixation. An anatomic study of 50 sacral specimens. Mazda K, et al. **Spine** 1998 Oct 1; 23(19):2123–6

Radiographic verification of pedicle screw pilot hole placement using Kirshner wires versus beaded wires. Myles RT, et al. **Spine** 1999 Mar 1;24(5):476–80

Biomechanical comparison of C1–C2 posterior fixations. Cable, graft, and screw combinations. Naderi S, et al. **Spine** 1998 Sep 15;23(18):1946–55; discussion 1955–6

Patient outcomes after decompression and instrumented posterior spinal fusion for degenerative spondylolisthesis. Nork SE, et al. **Spine** 1999 Mar 15;24(6):561–9

Biomechanical evaluation of a newly developed monocortical expansion screw for use in anterior internal fixation of the cervical spine. In vitro comparison with two established internal fixation systems. Richter M, et al. **Spine** 1999 Feb 1;24(3):207–12

The effect of locking fixation screws on the stability of anterior cervical plating. Spivak JM, et al. **Spine** 1999 Feb 15;24(4):334–8

Mechanical testing of instrumentation. A test of mechanics [editorial] Stokes IA. **Spine** 1998 Nov 1;23(21):2263–4

Posterior stabilization of degenerative lumbar spondylolisthesis with a Leeds–Keio artificial ligament. A biomechanical analysis in a porcine vertebral model. Suzuki K, et al. **Spine** 1999 Jan 1;24(1):26–31

Failure of a carbon fiber implant. A case report. Tullberg T. **Spine** 1998 Aug 15;23(16):1804–6

Temporary external transpedicular fixation of the lumbosacral spine. van der Schaaf DB, et al. **Spine** 1999 Mar 1;24(5):481–4; discussion 484–5

Metal debris from titanium spinal implants. Wang JC, et al. **Spine** 1999 May 1;24(9):899–903

A comparison of magnetic resonance and computed tomographic image quality after the implantation of tantalum and titanium spinal instrumentation. Wang JC, et al. **Spine** 1998 Aug 1;23(15):1684–8

Hardware failure in an unconstrained lumbar pedicle screw system. A 2–year follow–up study. Wetzel FT, et al. **Spine** 1999 Jun 1;24(11):1138–43

Revision of failed pedicle screws using hydroxyapatite cement. A biomechanical analysis. Yerby SA, et al. **Spine** 1998 Aug 1;23(15):1657–61

Characteristics of pedicle screw loading. Effect of sagittal insertion angle on intrapedicular bending moments. Youssef JA, et al. **Spine** 1999 Jun 1;24(11):1077–81

[The effect of pedicle screw instrumentation on posterolateral spinal fusion. A prospective, randomized study with a two–year follow–up] Christensen FB, et al. **Ugeskr Laeger** 1999 Mar 29;161(13):1920–5 (Eng. Abstr.) **(Dan)**

[Effect of various cylinder diameters of implants for lumbar inter–corporeal spinal fusion on compressive strength on the FSU model] Placzek R, et al. **Biomed Tech (Berl)** 1998 Sep;43(9):253–6 (Eng. Abstr.) **(Ger)**

[Mechanical study of potential ceramic implant materials for minimal invasive anterior lumbar interbody fusion] Placzek R, et al. **Biomed Tech (Berl)** 1999 Jul–Aug;44(7–8):206–11 (Eng. Abstr.) **(Ger)**

[3–dimensional registration of micro–movements of vertebral implants by a specially adapted measuring system using magnetic transducers] Schramm M, et al. **Biomed Tech (Berl)** 1999 Apr;44(4):104–8 (Eng. Abstr.) **(Ger)**

[The x–ray follow–up study of the cervical spine after anterior fusion with titanium disk implants] Biederer J, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Aug;171(2):95–9 (Eng. Abstr.) **(Ger)**

[Adjustable surgical fusion of the spine. New implants for back patients (news)] Engelhardt R. **Z Orthop Ihre Grenzgeb** 1998 Nov–Dec;136(6):Oa20 **(Ger)**

[Primary stability of 2 PLIF (posterior lumbar interbody fusion)—a biomechanical in vitro comparison] Pitzen T, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun;137(3):214–8 (Eng. Abstr.) **(Ger)**

[Dorsal occipitocervical fusion—indications and results] Plötz GM, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug; 136(4):364–74 (Eng. Abstr.) **(Ger)**

[Ventral interbody spondylodesis in injuries of the cervical spine. Indications, surgical technique and results] Blauth M, et al. **Zentralbl Chir** 1998;123(8):919–29 (40 ref.) (Eng. Abstr.) **(Ger)**

[Surgical treatment of tuberculous spondylitis using ceramic implants] Gruntovskiĭ TKh, et al. **Probl Tuberk** 1998; (5):34–6 (Eng. Abstr.) **(Rus)**

METHODS

Comparison of two types of surgery for thoraco–lumbar burst

fractures: combined anterior and posterior stabilisation vs. posterior instrumentation only. Been HD, et al. **Acta Neurochir (Wien)** 1999;141(4):349–57

Results of the biocompatible osteoconductive polymer (BOP) as an intersomatic graft in anterior cervical surgery. Ibáñez J, et al. **Acta Neurochir (Wien)** 1998;140(2):126–33

A microsurgical technique for posterior lumbar interbody fusion: technical note. Kotilainen E, et al. **Acta Neurochir (Wien)** 1999;141(7):767–9

Anterior cervical decompression and fusion for cervical spondylosis using vertebral grafts obtained from the fusion site. Technical advantages and follow-up results. Takayasu M, et al. **Acta Neurochir (Wien)** 1998;140(12):1249–55

The effect of fibrin adhesive (Tisseel) on interbody allograft fusion: an experimental study with cats. Turgut M, et al. **Acta Neurochir (Wien)** 1999;141(3):273–8

Long-term results in patients treated with posterior instrumentation and fusion for degenerative scoliosis of the lumbar spine. Zurbriggen C, et al. **Acta Neurochir (Wien)** 1999;141(1):21–6

Treatment of symptomatic anterior cervical nonunion using the Rogers interspinous wiring technique. Siambanes D, et al. **Am J Orthop** 1998 Dec;27(12):792–6

An open, minimally invasive approach to the lumbar spine. Dewald CJ, et al. **Am Surg** 1999 Jan;65(1):61–8

Technique and patient care using interbody fusion technology. Mangum S. **AORN J** 1998 Nov;68(5):786–8, 790, 793–8

Biomechanical effect of anterior cervical spine fusion on adjacent segments. Maiman DJ, et al. **Biomed Mater Eng** 1999;9(1):27–38

Temperature elevation caused by bone cement polymerization during vertebroplasty. Deramond H, et al. **Bone** 1999 Aug;25(2 Suppl):17S–21S

Vertebroplasty: clinical experience and follow-up results. Martin JB, et al. **Bone** 1999 Aug;25(2 Suppl):11S–15S

Fusion of the lumbar spine with a free vascularized fibular bone graft: case report. Chen ZC, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec;21(4):463–8

Practical biomechanical considerations for spine implant testing. Margulies JY, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):347–64 (66 ref.)

The surgical treatment of spondylolisthesis with transpedicular stabilization: a review of 25 cases. Lisai P, et al. **Chir Organi Mov** 1998 Oct-Dec;83(4):369–74 **(Eng, Ita)**

A concept of idiopathic scoliosis deformities as imperfect torsion(s). Asher MA, et al. **Clin Orthop** 1999 Jul; (364):11–25 (50 ref.)

Spinal fusion in patients with congenital heart disease. Predictors of outcome. Coran DL, et al. **Clin Orthop** 1999 Jul;(364):99–107

Extension to the sacrum of previous adolescent scoliosis fusions in adult life. Kostuik JP, et al. **Clin Orthop** 1999 Jul;(364):53–60

Simultaneous anterior and posterior hemivertebra excision. Lazar RD, et al. **Clin Orthop** 1999 Jul;(364):76–84

S rod fixation to the sacrum in patients with neuromuscular spinal deformities. McCarthy RE, et al. **Clin Orthop** 1999 Jul;(364):26–31

Short posterior fusion for patients with thoracolumbar idiopathic scoliosis. Monney G, et al. **Clin Orthop** 1999 Jul;(364):32–9

Occipitocervical fusions in children. Retrospective analysis and technical considerations. Rodgers WB, et al. **Clin Orthop** 1999 Jul;(364):125–33

Anterior only fusion for scoliosis in patients with myelomeningocele. Sponseller PD, et al. **Clin Orthop** 1999 Jul;(364):117–24

Lumbosacral fusion in children and adolescents using the modified sacral bar technique. Widmann RF, et al. **Clin Orthop** 1999 Jul;(364):85–91

Laparoscopic assisted spine surgery. Heini PF, et al. **Dig Surg** 1998;15(2):185–6

Comparison of three techniques of anterior fusion in single-level cervical disc herniation. López-Oliva Muñoz F, et al. **Eur Spine J** 1998;7(6):512–6

Dorsal instrumentation for idiopathic adolescent thoracic scoliosis: rod rotation versus translation. Muschik M, et al. **Eur Spine J** 1999;8(2):93–9

The treatment of neuromuscular scoliosis. Banta JV, et al. **Instr Course Lect** 1999;48:551–62 (84 ref.)

Sacrospinalis muscle-pedicle bone graft in posterolateral fusion for spondylolisthesis. Baksi DP. **Int Orthop** 1998; 22(4):234–40

Distal short segment fixation of thoracolumbar and lumbar injuries. Glaser JA, et al. **Iowa Orthop J** 1998;18:87–90

Percutaneous spinal fusion using bone morphogenetic protein-2 gene therapy. Alden TD, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):109–14

Screw fixation of fibular graft in the axis. Case illustration. Blacklock JB. **J Neurosurg** 1999 Jan;90(1 Suppl):159

Anterior cervical plating for the treatment of neoplasms in the cervical vertebrae. Caspar W, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):27–34

Cervical corpectomy: report of 185 cases and review of the literature [see comments] Eleraky MA, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):35–41. Comment in: J Neurosurg 1999 Jul;91(1 Suppl):138.

Occipitocervicothoracic fixation for spinal instability in patients with neoplastic processes. Jackson RJ, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):81–9

Inside-outside technique for posterior occipitocervical spine instrumentation and stabilization: preliminary results. Pait TG, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):1–7

Use of porous hydroxyapatite graft containing recombinant human bone morphogenetic protein-2 for cervical fusion in a caprine model. Takahashi T, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):224–30

Rigid occipitocervical fusion. Vale FL, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):144–50

Complex cervical spine neoplastic disease: reconstruction after surgery by using a vascularized fibular strut graft. Case report. Wright NM, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):133–7

Accurate pedicle screw insertion under the control of a computer-assisted image guiding system: laboratory test and clinical study. Kamimura M, et al. **J Orthop Sci** 1999; 4(3):197–206

Laparoscopically assisted spinal surgery. Henry LG, et al. **J Soc Laparoendosc Surg** 1997 Oct-Dec;1(4):341–4

Correction of adolescent idiopathic thoracic scoliosis with a new type of offset apical instrumentation: preliminary results. Arlet V, et al. **J Spinal Disord** 1998 Oct;11(5):404–9

Multidirectional stabilizing potential of BAK interbody spinal fusion system for anterior surgery [letter; comment] Benzel EC, et al. **J Spinal Disord** 1998 Oct;11(5):454–5. Comment on: J Spinal Disord 1997 Aug;10(4):357–62.

Posterolateral fusion for isthmic spondylolisthesis in adults: analysis of fusion rate and clinical results. Deguchi M, et al. **J Spinal Disord** 1998 Dec;11(6):459–64

Shortening of a unit rod protruding into the hip joint: case report and description of a surgical technique. Givon U, et al. **J Spinal Disord** 1999 Feb;12(1):74–6

A King type II curve pattern treated with selective thoracic fusion: case report with 44-year follow-up. McCance SE, et al. **J Spinal Disord** 1999 Jun;12(3):262–5

Uninstrumented posterolateral lumbar fusion for single level isolated disc resorption and/or degenerative disc disease. McCulloch JA. **J Spinal Disord** 1999 Feb;12(1):34–9

Anterior cervical graft and plate load sharing. Rapoff AJ, et al. **J Spinal Disord** 1999 Feb;12(1):45–9

Lumbosacral instrumented fusion: analysis of 124 consecutive cases. Stambough JL. **J Spinal Disord** 1999 Feb;12(1):1–9

Surgical treatment of internal disc disruption: an outcome study of four fusion techniques. Vamvanij V, et al. **J Spinal Disord** 1998 Oct;11(5):375–82

Biomechanical evaluation of posterior and anterior lumbar interbody fusion techniques. Voor MJ, et al. **J Spinal Disord** 1998 Aug;11(4):328–34

Comparative study of the incidence and severity of degenerative change in the transition zones after instrumented versus noninstrumented fusions of the lumbar spine. Wiltse LL, et al. **J Spinal Disord** 1999 Feb; 12(1):27–33

Laparoscopic spinal fusion. Bhatnagar MK, et al. **Md Med J** 1999 Jul-Aug;48(4):161–4

Long-term follow-up of the vascularized iliac bone graft. Ikeda K, et al. **Microsurgery** 1998;18(7):419–23

Cervical monosegmental interbody fusion using titanium implants in degenerative, intervertebral disc disease. al-Hami S. **Minim Invasive Neurosurg** 1999 Mar;42(1):10–7

Posterior C1–C2 transarticular screw fixation for atlantoaxial arthrodesis [letter] Kanat A, et al. **Neurosurgery** 1999 Mar; 44(3):687–9

Kinematics of cervical spine discectomy with and without bone grafting: quantitative evaluation of late fusion in a sheep model. Lee EJ, et al. **Neurosurgery** 1999 Jan; 44(1):139–46; discussion 146–7

Percutaneous interbody fusions. Mathews HH. **Orthop Clin North Am** 1998 Oct;29(4):647–53 (28 ref.)

Minimally invasive posterolateral lumbar arthrodesis. Moskovitz PA. **Orthop Clin North Am** 1998 Oct;29(4):665–7 (10 ref.)

Cervical degenerative disease: rationale for selecting the appropriate fusion technique (Anterior, posterior, and 360 degree). Rushton SA, et al. **Orthop Clin North Am** 1998 Oct;29(4):755–77 (78 ref.)

Laparoscopic bone dowel fusions of the lumbar spine. Silcox DH 3rd. **Orthop Clin North Am** 1998 Oct;29(4):655–63 (22 ref.)

Cervical trauma: rationale for selecting the appropriate fusion technique. Vaccaro AR, et al. **Orthop Clin North Am** 1998 Oct;29(4):745–54

Laparoscopic spinal fusion. Zdeblick TA. **Orthop Clin North Am** 1998 Oct;29(4):635–45 (43 ref.)

Anterior endoscopic correction and fusion of scoliosis. Picetti G 3rd, et al. **Orthopedics** 1998 Dec;21(12):1285–7

Traumatic spondylolisthesis of the axis: analysis of management. Barros TE, et al. **Spinal Cord** 1999 Mar; 37(3):166–71

Management of an unstable lumbar fracture with a laminar split. Wing P, et al. **Spinal Cord** 1999 Jun;37(6):392–401

Posterior occipitocervical reconstruction using cervical pedicle screws and plate-rod systems. Abumi K, et al. **Spine** 1999 Jul 15;24(14):1425–34

Image-guided anterior cervical corpectomy. A feasibility study. Albert TJ, et al. **Spine** 1999 Apr 15;24(8):826–30

The Bagby and Kuslich (BAK) method of lumbar interbody fusion [letter] Bagby G. **Spine** 1999 Sep 1;24(17):1857

Comparison of anterior and posterior instrumentation for correction of adolescent thoracic idiopathic scoliosis. Betz RR, et al. **Spine** 1999 Feb 1;24(3):225–39

The use of coralline hydroxyapatite with bone marrow, autogenous bone graft, or osteoinductive bone protein extract for posterolateral lumbar spine fusion. Boden SD, et al. **Spine** 1999 Feb 15;24(4):320–7

Lumbar spine fusion by local gene therapy with a cDNA encoding a novel osteoinductive protein (LMP-1). Boden SD, et al. **Spine** 1998 Dec 1;23(23):2486–92

Autologous bone grafting in staged scoliosis surgery. The patient as bone bank. Chugh S, et al. **Spine** 1998 Aug 15; 23(16):1793–5

Osteogenic protein versus autologous interbody arthrodesis in the sheep thoracic spine. A comparative endoscopic study using the Bagby and Kuslich interbody fusion device. Cunningham BW, et al. **Spine** 1999 Mar 15;24(6):509–18

Augmentation of spinal arthrodesis with autologous bone marrow in a rabbit posterolateral spine fusion model. Curylo LJ, et al. **Spine** 1999 Mar 1;24(5):434–8; discussion 438–9

Are anatomic landmarks reliable in determination of fusion level in posterolateral lumbar fusion? Ebraheim NA, et al. **Spine** 1999 May 15;24(10):973–4

A randomized prospective study of posterolateral lumbar fusion. Outcomes with and without pedicle screw instrumentation. France JC, et al. **Spine** 1999 Mar 15; 24(6):553–60

Pseudarthrosis of the lumbar spine. Outcome after circumferential fusion. Gertzbein SD, et al. **Spine** 1998 Nov 1;23(21):2352–6; discussion 2356–7

The use of recombinant human bone morphogenetic protein 2 (rhBMP-2) to promote spinal fusion in a nonhuman primate anterior interbody fusion model. Hecht BP, et al. **Spine** 1999 Apr 1;24(7):629–36

Comparison of thoracoscopic and open thoracic discectomy in a live ovine model for anterior spinal fusion. Huntington CF, et al. **Spine** 1998 Aug 1;23(15):1699–702

Experimental spinal fusion with use of recombinant human bone morphogenetic protein 2. Itoh H, et al. **Spine** 1999 Jul 15;24(14):1402–5

Stability of lumbar fusion with transpedicular fixation determined by roentgen stereophotogrammetric analysis. Johnsson R, et al. **Spine** 1999 Apr 1;24(7):687–90

Anterior interbody fusion versus posterolateral fusion with transpedicular fixation for isthmic spondylolisthesis in adults. A comparison of clinical results. Kim NH, et al. **Spine** 1999 Apr 15;24(8):812–6; discussion 817

Optimal selection and preparation of fresh frozen corticocancellous allografts for cervical interbody spinal fusion. Kummer FJ, et al. **Spine** 1998 Nov 1;23(21):2295–8

Comparison of the strengths of lumbosacral fixation achieved with techniques using one and two triangulated sacral screws. Leong JC, et al. **Spine** 1998 Nov 1;23(21):2289–94

Posterior approach with Louis plates for fractures of the thoracolumbar and lumbar spine with and without neurologic deficits. Louis CA, et al. **Spine** 1998 Sep 15; 23(18):2030–9; discussion 2040

Microdecompression and uninstrumented single-level fusion for spinal canal stenosis with degenerative spondylolisthesis. McCulloch JA. **Spine** 1998 Oct 15; 23(20):2243–52

Anterior cervical discectomy with freeze-dried fibula allograft. Overview of 317 cases and literature review. Martin GJ Jr, et al. **Spine** 1999 May 1;24(9):852–8; discussion 858–9 (51 ref.)

Anterior decompression with single segmental spinal interbody fusion for lumbar burst fracture. Miyakoshi N, et al. **Spine** 1999 Jan 1;24(1):67–73

Preliminary design and experimental studies of a novel soft implant for correcting sagittal plane instability in the lumbar spine [letter; comment] Moon MS. **Spine** 1999 Mar 1;24(5):499–500. Comment on: Spine 1997 Aug 15;22(16):1819–25; discussion 1826–7.

Laparoscopic fusion of the lumbar spine: minimally invasive spine surgery. A prospective multicenter study evaluating open and laparoscopic lumbar fusion. Regan JJ, et al. **Spine** 1999 Feb 15;24(4):402–11

One-stage decompression and posterolateral and interbody fusion for severe spondylolisthesis. An analysis of 14 patients. Roca J, et al. **Spine** 1999 Apr 1;24(7):709–14

Four-level cervical corpectomy. Saunders RL, et al. **Spine** 1998 Nov 15;23(22):2455–61

Use of a collagen-hydroxyapatite matrix in spinal fusion. A rabbit model. Tay BK, et al. **Spine** 1998 Nov 1; 23(21):2276–81

Anterior interbody fusion of the cervical spine with coralline hydroxyapatite. Thalgott JS, et al. **Spine** 1999 Jul 1; 24(13):1295–9

The effect of operative position and short-segment fusion on maintenance of sagittal alignment of the lumbar spine. Tribus CB, et al. **Spine** 1999 Jan 1;24(1):58–61

The efficacy of anterior cervical plating in the management of symptomatic pseudoarthrosis of the cervical spine. Tribus CB, et al. **Spine** 1999 May 1;24(9):860–4

Anterior junctional plate in the cervical spine. Vanichkachorn JS, et al. **Spine** 1998 Nov 15;23(22):2462–7

Transoral fusion with internal fixation in a displaced hangman's fracture. Wilson AJ, et al. **Spine** 1999 Feb 1; 24(3):295–8

Scoliosis secondary to cerebrocosto-mandibular syndrome. A case report with surgical management. Winter RB, et al. **Spine** 1999 May 1;24(9):908–11

The reliability of the lateral radiograph in determination of the optimal transarticular C1–C2 screw length. Xu R, et al. **Spine** 1998 Oct 15;23(20):2190–4

Comparison of tension band wiring and lateral mass plating for subaxial posterior cervical fusion. Lowry DW, et al. **Surg Neurol** 1998 Oct;50(4):323–31; discussion 331–2

Anterior interbody fusion in the treatment of the lumbar herniated nucleus pulposus. Kim NH. **Yonsei Med J** 1999 Jun;40(3):256–64

[Interbody arthrodesis of the lumbar vertebrae using retroperitoneal videoendoscopy. A preliminary study of 38 cases] Husson JL, et al. **Chirurgie** 1998 Nov;123(5):491–9 (Eng. Abstr.) **(Fre)**

[Interbody arthrodesis using a plasmapore titanium block. Mechanical and histological experimental study in sheep] Tropiano P, et al. **Chirurgie** 1999 Feb;124(1):58–65 (Eng. Abstr.) **(Fre)**

[Results of cervical interbody fusion with coral grafts] Bizette C, et al. **Neurochirurgie** 1999 Mar;45(1):4–14 (Eng. Abstr.) **(Fre)**

[Surgery of the spine in Duchenne's muscular dystrophy] Chataigner H, et al.
Rev Chir Orthop Reparatrice Appar Mot 1998 May; 84(3):224–30 (Eng. Abstr.) **(Fre)**

[Retroperitoneoscopic anterior approach to the L2, L3, L4 vertebral bodies] De Peretti F, et al.
Rev Chir Orthop Reparatrice Appar Mot 1999 May; 85(2):183–8 (10 ref.) (Eng. Abstr.) **(Fre)**

[Pott's disease paraplegia in children. Mechanics and therapeutic strategies. Six cases] Journeau P, et al.
Rev Chir Orthop Reparatrice Appar Mot 1999 May; 85(2):117–24 (Eng. Abstr.) **(Fre)**

[Treatment of scoliosis in the adolescent by anterior release and vertebral arthrodesis under thoracoscopy. Preliminary results] Papin P, et al.
Rev Chir Orthop Reparatrice Appar Mot 1998 May; 84(3):231–8 (21 ref.) (Eng. Abstr.) **(Fre)**

[Trans-articular screw fixation of C1/C2 in atlanto-axial instability. Comparison between percutaneous and open procedures] Blauth M, et al. **Orthopade** 1999 Aug; 28(8):651–61 (Eng. Abstr.) **(Ger)**

[Thoracoscopy-guided management of the "anterior column". Methods and results] Potulski M, et al. **Orthopade** 1999 Aug;28(8):723–30 (Eng. Abstr.) **(Ger)**

[First experiences using microsurgical techniques for minimally invasive ventral interbody fusion of the lumbar spine (MINI-ALIF)] Wolf O, et al.
Z Arztl Fortbild Qualitatssich 1999 Jun;93(4):267–71 (Eng. Abstr.) **(Ger)**

[Lumbosacral fusion using a femoro-cortical allograft ring] Liljenqvist U, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug; 136(4):358–63 (Eng. Abstr.) **(Ger)**

[Surgical technique and long-term follow-up of laminoplasty using titanium miniplates] Iwakura M, et al.
No Shinkei Geka 1999 Jun;27(6):525–31 (Eng. Abstr.) **(Jpn)**

[Anterior screw fixation combined with posterior interlaminar fusion for fracture of axis: report of two cases] Suzuki F, et al. **No Shinkei Geka** 1999 Jan;27(1):95–100 (Eng. Abstr.) **(Jpn)**

[Lumbar interbody fusion. Biomechanical significance for the spine] Maciejczak A, et al. **Neurol Neurochir Pol** 1998 Sep–Oct;32(5):1247–59 (20 ref.) (Eng. Abstr.) **(Pol)**

[The application of intervertebral implant for spine stabilization] Radek A, et al. **Neurol Neurochir Pol** 1998 May–Jun;32(3):705–11 (Eng. Abstr.) **(Pol)**

NURSING

Technique and patient care using interbody fusion technology. Mangum S. **AORN J** 1998 Nov;68(5):786–8, 790, 793–8

PSYCHOLOGY

Posterior lumbar interbody fusion. Association between disability and psychological disturbance in noncompensation patients. Tandon V, et al. **Spine** 1999 Sep 1;24(17):1833–8

REHABILITATION

[Sports and physical load bearing capacity after spondylodesis in patients with Scheuermann kyphosis] Daentzer D, et al. **Sportverletz Sportschaden** 1999 Mar; 13(1):22–9 (Eng. Abstr.) **(Ger)**

STANDARDS

Clinical relevance of accuracy of pedicle screw placement. A computed tomographic-supported analysis. Schulze CJ, et al. **Spine** 1998 Oct 15;23(20):2215–20; discussion 2220–1

SPINAL GANGLIA see **GANGLIA, SPINAL**

SPINAL INJURIES

How real is the subluxation? A research perspective [see comments] Leboeuf-Yde C.
J Manipulative Physiol Ther 1998 Sep;21(7):492–4. Comment in: J Manipulative Physiol Ther 1999 Mar–Apr;22(3):180.

American Spinal Injury Association (ASIA). Abstracts.
J Spinal Cord Med 1998 Apr;21(2):151–94

CLASSIFICATION

[Inter-observer reliability in the classification of thoraco-lumbar spinal injuries] Blauth M, et al.
Orthopade 1999 Aug;28(8):662–81 (Eng. Abstr.) **(Ger)**

[Management of injuries of the thoracic and lumbar vertebrae in children] Kathrein A, et al. **Orthopade** 1999 May; 28(5):441–50 (60 ref.) (Eng. Abstr.) **(Ger)**

[International standards in assessing the neurological disorders in spinal and spinal cord trauma] Iarikov DE, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan–Mar; (1):36–8 **(Rus)**

COMPLICATIONS

Traumatic L5–S1 spondylolisthesis: report of three cases and a review of the literature. Fabris D, et al. **Eur Spine J** 1999;8(4):290–5 (25 ref.)

Transducers for dynamic measurement of spine neural-space occlusions. Raynak GC, et al. **J Biomech Eng** 1998 Dec; 120(6):787–91

Torsional injury resulting in disc degeneration in the rabbit: II. Associative changes in dorsal root ganglion and spinal cord neurotransmitter production. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):318–21

Torsional injury resulting in disc degeneration: I. An in vivo rabbit model. Hadjipavlou AG, et al. **J Spinal Disord** 1998 Aug;11(4):312–7

Erectile dysfunction caused by sacral gun-shot injury. Werner T, et al. **Scand J Urol Nephrol** 1999 Feb;33(1):69–70

Evolving magnetic resonance spinal cord trauma in child: from hemorrhage to intradural arachnoid cyst. Fobe JL, et al. **Spinal Cord** 1998 Dec;36(12):864–6

Use of breath-activated Patient Controlled Analgesia for acute pain management in a patient with quadriplegia. Jastrzab G, et al. **Spinal Cord** 1999 Mar;37(3):221–3

Risk factors and precipitating neck movements causing vertebrobasilar artery dissection after cervical trauma and spinal manipulation. Haldeman S, et al. **Spine** 1999 Apr 15;24(8):785–94 (211 ref.)

[Cerebral and basilar artery thrombosis following cervical spinal injury] Niedeggen A, et al. **Zentralbl Neurochir** 1999; 60(1):20–6 (25 ref.) (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Cervical spine injury in maxillofacial trauma [letter] Beirne JC. **Br J Oral Maxillofac Surg** 1999 Jun;37(3):245

Delayed spinal cord compression in ankylosing spondylitis. Harun S. **J Accid Emerg Med** 1998 Sep;15(5):336

Most commonly used methods of detecting spinal subluxation and the preferred term for its description: a survey of chiropractic in Victoria, Australia [letter; comment] Grazier RB. **J Manipulative Physiol Ther** 1998 Jul–Aug; 21(6):428–9. Comment on: J Manipulative Physiol Ther 1997 Nov–Dec;20(9):583–9.

Out-of-hospital cervical spine clearance: agreement between emergency medical technicians and emergency physicians. Meldon SW, et al. **J Trauma** 1998 Dec;45(6):1058–61

MR imaging of the spine in sports injuries. Gundry CR, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):85–103 (48 ref.)

Spine and spinal cord war injuries during the war in Croatia. Janković S, et al. **Mil Med** 1998 Dec;163(12):847–9

MRI in the assessment of the supportive soft tissues of the cervical spine in acute trauma in children. Keiper MD, et al. **Neuroradiology** 1998 Jun;40(6):359–63

Cervical spine evaluation in obtunded or comatose pediatric trauma patients: A pilot study. Scarrow AM, et al.
Pediatr Neurosurg 1999 Apr;30(4):169–75

Can EMS providers adequately assess trauma patients for cervical spinal injury? Brown LH, et al.
Prehosp Emerg Care 1998 Jan–Mar;2(1):33–6

Current practice in clinical cervical spinal clearance: implication for EMS. Cone DC, et al.
Prehosp Emerg Care 1999 Jan–Mar;3(1):42–6

Imaging of the cervical spine. Kaiser JA, et al. **Spine** 1998 Dec 15;23(24):2701–12 (70 ref.)

[Spinal injuries—many questions still open! (editorial)] Blauth M. **Orthopade** 1999 May;28(5):383–4 **(Ger)**

[Trans-articular screw fixation of C1/C2 in atlanto-axial instability. Comparison between percutaneous and open procedures] Blauth M, et al. **Orthopade** 1999 Aug; 28(8):651–61 (Eng. Abstr.) **(Ger)**

[Spinal injuries—facts and questions, opening of new horizons (editorial)] Blauth M. **Orthopade** 1999 Aug;28(8):635–6 **(Ger)**

[Clinical studies in health workers employed in the manual lifting of patients: methods for the examination of spinal lesions] Ricci MG, et al. **Med Lav** 1999 Mar–Apr; 90(2):173–90 (Eng. Abstr.) **(Ita)**

[A gunshot wound of the pharynx and spine] Ashurov ZM, et al. **Vestn Otorinolaringol** 1999;(3):56 **(Rus)**

ECONOMICS

Cervical spine screening with CT in trauma patients: a cost-effectiveness analysis. Blackmore CC, et al.
Radiology 1999 Jul;212(1):117–25

EPIDEMIOLOGY

Radiographic abnormalities of the lumbar spine in college football players. A comparative analysis. Jones DM, et al.
Am J Sports Med 1999 May–Jun;27(3):335–8

Spinal injuries in skiers and snowboarders [see comments] Tarazi F, et al. **Am J Sports Med** 1999 Mar–Apr; 27(2):177–80. Comment in: Am J Sports Med 1999 Jul–Aug;27(4):546.

The effect of comorbidity on care seeking for back problems in the United States. Hurwitz EL, et al. **Ann Epidemiol** 1999 May;9(4):262–70

The effect of helmets on the incidence and severity of head and cervical spine injuries in motorcycle and moped accident victims: a prospective analysis based on emergency department and trauma centre data. Van Camp LA, et al. **Eur J Emerg Med** 1998 Jun;5(2):207–11

Characteristics of injuries to the cervical spine and spinal cord in polytrauma patient population: experience from a regional trauma unit. Prasad VS, et al. **Spinal Cord** 1999 Aug;37(8):560–8

Psychosocial job factors, physical workload, and incidence of work-related spinal injury: a 5-year prospective study of urban transit operators. Krause N, et al. **Spine** 1998 Dec 1;23(23):2507–16

[Predominance of orthopedic diseases in young adults (news)] Ludwig J, et al. **Z Orthop Ihre Grenzgeb** 1999 May–Jun; 137(3):Oa6–8 **(Ger)**

[Initial epidemiological data on the clinical effects in health workers employed in the manual lifting of patients in wards] Colombini D, et al. **Med Lav** 1999 Mar–Apr; 90(2):201–28 (Eng. Abstr.) **(Ita)**

[Worker turnover because of spinal pathologies in the wards and outpatient clinics of the hospitals of Leno and Manerbo, Brescia] Soldati O, et al. **Med Lav** 1999 Mar–Apr; 90(2):244–55 (Eng. Abstr.) **(Ita)**

ETIOLOGY

Risk factors for vertebral fractures in renal osteodystrophy. Atsumi K, et al. **Am J Kidney Dis** 1999 Feb;33(2):287–93

Spinal injuries in skiers and snowboarders [letter; comment] Harris JB. **Am J Sports Med** 1999 Jul–Aug;27(4):546. Comment on: Am J Sports Med 1999 Mar–Apr;27(2):177–80.

Low-velocity gunshot injuries of the spine with abdominal viscus trauma. Kumar A, et al. **J Orthop Trauma** 1998 Sep–Oct;12(7):514–7

Spine injuries associated with falls from hunting tree stands. Crites BM, et al. **J South Orthop Assoc** 1998 Winter; 7(4):241–5

Cervical rheumatoid arthritis subluxations without myelopathy [clinical conference] Belzberg AJ, et al.
J Spinal Disord 1999 Feb;12(1):81–2; discussion 82–6

Injuries in the adolescent porcine spine exposed to mechanical compression. Lundin O, et al. **Spine** 1998 Dec 1;23(23):2574–9

HISTORY

[The 'railway spine': alleged spinal injury caused by railway concussions as a basis for financial claims in 19th century England] Siemerink-Hermans HJ.
Ned Tijdschr Geneeskd 1998 Apr 11;142(15):864–8 (Eng. Abstr.) **(Dut)**

PATHOLOGY

Injuries in adolescent spine exposed to compressive loads: an experimental cadaveric study. Karlsson L, et al.
J Spinal Disord 1998 Dec;11(6):501–7

The pathogenesis of Schmorl's nodes in relation to acute trauma. An autopsy study. Fahey V, et al. **Spine** 1998 Nov 1;23(21):2272–5

PHYSIOPATHOLOGY

Anterior dislocation and extruded disc of the lower cervical spine. Shiba K, et al. **Spinal Cord** 1999 Aug;37(8):538–41

Helmet and shoulder pad removal from a player with suspected cervical spine injury. A cadaveric model. Donaldson WF 3rd, et al. **Spine** 1998 Aug 15; 23(16):1729–32; discussion 1732–3

Effect of age and loading rate on human cervical spine injury threshold. Pintar FA, et al. **Spine** 1998 Sep 15; 23(18):1957–62

[Correction of posttraumatic deformities. Principles and methods] Stoltze D, et al. **Orthopade** 1999 Aug;28(8):731–45 (70 ref.) (Eng. Abstr.) **(Ger)**

[Changes in the somatosensory evoked potentials of patients with complicated spinal trauma after an omentomyelopexy operation] Sokolova AA, et al.
Zh Vopr Neirokhir Im N N Burdenko 1999 Jan–Mar; (1):15–20 (Eng. Abstr.) **(Rus)**

[The assessment of the dynamics of somatosensory evoked potentials in the surgical and conservative treatment of patients following spinal and spinal cord trauma] Vishnevskii AA, et al.
Zh Vopr Neirokhir Im N N Burdenko 1998 Oct–Dec; (4):30–5 (Eng. Abstr.) **(Rus)**

PREVENTION & CONTROL

A comprehensive analysis of low-back disorder risk and spinal loading during the transferring and repositioning of patients using different techniques. Marras WS, et al.
Ergonomics 1999 Jul;42(7):904–26

Dissecting the rugby tackle: do shoulder pads contribute to cervical spine injuries? [letter; comment] Quinn DI.
Med J Aust 1998 Nov 2;169(9):501–2. Comment on: Med J Aust 1998 Apr 20;168(8):379–81. Comment on: Med J Aust 1998 Apr 20;168(8):418.

SPINAL INJURIES

[Handling and assistance. How to prevent vertebral pathologies] Privitera E, et al. **Minerva Anestesiol** 1999 May;65(5 Suppl 1):127–8 **(Ita)**

PSYCHOLOGY

Coping effectiveness training for people with spinal cord injury: preliminary results of a controlled trial. King C, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):5–14

RADIOGRAPHY

Cervical spine radiographs in the trauma patient. Graber MA, et al. **Am Fam Physician** 1999 Jan 15;59(2):331–42 (34 ref.)

Evaluation of pediatric cervical spine injuries. Baker C, et al. **Am J Emerg Med** 1999 May;17(3):230–4

Redundancy of portable cervical spine films in the trauma suite [letter] Monico E. **Am J Emerg Med** 1999 Mar; 17(2):211–2

Computed tomography of the spine as an important diagnostic tool in the management of war missile spinal trauma. Splavski B, et al. **Arch Orthop Trauma Surg** 1998; 117(6–7):360–3

The use of bedside fluoroscopy to evaluate the cervical spine in obtunded trauma patients. Sees DW, et al. **J Trauma** 1998 Oct;45(4):768–71

Imaging of neurological emergencies: trauma, hemorrhage, and infarction. Bagley LJ. **Semin Roentgenol** 1999 Apr; 34(2):144–59 (64 ref.)

[The "posterior cervical line". A radiodiagnostic parameter of the cervical spine in children] Schwarz N. **Unfallchirurg** 1998 Jul;101(7):557–9 (Eng. Abstr.) **(Ger)**

RADIOTHERAPY

[The possibility of immunocorrection in spinal-spinal cord trauma by using intravenous laser irradiation] Stupak VV, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Jan–Mar; (1):20–5 (Eng. Abstr.) **(Rus)**

REHABILITATION

Musculoskeletal rehabilitation and sports medicine. 1. Head and spine injuries. Sherman AL, et al. **Arch Phys Med Rehabil** 1999 May;80(5 Suppl 1):S40–9 (109 ref.)

Coping effectiveness training for people with spinal cord injury: preliminary results of a controlled trial. King C, et al. **Br J Clin Psychol** 1999 Mar;38 (Pt 1):5–14

Spinal injury rehabilitation in Singapore. Yen HL, et al. **Int J Rehabil Res** 1998 Dec;21(4):375–87

Components of initial and residual disability after back injury in nurses. Cooper JE, et al. **Spine** 1998 Oct 1;23(19):2118–22

[High performance sports and backache: the value of functional analysis and progressive dynamic strength training of the trunk muscles. Case report of a 15-year-old high performance tennis player] Hofmann A, et al. **Sportverletz Sportschaden** 1999 Mar;13(1):M7–9 **(Ger)**

[Care of spinal injuries in New Zealand. International recognition of devoted work in research and development] Fridén J. **Lakartidningen** 1999 Sep 1;96(35):3680–2 **(Swe)**

SURGERY

Lateral extracavitary approach for thoracic and thoracolumbar spine trauma: operative complications. Resnick DK, et al. **Neurosurgery** 1998 Oct;43(4):796–802; discussion 802–3 (22 ref.)

Anatomic basis of the anterior surgery on the cervical spine: relationships between uncus-artery-root complex and vertebral artery injury. Ebraheim NA, et al. **Surg Radiol Anat** 1998;20(6):389–92

[Improvement of technigue in restoration of stability of thoracolumbal spine] Zhang G, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 May;11(3):157–60 (Eng. Abstr.) **(Chi)**

[Effect of a crosslink or cerclage on the mechanical stability of an internal fixator] Bastian L, et al. **Orthopade** 1999 Aug; 28(8):714–22 (37 ref.) (Eng. Abstr.) **(Ger)**

[Transpedicular implantation of screws in the thoracolumbar spine. Results of a survey of methods, frequency and complications] Bastian L, et al. **Orthopade** 1999 Aug; 28(8):693–702 (31 ref.) (Eng. Abstr.) **(Ger)**

[Transpedicular fusion of the thoraco-lumbar junction. Clinical, radiographic and CT results] Knop C, et al. **Orthopade** 1999 Aug;28(8):703–13 (35 ref.) (Eng. Abstr.) **(Ger)**

[Thoracoscopy-guided management of the "anterior column". Methods and results] Potulski M, et al. **Orthopade** 1999 Aug;28(8):723–30 (Eng. Abstr.) **(Ger)**

[Biomechanical and clinical aspects of spondylodesis of the lower cervical spine. Methods and implants] Ulrich C, et al. **Orthopade** 1999 Aug;28(8):637–50 (74 ref.) (Eng. Abstr.) **(Ger)**

[Injuries of the cervical spine in children (editorial)] Blauth M. **Unfallchirurg** 1998 Aug;101(8):588–9 **(Ger)**

[Injuries of the cervical spine in children] Blauth M, et al. **Unfallchirurg** 1998 Aug;101(8):590–612 (167 ref.) (Eng. Abstr.) **(Ger)**

[Injuries of the thoracic and lumbar spine] Eggers C, et al. **Unfallchirurg** 1998 Oct;101(10):779–90 (11 ref.) **(Ger)**

[Possibilities for static and dynamic stabilization of the spine in lesions of the anterior and posterior ligament complex] Quint U, et al. **Unfallchirurg** 1998 Sep;101(9):684–90 (Eng. Abstr.) **(Ger)**

[Dorsal occipitocervical fusion--indications and results] Plötz GM, et al. **Z Orthop Ihre Grenzgeb** 1998 Jul–Aug; 136(4):364–74 (Eng. Abstr.) **(Ger)**

[Ventral interbody spondylodesis in injuries of the cervical spine. Indications, surgical technique and results] Blauth M, et al. **Zentralbl Chir** 1998;123(8):919–29 (40 ref.) (Eng. Abstr.) **(Ger)**

[Reduction and positioning of cervical spine injuries] Blauth M, et al. **Zentralbl Chir** 1998;123(8):894–906 (68 ref.) (Eng. Abstr.) **(Ger)**

[Surgical therapy of the injured spine (editorial)] Weckbach A. **Zentralbl Chir** 1998;123(8):893 **(Ger)**

[Thoraco-lumbar spinal injuries--surgical indications and timing] Weckback A, et al. **Zentralbl Chir** 1998; 123(8):930–5 (6 ref.) (Eng. Abstr.) **(Ger)**

[Fixation of cervical spine with interspinous wiring and autologous bone grafting] Lopes Júnior E, et al. **Arq Neuropsiquiatr** 1999 Mar;57(1):68–73 (Eng. Abstr.) **(Por)**

[Posttraumatic spinal instability and the methods for its surgical correction] Dulaev AK, et al. **Zh Vopr Neirokhir Im N N Burdenko** 1999 Apr–Jun; (2):14–6; discussion 17 (Eng. Abstr.) **(Rus)**

THERAPY

Cervical collar-induced changes in intracranial pressure. Kolb JC, et al. **Am J Emerg Med** 1999 Mar;17(2):135–7

Risk of early closed reduction in cervical spine subluxation injuries. Grant GA, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):13–8

Cervical rheumatoid arthritis subluxations without myelopathy [clinical conference] Belzberg AJ, et al. **J Spinal Disord** 1999 Feb;12(1):81–2; discussion 82–6

Spine and spinal cord war injuries during the war in Croatia. Janković S, et al. **Mil Med** 1998 Dec;163(12):847–9

Cervical spine injuries and management: experience with 235 patients in 10 years. Daneyemez M, et al. **Minim Invasive Neurosurg** 1999 Mar;42(1):6–9

The Kendrick extrication device used for pediatric spinal immobilization. Markenson D, et al. **Prehosp Emerg Care** 1999 Jan–Mar;3(1):66–9

[Management of spinal trauma] Wettstein M, et al. **Rev Med Suisse Romande** 1998 Aug;118(8):695–700 (13 ref.) **(Fre)**

[The results of conservative treatment of cervical spine injuries with vertebral dislocation without neurological impairment] Palczewski D, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(2):141–6 (Eng. Abstr.) **(Pol)**

VETERINARY

Equine back rehabilitation. Ridgway K, et al. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):263–80, x (23 ref.)

[A surgical method for the stabilization of traumatic subluxation, luxation and fractures of the thoracic and lumbar vertebrae in dogs and cats] Koch DA, et al. **Schweiz Arch Tierheilkd** 1998;140(10):413–8 (Eng. Abstr.) **(Ger)**

SPINAL MANIPULATION see **MANIPULATION, SPINAL**

SPINAL MUSCULAR ATROPHY see **MUSCULAR ATROPHY, SPINAL**

SPINAL MUSCULAR ATROPHY, INFANTILE see **WERDNIG-HOFFMANN DISEASE**

SPINAL NEOPLASMS

A case of chordoma in association with rectal carcinoma. Bozbora A, et al. **Acta Chir Belg** 1999 Feb;99(1):41–3

Sacral tumors in Schinzel–Giedion syndrome [letter; comment] McPherson E, et al. **Am J Med Genet** 1998 Aug 27;79(1):62–3. Comment on: Am J Med Genet 1995 Oct 23;59(1):96–9.

Meningeal chondrosarcomas, a review of 31 patients. Forbes RB, et al. **Br J Neurosurg** 1998 Oct;12(5):461–4 (30 ref.)

Hemangioblastoma of the L-5 nerve root. Case illustration. Chazono M, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):160

Spinal teratomas versus hamartomas [letter; comment] James HE. **Pediatr Neurosurg** 1998 Jul;29(1):53. Comment on: Pediatr Neurosurg 1997 Nov;27(5):242–5.

Chondromyxoid fibroma of two thoracic vertebrae. Bruder E, et al. **Skeletal Radiol** 1999 May;28(5):286–9

Primary bone and metastatic tumors of the cervical spine. Abdu WA, et al. **Spine** 1998 Dec 15;23(24):2767–77 (73 ref.)

Vertebral hemangiomas: diagnosis, management, natural history and clinicopathological correlates in 86 patients. Pastushyn AI, et al. **Surg Neurol** 1998 Dec;50(6):535–47

[Spinal primitive neuroectodermal tumor] Rodriguez-Kú RJ, et al. **Gac Med Mex** 1999 Mar–Apr;135(2):183–8 (Eng. Abstr.) **(Spa)**

BLOOD SUPPLY

Hypervascular spinal tumors: influence of the embolization technique on perioperative hemorrhage. Berkefeld J, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):757–63

COMPLICATIONS

Mexiletine as a treatment for malignant neuropathic pain [letter] Lightfoot T, et al. **Aust N Z J Med** 1998 Oct; 28(5):664

Segmental hyperhidrosis as a manifestation of spinal and paraspinal disease. Schulz V, et al. **Can J Neurol Sci** 1998 Nov;25(4):325–7

Osteochondroma of the thoracic spine: a dumbbell mass associated with spinal cord compression. Nuri Sener R. **Comput Med Imaging Graph** 1998 Jul–Aug;22(4):361–3

Acute spinal cord compression due to intraspinal bleeding from a vertebral hemangioma: two case-reports. Castel E, et al. **Eur Spine J** 1999;8(3):244–8

Pathologic odontoid fracture and benign fibrous histiocytoma of bone. Peicha G, et al. **Eur Spine J** 1999;8(2):161–3

Osteochondroma with compression of the spinal cord. A report of two cases. Govender S, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):667–9

Osteochondroma of the L-5 vertebra: a rare cause of sciatic pain. Case report. Fiumara E, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):219–22

Spinal malignant melanotic schwannoma. Case report. Noubari BA, et al. **J Neurosurg Sci** 1998 Dec;42(4):245–9

Neurofibromatosis: an unusual cause of cervical myopathy. Barber DB, et al. **J Spinal Cord Med** 1998 Apr;21(2):148–50

Vertebra plana due to a Ewing tumor. Kager L, et al. **Med Pediatr Oncol** 1999 Jan;32(1):57–9

Metastatic spinal cord compression. Clinical remarks. Salvati M, et al. **Minerva Chir** 1998 Sep;53(9):727–30

Severe muscle weakness secondary to paraneoplastic hypophosphatemia in neuroblastoma. Kats S, et al. **Neth J Med** 1998 Nov;53(5):207–11

Dandy-Walker syndrome associated with occipital meningocele and spinal lipoma--case report. Shuto T, et al. **Neurol Med Chir (Tokyo)** 1999 Jul;39(7):544–7

Cervical spine dysraphism with teratoma exhibiting pulmonary differentiation: case report and review of the literature. Ramdial PK, et al. **Pediatr Dev Pathol** 1998 Nov-Dec;1(6):528–33 (22 ref.)

Neonatal benign sacrococcygeal teratoma with N-type rectobulbar fistula. Henry PY, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):127–8

Progressive neurological symptoms in a diabetic patient. al-Mahroos S, et al. **Postgrad Med J** 1998 Nov; 74(877):699–700

Extraosseous calcified plasmacytoma causing thoracic myelopathy. Taira H, et al. **Skeletal Radiol** 1999 Jun; 28(6):347–9

Cavernous angioma of the conus medullaris as a cause of paraplegia. Hernández D, et al. **Spinal Cord** 1999 Jan; 37(1):65–7

Complete paraplegia due to multiple intracerebral and spinal cavernomas. Parsch D, et al. **Spinal Cord** 1999 Jan; 37(1):62–4

Plasmacytoma of dens as a cause of atlanto-axial instability. Prasad VS, et al. **Spinal Cord** 1998 Sep;36(9):661–3

Occipital pain in osteoid osteoma of the atlas. A report of two cases. De Praeter MP, et al. **Spine** 1999 May 1; 24(9):912–4

Spontaneous spinal epidural hematoma with spinal cord compression complicating plasma cell myeloma. A case report. Hayem G, et al. **Spine** 1998 Nov 15;23(22):2432–5

The solitary intraspinal vertebral osteochondroma. An unusual cause of compressive myelopathy: features and literature review. Khosla A, et al **Spine** 1999 Jan 1; 24(1):77–81 (16 ref.)

[Compressive vertebral angiomas: a case report] Ben Hamouda I, et al. **Tunis Med** 1999 Apr;77(4):236–41 (Eng. Abstr.) **(Fre)**

[Does the neurologic assessment have a decisive role in the early diagnosis of urinary disorders of uncertain etiology? A case of spinal chordoma] Carbone A, et al. **Arch Ital Urol Androl** 1999 Feb;71(1):37–9 (Eng. Abstr.) **(Ita)**

[Subarachnoid hemorrhage due to conus medullaris ependymoma] Janda R, et al. **Neurol Neurochir Pol** 1998 Mar–Apr;32(2):409–15 (Eng. Abstr.) **(Pol)**

[Metastatic tumors in vertebral canal] Janusz W, et al. **Neurol Neurochir Pol** 1999 Mar–Apr;33(2):403–12 (Eng. Abstr.) **(Pol)**

CONGENITAL

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1998 Aug;15(8):503–5

Caudal appendage in a full-term infant. Svatek M, et al. **Curr Opin Pediatr** 1998 Dec;10(6):635–9

A case of incomplete Currarino triad with malignant transformation. Tander B, et al. **Pediatr Surg Int** 1999 Jul; 15(5-6):409–10

[Significance of prenatal diagnosis in interdisciplinary treatment of sacrococcygeal teratoma] Schaarschmidt K, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998; 115:1168–71 (Eng. Abstr.) **(Ger)**

DIAGNOSIS

Imaging of abdominal neuroblastoma in children. Hugosson C, et al. **Acta Radiol** 1999 Sep;40(5):534–42

Thoracic case of the day. Thoracic myelolipomatosis. Blake MA, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):821, 823–4

Pediatric case of the day. Sacrococcygeal teratoma, type IV. Kassarjian A, et al. **AJR Am J Roentgenol** 1999 Sep; 173(3):814, 817–8

Clinical and imaging features of cervical chordoma. Wippold FJ 2nd, et al. **AJR Am J Roentgenol** 1999 May; 172(5):1423–6

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1999;16(1):47–50

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1998 Aug;15(8):503–5

Primary non-Hodgkin lymphoma of the spine. Becker S, et al. **Arch Orthop Trauma Surg** 1998;117(6–7):399–401

Thoracic chordoma mimicking a neurogenic tumour. Holden A, et al. **Australas Radiol** 1998 Nov;42(4):385–7

Musculoskeletal case 5. Hemangioma of bone. Hodge JC. **Can J Surg** 1999 Aug;42(4):252, 267–8

Diagnostic problems of evaluating vertebral metastasis from breast carcinoma with a higher degree of malignancy. Nishimura R, et al. **Cancer** 1999 Apr 15;85(8):1782–8

Metastatic alveolar rhabdomyosarcoma with increased serum creatine kinase MB and cardiac troponin T and normal cardiac troponin I [letter] Isotalo PA, et al. **Clin Chem** 1999 Sep;45(9):1576–8

Spinal involvement of hematopoietic malignancies and metastasis: differentiation using MR imaging. Kim HJ, et al. **Clin Imaging** 1999 Mar–Apr;23(2):125–33

A case of vertebral solitary bone plasmacytoma. Mitchell B, et al. **Clin J Sport Med** 1998 Oct;8(4):305–7

Caudal appendage in a full-term infant. Svatek M, et al. **Curr Opin Pediatr** 1998 Dec;10(6):635–9

CT and MRI appearances of a thoracic chordoma. Murphy JM, et al. **Eur Radiol** 1998;8(9):1677–9 (13 ref.)

Fetal sacrococcygeal teratoma visualized by ultra-fast T2 weighted magnetic resonance imaging. Okamura M, et al. **Int J Gynaecol Obstet** 1999 May;65(2):191–3

Cutaneous metastases from a chondroblastoma initially presenting as unilateral palmar hyperhidrosis. Seline PC, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):325–7

Two cases of neuroblastoma presenting to the emergency department. Christiansen GM, et al. **J Emerg Med** 1999 Mar–Apr;17(2):265–8

Fibromatosis. Yoskovitch A, et al. **J Laryngol Otol** 1999 May; 113(5):486–8

Spinal angiolipoma: case report and review of literature. Oge HK, et al. **J Spinal Disord** 1999 Aug;12(4):353–6

A migrated lumbar disc herniation simulating a dumbbell tumor. Saruhashi Y, et al. **J Spinal Disord** 1999 Aug; 12(4):307–9

Bone lesions with soft-tissue mass: magnetic resonance imaging diagnosis of lymphomatous involvement of the bone marrow versus multiple myeloma and bone metastases. Moulopoulos LA, et al. **Leuk Lymphoma** 1999 Jun;34(1–2):179–84

MR imaging of neoplasms of the lumbar spine. Sevick RJ, et al. **Magn Reson Imaging Clin N Am** 1999 Aug; 7(3):539–53, ix (64 ref.)

Misleading leads: Bone pain caused by isolated paraspinal extramedullary relapse of childhood acute lymphoblastic leukemia. Alessandri AJ, et al. **Med Pediatr Oncol** 1999 Aug;33(2):113–5

Differential diagnosis: a reasonable clinical approach. Swenson R. **Neurol Clin** 1999 Feb;17(1):43–63 (81 ref.)

Cervical epidural rhabdomyosarcoma with a leukemia-like presentation in an aged patient—case report. Haisa T, et al. **Neurol Med Chir (Tokyo)** 1999 Mar;39(3):234–7

Radiological and histological findings in spinal intramedullary angiolipoma. Klisch J, et al. **Neuroradiology** 1999 Aug;41(8):584–7

Sacral haemangioma as a cause of coccydynia. Lath R, et al. **Neuroradiology** 1998 Aug;40(8):524–6

MRI demonstration of subarachnoid neurocysticercosis simulating metastatic disease. Lau KY, et al. **Neuroradiology** 1998 Nov;40(11):724–6

Osteoblastoma in lumbar vertebral body. Obenberger J, et al. **Neuroradiology** 1999 Apr;41(4):279–82

Solitary plasmacytoma in the thoracic spine. Two case reports. Takahashi T, et al. **Neurosurg Rev** 1998; 21(2–3):121–5 (13 ref.)

Sacrococcygeal teratoma with an intradural and extramedullary extension in a neonate: case report. Ribeiro PR, et al. **Neurosurgery** 1999 Feb;44(2):398–400

Pediatric vertebral and spinal cord tumors: a retrospective study of musculoskeletal aspects of presentation, treatment, and complications. Mehlman CT, et al. **Orthopedics** 1999 Jan;22(1):49–55; discussion 55–6

MRI description of vertebral osteomyelitis, neoplasm, and compression fracture. Vaccaro AR, et al. **Orthopedics** 1999 Jan;22(1):67–73; quiz 74–5 (18 ref.)

Cervicothoracic chordoma presenting as progressive dyspnea and dysphagia. Hester TO, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):97–100

Bone marrow examinations as final clue to diagnosis of hypercalcemia: report of two cases. Lam KK, et al. **Ren Fail** 1999 Jan;21(1):101–5

Vertebral intra-osseous chordoma or giant notochordal rest? Darby AJ, et al. **Skeletal Radiol** 1999 Jun;28(6):342–6

Sclerotic variant of lymphangiomatosis of bone: imaging findings at diagnosis and long-term follow-up. Forstner R, et al. **Skeletal Radiol** 1998 Aug;27(8):445–8

Spinal osteoblastoma: CT and MR imaging with pathological correlation. Shaikh MI, et al. **Skeletal Radiol** 1999 Jan; 28(1):33–40

Multiple myeloma mimicking bone metastasis from breast cancer: report of a case. Tomono H, et al. **Surg Today** 1998;28(12):1304–6

[Two patients with osteochondroma of the cervical spine] de Boer MT, et al. **Ned Tijdschr Geneeskd** 1999 Mar 6; 143(10):525–9 (Eng. Abstr.) **(Dut)**

[Pain in one leg in cancer patients (correction)] Koot RW, et al. **Ned Tijdschr Geneeskd** 1998 Dec 5;142(49):2674 **(Dut)**

[Comparison of three fat suppression sequences for the detection of vertebral detection. Turbo STIR, phase contrast gradient-echo, and MISTEC-Chopper after gadolinium injection] Cottier JP, et al. **J Neuroradiol** 1998 Jul;25(2):129–35 (Eng. Abstr.) **(Fre)**

[Compressive vertebral angiomas: a case report] Ben Hamouda I, et al. **Tunis Med** 1999 Apr;77(4):236–41 (Eng. Abstr.) **(Fre)**

[1H MR spectroscopy of the lumbar spine in diffuse osteopenia due to plasmacytoma or osteoporosis] Layer G, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1998 Dec;169(6):596–600 (Eng. Abstr.) **(Ger)**

[Indistinct cauda equina symptoms with normal serum, but elevated plasma PSA] Schaller B, et al. **Schweiz Med Wochenschr** 1999 Jul 13;129(27–28):1047 **(Ger)**

[Cystic lymphangioma in the head and neck region] Pia F, et al. **Acta Otorhinolaryngol Ital** 1999 Apr;19(2):87–90 (Eng. Abstr.) **(Ita)**

[The role of TC and MRI in the identification, characterization and staging of tumors of the spinal vertebrae] Gualdi GF, et al. **Clin Ter** 1999 Jan–Feb; 150(1):51–65 (51 ref.) (Eng. Abstr.) **(Ita)**

[Advances in diagnostic procedures and treatment of spinal neoplasms] Beuth W, et al. **Neurol Neurochir Pol** 1998 Nov–Dec;32(6):1435–47 (Eng. Abstr.) **(Pol)**

[Intraoral surgical approach to tumors destroying the axis. Report of three cases] Jankowski R, et al. **Neurol Neurochir Pol** 1998 Nov–Dec;32(6):1583–94 (Eng. Abstr.) **(Pol)**

DRUG THERAPY

Alcohol ablation of symptomatic vertebral hemangiomas [see comments] Goyal M, et al. **AJNR Am J Neuroradiol** 1999 Jun–Jul;20(6):1091–6. Comment in: AJNR Am J Neuroradiol 1999 Jun–Jul;20(6):959–60.

Cervical epidural lipoblastomatosis: changing MR appearance after chemotherapy. Kamel HA, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):386–9

Intralesional injection of absolute alcohol into vertebral hemangiomas: a new treatment option? [editorial; comment] Munk PL, et al. **AJNR Am J Neuroradiol** 1999 Jun–Jul; 20(6):959–60. Comment on: AJNR Am J Neuroradiol 1999 Jun–Jul;20(6):1091–6.

Clinical results of nonsurgical treatment for spinal metastases. Katagiri H, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1127–32

The control of severe cancer pain by continuous intrathecal infusion and patient controlled intrathecal analgesia with morphine, bupivacaine and clonidine. Tumber PS, et al. **Pain** 1998 Dec;78(3):217–20

Brown-Sequard syndrome after management of vertebral hemangioma with intralesional alcohol. A case report. Niemeyer T, et al. **Spine** 1999 Sep 1;24(17):1845–7

[Chronic visceral leishmaniasis during chemotherapy for metastatic osteosarcoma] Marguglio A, et al. **Arch Pediatr** 1998 Mar;5(3):285–8 (Eng. Abstr.) **(Fre)**

EMBRYOLOGY

An unusual case of the complete Currarino triad: case report, discussion of the literature and the embryogenic implications. Gegg CA, et al. **Neurosurgery** 1999 Mar; 44(3):658–62 (17 ref.)

ENZYMOLOGY

Expression and localization of urokinase-type plasminogen activator in human spinal column tumors. Gokaslan ZL, et al. **Clin Exp Metastasis** 1998 Nov;16(8):713–9

Expression and role of matrix metalloproteinases MMP-2 and MMP-9 in human spinal column tumors. Gokaslan ZL, et al. **Clin Exp Metastasis** 1998 Nov;16(8):721–8

EPIDEMIOLOGY

[Lumbosacral intraspinal lipomas associated or not with a tethered cord syndrome (series of 8 cases)] Sakho Y, et al. **Dakar Med** 1998;43(1):13–20 (18 ref.) (Eng. Abstr.) **(Fre)**

ETIOLOGY

Multiple myeloma presenting with a paraspinal tumor and malignant effusion: case report. Yang LY, et al. **Chang Keng I Hsueh Tsa Chih** 1999 Jun;22(2):293–8

Chronic renal failure causing brown tumors and myelopathy. Case report and review of pathophysiology and treatment. Fineman I, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):242–6 (18 ref.)

GENETICS

Molecular genetic analysis of ependymal tumors. NF2 mutations and chromosome 22q loss occur preferentially in intramedullary spinal ependymomas. Ebert C, et al. **Am J Pathol** 1999 Aug;155(2):627–32

Near-haploidy in a malignant sacrococcygeal teratoma. Noguera R, et al. **Cancer Genet Cytogenet** 1999 Jan 1; 108(1):70–4

Alveolar rhabdomyosarcoma in a 68-year-old patient identified by cytogenetic analysis of bone marrow. Stindl R, et al. **Cancer Genet Cytogenet** 1998 Nov;107(1):43–7

HISTORY

The journal 150 years ago. May 1849. Colon GA. **J La State Med Soc** 1999 May;151(5):253–4

MICROBIOLOGY

Fine-needle aspiration biopsy of chondroblastic osteosarcoma of the vertebral column complicated by Corynebacterium infection: a case report. Fleuriau Chateau PB, et al. **Diagn Cytopathol** 1999 Jan;20(1):38–43

NURSING

Cancer-related spinal cord compression. Garner CM. **Am J Nurs** 1999 Jul;99(7):34–5

PATHOLOGY

Giemsa staining for alveolar soft part sarcoma [letter] Fukuda T, et al. **Acta Cytol** 1999 May–Jun;43(3):519–21

Primary cervical malignant teratoma with a rib metastasis in an adult: five-year survival after surgery and chemotherapy. A case report with a review of the literature. Als C, et al. **Ann Oncol** 1998 Sep;9(9):1015–22 (51 ref.)

Pathology findings with acrylic implants. San Millán Ruíz D, et al. **Bone** 1999 Aug;25(2 Suppl):85S–90S

Paravertebral extraosseous Ewing's sarcoma. Yadav TP, et al. **Indian Pediatr** 1998 Jun;35(6):557–60

Primary spinal T-cell rich B-cell lymphoma: a case report. Muzaffar S, et al. **JPMA J Pak Med Assoc** 1998 May; 48(5):148–9

Atypical extraosseous Ewing sarcoma of the spinal canal with bone marrow involvement in a two-month-old boy. Benesch M, et al. **Med Pediatr Oncol** 1999 Jun;32(6):471–3

An unusual case of the complete Currarino triad: case report, discussion of the literature and the embryogenic implications. Gegg CA, et al. **Neurosurgery** 1999 Mar; 44(3):658–62 (17 ref.)

Primary intraosseous malignant peripheral nerve sheath tumor: a case report and review of the literature. Khan RJ, et al. **Pathology** 1998 Aug;30(3):237–41 (72 ref.)

Sacral chordoma in early childhood: clinicopathological and immunohistochemical study. Iwasa Y, et al. **Pediatr Dev Pathol** 1998 Sep–Oct;1(5):420–6

Nine-year-old female with neck pain [clinical conference] Brockmeyer D, et al. **Pediatr Neurosurg** 1998 Jun; 28(6):320–5

A 10-year-old boy, HIV positive, develops progressive weakness [clinical conference] George T, et al. **Pediatr Neurosurg** 1999 Apr;30(4):211–7

Osseous primitive neuroectodermal tumor—a case report. Baba Y, et al. **Radiat Med** 1998 Jul–Aug;16(4):297–300

Conus medullaris hematomyelia associated with an intradural-extramedullary cavernous angioma. Mastronardi L, et al. **Spinal Cord** 1999 Jan;37(1):68–70

[Diagnostic problems in vertebral body hemangioma] Bobek J, et al. **Neurol Neurochir Pol** 1999 Mar–Apr;33(2):465–73 (Eng. Abstr.) **(Pol)**

[The role of surgery in comprehensive treatment of spinal neoplasms] Haftek J, et al. **Neurol Neurochir Pol** 1998 Sep–Oct;32(5):1147–64 (Eng. Abstr.) **(Pol)**

[Cervical teratoma in an adult] Trinidad A, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):341–3 (Eng. Abstr.) **(Spa)**

PHYSIOPATHOLOGY

Epidural blockade for labor and cesarean section with associated L4–5 lipomyelocele. Thompson MD, et al. **Anesthesiology** 1999 Apr;90(4):1217–8

Lumbosacral chordoma. Prognostic factors and treatment. Cheng EY, et al. **Spine** 1999 Aug 15;24(16):1639–45

Biomechanical analysis of anterior versus circumferential spinal reconstruction for various anatomic stages of tumor lesions. Kanayama M, et al. **Spine** 1999 Mar 1;24(5):445–50

PSYCHOLOGY

A staff dialogue on caring for a cancer patient who commits suicide: psychosocial issues faced by patients, their families, and caregivers [clinical conference] O'Shea EM, et al. **Oncologist** 1999;4(2):122–7

RADIOGRAPHY

Cervical spine osteoblastoma. Chew FS, et al. **AJR Am J Roentgenol** 1998 Nov;171(5):1244

Lung and bone metastases. Beningfield S. **S Afr Med J** 1999 Jun;89(6):615

Costal osteochondroma. A rare cause of spinal cord compression. Tang WM, et al. **Spine** 1998 Sep 1; 23(17):1900–3

Radiologic and surgical aspects of pure spinal epidural cavernous angiomas. Report on 5 cases and review of the literature. Talacchi A, et al. **Surg Neurol** 1999 Aug; 52(2):198–203 (43 ref.)

[Percutaneous vertebroplasty of the cervico-thoracic junction using an anterior route. Technique and results. Report of nine cases] Dufresne AC, et al. **J Neuroradiol** 1998 Jul;25(2):123–8 (Eng. Abstr.) **(Fre)**

[A case of a aggressive giant-cell tumor with multiple bone metastases] De Smedt M, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jun; 85(3):293–6 (Eng. Abstr.) **(Fre)**

[Diagnostic problems in vertebral body hemangioma] Bobek J, et al. **Neurol Neurochir Pol** 1999 Mar–Apr;33(2):465–73 (Eng. Abstr.) **(Pol)**

[The clinical picture, diagnosis and treatment of benign vascular tumors of the spine] Slyn'ko EI. **Klin Khir** 1998; (9–10):37–40 (Eng. Abstr.) **(Rus)**

[Cervical teratoma in an adult] Trinidad A, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):341–3 (Eng. Abstr.) **(Spa)**

[Imaging a problem case] del Barrio LG, et al. **Rev Med Univ Navarra** 1999 Jan–Mar;43(1):41–4 **(Spa)**

RADIONUCLIDE IMAGING

Tc-99m RBC SPECT demonstrating vertebral hemangioma. Choi YY, et al. **Clin Nucl Med** 1998 Sep;23(9):632–4

The benefit of SPECT when added to planar scintigraphy in patients with bone metastases in the spine. Sedonja I, et al. **Clin Nucl Med** 1999 Jun;24(6):407–13

Diagnosis of spine metastases by FDG imaging using a gamma camera in the coincidence mode. Shreve PD, et al. **Clin Nucl Med** 1998 Dec;23(12):799–802

The "backpack sign": abnormal findings on fluorine-18 fluorodeoxyglucose imaging. Zaher AM, et al. **Clin Nucl Med** 1999 Jul;24(7):535

[Localization by bone SPET of osteoid osteoma in the vertebral lamina] Banzo I, et al. **Rev Esp Med Nucl** 1999; 18(1):47–9 (Eng. Abstr.) **(Spa)**

[Use of bone SPECT of the dorsolumbar spine in oncological patients with suspected bone metastases] Fuster D, et al. **Rev Esp Med Nucl** 1998;17(4):278–82 (Eng. Abstr.) **(Spa)**

RADIOTHERAPY

Radiotherapy for the treatment of giant cell tumor of the spine: a report of six cases and review of the literature. Khan DC, et al. **Cancer Invest** 1999;17(2):110–3 (24 ref.)

A case of hepatocellular carcinoma with bone metastasis responding to radiotherapy after successful hepatectomy of primary lesion. Asahara T, et al. **Hiroshima J Med Sci** 1999 Mar;48(1):35–9

Clinical results of nonsurgical treatment for spinal metastases. Katagiri H, et al. **Int J Radiat Oncol Biol Phys** 1998 Dec 1;42(5):1127–32

Intraoperative radiation therapy for metastatic spinal tumors. Seichi A, et al. **Spine** 1999 Mar 1;24(5):470–3; discussion 474–5

Proton beam therapy (PT) in the management of CNS tumors in childhood. Habrand JL, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:91–4

Proton therapy for tumors of the skull base. Munzenrider JE, et al. **Strahlenther Onkol** 1999 Jun;175 Suppl 2:57–63 (46 ref.)

Craniospinal axis irradiation in children. Treatment in supine position including field verification as a prerequisite for anesthesia without intubation. Rades D, et al. **Strahlenther Onkol** 1999 Aug;175(8):409–12

Radiotherapy for intracranial and spinal ependymomas. A retrospective analysis. Schüller P, et al. **Strahlenther Onkol** 1999 Mar;175(3):105–11

[Results of radiotherapy for vertebral hemangioma] Brackrock S, et al. **Strahlenther Onkol** 1999 Aug; 175(8):405–8 (Eng. Abstr.) **(Ger)**

[Spinal metastases of malignant gliomas] Materlik B, et al. **Strahlenther Onkol** 1998 Sep;174(9):478–81 (Eng. Abstr.) **(Ger)**

[Bone marrow recovery after irradiation of the spine] Schleicher UM, et al. **Strahlenther Onkol** 1999 Aug; 175(8):374–7 (Eng. Abstr.) **(Ger)**

SECONDARY

Surgical results for spinal metastases. Klekamp J, et al. **Acta Neurochir (Wien)** 1998;140(9):957–67

Hartshill spinal fixation in vertebral metastasis. Mirovsky Y, et al. **Am J Orthop** 1999 Jun;28(6):347–50

99mTc-tetrofosmin uptake in bone metastases from breast cancer. Takayama T, et al. **Ann Nucl Med** 1998 Oct; 12(5):293–6

Metastatic spine disease in renal cell carcinoma--indication and results of surgery. Giehl JP, et al. **Anticancer Res** 1999 Mar–Apr;19(2C):1619–23

Diagnostic problems of evaluating vertebral metastasis from breast carcinoma with a higher degree of malignancy. Nishimura R, et al. **Cancer** 1999 Apr 15;85(8):1782–8

Extracranial neuroblastomas and neurological complications. Taşdemiroglu E, et al. **Childs Nerv Syst** 1998 Dec; 14(12):713–8

Spinal involvement of hematopoietic malignancies and metastasis: differentiation using MR imaging. Kim HJ, et al. **Clin Imaging** 1999 Mar–Apr;23(2):125–33

Metastatic meningeal hemangiopericytoma of thoracic spine. Nonaka M, et al. **Clin Neurol Neurosurg** 1998 Sep; 100(3):228–30

The benefit of SPECT when added to planar scintigraphy in patients with bone metastases in the spine. Sedonja I, et al. **Clin Nucl Med** 1999 Jun;24(6):407–13

Bone metastasis demonstrated as a photopenic area in L3 on bone SPECT. Shih WJ, et al. **Clin Nucl Med** 1999 Apr; 24(4):290–2

Diagnosis of spine metastases by FDG imaging using a gamma camera in the coincidence mode. Shreve PD, et al. **Clin Nucl Med** 1998 Dec;23(12):799–802

Cervical spine involvement in metastatic colorectal carcinomas: should we think about an alternative route of metastasis other than Batson's plexus? [letter; comment] Orhan B, et al. **Clin Oncol (R Coll Radiol)** 1999;11(1):65–6 . Comment on: Clin Oncol (R Coll Radiol) 1998;10(2):125–8.

Metastatic disease of the cervical spine. A review. Jenis LG, et al. **Clin Orthop** 1999 Feb;(359):89–103 (73 ref.)

Percutaneous vertebral biopsy through intact bone: a coaxial bone transgressing technique with 18 gauge needle. Yu SC, et al. **Clin Radiol** 1999 Mar;54(3):176–8

Pilomatrix carcinoma with multiple metastases: report of a case and review of the literature. Bremnes RM, et al. **Eur J Cancer** 1999 Mar;35(3):433–7 (44 ref.)

Metastatic RCC arising in a transplant kidney. Kunisch-Hoppe M, et al. **Eur Radiol** 1998;8(8):1441–3

Complications of vertebral metastasis surgery. Pascal-Moussellard H, et al. **Eur Spine J** 1998;7(6):438–44

Neuroendocrine differentiation of a metastatic basal cell carcinoma in a patient with basal cell nevus syndrome. Tawfik O, et al. **J Cutan Pathol** 1999 Jul;26(6):306–10

Retropharyngeal haematoma causing acute airway obstruction--first presentation of metastatic carcinoma. Draper MR, et al. **J Laryngol Otol** 1999 Mar;113(3):258–9

Solitary vertebral collapse: distinction between benign and malignant causes using MR patterns. Shih TT, et al. **J Magn Reson Imaging** 1999 May;9(5):635–42

Palliative subtotal vertebrectomy with anterior and posterior reconstruction via a single posterior approach. Cahill DW, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):42–7

Basal cell carcinoma of the scalp with spinal metastasis. Lam DG, et al. **J R Soc Med** 1998 Oct;91(10):539–40

Quality of life following surgery for vertebral metastases from breast cancer. Okuyama T, et al. **J Surg Oncol** 1999 Jan; 70(1):60–3

Metastatic spinal cord compression. Clinical remarks. Salvati M, et al. **Minerva Chir** 1998 Sep;53(9):727–30

Pelvic and lumbar metastasis detected by bone scintigraphy in malignant pleural mesothelioma. Ruiz Hernández G, et al. **Nuklearmedizin** 1999;38(2):68–71

Atypical presentation of vertebral bone metastasis from lung cancer. Nishino T, et al. **Oncol Rep** 1999 Jul–Aug; 6(4):781–3

Posterior mediastinal capillary hemangioma with extradural extension resembling neuroblastoma. Herman TE, et al. **Pediatr Radiol** 1999 Jul;29(7):517–9

Pediatric case of the day. Ewing sarcoma of the rib with intraspinal extension. Coombs RJ, et al. **Radiographics** 1999 Jan–Feb;19(1):241–4

Lung and bone metastases. Beningfield S. **S Afr Med J** 1999 Jun;89(6):615

Primary bone and metastatic tumors of the cervical spine. Abdu WA, et al. **Spine** 1998 Dec 15;23(24):2767–77 (73 ref.)

Spinal manifestation of metastasizing leiomyosarcoma. Nanassis K, et al. **Spine** 1999 May 15;24(10):987–9

Intraoperative radiation therapy for metastatic spinal tumors. Seichi A, et al. **Spine** 1999 Mar 1;24(5):470–3; discussion 474–5

Metastatic cardiac angiosarcoma of the cervical spine. Case report. Shapiro S, et al. **Spine** 1999 Jun 1;24(11):1156–8

When all else fails: stepwise multiple solutions for a complex cancer pain syndrome. Mercadante S, et al. **Support Care Cancer** 1999 Jan;7(1):47–50

Assessing suspected spinal cord compression: a multidisciplinary outcomes analysis of 342 episodes. Talcott JA, et al. **Support Care Cancer** 1999 Jan;7(1):31–8

[Pain in one leg in patients with cancer (see comments) (published erratum appears in Ned Tijdschr Geneeskd 1998 Dec 5;142(49):2674)] Koot RW, et al. **Ned Tijdschr Geneeskd** 1998 Sep 26;142(39):2129–32 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1998 Nov 21;142(47):2593–4. **(Dut)**

[Bone metastases--stabilization as the goal] Schulte M, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:134–7 **(Ger)**

[Results of interdisciplinary sacrum resection in sacral recurrence of rectal carcinoma] Teleky B, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1400–3 (Eng. Abstr.) **(Ger)**

[Indistinct cauda equina symptoms with normal serum, but elevated plasma PSA] Schaller B, et al. **Schweiz Med Wochenschr** 1999 Jul 13;129(27–28):1047 **(Ger)**

[Spinal metastases of malignant gliomas] Materlik B, et al. **Strahlenther Onkol** 1998 Sep;174(9):478–81 (Eng. Abstr.) **(Ger)**

[Intraoral surgical approach to tumors destroying the axis. Report of three cases] Jankowski R, et al. **Neurol Neurochir Pol** 1998 Nov–Dec;32(6):1583–94 (Eng. Abstr.) **(Pol)**

[Metastatic vertebral tumors diagnosed by percutaneous needle biopsy] Jankowski R, et al. **Neurol Neurochir Pol** 1998 Jul–Sep;32(4):831–40 (Eng. Abstr.) **(Pol)**

[Metastatic tumors in vertebral canal] Janusz W, et al. **Neurol Neurochir Pol** 1999 Mar–Apr;33(2):403–12 (Eng. Abstr.) **(Pol)**

[Surgical treatment of metastatic spinal tumors] Aliev MD, et al. **Vopr Onkol** 1999;45(3):317–20 **(Rus)**

[Results of treating cervical metastases of an unknown primary tumor. A report of 29 cases] Rodríguez Gutiérrez A, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):305–9 (Eng. Abstr.) **(Spa)**

[Paraneoplastic necrotizing myelopathy or intraspinal metastasis? A case review (letter)] Sanz J, et al. **An Med Interna** 1998 Sep;15(9):507–8 **(Spa)**

[Surgical treatment of vertebral metastasis] Villas C, et al. **Rev Med Univ Navarra** 1998 Oct–Dec;42(4):188–93 (Eng. Abstr.) **(Spa)**

SURGERY

Anterior transsternal approach to the upper thoracic spine. Maciejczak A, et al. **Acta Chir Hung** 1999;38(1):83–6

Spinal cord compression by a metastasizing thymoma. Alafaci C, et al. **Acta Neurochir (Wien)** 1999;141(2):215–6

Dumb-bell hypoglossal neurinoma with intra- and extracranial paravertebral expansion. Bunc G, et al. **Acta Neurochir (Wien)** 1998;140(11):1209–10

The extent of drilling in lateral approaches to the cranio-cervical junction area from a series of 125 cases. Lot G, et al. **Acta Neurochir (Wien)** 1999;141(2):111–8

Hypervascular spinal tumors: influence of the embolization technique on perioperative hemorrhage. Berkefeld J, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):757–63

Percutaneous laser photocoagulation of spinal osteoid osteomas under CT guidance. Gangi A, et al. **AJNR Am J Neuroradiol** 1998 Nov–Dec;19(10):1955–8

Hartshill spinal fixation in vertebral metastasis. Mirovsky Y, et al. **Am J Orthop** 1999 Jun;28(6):347–50

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1999;16(1):47–50

Metastatic spine disease in renal cell carcinoma--indication and results of surgery. Giehl JP, et al. **Anticancer Res** 1999 Mar–Apr;19(2C):1619–23

Revisited: spinal angiolipoma--three additional cases. Labram EK, et al. **Br J Neurosurg** 1999 Feb;13(1):25–9 (29 ref.)

Synovial cysts of the lumbar spine: a review [letter] Savitz M. **Br J Neurosurg** 1998 Oct;12(5):465–6

Limited unilateral approach for extramedullary spinal tumours. Sridhar K, et al. **Br J Neurosurg** 1998 Oct; 12(5):430–3

Spinal angiolipomas: report of a case and review of the cases published since the discovery of the tumour in 1890. Turgut M. **Br J Neurosurg** 1999 Feb;13(1):30–40 (64 ref.)

Neurosurgery of the spine in the year 2001: a four-year review. Haid RW Jr, et al. **Clin Neurosurg** 1999;45:153–9 (18 ref.)

Sacrococcygeal teratoma: a series of 19 cases with long-term follow-up. Uchiyama M, et al. **Eur J Pediatr Surg** 1999 Jun;9(3):158–62

High-frequency radio-wave ablation of osteoid osteoma in the lumbar spine. Osti OL, et al. **Eur Spine J** 1998; 7(5):422–5

Complications of vertebral metastasis surgery. Pascal-Moussellard H, et al. **Eur Spine J** 1998;7(6):438–44

Long-term survival following total sacrectomy with reconstruction for the treatment of primary osteosarcoma of the sacrum. A case report. Spiegel DA, et al. **J Bone Joint Surg Am** 1999 Jun;81(6):848–55 (52 ref.)

Palliative subtotal vertebrectomy with anterior and posterior reconstruction via a single posterior approach. Cahill DW, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):42–7

Anterior cervical plating for the treatment of neoplasms in the cervical vertebrae. Caspar W, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):27–34

Simultaneous anterior-posterior approach for excision of malignant paraspinal tumor and subsequent reconstruction. Technical note. Hasegawa K, et al. **J Neurosurg** 1999 Oct; 91(2 Suppl):236–40

Occipitocervicothoracic fixation for spinal instability in patients with neoplastic processes. Jackson RJ, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):81–9

Variations of the extreme-lateral craniocervical approach: anatomical study and clinical analysis of 69 patients. Salas E, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):206–19

Complex cervical spine neoplastic disease: reconstruction after surgery by using a vascularized fibular strut graft. Case report. Wright NM, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):133–7

Chondrosarcoma of the spine: 1954 to 1997. York JE, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):73–8

Prenatal percutaneous needle drainage of cystic sacrococcygeal teratomas. Kay S, et al. **J Pediatr Surg** 1999 Jul;34(7):1148–51

Quality of life following surgery for vertebral metastases from breast cancer. Okuyama T, et al. **J Surg Oncol** 1999 Jan; 70(1):60–3

Use of interactive-intraoperative guidance during vertebrectomy and anterior spinal fusion with instrumental

fixation: technical note. Vinas FC, et al. **Minim Invasive Neurosurg** 1998 Sep;41(3):166–71

Cerebellar mutism after basilar artery occlusion—case report. Nishikawa M, et al. **Neurol Med Chir (Tokyo)** 1998 Sep; 38(9):569–73

Intraosseous schwannoma of the fourth lumbar vertebra: case report. Chang CJ, et al. **Neurosurgery** 1998 Nov; 43(5):1219–22

Surgical management of spinal cord compression from plexiform neurofibromas in patients with neurofibromatosis 1. Pollack IF, et al. **Neurosurgery** 1998 Aug;43(2):248–55; discussion 255–6

Radical excision of intramedullary cavernous angiomas [letter; comment] Vishteh AG, et al. **Neurosurgery** 1999 Feb;44(2):428. Comment on: Neurosurgery 1998 Sep;43(3):424–30; discussion 430–1.

Sacral chordoma: 40-year experience at a major cancer center. York JE, et al. **Neurosurgery** 1999 Jan;44(1):74–9; discussion 79–80

Chordoma in the cervical spine managed with en bloc excision. Fujita T, et al. **Spine** 1999 Sep 1;24(17):1848–51

"En-bloc" vertebrectomy in the mobile lumbar spine. Heary RF, et al. **Surg Neurol** 1998 Dec;50(6):548–56

Radiologic and surgical aspects of pure spinal epidural cavernous angiomas. Report on 5 cases and review of the literature. Talacchi A, et al. **Surg Neurol** 1999 Aug; 52(2):198–203 (43 ref.)

[The use of "self-locking" artificial vertebral prosthesis in surgical treatment for spinal tumor] Wu Z, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Aug; 19(4):288–92 (Eng. Abstr.) **(Chi)**

[Two patients with osteochondroma of the cervical spine] de Boer MT, et al. **Ned Tijdschr Geneeskd** 1999 Mar 6; 143(10):525–9 (Eng. Abstr.) **(Dut)**

[Primary malignant lymphoma of the spine: clinical aspects and therapeutic advances] Toussaint D, et al. **Acta Orthop Belg** 1999 Mar;65(1):23–32 (Eng. Abstr.) **(Fre)**

[Surgical treatment of myeloma localized in the spine] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):311–8 (Eng. Abstr.) **(Fre)**

[L5 sciatica caused by the compression of the lumbo-sacral trunk of osseous origin at the sacro-iliac level. Treatment by an antero-lateral subperitoneal approach] Chataigner H, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 Jul; 84(4):377–80 (Eng. Abstr.) **(Fre)**

[A case of a aggressive giant-cell tumor with multiple bone metastases] De Smedt M, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Jun; 85(3):293–6 (Eng. Abstr.) **(Fre)**

[Primary malignant tumors of the sacrum] Wirbel RJ, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:1324–7 (Eng. Abstr.) **(Ger)**

[Enchondroma protuberance with destroying the rib: report of a case] Kamiyoshihara M, et al. **Kyobu Geka** 1998 Sep; 51(10):885–7 (Eng. Abstr.) **(Jpn)**

[Perinatal and perianesthetic management of the sacrococcygeal teratoma in a neonate] Sasaoka N, et al. **Masui** 1998 Dec;47(12):1482–5 (Eng. Abstr.) **(Jpn)**

[The role of surgery in comprehensive treatment of spinal neoplasms] Haftek J, et al. **Neurol Neurochir Pol** 1998 Sep-Oct;32(5):1147–64 (Eng. Abstr.) **(Pol)**

[Vertebral column primary neoplasms] Jankowski R, et al. **Neurol Neurochir Pol** 1998 Sep-Oct;32(5):1135–45 (Eng. Abstr.) **(Pol)**

[Intraoral surgical approach to tumors destroying the axis. Report of three cases] Jankowski R, et al. **Neurol Neurochir Pol** 1998 Nov-Dec;32(6):1583–94 (Eng. Abstr.) **(Pol)**

[Surgical treatment of metastatic spinal tumors] Aliev MD, et al. **Vopr Onkol** 1999;45(3):317–20 **(Rus)**

[Acute dyspnea after lumbar spine surgery] Calvo Romero JM, et al. **Rev Clin Esp** 1999 Feb;199(2):103–4 **(Spa)**

[Surgical treatment of vertebral metastasis] Viñas C, et al. **Rev Med Univ Navarra** 1998 Oct-Dec;42(4):188–93 (Eng. Abstr.) **(Spa)**

THERAPY

Pediatric vertebral and spinal cord tumors: a retrospective study of musculoskeletal aspects of presentation, treatment, and complications. Mehlman CT, et al. **Orthopedics** 1999 Jan;22(1):49–55; discussion 55–6

Lumbosacral chordoma. Prognostic factors and treatment. Cheng EY, et al. **Spine** 1999 Aug 15;24(16):1639–45

[Results of treating cervical metastases of an unknown primary tumor. A report of 29 cases] Rodriguez Gutiérrez A, et al. **Acta Otorrinolaringol Esp** 1999 May;50(4):305–9 (Eng. Abstr.) **(Spa)**

ULTRASONOGRAPHY

Prenatal diagnosis and perinatal management of fetal sacrococcygeal teratoma. Chisholm CA, et al. **Am J Perinatol** 1999;16(2):89–92

Prenatal percutaneous needle drainage of cystic sacrococcygeal teratomas. Kay S, et al. **J Pediatr Surg** 1999 Jul;34(7):1148–51

VETERINARY

Surgical management of osteochondromatosis affecting the vertebrae and trachea in an Alaskan Malamute. Beck JA, et al. **Aust Vet J** 1999 Jan;77(1):21–3

Vertebral plasma cell tumors in 8 dogs. Rusbridge C, et al. **J Vet Intern Med** 1999 Mar-Apr;13(2):126–33

VIROLOGY

Characterization of natural Epstein-Barr virus infection and replication in smooth muscle cells from a leiomyosarcoma. Jenson HB, et al. **J Med Virol** 1999 Jan;57(1):36–46

SPINAL NERVE ROOTS

see related
POLYRADICULITIS
RADICULITIS
RHIZOTOMY

Laminar and arch fractures with dural tear and nerve root entrapment in patients operated upon for thoracic and lumbar spine injuries. Kahamba JF, et al. **Acta Neurochir (Wien)** 1998;140(2):114–9

Haematoma of the piriformis muscle simulating a giant presacral tumour: unusual case of lumbosacral radiculopathy. Katati MJ, et al. **Acta Neurochir (Wien)** 1998;140(4):403–4

Lumbar nerve root compression by intraspinal synovial cysts. Report of 8 cases. Jönsson B, et al. **Acta Orthop Scand** 1999 Apr;70(2):203–6

Cervical radiculopathy due to epidural varicose veins. Lai PH, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):841–2

Salon sink radiculopathy: a case series. Stitik TP, et al. **Am J Phys Med Rehabil** 1999 Jul-Aug;78(4):381–3

Radicular acute pain after epidural anaesthesia with the technique of loss of resistance with normal saline solution. Gracia J, et al. **Anaesthesia** 1999 Feb;54(2):168–71

Magnetic resonance imaging features of a nerve root capillary hemangioma of the spinal cord: case report. Zander DR, et al. **Can Assoc Radiol J** 1998 Dec;49(6):398–400

Thoracic outlet compression syndrome caused by a schwannoma of the C7 nerve root. Atasoy E. **J Hand Surg [Br]** 1997 Oct;22(5):662–3

Technical note. Estimated electrode operating conditions of the first London Mk V implanted stimulator. Donaldson PE, et al. **J Med Eng Technol** 1998 Sep-Oct;22(5):216–9

Hemangioblastoma of the L-5 nerve root. Case illustration. Chazono M, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):160

Catamenial mononeuropathy and radiculopathy [letter; comment] Cirak B, et al. **J Neurosurg** 1999 Feb;90(2):374 . Comment on: J Neurosurg 1998 May;88(5):827–30.

Monoradiculopathy of the fifth lumbar nerve root due to lumbar disc herniation between lumbar one and lumbar two vertebrae. Korovessis P, et al. **J Spinal Disord** 1998 Aug;11(4):350–3

Three cases of spinal cord tumor originating from the second cervical nerve root. Sato M, et al. **J Spinal Disord** 1998 Aug;11(4):354–8

The giant of the giant schwannomas. Kuznetsov D, et al. **J Urol** 1999 Sep;162(3 Pt 1):791–2

AAEM minimonograph 32: the electrodiagnostic examination in patients with radiculopathies. American Association of Electrodiagnostic Medicine. Wilbourn AJ, et al. **Muscle Nerve** 1998 Dec;21(12):1612–31 (147 ref.)

Clinical neurophysiologic studies: which test is useful and when? Lomen-Hoerth C, et al. **Neurol Clin** 1999 Feb; 17(1):65–74 (27 ref.)

Cervical actinomycosis causing spinal cord compression and multisegmental root failure: case report and review of the literature. Oruçkaptan HH, et al. **Neurosurgery** 1998 Oct; 43(4):937–40 (20 ref.)

Intraradicular lumbar disc herniation: case report and review of the literature [letter; comment] Schisano G, et al. **Neurosurgery** 1998 Aug;43(2):400. Comment on: Neurosurgery 1997 Oct;41(4):956–8; discussion 958–9.

Pathogenesis of sciatic pain: role of herniated nucleus pulposus and deformation of spinal nerve root and dorsal root ganglion. Omarker K, et al. **Pain** 1998 Nov; 78(2):99–105

The paravertebral nerve root block for inguinal herniorrhaphy—a comparison with the field block approach. Wassef MR, et al. **Reg Anesth Pain Med** 1998 Sep-Oct;23(5):451–6

Hypertrophy and pseudohypertrophy of the lower leg following chronic radiculopathy and neuropathy: imaging findings in two patients. De Beuckeleer L, et al. **Skeletal Radiol** 1999 Apr;28(4):229–32

Lumbar epidural brucellar abscess causing nerve root compression. Ozates M, et al. **Spinal Cord** 1999 Jun; 37(6):448–9

Nerve root herniation secondary to lumbar puncture in the patient with lumbar canal stenosis. A case report. Hasegawa K, et al. **Spine** 1999 May 1;24(9):915–7

Pain drawings in the assessment of nerve root compression: a comparative study with lumbar spine magnetic resonance imaging. Rankine JJ, et al. **Spine** 1998 Aug 1;23(15):1668–76

Implantation of anterior sacral root stimulators combined with posterior sacral rhizotomy in spinal injury patients. Egon G, et al. **World J Urol** 1998;16(5):342–9

[Polyradicular cysts. A case report] Li K, et al. **Hunan I Ko Ta Hsueh Hsueh Pao** 1997;22(5):inside back cover **(Chi)**

[Cutaneous-splanchnic neurofibromatosis (see comments)] Darie H, et al. **Ann Dermatol Venereol** 1998 Aug; 125(8):509–11 (Eng. Abstr.). Comment in: Ann Dermatol Venereol 1998 Aug;125(8):486–8. **(Fre)**

[Ganglion cyst of the cervical spine causing radiculopathy] Kayser F, et al. **J Radiol** 1998 Jul;79(7):687–9 (Eng. Abstr.) **(Fre)**

[Polyradicular lesion revealing ankylosing spondylarthritis] Guilloton L, et al. **Rev Med Interne** 1999 Feb;20(2):158–9 (Eng. Abstr.) **(Fre)**

[Cervical deficit radiculopathy in 3 cases of vertebral artery dissection] de Bray JM, et al. **Rev Neurol (Paris)** 1998 Nov; 154(11):762–6 (13 ref.) (Eng. Abstr.) **(Fre)**

[Spinal root compression and results of treatment of discogenic cauda equina syndrome] Sulla I. **Bratisl Lek Listy** 1998 Nov;99(11):605–9 (Eng. Abstr.) **(Slo)**

[Hypothesis concerning the anatomical basis of cauda equina syndrome and transient nerve root irritation after spinal anesthesia (see comments)] Reina MA, et al. **Rev Esp Anestesiol Reanim** 1999 Mar;46(3):99–105 (Eng. Abstr.). Comment in: Rev Esp Anestesiol Reanim 1999 Mar;46(3):97–8. **(Spa)**

[A possibility of central diffusion during stellate ganglion blockade: "the sheath of the spinal rachidian nerve"] Soriano C, et al. **Rev Esp Anestesiol Reanim** 1999 Mar; 46(3):123–5 (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Hypoplastic lumbar pedicle in association with conjoined nerve root MRI demonstration. Savas R, et al. **Comput Med Imaging Graph** 1998 Jan-Feb;22(1):77–9

ANATOMY & HISTOLOGY

Cervical anatomy of phrenic nerve roots in the rabbit. European Group for Research on the Larynx. Marie JP, et al. **Ann Otol Rhinol Laryngol** 1999 May;108(5):516–21

A case of the scalenus anterior muscle lying behind the fifth cervical nerve root. Tsugane MH, et al. **Okajimas Folia Anat Jpn** 1998 Aug;75(2-3):111–7

Safe lateral-mass screw lengths in the Roy-Camille and Magerl techniques. An anatomic study. Ebraheim NA, et al. **Spine** 1998 Aug 15;23(16):1739–42

The anatomic location of the dorsal ramus of the cervical nerve and its relation to the superior articular process of the lateral mass. Ebraheim NA, et al. **Spine** 1998 Sep 15; 23(18):1968–71

Symptom provocation of fluoroscopically guided cervical nerve root stimulation. Are dynatomal maps identical to dermatomal maps? Slipman CW, et al. **Spine** 1998 Oct 15; 23(20):2235–42

Anatomic relation between the cervical pedicle and the adjacent neural structures. Xu R, et al. **Spine** 1999 Mar 1;24(5):451–4

Anatomic basis of the anterior surgery on the cervical spine: relationships between uncus-artery-root complex and vertebral artery injury. Ebraheim NA, et al. **Surg Radiol Anat** 1998;20(6):389–92

The impact of sacral root anatomy on selective electrical stimulation for bladder evacuation. Dahms SE, et al. **World J Urol** 1998;16(5):322–8 (46 ref.)

BLOOD SUPPLY

Trigeminal neuralgia resulting from infarction of the root entry zone of the trigeminal nerve: case report [letter] Delitala A, et al. **Neurosurgery** 1999 Jul;45(1):202

CYTOLOGY

Differential time course of neuronal and glial apoptosis in neonatal rat dorsal root ganglia after sciatic nerve axotomy. Whiteside G, et al. **Eur J Neurosci** 1998 Nov;10(11):3400–8

DRUG EFFECTS

Lidocaine toxicity: a technical knock-out below the waist? [letter; comment] Corbey MP, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1127–8. Comment on: Acta Anaesthesiol Scand 1998 Apr;42(4):389–90.

Transient radicular irritation after spinal anaesthesia with xylocain [letter; comment] Hampl K, et al. **Acta Anaesthesiol Scand** 1999 Mar;43(3):359–62. Comment on: Acta Anaesthesiol Scand 1998 Apr;42(4):389–90. Comment on: Acta Anaesthesiol Scand 1998 Apr;42(4):425–9.

Postdural puncture headache and transient neurologic symptoms in children after spinal anaesthesia using cutting and pencil point paediatric spinal needles. Kokki H, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1076–82

Transient radicular irritation after spinal anaesthesia with 2% isobaric mepivacaine. Sia S, et al. **Br J Anaesth** 1998 Oct; 81(4):622–4

Chronic inflammatory demyelinating polyneuropathy: treatable hypertrophic neuropathy [editorial; comment] Baba M. **Intern Med** 1999 May;38(5):384–5. Comment on: Intern Med 1999 May;38(5):445–9.

Procaine spinal anesthesia: a pilot study of the incidence of transient neurologic symptoms. Axelrod EH, et al. **J Clin Anesth** 1998 Aug;10(5):404–9

Inhibition of epidural fibrosis with ADCON-L: effect on clinical outcome one year following re-operation for recurrent lumbar radiculopathy. Porchet F, et al. **Neurol Res** 1999;21 Suppl 1:S51–60

Pharmacological differentiation of kainate receptors on neonatal rat spinal motoneurones and dorsal roots [published erratum appears in Neuropharmacology 1999

Mar;38(3):463] Thomas NK, et al. **Neuropharmacology** 1998 Oct-Nov;37(10-11):1223-37

Effects of delta-aminolaevulinic acid upon electrical activity of rat spinal cord in vivo. Abdul-Razzak R, et al. **Neurosci Lett** 1998 Aug 21;252(3):175-8

Peripheral administration of an N-methyl-D-aspartate receptor antagonist (MK-801) changes dorsal horn neuronal responses in rats published erratum appears in Neurosci Lett 1999 Feb 5;260(3):210 Ushida T, et al. **Neurosci Lett** 1999 Jan 29;260(2):89-92

Relief of trigeminal neuralgia after percutaneous retrogasserian glycerol rhizolysis is dependent on normalization of abnormal temporal summation of pain, without general impairment of sensory perception. Eide PK, et al. **Neurosurgery** 1998 Sep;43(3):462-72; discussion 472-4

The incidence of transient radicular irritation after spinal anesthesia in obstetric patients. Wong CA, et al. **Reg Anesth Pain Med** 1999 Jan-Feb;24(1):55-8

EMBRYOLOGY

Rostrocaudal progression in the development of periodic spontaneous activity in fetal rat spinal motor circuits in vitro. Nakayama K, et al. **J Neurophysiol** 1999 May; 81(5):2592-5

INJURIES

Radiological investigations and intra-operative evoked potentials for the diagnosis of nerve root avulsion: evaluation of both modalities by intradural root inspection. Oberle J, et al. **Acta Neurochir (Wien)** 1998;140(6):527-31

The process of decompaction and myelin removal after C7 ventral root avulsion in the cat. Holtzer CA, et al. **Arch Physiol Biochem** 1998 Apr;106(2):116-27

Spinal cord implantation of avulsed ventral roots in primates; correlation between restored motor function and morphology. Hallin RG, et al. **Exp Brain Res** 1999 Feb; 124(3):304-10

NT-3 delivered by an adenoviral vector induces injured dorsal root axons to regenerate into the spinal cord of adult rats. Zhang Y, et al. **J Neurosci Res** 1998 Nov 15; 54(4):554-62

Radiculopathy after laminoplasty of the cervical spine. Uematsu Y, et al. **Spine** 1998 Oct 1;23(19):2057-62

[Treatment of nerve root avulsion of brachial plexus by nerve transfer] Pei L, et al. **Chung Kuo Hsiu Fu Chung Chien Wai Ko Tsa Chih** 1997 Jan;11(1):30-1 (Eng. Abstr.) **(Chi)**

[CT myelography for diagnosis of brachial plexus avulsion in small animals] Forterre F, et al. **Tierarztl Prax Ausg K Klientiere Heimtiere** 1998 Sep; 26(5):322-9 (Eng. Abstr.) **(Ger)**

METABOLISM

P2X3 is expressed by DRG neurons that terminate in inner lamina II. Vulchanova L, et al. **Eur J Neurosci** 1998 Nov; 10(11):3470-8

Peculiarities of axonal transport of steroid hormones (hydrocortisone, testosterone) in spinal root fibres of adult and old rats. Frolkis VV, et al. **Neuroscience** 1999; 92(4):1399-404

Neurotrophic agents in fibrin glue mediate adult dorsal root regeneration into spinal cord. Iwaya K, et al. **Neurosurgery** 1999 Mar;44(3):589-95; discussion 595-6

PATHOLOGY

A stereological study of dorsal root ganglion cells and nerve root fibers from rats exposed to mercury vapor. Schiønning JD, et al. **Acta Neuropathol (Berl)** 1998 Aug;96(2):185-90

Selective degeneration of dorsal root ganglia and dorsal nerve roots in methyl mercury-intoxicated rats: a stereological study. Schiønning JD, et al. **Acta Neuropathol (Berl)** 1998 Aug;96(2):191-201

MR myelography of sacral meningeal cysts. Tsuchiya K, et al. **Acta Radiol** 1999 Jan;40(1):95-9

Spinal root and plexus hypertrophy in chronic inflammatory demyelinating polyneuropathy. Duggins AJ, et al. **Brain** 1999 Jul;122 (Pt 7):1383-90

Early effects of nucleus pulposus application on spinal nerve root morphology and function. Byröd G, et al. **Eur Spine J** 1998;7(6):445-9

Chronic inflammatory demyelinating polyneuropathy with multiple hypertrophic nerves in intracranial, and intra- and extra-spinal segments [see comments] Niino M, et al. **Intern Med** 1999 May;38(5):445-9. Comment in: Intern Med 1999 May;38(5):384-5.

Age-related atrophy of motor axons in mice deficient in the mid-sized neurofilament subunit. Elder GA, et al. **J Cell Biol** 1999 Jul 12;146(1):181-92

Peripheral axotomy slows motoneuron degeneration in a transgenic mouse line expressing mutant SOD1 G93A. Kong J, et al. **J Comp Neurol** 1999 Sep 20;412(2):373-80

Intravenous immunoglobulin dependent inflammatory radiculopathy presenting as lumbar canal stenosis [letter] Hillier CE, et al. **J Neurol Neurosurg Psychiatry** 1998 Nov; 65(5):802-3

Intradural nerve root hematoma in the lumbar spine. Case illustration. Başkaya MK, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):242

Lateral exit-zone stenosis and lumbar radiculopathy. Maher CO, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):52-8

Hemangioma of spinal nerve root. Roncaroli F, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):175-80

Myeloradicular damage in traumatic cervical disc herniation. Bucciero A, et al. **J Neurosurg Sci** 1998 Dec;42(4):203-11

Electromyography and magnetic resonance imaging in the evaluation of radiculopathy [see comments] Nardin RA, et al. **Muscle Nerve** 1999 Feb;22(2):151-5. Comment in: Muscle Nerve 1999 Feb;22(2):149-50.

Electromyography, magnetic resonance imaging, and radiculopathy: it's time to focus on specificity [editorial; comment] Robinson LR. **Muscle Nerve** 1999 Feb; 22(2):149-50. Comment on: Muscle Nerve 1999 Feb;22(2):151-5.

The clinical significance of gadolinium enhancement of lumbar disc herniations and nerve roots on preoperative MRI. Vroomen PC, et al. **Neuroradiology** 1998 Dec; 40(12):800-6

Morphometric aspects of extraforaminal lumbar nerve roots. Bae HG, et al. **Neurosurgery** 1999 Apr;44(4):841-6

Anterior lumbosacral radiculopathy after intrathecal methotrexate treatment. Koh S, et al. **Pediatr Neurol** 1999 Aug;21(2):576-8

MRI nerve root enhancement in Krabbe disease. Vasconcellos E, et al. **Pediatr Neurol** 1998 Aug;19(2):151-2

L5 root compression caused by degenerative spinal stenosis of the L1-L2 and L2-L3 spaces. Hidalgo-Ovejero AM, et al. **Spine** 1998 Sep 1;23(17):1891-4

Quantitative analysis of edema in the dorsal nerve roots induced by acute mechanical compression. Matsui T, et al. **Spine** 1998 Sep 15;23(18):1931-6

[Clinical study of the relationship between the lateral recesses and the nerve roots] Lian P, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Apr;35(4):229-33 (Eng. Abstr.) **(Chi)**

[Ewing's sarcoma of the soft tissues: apropos of 3 cases and review of the literature] Paoletti H, et al. **J Radiol** 1999 May;80(5):477-82 (26 ref.) (Eng. Abstr.) **(Fre)**

PHYSIOLOGY

Mechanically elicited nerve root discharge: mechanical irritation and waveform. Obi T, et al. **Acta Neurol Scand** 1999 Sep;100(3):185-8

Assessment of dorsal nerve root and spinal cord dorsal horn function in clinically normal dogs by determination of cord dorsum potentials. Cuddon PA, et al. **Am J Vet Res** 1999 Feb;60(2):222-6

Ensheathing glia transplants promote dorsal root regeneration and spinal reflex restitution after multiple lumbar rhizotomy. Navarro X, et al. **Ann Neurol** 1999 Feb; 45(2):207-15

Optical responses evoked by single-pulse stimulation to the dorsal root in the rat spinal dorsal horn in slice. Ikeda H, et al. **Brain Res** 1998 Nov 23;812(1-2):81-90

Innervation and properties of the rat FDSBQ muscle: an animal model to evaluate voluntary muscle strength after incomplete spinal cord injury. Thomas CK, et al. **Exp Neurol** 1999 Aug;158(2):279-89

Metastasis-associated mts1 (S100A4) protein is selectively expressed in white matter astrocytes and is up-regulated after peripheral nerve or dorsal root injury. Kozlova EN, et al. **Glia** 1999 Sep;27(3):249-58

Characterization of signals and noise rejection with bipolar longitudinal intrafascicular electrodes. Yoshida K, et al. **IEEE Trans Biomed Eng** 1999 Feb;46(2):226-34

Frequency-dependent synaptic depression modifies postsynaptic firing probability in cats. Clark BD, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):189-96

Cervical root stimulation in a case of classic neurogenic thoracic outlet syndrome. Felice KJ, et al. **Muscle Nerve** 1999 Sep;22(9):1287-92

Cervical root stimulation at C5/6 excites C8/T1 roots and minimizes pneumothorax risk. Sander HW, et al. **Muscle Nerve** 1999 Jun;22(6):766-8

Influence of isoflurane anesthesia on motor evoked potentials elicited by transcortical, brainstem, and spinal root stimulation. Haghighi SS. **Neurol Res** 1998 Sep;20(6):555-8

Oscillatory interaction between dorsal root excitability and dorsal root potentials in the spinal cord of the turtle. Delgado-Lezama R, et al. **Neuroscience** 1999;93(2):731-9

Smooth muscle fatigue due to repeated urinary bladder neurostimulation: an in vivo study. Bross S, et al. **Neurourol Urodyn** 1999;18(1):41-53

Computer modelling of spinal cord stimulation and its contribution to therapeutic efficacy. Holsheimer J. **Spinal Cord** 1998 Aug;36(8):531-40 (58 ref.)

The ability of lumbar medial branch blocks to anesthetize the zygapophysial joint. A physiologic challenge. Kaplan M, et al. **Spine** 1998 Sep 1;23(17):1847-52

Cervical root compression monitoring by flexor carpi radialis H-reflex in healthy subjects. Sabbahi M, et al. **Spine** 1999 Jan 15;24(2):137-41

Functional conditions of micturition induced by selective sacral anterior root stimulation: experimental results in a canine animal model. Grünewald V, et al. **World J Urol** 1998;16(5):329-36

[Dorsal root identification using spinal endoscopy and electro-physiology] Chinzei M, et al. **Masui** 1999 Jan; 48(1):9-17 (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Peripheral late wave study in patients with discogenic radiculopathies. Kostadinova SA. **Electromyogr Clin Neurophysiol** 1999 Apr-May;39(3):145-8

Magnetic stimulation of the peripheral nervous system: local versus generalized disorders. Zwarts MJ. **Electromyogr Clin Neurophysiol** 1998 Jul-Aug;38(5):309-16

Early effects of nucleus pulposus application on spinal nerve root morphology and function. Byröd G, et al. **Eur Spine J** 1998;7(6):445-9

The effect of site and type of nerve injury on spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Exp Neurol** 1999 Jun;157(2):289-304

Motor root conduction in neuralgic amyotrophy: evidence of proximal conduction block. Lo YL, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):586-90

Reinnervation of denervated lumbar ventral roots and their target muscle by thoracic spinal motoneurons via an implanted nerve autograft in adult rats after spinal cord injury. Liu S, et al. **J Neurosci Res** 1999 Jun 1;56(5):506-17

Optimization of sacral ventral root stimulation following SCI: two case reports with six-month follow-up. Walter JS, et al. **J Spinal Cord Med** 1998 Jul;23(3):211-9

An electrophysiological exploration of the double crush hypothesis. Richardson JK, et al. **Muscle Nerve** 1999 Jan; 22(1):71-7

Electromyography, magnetic resonance imaging, and radiculopathy: it's time to focus on specificity [editorial; comment] Robinson LR. **Muscle Nerve** 1999 Feb; 22(2):149-50. Comment on: Muscle Nerve 1999 Feb;22(2):151-5.

Sacral nerve root cysts: A review on pathophysiology. ArunKumar MJ, et al. **Neurol India** 1999 Mar;47(1):61-4 (18 ref.)

Behavioral manifestations of neuropathic pain and mechanical allodynia, and changes in spinal dorsal horn neurons, following L4-L6 dorsal root constriction in rats. Tabo E, et al. **Pain** 1999 Apr;80(3):503-20

Selective detrusor activation by sacral ventral nerve-root stimulation: results of intraoperative testing in humans during implantation of a Finetech-Brindley system. Rijkhoff NJ, et al. **World J Urol** 1998;16(5):337-41

[Treatment of insufficiency of the anal sphincter by sacral spinal nerve stimulation with implantable neurostimulators] Matzel KE, et al. **Langenbecks Arch Chir Suppl Kongressbd** 1998;115:494-7 (Eng. Abstr.) **(Ger)**

[New information concerning pain caused by herniated disk and sciatica. Exposure to disk tissue sensitizes the nerve roots] Olmarker K, et al. **Lakartidningen** 1998 Dec 2; 95(49):5618-22 (46 ref.) (Eng. Abstr.) **(Swe)**

RADIOGRAPHY

Posterior mediastinal neurofibrosarcoma in a patient with von Recklinghausen's disease. Halkic N, et al. **Schweiz Med Wochenschr** 1999 May 29;129(21):818

[Secret information provided by lumbosacral myelography] Parlier-Cuau C, et al. **Ann Radiol (Paris)** 1997;40(4):215-24 (Eng. Abstr.) **(Fre)**

SURGERY

Operative techniques and clinicopathologic correlation in the surgical treatment of cranial rhizopathies (honored guest lecture). Jannetta PJ. **Clin Neurosurg** 1997;44:181-95 (18 ref.)

Spinal deformity after selective dorsal rhizotomy in patients with cerebral palsy. Mooney JF 3rd, et al. **Clin Orthop** 1999 Jul;(364):48-52

Selective dorsal rhizotomy studies [letter; comment] Rosenbaum PL. **Dev Med Child Neurol** 1998 Oct;40(10):717 . Comment on: Dev Med Child Neurol 1997 Mar;39(3):178-84. Comment on: Dev Med Child Neurol 1998 Apr;40(4):220-32. Comment on: Dev Med Child Neurol 1998 Apr;40(4):239-47.

Spinal cord implantation of avulsed ventral roots in primates; correlation between restored motor function and morphology. Hallin RG, et al. **Exp Brain Res** 1999 Feb; 124(3):304-10

Selective motor hyperreinnervation by using contralateral C-7 motor rootlets in the reconstruction of an avulsion injury of the brachial plexus. Case report. Bertelli JA, et al. **J Neurosurg** 1999 Jun;90(6):1133-6

Lateral exit-zone stenosis and lumbar radiculopathy. Maher CO, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):52-8

Diagnosis and surgery of brachial plexus injuries. Penkert G, et al. **J Reconstr Microsurg** 1999 Jan;15(1):3-8

"Skin-CNS-bladder" reflex pathway for micturition after spinal cord injury and its underlying mechanisms. Xiao CG, et al. **J Urol** 1999 Sep;162(3 Pt 1):936-42

Sensory abnormalities after the seventh cervical nerve root transfer. Sungpet A, et al. **Microsurgery** 1999;19(6):287-8

New nerve root holders during spinal decompression. Costabile G, et al. **Neurol Res** 1999 Jan;21(1):79-83

Multisegmental cervical spondylotic myelopathy and radiculopathy treated by multilevel oblique corpectomies without fusion. George B, et al. **Neurosurgery** 1999 Jan; 44(1):81-90 (117 ref.)

Long-term follow-up of patients treated with cervical radiofrequency neurotomy for chronic neck pain. McDonald GJ, et al. **Neurosurgery** 1999 Jul;45(1):61-7; discussion 67-8

Upper extremity performance and self-care skill changes in children with spastic cerebral palsy following selective posterior rhizotomy. Loewen P, et al. **Pediatr Neurosurg** 1998 Oct;29(4):191-8

Complications after selective posterior rhizotomy for spasticity in children with cerebral palsy. Steinbok P, et al. **Pediatr Neurosurg** 1998 Jun;28(6):300-13

The caudalis DREZ for facial pain. Bullard DE, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):168-74

Microsurgical DREZotomy for pain due to brachial plexus avulsion: long-term results in a series of 37 patients. Emery E, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):155-60

Somatosensory evoked potentials following functional posterior rhizotomy in spastic children. Parise M, et al. **Stereotact Funct Neurosurg** 1997;69(1-4 Pt 2):268-73

An electron-microscopic analysis of biopsy samples of the trigeminal root taken during microvascular decompressive surgery. Rappaport ZH, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):182-6

DREZ coagulations for deafferentation pain related to spinal and peripheral nerve lesions: indication and results of 79 consecutive procedures. Rath SA, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):161-7

[Microsurgical drezotomy for the treatment of spasticity of the lower limbs] Mertens P, et al. **Neurochirurgie** 1998 Sep; 44(3):209-18 (Eng. Abstr.) **(Fre)**

[Multifocal hemangioblastoma in a young woman with Hippel-Lindau syndrome] Gumprecht H, et al. **Zentralbl Neurochir** 1998;59(3):181-4 (Eng. Abstr.) **(Ger)**

[Surgical treatment of chronic neurogenic pain--clinical use of the DREZ operation] Spaić M, et al. **Vojnosanit Pregl** 1998 Sep-Oct;55(5):533-40 (48 ref.) **(Scc)**

ULTRASTRUCTURE

Redistribution of Schwann cells at the developing PNS-CNS borderline. An ultrastructural and autoradiographic study on the S1 dorsal root of the cat. Nilsson Remahl I, et al. **J Neurocytol** 1998 Feb;27(2):85-97

Paranodal Schwann cell mitochondria in spinal roots of the cat. An ultrastructural morphometric analysis. Rydmark M, et al. **J Neurocytol** 1998 Feb;27(2):99-108

An electron-microscopic analysis of biopsy samples of the trigeminal root taken during microvascular decompressive surgery. Rappaport ZH, et al. **Stereotact Funct Neurosurg** 1997;68(1-4 Pt 1):182-6

VIROLOGY

Another cause for transient radicular pain [letter; comment] Elias M. **Acta Anaesthesiol Scand** 1999 Jan;43(1):115. Comment on: Acta Anaesthesiol Scand 1998 Apr;42(4):425-9.

SPINAL NERVES

Selective lumbar spinal nerve block, a review. Pang WW, et al. **Acta Anaesthesiol Sin** 1999 Mar;37(1):21-6 (48 ref.)

Thoracic paravertebral block [letter; comment] Desai PM. **Br J Anaesth** 1999 Jan;82(1):149-50. Comment on: Br J Anaesth 1998 Aug;81(2):230-8.

Thoracic paravertebral block [see comments] Richardson J, et al. **Br J Anaesth** 1998 Aug;81(2):230-8 (104 ref.). Comment in: Br J Anaesth 1999 Jan;82(1):149-50.

Clinical neurophysiologic studies: which test is useful and when? Lomen-Hoerth C, et al. **Neurol Clin** 1999 Feb; 17(1):65-74 (27 ref.)

Behavioural measures of depression and anxiety in rats with spinal nerve ligation-induced neuropathy. Kontinen VK, et al. **Pain** 1999 Mar;80(1-2):341-6

Spinal nerve lesion-induced mechanoallodynia and adrenergic sprouting in sensory ganglia are attenuated in interleukin-6 knockout mice. Ramer MS, et al. **Pain** 1998 Nov;78(2):115-21

The effectiveness of spinal and systemic morphine on rat dorsal horn neuronal responses in the spinal nerve ligation model of neuropathic pain. Suzuki R, et al. **Pain** 1999 Mar; 80(1-2):215-28

Paravertebral somatic nerve block for outpatient inguinal herniorrhaphy [letter; comment] Karmakar MK. **Reg Anesth Pain Med** 1999 Jan-Feb;24(1):96-7. Comment on: Reg Anesth Pain Med 1998 May-Jun;23(3):306-10.

ANATOMY & HISTOLOGY

Anatomic relationship of the cervical nerves to the lateral masses. Ebraheim NA, et al. **Am J Orthop** 1999 Jan; 28(1):39-42

Origin, course, and laterality of spinocerebellar axons in the North American opossum, Didelphis virginiana. Terman JR, et al. **Anat Rec** 1998 Aug;251(4):528-47

Unusual branching in lumbar plexus. Case report. Mine Erbil K, et al. **Folia Morphol (Warsz)** 1998;57(4):377-81

Innervation of the human vertebral body: a histologic study. Antonacci MD, et al. **J Spinal Disord** 1998 Dec; 11(6):526-31

BLOOD SUPPLY

Human radicular veins: regulation of venous reflux in the absence of valves. van der Kuip M, et al. **Anat Rec** 1999 Feb 1;254(2):173-80

CHEMISTRY

Localization of calcitonin gene-related peptide within the genitofemoral nerve in immature rats. Schwindt B, et al. **J Pediatr Surg** 1999 Jun;34(6):986-91

CYTOLOGY

Magnitude, laterality, and uniformity of swelling in axotomized spinal motoneurons: lack of evidence for influence by the distal stump. McIlwain DL, et al. **Exp Neurol** 1999 May;157(1):161-8

DRUG EFFECTS

ABT-594, a novel cholinergic channel modulator, is efficacious in nerve ligation and diabetic neuropathy models of neuropathic pain. Bannon AW, et al. **Brain Res** 1998 Aug 10;801(1-2):158-63

NT-3, but not BDNF, prevents atrophy and death of axotomized spinal cord projection neurons. Bradbury EJ, et al. **Eur J Neurosci** 1998 Oct;10(10):3058-68

Oxidant treatment causes a dose-dependent phenotype of apoptosis in cultured motoneurons. Kaal EC, et al. **J Neurosci Res** 1998 Dec 15;54(6):778-86

Commentary: neurotoxicity of local anesthetics--an issue or a scapegoat? Moore DC, et al. **Reg Anesth Pain Med** 1998 Nov-Dec;23(6):605-10 (78 ref.)

Morphological alterations induced by sodium valproate on somites and spinal nerves in rat embryos. Menegola E, et al. **Teratology** 1999 Feb;59(2):110-9

IMMUNOLOGY

Accumulation of immunoreactivity to ubiquitin carboxyl-terminal hydrolase PGP 9.5 in axons of human cases with spinal cord lesions. Yu WR, et al. **APMIS** 1998 Nov;106(11):1081-7

INJURIES

The analgesic potency of dexmedetomidine is enhanced after nerve injury: a possible role for peripheral alpha2-adrenoceptors. Poree LR, et al. **Anesth Analg** 1998 Oct;87(4):941-8

The effect of perineural colchicine on nerve injury-induced spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Brain Res Bull** 1999 Aug;49(6):419-27

Increase of interleukin-6 mRNA in the spinal cord following peripheral nerve injury in the rat: potential role of IL-6 in neuropathic pain. Arruda JL, et al. **Brain Res Mol Brain Res** 1998 Nov 20;62(2):228-35

Anti-allodynic actions of intravenous opioids in the nerve injured rat: potential utility of heroin and dihydroetorphine against neuropathic pain. Martin TJ, et al. **Eur J Pharmacol** 1998 Sep 11;357(1):25-32

Changes in trkA expression in the dorsal root ganglion after peripheral nerve injury. Shen H, et al. **Exp Brain Res** 1999 Jul;127(2):141-6

Transient effects of nerve injury on estimates of sensory neuron number in juvenile bullfrog. Farel PB, et al. **J Comp Neurol** 1999 Jul 26;410(2):171-7

Receptor subtype mediating the adrenergic sensitivity of pain behavior and ectopic discharges in neuropathic Lewis rats. Lee DH, et al. **J Neurophysiol** 1999 May;81(5):2226-33

A novel spinal action of mexiletine in spinal somatosensory transmission of nerve injured rats. Chapman V, et al. **Pain** 1998 Sep;77(3):289-96

METABOLISM

Expression of neurotrophin mRNAs in the dorsal root ganglion after spinal nerve injury. Shen H, et al. **Brain Res Mol Brain Res** 1999 Feb 5;64(2):186-92

PATHOLOGY

Spinal nerve lesion induces upregulation of neuronal nitric oxide synthase in the spinal cord. An immunohistochemical investigation in the rat. Gordh T, et al. **Amino Acids** 1998; 14(1-3):105-12

Endogenous noradrenergic tone controls symptoms of allodynia in the spinal nerve ligation model of neuropathic pain. Xu M, et al. **Eur J Pharmacol** 1999 Jan 29;366(1):41-5

Sensory polyganglioradiculoneuritis in a dog. Chrisman CL, et al. **J Am Anim Hosp Assoc** 1999 May-Jun;35(3):232-5

Reduced dendritic spine density on cerebral cortical pyramidal neurons in schizophrenia [see comments] Garey LJ, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):446-53. Comment in: J Neurol Neurosurg Psychiatry 1998 Oct;65(4):432.

PHYSIOLOGY

Neurophysiological and anatomical variability of the greater auricular nerve. Sand T, et al. **Acta Neurol Scand** 1998 Nov;98(5):333-9

Differential arterial baroreflex regulation of renal, lumbar, and adrenal sympathetic nerve activity in the rat. Scislo TJ, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R995-R1002

ABT-594, a novel cholinergic channel modulator, is efficacious in nerve ligation and diabetic neuropathy models of neuropathic pain. Bannon AW, et al. **Brain Res** 1998 Aug 10;801(1-2):158-63

The effect of perineural colchicine on nerve injury-induced spinal glial activation and neuropathic pain behavior. Colburn RW, et al. **Brain Res Bull** 1999 Aug;49(6):419-27

Transcutaneous sacral neurostimulation for irritative voiding dysfunction. Walsh IK, et al. **Eur Urol** 1999;35(3):192-6

Desert toads discriminate salt taste with chemosensory function of the ventral skin. Nagai T, et al. **J Comp Neurol** 1999 May 24;408(1):125-36

Reflex responses of bladder motility after stimulation of interspinous tissues in the anesthetized rat. Budgell BS, et al. **J Manipulative Physiol Ther** 1998 Nov-Dec;21(9):593-9

Uninjured C-fiber nociceptors develop spontaneous activity and alpha-adrenergic sensitivity following L6 spinal nerve ligation in monkey. Ali Z, et al. **J Neurophysiol** 1999 Feb; 81(2):455-66

Responses of axotomized afferents to blockade of nitric oxide synthesis after spinal nerve lesion in the rat. Häbler HJ, et al. **Neurosci Lett** 1998 Sep 18;254(1):33-6

Spinal systems and pain processing: development of novel analgesic drugs with mechanistically defined models. Yaksh TL. **Trends Pharmacol Sci** 1999 Aug;20(8):329-37 (98 ref.)

An ependymal cell culture system for the study of spinal cord regeneration. Chernoff EA, et al. **Wound Repair Regen** 1998 Jul-Aug;6(4):403-12

[An observation on the possible existance of some information transmission between sensory nerve endings of rat] Wang J, et al. **Sheng Li Hsueh Pao** 1997 Dec;49(6):618-24 (Eng. Abstr.) **(Chi)**

PHYSIOPATHOLOGY

Acute peripheral inflammation induces moderate glial activation and spinal IL-1beta expression that correlates with pain behavior in the rat. Sweitzer SM, et al. **Brain Res** 1999 May 22;829(1-2):209-21

Correlation between histopathological findings in C-5 and C-6 nerve stumps and motor recovery following nerve grafting for repair of brachial plexus injury. Malessy MJ, et al. **J Neurosurg** 1999 Oct;91(4):636-44

Alterations in neuropeptide Y, tyrosine hydroxylase, and Y-receptor subtype distribution following spinal nerve injury to rats. Marchand JE, et al. **Pain** 1999 Feb; 79(2-3):187-200

Lumbar sympathectomy failed to reverse mechanical allodynia- and hyperalgesia-like behavior in rats with L5 spinal nerve injury. Ringkamp M, et al. **Pain** 1999 Feb; 79(2-3):143-53

Spinal nerve ligation-induced neuropathy in the rat: sensory disorders and correlation between histology of the peripheral nerves [published erratum appears in Pain 1999 May;81(1-2):221-3] Röyttä M, et al. **Pain** 1999 Mar; 80(1-2):161-70

SURGERY

Restoration of elbow flexion in brachial plexus avulsion injury: comparing spinal accessory nerve transfer with intercostal nerve transfer. Waikakul S, et al. **J Hand Surg [Am]** 1999 May;24(3):571-7

TRANSPLANTATION

Correlation between histopathological findings in C-5 and C-6 nerve stumps and motor recovery following nerve grafting for repair of brachial plexus injury. Malessy MJ, et al. **J Neurosurg** 1999 Oct;91(4):636-44

VIROLOGY

Is herpes zoster unilateral? Usatine RP, et al. **West J Med** 1999 May;170(5):263

SPINAL OSTEOPHYTOSIS

Ossification of the yellow ligament and spondylosis and/or ossification of the posterior longitudinal ligament of the thoracic and lumbar spine. Epstein NE. **J Spinal Disord** 1999 Jun;12(3):250-6

CEREBROSPINAL FLUID

Quantitative analysis of cerebrospinal fluid flow in patients with cervical spondylosis using cine phase-contrast magnetic resonance imaging. Watabe N, et al. **Neurosurgery** 1999 Apr;44(4):779-84

CLASSIFICATION

Classification system based on kinematic MR imaging in cervical spondylitic myelopathy [see comments] Muhle C, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1763-71. Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1594.

COMPLICATIONS

Cervical osteoarthropathy: an unusual cause of dysphagia. Srinivas P, et al. **Age Ageing** 1999 May;28(3):321-2

Dysphagia secondary to cervical osteophytes. Ladenheim SE, et al. **Am J Otolaryngol** 1999 May-Jun;20(3):184-9 (26 ref.)

The value of somatosensory and motor evoked evoked potentials in pre-clinical spondylotic cervical cord compression. Bednarík J, et al. **Eur Spine J** 1998; 7(6):493-500

Spondyloptosis and multiple-level spondylolysis. Al-Sebai MW, et al. **Eur Spine J** 1999;8(1):75-7

Submucosal hemorrhage of the esophagus associated with endoscopy in a patient with cervical osteophytes. Thomson

SPINAL OSTEOPHYTOSIS

A, et al. **J Clin Gastroenterol** 1998 Oct;27(3):267–8

A long-term follow-up study of cervical spondylotic myelopathy treated by "French window" laminoplasty. Saruhashi Y, et al. **J Spinal Disord** 1999 Apr;12(2):99–101

Dysphagia caused by cervical osteophytes: three cases treated successfully by surgery. Goel R, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):92–6

Managing pain from cervical spondylosis. Sari-Kouzel H, et al. **Practitioner** 1999 Apr;243(1597):334–8 (1 ref.)

Lumbar spine pain originating from vertebral osteophytes. Lamer TJ. **Reg Anesth Pain Med** 1999 Jul–Aug; 24(4):347–51

The value of somatosensory- and motor-evoked potentials in predicting and monitoring the effect of therapy in spondylotic cervical myelopathy. Prospective randomized study. Bednařik J, et al. **Spine** 1999 Aug 1;24(15):1593–8

The role of decompression for acute incomplete cervical spinal cord injury in cervical spondylosis. Chen TY, et al. **Spine** 1998 Nov 15;23(22):2398–403

Posterior decompression of the vertebral artery narrowed by cervical osteophyte: case report. Citow JS, et al. **Surg Neurol** 1999 May;51(5):495–8; discussion 498–9

Management of multilevel cervical spondylosis with myelopathy. Sypert GW, et al. **Surg Neurol** 1999 Jan; 51(1):4–5

[Dysphagia in the course of degenerative changes of the anterior wall of the cervical spine] Król R, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):251–5 (Eng. Abstr.) **(Pol)**

[Pain as an important symptom in trauma, diseases and movement disorders] Rąpała K. **Pol Merkuriusz Lek** 1998 Oct;5(28):238–9 (Eng. Abstr.) **(Pol)**

[Sensitive deficit of pseudo-polyneuritis distribution as the initial manifestation of spondylotic cervical myelopathy (letter)] Combarros O, et al. **Neurologia** 1998 Oct; 13(8):407–9 **(Spa)**

DIAGNOSIS

Classification system based on kinematic MR imaging in cervical spondylitic myelopathy [see comments] Muhle C, et al. **AJNR Am J Neuroradiol** 1998 Oct;19(9):1763–71. Comment in: AJNR Am J Neuroradiol 1998 Oct;19(9):1594.

Factors influencing lumbar spine bone mineral density assessment by dual-energy X-ray absorptiometry: comparison with lumbar spinal radiogram. Kinoshita H, et al. **J Orthop Sci** 1998;3(1):3–9

Quantitative assessment of cervical spondylotic myelopathy by a simple walking test. Singh A, et al. **Lancet** 1999 Jul 31;354(9176):370–3

Motor and somatosensory evoked potentials in asymptomatic spondylotic cord compression. Tavy DL, et al. **Muscle Nerve** 1999 May;22(5):628–34

Cervical spondylotic myelopathy: patterns of neurological deficit and recovery after anterior cervical decompression. Chiles BW 3rd, et al. **Neurosurgery** 1999 Apr;44(4):762–9; discussion 769–70

Can intramedullary signal change on magnetic resonance imaging predict surgical outcome in cervical spondylotic myelopathy? Wada E, et al. **Spine** 1999 Mar 1;24(5):455–61; discussion 462

DRUG THERAPY

The efficacy and safety of eperisone in patients with cervical spondylosis: results of a randomized, double-blind, placebo-controlled trial. Bose K. **Methods Find Exp Clin Pharmacol** 1999 Apr;21(3):209–13

Lumbar spine pain originating from vertebral osteophytes. Lamer TJ. **Reg Anesth Pain Med** 1999 Jul–Aug; 24(4):347–51

EPIDEMIOLOGY

Factors influencing lumbar spine bone mineral density assessment by dual-energy X-ray absorptiometry: comparison with lumbar spinal radiogram. Kinoshita H, et al. **J Orthop Sci** 1998;3(1):3–9

The distribution, determinants, and clinical correlates of vertebral osteophytosis: a population based survey. O'Neill TW, et al. **J Rheumatol** 1999 Apr;26(4):842–8

ETHNOLOGY

Osteophytosis of the cervical spine in South African blacks and whites. Taitz C. **Clin Anat** 1999;12(2):103–9

HISTORY

Spondyloarthropathy identified as the etiology of Nubian erosive arthritis. Rothschild BM, et al. **Am J Phys Anthropol** 1999 Jun;109(2):259–67

METABOLISM

Fatal cervical spondyloarthropathy in a hemodialysis patient with systemic deposition of beta2-microglobulin amyloid. Danesh FR, et al. **Am J Kidney Dis** 1999 Mar;33(3):563–6 (17 ref.)

PATHOLOGY

Osteophytosis of the cervical spine in South African blacks and whites. Taitz C. **Clin Anat** 1999;12(2):103–9

[Sensitive deficit of pseudo-polyneuritis distribution as the initial manifestation of spondylotic cervical myelopathy (letter)] Combarros O, et al. **Neurologia** 1998 Oct; 13(8):407–9 **(Spa)**

PHYSIOPATHOLOGY

A review of the pathophysiology of cervical spondylotic myelopathy with insights for potential novel mechanisms drawn from traumatic spinal cord injury. Fehlings MG, et al. **Spine** 1998 Dec 15;23(24):2730–7 (74 ref.)

RADIOGRAPHY

Comprehensive radiographic evaluation of diffuse idiopathic skeletal hyperostosis: development and interrater reliability of a scoring system. Mata S, et al. **Semin Arthritis Rheum** 1998 Oct;28(2):88–96

RADIONUCLIDE IMAGING

[Myelography and nuclear magnetic resonance imaging of the cervical syndrome] Ji B, et al. **Rontgenpraxis** 1998; 51(10):373–8 **(Ger)**

SURGERY

Anterior cervical decompression and fusion for cervical spondylosis using vertebral grafts obtained from the fusion site. Technical advantages and follow-up results. Takayasu M, et al. **Acta Neurochir (Wien)** 1998;140(12):1249–55

Surgical outcome in patients with coexisting multiple sclerosis and spondylosis. Young WF, et al. **Acta Neurol Scand** 1999 Aug;100(2):84–7

Kinematic MR imaging in surgical management of cervical disc disease, spondylosis and spondylotic myelopathy. Muhle C, et al. **Acta Radiol** 1999 Mar;40(2):146–53

Operative treatment of cervical spondylosis [letter] Fouyas IP, et al. **Br J Neurosurg** 1998 Dec;12(6):594–5

Cervical foraminotomy: an effective treatment for cervical spondylotic radiculopathy. Kumar GR, et al. **Br J Neurosurg** 1998 Dec;12(6):563–8

The argument for single-level anterior cervical discectomy and fusion with anterior plate fixation. Geer CP, et al. **Clin Neurosurg** 1999;45:25–9; discussion 21 (21 ref.)

Cervical spondylotic myelopathy. Approaches to surgical treatment. Orr RD, et al. **Clin Orthop** 1999 Feb;(359):58–66 (44 ref.)

Modern alternatives and techniques for one-level discectomy and fusion. Whitecloud TS 3rd. **Clin Orthop** 1999 Feb; (359):67–76 (27 ref.)

Anterior cervical discectomy: is fusion necessary? [see comments] Dowd GC, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):8–12. Comment in: J Neurosurg 1999 Aug;91(2):353–4. Comment in: J Neurosurg 1999 Aug;91(2):354.

Artificial lamina-assisted laminoplasty performed in seven cases. Fornari M, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):43–9

Cervical corpectomy [letter; comment] Sukoff MH. **J Neurosurg** 1999 Jul;91(1 Suppl):138. Comment on: J Neurosurg 1999 Jan;90(1 Suppl):35–41.

A long-term follow-up study of cervical spondylotic myelopathy treated by "French window" laminoplasty. Saruhashi Y, et al. **J Spinal Disord** 1999 Apr;12(2):99–101

Anterior cervical interbody fusion with plate fixation for chronic spondylotic radiculopathy: a 2- to 8-year follow-up. Schneeberger AG, et al. **J Spinal Disord** 1999 Jun;12(3):215–20; discussion 221

Trials and tribulations in cervical spondylosis. Fairbank J. **Lancet** 1998 Oct 10;352(9135):1165–6

Anterior cervical corpectomy for cervical spondylotic myelopathy. Fessler RG, et al. **Neurosurgery** 1998 Aug; 43(2):257–65; discussion 265–7

Cervical spondylotic myelopathy: functional and radiographic long-term outcome after laminectomy and posterior fusion. Kumar VG, et al. **Neurosurgery** 1999 Apr; 44(4):771–7; discussion 777–8

Dysphagia caused by cervical osteophytes: three cases treated successfully by surgery. Goel R, et al. **Otolaryngol Head Neck Surg** 1999 Jan;120(1):92–6

Biomechanical comparison of spondylolysis fixation techniques. Deguchi M, et al. **Spine** 1999 Feb 15; 24(4):328–33

The Cochrane review of surgery for lumbar disc prolapse and degenerative lumbar spondylosis. Gibson JN, et al. **Spine** 1999 Sep 1;24(17):1820–32

Anterior cervical reconstruction using titanium cages with anterior plating. Majd ME, et al. **Spine** 1999 Aug 1; 24(15):1604–10

Four-level cervical corpectomy. Saunders RL, et al. **Spine** 1998 Nov 15;23(22):2455–61

Radiculopathy after laminoplasty of the cervical spine. Uematsu Y, et al. **Spine** 1998 Oct 1;23(19):2057–62

Management of multilevel cervical spondylosis with myelopathy. Sypert GW, et al. **Surg Neurol** 1999 Jan; 51(1):4–5

THERAPY

Treatment of spinal-cord-type cervical spondylosis by Chinese massotherapy. Jin J. **J Tradit Chin Med** 1999 Mar; 19(1):52–3

Clinical observations on 278 cases of cervical spondylopathy treated with electroacupuncture and massotherapy. Luo Z, et al. **J Tradit Chin Med** 1997 Jun;17(2):116–8

Outcome in patients with cervical radiculopathy. Prospective, multicenter study with independent clinical review. Sampath P, et al. **Spine** 1999 Mar 15;24(6):591–7

VETERINARY

Comparison of two surgical techniques for the management of cervical spondylomyelopathy in dobermanns. Rusbridge C, et al. **J Small Anim Pract** 1998 Sep;39(9):425–31

SPINAL PUNCTURE

Lumbar puncture first: an alternative model for the investigation of lone acute sudden headache. Schull MJ. **Acad Emerg Med** 1999 Feb;6(2):131–6

Local vascular response during organ elevation. A model for cerebral effects of upright position and dural puncture. Kongstad L, et al. **Acta Anaesthesiol Scand** 1999 Apr; 43(4):438–46

External lumbar drainage in uncontrollable intracranial pressure in adults with severe head injury: a report of 7 cases. Willemse RB, et al. **Acta Neurochir Suppl (Wien)** 1998;71:37–9

Analgesia for spinal puncture [letter] Ward B. **Anaesthesia** 1999 Jun;54(6):610–1

Epidural anesthesia and analgesia are not impaired after dural puncture with or without epidural blood patch. Hebl JR, et al. **Anesth Analg** 1999 Aug;89(2):390–4

Acute obstructive hydrocephalus complicating bacterial meningitis. Neuroimaging has limitations [letter; comment] Abernethy L. **BMJ** 1999 Jan 9;318(7176):124. Comment on: BMJ 1998 Jun 20;316(7148):1887–9.

Increased risk of unintentional dural puncture in night-time obstetric epidural anesthesia. Aya AG, et al. **Can J Anaesth** 1999 Jul;46(7):665–9

Conscious sedation in the pediatric emergency department. Rosenberg NM, et al. **Pediatr Emerg Care** 1998 Dec; 14(6):436–9

Effects of Alzheimer's disease and gender on the hypothalamic-pituitary-adrenal axis response to lumbar puncture stress. Petrie EC, et al. **Psychoneuroendocrinology** 1999 May;24(4):385–95

Serial lumbar tapping to prevent posthaemorrhagic hydrocephalus after intracranial haemorrhage in preterm infants. Müller W, et al. **Wien Klin Wochenschr** 1998 Oct 2;110(18):631–4

[Neonatal meningitis: the value of systematic lumbar puncture (letter; comment)] Baziomo JM, et al. **Arch Pediatr** 1998 Mar;5(3):340–1. Comment on: Arch Pediatr 1995 Sep;2(9):833–9. **(Fre)**

[Reasons against lumbar puncture diagnosis with cerebrospinal fluid drainage in subarachnoid hemorrhage] Profeta G, et al. **Minerva Anestesiol** 1998 Apr;64(4):137–9 (10 ref.) (Eng. Abstr.) **(Ita)**

[Reasons in favor of lumbar puncture diagnosis (or lavage)] Schisano G. **Minerva Anestesiol** 1998 Apr;64(4):135–6 (6 ref.) (Eng. Abstr.) **(Ita)**

[Lumbar puncture in a pediatric emergency department: something more than a diagnostic technic] Mintegui Raso S, et al. **An Esp Pediatr** 1999 Jan;50(1):25–8 (Eng. Abstr.) **(Spa)**

ADVERSE EFFECTS

Effect of experience with spinal anaesthesia on the development of post-dural puncture complications. Flaatten H, et al. **Acta Anaesthesiol Scand** 1999 Jan; 43(1):37–41

Postdural puncture headache and transient neurologic symptoms in children after spinal anaesthesia using cutting and pencil point paediatric spinal needles. Kokki H, et al. **Acta Anaesthesiol Scand** 1998 Oct;42(9):1076–82

Postdural puncture headache [letter; comment] el Tawil M. **Acta Anaesthesiol Scand** 1999 Apr;43(4):488. Comment on: Acta Anaesthesiol Scand 1999 Apr;43(4):488.

Post-dural puncture related complications after diagnostic lumbar puncture, myelography and spinal anaesthesia. Flaatten H, et al. **Acta Neurol Scand** 1998 Dec;98(6):445–51

MR imaging with gadolinium in patients with and without post-lumbar puncture headache. Hannerz J, et al. **Acta Radiol** 1999 Mar;40(2):135–41

Chronic subdural haematoma following caesarean section under spinal anaesthesia. Akpek EA, et al. **Anaesth Intensive Care** 1999 Apr;27(2):206–8

Vascular trauma associated with routine spinal anaesthesia. Knowles PR, et al. **Anaesthesia** 1999 Jul;54(7):647–50

Clinical dilemma: a patient with postdural puncture headache and acute leukemia [see comments] Bucklin BA, et al. **Anesth Analg** 1999 Jan;88(1):166–7. Comment in: Anesth Analg 1999 Jul;89(1):264. Comment in: Anesth Analg 1999 Aug;89(2):538.

The effect of fibrin glue patch in an in vitro model of postdural puncture leakage. Gil F, et al. **Anesth Analg** 1998 Nov;87(5):1125–8

Pneumocephalus with intense headache and unilateral pupillary dilatation after accidental dural puncture during epidural anesthesia for cesarean section. Laviola S, et al. **Anesth Analg** 1999 Mar;88(3):582–3

Intrathecal catheter as a secondary prophylaxis of postdural puncture headache [letter; comment] Malov SS. **Anesth Analg** 1999 Aug;89(2):538. Comment on: Anesth Analg 1999 Jan;88(1):166–7.

Postdural puncture headaches in special patient populations

[letter; comment] Miguel R, et al. **Anesth Analg** 1999 Jul; 89(1):264. Comment on: Anesth Analg 1999 Jan;88(1):166–7.

Epidural fibrin glue injection stops persistent postdural puncture headache. Crul BJ, et al. **Anesthesiology** 1999 Aug;91(2):576–7

Post–lumbar puncture headache and backache in pediatrics: a case series and demonstration of magnetic resonance imaging findings. Atabaki S, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):770–3 (21 ref.)

Preventing headache after lumbar puncture. Most doctors are unaware of features of headache after lumbar puncture [letter; comment] Sharma A. **BMJ** 1998 Dec 5; 317(7172):1588. Comment on: BMJ 1998 Jun 6;316(7146):1709–10.

Preventing headache after lumbar puncture. Evidence must come from randomised trails put together systematically [letter; comment] Sudlow C. **BMJ** 1998 Dec 5; 317(7172):1589. Comment on: BMJ 1998 Jun 6;316(7146):1709–10.

Preventing headache after lumbar puncture. Optimism generally quoted for epidural blood patching is unwarrented [letter; comment] Williams E, et al. **BMJ** 1998 Dec 5;317(7172):1588–9. Comment on: BMJ 1998 Jun 6;316(7146):1709–10.

Postdural puncture headache in paediatric oncology patients. Burt N, et al. **Can J Anaesth** 1998 Aug;45(8):741–5

Postdural puncture headache after spinal anaesthesia in young orthopaedic outpatients using 27–g needles. Despond O, et al. **Can J Anaesth** 1998 Nov;45(11):1106–9

Efficiency of epidural blood patches in the obstetrics [letter; comment] Williams E, et al. **Can J Anaesth** 1998 Oct; 45(10):1031. Comment on: Can J Anaesth 1998 Feb;45(2):110–4.

Significant reduction in post–lumbar puncture headache using an atraumatic needle. A double–blind, controlled clinical trial. Kleyweg RP, et al. **Cephalalgia** 1998 Nov;18(9):635–7; discussion 591

Further observations on postspinal headache [editorial; comment] Ramadan NM. **Cephalalgia** 1998 Dec; 18(10):657–8. Comment on: Cephalalgia 1998 Dec;18(10):697–703.

Pain location and associated symptoms in post–lumbar puncture headache [see comments] Vilming ST, et al. **Cephalalgia** 1998 Dec;18(10):697–703. Comment in: Cephalalgia 1998 Dec;18(10):657–8.

MRI findings in lumbar puncture headache syndrome: abnormal dural–meningeal and dural venous sinus enhancement. Bakshi R, et al. **Clin Imaging** 1999 Mar–Apr; 23(2):73–6

Seven–year review of requests for epidural blood patches for headache after dural puncture: referral patterns and the effectiveness of blood patches. Vercauteren MP, et al. **Eur J Anaesthesiol** 1999 May;16(5):298–303

Incidence of post–lumbar puncture syndrome reduced by reinserting the stylet: a randomized prospective study of 600 patients. Strupp M, et al. **J Neurol** 1998 Sep; 245(9):589–92

Acute hydrocephalus following lateral C1–2 puncture. Case illustration. Lin J, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):277

Extradural haematoma complicating lumbar puncture following a craniotomy. A case report. Mohanty A, et al. **J Neurosurg Sci** 1998 Dec;42(4):233–7

Complications of lumbar puncture with injection of hydrosoluble material. Hoeffel C, et al. **J Spinal Disord** 1999 Apr;12(2):168–71

Postdural–puncture headache [letter] Kee WD. **Lancet** 1999 Aug 21;354(9179):680

Reducing incidence of headache after lumbar puncture and intrathecal cytotoxics [letter] Lo SK, et al. **Lancet** 1999 Jun 12;353(9169):2038–9

Spinal subdural hematoma: a rare complication of lumbar puncture. Case report and review of the literature. Egede LE, et al. **Md Med J** 1999 Jan–Feb;48(1):15–7 (15 ref.)

Precautions for lumbar puncture: a survey of neurologic educators. Waldman W, et al. **Neurology** 1999 Apr 12; 52(6):1296

Postdural puncture headache is not an age–related symptom in children: a prospective, open–randomized, parallel group study comparing a22–gauge Quincke with a 22–gauge Whitacre needle. Kokki H, et al. **Paediatr Anaesth** 1999; 9(5):429–34

Low–pressure shunt 'malfunction' following lumbar puncture in children with shunted obstructive hydrocephalus. Dias MS, et al. **Pediatr Neurosurg** 1999 Mar;30(3):146–50

Fatal cerebral herniation after lumbar puncture in a patient with a normal computed tomography scan. Shetty AK, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1284–7

The influence of the menstrual cycle in postdural puncture headache. Echevarria M, et al. **Reg Anesth Pain Med** 1998 Sep–Oct;23(5):485–90

Reply to Dr. Spencer regarding postdural puncture headache [letter; comment] Stasiuk R. **Reg Anesth Pain Med** 1999 Jul–Aug;24(4):377. Comment on: Reg Anesth Pain Med 1998 Jul–Aug;23(4):374–9; discussion 384–7.

Intravenous administration of caffeine sodium benzoate for postdural puncture headache. Yücel A, et al. **Reg Anesth Pain Med** 1999 Jan–Feb;24(1):51–4

Nerve root herniation secondary to lumbar puncture in the patient with lumbar canal stenosis. A case report. Hasegawa K, et al. **Spine** 1999 May 1;24(9):915–7

[Lumbar puncture headache. Routines of Danish hospital departments compared with recommendations found in the literature] Winge K, et al. **Ugeskr Laeger** 1999 Apr 19; 161(16):2368–72 (20 ref.) (Eng. Abstr.) **(Dan)**

[Post–lumbar puncture headache in children. Treatment with epidural autologous blood (blood patch)] Carbajal R, et al. **Arch Pediatr** 1998 Feb;5(2):149–52 (Eng. Abstr.) **(Fre)**

[Bilateral intracranial subdural hematoma following lumbar puncture: report of a case] Lavie F, et al. **Rev Neurol (Paris)** 1998 Oct;154(10):703–5 (12 ref.) (Eng. Abstr.) **(Fre)**

[With regard to a "blood–patch" in post–lumbar puncture syndrome (letter; comment)] Seebacher J, et al. **Rev Neurol (Paris)** 1998 May;154(4):350–1. Comment on: Rev Neurol (Paris) 1997 Oct;153(10):605–8. **(Fre)**

[Hearing loss secondary to lumbar puncture] Aréchaga Orüe O, et al. **Acta Otorrinolaringol Esp** 1998 Nov–Dec; 49(8):647–9 (Eng. Abstr.) **(Spa)**

CONTRAINDICATIONS

Routine use of CT prior to lumbar puncture [letter] Cooper JR. **Br J Radiol** 1999 Mar;72(855):319

INSTRUMENTATION

Neurologic complications after placement of cerebrospinal fluid drainage catheters and needles in anesthetized patients: implications for regional anesthesia. Mayo Perioperative Outcomes Group. Grady RE, et al. **Anesth Analg** 1999 Feb; 88(2):388–92

In vitro investigation of cerebrospinal fluid leakage after dural puncture with various spinal needles. Holst D, et al. **Anesth Analg** 1998 Dec;87(6):1331–5

Postdural puncture headache is not an age–related symptom in children: a prospective, open–randomized, parallel group study comparing a22–gauge Quincke with a 22–gauge Whitacre needle. Kokki H, et al. **Paediatr Anaesth** 1999; 9(5):429–34

METHODS

Puncture technique and postural postdural puncture headache. A randomised, double–blind study comparing transverse and parallel puncture. Flaatten H, et al. **Acta Anaesthesiol Scand** 1998 Nov;42(10):1209–14

Intrathecal catheter as a secondary prophylaxis of postdural puncture headache [letter; comment] Malov SS. **Anesth Analg** 1999 Aug;89(2):538. Comment on: Anesth Analg 1999 Jan;88(1):166–7.

Depth of insertion of a lumbar puncture needle [letter] Li AM, et al. **Arch Dis Child** 1999 Jan;80(1):102

Lumbar puncture in subarachnoid haemorrhage: a necessary evil? Steeds RP, et al. **Hosp Med** 1999 May;60(5):376–7

[The puncture laser dissectomy application for the discogenic lumbosacral radiculitis] Pedachenko EG, et al. **Klin Khir** 1998;(6):14–6 (Eng. Abstr.) **(Rus)**

PSYCHOLOGY

Alteration of memory in the reduction of children's distress during repeated aversive medical procedures. Chen E, et al. **J Consult Clin Psychol** 1999 Aug;67(4):481–90

Parent coping and child distress behaviors during invasive procedures for childhood cancer. LaMontagne LL, et al. **J Pediatr Oncol Nurs** 1999 Jan;16(1):3–12

SPINAL ROOTS see **SPINAL NERVE ROOTS**

SPINAL STENOSIS

COMPLICATIONS

The relationship of developmental narrowing of the cervical spinal canal to reversible and irreversible injury of the cervical spinal cord in footbali players. An epidemiological study [letter; comment] Summerfield SL. **J Bone Joint Surg Am** 1998 Oct;80(10):1554–5. Comment on: J Bone Joint Surg Am 1996 Sep;78(9):1308–14.

Modified open–door laminoplasty for treatment of neurological deficits in younger patients with congenital spinal stenosis: analysis of clinical and radiographic data. Shaffrey CI, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):170–7

Relation between the painful shoulder and the cervical spine with narrow canal in patients without obvious radiculopathy. Mimori K, et al. **J Shoulder Elbow Surg** 1999 Jul–Aug;8(4):303–6

An experimental model for chronic compression of dorsal root ganglion produced by intervertebral foramen stenosis in the rat. Hu SJ, et al. **Pain** 1998 Jul;77(1):15–23

A review of basic science issues in low back pain. Gordon SL, et al. **Phys Med Rehabil Clin N Am** 1998 May; 9(2):323–42, vii (172 ref.)

Transient lumbosacral polyradiculopathy after prostatectomy: association with spinal stenosis. Ahearn GS, et al. **South Med J** 1999 Aug;92(8):809–11

Behavioral and morphologic studies of the chronically compressed cauda equina. Experimental model of lumbar spinal stenosis in the rat. Yamaguchi K, et al. **Spine** 1999 May 1;24(9):845–51

CONGENITAL

Modified open–door laminoplasty for treatment of neurological deficits in younger patients with congenital spinal stenosis: analysis of clinical and radiographic data. Shaffrey CI, et al. **J Neurosurg** 1999 Apr;90(4 Suppl):170–7

Indication and clinical results of laminoplasty for cervical myelopathy caused by disc herniation with developmental canal stenosis. Yoshida M, et al. **Spine** 1998 Nov 15; 23(22):2391–7

DIAGNOSIS

Axial loading of the spine during CT and MR in patients with suspected lumbar spinal stenosis. Danielson BI, et al. **Acta Radiol** 1998 Nov;39(6):604–11

Tandem spinal stenosis: clinical diagnosis and surgical treatment. Hsieh CH, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec;21(4):429–35

MR evaluation of stenosis involving the neural foramina, lateral recesses, and central canal of the lumbosacral spine. Jinkins JR. **Magn Reson Imaging Clin N Am** 1999 Aug; 7(3):493–511, viii (43 ref.)

Cervical stenosis and dystonic cerebral palsy [letter; comment] Rosenfeld M, et al. **Mov Disord** 1999 Jan; 14(1):194–5. Comment on: Mov Disord 1998 Jul;13(4):713–7.

A physiological approach to the evaluation of lumbosacral spinal stenosis. Kraft GH. **Phys Med Rehabil Clin N Am** 1998 May;9(2):381–9, viii (19 ref.)

[Distension of the inter–facet joints in MRI: and indirect sign of an existing underestimation of spondylolisthesis and canal stenosis] Mailleux P, et al. **J Belge Radiol** 1998 Dec; 81(6):283–5 (Eng. Abstr.) **(Fre)**

[Lumbar spinal stenosis. Symptomatology and methods of treatment] Ivanov I, et al. **Srp Arh Celok Lek** 1998 Nov–Dec;126(11–12):450–6 (Eng. Abstr.) **(Scc)**

DRUG THERAPY

Symptomatic spinal epidural lipomatosis after local epidural corticosteroid injections: case report. Sandberg DI, et al. **Neurosurgery** 1999 Jul;45(1):162–5

The effect of Lipo prostaglandin E1 on cauda equina blood flow in patients with lumbar spinal canal stenosis: myeloscopic observation. Yone K, et al. **Spinal Cord** 1999 Apr;37(4):269–74

ETIOLOGY

+Gz associated stenosis of the cervical spinal canal in fighter pilots. Hämäläinen O, et al. **Aviat Space Environ Med** 1999 Apr;70(4):330–4

A case of cervical myelopathy with developmental canal stenosis at the level of the atlas. A case report. Okamoto K, et al. **Kobe J Med Sci** 1998 Jun;44(3):135–40

The influence of spinal canal narrowing and timing of decompression on neurologic recovery after spinal cord contusion in a rat model. Dimar JR 2nd, et al. **Spine** 1999 Aug 15;24(16):1623–33

[Lumbar canal stenosis caused by amyloidosis of the yellow ligament] Roche PH, et al. **Neurochirurgie** 1999 May; 45(2):91–7 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Histology of the ligamentum flavum in patients with degenerative lumbar spinal stenosis. Schräder PK, et al. **Eur Spine J** 1999;8(4):323–8

A single case report of healing through specific martial art therapy: comparison of MRI to clinical resolution in severe cervical stenosis: a case report [see comments] Massey PB, et al. **J Altern Complement Med** 1999 Feb;5(1):75–9. Comment in: J Altern Complement Med 1999 Jun;5(3):221–2.

Post–traumatic syringomyelia and post–traumatic spinal canal stenosis [letter] Pringle RG. **Spinal Cord** 1998 Sep;36(9):664

Long–term clinical and magnetic resonance imaging follow–up assessment of patients with lumbar spinal stenosis after laminectomy. Herno A, et al. **Spine** 1999 Aug 1; 24(15):1533–7

PHYSIOPATHOLOGY

Motor deficit in lumbar spinal stenosis: a retrospective study of a series of 50 patients. Guigui P, et al. **J Spinal Disord** 1998 Aug;11(4):283–8

A physiological approach to the evaluation of lumbosacral spinal stenosis. Kraft GH. **Phys Med Rehabil Clin N Am** 1998 May;9(2):381–9, viii (19 ref.)

The influence of spinal canal narrowing and timing of decompression on neurologic recovery after spinal cord contusion in a rat model. Dimar JR 2nd, et al. **Spine** 1999 Aug 15;24(16):1623–33

Intraoperative somatosensory evoked potential findings in acute and chronic spinal canal compromise. Norcross–Nechay K, et al. **Spine** 1999 May 15; 24(10):1029–33

RADIOGRAPHY

Acromesomelic dysplasia associated with mild lumbar spine stenosis. Haliloglu M, et al. **Eur Radiol** 1999;9(1):103–4

Dimensions of the lumbar spinal canal: variations and correlations with somatometric parameters using CT. Karantanas AH, et al. **Eur Radiol** 1998;8(9):1581–5

Radiologic and computed tomography image evaluation of bone regrowth after wide surgical decompression for lumbar stenosis. Guigui P, et al. **Spine** 1999 Feb 1; 24(3):281–8; discussion 288–9

L5 root compression caused by degenerative spinal stenosis of the L1–L2 and L2–L3 spaces. Hidalgo-Ovejero AM, et al. **Spine** 1998 Sep 1;23(17):1891–4

Developmental and dynamic canal stenosis as radiologic factors affecting surgical results of anterior cervical fusion for myelopathy. Shoda E, et al. **Spine** 1999 Jul 15; 24(14):1421–4

REHABILITATION

A single case report of healing through specific martial art therapy: comparison of MRI to clinical resolution in severe cervical stenosis: a case report [see comments] Massey PB, et al. **J Altern Complement Med** 1999 Feb;5(1):75–9. Comment in: J Altern Complement Med 1999 Jun;5(3):221–2.

Rehabilitation outcome of individuals with nontraumatic myelopathy resulting from spinal stenosis. McKinley WO, et al. **J Spinal Cord Med** 1998 Apr;21(2):131–6

SURGERY

Surgical treatment of lumbar spinal stenosis in the elderly. Kalbarczyk A, et al. **Acta Neurochir (Wien)** 1998; 140(7):637–41

Unilateral fenestration in the treatment of lumbar spinal stenosis. Mackay DC, et al. **Br J Neurosurg** 1998 Dec; 12(6):556–8

Tandem spinal stenosis: clinical diagnosis and surgical treatment. Hsieh CH, et al.
Chang Keng I Hsueh Tsa Chih 1998 Dec;21(4):429–35

Imaging and therapy of degenerative spine diseases--a neurosurgeon's view. Grumme T, et al. **Eur J Radiol** 1998 Jul;27(3):235–40

Degenerative lumbar stenosis: diagnosis and management. Hilibrand AS, et al. **J Am Acad Orthop Surg** 1999 Jul–Aug; 7(4):239–49 (41 ref.)

Relationship between rates and outcomes of operative treatment for lumbar disc herniation and spinal stenosis. Keller RB, et al. **J Bone Joint Surg Am** 1999 Jun; 81(6):752–62

A new method of stabilising the elevated laminae in open-door laminoplasty using an anchor system. Wang JM, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1005–8

Surgical treatment of lumbar spinal stenosis in patients older than 75 years of age. Vitaz TW, et al. **J Neurosurg** 1999 Oct;91(2 Suppl):181–5

Microscopic laminotomies for degenerative lumbar spinal stenosis. Tsai RY, et al. **J Spinal Disord** 1998 Oct; 11(5):389–94

Usefulness of Posner's definition of spinal instability for selection of surgical treatment for lumbar spinal stenosis. Yone K, et al. **J Spinal Disord** 1999 Feb;12(1):40–4

Preoperative expectations of pain and recovery in relation to postoperative disappointment in patients undergoing lumbar surgery. de Groot KI, et al. **Med Care** 1999 Feb; 37(2):149–56

Surgical treatment of lumbar canal stenosis in the elderly. Hanakita J, et al. **Neurol Med Chir (Tokyo)** 1999 Jul; 39(7):519–22; discussion 522–3

Radiologic and computed tomography image evaluation of bone regrowth after wide surgical decompression for lumbar stenosis. Guigui P, et al. **Spine** 1999 Feb 1; 24(3):281–8; discussion 288–9

The degree of decompressive relief and its relation to clinical outcome in patients undergoing surgery for lumbar spinal stenosis. Herno A, et al. **Spine** 1999 May 15;24(10):1010–4

Microdecompression and uninstrumented single-level fusion for spinal canal stenosis with degenerative spondylolisthesis. McCulloch JA. **Spine** 1998 Oct 15; 23(20):2243–52

Surgical management of lumbar spinal stenosis. Postacchini F. **Spine** 1999 May 15;24(10):1043–7 (21 ref.)

Effect of decompression enlargement laminoplasty for posterior shifting of the spinal cord. Sodeyama T, et al. **Spine** 1999 Aug 1;24(15):1527–31; discussion 1531–2

Spinous process osteotomies to facilitate lumbar decompressive surgery. Weiner BK, et al. **Spine** 1999 Jan 1;24(1):62–6

Clostridium perfringens: a rare cause of postoperative spinal surgery meningitis. Kristopaitis T, et al. **Surg Neurol** 1999 Apr;51(4):448–50; discussion 450–1

[Fractures of the ischium after laminoarthrectomy. Retrospective study of a series of 31 patients] Guigui P, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1998 May; 84(3):247–57 (Eng. Abstr.) **(Fre)**

[Intra- and peri-renal gas formation. Bilateral emphysematous pyelonephritis] Pühse G, et al.
Urologe A 1999 May;38(3):276–8 (Eng. Abstr.) **(Ger)**

[Functional sequelae of surgical decompression of the lumbar spine--a biomechanical study in vitro] Quint U, et al.
Z Orthop Ihre Grenzgeb 1998 Jul–Aug;136(4):350–7 (Eng. Abstr.) **(Ger)**

[Lumbar spinal stenosis. Symptomatology and methods of treatment] Ivanov I, et al. **Srp Arh Celok Lek** 1998 Nov–Dec;126(11–12):450–6 (Eng. Abstr.) **(Scc)**

THERAPY

Nonsurgical treatment of pain in lumbar spine stenosis [letter; comment] Matthews JH. **Am Fam Physician** 1999 Jan 15; 59(2):280, 283–4. Comment on: Am Fam Physician 1998 Apr 15;57(8):1825–34, 1939–40.

Nerve root herniation secondary to lumbar puncture in the patient with lumbar canal stenosis. A case report. Hasegawa K, et al. **Spine** 1999 May 1;24(9):915–7

VETERINARY

Evaluation of canine lumbosacral stenosis using intravenous contrast-enhanced computed tomography. Jones JC, et al. **Vet Radiol Ultrasound** 1999 Mar–Apr;40(2):108–14

Surgical treatment of degenerative lumbosacral stenosis in dogs. Danielsson F, et al. **Vet Surg** 1999 Mar–Apr; 28(2):91–8

SPINDLE APPARATUS, MITOTIC see **MITOTIC SPINDLE APPARATUS**

SPINE

consider also terms at SPONDYL- and VERTEBRAL

see related
LAMINECTOMY

A comparison of the innervation characteristics of the lateral spinal ligaments between normal subjects and patients with adolescent idiopathic scoliosis. Jiang H, et al.
Acta Anat (Basel) 1997;160(3):200–7

Biological evaluation of biphasic calcium phosphate ceramic vertebral laminae. Wang J, et al. **Biomaterials** 1998 Aug; 19(15):1387–92

Continuous intrathecal baclofen infusion alleviates autonomic dysfunction in patients with severe supraspinal spasticity [letter] Becker R, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):114

Managing chronic nonmalignant pain with continuous intrathecal morphine. Valentino L, et al.
J Neurosci Nurs 1998 Aug;30(4):233–9, 243–4

Evaluation of spine and hip bone density by DXA and QCT in thalassemic patients. Danesi L, et al.
J Pediatr Endocrinol Metab 1998;11 Suppl 3:961–2

Radiologic case study. Diffuse red bone marrow hyperplasia of the spine, pelvis and femurs. Glockner JF, et al.
Orthopedics 1999 Aug;22(8):780; 776–7

Health impact associated with vertebral deformities: results from the European Vertebral Osteoporosis Study (EVOS). Matthis C, et al. **Osteoporos Int** 1998;8(4):364–72

1997 North American Spine Society presidential address. Fardon DF. **Spine** 1998 Oct 15;23(20):2232–4

[Analysis based medical training therapy for the spine (FPZ concept): quality assurance in the scope of evidence-based medicine] Daniels K, et al.
Z Arztl Fortbild Qualitatssich 1999 Jul;93(5):IV–V **(Ger)**

ABNORMALITIES

Conditions of the spine. Stanitski CL. **Adolesc Med** 1998 Oct; 9(3):515–32, vi (17 ref.)

Segmental spinal dysgenesis: neuroradiologic findings with clinical and embryologic correlation. Tortori-Donati P, et al. **AJNR Am J Neuroradiol** 1999 Mar;20(3):445–56

A gene for autosomal recessive spondylocostal dysostosis maps to 19q13.1–q13.3. Turnpenny PD, et al.
Am J Hum Genet 1999 Jul;65(1):175–82

Notochordal remnants in human iniencephaly suggest disturbed dorsoventral axis signaling. Kjaer I, et al.
Am J Med Genet 1999 Jun 11;84(5):425–32

Developmental study on reduction and kinks of the tail in a new mutant knotty-tail mouse. Matsuura T, et al.
Anat Embryol (Berl) 1998 Aug;198(2):91–9

Cryptorchidism as a caudal developmental field defect. A new description of cryptorchidism associated with malformations and dysplasias of the kidneys, the ureters and the spine from T10 to S5. Cortes D, et al. **APMIS** 1998 Oct;106(10):953–8

A new syndrome comprising vertebral anomalies and multicystic kidneys. Nisbet DL, et al. **Clin Dysmorphol** 1999 Jul;8(3):173–8

Unilateral tibial aplasia, pre-axial polysyndactyly, vertebral anomalies and imperforate anus [letter] Slavotinek A, et al. **Clin Dysmorphol** 1999 Jul;8(3):223–5

Early detection of caudal regression syndrome: specific interest and findings in three cases. Subtil D, et al.
Eur J Obstet Gynecol Reprod Biol 1998 Sep;80(1):109–12

Accuracy of the sagittal vertical axis in a standing lateral radiograph as a measurement of balance in spinal deformities. Van Royen BJ, et al. **Eur Spine J** 1998; 7(5):408–12

Epiphyseal, vertebral, and ear (EVE) dysplasia: a new syndrome? Amiel J, et al. **J Med Genet** 1999 Jul;36(7):561–4

Transitional lumbosacral vertebral anomaly in the dog: a radiographic study. Morgan JP. **J Small Anim Pract** 1999 Apr;40(4):167–72

Jumbled spine and ribs (Jsr): a new mutation on mouse chromosome 5. Miyoshi H, et al. **Mamm Genome** 1999 Mar; 10(3):213–7

Spinal manifestations of skeletal dysplasias. Kornblum M, et al. **Orthop Clin North Am** 1999 Jul;30(3):501–20, x (119 ref.)

Ischio-vertebral dysplasia: a distinct entity. Cohen PA, et al. **Pediatr Radiol** 1999 Feb;29(2):131–4

Determination of the object surface function by structured light: application to the study of spinal deformities. Buendia M, et al. **Phys Med Biol** 1999 Jan;44(1):75–86

Prenatal sonographic features of spondylocostal dysostosis and diaphragmatic hernia in the first trimester. Lam YH, et al. **Ultrasound Obstet Gynecol** 1999 Mar;13(3):213–5

Jarcho-Levin syndrome: two consecutive pregnancies in a Puerto Rican couple. Wong G, et al.
Ultrasound Obstet Gynecol 1998 Jul;12(1):70–3

Perosomus elumbis (vertebral agenesis and arthrogryposis) in a stillborn Holstein calf. Jones CJ. **Vet Pathol** 1999 Jan; 36(1):64–70 (41 ref.)

[Description of a case of spondylo-thoracic dysplasia or Jarcho-Levin syndrome] Ughi M, et al.
Pediatr Med Chir 1998 Sep–Oct;20(5):353–5 (Eng. Abstr.) **(Ita)**

ANATOMY & HISTOLOGY

Changes in the lumbosacral angle, sacral inclination and the curvature of the lumbar spine during aging. Amonoo-Kuofi HS. **Acta Anat (Basel)** 1992;145(4):373–7

Rates of change in spinal bone density among Japanese women. Fujiwara S, et al. **Calcif Tissue Int** 1998 Sep; 63(3):202–7

The spine. Adams WH. **Clin Tech Small Anim Pract** 1999 Aug;14(3):148–59 (74 ref.)

The use of vertebral ring epiphyseal union for age estimation in two cases of unknown identity. Albert AM.
Forensic Sci Int 1998 Oct 12;97(1):11–20

Shape differences in the cervical and upper thoracic vertebrae in rats (Rattus norvegicus) and bats (Pteropus poiocephalus): can we see shape patterns derived from position in column and species membership? Johnson DR, et al. **J Anat** 1999 Feb;194 (Pt 2):249–53

Adaptation in the vertebral column: a comparative study of patterns of metameric variation in seven species of small mammals. Kida MY, et al. **J Anat** 1999 Feb;194 (Pt 2):207–14

Static and dynamic finite element analyses of an idealized structural model of vertebral trabecular bone. Kasra M, et al. **J Biomech Eng** 1998 Apr;120(2):267–72

Star length distribution: a volume-based concept for the characterization of structural anisotropy. Smit TH, et al. **J Microsc** 1998 Sep;191 (Pt 3):249–57

Testing an inference of function from structure: snake vertebrae do the twist. Moon BR. **J Morphol** 1999 Sep; 241(3):217–25

On the homology of structures and Hox genes: the vertebral column. Galis F. **Novartis Found Symp** 1999;222:80–91; discussion 91–4 (47 ref.)

The mouse vertebrae: changes in the morphology of mouse vertebrae exhibit specific patterns over limited numbers of vertebral levels. Shinohara H.
Okajimas Folia Anat Jpn 1999 May;76(1):17–31

Determination of the object surface function by structured light: application to the study of spinal deformities. Buendia M, et al. **Phys Med Biol** 1999 Jan;44(1):75–86

Measurements of vertebral shape by radiographic morphometry: sex differences and relationships with vertebral level and lumbar lordosis. Cheng XG, et al.
Skeletal Radiol 1998 Jul;27(7):380–4

Anatomy of the thoracolumbar vertebral region. Haussler KK. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):13–26, v (34 ref.)

Relationship of cervical spinal cord diameter to vertebral dimensions: a radiographic study of normal dogs. Fourie SL, et al. **Vet Radiol Ultrasound** 1999 Mar–Apr; 40(2):137–43

[Normal values of vertebral heights in a representative population survey in Hungary] Kiss C, et al. **Orv Hetil** 1999 Feb 14;140(7):347–52 (Eng. Abstr.) **(Hun)**

BLOOD SUPPLY

Paravertebral arteriovenous malformations with epidural drainage: clinical spectrum, imaging features, and results of treatment. Goyal M, et al. **AJNR Am J Neuroradiol** 1999 May;20(5):749–55

Human radicular veins: regulation of venous reflux in the absence of valves. van der Kuip M, et al. **Anat Rec** 1999 Feb 1;254(2):173–80

Blood flow measurements with [(15)O]H2O and [18F]fluoride ion PET in porcine vertebrae. Piert M, et al. **J Bone Miner Res** 1998 Aug;13(8):1328–36

Intraoperative spinal angiography. Schievink WI, et al.
J Neurosurg 1999 Jan;90(1 Suppl):48–51

Surgical treatment of superficial siderosis associated with a spinal arteriovenous malformation. Case report. Schievink WI, et al. **J Neurosurg** 1998 Dec;89(6):1029–31

Treatment strategies and results in spinal vascular malformations. Huffmann BC, et al.
Neurol Med Chir (Tokyo) 1998;38 Suppl:231–7

[Neurological complications of aortic artery surgery] Carrascal Y, et al. **Rev Neurol** 1998 Nov;27(159):854–61 (89 ref.) (Eng. Abstr.) **(Spa)**

CHEMISTRY

Scanning small angle X-ray scattering analysis of human bone sections. Rinnerthaler S, et al. **Calcif Tissue Int** 1999 May;64(5):422–9

The spatial and temporal expression of HNK-1 by myogenic and skeletogenic cells in the embryonic rat. Bannerman PG, et al. **Cell Tissue Res** 1998 Nov;294(2):289–95

In- and out-flows of elements in bones embedded in

reference soils. Shinomiya T, et al. **Forensic Sci Int** 1998 Nov 30;98(1-2):109-18

EMBRYOLOGY

Notochord-dependent expression of MFH1 and PAX1 cooperates to maintain the proliferation of sclerotome cells during the vertebral column development. Furumoto TA, et al. **Dev Biol** 1999 Jun 1;210(1):15-29

Axial variation in the threespine stickleback: relationship to Hox gene expression. Ahn DG, et al. **Dev Genes Evol** 1999 Aug;209(8):473-81

Expression patterns of threespine stickleback hox genes and insights into the evolution of the vertebrate body axis. Ahn DG, et al. **Dev Genes Evol** 1999 Aug;209(8):482-94

Evidence for collapsin-1 functioning in the control of neural crest migration in both trunk and hindbrain regions. Eickholt BJ, et al. **Development** 1999 May;126(10):2181-9

Analysis of Hoxa7/Hoxb7 mutants suggests periodicity in the generation of the different sets of vertebrae. Chen F, et al. **Mech Dev** 1998 Sep;77(1):49-57

The embryogenesis of congenital vertebral dislocation: early embryonic buckling? Dias MS, et al. **Pediatr Neurosurg** 1998 Dec;29(6):281-9 (33 ref.)

Ultrasound evaluation of fetal spine length between 14 and 24 weeks of gestation. Ulm MR, et al. **Prenat Diagn** 1999 Jul;19(7):637-41

Prenatal development of the normal human vertebral corpora in different segments of the spine. Nolting D, et al. **Spine** 1998 Nov 1;23(21):2265-71

GROWTH & DEVELOPMENT

Long-term three-dimensional changes of the spine after posterior spinal instrumentation and fusion in adolescent idiopathic scoliosis. Papin P, et al. **Eur Spine J** 1999; 8(1):16-21

Mechanical modulation of growth for the correction of vertebral wedge deformities. Mente PL, et al. **J Orthop Res** 1999 Jul;17(4):518-24

New remote-controlled growing-rod spinal instrumentation possibly applicable for scoliosis in young children. Takaso M, et al. **J Orthop Sci** 1998;3(6):336-40

Mechanical modulation of calf tail vertebral growth: implications for scoliosis progression. Aronsson DD, et al. **J Spinal Disord** 1999 Apr;12(2):141-6

Spinal growth and a histologic evaluation of the Risser grade in idiopathic scoliosis. Noordeen MH, et al. **Spine** 1999 Mar 15;24(6):535-8

[Treatment of idiopathic scoliosis in children during the growth period] Morin C. **Bull Acad Natl Med** 1999; 183(4):731-5 (Eng. Abstr.) **(Fre)**

INJURIES see SPINAL INJURIES

INNERVATION

The zebrafish detour gene is essential for cranial but not spinal motor neuron induction. Chandrasekhar A, et al. **Development** 1999 Jun;126(12):2727-37

Innervation of the human vertebral body: a histologic study. Antonacci MD, et al. **J Spinal Disord** 1998 Dec; 11(6):526-31

METABOLISM

Dysregulation of trace element composition in ovariectomized cynomolgus monkey bones [letter] Yamada G, et al. **Cell Mol Biol (Noisy-le-grand)** 1998 Dec; 44(8):1205-13

Ovulation and spinal bone mineral density [letter; comment] Petit MA, et al. **J Clin Endocrinol Metab** 1998 Oct; 83(10):3757-60. Comment on: J Clin Endocrinol Metab 1997 Sep;82(9):2867-76.

MICROBIOLOGY

Vertebral Aspergillus osteomyelitis and acute diskitis in patients with chronic obstructive pulmonary disease. Martinez M, et al. **Mayo Clin Proc** 1999 Jun;74(6):579-83 (31 ref.)

[Intra-osseus gas formation in osteomyelitis of vertebrae and pelvis by Klebsiella pneumoniae] Lewin F, et al. **Ned Tijdschr Geneeskd** 1999 May 8;143(19):1001-3 (Eng. Abstr.) **(Dut)**

PATHOLOGY

CT-guided fine-needle aspiration biopsy of spinal lesions. Kang M, et al. **Acta Radiol** 1999 Sep;40(5):474-8

MR of the spine in the presence of metallic bullet fragments: is the benefit worth the risk? [letter] Finitsis SN, et al. **AJNR Am J Neuroradiol** 1999 Feb;20(2):354-6

Spine imaging: should we take this lying down? [editorial; comment] Haughton V. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1594. Comment on: AJNR Am J Neuroradiol 1998 Oct;19(9):1763-71.

Newer sequences for spinal MR imaging: smorgasbord or succotash of acronyms? Ross JS. **AJNR Am J Neuroradiol** 1999 Mar;20(3):361-73 (82 ref.)

Advancing techniques in spinal MR imaging: but are they necessary for spinal leptomeningeal tumor? [editorial; comment] Sze GK. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1595-6. Comment on: AJNR Am J Neuroradiol 1998 Oct;19(9):1773-9.

A new syndrome of spondyloepimetaphyseal dysplasia, eczema and hypogammaglobulinaemia. Slaney SF, et al. **Clin Dysmorphol** 1999 Apr;8(2):79-85

Moiré topography in measurement of the sagittal curvatures of the spine. Kovač V, et al. **Coll Antropol** 1999 Jun; 23(1):153-8

Changes in serum levels of type I collagen-related proteins after surgically induced menopause and correlations with bone loss in the lumbar spine. Yasumizu T, et al. **Endocr J** 1999 Apr;46(2):337-43

Anatomy and pathology of the aging spine. Prescher A. **Eur J Radiol** 1998 Jul;27(3):181-95 (50 ref.)

Extramedullary paraspinal hematopoiesis in thalassemia: CT and MRI evaluation. Tsitouridis J, et al. **Eur J Radiol** 1999 Apr;30(1):33-8

Bracing (and screening)--yes or no? Dickson RA, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):193-8 (47 ref.)

Prevalent vertebral deformities predict hip fractures and new vertebral deformities but not wrist fractures. Study of Osteoporotic Fractures Research Group. Black DM, et al. **J Bone Miner Res** 1999 May;14(5):821-8

Alteration in the mechanical competence and structural properties in the femoral neck and vertebrae of ovariectomized rats. Peng Z, et al. **J Bone Miner Res** 1999 Apr;14(4):616-23

Oblique MRI as a useful adjunct in evaluation of cervical foraminal impingement. Humphreys SC, et al. **J Spinal Disord** 1998 Aug;11(4):295-9

Inflammatory arthritis in large cats: an expanded spectrum of spondyloarthropathy. Rothschild BM, et al. **J Zoo Wildl Med** 1998 Sep;29(3):279-84

MR appearance at different ages of osteoporotic compression fractures of the vertebrae. Yamato M, et al. **Radiat Med** 1998 Sep-Oct;16(5):329-34

Pitfalls and artifacts encountered in clinical MR imaging of the spine. Taber KH, et al. **Radiographics** 1998 Nov-Dec; 18(6):1499-521 (62 ref.)

Analysis of the cervical spine alignment following laminoplasty and laminectomy. Matsunaga S, et al. **Spinal Cord** 1999 Jan;37(1):20-4

Correlation between curve severity, somatosensory evoked potentials, and magnetic resonance imaging in adolescent idiopathic scoliosis. Cheng JC, et al. **Spine** 1999 Aug 15; 24(16):1679-84

Spinal biomodeling. D'Urso PS, et al. **Spine** 1999 Jun 15; 24(12):1247-51

[CT-guided spinal biopsy in spondylodiscitis] Vinicoff PG, et al. **Ugeskr Laeger** 1998 Oct 5;160(41):5931-4 (Eng. Abstr.) **(Dan)**

[Stereovideographic evaluation of the postural geometry of healthy and scoliotic patients] De la Huerta F, et al. **Ann Chir** 1998;52(8):776-83 (Eng. Abstr.) **(Fre)**

[Morphometric characteristics of the scoliotic spine] Landry C, et al. **Ann Chir** 1998;52(8):784-90 (Eng. Abstr.) **(Fre)**

[Vertebral body exocytosis and spinal cord compression] el Quessar A, et al. **J Neuroradiol** 1998 Oct;25(3):233-6 (Eng. Abstr.) **(Fre)**

[Vertebral destruction with sever pain in the SAPHO syndrome] Hagemann D, et al. **Dtsch Med Wochenschr** 1999 Feb 5;124(5):114-8 (Eng. Abstr.) **(Ger)**

[MR whole-spine recording: computer-assisted simulation of the conventional x-ray technic] König R, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Mar;170(3):258-61 (Eng. Abstr.) **(Ger)**

[A case of juvenile muscular atrophy of the upper limb with intraspinal cavity formation] Matsuo K, et al. **Rinsho Shinkeigaku** 1998 Jul;38(7):649-52 (Eng. Abstr.) **(Jpn)**

PHYSIOLOGY

Dorsal column function after spinal/epidural anaesthesia [letter; comment] Buggy D. **Anaesthesia** 1998 Sep; 53(9):925-7. Comment on: Anaesthesia 1998 Apr;53(4):382-7.

Spinal flexion and CSF pressure [letter; comment] Shah JL. **Anaesthesia** 1998 Oct;53(10):1032-3. Comment on: Anaesthesia 1998 May;53(5):431-4.

Test-retest reliability of trunk accelerometry during standing and walking. Moe-Nilssen R. **Arch Phys Med Rehabil** 1998 Nov;79(11):1377-85

Biomechanical effects of intraspecimen variations in trabecular architecture: a three-dimensional finite element study. Yeh OC, et al. **Bone** 1999 Aug;25(2):223-8

Spinal cholinergic inhibition of the pressor response to skeletal muscle activation. Hand GA, et al. **Brain Res** 1999 Aug 7;837(1-2):143-51

Power spectral analysis of vertebral trabecular bone structure from radiographs: orientation dependence and correlation with bone mineral density and mechanical properties. Millard J, et al. **Calcif Tissue Int** 1998 Dec;63(6):482-9

The spine in swimming. Ferrell MC. **Clin Sports Med** 1999 Apr;18(2):389-93, viii (2 ref.)

An objective method for evaluating the flexibility of the back of standing horses. Licka T, et al. **Equine Vet J** 1998 Sep; 30(5):412-5

The effects of lifting speed on the peak external forward bending, lateral bending, and twisting spine moments. Lavender SA, et al. **Ergonomics** 1999 Jan;42(1):111-25

Effects of box features on spine loading during warehouse order selecting. Marras WS, et al. **Ergonomics** 1999 Jul; 42(7):980-96

Synergy of the human spine in neutral postures. Kiefer A, et al. **Eur Spine J** 1998;7(6):471-9

Exercise to improve spinal flexibility and function for people with Parkinson's disease: a randomized, controlled trial. Schenkman M, et al. **J Am Geriatr Soc** 1998 Oct; 46(10):1207-16

Intra-abdominal pressure mechanism for stabilizing the lumbar spine. Cholewicki J, et al. **J Biomech** 1999 Jan; 32(1):13-7

Abdominal muscles contribute in a minor way to peak spinal compression in lifting. de Looze MP, et al. **J Biomech** 1999 Jul;32(7):655-62

A biomechanical model on muscle forces in the transfer of spinal load to the pelvis and legs. Hoek van Dijke GA, et al. **J Biomech** 1999 Sep;32(9):927-33

Human vertebral body apparent and hard tissue stiffness. Hou FJ, et al. **J Biomech** 1998 Nov;31(11):1009-15

Comments on 'Asymmetric low back loading in asymmetric lifting movements is not prevented by pelvic twist' [letter; comment] Plamondon A, et al. **J Biomech** 1999 Jun; 32(6):635, 637-8. Comment on: J Biomech 1998 Jun;31(6):527-34.

Total trunk muscle force and spinal compression are lower in asymmetric moments as compared to pure extension moments. van Dieën JH, et al. **J Biomech** 1999 Jul; 32(7):681-7

Uniform stress state in bone structure with residual stress. Adachi T, et al. **J Biomech Eng** 1998 Jun;120(3):342-7

Mechanical loading stimulates bone formation by reactivation of bone lining cells in 13-week-old rats. Chow JW, et al. **J Bone Miner Res** 1998 Nov;13(11):1760-7

Frequency response of spine extensors during rapid isometric contractions: effects of muscle length and tension. Brereton LC, et al. **J Electromyogr Kinesiol** 1998 Aug;8(4):227-32

EMG of spinal muscles [editorial] Kumar S. **J Electromyogr Kinesiol** 1998 Aug;8(4):195-6

EMG spectral characteristics of spinal muscles during isometric axial rotation. Kumar S, et al. **J Electromyogr Kinesiol** 1999 Feb;9(1):21-37

Spinal-flexibility-plus-aerobic versus aerobic-only training: effect of a randomized clinical trial on function in at-risk older adults. Morey MC, et al. **J Gerontol A Biol Sci Med Sci** 1999 Jul;54(7):M335-42

Precision and accuracy of an electrogoniometer. Christensen HW. **J Manipulative Physiol Ther** 1999 Jan;22(1):10-4

A review of biomechanics of the central nervous system--Part III: spinal cord stresses from postural loads and their neurologic effects. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 Jul-Aug;22(6):399-410 (84 ref.)

The effects of spinal manipulation on the intensity of emotional arousal in phobic subjects exposed to threat stimulus: a randomized, controlled, double-blind clinical trial [letter; comment] Jansen RD. **J Manipulative Physiol Ther** 1998 Jul-Aug;21(6):429-32; discussion 434. Comment on: J Manipulative Physiol Ther 1997 Nov-Dec;20(9):602-6.

Validation of the force and frequency characteristics of the activator adjusting instrument: effectiveness as a mechanical impedance measurement tool. Keller TS, et al. **J Manipulative Physiol Ther** 1999 Feb;22(2):75-86

Number of sampling movements and manual stiffness judgments. Macfadyen N, et al. **J Manipulative Physiol Ther** 1998 Nov-Dec;21(9):604-10

The effects of spinal manipulation on the intensity of emotional arousal in phobic subjects exposed to threat stimulus: a randomized, controlled, double-blind clinical trial [letter; comment] Milus TB. **J Manipulative Physiol Ther** 1998 Jul-Aug;21(6):432-4. Comment on: J Manipulative Physiol Ther 1997 Nov-Dec;20(9):602-6.

Three-dimensional spinal coupling mechanics: Part I. A review of the literature [letter; comment] Plaugher G, et al. **J Manipulative Physiol Ther** 1999 Jun;22(5):350-2. Comment on: J Manipulative Physiol Ther 1998 Feb;21(2):101-13.

Three-dimensional spinal coupling mechanics--Part II: implications for chiropractic theories and practice [letter; comment] Plaugher G, et al. **J Manipulative Physiol Ther** 1999 Jun;22(5):353-5. Comment on: J Manipulative Physiol Ther 1998 Feb;21(2):101-13.

Testing an inference of function from structure: snake vertebrae do the twist. Moon BR. **J Morphol** 1999 Sep; 241(3):217-25

Measurement of vertebral rotation: a comparison of two methods based on CT scans. Krismer M, et al. **J Spinal Disord** 1999 Apr;12(2):126-30

Rates of growth and loss of bone mineral in the spine and femoral neck in white females. Hui SL, et al. **Osteoporos Int** 1999;9(3):200-5

Normal changes in spinal bone mineral density in a Chinese population: assessment by quantitative computed tomography and dual-energy X-ray absorptiometry. Yu W, et al. **Osteoporos Int** 1999;9(2):179-87

Lateral reach: a clinical measure of medio-lateral postural stability. Brauer S, et al. **Physiother Res Int** 1999;4(2):81-8

Technique for the harvesting of human cadaveric spines. Gorup JM, et al. **Spine** 1998 Oct 15;23(20):2222-5

Human growth hormone transgene expression increases the biomechanical structural properties of mouse vertebrae. Steinke B, et al. **Spine** 1999 Jan 1;24(1):1-4

Changes of contour of the spine caused by load carrying.

Vacheron JJ, et al. **Surg Radiol Anat** 1999;21(2):109–13

The effect of modelling and remodelling on human vertebral body architecture. Mosekilde L. **Technol Health Care** 1998 Dec;6(5–6):287–97 (29 ref.)

Spinal biomechanics and functional anatomy. Denoix JM. **Vet Clin North Am Equine Pract** 1999 Apr;15(1):27–60 (32 ref.)

[Noninvasive, accurate and reliable measurement of cervical spine motion with a 3D real-time ultrasound motion analyzer] Natalis M, et al. **Ultraschall Med** 1999 Apr; 20(2):70–3 (Eng. Abstr.) **(Ger)**

PHYSIOPATHOLOGY

Influence of estrogen–progestin replacement therapy and exercise on lumbar spine mobility and low back symptoms in a healthy early postmenopausal female population: a 2-year randomized controlled trial. Kyllönen ES, et al. **Eur Spine J** 1998;7(5):381–6

Estimation of trunk muscle forces using the finite element method and in vivo loads measured by telemeterized internal spinal fixation devices. Calisse J, et al. **J Biomech** 1999 Jul;32(7):727–31

Spinal motion in lumbar degenerative disc disease. McGregor AH, et al. **J Bone Joint Surg Br** 1998 Nov;80(6):1009–13

Alteration in the mechanical competence and structural properties in the femoral neck and vertebrae of ovariectomized rats. Peng Z, et al. **J Bone Miner Res** 1999 Apr;14(4):616–23

Association of BsmI vitamin-D receptor gene polymorphism with combined bone mass in spine and proximal femur in Icelandic women. Sigurdsson G, et al. **J Intern Med** 1997 Jun;241(6):501–5

A review of biomechanics of the central nervous system—part II: spinal cord strains from postural loads. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 Jun; 22(5):322–32 (49 ref.)

The frequency of positive common spinal clinical examination findings in a sample of premenstrual syndrome sufferers. Walsh MJ, et al. **J Manipulative Physiol Ther** 1999 May;22(4):216–20

Mechanical instability as a cause of gait disturbance in high-grade spondylolisthesis: a pre- and postoperative three-dimensional gait analysis. Meyers LL, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):672–6

Clinical symptoms related to musculoskeletal neck–shoulder pain and mobility in the cervico-thoracic spine. Norlander S, et al. **Scand J Rehabil Med** 1998 Dec;30(4):243–51

The spinal curve in standing and sitting postures in children with idiopathic scoliosis [see comments] Gram MC, et al. **Spine** 1999 Jan 15;24(2):169–77. Comment in: Spine 1999 Jan 15;24(2):200–1.

The stability of reconstruction methods after thoracolumbar total spondylectomy. An in vitro investigation. Oda I, et al. **Spine** 1999 Aug 15;24(16):1634–8

Measured external curves and surface electromyograms in patients with mild untreated scoliosis [letter; comment] Swank SM. **Spine** 1999 Jan 15;24(2):200–1. Comment on: Spine 1999 Jan 15;24(2):169–77.

[The epidemiology of musculoskeletal changes due to biomechanical overload of the spine in the manual lifting of patients] Bordini L, et al. **Med Lav** 1999 Mar–Apr; 90(2):103–16 (47 ref.) (Eng. Abstr.) **(Ita)**

RADIOGRAPHY

Spine imaging: should we take this lying down? [editorial; comment] Haughton V. **AJNR Am J Neuroradiol** 1998 Oct; 19(9):1594. Comment on: AJNR Am J Neuroradiol 1998 Oct;19(9):1763–71.

Diagnostic agreement of quantitative sonography of the calcaneus with dual X-ray absorptiometry of the spine and femur. Grampp S, et al. **AJR Am J Roentgenol** 1999 Aug; 173(2):329–34

Calcaneal ultrasound bone densitometry in inflammatory bowel disease—a comparison with double x-ray densitometry of the lumbar spine. Fries W, et al. **Am J Gastroenterol** 1998 Dec;93(12):2339–44

Comparison of two methods for measuring orientation. Geraets WG. **Bone** 1998 Oct;23(4):383–8

Chiropractors' use of X-rays [letter; comment] Siragusa JS. **Br J Radiol** 1998 Oct;71(850):1107–8. Comment on: Br J Radiol 1998 Mar;71(843):249–51.

Power spectral analysis of vertebral trabecular bone structure from radiographs: orientation dependence and correlation with bone mineral density and mechanical properties. Millard J, et al. **Calcif Tissue Int** 1998 Dec;63(6):482–9

Beta thalassaemia: a report of 20 children. Onur O, et al. **Clin Rheumatol** 1999;18(1):42–4

Statistical shape model based segmentation of medical images. Neumann A, et al. **Comput Med Imaging Graph** 1998 Mar–Apr;22(2):133–43

Extramedullary paraspinal hematopoiesis in thalassemia: CT and MRI evaluation. Tsitouridis J, et al. **Eur J Radiol** 1999 Apr;30(1):33–8

A new method to measure vertebral rotation from CT scans. Göçen S, et al. **Eur Spine J** 1999;8(4):261–5

Determination of inter-spinous process distance in the lumbar spine. Evaluation of reference population to facilitate detection of severe trauma. Neumann P, et al. **Eur Spine J** 1999;8(4):272–8

Accuracy of the sagittal vertical axis in a standing lateral radiograph as a measurement of balance in spinal deformities. Van Royen BJ, et al. **Eur Spine J** 1998; 7(5):408–12

A biomechanical analysis of the vertebral and rib deformities in structural scoliosis. Wever DJ, et al. **Eur Spine J** 1999; 8(4):252–60

Surface-based registration of CT images to physical space for image-guided surgery of the spine: a sensitivity study. Herring JL, et al. **IEEE Trans Med Imaging** 1998 Oct; 17(5):743–52

Morphometric dual-energy X-ray absorptiometry of the spine: report of a large series and correlation with axial bone mineral density. Bianco AC, et al. **J Bone Miner Res** 1999 Sep;14(9):1605–13

An anthropomorphic phantom study on the effect of midvertebral slice placement and region-of-interest positioning on the reproducibility of single-energy quantitative CT (QCT) of the spine. Schmitz SA, et al. **J Comput Assist Tomogr** 1998 Nov–Dec;22(6):932–7

Reliability of spinal displacement analysis on plain X-rays: a review of commonly accepted facts and fallacies with implications for chiropractic education and technique [letter; comment] Hart J. **J Manipulative Physiol Ther** 1998 Nov–Dec;21(9):657. Comment on: J Manipulative Physiol Ther 1998 May;21(4):252–66.

The effects of X-axis vertebral translation on projected Y-axis vertebral rotation [letter; comment] Winterstein JF. **J Manipulative Physiol Ther** 1998 Nov–Dec;21(9):656–7. Comment on: J Manipulative Physiol Ther 1998 Jun;21(5):333–40.

Intraoperative spinal angiography. Schievink WI, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):48–51

Segmental roentgenographic analysis of vertebral inclination on sagittal plane in asymptomatic versus chronic low back pain patients. Korovessis P, et al. **J Spinal Disord** 1999 Apr;12(2):131–7

Measurement of vertebral rotation: a comparison of two methods based on CT scans. Krismer M, et al. **J Spinal Disord** 1999 Apr;12(2):126–30

Comparative study of the incidence and severity of degenerative change in the transition zones after instrumented versus noninstrumented fusions of the lumbar spine. Wiltse LL, et al. **J Spinal Disord** 1999 Feb; 12(1):27–33

Measurement of thickness and density of thin structures by computed tomography: a simulation study. Dougherty G, et al. **Med Phys** 1999 Jul;26(7):1341–8

Morphometric texture analysis of spinal trabecular bone structure assessed using orthogonal radiographic projections. Ouyang X, et al. **Med Phys** 1998 Oct; 25(10):2037–45

Ischio-spinal dysostosis: a previously unrecognised combination of malformations. Nishimura G, et al. **Pediatr Radiol** 1999 Mar;29(3):212–7

Coronal and sagittal clefts in skeletal dysplasias. Westvik J, et al. **Pediatr Radiol** 1998 Oct;28(10):764–70

Vertebral shape: automatic measurement with active shape models. Smyth PP, et al. **Radiology** 1999 May;211(2):571–8

Long-term radiographic follow-up in a patient with osteosclerotic sarcoidosis of the spine and pelvis. Franco M, et al. **Rev Rhum Engl Ed** 1998 Oct;65(10):586–90 (17 ref.)

Measurements of vertebral shape by radiographic morphometry: sex differences and relationships with vertebral level and lumbar lordosis. Cheng XG, et al. **Skeletal Radiol** 1998 Jul;27(7):380–4

Spontaneous lumbar curve coronal correction after selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Lenke LG, et al. **Spine** 1999 Aug 15; 24(16):1663–71; discussion 1672

Maintaining lumbar lordosis with anterior single solid-rod instrumentation in thoracolumbar and lumbar adolescent idiopathic scoliosis. Sweet FA, et al. **Spine** 1999 Aug 15; 24(16):1655–62

Micro-CT examinations of trabecular bone samples at different resolutions: 14, 7 and 2 micron level. Peyrin F, et al. **Technol Health Care** 1998 Dec;6(5–6):391–401

Back problems. Radiology and scintigraphy. Weaver MP, et al. **Vet Clin North Am Equine Pract** 1999 Apr; 15(1):113–29, vii–viii (20 ref.)

[Radiologic examination of the spine in "back problems" of the standing horse] Ranner W, et al. **Tierarztl Prax Ausg G Grosstiere Nutztiere** 1999 Apr; 27(2):122–7 (Eng. Abstr.) **(Ger)**

[Cone beam CT utilizing a rotational digital radiographic system: early clinical experience on pulmonary and skeletal lesions] Nishitani H, et al. **Nippon Igaku Hoshasen Gakkai Zasshi** 1998 Jul;58(8):451–3 (Eng. Abstr.) **(Jpn)**

RADIONUCLIDE IMAGING

The "hug" view: an image that results in optimal visualization of the upper posterior thorax. Freeman L, et al. **Clin Nucl Med** 1999 Jan;24(1):63

Bone marrow content measured in radioimmune bone marrow scintigraphy: intra- and inter-observer variability. Roland J, et al. **Nucl Med Commun** 1999 May;20(5):419–26

Back problems. Radiology and scintigraphy. Weaver MP, et al. **Vet Clin North Am Equine Pract** 1999 Apr; 15(1):113–29, vii–viii (20 ref.)

[A large head. Spinal hyperplasia in thalassemia] Fain O, et al. **Rev Med Interne** 1999 Feb;20(2):179–80 **(Fre)**

[Vertebral destruction with massive pain in the SAPHO syndrome (letter)] Schmitt M. **Dtsch Med Wochenschr** 1999 Jul 30;124(30):916; discussion 917 **(Ger)**

SURGERY

Anesthesia for ankylosing spondylitis patients undergoing transpedicle vertebrectomy. Lin BC, et al. **Acta Anaesthesiol Sin** 1999 Jun;37(2):73–8

Surgical results after soft system stabilization of the lumbar spine in degenerative disc disease—long-term results. Brechbühler D, et al. **Acta Neurochir (Wien)** 1998; 140(6):521–5

Postoperative deep wound infection in instrumented spinal surgery. Aydinli U, et al. **Acta Orthop Belg** 1999 Jun; 65(2):182–7

Cardiopulmonary dysfunction during minimally invasive thoraco-lumboendoscopic spine surgery. Vollmar B, et al. **Anesth Analg** 1999 Jun;88(6):1244–51

Biological evaluation of biphasic calcium phosphate ceramic vertebral laminae. Wang J, et al. **Biomaterials** 1998 Aug; 19(15):1387–92

Effects of propofol, propofol–nitrous oxide and midazolam on cortical somatosensory evoked potentials during sufentanil anaesthesia for major spinal surgery. Langeron O, et al. **Br J Anaesth** 1999 Mar;82(3):340–5

Practical biomechanical considerations for spine implant testing. Margulies JY, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):347–64 (66 ref.)

Bone repair and enhancement clinical trial design. Spine applications. Boden SD. **Clin Orthop** 1998 Oct;(355 Suppl):S336–46 (48 ref.)

Computer-assisted spine surgery. Merloz P, et al. **Comput Aided Surg** 1998;3(6):297–305

Cotrel–Dubousset instrumentation for the treatment of severe scoliosis. De Giorgi G, et al. **Eur Spine J** 1999;8(1):8–15

Characteristics of an extended internal fixation system for polysegmental transpedicular reduction and stabilization of the thoracic, lumbar, and lumbosacral spine. Eger W, et al. **Eur Spine J** 1999;8(1):61–9

Complications of scoliosis surgery in children with myelomeningocele. Geiger F, et al. **Eur Spine J** 1999; 8(1):22–6

Is there a rational basis for post-surgical lifting restrictions? 1. Current understanding. Magnusson ML, et al. **Eur Spine J** 1999;8(3):170–8 (93 ref.)

Long-term three-dimensional changes of the spine after posterior spinal instrumentation and fusion in adolescent idiopathic scoliosis. Papin P, et al. **Eur Spine J** 1999; 8(1):16–21

Free vascularized bone graft in spinal surgery: indications and outcome in eight cases. Wuisman PI, et al. **Eur Spine J** 1999;8(4):296–303

Surface-based registration of CT images to physical space for image-guided surgery of the spine: a sensitivity study. Herring JL, et al. **IEEE Trans Med Imaging** 1998 Oct; 17(5):743–52

Audit of autotransfusion in spine surgery. Shulman G, et al. **Int Orthop** 1998;22(5):303–7

A new radiolucent system for vertebral body replacement: its stability in comparison to other systems. Claes L, et al. **J Biomed Mater Res** 1999 Spring;48(1):82–9

The effect of repeated epidural sympathetic nerve block on "failed back surgery syndrome" associated chronic low back pain. Fredman B, et al. **J Clin Anesth** 1999 Feb;11(1):46–51

Palliative subtotal vertebrectomy with anterior and posterior reconstruction via a single posterior approach. Cahill DW, et al. **J Neurosurg** 1999 Jan;90(1 Suppl):42–7

Combined chest wall resection with vertebrectomy and spinal reconstruction for the treatment of Pancoast tumors. York JE, et al. **J Neurosurg** 1999 Jul;91(1 Suppl):74–80

New method for measuring area of spinal canal after double-door laminoplasty. Hirabayashi S, et al. **J Orthop Sci** 1999;4(2):78–82

Epidural analgesia for postoperative pain control following spinal surgery: paucity of evidence and need for studies [letter] Dumont AS, et al. **J Pharmacol Toxicol Methods** 1998 Oct;40(3):181–2

The FDA and the spine surgeon. Ducker TB. **J Spinal Disord** 1999 Aug;12(4):277–9

Risk factors associated with methicillin-resistant staphylococcal wound infection after spinal surgery. Klekamp J, et al. **J Spinal Disord** 1999 Jun;12(3):187–91

Iatrogenic upper abdominal aortic injury with pseudoaneurysm during spinal surgery. Lim KE, et al. **J Trauma** 1999 Apr;46(4):729–31

Osteoplastic laminotomy as a minimally invasive spinal procedure. Kanaan I, et al. **Minim Invasive Neurosurg** 1999 Jun;42(2):60–2

Video-assisted thoracoscopy. Crawford AH, et al. **Orthop Clin North Am** 1999 Jul;30(3):367–85, viii

Spinal cord monitoring: current state of the art. Padberg AM, et al. **Orthop Clin North Am** 1999 Jul;30(3):407–33, viii (71 ref.)

Blood loss and transfusion management in spinal surgery. Dekutoski MB. **Orthopedics** 1999 Jan;22(1 Suppl):s155–7

Recombinant human erythropoietin and blood management in pediatric spine surgery. Roye DP Jr. **Orthopedics** 1999 Jan;22(1 Suppl):s158–60

Nordic Congress on Spinal Surgery. Stockholm, Sweden, September 25–26, 1997. Abstracts. **Ups J Med Sci Suppl** 1998;54:7–60

[Use of the CCD (Sofamor-Danek) rod plates for instabilities of the craniospinal junction] Paquis P, et al.

Neurochirurgie 1998 Apr;44(2):101–4 (Eng. Abstr.) **(Fre)**

[Neuromonitoring and anesthesia in surgery of the spine] Laureau E, et al. **Neurophysiol Clin** 1998 Sep;28(4):299–320 (106 ref.) (Eng. Abstr.) **(Fre)**

[Monitoring the neurogenic mixed evoked potentials during surgery of the spine: a good solution?] Péréon Y, et al. **Neurophysiol Clin** 1998 Sep;28(4):321–34 (64 ref.) (Eng. Abstr.) **(Fre)**

[Esophageal perforation. A rare complication after operation of degenerative and traumatic pathology of the cervical spine] Lindhorst E, et al. **Zentralbl Chir** 1999;124(6):562–7 (Eng. Abstr.) **(Ger)**

[Laparoscopic-transperitoneal and lumboscopic-retroperitoneal surgery of the spine.Developments from animal experiments for use in clinical practice] Olinger A, et al. **Zentralbl Chir** 1999; 124(4):311–7 (22 ref.) (Eng. Abstr.) **(Ger)**

[Anesthetic management of total en bloc spondylectomy] Taniguchi T, et al. **Masui** 1998 Nov;47(11):1366–8 (Eng. Abstr.) **(Jpn)**

[Surgical technique and long-term follow-up of laminoplasty using titanium miniplates] Iwakura M, et al. **No Shinkei Geka** 1999 Jun;27(6):525–31 (Eng. Abstr.) **(Jpn)**

[Spinal microsurgery at the thoracic to sacral level in the 'prone-oblique' position] Niijima K, et al. **No Shinkei Geka** 1998 Nov;26(11):979–83 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Spinal sonography and magnetic resonance imaging in patients with repaired myelomeningocele: comparison of modalities. Gerscovich EO, et al. **J Ultrasound Med** 1999 Sep;18(9):655–64

Ultrasound evaluation of fetal spine length between 14 and 24 weeks of gestation. Ulm MR, et al. **Prenat Diagn** 1999 Jul;19(7):637–41

[Noninvasive, accurate and reliable measurement of cervical spine motion with a 3D real-time ultrasound motion analyzer] Natalis M, et al. **Ultraschall Med** 1999 Apr; 20(2):70–3 (Eng. Abstr.) **(Ger)**

SPINNER DOLPHINS see **DOLPHINS**

SPINOCEREBELLAR ATAXIAS see **SPINOCEREBELLAR DEGENERATION**

SPINOCEREBELLAR DEGENERATION

[Clinical, neuropathological and genetic characteristics of spinocerebellar ataxia type 6 (SCA6)] Ishikawa K, et al. **Nippon Rinsho** 1999 Apr;57(4):880–5 (20 ref.) (Eng. Abstr.) **(Jpn)**

[Nonne syndrome] Kamiya K. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):309–12 (9 ref.) **(Jpn)**

[Marinesco Sjögren syndrome] Komiyama A, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):299–302 (5 ref.) **(Jpn)**

[Holmes type cortical cerebellar atrophy (CCA)] Mizusawa H. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):231–4 (15 ref.) **(Jpn)**

[Spinocerebellar ataxia type 6 (SCA6)] Mizusawa H. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):235–8 (15 ref.) **(Jpn)**

[Cerebello-olivary atrophy (COA)] Mizusawa H. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):239–42 (15 ref.) **(Jpn)**

[Joubert syndrome (Joubert-Boltshauser syndrome)] Saito Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):313–5 (19 ref.) **(Jpn)**

[Spinocerebellar ataxia type 5 (SCA5)] Sasaki H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):283–4 (3 ref.) **(Jpn)**

[Spinocerebellar ataxia type 7 (SCA7)] Sasaki H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):285–7 (15 ref.) **(Jpn)**

[Spinocerebellar ataxia type 4 (SCA4)] Sasaki H, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):280–2 (6 ref.) **(Jpn)**

[Late cortical cerebellar atrophy] Takiyama Y, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):247–50 (14 ref.) **(Jpn)**

[Spinocerebellar ataxia type 1 (SCA1)] Uchiyama T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):262–5 (15 ref.) **(Jpn)**

[Spinocerebellar ataxia type 2 (SCA2)] Uchiyama T, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):266–9 (11 ref.) **(Jpn)**

CLASSIFICATION

[An introduction to spinocerebellar degeneration: special reference to a newly revised classification] Yuasa T. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):206–11 (24 ref.) **(Jpn)**

COMPLICATIONS

Oculomotor phenotypes in autosomal dominant ataxias. Buttner N, et al. **Arch Neurol** 1998 Oct;55(10):1353–7

Cognitive deficits in spinocerebellar ataxia 2. Bürk K, et al. **Brain** 1999 Apr;122 (Pt 4):769–77

An autopsy case of spinocerebellar ataxia type 6 with mental symptoms of schizophrenia and dementia. Tashiro H, et al. **Clin Neuropathol** 1999 Jul-Aug;18(4):198–204

Spinocerebellar ataxia type 6 with positional vertigo and acetazolamide responsive episodic ataxia. Jen JC, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):565–8

Downbeat nystagmus in two siblings with spinocerebellar ataxia type 6 (SCA 6). Harada H, et al. **J Neurol Sci** 1998 Oct 8;160(2):161–3

Maculopathy in spinocerebellar ataxia type 7. Morrow MJ, et al. **Neurology** 1999 Jul 13;53(1):244

[Periodic alternating nystagmus in spinocerebellar ataxia type 6 (SCA 6)] Yabe I, et al. **Rinsho Shinkeigaku** 1998 Jun; 38(6):512–5 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

Clinical and genetic studies of spinocerebellar ataxia type 2 in Japanese kindreds. Ueyama H, et al. **Acta Neurol Scand** 1998 Dec;98(6):427–32

Rapid touchdown PCR assay for the molecular diagnosis of spinocerebellar ataxia type 2. Condorelli DF, et al. **Int J Clin Lab Res** 1998;28(3):174–8

CAG repeat length and clinical features in three Italian families with spinocerebellar ataxia type 2 (SCA2): early impairment of Wisconsin Card Sorting Test and saccade velocity. Gambardella A, et al. **J Neurol** 1998 Oct; 245(10):647–52

Supratentorial atrophy in spinocerebellar ataxia type 2: MRI study of 20 patients. Giuffrida S, et al. **J Neurol** 1999 May; 246(5):383–8

Molecular genetic diagnosis of Friedreich's ataxia in a pedigree with apparent autosomal dominant spinocerebellar degeneration [letter] De Silva R, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):117–8

Electrophysiological features of central motor conduction in spinocerebellar atrophy type 1, type 2, and Machado-Joseph disease. Yokota T, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):530–4

A case of spinocerebellar ataxia type 6 mimicking olivopontocerebellar atrophy. Nakagawa N, et al. **Neuroradiology** 1999 Jul;41(7):501–3

[Non-epileptic paroxysmal movement disorders] Klein C, et al. **Nervenarzt** 1998 Aug;69(8):647–59 (177 ref.) (Eng. Abstr.) **(Ger)**

[Neuroimaging of motor disturbances] Iwata M. **Rinsho Shinkeigaku** 1998 Dec;38(12):1010–2 (6 ref.) (Eng. Abstr.) **(Jpn)**

[The contribution of molecular genetics to the nosology and diagnosis of neurological disorders of childhood] Aicardi J. **Rev Neurol** 1999 Jan 1-15;28(1):1–4 (22 ref.) (Eng. Abstr.) **(Spa)**

[Neurophysiological evaluation of patients with spinocerebellar ataxia type 2] Velázquez L, et al. **Rev Neurol** 1998 Dec;27(160):921–6 (Eng. Abstr.) **(Spa)**

[Electrophysiological characteristics of asymptomatic relatives of patients with type 2 spinocerebellar ataxia] Velázquez L, et al. **Rev Neurol** 1998 Dec;27(160):955–63 (Eng. Abstr.) **(Spa)**

DRUG THERAPY

The stereo-specific effect of D-serine ethylester and the D-cycloserine in ataxic mutant mice. Saigoh K, et al. **Brain Res** 1998 Oct 12;808(1):42–7

Branched-chain amino acid therapy for spinocerebellar degeneration: a pilot clinical crossover trial. Mori N, et al. **Intern Med** 1999 May;38(5):401–6

Spinocerebellar ataxia type 6 with positional vertigo and acetazolamide responsive episodic ataxia. Jen JC, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):565–8

EPIDEMIOLOGY

Infantile onset spinocerebellar ataxia with sensory neuropathy (IOSCA): neuropathological features. Lönnqvist T, et al. **J Neurol Sci** 1998 Nov 26;161(1):57–65

[Molecular and clinical features in spinocerebellar ataxia type 6 (SCA6) in Japanese] Ikeuchi T. **Nippon Rinsho** 1999 Apr; 57(4):891–5 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Frequencies of triplet repeat disorders in dominantly inherited spinocerebellar ataxia (SCA) in the Japanese] Sasaki H, et al. **Nippon Rinsho** 1999 Apr;57(4):787–91 (20 ref.) (Eng. Abstr.) **(Jpn)**

ETHNOLOGY

Spinocerebellar ataxias in Spanish patients: genetic analysis of familial and sporadic cases. The Ataxia Study Group. Pujana MA, et al. **Hum Genet** 1999 Jun;104(6):516–22

ETIOLOGY

Location score and haplotype analyses of the locus for autosomal recessive spastic ataxia of Charlevoix-Saguenay, in chromosome region 13q11. Richter A, et al. **Am J Hum Genet** 1999 Mar;64(3):768–75

Serous adenocarcinoma of the uterus presenting as paraneoplastic cerebellar degeneration. Johns JB, et al. **Gynecol Oncol** 1999 May;73(2):326–30

Chronic vitamin E deficiency causing spinocerebellar degeneration, peripheral neuropathy, and centro-cecal scotomata. McCarron MO, et al. **Nutrition** 1999 Mar; 15(3):217–9

[Spinocerebellar ataxia and polyneuropathy secondary to vitamin E deficiency] Guiraud-Chaumeil C, et al. **Presse Med** 1999 Mar 13;28(10):524–6 (Eng. Abstr.) **(Fre)**

[Acquired cortical cerebellar atrophy] Fujimoto K, et al. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):243–6 (15 ref.) **(Jpn)**

GENETICS

Clinical features and genetic analysis of a Spanish family with spinocerebellar ataxia 6. Arpa J, et al. **Acta Neurol Scand** 1999 Jan;99(1):43–7

CAG repeat expansions in patients with sporadic cerebellar ataxia. Futamura N, et al. **Acta Neurol Scand** 1998 Jul; 98(1):55–9

Identification of five spinocerebellar ataxia type 2 pedigrees in patients with autosomal dominant cerebellar ataxia in Taiwan. Hsieh M, et al. **Acta Neurol Scand** 1999 Sep; 100(3):189–94

Spinocerebellar ataxia type 6 in relation to CAG repeat length. Kaseda Y, et al. **Acta Neurol Scand** 1999 Apr; 99(4):209–12

Clinical and genetic studies of spinocerebellar ataxia type 2 in Japanese kindreds. Ueyama H, et al. **Acta Neurol Scand** 1998 Dec;98(6):427–32

Location score and haplotype analyses of the locus for autosomal recessive spastic ataxia of Charlevoix-Saguenay, in chromosome region 13q11. Richter A, et al. **Am J Hum Genet** 1999 Mar;64(3):768–75

Close associations between prevalences of dominantly inherited spinocerebellar ataxias with CAG-repeat expansions and frequencies of large normal CAG alleles in Japanese and Caucasian populations. Takano H, et al. **Am J Hum Genet** 1998 Oct;63(4):1060–6

Mapping of a new autosomal dominant spinocerebellar ataxia to chromosome 22. Zu L, et al. **Am J Hum Genet** 1999 Feb;64(2):594–9

Spinocerebellar ataxia type 2 (SCA 2) in an infant with extreme CAG repeat expansion. Babovic-Vuksanovic D, et al. **Am J Med Genet** 1998 Oct 12;79(5):383–7

A novel point mutation in X-linked adrenoleukodystrophy presenting as a spinocerebellar degeneration. Dunne E, et al. **Ann Neurol** 1999 May;45(5):652–5

Mapping of the gene for a novel spinocerebellar ataxia with pure cerebellar signs and epilepsy. Matsuura T, et al. **Ann Neurol** 1999 Mar;45(3):407–11

Oculomotor phenotypes in autosomal dominant ataxias. Buttner N, et al. **Arch Neurol** 1998 Oct;55(10):1353–7

Identification of the physiological promoter for spinocerebellar ataxia 2 gene reveals a CpG island for promoter activity situated into the exon 1 of this gene and provides data about the origin of the nonmethylated state of these types of islands. Aguiar J, et al. **Biochem Biophys Res Commun** 1999 Jan 19;254(2):315–8

Cognitive deficits in spinocerebellar ataxia 2. Bürk K, et al. **Brain** 1999 Apr;122 (Pt 4):769–77

A clinicogenetic analysis of six Indian spinocerebellar ataxia (SCA2) pedigrees. The significance of slow saccades in diagnosis. Wadia N, et al. **Brain** 1998 Dec;121 (Pt 12):2341–55 (81 ref.)

To be or not to be an aggregate. Nasir J. **Clin Genet** 1999 Jan;55(1):9–10 (2 ref.)

Spinocerebellar ataxia type 6: CAG trinucleotide expansion, clinical characteristics and sperm analysis. Shizuka M, et al. **Eur J Neurol** 1998 Jul;5(4):381–7

CAG repeat expansion in an italian family with spinocerebellar ataxia type 2 (SCA2): a clinical and genetic study. Malandrini A, et al. **Eur Neurol** 1998 Oct;40(3):164–8

Estimated contribution of known ataxia genes in ataxia patients undergoing DNA testing. Gunaratne PH, et al. **Genet Test** 1997-98;1(4):275–8

Mitotic and meiotic instability of the CAG trinucleotide repeat in spinocerebellar ataxia type 1. Koefoed P, et al. **Hum Genet** 1998 Nov;103(5):564–9

Spinocerebellar ataxias in Spanish patients: genetic analysis of familial and sporadic cases. The Ataxia Study Group. Pujana MA, et al. **Hum Genet** 1999 Jun;104(6):516–22

De novo expansion of intermediate alleles in spinocerebellar ataxia 7. Stevanin G, et al. **Hum Mol Genet** 1998 Oct; 7(11):1809–13

Comparison of expanded CAG repeat tracts in sperm and lymphocyte DNA from Machado Joseph disease and spinocerebellar ataxia type I patients. Maurer DJ, et al. **Hum Mutat** 1998;Suppl 1:S74–7

Rapid touchdown PCR assay for the molecular diagnosis of spinocerebellar ataxia type 2. Condorelli DF, et al. **Int J Clin Lab Res** 1998;28(3):174–8

Linkage disequilibrium at the SCA2 locus. Didierjean O, et al. **J Med Genet** 1999 May;36(5):415–7

Mendelian segregation of normal CAG trinucleotide repeat alleles at three autosomal loci. MacMillan JC, et al. **J Med Genet** 1999 Mar;36(3):258–9

The effect of CAT trinucleotide interruptions on the age at onset of spinocerebellar ataxia type 1 (SCA1). Matsuyama Z, et al. **J Med Genet** 1999 Jul;36(7):546–8

Analysis of spinocerebellar ataxia type 2 gene and haplotype analysis: (CCG)1-2 polymorphism and contribution to founder effect. Mizushima K, et al. **J Med Genet** 1999 Feb; 36(2):112–4

Spinocerebellar ataxia type 2 in southern Italy: a clinical and molecular study of 30 families. Filla A, et al. **J Neurol**

1999 Jun;246(6):467-71

Frequency of spinocerebellar ataxia types 1,2,3,6,7 and dentatorubral pallidoluysian atrophy mutations in Korean patients with spinocerebellar ataxia. Jin DK, et al. **J Neurol** 1999 Mar;246(3):207-10

Molecular genetic diagnosis of Friedreich's ataxia in a pedigree with apparent autosomal dominant spinocerebellar degeneration [letter] De Silva R, et al. **J Neurol Neurosurg Psychiatry** 1999 Jan;66(1):117-8

Clinical, neuropathological, and molecular study in two families with spinocerebellar ataxia type 6 (SCA6). Ishikawa K, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul; 67(1):86-9

Pseudo-Argyll Robertson pupil of patients with spinocerebellar ataxia type 1 (SCA1) [letter] Mabuchi K, et al. **J Neurol Neurosurg Psychiatry** 1998 Oct;65(4):612-3

Clinical and molecular genetic study in seven Japanese families with spinocerebellar ataxia type 6. Nagai Y, et al. **J Neurol Sci** 1998 Apr 15;157(1):52-9

Phenotype variation correlates with CAG repeat length in SCA2—a study of 28 Japanese patients. Sasaki H, et al. **J Neurol Sci** 1998 Aug 14;159(2):202-8

Molecular analysis of a de novo mutation for spinocerebellar ataxia type 6 and (CAG)n repeat units in normal elder controls. Shizuka M, et al. **J Neurol Sci** 1998 Nov 26; 161(1):85-7

A Japanese family with spinocerebellar ataxia type 6 which includes three individuals homozygous for an expanded CAG repeat in the SCA6/CACNL1A4 gene. Takiyama Y, et al. **J Neurol Sci** 1998 Jun 30;158(2):141-7

Pathogenesis of polyglutamine-induced disease: A model for SCA1. Klement IA, et al. **Mol Genet Metab** 1999 Mar; 66(3):172-8 (38 ref.)

Intranuclear neuronal inclusions in DRPLA [letter; comment] Becher MW, et al. **Mov Disord** 1998 Sep; 13(5):852-3. Comment on: Mov Disord 1997 Jul;12(4):519-30.

An untranslated CTG expansion causes a novel form of spinocerebellar ataxia (SCA8). Koob MD, et al. **Nat Genet** 1999 Apr;21(4):379-84

Variation on a trinucleotide theme [news] Yvert G, et al. **Nat Med** 1999 Apr;5(4):383-4

Molecular and clinical studies in SCA-7 define a broad clinical spectrum and the infantile phenotype. Benton CS, et al. **Neurology** 1998 Oct;51(4):1081-6

Spinocerebellar ataxia type 6: evidence for a strong founder effect among German families [see comments] Dichgans M, et al. **Neurology** 1999 Mar 10;52(4):849-51. Comment in: Neurology 1999 Mar 10;52(4):685-6.

Clinical and genetic analysis of a distinct autosomal dominant spinocerebellar ataxia. Grewal RP, et al. **Neurology** 1998 Nov;51(5):1423-6

Progress in pathogenesis studies of spinocerebellar ataxia type 1. Cummings CJ, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):1079-81 (20 ref.)

CAG repeat instability, cryptic sequence variation and pathogeneticity: evidence from different loci. Frontali M, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):1089-94 (38 ref.)

Molecular pathology of dentatorubral-pallidoluysian atrophy. Kanazawa I. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):1069-74 (26 ref.)

Possible association between schizophrenia and a CAG repeat polymorphism in the spinocerebellar ataxia type 1 (SCA1) gene on human chromosome 6p23. Joo EJ, et al. **Psychiatr Genet** 1999 Mar;9(1):7-11

Nota bene: triplet repeat diseases. Innocent inclusions. Kelner KL. **Science** 1998 Oct 23;282(5389):643

[New insights in the molecular genetics and pathophysiology of hereditary ataxias] Bürk K, et al. **Nervenarzt** 1999 Jun; 70(6):491-5 (39 ref.) (Eng. Abstr.) **(Ger)**

[Hexosaminidase deficiency as differential spinocerebellar diseases] Förster A, et al. **Nervenarzt** 1999 Feb;70(2):162-6 (Eng. Abstr.) **(Ger)**

[Clinical and genetic characteristics of SCA1] Abe K. **Nippon Rinsho** 1999 Apr;57(4):796-800 (14 ref.) (Eng. Abstr.) **(Jpn)**

[Molecular analyses of intergenerational instability of CAG repeat in SCA2 gene] Igarashi S, et al. **Nippon Rinsho** 1999 Apr;57(4):811-7 (43 ref.) (Eng. Abstr.) **(Jpn)**

[Molecular and clinical features in spinocerebellar ataxia type 6 (SCA6) in Japanese] Ikeuchi T. **Nippon Rinsho** 1999 Apr; 57(4):891-5 (15 ref.) (Eng. Abstr.) **(Jpn)**

[The function of spinocerebellar ataxia type 2 (SCA2) gene product, ataxin-2 and the mechanism of pathogenesis for SCA2] Sanpei K. **Nippon Rinsho** 1999 Apr;57(4):822-4 (14 ref.) (Eng. Abstr.) **(Jpn)**

[The phenotype variation correlates with the size of CAG repeat in SCA2] Sasaki H, et al. **Nippon Rinsho** 1999 Apr; 57(4):818-21 (10 ref.) (Eng. Abstr.) **(Jpn)**

[A sporadic case of spinocerebellar ataxia 6 (SCA 6) with large CAG expansion of the CACNL1A4 gene] Izumi Y, et al. **No To Shinkei** 1999 Feb;51(2):167-70 (Eng. Abstr.) **(Jpn)**

[Clinico-genetic study of type I spinocerebelllar ataxia] Svetel M, et al. **Srp Arh Celok Lek** 1999 May-Jun; 127(5-6):157-62 (Eng. Abstr.) **(See)**

[The contribution of molecular genetics to the nosology and diagnosis of neurological disorders of childhood] Aicardi J. **Rev Neurol** 1999 Jan 1-15;28(1):1-4 (22 ref.) (Eng. Abstr.) **(Spa)**

METABOLISM

Expression of ataxin-2 in brains from normal individuals and patients with Alzheimer's disease and spinocerebellar ataxia 2. Huynh DP, et al. **Ann Neurol** 1999 Feb;45(2):232-41

An isoform of ataxin-3 accumulates in the nucleus of neuronal cells in affected brain regions of SCA3 patients. Schmidt T, et al. **Brain Pathol** 1998 Oct;8(4):669-79

Abundant expression and cytoplasmic aggregations of [alpha]1A voltage-dependent calcium channel protein associated with neurodegeneration in spinocerebellar ataxia type 6. Ishikawa K, et al. **Hum Mol Genet** 1999 Jul; 8(7):1185-93

PATHOLOGY

Nuclear inclusions in spinocerebellar ataxia type 1. Duyckaerts C, et al. **Acta Neuropathol (Berl)** 1999 Feb; 97(2):201-7

Spinocerebellar ataxia 2 (SCA2): morphometric analyses in 11 autopsies. Estrada R, et al. **Acta Neuropathol (Berl)** 1999 Mar;97(3):306-10

Spinocerebellar ataxia type 2 (SCA 2) in an infant with extreme CAG repeat expansion. Babovic-Vuksanovic D, et al. **Am J Med Genet** 1998 Oct 12;79(5):383-7

Characteristic magnetic resonance imaging findings in spinocerebellar ataxia 6. Murata Y, et al. **Arch Neurol** 1998 Oct;55(10):1348-52

Spinocerebellar ataxia type 2. Silverman IE. **Arch Neurol** 1999 May;56(5):628

An isoform of ataxin-3 accumulates in the nucleus of neuronal cells in affected brain regions of SCA3 patients. Schmidt T, et al. **Brain Pathol** 1998 Oct;8(4):669-79

An autopsy case of spinocerebellar ataxia type 6 with mental symptoms of schizophrenia and dementia. Tashiro H, et al. **Clin Neuropathol** 1999 Jul-Aug;18(4):198-204

Supratentorial atrophy in spinocerebellar ataxia type 2: MRI study of 20 patients. Giuffrida S, et al. **J Neurol** 1999 May; 246(5):383-8

Clinical, neuropathological, and molecular study in two families with spinocerebellar ataxia type 6 (SCA6). Ishikawa K, et al. **J Neurol Neurosurg Psychiatry** 1999 Jul; 67(1):86-9

Infantile onset spinocerebellar ataxia with sensory neuropathy (IOSCA): neuropathological features. Lönnqvist T, et al. **J Neurol Sci** 1998 Nov 26;161(1):57-65

Clinical and molecular genetic study in seven Japanese families with spinocerebellar ataxia type 6. Nagai Y, et al. **J Neurol Sci** 1998 Apr 15;157(1):52-9

A clinical, genetic, neuropathological study in a Japanese family with SCA 6 and a review of Japanese autopsy cases of autosomal dominant cortical cerebellar atrophy. Tsuchiya K, et al. **J Neurol Sci** 1998 Sep 18;160(1):54-9 (22 ref.)

Brain phospholipids and fatty acids in Friedreich's ataxia and spinocerebellar atrophy type-1. Eder K, et al. **Mov Disord** 1998 Sep;13(5):813-9

Progress in pathogenesis studies of spinocerebellar ataxia type 1. Cummings CJ, et al. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):1079-81 (20 ref.)

Molecular pathology of dentatorubral-pallidoluysian atrophy. Kanazawa I. **Philos Trans R Soc Lond B Biol Sci** 1999 Jun 29; 354(1386):1069-74 (26 ref.)

[Correlation of clinichopathological features and CAG repeats in SCA2] Koyano S, et al. **Nippon Rinsho** 1999 Apr;57(4):805-10 (19 ref.) (Eng. Abstr.) **(Jpn)**

PHYSIOPATHOLOGY

Spinocerebellar ataxia type 2: clinical features of a pedigree displaying prominent frontal-executive dysfunction [see comments] Storey E, et al. **Arch Neurol** 1999 Jan; 56(1):43-50. Comment in: Arch Neurol 1999 Jan;56(1):20-2.

A clinicogenetic analysis of six Indian spinocerebellar ataxia (SCA2) pedigrees. The significance of slow saccades in diagnosis. Wadia N, et al. **Brain** 1998 Dec;121 (Pt 12):2341-55 (81 ref.)

The stereo-specific effect of D-serine ethylester and the D-cycloserine in ataxic mutant mice. Saigoh K, et al. **Brain Res** 1998 Oct 12;808(1):42-7

Parvocellular and magnocellular visual processing in spinocerebellar degeneration and Parkinson's disease: an event-related potential study. Arakawa K, et al. **Clin Neurophysiol** 1999 Jun;110(6):1048-57

Calcium channelopathies in the central nervous system. Jen J. **Curr Opin Neurobiol** 1999 Jun;9(3):274-80 (52 ref.)

Power spectral analysis of auditory brainstem responses and MRI findings in patients with spinocerebellar degeneration. Hayashi R, et al. **Electromyogr Clin Neurophysiol** 1998 Oct-Nov;38(7):387-91

Cerebral blood flow in spinocerebellar degenerations: a single photon emission tomography study in 28 patients. De Michele G, et al. **J Neurol** 1998 Sep;245(9):603-8

Age related axonal neuropathy in spinocerebellar ataxia type 3/Machado-Joseph disease (SCA3/MJD). Klockgether T, et al. **J Neurol Neurosurg Psychiatry** 1999 Feb;66(2):222-4

Clinical and genetic analysis of a distinct autosomal dominant spinocerebellar ataxia. Grewal RP, et al. **Neurology** 1998 Nov;51(5):1423-6

[Electrophysiological findings in patients with SCA6] Kumagai R, et al. **Nippon Rinsho** 1999 Apr;57(4):886-90 (15 ref.) (Eng. Abstr.) **(Jpn)**

[Initial symptoms and mode of neurological progression in spinocerebellar ataxia type 6 (SCA6)] Yabe I, et al. **Rinsho Shinkeigaku** 1998 Jun;38(6):489-94 (Eng. Abstr.) **(Jpn)**

PSYCHOLOGY

Focusing attention on cognitive impairment in spinocerebellar ataxia [editorial; comment] Geschwind DH. **Arch Neurol** 1999 Jan;56(1):20-2. Comment on: Arch Neurol 1999 Jan;56(1):43-50.

RADIONUCLIDE IMAGING

Early-onset cerebellar ataxia (EOCA) with retained reflexes: reduced cerebellar benzodiazepine-receptor binding, progressive metabolic and cognitive impairment. Mielke R, et al. **Mov Disord** 1998 Jul;13(4):739-45

REHABILITATION

[Investigation on daily life concerning patients with spinocerebellar degeneration] Hatta H, et al. **Nippon Koshu Eisei Zasshi** 1998 Dec;45(12):1142-50 (Eng. Abstr.) **(Jpn)**

SURGERY

Cerebellar allografts survive and transiently alleviate ataxia in a transgenic model of spinocerebellar ataxia type-1. Kaemmerer WF, et al. **Exp Neurol** 1999 Aug;158(2):301-11

SPINOTHALAMIC TRACTS

CYTOLOGY

The effects of SDZ NKT 343, a potent NK1 receptor antagonist, on cutaneous responses of primate spinothalamic tract neurones sensitized by intradermal capsaicin injection. Rees H, et al. **Exp Brain Res** 1998 Aug; 121(3):355-8

Transient inhibition of responses to thermal stimuli of spinal sensory tract neurons in monkeys during sensitization by intradermal capsaicin. Dougherty PM, et al. **Pain** 1998 Aug; 77(2):129-36

PHYSIOLOGY

Convergence of trigeminal input with visceral and phrenic inputs on primate C1-C2 spinothalamic tract neurons. Chandler MJ, et al. **Brain Res** 1999 May 22;829(1-2):204-8

Inhibition of primate spinothalamic tract neurons by spinal glycine and GABA is modulated by guanosine 3',5'-cyclic monophosphate. Lin Q, et al. **J Neurophysiol** 1999 Mar; 81(3):1095-103

Nitric oxide-mediated spinal disinhibition contributes to the sensitization of primate spinothalamic tract neurons. Lin Q, et al. **J Neurophysiol** 1999 Mar;81(3):1086-94

Nitric oxide mediates the central sensitization of primate spinothalamic tract neurons. Lin Q, et al. **J Neurophysiol** 1999 Mar;81(3):1075-85

Behavioral thermosensitivity after lesions of thalamic target areas of a thermosensory spinothalamic pathway in the cat. Norrsell U, et al. **J Neurophysiol** 1999 Aug;82(2):611-25

Transient inhibition of responses to thermal stimuli of spinal sensory tract neurons in monkeys during sensitization by intradermal capsaicin. Dougherty PM, et al. **Pain** 1998 Aug; 77(2):129-36

PHYSIOPATHOLOGY

A sensory level on the trunk and sparing the face from vertebral artery dissection: how much more subtle can we get? [letter; comment] Phan TG, et al. **J Neurol Neurosurg Psychiatry** 1999 May;66(5):691-2. Comment on: J Neurol Neurosurg Psychiatry 1998 Aug;65(2):255-7.

SPINY ANTEATER see **ECHIDNA**

SPIPERONE

NMSP binding to dopamine and serotonin receptors in MPTP-induced parkinsonism: relation to dopa therapy. Borbely K, et al. **Acta Neurol Scand** 1999 Jul;100(1):42-52

ANALOGS & DERIVATIVES

Comparison of three PET dopamine D2-like receptor ligands, [11C]raclopride, [11C]nemonapride and [11C]N-methylspiperone, in rats. Ishiwata K, et al. **Ann Nucl Med** 1999 Jun;13(3):161-7

Spiperone: influence of spiro ring substituents on 5-HT2A serotonin receptor binding. Metwally KA, et al. **J Med Chem** 1998 Dec 3;41(25):5084-93

Enhancement of 3H-N-methylspiperone binding but not 3H-raclopride binding in mouse striatum by MK-801: evidence that factors other than competition by endogenous dopamine are responsible for changes in D2 receptor binding in vivo. Short communication. Inoue O, et al. **J Neural Transm** 1999;106(2):131-7

Changes in apparent in vivo binding of [3H]raclopride and [3H]N-methylspiperone induced by oxotremorine. Kobayashi K, et al. **J Neural Transm** 1998;

105(10–12):1193–7
Magnetic resonance imaging and 11C-N-methylspiperone/positron emission tomography studies in a patient with the interval form of carbon monoxide poisoning. Yoshii F, et al. **J Neurol Sci** 1998 Sep 18;160(1):87–91
A crystallographic and molecular modeling study of butyrophenones. Liang L, et al. **J Pharm Sci** 1998 Dec; 87(12):1496–501
N-[11C]methylspiperone PET, in contrast to [11C]raclopride, fails to detect D2 receptor occupancy by an atypical neuroleptic. Hagberg G, et al. **Psychiatry Res** 1998 Jun 30;82(3):147–60
Opposing effects of clomipramine on [125I]RTI-55 and [3H]N-methylspiperone binding in mouse striatum: important role of other factors than endogenous dopamine? Inoue O, et al. **Synapse** 1998 Nov;30(3):338–40

BLOOD

3H-spiperone binding to lymphocytes in neuroleptic-naive-schizophrenia and the effect of neuroleptic treatment. Laufer N, et al. **Clin Neuropharmacol** 1999 Mar–Apr;22(2):110–4

CHEMICAL SYNTHESIS

Spiperone: influence of spiro ring substituents on 5-HT2A serotonin receptor binding. Metwally KA, et al. **J Med Chem** 1998 Dec 3;41(25):5084–93

METABOLISM

Central administration of dopamine D3 receptor antisense to rat: effects on locomotion, dopamine release and [3H]spiperone binding. Ekman A, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Sep; 358(3):342–50

PHARMACOLOGY

Influence of SCH23390 and spiperone on the expression of conditioned place preference induced by d-amphetamine or cocaine in the rat. Liao RM, et al. **Chin J Physiol** 1998 Jun 30;41(2):85–92
Specific binding of 3H-spiperone to peripheral blood cells: relevance for the interpretation of binding studies in psychiatric disorders. Henning U, et al. **Prog Neuropsychopharmacol Biol Psychiatry** 1999 Feb; 23(2):225–41

SPIRAL GANGLION

ANATOMY & HISTOLOGY

Magnetic resonance imaging of the cochlea, spiral ganglia and eighth nerve of the guinea pig. Counter SA, et al. **Neuroreport** 1999 Feb 25;10(3):473–9

CHEMISTRY

Immunohistochemical detection of vasoactive intestinal polypeptide (VIP) and the VIP receptor in the rat inner ear. Kitanishi T, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:52–6
The combined effects of trkB and trkC mutations on the innervation of the inner ear. Fritzsch B, et al. **Int J Dev Neurosci** 1998 Oct;16(6):493–505
AMPA-type glutamate receptor subunits are expressed in the avian cochlear hair cells and ganglion cells. Reng D, et al. **Neuroreport** 1999 Jul 13;10(10):2137–41

CYTOLOGY

Growth factors, auditory neurones and cochlear implants: a review. Marzella PL, et al. **Acta Otolaryngol** 1999; 119(4):407–12 (60 ref.)
Chronic electrical stimulation by a cochlear implant promotes survival of spiral ganglion neurons after neonatal deafness. Leake PA, et al. **J Comp Neurol** 1999 Oct 4;412(4):543–62
Time-dependence and cell-type specificity of synergistic neurotrophin actions on spiral ganglion neurons. Mou K, et al. **J Comp Neurol** 1998 Dec 7;402(1):129–39

DRUG EFFECTS

Cell proliferation in spiral ligament of mouse cochlea damaged by dihydrostreptomycin sulfate. Yamashita H, et al. **Acta Otolaryngol** 1999;119(3):322–5
4-methylcatechol, a potent inducer of nerve growth factor synthesis, protects spiral ganglion neurons from aminoglycoside ototoxicity--preliminary report. Kimura N, et al. **Acta Otolaryngol Suppl** 1999;540:12–5
Sodium nitroprusside/nitric oxide causes apoptosis in spiral ganglion cells. Pai N, et al. **Otolaryngol Head Neck Surg** 1998 Oct;119(4):323–30

EMBRYOLOGY

The cochlear ganglion in human embryos of developmental stages 18 and 19. Ulatowska-Błaszyk K, et al. **Folia Morphol (Warsz)** 1999;58(1):29–35

METABOLISM

Peripherin-like immunoreactivity in type II spiral ganglion cell body and projections. Hafidi A. **Brain Res** 1998 Sep 14;805(1–2):181–90
Characterization of G-protein betagamma expression in inner ear. Barritt LC, et al. **Brain Res Mol Brain Res** 1999 May 7;68(1–2):42–54

PATHOLOGY

Cell proliferation in spiral ligament of mouse cochlea damaged by dihydrostreptomycin sulfate. Yamashita H, et al. **Acta Otolaryngol** 1999;119(3):322–5
Does electrical stimulation of deaf cochleae prevent spiral ganglion degeneration? Li L, et al. **Hear Res** 1999 Jul; 133(1–2):27–39

PHYSIOLOGY

Optical recording of membrane potential on isolated spiral ganglion cells of newborn mice using a voltage-sensitive dye. Matsumoto A, et al. **Acta Otolaryngol Suppl (Stockh)** 1998;539:34–9
The influence of interleukin-1 receptor antagonist transgene on spiral ganglion neurons. Komeda M, et al. **Hear Res** 1999 May;131(1–2):1–10

PHYSIOPATHOLOGY

Correlation of acoustic threshold measures and spiral ganglion cell survival in severe to profound sensorineural hearing loss: implications for cochlear implantation. Incesulu A, et al. **Ann Otol Rhinol Laryngol** 1998 Nov; 107(11 Pt 1):906–11

ULTRASTRUCTURE

Two statoacoustic ganglion (SAG) cells holding a common perikaryal myelin sheath in between in the chick [letter] Komatsu S, et al. **J Electron Microsc (Tokyo)** 1998; 47(6):665–9

VIROLOGY

Highly variable distribution of HSV-1-specific DNA in human geniculate, vestibular and spiral ganglia. Schulz P, et al. **Neurosci Lett** 1998 Aug 14;252(2):139–42

SPIRAL ORGAN see **ORGAN OF CORTI**

SPIRAMYCIN

ADMINISTRATION & DOSAGE

Spiramycin is comparable to oxytetracycline in eradicating H. pylori when given with ranitidine bismuth citrate and metronidazole. Olafsson S, et al. **Aliment Pharmacol Ther** 1999 May;13(5):651–9

BIOSYNTHESIS

Modulation of lipid metabolism and spiramycin biosynthesis in Streptomyces ambofaciens unstable mutants. Schauner C, et al. **Appl Environ Microbiol** 1999 Jun;65(6):2730–7

METABOLISM

Characterization of a glycosyl transferase inactivating macrolides, encoded by gimA from Streptomyces ambofaciens. Gourmelen A, et al. **Antimicrob Agents Chemother** 1998 Oct;42(10):2612–9

PHARMACOKINETICS

Bioavailability of spiramycin and lincomycin after oral administration to fed and fasted pigs. Nielsen P, et al. **J Vet Pharmacol Ther** 1998 Aug;21(4):251–6

PHARMACOLOGY

Synthesis and in vitro antibacterial activity of catechol-spiramycin conjugates. Poras H, et al. **J Antibiot (Tokyo)** 1998 Aug;51(8):786–94

THERAPEUTIC USE

Spiramycin renaissance. Rubinstein E, et al. **J Antimicrob Chemother** 1998 Nov;42(5):572–6 (24 ref.)
[Nodular toxoplasmosis as a diagnostic and therapeutic problem] Zaorski P, et al. **Otolaryngol Pol** 1999; 53(2):167–71 (Eng. Abstr.) **(Pol)**
[Clinical efficacy and safety of spiramycin and clarithromycin in the treatment of outpatients with lower respiratory tract infections] Bocheńska-Marciniak M, et al. **Pol Arch Med Wewn** 1998 Sep;100(3):222–35 (Eng. Abstr.) **(Pol)**
[Use of spiramycin in the treatment of inflammatory diseases ot the respiratory tract in children in ambulatory conditions] Otsiians EN, et al. **Antibiot Khimioter** 1998; 43(11):34–7 (Eng. Abstr.) **(Rus)**

SPIRAMYCIN ADIPATE see **SPIRAMYCIN**

SPIRILLUM

GENETICS

Identification of a gene for a rubrerythrin/nigerythrin-like protein in Spirillum volutans by using amino acid sequence data from mass spectrometry and NH2-terminal sequencing. Alban PS, et al. **J Appl Microbiol** 1998 Nov; 85(5):875–82

ISOLATION & PURIFICATION

Titanospirillum velox: a huge, speedy, sulfur-storing spirillum from Ebro Delta microbial mats. Guerrero R, et al. **Proc Natl Acad Sci U S A** 1999 Sep 28;96(20):11584–8

SPIRITUAL HEALING see **MENTAL HEALING**

SPIRITUALISM

A Moroccan woman suffering from depression: migration as an attempt to escape sorcellerie. Streit U, et al. **Cult Med Psychiatry** 1998 Dec;22(4):445–63
Spiritual perspectives and practices of family physicians with an expressed interest in spirituality. Craigie FC Jr, et al. **Fam Med** 1999 Sep;31(8):578–85
Effects of mindfulness-based stress reduction on medical and premedical students. Shapiro SL, et al. **J Behav Med** 1998 Dec;21(6):581–99
Angels and spirits in the world of illness. Rahman F. **Lancet** 1998 Oct 10;352(9135):1218–9

SPIRO COMPOUNDS

CHEMICAL SYNTHESIS

Regiospecific synthesis and anti-human immunodeficiency virus activity of novel 5-substituted N-alkylcarbamoyl and N,N-dialkylcarbamoyl 1,2,3-triazole-TSAO analogues. Velázquez S, et al. **Antivir Chem Chemother** 1998 Nov; 9(6):481–9
Spirobutenolides substituted by arylpiperazinyl-carbonyl moieties. Synthesis and antinociceptive properties. Bois F, et al. **Arzneimittelforschung** 1998 Dec;48(12):1156–62
Inhibitors of glycogen phosphorylase b: synthesis, biochemical screening, and molecular modeling studies of novel analogues of hydantocidin. Agasimundin YS, et al. **Bioorg Med Chem** 1998 Jul;6(7):911–23
Biomimetic Diels-Alder cyclizations for the construction of the brevianamide, paraherquamide, sclerotamide, asperparaline and VM55599 ring systems. Williams RM, et al. **Bioorg Med Chem** 1998 Aug;6(8):1233–41
Synthesis and biological activities of spiroheterocyclic growth hormone secretagogues. Chen MH, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1261–6
C24 and C25 substituted marcfortine A derivatives. Lee BH, et al. **Bioorg Med Chem Lett** 1998 Dec 1;8(23):3415–8
New growth hormone secretagogues: C-terminal modified sulfonamide-analogues of NN703. Peschke B, et al. **Bioorg Med Chem Lett** 1999 May 3;9(9):1295–8
Spiro-substituted piperidines as neurokinin receptor antagonists. III. Synthesis of (+/-)-N-[2-(3,4-dichlorophenyl)-4-(spiro-substituted piperidin-1'-yl)butyl]-N-methylbenzamides and evaluation of NK1-NK2 dual antagonistic activities. Kubota H, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1538–44
Synthesis and antimalarial activity of 11 dispiro-1,2,4,5-tetraoxane analogues of WR 148999. 7,8,15,16-Tetraoxadispiro[5.2.5.2]hexadecanes substituted at the 1 and 10 positions with unsaturated and polar functional groups. Dong Y, et al. **J Med Chem** 1999 Apr 22;42(8):1477–80
Design, synthesis, and dopamine receptor modulating activity of spiro bicyclic peptidomimetics of L-prolyl-L-leucyl-glycinamide. Khalil EM, et al. **J Med Chem** 1999 Feb 25;42(4):628–37
Novel, highly potent aldose reductase inhibitors: (R)-(-)-2-(4-bromo-2-fluorobenzyl)-1,2,3,4-tetrahydropyrrolo[1,2-a]pyrazine -4-spiro-3'-pyrrolidine-1,2',3,5'-tetrone (AS-3201) and its congeners. Negoro T, et al. **J Med Chem** 1998 Oct 8; 41(21):4118–29
Synthesis and modeling studies of a potent conformationally rigid muscarinic agonist: 1-azabicyclo[2.2.1]heptanespirofuranone. Wu ES, et al. **J Med Chem** 1998 Oct 22;41(22):4181–5
(+)-p-([18F]fluorobenzyl)spirotrozamicol [(+)-[18F]spiro-FBT]: synthesis and biological evaluation of a high-affinity ligand for the vesicular acetylcholine transporter (VAChT). Efange SM, et al. **Nucl Med Biol** 1999 Feb;26(2):189–92

CHEMISTRY

Spiro[1-azabicyclo[5.3.0]decane-6,2'(5'H)-furan]-5',10-dione: an example of kryptoracemic crystallization. Lynch VM, et al. **Acta Crystallogr C** 1999 Apr 15;55 (Pt 4):622–4
Novel 3'-spiro nucleoside analogues of TSAO-T. Part II. A comparative study based on NMR conformational analysis in solution and theoretical calculations. Alvarez R, et al. **Antivir Chem Chemother** 1998 Jul;9(4):333–40
Molecular modeling studies of the binding modes of aldose reductase inhibitors at the active site of human aldose reductase. Lee YS, et al. **Bioorg Med Chem** 1998 Oct; 6(10):1811–9
The spiroketals containing a benzyloxymethyl moiety at C8 position showed the most potent apoptosis-inducing activity. Mitsuhashi S, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2007–12
Potent 3-spiropiperidine growth hormone secretagogues. Yang L, et al. **Bioorg Med Chem Lett** 1998 Jan 6;8(1):107–12

Spirofungin, a new antifungal antibiotic from Streptomyces violaceusniger Tü 4113. Höltzel A, et al. **J Antibiot (Tokyo)** 1998 Aug;51(8):699–707

Abasic analogues of TSAO–T as the first sugar derivatives that specifically inhibit HIV–1 reverse transcriptase. Velázquez S, et al. **J Med Chem** 1998 Nov 5;41(23):4636–47

Novel TSAO derivatives modified at positions 3" and 4" of the spiro moiety. Lobatón E, et al. **Nucleosides Nucleotides** 1999 Apr–May;18(4–5):675–6

Novel series of [ddN]–[TSAO–T] heterodimers as potential bi–functional inhibitors of HIV–1 RT. Studies in the linker and ddN region. Velázquez S, et al. **Nucleosides Nucleotides** 1999 Apr–May;18(4–5):1029–30

A spirostanol saponin from the underground parts of Ruscus aculeatus. Mimaki Y, et al. **Phytochemistry** 1999 Jul; 51(5):689–92

IMMUNOLOGY

Production and characterization of 22 monoclonal antibodies directed against S 20499, a new potent 5–HT1A chiral agonist: influence of the hapten structure on specificity and stereorecognition. Got P, et al. **Pharm Res** 1999 May; 16(5):725–35

ISOLATION & PURIFICATION

The bakkenolides from the root of Petasites formosanus and their cytotoxicity. Wu TS, et al. **Chem Pharm Bull (Tokyo)** 1999 Mar;47(3):375–82

Spirofungin, a new antifungal antibiotic from Streptomyces violaceusniger Tü 4113. Höltzel A, et al. **J Antibiot (Tokyo)** 1998 Aug;51(8):699–707

A new discorhabdin from two sponge genera. Dijoux MG, et al. **J Nat Prod** 1999 Apr;62(4):636–7

Discorhabdin P, a new enzyme inhibitor from a deep–water Caribbean sponge of the genus Batzella. Gunasekera SP, et al. **J Nat Prod** 1999 Jan;62(1):173–5

Highly oxygenated bisabolenes and an acetylene from Matricaria aurea. Ahmed AA, et al. **Phytochemistry** 1999 Jun;51(4):551–4

METABOLISM

Molecular modeling studies of the binding modes of aldose reductase inhibitors at the active site of human aldose reductase. Lee YS, et al. **Bioorg Med Chem** 1998 Oct; 6(10):1811–9

Biotransformation of hinesol isolated from the crude drug Atractylodes lancea by Aspergillus niger and Aspergillus cellulosae. Hashimoto T, et al. **Chem Pharm Bull (Tokyo)** 1999 May;47(5):716–7

Mer–f3, 12–hydroxy–ovalicin, produced by Metarrhizium sp. f3 [letter] Kuboki H, et al. **J Antibiot (Tokyo)** 1999 Jun; 52(6):590–3

PHARMACOKINETICS

Absorption and brain penetration of a high affinity, highly selective 5–HT2C receptor antagonist, RS–102221. Bonhaus DW, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:269

Determination of the rate–limiting step in the hepatic elimination of YM796 by isolated rat hepatocytes. Iwatsubo T, et al. **Pharm Res** 1999 Jan;16(1):110–6

PHARMACOLOGY

Nonpeptide antagonists for vasopressin receptors. Pharmacology of SR 121463A, a new potent and highly selective V2 receptor antagonist. Serradeil–Le Gal C. **Adv Exp Med Biol** 1998;449:427–38 (36 ref.)

Role of oxytocin in the initiation of term and preterm labor in rats: changes in oxytocin receptor density and plasma oxytocin concentration and the effect of an oxytocin antagonist, L–366,509. Kobayashi M, et al. **Am J Obstet Gynecol** 1999 Mar;180(3 Pt 1):621–7

The selective 5–HT1B receptor inverse agonist SB–224289, potently blocks terminal 5–HT autoreceptor function both in vitro and in vivo. Gaster LM, et al. **Ann N Y Acad Sci** 1998 Dec 15;861:270–1

An approach towards the synthesis of potential metal–chelating TSAO–T derivatives as bidentate inhibitors of human immunodeficiency virus type 1 reverse transcriptase. Chamorro C, et al. **Antivir Chem Chemother** 1998 Sep;9(5):413–22

Inhibition of human immunodeficiency virus type (HIV–1) replication by some diversely functionalized spirocyclopropyl derivatives. Witvrouw M, et al. **Arch Pharm (Weinheim)** 1999 May;332(5):163–6

Induction of low–density lipoprotein catabolism in Hep G2 cells by a fungal sesquiterpene ester, FR111142. Harada T, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):830–4

Interaction of anisatin with rat brain gamma–aminobutyric acidA receptors: allosteric modulation by competitive antagonists. Kakemoto E, et al. **Biochem Pharmacol** 1999 Aug 15;58(4):617–21

The spiroketals containing a benzyloxymethyl moiety at C8 position showed the most potent apoptosis–inducing activity. Mitsuhashi S, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):2007–12

4–Oxospiro[benzopyran–2,4'–piperidines] as selective alpha 1a–adrenergic receptor antagonists. Nerenberg JB, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):291–4

8–acenaphthen–1–yl–1–phenyl–1,3,8–triaza–spiro[4.5]decan–4–one derivatives as orphanin FQ receptor agonists. Wichmann J, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2343–8

Cell cycle perturbations and apoptosis induced by isohomohalichondrin B (IHB), a natural marine compound. Bergamaschi D, et al. **Br J Cancer** 1999 Jan;79(2):267–77

Increased transcriptional activity of prostate–specific antigen in the presence of TNP–470, an angiogenesis inhibitor. Horti J, et al. **Br J Cancer** 1999 Mar;79(9–10):1588–93

Anisatin modulation of the gamma–aminobutyric acid receptor–channel in rat dorsal root ganglion neurons. Ikeda T, et al. **Br J Pharmacol** 1999 Aug;127(7):1567–76

SB–224289—a novel selective (human) 5–HT1B receptor antagonist with negative intrinsic activity. Selkirk JV, et al. **Br J Pharmacol** 1998 Sep;125(1):202–8

Cytotoxicity and neurocytotoxicity of new marine anticancer agents evaluated using in vitro assays. Geldof AA, et al. **Cancer Chemother Pharmacol** 1999;44(4):312–8

Spiro–substituted piperidines as neurokinin receptor antagonists. III. Synthesis of (+/–)–N–[2–(3,4–dichlorophenyl)–4–(spiro–substituted piperidin–1'–yl)butyl]–N–methylbenzamides and evaluation of NK1–NK2 dual antagonistic activities. Kubota H, et al. **Chem Pharm Bull (Tokyo)** 1998 Oct;46(10):1538–44

Increases in circulating insulin–like growth factor I levels by the oral growth hormone secretagogue MK–0677 in the beagle are dependent upon pituitary mediation. Schleim KD, et al. **Endocrinology** 1999 Apr;140(4):1552–8

Effects of spiroglumide, a gastrin receptor antagonist, on acid secretion in humans. Beltinger J, et al. **Eur J Clin Invest** 1999 Feb;29(2):153–9

The canine external carotid vasoconstrictor 5–HT1 receptor: blockade by 5–HT1B (SB224289), but not by 5–HT1D (BRL15572) receptor antagonists. De Vries P, et al. **Eur J Pharmacol** 1998 Nov 27;362(1):69–72

Chronic alnespirone–induced desensitization of somatodendritic 5–HT1A autoreceptors in the rat dorsal raphe nucleus. Le Poul E, et al. **Eur J Pharmacol** 1999 Jan 22;365(2–3):165–73

The delta1–opioid receptor antagonist, 7–(benzospiroindanyl)naltrexone [correction of 7–benzylspiroindanylnaltrexone], prolongs renal allograft survival in a rat model [published erratum appears in Eur J Pharmacol 1998 Dec 11;363(1):91] Linner KM, et al. **Eur J Pharmacol** 1998 Jul 31;354(1):R3–5

Similar pharmacological properties of 8–OH–DPAT and alnespirone (S 20499) at dopamine receptors: comparison with buspirone. Protais P, et al. **Eur J Pharmacol** 1998 Jul 10;352(2–3):179–87

Fenspiride inhibits histamine–induced responses in a lung epithelial cell line. Quartulli F, et al. **Eur J Pharmacol** 1998 May 8;348(2–3):297–304

Pharmacological properties of TRK–820 on cloned mu–, delta– and kappa–opioid receptors and nociceptin receptor. Seki T, et al. **Eur J Pharmacol** 1999 Jul 2;376(1–2):159–67

(+)–S–20499 — a potential antidepressant? A behavioural and neurochemical investigation in the olfactory bulbectomised rat. McGrath C, et al. **Eur Neuropsychopharmacol** 1999 Jan;9(1–2):21–7

Insulin–like growth factor–1 and growth hormone (GH) levels in canine cerebrospinal fluid are unaffected by GH or GH secretagogue (MK–0677) administration. Prahalada S, et al. **Horm Metab Res** 1999 Feb–Mar;31(2–3):133–7

Atiprimod (SK&F 106615), a novel macrophage targeting agent, enhances alveolar macrophage candidacidal activity and is not immunosuppressive in Candida–infected mice. Badger AM, et al. **Int J Immunopharmacol** 1999 Mar; 21(3):161–76

Aspirochlorine: a highly selective and potent inhibitor of fungal protein synthesis. Monti F, et al. **J Antibiot (Tokyo)** 1999 Mar;52(3):311–8

Erinacine E as a kappa opioid receptor agonist and its new analogs from a basidiomycete, Hericium ramosum. Saito T, et al. **J Antibiot (Tokyo)** 1998 Nov;51(11):983–90

Oral administration of the growth hormone secretagogue MK–677 increases markers of bone turnover in healthy and functionally impaired elderly adults. The MK–677 Study Group. Murphy MG, et al. **J Bone Miner Res** 1999 Jul; 14(7):1182–8

Sporovexins A–C and a new preussomerin analog: antibacterial and antifungal metabolites from the coprophilous fungus Sporormiella vexans. Soman AG, et al. **J Nat Prod** 1999 Apr;62(4):659–61

Differential regulation of somatodendritic serotonin 5–HT1A receptors by 2–week treatments with the selective agonists alnespirone (S–20499) and 8–hydroxy–2–(Di–n–propylamino)tetralin: microdialysis and autoradiographic studies in rat brain. Casanovas JM, et al. **J Neurochem** 1999 Jan;72(1):262–72

Selective antiaggressive effects of alnespirone in resident–intruder test are mediated via 5–hydroxytryptamine1A receptors: A comparative pharmacological study with 8–hydroxy–2–dipropylaminotetralin, ipsapirone, buspirone, eltoprazine, and WAY–100635. de Boer SF, et al. **J Pharmacol Exp Ther** 1999 Mar;288(3):1125–33

High affinity regulation of cardiac Cl– and Ca2+ conductances by (13R)–spiroforskolin. Traebert M, et al. **Naunyn Schmiedebergs Arch Pharmacol** 1998 Nov; 358(5):538–46

Influence of 5–HT1A receptors on central noradrenergic activity: microdialysis studies using (+/–)–MDL 73005EF and its enantiomers. Hajós–Korcsok E, et al. **Neuropharmacology** 1999 Feb;38(2):299–306

Novel series of [ddN]–[TSAO–T] heterodimers as potential bi–functional inhibitors of HIV–1 RT. Studies in the linker and ddN region. Velázquez S, et al. **Nucleosides Nucleotides** 1999 Apr–May;18(4–5):1029–30

Selective inhibition of phospholipases by atiprimod, a macrophage targeting antiarthritic compound. Handler JA, et al. **Toxicol Appl Pharmacol** 1999 Aug 15;159(1):9–17

[Inhibition of corneal neovascularization—the possibility of inhibition by drug administration] Nii S, et al. **Nippon Ganka Gakkai Zasshi** 1999 Jan;103(1):12–7 (Eng. Abstr.) **(Jpn)**

THERAPEUTIC USE

A diacetylenic spiroketal enol ether epoxide, AL–1, from Artemisia lactiflora inhibits 12–O–tetradecanoylphorbol–13–acetate–induced tumor promotion possibly by suppression of oxidative stress. Nakamura Y, et al. **Cancer Lett** 1999 Jun 1;140(1–2):37–45

Discrepancy between serum leptin values and total body fat in response to the oral growth hormone secretagogue MK–677. Svensson J, et al. **Clin Endocrinol (Oxf)** 1999 Apr; 50(4):451–6

Treatment of obese subjects with the oral growth hormone secretagogue MK–677 affects serum concentrations of several lipoproteins, but not lipoprotein(a). Svensson J, et al. **J Clin Endocrinol Metab** 1999 Jun;84(6):2028–33

[Efficacy and tolerance of fenspiride in adult patients with acute respiratory tract infections] Plusa T, et al. **Pol Merkuriusz Lek** 1998 Dec;5(30):368–71 (Eng. Abstr.) **(Pol)**

TOXICITY

[Plant toxicity–coriamyrtin, anisatin, cicutoxin] Fujii M. **Ryoikibetsu Shokogun Shirizu** 1999;(27 Pt 2):682–4 (8 ref.) **(Jpn)**

SPIROCERCA see **THELAZIOIDEA**

SPIROCHAETACEAE

GENETICS

Variation amongst human isolates of Brachyspira (Serpulina) pilosicoli based on biochemical characterization and 16S rRNA gene sequencing. De Smet KA, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1257–63

ISOLATION & PURIFICATION

PCR amplification from fixed tissue indicates frequent involvement of Brachyspira aalborgi in human intestinal spirochetosis. Mikosza AS, et al. **J Clin Microbiol** 1999 Jun;37(6):2093–8

VIROLOGY

Search for bacteriophages spontaneously occurring in cultures of haemolytic intestinal spirochaetes of human and animal origin. Calderaro A, et al. **J Basic Microbiol** 1998; 38(5–6):313–22

Bacteriophages induced from weakly beta–haemolytic human intestinal spirochaetes by mitomycin C. Calderaro A, et al. **J Basic Microbiol** 1998;38(5–6):323–35

SPIROCHAETALES INFECTIONS

COMPLICATIONS

Confirmation of the role of rapidly fermentable carbohydrates in the expression of swine dysentery in pigs after experimental infection [published erratum appears in J Nutr 1999 Feb;129(2):447] Pluske JR, et al. **J Nutr** 1998 Oct;128(10):1737–44

Alzheimer's disease may not be a spirochetosis. McLaughlin R, et al. **Neuroreport** 1999 May 14;10(7):1489–91

DIAGNOSIS

Differentiation of Serpulina species by NADH oxidase gene (nox) sequence comparisons and nox–based polymerase chain reaction tests. Atyeo RF, et al. **Vet Microbiol** 1999 Jun 1;67(1):47–60

DRUG THERAPY

In vitro activity of four antimicrobial agents against North American isolates of porcine Serpulina pilosicoli. Duhamel GE, et al. **J Vet Diagn Invest** 1998 Oct;10(4):350–6

IMMUNOLOGY

Presence of 22– and 17–kDa proteins reacting with sera in mice experimentally infected with Brachyspira (Serpulina) hyodysenteriae. Sakurai T, et al. **J Vet Med Sci** 1998 Aug; 60(8):985–7

MICROBIOLOGY

Variation amongst human isolates of Brachyspira (Serpulina) pilosicoli based on biochemical characterization and 16S rRNA gene sequencing. De Smet KA, et al. **Int J Syst Bacteriol** 1998 Oct;48 Pt 4:1257–63

PATHOLOGY

PCR amplification from fixed tissue indicates frequent involvement of Brachyspira aalborgi in human intestinal spirochetosis. Mikosza AS, et al. **J Clin Microbiol** 1999 Jun;37(6):2093–8

VETERINARY

Isolation of Serpulina murdochii from the joint fluid of a lame pig. Hampson DJ, et al. **Aust Vet J** 1999 Jan;77(1):48

Analysis of Serpulina hyodysenteriae strain variation and its molecular epidemiology using pulsed-field gel electrophoresis. Atyeo RF, et al. **Epidemiol Infect** 1999 Aug;123(1):133–8

Minimum inhibitory concentration of selected antimicrobial agents for Serpulina isolated from chickens and rheas. Trampel DW, et al. **J Vet Diagn Invest** 1999 Jul; 11(4):379–82

Specific detection of the genus Serpulina, S. hyodysenteriae and S. pilosicoliin porcine intestines by fluorescent rRNA in situ hybridization. Boye M, et al. **Mol Cell Probes** 1998 Oct;12(5):323–30

Serological evidence of spirochaetal infections associated with digital dermatitis in dairy cattle. Demirkan I, et al. **Vet J** 1999 Jan;157(1):69–77

Treatment of swine dysentery--problems of antibiotic resistance and concurrent salmonellosis [letter] Gresham AC, et al. **Vet Rec** 1998 Nov 28;143(22):619

[Diagnosis of swine dysentery and spirochaetal diarrhea. 2. Effort of macrorestriction analysis for differentiation of intestinal Serpulina relative to determination by culture-biochemical markers following species classification] Feltrup C, et al.
DTW Dtsch Tierarztl Wochenschr 1999 Jun;106(6):234–41 (Eng. Abstr.) **(Ger)**

SPIROCHETE INFECTIONS see **SPIROCHAETALES INFECTIONS**

SPIRODIFLAMINE see **FLUSPIRILENE**

SPIROGYRA see **ALGAE, GREEN**

SPIROLACTONE see **SPIRONOLACTONE**

SPIROMETRA

Does the presence of Spirometra erinacei reduce the efficacy of praziquantel against Echinococcus granulosus in dogs? Jenkins DJ. **Int J Parasitol** 1998 Dec;28(12):1943–4

ISOLATION & PURIFICATION

Sparganosis of brain and spinal cord: unusual tapeworm infestation (report of two cases). Kudesia S, et al.
Clin Neurol Neurosurg 1998 Jun;100(2):148–52

Epidemiology of an intestinal parasite (Spirometra spp.) in two populations of African lions (Panthera leo). Müller-Graf CD, et al. **Parasitology** 1999 Apr;118 (Pt 4):407–15

SPIROMETRY

Spirometric correlates of improvement in exercise performance after anticholinergic therapy in chronic obstructive pulmonary disease. O'Donnell DE, et al.
Am J Respir Crit Care Med 1999 Aug;160(2):542–9

Exhaled nitric oxide after beta2-agonist inhalation and spirometry in asthma. Silkoff PE, et al.
Am J Respir Crit Care Med 1999 Mar;159(3):940–4

The use of side-stream spirometry to assess air leak during and after lung volume reduction surgery. Robinson RJ. **Anesthesiology** 1999 Aug;91(2):571–3

Comparison of exhaled nitric oxide to spirometry during emergency treatment of asthma exacerbations with glucocorticoids in children. Lanz MJ, et al.
Ann Allergy Asthma Immunol 1999 Feb;82(2):161–4

How accurate is spirometry at predicting restrictive pulmonary impairment? Aaron SD, et al. **Chest** 1999 Mar; 115(3):869–73

Interpreting spirometric data: impact of substitution of arm span for standing height in adults from North India. Aggarwal AN, et al. **Chest** 1999 Feb;115(2):557–62

Staging of bronchiolitis obliterans syndrome using home spirometry [see comments] Finkelstein SM, et al. **Chest** 1999 Jul;116(1):120–6. Comment in: Chest 1999 Jul;116(1):5–6.

Office spirometry: does poor quality render it impractical? [editorial; comment] Hankinson JL. **Chest** 1999 Aug; 116(2):276–7. Comment on: Chest 1999 Aug;116(2):416–23.

Can bronchiolitis obliterans syndrome be diagnosed by phone from the comfort of home? [editorial; comment] Levine SM. **Chest** 1999 Jul;116(1):5–6. Comment on: Chest 1999 Jul;116(1):120–6.

Effect of body posture on spirometric values and upper airway obstruction indices derived from the flow-volume loop in young nonobese subjects. Meysman M, et al.
Chest 1998 Oct;114(4):1042–7

Influence of age on diurnal variability in measurements of spirometric indices and respiratory pressures. Teramoto S, et al. **J Asthma** 1999 Sep;36(6):487–92

Post-thoracotomy spirometric lung function: the effect of analgesia. A review. Richardson J, et al.
J Cardiovasc Surg (Torino) 1999 Jun;40(3):445–56 (85 ref.)

Telematic system for monitoring of asthma severity in patients' homes. Finkelstein J, et al. **Medinfo** 1998;9 Pt 1:272–6

Hospital doctors' assessment of baseline spirometry. Stephenson N, et al. **Postgrad Med J** 1998 Sep; 74(875):537–40

GPs need open-access spirometry in COPD [editorial] Holmes B. **Practitioner** 1998 Mar;242(1584):153

[Spiroergometry in diagnosis of mitochondrial diseases] Sperfeld A, et al. **Nervenarzt** 1999 Feb;70(2):155–61 (Eng. Abstr.) **(Ger)**

[Value of spiro-ergometry and stress echocardiography on optimized programming of the upper frequency limit of dual chamber cardiac pacemakers] Krüger S, et al.
Z Kardiol 1998 Oct;87(10):817–25 (Eng. Abstr.) **(Ger)**

[Spirometry and arterial oxygen saturation on the ascent to Aneto] Compte Torrero L. **Arch Bronconeumol** 1999 May; 35 Suppl 3:55–60 **(Spa)**

[Spirometry in workers in a wheat-processing industry] Corzo G, et al. **Invest Clin** 1998 Sep;39(3):175–87 (Eng. Abstr.) **(Spa)**

HISTORY

[The fiftieth anniversary of Miodonski's electro-rhino-spirometry] Kowal E. **Otolaryngol Pol** 1999; 53(3):353–4 (Eng. Abstr.) **(Pol)**

INSTRUMENTATION

Standardized high-resolution CT of the lung using a spirometer-triggered electron beam CT scanner. Robinson TE, et al. **AJR Am J Roentgenol** 1999 Jun;172(6):1636–8

Contaminated aerosol recovery from pulmonary function testing equipment. Hiebert T, et al.
Am J Respir Crit Care Med 1999 Feb;159(2):610–2

Factitious halothane detection during trigger-free anesthesia in a malignant hyperthermia susceptible patient. Hawkes CA. **Can J Anaesth** 1999 Jun;46(6):567–70

Eleven peak flow meters: a clinical evaluation [letter; comment] Gregg I. **Eur Respir J** 1998 Aug;12(2):511–2; discussion 513. Comment on: Eur Respir J 1998 Jan;11(1):188–93.

A comparison of a new transtelephonic portable spirometer with a laboratory spirometer. Izbicki G, et al.
Eur Respir J 1999 Jul;14(1):209–13

Performance testing new peak flow meters [editorial; comment] Pedersen OF, et al. **Eur Respir J** 1998 Aug; 12(2):261–2. Comment on: Eur Respir J 1998 Aug;12(2):457–62.

Evaluation of a Pitot type spirometer in helium/oxygen mixtures. Søndergaard S, et al. **J Clin Monit Comput** 1998 Aug;14(6):425–31

[Prospective lung function determination using an electronic miniature spirometer for detection of acute obstructive respiratory changes in diving students during occupational diving training] Neubauer B, et al. **Pneumologie** 1999 Apr; 53(4):219–25 (Eng. Abstr.) **(Ger)**

[Value of spirometry-gated high resolution computerized tomography of the lung during inspiration and expiration] Kauczor HU, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1998 Dec;169(6):658–61 (Eng. Abstr.) **(Ger)**

METHODS

A cost-analysis of two approaches to infection control in a lung function laboratory [see comments] Side EA, et al. **Aust N Z J Med** 1999 Feb;29(1):9–14. Comment in: Aust N Z J Med 1999 Feb;29(1):3–4.

Simple forced oscillatory technique and spirometry in assessment of bronchial responsiveness in non-asthmatic and asthmatic subjects. Randell JT, et al. **Clin Physiol** 1999 Jul;19(4):321–8

Effect of nitric oxide, perfluorocarbon, and heliox on minute volume measurement and ventilator volumes delivered. Devabhaktuni VG, et al. **Crit Care Med** 1999 Aug; 27(8):1603–7

Chronic obstructive pulmonary disease and '150 years of blowing'. Miller MR. **Hosp Med** 1998 Sep;59(9):719–22 (25 ref.)

Detection of endotracheal tube obstruction by analysis of the expiratory flow signal. Guttmann J, et al.
Intensive Care Med 1998 Nov;24(11):1163–72

Telespirometry for home monitoring of pulmonary function [letter] Izbicki G, et al. **J R Soc Med** 1999 Mar;92(3):154–5

[Presentation of apparatus and methods of measurement] Le Roux P. **Arch Pediatr** 1999;6 Suppl 2:356s–357s **(Fre)**

[Possibilities opened by the negative expiratory pressure in respiratory function tests] Similowski T.
Rev Mal Respir 1999 Jan;16 Suppl 3:S101–3 **(Fre)**

STANDARDS

Relationship of the ECG with ventilatory function tests in chronic obstructive lung disease (COLD) in Nigerians. Bazuaye EA, et al. **Afr J Med Med Sci** 1997 Sep–Dec; 26(3–4):111–4

Spirometry in primary care practice: the importance of quality assurance and the impact of spirometry workshops. Eaton T, et al. **Chest** 1999 Aug;116(2):416–23

Paediatric reference values for spirometry. Kivastik J.
Clin Physiol 1998 Nov;18(6):489–97 (42 ref.)

Pitfalls in processing home electronic spirometric data in asthma. Reddel HK, et al. **Eur Respir J** 1998 Oct; 12(4):853–8

Spirometric reference equations for older adults. McDonnell WF, et al. **Respir Med** 1998 Jul;92(7):914–21

STATISTICS & NUMERICAL DATA

Paediatric reference values for spirometry. Kivastik J.
Clin Physiol 1998 Nov;18(6):489–97 (42 ref.)

Short-term variations in oscillatory and spirometric lung function parameters of non-asthmatic adults. Randell JT, et al. **Clin Physiol** 1999 Jul;19(4):329–37

Comparison of lung-function reference values. Baur X, et al. **Int Arch Occup Environ Health** 1999 Mar;72(2):69–83

[Quebec spirometry reference values] Martin RR, et al.
Rev Mal Respir 1998 Dec;15(6):781–8 (Eng. Abstr.) **(Fre)**

UTILIZATION

General practice spirometry in North Staffordshire. Dowson LJ, et al. **Monaldi Arch Chest Dis** 1999 Apr;54(2):186–8

VETERINARY

Spirometric variables recorded after lobeline administration in healthy Friesian and Belgian white and blue calves: normal values and effects of somatic growth. Bureau F, et al. **Vet J** 1999 May;157(3):302–8

SPIRONOLACTONE

ADMINISTRATION & DOSAGE

Six-year results of spironolactone and testolactone treatment of familial male-limited precocious puberty with addition of deslorelin after central puberty onset. Leschek EW, et al. **J Clin Endocrinol Metab** 1999 Jan;84(1):175–8

ADVERSE EFFECTS

Adverse effects of spironolactone therapy in women with acne [letter] Lubbos HG, et al. **Arch Dermatol** 1998 Sep; 134(9):1162–3

Evaluation of drug-induced photosensitivity by UVB photopatch testing. Schwarze HP, et al.
Contact Dermatitis 1998 Oct;39(4):200

Secondary hyperkalaemic paralysis [letter; comment] Gledhill RF. **J Neurol Neurosurg Psychiatry** 1998 Oct; 65(4):614. Comment on: J Neurol Neurosurg Psychiatry 1998 Feb;64(2):249–52.

[Effect of dexamethasone and spironolactone therapy in calcium and phosphate homeostasis in premature infants with a birth weight under 1,500 g] Sonntag J, et al.
Klin Padiatr 1998 Sep–Oct;210(5):354–7 (Eng. Abstr.) **(Ger)**

ANALOGS & DERIVATIVES

Spironolactone-related inhibitors of type II 17beta-hydroxysteroid dehydrogenase: chemical synthesis, receptor binding affinities, and proliferative/antiproliferative activities. Tremblay MR, et al. **Bioorg Med Chem** 1999 Jun;7(6):1013–23

Evaluation of RU28318 and RU40555 as selective mineralocorticoid receptor and glucocorticoid receptor antagonists, respectively: receptor measures and functional studies. Kim PJ, et al. **J Steroid Biochem Mol Biol** 1998 Nov;67(3):213–22

CHEMICAL SYNTHESIS

123I-MSP and F[11C]MSP: new selective 5-HT2A receptor radiopharmaceuticals for in vivo studies of neuronal 5-HT2 serotonin receptors. Synthesis, in vitro binding study with unlabelled analogues and preliminary in vivo evaluation in mice. Samnick S, et al. **Life Sci** 1998;63(22):2001–13

PHARMACOLOGY

Differential induction of glutathione S-transferase subunits by spironolactone in rat liver, jejunum and colon. Catania VA, et al. **Life Sci** 1998;63(26):2285–93

Inhibition of tissue repair by spironolactone: role of mineralocorticoids in fibrous tissue formation. Slight SH, et al. **Mol Cell Biochem** 1998 Dec;189(1–2):47–54

Environmental xenobiotics and the antihormones cyproterone acetate and spironolactone use the nuclear hormone pregnenolone X receptor to activate the CYP3A23 hormone response element. Schuetz EG, et al. **Mol Pharmacol** 1998 Dec;54(6):1113–7

Mineralocorticoid receptor blockade inhibits aggressive behaviour in male rats. Haller J, et al. **Stress** 1998 Jul; 2(3):201–7

THERAPEUTIC USE

Effects of spironolactone-altizide on left ventricular hypertrophy. Degre S, et al. **Acta Cardiol** 1998;53(5):261–7

Drug cuts deaths from heart failure by a third [news] Gottlieb S. **BMJ** 1999 Jul 31;319(7205):276

Why does spironolactone improve mortality over and above an ACE inhibitor in chronic heart failure? Struthers AD. **Br J Clin Pharmacol** 1999 May;47(5):479–82 (25 ref.)

Effects of spironolactone and angiotensin-converting enzyme inhibitor on left ventricular hypertrophy in patients with

SPIRONOLACTONE

essential hypertension. Sato A, et al. **Hypertens Res** 1999 Mar;22(1):17–22

Spironolactone, but not flutamide, administration prevents bone loss in hyperandrogenic women treated with gonadotropin-releasing hormone agonist. Moghetti P, et al. **J Clin Endocrinol Metab** 1999 Apr;84(4):1250–4

Aldosterone antagonism in heart failure. Richards AM, et al. **Lancet** 1999 Sep 4;354(9181):789–90

Spironolactone for heart failure. **Med Lett Drugs Ther** 1999 Sep 10;41(1061):81–2

The effect of spironolactone on morbidity and mortality in patients with severe heart failure. Randomized Aldactone Evaluation Study Investigators [see comments] Pitt B, et al. **N Engl J Med** 1999 Sep 2;341(10):709–17. Comment in: N Engl J Med 1999 Sep 2;341(10):753–5.

Aldosterone and spironolactone in heart failure [editorial; comment] Weber KT. **N Engl J Med** 1999 Sep 2; 341(10):753–5. Comment on: N Engl J Med 1999 Sep 2;341(10):709–17.

[Pharma-clinics. How I treat...symptomatic heart failure] Kulbertus H. **Rev Med Liege** 1999 Jul;54(7):625–8 (Eng. Abstr.) **(Fre)**

[The aldosterone antagonist spironolactone prolongs the survival of chronic heart failure patients. The results of the RALES study. The Randomized Aldactone Evaluation Study (editorial)] Schwinger RH. **Dtsch Med Wochenschr** 1999 Aug 27;124(34–35):987–8 **(Ger)**

[Spironolactone advantageous to heart failure patients] Brilla C. **Fortschr Med** 1999 May 20;117(14):48–9 **(Ger)**

[Spironolactone protection from hydralazine-induced stress in the rat myocardium] Póvoa R, et al. **Rev Port Cardiol** 1998 Sep;17(9):727–32 (Eng. Abstr.) **(Por)**

SPIROPERIDOL see **SPIPERONE**

SPIROPERONE see **SPIPERONE**

SPIROPLASMA

CLASSIFICATION

Invasion of one insect species, Adalia bipunctata, by two different male-killing bacteria. Hurst GD, et al. **Insect Mol Biol** 1999 Feb;8(1):133–9

Spiroplasma poulsonii sp. nov., a new species associated with male-lethality in Drosophila willistoni, a neotropical species of fruit fly. Williamson DL, et al. **Int J Syst Bacteriol** 1999 Apr;49 Pt 2:611–8

GENETICS

Gene organization and transcriptional analysis of the Spiroplasma citri rpsB/tsf/x operon. Le Dantec L, et al. **Curr Microbiol** 1998 Oct;37(4):269–73

ISOLATION & PURIFICATION

[Bacteria of the Spiroplasma genus infect two-spot ladybugs (Adalia bipunctata L.) in Russia] Zakharov IA, et al. **Dokl Akad Nauk** 1998 Oct;362(4):570–3 **(Rus)**

SPIROSTANS

CHEMISTRY

Carbohydrate modifications in the spirostane cellobioside cholesterol absorption inhibitor series. DeNinno MP, et al. **Bioorg Med Chem Lett** 1998 Jul 7;8(13):1623–8

Two new spirostanol saponins from Allium tuberosum. Sang S, et al. **J Nat Prod** 1999 Jul;62(7):1028–9

Steroidal saponins from the aerial parts of Dracaena draco and their cytostatic activity on HL-60 cells. Mimaki Y, et al. **Phytochemistry** 1999 Mar;50(5):805–13

ISOLATION & PURIFICATION

Constituents and bioactive principles of Polygonum chinensis. Tsai PL, et al. **Phytochemistry** 1998 Nov; 49(6):1663–6

SPIRURIDA INFECTIONS

[Gnathostomiasis] Fujita K. **Ryoikibetsu Shokogun Shirizu** 1999;(24 Pt 2):458–60 (7 ref.) **(Jpn)**

COMPLICATIONS

Clinical manifestations and immunodiagnosis of gnathostomiasis in Culiacan, Mexico. Diaz Camacho SP, et al. **Am J Trop Med Hyg** 1998 Dec;59(6):908–15

DIAGNOSIS

Human Gongylonema infection in a resident of New York City. Eberhard ML, et al. **Am J Trop Med Hyg** 1999 Jul; 61(1):51–2

Human gnathostomiasis (nodular migratory eosonophilic panniculitis). Ruiz-Maldonado R, et al. **Int J Dermatol** 1999 Jan;38(1):56–7

[Laboratory diagnosis of protozoan and parasitic infections. 2. Helminthiasis. i. Spirurida infections] Otaki R, et al. **Rinsho Byori** 1998 Nov;Suppl 108:258–63 (10 ref.) **(Jpn)**

EPIDEMIOLOGY

Spontaneous larval Gnathostoma nipponicum infection in frogs. Oyamada T, et al. **J Vet Med Sci** 1998 Sep; 60(9):1029–31

ETIOLOGY

Gnathostomosis, an emerging foodborne zoonotic disease in Acapulco, Mexico. Rojas-Molina N, et al. **Emerg Infect Dis** 1999 Mar–Apr;5(2):264–6

PARASITOLOGY

Human gnathostomiasis caused by Gnathostoma doloresi, with particular reference to the parasitological investigation of the causative agent. Akahane H, et al. **Ann Trop Med Parasitol** 1998 Sep;92(6):721–6

Three cases of human gnathostomiasis caused by Gnathostoma hispidum, with particular reference to the identification of parasitic larvae. Akahane H, et al. **Southeast Asian J Trop Med Public Health** 1998 Sep; 29(3):611–4

Morphological variation and abnormality of cephalic hooklets of Gnathostoma spinigerum hepatic stage larvae from laboratory infected mice. Rojekittikhun W, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):118–22

PATHOLOGY

Creeping eruption caused by a larva of the suborder Spirurina type X. Goto Y, et al. **Br J Dermatol** 1998 Aug;139(2):315–8 (21 ref.)

VETERINARY

Radiodiagnostic method for studying swimbladder inflammation caused by Anguillicola crassus (Nematoda: Dracunculoidea). Beregi A, et al. **Dis Aquat Organ** 1998 Oct 8;34(2):155–60

Amphibians and larvae of aquatic insects as new paratenic hosts of Anguillicola crassus (Nematoda: Dracunculoidea), a swimbladder parasite of eels. Moravec F, et al. **Dis Aquat Organ** 1998 Nov 30;34(3):217–22

A second record of adult Ascarops strongylina (Rudolphi, 1819) (Nematoda: Spirocercidae) in a rodent host. Ganzorig S, et al. **J Parasitol** 1999 Apr;85(2):283–5

First report of Thelazia sp. from a captive Oriental white stork (Ciconia boyciana) in Japan. Murata K, et al. **J Vet Med Sci** 1999 Jan;61(1):93–5

Spontaneous larval Gnathostoma nipponicum infection in frogs. Oyamada T, et al. **J Vet Med Sci** 1998 Sep; 60(9):1029–31

Gongylonema macrogubernaculum in captive African squirrels (Funisciurus substriatus and Xerus erythropus) and lion-tailed macaques (Macaca silenus). Craig LE, et al. **J Zoo Wildl Med** 1998 Sep;29(3):331–7

New observations on Mexiconema cichlasomae (Nematoda: Dracunculoidea) from fishes in Mexico. Moravec F, et al. **Parasite** 1998 Sep;5(3):289–93

[Physaloptera lutzi (Nematoda, Physalopteridae) parasite of Liolaemus (Iguania, Tropiduridae) from north-western Argentina] Ramallo G, et al. **Bol Chil Parasitol** 1998 Jan–Jun;53(1–2):19–22 (Eng. Abstr.) **(Spa)**

SPIRURINA

Creeping eruption caused by a larva of the suborder Spirurina type X. Goto Y, et al. **Br J Dermatol** 1998 Aug;139(2):315–8 (21 ref.)

SPIRUROIDEA

CLASSIFICATION

Larval nematodes (Spiruroidea: Cystidicolidae) in Octopus vulgaris (Mollusca: Cephalopoda: Octopodidae) from the northeastern Atlantic Ocean. Gestal C, et al. **J Parasitol** 1999 Jun;85(3):508–11

ISOLATION & PURIFICATION

A second record of adult Ascarops strongylina (Rudolphi, 1819) (Nematoda: Spirocercidae) in a rodent host. Ganzorig S, et al. **J Parasitol** 1999 Apr;85(2):283–5

Gongylonema macrogubernaculum in captive African squirrels (Funisciurus substriatus and Xerus erythropus) and lion-tailed macaques (Macaca silenus). Craig LE, et al. **J Zoo Wildl Med** 1998 Sep;29(3):331–7

[Physaloptera lutzi (Nematoda, Physalopteridae) parasite of Liolaemus (Iguania, Tropiduridae) from north-western Argentina] Ramallo G, et al. **Bol Chil Parasitol** 1998 Jan–Jun;53(1–2):19–22 (Eng. Abstr.) **(Spa)**

PATHOGENICITY

Human Gongylonema infection in a resident of New York City. Eberhard ML, et al. **Am J Trop Med Hyg** 1999 Jul; 61(1):51–2

SPITZ NEVUS see **NEVUS, EPITHELIOID AND SPINDLE CELL**

SPLANCHNIC CIRCULATION

Reperfusion-induced changes in capillary perfusion and filtration: effects of hypercholesterolemia. Harris NR. **Am J Physiol** 1999 Aug;277(2 Pt 2):H669–75

Effects of adrenaline or endotoxin tolerance states on mesenteric blood flow in endotoxaemia. Baykal A, et al. **Aust N Z J Surg** 1999 Feb;69(2):134–7

Multiple visceral aneurysms presenting with haemobilia. Yeung YP, et al. **Aust N Z J Surg** 1999 Jul;69(7):545–6

Temporal effects of prolonged hypoxaemia and reoxygenation on systemic, pulmonary and mesenteric perfusions in newborn piglets. Cheung PY, et al. **Cardiovasc Res** 1998 Aug;39(2):451–8

Accelerated splanchnic amino acid uptake after cardiac surgery. Suojaranta-Ylinen R, et al. **Clin Nutr** 1998 Apr; 17(2):51–5

Splanchnic and systemic haemodynamic response to volume changes in patients with cirrhosis and portal hypertension. Vlavianos P, et al. **Clin Sci (Colch)** 1999 May;96(5):475–81

Total splanchnic resuscitation, SIRS, and MODS [editorial; comment] Marik PE. **Crit Care Med** 1999 Feb;27(2):257–8 (43 ref.). Comment on: Crit Care Med 1999 Feb;27(2):394–400.

Splanchnic and leg substrate exchange after ingestion of a natural mixed meal in humans. Capaldo B, et al. **Diabetes** 1999 May;48(5):958–66

Operations that require supracoeliac aortic cross-clamping: perioperative monitoring with gastric tonometry. Geelkerken RH, et al. **Eur J Surg** 1999 Jan;165(1):15–20

Pneumoperitoneum for laparoscopic cholecystectomy is not associated with compromised splanchnic circulation. Odeberg S, et al. **Eur J Surg** 1998 Nov;164(11):843–8

Is organ ischaemia a determinant of the outcome of operations for suprarenal aortic aneurysms? Vermeulen EG, et al. **Eur J Surg** 1999 May;165(5):441–5

'Nonportal' splanchnic venous supply to the liver: abnormal findings on CT, US and MRI. Itai Y, et al. **Eur Radiol** 1999;9(2):237–43 (35 ref.)

Hepatic and Splanchnic Circulation in Health and Disease. Inverness, Scotland, 20–23 June 1999. Proceedings and abstracts. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1406–490

Hepatic and splanchnic microvascular responses to inflammation and shock. McCuskey RS. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1464–7 (49 ref.)

Hepatic blood flow and splanchnic oxygen consumption in patients with liver failure. Effect of high-volume plasmapheresis. Clemmesen JO, et al. **Hepatology** 1999 Feb; 29(2):347–55

Contrast-enhanced three-dimensional magnetic resonance angiography of the splanchnic vasculature before and after caloric stimulation. Original investigation. Hany TF, et al. **Invest Radiol** 1998 Sep;33(9):682–6

Application of high-performance liquid chromatography of plasma fatty acids as their phenacyl esters to evaluate splanchnic and renal fatty acid balance in vivo. Zaitseva I, et al. **J Chromatogr B Biomed Sci Appl** 1999 Apr 30; 727(1–2):15–22

Recumbent posture may lead to esophageal variceal bleeding in postprandial phase [editorial; comment] Hashizume M. **J Gastroenterol** 1999 Jun;34(3):428–30. Comment on: J Gastroenterol 1999 Jun;34(3):359–65.

Upright posture blunts postprandial splanchnic hyperemia in patients with cirrhosis and portal hypertension [see comments] Iwao T, et al. **J Gastroenterol** 1999 Jun; 34(3):359–65. Comment in: J Gastroenterol 1999 Jun;34(3):428–30.

IL-6 knock-out mice exhibit resistance to splanchnic artery occlusion shock. Cuzzocrea S, et al. **J Leukoc Biol** 1999 Sep;66(3):471–80

Gut rot. Marston A. **Lancet** 1999 May 29;353(9167):1875–7

Both positive and negative portal venous and hepatic arterial glucose gradients stimulate hepatic glucose uptake after the same amount of glucose is infused into the splanchnic bed in conscious dogs. Horikawa S, et al. **Metabolism** 1998 Nov;47(11):1295–302

Observations on the accuracy of photometric techniques used to measure some in vivo microvascular blood flow parameters. Cokelet GR, et al. **Microcirculation** 1998; 5(1):61–70

Pressure-volume relationships in sheep mesenteric lymphatic vessels in situ: response to hypovolemia. Li B, et al. **Microvasc Res** 1998 Sep;56(2):127–38

Role of enteral nutrition-induced splanchnic hyperemia in ameliorating splanchnic ischemia [editorial] Eleftheriadis E. **Nutrition** 1999 Mar;15(3):247–8 (13 ref.)

Splanchnic uptake of leucine in healthy children and in children with cystic fibrosis. Kien CL, et al. **Pediatr Res** 1999 May;45(5 Pt 1):680–3

[Duplex Doppler sonography of splanchnic circulation in man. Clinical and physiological importance] Dauzat M, et al. **Gastroenterol Clin Biol** 1998 Apr;22(4):394–404 (111 ref.) **(Fre)**

[Difference between gastric mucosal pCO2 and arterio-intramucosal pCO2 during orthotopic liver transplantation] Krenn CG, et al. **Wien Klin Wochenschr** 1999 Jul 30;111(14):555–9 (Eng. Abstr.) **(Ger)**

[Splanchnic hypoperfusion and distant organ injury] Koike K, et al. **Nippon Geka Gakkai Zasshi** 1999 May;

100(5):357-60 (17 ref.) (Eng. Abstr.) **(Jpn)**
[Neuronal control of mesenteric circulation] Takenaga M, et al. **Nippon Yakurigaku Zasshi** 1999 Apr;113(4):249-59 (79 ref.) (Eng. Abstr.) **(Jpn)**

DRUG EFFECTS

Effects of the carbonic anhydrase inhibitor acetazolamide on splanchnic blood flow in anaesthetized rats. Carlsson PO, et al. **Acta Diabetol** 1998 Dec;35(4):215-9
Long-term haemodynamic effects of octreotide on postprandial splanchnic hyperemia in humans: a placebo-controlled echo-doppler study. Ludwig D, et al. **Aliment Pharmacol Ther** 1999 Aug;13(8):1119-29
L-Arginine restores splenocyte functions after trauma and hemorrhage potentially by improving splenic blood flow. Angele MK, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C145-51
Vasoconstrictor actions of atrial natriuretic peptide in the splanchnic circulation of anesthetized dogs. Woods RL. **Am J Physiol** 1998 Dec;275(6 Pt 2):R1822-32
A dobutamine test can disclose hepatosplanchnic hypoperfusion in septic patients. Creteur J, et al. **Am J Respir Crit Care Med** 1999 Sep;160(3):839-45
Effect of caffeine on neonatal splanchnic blood flow. Lane AJ, et al. **Arch Dis Child Fetal Neonatal Ed** 1999 Mar; 80(2):F128-9
Effects of dopexamine on blood flow in multiple splanchnic sites measured by laser Doppler velocimetry in rabbits undergoing cardiopulmonary bypass. Bastien O, et al. **Br J Anaesth** 1999 Jan;82(1):104-9
Epidural analgesia with bupivacaine does not improve splanchnic tissue perfusion after aortic reconstruction surgery. Väisänen O, et al. **Br J Anaesth** 1998 Dec; 81(6):893-8
Aminoguanidine ameliorates splanchnic hyposensitivity to glypressin in a haemorrhage-transfused rat model of portal hypertension. Chu CJ, et al. **Clin Sci (Colch)** 1998 Nov; 95(5):629-36
Neither dopamine nor dobutamine corrects mesenteric blood flow depression caused by positive end-expiratory pressure in a rat model of acute lung injury. Lee RD, et al. **Crit Care Med** 1998 Nov;26(11):1875-80
Intestinal mucosal permeability: mechanisms and implications for treatment [editorial; comment] Marik PE, et al. **Crit Care Med** 1999 Aug;27(8):1650-1 (24 ref.). Comment on: Crit Care Med 1999 Aug;27(8):1429-36.
An intensivist's dilemma: support of the splanchnic circulation in critical illness [editorial; comment] Marshall JC. **Crit Care Med** 1998 Oct;26(10):1637-8 (20 ref.). Comment on: Crit Care Med 1998 Oct;26(10):1749-58.
Impact of exogenous beta-adrenergic receptor stimulation on hepatosplanchnic oxygen kinetics and metabolic activity in septic shock [see comments] Reinelt H, et al. **Crit Care Med** 1999 Feb;27(2):325-31. Comment in: Crit Care Med 1999 Feb;27(2):242-3.
Catecholamines and the splanchnic circulation [editorial; comment] Russell JA. **Crit Care Med** 1999 Feb;27(2):242-3 (13 ref.). Comment on: Crit Care Med 1999 Feb;27(2):325-31.
Differential regulation of amino acid exchange and protein dynamics across splanchnic and skeletal muscle beds by insulin in healthy human subjects. Meek SE, et al. **Diabetes** 1998 Dec;47(12):1824-35
Effects of different octreotide dosages on splanchnic hemodynamics and glucagon in healthy volunteers. Schiedermaier P, et al. **Digestion** 1999 Mar-Apr; 60(2):132-40
Sulfatide reduces leucocyte accumulation and reverts vascular failure in splanchnic artery occlusion shock. Squadrito F, et al. **Eur J Pharmacol** 1998 Nov 13; 361(1):101-8
Protective effects of the new lazaroid "U-83836E" in splanchnic artery occlusion (SAO) shock. Campo GM, et al. **Free Radic Res** 1998 May;28(5):477-84
Inhaled prostacyclin: from pulmonary hypertension to splanchnic hypoperfusion. Brienza N. **Intensive Care Med** 1998 Nov;24(11):1228-30
Markers of splanchnic perfusion and intestinal translocation of endotoxins during cardiopulmonary bypass: effects of dopamine and milrinone. McNicol L, et al. **J Cardiothorac Vasc Anesth** 1999 Jun;13(3):292-8
Blood digestion-induced splanchnic hyperemia and portal blood flow in portal hypertensive rats and the role of octreotide. Kotzampassi K, et al. **J Gastroenterol** 1998 Oct; 33(5):678-83
Intraportal administration of glyceryl trinitrate or nitroprusside exerts more systemic than intrahepatic effects in anaesthetised cirrhotic rats. Van de Casteele M, et al. **J Hepatol** 1999 Aug;31(2):300-5
Effect of cardiopulmonary bypass and calcium administration on the splanchnic circulation. Lee R, et al. **J Invest Surg** 1998 Jul-Aug;11(4):251-8
Regional hemodynamic effects of dopamine in the sick preterm neonate [see comments] Seri I, et al. **J Pediatr** 1998 Dec;133(6):728-34. Comment in: J Pediatr 1998 Dec;133(6):719-20. Comment in: J Pediatr 1999 Jul;135(1)135-6.
Mechanisms of endothelin-induced venoconstriction in isolated guinea pig mesentery. Johnson RJ, et al. **J Pharmacol Exp Ther** 1999 May;289(2):762-7
The chronic effect of vascular endothelial growth factor on individually perfused frog mesenteric microvessels. Bates DO. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):225-33
Acute effects of tumor necrosis factor on hydraulic conductivity of mammalian postcapillary venules. Skinner RA, et al. **J Trauma** 1999 Sep;47(3):486-91
Attenuation of diabetes-associated mesenteric vascular hypertrophy with perindopril: morphological and molecular biological studies. Cooper ME, et al. **Metabolism** 1998 Dec;47(12 Suppl 1):24-7
Platelet activating factor (PAF) increases leukocyte adhesion but does not alter vessel diameter in the rat mesenteric microcirculation. Smalley DM, et al. **Microvasc Res** 1998 Nov;56(3):271-6
Mast cell degranulation in rat mesenteric venule: effects of L-NAME, methylene blue and ketotifen. Kimura M, et al. **Pharmacol Res** 1999 May;39(5):397-402
Profile of neurohumoral agents on mesenteric and intestinal blood flow in health and disease. Hansen MB, et al. **Physiol Res** 1998;47(5):307-27 (130 ref.)
Time-course of the alterations in prostanoid production and in contractile responses of mesenteric beds isolated from streptozotocin diabetic rats. Peredo HA, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Apr; 60(4):269-74
Splanchnic and renal blood flow after cardiopulmonary resuscitation with epinephrine and vasopressin in pigs. Prengel AW, et al. **Resuscitation** 1998 Jul;38(1):19-24
Beneficial effects of prostaglandin E1 on ischemic colitis following surgery on the abdominal aorta. Nakai M, et al. **Surg Today** 1998;28(11):1146-53
[Perfusion and metabolism of liver and splanchnic nerve area under sevoflurane anesthesia] Schindler E, et al. **Anaesthesist** 1998 Nov;47 Suppl 1:S19-23 (60 ref.) (Eng. Abstr.) **(Ger)**
[Effects of octreotide (somatostatin analog SMS 201-995) on superior mesenteric artery blood flow in swine. An experimental study using Doppler color ultrasonography] Tocchi A, et al. **G Chir** 1999 Jan-Feb;20(1-2):9-13 (Eng. Abstr.) **(Ita)**

PHYSIOLOGY

Splanchnic circulation is maintained during passive hyperventilation in orthotopic liver recipients. Krenn CG, et al. **Acta Anaesthesiol Scand** 1999 May;43(5):515-9
Involvement of the human splanchnic circulation in pressor response induced by handgrip contraction. Waaler BA, et al. **Acta Physiol Scand** 1999 Jun;166(2):131-6
Influence of local haemodynamics on leucocyte rolling and chemoattractant-induced firm adhesion in microvessels of the rat mesentery. Xie X, et al. **Acta Physiol Scand** 1999 Mar;165(3):251-8
Superior mesenteric artery impedance in chronic liver diseases: relationship with disease severity and portal circulation. Piscaglia F, et al. **Am J Gastroenterol** 1998 Oct; 93(10):1925-30
Responses of mesenteric and renal blood flow dynamics to acute denervation in anesthetized rats. Abu-Amarah I, et al. **Am J Physiol** 1998 Nov;275(5 Pt 2):R1543-52
Modified hemoglobins produce venular interendothelial gaps and albumin leakage in the rat mesentery. Baldwin AL. **Am J Physiol** 1999 Aug;277(2 Pt 2):H650-9
Mechanisms underlying the anti-inflammatory actions of central corticotropin-releasing factor. Casadevall M, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G1016-26
Time course of endothelial-neutrophil interaction in splanchnic artery ischemia-reperfusion. Hayward R, et al. **Am J Physiol** 1998 Dec;275(6 Pt 2):H2080-6
Histamine sensitivity of mesenteric afferent nerves in the rat jejunum. Kreis ME, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):G675-80
Splanchnic retention of intraduodenal and intrajejunal glucose in healthy adults. Livesey G, et al. **Am J Physiol** 1998 Oct;275(4 Pt 1):E709-16
Age, splanchnic vasoconstriction, and heat stress during tilting. Minson CT, et al. **Am J Physiol** 1999 Jan;276(1 Pt 2):R203-12
Factors mediating the hemodynamic effects of tumor necrosis factor-alpha in portal hypertensive rats. Muñoz J, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):G687-93
Hyperglycemia-induced inhibition of splanchnic fatty acid oxidation increases hepatic triacylglycerol secretion. Sidossis LS, et al. **Am J Physiol** 1998 Nov;275(5 Pt 1):E798-805
NO overproduction by eNOS precedes hyperdynamic splanchnic circulation in portal hypertensive rats. Wiest R, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):G1043-51
Cadherin-5 redistribution at sites of TNF-alpha and IFN-gamma-induced permeability in mesenteric venules. Wong RK, et al. **Am J Physiol** 1999 Feb;276(2 Pt 2):H736-48
Effect of feed interval and feed type on splanchnic haemodynamics. Lane AJ, et al. **Arch Dis Child Fetal Neonatal Ed** 1998 Jul;79(1):F49-53
Recombinant human erythropoietin inhibits iNOS activity and reverts vascular dysfunction in splanchnic artery occlusion shock. Squadrito F, et al. **Br J Pharmacol** 1999 May;127(2):482-8
Tacrolimus suppresses tumour necrosis factor-alpha and protects against splanchnic artery occlusion shock. Squadrito F, et al. **Br J Pharmacol** 1999 May; 127(2):498-504
Characterization of a major slow oscillation in the mesenteric circulation of conscious rats. Létienne R, et al. **Clin Exp Pharmacol Physiol** 1998 Oct;25(10):820-4
Physiological control of splanchnic blood flow by adrenaline: studies during acute hypoglycaemia in man. Parker DR, et al. **Clin Sci (Colch)** 1999 Jun;96(6):623-9
How to use articles about diagnostic technology: gastric tonometry. Keenan SP, et al. **Crit Care Med** 1999 Sep; 27(9):1726-31 (38 ref.)
Acute hyperglycaemia causes severe disturbances of mesenteric microcirculation in an in vivo rat model. Schäffler A, et al. **Eur J Clin Invest** 1998 Nov;28(11):886-93
The role of intra-abdominal pressure on splanchnic and pulmonary hemodynamic and metabolic changes during carbon dioxide pneumoperitoneum. Windberger UB, et al. **Gastrointest Endosc** 1999 Jan;49(1):84-91
Effect of meal induced splanchnic arterial vasodilatation on renal arterial haemodynamics in normal subjects and patients with cirrhosis. Iwao T, et al. **Gut** 1998 Dec; 43(6):843-8
Splanchnic circulatory physiology. Ralevic V. **Hepatogastroenterology** 1999 Jun;46 Suppl 2:1409-13 (35 ref.)
Systemic and splanchnic hemodynamic changes after liver transplantation for cirrhosis: a long-term prospective study. Piscaglia F, et al. **Hepatology** 1999 Jul;30(1):58-64
Doppler study of mesenteric, hepatic, and portal circulation in alcoholic cirrhosis: relationship between quantitative Doppler measurements and the severity of portal hypertension and hepatic failure [see comments] Taourel P, et al. **Hepatology** 1998 Oct;28(4):932-6. Comment in: Hepatology 1999 May;29(5):1610.
Splanchnic arterial Doppler parameters in portal hypertension [letter; comment] Valgimigli M, et al. **Hepatology** 1999 May;29(5):1610. Comment on: Hepatology 1998 Oct;28(4):932-6.
Dialysis hypotension and splanchnic circulation [editorial] Yu AW, et al. **Int J Artif Organs** 1998 Dec;21(12):774-7
Evidence of splanchnic-brain signaling in inhibition of ingestive behavior by middle molecules. Mamoun AH, et al. **J Am Soc Nephrol** 1999 Feb;10(2):309-14
Splanchnic hemodynamics and gut mucosal-arterial PCO(2) gradient during systemic hypocapnia. Guzman JA, et al. **J Appl Physiol** 1999 Sep;87(3):1102-6
Reduced blood flow in abdominal viscera measured by Doppler ultrasound during one-legged knee extension. Osada T, et al. **J Appl Physiol** 1999 Feb;86(2):709-19
Differential regulation of mesenteric and femoral blood flow in the rat as revealed by computerized data acquisition and evaluation. Heinemann A, et al. **J Auton Pharmacol** 1998 Feb;18(1):39-48
Case 2-1999. Severe lactic acidosis after cardiac surgery: sign of perfusion deficits? [clinical conference] Boldt J, et al. **J Cardiothorac Vasc Anesth** 1999 Apr;13(2):220-4
Effect of cardiopulmonary bypass and calcium administration on the splanchnic circulation. Lee R, et al. **J Invest Surg** 1998 Jul-Aug;11(4):251-8
The effects of flow on the transport of potassium ions through the walls of single perfused frog mesenteric capillaries. Kajimura M, et al. **J Physiol (Lond)** 1998 Sep 15;511 (Pt 3):707-18
Reflex control of splanchnic blood volume in anaesthetized dogs. Noble BJ, et al. **J Physiol (Lond)** 1998 Nov 15;513 (Pt 1):263-72
Mesenteric, coeliac and splanchnic blood flow in humans during exercise. Perko MJ, et al. **J Physiol (Lond)** 1998 Dec 15;513 (Pt 3):907-13
Endothelium-dependent hyperpolarization and intercellular electrical coupling in guinea-pig mesenteric arterioles. Yamamoto Y, et al. **J Physiol (Lond)** 1999 Jan 15;514 (Pt 2):505-13
Effects of severe hypoxemia on mesenteric blood flow in neonatal piglets. Mace TP, et al. **J Surg Res** 1998 Dec; 80(2):287-94
Modification of the cardiovascular response to hemorrhage by somatic afferent nerve stimulation with special reference to gut and skeletal muscle blood flow. Mackway-Jones K, et al. **J Trauma** 1999 Sep;47(3):481-5
Increased leukocyte-endothelial interaction in the mesenteric microcirculation following remote ischemia-reperfusion. Sobral do Rosário H, et al. **Microvasc Res** 1999 Mar; 57(2):199-202
Splanchnic tissue perfusion in acute experimental pancreatitis. Juvonen PO, et al. **Scand J Gastroenterol** 1999 Mar; 34(3):308-14
Peripheral blood flow response to step-wise increase of arterial pressure in conscious rats. Iriuchijima J. **Tohoku J Exp Med** 1998 Jul;185(3):199-207
Duodenal meal stimulation leads to coeliac artery vasoconstriction and superior mesenteric artery vasodilatation: an intra-abdominal ultrasound study. Geelkerken RH, et al. **Ultrasound Med Biol** 1998 Nov; 24(9):1351-6
[Image analysis of the microvascular permeability to various molecular weight of flucrescein in rat mesentery] Hu J, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov;13(4):352-5 (Eng. Abstr.) **(Chi)**
[Study on Servo-null method for direct measurement of microvascular pressure by micropuncture technique] Jin Z, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):83-5 (Eng. Abstr.) **(Chi)**
[Procalcitonin after extracorporeal circulation. Synthesis in the hepatosplanchnic region] Silomon M, et al.

SPLANCHNIC CIRCULATION

Anaesthesist 1999 Jun;48(6):395–8 (Eng. Abstr.) **(Ger)**
[Interventional radiology in acute mesenteric ischemia] Schindler G.
Anasthesiol Intensivmed Notfallmed Schmerzther 1999 Aug; 34(8):504–5 **(Ger)**
[The status of splanchnic blood circulation in patients with varicose veins of the esophagus and stomach in liver cirrhosis] Kotenko OG. **Klin Khir** 1999;(4):12–6 (Eng. Abstr.) **(Rus)**
[Splanchnic circulation after distal splenorenal anastomosis in hepatic cirrhosis] Shalimov AA, et al. **Klin Khir** 1999; (5):8–13 (Eng. Abstr.) **(Rus)**

SPLANCHNIC NERVES

Effect and clinical value of splanchnic nerve block of hemodynamics in ACST. Zheng Q, et al.
J Tongji Med Univ 1997;17(3):182–6
[Cutaneous-splanchnic neurofibromatosis (see comments)] Darie H, et al. **Ann Dermatol Venereol** 1998 Aug; 125(8):509–11 (Eng. Abstr.). Comment in: Ann Dermatol Venereol 1998 Aug;125(8):486–8. **(Fre)**

DRUG EFFECTS

Anorectic effect of amylin is not transmitted by capsaicin-sensitive nerve fibers. Lutz TA, et al.
Am J Physiol 1998 Jun;274(6 Pt 2): R1777–82
Central autonomic activation by intracisternal TRH analogue excites gastric splanchnic afferent neurons. Adelson DW, et al. **J Neurophysiol** 1999 Feb;81(2):682–91

PHYSIOLOGY

Role of nitric oxide in adrenal catecholamine secretion in anesthetized dogs. Nagayama T, et al. **Am J Physiol** 1998 Oct;275(4 Pt 2):R1075–81
Influences of neck afferents on sympathetic and respiratory nerve activity. Bolton PS, et al. **Brain Res Bull** 1998 Nov 15;47(5):413–9
Effects of bilateral splanchnic-nerve section and chemical sympathectomy on PACAP38 content in the rat adrenals. Ginda WJ, et al. **Horm Metab Res** 1999 Jun;31(6):367–9

SURGERY

Endoscopic palliative treatment of advanced pancreatic cancer: thoracoscopic splanchnicectomy and laparoscopic gastrojejunostomy. Giraudo G, et al. **Ann Oncol** 1999;10 Suppl 4:278–80
Effects of bilateral splanchnic-nerve section and chemical sympathectomy on PACAP38 content in the rat adrenals. Ginda WJ, et al. **Horm Metab Res** 1999 Aug;31(8):483–5
Thoracoscopic splanchnicectomy for "small duct" chronic pancreatitis: case selection by differential epidural analgesia. Bradley EL 3rd, et al. **J Gastrointest Surg** 1998 Jan-Feb;2(1):88–94
Management of chylothorax after thoracoscopic splanchnicectomy. Selzer DJ, et al.
J Laparoendosc Adv Surg Tech A 1999 Jun;9(3):273–6
Thoracoscopic splanchnicectomy: pilot evaluation of a simple alternative for chronic pancreatic pain control. Moodley J, et al. **World J Surg** 1999 Jul;23(7):688–92
[Splanchnicectomy using thoracoscopy] Arnaud JP, et al. **J Chir (Paris)** 1997 Dec;134(7–8):322–4 (Eng. Abstr.) **(Fre)**
[Surgical pain therapy in inoperable metastatic epigastric tumor by bilateral thoracoscopic splanchnicectomy] Inderbitzin D, et al. **Schweiz Med Wochenschr** 1998 Sep 19;128(38):1408–13 (Eng. Abstr.) **(Ger)**

SPLEEN

see related
SPLENECTOMY
Ultrasound and Doppler features of accessory spleens and splenic grafts [letter; comment] Henderson RG.
Br J Radiol 1998 Dec;71(852):1333. Comment on: Br J Radiol 1998 Jun;71(846):595–600.
Value of splenic preservation during distal pancreatectomy for chronic pancreatitis. Govil S, et al. **Br J Surg** 1999 Jul;86(7):895–8
Transplantation of fetal liver tissue suspension into the spleens of adult syngenic rats: effects of various mitogens and cytotoxins on cytochrome P450 (P450) isoforms expression and on P450 mediated monooxygenase functions. Lupp A, et al. **Exp Toxicol Pathol** 1999 Jul;51(4–5):375–88
Intrasplenic transplantation of allogeneic hepatocytes prolongs survival in anhepatic rats. Arkadopoulos N, et al. **Hepatology** 1998 Nov;28(5):1365–70
Intrapancreatic accessory spleen. A rare cause of a pancreatic mass. Läuffer JM, et al. **Int J Pancreatol** 1999 Feb; 25(1):65–8
Splenic infarction after total pancreatectomy and autologous islet transplantation into the spleen. White SA, et al.
Pancreas 1999 May;18(4):419–21
Tribute to a triad: history of splenic anatomy, physiology, and surgery-part 2. McClusky DA 3rd, et al.
World J Surg 1999 May;23(5):514–26
Tribute to a triad: history of splenic anatomy, physiology, and surgery--part 1. McClusky DA 3rd, et al.
World J Surg 1999 Mar;23(3):311–25

ABNORMALITIES

Polysplenia syndrome detected in adulthood: report of eight cases and review of the literature. Gayer G, et al.
Abdom Imaging 1999 Mar-Apr;24(2):178–84 (17 ref.)
Accessory wandering spleen associated with short pancreas. A pediatric case report. Kaniklides C, et al.
Acta Radiol 1999 Jan;40(1):104–6
Acute abdomen due to spontaneous torsion of an accessory spleen [letter] Padilla D, et al. **Am J Emerg Med** 1999 Jul; 17(4):429–30
Asplenia as a cause of sudden unexpected death in childhood. Kanthan R, et al. **Am J Forensic Med Pathol** 1999 Mar; 20(1):57–9
Accessory splenectomy in the management of recurrent immune thrombocytopenic purpura. Walters DN, et al.
Am Surg 1998 Nov;64(11):1077–8
Pelvic spleen masquerading as an ovarian neoplasm. Khalid A, et al. **Ann Acad Med Singapore** 1998 Sep;27(5):710–1
Scintigraphic diagnosis of polysplenia in the adult. Derbekyan VA, et al. **Clin Nucl Med** 1999 Mar;24(3):161–3
Tc-99m phytate images in a patient with a wandering spleen. Ohta H, et al. **Clin Nucl Med** 1999 Jun;24(6):458–9
Congenital asplenia detected in a 60 year old patient with septicemia. Germing U, et al. **Eur J Med Res** 1999 Jul 28;4(7):283–5
Quiz case 5. Pneumococcal sepsis in a patient with hereditary hypoplasia of the spleen. Henk C, et al. **Eur J Radiol** 1999 Mar;29(3):259–61
Acute abdomen due to torsion of wandering spleen: CT diagnosis. Raissaki M, et al. **Eur Radiol** 1998;8(8):1409–12
Esophageal duplication cyst coexisting with Bochdalek's hernia and polysplenia. Seçil M, et al. **Eur Radiol** 1999; 9(3):478–80
Life-threatening babesiosis in an asplenic patient treated with exchange transfusion, azithromycin, and atovaquone. Bonoan JT, et al. **Heart Lung** 1998 Nov-Dec;27(6):424–8
Chylothorax in a polysplenia infant with cor triatriatum, pulmonary stenosis and sick sinus syndrome. Noguchi A, et al. **Heart Vessels** 1997;12(5):247–9
Laparoscopic splenopexy of a wandering spleen. Haj M, et al. **J Laparoendosc Adv Surg Tech A** 1999 Aug;9(4):357–60
What is a false-positive somatostatin receptor scintigraphy? [letter; comment] Reubi JC. **J Nucl Med** 1998 Dec; 39(12):2193–4. Comment on: J Nucl Med 1997 Dec;38(12):1979–81.
Management of a wandering spleen. Lane TM, et al.
J R Soc Med 1999 Feb;92(2):84–5
Assessment of splenic function in familial asplenia [letter] Feder HM Jr, et al. **N Engl J Med** 1999 Jul 15;341(3):210–2
The five syndromes and more [editorial] Drut R.
Pediatr Dev Pathol 1999 Jan-Feb;2(1):1–2
Sonographic findings in splenogonadal fusion. Cirillo RL Jr, et al. **Pediatr Radiol** 1999 Jan;29(1):73–5
Intestinal rotational abnormalities in polysplenia and asplenia syndromes. Ditchfield MR, et al. **Pediatr Radiol** 1998 May; 28(5):303–6
Index of Suspicion. Case 1. Diagnosis: asplenia. Kohli-Kumar M, et al. **Pediatr Rev** 1999 May;20(5):175–6
Epidermoid cyst in a wandering spleen. Baglaj M, et al.
Pediatr Surg Int 1998 Nov;14(1–2):113–5
Gastric pneumatosis associated with preduodenal portal vein, duodenal atresia, and asplenia. Kataria R, et al.
Pediatr Surg Int 1998 Nov;14(1–2):100–1
Splenunculus mimicking late local recurrence of renal cell carcinoma. Froehner M, et al. **Scand J Urol Nephrol** 1998 Dec;32(6):418–9
Laparoscopic management of accessory spleens in immune thrombocytopenic purpura. Morris KT, et al.
Surg Endosc 1999 May;13(5):520–2
Inadequate detection of accessory spleens and splenosis with laparoscopic splenectomy: a shortcoming of the laparoscopic approach inhematological diseases [letter; comment] Targarona EM, et al. **Surg Endosc** 1999 Feb; 13(2):196–7; discussion 198–9. Comment on: Surg Endosc 1998 Feb;12(2):101–6.
Laparoscopic splenopexy for wandering (pelvic) spleen. Cohen MS, et al. **Surg Laparosc Endosc** 1998 Aug; 8(4):286–90
[A wandering spleen] Weijmer MC, et al.
Ned Tijdschr Geneeskd 1998 Aug 22;142(34):1927–9 (Eng. Abstr.) **(Dut)**
[The wandering spleen caught in the net. Apropos of a case (letter)] Etienne JC, et al. **Ann Chir** 1998;52(7):666 **(Fre)**
[Viscero-atrial heterotaxia (letter)] Edmar A, et al.
Arch Pediatr 1999 Feb;6(2):225–6 **(Fre)**
[Splenic volvulus or the syndrome of the wandering spleen (letter)] Kerleau JM, et al. **Rev Med Interne** 1998 Nov; 19(11):837–8 **(Fre)**
[Vaccination after splenectomy and in asplenia (letter)] Germing U. **Internist (Berl)** 1998 Nov;39(11):1201–2 **(Ger)**
[The wandering spleen--a rare differential diagnosis of acute abdomen] Fasse A, et al.
Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr 1999 Apr;170(4):404–5 **(Ger)**
[What is your diagnosis? Polysplenia syndrome (syn. cardiosplenic syndrome, Ivemark syndrome, left isometry, bilateral left-sidedness)] Hauser M, et al.
Schweiz Rundsch Med Prax 1998 Oct 7;87(41):1339–44 **(Ger)**
[A case of accessory spleen presenting as retroperitoneal tumor] Kato Y, et al. **Hinyokika Kiyo** 1998 Oct; 44(10):711–4 (20 ref.) (Eng. Abstr.) **(Jpn)**
[A case of successful palliative operation of asplenia syndrome with total anomalous pulmonary venous return in young infant] Endoh M, et al. **Kyobu Geka** 1999 Sep; 52(10):860–3 (Eng. Abstr.) **(Jpn)**
[Mobile spleen] Kurguzov OP, et al. **Khirurgiia (Mosk)** 1999; (1):66–9 (138 ref.) **(Rus)**
[Accessory spleen in hepatic cirrhosis: incidence and characteristics of Doppler ultrasonography duplex color (letter)] Martinez A, et al. **Gastroenterol Hepatol** 1999 Feb; 22(2):115 **(Spa)**
[Continuous splenic-gonadal fusion: a case report] Orellana ME, et al. **Invest Clin** 1999 Mar;40(1):67–73 (Eng. Abstr.) **(Spa)**

BLOOD SUPPLY

Portal, mesenteric, and splenic vein thromboses after splenectomy in a patient with chronic myeloid leukemia variant with thrombocythemic onset. Lee JJ, et al.
Am J Hematol 1999 Jul;61(3):212–5
A new splenic artery Doppler velocimetric index for prediction of severe fetal anemia associated with Rh alloimmunization. Bahado-Singh R, et al.
Am J Obstet Gynecol 1999 Jan;180(1 Pt 1):49–54
Stress fiber networks in sinus endothelial cells in the rat spleen. Uehara K, et al. **Anat Rec** 1999 Jan;254(1):22–7
Splenic crisis at high altitude in 2 white men with sickle cell trait. Tiernan CJ. **Ann Emerg Med** 1999 Feb; 33(2):230–3
Ovarian carcinoma presenting with a splenic infarct [letter] Hausdorff J, et al. **Arch Intern Med** 1999 Sep 13; 159(16):1959
Splenic vascular lesions: unusual features and a review of the literature. Lam KY, et al. **Aust N Z J Surg** 1999 Jun; 69(6):422–5 (64 ref.)
Splenorenal shunt with underlying cirrhosis of the liver. Berg CL, et al. **Gastroenterology** 1999 Jul;117(1):6, 289
The role of intra-abdominal pressure on splanchnic and pulmonary hemodynamic and metabolic changes during carbon dioxide pneumoperitoneum. Windberger UB, et al.
Gastrointest Endosc 1999 Jan;49(1):84–91
Can clamping of splenic vessels prevent abrupt increase of portal vein pressure and migration of transplanted hepatocytes to the liver after intrasplenic hepatocyte transplantation? Kim WH, et al. **Hepatogastroenterology** 1998 Nov-Dec;45(24):2425–9
The true splenic blood supply and its surgical applications. Romero-Torres R. **Hepatogastroenterology** 1998 May-Jun; 45(21):885–8
Intra-operative color Doppler ultrasonography for assessing splenic blood supply during spleen-preserving distal pancreatectomy: a case report. Sato Y, et al.
Hepatogastroenterology 1999 Jan-Feb;46(25):540–2
Splenorenal shunt blood flow by transit-time ultrasound as an index of collateral circulation in portal hypertensive rats. Calès P, et al. **Hepatology** 1998 Nov;28(5):1269–74
Detection of phenotypic heterogeneity within the murine splenic vasculature using rat monoclonal antibodies IBL-7/1 and IBL-7/22. Balázs M, et al. **Hybridoma** 1999 Apr;18(2):177–82
Images of Interest. Hepatobiliary and pancreatic: an alcoholic man with a lesion in the splenic hilum. Okuda K, et al.
J Gastroenterol Hepatol 1999 Feb;14(2):197; discussion 198
Intravascular infection with Lactobacillus paracasei. Sturdee S, et al. **J Infect** 1998 Sep;37(2):184–6
Contrast-enhanced 3D-MRA of the upper abdomen with a bolus-injectable SPIO (SH U 555 A). Reimer P, et al.
J Magn Reson Imaging 1999 Jul;10(1):65–71
Massive haemoperitoneum due to rupture of splenic infarct during CAPD. Kanagasundaram NS, et al.
Nephrol Dial Transplant 1998 Sep;13(9):2380–1
Systemic mast cell disease with splenic infarction: a case report. Maruyama H, et al. **Pathol Int** 1998 May; 48(5):403–11
Unusual vascular changes in the red pulp of the spleen accompanying breast carcinoma metastasis. Chapel F, et al. **Pathol Res Pract** 1999;195(1):53–6; discussion 57–8
[Littoral cell angioma: a rare vascular splenic tumor] Parrens M, et al. **Ann Pathol** 1998 Dec;18(6):484–7 (Eng. Abstr.) **(Fre)**
[Post-traumatic intrasplenic arteriovenous fistula in a child. Spontaneous regression] Henry C, et al. **J Radiol** 1998 Mar; 79(3):271–3 (Eng. Abstr.) **(Fre)**
[Splenic infarct in heterozygote sickle cell trait (Hb AS)] von Känel R, et al. **Schweiz Med Wochenschr** 1998 Oct 17;128(42):1614–7 (Eng. Abstr.) **(Ger)**
[Kinking of spleen in child] Shchitinin VE, et al.
Khirurgiia (Mosk) 1999;(3):61 **(Rus)**
[Splenic blood circulation in liver cirrhosis with portal hypertension syndrome] Bulanov KI. **Klin Khir** 1998; (8):29–31 (Eng. Abstr.) **(Rus)**
[Therapeutic embolization of the spleen] Pervulov S, et al.
Vojnosanit Pregl 1998 Nov-Dec;55(6):657–63 (Eng. Abstr.) **(Scc)**
[Ischemic necrosis of the spleen and gastric fundus. A rare complication of acute pancreatitis (letter)] Soria Aledo V, et al. **Gastroenterol Hepatol** 1999 Apr;22(4):209 (8 ref.) **(Spa)**

CHEMISTRY

Occurrence of bovine spleen CD38/NAD+glycohydrolase

disulfide-linked dimers. Berruet L, et al. **Biochem Mol Biol Int** 1998 Nov;46(4):847-55

Corticotropin-releasing factor receptor 1 in mouse spleen: expression after immune stimulation and identification of receptor-bearing cells. Radulovic M, et al. **J Immunol** 1999 Mar 1;162(5):3013-21

GC/MS analysis of anandamide and quantification of N-arachidonoylphosphatidylethanolamides in various brain regions, spinal cord, testis, and spleen of the rat. Yang HY, et al. **J Neurochem** 1999 May;72(5):1959-68

Splenic and hepatic hemozoin in mice after malaria parasite clearance. Levesque MA, et al. **J Parasitol** 1999 Jun; 85(3):570-3

Role of phosphate and kinetic characteristics of complete iron release from native pig spleen ferritin-Fe. Huang HQ, et al. **J Protein Chem** 1999 May;18(4):497-504

CYTOLOGY

An image analysis strategy to determine the distribution of cell types in spleen sections. Carol M, et al. **Acta Histochem** 1999 Jul;101(3):281-91

Norepinephrine stimulates lymphoid cell mobilization from the perfused rat spleen via beta-adrenergic receptors. Rogausch H, et al. **Am J Physiol** 1999 Mar;276(3 Pt 2):R724-30

Roles of a macrophage receptor with collagenous structure (MARCO) in host defense and heterogeneity of splenic marginal zone macrophages. Ito S, et al. **Arch Histol Cytol** 1999 Mar;62(1):83-95

Effects of low-level 50 Hz magnetic fields on the level of host defense and on spleen colony formation. Korneva HA, et al. **Bioelectromagnetics** 1999;20(1):57-63

Definition of dendritic cell subpopulations present in the spleen, Peyer's patches, lymph nodes, and skin of the mouse. Anjuère F, et al. **Blood** 1999 Jan 15;93(2):590-8

Long-term contribution to the myeloid compartment by lineage-committed stem cells. Chen CC, et al. **Blood** 1998 Nov 1;92(9):3210-7

Marginal-zone B cells in the human lymph node and spleen show somatic hypermutations and display clonal expansion. Tierens A, et al. **Blood** 1999 Jan 1;93(1):226-34

Spleen stromal cells support haemopoiesis and in vitro growth of dendritic cells from bone marrow. Ni K, et al. **Br J Haematol** 1999 Apr;105(1):58-67

Effects of matrine on mouse splenocyte proliferation and release of interleukin-1 and -6 from peritoneal macrophages in vitro. Hu ZL, et al. **Chung Kuo Yao Li Hsueh Pao** 1996 May;17(3):259-61

Abdominal surgery reduces the ability of rat spleen cells to synthesize and secrete active tumour necrosis factor-alpha (TNF-alpha) by a multilevel regulation. Lahat N, et al. **Clin Exp Immunol** 1999 Jan;115(1):19-25

Macrophage Fcgamma receptors expression is altered by treatment with dopaminergic drugs. Gomez F, et al. **Clin Immunol** 1999 Mar;90(3):375-87

Spleen cells of non-obese diabetic mice fed with pig splenocytes display modified proliferation and reduced aggressiveness in vitro against pig islet cells. You S, et al. **Diabetologia** 1998 Aug;41(8):955-62

Enhancement of terminal B lymphocyte differentiation in vitro by fibroblast-like stromal cells from human spleen. Skibinski G, et al. **Eur J Immunol** 1998 Dec;28(12):3940-8

Can clamping of splenic vessels prevent abrupt increase of portal vein pressure and migration of transplanted hepatocytes to the liver after intrasplenic hepatocyte transplantation? Kim WH, et al. **Hepatogastroenterology** 1998 Nov-Dec;45(24):2425-9

A stromal cell line from rainbow trout spleen, RTS34ST, that supports the growth of rainbow trout macrophages and produces conditioned medium with mitogenic effects on leukocytes. Ganassin RC, et al. **In Vitro Cell Dev Biol Anim** 1999 Feb;35(2):80-6

Alterations of lymphocyte populations in lymph nodes but not in spleen during the latency period of adjuvant arthritis. Rodriguez-Palmero M, et al. **Inflammation** 1999 Apr; 23(2):153-65

IgG1 production by sIgD+ splenic B cells and peritoneal B-1 cells in response to IL-5 and CD38 ligation. Yasue T, et al. **Int Immunol** 1999 Jun;11(6):915-23

Intragastric administration of ursodeoxycholic acid suppresses immunoglobulin secretion by lymphocytes from liver, but not from peripheral blood, spleen or Peyer's patches in mice. Yoshikawa M, et al. **Int J Immunopharmacol** 1998 Jan-Mar;20(1-3):29-38

Intrathymic and intrasplenic oxidative stress mediates thymocyte and splenocyte damage in acutely exercised mice. Azenabor AA, et al. **J Appl Physiol** 1999 Jun; 86(6):1823-7

Generation of splenic follicular structure and B cell movement in tumor necrosis factor-deficient mice. Cook MC, et al. **J Exp Med** 1998 Oct 19;188(8):1503-10

Chemokines and the homing of dendritic cells to the T cell areas of lymphoid organs [comment] Cyster JG. **J Exp Med** 1999 Feb 1;189(3):447-50. Comment on: J Exp Med 1999 Feb 1;189(3):451-60.

B cell development in the spleen takes place in discrete steps and is determined by the quality of B cell receptor-derived signals. Loder F, et al. **J Exp Med** 1999 Jul 5;190(1):75-89

Identification of functional human splenic memory B cells by expression of CD148 and CD27. Tangye SG, et al. **J Exp Med** 1998 Nov 2;188(9):1691-703

IgMhighCD21high lymphocytes enriched in the splenic marginal zone generate effector cells more rapidly than the bulk of follicular B cells. Oliver AM, et al. **J Immunol** 1999 Jun 15;162(12):7198-207

Experimental murine Trypanosoma congolense infections. II. Role of splenic adherent CD3+Thy1.2+ TCR-alpha beta-gamma delta- CD4+8- and CD3+Thy1.2+ TCR-alpha beta- gamma delta- CD4-8- cells in the production of IL-4, IL-10, and IFN-gamma and in trypanosome-elicited immunosuppression. Uzonna JE, et al. **J Immunol** 1998 Dec 1;161(11):6189-97

In vitro evaluation of nanoparticles spleen capture. Demoy M, et al. **Life Sci** 1999;64(15):1329-37

Immunization with PIII, a fraction of Schistosoma mansoni soluble adult worm antigenic preparation, affects nitric oxide production by murine spleen cells. de Oliveira DM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:175-80

Comparison of T-cell receptor Jbeta gene usage in spleen cells of different mouse strains. Kato T, et al. **Microbiol Immunol** 1999;43(1):93-7

Induction of apoptosis and tyrosine phosphorylation of cellular proteins in T cells and non-T cells by stimulation with concanavalin A. Nagase F, et al. **Microbiol Immunol** 1998;42(8):567-74

Concanavalin A modulates tyrosine phosphorylation and activation of a type II phosphatidylinositol 4-kinase in rat splenic lymphocytes. Fernandis AZ, et al. **Mol Immunol** 1998 Oct;35(14-15):935-41

Adrenergic modulation of apoptosis in splenocytes of Xenopus laevis in vitro. Haberfeld M, et al. **Neuroimmunomodulation** 1999 May-Jun;6(3):175-81

Potent suppressive effects of urocortin on splenic lymphocyte activity in rats. Okamoto S, et al. **Neuroreport** 1998 Dec 21;9(18):4035-9

Cocaine induced T cell proliferation in the rat: role of amygdala dopamine D1 receptors. Caroleo MC, et al. **Neurosci Lett** 1998 Nov 6;256(2):61-4

Mesenteric lymph node T cells but not splenic T cells maintain their proliferative response to concanavalin-A following peroral infection with Toxoplasma gondii. Neyer LE, et al. **Parasite Immunol** 1998 Dec;20(12):573-81

Glaucine analogues as inhibitors of mouse splenocyte activity. Philipov S, et al. **Pharmazie** 1998 Oct;53(10):694-8

Granulocyte colony-stimulating factor and drugs elevating extracellular adenosine act additively to enhance the hemopoietic spleen colony formation in irradiated mice. Hofer M, et al. **Physiol Res** 1999;48(1):37-42

Dose-dependent effects of dietary gamma-linolenic acid on rat spleen lymphocyte functions. Peterson LD, et al. **Prostaglandins Leukot Essent Fatty Acids** 1999 Jul; 61(1):19-24

Lymphocyte subset analyses in blood, spleen and lymph nodes of female Sprague-Dawley rats after short or prolonged exposure to a 50 Hz 100-microT magnetic field. Thun-Battersby S, et al. **Radiat Res** 1999 Oct;152(4):436-43

Photodynamic alteration of the surface receptor expression pattern of murine splenic dendritic cells. King DE, et al. **Scand J Immunol** 1999 Feb;49(2):184-92

c-kit<low Pluripotent hemopoietic stem cells form CFU-S on day 16. Lian Z, et al. **Stem Cells** 1999;17(1):39-44

Pre-transplant donor-specific transfusions induce allograft rejection and IL-2 gene expression in the WKY->F344 functional tolerance model of rat lung transplantation. Okada Y, et al. **Transpl Immunol** 1998 Sep;6(3):137-46

The effect of methimazole, iodine and splenocytes on thyroid transplants in BB/Wor rats. Allen EM, et al. **Transplantation** 1999 Jul 15;68(1):25-30

Prolongation of survival of primary renal allografts by feeding of donor spleen cells. Carr RI, et al. **Transplantation** 1998 Oct 27;66(8):976-82

[RU486 reverses dexamethasone-mediated suppression of IL-2 receptor expressions in lymphocytes of rat spleen] Liang F, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Feb; 13(1):50-2 (Eng. Abstr.) **(Chi)**

[The use of microfluorimetric analysis for the studies of the influence of changed gravity on isolated lymphocytes in the spleen of the mouse] Turovetskii VB, et al. **Aviakosm Ekolog Med** 1999;33(2):12-5 (Eng. Abstr.) **(Rus)**

[Morphologic rearrangement of lymphoid organs of birds and tailless amphibia during surgical intervention on internal organs] Dzhivanian KA, et al. **Biull Eksp Biol Med** 1998 Sep;126(9):357-60 **(Rus)**

[Age-related changes in the stromal clonogenic cell number in the hematopoietic and lymphoid organs] Fridenshtein AIa, et al. **Biull Eksp Biol Med** 1999 May;127(5):550-3 **(Rus)**

DRUG EFFECTS

Effect of dietary vitamin E supplementation on murine nasal allergy. Zheng K, et al. **Am J Med Sci** 1999 Jul; 318(1):49-54

Assessment of apoptosis occurring in spleen cells from nitrogen mustard-treated or gamma-irradiated mice. Hugel B, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3289-94

Phospholipase A2 inhibitors p-bromophenacyl bromide and arachidonyl trifluoromethyl ketone suppressed interleukin-2 (IL-2) expression in murine primary splenocytes. Ouyang Y, et al. **Arch Toxicol** 1999 Feb; 73(1):1-6

The effect of single administration of aflatoxin B1 and ACTH on the intensity of acid phosphatase reaction in bursa Fabricii and in periellipsoidal lymphatic tissue of the spleen of ducklings. Slowik J, et al. **Arch Vet Pol** 1993; 33(3-4):197-204

Increase in lactate dehydrogenase isoenzyme-4 and splenocyte toxicity in methomyl-treated rats. Lohitnavy O, et al. **Arh Hig Rada Toksikol** 1998 Sep;49(3):231-8

Immunomodulatory activity of thunberginol A and related compounds isolated from Hydrangeae Dulcis Folium on splenocyte proliferation activated by mitogens. Matsuda H, et al. **Bioorg Med Chem Lett** 1998 Feb 3;8(3):215-20

Effects of 3alpha- and 3beta-galactosylated alpha-galactosylceramides on the immune system. Sakai T, et al. **Bioorg Med Chem Lett** 1999 Mar 8;9(5):697-702

IFN-gamma-mediated prevention of graft-versus-host disease: pharmacodynamic studies and influence on proliferative capacity of chimeric spleen cells. Brok HP, et al. **Bone Marrow Transplant** 1998 Nov;22(10):1005-10

Simultaneous exposure to interleukin-18 and interleukin-10 in vitro synergistically augments murine spleen natural killer cell activity. Micallef MJ, et al. **Cancer Immunol Immunother** 1999 May-Jun;48(2-3):109-17

Effects of some 1,4-dihydropyridine Ca antagonists on the blast transformation of rat spleen lymphocytes. Briede J, et al. **Cell Biochem Funct** 1999 Jun;17(2):97-105

Differentially increased IL-6 mRNA expression in liver and spleen following injection of liposome-encapsulated haemoglobin. Zhu XL, et al. **Cytokine** 1999 Sep; 11(9):696-703

The effects of dehydroepiandrosterone (DHEA) on the thymus, spleen, and adrenals of prepubertal and adult female rats. Parker CR Jr, et al. **Endocr Res** 1998 May; 24(2):113-26

Central injection of nicotine increases hepatic and splenic interleukin 6 (IL-6) mRNA expression and plasma IL-6 levels in mice: involvement of the peripheral sympathetic nervous system. Song DK, et al. **FASEB J** 1999 Jul; 13(10):1259-67

The porphyrin photosensitizer Photofrin elevates murine splenic erythropoiesis. Hunt DW, et al. **Immunopharmacol Immunotoxicol** 1998 Aug;20(3):409-20

In vivo effects of CHOP protocol on onco and suppressor gene expression: follow-up study. Ember I, et al. **In Vivo** 1998 Sep-Oct;12(5):489-94

Tamoxifen exerts testosterone-dependent and independent effects on thymic involution. Sfikakis PP, et al. **Int J Immunopharmacol** 1998 Jun;20(6):305-12

Effect of protein kinase inhibitors on primary antibody induction in tissue cultures. Sterzl J, et al. **Int J Immunopharmacol** 1998 Oct;20(10):583-7

Effects of low doses of carcinogen and different antibodies on the splenic lymphoid system of p53 transgenic mice: morphometric and immunohistochemical studies. Gurevich P, et al. **Int J Mol Med** 1999 Aug;4(2):197-202

Cocaine administration induces human splenic constriction and altered hematologic parameters. Kaufman MJ, et al. **J Appl Physiol** 1998 Nov;85(5):1877-83

Difference in the effects of radioprotection between aerial and root parts of Lycium chinense. Hsu HY, et al. **J Ethnopharmacol** 1999 Feb;64(2):101-8

Effects of streptococcal preparation OK-432 on cytokine induction in spleen and tumour tissues of mice bearing MH-134 tumour cells. Nakatani S, et al. **J Int Med Res** 1999 Jan-Feb;27(1):27-37

Oromucosal interferon therapy: pharmacokinetics and pharmacodynamics. Eid P, et al. **J Interferon Cytokine Res** 1999 Feb;19(2):157-69

16-Epiestriol, a novel anti-inflammatory nonglycogenic steroid, does not inhibit IFN-gamma production by murine splenocytes. Miller E, et al. **J Interferon Cytokine Res** 1998 Nov;18(11):921-5

Lipopolysaccharide activation of murine splenocytes and splenic B cells increased the expression of aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator. Marcus RS, et al. **J Pharmacol Exp Ther** 1998 Dec;287(3):1113-8

Selective antitumor activity of MKT-077, a delocalized lipophilic cation, on normal cells and cancer cells in vitro. Chiba Y, et al. **J Surg Oncol** 1998 Oct;69(2):105-10

Iron exacerbates aniline-associated splenic toxicity. Khan MF, et al. **J Toxicol Environ Health** 1999 Jun 11; 57(3):173-84

Cytokine production by C57BL/6 mouse spleen cells is selectively reduced by exposure to propanil. Zhao W, et al. **J Toxicol Environ Health** 1998 Sep 25;55(2):107-20

Increased splenic capacity in response to transdermal application of nitroglycerine in the dog. Parameswaran N, et al. **J Vet Intern Med** 1999 Jan-Feb;13(1):44-6

Requirement of cytokines for augmentation of the antigen-specific antibody responses by ascorbate in cultured murine T-cell-depleted splenocytes. Mitsuzumi H, et al. **Jpn J Pharmacol** 1998 Oct;78(2):169-79

Interactions between estrogen, tamoxifen, octylphenol, and two polychlorinated biphenyls in murine splenocytes. Nair-Menon JU, et al. **Life Sci** 1999;65(11):1125-33

Melatonin: immune modulation of spleen cells in young, middle-aged and senescent mice. Atre D, et al. **Mech Ageing Dev** 1998 Jul 15;103(3):255-68

Marked granulocytic proliferation induced by granulocyte colony-stimulating factor in the spleen simulating a myeloid leukemic infiltrate. Vasef MA, et al. **Mod Pathol** 1998 Nov;11(11):1138-41

Functional characterization of alpha1-adrenoceptor subtypes

in the rabbit spleen. Oriowo MA.
Naunyn Schmiedebergs Arch Pharmacol 1998 Sep; 358(3):301–7

Potent suppressive effects of urocortin on splenic lymphocyte activity in rats. Okamoto S, et al. **Neuroreport** 1998 Dec 21;9(18):4035–9

Activation of spleen lymphocytes by plasmid DNA. Rykova E, et al. **Nucleosides Nucleotides** 1999 Jun–Jul; 18(6–7):1693–5

Enhancement of haemopoietic spleen colony formation by drugs elevating extracellular adenosine: effects of repeated in vivo treatment. Hofer M, et al. **Physiol Res** 1997; 46(4):285–90

Effects of six endodontic cements on the cells of the murine immune system in vitro. Molina–Guarneros JA, et al.
Proc West Pharmacol Soc 1998;41:47–50

Short–term macrophage interleukin–1 response to injected silicone in a rat model. Das SK, et al.
Res Commun Mol Pathol Pharmacol 1998 Sep; 101(3):289–96

A study of ENU–induced mutagenesis in the mouse using the restriction site mutation (RSM) assay. Jenkins GJ, et al. **Teratog Carcinog Mutagen** 1999;19(4):281–92

Oxidative modification of lipids and proteins in aniline–induced splenic toxicity. Khan MF, et al.
Toxicol Sci 1999 Mar;48(1):134–40

Quantitative relationships between the suppression of selected immunological parameters and the area under the corticosterone concentration vs. time curve in B6C3F1 mice subjected to exogenous corticosterone or to restraint stress. Pruett SB, et al. **Toxicol Sci** 1999 Jun;49(2):272–80

Acute immunotoxicity of p–chloronitrobenzene in mice: II. Effect of p–chloronitrobenzene on the immunophenotype of murine splenocytes determined by flow cytometry. Li Q, et al. **Toxicology** 1999 Sep 10;137(1):35–45

In vitro exposure effects of cyclosporin A and bis(tri–n–butyltin)oxide on lymphocyte proliferation, cytokine (receptor) mRNA expression, and cell surface marker expression in rat thymocytes and splenocytes. Vandebriel RJ, et al. **Toxicology** 1999 Jul 1;135(1):49–66

Injection of mitomycin–C–treated spleen cells induces donor–specific unresponsiveness to cardiac allografts in rats. Tanigawa T, et al. **Transplantation** 1999 Mar 15; 67(5):653–8

Activation of spleen lymphocytes by plasmid DNA. Rykova EY, et al. **Vaccine** 1999 Mar 5;17(9–10):1193–200

[Ultrastructural changes in the axons in the feline spleen under the influence of large doses of lipopolysaccharide] Netukova NI, et al. **Morfologiia** 1998;114(4):44–7 (Eng. Abstr.) **(Rus)**

EMBRYOLOGY

Allometric growth of spleen and liver in black–white bovine fetuses (Bos primigenius f. taurus). Kalisińska E, et al.
Arch Vet Pol 1993;33(3–4):223–36

Targeted disruption of the homeobox transcription factor Nkx2–3 in mice results in postnatal lethality and abnormal development of small intestine and spleen. Pabst O, et al.
Development 1999 May;126(10):2215–25

The T–cell oncogenic protein HOX11 activates Aldh1 expression in NIH 3T3 cells but represses its expression in mouse spleen development. Greene WK, et al.
Mol Cell Biol 1998 Dec;18(12):7030–7

Early ontogeny of monocytes and macrophages in the pig. Reháková Z, et al. **Physiol Res** 1998;47(5):357–63

The mouse bagpipe gene controls development of axial skeleton, skull, and spleen. Lettice LA, et al.
Proc Natl Acad Sci U S A 1999 Aug 17;96(17):9695–700

ENZYMOLOGY

Activity of cathepsins in rat's spleen due to experimentally induced pancreatitis. Maciejewski R, et al.
Acta Physiol Hung 1997–98;85(4):335–45

Characterization of the enzymatic activity for biphasic competition by guanoxabenz (1–(2,6–dichlorobenzylidene–amino)–3–hydroxyguanidine) at alpha2–adrenoceptors. II. Description of a xanthine–dependent enzymatic activity in spleen cytosol. Dambrova M, et al. **Biochem Pharmacol** 1998 Nov 1; 56(9):1121–8

Characterization of the enzymatic activity for biphasic competition by guanoxabenz (1–(2,6–dichlorobenzylidene–amino)–3–hydroxyguanidine) at alpha2–adrenoceptors. I. Description of an enzymatic activity in spleen membranes. Uhlén S, et al.
Biochem Pharmacol 1998 Nov 1;56(9):1111–9

Early differential expression of two glutaminase mRNAs in mouse spleen after tumor implantation. Aledo JC, et al.
Cancer Lett 1998 Nov 13;133(1):95–9

Age–associated alterations in splenic iNOS regulation: influence of constitutively expressed IFN–gamma and correction following supplementation with PPARalpha activators or vitamin E. Poynter ME, et al.
Cell Immunol 1999 Aug 1;195(2):127–36

Protein tyrosine phosphorylation activates rat splenic type II phosphatidylinositol 4–kinase in vitro. Fernandis AZ, et al. **FEBS Lett** 1998 Dec 28;441(3):432–6

Evidence for tissue–specific forms of glutaminyl cyclase. Sykes PA, et al. **FEBS Lett** 1999 Jul 16;455(1–2):159–61

Mouse leukotriene A4 hydrolase is expressed at high levels in intestinal crypt cells and splenic lymphocytes. Habib GM, et al. **Gene** 1999 Jul 8;234(2):249–55

Nitric oxide synthase expression in macrophages of Histoplasma capsulatum–infected mice is associated with splenocyte apoptosis and unresponsiveness. Wu–Hsieh BA, et al. **Infect Immun** 1998 Nov;66(11):5520–6

Ornithine decarboxylase in organs of rat following chronic gamma–irradiation at low dose–rates. Slozhenikina LV, et al. **Int J Radiat Biol** 1999 Feb;75(2):193–9

gamma–glutamyl leukotrienase, a gamma–glutamyl transpeptidase gene family member, is expressed primarily in spleen. Carter BZ, et al. **J Biol Chem** 1998 Oct 23; 273(43):28277–85

In vivo and in vitro iron deficiency reduces protein kinase C activity and translocation in murine splenic and purified T cells. Kuvibidila SR, et al. **J Cell Biochem** 1999 Sep 1; 74(3):468–78

Endogenous opioids regulate the expression of inducible nitric oxide synthase by splenocytes. Lysle DT, et al.
J Pharmacol Exp Ther 1999 Feb;288(2):502–8

Xenobiotic–metabolizing enzymes in carp (Cyprinus carpio) liver, spleen, and head kidney following experimental Listeria monocytogenes infection. Chambras C, et al.
J Toxicol Environ Health 1999 Feb 12;56(3):205–19

Recombinant bovine spleen myristoyl CoA: protein N–myristoyltransferase. Raju RV, et al.
Mol Cell Biochem 1998 Dec;189(1–2):91–7

Interactions of calf spleen purine nucleoside phosphorylase with antiviral acyclic nucleoside phosphonate inhibitors: kinetics and emission studies. Wierzchowski J, et al.
Nucleosides Nucleotides 1999 Apr–May;18(4–5):875–6

[Telomerase activity in the mouse bone marrow and subpopulations of spleen colony–forming units] Todriia TV, et al. **Biull Eksp Biol Med** 1999 Mar;127(3):311–3 **(Rus)**

GROWTH & DEVELOPMENT

Development of the thymus, spleen, lymph nodes and liver in the marsupial, Isoodon macrourus (Northern brown bandicoot, Peramelidae). Cisternas PA, et al.
Anat Embryol (Berl) 1999 Oct;200(4):433–43

Mature follicular dendritic cell networks depend on expression of lymphotoxin beta receptor by radioresistant stromal cells and of lymphotoxin beta and tumor necrosis factor by B cells. Endres R, et al. **J Exp Med** 1999 Jan 4;189(1):159–68

[Growth of the cloacal bursa (bursa of Fabricius) and spleen in ducks] Gille U, et al. **Anat Histol Embryol** 1999 Aug; 28(4):229–33 (Eng Abstr.) **(Ger)**

IMMUNOLOGY

Effect of dietary vitamin E supplementation on murine nasal allergy. Zheng K, et al. **Am J Med Sci** 1999 Jul; 318(1):49–54

T helper–2 type of interleukins with de novo germinal center formation in the spleen during murine pregnancy. Hegde UC, et al. **Am J Reprod Immunol** 1998 Dec;40(6):424–30

Improved antibody responses to delayed pneumococcal vaccination in splenectomized rats. Werner AM, et al.
Am Surg 1999 Sep;65(9):844–7; discussion 847–8

Tumor–preventive effects of the soluble p53 antigen on chemically–induced skin cancer in mice. Ben–Hur H, et al. **Anticancer Res** 1998 Nov–Dec;18(6A):4237–41

Immune cell subpopulations in regenerated splenic tissue in rats. Smith E, et al. **Aust N Z J Surg** 1999 Jul;69(7):522–5

Effect low frequency noise exposure on BALB/c mice splenic lymphocytes. Aguas AP, et al.
Aviat Space Environ Med 1999 Mar;70(3 Pt 2):A128–31

Suppression of splenic macrophage functions following acute morphine action in the rat mesencephalon periaqueductal gray. Gomez–Flores R, et al. **Brain Behav Immun** 1999 Sep;13(3):212–24

Generation of specific antitumor reactivity by the stimulation of spleen cells from gastric cancer patients with MAGE–3 synthetic peptide. Fujie T, et al.
Cancer Immunol Immunother 1999 Jul;48(4):189–94

Phenotypic analysis of splenocyte subsets following acute morphine treatment in the rat. Fecho K, et al.
Cell Immunol 1999 Aug 1;195(2):137–46

Effects of in utero alcohol exposure on B cell development in neonatal spleen and bone marrow. Moscatello KM, et al. **Cell Immunol** 1999 Feb 1;191(2):124–30

Spleen autotransplantation provides restoration of functional splenic lymphoid compartments and improves the humoral immune response to pneumococcal polysaccharide vaccine [see comments] Leemans R, et al. **Clin Exp Immunol** 1999 Sep;117(3):596–604. Comment in: Clin Exp Immunol 1999 Sep;117(3):423–4.

Regeneration of autotransplanted splenic fragments: basic immunological and clinical relevance [editorial; comment] Pabst R. **Clin Exp Immunol** 1999 Sep;117(3):423–4 (29 ref.) . Comment on: Clin Exp Immunol 1999 Sep;117(3):596–604.

Depletion of liver and splenic macrophages reduces the lethality of Shiga toxin–2 in a mouse model. Palermo MS, et al. **Clin Exp Immunol** 1999 Jun;116(3):462–7

Early IL–12 p70, but not p40, production by splenic macrophages correlates with host resistance to blood–stage Plasmodium chabaudi AS malaria. Sam H, et al.
Clin Exp Immunol 1999 Aug;117(2):343–9

Requirement for splenic CD4+ T cells in the immune privilege of the anterior chamber of the eye. Takahashi M, et al. **Clin Exp Immunol** 1999 May;116(2):231–7

Novel phenotype associated with in vivo activated CTL precursors. Oughton JA, et al. **Clin Immunol** 1999 Mar; 90(3):323–33

Studies on the tissue–related phenotypic heterogeneity of murine B cells. Balogh P, et al. **Dev Immunol** 1998; 6(3–4):179–85

Spleen cells of non–obese diabetic mice fed with pig splenocytes display modified proliferation and reduced aggressiveness in vitro against pig islet cells. You S, et al.
Diabetologia 1998 Aug;41(8):955–62

Severe B cell deficiency and disrupted splenic architecture in transgenic mice expressing the E41K mutated form of Bruton's tyrosine kinase. Dingjan GM, et al. **EMBO J** 1998 Sep 15;17(18):5309–20

OCA–B integrates B cell antigen receptor–, CD40L– and IL 4–mediated signals for the germinal center pathway of B cell development. Qin XF, et al. **EMBO J** 1998 Sep 1;17(17):5066–75

V(H) gene replacement occurs in the spleen and bone marrow of non–autoimmune quasi–monoclonal mice. Bertrand FE, et al. **Eur J Immunol** 1998 Oct;28(10):3362–70

T–independent type 2 antigens induce B cell proliferation in multiple splenic sites, but exponential growth is confined to extrafollicular foci. García de Vinuesa C, et al.
Eur J Immunol 1999 Apr;29(4):1314–23

Functional and quantitative analysis of splenic T cell immune responses following oral toxoplasma gondii infection in mice. Lee YH, et al. **Exp Parasitol** 1999 Mar;91(3):212–21

Calorie restriction increases Fas/Fas–ligand expression and apoptosis in murine splenic lymphocytes. Reddy Avula CP, et al. **FEBS Lett** 1999 Sep 17;458(2):231–5

Persistent tolerance induced after portal venous injection of allogeneic cells plus cyclophosphamide treatment. Jin T, et al. **Immunobiology** 1999 Jun;200(2):215–26

Inhibition of lung metastasis by adoptive immunotherapy using Iscador. Antony S, et al. **Immunol Invest** 1999 Jan; 28(1):1–8

Sex–related immune changes in young mice. Rosen JL, et al. **Immunol Invest** 1999 Jul;28(4):247–56

Preferential tissue localization of bovine gamma delta T cell subsets defined by anti–T cell receptor for antigen antibodies. Wilson E, et al. **Immunol Lett** 1998 Nov; 64(1):39–44

Reconstitution of immune systems in RAG2–/– mice by transfer with interleukin–12–induced splenic hematopoietic progenitor cells. Yahata T, et al. **Immunol Lett** 1998 Jul; 62(3):165–70

Splenic B cells are required for tolerogenic antigen presentation in the induction of anterior chamber–associated immune deviation (ACAID). D'Orazio TJ, et al. **Immunology** 1998 Sep;95(1):47–55

Splenic but not thymic autoreactive T cells from New Zealand Black mice respond to a dominant erythrocyte Band 3 peptide. Shen CR, et al. **Immunology** 1999 Apr; 96(4):595–9

Bolus injection of aqueous antigen leads to a high density of T–cell–receptor ligand in the spleen, transient T–cell activation and anergy induction. Switzer SK, et al.
Immunology 1998 Aug;94(4):513–22

Murine splenocytes induce severe gastritis and delayed–type hypersensitivity and suppress bacterial colonization in Helicobacter pylori–infected SCID mice. Eaton KA, et al.
Infect Immun 1999 Sep;67(9):4594–602

Exogenous interleukin–3 enhances IL–4 production by splenic CD4+ cells during the early stages of a Trichinella spiralis infection. Korenaga M, et al.
Int Arch Allergy Immunol 1998 Oct;117(2):131–7

Interaction of B cells with activated T cells reduces the threshold for CD40–mediated B cell activation. Klaus GG, et al. **Int Immunol** 1999 Jan;11(1):71–9

Susceptibility to Mycobacterium leprae of ALY (alymphoplasia) mice and IFN–gamma induction in the culture supernatant of spleen cells. Yogi Y, et al.
Int J Lepr Other Mycobact Dis 1998 Dec;66(4):464–74

Morphological and morphometric studies of the splenic antitumor immune response, elicited by liposome–covered soluble p53 kDa antigen, in chemically–induced rat colon cancer. Ben–Hur H, et al. **Int J Mol Med** 1999 May; 3(5):545–9

Splenic adherent cells, stimulated in vitro, induce the reactive formation of lymphoid follicles and germinal centres in draining lymph nodes after subcutaneous transfusion into syngeneic mice. Tanaka K, et al. **J Anat** 1998 Jul;193 (Pt 1):49–59

Distribution of T–lymphocyte subpopulation in blood and spleen of normal cattle and cattle with enzootic bovine leukosis. Wu D, et al. **J Comp Pathol** 1999 Feb; 120(2):117–27

B cell development in the spleen takes place in discrete steps and is determined by the quality of B cell receptor–derived signals. Loder F, et al. **J Exp Med** 1999 Jul 5;190(1):75–89

Lymphotoxin alpha/beta and tumor necrosis factor are required for stromal cell expression of homing chemokines in B and T cell areas of the spleen. Ngo VN, et al.
J Exp Med 1999 Jan 18;189(2):403–12

Identification of functional human splenic memory B cells by expression of CD148 and CD27. Tangye SG, et al.
J Exp Med 1998 Nov 2;188(9):1691–703

Signs of immaturity of splenic dendritic cells from the autoimmune prone biobreeding rat: consequences for the in vitro expansion of regulator and effector T cells. Delemarre FG, et al. **J Immunol** 1999 Feb 1;

162(3):1795–801
IL–4–producing gamma delta T cells that express a very restricted TCR repertoire are preferentially localized in liver and spleen. Gerber DJ, et al. **J Immunol** 1999 Sep 15;163(6):3076–82
IL–7 up–regulates IL–4 production by splenic NK1.1+ and NK1.1– MHC class I–like/CD1–dependent CD4+ T cells. Hameg A, et al. **J Immunol** 1999 Jun 15;162(12):7067–74
Splenic NK1.1–negative, TCR alpha beta intermediate CD4+ T cells exist in naive NK1.1 allelic positive and negative mice, with the capacity to rapidly secrete large amounts of IL–4 and IFN–gamma upon primary TCR stimulation. Moodycliffe AM, et al. **J Immunol** 1999 May 1;162(9):5156–63
Characterization of a B cell progenitor present in neonatal bone marrow and spleen but not in adult bone marrow and spleen. Moscatello KM, et al. **J Immunol** 1998 Nov 15;161(10):5391–8
Localization of splenic B cells activated for switch recombination by in situ hybridization with Igamma1 switch transcript and Rad51 probes. Peakman MC, et al. **J Immunol** 1998 Oct 15;161(8):4008–15
Gene conversion and hypermutation during diversification of VH sequences in developing splenic germinal centers of immunized rabbits. Schiaffella E, et al. **J Immunol** 1999 Apr 1;162(7):3984–95
Analyses of single B cells by polymerase chain reaction reveal rearranged VH with germline sequences in spleens of immunized adult rabbits: implications for B cell repertoire maintenance and renewal. Sehgal D, et al. **J Immunol** 1998 Nov 15;161(10):5347–56
Experimental murine Trypanosoma congolense infections. II. Role of splenic adherent CD3+Thy1.2+ TCR–alpha beta– gamma delta– CD4+8– and CD3+Thy1.2+ TCR–alpha beta– gamma delta– CD4–8– cells in the production of IL–4, IL–10, and IFN–gamma and in trypanosome–elicited immunosuppression. Uzonna JE, et al. **J Immunol** 1998 Dec 1;161(11):6189–97
A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E–selectin ligands and L–selectin. Wilson E, et al. **J Immunol** 1999 Apr 15; 162(8):4914–9
Comparative analysis of murine dendritic cells derived from spleen and bone marrow. Fields RC, et al.
J Immunother 1998 Sep;21(5):323–39
Normal IgG and impaired IgM responses to polysaccharide vaccines in asplenic patients. Molrine DC, et al.
J Infect Dis 1999 Feb;179(2):513–7
Cytokine production in acute versus chronic human Schistosomiasis mansoni: the cross–regulatory role of interferon–gamma and interleukin–10 in the responses of peripheral blood mononuclear cells and splenocytes to parasite antigens. Montenegro SM, et al. **J Infect Dis** 1999 Jun;179(6):1502–14
Bacterial peptidoglycan polysaccharides in sterile human spleen induce proinflammatory cytokine production by human blood cells. Schrijver IA, et al. **J Infect Dis** 1999 Jun;179(6):1459–68
Cytokine profiles of lesional and splenic T cells in Porphyromonas gingivalis infection in a murine model. Gemmell E, et al. **J Periodontol** 1998 Oct;69(10):1131–8
Selective augmentation of antibodies in various mucosal regions, after intranasal immunization with diphtheria in mice. Gizurarson S, et al. **J Pharm Sci** 1998 Nov; 87(11):1267–9
Splenic immune suppression in sepsis: A role for IL–10–induced changes in P38 MAPK signaling. Song GY, et al. **J Surg Res** 1999 May 1;83(1):36–43
Mathematical model of a virus–neutralizing immunglobulin response. Funk GA, et al. **J Theor Biol** 1998 Nov 7; 195(1):41–52
Impact of treadmill exercise on early apoptotic cells in mouse thymus and spleen. Hoffman–Goetz L, et al. **Life Sci** 1999; 64(3):191–200
Early morphological and immunological alterations in the spleen during magnesium deficiency in the rat. Malpuech–Brugère C, et al. **Magnes Res** 1998 Sep; 11(3):161–9
Immunization with PIII, a fraction of Schistosoma mansoni soluble adult worm antigenic preparation, affects nitric oxide production by murine spleen cells. de Oliveira DM, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:175–80
Comparison of T–cell receptor Jbeta gene usage in spleen cells of different mouse strains. Kato T, et al.
Microbiol Immunol 1999;43(1):93–7
Role of liposomes in selective proliferation of splenic lymphocytes. Sehra S, et al. **Mol Cell Biochem** 1998 Jun; 183(1–2):133–9
Expressed immunoglobulin repertoire of LPS–stimulated splenocytes of unimmunized mice as studied by two–dimensional gel electrophoresis. Nezlin R, et al.
Mol Immunol 1998 Dec;35(17):1089–96
Lateral hypothalamus modulates the intrinsic splenic natural killer cell activity in rats. Iimori H, et al.
Neuroimmunomodulation 1998 Sep–Oct;5(5):221–5
The immune response of rat spleen to dietary fibers and to low doses of carcinogen: morphometric and immunohistochemical studies. Zusman I, et al.
Oncol Rep 1998 Nov–Dec;5(6):1577–81
The role of CD8+ cells, cell degeneration, and Fas ligand in insulitis after intraperitoneal transfer of NOD splenocytes. Sainio–Pöllänen S, et al. **Pancreas** 1999 Apr; 18(3):282–93
Effects of chronic mild stress (CMS) and imipramine administration, on spleen mononuclear cell proliferative response, serum corticosterone level and brain norepinephrine content in male mice. Azpiroz A, et al.
Psychoneuroendocrinology 1999 Apr;24(3):345–61
Splenic marginal metallophilic macrophages and marginal zone macrophages are the major interferon–alpha/beta producers in mice upon intravenous challenge with herpes simplex virus. Eloranta ML, et al. **Scand J Immunol** 1999 Apr;49(4):391–4
Influence of intestinal microflora on murine bone marrow and spleen macrophage precursors. Nicaise P, et al.
Scand J Immunol 1998 Dec;48(6):585–91
Changes in T–lymphocyte subsets in lungs and spleens of mice with slowly progressive primary mycobacterium tuberculosis infection: involvement of unconventional T–cell subsets. Phyu S, et al. **Scand J Immunol** 1999 Aug; 50(2):137–44
Cytokine profiles in the central nervous system and the spleen during the early course of experimental African trypanosomiasis. Sharafeldin A, et al. **Scand J Immunol** 1999 Sep;50(3):256–61
Dissociation between chimerism and skin graft tolerance after neonatal injection of allogenic spleen cells. Donckier V, et al. **Transplant Proc** 1998 Dec;30(8):4018–9
The fate of donor splenic lymphocytes in a long–surviving host after combined pancrea/spleen transplantation in the rat. Kobayashi E, et al. **Transplant Proc** 1999 Sep; 31(6):2665–7
A novel effect of cyclosporine A on lymphocyte migration to allograft and recipient lymphoid tissue. Maksymowicz M, et al. **Transplant Proc** 1998 Dec;30(8):4054–6
Donor cell population in the liver allograft reflects the recipient immune status. Meyer D, et al.
Transplant Proc 1999 Feb–Mar;31(1–2):437
[Relation between AIDS, spleen and splenectomy] Qui Q, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Sep;77(9):718–20 (18 ref.) **(Chi)**
[The effect of opportunistic pathogenic microflora in drinking water on the cellular composition of the splenic lymphoid tissue of rats] Vovkogon AD.
Aviakosm Ekolog Med 1998;32(3):54–8 (Eng. Abstr.) **(Rus)**
[Suppressor and antineoplastic activity of the bone marrow and spleen cells in aging AKR mice] Bel'skii IuP, et al. **Biull Eksp Biol Med** 1999 Apr;127(4):452–4 **(Rus)**
[Suppression by antibodies to serotonin of the increased alcohol consumption caused by adoptive transfer of splenocytes from animals with abstinence syndrome] Davydova TV, et al. **Biull Eksp Biol Med** 1998 Sep; 126(9):328–30 **(Rus)**

INJURIES

Notice of duplicate publication. AJR 1997;168:207–212 [letter] Rogers LF. **AJR Am J Roentgenol** 1999 Sep; 173(3):855–6
Emergency! Splenic injury. Abdominal assessment signs confirm acute bleeding. Salavec LM. **Am J Nurs** 1999 Sep; 99(9):32
Traditional criteria for observation of splenic trauma should be challenged. Gaunt WT, et al. **Am Surg** 1999 Jul; 65(7):689–91; discussion 691–2
Adult splenic injuries: treatment patterns and predictive indicators. Sanders MN, et al. **Aust N Z J Surg** 1999 Jun; 69(6):430–2
Post–traumatic pseudocyst of the spleen: sclerotherapy with ethanol. Völk M, et al. **Cardiovasc Intervent Radiol** 1999 May–Jun;22(3):246–8
Follow–up imaging studies in children with splenic injuries. Shafi S, et al. **Clin Pediatr (Phila)** 1999 May;38(5):273–7
Prevention of splenic injury during colonoscopy by positioning of the patient. Tse CC, et al. **Endoscopy** 1998 Aug;30(6):S74–5
Blood transfusion requirements in children with blunt spleen and liver injuries. Avanoğlu A, et al.
Eur J Pediatr Surg 1998 Dec;8(6):322–5
Fibrinogen–impregnated collagen as a combined haemostatic agent and antibiotic delivery system in a porcine model of splenic trauma. Parker SJ, et al. **Eur J Surg** 1999 Jun; 165(6):609–14
Splenic injury following routine colonoscopy. Melsom DS, et al. **Hosp Med** 1999 Jan;60(1):65
A safe, simple method for preparing heat–damaged red cells for diagnosing splenic infarct or trauma. Snowdon GM.
J Nucl Med Technol 1998 Sep;26(3):204–5
Observation of splenic trauma: when is a little too much? Brown RL, et al. **J Pediatr Surg** 1999 Jul;34(7):1124–6
Pediatric splenic injury: pathway to play? Gandhi RR, et al. **J Pediatr Surg** 1999 Jan;34(1):55–8; discussion 58–9
Conservative management of splenic trauma. Daoud RA, et al. **J R Army Med Corps** 1999 Jun;145(2):69–72
Management of blunt splenic trauma in patients older than 55 years. Southern Connecticut Regional Trauma Quality Assurance Committee. Barone JE, et al. **J Trauma** 1999 Jan;46(1):87–90
Comparative study of splenic wound healing in young and adult rats. Kluger Y, et al. **J Trauma** 1999 Aug;47(2):261–4
Superselective embolization of a traumatic intrasplenic arteriovenous fistula. Salis A, et al. **J Trauma** 1999 Jan; 46(1):186–8
Disruptive forces for swine heart, liver, and spleen: their breaking stresses. Seki S, et al. **J Trauma** 1998 Dec; 45(6):1079–83
Delayed diagnosis of splenic injury after falls from less than 10 feet. Young KD, et al. **Pediatr Emerg Care** 1998 Dec; 14(6):413–5 (19 ref.)
Splenic injury diagnosed with CT: US follow–up and healing rate in children and adolescents. Emery KH, et al.
Radiology 1999 Aug;212(2):515–8
Conservative laparoscopy in the treatment of posttraumatic splenic laceration using microfiber hemostatic collagen: three case histories. Orcalli F, et al.
Surg Laparosc Endosc 1998 Dec;8(6):445–8
The usefulness of remote CT scanning in blunt splenic injuries [letter; comment] Pachter HL. **Surgery** 1998 Nov; 124(5):941–2. Comment on: Surgery 1998 Apr;123(4):478–9.
[Splenic artery embolization for the treatment of traumatic splenic rupture] Lu Y, et al.
Chung Hua Wai Ko Tsa Chih 1997 Jan;35(1):31–2 (Eng. Abstr.) **(Chi)**
[Comparison of the results of CT examination and surgical findings in blunt injuries of the liver and spleen] Chmátal P, et al. **Rozhl Chir** 1999 Apr;78(4):183–7 (Eng. Abstr.) **(Cze)**
[Isolated splenic trauma in adults: value of Resciniti's CT scoring system to define the indications for surgery] Froment P, et al. **Ann Chir** 1998;52(10):983–7 (Eng. Abstr.) **(Fre)**
[Treatment of blunt splenic trauma in children] Varlet F, et al. **Ann Chir** 1998;52(10):1017–21 (Eng. Abstr.) **(Fre)**
[Videolaparoscopic treatment of splenic injuries. A study of 5 cases] Cresienzo D, et al. **Chirurgie** 1998 Dec;123(6):600–3 (Eng. Abstr.) **(Fre)**
[Post–traumatic intrasplenic arteriovenous fistula in a child. Spontaneous regression] Henry C, et al. **J Radiol** 1998 Mar; 79(3):271–3 (Eng. Abstr.) **(Fre)**
[Thoracic splenosis with symptoms of coronary heart disease] Gaedcke G, et al. **Dtsch Med Wochenschr** 1999 Aug 20; 124(33):958–61 (Eng. Abstr.) **(Ger)**
[Splenic trauma: splenectomy in every case?] Giordano G, et al. **G Chir** 1999 Apr;20(4):169–73 (Eng. Abstr.) **(Ita)**
[A splenic autograft in posttraumatic splenectomies] Piccardo A, et al. **Minerva Chir** 1999 Jan–Feb;54(1–2):31–5 (Eng. Abstr.) **(Ita)**
[Evolution in the management of splenic trauma. Retrospective study in children] Correia–Pinto J, et al.
Acta Med Port 1998 Nov;11(11):961–4 (Eng. Abstr.) **(Por)**
[Conservative surgery in injuries and focal formations of the spleen] Bordunovskii VN. **Khirurgiia (Mosk)** 1999;(6):38–42 (Eng. Abstr.) **(Rus)**
[The use of laparoscopy in the diagnosis of a traumatic lesion of the spleen] Kapshitar' AV. **Klin Khir** 1998;(9–10):23–5 (Eng. Abstr.) **(Rus)**
[The combination of perforative gastric ulcer and hepatic and splenic laceration after closed abdominal trauma] Maloshtan AV, et al. **Klin Khir** 1999;(4):54–5 **(Rus)**
[Treatment of splenic hemorrhage by intervention on the splenic artery] Durdik S, et al. **Bratisl Lek Listy** 1998 Dec; 99(12):686–7 **(Slo)**

INNERVATION

Conditioned immunosuppression makes subtherapeutic cyclosporin effective via splenic innervation. Exton MS, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):R1710–7
Differential ultrastructural distribution of synapsin and synaptophysin proximal to a ligation in bovine splenic nerve. Quatacker J, et al. **Brain Res** 1998 Aug 17; 802(1–2):281–4
Subcellular localization of chromogranins, calcium channels, amine carriers, and proteins of the exocytotic machinery in bovine splenic nerve. Leitner B, et al. **J Neurochem** 1999 Mar;72(3):1110–6
Isolation and characterization of unmyelinated axolemma from bovine splenic nerve. DeVries GH, et al.
J Neurosci Res 1999 Sep 1;57(5):670–9
Pig splenic nerve: peptides derived from chromogranins by proteolytic processing during axonal transport.
Lovisetti–Scamihorn P, et al. **Regul Pept** 1999 Jan 1; 79(1):63–7
Upregulation of the chemokines Rantes, MCP–1, MIP–1a and MIP–2 in early infection with Trypanosoma brucei brucei and inhibition by sympathetic denervation of the spleen. Liu Y, et al. **Trop Med Int Health** 1999 Feb; 4(2):85–92

METABOLISM

Fatal cervical spondyloarthropathy in a hemodialysis patient with systemic deposition of beta2–microglobulin amyloid. Danesh FR, et al. **Am J Kidney Dis** 1999 Mar;33(3):563–6 (17 ref.)
Mechanism of the upregulation of erythropoietin–induced uptake clearance by the spleen. Kato M, et al.
Am J Physiol 1999 May;276(5 Pt 1):E887–95
Cytokine production in NOD mice on prophylactic insulin therapy. Strandell E, et al. **APMIS** 1999 Apr;107(4):413–9
The effect of prolonged iron loading on the chemical form of iron oxide deposits in rat liver and spleen. Chua–anusorn W, et al. **Biochim Biophys Acta** 1999 Jul 7;1454(2):191–200
Influence of sodium selenite and selenomethionine on

DNA/RNA synthesis and BaP binding to spleen lymphocytes in culture. Bansal MP, et al. **Biol Trace Elem Res** 1999 Oct;70(1):21–8

Kinetic studies of the delta-opioid antagonist [3H]DPN induced receptor binding on suspensions of mouse splenocytes. Barsegov V. **Biophys Chem** 1999 Jan 11; 76(1):55–62

Novel dolichyl derivatives in rat spleen. Ishinaga M, et al. **Biosci Biotechnol Biochem** 1999 Feb;63(2):449–51

Structural and functional abnormalities in the spleen of an mFtz-F1 gene-disrupted mouse. Morohashi K, et al. **Blood** 1999 Mar 1;93(5):1586–94

Etheno adducts in spleen DNA of SJL mice stimulated to overproduce nitric oxide. Nair J, et al. **Carcinogenesis** 1998 Dec;19(12):2081–4

Stimulation of membrane-associated protein kinase-C activity in spleen lymphocytes by hPTH-(1–31)NH2, its lactam derivative, [Leu27]-cyclo(Glu22–Lys26)-hPTH-(1–31)NH2, and hPTH-(1–30)NH2. Whitfield JF, et al. **Cell Signal** 1999 Mar;11(3):159–64

Abdominal surgery reduces the ability of rat spleen cells to synthesize and secrete active tumour necrosis factor-alpha (TNF-alpha) by a multilevel regulation. Lahat N, et al. **Clin Exp Immunol** 1999 Jan;115(1):19–25

Resolved splenic accumulation of Tc-99m HMDP after recovery of disseminated intravascular coagulation in a patient with rhabdomyosarcoma. Suga K, et al. **Clin Nucl Med** 1999 Jun;24(6):414–7

Modulation of ex vivo cytokine production by splenocytes using in vitro combined therapeutics in murine retroviral model. Kang LC, et al. **DNA Cell Biol** 1999 Jul; 18(7):585–92

PrP-dependent association of prions with splenic but not circulating lymphocytes of scrapie-infected mice. Raeber AJ, et al. **EMBO J** 1999 May 17;18(10):2702–6

Spontaneous mutation spectrum at the lambda cII locus in liver, lung, and spleen tissue of Big Blue transgenic mice. Harbach PR, et al. **Environ Mol Mutagen** 1999;33(2):132–43

The intestinal microflora regulates cytokine production positively in spleen-derived macrophages but negatively in bone marrow-derived macrophages. Nicaise P, et al. **Eur Cytokine Netw** 1999 Sep;10(3):365–72

Induction of proliferation in resting B-cells by a factor released by activated mouse spleen cells. Puri N, et al. **Exp Mol Med** 1998 Dec 31;30(4):199–204

Adjuvant arthritis in the rat is associated with decreased binding of nuclear receptors to thyroid hormone responsive element in spleen extracts. Brtko J, et al. **Gen Physiol Biophys** 1998 Dec;17(4):341–7

Binding of synthetic sulfated ligands by human splenic galectin 1, a beta-galactoside-binding lectin. Allen HJ, et al. **Glycoconj J** 1998 Jul;15(7):691–5

High expression of CD23 in the proliferation centers of chronic lymphocytic leukemia in lymph nodes and spleen. Lampert IA, et al. **Hum Pathol** 1999 Jun;30(6):648–54

Involvement of protein kinase A in histamine-mediated inhibition of IL-2 mRNA expression in mouse splenocytes. Poluektova LY, et al. **Immunopharmacology** 1999 Feb; 41(2):77–87

Comparative distribution of beta-carotene and lycopene after intraperitoneal administration in mice. Glise D, et al. **In Vivo** 1998 Sep-Oct;12(5):447–54

Hypoxia induces free radical damage to rat erythrocytes and spleen: analysis of the fluorescent end-products of lipid peroxidation. Wilhelm J, et al. **Int J Biochem Cell Biol** 1999 Jun;31(6):671–81

Lactic acid bacterium potently induces the production of interleukin-12 and interferon-gamma by mouse splenocytes. Kato I, et al. **Int J Immunopharmacol** 1999 Feb;21(2):121–31

Suppression of in vitro IFN-gamma production by spleen cells of Plasmodium chabaudi-infected C57BL/10 mice exposed to dexamethasone at a low dose. Tsutsui N, et al. **Int J Immunopharmacol** 1998 Apr-May;20(4–5):141–52

Spleen-specific expression of the malaria-inducible intronless mouse gene imap38. Krücken J, et al. **J Biol Chem** 1999 Aug 20;274(34):24383–91

Stealth PEGylated polycyanoacrylate nanoparticles for intravenous administration and splenic targeting. Peracchia MT, et al. **J Controlled Release** 1999 Jun 28;60(1):121–8

Organ selective delivery using a tissue-directed streptavidin--biotin system: targeting 5-fluorouridine via TNP-streptavidin. Schechter B, et al. **J Drug Target** 1999; 6(5):337–48

Splenectomy attenuates superoxide anion release into the hepatic sinusoids after lipopolysaccharide challenge. Mizukami T, et al. **J Hepatol** 1999 Aug;31(2):235–41

IL-4-producing gamma delta T cells that express a very restricted TCR repertoire are preferentially localized in liver and spleen. Gerber DJ, et al. **J Immunol** 1999 Sep 15;163(6):3076–82

Analyses of single B cells by polymerase chain reaction reveal rearranged VH with germline sequences in spleens of immunized adult rabbits: implications for B cell repertoire maintenance and renewal. Sehgal D, et al. **J Immunol** 1998 Nov 15;161(10):5347–56

Cholesterol and oxygenated cholesterol concentrations are markedly elevated in peripheral tissue but not in brain from mice with the Niemann-Pick type C phenotype. Tint GS, et al. **J Inherit Metab Dis** 1998 Dec;21(8):853–63

Inhibition of interleukin-2 production and downregulation of IL-2 and transferrin receptors on rat splenic lymphocytes following PAG morphine administration: a role in natural killer and T cell suppression. Gomez-Flores R, et al. **J Interferon Cytokine Res** 1999 Jun;19(6):625–30

Regulation of delta opioid receptor expression by anti-CD3-epsilon, PMA, and ionomycin in murine splenocytes and T cells. Li MD, et al. **J Leukoc Biol** 1999 May;65(5):707–14

Nonsteroidal anti-inflammatory drugs increase tumor necrosis factor production in the periphery but not in the central nervous system in mice and rats. Sacco S, et al. **J Neurochem** 1998 Nov;71(5):2063–70

Interaction of platelet-activating factor, spleen and atrial natriuretic peptide in plasma volume regulation during endotoxaemia in rats. Qu XW, et al. **J Physiol (Lond)** 1998 Oct 1;512 (Pt 1):227–34

In vitro evaluation of nanoparticles spleen capture. Demoy M, et al. **Life Sci** 1999;64(15):1329–37

Expression of heat shock protein 70 decreases with age in hepatocytes and splenocytes from female rats. Gutsmann-Conrad A, et al. **Mech Ageing Dev** 1999 Mar 15;107(3):255–70

Differential response to a stress stimulus of proenkephalin peptide content in immune cells of naive and chronically stressed rats. Saravia F, et al. **Neuropeptides** 1998 Aug; 32(4):351–9

Shock response induced in rat brain and spleen during primary infection with Trichinella spiralis larvae. Martinez J, et al. **Parasitology** 1999 Jun;118 (Pt 6):605–13

Spleen capture of nanoparticles: influence of animal species and surface characteristics. Demoy M, et al. **Pharm Res** 1999 Jan;16(1):37–41

Is increased IL-1 beta mRNA expression in spleen of tumor-bearing mice relevant to cancer cachexia? Nakatani S, et al. **Res Commun Mol Pathol Pharmacol** 1998 Dec; 102(3):241–9

Oxidative modification of lipids and proteins in aniline-induced splenic toxicity. Khan MF, et al. **Toxicol Sci** 1999 Mar;48(1):134–40

Role of Pasteurella multocida porin on cytokine expression and release by murine splenocytes. Iovane G, et al. **Vet Immunol Immunopathol** 1998 Dec 11;66(3–4):391–404

Using heat shock proteins as indicators of the immune function in wistar rats during a secondary Trichinella spiralis infection. Martinez J, et al. **Vet Parasitol** 1999 Sep 1;85(4):269–75

Spleen localization of light chain deposition disease associated with sea blue histiocytosis, revealed by spontaneous rupture. de Lajarte-Thirouard AS, et al. **Virchows Arch** 1999 May;434(5):463–5

[Accumulative arsenic level in viscera in offsprings of exposed parent rats] Zhang C, et al. **Chung Hua Yu Fang I Hsueh Tsa Chih** 1998 Mar;32(2):76–8 (Eng. Abstr.) **(Chi)**

[Effect of hypoxia on spleen mono nuclear cell DNA content and proliferation of neonatal rats] Bai H, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):220–3 (Eng. Abstr.) **(Chi)**

[Histochemical characteristics of lymphoid organs in rats subjected to stress] Kirillov NA, et al. **Biull Eksp Biol Med** 1999 Feb;127(2):171–3 **(Rus)**

[The biogenic amine content of rat tissues in the postresuscitation period following hemorrhagic shock and the effect of the preparation semax] Bastrikova NA, et al. **Patol Fiziol Eksp Ter** 1999 Jul-Sep;(3):19–22 (Eng. Abstr.) **(Rus)**

MICROBIOLOGY

A murine model for infection with Burkholderia cepacia with sustained persistence in the spleen. Speert DP, et al. **Infect Immun** 1999 Aug;67(8):4027–32

[The effect of opportunistic pathogenic microflora in drinking water on the cellular composition of the splenic lymphoid tissue of rats] Vovkogon AD. **Aviakosm Ekolog Med** 1998;32(3):54–8 (Eng. Abstr.) **(Rus)**

PARASITOLOGY

Development and proliferation of Trypanosoma musculi in the presence of adherent splenic cells. Ashraf M, et al. **J Parasitol** 1999 Feb;85(1):129–32

One fate of epimastigote forms of Trypanosoma cruzi injected in mice. An ultrastructural study. Umekita LF, et al. **J Parasitol** 1998 Dec;84(6):1190–5

PATHOLOGY

Diffusion-weighted MR imaging with single-shot echo-planar imaging in the upper abdomen: preliminary clinical experience in 61 patients. Ichikawa T, et al. **Abdom Imaging** 1999 Sep-Oct;24(5):456–61

Gastrointestinal/genitourinary case of the day. Liver infarction in a patient with sickle cell anemia, splenic atrophy, and gallstones. Atkinson DS Jr, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):788, 792–3

Percutaneous imaging-guided biopsy of the spleen [clinical conference] O'Malley ME, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):661–5

Splenic pathology in myelodysplasia: a report of 13 cases with clinical correlation. Kraus MD, et al. **Am J Surg Pathol** 1998 Oct;22(10):1255–66 (35 ref.)

The effect of single administration of aflatoxin B1 and ACTH on the intensity of acid phosphatase reaction in bursa Fabricii and in periellipsoidal lymphatic tissue of the spleen of ducklings. Słowik J, et al. **Arch Vet Pol** 1993; 33(3–4):197–204

Enhanced endothelial cell apoptosis in splenic tissues of patients with thrombotic thrombocytopenic purpura. Dang CT, et al. **Blood** 1999 Feb 15;93(4):1264–70

Structural and functional abnormalities in the spleen of an mFtz-F1 gene-disrupted mouse. Morohashi K, et al. **Blood** 1999 Mar 1;93(5):1586–94

Organ-selective homing defines engraftment kinetics of murine hematopoietic stem cells and is compromised by Ex vivo expansion. Szilvassy SJ, et al. **Blood** 1999 Mar 1;93(5):1557–66

Spleen sizing by ultrasound scan and risk of pneumococcal infection in patients with chronic GVHD: preliminary observations. Picardi M, et al. **Bone Marrow Transplant** 1999 Jul;24(2):173–7

Fine needle aspiration biopsy of the spleen in pyrexia of unknown origin. Rajwanshi A, et al. **Cytopathology** 1999 Jun;10(3):195–200

The red cell mass, plasma erythropoietin and spleen size in apparent polycythaemia. Carneskog J, et al. **Eur J Haematol** 1999 Jan;62(1):43–8

Splenic mucormycosis. Pastor E, et al. **Haematologica** 1999 Apr;84(4):375

Immunohistochemical and ultrastructural evidence of hog cholera virus infection of megakaryocytes in bone marrow and spleen. Gómez-Villamandos JC, et al. **J Comp Pathol** 1998 Aug;119(2):111–9

Signs of immaturity of splenic dendritic cells from the autoimmune prone biobreeding rat: consequences for the in vitro expansion of regulator and effector T cells. Delemarre FG, et al. **J Immunol** 1999 Feb 1; 162(3):1795–801

MRI of liver metastases: limitation of spleen-liver model in optimizing pulse sequences. Turkenburg JL, et al. **J Magn Reson Imaging** 1999 Mar;9(3):369–72

Calpain activity and expression are increased in splenic inflammatory cells associated with experimental allergic encephalomyelitis. Shields DC, et al. **J Neuroimmunol** 1999 Sep 1;99(1):1–12

Plasma cytokine concentrations and splenic changes in cynomolgus monkeys (Macaca fascicularis) with malaria. Kakinuma C, et al. **Lab Anim Sci** 1999 Feb;49(1):101–4

Fibrilization in mouse senile amyloidosis is fibril conformation-dependent. Higuchi K, et al. **Lab Invest** 1998 Dec;78(12):1535–42

Progression of spontaneous lymphomas in SJL mice: monitoring in vivo clonal evolution with molecular markers in sequential splenic samples. Tang JC, et al. **Lab Invest** 1998 Nov;78(11):1459–66

Systemic mast cell disease with marrow and splenic involvement associated with chronic myelomonocytic leukemia. Smith JD, et al. **Leuk Lymphoma** 1999 Jan; 32(3–4):391–4

MR imaging of the liver and spleen: a comparison of the effects on signal intensity of two superparamagnetic iron oxide agents. Chen F, et al. **Magn Reson Imaging** 1999 May; 17(4):549–56

Early morphological and immunological alterations in the spleen during magnesium deficiency in the rat. Malpuech-Brugère C, et al. **Magnes Res** 1998 Sep; 11(3):161–9

Small B-cell lymphomas of the lymph nodes and spleen: practical insights to diagnosis and pathogenesis. Swerdlow SH. **Mod Pathol** 1999 Feb;12(2):125–40 (193 ref.)

The micronucleus test in rat erythrocytes from bone marrow, spleen and peripheral blood: the response to low doses of ionizing radiation, cyclophosphamide and vincristine determined by flow cytometry. Abramsson-Zetterberg L, et al. **Mutat Res** 1999 Jan 25;423(1–2):113–24

The elderly haemodialysis patient with abdominal symptoms and hypovolemic shock--splenic rupture secondary to splenic infarction in a patient with severe atherosclerosis [letter] Gascón A, et al. **Nephrol Dial Transplant** 1999 Apr; 14(4):1044–5

Liver and spleen MRI findings in virus-associated hemophagocytic syndrome in a patient with acute lymphocytic leukemia. Zilkha A, et al. **Pediatr Radiol** 1998 Dec;28(12):920–2

Gastric cancer with sarcoid reactions in the regional lymph nodes, the stomach wall, and the splenic parenchyma: report of a case. Shigematsu H, et al. **Surg Today** 1999; 29(6):549–52

Spleen localization of light chain deposition disease associated with sea blue histiocytosis, revealed by spontaneous rupture. de Lajarte-Thirouard AS, et al. **Virchows Arch** 1999 May;434(5):463–5

[Macro, micro and ultrastructural observations of pituitary, adrenal, pancreas and spleen in experimental brain death] Wei B, et al. **Fa I Hsueh Tsa Chih** 1997;13(4):195–8, 253 (Eng. Abstr.) **(Chi)**

[Serial hepatic and splenic volumetry in acute severe hepatitis] Obuchi M, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Feb;96(2):147–53 (Eng. Abstr.) **(Jpn)**

[The weight of the spleen in chronic chagasics] Pereira SA, et al. **Rev Soc Bras Med Trop** 1999 Mar-Apr;32(2):167–70 (Eng. Abstr.) **(Por)**

PHYSIOLOGY

Role of the spleen on the pathogenesis of schistosomal periportal (pipestem) fibrosis of the liver: an experimental approach. Andrade ZA, et al. **Am J Trop Med Hyg** 1998 Oct;59(4):557–62

Splenic "regeneration" after partial splenectomy for Gaucher disease: histological features. Freud E, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):309–16

Brain NPY Y1 receptors rapidly mediate the behavioral response to novelty and a compartment-specific modulation of granulocyte function in blood and spleen. von Hörsten S, et al. **Brain Res** 1998 Sep 28;806(2):282–6

Scal(+)/Mac1(+) nitric oxide-producing cells in the spleens of recipients early following bone marrow transplant suppress T cell responses in vitro. Johnson BD, et al. **Cell Immunol** 1998 Nov 1;189(2):149–59

The role of spleen in suppressing the rheological alterations in circulating blood. Baskurt OK. **Clin Hemorheol Microcirc** 1999;20(3):181–8

The spleen and organized lymph nodes are not essential for the development of gut-induced mucosal immune responses in lymphotoxin-alpha deficient mice. Davis IA, et al. **Clin Immunol Immunopathol** 1998 Nov;89(2):150–9

Intrathymic and intrasplenic oxidative stress mediates thymocyte and splenocyte damage in acutely exercised mice. Azenabor AA, et al. **J Appl Physiol** 1999 Jun; 86(6):1823–7

Splenic contraction-induced reversible increase in hemoglobin concentration in intermittent hypoxia. Kuwahira I, et al. **J Appl Physiol** 1999 Jan;86(1):181–7

Attenuation of interleukin 2 signal in the spleen cells of complex ganglioside-lacking mice. Zhao J, et al. **J Biol Chem** 1999 May 14;274(20):13744–7

L-deprenyl-induced increase in IL-2 and NK cell activity accompanies restoration of noradrenergic nerve fibers in the spleens of old F344 rats. ThyagaRajan S, et al. **J Neuroimmunol** 1998 Dec 1;92(1–2):9–21

Age-related changes in the elastic fiber network of the human splenic capsule. Rodrigues CJ, et al. **Lymphology** 1999 Jun; 32(2):64–9

The role of the spleen, especially regarding changes in both thromboxane A2 and the remnant liver dysfunction after extensive hepatectomy. Kitagawa M, et al. **Surg Today** 1999;29(2):137–42

[Functional activity of placental, splenic and hepatic tissues in pyo-septic diseases under conditions of extracorporeal detoxication] Pisarevskiĭ AA, et al. **Khirurgiia (Mosk)** 1998; (7):40–3 (Eng. Abstr.) **(Rus)**

PHYSIOPATHOLOGY

A reassessment of splenic hypofunction in celiac disease. Corazza GR, et al. **Am J Gastroenterol** 1999 Feb; 94(2):391–7

L-Arginine restores splenocyte functions after trauma and hemorrhage potentially by improving splenic blood flow. Angele MK, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):C145–51

Haemophilia and the mysterious spleen: the story of a hate-love relationship. Ingram GI. **Haemophilia** 1998 Jan; 4(1):69–74 (76 ref.)

Disruptive forces for swine heart, liver, and spleen: their breaking stresses. Seki S, et al. **J Trauma** 1998 Dec; 45(6):1079–83

Hormone dependency of splenic iron stores in the rat: effect of oestrogens on the recuperation of reserves in ferrodeficient subjects. Borràs M. **Lab Anim** 1998 Jul; 32(3):290–7

Haematopathology of 'Sjögren-mice': histopathological changes in spleens after semiallogeneic cell transfer. Ussing AP, et al. **Scand J Immunol** 1999 Jun;49(6):641–8

[Pneumococcal septicemia in functional asplenia: first manifestation of systemic autoimmune disease?] Germing U, et al. **Z Rheumatol** 1999 Feb;58(1):31–4 (Eng. Abstr.) **(Ger)**

RADIATION EFFECTS

Severe tumor lysis syndrome following splenic irradiation. Schifter T, et al. **Am J Hematol** 1999 Jan;60(1):75–6

Assessment of apoptosis occurring in spleen cells from nitrogen mustard-treated or gamma-irradiated mice. Hugel B, et al. **Anticancer Res** 1998 Sep–Oct;18(5A):3289–94

Role of splenic irradiation in patients with chronic myeloid leukemia undergoing allogeneic bone marrow transplantation. Jabro G, et al. **Biol Blood Marrow Transplant** 1999;5(3):173–9

Natural killer cell activity reduced by microwave exposure during pregnancy is mediated by opioid systems. Nakamura H, et al. **Environ Res** 1998 Nov;79(2):106–13

Modification of gene expression by dietary antioxidants in radiation-induced apoptosis of mice splenocytes. Ushakova T, et al. **Free Radic Biol Med** 1999 Apr;26(7–8):887–91

Modification of immune response by low dose ionizing radiation: role of apoptosis. Shankar B, et al. **Immunol Lett** 1999 Jun 1;68(2–3):237–45

Induction and persistence of cytogenetic damage in mouse splenocytes following whole-body X-irradiation analysed by fluorescence in situ hybridization. IV. Dose response. Hande MP, et al. **Int J Radiat Biol** 1998 Oct;74(4):441–8

Ornithine decarboxylase in organs of rat following chronic gamma-irradiation at low dose-rates. Slozhenikina LV, et al. **Int J Radiat Biol** 1999 Feb;75(2):193–9

Effect of gamma radiation on the foetal haemopoietic system in the mouse. Uma Devi P, et al. **Int J Radiat Biol** 1998 Nov;74(5):639–46

The role of splenic irradiation in treating HIV-associated immune thrombocytopenia. Blauth J, et al. **Int J Radiat Oncol Biol Phys** 1999 Sep 1;45(2):457–60

PCR assay of DNA damage and repair at the gene level in brain and spleen of gamma-irradiated young and old rats. Ploskonosova II, et al. **Mutat Res** 1999 Jun 23; 434(2):109–17

Low-dose whole-body irradiation induces alteration of protein expression in mouse splenocytes. Chen S, et al. **Toxicol Lett** 1999 Mar 29;105(2):141–52

[Splenic lymphoid tissue of mice after irradiation with fast carbon ions] Grigorenko DE, et al. **Morfologiia** 1998; 114(5):80–4 (Eng. Abstr.) **(Rus)**

[Production of tumor necrosis factor (TNF) by macrophages and T-lymphocytes of rodents as affected by acute gamma-irradiation] Novoselova EG, et al. **Radiats Biol Radioecol** 1998 Sep–Oct;38(5):690–5 (Eng. Abstr.) **(Rus)**

[Effect of x-irradiation on the properties of cyclic AMP-dependent protein kinases from rat spleen lymphocytes] Ostapchenko LI, et al. **Radiats Biol Radioecol** 1998 Sep–Oct;38(5):650–6 (Eng. Abstr.) **(Rus)**

[The use of nontraditional approaches to the analysis of the effects of radiation on the system of protein phosphorylation in spleen lymphocytes] Ostapchenko LI, et al. **Radiats Biol Radioecol** 1999 Mar–Jun;39(2–3):334–40 (Eng. Abstr.) **(Rus)**

[Separate and combined effects of ionizing radiation and cyclophosphamide on thymus-dependent humoral immune response] Sharetskiĭ AN, et al. **Radiats Biol Radioecol** 1998 Sep–Oct;38(5):696–700 (Eng. Abstr.) **(Rus)**

[Lipoxygenase activity and 15-hete content of rat spleen lymphocytes after exposure to ionizing radiation] Matyshevskaia OP, et al. **Ukr Biokhim Zh** 1998 Sep–Oct; 70(5):91–6 (Eng. Abstr.) **(Rus)**

[Formation of inositol triphosphate in lymphocytes of rat spleen in the early stages after x-irradiation] Matyshevs'ka OP. **Ukr Biokhim Zh** 1998 Jul–Aug;70(4):94–100 (Eng. Abstr.) **(Ukr)**

RADIOGRAPHY

Measurement of human hepatic and splenic perfusion using dynamic computed tomography: a preliminary report. Tsushima Y, et al. **Comput Methods Programs Biomed** 1998 Aug–Sep;57(1–2):143–6

Artefacts in spiral-CT images and their relation to pitch and subject morphology. Wilting JE, et al. **Eur Radiol** 1999; 9(2):316–22

Liver, spleen and tumor volume measured by personal computer. Lin XZ, et al. **Hepatogastroenterology** 1999 Mar–Apr;46(26):838–42

Aunt Minnie's corner. Sickle cell disease. Ford KL 3rd. **J Comput Assist Tomogr** 1998 Nov–Dec;22(6):1011

Heterogeneous splenic enhancement patterns on spiral CT images in children: minimizing misinterpretation. Donnelly LF, et al. **Radiology** 1999 Feb;210(2):493–7

The usefulness of remote CT scanning in blunt splenic injuries [letter; comment] Pachter HL. **Surgery** 1998 Nov; 124(5):941–2. Comment on: Surgery 1998 Apr;123(4):478–9.

[The wandering spleen--a rare differential diagnosis of acute abdomen] Fasse A, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Apr;170(4):404–5 **(Ger)**

RADIONUCLIDE IMAGING

Fluorine-18 fluorodeoxyglucose splenic uptake from extramedullary hematopoiesis after granulocyte colony-stimulating factor stimulation. Abdel-Dayem HM, et al. **Clin Nucl Med** 1999 May;24(5):319–22

Tc-99m phytate images in a patient with a wandering spleen. Ohta H, et al. **Clin Nucl Med** 1999 Jun;24(6):458–9

What is a false-positive somatostatin receptor scintigraphy? [letter; comment] Reubi JC. **J Nucl Med** 1998 Dec; 39(12):2193–4. Comment on: J Nucl Med 1997 Dec;38(12):1979–81.

Splenic fluorodeoxyglucose uptake increased by granulocyte colony-stimulating factor therapy: PET imaging results. Sugawara Y, et al. **J Nucl Med** 1999 Sep;40(9):1456–62

[Postoperative uptake of Ga-67 in planar scintigraphy and SPECT after median sternotomy (published erratum appears in Rev Esp Med Nucl 1998;17(6):471, 473)] Montero A, et al. **Rev Esp Med Nucl** 1998;17(5):327–30 (Eng. Abstr.) **(Spa)**

SECRETION

Abdominal surgery reduces the ability of rat spleen cells to synthesize and secrete active tumour necrosis factor-alpha (TNF-alpha) by a multilevel regulation. Lahat N, et al. **Clin Exp Immunol** 1999 Jan;115(1):19–25

Effect of secretion of splenocytes after superior ovarian nerve section on the ovarian steroidogenesis. Forneris M, et al. **Neuroimmunomodulation** 1999 Jul–Aug;6(4):293–9

SURGERY

Transplantation of fetal liver tissue suspension into the spleens of adult syngenic rats: inducibility of cytochrome P450 dependent monooxygenase functions by beta-naphthoflavone, phenobarbital and dexamethasone. Lupp A, et al. **Exp Toxicol Pathol** 1999 Jan;51(1):65–74

Reversible hypersplenism after splenopexy for wandering spleen. Benoist S, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2430–1

Is there a role of preservation of the spleen in distal pancreatectomy? Benoist S, et al. **J Am Coll Surg** 1999 Mar;188(3):255–60

Laparoscopic splenopexy of a wandering spleen. Haj M, et al. **J Laparoendosc Adv Surg Tech A** 1999 Aug;9(4):357–60

Observation of splenic trauma: when is a little too much? Brown RL, et al. **J Pediatr Surg** 1999 Jul;34(7):1124–6

Improvement of the effect of hepatocyte isograft in the Gunn rat by cotransplantation of islets of Langerhans. Genin B, et al. **J Pediatr Surg** 1999 Feb;34(2):321–4

Laparoscopic splenopexy for pediatric wandering spleen. Hirose R, et al. **J Pediatr Surg** 1998 Oct;33(10):1571–3

Distal splenorenal shunt with splenopancreatic disconnection for portal hypertension in biliary atresia. Hasegawa T, et al. **Pediatr Surg Int** 1999;15(2):92–6

Laparoscopic surgery combined with preservation of the spleen for distal pancreatic tumors. Vezakis A, et al. **Surg Endosc** 1999 Jan;13(1):26–9

Conservative laparoscopy in the treatment of posttraumatic splenic laceration using microfiber hemostatic collagen: three case histories. Orcalli F, et al. **Surg Laparosc Endosc** 1998 Dec;8(6):445–8

Selective distal splenorenal shunt without requiring splenopancreatic disconnection with the use of the external iliac vein graft: a preliminary report. Kato K, et al. **Surgery** 1999 Sep;126(3):577–80

[Laparoscopic splenorraphy using a resorbable prosthesis in splenic injuries. Apropos of 5 cases] Balique JG, et al. **Chirurgie** 1999 Apr;124(2):154–8 (Eng. Abstr.) **(Fre)**

[Thoracic splenosis with symptoms of coronary heart disease] Gaedcke G, et al. **Dtsch Med Wochenschr** 1999 Aug 20; 124(33):958–61 (Eng. Abstr.) **(Ger)**

[Conservative surgery in injuries and focal formations of the spleen] Bordunovskiĭ VN. **Khirurgiia (Mosk)** 1999;(6):38–42 (Eng. Abstr.) **(Rus)**

[Blood circulation in the liver after distal spleno-renal anastomosis in cirrhosis] Kotenko OG. **Klin Khir** 1999; (3):12–5 (Eng. Abstr.) **(Rus)**

[Autotransplantation of the spleen tissue after splenectomy] Mishchenko OO, et al. **Klin Khir** 1998;(5):42–3 **(Ukr)**

TRANSPLANTATION

Immune response capacity after human splenic autotransplantation: restoration of response to individual pneumococcal vaccine subtypes. Leemans R, et al. **Ann Surg** 1999 Feb;229(2):279–85

Spleen autotransplantation provides restoration of functional splenic lymphoid compartments and improves the humoral immune response to pneumococcal polysaccharide vaccine [see comments] Leemans R, et al. **Clin Exp Immunol** 1999 Sep;117(3):596–604. Comment in: Clin Exp Immunol 1999 Sep;117(3):423–4.

Haematopathology of 'Sjögren-mice': histopathological changes in spleens after semiallogeneic cell transfer. Ussing AP, et al. **Scand J Immunol** 1999 Jun;49(6):641–8

The fate of donor splenic lymphocytes in a long-surviving host after combined pancrea/spleen transplantation in the rat. Kobayashi E, et al. **Transplant Proc** 1999 Sep; 31(6):2665–7

[A splenic autograft in posttraumatic splenectomies] Piccardo A, et al. **Minerva Chir** 1999 Jan–Feb;54(1–2):31–5 (Eng. Abstr.) **(Ita)**

[On the review of literature by V.A. Zurnadzh'iants and Yu.V. Nazarochkin "Autotransplantation of splenic tissue"] Grigor'ev EG, et al. **Khirurgiia (Mosk)** 1998;(7):44–7 (81 ref.) **(Rus)**

[Late relapse of idiopathic thrombocytopenic purpura in a splenectomized patient recipient of spleen autotransplantation (letter)] González Silva M, et al. **Sangre (Barc)** 1999 Feb;44(1):80–1 **(Spa)**

ULTRASONOGRAPHY

Normal liver, spleen, and kidney dimensions in neonates, infants, and children: evaluation with sonography. Konuş OL, et al. **AJR Am J Roentgenol** 1998 Dec;171(6):1693–8

Hepatosplenic morbidity in schistosomiasis japonica: evaluation with Doppler sonography. Kardorff R, et al. **Am J Trop Med Hyg** 1999 Jun;60(6):954–9

Ultrasound and Doppler features of accessory spleens and splenic grafts [see comments] Bertolotto M, et al. **Br J Radiol** 1998 Jun;71(846):595–600. Comment in: Br J Radiol 1998 Dec;71(852):1333.

Sonographic measurement of splenic length: correlation with measurement at autopsy. Loftus WK, et al. **J Clin Ultrasound** 1999 Feb;27(2):71–4

Punctate echogenic foci in spleen and increased echogenicity in renal cortex in sickle cell anemia [letter] Namjoshi SP. **J Clin Ultrasound** 1999 Jan;27(1):52

Normal splenic volumes estimated using three-dimensional ultrasonography. De Odorico I, et al. **J Ultrasound Med** 1999 Mar;18(3):231–6

Tissue-specific US contrast agent for evaluation of hepatic and splenic parenchyma. Forsberg F, et al. **Radiology** 1999 Jan;210(1):125–32

[Accessory spleen in hepatic cirrhosis: incidence and

SPLEEN

characteristics of Doppler ultrasonography duplex color (letter)] Martinez A, et al. **Gastroenterol Hepatol** 1999 Feb; 22(2):115 **(Spa)**

ULTRASTRUCTURE

The surface-connected canalicular system in the sinus endothelial cells of rat spleen. Uehara K, et al. **Cell Tissue Res** 1999 May;296(2):439-42

Histopathological and electron microscopical observations on rainbow trout fry syndrome. Rangdale RE, et al. **Vet Rec** 1999 Mar 6;144(10):251-4

SPLEEN FOCUS-FORMING VIRUSES

PATHOGENICITY

Role of the transmembrane sequence of spleen focus-forming virus gp55 in erythroleukemogenesis. Fang C, et al. **Virology** 1998 Dec 5;252(1):46-53

PHYSIOLOGY

Insertion of sequences into the 3' untranslated region of a replication-competent spleen necrosis virus vector disrupts env gene expression. Yin PD, et al. **Arch Virol** 1999; 144(1):73-87

SPLENECTOMY

Changes in serum thrombopoietin levels after splenectomy. Ichikawa N, et al. **Acta Haematol** 1998 Dec;100(3):137-41

Systemic hemodynamic changes in mansonic schistosomiasis with portal hypertension treated by azygoportal disconnection and splenectomy. de Cleva R, et al. **Am J Gastroenterol** 1999 Jun;94(6):1632-7

Comparative response to splenectomy in Coombs-positive autoimmune hemolytic anemia with or without associated disease. Akpek G, et al. **Am J Hematol** 1999 Jun; 61(2):98-102

Splenectomy during partial remission in thrombotic thrombocytopenic purpura with prolonged plasma exchange dependency. Mant MJ, et al. **Am J Hematol** 1999 Sep;62(1):56-7

Pneumococcal vaccine administration associated with splenectomy: missed opportunities. Kind EA, et al. **Am J Infect Control** 1998 Aug;26(4):418-22

Rhodesian trypanosomiasis in a splenectomized patient. Malesker MA, et al. **Am J Trop Med Hyg** 1999 Sep; 61(3):428-30

Accessory splenectomy in the management of recurrent immune thrombocytopenic purpura. Walters DN, et al. **Am Surg** 1998 Nov;64(11):1077-8

Splenectomy induced complete remission in a patient with multicentric Castleman's disease and autoimmune hemolytic anemia. Lerza R, et al. **Ann Hematol** 1999 Apr; 78(4):193-6

Immune response capacity after human splenic autotransplantation: restoration of response to individual pneumococcal vaccine subtypes. Leemans R, et al. **Ann Surg** 1999 Feb;229(2):279-85

Severe exacerbation of systemic lupus erythematosus after hepatitis B vaccination and importance of pneumococcal vaccination in patients with autosplenectomy: comment on the article by Battafarano et al [letter; comment] Senécal JL, et al. **Arthritis Rheum** 1999 Jun;42(6):1307-8. Comment on: Arthritis Rheum 1998 Oct;41(10):1828-34.

Splenectomy in agnogenic myeloid metaplasia [letter; comment] Porcu P, et al. **Blood** 1999 Mar 15;93(6):2132-4 . Comment on: Blood 1998 May 15;91(10):3630-6.

Splenic "regeneration" after partial splenectomy for Gaucher disease: histological features. Freud E, et al. **Blood Cells Mol Dis** 1998 Sep;24(3):309-16

Total gastrectomy with simultaneous pancreaticosplenectomy or splenectomy in patients with advanced gastric carcinoma. Otsuji E, et al. **Br J Cancer** 1999 Apr;79(11-12):1789-93

Splenectomy during pregnancy: an option in the treatment of autoimmune thrombocytopenic purpura. Gottlieb P, et al. **Br J Obstet Gynaecol** 1999 Apr;106(4):373-5

Ultrasound and Doppler features of accessory spleens and splenic grafts [see comments] Bertolotto M, et al. **Br J Radiol** 1998 Jun;71(846):595-600. Comment in: Br J Radiol 1998 Dec;71(852):1333.

Campylobacter bacteremia and pneumonia in two splenectomized patients. Sakran W, et al. **Eur J Clin Microbiol Infect Dis** 1999 Jul;18(7):496-8

Ruptured spleen due to blunt trauma in children: analysis of blood transfusion requirements. Kiliç N, et al. **Eur J Emerg Med** 1999 Jun;6(2):135-9

Long-term follow-up of autoimmune thrombocytopenic purpura (ATP) patients submitted to splenectomy. Mazzucconi MG, et al. **Eur J Haematol** 1999 Apr; 62(4):219-22

Long term effect of splenectomy on patients operated on for cancer of the left colon: a retrospective study. Konstadoulakis MM, et al. **Eur J Surg** 1999 Jun; 165(6):583-7

Splenectomy in recurrent epithelial ovarian cancer. Gemignani ML, et al. **Gynecol Oncol** 1999 Mar; 72(3):407-10 (13 ref.)

Elective splenectomy in relapsing thrombotic thrombocytopenic purpura [letter] Real E, et al. **Haematologica** 1998 Oct;83(10):959-60

High-dose dexamethasone for splenectomy in patients with idiopathic thrombocytopenic purpura. Bulvik S, et al. **Haemostasis** 1998 Sep-Oct;28(5):256-9

Massive intracranial bleeding requiring emergency splenectomy in a patient with CMV-associated thrombocytopenia. Gural A, et al. **Haemostasis** 1998 Sep-Oct;28(5):250-5 (16 ref.)

Concomitant splenectomy for hypersplenic thrombocytopenia in hepatic resection for hepatocellular carcinoma. Lin MC, et al. **Hepatogastroenterology** 1999 Mar-Apr;46(26):630-4

Gastro-esophageal decongestion and splenectomy GEDS (Hassab), in the management of bleeding varices. Review of literature. Hassab MA. **Int Surg** 1998 Jan-Mar; 83(1):38-41 (31 ref.)

Is there a role of preservation of the spleen in distal pancreatectomy? Benoist S, et al. **J Am Coll Surg** 1999 Mar;188(3):255-60

The impact of splenectomy on outcomes after resection of pancreatic adenocarcinoma. Schwarz RE, et al. **J Am Coll Surg** 1999 May;188(5):516-21

Portal system thrombosis after splenectomy for neoplasm or chronic hematologic disorder: is routine surveillance imaging necessary? Loring LA, et al. **J Comput Assist Tomogr** 1998 Nov-Dec;22(6):856-60

Splenectomy attenuates superoxide anion release into the hepatic sinusoids after lipopolysaccharide challenge. Mizukami T, et al. **J Hepatol** 1999 Aug;31(2):235-41

Effect of splenectomy on T-cell subsets and plasma HIV viral titers in HIV-infected patients. Bernard NF, et al. **J Hum Virol** 1998 Jul-Aug;1(5):338-45

Cytomegalovirus retinitis, human immunodeficiency virus antibody positivity and normal T helper cell numbers. Thomson RM, et al. **J Infect** 1998 Sep;37(2):186-8

Convulsions due to increased permeability of the blood-brain barrier in experimental cerebral malaria can be prevented by splenectomy or anti-T cell treatment. Hermsen CC, et al. **J Infect Dis** 1998 Oct;178(4):1225-7

Normal IgG and impaired IgM responses to polysaccharide vaccines in asplenic patients. Molrine DC, et al. **J Infect Dis** 1999 Feb;179(2):513-7

Postsplenectomy course in homozygous sickle cell disease. Wright JG, et al. **J Pediatr** 1999 Mar;134(3):304-9

Emergency splenectomy in the management of intracranial hemorrhage in childhood immune thrombocytopenic purpura [letter] Pastore Y, et al. **J Pediatr Hematol Oncol** 1999 Jul-Aug;21(4):306-7

Evaluation of the micronucleus test in peripheral blood erythrocytes by use of the splenectomized model. Ramírez-Muñoz MP, et al. **Lab Anim Sci** 1999 Aug; 49(4):418-20

Long-term results of laparoscopic splenectomy for immune thrombocytopenic purpura. Harold KL, et al. **Mayo Clin Proc** 1999 Jan;74(1):37-9

Idiopathic thrombocytopenic purpura in adults [editorial; comment] Wiley JS. **Med J Aust** 1999 Mar 1;170(5):196-7 . Comment on: Med J Aust 1999 Mar 1;170(5):216-7.

Splenectomy complications in hematological diseases. Ruiz-Argüelles GJ, et al. **Rev Invest Clin** 1998 Jul-Aug; 50(4):347-50

Autoimmune thrombocytopenia in primary antiphospholipid syndrome and systemic lupus erythematosus: the response to splenectomy. Hakim AJ, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):20-5

Laparoscopic splenectomy for hematologic malignancies. Schlachta CM, et al. **Surg Endosc** 1999 Sep;13(9):865-8

Effect of spleen size on splenectomy outcome. A comparison of open and laparoscopic surgery. Targarona EM, et al. **Surg Endosc** 1999 Jun;13(6):559-62

Dermoid cyst of the spleen: report of a case. Nakao A, et al. **Surg Today** 1999;29(7):660-2

Impact of splenectomy and immunochemotherapy on survival following gastrectomy for carcinoma: covariate interaction with immunosuppressive acidic protein, a serum marker for the host immune system. Tumor Marker Committee for the Study Group of Immunochemotherapy with PSK for Gastric Cancer. Saji S, et al. **Surg Today** 1999;29(6):504-10

A case controlled comparison of open and laparoscopic splenectomy in children. Rescorla FJ, et al. **Surgery** 1998 Oct;124(4):670-5; discussion 675-6

Laparoscopic versus open splenectomy in the management of splenomegaly: our preliminary experience [published erratum appears in Surgery 1999 Feb;125(2):154] Terrosu G, et al. **Surgery** 1998 Nov;124(5):839-43

T cell hypofunctions and glomerular sclerotic and angiogenic changes found both in rats received unilateral nephrectomy plus transplantation of syngeneic mesenteric lymph nodes and in rats received unilateral nephrectomy plus splenectomy. Nakatsuji T. **Tohoku J Exp Med** 1998 Sep; 186(1):1-11

Long-term (10-month) pig islet xenograft tolerance using measured total lymphoid irradiation, splenectomy, short-term rabbit antithymocyte globulin, and deoxyspergualin without long-term immunosuppression. Llyung T, et al. **Transplant Proc** 1999 Feb-Mar; 31(1-2):962-3

A trial to obtain donor-specific immunotolerance using a vascularized thymus allograft. Nishimura Y, et al. **Transplant Proc** 1998 Nov;30(7):3850-1

Effect of FK 506 and splenectomy on orthotopic small bowel xenotransplantation in the hamster-to-rat animal models. Sasaki K, et al. **Transplant Proc** 1998 Nov;30(7):3459-60

Splenectomy improves survival of HDAF transgenic pig kidneys in primates. Schmoeckel M, et al. **Transplant Proc** 1999 Feb-Mar;31(1-2):961

[Relation between AIDS, spleen and splenectomy] Qui Q, et al. **Chung Hua I Hsueh Tsa Chih** 1997 Sep;77(9):718-20 (18 ref.) **(Chi)**

[Isolated splenic trauma in adults: value of Resciniti's CT scoring system to define the indications for surgery] Froment P, et al. **Ann Chir** 1998;52(10):983-7 (Eng. Abstr.) **(Fre)**

[Peripheral T-cell lymphoma 9 months after hemophagocytic syndrome with a favorable outcome after splenectomy (letter)] Aubriet S, et al. **Rev Med Interne** 1999 Aug; 20(8):718-9 **(Fre)**

[Pseudo-Glanzmann thrombasthenia in the course of autoimmune thrombocytopenic purpura] Granel B, et al. **Rev Med Interne** 1998 Nov;19(11):823-5 (Eng. Abstr.) **(Fre)**

[Thoracic splenosis with symptoms of coronary heart disease] Gaedcke G, et al. **Dtsch Med Wochenschr** 1999 Aug 20; 124(33):958-61 (Eng. Abstr.) **(Ger)**

[Vaccination after splenectomy and in asplenia (letter)] Germing U. **Internist (Berl)** 1998 Nov;39(11):1201-2 **(Ger)**

[Babesiosis--a dangerous infection for splenectomized children and adults] Hohenschild S. **Klin Padiatr** 1999 May-Jun;211(3):137-40 (39 ref.) (Eng. Abstr.) **(Ger)**

[Multi-organ involvement in recurrent Moschcowitz disease. Splenectomy as ultima ratio in a therapeutic dilemma?] Jakob AR, et al. **Med Klin** 1998 Oct 15;93(10):624-6 (Eng. Abstr.) **(Ger)**

[Laparoscopic splenectomy--surgical and hematological results in the first 35 consecutive patients] Meyer G, et al. **Zentralbl Chir** 1998;123(11):1297-302 (Eng. Abstr.) **(Ger)**

[Splenic trauma: splenectomy in every case?] Giordano G, et al. **G Chir** 1999 Apr;20(4):169-73 (Eng. Abstr.) **(Ita)**

[Effective splenectomy in a patient with HIV-associated thrombocytopenia] Kato Y, et al. **Rinsho Ketsueki** 1998 Nov;39(11):1137-9 (Eng. Abstr.) **(Jpn)**

[Partial splenic embolization as a preoperative treatment for refractory idiopathic thrombocytopenic purpura] Sadamoto Y, et al. **Rinsho Ketsueki** 1998 Dec;39(12):1194-6 (Eng. Abstr.) **(Jpn)**

[A survival case of fulminant pneumococcal meningitis as overwhelming postsplenectomy infection (OPSI) syndrome] Yamashita S, et al. **Rinsho Shinkeigaku** 1998 Dec;38(12):1054-8 (27 ref.) (Eng. Abstr.) **(Jpn)**

[Treatment of thrombocytopenias] Bokarev IN. **Klin Med (Mosk)** 1999;77(7):56-9 (0 ref.) **(Rus)**

ADVERSE EFFECTS

Early postoperative complications of splenectomy for hematologic disease. Arnoletti JP, et al. **Am J Clin Oncol** 1999 Apr;22(2):114-8

Portal, mesenteric, and splenic vein thromboses after splenectomy in a patient with chronic myeloid leukemia variant with thrombocythemic onset. Lee JJ, et al. **Am J Hematol** 1999 Jul;61(3):212-5

Is splenectomy for massive splenomegaly safe in children? Al-Salem AH. **Am J Surg** 1999 Jul;178(1):42-5

Pulmonary hypertension after splenectomy? Hoeper MM, et al. **Ann Intern Med** 1999 Mar 16;130(6):506-9

Postsplenectomy Capnocytophaga canimorsus sepsis presenting as an acute abdomen. Sawmiller CJ, et al. **Arch Surg** 1998 Dec;133(12):1362-5

Surveillance of overwhelming post-splenectomy infection. **Commun Dis Rep CDR Wkly** 1998 Aug 14;8(33): , 292

Prevention and management of overwhelming postsplenectomy infection--an update. Brigden ML, et al. **Crit Care Med** 1999 Apr;27(4):836-42 (46 ref.)

Portal vein thrombosis after splenectomy for hereditary stomatocytosis in childhood. Perel Y, et al. **Eur J Pediatr** 1999 Aug;158(8):628-30

Intramural hematoma of stomach after splenectomy for idiopathic thrombocytopenic purpura [letter] Kami M, et al. **Haematologica** 1999 Jul;84(7):669-71

Failure of anti-pneumococcal vaccine and prophylactic penicillin in a splenectomized patient [letter] Shetty N, et al. **J Infect** 1998 Jul;37(1):87-8

Portal vein embolism. Abbasakoor F, et al. **J R Soc Med** 1999 Apr;92(4):197-8

Intractable oesophageal variceal bleeding caused by splenic arteriovenous fistula: treatment by transcatheter arterial embolization. Hung CF, et al. **Postgrad Med J** 1999 Jun; 75(884):355-7

[Complications of splenectomy] Turek J, et al. **Bratisl Lek Listy** 1998 Dec;99(12):689-91 (Eng. Abstr.) **(Cze)**

[Massive thrombosis of the superior mesenteric artery following splenectomy. A coincidence?] Ponzano C, et al. **Minerva Chir** 1999 Jun;54(6):437-41 (Eng. Abstr.) **(Ita)**

[Severe peripheral blood erythroblastosis following a splenectomy in a patient with heterozygous beta thalassemia and triple alpha gene (letter)] Martinez M, et al. **Sangre (Barc)** 1998 Oct;43(5):466 **(Spa)**

ECONOMICS

Laparoscopic splenectomy: reduction of hospital charges.

Schlinkert RT, et al. **J Gastrointest Surg** 1998 May-Jun; 2(3):278-82

HISTORY

Men with no spleens and carved-out feet: what is the meaning in the words? Oren M, et al. **Ann Intern Med** 1998 Nov 1;129(9):756-8

Tribute to a triad: history of splenic anatomy, physiology, and surgery-part 2. McClusky DA 3rd, et al. **World J Surg** 1999 May;23(5):514-26

Tribute to a triad: history of splenic anatomy, physiology, and surgery--part 1. McClusky DA 3rd, et al. **World J Surg** 1999 Mar;23(3):311-25

INSTRUMENTATION

Laparoscopic splenectomy: the latest modern technique. Hashizume M, et al. **Hepatogastroenterology** 1999 Mar-Apr;46(26):820-4

METHODS

Laparoscopic versus open splenectomy for immune thrombocytopenic purpura. Lozano-Salazar RR, et al. **Am J Surg** 1998 Oct;176(4):366-9

Results of laparoscopic splenectomy for immune thrombocytopenic purpura. Tanoue K, et al. **Am J Surg** 1999 Mar;177(3):222-6

A new technique for laparoscopic splenectomy with massively enlarged spleens. Hebra A, et al. **Am Surg** 1998 Dec;64(12):1161-4

Laparoscopic resection of a benign true cyst of the spleen with the harmonic scalpel producing high levels of CA 19-9 and carcinoembryonic antigen. Sardi A, et al. **Am Surg** 1998 Dec;64(12):1149-54

Laparoscopic splenectomy: outcome and efficacy in 103 consecutive patients. Katkhouda N, et al. **Ann Surg** 1998 Oct;228(4):568-78 (49 ref.)

Laparoscopic splenectomy. Schlinkert RT, et al. **Arch Surg** 1999 Jan;134(1):99-103

Do post-splenectomy patients take prophylactic penicillin? Keenan RD, et al. **Br J Haematol** 1999 May;105(2):509-10

Successful management of concomitant Diamond-Blackfan anaemia and aplastic anaemia with splenectomy [letter] Rossbach HC, et al. **Br J Haematol** 1999 Aug;106(2):569-70

Successful management of concurrent congenital dyserythropoietic anaemia and autoimmune haemolytic anaemia with splenectomy. Schmidt ML, et al. **Br J Haematol** 1998 Sep;102(5):1182-6

Overwhelming septicaemia in a patient with sickle cell/beta(0) thalassaemia and partial splenectomy [letter] Svarch E, et al. **Br J Haematol** 1999 Mar;104(4):930

No survival benefit from combined pancreaticosplenectomy and total gastrectomy for gastric cancer. Kitamura K, et al. **Br J Surg** 1999 Jan;86(1):119-22

Peritoneal irrigation with povidone-iodine solution after laparoscopic-assisted splenectomy significantly decreases port-tumor recurrence in a murine model. Lee SW, et al. **Dis Colon Rectum** 1999 Mar;42(3):319-26

The role of partial splenectomy in children with thalassemia. al-Salem AH, et al. **Eur J Pediatr Surg** 1998 Dec;8(6):334-8

Splenectomy in hematology. Current practice and new perspectives. Baccarani U, et al. **Haematologica** 1999 May; 84(5):431-6 (43 ref.)

Laparoscopic splenectomy after arterial embolisation. Totte E, et al. **Hepatogastroenterology** 1998 May-Jun; 45(21):773-6

Laparoscopic splenectomy for an inflammatory pseudotumor of the spleen: operative technique and case report. Tsugawa K, et al. **Hepatogastroenterology** 1998 Sep-Oct; 45(23):1887-91

Laparoscopic splenectomy for hematological disorders. Our experience in adult and pediatric patients. Caprotti R, et al. **Int Surg** 1998 Oct-Dec;83(4):303-7

Minilaparoscopic splenectomy: a new minimally invasive approach. Yuan RH, et al. **J Laparoendosc Adv Surg Tech A** 1998 Oct;8(5):269-72

Laparoscopy improves outcomes for pediatric splenectomy. Curran TJ, et al. **J Pediatr Surg** 1998 Oct;33(10):1498-500

Partial splenectomy in children under 4 years of age with hemoglobinopathy. Idowu O, et al. **J Pediatr Surg** 1998 Aug;33(8):1251-3

The role of prophylactic cholecystectomy during splenectomy in children with hereditary spherocytosis. Sandler A, et al. **J Pediatr Surg** 1999 Jul;34(7):1077-8

Splenic retrieval following laparoscopic splenectomy. Christensen BJ, et al. **J Soc Laparoendosc Surg** 1998 Jul-Sep;2(3):299

Laparoscopic splenectomy for non-Hodgkin lymphoma. Walsh RM, et al. **J Surg Oncol** 1999 Feb;70(2):116-21

A learning curve for laparoscopic splenectomy at an academic institution. Rege RV, et al. **J Surg Res** 1999 Jan; 81(1):27-32

Experimental study of the effects of splenectomy and partial splenectomy on bacterial translocation. Baykal A, et al. **J Trauma** 1999 Jun;46(6):1096-9

Hemisplenectomy for giant splenic cysts in children. Kimber C, et al. **Pediatr Surg Int** 1998 Nov;14(1-2):116-8

Present status of laparoscopic splenectomy for hematologic diseases: certitudes and unresolved issues. Gigot JF, et al. **Semin Laparosc Surg** 1998 Sep;5(3):147-67 (184 ref.)

Laparoscopic splenectomy. Rescorla FJ. **Semin Pediatr Surg** 1998 Nov;7(4):207-12 (28 ref.)

Laparoscopic splenectomy--a report of two cases. Kok KY, et al. **Singapore Med J** 1998 Oct;39(10):473-4

Conversion factors for laparoscopic splenectomy for immune thrombocytopenic purpura. Brody FJ, et al. **Surg Endosc** 1999 Aug;13(8):789-91

Laparoscopic splenectomy [letter] Delaitre BJ. **Surg Endosc** 1999 Aug;13(8):827

Splenectomy in childhood. The laparoscopic approach. Esposito C, et al. **Surg Endosc** 1998 Dec;12(12):1445-8

Laparoscopic splenectomy. How to make it easier using an innovative atraumatic suction grasper. Gentilli S, et al. **Surg Endosc** 1998 Nov;12(11):1345-7

Laparoscopic splenectomy: optimal vascular control using the lateral approach and ultrasonic dissection. Gossot D, et al. **Surg Endosc** 1999 Jan;13(1):21-5

Splenectomy for idiopathic thrombocytopenic purpura: comparison of laparoscopic and conventional surgery. Marassi A, et al. **Surg Endosc** 1999 Jan;13(1):17-20

Laparoscopic splenectomy for idiopathic thrombocytopenic purpura. A 1-year follow-up study. Meyer G, et al. **Surg Endosc** 1998 Nov;12(11):1348-52

Laparoscopic management of accessory spleens in immune thrombocytopenic purpura. Morris KT, et al. **Surg Endosc** 1999 May;13(5):520-2

Laparoscopic splenectomy for treatment of patients with idiopathic thrombocytopenic purpura. Comparison with open splenectomy. Shimomatsuya T, et al. **Surg Endosc** 1999 Jun;13(6):563-6

Inadequate detection of accessory spleens and splenosis with laparoscopic splenectomy: a shortcoming of the laparoscopic approach inhematological diseases [letter; comment] Targarona EM, et al. **Surg Endosc** 1999 Feb; 13(2):196-7; discussion 198-9. Comment on: Surg Endosc 1998 Feb;12(2):101-6.

Laparoscopic splenopexy for wandering (pelvic) spleen. Cohen MS, et al. **Surg Laparosc Endosc** 1998 Aug; 8(4):286-90

Laparoscopic approach to wandering spleen: a case report and an update to the question. Gurski RR, et al. **Surg Laparosc Endosc** 1998 Oct;8(5):363-5

Laparoscopic splenectomy: evolution and current status. Klingler PJ, et al. **Surg Laparosc Endosc** 1999 Jan;9(1):1-8 (66 ref.)

Early experience with laparoscopic splenectomy. Demeure MJ, et al. **WMJ** 1998 Nov;97(10):33-4

Laparoscopic splenectomy. Glasgow RE, et al. **World J Surg** 1999 Apr;23(4):384-8 (25 ref.)

[Laparoscopic splenectomy: value of the posterior approach] Gossot D. **Ann Chir** 1998;52(9):940-5 (Eng. Abstr.) **(Fre)**

[A splenic autograft in posttraumatic splenectomies] Piccardo A, et al. **Minerva Chir** 1999 Jan-Feb;54(1-2):31-5 (Eng. Abstr.) **(Ita)**

[Laparoscopic splenectomy for a massive splenomegaly using a transcatheter technique] Kobayashi S, et al. **Nippon Geka Gakkai Zasshi** 1998 Oct;99(10):733-6 (Eng. Abstr.) **(Jpn)**

[Laparoscopic splenectomy] Glomsaker T, et al. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1268-71 (Eng. Abstr.) **(Nor)**

[Is laparoscopy to become a routine technique in elective splenectomy?] Trondsen E. **Tidsskr Nor Laegeforen** 1999 Apr 10;119(9):1267 **(Nor)**

[Surgical treatment of hemolytic anemia] Sukhovyĭ MV, et al. **Klin Khir** 1999;(4):31-5 (Eng. Abstr.) **(Rus)**

[Laparoscopic splenectomy as an alternative to open surgery in the treatment of autoimmune thrombocytopenia] Espert JJ, et al. **Med Clin (Barc)** 1998 Oct 31;111(14):525-8 (Eng. Abstr.) **(Spa)**

[Autotransplantation of the spleen tissue after splenectomy] Mishchenko OO, et al. **Klin Khir** 1998;(5):42-3 **(Ukr)**

MORTALITY

Patient survival after D1 and D2 resections for gastric cancer: long-term results of the MRC randomized surgical trial. Surgical Co-operative Group. Cuschieri A, et al. **Br J Cancer** 1999 Mar;79(9-10):1522-30

The morbidity and mortality of pediatric splenectomy: does prophylaxis make a difference? Jugenburg M, et al. **J Pediatr Surg** 1999 Jul;34(7):1064-7

STATISTICS & NUMERICAL DATA

[Splenectomy] Krška Z, et al. **Bratisl Lek Listy** 1999 May; 100(5):256-8 (Eng. Abstr.) **(Cze)**

[Splenectomy indications at a general hospital] Polo Sabau J, et al. **Rev Clin Esp** 1999 Mar;199(3):126-31 (Eng. Abstr.) **(Spa)**

SPLENIC ARTERY

Spontaneous thrombosis of a pseudoaneurysm complicating pancreatitis. Vanlangenhove P, et al. **Abdom Imaging** 1999 Sep-Oct;24(5):491-3

Splenic arteriovenous fistula in a patient with lymphoma. van der Meer P, et al. **AJR Am J Roentgenol** 1998 Nov; 171(5):1377-9

Management of splenic artery aneurysm rupture during trial of scar with epidural analgesia. Fender GR, et al. **Am J Obstet Gynecol** 1999 Apr;180(4):1038-9

Ruptured splenic artery aneurysm during pregnancy: a rare case with both maternal and fetal survival. Herbeck M, et al. **Am J Obstet Gynecol** 1999 Sep;181(3):763-4

Post-traumatic pancreatitis with associated aneurysm of the splenic artery: report of 2 cases and review of the literature. Tandon V, et al. **Can J Surg** 1999 Jun;42(3):215-9 (28 ref.)

Calcified splenic artery aneurysm discovered during coronary arteriography. Kittusamy PK, et al. **Catheter Cardiovasc Interv** 1999 Jun;47(2):211-2

Massive gastrointestinal hemorrhage from pseudocyst with fistula and splenic artery aneurysm rupture. Nakazawa T, et al. **Endoscopy** 1999 Mar;31(3):S22

A case of aneurysm of the splenic artery successfully identified by endosonography. Taki N, et al. **Endoscopy** 1999 Aug;31(6):S52

New techniques: splenic artery embolization followed by intraarterial infusion chemotherapy for the treatment of pancreatic cancer. Yoshida H, et al. **Hepatogastroenterology** 1999 May-Jun;46(27):2024-7

Multiple aneurysms of the splenic artery. Parmentier JM, et al. **J Belge Radiol** 1998 Oct;81(5):244

Haemosuccus pancreaticus due to mucinous cystadenocarcinoma: the significance of recurrent abdominal pain, hyperamylasaemia and a pancreatic cyst in association with recurrent gastrointestinal bleeding. Macleod AJ, et al. **J R Coll Surg Edinb** 1999 Aug; 44(4):274-6

Splenic artery aneurysms: methods of laparoscopic repair. Arca MJ, et al. **J Vasc Surg** 1999 Jul;30(1):184-8

Extrasplenic pseudoaneurysm. The role of color flow Doppler ultrasound in diagnosis. Lin CT, et al. **Jpn Heart J** 1999 May;40(3):365-8

Aneurysm of the splenic artery in a patient with autosomal dominant polycystic kidney disease. Kanagasundaram NS, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):183-4

Acute hemorrhage in chronic pancreatitis: diagnosis and treatment options including superselective microcoil embolization. Reber PU, et al. **Pancreas** 1999 May; 18(4):399-402

Vascular complications (splenic and hepatic artery aneurysms) in the occipital horn syndrome: report of a patient and review of the literature. Mentzel HJ, et al. **Pediatr Radiol** 1999 Jan;29(1):19-22 (12 ref.)

Splenic artery tortuosity simulating a splenic artery aneurysm. Majeski J. **South Med J** 1998 Oct;91(10):949-51

Splenic artery aneurysm and orthotopic liver transplantation. Robertson AJ, et al. **Transpl Int** 1999;12(1):68-70

[Visceral aneurysms. Two case reports] Skettrup M, et al. **Ugeskr Laeger** 1998 Dec 7;160(50):7270-1 (Eng. Abstr.) **(Dan)**

[Diagnosis and treatment of 2 forms of ruptured aneurysm of the splenic artery (letter)] Pons V, et al. **Gastroenterol Clin Biol** 1998 Aug-Sep;22(8-9):739-41 **(Fre)**

[Rupture of a splenic artery aneurysm during pregnancy. Report of a case] Gallot D, et al. **J Gynecol Obstet Biol Reprod (Paris)** 1999 May; 28(2):168-70 (Eng. Abstr.) **(Fre)**

[Splenic pseudoaneurysms following acute pancreatitis] Cirocchi R, et al. **Minerva Chir** 1999 Apr;54(4):277-82 (66 ref.) (Eng. Abstr.) **(Ita)**

[Partial splenic embolization as a preoperative treatment for refractory idiopathic thrombocytopenic purpura] Sadamoto Y, et al. **Rinsho Ketsueki** 1998 Dec;39(12):1194-6 (Eng. Abstr.) **(Jpn)**

[Ruptured splenic artery aneurysm in pregnancy--a case report] Eggum R, et al. **Tidsskr Nor Laegeforen** 1999 May 20;119(13):1884 (Eng. Abstr.) **(Nor)**

[Cases of complications in surgical pathology of the branches of the celiac trunk] Tatarshaov Mkh, et al. **Klin Khir** 1999; (6):49-51 **(Rus)**

ABNORMALITIES

Percutaneous embolization of a splenic arteriovenous fistula related to acute necrotizing pancreatitis [letter] Raat H, et al. **Eur Radiol** 1999;9(4):753

Intractable oesophageal variceal bleeding caused by splenic arteriovenous fistula: treatment by transcatheter arterial embolization. Hung CF, et al. **Postgrad Med J** 1999 Jun; 75(884):355-7

ANATOMY & HISTOLOGY

Tortuosity of the splenic artery. Javors BR. **Abdom Imaging** 1999 May-Jun;24(3):313-4

The true splenic blood supply and its surgical applications. Romero-Torres R. **Hepatogastroenterology** 1998 May-Jun; 45(21):885-8

Contrast-enhanced three-dimensional magnetic resonance angiography of the splanchnic vasculature before and after caloric stimulation. Original investigation. Hany TF, et al. **Invest Radiol** 1998 Sep;33(9):682-6

DRUG EFFECTS

Effects of adrenergic and cholinergic drugs on splenic arteries and veins from hooded seals (Cystophora cristata). Cabanac A, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun; 120(2):277-81

Effects of imipramine, an uptake inhibitor, on double-peaked constrictor responses to periarterial nerve stimulation in isolated, perfused canine splenic arteries. Yang XP, et al. **Jpn J Pharmacol** 1999 Apr;79(4):461-6

SPLENIC ARTERY

INJURIES

Improved success in nonoperative management of blunt splenic injuries: embolization of splenic artery pseudoaneurysm [letter; comment] Kluger Y, et al. **J Trauma** 1998 Nov;45(5):980–1. Comment on: J Trauma 1998 Jun;44(6):1008–13; discussion 1013–5.

Traumatic splenic arteriovenous fistula: splenic conservation by embolization. Maloo MK, et al. **J Trauma** 1999 Jul; 47(1):173–5

Superselective embolization of a traumatic intrasplenic arteriovenous fistula. Salis A, et al. **J Trauma** 1999 Jan; 46(1):186–8

INNERVATION

Effects of prolonged cold storage on double peaked vasoconstrictor responses to periarterial nerve stimulation in isolated canine splenic arteries. Yang XP, et al. **Br J Pharmacol** 1999 Apr;126(8):1810–4

PHYSIOLOGY

Effects of adrenergic-receptor blockade and ligation of spleen vessels on the hemodynamics of dogs injected with scorpion venom [see comments] Tarasiuk A, et al. **Crit Care Med** 1999 Feb;27(2):365–72. Comment in: Crit Care Med 1999 Feb;27(2):250.

Endothelium-released adenosine triphosphate contributes to vasoconstrictor responses to periarterial nerve stimulation in isolated, perfused canine splenic arteries. Yang XP, et al. **Heart Vessels** 1998;13(5):256–61

RADIOGRAPHY

Aneurysm of the splenic artery. Bunschoten G, et al. **Acta Chir Belg** 1998 Oct;98(5):231–3

Detection of paraumbilical or splenorenal shunts by intra-arterial-DSA in bleeding varices: another risk factor? Nakamura R, et al. **Radiat Med** 1998 Sep–Oct;16(5):341–5

The arterial blood supply of the pancreas: a review. V. The dorsal pancreatic artery. An anatomic review and a radiologic study. Bertelli E, et al. **Surg Radiol Anat** 1998; 20(6):445–52

[Pancreatico-bronchial fistula with communication to a pseudoaneurysm of the arteria lienalis as a rare complication in chronic pancreatitis] Stenger AM, et al. **Z Gastroenterol** 1998 Dec;36(12):1047–51 (Eng. Abstr.) **(Ger)**

[Splenic artery aneurysm. Two successfully operated cases] Merlo M, et al. **Minerva Cardioangiol** 1998 Apr;46(4):123–6 (Eng. Abstr.) **(Ita)**

SURGERY

Do aneurysms and pseudoaneurysms of the splenic artery require different surgical strategy? de Perrot M, et al. **Hepatogastroenterology** 1999 May–Jun;46(27):2028–32

Splenic artery aneurysm associated with systemic lupus erythematosus: report of a case. Tazawa K, et al. **Surg Today** 1999;29(1):76–9

[Clinical thinking and decision-making in the practice. A young man in shock (see comments)] Vonk AB, et al. **Ned Tijdschr Geneeskd** 1999 Jan 30;143(5):240–2 (Eng. Abstr.). Comment in: Ned Tijdschr Geneeskd 1999 May 1;143(18):961; discussion 961–2. **(Dut)**

[Treatment of splenic hemorrhage by intervention on the splenic artery] Durdik S, et al. **Bratisl Lek Listy** 1998 Dec; 99(12):686–7 **(Slo)**

TRANSPLANTATION

Intraoperative hemodynamic assessment of gastroepiploic artery and saphenous vein bypass grafts: a comparative study. Louagie YA, et al. **J Thorac Cardiovasc Surg** 1999 Aug;118(2):330–8

ULTRASONOGRAPHY

Splenic artery aneurysm: value of color Doppler and the limitation of gray-scale ultrasonography. Ishida H, et al. **Abdom Imaging** 1998 Nov–Dec;23(6):627–32

SPLENIC DISEASES

see related

SPLENOSIS

Mesothelial splenic cyst—a case report. Reddi VR, et al. **Ann Acad Med Singapore** 1998 Nov;27(6):880–2

Splenic mucormycosis. Pastor E, et al. **Haematologica** 1999 Apr;84(4):375

What is your diagnosis?Splenic torsion. Baines EA. **J Small Anim Pract** 1999 Jun;40(6):251, 294–6

[Kinking of spleen in child] Shchitinin VE, et al. **Khirurgiia (Mosk)** 1999;(3):61 **(Rus)**

BLOOD

Laparoscopic resection of a benign true cyst of the spleen with the harmonic scalpel producing high levels of CA 19-9 and carcinoembryonic antigen. Sardi A, et al. **Am Surg** 1998 Dec;64(12):1149–54

Red cell deformability, splenic function and anaemia in thalassaemia. Dondorp AM, et al. **Br J Haematol** 1999 May; 105(2):505–8

COMPLICATIONS

Rupture of the spleen associated with Enterobacter cloacae. Peiper M, et al. **Acta Chir Belg** 1999 Apr;99(2):85–6

Acute abdomen due to spontaneous torsion of an accessory spleen [letter] Padilla D, et al. **Am J Emerg Med** 1999 Jul; 17(4):429–30

Hepatosplenic candidiasis in patients with acute leukemia: increasingly encountered complication. Sallah S. **Anticancer Res** 1999 Jan–Feb;19(1B):757–60 (14 ref.)

Fatal pneumococcal septicaemia in a coeliac patient [see comments] Johnston SD, et al. **Eur J Gastroenterol Hepatol** 1998 Apr;10(4):353–4. Comment in: Eur J Gastroenterol Hepatol 1998 Oct;10(10):899–900.

Acute abdomen due to torsion of wandering spleen: CT diagnosis. Raissaki M, et al. **Eur Radiol** 1998;8(8):1409–12

Reversible hypersplenism after splenopexy for wandering spleen. Benoist S, et al. **Hepatogastroenterology** 1998 Nov–Dec;45(24):2430–1

Inflammatory pseudotumor of the spleen associated with a cavernous hemangioma diagnosed at intra-operative cytology: report of a case and review of literature. Nasir A, et al. **In Vivo** 1999 Jan–Feb;13(1):87–92 (40 ref.)

Pancreatic hydatid cyst. Singh R, et al. **Indian J Gastroenterol** 1999 Jan–Mar;18(1):35

Splenic abscess in a patient with type 3 Gaucher's disease receiving enzyme replacement therapy. Maclean K, et al. **J Pediatr** 1999 Feb;134(2):245–7

Spontaneous rupture of splenic hamartoma: a case report. Yoshizawa J, et al. **J Pediatr Surg** 1999 Mar;34(3):498–9 (8 ref.)

Epidermoid cyst in a wandering spleen. Baglaj M, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):113–5

Spontaneous splenic rupture in infectious mononucleosis: conservative management with gradual percutaneous drainage of a subcapsular hematoma. Schwarz M, et al. **Pediatr Surg Int** 1999;15(2):139–40

A case of familial Mediterranean fever and polyarteritis nodosa complicated by spontaneous bilateral perirenal and subcapsular splenic haemorrhage [letter] Basaranoglu M, et al. **Rheumatology (Oxford)** 1999 Aug;38(8):794–6

Yersinia pseudotuberculosis bacteremia and splenic abscess in a patient with non-insulin-dependent diabetes mellitus. Rathmell WK, et al. **West J Med** 1999 Feb;170(2):110–2

CONGENITAL

Congenital splenic cyst—a report of two cases. Sarihan H, et al. **S Afr J Surg** 1999 May;37(2):45–7

DIAGNOSIS

Splenic abscess: a diagnostic and therapeutic challenge. de Bree E, et al. **Acta Chir Belg** 1998 Oct;98(5):199–202 (21 ref.)

Diagnosis and monitoring response to treatment of hepatosplenic candidiasis in patients with acute leukemia using magnetic resonance imaging. Sallah S, et al. **Acta Haematol** 1998;100(2):77–81

Disseminated aspergillus fumigatus infection: case report. Orem J, et al. **East Afr Med J** 1998 Jul;75(7):436–8

Atypical MRI presentation of a small splenic hamartoma. Fernandez-Canton G, et al. **Eur Radiol** 1999;9(5):883–5

Screening applications for MRI in the detection of upper abdominal disease: comparative study of non-contrast-enhanced single-shot MRI and contrast-enhanced helical CT. Jaegere TD, et al. **Eur Radiol** 1999;9(5):853–61

Imaging findings in Langerhans' cell histiocytosis of the liver and the spleen in an adult. Mampaey S, et al. **Eur Radiol** 1999;9(1):96–8

Splenic abscess in geriatric care [letter] Alterman P, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1481–3

Safety profile of ultrasmall superparamagnetic iron oxide ferumoxtran-10: phase II clinical trial data. Sharma R, et al. **J Magn Reson Imaging** 1999 Feb;9(2):291–4

Splenic abscess in a patient with type 3 Gaucher's disease receiving enzyme replacement therapy. Maclean K, et al. **J Pediatr** 1999 Feb;134(2):245–7

Hepatosplenic candidiasis after neutropenic phase of acute leukaemia. Colović M, et al. **Med Oncol** 1999 Jul; 16(2):139–42

Serological similarities between hyperreactive malarial splenomegaly and splenic lymphoma in west Africa. Wallace S, et al. **Trans R Soc Trop Med Hyg** 1998 Jul–Aug; 92(4):463–7

Hydatid cyst of spleen. Ibrarullah M, et al. **Trop Gastroenterol** 1999 Jan–Mar;20(1):55–6

[Pulmonary, splenic, and hepatic hydatidosis in a infant of 23 months (letter)] Bouskraoui M, et al. **Arch Pediatr** 1999 Mar;6(3):340 **(Fre)**

[Splenic infarction by torsion of its pedicle: the wandering spleen syndrome (letter)] Blanc C, et al. **Gastroenterol Clin Biol** 1999 May;23(5):585–6 **(Fre)**

[Diagnostic imaging in hepatosplenic candidiasis] Müller D, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jun;170(6):587–90 (24 ref.) (Eng. Abstr.) **(Ger)**

[Increased CA-19-9 caused by a splenic cyst: a rare differential diagnosis] Decker D, et al. **Zentralbl Chir** 1998; 123(7):855–7 (Eng. Abstr.) **(Ger)**

[2 cases of a true splenic cyst] Marchesi M, et al. **Ann Ital Chir** 1998 Jul–Aug;69(4):525–8 (14 ref.) (Eng. Abstr.) **(Ita)**

[Benign non-parasitic cysts of the spleen] Pouché A, et al. **Ann Ital Chir** 1999 Jan–Feb;70(1):83–8; discussion 88–90 (Eng. Abstr.) **(Ita)**

[True splenic cysts. Two clinical cases] Ragazzi S, et al. **Minerva Pediatr** 1998 Jul–Aug;50(7–8):381–3 (Eng. Abstr.) **(Ita)**

[A case of disseminated hepato-splenic involvement in infectious mononucleosis. Computerized tomography and magnetic resonance findings] Ferrozzi F, et al. **Radiol Med (Torino)** 1998 Sep;96(3):258–60 **(Ita)**

[A case of calcified false cyst of the spleen] Ueno H, et al. **Nippon Shokakibyo Gakkai Zasshi** 1999 Aug;96(8):977–9 **(Jpn)**

[Splenic abscess] Wysocki A, et al. **Przegl Lek** 1999; 56(3):242–3 (8 ref.) (Eng. Abstr.) **(Pol)**

[A case of splenic hamartoma] Mustiatsé LZ, et al. **Vopr Onkol** 1998;44(6):738–9 **(Rus)**

[Splenic abscess: a case report and review of the literature] Canora Lebrato J, et al. **An Med Interna** 1999 Jan; 16(1):31–4 (22 ref.) (Eng. Abstr.) **(Spa)**

[Extraintestinal salmonellosis localized in the spleen (letter)] García Ureña MA, et al. **Rev Esp Enferm Dig** 1999 Feb; 91(2):153–4 **(Spa)**

[Inflammatory pseudotumor of the spleen. An old concept with many questions] Madrigal B, et al. **Sangre (Barc)** 1998 Jun;43(3):227–30 (Eng. Abstr.) **(Spa)**

EPIDEMIOLOGY

A reassessment of splenic hypofunction in celiac disease. Corazza GR, et al. **Am J Gastroenterol** 1999 Feb; 94(2):391–7

The situation of hepatosplenic schistosomiasis in Brazil today. Andrade ZA. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:313–6

[Incidence and clinical features of splenic abscesses, with special reference to tuberculous etiology in a general hospital] Arruabarrena I, et al. **Gastroenterol Hepatol** 1998 Dec;21(10):479–82 (Eng. Abstr.) **(Spa)**

ETIOLOGY

Chronic expanding hematoma of the spleen caused by angiomyolipoma in a patient with tuberous sclerosis. Asayama Y, et al. **Abdom Imaging** 1998 Sep–Oct; 23(5):527–30

Splenic calcifications in heterozygote sickle cell patients. Ozgen A, et al. **Abdom Imaging** 1999 Mar–Apr;24(2):188–90

Splenic complications in chronic pancreatitis: prevalence and risk factors in a medical-surgical series of 500 patients. Malka D, et al. **Br J Surg** 1998 Dec;85(12):1645–9

Etiology, clinical features and outcome of splenic microabscesses in HIV-infected patients with prolonged fever. Bernabeu-Wittel M, et al. **Eur J Clin Microbiol Infect Dis** 1999 May;18(5):324–9

Impaired splenic function and tuftsin deficiency in patients with intestinal failure on long term intravenous nutrition. Zoli G, et al. **Gut** 1998 Dec;43(6):759–62

Splenic peliosis: a cause of spontaneous splenic rupture. Ortega Deballon P, et al. **Surgery** 1999 Sep;126(3):585–6

[The wandering spleen caught in the net. Apropos of a case (letter)] Etienne JC, et al. **Ann Chir** 1998;52(7):666 **(Fre)**

[Splenic abscess caused by Coxiella burnetti in the absence of endocarditis] Cathébras P, et al. **Rev Med Interne** 1998 Oct;19(10):740–2 (Eng. Abstr.) **(Fre)**

[Splenic involvement in infectious endocarditis. Association for the Study and Prevention of Infectious Endocarditis] Trouillet JL, et al. **Rev Med Interne** 1999 Mar;20(3):258–63 (Eng. Abstr.) **(Fre)**

[Mobile spleen] Kurguzov OP, et al. **Khirurgiia (Mosk)** 1999; (1):66–9 (138 ref.) **(Rus)**

[On the damaging mechanism of mixed wood dust] Pastukhov VV, et al. **Med Tr Prom Ekol** 1999;(5):8–12 (Eng. Abstr.) **(Rus)**

[A splenic abscess of unknown etiology] Toncr I, et al. **Rozhl Chir** 1999 Mar;78(3):114–6 (Eng. Abstr.) **(Slo)**

IMMUNOLOGY

Peliosis of the spleen: an immune-complex disease? Gugger M, et al. **Histopathology** 1998 Oct;33(4):387–9

The spleen is an important site of T cell activation during human hepatosplenic schistosomiasis. Martins Filho OA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:159–64

METABOLISM

Benign epithelial cyst of the spleen with a high production of carbohydrate antigen 19-9. Ishibashi R, et al. **Int Surg** 1999 Apr–Jun;84(2):151–4

[Effect of sijunzi decoction on motilin and pharmacokinetic characteristics of tetramethylpyrazine in rat model of spleen deficiency syndrome] Ren P, et al. **Chung Kuo Chung Hsi I Chieh Ho Tsa Chih** 1997 Jan; 17(1):45–7 (Eng. Abstr.) **(Chi)**

MICROBIOLOGY

Pathological case of the month. Hepatosplenic candidiasis in a patient with leukemia. Fleece DM, et al. **Arch Pediatr Adolesc Med** 1998 Oct;152(10):1033–4

Microbiology of liver and spleen abscesses. Brook I, et al. **J Med Microbiol** 1998 Dec;47(12):1075–80

Systemic Bartonella henselae infection with hepatosplenic

involvement. Ventura A, et al.
J Pediatr Gastroenterol Nutr 1999 Jul;29(1):52–6
[Calcified splenic abscess, colonic fistula and ascites in a chronic carrier of Salmonella typhi] Débat Zoguéreh D, et al. **Gastroenterol Clin Biol** 1998 Dec;22(12):1102–5 (Eng. Abstr.) **(Fre)**
[Splenic abscess caused by Brucella abortus] dos Santos-Neto LL, et al. **Rev Soc Bras Med Trop** 1999 Jan–Feb;32(1):53–5 (Eng. Abstr.) **(Por)**

PARASITOLOGY

Splenic rupture as a complication of P. falciparum malaria after residence in the tropics. Report of two cases. de Aguirre Z, et al. **Acta Clin Belg** 1998 Dec;53(6):374–7
The situation of hepatosplenic schistosomiasis in Brazil today. Andrade ZA. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:313–6
The spleen is an important site of T cell activation during human hepatosplenic schistosomiasis. Martins Filho OA, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:159–64

PATHOLOGY

The spleen in the Wiskott–Aldrich syndrome: histopathologic abnormalities of the white pulp correlate with the clinical phenotype of the disease. Vermi W, et al.
Am J Surg Pathol 1999 Feb;23(2):182–91
Splenic vascular lesions: unusual features and a review of the literature. Lam KY, et al. **Aust N Z J Surg** 1999 Jun; 69(6):422–5 (64 ref.)
Splenic peliosis: a rare complication following liver transplantation. Raghavan R, et al. **Dig Dis Sci** 1999 Jun; 44(6):1128–31 (24 ref.)
Lymphoepithelial cyst and epidermoid cyst of the accessory spleen in the pancreas. Tateyama H, et al. **Mod Pathol** 1998 Dec;11(12):1171–7

PHYSIOPATHOLOGY

Gadolinium chloride toxicity in the mouse. Spencer A, et al. **Hum Exp Toxicol** 1998 Nov;17(11):633–7
[Angiographic study of the hepatic venous system with pressure gradient: basic evaluation or superfluous imposition (editorial)] D'Albuquerque LA, et al.
Arq Gastroenterol 1998 Jul–Sep;35(3):153–6 **(Por)**
[Angiographic aspects of the hepatic veins in portal hypertension in schistosomiasis. The importance in assessing the hepatic vein pressure] Widman A, et al.
Arq Gastroenterol 1998 Jul–Sep;35(3):157–63 (Eng. Abstr.) **(Por)**

RADIOGRAPHY

Dramatic x-rays, but innocuous. Goonaratna C, et al.
Ceylon Med J 1998 Sep;43(3):163–4
Acute abdomen due to torsion of wandering spleen: CT diagnosis. Raissaki M, et al. **Eur Radiol** 1998;8(8):1409–12
Gamna-gandy bodies of the spleen depicted by unenhanced CT: report of two cases. Luo TY, et al. **Radiat Med** 1998 Nov–Dec;16(6):473–6
[Hepato-splenic sarcoidosis] Bruel JM. **J Radiol** 1998 Dec; 79(12):1526–7 **(Fre)**
[Splenic volvulus or the syndrome of the wandering spleen (letter)] Kerleau JM, et al. **Rev Med Interne** 1998 Nov; 19(11):837–8 **(Fre)**
[Young woman with low-grade fever and left hypochondrium pain of 2-month duration] Camarasa Garcia F, et al. **Rev Clin Esp** 1999 Feb;199(2):105–6 **(Spa)**

RADIONUCLIDE IMAGING

Tc-99m colloid and Ga-67 imaging of splenic inflammatory pseudotumor correlation with ultrasound, CT, and MRI. Suga K, et al. **Clin Nucl Med** 1999 May;24(5):334–7

SURGERY

Laparoscopic resection of a benign true cyst of the spleen with the harmonic scalpel producing high levels of CA 19-9 and carcinoembryonic antigen. Sardi A, et al.
Am Surg 1998 Dec;64(12):1149–54
Percutaneous drainage of subcapsular splenic hematoma: an experimental model in dogs. Sofer M, et al. **Am Surg** 1998 Dec;64(12):1212–4
Laparoscopic splenectomy for an inflammatory pseudotumor of the spleen: operative technique and case report. Tsugawa K, et al. **Hepatogastroenterology** 1998 Sep–Oct; 45(23):1887–91
Surgical resection of traumatic spleen cysts by laparoscopy. Linhares MM, et al. **Int Surg** 1998 Oct–Dec;83(4):308–10
Laparoscopic complete excision of a splenic epidermoid cyst. Soares RL Jr, et al. **J Laparoendosc Adv Surg Tech A** 1998 Aug;8(4):237–40
Laparoscopic splenopexy for pediatric wandering spleen. Hirose R, et al. **J Pediatr Surg** 1998 Oct;33(10):1571–3
Laparoscopic splenic cystectomy: a case report. Seshadri PA, et al. **J Pediatr Surg** 1998 Sep;33(9):1439–40
Hemisplenectomy for giant splenic cysts in children. Kimber C, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):116–8
Cyst decapsulation: an alternative option in the conservative management of benign splenic cysts [letter; comment] Mahomed A, et al. **Pediatr Surg Int** 1998 Nov;14(1–2):153 . Comment on: Pediatr Surg Int 1997 Jul;12(5–6):353–5.
Splenic cysts--aspiration or partial splenic decapsulation? Mahomed A, et al. **S Afr J Surg** 1998 Aug;36(3):84–6
Laparoscopic splenectomy: optimal vascular control using the lateral approach and ultrasonic dissection. Gossot D, et al. **Surg Endosc** 1999 Jan;13(1):21–5
Effect of spleen size on splenectomy outcome. A comparison of open and laparoscopic surgery. Targarona EM, et al. **Surg Endosc** 1999 Jun;13(6):559–62
Inadequate detection of accessory spleens and splenosis with laparoscopic splenectomy: a shortcoming of the laparoscopic approach inhematological diseases [letter; comment] Targarona EM, et al. **Surg Endosc** 1999 Feb; 13(2):196–7; discussion 198–9. Comment on: Surg Endosc 1998 Feb;12(2):101–6.
Laparoscopic splenopexy for wandering (pelvic) spleen. Cohen MS, et al. **Surg Laparosc Endosc** 1998 Aug; 8(4):286–90
Laparoscopic approach to wandering spleen: a case report and an update to the question. Gurski RR, et al.
Surg Laparosc Endosc 1998 Oct;8(5):363–5
Laparoscopic splenectomy: evolution and current status. Klingler PJ, et al. **Surg Laparosc Endosc** 1999 Jan;9(1):1–8 (66 ref.)
[Splenic abscess: treatment by percutaneous puncture-drainage] Loizon P, et al. **J Chir (Paris)** 1999 Jun;136(2):90 **(Fre)**
[Primary cysts of the spleen: apropos 3 cases with a review of the literature] Fusetti C, et al. **Ann Ital Chir** 1998 Nov–Dec;69(6):783–7; discussion 787–8 (31 ref.) (Eng. Abstr.) **(Ita)**
[Hilar localization of splenic cyst does not always exclude the possibility of resective treatment] Pouchè A, et al.
G Chir 1999 Jan–Feb;20(1–2):25–30 (Eng. Abstr.) **(Ita)**
[Conservative surgery in injuries and focal formations of the spleen] Bordunovskii VN. **Khirurgiia (Mosk)** 1999;(6):38–42 (Eng. Abstr.) **(Rus)**

THERAPY

Splenic abscess in geriatric care [letter] Alterman P, et al. **J Am Geriatr Soc** 1998 Nov;46(11):1481–3
Control of splenic bleeding by using high intensity ultrasound. Vaezy S, et al. **J Trauma** 1999 Sep;47(3):521–5
Adjuvant urokinase therapy in percutaneous drainage of a multiloculated splenic abscess. Kelly IM, et al.
J Vasc Interv Radiol 1999 Jul–Aug;10(7):919–23

ULTRASONOGRAPHY

Visceral organ abscesses in melioidosis. sonographic findings. Wibulpolprasert B, et al. **J Clin Ultrasound** 1999 Jan; 27(1):29–34
Images of Interest. Hepatobiliary and pancreatic: an alcoholic man with a lesion in the splenic hilum. Okuda K, et al. **J Gastroenterol Hepatol** 1999 Feb;14(2):197; discussion 198
Sonographic findings in splenogonadal fusion. Cirillo RL Jr, et al. **Pediatr Radiol** 1999 Jan;29(1):73–5
Ultrasonography of the liver and spleen in Brazilian patients with hepatosplenic schistosomiasis and cirrhosis. Pereira LM, et al. **Trans R Soc Trop Med Hyg** 1998 Nov–Dec; 92(6):639–42

VETERINARY

Laparoscopic diagnosis of subcapsular splenic hematoma in a horse. Mehl ML, et al. **J Am Vet Med Assoc** 1998 Oct 15;213(8):1171–3, 1133
Characterization of mouse parvovirus infection among BALB/c mice from an enzootically infected colony. Shek WR, et al. **Lab Anim Sci** 1998 Jun;48(3):294–7

VIROLOGY

[A case of disseminated hepato-splenic involvement in infectious mononucleosis. Computerized tomography and magnetic resonance findings] Ferrozzi F, et al.
Radiol Med (Torino) 1998 Sep;96(3):258–60 **(Ita)**

SPLENIC INFARCTION

COMPLICATIONS

[Splenic infarction in a patient with anticardiolipin antibodies and leptospirosis (letter)] Noval J, et al.
Enferm Infecc Microbiol Clin 1999 Feb;17(2):98–9 **(Spa)**

DIAGNOSIS

[Splenic infarction by torsion of its pedicle: the wandering spleen syndrome (letter)] Blanc C, et al.
Gastroenterol Clin Biol 1999 May;23(5):585–6 **(Fre)**

ETIOLOGY

Splenic infarction from factor V Leiden mutation [letter] Lopez F, et al. **Am J Hematol** 1999 Sep;62(1):62–3
Splenic infarct as a late complication of liver transplantation. Dourakis SP, et al. **Eur J Gastroenterol Hepatol** 1998 Sep; 10(9):805–8
Splenic infarction after histoacryl injection for bleeding gastric varices. Cheng PN, et al. **Gastrointest Endosc** 1998 Oct;48(4):426–7
Splenic syndrome in sickle cell trait: four case presentations and a review of the literature. Franklin QJ, et al.
Mil Med 1999 Mar;164(3):230–3 (17 ref.)
The elderly haemodialysis patient with abdominal symptoms and hypovolemic shock--splenic rupture secondary to splenic infarction in a patient with severe atherosclerosis [letter] Gascón A, et al. **Nephrol Dial Transplant** 1999 Apr; 14(4):1044–5
Splenic infarction after total pancreatectomy and autologous islet transplantation into the spleen. White SA, et al.
Pancreas 1999 May;18(4):419–21
CT of splenic infarction in SLE. Chen LC, et al.
Pediatr Radiol 1998 Sep;28(9):721
Splenic infarction caused by idiopathic venous thrombosis. Mazumdar A, et al. **Trop Gastroenterol** 1998 Oct–Dec; 19(4):166–7

RADIOGRAPHY

CT of splenic infarction in SLE. Chen LC, et al.
Pediatr Radiol 1998 Sep;28(9):721

RADIONUCLIDE IMAGING

Splenic infarction evidenced by whole-body Tc-99m HMPAO-labeled leukocyte scan. Cook BJ, et al.
Clin Nucl Med 1999 Jan;24(1):61–2
A safe, simple method for preparing heat-damaged red cells for diagnosing splenic infarct or trauma. Snowdon GM.
J Nucl Med Technol 1998 Sep;26(3):204–5

SPLENIC NEOPLASMS

Carcinoid tumour of the spleen. Ng JW, et al.
Aust N Z J Surg 1999 Jan;69(1):70–2
Primary malignant fibrous histiocytoma of spleen. Mallipudi BV, et al. **Eur J Surg Oncol** 1998 Oct;24(5):448–9 (07 ref.)
Splenic lymphoma with circulating villous lymphocytes/splenic marginal-zone lymphoma. Catovsky D, et al. **Semin Hematol** 1999 Apr;36(2):148–54 (31 ref.)

BLOOD

Histiocytic sarcoma of the spleen associated with hypoalbuminemia, hypo gamma-globulinemia and thrombocytopenia as a possibly unique clinical entity--report of three cases. Kimura H, et al.
Leuk Lymphoma 1998 Sep;31(1–2):217–24

COMPLICATIONS

Chronic expanding hematoma of the spleen caused by angiomyolipoma in a patient with tuberous sclerosis. Asayama Y, et al. **Abdom Imaging** 1998 Sep–Oct; 23(5):527–30
Splenic hemangiosarcoma with massive calcification. Kinoshita T, et al. **Abdom Imaging** 1999 Mar–Apr; 24(2):185–7
Ruptured primary splenic angiosarcoma into the colon. Presentation as anal bleeding. Jiménez-Heffernan JA, et al. **Acta Gastroenterol Belg** 1999 Apr–Jun;62(2):248–51
Splenic metastasis from a rectal tumour: an unusual presentation. Achuthan R, et al. **Ann R Coll Surg Engl** 1999 Mar;81(2):139 (4 ref.)
Splenic lymphoma with villous lymphocytes presenting as leucocytoclastic vasculitis. Farrell AM, et al.
Clin Exp Dermatol 1999 Jan;24(1):19–22
Mediastinal germ cell tumor complicated by visceral hemangiomatosis. Sekine I, et al. **Intern Med** 1998 Dec; 37(12):1042–5
Splenic angiosarcoma--an unusual cause of bleeding gastrointestinal tract. Chung YF, et al.
Singapore Med J 1999 Feb;40(2):106–8

DIAGNOSIS

Littoral cell angioma of the spleen: US and MR imaging findings. Oliver-Goldaracena JM, et al. **Abdom Imaging** 1998 Nov–Dec;23(6):636–9
Case of hepatosplenic gammadelta T-cell lymphoma presenting with severe hypersplenism [letter] Dinçol G, et al. **Am J Hematol** 1999 Apr;60(4):313–4
Hepato-splenic gammadelta T-cell lymphoma: a rare entity mimicking the hemophagocytic syndrome. Nosari A, et al. **Am J Hematol** 1999 Jan;60(1):61–5
Hemangioendothelioma of the spleen: imaging findings at color Doppler, US, and CT. Ferrozzi F, et al.
Clin Imaging 1999 Mar–Apr;23(2):111–4
Splenic lymphoma presenting as necrotizing glomerulonephritis. Messiaen T, et al. **Clin Nephrol** 1998 Dec;50(6):387–9
Splenic lymphoma with villous lymphocytes should be included in the differential diagnosis of massive splenomegaly. Bedu-Addo G, et al. **Croat Med J** 1998 Dec; 39(4):412–8
Myelofibrosis presenting as splenic tumor. Macumber C, et al. **Dig Dis Sci** 1999 Sep;44(9):1817–22
Primary splenic hairy cell leukaemia variant presenting as immune thrombocytopenic purpura [letter] Virchis AE, et al. **Eur J Haematol** 1998 Oct;61(4):288–91
Anaemia, thrombocytopenia and coagulopathy due to occult diffuse infantile haemangiomatosis of spleen and pancreas. Schulz AS, et al. **Eur J Pediatr** 1999 May;158(5):379–83
Splenic inflammatory pseudotumor mimicking primary splenic malignancy [letter] Edoute Y, et al.
Haematologica 1999 Aug;84(8):765–6
Lymphangiomatous cysts of the spleen: report of 3 cases and review of the literature. Abdel-Wahab M, et al.
Hepatogastroenterology 1998 Nov–Dec;45(24):2101–4

Pathologic-spontaneous-rupture of the spleen as a presenting sign of splenic T-cell lymphoma--case report with review. Haj M. et al. **Hepatogastroenterology** 1999 Jan-Feb; 46(25):193-5

Inflammatory pseudotumor of the spleen associated with a cavernous hemangioma diagnosed at intra-operative cytology: report of a case and review of literature. Nasir A, et al. **In Vivo** 1999 Jan-Feb;13(1):87-92 (40 ref.)

Primary splenic tuberculosis in a patient with nasal angiocentric lymphoma: mimicking metastatic tumor on abdominal CT. Özgüroğlu M, et al. **J Clin Gastroenterol** 1999 Jul;29(1):96-8

Multimodality demonstration of primary splenic angiosarcoma. Aytaç S, et al. **J Clin Ultrasound** 1999 Feb; 27(2):92-5

CT and MR findings of splenic angiosarcoma. Imaoka I, et al. **Radiat Med** 1999 Jan-Feb;17(1):67-70

Splenic mucinous cystadenocarcinoma arising in heterotopic pancreatic tissue. Zanetti G, et al. **Tumori** 1998 Sep-Oct; 84(5):606-10

[Littoral cell angioma: a rare vascular splenic tumor] Parrens M, et al. **Ann Pathol** 1998 Dec;18(6):484-7 (Eng. Abstr.) **(Fre)**

[Lupus syndrome revealing splenic marginal-zone lymphoplasmocytic lymphoma B (letter)] Hayem G, et al. **Rev Med Interne** 1999 Feb;20(2):182-4 **(Fre)**

[Splenic lymphoma with villous lymphocytes and Waldenstrom disease: diagnostic difficulties by way of a case report (letter)] Sève P, et al. **Rev Med Interne** 1998 Nov;19(11):839-41 **(Fre)**

[Littoral-cell angioma--a rare differential diagnosis on splenic tumors] Sauer J, et al. **Dtsch Med Wochenschr** 1999 May 21;124(20):624-8 (9 ref.) (Eng. Abstr.) **(Ger)**

[2D and 3D parameter images for the analysis of contrast medium distribution in dynamic CT and MRI] Beier J, et al. **Radiologe** 1998 Oct;38(10):832-40 (27 ref.) (Eng. Abstr.) **(Ger)**

[Primary hepatosplenic (gamma delta) T-cell lymphoma: clinico-pathologic analysis of 3 cases] Plank L, et al. **Vnitr Lek** 1998 Sep;44(9):528-34 (Eng. Abstr.) **(Slo)**

DRUG THERAPY

Non-secretory solitary plasmacytoma of the spleen. Colović MD, et al. **Med Oncol** 1998 Dec;15(4):286-8

GENETICS

7q31-32 allelic loss is a frequent finding in splenic marginal zone lymphoma. Mateo M, et al. **Am J Pathol** 1999 May; 154(5):1583-9

The incidence of trisomy 3 in splenic lymphoma with villous lymphocytes: a study by FISH. Gruszka-Westwood AM, et al. **Br J Haematol** 1999 Mar;104(3):600-4

Mucinous cystadenocarcinoma of the spleen presenting a point mutation of the Kirsten-ras oncogene at codon 12. Hirota M, et al. **Dig Dis Sci** 1999 Apr;44(4):768-74 (16 ref.)

The first pathogenic mitochondrial methionine tRNA point mutation is discovered in splenic lymphoma. Lombès A, et al. **Hum Mutat** 1998;Suppl 1:S175-83

Analysis of the frequency of microsatellite instability and p53 gene mutation in splenic marginal zone and MALT lymphomas. Sol Mateo M, et al. **Mol Pathol** 1998 Oct; 51(5):262-7

Consistency of isochromosome 7q and trisomy 8 in hepatosplenic gammadelta T-cell lymphoma: detection by fluorescence In situ hybridization of a splenic touch-preparation from a pediatric patient. Coventry S, et al. **Pediatr Dev Pathol** 1999 Sep-Oct;2(5):478-83

[Splenic lymphoma with villous lymphocytes expressing chromosomal abnormalities] Fujita M, et al. **Rinsho Ketsueki** 1999 Apr;40(4):330-5 (Eng. Abstr.) **(Jpn)**

[Primary splenic lymphoma with t(3;14)(q27;q32) chromosomal abnormality and rearrangement of BCL-6 gene] Yata K, et al. **Rinsho Ketsueki** 1999 Jul;40(7):587-92 (14 ref.) (Eng. Abstr.) **(Jpn)**

IMMUNOLOGY

Somatic mutation analysis of IgH variable regions reveals that tumor cells of most parafollicular (monocytoid) B-cell lymphoma, splenic marginal zone B-cell lymphoma, and some hairy cell leukemia are composed of memory B lymphocytes. Miranda RN, et al. **Hum Pathol** 1999 Mar; 30(3):306-12

Splenic marginal zone cell lymphoma associated with clonal B-cell populations showing different immunoglobulin heavy chain sequences. Elenitoba-Johnson KS, et al. **Mod Pathol** 1998 Sep;11(9):905-13

PATHOLOGY

Hepatosplenic gamma delta T-cell lymphoma--not just alphabet soup. Chang KL, et al. **Adv Anat Pathol** 1998 Jan;5(1):21-9 (22 ref.)

Splenic marginal zone lymphomas of mice. Fredrickson TN, et al. **Am J Pathol** 1999 Mar;154(3):805-12

Primary nodal marginal zone lymphomas of splenic and MALT type. Campo E, et al. **Am J Surg Pathol** 1999 Jan; 23(1):59-68

A marginal zone pattern may be found in different varieties of non-Hodgkin's lymphoma: the morphology and immunohistology of splenic involvement by B-cell lymphomas simulating splenic marginal zone lymphoma. Piris MA, et al. **Histopathology** 1998 Sep;33(3):230-9

An autopsy case of systemic hemangiomatosis with honeycomb-like liver and focal splenic sarcomatoid changes. Tsukagoshi H, et al. **Intern Med** 1998 Oct; 37(10):847-52

Tumors of the retinal pigment epithelium metastasize to inguinal lymph nodes and spleen in tyrosinase-related protein 1/SV40 T antigen transgenic mice. Penna D, et al. **Oncogene** 1998 Nov 19;17(20):2601-7

Anaplastic large cell lymphoma of the spleen. Nai GA, et al. **Pathol Res Pract** 1998;194(7):517-22

Littoral cell angioma of the spleen: an additional report of four cases with emphasis on the association with visceral organ cancers. Bisceglia M, et al. **Tumori** 1998 Sep-Oct; 84(5):595-9 (21 ref.)

[Magnetic resonance diagnosis of large cystic lymphangioma of the spleen] Stabile F, et al. **Radiol Med (Torino)** 1999 Mar;97(3):201-2 **(Ita)**

[Primary splenic lymphoma with hypoplastic bone marrow] Yoshioka Y, et al. **Rinsho Ketsueki** 1999 Feb;40(2):124-8 (Eng. Abstr.) **(Jpn)**

RADIOGRAPHY

Littoral cell angioma of the spleen. Grantham M, et al. **Abdom Imaging** 1998 Nov-Dec;23(6):633-5

Littoral cell angioma of the spleen. Ring DH, et al. **AJR Am J Roentgenol** 1999 Oct;173(4):1138-9

A soft tissue extranodal mass as an initial manifestation of splenic lymphoma with circulating villous lymphocytes [letter] Orero MT, et al. **Br J Haematol** 1998 Dec; 103(4):1213-4

RADIOTHERAPY

Low and medium dose spleen radiation therapy are able to induce long-term responses in splenic lymphoma with villous lymphocytes [letter] El Weshi A, et al. **Br J Haematol** 1998 Dec;103(4):1212-3

SECONDARY

Splenic metastasis of a fallopian tube adenocarcinoma. Kouame J, et al. **Acta Chir Belg** 1998 Oct;98(5):225-7

Splenic metastasis from a rectal tumour: an unusual presentation. Achuthan R, et al. **Ann R Coll Surg Engl** 1999 Mar;81(2):139 (4 ref.)

Splenic metastasis from adenocarcinoma of the prostate. Naseem MS, et al. **Br J Urol** 1998 Oct;82(4):597-8

Splenectomy in recurrent epithelial ovarian cancer. Gemignani ML, et al. **Gynecol Oncol** 1999 Mar; 72(3):407-10 (13 ref.)

Isolated splenic metastasis from endometrial carcinoma. Giuliani A, et al. **J Exp Clin Cancer Res** 1999 Mar; 18(1):93-6

Gastric enterochromaffin-like-cell tumor with liver and splenic metastases. Eriguchi N, et al. **J Gastroenterol** 1999 Jun;34(3):383-6 (10 ref.)

Immunohistopathological characterizatin of spontaneous metastases in a human lung mucoepidermoid adenocarcinoma (HLMC) xenograft. Croce MV, et al. **Pathol Oncol Res** 1998;4(4):259-66

Unusual vascular changes in the red pulp of the spleen accompanying breast carcinoma metastasis. Chapel F, et al. **Pathol Res Pract** 1999;195(1):53-6; discussion 57-8

[Splenic metastases] Vadalà G, et al. **Minerva Chir** 1999 Apr; 54(4):273-6 (14 ref.) (Eng. Abstr.) **(Ita)**

SURGERY

Splenectomy in recurrent epithelial ovarian cancer. Gemignani ML, et al. **Gynecol Oncol** 1999 Mar; 72(3):407-10 (13 ref.)

Laparoscopic splenectomy for non-Hodgkin lymphoma. Walsh RM, et al. **J Surg Oncol** 1999 Feb;70(2):116-21

Non-secretory solitary plasmacytoma of the spleen. Colović MD, et al. **Med Oncol** 1998 Dec;15(4):286-8

Advanced primary Hodgkin's disease of the spleen cured by surgical resection: report of a case. Midorikawa Y, et al. **Surg Today** 1999;29(4):367-70

Dermoid cyst of the spleen: report of a case. Nakao A, et al. **Surg Today** 1999;29(7):660-2

[Peripheral T-cell lymphoma 9 months after hemophagocytic syndrome with a favorable outcome after splenectomy (letter)] Aubriet S, et al. **Rev Med Interne** 1999 Aug; 20(8):718-9 **(Fre)**

THERAPY

Primary splenic lymphoma in a child. Jaing TH, et al. **Chung Hua Min Kuo Hsiao Erh Ko I Hsueh Hui Tsa Chih** 1999 Jan-Feb;40(1):36-8

DNA vaccines with single-chain Fv fused to fragment C of tetanus toxin induce protective immunity against lymphoma and myeloma [see comments] King CA, et al. **Nat Med** 1998 Nov;4(11):1281-6. Comment in: Nat Med 1998 Nov;4(11):1239-40.

ULTRASONOGRAPHY

Splenic lymphangioma: US and CT diagnosis and clinical manifestations. Komatsuda T, et al. **Abdom Imaging** 1999 Jul-Aug;24(4):414-7

VETERINARY

Liposome-encapsulated muramyl tripeptide phosphatidylethanolamine adjuvant immunotherapy for splenic hemangiosarcoma in the dog: a randomized multi-institutional clinical trial. Vail DM, et al. **Clin Cancer Res** 1995 Oct;1(10):1165-70

What is your diagnosis? Primary splenic tumor and suppurative peritonitis due to gallbladder rupture. Ramirez O 3rd, et al. **J Am Vet Med Assoc** 1999 Mar 1;214(5):625-6

Pathologic and prognostic characteristics of splenomegaly in dogs due to fibrohistiocytic nodules: 98 cases. Spangler WL, et al. **Vet Pathol** 1998 Nov;35(6):488-98

SPLENIC RUPTURE

Spontaneous rupture of the spleen. Lashley PM, et al. **West Indian Med J** 1998 Dec;47(4):172-3

CHEMICALLY INDUCED

Spontaneous rupture of spleen during peripheral blood stem-cell mobilisation in a healthy donor [letter] Falzetti F, et al. **Lancet** 1999 Feb 13;353(9152):555

COMPLICATIONS

Ruptured primary splenic angiosarcoma into the colon. Presentation as anal bleeding. Jiménez-Heffernan JA, et al. **Acta Gastroenterol Belg** 1999 Apr-Jun;62(2):248-51

Spontaneous splenic rupture in a patient with large hepatocellular carcinoma. Sugahara K, et al. **Am J Gastroenterol** 1999 Jan;94(1):276-8

Splenosis mimicking metastases from breast carcinoma. Foroudi F, et al. **Clin Oncol (R Coll Radiol)** 1999; 11(3):190-2

Splenic rupture in a newborn with hemophilia A: case report and review of the literature. Johnson-Robbins LA, et al. **Clin Pediatr (Phila)** 1999 Feb;38(2):117-9 (15 ref.)

Hemoperitoneum caused by spontaneous rupture of a true splenic cyst. Lam CM, et al. **Hepatogastroenterology** 1998 Sep-Oct;45(23):1884-6

Peliosis of spleen presenting as splenic rupture with haemoperitoneum--a case report. Rege JD, et al. **Indian J Pathol Microbiol** 1998 Oct;41(4):465-7

[Hemoperitoneum due to spontaneous splenic rupture: a rare complication of primary cytomegalovirus infection (letter)] Bellaïche G, et al. **Gastroenterol Clin Biol** 1998 Jan; 22(1):107-8 **(Fre)**

[Two-stage spleen rupture in child with hemophilia] Krivosheina EL, et al. **Khirurgiia (Mosk)** 1999;(3):62 **(Rus)**

DIAGNOSIS

Occult splenic rupture: a case report. Baert D, et al. **Acta Clin Belg** 1999 Jun;54(3):169-71 (13 ref.)

Delayed splenic rupture in an amateur hockey player. Flik K, et al. **Clin J Sport Med** 1998 Oct;8(4):309-10

Spontaneous splenic rupture and infectious mononucleosis in a forensic setting. Lippstone MB, et al. **Del Med J** 1998 Oct;70(10):433-7

Laceration of a benign adrenal adenoma mimicking a splenic rupture. Cerwenka H, et al. **Langenbecks Arch Surg** 1998 Aug;383(3-4):249-51

[The use of laparoscopy in the diagnosis of a traumatic lesion of the spleen] Kapshitar' AV. **Klin Khir** 1998;(9-10):23-5 (Eng. Abstr.) **(Rus)**

[The observation of splenic rupture in a newborn child] Shevchenko IuA, et al. **Klin Khir** 1998;(6):50-1 **(Rus)**

ETIOLOGY

Rupture of the spleen associated with Enterobacter cloacae. Peiper M, et al. **Acta Chir Belg** 1999 Apr;99(2):85-6

Cheerleading as a cause of splenic rupture [letter] Fort GG, et al. **Am J Emerg Med** 1999 Jul;17(4):432-3

Splenic rupture in a patient with acute myeloid leukemia undergoing peripheral blood stem cell transplantation. Kasper C, et al. **Ann Hematol** 1999 Feb;78(2):91-2

Splenic metastasis from a rectal tumour: an unusual presentation. Achuthan R, et al. **Ann R Coll Surg Engl** 1999 Mar;81(2):139 (4 ref.)

Spontaneous splenic rupture in malaria. al Shehab S, et al. **Ann Trop Med Parasitol** 1998 Oct;92(7):817-9

Delayed splenic rupture in a haemophiliac. Thomas DW, et al. **Clin Lab Haematol** 1999 Jun;21(3):215-7

Pathologic rupture of the spleen as the initial manifestation in acute lymphoblastic leukemia [letter] Bernat S, et al. **Haematologica** 1998 Aug;83(8):760-1

Pathologic-spontaneous-rupture of the spleen as a presenting sign of splenic T-cell lymphoma--case report with review. Haj M, et al. **Hepatogastroenterology** 1999 Jan-Feb; 46(25):193-5

Delayed presentation of splenic rupture after colonoscopy. Olshaker JS, et al. **J Emerg Med** 1999 May-Jun;17(3):455-7

Spontaneous rupture of splenic hamartoma: a case report. Yoshizawa J, et al. **J Pediatr Surg** 1999 Mar;34(3):498-9 (8 ref.)

Splenic injury after athletic trauma: a case report of splenic rupture induced by a lacrosse ball. Gangemi JJ, et al. **J Trauma** 1999 Apr;46(4):736-7

Protective procedures following splenic rupture. Topaloğlu U, et al. **Surg Today** 1999;29(1):23-7

[Spontaneous rupture of the spleen during acute pancreatitis.

A case report] Faucheron JL, et al. **Ann Chir** 1999; 53(2):177–8 **(Fre)**

[Spontaneous splenic and renal rupture in polyarteritis nodosa] Siebels M, et al. **Aktuelle Radiol** 1998 Sep; 8(5):236–8 (Eng. Abstr.) **(Ger)**

[Spontaneous splenic rupture with diffused angiomatosis of the spleen] Neumann J, et al. **Chirurg** 1999 Jul;70(7):800–2 (Eng. Abstr.) **(Ger)**

[Intraabdominal organ injury due to blunt chest trauma—report of two cases] Inoue S, et al. **Jpn J Thorac Cardiovasc Surg** 1998 Sep;46(9):902–5 (Eng. Abstr.) **(Jpn)**

[Spleen rupture secondary to endocarditis by Actinobacillus actinomycetemcomitans (letter)] Sánchez LA, et al. **Enferm Infecc Microbiol Clin** 1999 Jun–Jul;17(6):319–20 **(Spa)**

PARASITOLOGY

Splenic rupture as a complication of P. falciparum malaria after residence in the tropics. Report of two cases. de Aguirre Z, et al. **Acta Clin Belg** 1998 Dec;53(6):374–7

PATHOLOGY

Spleen localization of light chain deposition disease associated with sea blue histiocytosis, revealed by spontaneous rupture. de Lajarte-Thirouard AS, et al. **Virchows Arch** 1999 May;434(5):463–5

[Treatment of blunt splenic trauma in children] Varlet F, et al. **Ann Chir** 1998;52(10):1017–21 (Eng. Abstr.) **(Fre)**

SURGERY

Primary amyloidosis with spontaneous splenic rupture, cholestasis, and liver failure treated with emergency liver transplantation. Sandberg-Gertzén H, et al. **Am J Gastroenterol** 1998 Nov;93(11):2254–6

Observation of splenic trauma: when is a little too much? Brown RL, et al. **J Pediatr Surg** 1999 Jul;34(7):1124–6

Protective procedures following splenic rupture. Topaloğlu U, et al. **Surg Today** 1999;29(1):23–7

[Spontaneous splenic rupture with diffused angiomatosis of the spleen] Neumann J, et al. **Chirurg** 1999 Jul;70(7):800–2 (Eng. Abstr.) **(Ger)**

[Splenic trauma: splenectomy in every case?] Giordano G, et al. **G Chir** 1999 Apr;20(4):169–73 (Eng. Abstr.) **(Ita)**

THERAPY

Ruptured spleen due to blunt trauma in children: analysis of blood transfusion requirements. Kiliç N, et al. **Eur J Emerg Med** 1999 Jun;6(2):135–9

Blunt splenic rupture—experience in a preserving non-operatively orientated care team in a tropical hospital. Ravera M, et al. **S Afr J Surg** 1999 May;37(2):41–4

[Splenic artery embolization for the treatment of traumatic splenic rupture] Lu Y, et al. **Chung Hua Wai Ko Tsa Chih** 1997 Jan;35(1):31–2 (Eng. Abstr.) **(Chi)**

[Splenic hematoma during infectious mononucleosis: non-operative treatment (letter)] Lambotte O, et al. **Presse Med** 1998 Feb 7;27(5):209 **(Fre)**

ULTRASONOGRAPHY

Diagnosis of spontaneous splenic rupture with emergency ultrasonography. Blaivas M, et al. **Ann Emerg Med** 1998 Nov;32(5):627–30

Spontaneous rupture of the spleen: role of ultrasound in diagnosis, treatment, and monitoring. Klinkert P, et al. **Eur J Surg** 1999 Jul;165(7):712–3 (5 ref.)

VIROLOGY

[Splenic hematoma during infectious mononucleosis: non-operative treatment (letter)] Lambotte O, et al. **Presse Med** 1998 Feb 7;27(5):209 **(Fre)**

SPLENIC VEIN

Rupture of a pancreatic pseudocyst into the portal venous system. Yamamoto T, et al. **Abdom Imaging** 1999 Sep–Oct; 24(5):494–6

Splenic arteriovenous fistula in a patient with lymphoma. van der Meer P, et al. **AJR Am J Roentgenol** 1998 Nov; 171(5):1377–9

Splenic vein thrombosis in a renal transplant recipient [letter] Boudville NC, et al. **Aust N Z J Med** 1998 Dec;28(6):841–2

Results of surgical treatment (modified Sugiura-Futagawa operation) of portal hypertension associated to complete splenomesoportal thrombosis and cirrhosis. Mercado MA, et al. **HPB Surg** 1999;11(3):157–62

Symptomatic spleno-mesenteric-portal venous thrombosis: recanalization and reconstruction with endovascular stents. Stein M, et al. **J Vasc Interv Radiol** 1999 Mar;10(3):363–71

Splenic vein aneurysm: is it a surgical indication? Torres G, et al. **J Vasc Surg** 1999 Apr;29(4):719–21

Pancreatic pseudocyst involving the spleen. Wong SR, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Aug; 14(8):524–7

Splenic infarction caused by idiopathic venous thrombosis. Mazumdar A, et al. **Trop Gastroenterol** 1998 Oct–Dec; 19(4):166–7

[Splenoportal thrombosis: form of presentation of essential thrombocythemia] Jiménez Sáenz JM, et al. **An Med Interna** 1998 Nov;15(11):594–6 (Eng. Abstr.) **(Spa)**

ABNORMALITIES

Percutaneous embolization of a splenic arteriovenous fistula related to acute necrotizing pancreatitis [letter] Raat H, et al. **Eur Radiol** 1999;9(4):753

Congenital splenorenal venous shunt detected by prenatal ultrasonography. Ji EK, et al. **J Ultrasound Med** 1999 Jun; 18(6):437–9

Intractable oesophageal variceal bleeding caused by splenic arteriovenous fistula: treatment by transcatheter arterial embolization. Hung CF, et al. **Postgrad Med J** 1999 Jun; 75(884):355–7

ANATOMY & HISTOLOGY

Contrast-enhanced three-dimensional magnetic resonance angiography of the splanchnic vasculature before and after caloric stimulation. Original investigation. Hany TF, et al. **Invest Radiol** 1998 Sep;33(9):682–6

DRUG EFFECTS

Effects of adrenergic and cholinergic drugs on splenic arteries and veins from hooded seals (Cystophora cristata). Cabanac A, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1998 Jun; 120(2):277–81

INJURIES

Traumatic splenic arteriovenous fistula: splenic conservation by embolization. Maloo MK, et al. **J Trauma** 1999 Jul; 47(1):173–5

Superselective embolization of a traumatic intrasplenic arteriovenous fistula. Salis A, et al. **J Trauma** 1999 Jan; 46(1):186–8

PATHOLOGY

Successful surgical treatment of gastric cancer with a tumor thrombus in the portal and splenic veins: report of a case. Furui J, et al. **Surg Today** 1998;28(10):1046–50

PHYSIOLOGY

Effects of adrenergic-receptor blockade and ligation of spleen vessels on the hemodynamics of dogs injected with scorpion venom [see comments] Tarasiuk A, et al. **Crit Care Med** 1999 Feb;27(2):365–72. Comment in: Crit Care Med 1999 Feb;27(2):250.

RADIOGRAPHY

Segmental portal hypertension due to splenic vein obstruction: imaging findings and diagnostic pitfalls in four cases. Lenthall R, et al. **Clin Radiol** 1999 Aug;54(8):540–4

SPLENOMEGALY

BLOOD

[Splenomegaly and plasma lipids] Wysocki A, et al. **Przegl Lek** 1998;55(7–8):365–7 (Eng. Abstr.) **(Pol)**

CHEMICALLY INDUCED

Progressive splenomegaly after epoprostenol therapy in portopulmonary hypertension. Findlay JY, et al. **Liver Transpl Surg** 1999 Sep;5(5):362–5

Metallothionein-null mice are highly susceptible to the hematotoxic and immunotoxic effects of chronic CdCl2 exposure. Liu J, et al. **Toxicol Appl Pharmacol** 1999 Sep 1;159(2):98–108

Toxic characteristics of the synthetic lipid A derivative DT-5461 in rats and monkeys. Sagara-Ishijima N, et al. **Toxicol Sci** 1999 Jun;49(2):324–31

DIAGNOSIS

Splenic palpation for the evaluation of morbidity due to schistosomiasis mansoni. Gerspacher-Lara R, et al. **Mem Inst Oswaldo Cruz** 1998;93 Suppl 1:245–8

Splenic epithelial cysts and splenomegaly: diagnosis and management. Hulzebos CV, et al. **Neth J Med** 1998 Aug; 53(2):80–4

Serological similarities between hyperreactive malarial splenomegaly and splenic lymphoma in west Africa. Wallace S, et al. **Trans R Soc Trop Med Hyg** 1998 Jul–Aug; 92(4):463–7

[Splenomegaly. Diagnostic trends] Bordessoule D. **Rev Prat** 1998 Sep 15;48(14):1575–80 (0 ref.) **(Fre)**

EPIDEMIOLOGY

Splenomegaly in 2,505 patients in a large university medical center from 1913 to 1995. 1913 to 1962: 2,056 patients. O'Reilly RA. **West J Med** 1998 Aug;169(2):78–87

Splenomegaly in 2,505 patients at a large university medical center from 1913 to 1995. 1963 to 1995: 449 patients. O'Reilly RA. **West J Med** 1998 Aug;169(2):88–97

ETIOLOGY

Splenic crisis at high altitude in 2 white men with sickle cell trait. Tiernan CJ. **Ann Emerg Med** 1999 Feb; 33(2):230–3

Splenic irradiation for symptomatic splenomegaly associated with myelofibrosis with myeloid metaplasia. Elliott MA, et al. **Br J Haematol** 1998 Nov;103(2):505–11

Splenic lymphoma with villous lymphocytes should be included in the differential diagnosis of massive splenomegaly. Bedu-Addo G, et al. **Croat Med J** 1998 Dec; 39(4):412–8

Scleroderma-like lesions and Epstein-Barr virus-associated B-cell lymphoma presenting with a huge splenomegaly [letter; comment] Sakai C, et al. **Eur J Haematol** 1999 Apr; 62(4):278–80. Comment on: Eur J Haematol 1997 Sep;59(3):194–6.

Massive splenomegaly and Epstein-Barr virus-associated infectious mononucleosis in a patient with Gaucher disease. Eapen M, et al. **J Pediatr Hematol Oncol** 1999 Jan–Feb; 21(1):47–9

Fever, thrombocytopenia and splenomegaly in a neonate. Niederer AJ, et al. **Pediatr Infect Dis J** 1999 Jan;18(1):78–81

Experience in the evaluation of children with hepatosplenomegaly at a teaching ambulatory, São Paulo, Brazil. Bricks LF, et al. **Rev Inst Med Trop Sao Paulo** 1998 Sep–Oct;40(5):269–75

[What hides under that large spleen?] Clément L, et al. **Rev Med Interne** 1999;20 Suppl 2:311s–312s **(Fre)**

[Interstitial pneumopathy revealing type B Niemann Pick disease in an adult] Piercecchi MD, et al. **Rev Med Interne** 1999 Jul;20(7):597–601 (Eng. Abstr.) **(Fre)**

[Hepatosplenomegaly and large kidneys with renal failure] Viget N, et al. **Rev Med Interne** 1999;20 Suppl 2:299s–300s **(Fre)**

[Breastfeeding minor with persistent fever and visceromegaly (clinical conference)] Ridaura-Sanz C, et al. **Gac Med Mex** 1999 May–Jun;135(3):305–10 **(Spa)**

IMMUNOLOGY

[Evolutive visceral malaria and hyperimmune palustral splenomegaly: a difficult distinction Gangneux JP, et al. **Bull Soc Pathol Exot** 1999 Feb;92(1):27–8 (Eng. Abstr.) **(Fre)**

PARASITOLOGY

[Hyperreactive malarial splenomegaly in a European returning from Africa] Granier H, et al. **Rev Med Interne** 1999 May;20(5):431–3 (Eng. Abstr.) **(Fre)**

PATHOLOGY

Splenic pathology in myelodysplasia: a report of 13 cases with clinical correlation. Kraus MD, et al. **Am J Surg Pathol** 1998 Oct;22(10):1255–66 (35 ref.)

Fine needle aspiration biopsy of the spleen in pyrexia of unknown origin. Rajwanshi A, et al. **Cytopathology** 1999 Jun;10(3):195–200

Spontaneous decrease of spleen size in a patient with type 1 Gaucher's disease [letter] Djaldetti M, et al. **Haematologica** 1998 Aug;83(8):766–7 (7 ref.)

[Fever, general malaise, adenopathies and hepatosplenomegaly in a 17-year-old woman after an allogeneic transplant of peripheral blood hematopoietic progenitors for chronic myeloid leukemia (clinical conference)] Conde E, et al. **Med Clin (Barc)** 1999 Jan 30; 112(3):106–14 **(Spa)**

RADIOGRAPHY

Detection and significance of splenomegaly on chest radiographs of HIV-infected outpatients. Zambetti EF, et al. **Clin Radiol** 1999 Jan;54(1):34–7

RADIONUCLIDE IMAGING

Infection of a left ventricular aneurysm and massive splenomegaly demonstrated by In-111-labeled leukocyte scintigraphy. Rose DS, et al. **Clin Nucl Med** 1998 Oct; 23(10):721–2

Diffuse radiocolloid uptake in the bone marrow on thoracolumbar vertebrae extending to the skull, upper sternum, clavicles, long bones, and the lung secondary to lymphoma infiltration of the bone marrow. Shih WJ, et al. **Clin Nucl Med** 1999 Sep;24(9):712–3

RADIOTHERAPY

Splenic irradiation for symptomatic splenomegaly associated with myelofibrosis with myeloid metaplasia. Elliott MA, et al. **Br J Haematol** 1998 Nov;103(2):505–11

[Radiotherapy in leukemia excluding total body irradiation] Peiffert D, et al. **Cancer Radiother** 1999 Mar–Apr; 3(2):174–80 (Eng. Abstr.) **(Fre)**

SURGERY

Is splenectomy for massive splenomegaly safe in children? Al-Salem AH. **Am J Surg** 1999 Jul;178(1):42–5

A new technique for laparoscopic splenectomy with massively enlarged spleens. Hebra A, et al. **Am Surg** 1998 Dec;64(12):1161–4

Partial splenectomy in children under 4 years of age with hemoglobinopathy. Idowu O, et al. **J Pediatr Surg** 1998 Aug;33(8):1251–3

Splenic epithelial cysts and splenomegaly: diagnosis and

SPLENOMEGALY

management. Hulzebos CV, et al. **Neth J Med** 1998 Aug; 53(2):80–4
Splenectomy in childhood. The laparoscopic approach. Esposito C, et al. **Surg Endosc** 1998 Dec;12(12):1445–8
Effect of spleen size on splenectomy outcome. A comparison of open and laparoscopic surgery. Targarona EM, et al. **Surg Endosc** 1999 Jun;13(6):559–62
Laparoscopic versus open splenectomy in the management of splenomegaly: our preliminary experience [published erratum appears in Surgery 1999 Feb;125(2):154] Terrosu G, et al. **Surgery** 1998 Nov;124(5):839–43
Early experience with laparoscopic splenectomy. Demeure MJ, et al. **WMJ** 1998 Nov;97(10):33–4

THERAPY

[Laparoscopic splenectomy for a massive splenomegaly using a transcatheter technique] Kobayashi S, et al. **Nippon Geka Gakkai Zasshi** 1998 Oct;99(10):733–6 (Eng. Abstr.) **(Jpn)**

ULTRASONOGRAPHY

Fetal splenic size in anemia due to Rh-alloimmunization. Bahado-Singh R, et al. **Obstet Gynecol** 1998 Nov; 92(5):828–32
Ultrasound findings in children with toxocariasis: report on 18 cases. Baldisserotto M, et al. **Pediatr Radiol** 1999 May; 29(5):316–9

VETERINARY

Pathologic and prognostic characteristics of splenomegaly in dogs due to fibrohistiocytic nodules: 98 cases. Spangler WL, et al. **Vet Pathol** 1998 Nov;35(6):488–98

SPLENOPORTOGRAPHY see **PORTOGRAPHY**

SPLENORENAL SHUNT, SURGICAL

Emergency percutaneous occlusion of surgical portosystemic shunt using steel coils and balloon catheter. Srivastava DN, et al. **AJR Am J Roentgenol** 1999 May;172(5):1453–4
Distal splenorenal shunt: role, indications, and utility in the era of liver transplantation. Jenkins RL, et al. **Arch Surg** 1999 Apr;134(4):416–20
Splenorenal shunt blood flow by transit-time ultrasound as an index of collateral circulation in portal hypertensive rats. Calès P, et al. **Hepatology** 1998 Nov;28(5):1269–74
Decision-analysis of transjugular intrahepatic portosystemic shunt versus distal splenorenal shunt for portal hypertension. Zacks SL, et al. **Hepatology** 1999 May; 29(5):1399–405
Late clinical, biochemical, endoscopic and electroencephalographic evaluation of patients with schistosomal portal hypertension treated with distal splenorenal shunt. Lopes Filho G de J, et al. **Int Surg** 1998 Jan–Mar;83(1):42–7
Liver transplantation in patients with splenorenal shunts: intraoperative flow measurements to indicate shunt occlusion. Margarit C, et al. **Liver Transpl Surg** 1999 Jan; 5(1):35–9
[The late results of deportalization of the pancreatic blood flow in patients with type-1 diabetes mellitus] Siplivyĭ VA, et al. **Klin Khir** 1998;(11):9–12 (Eng. Abstr.) **(Rus)**

ADVERSE EFFECTS

Distal splenorenal shunt with splenopancreatic disconnection for portal hypertension in biliary atresia. Hasegawa T, et al. **Pediatr Surg Int** 1999;15(2):92–6
Successful surgical treatment for hepatic encephalopathy caused by a pancreatic siphon: report of a case. Nozaki H, et al. **Surg Today** 1998;28(10):1069–72

METHODS

Use of adrenal vein conduit for splenorenal shunts: a case report. Kulkarni VM, et al. **Hepatogastroenterology** 1999 May-Jun;46(27):2033–4
A technique for distal splenoadrenal shunting in pediatric portal hypertension. Mazariegos GV, et al. **J Am Coll Surg** 1998 Dec;187(6):634–6
[Blood circulation in the liver after distal spleno-renal anastomosis in cirrhosis] Kotenko OG. **Klin Khir** 1999; (3):12–5 (Eng. Abstr.) **(Rus)**
[Splanchnic circulation after distal splenorenal anastomosis in hepatic cirrhosis] Shalimov AA, et al. **Klin Khir** 1999; (5):8–13 (Eng. Abstr.) **(Rus)**
[The morphofunctional state of the pancreas and adrenals after performing an operation for distal splenorenal bypass] Siplivyĭ VA, et al. **Klin Khir** 1998;(9–10):85–6 **(Rus)**
[The forming of distal splenorenal anastomosis in conjunction with gastroesophageal junction suturing during treatment of the portal hypertension syndrome in children] Volosiuk AIe. **Klin Khir** 1999;(4):16–8 (Eng. Abstr.) **(Ukr)**

SPLENOSIS

Pelvic splenosis mimicking endometriosis, causing low abdominal mass and pain. Zitzer P, et al. **Hum Reprod** 1998 Jun;13(6):1683–5

COMPLICATIONS

Splenosis as a cause of testicular pain: laparoscopic management. Koleski FC, et al. **J Endourol** 1999 Jun; 13(5):373–5
Incidentaloma due to abdominal splenosis [letter] Perez Melon C, et al. **Nephron** 1998 Nov;80(3):359–60

DIAGNOSIS

Noninvasive methods of diagnosing thoracic splenosis. Naylor MF, et al. **Ann Thorac Surg** 1999 Jul;68(1):243–4
Splenosis mimicking metastases from breast carcinoma. Foroudi F, et al. **Clin Oncol (R Coll Radiol)** 1999; 11(3):190–2
Isolated hepatic splenosis: first reported case. D'Angelica M, et al. **HPB Surg** 1998;11(1):39–42 (5 ref.)
Splenosis presenting as an ulcerated gastric mass: endoscopic and endoscopic ultrasonographic imaging. Deutsch JC, et al. **J Clin Gastroenterol** 1999 Apr;28(3):266–7
Thoracic splenosis. Buchino JJ, et al. **South Med J** 1998 Nov; 91(11):1054–6
[Peritoneal splenosis simulating a right retroperitoneal mass] Chagnaud C, et al. **J Radiol** 1998 Nov;79(11):1407–9 (Eng. Abstr.) **(Fre)**
[Thoracic splenosis with symptoms of coronary heart disease] Gaedcke G, et al. **Dtsch Med Wochenschr** 1999 Aug 20; 124(33):958–61 (Eng. Abstr.) **(Ger)**

PATHOLOGY

Fine needle aspiration of thoracic splenosis. A case report. Renne G, et al. **Acta Cytol** 1999 May-Jun;43(3):492–4
Splenosis mimicking transitional cell carcinoma. Weinstein RP, et al. **J Urol** 1999 Apr;161(4):1281

SURGERY

Splenosis as a cause of testicular pain: laparoscopic management. Koleski FC, et al. **J Endourol** 1999 Jun; 13(5):373–5

SPLICED LEADER RNA see **RNA, SPLICED LEADER**

SPLICED LEADER SEQUENCES see **RNA, SPLICED LEADER**

SPLICEOSOMES

see related
RNA SPLICING
Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway. Gonzalez TN, et al. **EMBO J** 1999 Jun 1;18(11):3119–32
A small spliceosomal-type intron occurs in a ribosomal protein gene of the microsporidian Encephalitozoon cuniculi. Biderre C, et al. **Mol Biochem Parasitol** 1998 Aug 1;94(2):283–6
RNA polymerase II targets pre-mRNA splicing factors to transcription sites in vivo. Misteli T, et al. **Mol Cell** 1999 Jun;3(6):697–705
Elevated levels of a U4/U6.U5 snRNP-associated protein, Spp381p, rescue a mutant defective in spliceosome maturation. Lybarger S, et al. **Mol Cell Biol** 1999 Jan; 19(1):577–84

CHEMISTRY

Overproduction, purification, crystallization and preliminary x-ray diffraction studies of the human spliceosomal protein U5-15kD. Reuter K, et al. **Acta Crystallogr D Biol Crystallogr** 1999 Apr;55 (Pt 4):888–90
NMR structure and dynamics of an RNA motif common to the spliceosome branch-point helix and the RNA-binding site for phage GA coat protein. Smith JS, et al. **Biochemistry** 1998 Sep 29;37(39):13486–98
Crystal structures of two Sm protein complexes and their implications for the assembly of the spliceosomal snRNPs. Kambach C, et al. **Cell** 1999 Feb 5;96(3):375–87
Structure and assembly of the spliceosomal small nuclear ribonucleoprotein particles. Kambach C, et al. **Curr Opin Struct Biol** 1999 Apr;9(2):222–30 (64 ref.)
Combined biochemical and electron microscopic analyses reveal the architecture of the mammalian U2 snRNP. Krämer A, et al. **J Cell Biol** 1999 Jun 28;145(7):1355–68
A supraspliceosome model for large nuclear ribonucleoprotein particles based on mass determinations by scanning transmission electron microscopy. Müller S, et al. **J Mol Biol** 1998 Oct 23;283(2):383–94
Identification of both shared and distinct proteins in the major and minor spliceosomes. Will CL, et al. **Science** 1999 Jun 18;284(5422):2003–5
G-patch: a new conserved domain in eukaryotic RNA-processing proteins and type D retroviral polyproteins. Aravind L, et al. **Trends Biochem Sci** 1999 Sep;24(9):342–4

GENETICS

Recognition of the 5'splice site by the spliceosome. Konarska MM. **Acta Biochim Pol** 1998;45(4):869–81 (53 ref.)
The recent origins of spliceosomal introns revisited. Logsdon JMJr. **Curr Opin Genet Dev** 1998 Dec;8(6):637–48 (92 ref.)
The yeast U2A'/U2B complex is required for pre-spliceosome formation. Caspary F, et al. **EMBO J** 1998 Nov 2;17(21):6348–58
In vivo expression of the nucleolar group I intron-encoded I-dirI homing endonuclease involves the removal of a spliceosomal intron. Vader A, et al. **EMBO J** 1999 Feb 15;18(4):1003–13
Characterization of a gene encoding survival motor neuron (SMN)-related protein, a constituent of the spliceosome complex. Talbot K, et al. **Hum Mol Genet** 1998 Dec; 7(13):2149–56
Splicing factor Prp8 governs U4/U6 RNA unwinding during activation of the spliceosome. Kuhn AN, et al. **Mol Cell** 1999 Jan;3(1):65–75
Pseudouridine mapping in the Saccharomyces cerevisiae spliceosomal U small nuclear RNAs (snRNAs) reveals that pseudouridine synthase pus1p exhibits a dual substrate specificity for U2 snRNA and tRNA. Massenet S, et al. **Mol Cell Biol** 1999 Mar;19(3):2142–54
Spliceosome-mediated RNA trans-splicing as a tool for gene therapy [see comments] [published erratum appears in Nat Biotechnol 1999 Jun;17(6):602] Puttaraju M, et al. **Nat Biotechnol** 1999 Mar;17(3):246–52. Comment in: Nat Biotechnol 1999 Mar;17(3):223–4.
U1 small nuclear RNA and spliceosomal introns in Euglena gracilis. Breckenridge DG, et al. **Proc Natl Acad Sci U S A** 1999 Feb 2;96(3):852–6
Late changes in spliceosomal introns define clades in vertebrate evolution. Venkatesh B, et al. **Proc Natl Acad Sci U S A** 1999 Aug 31;96(18):10267–71

IMMUNOLOGY

A limited lupus anti-spliceosomal response targets a cross-reactive, proline-rich motif. Arbuckle MR, et al. **J Autoimmun** 1998 Oct;11(5):431–8

METABOLISM

Nuclear organization of pre-mRNA splicing factors. Sleeman JE, et al. **Curr Opin Cell Biol** 1999 Jun;11(3):372–7 (61 ref.)
Partial purification of the yeast U2 snRNP reveals a novel yeast pre-mRNA splicing factor required for pre-spliceosome assembly. Caspary F, et al. **EMBO J** 1999 Jun 15;18(12):3463–74
Phosphorylation of splicing factor SF1 on Ser20 by cGMP-dependent protein kinase regulates spliceosome assembly. Wang X, et al. **EMBO J** 1999 Aug 16; 18(16):4549–59
Human step II splicing factor hSlu7 functions in restructuring the spliceosome between the catalytic steps of splicing. Chua K, et al. **Genes Dev** 1999 Apr 1;13(7):841–50
Allele-specific genetic interactions between Prp8 and RNA active site residues suggest a function for Prp8 at the catalytic core of the spliceosome. Collins CA, et al. **Genes Dev** 1999 Aug 1;13(15):1970–82
WT1 interacts with the splicing factor U2AF65 in an isoform-dependent manner and can be incorporated into spliceosomes. Davies RC, et al. **Genes Dev** 1998 Oct 15; 12(20):3217–25
Functional interactions of Prp8 with both splice sites at the spliceosomal catalytic center. Siatecka M, et al. **Genes Dev** 1999 Aug 1;13(15):1983–93
Intron-independent association of splicing factors with active genes. Jolly C, et al. **J Cell Biol** 1999 Jun 14;145(6):1133–43
Modification of U6 spliceosomal RNA is guided by other small RNAs. Tycowski KT, et al. **Mol Cell** 1998 Nov; 2(5):629–38
At least three linear regions but not the zinc-finger domain of U1C protein are exposed at the surface of the protein in solution and on the human spliceosomal U1 snRNP particle. Dumortier H, et al. **Nucleic Acids Res** 1998 Dec 1;26(23):5486–91
Yeast ortholog of the Drosophila crooked neck protein promotes spliceosome assembly through stable U4/U6.U5 snRNP addition. Chung S, et al. **RNA** 1999 Aug; 5(8):1042–54
The human Prp8 protein is a component of both U2- and U12-dependent spliceosomes. Luo HR, et al. **RNA** 1999 Jul;5(7):893–908
Target discrimination by RNA-binding proteins: role of the ancillary protein U2A' and a critical leucine residue in differentiating the RNA-binding specificity of spliceosomal proteins U1A and U2B". Rimmele ME, et al. **RNA** 1998 Nov;4(11):1386–96
Transient interaction of BBP/ScSF1 and Mud2 with the splicing machinery affects the kinetics of spliceosome assembly. Rutz B, et al. **RNA** 1999 Jun;5(6):819–31

PHYSIOLOGY

Recognition of the 5'splice site by the spliceosome. Konarska MM. **Acta Biochim Pol** 1998;45(4):869–81 (53 ref.)
Flipping the switch to an active spliceosome. Murray HL, et al. **Cell** 1999 Mar 5;96(5):599–602 (14 ref.)
Spliceosome assembly: the unwinding role of DEAD-box proteins. Hamm J, et al. **Curr Biol** 1998 Jul 16;8(15):R532–4 (9 ref.)
Metal ion catalysis during group II intron self-splicing: parallels with the spliceosome. Sontheimer EJ, et al. **Genes Dev** 1999 Jul 1;13(13):1729–41
pICln inhibits snRNP biogenesis by binding core spliceosomal proteins. Pu WT, et al. **Mol Cell Biol** 1999 Jun;19(6):4113–20

ULTRASTRUCTURE

Immunolabelling of spliceosomes in sections and cultured astrocytes of human fetal brain tissue. Ulfig N, et al. **Brain Dev** 1999 Jan;21(1):51–8

SPLICING, ALTERNATIVE see **ALTERNATIVE SPLICING**

SPLICING, RNA see **RNA SPLICING**

SPLINTS

see related
STENTS

No advantage from splinting the wrist after open carpal tunnel release. A randomized study of 82 wrists. Finsen V, et al. **Acta Orthop Scand** 1999 Jun;70(3):288–92

Transient peroneal nerve palsies from injuries placed in traction splints. Mihalko WM, et al. **Am J Emerg Med** 1999 Mar;17(2):160–2

The dislocating patella. Predisposing factors and a clinical, radiological and functional follow-up study of patients treated primarily nonoperatively. Mäenpää H. **Ann Chir Gynaecol** 1998;87(3):248–9

Oral electrical and thermal burns in children: review and report of case. Milano M. **ASDC J Dent Child** 1999 Mar–Apr;66(2):116–9, 85

Polyvinylsiloxane dental bite registration material used to splint a composite graft of the nasal rim. Gregory G, et al. **Br J Oral Maxillofac Surg** 1999 Apr;37(2):139–41

Effect on nasal resistance of an external nasal splint and isotonic exercise. Wilde AD, et al. **Br J Sports Med** 1999 Apr;33(2):127–8

A simple nasal splint to assist the stability of nasopharyngeal tubes in the Pierre Robin sequence associated airway obstruction: technical innovation. Smyth AG. **J Craniomaxillofac Surg** 1998 Dec;26(6):411–4

Splinting in the treatment of arthritis of the first carpometacarpal joint. Swigart CR, et al. **J Hand Surg [Am]** 1999 Jan;24(1):86–91

Early active mobilization for extensor tendon injuries. The Norwich regime. Sylaidis P, et al. **J Hand Surg [Br]** 1997 Oct;22(5):594–6

Management of a metacarpophalangeal joint fracture using a dynamic traction splint and early motion. Hurov JR, et al. **J Hand Ther** 1999 Jul–Sep;12(3):219–27

Padding and splint fabrication. Korger CA, et al. **J Hand Ther** 1999 Jan–Mar;12(1):38–9

An alternative splint design for trigger finger. Lindner-Tons S, et al. **J Hand Ther** 1998 Jul–Sep;11(3):206–8

Making hinges with thermoplastic tubing. Thomes LJ, et al. **J Hand Ther** 1999 Jul–Sep;12(3):228–9

Bio-dynamic finger component [published erratum appears in J Hand Ther 1998 Oct–Dec;11(4):277] Trueman S. **J Hand Ther** 1998 Jul–Sep;11(3):209–11

A dynamic splint for limiting joint motion. Van Leer P, et al. **J Hand Ther** 1998 Oct–Dec;11(4):284–5

An unusual complication of augmentation rhinoplasty: late displacement of dorsal nasal splint. Owa AO, et al. **J Laryngol Otol** 1999 Apr;113(4):358–60

Bimaxillary surgery using an intermediate splint to position the maxilla [see comments] Ellis E 3rd. **J Oral Maxillofac Surg** 1999 Jan;57(1):53–6 (52 ref.). Comment in: J Oral Maxillofac Surg 1999 Jan;57(1):57–60.

Bimaxillary surgery without the use of an intermediate splint to position the maxilla [comment] Lapp TH. **J Oral Maxillofac Surg** 1999 Jan;57(1):57–60. Comment on: J Oral Maxillofac Surg 1999 Jan;57(1):53–6.

Modification of the surgical template as a flap retractor in implantation procedures. Artzi Z, et al. **J Prosthet Dent** 1999 May;81(5):642–3

The dynamic elbow suspension splint. Bain GI, et al. **J Shoulder Elbow Surg** 1998 Jul–Aug;7(4):419–21

Nasal splinting effects on breathing patterns and cardiorespiratory responses. Chinevere TD, et al. **J Sports Sci** 1999 Jun;17(6):443–7

Management of simple elbow dislocations. Does the period of immobilization affect the eventual results? Schippinger G, et al. **Langenbecks Arch Surg** 1999 Jun;384(3):294–7

Trigger finger splinting [letter; comment] Swezey RL. **Orthopedics** 1999 Feb;22(2):180. Comment on: Orthopedics 1998 Mar;21(3):305–9; discussion 309–10.

Nonsurgical correction of nasal deformity in unilateral complete cleft lip: a 6-year follow-up. Bennun RD, et al. **Plast Reconstr Surg** 1999 Sep;104(3):616–30

Finger splints from syringes [letter] Gahankari D. **Plast Reconstr Surg** 1999 Oct;104(5):1582

A custom splint for zygomatic fractures. Martin RJ, et al. **Plast Reconstr Surg** 1999 Apr;103(4):1254–7

A method for facilitating splint placement in tenorrhaphy [letter] Midón J. **Plast Reconstr Surg** 1998 Oct;102(5):1778

Securing the nostril retainer [letter] Özgür F, et al. **Plast Reconstr Surg** 1999 Sep;104(3):882

Two modified techniques for flexor tendon repair. Raposio E, et al. **Plast Reconstr Surg** 1999 May;103(6):1691–5

The use of nasal splints in the primary management of unilateral cleft nasal deformity. Yeow VK, et al. **Plast Reconstr Surg** 1999 Apr;103(5):1347–54

Characteristics of nasal airflow and the effect of a nasal dilator in normal human subjects. Meissner HH, et al. **Respir Physiol** 1999 Jan 1;115(1):95–101

[Dynamic splinting after flexor tendon injuries of the hand in childhood] Fasching G, et al. **Handchir Mikrochir Plast Chir** 1998 Jul;30(4):243–8 (Eng. Abstr.) **(Ger)**

[Active movement therapy after flexor tendon suture using a new dynamic control splint] Sántha E, et al. **Handchir Mikrochir Plast Chir** 1998 Sep;30(5):312–6 (Eng. Abstr.) **(Ger)**

[Influence of the Esmarch splint on chewing and tongue muscle activity during sleep] Yoshida K. **Nervenarzt** 1998 Aug;69(8):666–70 (Eng. Abstr.) **(Ger)**

[Management and after-care of extensor tendon injuries of the hand] Partecke BD, et al. **Unfallchirurg** 1998 Nov; 101(11):807–12 (18 ref.) (Eng. Abstr.) **(Ger)**

[Strengthening ischio-crural musculature in femoro-patellar pain syndrome with knee splint] Schneider F. **Z Orthop Ihre Grenzgeb** 1999 Mar–Apr;137(2):Oa27–8 **(Ger)**

[A multipurpose splint for the lower extremity] Sherepo KM. **Voen Med Zh** 1998 Dec;319(12):36–8 **(Rus)**

ADVERSE EFFECTS

Neoprene splinting: dermatological issues. Stern EB, et al. **Am J Occup Ther** 1998 Jul–Aug;52(7):573–8 (40 ref.)

Traditional bone setting: a risk factor in limb amputation. Garba ES, et al. **East Afr Med J** 1998 Sep;75(9):553–5

Traditional bone setter's gangrene. Onuminya JE, et al. **Int Orthop** 1999;23(2):111–2

MICROBIOLOGY

Disseminated aspergillosis in a premature neonate [letter] Meessen NE, et al. **J Hosp Infect** 1998 Nov;40(3):249–50

VETERINARY

Management of bilateral flexural deformity of the metacarpophalangeal joints in three alpaca crias. Cashman T, et al. **Aust Vet J** 1999 Aug;77(8):508–10

Management of rupture of the gastrocnemius and superficial digital flexor muscles with a modified Thomas splint-cast combination in a horse. Lescun TB, et al. **J Am Vet Med Assoc** 1998 Nov 15;213(10):1457–9

SPLINTS, OCCLUSAL see **OCCLUSAL SPLINTS**

SPLINTS, PERIODONTAL see **PERIODONTAL SPLINTS**

SPLIT GENES see **GENES**

SPODOPTERA

Mutations of loop 2 and loop 3 residues in domain II of Bacillus thuringiensis Cry1C delta-endotoxin affect insecticidal specificity and initial binding to Spodoptera littoralis and Aedes aegypti midgut membranes. Abdul-Rauf M, et al. **Curr Microbiol** 1999 Aug;39(2):94–8

CHEMISTRY

Site-specific, enzymatic biotinylation of recombinant proteins in Spodoptera frugiperda cells using biotin acceptor peptides. Duffy S, et al. **Anal Biochem** 1998 Sep 10; 262(2):122–8

Lipid composition of Spodoptera frugiperda (Sf9) and Trichoplusia ni (Tn) insect cells used for baculovirus infection. Marheineke K, et al. **FEBS Lett** 1998 Dec 11; 441(1):49–52

A cardioactive peptide from the southern armyworm, Spodoptera eridania. Furuya K, et al. **Peptides** 1999; 20(1):53–61

CYTOLOGY

Authentication of two cell lines developed from the larval and pupal ovaries of Spodoptera litura by rRNA based methods [letter] Shouche YS, et al. **In Vitro Cell Dev Biol Anim** 1999 May;35(5):244–5

Stable transformation of lepidopteran cultured cells with novel cloning method [letter] Tomita S, et al. **In Vitro Cell Dev Biol Anim** 1999 Jun;35(6):311–3

DRUG EFFECTS

From a phagostimulant natural product to semisynthetic antifeedants against Spodoptera littoralis larvae: chemical transformations of the neoclerodane diterpenoid scutegalin B. Rodriguez B, et al. **J Nat Prod** 1999 Apr;62(4):594–600

ENZYMOLOGY

Identification and characterization of spodoptera frugiperda furin: a thermostable subtilisin-like endopeptidase. Cieplik M, et al. **Biol Chem** 1998 Dec;379(12):1433–40

Proteolytic activity in infected and noninfected insect cells: degradation of HIV-1 Pr55gag particles. Cruz PE, et al. **Biotechnol Bioeng** 1999 Oct 20;65(2):133–43

Molecular cloning and characterization of hemolymph 3-dehydroecdysone 3beta-reductase from the cotton leafworm, Spodoptera littoralis. A new member of the third superfamily of oxidoreductases. Chen JH, et al. **J Biol Chem** 1999 Apr 9;274(15):10551–6

Substrate specificity and kinetic mechanism of the insect sulfotransferase, retinol dehydratase. Vakiani E, et al. **J Biol Chem** 1998 Dec 25;273(52):35381–7

GENETICS

Cloning and expression of apolipophorin-III from the common cutworm, Spodoptera litura. Kim E, et al. **Arch Insect Biochem Physiol** 1998;39(4):166–73

A bacterial signal peptidase enhances processing of a recombinant single chain antibody fragment in insect cells. Ailor E, et al. **Biochem Biophys Res Commun** 1999 Feb 16;255(2):444–50

Characterization and crystallization of soluble human Fc gamma receptor II (CD32) isoforms produced in insect cells. Sondermann P, et al. **Biochemistry** 1999 Jun 29; 38(26):8469–77

Transformed Lepidopteran insect cells: new sources of recombinant human tissue plasminogen activator. Farrell PJ, et al. **Biotechnol Bioeng** 1999 Aug 20;64(4):426–33

METABOLISM

Ni2+ transport by the human Na+/Ca2+ exchanger expressed in Sf9 cells. Egger M, et al. **Am J Physiol** 1999 May;276(5 Pt 1):C1184–92

MICROBIOLOGY

Involvement of chitinases of Bacillus thuringiensis during pathogenesis in insects. Sampson MN, et al. **Microbiology** 1998 Aug;144 (Pt 8):2189–94

PHYSIOLOGY

A new method to improve olfactory responses to GC effluents. Gouinguené S, et al. **Chem Senses** 1998 Dec; 23(6):647–52

New sesquiterpenes from Crossopetalum tonduzii. Tincusi BM, et al. **J Nat Prod** 1998 Dec;61(12):1520–3

VIROLOGY

Alteration of glucose consumption kinetics with progression of baculovirus infection in Spodoptera frugiperda cells. Raghunand N, et al. **Appl Biochem Biotechnol** 1999 Jun; 80(3):231–42

Recombination of baculovirus DNA following lipofection of insect larvae. Hajós JP, et al. **Arch Virol** 1998; 143(10):2045–50

Characterization of Spodoptera littoralis type B nucleopolyhedrovirus infection in selected insect cell lines. Huang J, et al. **Arch Virol** 1999;144(5):935–55

Optimization of the production of virus-like particles in insect cells. Cruz PE, et al. **Biotechnol Bioeng** 1998 Nov 20;60(4):408–18

Chimeric infectious bursal disease virus-like particles expressed in insect cells and purified by immobilized metal affinity chromatography. Hu YC, et al. **Biotechnol Bioeng** 1999 Jun 20;63(6):721–9

Expression of bovine activin-A and inhibin-A in recombinant baculovirus-infected Spodoptera frugiperda Sf 21 insect cells. Cronin CN, et al. **Int J Biochem Cell Biol** 1998 Oct; 30(10):1129–45

Coinfection of Spodoptera exigua and Spodoptera frugiperda cell lines with the nuclear polyhedrosis viruses of Autographa californica and Spodoptera exigua. Yanase T, et al. **Intervirology** 1998;41(6):244–52

Isolation of an apoptosis suppressor gene of the Spodoptera littoralis nucleopolyhedrovirus. Du Q, et al. **J Virol** 1999 Feb;73(2):1278–85

A highly conserved genomic region in baculoviruses: sequence analysis of an 11.3 kbp DNA fragment (46.5–55.1 m.u.) of the Spodoptera exigua multicapsid nucleopolyhedrovirus. Heldens JG, et al. **Virus Res** 1998 Jun;55(2):187–98

SPODOPTERA FRUGIPERDA see **SPODOPTERA**

SPONDYLARTHRITIS ANKYLOPOIETICA see **SPONDYLITIS, ANKYLOSING**

SPONDYLITIS

Inflammatory disorders of the cervical spine. Reiter MF, et al. **Spine** 1998 Dec 15;23(24):2755–66 (79 ref.)

COMPLICATIONS

Spinal extradural compression caused by granuloma of brucellosis. Coskun E, et al. **Scand J Infect Dis** 1998; 30(3):311–3

The role of inflammation in disk herniation-associated radiculopathy. Goupille P, et al. **Semin Arthritis Rheum** 1998 Aug;28(1):60–71 (103 ref.)

Concomitant tuberculosis and pyogenic infection of the cervical spine [letter; comment] Berk H. **Spine** 1998 Oct 1;23(19):2149. Comment on: Spine 1998 Jan 1;23(1):139–43.

[Therapeutic problems with HIV-infected tuberculous spondylitis patients in the South African Republic] Riskó Z. **Orv Hetil** 1999 Mar 28;140(13):711–3 (Eng. Abstr.) **(Hun)**

[Stepwise motor rehabilitation of children with neurologic complications of tuberculous spondylitis] Shapkova EIu, et al. **Probl Tuberk** 1999;(3):27–30 (Eng. Abstr.) **(Rus)**

DIAGNOSIS

Pseudosparing of the endplate: a potential pitfall in using MR imaging to diagnose infectious spondylitis. Wolansky

LJ, et al. **AJR Am J Roentgenol** 1999 Mar;172(3):777–80
Clinical aspects of the spondyloarthropathies. Gladman DD. **Am J Med Sci** 1998 Oct;316(4):234–8 (29 ref.)
Role of MRI in the diagnosis of cervical brucellar spondylitis: case report. Khujneri R, et al. **East Afr Med J** 1998 Nov; 75(11):671–2
Multifocal bone tuberculosis presenting as a breast mass: CT and MRI findings. Arslan A, et al. **Eur Radiol** 1999; 9(6):1117–9
Spinal infection. Tyrrell PN, et al. **Eur Radiol** 1999; 9(6):1066–77 (50 ref.)
Cervical spondylitis and epidural abscess caused by Salmonella enteritidis with tetraplegia. Akagi S, et al. **Orthopedics** 1998 Dec;21(12):1289–91
Failure of a carbon fiber implant. A case report. Tullberg T. **Spine** 1998 Aug 15;23(16):1804–6
[Candida spondylitis. Case report and review of the literature] Andermahr J, et al. **Unfallchirurg** 1998 Dec;101(12):955–9 (27 ref.) (Eng. Abstr.) **(Ger)**
[Magnetic resonance imaging in the complex radiation diagnosis of tuberculous spondylitis in adults] Mitusova GM, et al. **Probl Tuberk** 1999;(3):19–22 (Eng. Abstr.) **(Rus)**
[The use micro-polarization in spinal cord lesions] Sheliakin AM, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998; 98(12):22–4 (Eng. Abstr.) **(Rus)**

DRUG THERAPY

The role of sulphasalazine in African patients with HIV-associated seronegative arthritis [letter] Adebajo AO, et al. **Clin Exp Rheumatol** 1998 Sep–Oct;16(5):629
[Basic therapeutics in the management of various forms of arthritis] Sieper J. **Orthopade** 1998 Aug;27(8):576–80 **(Ger)**

ETIOLOGY

Pacemaker lead infection and vertebral osteomyelitis presumed due to Cardiobacterium hominis. Nurnberger M, et al. **Clin Infect Dis** 1998 Oct;27(4):890–1
Pyogenic infectious spondylitis in a patient with diabetes: case report. Yamagishi S, et al. **J Int Med Res** 1999 Jan–Feb;27(1):45–8
Osteoarticular complications of brucellosis in an Atlantic area of Spain. González-Gay MA, et al. **J Rheumatol** 1999 Jan; 26(1):141–5
Studying patients with inflammatory back pain and arthritis of the lower limbs clinically and by magnetic resonance imaging: many, but not all patients with sacroiliitis have spondyloarthropathy. Brandt J, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):831–6

HISTORY

Typhoid spine: somatic versus psychosomatic diagnosis in Osler's time. Benedek TG. **Semin Arthritis Rheum** 1998 Oct;28(2):114–23

IMMUNOLOGY

HLA-B27 and the seronegative spondyloarthropathies. Reveille JD. **Am J Med Sci** 1998 Oct;316(4):239–49 (132 ref.)
LMP2 polymorphisms and spondyloarthropathies [letter] Maksymowych W. **Ann Rheum Dis** 1999 Jun;58(6):386–7
[From the HLA-B27 molecule to spondylarthropathy] Toubert A. **Rev Med Interne** 1999;20 Suppl 1:29S–30S **(Fre)**

MICROBIOLOGY

Role of MRI in the diagnosis of cervical brucellar spondylitis: case report. Khujneri R, et al. **East Afr Med J** 1998 Nov; 75(11):671–2
Tuberculous spondylitis: a retrospective study on a series of 12 patients operated on in a 25-year period. Rychlicki F, et al. **J Neurosurg Sci** 1998 Dec;42(4):213–9
A case of cervical Brucella spondylitis with paravertebral abscess and neurological deficits. Basaranoglu M, et al. **Scand J Infect Dis** 1999;31(2):214–5
[Osteoarticular tuberculosis with emphasis on tuberculous spondylitis] Ehara S, et al. **Ryolkibetsu Shokogun Shirizu** 1999;(24 Pt 2):211–3 (7 ref.) **(Jpn)**

PATHOLOGY

Achilles tendinitis in spondyloarthropathy [letter; comment] McGonagle D, et al. **J Rheumatol** 1999 Mar;26(3):754–5. Comment on: J Rheumatol 1998 Jul;25(7):1254–6. Comment on: J Rheumatol 1998 Jul;25(7):1352–7.

PHYSIOPATHOLOGY

Clinical aspects of the spondyloarthropathies. Gladman DD. **Am J Med Sci** 1998 Oct;316(4):234–8 (29 ref.)
[The characteristics of the bioelectrical excitation of the muscles of the lower extremities during the evocation of knee-jerk reflexes in patients with lumbar osteochondrosis] Nazarenko VG, et al. **Lik Sprava** 1999 Jan–Feb;(1):92–4 (Eng. Abstr.) **(Rus)**

RADIOTHERAPY

[The effect of laser radiation on the blood somatomedin activity in patients with spinal osteochondrosis] Bogatyreva TV. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug; (4):21–3 **(Rus)**

REHABILITATION

[The use of puncture physiotherapy for optimizing the mud therapy of spinal osteochondrosis patients] Miriutova NF, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Mar–Apr; (2):21–3 (Eng. Abstr.) **(Rus)**
[The efficacy of the physical rehabilitation of patients with spinal osteochondrosis and scoliosis] Rukhadze MM. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Jul–Aug;(4):46–8 **(Rus)**
[Traction for patients with a pain syndrome in cervical osteochondrosis on an outpatient basis] Strelkova NI, et al. **Vopr Kurortol Fizioter Lech Fiz Kult** 1999 Mar–Apr; (2):28–9 **(Rus)**

SURGERY

Tuberculous spondylitis: a retrospective study on a series of 12 patients operated on in a 25-year period. Rychlicki F, et al. **J Neurosurg Sci** 1998 Dec;42(4):213–9
Surgery for cervical myelopathy in geriatric patients. Razack N, et al. **Spinal Cord** 1998 Sep;36(9):629–32
[Surgical treatment of tuberculous spondylitis using ceramic implants] Gruntovskii TKh, et al. **Probl Tuberk** 1998; (5):34–6 (Eng. Abstr.) **(Rus)**
[Correction of kyphosis in tuberculous spondylitis in children] Mushkin AIu, et al. **Probl Tuberk** 1999;(3):25–7 (Eng. Abstr.) **(Rus)**

THERAPY

[The use micro-polarization in spinal cord lesions] Sheliakin AM, et al. **Zh Nevrol Psikhiatr Im S S Korsakova** 1998; 98(12):22–4 (Eng. Abstr.) **(Rus)**

VETERINARY

Discospondylitis in association with an intra-abdominal abscess in a dog. Siems JS, et al. **J Small Anim Pract** 1999 Mar;40(3):123–6

SPONDYLITIS, ANKYLOSING

Successful direct laryngoscopy assisted by posture in a patient with ankylosing spondylitis. Ng M, et al. **Anesth Analg** 1998 Dec;87(6):1436–7
Clinical aspects, outcome assessment, disease course, and extra-articular features of spondyloarthropathies. Kerr HE, et al. **Curr Opin Rheumatol** 1999 Jul;11(4):235–7 (13 ref.)
1st International Congress on Spondyloarthropathies. Gent, Belgium, September 22–28, 1998. Abstracts. **J Rheumatol** 1998 Aug;25 Suppl 54:1–54
Ankylosing spondylitis: time to focus on ankylosis [editorial] Archer JR, et al. **J Rheumatol** 1999 Apr;26(4):761–4 (37 ref.)
Outcome variables in ankylosing spondylitis: evaluation of their relevance and discriminant capacity. Calin A, et al. **J Rheumatol** 1999 Apr;26(4):975–9
Selection of instruments in the core set for DC-ART, SMARD, physical therapy, and clinical record keeping in ankylosing spondylitis. Progress report of the ASAS Working Group. Assessments in Ankylosing Spondylitis. van der Heijde D, et al. **J Rheumatol** 1999 Apr;26(4):951–4 (12 ref.)
Ankylosing spondylitis: plenary discussion and results of voting on selection of domains and some specific instruments. van der Heijde D, et al. **J Rheumatol** 1999 Apr;26(4):1003–5 (16 ref.)
Inflammatory disorders of the cervical spine. Reiter MF, et al. **Spine** 1998 Dec 15;23(24):2755–66 (79 ref.)
[25 years HLA B27—report on the "B27 and Beyond" NIH Conference] Braun J, et al. **Z Rheumatol** 1999 Apr; 58(2):104–8 **(Ger)**

BLOOD

Decreased serum biochemical markers of muscle origin in patients with ankylosing spondylitis. Giltay EJ, et al. **Ann Rheum Dis** 1999 Sep;58(9):541–5
Insulin-like growth factor-I and insulin-like growth factor binding protein-3 serum levels in ankylosing spondylitis. Toussirot E, et al. **Br J Rheumatol** 1998 Nov;37(11):1172–6
Decrease of respiratory burst in neutrophils of patients with ankylosing spondylitis by combined radon-hyperthermia treatment. Reinisch N, et al. **Clin Exp Rheumatol** 1999 May–Jun;17(3):335–8
Clinical relevance of C-reactive protein in axial involvement of ankylosing spondylitis. Dougados M, et al. **J Rheumatol** 1999 Apr;26(4):971–4
Serum testosterone levels are not elevated in patients with ankylosing spondylitis [see comments] Giltay EJ, et al. **J Rheumatol** 1998 Dec;25(12):2389–94. Comment in: J Rheumatol 1999 Aug;26(8):1850–1.
Validity aspects of erythrocyte sedimentation rate and C-reactive protein in ankylosing spondylitis: a literature review. Ruof J, et al. **J Rheumatol** 1999 Apr;26(4):966–70 (36 ref.)
Relative value of erythrocyte sedimentation rate and C-reactive protein in assessment of disease activity in ankylosing spondylitis. Spoorenberg A, et al. **J Rheumatol** 1999 Apr;26(4):980–4
In ankylosing spondylitis serum interleukin-6 correlates with the degree of mobility restriction, but not with short-term changes in the variables for mobility. Falkenbach A, et al. **Rheumatol Int** 1998;18(3):103–6

CLASSIFICATION

The spondylarthropathies: classification and diagnosis. Do we need new terminologies? Schumacher HR, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):551–65 (75 ref.)
Spondyloarthropathy [letter; comment] Braun J, et al. **Lancet** 1999 May 1;353(9163):1526–7. Comment on: Lancet 1998 Oct 3;352(9134):1137–40.
[Spondylarthritis. 2: characterization of various forms of spondylarthritis] Köhler L, et al. **Fortschr Med** 1999 Apr 10;117(10):40–1 **(Ger)**
[Spondylarthritis. 5. (final): therapy of special manifestation forms of spondylarthritis] Köhler L, et al. **Fortschr Med** 1999 May 10;117(13):36–8 **(Ger)**
[Spondylarthritis. 3. Diagnosis and differential diagnosis of various forms of spondylarthritis] Köhler L, et al. **Fortschr Med** 1999 Apr 20;117(11):44–6 **(Ger)**

COMPLICATIONS

Ankylosing spondylitis and multiple sclerosis. Libbrecht N, et al. **Acta Clin Belg** 1999 Jan–Feb;54(1):30–2 (6 ref.)
Cervical infarction associated with vertebral artery occlusion due to spondylotic degeneration: case report. Okuno S, et al. **Acta Neurochir (Wien)** 1998;140(9):981–5
Ossification of the posterior longitudinal ligament in three geographically and genetically different populations of ankylosing spondylitis and other spondyloarthropathies. Ramos-Remus C, et al. **Ann Rheum Dis** 1998 Jul; 57(7):429–33
Relation between ectopic ossification after total hip arthroplasty and activity of general inflammation in patients with ankylosing spondylitis [letter] Tani Y, et al. **Ann Rheum Dis** 1998 Oct;57(10):634
Spondyloarthritides in females. Gran JT, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):695–715 (98 ref.)
Sensorineural hearing loss, iritis and ankylosing spondylitis [letter] Raza K, et al. **Br J Rheumatol** 1998 Dec;37(12):1363
Massive bleeding during spine surgery in a patient with ankylosing spondylitis. Tetzlaff JE, et al. **Can J Anaesth** 1998 Sep;45(9):903–6
Pulmonary manifestations of ankylosing spondylitis and relapsing polychondritis. Lee-Chiong TL Jr. **Clin Chest Med** 1998 Dec;19(4):747–57, ix (89 ref.)
Familial Mediterranean fever with HLA B-27 positive ankylosing spondylitis in a young Armenian man [letter] Kaushik P, et al. **Clin Exp Rheumatol** 1999 May–Jun; 17(3):387–8
Coexistence of ankylosing spondylitis and mixed connective tissue disease in a single patient [letter] Lee JK, et al. **Clin Exp Rheumatol** 1999 Mar–Apr;17(2):263
Renal diseases in ankylosing spondylitis: review of the literature illustrated by case reports. Strobel ES, et al. **Clin Rheumatol** 1998;17(6):524–30 (43 ref.)
Enthesitis in spondyloarthropathy. McGonagle D, et al. **Curr Opin Rheumatol** 1999 Jul;11(4):244–50 (39 ref.)
Disability in ankylosing spondylitis. Dalyan M, et al. **Disabil Rehabil** 1999 Feb;21(2):74–9
Reflux and the difficult airway. Rees SG. **Hosp Med** 1999 Feb;60(2):148
Delayed spinal cord compression in ankylosing spondylitis. Harun S. **J Accid Emerg Med** 1998 Sep;15(5):336
Aortic root disease and valve disease associated with ankylosing spondylitis. Roldan CA, et al. **J Am Coll Cardiol** 1998 Nov;32(5):1397–404
Surgically induced necrotizing scleritis in a patient with ankylosing spondylitis. Karia N, et al. **J Cataract Refract Surg** 1999 Apr;25(4):597–600
Cervical spondylotic myelopathy in elderly people: a high incidence of conduction block at C3–4 or C4–5. Tani T, et al. **J Neurol Neurosurg Psychiatry** 1999 Apr;66(4):456–64
Multiple cerebellar infarction due to vertebral artery obstruction and bulbar symptoms associated with vertical subluxation and atlanto-occipital subluxation in ankylosing spondylitis. Shim SC, et al. **J Rheumatol** 1998 Dec; 25(12):2464–8
Subacute measles encephalitis in a young man immunosuppressed for ankylosing spondylitis. Gazzola P, et al. **Neurology** 1999 Mar 23;52(5):1074–7
Adhesive arachnoiditis causing cauda equina syndrome in ankylosing spondylitis: CT and MRI demonstration of dural calcification and a dorsal dural diverticulum. Bilgen IG, et al. **Neuroradiology** 1999 Jul;41(7):508–11
Cystic rheumatoid arthritis with Felty's syndrome and ankylosing spondylitis. Lecoules S, et al. **Rev Rhum Engl Ed** 1999 May;66(5):292–5
Concomitant ankylosing spondylitis and Sjögren's syndrome in three patients [letter; comment] Trèves R, et al. **Rev Rhum Engl Ed** 1998 Dec;65(12):801. Comment on: Rev Rhum Engl Ed 1998 Jun;65(6):434–6.
Biomechanical analysis of posture in patients with spinal kyphosis due to ankylosing spondylitis: a pilot study. Bot SD, et al. **Rheumatology (Oxford)** 1999 May;38(5):441–3
Cutaneous necrotizing vasculitis, erythema nodosum and ankylosing spondylitis [letter] Gillott TJ, et al. **Rheumatology (Oxford)** 1999 Apr;38(4):377–8
Concordance between abdominal scintigraphy using technetium-99m hexamethylpropylene amine oxime-labelled leucocytes and ileocolonoscopy in patients

with spondyloarthropathies and without clinical evidence of inflammatory bowel disease. El Maghraoui A, et al. **Rheumatology (Oxford)** 1999 Jun;38(6):543–6

Umbilical extrusion in patients with ankylosing spondylitis [letter] Jajić I, et al. **Scand J Rheumatol** 1998;27(5):388

Double spinal cord injury in a patient with ankylosing spondylitis. Akman MN, et al. **Spinal Cord** 1999 Apr; 37(4):305–7

Occult vertebral fractures in ankylosing spondylitis. Finkelstein JA, et al. **Spinal Cord** 1999 Jun;37(6):444–7

[Comparison of radiographs and magnetic resonance imaging in the detection of sacroiliitis in patients with ankylosing spondylitis] Feng F, et al. **Chung Kuo I Hsueh Ko Hsueh Yuan Hsueh Pao** 1997 Jun; 19(3):185–91 (Eng. Abstr.) **(Chi)**

[Rare case of ulcerative colitis and ankylosing spondylitis associated with aortitis and severe aortic valve insufficiency] kanaya S, et al. **Nippon Naika Gakkai Zasshi** 1998 Nov 10;87(11):2316–8 **(Jpn)**

[A case of seronegative spondylarthropathy with iritis and retroperitoneal fibrosis] Takahashi M, et al. **Ryumachi** 1999 Feb;39(1):17–21 (Eng. Abstr.) **(Jpn)**

DIAGNOSIS

The spectrum of skin, mucosa and other extra-articular manifestations. Angulo J, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):649–64 (76 ref.)

The spondylarthropathies: classification and diagnosis. Do we need new terminologies? Schumacher HR, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):551–65 (75 ref.)

Bacterial antigens in reactive arthritis and spondarthritis. Rational use of laboratory testing in diagnosis and follow-up. Wollenhaupt J, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):627–47 (61 ref.)

Assessment of thoracolumbar rotation in ankylosing spondylitis: a simple tape method. Viitanen JV, et al. **Clin Rheumatol** 1999;18(2):152–7

Quiz case 8. Diagnosis: intraspinal hypertrophic callus formation in ankylosing spondylitis. Grampp S, et al. **Eur J Radiol** 1999 Jun;30(3):227–9

Clinimetric concepts in outcome assessment: the OMERACT filter. Bellamy N. **J Rheumatol** 1999 Apr;26(4):948–50 (19 ref.)

Magnetic resonance imaging and clinical assessment of temporomandibular joint pathology in ankylosing spondylitis. Major P, et al. **J Rheumatol** 1999 Mar; 26(3):616–21

Early detection of sacroiliitis on magnetic resonance imaging and subsequent development of sacroiliitis on plain radiography. A prospective, longitudinal study. Oostveen J, et al. **J Rheumatol** 1999 Sep;26(9):1953–8

Bacillus Calmette-Guérin associated arthropathy mimicking undifferentiated spondyloarthropathy. Schwartzenberg JM, et al. **J Rheumatol** 1999 Apr;26(4):933–5

A comparative study of the usefulness of the Bath Ankylosing Spondylitis Functional Index and the Dougados Functional Index in the assessment of ankylosing spondylitis. Spoorenberg A, et al. **J Rheumatol** 1999 Apr;26(4):961–5

Which domains should be included in a core set for endpoints in ankylosing spondylitis? Introduction to the ankylosing spondylitis module of OMERACT IV. van der Heijde D, et al. **J Rheumatol** 1999 Apr;26(4):945–7

Features of spondyloarthritis around the world. Lau CS, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):753–70 (88 ref.)

Ankylosing spondylitis. Clinical features. van der Linden S, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):663–76, vii (40 ref.)

The Swedish version of the Bath ankylosing spondylitis functional index. Reliability and validity. Cronstedt H, et al. **Scand J Rheumatol Suppl** 1999;111:1–9

The Swedish version of the Bath ankylosing spondylitis disease activity index. Reliability and validity. Waldner A, et al. **Scand J Rheumatol Suppl** 1999;111:10–6

[Sarcoidosis and spondyloarthropathy. Apropos of a case (letter)] Garazi S, et al. **Ann Med Interne (Paris)** 1998 Sep; 149(5):303–4 **(Fre)**

[Polyradicular lesion revealing ankylosing spondylarthritis] Guilloton L, et al. **Rev Med Interne** 1999 Feb;20(2):158–9 (Eng. Abstr.) **(Fre)**

[Spondylarthritis] Köhler L, et al. **Fortschr Med** 1999 Mar 30;117(9):34–6 **(Ger)**

[Kinematic versus static MRI study of the cervical spine in patients with rheumatoid arthritis] Allmann KH, et al. **Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr** 1999 Jan;170(1):22–7 (Eng. Abstr.) **(Ger)**

[Imaging diagnosis in suspected inflammatory rheumatoid axial skeleton diseases (sacroilitis)] Bollow M, et al. **Z Rheumatol** 1999 Apr;58(2):61–70 (40 ref.) (Eng. Abstr.) **(Ger)**

[Age at disease onset and delayed diagnosis of spondyloarthropathies] Feldtkeller E. **Z Rheumatol** 1999 Feb;58(1):21–30 (Eng. Abstr.) **(Ger)**

[Clinical observations of a case of anterior uveitis associated with ankylosing spondylitis and psoriatic arthritis. Paraclinical studies] Costescu I, et al. **Oftalmologia** 1998; 42(2):74–7 (Eng. Abstr.) **(Rum)**

[Clinical features of ankylosing spondylitis--epidemiologic study] Jajić Z, et al. **Reumatizam** 1997;45(2):13–8 (Eng. Abstr.) **(Scr)**

[The mineral density of the bone tissue in patients with rheumatic diseases of the joints (based on x-ray densitometry data)] Masyk OM, et al. **Lik Sprava** 1998 Dec; (8):70–2 (Eng. Abstr.) **(Ukr)**

DRUG THERAPY

Efficacy of thalidomide in the treatment of refractory ankylosing spondylitis. Breban M, et al. **Arthritis Rheum** 1999 Mar;42(3):580–1

Current guidelines for the drug treatment of ankylosing spondylitis. Toussirot E, et al. **Drugs** 1998 Aug;56(2):225–40 (126 ref.)

Persistent hiccups associated with intraarticular corticosteroid injection [letter] Gutierrez-Ureña S, et al. **J Rheumatol** 1999 Mar;26(3):760

Comparative responsiveness of 3 functional indices in ankylosing spondylitis. Ruof J, et al. **J Rheumatol** 1999 Sep;26(9):1959–63

Ankylosing spondylitis: what is the optimum duration of a clinical study? A one year versus a 6 weeks non-steroidal anti-inflammatory drug trial. Dougados M, et al. **Rheumatology (Oxford)** 1999 Mar;38(3):235–44

Therapeutic aspects of spondyloarthropathies — a review. Leirisalo-Repo M. **Scand J Rheumatol** 1998;27(5):323–8 (71 ref.)

[Possibilities for basic therapy of Bechterew disease] Schneider M. **Internist (Berl)** 1999 Jan;40(1):110–1 **(Ger)**

[Basic therapeutics in the management of various forms of arthritis] Sieper J. **Orthopade** 1998 Aug;27(8):576–80 **(Ger)**

[Vitamin E in rheumatic disease therapy? (editorialx comment)] Rau R. **Z Rheumatol** 1998 Aug;57(4):203–6. Comment on: Z Rheumatol 1998 Aug;57(4):207–14. Comment on: Z Rheumatol 1998 Aug;57(4):215–21. **(Ger)**

[Vitamin E in therapy of rheumatic diseases (see comments)] Sangha O, et al. **Z Rheumatol** 1998 Aug;57(4):207–14 (63 ref.) (Eng. Abstr.). Comment in: Z Rheumatol 1998 Aug;57(4):203–6. **(Ger)**

EPIDEMIOLOGY

Ankylosing spondylitis in twins: comment on the article by Brown et al [letter; comment] James WH. **Arthritis Rheum** 1998 Nov;41(11):2085–6. Comment on: Arthritis Rheum 1997 Oct;40(10):1823–8.

Factors linked to disease activity in a French cohort of patients with spondyloarthropathy. Claudepierre P, et al. **J Rheumatol** 1998 Oct;25(10):1927–31

Eye involvement in the spondyloarthropathies. Bañares A, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):771–84, ix (42 ref.)

[10-year epidemiological study on rheumatic diseases in Shantou area] Zeng Q, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Mar;36(3):193–7 (Eng. Abstr.) **(Chi)**

[Age at disease onset and delayed diagnosis of spondyloarthropathies] Feldtkeller E. **Z Rheumatol** 1999 Feb;58(1):21–30 (Eng. Abstr.) **(Ger)**

ETIOLOGY

Androgens and ankylosing spondylitis: a role in the pathogenesis? Giltay EJ, et al. **Ann N Y Acad Sci** 1999 Jun 22;876:340–64; discussion 365 (129 ref.)

Elevation of serum IgA in spondyloarthropathies and IgA nephropathy and its pathogenic role. Montenegro V, et al. **Curr Opin Rheumatol** 1999 Jul;11(4):265–72 (103 ref.)

[A clinical study of dialysis-related osteoarthropathy in long-term hemodialysis patients] Maruyama S. **Nippon Jinzo Gakkai Shi** 1998 Nov;40(8):573–86 (Eng. Abstr.) **(Jpn)**

[Pathogenesis of Bechterew disease] Gran JT. **Tidsskr Nor Laegeforen** 1998 Nov 30;118(29):4537–40 (51 ref.) (Eng. Abstr.) **(Nor)**

GENETICS

Animal models and in vitro models for the study of aetiopathogenesis of spondyloarthropathies. Breban M. **Baillieres Clin Rheumatol** 1998 Nov;12(4):611–26 (72 ref.)

The immunogenetics of the seronegative spondyloarthropathies. al-Khonizy W, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):567–88 (136 ref.)

Low frequency of HLA-B27 and scarcity of ankylosing spondylitis in a Zairean Bantu population. Mbayo K, et al. **Clin Rheumatol** 1998;17(4):309–10

Immunogenetics, HLA-B27 and spondyloarthropathies. González S, et al. **Curr Opin Rheumatol** 1999 Jul; 11(4):257–64 (58 ref.)

Polymorphism within the tumor necrosis factor alpha (TNF) promoter region in patients with ankylosing spondylitis. Kaijzel EL, et al. **Hum Immunol** 1999 Feb;60(2):140–4

Triplet repeat polymorphism in the MICA gene in HLA-B27 positive and negative caucasian patients with ankylosing spondylitis. Yabuki K, et al. **Hum Immunol** 1999 Jan; 60(1):83–6

The -308.1 polymorphism in the promoter region of the tumor necrosis factor gene is associated with ankylosing spondylitis independent of HLA-B27. McGarry F, et al. **J Rheumatol** 1999 May;26(5):1110–6

The role of HLA-B27 polymorphism and molecular mimicry in spondylarthropathy. López-Larrea C, et al. **Mol Med Today** 1998 Dec;4(12):540–9 (49 ref.)

Unusual MHC-I genes and spondylarthropathies. Wanner V, et al. **Rev Rhum Engl Ed** 1999 Jan 30;66(1 Suppl):41S–44S (26 ref.)

Genes in the spondyloarthropathies. Wordsworth P. **Rheum Dis Clin North Am** 1998 Nov;24(4):845–63 (48 ref.)

Susceptibility to ankylosing spondylitis is independent of the Bw4 and Bw6 epitopes of HLA-B27 alleles. Armas JB, et al. **Tissue Antigens** 1999 Mar;53(3):237–43

HLA-A*9, a probable secondary susceptibility marker to ankylosing spondylitis in Basque patients. de Juan MD, et al. **Tissue Antigens** 1999 Feb;53(2):161–6

HLA-B*27 subtyping by PCR-RFLP in Spanish patients with ankylosing spondylitis. Fraile A, et al. **Tissue Antigens** 1998 Nov;52(5):492–6

TAP polymorphism is not associated with ankylosing spondylitis and complications with acute anterior uveitis in HLA-B27-positive Japanese. Konno Y, et al. **Tissue Antigens** 1998 Nov;52(5):478–83

[The relationship between polymorphism of LMP2 and LMP7 genes and the phenotype of ankylosing spondylitis] Ding H, et al. **Chung Hua I Hsueh I Chuan Hsueh Tsa Chih** 1999 Aug; 16(4):242–5 (Eng. Abstr.) **(Chi)**

[HLA-B27 molecular subtypes and spondylarthropathies (editorial)] Tieng V, et al. **Pathol Biol (Paris)** 1998 Dec; 46(10):737–40 (Eng. Abstr.) **(Fre)**

IMMUNOLOGY

Is HLA B27 a true marker of axial involvement in psoriatic arthropathy? Mazzanti G, et al. **Acta Derm Venereol Suppl (Stockh)** 1994;186:71–2

The pathogenesis of HLA-B27 arthritis: role of HLA-B27 in bacterial defense. Ikeda M, et al. **Am J Med Sci** 1998 Oct;316(4):257–63 (38 ref.)

HLA-B27 and the seronegative spondyloarthropathies. Reveille JD. **Am J Med Sci** 1998 Oct;316(4):239–49 (132 ref.)

Arthritis in HLA-B27 transgenic animals. Taurog JD. **Am J Med Sci** 1998 Oct;316(4):250–6 (43 ref.)

Ankylosing spondylitis in monozygotic twins: studies on immunological parameters. Höhler T, et al. **Ann Rheum Dis** 1999 Jul;58(7):435–40

Humoral immune response to Klebsiella capsular polysaccharides in HLA-B27-positive patients with acute anterior uveitis and ankylosing spondylitis. Sahly H, et al. **Autoimmunity** 1998;28(4):209–15

The immunogenetics of the seronegative spondyloarthropathies. al-Khonizy W, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):567–88 (136 ref.)

Antibodies to Klebsiella pneumoniae lipopolysaccharide in patients with ankylosing spondylitis. Ahmadi K, et al. **Br J Rheumatol** 1998 Dec;37(12):1330–3

Anti-lactoferrin antibodies and other types of anti-neutrophil cytoplasmic antibodies (ANCA) in reactive arthritis and ankylosing spondylitis. Locht H, et al. **Clin Exp Immunol** 1999 Sep;117(3):568–73

Optimisation of HLA-B27 testing by association of flow cytometry and DNA typing. Bonnaud G, et al. **Clin Rheumatol** 1999;18(1):23–7

Bibliography of the current world literature. Spondyloarthropathies. **Curr Opin Rheumatol** 1999 Jul; 11(4):B111–6

Immunogenetics, HLA-B27 and spondyloarthropathies. González S, et al. **Curr Opin Rheumatol** 1999 Jul; 11(4):257–64 (58 ref.)

Spondyloarthropathies [editorial] Khan MA. **Curr Opin Rheumatol** 1999 Jul;11(4):233–4 (5 ref.)

Elevation of serum IgA in spondyloarthropathies and IgA nephropathy and its pathogenic role. Montenegro V, et al. **Curr Opin Rheumatol** 1999 Jul;11(4):265–72 (103 ref.)

High T cell epitope sharing between two HLA-B27 subtypes (B*2705 and B*2709) differentially associated to ankylosing spondylitis. García-Peydró M, et al. **J Immunol** 1999 Aug 15;163(4):2299–305

Antibody response to Klebsiella pneumoniae 60 kDa protein in familial and sporadic ankylosing spondylitis: role of HLA-B27 and characterization as a GroEL-like protein. Cancino-Diaz ME, et al. **J Rheumatol** 1998 Sep; 25(9):1756–64

Autoimmunity to cartilage link protein in patients with rheumatoid arthritis and ankylosing spondylitis. Guerassimov A, et al. **J Rheumatol** 1998 Aug;25(8):1480–4

Bowel permeability and CD45RO expression on circulating CD20+ B cells in patients with ankylosing spondylitis and their relatives. Vaile JH, et al. **J Rheumatol** 1999 Jan; 26(1):128–35

Animal models of human leukocyte antigen B27-linked arthritides [published erratum appears in Rheum Dis Clin North Am 1998 Feb;25(1):preceding Preface] Khare SD, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):883–94, xi–xii (66 ref.)

Ankylosing spondylitis. Clinical features. van der Linden S, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):663–76, vii (40 ref.)

Agalactosyl IgG is elevated in patients with active spondyloarthropathy. Leirisalo-Repo M, et al. **Rheumatol Int** 1999;18(5–6):171–6

Increased antibody responses to Klebsiella serotypes K26, K36, and K50 in patients with ankylosing spondylitis [letter; comment] Sahly H, et al. **Rheumatology (Oxford)** 1999 May; 38(5):481–2. Comment on: Br J Rheumatol 1998 May;37(5):525–31.

Susceptibility to ankylosing spondylitis is independent of the Bw4 and Bw6 epitopes of HLA-B27 alleles. Armas JB, et al. **Tissue Antigens** 1999 Mar;53(3):237-43

[Population study of antibodies to some potential pathogens of spondyloarthopathies: the study of the Chukotka population] Guseva IA, et al. **Klin Med (Mosk)** 1999; 77(5):27-31 (Eng. Abstr.) **(Rus)**

METABOLISM

Quantitative analysis of HLA-B27 by flow cytometry using CD3 gating in seronegative spondylarthropathies. Lee YH, et al. **Clin Exp Rheumatol** 1999 Mar-Apr;17(2):191-5

Androgen levels of patients with ankylosing spondylitis [letter; comment] James WH. **J Rheumatol** 1999 Aug; 26(8):1850-1. Comment on: J Rheumatol 1998 Dec;25(12):2389-94.

MICROBIOLOGY

Antibodies to Klebsiella pneumoniae nitrogenase reductase in patients with ankylosing spondylitis [letter] Ahmadi K, et al. **Ann Rheum Dis** 1998 Jul;57(7):441

Aetiological agents: their molecular biology and phagocyte-host interaction. Koehler L, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):589-609 (64 ref.)

Antibodies to Klebsiella pneumoniae lipopolysaccharide in patients with ankylosing spondylitis. Ahmadi K, et al. **Br J Rheumatol** 1998 Dec;37(12):1330-3

IgA class serum antibodies against three different Klebsiella serotypes in ankylosing spondylitis. Mäki-Ikola O, et al. **Br J Rheumatol** 1998 Dec;37(12):1299-302

Ankylosing spondylitis and genitourinary infection. Lange U, et al. **Eur J Med Res** 1999 Jan 26;4(1):1-7

Somatic serogroups, capsular types, and species of fecal Klebsiella in patients with ankylosing spondylitis. Toivanen P, et al. **J Clin Microbiol** 1999 Sep;37(9):2808-12

Cloning and sequencing of the gene that codes for the Klebsiella pneumoniae GroEL-like protein associated with ankylosing spondylitis. Cancino-Díaz M, et al. **Microb Pathog** 1998 Jul;25(1):23-32

Whipple's syndrome (uveitis, B27-negative spondylarthropathy, meningitis, and lymphadenopathy) associated with Arthrobacter sp. infection. Bodaghi B, et al. **Ophthalmology** 1998 Oct;105(10):1891-6

Increased antibody responses to Klebsiella serotypes K26, K36, and K50 in patients with ankylosing spondylitis [letter; comment] Sahly H, et al. **Rheumatology (Oxford)** 1999 May; 38(5):481-2. Comment on: Br J Rheumatol 1998 May;37(5):525-31.

MORTALITY

The rates of alcohol-related deaths from accidents and violence in subjects with ankylosing spondylitis and rheumatoid arthritis [letter; comment] James WH. **Rheumatology (Oxford)** 1999 Jan;38(1):91. Comment on: Br J Rheumatol 1998 Jun;37(6):688-90.

PATHOLOGY

The histopathology of ankylosing spondylitis: are there unifying hypotheses? Poole AR. **Am J Med Sci** 1998 Oct; 316(4):228-33 (33 ref.)

Antiquity of arthritis: spondyloarthropathy identified in the Paleocene of North America. off Rothschild BM, et al. **Clin Exp Rheumatol** 1998 Sep-Oct;16(5):573-5

Lymphadenopathy in an oriental with ankylosing spondylitis. Liou LB, et al. **Clin Rheumatol** 1998;17(5):412-5

Clinical, epidemiologic, and therapeutic aspects of ankylosing spondylitis. Gran JT, et al. **Curr Opin Rheumatol** 1998 Jul; 10(4):292-8 (43 ref.)

Do pathological opposites cancel each other out? Do all patients with both hypermobility and spondylarthropathy fulfill a criterion of any disease? Viitanen JV. **Scand J Rheumatol** 1999;28(2):120-2

PHYSIOPATHOLOGY

The histopathology of ankylosing spondylitis: are there unifying hypotheses? Poole AR. **Am J Med Sci** 1998 Oct; 316(4):228-33 (33 ref.)

Abnormal autonomic cardiovascular control in ankylosing spondylitis. Toussirot E, et al. **Ann Rheum Dis** 1999 Aug; 58(8):481-7

Measures of outcome in ankylosing spondylitis and other spondyloarthritides. van der Heijde DM, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):683-93 (26 ref.)

Bibliography of the current world literature. Spondyloarthropathies. **Curr Opin Rheumatol** 1999 Jul; 11(4):B111-6

Spondyloarthropathies [editorial] Khan MA. **Curr Opin Rheumatol** 1999 Jul;11(4):233-4 (5 ref.)

Involvement of the zygapophyseal joint in ankylosing spondylitis: relation to the bridging syndesmophyte. de Vlam K, et al. **J Rheumatol** 1999 Aug;26(8):1738-45

Evaluation of functional capacity in ankylosing spondylitis [editorial; comment] Dougados M, et al. **J Rheumatol** 1999 Jan;26(1):4-6. Comment on: J Rheumatol 1999 Jan;26(1):121-7.

Comparison of the Dougados Functional Index and the Bath Ankylosing Spondylitis Functional Index. A literature review. Ruof J, et al. **J Rheumatol** 1999 Apr;26(4):955-60 (38 ref.)

Exercise in ankylosing spondylitis: how much is optimum? Santos H, et al. **J Rheumatol** 1998 Nov;25(11):2156-60

Validity and sensitivity to change of spondylitis-specific measures of functional disability [see comments] Ward MM, et al. **J Rheumatol** 1999 Jan;26(1):121-7. Comment in: J Rheumatol 1999 Jan;26(1):4-6.

Classification of inflammatory arthritis by enthesitis [see comments] McGonagle D, et al. **Lancet** 1998 Oct 3; 352(9134):1137-40 (43 ref.). Comment in: Lancet 1998 Dec 12;352(9144):1938. Comment in: Lancet 1998 Dec 12;352(9144):1938-9. Comment in: Lancet 1999 May 1;353(9163):1526-7.

Principal component analysis of chest wall movement in selected pathologies. Ferrigno G, et al. **Med Biol Eng Comput** 1998 Jul;36(4):445-51

In ankylosing spondylitis serum interleukin-6 correlates with the degree of mobility restriction, but not with short-term changes in the variables for mobility. Falkenbach A, et al. **Rheumatol Int** 1998;18(3):103-6

Biomechanical analysis of posture in patients with spinal kyphosis due to ankylosing spondylitis: a pilot study. Bot SD, et al. **Rheumatology (Oxford)** 1999 May;38(5):441-3

Defining disease activity in ankylosing spondylitis: is a combination of variables (Bath Ankylosing Spondylitis Disease Activity Index) an appropriate instrument? Calin A, et al. **Rheumatology (Oxford)** 1999 Sep;38(9):878-82

Do pathological opposites cancel each other out? Do all patients with both hypermobility and spondylarthropathy fulfill a criterion of any disease? Viitanen JV. **Scand J Rheumatol** 1999;28(2):120-2

The Swedish version of the Bath ankylosing spondylitis functional index. Reliability and validity. Cronstedt H, et al. **Scand J Rheumatol Suppl** 1999;111:1-9

The Swedish version of the Bath ankylosing spondylitis disease activity index. Reliability and validity. Waldner A, et al. **Scand J Rheumatol Suppl** 1999;111:10-6

[Work capacity evaluation in patients with ankylosing spondylitis] Grazio S, et al. **Reumatizam** 1997;45(2):1-5 (Eng. Abstr.) **(Ser)**

PSYCHOLOGY

What counselling do patients with ankylosing spondylitis receive? Results of a questionnaire survey. Pal B. **Clin Rheumatol** 1998;17(4):306-8

Understanding exercise in the context of chronic disease: an exploratory investigation of self-efficacy. Barlow JH. **Percept Mot Skills** 1998 Oct;87(2):439-46

Quality of life in patients with ankylosing spondylitis. Ward MM. **Rheum Dis Clin North Am** 1998 Nov;24(4):815-27, x (60 ref.)

RADIOGRAPHY

The Bath Ankylosing Spondylitis Radiology Index (BASRI): a new, validated approach to disease assessment. MacKay K, et al. **Arthritis Rheum** 1998 Dec;41(12):2263-70

A new dimension to outcome: application of the Bath Ankylosing Spondylitis Radiology Index. Calin A, et al. **J Rheumatol** 1999 Apr;26(4):988-92

Stoke Ankylosing Spondylitis Spine Score. Dawes PT. **J Rheumatol** 1999 Apr;26(4):993-6

Radiological scoring methods in ankylosing spondylitis: reliability and sensitivity to change over one year. Spoorenberg A, et al. **J Rheumatol** 1999 Apr; 26(4):997-1002

Plain radiographs as an outcome measure in ankylosing spondylitis. van der Heijde D, et al. **J Rheumatol** 1999 Apr; 26(4):985-7 (17 ref.)

Should radiologists image and report sacroiliac joints in patients referred for examination of the lumbar spine? [letter] Matthews IP, et al. **Lancet** 1999 Aug 7; 354(9177):483-4

Radiologic diagnosis and pathology of the spondyloarthropathies. Braun J, et al. **Rheum Dis Clin North Am** 1998 Nov;24(4):697-735 (178 ref.)

RADIOTHERAPY

Risks of leukemia in Japanese atomic bomb survivors, in women treated for cervical cancer, and in patients treated for ankylosing spondylitis. Little MP, et al. **Radiat Res** 1999 Sep;152(3):280-92

[Radiosynoviorthesis in the treatment plan of chronic inflammatory joint diseases] Savaser AN, et al. **Z Rheumatol** 1999 Apr;58(2):71-8 (Eng. Abstr.) **(Ger)**

REHABILITATION

Disability in ankylosing spondylitis. Dalyan M, et al. **Disabil Rehabil** 1999 Feb;21(2):74-9

Quality of life in patients with ankylosing spondylitis. Ward MM. **Rheum Dis Clin North Am** 1998 Nov;24(4):815-27, x (60 ref.)

SURGERY

Anesthesia for ankylosing spondylitis patients undergoing transpedicle vertebrectomy. Lin BC, et al. **Acta Anaesthesiol Sin** 1999 Jun;37(2):73-8

The use of remifentanil infusion to allow intraoperative awakening for intentional fracturing of the anterior cervical spine. Kimball-Jones PL, et al. **Anesth Analg** 1999 Oct; 89(4):1059-61

Lumbar osteotomy for correction of thoracolumbar kyphotic deformity in ankylosing spondylitis. A structured review of three methods of treatment. Van Royen BJ, et al. **Ann Rheum Dis** 1999 Jul;58(7):399-406 (65 ref.)

Diffuse idiopathic skeletal hyperostosis in the cervical spine. Meyer PR Jr. **Clin Orthop** 1999 Feb;(359):49-57

Multisegmental cervical spondylotic myelopathy and radiculopathy treated by multilevel oblique corpectomies without fusion. George B, et al. **Neurosurgery** 1999 Jan; 44(1):81-90 (117 ref.)

Odontoid process and C1-C2 corrective osteotomy through a posterior approach: technical case report. Grundy PL, et al. **Neurosurgery** 1998 Dec;43(6):1483-6; discussion 1486-7

Analysis of dural configuration for evaluation of posterior decompression in cervical myelopathy. Ishida Y, et al. **Neurosurgery** 1999 Jan;44(1):91-5; discussion 95-6

Rheumatic diseases. **Scand J Rheumatol Suppl** 1999;110:4-6 (17 ref.)

[A case of psoriatic arthritis associated with ankylosing spondylitis treated with bilateral total hip arthroplasty] Yamada K, et al. **Ryumachi** 1998 Dec;38(6):836-40 (Eng. Abstr.) **(Jpn)**

THERAPY

Spondylarthropathy treatment: progress in medical treatment, physical therapy and rehabilitation. Dougados M, et al. **Baillieres Clin Rheumatol** 1998 Nov;12(4):717-36 (56 ref.)

Decrease of respiratory burst in neutrophils of patients with ankylosing spondylitis by combined radon-hyperthermia treatment. Reinisch N, et al. **Clin Exp Rheumatol** 1999 May-Jun;17(3):335-8

Clinical, epidemiologic, and therapeutic aspects of ankylosing spondylitis. Gran JT, et al. **Curr Opin Rheumatol** 1998 Jul; 10(4):292-8 (43 ref.)

Magnetic stimulation in the recuperative therapy of patients with spondylogenic diseases of the nervous system. Skoromets AA, et al. **Neurosci Behav Physiol** 1999 Mar-Apr;29(2):211-5

Understanding exercise in the context of chronic disease: an exploratory investigation of self-efficacy. Barlow JH. **Percept Mot Skills** 1998 Oct;87(2):439-46

[Spondylarthritis. 4: therapy of spondylarthritis] Köhler L, et al. **Fortschr Med** 1999 Apr 30;117(12):29-31 **(Ger)**

URINE

Relationship between urinary pyridinium cross-links, disease activity and disease subsets of ankylosing spondylitis. Toussirot E, et al. **Rheumatology (Oxford)** 1999 Jan; 38(1):21-7

SPONDYLODESIS see **SPINAL FUSION**

SPONDYLODISCITIS see **DISCITIS**

SPONDYLOEPIPHYSEAL DYSPLASIA see **OSTEOCHONDRODYSPLASIAS**

SPONDYLOLISTHESIS

CHEMICALLY INDUCED

[Cervical spondylolisthesis in skeletal fluorosis. A case report] Sy MH, et al. **Int Orthop** 1998;22(6):407-9 (Eng. Abstr.) **(Fre)**

COMPLICATIONS

Spondyloptosis and multiple-level spondylolysis. Al-Sebai MW, et al. **Eur Spine J** 1999;8(1):75-7

[Progressive paraparesis due to cervical spondyloptosis in a child with the Klippel-Feil syndrome] Martinez Campos M, et al. **An Esp Pediatr** 1998 Sep;49(3):302-4 (11 ref.) **(Spa)**

DIAGNOSIS

Diagnosis and treatment of severe dysplastic spondylolisthesis. Leone LD, et al. **J Am Osteopath Assoc** 1999 Jun;99(6):326-8

The role of lumbar lordosis, vertebral end-plate inclination, disc height, and facet orientation in degenerative spondylolisthesis. Berlemann U, et al. **J Spinal Disord** 1999 Feb;12(1):68-73

Image of the month. 13-year-old girl with very mild and infrequent back pain. Grant JA, et al. **Pediatr Neurosurg** 1998 Feb;28(2):96

[Distension of the inter-facet joints in MRI: and indirect sign of an existing underestimation of spondylolisthesis and canal stenosis] Mailleux P, et al. **J Belge Radiol** 1998 Dec; 81(6):283-5 (Eng. Abstr.) **(Fre)**

[Traumatic spondylolisthesis of the axis] Josten C. **Orthopade** 1999 May;28(5):394-400 (Eng. Abstr.) **(Ger)**

EPIDEMIOLOGY

The prevalence of cervical spondylolisthesis. Kopacz KJ, et al. **Orthopedics** 1999 Jul;22(7):677-9

ETHNOLOGY

Lumbar olisthesis and lower back symptoms in elderly white women. The Study of Osteoporotic Fractures. Vogt MT, et al. **Spine** 1998 Dec 1;23(23):2640-7

ETIOLOGY

Traumatic L5–S1 spondylolisthesis: report of three cases and a review of the literature. Fabris D, et al. **Eur Spine J** 1999;8(4):290–5 (25 ref.)
Degenerative spondylolisthesis. Developmental or acquired? Love TW, et al. **J Bone Joint Surg Br** 1999 Jul;81(4):670–4
Long-term follow-up study of posterior lumbar interbody fusion. Nakai S, et al. **J Spinal Disord** 1999 Aug;12(4):293–9
Traumatic L5–S1 spondylolisthesis. Hodges SD, et al. **South Med J** 1999 Mar;92(3):316–20
Spondyloptosis of the cervical spine in neurofibromatosis. A case report. Goffin J, et al. **Spine** 1999 Mar 15; 24(6):587–90 (18 ref.)

PHYSIOPATHOLOGY

Facet joint remodeling in degenerative spondylolisthesis: an investigation of joint orientation and tropism. Berlemann U, et al. **Eur Spine J** 1998;7(5):376–80
Mechanical instability as a cause of gait disturbance in high-grade spondylolisthesis: a pre- and postoperative three-dimensional gait analysis. Meyers LL, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):672–6
"The pathomechanism of isthmic lumbar spondylolisthesis: a biomechanical study in immature calf spines" [letter; comment] Moon MS. **Spine** 1999 Apr 1;24(7):731–2. Comment on: Spine 1998 Jul 1;23(13):1442–6.

RADIOGRAPHY

Radiology rounds. Bilateral spondylolysis at L5 with associated spondylolisthesis. McLennan MK. **Can Fam Physician** 1999 Jun;45:1457, 1465–6, 1468 passim

REHABILITATION

Posterolateral fusion for isthmic spondylolisthesis in adults: analysis of fusion rate and clinical results. Deguchi M, et al. **J Spinal Disord** 1998 Dec;11(6):459–64

SURGERY

Surgical management of low-grade lytic spondylolisthesis with C–D instrumentation in adult patients. Nooraie H, et al. **Arch Orthop Trauma Surg** 1999;119(5–6):337–9
Spinal fusion and pedicle screw instrumentation in the treatment of spondylolisthesis over the age of 60. Wang PJ, et al. **Chang Keng I Hsueh Tsa Chih** 1998 Dec; 21(4):436–41
The surgical treatment of spondylolisthesis with transpedicular stabilization: a review of 25 cases. Lisai P, et al. **Chir Organi Mov** 1998 Oct–Dec;83(4):369–74 **(Eng, Ita)**
MR imaging for early complications of transpedicular screw fixation. Colak A, et al. **Eur Spine J** 1999;8(2):151–5
Traumatic L5–S1 spondylolisthesis: report of three cases and a review of the literature. Fabris D, et al. **Eur Spine J** 1999;8(4):290–5 (25 ref.)
Sacrospinalis muscle-pedicle bone graft in posterolateral fusion for spondylolisthesis. Baksi DP. **Int Orthop** 1998; 22(4):234–40
L4–L5 degenerative spondylolisthesis: indications and technique for operative management. O'Rourke MR, et al. **Iowa Orthop J** 1998;18:76–86 (42 ref.)
Degenerative lumbar stenosis: diagnosis and management. Hilibrand AS, et al. **J Am Acad Orthop Surg** 1999 Jul–Aug; 7(4):239–49 (41 ref.)
Contact of hydroxyapatite spacers with split spinous processes in double-door laminoplasty for cervical myelopathy. Hirabayashi S, et al. **J Orthop Sci** 1999; 4(4):264–8
Mechanical instability as a cause of gait disturbance in high-grade spondylolisthesis: a pre- and postoperative three-dimensional gait analysis. Meyers LL, et al. **J Pediatr Orthop** 1999 Sep–Oct;19(5):672–6
Posterolateral fusion for isthmic spondylolisthesis in adults: analysis of fusion rate and clinical results. Deguchi M, et al. **J Spinal Disord** 1998 Dec;11(6):459–64
Decompression in the surgical management of degenerative spondylolisthesis: advantages of a conservative approach in 290 patients [letter; comment] Krengel W. **J Spinal Disord** 1999 Feb;12(1):80. Comment on: J Spinal Disord 1998 Apr;11(2):116–22; discussion 123.
Functional outcome after partial reduction and 360 degree fusion in grade III–V spondylolisthesis in adolescent and adult patients. Laursen M, et al. **J Spinal Disord** 1999 Aug; 12(4):300–6
Management of spondylolysis and spondylolisthesis in the pediatric and adolescent population. Smith JA, et al. **Orthop Clin North Am** 1999 Jul;30(3):487–99, ix (95 ref.)
Minimum 5-year results of degenerative spondylolisthesis treated with decompression and instrumented posterior fusion. Booth KC, et al. **Spine** 1999 Aug 15;24(16):1721–7
Spondyloptosis of the cervical spine in neurofibromatosis. A case report. Goffin J, et al. **Spine** 1999 Mar 15; 24(6):587–90 (18 ref.)
Management of degenerative disc disease above an L5–S1 segment requiring arthrodesis. Herkowitz HN, et al. **Spine** 1999 Jun 15;24(12):1268–70 (15 ref.)
Anterior interbody fusion versus posterolateral fusion with transpedicular fixation for isthmic spondylolisthesis in adults. A comparison of clinical results. Kim NH, et al. **Spine** 1999 Apr 15;24(8):812–6; discussion 817
Microdecompression and uninstrumented single-level fusion for spinal canal stenosis with degenerative spondylolisthesis. McCulloch JA. **Spine** 1998 Oct 15; 23(20):2243–52
Complications in the surgical treatment of pediatric high-grade, isthmic dysplastic spondylolisthesis. A comparison of three surgical approaches. Molinari RW, et al. **Spine** 1999 Aug 15;24(16):1701–11
Patient outcomes after decompression and instrumented posterior spinal fusion for degenerative spondylolisthesis. Nork SE, et al. **Spine** 1999 Mar 15;24(6):561–9
One-stage decompression and posterolateral and interbody fusion for severe spondylolisthesis. An analysis of 14 patients. Roca J, et al. **Spine** 1999 Apr 1;24(7):709–14
Posterior stabilization of degenerative lumbar spondylolisthesis with a Leeds-Keio artificial ligament. A biomechanical analysis in a porcine vertebral model. Suzuki K, et al. **Spine** 1999 Jan 1;24(1):26–31
[The effect of pedicle screw instrumentation on posterolateral spinal fusion. A prospective, randomized study with a two-year follow-up] Christensen FB, et al. **Ugeskr Laeger** 1999 Mar 29;161(13):1920–5 (Eng. Abstr.) **(Dan)**
[The evaluation of preliminary results of spondylolisthesis treatment in adults by Kluger's transpedicular stabilization] Mazurkiewicz T, et al. **Chir Narzadow Ruchu Ortop Pol** 1999;64(3):257–63 (Eng. Abstr.) **(Pol)**
[Lumbar interbody fusion. Biomechanical significance for the spine] Maciejczak A, et al. **Neurol Neurochir Pol** 1998 Sep–Oct;32(5):1247–59 (20 ref.) (Eng. Abstr.) **(Pol)**
[The application of intervertebral implant for spine stabilization] Radek A, et al. **Neurol Neurochir Pol** 1998 May–Jun;32(3):705–11 (Eng. Abstr.) **(Pol)**

THERAPY

Diagnosis and treatment of severe dysplastic spondylolisthesis. Leone LD, et al. **J Am Osteopath Assoc** 1999 Jun;99(6):326–8
Traumatic spondylolisthesis of the axis: analysis of management. Barros TE, et al. **Spinal Cord** 1999 Mar; 37(3):166–71

SPONDYLOLYSIS

COMPLICATIONS

[Cystic lesion and compression of the posterior epidural space associated with bilateral lumbar spondylolysis. Presentation of a case. Correlation with observable arthrographic images in a case of spondylolysis] Mailleux P, et al. **Acta Orthop Belg** 1999 Jun;65(2):218–22 (Eng. Abstr.) **(Fre)**

DIAGNOSIS

The radiological investigation of lumbar spondylolysis. Harvey CJ, et al. **Clin Radiol** 1998 Oct;53(10):723–8 (39 ref.)
Chronic lumbar epidural hematoma in a patient who had spondylolysis at the third lumbar vertebra. Report of a rare case involving a seventeen-year-old adolescent. Nagata K, et al. **J Bone Joint Surg Am** 1998 Oct;80(10):1515–20

ETIOLOGY

Spondylolysis at three sites in the same lumbar vertebra. Ariyoshi M, et al. **Int J Sports Med** 1999 Jan;20(1):56–7
Delayed vertebral slip and adjacent disc degeneration with an isthmic defect of the fifth lumbar vertebra. Ishida Y, et al. **J Bone Joint Surg Br** 1999 Mar;81(2):240–4
Histomorphic analysis of the development of the pars interarticularis and its association with isthmic spondylolysis. Sagi HC, et al. **Spine** 1998 Aug 1; 23(15):1635–9; discussion 1640
[An unusual anomaly : cervical spondylolysis in an adult] Fessy MH, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May; 85(2):174–7 (Eng. Abstr.) **(Fre)**

PATHOLOGY

MR imaging of fibrocartilaginous masses arising on the margins of spondylolysis defects. Major NM, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):673–6
Retrodural cysts bridging a bilateral lumbar spondylolysis: a report of two symptomatic cases. Duprez T, et al. **J Comput Assist Tomogr** 1999 Jul–Aug;23(4):534–7

PHYSIOPATHOLOGY

Diagnostic value of cervical somatosensory evoked potentials recorded from the intervertebral discs after median and ulnar nerve stimulation in cervical spondylotic myelopathy. Ueta E, et al. **J Spinal Disord** 1998 Dec;11(6):514–20

RADIOGRAPHY

Spondylolysis of the axis vertebra: a rare anomaly simulating hangman's fracture. Mondschein J, et al. **AJR Am J Roentgenol** 1999 Feb;172(2):556–7
Radiology rounds. Bilateral spondylolysis at L5 with associated spondylolisthesis. McLennan MK. **Can Fam Physician** 1999 Jun;45:1457, 1465–6, 1468 passim
[An unusual anomaly : cervical spondylolysis in an adult] Fessy MH, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 May; 85(2):174–7 (Eng. Abstr.) **(Fre)**

RADIOTHERAPY

[Pain radiotherapy in chronic degenerative lumbar syndrome] Hackenberg L. **Z Orthop Ihre Grenzgeb** 1999 Mar–Apr; 137(2):Oa18–9 **(Ger)**

SURGERY

Degenerative lumbar stenosis: diagnosis and management. Hilibrand AS, et al. **J Am Acad Orthop Surg** 1999 Jul–Aug; 7(4):239–49 (41 ref.)
A biomechanic study of the surgical repair technique of pars defect in spondylolysis. Vathana P, et al. **J Med Assoc Thai** 1998 Nov;81(11):824–9
Operative repair of symptomatic spondylolysis following a positive response to diagnostic pars injection. Wu SS, et al. **J Spinal Disord** 1999 Feb;12(1):10–6
Management of spondylolysis and spondylolisthesis in the pediatric and adolescent population. Smith JA, et al. **Orthop Clin North Am** 1999 Jul;30(3):487–99, ix (95 ref.)
Direct repair of spondylolysis without spondylolisthesis, using a rod-screw construct and bone grafting of the pars defect. Gillet P, et al. **Spine** 1999 Jun 15;24(12):1252–6

THERAPY

Treatment of spondylolysis with external electrical stimulation and bracing in adolescent athletes: a report of two cases. Fellander-Tsai L, et al. **Clin J Sport Med** 1998 Jul;8(3):232–4

SPONDYLOSIS see **SPINAL OSTEOPHYTOSIS**

SPONDYLOSIS DEFORMANS see **SPINAL OSTEOPHYTOSIS**

SPONDYLOSYNDESIS see **SPINAL FUSION**

SPONGES (ZOOLOGY) see **PORIFERA**

SPONGIFORM ENCEPHALOPATHIES, TRANSMISSIBLE see **PRION DISEASES**

SPONGIFORM ENCEPHALOPATHY, BOVINE see **ENCEPHALOPATHY, BOVINE SPONGIFORM**

SPONGURIDINE see **ARABINOFURANOSYLURACIL**

SPONGY DISEASE OF WHITE MATTER see **CANAVAN DISEASE**

SPONTANEOUS COMBUSTION

HISTORY

Death by spontaneous combustion: Charles Dickens and the strange case of Mr. Krook. Gamble JG. **Pharos** 1999 Spring;62(2):11–5

SPORE COUNT see **COLONY COUNT, MICROBIAL**

SPORES

DRUG EFFECTS

Efficacy of oxonia active against selected spore formers. Blakistone B, et al. **J Food Prot** 1999 Mar;62(3):262–7

GROWTH & DEVELOPMENT

The anterior-like cells in Dictyostelium are required for the elevation of the spores during culmination. Sternfeld J. **Dev Genes Evol** 1998 Nov;208(9):487–94
A Serum Response Factor homolog is required for spore differentiation in Dictyostelium. Escalante R, et al. **Development** 1998 Oct;125(19):3801–8

IMMUNOLOGY

Detection of microsporidia spore-specific antigens by monoclonal antibodies [published erratum appears in Hybridoma 1998 Dec;17(6):581] Luján HD, et al. **Hybridoma** 1998 Jun;17(3):237–43

PHYSIOLOGY

Relationship between the physicochemical parameters and biological activity of sulfosuccinic acid ester surfactants. Oros G, et al. **Biochem Mol Biol Int** 1999 Jan;47(1):79–88
Association of the level of mosquito larvicidal activity with the growth & sporulation in Bacillus sphaericus H-5a5b strains. Manonmani AM, et al. **Indian J Med Res** 1999 Apr; 109:147–51
Control of sigma factor activity during Bacillus subtilis sporulation. Kroos L, et al. **Mol Microbiol** 1999 Mar; 31(5):1285–94 (51 ref.)

SPORES, BACTERIAL

From the bioweapons trenches, new tools for battling microbes [news] Alper J. **Science** 1999 Jun 11; 284(5421):1754–5
Microbiological efficacy of superheated steam. I.

SPORES, BACTERIAL

Communication: results with spores of Bacillus subtilis and Bacillus stearothermophilus and with spore earth. Spicher G, et al. **Zentralbl Hyg Umweltmed** 1999 Feb;201(6):541–53

CHEMISTRY

Unique activity associated with non-insecticidal Bacillus thuringiensis parasporal inclusions: in vitro cell-killing action on human cancer cells. Mizuki E, et al. **J Appl Microbiol** 1999 Mar;86(3):477–86

Spore peptidoglycan structure in a cwlD dacB double mutant of Bacillus subtilis. Popham DL, et al. **J Bacteriol** 1999 Oct;181(19):6205–9

Real-time monitoring of Bacillus subtilis endospore components by attenuated total reflection Fourier-transform infrared spectroscopy during germination. Cheung HY, et al. **Microbiology** 1999 May; 145 (Pt 5):1043–8

Corona plasma discharge for rapid analysis of microorganisms by mass spectrometry. Birmingham J, et al. **Rapid Commun Mass Spectrom** 1999;13(7):604–6

DRUG EFFECTS

Sporicidal testing of commercial germicides using a chemical standard and a calibrated bioindicator. Danielson JW, et al. **J AOAC Int** 1999 Jan–Feb;82(1):151–9

Nisin in milk sensitizes Bacillus spores to heat and prevents recovery of survivors. Wandling LR, et al. **J Food Prot** 1999 May;62(5):492–8

Evaluation of the destructive effect of khaya gum on Bacillus subtilis spores during tableting. Odeku OA, et al. **Phytother Res** 1999 Jun;13(4):296–9

GENETICS

The Streptomyces aureofaciens homologue of the whiB gene is essential for sporulation; its expression correlates with the developmental stage. Kormanec J, et al. **Folia Microbiol (Praha)** 1998;43(6):605–12

Transient gene asymmetry during sporulation and establishment of cell specificity in Bacillus subtilis [see comments] Frandsen N, et al. **Genes Dev** 1999 Feb 15; 13(4):394–9. Comment in: Genes Dev 1999 Feb 15;13(4):377–81.

Linking asymmetric division to cell fate: teaching an old microbe new tricks [comment] Losick R, et al. **Genes Dev** 1999 Feb 15;13(4):377–81 (43 ref.). Comment on: Genes Dev 1999 Feb 15;13(4):394–9.

Sigma factor displacement from RNA polymerase during Bacillus subtilis sporulation. Ju J, et al. **J Bacteriol** 1999 Aug;181(16):4969–77

Characterization of the yrbA gene of Bacillus subtilis, involved in resistance and germination of spores. Takamatsu H, et al. **J Bacteriol** 1999 Aug;181(16):4986–94

An evolutionary link between sporulation and prophage induction in the structure of a repressor:anti-repressor complex. Lewis RJ, et al. **J Mol Biol** 1998 Nov 13; 283(5):907–12 (34 ref.)

The SpoIIE phosphatase, the sporulation septum and the establishment of forespore-specific transcription in Bacillus subtilis: a reassessment. Arigoni F, et al. **Mol Microbiol** 1999 Mar;31(5):1407–15

Characterization of a morphological checkpoint coupling cell-specific transcription to septation in Bacillus subtilis. Feucht A, et al. **Mol Microbiol** 1999 Sep;33(5):1015–26

Alanine mutants of the Spo0F response regulator modifying specificity for sensor kinases in sporulation initiation. Jiang M, et al. **Mol Microbiol** 1999 Jul;33(2):389–95

GROWTH & DEVELOPMENT

Inactivation of Bacillus subtilis spores by combining ultrasonic waves under pressure and mild heat treatment. Raso J, et al. **J Appl Microbiol** 1998 Nov;85(5):849–54

Thermal resistance of bacterial spores in milk-based beverages supplemented with nisin. Beard BM, et al. **J Food Prot** 1999 May;62(5):484–91

ISOLATION & PURIFICATION

Bacillus cereus spores in raw milk: factors affecting the contamination of milk during the grazing period. Christiansson A, et al. **J Dairy Sci** 1999 Feb;82(2):305–14

Method for purification of bacterial endospores from soils: UV resistance of natural Sonoran desert soil populations of Bacillus spp. with reference to B. subtilis strain 168. Nicholson WL, et al. **J Microbiol Methods** 1999 Feb; 35(1):13–21

PHYSIOLOGY

Kinetics of inactivation of Bacillus subtilis spores by continuous or intermittent ohmic and conventional heating. Cho HY, et al. **Biotechnol Bioeng** 1999 Feb 5;62(3):368–72

The presterilization microbial load on used medical devices and the effectiveness of hydrogen peroxide gas plasma against Bacillus subtilis spores [see comments] Penna TC, et al. **Infect Control Hosp Epidemiol** 1999 Jul;20(7):465–72 . Comment in: Infect Control Hosp Epidemiol 1999 Jul;20(7):463–5.

Sporicidal activity of a new low-temperature sterilization technology: the Sterrad 50 sterilizer [see comments] Rutala WA, et al. **Infect Control Hosp Epidemiol** 1999 Jul; 20(7):514–6. Comment in: Infect Control Hosp Epidemiol 1999 Jul;20(7):463–5.

Isolation and characterization of mutations in Bacillus subtilis that allow spore germination in the novel germinant D-alanine. Paidhungat M, et al. **J Bacteriol** 1999 Jun; 181(11):3341–50

An evolutionary link between sporulation and prophage induction in the structure of a repressor:anti-repressor complex. Lewis RJ, et al. **J Mol Biol** 1998 Nov 13; 283(5):907–12 (34 ref.)

Bacillus subtilis spore coat. Driks A. **Microbiol Mol Biol Rev** 1999 Mar;63(1):1–20 (153 ref.)

Structural analysis of Bacillus megaterium KM spore peptidoglycan and its dynamics during germination. Atrih A, et al. **Microbiology** 1999 May;145 (Pt 5):1033–41

Real-time monitoring of Bacillus subtilis endospore components by attenuated total reflection Fourier-transform infrared spectroscopy during germination. Cheung HY, et al. **Microbiology** 1999 May; 145 (Pt 5):1043–8

The product of the yvoC (gerF) gene of Bacillus subtilis is required for spore germination. Robinson C, et al. **Microbiology** 1998 Nov;144 (Pt 11):3105–9

Evaluation of the effects of fragmented steam exposure cycles on the survival of bacterial spores. Shirtz JT, et al. **PDA J Pharm Sci Technol** 1999 Jan–Feb;53(1):11–22

RADIATION EFFECTS

Determination of erythema-effective solar radiation in Japan and Germany with a spore monolayer film optimized for the detection of UVB and UVA—results of a field campaign. Furusawa Y, et al. **Appl Microbiol Biotechnol** 1998 Nov;50(5):597–603

SPORES, FUNGAL

Variabilities in aerosolizing activities and airborne fungal concentrations in a bakery. Levy JI, et al. **Am Ind Hyg Assoc J** 1999 May–Jun;60(3):317–25

Chromosome mechanics of fungi under spaceflight conditions—tetrad analysis of two-factor crosses between spore color mutants of Sordaria macrospora. Hahn A, et al. **FASEB J** 1999;13 Suppl:S149–56

DRUG EFFECTS

Antisporulating and respiration-inhibitory effects of essential oils on filamentous fungi. Inouye S, et al. **Mycoses** 1998 Nov;41(9–10):403–10

ENZYMOLOGY

The small GTP-binding protein Rho is expressed differentially during spore germination of Phycomyces blakesleeanus. Ramirez-Ramirez N, et al. **Microbiology** 1999 May;145 (Pt 5):1097–104

GENETICS

Isolation of a novel gene, moc2, encoding a putative RNA helicase as a suppressor of sterile strains in Schizosaccharomyces pombe. Kawamukai M. **Biochim Biophys Acta** 1999 Jul 7;1446(1–2):93–101

Sporulation-specific expression of the yeast DIT1/DIT2 promoter is controlled by a newly identified repressor element and the short form of Rim101p. Bogengruber E, et al. **Eur J Biochem** 1998 Dec 1;258(2):430–6

Developmental regulation of cmp1, a gene encoding a multidomain conidiospore surface protein of Trichoderma. Puyesky M, et al. **Fungal Genet Biol** 1999 Jun;27(1):88–99

The transcriptional program of sporulation in budding yeast [published erratum appears in Science 1998 Nov 20;282(5393):1421] Chu S, et al. **Science** 1998 Oct 23; 282(5389):699–705

GROWTH & DEVELOPMENT

Imaging of total calcium in urediospore germlings of Uromyces by ion microscopy. Chandra S, et al. **Fungal Genet Biol** 1999 Jun;27(1):77–87

IMMUNOLOGY

Respiratory allergy to mushroom spores: not well recognized, but relevant. Helbling A, et al. **Ann Allergy Asthma Immunol** 1999 Jul;83(1):17–9

Effect of tree and grass pollens and fungal spores on spring allergic rhinitis: a comparative study. Wu LY, et al. **Ann Allergy Asthma Immunol** 1999 Aug;83(2):137–43

ISOLATION & PURIFICATION

Chlamydoconidia formation in zygomycosis due to Rhizopus species. Kimura M, et al. **Arch Pathol Lab Med** 1998 Dec; 122(12):1120–2

Spores and mycelia in cutaneous chromomycosis. Lee MW, et al. **J Am Acad Dermatol** 1998 Nov;39(5 Pt 2):850–2

Incidence of Alternaria spores in the atmosphere of Murcia (SE Spain). Seasonal, monthly and intradiurnal variations. Munuera Giner M, et al. **J Investig Allergol Clin Immunol** 1998 Sep–Oct;8(5):304–8

PHYSIOLOGY

Sialic acid-dependent recognition of laminin by Penicillium marneffei conidia. Hamilton AJ, et al. **Infect Immun** 1998 Dec;66(12):6024–6

The small GTP-binding protein Rho is expressed differentially during spore germination of Phycomyces blakesleeanus. Ramirez-Ramirez N, et al. **Microbiology** 1999 May;145 (Pt 5):1097–104

Effects of Stachybotrys chartarum (atra) conidia and isolated toxin on lung surfactant production and homeostasis. Mason CD, et al. **Nat Toxins** 1998;6(1):27–33

SPOROTHRIX

CHEMISTRY

Host organism defense by a peptide-polysaccharide extracted from the fungus Sporothrix schenckii. Carlos IZ, et al. **Mycopathologia** 1998–99;144(1):9–14

CLASSIFICATION

Mitochondrial DNA analysis of Sporothrix schenckii in North and South America. Ishizaki H, et al. **Mycopathologia** 1998;142(3):115–8

ENZYMOLOGY

Cloning and characterization of a thermostable cellobiose dehydrogenase from Sporotrichum thermophile. Subramaniam SS, et al. **Arch Biochem Biophys** 1999 May 15;365(2):223–30

GENETICS

Mitochondrial DNA analysis of Sporothrix schenckii in North and South America. Ishizaki H, et al. **Mycopathologia** 1998;142(3):115–8

ISOLATION & PURIFICATION

Solitary sporotrichosis lasting for 10 years [letter] Shiraishi H, et al. **Dermatology** 1999;198(1):100–1

Sporothrix meningitis. Wescott BL, et al. **Nurse Pract** 1999 Feb;24(2):90, 93–4, 97–8 passim (19 ref.)

[Cutaneous infection following participation in the "killing of the pig"] Garduño E, et al. **Enferm Infecc Microbiol Clin** 1999 Feb;17(2):95–6 **(Spa)**

PATHOGENICITY

Differences in virulence of Sporothrix schenckii conidia related to culture conditions and cell-wall components. Fernandes KS, et al. **J Med Microbiol** 1999 Feb; 48(2):195–203

Characteristic infectivity of Sporothrix schenckii to mice depending on routes of infection and inherent fungal pathogenicity. Tachibana T, et al. **Med Mycol** 1998 Feb; 36(1):21–7

RADIATION EFFECTS

UV irradiation induced high frequency of colonial variants with altered morphology in Sporothrix schenckii. Torres-Guerrer H, et al. **Med Mycol** 1998 Apr;36(2):81–7

SPOROTRICHOSIS

[Exotic pulmonary mycoses] Dupont B. **Rev Pneumol Clin** 1998 Dec;54(6):301–8 (24 ref.) (Eng. Abstr.) **(Fre)**

[Sporotrichosis] Ito A. **Ryoikibetsu Shokogun Shiriza** 1999; (24 Pt 2):378–80 (17 ref.) **(Jpn)**

COMPLICATIONS

Cutaneous New World leishmaniasis-sporotrichosis coinfection: report of 3 cases. Agudelo SP, et al. **J Am Acad Dermatol** 1999 Jun;40(6 Pt 1):1002–4

Erysipeloid sporotrichosis in a woman with Cushing's disease. Kim S, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 1):272–4

DIAGNOSIS

MR imaging appearance of cutaneous sporotrichosis. Patramanis GM, et al. **AJR Am J Roentgenol** 1999 Jun; 172(6):1697

An ulcerating nodule on the arm. Lymphocutaneous sporotrichosis. Saxena M, et al. **Arch Dermatol** 1998 Oct; 134(10):1281, 1284

Photo quiz. Osteoarticular sporotrichosis. Jones N. **Clin Infect Dis** 1999 Jul;29(1):59, 202–3

Lymphocutaneous sporotrichosis: a case report and unconventional source of infection. Bary P, et al. **Cutis** 1999 Mar;63(3):173–5

Sporotrichosis in an unusual location—dermatologically and geographically. Khaitan BK, et al. **Indian J Pathol Microbiol** 1998 Oct;41(4):461–3

Disseminated sporotrichosis with extensive cutaneous involvement in a patient with AIDS. Ware AJ, et al. **J Am Acad Dermatol** 1999 Feb;40(2 Pt 2):350–5

Sporothrix meningitis. Wescott BL, et al. **Nurse Pract** 1999 Feb;24(2):90, 93–4, 97–8 passim (19 ref.)

A 54-year-old man with respiratory distress. Parodi S, et al. **Tenn Med** 1999 Aug;92(8):306

[Disseminated cutaneous sporotrichosis as the initial manifestation of acquired immunodeficiency syndrome—case report] Neto R da J, et al. **Rev Soc Bras Med Trop** 1999 Jan–Feb;32(1):57–61 (Eng. Abstr.) **(Por)**

[Cutaneous infection following participation in the "killing of the pig"] Garduño E, et al. **Enferm Infecc Microbiol Clin** 1999 Feb;17(2):95–6 **(Spa)**

DRUG THERAPY

Disseminated cutaneous sporotrichosis in an AIDS patient receiving maintenance therapy with fluconazole for previous cryptococcal meningitis. Goldani LZ, et al. **Clin Infect Dis** 1999 Jun;28(6):1337–8

EPIDEMIOLOGY

Sporotrichosis in Himachal Pradesh (north India). Ghosh A, et al. **Trans R Soc Trop Med Hyg** 1999 Jan–Feb;93(1):41–5

IMMUNOLOGY

Host organism defense by a peptide–polysaccharide extracted from the fungus Sporothrix schenckii. Carlos IZ, et al. **Mycopathologia** 1998–99;144(1):9–14

MICROBIOLOGY

Differences in virulence of Sporothrix schenckii conidia related to culture conditions and cell–wall components. Fernandes KS, et al. **J Med Microbiol** 1999 Feb; 48(2):195–203

PATHOLOGY

Sporotrichoid tuberculoid leprosy [letter] Ramesh V, et al. **Acta Derm Venereol** 1998 Sep;78(5):381

Solitary sporotrichosis lasting for 10 years [letter] Shiraishi H, et al. **Dermatology** 1999;198(1):100–1

Fine–needle aspiration cytologic diagnosis of lymphocutaneous sporotrichosis: a case report. Zaharopoulos P. **Diagn Cytopathol** 1999 Feb;20(2):74–7

Guess what!. Discoid lupus erythematosus with an unusual clinical appearance mimicking sporotrichosis. Abe M, et al. **Eur J Dermatol** 1998 Dec;8(8):579, discussion 580–1

SPOROTRICHUM see **SPOROTHRIX**

SPOROZOA see **SPOROZOEA**

SPOROZOA INFECTIONS see **SPOROZOEA INFECTIONS**

SPOROZOEA

CLASSIFICATION

Characterization of two Perkinsus spp. from the softshell clam, Mya arenaria using the small subunit ribosomal RNA gene. Kotob SI, et al. **J Eukaryot Microbiol** 1999 Jul–Aug; 46(4):439–44

GENETICS

Characterization of two Perkinsus spp. from the softshell clam, Mya arenaria using the small subunit ribosomal RNA gene. Kotob SI, et al. **J Eukaryot Microbiol** 1999 Jul–Aug; 46(4):439–44

IMMUNOLOGY

Cross–reaction of an anti–Cryptosporidium monoclonal antibody with sporocysts of Monocystis species. Bull S, et al. **Vet Parasitol** 1998 Jun 15;77(2–3):195–7

SPOROZOEA INFECTIONS

VETERINARY

Babesia canis infection in canine–red blood cell–substituted SCID mice. Arai S, et al. **Int J Parasitol** 1998 Sep; 28(9):1429–35

Administration of diminazene aceturate or imidocarb dipropionate for treatment of cytauxzoonosis in cats. Greene CE, et al. **J Am Vet Med Assoc** 1999 Aug 15; 215(4):497–500, 482

SPORTS

see related
ATHLETIC INJURIES
DOPING IN SPORTS

Tobacco, youth, and sports. Epps RP, et al. **Adolesc Med** 1998 Oct;9(3):483–90, vi (20 ref.)

The relationship between athletic participation and high school students' leadership ability. Dobosz RP, et al. **Adolescence** 1999 Spring;34(133):215–20

Do 'health products' really help athletic performance? Apgar B. **Am Fam Physician** 1999 Apr 1;59(7):1990, 1992

Assessment and management of concussion in sports [see comments] Harmon KG. **Am Fam Physician** 1999 Sep 1; 60(3):887–92, 894 (17 ref.). Comment in: Am Fam Physician 1999 Sep 1;60(3):738, 741–2.

Sickle cell trait and sudden death in athletes [letter; comment] Holmes PS, et al. **Am Fam Physician** 1998 Nov 15; 58(8):1760–1. Comment on: Am Fam Physician 1998 Jun;57(11):2763–70.

Concussion in sports [editorial; comment] Terrell TR, et al. **Am Fam Physician** 1999 Sep 1;60(3):738, 741–2. Comment on: Am Fam Physician 1999 Sep 1;60(3):887–92, 894.

Stimulant use in sports. Jones AR, et al. **Am J Addict** 1998 Fall;7(4):243–55 (57 ref.)

Perceived effects of exercise and sport in a population defined by their injection drug use. Powers JM, et al. **Am J Addict** 1999 Winter;8(1):72–6

QT interval and QT dispersion in endurance athletes and in power athletes using large doses of anabolic steroids. Stolt A, et al. **Am J Cardiol** 1999 Aug 1;84(3):364–6, A9

Physical fitness and vegetarian diets: is there a relation? Nieman DC. **Am J Clin Nutr** 1999 Sep;70(3 Suppl):570S–575S (81 ref.)

Greater erythrocyte deformability in world–class endurance athletes. Smith JA, et al. **Am J Physiol** 1999 Jun;276(6 Pt 2):H2188–93

Countering pro–tobacco influences at the racetrack. Olson CK. **Am J Public Health** 1999 Sep;89(9):1431–2

Supplements [editorial] Leach RE. **Am J Sports Med** 1999 May–Jun;27(3):275

Serum iron in young athletes: preliminary results. De Luca d'Alessandro E, et al. **Ann Ig** 1999 May–Jun;11(3):187–91

Effect of training on zinc metabolism: changes in serum and sweat zinc concentrations in sportsmen. Córdova A, et al. **Ann Nutr Metab** 1998;42(5):274–82

Arrhythmias in the athlete with congenital heart disease: guidelines for participation. Liberthson RR. **Annu Rev Med** 1999;50:441–52 (19 ref.)

Sudden unexpected cardiac deaths among young Swedish orienteers--morphological changes in hearts and other organs. Larsson E, et al. **APMIS** 1999 Mar;107(3):325–36

Current use of adequate preparticipation history forms for heart disease screening of high school athletes. Gómez JE, et al. **Arch Pediatr Adolesc Med** 1999 Jul;153(7):723–6

Nutrition for sport. Getting the most out of training. Burke L. **Aust Fam Physician** 1999 Jun;28(6):561–7 (9 ref.)

Olympics visitors need to be told about the dangers of the Australian surf [letter] Leahy S, et al. **Aust N Z J Public Health** 1999 Aug;23(4):442

Public hospital utilisation during the 1997 Arafura Games [letter] O'Grady KA, et al. **Aust N Z J Public Health** 1999 Apr;23(2):218–9

Are smoke–free policies implemented and adhered to at sporting venues? Pikora T, et al. **Aust N Z J Public Health** 1999 Aug;23(4):407–9

Sport for people with a disability: the current state of play. Arbuthnott K. **Br J Sports Med** 1998 Dec;32(4):275–6

Sensitivity of reticulocyte indices to iron therapy in an intensely training athlete. Ashenden MJ, et al. **Br J Sports Med** 1998 Sep;32(3):259–60

Women's greatest handicaps: sex, medicine, and men. Cashmore E. **Br J Sports Med** 1999 Apr;33(2):76–7

Deceptive advertising of athletic footwear [letter; comment] Chappell J. **Br J Sports Med** 1998 Sep;32(3):265. Comment on: Br J Sports Med 1997 Dec;31(4):299–303.

Kidney transplant: changing the filter. Coleman J. **Br J Sports Med** 1998 Sep;32(3):192

Ticks: danger lurking in the long grass. Dodds WN. **Br J Sports Med** 1998 Sep;32(3):235

Plasma amino acid patterns in elite athletes [letter; comment] Kingsbury KJ. **Br J Sports Med** 1998 Sep;32(3):266–7. Comment on: Br J Sports Med 1998 Mar;32(1):25–32; discussion 32–3.

Viruses and athletes. Madeley CR. **Br J Sports Med** 1998 Dec;32(4):281–6 (9 ref.)

Where is the crowd doctor? Smith FW. **Br J Sports Med** 1998 Sep;32(3):198

How I treat: return to sport after post–viral fatigue. Young M. **Br J Sports Med** 1999 Jun;33(3):173

Is prevention of sudden death in young athletes feasible? Thiene G, et al. **Cardiologia** 1999 Jun;44(6):497–505 (70 ref.)

Exercise, depletion of antioxidants and antioxidant manipulation. Balakrishnan SD, et al. **Cell Biochem Funct** 1998 Dec;16(4):269–75

Exercise–induced bronchospasm in high school athletes via a free running test: incidence and epidemiology. Kukafka DS, et al. **Chest** 1998 Dec;114(6):1613–22

Adult participation in youth sports. A developmental perspective. Libman S. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):725–44, vii (71 ref.)

Early hemorheologic aspects of overtraining in elite athletes. Aïssa Benhaddad A, et al. **Clin Hemorheol Microcirc** 1999; 20(2):117–25

Exercise–induced growth hormone secretion and hemorheology during exercise in elite athletes. Peyreigne C, et al. **Clin Hemorheol Microcirc** 1998 Oct;19(2):169–76

Use of oral creatine to enhance athletic performance and its potential side effects [letter] Archer MC. **Clin J Sport Med** 1999 Apr;9(2):119

Oral creatine supplementation and athletic performance: a critical review. Juhn MS, et al. **Clin J Sport Med** 1998 Oct;8(4):286–97 (67 ref.)

The prevalence of exostoses in the external auditory meatus of surfers. Chaplin JM, et al. **Clin Otolaryngol** 1998 Aug; 23(4):326–30

Ankle–brachial index after maximum exercise in treadmill and cycle ergometers in athletes. Abraham P, et al. **Clin Physiol** 1998 Jul;18(4):321–6

Dietary examples. A practical approach to feeding athletes. Bloch TD, et al. **Clin Sports Med** 1999 Jul;18(3):703–11 (7 ref.)

Steroids and steroid–like compounds. Blue JG, et al. **Clin Sports Med** 1999 Jul;18(3):667–89, ix (109 ref.)

Medical issues associated with international competition. Guidelines for the traveling physician. Brown DW. **Clin Sports Med** 1998 Oct;17(4):739–54, vi

The female athlete triad. Putukian M. **Clin Sports Med** 1998 Oct;17(4):675–96, v (89 ref.)

Preventing sudden death in student athletes. Weiner HR. **Compr Ther** 1999 Mar;25(3):151–4

Cardiac arrhythmias and the athlete. Link MS, et al. **Curr Opin Cardiol** 1999 Jan;14(1):24–9 (38 ref.)

Heart disease and other causes of sudden death in young athletes. Maron BJ. **Curr Probl Cardiol** 1998 Sep; 23(9):477–529 (148 ref.)

Sports–related cutaneous reactions: Part II. Allergic contact dermatitis to sports equipment [news] Fisher AA. **Cutis** 1999 Apr;63(4):202–4 (10 ref.)

Undetected cardiac lesions cause unexpected sudden cardiac death during occasional sport activity. A report of 80 cases. Tabib A, et al. **Eur Heart J** 1999 Jun;20(12):900–3

Evaluation of miniature data loggers for body temperature measurement during sporting activities. Fuller A, et al. **Eur J Appl Physiol** 1999 Mar;79(4):341–6

Morphological and functional differences in the elbow extensor muscle between highly trained male and female athletes. Ichinose Y, et al. **Eur J Appl Physiol** 1998 Jul; 78(2):109–14

Aerobic and anaerobic energy during a 2–km race simulation in female rowers. Pripstein LP, et al. **Eur J Appl Physiol** 1999 May;79(6):491–4

Autonomic nervous system responses correlate with mental rehearsal in volleyball training. Roure R, et al. **Eur J Appl Physiol** 1998 Jul;78(2):99–108

Results after cheilectomy in athletes with hallux rigidus. Mulier T, et al. **Foot Ankle Int** 1999 Apr;20(4):232–7

Peripheral plasma levels of beta–endorphin in alcoholics and highly trained athletes and the relationship to a measure of central opioid tone. Inder WJ, et al. **Horm Metab Res** 1998 Aug;30(8):523–5

Muscular strength training is associated with low arterial compliance and high pulse pressure. Bertovic DA, et al. **Hypertension** 1999 Jun;33(6):1385–91

Pulmonary function studies in rowers. Kesavachandran C, et al. **Indian J Physiol Pharmacol** 1997 Jan;41(1):29–34

Eating–disordered behaviors and personality characteristics of high school athletes and nonathletes. Fulkerson JA, et al. **Int J Eat Disord** 1999 Jul;26(1):73–9

Genetic determinants of sports participation and daily physical activity. Beunen G, et al. **Int J Obes Relat Metab Disord** 1999 Apr;23 Suppl 3:S55–63 (43 ref.)

Nutrition support programs for young adult athletes. Clark N. **Int J Sport Nutr** 1998 Dec;8(4):416–25 (33 ref.)

Pyruvate: beyond the marketing hype. Sukala WR. **Int J Sport Nutr** 1998 Sep;8(3):241–9 (36 ref.)

Effective nutrition support programs for college athletes. Vinci DM. **Int J Sport Nutr** 1998 Sep;8(3):308–20 (31 ref.)

Spondylolysis at three sites in the same lumbar vertebra. Ariyoshi M, et al. **Int J Sports Med** 1999 Jan;20(1):56–7

Validation of simple tests of biathlon shooting ability. Groslambert A, et al. **Int J Sports Med** 1999 Apr; 20(3):179–82

Relationship between muscle fiber pennation and force generation capability in Olympic athletes. Ichinose Y, et al. **Int J Sports Med** 1998 Nov;19(8):541–6

Overuse epiphyseal injury of the coracoid process as a result of archery. Naraen A, et al. **Int J Sports Med** 1999 Jan; 20(1):53–5

Alterations in cardiac morphology and function in elite multi–disciplinary athletes. Whyte G, et al. **Int J Sports Med** 1999 May;20(4):222–6

Eating disorder behaviors of ethnically diverse urban female adolescent athletes and non–athletes. Rhea DJ. **J Adolesc** 1999 Jun;22(3):379–88

High school athletic participation, sexual behavior and adolescent pregnancy: a regional study [see comments] Sabo DF, et al. **J Adolesc Health** 1999 Sep;25(3):207–16. Comment in: J Adolesc Health 1999 Sep;25(3):173.

Asthma in United States Olympic athletes who participated in the 1996 Summer Games. Weiler JM, et al. **J Allergy Clin Immunol** 1998 Nov;102(5):722–6

Exercise–induced loss of bone density in athletes. Voss LA, et al. **J Am Acad Orthop Surg** 1998 Nov–Dec;6(6):349–57 (41 ref.)

Angiotensinogen gene M235T polymorphism predicts left ventricular hypertrophy in endurance athletes. Karjalainen J, et al. **J Am Coll Cardiol** 1999 Aug;34(2):494–9

Prevalence of sudden cardiac death during competitive sports activities in Minnesota high school athletes. Maron BJ, et al. **J Am Coll Cardiol** 1998 Dec;32(7):1881–4

Carnitine may benefit athletes [letter; comment] Crayhon R. **J Am Coll Nutr** 1998 Dec;17(6):649–50. Comment on: J Am Coll Nutr 1998 Jun;17(3):207–15.

Oral creatine supplementation in male collegiate athletes: a survey of dosing habits and side effects. Juhn MS, et al. **J Am Diet Assoc** 1999 May;99(5):593–5

A cross–sectional study of smoking and bone mineral density in premenopausal parous women: effect of body mass index, breastfeeding, and sports participation. Jones G, et al. **J Bone Miner Res** 1999 Sep;14(9):1628–33

Atrial fibrillation in elite athletes. Furlanello F, et al. **J Cardiovasc Electrophysiol** 1998 Aug;9(8 Suppl):S63–8

Health issues for women athletes: exercise–induced amenorrhea. Warren MP. **J Clin Endocrinol Metab** 1999

Jun;84(6):1892–6 (19 ref.)
Growth hormone and body composition in athletes. Frisch H. **J Endocrinol Invest** 1999;22(5 Suppl):106–9 (24 ref.)
Hypertension in master endurance athletes. Hernelahti M, et al. **J Hypertens** 1998 Nov;16(11):1573–7
Should a history section be included on the National Youth Sports Program preparticipation physical examination? Jones EG, et al. **J Natl Med Assoc** 1999 Jan;91(1):27–32
Pitfalls of bungee jumping. Case report and review of the literature. Louw D, et al. **J Neurosurg** 1998 Dec; 89(6):1040–2 (08 ref.)
Effects of a 2-hour cheerleading practice on dynamic postural stability, knee laxity, and hamstring extensibility. Rowe A, et al. **J Orthop Sports Phys Ther** 1999 Aug; 29(8):455–62
Sacroiliac joint dysfunction in elite rowers. Timm KE. **J Orthop Sports Phys Ther** 1999 May;29(5):288–93
The flow experience: a Rasch analysis of Jackson's Flow State Scale. Tenenbaum G, et al. **J Outcome Meas** 1999; 3(3):278–94
The athlete's heart: is this an entity in paediatrics? Quek SC, et al. **J Paediatr Child Health** 1998 Dec;34(6):588–90
Histochemical study of the vastus lateralis muscle fibre types of athletes. Ricoy JR, et al. **J Physiol Biochem** 1998 Mar; 54(1):41–7
A comparison of maladaptive behaviors of athletes and nonathletes. Weiss SM. **J Psychol** 1999 May;133(3):315–22
The use of a single case design to investigate the effect of a pre-performance routine on the water polo penalty shot. Marlow C, et al. **J Sci Med Sport** 1998 Sep;1(3):143–55
2nd Annual Congress of the European College of Sport Science. Copenhagen, Denmark, 20–23 August 1997. Abstracts. **J Sports Sci** 1998 Jul;16(5):387–527
Communications to the Annual Conference of the British Association of Sport and Exercise Sciences (BASES). University College Worcester, Worcester, 6–8 September 1998. **J Sports Sci** 1999 Jan;17(1):3–70
Anthropometric-based selection and sprint kayak training in children. Aitken DA, et al. **J Sports Sci** 1998 Aug; 16(6):539–43
Subjects or participants? [editorial] Biddle S. **J Sports Sci** 1999 Apr;17(4):261
Perceptions of the sport psychologist by female university athletes. Brooks JE, et al. **J Sports Sci** 1999 Mar; 17(3):205–12
Bow-arrow interaction in archery. Kooi BW. **J Sports Sci** 1998 Nov;16(8):721–31
Kinematics and kinetics of the drive off the front foot in cricket batting. Stretch R, et al. **J Sports Sci** 1998 Nov; 16(8):711–20
Poison center planning for mass gatherings: the Georgia Poison Center experience with the 1996 Centennial Olympic Games. Geller RJ, et al. **J Toxicol Clin Toxicol** 1999;37(3):315–9
Cardiovascular and metabolic adaptations in horses competing in cross-country events. Muñoz A, et al. **J Vet Med Sci** 1999 Jan;61(1):13–20
From the Centers for Disease Control and Prevention. Outbreak of acute febrile illness among athletes participating in triathlons—Wisconsin and Illinois, 1998. **JAMA** 1998 Nov 4;280(17):1473–4
From the Centers for Disease Control and Prevention. Update: leptospirosis and unexplained acute febrile illness among athletes participating in triathlons—Illinois and Wisconsin, 1998. **JAMA** 1998 Nov 4;280(17):1474–5
Medical care at the Olympics [letter; comment] Ault MJ. **JAMA** 1998 Oct 14;280(14):1229–30. Comment on: JAMA 1998 May 13;279(18):1463–8. Comment on: JAMA 1998 May 13;279(18):1469–73. Comment on: JAMA 1998 May 13;279(18):1485–6.
Cardiovascular screening of high school athletes [letter; comment] Carek PJ, et al. **JAMA** 1999 Feb 17;281(7):607; discussion 608–9. Comment on: JAMA 1998 Jun 10;279(22):1817–9.
Cardiovascular screening of high school athletes [letter; comment] Gunn RA, et al. **JAMA** 1999 Feb 17; 281(7):607–8; discussion 609. Comment on: JAMA 1998 Jun 10;279(22):1829–30.
Cardiovascular screening of high school athletes [letter; comment] Koller A. **JAMA** 1999 Feb 17;281(7):608–9. Comment on: JAMA 1998 Jun 10;279(22):1817–9.
Magnesium supplements' effect on magnesium balance in athletes during prolonged restriction of muscular activity. Zorbas YG, et al. **Kidney Blood Press Res** 1999; 22(3):146–53
Groin pain in athletes [letter; comment] Gibbon WW. **Lancet** 1999 Apr 24;353(9162):1444–5. Comment on: Lancet 1999 Feb 6;353(9151):439–43.
Groin pain in athletes [letter; comment] Syme G, et al. **Lancet** 1999 Apr 24;353(9162):1444. Comment on: Lancet 1999 Feb 6;353(9151):439–43.
Dehydroepiandrosterone and sport. Corrigan AB. **Med J Aust** 1999 Aug 16;171(4):206–8 (48 ref.)
Ethics of prescribing drugs to enhance sporting performance. Kennedy MC, et al. **Med J Aust** 1999 Aug 16;171(4):204–5
Weight and diet concerns in Finnish female and male athletes. Fogelholm M, et al. **Med Sci Sports Exerc** 1999 Feb; 31(2):229–35
Design and analysis of research on sport performance enhancement [see comments] Hopkins WG, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):472–85. Comment in: Med Sci Sports Exerc 1999 May;31(5):755–7.
Sport performance enhancement: design and analysis of research [letter; comment] Kearney JT. **Med Sci Sports Exerc** 1999 May;31(5):755–7. Comment on: Med Sci Sports Exerc 1999 Mar;31(3):472–85.
Effects of ballistic training on preseason preparation of elite volleyball players. Newton RU, et al. **Med Sci Sports Exerc** 1999 Feb;31(2):323–30
Lateral antebrachial cutaneous neuropathy in a windsurfer. Jablecki CK. **Muscle Nerve** 1999 Jul;22(7):944–5
The significance of dietary boron, with particular reference to athletes. Naghii MR. **Nutr Health** 1999;13(1):31–7 (15 ref.)
Exercise induced asthma in children and adolescents and the relationship to sports. Carlsen KH. **Pediatr Allergy Immunol** 1998 Nov;9(4):173–80 (80 ref.)
Exercise in hypertensive children and adolescents: any harm done? Alpert BS. **Pediatr Cardiol** 1999 Jan–Feb;20(1):66–9; discussion 70 (17 ref.)
Trampoline-related injuries to children [letter; comment] Hartmann KE, et al. **Pediatrics** 1999 Jun;103(6 Pt 1):1311–2; discussion 1312–3. Comment on: Pediatrics 1998 Mar;101(3 Pt 1):406–12.
Trampoline-related injuries in children [letter; comment] Loken-Dahle L. **Pediatrics** 1999 Jun;103(6 Pt 1):1312; discussion 1312–3. Comment on: Pediatrics 1998 Mar;101(3 Pt 1):406–12.
Further validation of the economic subscale of the Sport Fan Motivation Scale. Wann DL, et al. **Percept Mot Skills** 1999 Apr;88(2):659–60
Extreme exposure: the Sydney to Hobart yacht race and the role of prediction. Guest C. **Public Health Rep** 1999 May–Jun;114(3):278–80
Natural sporting ability and predisposition to cardiovascular disorders. Lean ME, et al. **QJM** 1998 Sep;91(9):641–6
1999 AAHPERD National Convention. Boston, Massachusetts, USA. April 1999. Abstracts. **Res Q Exerc Sport** 1999 Mar;70(1 Suppl):A15–142
The effect of temporal and informational constraints on one-handed catching performance. Bennett S, et al. **Res Q Exerc Sport** 1999 Jun;70(2):206–11
Four-year changes in college athletes' ethical value choices in sports situations. Priest RF, et al. **Res Q Exerc Sport** 1999 Jun;70(2):170–8
Supplement use and nutritional habits in Norwegian elite athletes. Ronsen O, et al. **Scand J Med Sci Sports** 1999 Feb;9(1):28–35
Andro Angst [news] **Sci Am** 1998 Dec;279(6):22
The effect of ankle bracing on athletic performance. Bot SD, et al. **Sports Med** 1999 Mar;27(3):171–8 (54 ref.)
Anaemia and iron deficiency in athletes. Practical recommendations for treatment. Chatard JC, et al. **Sports Med** 1999 Apr;27(4):229–40 (105 ref.)
The zone diet and athletic performance. Cheuvront SN. **Sports Med** 1999 Apr;27(4):213–28 (106 ref.)
Sudden death in athletes: an update. Futterman LG, et al. **Sports Med** 1998 Nov;26(5):335–50 (35 ref.)
Attention deficit hyperactivity disorder, CNS stimulants and sport. Hickey G, et al. **Sports Med** 1999 Jan;27(1):11–21 (30 ref.)
Smoking-induced elevations in blood carboxyhaemoglobin levels. Effect on maximal oxygen uptake. McDonough P, et al. **Sports Med** 1999 May;27(5):275–83 (77 ref.)
Iron supplementation in athletes. Current recommendations. Nielsen P, et al. **Sports Med** 1998 Oct;26(4):207–16 (45 ref.)
Axillary nerve injuries in contact sports: recommendations for treatment and rehabilitation. Perlmutter GS, et al. **Sports Med** 1998 Nov;26(5):351–61 (30 ref.)
Archery as a possible rehabilitative activity in the oncological structure: preliminary observations from a feasibility study. Merson M, et al. **Tumori** 1998 Sep–Oct;84(5):614–5
Advertisement featuring bullfighting [letter] Philpott M. **Vet Rec** 1999 Jan 23;144(4):104
Climbing harness fit in kidney transplant recipients [see comments] Welch TR. **Wilderness Environ Med** 1999 Spring;10(1):3–5. Comment in: Wilderness Environ Med 1999 Spring;10(1):2.
[Distinguishing between physiologic hypertrophy in athletes and primary hypertrophic cardiomyopathies. Importance of tissue color Doppler (see comments)] Derumeaux G, et al. **Arch Mal Coeur Vaiss** 1999 Feb;92(2):201–10 (Eng. Abstr.). Comment in: Arch Mal Coeur Vaiss 1999 Feb;92(2):197–9. **(Fre)**
[Prevention of doping in sport in adolescents: evaluation of a health education based intervention] Laure P, et al. **Arch Pediatr** 1999 Aug;6(8):849–54 (Eng. Abstr.) **(Fre)**
[Screening for exogenous erythropoietin] Cayla JL, et al. **Presse Med** 1999 May 15;28(18):992–6 (45 ref.) (Eng. Abstr.) **(Fre)**
[Early rehabilitation of patients with COPD in the acute clinic] Kirsten DK, et al. **Pneumologie** 1999 Apr; 53(4):226–9 **(Ger)**
[Sports and behavior therapy in asthma and chronic obstructive bronchitis. An integrated system of patient behavioral training and sports therapy] Müller C, et al. **Pneumologie** 1999 Apr;53(4):229–31 **(Ger)**
[Training program for patients with COPD] Rooyackers J, et al. **Pneumologie** 1999 Apr;53(4):235–6 **(Ger)**
[Why is physical training in patients with COPD valuable?] Worth H. **Pneumologie** 1999 Apr;53(4):231–4 **(Ger)**
[Cardiovascular diseases and sports] Stampfli U, et al. **Schweiz Rundsch Med Prax** 1999 Apr 1;88(14):601–8 (20 ref.) (Eng. Abstr.) **(Ger)**
[Sports and physical load bearing capacity after spondylodesis in patients with Scheuermann kyphosis] Daentzer D, et al. **Sportverletz Sportschaden** 1999 Mar; 13(1):22–9 (Eng. Abstr.) **(Ger)**
[Quantification of shoulder power in trained and untrained paraplegic wheelchair athletes] Mayer F, et al. **Sportverletz Sportschaden** 1998 Dec;12(4):147–51 (Eng. Abstr.) **(Ger)**
[Anorexia nervosa and "anorexia athletica"] Neumärker KJ, et al. **Wien Med Wochenschr** 1998;148(10):245–50 (Eng. Abstr.) **(Ger)**
[Sports after lumbar microsurgical nucleotomy] Hommel H. **Z Orthop Ihre Grenzgeb** 1999 Mar–Apr;137(2):Oa11–2 **(Ger)**
[Clinico-functional respiratory assessment of the athlete with exercise-induced asthma or bronchospasm] Romano A, et al. **Minerva Med** 1998 Sep;89(9):315–22 (20 ref.) (Eng. Abstr.) **(Ita)**
[Sports and nutrients] Marchi A. **Minerva Pediatr** 1998 Jun; 50(6):295–8 **(Ita)**
[Use of natural vitamin supplements in children during convalescence and in children with athletic activities] Savino F, et al. **Minerva Pediatr** 1999 Jan–Feb;51(1–2):1–9 (48 ref.) (Eng. Abstr.) **(Ita)**
[Anterior cruciate ligament tears in athletes: assessment and clinico-diagnostic control with a dedicated system] Zugaro L, et al. **Radiol Med (Torino)** 1998 Sep;96(3):198–203 (Eng. Abstr.) **(Ita)**
[Nonoperative treatment of acute, grade III acromioclavicular dislocation in judo competing athletes] Zarzycki W, et al. **Chir Narzadow Ruchu Ortop Pol** 1998; 63(4):321–7 (Eng. Abstr.) **(Pol)**
[Iron deficiency in female athletes] Faintuch JJ, et al. **Rev Hosp Clin Fac Med Sao Paulo** 1998 Jul–Aug; 53(4):181–3 (Eng. Abstr.) **(Por)**
[The cardiovascular system and sports] Medved R, et al. **Lijec Vjesn** 1998 Jul–Aug;120(7–8):228–36 (40 ref.) (Eng. Abstr.) **(Scr)**
[Effects of physical exercise on the cardiorespiratory system in children] Jaraba Caballero S, et al. **An Esp Pediatr** 1999 Apr;50(4):367–72 (Eng. Abstr.) **(Spa)**
[A supplementary sportmen food formulation and characterization] Del Castillo VC, et al. **Arch Latinoam Nutr** 1999 Mar;49(1):61–6 (Eng. Abstr.) **(Spa)**

CLASSIFICATION

Seeking misclassification: "doping" in disability sport. Firth FY. **Br J Sports Med** 1999 Jun;33(3):152 (6 ref.)
Assessment of sports participation levels following knee injuries. Barber-Westin SD, et al. **Sports Med** 1999 Jul; 28(1):1–10

EDUCATION

Energy and nutrient status of amenorrheic athletes participating in a diet and exercise training intervention program. Kopp-Woodroffe SA, et al. **Int J Sport Nutr** 1999 Mar;9(1):70–88
Low literacy and violence among adolescents in a summer sports program. Davis TC, et al. **J Adolesc Health** 1999 Jun;24(6):403–11
Reliability and validity of the clinical instructor survey tool. Vanic KA, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 1):1002
Skill and tactical development during a sport education season. Hastie PA. **Res Q Exerc Sport** 1998 Dec; 69(4):368–79
Practical knowledge in expert coaches: on-site study of coaching in sailing. Saury J, et al. **Res Q Exerc Sport** 1998 Sep;69(3):254–66
Task structures, feedback to individual students, and student skill level in physical education. Silverman S, et al. **Res Q Exerc Sport** 1998 Dec;69(4):420–4

HISTORY

Fifty years of competitive sport for athletes with disabilities: 1948–1998. Webborn AD. **Br J Sports Med** 1999 Apr; 33(2):138
Famous sporting photographs: there's more than meets the eye. Wood AJ, et al. **Br J Sports Med** 1999 Feb;33(1):54–5
Edwin Bancroft Henderson: physical educator, civil rights activist, and chronicler of African American athletes. Wiggins DK. **Res Q Exerc Sport** 1999 Jun;70(2):91–112

INJURIES see ATHLETIC INJURIES

LEGISLATION & JURISPRUDENCE

Is it legal? Prescribing for the athlete. Sando BG. **Aust Fam Physician** 1999 Jun;28(6):549–53
Competitive athletes with cardiovascular disease [letter; comment] Chessare JB. **N Engl J Med** 1999 Apr 29; 340(17):1371–2. Comment on: N Engl J Med 1998 Nov 26;339(22):1632–5.

PHYSIOLOGY

Effects of nitric oxide inhalation on pulmonary gas exchange during exercise in highly trained athletes. Durand F, et al. **Acta Physiol Scand** 1999 Feb;165(2):169–76
pH after competitive rowing: the lower physiological range? Nielsen HB. **Acta Physiol Scand** 1999 Jan;165(1):113–4

Muscle metabolism of professional athletes using 31P-spectroscopy. Mäurer J, et al. **Acta Radiol** 1999 Jan; 40(1):73-7
The physically challenged athlete. Clark MW. **Adolesc Med** 1998 Oct;9(3):491-9, vi (19 ref.)
Diabetes mellitus and sports. Draznin MB, et al. **Adolesc Med** 1998 Oct;9(3):457-65, v (17 ref.)
Amenorrhea in the athlete. Gidwani GP. **Adolesc Med** 1999 Jun;10(2):275-90, vii (24 ref.)
The breast and sports: issues for the clinician. Greydanus DE, et al. **Adolesc Med** 1998 Oct;9(3):533-50, vi-vii (60 ref.)
Exercise and sports in the adolescent with chronic pulmonary disease. Homnick DN, et al. **Adolesc Med** 1998 Oct; 9(3):467-81, v (78 ref.)
Nutritional supplements: fact vs. fiction. Johnson WA, et al. **Adolesc Med** 1998 Oct;9(3):501-13, vi (69 ref.)
Cardiovascular evaluation of the young athlete. Luckstead EF. **Adolesc Med** 1998 Oct;9(3):441-55, v (25 ref.)
Adolescent growth, development, and psychosocial aspects of sports participation: an overview. Patel DR, et al. **Adolesc Med** 1998 Oct;9(3):425-40, v (68 ref.)
Muscle deoxygenation in aerobic and anaerobic exercise. Nioka S, et al. **Adv Exp Med Biol** 1998;454:63-70
QT dispersion in athletic left ventricular hypertrophy. Mayet J, et al. **Am Heart J** 1999 Apr;137(4 Pt 1):678-81
Cardiac troponin T and I, echocardiographic [correction of electrocardiographic] wall motion analyses, and ejection fractions in athletes participating in the Hawaii Ironman Triathlon [published erratum appears in Am J Cardiol 1999 Jul 15;84(2):244] Rifai N, et al. **Am J Cardiol** 1999 Apr 1;83(7):1085-9
Insulin action on heart and skeletal muscle glucose uptake in weight lifters and endurance athletes. Takala TO, et al. **Am J Physiol** 1999 Apr;276(4 Pt 1):E706-11
The adolescent spurt and sexual maturation in girls active and not active in sport. Geithner CA, et al. **Ann Hum Biol** 1998 Sep-Oct;25(5):415-23
Physiologic left ventricular cavity dilatation in elite athletes. Pelliccia A, et al. **Ann Intern Med** 1999 Jan 5;130(1):23-31
Physiologic left ventricular cavity dilatation in elite athletes [letter] Ribeiro I, et al. **Ann Intern Med** 1999 Oct 5; 131(7):546
Wheelchair marathon racing causes striated muscle distress in individuals with spinal cord injury. Ide M, et al. **Arch Phys Med Rehabil** 1999 Mar;80(3):324-7
Searching for the competitive edge. Commonly asked nutrition questions. Burke L. **Aust Fam Physician** 1999 Jul; 28(7):694-5
Exercise and sport after organ transplantation. Griffin P. **Br J Sports Med** 1998 Sep;32(3):194
Dynamic strength of the quadriceps muscle and sports activity. Hahn T, et al. **Br J Sports Med** 1999 Apr; 33(2):117-20
Intravenous versus oral rehydration [letter; comment] Nagra IS. **Br J Sports Med** 1998 Sep;32(3):265. Comment on: Br J Sports Med 1998 Mar;32(1):77-81.
Effects of physical and sporting activities on balance control in elderly people. Perrin PP, et al. **Br J Sports Med** 1999 Apr;33(2):121-6
Exercise and sport in cystic fibrosis: benefits and risks. Webb AK, et al. **Br J Sports Med** 1999 Apr;33(2):77-8
"Boosting" performance in disability sport. Webborn AD. **Br J Sports Med** 1999 Apr;33(2):74-5
Bone mineral density in flatwater sprint kayakers. Flodgren G, et al. **Calcif Tissue Int** 1999 May;64(5):374-9
Loss of bone mineral density in women athletes during aging. Ryan AS, et al. **Calcif Tissue Int** 1998 Oct;63(4):287-92
Glutamine: a potentially useful supplement for athletes. Antonio J, et al. **Can J Appl Physiol** 1999 Feb;24(1):1-14 (64 ref.)
Effects of dehydration on exercise performance. Barr SI. **Can J Appl Physiol** 1999 Apr;24(2):164-72 (30 ref.)
Dehydration, rehydration, and exercise in the heat: rehydration strategies for athletic competition. Galloway SD. **Can J Appl Physiol** 1999 Apr;24(2):188-200 (56 ref.)
Exercise in the heat: thermoregulatory limitations to performance in humans and horses. Lindinger MI. **Can J Appl Physiol** 1999 Apr;24(2):152-63 (48 ref.)
Exercise in the heat: limitations to performance and the impact of fluid replacement strategies. Introduction to the symposium. Maughan RJ. **Can J Appl Physiol** 1999 Apr; 24(2):149-51
Limitations to fluid replacement during exercise. Maughan RJ, et al. **Can J Appl Physiol** 1999 Apr;24(2):173-87 (52 ref.)
On the significance of magnesium in extreme physical stress. Golf SW, et al. **Cardiovasc Drugs Ther** 1998 Sep;12 Suppl 2:197-202
A developmental overview of child and youth sports in society. Stryer BK, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):697-724, vii (88 ref.)
Hormonal responses to endurance training and overtraining in female athletes. Uusitalo AL, et al. **Clin J Sport Med** 1998 Jul;8(3):178-86
Wall motion abnormalities in male elite orienteers are aggravated by exercise. Damm S, et al. **Clin Physiol** 1999 Mar;19(2):121-6
Nutritional requirements to increase lean mass. Grandjean A. **Clin Sports Med** 1999 Jul;18(3):623-32 (18 ref.)
Role of carbohydrate in physical activity. Ivy JL. **Clin Sports Med** 1999 Jul;18(3):469-84, v (67 ref.)
Creatine supplementation. Its role in human performance. Kraemer WJ, et al. **Clin Sports Med** 1999 Jul;18(3):651-66, ix (66 ref.)
Water and electrolyte requirements for exercise. Latzka WA, et al. **Clin Sports Med** 1999 Jul;18(3):513-24 (74 ref.)
Nutritional needs of the female athlete. Manore MM. **Clin Sports Med** 1999 Jul;18(3):549-63 (66 ref.)
Nutrition, exercise, and immune system function. Nieman DC. **Clin Sports Med** 1999 Jul;18(3):537-48 (86 ref.)
Facts and fallacies of purported ergogenic amino acid supplements. Williams MH. **Clin Sports Med** 1999 Jul; 18(3):633-49 (90 ref.)
Bowel function in runners after ingestion of sweeteners. D'Alessandro A, et al. **Clin Ter** 1999 Jan-Feb;150(1):29-32
Menstrual irregularities associated with athletics and exercise. Greene JW. **Compr Ther** 1999 Apr;25(4):209-15
Autonomic nervous system responses as performance indicators among volleyball players. Collet C, et al. **Eur J Appl Physiol** 1999 Jun;80(1):41-51
Reactivity and event-related potentials during attentional tests in athletes. Fontani G, et al. **Eur J Appl Physiol** 1999 Sep;80(4):308-17
Jumping height in former elite athletes. Kettunen JA, et al. **Eur J Appl Physiol** 1999 Jan;79(2):197-201
Neuromuscular functioning of athletes and non-athletes in the drop jump. Viitasalo JT, et al. **Eur J Appl Physiol** 1998 Oct;78(5):432-40
Effect of 3 weeks of detraining on the resting metabolic rate and body composition of trained males. LaForgia J, et al. **Eur J Clin Nutr** 1999 Feb;53(2):126-33
Testosterone, cortisol, and mood in a sports team competition. Gonzalez-Bono E, et al. **Horm Behav** 1999 Feb;35(1):55-62
Pulmonary functions in Indian sportsmen playing different sports. Mehrotra PK, et al. **Indian J Physiol Pharmacol** 1998 Jul;42(3):412-6
Muscle power, dexterity skill and visual perception in community home girls trained in yoga or sports and in regular school girls. Raghuraj P, et al. **Indian J Physiol Pharmacol** 1997 Oct;41(4):409-15
Serum ferritin and anemia in trained female athletes. Ashenden MJ, et al. **Int J Sport Nutr** 1998 Sep;8(3):223-9
Nutrient intake of elite sailors during a solitary long-distance offshore race. Bigard AX, et al. **Int J Sport Nutr** 1998 Dec; 8(4):364-76
Publication of adverse events in exercise studies involving nutritional agents. Engels HJ. **Int J Sport Nutr** 1999 Mar; 9(1):89-91
Fasting and energy intake influence bone turnover in lightweight male rowers. Talbott SM, et al. **Int J Sport Nutr** 1998 Dec;8(4):377-87
The haematological response to an iron injection amongst female athletes. Ashenden MJ, et al. **Int J Sports Med** 1998 Oct;19(7):474-8
The Conconi test: a controversial concept for the determination of the anaerobic threshold in young rowers. Bourgois J, et al. **Int J Sports Med** 1998 Nov;19(8):553-9
Acute infection: metabolic responses, effects on performance, interaction with exercise, and myocarditis. Friman G, et al. **Int J Sports Med** 1998 Jul;19 Suppl 3:S172-82 (85 ref.)
Future directions in exercise and immunology: regulation and integration. Mackinnon LT. **Int J Sports Med** 1998 Jul;19 Suppl 3:S205-9; discussion S209-11 (44 ref.)
The influence of training characteristics and tapering on the adaptation in highly trained individuals: a review. Mujika I. **Int J Sports Med** 1998 Oct;19(7):439-46 (83 ref.)
No effect of antioxidant supplementation in triathletes on maximal oxygen uptake, 31P-NMRS detected muscle energy metabolism and muscle fatigue. Nielsen AN, et al. **Int J Sports Med** 1999 Apr;20(3):154-8
Effects of intensive exercise training on immunity in athletes. Pyne DB, et al. **Int J Sports Med** 1998 Jul;19 Suppl 3:S183-91; discussion S191-4 (101 ref.)
Hyperhydrating with glycerol: implications for athletic performance. Wagner DR. **J Am Diet Assoc** 1999 Feb; 99(2):207-12 (19 ref.)
Reliability and validity of body composition measures in female athletes. Fornetti WC, et al. **J Appl Physiol** 1999 Sep;87(3):1114-22
Effect of prolonged, heavy exercise on pulmonary gas exchange in athletes. Hopkins SR, et al. **J Appl Physiol** 1998 Oct;85(4):1523-32
Ventilation and locomotion coupling in varsity male rowers. Siegmund GP, et al. **J Appl Physiol** 1999 Jul;87(1):233-42
Elite athletes and the gene for angiotensin-converting enzyme. Taylor RR, et al. **J Appl Physiol** 1999 Sep; 87(3):1035-7
Effects of instruction in jumping technique and experience jumping on ground reaction forces. Prapavessis H, et al. **J Orthop Sports Phys Ther** 1999 Jun;29(6):352-6
Visual characteristics of clay target shooters. Abernethy B, et al. **J Sci Med Sport** 1999 Mar;2(1):1-19
The effect of endurance exercise on muscle force generating capacity of the lower limbs. Bentley DJ, et al. **J Sci Med Sport** 1998 Sep;1(3):179-88
Preliminary assessment of force demands in laser racing. Mackie HW, et al. **J Sci Med Sport** 1999 Mar;2(1):78-85
Normative data of vertical ground reaction forces during landing from a jump. McNair PJ, et al. **J Sci Med Sport** 1999 Mar;2(1):86-8
Assessment of upwind dinghy sailing performance using a Virtual Reality Dinghy Sailing Simulator. Walls J, et al. **J Sci Med Sport** 1998 Jun;1(2):61-72
Variations in hemostatic parameters after near-maximum exercise and specific tests in athletes. Cerneca F, et al. **J Sports Med Phys Fitness** 1999 Mar;39(1):31-6
Maximal power and force-velocity relationships during cycling and cranking exercises in volleyball players. Correlation with the vertical jump test. Driss T, et al. **J Sports Med Phys Fitness** 1998 Dec;38(4):286-93
Monitoring intensive endurance training at moderate energetic demands using resting laboratory markers failed to recognize an early overtraining stage. Gastmann U, et al. **J Sports Med Phys Fitness** 1998 Sep;38(3):188-93
Upper extremity augmentation of lower extremity kinetics during countermovement vertical jumps. Feltner ME, et al. **J Sports Sci** 1999 Jun;17(6):449-66
Heart rate and blood lactate responses during competitive Olympic boardsailing. Guével A, et al. **J Sports Sci** 1999 Feb;17(2):135-41
Acute and residual effects of vibratory stimulation on explosive strength in elite and amateur athletes. Issurin VB, et al. **J Sports Sci** 1999 Mar;17(3):177-82
A comparison of physiological responses to rowing on friction-loaded and air-braked ergometers. Mahony N, et al. **J Sports Sci** 1999 Feb;17(2):143-9
Prediction of elite schoolboy 2000m rowing ergometer performance from metabolic, anthropometric and strength variables. Russell AP, et al. **J Sports Sci** 1998 Nov; 16(8):749-54
Hamstring extensibility and transverse plane knee control relationship in athletic women. Nyland J, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(4):257-61
Packed-cell volume in athletes [letter] Dugué B, et al. **Lancet** 1998 Oct 24;352(9137):1387-8
Lack of correlation between ventricular late potentials and left ventricular mass in top-level male athletes. Biffi A, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):359-61
Exercise and the Marfan syndrome. Braverman AC. **Med Sci Sports Exerc** 1998 Oct;30(10 Suppl):S387-95 (37 ref.)
Preparticipation physical evaluation: getting to the heart of the matter. Cantwell JD. **Med Sci Sports Exerc** 1998 Oct; 30(10 Suppl):S341-4
Smokeless tobacco, reaction time, and strength in athletes. Escher SA, et al. **Med Sci Sports Exerc** 1998 Oct; 30(10):1548-51
A comparison of plasma glutamine concentration in athletes from different sports. Hiscock N, et al. **Med Sci Sports Exerc** 1998 Dec;30(12):1693-6
The European perspective. New dimensions in pulmonary research. MacAuley D. **Med Sci Sports Exerc** 1999 Jan;31(1 Suppl):S1-3
Does preseason screening for cardiac disease really work?: the British perspective. MacAuley D. **Med Sci Sports Exerc** 1998 Oct;30(10 Suppl):S345-50 (45 ref.)
Insights into the AHA scientific statement concerning cardiovascular preparticipation screening of competitive athletes. McGrew CA. **Med Sci Sports Exerc** 1998 Oct; 30(10 Suppl):S351-3
Basophil releasability in young highly trained and older athletes. Mucci P, et al. **Med Sci Sports Exerc** 1999 Apr; 31(4):507-13
Hematocrits of triathletes: is monitoring useful? O'Toole ML, et al. **Med Sci Sports Exerc** 1999 Mar;31(3):372-7
Importance of wash riding in kayaking training and competition. Pérez-Landaluce J, et al. **Med Sci Sports Exerc** 1998 Dec;30(12):1721-4
Urine osmolality and conductivity as indices of hydration status in athletes in the heat. Shirreffs SM, et al. **Med Sci Sports Exerc** 1998 Nov;30(11):1598-602
Computing minimum description length for robust linear regression model selection. Qian G. **Pac Symp Biocomput** 1999;:314-25
Sporting activity following kidney transplantation. Heffernan A, et al. **Pediatr Nephrol** 1998 Aug;12(6):447-8
Comparison of heart-rate intensity and duration between sport games and traditional cardiovascular activities. Hannon JC, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1453-4
Development of visuomotor integration in learning to grasp a moving ball. Teixeira LA. **Percept Mot Skills** 1998 Dec; 87(3 Pt 1):931-6
Testosterone changes during vicarious experiences of winning and losing among fans at sporting events. Bernhardt PC, et al. **Physiol Behav** 1998 Aug;65(1):59-62
Attentional demands and the organization of reaching movements in rock climbing. Bourdin C, et al. **Res Q Exerc Sport** 1998 Dec;69(4):406-10
Confirmatory factor analysis of the Task and Ego Orientation in Sport Questionnaire with cross-validation. Li F, et al. **Res Q Exerc Sport** 1998 Sep;69(3):276-83
Isokinetic strength of elbow extensor muscles correlates with race time in wheelchair half marathon racers. Kawazu T, et al. **Sangyo Ika Daigaku Zasshi** 1999 Mar 1;21(1):13-21
Concentric and eccentric shoulder and elbow muscle strength in female volleyball players and non-active females. Alfredson H, et al. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 1):265-70
Prediction of physical fitness and physical activity level in adulthood by physical performance and physical activity in adolescence--an 18-year follow-up study.

Barnekow-Bergkvist M, et al. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 1):299-308

One-leg standing balance and sports activity. Hahn T, et al. **Scand J Med Sci Sports** 1999 Feb;9(1):15-8

Active knee joint flexibility and sports activity. Hahn T, et al. **Scand J Med Sci Sports** 1999 Apr;9(2):74-80

Preserved vascular reactivity in elderly male athletes. Jensen-Urstad K, et al. **Scand J Med Sci Sports** 1999 Apr; 9(2):88-91

Coronary heart disease risk factors in middle-aged former top-level athletes. Pihl E, et al. **Scand J Med Sci Sports** 1998 Aug;8(4):229-35

Choice of jumping strategy in two standard jumps, squat and countermovement jump--effect of training background or inherited preference? Ravn S, et al. **Scand J Med Sci Sports** 1999 Aug;9(4):201-8

Kinetic factors determining wheelchair propulsion in marathon racers with paraplegia. Okawa H, et al. **Spinal Cord** 1999 Aug;37(8):542-7

The influence of exercise-induced plasma volume changes on the interpretation of biochemical parameters used for monitoring exercise, training and sport. Kargotich S, et al. **Sports Med** 1998 Aug;26(2):101-17 (123 ref.)

Applied physiology of water polo. Smith HK. **Sports Med** 1998 Nov;26(5):317-34 (74 ref.)

Lower leg pain. Diagnosis and treatment of compartment syndromes and other pain syndromes of the leg. Touliopolous S, et al. **Sports Med** 1999 Mar;27(3):193-204 (73 ref.)

The female athlete. The triad of disordered eating, amenorrhoea and osteoporosis. West RV. **Sports Med** 1998 Aug;26(2):63-71 (35 ref.)

[Generation of suppressive protein after heavy physical stress in athletes] Shao L, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Nov; 13(4):312-5 (Eng. Abstr.) **(Chi)**

[Effect of different training time and loads on the metabolism of carbohydrate, fat and protein] Zhu Y, et al. **Chung Kuo Ying Yung Sheng Li Hsueh Tsa Chih** 1997 Aug; 13(3):202-4 (Eng. Abstr.) **(Chi)**

[Hypertrophic cardiomyopathy and physiologic hypertrophy in athletes: a new diagnostic approach using tissue color Doppler (editorial; comment] Malergue MC. **Arch Mal Coeur Vaiss** 1999 Feb;92(2):197-9. Comment on: Arch Mal Coeur Vaiss 1999 Feb;92(2):201-10. **(Fre)**

[Is the asthmatic child able to play sports?] Léonard JC. **Arch Pediatr** 1999 Apr;6(4):465-8 (Eng. Abstr.) **(Fre)**

[Can ointments replace warning up?] Clarys P, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):XXIV-XXVI **(Ger)**

[Stretching--do current explanatory models suffice?] Freiwald J, et al. **Sportverletz Sportschaden** 1998 Jun; 12(2):54-9 (Eng. Abstr.) **(Ger)**

[Long-term effects of ankle joint orthoses on sports specific capability in handball] Jerosch J, et al. **Sportverletz Sportschaden** 1998 Sep;12(3):102-6 (Eng. Abstr.) **(Ger)**

[Effect of high performance sports on energy metabolism] Schmidt W, et al. **Wien Med Wochenschr** 1998; 148(10):239-42 (34 ref.) (Eng. Abstr.) **(Ger)**

[Anatomico-functional changes in the right ventricle of the athlete] Sciomer S, et al. **Cardiologia** 1998 Nov; 43(11):1215-20 (Eng. Abstr.) **(Ita)**

[The role of sports training in the efficiency of oxygen regimens in children in the North] Mikhallova LA. **Fiziol Cheloveka** 1998 Jul-Aug;24(4):118-22 **(Rus)**

[The effect of food additives containing polyunsaturated fatty acids on intraerythrocyte metabolism and hemoglobin oxygen affinity in volleyball players during exposure to intensive physical loading] Popichev MI, et al. **Fiziol Cheloveka** 1999 Jan-Feb;25(1):140-2 **(Rus)**

[The effect of biological food supplements containing polyunsaturated fatty acids on the erythrocyte enzyme activity and on the hemoglobin oxygen affinity in volleyball players exposed to intensive physical loading] Popichev MI, et al. **Vopr Pitan** 1999;68(3):7-8 (Eng. Abstr.) **(Rus)**

[Structural and functional changes in the of heart of high-performance (canoeing) athletes] Galván O, et al. **Arch Inst Cardiol Mex** 1999 Jan-Feb;69(1):26-34 (Eng. Abstr.) **(Spa)**

[Maximal aerobic capacity and sports activity in Mexicans from 13 to 56] Padilla J, et al. **Arch Inst Cardiol Mex** 1998 May-Jun;68(3):224-31 (Eng. Abstr.) **(Spa)**

PSYCHOLOGY

Sport psychiatry. Macleod AD. **Aust N Z J Psychiatry** 1998 Dec;32(6):860-6 (66 ref.)

Anabolic-androgenic steroid abuse and performance-enhancing drugs among adolescents. Bahrke MS, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct; 7(4):821-38 (91 ref.)

Young females in the athletic arena. Baum AL. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):745-55, viii (48 ref.)

The psychotherapist and the adolescent athlete. Begel D. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):867-77 (19 ref.)

Using sports to strengthen resiliency in children. Training heart. Bell CC, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):859-65 (33 ref.)

The psychiatric consultant in professional team sports. Calhoun JW, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):791-802 (18 ref.)

Exercise and sports in children and adolescents with developmental disabilities. Positive physical and psychosocial effects. Dykens EM, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):757-71, viii (60 ref.)

Eating disorders among athletes. Research and recommendations. Garner DM, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):839-57, x (95 ref.)

Comprehending role conflicts in the coaching of children, adolescents, and young adults. Transference, countertransference, and achievement by proxy distortion paradigms. Ogilvie BC, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):879-90 (31 ref.)

A developmental overview of child and youth sports in society. Stryer BK, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct;7(4):697-724, vii (88 ref.)

The achievement by proxy spectrum in youth sports. Historical perspective and clinical approach to pressured and high-achieving children and adolescents. Tofler IR, et al. **Child Adolesc Psychiatr Clin N Am** 1998 Oct; 7(4):803-20, ix (47 ref.)

The "achievement by proxy" spectrum: recognition and clinical response to pressured and high-achieving children and adolescents. Tofler IR, et al. **J Am Acad Child Adolesc Psychiatry** 1999 Feb;38(2):213-6

The use of an enhanced simplified habit-reversal procedure to reduce disruptive outbursts during athletic performance. Allen KD. **J Appl Behav Anal** 1998 Fall;31(3):489-92

Eating attitudes, body shape perceptions and mood of elite rowers. Terry PC, et al. **J Sci Med Sport** 1999 Mar; 2(1):67-77

Relationship between sport knowledge, sport performance and academic ability: empirical evidence from GCSE Physical Education. General Certificate of Secondary Education. Dexter T. **J Sports Sci** 1999 Apr;17(4):283-95 (41 ref.)

The effect of induced mood states on performance profile areas of perceived need. Doyle J, et al. **J Sports Sci** 1999 Feb;17(2):115-27

Confirmatory factor analysis of the Competitive State Anxiety Inventory-2. Lane AM, et al. **J Sports Sci** 1999 Jun;17(6):505-12

Order of scale administration and concurrent validity of the Anxiety Rating Scale. Cox RH, et al. **Percept Mot Skills** 1999 Feb;88(1):271-2

Perception of physical variables during four phases of the menstrual cycle. Jacobson BH, et al. **Percept Mot Skills** 1998 Oct;87(2):565-6

Precompetition anxiety in Chinese athletes. Kirkby RJ, et al. **Percept Mot Skills** 1999 Feb;88(1):297-303

Sources and magnitude of perceived psychological stress in high school volleyball officials. Stewart MJ, et al. **Percept Mot Skills** 1998 Dec;87(3 Pt 2):1275-82

Anxiety-performance relationships in cricketers: testing the zone of optimal functioning hypothesis. Thelwell RC, et al. **Percept Mot Skills** 1998 Oct;87(2):675-89

Relationship between identification with the role of sport fan and trait aggression. Wann DL, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1296-8

Testosterone changes during vicarious experiences of winning and losing among fans at sporting events. Bernhardt PC, et al. **Physiol Behav** 1998 Aug;65(1):59-62

Imagery quality estimated by autonomic response is correlated to sporting performance enhancement. Roure R, et al. **Physiol Behav** 1999 Mar;66(1):63-72

Why adolescent boys dream of becoming professional athletes. Stiles DA, et al. **Psychol Rep** 1999 Jun;84(3 Pt 2):1075-85

A test of the reliability and factorial validity of the Greek version of the CSAI-2. Tsorbatzoudis H, et al. **Res Q Exerc Sport** 1998 Dec;69(4):416-9

STANDARDS

Role conflict and confidentiality in multidisciplinary athlete support programmes. Collins D, et al. **Br J Sports Med** 1999 Jun;33(3):208-11

Sports and children: consensus statement on organized sports for children. FIMS/WHO ad Hoc Committee on Sports and Children. **Bull World Health Organ** 1998;76(5):445-7

Competitive athletes with cardiovascular disease--the case of Nicholas Knapp [see comments] Maron BJ, et al. **N Engl J Med** 1998 Nov 26;339(22):1632-5. Comment in: N Engl J Med 1999 Apr 29;340(17):1371-2.

STATISTICS & NUMERICAL DATA

School performance in Finnish children and later development of schizophrenia: a population-based longitudinal study. Cannon M, et al. **Arch Gen Psychiatry** 1999 May;56(5):457-63

Greeks and athletes: who drinks more? Meilman PW, et al. **J Am Coll Health** 1999 Jan;47(4):187-90

Computerized search of scientific literature on sport for disabled persons. Hutzler Y, et al. **Percept Mot Skills** 1999 Jun;88(3 Pt 2):1189-92

Sports activity, physical activity and fitness of 9- to 19-year-old teenagers in the canton of Vaud (Switzerland). Michaud PA, et al. **Schweiz Med Wochenschr** 1999 May 8;129(18):691-9

Physical fitness and sport activity of children and adolescents: methodological aspects of a regional survey. Narring F, et al. **Soz Praventivmed** 1999;44(2):44-54

[Freiburg Questionnaire of physical activity--development, evaluation and application] Frey I, et al. **Soz Praventivmed** 1999;44(2):55-64 (Eng. Abstr.) **(Ger)**

SPORTS EQUIPMENT

see related
PROTECTIVE DEVICES

A preliminary study of patient comfort associated with customised mouthguards. McClelland C, et al. **Br J Sports Med** 1999 Jun;33(3):186-9

Injuries to riders in the cross country phase of eventing: the importance of protective equipment. Whitlock MR. **Br J Sports Med** 1999 Jun;33(3):212-4

The klapskate: an example of intermuscular coordination. van Ingen Schenau GJ. **Eur J Morphol** 1998 Dec;36(4-5):269

A mathematical high bar-human body model for analysing and interpreting mechanical-energetic processes on the high bar. Arampatzis A, et al. **J Biomech** 1998 Dec; 31(12):1083-92

Trampolines at home, school, and recreational centers. American Academy of Pediatrics. Committee on Injury and Poison Prevention and Committee on Sports Medicine and Fitness. **Pediatrics** 1999 May;103(5 Pt 1):1053-6

Helmet and shoulder pad removal from a player with suspected cervical spine injury. A cadaveric model. Donaldson WF 3rd, et al. **Spine** 1998 Aug 15; 23(16):1729-32; discussion 1732-3

Climbing harness fit in kidney transplant recipients [see comments] Welch TR. **Wilderness Environ Med** 1999 Spring;10(1):3-5. Comment in: Wilderness Environ Med 1999 Spring;10(1):2.

ADVERSE EFFECTS

Injuries caused by falling soccer goalposts in Denmark. Bløndal L, et al. **Br J Sports Med** 1999 Apr;33(2):110-2

Contact dermatitis due to urea-formaldehyde resin in shin-pads. Sommer S, et al. **Contact Dermatitis** 1999 Mar; 40(3):159-60

The effect of tennis racket string vibration dampers on racket handle vibrations and discomfort following impacts. Stroede CL, et al. **J Sports Sci** 1999 May;17(5):379-85

Splenic injury after athletic trauma: a case report of splenic rupture induced by a lacrosse ball. Gangemi JJ, et al. **J Trauma** 1999 Apr;46(4):736-7

Increased peroneal nerve injuries caused by ski edges [letter; comment] Wechselberger G, et al. **Lancet** 1999 Feb 27; 353(9154):753-4. Comment on: Lancet 1998 Nov 28;352(9142):1739-41.

Sudden death due to low-energy chest-wall impact (commotio cordis) [letter; comment] Haq CL. **N Engl J Med** 1998 Nov 5;339(19):1399. Comment on: N Engl J Med 1998 Jun 18;338(25):1805-11.

Surfing-related ocular injuries. Kim JW, et al. **Retina** 1998; 18(5):424-9

Alpine ski bindings and injuries. Current findings. Natri A, et al. **Sports Med** 1999 Jul;28(1):35-48 (71 ref.)

[Severe ocular injuries caused by fishing equipment] Bialasiewicz AA, et al. **Klin Monatsbl Augenheilkd** 1999 Jan;214(1):27-30 (Eng. Abstr.) **(Ger)**

SPORTS INJURIES see **ATHLETIC INJURIES**

SPORTS MEDICINE

see related
ATHLETIC INJURIES
PROTECTIVE DEVICES

Cooper Institute/The American College of Sports Medicine. 1997 Physical Activity Interventions Conference. Blair SN, et al. **Am J Prev Med** 1998 Nov;15(4):255-6

Cardiovascular disease in athletes. Basilico FC. **Am J Sports Med** 1999 Jan-Feb;27(1):108-21 (70 ref.)

Osteoarthritis--a sports medicine problem? [editorial] Leach RE. **Am J Sports Med** 1999 Jan-Feb;27(1):1

Warm up [editorial] **Br J Sports Med** 1998 Dec;32(4):273

Sports medicine in The Netherlands: a long road to a new start. Aghina J. **Br J Sports Med** 1999 Apr;33(2):139

The "Hoddle Muddle": using faith healers and other complementary therapists in sports medicine [see comments] Ernst E. **Br J Sports Med** 1998 Sep;32(3):195 . Comment in: Br J Sports Med 1999 Apr;33(2):140.

The Intercollegiate Academic Board of Sport and Exercise Medicine. MacLeod DA. **Br J Sports Med** 1999 Apr; 33(2):73-4

Alternative medicine interventions in sport: introduction to the symposium. Tiidus PM. **Can J Appl Physiol** 1999 Jun; 24(3):232-3

Preparticipation physical examinations: a collegiate experience. Lively MW. **Clin J Sport Med** 1999 Jan;9(1):3-8

Deterrents to the successful clinical use of growth factors that enhance protein anabolism. Wilmore DW. **Curr Opin Clin Nutr Metab Care** 1999 Jan;2(1):15-21 (45 ref.)

Plasma and urine carnitine concentrations in well-trained athletes at rest and after exercise. Influence of L-carnitine intake. Nüesch R, et al. **Drugs Exp Clin Res** 1999;

25(4):167-71
Bone densitometry: applications in sports-medicine. Felsenberg D, et al. **Eur J Radiol** 1998 Sep;28(2):150-4
The roles of athletic trainers and physical therapists in sports medicine. Nichols AW. **Hawaii Med J** 1999 Apr;58(4):81-2
Training and sports--healthy goals [letter] Ghosh A. **J Indian Med Assoc** 1998 Dec;96(12):370
And there we shall wallow... [editorial] Miller B. **J R Army Med Corps** 1999 Jun;145(2):53-4
3rd Annual Conference of the European College of Sport Science. Manchester, United Kingdom, 15-18 July 1998. Abstracts. **J Sports Sci** 1999 Jul;17(7):525-609
Attenuation of urinary sodium excretion during cold-air exposure in trained athletes. Yoshida T, et al. **Jpn J Physiol** 1999 Apr;49(2):193-9
Role of MR imaging in sports medicine research. Basic science and clinical research studies. Rodkey WG, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):191-203
46th Annual meeting of the American College of Sports Medicine. Seattle, Washington, USA. June 2-5, 1999. Abstracts. **Med Sci Sports Exerc** 1999 May;31(5 Suppl):iii-xxiii, S39-408
Sports medicine across Missouri: interviews with Dr. Paul Meyer and Dr. Stanley London [interview by Thomas D. Eppright, Shane Bradley, Maureen Alwood] Meyer P, et al. **Mo Med** 1998 Dec;95(12):647-51
4th Scandinavian Congress on Medicine and Science in Sports. Lahti, Finland, November 5-8, 1998. Abstracts. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 2):311-92
Statistical methods for assessing measurement error (reliability) in variables relevant to sports medicine. Atkinson G, et al. **Sports Med** 1998 Oct;26(4):217-38 (90 ref.)
Exhaustive cycle exercise induces P-selectin expression, coagulation, and fibrinolysis activation in ultraendurance athletes. Möckel M, et al. **Thromb Res** 1999 May 15; 94(4):263-9
[Biomechanics in sports and health sciences] Sjøgaard G. **Ugeskr Laeger** 1999 Aug 16;161(33):4616-9 **(Dan)**
[Social and hygienic characteristics of health of young athletes] Kasymova GP, et al. **Probl Sotsialnoi Gig Istor Med** 1998 Sep-Oct;(5):21-4 (Eng. Abstr.) **(Rus)**
[Effect of the biopreparation "Polyene" on parameters of blood fatty acid composition in volleyball athletes] Popichev MI, et al. **Ukr Biokhim Zh** 1999 Jan-Feb; 71(1):98-102 (Eng. Abstr.) **(Rus)**
[Ethics in sports medicine--health and/or performance?] Andrén-Sandberg A, et al. **Lakartidningen** 1998 Nov 25; 95(48):5517-21 (9 ref.) (Eng. Abstr.) **(Swe)**
[Asthma is no obstacle for physical activity or high-level athletics] Larsson L. **Lakartidningen** 1998 Oct 21; 95(43):4752-3, 4756 (Eng. Abstr.) **(Swe)**

EDUCATION

Musculoskeletal rehabilitation and sports medicine. 3. Knee and lower extremity injuries. Ellen MI, et al. **Arch Phys Med Rehabil** 1999 May;80(5 Suppl 1):S59-67 (100 ref.)
Musculoskeletal rehabilitation and sports medicine. 4. Miscellaneous sports medicine topics. Smith J, et al. **Arch Phys Med Rehabil** 1999 May;80(5 Suppl 1):S68-89 (246 ref.)
Vision or heresy [editorial] MacAuley D. **Br J Sports Med** 1999 Feb;33(1):1-2

HISTORY

Leaders in medicine. Donald L. Cooper, MD. Green R. **J Okla State Med Assoc** 1999 Aug;92(8):415-24
The first nine years of the Scandinavian Foundation of Medicine and Science in Sports [editorial] Kannus P. **Scand J Med Sci Sports** 1998 Oct;8(5 Pt 1):245-6

MANPOWER

[Gymnastic world championship in Lausanne: medical staffing] Gremion G, et al. **Rev Med Suisse Romande** 1998 Aug;118(8):709-11 **(Fre)**

METHODS

Sports medicine at work. Brown GJ. **Br J Sports Med** 1999 Feb;33(1):5 (6 ref.)
Boxing and medicine. O'Neill G. **Br J Sports Med** 1999 Jun; 33(3):153 (8 ref.)
Glycemic index--a new tool in sport nutrition? Burke LM, et al. **Int J Sport Nutr** 1998 Dec;8(4):401-15 (52 ref.)
Reproducibility of the Adapted Leger and Boucher Test for wheelchair-dependent athletes. Poulain M, et al. **Spinal Cord** 1999 Feb;37(2):129-35

ORGANIZATION & ADMINISTRATION

The integration of primary care sports medicine into an academic emergency medicine practice: academic and revenue enhancement. Veenema KR. **Acad Emerg Med** 1999 Aug;6(8):828-32
"British Association of Sports Medicine" [letter] Macleod DA. **Br J Sports Med** 1999 Feb;33(1):68
The AOA Sports Vision Section: a valuable membership benefit [editorial] Sanet RB. **J Am Optom Assoc** 1999 Feb; 70(2):75-6

STANDARDS

Clinical coding in sports medicine--it's good to talk. Kemp S. **Br J Sports Med** 1999 Feb;33(1):4-5 (11 ref.)
Science or show business [editorial] MacAuley D. **Br J Sports Med** 1999 Jun;33(3):147-8 (11 ref.)
Are our sportsmen and women getting a fair medical deal? Firer P, et al. **S Afr Med J** 1998 Dec;88(12):1556-7

STATISTICS & NUMERICAL DATA

[Gaining knowledge or recording data by experimental studies? (editorial)] Appell HJ. **Sportverletz Sportschaden** 1999 Jun;13(2):37 **(Ger)**

SPOTTED DOLPHINS see **DOLPHINS**

SPOTTED SKUNKS see **SKUNKS**

SPOUSAL CONSENT see **THIRD-PARTY CONSENT**

SPOUSE ABUSE

Abuse history and health risk behaviors in pregnancy. Grimstad H, et al. **Acta Obstet Gynecol Scand** 1998 Oct; 77(9):893-7
"I was always on guard"--an exploration of woman abuse in a group of women with musculoskeletal pain. Hamberg K, et al. **Fam Pract** 1999 Jun;16(3):238-44
ACOG committee opinion. Mandatory reporting of domestic violence. Number 200, March 1998. Committee on Health Care for Underserved Women. American College of Obstetricians and Gynecologists. **Int J Gynaecol Obstet** 1998 Jul;62(1):93-5
Reproductive violence screening in primary care: perspectives and experiences of patients and battered women. McNutt LA, et al. **J Am Med Womens Assoc** 1999 Spring;54(2):85-90
The development of a measure of public health nurses' practice responses to women who are abused. Dickson F, et al. **J Nurs Meas** 1998 Summer;6(1):87-103
Learning to ask [editorial] Furniss K, et al. **J Obstet Gynecol Neonatal Nurs** 1999 Jul-Aug;28(4):353
The dynamics of leaving and recovering from an abusive relationship. Landenburger KM. **J Obstet Gynecol Neonatal Nurs** 1998 Nov-Dec; 27(6):700-6 (30 ref.)
Physical abuse, social support, self-care, and pregnancy outcomes of older adolescents. Renker PR. **J Obstet Gynecol Neonatal Nurs** 1999 Jul-Aug;28(4):377-88
Stroke from traumatic arterial dissection [letter; comment] Emmerich J, et al. **Lancet** 1999 Jul 10;354(9173):160. Comment on: Lancet 1999 Apr 17;353(9161):1324.
A strangled wife [see comments] Malek AM, et al. **Lancet** 1999 Apr 17;353(9161):1324. Comment in: Lancet 1999 Jul 10;354(9173):159-60. Comment in: Lancet 1999 Jul 10;354(9173):160.
Domestic violence. Eisenstat SA, et al. **N Engl J Med** 1999 Sep 16;341(12):886-92 (69 ref.)
Mandatory reporting of intimate partner violence by health care professionals: a policy review. Glass N, et al. **Nurs Outlook** 1998 Nov-Dec;46(6):279-83 (35 ref.)
Effects of abuse on maternal complications and birth weight in adult and adolescent women. Curry MA, et al. **Obstet Gynecol** 1998 Oct;92(4 Pt 1):530-4
Will your patient admit "he hits me"? Park IB. **Tenn Med** 1998 Oct;91(10):382-3
Effects of time and an educational presentation on student attitudes toward wife-beating. O'Neal MF, et al. **Violence Vict** 1998 Summer;13(2):149-57

DIAGNOSIS

A bitter lesson [letter; comment] Whitman N. **Acad Med** 1999 Jan;74(1):1. Comment on: Acad Med 1998 Sep;73(9):922-4.
Universal screening for intimate partner violence in the emergency department: importance of patient and provider factors. Larkin GL, et al. **Ann Emerg Med** 1999 Jun; 33(6):669-75
Violence during pregnancy. Datner EM, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):645-56, vi (62 ref.)
Domestic violence against women in the international community. Haile-Mariam T, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):617-30, vi (22 ref.)
Violence against women. Haywood YC, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):603-15, vi (40 ref.)
Screening for domestic violence in the emergency department. Lo Vecchio F, et al. **Eur J Emerg Med** 1998 Dec;5(4):441-4
Clinical factors affecting physicians' management decisions in cases of female partner abuse. Ferris LE, et al. **Fam Med** 1999 Jun;31(6):415-25
Women battering in primary care practice. Naumann P, et al. **Fam Pract** 1999 Aug;16(4):343-52 (79 ref.)
Assessment of women for partner abuse. Fishwick NJ. **J Obstet Gynecol Neonatal Nurs** 1998 Nov-Dec; 27(6):661-70 (15 ref.)
Spouse abuse: physician guidelines to identification, diagnosis, and management in the uniformed services. Brannen SJ, et al. **Mil Med** 1999 Jan;164(1):30-6
Screening for domestic violence in the community pediatric setting. Siegel RM, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):874-7
Physical appearance and judgment of status as battered women. Gula CA, et al. **Percept Mot Skills** 1998 Oct; 87(2):459-65
Abuse history: is it really important in the medical encounter? Rubin NJ, et al. **South Med J** 1999 Jun;92(6):618-21
Measuring emotional abuse in dating relationships as a multifactorial construct. Murphy CM, et al. **Violence Vict** 1999 Spring;14(1):39-53
Psychological abuse: a variable deserving critical attention in domestic violence. O'Leary KD. **Violence Vict** 1999 Spring;14(1):3-23 (55 ref.)
A training program to improve domestic violence identification and management in primary care: preliminary results. Thompson RS, et al. **Violence Vict** 1998 Winter; 13(4):395-410
The validation of the Psychological Maltreatment of Women Inventory. Tolman RM. **Violence Vict** 1999 Spring; 14(1):25-37

ETHNOLOGY

Domestic violence and physical abuse of women: the Grady Memorial Hospital experience. Geary FH Jr, et al. **Am J Obstet Gynecol** 1999 Jul;181(1):S17-21
Predicting physical abuse against pregnant Hispanic women. McFarlane J, et al. **Am J Prev Med** 1998 Aug;15(2):134-8
Factors associated with domestic violence in low-income Lebanese families. Keenan CK, et al. **Image J Nurs Sch** 1998;30(4):357-62
Severity of spousal and intimate partner abuse to pregnant Hispanic women. Wiist WH, et al. **J Health Care Poor Underserved** 1998 Aug;9(3):248-61
Severity of abuse before and during pregnancy for African American, Hispanic, and Anglo women. McFarlane J, et al. **J Nurse Midwifery** 1999 Mar-Apr;44(2):139-44
"He forced me to love him": putting violence on adolescent sexual health agendas. Wood K, et al. **Soc Sci Med** 1998 Jul;47(2):233-42
Sociodemographic predictors and cultural barriers to help-seeking behavior by Latina and Anglo American battered women. West CM, et al. **Violence Vict** 1998 Winter;13(4):361-75
[Violence in partnership of immigrant women from Turkey] Yilmaz AT, et al. **Nervenarzt** 1997 Nov;68(11):884-7 (Eng. Abstr.) **(Ger)**

LEGISLATION & JURISPRUDENCE

Mandatory reporting of intimate partner violence to police: views of physicians in California. Rodriguez MA, et al. **Am J Public Health** 1999 Apr;89(4):575-8
Medicolegal file. Spousal abuse. Winkelaar PG. **Can Fam Physician** 1998 Dec;44:2647
Marital conflict by proxy after father kills mother: the family therapist as an expert witness in court. Kaplan T. **Fam Process** 1998 Winter;37(4):479-94
Battered women: dilemmas and [illegible]. Tabak N, et al. **Med Law** 1998;17(4):611-8
Court-involved battered women's responses to violence: the role of psychological, physical, and sexual abuse. Dutton MA, et al. **Violence Vict** 1999 Spring;14(1):89-104

PREVENTION & CONTROL

Domestic violence education in medical school: does it make a difference? Haase CE, et al. **Acad Emerg Med** 1999 Aug; 6(8):855-7
Correlates of injury to women with partners enrolled in batterer treatment programs. Forjuoh SN, et al. **Am J Public Health** 1998 Nov;88(11):1705-8
The effectiveness of an abuse assessment protocol in public health prenatal clinics. Wiist WH, et al. **Am J Public Health** 1999 Aug;89(8):1217-21
Physical abuse during pregnancy: a significant threat to maternal and child health [editorial; comment] MacMillan HL. **CMAJ** 1999 Apr 6;160(7):1022-3 (11 ref.). Comment on: CMAJ 1999 Apr 6;160(7):1007-11.
Clinical factors affecting physicians' management decisions in cases of female partner abuse. Ferris LE, et al. **Fam Med** 1999 Jun;31(6):415-25
A survey of teaching and implementation: the veterinarian's role in recognizing and reporting abuse. Landau RE. **J Am Vet Med Assoc** 1999 Aug 1;215(3):328-31
Clergy perspectives and practices regarding intimate violence: a rural view. Strickland GA, et al. **J Rural Health** 1998 Fall;14(4):305-11 (29 ref.)
Screening and intervention for intimate partner abuse: practices and attitudes of primary care physicians. Rodriguez MA, et al. **JAMA** 1999 Aug 4;282(5):468-74
Testing an intervention to prevent further abuse to pregnant women. Parker B, et al. **Res Nurs Health** 1999 Feb; 22(1):59-66
"He forced me to love him": putting violence on adolescent sexual health agendas. Wood K, et al. **Soc Sci Med** 1998 Jul;47(2):233-42
Psychological abuse: implications for adjustment and commitment to leave violent partners. Arias I, et al. **Violence Vict** 1999 Spring;14(1):55-67
"Why don't they just call the cops?": Reasons for differential police contact among women with abusive partners. Fleury RE, et al. **Violence Vict** 1998 Winter;13(4):333-46
A training program to improve domestic violence

identification and management in primary care: preliminary results. Thompson RS, et al. **Violence Vict** 1998 Winter; 13(4):395–410

[The "stop violence" campaign of the Swiss Conference of Equality Officers] **Soz Praventivmed** 1998;43(5):217–20 (Eng. Abstr.) **(Ger)**

PSYCHOLOGY

Applying Fairbairn's object relations theory to the dynamics of the battered woman. Celani DP. **Am J Psychother** 1999 Winter;53(1):60–73

Universal screening for intimate partner violence in the emergency department: importance of patient and provider factors. Larkin GL, et al. **Ann Emerg Med** 1999 Jun; 33(6):669–75

Review of psychological issues in victims of domestic violence seen in emergency settings. Frank JB, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):657–77, vii (140 ref.)

Frontal lobe deficits in domestic violence offenders. Westby MD, et al. **Genet Soc Gen Psychol Monogr** 1999 Feb; 125(1):71–102

Domestic violence and health of Pakistani women. Fikree FF, et al. **Int J Gynaecol Obstet** 1999 May;65(2):195–201

Demand and withdraw communication among couples experiencing husband violence. Holtzworth-Munroe A, et al. **J Consult Clin Psychol** 1998 Oct;66(5):731–43

Factors affecting patient-physician communication for abused Latina and Asian immigrant women. Rodriguez MA, et al. **J Fam Pract** 1998 Oct;47(4):309–11

Relation of low-severity violence to women's health. McCauley J, et al. **J Gen Intern Med** 1998 Oct; 13(10):687–91

Intimate justice. II: Fostering mutuality, reciprocity, and accommodation in therapy for psychological abuse. Jory B, et al. **J Marital Fam Ther** 1999 Jun;25(3):349–63

Partner abuse and posttraumatic stress disorder as risk factors for suicide attempts in a sample of low-income, inner-city women. Thompson MP, et al. **J Trauma Stress** 1999 Jan; 12(1):59–72

Latin American, Asian, and American cultural differences in perceptions of spousal abuse. Gabler M, et al. **Psychol Rep** 1998 Oct;83(2):587–92

Problem-solving in relation to abuse by a partner. McNamara JR, et al. **Psychol Rep** 1998 Dec;83(3 Pt 1):943–6

Women's responses to battering: a test of the model. Campbell JC, et al. **Res Nurs Health** 1999 Feb;22(1):49–58

Psychological abuse: implications for adjustment and commitment to leave violent partners. Arias I, et al. **Violence Vict** 1999 Spring;14(1):55–67

Partner violence and sexual HIV-risk behaviors among women in an inner-city emergency department. El-Bassel N, et al. **Violence Vict** 1998 Winter;13(4):377–93

Violent pornography and abuse of women: theory to practice. Cramer E, et al. **Violence Vict** 1998 Winter;13(4):319–32

Court-involved battered women's responses to violence: the role of psychological, physical, and sexual abuse. Dutton MA, et al. **Violence Vict** 1999 Spring;14(1):89–104

Major depressive disorder and depressive symptomatology as predictors of husband to wife physical aggression. Feldbau-Kohn S, et al. **Violence Vict** 1998 Winter; 13(4):347–60

"Why don't they just call the cops?": Reasons for differential police contact among women with abusive partners. Fleury RE, et al. **Violence Vict** 1998 Winter;13(4):333–46

Effects of men's subtle and overt psychological abuse on low-income women. Marshall LL. **Violence Vict** 1999 Spring;14(1):69–88

Measuring emotional abuse in dating relationships as a multifactorial construct. Murphy CM, et al. **Violence Vict** 1999 Spring;14(1):39–53

Psychological abuse: a variable deserving critical attention in domestic violence. O'Leary KD. **Violence Vict** 1999 Spring;14(1):3–23 (55 ref.)

The impact of different forms of psychological abuse on battered women. Sackett LA, et al. **Violence Vict** 1999 Spring;14(1):105–17

The validation of the Psychological Maltreatment of Women Inventory. Tolman RM. **Violence Vict** 1999 Spring; 14(1):25–37

REHABILITATION

Capture-recapture analysis of batterer reassaults: an epidemiological innovation for batterer program evaluation. Gondolf EW, et al. **Violence Vict** 1999 Summer; 14(2):191–202

STATISTICS & NUMERICAL DATA

History of domestic violence among male patients presenting to an urban emergency department. Mechem CC, et al. **Acad Emerg Med** 1999 Aug;6(8):786–91

Domestic violence among emergency medical technicians. Weiss SJ, et al. **Acad Emerg Med** 1999 Aug;6(8):857–9

Prevalence of physical and sexual abuse before and during pregnancy among Swedish couples. Hedin LW, et al. **Acta Obstet Gynecol Scand** 1999 Apr;78(4):310–5

The incidence and characteristics of violent men in substance abuse treatment. Brown TG, et al. **Addict Behav** 1998 Sep-Oct;23(5):573–86

Violence against women in Sierra Leone: frequency and correlates of intimate partner violence and forced sexual intercourse. Coker AL, et al. **Afr J Reprod Health** 1998 Apr;2(1):61–72

Women, violence with intimates, and substance abuse: relevant theory, empirical findings, and recommendations for future research. Hien D, et al. **Am J Drug Alcohol Abuse** 1998 Aug;24(3):419–38 (79 ref.)

Physical and nonphysical partner abuse and other risk factors for low birth weight among full term and preterm babies: a multiethnic case-control study. Campbell J, et al. **Am J Epidemiol** 1999 Oct 1;150(7):714–26

Wife abuse among women of childbearing age in Nicaragua. Elisberg MC, et al. **Am J Public Health** 1999 Feb; 89(2):241–4

Correlates of injury to women with partners enrolled in batterer treatment programs. Forjuoh SN, et al. **Am J Public Health** 1998 Nov;88(11):1705–8

Rates of intimate partner violence in the United States. Schafer J, et al. **Am J Public Health** 1998 Nov; 88(11):1702–4

Physical abuse during pregnancy: prevalence and risk factors [see comments] Muhajarine N, et al. **CMAJ** 1999 Apr 6; 160(7):1007–11. Comment in: CMAJ 1999 Apr 6;160(7):1022–3.

Magnitude, type and outcomes of physical violence against married women in Butajira, southern Ethiopia. Deyessa N, et al. **Ethiop Med J** 1998 Apr;36(2):83–92

Maternal mortality due to violence. Rizzi RG, et al. **Int J Gynaecol Obstet** 1998 Dec;63 Suppl 1:S19–24

A comparison of spousal aggression prevalence rates in U.S. Army and civilian representative samples. Heyman RE, et al. **J Consult Clin Psychol** 1999 Apr;67(2):239–42

The invisible wounds: the occurrence of psychological abuse and anxiety compared with previous experience of physical abuse during the childbearing year. Hedin LW, et al. **J Psychosom Obstet Gynaecol** 1999 Sep;20(3):136–44

Drinking and marital aggression in newlyweds: an event-based analysis of drinking and the occurrence of husband marital aggression. Leonard KE, et al. **J Stud Alcohol** 1999 Jul;60(4):537–45

Reports of spouse abuse in the U.S. Army Central Registry (1989–1997). McCarroll JE, et al. **Mil Med** 1999 Feb; 164(2):77–84

Lifetime and annual incidence of intimate partner violence and resulting injuries--Georgia, 1995. **MMWR Morb Mortal Wkly Rep** 1998 Oct 16;47(40):849–53

Abuse against women in rural Minnesota. Kershner M, et al. **Public Health Nurs** 1998 Dec;15(6):422–31

Domestic violence among patients at two rural health care clinics: prevalence and social correlates. Van Hightower NR, et al. **Public Health Nurs** 1998 Oct;15(5):355–62

Associations between wife-beating and fetal and infant death: impressions from a survey in rural India. Jejeebhoy SJ. **Stud Fam Plann** 1998 Sep;29(3):300–8

Capture-recapture analysis of batterer reassaults: an epidemiological innovation for batterer program evaluation. Gondolf EW, et al. **Violence Vict** 1999 Summer; 14(2):191–202

The prevalence of domestic violence among obstetric nurses. Janssen PA, et al. **Womens Health Issues** 1998 Sep-Oct; 8(5):317–23

Gynecologic health consequences to victims of interpersonal violence. Letourneau EJ, et al. **Womens Health Issues** 1999 Mar-Apr;9(2):115–20

THERAPY

One year follow-up of an emergency department protocol for abused women. Fanslow JL, et al. **Aust N Z J Public Health** 1999 Aug;23(4):418–20

Violence during pregnancy. Datner EM, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):645–56, vi (62 ref.)

Domestic violence against women in the international community. Haile-Mariam T, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):617–30, vi (22 ref.)

Violence against women. Haywood YC, et al. **Emerg Med Clin North Am** 1999 Aug;17(3):603–15, vi (40 ref.)

Women battering in primary care practice. Naumann P, et al. **Fam Pract** 1999 Aug;16(4):343–52 (79 ref.)

The treatment of violence and victimization in intimate relationships. Goldner V. **Fam Process** 1998 Fall; 37(3):263–86

Spouse abuse: physician guidelines to identification, diagnosis, and management in the uniformed services. Brannen SJ, et al. **Mil Med** 1999 Jan;164(1):30–6

TRENDS

Reports of spouse abuse in the U.S. Army Central Registry (1989–1997). McCarroll JE, et al. **Mil Med** 1999 Feb; 164(2):77–84

SPOUSE CAREGIVERS see **CAREGIVERS**

SPOUSES

Age related macular degeneration in monozygotic twins and their spouses in Iceland. Gottfredsdottir MS, et al. **Acta Ophthalmol Scand** 1999 Aug;77(4):422–5

Intraspousal transmission of GB virus C/hepatitis G virus in an hepatitis C virus hyperendemic area in Japan. Akiyoshi F, et al. **Am J Gastroenterol** 1999 Jun; 94(6):1627–31

Partner support as a mediator of intervention outcome. Heinicke CM, et al. **Am J Orthopsychiatry** 1998 Oct; 68(4):534–41

Ischemic stroke risk and passive exposure to spouses' cigarette smoking. Melbourne Stroke Risk Factor Study (MERFS) Group. You RX, et al. **Am J Public Health** 1999 Apr;89(4):572–5

An inexpensive system for measuring the processing of relational information by romantic partners. De Clercq A, et al. **Behav Res Methods Instrum Comput** 1999 May; 31(2):299–304

Are spouses of patients with hypertension at increased risk of having hypertension? A population-based case-control study. Hippisley-Cox J, et al. **Br J Gen Pract** 1998 Sep; 48(434):1580–3

Central nervous system cancers in first-degree relatives and spouses. Grossman SA, et al. **Cancer Invest** 1999; 17(5):299–308

Spousal and other living renal donor transplants. Terasaki PI, et al. **Clin Transpl** 1997;:269–84

The impact of wives' earnings on income inequality: issues and estimates. Cancian M, et al. **Demography** 1999 May; 36(2):173–84

Ageing with spinal cord injury: the impact of spousal support. Holicky R, et al. **Disabil Rehabil** 1999 May–Jun; 21(5–6):250–7

Do not forget to listen to the ambulance crew and the spouse.... [published erratum appears in Eur J Emerg Med 1998 Sep;5(3):379] Calle P, et al. **Eur J Emerg Med** 1998 Jun;5(2):269–71

Different intestinal permeability patterns in relatives and spouses of patients with Crohn's disease: an inherited defect in mucosal defence? Söderholm JD, et al. **Gut** 1999 Jan; 44(1):96–100

Influence of women's work status on the well-being of Indian couples. Andrade C, et al. **Int J Soc Psychiatry** 1999 Spring; 45(1):65–75

Concordance for psychotropic drug use in older married couples [letter] [corrected and republished letter originally printed in J Am Geriatr Soc 1998 Aug;46(8):1059–60] Dufouil C, et al. **J Am Geriatr Soc** 1998 Oct;46(10):1326

The efficacy of a compact psychoeducational group training program for married couples. Kaiser A, et al. **J Consult Clin Psychol** 1998 Oct;66(5):753–60

Helicobacter pylori: evidence for spouse-to-spouse transmission. Singh V, et al. **J Gastroenterol Hepatol** 1999 Jun;14(6):519–22

Chronic stress associated with spousal caregiving of patients with Alzheimer's dementia is associated with downregulation of B-lymphocyte GH mRNA. Wu H, et al. **J Gerontol A Biol Sci Med Sci** 1999 Apr;54(4):M212–5

Daughters-in-law as caregivers: how and why do they come to care? Guberman N. **J Women Aging** 1999;11(1):85–102

A piece of my mind. What we are made of. Pisetsky DS. **JAMA** 1999 Sep 22–29;282(12):1112

Chronic stress in elderly carers of dementia patients and antibody response to influenza vaccination [see comments] Vedhara K, et al. **Lancet** 1999 Feb 20;353(9153):627–31. Comment in: Lancet 1999 Jun 5;353(9168):1969–70.

March is medical Alliance month. Physicians' spouses caring today for a healthy tomorrow. Jackson BE. **Mich Med** 1999 Mar;98(3):16–7

Spousal renal donor transplants in India [letter] Bhowmik D, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):2052–3

'The spouse as a kidney donor: ethically sound?' [letter] Dyer PA, et al. **Nephrol Dial Transplant** 1999 Aug;14(8):2043

The spouse as a kidney donor: ethically sound? Mathieson PW, et al. **Nephrol Dial Transplant** 1999 Jan;14(1):46–8

Transmission of hepatitis C virus infection to spouses of patients undergoing chronic hemodialysis [letter] Akarsu E, et al. **Nephron** 1999;82(4):359–60

Spouse similarity for lifetime psychiatric history in the general population. Galbaud du Fort G, et al. **Psychol Med** 1998 Jul;28(4):789–802

Spouses of HCV carriers are not at serious risk [letter] Mert A, et al. **Scand J Infect Dis** 1998;30(6):644

Group therapy for spouses of aphasic patients. Johannsen-Horbach H, et al. **Semin Speech Lang** 1999; 20(1):73–82; quiz 83

Husbands' involvement in abortion in Vietnam. Johansson A, et al. **Stud Fam Plann** 1998 Dec;29(4):400–13

Husbands' reproductive health knowledge, attitudes, and behavior in Uttar Pradesh, India. Singh KK, et al. **Stud Fam Plann** 1998 Dec;29(4):388–99

[The effect of husband's childbirth participation on perinatal couples' psychological responses] Hung CH, et al. **Kao Hsiung I Hsueh Ko Hsueh Tsa Chih** 1998 Dec; 14(12):791–9 (Eng. Abstr.) **(Chi)**

[Increased incidence of thyroid cancer among Norwegian women married to fishermen] Frich L, et al. **Tidsskr Nor Laegeforen** 1998 Nov 10;118(27):4202–5 (Eng. Abstr.) **(Nor)**

[Dynamics of the marital structure with respect to the nationality and birthplace of spouses in a modern urbanized Siberian population (as exemplified by Tomsk)] Saliukova OA, et al. **Genetika** 1998 Sep;34(9):1293–7 (Eng. Abstr.) **(Rus)**

EDUCATION

The information concerns of spouses of women with breast

cancer: patients' and spouses' perspectives. Rees CE, et al. **J Adv Nurs** 1998 Dec;28(6):1249–58
Effects of couples' characteristics on contraceptive use in sub-Saharan Africa: the Ghanaian example. Oheneba-Sakyi Y, et al. **J Biosoc Sci** 1997 Jan;29(1):33–49
Information needs of husbands of women with breast cancer. Kilpatrick MG, et al. **Oncol Nurs Forum** 1998 Oct; 25(9):1595–601
Measuring the information needs of husbands of women with breast cancer: validity and reliability of the Family Inventory of Needs--husbands. Kilpatrick MG, et al. **Oncol Nurs Forum** 1998 Sep;25(8):1347–51

ETHNOLOGY

The experiences of female spouses of survivors of acute myocardial infarction: a pilot study of Lebanese-born women in south-western Sydney, Australia. Daly J, et al. **J Adv Nurs** 1998 Dec;28(6):1199–206

LEGISLATION & JURISPRUDENCE

Law and ethics of gamete storage and informed consent as illustrated by the Diane Blood case, and an appraisal of international standards. Yap LB. **Br J Fam Plann** 1999 Jan; 24(4):164–7
Spousal liability for medical fees. Weber RD. **Mich Med** 1999 Apr;98(4):8–9

PSYCHOLOGY

A time to every purpose. Was her husband sending messages after his death? Baltz BM. **Am J Nurs** 1998 Nov;98(11):47
Correlates of injury to women with partners enrolled in batterer treatment programs. Forjuoh SN, et al. **Am J Public Health** 1998 Nov;88(11):1705–8
Perceptions of spouse dominance predict blood pressure reactivity during marital interactions. Brown PC, et al. **Ann Behav Med** 1998 Fall;20(4):286–93
Merry Christmas, doctor. Plosay JJ 3rd. **Ann Emerg Med** 1998 Dec;32(6):751–2
The psychosocial effects of rheumatoid arthritis on the patient and the well partner. Walsh JD, et al. **Behav Res Ther** 1999 Mar;37(3):259–71
Problems of patients with chronic aphasia: different perspectives of husbands and wives? Santos ME, et al. **Brain Inj** 1999 Jan;13(1):23–9
Couple childbearing plans and births in Sweden. Thomson E, et al. **Demography** 1998 Aug;35(3):315–22
Surviving adversity: event decay, vulnerability and the onset of anxiety and depressive disorder. Surtees PG, et al. **Eur Arch Psychiatry Clin Neurosci** 1999;249(2):86–95
The role of the chair's spouse in academic departments of family medicine. Taylor AD. **Fam Med** 1999 Jan;31(1):34–8
Depressive symptoms among spousal caregivers of institutionalized mates with Alzheimer's: boundary ambiguity and mastery as predictors. Kaplan L, et al. **Fam Process** 1999 Spring;38(1):85–103
The association between spouses' self-reports of attachment styles and representations of family dynamics. Mikulincer M, et al. **Fam Process** 1999 Spring;38(1):69–83
Temporal linkages between wives' pursuit and husbands' withdrawal during marital conflict. Turgeon L, et al. **Fam Process** 1998 Fall;37(3):323–34
Gender roles, marital intimacy, and nomination of spouse as primary caregiver. Allen SM, et al. **Gerontologist** 1999 Apr;39(2):150–8
The grief experienced by spousal caregivers of dementia patients: the role of place of care of patient and gender of caregiver. Rudd MG, et al. **Int J Aging Hum Dev** 1999; 48(3):217–40
Depression in elderly spouse pairs. Kivelä SL, et al. **Int Psychogeriatr** 1998 Sep;10(3):329–38
Drug-abusing patients and their intimate partners: dyadic adjustment, relationship stability, and substance use. Fals-Stewart W, et al. **J Abnorm Psychol** 1999 Feb; 108(1):11–23
The effects of alcohol on the marital interactions of aggressive and nonaggressive husbands and their wives. Leonard KE, et al. **J Abnorm Psychol** 1998 Nov; 107(4):602–15
The experiences of female spouses of survivors of acute myocardial infarction: a pilot study of Lebanese-born women in south-western Sydney, Australia. Daly J, et al. **J Adv Nurs** 1998 Dec;28(6):1199–206
An exploration of anticipatory grief: the lived experience of people during their spouses' terminal illness and in bereavement. Duke S. **J Adv Nurs** 1998 Oct;28(4):829–39
Myocardial infarction, spouses' reactions and their need of support. Kettunen S, et al. **J Adv Nurs** 1999 Aug; 30(2):479–88
Effects of couples' characteristics on contraceptive use in sub-Saharan Africa: the Ghanaian example. Oheneba-Sakyi Y, et al. **J Biosoc Sci** 1997 Jan;29(1):33–49
Pre- and post-operative counseling for laryngectomees and their spouses: an update. Zeine L, et al. **J Commun Disord** 1999 Jan–Feb;32(1):51–61; quiz 61–71
Interpersonal ambivalence, perceived relationship adjustment, and conjugal loss. Bonanno GA, et al. **J Consult Clin Psychol** 1998 Dec;66(6):1012–22
The relation of continuing attachment to adjustment in conjugal bereavement. Field NP, et al. **J Consult Clin Psychol** 1999 Apr;67(2):212–8
Demand and withdraw communication among couples experiencing husband violence. Holtzworth-Munroe A, et al. **J Consult Clin Psychol** 1998 Oct;66(5):731–43
Spousal negative responses to cancer patients: the role of social restriction, spouse mood, and relationship satisfaction. Manne SL, et al. **J Consult Clin Psychol** 1999 Jun;67(3):352–61
Expressed emotion and relapse in alcoholic patients. O'Farrell TJ, et al. **J Consult Clin Psychol** 1998 Oct; 66(5):744–52
Retirement intentions and spousal support: a multi-actor approach. Henkens K. **J Gerontol B Psychol Sci Soc Sci** 1999 Mar;54(2):S63–73
Tell me what's wrong with me: a discourse analysis approach to the concept of patient autonomy. Nessa J, et al. **J Med Ethics** 1998 Dec;24(6):394–400
Marital stability after breast cancer. Dorval M, et al. **J Natl Cancer Inst** 1999 Jan 6;91(1):54–9
Length of cancer patients' stay at a hospice: does it affect psychological adjustment to the loss of the spouse? Gilbar O. **J Palliat Care** 1998 Winter;14(4):16–20
Couple resilience to economic pressure. Conger RD, et al. **J Pers Soc Psychol** 1999 Jan;76(1):54–71
Attachment change processes in the early years of marriage. Davila J, et al. **J Pers Soc Psychol** 1999 May;76(5):783–802
Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. McCullough ME, et al. **J Pers Soc Psychol** 1998 Dec;75(6):1586–603
Stress and coping strategies in spouses of depressed patients. Spangenberg JJ, et al. **J Psychol** 1999 May;133(3):253–62
Spousal caregiving when the adult day services center is closed. Campell DD, et al. **J Psychosoc Nurs Ment Health Serv** 1999 Aug;37(8):20–5
Wives' convergence with their husbands' alcohol use: social conditions as mediators. Demers A, et al. **J Stud Alcohol** 1999 May;60(3):368–77
Husband's and wife's drinking: unilateral or bilateral influences among newlyweds in a general population sample. Leonard KE, et al. **J Stud Alcohol Suppl** 1999 Mar; 13:130–8
Prenatal alcohol consumption. Self versus collateral report. Chang G, et al. **J Subst Abuse Treat** 1999 Jul–Sep; 17(1–2):85–9
Sildenafil (Viagra) has been reported to be an effective treatment for erectile dysfunction [letter] Ivy ME, et al. **J Trauma** 1999 Feb;46(2):357
Living with postpartum depression: the father's experience. Meighan M, et al. **MCN Am J Matern Child Nurs** 1999 Jul–Aug;24(4):202–8
Parent Alienation syndrome: what the legal profession should know. Lowenstein LF. **Med Leg J** 1998;66 (Pt 4):151–61
Patient certification through mutual problem lists. Smith SL, et al. **Mil Med** 1998 Nov;163(11):786–8
Patterns of burden in wives who care for husbands with dementia. Winslow BW, et al. **Nurs Clin North Am** 1999 Jun;34(2):275–87 (31 ref.)
Information needs of husbands of women with breast cancer. Kilpatrick MG, et al. **Oncol Nurs Forum** 1998 Oct; 25(9):1595–601
From transplant clinic. Argani S. **Pharos** 1999 Winter; 62(1):14–7
Assortative mating for major psychiatric diagnoses in two population-based samples. Maes HH, et al. **Psychol Med** 1998 Nov;28(6):1389–401
Life after a myocardial infarction--the wives' point of view. Arefjord K, et al. **Psychol Rep** 1998 Dec;83(3 Pt 2):1203–16
Social and depressive stress suffered by spouses of patients with mild dementia. Braekhus A, et al. **Scand J Prim Health Care** 1998 Dec;16(4):242–6
Wives, husbands, and daughters of dementia patients: predictors of caregivers' mental and physical health. Sparks MB, et al. **Sch Inq Nurs Pract** 1998 Fall;12(3):221–34; discussion 235–8
Sexual functioning among stroke patients and their spouses. Korpelainen JT, et al. **Stroke** 1999 Apr;30(4):715–9
Social interaction and support related to mood and locus of control in cervical and endometrial cancer patients and their spouses. Lalos A, et al. **Support Care Cancer** 1999 Mar;7(2):75–8
Patients benefit--partners suffer? The impact of heart transplantation on the partner relationship. Bunzel B, et al. **Transpl Int** 1999;12(1):33–41
Major depressive disorder and depressive symptomatology as predictors of husband to wife physical aggression. Feldbau-Kohn S, et al. **Violence Vict** 1998 Winter; 13(4):347–60
[In vitro fertilization and sperm intracytoplasmic injection: psychological repercussions for the couple] Perez C, et al. **Contracept Fertil Sex** 1998 Oct;26(10):713–7 (Eng. Abstr.) **(Fre)**
[Mutual stress and support in couples with one cancer patient] Keller M, et al. **Psychother Psychosom Med Psychol** 1998 Sep–Oct;48(9–10):358–68 (Eng. Abstr.) **(Ger)**
[The effects of marital communication and social activity on alienation in married women and men] Ito Y, et al. **Shinrigaku Kenkyu** 1999 Apr;70(1):17–23 (Eng. Abstr.) **(Jpn)**
[Grief, pain, life and happiness characterize the final period. Being a relative gives a hard-earned experience] Campbell-Chiru T. **Lakartidningen** 1999 Mar 3; 96(9):1034–9 **(Swe)**

STATISTICS & NUMERICAL DATA

Mortality among male licensed pesticide users and their wives. Sperati A, et al. **Am J Ind Med** 1999 Jul;36(1):142–6
Household gun ownership [letter] Trent RB, et al. **Am J Public Health** 1999 Sep;89(9):1442
A methodology for identifying married couples in Medicare data: mortality, morbidity, and health care use among the married elderly. Iwashyna TJ, et al. **Demography** 1998 Nov; 35(4):413–9
Active infection with Helicobacter pylori in healthy couples. Brenner H, et al. **Epidemiol Infect** 1999 Feb;122(1):91–5
Psychiatric morbidity in cohabitants of community-dwelling elderly depressives. Denihan A, et al. **Int J Geriatr Psychiatry** 1998 Oct;13(10):691–4

SPRAINS AND STRAINS

Sprained ankle syndrome: prevalence and analysis of 639 acute injuries. Fallat L, et al. **J Foot Ankle Surg** 1998 Jul–Aug;37(4):280–5

COMPLICATIONS

Excrescent lesion: a diagnosis of lateral talar exostosis in chronically symptomatic sprained ankles. Dixon DJ, et al. **Foot Ankle Int** 1999 May;20(5):331–6
Persistent disability associated with ankle sprains: a prospective examination of an athletic population. Gerber JP, et al. **Foot Ankle Int** 1998 Oct;19(10):653–60
Occult osseous injuries after ankle sprains: incidence, location, pattern, and age [see comments] Labovitz JM, et al. **Foot Ankle Int** 1998 Oct;19(10):661–7. Comment in: Foot Ankle Int 1999 Jun;20(6):399.
Occult osseous injuries after ankle sprains: incidence, location, pattern, and age [letter; comment] Smith RW, et al. **Foot Ankle Int** 1999 Jun;20(6):399. Comment on: Foot Ankle Int 1998 Oct;19(10):661–7.

DIAGNOSIS

Magnetic resonance imaging of the normal and injured lateral collateral ligaments of the ankle. Ahmad MA, et al. **Ann Chir Gynaecol** 1998;87(4):311–6
Osteoid osteoma of the lateral talar process presenting as a chronic sprained ankle. Monroe MT, et al. **Foot Ankle Int** 1999 Jul;20(7):461–3
Acute inversion injury of the ankle: magnetic resonance imaging and clinical outcomes. Tochigi Y, et al. **Foot Ankle Int** 1998 Nov;19(11):730–4
Axillary vein thrombosis mimicking muscular strain. Louis J. **J Accid Emerg Med** 1999 May;16(3):233–4
Magnetic resonance imaging of ankle ligament injuries correlated with time. Labovitz JM, et al. **J Am Podiatr Med Assoc** 1998 Aug;88(8):387–93
Dynamic axial carpal instability: a case report. Shin AY, et al. **J Hand Surg [Am]** 1999 Jul;24(4):781–5
MR imaging of the thrower's shoulder. Internal impingement, latissimus dorsi/subscapularis strains, and related injuries. Schickendantz MS, et al. **Magn Reson Imaging Clin N Am** 1999 Feb;7(1):39–49
Lateral ankle sprains: a comprehensive review: part 1: etiology, pathoanatomy, histopathogenesis, and diagnosis. Safran MR, et al. **Med Sci Sports Exerc** 1999 Jul;31(7 Suppl):S429–37 (86 ref.)

ETIOLOGY

Isokinetic strength testing does not predict hamstring injury in Australian Rules footballers. Bennell K, et al. **Br J Sports Med** 1998 Dec;32(4):309–14
Ankle sprains in players of the field-games Gaelic football and hurling. Watson AW. **J Sports Med Phys Fitness** 1999 Mar;39(1):66–70
Lateral ankle sprains: a comprehensive review: part 1: etiology, pathoanatomy, histopathogenesis, and diagnosis. Safran MR, et al. **Med Sci Sports Exerc** 1999 Jul;31(7 Suppl):S429–37 (86 ref.)
Strain on intervertebral discs after anterior cervical decompression and fusion. Matsunaga S, et al. **Spine** 1999 Apr 1;24(7):670–5

PATHOLOGY

MR imaging of myotendinous strain. Palmer WE, et al. **AJR Am J Roentgenol** 1999 Sep;173(3):703–9

PHYSIOPATHOLOGY

Ankle sprains and other soft tissue injuries. Liu SH, et al. **Curr Opin Rheumatol** 1999 Mar;11(2):132–7 (71 ref.)
A review of biomechanics of the central nervous system--part II: spinal cord strains from postural loads. Harrison DE, et al. **J Manipulative Physiol Ther** 1999 Jun; 22(5):322–32 (49 ref.)
Early influence of an ankle sprain on objective measures of ankle joint function. A prospective randomised study of ankle brace treatment. Leanderson J, et al. **Knee Surg Sports Traumatol Arthrosc** 1999;7(1):51–8
Is there a positional fault at the inferior tibiofibular joint in patients with acute or chronic ankle sprains compared to normals? Kavanagh J. **Man Ther** 1999 Feb;4(1):19–24

PREVENTION & CONTROL

[Can preventive measures reduce the incidence of ankle

sprains? Results of a Cochrane meta-analysis] Konradsen L.A. **Ugeskr Laeger** 1999 Feb 1;161(5):573-5 **(Dan)**

[Human tolerance of +Gx loads in anti-G suits during deorbiting of the "Soiuz" space vehicles] Kotovskaia AR, et al. **Aviakosm Ekolog Med** 1998;32(6):30-6 (Eng. Abstr.) **(Rus)**

RADIOGRAPHY

Patient-controlled stress radiography of the thumb. Folio LR. **Radiol Technol** 1999 May-Jun;70(5):465-9

Epiphyseal separation of the coracoid process without acromioclavicular dislocation. Holst AK, et al. **Skeletal Radiol** 1998 Aug;27(8):461-2

RADIONUCLIDE IMAGING

Uptake of Tc-99m MDP in shoulder muscle caused by the use of elbow crutches. Bern G, et al. **Clin Nucl Med** 1999 Sep;24(9):691-2

REHABILITATION

Muscle strain injury: diagnosis and treatment. Noonan TJ, et al. **J Am Acad Orthop Surg** 1999 Jul-Aug;7(4):262-9 (20 ref.)

Weight-bearing immobilization and early exercise treatment following a grade II lateral ankle sprain. Glasoe WM, et al. **J Orthop Sports Phys Ther** 1999 Jul;29(7):394-9

Strategy of exercise prescription using an unloading technique for functional rehabilitation of an athlete with an inversion ankle sprain. Kern-Steiner R, et al. **J Orthop Sports Phys Ther** 1999 May;29(5):282-7

The effect of supervised rehabilitation on strength, postural sway, position sense and re-injury risk after acute ankle ligament sprain. Holme E, et al. **Scand J Med Sci Sports** 1999 Apr;9(2):104-9

SURGERY

Ankle joint arthroscopy for meniscoid lesions in athletes. Lahm A, et al. **Arthroscopy** 1998 Sep;14(6):572-5

Severe hyperflexion sprains of the lower cervical spine in adults. Laporte C, et al. **Clin Orthop** 1999 Jun;(363):126-34

Long-term functional outcome after surgery of chronic ankle instability. A 5-year follow-up study of the modified Evans procedure. Kaikkonen A, et al. **Scand J Med Sci Sports** 1999 Aug;9(4):239-44

[Chronic lateral ankle instability: surgical treatment with periosteum ligamentoplasty and capsular ligament tension. 34 cases] Jarde O, et al. **Rev Chir Orthop Reparatrice Appar Mot** 1999 Mar; 85(1):51-7 (Eng. Abstr.) **(Fre)**

THERAPY

Effects of ankle sprain in a general clinic population 6 to 18 months after medical evaluation. Braun BL. **Arch Fam Med** 1999 Mar-Apr;8(2):143-8

Low-level laser therapy in ankle sprains: a randomized clinical trial. de Bie RA, et al. **Arch Phys Med Rehabil** 1998 Nov;79(11):1415-20

Ankle 'headache'. Baquie P. **Aust Fam Physician** 1998 Nov; 27(11):1052-3

Double bandaging of sprained ankles. Wilson S, et al. **BMJ** 1998 Dec 19-26;317(7174):1722-3 (14 ref.)

Randomized controlled study of ultrasound therapy in the management of acute lateral ligament sprains of the ankle joint. Nyanzi CS, et al. **Clin Rehabil** 1999 Feb;13(1):16-22

A comparison of the Sport Stirrup, Malleoloc, and Swede-O ankle orthoses for the foot-ankle kinematics of a rapid lateral movement. Simpson KJ, et al. **Int J Sports Med** 1999 Aug;20(6):396-402

Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. Mobilisation of lateral ligament ankle sprains. Higgins G. **J Accid Emerg Med** 1999 May;16(3):217-8

Managing ankle injuries in the emergency department. Birrer RB, et al. **J Emerg Med** 1999 Jul-Aug;17(4):651-60 (58 ref.)

Treatment of ankle sprains [editorial] Eriksson E. **Knee Surg Sports Traumatol Arthrosc** 1999;7(1):1

Lateral ankle sprains: a comprehensive review part 2: treatment and rehabilitation with an emphasis on the athlete. Safran MR, et al. **Med Sci Sports Exerc** 1999 Jul; 31(7 Suppl):S438-47 (145 ref.)

[Functional stabilization versus orthopedic immobility in grade-I-II (mild) ankle sprain] Hazañas Ruiz S, et al. **Aten Primaria** 1999 Apr 30;23(7):425-8 (Eng. Abstr.) **(Spa)**

SPREAD PLATE COUNT see **COLONY COUNT, MICROBIAL**

SPREADING CORTICAL DEPRESSION

Block of (Na+,K+)ATPase with ouabain induces spreading depression-like depolarization in hippocampal slices. Balestrino M, et al. **Brain Res** 1999 Aug 14;838(1-2):37-44

Neuroprotective electrical stimulation of cerebellar fastigial nucleus attenuates expression of periinfarction depolarizing waves (PIDs) and inhibits cortical spreading depression. Golanov EV, et al. **Brain Res** 1999 Feb 13;818(2):304-15

Cerebral blood flow changes in pseudomigraine with pleocytosis analyzed by single photon emission computed tomography. A spreading depression mechanism? Fuentes B, et al. **Cephalalgia** 1998 Oct;18(8):570-3; discussion 531

Spreading depression determines acute cellular damage in the hippocampal slice during oxygen/glucose deprivation. Obeidat AS, et al. **Eur J Neurosci** 1998 Nov;10(11):3451-61

Cortical NADH during pharmacological manipulations of the respiratory chain and spreading depression in vivo. Rex A, et al. **J Neurosci Res** 1999 Aug 1;57(3):359-70

DRUG EFFECTS

Hippocampal damage induced by carbon monoxide poisoning and spreading depression is alleviated by chronic treatment with brain derived polypeptides. Koroleva VI, et al. **Brain Res** 1999 Jan 23;816(2):618-27

Inhibition of major cationic inward currents prevents spreading depression-like hypoxic depolarization in rat hippocampal tissue slices. Müller M, et al. **Brain Res** 1998 Nov 23;812(1-2):1-13

Vasodilator agents and supracollicular transection fail to inhibit cortical spreading depression in the cat [see comments] Kaube H, et al. **Cephalalgia** 1999 Jul;19(6):592-7 . Comment in: Cephalalgia 1999 Jul;19(6):542.

Rapid efflux of lactate from cerebral cortex during K+-induced spreading cortical depression. Cruz NF, et al. **J Cereb Blood Flow Metab** 1999 Apr;19(4):380-92

Biphasic effects of melatonin on the propagation of excitation waves in the chicken retina. Ebert E, et al. **Neurosci Lett** 1999 Jun 11;268(1):37-40

PHYSIOLOGY

Perivascular nerves contribute to cortical spreading depression-associated hyperemia in rats. Reuter U, et al. **Am J Physiol** 1998 Jun;274(6 Pt 2): H1979-87

Amino acid release during spreading depression in a flow-compromised cortical area. Iijima T, et al. **Brain Res** 1999 Feb 13;818(2):553-5

Cortical spreading depression activates trophic factor expression in neurons and astrocytes and protects against subsequent focal brain ischemia. Matsushima K, et al. **Brain Res** 1998 Oct 5;807(1-2):47-60

Cortical spreading depression reduces paraventricular activation induced by hippocampal neostigmine injection. Monda M, et al. **Brain Res** 1999 Apr 3;824(1):119-24

Simultaneous investigation of the neuronal and vascular compartments in the guinea pig brain isolated in vitro. de Curtis M, et al. **Brain Res Brain Res Protoc** 1998 Nov; 3(2):221-8

Modeling of spreading cortical depression using a realistic head model. Wijesinghe RS, et al. **Brain Topogr** 1998 Fall; 11(1):3-12

Cortical spreading depression (CSD) and migraine [editorial; comment] Bowyer S. **Cephalalgia** 1999 Jul;19(6):542. Comment on: Cephalalgia 1999 Jul;19(6):592-7.

Cortical spreading depression increases protein synthesis and upregulates basic fibroblast growth factor. Kawahara N, et al. **Exp Neurol** 1999 Jul;158(1):27-36

Differential spatiotemporal alterations in adrenoceptor mRNAs and binding sites in cerebral cortex following spreading depression: selective and prolonged up-regulation of alpha1B-adrenoceptors. Shen PJ, et al. **Exp Neurol** 1998 Dec;154(2):612-27

Effect of cortical spreading depression on the levels of mRNA coding for putative neuroprotective proteins in rat brain. Karikó K, et al. **J Cereb Blood Flow Metab** 1998 Dec;18(12):1308-15

Similar propagation of SD and hypoxic SD-like depolarization in rat hippocampus recorded optically and electrically. Aitken PG, et al. **J Neurophysiol** 1998 Sep; 80(3):1514-21

Novel form of spreading acidification and depression in the cerebellar cortex demonstrated by neutral red optical imaging. Chen G, et al. **J Neurophysiol** 1999 Apr; 81(4):1992-8

Endogenous pH shifts facilitate spreading depression by effect on NMDA receptors. Tong CK, et al. **J Neurophysiol** 1999 Apr;81(4):1988-91

Glutamate release through volume-activated channels during spreading depression. Basarsky TA, et al. **J Neurosci** 1999 Aug 1;19(15):6439-45

Attenuated neurotransmitter release and spreading depression-like depolarizations after focal ischemia in mutant mice with disrupted type I nitric oxide synthase gene. Shimizu-Sasamata M, et al. **J Neurosci** 1998 Nov 15;18(22):9564-71

Nitric oxide does not mediate cerebral blood flow changes during cortical spreading depression in the anaesthetised rat. Read SJ, et al. **Neurosci Lett** 1998 Jul 3;250(2):115-8

Relationships between glutamate release, blood flow and spreading depression: real-time monitoring using an electroenzymatic dialysis electrode. Iijima T, et al. **Neurosci Res** 1998 Nov;32(3):201-7

Cortically-induced coherence of a thalamic-generated oscillation. Destexhe A, et al. **Neuroscience** 1999; 92(2):427-43

Expression of c-fos, junB, c-jun, MKP-1 and hsp72 following traumatic neocortical lesions in rats--relation to spreading depression. Hermann DM, et al. **Neuroscience** 1999 Jan;88(2):599-608

Cortical spreading depression reversibly disrupts convulsive motor seizure expression in amygdala-kindled rats. Kelly ME, et al. **Neuroscience** 1999;91(1):305-13

Spreading depression induces expression of calcium-independent protein kinase C subspecies in ischaemia-sensitive cortical layers: regulation by N-methyl-D-aspartate receptors and glucocorticoids. Koponen S, et al. **Neuroscience** 1999;93(3):985-93

Spreading depression-induced gene expression is regulated by plasma glucose. Koistinaho J, et al. **Stroke** 1999 Jan; 30(1):114-9

[Effect of spreading cortical depression on the activity of sensory neurons from the trigeminal complex] Ivanov VE, et al. **Biull Eksp Biol Med** 1998 Dec;126(12):640-2 **(Rus)**

[The persistent negative potential provoked in different structures of the rat brain by a single wave of spreading cortical depression] Koroleva VI, et al. **Zh Vyssh Nerv Deiat Im I P Pavlova** 1998 Jul-Aug; 48(4):654-63 (Eng. Abstr.) **(Rus)**

SPRUE see **CELIAC DISEASE**

SPRUE, TROPICAL

DIAGNOSIS

[Tropical sprue as the cause of chronic diarrhea after travel to Southeast Asia] Kirchgatterer A, et al. **Z Gastroenterol** 1998 Oct;36(10):897-900 (Eng. Abstr.) **(Ger)**

SPUMAVIRINAE see **SPUMAVIRUS**

SPUMAVIRUS

Epidemiology of feline foamy virus and feline immunodeficiency virus infections in domestic and feral cats: a seroepidemiological study. Winkler IG, et al. **J Clin Microbiol** 1999 Sep;37(9):2848-51

Properties of human foamy virus relevant to its development as a vector for gene therapy. Hill CL, et al. **J Gen Virol** 1999 Aug;80 (Pt 8):2003-9

Packaging cell lines for simian foamy virus type 1 vectors. Wu M, et al. **J Virol** 1999 May;73(5):4498-501

ENZYMOLOGY

Comparison of enzymatic activities of the HIV-1 and HFV integrases to their U5 LTR substrates. Oh YT, et al. **Biochem Mol Biol Int** 1999 Apr;47(4):621-9

GENETICS

Helper-free foamy virus vectors. Trobridge GD, et al. **Hum Gene Ther** 1998 Nov 20;9(17):2517-25

Comparative sequence analysis and predictions for the envelope glycoproteins of foamy viruses. Wang G, et al. **J Gen Virol** 1999 Jan;80 (Pt 1):245-54

Evidence that the human foamy virus genome is DNA. Yu SF, et al. **J Virol** 1999 Feb;73(2):1565-72

Detection of bovine retrospumavirus by the polymerase chain reaction. Pamba R, et al. **J Virol Methods** 1999 Mar; 78(1-2):199-208

Study of human foamy virus proviral integration in chronically infected murine cells. Neves M, et al. **Res Virol** 1998 Nov-Dec;149(6):393-401

[The retroviral spumaviruses: new data in retrovirology] Saib A. **Bull Acad Natl Med** 1999;183(3):559-68 (13 ref.) (Eng. Abstr.) **(Fre)**

GROWTH & DEVELOPMENT

An endoplasmic reticulum retrieval signal partitions human foamy virus maturation to intracytoplasmic membranes. Goepfert PA, et al. **J Virol** 1999 Sep;73(9):7210-7

IMMUNOLOGY

Gamma interferon is a major suppressive factor produced by activated human peripheral blood lymphocytes that is able to inhibit foamy virus-induced cytopathic effects. Falcone V, et al. **J Virol** 1999 Feb;73(2):1724-8

ISOLATION & PURIFICATION

Sensitive assays for isolation and detection of simian foamy retroviruses. Khan AS, et al. **J Clin Microbiol** 1999 Aug; 37(8):2678-86

Seroepidemiological survey of feline retrovirus infections in domestic and leopard cats in northern Vietnam in 1997. Miyazawa T, et al. **J Vet Med Sci** 1998 Nov;60(11):1273-5

Detection of bovine retrospumavirus by the polymerase chain reaction. Pamba R, et al. **J Virol Methods** 1999 Mar; 78(1-2):199-208

METABOLISM

Molecular characterization of proteolytic processing of the Gag proteins of human spumavirus. Pfrepper KI, et al. **J Virol** 1999 Sep;73(9):7907-11

Nuclear localization of the functional Bel 1 transactivator but not of the gag proteins of the feline foamy virus. Bodem J, et al. **Virology** 1998 Nov 10;251(1):22-7

Specific binding of recombinant foamy virus envelope protein to host cells correlates with susceptibility to infection. Herchenröder O, et al. **Virology** 1999 Mar 15;255(2):228-36

PHYSIOLOGY

Identification of an exogenous retrovirus (foamy virus type 1) in rhesus monkey kidney cell culture: significance to viral diagnostics [letter] Lipson SM, et al. **J Clin Virol** 1998 Aug 20;11(2):149–53

An active foamy virus integrase is required for virus replication. Enssle J, et al. **J Gen Virol** 1999 Jun;80 (Pt 6):1445–52

Replication of a foamy virus mutant with a constitutively active U3 promoter and deleted accessory genes. Schenk T, et al. **J Gen Virol** 1999 Jul;80 (Pt 7):1591–8

Proteolytic activity, the carboxy terminus of Gag, and the primer binding site are not required for Pol incorporation into foamy virus particles. Baldwin DN, et al. **J Virol** 1999 Aug;73(8):6387–93

Foamy viruses are unconventional retroviruses. Linial ML. **J Virol** 1999 Mar;73(3):1747–55 (93 ref.)

Foamy virus capsids require the cognate envelope protein for particle export. Pietschmann T, et al. **J Virol** 1999 Apr; 73(4):2613–21

Cells expressing the human foamy virus (HFV) accessory Bet protein are resistant to productive HFV superinfection. Bock M, et al. **Virology** 1998 Oct 10;250(1):194–204

Sites of simian foamy virus persistence in naturally infected African green monkeys: latent provirus is ubiquitous, whereas viral replication is restricted to the oral mucosa. Falcone V, et al. **Virology** 1999 Apr 25;257(1):7–14

ULTRASTRUCTURE

Endogenous virus of BHK–21 cells complicates electron microscopy studies of foamy virus maturation [letter] Wang G, et al. **J Virol** 1999 Oct;73(10):8917

SPURGE see **EUPHORBIACEAE**

SPUTUM

see related

DRAINAGE, POSTURAL

Recombinant human Monocyte/Neutrophil elastase inhibitor protects rat lungs against injury from cystic fibrosis airway secretions. Rees DD, et al. **Am J Respir Cell Mol Biol** 1999 Jan;20(1):69–78

Lung function and sputum characteristics of patients with severe asthma during an induced exacerbation by double-blind steroid withdrawal. in't Veen JC, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):93–9

Valid information from sputum: don't throw out the baby with the bath water [editorial; comment] Chodosh S. **Chest** 1999 Jul;116(1):6–8. Comment on: Chest 1999 Jul;116(1):195–200.

Salbutamol pretreatment does not change eosinophil percentage and eosinophilic cationic protein concentration in hypertonic saline–induced sputum in asthmatic subjects. Cianchetti S, et al. **Clin Exp Allergy** 1999 May;29(5):712–8

A safe, simple, standardized method should be used for sputum induction for research purposes [editorial; comment] Fahy JV. **Clin Exp Allergy** 1998 Sep; 28(9):1047–9 (18 ref.). Comment on: Clin Exp Allergy 1998 Sep;28(9):1081–8.

Melanoptysis as a complication of fibreoptic bronchoscopy. Mena MJ, et al. **Eur Respir J** 1998 Oct;12(4):993–5

Postbronchoscopy expectoration of tumour tissue in lung cancer. Dixit R, et al. **Indian J Chest Dis Allied Sci** 1999 Apr–Jun;41(2):105–9

Molecular detection of early lung cancer [editorial; comment] Gazdar AF, et al. **J Natl Cancer Inst** 1999 Feb 17; 91(4):299–301. Comment on: J Natl Cancer Inst 1999 Feb 17;91(4):332–9.

Colour of respiratory discharge and antibiotic use [letter] Mainous AG 3rd, et al. **Lancet** 1997 Oct 11;350(9084):1077

Effects of sputum oscillations and rhDNase in vitro: a combined approach to treat cystic fibrosis lung disease. Dasgupta B, et al. **Pediatr Pulmonol** 1998 Oct;26(4):250–5

Methacholine challenge and sputum induction [letter] Labiris NR, et al. **Thorax** 1999 Aug;54(8):751–2

CHEMISTRY

Occupational asthma in a grain worker due to Lepidoglyphus destructor, assessed by bronchial provocation test and induced sputum. Alvarez MJ, et al. **Allergy** 1999 Aug; 54(8):884–9

Sputum metalloproteinase–9/tissue inhibitor of metalloproteinase–1 ratio correlates with airflow obstruction in asthma and chronic bronchitis. Vignola AM, et al. **Am J Respir Crit Care Med** 1998 Dec;158(6):1945–50

Relationship between induced sputum cell counts and fluid–phase eosinophil cationic protein and clinical or physiologic profiles in mild asthma. Gutiérrez V, et al. **Ann Allergy Asthma Immunol** 1999 Jun;82(6):559–65

Detection of p53 protein accumulation in sputum and lung adenocarcinoma associated with indoor exposure to unvented coal smoke in China. Mumford JL, et al. **Anticancer Res** 1999 Mar–Apr;19(2A):951–8

Carbon and hemosiderin–laden macrophages in sputum of traffic policeman exposed to air pollution. Giovagnoli MR, et al. **Arch Environ Health** 1999 Jul–Aug;54(4):284–90

Comparison between eosinophilic markers in induced sputum and blood in asthmatic patients. Bacci E, et al. **Clin Exp Allergy** 1998 Oct;28(10):1237–43

Induced sputum eosinophil cationic protein (ECP) measurement in asthma and chronic obstructive airway disease (COAD) [see comments] Gibson PG, et al. **Clin Exp Allergy** 1998 Sep;28(9):1081–8. Comment in: Clin Exp Allergy 1998 Sep;28(9):1047–9.

Curschmann's spirals in sputum of subjects exposed daily to urban environmental pollution. Cenci M, et al. **Diagn Cytopathol** 1998 Nov;19(5):349–51

Cholelithoptysis: an unusual complication following laparoscopic cholecystectomy. Chan SY, et al. **Dig Surg** 1998;15(6):707–8

Sputum endothelin–1 is increased in cystic fibrosis and chronic obstructive pulmonary disease. Chalmers GW, et al. **Eur Respir J** 1999 Jun;13(6):1288–92

Diagnosing occupational asthma: use of induced sputum [see comments] Lemière C, et al. **Eur Respir J** 1999 Mar; 13(3):482–8. Comment in: Eur Respir J 1999 Mar;13(3):477–8.

The effect of processing on inflammatory markers in induced sputum. Louis R, et al. **Eur Respir J** 1999 Mar;13(3):660–7

Mucus transportability: the bovine trachea and frog palate models compared. Wills PJ, et al. **Eur Respir J** 1998 Oct; 12(4):837–41

Different O–glycosylation of respiratory mucin glycopeptides from a patient with cystic fibrosis. Thomsson KA, et al. **Glycoconj J** 1998 Aug;15(8):823–33

Fractional analysis of sequential induced sputum samples during sputum induction: evidence that different lung compartments are sampled at different time points. Gershman NH, et al. **J Allergy Clin Immunol** 1999 Aug; 104(2 Pt 1):322–8

Sputum analysis, bronchial hyperresponsiveness, and airway function in asthma: results of a factor analysis. Rosi E, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):232–7

Inhaled IL–5 increases concentrations of soluble intracellular adhesion molecule–1 in sputum from atopic asthmatic subjects. Shi HZ, et al. **J Allergy Clin Immunol** 1999 Mar; 103(3 Pt 1):463–7

Does eosinophil cationic protein in sputum and blood reflect bronchial inflammation and obstruction in allergic asthmatics? Grebski E, et al. **J Investig Allergol Clin Immunol** 1999 Mar–Apr;9(2):82–8

Detection of pneumolysin in sputum. Wheeler J, et al. **J Med Microbiol** 1999 Sep;48(9):863–6

Interleukin 8 in the tracheobronchial aspirate of infants acts as a neutrophil chemotactic factor in the development of chronic lung disease. Takasaki J, et al. **Pediatr Int** 1999 Feb;41(1):78–81

CYTOLOGY

Efficacy of two sputum collection techniques in patients with air flow obstruction. Kennedy TC, et al. **Acta Cytol** 1999 Jul–Aug;43(4):630–6

Occupational asthma in a grain worker due to Lepidoglyphus destructor, assessed by bronchial provocation test and induced sputum. Alvarez MJ, et al. **Allergy** 1999 Aug; 54(8):884–9

Suppressive activity of bronchial macrophages recovered by induced sputum. Fireman E, et al. **Allergy** 1999 Feb; 54(2):111–8

Increases in eotaxin–positive cells in induced sputum from atopic asthmatic subjects after inhalational allergen challenge. Zeibecoglou K, et al. **Allergy** 1999 Jul; 54(7):730–5

Sputum eosinophilia predicts benefit from prednisone in smokers with chronic obstructive bronchitis. Pizzichini E, et al. **Am J Respir Crit Care Med** 1998 Nov;158(5 Pt 1):1511–7

Impaired perception of dyspnea in patients with severe asthma. Relation to sputum eosinophils. Veen JC, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1134–41

Relationship between induced sputum cell counts and fluid–phase eosinophil cationic protein and clinical or physiologic profiles in mild asthma. Gutiérrez V, et al. **Ann Allergy Asthma Immunol** 1999 Jun;82(6):559–65

Analysis of induced sputum to examine the effects of inhaled corticosteroid on airway inflammation in children with asthma. Oh JW, et al. **Ann Allergy Asthma Immunol** 1999 May;82(5):491–6

Carbon and hemosiderin–laden macrophages in sputum of traffic policeman exposed to air pollution. Giovagnoli MR, et al. **Arch Environ Health** 1999 Jul–Aug;54(4):284–90

How to measure airway inflammation: induced sputum. Gibson PG. **Can Respir J** 1998 Jul–Aug;5 Suppl A:22A–6A (28 ref.)

Induced sputum for the investigation of airway inflammation: evidence for its clinical application. Hargreave FE. **Can Respir J** 1999 Mar–Apr;6(2):169–74 (56 ref.)

Nonasthmatic chronic cough: No effect of treatment with an inhaled corticosteroid in patients without sputum eosinophilia. Pizzichini MM, et al. **Can Respir J** 1999 Jul–Aug;6(4):323–30

Induced sputum in patients with newly diagnosed sarcoidosis: comparison with bronchial wash and BAL. D'Ippolito R, et al. **Chest** 1999 Jun;115(6):1611–5

Assessment of hazardous dust exposure by BAL and induced sputum. Fireman E, et al. **Chest** 1999 Jun;115(6):1720–8

Comparison between eosinophilic markers in induced sputum and blood in asthmatic patients. Bacci E, et al. **Clin Exp Allergy** 1998 Oct;28(10):1237–43

Between–observer repeatability of sputum differential cell counts. Influence of cell viability and squamous cell contamination. Ward R, et al. **Clin Exp Allergy** 1999 Feb; 29(2):248–52

Induced sputum in adolescents with severe stable asthma. Safety and the relationship of cell counts and eosinophil cationic protein to clinical severity. Grootendorst DC, et al. **Eur Respir J** 1999 Mar;13(3):647–53

Diagnosing occupational asthma: use of induced sputum [see comments] Lemière C, et al. **Eur Respir J** 1999 Mar; 13(3):482–8. Comment in: Eur Respir J 1999 Mar;13(3):477–8.

Leukocyte counts and macrophage phenotypes in induced sputum and bronchoalveolar lavage fluid from normal subjects. Lensmar C, et al. **Eur Respir J** 1998 Sep; 12(3):595–600

The effect of processing on inflammatory markers in induced sputum. Louis R, et al. **Eur Respir J** 1999 Mar;13(3):660–7

NO in exhaled air is correlated with markers of eosinophilic airway inflammation in corticosteroid–dependent childhood asthma. Mattes J, et al. **Eur Respir J** 1999 Jun; 13(6):1391–5

Sputum eosinophils and exhaled nitric oxide during late asthmatic reaction in patients with western red cedar asthma [see comments] Obata H, et al. **Eur Respir J** 1999 Mar;13(3):489–95. Comment in: Eur Respir J 1999 Mar;13(3):477–8.

The cellular composition of induced sputum in chronic obstructive pulmonary disease. Peleman RA, et al. **Eur Respir J** 1999 Apr;13(4):839–43

Exhaled nitric oxide and sputum eosinophil markers of inflammation in asthmatic children. Piacentini GL, et al. **Eur Respir J** 1999 Jun;13(6):1386–90

Sputum eosinophilia is more closely associated with airway responsiveness to bradykinin than methacholine in asthma. Polosa R, et al. **Eur Respir J** 1998 Sep;12(3):551–6

The effect of theophylline on blood and sputum eosinophils and ECP in patients with bronchial asthma. Tohda Y, et al. **Int J Immunopharmacol** 1998 Apr–May;20(4–5):173–81

The effect of methacholine challenge on the cellular composition of induced sputum. Gershman NH, et al. **J Allergy Clin Immunol** 1999 May;103(5 Pt 1):957–9

Fractional analysis of sequential induced sputum samples during sputum induction: evidence that different lung compartments are sampled at different time points. Gershman NH, et al. **J Allergy Clin Immunol** 1999 Aug; 104(2 Pt 1):322–8

Use of induced sputum to examine airway inflammation in childhood asthma. Gibson PG. **J Allergy Clin Immunol** 1998 Nov;102(5):S100–1 (14 ref.)

Induced sputum and response to glucocorticoids. Hargreave FE. **J Allergy Clin Immunol** 1998 Nov;102(5):S102–5 (36 ref.)

Sputum eosinophil count to assess compliance with corticosteroid therapy in asthma. Parameswaran K, et al. **J Allergy Clin Immunol** 1999 Aug;104(2 Pt 1):502–3

Sputum induction as a method of analyzing pulmonary cells: reproducibility and acceptability. Thomas PS, et al. **J Asthma** 1999 Jun;36(4):335–41

Analysis of induced sputum: a new approach to the study of airway inflammation in asthma. Alvarez Puebla MJ, et al. **J Investig Allergol Clin Immunol** 1999 Mar–Apr; 9(2):73–81 (81 ref.)

Respiratory tract inflammation in swine confinement workers studied using induced sputum and exhaled nitric oxide. Von Essen SG, et al. **J Toxicol Clin Toxicol** 1998;36(6):557–65

Benefits of induced sputum for the evaluation of therapeutic efficacy in patients with bronchial asthma. Ohnishi H, et al. **Kobe J Med Sci** 1998 Aug;44(4):149–61

Diagnosis of left–ventricular dysfunction from induced sputum examination [letter] Leigh R, et al. **Lancet** 1999 Sep 4;354(9181):833–4

The safety and success rate of sputum induction using a low output ultrasonic nebuliser. Hunter CJ, et al. **Respir Med** 1999 May;93(5):345–8

Eosinophilic inflammation assessed by induced sputum in corticosteroid–dependent asthma. Tarodo de la Fuente P, et al. **Respir Med** 1999 Mar;93(3):183–9

Comparison of spontaneous and induced sputum for investigation of airway inflammation in chronic obstructive pulmonary disease. Bhowmik A, et al. **Thorax** 1998 Nov; 53(11):953–6

Inhaled corticosteroids in COPD [letter; comment] Brightling CE, et al. **Thorax** 1999 Feb;54(2):186–7. Comment on: Thorax 1998 Jul;53(7):583–5.

Inhaled corticosteroids in COPD [letter; comment] Hart S. **Thorax** 1999 Feb;54(2):186. Comment on: Thorax 1998 Jul;53(7):583–5.

Objective quantitative analysis of eosinophils and bronchial epithelial cells in induced sputum by laser scanning cytometry. Woltmann G, et al. **Thorax** 1999 Feb; 54(2):124–30

[The effect of sex factors on cytologic changes in the sputum of young adults exposed to urban air pollution] Djuričić S, et al. **Srp Arh Celok Lek** 1999 Jan–Feb;127(1–2):16–20 (Eng. Abstr.) **(Sec)**

DRUG EFFECTS

An in vitro comparison of the mucoactive properties of guaifenesin, iodinated glycerol, surfactant, and albuterol [see comments] Rubin BK. **Chest** 1999 Jul;116(1):195–200 . Comment in: Chest 1999 Jul;116(1):6–8.

The effect of montelukast (MK–0476), a cysteinyl leukotriene receptor antagonist, on allergen–induced airway responses and sputum cell counts in asthma [see comments] Diamant

Z, et al. **Clin Exp Allergy** 1999 Jan;29(1):42–51. Comment in: Clin Exp Allergy 1999 Jan;29(1):1–3.

Airway inflammation after treatment with aerosolized deoxyribonuclease in cystic fibrosis. Henry RL, et al. **Pediatr Pulmonol** 1998 Aug;26(2):97–100

Effect of methacholine challenge on cellular composition of sputum induction. Spanevello A, et al. **Thorax** 1999 Jan; 54(1):37–9

ENZYMOLOGY

Proteinase 3, a potent secretagogue in airways, is present in cystic fibrosis sputum. Witko-Sarsat V, et al. **Am J Respir Cell Mol Biol** 1999 Apr;20(4):729–36

Fibrinogenolytic activity of a novel trypsin-like enzyme found in human airway. Yoshinaga S, et al. **J Med Invest** 1998 Aug;45(1–4):77–86

Markers of nitric oxide metabolism in sputum and exhaled air are not increased in chronic obstructive pulmonary disease [see comments] Rutgers SR, et al. **Thorax** 1999 Jul; 54(7):576–80. Comment in: Thorax 1999 Jul;54(7):565–7.

IMMUNOLOGY

Asthma and natural colds. Inflammatory indices in induced sputum: a feasibility study. Pizzichini MM, et al. **Am J Respir Crit Care Med** 1998 Oct;158(4):1178–84

Elevation of specific immunoglobulin A antibodies to both allergen and bacterial antigen in induced sputum from asthmatics [see comments] Nahm DH, et al. **Eur Respir J** 1998 Sep;12(3):540–5. Comment in: Eur Respir J 1998 Sep;12(3):517–8.

The significance of sputum ECP levels in differential diagnosis of asthma in children. Yazicioğlu M, et al. **J Asthma** 1999 Sep;36(6):493–502

Interleukin 8 in the tracheobronchial aspirate of infants acts as a neutrophil chemotactic factor in the development of chronic lung disease. Takasaki J, et al. **Pediatr Int** 1999 Feb;41(1):78–81

Inhaled corticosteroids reduce neutrophilic bronchial inflammation in patients with chronic obstructive pulmonary disease [see comments] Confalonieri M, et al. **Thorax** 1998 Jul;53(7):583–5. Comment in: Thorax 1999 Feb;54(2):186. Comment in: Thorax 1999 Feb;54(2):186–7.

Effect of a single dose of salmeterol on the increase in airway eosinophils induced by allergen challenge in asthmatic subjects. Dente FL, et al. **Thorax** 1999 Jul;54(7):622–4

Effect of inhaled endotoxin on induced sputum in normal, atopic, and atopic asthmatic subjects. Nightingale JA, et al. **Thorax** 1998 Jul;53(7):563–71

METABOLISM

Total sputum nitrate plus nitrite is raised during acute pulmonary infection in cystic fibrosis [letter; comment] Grasemann H. **Am J Respir Crit Care Med** 1999 Feb; 159(2):684–5. Comment on: Am J Respir Crit Care Med 1998 Jul;158(1):207–12.

IL-4 and IL-5 mRNA expression in induced sputum of asthmatic subjects: comparison with bronchial wash. Olivenstein R, et al. **J Allergy Clin Immunol** 1999 Feb;103(2 Pt 1):238–45

Increased neutrophils and cytokines, TNF-alpha and IL-8, in induced sputum of non-asthmatic patients with chronic dry cough. Jatakanon A, et al. **Thorax** 1999 Mar;54(3):234–7

Inflammatory response after inhalation of bacterial endotoxin assessed by the induced sputum technique. Thorn J, et al. **Thorax** 1998 Dec;53(12):1047–52

[Significance of detection of inflammatory samples in the sputum of patients with asthma (editorial)] Sun B, et al. **Chung Hua Nei Ko Tsa Chih** 1997 Dec;36(12):797–8 **(Chi)**

MICROBIOLOGY

Measurement of sputum Mycobacterium tuberculosis messenger RNA as a surrogate for response to chemotherapy. Desjardin LE, et al. **Am J Respir Crit Care Med** 1999 Jul;160(1):203–10

Value of the polymerase chain reaction assay in noninvasive respiratory samples for diagnosis of community-acquired pneumonia. Menéndez R, et al. **Am J Respir Crit Care Med** 1999 Jun;159(6):1868–73

Acute bronchopulmonary infection due to Streptococcus milleri in a child with cystic fibrosis. Cade A, et al. **Arch Dis Child** 1999 Mar;80(3):278–9

Predictors of sputum culture conversion among patients with tuberculosis in the era of tuberculosis resurgence. Liu Z, et al. **Arch Intern Med** 1999 May 24;159(10):1110–6

Are antipseudomonal antibiotics really beneficial in acute respiratory exacerbations of cystic fibrosis? [see comments] Wolter JM, et al. **Aust N Z J Med** 1999 Feb;29(1):15–21. Comment in: Aust N Z J Med 1999 Feb;29(1):5–7.

The effect of Pseudomonas aeruginosa infection on clinical parameters in steady-state bronchiectasis. Ho PL, et al. **Chest** 1998 Dec;114(6):1594–8

Pneumocystis carinii: forgotten but not gone? [editorial; comment] Metersky M. **Chest** 1998 Nov;114(5):1232–3. Comment on: Chest 1998 Nov;114(5):1264–8.

Relationship between bacterial flora in sputum and functional impairment in patients with acute exacerbations of COPD. Study Group of Bacterial Infection in COPD. Miravitlles M, et al. **Chest** 1999 Jul;116(1):40–6

The significance of the persistent presence of acid-fast bacilli in sputum smears in pulmonary tuberculosis. Al-Moamary MS, et al. **Chest** 1999 Sep;116(3):726–31

Clearance of Pneumocystis carinii cysts in acute P carinii pneumonia: assessment by serial sputum induction [see comments] O'Donnell WJ, et al. **Chest** 1998 Nov; 114(5):1264–8. Comment in: Chest 1998 Nov;114(5):1232–5.

Construct and longitudinal validity of a modified Huang clinical scoring system in adult cystic fibrosis patients. Matouk E, et al. **Eur Respir J** 1999 Mar;13(3):552–9

Multiplex PCR assay for the detection of mycobacterial DNA sequences directly from sputum. Ikonomopoulos JA, et al. **In Vivo** 1998 Sep-Oct;12(5):547–52

Drug resistance to the first line of antitubercular regimen (a preliminary report). Varaiya A, et al. **Indian J Public Health** 1998 Oct-Dec;42(4):126–30

District sputum smear microscopy services in Malawi. Harries AD, et al. **Int J Tuberc Lung Dis** 1998 Nov; 2(11):914–8

Leap-frogging technology into the next century: better diagnostic tests for TB [editorial; comment] Iseman MD. **Int J Tuberc Lung Dis** 1998 Oct;2(10):777. Comment on: Int J Tuberc Lung Dis 1998 Oct;2(10):778–83.

Spot sputum screening: evaluation of an intervention in two homeless shelters. Kimerling ME, et al. **Int J Tuberc Lung Dis** 1999 Jul;3(7):613–9

Prevalence of sputum-positive pulmonary tuberculosis in tribal and non-tribal populations of the Ashti and Karanja tahsils in Wardha district, Maharashtra State, India. Narang P, et al. **Int J Tuberc Lung Dis** 1999 Jun;3(6):478–82

The importance of quality control of sputum smear microscopy: the effect of reading errors on treatment decisions and outcomes. Nguyen TN, et al. **Int J Tuberc Lung Dis** 1999 Jun;3(6):483–7

Quality control of smear microscopy for acid-fast bacilli: the case for blinded re-reading. Nguyen TN, et al. **Int J Tuberc Lung Dis** 1999 Jan;3(1):55–61

Registration and treatment of patients with smear-positive pulmonary tuberculosis [letter] Nyirenda T, et al. **Int J Tuberc Lung Dis** 1998 Nov;2(11):944–5

Direct detection and identification of Mycobacterium tuberculosis in smear-positive sputum samples by fluorescence in situ hybridization (FISH) using peptide nucleic acid (PNA) probes. Stender H, et al. **Int J Tuberc Lung Dis** 1999 Sep;3(9):830–7

Reproducibility of sputum smear examination for acid-fast bacilli: practical problems met during cross-checking. Van Deun A, et al. **Int J Tuberc Lung Dis** 1999 Sep;3(9):823–9

Limitations and requirements for quality control of sputum smear microscopy for acid-fast bacilli. Van Deun A, et al. **Int J Tuberc Lung Dis** 1998 Sep;2(9):756–65

Sputum microscopy at 2 and 3 months [letter; comment] Wilkinson D. **Int J Tuberc Lung Dis** 1998 Oct;2(10):862–3. Comment on: Int J Tuberc Lung Dis 1997 Dec;1(6):570–2.

Coisolation of Streptococcus pneumoniae and Hameophilus influenzae from middle ear fluid and sputum: effect on MIC results [letter] Elliott JA, et al. **J Clin Microbiol** 1999 Jan; 37(1):277

Detection of viable Mycobacterium tuberculosis by reverse transcriptase-strand displacement amplification of mRNA. Hellyer TJ, et al. **J Clin Microbiol** 1999 Mar;37(3):518–23

Evaluation of three commercial detection systems for Mycobacterium tuberculosis where clinical diagnosis is difficult. Brown TJ, et al. **J Clin Pathol** 1999 Mar; 52(3):193–7

Isolation of Burkholderia cepacia by enrichment. Flanagan PG, et al. **J Clin Pathol** 1998 Jul;51(7):557–8

Multiplex polymerase chain reaction for the simultaneous detection of Mycoplasma pneumoniae, Chlamydia pneumoniae, and Chlamydia psittaci in respiratory samples. Tong CY, et al. **J Clin Pathol** 1999 Apr;52(4):257–63

Effect of chronic intermittent administration of inhaled tobramycin on respiratory microbial flora in patients with cystic fibrosis. Burns JL, et al. **J Infect Dis** 1999 May; 179(5):1190–6

Simultaneous respiratory tract colonization by multiple strains of nontypeable haemophilus influenzae in chronic obstructive pulmonary disease: implications for antibiotic therapy. Murphy TF, et al. **J Infect Dis** 1999 Aug; 180(2):404–9

Induction of the antigen 85 complex of Mycobacterium tuberculosis in sputum: a determinant of outcome in pulmonary tuberculosis treatment. Wallis RS, et al. **J Infect Dis** 1998 Oct;178(4):1115–21

Isolation of pathogenic bacteria from induced sputum from hospitalized children with pneumonia in Bangladesh. Utsunomiya Y, et al. **J Trop Pediatr** 1998 Dec;44(6):338–42

Detection of Mycobacterium tuberculosis in nasopharyngeal aspirate samples in children [letter] Franchi LM, et al. **Lancet** 1998 Nov 21;352(9141):1681–2

Culture-independent prediction of isoniazid resistance in Mycobacterium tuberculosis by katG gene analysis directly from sputum samples. Rinder H, et al. **Mol Diagn** 1999 Jun;4(2):145–52

Value of assessing cryptococcal antigen in bronchoalveolar lavage and sputum specimens from patients with AIDS. Bottone EJ, et al. **Mt Sinai J Med** 1998 Oct-Nov; 65(5-6):422–5

An Australian isolate of Mycobacterium shimoidei. Goudge RJ, et al. **Pathology** 1998 Nov;30(4):399–401

Comparison of cytochemical staining, immunofluorescence and PCR for diagnosis of pneumocystis carinii on sputum samples. Tuncer S, et al. **Scand J Infect Dis** 1998; 30(2):125–8

Bacterial pathogens (non-Mycobacterium) from sputum culture and antimicrobial susceptibility. Srifuengfung S, et al. **Southeast Asian J Trop Med Public Health** 1998 Mar; 29(1):96–9

Aspergillus fumigatus in sputum during acute EBV infection [letter; comment] Schmid ML, et al. **Thorax** 1999 Jul; 54(7):658. Comment on: Thorax 1998 Nov;53(11):975–8.

Value of sputum concentration in the diagnosis of pulmonary tuberculosis [letter] Bhat KG. **Trans R Soc Trop Med Hyg** 1999 Jan-Feb;93(1):107–8

Evaluation of ligase chain reaction for direct detection of Mycobacterium tuberculosis in respiratory specimens. Denis O, et al. **Zentralbl Bakteriol** 1998 Jul;288(1):59–65

[Surgical treatment in pulmonary tuberculosis with sputum long-term Mycobacterium tuberculosis positive] Qin M, et al. **Chung Hua Chieh Ho Ho Hu Hsi Tsa Chih** 1997 Oct;20(5):311–2 (Eng. Abstr.) **(Chi)**

[Isolation of methicilline-resistant Staphylococcus aureus (MRSA) from sputum in outpatients] Okimoto N, et al. **Kansenshogaku Zasshi** 1998 Oct;72(10):1084–5 **(Jpn)**

[Diagnosis of pulmonary tuberculosis by the amplicor test for Mycobacterium tuberculosis in induced sputum] Kawada H, et al. **Nihon Kokyuki Gakkai Zasshi** 1998 Nov; 36(11):959–62 (Eng. Abstr.) **(Jpn)**

[Organization of care for tuberculosis children who had contact with maternal hospital worker suffering from bacillar tuberculosis] Guseva EM, et al. **Probl Tuberk** 1998; (5):6–8 (Eng. Abstr.) **(Rus)**

[Antimycobacterial antigens in lung secretion] Lazovskaia AL, et al. **Probl Tuberk** 1999;(1):61–2 (Eng. Abstr.) **(Rus)**

[Demand of microbiological diagnosis by pediatricians from the Salamanca area] Mirón Canelo JA, et al. **An Esp Pediatr** 1999 May;50(5):463–6 (Eng. Abstr.) **(Spa)**

[Usefulness of a gene amplification technique (LCx MTB) in the diagnosis of tuberculosis: preliminary results with different sputum samples] Hernández Gracia MC, et al. **Arch Bronconeumol** 1999 Feb;35(2):79–83 (Eng. Abstr.) **(Spa)**

PARASITOLOGY

Diagnosis of Wuchereria bancrofti infection by the polymerase chain reaction employing patients' sputum. Abbasi I, et al. **Parasitol Res** 1999 Oct;85(10):844–9

PHYSIOLOGY

Neutrophil elastase and elastase-rich cystic fibrosis sputum degranulate human eosinophils in vitro. Liu H, et al. **Am J Physiol** 1999 Jan;276(1 Pt 1):L28–34

Spitting automatism in complex partial seizures: a nondominant temporal localizing sign? Voss NF, et al. **Epilepsia** 1999 Jan;40(1):114–6

Fractional analysis of sequential induced sputum samples during sputum induction: evidence that different lung compartments are sampled at different time points. Gershman NH, et al. **J Allergy Clin Immunol** 1999 Aug; 104(2 Pt 1):322–8

SECRETION

Successful treatment of refractory bronchorrhea by inhaled indomethacin in two patients with bronchioloalveolar carcinoma. Homma S, et al. **Chest** 1999 May;115(5):1465–8

VIROLOGY

Comparison of three monoclonal antibody pools for the detection of respiratory viral antigen in respiratory secretions. Taylor P, et al. **Eur J Clin Microbiol Infect Dis** 1998 Jul;17(7):522–4

SQUALENE

ADMINISTRATION & DOSAGE

The adjuvants MF59 and LT-K63 enhance the mucosal and systemic immunogenicity of subunit influenza vaccine administered intranasally in mice. Barchfeld GL, et al. **Vaccine** 1999 Feb 26;17(7-8):695–704

A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2. Singh M, et al. **Vaccine** 1998 Nov;16(19):1822–7

ADVERSE EFFECTS

Safety and immunogenicity of an inactivated subunit influenza virus vaccine combined with MF59 adjuvant emulsion in elderly subjects, immunized for three consecutive influenza seasons. Minutello M, et al. **Vaccine** 1999 Jan;17(2):99–104

ANALOGS & DERIVATIVES

Inhibitors of 2,3-oxidosqualene cyclase as tools for studying the mechanism and function of the enzyme. Cattel L, et al. **Crit Rev Biochem Mol Biol** 1998;33(5):353–73 (101 ref.)

ANALYSIS

Fatty acids and squalene carried by alpha fetoprotein, and fetal and adult serum albumin from chicken. Comparison with these from mammals. Copado MA, et al.

J Protein Chem 1999 May;18(4):413–24

BLOOD

Impaired postprandial clearance of squalene and apolipoprotein B-48 in post-menopausal women with coronary artery disease. Rajaratnam RA, et al. **Clin Sci (Colch)** 1999 Aug;97(2):183–92

IMMUNOLOGY

Comparison of immunity generated by nucleic acid–, MF59–, and ISCOM-formulated human immunodeficiency virus type 1 vaccines in Rhesus macaques: evidence for viral clearance. Verschoor EJ, et al. **J Virol** 1999 Apr; 73(4):3292–300

METABOLISM

Molecular genetics of the Smith–Lemli–Opitz syndrome and postsqualene sterol metabolism. Fitzky BU, et al. **Curr Opin Lipidol** 1999 Apr;10(2):123–31 (69 ref.)

Corynebacterium terpenotabidum sp. nov., a bacterium capable of degrading squalene. Takeuchi M, et al. **Int J Syst Bacteriol** 1999 Jan;49 Pt 1:223–9

PHARMACOLOGY

Comparison of immunity generated by nucleic acid–, MF59–, and ISCOM-formulated human immunodeficiency virus type 1 vaccines in Rhesus macaques: evidence for viral clearance. Verschoor EJ, et al. **J Virol** 1999 Apr; 73(4):3292–300

TOXICITY

The experimental squalene encephaloneuropathy in the rat. Gajkowska B, et al. **Exp Toxicol Pathol** 1999 Jan; 51(1):75–80

Experimental squalene encephaloneuropathy in the rat. Smiałek M, et al. **Folia Neuropathol** 1997;35(4):262–4

SQUALENE SYNTHETASE

ANTAGONISTS & INHIBITORS

Mechanism of inhibition of yeast squalene synthase by substrate analog inhibitors. Kalinowski SS, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):338–46

Cyclopentanedi- and tricarboxylic acids as squalene synthase inhibitors: syntheses and evaluation. Shen W, et al. **Bioorg Med Chem Lett** 1998 Apr 21;8(8):891–6

Metabolism of alpha-phosphonosulfonate squalene synthase inhibitors. I. Disposition of a farnesylethyl alpha-phosphonosulfonate and ester prodrugs in rats. Lan SJ, et al. **Drug Metab Dispos** 1998 Oct;26(10):993–1000

Estimation of oral bioavailability of a long half-life drug in healthy subjects. Sharma A, et al. **Pharm Res** 1998 Nov; 15(11):1782–6

GENETICS

Transcriptional regulation of the squalene synthase gene (ERG9) in the yeast Saccharomyces cerevisiae. Kennedy MA, et al. **Biochim Biophys Acta** 1999 Apr 14; 1445(1):110–22

SQUALUS see **DOGFISH**

SQUASH see **RACQUET SPORTS**

SQUASHES see **CUCURBITACEAE**

SQUID

ENZYMOLOGY

A closer look at the natural substrate for a nerve-gas hydrolyzing enzyme in squid nerve. Hoskin FC, et al. **Biol Bull** 1998 Oct;195(2):197–8

Parallel regional quantification of choline acetyltransferase and cholinesterase activity in the central nervous system of an invertebrate (Sepia officinalis). Bellanger C, et al. **Brain Res Brain Res Protoc** 1998 Sep;3(1):68–75

GENETICS

Gene contents and organization of a mitochondrial DNA segment of the squid Loligo bleekeri. Sasuga J, et al. **J Mol Evol** 1999 Jun;48(6):692–702

GROWTH & DEVELOPMENT

Late postembryonic development of the symbiotic light organ of Euprymna scolopes (Cephalopoda: Sepiolidae). Montgomery MK, et al. **Biol Bull** 1998 Dec;195(3):326–36

Detection of zooplankton prey in squid paralarvae with immunoassay. Venter JD, et al. **J Immunoassay** 1999 Aug; 20(3):127–49

METABOLISM

Direct evidence of Na+/Ca2+ exchange in squid rhabdomeric membranes. Bauer PJ, et al. **Am J Physiol** 1999 Mar;276(3 Pt 1):C558–65

Charge immobilization caused by modification of internal cysteines in squid Na channels. Khodakhah K, et al. **Biophys J** 1998 Dec;75(6):2821–9

Primary peptide sequences from squid muscle and optic lobe myosin IIs: a strategy to identify an organelle myosin. Medeiros NA, et al. **Cell Biol Int** 1998;22(2):161–73

Regulation of squid visual phospholipase C by activated G-protein alpha. Suzuki T, et al. **Comp Biochem Physiol A Mol Integr Physiol** 1999 Mar; 122(3):369–74

Halide peroxidase in tissues that interact with bacteria in the host squid Euprymna scolopes. Small AL, et al. **J Cell Biochem** 1999 Mar 15;72(4):445–57

Ribosomal RNAs synthesized by isolated squid nerves and ganglia differ from native ribosomal RNAs. Perrone-Capano C, et al. **J Neurochem** 1999 Mar; 72(3):910–8

Molecular cloning and expression of a full-length cDNA encoding acetylcholinesterase in optic lobes of the squid Loligo opalescens: a new member of the cholinesterase family resistant to diisopropyl fluorophosphate. Talesa V, et al. **J Neurochem** 1999 Mar;72(3):1250–8

MICROBIOLOGY

Competitive dominance among strains of luminous bacteria provides an unusual form of evidence for parallel evolution in Sepiolid squid-vibrio symbioses. Nishiguchi MK, et al. **Appl Environ Microbiol** 1998 Sep;64(9):3209–13

Sampling the light-organ microenvironment of Euprymna scolopes: description of a population of host cells in association with the bacterial symbiont Vibrio fischeri. Nyholm SV, et al. **Biol Bull** 1998 Oct;195(2):89–97

Induction of apoptosis by cooperative bacteria in the morphogenesis of host epithelial tissues. Foster JS, et al. **Dev Genes Evol** 1998 Aug;208(6):295–303

PHYSIOLOGY

An ethogram of body patterning behavior in the biomedically and commercially valuable squid Loligo pealei off Cape Cod, Massachusetts. Hanlon RT, et al. **Biol Bull** 1999 Aug; 197(1):49–62

SQUINT see **STRABISMUS**

SQUIRREL MONKEY see **SAIMIRI**

SQUIRRELS see **SCIURIDAE**

SR-2508 see **ETANIDAZOLE**

SRC-FAMILY KINASES

ANALYSIS

Analysis of Src kinase and protein kinase C activity by capillary electrophoresis and laser-induced fluorescence. Wu W, et al. **Anal Biochem** 1999 May 1;269(2):423–5

MAL, a novel integral membrane protein of human T lymphocytes, associates with glycosylphosphatidylinositol-anchored proteins and Src-like tyrosine kinases. Millán J, et al. **Eur J Immunol** 1998 Nov;28(11):3675–84

Assays for kinase activity. Oktay MH, et al. **Methods Mol Biol** 1999;129:51–61

ANTAGONISTS & INHIBITORS

Benzodiazepine compounds as inhibitors of the src protein tyrosine kinase: screening of a combinatorial library of 1,4-benzodiazepines. Ramdas L, et al. **Arch Biochem Biophys** 1999 Aug 15;368(2):394–400

The instability of polyhydroxylated aromatic protein tyrosine kinase inhibitors in the presence of manganese. Ramdas L, et al. **Cancer Biochem Biophys** 1998 Nov;16(4):375–85

Lck associates with and is activated by Kit in a small cell lung cancer cell line: inhibition of SCF-mediated growth by the Src family kinase inhibitor PP1. Krystal GW, et al. **Cancer Res** 1998 Oct 15;58(20):4660–6

Structural basis for selective inhibition of Src family kinases by PP1. Liu Y, et al. **Chem Biol** 1999 Sep;6(9):671–8

Different inhibitory effects of 5-S-glutathionyl-beta-alanyl-L-dopa (5-S-GA-L-D) analogues on autophosphorylation and substrate phosphorylation of Src protein tyrosine kinase [letter] Zheng ZB, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan; 47(1):136–7

Selective inhibition of Src protein tyrosine kinase by analogues of 5-S-glutathionyl-beta-alanyl-L-dopa. Zheng ZB, et al. **Chem Pharm Bull (Tokyo)** 1998 Dec; 46(12):1950–1

Inhibition effects of 5-S-glutathionyl-N-beta-alanyl-L-dopa analogues against Src protein tyrosine kinase. Zheng ZB, et al. **Chem Pharm Bull (Tokyo)** 1999 Jun;47(6):777–82

A dual inhibitor of platelet-derived growth factor beta-receptor and Src kinase activity potently interferes with mitogenic and mitogenic responses to PDGF in vascular smooth muscle cells. A novel candidate for prevention of vascular remodeling. Waltenberger J, et al. **Circ Res** 1999 Jul 9;85(1):12–22

Inhibitors of Src-family tyrosine kinases favour Th2 differentiation. Gimsa U, et al. **Cytokine** 1999 Mar; 11(3):208–15

A novel Lyn-binding peptide inhibitor blocks eosinophil differentiation, survival, and airway eosinophilic inflammation. Adachi T, et al. **J Immunol** 1999 Jul 15; 163(2):939–46

CD45 negatively regulates lyn activity by dephosphorylating both positive and negative regulatory tyrosine residues in immature B cells. Katagiri T, et al. **J Immunol** 1999 Aug 1;163(3):1321–6

N-myristoylation of a peptide substrate for Src converts it into an apparent slow-binding bisubstrate-type inhibitor. Ramdas L, et al. **J Pept Res** 1999 May;53(5):569–77

Therapeutic targeting of Src-kinase Lyn in myeloid leukemic cell growth. Roginskaya V, et al. **Leukemia** 1999 Jun; 13(6):855–61

The role of SRC-CAS interactions in cellular transformation: ectopic expression of the carboxy terminus of CAS inhibits SRC-CAS interaction but has no effect on cellular transformation. Burnham MR, et al. **Mol Carcinog** 1999 Sep;26(1):20–31

Src autoinhibition: let us count the ways [news] Hubbard SR. **Nat Struct Biol** 1999 Aug;6(8):711–4

Structural analysis of the lymphocyte-specific kinase Lck in complex with non-selective and Src family selective kinase inhibitors. Zhu X, et al. **Structure Fold Des** 1999 Jun 15;7(6):651–61

BIOSYNTHESIS

BRK/Sik expression in the gastrointestinal tract and in colon tumors. Llor X, et al. **Clin Cancer Res** 1999 Jul;5(7):1767–77

Altered expression of tyrosine kinases of the Src and Syk families in human T-cell leukemia virus type 1-infected T-cell lines. Weil R, et al. **J Virol** 1999 May;73(5):3709–17

BLOOD

Volume expansion stimulates p72(syk) and p56(lyn) in skate erythrocytes. Musch MW, et al. **J Biol Chem** 1999 Mar 19;274(12):7923–8

CHEMISTRY

Substitution studies of the second divalent metal cation requirement of protein tyrosine kinase CSK. Sun G, et al. **Biochemistry** 1999 Apr 27;38(17):5659–65

The angiotensin II-dependent association of Jak2 and c-Src requires the N-terminus of Jak2 and the SH2 domain of c-Src. Sayeski PP, et al. **Circ Res** 1999 Jun 11;84(11):1332–8

DEFICIENCY

Differential toxicities of TCDD in vivo among normal, c-src knockout, geldanamycin- and quercetin-treated mice. Dunlap DY, et al. **Toxicology** 1999 Jul 15;135(2–3):95–107

GENETICS

Complementation of defective colony-stimulating factor 1 receptor signaling and mitogenesis by Raf and v-Src. Aziz N, et al. **Mol Cell Biol** 1999 Feb;19(2):1101–15

Biological and biochemical properties of Ret with kinase domain mutations identified in multiple endocrine neoplasia type 2B and familial medullary thyroid carcinoma. Iwashita T, et al. **Oncogene** 1999 Jul 1;18(26):3919–22

Autophosphorylation of Src and Yes blocks their inactivation by Csk phosphorylation. Sun G, et al. **Oncogene** 1998 Sep 24;17(12):1587–95

Characterization of Sam68-like mammalian proteins SLM-1 and SLM-2: SLM-1 is a Src substrate during mitosis. Di Fruscio M, et al. **Proc Natl Acad Sci U S A** 1999 Mar 16;96(6):2710–5

IMMUNOLOGY

Regulation of B cell antigen receptor signaling by the Lyn/CD22/SHP1 pathway. Cornall RJ, et al. **Curr Top Microbiol Immunol** 1999;244:57–68 (67 ref.)

One lyn molecule is sufficient to initiate phosphorylation of aggregated high-affinity IgE receptors. Wofsy C, et al. **Proc Natl Acad Sci U S A** 1999 Jul 20;96(15):8615–20

ISOLATION & PURIFICATION

Expression of a src-type protein tyrosine kinase gene, AcSrc1, in the sea urchin embryo. Onodera H, et al. **Dev Growth Differ** 1999 Feb;41(1):19–28

METABOLISM

Isolation of a variant which has reduced Src activity from SH-SY5Y neuroblastoma cells. Hiwasa T, et al. **Anticancer Res** 1998 Sep-Oct;18(5A):3311–4

Src family kinase activation in glycosphingolipid-rich membrane domains of endothelial cells treated with oxidised low density lipoprotein. Myers SJ, et al. **Atherosclerosis** 1999 Apr;143(2):389–97

CHK down-regulates SCF/KL-activated Lyn kinase activity in Mo7e megakaryocytic cells. Price DJ, et al. **Biochem Biophys Res Commun** 1999 Jun 16;259(3):611–6

Lyn is activated during late G1 of stem-cell-factor-induced cell cycle progression in haemopoietic cells. Mou S, et al. **Biochem J** 1999 Aug 15;342 (Pt 1):163–70

Sphingosine 1-phosphate stimulation of the p42/p44 mitogen-activated protein kinase pathway in airway smooth muscle. Role of endothelial differentiation gene 1, c-Src tyrosine kinase and phosphoinositide 3-kinase. Rakhit S, et al. **Biochem J** 1999 Mar 15;338 (Pt 3):643–9

Expression and activation of lyn in macrophages treated in vitro with cisplatin: regulation by kinases, phosphatases and

SRC-FAMILY KINASES

Ca2+/calmodulin. Singh RA, et al. **Biochim Biophys Acta** 1998 Oct 21;1405(1-3):171-9

Association of CD10/neutral endopeptidase 24.11 with membrane microdomains rich in glycosylphosphatidylinositol-anchored proteins and Lyn kinase [letter] Angelisová P, et al. **Blood** 1999 Feb 15; 93(4):1437-9

Signaling via Src family kinases is required for normal internalization of the receptor c-Kit. Broudy VC, et al. **Blood** 1999 Sep 15;94(6):1979-86

Glycoprotein Ib-V-IX, a receptor for von Willebrand factor, couples physically and functionally to the Fc receptor gamma-chain, Fyn, and Lyn to activate human platelets. Falati S, et al. **Blood** 1999 Sep 1;94(5):1648-56

Ret-mediated mitogenesis requires Src kinase activity. Melillo RM, et al. **Cancer Res** 1999 Mar 1;59(5):1120-6

EGF receptor signaling stimulates SRC kinase phosphorylation of clathrin, influencing clathrin redistribution and EGF uptake. Wilde A, et al. **Cell** 1999 Mar 5;96(5):677-87

Different inhibitory effects of 5-S-glutathionyl-beta-alanyl-L-dopa (5-S-GA-L-D) analogues on autophosphorylation and substrate phosphorylation of Src protein tyrosine kinase [letter] Zheng ZB, et al. **Chem Pharm Bull (Tokyo)** 1999 Jan; 47(1):136-7

Demonstration of selective protein kinase C-dependent activation of Src and Lck tyrosine kinases during ischemic preconditioning in conscious rabbits. Ping P, et al. **Circ Res** 1999 Sep 17;85(6):542-50

Targeted disruption of the tyrosine phosphatase PTPalpha leads to constitutive downregulation of the kinases Src and Fyn. Ponniah S, et al. **Curr Biol** 1999 May 20;9(10):535-8

Receptor protein tyrosine phosphatase alpha activates Src-family kinases and controls integrin-mediated responses in fibroblasts. Su J, et al. **Curr Biol** 1999 May 20;9(10):505-11

Evidence that a starfish egg Src family tyrosine kinase associates with PLC-gamma1 SH2 domains at fertilization. Giusti AF, et al. **Dev Biol** 1999 Apr 1;208(1):189-99

Drosophila Src42A is a negative regulator of RTK signaling. Lu X, et al. **Dev Biol** 1999 Apr 1;208(1):233-43

Src family kinases are required for integrin but not PDGFR signal transduction. Klinghoffer RA, et al. **EMBO J** 1999 May 4;18(9):2459-71

Kit signaling through PI 3-kinase and Src kinase pathways: an essential role for Rac1 and JNK activation in mast cell proliferation. Timokhina I, et al. **EMBO J** 1998 Nov 2; 17(21):6250-62

Evidence that phospholipase C-gamma2 interacts with SLP-76, Syk, Lyn, LAT and the Fc receptor gamma-chain after stimulation of the collagen receptor glycoprotein VI in human platelets. Gross BS, et al. **Eur J Biochem** 1999 Aug;263(3):612-23

The engagement of beta1 integrins on promonocytic cells promotes phosphorylation of Syk and formation of a protein complex containing Lyn and beta1 integrin. Miller LA, et al. **Eur J Immunol** 1999 May;29(5):1426-34

SHP-1 deficiency in B-lineage cells is associated with heightened lyn protein expression and increased lyn kinase activity. Yang W, et al. **Exp Hematol** 1998 Nov; 26(12):1126-32

The low Mr phosphotyrosine protein phosphatase behaves differently when phosphorylated at Tyr131 or Tyr132 by Src kinase. Bucciantini M, et al. **FEBS Lett** 1999 Jul 30; 456(1):73-8

Activation of src tyrosine kinases by peroxynitrite. Mallozzi C, et al. **FEBS Lett** 1999 Jul 30;456(1):201-6

Signaling complex formation of CD44 with src-related kinases. Rozsnyay Z. **Immunol Lett** 1999 May 3;68(1):101-8

CD45 and Src-family kinases: and now for something completely different. Ashwell JD, et al. **Immunol Today** 1999 Sep;20(9):412-6 (63 ref.)

Positive and negative regulation of Src-family membrane kinases by CD45. Thomas ML, et al. **Immunol Today** 1999 Sep;20(9):406-11 (47 ref.)

Src-family tyrosine kinases in activation of ERK-1 and p85/p110-phosphatidylinositol 3-kinase by G/CCKB receptors. Daulhac L, et al. **J Biol Chem** 1999 Jul 16; 274(29):20657-63

The identification of two Drosophila K homology domain proteins. Kep1 and SAM are members of the Sam68 family of GSG domain proteins. Di Fruscio M, et al. **J Biol Chem** 1998 Nov 13;273(46):30122-30

Vascular endothelial growth factor signals endothelial cell production of nitric oxide and prostacyclin through flk-1/KDR activation of c-Src. He H, et al. **J Biol Chem** 1999 Aug 27;274(35):25130-5

Cell shrinkage regulates Src kinases and induces tyrosine phosphorylation of cortactin, independent of the osmotic regulation of Na+/H+ exchangers. Kapus A, et al. **J Biol Chem** 1999 Mar 19;274(12):8093-102

Regulation of DNA-dependent protein kinase by the Lyn tyrosine kinase. Kumar S, et al. **J Biol Chem** 1998 Oct 2;273(40):25654-8

Independent SH2-binding sites mediate interaction of Dok-related protein with RasGTPase-activating protein and Nck. Lock P, et al. **J Biol Chem** 1999 Aug 6; 274(32):22775-84

Association with the SRC family tyrosyl kinase LYN triggers a conformational change in the catalytic region of human cAMP-specific phosphodiesterase HSPDE4A4B. Consequences for rolipram inhibition. McPhee I, et al. **J Biol Chem** 1999 Apr 23;274(17):11796-810

Phosphorylation and cytoskeletal anchoring of the acetylcholine receptor by Src class protein-tyrosine kinases. Activation by rapsyn. Mohamed AS, et al. **J Biol Chem** 1999 Jul 16;274(29):20529-39

ErbB receptor-induced activation of stat transcription factors is mediated by Src tyrosine kinases. Olayioye MA, et al. **J Biol Chem** 1999 Jun 11;274(24):17209-18

Tyrosine phosphorylation of syndecan-1 and -4 cytoplasmic domains in adherent B82 fibroblasts. Ott VL, et al. **J Biol Chem** 1998 Dec 25;273(52):35291-8

Critical role for cholesterol in Lyn-mediated tyrosine phosphorylation of FcepsilonRI and their association with detergent-resistant membranes. Sheets ED, et al. **J Cell Biol** 1999 May 17;145(4):877-87

Tau interacts with src-family non-receptor tyrosine kinases. Lee G, et al. **J Cell Sci** 1998 Nov;111 (Pt 21):3167-77

Cooperative inhibition of T-cell antigen receptor signaling by a complex between a kinase and a phosphatase. Cloutier JF, et al. **J Exp Med** 1999 Jan 4;189(1):111-21

The mapping of the Lyn kinase binding site of the common beta subunit of IL-3/granulocyte-macrophage colony-stimulating factor/IL-5 receptor. Adachi T, et al. **J Immunol** 1999 Feb 1;162(3):1496-501

Regulation of cytotoxic T lymphocyte-associated molecule-4 by Src kinases. Chuang E, et al. **J Immunol** 1999 Feb 1; 162(3):1270-7

CD19 amplifies B lymphocyte signal transduction by regulating Src-family protein tyrosine kinase activation. Fujimoto M, et al. **J Immunol** 1999 Jun 15;162(12):7088-94

CD45 negatively regulates lyn activity by dephosphorylating both positive and negative regulatory tyrosine residues in immature B cells. Katagiri T, et al. **J Immunol** 1999 Aug 1;163(3):1321-6

Syk- and Lyn-dependent phosphorylation of Syk on multiple tyrosines following B cell activation includes a site that negatively regulates signaling. Keshvara LM, et al. **J Immunol** 1998 Nov 15;161(10):5276-83

Fyn membrane localization is necessary to induce the constitutive tyrosine phosphorylation of Sam68 in the nucleus of T lymphocytes. Lang V, et al. **J Immunol** 1999 Jun 15;162(12):7224-32

Lyn dissociation from phosphorylated Fc epsilon RI subunits: a new regulatory step in the Fc epsilon RI signaling cascade revealed by studies of Fc epsilon RI dimer signaling activity. Ortega E, et al. **J Immunol** 1999 Jan 1; 162(1):176-85

Integrin signal transduction in myeloid leukocytes. Lowell CA, et al. **J Leukoc Biol** 1999 Mar;65(3):313-20 (94 ref.)

Cyclic AMP-dependent activation of the proenkephalin gene requires phosphorylation of CREB at serine-133 and a Src-related kinase. Kobierski LA, et al. **J Neurochem** 1999 Jul;73(1):129-38

Assays for kinase activity. Oktay MH, et al. **Methods Mol Biol** 1999;129:51-61

Complementation of defective colony-stimulating factor 1 receptor signaling and mitogenesis by Raf and v-Src. Aziz N, et al. **Mol Cell Biol** 1999 Feb;19(2):1101-15

ASAP1, a phospholipid-dependent arf GTPase-activating protein that associates with and is phosphorylated by Src. Brown MT, et al. **Mol Cell Biol** 1998 Dec;18(12):7038-51

rlk/TXK encodes two forms of a novel cysteine string tyrosine kinase activated by Src family kinases. Debnath J, et al. **Mol Cell Biol** 1999 Feb;19(2):1498-507

The AMPA receptor interacts with and signals through the protein tyrosine kinase Lyn. Hayashi T, et al. **Nature** 1999 Jan 7;397(6714):72-6

Activation of Src in human breast tumor cell lines: elevated levels of phosphotyrosine phosphatase activity that preferentially recognizes the Src carboxy terminal negative regulatory tyrosine 530. Egan C, et al. **Oncogene** 1999 Feb 4;18(5):1227-37

Association between src-kinases and the polyoma virus oncogene middle T-antigen requires PP2A and a specific sequence motif. Glover HR, et al. **Oncogene** 1999 Jul 29; 18(30):4364-70

Regulation of mRNA splicing and transport by the tyrosine kinase activity of src. Gondran P, et al. **Oncogene** 1999 Apr 22;18(16):2547-55

STAT activation by the PDGF receptor requires juxtamembrane phosphorylation sites but not Src tyrosine kinase activation. Sachsenmaier C, et al. **Oncogene** 1999 Jun 17;18(24):3583-92

The many faces of Src: multiple functions of a prototypical tyrosine kinase. Schwartzberg PL. **Oncogene** 1998 Sep 17; 17(11 Reviews):1463-8 (65 ref.)

Antigen receptor signaling: integration of protein tyrosine kinase functions. Tamir I, et al. **Oncogene** 1998 Sep 17;17(11 Reviews):1353-64 (203 ref.)

Modulation of enzymatic activity of Src-family kinases in bovine T cells transformed by Theileria parva. Fich C, et al. **Parasitology** 1998 Aug;117 (Pt 2):107-15

The tyrosine kinases Syk and Lyn exert opposing effects on the activation of protein kinase Akt/PKB in B lymphocytes. Li HL, et al. **Proc Natl Acad Sci U S A** 1999 Jun 8;96(12):6890-5

Regulation of the Src family tyrosine kinase Blk through E6AP-mediated ubiquitination. Oda H, et al. **Proc Natl Acad Sci U S A** 1999 Aug 17;96(17):9557-62

PHYSIOLOGY

Evidence for the involvement of p59fyn and p53/56lyn in collagen receptor signalling in human platelets. Briddon SJ, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):203-9

Src-related protein tyrosine kinases in hematopoiesis. Corey SJ, et al. **Blood** 1999 Jan 1;93(1):1-14 (163 ref.)

Src-dependence and pertussis-toxin sensitivity of urokinase receptor-dependent chemotaxis and cytoskeleton reorganization in rat smooth muscle cells. Degryse B, et al. **Blood** 1999 Jul 15;94(2):649-62

A common signaling pathway via Syk and Lyn tyrosine kinases generated from capping of the sialomucins CD34 and CD43 in immature hematopoietic cells. Tada J, et al. **Blood** 1999 Jun 1;93(11):3723-35

Src promotes PKCdelta degradation. Blake RA, et al. **Cell Growth Differ** 1999 Apr;10(4):231-41

Evidence for the involvement of a Src-related tyrosine kinase in Xenopus egg activation. Sato K, et al. **Dev Biol** 1999 May 15;209(2):308-20

Pyk2 and Src-family protein-tyrosine kinases compensate for the loss of FAK in fibronectin-stimulated signaling events but Pyk2 does not fully function to enhance FAK- cell migration. Sieg DJ, et al. **EMBO J** 1998 Oct 15; 17(20):5933-47

Modulation of hepatic acute phase gene expression by epidermal growth factor and Src protein tyrosine kinases in murine and human hepatic cells. Wang Y, et al. **Hepatology** 1999 Sep;30(3):682-97

Src-family kinase-p53/ Lyn p56 plays an important role in TNF-alpha-stimulated production of O2- by human neutrophils adherent to fibrinogen. Yan SR, et al. **Inflammation** 1999 Apr;23(2):167-78

Adhesion-dependent degranulation of neutrophils requires the Src family kinases Fgr and Hck. Mócsai A, et al. **J Immunol** 1999 Jan 15;162(2):1120-6

Cbl functions downstream of Src kinases in Fc gamma RI signaling in primary human macrophages. Erdreich-Epstein A, et al. **J Leukoc Biol** 1999 Apr; 65(4):523-34

The role of SRC-CAS interactions in cellular transformation: ectopic expression of the carboxy terminus of CAS inhibits SRC-CAS interaction but has no effect on cellular transformation. Burnham MR, et al. **Mol Carcinog** 1999 Sep;26(1):20-31

Zinc, Src and NMDA receptors--a transmembrane connection [news; comment] Ascher P. **Nat Neurosci** 1998 Jul;1(3):173-5. Comment on: Nat Neurosci 1998 Jul;1(3):185-91.

FGF-mediated mesoderm induction involves the Src-family kinase Laloo [published erratum appears in Nature 1998 Oct 29;395(6705):921] Weinstein DC, et al. **Nature** 1998 Aug 27;394(6696):904-8

SRC GENES see **GENES, SRC**

SRC HOMOLOGY DOMAINS

Role of PTP-1B in aortic smooth muscle cell motility and tyrosine phosphorylation of focal adhesion proteins. Hassid A, et al. **Am J Physiol** 1999 Jul;277(1 Pt 2):H192-8

Compounds capable of generating singlet oxygen represent a source of artifactual data in scintillation proximity assays measuring phosphopeptide binding to SH2 domains. Pai JJ, et al. **Anal Biochem** 1999 May 15;270(1):33-40

Linkage assignments for 14 SRC bovine microsatellites. Kappes SM, et al. **Anim Genet** 1999 Aug;30(4):323-4

Sck interacts with KDR and Flt-1 via its SH2 domain. Igarashi K, et al. **Biochem Biophys Res Commun** 1998 Oct 9;251(1):77-82

RA70 is a src kinase-associated protein expressed ubiquitously. Kouroku Y, et al. **Biochem Biophys Res Commun** 1998 Nov 27;252(3):738-42

Molecular cloning and expression of human grap-2, a novel leukocyte-specific SH2- and SH3-containing adaptor-like protein that binds to gab-1. Qiu M, et al. **Biochem Biophys Res Commun** 1998 Dec 18;253(2):443-7

The use of the yeast two hybrid system to evaluate ErbB-3 interactions with SH2 domain containing proteins. Yoo JY, et al. **Biochem Biophys Res Commun** 1998 Oct 29; 251(3):903-6

SH2-Balpha is an insulin-receptor adapter protein and substrate that interacts with the activation loop of the insulin-receptor kinase. Kotani K, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):103-9

Mixed-lineage kinase 2-SH3 domain binds dynamin and greatly enhances activation of GTPase by phospholipid. Rasmussen RK, et al. **Biochem J** 1998 Oct 1;335 (Pt 1):119-24

RT loop flexibility enhances the specificity of Src family SH3 domains for HIV-1 Nef. Arold S, et al. **Biochemistry** 1998 Oct 20;37(42):14683-91

Calorimetric investigation of proton linkage by monitoring both the enthalpy and association constant of binding: application to the interaction of the Src SH2 domain with a high-affinity tyrosyl phosphopeptide. Bradshaw JM, et al. **Biochemistry** 1998 Nov 3;37(44):15400-7

Calorimetric examination of high-affinity Src SH2 domain-tyrosyl phosphopeptide binding: dissection of the phosphopeptide sequence specificity and coupling energetics. Bradshaw JM, et al. **Biochemistry** 1999 Apr 20; 38(16):5147-54

Hydrogen exchange shows peptide binding stabilizes motions

in Hck SH2. Engen JR, et al. **Biochemistry** 1999 Jul 13; 38(28):8926–35

Binding of phosphatidic acid to the protein-tyrosine phosphatase SHP-1 as a basis for activity modulation. Frank C, et al. **Biochemistry** 1999 Sep 14;38(37):11993–2002

Direct determination of changes of interdomain orientation on ligation: use of the orientational dependence of 15N NMR relaxation in Abl SH(32). Fushman D, et al. **Biochemistry** 1999 Aug 10;38(32):10225–30

Thermodynamic study of the binding of the tandem-SH2 domain of the Syk kinase to a dually phosphorylated ITAM peptide: evidence for two conformers. Grucza RA, et al. **Biochemistry** 1999 Apr 20;38(16):5024–33

SH3 binding domains in the dopamine D4 receptor. Oldenhof J, et al. **Biochemistry** 1998 Nov 10;37(45):15726–36

The native state conformational ensemble of the SH3 domain from alpha-spectrin. Sadqi M, et al. **Biochemistry** 1999 Jul 13;38(28):8899–906

Domain interactions in protein tyrosine kinase Csk. Sondhi D, et al. **Biochemistry** 1999 Aug 24;38(34):11147–55

Flexibility of interdomain contacts revealed by topological isomers of bivalent consolidated ligands to the dual Src homology domain SH(32) of abelson. Xu Q, et al. **Biochemistry** 1999 Mar 23;38(12):3491–7

Membrane-targeting of signalling molecules by SH2/SH3 domain-containing adaptor proteins. Buday L. **Biochim Biophys Acta** 1999 Jul 6;1422(2):187–204 (246 ref.)

The Nck SH2/SH3 adaptor protein: a regulator of multiple intracellular signal transduction events. McCarty JH. **Bioessays** 1998 Nov;20(11):913–21 (71 ref.)

The two SH2-domain-containing inositol 5-phosphatases SHIP1 and SHIP2 are coexpressed in human T lymphocytes. Bruyns C, et al. **Biol Chem** 1999 Jul–Aug; 380(7–8):969–74

The formation of a covalent complex between a dipeptide ligand and the src SH2 domain. Alligood KJ, et al. **Bioorg Med Chem Lett** 1998 May 19;8(10):1189–94

Structure-based design and synthesis of a novel class of Src SH2 inhibitors. Buchanan JL, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2353–8

Structure-activity relationships of a novel class of Src SH2 inhibitors. Buchanan JL, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2359–64

NMR-based discovery of phosphotyrosine mimetics that bind to the Lck SH2 domain. Hajduk PJ, et al. **Bioorg Med Chem Lett** 1999 Aug 16;9(16):2403–6

Highly potent inhibitors of the Grb2–SH2 domain. Schoepfer J, et al. **Bioorg Med Chem Lett** 1999 Jan 18;9(2):221–6

Design and synthesis of SH3 domain binding ligands: modifications of the consensus sequence XPpXP. Witter DJ, et al. **Bioorg Med Chem Lett** 1998 Nov 17;8(22):3137–42

Src homology-2 domains: structure, mechanisms, and drug discovery. Sawyer TK. **Biopolymers** 1998;47(3):243–61 (44 ref.)

A novel SH2-containing phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase (SHIP2) is constitutively tyrosine phosphorylated and associated with src homologous and collagen gene (SHC) in chronic myelogenous leukemia progenitor cells. Wisniewski D, et al. **Blood** 1999 Apr 15;93(8):2707–20

Insulin receptor has tyrosine kinase activity toward Shc in rat liver. Páez-Espinosa EV, et al. **Braz J Med Biol Res** 1998 Nov;31(11):1415–9

Shc dominant negative disrupts cell cycle progression in both G0–G1 and G2–M of ErbB2-positive breast cancer cells. Stevenson LE, et al. **Cell Growth Differ** 1999 Jan; 10(1):61–71

Functional dissection of nebulette demonstrates actin binding of nebulin-like repeats and Z-line targeting of SH3 and linker domains. Moncman CL, et al. **Cell Motil Cytoskeleton** 1999;44(1):1–22

Potent inhibitory ligands of the GRB2 SH2 domain from recombinant peptide libraries. Hart CP, et al. **Cell Signal** 1999 Jun;11(6):453–64

Tyrosine phosphorylation enhances the SH2 domain-binding activity of Bcr and inhibits Bcr interaction with 14-3-3 proteins. Peters KL, et al. **Cell Signal** 1999 Jul;11(7):507–14

Requirement of multiple SH3 domains of Nck for ligand binding. Wunderlich L, et al. **Cell Signal** 1999 Apr; 11(4):253–62

Characterization of interactions of Nck with Sos and dynamin. Wunderlich L, et al. **Cell Signal** 1999 Jan; 11(1):25–9

A novel mechanism-based mammalian cell assay for the identification of SH2-domain-specific protein-protein inhibitors. Rickles RJ, et al. **Chem Biol** 1998 Oct; 5(10):529–38

The abnormal gene in X-linked lymphoproliferative syndrome. Sullivan JL. **Curr Opin Immunol** 1999 Aug; 11(4):431–4 (16 ref.)

Evidence that a starfish egg Src family tyrosine kinase associates with PLC-gamma1 SH2 domains at fertilization. Giusti AF, et al. **Dev Biol** 1999 Apr 1;208(1):189–99

Cryo-electron microscopy structure of an SH3 amyloid fibril and model of the molecular packing. Jiménez JL, et al. **EMBO J** 1999 Feb 15;18(4):815–21

Crystal structure of the amphiphysin-2 SH3 domain and its role in the prevention of dynamin ring formation. Owen DJ, et al. **EMBO J** 1998 Sep 15;17(18):5273–85

Role of the Src homology 2 (SH2) domain and C-terminus tyrosine phosphorylation sites of SH2-containing inositol phosphatase (SHIP) in the regulation of insulin-induced mitogenesis. Wada T, et al. **Endocrinology** 1999 Oct; 140(10):4585–94

A Sos-derived peptidimer blocks the Ras signaling pathway by binding both Grb2 SH3 domains and displays antiproliferative activity. Cussac D, et al. **FASEB J** 1999 Jan;13(1):31–8

Actinomycin D as a novel SH2 domain ligand inhibits Shc/Grb2 interaction in B104-1-1 (neu*-transformed NIH3T3) and SAA (hEGFR-overexpressed NIH3T3) cells. Kim HK, et al. **FEBS Lett** 1999 Jun 18;453(1–2):174–8

The SH2 domain containing inositol 5-phosphatase SHIP2 displays phosphatidylinositol 3,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate 5-phosphatase activity. Pesesse X, et al. **FEBS Lett** 1998 Oct 23;437(3):301–3

How and why phosphotyrosine-containing peptides bind to the SH2 and PTB domains. Zhou Y, et al. **Fold Des** 1998; 3(6):513–22

Cytokine-inducible SH2 protein-3 (CIS3/SOCS3) inhibits Janus tyrosine kinase by binding through the N-terminal kinase inhibitory region as well as SH2 domain. Sasaki A, et al. **Genes Cells** 1999 Jun;4(6):339–51

Activation of Rac1 by a Crk SH3-binding protein, DOCK180. Kiyokawa E, et al. **Genes Dev** 1998 Nov 1; 12(21):3331–6

Characterization of the mouse Src homology 3 domain gene Sh3d2c on Chr 7 demonstrates coexpression with huntingtin in the brain and identifies the processed pseudogene Sh3d2c-ps1 on Chr 2. Zechner U, et al. **Genomics** 1998 Dec 15;54(3):505–10

Dentatorubral-pallidoluysian atrophy protein interacts through a proline-rich region near polyglutamine with the SH3 domain of an insulin receptor tyrosine kinase substrate. Okamura-Oho Y, et al. **Hum Mol Genet** 1999 Jun; 8(6):947–57

New variations of human SHP-1. Matsushita M, et al. **Immunogenetics** 1999 Jun;49(6):577–9

Enigmatic relationship of Pleckstrin homology domain with phospholipid breakdown mediated signal transduction. Tyagi MG, et al. **Indian J Exp Biol** 1999 Jan;37(1):1–5 (34 ref.)

Src-mediated tyrosine phosphorylation of dynamin is required for beta2-adrenergic receptor internalization and mitogen-activated protein kinase signaling. Ahn S, et al. **J Biol Chem** 1999 Jan 15;274(3):1185–8

Identification of Grb4/Nckbeta, a src homology 2 and 3 domain-containing adapter protein having similar binding and biological properties to Nck. Braverman LE, et al. **J Biol Chem** 1999 Feb 26;274(9):5542–9

SH2-kinase linker mutations release Hck tyrosine kinase and transforming activities in Rat-2 fibroblasts. Briggs SD, et al. **J Biol Chem** 1999 Sep 10;274(37):26579–83

The role of individual SH2 domains in mediating association of phospholipase C-gamma1 with the activated EGF receptor. Chattopadhyay A, et al. **J Biol Chem** 1999 Sep 10;274(37):26091–7

Proline-rich motifs of the Na+/H+ exchanger 2 isoform. Binding of Src homology domain 3 and role in apical targeting in epithelia. Chow CW, et al. **J Biol Chem** 1999 Apr 9;274(15):10481–8

The SH2 domain-containing inositol 5'-phosphatase (SHIP) recruits the p85 subunit of phosphoinositide 3-kinase during FcgammaRIIb1-mediated inhibition of B cell receptor signaling. Gupta N, et al. **J Biol Chem** 1999 Mar 12; 274(11):7489–94

Characterization and binding specificity of the monomeric STAT3-SH2 domain. Haan S, et al. **J Biol Chem** 1999 Jan 15;274(3):1342–8

Protein-tyrosine phosphatase alpha regulates Src family kinases and alters cell-substratum adhesion. Harder KW, et al. **J Biol Chem** 1998 Nov 27;273(48):31890–900

The src homology domain 2-containing inositol phosphatase SHIP forms a ternary complex with Shc and Grb2 in antigen receptor-stimulated B lymphocytes. Harmer SL, et al. **J Biol Chem** 1999 Apr 23;274(17):12183–91

Interaction of Bnr1p with a novel Src homology 3 domain-containing Hof1p. Implication in cytokinesis in Saccharomyces cerevisiae. Kamei T, et al. **J Biol Chem** 1998 Oct 23;273(43):28341–5

Tyrosine phosphorylation of tub and its association with Src homology 2 domain-containing proteins implicate tub in intracellular signaling by insulin. Kapeller R, et al. **J Biol Chem** 1999 Aug 27;274(35):24980–6

Fibroblast growth factor receptor-1-mediated endothelial cell proliferation is dependent on the Src homology (SH) 2/SH3 domain-containing adaptor protein Crk. Larsson H, et al. **J Biol Chem** 1999 Sep 3;274(36):25726–34

Independent SH2-binding sites mediate interaction of Dok-related protein with RasGTPase-activating protein and Nck. Lock P, et al. **J Biol Chem** 1999 Aug 6; 274(32):22775–84

The signaling adapter FRS-2 competes with Shc for binding to the nerve growth factor receptor TrkA. A model for discriminating proliferation and differentiation. Meakin SO, et al. **J Biol Chem** 1999 Apr 2;274(14):9861–70

Protein kinase C regulates integrin-induced activation of the extracellular regulated kinase pathway upstream of Shc. Miranti CK, et al. **J Biol Chem** 1999 Apr 9; 274(15):10571–81

Role of the STAT1-SH2 domain and STAT2 in the activation and nuclear translocation of STAT1. Mowen K, et al. **J Biol Chem** 1998 Nov 13;273(46):30073–6

The functional role of CrkII in actin cytoskeleton organization and mitogenesis. Nakashima N, et al. **J Biol Chem** 1999 Jan 29;274(5):3001–8

EHSH1/intersectin, a protein that contains EH and SH3 domains and binds to dynamin and SNAP-25. A protein connection between exocytosis and endocytosis? Okamoto M, et al. **J Biol Chem** 1999 Jun 25;274(26):18446–54

sst2 somatostatin receptor mediates cell cycle arrest and induction of p27(Kip1). Evidence for the role of SHP-1. Pagès P, et al. **J Biol Chem** 1999 May 21;274(21):15186–93

Tyrosine 319 in the interdomain B of ZAP-70 is a binding site for the Src homology 2 domain of Lck. Pelosi M, et al. **J Biol Chem** 1999 May 14;274(20):14229–37

Tyrosine phosphatase SHP-2 is involved in regulation of platelet-derived growth factor-induced migration. Qi JH, et al. **J Biol Chem** 1999 May 14;274(20):14455–63

SH2-B is required for nerve growth factor-induced neuronal differentiation. Rui L, et al. **J Biol Chem** 1999 Apr 9; 274(15):10590–4

Possible involvement of a novel STAM-associated molecule "AMSH" in intracellular signal transduction mediated by cytokines. Tanaka N, et al. **J Biol Chem** 1999 Jul 2; 274(27):19129–35

Fyn kinase-directed activation of SH2 domain-containing protein-tyrosine phosphatase SHP-2 by Gi protein-coupled receptors in Madin-Darby canine kidney cells. Tang H, et al. **J Biol Chem** 1999 Apr 30; 274(18):12401–7

Intersectin, a novel adaptor protein with two Eps15 homology and five Src homology 3 domains. Yamabhai M, et al. **J Biol Chem** 1998 Nov 20;273(47):31401–7

Regulation of the p85/p110alpha phosphatidylinositol 3'-kinase. Distinct roles for the n-terminal and c-terminal SH2 domains. Yu J, et al. **J Biol Chem** 1998 Nov 13; 273(46):30199–203

Assignment of 1H and 15N resonances of murine Tec SH3 domain. Pursglove SE, et al. **J Biomol NMR** 1998 Oct; 12(3):461–2

Kinetic comparison of the catalytic domains of SHP-1 and SHP-2. Niu T, et al. **J Cell Biochem** 1999 Jan 1; 72(1):145–50

Vinexin: a novel vinculin-binding protein with multiple SH3 domains enhances actin cytoskeletal organization. Kioka N, et al. **J Cell Biol** 1999 Jan 11;144(1):59–69

Grf40, A novel Grb2 family member, is involved in T cell signaling through interaction with SLP-76 and LAT. Asada H, et al. **J Exp Med** 1999 May 3;189(9):1383–90

Negative regulation of myeloid cell proliferation and function by the SH2 domain-containing tyrosine phosphatase-1. Dong Q, et al. **J Immunol** 1999 Mar 15;162(6):3220–30

Protein kinase C activation inhibits tyrosine phosphorylation of Cbl and its recruitment of Src homology 2 domain-containing proteins. Liu Y, et al. **J Immunol** 1999 Jun 15;162(12):7095–101

The SH2-containing inositol-5'-phosphatase enhances LFA-1-mediated cell adhesion and defines two signaling pathways for LFA-1 activation. Rey-Ladino JA, et al. **J Immunol** 1999 May 15;162(10):5792–9

Ligands for the tyrosine kinase p56lck SH2 domain: discovery of potent dipeptide derivatives with monocharged, nonhydrolyzable phosphate replacements. Beaulieu PL, et al. **J Med Chem** 1999 May 20; 42(10):1757–66

Structural and conformational requirements for high-affinity binding to the SH2 domain of Grb2(1). Ettmayer P, et al. **J Med Chem** 1999 Mar 25;42(6):971–80

Structure-based design, synthesis, and X-ray crystallography of a high-affinity antagonist of the Grb2-SH2 domain containing an asparagine mimetic. Furet P, et al. **J Med Chem** 1999 Jul 1;42(13):2358–63

Acquisition of high-affinity, SH2-targeted ligands via a spatially focused library. Lee TR, et al. **J Med Chem** 1999 Mar 11;42(5):784–7

Small peptides containing phosphotyrosine and adjacent alphaMe-phosphotyrosine or its mimetics as highly potent inhibitors of Grb2 SH2 domain. Liu WQ, et al. **J Med Chem** 1999 Sep 9;42(18):3737–41

Phosphotyrosine-containing dipeptides as high-affinity ligands for the p56lck SH2 domain. Llinás-Brunet M, et al. **J Med Chem** 1999 Feb 25;42(4):722–9

Comparison of SH3 and SH2 domain dynamics when expressed alone or in an SH(3+2) construct: the role of protein dynamics in functional regulation. Engen JR, et al. **J Mol Biol** 1999 Apr 2;287(3):645–56

Solution structure of the SH2 domain of Grb2 complexed with the Shc-derived phosphotyrosine-containing peptide. Ogura K, et al. **J Mol Biol** 1999 Jun 11;289(3):439–45

Hierarchy of structure loss in MD simulations of src SH3 domain unfolding. Tsai J, et al. **J Mol Biol** 1999 Aug 6; 291(1):215–25

Molecular and cellular analysis of Grb2 SH3 domain mutants: interaction with Sos and dynamin. Vidal M, et al. **J Mol Biol** 1999 Jul 16;290(3):717–30

Prediction and structural characterization of an independently folding substructure in the src SH3 domain. Yi Q, et al. **J Mol Biol** 1998;283(1):293–300

Molecular recognition properties of the C-terminal Sh3 domain of the Cbl associated protein, Cap. Kurakin A, et al. **J Pept Res** 1998 Nov;52(5):331–7

Exon skipping truncates the PDZ domain of human erythroid p55 in a patient with chronic myeloid leukemia in acute megakaryoblastic blast crisis. Ruff P, et al. **Leuk Res** 1999 Mar;23(3):247–50

SHC and SHIP phosphorylation and interaction in response to activation of the FLT3 receptor. Marchetto S, et al. **Leukemia** 1999 Sep;13(9):1374–82

APS, an adaptor protein containing Pleckstrin homology (PH) and Src homology-2 (SH2) domains inhibits the JAK-STAT pathway in collaboration with c-Cbl. Wakioka T, et al. **Leukemia** 1999 May;13(5):760–7

Biochemical analysis of integrin-mediated Shc signaling. Wary KK, et al. **Methods Mol Biol** 1999;129:35–49

Identification of a novel cortactin SH3 domain-binding protein and its localization to growth cones of cultured neurons. Du Y, et al. **Mol Cell Biol** 1998 Oct;18(10):5838–51

Physiological requirement for both SH2 domains for phospholipase C-gamma1 function and interaction with platelet-derived growth factor receptors. Ji QS, et al. **Mol Cell Biol** 1999 Jul;19(7):4961–70

DEF-1, a novel Src SH3 binding protein that promotes adipogenesis in fibroblastic cell lines. Kiu.g FJ, et al. **Mol Cell Biol** 1999 Mar;19(3):2330–7

CD5 negatively regulates the T-cell antigen receptor signal transduction pathway: involvement of SH2-containing phosphotyrosine phosphatase SHP-1. Perez-Villar JJ, et al. **Mol Cell Biol** 1999 Apr;19(4):2903–12

Son of sevenless binds to the SH3 domain of src-type tyrosine kinase. Park C, et al. **Mol Cells** 1998 Oct 31;8(5):518–23

Lasp-1, a novel type of actin-binding protein accumulating in cell membrane extensions. Schreiber V, et al. **Mol Med** 1998 Oct;4(10):675–87

Picture story. An SH2 domain in disguise. Surridge C. **Nat Struct Biol** 1999 Mar;6(3):211

An SH2 domain in disguise [news; comment] Kuriyan J, et al. **Nature** 1999 Mar 4;398(6722):22–3, 25. Comment on: Nature 1999 Mar 4;398(6722):84–90.

Genomic structure of the gene for the SH2 and pleckstrin homology domain-containing protein GRB10 and evaluation of its role in Hirschsprung disease. Angrist M, et al. **Oncogene** 1998 Dec 10;17(23):3065–70

The major SHP-1-binding, tyrosine-phosphorylated protein in macrophages is a member of the KIR/LIR family and an SHP-1 substrate. Berg KL, et al. **Oncogene** 1998 Nov 12;17(19):2535–41

Mutagenic analysis of Vav reveals that an intact SH3 domain is required for transformation. Groysman M, et al. **Oncogene** 1998 Sep 24;17(12):1597–606

Dominant-negative mutants of the SH2/SH3 adapters Nck and Grb2 inhibit MAP kinase activation and mesoderm-specific gene induction by eFGF in Xenopus. Gupta RW, et al. **Oncogene** 1998 Oct 29;17(17):2155–65

Contribution of Src and Ras pathways in FGF-2 induced endothelial cell differentiation. Klint P, et al. **Oncogene** 1999 Jun 3;18(22):3354–64

Gads is a novel SH2 and SH3 domain-containing adaptor protein that binds to tyrosine-phosphorylated Shc. Liu SK, et al. **Oncogene** 1998 Dec 17;17(24):3073–82

Cloning and characterization of mPAL, a novel Shc SH2 domain-binding protein expressed in proliferating cells. Schmandt R, et al. **Oncogene** 1999 Mar 11;18(10):1867–79

The many faces of Src: multiple functions of a prototypical tyrosine kinase. Schwartzberg PL. **Oncogene** 1998 Sep 17; 17(11 Reviews):1463–8 (65 ref.)

Evidence for SH3 domain directed binding and phosphorylation of Sam68 by Src. Shen Z, et al. **Oncogene** 1999 Aug 19;18(33):4647–53

From Src Homology domains to other signaling modules: proposal of the 'protein recognition code'. Sudol M. **Oncogene** 1998 Sep 17;17(11 Reviews):1469–74 (64 ref.)

The Shp-2 tyrosine phosphatase activates the Src tyrosine kinase by a non-enzymatic mechanism. Walter AO, et al. **Oncogene** 1999 Mar 18;18(11):1911–20

APS, an adaptor protein containing PH and SH2 domains, is associated with the PDGF receptor and c-Cbl and inhibits PDGF-induced mitogenesis. Yokouchi M, et al. **Oncogene** 1999 Jan 21;18(3):759–67

Exploiting the basis of proline recognition by SH3 and WW domains: design of N-substituted inhibitors. Nguyen JT, et al. **Science** 1998 Dec 11;282(5396):2088–92

Mass spectrometric and thermodynamic studies reveal the role of water molecules in complexes formed between SH2 domains and tyrosyl phosphopeptides. Chung E, et al. **Structure** 1998 Sep 15;6(9):1141–51

Differential expression of SHP2, a protein-tyrosine phosphatase with SRC homology-2 domains, in various types of renal tumour. Kuroda N, et al. **Virchows Arch** 1998 Oct;433(4):331–9

SH3-Domain binding function of HIV-1 Nef is required for association with a PAK-related kinase. Manninen A, et al. **Virology** 1998 Oct 25;250(2):273–82

[Tyrosine kinases of the Src family, enzymes with multiple functions: from the growth of fibroblasts to the migration of epithelial cells] Roche S. **C R Seances Soc Biol Fil** 1998; 192(2):357–65 (18 ref.) (Eng. Abstr.) **(Fre)**

[Structural biology of SH2 and SH3] Inagaki F. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):355–67 (35 ref.) **(Jpn)**

[Structural biology for PH and other domains involved in signal transduction] Koshiba S, et al. **Tanpakushitsu Kakusan Koso** 1999 Mar;44(4 Suppl):368–79 (76 ref.) **(Jpn)**

DRUG EFFECTS

Structure-based design of a non-peptidic antagonist of the SH2 domain of GRB2. Caravatti G, et al. **Bioorg Med Chem Lett** 1999 Jul 19;9(14):1973–8

Selective GRB2 SH2 inhibitors as anti-Ras therapy. Gay B, et al. **Int J Cancer** 1999 Oct 8;83(2):235–41

Potent inhibition of Grb2 SH2 domain binding by non-phosphate-containing ligands. Yao ZJ, et al. **J Med Chem** 1999 Jan 14;42(1):25–35

GENETICS

Thermodynamic analysis of alpha-spectrin SH3 and two of its circular permutants with different loop lengths: discerning the reasons for rapid folding in proteins. Martinez JC, et al. **Biochemistry** 1999 Jan 12;38(2):549–59

Mutagenesis of a buried polar interaction in an SH3 domain: sequence conservation provides the best prediction of stability effects. Maxwell KL, et al. **Biochemistry** 1998 Nov 17;37(46):16172–82

A thermodynamic analysis of a family of small globular proteins: SH3 domains. Filimonov VV, et al. **Biophys Chem** 1999 Mar 29;77(2–3):195–208

Ligand recognition by SH3 and WW domains: the role of N-alkylation in PPII helices. Aghazadeh B, et al. **Chem Biol** 1999 Sep;6(9):R241–6 (34 ref.)

An ascidian gene encoding an SH2-domain protein is expressed in the notochord cells of the embryo. Takahashi H, et al. **Dev Growth Differ** 1998 Aug;40(4):431–8

The Drosophila SH2–SH3 adapter protein Dock is expressed in embryonic axons and facilitates synapse formation by the RP3 motoneuron. Desai CJ, et al. **Development** 1999 Apr;126(7):1527–35

SOCS: suppressors of cytokine signalling. Starr R, et al. **Int J Biochem Cell Biol** 1998 Oct;30(10):1081–5 (13 ref.)

Phylogenetic inference in protein superfamilies: analysis of SH2 domains. Sjölander K. **Ismb** 1998;6:165–74

Identification of an intramolecular interaction between the SH3 and guanylate kinase domains of PSD-95. McGee AW, et al. **J Biol Chem** 1999 Jun 18;274(25):17431–6

Structural and biochemical evaluation of the interaction of the phosphatidylinositol 3-kinase p85alpha Src homology 2 domains with phosphoinositides and inositol polyphosphates. Surdo PL, et al. **J Biol Chem** 1999 May 28;274(22):15678–85

Signal transducer and activator of transcription (STAT)5 activation by BCR/ABL is dependent on intact Src homology (SH)3 and SH2 domains of BCR/ABL and is required for leukemogenesis. Nieborowska-Skorska M, et al. **J Exp Med** 1999 Apr 19;189(8):1229–42

Genetic mapping of eight SH3 domain genes on seven mouse chromosomes. Lee CG, et al. **Mamm Genome** 1999 Apr; 10(4):402–4

SH3GL3 associates with the Huntingtin exon 1 protein and promotes the formation of polygln-containing protein aggregates. Sittler A, et al. **Mol Cell** 1998 Oct;2(4):427–36

Host response to EBV infection in X-linked lymphoproliferative disease results from mutations in an SH2-domain encoding gene [see comments] Coffey AJ, et al. **Nat Genet** 1998 Oct;20(2):129–35. Comment in: Nat Genet 1998 Oct;20(2):103–4.

Identification of profilin and src homology 3 domains as binding partners for Drosophila enabled. Ahern-Djamali SM, et al. **Proc Natl Acad Sci U S A** 1999 Apr 27; 96(9):4977–82

Inactivating mutations in an SH2 domain-encoding gene in X-linked lymphoproliferative syndrome. Nichols KE, et al. **Proc Natl Acad Sci U S A** 1998 Nov 10;95(23):13765–70

IMMUNOLOGY

Proline residues in CD28 and the Src homology (SH)3 domain of Lck are required for T cell costimulation. Holdorf AD, et al. **J Exp Med** 1999 Aug 2;190(3):375–84

Conserved residues amino-terminal of cytoplasmic tyrosines contribute to the SHP-1-mediated inhibitory function of killer cell Ig-like receptors. Burshtyn DN, et al. **J Immunol** 1999 Jan 15;162(2):897–902

IL-2, but not IL-4 and other cytokines, induces phosphorylation of a 98-kDa protein associated with SHP-2, phosphatidylinositol 3'-kinase, and Grb2. Gadina M, et al. **J Immunol** 1999 Feb 15;162(4):2081–6

BASH, a novel signaling molecule preferentially expressed in B cells of the bursa of Fabricius. Goitsuka R, et al. **J Immunol** 1998 Dec 1;161(11):5804–8

Cutting edge: association of phospholipase C-gamma 2 Src homology 2 domains with BLNK is critical for B cell antigen receptor signaling. Ishiai M, et al. **J Immunol** 1999 Aug 15;163(4):1746–9

The SH2-containing 5'-inositol phosphatase (SHIP) is tyrosine phosphorylated after Fc gamma receptor clustering in monocytes. Maresco DL, et al. **J Immunol** 1999 Jun 1;162(11):6458–65

Role of the inositol phosphatase SHIP in B cell receptor-induced Ca2+ oscillatory response. Okada H, et al. **J Immunol** 1998 Nov 15;161(10):5129–32

Requirement for Shc in TCR-mediated activation of a T cell hybridoma. Pratt JC, et al. **J Immunol** 1999 Sep 1; 163(5):2586–91

Cutting edge: human 2B4, an activating NK cell receptor, recruits the protein tyrosine phosphatase SHP-2 and the adaptor signaling protein SAP. Tangye SG, et al. **J Immunol** 1999 Jun 15;162(12):6981–5

Perturbed regulation of ZAP-70 and sustained tyrosine phosphorylation of LAT and SLP-76 in c-Cbl-deficient thymocytes. Thien CB, et al. **J Immunol** 1999 Jun 15; 162(12):7133–9

PHYSIOLOGY

Dot far-western blot analysis of relative binding affinities of the Src homology 3 domains of Efs and its related proteins. Ohba T, et al. **Anal Biochem** 1998 Sep 10; 262(2):185–92

Tyrosine phosphatase SHP-2 dephosphorylates the platelet-derived growth factor receptor but enhances its downstream signalling. Zhao R, et al. **Biochem J** 1999 Feb 15;338 (Pt 1):35–9

Epidermal growth factor receptor internalization rate is regulated by negative charges near the SH2 binding site Tyr992. Holbrook MR, et al. **Biochemistry** 1999 Jul 20; 38(29):9348–56

Dual function C-terminal domain of dynamin-1: modulation of self-assembly by interaction of the assembly site with SH3 domains. Scaife R, et al. **Biochemistry** 1998 Dec 22; 37(51):17673–9

The tyrosine phosphatase SHP-1 is a negative regulator of osteoclastogenesis and osteoclast resorbing activity: increased resorption and osteopenia in me(v)/me(v) mutant mice. Aoki K, et al. **Bone** 1999 Sep;25(3):261–7

Regulatory role of SH3 domain-mediated protein-protein interactions in synaptic vesicle endocytosis. McPherson PS. **Cell Signal** 1999 Apr;11(4):229–38 (127 ref.)

The SH3 domain of the S. cerevisiae Cdc25p binds adenylyl cyclase and facilitates Ras regulation of cAMP signalling. Mintzer KA, et al. **Cell Signal** 1999 Feb;11(2):127–35

The role of the SRC homology 2-containing inositol 5'-phosphatase in Fc epsilon R1-induced signaling. Huber M, et al. **Curr Top Microbiol Immunol** 1999;244:29–41 (39 ref.)

SH2 domain-mediated activation of phospholipase Cgamma is not required to initiate Ca2+ release at fertilization of mouse eggs. Mehlmann LM, et al. **Dev Biol** 1998 Nov 1; 203(1):221–32

Epidermal growth factor downregulates the expression of SH-PTP2. Kamer AR, et al. **Int J Mol Med** 1998 Apr; 1(4):735–9

Mechanotransduction in response to shear stress. Roles of receptor tyrosine kinases, integrins, and Shc. Chen KD, et al. **J Biol Chem** 1999 Jun 25;274(26):18393–400

The Src-homology domain 2-bearing protein tyrosine phosphatase-1 inhibits antigen receptor-induced apoptosis of activated peripheral T cells. Zhang J, et al. **J Immunol** 1999 Jun 1;162(11):6359–67

NOE data demonstrating a compact unfolded state for an SH3 domain under non-denaturing conditions. Mok YK, et al. **J Mol Biol** 1999 Jun 11;289(3):619–38

Binding of SH2 containing proteins to the insulin receptor: a new way for modulating insulin signalling. Liu F, et al. **Mol Cell Biochem** 1998 May;182(1–2):73–8 (42 ref.)

FGF-2 facilitates binding of SH3 domain of PLC-gamma1 to vinculin and SH2 domains to FGF receptor in corneal endothelial cells. Park SY, et al. **Mol Vis** 1999 Aug 20;5:18

SH3 domains in prokaryotes. Whisstock JC, et al. **Trends Biochem Sci** 1999 Apr;24(4):132–3

Emerging roles for SH2/PTB-containing Shc adaptor proteins in the developing mammalian brain. Cattaneo E, et al. **Trends Neurosci** 1998 Nov;21(11):476–81 (65 ref.)

SRC ONCOGENE PROTEIN PP60 see **ONCOGENE PROTEIN PP60(V-SRC)**

SRC PROTO-ONCOGENE PROTEIN PP60 see **PROTO-ONCOGENE PROTEIN PP60(C-SRC)**

SRIH see **SOMATOSTATIN**

SRP see **SIGNAL RECOGNITION PARTICLE**

SRS-A

ANALOGS & DERIVATIVES

Agonist and antagonist activities of the leukotriene analogue BAY u9773 in guinea pig lung parenchyma. Wikström Jonsson E, et al. **Eur J Pharmacol** 1998 Sep 18; 357(2–3):203–11

PHARMACOKINETICS

Peptidoleukotriene (PLT) release and absorption from the airways of the isolated perfused guinea pig lung following chemical and antigenic challenge. Kovelesky RA, et al. **Pharm Res** 1999 Feb;16(2):321–6

PHYSIOLOGY

Leukotrienes antagonist-inhibitor and the bronchial response to inhaled antigen in actively sensitized guinea-pigs. Marcelle R. **Arch Physiol Biochem** 1998 Aug;105(4):358–64

SRS-A RECEPTORS see **RECEPTORS, LEUKOTRIENE**

SRV-1 see **RETROVIRUSES TYPE D, SIMIAN**

SRV-2 see **RETROVIRUSES TYPE D, SIMIAN**

SRV-3 see **MASON-PFIZER MONKEY VIRUS**

SRV-4 see **RETROVIRUSES TYPE D, SIMIAN**

SRV-5 see **RETROVIRUSES TYPE D, SIMIAN**

SSCP see **POLYMORPHISM, SINGLE-STRANDED CONFORMATIONAL**

SSEA-1 see **ANTIGENS, CD15**

SSEA-1 DETERMINANT see **ANTIGENS, CD15**

SSPE see **SUBACUTE SCLEROSING PANENCEPHALITIS**

SSPE VIRUS

GENETICS

Different transcriptional expression of the matrix gene of the two sibling viruses of the subacute sclerosing panencephalitis virus (Osaka-2 strain) isolated from a biopsy specimen of patient brain. Seto T, et al. **J Neurovirol** 1999 Apr;5(2):151-60

The matrix gene expression of subacute sclerosing panencephalitis (SSPE) virus (Osaka-1 strain): a comparison of two sibling viruses isolated from different lobes of an SSPE brain. Ayata M, et al. **Microbiol Immunol** 1998;42(11):773-80

ST. ANTHONY'S FIRE see **ERGOTISM**

ST. JOHNS WORT see **THEALES**

STA-MCA BYPASS see **CEREBRAL REVASCULARIZATION**

STABILIZING AGENTS see **EXCIPIENTS**

STABLE FACTOR see **FACTOR VII**

STABLE FLY see **MUSCIDAE**

STACHYBOTRYS

Fatal fungus [news] **Environ Health Perspect** 1998 Jan; 106(1):A11-2

Mycotoxins and building-related illness [letter; comment] Page E, et al. **J Occup Environ Med** 1998 Sep;40(9):761-4 . Comment on: J Occup Environ Med 1998 Mar;40(3):241-9.

Stachybotrys: still under investigation [letter] Fung F, et al. **J Toxicol Clin Toxicol** 1998;36(6):633-4

Stachybotrys revisited [letter; comment] Johanning E. **J Toxicol Clin Toxicol** 1998;36(6):629-31. Comment on: J Toxicol Clin Toxicol 1998;36(1-2):79-86.

ENZYMOLOGY

Characterization of an endo-1,3-beta-D-glucanase produced during the interaction between the mycoparasite Stachybotrys elegans and its host Rhizoctonia solani. Archambault C, et al. **Can J Microbiol** 1998 Oct; 44(10):989-97

GENETICS

Identification of putative sequence specific PCR primers for detection of the toxigenic fungal species Stachybotrys chartarum. Haugland RA, et al. **Mol Cell Probes** 1998 Dec; 12(6):387-96

GROWTH & DEVELOPMENT

Sanitation of wallboard colonized with Stachybotrys chartarum. Price DL, et al. **Curr Microbiol** 1999 Jul; 39(1):21-6

ISOLATION & PURIFICATION

Study of toxin production by isolates of Stachybotrys chartarum and Memnoniella echinata isolated during a study of pulmonary hemosiderosis in infants. Jarvis BB, et al. **Appl Environ Microbiol** 1998 Oct;64(10):3620-5

Hemolysis, toxicity, and randomly amplified polymorphic DNA analysis of Stachybotrys chartarum strains. Vesper SJ, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3175-81

Isolation of Stachybotrys from the lung of a child with pulmonary hemosiderosis. Elidemir O, et al. **Pediatrics** 1999 Oct;104(4 Pt 1):964-6

Respiratory effects in mice exposed to airborne emissions from Stachybotrys chartarum and implications for risk assessment. Wilkins CK, et al. **Pharmacol Toxicol** 1998 Sep; 83(3):112-9

PATHOGENICITY

Hemolysis, toxicity, and randomly amplified polymorphic DNA analysis of Stachybotrys chartarum strains. Vesper SJ, et al. **Appl Environ Microbiol** 1999 Jul;65(7):3175-81

Mycotoxins and pulmonary hemorrhage [letter; comment] Sudakin DL. **Arch Pediatr Adolesc Med** 1999 Feb; 153(2):205-6. Comment on: Arch Pediatr Adolesc Med 1998 Aug;152(8):757-62.

ULTRASTRUCTURE

Effects of Stachybotrys chartarum (atra) conidia and isolated toxin on lung surfactant production and homeostasis. Mason CD, et al. **Nat Toxins** 1998;6(1):27-33

STAFF DEVELOPMENT

An allergy and asthma educational outreach program for school nurses and staff. Wu F, et al. **Allergy Asthma Proc** 1998 Sep-Oct;19(5):307-10

Staff development in pharmacist-conducted patient education and counseling. Lee AJ, et al. **Am J Health Syst Pharm** 1998 Sep 1;55(17):1792-8

Countering poor training within the NHS [editorial] Smith R. **BMJ** 1999 Feb 27;318(7183):552

Training your team for change--putting the principles of adult learning into practice. Toy AC. **Br Dent J** 1998 Oct 24;185(8):412-6

GP non-principals' education: let's improve access for our flexible friends [editorial] Chambers R, et al. **Br J Gen Pract** 1998 Sep;48(434):1551-2

Exploring empathy as a variable in the evaluation of professional development programs for palliative care nurses. Yates P, et al. **Cancer Nurs** 1998 Dec;21(6):402-10

Career development in endoscopic research: current status and recommendations. Jensen DM. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S100-4

Training, career development, and small business support from the National Institutes of Health. Podskalny J. **Gastrointest Endosc** 1999 Mar;49(3 Pt 2):S96-9

Don't take your eye off the ball. Leaver PK. **Hosp Med** 1998 Nov;59(11):885-6

Assessing needs for interdisciplinary team training in children's rehabilitation: a pilot study. De Moor J, et al. **Int J Rehabil Res** 1999 Jun;22(2):93-100

Nursing in Saudi Arabia: leadership development of a multicultural staff. Marrone SR. **J Nurs Adm** 1999 Jul-Aug; 29(7-8):9-11

Teacher self-efficacy in new nurse educators. Nugent KE, et al. **J Prof Nurs** 1999 Jul-Aug;15(4):229-37

Developing a teaching portfolio. Oermann MH. **J Prof Nurs** 1999 Jul-Aug;15(4):224-8

A nurse's story. The journey of a staff nurse. Smith KM. **MCN Am J Matern Child Nurs** 1999 Jan-Feb;24(1):46-7

Continuing professional development in primary care [editorial] Field S. **Med Educ** 1998 Nov;32(6):564-6

The impact of clinical governance on continuing medical education and continuing professional development [editorial] Beirne A. **Ulster Med J** 1999 May;68(1):1-2

[Development of human resources] Robles O. **Rev Med Chil** 1998 Jul;126(7 Suppl):26-33 (Eng. Abstr.) **(Spa)**

METHODS

Transitional portfolios: orchestrating our professional competence. Crist P, et al. **Am J Occup Ther** 1998 Oct; 52(9):729-36 (24 ref.)

Improving interdisciplinary team process: a practical approach to team development. Lewis RE, et al. **J Allied Health** 1998 Spring;27(2):89-95

A developmental evaluation process for nurses: enhancing professional excellence. Barnes B, et al. **J Nurs Adm** 1999 Apr;29(4):25-32

The Research Nurse Intern program. A model for research dissemination and utilization. Warren JJ, et al. **J Nurs Adm** 1998 Nov;28(11):39-45

A critical review of reflective practice in its role towards personal and professional development. Rooke TR. **J R Nav Med Serv** 1998;84(2):66-70

ORGANIZATION & ADMINISTRATION

Professional development in reproductive and sexual health--a pilot study from Suffolk, UK. Reader FC, et al. **Br J Fam Plann** 1999 Jan;24(4):135-40

A European perspective on psychiatric nursing and violent incidents: management, education and service organisation. Bowers L, et al. **Int J Nurs Stud** 1999 Jun;36(3):217-22

Developing effective team leaders. Garman AN, et al. **New Dir Ment Health Serv** 1998 Fall;(79):45-54

TRENDS

[Main trends in the development of postgraduate training of physicians in the Republic of Dagestan] Gadzhiev RS. **Probl Sotsialnoi Gig Istor Med** 1998 Jul-Aug;(4):44-8 (Eng. Abstr.) **(Rus)**

[Staff education in the Instituto de Medicina Tropical "Pedro Kouri". Yesterday, today and tomorrow (1979-1993)] Cantelar de Francisco N, et al. **Rev Cubana Med Trop** 1995; 47(3):224-8 **(Spa)**

STAFF DOWNSIZING see **PERSONNEL DOWNSIZING**

STAFF WORKLOAD see **WORKLOAD**

STAFFING AND SCHEDULING see **PERSONNEL STAFFING AND SCHEDULING**

STAGE-SPECIFIC EMBRYONIC ANTIGEN-1 see **ANTIGENS, CD15**

STAGGERER MICE see **MICE, NEUROLOGIC MUTANTS**

STAGING, NEOPLASM see **NEOPLASM STAGING**

STAINING

see related **DYES**

Giemsa staining for alveolar soft part sarcoma [letter] Fukuda T, et al. **Acta Cytol** 1999 May-Jun;43(3):519-21

A histochemical examination of the staining of kainate-induced neuronal degeneration by anionic dyes. Kiernan JA, et al. **Biotech Histochem** 1998 Sep;73(5):244-54

Differential methotrexate resistance in childhood T- versus common/preB-acute lymphoblastic leukemia can be measured by an in situ thymidylate synthase inhibition assay, but not by the MTT assay. Rots MG, et al. **Blood** 1999 Feb 1;93(3):1067-74

The combination of Indian ink staining with immunochemiluminescence detection allows precise identification of antigens on blots: application to the study of glycosylated barley storage proteins. Eynard L, et al. **Electrophoresis** 1998 Jun;19(8-9):1394-6

Peptide mass fingerprint sequence coverage from differently stained proteins on two-dimensional electrophoresis patterns by matrix assisted laser desorption/ionization-mass spectrometry (MALDI-MS). Scheler C, et al. **Electrophoresis** 1998 May;19(6):918-27

Differences in the DNA-stainability of spermatozoa from fertile and suspected infertile men. Bito M, et al. **Int J Androl** 1999 Aug;22(4):275-81

A simple and sensitive method for the activity staining of xanthine oxidase. Ozer N, et al. **J Biochem Biophys Methods** 1998 Jun 11;36(2-3):95-100

Usefulness of Leifson staining method in diagnosis of Helicobacter pylori infection. Piccolomini R, et al. **J Clin Microbiol** 1999 Jan;37(1):199-201

Rapid staining of ultrathin sections with the use of a microwave oven. Cavusoglu I, et al. **J Microsc** 1998 Nov; 192 (Pt 2):212-6

Two-colour immunocytochemical staining of gamma (gamma) and epsilon (epsilon) type haemoglobin in fetal red cells. Mesker WE, et al. **Prenat Diagn** 1998 Nov; 18(11):1131-7

Comparison of cytochemical staining, immunofluorescence and PCR for diagnosis of pneumocystis carinii on sputum samples. Tuncer S, et al. **Scand J Infect Dis** 1998; 30(2):125-8

Staining tissue with methacrylate casts for light microscopy. Sekosan M, et al. **Scanning** 1998 Oct;20(7):508-10

METHODS

Dichromatic staining of electrophoretically separated extracellular matrix macromolecules. Bonnell BS, et al. **Anal Biochem** 1999 Jun 15;271(1):91-3

Detection of proteins in polyacrylamide gels using eriochrome black T and rhodamine B. Jung DW, et al. **Anal Biochem** 1998 Oct 1;263(1):118-20

A method for staining of proteins in nitrocellulose membrane and acrylamide gel using Congo red dye. Mehta S, et al. **Anal Biochem** 1998 Oct 15;263(2):248-51

A red-dot-blot protein assay technique in the low nanogram range. Morçöl T, et al. **Anal Biochem** 1999 May 15; 270(1):75-82

A double stain for total and oxidized proteins from two-dimensional fingerprints. Talent JM, et al. **Anal Biochem** 1998 Oct 1;263(1):31-8

Characterization of SYBR Gold nucleic acid gel stain: a dye optimized for use with 300-nm ultraviolet transilluminators. Tuma RS, et al. **Anal Biochem** 1999 Mar 15;268(2):278-88

Staining of micronuclei in squamous epithelial cells of human oral mucosa. Casartelli G, et al. **Anal Quant Cytol Histol** 1997 Dec;19(6):475-81

Objective evaluation of Papanicolaou staining. Sakamoto Y, et al. **Anal Quant Cytol Histol** 1998 Aug;20(4):250-6

Quantification of bacterial polyhydroxyalkanoic acids by Nile red staining. Gorenflo V, et al. **Appl Microbiol Biotechnol** 1999 Jun;51(6):765-72

Identification of arterial and venous segments of blood vessels using alkaline phosphatase staining of ink/gelatin injected tissues. Ushiki T, et al. **Arch Histol Cytol** 1998 Aug; 61(3):215-9

A sensitive, viable-colony staining method using Nile red for direct screening of bacteria that accumulate polyhydroxyalkanoic acids and other lipid storage compounds. Spiekermann P, et al. **Arch Microbiol** 1999 Jan; 171(2):73-80

Staining paraffin extracted, alcohol rinsed and air dried plant tissue with an aqueous mixture of three dyes. Graham ET, et al. **Biotech Histochem** 1998 Jul;73(4):178-85

Double staining of skeleton using microwave irradiation. Ilgaz C, et al. **Biotech Histochem** 1999 Mar;74(2):57-63

Astra blue and basic fuchsin double staining of plant materials. Kraus JE, et al. **Biotech Histochem** 1998 Sep; 73(5):235-43

A full color system for quantitative assessment of histochemical and immunohistochemical staining patterns. Ma W, et al. **Biotech Histochem** 1999 Jan;74(1):1-9

Adult rodent double skeletal stain. Tarpley JE. **Biotech Histochem** 1999 May;74(3):116-8

An automated technique for double staining rat and rabbit fetal skeletal specimens to differentiate bone and cartilage. Trueman D, et al. **Biotech Histochem** 1999 Mar; 74(2):98-104

Agarose overlays allow simplified staining of polyacrylamide gels. Rodzen JA, et al. **Biotechniques** 1998 Oct;25(4):584